ames mobility 2040

Ames Area MPO 2015-2040 Long Range Transportation Plan

Appendix

September 2015

HDR

Appendix

A. Public Engagement Efforts

B. Community Survey/Transit On-Board Survey

C. Healthiest Ames and Community Design Lab Documentation

D. Ames Travel Demand Model Documentation

E. System and Project Feedback

Multimodal Issues Input Summary

Multimodal Alternatives Development Input Summary

Potential Alternatives for Roadway, Bicycle/Pedestrian and Transit Maps and Tables

Candidate Project Scorecards

Bicycle/Pedestrian Project Alternative Phase vs. Final LRTP Project ID Numbers

F. Funding Assessment and Techniques

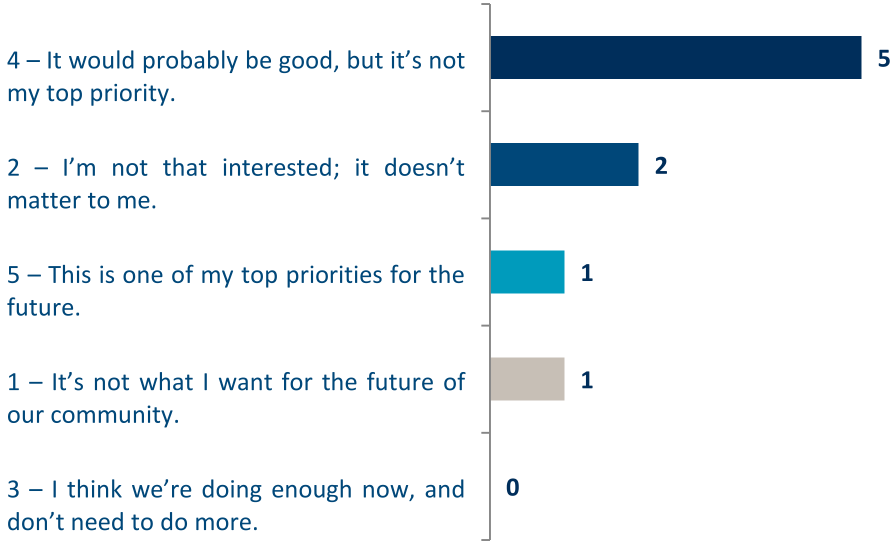
Appendix A

Public Engagement Efforts

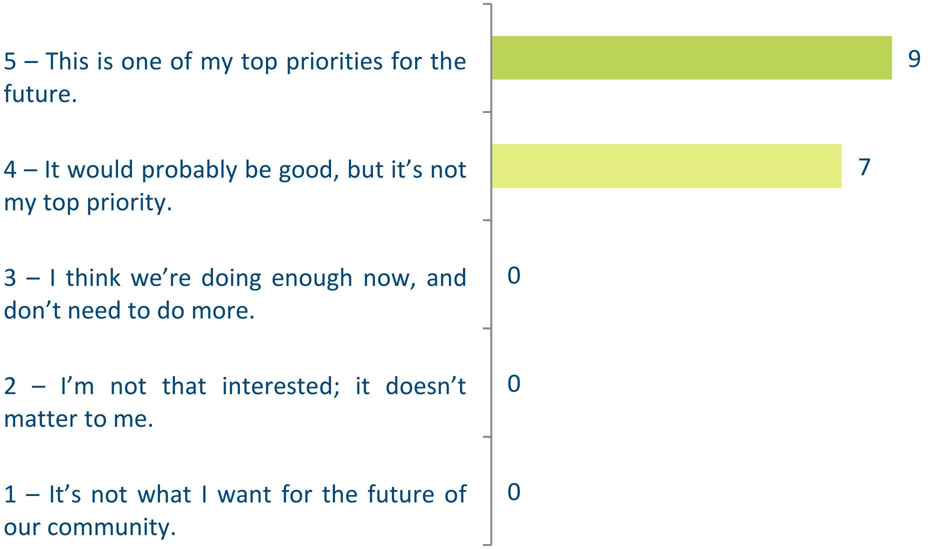
Contact + Comment Report

ImagineAmes.org Instant Poll Results

'Multi-Modal' is one of the top themes we heard for the Plan Vision. Tell us what you think and rate it!



'Connected' is one of the top themes we heard for the Plan Vision. Tell us what you think and rate it!



Comments

CyRide 3 Blue Route needs to go further on South Duff to South 16th and loop back north on Buckeye Ave to provide better service for the large, busy commercial district. (Yellow Route is not an adequate solution.)

Having modern bus stops for Blue Route (paved pads, shelters, cart corrals near Walmart and Target, etc.) on both sides of South Duff Ave would take care of most of the shopping cart problems.

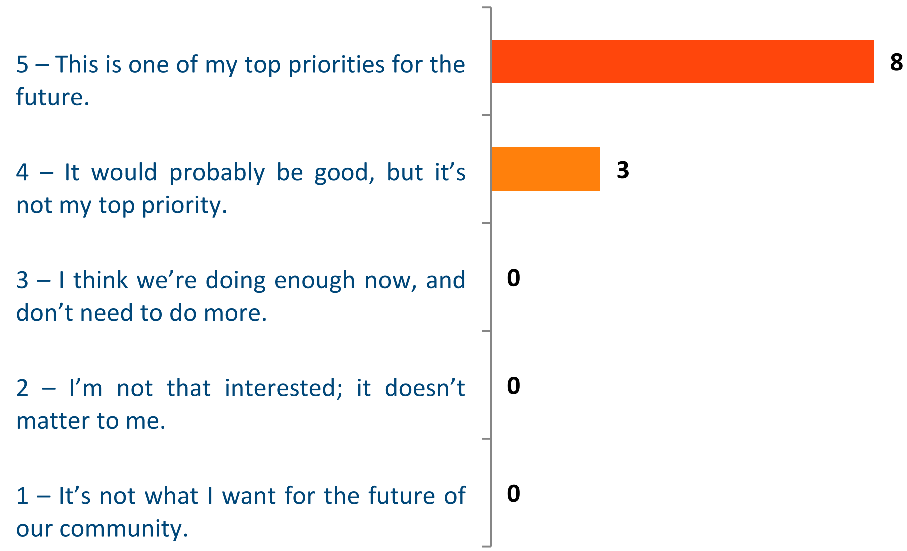
Comments

Quit coming up with excuses to take more of my money and spend it on things you want.

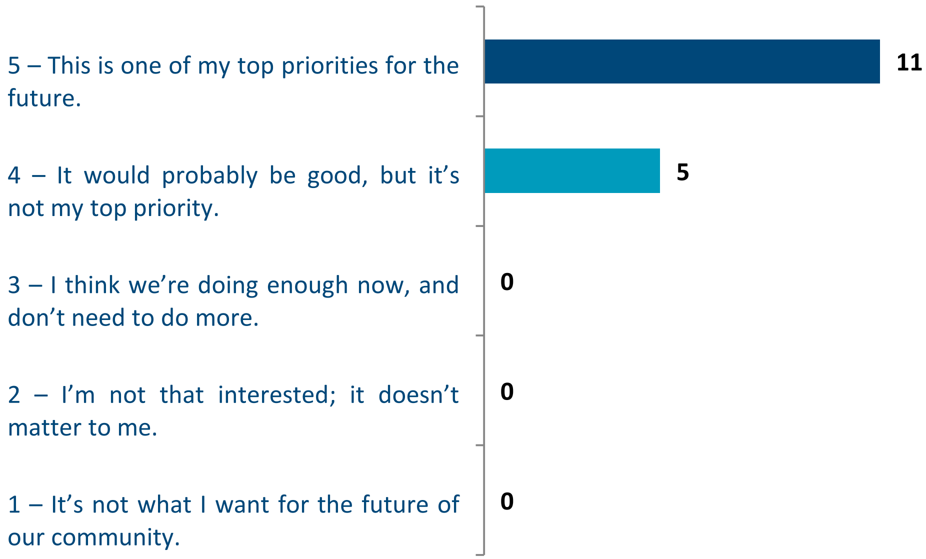
The survey question could be clearer. Is it about connection? Whether we agree with the top vote-getters from the September meeting? Something else? Please clarify.

ImagineAmes.org Instant Poll Results

'Safe' is one of the top themes we heard for the Plan Vision. Tell us what you think and rate it!



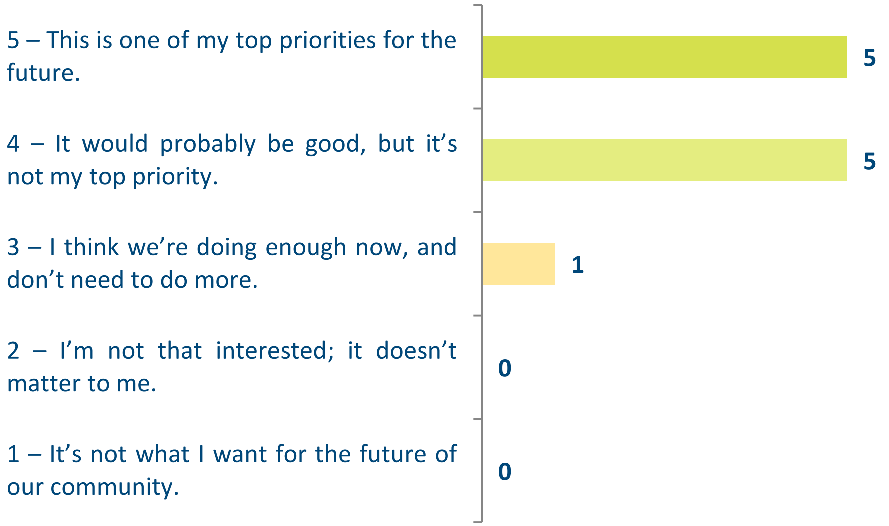
'Bicycles & Pedestrians' is one of the top themes we heard for the Plan Vision. Tell us what you think and rate it!



Contact + Comment Report

ImagineAmes.org Instant Poll Results

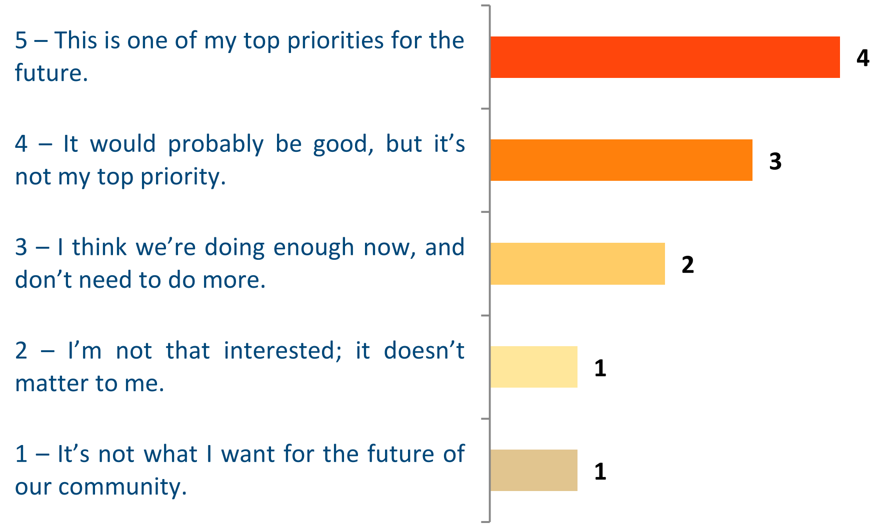
'Environmentally Aware' is one of the top themes we heard for the Plan Vision. Tell us what you think and rate it!



Comments

The final UN report on climate change came out recently and it said that we need to be dropping our CO2 emission rates way faster than we are currently. For me, this is the most important thing. We ought to reformat our transportation system in order to encourage less carbon intensive practices. We can do this by creating strong alternatives to automobile use such as better and more clearly marked bike paths/lanes, a city-wide bike share program, more pedestrian friendly amenities, and expanding Cyride to additional locations that makes sense. What goes along with this, but isn't really a transportation issue but more of a zoning one, is encouraging higher density and mixed use developments. This means apartments above retail space and housing like what can be found along Stange north of 24th. This means people can go on foot for shopping and activities which reduces CO2 emissions. Additionally, it helps tackle the issue of congestion because fewer cars will be on the road. We ought to be looking to New Urbanism to address our transportation issues in the future.

'Forward Thinking/Innovative' is one of the top themes we heard for the Plan Vision. Tell us what you think and rate it!

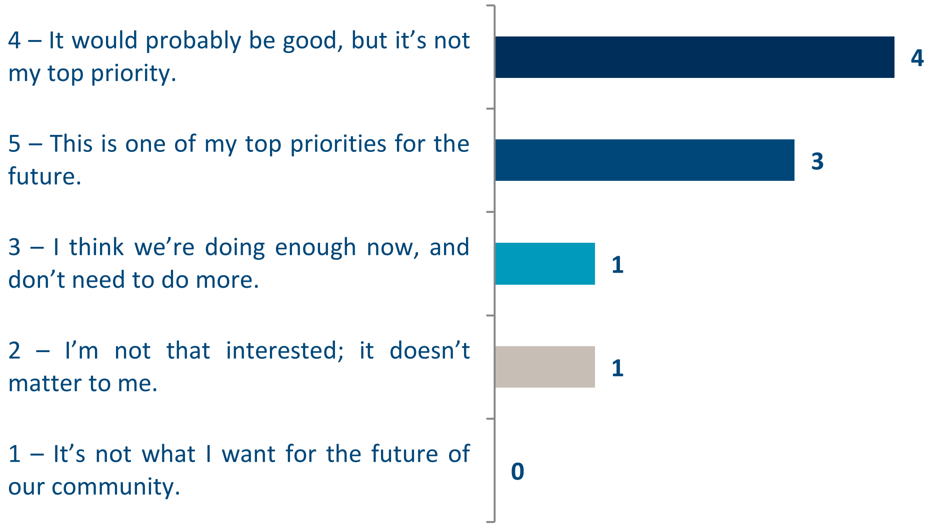


Comments

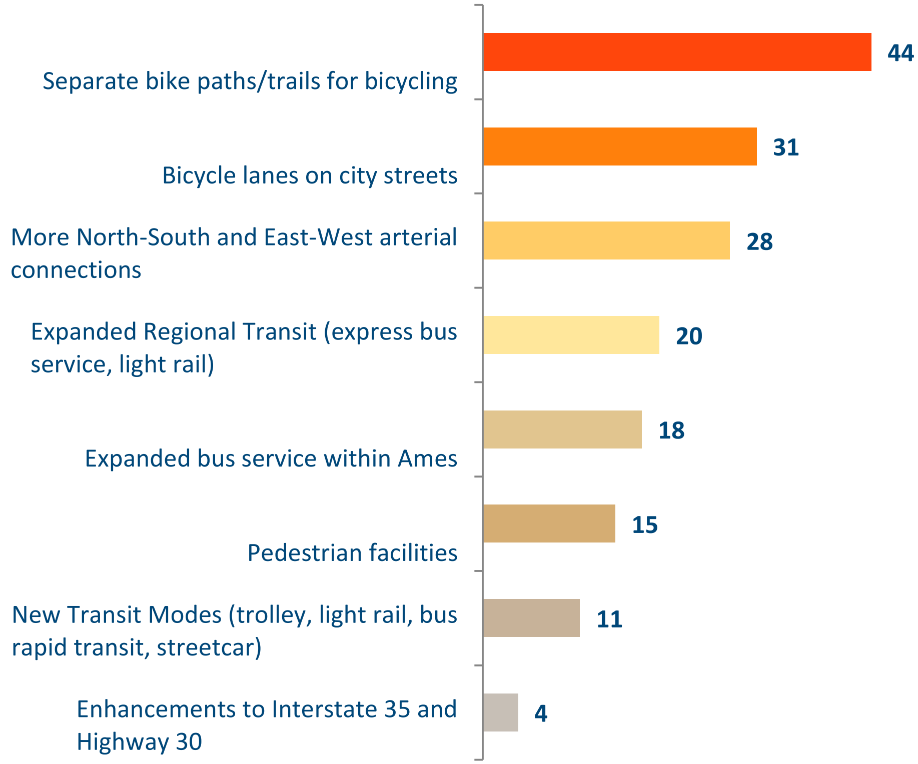
"Forward-thinking": yes, if done wisely, better outcomes can be achieved with much less money.
"Innovative": no, if that means trying new approaches before they have been tested in other communities, the scale of the tax base in Ames does not warrant taking such risks with what little budget there is for transportation projects. Better to let larger cities be innovative with their money, then learn from them on what works and what doesn't based on measurable cost-benefit.

ImagineAmes.org Instant Poll Results

'Accessible/Convenient' is one of the top themes we heard for the Plan Vision. Tell us what you think and rate it!



Which mobility options should the Ames area focus on? Select up to three answers.



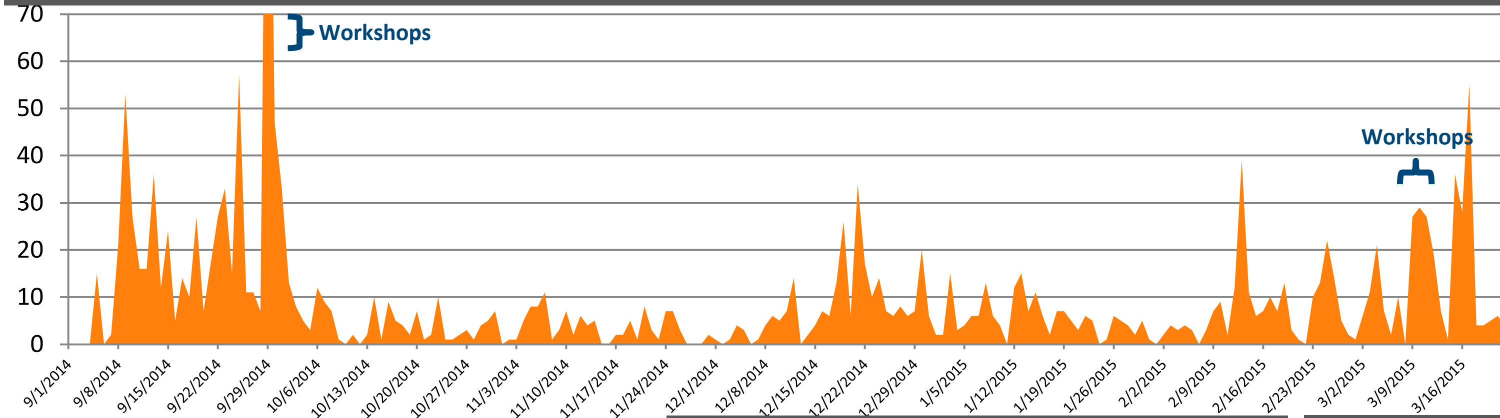
Comments

More frequent bus service routes at night.

Lifetime Comment & Contact Report

Contact + Comment Report

AmesMobility2040.com Lifetime Website Statistics (September 1, 2104 – March 22, 2015)

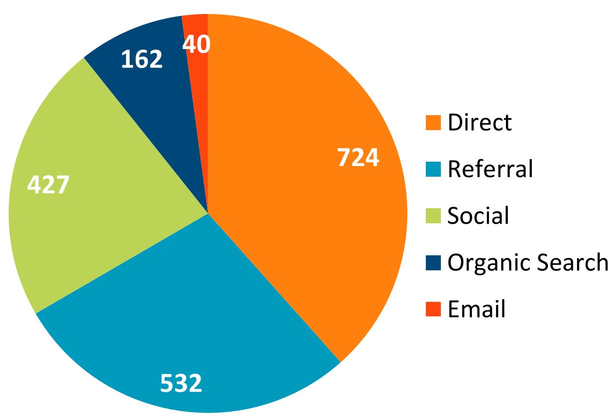


Totals	
Visitors	1,119
Pageviews	4,507
Avg Visit Duration	2:17
Avg Pages/Visit	2.39

Top Pages Visited

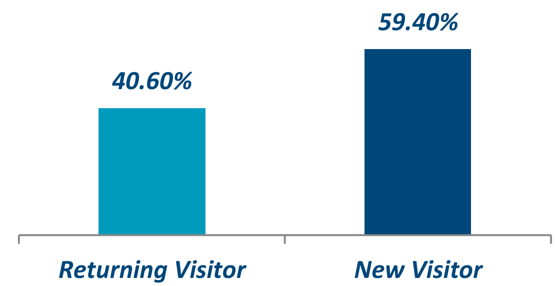
Rank	Page	Page views	Avg. Time on Page [mins]
1.	Homepage	2190	1.61
2.	/resources/	665	2.49
3.	/get-involved/	386	0.98
4.	/newsroom/	278	0.62
5.	/about/	223	1.41
6.	/contact-us/	157	3.20
7.	/resources/public-meeting-031115/	116	2.81
8.	/get-involved/calendar/	71	1.54
9.	/newsroom/public-issues-summary-available-now/	24	4.67
10.	/newsroom/city-side-january-2015-ames-mobility-2040-get-involved/	14	0.81

Web Traffic Sources



Organic = From an Internet Search
Referral = From a link to the website
Direct = User typed in specific website URL
Social = From a link on Facebook, Twitter, or LinkedIn

Visitor Type



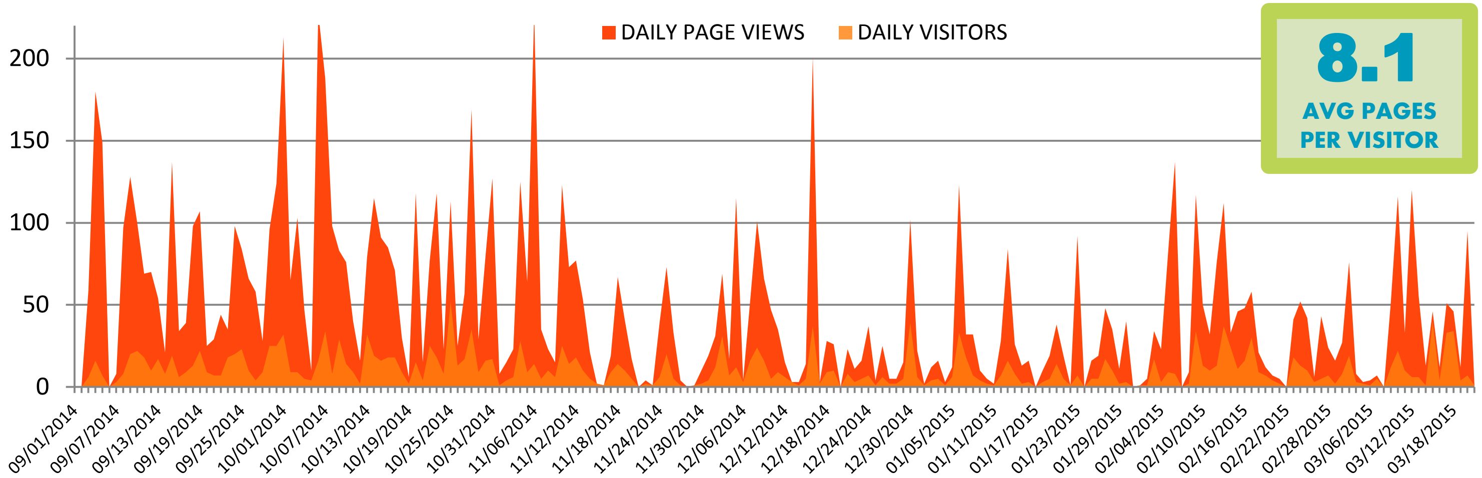
Visits by Sources

Desktop	Mobile	Tablet
1,390	334	161

September 1, 2014 – March 22, 2015

Contact + Comment Report

ImagineAmes.org Website Statistics (September 1, 2014 – March 22, 2015)



8.1
AVG PAGES PER VISITOR

TOTAL TRAFFIC

Unique Visitors **1,187**

Page Views **9,612**

64% Male

36% Female

SHARES → facebook 8 twitter 2 Google+ 16 LinkedIn 4

Outreach Activities

Event	Date
Public Alternatives Workshop	March 11, 2015
Focus Group Workshop	March 11, 2015
Public Issues Summary Released	January 19, 2015
Dinkey Day Pop-up Public Encounter	September 26, 2014
Focus Group Workshop	September 29, 2014
Public Visioning Workshop	September 30, 2014

Comment Methods

Comment Type	Received
Website Form Comment	36
Website Map Comment	41
Imagine Ames	14 (open)
Phone	1
Other	9

September 1, 2014 – March 22, 2015

Event Summary

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
14592 09/10/2014 Website Comment Open	**Web Comment from nickyouds@gmail.com 9/10/2014** I thought I'd share some of my thoughts as a year round bicycle commuter in the Ames and Marshalltown areas. First, I love the new bike detectable street lights. They have really made my life easier as a bike commuter (so I don't have to be on the sidewalk where bikes don't belong to press a button) and as a cycles recycling employee (where I literally can't be on the sidewalk and have in the past had to treat some red lights as stop signs and technically break the law). I'm excited for the future of biking in Ames and I hope that possitive changes in infrastructure and education can lead to more law abiding bike and car commuters and also less hostility between the groups. On a related note, one thing that drives me up the wall is that I get the feeling that most drivers don't know and understand bicycle signals and thus I am wasting my time and probably in danger. If bicyclists are to become more law abiding (and I admit I see a lot of illegal biking) they need to have their language acknowledged and understood, and bicycling must be as convenient (weather concerns aside) as driving. I suggest that all drivers when they renew their licenses must take a bicycling knowledge test to make sure that they understand bicycling signals and related issues (e.g., making sure they stop and look both ways before pulling into the paths of sidewalks/bike paths.Thanks for you time. I know this is a bike-centric post but I that is from where my experience is derived. Thanks again!	Issues of concern Mode - Bicycle/biking	Nick Youds	nickyouds@gmail.com
14671 09/10/2014 Email Closed	**Email Comment from Bruce Calhoun** Bruce Calhoun's email on Wednesday, September 10 to info@mobility2040.com: "A title which includes 2040 sounds like a cop out...at age 63 I want things done that I can enjoy in 2020."Jason Carbee's response on Wednesday, September 10: "Mr. Calhoun:Thank you for your interest in AmesMobility2040. We understand and agree that 2040 seems like a long way off. One of the requirements for the Ames Area MPO to receive Federal Transportation Funding is to do this Long Range Transportation Plan update every 5 years, and these plan updates are required to look at least 20 years into the future.I can tell you that AmesMobility2040 will include a phased implementation plan, and we anticipate that many of the projects that end up being recommended from this plan will happen long before 2040, potentially even before 2020.We are still early in the study, and would like to hear more from you about your thoughts for the future direction for transportation in and around Ames. I would encourage you to come to our first public meeting on Tuesday, September 30, 2014. The meeting will be held from 5:30 pm to 7:00 pm at the Scheman Building, room 220, at the Iowa State Center.Thanks again for your feedback."Response from Bruce Calhoun on September 11: "Thanks, Jason, I'll try to make some meetings..."		Bruce Calhoun	calhounbc@gmail.com
14629 09/17/2014 Website Comment Open	**Web Comment from jwolseth@iastate.edu 9/17/2014** One general comment and one specific comment. First, the general comment: Ames needs to make a concerted effort to be more biker friendly which should include developing connections of the bike trails and safer buffers for bikers along streets, especially the length of Lincoln Way and Ontario/13th. Second, the specific comment: Traffic along Hyland from 13th/Ontario to Lincoln moves too quickly -- lots of folks speeding and not paying attention to pedestrians crossing, especially at Hyland and	Issues of concern Mode - Bicycle/biking Mode - Pedestrian	Jon Wolseth	jwolseth@iastate.edu

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	Oakland. Cars do not stop for pedestrians crossing at this intersection because the intersection and crosswalk are not well marked.			
14637 09/19/2014 Website Comment Open	**Web Comment from leokmg2@hotmail.com 9/19/2014** I have worked for more than ten years to get the city of Ames to do more to make our streets safer and more accessible for children and handicapped residents. Especially starting near our schools. There are segments of our neighborhoods near our schools that have no sidewalks. Sometimes the schools themselves only have sidewalks on one side of the road. Neighborhoods near the schools are missing chunks of sidewalks and that forces children to walk on the roads in all types of weather. Accidents have already happened and eventually somebody with be seriously injuries or killed. Stop building homes without sidewalks. It isn't worth the savings or risk. The handicapped, our children, our elderly and everyone else rely on sidewalks to access our neighborhoods and city. And the only reason not to put in sidewalks in cheapness and laziness and a total disregard for the well being of others. There have been BILLIONS of dollars worth of lawsuits across the country over safety and access to sidewalks. The Americans with disabilities act specifically says we need complete and safe and accessible sidewalks. Anything less is a disservice to the communities we live in and serve.	Issues of concern Mode - Pedestrian	mark goodale	leokmg2@hotmail.com
14639 09/19/2014 Website Map Comment Open	**Web Comment from swiley4@gmail.com 9/19/2014** If possible, a look into installing more left turn arrows at stop lights would be helpful. Turning left at busy intersections such as 13th & Grand and 6th & Grand not only is difficult at peak times, but dangerous as cars who don't want to wait behind a left-turning car quickly pull out from behind them to zoom ahead during the green. A systematic review of congested intersections around town that lack left turn arrows would be great.	Issues of concern	Sarah Wiley	swiley4@gmail.com
14640 09/19/2014 Website Map Comment Open	**Web Comment from kjkorslund@gmail.com 9/19/2014** The speed limit on State street between Arbor and College Creek should be increased to 35 MPH. There are no private drives along that stretch, so it makes no sense to have it 25 MPH. This would greatly help people who commute along this route, especially considering there are plans in the works to reduce the 45 MPH zone on State street to 35 MPH. --- Map Data Text Entries --- - Proposed 35 MPH zone	Routes	Kevin Korslund	kjkorslund@gmail.com
14641 09/19/2014 Website Map Comment Open	**Web Comment from kjkorslund@gmail.com 9/19/2014** There is no good route between the west side of campus (Engineering campus) and the ISU Research Park. A more direct route would foster better collaboration between these entities, which would benefit the community greatly. --- Map Data Text Entries --- - Engineering Campus - ISU Research Park	Routes	Kevin Korslund	kjkorslund@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
14672 09/24/2014 Email Closed	**<u>Email Conversation with Randy Geiger & John Joiner</u>** Randy on September 12: "John, I talked to you a few days ago about concerns on the condition of 220th street just west of the City of Ames where Ontario street feeds into 220th as the road enters Boone County. My family lives along 220th street so we drive on it every time we leave the house. As I mentioned, I have two concerns. One concern is the rough condition on the road and the amount of dust the heavy traffic creates. At times the road is so rough that it is difficult to drive safely even at quite slow speeds and the dust that accumulates around our house is a real nuisance. Much of this traffic is from vehicles travelling into and out of Ames on Ontario. It was particularly bad during and following the Farm Progress Show but the conditions are often not good throughout the year. The second concern is a hill about 1/8 mile west of the R38-Ontario intersection. Traffic often moves quite fast along the road and many drivers approach the hill in the middle of the road where oncoming traffic is not visible. Even if the other driver is on the left side of the road, there is usually not enough clearance if both vehicles reach the top of the hill at the same time to avoid a collision. It is just a matter of time until there is a high-speed head-on collision on that hill. And, in the winter, when traffic is coming down the hill from the west approaching the stop sign at R38, icy conditions on the road make it difficult to stop. Since the R38 traffic is often travelling at 55 mph, an accident caused by drivers sliding through the intersection could be really nasty. The limited visibility because of the collection of “stuff” at the north-west intersection where Lynch Auction is located makes it difficult for both R38 and 220th street traffic to see a potential problem if the 220th driver can not stop. I believe one solution that would help resolve the problem would be to reduce the hill so that visibility and slope are more manageable and to make 220th street a hard surface road for some distance out of Ames. Although I did not mention it when I visited with you on the phone, we have had several vehicles lose control and end up in our yard in recent years or end up in the ditch. About two years ago while we were out in our front yard, we saw a one-car accident occur in which a high-school age girl lost control on the road and flipped/rolled the vehicle with it ending up upside down. Fortunately she was able to crawl out of a window and was not seriously injured. About a week ago another driver lost control and ended up in the ditch about ¼ mile west. Although I realize this is a Boone County road, I hope that the City of Ames can work with Boone county to address a problem that has grown with the growth of the City of Ames. You mentioned that there will be some hearings to look at future growth issues in the Ames boundary sometime later this fall. I looked at the City of Ames calendar and did not recognize any such hearings but maybe I did not recognize the function or maybe they are not listed there. Please let me know when they will take place so that I can attend and possibly seek the attendance of a few of our neighbors along 220th street though I believe the 220th street issue affects many more people than the small number of residents that live along that road. Thanks in advance for your help. Randy Geiger " Reply from John Joiner on September 16: "Good morning, Randy! It was good to talk with you and thanks for following up with a note. Just to clarify, the meetings that I mentioned aren't really hearings regarding general growth issues. They are	Issues of concern	John Joiner City of Ames	jjoiner@city.ames.ia.us
			Randy Geiger Iowa State University	rlgeiger@iastate.edu
			Tony Filippini Ames Area Metropolitan Planning Organization	tfilippini@city.ames.ia.us

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	public input sessions and open houses regarding the update to our Long Range Transportation Plan. This update will consider the recent and planned growth in recommending future transportation projects. I've copied our Transportation Planner, Tony Filippini, so he can contact you regarding these sessions. I can understand your concerns about 220th. Ourselves, Story County and Boone County do have sharing agreements for routine maintenance activities such as snow plowing, ice control, and blading on shared and adjacent roadways. Things such as adding signage and major projects such as lowering road grades would be up to the jurisdictional agency. I've copied the Boone County Engineer so he's aware of your concerns. Thanks, John"			
14674 09/24/2014 Website Map Comment Open	**Web Comment from deblieck@iastate.edu 9/24/2014**	Mode - Bicycle/biking	Susan DeBlieck Healthiest Ames	deblieck@iastate.edu
14675 09/25/2014 Website Map Comment Open	**Web Comment from consumernate@gmail.com 9/25/2014** I would love to see the intersection at 13th and Grand addressed. If the lighting sequence is maintained, 13th at minimum, needs an added turn only lane. Ideally, both Grand and 13th would have added turn only lanes which would allow for less delay. This is a very busy intersection and it's seems odd the setup is so archaic. --- Map Data Text Entries --- - Intersection of 13th and Grand		Nathan Eagles	consumernate@gmail.com
14681 09/25/2014 Website Comment Open	**Web Comment from akseq@iastate.edu 9/25/2014** I lived in the West Ames area last year and cyride just seemed way too inefficient for how many students need to get to campus everyday. Splitting the Red route into 2 different routes, one following the original route, and a second one going east toward towers (thus bypassing the backtracking that takes place on Lincoln way) might help this, but I obviously don't have the expertise in this area, so it's just a suggestion. Also, now that I live closer to campus I ride my bike to class everyday, and I'm very surprised at the lack of bike lanes in the streets on campus. You can't expect us to navigate the crowded sidewalks without hitting anyone, but it gets dangerous on the streets during passing time when cyride buses take up the entire road. Something needs to be done about it		Angela Sequeira Iowa State University	akseq@iastate.edu
14696 09/29/2014 Website Comment Open	**Web Comment from holdean@aol.com 9/29/2014** Two suggestions. 1: Make the Southboud West lane of Stange right turn only at 13th Street. You can conduct a survey and see that few cars actually go across 13th to the University and those that do could use the center lane. 2: Do not attempt to make 24th Street four lane traffic from Northwestern to the tracks to Hayes. People are already driving well over the 30 mph speed limit and an entry lane to get on 24th Street from our houses is needed. Making 24th Street four lanes might ease some congestion during the after school rush, but it would also make it less safe for the children.		William Holsman	holdean@aol.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
14703 09/29/2014 Website Map Comment Open	**Web Comment from cramer515@gmail.com 9/29/2014** High Density Corridor needs alternative to traditional fixed route bus service. Suggest Bus Rapid Transit (BRT) from SW Ames to North Grand Mall.	Mode - Bicycle/biking	John Cramer	cramer515@gmail.com
15956 09/29/2014 Comment Open	**Email Comment from Brian Vanderheyden** On September 29, 2014 Brian wrote: I would like to provide a comment to the 2040 mobility long range plan. I would like to see traffic lights installed at intersection of mortensen and state instead of 4 way stop. The lines especially during school times can be backed up to the middle school and take up to 10 minutes to go through. I think traffic lights would help keep traffic moving better. Also a lot of pedestrians cross there from the bike/walk path and a walk signal would be appreciated. Also on state street between mortensen and Lincoln (where the hill in on the west side of the cross country course) there are a lot of deer that cross that road and a sign would help alert drivers. My first month here I had to stop abruptly as 3 different times/dates I had deer run in front of me as they passbetween the forests. Thanks for consideration. Brian Vanderheyden On October 1, Jason Carbee replied:Mr. Vanderheyden:Thank you for contributing to the 2040 Mobility plan. We will incorporate your ideas into our issues identification phase of the study. Please stay engaged with the plan at our website AmesMobility2040.com. Thank you!		Brian B Vanderheyden Iowa State University	brianv1@iastate.edu
			Brian B Vanderheyden Healthiest Ames	brianv1@iastate.edu
			Jason Carbee	jason.carbee@hdrinc.com
15957 09/29/2014 Phone Call Open	**Comment by Mandy Fjelland to City Clerk** Mandy Fjelland called the Ames City Clerk's office.She lives near Ross Road. Her phone number is 291-2913. She will be unable to attend the meeting on Bike Paths. Here are the 2 items she spoke about. 1. No bike path, lane, or sidewalk along Ross Road. This makes it dangerous getting to Emma McCarthy Lee Park. 2. No path, lane, or sidewalk on west Lincoln Way from intersection of N/S Dakota. There is no safe way to get to the businesses or residences in the west area by bicycle once you have gone west of S Dakota.		Mandy Fjelland	
15958 09/29/2014 Comment Open	**Facebook Comments** Post on Ames Mobility 2040 :: Home (picture of overpass)Comments on post:Paul Lindemayer "That overpass is, like. Ames Mobility 1890 :)"Tim Gartin "Thank you for posting this Susan. It would be wonderful if we could receive broad input from the community."Paula Weidner "I love that little opening! It is part of my scenic route.Another set of comments on post on Ames Mobility 2040:Connie McLaughlin "Bike system on the outskirts north of Ames are desperately in need! Yesterday just before I rounded the curve on GW Carver, my family nearly experienced a head-on collision. The bike path around the lake was NOT being used. Bicyclist in middle of highway, truck decided to pass bike, and nearly hit us. So much traffic on this road and bicyclists seem to own the highway around these curves. What gets me is that there IS a bike path a matter of feet around the little pond area. Please improve this area so no one gets injured!"Sharon Fox "First off, bikes are legally able to be on the roads so yes, they are allowed to 'own the highway', they pay taxes to ride on. The fact that you almost had an accident is the fault of the TRUCK, not the bicyclist as that would be a no passing zone. Second, understanding there are NO bike paths in this town. There are 'shared use' paths. An avid		Tim Gartin City of Ames	GartinForAmes@gmail.com
			Susan Gwiasda City of Ames	sgwiasda@city.ames.ia.us
			Paul Lindemeyer	paul@lindemeyer.com
			Paula Weidner	
			Connie McLaughlin	
			Sharon Fox	

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	cyclist going 15-20 mph is dangerous on one of those paths, especially when they are highly populated by walkers, joggers & people with dogs on extendo leashes. And by the way, the path around that lake leads basically nowhere, it ends just north of the lake, before the subdivision even ends.Connie McLaughlin "Sharon, thank you for affirming my point - there needs to be some bike paths in this area."Mark Dinning "the taxes you speak of come from road use taxes which come from the fuel taxes paid at the fuel pump, so no, they don't pay road use taxes and while they can legally 'own the highway' as you say, that kind of hubris is what causes accidents and dead bicyclists, a little courtesy on both sides goes a long way." See documents section for more info.		Mark Dinning	
15959 09/29/2014 Meeting Open	**Focus Group Workshop** AAMPO LRTP Focus Group September 30, 2014 11:30am		Charlie Kuester City of Ames	
			Tracy Warner City of Ames	
			Damion Pregitzer City of Ames	
			Damion Pregitzer Healthiest Ames	Susan DeBlieck Healthiest Ames
			Dave Cole City of Ames	Steve Libbey Friends of Central Iowa Biking
			Kelly Diekmann City of Ames	Tait Wilson Iowa State University
			Shari Atwood CyRide	Billy Boulden Iowa State University
			Michael Clayton Iowa DOT	Mark Miller Iowa State University
			Cathy Brown Iowa State University	Charlie Dissell Story County
			Angie Solberg Iowa State University	Sarah Constable HIRTA Public Transit
			Hillary Kletscher Iowa State University	Carlton Basmujian Iowa State University

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			Darren Moon Story County	Andy Bock Iowa State University
			Tony Filippini Ames Area Metropolitan Planning Organization	Sonia Arellano Dodd City of Gilbert
			Dave Elsenbast Renewable Energy Group	
15960 09/30/2014 Meeting Open	**Public Visioning Workshop**		Scott Dockstader Iowa DOT	Paul Doffing Ames Bicycle Coalition
			Carol Williams	Sue & Larry Koehrsen
			Joe Metzger	Lucas Goose Iowa State University
			John Cramer	Karen Wilke
			Sarah Cady	Wayne Rohut
			Dan DeGeest	John Shierholz Healthiest Ames
			Bob Bourne	Jacob Nolte
			Jennifer Tillman Ames Bicycle Coalition	Erre Wilke Iowa DOT
			Jim Wilcox Iowa State University	Waddah Akili
			Jim Wilcox Friends of Central Iowa Biking	Jim Grove
			Sarah Constable HIRTA Public Transit	Brian Meyer

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			Andy Bock Iowa State University	Shala Harsh
			Mike Parsons	Jonathan Laczniak Iowa State University
			Jennifer Roberts Iowa DOT	Shannon Bardale
			Ruth Powell Ames Bicycle Coalition	Marius Rearaur Iowa State University
			Ruth Powell Healthiest Ames	Greg Vitale
			Jared Morford Ames Bicycle Coalition	
14704 09/30/2014 Website Comment Open	**Web Comment from keller.caleb@gmail.com 9/30/2014** I think that Ames needs to do more in terms of making the various modes of transportation work better together, especially in terms of integrating travel by car and travel by bike. There are many creative solutions that address the challenges (particularly the safety challenges) presented by having cyclists on the road with motorists, and as bicycle commuting grows in popularity, I'd like to see Ames implement some of these changes. Foremost in my mind would be separated lanes for cyclists on some of the more heavily traveled streets.		Caleb Keller Working Knowledge, Inc.	keller.caleb@gmail.com
14709 09/30/2014 Website Map Comment Open	**Web Comment from jcm293@gmail.com 9/30/2014** In order to make this a regional plan, you need to relax the City of Ames focus that permeates the planning documents, and the presentation materials, and actually look at the whole region. Actions should include: Update the MPA to include the current Gilbert city limits. Update the planning tools and presentations to include all of the important transportation drivers in the region, including all schools.	Stakeholder involvement	Joe Metzger	Jcm293@gmail.com
14710 09/30/2014 Website Map Comment Open	**Web Comment from sarahdcady@gmail.com 9/30/2014** Cycling infrastructure needed to parallel Lincoln Way in West Ames (similar to 4th street in east Ames) --- Map Data Text Entries --- - Hyland bike lane/sharrows need to be extended - Implement quiet street/traffic calming/make east-west corridor for bicycle traffic - Sharrows/bike lane		Sarah Cady	sarahdcady@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
15712 10/01/2014 Website Map Comment Open	**Web Comment from franlindabeyea@yahoo.com 10/1/2014** Is it the intension of the AM2040 process to address neighborhoods preservation? The coridor between Mortensen/S. 4th intersection with Country Club Blvd./Storm/Ash is adversely affected by increasing student traffic as the ISU population reaches its zenith, lessening property attractiveness in one of Ames' most valuable neighborhoods. Increased traffic slowing (speed humps near intersections,) and noise regulations, prohibition of bus traffic are a few of the methods other prime communities engage. All around us hope these improvements are being considered rather more immediately than 2040, else generational change will make the whole enterprise mute or moot at best.		Francis Beyea	franlindabeyea@yahoo.com
15713 10/01/2014 Website Map Comment Open	**Web Comment from dan.degeest@gmail.com 10/1/2014** Several friends have been injured here, I've had countless close calls. Cars are fast and not looking and not lights or other infra to control any of it. --- Map Data Text Entries --- - Very dangerous crossing for bikes, really need on street lanes in both directions		Dan DeGeest	dan.degeest@gmail.com
15721 10/01/2014 Website Map Comment Open	**Web Comment from bethc@iastate.edu 10/1/2014** I wanted to point out two major bike crossing locations that would benefit from having the bike triggered light changers (I don't know what you call these). Right now you have to either get off your bike and walk over to the walk button, wait for a car to join you and trigger the light to change, or cross against the light. I regularly see 3 and 4 bikers at these locations during morning/afternoon commutes. --- Map Data Text Entries --- - Major Bike Crossing Location - Major Bike Crossing Location		Beth Caissie	bethc@iastate.edu
15729 10/02/2014 Website Comment Open	**Web Comment from rlouden@iastate.edu 10/2/2014** Please improve the stop light system in Ames. Ames stop lights currently impede the smooth flow of traffic causing traffic to bunch up which increases the chance of accidents. Stop lights also stop traffic more often than not. This produces a huge waste of fossil fuels. This is easily proven statistically. The greening of Ames could be greatly improved with a better controlled traffic flow.		Rob Louden	rlouden@iastate.edu
15790 10/07/2014 Website Map Comment Open	**Web Comment from slibbey@netins.net 10/7/2014** Cannot draw line instead of polygon		Steve Libbey Friends of Central Iowa Biking	slibbey@netins.net

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
15852 10/14/2014 Website Comment Open	**Web Comment from ajayagri@yahoo.com 10/14/2014** As the City of Ames is developing its transportation plan, I would like to make a case to consider installing bike lanes in all major streets. In the this new era of health and sustainability, City should be promoting healthy habits and encourage residents to bike to work, recreation and exercise.		Ajay Nair Iowa State University	ajayagri@yahoo.com
15894 10/18/2014 Website Map Comment Open	**Web Comment from jtillman@iastate.edu 10/18/2014** There needs to be better communication between the city and ISU about how to transition between bike lanes/sharrows. I know the bridge will soon be rebuilt, but I hope thought will be given to the heavy bicycle traffic here and not leave cyclists having to cross traffic to get to where they "should" be. There needs to be a continuous place for bicyclists to exist. --- Map Data Text Entries --- - 6th street		Jennifer Tillman Ames Bicycle Coalition	jtillman@iastate.edu
15936 10/23/2014 Website Map Comment Open	**Web Comment from iaswr@live.com 10/23/2014** The locations of pedestrian bridges on University are approximate as I don't know with certainty where the shared use paths are. --- Map Data Text Entries --- - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge or tunnel across Lincoln Way - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge across University - Need pedestrian bridge across University - Need pedestrian bridge across University (connect w/ pre-existing trails) - Need pedestrian bridge across University - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge across Duff		Deb Carnine	iaswr@live.com
15952 10/25/2014 Website Map Comment Open	**Web Comment from dustyjuhl@gmail.com 10/25/2014** This intersection needs turning lanes in the N/S and E/W lanes.		Dusty Juhl	dustyjuhl@gmail.com
15985 10/30/2014 Website Map Comment	**Web Comment from cramer515@gmail.com 10/30/2014** I see pedestrians having problems crossing streets in Ames frequently. Continuous flashing lights are not helpful (drivers "tune them out"), but the new intermittent flashing lights controlled by a button near	Mode - Pedestrian	John Cramer	cramer515@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
Open	Mary Greeley Hospital are quite effective.			
16073 11/10/2014 Website Map Comment Open	**Web Comment from cramer515@gmail.com 11/10/2014** Busy pedestrian crossings need the new style intermittent flashing lights similar to what was installed near Mary Greeley Hospital and the ISU Research Park. Too many motor vehicles and bikes ignore (or do not see) pedestrians waiting at crosswalks.	Mode - Pedestrian	John Cramer	cramer515@gmail.com
16074 11/10/2014 Website Map Comment Open	**Web Comment from cramer515@gmail.com 11/10/2014** University Cities like Eugene, OR and Missoula, MT have modern transit centers with passenger platforms nearly level with bus doors, canopies overhead, electronic signs, benches, bike racks, rest rooms, food/beverage service, etc.	Mode - Transit	John Cramer	cramer515@gmail.com
16251 11/25/2014 Website Comment Open	**Web Comment from djweber@burkecorp.com 11/25/2014** We need to have our bike trail system connected in such a way that we can travel from the North side(s) of town, Northridge areas, to the south sides of town, and east to west. When new trails are not possible, widening and existing sidewalk is an option. I would also consider a trail North to the Gilbert area. The addition of the road/bike trail on South Dakota has been very useful and allows us to get to other areas on two wheels. I'd prefer separated roads and bike paths however, as I feel those are safer.		David J Weber	djweber@burkecorp.com
16728 12/24/2014 Comment Open	**Bob Bourne Email & Mind Mixer Comments** Comment made on ImagineAmes.org by Bob on November 19:Safety is the highest priority in any transportation activity.More emphasis on non-automotive modes with incentives (like Wheatsfield access mode card)on a large scale. Stronger relationship between land use/transportation incentives to includenon-automotive modes for developersComment response on ImagineAmes.org by Tony Filippini:Hi Bob, could you explain Wheatsfield access mode card and how it works?Email response to Tony Filippini from Bob on December 24: incentive for people walk, bike, or bus to the store is $2.00 off a $10 purchase after you use any of those modes for 20 trips. Not a great incentive, but shows that at least one private business is aware of environmental impact of transportation decisions. It is based on an honor system, you tell the cashier and they mark your card. Bob Bourne Bourne Transit Consulting 724 Brookridge Av. Ames, IA 50010 office 515-232-7740 cell 515-231-1370 See documents for more information.		Tony Filippini Ames Area Metropolitan Planning Organization Bob Bourne	tfilippini@city.ames.ia.us bob@bournetransit.com
16740 12/30/2014 Website Map Comment Open	**Web Comment from tim@alfredscarpet.com 12/30/2014** This location on the bike path is VERY UNSAFE. The concrete has settled, leaving a 3-4 inch slab heaved in the middle of the bike path. This needs nearly immediate repair!!		Tim Rasmussen	tim@alfredscarpet.com
16836 01/12/2015 Website Comment	**Web Comment from acenet@amesrentals.com 1/12/2015** thanks		Kevin Buck	acenet@amesrentals.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
Closed				
17047 02/10/2015 Website Comment Closed	**Web Comment from jshierholz@mediacombb.net 2/10/2015** No comment given, added to mailing list only		John Shierholz	jshierholz@mediacombb.net
17097 02/13/2015 Website Map Comment Open	**Web Comment from adamrash@outlook.com 2/13/2015** Living in North Ames there are many travel difficulties traveling to the South side of town. The biggest trouble spots are the intersections of Stange and 13th St, especially around 5-5:40PM. Options of adding turn lanes or roundabouts need to be pursued to prevent the congestion that is ensuing. Also, with the increased population and continued growth in North Ames, there needs to be some changes made to the Somerset area as far as traffic flow and parking goes. There are way too many people in that area and there is not enough parking for the restaurant attractions. The curvy traffic lanes and no turn lanes cause additional congestion. The median needs to be looked at being taken down to allow for more lanes and a straighter course. Also, more commercial retail development needs to be pursued with the growth in North Ames. Adding churches and rehab centers does not meet the needs of what those in that part of town. Commercial retail development needs to be proposed with annexation of land dedicated to the retail expansion of that area. --- Map Data Text Entries --- - Traffic congestion on daily basis - Traffic congestion - Traffic congestion - Need for commercial retail development - Need for commercial retail development	Facilities/infrastructure Issues of concern Mode - Automobile Parking Population/community growth	Adam Rash	adamrash@outlook.com
17109 02/14/2015 Website Comment Open	**Web Comment from obsidian1444@yahoo.com 2/14/2015** I dislike the idea of using roundabouts. I've seen them in use, and even with good signs, are incredibly confusing and frustrating. However, I thoroughly approve the idea of elevated walkways to ensure pedestrians are safe.	Mode - Pedestrian	Sherry Goddard	obsidian1444@yahoo.com
17110 02/14/2015 Website Comment Open	**Web Comment from mizerakj@aol.com 2/14/2015** After living in areas where traffic circles (roundabouts) were used, I can state that I do have any love for them. The area near University and Airport road is gradually becoming a heavier traffic zone. The two lane proposal will one day become hazardous as drivers try to move between the inside and outside lanes, especially if one is angry, upset, or late for something. I personally would rather have a traffic light responsive to traffic flow at that location.	Mode - Automobile Routes	Joe Mizerak Mizerak	mizerakj@aol.com
17123 02/17/2015 Website Map	**Web Comment from terryreints@gmail.com 2/17/2015** I think there should be a bike path and CyRide service extended along Lincoln Way going west from S. Dakota to Wilder Blvd. I often see people walking on the shoulder or in the grass in this area. I think	Issues of concern Mode -	Terry Reints	terryreints@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
Comment Open	enough people live in this area to justify at least a sidewalk. Ideally, you would put sidewalks on both sides of Lincoln Way because the street traffic is fast and it's risky to walk across the street here. Perhaps you could also justify extending a CyRide route to go down Wilder Blvd past Daley Park and Edwards Elementary School to connect Lincoln Way with Mortensen Rd. --- Map Data Text Entries --- - Why no bike path?	Bicycle/biking		
17125 02/17/2015 Website Map Comment Open	**Web Comment from ellenreints@gmail.com 2/17/2015** I would like to suggest that a pedestrian or bike path be added to my neighborhood for easy access to the local businesses, schools, and ISU. Cy Ride would be helpful too. There is currently no safe way for me (or my neighbors) to get to work other than to drive, to ISU campus, as I would be required to bike on Lincoln Way. --- Map Data Text Entries --- -	Alternatives development Mode - Bicycle/biking Mode - Pedestrian	Ellen Reints	ellenreints@gmail.com
17173 02/25/2015 Website Map Comment Open	**Web Comment from lweieneth@gmail.com 2/25/2015**	Mode - Bicycle/biking Mode - Pedestrian	Laura Weieneth	lweieneth@gmail.com
17174 02/25/2015 Website Map Comment Open	**Web Comment from lweieneth@gmail.com 2/25/2015**	Mode - Transit	Laura Weieneth	lweieneth@gmail.com
17175 02/25/2015 Website Map Comment Open	**Web Comment from lweieneth@gmail.com 2/25/2015**	Mode - Bicycle/biking Mode - Pedestrian	Laura Weieneth	lweieneth@gmail.com
17328 02/25/2015 Mailing Open	**Public Meeting 2 Invitation Letter** An invitation letter was sent to 39 recipients inviting them to the Public Open House and Workshop held March 11, 2015.		Dan Culhane Ames Chamber of Commerce Brian Dieter Ames Chamber of Commerce	Steve Wilson HIRTA Public Transit Scott Dockstader Iowa DOT

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			Pam Elliott Cain Ames Chamber of Commerce	Michelle McEnany Iowa DOT
	Dear [Addressee]:Are there new or unique transportation alternatives we should consider for our community? We are looking for your opinions on the range of strategies, alternatives and potential solutions to address current transportation concerns in the area.The Ames Area Metropolitan Planning Organization will be sharing information gathered during the initial phase of the Ames Mobility 2040 Long Range Transportation Plan update. Additionally, the Project team will provide a technical analysis of the Ames area transportation system and gather ideas for potential transportation system improvements from the public. You are invited to attend the workshop on March 11, 2015, from 5:30 to 7:30 p.m. at the Ames Public Library, 1st Floor - 515 Douglas Ave, Ames, IA. Ames Mobility 2040 is a community-driven process that will include strategies to support an integrated transportation system that serves all modes of travel, including car, bike, pedestrian, transit and freight. Ames Mobility 2040 will result in a reasonably fundable long range transportation plan that reflects the community's needs and desires. Join us for a public open house and workshop and tell us your thoughts on the future of transportation in our community!For more information about Ames Mobility 2040, visit the project website at www.AmesMobility2040.com. If you are unable to attend the open house in person, don’t worry! We are hosting an online public town hall to keep the conversation moving. Visit the website to join the conversation today.Sincerely,Tony FilippiniTransportation PlannerAmes Area Metropolitan Planning Organization		John Haila Ames Chamber of Commerce	Paul Trombino Iowa DOT
			Carol Kisling Ames Chamber of Commerce	Lynn Whisler Mary Greeley Medical Center
			Natalie Lischer Ames Chamber of Commerce	Todd Berryhill McFarland Clinic PC
			Andrea Gronau Ames Community Art Council	The Ames Progressive
			Joe Smith Boone County Hospital	Rose Dinwiddie Wal-Mart Supercenter
			Charles Cychosz City of Ames	Kristen Greteman
			CyRide	Mark Goodale
			Marc Weston Danfoss	Francis Beyea
			Becky Hiatt Federal Highway Administration	Mandy Fjelland
			Lubin Quinones Federal Highway Administration	Paula Weidner
			Mohktee Ahmad Federal Transit Administration	Jennifer Roberts Iowa DOT
			Mark Bechtel Federal Transit Administration	Jim Kingery HIRTA Public Transit
			Joe Brock HIRTA Public Transit	Kirk Macumber HIRTA Public Transit
			Kim Chapman HIRTA Public Transit	

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
17257 02/25/2015 Email Open	**Public Meeting 2 Invitation Email** An email was sent to 170 recipients inviting them to the public information meetings to be held on Wednesday, March 11 .---Email Text--- You're Invited!Public Open House and Workshop for Ames Long Range Transportation PlanAre there new or unique transportation alternatives we should consider for our community? We are looking for your opinions on the range of strategies, alternatives, and potential solutions to address current transportation concerns in the area.About the Open House The Ames Area Metropolitan Planning Organization will be sharing information gathered during the initial phase of the Ames Mobility 2040 Long Range Transportation Plan update. Additionally, the Project Team will provide a technical analysis of the Ames area transportation system and gather ideas for potential transportation system improvements from the public.About Ames Mobility 2040Ames Mobility 2040 is a community-driven process that will include strategies to support an integrated transportation system that serves all modes of travel, including car, bike, pedestrian, transit and freight. Ames Mobility 2040 will result in a reasonably fundable long range transportation plan that reflects the community's needs and desires. Join us for a public open house and workshop and tell us your thoughts on the future of transportation in our community!More Information:Visit the project website:www.AmesMobility2040.comIf you are unable to attend the open house in person, don't worry! We are hosting and online public town hall to keep the conversation moving. Visit the website to join the conversation today.? info@mobility2040.com? Facebook City of Ames? Twitter @CityofAmes			
17230 03/01/2015 Website Map Comment Open	**Web Comment from trevin.ward@gmail.com 3/1/2015** There are too many drivways along this stretch of 24th street. That along with the speed of the street here this street, despite being a crucial link due to the railroad, and culdesac development east of it, it's nearly unusable for all but the most... daring cyclists. We need bike lanes, or a cycle track, here.	Alt. screening/prioritization Alternatives development Facilities/infrastructure Mode - Bicycle/biking	Trevin Ward	trevin.ward@gmail.com
17267 03/04/2015 Email Open	**Email - Review of Posters for Public Meeting** An email was sent by Tony Filippini on Wednesday, March 4: Good Afternoon Project Management Team, Please take this opportunity to review the boards we plan to have available for the Public Open House on March 11th. The boards are here: http://amesmobility2040.com/resources/public-meeting-031115/		Charlie Kuester City of Ames	ckuester@city.ames.ia.us
			Tracy Warner City of Ames	twarner@city.ames.ia.us
			Damion Pregitzer City of Ames	dpregitzer@city.ames.ia.us

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	. As a note, the general format of the workshops is an open house. The boards are for attendees' reference and understanding of what the "issues" are, however the true objective of the workshop is for the public and stakeholders to provide us some "ideas" for improvements / projects / strategies to consider for inclusion in the LRTP. I would appreciate any comments on these by Friday morning. That will give time to make changes and get them ready by Tuesday of next week. Thanks. Regards, -Tony Tony Filippini Transportation Planner Follow up email by Jason Carbee: From: Carbee, Jason Sent: Wednesday, March 04, 2015 12:54 PM To: Tony Filippini; csbrown@iastate.edu; Charles Kuester; Damion Pregitzer; engineer@storycounty.com; Justin Clausen; Kelly Diekmann; Mark.Bechtel@dot.gov; Phil.Mescher@dot.iowa.gov; scottk@boonecounty.iowa.gov; Sheri Kyras; tracy.troutner@dot.gov; Tracy WarnerCc: Ray, Brian; Sokol, Courtney M.; Hatfield Edstrom, KatieSubject: RE: Review of Ames Mobility 2040 Posters for Public MeetingPMT Members I will add a few clarifications - • These plots are NOT "live" at our study website right now. They are on the web accessible by this URL solely for you, the PMT, to provide any comments on the boards prior to them being shown at the public meeting .• The "previous transit projects" board is only half-complete. We are still coordinating with CyRide this week how to present the material. • For those maps / figures that include numbers that reference a project description (such as the issues maps), we will include a descriptive table with the map to provide the needed project / issue descriptions. As you'll recall, the specific public and stakeholder issues shown in the plots are documented on our website at: http://amesmobility2040.com/files/8614/2132/9813/AmesMobility2040-IssuesSummary.pdf • For the future traffic volumes map, we are using the 2040 Ames Travel Model that Iowa DOT staff just completed. The 2040 forecasts shown represent a no-build condition on the current network. Over the next couple of days, we intend to add some 2040 ADT forecasts and 2011 ADT counts to the map for reference. Thanks for your help and review. We are looking forward to working with the group at next week's meeting.		Damion Pregitzer Healthiest Ames	dpregitzer@city.ames.ia.us
			Kelly Diekmann City of Ames	kdiekmann@city.ames.ia.us
			Sheri Kyras CyRide	skyras@cyride.com
			Tracy Troutner Federal Highway Administration	tracy.troutner@dot.gov
			Mark Bechtel Federal Transit Administration	
			Cathy Brown Iowa State University	CSBROWN@iastate.edu
			Darren Moon Story County	engineer@storycounty.com
			Tony Filippini Ames Area Metropolitan Planning Organization	tfilippini@city.ames.ia.us
			Jason Carbee	jason.carbee@hdrinc.com
17327 03/09/2015 Email Open	**Ames Mobility Newsletter 2015 Q1 Email** An email was sent to 175 recipients containing the contents of the 2015 Quarter 1 Newsletter.			

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
17331 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** If a dedicated transit link was created to connect 20th St to University Village (Stotts Rd), it would be possible to re-route Route 3 (Blue) from 24th St to 20th St via Northwestern and eliminate the current detour of Route 3 (Green) from a more efficient direct path on Grand Ave. This would replace two rail crossings with one, and may speed up the trip for Route 3 (Blue). Making each route more efficient may allow for additional runs per day for same equipment/labor cost. New dedicated transit route could be one-lane (with indicator light at each end to show current use of transit-way) to reduce impact near High School Prairie Area. If two-lane, the transit way may be opened up for limited use by High School staff and students for AM Eastbound and PM Westbound traffic. This would reduce impacts on Hayes Ave and Ridgewood/Summit Aves due to Highschool traffic. --- Map Data Text Entries --- - City of Ames Transportation Right of Way	Mode - Transit	Andy Bock Iowa State University	andybock@gmail.com
17333 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** This would be a more extensive transit-way option that would eliminate the travel of transit bus route on residential residential streets of University Village [refer to previous comment submitted] --- Map Data Text Entries --- - City Right of Way	Mode - Transit	Andy Bock Iowa State University	andybock@gmail.com
17334 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** The CyRide Route 2 (Green) stop at this location is unsafe as there is no off-street path for pedestrians when they use this stop. In winter, if the road is slick, there is also danger when walking on the existing bike path as the bus is departing as if one slips, one could slip under the bus wheels. As someone who frequently disembarks from (Westbound) bus at this stop, I have at times asked driver to wait while I walk in front of bus, which delays route from continuing to next stop. This stop services several apartment buildings, and also riders with final destinations on Oakland St. As this is University owned property, it may require installation by ISU. --- Map Data Text Entries --- - Proposed new pedestrian walkway - Bus stop pad	Mode - Transit	Andy Bock Iowa State University	andybock@gmail.com
17335 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** Currently CyRide Circulator Route 23 (Cardinal) does a loop around Frederiksen Court. An extension to the existing surface parking lot on north side of 13th St and eventually via transit-way over Squaw Creek could provide additional remote parking option to areas north of ISU Campus. The circulator route could also provide more frequent service to University Village, and may eliminate need for additional buses on current Route 3 (Blue). A bus-initiated light might be used to cross 13th St. The cost of this option may be similar to those for on-campus parking ramp. This option would reduce traffic on central campus, and address current capacity issues for CyRide Route 23 (Orange) to Iowa State Center Lots.	Funding Mode - Transit Parking	Andy Bock Iowa State University	andybock@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	--- Map Data Text Entries --- - Existing surface parking lot - Potential new commuter parking lot - Proposed Transitway for extension of CyRide Route 23 (Cardinal)			
17336 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** CyRide Circulator Route 21 (Cardinal) could be extended to service commuter parking at new ISU Lot off of Habor Rd, and the existing (and expanded?) lot for City of Ames Aquatic Center. The Aquatic Center lots are used in Summer, but not used during academic school year. (There is some overlap in late August). CyRide already has facilities for a turn-around, and a stop light is installed for easy access to/from 13th St. To make this more functional, a new stoplight may need to be installed at Haber Rd and 13th St. Expansion of commuter lots to north of ISU Campus would reduce current traffic to current Iowa State Center parking lots and heavy use of CyRide Circulator Route 23 (Orange). This would also reduce North/South traffic on city streets, and additional pressure for expansion of expensive central-campus parking. --- Map Data Text Entries --- - Existing Aquatic Center Surface Parking Lot - Existing University Parking Lot	Facilities/infrastructure Parking	Andy Bock Iowa State University	andybock@gmail.com
17337 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** Expand Bicycle/Trail network by connecting south edge of ISU Campus with R38 Bike Route to Slater via US30 Underpass and former FDDM&S railroad grade. Current Worle Creek culvert may be used or expanded for underpass. Path along Worle Creek to connect to Beech Ave would also expand linked network.		Andy Bock Iowa State University	andybock@gmail.com
17367 03/11/2015 Website Map Comment Open	**Web Comment from cramer515@gmail.com 3/11/2015** The pedestrian crossing at Gateway Hills Park Dr. is quite busy and not well lit. The two westbound lanes reduce to one lane, so drivers are distracted by their need to merge together, or pass the left turning traffic waiting to turn onto Gateway Hills Park Dr. The distractions create an additional risk factor to pedestrians. --- Map Data Text Entries --- - Speed Table	Issues of concern Mode - Pedestrian	John Cramer	cramer515@gmail.com
17503 03/11/2015 Meeting Open	**Focus Group Workshop 2** Workshop held with stakeholders on March 11, 2015 for the second round of public meetings for the AAMPO Long Range Transportation Plan.		Damion Pregitzer City of Ames	dpregitzer@city.ames.ia.us
			Damion Pregitzer Healthiest Ames	dpregitzer@city.ames.ia.us

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			Shari Atwood CyRide	satwood@cyride.com
			Angie Solberg Iowa State University	asolberg@iastate.edu
			Hillary Kletscher Iowa State University	hillklet@iastate.edu
			Susan DeBlieck Healthiest Ames	deblieck@iastate.edu
			Mark Miller Iowa State University	memiller@iastate.edu
			Sarah Constable HIRTA Public Transit	mobility@ridehirta.com
			Sonia Arellano Dodd City of Gilbert	sonia@cityofgilbertiowa.org
			Dave Elsenbast Renewable Energy Group	dave.elsenbast@regi.com
			Daniel Breitbarth Iowa State University	dpb@iastate.edu
17504 03/11/2015 Meeting Open	**Public Alternatives Workshop** AAMPO Long Range Transportation PlanPublic Alternatives WorkshopMarch 11, 201529 attendees		Shari Atwood CyRide	Jared Morford Ames Bicycle Coalition
			Trevin Ward	John Shierholz
			Carol Williams	Trevin Ward
			Kristen Greteman	John Perry
			Jennifer Garst	Chad Hunter Iowa State University
			Caleb Keller Working Knowledge, Inc.	Devon Gottschalk Iowa State University
			Steve Libbey Friends of Central Iowa Biking	Mike Kargol Iowa State University

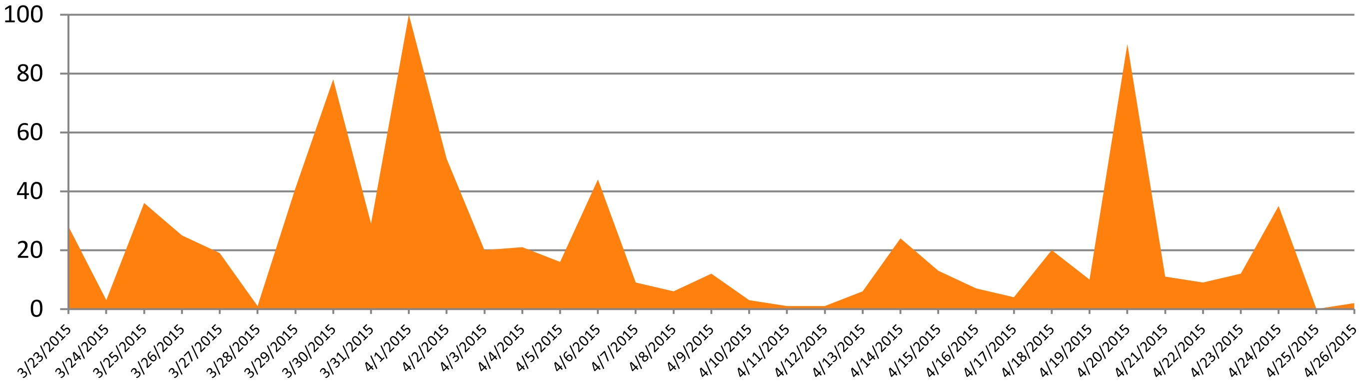
ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			Bob Bourne	Craig Corson Friends of Central Iowa Biking
			Jim Wilcox Iowa State University	Clark Colby Iowa State University
			Jim Wilcox Friends of Central Iowa Biking	Cheryl Langston Healthiest Ames
			Andy Bock Iowa State University	John Shriver
			Karen Wilke	Lewis Rosser
			John Shierholz Healthiest Ames	Dora Pollak Iowa State University
			Jacob Nolte	Colleen Walsh
			Erre Wilke Iowa DOT	LeAnn Hoilier
			Shala Harsh	
17506 03/12/2015 Meeting Open	**Project Management Team Meeting**		Charlie Kuester City of Ames	ckuester@city.ames.ia.us
			Tracy Warner City of Ames	twarner@city.ames.ia.us
			Damion Pregitzer City of Ames	dpregitzer@city.ames.ia.us
			Damion Pregitzer Healthiest Ames	dpregitzer@city.ames.ia.us
			Shari Atwood CyRide	satwood@cyride.com
			Cathy Brown Iowa State University	CSBROWN@iastate.edu
			Darren Moon Story County	engineer@storycounty.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			Tony Filippini Ames Area Metropolitan Planning Organization	tfilippini@city.ames.ia.us
			Jason Carbee	jason.carbee@hdrinc.com
			Erre Wilke Iowa DOT	wilke.erre@gmail.com
17396 03/12/2015 Website Map Comment Open	**Web Comment from ewentzel@gmail.com 3/12/2015**	Mode - Bicycle/biking	Elizabeth Wentzel ABC	ewentzel@gmail.com
17397 03/12/2015 Website Map Comment Open	**Web Comment from ewentzel@gmail.com 3/12/2015**	Mode - Bicycle/biking	Elizabeth Wentzel ABC	ewentzel@gmail.com

Outreach Period Comment & Contact Report

Contact + Comment Report

AmesMobility2040.com Website Statistics (March 23 – April 26, 2015)

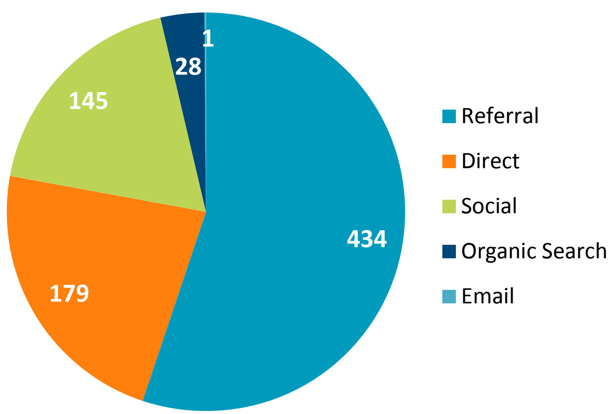


Totals		△
Visitors	**693**	↑37%
Pageviews	**787**	↑87%
Avg Visit Duration	**1:08**	↓ 1:39
Avg Pages/Visit	**1.78**	↑0.62

Top Pages Visited

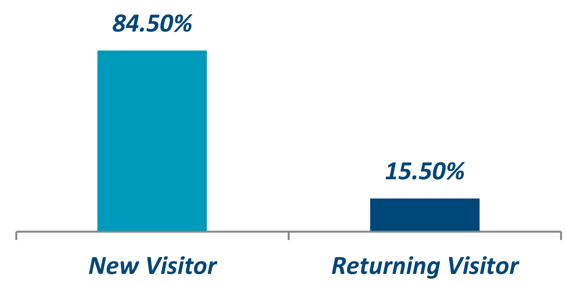
Rank	Page	Page views	Avg. Time on Page [mins]
1.	Homepage	835	1.50
2.	/get-involved/treasure-hunt/	121	1.44
3.	/get-involved/	114	0.97
4.	/resources/	76	1.40
5.	/about/	52	1.21
6.	/resources/public-meeting-031115/	50	4.19
7.	/newsroom/	38	1.45
8.	/contact-us/	21	1.52
9.	/get-involved/calendar/	5	2.82
10.	/newsroom/ames-area-mpo-host-public-meeting-transportation-plan/	1	0.05

Web Traffic Sources



Organic = From an Internet Search
Referral = From a link to the website
Direct = User typed in specific website URL
Social = From a link on Facebook, Twitter, or LinkedIn

Visitor Type



Visits by Sources

Desktop	Mobile	Tablet
609	140	38

March 23 – April 26, 2015

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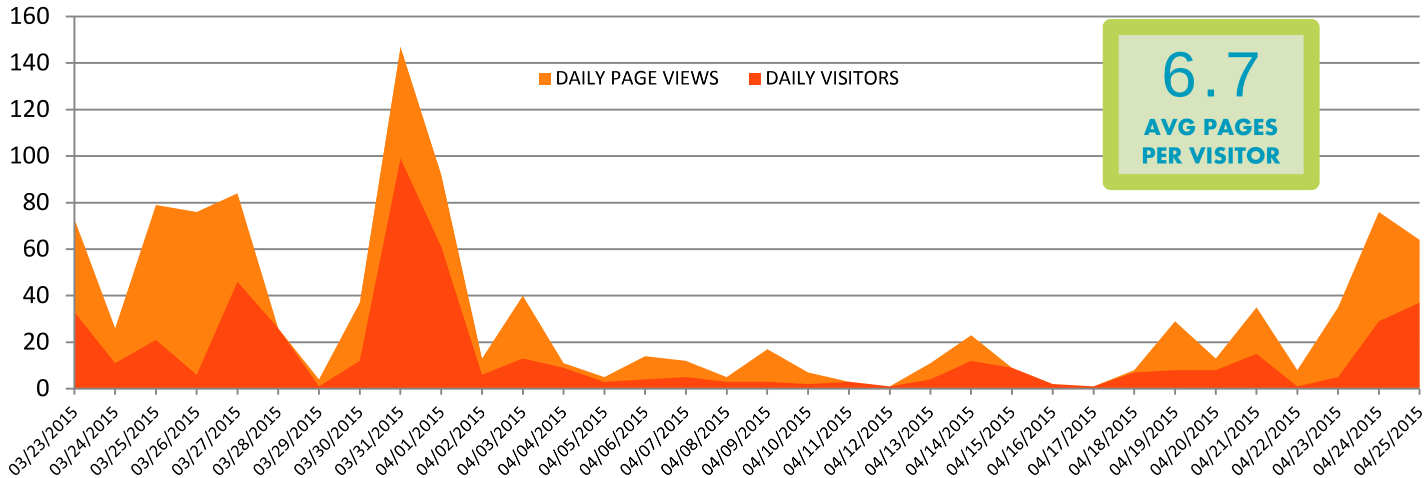
ImagineAmes.org Website Statistics (March 23 – April 26, 2015)



TOTAL TRAFFIC

Unique Visitors **1,600**

Page Views **10,699**

64% Male

36% Female

SHARES → facebook 8 twitter 2 Google+ 17 LinkedIn 4

Outreach Activities

Event	Date
Photo Treasure Hunt	April 6 – 24, 2015
Public Alternatives Workshop	March 11, 2015
Focus Group Workshop	March 11, 2015

In the News

Item	Channel	Post Date
Ames Area MPO to Host Community-wide Photo Treasure Hunt	Ames Tribune	April 1, 2015
Council, Committee Begin to Discuss New Long-range Transportation Plan	Ames Tribune	March 31, 2015
Kickoff Meeting for Ames Long-range Transportation Plan Set for Tonight	Ames Tribune	March 30, 2015

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
14592 09/10/2014 Website Comment Open	**Web Comment from nickyouds@gmail.com 9/10/2014** I thought I'd share some of my thoughts as a year round bicycle commuter in the Ames and Marshalltown areas. First, I love the new bike detectable street lights. They have really made my life easier as a bike commuter (so I don't have to be on the sidewalk where bikes don't belong to press a button) and as a cycles recycling employee (where I literally can't be on the sidewalk and have in the past had to treat some red lights as stop signs and technically break the law). I'm excited for the future of biking in Ames and I hope that positive changes in infrastructure and education can lead to more law abiding bike and car commuters and also less hostility between the groups. On a related note, one thing that drives me up the wall is that I get the feeling that most drivers don't know and understand bicycle signals and thus I am wasting my time and probably in danger. If bicyclists are to become more law abiding (and I admit I see a lot of illegal biking) they need to have their language acknowledged and understood, and bicycling must be as convenient (weather concerns aside) as driving. I suggest that all drivers when they renew their licenses must take a bicycling knowledge test to make sure that they understand bicycling signals and related issues (e.g., making sure they stop and look both ways before pulling into the paths of sidewalks/bike paths.Thanks for you time. I know this is a bike-centric post but I that is from where my experience is derived. Thanks again!	Issues of concern Mode - Bicycle/biking	Nick Youds	nickyouds@gmail.com
14629 09/17/2014 Website Comment Open	**Web Comment from jwolseth@iastate.edu 9/17/2014** One general comment and one specific comment. First, the general comment: Ames needs to make a concerted effort to be more biker friendly which should include developing connections of the bike trails and safer buffers for bikers along streets, especially the length of Lincoln Way and Ontario/13th. Second, the specific comment: Traffic along Hyland from 13th/Ontario to Lincoln moves too quickly -- lots of folks speeding and not paying attention to pedestrians crossing, especially at Hyland and Oakland. Cars do not stop for pedestrians crossing at this intersection because the intersection and crosswalk are not well marked.	Issues of concern Mode - Bicycle/biking Mode - Pedestrian	Jon Wolseth	jwolseth@iastate.edu
14637 09/19/2014 Website Comment Open	**Web Comment from leokmg2@hotmail.com 9/19/2014** I have worked for more than ten years to get the city of Ames to do more to make our streets safer and more accessible for children and handicapped residents. Especially starting near our schools. There are segments of our neighborhoods near our schools that have no sidewalks. Sometimes the schools themselves only have sidewalks on one side of the road. Neighborhoods near the schools are missing chunks of sidewalks and that forces children to walk on the roads in all types of weather. Accidents have already happened and eventually somebody with be seriously injuries or killed. Stop building homes without sidewalks. It isn't worth the savings or risk. The handicapped, our children, our elderly and everyone else rely on sidewalks to access our neighborhoods and city. And the only reason not to put in sidewalks in cheapness and laziness and a total disregard for the well being of others. There have been BILLIONS of dollars worth of lawsuits across the country over safety and access to sidewalks. The Americans with disabilities act specifically says we need complete and safe and accessible sidewalks. Anything less is a disservice to the communities we live in and serve.	Issues of concern Mode - Pedestrian	mark goodale	leokmg2@hotmail.com

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14639 09/19/2014 Website Map Comment Open	**Web Comment from swiley4@gmail.com 9/19/2014** If possible, a look into installing more left turn arrows at stop lights would be helpful. Turning left at busy intersections such as 13th & Grand and 6th & Grand not only is difficult at peak times, but dangerous as cars who don't want to wait behind a left-turning car quickly pull out from behind them to zoom ahead during the green. A systematic review of congested intersections around town that lack left turn arrows would be great.	Issues of concern	Sarah Wiley	swiley4@gmail.com
14640 09/19/2014 Website Map Comment Open	**Web Comment from kjkorslund@gmail.com 9/19/2014** The speed limit on State street between Arbor and College Creek should be increased to 35 MPH. There are no private drives along that stretch, so it makes no sense to have it 25 MPH. This would greatly help people who commute along this route, especially considering there are plans in the works to reduce the 45 MPH zone on State street to 35 MPH. --- Map Data Text Entries --- - Proposed 35 MPH zone	Routes	Kevin Korslund	kjkorslund@gmail.com
14641 09/19/2014 Website Map Comment Open	**Web Comment from kjkorslund@gmail.com 9/19/2014** There is no good route between the west side of campus (Engineering campus) and the ISU Research Park. A more direct route would foster better collaboration between these entities, which would benefit the community greatly. --- Map Data Text Entries --- - Engineering Campus - ISU Research Park	Routes	Kevin Korslund	kjkorslund@gmail.com
14674 09/24/2014 Website Map Comment Open	**Web Comment from deblieck@iastate.edu 9/24/2014**	Mode - Bicycle/biking	Susan DeBlieck Healthiest Ames	deblieck@iastate.edu
14675 09/25/2014 Website Map Comment Open	**Web Comment from consumernate@gmail.com 9/25/2014** I would love to see the intersection at 13th and Grand addressed. If the lighting sequence is maintained, 13th at minimum, needs an added turn only lane. Ideally, both Grand and 13th would have added turn only lanes which would allow for less delay. This is a very busy intersection and it's seems odd the setup is so archaic. --- Map Data Text Entries --- - Intersection of 13th and Grand		Nathan Eagles	consumernate@gmail.com
14681 09/25/2014 Website Comment Open	**Web Comment from akseq@iastate.edu 9/25/2014** I lived in the West Ames area last year and cyride just seemed way too inefficient for how many students need to get to campus everyday. Splitting the Red route into 2 different routes, one following the original route, and a second one going east toward towers (thus bypassing the backtracking that takes place on Lincoln way) might help this, but I obviously don't have the		Angela Sequeira Iowa State University	akseq@iastate.edu

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	expertise in this area, so it's just a suggestion. Also, now that I live closer to campus I ride my bike to class everyday, and I'm very surprised at the lack of bike lanes in the streets on campus. You can't expect us to navigate the crowded sidewalks without hitting anyone, but it gets dangerous on the streets during passing time when cyride buses take up the entire road. Something needs to be done about it			
14696 09/29/2014 Website Comment Open	**Web Comment from holdean@aol.com 9/29/2014** Two suggestions. 1: Make the Southboud West lane of Stange right turn only at 13th Street. You can conduct a survey and see that few cars actually go across 13th to the University and those that do could use the center lane. 2: Do not attempt to make 24th Street four lane traffic from Northwestern to the tracks to Hayes. People are already driving well over the 30 mph speed limit and an entry lane to get on 24th Street from our houses is needed. Making 24th Street four lanes might ease some congestion during the after school rush, but it would also make it less safe for the children.		William Holsman	holdean@aol.com
14703 09/29/2014 Website Map Comment Open	**Web Comment from cramer515@gmail.com 9/29/2014** High Density Corridor needs alternative to traditional fixed route bus service. Suggest Bus Rapid Transit (BRT) from SW Ames to North Grand Mall.	Mode - Bicycle/biking	John Cramer	cramer515@gmail.com
15956 09/29/2014 Comment Open	**Email Comment from Brian Vanderheyden** On September 29, 2014 Brian wrote: I would like to provide a comment to the 2040 mobility long range plan. I would like to see traffic lights installed at intersection of mortensen and state instead of 4 way stop. The lines especially during school times can be backed up to the middle school and take up to 10 minutes to go through. I think traffic lights would help keep traffic moving better. Also a lot of pedestrians cross there from the bike/walk path and a walk signal would be appreciated. Also on state street between mortensen and Lincoln (where the hill in on the west side of the cross country course) there are a lot of deer that cross that road and a sign would help alert drivers. My first month here I had to stop abruptly as 3 different times/dates I had deer run in front of me as they passbetween the forests. Thanks for consideration. Brian Vanderheyden On October 1, Jason Carbee replied:Mr. Vanderheyden:Thank you for contributing to the 2040 Mobility plan. We will incorporate your ideas into our issues identification phase of the study. Please stay engaged with the plan at our website AmesMobility2040.com. Thank you!		Brian B Vanderheyden Iowa State University Brian B Vanderheyden Healthiest Ames Jason Carbee	brianv1@iastate.edu brianv1@iastate.edu jason.carbee@hdrinc.com
15957 09/29/2014 Phone Call Open	**Comment by Mandy Fjelland to City Clerk** Mandy Fjelland called the Ames City Clerk's office.She lives near Ross Road. Her phone number is 291-2913. She will be unable to attend the meeting on Bike Paths. Here are the 2 items she spoke about. 1. No bike path, lane, or sidewalk along Ross Road. This makes it dangerous getting to Emma McCarthy Lee Park. 2. No path, lane, or sidewalk on west Lincoln Way from intersection of N/S Dakota. There is no safe way to get to the businesses or residences in the west area by bicycle once you have gone west of S Dakota.		Mandy Fjelland	
15958 09/29/2014	**Facebook Comments** Post on Ames Mobility 2040 :: Home (picture of overpass)Comments on post:Paul Lindemayer		Tim Gartin City of Ames	GartinForAmes@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
Comment Open	"That overpass is, like. Ames Mobility 1890 :)"Tim Gartin "Thank you for posting this Susan. It would be wonderful if we could receive broad input from the community."Paula Weidner "I love that little opening! It is part of my scenic route.Another set of comments on post on Ames Mobility 2040:Connie McLaughlin "Bike system on the outskirts north of Ames are desperately in need! Yesterday just before I rounded the curve on GW Carver, my family nearly experienced a head-on collision. The bike path around the lake was NOT being used. Bicyclist in middle of highway, truck decided to pass bike, and nearly hit us. So much traffic on this road and bicyclists seem to own the highway around these curves. What gets me is that there IS a bike path a matter of feet around the little pond area. Please improve this area so no one gets injured!"Sharon Fox "First off, bikes are legally able to be on the roads so yes, they are allowed to 'own the highway', they pay taxes to ride on. The fact that you almost had an accident is the fault of the TRUCK, not the bicyclist as that would be a no passing zone. Second, understanding there are NO bike paths in this town. There are 'shared use' paths. An avid cyclist going 15-20 mph is dangerous on one of those paths, especially when they are highly populated by walkers, joggers & people with dogs on extendo leashes. And by the way, the path around that lake leads basically nowhere, it ends just north of the lake, before the subdivision even ends.Connie McLaughlin "Sharon, thank you for affirming my point - there needs to be some bike paths in this area."Mark Dinning "the taxes you speak of come from road use taxes which come from the fuel taxes paid at the fuel pump, so no, they don't pay road use taxes and while they can legally 'own the highway' as you say, that kind of hubris is what causes accidents and dead bicyclists, a little courtesy on both sides goes a long way." See documents section for more info.		Susan Gwiasda City of Ames	sgwiasda@city.ames.ia.us
			Paul Lindemeyer	paul@lindemeyer.com
			Paula Weidner	
			Connie McLaughlin	
			Sharon Fox	
			Mark Dinning	
15959 09/29/2014 Meeting Open	**Focus Group Workshop** AAMPO LRTP Focus Group September 30, 2014 11:30am		Charlie Kuester City of Ames	ckuester@city.ames.ia.us
14704 09/30/2014 Website Comment Open	**Web Comment from keller.caleb@gmail.com 9/30/2014** I think that Ames needs to do more in terms of making the various modes of transportation work better together, especially in terms of integrating travel by car and travel by bike. There are many creative solutions that address the challenges (particularly the safety challenges) presented by having cyclists on the road with motorists, and as bicycle commuting grows in popularity, I'd like to see Ames implement some of these changes. Foremost in my mind would be separated lanes for cyclists on some of the more heavily traveled streets.		Caleb Keller Working Knowledge, Inc.	keller.caleb@gmail.com
14709 09/30/2014 Website Map Comment Open	**Web Comment from jcm293@gmail.com 9/30/2014** In order to make this a regional plan, you need to relax the City of Ames focus that permeates the planning documents, and the presentation materials, and actually look at the whole region. Actions should include: Update the MPA to include the current Gilbert city limits. Update the planning tools and presentations to include all of the important transportation drivers	Stakeholder involvement	Joe Metzger	Jcm293@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	in the region, including all schools.			
14710 09/30/2014 Website Map Comment Open	**Web Comment from sarahdcady@gmail.com 9/30/2014** Cycling infrastructure needed to parallel Lincoln Way in West Ames (similar to 4th street in east Ames) --- Map Data Text Entries --- - Hyland bike lane/sharrows need to be extended - Implement quiet street/traffic calming/make east-west corridor for bicycle traffic - Sharrows/bike lane		Sarah Cady	sarahdcady@gmail.com
15712 10/01/2014 Website Map Comment Open	**Web Comment from franlindabeyea@yahoo.com 10/1/2014** Is it the intension of the AM2040 process to address neighborhoods preservation? The coridor between Mortensen/S. 4th intersection with Country Club Blvd./Storm/Ash is adversely affected by increasing student traffic as the ISU population reaches its zenith, lessening property attractiveness in one of Ames' most valuable neighborhoods. Increased traffic slowing (speed humps near intersections,) and noise regulations, prohibition of bus traffic are a few of the methods other prime communities engage. All around us hope these improvements are being considered rather more immediately than 2040, else generational change will make the whole enterprise mute or moot at best.		Francis Beyea	franlindabeyea@yahoo.com
15713 10/01/2014 Website Map Comment Open	**Web Comment from dan.degeest@gmail.com 10/1/2014** Several friends have been injured here, I've had countless close calls. Cars are fast and not looking and not lights or other infra to control any of it. --- Map Data Text Entries --- - Very dangerous crossing for bikes, really need on street lanes in both directions		Dan DeGeest	dan.degeest@gmail.com
15721 10/01/2014 Website Map Comment Open	**Web Comment from bethc@iastate.edu 10/1/2014** I wanted to point out two major bike crossing locations that would benefit from having the bike triggered light changers (I don't know what you call these). Right now you have to either get off your bike and walk over to the walk button, wait for a car to join you and trigger the light to change, or cross against the light. I regularly see 3 and 4 bikers at these locations during morning/afternoon commutes. --- Map Data Text Entries --- - Major Bike Crossing Location - Major Bike Crossing Location		Beth Caissie	bethc@iastate.edu
15729 10/02/2014 Website Comment Open	**Web Comment from rlouden@iastate.edu 10/2/2014** Please improve the stop light system in Ames. Ames stop lights currently impede the smooth flow of traffic causing traffic to bunch up which increases the chance of accidents. Stop lights also stop traffic more often than not. This produces a huge waste of fossil fuels. This is easily proven statistically. The greening of Ames could be greatly improved with a better controlled traffic flow.		Rob Louden	rlouden@iastate.edu
15790 10/07/2014	**Web Comment from slibbey@netins.net 10/7/2014** Cannot draw line instead of polygon		Steve Libbey Friends of Central	slibbey@netins.net

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Website Map Comment Open			Iowa Biking	
15852 10/14/2014 Website Comment Open	**Web Comment from ajayagri@yahoo.com 10/14/2014** As the City of Ames is developing its transportation plan, I would like to make a case to consider installing bike lanes in all major streets. In the this new era of health and sustainability, City should be promoting healthy habits and encourage residents to bike to work, recreation and exercise.		Ajay Nair Iowa State University	ajayagri@yahoo.com
15894 10/18/2014 Website Map Comment Open	**Web Comment from jtillman@iastate.edu 10/18/2014** There needs to be better communication between the city and ISU about how to transition between bike lanes/sharrows. I know the bridge will soon be rebuilt, but I hope thought will be given to the heavy bicycle traffic here and not leave cyclists having to cross traffic to get to where they "should" be. There needs to be a continuous place for bicyclists to exist. --- Map Data Text Entries --- - 6th street		Jennifer Tillman Ames Bicycle Coalition	jtillman@iastate.edu
15936 10/23/2014 Website Map Comment Open	**Web Comment from iaswr@live.com 10/23/2014** The locations of pedestrian bridges on University are approximate as I don't know with certainty where the shared use paths are. --- Map Data Text Entries --- - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge or tunnel across Lincoln Way - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge across University - Need pedestrian bridge across University - Need pedestrian bridge across University (connect w/ pre-existing trails) - Need pedestrian bridge across University - Need pedestrian bridge across Lincoln Way - Need pedestrian bridge across Duff		Deb Carnine	iaswr@live.com
15952 10/25/2014 Website Map Comment Open	**Web Comment from dustyjuhl@gmail.com 10/25/2014** This intersection needs turning lanes in the N/S and E/W lanes.		Dusty Juhl	dustyjuhl@gmail.com
15984 10/30/2014 Website	**Web Comment from cramer515@gmail.com 10/30/2014**		John Cramer	cramer515@gmail.com

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Map Comment Open				
15985 10/30/2014 Website Map Comment Open	**Web Comment from cramer515@gmail.com 10/30/2014** I see pedestrians having problems crossing streets in Ames frequently. Continuous flashing lights are not helpful (drivers "tune them out"), but the new intermittent flashing lights controlled by a button near Mary Greeley Hospital are quite effective.	Mode - Pedestrian	John Cramer	cramer515@gmail.com
16008 10/31/2014 Website Map Comment Open	**Web Comment from peteymoore@gmail.com 10/31/2014**		Peter Moore	peteymoore@gmail.com
16073 11/10/2014 Website Map Comment Open	**Web Comment from cramer515@gmail.com 11/10/2014** Busy pedestrian crossings need the new style intermittent flashing lights similar to what was installed near Mary Greeley Hospital and the ISU Research Park. Too many motor vehicles and bikes ignore (or do not see) pedestrians waiting at crosswalks.	Mode - Pedestrian	John Cramer	cramer515@gmail.com
16074 11/10/2014 Website Map Comment Open	**Web Comment from cramer515@gmail.com 11/10/2014** University Cities like Eugene, OR and Missoula, MT have modern transit centers with passenger platforms nearly level with bus doors, canopies overhead, electronic signs, benches, bike racks, rest rooms, food/beverage service, etc.	Mode - Transit	John Cramer	cramer515@gmail.com
16251 11/25/2014 Website Comment Open	**Web Comment from djweber@burkecorp.com 11/25/2014** We need to have our bike trail system connected in such a way that we can travel from the North side(s) of town, Northridge areas, to the south sides of town, and east to west. When new trails are not possible, widening and existing sidewalk is an option. I would also consider a trail North to the Gilbert area. The addition of the road/bike trail on South Dakota has been very useful and allows us to get to other areas on two wheels. I'd prefer separated roads and bike paths however, as I feel those are safer.		David J Weber	djweber@burkecorp.com
16728 12/24/2014 Comment Open	**Bob Bourne Email & Mind Mixer Comments** Comment made on ImagineAmes.org by Bob on November 19:Safety is the highest priority in any transportation activity.More emphasis on non-automotive modes with incentives (like Wheatsfield access mode card)on a large scale. Stronger relationship between land use/transportation incentives to includenon-automotive modes for developersComment response on ImagineAmes.org by Tony Filippini:Hi Bob, could you explain Wheatsfield access mode card and how it works?Email response to Tony Filippini from Bob on December 24:		Tony Filippini Ames Area Metropolitan Planning Organization Bob Bourne	tfilippini@city.ames.ia.us bob@bournetransit.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	incentive for people walk, bike, or bus to the store is $2.00 off a $10 purchase after you use any of those modes for 20 trips. Not a great incentive, but shows that at least one private business is aware of environmental impact of transportation decisions. It is based on an honor system, you tell the cashier and they mark your card. Bob Bourne Bourne Transit Consulting 724 Brookridge Av. Ames, IA 50010 office 515-232-7740 cell 515-231-1370 See documents for more information.			
16740 12/30/2014 Website Map Comment Open	**Web Comment from tim@alfredscarpet.com 12/30/2014** This location on the bike path is VERY UNSAFE. The concrete has settled, leaving a 3-4 inch slab heaved in the middle of the bike path. This needs nearly immediate repair!!		Tim Rasmussen	tim@alfredscarpet.com
17040 02/09/2015 Website Map Comment Open	**Web Comment from rmowers9@mchsi.com 2/9/2015**		Margaret Epplin	rmowers9@mchsi.com
17097 02/13/2015 Website Map Comment Open	**Web Comment from adamrash@outlook.com 2/13/2015** Living in North Ames there are many travel difficulties traveling to the South side of town. The biggest trouble spots are the intersections of Stange and 13th St, especially around 5-5:40PM. Options of adding turn lanes or roundabouts need to be pursued to prevent the congestion that is ensuing. Also, with the increased population and continued growth in North Ames, there needs to be some changes made to the Somerset area as far as traffic flow and parking goes. There are way too many people in that area and there is not enough parking for the restaurant attractions. The curvy traffic lanes and no turn lanes cause additional congestion. The median needs to be looked at being taken down to allow for more lanes and a straighter course. Also, more commercial retail development needs to be pursued with the growth in North Ames. Adding churches and rehab centers does not meet the needs of what those in that part of town. Commercial retail development needs to be proposed with annexation of land dedicated to the retail expansion of that area. --- Map Data Text Entries --- - Traffic congestion on daily basis - Traffic congestion - Traffic congestion - Need for commercial retail development - Need for commercial retail development	Facilities/infrastructure Issues of concern Mode - Automobile Parking Population/community growth	Adam Rash	adamrash@outlook.com
17109	**Web Comment from obsidian1444@yahoo.com 2/14/2015**	Mode - Pedestrian	Sherry Goddard	obsidian1444@yahoo.c

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02/14/2015 Website Comment Open	I dislike the idea of using roundabouts. I've seen them in use, and even with good signs, are incredibly confusing and frustrating. However, I thoroughly approve the idea of elevated walkways to ensure pedestrians are safe.			om
17110 02/14/2015 Website Comment Open	**Web Comment from mizerakj@aol.com 2/14/2015** After living in areas where traffic circles (roundabouts) were used, I can state that I do have any love for them. The area near University and Airport road is gradually becoming a heavier traffic zone. The two lane proposal will one day become hazardous as drivers try to move between the inside and outside lanes, especially if one is angry, upset, or late for something. I personally would rather have a traffic light responsive to traffic flow at that location.	Mode - Automobile Routes	Joe Mizerak Mizerak	mizerakj@aol.com
17123 02/17/2015 Website Map Comment Open	**Web Comment from terryreints@gmail.com 2/17/2015** I think there should be a bike path and CyRide service extended along Lincoln Way going west from S. Dakota to Wilder Blvd. I often see people walking on the shoulder or in the grass in this area. I think enough people live in this area to justify at least a sidewalk. Ideally, you would put sidewalks on both sides of Lincoln Way because the street traffic is fast and it's risky to walk across the street here. Perhaps you could also justify extending a CyRide route to go down Wilder Blvd past Daley Park and Edwards Elementary School to connect Lincoln Way with Mortensen Rd. --- Map Data Text Entries --- - Why no bike path?	Issues of concern Mode - Bicycle/biking	Terry Reints	terryreints@gmail.com
17125 02/17/2015 Website Map Comment Open	**Web Comment from ellenreints@gmail.com 2/17/2015** I would like to suggest that a pedestrian or bike path be added to my neighborhood for easy access to the local businesses, schools, and ISU. Cy Ride would be helpful too. There is currently no safe way for me (or my neighbors) to get to work other than to drive, to ISU campus, as I would be required to bike on Lincoln Way. --- Map Data Text Entries --- -	Alternatives development Mode - Bicycle/biking Mode - Pedestrian	Ellen Reints	ellenreints@gmail.com
17173 02/25/2015 Website Map Comment Open	**Web Comment from lweieneth@gmail.com 2/25/2015**	Mode - Bicycle/biking Mode - Pedestrian	Laura Weieneth	lweieneth@gmail.com
17174 02/25/2015	**Web Comment from lweieneth@gmail.com 2/25/2015**	Mode - Transit	Laura Weieneth	lweieneth@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
Website Map Comment Open				
17175 02/25/2015 Website Map Comment Open	**Web Comment from lweieneth@gmail.com 2/25/2015**	Mode - Bicycle/biking Mode - Pedestrian	Laura Weieneth	lweieneth@gmail.com
17328 02/25/2015 Mailing Open	**Public Meeting 2 Invitation Letter** An invitation letter was sent to 39 recipients inviting them to the Public Open House and Workshop held March 11, 2015. Dear [Addressee]: Are there new or unique transportation alternatives we should consider for our community? We are looking for your opinions on the range of strategies, alternatives and potential solutions to address current transportation concerns in the area. The Ames Area Metropolitan Planning Organization will be sharing information gathered during the initial phase of the Ames Mobility 2040 Long Range Transportation Plan update. Additionally, the Project team will provide a technical analysis of the Ames area transportation system and gather ideas for potential transportation system improvements from the public. You are invited to attend the workshop on March 11, 2015, from 5:30 to 7:30 p.m. at the Ames Public Library, 1st Floor - 515 Douglas Ave, Ames, IA. Ames Mobility 2040 is a community-driven process that will include strategies to support an integrated transportation system that serves all modes of travel, including car, bike, pedestrian, transit and freight. Ames Mobility 2040 will result in a reasonably fundable long range transportation plan that reflects the community's needs and desires. Join us for a public open house and workshop and tell us your thoughts on the future of transportation in our community!For more information about Ames Mobility 2040, visit the project website at www.AmesMobility2040.com. If you are unable to attend the open house in person, don't worry! We are hosting an online public town hall to keep the conversation moving. Visit the website to join the conversation today. Sincerely, Tony Filippini Transportation Planner Ames Area Metropolitan Planning Organization		Dan Culhane Ames Chamber of Commerce	Jim Kingery HIRTA Public Transit
			Brian Dieter Ames Chamber of Commerce	Kirk Macumber HIRTA Public Transit
			Pam Elliott Cain Ames Chamber of Commerce	Steve Wilson HIRTA Public Transit

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			John Haila Ames Chamber of Commerce	Scott Dockstader Iowa DOT
			Carol Kisling Ames Chamber of Commerce	Michelle McEnany Iowa DOT
			Natalie Lischer Ames Chamber of Commerce	Paul Trombino Iowa DOT
			Andrea Gronau Ames Community Art Council	Lynn Whisler Mary Greeley Medical Center
			Joe Smith Boone County Hospital	Todd Berryhill McFarland Clinic PC
			Charles Cychosz City of Ames	The Ames Progressive
			CyRide	Rose Dinwiddie Wal-Mart Supercenter
			Marc Weston Danfoss	Kristen Greteman
			Becky Hiatt Federal Highway Administration	Mark Goodale
			Lubin Quinones Federal Highway Administration	Francis Beyea
			Mohktee Ahmad Federal Transit Administration	Mandy Fjelland
			Mark Bechtel Federal Transit Administration	Paula Weidner
			Joe Brock HIRTA Public Transit	Jennifer Roberts Iowa DOT
			Kim Chapman HIRTA Public Transit	
17257 02/25/2015 Email	**Public Meeting 2 Invitation Email** An email was sent to 170 recipients inviting them to the public information meetings to be held on Wednesday, March 11.			

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
Open	---Email Text--- You're Invited! Public Open House and Workshop for Ames Long Range Transportation Plan Are there new or unique transportation alternatives we should consider for our community? We are looking for your opinions on the range of strategies, alternatives, and potential solutions to address current transportation concerns in the area. About the Open House The Ames Area Metropolitan Planning Organization will be sharing information gathered during the initial phase of the Ames Mobility 2040 Long Range Transportation Plan update. Additionally, the Project Team will provide a technical analysis of the Ames area transportation system and gather ideas for potential transportation system improvements from the public. About Ames Mobility 2040 Ames Mobility 2040 is a community-driven process that will include strategies to support an integrated transportation system that serves all modes of travel, including car, bike, pedestrian, transit and freight. Ames Mobility 2040 will result in a reasonably fundable long range transportation plan that reflects the community's needs and desires. Join us for a public open house and workshop and tell us your thoughts on the future of transportation in our community! More Information: Visit the project website:www.AmesMobility2040.com If you are unable to attend the open house in person, don't worry! We are hosting and online public town hall to keep the conversation moving. Visit the website to join the conversation today.? info@mobility2040.com? Facebook City of Ames? Twitter @CityofAmes			
17230 03/01/2015 Website Map Comment Open	**Web Comment from trevin.ward@gmail.com 3/1/2015** There are too many drivways along this stretch of 24th street. That along with the speed of the street here this street, despite being a crucial link due to the railroad, and culdesac development east of it, it's nearly unusable for all but the most... daring cyclists. We need bike lanes, or a cycle track, here.	Alt. screening/prioritization Alternatives development Facilities/infrastructure Mode - Bicycle/biking	Trevin Ward	trevin.ward@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
17267 03/04/2015 Email Open	**Email - Review of Posters for Public Meeting** An email was sent by Tony Filippini on Wednesday, March 4: Good Afternoon Project Management Team, Please take this opportunity to review the boards we plan to have available for the Public Open House on March 11th. The boards are here: http://amesmobility2040.com/resources/public-meeting-031115/ . As a note, the general format of the workshops is an open house. The boards are for attendees' reference and understanding of what the "issues" are, however the true objective of thPMTe workshop is for the public and stakeholders to provide us some "ideas" for improvements / projects / strategies to consider for inclusion in the LRTP. I would appreciate any comments on these by Friday morning. That will give time to make changes and get them ready by Tuesday of next week. Thanks. Regards, -Tony Tony Filippini Transportation Planner Follow up email by Jason Carbee:From: Carbee, Jason Sent: Wednesday, March 04, 2015 12:54 PMTo: Tony Filippini; csbrown@iastate.edu; Charles Kuester; Damion Pregitzer; engineer@storycounty.com; Justin Clausen; Kelly Diekmann; Mark.Bechtel@dot.gov; Phil.Mescher@dot.iowa.gov; scottk@boonecounty.iowa.gov; Sheri Kyras; tracy.troutner@dot.gov; Tracy WarnerCc: Ray, Brian; Sokol, Courtney M.; Hatfield Edstrom, KatieSubject: RE: Review of Ames Mobility 2040 Posters for Public MeetingPMT Members:I will add a few clarifications - • These plots are NOT "live" at our study website right now. They are on the web accessible by this URL solely for you, the PMT, to provide any comments on the boards prior to them being shown at the public meeting.• The "previous transit projects" board is only half-complete. We are still coordinating with CyRide this week how to present the material.• For those maps / figures that include numbers that reference a project description (such as the issues maps), we will include a descriptive table with the map to provide the needed project / issue descriptions. As you'll recall, the specific public and stakeholder issues shown in the plots are documented on our website at: http://amesmobility2040.com/files/8614/2132/9813/AmesMobility2040-IssuesSummary.pdf • For the future traffic volumes map, we are using the 2040 Ames Travel Model that Iowa DOT staff just completed. The 2040 forecasts shown represent a no-build condition on the current network. Over the next couple of days, we intend to add some 2040 ADT forecasts and 2011 ADT counts to the map for reference.Thanks for your help and review. We are looking forward to working with the group at next week's meeting.		Charlie Kuester City of Ames Tracy Warner City of Ames Damion Pregitzer City of Ames Damion Pregitzer Healthiest Ames Kelly Diekmann City of Ames Sheri Kyras CyRide Tracy Troutner Federal Highway Administration Mark Bechtel Federal Transit Administration Cathy Brown Iowa State University Darren Moon Story County Tony Filippini Ames Area Metropolitan Planning Organization Jason Carbee	ckuester@city.ames.ia.us twarner@city.ames.ia.us dpregitzer@city.ames.ia.us dpregitzer@city.ames.ia.us kdiekmann@city.ames.ia.us skyras@cyride.com tracy.troutner@dot.gov CSBROWN@iastate.edu engineer@storycounty.com tfilippini@city.ames.ia.us jason.carbee@hdrinc.com
17327 03/09/2015 Email Open	**Ames Mobility Newsletter 2015 Q1 Email** An email was sent to 175 recipients containing the contents of the 2015 Quarter 1 Newsletter.			
17331 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** If a dedicated transit link was created to connect 20th St to University Village (Stotts Rd), it would be possible to re-route Route 3 (Blue) from 24th St to 20th St via Northwestern and eliminate the current detour of Route 3 (Green) from a more efficient direct path on Grand Ave. This would replace two rail crossings with one, and may speed up the trip for Route 3 (Blue). Making each route more efficient may allow for additional runs per day for same equipment/labor	Mode - Transit	Andy Bock Iowa State University	andybock@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	cost. New dedicated transit route could be one-lane (with indicator light at each end to show current use of transit-way) to reduce impact near High School Prairie Area. If two-lane, the transit way may be opened up for limited use by High School staff and students for AM Eastbound and PM Westbound traffic. This would reduce impacts on Hayes Ave and Ridgewood/Summit Aves due to Highschool traffic. --- Map Data Text Entries --- - City of Ames Transportation Right of Way			
17333 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** This would be a more extensive transit-way option that would eliminate the travel of transit bus route on residential residential streets of University Village [refer to previous comment submitted] --- Map Data Text Entries --- - City Right of Way		Andy Bock Iowa State University	andybock@gmail.com
17334 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** The CyRide Route 2 (Green) stop at this location is unsafe as there is no off-street path for pedestrians when they use this stop. In winter, if the road is slick, there is also danger when walking on the existing bike path as the bus is departing as if one slips, one could slip under the bus wheels. As someone who frequently disembarks from (Westbound) bus at this stop, I have at times asked driver to wait while I walk in front of bus, which delays route from continuing to next stop. This stop services several apartment buildings, and also riders with final destinations on Oakland St. As this is University owned property, it may require installation by ISU. --- Map Data Text Entries --- - Proposed new pedestrian walkway - Bus stop pad	Mode - Transit	Andy Bock Iowa State University	andybock@gmail.com
17335 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** Currently CyRide Circulator Route 23 (Cardinal) does a loop around Frederiksen Court. An extension to the existing surface parking lot on north side of 13th St and eventually via transit-way over Squaw Creek could provide additional remote parking option to areas north of ISU Campus. The circulator route could also provide more frequent service to University Village, and may eliminate need for additional buses on current Route 3 (Blue). A bus-initiated light might be used to cross 13th St. The cost of this option may be similar to those for on-campus parking ramp. This option would reduce traffic on central campus, and address current capacity issues for CyRide Route 23 (Orange) to Iowa State Center Lots. --- Map Data Text Entries --- - Existing surface parking lot - Potential new commuter parking lot	Funding Mode - Transit Parking	Andy Bock Iowa State University	andybock@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	- Proposed Transitway for extension of CyRide Route 23 (Cardinal)			
17336 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** CyRide Circulator Route 21 (Cardinal) could be extended to service commuter parking at new ISU Lot off of Habor Rd, and the existing (and expanded?) lot for City of Ames Aquatic Center. The Aquatic Center lots are used in Summer, but not used during academic school year. (There is some overlap in late August). CyRide already has facilities for a turn-around, and a stop light is installed for easy access to/from 13th St. To make this more functional, a new stoplight may need to be installed at Haber Rd and 13th St. Expansion of commuter lots to north of ISU Campus would reduce current traffic to current Iowa State Center parking lots and heavy use of CyRide Circulator Route 23 (Orange). This would also reduce North/South traffic on city streets, and additional pressure for expansion of expensive central-campus parking. --- Map Data Text Entries --- - Existing Aquatic Center Surface Parking Lot - Existing University Parking Lot	Facilities/infrastructure Parking	Andy Bock Iowa State University	andybock@gmail.com
17337 03/09/2015 Website Map Comment Open	**Web Comment from AndyBock@gmail.com 3/9/2015** Expand Bicycle/Trail network by connecting south edge of ISU Campus with R38 Bike Route to Slater via US30 Underpass and former FDDM&S railroad grade. Current Worle Creek culvert may be used or expanded for underpass. Path along Worle Creek to connect to Beech Ave would also expand linked network.		Andy Bock Iowa State University	andybock@gmail.com
17359 03/11/2015 Website Comment Open	**Web Comment from isujean@gmail.com 3/11/2015** No comment given, added to mailing list only		Jean Goodwin	isujean@gmail.com
17367 03/11/2015 Website Map Comment Open	**Web Comment from cramer515@gmail.com 3/11/2015** The pedestrian crossing at Gateway Hills Park Dr. is quite busy and not well lit. The two westbound lanes reduce to one lane, so drivers are distracted by their need to merge together, or pass the left turning traffic waiting to turn onto Gateway Hills Park Dr. The distractions create an additional risk factor to pedestrians. --- Map Data Text Entries --- - Speed Table	Issues of concern Mode - Pedestrian	John Cramer	cramer515@gmail.com
17503 03/11/2015 Meeting Open	**Focus Group Workshop 2** Workshop held with stakeholders on March 11, 2015 for the second round of public meetings for the AAMPO Long Range Transportation Plan.		Damion Pregitzer City of Ames	dpregitzer@city.ames.ia.us
			Damion Pregitzer Healthiest Ames	dpregitzer@city.ames.ia.us
			Shari Atwood CyRide	satwood@cyride.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			Angie Solberg Iowa State University	asolberg@iastate.edu
			Hillary Kletscher Iowa State University	hillklet@iastate.edu
			Susan DeBlieck Healthiest Ames	deblieck@iastate.edu
			Mark Miller Iowa State University	memiller@iastate.edu
			Sarah Constable HIRTA Public Transit	mobility@ridehirta.com
			Sonia Arellano Dodd City of Gilbert	sonia@cityofgilbertiowa.org
			Dave Elsenbast Renewable Energy Group	dave.elsenbast@regi.com
			Daniel Breitbarth Iowa State University	dpb@iastate.edu
17504 03/11/2015 Meeting Open	**Public Alternatives Workshop** AAMPO Long Range Transportation PlanPublic Alternatives WorkshopMarch 11, 201529 attendees		Shari Atwood CyRide	satwood@cyride.com
			Trevin Ward	tedger@gmail.com
			Carol Williams	carolbwilliams@gmail.com
			Kristen Greteman	kristengreteman@gmail.com
			Jennifer Garst	jgarst@alumni.brown.edu
			Caleb Keller Working Knowledge, Inc.	keller.caleb@gmail.com
			Steve Libbey	slibbey@netins.net

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			Friends of Central Iowa Biking	
			Bob Bourne	bob@bournetransit.com
			Jim Wilcox Iowa State University	jwsknk@iastate.edu
			Jim Wilcox Friends of Central Iowa Biking	jwsknk@iastate.edu
			Andy Bock Iowa State University	andybock@gmail.com
			Karen Wilke	karendianewilke@gmail.com
			John Shierholz Healthiest Ames	jshierhoz@mediacombb.net
			Jacob Nolte	jdnolte08@gmail.com
			Erre Wilke Iowa DOT	wilke.erre@gmail.com
			Shala Harsh	sharsh@hsservicesia.com
			Jared Morford Ames Bicycle Coalition	jared@iastate.edu
			John Shierholz	jshierholz@mediacombb.net
			Trevin Ward	trevin.ward@gmail.com
			John Perry	ab9streetcar@gmail.com
			Chad Hunter Iowa State University	cahunter@iastate.edu
			Devon Gottschalk Iowa State University	devong@iastate.edu
			Mike Kargol Iowa State University	mkargol@iastate.edu
			Craig Corson Friends of Central	corsondc@midiowa.net

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
			Iowa Biking	
			Clark Colby Iowa State University	cacolb43@gmail.com
			Cheryl Langston Healthiest Ames	clangston@mchsi.com
			John Shriver	
			Lewis Rosser	
			Dora Pollak Iowa State University	
			Colleen Walsh	walsh.colleen35@gmail.com
			LeAnn Hoilier	
17506 03/12/2015 Meeting Open	**Project Management Team Meeting**		Charlie Kuester City of Ames	ckuester@city.ames.ia.us
			Tracy Warner City of Ames	twarner@city.ames.ia.us
			Damion Pregitzer City of Ames	dpregitzer@city.ames.ia.us
			Damion Pregitzer Healthiest Ames	dpregitzer@city.ames.ia.us
			Shari Atwood CyRide	satwood@cyride.com
			Cathy Brown Iowa State University	CSBROWN@iastate.edu
			Darren Moon Story County	engineer@storycounty.com
			Tony Filippini Ames Area Metropolitan Planning Organization	tfilippini@city.ames.ia.us
			Jason Carbee	jason.carbee@hdrinc.com
			Erre Wilke Iowa DOT	wilke.erre@gmail.com
17396 03/12/2015	**Web Comment from ewentzel@gmail.com 3/12/2015**	Mode - Bicycle/biking	Elizabeth Wentzel ABC	ewentzel@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
Website Map Comment Open				
17397 03/12/2015 Website Map Comment Open	**Web Comment from ewentzel@gmail.com 3/12/2015**	Mode - Bicycle/biking	Elizabeth Wentzel ABC	ewentzel@gmail.com
17856 03/31/2015 Email Open	**Photo Treasure Hunt Emails - 3/31, 4/3, 4/16** A series of emails were sent announcing to and reminding active project participants of the Ames Mobility Photo Treasure Hunt Contest. An announcement was sent on March 31, 2015, a reminder was sent April 3, 2015. And another reminder email was sent on April 16, 2015. THere were a total of 188 recipients.---The Ames Area Metropolitan Planning Organization is hosting a community-wide Photo Treasure Hunt!As part of the Ames Mobility 2040 Long Range Transportation Planning efforts, the MPO wants the community to join the conversation about transportation planning by showing through pictures what transportation and mobility issues the plan should consider. The Hunt will take place April 6 – 24, 2015, and individuals or teams of all ages are encouraged to participate. This community event is free to anyone, and the first five individuals or teams to complete the Hunt will win a prize.To join the Hunt or learn more about Ames Mobility 2040, visit www.AmesMobility2040.com.Learn More at AmesMobility2040.comDownload the Rules & Guidelines See documents section for copies of the three emails and mailing list.			
17663 04/03/2015 Website Map Comment Open	**Web Comment from benmoser187@yahoo.com 4/3/2015** The Grand Ave and 13th St. intersection desperately needs left turn lanes. Going east or west on 13th and turning left onto Grand Ave is impossible during heavy traffic times. In the meantime left turn signals should at least be added to 13th St. (they are already on Grand Ave). --- Map Data Text Entries --- - Grand Ave and 13th St intersection		Ben Moser	benmoser187@yahoo.com
17683 04/04/2015 Website Comment Open	**Web Comment from bwilson@yss.ames.ia.us 4/4/2015** No comment given, added to mailing list only		Brian Wilson YSS	bwilson@yss.ames.ia.us

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
17737 04/06/2015 Comment Open	**Chris Nelson Email Comment to D.Pregitzer** Email from Chris Nelson, City of Ames Council Member, to Damion Pregitzer on April 6, 2015:I had some time this weekend to go through the details of the list we were given last week with the locations and have a small handful of thoughts. Not sure when this will come up at any level of detail again so if there's another time to bring up I'm fine with that. Just wanted to get my thoughts down and communicated. Things to consider: - Move the E-W corridor on the north side of town from Bloomington Rd to 190th. - Look at options for a South E-W connector road from I-35 (around 280th st/E57) - Possibility of shared-use path underpasses where appropriate to eliminate arterial street crossings at grade (the pedestrian crossing at the Aquatic Center comes to mind as an example) - 16th Street as a possible bike-friendly route since it goes most of the way across town. If you count the path behind the high school to Stange it goes all the way to River Valley Park where it connects with the Skunk River path. Glad to answer any questions. Thanks, ChrisChris Nelson Ward 4 Council Member City of Ames 515-203-2044 nelson.ames@outlook.com	Mode - Bicycle/biking Mode - Pedestrian Routes	Chris Nelson City of Ames Damion Pregitzer City of Ames Damion Pregitzer Healthiest Ames	nelson.ames@outlook.com dpregitzer@city.ames.ia.us dpregitzer@city.ames.ia.us
17736 04/08/2015 Comment Open	**Duncan Beach Email Comment** I walk with a cane. I am a PEDESTRIAN. Walk lights to cross Duff Avenue are timed on TOO SHORT AN INTERVAL to allow me to cross safely and with confidence. PLEASE ADDRESS.Also, cars frequently DO NOT STOP PROPERLY AT STOPLIGHTS when the walk light is on. I attribute this to a general lack of police patrol cars on the South end of Duff Avenue. PLEASE ADDRESS.I would send you photos of me almost getting hit by cars, but my cell-phone does not have photo capabilities.Thank you very muchDuncan Beach Internal follow up to Duncan's comment can be found in the documents section.	Mode - Pedestrian	Duncan Beach	info@mobility2040.com
17742 04/09/2015 Comment Open	**Cindy Hildebrand Email Comments** Cindy Hildebrand emailed info@mobility2040.com on April 8th with the following comment: What does the boundary map mean? Does it mean that the plan won't have anything to do with or discuss the land outside the boundary? Thanks very much. Cindy Hildebrandgrantridge@aol.com57439 250th St.Ames, IA 50010Jason Carbee responded to Cindy on April 9th with this response:Ms. Hildebrand:Thank you for your question and interest in the Ames Mobility 2040 plan.The boundary shown on our study maps (including here: http://www.cityofames.org/modules/showdocument.aspx?documentid=1919) represents the Ames Area Metropolitan Planning Organization's jurisdiction, and the Transportation Plan's study area. While the plan might consider how to connect the study area to regional trail, transit and roadway facilities that lie beyond this boundary, the Transportation Plan will only identify and prioritize transportation projects for within this study area boundary.The areas outside our planning boundary are planned by Central Iowa Regional Transportation Planning Alliance (CIRPTA) http://cirtpa.org/Please let us know if you have any additional questions. Jason Carbee, AICPCindy responded directly to Jason on April 9th with the following response:Thanks very much, Jason -- that's just what I wanted to know. Best wishes -- Cindy Cindy Hildebrandgrantridge@aol.com57439 250th St.Ames, IA 50010 See documents for full conversation.		Jason Carbee Cindy Hildebrand	jason.carbee@hdrinc.com grantridge@aol.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
17819 04/13/2015 Website Map Comment Open	**Web Comment from zachmo2@yahoo.com 4/13/2015** No comment given, added to mailing list only --- Map Data Text Entries --- - Begining of West portion of Ross Rd - East End - Extend the walking and biking path here. The city has right of way. Three houses are effected. No one wants the street to go through here.		Loren Zachary	zachmo2@yahoo.com

Virtual Town Hall Final Report

The Imagine Ames Virtual Town Hall hosted on MindMixer provided the Ames community a virtual forum for ongoing engagement and public involvement throughout the initial planning phases of the Ames Mobility 2040 Long Range Transportation Plan. The Virtual Town Hall opened in September 2014 and closed, May 2015. This Final Report summarizes the participation and activities of the site.

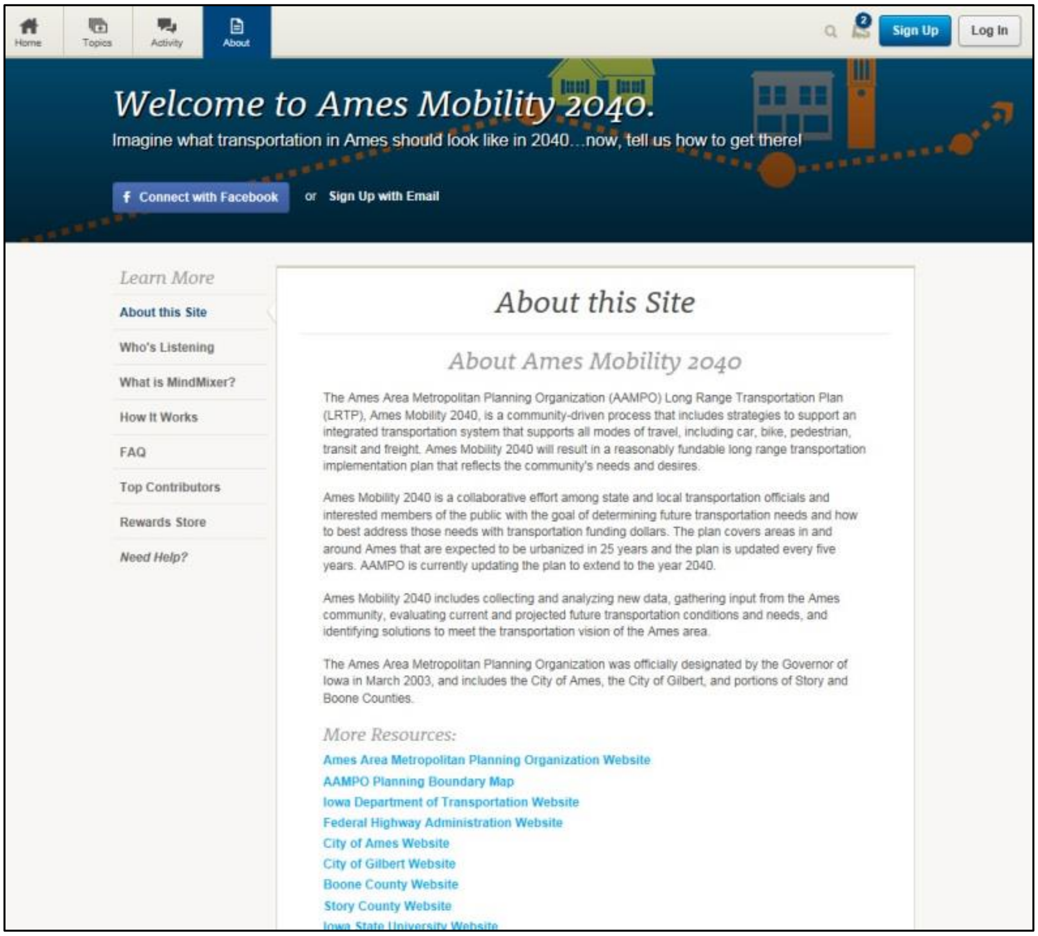


Figure 1.0 - Imagine Ames Virtual Town Hall MindMixer *About Page*

All Topic Interface	#
Topics	41
Interactions	1194
Comments Received	207
Social Media Shares	32

Figure 2.0 - Overall Engagement Statistics

Virtual Town Hall Final Report

Overall Site Traffic and Participation Statistics

Figure 3.0 - Imagine Ames Virtual Town Hall Overall Site Traffic

Virtual Town Hall Final Report

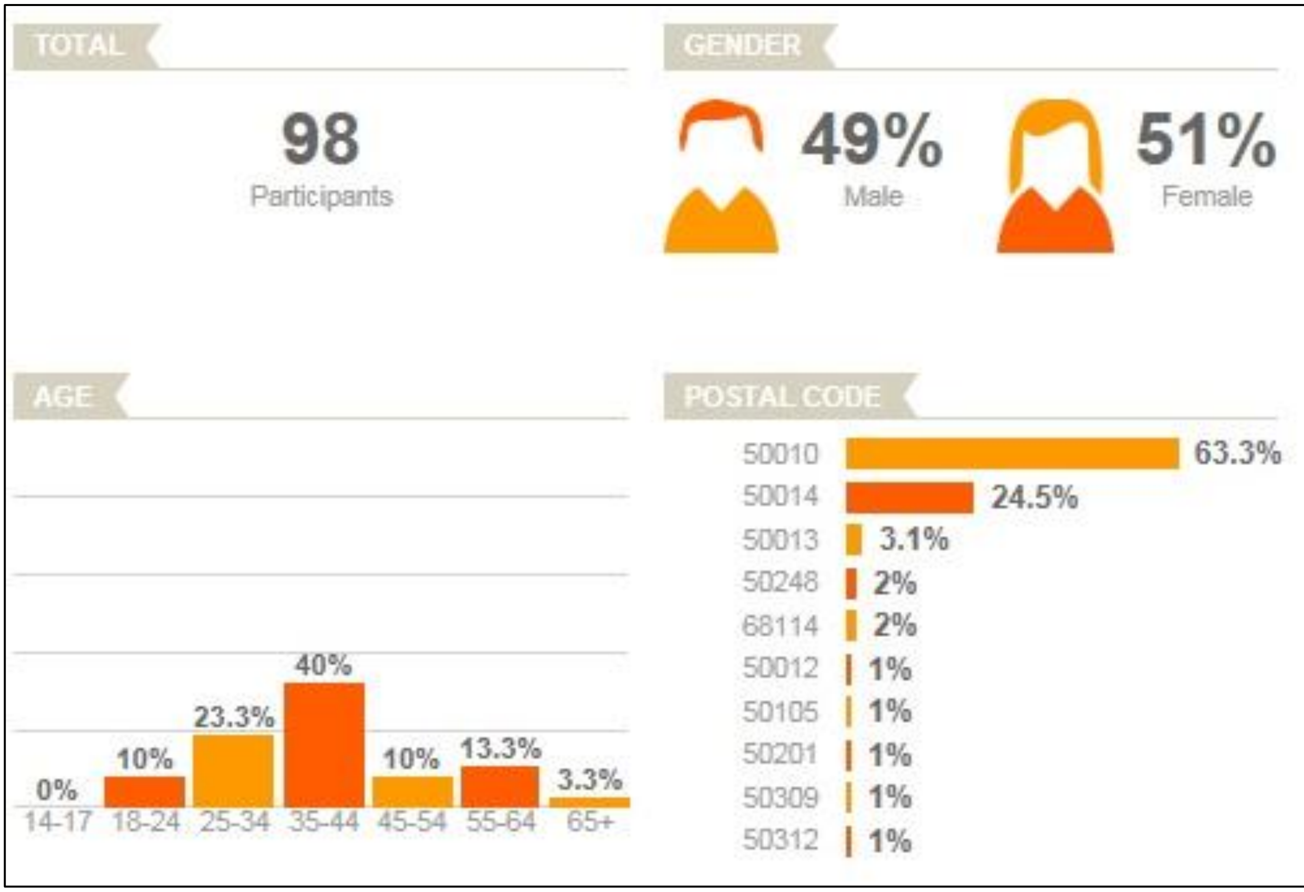


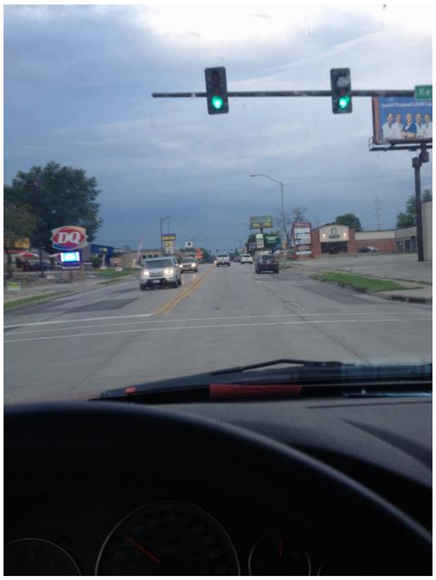
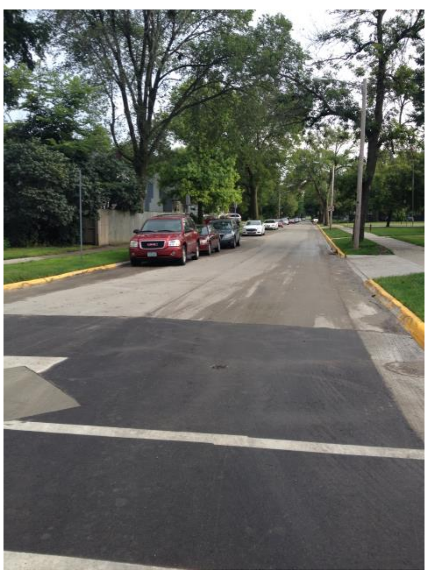
Figure 4.0 – Active Participant Details

This site had a total of 135 participants, with 98 being Active participants. See Appendix A for the full User Report. Appendix B includes all Idea posts and comments received throughout the duration of the site.

Virtual Town Hall Final Report

Photo Sharing

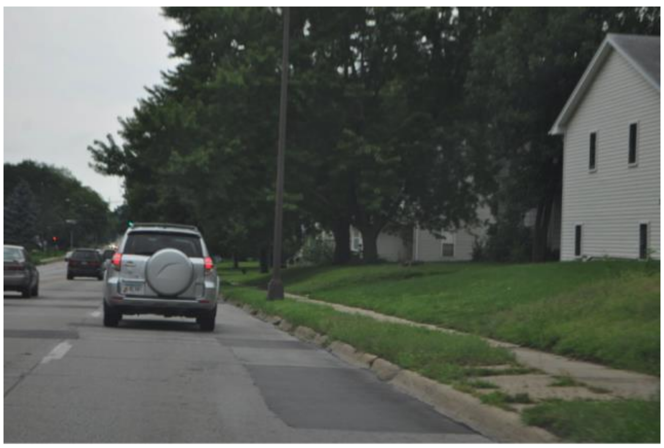
Throughout the site's duration, 24 photos were shared with the project team and participants. The following table illustrates the photos that were shared and the associated comments from each contributor.

	Cierra S2 – more left turn arrows on Lincoln Way
	Cierra S2 – More parking and less rules needed around Campus Town.

	Cierra S2 – Need a crosswalk at Stanton Avenue
	Cierra S2 – Need improvements to sidewalk on Stanton Avenue

Virtual Town Hall Final Report

	Cierra S2 – Sidewalk closed for construction near Legacy Towers
	Debby C3 – Safer pedestrian crossings
	Guan W – Apartment trash bin needs recycling

	Guan W – Cyclists sharing road with cars and pedestrians.
	Guan W – Lawn between sidewalk and road SE Lincoln
	Guan W -- Pedestrians and cars behind stopped buses

Virtual Town Hall Final Report

	Guan W -- Trail without parking spaces
	John C158 – Bike rack inside bus
	John C158 -- BRT station with canopies and benches etc.

Virtual Town Hall Final Report

	John C158 -- BRT station with level boarding platform
	Laura C55 - breaks in sidewalk on Summit Ave 2

	Laura C55 - breaks in sidewalk on Summit Ave
	Laura C55 - overgrown sidewalk on Summit Ave
	Laura C55 - sidewalk only on one side of 13th Ave

Virtual Town Hall Final Report

	Laura C55 - uneven sidewalk on Summit Ave
	Sarah C49 - On street bike parking and road diet Sioux Falls
	Sean A9 - clearly marked designated bike lanes

	Susan D44 - green paint for bike lanes
	Susan D44 - pedestrian and bike traffic circle at UC Davis
 	Susan D44 - Use bumps to separate bike lanes from traffic

Virtual Town Hall Final Report

Appendix A: User Report

Virtual Town Hall Final Report

mindmixer PROJECT REPORTS User Report 1

There are 135 Participants in this Project

User Name	Name	Date Joined	Status	Points	Zip
Jo S15	Jo S	Apr 24, 2015	Active	60	50014
Erich H1	Erich H	Apr 01, 2015	Active	50	50010
ELIZABETH W50	ELIZABETH W	Mar 12, 2015	Active	132	50010
Ashley S43	Ashley S	Mar 10, 2015	Active	50	50010
Victoria S20	Victoria S	Mar 02, 2015	Inactive	50	50014
Elizabeth G34	Elizabeth G	Feb 28, 2015	Active	60	50010
Anna V5	Anna V	Feb 28, 2015	Active	50	50010
Shannon K13	Shannon K	Feb 27, 2015	Active	161	50010
Zora Z	Zora Z	Feb 25, 2015	Inactive	50	50010-4727
Miguel R7	Miguel R	Feb 17, 2015	Inactive	50	50010
Pam M30	Pam M	Feb 17, 2015	Inactive	50	50010
Jan B25	Jan B	Feb 17, 2015	Inactive	50	50010
Suzanne H22	Suzanne H	Feb 16, 2015	Active	52	50010
Jake S20	Jake S	Feb 14, 2015	Active	100	50014
SteveandNancy A	SteveandNancy A	Feb 13, 2015	Active	50	50010
Cheryl L17	Cheryl L	Feb 13, 2015	Active	50	50010
Jon K11	Jon K	Feb 13, 2015	Active	92	50201
Amber C16	Amber C	Feb 09, 2015	Active	50	50010
Janet D13	Janet D	Jan 25, 2015	Active	56	50010
Shelby E1	Shelby E	Jan 23, 2015	Active	140	50010
Stephen R21	Stephen R	Jan 20, 2015	Active	58	50010
KW B	KW B	Jan 12, 2015	Active	152	50010
Abby H7	Abby H	Jan 07, 2015	Active	177	50010
Kelly W27	Kelly W	Jan 03, 2015	Active	134	50010
Natalie W14	Natalie W	Dec 31, 2014	Inactive	56	50248
Randal F	Randal F	Dec 30, 2014	Inactive	56	50010
Bulent T	Bulent T	Dec 30, 2014	Inactive	56	50010
Amber C13	Amber C	Dec 30, 2014	Active	142	50010
Mark K60	Mark K	Dec 18, 2014	Active	90	50010
Sally S20	Sally S	Dec 16, 2014	Active	50	T2G 0H7
Trevin W	Trevin W	Dec 16, 2014	Active	330	50010
Curtis P1	Curtis P	Dec 10, 2014	Active	50	50010
Steven C35	Steven C	Dec 08, 2014	Active	60	50010
Joel H11	Joel H	Dec 07, 2014	Active	80	50014
Tim R33	Tim R	Dec 07, 2014	Active	93	50014
Haley R5	Haley R	Dec 05, 2014	Inactive	50	50010
Travis B16	Travis B	Dec 05, 2014	Active	238	50010
why S	why S	Dec 03, 2014	Active	62	50010
Arienne M	Arienne M	Dec 03, 2014	Active	62	50014
Kurt B12	Kurt B	Dec 03, 2014	Active	50	50010
Kassaundra K	Kassaundra K	Nov 18, 2014	Active	50	50014
Xena J	Xena J	Nov 18, 2014	Active	56	50014
Joel W13	Joel W	Nov 12, 2014	Active	142	50010
Stacey R4	Stacey R	Nov 12, 2014	Inactive	50	50010
Eric A24	Eric A	Nov 12, 2014	Active	110	50010

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geneva K	geneva K	Nov 05, 2014	Active	50	50014
Megan K18	Megan K	Nov 04, 2014	Active	52	50013
laura C55	laura C	Oct 31, 2014	Active	100	50014
Pete M8	Pete M	Oct 31, 2014	Active	192	50010
Zoey M	Zoey M	Oct 30, 2014	Active	58	50312
Cierra S2	Cierra S	Oct 29, 2014	Active	100	50010
Matthew S57	Matthew S	Oct 28, 2014	Active	84	50010
Linda C60	Linda C	Oct 28, 2014	Active	96	50010
Kevin C73	Kevin C	Oct 26, 2014	Active	100	50014
Lindsay L9	Lindsay L	Oct 25, 2014	Active	106	50010
erv S	erv S	Oct 25, 2014	Active	86	50010
Scott P34	Scott P	Oct 25, 2014	Active	66	50010
Jordan H15	Jordan H	Oct 25, 2014	Inactive	50	50010
Tim K31	Tim K	Oct 23, 2014	Active	111	50013
Jim W57	Jim W	Oct 23, 2014	Active	320	50010
Susan G56	Susan G	Oct 23, 2014	Active	50	50010
brittney R1	brittney R	Oct 22, 2014	Active	56	50014
Tyler L10	Tyler L	Oct 22, 2014	Active	154	50010
Debby C3	Debby C	Oct 22, 2014	Active	448	50014
Jennifer T58	Jennifer T	Oct 18, 2014	Active	64	50010
Craig C29	Craig C	Oct 16, 2014	Active	56	50010
Ean G	Ean G	Oct 15, 2014	Inactive	50	50010
Dr N	Dr N	Oct 15, 2014	Active	70	50010
Cierra S1	Cierra S	Oct 15, 2014	Active	124	50010
Thomas K20	Thomas K	Oct 15, 2014	Active	236	50010
Guan W	Guan W	Oct 15, 2014	Active	256	50010
Justin W27	Justin W	Oct 14, 2014	Active	90	50010
Bob B63	Bob B	Oct 14, 2014	Active	382	50010
Ruthellen C	Ruthellen C	Oct 13, 2014	Active	50	50010
Tracy D11	Tracy D	Oct 13, 2014	Active	276	50010
Jess H5	Jess H	Oct 13, 2014	Active	56	50010
Elisabeth L1	Elisabeth L	Oct 13, 2014	Active	96	50010
Robert B116	Robert B	Oct 11, 2014	Inactive	50	55447
Ben M30	Ben M	Oct 09, 2014	Active	76	50010
Sarah C53	Sarah C	Oct 09, 2014	Active	50	50014
Jennifer D55	Jennifer D	Oct 08, 2014	Active	56	50010
Laura L48	Laura L	Oct 07, 2014	Active	56	50010
Steve L49	Steve L	Oct 06, 2014	Active	300	50010
Jaclyn A1	Jaclyn A	Oct 06, 2014	Active	60	50248
Kathy R28	Kathy R	Oct 06, 2014	Active	60	50105
John P103	John P	Oct 04, 2014	Active	190	50010
Pat K11	Pat K	Oct 03, 2014	Active	56	50010
Margaret E7	Margaret E	Oct 01, 2014	Active	148	50014
Evan A5	Evan A	Oct 01, 2014	Active	66	50013
Kelly B59	Kelly B	Oct 01, 2014	Active	128	50014
Beth C22	Beth C	Oct 01, 2014	Active	148	50010
Robin B18	Robin B	Oct 01, 2014	Active	360	50014
Dan D29	Dan D	Oct 01, 2014	Active	318	50014

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Nathan E4	Nathan E	Oct 01, 2014	Active	50	50010
Joe M62	Joe M	Sep 30, 2014	Active	52	50010
Sheri K3	Sheri K	Sep 30, 2014	Active	0	50014
Andrew G31	Andrew G	Sep 30, 2014	Active	314	50010
John C158	John C	Sep 29, 2014	Active	758	50014
John C157	John C	Sep 29, 2014	Active	81	50010
Sue K20	Sue K	Sep 28, 2014	Inactive	56	50010
Kate N7	Kate N	Sep 26, 2014	Active	50	85259
Daan P	Daan P	Sep 25, 2014	Active	0	55416
Stacy R12	Stacy R	Sep 25, 2014	Active	176	50010
Susan D44	Susan D	Sep 24, 2014	Active	1088	50012
Cari M2	Cari M	Sep 24, 2014	Active	186	50014
Sean A9	Sean A	Sep 23, 2014	Active	230	50014
Jessica R39	Jessica R	Sep 23, 2014	Inactive	56	50010
Tim C37	Tim C	Sep 19, 2014	Active	288	50014
Aaron V2	Aaron V	Sep 17, 2014	Inactive	56	50014
Nolan C1	Nolan C	Sep 15, 2014	Active	56	50010
Stephanie Z7	Stephanie Z	Sep 13, 2014	Active	54	50014
Mike T42	Mike T	Sep 13, 2014	Active	75	50105
Michael A51	Michael A	Sep 12, 2014	Active	80	50010
Denise L9	Denise L	Sep 11, 2014	Active	56	50014
Jamie B37	Jamie B	Sep 09, 2014	Active	176	50010
Sarah C49	Sarah C	Sep 09, 2014	Active	594	50014
Paula H15	Paula H	Sep 09, 2014	Inactive	56	50014
Carol W21	Carol W	Sep 09, 2014	Inactive	56	50010
Brian W58	Brian W	Sep 08, 2014	Active	0	28205
Damion P	Damion P	Sep 04, 2014	Active	0	50010
Courtney S22	Courtney S	Sep 03, 2014	Active	0	68114
Melissa R37	Melissa R	Sep 03, 2014	Active	0	68114
Jason C49	Jason C	Sep 03, 2014	Active	0	68114
Shari A1	Shari A	Sep 03, 2014	Active	0	50010
Tony F10	Tony F	Sep 03, 2014	Active	0	50309
Steve R41	Steve R	Jun 17, 2014	Active	0	66202
Sarah P24	Sarah P	Jan 17, 2014	Active	0	33756
Megan E8	Megan E	Nov 01, 2013	Active	0	68102
Tony F6	Tony F	Sep 27, 2013	Active	0	50309
Laura H13	Laura H	Nov 15, 2012	Active	0	68114
Katie H14	Katie H	Nov 15, 2012	Active	0	68135
Brian R4	Brian R	Sep 20, 2012	Active	0	68135
Dusty J	Dusty J	Jul 19, 2012	Active	302	50010
Theresa M1	Theresa M	May 22, 2012	Active	0	68132
Shari A	Shari A	Feb 01, 2012	Active	0	50009

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Appendix B: Idea Report

Topic Name: Two Wheels, From Here To There!

Idea Title: Bike Boulevards

Idea Detail: The protected boulevard is one of the best and newest trends in urban cycling. The one on Ash is great for the few hundred feet it runs. The entry and exit to it are horrible and it doesn't connect to any other routes. Fix this and add more!

http://www.latimes.com/local/politics/la-me-pol-brown-bills-20140921-story.html

Idea Author: Dan D

Number of Stars 24

Number of Comments 3

Comment 1: Correction "North side of Ontario from North Dakota to Hyland" | By Dan D

Comment 2: They work really well on roads with minimal cuts. A few come to mind. South 5th as shown in the image above and connecting to the path on the old rail line (which should be paved all the way to the Research Park).

Hayward Ave from Mortensen to the Intermodal.

Ontario from South Dakota to Hyland

South Dakota on the East side from Lincolnway to Mortensen.

Mortensen from South Dakota all the way to University (which would connect it to Ash). Mortensen could also be widened to have protected one way lanes on both sides. Narrow the median a bit if necessary, plenty of room on the South Bound side. Narrow the existing shared trail on the North side to a ped only width and add on street lane.

Complete the Ash one all the way to Storm.

The main idea is to start laying them out with the eventual goal of them connecting and/or connecting nicely to other existing shared trails or on street.

I've also share a cycle track path idea that avoids roads going from the Intermodal to South Dakota with Damion. https://dl.dropboxusercontent.com/u/1579158/biketrail-dakota-to-campustown.pdf | By Dan D

Comment 3: These are examples of what many refer to as cycle tracks. I've seen them in Austin, TX as well. Which roadways around town do you think are good candidates for cycle tracks? | By Tony F

Idea Title: Road Diets, On-Road Bike Lanes, and Quiet Streets

Idea Detail: Tonight at the workshop, we discussed a variety of options for improving cycling safety, accessibility and connectivity in Ames. We identified North/South Dakota, Ontario, Northwestern, Mortensen and Stange (north of 24th street) as potential candidates for these projects. Some of these (Northwestern) are already "Bike-Friendly Streets," but I believe that idea could be expanded to include some more cycling infrastructure in addition to signage. We also discussed quiet streets which are now being implemented in Des Moines. Specifically, Tripp-Lettie-Arbor in West Ames as an alternative east-west passage for cyclists to get them off Lincoln Way. This would be similar to the 4th street shared use path, which experiences much less turning traffic than Lincoln Way.

Idea Author: Sarah C

Number of Stars 20

Number of Comments 3

Comment 1: It's a great idea, just unfortunate that most of those places on the list are on the edges of town. The biggest problem with commuter biking here is that the center of town is very hard to ride in. | By Shelby E

Comment 2: road diet, University from Lincolnway to the Armory. | By Jim W

Comment 3: Des Moines has information available on their implementation of a quiet street on SW 14th St. Here is the URL to their website for the project: https://www.dmgov.org/Departments/Parks/Pages/Trails.aspx?Tab=Quiet+Street | By Tony F

Idea Title: Bike lanes.

Idea Detail: Bike Lanes should be included in all street improvement projects.

Idea Author: John C

Number of Stars 20

Number of Comments 0

Idea Title: More consistent bike lanes

Idea Detail: The problem I have with biking in Ames is that there are too many varieties of bike lanes...shared with pedestrians (glorified sidewalks) along roads, bike paths through parks, "bike friendly" roads, painted lanes on the roads, divided lanes on the road, etc. Almost none of these connect together, so it creates a situation where I am not sure what exactly I am supposed to do. Drivers are also not sure where the bikes are supposed to be. I've been yelled at to get on the sidewalk and yelled at to get off the sidewalk. Biking on the sidewalk is the most unsafe place to bike (high rate of accidents when cars are turning and bikes are crossing side roads), so I only do so in extreme situations. I'd like to see bike lanes either painted on the streets, or actually divided (depending on the street...Lincoln Way might warrant a divided bike lane (or parallel road for bikers), but 6th Ave is lovely with just the paint on the road. And I'd like to see the bike paths connect to each other.

Idea Author: Beth C

Number of Stars 20

Number of Comments 0

Idea Title: bike lanes with dividers

Idea Detail: bike lanes with dividers like the one on Ash ave. would make bikers feel more safe and they wouldn't have to worry about being rushed by traffic. Putting planters in these dividers would also give a sense of separation between bikers and traffic.

Idea Author: Guan W

Number of Stars 20

Number of Comments 0

Idea Title: Buffered bike lanes

Idea Detail: As on Ash near Mortensen, have a buffer between bike lanes and traffic lanes.

Idea Author: Tracy D

Number of Stars 18

Number of Comments 1

Comment 1: Please give serious consideration to adopting 10 foot lane widths to allow for buffered bike lanes on key routes across town.

http://nacto.org/usdg/lane-width
http://www.citylab.com/design/2014/10/why-12-foot-traffic-lanes-are-disastrous-for-safety-and-must-be-replaced-now/381117/

This would open up many potential routes with buffered on street bike lanes. Stange, University, 13th/Ontario, Dakota, Airport Rd, and more.

Consider retrofitting 10 foot lanes on Hyland and buffering the existing bike lanes. | By Dan D

Idea Title: Installation of Radar Bike Sensors at More Traffic Lights

Idea Detail: The installation of radar bicycle/motorcycle sensors has begun at a few intersections in Ames. This needs to be expanded, particularly within the context of making sure streets with a focus on bicycle infrastructure have the radar detection. As we start to have more on-street bike lanes, we need to make sure the radar detection is "looking" at the bike lane to see when to change the light. Or make an auxiliary walk button that a cyclist can press from the road. Or some other mechanism to change the lights for cyclists in the bike lane. This is a problem that I regularly encounter on Hyland and Lincoln Way, because there is no radar detection here and the bike lane is off to the side.

Idea Author: Sarah C

Number of Stars 17

Number of Comments 2

Comment 1: the old loops in the road at 9th and Grand haven't worked for a long time. that intersection needs the radar based system. | By Jim W

Comment 2: I've found the addition of radar bike sensors confusing in some places, such as on Sixth Street between Brookside and Grand where there are also bike lanes AND bike paths AND signs to merge bikes into traffic. I want to ride my bike on the safest path, and traffic lanes seem the least safe. | By Debby C

Idea Title: I wish streets had more bike lanes

Idea Detail: I feel uncomfortable using bike transportation in Ames. Its not easy to navigate or bike friendly. I feel very unsafe on major roads or when crossing them. For example, I like to ride my bike from North Ames to downtown. I can take quiet roads for most of the way but when I need to cross grand and 13th street it gets very tricky to find a good spot. The crossing at 20th and Grand Ave is okay but the light changes so quickly that its difficult to get across in time. Also, it would be nice if Northwestern had a bike lane. Its more than wide enough. I would ride my bike more if there were clear areas which had been made safe for using the bike for transportation. The bike paths are great for recreational use but not practical for getting to a business or downtown area.

Idea Author: Stacy R

Number of Stars 17

Number of Comments 2

Comment 1: I've been keen to discover the background on that 'NO BIKES' ordinance, also. It could have been my riding Grand from 76-78 on my bicycle. Even though I kept up with traffic, the hate flowed.

An Attorney General's opinion has revealed the ordinance to be without force or effect because its in contradiction with the State Constitution. | By Andrew G

Comment 2: Why does Grand Ave have signs with a "NO Bikes" icon? | By John C

Idea Title: Safer on-street travel

Idea Detail: On-street bike lanes need to be more safe.

Idea Author: Thomas K

Number of Stars 17

Number of Comments 2

Comment 1: I don't ride in the bike lanes because they are full of debris. There are only two tracks in each lane that are swept reasonably clear by motor vehicle tires.

I do use the bicycle lanes on the 6th st. railroad overpass, but only on the uphill because I'm going slow enough to monitor for debris.

BTW, why on Earth is the speed limit 30 MPH coming over that crest on 6th? There are driveways on the East and a street on the West. 25 MPH seems more appropriate for that entire stretch. | By Andrew G

Comment 2: This includes better signage (so that people driving cars know the cyclists should be there) and clear indication to cyclists where they should ride. | By Jennifer T

Idea Title: Establish network of user-based routes

Idea Detail: Ames' approach to bicycle infrastructure is like an under-baked loaf of bread - incomplete and unappealing. Rather than trying to figure out what type of jam to put on the somewhat edible parts, lets back up and establish the fundamentals needed for a high quality whole loaf.

First, not all users are the same.
There are three main types of bikers: commuters, recreational, and basic or errand-running. No one is always just one type, but the needs differ. By example, the basic rider is usu. not going very far and is stopping often - served with bike boulevards or shared-use paths. Design with user needs in mind and the results will be better for all.

Second, complete network of routes.
A primary network of well-defined, well-marked and complete routes would not be difficult to achieve and would clarify for all travelers what is going on in those spaces. Much of this could be achieved with paint and intersectn imprvmt.

That would vastly improve transportation for all users.

Idea Author: Steve L

Number of Stars 15

Number of Comments 0

Idea Title: More protected bike lanes and connected bike lanes

Idea Detail: Bike paths that border major arterial roads such as Lincoln Way or Duff Ave are simply unsafe for cyclists. This is because a high number of bike-car accidents involve turning traffic not seeing or being aware of the speed of cyclists on these paths. There are a lot of good cycling areas in Ames (Ada Hayden, Brookside), but there are no good ways to get between these areas on a protected path. Ames needs to push for a continuous path along the Skunk/Squaw that avoids vehicle traffic interferences for recreational cyclists, and focus on cycle-ways, protected bike lanes, sharrows and painted bike lanes within neighborhoods where utility cycling is more common. Right now, I live just off of S. Hyland, but the stretch of Hyland south of L. Way is very, very dangerous because the bike lane ends and cars are always trying to pass me. However, it is a main road to get to the Intermodal and sees heavy cycling use. There are many similar problem areas that need study and intervention in Ames.

Idea Author: Sarah C

Number of Stars 13

Number of Comments 4

Comment 1: "…cars are always trying to pass me."

This is the biggest problem for bicyclists in Ames. I'm probably the one that caused the 'no bicycles' ordinance on Grand Ave. back in 1978. It wasn't because I was going slower than traffic, but instead just because I was there. There is a deep-seated irrational prejudice against bicyclists, and there is much to be gained from educating the public to act civilly towards the presence of bicyclists.

1. Ames is not a racetrack, everybody is trying to commute to a destination, bicyclists included.
2. Passing is only legal and wise when another lane is used, or if the lane is unusually wide.
3. Bicycles should be allowed the full lane because they alternate between the two tire tracks.
4. Bicyclists subsidize every mile driven by motor vehicles, not the reverse.
5. Patience is a virtue.
6. Ames is not a racetrack where you get points for position. Be prepared to Slow Down!
| By Andrew G

Comment 2: We need bicycle lanes on well-used bike corridors and improvements to major interactions to make them easier to cross. For example, the intersection of Ontario St. and Hyland Avenue has limited visibility for pedestrians, though it is a popular intersection for bikes. | By Susan D

Comment 3: Gaps in the bicycle system could be solved with bike lanes on smaller streets that bikes are using (for example, West Street). Also, a wide arterial like Onatario Street would be a great place for bike lanes - there are few driveways on the north side and the road is wide enough to accommodate bikes (if parking is limited to south side of the road). | By Susan D

Comment 4: Sarah, thanks for contributing this great information to the conversation. Are there other locations around Ames that you or others can help us identify as gaps in the bicycle system? Other solutions you think might work for these issue areas? We also encourage you to come to our public meeting Tuesday, Sept. 30, from 5:30 to 7 p.m. at the

Scheman Building, Room 220, at the Iowa State Center to discuss this and other ideas with us. Thanks again. | By Jason C

Idea Title: Bike Racks

Idea Detail: A minimum of two bike racks in every block on each side of the street downtown and campustown; encourage businesses on S. Duff to install bike racks near the entrance to the stores

Idea Author: Bob B

Number of Stars 11

Number of Comments 2

Comment 1: When I was a city planner in California, we had a requirement that all commercial/office uses include bike racks at a ratio of 1 bike parking spot for every 10 vehicle stalls (with a maximum of 10 bike rack spots). I would love to see a requirement like that here in Ames. Bike racks can be hard to find. | By Shelby E

Comment 2: Great idea, Bob. I would just add that they be decent racks, not the typical wheel benders. | By Steve L

Idea Title: Clear snow and ice better on roads and bike paths

Idea Detail: I am often reluctant to commute by bike in the winter, not because of the cold, but because it does not feel safe biking on poorly cleared roads and paths.

Idea Author: Sean A

Number of Stars 9

Number of Comments 4

Comment 1: We had quite a snow event on Jan. 5th. How did it go? Were there locations that we well cleared or were completely impassible due to large snow piles? What issues did you see after the snow fall? | By Tony F

Comment 2: often along both 6th and university the path is plowed. Then they replow the street and it becomes like trying to navigate through a field of boulders. Either need to make it on street lanes or leave 3 feet between the curb and path. For both snow and traffic signs which totally blocked the path for awhile this fall. a 4 foot wide sign centered on a 6 foot wide path. | By Jim W

Comment 3: Unfortunately snow plows usually push snow into the bicycle lanes, leaving them impassable.

The path on University Avenue has been cleared well over the past year based on pedestrian feedback. | By Susan D

Comment 4: Sean - thanks for contributing to this topic (and others). Do you or anyone else see other barriers to year round bicycling in Ames?

Also, I'd like to encourage you and others to come to our public meeting Tuesday, Sept. 30, from 5:30 to 7 p.m. at the Scheman Building, Room 220, at the Iowa State Center. We'll be talking about community members' ideas about issues and opportunities for transit, bicycling, walking and driving around the Ames area. | By Jason C

Idea Title: Secure Parking

Idea Detail: Secure parking will encourage investment in bicycles as transportation. Secure parking is a very different thing for bicycles compared to motor vehicles.

Electric bicycles generally cost more than non-electric, and make the secure parking issue even more essential. Electric bicycles are the future of urban transportation.

Idea Author: Andrew G

Number of Stars 9

Number of Comments 1

Comment 1: Would like to see if a roof could be put over large rack locations on campus, like at the Hub, Design, Kildee or by Gilman. something to keep rain and snow off. | By Jim W

Idea Title: I choose to commute by bicycle, though it is not safe

Idea Detail: As bicyclists, we piece together a network of paths, road shoulders, bike lanes, and sidewalks to get across town. To be safe, I wear a helmet and bright clothing. However I do not feel safe at most intersections (i.e. S 16th and University, Haber Rd and 13th Street). Crosswalks need to be well marked.
Also, bike trails in town need names. The rails to trail north/south connection is great. But if we

had a sign and a name we can communicate better about it.

Idea Author: Susan D

Number of Stars 8

Number of Comments 3

Comment 1: Additionally, along primary bike commuter routes esp., bikes (and peds) should be released before cars so they are more visible. | By Steve L

Comment 2: Intersections that work well:
- most four way stops with signs (everyone is slowing down)
- traffic light intersections where the cars are stopping ten feet from the crosswalk (pedestrians can tell that the cars will stop for them to cross)
- narrow intersections where the distance to cross is minimal

What makes a difference in feeling safe as a cyclist at an intersection:
- advanced stop lines
- bold crosswalks
- slowly approaching cars
- stop and yield signals | By Susan D

Comment 3: Those are great comments on cycling in Ames. What intersections work well and feel safe when cycling through? What is it do you think makes a difference when it comes to feeling safe as a cyclist? This is a great place to share those ideas! | By Tony F

Idea Title: Cross Walks, Trails connecting

Idea Detail: trails that connect to less congested roads
cross walks at every street that leads to campus across Lincoln way. (i.e Stanton Ave to Campus).
Bigger median at middle of crossing section.

Idea Author: Cierra S

Number of Stars 7

Number of Comments 0

Idea Title: More time and effort should go into improving connections

Idea Detail: I commented above about this, and feel that this would be my highest priority for improving transportation in Ames. Better, safer bike connections on bike/ped trails that don't cross too many streets/parking lots.

Idea Author: Pete M

Number of Stars 7

Number of Comments 0

Idea Title: Zumwalt Station & Oakwood Road

Idea Detail: Pave Zumwalt Station Road and add bike lanes along it and Oakwood to University. Maybe pave that section of Zumwalt Trail, would be nice if that trail could go under 30 and come out east of the ice rink. Pave University south to 280th and add bike lanes. Pave the trail past the Vet School to DOT

Idea Author: Jim W

Number of Stars 6

Number of Comments 1

Comment 1: Those route connections make a lot of sense. Is there a broader connection being made paving University to 280th? I'm not as familiar with 280th St. Thanks Jim for submitting these locations. | By Tony F

Idea Title: Safe Practices

Idea Detail: I feel safest when I stop at stop signs and stay on sidewalks and paths, not shared pavement with cars. I am also safest when I watch for other bikes, pedestrians, and motor vehicles. Safety is my responsibility. But, signs that tell me I cannot be on a sidewalk and must be in traffic do not help. Remove those.

Idea Author: Justin W

Number of Stars 3

Number of Comments 1

Comment 1: Adults should not ride a bike on the sidewalk. Leave sidewalks for pedestrians. | By John C

Idea Title: Stripe the bike paths around Brookside.

Idea Detail: Love the bike paths around town! Lately the bike traffic around Brookside has started going every which way--bikes on either side of the road on paths, bikes in the road, bikes crossing the road to get on the path, etc. I long for the days when the path had a center line indicating 2-way travel. (Now that we have a skate park and paint in the driving lanes to indicate where bikes should stop to trip traffic signals, bicyclists aren't clear about where to ride.)

Idea Author: Debby C

Number of Stars 3

Number of Comments 0

Idea Title: The Ring of Ames

Idea Detail: I already wrote about the need for walking/bike trails on Oakwood Road. In addition, we take bike rides in a circle of Ames, I call it the Ring of Ames (we have biked the Ring of Kerry in Ireland). Unfortunately there are several places where the ring is not complete. One is north of Carr Pool, and another is Oakwood Road.

Idea Author: Margaret E

Number of Comments 0

Topic Name: Imagine the Possibilities!

Idea Title: To promote health by making walking and bicycling easier.

Idea Detail: We choose to drive, bus, walk or bicycle based on how easy it is to get around town. The transportation plan can support this by making it easier to make healthy choices. It can support walking by connecting sidewalks to interesting places and amenities. We need more bicycle lanes and cross walks to make getting around Ames safe for pedestrians and drivers.

Idea Author: Susan D

Number of Stars 22

Number of Comments 1

Comment 1: As someone who often walks three miles each way to and from work in downtown Ames, I have long thought the same thing. Why don't more people walk or bike to work? Because it's not safe or convenient enough. | By Debby C

Idea Title: East/West and North/South dedicated bike route

Idea Detail: Cycling anywhere in Ames currently involves combining roads, share use trails, sidewalks, and sometimes grass or off road. The hodge podge nature is confusing for everyone and creates dangerous and frustrating conditions. It creates animosity amongst the various types of users and perpetuates the car vs bike petty arguments. Ames needs a connected and dedicated route across the city in both the E/W and N/S directions that get's cyclist away from these car interaction problems and gets them close to major destinations. It should reduce the amount of street, sidewalk, and other infill in the routes. It could/should be dedicated bike not shared use, designed for year round use. Concrete, stop putting in asphalt that is ruined in one year.

Idea Author: Dan D

Number of Stars 22

Number of Comments 2

Comment 1: Research park only going to get bigger and busier but could be extremely convenient by bike with this improvement and also paving the trail behind the vet school. http://amestrib.com/news/isu-research-park-breaks-ground-new-facility | By Dan D

Comment 2: I've submitted an idea for a bike route from the intermodal going west to South Dakota to Damion. Just one possible idea for that segment. University/Stange have plenty for room for protected bike lanes in both directions adjacent to car lanes. With the huge growth in the research park and university these are even more important. University could be a show case boulevard for all modes and with landscaping, etc. a real showcase for people entering Ames from out of town to get to ISU, Hilton, and points beyond. | By Dan D

Idea Title: Provide better transit service to Millenials

Idea Detail: Millenials will use transit, bicycle, walk when adequate service levels are provided. CyRide service is very good in many parts of Ames, but connections outside of Ames are woefully inadequate. Research link (shown below) should be duplicated in Ames by the MPO outside of this study

http://www.uspirgedfund.org/news/usp/new-report-shows-mounting-evidence-millennials%E2%80%99-shift-away-driving

Idea Author: Bob B

Number of Stars 12

Number of Comments 1

Comment 1: We definitely need better public transportation between Ames and surrounding communities. | By Debby C

Idea Title: Ames needs an interconnected complete streets program

Idea Detail: Ames Bicycle infrastructure is a patchwork of mediocre projects that frequently fail to serve the growing community of cyclists in Ames. Recreational cycling has significant infrastructure in Ames, we need better facilities for every day cyclists who commute from all areas of Ames and use bikes to travel to work, to social events, and to shop.

Idea Author: Trevin W

Number of Stars 12

Number of Comments 1

Comment 1: A simple step would be to make strong connections between existing infrastructure including cross walks. Also, simply naming the paths in Ames would increase use. For example, people do not know that a path that intersects South Dakota takes pedestrians all the way to campustown. | By Susan D

Idea Title: My idea is creating a more pedestrian friendly city.

Idea Detail: The city could use more clearly marked pedestrian walkways, especially where there is high foot traffic such as Campustown. This could be accomplished through painted crosswalks, pedestrian crossing signs, etc.

Idea Author: Thomas K

Number of Stars 11

Number of Comments 0

Idea Title: Connect Ames bikers to...

Idea Detail: need to look at safe(r) ways in and out of town to Gilbert, Slater, Cambridge, Boone, Story City and Nevada. Pave Grant to Gilbert and make it a complete street. A lot of people would feel safer on R 38 if the shoulder was another foot or two wider and if they could avoid Mortensen and S Dakota intersection. Connecting Airport Road, Oakwood and Zumwalt Station Road and making that a complete street. Paving University down to the Kelly road, E57, with bike lanes. Safer connection to E26 to Boone

Idea Author: Jim W

Number of Stars 11

Number of Comments 0

Idea Title: Create better and safer bike/ped connections to South Duff

Idea Detail: It is hair-raising to try to bike to businesses on south Duff, and to other similar commercial/retail areas like West Lincoln Way. Biking on narrow sidewalks that intersect dozens of parking-lot entrances/exits is terrible, and makes it very difficult to support South Duff businesses in any way except by car/bus. This sort of design is not conducive to healthier and safer non-motorized modes of transport.
I think Ames should use (or obtain if owned privately) floodplain easements on the left bank of Squaw Creek to create a paved or crushed-rock bike/ped trail that connects the old rail-trail south of Hy-Vee to the south Duff bridge crossing north of Red Lobster. At the very least.

Other similar bike/pedestrian connections to commercial areas would be great too. I think some parts of Ames are super bikeable, but others just aren't.

Idea Author: Pete M

Number of Stars 11

Number of Comments 1

Comment 1: at one time there was talk of extending the trail that runs from the high school through Brookside, down to S 4th on down along the creek to the rive then connect into the trail from the sports park up to Ada Hayden. | By Jim W

Idea Title: Oakwood Road is treacherous for walkers

Idea Detail: The sun shines right in driver's faces in the morning, making it impossible to see walkers/runners/bikers. Someone is going to get killed while walking/running on Oakwood Road. There is no shoulder. Oakwood Road it is a link between State Street and University, both popular walking/running/biking trails which connect. Also, north of Carr Pool the trail runs out and you walk on a sandy path. This link needs to be finished, too.

Idea Author: Margaret E

Number of Stars 7

Number of Comments 0

Idea Title: A building moratorium on S. Duff. It is way overbuilt.

Idea Detail: S. Duff is a mess because of too many stores and not enough side streets I am a CA transplant and it reminds me of the awful CA traffic. Very poor planning.
.

Idea Author: Linda C

Number of Stars 7

Number of Comments 0

Idea Title: SE Ames

Idea Detail: Take some of the pressure off of Airport Road and Duff by opening another road access to the sports park and connect it to the city with multiuse paths. Connect over to Dayton with a road over the river and open a new city park/campground (kind of a Ada Hayden south, Elwood Park?) for another option for visiting users of the sports complex and other travelers along I-35. Also make another bike/ped connection to the park off of Billy Sunday Road and for the people living in that corner of town along the river to Ken Maril Road. Have a long range plan for annexing that area between the river, I-35 and south of 30 and making it a big park/flood control area.

Idea Author: Jim W

Number of Stars 4

Number of Comments 0

Idea Title: traffic signals need to be smarter, better flow

Idea Detail: cars making right turns trip the lights stopping all cross traffic.

Idea Author: erv S

Number of Stars 4

Number of Comments 0

Idea Title: Think harder about goals & objectives

Idea Detail: LRTP states that goals offer general direction and objectives provide quantifiable steps toward them. However, the objectives in the LRTP do not meet that - of 12 only about 2.5 are quantifiable, less than 25%.
Secondly, there is nothing in the vision, goals, or objectives addressing monitoring or evaluation of changes made to the transp. system. Thus, even if there were measurables in the objectives, there is no approach to follow up on that intent or to adjust course.
Finally, if the fundamental vision of being innovative and forward-thinking is to be realized such things as non-motorized travel and/or new technology will have to somehow be given much greater weight than is likely to ever come out of the technical analyses in order to overcome the built-in prejudice for cars, trucks, and roads.

Idea Author: Steve L

Number of Stars 3

Number of Comments 4

Comment 1: Thanks, Jason. | By Steve L

Comment 2: In terms of your 3rd point, part of the vision / performance assessment is to balance the needs of the non-motorized and motorized modes. Much of the Ames community has told the LRTP team that the elements included in the plan should not be just about cars, trucks, and roads, and it won't be. As we develop a range of bicycle, pedestrian, transit and roadway alternatives to consider for inclusion in the Plan, there will be opportunities in the Spring and Summer of 2015 for you to provide your input on the alternatives being considered, and what your priorities are. Also, I understand your point about innovation and you're right, there aren't always tools and standards to "measure" how some new ideas might work. Many in the community have added innovative transportation as part of their vision, and I would anticipate that new ideas for Ames will come from this plan.

Thanks again. We hope you stay engaged in the plan and continue to let us know what you think. | By Jason C

Comment 3: In terms of your 3rd point, part of the vision / performance assessment is to balance the needs of the non-motorized and motorized modes. Much of the Ames community has told the LRTP team that the elements included in the plan should not be just about cars, trucks, and roads, and it won't be. As we develop a range of bicycle, pedestrian, transit and roadway alternatives to consider for inclusion in the Plan, there will be opportunities in the Spring and Summer of 2015 for you to provide your input on the alternatives being considered, and what your priorities are. Also, I understand your point about innovation and you're right, there aren't always tools and standards to "measure" how some new ideas might work. Many in the community have added innovative transportation as part of their vision, and I would anticipate that we will new ideas for Ames will come from this plan.

Thanks again. We hope you stay engaged in the plan and continue to let us know what you think. | By Jason C

Comment 4: Steve - thank you for the comment. I agree that not all goals and objectives are easily quantifiable in nature. When objectives are coupled with related performance measures, they do provide a means of evaluating how well a given idea or strategy helps the community meet the Ames vision. The 2040 LRTP team will be developing performance measures based on vision that comes out of the current initial phase of the Plan. We anticipate these measures will necessarily be both quantifiable and qualitative in nature. We anticipate that draft Goals and Objectives will be available in January and posted on the website. We hope you will be able to review the goals and objectives at that point.

In regards to your second point, the visioning process will establish performance measures we use for identifying transportation “issues” and for selecting the projects, programs and strategies to include in the LRTP. After the plan’s adoption, the MPO is mandated to evaluate performance annually. This is a new Federal requirement that wasn't present with the last plan.

(see next comment for more) | By Jason C

Idea Title: Overhead pedestrian/bicycle bridges.

Idea Detail: Across Lincolnway in the campus area and around Hilton. Across University Blvd to the stadium. Across Lincolnway in the downtown area to promote downtown workers' access to restaurants & stores.

Idea Author: Debby C

Number of Stars 3

Number of Comments 6

Comment 1: Done! | By Debby C

Comment 2: Done!
| By Debby C

Comment 3: Debby: Thanks for adding this comment. I just provided a similar response to Tyler when he mentioned pedestrian bridges and tunnels. It would be great if you could use our AmesMobilty2040.com "Mapping Comment Tool" to tell us your highest-priority locations for pedestrian crossings at: http://www.amesmobility2040.com/get-involved/.

Thanks again! | By Jason C

Comment 4: Debby: Thanks for adding this comment. I just provided a similar response to Tyler when he mentioned pedestrian bridges and tunnels. It would be great if you could use our AmesMobilty2040.com "Mapping Comment Tool" to tell us the highest-priority locations for pedestrian crossings at: http://www.amesmobility2040.com/get-involved/.

Thanks again! | By Jason C

Comment 5: would be easy to go under Lincolnway towards Hilton. and add Cyride bus stops there with plenty of room for them to pull out of traffic. And let cabs use it too. | By Jim W

Comment 6: This would improve safety, cause fewer red lights due to pedestrian crossings, improve traffic flow on major arterials, and promote green transportation. | By Debby C

Idea Title: multiple duff Ave improvements

Idea Detail: More progressive transportation. More walking paths and park settings on duff. Increase the ability to motor from Lincoln way to airport without traffic jams. The soccer complex needs additional outlets for vehicles.   More ways to cross train tracks.

Idea Author: Abby H

Number of Stars 2

Number of Comments 0

Idea Title: Roads aren't designed for bikes. Keep bikes on bike paths

Idea Detail: 6th Street through/near Brookside Park has been re-striped to allow for bike lanes in the roadway, despite having bike paths/sidewalks on BOTH sides of the street. Bikes and bicyclists are much smaller than a vehicle, and have very little protection in the event of a car vs. bike accident. Roads are not designed for bicycles, and it's dangerous to mix both types of traffic. The bridge on S. 4th Street was being considered for replacement, and it included automatic consideration for bike lanes in the roadway. Leave the bikes to the bike lanes/paths on the side of the road. It makes no sense to spend money building all these bike paths only to spend more money on adding bike lanes to the roadway.

Idea Author: Dusty J

Number of Comments 3

Comment 1: Streets and Road should be designed for bikes - progressive cities all over the world do it. The section of 6th Street near Brookside Park was changed to encourage bikes to leave the narrow sidewalks on each side of the bridge over Squaw Creek to pedestrians. | By John C

Comment 2: Um, roads are paid for through gasoline taxes, so unless a bicycle runs on gas, bicyclists are the ones being subsidized. (And as a driver of an electric vehicle, I don't pay either!) | By Tim C

Comment 3: Dusty, this is where education will help. Motor vehicles are potentially deadly weapons and drivers should be scared to death of discharging upon others. Physics tells us that operating a heavy motor vehicle at speeds near the limit can only be done when not sharing the road with slower conveyances, especially the vulnerable kind.

Everybody pays for the roads through taxes, and bicyclists actually subsidize every mile driven by motor vehicles. Multiple types of conveyances can share the road safely as long as we respect each other as human beings and understand that in Iowa the roads are for everybody's use and sometimes motor vehicles will need to slow down for a few moments. | By Andrew G

Topic Name: Potholes & Traffic Jams

Idea Title: Decrease the width of lanes on major streets

Idea Detail: http://www.citylab.com/design/2014/10/why-12-foot-traffic-lanes-are-disastrous-for-safety-and-must-be-replaced-now/381117/

Decreasing the width of Stange, Lincolnway, University, Grand, Duff, 24th, Carver, Bloomington, 13th/Ontario, Hyland, etc. should not appreciably affect arterial flow, yet it would more easily allow a buffer space between the cars and a proper bicycle path, and make it safer to cross all of them for pedestrians & bicycles.

Idea Author: Tracy D

Number of Stars 22

Number of Comments 2

Comment 1: Please give serious consideration to adopting 10 foot lane widths to allow for buffered bike lanes on key routes across town.

http://nacto.org/usdg/lane-width
http://www.citylab.com/design/2014/10/why-12-foot-traffic-lanes-are-disastrous-for-safety-and-must-be-replaced-now/381117/

This would open up many potential routes with buffered on street bike lanes. Stange, University, 13th/Ontario, Dakota, Airport Rd, and more.

Consider retrofitting 10 foot lanes on Hyland and buffering the existing bike lanes. | By Dan D

Comment 2: I believe this was discussed on Facebook. Here are some images that I created that really support the 10 foot lane concept.

https://dl.dropboxusercontent.com/u/1579158/stange-12-to-10.png

https://dl.dropboxusercontent.com/u/1579158/stange-to-24th.png | By Dan D

Idea Title: Make S.Duff Developers Work Together

Idea Detail: There's really too much "This is my parking lot, stay out" going on on S. Duff.

Think how much safer the area in front of Best Buy and Panchero's could be if they were required to open each others' parking lots up and route ALL traffic to the light instead of having the second entrance. The same situation pops up all up and down S. Duff. Panera, Perkins, Car-X, Taco Bell, Advance Auto Parts, O'Reilly, Pizza Hut, Buffalo Wild Wings. Create bigger, open, shared parking lots with managed traffic flow instead of requiring ever vehicle to get back out on Duff to get from store to store.

Also, a nice N/S road BEHIND the businesses on the east side of Duff could alleviate a lot of traffic congestion on Duff as well.

And ENOUGH auto parts stores on S. Duff already.

Idea Author: Travis B

Number of Stars 22

Number of Comments 1

Comment 1: Limit the driveways on Duff. | By Susan D

Idea Title: A roundabouts, bike lanes, Bus Rapid Transit.

Idea Detail: Roundabouts for both Mortensen Road and Hayward Ave and Mortensen Road and State Ave to keep traffic on Mortensen Road from becoming a bottleneck.
Bicycle commuters prefer bike lanes to shared use trails because bikes in a lane have the normal right-of-way rules at intersections that other vehicles have. Bike riders do not like having to weave around pedestrians. And bicycles in a bike lane are more predictable (flow in the same direction) for motor vehicles than when using a shared use trail.
Bus Rapid Transit from Mortensen Road and Miller Ave, to Hayward Ave ("The Towers"), to ISU Campus, to Student University Village and end at North Grand Mall. That high density corridor needs new thinking.

Idea Author: John C

Number of Stars 21

Number of Comments 2

Comment 1: Ankeny has roundabouts in residential neighborhoods which significantly slow traffic (I see this as good, BTW). With Ames' residential building boom, I would like to see this considered for adoption here. | By Debby C

Comment 2: Since the amount of traffic has increased from the Mortensen/South Dakota area with the new developments, the stop sign at Mortensen and State is becoming a significant bottleneck during rush hour. I was going to suggest it was nearing the point of needing a stop light, but I like the idea of a roundabout much better. | By Tyler L

Idea Title: Safe crosswalks

Idea Detail: There are great trails in Ames, but often crossing traffic is unsafe for adults and children. For example, at the intersection of University Boulevard and South 16th Street the intersection does not contain crosswalks. The intersection is dangerous for pedestrians. It is also a popular place, connecting Vet Med, Reiman Gardens, and Jack Trice Stadium.

Idea Author: Susan D

Number of Stars 16

Number of Comments 1

Comment 1: The new intermittent cross walk lights at Mary Greeley Hospital and in the Research Park are much more effective than the continuous flashing lights used elsewhere. Driver "tune out" the continuous flashing lights. | By John C

Idea Title: Keep traffic moving with more arterial roads

Idea Detail: Ames is growing in number of residents, number of students and number of public events that bring visitors to town, but road infrastructure hasn't kept up. More arterial roads are needed to handle North-South and East-West traffic loads.

Idea Author: Robin B

Number of Stars 16

Number of Comments 1

Comment 1: More roads leads to more traffic. Los Angeles is a prime example of this. | By Susan D

Idea Title: Remove parking on north side of Ontario St for bike lanes

Idea Detail: People rarely park on the north side of Ontario Street. There is plenty of parking on the south side, and many people park there. The road is very wide; there is enough room and demand to add east/west bicycle lanes on Ontario Street.

Idea Author: Susan D

Number of Stars 15

Number of Comments 0

Idea Title: Left turn lights at 13th and Grand`

Idea Detail: Drivers going East or West on 13th Street approaching Grand, typically get into the right hand lane to go straight or turn. This has backed traffic up as much as 2 blocks. Sometimes it has taken me 2 light cycles to get through the intersection, going straight. Can the East/West traffic lights have the same system as the North/South traffic lights afford?

Idea Author: Robin B

Number of Stars 14

Number of Comments 0

Idea Title: Better signal timing on Lincoln Way

Idea Detail: Traffic signals that were better synced would ease congestion and mitigate frustration. Both of these would save fuel and help delay the cost prohibitive construction/upgrade of roads to achieve the same effect.

Idea Author: Kelly B

Number of Stars 14

Number of Comments 0

Idea Title: Grand Extension

Idea Detail: Take it under 30 to Airport Road with bike lanes. Along S16th finish the shared use path on the north side of the road. Take it all the way to University

Idea Author: Jim W

Number of Stars 14

Number of Comments 1

Comment 1: Grand Avenue definitely needs to be extended to South 16th Street, but extending it to Airport Road would be very, very expensive and may be hard to justify with so many other projects on the table. | By John C

Idea Title: Dayton Road Bike path

Idea Detail: There is no safe place for people to ride along Dayton Road from S. 16th to Lincoln. I live on that road and I see people either riding in the heavy traffic with the many semi trucks, or along the rock shoulder. I have ridden there often and it is very soft and unstable. There is a bike path from Lincoln Way headed North and one on s. 16th from S. Dayton headed West. There needs to be something in between. There are MANY walkers and bikers through this area.

Idea Author: Jamie B

Number of Stars 13

Number of Comments 1

Comment 1: From 13th north to E29 could use bike lanes too. | By Jim W

Idea Title: "Please Alternate" sign & pavement markings

Idea Detail: About 80% of the Westbound traffic on 13th between Stange and Hyland Ave uses the left hand lane. Drivers know they must merge into the left lane to continue W on Ontario, past Hyland. This is not easily done as no safe "mergining gaps" exist between cars, (speed limit 35). This backs up traffic in the left hand lane and is an inefficient use of the 2 lanes on 13th. Drivers caught in the right-hand lane are scrambling to merge left at/after the lights. Would it help to place a "please alternate merging" sign at the intersection and maybe give drivers more time & distance on the West side of the intersection to merge? (I'm thinking pavement markings would help too.)

Idea Author: Robin B

Number of Stars 12

Number of Comments 2

Comment 1: Actually, the method of late merging or "zipper" merging is very efficient in slow moving high traffic areas. The challenge is getting people to actually do it because they see it as "rude." Here's a nice article about it with a video that illustrates the point...

http://arstechnica.com/cars/2014/07/the-beauty-of-zipper-merging-or-why-you-should-drive-ruder/

A line of ten or twenty cars in the left lane and zero in the right lane on westbound 13th street is not particularly efficient, and it also limits access to the left turn lane for traffic turning southbound onto Hyland.

I agree that additional merging room there would be beneficial on the west side of the intersection; though, the influence on parking and access to the properties there would have to be weighed. Good luck on getting people to actually use both lanes though. If you search the web for zipper merging, you'll find countless articles and videos and what not from state transportation authorities desperately trying to get people to do it. | By Tyler L

Comment 2: I've seen this and think the problem is our culture of speed and haste. The trouble-makers are hoping they can dive-in later instead of just getting in line earlier. Drivers do this crap all over Ames.

We need to create a culture of courtesy and patience culture to replace the default USA culture of speed and haste. | By Andrew G

Idea Title: 13th St. and Grand Avenue needs turning lanes.

Idea Detail: I've been stuck a number of times behind vehicles who either fail to indicate their intention to turn at this intersection, or wait to utilize their turn signal, providing me no notice or opportunity to pick another lane so as not to be stuck behind them. When traffic stacks up in the east or west-bound lanes behind vehicles waiting to turn through the intersection, it becomes impossible for traffic preparing to turn through the intersection from the opposite side to see whether there's anyone travelling straight through the intersection. I've had several close calls while preparing to travel straight through the intersection where someone has turned in front of me through the intersection, because they're unable to see oncoming traffic. I've narrowly avoided having a serious accident at this intersection. It's both a safety issue and an environmental issue as traffic sits idling behind traffic waiting to turn, only to get stuck through another cycle when the light changes.

Idea Author: Dusty J

Number of Stars 11

Number of Comments 2

Comment 1: This intersection should be high priority - the land is already available, it was included in the 2035 plan at $2.8M and had a high project ranking. | By Tim C

Comment 2: Same suggestion I made on October 1st. Glad there are others who share this same concern. | By Robin B

Idea Title: Frontage roads needed on south Duff Avenue

Idea Detail: If you're headed southbound on Duff Avenue near Best Buy, if you wish to turn into the parking lot for Pancheros, Cold Stone Creamery, Jimmy John's, etc., there's no turning lane. You if choose to turn while headed south, you're actually sitting in the turning lane for traffic headed north. The same problem exists for Wal-Mart. There's an entry point off of Duff Ave. for north-bound traffic. Southbound traffic is NOT supposed to turn and utilize this entry-point--but people use it all the time. The intersection at S. 5th St. is far better suited for traffic wishing to access Wal-Mart and/or Target. There are other businesses in this area that would similarly benefit from having a frontage road.

Idea Author: Dusty J

Number of Stars 11

Number of Comments 4

Comment 1: The section of the center turning lane near the Duff Ave entrance to Walmart should be changed to prevent illegal turning. Maybe a 50 meter (more or less) section of the turning lane could have curbs filled with soil and plants. I like Tim C.'s idea for limiting all turns on South Duff Ave to controlled intersections. | By John C

Comment 2: The worst part about this is that if the Best Buy/BAM developer simply allowed the Panhero's/Coldstone developer to open their lot up to the main entrance, all traffic could be routed through the SAFE stoplight, but I'm sure they're scared someone might park in the wrong lot for a few minutes. | By Travis B

Comment 3: A long-term solution might be to make Duff 3 lanes in each direction (wide enough for U-turns and to support more traffic), while limiting left-turns only to controlled intersections (and reducing those as well, as U-turn support would reduce the need). Such configuration is rather typical in major cities in California. | By Tim C

Comment 4: I would agree with this idea. Seems like Ames boasts record high students attendance and the ability to attract more tourists, etc... but the South Duff traffic infrastructure is not able to keep up with increasing vehicle loads. Duff needs to have frontage roads or the road needs to be widened to eliminate some of the congestion it experiences on a regular basis. | By Robin B

Idea Title: Drivers and Cyclists Need to be More Educated

Idea Detail: As a driver and as a cyclist, I think it is important to put some effort into making sure that both drivers and cyclists know the rules of the road and behave appropriately with each other. My #1 stress while cycling is drivers who insist I should not be able to take the full lane when needed (by trying to pass me on a narrow street with street parking), and my #2 stress is when I obey the law as a cyclist (stopping at a stop sign, etc.) and a cyclist will cruise past me into the intersection, disrupting the right-of-way for the driver I was waiting for. My hometown of Sioux Falls has created a cycling safety video and also partnered with their local bicycle coalition and media outlets in order to raise cycling/driving safety awareness issues among the residents.
video: https://www.youtube.com/watch?v=aZXUCSBc5t0

Idea Author: Sarah C

Number of Stars 11

Number of Comments 6

Comment 1: Andrew's comments are true. However, there is no excuse for bike riders blowing through stop signs (stress #2). I walk, bike, drive and ride CyRide in Ames at different times and I find every mode of traffic has jerks. | By John C

Comment 2: Justin W., might I suggest that your stress is self-generated? Bicyclists in Iowa aren't in traffic they ARE traffic and are just trying to get around like everyone else.

The streets are paid for by the bicyclist in property taxes. In fact, by virtue of not causing wear and tear, bicyclists subsidize every mile driven by motor vehicles.

How many stretches of 35 MPH street in Ames are without two same-direction lanes that allow passing? How many seconds does it add in those places when going 20 instead of 35 MPH?

Please relax and enjoy the less stressful 20 MPH pace in your nice comfy cage while everybody gets to their destinations, some a few seconds delayed from the potential shortest time.

| By Andrew G

Comment 3: Furthermore, there is not always a shared path/sidewalk on side streets where I often ride. These streets are narrow and often feature on-street parking (especially in Campustown). If the street is too narrow, I am allowed, as a cyclist, to take the lane until the width of the road can allow a vehicle to pass me safely. There are no shared use paths in Campustown that border major streets, and cyclists are not allowed on the sidewalk on Lincoln Way in Campustown or on the 100-200 block of Welch Ave. | By Sarah C

Comment 4: The shared bike path adjacent to the street is not always the safest spot for a cyclist if there is a lot of turning traffic. The majority of car-bike accidents are caused by turning traffic that is unaware of how fast a cyclist can travel on the adjacent path/sidewalk. | By Sarah C

Comment 5: My #1 stress as a driver is bicyclists that insist on being in traffic when they could make their lives safer and have things move faster by using the separate bicycle path. It is a hazard for traffic to bunch up behind a bicyclist doing 20 in a 35 because they refuse to move over 10 feet to the specially created and paid for path. | By Justin W

Comment 6: Amen. I drive a motorcycle as well as a bicycle and can attest that there are two narrow tracks in each lane that are swept relatively clean by motor vehicle tires. This means two-wheelers jockey back and forth between those two tracks and need the full lane to do so.

The on-pavement adjacent bicycle lanes seem to confuse drivers into thinking that bicyclists are required to be there. I had one driver violate a dozen laws as well as being plain dangerous while lecturing me about the bicycle lane I wasn't using.

On-pavement adjacent bicycle lanes are a negative feature for me as a bicyclist. Education can only help. | By Andrew G

Idea Title: Coordinated the Traffic Signals

Idea Detail: Coordinate the traffic signals so lights progress in sequence allowing clusters of vehicles to proceed through a continuous series of green lights along University, North Grand, Lincoln Way, etc. To many people are try to beat the lights via excessive speed or running red lights entirely. Coordinated the traffic signals (so that a car going the speed limit will encounter a majority of green lights) may reduce aggressive driving, reduce vehicular/pedestrian collisions, reduce fuel consumption by idling at a red lights, reduce air pollution, noise and vehicle wear and tear.

Idea Author: Kevin C

Number of Stars 10

Number of Comments 0

Idea Title: Add turn lane and change the stop light at S. 16th and Duff

Idea Detail: If anyone has to travel East or West on S. 16th during rush hour or a game day, you know how hard it is to be able to turn, either North or South, at that intersection. Plus the traffic backs up so far down the road that it causes problems getting into and out of the businesses. I tried to drop my son at work at Dublin Bay on a game day. He had to jump out in the street because the traffic from the light was backed up past the Aspen business area.

Idea Author: Jamie B

Number of Stars 9

Number of Comments 1

Comment 1: Hi, Jamie. Just a question to clarify: is your idea to add a dedicated left-turn lane for both westbound and eastbound traffic at 16th / Duff? Thank you. | By Jason C

Idea Title: Not enough North/South corridors through Ames.

Idea Detail: Too much traffic on South Duff. Need to expand So. Duff to two lanes from just before the Crystal St. Intersection up to the new ISU golf practice course just south of Ken Maril Rd. Need turning lanes for Garden Road and Ken Maril Road.

Idea Author: Lindsay L

Number of Stars 9

Number of Comments 1

Comment 1: For those who live in the Country Gables neighborhood, it's often tough to turn north onto Duff in the morning, as traffic is still flying through there at 45. | By Travis B

Idea Title: Remove or resynchronize superfluous stop lights.

Idea Detail: There seem to be too many stop lights north of Lincoln Way (along 13th, north duff, university) that change to allow one car in crossing street at the expense of stopping 30+ on arterial during heavy traffic times.

Idea Author: Tim C

Number of Stars 8

Number of Comments 1

Comment 1: Also, make traffic light at 9th Street and Grand Avenue react more quickly to pedestrians crossing the street. | By Susan D

Idea Title: Main roads are not equipped to accomodate bikers

Idea Detail: Roads such as 13th Street, Duff, Grand, an Lincoln Way have large section with neither bike lanes or bike paths. Places that do have paths are also not well maintained in the winter.

Idea Author: Sean A

Number of Stars 8

Number of Comments 1

Comment 1: Yes, there needs to be dedicated equipment and priority for clearing the paths. Before it gets compression-stuck to the pavement would be the best time. I've thought of rigging up an electric bicycle brush sweeper and doing it myself. | By Andrew G

Idea Title: Transit System

Idea Detail: I am sure this isn't the biggest problem but I work at ISU and if I drive it takes me 8 minutes to get to work. If I would take Cy-Ride it would take me 1 hour to get there. I am too lazy to do that. So, I drive to work. I would like to take Cy-Ride but the trip needs to be 1/2 hour or less. Thank you!

Idea Author: Elisabeth L

Number of Stars 8

Number of Comments 2

Comment 1: I bike to campus every day, 10-15 minutes depending on the lights. to take Cyride would need to leave at least 10 minutes earlier and would get home at least 10 minutes later.

Driving takes as long as biking and still have to walk half way across campus. | By Jim W

Comment 2: Can you add an intersection of where CyRide should provide more service to/from ISU campus. Most of CyRide's routes into ISU campus are less than 1/2 hour if not less. Therefore, more specific information as to where more direct routes are needed to/from campus would be beneficial. Perhaps there are others that need more direct service from this area of Ames as well and they can also like your idea. | By Shari A

Idea Title: Change Hunziker Fields access

Idea Detail: A great deal of the congestion on S. Duff comes from the terrible access to a high-traffic area - the soccer fields off Billie Sunday Road. Not to mention that this creates a jam directly in front of a fire station.

Create a specific exit for the soccer fields from Highway 30, or build an access road from the Dayton exit - it's an underutilized exit as is.

Idea Author: Travis B

Number of Stars 8

Number of Comments 0

Idea Title: Many traffic signals in Ames take way too long to change.

Idea Detail: We understand why we need to take turns at intersections, but it is frustrating to be waiting on foot, on bicycle or in a motor vehicle at an intersection when all of the cross traffic has already left the area.

Idea Author: John C

Number of Stars 7

Number of Comments 1

Comment 1: The wait time for a green light is especially bad at the intersection of 9th Street and Grand Avenue. | By Susan D

Idea Title: Traffic flow and yellow lights

Idea Detail: I have lived in Ames over 8 years and traffic lights seem like they are never synced. You can't go down Duff without being stopped at almost every light at times! It just seems horrible especially during high traffic times. Rush hour in the morning, lunch and Rush hour at night. Des Moines has been looking to sync traffic lights to keep traffic flowing we should follow suit if not actually be a leader in how good our traffic is. Second issues is yellow lights are TOO long and promote drivers, who are in are hurry because they get stopped at every light in town,have changed the motto of the yellow light from 'slow down it's going to turn red' to GO LIKE HELL OR I'M GONNA GET STUCK AT ANOTHER LIGHT!' Both of these items are definitely linked and if you can solve the traffic flow (i'd still reduce the yellow light time. i heard a rumor it they are supposed to be lit 1 sec for every 10mph of speed limit? Well they are well past that in most areas) you can reduce the light runners

Idea Author: Michael A

Number of Stars 6

Number of Comments 4

Comment 1: I know that some drivers speed up with yellow lights, but I agree with Tim that I can drive more efficiently when I can anticipate what the signal will do when I approach.

I was recently in Nairobi, Kenya. The traffic there was terrible and the traffic engineering was poor. There were few traffic signals, but some of the signals had timers that would show how many seconds were left for the green light. That allowed drivers to anticipate the change. They also had timers showing how much longer the red light would be on. It seemed like a good idea to me and allowed a driver to relax at a red light when there was plenty of time left on the timer. | By John C

Comment 2: Longer yellow lights are a good thing - they allow for more controlled deceleration (or coasting through if there's time), which saves energy, pollution, and money. With electric vehicles this is made obvious where a hard stop from 40 mph can cost over a mile of range; no different for gas vehicles, there's just no indicator on the dashboard to see it. | By Tim C

Comment 3: Just to clarify, as long as a vehicle 'breaks the plane' getting into the intersection on yellow and there is room to get through the intersection, its legal. | By Andrew G

Comment 4: Many traffic lights in Ames seem to be very, very slow. Still waiting long after the other traffic has left. Beach Ave north and south traffic usually waits 75 seconds for the next green signal. | By John C

Idea Title: Traffic congestion.

Idea Detail: The obvious answer is South Duff traffic and lack of enough arterials. Hopefully by

2040 these will be resolved.

Idea Author: Debby C

Number of Stars 6

Number of Comments 2

Comment 1: Larger 'combined' parking lots, fewer uncontrolled access points to and from Duff. | By Travis B

Comment 2: Need to limit the amount of driveways on south Duff to decrease congestion. | By Susan D

Idea Title: Rules of the Road

Idea Detail: Mindless behavior on the part of all users - drivers, bikers, walkers - via speeding, ignoring traffic signs and signals, careless passing, texting, etc. is increasingly common. The reasons, I suspect, range from improved vehicle tech. through a transp. system that is no longer fitted to expectations/needs to youthfulness. The upshot, however, is increasing danger to all. Moreover, and perhaps more insidious, is that it encourages a culture of disregard for others on all levels, not just transp.

Some of the suggestions already put on this topic, e.g. synchronizing lights, can help. But considerably greater focus on traffic calming, particularly on non-arterial roads, is needed. This can take many forms from bump-outs to speed platforms to greater enforcement w/ increased penalties to more thoughtfully blending land use with transp. system.

Idea Author: Steve L

Number of Stars 5

Number of Comments 1

Comment 1: ISU Police need to use electric motorcycles to patrol central campus and begin to enforce traffic laws for all users - pedestrians, skateboarders, bikes, and motor vehicles. I have never, ever seen the police stop a reckless bike rider. | By John C

Idea Title: Stop Light at Hyland and West Street

Idea Detail: Southbound traffic on Hyland frequently backs up down the hill during rush hour and times when classes start/end. The flow of single pedestrians constantly stopping traffic, and much lighter, but consistent, traffic on West Street, creates a significant and potentially dangerous bottleneck.

Idea Author: Tyler L

Number of Stars 5

Number of Comments 2

Comment 1: Given that no small amount of the problem here is the result of students ignoring the stop signs - both on foot and bike - one has to wonder whether that behavior would change if a stop light were put in.
Perhaps a throwback to human scale would be a worthy interim step by putting a patrol guard in the intersection at primary rush time(s). | By Steve L

Comment 2: Along the same lines, a well timed set of lights would hopefully help group traffic together such that backups that occur on Pammel Drive or Oakland Street due to the spacing in traffic coming down Hyland from West Street would decrease, and would hopefully make things safer for everyone.

A potential issue though, that I could see, is whether or not such a timing configuration could be implemented so that traffic doesn't back up on West Street to the next stop sign at Sheldon/Union Drive. | By Tyler L

Idea Title: More parking downtown

Idea Detail: During events there is almost never a place to park. A parking ramp would be excellent.

Idea Author: Joel W

Number of Stars 5

Number of Comments 2

Comment 1: I agree with Susan D. I have never had a problem finding a decent parking space in Ames. | By John C

Comment 2: There is plenty of free and cheap parking in downtown Ames. If you look at an aerial map, it is almost ALL parking lots. These lots are located in prime spaces and could contribute to our economy if they were businesses. If you do add a parking ramp, make sure there are businesses on the ground floor so that pedestrians feel safe walking by. | By Susan D

Idea Title: Improvements to Duff, specifically S. Duff

Idea Detail: With continued development on Duff, improvements must be made to assist in traffic flow - pedestrian and bike access should also be enhanced in the entire area.

Idea Author: Amber C

Number of Stars 5

Number of Comments 1

Comment 1: Needed: Street trees to calm traffic, limit the amount of driveways onto Duff, and improve pedestrian infrastructure. | By Susan D

Idea Title: Grand Overpass

Idea Detail: Get Grand over the railroad tracks downtown, overpass from 2nd (?) to 5th. Jog Main south and go under overpass and come out behind Bandshell, add some more parking over there where the lumberyard was too. No left turn off of Grand onto 5th going north, right turn to Main Street. Also reconnect 3rd south of the tracks to Gilcrest, also going under the overpass. I know, this would take out the Dutch Oven building

Idea Author: Jim W

Number of Stars 4

Number of Comments 1

Comment 1: Thank you for scanning and sharing the detailed concept of a Duff Avenue grade separation, Jim. You included several ideas and connections in there to consider. | By Jason C

Idea Title: Get the Parking Right

Idea Detail: The majority of traffic in a city is based on people looking for free parking. Let's use some current research to limit the amount of people looking for parking and to use parking meters correctly. Parking meters on Main Street are too cheap and there is a lot of parking available. Look to Donald Shoup's research to learn more about how to get the price right. http://freakonomics.com/2013/03/13/parking-is-hell-a-new-freakonomics-radio-podcast/

Idea Author: Susan D

Number of Stars 3

Number of Comments 2

Comment 1: While I agree with the need to get the parking right, I disagree that there is a lot of parking available. I've worked in the downtown area for 15 years and know how hard it can be to find open spots. | By Debby C

Comment 2: Susan: thanks for posting the link. Have you seen Shoup's work on employer-based parking cash outs, too? It is the concept of giving employees the option of converting their "free" parking spot at work into its cash value.
http://shoup.bol.ucla.edu/Parking%20Cash%20Out%20Report.pdf.

His work became part of a voluntary Federal program that employers can participate in to be on a "Best Workplaces for
Commuters" list. | By Jason C

Idea Title: Sudden termination of bike paths, e.g. at Grand Ave.

Idea Detail: Bikes going east on 6th Street bike paths get dumped into traffic. As someone who often bikes or walks to work in downtown Ames (from west Ames), getting across Grand and navigating through downtown is the most dangerous portion of the commute aside from crossing campus. It does not promote walkability/green transportation methods.

Idea Author: Debby C

Number of Stars 3

Number of Comments 3

Comment 1: I agree, Jim. I've had to bike across the oncoming (southbound) lane to get to the northbound bike path. | By Debby C

Comment 2: another sudden ending is coming into town from the south on R38/South Dakota. Right before 30 overpass the paved bike lane/shoulder just turns to gravel with no warning. Needs to be pave up that overpass and marked off to Mortensen. | By Jim W

Comment 3: when they rebuilt that street just a few years ago wish they would have put in the bike lanes all the way to Duff, they had the room. | By Jim W

Idea Title: South 5th and Duff Ave is a nightmare

Idea Detail: Adding turn lanes to turn right from each way could help. A stoplight timer like at the corner of Grand and 13th could help this issue.

Idea Author: Cari M

Number of Stars 2

Number of Comments 3

Comment 1: extend grand on under Highway 30 to Airport Road | By Jim W

Comment 2: The City of Ames currently has the Grand Avenue extension from S. 5th Street to S. 16th St. in the Capital Improvement Program. Construction of the roadway is anticipated within the next five years. | By Tony F

Comment 3: Or, extend Grand Ave to 16th to reduce some of the traffic on Grand that is not going to a destination on Grand, such as trips from north of downtown to Lowe's or Hwy 30. | By Bob B

Idea Title: Widen Duff Avenue in the congested business area

Idea Detail: Would like to see possibly 3 lanes of traffic each way (North/South) in the business area on Duff (between hwy 30 and Main street) - or would frontage roads improve traffic flow?

Idea Author: Robin B

Number of Stars 2

Number of Comments 1

Comment 1: Left turning traffic on South Duff Ave is not only dangerous, but also slows the flow of traffic. Maybe parts of the center turning lane should be converted into a landscaped median that would prevent traffic from making left turns. Left turn traffic would continue on to a left turn lane near the traffic signals. The driver could make a legal U-turn when the left turn arrow turns on. | By John C

Idea Title: CyRide stops shouldn't cause more congestion.

Idea Detail: On high traffic streets such as Stange where multiple buses stop, there are very congested times. This can cause riders and drivers to run late. It can discourage people from riding the bus during those times, choosing to drive to their destination sooner or later than would be convenient on the bus.

Idea Author: Thomas K

Number of Stars 2

Number of Comments 3

Comment 1: I think drivers' expectation that city streets should flow like expressways is what needs to change. They seem to panic at the prospect of slowing down or pausing, and want to initiate abrupt and foolish maneuvers. We don't need to cater to irrational behavior, we need to condition expectations and educate for a more courteous and relaxed culture instead of the culture of speed and haste that currently exists.

My perspective is as a former CyRide driver, bicyclist, motorcyclist, moped, car, and truck driver of 40 years in Ames. | By Andrew G

Comment 2: I think the point they were trying to make is that in areas where CyRide buses don't have a cutout to pull into creates a degree of congestion when they stop in the travel lane. I will make the comment that this can create a particularly dangerous situation for everyone involved, regardless of whether drivers involved are speeding or not. Anytime you create a situation where there is a significant difference in speed between two vehicles, that's dangerous. It's not the absolute speed of the vehicles involved in a collision that makes it dangerous, but rather the relative speed between the vehicles.

When a bus stops in the travel lane, vehicles behind the bus that did not have enough notification to make a lane change prior to the bus coming to a stop are now in a particularly dangerous situation of trying to change lanes into potentially heavy traffic from a complete stop. One example of where I think this is particularly dangerous is Lincoln Way westbound at State Avenue. If a bus stops just past the light, and there's a vehicle blocking the left lane trying to turn onto State, traffic now moves into the right lane and then back into the left lane immedaitely after the light. If a car gets stuck behind the bus stopped and unable to change lanes, that's definitely dangerous for everyone involved. Quite frankly, I think that bus stop is too close to the intersection.

At the same time, I can also see the argument that cutouts also create a dangerous situation where the bus has to pull back out into the travel lane from a complete stop. I would defer to the experts though as to whether that is more dangerous versus having the bus stop in the travel lane. | By Tyler L

Comment 3: Congestion? Really? Isn't there another lane available to pass the bus on Stange? As a former CyRide driver and lifelong Ames resident my impression is that some drivers need to quit treating Ames like a racetrack. You won't be late if you leave early enough.

And quit passing illegally across double yellow lines. The buses are never stopped for very long on single lane streets. | By Andrew G

Idea Title: Lway & University

Idea Detail: Raise lway up and try to keep at least one east-west road open next time it floods. Add bus stops by the ISU Center sign and a ped tunnel under the road to the north side. Continue that walk to the MWL parking lot and buildings. Also add a connection to the trail on the north side of lway.

Idea Author: Jim W

Number of Stars 2

Number of Comments 0

Idea Title: The biggest issue in Ames is signal timing. It is horrendous

Idea Detail: You can't drive down Duff or Lincoln without getting stopped at traffic signals constantly. Even if you drive the speed limit and maintain a constant speed, you will still get stopped. And developing a new signal timing plan would greatly improve mobility without the costs and inconveniences that construction projects can bring. Another great annoyance to me that could be easily fixed is the emergency signal prioritization feature on traffic signals. Once the cycle is interrupted by the emergency vehicles and returns back to normal functions, it doesn't go back to where it left off. Say you are heading SB on Grand, stopped at 13th to continue south. The lights change to allow a WB fire truck through. Then it stays for east/west traffic for a while, switches to NB Grand traffic and then another emergency vehicle comes through and trips it again. I have been sitting at that intersection before, stuck 3-4 cycles because emergency vehicles are spaced out just enough to screw it up.

Idea Author: Shelby E

Number of Stars 2

Number of Comments 0

Idea Title: Grand Avenue improvements near the North Grand Mall.

Idea Detail: Tremendous improvements have been made in recent years to the North Grand Mall. Unfortunately, this did NOT include any improvements to the roadway. Grand Avenue needs some serious work in this area. I honestly don't know where to start /stop such a project. So many streets in Ames have simply become a patchwork of patches--Grand Ave., 13th St., Lincoln Way, etc. The new & improved North Grand Mall deserves a new & improved Grand Avenue leading the way to the mall.

Idea Author: Dusty J

Number of Stars 1

Number of Comments 3

Comment 1: ^^ What he said | By Shelby E

Comment 2: Move CyRide buses out of the Mall and onto 30th St west of the Walmart driveway with a new transfer center using the curbside lanes in both directions near Walmart. Through traffic would use the inside lanes.

The DOT traffic count for 30th St is only 4420, compared to 4160 for two-lane 6th Street, so it does not need four continuous lanes. Most of that traffic is going to the the Mall or Walmart, so the count for the section west of Walmart is lower than 4420.

Create paved bus pads with canopies to protect passengers from weather. Include good lighting, benches, electronic signs, etc. A pedestrian crossing signal (similar to the signal near MG Hospital) would provide a safe place for passengers to transfer to the other routes.

The loading area at the Mall is very deficient. It is located in an area that is both a fire lane/delivery zone for the stores. The sidewalk is too narrow for the bus wheelchair ramp, there is no protection from the elements, no benches, and passengers are forced to wait next to idling buses! The current location is not convenient for the many passengers shopping at Walmart. The current location also adds 2 - 3 minutes to every bus trip leaving the mall.

The #1 Red East bus arrives at the new transfer center travelling in the westbound lane on 30th St. and unloads passengers near Roy Key Ave. That bus changes to #3 Blue South and leaves westbound on 30th Street to Northwestern Ave. The #3 Blue North bus travels east on

30th St. and parks along the curb near the mall. That bus changes to #1 Red West and continues east on 30th St.

The #2 Green East bus travels west on 30th and parks near Walmart. It changes to #6 Brown South and departs north on Roy Key Ave toward Bloomington Rd. The #6 Brown North bus arrives at the transfer center southbound on Roy Key and parks on 30th in eastbound lane. It changes to #2 Green West and departs east on 30th toward Grand Ave. | By John C

Comment 3: Dusty: Thank you for contributing some ideas to the discussion. What sort of improvements do you think are needed along Grand Avenue in the area? | By Jason C

Idea Title: Block Illegal turns at the Walmart Super Center.

Idea Detail: The section of the center turning lane near the Duff Ave entrance to Walmart should be changed to prevent illegal turning. The drivers who make the illegal turns create a dangerous situation for others.   Maybe a 50 meter (more or less) section of the turning lane could have curbs filled with soil and plants.

I also like Tim C.'s idea for limiting ALL turns on South Duff Ave to controlled intersections.

Idea Author: John C

Number of Stars 1

Number of Comments 2

Comment 1: I believe that it is a problem in both directions.
| By John C

Comment 2: Hi, John. Just to confirm - is your concern southbound Duff traffic turning left into the enterances designed for right-turning traffic only? Does it also happen with traffic trying to turn left out of the Wal-Mart parking lot to go south on Duff? Thank you. | By Jason C

Idea Title: Ruts in the road at Northwestern and 24th St.

Idea Detail: There are plans to do some road work west of this intersection on 24th Street. There are some serious ruts in the road on the EAST side of this intersection. The road work on 24th needs to include the intersection, on both sides.

Idea Author: Dusty J

Number of Comments 0

Idea Title: bicycle trails on Oakwood

Idea Detail: Oakwood Road is dangerous and someone is going to get killed. The sun at certain times of the year is blinding to drivers and many are walking, biking, pushing strollers, roller skating, jogging on Oakwood which has no shoulders. Someone is going to get killed and the lives of two people, the driver and the victim, are going to be ruined. Bicycle/walking lanes should be on both sides of the road. The population has been allowed to increase with no improvement to the two-lane Oakwood Road.

Idea Author: Margaret E

Number of Comments 0

Idea Title: Fullfil promise to offer fulltime hours to CyRide employees.

Idea Detail: No one gets more than 30 hours per week driving CyRide. It's rediculous to expect people to be able to live on such meager wages. Slim down the number of drivers so that hard working individuals can have their fair share. Stop blaming the ACA!

Idea Author: Scott P

Number of Comments 0

Idea Title: duff ave

Idea Detail: See above.

Idea Author: Abby H

Number of Comments 0

Idea Title: left hand turn lane at key intersections.

Idea Detail: 13th & Grand,

Idea Author: KW B

Number of Comments 0

Topic Name: Consider the Alternatives!

Idea Title: Bike lanes

Idea Detail: Given our thriving cycling community and the popularity and success of projects like The High Trestle Trail, adding bike lanes is a logical step toward improving transportation in Ames. I follow The Walkable and Livable Communities Institute; they do a lot of cool things to encourage community health through transportation alternatives. Check out this article I found on their site; it could become a model for our own growth: http://www.citylab.com/commute/2015/02/all-the-ways-germany-is-less-car-reliant-than-the-us-in-1-chart/385163/

Besides the health reasons, alternative transportation would be an opportunity to promote local business and public art. Getting people out of their cars and onto the ground increases foot traffic for our shopping districts and parks. Consider commissioning local artists to design attractive bike rack sculptures or lining bike paths with plants that encourage local pollinators to thrive (see Blank Park Zoo's conservation initiative for more info).

Idea Author: Shannon K

Number of Stars 18

Number of Comments 0

Idea Title: We need a bicycle "grid" just like we have one for cars.

Idea Detail: Cars have the advantage of a robust grid of arterial, feeder, and local streets that make not just traveling fast but wayfinding easy. Bicycles need something similar. For example though Clark is designated a bicycle safe street and it offers an alternative to biking on a narrow sidewalk in Grand few cyclists may realize it exists, and even if someone does they may not like it due to it's frequent stops. Removing stop signs (and deferring them to cross streets) and replacing with other traffic calming measures could make Clark a great "Bicycle Boulevard" http://en.wikipedia.org/wiki/Bicycle_boulevard acting as an arterial for bikes only a couple blocks away just as Grand does for cars. This would cost little more than the price of signage and the price of traffic calming measures and would significantly improve N/S bicycle traffic in the eastern part of Ames.

A grid of similar projects would create network effects making cycling safe and easy and as Clark shows, inexpensive.

Idea Author: Trevin W

Number of Stars 11

Number of Comments 0

Idea Title: Let's start with the basics first.

Idea Detail: Left hand turn lanes at 13th, Grand. An overpass on Duff Ave. Right turn lane at Stange & 13th. Synchronized Lights along Lincoln Way and Grand. Complete Grand to Airport Road. Get rid of businesses in the flood fringe along S. Duff Ave. Left turn lanes along Lincoln way from Clark Ave. to Duff.

Idea Author: KW B

Number of Stars 11

Number of Comments 1

Comment 1: I like this idea when combined with a road diet or protected bike lanes on Lincoln Way through this region, since the sidewalk is not what the city considers a "shared use path" from University Ave to Duff Ave. The sidewalk is very narrow through here. | By Sarah C

Idea Title: We need a Bicycle Master Plan

Idea Detail: We need a bicycle, and pedestrian master plan, cities all over the country that see biking and walking as a necessary alternatives have them, yet in our last Long Range plan biking and walking were merely subsections. These are alternatives that need serious attention for Ames to maintain any level of competitiveness that warrant serious planning.

I have to say, I've been reading a lot of bike/walk master plans this weekend and when I saw how little Ames had devoted to non-car modes 5 years ago I was very disheartened.

Idea Author: Trevin W

Number of Stars 9

Number of Comments 0

Idea Title: We need to reinventory multi-use trails

Idea Detail: The City's inventory of multi-use trails is woefully inaccurate in some areas, we need to reinventory the current lanes in order to be able to effectively plan an analyze walking and biking network gaps. A perfect example of this would be that the City's current inventory of Multi Use trails shows a multi use trail from University all the way West to nearly the city line. Long stretches of that area are merely sidewalks or have such heavy density of driveway cutouts are nearly unusable for more than one person walking and by anyone on a bike.

Idea Author: Trevin W

Number of Stars 9

Number of Comments 1

Comment 1: Thanks for taking part in our effort. Our regional trail data can be viewed at tinyurl.com/AmesGISTrailMap. We are currently working to improve the data such as updating segments to more accurately describe what exists. Any feedback or corrections to the data can be submitted directly to myself at tfilippini@city.ames.ia.us | By Tony F

Idea Title: Extend Grand Ave

Idea Detail: One of the most talked about traffic issues in Ames, is the congestion of South Duff Ave. To relieve Duff Ave from this pressure, Ames needs to extend Grand Ave all the way down to Airport Rd. Then connect S. 5th to the extended Grand Ave. From my understanding the reason the Grand Ave extension has been "postponed" for nearly a decade, is because Ames cant get Federal or State funding for the project. The Grand Ave extension would directly benefit Ames residents, therefor Ames should cover the costs of the extension. Get it Done!

Idea Author: Jake S

Number of Stars 9

Number of Comments 0

Idea Title: We should be analyzing the bike network by level of stress

Idea Detail: An increasing number of communities country wide are using a level of stress that a given connection causes to measure the completeness of the bicycle network. When measuring the network for level of stress, especially when analyzing intersections (with both other roads and driveways) along otherwise safe routes, the points where our bike network breaks down become far more visible. Using this method of assessment (http://transweb.sjsu.edu/PDFs/research/1005-low-stress-bicycling-network-connectivity.pdf) we can see that the 4 neighborhoods bordered by Duff, S4th/3rd, 6th, and University although generally bikeable on their own because of lack of intersection improvements become isolated from each other and relatively inexpensive treatments would make these neighborhoods connected (extending the MUT on south 3rd, intersection improvement for Clark/Walnut at Lincoln Way and extending bike lanes further east on 6th).

This method of assessment is crucial in getting more people on bikes.

Idea Author: Trevin W

Number of Stars 8

Number of Comments 0

Idea Title: Complete Streets

Idea Detail: All new roads and road reconstruction projects should follow a complete streets framework for bus, bicycle, pedestrian and vehicle transportation accommodation.

Idea Author: Sarah C

Number of Stars 6

Number of Comments 0

Idea Title: Carsharing!

Idea Detail: Bring a carsharing program like Zipcar to Ames. They're already set up at many college campuses, since you have a population of people (college students) who may not want to own a car but would like to have access to a car once in a while for a few hours at a time. It would be a wonderful service for the community and encourage a lot more usage of public and active transportation since it frees you from the burden of having to own a car or pay the pricey rates at the existing (and limited) rental car options in town.

Idea Author: John P

Number of Stars 4

Number of Comments 0

Idea Title: Connection

Idea Detail: It's not unique, but there many areas where a small connection would make it much easier to navigate on a bike. For example, a shared use path going by a business with a parking lot generally has the bicycle access to the parking lot at the car entrance. Often a small connector to the shared use path in the "back corner" of the lot can be more direct and route bicycles and cars separately.

Idea Author: Kelly W

Number of Stars 3

Number of Comments 0

Idea Title: Ride a bike to work. Not new or unique- it can be done.

Idea Detail: Make cycling safer, with protected lanes for cyclists to go to and from work, school or shopping.

Idea Author: ELIZABETH W

Number of Stars 3

Number of Comments 0

Idea Title: Transit demand may substantially change over next few years

Idea Detail: After using Uber in other cities where it has become the default mode of transit for many, and talking to hundreds of people who now use that in place of trains and buses, it would be reasonable to expect that the demand for organized transportation (i.e. buses) at regular intervals may be substantially displaced within the next five years. So rather than plan new bus routes on the periphery of town (which will always lose money), might be better to wait and see how the demand shakes out.

Idea Author: Tim C

Number of Stars 1

Number of Comments 0

Topic Name: Map It!

Idea Title: Ames needs a railroad overpass at Duff Ave.

Idea Detail: It makes no sense to have your downtown area cutoff from the Duff Ave. business district. I ALWAYS take Grand Ave. and pass UNDER the railway when I intend to travel to the Duff Ave. business district, because it seems like EVERY time I choose to take Duff Ave. instead, I end up stuck at the railroad crossing. Therefore, I avoid that intersection altogether. This serves as a strong deterrent to people travelling through that intersection, and prevents any spur-of-the-moment traffic and possible business from coming into the downtown business district.

Idea Author: Dusty J

Number of Stars 16

Number of Comments 0

Idea Title: Cy Ride in Southeast Ames is a mess

Idea Detail: Yellow and Gray routes should all run at all times throughout the day.

Idea Author: Sean A

Number of Stars 9

Number of Comments 0

Idea Title: Consistent sidewalks & crosswalks

Idea Detail: Boost connectivity by making sidewalk routes consistent. Need sidewalks to continue on South Dakota Avenue and on S Sheldon.

Crosswalks are needed especially at S 16th & University, and Hyland & Oakland.

Idea Author: Susan D

Number of Stars 9

Number of Comments 1

Comment 1: Thank you for providing specific locations, Susan. We are beging to move into the "alternatives development" phase of the study, where we are looking for your ideas of where we can consider transportation system improvements. There will be more opportunities and topics here on MindMixer for your ideas within the next week or two, so keep participating! | By Jason C

Idea Title: Make places with the most walkability even better

Idea Detail: Focus improvements in places where there is already high pedestrian traffic. Make the sidewalks and bike routes better in places like Campustown and Main Street.

Idea Author: Susan D

Number of Stars 8

Number of Comments 1

Comment 1: What does "better" mean? They just finished redoing sidewalks on Main Street only a few years ago. | By Tim C

Idea Title: Love the new lanes on State Ave south of Mortensen.

Idea Detail: Thank you

Idea Author: Margaret E

Number of Stars 5

Number of Comments 2

Comment 1: Yes, please make them official bike lanes. | By Susan D

Comment 2: Just FYI those are not officially bike lanes and that is why there is no signage or markings. However they are super nice other then the gravel issues - if they could keep them cleared would be helpful.

Also, to be totally effective something needs to be done on Oakwood. Then you'd have a nice route to the Research Park and points beyond on Airport. | By Dan D

Idea Title: protected cycle paths on 13 and on Stange rd

Idea Detail: We need more protected cycle paths

Idea Author: ELIZABETH W

Number of Stars 3

Number of Comments 0

Idea Title: safe bike lanes all over town

Idea Detail: Make cycling safe for all who ride to work school, shopping and recreational riding.

Idea Author: ELIZABETH W

Number of Comments 0

Topic Name: Movers & Shakers!

Idea Title: Reserve land now for future arterials

Idea Detail: Seeing the situation with Stange ending at Bloomington (veering off into neighborhoods), GW Carver ending at Bloomington at T-intersection, North Dakota shrinking to two lanes and hazardous to drive in winter, the only real north-south routes are Y Ave (County Line Rd), Grand Ave (if extension completed), and I-35. With land developed, it may already be too late to fix those.

However, Bloomington and 190th street could be continuous stretches from County Line Rd all the way to I-35. No need for that now (maybe 10-30 years), but acquire land rights now. For North-South (diverting bottleneck at Stange), maybe something could be done to continue GW Carver alignment (the northern part) south to connect to Hyland.

Idea Author: Tim C

Number of Stars 16

Number of Comments 1

Comment 1: I saw the results of lack of planning in Phoenix 1980-2000. The voters in the 60's had no foresight and didn't back transportation planning. I had a job delivering across the entire valley and saw it go from stilted and disconnected to the more harmonious ring and arterial systems in place now.

In those days before computer aided modeling, it was a diarama that did the most to help convey the concepts. Now, there could even be flow simulation and POV to help convey potential solutions. | By Andrew G

Idea Title: programs like zipcar and bike share

Idea Detail: i've used bike share in Des Moines and it's really easy to use, and zipcar would be nice to use in Ames because many students who move here or college may not bring their car so zipcar would be an easy and helpful tool for people to have access to.

Idea Author: Guan W

Number of Stars 16

Number of Comments 1

Comment 1: Oh man, Zipcar in Ames would be wonderful! I heartily agree with this. | By John P

Idea Title: Electric Bicyles are coming

Idea Detail: In 2006 Iowa legislated electric bicycles of 1 HP (750 watts) to be legal without license, registration, or insurance. The rest of the world is embracing them and we should be, too.

The average adult puts 100-150 watts into pedaling. 750 watts allows cargo such as groceries and children to be conveyed pedaling optional. We need to be ahead of the curve on bicycle-friendly infrastructure.

Idea Author: Andrew G

Number of Stars 15

Number of Comments 1

Comment 1: I think this is a very important point re transp. - i.e., tech and expectations are changing the users and requirements.

Bicycle use is increasing and the availability of electric assist is going to drive that further. Along with that is the potential increase in three-wheeled enclosed vehicles in conjunction with both an increased interest in smaller, more urban options among the younger generation(s) and an increasing mobility challenge among boomers as they age. | By Steve L

Idea Title: Young people are moving 2 places w/strong pedestrian culture

Idea Detail: Strong pedestrian culture cities like Portland, Oregon pull in many young people. They are looking for ease of walking and connections to restaurants, cafes, and bookstores.

Idea Author: Susan D

Number of Stars 12

Number of Comments 0

Idea Title: Bus to Des Moines

Idea Detail: Need to connect the Research Park and ISU with Des Moines and Ankeny. Des Moines MPO study shows high ridership potential. Done correctly, the route can be busy in both directions. AM express from Ames to Des Moines southbound. Northbound in morning stops at Park and Ride in Ankeny from Des Moines to Ames. Midday route stops in Ankeny both directions. PM express from Des Moines to Ames northbound; Ames - Ankeny - Des Moines southbound.
It will require a different funding model than CyRide and CyRide is limited in what it can do under city ordinance.
Des Moines MPO study had poor financial projections, did not consider student fees or ISU interest and did not adequately explain State Transit Assistance. Farebox and STA will probably fund up to 80 to 90% of cost starting in second year.

Idea Author: Bob B

Number of Stars 12

Number of Comments 4

Comment 1: Here is a link to the Des Moines - Ames Commuter Study that was referenced.

https://dmampodemo.files.wordpress.com/2014/10/dmampo-ames-des-moines-i35-commuter-corridor-feasibility-study-2014_08_19.pdf | By Tony F

Comment 2: I spoke with two students from Spain and Costa Rica who agreed that the bus service to Des Moines seemed inadequate for their use (shopping). | By Andrew G

Comment 3: Not sure why the word "fit" with an -ing got deleted above, but that's what it's supposed to say. | By Debby C

Comment 4: A person who works at the DOT told me that the I-35 corridor between Ames and Des Moines is the busiest corridor in the state. Seems fitting to improve mass transit, especially between ISU facilities and Des Moines/Ankeny. Even just offering a bus between cities on game days would be appreciated by fans. | By Debby C

Idea Title: Bike sharing!

Idea Detail: I love the bike sharing/rental options that are available in other cities. When we have guests come to Ames, they don't have bikes available so we are unable to bike around town.

Idea Author: Stacy R

Number of Stars 9

Number of Comments 3

Comment 1: OOPS, I thought bike sharing was leaving unsecured bicycles around for free use. A bicycle sharing depot at the intermodal, downtown, and at the mall would be handy. I wouldn't want to risk a $1200 deposit without secure parking at my destination, though. | By Andrew G

Comment 2: It hasn't worked anywhere else. Secure parking seems like a better idea. | By Andrew G

Comment 3: Iowa State is looking into creating a bike share system, but are putting it off for another year. | By Susan D

Idea Title: Amtrak Thruway Service

Idea Detail: Where you aware that Amtrak piloted a thruway service through Ames and Des Moines to the Osceola Amtrak station last winter? Is this a type of service that would benefit Ames in the future?

Idea Author: Tony F

Number of Stars 7

Number of Comments 4

Comment 1: No local subsidy should be wasted on a connection to an incredibly unreliable service. How long will the bus wait for a train that can be up to six hours late?   If you are going to Chicago, you will soon be able to drive to Dubuque or Rock Island to ride train into Chicago. There is also Megabus from Des Moines. | By Bob B

Comment 2: The Amtrak thruway service was offered as a pilot for six days last winter with stops in Ames and Des Moines to the Osceola Amtrak station. The thruway service was an intercity bus that brought passengers to the Amtrak station in Osceola; which the bus schedule is coordinated for timely transfers to the trains to Chicago and Denver. The thruway services are purchased on the same ticket as the train ride, much like a flight itinerary using a connecting flight. Although I haven't received any performance data on the pilot program it sounds like the pilot was seen as a successful demonstration and is being evaluated for possible long term service. | By Tony F

Comment 3: I am working on getting that information from Amtrak. Hopefully I'll have something to share by the end of the week. | By Tony F

Comment 4: Do you have details on the route, stops, etc? I think train service from Ames to DSM could be very useful if it's fairly convenient, and not a once a day one way type of thing. More details about the pilot would be useful. | By Dan D

Idea Title: Avoid street naming confusion

Idea Detail: Don't use similar names for adjacent arterials and don't use different names along continuous road alignments. Specifically, rename Grant Ave to something else so people aren't confused with Grand Ave (especially with communicating verbally with poor connections or people having different accents) -- how about continuation of Hyde Ave?. Do this sooner rather than later, before the area gets more populated once Grant is paved to Gilbert.

Idea Author: Tim C

Number of Stars 7

Number of Comments 0

Idea Title: Current children will not live as long as their parents

Idea Detail: Because of increases in obesity and diet related illness over the past 30 years, the current generation of kids will not live as long as their parents. We need to create a healthy community that encourages everyday physical activity. We can do this with safe and interesting places to bicycle and walk.

Idea Author: Susan D

Number of Stars 7

Number of Comments 0

Idea Title: Statewide Park and Ride Facilities

Idea Detail: The State of Iowa is exploring locations for Park and Ride lots throughout the state. What are your thoughts on Park and Ride lots in and around the Ames area for regional travel? Submit comments below. You can also participate in the State DOT survey here: www.surveymonkey.com/s/ParkAndRide2014. Learn about the statewide plan at:

www.iowadot.gov/iowainmotion/park_ride.html

Idea Author: Tony F

Number of Stars 6

Number of Comments 3

Comment 1: The State recently adopted the plan. Here is a link to the final document.

http://www.iowadot.gov/iowainmotion/files/StatewideParkandRideSystemPlanFINAL.pdf | By Tony F

Comment 2: "This survey is currently closed" comes up on the Park and Ride link. | By Debby C

Comment 3: Park and Ride at soon to be old Kmart lot for Des Moines commuter bus. This would require a change in city ordinance on parking requirements for the square footage of the KMart building - or change the land use :-) | By Bob B

Idea Title: Widen downtown streets/reconfigure parking for wider lanes

Idea Detail: Large pick-up trucks (extended cabs, dually, etc.) are now a way of life. Unfortunately, the width of our streets seems to have been determined at a time before these large trucks became popular. It is a tight squeeze to drive downtown when there are large trucks parked on one or both sides of the street. (I drive a mid-size sedan, and it's still a squeeze when meeting other small- and mid-sized vehicles.) This is noticeable on both Main and 5th Streets.

Idea Author: Debby C

Number of Stars 4

Number of Comments 0

Topic Name: Talk The Walk!

Idea Title: Many people in Ames do not own cars

Idea Detail: We need to make walking more enjoyable for recreational walkers, and support those whose main transportation is by foot. Many pedestrians shop on South Duff Avenue despite the fact that it is not pedestrian friendly. For example, intersections are hard to cross because of many turning vehicles, sidewalks are not buffered from the traffic by trees or parked cars, and distances are long between shops and often the walking corridor is simply a parking lot.

Idea Author: Susan D

Number of Stars 15

Number of Comments 0

Idea Title: Sidewalks on Ross Road

Idea Detail: There are no sidewalks on Ross Road, particularly in the Emma McCarthy Lee Park area. This is a hazard for walkers, runners and pet owners. Require home owners and the City owned areas (two parks) to have side walks put in.

Idea Author: Cari M

Number of Stars 13

Number of Comments 2

Comment 1: Every time I walk on Ross Road, I'm surprised by the amount of traffic I need to watch out for. I think it's time for sidewalks. | By Robin B

Comment 2: Also, connect these sidewalks to McCarthy Lee Park. It would pull more people into the park and encourage more people to be physically active. | By Susan D

Idea Title: Walking is great where density is high

Idea Detail: Walking is an easy choice in areas where there is high density and mixed uses. For example, Campustown, Main Street, and Somerset do a great job to encourage walking because there are so many amenities. We need to make walking easier in places where automobiles dominate (i.e. East Lincoln Way and South Duff).

Idea Author: Susan D

Number of Stars 10

Number of Comments 0

Idea Title: More "Yield to Pedestrian in Crosswalk" signs.

Idea Detail: This is apparently state law, but most people don't know it and/or don't obey it. I have seen pregnant women and people with strollers having to dodge traffic at the 4-way stop at Main and Kellogg, even though they have the right-of-way. As in, having to jump out of the way of cars that do rolling stops! In Colorado this law is strictly enforced and as a result, it is impossible for a pedestrian to motion a car through a crosswalk and wait for it to pass. I would LOVE to see these signs around Ames in public areas, not just in private parking lots.

Idea Author: Debby C

Number of Stars 9

Number of Comments 1

Comment 1: I don't see why the law couldn't be changed to treat most stop signs safely as 'slow and yield' signs when there is a single conveyance at an intersection.

Having said that, Ames drivers have a culture of illegally not stopping. This makes it dangerous for those who actually stop, because others aren't expecting them to. 'Rollers' cause me to delay everybody at the intersection because I have to wait even longer for them to fully stop at intersections. I refuse to pull out, or step out, in front of someone rolling forward.

The legal obligation of deferring to pedestrians, especially where they are populous like Main St. and near ISU, would make a good subject for a public education campaign. Enclosed street conveyances are great places to occupy while deferring to fellow pedestrian citizens exposed to the elements and the physical threats from those potentially deadly weapons.

Rolling at pedestrians should be considered the same as pointing a loaded firearm at someone. Drivers should be scared to death to be merely perceived as not fully stopping and deferring. Instead, we currently have a motor vehicle centric culture of speed and haste. | By Andrew G

Idea Title: More walking trails, much wider if shared use

Idea Detail: I live in Somerset, which has a set of trails, but they and others interconnect poorly, often dumping people to sidewalks or streets, and seem badly or not at all designed. Having a truly interconnected set of walking paths, either much wider or separate from biking paths, would be wonderful.

Idea Author: Tracy D

Number of Stars 8

Number of Comments 0

Idea Title: Pedestrian bridges and/or tunnels in high traffic areas

Idea Detail: Plain and simple... anywhere there is a lot of traffic and a lot of pedestrains, consider installation of pedestrian bridges or tunnels. Removing pedestrian traffic from the intersection increases traffic flow and makes things much safer for both the motorist and pedestrian.

Idea Author: Tyler L

Number of Stars 8

Number of Comments 4

Comment 1: I also agree that under-street tunnels are a good strategy for cyclists. Along the creek and river there are many bridges where cycle routes could go below the bridges instead of forcing cyclists to cross a busy street. I'm thinking about 13th Street near Furman Aquatic Center, on State Ave where the path crosses over to the ISU XC course, and on S. Dakota where the path crosses from the greenbelt over to the path along the road. | By Sarah C

Comment 2: Tyler: Thanks for adding this comment. I would encourage you and others to tell us the highest-priority locations for a pedestrian crossing at AmesMobilty2040.com's "Mapping Comment Tool". Find it at: http://www.amesmobility2040.com/get-involved/ | By Jason C

Comment 3: when I live at the Towers many years ago, always though a ped bridge over Lincolnway at Welch would have been cool. Doing it south on Lincolnway would have been the easy part. Coming down on the north not so easy | By Jim W

Comment 4: This is a better solution than adding more traffic lights. | By Debby C

Idea Title: Keep Sidewalks Plowed

Idea Detail: In the wintertime, sidewalks on some of the busiest streets (South Duff, East Lincoln) have a tendency to get buried under snow. And even when the sidewalk is plowed, oftentimes plows working the street will leave a little hill of snow along the street corners (where the sidewalk ramps are), making crossing the street on foot an annoyance. Making sure the plow crews are aware of this and avoid blocking pedestrian routes would go a long way to addressing this problem.

Idea Author: John P

Number of Stars 7

Number of Comments 1

Comment 1: This is true for shared use trails and cyclists in the winter also. Street plowing needs to be followed by trail plowing because the street machines recover the paths.

Also, plow Hyland all the way to the curb so that the bike lanes are cleared. | By Dan D

Idea Title: Automatic "Walk Light" at intersections

Idea Detail: The "Walk Light" at intersections should turn on automatically when the traffic signal turns green. It is very frustrating to arrive just a second or two late to press the walk button, and then have to wait a complete cycle for the next green light. Some Walk Lights do turn on automatically - Lincoln Way and University Blvd. east and west. While others do not - Lincoln Way and University Blvd. North and South. Why only one direction and not the other at the same intersection?

Idea Author: John C

Number of Stars 5

Number of Comments 0

Idea Title: Replace old pedestrian signal lights with new style.

Idea Detail: Drivers tend to "tune out" continuous flashing amber lights at crosswalks. I like the new intermittent flashing lights (activated by a button) at the pedestrian crossings near Mary Greeley Hospital and the Research Park much better. Drivers are more likely to notice and then stop for an intermittent light.

Also, the old green - yellow - red lights at the pedestrian crossings near the public schools tend to stay red too long. The new style intermittent lights allow drivers to start moving again as soon as the pedestrians finish crossing.

Idea Author: John C

Number of Stars 3

Number of Comments 0

Idea Title: Trails connection, cross walks

Idea Detail: trails that connect to less congested roads
cross walks at every street that leads to campus across Lincoln way. (i.e Stanton Ave to Campus).
Bigger median at middle of crossing section.

Idea Author: Cierra S

Number of Stars 3

Number of Comments 0

Idea Title: ash street neighborhood

Idea Detail: there needs to be more crosswalks and sidewalks throughout the neighborhood.

Idea Author: Dr N

Number of Stars 2

Number of Comments 0

Idea Title: Improved pedestrian safety in the Hospital/Medical zone

Idea Detail: I have long been concerned about hospital/clinic employees crossing Duff, sometimes with cartfuls of charts. I suggested to the hospital/clinic that reflective strips be added to their carts, but it did not happen. This is of particular concern in the winter months when roads are slick and there is less daylight. I see that there is now a flashing light that gets activated when pedestrians press a button, which is an improvement. However, since one of my other suggestions on this site is to add pedestrian bridges, this seems like a good location for one and might make it easier for clinic employees, neighbors, and CyRide riders to safely cross Duff. It should have elevator access.

Idea Author: Debby C

Number of Stars 2

Number of Comments 0

Idea Title: Connections!

Idea Detail: That's all.

Idea Author: Pete M

Number of Stars 2

Number of Comments 0

Idea Title: New Development

Idea Detail: Sidewalks and shared use paths should not be added a the time a property is developed. It creates a nightmare for those walking and biking.

Idea Author: Amber C

Number of Stars 1

Number of Comments 0

Topic Name: Sustainability And You

Idea Title: Emphasize pedestrian & bicycle infrastructure

Idea Detail: Bicycling and walking will always be the cheapest way to get around town. Walkability is good for home values, local businesses, public health, and the environment. To be sustainable, let's support the sustainable transportation alternatives.

Idea Author: Susan D

Number of Stars 12

Number of Comments 1

Comment 1: http://streetsblog.net/2013/09/16/four-ways-protected-bike-lanes-benefit-businesses/
| By Sarah C

Idea Title: Adaptability

Idea Detail: Adaptable - potential to convert or adjust to other/additional use or users; such as inclusion of sensors (or potntl to add readily) to facilitate future intelligent transp. systems.
Runoff - inclusion of permeable paving, runoff directed into bioswales, etc.
Coordinated signaling - along any length of route to minimize excel/deceleration which reduces mileage and increases emissions.
Smarter intersections - greater responsiveness to bicycles and pedestrians to minimize conflicts, foster active travel and enhance safety of more vulnerable travelers.
Minimal paving widths - reduces costs and imperviousness; also slows traffic and enhances pedestrian/bicycle/community culture.

Idea Author: Steve L

Number of Stars 6

Number of Comments 2

Comment 1: Actually, "road diets" (going from a 4 lane road to a 3 lane road with turn lanes) are actually shown to have marginal impacts on traffic, reduce accidents and the severity of accidents (slower speeds), increase bicycle and pedestrian traffic, increase safety for bicycles/pedestrians, etc. Faster traffic speeds and wider lanes in town where roads are shared with busses, pedestrians, cyclists, are unequivocally shown to be more dangerous for

everyone.
http://streetsblog.net/2014/10/29/the-airtight-case-for-road-diets/ | By Sarah C

Comment 2: I've seen plans posted here to reducing lane widths in order to accommodate bicycle traffic within the roadway. This would seem to conflict with the goal of enhancing the safety of vulnerable travelers--when we seek to place them IN THE ROADWAY, on roads not designed for bikes.

Anything that SLOWS traffic actually REDUCES safety margins. It causes traffic congestion, reducing the envelope of space around each vehicle on the road, making it MORE, not LESS likely, for accidents to occur. The goal should be to MOVE traffic, and to increase the amount of space between vehicles to give motorists more time to react, in order to reduce incidents of traffic collisions. | By Dusty J

Idea Title: Increase Bicycle Infrastructure

Idea Detail: Increasing bicycle infrastructure in Ames is taking the "long view" towards creating a more sustainable traffic infrastructure in the future. Increasing bicycle infrastructure, especially protected lanes and paths that are not in the roadway, has been shown to be a "if you build it, they will come" scenario for almost every municipality that invests in this type of infrastructure. I see a lot of complaints about how people don't use the existing infrastructure, but any Ames cyclist will tell you it is difficult because the existing recreational path infrastructure isn't very connected and doesn't take you where you want to go to do business (downtown, Campustown, Duff Ave). A lot of people also complain that cyclists don't pay gas tax, and shouldn't benefit from road infrastructure projects. However, cyclists do pay local tax which goes to these types of projects. Cycling also causes much less wear/tear to infrastructure - about 5-10% of what cars cause.

Idea Author: Sarah C

Number of Stars 3

Number of Comments 1

Comment 1: http://streetsblog.net/2013/09/16/four-ways-protected-bike-lanes-benefit-businesses/
| By Sarah C

Idea Title: Increase Recreational Paths Along Floodways

Idea Detail: In my hometown of Sioux Falls, almost the entire floodway of the Sioux River has been converted into park lands that feature sports fields, open spaces, wooded spaces and a bike trail that encircles the city. This preserves the floodway with natural and largely undeveloped areas, as floods are quite common in the spring, and Sioux Falls has also suffered several major flood events in the last few years (like Ames). Preserving recreational areas along the floodway preserves the wooded creek area in addition to minimizing property damage when normal and historical floods occur.

Idea Author: Sarah C

Number of Stars 2

Number of Comments 0

Topic Name: Keeping People Moving!

Idea Title: Love CyRide!

Idea Detail: I enjoy riding city buses when traveling to other states. CyRide is very well run and a true pleasure to ride. The drivers are professional, helpful, and attentive to safety both inside and outside of the bus. I feel like the driver could be my neighbor, they are so friendly. Fees (I pay cash each time) are very reasonable. I LOVE the "Cy" exterior paint and lighthearted messages (e.g. "Call Your Mom," "No hot air balloons," "Beat Iowa", etc.). Glad the buses have bike racks. Adding options at each bus stop for determining when the next bus comes was innovative.

Idea Author: Debby C

Number of Stars 11

Number of Comments 0

Idea Title: Need long-term transfer passes

Idea Detail: In cities like Minneapolis, each purchased bus pass includes a 2.5 hour transfer. This would allow me to go to campus for 60 minute meeting and return by bus without having to buy two tickets. It would increase ridership for those that are using CyRide for quick roundtrips.

Idea Author: Susan D

Number of Stars 7

Number of Comments 1

Comment 1: It is very expensive for a family to use a bus when each passenger pays for a round trip fare. | By John C

Idea Title: Move bus stop on 5th adjacent to WalMart and add cart corral

Idea Detail: From Facebook: What is up with all the abandoned WalMart shopping carts across the street at the bus stop. Seems like there are about 10 carts there every time I drive down that way. I have seen WalMart employees retrieving these carts on occasion but isn't that dangerous for them? Isn't taking the carts off WalMart's property considered stealing? Why isn't the city doing anything about this? They seem to dictate everything else that goes on. This is an eyesore for residents and could evidently become a safety hazard.

Seems Ames People facebook page for "discussion".

Idea Author: Dan D

Number of Stars 7

Number of Comments 1

Comment 1: CyRide 3 Blue Route needs to go further on South Duff to South 16th and loop back north on Buckeye Ave to provide better service for the large, busy commercial district. (Yellow Route is not an adequate solution.)

Having modern bus stops for Blue Route (paved pads, shelters, cart corrals near Walmart and Target, etc.) on both sides of South Duff Ave would take care of most of the shopping cart problems.

| By John C

Idea Title: Extend CyRide 3 Blue Route to South 16th Ave

Idea Detail: Extend CyRide 3 Blue Route on South Duff Ave to South 16th Ave and loop back north on Buckeye Ave to serve the very large commercial district better.

The 5 Yellow Route is not at all adequate. Yellow Route is infrequent and only operates during part of the day (not at all on Sunday). It does not match up with the Blue Route very well.

Idea Author: John C

Number of Stars 6

Number of Comments 0

Idea Title: Bus Rapid Transit

Idea Detail: BRT route from Mortensen Road and Miller Ave to Hayward Ave ("The Towers"), to ISU Campus, to Student University Village and use 24th St/30th St to end near North Grand Mall. High Density corridor needs an alternative to the slow, fixed route service now available.

Fewer stops spaced farther apart to speed up each trip.
Use "stations" instead of the usual bus stops - platforms level with the three bus doors, canopies, benches, fare kiosk, etc.
Enter bus through any of the three doors to speed up boarding.
Schedule frequent service to entice non-student riders.

BRT route could greatly reduce the need for "extras" to and from campus. Less extras would free up buses for BRT.

Idea Author: John C

Number of Stars 6

Number of Comments 0

Idea Title: Bus thoughts

Idea Detail: Overall, my impression of public transit in Ames has been very positive. Especially for a town this size, I think the bus service is pretty decent; it does a good job covering the city and it runs very efficiently. I would always like longer service hours/more frequent service, but I find Cyride pretty adequate.

My one qualm with Cyride is how infrequently the #5 route runs. I live in the downtown area and sometimes have to head to South Duff, and the infrequency of that service, along with the awkward service hours (no service on weekday afternoons) can be frustrating at times.

Something else I'd like to see (and I recognize this is outside the jurisdiction of the Ames MPO, though I think the MPO should look into it) is some sort of regional bus service from Ames down to Ankeny and Des Moines. The Executive Express is a handy service for getting to the airport, but some sort of commuter bus that could get you to Downtown Des Moines would be nice.

Idea Author: John P

Number of Stars 6

Number of Comments 9

Comment 1: It seems like a good idea to make the bus stops at schools a Free Fare zone for students on class days - at least for the Elementary and Middle Schools . The cost would probably be manageable. | By John C

Comment 2: I think the main reason the green route bus coming from the high school stops at city hall and campus is for the transfer connection points.

Ames ought to subsidize their K-12 students more, to get to and from school.

As a society, we impose school and infrastructure taxes and require compulsory attendance. Then we charge them for using these community subsidized resources. Its a form of extortion.

At the very least the students should ride no-charge when picked up from a school location. Students leaving school are clearly not free-riders on the rest of society. | By Andrew G

Comment 3: Great idea; start with peak times, call it Rt. 2A, tie into high school times and reduce number of high school kids riding through campus will increase capacity on Green route for trips to ISU | By Bob B

Comment 4: More information - https://dl.dropboxusercontent.com/u/1579158/green-cyride-ahs.png | By Dan D

Comment 5: Thank you for informing me about the Des Mones-Ames corridor study, Mr. Filippini! I'll be sure to keep my eyes open for that. | By John P

Comment 6: I'll ask my son, I'm sure he exaggerated a little and also included the time it takes for him to walk home from the bus stop. However, the route seems rather indirect, going from AHS East to City Hall to eventually end up at his stop in West Ames on Ontario. AHS to same location by bike is 15 minutes give or take and 10 minutes or less by car. | By Dan D

Comment 7: Cyride adds additional busses to accommodate AHS students at the end of the school day. To the best of my knowledge, it takes 30-35 minutes to get from AHS to the end of each West Ames route.

Can you describe the 1 hr. trek in more detail? | By Andrew G

Comment 8: Takes 1 hour to get from Ames High school to West Ames (2 miles) - that's killing it for more use by HS kids who drive instead and clog up the roads around the High School, Stange, Ridgewood, etc. | By Dan D

Comment 9: The Des Moines Area MPO is leading a Des Mones-Ames Corridor Transit Feasibility Study to examine the feasibility of transit operating along I-35 between Des Moines, Ankeny, and Ames. The report should be available later this year. | By Tony F

Idea Title: Evening and weekend service

Idea Detail: Connect west Ames with South Duff in the evening and weekend. Run a Red to Friley, then bus runs as a Blue to South Duff. Time them in between the 40 minute intervals on regular routes and there will be 20 minute service on the busiest parts of the routes and no need to transfer on the combined trips. Evenings from about 600pm to 1000pm; Saturday 900am to 1000pm; Sunday noon to 800pm.

Idea Author: Bob B

Number of Stars 6

Number of Comments 0

Idea Title: Bus Shelters

Idea Detail: My husband and I both use Cyride a lot (and have for the last 8 years) and we think the service is great. My one comment for improvement would be to have more bus shelters at stops. Weather here can be pretty fierce and it would be nice to have more protected areas to wait in.

Idea Author: Shelby E

Number of Stars 5

Number of Comments 1

Comment 1: Thanks for contributing to the conversation, Shelby. Are there any specific locations where you think Bus Shelters would be a particularly good fit? | By Jason C

Idea Title: CyRide creativity

Idea Detail: Many students do not use CyRide as it is intended. Students who reside in large complexes in South and West Ames often drive to a closer stop, park their car, and then continue on to campus using CyRide. It's actually faster for them to drive halfway then it is to ride around Ames on CyRide. CyRide needs to be more creative in determining how to encourage or, in some cases, not encourage use of the bus system. It is being abused at many levels because students don't "feel" the real cost of riding since it is incorporated into their fees.

Idea Author: Amber C

Number of Stars 4

Number of Comments 3

Comment 1: Thanks Amber for the post. What ideas do you have that would help alleviate this issue? | By Tony F

Comment 2: CyRide does operate some busses in an 'express' type mode. They know some busses fill to capacity quickly and have redundancy added to the route so the full busses proceed without stopping. | By Andrew G

Comment 3: It is true that many students who live on lines do not take the bus. Has Cyride looked in to express buses? That way buses can fill at the farthest stop and proceed non stop to campus. | By Susan D

Idea Title: transit between ames and des moines

Idea Detail: Add Huxley to the mix, maybe Ankeny and commuter train would be a hit.

Idea Author: Abby H

Number of Stars 4

Number of Comments 1

Comment 1: A feasibility study was recently completed for this idea. (link to the document: http://bit.ly/1wZSYcu) Any thoughts about their findings? | By Tony F

Idea Title: Change service frequency.

Idea Detail: There is a big difference between 30 minute frequency of bus service and 20 minute service. Not so much between 20 and 15 minute frequency.

I would like to see Red, Blue and Brown service stay at 20 minute frequency all year round instead of changing to 15 minute service during the fall and spring ISU semesters. This would provide a consistent schedule for passengers.

There would be some cost savings because fewer buses would be scheduled per hour for each route. The savings could be used to improve service elsewhere.

For example, extending the 3 Blue Route to South 16th Street would take more buses if the 15 minute schedule was maintained. But maybe the some of the current buses could redeployed to the Blue Route if the three routes remained on a 20 minute schedule all year round.

Idea Author: John C

Number of Stars 3

Number of Comments 2

Comment 1: Ridership to campus is heavy on class days, ridership to the mall is usually not. And ridership during the five weeks of Thanksgiving Break, Winter Break and Spring Break is light everywhere. So is 15 minute frequency needed to serve North Grand Mall? Could the resources be better spent extending the Blue Route to South 16th?

The Regular 1 Red route is assisted by the 1A Red that serves west Ames and campus. Does the Regular 1 Red Route bus need 15 minute frequency east of campus to the mall if the 1A's can properly serve most of the Red Route students.

Maybe the Brown and Blue Route extras that idle so much in the ISC lots could be better used going back and forth all day (like 1A Red) between campus and the busy bus stops where the most students live. It is not unusual to see a dozen buses idling south of Hilton.

The Brown extras could go back and forth between the Towers and Somerset Village. And the Blue Route extras could go back and forth between Schilletter Village and South 5th. That way the Regular 6 Brown Route and 3 Blue Route buses could be dropped to 20 minute frequency.

My other suggestion to Mobility 2040 is to have frequent articulated buses on a new BRT route serving many of the busiest bus stops from SW Ames to campus and turn around at North Grand Mall. That is a longer term project, but if a BRT was created it would free up many Red, Blue and Brown extras.

| By John C

Comment 2: CyRide has increased the frequency to 15 minutes during the fall/spring semesters due to significant ridership increases along these routes. CyRide's policy is to not leave passengers at bus stops due to capacity constraints, as typically the next trip will be just as busy if not busier. One way CyRide addresses short term overcrowding situations is to place “extra” or helper buses on scheduled trips where there are consistently more than 60 passengers (seated capacity is 38-40) to help accommodate this high demand. In the fall 2014, CyRide operated 37 “extra” buses in daily service to address demand. In comparison, CyRide operated 28 “extra” buses in the fall of 2013. However, extra buses are not published

on the schedule. CyRide send out these "extra" buses to ensure passengers get to work/class/etc. on time.

The second way CyRide addresses higher demand is to add buses to routes for periods of the day where overcrowding is routinely occurring for longer periods of time, making it part of is published schedule; thus increasing the service frequency of a route. These buses are published on the schedule and passengers can plan their trip accordingly.   The spreads out the demand throughout the day as opposed to sending out several "extra" buses at one specific time. CyRide believes the added frequency is warranted given the significant ridership increases on these three routes and is a result of constant demand along these corridors. | By Shari A

Idea Title: Cyride is great! I know very little about HIRTA

Idea Detail: Cyride is great! I know very little about HIRTA

Idea Author: Pete M

Number of Stars 3

Number of Comments 0

Idea Title: HIRTA will not transport people with intellectual disability

Idea Detail: I work at an agency for people with intellectual disabilities who often rely on the HIRTA bus. HIRTA has refused to transport them on several occasions. They cite a lack of drivers. I was previously a driver for HIRTA, and I witnessed their high turnover rate. I am sure the situation would improve if they treated their employees better. I would often work 60 hours a week, and was still considered part time, and did not receive benefits. I also worked for near minimum wage. It may cost more money in the short-term to provide better wages and benefits to HIRTA employees, but in the long run, it will pay for itself by cutting down turnover, and all of the expenses that come along with it.

Idea Author: Sean A

Number of Stars 2

Number of Comments 0

Idea Title: Move CyRide buses out of the Mall

Idea Detail: Move CyRide buses out of the Mall and onto 30th St west of the Walmart driveway with a new transfer center using the curbside lanes in both directions near Walmart. Through traffic would use the inside lanes.

The DOT traffic count for 30th St is only 4420, compared to 4160 for two-lane 6th Street, so it does not need four continuous lanes. Most of that traffic is going to the the Mall or Walmart, so the count for the section west of Walmart is lower than 4420.

Create paved bus pads with canopies to protect passengers from weather. Include good lighting, benches, electronic signs, etc. A pedestrian crossing signal (similar to the signal near MG Hospital) would provide a safe place for passengers to transfer to the other routes.

The loading area at the Mall is very deficient. It is located in an area that is both a fire lane/delivery zone for the stores. The sidewalk is too narrow for the bus wheelchair ramp, there is no protection from the elements, and no benches.

Idea Author: John C

Number of Stars 2

Number of Comments 1

Comment 1: Thanks for the idea, John. We'll add this to our list of transit issues / considerations. | By Jason C

Idea Title: More times

Idea Detail: More times would be very convenient for buses such as Brown and Blue. It's often very inconvenient to have to wait 30-40 minutes to catch the next bus if you are running late or don't want to arrive to your destination too early. For some routes that overlap relatively closely, it would be nice if their times were staggered. This would help with more convenient times for riders and possibly help bring down congestion during peak hours.

Idea Author: Thomas K

Number of Stars 2

Number of Comments 0

Topic Name: My Top Three

Idea Title: safe, non-automotive

Idea Detail: Safety is the highest priority in any transportation activity.
More emphasis on non-automotive modes with incentives (like Wheatsfield access mode card) on a large scale. Stronger relationship between land use/transportation incentives to include non-automotive modes for developers

Idea Author: Bob B

Number of Stars 9

Number of Comments 1

Comment 1: Hi Bob, could you explain Wheatsfield access mode card and how it works? | By Tony F

Idea Title: Safe, fluid movement

Idea Detail: Ideally all forms of transportation (on foot, bicycle, vehicle, mass transit, etc.) would move people safely and fluidly from point A to point B. This would include having more arterial streets and safety improvements where differing transportation styles mingle, e.g. where pedestrians and vehicles or bikes and vehicles share the same area.

Idea Author: Debby C

Number of Stars 9

Number of Comments 0

Idea Title: Efficient vehicle movement

Idea Detail: Efficiency in the design of traffic movement should be a high priority. For instance, a traffic light that has a cycle that only allows one direction to move should also have a turn arrow for cars turning right in the opposite direction. Intersections like 13th and Grand, Airport Rd and Duff, and University and 5th are examples. By law, people have to pause before turning, which is inefficient and time consuming for no purpose.

Also, turning stop lights into blinking yellow/red yield/stop at night would allow for more efficient travel. At night, it is very frustrating waiting for a light to change with no cars in sight.

Details like these would add efficiency to the community.

Idea Author: Joel W

Number of Stars 7

Number of Comments 2

Comment 1: You can get anywhere in a car in Ames. This is not a high priority. | By Susan D

Comment 2: I would second that - and for intersections that have three lanes available in a given direction (left turn, 2 through lanes) without the through traffic to warrant it, reserve the right lane for right-turn only. Many people show common courtesy by moving over to the inner lane if stopped at an intersection, but many don't which increases congestion. | By Tim C

Idea Title: smart connected efficient

Idea Detail: smart vehicles (cars, buses, trucks, bikes, motorcycles) that are connected to the network and can provide information to make mobility efficient and safe.

Idea Author: Eric A

Number of Stars 6

Number of Comments 0

Idea Title: Health - bicycle and pedestrian friendly

Idea Detail: We can reduce carbon footprints, keep our community healthy, and promote active living with bicycle and pedestrian transportation support. It is cheaper to implement than improvements to roads for cars and affects all people in the community.

Idea Author: Susan D

Number of Stars 3

Number of Comments 0

Idea Title: More. Than. Duff.

Idea Detail: Duff is the only option for too many areas/locations. It's a nightmare. Whoever allowed it to get to this point just didn't care. Who decided to put those soccer fields out there, and all the apartments, with one way in and out? Ridiculous.

Sure, Ames could innovate new transportation methods, but come on, it doesn't take a rocket scientist to see that more roads simply need to cross 30 and the creek. It's very, very simple, and 25 years overdue.

Idea Author: Travis B

Number of Stars 3

Number of Comments 0

Idea Title: Duff frontage roads

Idea Detail: Adding frontage roads to the Duff Avenue business district would improve access to businesses located along Duff Ave., on both the east and west sides of the street, help with traffic control, and possibly alleviate some of the traffic/accident pain points. Headed southbound on Duff, you have to pull into the center lane, facing the wrong direction, in order to access the Panera / ColdStone / Jimmy John's business development. From that parking lot, there's no access to the Best Buy lot.

Idea Author: Dusty J

Number of Stars 2

Number of Comments 1

Comment 1: This would help, but so would simply adding another N/W thoroughfare behind Target/WalMart/etc., as well as extending Grand down to S.16th. Duff is out of control. Developers should be forced to allow traffic to go between parking lots, as well. There's no reason people should have to make a dangerous left turn onto Duff from Panchero's/Coldstone when they could simply go out and use the light from the Best Buy/BAM parking lot. | By Travis B

Topic Name: What Is Innovative?

Idea Title: Look to other cities for transportation inspiration

Idea Detail: Fox example:

-Protected bike lanes are safer for cyclists and pedestrians
http://usa.streetsblog.org/2014/11/14/four-reasons-pedestrian-injuries-have-plummeted-along-protected-bike-lanes/

-Have an "if you build it they will come" attitude towards increasing cycling infrastructure:
http://www.obesity.org/news-center/study-shows-bicycle-friendly-city-infrastructure-in-us-significantly-increases-cycling-to-work-by-residents-which-can-improve-health-of-locals.htm

Idea Author: Sarah C

Number of Stars 9

Number of Comments 0

Idea Title: Lower the railroad tracks

Idea Detail: lowering the railroad tracks at 1% grade from Grand east would make Duff a railroad overpass. Right of Way could be made to be three tracks wide for future UP growth. Artwork or parking deck could cover parts of the depressed tracks. This would open downtown development to the south and redevelop Lincolnway corridor to higher economic use. This has been suggested several times in last 20 years. City is afraid to even look at it with a lightweight study calculating the construction cost. UP would be an interested partner as it would eliminate grade crossings and allow them to plan for future growth.
Will this study propose a study to figure out magnitude of cost or just put innovation in the text and not really do anything about it?

Idea Author: Bob B

Number of Stars 5

Number of Comments 2

Comment 1: Bob: Thank you contributing your idea to lower the railroad grade and improve connections between both sides of the tracks in the downtown area. You asked about whether or not the Ames Mobility 2040 study will identify innovative ideas to include in the plan, or will just discuss it in text. Between the workshops last fall and the ongoing discussion here at the Ames Town Hall site, the Ames community is still providing input on what the transportation system vision and goals should be. “Innovative” might be one of those primary goals. We will identify potential projects, programs and policies for inclusion in the Ames Mobility 2040 study that address the community’s needs and evaluate how each of them fit within the Ames transportation goals and objectives (which might include how “innovative” they are).

The product of the LRTP will be a cost-constrained, prioritized list of projects, programs, and policies that can be implemented between today and the year 2040. The LRTP might also include a list of additional studies that require more detailed analysis, such as your suggestion.
| By Jason C

Comment 2: Project 18 within the 2035 long range plan estimated a Duff underpass at $18.9M.
| By Tim C

Idea Title: Cutting edge - focus on public health

Idea Detail: We are in a public health crisis - if things continue as they are, 100 percent of Americans will be obese in 2080. We must turn this around with active living supported with pedestrian and bicycle modes.

Idea Author: Susan D

Number of Stars 3

Number of Comments 0

Topic Name: In a Roundabout Kind of Way!

Idea Title: Good concept - not always straightforward

Idea Detail: Roundabouts can be terrific - if they are done correctly.
Proposed roundabout at Airport and University looks like a mess - at least the last time I saw the design. It would be a shame and a terrible waste if the first roundabout in Ames is poorly designed and built.

Idea Author: Steve L

Number of Stars 7

Number of Comments 1

Comment 1: I can think of many more intersections that would be higher priority than Airport and University - I drive there every day during "peak" hours (if you want to call it that) and have never had more than 3 cars in front of me at that intersection. So if the Research Park doubles in size, then that might be 6 cars in line, big deal. If this were a new development or the concrete was in bad shape it might make sense. But this intersection was redone less than 15 years ago. This project should be put on the back burner, and the money should be used where it can solve actual problems (e.g. 13th and Grand) rather than theoretical ones. | By Tim C

Idea Title: Roundabouts are Not needed for parking.

Idea Detail: I saw a plan to add a roundabout at University Blvd. and Airport Road/Oakwood. That is an excellent idea.

But then the plan was to add a roundabouts for the Workiva parking lot - that is unnecessary. There may be just a few minutes each work day when a lot of traffic is leaving the lot, but a roundabout is not needed for such a limited time.

Idea Author: John C

Number of Stars 6

Number of Comments 1

Comment 1: I believe the 2nd roundabout on the planned University extension (the 1st being at the intersection of Airport/University/Oakwood, the 3rd being at the new HUB building site) is actually south of the Workiva parking lot, approximately where the pavement currently ends on University You can see a map here: http://www.cityofames.org/modules/showdocument.aspx?documentid=20469 | By Trevin W

Idea Title: I love roundabouts. Europe uses them perfectly.

Idea Detail: I didn't like them until I went to England and learned how to use them and how efficient they are compared to stop lights and stop signs.

Idea Author: Jon K

Number of Stars 6

Number of Comments 0

Idea Title: Roundabouts are only as good as the drivers who use them

Idea Detail: Roundabouts are most effective at intersections where most traffic would be making turns in all directions as opposed to going straight. The Gilbert roundabout is an ideal location for one.

However, it only takes one car to come to a complete stop when there is plenty of room, then yielding to the other three directions for several minutes, causing traffic to back up. Based on the slow adaptation of people to the Gilbert roundabout, I would think that any additional roundabouts should be done in low-traffic areas and introduced very gradually - then set some metrics to be achieved at intersections before expanding to other areas.

Idea Author: Tim C

Number of Stars 4

Number of Comments 0

Idea Title: Confusing

Idea Detail: While I have always managed to safely navigate them in a car, thus far I still am confused when I approach one. This doesn't mean they are a bad idea, just that I think consideration to training and education on how to use them is important. I have to say, I'm not sure how it would be safe for bicycle to ride on the far right with cars entering and exiting. I've seen an example of a shared use type path that crosses the road prior to the round about. I wonder how easy it would be to tell a car is coming off the round about on the that road and how much longer it would take to get through the intersection on a bicycle if you have to yield at each road.

Idea Author: Kelly W

Number of Stars 3

Number of Comments 0

Idea Title: Roundabouts are great

Idea Detail: I travel by multiple modes and generally find roundabouts to be safer traffic control devices for everyone. I would agree with other commenters that there are learning curves involved but when designed, marked, and signed effectively they're great additions.

Another excellent intersection for consideration beyond the currently worked on Airport/University intersection would be Stange and 13th. So much of that traffic is backed up as a result of turning traffic.

Idea Author: Trevin W

Number of Stars 2

Number of Comments 0

Idea Title: rural iowans will never understand

Idea Detail: I live near and travel around McFarland Clinic and MGMC and cars with tags outside of Story County struggle with left hand turn lanes (S. Duff is another example) Roundabouts would be too much for our visitors to cope with. Ames would benefit more with a transportation plan that includes left hand turn lanes and signals.

Idea Author: KW B

Number of Stars 1

Number of Comments 0

Topic Name: Keeping Ames Growing!

Idea Title: Bike Friendly Businesses

Idea Detail: http://bikeleague.org/business

The American League of Bicyclists has a program to promote Bike Friendly Businesses. Already in business districts such as Campustown, it is difficult to find bike racks or bike parking. Although downtown has made strides, their artful bike racks are a bit hard to find or identify as bike racks. Riding downtown can be difficult or dangerous because there are a lot of vehicles backing out of parking spots, and cyclists may not be very visible. However, sidewalk cycling is obviously frowned upon and even illegal in portions of Campustown due to high rates of pedestrian traffic. Working to make business districts more friendly to cyclists could boost business.

Idea Author: Sarah C

Number of Stars 6

Number of Comments 2

Comment 1: Ames can easily connect to existing Iowa bicycle trails to draw in tourists and create recreational opportunities! Something as simple as a sign that says how far the trail is from southwest Ames would help encourage people to use the trail. | By Susan D

Comment 2: Also, as we have seen on the High Trestle Trail, recreational cycling opportunities that have bar/restaurant destinations can be a huge attraction. Having a recreational bike trail that intersects with business districts may offer business opportunities that haven't been thought of previously. Having a well-connected bike trail between Gilbert and Ames may promote cycling to the Prairie Moon Winery, bars/restaurants in Gilbert, restaurants in North Ames, etc.

It is a shame that Somerset seems so well-equipped for heavy cycling and pedestrian traffic, and yet the road remains 4 lanes for vehicles throughout, and the only cycling route is the "path" aka sidewalk, which intersects with a lot of pedestrian traffic on both sides of Stange. A road diet in Somerset could allow for better flow of bicycle traffic. | By Sarah C

Idea Title: Support local businesses

Idea Detail: Increase foot traffic to local businesses. Also, revisit parking rates - in many cities it is much too low. People using cheap parking to park in front of a business for over an hour hurt that business.

Idea Author: Susan D

Number of Stars 3

Number of Comments 0

Topic Name: Let the People Move!

Idea Title: 6th St. & University Blvd

Idea Detail: This is a troublesome intersection for walkers and bikers due to drivers turning without checking; might help to use leading interval here.

Idea Author: Steve L

Number of Stars 6

Number of Comments 0

Idea Title: LPI Great idea in certain areas

Idea Detail: There are several areas around Ames that LPI's would help. Particularly in the campus area, also along South Duff, the corner of Duff and Grand and corner of Mortensen and South Dakota

Idea Author: Cari M

Number of Stars 5

Number of Comments 0

Idea Title: snow removal for walk ways. snow plows cover them in snow

Idea Detail: An example--20th and Grand is a very important crossing for school kids. Snow plows push the snow to completely obstruct the walkway--can't even get to the walk button to push it.

Idea Author: ELIZABETH W

Number of Stars 3

Number of Comments 0

Idea Title: Which intersections are these being used at?

Idea Detail: It would be nice to know which specific places we are already using this in Ames.

Idea Author: Susan D

Number of Stars 2

Number of Comments 2

Comment 1: Currently the following intersections use a leading pedestrian interval:

11th and Duff - all phases
S 5th and S. Duff - East/West pedestrian movements
S. 3rd and S. Duff - East/West pedestrian movements
Lincoln Way and Dotson - North/South pedestrian movement | By Tony F

Comment 2: Let me find out where they are currently being used and I'll post them here. | By Tony F

Idea Title: Seems like a good idea.

Idea Detail: So long as the driver is looking around, this should allow a greater awareness of a pedestrian entering the road. If a driver is looking at their phone, it could make sure the pedestrian is directly in the car's path!

Idea Author: Kelly W

Number of Stars 2

Number of Comments 0

Topic Name: OK Siri, Get Me Home

Idea Title: Google improving their bike maps

Idea Detail: Google improving their bike maps

Idea Author: Kelly W

Number of Stars 3

Number of Comments 0

Topic Name: A Livable Community

Idea Title: Public Meeting Ideas

Idea Detail: Some of the words used at the public meetings were: Connected, Ease of Use of All Modes, and Affordable. You can review all the materials from the visioning session here: http://amesmobility2040.com/resources/. What ideas would you like to add on what you believe Livability means in Ames?

Idea Author: Tony F

Number of Stars 2

Number of Comments 2

Comment 1: If you are talking about livability strictly in regards to transportation, I think those three cover it pretty well. I would also add the appearance/feeling of safety- routes (whether bike or car or ped) that are well lit and free of debris/obstacles and have a high level of continuity. | By Shelby E

Comment 2: Pedestrian improvements are number one. They provide access for all ages and incomes, help our community stay healthy with physical activity, and incorporate into other modes (bus system, automobiles, etc). The improvements are also much cheaper than road projects. | By Susan D

Idea Title: Wellbeing through daily physical activity

Idea Detail: Bicycle and pedestrian infrastructure allow for citizens to get physical activity in their daily lives simply by going from point A to point B. Let's focus on health and well-being.

Idea Author: Susan D

Number of Stars 2

Number of Comments 0

Idea Title: a monorail or train between dsm/a message for commute

Idea Detail: Many people choose to live and shop in Ames but work in dsm. Ames is a more livable city but commuting is unsafe, expensive and has made many commuters consider relocation.

Idea Author: Abby H

Number of Stars 2

Number of Comments 2

Comment 1: I agree with Susan D. Bus Rapid Transit is much more affordable than rail, but even BRT should wait until regular bus service is tried. | By John C

Comment 2: I don't think the population is high enough in Ames to warrant a train that folks would take regularly. There is a great growing lightrail system in the Twin Cities, and they started it in the densest parts of the city. | By Susan D

Topic Name (Instant Poll): What Do We Need?

Idea Title: Separate bike paths/trails for bicycling

Number of votes: 52

Idea Title: Bicycle lanes on city streets

Number of votes: 38

Idea Title: More North-South and East-West arterial connections

Number of votes: 34

Idea Title: Expanded Regional Transit (express bus service, light rail)

Number of votes: 24

Idea Title: Expanded bus service within Ames

Number of votes: 19

Idea Title: Pedestrian facilities

Number of votes: 19

Idea Title: New Transit Modes (trolley, light rail, bus rapid transit, streetcar)

Number of votes: 13

Idea Title: Enhancements to Interstate 35 and Highway 30

Number of votes: 4

Comments

Number of Comments 2

Comment 1: The city needs a transportation plan. With priorities and tied to Ames' growth. | By KW B

Comment 2: More frequent bus service routes at night. | By Shari A

Topic Name (Instant Poll): Raise the Roof...or Crosswalk!

Idea Title: Yes

Number of votes: 13

Idea Title: No

Number of votes: 4

Idea Title: I'm not sure

Number of votes: 1

Comments

Number of Comments 3

Comment 1: Absolutely, there are intersections all over town where cars don't slow for pedestrians especially near high volume turns. Pedestrians and cyclists frequently travel counter to the expected direction of travel while using multi-use trails and sidewalks and this gives a very clear indication in the roadway to be on the lookout. | By Trevin W

Comment 2: I agree with Dan on the two intersections he mentions. I would also add the intersection of Haber Road and 13th Street, and Hyland Avenue & Sheldon Avenue. | By Susan D

Comment 3: I think these could be very effective at intersections where shared use paths intersect with roads where drivers can turn right while looking left when they are not concerned with right side car conflicts. For example, the intersection of Mortensen and University. They could also be very effective on Beach near the Lied recreation center where there is a high volume of pedestrian crossing conflicting with high speed vehicle traffic. | By Dan D

Topic Name (Instant Poll): Funding Fun!

Idea Title: More focus on grants

Number of votes: 12

Idea Title: Increased taxes

Number of votes: 9

Idea Title: Partner with other communities or agencies

Number of votes: 8

Idea Title: Public-Private Partnerships

Number of votes: 7

Idea Title: Apply for federal funding

Number of votes: 7

Idea Title: Decrease spending

Number of votes: 4

Idea Title: You missed my answer! (Answer in the comments section below)

Number of votes: 4

Comments

Number of Comments 5

Comment 1: Unfortunately this is not a check the box kind of answer. It is a combination. For instance, Hwy 69 is a State Hwy, there a combination of state and local funds could be used. Converting the old Dinky line into a pedestrian walk way could be helped with state and local funds. To increase taxes, the city would need to organize, prioritize and present a plan to the residents. Since the city has no plan, this would be hard to do. | By KW B

Comment 2: Over the next 25 years, several trends may reduce infrastructure needs: (a) Rideshare apps such as Uber may reduce transit and auto needs, and even reduce the need for vehicle ownership; (b) Self-driving vehicles combined with intelligent signal systems reduce need for extra lanes.

For paying for such infrastructure, perhaps options could be floated such that annual vehicle registration fees can be reduced in exchange for using a phone app (or in-vehicle app) that tracks road usage via GPS - then taxes are in sync with usage, revenue is captured from electric vehicles (not paying gas tax), and actual data can be used in prioritizing improvements without the need for special traffic measurements. | By Tim C

Comment 3: The bus stops at ISU are poorly planned, designed and maintained. The stops do not have near enough pavement for the large crowds waiting for buses, especially when multiple buses are pulling up at the same time. And passengers frequently leave the bus from the rear doors and do not have pavement to step onto. There are very few shelters, and the existing shelters are much too small for so many people. Large canopies would be more useful than small shelters. Snow removal for bus pads has been very poor year after year making it difficult for passengers to leave the bus from the rear doors.

The students pay a moderate fee (I think it is only $63 per semester) for complete access to CyRide. Maybe they would be willing to pay a bit more (say $5 per semester) if ALL of that additional money was used for major upgrades to the bus stops.

Fewer bus stops, but better stops with long, improved bus stop pavement pads with canopies to protect passengers from sun, rain, ice and snow. Currently, buses are lined up tight along the curb, so the second bus in line may be blocked by the bus ahead because the bus stop zones are not long enough to allow for the second bus to pull around the first. This is especially a problem at the transfer points like Kildee-Bessey because the first bus is waiting for a transfer to arrive.

Go to downtown Des Moines to see a modern transfer center where the buses are never blocked in by each other, and where each route has a designated "platform" for passengers to board their bus.

The intersection of Stange Road and Osborn Drive is closed to through traffic and is an ugly wasted space. That area could be developed into a modern transfer center for CyRide. | By John C

Comment 4: Kill the Federal Gas Tax - Sending gas tax money to Washington is both a disincentive to states to raise their own gas tax, as well as an incentive to states to spend more on infrastructure (whether it's needed or not), so they continue to reap more money from Federal transportation programs. Who can prioritize infrastructure needs better--somebody

local, or someone in D.C.? Who would spend the money more efficiently, with more accountability--somebody local, or someone in D.C. The reason there's so much resistance to raising the Federal Gas Tax--we all know so much of it will be wasted. So why send our money there in the 1st place?
http://www.bloombergview.com/articles/2013-01-23/drop-the-federal-gas-tax-and-build-better-roads | By Dusty J

Comment 5: Pedestrian and bicycle infrastructure is very cheap compared to automobile infrastructure. | By Susan D

Topic Name (Instant Poll): Rate 'Bicycles & Pedestrians'!

Idea Title: 5 – This is one of my top priorities for the future.

Number of votes: 11

Idea Title: 4 – It would probably be good, but it's not my top priority.

Number of votes: 5

Idea Title: 1 – It's not what I want for the future of our community.

Number of votes: 0

Idea Title: 2 – I'm not that interested; it doesn't matter to me.

Number of votes: 0

Idea Title: 3 – I think we're doing enough now, and don't need to do more.

Number of votes: 0

Comments

Number of Comments 0

Topic Name (Instant Poll): Rate 'Connected'!

Idea Title: 5 – This is one of my top priorities for the future.

Number of votes: 9

Idea Title: 4 – It would probably be good, but it’s not my top priority.

Number of votes: 7

Idea Title: 1 – It’s not what I want for the future of our community.

Number of votes: 0

Idea Title: 2 – I’m not that interested; it doesn’t matter to me.

Number of votes: 0

Idea Title: 3 – I think we’re doing enough now, and don’t need to do more.

Number of votes: 0

Comments

Number of Comments 2

Comment 1: Quit coming up with excuses to take more of my money and spend it on things you want. | By Justin W

Comment 2: The survey question could be clearer. Is it about connection? Whether we agree with the top vote-getters from the September meeting? Something else? Please clarify. | By Debby C

Topic Name (Instant Poll): Rate 'Safe'!

Idea Title: 5 – This is one of my top priorities for the future.

Number of votes: 8

Idea Title: 4 – It would probably be good, but it's not my top priority.

Number of votes: 3

Idea Title: 1 – It's not what I want for the future of our community.

Number of votes: 0

Idea Title: 2 – I'm not that interested; it doesn't matter to me.

Number of votes: 0

Idea Title: 3 – I think we're doing enough now, and don't need to do more.

Number of votes: 0

Comments

Number of Comments 0

Topic Name (Instant Poll): Multimodal On My Mind

Idea Title: I want improved transit options.

Number of votes: 7

Idea Title: We should improve the bike system.

Number of votes: 7

Idea Title: Focus on pedestrians, please.

Number of votes: 5

Idea Title: Cars and passenger vehicles; that’s how so many of us get around.

Number of votes: 4

Idea Title: You missed my answer! (Answer in the comments section below)

Number of votes: 1

Idea Title: The freight system is important to me.

Number of votes: 0

Comments

Number of Comments 0

Topic Name (Instant Poll): How Well Do You Share?

Idea Title: Yes, would be great throughout the entire city including the Iowa State Campus

Number of votes: 7

Idea Title: I'm not sure

Number of votes: 3

Idea Title: No

Number of votes: 2

Idea Title: Yes, but only on or near the Iowa State Campus

Number of votes: 1

Comments

Number of Comments 4

Comment 1: What is the minimum geographic area, minimum density, and usage rate (including weather) for it to be cost effective? Data from other cities could be a quick litmus test to determine the economic viability. | By Tim C

Comment 2: A great example of the last mile problem that such a system could help solve in Ames: Not all of the brown route busses go to the southern most extent of the route. However with intersection improvements at Mortensen and 30 there would be a very safe route for people on bikes on University. If there were a bike share station, or two, at the research park, and maybe one slightly farther down Airport someone could bike that final portion of the route easily.

Similar last problems could be solved at the end of Pink and Silver that run relatively infrequently. | By Trevin W

Comment 3: Though true that theft and vandalism does sometimes occur generally the amount to which is negligible: http://www.streetsblog.org/2010/11/29/theft-and-vandalism-just-not-a-problem-for-american-bike-sharing/

If we're talking about prioritizing a bike share program vs. other mode options I'm open to the idea. I think Ames has some critical steps to take in bicycling infrastructure to make such a program a successful one. I don't think it's unreasonable to put a program on a 5-15 year track though.

Bike share programs, especially when coordinated with other transit options enhance both systems, solving last mile problems for larger transit systems, in our case CyRide, and alleviating congestion on those systems for shorter trips. In conjunction with a city-wide bike route system and coordination and planning with cyride I think a bike share program would be fantastic for Ames. | By Trevin W

Comment 4: Bikes get stolen from almost every bike sharing program in existence. This sounds like an unnecessary waste/expense. If Ames is such a bike-friendly community, that would suggest that most people have their own bikes. | By Dusty J

Topic Name (Instant Poll): Rate 'Multi-Modal'!

Idea Title: 4 – It would probably be good, but it's not my top priority.

Number of votes: 6

Idea Title: 2 – I'm not that interested; it doesn't matter to me.

Number of votes: 3

Idea Title: 1 – It's not what I want for the future of our community.

Number of votes: 1

Idea Title: 5 – This is one of my top priorities for the future.

Number of votes: 1

Idea Title: 3 – I think we're doing enough now, and don't need to do more.

Number of votes: 0

Comments

Number of Comments 3

Comment 1: Hi, Debby. "Modes" are the various means by which people travel - whether on foot, by bike, car, or bus. From a planning perspective, multimodal refers to integrating the modes of travel, considering them together and how they connect with one another. | By Jason C

Comment 2: And I would add that there are several ways to interpret what "multi-modal" really means for the plan itself. From the feedback we received the public workshops, "multi-modal" was communicated to us as considering walking, bicycling, transit, and vehicular / roadway projects on an equal basis, and it also meant to look for ways to better connect the modes together. | By Jason C

Comment 3: Please clarify what you mean by 'multi-modal'. Thank you. | By Debby C

Topic Name (Instant Poll): Rate 'Environmentally Aware/Friendly'!

Idea Title: 4 – It would probably be good, but it's not my top priority.

Number of votes: 5

Idea Title: 5 – This is one of my top priorities for the future.

Number of votes: 5

Idea Title: 3 – I think we're doing enough now, and don't need to do more.

Number of votes: 1

Idea Title: 1 – It's not what I want for the future of our community.

Number of votes: 0

Idea Title: 2 – I'm not that interested; it doesn't matter to me.

Number of votes: 0

Comments

Number of Comments 1

Comment 1: The final UN report on climate change came out recently and it said that we need to be dropping our CO2 emission rates way faster than we are currently. For me, this is the most important thing. We ought to reformat our transportation system in order to encourage less carbon intensive practices. We can do this by creating strong alternatives to automobile use such as better and more clearly marked bike paths/lanes, a city-wide bike share program, more pedestrian friendly amenities, and expanding Cyride to additional locations that makes sense. What goes along with this, but isn't really a transportation issue but more of a zoning one, is encouraging higher density and mixed use developments. This means apartments above retail space and housing like what can be found along Stange north of 24th. This means people can go on foot for shopping and activities which reduces CO2 emissions. Additionally, it helps tackle the issue of congestion because fewer cars will be on the road. We ought to be looking to New Urbanism to address our transportation issues in the future. | By Tim K

Topic Name (Instant Poll): Rate 'Forward Thinking/Innovative'!

Idea Title: 5 – This is one of my top priorities for the future.

Number of votes: 4

Idea Title: 4 – It would probably be good, but it's not my top priority.

Number of votes: 3

Idea Title: 3 – I think we're doing enough now, and don't need to do more.

Number of votes: 2

Idea Title: 1 – It's not what I want for the future of our community.

Number of votes: 1

Idea Title: 2 – I'm not that interested; it doesn't matter to me.

Number of votes: 1

Comments

Number of Comments 1

Comment 1: "Forward-thinking": yes, if done wisely, better outcomes can be achieved with much less money.

"Innovative": no, if that means trying new approaches before they have been tested in other communities, the scale of the tax base in Ames does not warrant taking such risks with what little budget there is for transportation projects. Better to let larger cities be innovative with their money, then learn from them on what works and what doesn't based on measurable cost-benefit. | By Tim C

Topic Name (Instant Poll): Rate 'Accessible/Convenient'!

Idea Title: 4 – It would probably be good, but it's not my top priority.

Number of votes: 4

Idea Title: 5 – This is one of my top priorities for the future.

Number of votes: 3

Idea Title: 2 – I'm not that interested; it doesn't matter to me.

Number of votes: 1

Idea Title: 3 – I think we're doing enough now, and don't need to do more.

Number of votes: 1

Idea Title: 1 – It's not what I want for the future of our community.

Number of votes: 0

Comments

Number of Comments 0

Topic Name: Picture It!

Idea Title: This is an example of on-street bike parking coupled with a road diet in a business district in Sioux Falls, SD

Number of Comments 3

Comment 1: Need a bike parking stand, like at the library, in every block of downtown on both sides of the street. When going to Ames Historical on Douglas, I have to chain my bike to a traffic sign | By Bob B

Comment 2: Thank you for coming to the meeting last night and being an active partcipant, Sarah. Great picture - thank you for adding it. | By Jason C

Comment 3: On street bicycle parking such as this is a good option for getting bicycles off of sidewalks, where sidewalks need to be used in business districts for sidewalk cafes or pedestrian transportation. This is also a traffic calming mechanism. | By Sarah C

Idea Title: Most big cities I've been to have clearly marked, designated bike lanes on all main roads.

Number of Comments 1

Comment 1: Cities are also going to painting bike lanes bright green! | By Susan D

Idea Title: Use bumps to separate bicycle lanes from traffic

Number of Comments 1

Comment 1: Good idea, but snow removal may be a problem. | By John C

Idea Title: Pedestrian and bicycle traffic circles like at University of California: Davis

Number of Comments 0

Idea Title: Many cities are using green paint to highlight bicycle lanes.

Number of Comments 1

Comment 1: What Ames Needs, Where I Want To Go, How I Want To Get There | By Susan D

Idea Title: BRT (Bus Rapid Transit) uses "stations" instead of plain bus stops: canopies, benches, fare kiosks, electronic signs, etc.

Number of Comments 1

Comment 1: How I Want To Get There | By John C

Idea Title: BRT Station has level boarding platform near each of the three doors. Passengers enter any door to speed up boarding.

Number of Comments 1

Comment 1: How I Want To Get There | By John C

Idea Title: BRT bus has bike rack inside bus to speed up boarding. The level platform at stations also speeds up wheelchair boarding.

Number of Comments 1

Comment 1: How I Want To Get There | By John C

Idea Title: The trash bin next to my apartment does not have a recycling division. So does other trash bins in the area. Recyclable

Number of Comments 0

Idea Title: Cyclists are often seen on the same road with cars or pedestrians. There is not a cycling area marked or separated on th

Number of Comments 1

Comment 1: Cyclists are allowed to ride in traffic, as a vehicle, per Iowa law. | By Sarah C

Idea Title: The lawn area between the sidewalk and the road on a section of east Lincoln Way is very narrow. It can only squeeze in

Number of Comments 0

Idea Title: A trail in my area does not have a parking space. I often see people exercising on the trail, but they usually park in t

Number of Comments 0

Idea Title: As cars pass by the stopping buses from behind, it is very hard to see any pedestrian as him or her cross the road from

Number of Comments 0

Idea Title: Safer pedestrian crossing (at 30th & Baseline in Boulder) than the painted lines currently at Lincolnway and University.

Number of Comments 2

Comment 1: See curved turn lane pictured above. This is a heavy traffic area near UC-Boulder. I have personally crossed in this walk many times and it provides a much safer experience than what I have crossing University Blvd (at L-Way) on foot. Pedestrians and bicyclists are pretty much right out in traffic, "protected" only by paint lines, due to the turn lane. | By Debby C

Comment 2: What Ames Needs | By Debby C

Idea Title: Construction has been there for awhile. Students forced to walk on the street to get to Legacy Towers.

Number of Comments 0

Idea Title: Sidewalk on Stanton Ave. too narrow, the grass is run down from high pedestrian traffic and too little area to work.

Number of Comments 0

Idea Title: High demand of parking around campus town. We need more parking and less rules against it!

Number of Comments 0

Idea Title: On Lincoln Way, possibly need more left turn arrows. Somedays traffic is very slow due to lack of arrows.

Number of Comments 0

Idea Title: There needs to be a crosswalk of some sort on Stanton or a bigger median. This cross way has a high pedestrian traffic.

Number of Comments 0

Idea Title: Breaks in sidewalk on Summit Ave

Number of Comments 0

Idea Title: uneven sidewalks, Summit Ave

Number of Comments 0

Idea Title: Overgrowth of foliage, sidewalk, on Summit Ave

Number of Comments 0

Idea Title: Breaks in Sidewalk, Summit Ave

Number of Comments 0

Idea Title: Sidewalk only on one side of the street, 13th Ave

Number of Comments 0

Topic Name: Show Us What's Working!

Idea Title: Protected bike lanes

Number of Comments 0

Topic Name: Ames Mobility 2040 Photo Treasure Hunt

Idea Title: treasure hunt

Idea Detail: Is the treasure hunt closed now?

Idea Author: Jo S

Number of Comments 0

Topic Name: Challenge 1: Journey to Work – Commuter Stories

Idea Title: The LRTP team commuted between multiple meetings and lunch across all parts of downtown without a car.

Number of Comments 0

Topic Name: Challenge 5: Sustainable Transportation Alternatives

Idea Title: Got to try out the new bike share prototype at the Bike Summit Friday. The CyBike designed by ISU students was great.

Number of Comments 1

Comment 1: Inspired | By Jason C

Idea Title: Need obvious striping at dangerous intersections: University & 6th, University & Wallace. Cars assume they have right-of-way.

Number of Comments 1

Comment 1: Great picture of that intersection treatment, Steven. Is that from Vancouver? | By Jason C

Idea Title: Protected bicycle routes. We have room on roads (Ontario, 24th, 16th, Duff) and we don't have to remove (underutilized) parking.

Number of Comments 1

Comment 1: Inspired, Happy | By Trevin W

Draft LRTP Final Comment Report – August 26 – September 11, 2015

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
20341 08/26/2015 Website Comment Open	**Web Comment from kathysvec@msn.com 8/26/2015** I would like to reinforce other comments made about congestion on Grand Ave. In the time I have lived on Grand (30+ years) traffic and traffic speed has certainly increased, and, alarmingly, the size of vehicles has increased. We are often amazed at highway-scale trucks zooming past our house at all hours. My request for those involved in updating the transportation plan is to look at the "Business I35" routes that direct traffic off Interstate 35 into the heart of Ames. Since those signs were posted many years ago, Dayton Ave and University Ave. have become major north-south routes through Ames that could serve as efficient additional "business" routes with appropriate signage. With most of the current "business" route traveling through residential areas (13th to Grand, then Grand to 6th), I'm sure I am not the only home owner concerned about heavy truck traffic through town. Thank you for giving me the opportunity to comment.	Roadway	Kathy Svec	kathysvec@msn.com
20378 09/01/2015 Website Comment Open	**Web Comment from jimcoppoc@gmail.com 9/1/2015** Hello, I am a resident of the Kate Mitchell neighborhood of Ames, and a would-be bike commuter. I've just been through the draft of the pedestrian and bicycle plan, and I was disappointed to see that there is no provision to connect southeast Ames to the rest of the town. It appears we were forgotten. Currently, we have a dirt and rock path from the Kate Mitchell neighborhood to the fire station, two dangerous crossings of on and off ramps to Highway 30, a difficult crossing at 16th (which I see was addressed), and then a choice between another dirt and rock path that dumps out at Lincoln Center, leaving no safe way to get downtown, or an impossibly narrow sidewalk shared with pedestrians along South Duff, which also leaves no safe way to get downtown (this is also mentioned, but with the caveat that "other" options would be explored first). Essentially, any significant amount of rain or snow makes the unmaintained mud paths unusable, and there is no safe connection at all past 4th Street behind Lincoln Center. Why not pave the paths and widen the sidewalks to allow this significant part of Ames access to the rest of the town? It would seem that this would be among the cheaper projects mentioned, and among other benefits, every rider on a usable path would be one less car on South Duff, which is one of our most congested streets. Thanks for your time, Jim Coppoc	Bicycle and Pedestrian	Jim Coppoc	jimcoppoc@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
20434 09/08/2015 Website Comment Open	**Web Comment from thaggas@gmail.com 9/8/2015** In looking at your report, I see a glaring omission. Something must be done about the traffic in and out of the Hunziker Sports Complex. As participation and population grows, it's becoming more and more of a problem. This one location is the cause of so much of the congestion on South Duff April thru November with the many different sports that are offered there. I'm not sure how you can rate the traffic through the Airport/Duff intersection as acceptable. It can take 15-20 minutes to clear that intersection during peak times that probably aren't considered usual traffic peak times. I've experienced traffic delays that rival leaving a major sporting event in Minneapolis. Not only is this a headache for drivers, it creates a dangerous situation in the event of an emergency. I've never seen a situation where that many people are allowed to congregate, with only one access point. Whether it's a building or an open, public space like the HSC. Thank you, Tom Haggas	Transit	Tom Haggas	thaggas@gmail.com
20429 09/08/2015 Website Comment Open	**Web Comment from katyleepatterson@gmail.com 9/8/2015** Ames infrastructure just can not handle the amount of automobile traffic we have, and at the same time alternative modes of transportation are also not as viable as they should be, compounding the congestion. I am a big proponent of better resources for bike commuting including dedicated bike lanes on or next to the roads, bike paths adjacent to or even independent of roadways, education for all city residents about their rights and their responsibilites whether on a bike or in a car, etc. I also export expansion of the city Cy Ride both in number of buses, number of routes, and length of time that routes run (example some routes stop running earlier in the evening than i would like). I'd also like a partnership betwwen ames schools and cy ride where kids can ride the bus for free to and from school and school activities. Addibg in these kinds of things would go a lobg way towards moving Ames forward, both literally and figurativly!	Transit	Katy Patterson	katyleepatterson@gmail.com
20435 09/09/2015 Website Comment Open	**Web Comment from Agilebxr@yahoo.com 9/9/2015** I have driven the route using 13th St for many years..the intersection at 13th & Grand needs to be changed. My suggestion is to have it be an alternate intersection, like L-Way & Duff. ie - First west bound 13th goes, then southbound Grand goes, then eastbound 13th goes, and then northbound Grand. No construction needed, just electric changes.	Roadway	Deb Owens	Agilebxr@yahoo.com
20461 09/10/2015 Email Open	**Ames Bicycle Coaltion LRTP Feedback** Good afternoon, Attached is a PDF of the Ames Bicycle Coalition feedback regarding the most recent LRTP draft. This document addresses the timing and remaining connectivity issues of	Bicycle and Pedestrian	Damion Pregitzer Trevin Ward	dpregitzer@city.ames.ia.us tedger@gmail.com

ID Date Type Status	Title Summary Notes	Topics	Person Participants	
	many projects that have been prioritized through the LRTP. Please also pass this along to the MPO policy committee for their consideration. TJ is traveling through the rest of this week, but Dan, Wayne or myself should be able to address any immediate questions. Kind regards, Sarah Cady		Tony Filippini	tfilippini@city.ames.ia.us
			Sarah Cady	sarahdcady@gmail.com
			Dan DeGeest	dan.degeest@gmail.com
			Jason Carbee	jason.carbee@hdrinc.com
			Wayne Rohut	wal_flour@yahoo.com
			Courtney Sokol	courtney.sokol@hdrinc.com

Feedback for the Ames Area Metropolitan Planning Organization Draft 2040 Long Range Transportation Plan

Ames Bicycle Coalition

September 2015

Preface

As we near the end of the 2040 long range planning effort for the extended Ames area, the Ames Bicycle Coalition would like to look back on the last year of process and congratulate all involved. The process has produced what we feel is a comprehensive plan that should lay the groundwork for a complete, interconnected, and safe bicycling network in the Ames area. Working with City of Ames, AAMPO, and HDR staff over the last year, the Ames Bicycle Coalition has found the process to be respectful, engaging, and productive for all parties.

We're glad to hear from City representatives, both Staff and elected officials, that they share our view that the process represents only the beginning, and that much work remains to implement these project proposals and make them reality. We look forward to continuing to work with City Planners, MPO staff, and elected representatives in programming projects in the Transportations Improvement Program (TIP) and Capital Improvements Plan (CIP), while also improving the policy structures that encourage bicycling.

Paint and concrete are not the only tools to make our community a better place for bicycling, walking, and driving -- for living. We need to be addressing policy concerns and sponsor public education campaigns at the same time as we implement projects. Ames needs an official Complete Streets Program, improvements to city code, additional outreach and education programs, and a vulnerable users ordinance to protect people on bikes and on foot. All steps we hope to make together in the near future.

We look forward to continuing to work with the City of Ames to create a city where bicycling is safe and accessible for everyone. The Ames Bicycle Coalition envisions a day when traveling by bicycle is so common in Ames that our whole community stops calling someone on a bike a "biker" or "cyclist" and instead see them for what they are, just another person getting somewhere.

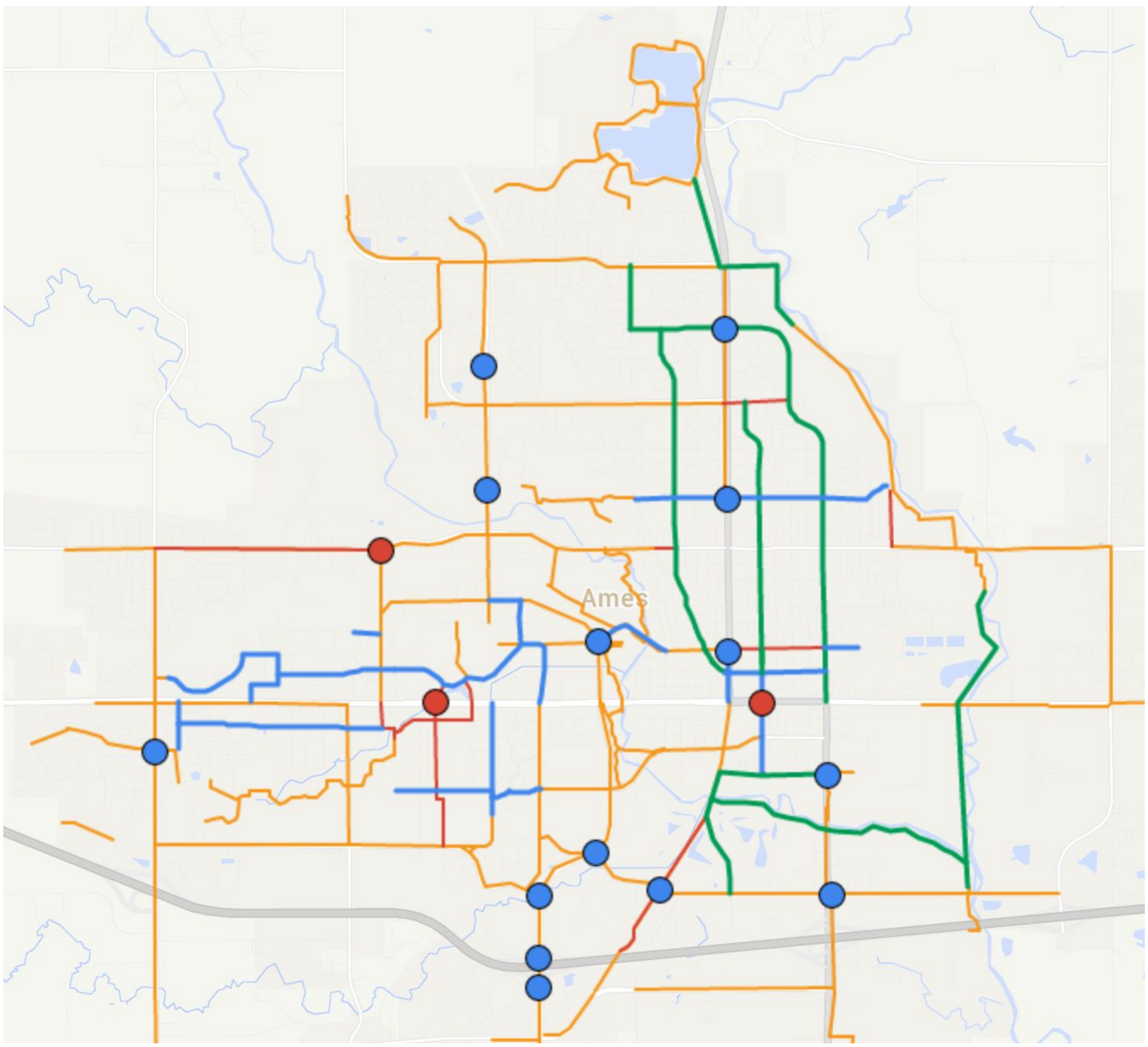
We hope you join us for this ride.

Remaining Gaps in Programmed Alternative Projects

Map Reference

Throughout the remainder of this document there are numerous maps. Red lines mark gaps we seek to remedy; blue and green lines represent short term and committed programmed projects respectively; orange lines represent existing routes consisting of shared use paths and bike lanes.

You can find our full mapping effort online here where we highlight gaps we feel need to be prioritized in the short term to create a complete bicycle network by 2020. This is a goal that communities around the country see as vital benchmark that is crucial to retaining young professionals and families, reducing ecological impacts, and reducing costs of transportation investments while maintaining the same quality of service for vehicles.



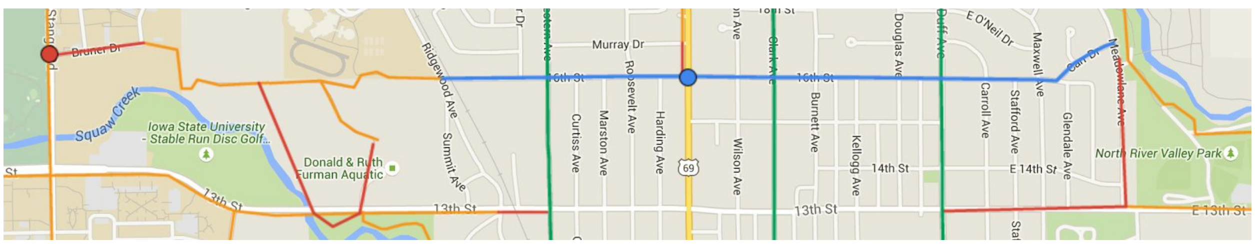
East-West Routes

Ontario, West of Hyland

Ontario represents an important east-west connector route with no viable alternative, due to a lack of flat and direct parallel routes. Currently Ontario does have a shared use path along its southern side but it is marred by a large number of drive cuts, impacting cyclist safety and comfort. This stretch of road has more drive cuts and intersections than any section of road in Ames[1] and deserves a connection that doesn't interact with them. These drive cuts and intersections constitute a major barrier to the comfort of casual bicycle travel due to dips in the side path, and frequent opportunities for interactions with automobile traffic. Along this stretch there is limited use of on-street parking and an abundance of on-street parking on side streets making the route ideal for a protected on-street bicycle route.

This section, represented by project BL1, is currently targeted for mid-term implementation and represents one of the best chances to implement protected on-street bicycle infrastructure in Ames. It additionally provides a safe route to school at Sawyer Elementary. As a result, ABC would like to recommend its promotion to a short-term project.

13th Street, Ridgewood to Meadowlane



There are a number of potential solutions to this stretch of roadway. Staff has indicated that on-street lanes (BL17, and BL18) are not viable due to the need to maintain roadway volume for special events. As a result, ABC feels that 16th Street represents an important connection to solidify. This has the additional bonus of supporting bicycle traffic to the Ames High School. Treatment on 16th Street would need to be heavy, potentially a Bike Boulevard level treatment[2], in order to calm traffic sufficiently in the mornings and afternoons when school is in session. We are glad to see the promotion of SH8 to a short term project in the most recent draft but full connections to 13th Street are still needed.

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1 From ABC's June "Proposals and Feedback for the Ames Area Metropolitan Planning Organization 2040 Candidate Projects": "[T]he stretch of trail from North Dakota to Hyland has 57 drive cuts and intersections equivalent to a driveway or intersection every 100-110 feet. For comparison purposes other areas where number of drive cuts presents this safety issue are: 24th Street from UPRR to Grand, ~142 ft between drive cuts and intersections; Duff from Lincoln way to 5th Street: ~121 ft between drive cuts and intersections; and Lincoln Way from Franklin to Sheldon ~134 ft between drive cuts and intersections. Other than a stretch along Lincoln Way (see footnote 14) this number of drive cuts represents the highest of any existing or proposed trail in Ames. Though most of these conflict points are private drives they are no less nerve wracking for a person on a bike or on foot."

2 Bike Boulevards are standard streets with shared lanes for bicycle and car traffic with treatments heavier than a street with only sharrows. Examples of treatments would be islands at intersections with cuts that allow pedestrian and bike travel but prohibit car traffic, traffic calming that discourages car traffic with limited impact on bicycles such as speed humps, and heavy signage and marking treatment.

As can be seen in the map above there are several other gaps, marked in red, that would need to be closed to make this project successful. We would need to make intersection improvements at 16th and Grand (potentially a crossing island and/or a full blown signal light improvement) and connect 16th Street back to 13th in a manner that is easy to find and understand.

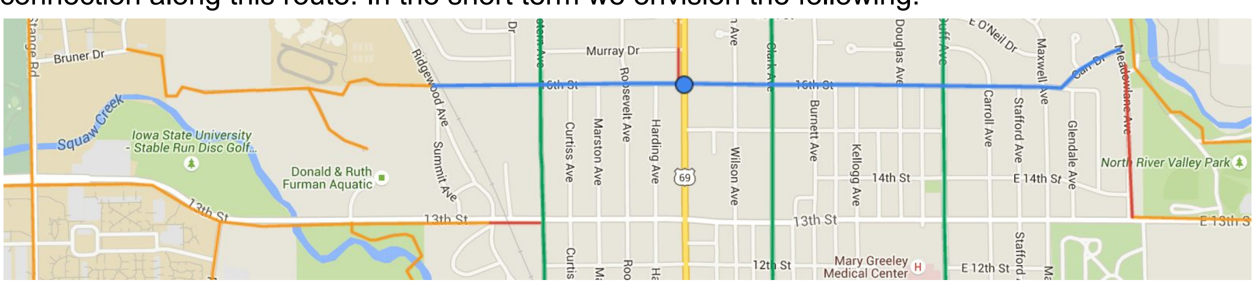
To the east, the trail through North River Valley park represents a sufficient short term closure of the gap between 13th and 16th Streets, and would be adequate with sufficient wayfinding signage. Longer term, we should consider extending the shared use path along 13th to Duff Ave to connect to the bike lanes there. To the north, a single block extension of the shared use path along Grand from Murray Drive to 16th represents a longer term connection to be made that is redundant in the short term with connections on Northwestern, Clark, and Duff.

The connection through to Stange on the western end poses the greatest threat to this route's viability, however, there are several potential solutions:

1. Trail connection to 13th Street by way of a new trail along the Squaw Creek, potentially offering a grade separated crossing at 13th and Squaw Creek.
2. Trail connection to 13th Street within the Furman Aquatic Center property, using the existing crosswalk to connect to the 13th Street shared use path.
3. Intersection improvements at Bruner and Stange along with on-street treatment on Bruner
4. Extending the shared use path on 13th one block from Ridgewood to Northwestern.

All options add to the general connectivity of the area and should be considered for long term purposes. However, only option 4 - extending the shared use path on 13th one block from Ridgewood to Northwestern - offers an all-year solution to this route and is therefore the option ABC prefers. As a result, we recommend its addition to the long range plan to complement BL17 which covers this stretch but is being left as illustrative.

Closing this trail gap presents a far cheaper and safer option to the alternative of making a longer trail connection through the Furman Aquatic Center, and offers an all-year solution that the trail route does not. Medium term, extension of the Squaw Creek greenbelt trail from Brookside North, SUP23 would serve the need of making a safe connection that is not through the Aquatic Center's parking lot. Improvements to the Bruner Drive and Stange Intersection aid in completing the trail connection, which ABC still supports, but we feel that a shared use path extension on 13th Street represents the cheapest, safest option for making the western connection along this route. In the short term we envision the following:



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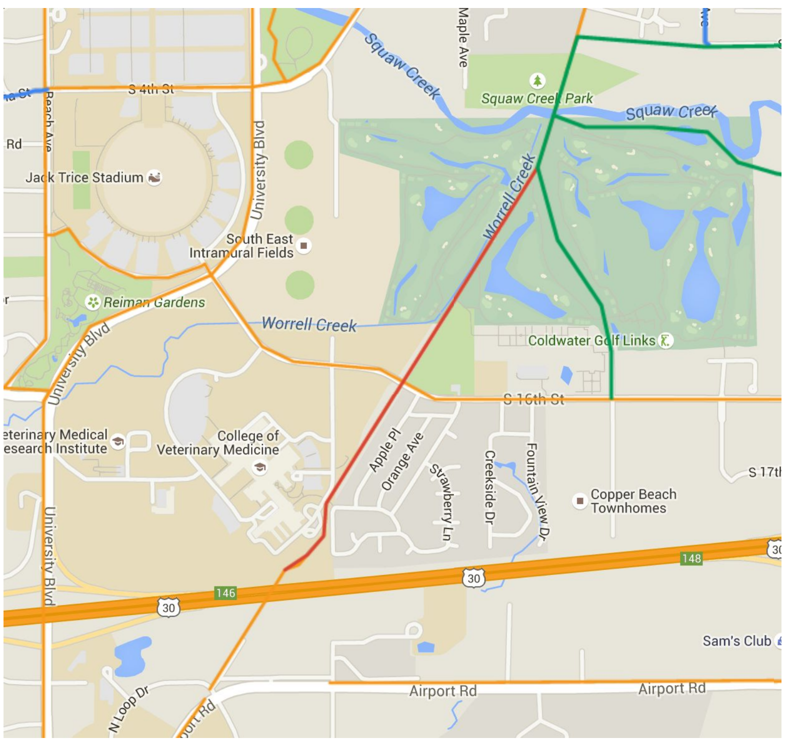
- Extension of existing shared use path on Grand to 16th (needs to be added to plan)
- Extension of existing shared use path on 13th (area represented by BL17 - we'd recommend adding a short term SUP project for this stretch).
- 16th Street improvements - we'd recommend a bike boulevard, needs to be maintained as short-term (project currently planned as SH8).
- Meadowlane connection, sharrows would be sufficient, and/or heavy signage at North River Valley Park.
- Heavy intersection safety improvements at 16th and Grand, needs to be maintained as short-term (currently programed).
- Northwestern connection to 13th (currently programmed short-term no change needed)

We feel this represents the minimum investment to fully connect this route to surrounding infrastructure in a way that makes the investment on 16th street worthwhile.

North-South Routes



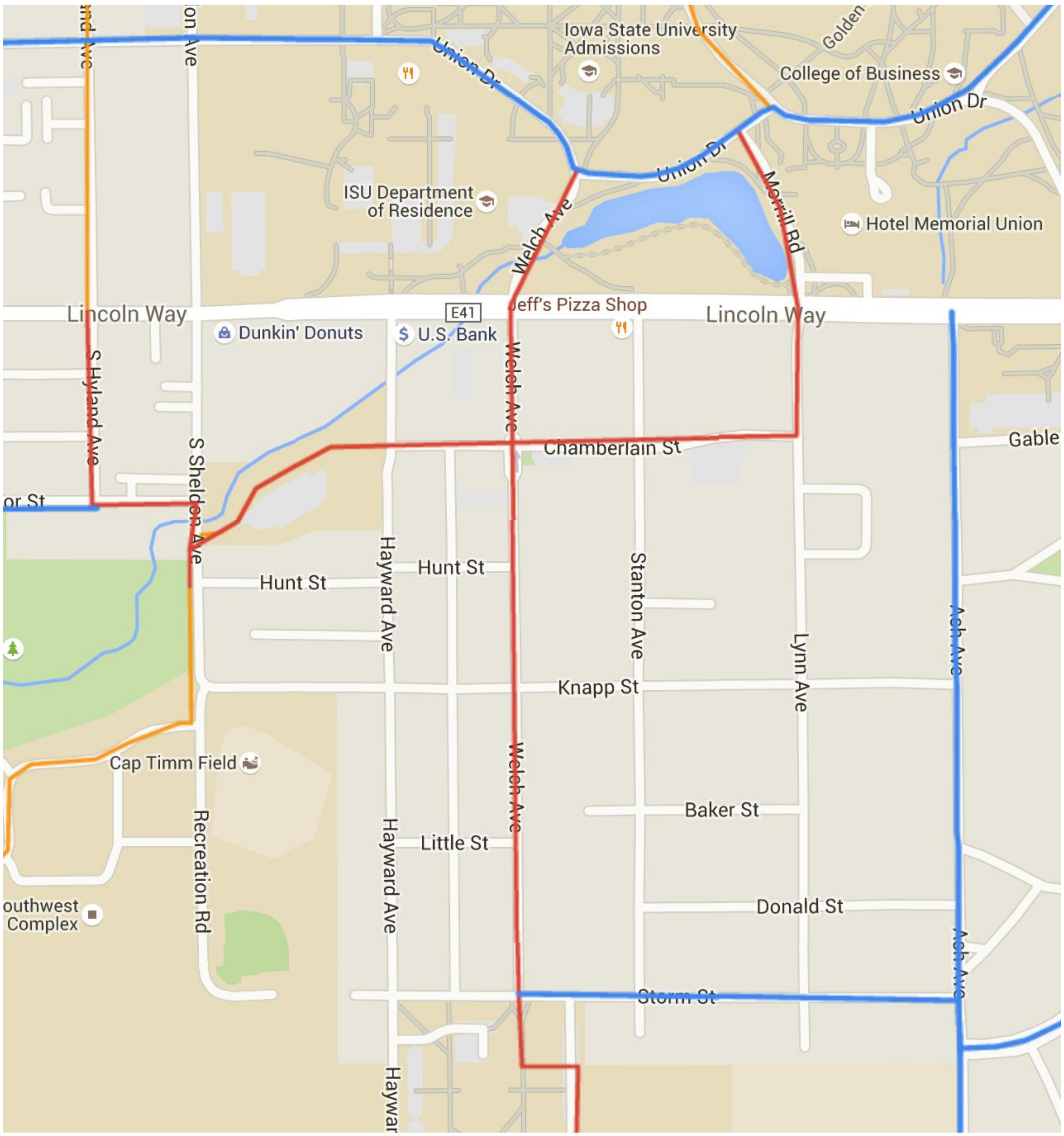
Worrell Creek Trail

As the ISU Research Park expansion and apartment development along South 16th Street and South 4th Street continues, this route becomes an ever more important connection to bicycle and pedestrian travel. This route sees heavy use by cyclists and pedestrians year round, despite the lack of winter maintenance, something ABC would very much like to see changed.

In its current state, this path heavily used by individuals commuting from the South 4th area to the Vet Med and Research Park, by South 16th Street residents accessing retail services at Lincoln Center, and it receives heavy use from pedestrians and cyclists during football game days. South 4th Street is already an important cycling corridor, and it is important to enhance and expand connectivity to this area. The Worrell Creek trail is likely to grow in regional significance as ISU and the ISU Research Park seek to add a trail connection through Research Park and ISU property south of Ames to Kelly, a project represented in the illustrative project SUP18.

We do not see the Grand Avenue extension as a viable alternative. That road will be part of US Highway 69 and will see high speed vehicle traffic and little sun cover for someone on foot or bicycle, making even a separated connection unwelcoming. The Worrell Creek trail solves all of these problems, and paving it would allow for year-round maintenance. As a result, ABC would like to see this project prioritized and not just left as an illustrative project. We understand the need to defer to the conclusion of considerations to the Grand Ave project, however, the trail south of 16th will not be impacted by that project and could be paved before then.

Campustown Connections



General Comment Regarding Campustown Cycling

As resident density continues to increase in Campustown and the Greek Community, it is important to encourage the majority of cycling traffic to ride on the street as to avoid negative interactions with the heavy pedestrian traffic in this area. In general, treatments such as sharrows, traffic calming, and on-street painted bike lanes are the likely candidates for bicycle facilities in the Campustown area due to the narrow streets and extensive stretches of on-street parking. Cyclists and skateboarders are already encouraged to “walk your wheels” along the sidewalk on Lincoln Way, where cycling is prohibited per city ordinance. In addition to the “walk your wheels” signage, there should be wayfinding signage to direct cyclists to the preferred cycling routes through Campustown, which are discussed below. Due to the ongoing Campustown development, ABC feels that all of these projects should be considered and prioritized for short-term consideration.

Welch Avenue Bike Lanes

Moving this project timeline to mid-term is a huge mistake, given the explosive growth of residents in the Campustown area. The Campustown Action Association and other community members have been asking for additional facilities in their neighborhood for many years, and the Coalition could not agree more. As the area with the heaviest pedestrian traffic in Ames, the City has reasonably prohibited bicycle traffic on the sidewalks along Welch Avenue and the south side of Lincoln Way. The coalition supports this as people riding bikes do not belong on sidewalks. Rather, they need dedicated infrastructure, particularly in urban neighborhoods like Campustown. We are deeply disappointed to see this project moved to the mid-term. We should be making more, not less, short-term investments in areas with heavy pedestrian and bicycling traffic, like Campustown. The safety of hundreds, if not thousands of students, faculty and staff relies on additional infrastructure in Campustown, and this project needs to be restored to short term priority.

South Hyland, Lincoln Way to Arbor

If the proposed separated bicycle facility, SUP6, is completed along Arbor Street, it will connect to one of Ames’ oldest bicycle lanes along Hyland, and it will be essential to the completion of a connected bicycle network. As a result, ABC would encourage on-street treatment for South Hyland, with the likelihood of sharrows, to make the connection to the North Hyland bike lane. In addition to sharrows, radar detected traffic signals are needed at the Hyland and Lincoln Way intersection, with greater prioritization of pedestrian and bicycle crossing traffic. This would make it consistent with the Sheldon intersection, which is another intersection heavily used by bicyclists in West Campustown. Both elements should be added to the plan.

Chamberlain, Sheldon to Lynn

SH2 was originally programmed and eliminated in favor of the separated trail from Campustown to West Ames, SUP6. ABC supports this move, however, part of the stretch that SH2 represented is still needed to complete the east-west route along Chamberlain Street. We would like to see this segment of SH2 restored to the plan. Sharrows and other wayfinding tools would aid people on bikes to navigate away from the sections of Lincoln way where cycling is prohibited, while also providing a longer stretch of continuous infrastructure. This would provide continuity from the West Ames to Campustown connector route, SUP6 on Arbor Street, and to points west.

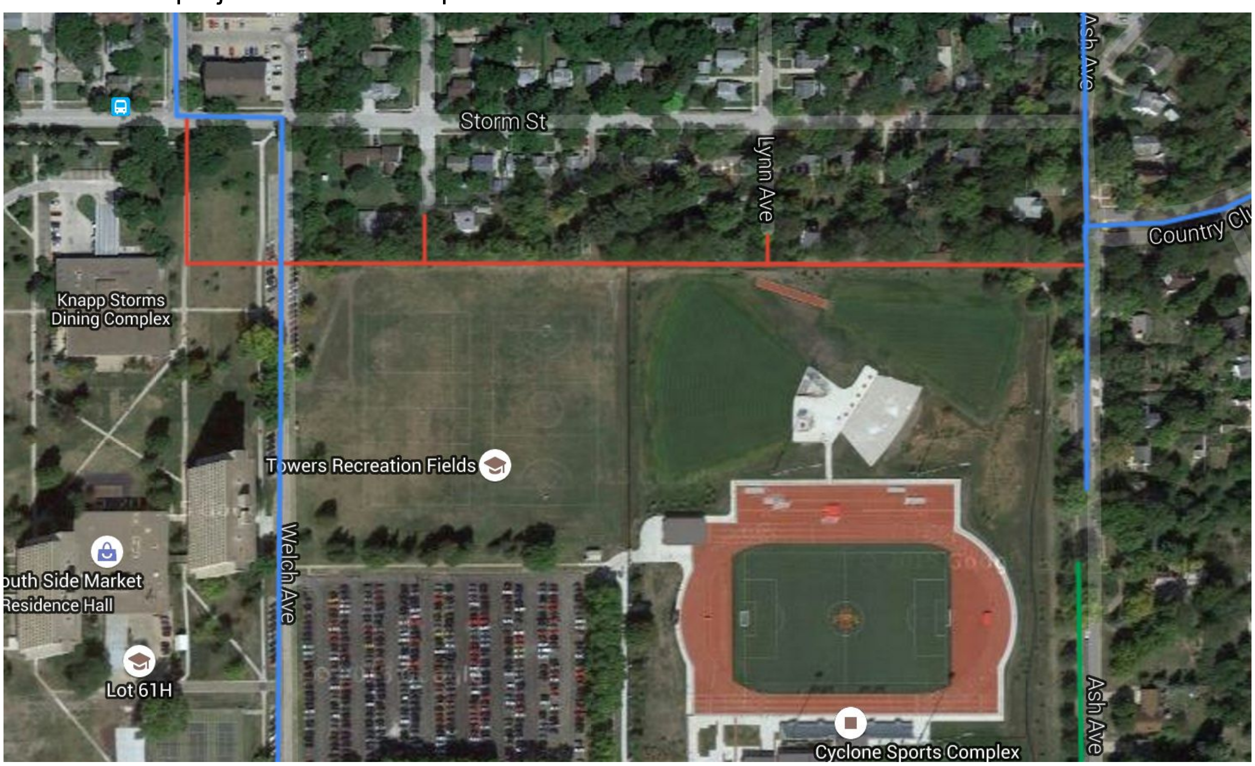
Lynn, Union Drive to Chamberlain

If SH2 is restored, a connection onto ISU's campus along Lynn would be desirable and would further assist in successfully routing bikes away from Lincoln Way sidewalks and to designated facilities.

Welch to Ash

Closing this gap could take more than one approach. One option is an on street route along Storm (currently programmed as a part of SH18), while another would be a separated route along the northern boundary of ISU's property interacting with Ash, Lynn, Stanton, and Welch at the south ends of those blocks.

As can be seen in the following map, the separated route offers safer connections to Towers, and potential future expansion south to the Ash Ave cycletrack, marked in green in the lower right portion of the map. Which option is appropriate is a longer term discussion that could require buy in from the neighborhood and Iowa State, but we would like to see a comment added to this project to reflect the potential alternative of an off street route.



Projects impacted by Grand Avenue Extension

Several projects were eliminated from the long range plan due to the Grand Avenue extension. We've highlighted the Worrell Creek trail as we feel it should be included in the plan along with any Grand Avenue extension, however, several projects along this corridor (along Walnut and South 5th) were also eliminated. As many questions remain surrounding the Grand Avenue extension, we would like to see these restored as illustrative projects.

Final Notes on Funding allocation

Between the last two drafts there has been a marked decrease in bicycle funding in the long range plan as a proportion of short-term project dollars. We as a community need this reversed. We need to be increasing our multi-modal funding and planning - not decreasing it. We would like to see this trend reversed by reprioritizing projects we've highlighted above as short-term projects.

Projects Marked as Committed In Most Recent Draft not Programed in Ames CIP or TIP

Duff Ave Bike Lanes

This project was marked as a committed route in the most recent draft plan, however, nowhere in the Ames CIP[3] or TIP[4] is anything included for Duff Ave Bike lanes. The only project programmed in any way on Duff Avenue are sharrows. This seems to be an oversight that needs to be rectified. This was originally programmed for 13/14 in the 2013-2018 CIP[5] and has yet to be implemented, this doesn't appear to have been rolled into the current CIP. This greatly concerns the Coalition as this is a vital north-south route that we should be considering for on-street infrastructure, ideally with physical protection from vehicle traffic.

6th Street Bike Lanes

The 6th Street bike lanes, like the Duff Ave Bike Lanes, are not programmed in the current TIP or CIP despite being marked as committed here in the Long Range Plan Draft. Unlike the Duff Ave Bike Lanes, these lanes don't appear in earlier versions of the CIP or TIP. Completing this east-west connection from Downtown to ISU's campus is vital. Currently 6th Street is a pleasant ride all the way to Grand Ave, but east of Grand Ave it becomes increasingly inhospitable to bicycle travel with wide lanes and little to deter vehicle speeds. Drivers regularly treat the turning lanes as passing lanes in an unsafe manner. Downtown Ames needs a dedicated east-west bicycle connection to campus and points beyond.

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[3] http://www.cityofames.org/modules/showdocument.aspx?documentid=15308
[4] http://www.cityofames.org/modules/showdocument.aspx?documentid=22914
[5] Page 18, http://www.cityofames.org/modules/showdocument.aspx?documentid=11537

Appendix B

Community Survey

Transit On-Board Survey

Ames Area MPO 2014 Regional Travel Survey

...helping organizations make better decisions since 1982

Final Report

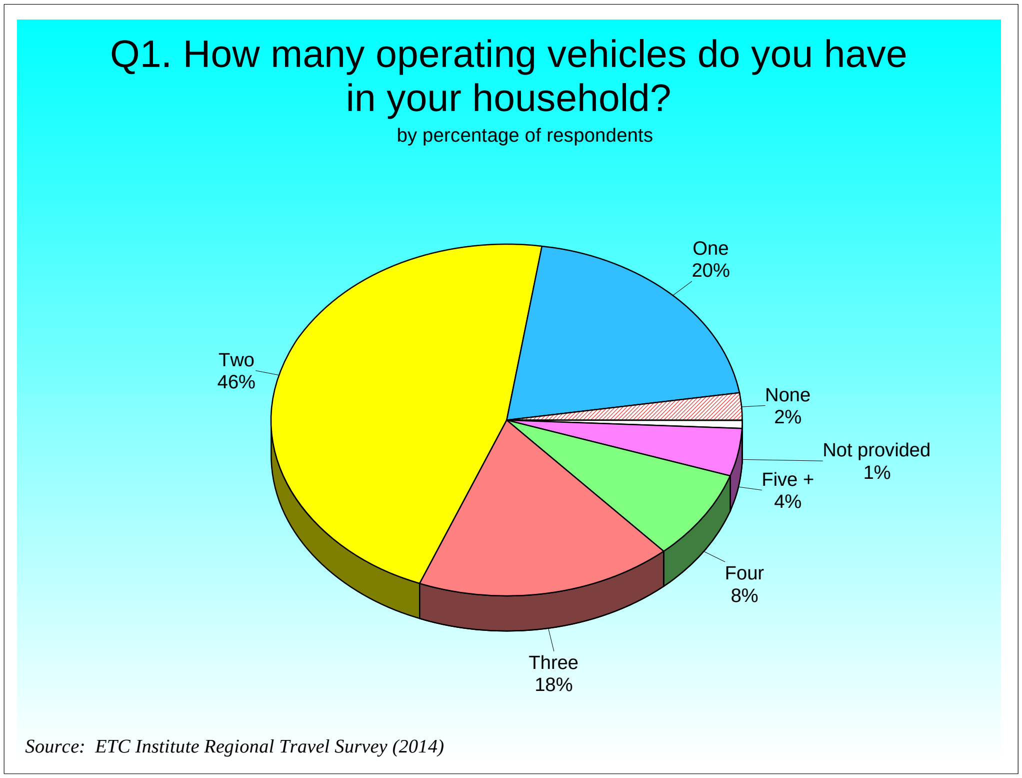
Conducted for City of Ames, IA Public Works Dept.

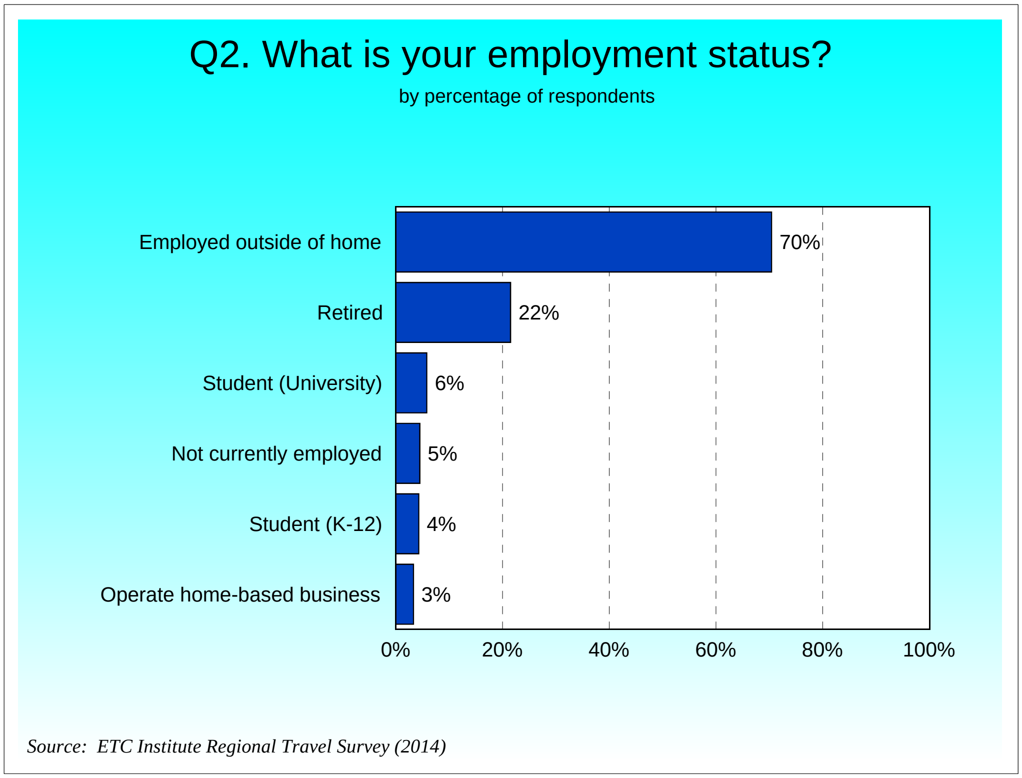
by:
ETC Institute
725 W. Frontier Circle
Olathe, Kansas 66061
In association with HDR

December 2014

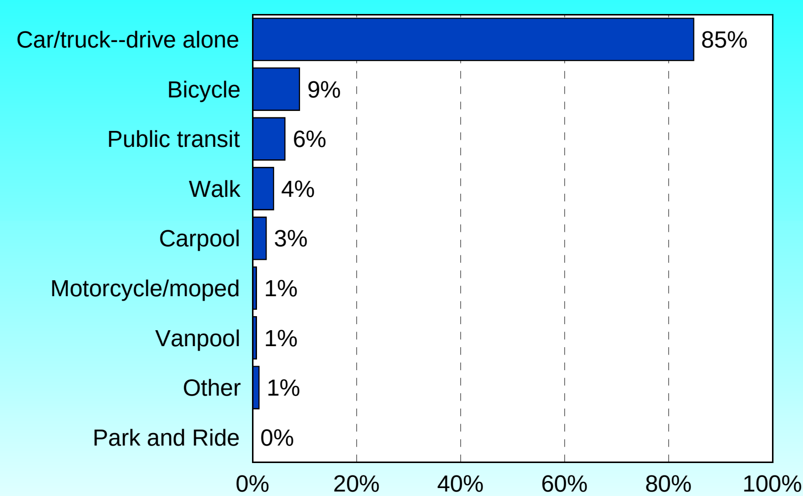
Contents

Section 1:
Charts and Graphs


Q1. How many operating vehicles do you have in your household?
by percentage of respondents
One
20%
None
2%
Not provided
1%
Five +
4%
Four
8%
Three
18%
Two
46%
Source: ETC Institute Regional Travel Survey (2014)


Q2. What is your employment status?
by percentage of respondents
Employed outside of home
70%
Retired
22%
Student (University)
6%
Not currently employed
5%
Student (K-12)
4%
Operate home-based business
3%
0%
20%
40%
60%
80%
100%
Source: ETC Institute Regional Travel Survey (2014)

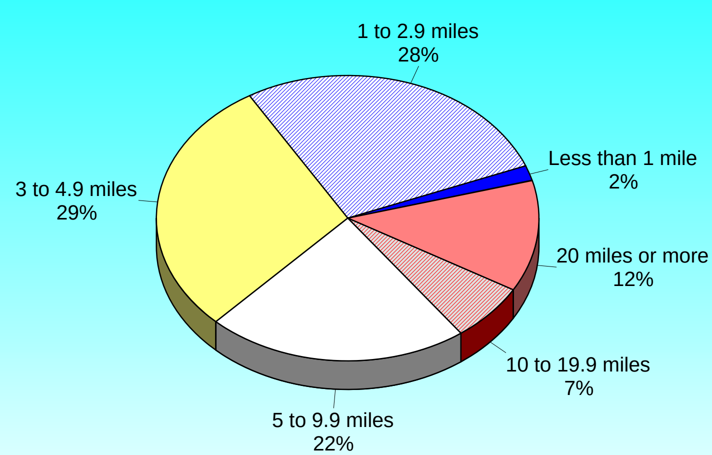
Q2b. What method of transportation do you normally use to go to work/school?



Source: ETC Institute Regional Travel Survey (2014)

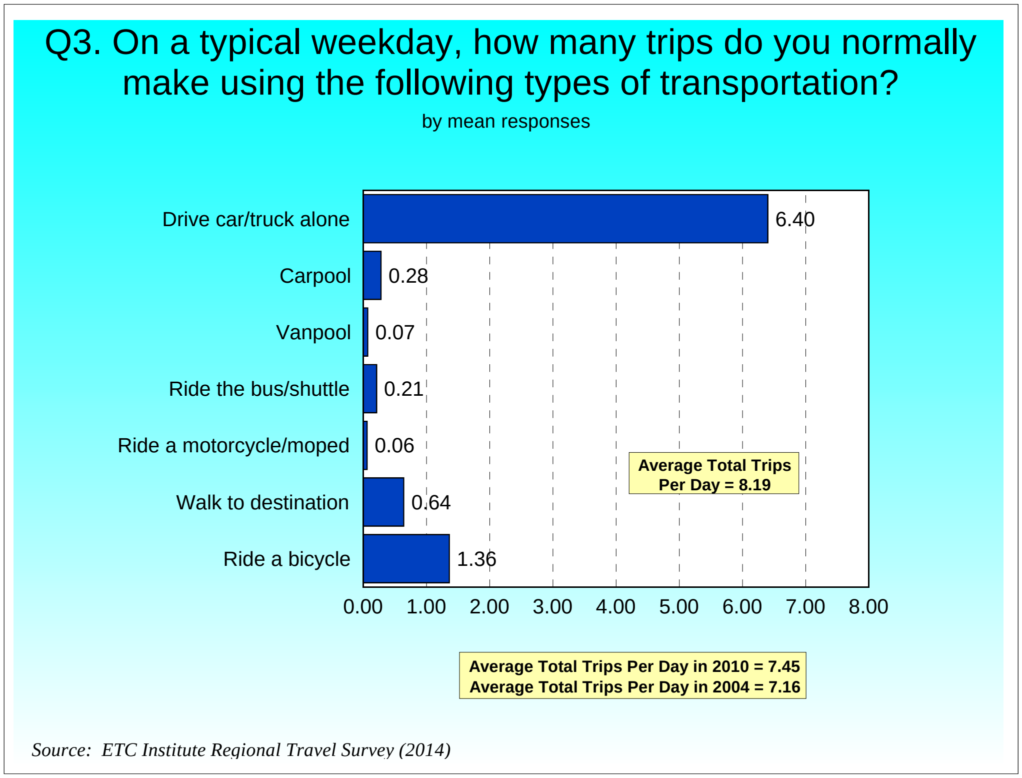
Q2c. How many miles is your place of employment/school from your home?

by percentage of respondents

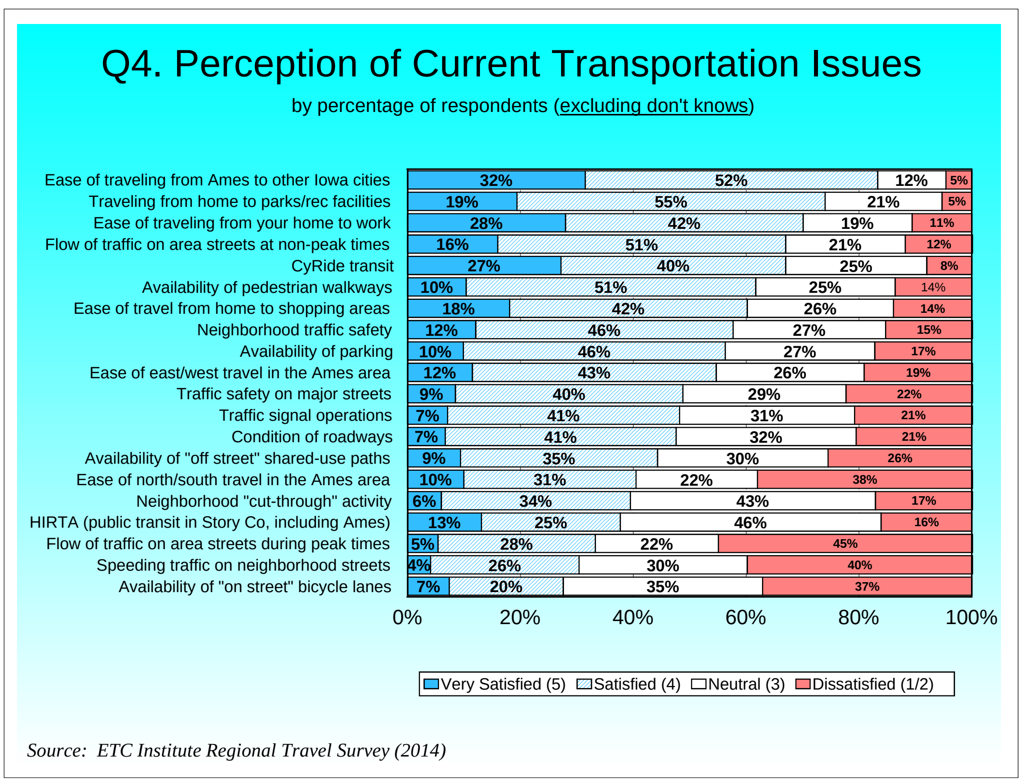


Mean number of miles from home to school or place of employment = **7.14 miles**

Source: ETC Institute Regional Travel Survey (2014)



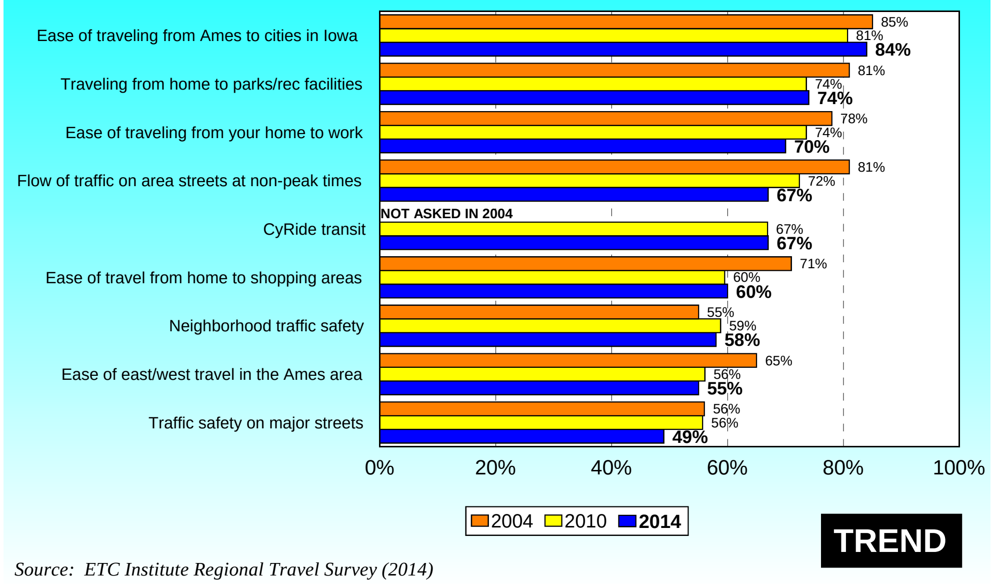
Q3. On a typical weekday, how many trips do you normally make using the following types of transportation?
by mean responses
Drive car/truck alone 6.40
Carpool 0.28
Vanpool 0.07
Ride the bus/shuttle 0.21
Ride a motorcycle/moped 0.06
Walk to destination 0.64
Ride a bicycle 1.36
0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00
Average Total Trips Per Day = 8.19
Average Total Trips Per Day in 2010 = 7.45
Average Total Trips Per Day in 2004 = 7.16
Source: ETC Institute Regional Travel Survey (2014)



Q4. Perception of Current Transportation Issues
by percentage of respondents (excluding don't knows)
Ease of traveling from Ames to other Iowa cities 32% 52% 12% 5%
Traveling from home to parks/rec facilities 19% 55% 21% 5%
Ease of traveling from your home to work 28% 42% 19% 11%
Flow of traffic on area streets at non-peak times 16% 51% 21% 12%
CyRide transit 27% 40% 25% 8%
Availability of pedestrian walkways 10% 51% 25% 14%
Ease of travel from home to shopping areas 18% 42% 26% 14%
Neighborhood traffic safety 12% 46% 27% 15%
Availability of parking 10% 46% 27% 17%
Ease of east/west travel in the Ames area 12% 43% 26% 19%
Traffic safety on major streets 9% 40% 29% 22%
Traffic signal operations 7% 41% 31% 21%
Condition of roadways 7% 41% 32% 21%
Availability of "off street" shared-use paths 9% 35% 30% 26%
Ease of north/south travel in the Ames area 10% 31% 22% 38%
Neighborhood "cut-through" activity 6% 34% 43% 17%
HIRTA (public transit in Story Co, including Ames) 13% 25% 46% 16%
Flow of traffic on area streets during peak times 5% 28% 22% 45%
Speeding traffic on neighborhood streets 4% 26% 30% 40%
Availability of "on street" bicycle lanes 7% 20% 35% 37%
0% 20% 40% 60% 80% 100%
Very Satisfied (5) Satisfied (4) Neutral (3) Dissatisfied (1/2)
Source: ETC Institute Regional Travel Survey (2014)

Q4. Satisfaction with Current Transportation Issues

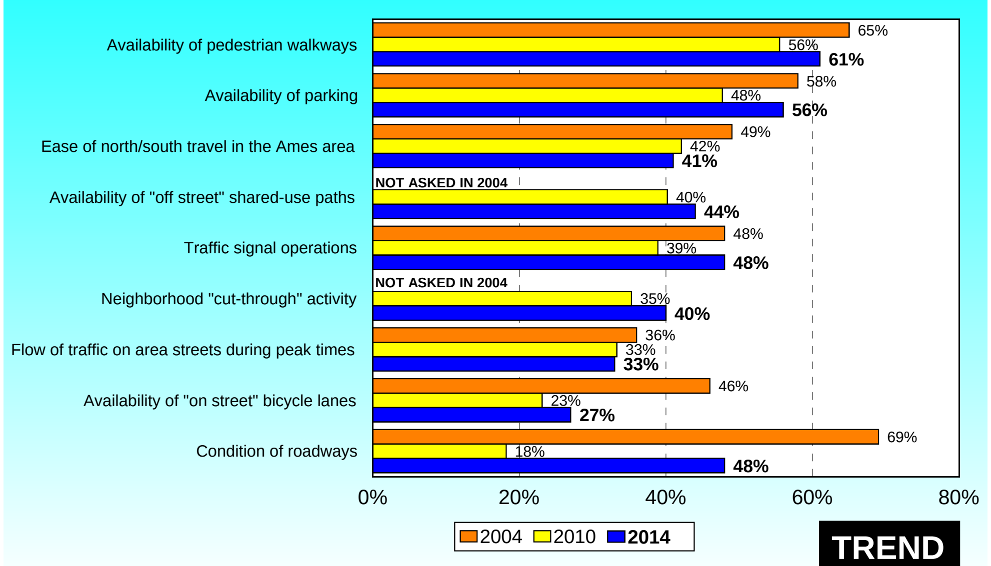
by percentage of respondents who rated the item as a 4 or 5 on a 5-point scale (excluding don't knows)



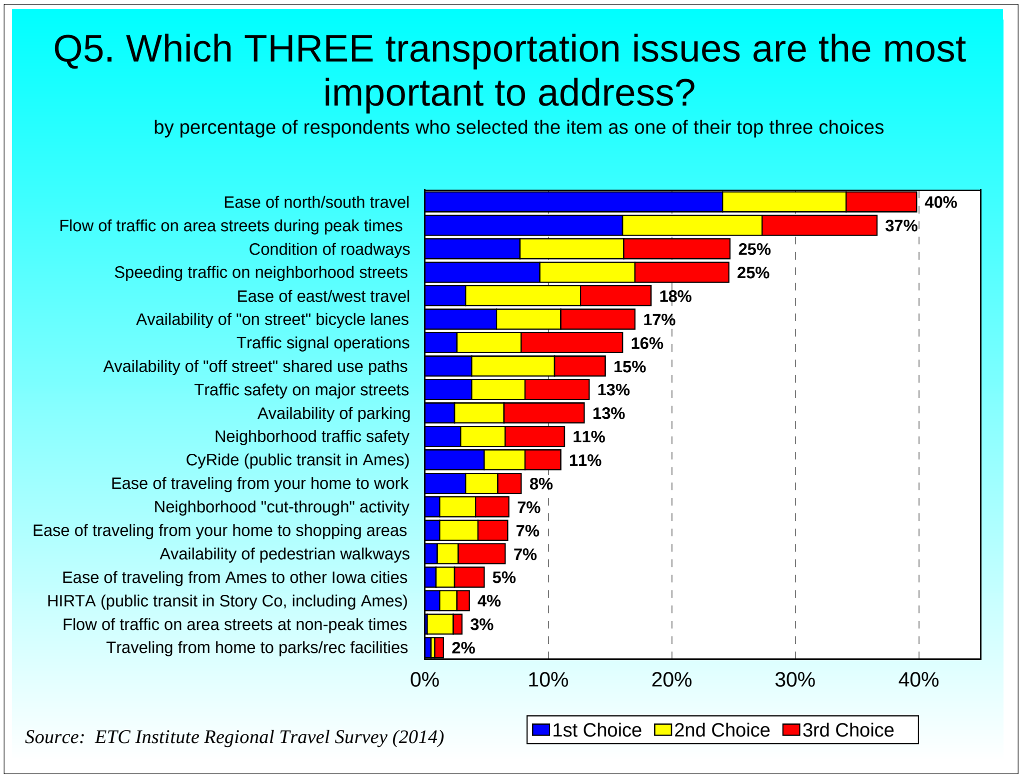
Source: ETC Institute Regional Travel Survey (2014)

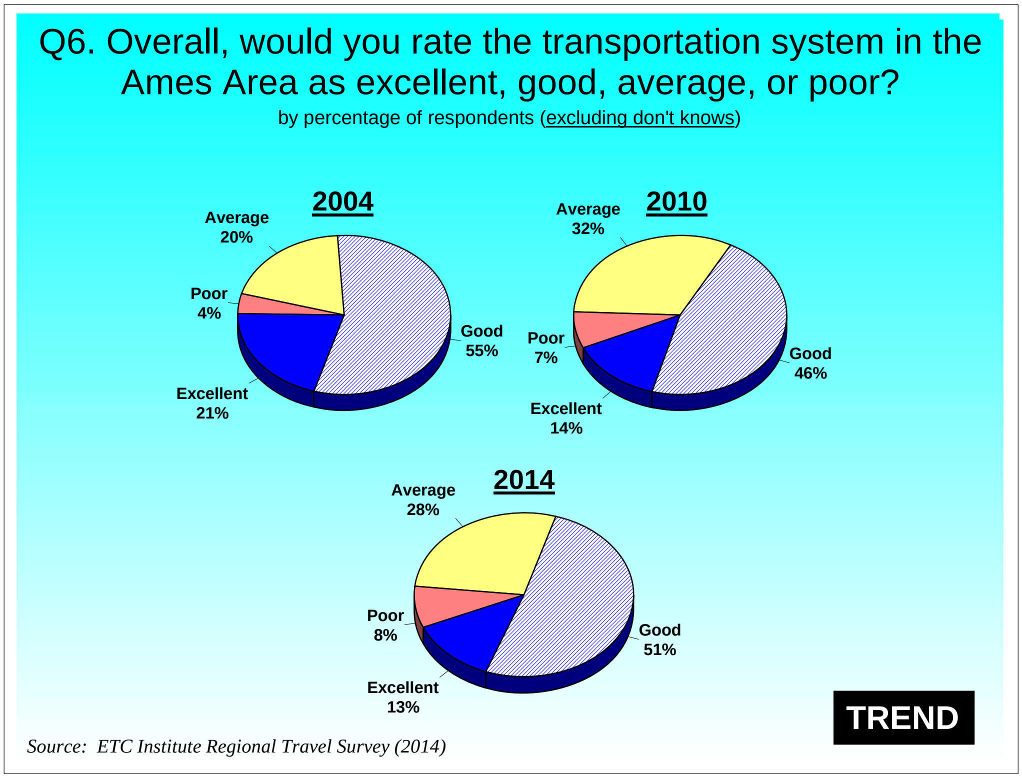
Q4. (Cont.) Satisfaction with Current Transportation Issues

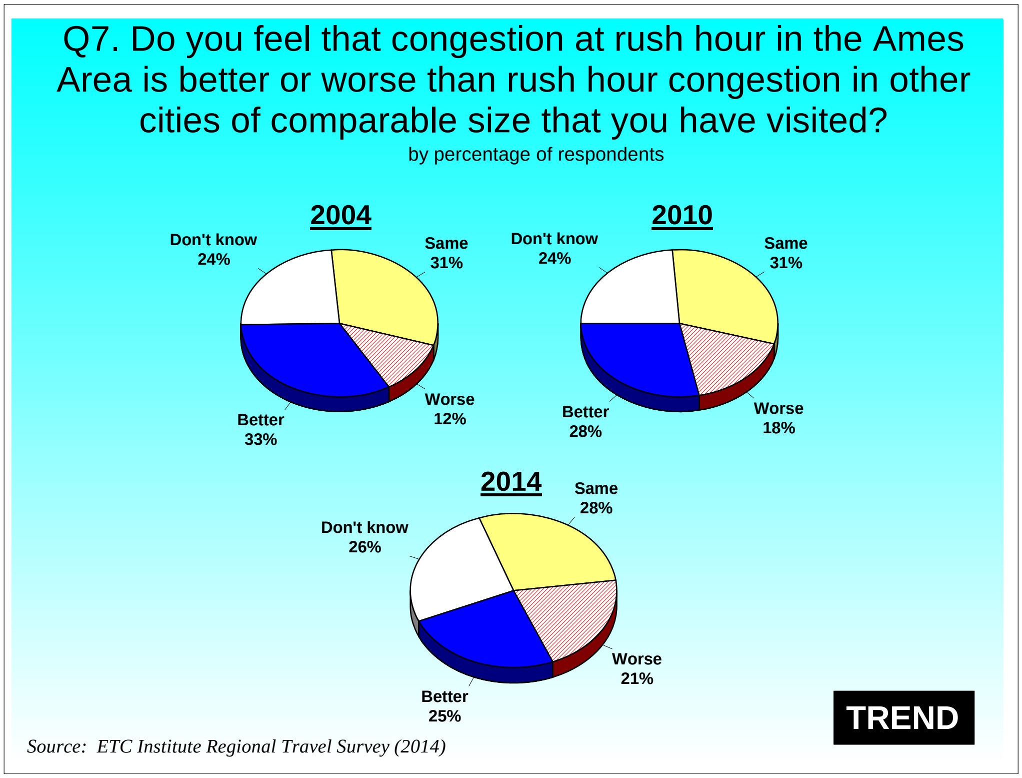
by percentage of respondents who rated the item as a 4 or 5 on a 5-point scale (excluding don't knows)

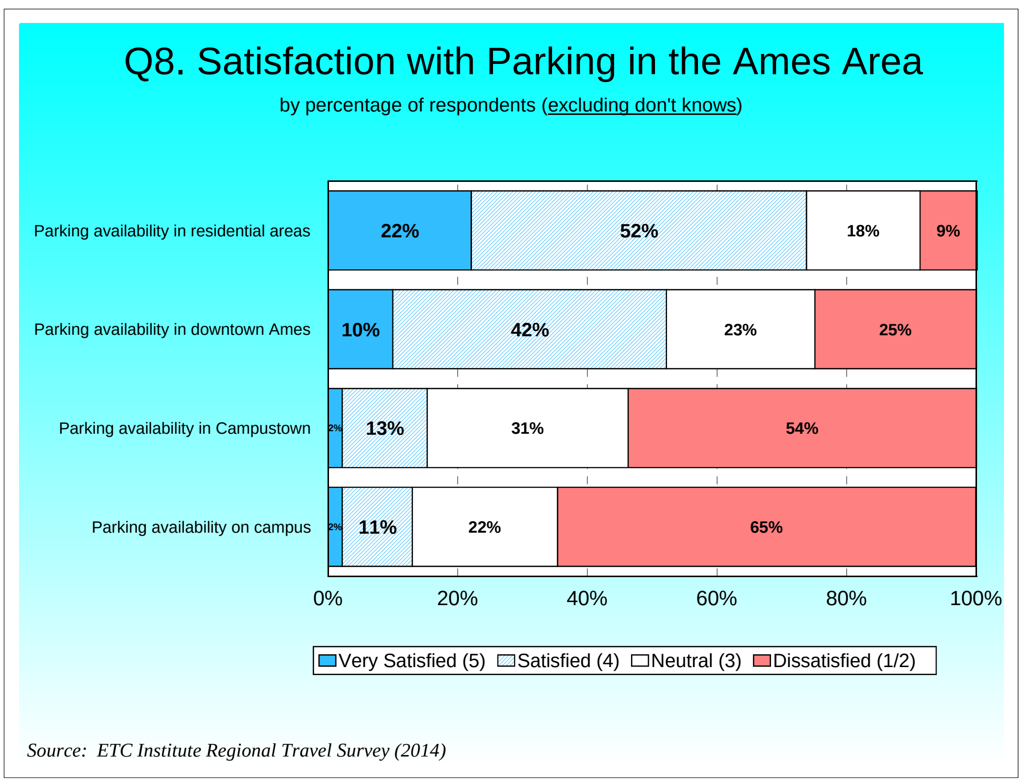


Source: ETC Institute Regional Travel Survey (2014)


Q5. Which THREE transportation issues are the most important to address?
by percentage of respondents who selected the item as one of their top three choices
Ease of north/south travel
Flow of traffic on area streets during peak times
Condition of roadways
Speeding traffic on neighborhood streets
Ease of east/west travel
Availability of "on street" bicycle lanes
Traffic signal operations
Availability of "off street" shared use paths
Traffic safety on major streets
Availability of parking
Neighborhood traffic safety
CyRide (public transit in Ames)
Ease of traveling from your home to work
Neighborhood "cut-through" activity
Ease of traveling from your home to shopping areas
Availability of pedestrian walkways
Ease of traveling from Ames to other Iowa cities
HIRTA (public transit in Story Co, including Ames)
Flow of traffic on area streets at non-peak times
Traveling from home to parks/rec facilities
40%
37%
25%
25%
18%
17%
16%
15%
13%
13%
11%
11%
8%
7%
7%
7%
5%
4%
3%
2%
0%
10%
20%
30%
40%
1st Choice
2nd Choice
3rd Choice
Source: ETC Institute Regional Travel Survey (2014)

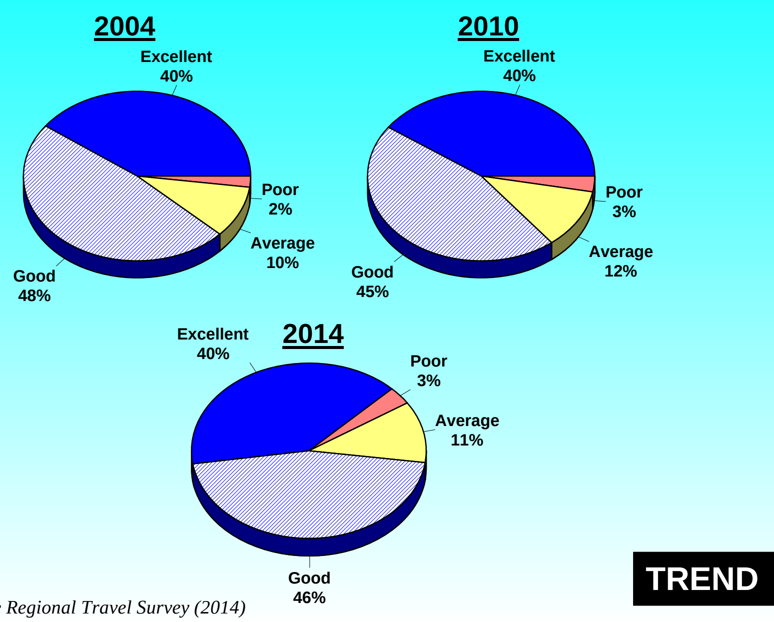

Q6. Overall, would you rate the transportation system in the Ames Area as excellent, good, average, or poor?
by percentage of respondents (excluding don't knows)
2004
Average 20%
Poor 4%
Excellent 21%
Good 55%
2010
Average 32%
Poor 7%
Excellent 14%
Good 46%
2014
Average 28%
Poor 8%
Excellent 13%
Good 51%
TREND
Source: ETC Institute Regional Travel Survey (2014)


Q7. Do you feel that congestion at rush hour in the Ames Area is better or worse than rush hour congestion in other cities of comparable size that you have visited?
by percentage of respondents
2004
Don't know 24%
Same 31%
Worse 12%
Better 33%
2010
Don't know 24%
Same 31%
Worse 18%
Better 28%
2014
Same 28%
Don't know 26%
Worse 21%
Better 25%
TREND
Source: ETC Institute Regional Travel Survey (2014)


Q8. Satisfaction with Parking in the Ames Area
by percentage of respondents (excluding don't knows)
Parking availability in residential areas
22%
52%
18%
9%
Parking availability in downtown Ames
10%
42%
23%
25%
Parking availability in Campustown
2%
13%
31%
54%
Parking availability on campus
2%
11%
22%
65%
0%
20%
40%
60%
80%
100%
Very Satisfied (5)
Satisfied (4)
Neutral (3)
Dissatisfied (1/2)
Source: ETC Institute Regional Travel Survey (2014)

Q9. How would you rate the availability of public transit in Ames?

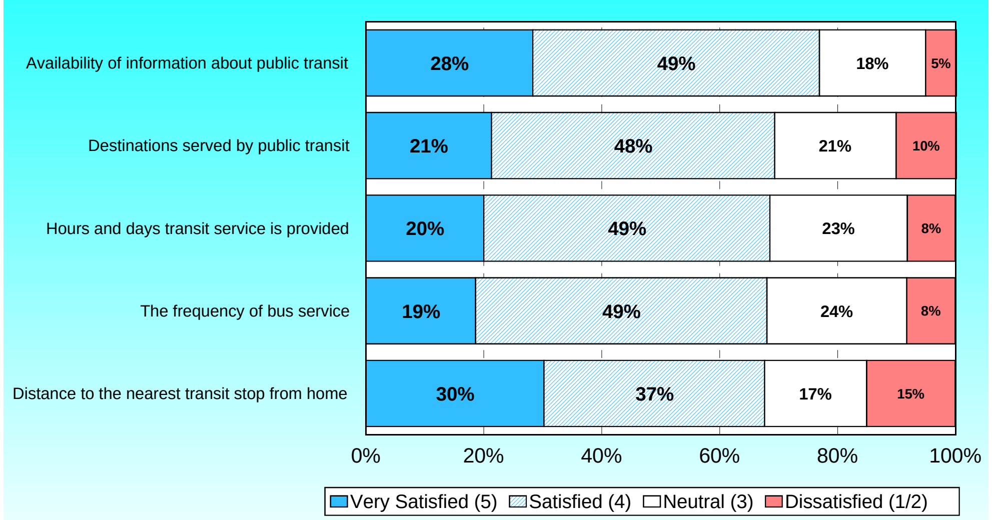
by percentage of respondents (excluding don't knows)



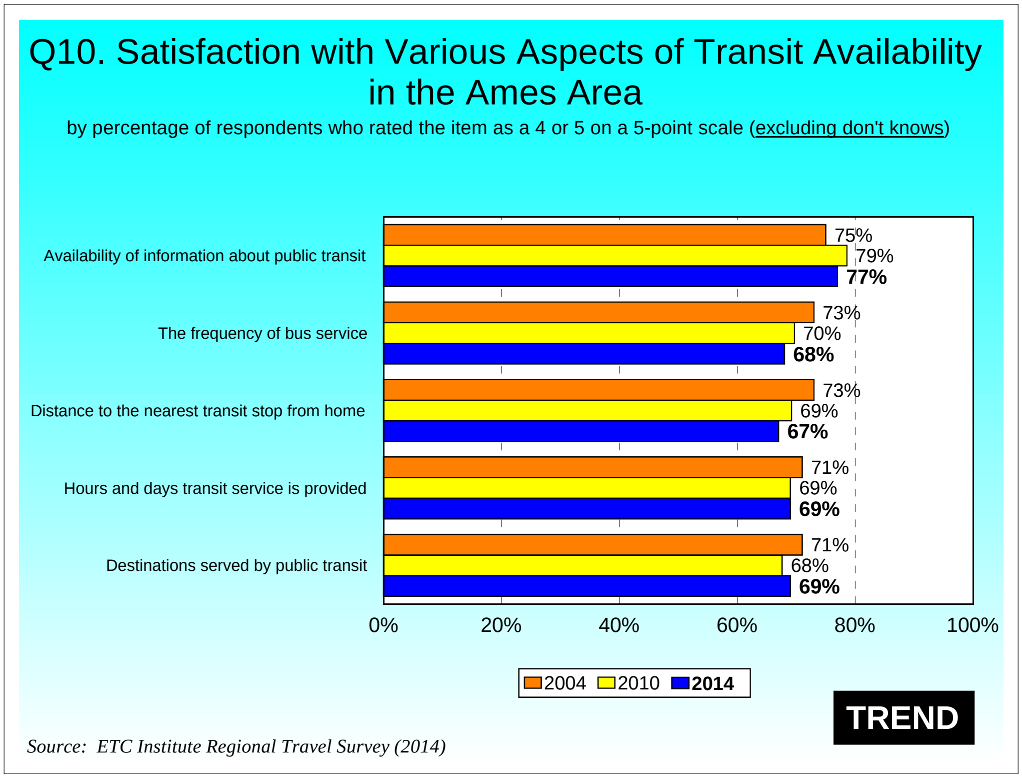
Source: ETC Institute Regional Travel Survey (2014)

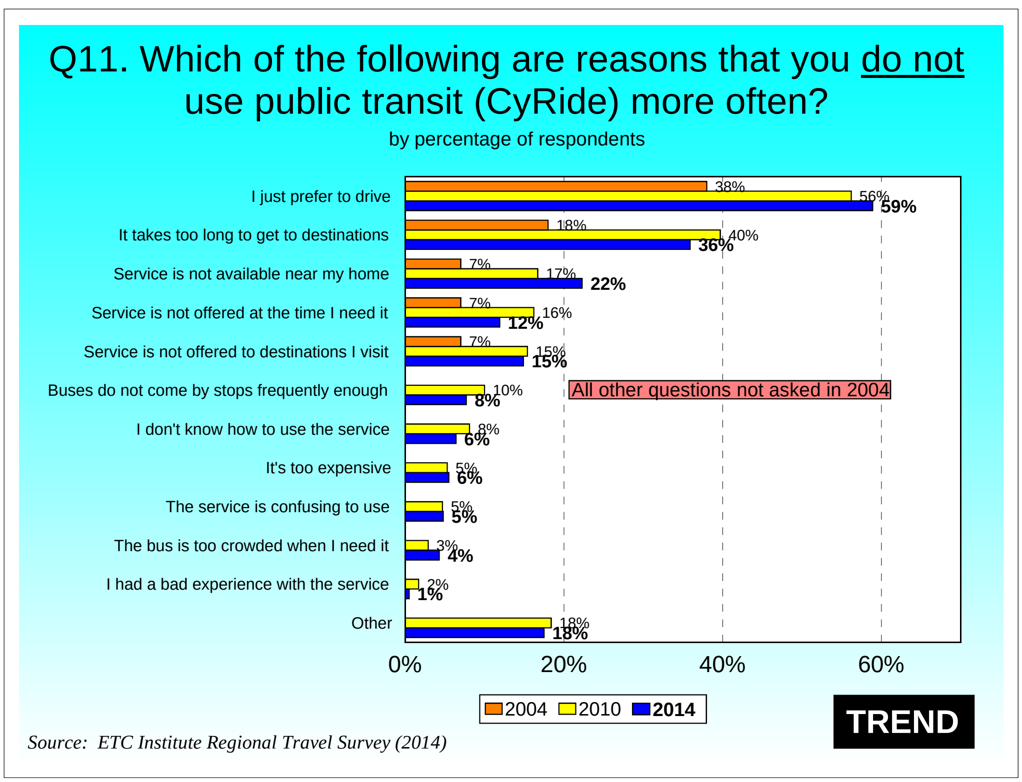
Q10. Satisfaction with Various Aspects of Transit Availability in the Ames Area

by percentage of respondents (excluding don't knows)



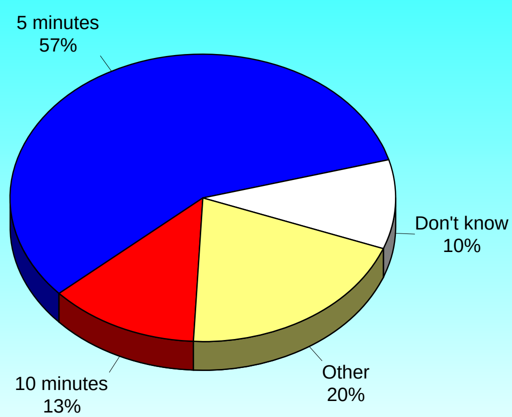
Source: ETC Institute Regional Travel Survey (2014)


Q10. Satisfaction with Various Aspects of Transit Availability in the Ames Area
by percentage of respondents who rated the item as a 4 or 5 on a 5-point scale (excluding don't knows)
Availability of information about public transit
75%
79%
77%
The frequency of bus service
73%
70%
68%
Distance to the nearest transit stop from home
73%
69%
67%
Hours and days transit service is provided
71%
69%
69%
Destinations served by public transit
71%
68%
69%
0%
20%
40%
60%
80%
100%
2004
2010
2014
TREND
Source: ETC Institute Regional Travel Survey (2014)


Q11. Which of the following are reasons that you do not use public transit (CyRide) more often?
by percentage of respondents
I just prefer to drive
38%
56%
59%
It takes too long to get to destinations
18%
40%
36%
Service is not available near my home
7%
17%
22%
Service is not offered at the time I need it
7%
16%
12%
Service is not offered to destinations I visit
7%
15%
15%
Buses do not come by stops frequently enough
10%
8%
I don't know how to use the service
8%
6%
It's too expensive
5%
6%
The service is confusing to use
5%
5%
The bus is too crowded when I need it
3%
4%
I had a bad experience with the service
2%
1%
Other
18%
18%
All other questions not asked in 2004
0%
20%
40%
60%
2004
2010
2014
TREND
Source: ETC Institute Regional Travel Survey (2014)

Q12. How much walking time (in minutes) would a public transit stop need to be located for you to consider using public transit instead of a car?

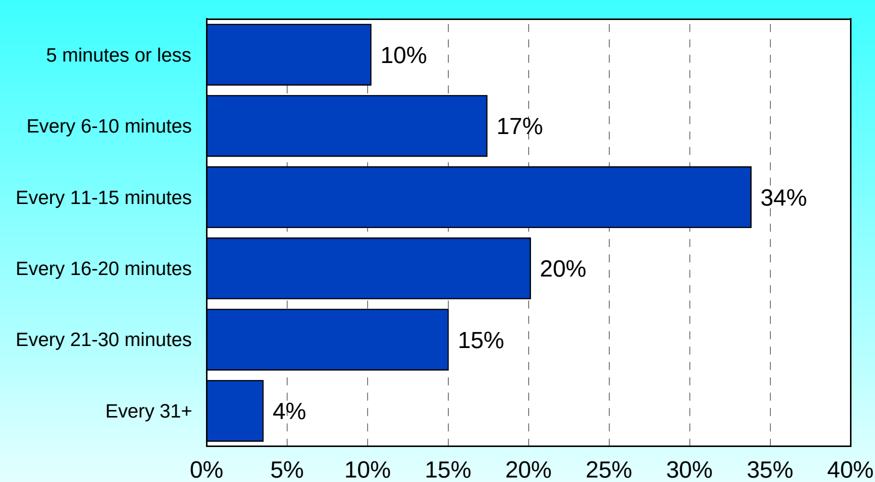
by percentage of respondents



Source: ETC Institute Regional Travel Survey (2014)

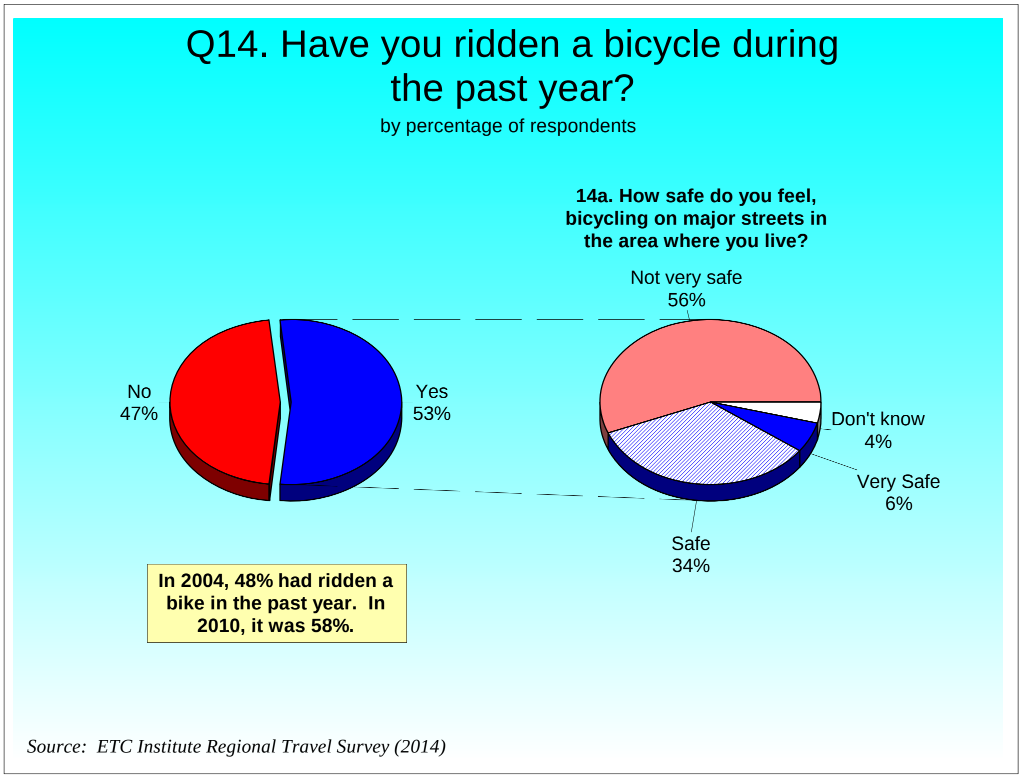
Q13. How frequently (in minutes) would a bus or other form of public transit need to be scheduled to arrive at stops for you to consider using public transit instead of a car?

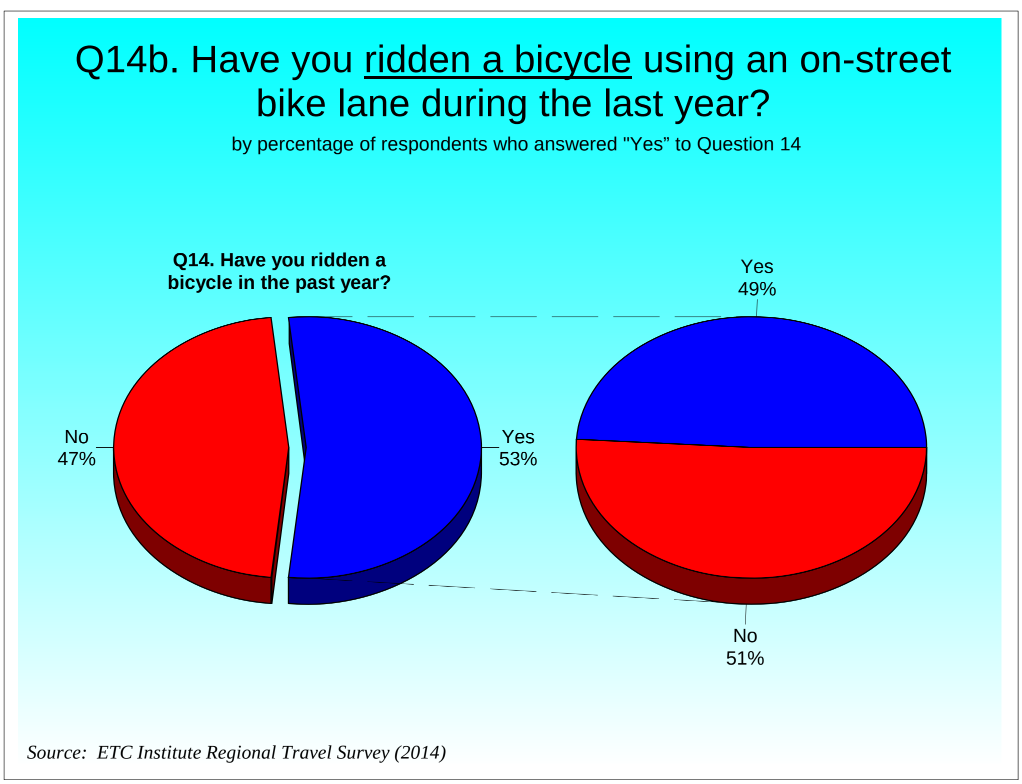
by percentage of respondents

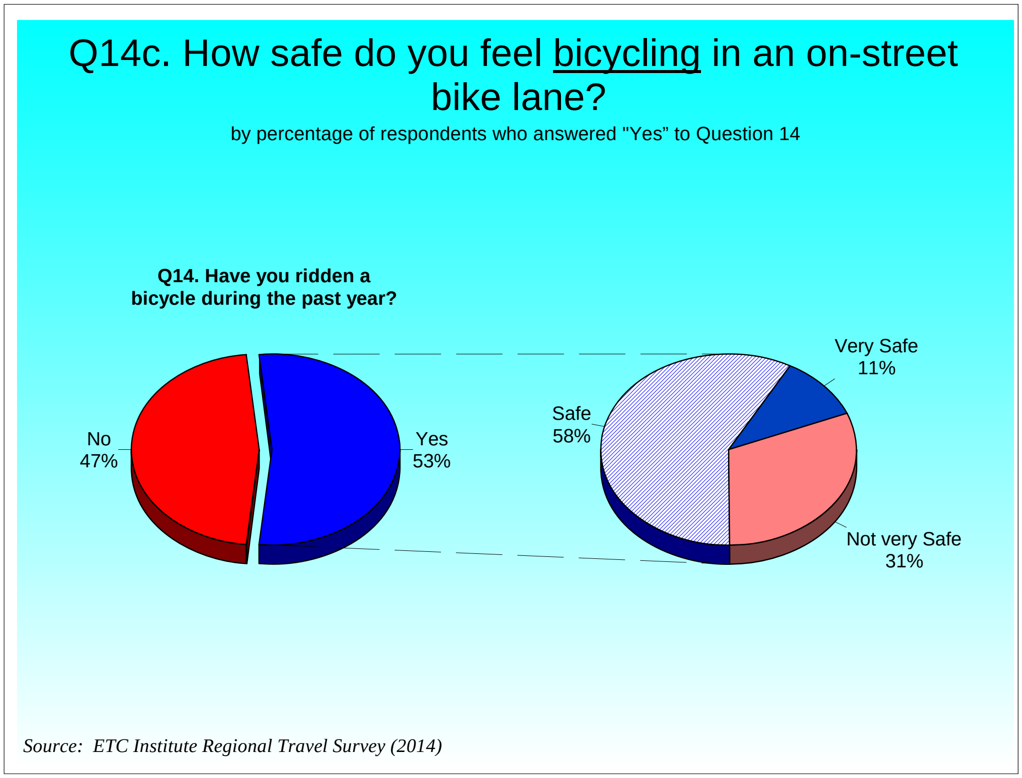


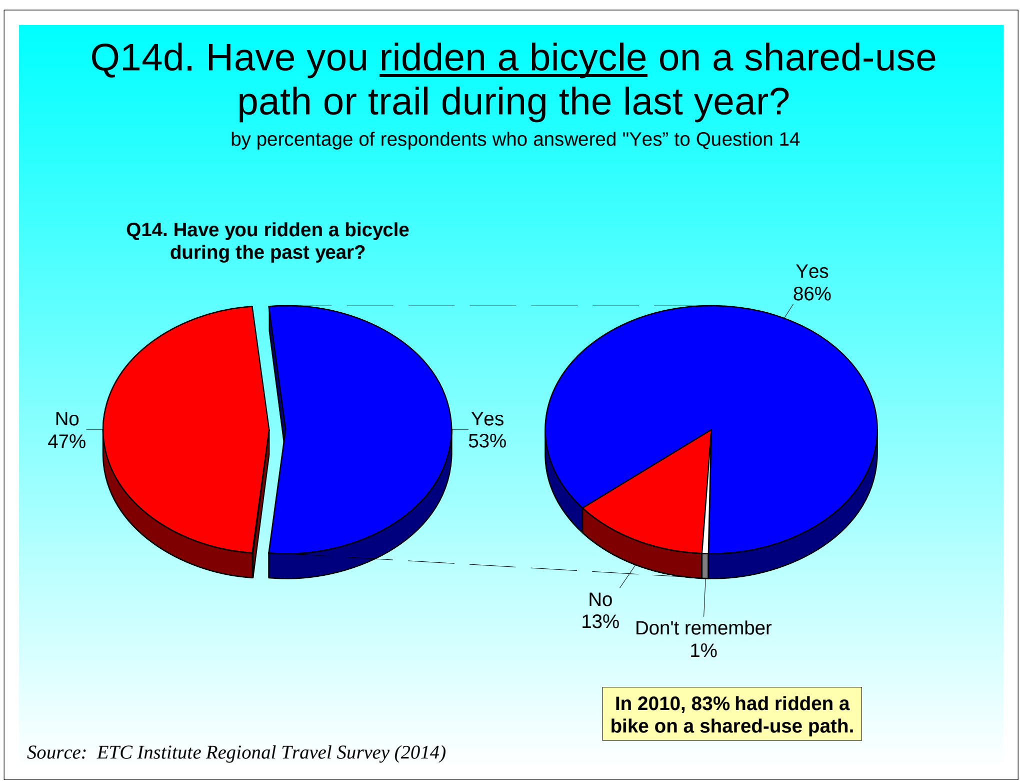
Mean = 17.67 minutes

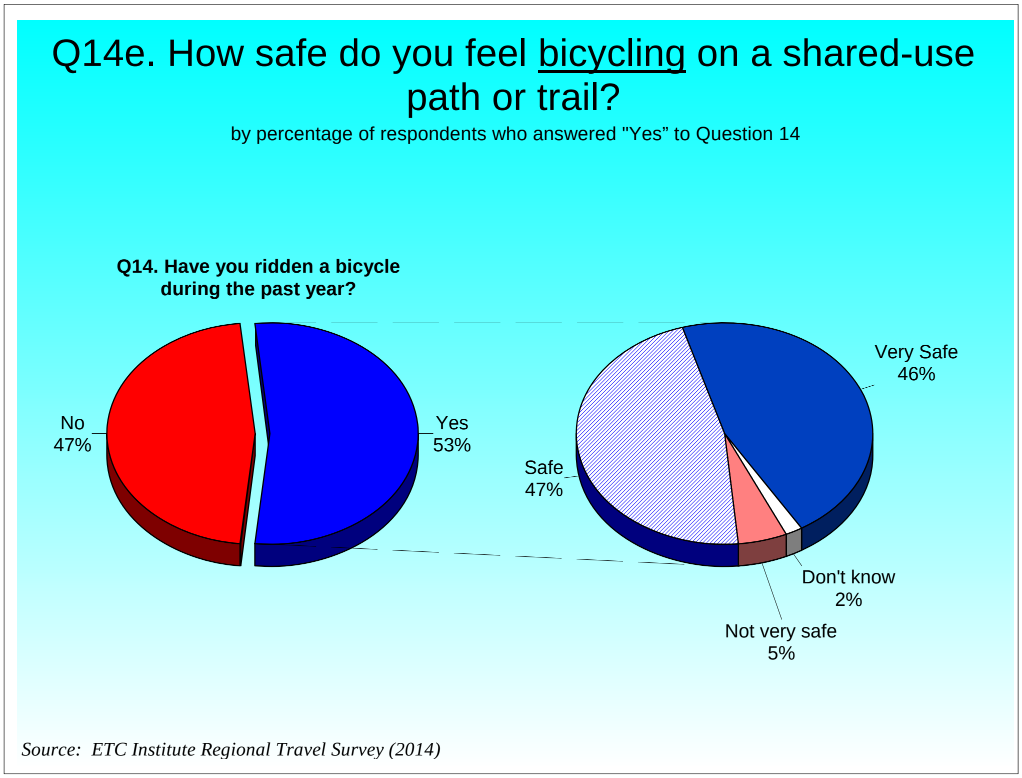
Source: ETC Institute Regional Travel Survey (2014)

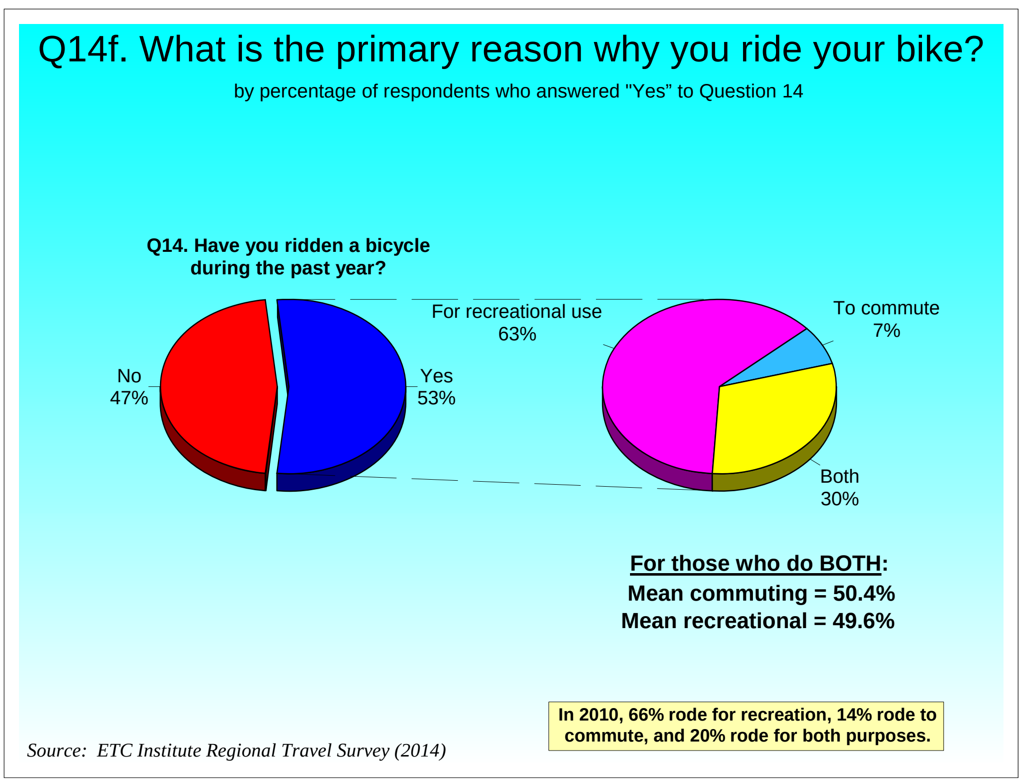

Q14. Have you ridden a bicycle during the past year?
by percentage of respondents
14a. How safe do you feel, bicycling on major streets in the area where you live?
Not very safe 56%
No 47%
Yes 53%
Don't know 4%
Very Safe 6%
Safe 34%
In 2004, 48% had ridden a bike in the past year. In 2010, it was 58%.
Source: ETC Institute Regional Travel Survey (2014)

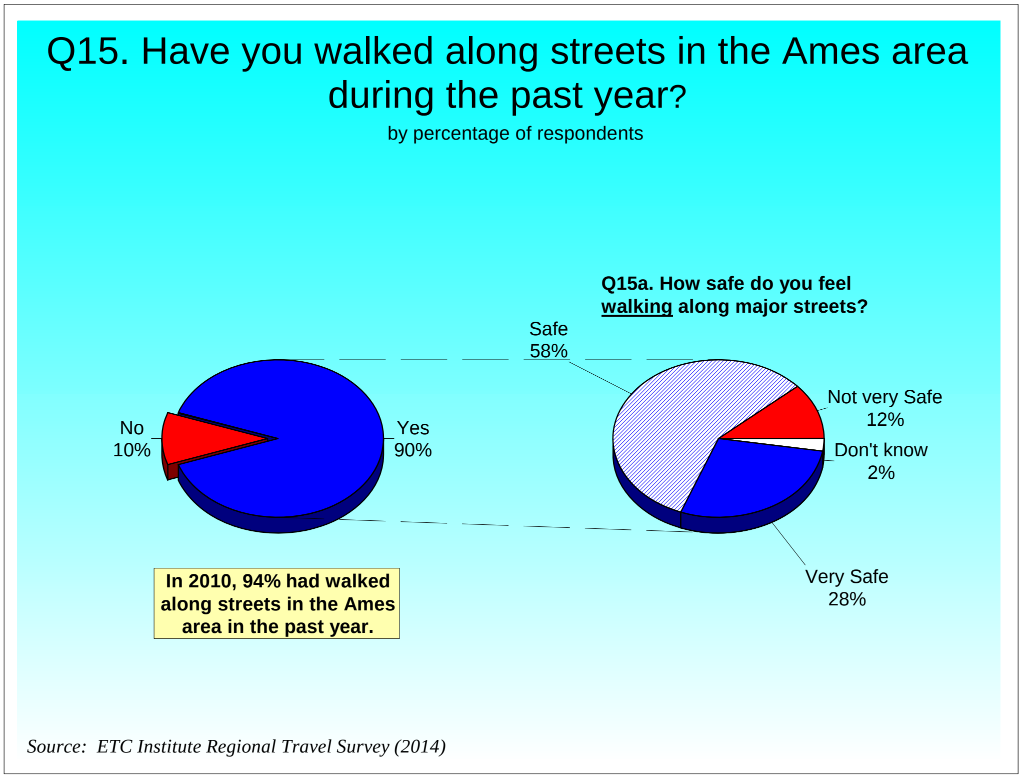

Q14b. Have you ridden a bicycle using an on-street bike lane during the last year?
by percentage of respondents who answered "Yes" to Question 14
Q14. Have you ridden a bicycle in the past year?
Yes 49%
No 47%
Yes 53%
No 51%
Source: ETC Institute Regional Travel Survey (2014)

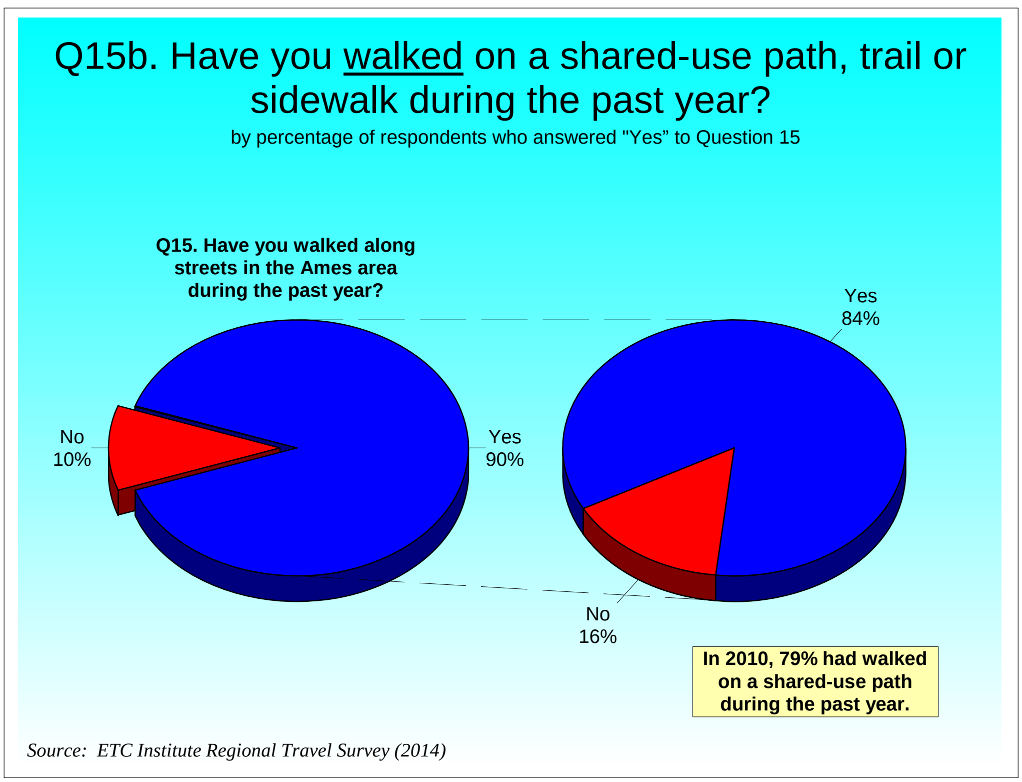

Q14c. How safe do you feel bicycling in an on-street bike lane?
by percentage of respondents who answered "Yes" to Question 14
Q14. Have you ridden a bicycle during the past year?
No 47%
Yes 53%
Very Safe 11%
Safe 58%
Not very Safe 31%
Source: ETC Institute Regional Travel Survey (2014)

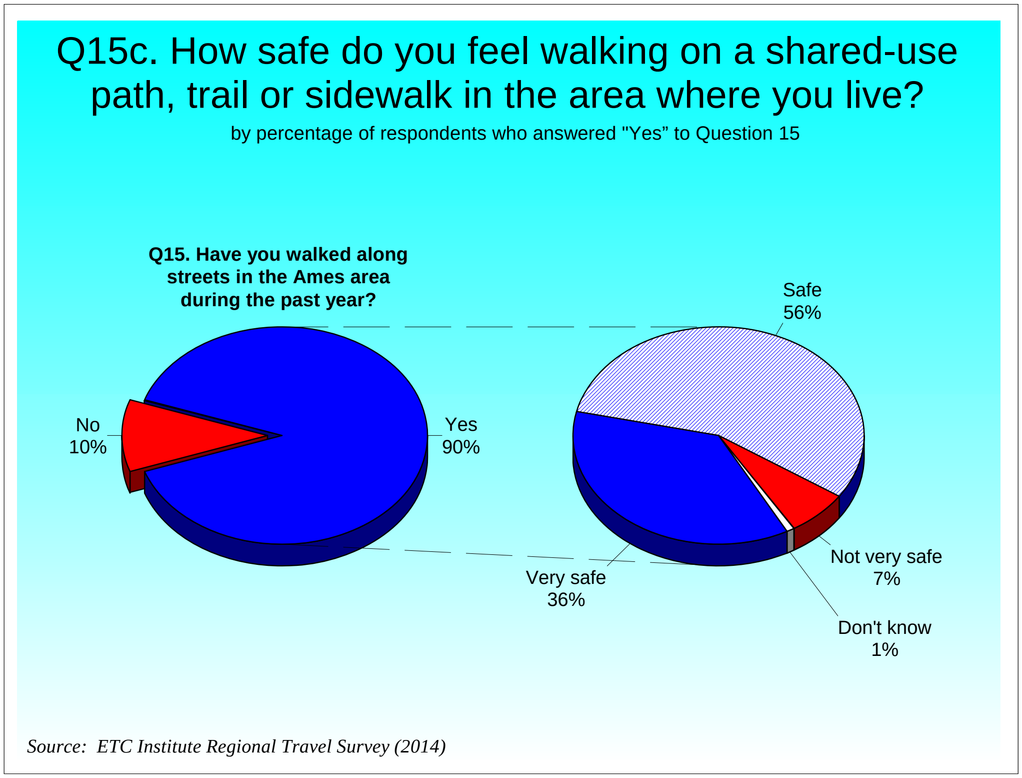

Q14d. Have you ridden a bicycle on a shared-use path or trail during the last year?
by percentage of respondents who answered "Yes" to Question 14
Q14. Have you ridden a bicycle during the past year?
No 47%
Yes 53%
Yes 86%
No 13%
Don't remember 1%
In 2010, 83% had ridden a bike on a shared-use path.
Source: ETC Institute Regional Travel Survey (2014)

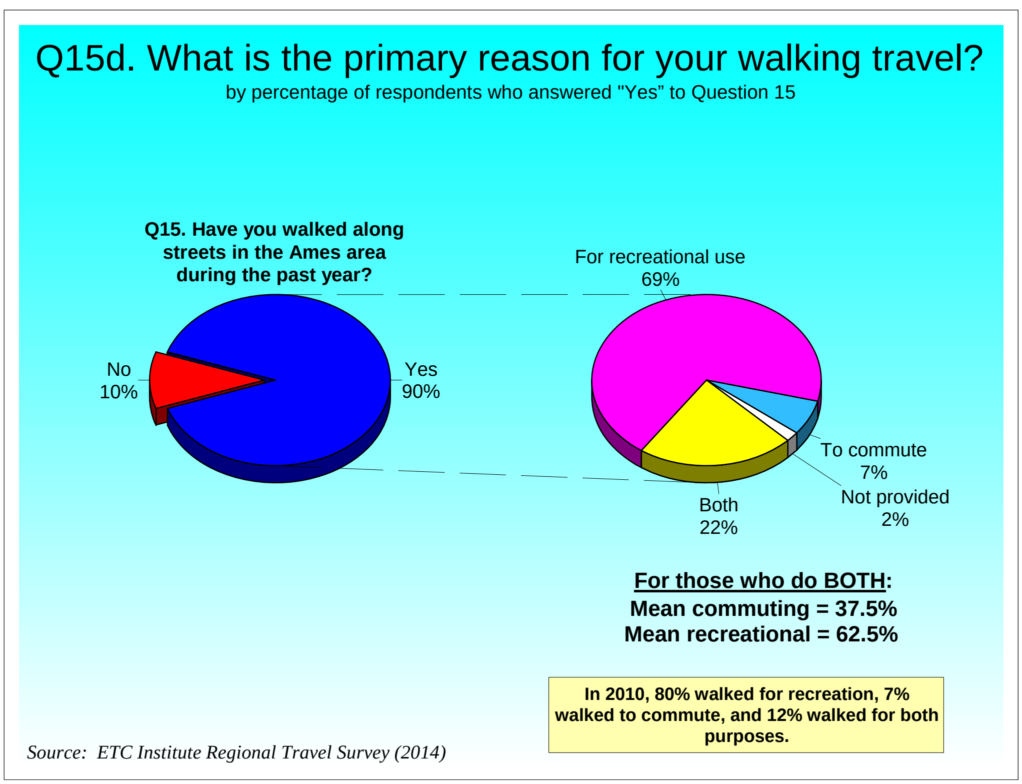

Q14e. How safe do you feel bicycling on a shared-use path or trail?
by percentage of respondents who answered "Yes" to Question 14
Q14. Have you ridden a bicycle during the past year?
No 47%
Yes 53%
Very Safe 46%
Safe 47%
Don't know 2%
Not very safe 5%
Source: ETC Institute Regional Travel Survey (2014)

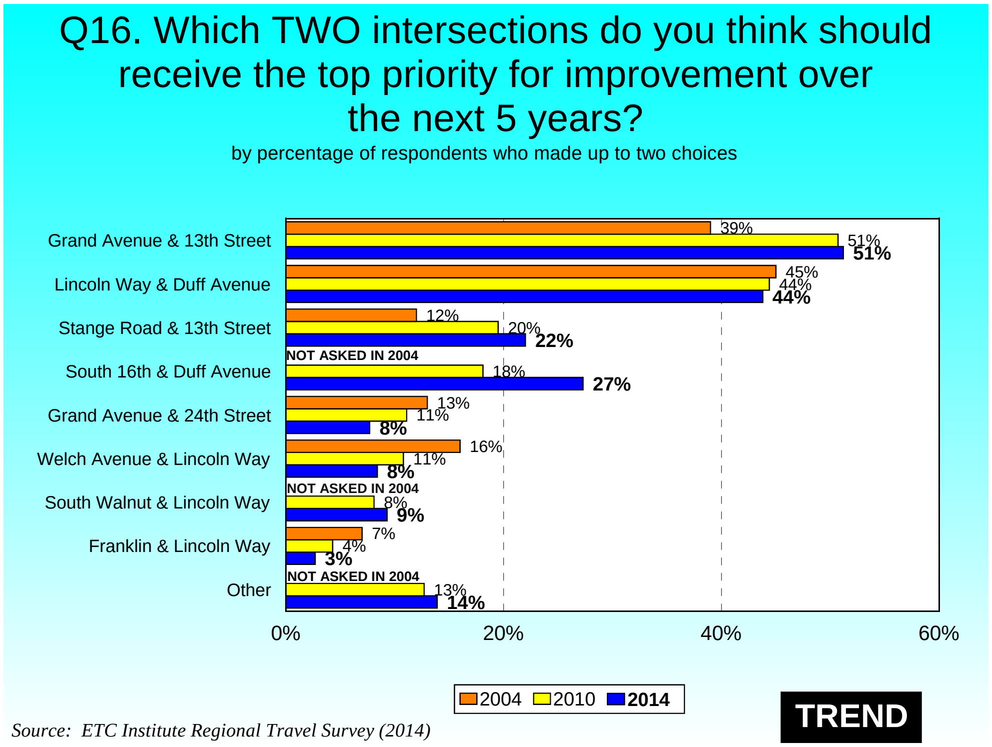

Q14f. What is the primary reason why you ride your bike?
by percentage of respondents who answered "Yes" to Question 14
Q14. Have you ridden a bicycle during the past year?
No 47%
Yes 53%
For recreational use 63%
To commute 7%
Both 30%
For those who do BOTH:
Mean commuting = 50.4%
Mean recreational = 49.6%
In 2010, 66% rode for recreation, 14% rode to commute, and 20% rode for both purposes.
Source: ETC Institute Regional Travel Survey (2014)


Q15. Have you walked along streets in the Ames area during the past year?
by percentage of respondents
Q15a. How safe do you feel walking along major streets?
No 10%
Yes 90%
Safe 58%
Not very Safe 12%
Don't know 2%
Very Safe 28%
In 2010, 94% had walked along streets in the Ames area in the past year.
Source: ETC Institute Regional Travel Survey (2014)

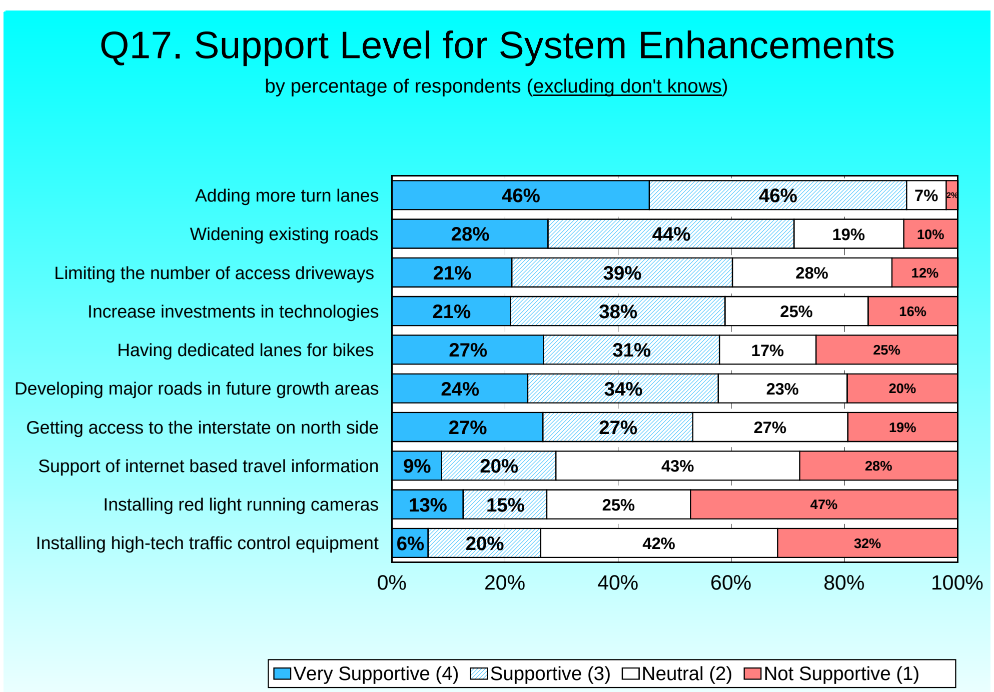

Q15b. Have you walked on a shared-use path, trail or sidewalk during the past year?
by percentage of respondents who answered "Yes" to Question 15
Q15. Have you walked along streets in the Ames area during the past year?
No 10%
Yes 90%
Yes 84%
No 16%
In 2010, 79% had walked on a shared-use path during the past year.
Source: ETC Institute Regional Travel Survey (2014)


Q15c. How safe do you feel walking on a shared-use path, trail or sidewalk in the area where you live?
by percentage of respondents who answered "Yes" to Question 15
Q15. Have you walked along streets in the Ames area during the past year?
No
10%
Yes
90%
Safe
56%
Very safe
36%
Not very safe
7%
Don't know
1%
Source: ETC Institute Regional Travel Survey (2014)

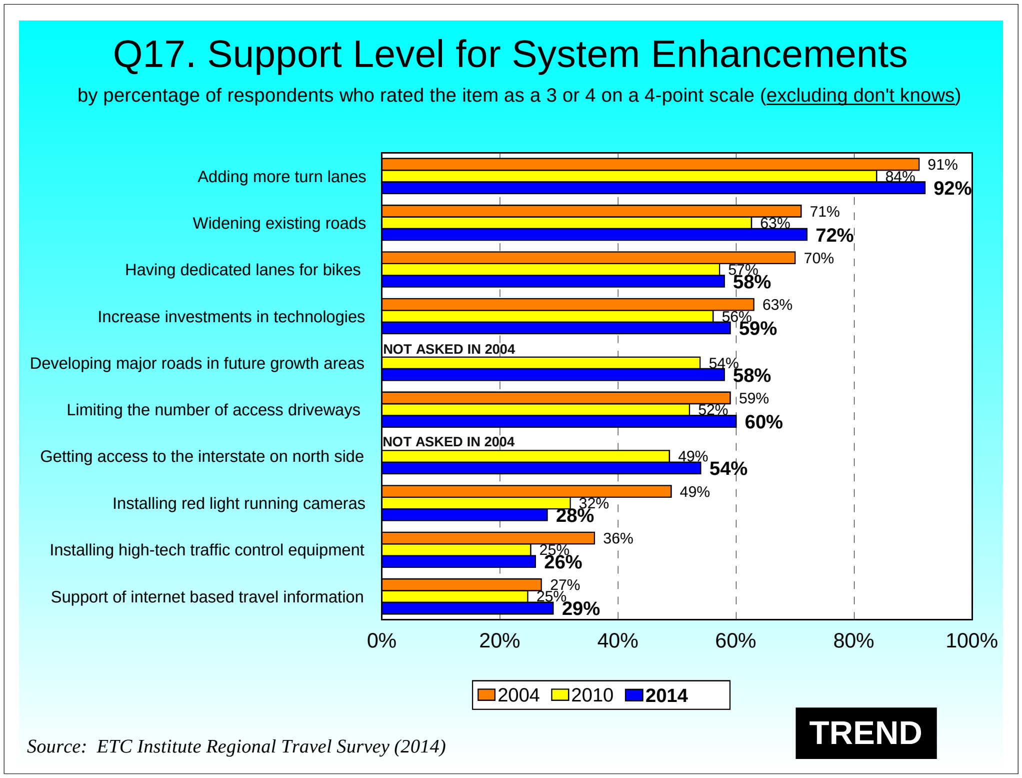

Q15d. What is the primary reason for your walking travel?
by percentage of respondents who answered "Yes" to Question 15
Q15. Have you walked along streets in the Ames area during the past year?
No
10%
Yes
90%
For recreational use
69%
To commute
7%
Not provided
2%
Both
22%
For those who do BOTH:
Mean commuting = 37.5%
Mean recreational = 62.5%
In 2010, 80% walked for recreation, 7% walked to commute, and 12% walked for both purposes.
Source: ETC Institute Regional Travel Survey (2014)



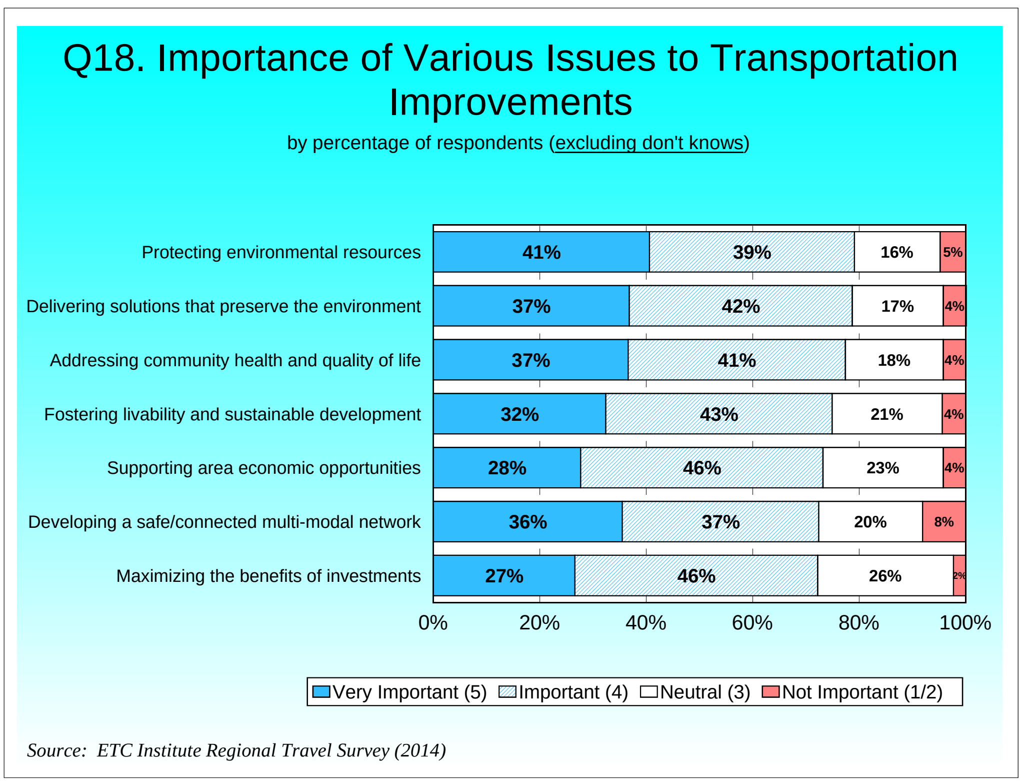
Source: ETC Institute Regional Travel Survey (2014)



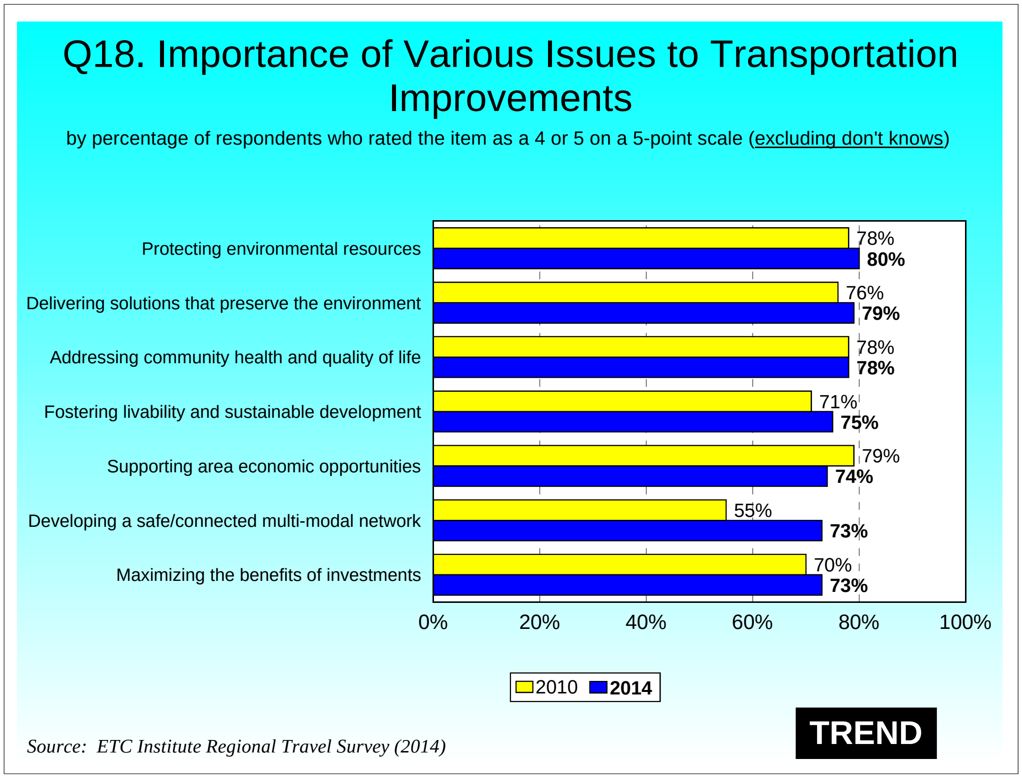
Source: ETC Institute Regional Travel Survey (2014)



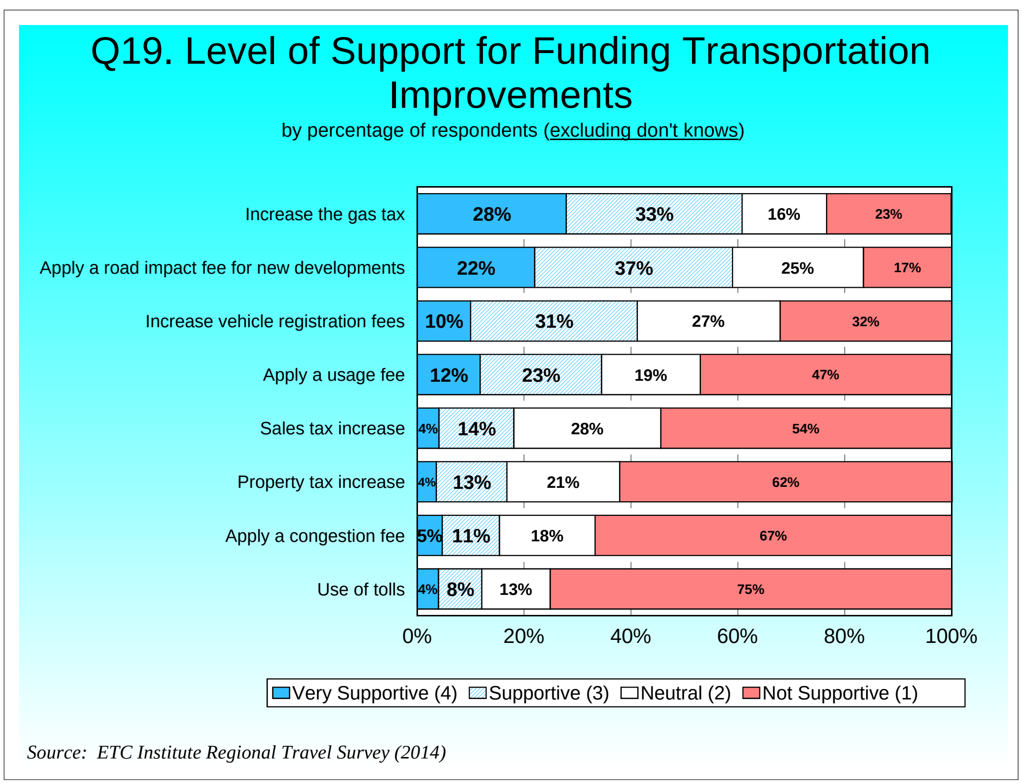
Q17. Support Level for System Enhancements
by percentage of respondents who rated the item as a 3 or 4 on a 4-point scale (excluding don't knows)
Adding more turn lanes
Widening existing roads
Having dedicated lanes for bikes
Increase investments in technologies
Developing major roads in future growth areas
Limiting the number of access driveways
Getting access to the interstate on north side
Installing red light running cameras
Installing high-tech traffic control equipment
Support of internet based travel information
91%
84%
92%
71%
63%
72%
70%
57%
58%
63%
56%
59%
NOT ASKED IN 2004
54%
58%
59%
52%
60%
NOT ASKED IN 2004
49%
54%
49%
32%
28%
36%
25%
26%
27%
25%
29%
0%
20%
40%
60%
80%
100%
2004
2010
2014
TREND
Source: ETC Institute Regional Travel Survey (2014)



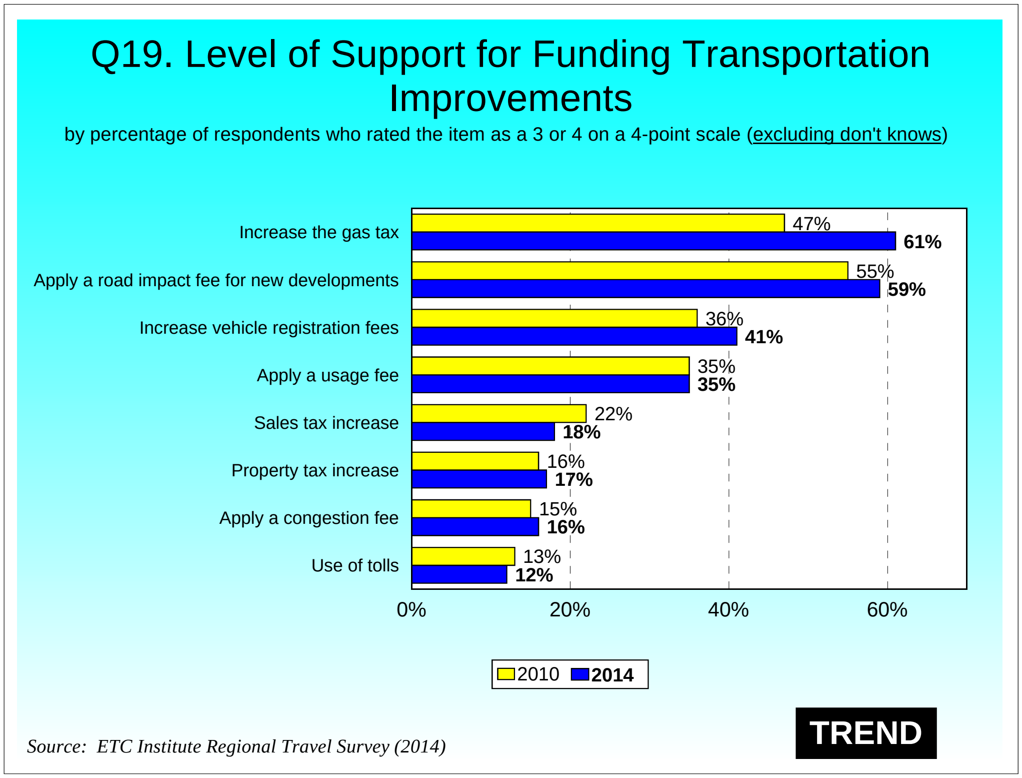
Q18. Importance of Various Issues to Transportation Improvements
by percentage of respondents (excluding don't knows)
Protecting environmental resources
41%
39%
16%
5%
Delivering solutions that preserve the environment
37%
42%
17%
4%
Addressing community health and quality of life
37%
41%
18%
4%
Fostering livability and sustainable development
32%
43%
21%
4%
Supporting area economic opportunities
28%
46%
23%
4%
Developing a safe/connected multi-modal network
36%
37%
20%
8%
Maximizing the benefits of investments
27%
46%
26%
2%
0%
20%
40%
60%
80%
100%
Very Important (5)
Important (4)
Neutral (3)
Not Important (1/2)
Source: ETC Institute Regional Travel Survey (2014)

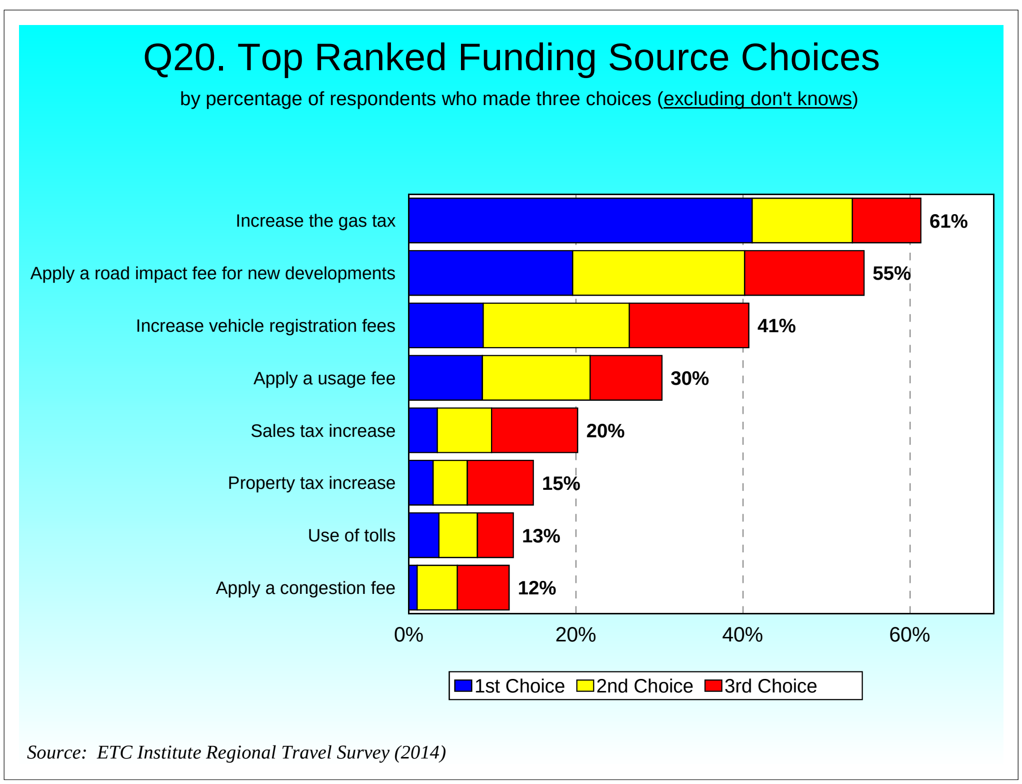


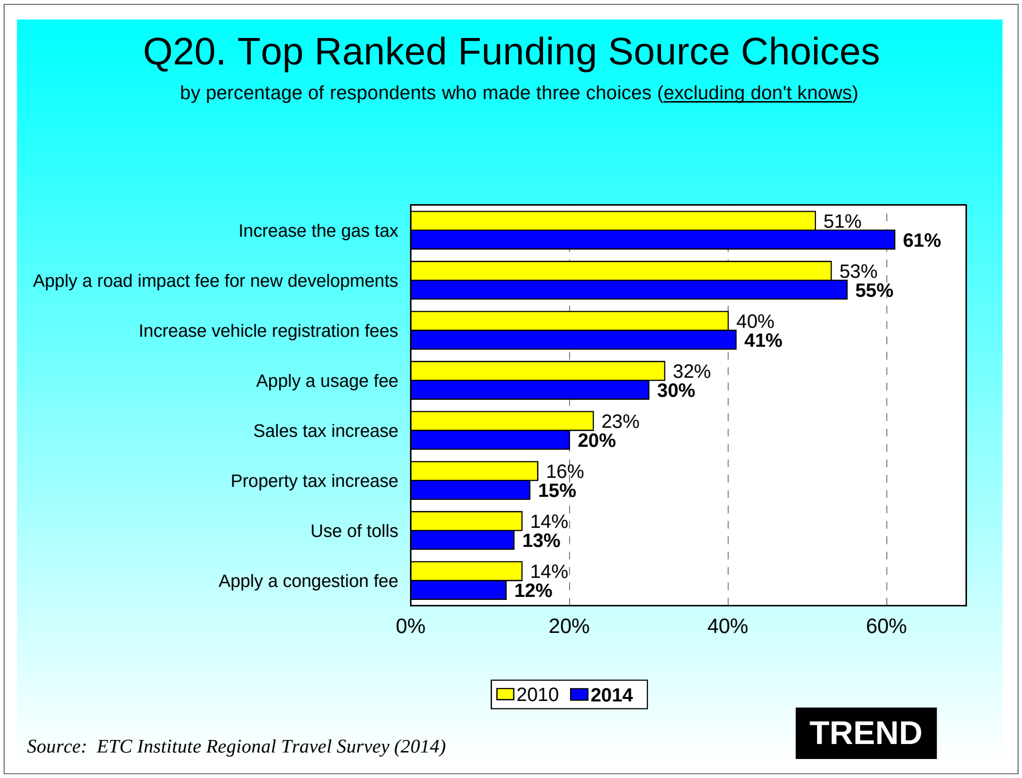
Q18. Importance of Various Issues to Transportation Improvements
by percentage of respondents who rated the item as a 4 or 5 on a 5-point scale (excluding don't knows)
Protecting environmental resources
78%
80%
Delivering solutions that preserve the environment
76%
79%
Addressing community health and quality of life
78%
78%
Fostering livability and sustainable development
71%
75%
Supporting area economic opportunities
79%
74%
Developing a safe/connected multi-modal network
55%
73%
Maximizing the benefits of investments
70%
73%
0%
20%
40%
60%
80%
100%
2010
2014
Source: ETC Institute Regional Travel Survey (2014)
TREND



Q19. Level of Support for Funding Transportation Improvements
by percentage of respondents (excluding don't knows)
Increase the gas tax
28%
33%
16%
23%
Apply a road impact fee for new developments
22%
37%
25%
17%
Increase vehicle registration fees
10%
31%
27%
32%
Apply a usage fee
12%
23%
19%
47%
Sales tax increase
4%
14%
28%
54%
Property tax increase
4%
13%
21%
62%
Apply a congestion fee
5%
11%
18%
67%
Use of tolls
4%
8%
13%
75%
0%
20%
40%
60%
80%
100%
Very Supportive (4)
Supportive (3)
Neutral (2)
Not Supportive (1)
Source: ETC Institute Regional Travel Survey (2014)


Q19. Level of Support for Funding Transportation Improvements
by percentage of respondents who rated the item as a 3 or 4 on a 4-point scale (excluding don't knows)
Increase the gas tax
Apply a road impact fee for new developments
Increase vehicle registration fees
Apply a usage fee
Sales tax increase
Property tax increase
Apply a congestion fee
Use of tolls
47%
61%
55%
59%
36%
41%
35%
35%
22%
18%
16%
17%
15%
16%
13%
12%
0%
20%
40%
60%
2010
2014
TREND
Source: ETC Institute Regional Travel Survey (2014)


Q20. Top Ranked Funding Source Choices
by percentage of respondents who made three choices (excluding don't knows)
Increase the gas tax
Apply a road impact fee for new developments
Increase vehicle registration fees
Apply a usage fee
Sales tax increase
Property tax increase
Use of tolls
Apply a congestion fee
61%
55%
41%
30%
20%
15%
13%
12%
0%
20%
40%
60%
1st Choice
2nd Choice
3rd Choice
Source: ETC Institute Regional Travel Survey (2014)


Q20. Top Ranked Funding Source Choices
by percentage of respondents who made three choices (excluding don't knows)
Increase the gas tax
51%
61%
Apply a road impact fee for new developments
53%
55%
Increase vehicle registration fees
40%
41%
Apply a usage fee
32%
30%
Sales tax increase
23%
20%
Property tax increase
16%
15%
Use of tolls
14%
13%
Apply a congestion fee
14%
12%
0%
20%
40%
60%
2010
2014
Source: ETC Institute Regional Travel Survey (2014)
TREND

Section 2:
Tabular Data

Q1. How many operating vehicles (cars, trucks, motorcycles/mopeds, vans) do you have in your household?

Q1. How many operating vehicles do you have in your household	Number	Percent
0	14	2.4 %
1	118	20.3 %
2	270	46.4 %
3	102	17.5 %
4	49	8.4 %
5 or more	25	4.3 %
Not provided	4	0.7 %
Total	582	100.0 %

Q2. Please select all the choices that best describe your employment status.

Q2. Your employment status	Number	Percent
Employed outside home	410	70.4 %
Student (K-12)	25	4.3 %
Student (University)	34	5.8 %
Operate home-based business	19	3.3 %
Not currently employed	26	4.5 %
Retired	125	21.5 %
Not provided	1	0.2 %
Total	640	

Q2a. (If Employed outside home) In which city do you work?

Q2a. In which city do you work	Number	Percent
AMES	323	80.3 %
DES MOINES	15	3.7 %
NEVADA	5	1.2 %
BOONE	5	1.2 %
W DES MOINES	4	1.0 %
STORY CITY	4	1.0 %
DES MOINES/AMES	2	0.5 %
ANKENY	2	0.5 %
MARSHALLTOWN	2	0.5 %
GILBERT	2	0.5 %
ANES	2	0.5 %
AMES/PLEASANT HILL	1	0.2 %
AMES-ISU	1	0.2 %
HAMPTON	1	0.2 %
AMES/WEST DES MOINES	1	0.2 %
GRIMES IA	1	0.2 %
NEWTON	1	0.2 %
JOHNSTON	1	0.2 %
OUTSIDE NEVADA (RURAL)	1	0.2 %
KELLEY IA	1	0.2 %
AMES, STORY CITY, PERRY	1	0.2 %
AMES & CEDAR FALLS	1	0.2 %
AMES & ANKENY	1	0.2 %
AMES & STORY CITY	1	0.2 %
VARIES	1	0.2 %
WINDSOR HEIGHTS	1	0.2 %
STAFFORD	1	0.2 %
AMES/NEVADA/COLO/HUXLEY/MAXWEL	1	0.2 %
HUXLEY	1	0.2 %
WEBSTER CITY	1	0.2 %
GRANGER	1	0.2 %
AMES/JEFFERSON	1	0.2 %
AMES/BOONE	1	0.2 %
FORT DODGE & DES MOINES	1	0.2 %
AMES-HUXLEY	1	0.2 %
AMES AND SURROUNDING AREA	1	0.2 %
ALTOONA	1	0.2 %
ROLAND	1	0.2 %
AMES/ANKENY/DES MOINES	1	0.2 %
NEVADA/DES MOINES	1	0.2 %
COLO-ZEARING/GILBERT	1	0.2 %
GILBERT & AMES	1	0.2 %
NEWTON/KNOXVILLE/BOONE/PERRY	1	0.2 %
ZEARING/NEWTON/GRINNELL	1	0.2 %
REGIONAL	1	0.2 %
COLO/ZEARING/MCCALLSBURG	1	0.2 %
GILBERT/AMES	1	0.2 %
Total	402	100.0 %

Q2b. What method of transportation do you normally use to go to work/school?

Q2b. What method of transportation do you normally use to go to work/school	Number	Percent
Car/truck-drive alone	358	84.8 %
Carpool	11	2.6 %
Vanpool	3	0.7 %
Walk	17	4.0 %
Bicycle	38	9.0 %
Public transit (bus/train/shuttle) (CyRide)	26	6.2 %
Motorcycle/moped	3	0.7 %
Park & Ride	1	0.2 %
Other	5	1.2 %
None chosen	3	0.7 %
Total	465	

Q2c. How many miles is your place of employment/school from your home?

Q2c. How many miles is your place of employment/ school from your home	Number	Percent
less than 1.0 mile	7	1.7 %
1.0 to 2.9 miles	111	27.6 %
3.0 to 4.9 miles	118	29.4 %
5.0 to 9.9 miles	89	22.1 %
10.0 to 19.9 miles	27	6.7 %
20 miles or more	50	12.4 %
Total	402	100.0 %

Q2c. How many miles is your place of employment/school from your home?

Mean = 7.14

Q3. On a typical weekday, how many trips do you normally make using the following types of transportation?

	Mean
number	8.19
Q3a. Drive a car/truck alone	6.40
Q3b. Carpool	0.28
Q3c. Vanpool	0.07
Q3d. Ride bus/shuttle	0.21
Q3e. Ride a motorcycle/moped	0.06
Q3f. Walk (to a destination)	0.64
Q3g. Ride a bicycle	1.36

Q4. Please rate your satisfaction with the following transportation issues:

(N=582)

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Don't Know
Q4a. Ease of north/south travel in Ames area	9.8%	29.7%	21.0%	26.8%	10.3%	2.4%
Q4b. Ease of east/west travel in Ames area	11.2%	41.9%	25.4%	13.7%	4.8%	2.9%
Q4c. Ease of traveling from your home to City parks & recreation facilities	18.2%	51.2%	19.4%	4.5%	0.5%	6.2%
Q4d. Ease of traveling from your home to work	23.2%	34.9%	16.0%	6.0%	2.7%	17.2%
Q4e. Ease of traveling from your home to shopping areas in Ames	17.5%	40.7%	25.1%	10.3%	3.1%	3.3%
Q4f. Ease of traveling from Ames to other cities in Iowa	30.1%	49.5%	11.5%	3.1%	1.4%	4.5%
Q4g. CyRide (public transit in Ames)	17.0%	24.9%	15.6%	3.6%	1.4%	37.5%
Q4h. HIRTA (public transit in Story County, including Ames)	4.5%	8.4%	15.8%	3.4%	2.1%	65.8%
Q4i. Availability of "on street" bicycle lanes	5.2%	14.1%	24.6%	18.6%	7.2%	30.4%
Q4j. Availability of "off street" shared use paths/trails	7.6%	28.0%	24.2%	15.6%	4.8%	19.8%
Q4k. Availability of pedestrian walkways	9.5%	46.7%	22.5%	10.3%	2.1%	8.9%
Q4l. Availability of parking	9.6%	45.0%	25.8%	13.1%	3.6%	2.9%
Q4m. Neighborhood traffic safety	11.5%	43.5%	25.8%	11.7%	2.9%	4.6%
Q4n. Traffic safety on major streets	8.2%	39.3%	28.2%	16.8%	5.0%	2.4%
Q4o. Flow of traffic on area streets during peak times of day ("rush hours")	5.2%	26.8%	21.0%	29.7%	13.6%	3.8%
Q4p. Flow of traffic on area streets at non-peak times	15.6%	49.7%	20.6%	9.8%	1.7%	2.6%
Q4q. Condition of roadways	6.5%	39.9%	31.1%	16.7%	3.3%	2.6%
Q4r. Traffic signal operations (signal timing, signal progression, etc.)	6.9%	39.9%	30.1%	15.3%	5.0%	2.9%
Q4s. Neighborhood "cut-through" activity from traffic in Ames area	5.0%	27.8%	36.1%	10.1%	4.1%	16.8%
Q4t. Speeding traffic on neighborhood streets	3.8%	24.2%	27.5%	28.0%	8.8%	7.7%

WITHOUT DON'T KNOW

Q4. Please rate your satisfaction with the following transportation issues: (without "don't know")

(N=582)

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Q4a. Ease of north/south travel in Ames area	10.0%	30.5%	21.5%	27.5%	10.6%
Q4b. Ease of east/west travel in Ames area	11.5%	43.2%	26.2%	14.2%	5.0%
Q4c. Ease of traveling from your home to City parks & recreation facilities	19.4%	54.6%	20.7%	4.8%	0.5%
Q4d. Ease of traveling from your home to work	28.0%	42.1%	19.3%	7.3%	3.3%
Q4e. Ease of traveling from your home to shopping areas in Ames	18.1%	42.1%	25.9%	10.7%	3.2%
Q4f. Ease of traveling from Ames to other cities in Iowa	31.5%	51.8%	12.1%	3.2%	1.4%
Q4g. CyRide (public transit in Ames)	27.2%	39.8%	25.0%	5.8%	2.2%
Q4h. HIRTA (public transit in Story County, including Ames)	13.1%	24.6%	46.2%	10.1%	6.0%
Q4i. Availability of "on street" bicycle lanes	7.4%	20.2%	35.3%	26.7%	10.4%
Q4j. Availability of "off street" shared use paths/trails	9.4%	34.9%	30.2%	19.5%	6.0%
Q4k. Availability of pedestrian walkways	10.4%	51.3%	24.7%	11.3%	2.3%
Q4l. Availability of parking	9.9%	46.4%	26.5%	13.5%	3.7%
Q4m. Neighborhood traffic safety	12.1%	45.6%	27.0%	12.3%	3.1%
Q4n. Traffic safety on major streets	8.5%	40.3%	28.9%	17.3%	5.1%
Q4o. Flow of traffic on area streets during peak times of day ("rush hours")	5.4%	27.9%	21.8%	30.9%	14.1%
Q4p. Flow of traffic on area streets at non-peak times	16.0%	51.0%	21.2%	10.1%	1.8%
Q4q. Condition of roadways	6.7%	40.9%	31.9%	17.1%	3.4%
Q4r. Traffic signal operations (signal timing, signal progression, etc.)	7.1%	41.1%	31.0%	15.8%	5.1%
Q4s. Neighborhood "cut-through" activity from traffic in Ames area	6.0%	33.5%	43.4%	12.2%	5.0%
Q4t. Speeding traffic on neighborhood streets	4.1%	26.3%	29.8%	30.4%	9.5%

Q5. Which THREE of the items in Question 4 do you think are the MOST IMPORTANT Transportation issues?

Q5. Top choice	Number	Percent
A=Ease of north/south travel	140	24.1 %
B=Ease of east/west travel	19	3.3 %
C=Ease of traveling from your home to City parks & recreation facilities	3	0.5 %
D=Ease of traveling from your home to work	19	3.3 %
E=Ease of traveling from your home to shopping areas in Ames	7	1.2 %
F=Ease of traveling from Ames to other cities in Iowa	5	0.9 %
G=CyRide (public transit in Ames)	28	4.8 %
H=HIRTA (public transit in Story County, including Ames)	7	1.2 %
I=Availability of "on street" bicycle lanes	34	5.8 %
J=Availability of "off street" shared use paths/trails	22	3.8 %
K=Availability of pedestrian walkways	6	1.0 %
L=Availability of parking	14	2.4 %
M=Neighborhood traffic safety	17	2.9 %
N=Traffic safety on major streets	22	3.8 %
O=Flow of traffic on area streets during peak times of day ("rush hours")	93	16.0 %
P=Flow of traffic on area streets at non-peak times	1	0.2 %
Q=Condition of roadways	45	7.7 %
R=Traffic signal operations (signal timing, signal progression, etc.)	15	2.6 %
S=Neighborhood "cut-through" activity from traffic in Ames area	7	1.2 %
T=Speeding traffic on neighborhood streets	54	9.3 %
Z=None chosen	24	4.1 %
Total	582	100.0 %

Q5. Which THREE of the items in Question 4 do you think are the MOST IMPORTANT Transportation issues?

Q5. 2nd choice	Number	Percent
A=Ease of north/south travel	58	10.0 %
B=Ease of east/west travel	54	9.3 %
C=Ease of traveling from your home to City parks & recreation facilities	2	0.3 %
D=Ease of traveling from your home to work	15	2.6 %
E=Ease of traveling from your home to shopping areas in Ames	18	3.1 %
F=Ease of traveling from Ames to other cities in Iowa	9	1.5 %
G=CyRide (public transit in Ames)	19	3.3 %
H=HIRTA (public transit in Story County, including Ames)	8	1.4 %
I=Availability of "on street" bicycle lanes	30	5.2 %
J=Availability of "off street" shared use paths/trails	39	6.7 %
K=Availability of pedestrian walkways	10	1.7 %
L=Availability of parking	23	4.0 %
M=Neighborhood traffic safety	21	3.6 %
N=Traffic safety on major streets	25	4.3 %
O=Flow of traffic on area streets during peak times of day ("rush hours")	66	11.3 %
P=Flow of traffic on area streets at non-peak times	12	2.1 %
Q=Condition of roadways	49	8.4 %
R=Traffic signal operations (signal timing, signal progression, etc.)	30	5.2 %
S=Neighborhood "cut-through" activity from traffic in Ames area	17	2.9 %
T=Speeding traffic on neighborhood streets	45	7.7 %
Z=None chosen	32	5.5 %
Total	582	100.0 %

Q5. Which THREE of the items in Question 4 do you think are the MOST IMPORTANT Transportation issues?

Q5. 3rd choice	Number	Percent
A=Ease of north/south travel	33	5.7 %
B=Ease of east/west travel	33	5.7 %
C=Ease of traveling from your home to City parks & recreation facilities	4	0.7 %
D=Ease of traveling from your home to work	11	1.9 %
E=Ease of traveling from your home to shopping areas in Ames	14	2.4 %
F=Ease of traveling from Ames to other cities in Iowa	14	2.4 %
G=CyRide (public transit in Ames)	17	2.9 %
H=HIRTA (public transit in Story County, including Ames)	6	1.0 %
I=Availability of "on street" bicycle lanes	35	6.0 %
J=Availability of "off street" shared use paths/trails	24	4.1 %
K=Availability of pedestrian walkways	22	3.8 %
L=Availability of parking	38	6.5 %
M=Neighborhood traffic safety	28	4.8 %
N=Traffic safety on major streets	30	5.2 %
O=Flow of traffic on area streets during peak times of day ("rush hours")	54	9.3 %
P=Flow of traffic on area streets at non-peak times	4	0.7 %
Q=Condition of roadways	50	8.6 %
R=Traffic signal operations (signal timing, signal progression, etc.)	48	8.2 %
S=Neighborhood "cut-through" activity from traffic in Ames area	16	2.7 %
T=Speeding traffic on neighborhood streets	44	7.6 %
Z=None chosen	57	9.8 %
Total	582	100.0 %

Q5. Which THREE of the items in Question 4 do you think are the MOST IMPORTANT Transportation issues? (Sum of Top 3 Choices)

Q5. Sum of Top 3 Choices	Number	Percent
A=Ease of north/south travel	231	39.7 %
B=Ease of east/west travel	106	18.2 %
C=Ease of traveling from your home to City parks & recreation facilities	9	1.5 %
D=Ease of traveling from your home to work	45	7.7 %
E=Ease of traveling from your home to shopping areas in Ames	39	6.7 %
F=Ease of traveling from Ames to other cities in Iowa	28	4.8 %
G=CyRide (public transit in Ames)	64	11.0 %
H=HIRTA (public transit in Story County, including Ames)	21	3.6 %
I=Availability of "on street" bicycle lanes	99	17.0 %
J=Availability of "off street" shared use paths/trails	85	14.6 %
K=Availability of pedestrian walkways	38	6.5 %
L=Availability of parking	75	12.9 %
M=Neighborhood traffic safety	66	11.3 %
N=Traffic safety on major streets	77	13.2 %
O=Flow of traffic on area streets during peak times of day ("rush hours")	213	36.6 %
P=Flow of traffic on area streets at non-peak times	17	2.9 %
Q=Condition of roadways	144	24.7 %
R=Traffic signal operations (signal timing, signal progression, etc.)	93	16.0 %
S=Neighborhood "cut-through" activity from traffic in Ames area	40	6.9 %
T=Speeding traffic on neighborhood streets	143	24.6 %
Z=None chosen	24	4.1 %
Total	1657	

Q6. Overall, would you rate the transportation system in the Ames Area as excellent, good, average, or poor?

Q6. Rate overall transportation system in Ames Area	Number	Percent
Excellent	74	12.7 %
Good	288	49.5 %
Average	158	27.1 %
Poor	45	7.7 %
Don't know	17	2.9 %
Total	582	100.0 %

WITHOUT DON'T KNOW

Q6. Overall, would you rate the transportation system in the Ames Area as excellent, good, average, or poor? (without "don't know")

Q6. Rate overall transportation system in Ames Area	Number	Percent
Excellent	74	13.1 %
Good	288	51.0 %
Average	158	28.0 %
Poor	45	8.0 %
Total	565	100.0 %

Q7. Do you feel that congestion at rush hour in the Ames Area is better or worse than rush hour congestion in other cities of comparable size that you have visited?

Q7. How do you feel that congestion at rush hour in Ames Area	Number	Percent
Better	144	24.7 %
Worse	122	21.0 %
Same	164	28.2 %
Don't know	152	26.1 %
Total	582	100.0 %

WITHOUT DON'T KNOW

Q7. Do you feel that congestion at rush hour in the Ames Area is better or worse than rush hour congestion in other cities of comparable size that you have visited? (without "don't know")

Q7. How do you feel that congestion at rush hour in Ames Area	Number	Percent
Better	144	33.5 %
Worse	122	28.4 %
Same	164	38.1 %
Total	430	100.0 %

Q8. Please rate your satisfaction with the following parking issues:

(N=582)

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Don't Know
Q8a. Parking availability in residential areas	21.3%	49.8%	16.8%	6.5%	1.9%	3.6%
Q8b. Parking availability in Downtown area of Ames	9.8%	41.4%	22.5%	19.6%	4.8%	1.9%
Q8c. Parking availability on campus	1.9%	9.1%	18.9%	34.2%	20.3%	15.6%
Q8d. Parking availability in Campustown	1.9%	11.2%	26.5%	33.7%	12.2%	14.6%

WITHOUT DON'T KNOW

Q8. Please rate your satisfaction with the following parking issues: (without "don't know")

(N=582)

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Q8a. Parking availability in residential areas	22.1%	51.7%	17.5%	6.8%	2.0%
Q8b. Parking availability in Downtown area of Ames	10.0%	42.2%	22.9%	20.0%	4.9%
Q8c. Parking availability on campus	2.2%	10.8%	22.4%	40.5%	24.0%
Q8d. Parking availability in Campustown	2.2%	13.1%	31.0%	39.4%	14.3%

Q9. How would you rate the availability of public transit in Ames?

Q9. Rate availability of public transit in Ames	Number	Percent
Excellent	185	31.8 %
Good	212	36.4 %
Average	52	8.9 %
Poor	16	2.7 %
Don't know	117	20.1 %
Total	582	100.0 %

WITHOUT DON’T KNOW

Q9. How would you rate the availability of public transit in Ames? (without "don't know")

Q9. Rate availability of public transit in Ames	Number	Percent
Excellent	185	39.8 %
Good	212	45.6 %
Average	52	11.2 %
Poor	16	3.4 %
Total	465	100.0 %

Q10. Please rate your satisfaction with the following Transit Availability in the Ames Area:

(N=582)

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Don't Know
Q10a. Availability of information about public transit services	22.7%	39.0%	14.4%	3.1%	1.0%	19.8%
Q10b. Destinations served by public transit	16.2%	36.4%	15.6%	6.0%	1.7%	24.1%
Q10c. Distance to nearest public transit stop from your home	24.6%	30.4%	14.1%	9.5%	2.7%	18.7%
Q10d. Frequency of bus service	13.9%	36.9%	17.7%	5.3%	0.9%	25.3%
Q10e. Hours & days transit service is provided	14.8%	35.7%	17.2%	4.3%	1.7%	26.3%

WITHOUT DON'T KNOW

Q10. Please rate your satisfaction with the following Transit Availability in the Ames Area: (without "don't know")

(N=582)

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Q10a. Availability of information about public transit services	28.3%	48.6%	18.0%	3.9%	1.3%
Q10b. Destinations served by public transit	21.3%	48.0%	20.6%	7.9%	2.3%
Q10c. Distance to nearest public transit stop from your home	30.2%	37.4%	17.3%	11.6%	3.4%
Q10d. Frequency of bus service	18.6%	49.4%	23.7%	7.1%	1.1%
Q10e. Hours & days transit service is provided	20.0%	48.5%	23.3%	5.8%	2.3%

Q11. Which of the following are reasons that you do not use public transit (CyRide) more often?

Q11. Reasons that you do not use public transit (CyRide) more often	Number	Percent
A=Service is not available near my home	130	22.3 %
B=Service is not offered to destinations I visit frequently	87	14.9 %
C=I don't know how to use the service	37	6.4 %
D=I had a bad experience with the service	3	0.5 %
E=It takes too long to get to destinations compared to travel by car	209	35.9 %
F=Service is confusing to use	28	4.8 %
G=Service is not offered at time I need it	69	11.9 %
H=It's too expensive	32	5.5 %
I=Buses do not come by stops frequently enough	45	7.7 %
J=Bus is too crowded when I need to take it	25	4.3 %
K=I just prefer to drive	343	58.9 %
L=Other	102	17.5 %
Z=None chosen	20	3.4 %
Total	1130	

Q12. How close of a walk (in minutes) would a public transit stop need to be located for you to consider using public transit instead of a car?

Q12. How close of a walk (in minutes) would a public transit stop need to be located	Number	Percent
5 minutes	334	57.4 %
10 minutes	74	12.7 %
Other	117	20.1 %
Don't know	57	9.8 %
Total	582	100.0 %

Q12. Other

Q12 Other
1-2 BLOCKS
1 MIN
1 MIN
1 MIN
1 MIN
10' FROM PROPERTY
15
18 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 MIN
2 TO 3 MIN
20
20 MIN
3 MIN
3 MIN
3 MIN
3 MIN
3 MIN
3 MIN
3 MIN
30 MIN
5
5 MILES
5 MIN
5 MIN
5 MIN
5 MIN
5 MIN OR LESS
AT THIS TIME IT WOULDN'T MATTER
BUS STOP CLOST TO HOME NOW
CAN'T USE PUBLIC TRANSPORTATION BECAUSE OF JOB
DAUGHTER TOO YOUNG TO MAKE THIS WORK AT THIS TIME
DEPENDS ON WEATHER, IOWA WINTERS
DOESN'T MATTAER
DON'T WANT TO USE PUBLIC TRANSPORTATION
GILBERT AREA
GOING TO USE CAR

Q12. Other

Q12 Other
HANDICAPPED
I CAN BIKE FASTER
I HAVE ONE 10 MIN FROM MY HOME
I LIVE IN GILBERT
I LIVE IN RURAL SUBDIVISION
I'M OLD & STEPS HURT ME MORE & MORE
I PROBABLY NOT MATTER TO ME
I WON'T CONSIDER IT NOT MATTER THE WALK
ITS 2 MIN FOR ME DOESN'T MAKE A DIFFERENCE
ITS CLOSE ENOUGH
ITS FINE NOW
ITS ONLY 3 BLOCKS AWAY NOW
ITS VERY CLOSE BUT I PREFER TO DRIVE
LESS THAN 5
LESS THAN 5 MIN
LESS THAN 5 MIN
LIVE IN HUXLEY
LIVE IN RURAL SUBDIVISION N OF AMES
NEED MY VEHICLE DURING THE DAY
NONE
NOPE
NOT GOING TO HAPPEN
NOT INTERESTED
NOT INTERESTED
NOT INTERESTED
NOT INTERESTED
NOT LIKELY TO RIDE BUS
ONE IS CLOSE (1 MIN)
OUTSIDE MY APT DOOR
PLAN TO MOVE
PREFER TO DRIVE
PREFER TO DRIVE
PUBLIC TRNASIT NOT SUITED TO KIND OF TRIPS I MAKE
REGULARE BUS IS FINE BUT HAVE TO CROSS BUSY STREET
RETIRED & USE CAR
STORE 1/2 BLK FROM MY HOUSE, MAYBE 1 MIN TO WALK
THE BUS IS HERE
THIS IS NOT A FACTOR IN MY DECISION
UNDER 5 MIN
WALK FOR EXERCISE
WILL KEEPING USING CAR
WON'T PAY $11
WOULD NOT
WOULD NOT CONSIDER IT
WOULD NOT TAKE THE BUS
WOULD NOT USE
WOULD STILL DRIVE
WOULD STILL DRIVE CAR
WOULDN'T
WOULDN'T USE IT

Q13. How frequently (in minutes) would a bus or other form of public transit need to be scheduled to arrive at stops for you to consider using public transit instead of a car? (excluding those who did not provide a response)

Q13. How frequently (in minutes) would a bus or other form of public transit need to be scheduled to arrive at stops	Number	Percent
5 or less	46	10.2 %
6 to 10	79	17.4 %
11 to 15	153	33.8 %
16 to 20	91	20.1 %
21 to 30	68	15.0 %
31+	16	3.5 %
Total	453	100.0 %

Mean = 17.67 minutes

Q14. Have you ridden a bicycle in the Ames area during the past year?

Q14. Have you ridden a bicycle in Ames area during past year	Number	Percent
Yes	309	53.1 %
No	273	46.9 %
Total	582	100.0 %

Q14a. How safe do you feel bicycling on major streets?

Q14a. How safe do you feel bicycling on major streets	Number	Percent
Not very safe	172	55.7 %
Safe	105	34.0 %
Very safe	19	6.1 %
Don't know	13	4.2 %
Total	309	100.0 %

Q14b. Have you ridden a bicycle using an on-street bike lane during the last year?

Q14b. Have you ridden a bicycle using an on-street bike lane last year	Number	Percent
Yes	151	48.9 %
No	157	50.8 %
Don't remember	1	0.3 %
Total	309	100.0 %

Q14c. How safe do you feel bicycling on an on-street bike lane?

Q14c. How safe do you feel bicycling on an on-street bike lane	Number	Percent
Not very safe	46	30.5 %
Safe	88	58.3 %
Very safe	17	11.3 %
Total	151	100.0 %

Q14d. Have you ridden a bicycle on a shared-use path or trail during the last year?

Q14d. Have you ridden a bicycle on a shared-use path or trail last year	Number	Percent
Yes	266	86.1 %
No	41	13.3 %
Don't remember	2	0.6 %
Total	309	100.0 %

Q14e. How safe do you feel bicycling on a shared-use path or trail?

Q14e. How safe do you feel bicycling on a shared-use path or trail	Number	Percent
Not very safe	14	5.3 %
Safe	125	47.0 %
Very safe	122	45.9 %
Don't know	5	1.9 %
Total	266	100.0 %

Q14f. What is the primary reason why you ride your bike?

Q14f. Primary reason why you ride your bike	Number	Percent
To commute to school, work, personal business, or shopping trips	23	7.4 %
For recreational (fitness, leisure) use	193	62.5 %
Both	93	30.1 %
Total	309	100.0 %

Q14f-3. (If both) What percentage of your biking travel is for commuting and recreational purposes?

Q14-3. For commuting	Number	Percent
0-10%	17	18.9 %
11-20%	7	7.8 %
21-30%	8	8.9 %
31-40%	1	1.1 %
41-50%	16	17.8 %
51-60%	8	8.9 %
61-70%	7	7.8 %
71-80%	16	17.8 %
81-90%	8	8.9 %
91-100%	2	2.2 %
Total	90	100.0 %

Q14-3. For commuting

Mean = 50.4%

Q14f-3. (If both) What percentage of your biking travel is for commuting and recreational purposes?

Q14-3. For recreation	Number	Percent
0-10%	10	11.1 %
11-20%	8	8.9 %
21-30%	17	18.9 %
31-40%	8	8.9 %
41-50%	17	18.9 %
51-60%	1	1.1 %
61-70%	2	2.2 %
71-80%	12	13.3 %
81-90%	10	11.1 %
91-100%	5	5.6 %
Total	90	100.0 %

Q14-3. For recreation

Mean = 49.6%

Q15. Have you walked along streets in the Ames area during the past year?

Q15. Have you walked along streets in Ames area during past year	Number	Percent
Yes	521	89.5 %
No	61	10.5 %
Total	582	100.0 %

Q15a. How safe do you feel walking along major streets?

Q15a. How safe do you feel walking along major streets	Number	Percent
Not very safe	60	11.5 %
Safe	301	57.8 %
Very safe	147	28.2 %
Don't know	13	2.5 %
Total	521	100.0 %

Q15b. Have you walked on a shared-use path or trail or sidewalk during the last year?

Q15b. Have you walked on a shared-use path or trail or sidewalk during last year	Number	Percent
Yes	440	84.5 %
No	81	15.5 %
Total	521	100.0 %

Q15c. How safe do you feel walking on a shared-use path or trail or sidewalk in the area where you live?

Q15c. How safe do you feel walking on a shared-use path or trail or sidewalk in area where you live	Number	Percent
Not very safe	31	7.0 %
Safe	246	55.9 %
Very safe	159	36.1 %
Don't know	4	0.9 %
Total	440	100.0 %

Q15d. What is the primary reason for your walking travel?

Q15d. Primary reason for your walking travel	Number	Percent
To commute to school, work, personal business, or shopping trips	35	6.7 %
For recreational (fitness, leisure) use	361	69.3 %
Both	115	22.1 %
Not provided	10	1.9 %
Total	521	100.0 %

Q15d-3. (If both) what percentage of your walking travel is for commuting and for recreational purposes?

Q15d-3. For commuting	Number	Percent
0-10%	31	27.7 %
11-20%	17	15.2 %
21-30%	14	12.5 %
31-40%	3	2.7 %
41-50%	20	17.9 %
51-60%	5	4.5 %
61-70%	5	4.5 %
71-80%	8	7.1 %
81-90%	7	6.3 %
91-100%	2	1.8 %
Total	112	100.0 %

Q15d-3. For commuting

Mean = 37.5%

Q15d-3. (If both) what percentage of your walking travel is for commuting and for recreational purposes?

Q15-3. For recreation	Number	Percent
0-10%	9	8.0 %
11-20%	4	3.6 %
21-30%	10	8.9 %
31-40%	6	5.4 %
41-50%	21	18.8 %
51-60%	3	2.7 %
61-70%	6	5.4 %
71-80%	20	17.9 %
81-90%	22	19.6 %
91-100%	11	9.8 %
Total	112	100.0 %

Q15-3. For recreation

Mean = 62.5%

Q16. Several intersections in the Ames Area are listed below. Which TWO do you think should receive the top priority for improvement over the next 5 years?

Q16. Top priority for improvement over next 5 years	Number	Percent
Grand Avenue & 13th Street	298	51.2 %
Lincoln Way & Duff Avenue	255	43.8 %
South 16th & Duff	159	27.3 %
Stange Road & 13th Street	128	22.0 %
Other	81	13.9 %
South Walnut/Clark & Lincoln Way	54	9.3 %
Welch Avenue & Lincoln Way	49	8.4 %
Grand Avenue & 24th Street	45	7.7 %
None chosen	23	4.0 %
Franklin & Lincoln Way	16	2.7 %
Total	1108	

Q17. For each of the following system enhancements, please indicate whether you would be very supportive, somewhat supportive, or not supportive. Please recognize that there is an increased cost to some of these elements.

(N=582)

	Very Supportive	Supportive	Neutral	Not Supportive	Don't Know
Q17a. Having dedicated lanes for bikes on major city streets in Ames Area	25.1%	29.0%	16.0%	23.4%	6.5%
Q17b. Limiting number of access driveways to retail & commercial locations to improve traffic flow along major roads	19.6%	36.1%	26.1%	10.8%	7.4%
Q17c. Developing major roads in future growth areas that are designed to let traffic flow at least 45-50 miles per hour	23.0%	32.3%	21.8%	18.7%	4.1%
Q17d. Increasing investments in technologies, such as variable message signs that inform drivers about traffic conditions and/or sensors that adjust timing of traffic signals to maximize traffic flow	20.1%	36.3%	24.2%	15.1%	4.3%
Q17e. Widening existing roads & building new roads to relieve congestion	26.5%	41.8%	18.6%	9.1%	4.1%
Q17f. Adding more turn lanes at critical intersections to improve traffic operations	43.8%	43.8%	6.7%	2.1%	3.6%
Q17g. Installing red light running cameras for enforcement	12.0%	14.1%	24.2%	45.0%	4.6%
Q17h. Installing high-tech traffic control equipment to give buses priority through signalized intersections	6.0%	18.7%	39.3%	29.9%	6.0%
Q17i. Supporting internet based real time travel information	8.1%	18.6%	39.5%	25.6%	8.2%
Q17j. Getting access to interstate on north side of town	25.3%	25.1%	25.9%	18.4%	5.3%

WITHOUT DON’T KNOW

Q17. For each of the following system enhancements, please indicate whether you would be very supportive, somewhat supportive, or not supportive. Please recognize that there is an increased cost to some of these elements. (without "don't know")

(N=582)

	Very Supportive	Supportive	Neutral	Not Supportive
Q17a. Having dedicated lanes for bikes on major city streets in Ames Area	26.8%	31.1%	17.1%	25.0%
Q17b. Limiting number of access driveways to retail & commercial locations to improve traffic flow along major roads	21.2%	39.0%	28.2%	11.7%
Q17c. Developing major roads in future growth areas that are designed to let traffic flow at least 45-50 miles per hour	24.0%	33.7%	22.8%	19.5%
Q17d. Increasing investments in technologies, such as variable message signs that inform drivers about traffic conditions and/or sensors that adjust timing of traffic signals to maximize traffic flow	21.0%	37.9%	25.3%	15.8%
Q17e. Widening existing roads & building new roads to relieve congestion	27.6%	43.5%	19.4%	9.5%
Q17f. Adding more turn lanes at critical intersections to improve traffic operations	45.5%	45.5%	7.0%	2.1%
Q17g. Installing red light running cameras for enforcement	12.6%	14.8%	25.4%	47.2%
Q17h. Installing high-tech traffic control equipment to give buses priority through signalized intersections	6.4%	19.9%	41.9%	31.8%
Q17i. Supporting internet based real time travel information	8.8%	20.2%	43.1%	27.9%
Q17j. Getting access to interstate on north side of town	26.7%	26.5%	27.4%	19.4%

Q18. Establishing a vision for updates to long range transportation is vital to shaping the future of the Ames area. How important are each of the following statements? For each one, please rate them by choosing a number between 1 and 5, where 5 means it is "very important" and 1 means "not at all important".

(N=582)

	Very Important	Important	Neutral	Not Important	Not At All Important	Don't Know
Q18a. Developing a safe & connected multi-modal network, including bikes, pedestrians, transit & autos	34.7%	36.1%	19.1%	5.8%	2.1%	2.2%
Q18b. Fostering livability & sustainable development	31.4%	41.2%	20.1%	2.7%	1.5%	2.9%
Q18c. Delivering solutions that preserve & enhance environment & community	35.9%	40.9%	16.7%	2.4%	1.7%	2.4%
Q18d. Supporting area economic opportunities	27.0%	44.3%	22.0%	3.4%	0.7%	2.6%
Q18e. Maximizing benefits of transportation investments	25.8%	44.2%	24.7%	1.5%	0.7%	3.1%
Q18f. Addressing community health & quality of life	35.6%	39.7%	17.9%	2.9%	1.2%	2.7%
Q18g. Protecting environmental resources	39.5%	37.5%	15.6%	3.1%	1.5%	2.7%

WITHOUT DON'T KNOW

Q18. Establishing a vision for updates to long range transportation is vital to shaping the future of the Ames area. How important are each of the following statements? For each one, please rate them by choosing a number between 1 and 5, where 5 means it is "very important" and 1 means "not at all important". (without "don't know")

(N=582)

	Very Important	Important	Neutral	Not Important	Not At All Important
Q18a. Developing a safe & connected multi-modal network, including bikes, pedestrians, transit & autos	35.5%	36.9%	19.5%	6.0%	2.1%
Q18b. Fostering livability & sustainable development	32.4%	42.5%	20.7%	2.8%	1.6%
Q18c. Delivering solutions that preserve & enhance environment & community	36.8%	41.9%	17.1%	2.5%	1.8%
Q18d. Supporting area economic opportunities	27.7%	45.5%	22.6%	3.5%	0.7%
Q18e. Maximizing benefits of transportation investments	26.6%	45.6%	25.5%	1.6%	0.7%
Q18f. Addressing community health & quality of life	36.6%	40.8%	18.4%	3.0%	1.2%
Q18g. Protecting environmental resources	40.6%	38.5%	16.1%	3.2%	1.6%

Q19. Transportation improvements are critical, but also costly. The funding for transportation improvements can come from several sources. Which of the following sources of funding would you most support? For each one, please rate them by choosing a number between 1 and 4, where 4 means you are "very supportive" and 1 means "not supportive".

(N=582)

	Very Supportive	Supportive	Neutral	Not Supportive	Don't Know
Q19a. Increase gas tax	27.0%	31.8%	15.3%	22.5%	3.4%
Q19b. Use of tolls	3.8%	7.7%	12.2%	71.5%	4.8%
Q19c. Increase vehicle registration fees	9.6%	30.1%	25.8%	30.9%	3.6%
Q19d. Apply a usage fee so that the more you drive, the higher the fee	11.2%	21.5%	17.5%	44.3%	5.5%
Q19e. Apply a road impact fee for new developments	19.9%	33.5%	22.2%	14.9%	9.5%
Q19f. Sales tax increase	4.0%	13.4%	26.3%	51.9%	4.5%
Q19g. Apply a congestion fee so that when you drive in rush hour, the fee is higher	4.3%	9.8%	16.5%	61.3%	8.1%
Q19h. Property tax increase	3.4%	12.5%	20.1%	59.3%	4.6%

WITHOUT DON'T KNOW

Q19. Transportation improvements are critical, but also costly. The funding for transportation improvements can come from several sources. Which of the following sources of funding would you most support? For each one, please rate them by choosing a number between 1 and 4, where 4 means you are "very supportive" and 1 means "not supportive". (without "don't know")

(N=582)

	Very Supportive	Supportive	Neutral	Not Supportive
Q19a. Increase gas tax	27.9%	32.9%	15.8%	23.3%
Q19b. Use of tolls	4.0%	8.1%	12.8%	75.1%
Q19c. Increase vehicle registration fees	10.0%	31.2%	26.7%	32.1%
Q19d. Apply a usage fee so that the more you drive, the higher the fee	11.8%	22.7%	18.5%	46.9%
Q19e. Apply a road impact fee for new developments	22.0%	37.0%	24.5%	16.5%
Q19f. Sales tax increase	4.1%	14.0%	27.5%	54.3%
Q19g. Apply a congestion fee so that when you drive in rush hour, the fee is higher	4.7%	10.7%	17.9%	66.7%
Q19h. Property tax increase	3.6%	13.2%	21.1%	62.2%

Q20. Which THREE of the funding sources in Question #19 do you most support?

Q20. Top choice	Number	Percent
Increase gas tax	239	41.1 %
Use of tolls	21	3.6 %
Increase vehicle registration fees	52	8.9 %
Apply a usage fee so that when you drive in rush hour, the fee is higher	51	8.8 %
Apply a road impact fee for new developments	114	19.6 %
Sales tax increase	20	3.4 %
Apply a congestion fee so that when you drive in rush hour, the fee is higher	6	1.0 %
Property tax increase	17	2.9 %
None chosen	62	10.7 %
Total	582	100.0 %

Q20. Which THREE of the funding sources in Question #19 do you most support?

Q20. 2nd choice	Number	Percent
Increase gas tax	70	12.0 %
Use of tolls	27	4.6 %
Increase vehicle registration fees	102	17.5 %
Apply a usage fee so that when you drive in rush hour, the fee is higher	75	12.9 %
Apply a road impact fee for new developments	120	20.6 %
Sales tax increase	38	6.5 %
Apply a congestion fee so that when you drive in rush hour, the fee is higher	28	4.8 %
Property tax increase	24	4.1 %
None chosen	98	16.8 %
Total	582	100.0 %

Q20. Which THREE of the funding sources in Question #19 do you most support?

Q20. 3rd choice	Number	Percent
Increase gas tax	48	8.2 %
Use of tolls	25	4.3 %
Increase vehicle registration fees	83	14.3 %
Apply a usage fee so that when you drive in rush hour, the fee is higher	50	8.6 %
Apply a road impact fee for new developments	83	14.3 %
Sales tax increase	60	10.3 %
Apply a congestion fee so that when you drive in rush hour, the fee is higher	36	6.2 %
Property tax increase	46	7.9 %
None chosen	151	25.9 %
Total	582	100.0 %

Q20. Which THREE of the funding sources in Question #19 do you most support? (Sum of Top 3 Choices)

Q20. Sum of Top 3 Choices	Number	Percent
Increase gas tax	357	61.3 %
Use of tolls	73	12.5 %
Increase vehicle registration fees	237	40.7 %
Apply a usage fee so that when you drive in rush hour, the fee is higher	176	30.2 %
Apply a road impact fee for new developments	317	54.5 %
Sales tax increase	118	20.3 %
Apply a congestion fee so that when you drive in rush hour, the fee is higher	70	12.0 %
Property tax increase	87	14.9 %
None chosen	62	10.7 %
Total	1497	

Q21. How many persons in your household (including yourself), ages 16 and older, are dependent on public transit or rides from friends/relatives because they do not have a car or do not drive?

Q21. How many persons in household, ages 16 and older, are dependent on public transit or rides from friends/ relatives	Number	Percent
0	452	77.7 %
1	72	12.4 %
2	42	7.2 %
3	10	1.7 %
4	5	0.9 %
5+	1	0.2 %
Total	582	100.0 %

Q22. How many persons in your household (counting yourself), are?

	Mean	Sum
number	2.8	1583
Under age 5	0.2	95
5 - 9 years	0.2	104
10 - 14 years	0.2	126
15 - 19 years	0.2	121
20 - 24 years	0.1	71
25 - 34 years	0.2	136
35 - 44 years	0.4	203
45 - 54 years	0.4	238
55 - 64 years	0.4	251
65+ years	0.4	238

Q23. Would you say your total household income is:

Q23. Your total household income	Number	Percent
Under $30K	55	9.5 %
$30K to $59,999	111	19.1 %
$60K to $99,999	170	29.2 %
$100K+	208	35.7 %
Not provided	38	6.5 %
Total	582	100.0 %

Q24. Which of the following best describes your race?

Q24. Your race	Number	Percent
African American/Black	19	3.3 %
American Indian	6	1.0 %
Asian/Pacific Islander	34	5.8 %
White/Caucasian	523	89.9 %
Other	12	2.1 %
Not provided	6	1.0 %
Total	600	

Q25. Are you currently a student at Iowa State University?

Q25. Are you currently a student at Iowa State University	Number	Percent
Yes	29	5.0 %
No	545	93.6 %
Not provided	8	1.4 %
Total	582	100.0 %

Q26. Your gender:

Q26. Your gender	Number	Percent
Male	302	51.9 %
Female	280	48.1 %
Total	582	100.0 %

Section 3:
Survey Instrument

September 2014

RE: Ames Area Regional Transportation Survey

Dear Resident:

On behalf of local governments in Story and Boone Counties, I want to encourage you to take a few minutes to complete this important Survey. Your input will be used by community leaders to set transportation priorities for our region.

The Ames Area Metropolitan Planning Organization is an organization of local governments in Story and Boone Counties that is responsible for regional transportation planning. We are in the process of updating the region's long-range transportation plan, and the results of this survey will help us identify which transportation improvements are needed most.

Since only a limited number of households in the region were selected at random to receive the survey, your participation will ensure residents in your area are well represented in the transportation plan.

A postage-paid return envelope addressed to ETC Institute has been provided for your convenience. We have selected ETC Institute as our partner for this project. They will compile the results and present a report to the community in a few weeks.

If you have any questions, please call me at 515.239.5275.

Thank you for your support of this important effort.

Sincerely,

Damion Pregitzer
Traffic Engineer

Tony Filippini
Transportation Planner

Ames Area Metropolitan Planning Organization • 515 Clark Avenue • Ames, IA 50010

Regional TRAVEL SURVEY

One of the first considerations for planning the future of a region is the need for adequate transportation. Because of the time it takes to implement and the investment required, long range transportation planning is vital to successfully shaping the future of any region. We would like your help today in shaping the future of the Ames Region. Thank you for taking time to complete the survey. When you are finished, please return your completed survey in the postage-paid envelope addressed to ETC Institute, 725 W. Frontier Circle, Olathe, KS 66061.

1. **How many operating vehicles (cars, trucks, motorcycles/mopeds, vans) do you have in your household?**

   __________ vehicle(s)

2. **Please select all the choices that best describe you. (Check ALL that apply)**

   ___(1) Employed outside the home [Answer Q2a-2c]
   ___(2) Student (K-12) [Answer Q2b-2c]
   ___(3) Student (University) [Answer Q2b-2c]
   ___(4) Operate home-based business [GO TO Q3]
   ___(5) Not currently employed [GO TO Q3]
   ___(6) Retired [GO TO Q3]

   2a. In which city do you work? __________________________

   2b. What method of transportation do you normally use to go to work/school?

   ___(01) Car/truck--drive alone
   ___(02) Carpool
   ___(03) Vanpool
   ___(04) Walk
   ___(05) Taxi
   ___(06) Bicycle
   ___(07) Public transit (bus/train/shuttle) (CyRide)
   ___(08) Motorcycle/moped
   ___(09) Park and Ride
   ___(10) Other: ________________

   2c. How many miles is your place of employment/school from your home?

   _________ **miles**

3. **On a typical weekday, how many one-way trips do you normally make using the following types of transportation?** Please count all trips completed, including return trips to your home. If you make multiple stops on your way, please count each destination you visit as a separate trip. For example, if you stop at a gas station on the way to work, this would count as two trips.

   (A) Drive a car/truck alone ...._________ trips
   (B) Carpool ...._________ trips
   (C) Vanpool...................................._________ trips
   (D) Ride the bus/shuttle .. .._________ trips
   (E) Ride a motorcycle/moped .. .._________ trips
   (F) Walk (to a destination) ...._________ trips
   (G) Ride a bicycle..................... ....._________ trips

4. Perceptions of Current Transportation Issues Please rate your satisfaction with the following:		Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Don't Know
A.	Ease of north/south travel in the Ames area	5	4	3	2	1	9
B.	Ease of east/west travel in the Ames area	5	4	3	2	1	9
C.	Ease of traveling from your home to city parks and recreation facilities	5	4	3	2	1	9
D.	Ease of traveling from your home to work	5	4	3	2	1	9
E.	Ease of traveling from your home to shopping areas in Ames	5	4	3	2	1	9
F.	Ease of traveling from Ames to other cities in Iowa	5	4	3	2	1	9
G.	CyRide (public transit in Ames)	5	4	3	2	1	9
H.	HIRTA (public transit in Story County, including Ames)	5	4	3	2	1	9
I.	Availability of "on street" bicycle lanes	5	4	3	2	1	9
J.	Availability of "off street" shared use paths/trails	5	4	3	2	1	9
K.	Availability of pedestrian walkways	5	4	3	2	1	9
L.	Availability of parking	5	4	3	2	1	9
M.	Neighborhood traffic safety	5	4	3	2	1	9
N.	Traffic safety on major streets	5	4	3	2	1	9
O.	Flow of traffic on area streets during peak times of day ("rush hours")	5	4	3	2	1	9
P.	Flow of traffic on area streets at non-peak times	5	4	3	2	1	9
Q.	Condition of roadways	5	4	3	2	1	9
R.	Traffic signal operations (signal timing, signal progression, etc.)	5	4	3	2	1	9
S.	Neighborhood "cut-through" activity from traffic in the Ames area	5	4	3	2	1	9
T.	Speeding traffic on neighborhood streets	5	4	3	2	1	9

5. **Which THREE of the items in Question 4 do you think are the MOST IMPORTANT Transportation issues?** [Write in the letters below using the letters from the list in Question 4 in the priority of their importance to you].

1st:____ 2nd:____ 3rd: ____

6. **Overall, would you rate the transportation system in the <u>Ames Area</u> as excellent, good, average, or poor?**

___(1) excellent
___(2) good
___(3) average
___(4) poor
___(9) don't know

7. **Do you feel that congestion at rush hour in the Ames Area is better or worse than rush hour congestion in other cities of comparable size that you have visited?**

___(1) Better
___(2) Worse
___(3) Same
___(9) Don't know

8. Parking in the Ames Area Please rate your satisfaction with the following:		Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Don't Know
A.	Parking availability in residential areas	5	4	3	2	1	9
B.	Parking availability in the downtown area of Ames	5	4	3	2	1	9
C.	Parking availability on campus	5	4	3	2	1	9
D.	Parking availability in Campustown	5	4	3	2	1	9

PUBLIC TRANSIT IN THE AMES AREA

9. How would you rate the availability of public transit in Ames?

___(1) excellent ___(4) poor
___(2) good ___(9) don't know
___(3) average

10. Transit Availability in the Ames Area Please rate your satisfaction with the following:		Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied	Don't Know
A.	Availability of information about public transit services	5	4	3	2	1	9
B.	Destinations served by public transit	5	4	3	2	1	9
C.	Distance to the nearest public transit stop from your home	5	4	3	2	1	9
D.	The frequency of bus service	5	4	3	2	1	9
E.	Hours and days transit service is provided	5	4	3	2	1	9

11. Which of the following are reasons that you do not use public transit (CyRide) more often?
(check all that apply)
___(A) Service is not available near my home
___(B) Service is not offered to destinations I visit frequently
___(C) I don't know how to use the service (need information about routes/fees/schedules)
___(D) I had a bad experience with the service (treated poorly, arrived late, did not feel safe)
___(E) It takes too long to get to destinations compared to travel by car
___(F) The service is confusing to use
___(G) Service is not offered at the time I need it
___(H) It's too expensive
___(I) Buses do not come by stops frequently enough
___(J) The bus is too crowded when I need to take it
___(K) I just prefer to drive
___(L) Other: ___________________________

12. How close of a walk (in minutes) would a public transit stop need to be located for you to consider using public transit instead of a car?
___(1) 5 minutes
___(2) 10 minutes
___(3) Other________________

13. How frequently (in minutes) would a bus or other form of public transit need to be scheduled to arrive at stops for you to consider using public transit instead of a car?

Every __________ minutes

BICYCLING IN THE AMES AREA

14. Have you ridden a bicycle in the Ames area during the past year?
___(1) Yes [answer Q14a-f]
___(2) No [skip to Q15]

14a. How safe do you feel bicycling on major streets?
___(1) Not very Safe
___(2) Safe
___(3) Very Safe
___(9) Don't know

14b. Have you ridden a bicycle using an on-street bike lane during the last year?
___(1) Yes
___(2) No

14c. How safe do you feel bicycling in an on-street bike lane?
___(1) Not very Safe
___(2) Safe
___(3) Very Safe
___(9) Don't know

14d. Have you ridden a bicycle on a shared-use path or trail during the last year?
___(1) Yes
___(2) No

14e. How safe do you feel bicycling on a shared-use path or trail?
___(1) Not very Safe
___(2) Safe
___(3) Very Safe
___(9) Don't know

14f. What is the primary reason why you ride your bike?
___(1) To commute to school, work, personal business, or shopping trips
___(2) For recreational (fitness, leisure) use
___(3) Both (if both, give the approximate percentages for commuting and recreation)

what percentage of your biking travel is for commuting? ________%,

what percentage is for recreational biking? _______%

WALKING IN THE AMES AREA

15. Have you walked along streets in the Ames area during the past year?
___(1) Yes [answer Q15a-d]
___(2) No [skip to Q16]

15a. How safe do you feel, walking along major streets?
___(1) Not very Safe
___(2) Safe
___(3) Very Safe
___(9) Don't know

15b. Have you walked on a shared-use path or trail or sidewalk during the last year?
___(1) Yes ___(2) No [skip to Q15d]

15c. How safe do you feel walking on a shared-use path or trail or sidewalk in the area where you live?
___(1) Not very Safe ___(3) Very Safe
___(2) Safe ___(9) Don't know

15d. What is the primary reason for your walking travel?
___(1) To commute to school, work, personal business or shopping trips
___(2) For recreational (fitness, leisure) use
___(3) Both (if both, give the approximate percentages for commuting and recreation)

what percentage of your walking travel is for commuting? ________%,

what percentage of your walking travel is for recreational purposes? _______%

ROADWAY ISSUES

16. Several intersections in the Ames Area are listed below. Which TWO do you think should receive the top priority for improvement over the next 5 years? (check up to two items)

___(1) South Walnut/Clark & Lincoln Way
___(2) South 16th & Duff
___(3) Grand Avenue & 13th Street
___(4) Franklin & Lincoln Way
___(5) Grand Avenue & 24th Street
___(6) Lincoln Way & Duff Avenue
___(7) Stange Road & 13th Street
___(8) Welch Avenue & Lincoln Way
___(9) Other: ______________________

GENERAL QUESTIONS

17. For each of the following system enhancements, please indicate whether you would be very supportive, somewhat supportive, or not supportive. Please recognize that there is an increased cost to some of these elements.

System Enhancements Please rate your support for the following:		Very Supportive	Supportive	Neutral	Not Supportive	Don't Know
A.	Having dedicated lanes for bikes on major city streets in the Ames Area	4	3	2	1	9
B.	Limiting the number of access driveways to retail and commercial locations to improve traffic flow along major roads in the region	4	3	2	1	9
C.	Developing major roads in future growth areas that are designed to let traffic flow at least 45-50 miles per hour	4	3	2	1	9
D.	Increase investments in technologies, such as variable message signs that inform drivers about traffic conditions and/or sensors that adjust the timing of traffic signals to maximize traffic flow	4	3	2	1	9
E.	Widening existing roads and building new roads to relieve congestion	4	3	2	1	9
F.	Adding more turn lanes at critical intersections to improve traffic operations	4	3	2	1	9
G.	Installing red light running cameras for enforcement	4	3	2	1	9
H.	Installing high-tech traffic control equipment to give buses priority through signalized intersections	4	3	2	1	9
I.	Support of internet based real time travel information	4	3	2	1	9
J.	Getting access to the interstate on the north side of town	4	3	2	1	9

18. Establishing a vision for updates to long range transportation is vital to shaping the future of the Ames area. How important are each of the following statements? For each one, please rate them by choosing a number between 1 and 5, where 5 means it is "very important" and 1 means "not at all important".

	Importance of Various Issues to Transportation Improvements	Very Important	Important	Neutral	Not important	Not at all Important
A.	Developing a safe and connected multi-modal network, including bikes, pedestrians, transit and autos	5	4	3	2	1
B.	Fostering livability and sustainable development	5	4	3	2	1
C.	Delivering solutions that preserve and enhance the environment and the community	5	4	3	2	1
D.	Supporting area economic opportunities	5	4	3	2	1
E.	Maximizing the benefits of transportation investments	5	4	3	2	1
F.	Addressing community health and quality of life	5	4	3	2	1
G.	Protecting environmental resources	5	4	3	2	1

19. Transportation improvements are critical, but also costly. The funding for transportation improvements can come from several sources. Which of the following sources of funding would you most support? For each one, please rate them by choosing a number between 1 and 4, where 4 means you are "very supportive" and 1 means "not supportive".

Sources for Funding Transportation Improvements Please rate your support for the following:		Very Supportive	Supportive	Neutral	Not Supportive	Don't Know
A.	Increase the gas tax	4	3	2	1	9
B.	Use of tolls	4	3	2	1	9
C.	Increase vehicle registration fees	4	3	2	1	9
D.	Apply a usage fee so that the more you drive, the higher the fee	4	3	2	1	9
E.	Apply a road impact fee for new developments	4	3	2	1	9
F.	Sales tax increase	4	3	2	1	9
G.	Apply a congestion fee so that when you drive in rush hour, the fee is higher	4	3	2	1	9
H.	Property tax increase	4	3	2	1	9

20. Which THREE of the funding sources in Question #19 do you most support? [Write in the letters below using the letters from the list in Question 19 in the priority of their importance to you].

1st:____ 2nd:____ 3rd: ____

To ensure our survey is representative of the community, please provide the following:

21. How many persons in your household (including yourself), ages 16 and older, are dependent on public transit or rides from friends/relatives because they do not have a car or do not drive? ______ persons

22. How many persons in your household (counting yourself), are?

Under age 5 _____ 20 - 24 years _____ 55-64 years _____
5 - 9 years _____ 25 - 34 years _____ 65+ years _____
10 - 14 years _____ 35 - 44 years _____
15 - 19 years _____ 45 - 54 years _____

23. Would you say your total Household income is:

____(1) Under $30,000 ____(3) $60,000 to $99,999
____(2) $30,000 to $59,999 ____(4) $100,000 plus

24. Which of the following best describes your race? (Check all that apply)

___ (1) African American/Black ___ (4) White/Caucasian
___ (2) American Indian ___ (5) Other: __________
___ (3) Asian/Pacific Islander

***25. Are you currently a student* at Iowa State University?** ___(1) Yes ___(2) No

26. Your gender: ___(1) Male ___(2) Female

This concludes the survey. Thank you for your time!

Please Return Your Completed Survey in the Enclosed Postage Paid Envelope Addressed to:
ETC Institute, 725 W. Frontier Circle, Olathe, KS 66061

2014 CyRide On-Board Transit Survey

FINAL REPORT

Developed by:

ETC Institute

May 2014

TABLE OF CONTENTS

CHAPTER 1: OVERVIEW

In March 2014, ETC Institute implemented an On-Board Transit Survey for CyRide in Ames, Iowa. Administration of the survey by ETC Institute occurred during the weeks prior to spring break at Iowa State University and other area schools. The primary objective for conducting the On-Board Transit Survey was to gather accurate travel data from transit riders to update the regional travel demand model. The universe for the survey consisted of 11 local bus routes operated by CyRide transit agency. The goal was to obtain usable surveys from at least 3,220 transit riders, which represented approximately 8% of the entire system ridership. The actual number of completed, usable surveys was 3,251.

This overview contains a description of the data requirements, sampling methodology including the sampling plan, survey administration/quality control procedures, and data entry/editing procedures. More detailed information is provided in subsequent chapters of this report:

- A more detailed description of the administration of the on-board survey is provided in Chapter 2.
- Characteristics of transit riders and select findings are provided in Chapter 3.
- Major results of the survey are shown as charts and graphs in Chapter 4.
- A detailed description of the final survey database is provided in Chapter 5.
- Weighted survey results, which have adjusted the results to reflect the actual ridership on each route, is provided in Chapter 6.
- A copy of the survey instrument are provided in Chapter 7.

Data Requirements

ETC Institute worked closely with CyRide staff to design the survey instrument. Some of the specific types of information that were gathered on the survey included:

- The location where the rider initially started his/her trip
- How the rider traveled from their starting place to the bus
- The location where the rider boarded the bus
- The location where the rider got off the bus
- How the rider traveled from the bus to his/her final destination
- The location of the rider's final destination
- Personal and Household information (number of occupants, gender, employment status, etc.)

The survey was administered as a face-to-face interview on local routes using iPads which interfaced with Google Maps to allow real-time geocoding of address information. While most respondents completed the survey during their trip, call center callbacks were available for riders who did not have time to complete the survey during their trip or did not speak fluent English/preferred the survey administered in their primary language. This was done to ensure that short-trips were captured and no other biases were created during the survey administration.

Riders who did not have time to complete the survey during the trip but indicated that would like to participate, were asked to provide their phone number. Those who provided their phone number were contacted by ETC Institute's call center the following day and asked to provide the survey information by phone.

Initial Test of the Survey Instrument. ETC Institute conducted a pilot test of the survey to ensure the survey worked properly. The pilot test was conducted with a total of 50 riders on 2 different routes. No problems with the survey instrument or sampling procedures were identified during the pilot test.

Sampling Methodology and Report on Complete and Usable Surveys

ETC Institute developed a sampling plan to ensure that the overall results of the survey would be statistically valid for the region as a whole. The sampling plan identifies the number of completed surveys that were needed from each route. The sampling plan was designed to obtain completed surveys from approximately 8% of the average daily ridershipp on each bus route. Oversampling was done on selected routes during the evening hours to ensure evening ridership was captured.

A copy of the report of the goals and the completed versus the usable surveys is provided below.

CyRide On Board Survey

Report on Completed and Usable Surveys

Route	Route Direction	Route Goal (8%)	Actual Number of	Goal Met (within 10% or 10 surveys)
1 RED	Westbound	390	393	Yes
1 RED	Eastbound	372	377	Yes
2 GREEN	Westbound	85	88	Yes
2 GREEN	Eastbound	79	80	Yes
3 BLUE	Southbound	265	267	Yes
3 BLUE	Northbound	278	278	Yes
4 GRAY	CIRCULAR	57	58	Yes
5 YELLOW	CIRCULAR	6	10	Yes
6 BROWN	Southbound	188	188	Yes
6 BROWN	Northbound	152	152	Yes
7 PURPLE	CIRCULAR	19	20	Yes
10 PINK	CIRCULAR	1	3	Yes
21 CARDINAL	CIRCULAR	242	241	Yes
22 GOLD	CIRCULAR	45	55	Yes
23 ORANGE	CIRCULAR	1,040	1,041	Yes
	TOTAL	3220	3251	

Survey Administration/Quality Control Procedures

Some of the survey administration and quality control procedures utilized by ETC Institute are listed below.

- Each interviewer was trained to understand the purpose of the survey so they could explain the importance of the survey to riders.
- One interviewer was assigned per bus and at least one bus was selected from each route.
- Interviewers conducted surveys on their assigned bus for the entire day that the route was in operation in accordance with the hours shown in the sampling plan. Short breaks were allowed for interviewers in conjunction with breaks that were taken by the driver.
- Riders on local routes on which the iPads were used were selected at random by a computer algorithm that selected participants at random based on the number of boardings at each stop.
- Following the completion of each run along a route, the interviewer would briefly get off the bus and take completed surveys from that route to ETC Institute's Team Leader. The Team Leader worked at the transit center.
- ETC Institute's Team Leader and two assistants reviewed all the completed surveys that were submitted by interviewers to ensure the usability, accuracy, and completeness of the data collected.
- ETC Institute's Team Leader ensured that the total number of usable surveys exceeded the sampling goals for each route.

Editing Procedures

Following the administration of the survey, ETC Institute's Team Leader and the interviewing team conducted a secondary review of the completed surveys. Errors that were identified during the secondary review were corrected when possible. When data was missing, incomplete, or illegible, internet research was conducted to retrieve the data. Specific procedures that were followed by ETC Institute are described below:

- ETC Institute personnel conducted a 100% review of all completed surveys.
- If an entry on a survey form did not conform to the specifications established for the field, was incomplete, or illegible, ETC Institute employees took one of two actions:
    - they corrected the entry; the corrections were sometimes easy to make given the data provided; or

- o they utilized the internet to research origin/destination addresses and intersections to ensure they were complete as possible. When ETC Institute personnel took these actions, the employee noted the action taken and reported the action to the project supervisor. This review process was done prior to ensure all survey data was as complete as possible before the information was ready for logic tests.

Development of Weighting Factors to Expand the Sample

This section describes the process for developing the weighting factors that were used to expand the survey database to the total transit ridership in the region. **Unlinked trip weighting factors** were developed to expand the total number of completed surveys to the actual number of transit boardings in the region by direction and time period.

Unlinked Trip Weighting Factors for Bus Routes

A total of 3,251 surveys were completed with bus passengers. The number of completed bus surveys represented approximately 8% of the average weekday boardings on the region's bus system.

In order to ensure that the survey data accurately represented the travel patterns of the passengers who use bus service in the region on a typical weekday, unlinked trip weighting factors were prepared for each survey record. The 3,251 passenger surveys were expanded by direction and time of day. Reverse trips were added to reduce non response bias in the evenings thus resulting in 4,999 completed surveys to be used to develop weight factors.

The process for calculating unlinked trip weighting factors for bus routes simply involved dividing the number of boardings in each direction by time of day on each route by the number of surveys that were completed. For most local routes, expansion factors were developed for the following four types of trips:

- Westbound/Eastbound/Northbound/Southbound/Circular Trips during the AM Peak (before 10am)
- Westbound/Eastbound/Northbound/Southbound/Circular Trips during the Midday (10am-2pm)
- Westbound/Eastbound/Northbound/Southbound/Circular Trips during the PM Peak (2pm-6pm)
- Westbound/Eastbound/Northbound/Southbound/Circular Trips during the Post PM Peak (after 6pm)

Weighting is used to adjust a dataset so that it better represents a known population. When done correctly, weighting a dataset can make the overall results more accurate and representative of what is really occurring on your transit system.

The weighting factors used for data expansion are shown in the Table below.

CyRide On Board Survey Weight Factors

		RIDERSHIP DATA					MAIN SURVEYS COMPLETED - Plus Reverse Trips					UNLINKED WEIGHT FACTORS				
Route	DIRECTION	A 6am-10am	O 10am-2pm	P 2pm-6pm	Z after 6pm	TOTAL	A 6am-10am	O 10am-2pm	P 2pm-6pm	Z after 6pm	TOTAL	A 6am-10am	O 10am-2pm	P 2pm-6pm	Z after 6pm	TOTAL
1 RED	Westbound	2,415	1,451	649	363	4878	213	143	148	106	610	11.34	10.15	4.39	3.42	29.29
1 RED	Eastbound	466	1,376	2,237	565	4644	100	174	263	73	610	4.66	7.91	8.51	7.74	28.81
2 GREEN	Westbound	380	308	283	96	1067	47	36	38	9	130	8.09	8.56	7.45	10.67	34.75
2 GREEN	Eastbound	278	287	325	98	988	23	38	41	21	123	12.09	7.55	7.93	4.67	32.23
3 BLUE	Southbound	973	744	936	657	3310	120	110	150	87	467	8.11	6.76	6.24	7.55	28.66
3 BLUE	Northbound	964	877	1,115	525	3481	107	103	145	100	455	9.01	8.51	7.69	5.25	30.46
4 GRAY	CIRCULAR	230	217	269	0	716	19	28	38	0	85	12.11	7.75	7.08		26.93
5 YELLOW	CIRCULAR	34	13	31	3	81	4	4	7	1	16	8.50	3.25	4.43	3.00	19.18
6 BROWN	Southbound	967	696	653	39	2355	103	67	88	7	265	9.39	10.39	7.42	5.57	32.77
6 BROWN	Northbound	488	555	784	76	1903	55	71	121	30	277	8.87	7.82	6.48	2.53	25.70
7 PURPLE	CIRCULAR	162	0	72	0	234	14	0	8	0	22	11.57		9.00		20.57
10 PINK	CIRCULAR	6	0	5	0	11		0	3	0	3	3.67				3.67
21 CARDINAL	CIRCULAR	942	1,164	691	223	3020	94	133	112	40	379	10.02	8.75	6.17	5.58	30.52
22 GOLD	CIRCULAR	253	205	109	0	567	31	36	17	0	84	8.16	5.69	6.41		20.27
23 ORANGE	CIRCULAR	4,072	5,160	3,364	401	12997	343	512	503	115	1473	11.87	10.08	6.69	3.49	32.12
	TOTAL	12630	13053	11523	3046	40252	1273	1455	1682	589	4999	137	103	96	59	396

CHAPTER 2: ADMINISTRATION OF THE ON-BOARD TRANSIT SURVEY

Conduct the Pretest

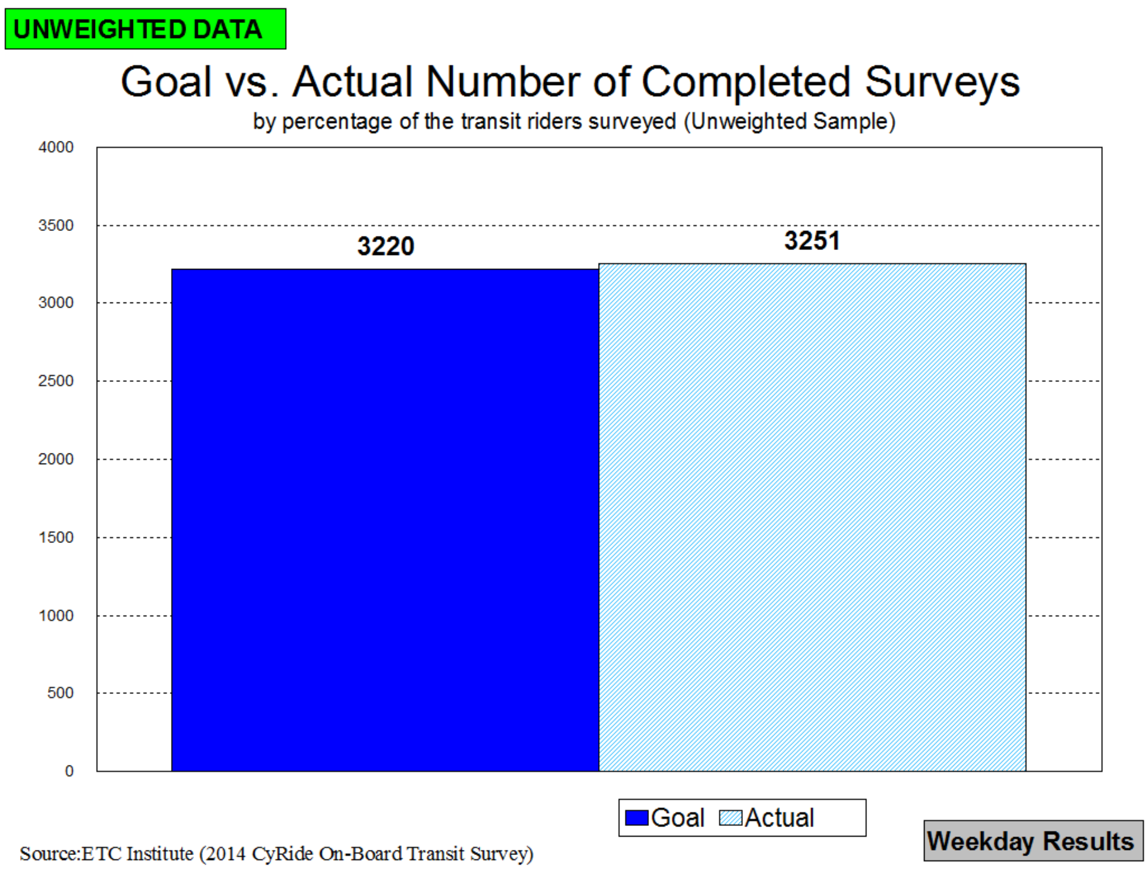
ETC Institute conducted a pre-test with 50 riders on 2 different routes. The pre-test was designed to ensure the survey worked properly and the process covered all aspects of the survey administration procedures including:

- placing surveyors on the transit vehicles at the designated time
- recording the total number of people who boarded the bus
- asking a random sample of riders to complete the survey
- briefly exiting the bus after each route to check in and give completed surveys to ETC Institute's Team Leader

No problems with the survey instrument were found from the pilot test. Based upon these findings, the survey administration procedures and survey instrument were finalized. A copy of the survey instrument is provided in Chapter 7 of this report.

Administer the On-Board Passenger Survey

ETC Institute fielded a survey administration team on weekdays between March 1, 2014 and March 17, 2014. The survey team consisted of ETC Institute employees who had previous experience with the administration of on-board transit surveys and local employees hired and trained by ETC Institute. The OD surveys were administered via ipad and call center callback surveys in accordance with the procedures that were previously described. A total of 3,251 useable surveys were obtained. The goal and actual number of surveys that were completed are shown in the chart below.



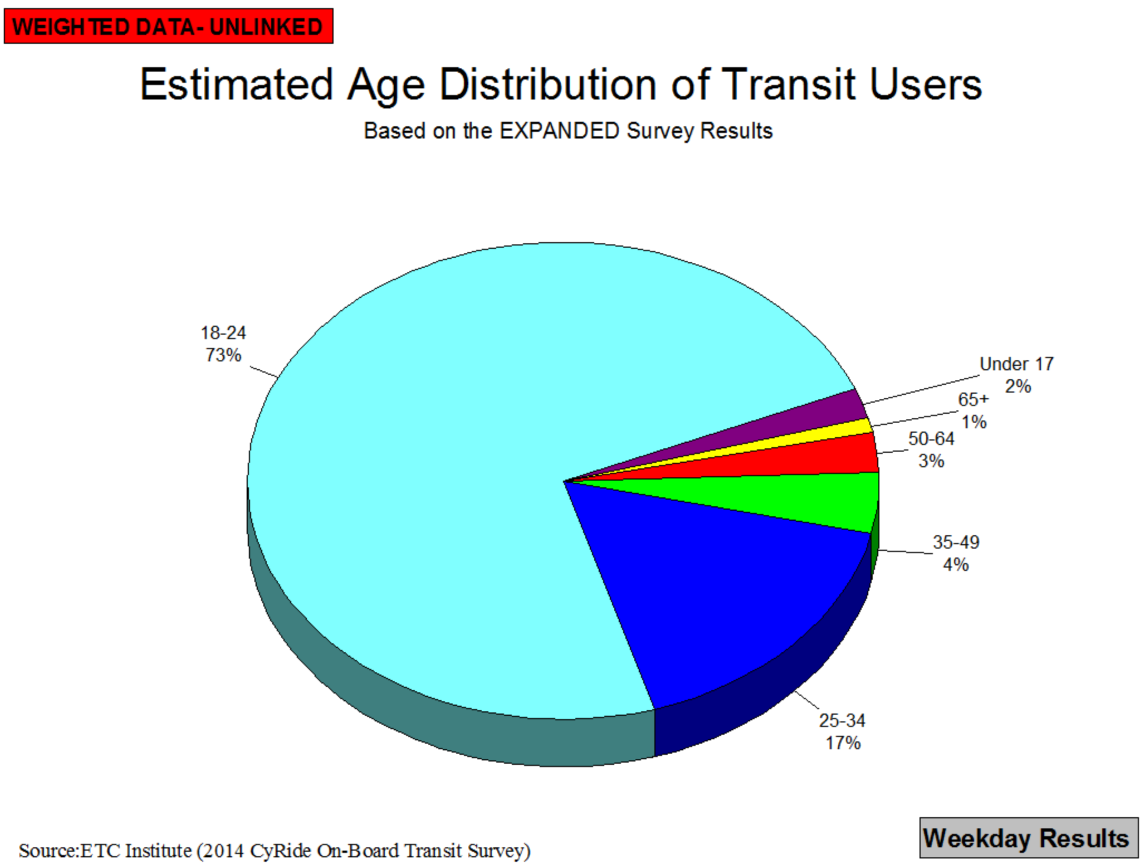
Alternative Methods of Completing the Survey

Although most surveys were completed via iPad interview by riders during their trip, riders who did not have time to complete a survey were asked to provide their phone number. Those who provided their phone number we contacted by ETC Institute's call center the following day and asked to provide the survey information by phone.

CHAPTER 3: CHARACTERISTICS OF TRANSIT RIDERS AND SELECT FINDINGS

Estimated Age of Transit Riders

The chart below shows the estimated age distribution of transit ridership in the region. Based on the expanded survey results, more than half (73%) of the riders were 18-24 years of age. Seventeen percent (17%) of the riders were age 25-34 years, 8% were age 35 or older, and 2% were under age 17.



Estimated Percentage of Transit Users with a Valid Driver's License

Based on the expanded survey results, eighty-six percent (86%) of the transit users DID have a valid driver's license; 14% DID NOT have a valid driver's license.

Employment Status of Transit Users

Based on the expanded survey results, sixty-seven percent (67%) of the transit users were employed full-time (14%) or part time (53%). Twenty-two percent (22%) of transit users were either not employed but seeking work (12%) or not employed and NOT seeking work (20%); 1% "other".

Estimated Percentage of Students Using Public Transportation

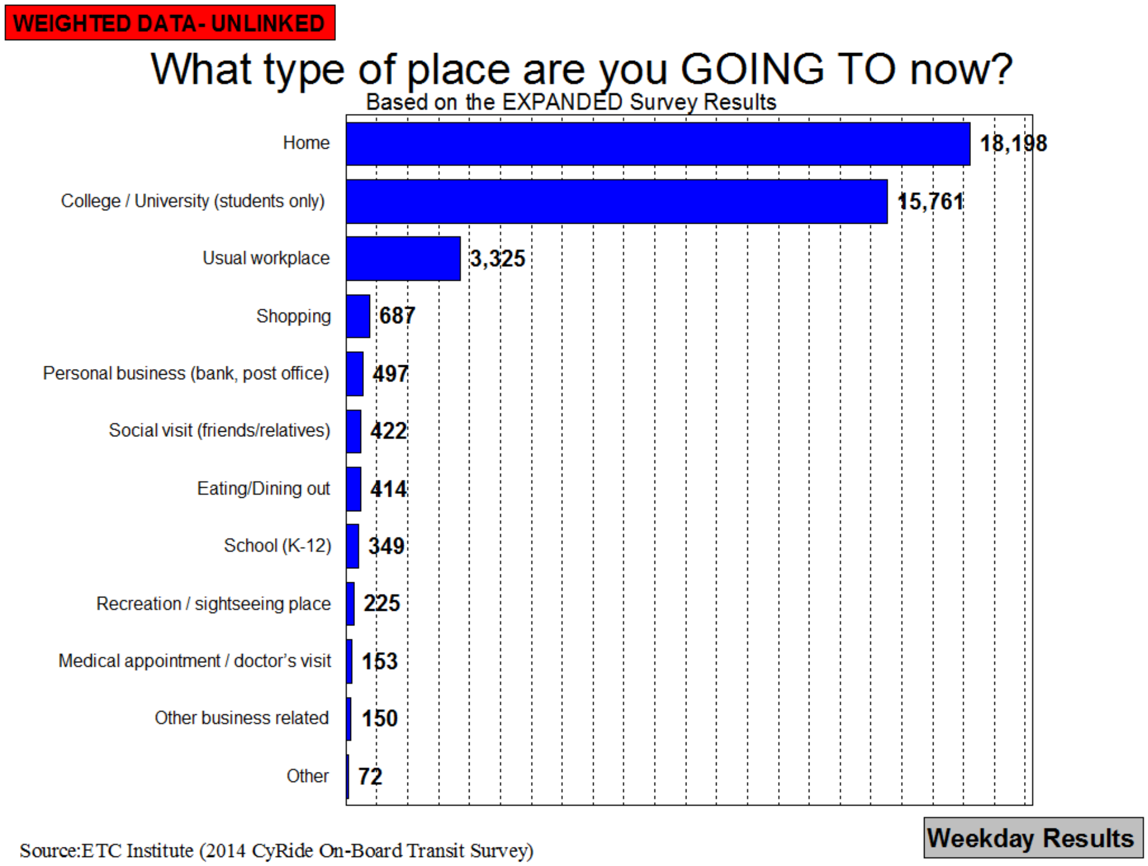
Based on the expanded survey results, ten percent (10%) of the transit riders were NOT students; 90% of the transit riders surveyed were either college/university students or students through the 12th grade.

Estimated Distribution of Vehicle Availability

Based on the expanded survey results, twenty-six percent (26%) of the transit riders did not have a vehicle in the household. Forty-nine percent (49%) of the riders indicated they had at least one vehicle in the household; 13% had two vehicles in the household, and 12% had three or more vehicles in the household.

Where Transit Riders Were Going

Based on the expanded survey results, 18,198 of the trips completed by transit riders in the region involved a return trip to the rider's home. 3,325 involved a trip to work and 15,761 involved a college/university trip. The chart on the following page, which is based on weighed data, shows these estimates and provides a complete listing of destinations for transit riders.



How Transit Riders Got to Their Destination

Based on the expanded survey results, ninety-one percent (91%) of the riders indicated they would walk; 8% will get in a parked vehicle and drive alone.

How Transit Riders Got to the Bus

Based on the expanded survey results, eighty-four percent (84%) of riders indicated that they got to their bus by walking; 15% drove alone and parked, and 1% used some other mode.

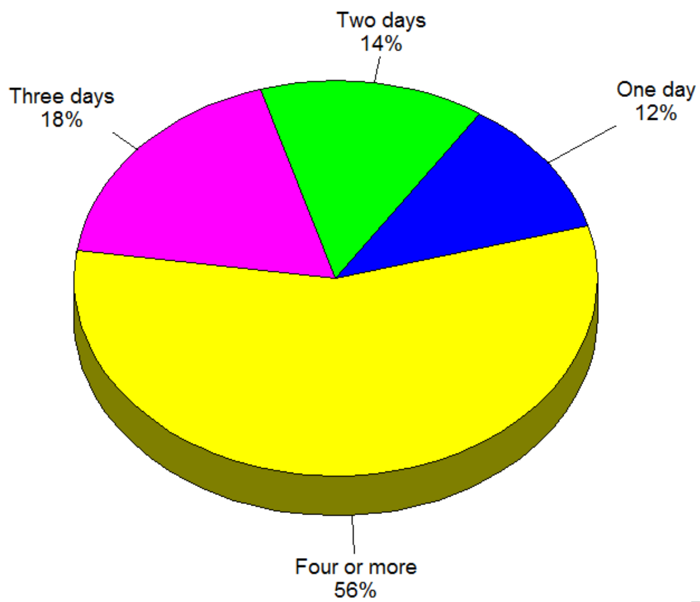
Estimated Frequency of Transit Use

One hundred percent (100%) of the transit users indicated that they ride some form of public transit in the Ames region at least one day per week and 56% use it 4 or more days per week. The chart below shows these results.

WEIGHTED DATA - UNLINKED

Number of days per week respondent makes exact same trip

Based on the EXPANDED Survey Results



Source:ETC Institute (2014 CyRide On-Board Transit Survey)

Weekday Results

CHAPTER 4: CHARTS AND GRAPHS

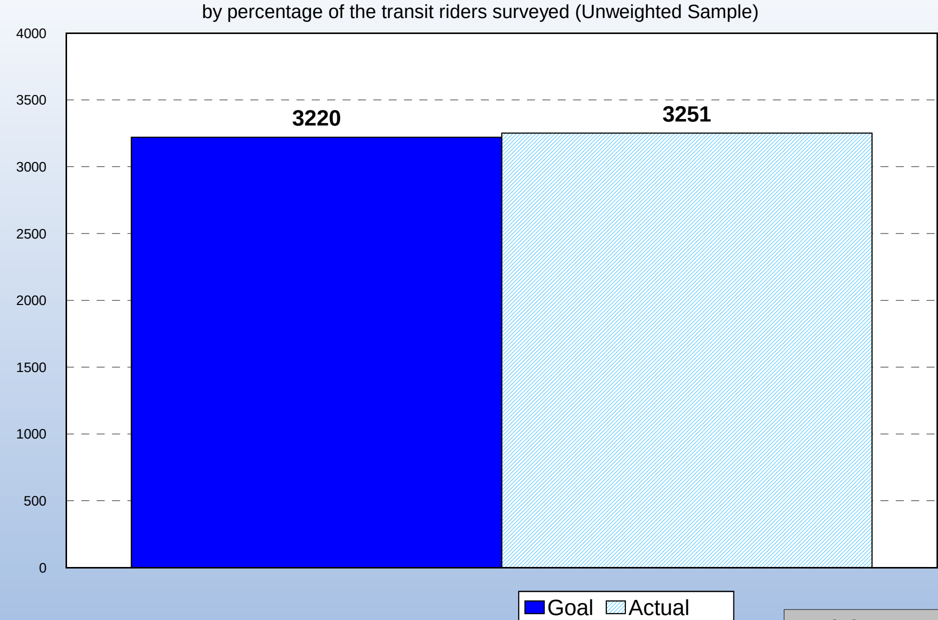
Charts and graphs displaying the results of selected questions on the survey are provided on following pages.

2014 CyRide
On-Board Transit Survey

UNWEIGHTED DATA

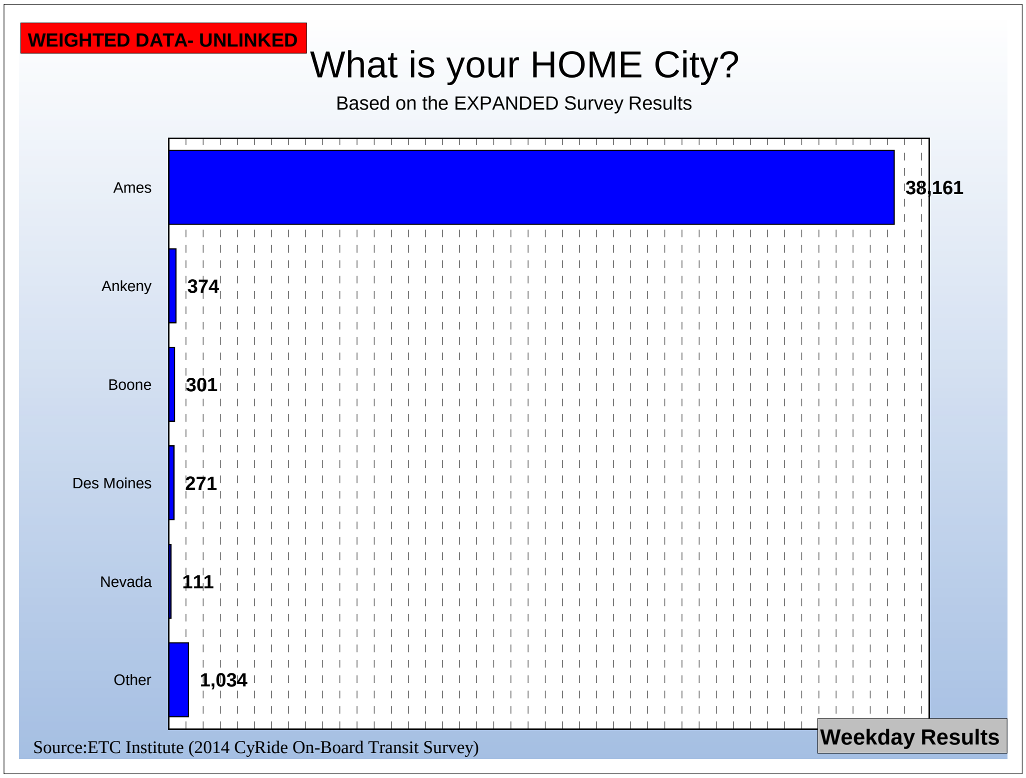
Goal vs. Actual Number of Completed Surveys

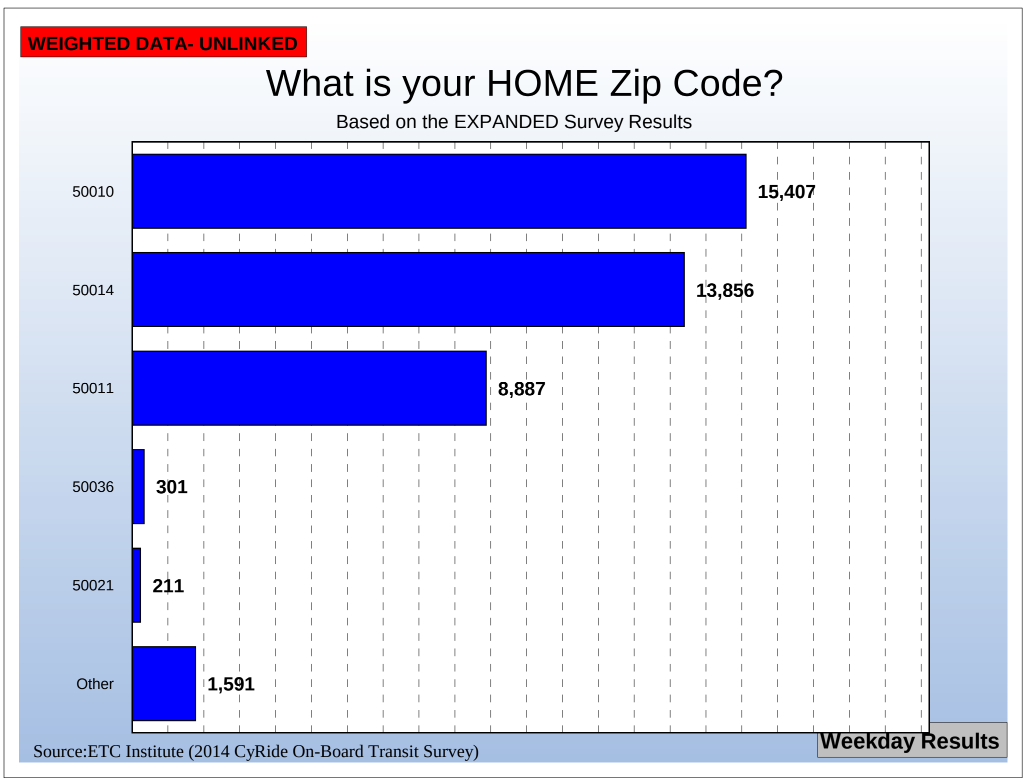
by percentage of the transit riders surveyed (Unweighted Sample)

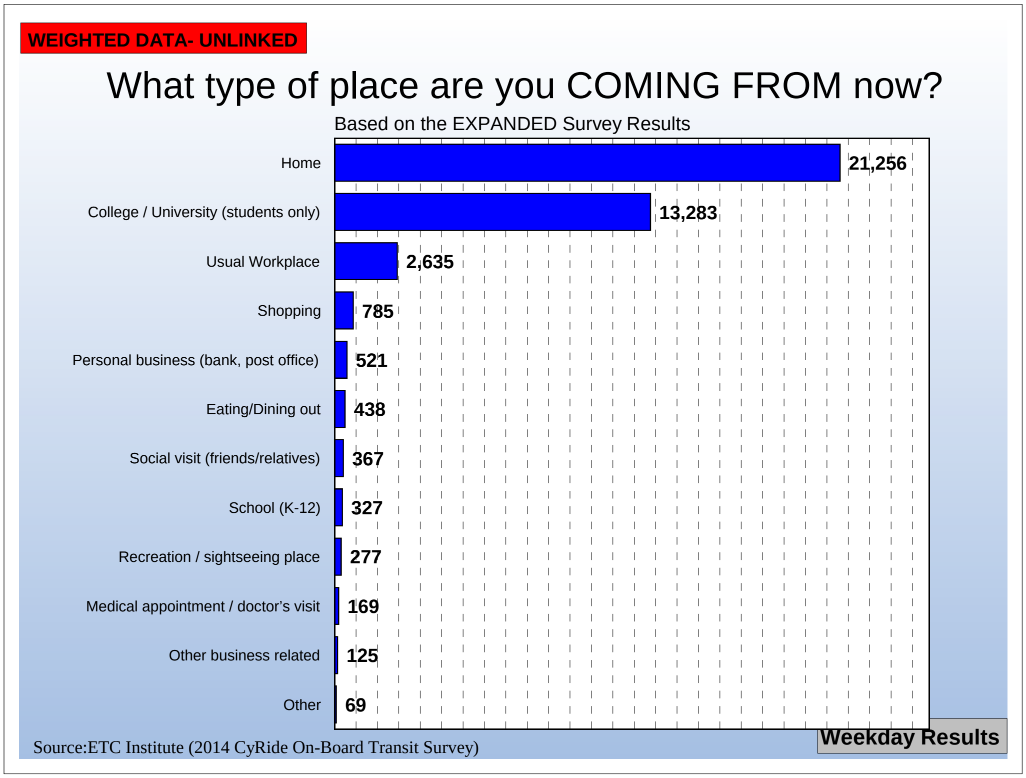


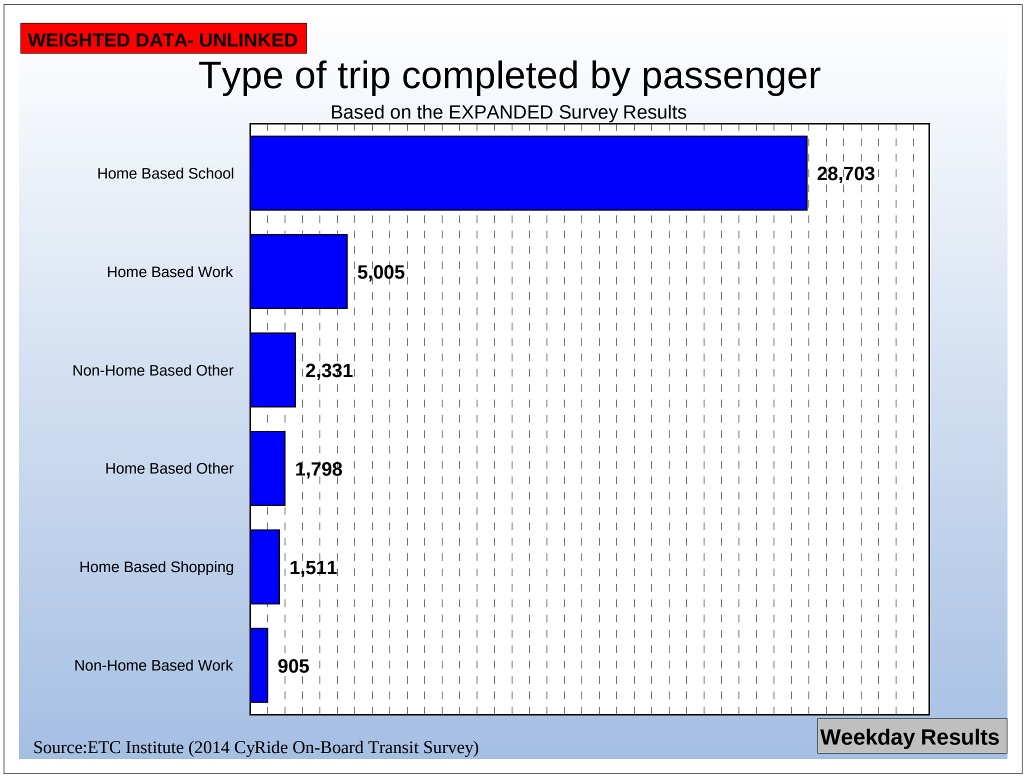
Source:ETC Institute (2014 CyRide On-Board Transit Survey)

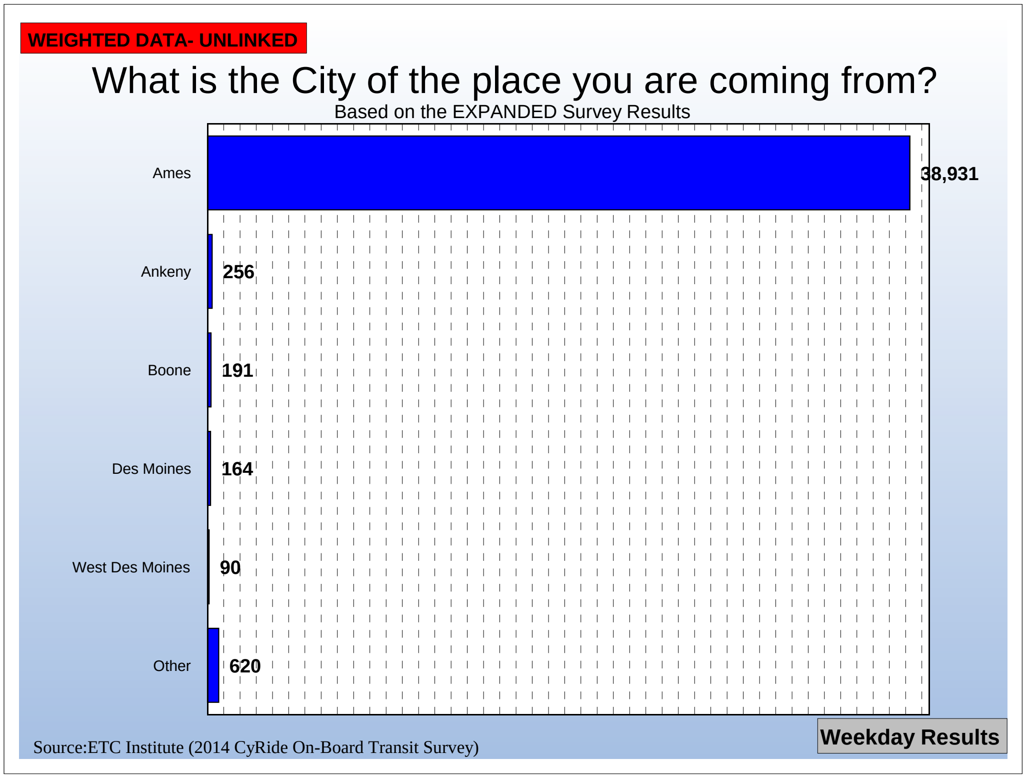
Weekday Results

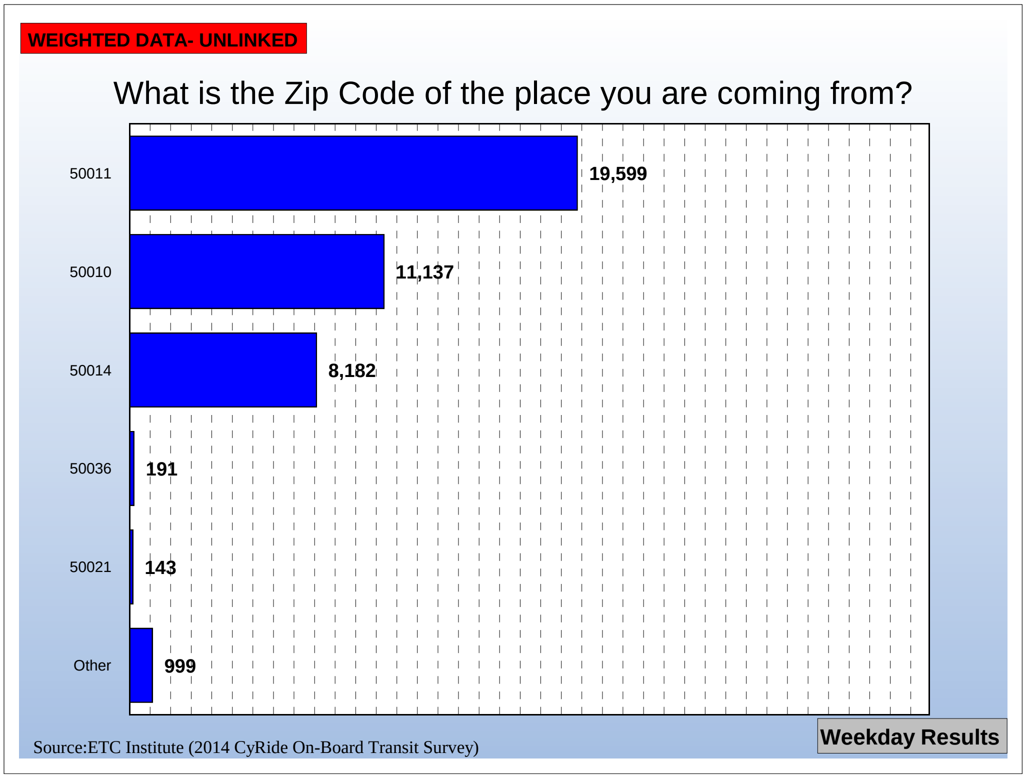

WEIGHTED DATA- UNLINKED
What is your HOME City?
Based on the EXPANDED Survey Results
Ames
38,161
Ankeny
374
Boone
301
Des Moines
271
Nevada
111
Other
1,034
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

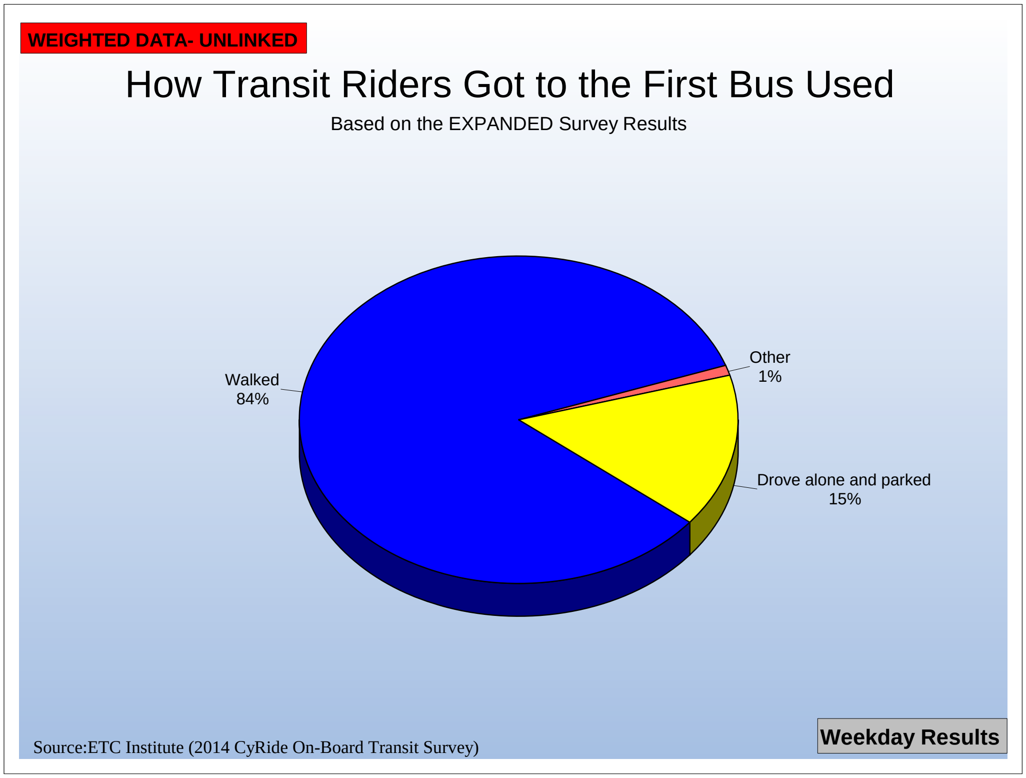

WEIGHTED DATA- UNLINKED
What is your HOME Zip Code?
Based on the EXPANDED Survey Results
50010
15,407
50014
13,856
50011
8,887
50036
301
50021
211
Other
1,591
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

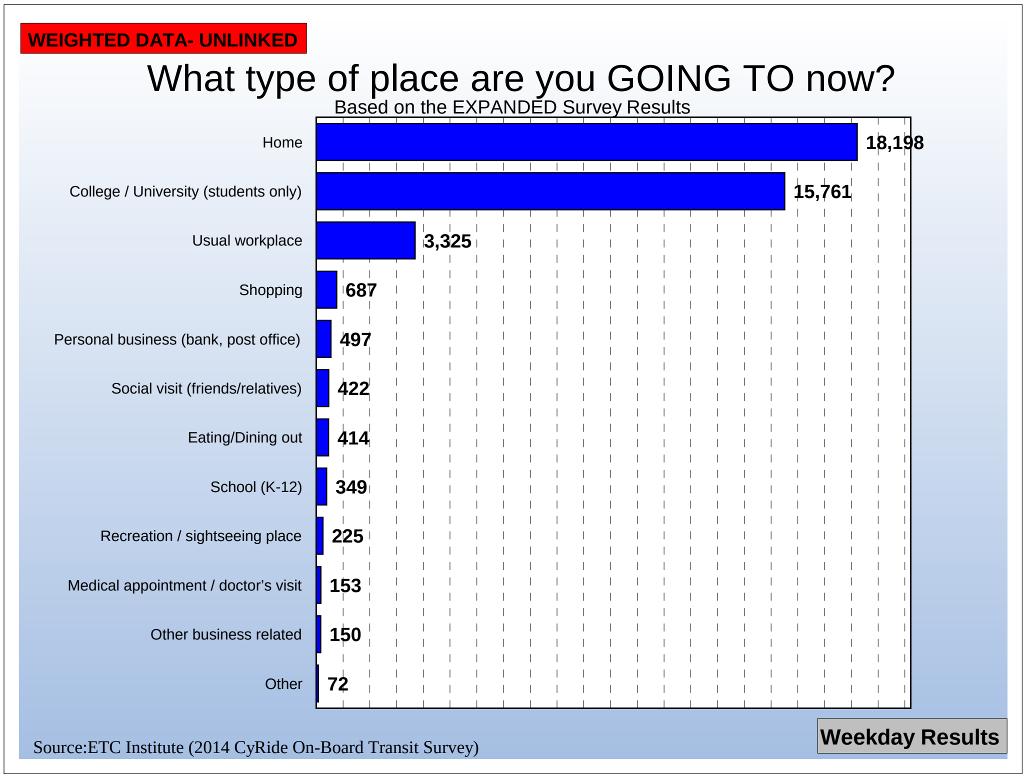

WEIGHTED DATA- UNLINKED
What type of place are you COMING FROM now?
Based on the EXPANDED Survey Results
Home
College / University (students only)
Usual Workplace
Shopping
Personal business (bank, post office)
Eating/Dining out
Social visit (friends/relatives)
School (K-12)
Recreation / sightseeing place
Medical appointment / doctor's visit
Other business related
Other
21,256
13,283
2,635
785
521
438
367
327
277
169
125
69
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

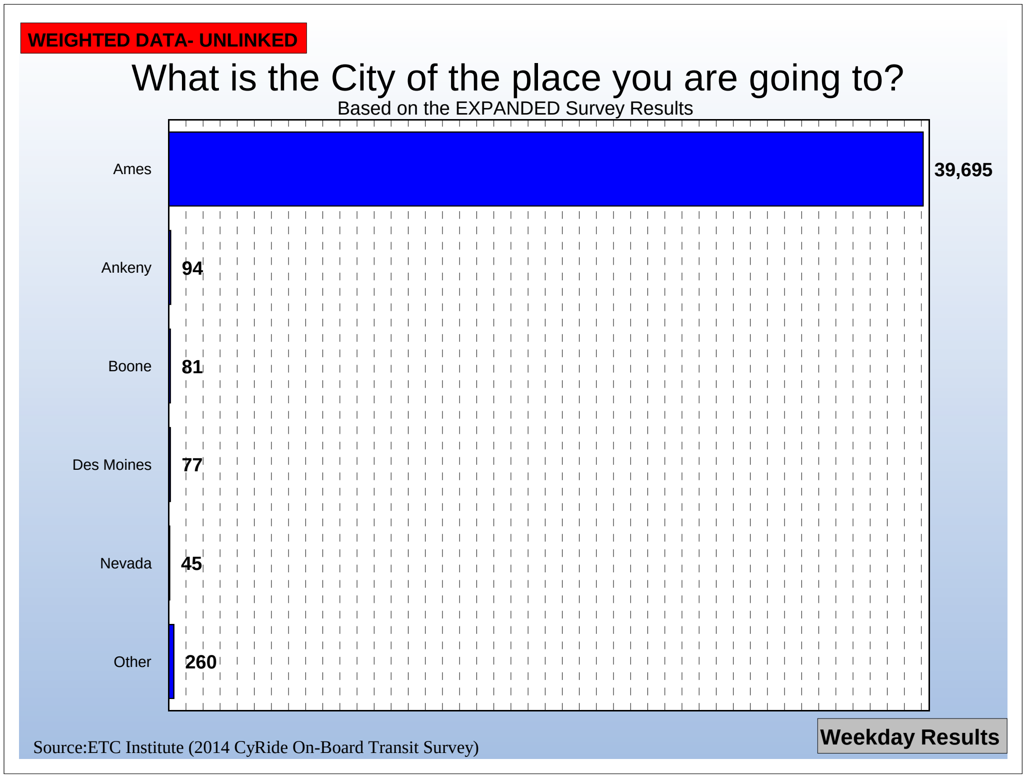

WEIGHTED DATA- UNLINKED
Type of trip completed by passenger
Based on the EXPANDED Survey Results
Home Based School
Home Based Work
Non-Home Based Other
Home Based Other
Home Based Shopping
Non-Home Based Work
28,703
5,005
2,331
1,798
1,511
905
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

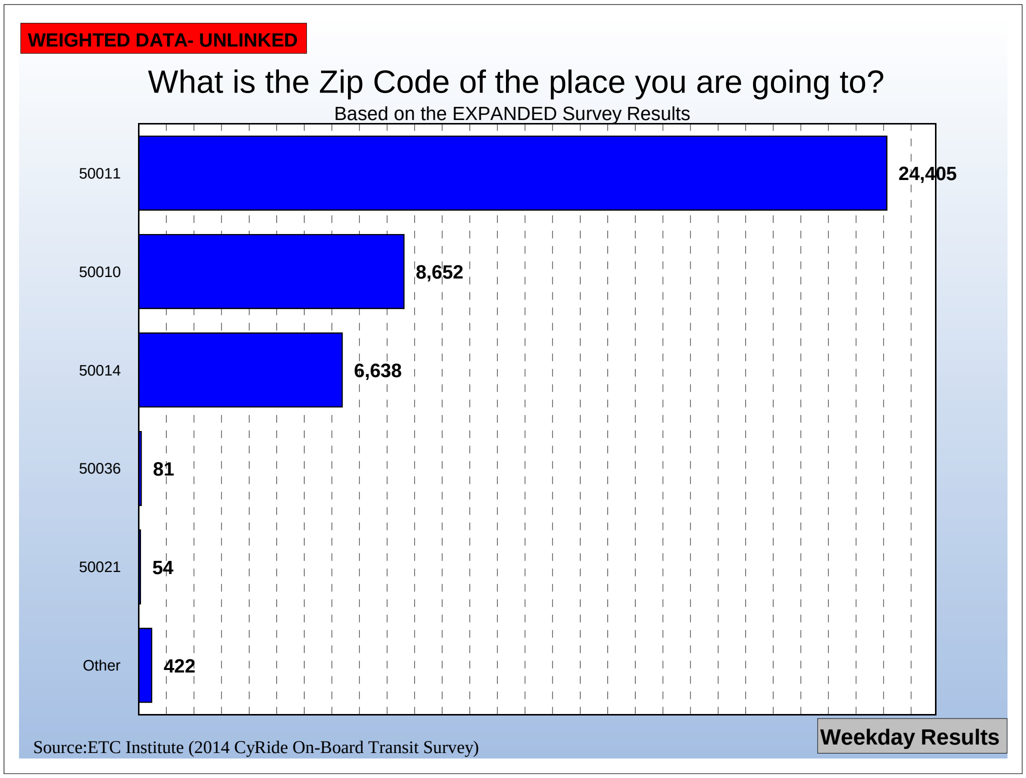

WEIGHTED DATA- UNLINKED
What is the City of the place you are coming from?
Based on the EXPANDED Survey Results
Ames
38,931
Ankeny
256
Boone
191
Des Moines
164
West Des Moines
90
Other
620
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

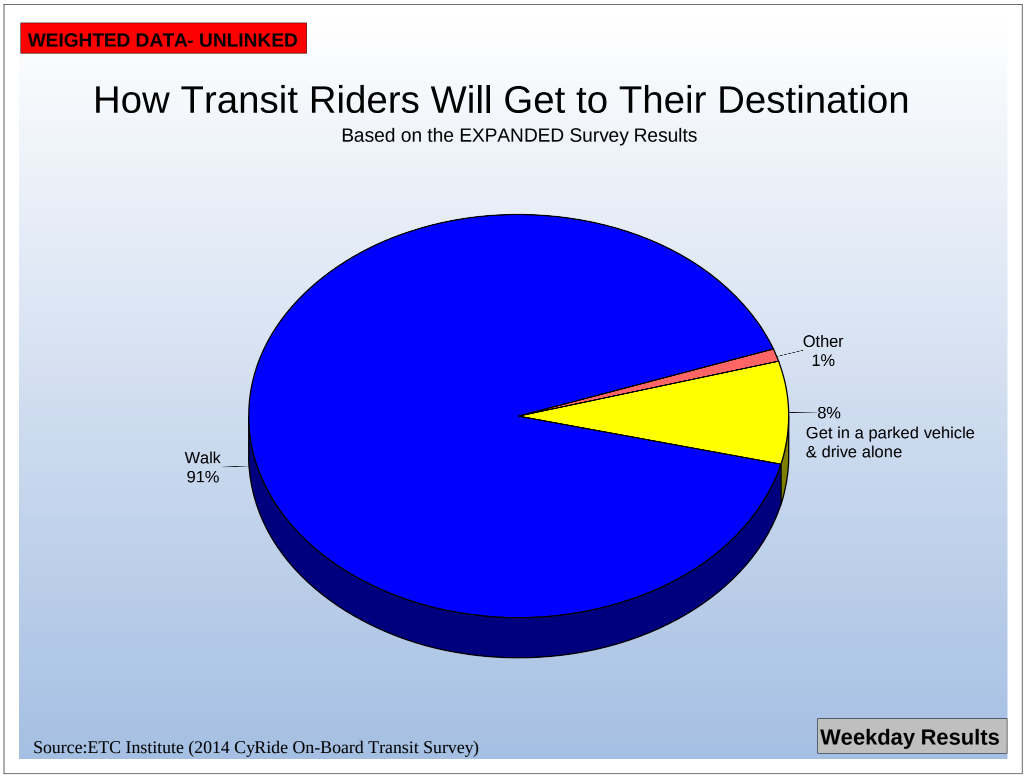

WEIGHTED DATA- UNLINKED
What is the Zip Code of the place you are coming from?
50011
19,599
50010
11,137
50014
8,182
50036
191
50021
143
Other
999
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

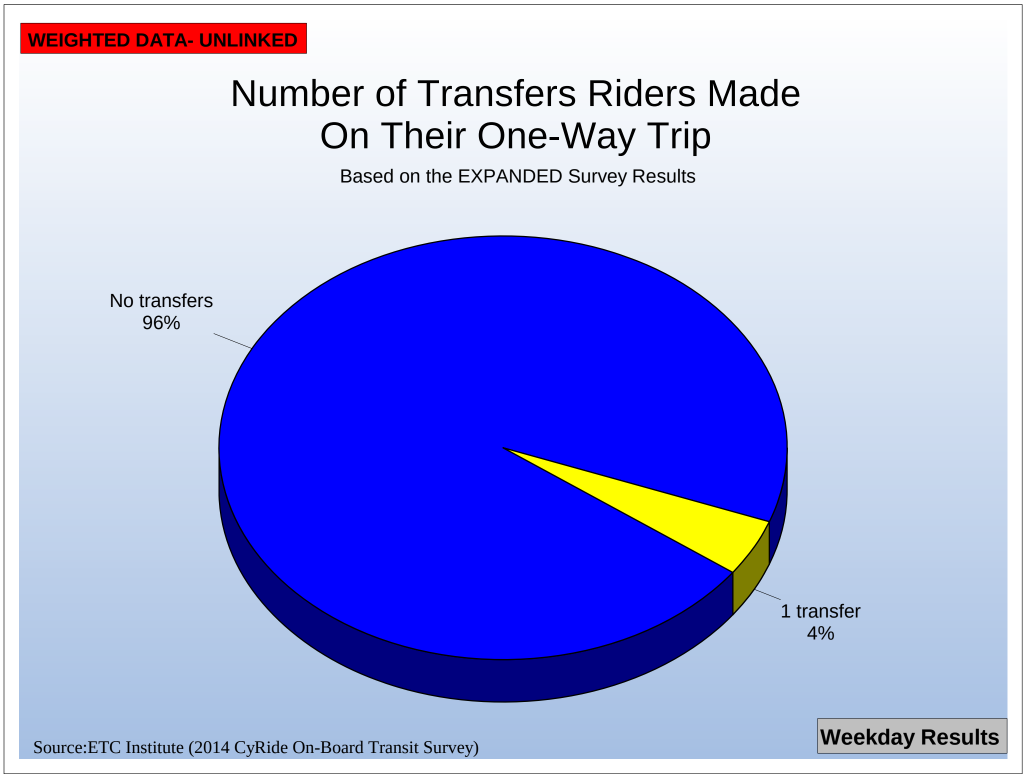

WEIGHTED DATA- UNLINKED
How Transit Riders Got to the First Bus Used
Based on the EXPANDED Survey Results
Walked
84%
Other
1%
Drove alone and parked
15%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

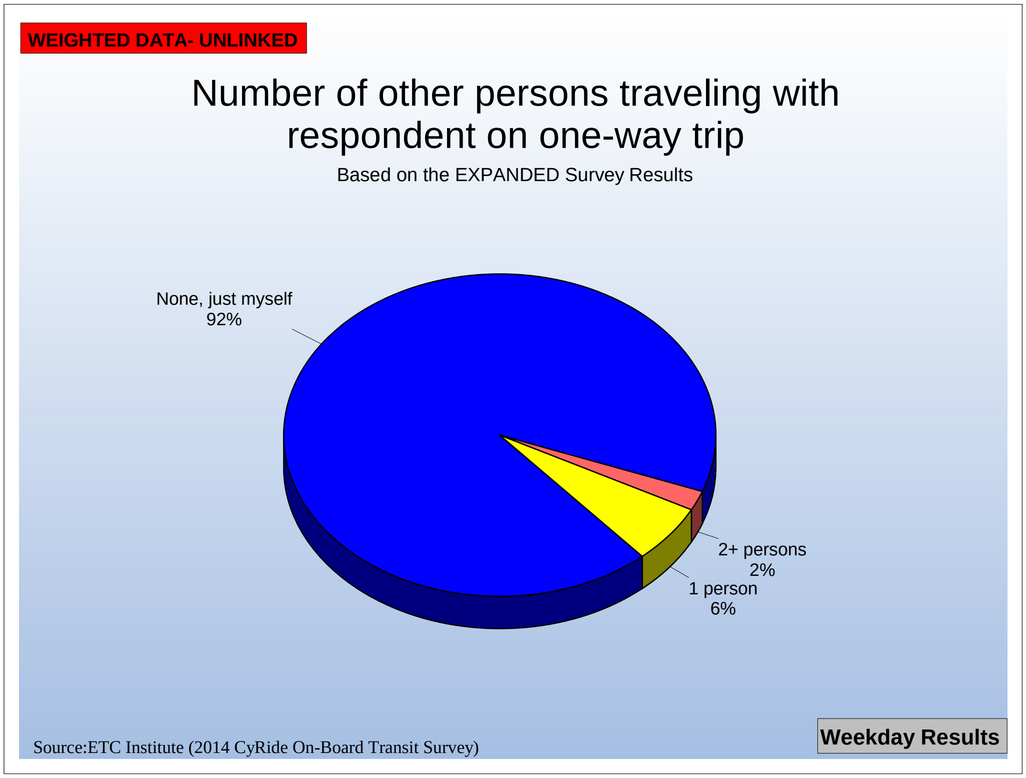

WEIGHTED DATA- UNLINKED
What type of place are you GOING TO now?
Based on the EXPANDED Survey Results
Home
18,198
College / University (students only)
15,761
Usual workplace
3,325
Shopping
687
Personal business (bank, post office)
497
Social visit (friends/relatives)
422
Eating/Dining out
414
School (K-12)
349
Recreation / sightseeing place
225
Medical appointment / doctor's visit
153
Other business related
150
Other
72
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

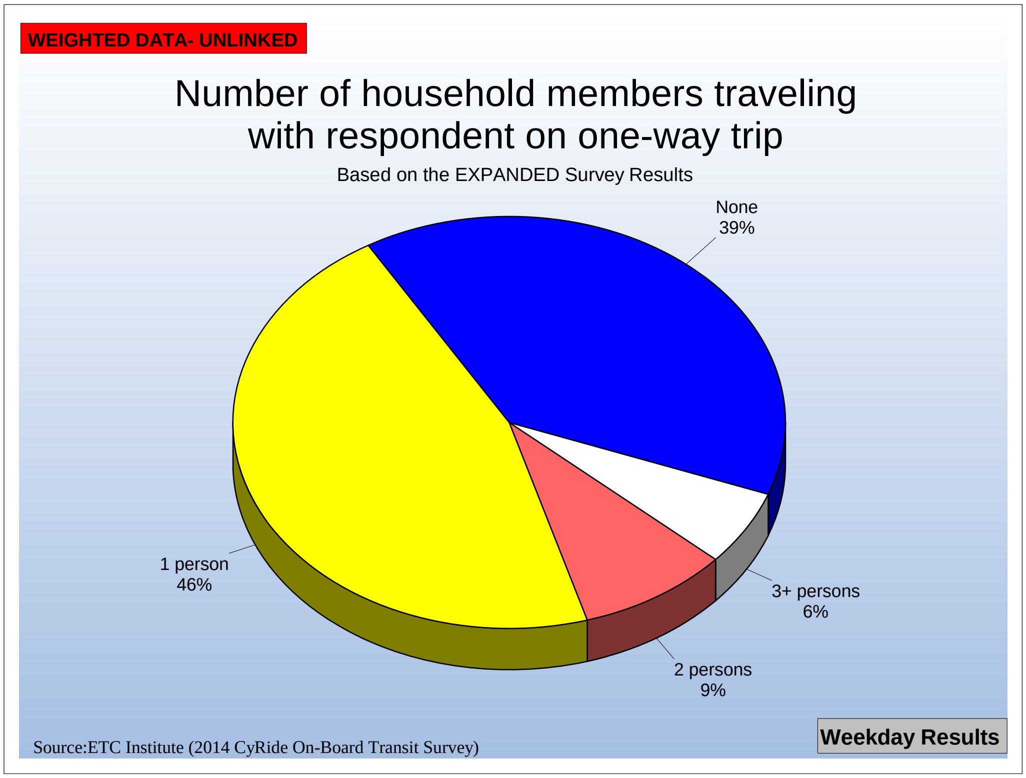

WEIGHTED DATA- UNLINKED
What is the City of the place you are going to?
Based on the EXPANDED Survey Results
Ames
39,695
Ankeny
94
Boone
81
Des Moines
77
Nevada
45
Other
260
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

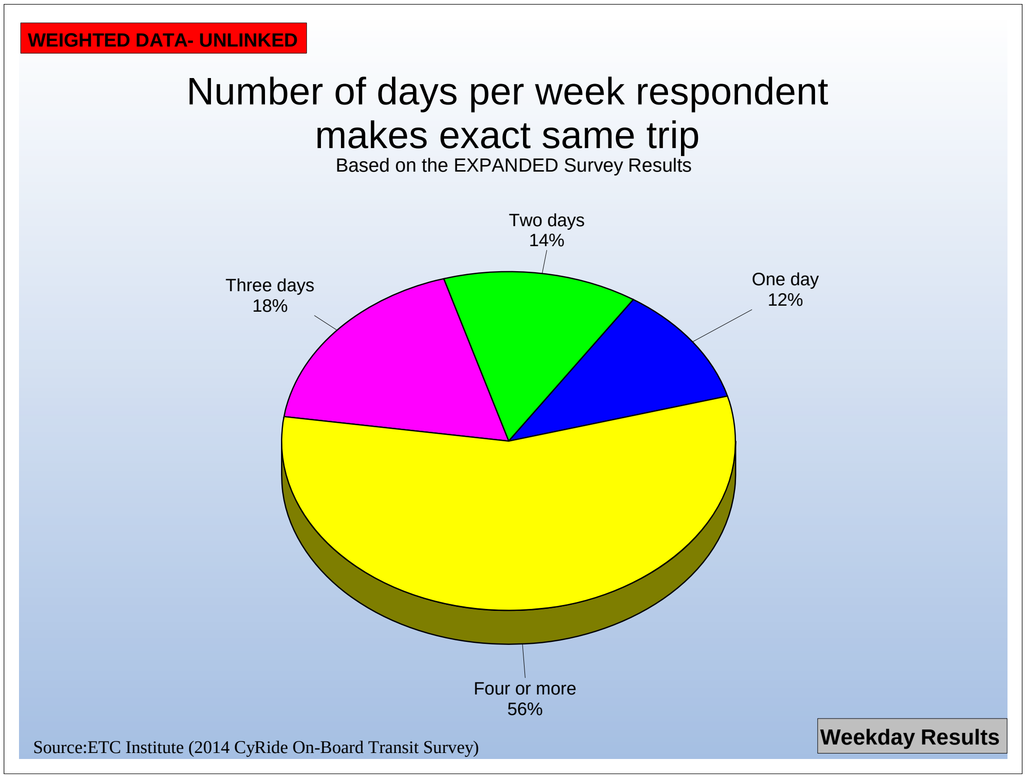

WEIGHTED DATA- UNLINKED
What is the Zip Code of the place you are going to?
Based on the EXPANDED Survey Results
50011
24,405
50010
8,652
50014
6,638
50036
81
50021
54
Other
422
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

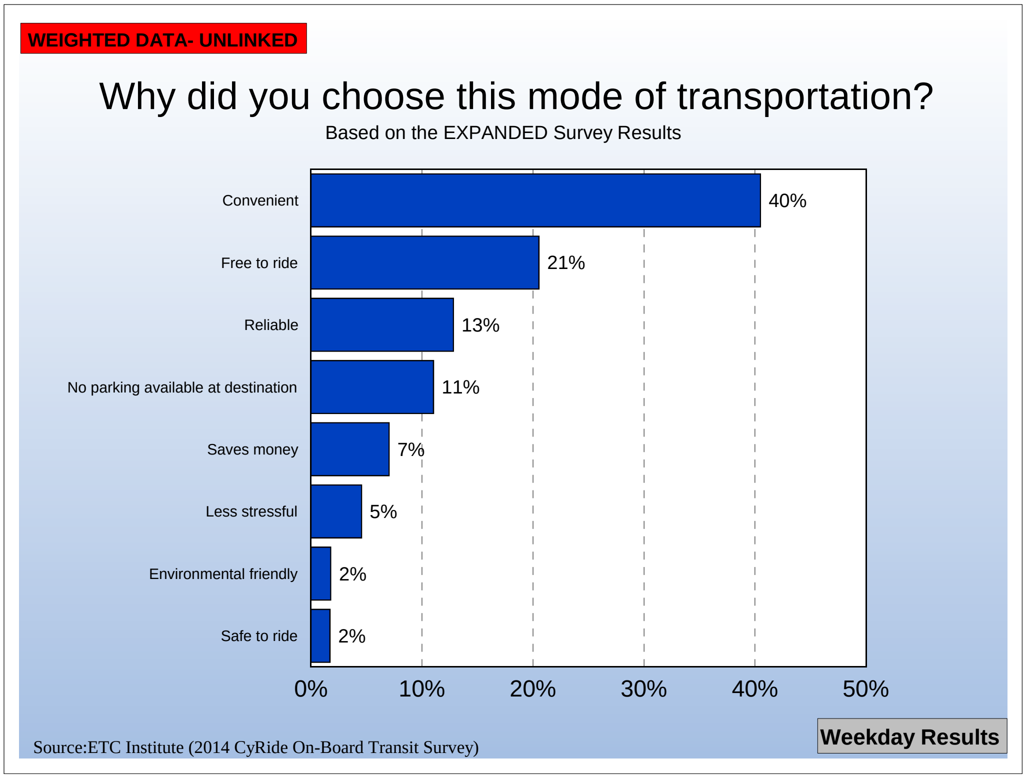

WEIGHTED DATA- UNLINKED
How Transit Riders Will Get to Their Destination
Based on the EXPANDED Survey Results
Other
1%
8%
Get in a parked vehicle
& drive alone
Walk
91%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

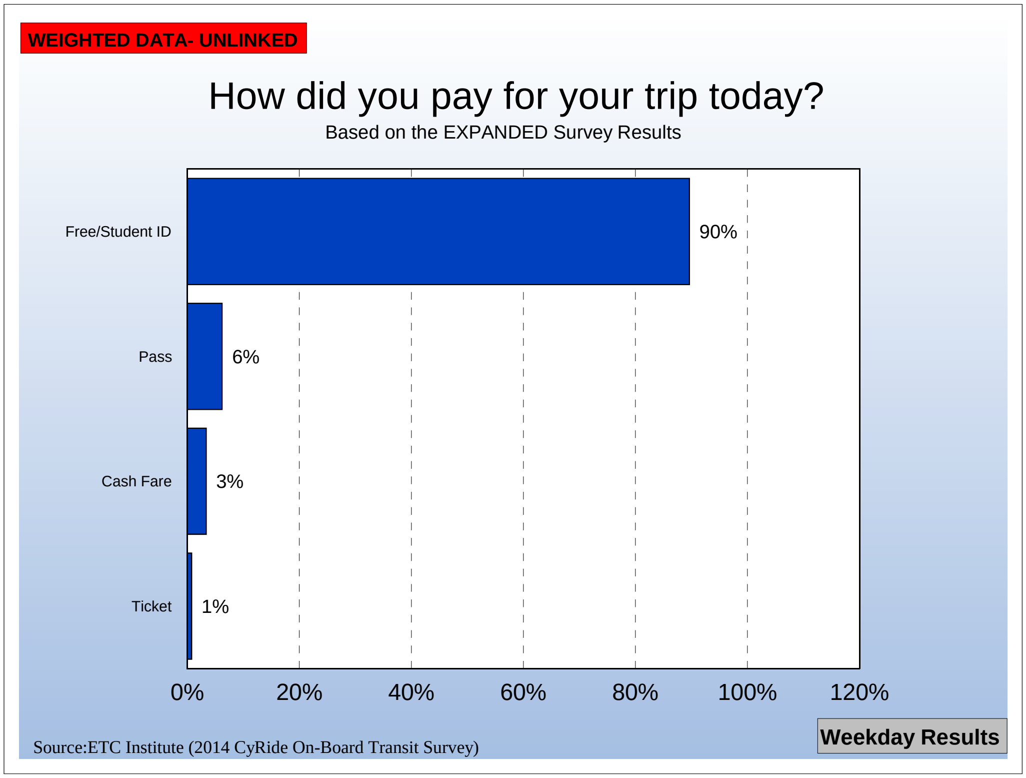

WEIGHTED DATA- UNLINKED
Number of Transfers Riders Made
On Their One-Way Trip
Based on the EXPANDED Survey Results
No transfers
96%
1 transfer
4%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results


WEIGHTED DATA- UNLINKED
Number of other persons traveling with respondent on one-way trip
Based on the EXPANDED Survey Results
None, just myself
92%
2+ persons
2%
1 person
6%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

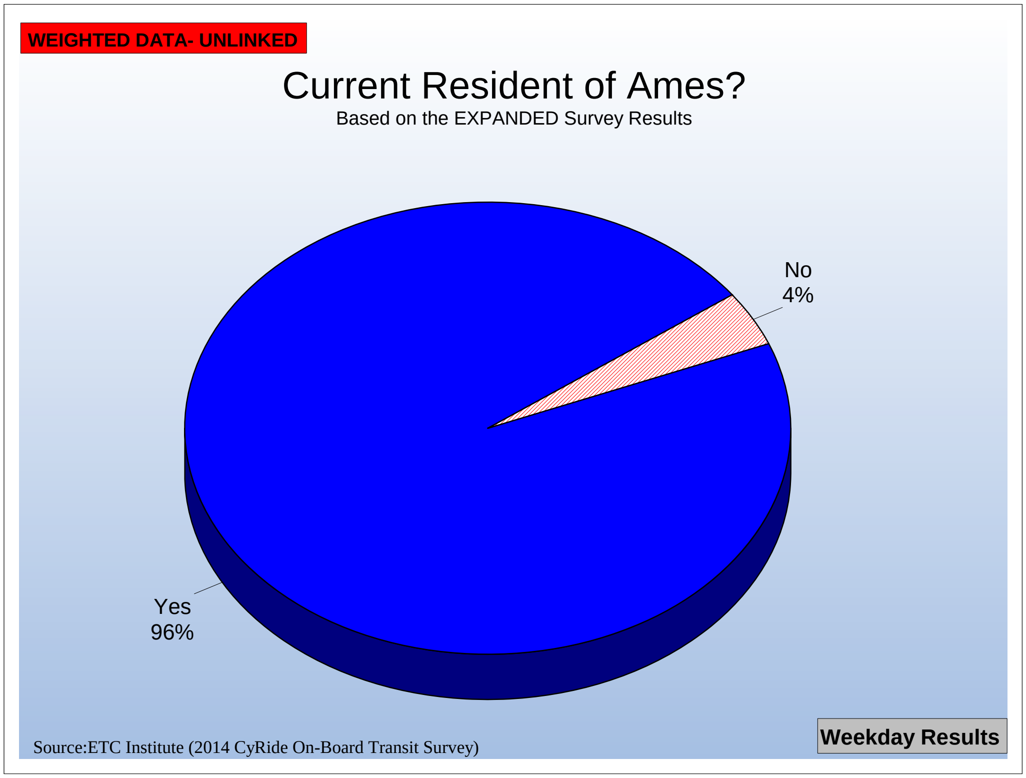

WEIGHTED DATA- UNLINKED
Number of household members traveling with respondent on one-way trip
Based on the EXPANDED Survey Results
None
39%
1 person
46%
3+ persons
6%
2 persons
9%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

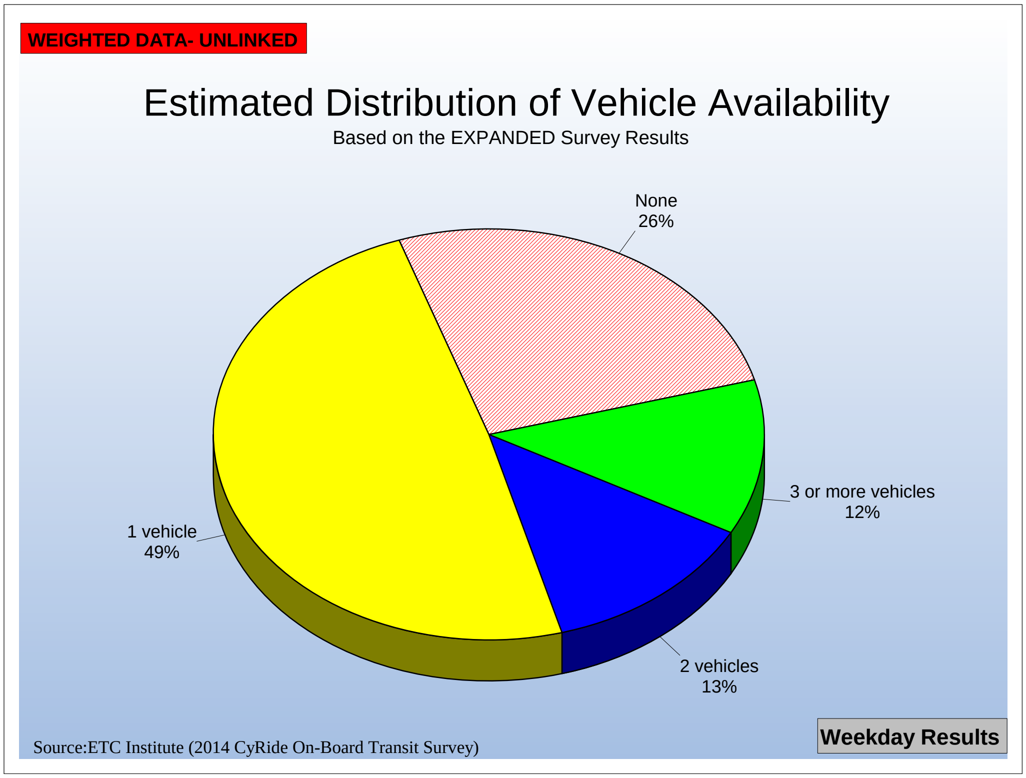

WEIGHTED DATA- UNLINKED
Number of days per week respondent makes exact same trip
Based on the EXPANDED Survey Results
Two days 14%
One day 12%
Three days 18%
Four or more 56%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

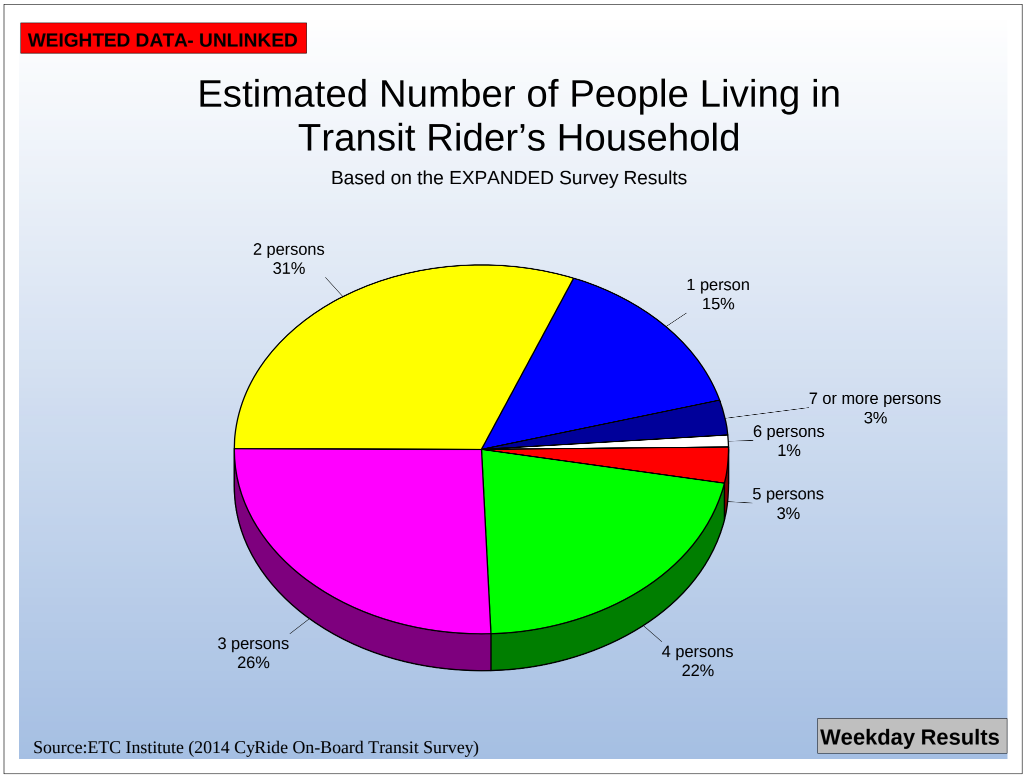

WEIGHTED DATA- UNLINKED
Why did you choose this mode of transportation?
Based on the EXPANDED Survey Results
Convenient 40%
Free to ride 21%
Reliable 13%
No parking available at destination 11%
Saves money 7%
Less stressful 5%
Environmental friendly 2%
Safe to ride 2%
0% 10% 20% 30% 40% 50%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

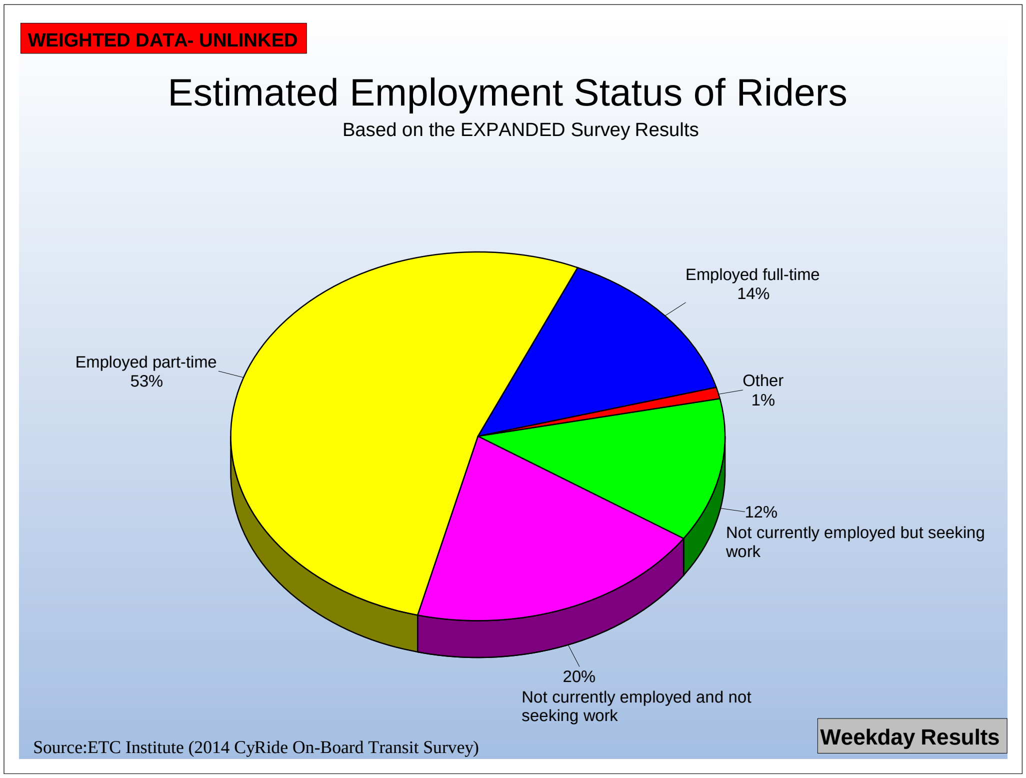

WEIGHTED DATA- UNLINKED
How did you pay for your trip today?
Based on the EXPANDED Survey Results
Free/Student ID
90%
Pass
6%
Cash Fare
3%
Ticket
1%
0%
20%
40%
60%
80%
100%
120%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

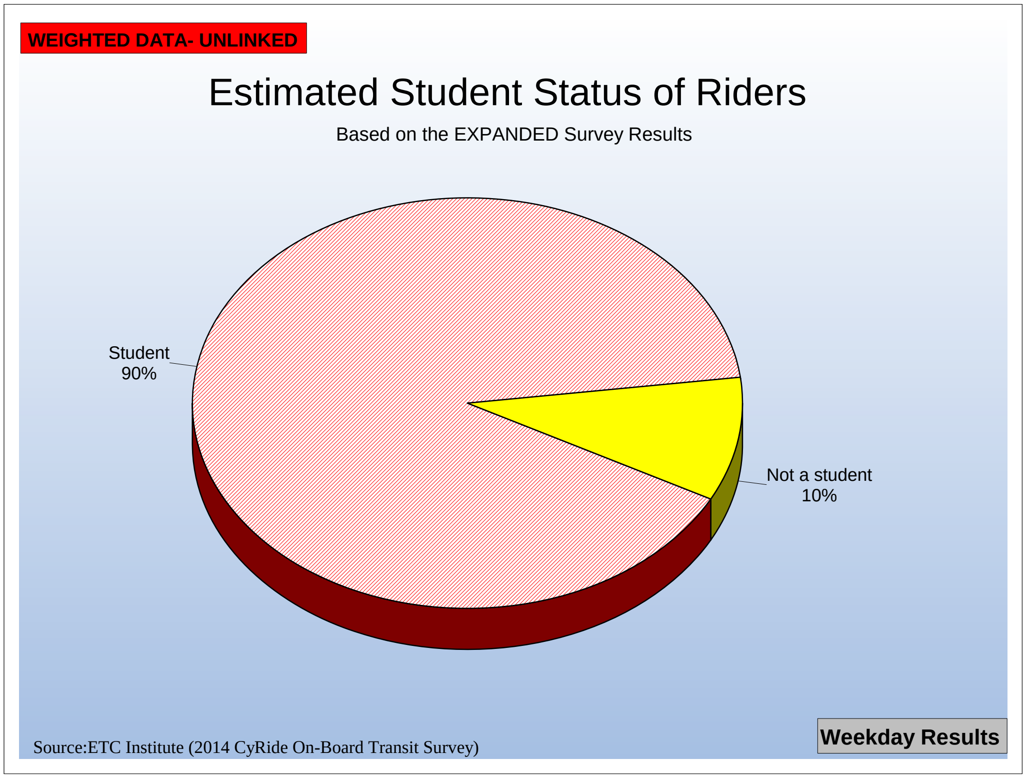

WEIGHTED DATA- UNLINKED
Did you receive any of the following special fare discounts for your trip today?
Based on the EXPANDED Survey Results
Disability
1%
K-12 Students
1%
Other
3%
None
95%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

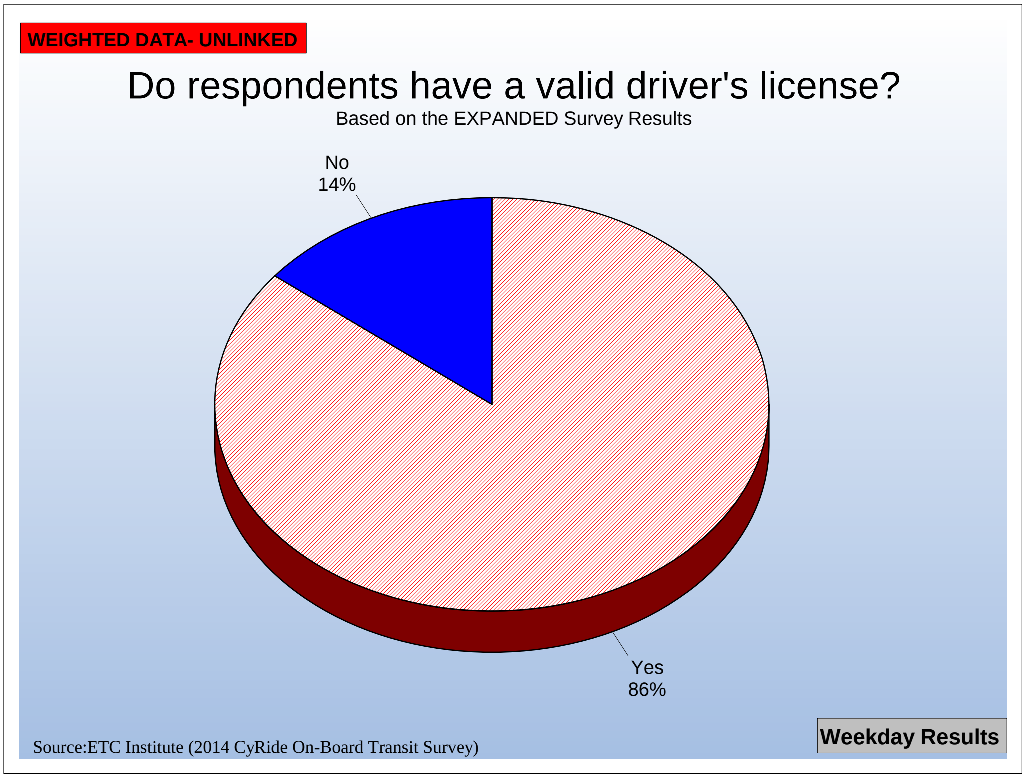

WEIGHTED DATA- UNLINKED
Current Resident of Ames?
Based on the EXPANDED Survey Results
No
4%
Yes
96%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

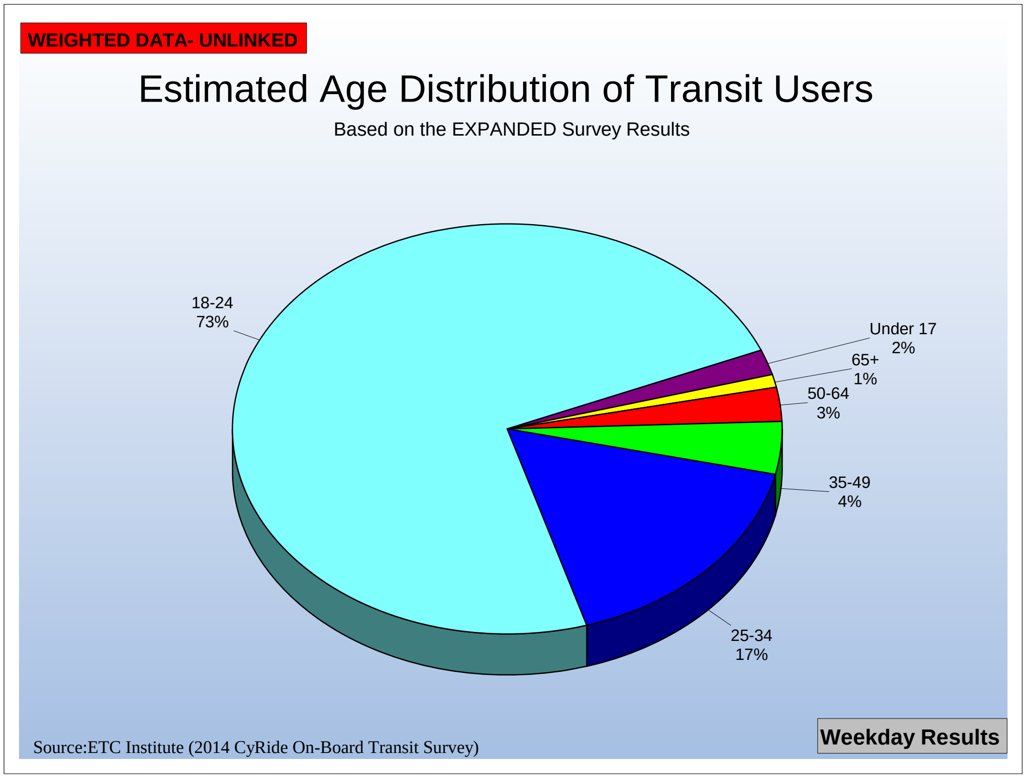

WEIGHTED DATA- UNLINKED
Estimated Distribution of Vehicle Availability
Based on the EXPANDED Survey Results
None
26%
3 or more vehicles
12%
1 vehicle
49%
2 vehicles
13%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

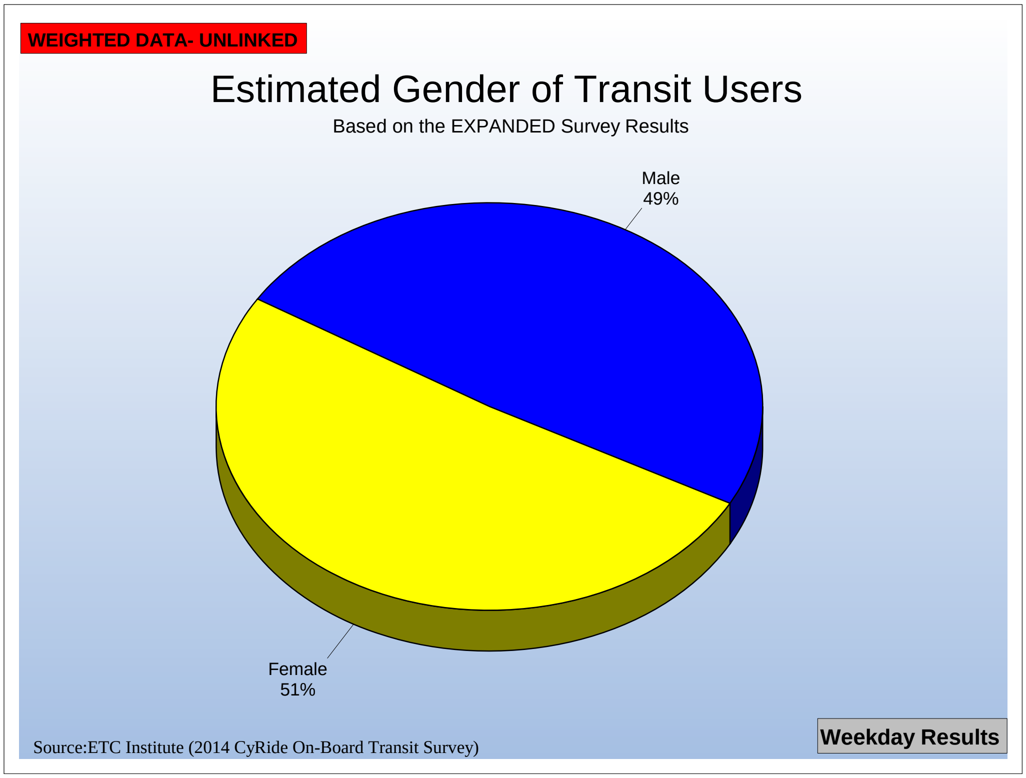

WEIGHTED DATA- UNLINKED
Estimated Number of People Living in Transit Rider's Household
Based on the EXPANDED Survey Results
2 persons 31%
1 person 15%
7 or more persons 3%
6 persons 1%
5 persons 3%
4 persons 22%
3 persons 26%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

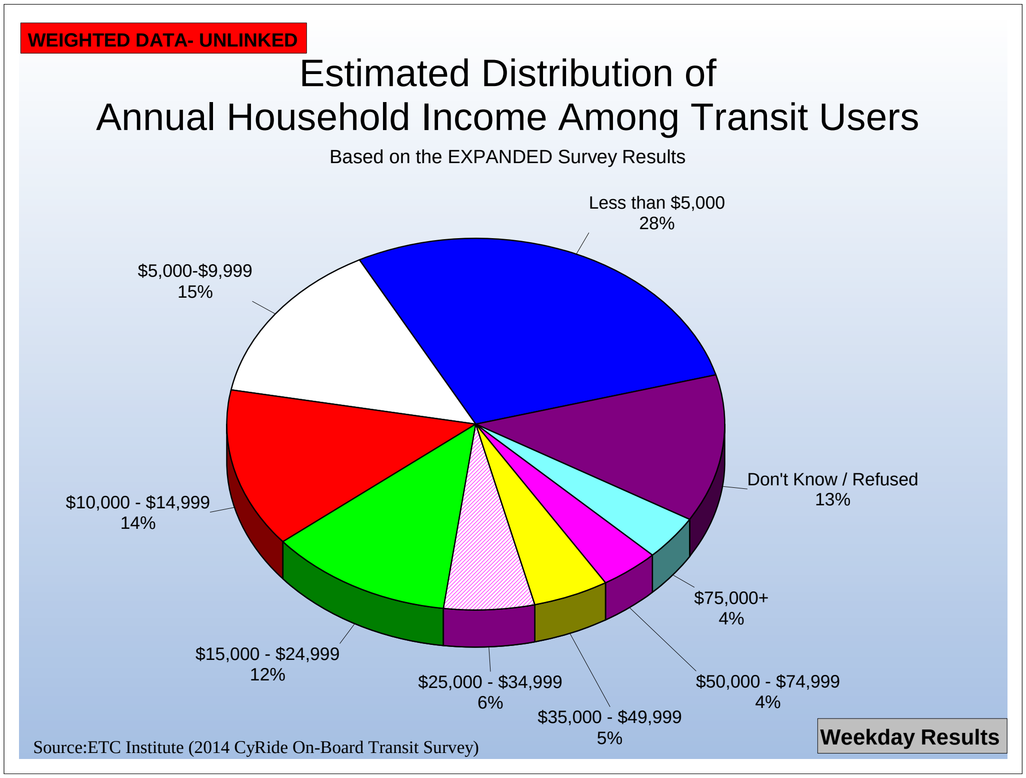

WEIGHTED DATA- UNLINKED
Estimated Employment Status of Riders
Based on the EXPANDED Survey Results
Employed full-time 14%
Other 1%
12% Not currently employed but seeking work
20% Not currently employed and not seeking work
Employed part-time 53%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results


WEIGHTED DATA- UNLINKED
Estimated Student Status of Riders
Based on the EXPANDED Survey Results
Student
90%
Not a student
10%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results


WEIGHTED DATA- UNLINKED
Do respondents have a valid driver's license?
Based on the EXPANDED Survey Results
No
14%
Yes
86%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results


WEIGHTED DATA- UNLINKED
Estimated Age Distribution of Transit Users
Based on the EXPANDED Survey Results
18-24
73%
Under 17
2%
65+
1%
50-64
3%
35-49
4%
25-34
17%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results


WEIGHTED DATA- UNLINKED
Estimated Gender of Transit Users
Based on the EXPANDED Survey Results
Male
49%
Female
51%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results


WEIGHTED DATA- UNLINKED
Estimated Distribution of
Annual Household Income Among Transit Users
Based on the EXPANDED Survey Results
Less than $5,000
28%
$5,000-$9,999
15%
$10,000 - $14,999
14%
$15,000 - $24,999
12%
$25,000 - $34,999
6%
$35,000 - $49,999
5%
$50,000 - $74,999
4%
$75,000+
4%
Don't Know / Refused
13%
Source:ETC Institute (2014 CyRide On-Board Transit Survey)
Weekday Results

CHAPTER 5: DATABASE DESCRIPTION

A copy of the database description is provided below and on the following pages.

CyRide 2014 OnBoard Survey - Data Dictionary

FIELD NAME	DESCRIPTION	CODE VALUES
ID	Unique ID for each record	Acutal Value
REVERSE	Indicates if the record was created as a reverse trip based on information provided by the respondent that he/she had or would make the same trip in the opposite direction at another time during the day	YES or NO
DATE	Date Survey was administered	Acutal Value
DIRECTION_CODE	Direction bus was traveling during survey administration	N=North S=South W=West E=East C=Circular
DIRECTION	Direction bus was traveling during survey administration	Acutal Value
ROUTE_SURVEYED_CODE	Route Number/Direction of Travel Code	Acutal Value
ROUTE_DESCRIPTION	Route Name/Number/Direction	Acutal Value
TIME_BOARDED_CODE	At what time did respondent board this bus Code	1=Before 6 a.m. 2=6 - 7 a.m. 3=7 - 8 a.m. 4=8 - 9 a.m. 5=9 - 10 a.m. 6=10 - 11 a.m. 7=11 a.m. - 12 p.m. 8=12 - 1 p.m. 9=1 - 2 p.m. 10=2 - 3 p.m. 11=3 - 4 p.m. 12=4 - 5 p.m. 13=5 - 6 p.m. 14=6 - 7 p.m. 15=7 - 8 p.m. 16=After 8 p.m.
TIME_BOARDED	At what time did respondent board surveyed bus?	Actual Value
TIME_PERIOD	Period of Day Survey was Administered	A=AM (Before 10am) O=Midday (10a.m. - 2 p.m.) P=PM (2 - 6 p.m.) Z=OTHER (6 p.m. - end of the day)
HOME_ADDRESS	Home Address	Actual Value
HOME_CITY	Home City of the Respondent	Actual Value
HOME_STATE	Home State where the respondent lives	Actual Value
HOME_ZIP	Zip code where the respondent lives	Actual Value
HOME_LAT	Latitude coordinates where the respondent lives	Actual Value
HOME_LON	Longitude coordinates where the respondent lives	Actual Value
ORIGIN_PLACE_TYPE_CODE	Type of place respondent is coming from now code	1=Your usual WORKPLACE 2=a Shopping place 3=a School (K-12) 4=a Hotel 5=an Airport (as an air passenger) 6=a Sporting event 7=a Recreation / sightseeing place 8=an Eating/Dining place 9=a Medical appointment / doctor's visit 10=a Social visit (friends/relatives) 11=a College / University (students only) 12=Your HOME 13=an other business related place 14=a place of Personal business (bank, post office) 15=a place to Pick up/drop off someone (daycare, school)
ORIGIN_PLACE_TYPE	Type of place respondent is coming from now	Actual Value
ORIGIN_NAME	Name of place where the trip began	Actual Value
ORIGIN_ADDRESS	Street address where the trip began	Actual Value
ORIGIN_CITY	City where the trip began	Actual Value
ORIGIN_STATE	State where the trip began	Actual Value
ORIGIN_ZIP	Zip code where the trip began	Actual Value
ORIGIN_LAT	Latitude coordinates where the trip began	Actual Value
ORIGIN_LON	Longitude coordinates where the trip began	Actual Value
ACCESS_MODE_CODE	Mode of access to transit Code	1=Walked 2=Biked 3=Was dropped off by someone going someplace else 4=Drove alone and parked 5=Drove or rode with others and parked 9=Other
ACCESS_MODE	Mode of access to transit	Actual Value
ORIGIN_WALK_DISTANCE_CODE	Distance the respondent reported walking to access transit (code)	0=less than 1 block; 1=1 block, 2=2 blocks, 3=3 blocks, 4=4 blocks, 5=5 blocks, 6=6 blocks, 7=7 blocks, 8=8 blocks, 9=9 blocks, 10=10 or more blocks

FIELD NAME	DESCRIPTION	CODE VALUES
ORIGIN_WALK_DISTANCE	Distance the respondent reported walking to access transit	
ACCESS_LOCATION_IF_DROVE	Address where the respondent parked/dropped off	Actual Value
DESTIN_PLACE_TYPE_CODE	Type of place respondent is going to now Code	1=Your usual WORKPLACE 2=a Shopping place 3=a School (K-12) 4=a Hotel 5=an Airport (as an air passenger) 6=a Sporting event 7=a Recreation / sightseeing place 8=an Eating/Dining place 9=a Medical appointment / doctor's visit 10=a Social visit (friends/relatives) 11=a College / University (students only) 12=Your HOME 13=an other business related place 14=a place of Personal business (bank, post office) 15=a place to Pick up/drop off someone (daycare, school)
DESTIN_PLACE_TYPE	Type of place respondent is going to now	Actual Value
DESTIN_NAME	Name of place where the trip ended	Actual Value
DESTIN_ADDRESS	Street address where the trip ended	Actual Value
DESTIN_CITY	City where the trip ended	Actual Value
DESTIN_STATE	State where the trip ended	Actual Value
DESTIN_ZIP	Zip code where the trip ended	Actual Value
DESTIN_LAT	Latitude coordinates where the trip ended	Actual Value
DESTIN_LON	Longitude coordinates where the trip ended	Actual Value
EGRESS_MODE_CODE	Mode of egress from transit Code	1=Walk 2=Bike 3=Be picked up by someone 4=Get in a parked vehicle & drive alone 5=Get in a parked vehicle & drive/ride with others 9=Other
EGRESS_MODE	Mode of egress from transit	Actual Value
DESTIN_WALK_DISTANCE_CODE	Distance the respondent reported walking from transit to get to his/her destination (code)	0=less than 1 block; 1=1 block, 2=2 blocks, 3=3 blocks, 4=4 blocks, 5=5 blocks, 6=6 blocks, 7=7 blocks, 8=8 blocks, 9=9 blocks, 10=10 or more blocks
DESTIN_WALK_DISTANCE	Distance the respondent reported walking from transit to get to his/her destination	Actual Value
EGRESS_LOCATION_IF_DROVE	Address where the respondent parked/was picked up	Actual Value
BOARDING_LOCATION	Name/Description/Intersection where the respondent boarded the Bus	Actual Value
BOARDING_LAT	Latitude coordinates of the boarding location	Actual Value
BOARDING_LON	Longitude coordinates of the boarding location	Actual Value
BOARDING_STOPID	Unique ID for each Bus Stop	Actual Value
ALIGHTING_LOCATION	Name/Description/Intersection where the respondent alighted the Bus	Actual Value
ALIGHTING_LAT	Latitude coordinates of the alighting location	Actual Value
ALIGHTING_LON	Longitude coordinates of the alighting location	Actual Value
ALIGHTING_STOPID	Unique ID for each Bus Stop	Actual Value
TRANSFERS_FROM_CODE	Number of transfers a respondent took before surveyed route from Origin Code	0=None 1=One 2=Two
TRANSFERS_FROM	Number of transfers a respondent took before surveyed route from Origin	Actual Value
TRANSFER_FROM_ROUTE	Name of route (if taken)	Actual Value
TRANSFERS_TO_CODE	Number of transfers a respondent took after surveyed route to Destination Code	0=None 1=One 2=Two
TRANSFERS_TO	Number of transfers a respondent took after surveyed route to Destination	Actual Value
TRANSFER_TO_ROUTE	Name of route (if taken)	Actual Value
TOTAL_TRANSFERS	Total number of transfers taken	Actual Value
TRIP_IN_OPPOSITE_DIRECTION_CODE	Did respondent / will respondent make this trip in exactly the opposite direction today code	1=Yes 2=No
TRIP_IN_OPPOSITE_DIRECTION	Did respondent / will respondent make this trip in exactly the opposite direction today	Actual Value

FIELD NAME	DESCRIPTION	CODE VALUES
OPPOSITE_DIRECTION_TIME_CODE	Time when respondent took same trip in exact opposite direction code	1=Before 6 a.m. 2=6 - 7 a.m. 3=7 - 8 a.m. 4=8 - 9 a.m. 5=9 - 10 a.m. 6=10 - 11 a.m. 7=11 a.m. - 12 p.m. 8=12 - 1 p.m. 9=1 - 2 p.m. 10=2 - 3 p.m. 11=3 - 4 p.m. 12=4 - 5 p.m. 13=5 - 6 p.m. 14=6 - 7 p.m. 15=7 - 8 p.m. 16=After 8 p.m.
OPPOSITE_DIRECTION_TIME	Time when respondent took same trip in exact opposite direction	Actual Value
OPPOSITE_TIME_PERIOD	Period of Day Survey was Administered	A=AM (Before 10am) O=Midday (10a.m. - 2 p.m.) P=PM (2 - 6 p.m.) Z=OTHER (6 p.m. - end of the day)
TRAVEL_COMPANIONS_CODE	Number of Co-travelers on trip with respondent code	0=None (Zero) 1=One (1) 2=Two (2) 3=Three (3) 4=Four (4) 5=Five (5) 6=Six (6) 7=Seven (7) 8=Eight (8) 9=Nine (9) 10=Ten or more (10+)
TRVL_COMP_HH_MEMBER_CODE	Number of Co-travelers on trip with respondent	Actual Value
TRVL_COMP_HH_MEMBER	Number of Co-travelers on trip with respondent who are members of respondents household code	0=None (Zero) 1=One (1) 2=Two (2) 3=Three (3) 4=Four (4) 5=Five (5) 6=Six (6) 7=Seven (7) 8=Eight (8) 9=Nine (9) 10=Ten or more (10+)
TRIP_FREQ_PER_WEEK_CODE	How often the respondent makes the specific trip that was reported on the survey	0=0 - None / Never 1=1 - One day a week 2=2 - Two days a week 3=3 - Three days a week 4=4 - Four or more days per week
TRIP_FREQ_PER_WEEK	How often the respondent makes the specific trip that was reported on the survey	Actual Value
CHOICE_REASON_CODE	Why riders choose public transportation for their trip	1=Less stressful 2=Reliable 3=No parking available at destination 4=Free to ride 5=Environmentally friendly 6=Safe to ride 7=Saves money 8=Convenient
CHOICE_REASON	Why riders choose public transportation for their trip	Actual Value
CYRIDE_FUTURE_HOPE_1	Hope to see improved shelters in the future	Actual Value
CYRIDE_FUTURE_HOPE_2	Hope to see improved social media in the future	Actual Value
CYRIDE_FUTURE_HOPE_3	Hope to see service to new areas in the future	Actual Value
CYRIDE_FUTURE_HOPE_4	Hope to see improved fares/options/prices in the future	Actual Value
CYRIDE_FUTURE_HOPE_5	Hope to see improvedon time performance in the future	Actual Value
CYRIDE_FUTURE_HOPE_6	Hope to see cleaner buses in the future	Actual Value
CYRIDE_FUTURE_HOPE_7	Hope to see improved customer service in the future	Actual Value
CYRIDE_FUTURE_HOPE_8	Hope to see improved service times and frequency in the future	Actual Value
CYRIDE_FUTURE_HOPE_Other	Hope to see something other than answer choices	Actual Value
PAYMENT_METHOD_CODE	Payment method of respondent code	1=Cash fare 2=Free/Student ID 3=Pass 4=Ticket
PAYMENT_METHOD	Payment method of respondent code	Actual Value
FARE_DISCOUNTS_CODE	Fare discounts received code	0=None 1=Disability 2=K-12 Student 3=Medicare/Medicaid 4=Senior 5=Other

FIELD NAME	DESCRIPTION	CODE VALUES
FARE_DISCOUNTS	Fare discounts received	Actual Value
FARE_DISCOUNT_Other	Other discounts received	Actual Value
RESIDENCY_CODE	Did the Respondent say he/she currently lives in the Ames area	1=Yes 2=No
RESIDENCY	Did the Respondent say he/she currently lives in the Ames area	Actual Value
WORKING_VEHICLES_CODE	Number of Working vehicles available to respondent household code	0=None (0) 1=One (1) 2=Two (2) 3=Three (3) 4=Four or more (4+)
WORKING_VEHICLES	Number of Working vehicles available to respondent household	Actual Value
USE_VEH_FOR_TRIP_Code	Could household vehicle been used for this trip code	1=Yes 2=No
USE_VEH_FOR_TRIP	Could household vehicle been used for this trip	Actual Value
TOTAL_IN_HH_CODE	Number of household members code	1=One (1) 2=Two (2) 3=Three (3) 4=Four (4) 5=Five (5) 6=Six (6) 7=Seven (7) 8=Eight (8) 9=Nine (9) 10=Ten or More (10+)
TOTAL_IN_HH	Number of household members	Actual Value
EMPLOYMENT_STATUS_CODE	Respondent employment status code	1=Employed full-time 2=Employed part-time 3=Homemaker 4=Not currently employed and not seeking work 5=Retired 6=Not currently employed but seeking work
EMPLOYMENT_STATUS	Respondent employment status	Actual Value
STUDENT_STATUS_NOT A STUDENT	Respondent student status	Actual Value
STUDENT_STATUS_FULL TIME STUDENT	Respondent student status	Actual Value
STUDENT_STATUS_FULL TIME STUDENT Institution name	Name of school respondent attends if applicable	Actual Value
STUDENT_STATUS_Student thru 12th Grade	Respondent student status	Actual Value
STUDENT_STATUS_Student thru 12th Grade Institution name	Name of school respondent attends if applicable	Actual Value
STUDENT_STATUS_PART TIME STUDENT	Respondent student status	Actual Value
STUDENT_STATUS_PART TIME STUDENT Institution name	Name of school respondent attends if applicable	Actual Value
STUDENT_STATUS_STUDENT OTHER	Respondent student status	Actual Value
STUDENT_STATUS_STUDENT OTHER Institution name	Name of school respondent attends if applicable	Actual Value
DRIVER_LICENSE_CODE	Does respondent have a valid drivers license code	1=Yes 2=No
DRIVER_LICENSE	Does respondent have a valid drivers license	Actual Value
AGE_CODE	Respondent age code	1=Under 16 2=16-17 3=18-24 4=25-34 5=35-49 6=50-64 7=65-74 8=75+
AGE	Respondent age	Actual Value
GENDER_CODE	Gender of respondent Code	1= Male 2= Female
GENDER	Gender of respondent	Actual Value
INCOME_CODE	Total annual household income in 2013 before taxes code	1=Less than $5,000 2=$5,000 - $9,999 3=$10,000 - $14,999 4=$15,000 - $24,999 5=$25,000 - $34,999 6=$35,000-$49,999 7=$50,000-$74,999 8=$75,000+ 99=Don't Know / Refused
INCOME	Total annual household income in 2013 before taxes code	Actual Value
ETHNIC_BACKGROUND_BLACK AFRICAN AMERICAN 1	Respondent indicated whether or not they are Black	Actual Value
ETHNIC_BACKGROUND_WHITE 2	Respondent indicated whether or not they are White	Actual Value
ETHNIC_BACKGROUND_HISPANIC 3	Respondent indicated whether or not they are Hispanic	Actual Value
ETHNIC_BACKGROUND_ASIAN 4	Respondent indicated whether or not they are Asian	Actual Value
ETHNIC_BACKGROUND_AMERICAN INDIAN_ALASKA NAT 5	Respondent indicated whether or not they are American indian or Alaska Native	Actual Value
ETHNIC_BACKGROUND_NATIVE HAWAIIN_PACIFIC 6	Respondent indicated whether or not they are Native Hawaiin or Pacific Islander	Actual Value
ETHNIC_BACKGROUND_Other	Respondent indicated whether or not they were of another race not previously asked	Actual Value
UNLINKED_WGTFACTOR	Respondent's Unlinked Weightfactor-unlinked trip weighting factors were developed to expand the total number of completed surveys to the actual number of transit boardings in the region.	Actual Value

FIELD NAME	DESCRIPTION	CODE VALUES
#TRANSFERS	Respondent's Total Combined Transfers (# transfers before bus they we	Actual Value
LINKED_WGTFACTOR	Respondent's Linked Weightfactor- Linked trip weighting factors were developed to adjust the total number of boardings to one-way trips. The linked trip weighting factor accounts for multiple boardings that would occur when a passenger transfers during his/her one-way trip.	Actual Value
NET_WGTFACTOR	Respont's Net Weightfactor-(unlinked weight factor multiplied by linked w	Actual Value

CHAPTER 6: WEIGHTED TABULAR DATA

The weighted survey results are provided on the following pages.

Surveys Completed by Time Period

	Count	Percent
6am to 10am	12624	31.36%
10am to 2pm	13053	32.43%
2pm to 6pm	11529	28.64%
After 6pm	3046	7.57%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Respondent's Home City

	Count	Percent
Ames	38161	94.81%
Ankeny	374	0.93%
Boone	301	0.75%
Des Moines	271	0.67%
Nevada	111	0.26%
West Des Moines	106	0.28%
Urbandale	81	0.20%
Huxley	55	0.14%
Maxwell	45	0.10%
Story City	42	0.11%
Colfax	40	0.10%
Ogden	39	0.08%
Polk City	33	0.10%
Ellsworth	29	0.07%
Granger	29	0.07%
Marshalltown	29	0.07%
Pleasant Hill	29	0.07%
Clear Lake	24	0.05%
Dawson	20	0.05%
Indianola	20	0.03%
Jewell	20	0.06%
Johnston	20	0.05%
Le Grand	19	0.04%
Leighton	19	0.04%
Madrid	19	0.05%
Mason City	19	0.04%
Minburn	19	0.02%
Mingo	19	0.03%
Orange City	19	0.05%
Ossian	17	0.05%
Perry	16	0.04%
Sheldahl	15	0.05%
Sioux City	15	0.05%
Thor	13	0.05%
Webster City	12	0.05%
Woodward	12	0.05%
Adel	12	0.03%
Baxter	12	0.03%
Clive	12	0.03%
Colo	12	0.03%
Emerson	12	0.03%
Gilbert	12	0.02%
Hubbard	10	0.03%

Kelley	10	0.03%
Manchester	10	0.03%
Mitchellville	10	0.03%
Richland	10	0.03%
Roland	10	0.03%
State Center	7	0.03%
Thurman	7	0.03%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Respondent's Home Zip Code

	Count	Percent
50010	15407	38.28%
50014	13856	34.42%
50011	8887	22.08%
50036	301	0.75%
50021	211	0.52%
50023	163	0.41%
50201	106	0.26%
50266	74	0.18%
50322	71	0.18%
50248	64	0.14%
50312	61	0.16%
50315	56	0.15%
50124	55	0.14%
50161	42	0.10%
50054	40	0.10%
50156	39	0.10%
50212	39	0.08%
50226	37	0.10%
50265	37	0.09%
50310	35	0.09%
50313	35	0.09%
50317	33	0.09%
50075	29	0.07%
50109	29	0.07%
50158	29	0.07%
50327	29	0.07%
50125	24	0.03%
50130	20	0.06%
50131	20	0.05%
50142	20	0.04%
50143	19	0.04%
50167	19	0.02%
50168	19	0.03%
50220	19	0.04%
50276	19	0.05%
50316	19	0.04%
50401	17	0.04%
50428	17	0.05%
50591	16	0.05%
50595	15	0.05%
51041	15	0.05%
51105	13	0.05%
52161	12	0.05%

62520	12	0.05%
50003	12	0.03%
50028	12	0.03%
50056	12	0.03%
50105	12	0.02%
50122	12	0.03%
50134	12	0.03%
50236	12	0.03%
50237	10	0.03%
50247	10	0.03%
50311	10	0.03%
50320	10	0.03%
50323	10	0.03%
50325	10	0.03%
51533	10	0.03%
51653	10	0.03%
52057	7	0.03%
52585	7	0.03%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Trip Origin

	Count	Percent
Home	21256	52.81%
College / University (students only)	13283	33.00%
Usual Workplace	2635	6.55%
Shopping	785	1.95%
Personal business (bank, post office)	521	1.29%
Eating/Dining out	438	0.91%
Social visit (friends/relatives)	367	1.09%
School (K-12)	327	0.81%
Recreation / sightseeing place	277	0.69%
Medical appointment / doctor's visit	169	0.42%
Other business related	125	0.31%
Pick up/drop off someone (daycare, school)	56	0.14%
Sporting event	13	0.03%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Origin City

	Count	Percent
Ames	38931	96.72%
Ankeny	256	0.64%
Boone	191	0.48%
Des Moines	164	0.41%
West Des Moines	90	0.22%
Nevada	62	0.16%
Urbandale	61	0.15%
Huxley	47	0.12%
Story City	31	0.08%
Colfax	22	0.05%
Ellsworth	22	0.05%
Granger	22	0.05%
Johnston	22	0.05%

Marshalltown	**22**	**0.05%**
Maxwell	**20**	**0.05%**
Ogden	**20**	**0.05%**
Pleasant Hill	**19**	**0.05%**
Polk City	**18**	**0.05%**
Baxter	**12**	**0.03%**
Clear Lake	**12**	**0.02%**
Clive	**12**	**0.03%**
Emerson	**12**	**0.03%**
Hubbard	**12**	**0.03%**
Indianola	**12**	**0.02%**
Jewell	**12**	**0.03%**
Kelley	**12**	**0.03%**
Le Grand	**12**	**0.03%**
Leighton	**12**	**0.02%**
Madrid	**12**	**0.03%**
Mason City	**12**	**0.03%**
Minburn	**12**	**0.01%**
Mitchellville	**12**	**0.03%**
Orange City	**10**	**0.03%**
Perry	**10**	**0.03%**
Roland	**10**	**0.03%**
Sheldahl	**10**	**0.03%**
Sioux City	**8**	**0.03%**
Thor	**7**	**0.03%**
Webster City	**7**	**0.03%**
Woodward	**3**	**0.03%**
Total	**40252**	**100.00%**

***percentages based on unlinked weighted data results**

Origin Zip Code

	Count	Percent
50011	**19599**	**48.69%**
50010	**11137**	**27.67%**
50014	**8182**	**20.33%**
50036	**191**	**0.48%**
50021	**143**	**0.36%**
50023	**113**	**0.28%**
50201	**62**	**0.16%**
50266	**61**	**0.15%**
50322	**51**	**0.13%**
50124	**47**	**0.12%**
50248	**44**	**0.11%**
50312	**43**	**0.11%**
50265	**34**	**0.07%**
50315	**30**	**0.08%**
50054	**24**	**0.05%**
50075	**22**	**0.05%**
50109	**22**	**0.05%**
50131	**22**	**0.05%**
50156	**22**	**0.05%**
50158	**22**	**0.05%**
50161	**22**	**0.05%**
50212	**20**	**0.05%**
50226	**20**	**0.05%**
50310	**19**	**0.05%**

50313	19	0.06%
50327	18	0.05%
50028	12	0.03%
50122	12	0.03%
50125	12	0.02%
50130	12	0.03%
50134	12	0.03%
50142	12	0.03%
50143	12	0.02%
50167	12	0.01%
50220	12	0.03%
50236	12	0.03%
50237	12	0.03%
50276	12	0.03%
50309	12	0.03%
50316	12	0.03%
50317	12	0.03%
50320	10	0.03%
50323	10	0.03%
50325	10	0.03%
50401	10	0.03%
50428	10	0.02%
50591	10	0.03%
50595	8	0.03%
51041	7	0.03%
51105	7	0.03%
51533	3	0.03%
Total	**40252**	**100.00%**

***percentages based on unlinked weighted data results**

Access Mode

	Count	Percent
Walked	33906	84.23%
Drove alone and parked	6059	15.05%
Drove or rode with others and parked	152	0.38%
Was dropped off by someone going someplace e	92	0.23%
Biked	43	0.11%
Total	**40252**	**100.00%**

***percentages based on unlinked weighted data results**

Trip Destination

	Count	Percent
Home	18198	39.15%
College / University (students only)	15761	45.21%
Usual workplace	3325	8.26%
Shopping	687	1.71%
Personal business (bank, post office)	497	1.23%
Social visit (friends/relatives)	422	1.05%
Eating/Dining out	414	1.03%
School (K-12)	349	0.87%
Recreation / sightseeing place	225	0.56%
Medical appointment / doctor’s visit	153	0.38%
Other business related	150	0.37%
Pick up/drop off someone (daycare, school)	56	0.14%

Sporting event	16	0.04%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Destination City

	Count	Percent
Ames	39695	98.62%
Ankeny	94	0.23%
Boone	81	0.20%
Des Moines	77	0.19%
Nevada	45	0.11%
West Des Moines	34	0.09%
Maxwell	20	0.05%
Urbandale	20	0.05%
Colfax	17	0.04%
Ogden	15	0.04%
Story City	13	0.03%
Clear Lake	12	0.03%
Ellsworth	12	0.02%
Gilbert	10	0.02%
Granger	10	0.02%
Indianola	9	0.01%
Jewell	7	0.03%
Le Grand	7	0.01%
Leighton	7	0.02%
Madrid	7	0.02%
Marshalltown	7	0.02%
Mason City	7	0.01%
Minburn	7	0.01%
Orange City	7	0.02%
Perry	7	0.02%
Pleasant Hill	7	0.02%
Polk City	7	0.03%
Sheldahl	3	0.03%
Sioux City	3	0.02%
Thor	3	0.02%
Webster City	3	0.02%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Destination Zip Code

	Count	Percent
50011	24405	60.63%
50010	8652	21.50%
50014	6638	16.49%
50036	81	0.20%
50021	54	0.13%
50023	45	0.10%
50201	40	0.11%
50266	27	0.07%
50161	20	0.05%
50322	20	0.05%
50054	20	0.04%
50156	17	0.04%

50212	17	0.04%
50248	17	0.03%
50310	15	0.04%
50312	13	0.05%
50075	12	0.02%
50105	12	0.02%
50109	10	0.02%
50125	10	0.01%
50130	10	0.03%
50142	9	0.01%
50143	8	0.02%
50158	7	0.02%
50167	7	0.01%
50220	7	0.02%
50226	7	0.03%
50265	7	0.02%
50311	7	0.03%
50313	7	0.02%
50315	7	0.03%
50316	7	0.02%
50317	7	0.02%
50327	7	0.02%
50401	7	0.01%
50428	7	0.03%
50591	3	0.02%
50595	3	0.02%
51041	3	0.02%
51105	3	0.02%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Egress Mode

	Count	Percent
Walk	36841	91.53%
Get in a parked vehicle & drive alone	3202	7.96%
Get in a parked vehicle & drive/ride with others	101	0.25%
Be picked up by someone	69	0.17%
Bike	39	0.10%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Total Transfers

	Count	Percent
No transfers	38479	95.60%
1 transfer	1773	4.40%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Number of Co-Travelers on Trip with Rider

	Count	Percent
(0) None	37063	92.08%
(1) One	2239	5.56%
(2) Two	567	1.41%

(3) Three	130	0.33%
(4) Four	76	0.19%
(5) Five	34	0.09%
(6) Six	12	0.03%
(7) Seven	0	0.00%
(8) Eight	12	0.03%
(9) Nine	0	0.00%
(10+) Ten or more	115	0.29%
Total	**40252**	**100.00%**

*percentages based on unlinked weighted data results

Number of Co-Travelers on Trip with Rider who are Members of Household

	Count	Percent
(0) None	1251	39.14%
(1) One	1463	45.71%
(2) Two	299	8.84%
(3) Three	103	3.79%
(4) Four	65	2.02%
(5) Five	7	0.51%
Total	**3188**	**100.00%**

*percentages based on unlinked weighted data results

Number of Days per Week Respondent Makes Exact Same Trip

	Count	Percent
One day	4684	11.64%
Two days	5516	13.70%
Three days	7358	18.28%
Four or more	22693	56.38%
Total	**40252**	**100.00%**

*percentages based on unlinked weighted data results

Reasons Riders Choose Public Transportation

	Count	Percent
Convenient	16298	40.49%
Free to ride	8268	20.54%
Reliable	5166	12.83%
No parking available at destination	4445	11.04%
Saves money	2832	7.04%
Less stressful	1837	4.56%
Environmental friendly	716	1.78%
Safe to ride	691	1.72%
Total	**40252**	**100.00%**

*percentages based on unlinked weighted data results

How Riders Paid For Trip

	Count	Percent
Free/Student ID	36082	89.64%
Pass	2499	6.21%
Cash Fare	1360	3.38%
Ticket	311	0.77%
Total	**40252**	**100.00%**

*percentages based on unlinked weighted data results

Type of Fare Discount Riders Received for Trip

	Count	Percent
None	38434	95.48%
Other	570	1.42%
K-12 Students	505	1.26%
Disability	334	0.83%
Medicare/Medicaid	215	0.53%
Senior (65+)	192	0.48%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Is Respondent Current Resident of Ames

	Count	Percent
No	1677	4.17%
Yes	38574	95.83%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Working Vehicles Available in Household

	Count	Percent
None (0)	10439	25.94%
One (1)	19902	49.44%
Two (2)	5172	12.85%
Three (3)	2762	6.86%
Four or more (4+)	1975	4.91%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Total Number of Persons in Household

	Count	Percent
One (1)	5982	14.86%
Two (2)	12456	30.94%
Three (3)	10324	25.65%
Four (4)	8691	21.59%
Five (5)	1220	3.03%
Six (6)	406	1.01%
Seven (7)	104	0.26%
Eight (8)	51	0.13%
Nine (9)	27	0.07%
Ten or More (10+)	991	2.46%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Employment Status

	Count	Percent
Employed full-time	5802	14.41%
Employed part-time	21314	52.95%
Homemaker	8	0.02%
Not currently employed and not seeking work	7898	19.62%
Not currently employed but seeking work	5037	12.51%
Retired	194	0.48%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Student Status

	Count	Percent
Student	36398	90.43%
Not a student	3853	9.57%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Driver License Status

	Count	Percent
Don’t have a driver license	5785	14.37%
Have a driver license	34466	85.63%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Age

	Count	Percent
Under 16	669	1.66%
16-17	167	0.41%
18-24	29578	73.48%
25-34	6850	17.02%
35-49	1612	4.01%
50-64	1056	2.62%
65-74	257	0.64%
75+	63	0.16%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Gender

	Count	Percent
Female	20514	50.96%
Male	19737	49.04%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Household Income

	Count	Percent
Less than $5,000	11457	28.46%
$5,000-$9,999	5840	14.51%
$10,000 - $14,999	5519	13.71%
$15,000 - $24,999	4888	12.14%
$25,000 - $34,999	2287	5.68%
$35,000 - $49,999	1988	4.94%
$50,000 - $74,999	1583	3.93%
$75,000+	1603	3.98%
Don't Know / Refused	5086	12.64%
Total	40252	100.00%

*percentages based on unlinked weighted data results

Model Trip Purpose

	Count	Percent

Home Based School	**28703**	**71.31%**
Home Based Work	**5005**	**12.43%**
Non-Home Based Other	**2331**	**5.79%**
Home Based Other	**1798**	**4.47%**
Home Based Shopping	**1511**	**3.75%**
Non-Home Based Work	**905**	**2.25%**
Total	**40252**	**100.00%**

***percentages based on unlinked weighted data results**

CHAPTER 7: SURVEY INSTRUMENT

The survey instrument is provided on the following pages.

CyRide On-Board Transit Survey

Route Code: ____________ Time: ______ am / pm Interviewer: ______ Serial #: ________

Please take a few moments to complete this important survey. Your input will be used to plan transportation improvements to transit service in the Ames area. *All information will be kept strictly confidential.*

HOME Address: (please be specific, ex: 123 W. Main St): ____
(If you are visiting Ames, please list the address where you are staying)

City: ________________________________ **State:** _____ **Zip Code:** ____________

COMING FROM?

1. **What type of place are you COMING FROM now** (the starting place for your one-way trip)?
   - O Your usual WORKPLACE
   - O Other business related
   - O College / University (students only)
   - O Airport (as an air passenger)
   - O Recreation / sightseeing
   - O Medical appointment / doctor's visit
   - O Social visits (friends/relatives)
   - O Personal business (bank, post office)
   - O Pick up/drop off someone (daycare, school)
   - O Your **HOME** → *Go to Question #4*
   - O Other: ___________________
   - O Shopping
   - O Eating/Dining Out
   - O School (K-12)
   - O Hotel
   - O Sporting event

2. **What is the NAME of the place you are coming from now?**

   ____

3. **What is the EXACT STREET ADDRESS of this place?**

   ____

   OR Intersection if street address is not known:

   ____________________ **&** ____________________

   City: __________________________ **Zip:** __________

4. **How did you get from the place in Question #1 to the very FIRST bus or train you used for this one-way trip?**
   - O Walk - **how many blocks did you walk?** ________blocks
   - O Bike
   - O Wheelchair/scooter
   - O Was dropped off by someone going someplace else **– answer 4a**
   - O Drove alone and parked **– answer 4a**
   - O Drove or rode with others and parked **– answer 4a**
   - O Other: ______________________________

4a. **Where did you get dropped-off or park your vehicle?**
Write the nearest intersection/park-n-ride lot below:

____

GOING TO?

5. **What type of place are you GOING TO now** (the ending place for your one-way trip)?
   - O Your usual WORKPLACE
   - O Other business related
   - O College / University (students only)
   - O Airport (as an air passenger)
   - O Recreation / sightseeing
   - O Medical appointment / doctor's visit
   - O Social visits (friends/relatives)
   - O Personal business (bank, post office)
   - O Pick up/drop off someone (daycare, school)
   - O Your **HOME** → *Go to Question #8*
   - O Other: ___________________
   - O Shopping
   - O Eating/Dining Out
   - O School (K-12)
   - O Hotel
   - O Sporting event

6. **What is the NAME of the place you are going to now?**

   ____

7. **What is the EXACT STREET ADDRESS of this place?**

   ____

   OR Intersection if street address is not known:

   ____________________ **&** ____________________

   City: __________________________ **Zip:** __________

8. **How will you get to your destination** (the place listed in Question #5) **once you get off the LAST bus or train you are using for this one-way trip?**
   - O Walk - **how many blocks did you walk?** ______blocks
   - O Bike
   - O Wheelchair/scooter
   - O Be picked up by someone **–answer 8a**
   - O Get in a parked vehicle & drive alone**–answer 8a**
   - O Get in a parked vehicle & drive/ride with others**–answer 8a**
   - O Other: ______________________________

8a. **Where will you get picked-up or get your vehicle?**
Write the nearest intersection/park-n-ride lot below:

____

THIS BUS

9. **Approximately what time did you board this bus?** Hour/Minute: _____ am / pm

10. **Where did you get ON this bus?**
    Please provide the nearest intersection/park-and-ride:____

11. **Where will you get OFF this bus?**
    Please provide the nearest intersection/park-and-ride:____

TRANSFERS

(answer the following based on your current one-way trip between the places listed in Questions 1 and 5 above)

12. **How many bus transfers did you make BEFORE you boarded this bus since leaving the place you are COMING FROM (in Question 1)?**
    Onone Oone Otwo Othree +

    12a.[if you made 1 or more transfers] Which route did you board FIRST on this one-way trip? ______________

    12b. [if you made 2 or more transfers] Which route did you board SECOND on this one-way trip? ____________

    12c. [if you made 3 or more transfers] Which route did you board THIRD on this one-way trip? ______________

13. **How many bus transfers will you make AFTER you get off this bus on your way to the place you are GOING TO (in Question 5)?**
    Onone Oone Otwo Othree +

    13a. [if you will make 1 or more transfers] Which route will you board NEXT on this one-way trip? ____________

    13b. [if you will make 2 or more transfers] Which route will you board AFTER THAT on this one-way trip? ________

    13c. [if you will make 3 or more transfers] Which route will you board LAST on this one-way trip? ____________

14. How many other persons are traveling with you on this trip from the place you are COMING FROM (in Question 1) to the place you are GOING TO (in Question 5)? _______ people

14a. [If #14 is more than "0"] How many of these people are members of your household? ______people

15. How many days per week do you usually make the exact same trip?

○ One day ○ Two days ○ Three days ○ Four or more

16 Why did you choose this mode of transportation?

○ Less stressful ○ Reliable ○ No parking available at destination ○ Free to ride
○ Environmental friendly ○ Safe to ride ○ Saves money ○ Convenient

17. What do you hope to see regarding CyRide bus system in the future? (Check all that may apply)

○ Improved transit shelters/stops ○ Improved social media information
○ Service to new areas ○ Improved fare options/prices
○ Improved on-time performance ○ Cleaner buses
○ Improved customer service ○ Service time/frequency ○ Other: ________________________

OTHER IMPORTANT ITEMS

18. How did you pay for your trip today?
○ Cash Fare ○ Ticket ○ Pass ○ Free/Student ID

19. Did you receive any of the following special fare discounts for your trip today? (check one)
○ None ○ Disability ○ Senior (65+) ○ Medicare/Medicaid ○ K-12 Students ○ Other: ____________________

20. Are you living in Ames? ○Yes ○No

21. How many WORKING vehicles (cars, trucks, or motorcycles) are available to your household?
○ None ○ One ○ Two ○ Three ○ Four or more

21a. [If #21 is more than NONE] Could you have used one of these vehicles to complete this trip? ○ Yes ○ No

22. Including YOU, how many people live in your household? _______ people

23. Are you:(check the one response that BEST describes you)
○ Employed full-time ○ Employed part-time
○ Not currently employed but seeking work ○ Retired
○ Not currently employed and not seeking work ○ Homemaker

24. Are you a student?(check the one response that BEST describes you)
○ Not a student ○ Yes – Full Time college/university (specify institution's name): _______________________
○ Yes – student thru 12th grade ○ Yes – Part Time college/university (specify institution's name): _______________________
○ Yes – other (specify institution's name): ______________________________________

25. Do you have a valid driver's license? ○ Yes ○ No

26. What is your AGE? ○ Under 16 ○ 16-17 ○ 18-24 ○ 25-34 ○ 35-49 ○ 50-64 ○ 65-74 ○ 75+

27. What is your gender? ○ Male ○ Female

28. Which of the following categories BEST describes your TOTAL ANNUAL HOUSEHOLD INCOME in 2013 before taxes?
○ Less than $5,000 ○ $10,000-$19,999 ○ $30,000-$49,999 ○ $60,000 - $74,999 ○ $100,000 - $149,999
○ $5,000 - $9,999 ○ $20,000-$29,999 ○ $50,000-$59,999 ○ $75,000 - $99,999 ○ $150,000+

29. Which of the following describe you? (check all that apply)
○ Black/African American ○ White ○ Hispanic ○ Asian
○ American Indian/Alaska Native ○ Native Hawaiin/Other Pacific Islander ○ Other

REGISTER TO WIN $100

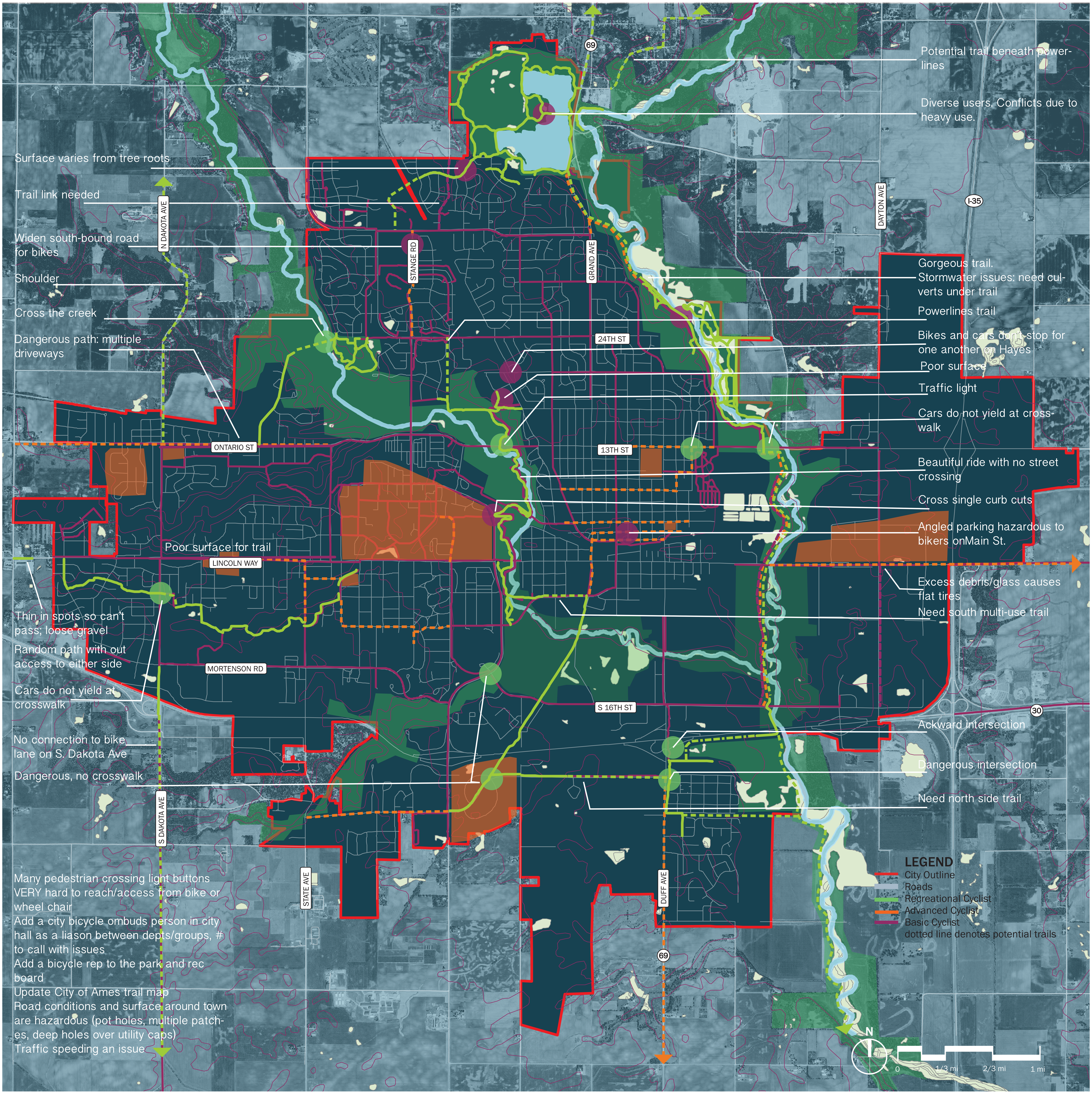
People who submit an accurately completed survey will be entered in a random drawing for one of FIVE $100 cash prizes.
You must provide your home address at the beginning of the survey to be eligible.

Your Name: ______________________________ **Phone Number**: (_____) __________________

Thank you for your help!

Appendix C

Healthiest Ames and Community Design Lab Documentation



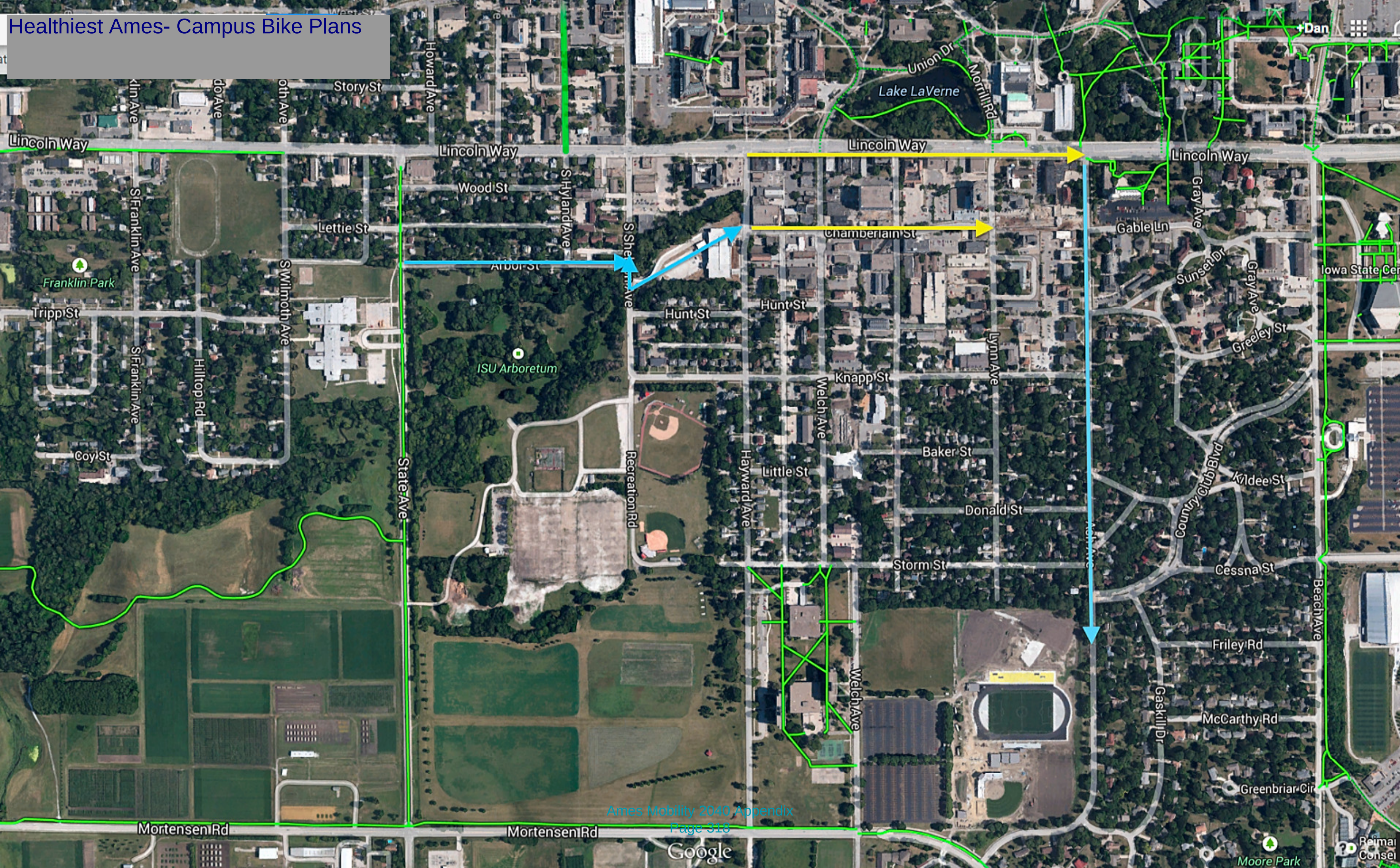
AMES

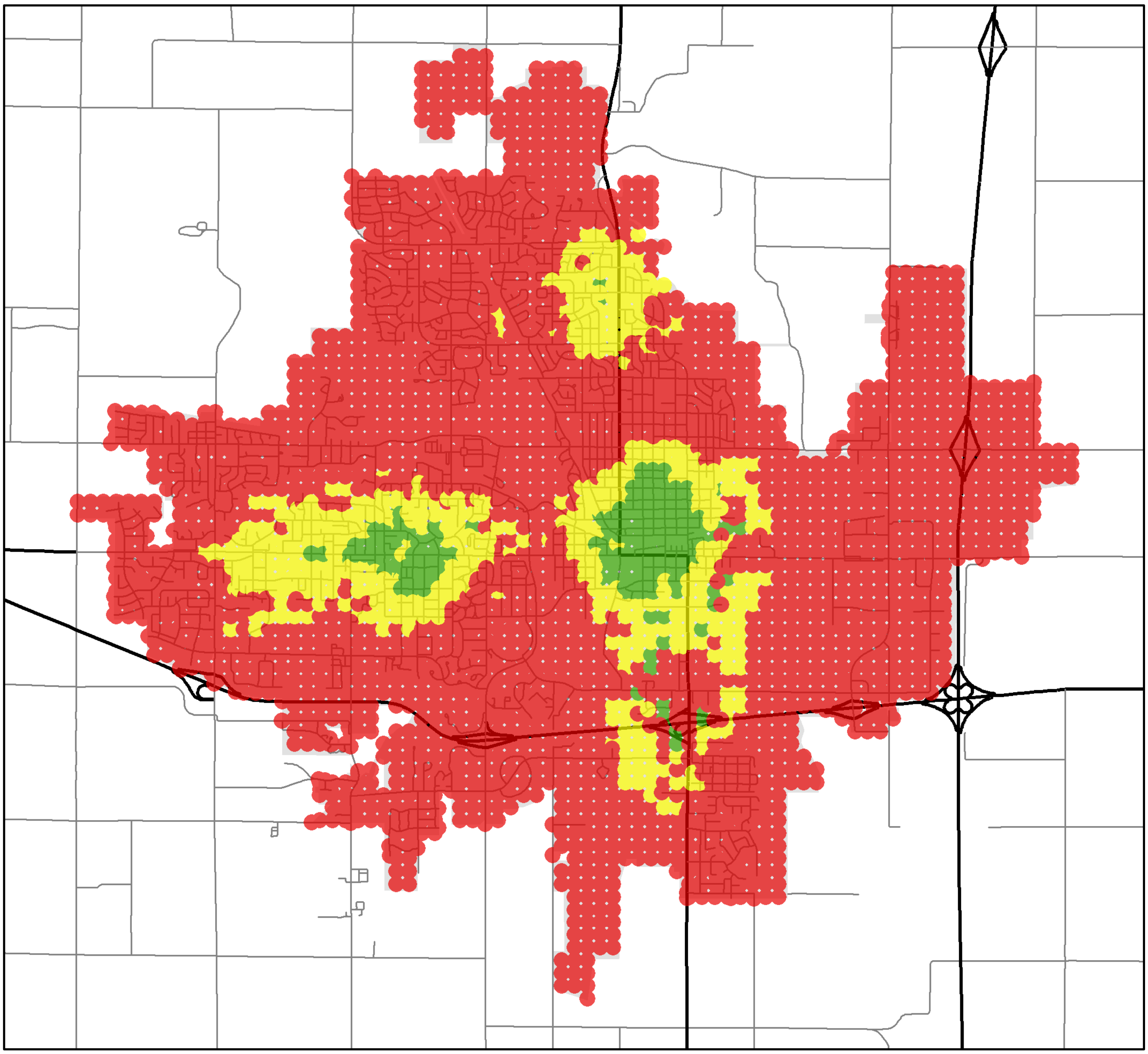
BIKE TRAILS

ISU Community Design Lab

FALL 2014

Healthiest Ames- Campus Bike Plans



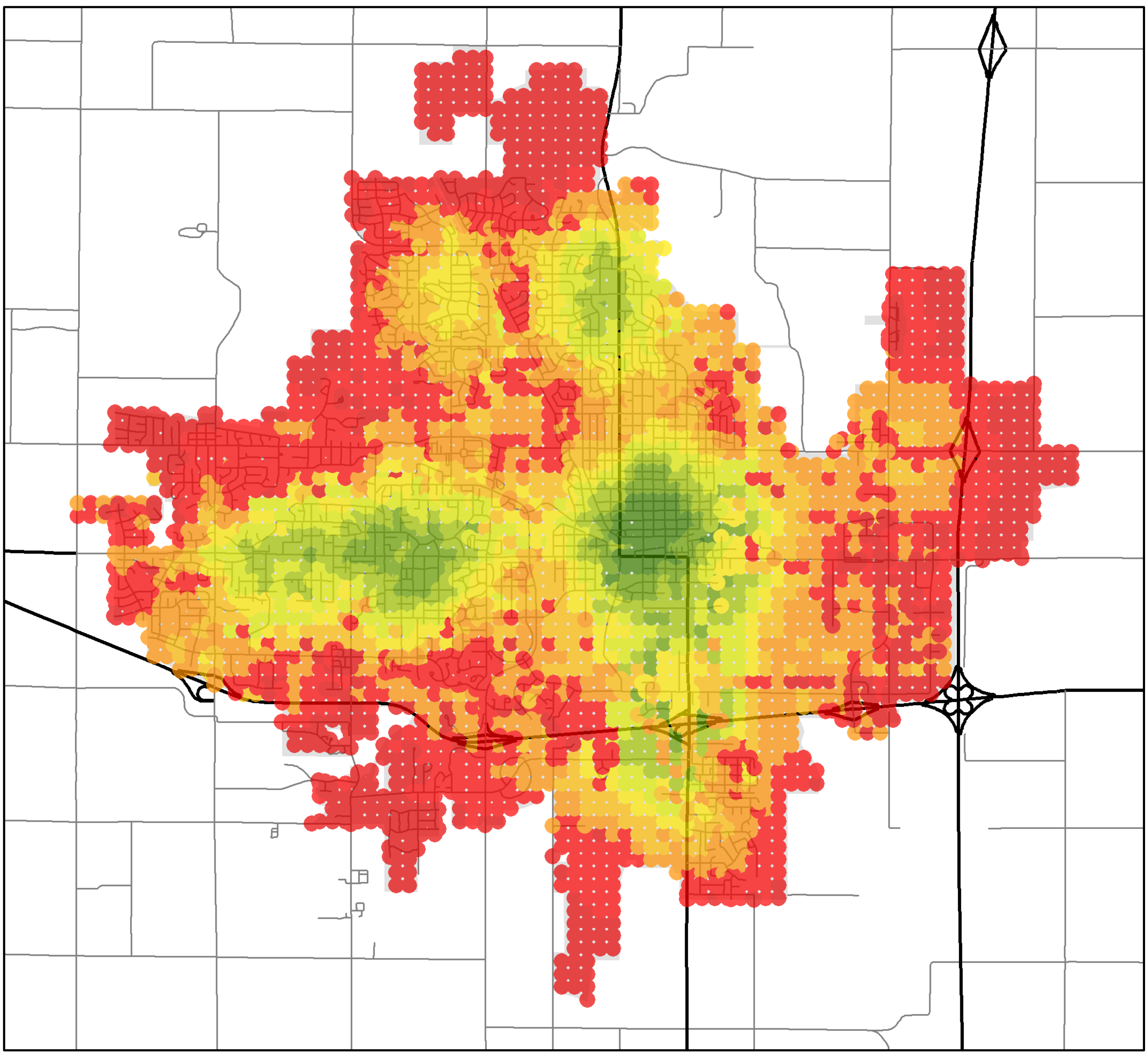


Iowa State University Extension & Outreach
Extension Community Economic Development
Contact: Chris Seeger cjseeger@iastate.edu
March 2015

Walk Score

- Car-Dependent
- Somewhat Walkable
- Very Walkable

0 0.5 1 2 Miles



N W E S

Iowa State University Extension & Outreach
Extension Community Economic Development
Contact: Chris Seeger cjseeger@iastate.edu
March 2015

0 0.5 1 2 Miles

Walk Score

- 0 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 50
- 51 - 60
- 61 - 70
- 71 - 80
- 81 - 90
- 91 - 100

Appendix D

Ames Travel Demand Model Documentation

Ames Area MPO Travel Demand Model

Model Development, Validation, & User Guide

October 2015

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List of Figures & Tables

CHAPTER:1 EXECUTIVE SUMMARY

Process Overview

The Ames Area MPO (AAMPO) provides a regional forum to ensure coordination between the public and local, state, and federal agencies in regard to planning issues and to prepare transportation plans and programs. The main responsibilities of the MPO is to develop both long and short-range multi-modal transportation plans from which projects are selected and approved for federal funding based upon regional priorities and public input.

The AAMPO travel model is used to analyze the highway transportation system of the metropolitan planning area. The primary purpose of the travel model is to support the development of the MPO's long-range transportation plan. The travel model can also be used to test specific land use or roadway changes in the short-term or long-term. The model has a base year of 2010, interim years of 2015, 2020, 2025, 2030, 2035, and a horizon year of 2040, and is an update of the previous version of the model that was developed with a 2007 base year.

The AAMPO travel model is based on the traditional four-step modeling process and is documented in the flow chart on the following page. A number of new components have been added to this travel model update, including a transit component, a university sub-model, a truck sub-model, and a time-of-day (TOD) component.

The transit component is based on a full mode split step that simulates transit ridership flow on the CyRide transit network. A multinomial logit model is used to split trips among three modes: Auto, Walk-to-Transit, and Drive-to-Transit.

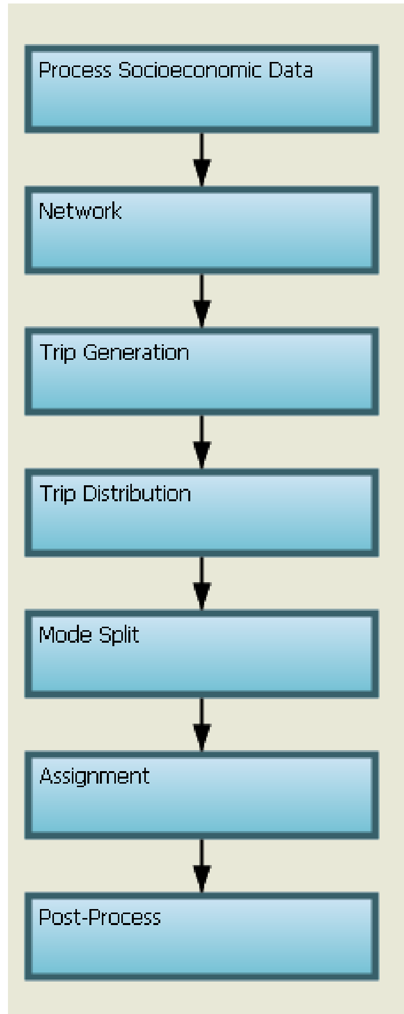
Essential to accurately modeling transit ridership flows in a college town is accurately predicting university student travel, therefore, a university student sub-model for Iowa State University (ISU) was developed.

Other new components include a time-of-day (TOD) component that is used to split traffic flow into four distinct time periods (am peak, mid-day, pm peak, and off-peak) and a truck sub-model based on procedures from the Quick Response Freight Manual (QRFM) to model single-unit and combination trucks.

The model includes procedures to post process the volumes and provides updated Level of Service (LOS), Vehicles Miles of Travel (VMT), and Vehicle Hours of Travel (VHT). The model run process has been automated using the TransCAD programming language GISDK.

This document provides detailed information about the processes and parameters contained in the AAMPO travel model. This report documents the various model inputs by model step: Trip Generation, Trip Distribution, Mode Split and Traffic Assignment. Base year model validation and calibration methods associated with each of the model steps are discussed in the corresponding chapters. The User's Guide, in the final chapter, provides detailed information about how to establish scenarios and run the model within the TransCAD modeling software.

Figure 1.1: AAMPO Travel Demand Model Process Flow Chart



Process Socioeconomic Data

Summary: Update employment and household data based on the user-specified year to prepare TAZs for trip generation.
Input: Traffic Analysis Zones (TAZs)
Output: Processed employment data in the TAZs

Network

Summary: Update the network parameters and create a network based on user-specified input using the master network approach.
Inputs: Highway Network and TAZs
Output: Highway network file and shortest path matrix

Trip Generation

Summary: Determine the number of auto and truck trip ends by TAZ based on socioeconomic data for households (students and non-students) and businesses.
Inputs: Socioeconomic data (employment, household, & population) and external travel data
Output: Production and Attraction trips ends for four automobile trip purposes and two truck trip purposes.

Trip Distribution

Summary: Match production and attraction trip ends to determine complete trips and split trips into directionally factored time periods.
Inputs: Production and Attraction Trip Ends and Network Skims (Shortest Path Matrix)
Output: Gravity Model output for four auto trip purposes and two truck trip purposes.

Mode Split

Summary: Split person trips into three distinct modes and assign transit trips to the Transit Routes layer.
Inputs: Gravity Model output, Transit Routes, Road Network
Output: Assigned transit ridership to Transit Routes

Assignment

Summary: Assign remaining auto trips to Road Network.
Inputs: Final Auto and Truck Trip Tables, Roadway Network, and Volume Delay Parameters
Output: Assigned traffic on the roadway network

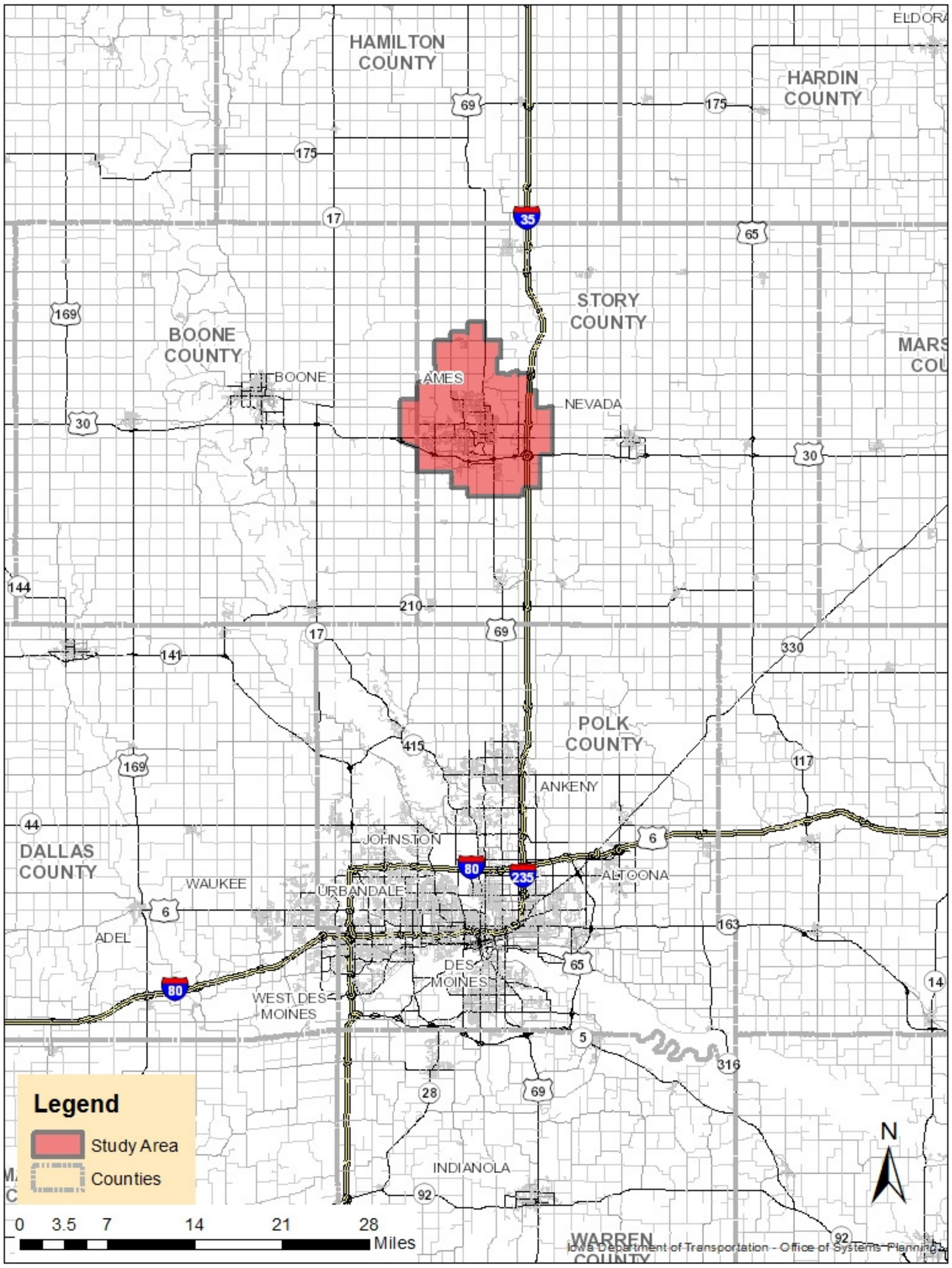
Post Process

Summary: Updates output auto and truck to the highway network file and processes flow adjustments if necessary. VMT, VHT, volume-to-capacity (V/C) ratio, and level-of-service (LOS) are updated based on the adjusted and unadjusted model volumes.
Input: Highway network file and output traffic assignment tables

CHAPTER:2 Ames Area Metropolitan Planning Organization

The Ames Area Metropolitan Planning Organization (AAMPO) is located in central Iowa, north of Des Moines near the junction of Interstate 35 and US Highway 30, and along the Union Pacific railroad. The planning area includes the City of Ames, IA, the City of Gilbert, IA, and portions of unincorporated Story and Boone counties (Figure 2.1). The total population of the model area was 63,040 in 2010.

Figure 2.1: AAMPO Location Map in Central Iowa



One of the most distinguishing features of the AAMPO planning area is the presence of Iowa State University (ISU). With an enrollment of over 27,000 and almost 13,000 full-time-equivalent employees in 2010, Ames is a true college town. Additionally, ISU has been growing very rapidly in the last several years, with enrollment reaching nearly 35,000 by the fall of 2014. Since the University and the City are intimately connected, this growth has naturally spread to the rest of Ames as well. While this growth is not reflected in the 2010 base year version of the travel model, the growth is shown in the forecast year versions of the model.

Table 2.1: Major Employers in Ames, Iowa[1]

Employer Name	Employment Size
Iowa State University	Over 10,000
Iowa Department of Transportation	2,000-5,000
Mary Greeley Medical Center	1,000-2,000
McFarland Clinic PC	1,000-2,000
Sauer-Danfoss	1,000-2,000
Ames Community Schools	500-1,000
Ames Laboratories	500-1,000
City of Ames	500-1,000

CyRide, the local bus system, is a collaboration between the City of Ames, Iowa State University, and the University's Government of the Student Body[2]. CyRide operates 12 fixed routes throughout the City and totaled over 6.6 million passengers in FY 2014. Growth in ridership numbers has steadily increased as ISU enrollment and Ames City population has increased.

The other community within the AAMPO planning area, City of Gilbert, is a smaller town with a population of just over 1,000 in 2010. One unique feature within the City of Gilbert is the presence of a new high school that was built to accommodate the growth in population on the north side of the City of Ames. All households north of Bloomington Road in the City of Ames are part of the Gilbert School District and are expected to be one of the locations with the largest amount of growth in the AAMPO area.

The majority of the area surrounding the AAMPO planning area is rural. However, just south of Ames along Interstate 35 is the Des Moines metropolitan area (2010 metro population of nearly 570,000), which includes the quickly growing town of Ankeny at the northern outskirts. This creates a significant and growing number of trips between Ames and the Des Moines metropolitan area, particularly on Interstate 35. In addition to the Des Moines metropolitan area, there are other surrounding communities, such as the City of Boone (2010 pop. of 12,661), City of Huxley (2010 pop. of 3,317), and the City of Nevada (6,798) which also have an impact on trip making to and from the AAMPO study area.

[1] Major Employers. (n.d.). Retrieved from http://www.ameschamber.com/en/the_ames_community/major_employers/
[2] About CyRide. (n.d.). Retrieved from http://www.cyride.com/index.aspx?page=23

CHAPTER:3 ROADWAY NETWORK

Context and Background

The roadway network contains input information for use in the travel demand model (TDM) and represents real-world conditions for the 2010 base year. The roadway network is used to distribute and route automobile and commercial truck trips. The highway network file in TransCAD was developed and is managed using Geographic Information System (GIS) data and methods. The AAMPO roadway network is based on the Iowa DOT Geographic Information Management System (GIMS), which includes the Department's road centerline inventory. This information includes various highway attribute information including traffic counts, roadway functional class, speeds, and number of lanes. With the GIMS information established, it is possible to perform system analysis and derive vehicle miles of travel, congestion delay, level of service, and other performance criteria. The information presented in this chapter provides an explanation of the network attributes and lookup tables for the roadway networks.

The roadway network is based on a master network approach, encompassing current and planned roads. Due to this structure, it is possible to conduct scenario model runs for existing, committed, planned, and illustrative roadway segments. These parameters can be specified by the user in the Scenario Toolbox in TransCAD.

Roadway Network Development

The network development process began with the previous iteration of the model's network. Additional segments were manually added to accommodate the growth of AAMPO since 2007. Additionally, the MPO boundaries expanded to accommodate the City of Gilbert just north of the City of Ames (Figure 3.1).

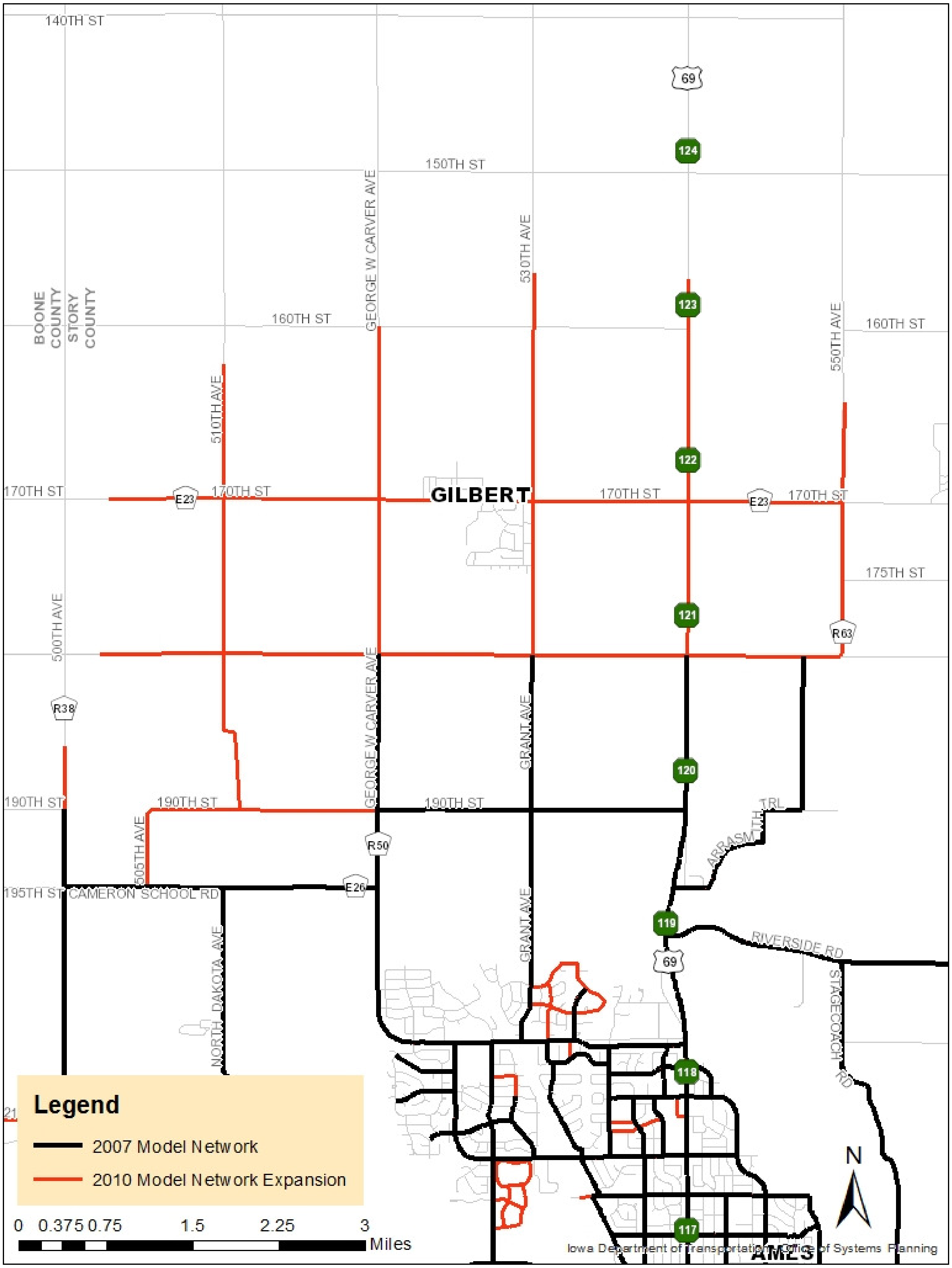
Newly constructed roads were added to the network based on input received from the City of Ames. Links were also added that accommodate bus routes where a road segment did not already exist. Lastly, committed, planned, and illustrative road projects were coded into the network using the master network approach. Numerous attribute fields were vetted and updated.

Centroid Connectors

At this level of traffic modeling (system-wide or macroscopic), centroid connectors are used and represent local streets. The centroid of a TAZ establishes the center of activity for an area where there is demand for travel (households and businesses). Centroid connectors represent the general travel in the TAZs, feed traffic to higher functionally classified roads, and connect the centroids to the network.

The previous iteration of the model was used as the starting point for the centroid connector locations. These were then adjusted as needed to ensure the centroid was located at the center of zonal activity and all centroid connectors were located where local streets access the roadway model network at the TAZ boundary. New connectors were manually added to accommodate new TAZs.

Figure 3.1 – Roadway Expansion to Gilbert



Turn Penalties

There are two primary types of turn penalties that can be included in the network, localized (site specific) and global. Localized turn penalties or prohibitions limit or prohibit traffic movements at specific locations. Global turn penalties represent the increased amount of time required to make a left or right turn for the study area and not just individual locations. The AAMPO travel model does not utilize global U-turn penalties but does prohibit selected movements in the roadway network such as left turns at a right-in-right-out access or to ensure traffic is routed on the appropriate interchange ramp or loop.

Roadway Network Structure

The AAMPO roadway network structure was designed to be a flexible data warehouse and to host input and output data required by the travel model. This section describes the network file architecture and defines attributes that are populated within the network.

Roadway Network Attributes

The roadway network file contains travel model input data and serves as a warehouse for final (e.g., traffic volumes) model data. Attribute fields used as input into the GIS Developer's Kit (GISDK) script are signified with all capital letters. Output results that are calculated by the GISDK script have field headings that have lower case letters.

Output results are automatically post-processed onto the roadway network for the base year 2010 and horizon year 2040. When running the model for interim years, the results are stored in the Assignment output folder and can be joined to the network for manual post-processing. This was done to reduce clutter in the network attributes.

Master Network Structure

The AAMPO roadway network is designed to store roadway data representing multiple years in one consolidated network layer utilizing the master network approach. Roadway segments are coded as existing, committed, planned, or illustrative. With the master network approach, the roadway network includes various project alternatives for scenario analysis such as roadway widening, realignments, and new facilities that are not tied to a specific network year. These alternatives can be activated or deactivated individually or in groups, regardless of the network year that has been selected.

Network Attribute List

The tables on the following pages summarize the input and output roadway network attributes for both links and nodes. In addition to link attributes, several attributes are required on the node layer of the roadway network file.

Table 3.1: Network Link Field Summary

Field Name	Data Type	Width	Decimal	Description
ID	Integer (4 bytes)	10	0	TransCAD Assigned
Length	Real (8 bytes)	10	2	TransCAD Assigned
Dir	Integer (2 bytes)	2	0	Direction of the segment. 0 = two-way traveled segment, 1 or -1 = a one way segment. Travel on a segment from the A node to B node is coded 1. If a segment is topologically drawn A to B but travel must route B to A, code a value of -1. TransCAD defaults to zero but the values can be adjusted as needed
NINEONEONE	Character	25	0	The name used by the 911 system to identify that road. On municipal roads, this is the name of the street as shown on street signs or on the city map as inventoried by municipal crews. On institutional roads, the name of the institution is used in this field. On secondary roads, E911 road names.
LINK_TYPE	Integer (4 bytes)	5	0	Classification type given to each link. 0 = Standard Link; 1 = Connector; 2 = External Station
BUILT_STATUS	Integer (4 bytes)	8	0	Built Status of the Road. 0 = Existing; 1 = Committed, 2 = Planned; 3 = Illustrative
FEDFUNC	Integer (4 bytes)	8	0	Federal Functional Classification (FFC) of the road segment
URBANAREA	Integer (4 bytes)	8	0	0 = not in AAMPO MPA boundary; 1 = inside of AAMPO MPA boundary
TYPEAREA	Integer (4 bytes)	10	0	This field indicates the type of area in which the municipal or urban road segments are located. This is applicable for all road systems. 0 = Not Applicable; 1 = Central Business District; 2 = Fringe Business District; 3 = Outlying Business District; 4 = Residential Area; 5 = Rural Area
GRAVEL	Integer (4 bytes)	5	0	0 = Not Gravel ; 1 = Gravel Road
RR_XING	Integer (4 bytes)	5	0	1 = at-grade crossing on road segment; 0 = no at-grade crossing on road segment
Alpha	Real (8 bytes)	10	2	Alpha parameter used in the Volume Delay Function (VDF) during Traffic Assignment

Field Name	Data Type	Width	Decimal	Description
Beta	Real (8 bytes)	10	2	Beta parameter used in the Volume Delay Function (VDF) during Traffic Assignment
POSTED_SPEED	Integer (4 bytes)	8	0	The posted MPH for the road segment.
Limitmph	Integer (4 bytes)	8	0	The model calculated calibrated speed limit
LIMITMPH_EXIST	Integer (4 bytes)	8	0	The model calibrated speed limit for the existing road network
LIMITMPH_COMM	Integer (4 bytes)	8	0	The model calibrated speed limit for the committed road network
LIMITMPH_PLAN	Integer (4 bytes)	8	0	The model calibrated speed limit for the planned road network
LIMITMPH_ILLUS	Integer (4 bytes)	8	0	The model calibrated speed limit for the illustrative road network
Speed_Conversion	Real (8 bytes)	5	3	A model calculated speed conversion based on the Facility Code
Adj_Limitmph	Real (8 bytes)	8	2	The model calculated adjusted speed limit after the speed conversion
Travel_Time	Real (8 bytes)	10	3	Travel Time based on adjusted speed limit.
Max_TT_avg	Real (8 bytes)	10	3	Model calculated congested travel time average of the four time periods
Facility_Code	Integer (4 bytes)	8	0	The facility code based on area type and federal functional classification
FACILITY_CODE_EXIST	Integer (4 bytes)	8	0	The facility code based on area type and federal functional classification for the existing network
FACILITY_CODE_COMM	Integer (4 bytes)	8	0	The facility code based on area type and federal functional classification for the committed network
FACILITY_CODE_PLAN	Integer (4 bytes)	8	0	The facility code based on area type and federal functional classification for the planned network
FACILITY_CODE_ILLUS	Integer (4 bytes)	8	0	The facility code based on area type and federal functional classification for the illustrative network

Field Name	Data Type	Width	Decimal	Description
---------------	Character	1	0	
AB_Lanes	Real (8 bytes)	10	2	The model calculated number of AB directional lanes. (AB_LANES + (LEFT_TURN * .25) + (CENTER_TURN * .25))
BA_Lanes	Real (8 bytes)	10	2	The model calculated number of BA directional lanes. (BA_LANES + (LEFT_TURN * .25) + (CENTER_TURN * .25))
THRU_LANES_EXIST	Integer (4 bytes)	8	0	Number of Through Lanes in existing network
LEFT_TURN_EXIST	Integer (4 bytes)	8	0	Number of Left-turn lanes in existing network
RIGHT_TURN_EXIST	Integer (4 bytes)	8	0	Number of Right-turn lanes in existing network
CENTER_TURN_EXIST	Integer (4 bytes)	8	0	Number of Center-turn lanes in existing network
LEFT_TURN_COMM	Integer (4 bytes)	8	0	Number of Left-turn lanes in committed network
CENTER_TURN_COMM	Integer (4 bytes)	8	0	Number of Center-turn lanes in committed network
LEFT_TURN_PLAN	Integer (4 bytes)	8	0	Number of Left-turn lanes in planned network
CENTER_TURN_PLAN	Integer (4 bytes)	8	0	Number of Center-turn lanes in planned network
LEFT_TURN_ILLUS	Integer (4 bytes)	8	0	Number of Left-turn lanes in illustrative network
CENTER_TURN_ILLUS	Integer (4 bytes)	8	0	Number of Center-turn lanes in illustrative network
AB_LANES_EXIST	Real (8 bytes)	10	2	Number of lanes in the AB Direction in the existing network
BA_LANES_EXIST	Real (8 bytes)	10	2	Number of lanes in the BA Direction in the existing network
AB_LANES_COMM	Real (8 bytes)	10	2	Number of lanes in the AB Direction in the committed network

Field Name	Data Type	Width	Decimal	Description
BA_LANES_COMM	Real (8 bytes)	10	2	Number of lanes in the BA Direction in the committed network
AB_LANES_PLAN	Real (8 bytes)	10	2	Number of lanes in the AB Direction in the planned network
BA_LANES_PLAN	Real (8 bytes)	10	2	Number of lanes in the BA Direction in the planned network
AB_LANES_ILLUS	Real (8 bytes)	10	2	Number of lanes in the AB Direction in the illustrative network
BA_LANES_ILLUS	Real (8 bytes)	10	2	Number of lanes in the BA Direction in the illustrative network
----------------	Character	1	0	
WALK_LINK	Integer (4 bytes)	8	0	0 = drivable but not walkable; 1 = walkable and drivable; 2 = only walkable with no access to vehicles
Walk_Time	Real (8 bytes)	8	3	Model calculated walk time based on 3 mph walk speed. If WALK_LINK >= 1 then (Length/3)*60
Transit_Time	Real (8 bytes)	8	3	Model calculated transit travel time based on 15 mph average travel time. (Length/15)*60
---------	Character	1	0	
SHORT_TERM_COUNT	Integer (4 bytes)	8	0	Actual Count locations of short term traffic recorders (2011) AADT (These are the counts in rectangles on the City Maps)
MANUAL_TRAFFIC_COUNT	Integer (4 bytes)	8	0	Manual Traffic Count locations from 2011 (These are the counts in ovals on the City Maps)
TM_COUNT_SL	Integer (4 bytes)	8	0	Turning Movement count coming through this segment and then turning left 2011
TM_COUNT_ST	Integer (4 bytes)	8	0	Turning Movement count coming through this segment and then going straight through 2011
TM_COUNT_SR	Integer (4 bytes)	8	0	Turning Movement count coming through this segment and then turning right 2011
TM_COUNT_L	Integer (4 bytes)	8	0	Turning Movement count turning left onto this segment 2011

Field Name	Data Type	Width	Decimal	Description
TM_COUNT_T	Integer (4 bytes)	8	0	Turning Movement count going straight through intersection and coming onto this segment 2011
TM_COUNT_R	Integer (4 bytes)	8	0	Turning Movement count turning right onto this segment 2011
GIMS_AADT_2011	Integer (4 bytes)	8	0	GIMS estimated AADT 2011
GIMS_SU_2011	Integer (4 bytes)	8	0	GIMS estimated single unit truck count 2011
GIMS_COMBO_2011	Integer (4 bytes)	8	0	GIMS estimated combination truck count 2011
GIMS_Truck_2010	Integer (4 bytes)	8	0	GIMS_SU_2011 + GIMS_COMBO_2011
ISM_AADT_2010	Integer (4 bytes)	8	0	Interstate Strip Map AADT 2010
ISM_SU_2010	Integer (4 bytes)	8	0	Interstate Strip Map single unit truck count 2010
ISM_COMBO_2010	Integer (4 bytes)	8	0	Interstate Strip Map combination truck count 2010
TRAF_BOOK_SU	Integer (4 bytes)	8	0	Traffic Book single unit truck count (2011)
TRAF_BOOK_COMBO	Integer (4 bytes)	8	0	Traffic Book combination truck count (2011)
TRAF_BOOK_AADT	Integer (4 bytes)	8	0	Traffic Book AADT (2011)
ACTUAL_COUNT	Integer (4 bytes)	8	0	Real counts for model validation use. This is a combination of other fields to use as many actual counts as possible for validation and calibration
------------------------------	Character	1	0	
AB_Hourly_Lanecap	Integer (4 bytes)	8	0	Hourly capacity per lane in AB direction based on Facility_Code
BA_Hourly_Lanecap	Integer (4 bytes)	8	0	Hourly capacity per lane in BA direction based on Facility_Code

Field Name	Data Type	Width	Decimal	Description
AB_Hourly_Linkcap	Integer (4 bytes)	8	0	Hourly capacity per link in AB direction based on Facility_Code
BA_Hourly_Linkcap	Integer (4 bytes)	8	0	Hourly capacity per link in BA direction based on Facility_Code
Tot_Hourly_Linkcap	Integer (4 bytes)	8	0	Hourly capacity per link based on Facility_Code
am_AB_Linkcap	Integer (4 bytes)	8	0	AM capacity per link in AB direction based on Facility_Code
am_BA_Linkcap	Integer (4 bytes)	8	0	AM capacity per link in BA direction based on Facility_Code
am_Tot_Linkcap	Integer (4 bytes)	8	0	AM capacity in AB direction based on Facility_Code
md_AB_Linkcap	Integer (4 bytes)	8	0	Mid-day capacity per link in AB direction based on Facility_Code
md_BA_Linkcap	Integer (4 bytes)	8	0	Mid-day capacity per link in BA direction based on Facility_Code
md_Tot_Linkcap	Integer (4 bytes)	8	0	Mid-day capacity in AB direction based on Facility_Code
pm_AB_Linkcap	Integer (4 bytes)	8	0	PM capacity per link in AB direction based on Facility_Code
pm_BA_Linkcap	Integer (4 bytes)	8	0	PM capacity per link in BA direction based on Facility_Code
pm_TOT_Linkcap	Integer (4 bytes)	8	0	PM capacity in AB direction based on Facility_Code
op_AB_Linkcap	Integer (4 bytes)	8	0	Off peak capacity per link in AB direction based on Facility_Code
op_BA_Linkcap	Integer (4 bytes)	8	0	Off peak capacity per link in BA direction based on Facility_Code
op_Tot_Linkcap	Integer (4 bytes)	8	0	Off peak capacity in AB direction based on Facility_Code
---------------------------	Character	1	0	

Field Name	Data Type	Width	Decimal	Description
Tot_Flow_2010	Integer (4 bytes)	8	0	2010 Model total flow
AB_Flow_2010	Integer (4 bytes)	8	0	2010 Model AB flow
BA_Flow_2010	Integer (4 bytes)	8	0	2010 Model BA flow
Auto_Flow_2010	Integer (4 bytes)	8	0	2010 Model auto flow
AB_Auto_Flow_2010	Integer (4 bytes)	8	0	2010 Model AB auto flow
BA_Auto_Flow_2010	Integer (4 bytes)	8	0	2010 Model BA Auto flow
SU_Flow_2010	Integer (4 bytes)	8	0	2010 Model single unit truck flow
AB_SU_Flow_2010	Integer (4 bytes)	8	0	2010 Model AB single unit truck flow
BA_SU_Flow_2010	Integer (4 bytes)	8	0	2010 Model BA single unit truck flow
COMBO_Flow_2010	Integer (4 bytes)	8	0	2010 Model combination truck flow
AB_COMBO_Flow_2010	Integer (4 bytes)	8	0	2010 Model AB combination truck flow
BA_COMBO_Flow_2010	Integer (4 bytes)	8	0	2010 Model BA combination truck flow
Truck_Flow_2010	Integer (4 bytes)	8	0	2010 Model total truck flow
Flow_VMT_2010	Integer (4 bytes)	8	0	2010 Model vehicle miles traveled
Count_VMT_2010	Integer (4 bytes)	8	0	GIMS-based vehicle miles traveled for 2010
Flow_VHT_2010	Integer (4 bytes)	8	0	2010 Model vehicle hours traveled

Field Name	Data Type	Width	Decimal	Description
Count_VHT_2010	Integer (4 bytes)	8	0	GIMS-based vehicle hours traveled for 2010
am_VOC_2010	Real (8 bytes)	5	3	2010 Volume:Capacity ratio for AM time period
md_VOC_2010	Real (8 bytes)	5	3	2010 Volume:Capacity ratio for mid-day time period
pm_VOC_2010	Real (8 bytes)	5	3	2010 Volume:Capacity ratio for PM time period
op_VOC_2010	Real (8 bytes)	5	3	2010 Volume:Capacity ratio for off-peak time period
am_LOS_2010	Character	3	0	2010 level-of-service for AM time period
md_LOS_2010	Character	3	0	2010 level-of-service for mid-day time period
pm_LOS_2010	Character	3	0	2010 level-of-service for PM time period
op_LOS_2010	Character	3	0	2010 level-of-service for off-peak time period
am_Flow_2010	Real (8 bytes)	10	2	Flow for the am time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
md_Flow_2010	Real (8 bytes)	10	2	Flow for the mid-day time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
pm_Flow_2010	Real (8 bytes)	10	2	Flow for the pm time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
op_Flow_2010	Real (8 bytes)	10	2	Flow for the off-peak time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
-------------------------	Character	1	0	
Tot_Flow_2040	Integer (4 bytes)	8	0	2040 Model total flow
Adj_Flow_2040	Integer (4 bytes)	8	0	2040 Model adjusted total flow
AB_Flow_2040	Integer (4 bytes)	8	0	2040 Model AB flow
BA_Flow_2040	Integer (4 bytes)	8	0	2040 Model BA flow

Field Name	Data Type	Width	Decimal	Description
Auto_Flow_2040	Integer (4 bytes)	8	0	2040 Model auto flow
AB_Auto_Flow_2040	Integer (4 bytes)	8	0	2040 Model AB auto flow
BA_Auto_Flow_2040	Integer (4 bytes)	8	0	2040 Model BA Auto flow
SU_Flow_2040	Integer (4 bytes)	8	0	2040 Model single unit truck flow
AB_SU_Flow_2040	Integer (4 bytes)	8	0	2040 Model AB single unit truck flow
BA_SU_Flow_2040	Integer (4 bytes)	8	0	2040 Model BA single unit truck flow
COMBO_Flow_2040	Integer (4 bytes)	8	0	2040 Model combination truck flow
AB_COMBO_Flow_2040	Integer (4 bytes)	8	0	2040 Model AB combination truck flow
BA_COMBO_Flow_2040	Integer (4 bytes)	8	0	2040 Model BA combination truck flow
Truck_Flow_2040	Integer (4 bytes)	8	0	2040 Model total truck flow
Flow_VMT_2040	Integer (4 bytes)	8	0	2040 Model vehicle miles traveled
Adj_Flow_VMT_2040	Integer (4 bytes)	8	0	2040 Model adjusted flow vehicle miles traveled
Flow_VHT_2040	Integer (4 bytes)	8	0	2040 Model vehicle hours traveled
Adj_Flow_VHT_2040	Integer (4 bytes)	8	0	2040 Model adjusted flow vehicle hours traveled
am_VOC_2040	Real (8 bytes)	5	3	2040 Volume:Capacity ratio for AM time period
md_VOC_2040	Real (8	5	3	2040 Volume:Capacity ratio for mid-day time period

Field Name	Data Type	Width	Decimal	Description
	bytes)			
pm_VOC_2040	Real (8 bytes)	5	3	2040 Volume:Capacity ratio for PM time period
op_VOC_2040	Real (8 bytes)	5	3	2040 Volume:Capacity ratio for off-peak time period
Adj_am_VOC_2040	Real (8 bytes)	5	3	2040 Volume:Capacity ratio for adjusted flow AM time period
Adj_md_VOC_2040	Real (8 bytes)	5	3	2040 Volume:Capacity ratio for adjusted flow mid-day time period
Adj_pm_VOC_2040	Real (8 bytes)	5	3	2040 Volume:Capacity ratio for adjusted flow PM time period
Adj_op_VOC_2040	Real (8 bytes)	5	3	2040 Volume:Capacity ratio for adjusted flow off-peak time period
am_LOS_2040	Character	3	0	2040 level-of-service for AM time period
md_LOS_2040	Character	3	0	2040 level-of-service for mid-day time period
pm_LOS_2040	Character	3	0	2040 level-of-service for PM time period
op_LOS_2040	Character	3	0	2040 level-of-service for off-peak time period
Adj_am_LOS_2040	Character	3	0	2040 level-of-service for adjusted flow AM time period
Adj_md_LOS_2040	Character	3	0	2040 level-of-service for adjusted flow mid-day time period
Adj_pm_LOS_2040	Character	3	0	2040 level-of-service for adjusted flow PM time period
Adj_op_LOS_2040	Character	3	0	2040 level-of-service for adjusted flow off-peak time period
am_Flow_2040	Integer (4 bytes)	8	0	2040 Flow for the am time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
md_Flow_2040	Integer (4 bytes)	8	0	2040 Flow for the mid-day time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
pm_Flow_2040	Integer (4 bytes)	8	0	2040 Flow for the pm time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
op_Flow_2040	Integer (4 bytes)	8	0	2040 Flow for the off-peak time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
Adj_am_Flow_2040	Integer (4	8	0	2040 Adjusted flow for the am time period (Note: The sum of all four time period

Field Name	Data Type	Width	Decimal	Description
	bytes)			flows is slightly different from the Total Flow because of rounding)
Adj_md_Flow_2040	Integer (4 bytes)	8	0	2040 Adjusted flow for the mid-day time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
Adj_pm_Flow_2040	Integer (4 bytes)	8	0	2040 Adjusted flow for the pm time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
Adj_op_Flow_2040	Integer (4 bytes)	8	0	2040 Adjusted flow for the off-peak time period (Note: The sum of all four time period flows is slightly different from the Total Flow because of rounding)
Diff_2040	Integer (4 bytes)	8	0	Difference-based 2040 forecast volume based on NCHRP 255
Ratio_2040	Integer (2 bytes)	6	0	Ratio-based 2040 forecast volume based on NCHRP 255

Table 3.2: Network Node Fields

Field Name	Type	Width	Decimal	Description
ID	Integer (4 bytes)	10	0	TransCAD Assigned
Longitude	Integer (4 bytes)	10	0	TransCAD Assigned
Latitude	Integer (4 bytes)	10	0	TransCAD Assigned
CENTROID	Integer (4 bytes)	10	0	Unique ID for the centroid's. This matches the TAZ field in TAZ file.
SPECGEN	Integer (4 bytes)	10	0	ISU central campus centroids
PNR	Integer (4 bytes)	10	0	0 = not a park and ride location; 1 = park and ride location (e.g., Iowa State Center)
NODE_TYPE	Integer (4 bytes)	10	0	Classification given for the nodes. 0 = Standard Node; 1 = Centroid; 2 = External Station
WALK_ACCESS	Integer (4 bytes)	10	0	0 = not a walk accessible centroid; 1 = walk accessible centroid
-------------	Character	1	0	
hbw_P	Real (8 bytes)	5	2	Unbalanced home-based work productions
hbw_A	Real (8 bytes)	5	2	Unbalanced home-based work attractions
hbo_P	Real (8 bytes)	5	2	Unbalanced home-based other productions
hbo_A	Real (8 bytes)	5	2	Unbalanced home-based other attractions
nhb_P	Real (8 bytes)	5	2	Unbalanced non-home based productions
nhb_A	Real (8 bytes)	5	2	Unbalanced non-home based attractions
hbu_P	Real (8 bytes)	5	2	Unbalanced home-based university productions
hbu_A	Real (8 bytes)	5	2	Unbalanced home-based university attractions
su_P	Real (8 bytes)	5	2	Unbalanced single-unit truck productions
su_A	Real (8 bytes)	5	2	Unbalanced single-unit truck attractions
combo_P	Real (8 bytes)	5	2	Unbalanced combination truck productions
combo_A	Real (8 bytes)	5	2	Unbalanced combination truck attractions

Facility Codes: Functional Classification and Area Type

The functional classification of each roadway link reflects its role in the system of streets and highways. Federal functional classification is maintained by the Iowa DOT (through coordination with the FHWA) in the GIMS and the field FEDFUNC. Generally, higher functional classification roads tend to have higher speed limits and more capacity to carry vehicles. Examples of these types of roadways are shown in Table 3.3. Figure 2 demonstrates the relationship between the Freeway, Arterial, Collector, and Local facility types.

Table 3.3: Functional Classification / Facility Code Values

FEDFUNC Code	Federal Functional Classification	Example Federal Functional Classification
1	Freeway	Interstate 35
8	Ramp	Interstate 35 ramps
3	Principal Arterial	Duff Avenue
4	Minor Arterial	South 16th Street
5-7	Collector	State Avenue

Figure 3.2: Relationship of Functionality Classified Systems in Serving Traffic Mobility and Land Access[3]

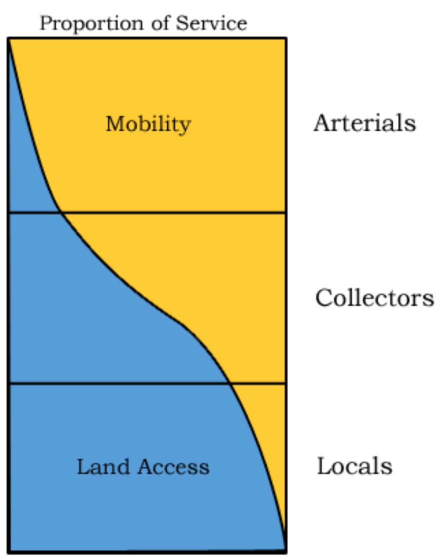


Table 3.4: Area Type

Field Code	Area Type
1-2	Central Business District (CBD), CBD fringe
3	Outlying Business District
4	Residential Area
5	Rural Area

[3] Corridor MPO 2040 Long Range Transportation Plan (Corridor Metropolitan Planning Organization, 2011)

The term "functional classification" has specific implications with regards to the administration of federal-aid highway programs; but travel model networks do not always adhere to these definitions. Therefore, area type is an attribute assigned to each roadway, and is based on the activity level and character of the area. Table 3.4 shows the areas types that were used in the AAMPO TDM.

Area Type, along with Federal Functional Classification, determine roadway speed, roadway capacity, and the volume-delay characteristics through the use of a facility code. The facility code can be changed if necessary during the model calibration and validation process. The facility code is also used to designate gravel roads and special case roads that will have lower speed limits or capacities than other roads within the same functional classification. The facility code values used in the AAMPO TDM are listed in Table 3.5. US Highway 30 functions similar to Interstate 35 in Ames, so it was given identical facility codes.

Table 2.5: Facility Code values

Federal Functional Classification	**Area Type**			
	Rural Area	Residential Area	Outlying Business District	CBD/CBD Fringe
Interstate/US Highway 30	1	2	3	4
Ramp	5	6	7	8
Principal Arterial	9	10	11	12
Minor Arterial	13	14	15	16
Collector	17	18	19	20
Gravel	21	21	21	21
Centroid Connector	22	22	22	22
Osborn Drive	23	23	23	23

- **Freeway** – A divided, restricted access facility with no direct land access and no at-grade crossings or intersections. Freeways are intended to provide the highest degree of mobility serving higher traffic volumes and longer-length trips. Freeways in the AAMPO TDM include I-35 and US Highway 30.[2]

- **Ramp** – A link that provides connections between freeways and other non-freeway roadway facilities. On freeway to non-freeway ramps, traffic usually accelerates or decelerates to or from a stop. Therefore, the free-flow speed on freeway to arterial ramps is often coded as much slower than the ramp speed limit.[2]

- **Principal Arterial**– These road facilities permit traffic flow through urban areas, within urban areas, and between major destinations. Principal arterials are of great importance in the transportation system since they provide local land access by connecting major traffic generators, such as central business districts and universities, to other major activity centers. Principal arterials carry a high proportion of the total urban travel on a minimum of roadway mileage. They typically receive priority in traffic signal systems (e.g., have a high level of coordination and receive longer green times than other facility types). Divided principal arterials have turn bays at intersections, include medians or center turn lanes, and sometimes contain grade separations and other higher-type design features. State and U.S. highways are typically designated as principal arterials unless they are classified as freeways.[2]

- **Minor Arterial** – Minor arterials collect and distribute traffic from principal arterials, freeways, and expressways to streets of lower classification and, in some cases, allow traffic to directly access destinations. They serve secondary traffic generators, such as community business centers, neighborhood shopping centers, multifamily residential areas, and traffic between neighborhoods. Access to land use activities is generally permitted, but should be consolidated, shared, or limited to larger-scale users. Minor arterials generally have slower speed limits than principal arterials, may or may not have medians and center turn lanes, and receive lower signal priority than other facility types (e.g., are only coordinated to the extent that principal arterials are not disrupted and receive shorter green times than principal arterials).[2]

- **Collector Street** – Collectors provide for land access and traffic circulation within and between residential neighborhoods and commercial and industrial areas. They distribute traffic movements from these areas to the arterial streets. Except in rural areas, collectors do not typically accommodate long through trips and are not continuous for long distances. The cross-section of a collector street may vary widely depending on the scale and density of adjacent land uses and the character of the local area. Left turn lanes sometimes occur on collector streets adjacent to nonresidential development. Collector streets should generally be limited to two lanes, but sometimes have 4-lane sections. In rural areas, major collectors act similarly to minor arterials, while rural minor collectors fit more closely with the characterizations described here.[2]

- **Centroid Connector** – These facilities represent local and/or residential street systems that are too detailed for modeling purposes. Centroid connectors are usually not coded along actual streets, but rather they are the means through which the trip and other data at the traffic analysis zone (TAZ) level are attached to the street system.[2]

Figure 3.3: Federal Functional Classification

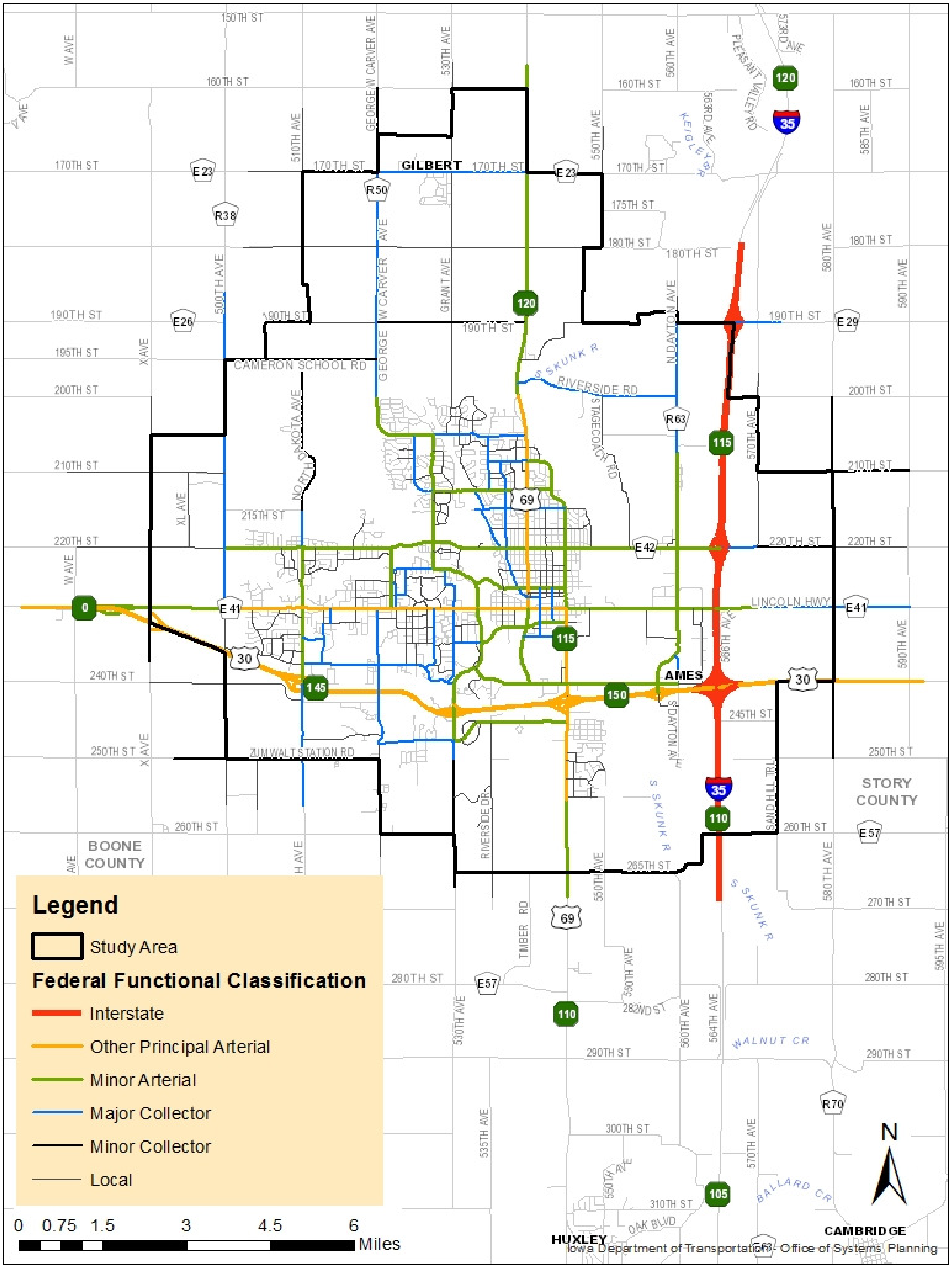


Figure 3.4: Facility Type

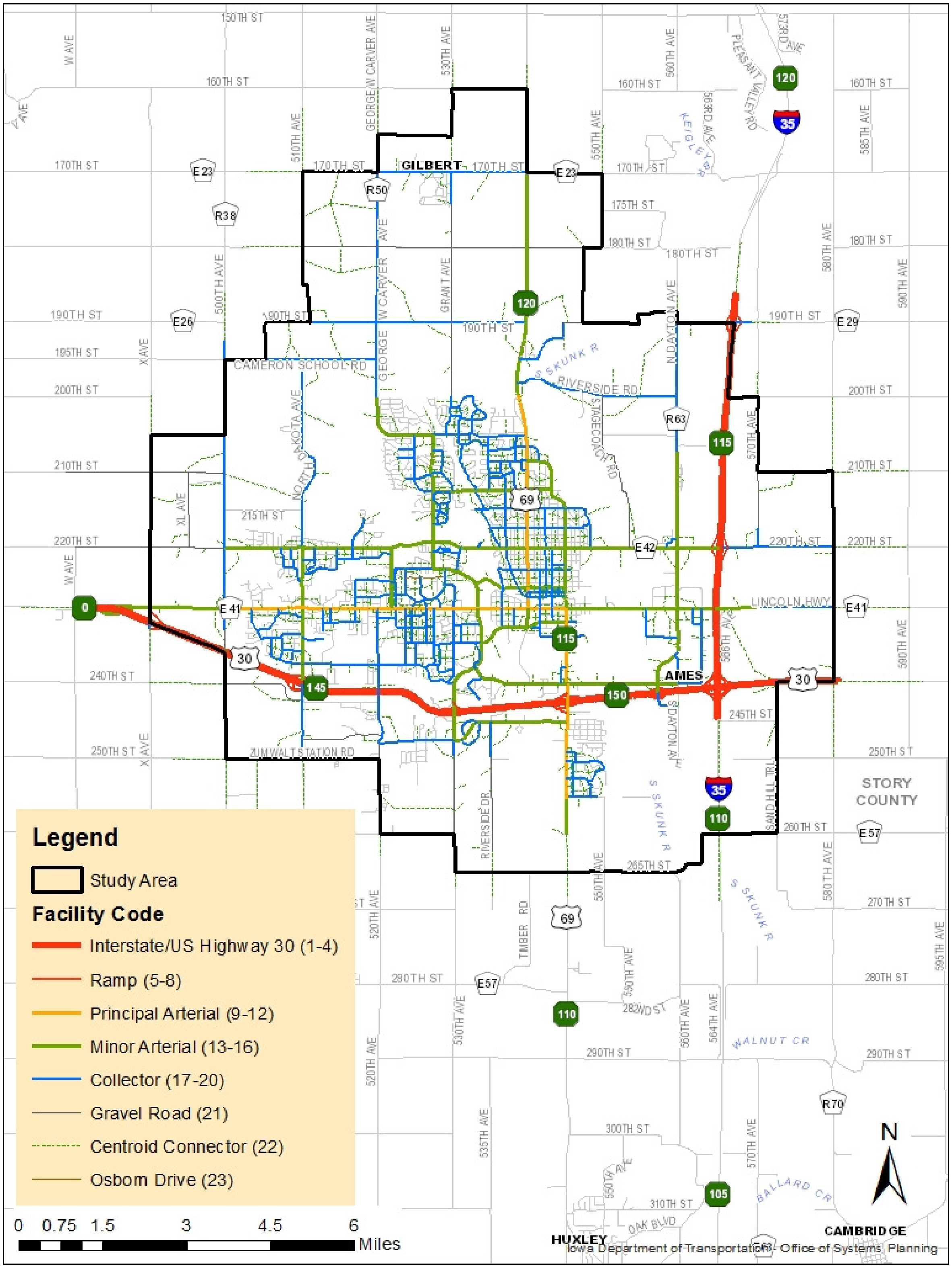
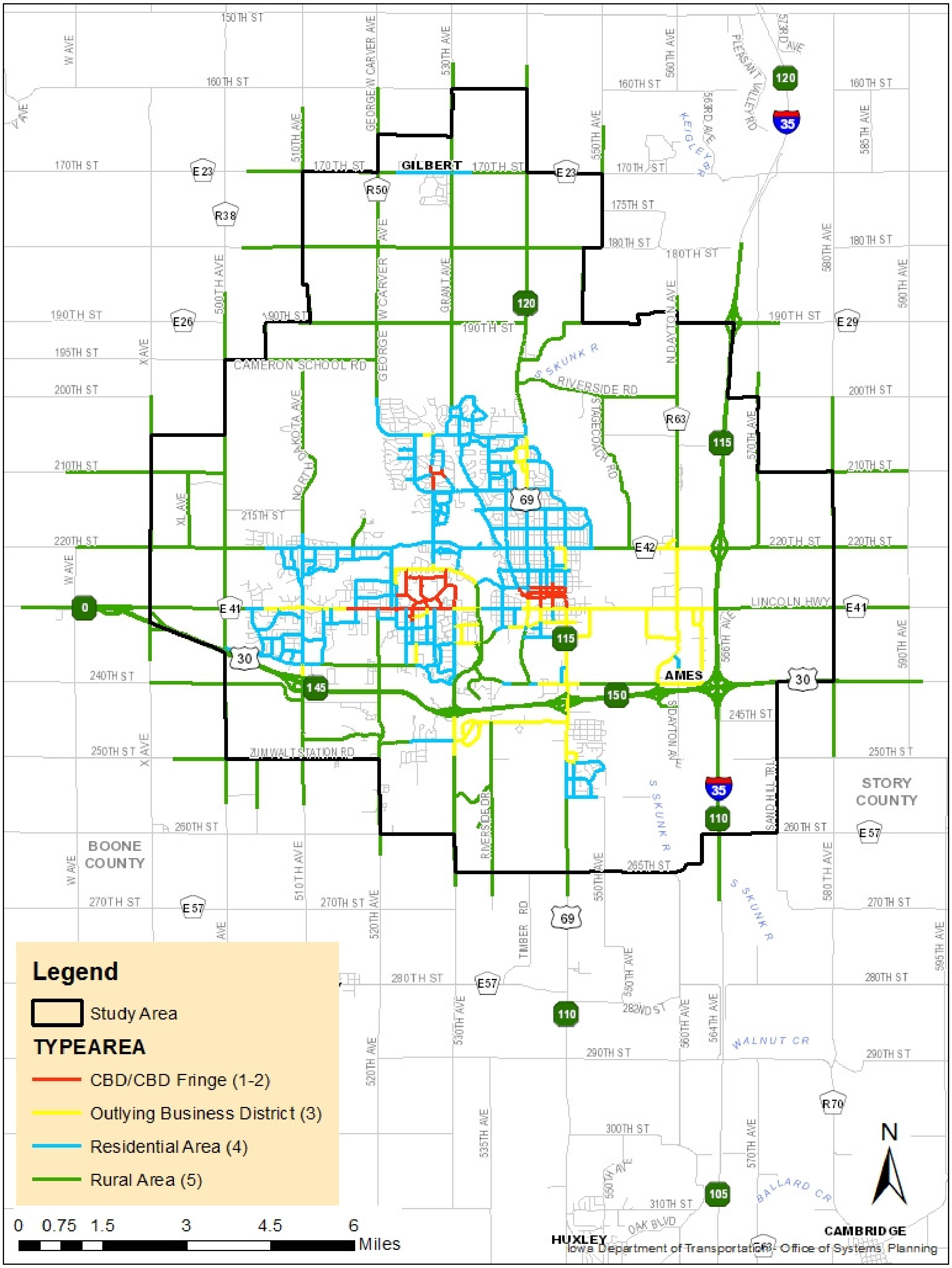


Figure 3.5: Area Type



Roadway Network Speeds

Network speeds are used in the trip distribution model to distribute trips throughout the region and in the trip assignment model to route traffic on the roadway network.

Roadway network free-flow speeds represent average travel time needed to traverse the distance of the roadway with little or no traffic (no congestion effects). These speeds are generally similar to the posted speed limit and are calculated as a function of the speed limit, functional class, and area type.

Estimating Roadway Network Speeds

Posted speed limits are available for roadway network using GIMS data. Free-flow speeds in the travel model include intersection delay experienced in uncongested conditions and will vary based on the facility and area type.

Limited local data is available to relate posted speed limit, facility type, and area type to free-flow speed. To facilitate estimation of such a model using local data, a comprehensive and current travel time survey would be necessary. However, INRIX speed data is available on the statewide primary road system. This includes Interstate 35, US Highway 30, and US Highway 69 (South Duff Avenue, North Grand Avenue, and the East-West stretch of Lincoln Way between Duff Avenue and Grand Avenue). In general, posted speeds were reasonably close to actual speeds on US Highway 69 with the exception of a couple segments that have a larger concentration of stop lights (Table 3.6). Interstate 35 and US Highway 30 posted speed limits were on the high side (Table 3.7). Therefore, a speed reduction factor of 0.97 was applied to more closely represent the free flow travel speeds (Table 3.8). Additionally, it was deemed

Table 3.6: INRIX Speed Comparison on US 69

Location	INRIX Speed E/N	INRIX Speed W/S	AVG Posted Speed E/N	AVG Posted Speed W/S	E/N Difference	W/S Difference
Duff Avenue - south of US 30	41.02	44.00	45	45	3.98	1.00
Duff Avenue - at US 30 interchange*	34.03	32.04	40	40	5.97	7.96
Duff Avenue - between US 30 interchange and SE 16th Street*	26.11	32.03	35	35	8.89	2.97
Duff Avenue - between SE 16h Street and Lincoln Way	31.00	32.00	33	33	1.50	0.50
Lincoln Way - between Duff Avenue and Grand Avenue	30.00	29.00	30	30	0.00	1.00
Grand Avenue - between Lincoln Way and 13th Street	32.00	32.00	33	33	0.50	0.50
Grand Avenue - between 13th Street and 24th Street	33.00	33.99	35	35	2.00	1.01
Grand Avenue - between 24th Street and Duff Avenue	32.01	30.02	35	35	2.99	4.98
US 69 - between Duff Avenue and 170th Street	49.00	50.00	50	50	1.00	0.00
US 69 - north of 170th Street	58.00	60.00	55	55	-3.00	-5.00

*The posted speed on these segments was manually reduced to reflect the slower free flow travel time. A global adjustment to speed was not made because such an adjustment would put US 69 out of balance with other roads with similar facility codes.

more appropriate to apply a global speed reduction factor to Interstate 35 and US Highway 30 and not US 69 because they represent the entire population of "freeway" facility code types in the AAMPO travel model rather than a small sample (as in the case of US 69). A speed reduction was also applied to gravel roads and centroid connectors to more accurately reflect the speeds that are traveled on those types of road segments.

Table 3.7: INRIX Speed Comparison on I-35 and US 30

Location	INRIX Speed E/N	INRIX Speed W/S	AVG Posted Speed E/N	AVG Posted Speed W/S	E/N Difference	W/S Difference
US 30 - west of Lincoln Way interchange	64.96	64.98	65	65	0.04	0.02
US 30 - at Lincoln Way interchange	64.96	64.98	65	65	0.04	0.02
US 30 - between Lincoln Way interchange and X Avenue	64.99	64.97	65	65	0.01	0.03
US 30 - at X Avenue interchange	65.00	64.99	65	65	0.00	0.01
US 30 - between X Avenue interchange and South Dakota interchange	65.01	64.99	65	65	-0.01	0.01
US 30 - at South Dakota interchange	65.04	64.97	65	65	-0.04	0.03
US 30 - between South Dakota interchange and University Boulevard interchange	65.00	64.92	65	65	0.00	0.08
US 30 - at University Boulevard interchange	65.00	64.96	65	65	0.00	0.04
US 30 - between University Boulevard interchange and Duff Avenue interchange	65.00	63.97	65	65	0.00	1.03
US 30 - at Duff Avenue interchange	65.04	64.01	65	65	-0.04	0.99
US 30 - between Duff Avenue interchange and Dayton Avenue interchange	64.98	64.01	65	65	0.02	0.99
US 30 - at Dayton Avenue interchange	64.96	63.97	65	65	0.04	1.03
US 30 - between Dayton Avenue interchange and I-35 interchange	59.17	62.01	65	65	5.83	2.99
US 30 - at I-35 interchange	60.97	55.04	65	65	4.03	9.96
US 30 - between I-35 and 580th Avenue	63.94	62.98	65	65	1.06	2.02
US 30 - East of 580th Avenue	64.01	63.99	65	65	0.99	1.01

Location	INRIX Speed E/N	INRIX Speed W/S	AVG Posted Speed E/N	AVG Posted Speed W/S	E/N Difference	W/S Difference
I-35 - south of US 30	66.24	65.77	70	70	3.76	4.23
I-35 - at US 30 interchange	64.82	65.95	70	70	5.18	4.05
I-35 - between US 30 interchange and 13th Street interchange	65.62	66.02	70	70	4.38	3.98
I-35 - at 13th Street interchange	65.87	66.17	70	70	4.13	3.83
I-35 - between 13th Street interchange and 190th Street interchange	66.04	66.27	70	70	3.96	3.73
I-35 - at 190th Street interchange	66.06	66.26	70	70	3.94	3.74
I-35 - north of 190th Street interchange	66.07	65.93	70	70	3.93	4.07

*A global speed adjustment was made to these roads to more accurately represent free flow travel speeds.

Table 3.8: Speed Conversion Factors

Federal Functional Classification	Speed Conversion
Interstate/US Highway 30	0.97
Ramp	1.00
Principal Arterial	1.00
Minor Arterial	1.00
Collector	1.00
Gravel	0.60
Centroid Connector	0.67
Osborn Drive	1.00

Speed Calibration

In addition to applying global speed adjustments, local speed adjustments were made throughout the model during the calibration process. Speeds were adjusted by no more than five miles per hour with the exception of two segments on US 69 that are shown in 3.6. Final speed limits are multiplied by the speed conversion factors to get a final speed limit (Network field limitmph).

Travel Time

Free-flow speeds in the limitmph field are used to compute travel time for each segment of the roadway network. Travel time (Network field travel_time) is computed in minutes (length/limitmph*60).

Railroad Crossing Adjustment

Because delays are a common occurrence in the AAMPO planning area when crossing the Union Pacific mainline, an average delay for every at-grade crossing over the main line was added. The field RR_XING denotes whether such a cross occurs on a roadway link.

A 2002 Iowa DOT study on railroad crossing delay uses Ames as a study area[4]. It calculated an average of 2.93 minutes of closed time. Iowa State University Railroad Club counts the number of trains that pass on the mainline in a 24 hour period once a year[5]. 2014 data was used as a sample of the number of trains that pass through Ames on a given day. This, along with the average closed time was used to calculate an average delay of 0.124 minutes for every trip across the UP mainline railroad tracks, which was added to the calculated travel time. Although in reality the delay occurs in a lumpier fashion, this slight deterrent is intended to replicate the fact that drivers would prefer to not risk delay.

Link Capacities

Highway capacity is analogous to fluid flow in a pipe system or electricity in a circuit. For all systems, a current or flow is impacted by the demand to the system and the resistance or friction presented by the network. In fluid or electricity flow, diameter or gage of the pipe or wire plays a significant role in determining system capacity. In the context of transportation, capacity is used to measure congestion and to determine route diversion due to traffic congestion. This is accomplished using volume-delay equations that are defined and applied in the traffic assignment step. Roadway capacity is a required input for capacity constrained traffic assignment procedures.

In the AAMPO travel model, per-lane capacity values are retrieved from a lookup table based on the facility code of each link in the roadway network. This approach eliminates opportunities for error in defining capacities at the link level and ensures consistent application of capacity values. Hourly lane capacities are retrieved from a lookup table that is stored in the AAMPO GISDK model file. These hourly lane capacities are used in combination with the number of lane information present on the network to define hourly directional capacity.

The development of highway capacity values for the AAMPO TDM are based on procedures summarized in the Corridor MPO 2040 TDM Documentation and detailed in the Highway Capacity Manual (HCM). The HCM provides link-level capacity guidelines for freeways and rural highways but does not provide detailed link-level capacity guidelines for urban and suburban collector and arterial streets. Therefore, HCM intersection capacity was used in place of link capacity to develop capacities for these other facilities. [2&6]

Freeways

Capacity guidelines for freeways and expressways are provided in Chapters 21 and 23 of HCM 2000. Unadjusted or ideal, per-lane capacities based on free-flow speed are provided. These capacities must then be adjusted for various conditions. The conditions for which adjustments can be applied are described below.

- **<u>Heavy Vehicle Adjustment Factor</u>** – The heavy vehicle adjustment factor accounts for passenger car equivalents for trucks, buses, and recreational vehicles. HCM 2000 recommends default values of 10% heavy vehicles in rural areas and 5% heavy vehicles in non-rural areas unless

[4] Union Pacific Railroad Crossing Study, Iowa Department of Transportation
[5] Iowa State University Railroad Club, https://www.stuorg.iastate.edu/site/railroad/24-hours-at-ames
[6] Highway Capacity Manual. (Transportation Research Board, 2000)

additional data is available. Capacities in the AAMPO TDM assume 5% heavy vehicles on all facilities.

- **Driver Population Factor** – The driver population factor represents the familiarity of drivers with roadway facilities. Because the model represents traffic on a typical weekday when ISU students are in session, normal driver familiarity was assumed. Driver population factors are typically used for weekend conditions or in areas with a high amount of tourist/recreational activity.

- **Peak Hour Factor** – A peak hour factor (PHF) represents the variation of traffic volumes within an hour. Default values of 0.88 for rural area types and 0.92 for non-rural area types were applied.

The HCM suggests adjusting flow rate (traffic volume) according to the following equation:

$$V_{\mathrm{P}} = \frac{V}{PHF \cdot N \cdot f_{HV} \cdot f_P}$$

Where:

V_{P} = 15-min passenger equivalent flow rate (pc/hr/ln)
V = hourly volume (veh/hr)
PHF = peak-hour factor
N = number of lanes
f_{HV} = heavy-vehicle adjustment factor
f_P = driver population factor

For travel model application, it is more practical to adjust capacity than vehicle flow rate. This eliminates the need to adjust vehicle trip tables prior to and subsequent to traffic assignment. By replacing V_P with ideal capacity (C_I) and V with hourly capacity (C), the above equation can be used to adjust ideal capacity to effective hourly capacity. Furthermore, it is useful to consider capacity on a per lane (veh/hr/ln) basis, allowing number of lane calculations to be applied at the link level. The resulting equation below can be used to compute per lane capacity for freeways and expressways. The following equation was used to compute hourly capacity for rural and freeway facilities.

$$C = C_I \cdot PHF \cdot f_{HV} \cdot f_P$$

Where:

C = link capacity (veh/hr)
C_I =Ideal (unadjusted) capacity (pc/hr/ln)
PHF = peak-hour factor
f_{HV} = heavy-vehicle adjustment factor
f_P = driver population factor

Ideal capacities are defined in the HCM according to free-flow speed. Ideal capacities based on typical free-flow speeds are shown in Table 9, along with adjusted capacities computed using the above equation.[6] Adjusted capacities have been rounded to 100 vehicles per hour. It is noted that these calculations result in a lower capacity on rural freeways than on suburban and urban freeways. This is due to the difference in peaking factors associated with rural facilities. In practice, it is unlikely that rural freeway facilities will reach capacity. Instead, rural facilities are likely to become suburban or urban facilities before nearing capacity. As this occurs, peaking characteristics should be adjusted. This is accomplished by using updated area type information in forecast-year model runs.

Table 3.9: Ideal and Adjusted Capacities for Freeways and Expressways based on HCM 2000

Federal Functional Classification	Area Type	Freflow Speed (mph)	Ideal Capacity (Upper Limit LOS E, pc/h/ln)	PHF	FHV	FP	Adjusted Capacity (Upper Limit LOS E, pc/h/ln)
Freeway	Rural	70	2,400	0.88	1	1	2,100
Freeway	Rural	70	2,400	0.88	1	1	2,100
Freeway	Urban	65	2,350	0.92	1	1	2,200

Collectors and Arterials

For non-rural arterial and collector streets, HCM recommends identifying capacity on an intersection basis, with the intersection with the lowest capacity determining the overall arterial link capacity. The link capacity at each intersection can be computed using the following equation. [6]

$$C = S_O \cdot N \cdot f_w \cdot f_{hv} \cdot f_g \cdot f_p \cdot f_{bb} \cdot f_a \cdot f_{LU} \cdot F_{LT} \cdot F_{RT} \cdot F_{Lbp} \cdot F_{Rbp} \cdot PHF \cdot g/C$$

Where:

C = Capacity
S_O = base saturation flow per lane (pc/h/ln) – *assumed at 1900*
N = number of lanes in lane group (intersection approach lanes, not bid-block lanes)
f_w = adjustment factor for lane width– *assumed at 1.0*
f_{hv} = adjustment factor for heavy vehicles in traffic stream *assumed at 1.0*
f_g = adjustment factor for approach grade – *assumed at 1.0*
f_p = adjustment factor for existing of a parking lane and parking activity
f_{bb} = adjustment factor for blocking effect of local busses – *assumed at 1.0*
f_a = adjustment factor for CBD area type
f_{LU} = adjustment factor for lane utilization – *assumed at 0.95*
F_{LT} = adjustment factor for left turns in lane group – *assumed at 1.0*
F_{RT} = adjustment factor for right turns in lane group – *assumed at 1.0*
F_{Lbp} = pedestrian adjustment factor for left-turn movements – *assumed at 1.0*
F_{Rbp} = pedestrian-bicycle adjustment factor for right turn movements – *assumed at 1.0*
PHF = peak-hour factor – *assumed at 0.92*
g/C = effective green time per cycle

The equations above account for details that are not practical to maintain in a regional travel model. Therefore, a number of adjustment factors can be assumed constant or set to 1.0 for all cases. Some variables that have been set to 1.0, such as lane width, turns, bus blocking, and pedestrian/bicycle effects are instead captured in the area type adjustment. Other variables can be approximated based on the facility code of each link. The parking adjustment factor has been excluded from the baseline capacity calculations and is instead applied separately. Additionally, a regional travel model must rely on the number of through lanes on each link, rather than the number of approach lanes at each intersection. This can be addressed by an intersection widening factor that varies by facility type and accounts for the presence of left and right turn lanes at intersection approaches.

The previous equation can be simplified to the equation below for use in a regional travel modeling context. Assumed values for adjustment factors that vary by facility type and area type are shown in Table 3.10: Link Capacity Adjustment Factors and Resulting Capacity, along with the resulting capacity values.

$$C = S_O \cdot N_t \cdot f_{wt} \cdot f_a \cdot f_{LU} \cdot PHF \cdot g/C$$

Where:

C = Capacity

S_O = base saturation flow per lane (pc/h/ln) – *assumed* at 1900

N_t = number of through (mid-block) lanes, excluding center turn lanes

f_{wt} = adjustment factor for intersection widening

f_a = adjustment factor for area type

f_{LU} = adjustment factor for lane utilization – *assumed at 0.95*

PHF = peak-hour factor – *assumed at 0.92*

g/C = effective green time per cycle

Table 3.10: Link Capacity Adjustment Factors and Resulting Capacity

Federal Functional Classification	**Area Type**	f_a	g/C	f_{wt}	Capacity
Expressway	CBD	0.90	0.55	1.30	1,100
	Urban	0.97	0.55	1.30	1,200
	Suburban	0.99	0.55	1.30	1,200
Principal Arterial	CBD	0.76	0.45	1.30	740
	Urban	0.95	0.45	1.30	920
	Suburban	0.99	0.45	1.30	960
Minor Arterial	CBD	0.76	0.45	1.15	650
	Urban	0.95	0.42	1.15	760
	Suburban	0.99	0.42	1.15	790
Collector	CBD	0.75	0.45	1.05	590
	Urban	0.95	0.41	1.05	680
	Suburban	0.99	0.41	1.05	710
Local	CBD	0.74	0.45	1.00	550
	Urban	0.95	0.40	1.00	630
	Suburban	0.99	0.40	1.00	660

Resulting Capacity Model

The calculations above provide capacity values that can be applied based on the facility type, area type, number of lanes, and center turn lanes present for each link in the network. The model begins by applying the hourly lane capacities shown in Table 3.11. The hourly lane capacity will eventually be multiplied by the number of lanes. First, an adjustment must be made to account for the presence of a left or median turn lane. If there does happen to be a left of median turn lane on a particular segment, the number of lanes is increased by 0.25 lanes. The total number of lanes (through lanes plus turn lane adjustment) is then multiplied by the per lane capacity.

The resulting hourly link capacity is multiplied by the number of hours within each time period to get a time period-specific capacity. The time-of-day portion of the model will be discussed in greater detail later in the document.

Table 3.11: Roadway Capacities (vehicles per hour per lane, upper-limit LOS E)

Federal Functional Classification	CBD/CBD Fringe	Outlying Business District	Residential Area	Rural Area
Freeway	2,100	2,200	2,200	2,100
Ramp	740	920	960	1,162
Principal Arterial	650	760	790	956
Minor Arterial	590	680	710	850
Collector	1,500	1,650	1,800	1,800
Centroid Connector	10,000	10,000	10,000	10,000

CHAPTER:4 Transit Network

Context and Background

Transit ridership in Ames is among the highest in the state. CyRide, the local bus system, operates 12 fixed routes throughout the City and totaled over 6.6 million passengers in FY 2014.[7] Growth in ridership numbers has steadily increased as ISU enrollment and Ames City population has increased.

The transit network in the AAMPO TDM is similar to the roadway network except that it is used to route buses and bus riders rather than automobiles and trucks. The two major features that make up the transit network are the transit routes and transit stops. Similar types of analyses can be produced with a transit network, except in the context of number of riders instead of number of vehicles.

The transit network and roadway network are connected in TransCAD, as they are in the real world. Buses use the roadway network, so the roadway network must exist wherever buses will need to be routed. TransCAD overlays the transit network to the roadway network when the routes are created and the roadway nodes are eventually tagged to the route stops. This allows the program to switch between modes when routing passengers and vehicles.

Transit Routes

The transit routes were digitized manually using route maps on the CyRide website. Several "special" routes listed on the website that run for only a portion of the day were digitized as well. For example, the #4 Gray Route has a special #4A Gray Route that operates during the middle of the day. An attribute field summary is shown in Table 4.1. A map of the transit routes is shown in Figure 4.1 for the city, and a closer look of transit routes around the ISU central part of campus is shown in Figure 4.2.

Table 4.1 – Transit Route Layer Field Summary

Field Name	Type	Width	Description
Route_ID	Integer	4	TransCAD assigned
Route_Name	Character	32	Number and name of the route
Side	Character	2	Denotes which side of the street route stops will be. All are assumed to be on the right (R).
AMHDWY	Real Number	8	AM time period headway
MDHDWY	Real Number	8	Mid-day time period headway
PMHDWY	Real Number	8	PM time period headway
OPHDWY	Real Number	8	Off-Peak time period headway
MODE	Integer	4	Mode number. All are the same (1).

[7] CyRide, http://www.cyride.com/

Figure 4.1 – Base Year Transit Routes (City-wide)

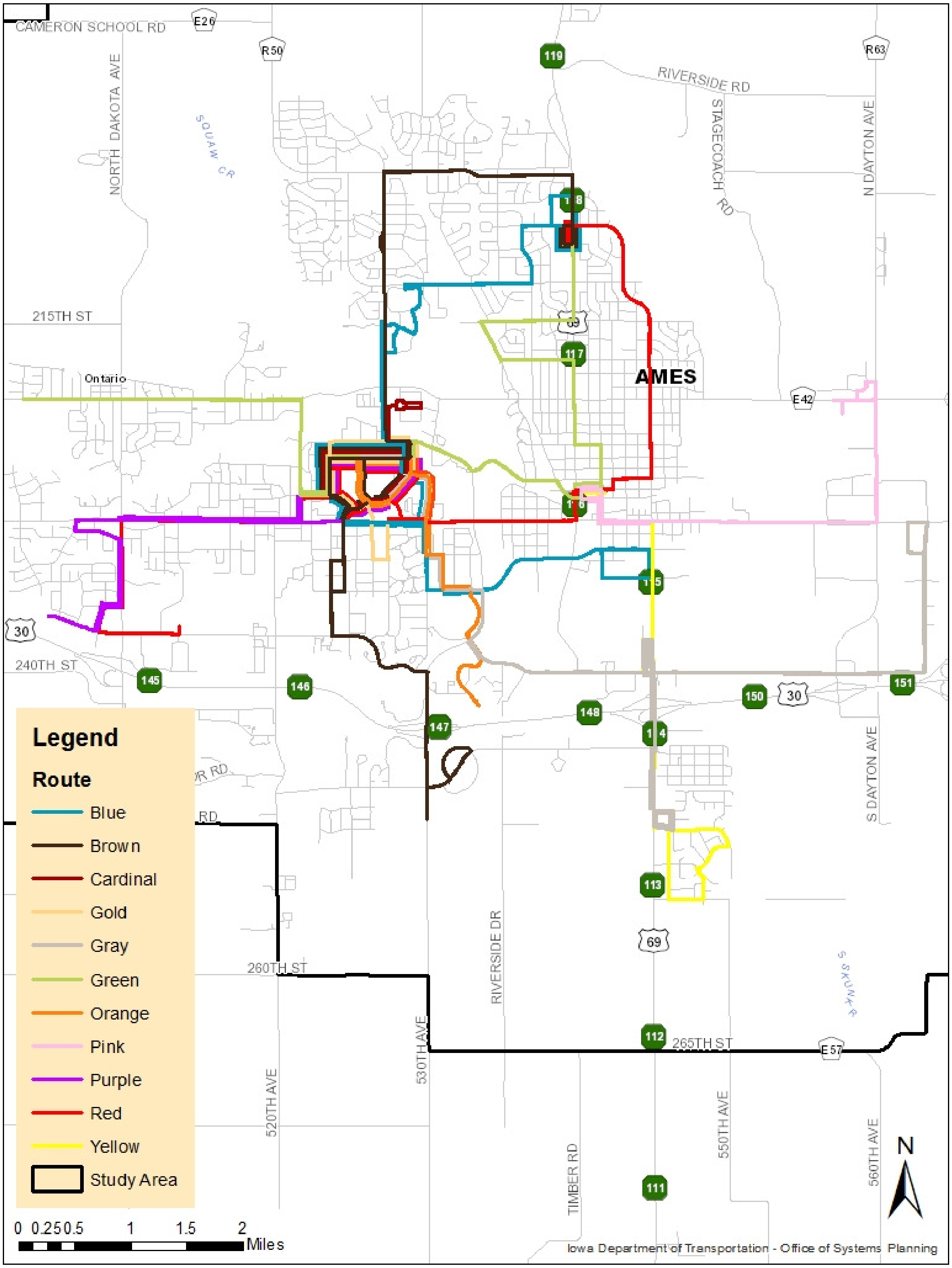
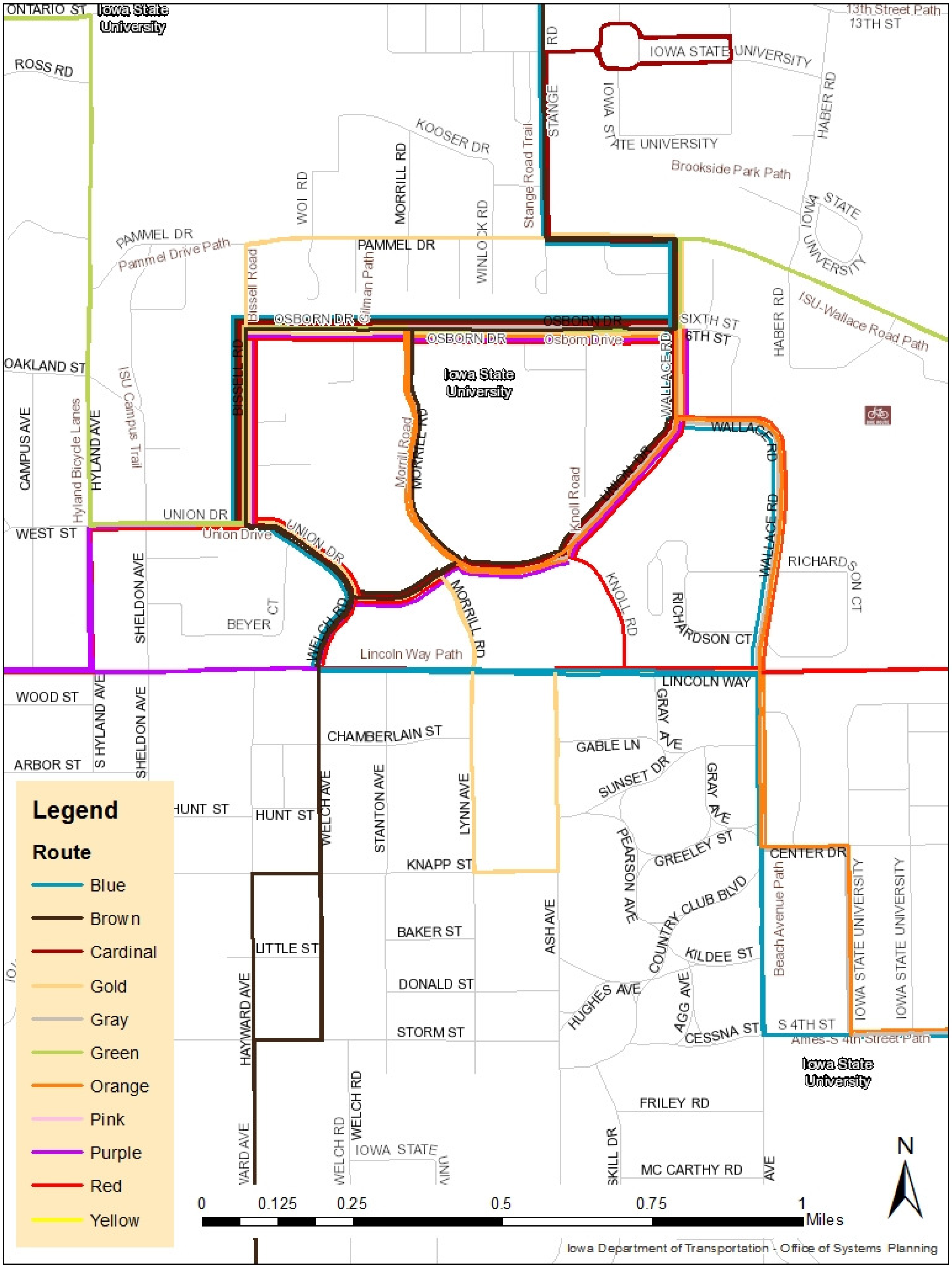


Figure 4.2 – Base Year Transit Routes (ISU Campus)



Bus speeds were assumed to be 15 miles per hour (mph) with 0 minutes delay per stop. In reality, buses will travel faster than 15 mph and then make stops along the route. 15 mph with 0 minutes delay per stop is a compromise that produces similar results. The scheduled time for each route was compared with the model estimated travel time at 15 mph and is shown in Table 4.2. 15 mph is a fairly accurate estimate. Certain routes actually travel faster than an average of 15 mph (e.g., Pink Route) while some routes average a travel speed less than 15 mph (e.g., Orange Route).

Table 4.2 – Difference between scheduled bus times and model estimated bus travel times

Route	Scheduled Time (min)	15 mph Model Travel Time (min)	Difference (min)
1 Red West	34	31	3
1 Red East	36	31	5
1A Red West	15	15	0
1A Red East	19	15	4
2 Green West	33	32	1
2 Green East	36	33	3
3 Blue South	39	33	6
3 Blue North	35	30	5
4 Gray	45	50	-5
4A Gray	35	33	2
4B Gray	22	16	6
5 Yellow	25	29	-4
6 Brown South	34	34	0
6 Brown North	33	31	2
6A Brown	15	9	6
6B Brown	33	37	-4
7 Purple	37	31	6
10 Pink	15	26	-11
21 Cardinal	17	14	3
22 Gold	15	11	4
23 Orange	32	21	11

Headways

Headways were calculated from the bus schedules on the CyRide website. This was done for four separate time periods: AM peak (7:00 AM-9:00 AM), Mid-day (9:00 AM-3:00 PM), PM peak (3:00 PM-6:00 PM), and off-peak (all other times). The calculation was made by dividing the number of minutes in that time period by the number of buses that make the circulation. If a particular route did not operate during a given time period, then the number 9999 was used to make the use of that route prohibitively timely.

Route Stops

Route stops were coded onto each transit route based on data from the CyRide website. Route stops were assigned a stop ID number that matches the CyRide stop ID numbers from their real-time bus website called Next Bus. This allows results to be summarized by the actual CyRide stop ID number rather than a randomly assigned ID number.

Route stops are linked to the highway network nodes using a tagging function. The specified distance used was the default 0.2 miles. 0.2 miles is the default search distance in TransCAD.

Walkable Links

To accommodate transit riders that walk to and from bus stops, a walkable network was created. Nearly all roadway network links were designated as “walkable” in the WALK_LINK field. Interstate 35 and US Highway 30 were excluded. Additionally, all external stations were excluded to prevent passengers from attempting to walk to or from the external stations.

Several locations on ISU campus are walkable but not drivable, so additional walk only links were coded as centroid connectors. These allow a passenger to reach a particular bus stop without allowing vehicles through. A walk speed of three mph was assumed on all walkable links.

Park-and-Ride Nodes

While there are several informal locations where drive-to-transit passengers drive to an area near a bus stop and park before boarding a bus, there is only one large park-and-ride location. The Iowa State Center, just south of central campus, was designated a park and ride location in the roadway network node layer PNR field.

The Orange route services the Iowa State Center park-and-ride lot. In addition, the Gray route has a stop near here occasionally as well. Within the model, the Gray route was receiving an exorbitant amount of riders because of this route stop location. To prevent this issue, this particular Gray route stop was deleted so that only Orange route buses were allowed to receive park-and-ride trips.

CHAPTER:5 Trip Generation

Context and Background

Trip generation is the first step of the 4-step travel demand modeling process. It identifies the trip ends (productions and attractions) that correspond to the places where activities occur as represented by land use and socioeconomic data. Productions and attractions are estimated for each TAZ by trip purpose and then balanced at the regional level so that total productions and attractions are equal. The resulting productions and attractions by trip purpose and TAZ are used in the subsequent step (Trip Distribution) to estimate zone-to-zone travel patterns. The trip generation rates used in the AAMPO TDM are defined in units of daily person or daily truck trips.

The terms “productions” and “attractions” are the fundamental variables for defining the trip ends associated with travel. Productions generally occur at the home end of a trip; and attractions are typically associated with non-residential activity. This method of defining productions and attractions is generally used for trips internal to the modeling area. External trips are defined as external-external (EE or XX) if both trip ends are outside of the modeling area and internal-external or external-internal (IE/EI or IX/XI) if one trip end is inside and the other trip end is outside of the model study area.

This chapter begins by defining traffic analysis zones (TAZ), the sources used to develop trip rates, and a summary of the trip purposes included. The chapter concludes with summary of the external travel analysis.

Traffic Analysis Zone Structure

Traffic Analysis Zones (TAZs) are geographical areas containing land use data and is the basis for trip-making in the travel model. For the AAMPO TDM, the TAZ layer is consistent with U.S. Census Bureau boundary information and is based on 2010 block level data. The TAZs are linked to the network using zone centroids and centroid connectors that allow travelers access to the transportation system by simulating local-neighborhood traffic. The TAZ layer is shown in the map figures on the following pages.

TAZs are formed to provide a relatively homogeneous amount and type of activity within each zone. TAZ delineations traditionally follow the natural and human-made boundaries that tend to segregate different land uses. These boundaries include water features, roads, railroads, and other lines that form logical boundaries. Jurisdictional and census boundaries often do not make for good TAZ definitions because they can be arbitrary in relation to the needs of the model; but they are usually desirable for data development and reporting functions.

Traffic Analysis Zone Field Summary

Following the TAZ maps, a summary of the TAZ fields is provided.

Figure 5.1: Traffic Analysis Zones (Region-wide)

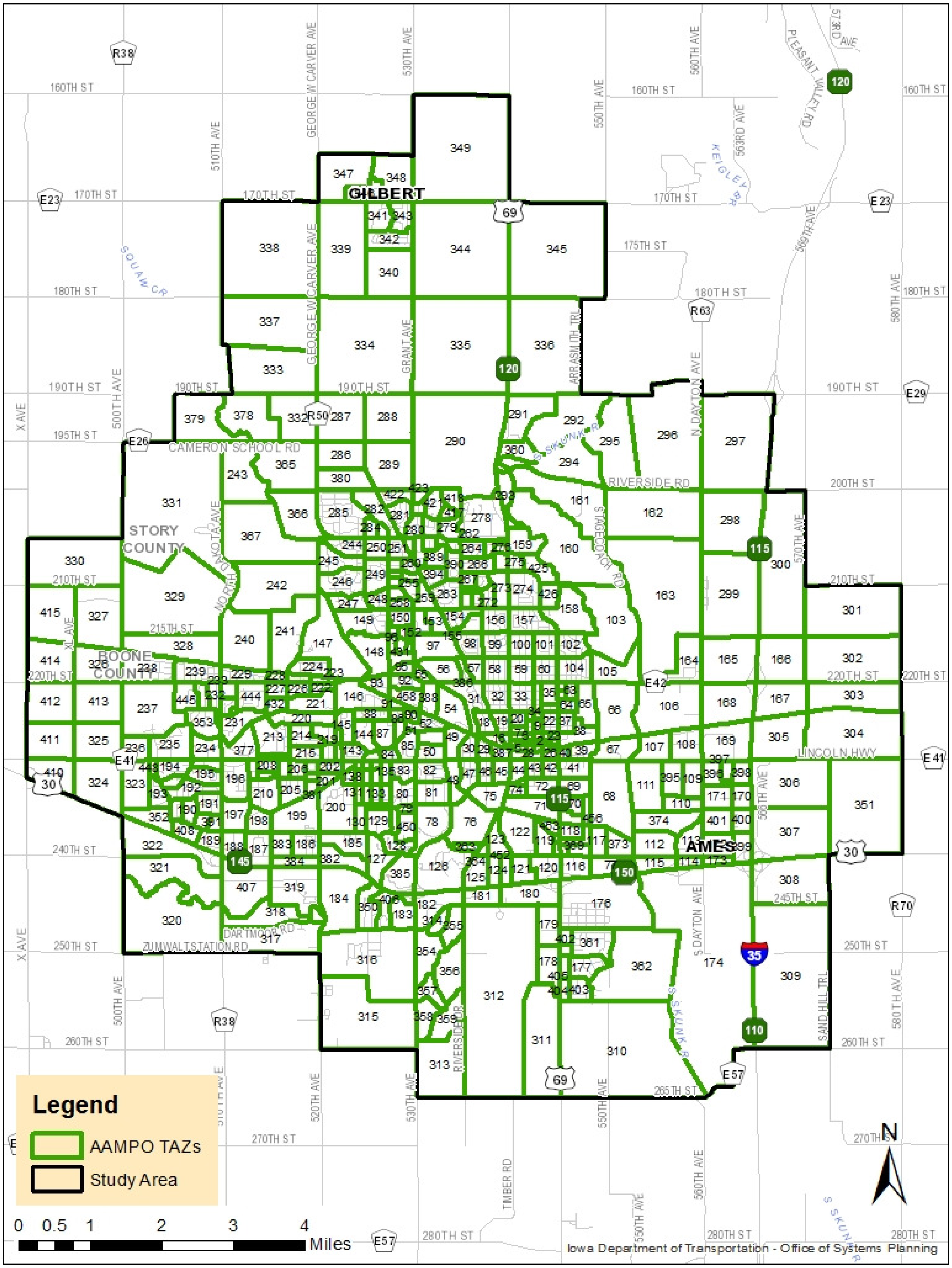


Figure 5.2: Traffic Analysis Zones (Downtown and ISU Campus)

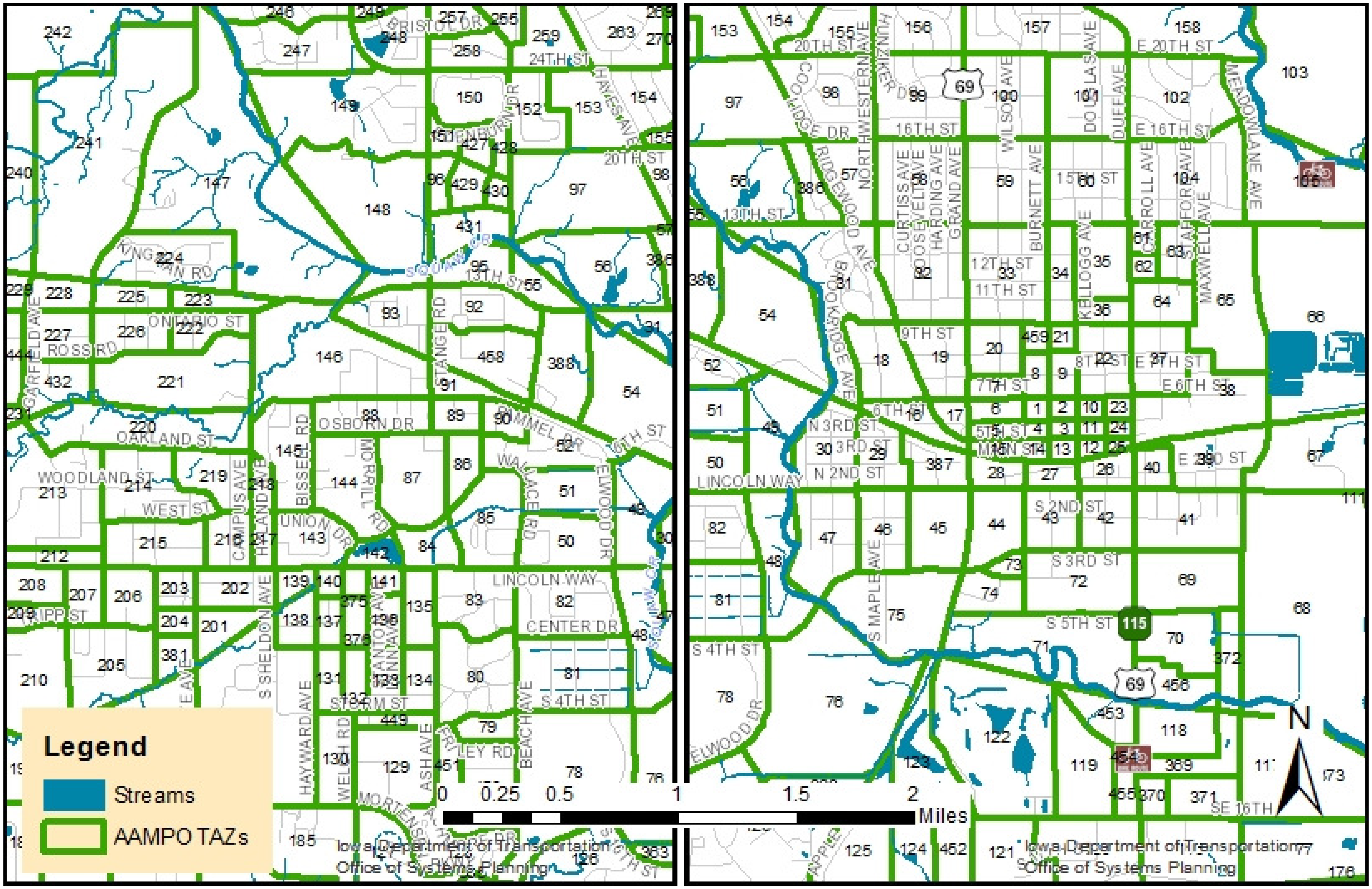


Table 5.1: Traffic Analysis Zones (TAZ) Field Summary

Field Name	Type	Width	Decimal	Description
ID	Integer (4 bytes)	10	0	TransCAD Assigned
Area	Real (8 bytes)	10	2	TransCAD Assigned
TAZ	Integer (4 bytes)	8	0	TAZ number
CENTRAL_CAMPUS_TAZ	Integer (4 bytes)	8	0	Central campus TAZ locations. 1 = central campus TAZ
CONSTRAINED_PARKING	Integer (4 bytes)	8	0	These are the TAZs on campus that have constraints to their parking (e.g. parking is more difficult and/or costs money).
----	Character	1	0	
POPTOTAL_20XX	Integer (4 bytes)	8	0	POPTOTAL- total population (permanent population + group quarters population) 20XX = year - Source: US Census Bureau|
HHTOTAL_20XX	Integer (4 bytes)	8	0	HHTOTAL- total dwelling units (occupied + seasonal + vacant) 20XX = year - Source: US Census Bureau
HHOCC_20XX	Integer (4 bytes)	8	0	2010 HHOCC- permanently occupied dwelling units (total less seasonal and vacant) - Source: US Census Bureau|
HHVAC_20XX	Integer (4 bytes)	8	0	HHVAC- not permanently occupied dwelling units (vacant + seasonal) 20XX = year - Source: US Census Bureau
NAICS1_20XX	Integer (4 bytes)	8	0	Employment category NAICS code = 11, 21, 23 (Agriculture, Forestry, & Hunting). 20XX = year - Source: Iowa Workforce Development
NAICS2_20XX	Integer (4 bytes)	8	0	Employment category NAICS code = 22, 42, 48-49 (Utilities, Wholesale Trade, Transportation & Warehousing). 20XX = year - Source: Iowa Workforce Development
NAICS3_20XX	Integer (4 bytes)	8	0	Employment category NAICS code = 51, 52, 53, 54, 55 (Financial & Insurance, Real Estate, Rental and Leasing, and Management). 20XX = year - Source: Iowa Workforce Development
NAICS4_20XX	Integer (4 bytes)	8	0	Employment category NAICS code = 31-33 (Manufacturing). 20XX = year - Source: Iowa Workforce Development
NAICS5_20XX	Integer (4 bytes)	8	0	Employment category NAICS code = 62, 71, 72, 81 (Services: Health Care & Social Assistance, Arts, Entertainment & Recreation). 20XX = year - Source:

Field Name	Type	Width	Decimal	Description
				Iowa Workforce Development
NAICS6_20XX	Integer (4 bytes)	8	0	Employment category NAICS code = 44-45 (Retail Trade). 20XX = year - Source: Iowa Workforce Development
NAICS7_20XX	Integer (4 bytes)	8	0	Employment category NAICS code = 56, 61, 92 (Administrative & Educational). 20XX = year - Source: Iowa Workforce Development
NAICSTOT_20XX	Integer (4 bytes)	8	0	Total Employment. 20XX = year - Source: Iowa Workforce Development
SCHL_ENRLL_20XX	Integer (4 bytes)	8	0	School Enrollment . 20XX = year - Source: AAMPO
FTE_EMP_20XX	Integer (4 bytes)	8	0	Full-time-equivalent employment. 20XX = year - Source: Iowa State University, 2011
ISU_EMP_20XX	Integer (4 bytes)	8	0	This is a processed employment field. Since FTE employment is not equivalent to the amount of employees in the rest of the IWD data since both full and part-time employees are included, this field and ISU_STUDENT_EMP was used to convert the original FTE data into 20XX total employees as provided by an ISU fact sheet on the number of full and part time employees for both non-students and students. 20XX = year
ISU_STUDENT_EMP_20XX	Integer (4 bytes)	8	0	This is a processed employment field. Since FTE employment is not equivalent to the amount of employees in the rest of the IWD data since both full and part-time employees are included, this field and ISU_EMP was used to convert the original FTE data into 20XX total employees as provided by an ISU fact sheet on the number of full and part time employees for both non-students and students. 20XX = year
ISU_ONCAMPUS_20XX	Integer (4 bytes)	8	0	The number of 2010 On-Campus students in this TAZ to be used for the student sub-model. 20XX = year - Source: Iowa State University 20XX = year
ISU_OFFCAMPUS_20XX	Integer (4 bytes)	8	0	The number of 2010 off-campus students living in this TAZ to be used for the student sub-model. 20XX = year - Source: Iowa State University
---------------	Character	1	0	
Non-Student_HH	Integer (4 bytes)	8	0	Number of estimated households remaining after students are removed. if((POPTOTAL_2010- ([ISU_On-Campus] + [ISU_Off-Campus])) / [POP:HH_ratio]) < 0 then 0 else R2I(nz((POPTOTAL_2010- ([ISU_On-Campus] + [ISU_Off-Campus])) / [POP:HH_ratio]))

Field Name	Type	Width	Decimal	Description
ISU_STAFF_SPACES	Integer (4 bytes)	8	0	Number of staff parking spaces in TAZ.
ISU_COMMUTER_SPACES	Integer (4 bytes)	8	0	Number of commuter parking spaces in TAZ.
ISU_METER_SPACES	Integer (4 bytes)	8	0	Number of metered parking spaces in TAZ.
ISU_RESIDENCE_HALL_SPACES	Integer (4 bytes)	8	0	Number of residence hall parking spaces in TAZ.
ISU_FREE_SPACES	Integer (4 bytes)	8	0	Number of free parking spaces in TAZ.
OTHER_SPACES	Integer (4 bytes)	8	0	Number of other parking spaces in TAZ. These are typically popular street parking locations adjacent to ISU campus.
-----	Character	1	0	
Retail_Emp_20XX	Integer (4 bytes)	8	0	Retail Employment (NAICS6). Used to calculate person trip attractions. 20XX = year
Service_Emp_20XX	Integer (4 bytes)	8	0	Office and Service Employment (NAICS3 + NAICS5 + NAICS7). Used to calculate person trip attractions. 20XX = year
Other_Emp_20XX	Integer (4 bytes)	8	0	Other or Basic Employment (NAICS1 + NAICS2 + NAICS 4). Used to calculate person trip attractions. 20XX = year
Amc_Emp_20XX	Integer (4 bytes)	8	0	Agriculture, Mining, and Construction Employment (NAICS1). Used to calculate truck trips based on the Quick Response Freight Manual. 20XX = year
Mtc_Emp_20XX	Integer (4 bytes)	8	0	Manufacturing, Transportation, Communication, Utilities, and Wholesale Employment (NAICS2 + NAICS4). Used to calculate truck trips based on the Quick Response Freight Manual. 20XX = year
Ret_Emp_20XX	Integer (4 bytes)	8	0	Retail Trade Employment (NAICS6). Used to calculate truck trips based on the Quick Response Freight Manual. 20XX = year
Serv_Emp_20XX	Integer (4 bytes)	8	0	Office and Service Employment (NAICS3 + NAICS5 + NAICS7). Used to calculate truck trips based on Quick Response Freight Manual. 20XX = year

Socioeconomic Data

An important aspect in developing TDMs is ensuring the most up to date and best available socioeconomic data is available. Socioeconomic data represents the activities in the TAZ that promote trip making. The data is stored in TransCAD tables for all model years; 2010, 2015, 2020, 2025, 2030, 2035 and 2040. The GISDK script processes the socioeconomic data and transfers the data to the TAZs so trips can be generated using the correct model year data.

Population and Household Data

Population and Housing unit data is from Summary File 1 (SF1) U.S. Census Bureau's 2010 Decennial Census. TAZs were built in TransCAD using a 2010 U.S. Census Bureau TIGER/Line block file. The population and housing unit demographics were aggregated for multiple blocks to create a TAZ. If a block polygon had to be split to create a TAZ, due to a planned road or to separate non-homogeneous land uses, the housing units were distributed based on aerial photography to the new TAZs that split census blocks.

Household data is used as a generator of trip productions. Households in each TAZ are multiplied by the appropriate trip production rates to determine the number of trip productions for the zone. Different household characteristics can more accurately predict the number of trips a person makes. For example, a one-person household with one vehicle will generate fewer trips than would a four-person household with four vehicles. Because the household characteristics are important in determining the number of trips a person makes, it is necessary to develop household information at the TAZ level.

Household Characteristics

Household data is available from the U.S. Census Bureau's 2010 Decennial Census. The 2010 U.S Census Bureau household data was processed by creating cross-tabulations of household size and auto-ownership. This was accomplished by using a product known as the Census Transportation Planning Products (CTPP).

CTPP data was used to determine the number of people living in a household and the number of vehicles the household owned. Household size and the number of vehicles owned were determined to be the best household characteristics in determining the number of person trips a household makes. CTPP 2010 data is only available at a larger TAZ district level of Census Geography, so any AAMPO TAZs that fell within a CTPP TAZ district are assumed to have similar household characteristics.

Household size and vehicle ownership data from the 2010 CTPP is separated into 20 different categories for each TAZ and each year (year = 20XX) as shown in Table 5.2.

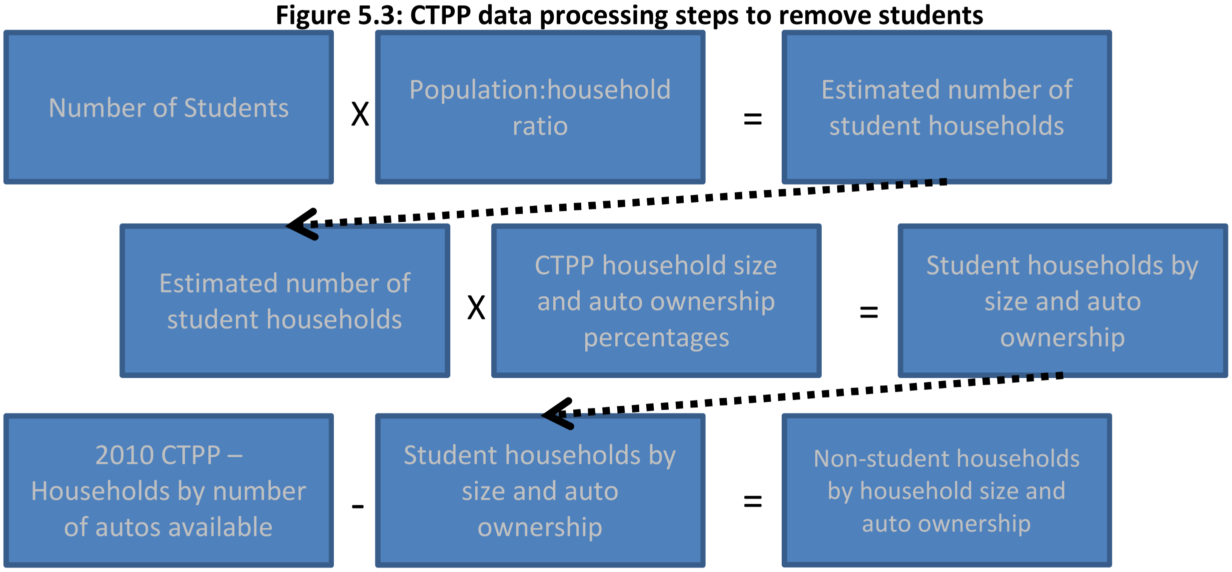
Household size and vehicle ownership data is based on the 2010 Census. The 16 different categories of household size and vehicle ownership from the 2010 CTPP were translated into proportions (equal to 1) and then multiplied by the number of households (from the 2010 Census) within a TAZ, resulting in households within TAZs that have specific size and vehicle ownership.

Table 5.2: Household Size and Vehicle Ownership

Household Size	Vehicles Owned	Field Name
1 Person	0 Vehicles	HH1_VEH0_20XX
2 People	0 Vehicles	HH2_VEH0_20XX
3 People	0 Vehicles	HH3_VEH0_20XX
4 People	0 Vehicles	HH4_VEH0_20XX
1 Person	1 Vehicle	HH1_VEH1_20XX
2 People	1 Vehicle	HH2_VEH1_20XX
3 People	1 Vehicle	HH3_VEH1_20XX
4 People	1 Vehicle	HH4_VEH1_20XX
1 Person	2 Vehicles	HH1_VEH2_20XX
2 People	2 Vehicles	HH2_VEH2_20XX
3 People	2 Vehicles	HH3_VEH2_20XX
4 People	2 Vehicles	HH4_VEH2_20XX
1 Person	3 or more Vehicles	HH1_VEH3_20XX
2 People	3 or more Vehicles	HH2_VEH3_20XX
3 People	3 or more Vehicles	HH3_VEH3_20XX
4 People	3 or more Vehicles	HH4_VEH3_20XX

Given household data is used to produce trips and student data was only available in terms of number of students, rather than number of housing units, it is necessary to process the total number of households and reduce it by the student portion of the TAZ. This was done by first assuming that the household to population ratio for students is the same as for non-students within each TAZ. Next, the household to population ratio was multiplied by the total number of students to convert the student population figure to a household estimate. This was then multiplied by the CTPP percentages of household size and vehicle ownership. Last, these student households were subtracted from the total in order to obtain total non-student households to generate trips. Student population is used separately to produce trips and will be discussed later. Figure 5.3 shows the process.

Figure 5.3: CTPP data processing steps to remove students



Employment Data

Employment data is used in the AAMPO TDM to generate trip attractions. The number of employees in each TAZ is multiplied by the trip attraction rates to determine the number of trips the TAZ will attract. The employment data used in the model is from Iowa Workforce Development (IWD), which is derived from the Quarterly Census of Employment and Wages (QCEW) data from the Bureau of Labor Statistics[8]. The employment data set includes business names, the number of employees present at each business location, and the North American Industry Classification System (NAICS) codes. Employment data is grouped into employment type categories (Retail, Service, and Production/Distribution) using the NAICS codes as shown in the table below. Iowa State University employment data by building was received directly from ISU and was used in place of any IWD employment data for the university.

Table 5.3: Employment Categories and NAICS Codes

Category	Employment Type	NAICS Group Codes	Industry Examples
1	Basic (Other)	11, 21, 23	Agriculture, Forestry, & Hunting
2	Basic (Other)	22, 42, 48-49	Utilities, Wholesale Trade, Transportation & Warehousing
3	Service	51, 52, 53, 54, 55	Financial & Insurance, Real Estate, Rental and Leasing and Management
4	Basic (Other)	31, 33	Manufacturing
5	Service	62, 71, 72, 81	Services: Health Care & Social Assistance, Arts, Entertainment & Recreation
6	Retail	44-45	Retail Trade
7	Service	56, 61, 92	Administrative, Educational, & Government

Table 5.4: Employment by Type

Employment Type	Number of Employees 2010
Retail	4,162
Service	16,730
Basic (Other)	5,878
Iowa State University	12,733
Total	39,503

Household Travel Survey

The AAMPO does not have a household travel survey. This requires that trip rates be borrowed from other sources. The most recent household travel survey in the state of Iowa was recently completed by Bi-State Regional Commission in the Quad Cities IA/IL area. This survey produced trip production rates, but did not produce trip attraction rates. Trip attraction rates were borrowed from an industry standard source, NCHRP 716. Lastly, because the AAMPO area has such a large student population it was deemed

[8] Quarterly Census of Employment & Wages (QCEW). (n.d.). Retrieved from http://www.iowaworkforce.org/lmi/empstat/aboutqcew.html

necessary to accurately generate student trips. Unfortunately, local sources that produce student trip rates are not available and there are not any industry standards that are widely used. Therefore, the student trip rates were borrowed from a recent study done by the Virginia Department of Transportation on university student travel. This will be discussed in more detail in a later chapter.

Trip Purposes

Trip purposes are used to categorize various types of household-based trips that have similar characteristics, such as location of production or attraction end, trip lengths, and auto occupancies. Trip rates by trip purpose consider the specific socioeconomic data associated with each trip type. The AAMPO TDM uses the trip purposes shown in Table 5.5.

Table 5.5: AAMPO TDM Trip Purposes

Trip Purpose
Home-Based Work (HBW)
Home-Based Other (HBO)
Non-Home-Based (NHB)
Home-Based University (HBU)
Single-Unit Truck (SU)
Combination Truck (COMBO)

A trip is defined as a distinct travel movement from one clearly identifiable starting place/activity to another with a distance of more than one block. In some cases, two or more trips may be linked to reflect the true trip purpose and to factor out convenience stops, such as stopping for gas on the way from home to work. In these cases, the model represents the linked trip as two separate trips. The specific trip purpose definitions are as follows[2]:

- **Home-Based Work (HBW)** - Commute trips between home and work and vice versa (e.g., includes trips between work and home).
- **Home-Based Other (HBO)** - All other trips that have one end at home. These can include trips between home and appointment, home and recreation, etc.
- **Non-Home-Based (NHB)** - Trips with neither end at the home.
- **Home-Based University (HBU)** – Commute trips between home and ISU and vice versa.
- **Single-Unit Truck (SU)** – Single unit truck (6+ tires) trips.
- **Combination Truck (COMBO)** – Combination truck trips.

Production Rates

A travel survey commissioned by Bi-State Regional Commission (BSRC) was done for the Quad Cities metropolitan area in 2014.[9] This survey had nearly 1,800 responses from the region and provides insight

[9] Bi-State Model Updates – Methodology and Results (URS Corporation, 2014)

into travel behavior in the area. Additionally, demographics were controlled for and care was taken to provide a large enough sample of special populations so that important groups were not under sampled.

The Quad Cities differs from Ames in that it has a larger population and lacks a large student population. However, few recent and local travel surveys are available. Additionally, the non-student population in Ames is likely have travel behaviors somewhat similar to a community like the Quad Cities.

Table 5.6: Ames MSA and Quad Cities MSA 2010 Comparison[10&11]

Category	Ames MSA	Quad Cities MSA
Population	89,542	379,690
Median Household Income	$48,034	$46,310
Median Age	26.7	39.4

Person trip rates were produced from the BSRC travel survey for various trip purposes and stratified by various household characteristics, including household size by vehicle ownership. These trip rates can then be applied directly to the calculated number of non-student households by household size and auto ownership to produce trip productions and attractions. The trip production rates for HBW, HBO, and NHB trip purposes for the non-student population are shown in Tables 5.7-5.9.

Table 5.7: HBW Trip Production Rates

Autos Owned	Household Size			
	1	2	3	4+
0	0.170	0.333	0.167	0.167
1	0.433	0.470	0.844	0.844
2	0.551	1.060	1.657	1.657
3 and 3+	0.588	1.497	2.695	2.695

Table 5.8: HBO Trip Production Rates

Autos Owned	Household Size			
	1	2	3	4+
0	0.943	1.667	4.833	4.833
1	1.802	3.513	6.778	6.778
2	2.000	3.781	8.582	8.582
3 and 3+	2.059	3.530	6.836	6.836

Table 5.9: NHB Trip Production Rates

Autos Owned	Household Size			
	1	2	3	4+
0	0.377	1.444	2.333	2.333
1	1.17	1.887	2.533	2.533
2	1.29	2.177	3.493	3.493
3 and 3+	1.176	2.174	3.229	3.229

[10] U.S. Census Bureau, 2010 Census
[11] U.S. Census Bureau, 2010 American Community Survey

Attraction Rates

Person-trip attractions are the non-home destination of a trip. Because destinations are typically made to a place of work or a location where other people work (e.g. shopping center, office, etc.), attractions are based on employment data stratified by the NAICS categories summarized in Table 5.0. Due to the lack of attractions rates from the BSRC travel survey, as well as a lack of household travel survey in the AAMPO region, attraction rates were based on rates from NCHRP 716. Elementary, Middle, and High Schools are also large attractors of trips that tend to have trips underestimated if just using employment numbers. Therefore, school enrollment was used in addition to employment to attract a higher number of trips.

Table 5.10: Trip Attraction Rates

Land Use	HBW	HBO	NHB	Total
Total Occupied Households	0.0	1.2	0.6	1.8
Retail Employment	1.2	8.1	4.7	14.0
Service Employment	1.2	1.5	1.4	4.1
Basic (Other) Employment	1.2	0.2	0.5	1.9
School Enrollment	0.0	1.2	0.0	1.2

Trip Generation Validation

Based on model validation guidelines provided by the Travel Model Improvement Program (TMIP), it is good practice to check the reasonableness of the person trips generated by comparing the percentage of trips by purpose to other models and sources.[12] Given the age of various model validation guides being quite old and the fact Iowa participated in the 2009 NHTS Add-On program, Iowa specific percentages were developed based on the 2009 NHTS as shown in the following table. The disadvantage with the Iowa NHTS Add-On is that rural areas are more heavily sampled than urban areas.

The AAMPO TDM person trip percentages are skewed by the large quantity of student HBU trips. If student trips are removed, then the non-student portion of the trips fall comfortably within the TMIP validation ranges.

Table 5.11: Comparison of Percentage of Person Trips by Purpose

Trip Purpose	TMIP Validation Manual	2009 NHTS for Iowa	2009 NHTS for Iowa with Urban Size between 50,000 and 199,999 people	AAMPO TDM Person Trips – with students	AAMPO TDM Person Trips – no students
HBW	17.9 - 27.0%	12.6%	10.5%	17%	23%
HBO	47.0 - 53.8%	55.8%	56.7%	40%	48%
NHB	22.6 - 31.3%	31.7%	32.9%	29%	29%
HBU	-	-	-	14%	-

[12] The Travel Model Improvement Program: Travel Model Validation and Reasonableness Checking Manual, 2nd ed. (September 2010)

External Trips

The discussion thus far has been primarily on internal-internal trips in the AAMPO TDM. In addition to these trips, the model must also consider travel from outside the AAMPO study area. Trips with one end inside the modeling area and the other outside of the area are called Internal-External (IE or IX) and External-Internal (EI or XI) trips. Through trips or External-External (EE or XX) trips are those that pass through the AAMPO study area. The AAMPO travel model has 33 external stations and they are shown in Figure 4.

External Station Volumes

A combination of sources was used to determine external station volumes for the AAMPO TDM, including average annual daily traffic counts (AADT) from the Iowa DOT, sub-area volumes from Iowa Statewide Traffic Analysis Model (iTRAM), and the trip purpose percent distribution values from NCHRP 365. First, person trips were obtained from the iTRAM sub-area analysis. The percentage of through trips from the sub-area was calculated and applied to the AADT count to estimate the percentages of EE vs. EI/IE trips. Next, the EI/IE trips were estimated based on the trip purpose percent distribution recommended in NCHRP 365 for centralized urban areas. This trip purpose split was chosen because it closely matches the journey-to-work inflow-outflow numbers from Census On-the-Map (OTM) for the study area (see center column on Table 5.12).

After the EE flow is factored based on the difference between the model flow and the AADT count, it is then divided into trip purposes by time-of-day time periods. The trip purpose split is determined by the percentage of each trip purpose produced by the gravity model. More about the time-of-day split will be discussed later. At this point, the EE trips are not symmetrical. In real life, the number of trips entering the AAMPO TDM area and driving straight through without stopping should match the number of trips that leave the AAMPO TDM area. Therefore, a process called “Fratar” must be used to balance the trips. The Fratar process is run for each trip purpose and time period separately. The final balanced EE trips are then added to the rest of the model trips by trip purpose and time period. The same process for both EI/IE and EE external trips was done for truck single-unit (SU) and combination (COMBO) trip purposes.

Single-unit and combination truck IE/EI trips were determined by the percent distribution between them at each external station location in iTRAM. iTRAM also includes a separate truck trip category for long-distance trips. While these make up only a small percentage of the total truck trips, information is not available about the type of truck these represent. Therefore, they were disaggregated based on the percentage of single-unit and combination trucks that already existed at each external station. iTRAM is unable to produce data for all roads because of the less detailed road network. Therefore, it was assumed that these lower volume roads did not have any EE movements.

On-the-Map Adjustment

Because the trip purpose split initially applied based on NCHRP data (Table 5.13), the On-the-Map (OTM) data was used to adjust the EI/IE trip purpose split based on the relative attractiveness of Ames (Figure 5.5). The percentage of worker trip inflow versus the total of inflow and outflow work trips was calculated. This was then divided by the ratio of HBW productions to the total HBW trips to get a relative attractiveness of Ames. All initial NCHRP-derived trip purpose productions could then be multiplied by this relative attractiveness factor to get EI/IE trip productions that are adjusted based on the relative attractiveness of Ames compared to the centralized urban area given in NCHRP 365. The total pre-adjustment and post-adjustment productions and attractions are shown in Table 5.14. Final volumes are shown in Table 5.15.

Figure 5.4: External Stations

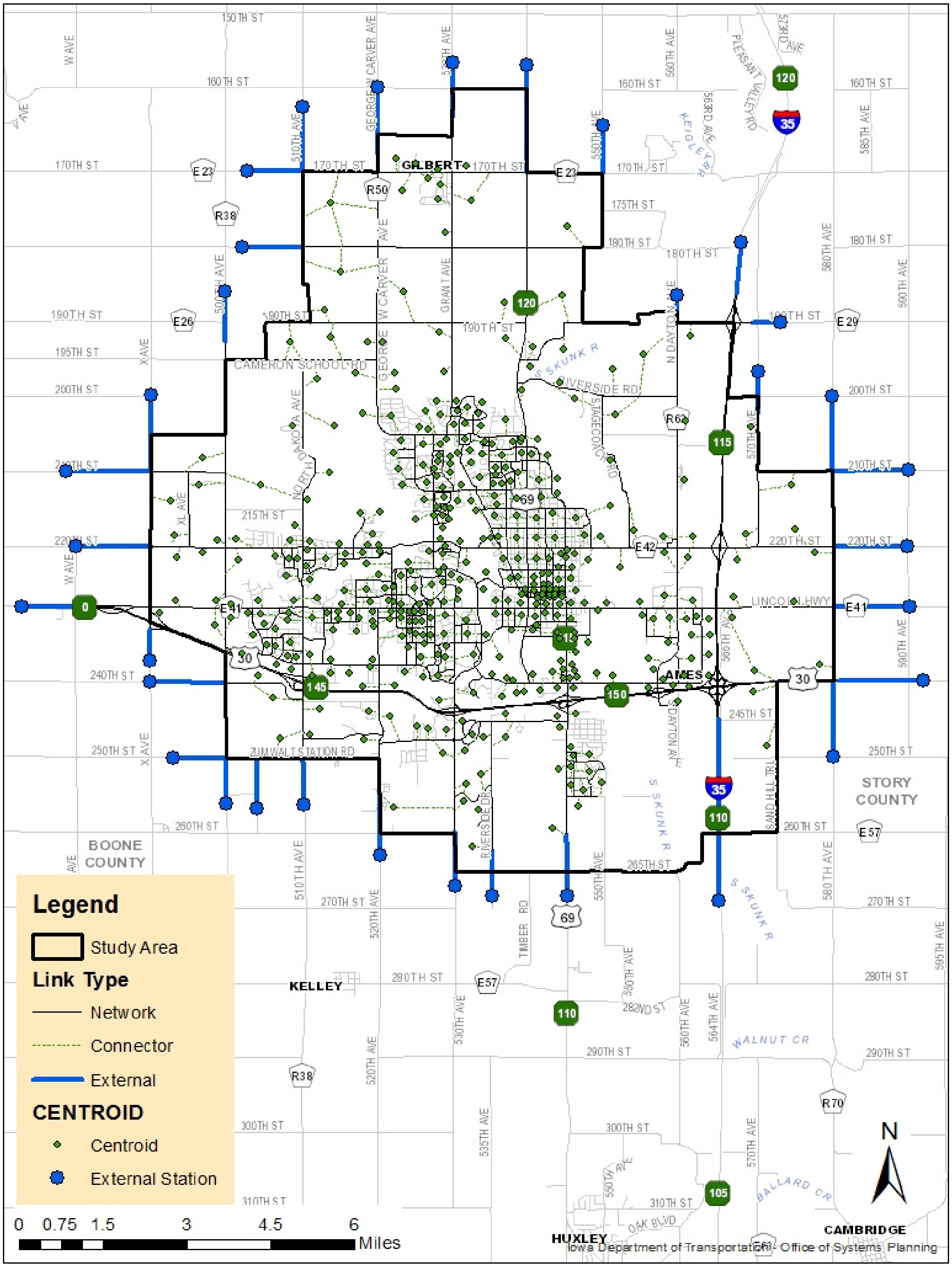


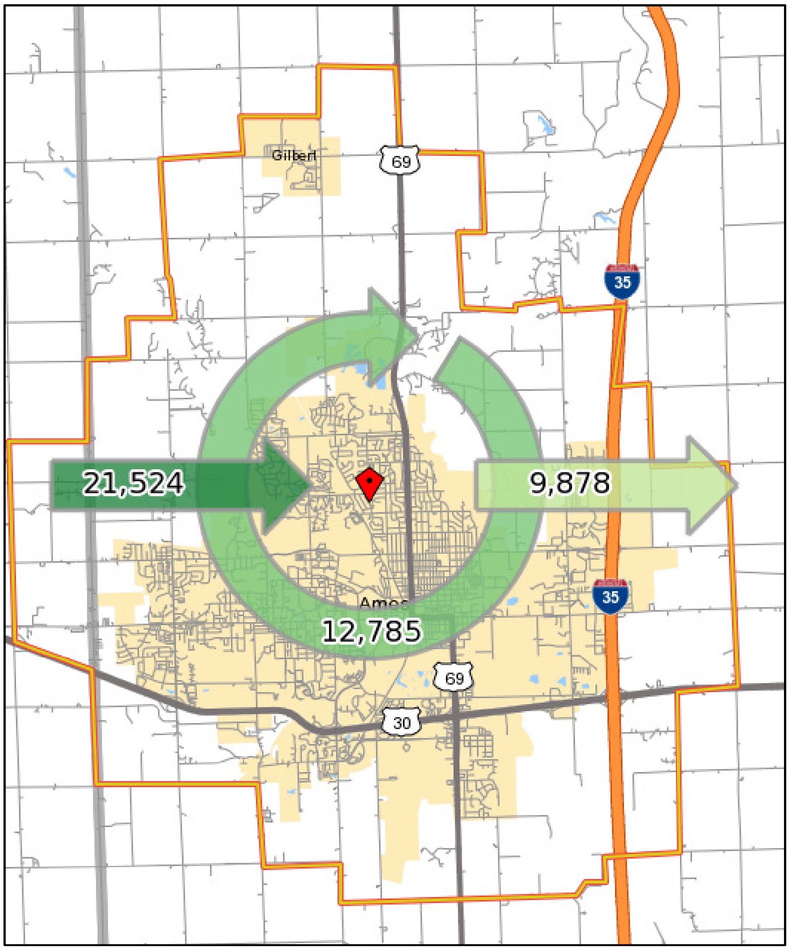
Table 5.12: Trip Purpose split results using various methods

AAMPO E-I/I-E	iTRAM Trip Purpose Split	NCHRP 365 Trip Purpose Split – Centralized Area	NCHRP 365 Trip Purpose Split – Dispersed Area
HBW Ps	9,352	23,249	6,838
HBW As	9,052	8,205	10,257
Total	18,404	31,454	17,095

Table 5.13: NCHRP 365 IE/EI Auto Trips by Purpose and Direction for Centralized Area[13]

TABLE 26 -NCHRP 365: External Trip purposes/residency factors for centralized areas*			
Trip Purpose	**Resident (Attraction)**	**Non-Resident (Production)**	**Total**
Home-Based Work	0.12	0.34	46%
Home-Based Other	0.09	0.23	32%
Non-Home Based	0.11	0.11	22%
Total	32%	68%	100%
*San Juan, Puerto Rico 1990 External Cordon Survey			

Figure 5.5 – Census On-the-Map Worker Inflow-Outflow



[13] NCHRP Report 365 – Travel Estimation Techniques for Urban Planning. 1998. http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_365.pdf

5.14:

Trip Purpose	IE/IE Input from NHCRP Centralized Area Split	On-The-Map Adjusted EI/IE Trips
HBW Ps	22,505	20,897
HBW As	7,943	9,551
HBO Ps	15,222	14,134
HBO As	5,958	7,046
NHB Ps	7,284	6,763
NHB As	7,284	7,805

Table 5.15: External Station Volumes and EE – IE/EI

NODE ID	TAZ NUM	Location	AADT 2011	Auto 2010	Trucks 2010	% Auto EE	% Auto IE/EI	% SU EE	% SU IE/EI	% COMBO EE	% COMBO IE/EI
992	1000	US 30 W	15400	13832	986	13%	87%	20%	80%	61%	39%
10165	1001	X AVE N	190	46	0	0%	100%	0%	100%	0%	100%
10161	1002	220TH ST W	140	104	0	0%	100%	0%	100%	0%	100%
1033	1003	500TH AVE N	1740	2113	14	8%	92%	14%	86%	55%	45%
10164	1004	210TH ST W	140	146	14	0%	100%	0%	100%	0%	100%
10166	1005	170TH AVE W	1150	893	154	0%	100%	0%	100%	0%	100%
10167	1006	180TH AVE W	69	54	8	0%	100%	0%	100%	0%	100%
9801	1009	N DAYTON AVE	800	875	106	41%	59%	100%	0%	100%	0%
4317	1010	I-35 N	25800	20560	4520	75%	25%	77%	23%	90%	10%
3009	1011	190TH ST E	1760	2509	194	18%	82%	51%	49%	85%	15%
3008	1012	570TH AVE N	50	54	0	0%	100%	0%	100%	0%	100%
5216	1013	580TH AVE N	80	83	0	0%	100%	0%	100%	0%	100%
3235	1014	210TH ST E	25	22	4	0%	100%	0%	100%	0%	100%
2878	1015	220TH ST E	160	148	18	0%	100%	0%	100%	0%	100%
7931	1016	LINCOLN HWY	4440	4223	404	4%	96%	6%	94%	31%	69%
8282	1017	US 30 E	13000	11981	804	22%	78%	33%	67%	70%	30%
5619	1018	580TH AVE S	900	877	58	0%	100%	0%	100%	0%	100%
4322	1020	I-35 S	36044	31501	5532	51%	49%	27%	73%	77%	23%
4849	1023	US 69 S	7100	7174	284	10%	90%	13%	87%	32%	68%
3118	1024	RIVERSIDE DR	35	27	8	0%	100%	0%	100%	0%	100%
3120	1025	530TH AVE S	340	314	38	0%	100%	0%	100%	0%	100%
7932	1026	STATE AVE	210	200	16	0%	100%	0%	100%	0%	100%
7935	1027	510TH AVE S	3830	3620	288	3%	97%	9%	91%	5%	95%
3499	1028	500TH AVE S	0	0	0	0%	100%	0%	100%	0%	100%
7933	1029	IOWA STATE UNIVERSITY	60	73	0	0%	100%	0%	100%	0%	100%
7934	1030	250TH ST W	60	63	0	0%	100%	0%	100%	0%	100%
385	1031	240TH ST W	35	36	0	0%	100%	0%	100%	0%	100%
386	1032	X AVE S	570	561	32	0%	100%	0%	100%	0%	100%
9820	1033	510TH AVE N	50	103	0	5%	95%	17%	83%	5%	95%
9805	1034	GEORGE W	90	77	14	0%	100%	0%	100%	0%	100%

NODE ID	TAZ NUM	Location	AADT 2011	Auto 2010	Trucks 2010	% Auto EE	% Auto IE/EI	% SU EE	% SU IE/EI	% COMBO EE	% COMBO IE/EI
		CARVER AVE									
9806	1035	530TH AVE N	80	54	28	0%	100%	0%	100%	0%	100%
9821	1036	US 69 N	3660	3878	112	3%	97%	5%	95%	6%	94%
9822	1037	550TH AVE N	100	104	0	0%	100%	0%	100%	0%	100%

CHAPTER:6 Iowa State University Sub-model

Context and Background

Iowa State University (ISU) and the AAMPO TDM study area are intimately entwined. With an enrollment of over 27,000 and almost 13,000 full-time-equivalent employees in 2010, ISU alone accounts for nearly half of the total population and a third of the employment in the TDM.

Because ISU brings a large and unique population with unique travel patterns, it is necessary to ensure that ISU-related trips are accurately represented. Students are a younger, busier, and lower-income subset of the population than is typically represented in travel demand models. A review of other travel demand models for college towns does not reveal many robust methods for dealing with students, and a simple special generator was deemed to be insufficient for a university of this magnitude.

Instead, results from recent student travel surveys produced by the Virginia Department of Transportation were used to generate student travel.[14] This study evaluated the travel behavior of students at four universities, resulting in student trip transportation mode percentages, trip purpose rates, and temporal distributions of trips for both on-campus and off-campus students. Results from the universities most similar to the somewhat suburban or small town nature of ISU and Ames were used in the AAMPO TDM (University of Virginia in Charlottesville, and Virginia Tech University in Blacksburg).

On-campus & Off-campus Student Data

ISU provided data on student housing locations for both On-campus and Off-campus students. The density of on-campus and off-campus students within the TAZs is shown in Figures 6.1 and 6.2. On-campus students are defined as students that live in campus housing. Although many students live in transitional housing, such as in Frederiksen Court and Schlittetter and University Village, these are still grouped with students living in dorms.

Off-campus students are scattered throughout the AAMPO study area, with an additional 5,019 living outside of the model area. In general, however, higher densities of off-campus students tend to live near the campus. Additionally, large concentrations of students live along bus lines.

University Full-Time Equivalent Employment

ISU provided data on full-time equivalent (FTE) employment by building in 2011. This data was then tabulated to the TAZs that those buildings were contained within. Tabulating the employment data by building allows the model to attract trips to those building locations, rather than a general location on central campus. The density of FTE employment within each TAZ is shown in Figure 6.3.

FTE employment was further disaggregated in order to estimate the portion of student and non-student employment. Percentages from an ISU Fact Book found on their website were used to split FTE employment into student and non-student employment.[15]

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[14] Virginia Department of Transportation. (2012). *Comparative Analysis of Virginia University Student Travel Surveys*. Richmond, Virginia.
[15] Fact Book: 2014-2015. (n.d.). Retrieved from http://www.ir.iastate.edu/FB15/facstaff15.html

Figure 6.1: Iowa State University Student Housing Density (Region-wide)

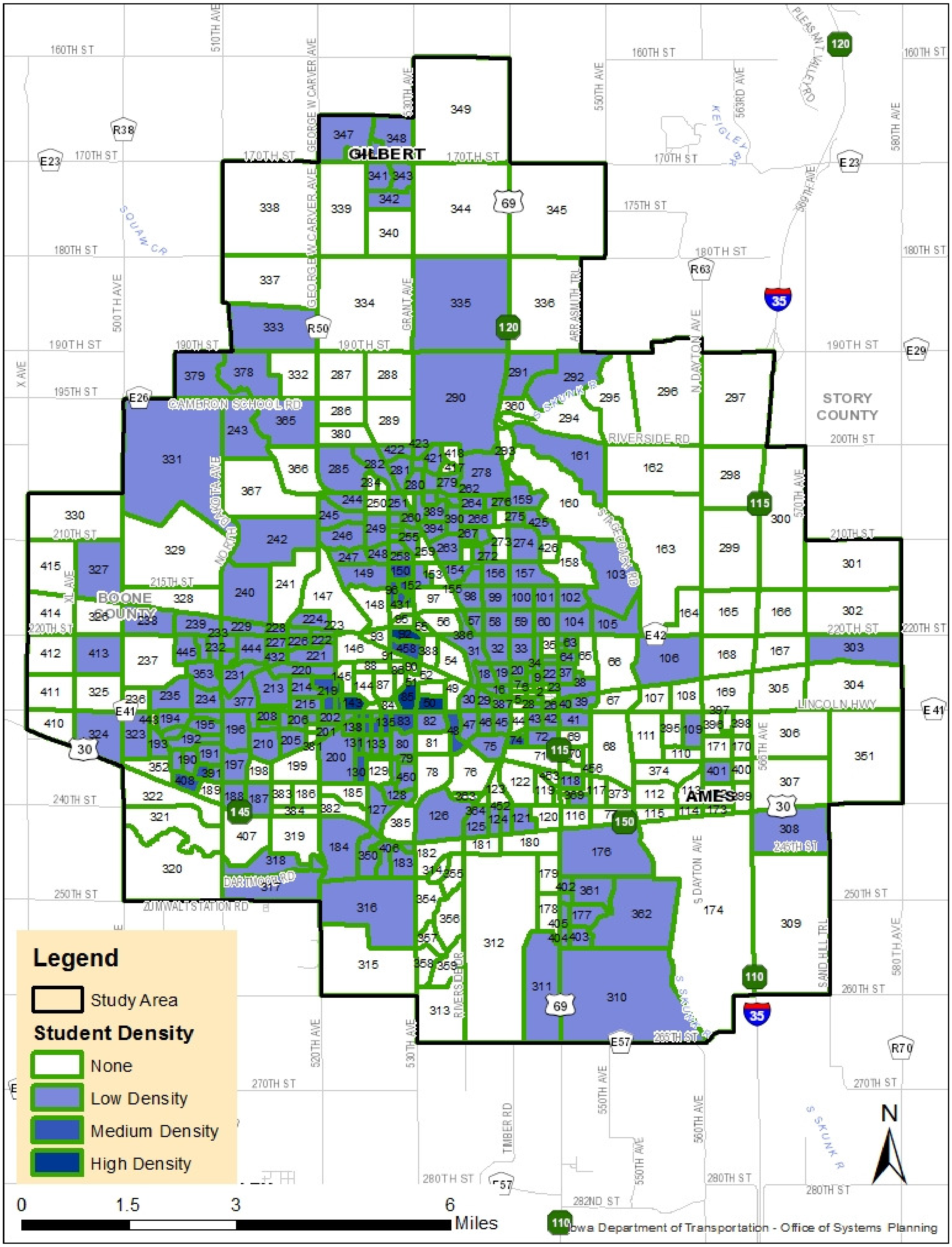


Figure 6.2: Iowa State University Student Housing Density (Campus)

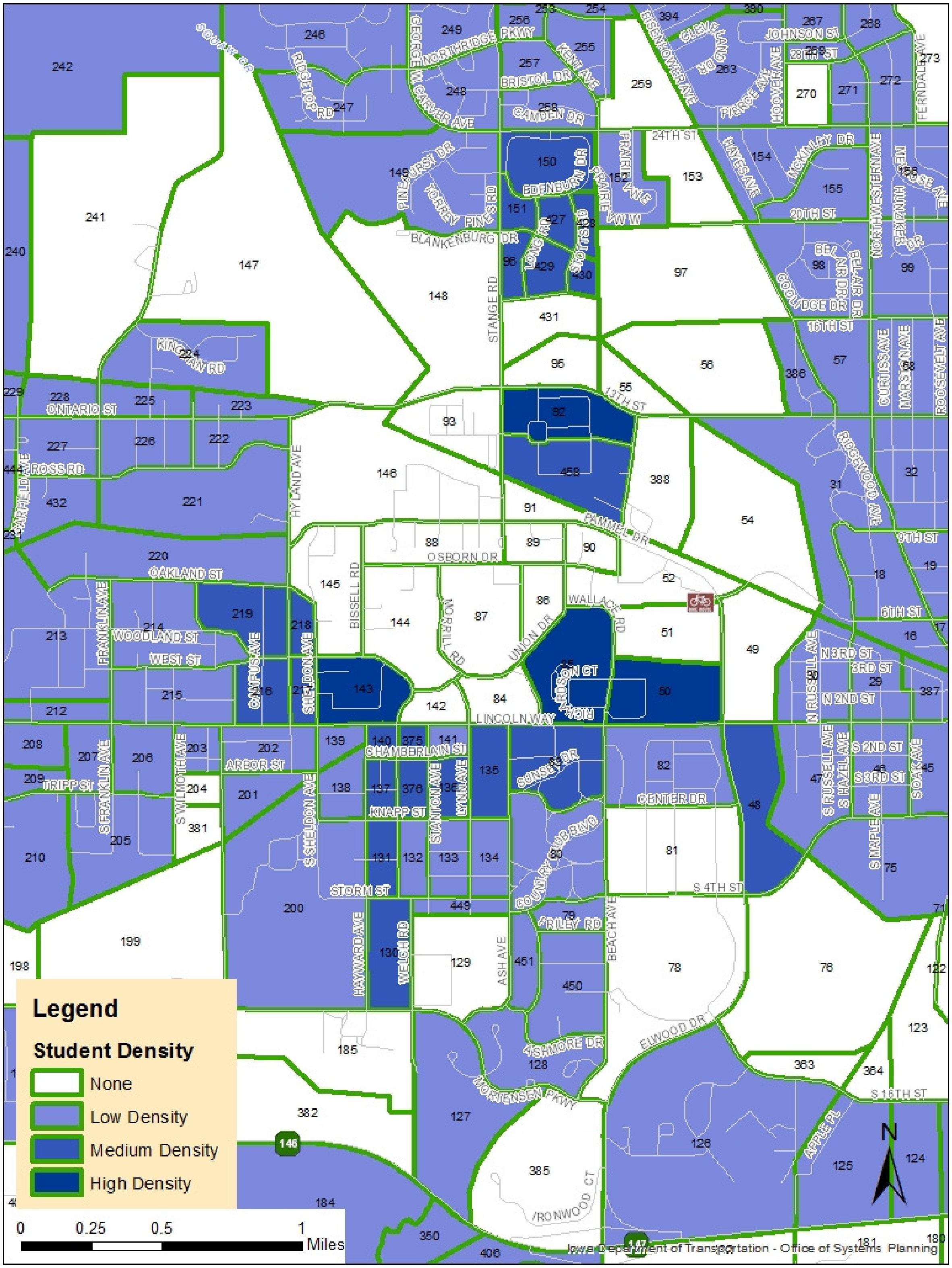
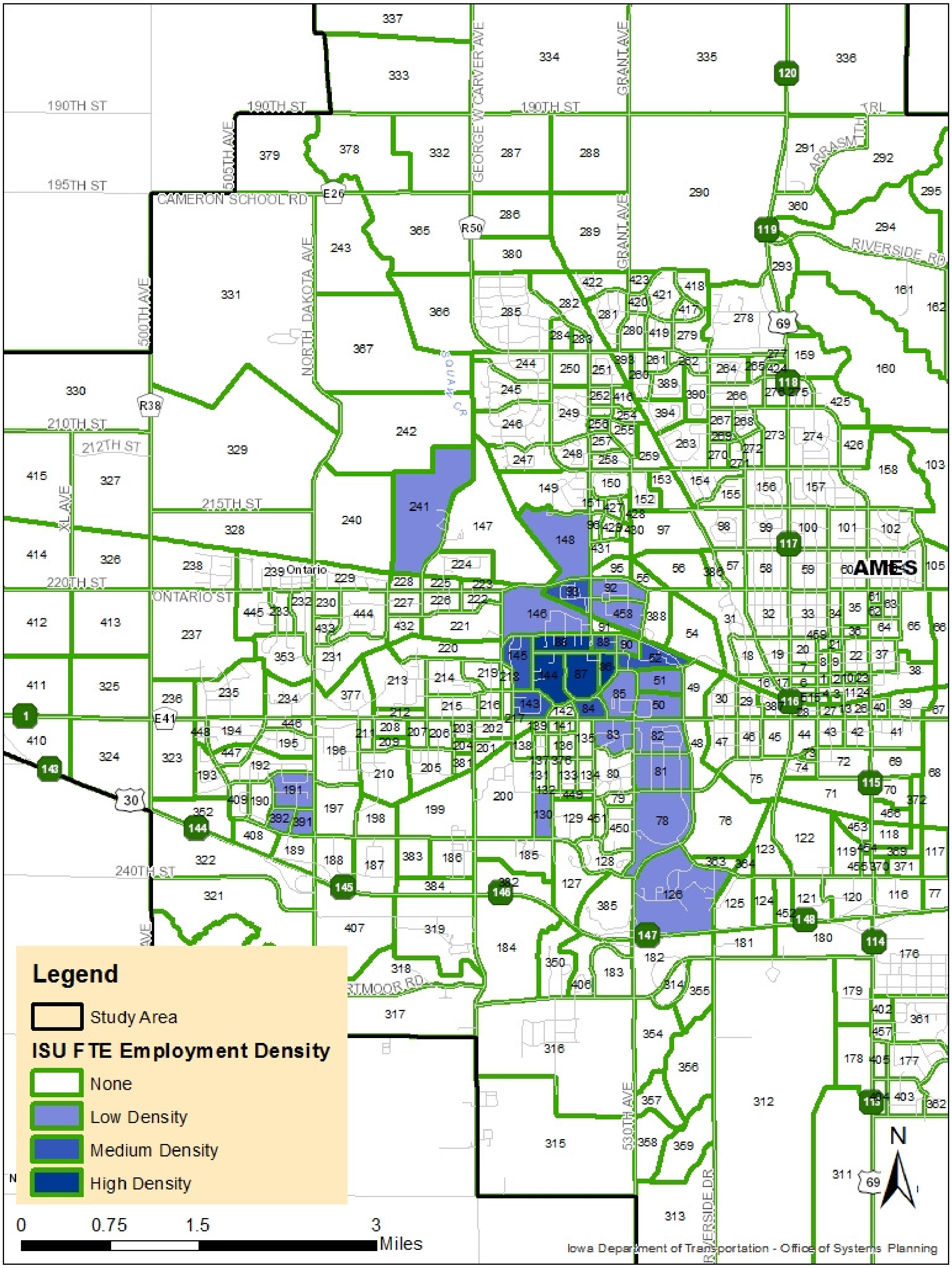


Figure 6.3: Iowa State University Full-Time Equivalent Employment Density



Student Travel

Table 6.1 shows on-campus and off-campus student trip rates derived from the UVA and VT samples of the VDOT student travel survey. Students have similar trip purposes as non-students, with the one large exception of Home-Based University (HBU) trips. Students, in general, make a larger number of trips than non-students, and naturally, on-campus students make a larger number of trips than off-campus students.

Table 6.1 - Student Trip Rates (UVA & VT)

	HBU	HBW	HBO	NHB	Total
On-Campus	0.317	0.013	0.241	0.336	5.325
Off-Campus	0.282	0.059	0.164	0.363	4.330

The time of the day that students make trips also differs from non-students. The VDOT survey shows that nearly 50% of travel occurs between 9:00 am and 3:00 pm (Table 6.2). However, because this data is for all student trips instead of just HBU trip purposes, the average of this and NCHRP 716 Home-Based School trip purposes was used. Then, the averaged percentages were adjusted to fit within the AAMPO On-Board Survey Peak and Off-Peak time periods. Although the survey represents transit trips only, the vast majority of HBU trips are made by bus. The final time period percentages are shown in Table 6.3.

Table 6.2 - Trip Time Period Percentages (UVA & VT)

Time Period	Percentage of Trips
AM Peak (7-9)	10%
Mid-Day (9-3)	46%
PM Peak (3-6)	20%
Night (all else)	24%

Table 6.3 - Final Student Time-of-Day Percentages

Time Period	Percentages of Trips
AM Peak (7-9)	21%
Mid-Day (9-3)	40%
PM Peak (3-6)	19%
Night (all else)	20%

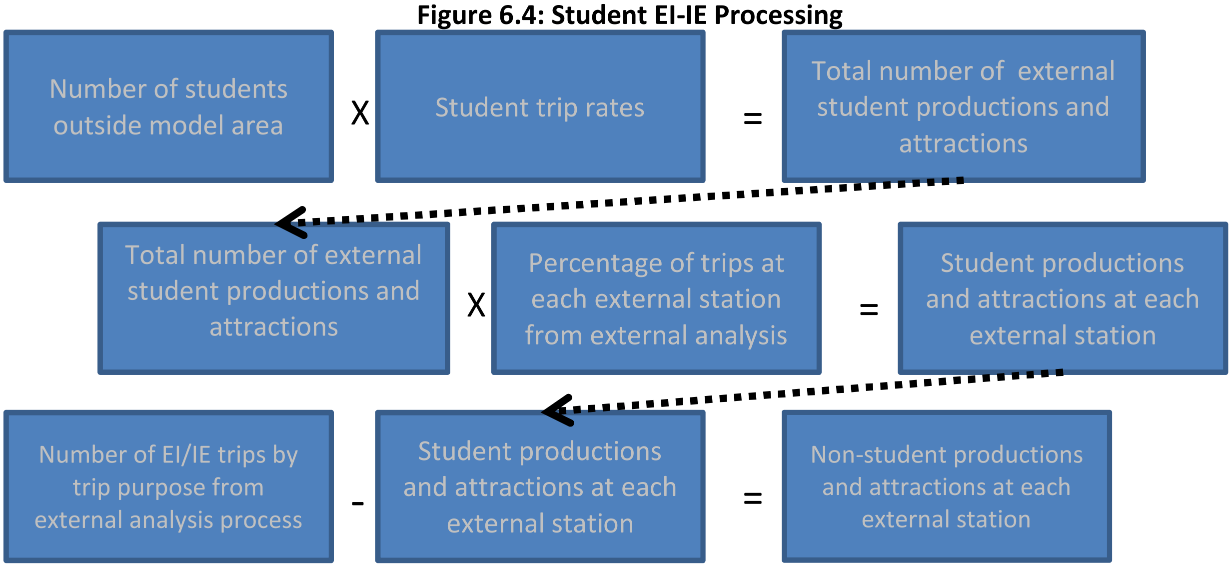
Naturally, as a lower-income segment of the population, students are more likely to use non-auto modes of transportation. Although mode split is done by trip purpose rather than for students and non-students separately, the largest portion of transit trips is the HBU trip purpose which is only made by students.

Student EI-IE

The external analysis process does not have the flexibility to produce external student trips. Naturally, student E-E trips will not occur because AAMPO is an origin and destination for students. Student EI/IE trips do need to be estimated. With data on the number of off-campus students that live outside of the model area boundaries available, it is possible to distribute a portion of those non-student trips into the number of student EI/IE trips.

The process starts with the number of students that reside outside the model area boundaries. Then, student trip productions and attractions are generated using student trip rates. These are then distributed to each external station proportionately according to the number of non-student trips that occur there. Lastly, the student trip productions and attractions at each external station are then subtracted from each matching non-student trip purpose. HBU trip purposes are subtracted from non-student HBO trip purposes. Eventually, student and non-student EI/IE trips are added together to get the total number of EI/IE trips. This process is shown graphically in Figure 6.4.

Figure 6.4: Student EI-IE Processing



Student Attractions

Only student trip production rates are available from the VDOT survey. For non-campus locations in the model this does not present an issue since the employment data does not distinguish between students and non-students, and therefore generates enough HBW, HBO, and NHB trip attractions to represent both the student and non-student population.

HBU attractions are not generated with the employment data. Yet, it is already known that HBU trips will be attracted only to campus. Therefore, the total number of HBU attractions was assumed to be the same as the HBU productions.

Although this logically makes sense, a process was also needed to determine where on campus the HBU attractions would be produced. FTE employment by building was used to disaggregate the total number of HBU attractions to the campus TAZs.

Faculty and Staff Trips to Campus

Faculty and staff make up a large portion of trips going to campus. This makes it necessary for HBW attractions to be generated as well. HBW attractions are generated by FTE employment by building.

Parking on Central Campus

The final destinations of student and faculty traveling to campus are ultimately to campus buildings where classes or other academic functions are located. However, parking is enough of a challenge on campus that students and faculty often park in a different TAZ than their ultimate destination. Thus, attracting vehicle trips purely to campus buildings would cause error in the vehicle flows near campus. Therefore, a process is used to redistribute vehicle trips that have their trip ending somewhere in central campus (Figure 6.5).

Data on the number of parking stalls within each parking area on campus was provided by ISU. Additionally, on-street parking is very common near campus, so aerial photos were used to estimate the number of vehicles that park on the side of the street near campus in a typical day.

It is also necessary to define which TAZs are "central campus". Figure 6.6 shows the TAZs that have been selected as central campus TAZs. These include TAZs near campus where parking occurs, as well as TAZs that are actually on campus. The number of available parking spaces is shown as well. This does not include parking spaces reserved for students at residence halls because those vehicles are likely to remain stationary throughout most of the day while the on-campus students walk or use a bus around campus. All of the vehicle trips that are destined for these TAZs where campus buildings are located are first summed to determine the total of all trips to central campus. Then, the sum of all vehicle trips destined for central campus are disaggregated proportionally based on the number of parking spaces available within each TAZ. As a result, all vehicle trips to central campus are redistributed away from campus buildings and to the parking areas available near campus.

Figure 6.5: Vehicle Trips to Campus Redistribution Process

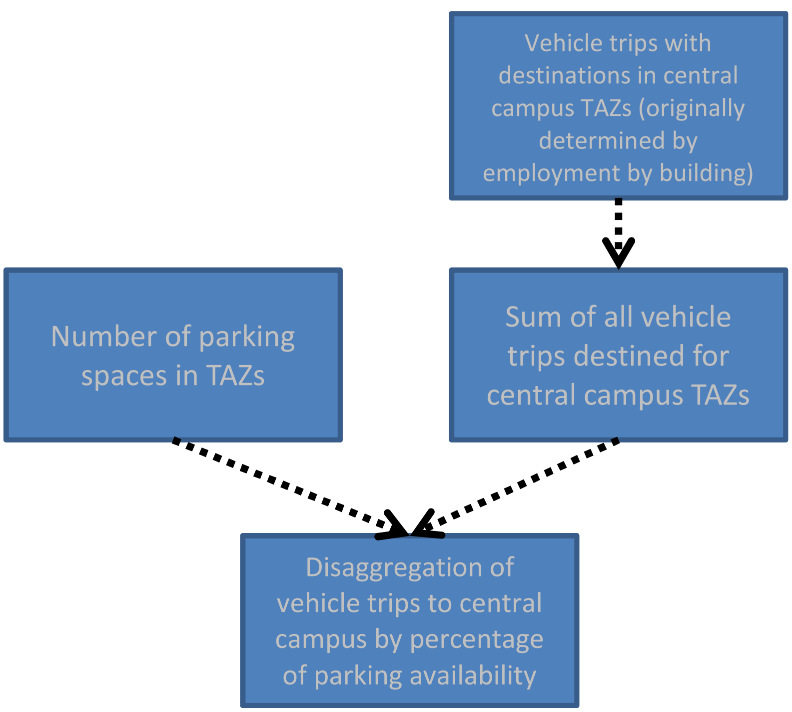
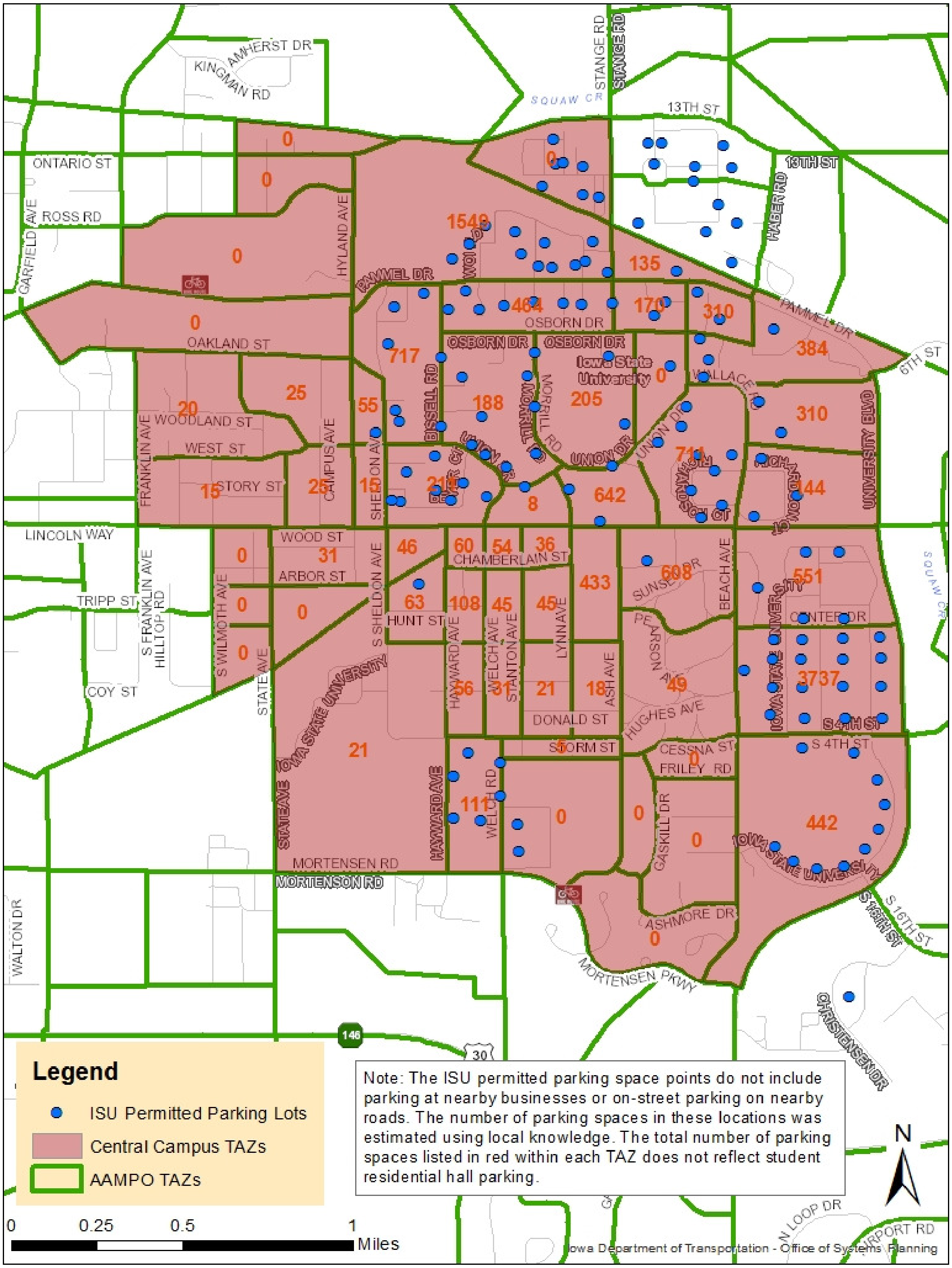


Figure 6.6: Central Campus TAZs



CHAPTER:7 Trip Distribution

Context and Background

The most common format for trip distribution in four-step models is the gravity model, an aggregate model structure that estimates a production-attraction trip table from zone-level estimates of trip productions and attractions and measures of separation between zones. In doubly constrained models, the model attempts to preserve the zonal input totals for both productions and attractions; in singly constrained models, it attempts to preserve the zonal input totals for productions only. The AAMPO TDM utilizes the doubly constrained method for distribution trip productions and attractions. "K-factors" are sometimes applied to improve the match between modeled and observed trip distribution patterns. Most often, K-factors are applied at a district level, where a district represents a subset of the zones within a modeled region. The AAMPO TDM does not utilize K-factors (except to prevent intrazonal trips at external stations). The output from the gravity model application is a trip table matrix which contains both intrazonal (e.g., trips that do not leave the zone) and intrazonaltrips for all other zone pairs for each trip purpose.**Error! Bookmark not defined.**

The gravity model takes the trips produced at one zone and distributes to other zones based on the size of the other zones (as measured by their trip attractions) and on the basis of the distance to other zones. A zone with a large number of trip attractions (e.g., a large shopping center) will receive a greater number of distributed trips than a zone with less trip attractions (e.g., a gas station). Distance to possible destinations is the other factor used in the gravity model. The number of trips to a given destination decreases with the distance to the destination (and is inversely proportional).[16]

The gravity model used in trip distribution is defined below:

$$T_{ij} = \mathrm{P}_i \cdot \frac{\mathrm{A}_j \cdot \mathrm{F}_{ij} \cdot \mathrm{K}_{ij}}{\sum_{j=1}^{n} A_j \cdot F_{ij} \cdot K_{ij}}$$

Where:

T_{ij} = trips from zone i to zone j

P_i = productions in zone i

A_j = attractions in zone j

F_{ij} = friction factor (a function of impedance between zones i and j)

K_{ij} = K-factor adjustment from i to zone

j = attraction zone

n = total number of zones

Trip Balancing

Prior to distribution, trips must be balanced among each trip purpose. Trip productions and attractions are estimated separately by purpose using the Bi-State MPO Trip Production rates and NCHRP 716 Attraction rates. In theory, the estimated total trip productions should be equal to the total trip attractions for each trip purpose, since each trip has two ends, a production and an attraction. In model application; however, the estimation of trip productions and attractions will not be exactly equal and is

[16] A Transportation Modeling Primer, Edward A. Beimborn, 2006.

why trip balancing must occur. The ratio of region wide productions to attractions by purpose should preferably fall in the range of 0.90 to 1.10 prior to balancing.

Table 7.1: Trip Summary Prior to Balancing

Trip Purpose	Total Trips	Ratio
HBW_P	44808	0.90
HBW_A	49623	
NHB_P	119227	1.18
NHB_A	100615	
HBO_P	90279	1.25
HBO_A	72261	
HBU_P	37721	1.00
HBU_A	37721	
SU_P	7484	1.01
SU_A	7486	
COMBO_P	3138	1.00
COMBO_A	3163	
Total Productions	**292035**	**1.12**
Total Attractions	**260220**	

Table 7.1 shows the ratios between productions and attractions for each trip purpose. Although not all of the ratios fall within 0.90 – 1.10, they are generally very close, and the ratio of total productions to total attractions is also very close.

Balancing depends on the level of confidence associated with the input data used to generate trips: households and employees. Home-based work trips and home-based other trips are balanced to trip productions and non-home based trips are balanced to trip attractions. Truck attractions and home-based university attractions are set equal to productions since attractions are not generated.

Roadway Network Shortest Path

The AAMPO TDM utilizes the shortest path between zone pairs as the impedance input for the gravity model application. The path-building function in TransCAD identifies the shortest route between two centroids that minimizes impedance or travel time. Shortest paths cannot pass through other centroid connectors during the path-building process. Various data, such as path distance, can be "skimmed" along the shortest impedance route. The set of all zone to zone shortest paths is called a "shortest path matrix" and is sometimes referred to as a "skim matrix" with the understanding that the skimmed variable may differ from the variable(s) used to determine the shortest path.**Error! Bookmark not defined.**

Intrazonal Impedance

Intrazonal impedances must be calculated in order to estimate the amount of travel time that occurs when trips occur within a TAZ. The nearest neighbor rule is used to estimate intrazonal impedance. The nearest neighbor rule is applied by taking the average travel time of the nearest three TAZs and multiplying that average by a factor. The AAMPO TDM utilizes a factor of one, but this can be adjusted within the GISDK script as needed.

Friction Factors

The AAMPO TDM applies friction factors to represent the effects of impedance between TAZs. As the impedance (which is inter-zonal distance and travel time) between TAZs increases, the number of trips between them will decrease as represented by a decreasing friction factor.

Friction factors represent the impedance to travel between each zone pair. The AAMPO TDM applies the friction factors in the form of gamma functions for each auto trip purpose. The gamma function is defined in the following equation.

$$F_{ij} = \alpha t^{\beta} e^{\gamma t}$$

Where:
F_{ij} = friction factor between zones I and j
t = travel time
α, β, γ = calibration parameters

Gamma coefficients were adjusted to lengthen average travel time in the model until it approached Census CTPP data for average travel time. The following four figures show the friction factors for each trip purpose. Table 7.2 contains the final gamma function parameters used in the AAMPO TDM.

Figure 7.1: HBW Friction Factor Curve

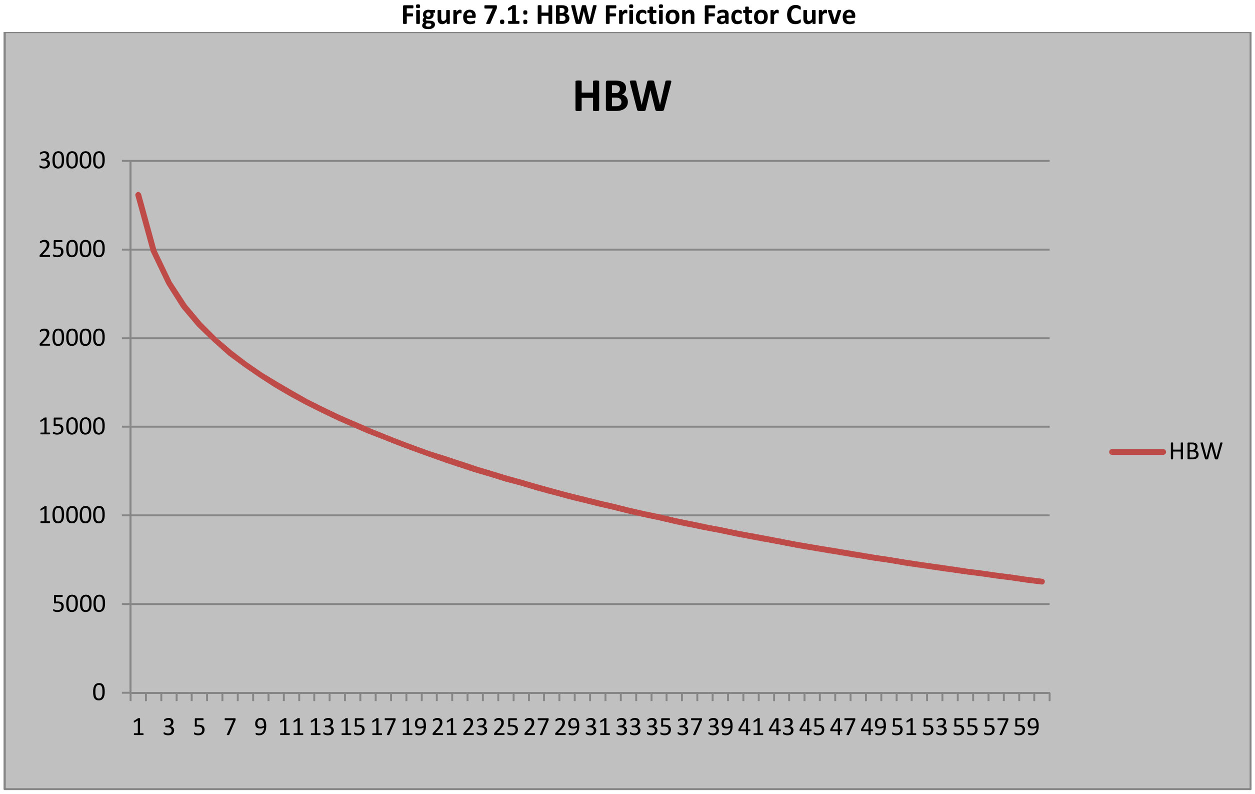


Figure 7.2: HBO Friction Factor Curve

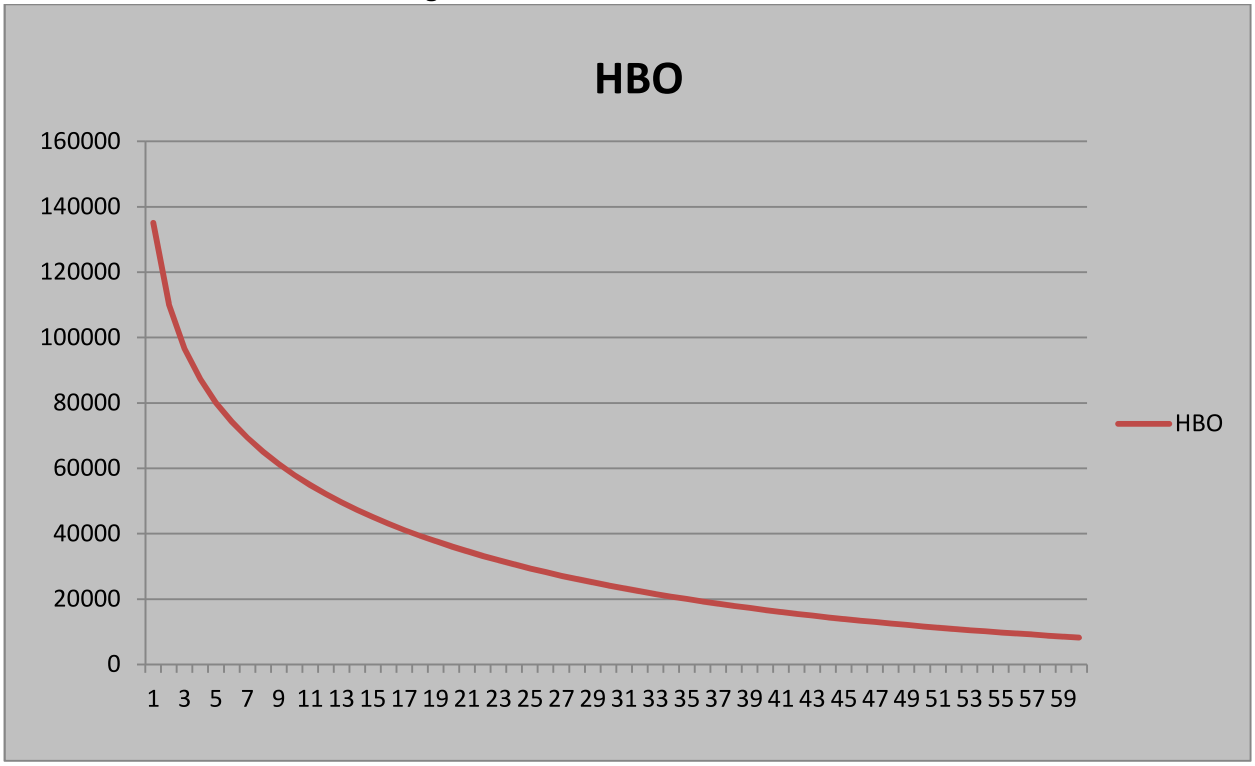


Figure 7.3: NHB Friction Factors

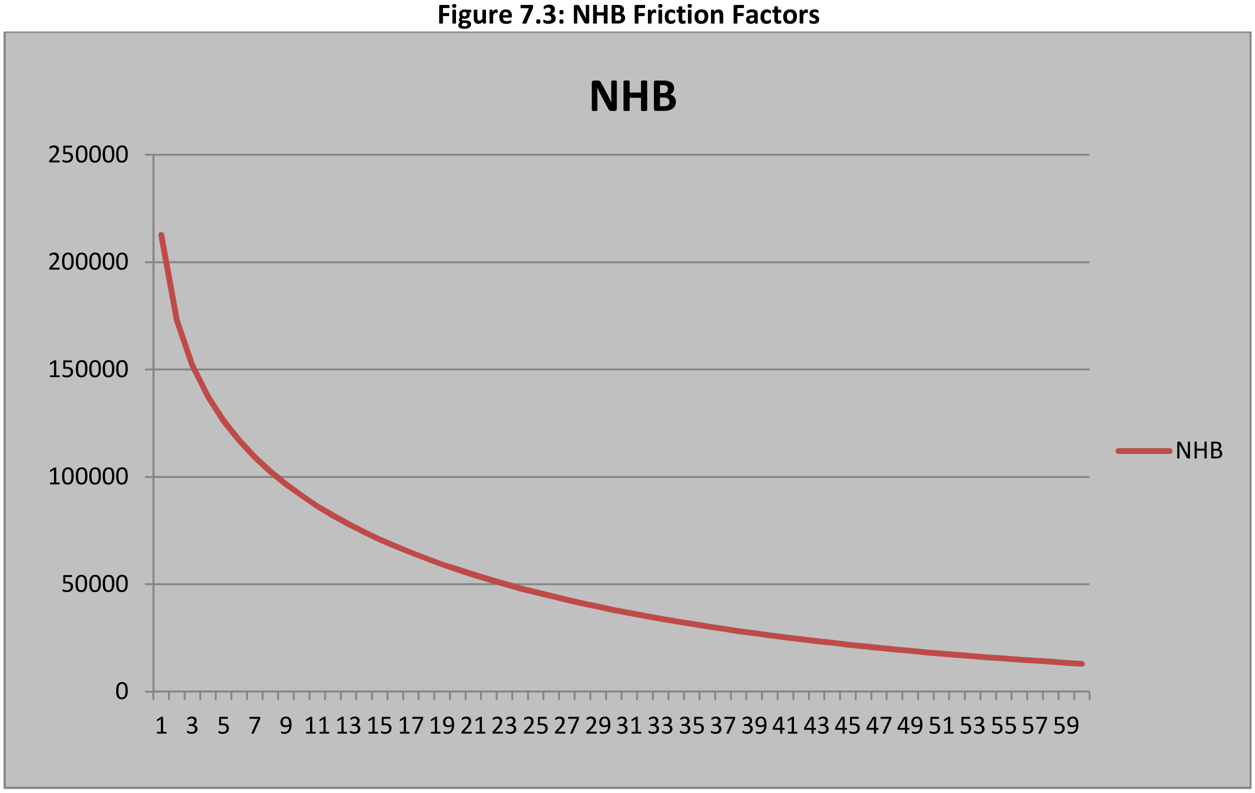


Figure 7.4: HBU Friction Factors

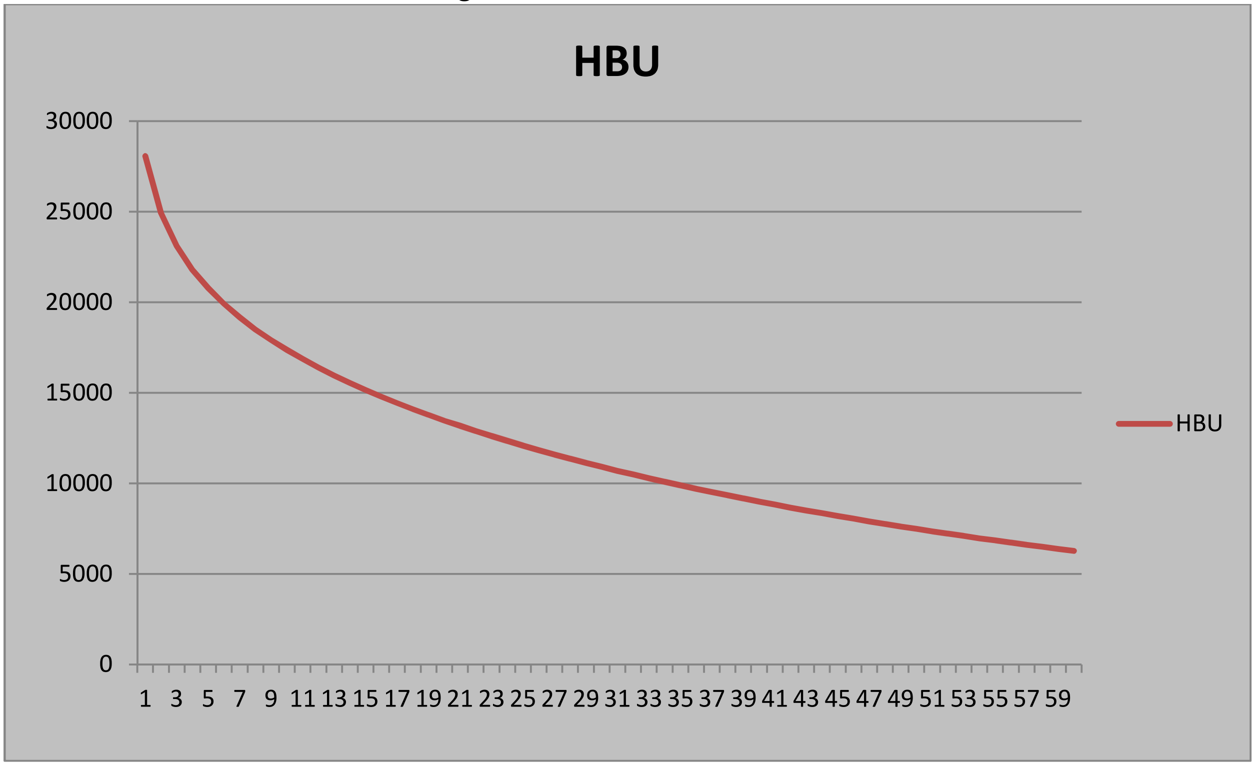


Table 7.2: Friction Factor Coefficients

Trip Purpose	HBW	HBO	NHB	HBU
Alpha (α)	28507	139173	219113	28507
Beta (β)	0.15	0.25	0.25	0.15
Gamma (ϒ)	0.015	0.03	0.03	0.015

Friction factors for truck types are applied for each truck type and are based on procedures used in the Iowa Statewide Travel Demand Model. These values are as follows:

Medium truck: exp(-0.10*[Shortest Path Travel Time])
Heavy truck: exp(-0.01915*[Shortest Path Travel Time])

Trip Lengths

Due to limited data, validation of trip distribution of all trip purposes is difficult and is often limited to the home-based work trip purpose due to data available from the U.S. Census Bureau and the CTPP. For other trip purposes, commonly observed trip length relationships can be used to verify that trip distribution results are reasonable. It has been frequently observed that work commutes have a longer average trip length than any other trip purpose. Conversely, non-home-based trip lengths are generally expected to be shorter than trip lengths for other purposes.
A comparison of average trip lengths resulting from the travel model is included in Table 7.3 below. These trip lengths represent internal-internal trips only.

Table 7.3: Modeled Average Trip Lengths

Measure	HBW	HBO	NHB	HBU	Single-Unit Truck	Combination Truck
Time (Minutes)	9.29	7.32	7.78	7.61	7.59	8.95

As expected, HBW trips are longer than other trip purposes. According to the 2006-2010 5-year ACS, the average time to work for internal-internal trips (from Ames City to Ames City) is slightly less than 10.5 minutes.

Based on these findings, the average modeled trip length (minutes) is lower compared to the observed information from the U.S. Census Bureau. However, the results are perceived as reasonable given the limited highway network of the AAMPO TDM and the lack of some delay features in the model (e.g. terminal time, intersection delay, etc.).

CHAPTER:8 Time-of-Day Split

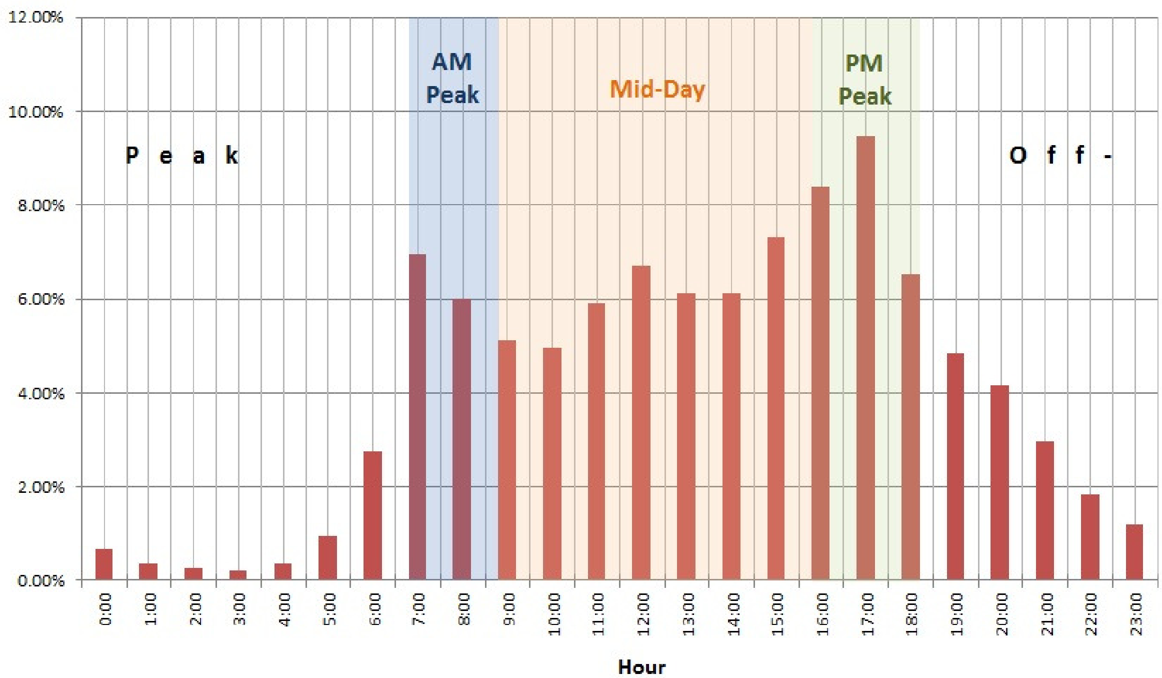
Context and Background

Since congestion occurs during only certain times of the day, it is beneficial to estimate travel by time periods. Generally, the AM and PM peaks are modeled, as well as an off-peak time period. Because of the presence of ISU in the AAMPO TDM area, travel in the middle of the day is higher than a typical community. Therefore, a mid-day time period between the end of the AM and PM time periods was added.

Time Periods

The specific times for each time period were decided based on a sample of 31 count locations. The hourly counts were tabulated to determine how much of the daily total each hour represents. Figure 8.1 shows the results from the sample in graphical format. In many communities the AM peak time period begins at 6:00 AM. However, in Ames a high percentage of travel does not begin until 7:00 AM. Therefore, the AM peak was set to only two hours while the PM peak is three hours long.

Figure 8.1: Ames Travel as a Percent of Daily Total Based on a Sample of Counts



Time-of-Day and Directional Factors

Time-of-day factors are used to split the daily model flow into time-period specific flow. Directional factors accompany the time-of-day factors because travel occurs in different directions during different times of the day. The most extreme example of this is during the AM peak when travel goes toward work and the PM peak when travel returns to the home-end.

Without a travel survey time-of-day and directional factors for each trip purpose must be borrowed from another source. NCHRP 716 provides both time-of-day and directional distributions by trip purpose in the Transferable Parameters section of the appendix. Time-of-day and directional factors were calculated based on these values for HBW, HBO, and NHB trip purposes.

Trips to a university do not necessarily have the same temporal distribution as discussed earlier. NCHRP does provide time-of-day distributions for home-based school trip purposes. The VDOT survey has time-of-day distributions as well. The average of these two sources was used. Additionally, the On-board transit survey that is discussed in the Mode Split chapter was used to estimate the percentage of trips to the university that are taken during peak time periods versus off-peak time periods. The NCHRP/VDOT factors were adjusted to match the peak/off-peak time period percentages from the survey.

Single-unit and combination truck trip purposes have more local data readily available than other trip purposes. Automatic Traffic Recorder (ATR) data for two sites and four total directions is available in Ames for single-unit and combination trucks separately. Time-of-day factors were calculated from this data. Directional factors were assumed to be the same in both directions for all time periods.

The TMIP Travel Model Validation and Reasonableness Checking Manual suggests comparing model estimated values by time period with the sample of counts. The model estimated flow of vehicle traffic per time period compared with the sample of counts is shown in Table 8.1. TMIP mentions that there is no standard practice for validation criteria, yet generally, the model results are very close and show similar trends as the counts.

Table 8.1: Sample of Counts and Model Estimated Flow by Time Period

Time Period	Sample of Counts	Model Estimated Flow
AM	11.08%	13.00%
Mid-Day	37.08%	34.26%
PM	24.36%	23.63%
Off-Peak	27.48%	29.10%

Time Period Capacities

Capacities, which were originally designated as hourly capacities, are multiplied by the total number of hours within each time period in order to get a time period specific capacity. This is done automatically by the GISDK script.

External-External Time Periods

Internal and external trips do not necessarily follow the same time-of-day distributions. Therefore, an estimate of through travel time period splits must be made. This was done using local hourly traffic count data for autos, single-unit trucks and combination trucks on US 30 where through trips are a significant percentage of trips. I-35 did not have any hourly coutn data available near Ames.

CHAPTER:9 Mode Split

Context and Background

Mode choice is the third phase of the traditional four-step travel demand modeling process. Mode choice is the step that converts person trips from trip generation and distribution into vehicle trips for assignment to the roadway network and transit trips for assignment to the transit network. The AAMPO TDM includes a full mode choice step for three separate trip modes: Auto, Walk-to-Transit, and Drive-to-Transit. Transit assignment is done for peak and off-peak time periods.

In many communities in Iowa, the vast majority of travel is done with a personal vehicle. Yet, the presence of a large university in Ames makes it different than the typical Iowa community. The ridership on CyRide buses has grown from less than 100,000 in the mid-1970s to over 5.3 million in 2010.[17] Ridership has continued to grow since the base year of the model to over 6.6 million in FY 2014. Thus, accurately estimating the transit portion of person trips in the model is very desirable in AAMPO. Other frequently used modes in Ames, such as walking and biking, could also be modeled in the future. Yet, the first and more valuable new model component at this time is the transit component.

Transit On-board survey

In March 2014, ETC Institute produced an On-Board Transit Survey for CyRide in Ames, Iowa. Administration of the survey by ETC Institute occurred during the weeks prior to spring break at Iowa State University and other area schools. The primary objective for conducting the On-Board Transit Survey was to gather accurate travel data from transit riders to update the regional travel demand model. The universe for the survey consisted of 11 local bus routes operated by CyRide transit agency. The goal was to obtain usable surveys from at least 3,220 transit riders, which represented approximately 8% of the entire system ridership. The actual number of completed, usable surveys was 3,251.[18]

The survey results were expanded for the AAMPO population and split into origins and destinations for each of the non-truck trip purposes in the model (HBW, HBO, NHB, and HBU). These were then added to the TAZs to ensure that no TAZs had more transit trips than the total number of trips attracted to that zone. Ridership for each transit route was calculated and used as the calibration target when setting the mode choice constants.

Lastly, the survey transit totals by trip purpose and time period were scaled down to 2010 to account for the growth in ridership between 2010 and 2014. Ridership numbers grew by 23.0% between 2010 and 2014, so an adjustment was necessary for consistent results. Total fixed route ridership values from CyRide were used to scale down the survey totals to 2010. These totals by each trip purpose were later matched with the model results during the mode choice step.

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[17] CyRide By The Numbers. (n.d.). Retrieved from http://www.cyride.com/index.aspx?page=1168

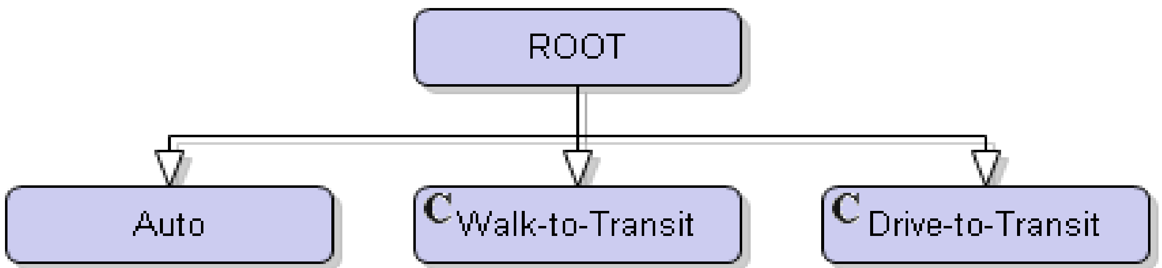
[18] ETC Institute. (2015). *2014 CyRide On-Board Transit Survey*. Final Report.

Multinomial Logit Model

The AAMPO TDM mode split process follows a multinomial logit model with three transportation modes. Person trips are initially generated for the four trip purposes (HBW, HBO, NHB, and HBU) for peak and off-peak time periods. These are then split into three modes; Auto, Walk-to-Transit, and Drive-to-Transit. Drive-to-Transit was used because of the high number of commuters to ISU campus that use the Iowa State Center parking lot and then ride the bus to central campus.

An individual that is traveling to a certain destination must choose which mode he or she should take. Figure 9.1 shows a diagram of the decision-making process. The attractiveness or utility of a given mode depends on numerous factors, which are generated when producing the transit skims.

Figure 9.1: Diagram of the Multinomial Logit Decision-Making Process



The skims for auto, walk-to-transit, and drive-to-transit are then compared during the mode choice process for each trip purpose in the person trip table. The coefficients for the mode split model are shown in Table 9.1. These coefficients control the value of each component. For example, if a higher weight is given to out-of-vehicle travel time then auto trips will become more attractive. The modal constant for each trip purpose was adjusted until walk-to-transit and drive-to-transit totals for each trip purpose matched the on-board survey results within both the peak and off-peak time period.

Table 9.1: Mode Choice Parameters

Field	Coefficient
In-Vehicle Travel Time	-0.025
Out-of-Vehicle Travel Time	-0.050
Cost	-0.125
Transfers	-0.075
Modal Constant*	Varies depending on trip purpose and time period

*For HBU Cost is calculated which does not included fares

Peak and Off-peak Time Periods

Generally, transit models produce peak and off-peak mode choice and transit assignment. Since this is the first phase of a transit model in the AAMPO TDM and since model development increases significantly for each additional time period added, it was decided to only use two separate time periods, instead of the four time periods used for the highway model. It is recommended that the next update of the model include additional time periods.

AM time period headways based on the time periods from the time-of-day split are used as the proxy for peak transit time period headways and mid-day time period headways are used as the proxy for off-peak transit time period headways. This is an acceptable simplification since a person generally does not choose a different mode when returning from a trip.

Transit Skims

Shortest Path Matrices, often referred to as “Skims”, must be created for all separate transportation modes in the model. These skims quantify various elements that influence the mode decision-making process. These are then caculated for each zonal pair to represent the impedance between zones for each mode.

Table 9.2 shows the skim variables used for walk-to-transit and drive-to-transit modes, as well as the final variable that is eventually calculated with each skim variable for use in the mode choice step. Initial wait time, transfer wait time, transfer walk time, access walk time, egress walk time, and access drive time are summed to calculate a total out-of-vehicle travel time. Access drive distance is multiplied by $0.13/mile and then added to fare for non-HBU trips to calculate a total cost. HBU trips do not have a fare added to the cost because the fare is automatically included in student fees at the beginning of the semester and therefore does not act as a deterrant to the decision whether to take a bus or not.

Table 9.2: Transit Skim Variables

Skim Variable	Final Mode Choice Variable
Fare ($1.25 = HBW, HBO, NHB; $0 = HBU)	Cost
In-Vehicle Time	In-Vehicle Time
Intitial Wait Time	Out-of-Vehicle Time
Transfer Wait Time	Out-of-Vehicle Time
Transfer Walk Time	Out-of-Vehicle Time
Access Walk Time	Out-of-Vehicle Time
Egress Walk Time	Out-of-Vehicle Time
Access Drive Time (Drive-to-Transit only)	Out-of-Vehicle Time
Number of Transfers	Number of Transfers
Access Drive Distance (Drive-to-Transit only)	Cost

Park-and-ride locations are identified during the transit skimming process for the drive-to-transit mode. A selection set for park-and-ride nodes is used as the destinations portion of an Origin-Parking matrix. The Iowa State Center is the only park-and-ride location in the AAMPO TDM.

Congested Highway Skim

The transit skims that are created for walk-to-transit and drive-to-transit trips must be compared with a highway skim during the mode choice process so that person trips are split among the three modes. Congested highway skim matrices are created for AM and mid-day time periods, which are the proxies for the peak and off-peak time periods. These are created by assigning time period specific flows to the network, then using the post-assignment travel times instead of the initial shortest path travel times to generate the highway skim.

In addition to a congested travel time auto skim, a driving cost skim is created. This is done by creating a distance-based skim matrix, then multiplying by $0.13 which represents the average cost of driving per mile.

Parking Cost

One of the reasons people prefer not to drive to ISU campus is the cost of parking. Students currently pay $137 per year for a parking permit while faculty and staff pay $158 per year. These costs were divided by an estimate of the total number of academic days per year (215) and added to the auto cost skims for all ISU central campus destinations. This added cost represents an additional disincentive to drive to campus.

Calibration with Survey Targets

A target number of trips by trip purpose was calculated from the On-Board Survey as mentioned above. These targets were than matched during the mode split calibration process by adjusting the modal constants. Adjusting modal constants is a way to incorporate dynamics of a particular mode that cannot be modeled, such as safety, reliability, comfort, etc.

The modal constants for peak and off-peak time periods are shown in Tables 9.3 and 9.4. The more negative a modal constant for a given trip purpose is, the fewer transit trips will be produced. HBU and HBW trip purposes are most likely to be transit trips.

Table 9.3: Peak Time Period Modal Constants

Trip Purpose	Walk-to-Transit Constant	Drive-to-Transit Constant
HBW	-0.125	-1.850
HBO	-2.800	-5.250
NHB	-2.175	-3.000
HBU	1.500	0.680

Table 9.4: Off-Peak Time Period Modal Constants

Trip Purpose	Walk-to-Transit Constant	Drive-to-Transit Constant
HBW	-0.500	-2.200
HBO	-2.990	-3.510
NHB	-2.250	-1.630
HBU	1.350	0.330

These modal constants can be used to estimate the perceived value of the mode within that trip purpose in terms of in-vehicle travel time, out-of-vehicle travel time, cost, and number of transfers. This is done by dividing the modal constant by the final mode choice coefficient. For example, a HBO walk-to-transit trip during the off-peak time period is worth 119.6 extra minutes of in-vehicle driving time (-2.99/-0.025). Meanwhile, a HBU walk-to-transit trip during the peak time period is worth -60 extra minutes of in-vehicle driving (1.50/-0.025). In other words, individuals making trips to ISU campus during peak time periods would much prefer to take a bus than to drive, while individuals making HBO trips to non-campus locations during non-peak time periods would much prefer to drive.

Mode Choice Outputs

The mode choice step produces an applied totals matrix and a probabilities matrix for each trip purpose and both time periods. The applied total matrices are trip tables that represent the total number of trips for each mode between each zonal pair. The probability matrices represent the likelihood of using a particular mode between two zonal pairs.

CHAPTER:10 Transit Assignment

Context and Background

The mode choice step determines the total number of trips by mode (e.g., the applied totals matrix). The final step for the transit model is to assign the total number of transit trips to the transit network. This is the step where specific bus route selection occurs.

Intrazonal Trip Capture

Intrazonal walk-to-transit trips may occur in some places on campus. These are not automatically captured by the mode choice step. Therefore, intrazonal probabilities were calculated using the three nearest neighbors of the walk-to-transit and auto probabilities matrices. This was then multiplied by the total walk-to-transit and auto applied total trip matrices. Drive-to-transit trips will not have any intrazonal trips.

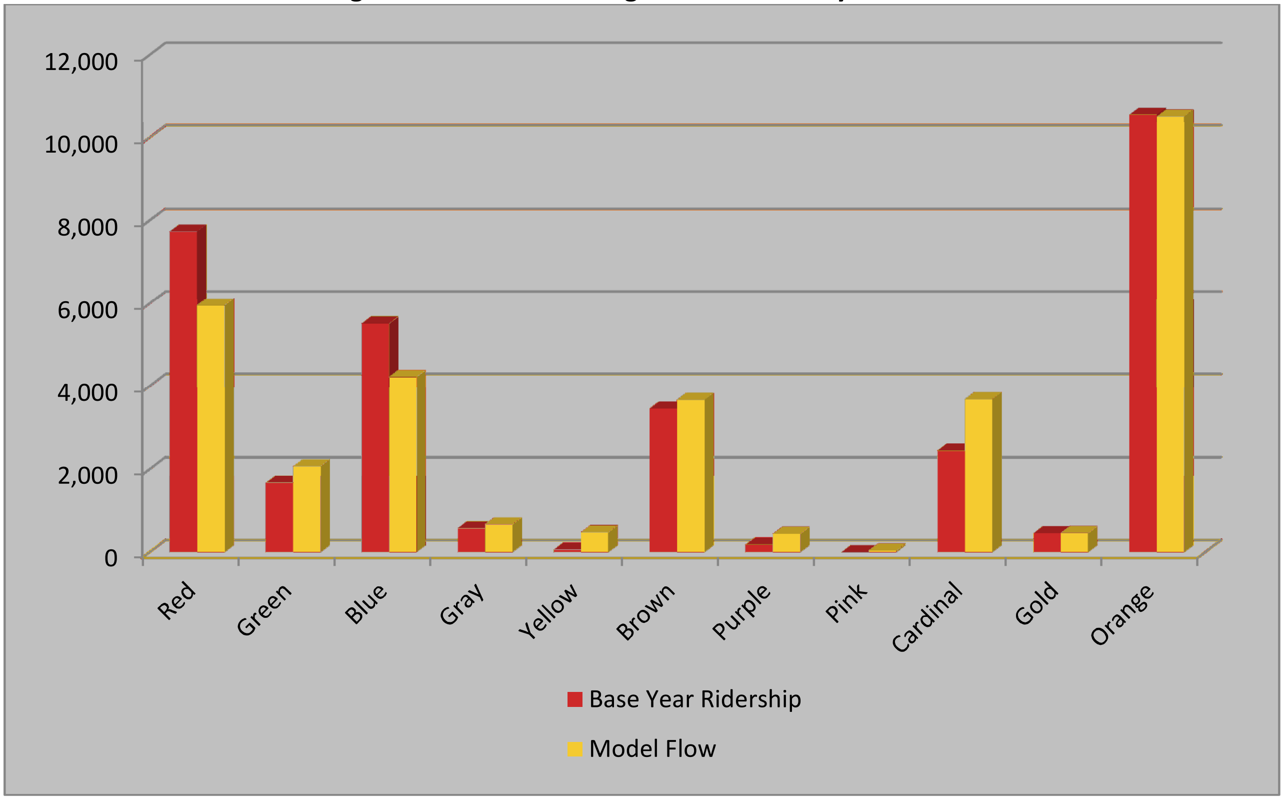
Transit Assignment Results

The applied total trip matrices for every trip purpose were summed into total walk-to-transit and drive-to-transit trip matrices for the peak and off-peak time periods. These were then assigned to the transit network.

Transit assignment results compared to the survey route totals adjusted down to 2010 are shown in Figure 10.1. The model reasonably predicts ridership on many of the routes. The Orange route, which represents the largest amount of riders, is very accurate. A number of routes overlap on campus (Gold, Cardinal, Red special routes, Purple, Brown, Green, etc.) and the model may have some difficulty distinguishing these routes. For example, the Cardinal route may absorb some riders that should be using the Red special routes instead.

There are not any specific validation criteria guidelines specified by the TMIP Validation and Reasonableness Checking Manual. Yet, a visual inspection of Figure 10.1 shows that the ridership totals by route seem to be producing acceptable results.

Figure 10.1 –Transit Assignment Results by Route



CHAPTER:11 Traffic Assignment

Context and Background

The final step in the travel demand modeling process is trip assignment. This is where route or path selection occurs between origins and destinations and traffic is assigned to the road network. Different methods are available to assign traffic to the road network and most constrain capacity to modeled traffic flow in an effort to measure and determine the effects of congestion.

Pre-Traffic Assignment Data Processing

Prior to assigning vehicle trips to the highway network, a number of data processing steps are needed. This includes, extracting the drive portion of park-and-ride trips and adding it to the total vehicle trip matrices, redistributing vehicle trips on campus to parking lots, applying auto occupancies, and splitting the trips back into four time periods.

Drive Portion of Park-and-Ride Trips

Drive-to-Transit trips going to the Iowa State Center are park-and-ride trips. While the transit portion of the trip is captured by the mode split step and then assigned to the transit network, the drive portion of the trip must be assigned to the highway network. The park-and-ride OD matrix that is produced during the mode choice portion of the model, must be converted into an Origin-Parking (OP) matrix. Converting the OD matrix to an OP matrix extracts that drive only portion of the trip. The TransCAD User's Guide provides a step-by-step process to accomplish this conversion. Once the OP matrix has been created, it can be added to the auto applied total matrices (e.g., final auto trip tables).

Redistribute Vehicle Trips to Campus Parking Lots

At this point, vehicle trips are still being attracted to ISU campus buildings. This is because earlier in the model person trip attractions were calculated using full-time equivalent employment by building. During the transit portion of the model this was logical, since individuals can ride a bus right to the TAZ where their campus building is located. Yet, autos will ultimately be destined for parking lots instead of bulidings. Therefore, auto trips that are destined for campus buildings must be redistributed. Details on this process are described in Chapter 6.

Resplit into Four Time Periods

In order to split trips back into four time periods again, the final vehicle trip tables for the peak and off-peak time periods were first added together. Then, time of day and directional factors could be reapplied as they were during Trip Distribution. In addition, a similar PA to OD conversion process was used for these vehicle trips. One difference is that this time External-External trips are added on to the final OD matrix. External-External trips are inherently only driving trips, which is why they were not added in previously.

Auto Occupancy

Auto occupancy rates are taken from CTPP Journey-to-Work data for HBW trips and the 2009 NHTS. HBU trips were assumed to be similar to HBW trips in terms of auto occupancy, and so the auto occupancy factor was set to the same value. These are applied to the vehicle trip table. Since the AAMPO TDM study area has a significant younger population, the average of two NHTS occupancy factors were used: urban areas between 50,00 and 199,999 in Iowa and urban areas between 50,000 and 199,999 and age less than 30. The resulting auto occupancy factors are shown in the table below.

Figure 11.1: Auto Occupancy Factors

Trip Purpose	Average Occupancy
HBW	1.07
HBO	1.42
NHB	1.57
HBU	1.07

Trip Assignment

Assignment Algorithms

In traffic assignment, travel demand, represented as daily O-D trip tables, are loaded onto the roadway network, which is the supply side of the model. There are several different methods available and they are highlighted below.

- **All-or-Nothing (AON)**

  Under All-or-Nothing Assignment, all traffic flows between O-D pairs are assigned to the shortest paths connecting the origins and destinations. This model is unrealistic in that only one path between every O-D pair is used, even if there is another path with the same or nearly the same travel time or cost. In addition, traffic on links is assigned without considering whether or not there is adequate capacity or heavy congestion; travel time is a fixed input and does not vary depending on the congestion on a link. This method is sometimes used for assigning truck trips or for assigning inter-city or inter-regional trips.[19]

- **Incremental Assignment**

  Incremental Assignment is a process in which fractions of the demand matrix are assigned in steps. In each step, a fixed proportion of total demand is assigned, based on All-or-Nothing Assignment. After each step, link travel times are recalculated based on link volumes. This method does not yield an equilibrium solution. Incremental Assignment is influenced by the order in which volumes for O-D pairs are assigned, raising the possibility of additional bias in the results. [19]

- **Capacity Restraint**

  Capacity Restraint attempts to approximate an equilibrium solution by iterating between all-or-nothing traffic loadings and recalculating link travel times based on a

[19] Non-Equilibrium Traffic Assignment Methods, TransCAD v6 Online Help, Caliper. 2012

congestion function that reflects link capacity. Unfortunately, this method does not converge and can flip-flop back and forth in the loadings on some links (Sheffi, 1985, p. 113). The capacity restraint method as implemented in some software packages attempts to lessen this problem by smoothing the travel times and by averaging the flows over a set of the last iterations. This method does not converge to an equilibrium solution and has the additional problem that the results are highly dependent on the specific number of iterations run. Performing one more or one less iteration usually changes the results substantially.[19]

- **User Equilibrium (UE)**

  User Equilibrium uses an iterative process to achieve a convergent solution, in which no travelers can improve their travel times by shifting routes. In each iteration, the model software computes network link flows which incorporate link capacity restraint effects and flow-dependent travel times.[20]

- **Stochastic User Equilibrium (SUE)**

  Stochastic User Equilibrium is a generalization of user equilibrium that assumes travelers do not have perfect information concerning network attributes and/or they perceive travel costs in different ways.[20]

Given the desire to estimate and measure the effects of capacity in the AAMPO region, only the equilibrium and stochastic equilibrium assignment methods were considered for autos. Based on previous experience and testing of these two methods, the user equilibrium assignment method is the preferred option that is used in the AAMPO TDM. Trucks are assigned using an all-or-nothing method. This is because trucks are less sensitive to congestion but more sensitive to routes that can accommodate their movement.

Volume-Delay Functions

A volume-delay function represents the effect of increasing traffic volume on link travel time. While several volume delay functions are available for consideration, the most commonly used function is the modified Bureau of Public Roads (BPR) function. The modified BPR function is based on the original BPR equation shown in the equation below.

$$T_C = T_F \left(1 + \alpha \left(\frac{V}{C}\right)^{\beta}\right)$$

Where:

T_C	= Congested travel time
T_F	= Freeflow travel time
α	= Coefficient alpha (0.15)
V	= Traffic Volume
C	= Highway design (practical) capacity
β	= Exponent beta (4.0)

The modified BPR equation uses the same form, but replaces design capacity with ultimate roadway capacity. The modified function also replaces the coefficient alpha and the exponent beta with calibrated

[20] Equilibrium Traffic Assignment Methods, TransCAD v6 Online Help, Caliper. 2012

values that vary by facility type and area type. Alpha and beta for centroid connectors were adjusted to ensure that congestion is not represented on centroid connectors. Resulting alpha and beta values are shown in the table below.

Table 11.2: Volume Delay Parameters Alpha and Beta

Functional Classification	Alpha (α)	Beta (β
Freeway	0.9	6
Principal Arterial	0.9	3
Minor Arterial	0.90	3
Collector	0.45	2
Ramp	0.55	5
Centroid Connector	0.15	5

Traffic Assignment Validation

Roadway volumes resulting from traffic assignment were compared against traffic count data. This process, called traffic assignment validation, ensures that the model is reasonably representing observed traffic patterns. Traffic count data was obtained from the Iowa DOT GIMS centerline road inventory. Travel model results were then compared to traffic count data using a variety of techniques, including regional comparisons and visual inspection of individual link data.

Overall Activity Level

Overall vehicle trip activity in the AAMPO TDM was validated by comparing count data to model results on all links where count data is available. This was accomplished using two statistics: the model volume as compared to count volume and the model VMT as compared to count VMT. These statistics were reviewed at the regional level for facility type and area type and are shown in tables on the following pages. The overall comparison of this information is reasonable and is similar to the recommended error deviation by facility or area type as noted in the second edition of the Travel Model Validation and Reasonableness Checking Manual.

In reviewing the output from Table 11.3, all types of roads are slightly underestimating the total amount of VMT. However, these errors are minor and all fall within the recommended error range guidelines shown in Table 11.5. Geographically, the Central Business District (CBD) has the largest amount of error in terms of VMT. Caution should be used when forecasting traffic numbers near the CBD. Regardless, the amount of error in the CBD is still within the acceptable range of one of the two available guidelines.

Table 11.3: Regional Activity Validation by Facility Type (All Traffic)

Facility Type	Number of Counts	VMT Estimated	VMT Observed	Error Difference	Error Percent	Distribution Estimated	Distribution Observed
Freeways	84	274,953	281,675	-6,721	-2.4%	71%	70%
Principal Arterial	42	34,501	36,710	-2,209	-6.0%	9%	9%
Minor Arterial	81	45,542	47,795	-2,253	-4.7%	12%	12%
Collector	101	33,147	34,283	-1,137	-3.3%	9%	9%
Total	308	388,143	400,463	-12,320	-3.1%	100%	100%

Table 11.4: Regional Activity Validation by Area Type (All Traffic)

Area Type	Number of Counts	VMT Estimated	VMT Observed	Error Difference	Error Percent	Distribution Estimated	Distribution Observed
CBD	21	4,094	5,173	-1,079	-20.9%	1%	1%
Urban	63	35,870	40,222	-4,352	-10.8%	9%	10%
Suburban	85	40,637	41,045	-408	-1.0%	10%	10%
Rural	139	307,544	314,023	-6,480	-2.1%	79%	78%
Total	308	388,143	400,463	-12,320	-3.1%	100%	100%

Table 11.5: Example VMT Guidelines by Functional Class and Area Type[11]

Stratification	Modeled Versus Observed VMT: Ohio[a]	Florida[b]		Michigan[c]	FHWA-1990[c]
Functional Class		Acceptable	Preferable		
Freeways/Expressways	±7%	±7%	±6%	±6%	±7%
Principal Arterials	±10%	±15%	±10%	±7%	±10%
Minor Arterials	±10%	±15%	±10%	±10%	±15%
Collectors	±15%	±25%	±20%	±20%	±20%
All Links		±5%	±2%		
Area Type					
CBD	±10%	±25%	±15%		
Fringe	±10%	±25%	±15%		
Urban	±10%	±25%	±15%		
Suburban	±10%	±25%	±15%		
Rural	±10%	±25%	±15%		

A similar validation check of comparing regional VMT by facility and type was produced for segments with only truck counts. This summary can be found in the tables below. Again, CBD VMTs show the largest amount of error. However, these represent a very small proportion of total truck VMT (~0%). The majority of truck VMT is on freeways and in rural areas, which are both estimated very accurately by the model.

Table 11.6: Regional Activity Validation by Facility Type (Trucks Only)

Facility Type	Number of Counts	VMT Estimated	VMT Observed	Error Difference	Error Percent	Distribution Estimated	Distribution Observed
Freeways	84	44,303	42,660	1,643	3.9%	91%	92%
Principal Arterial	36	1,574	1,258	316	25.1%	3%	3%
Minor Arterial	45	1,275	1,071	204	19.0%	3%	2%
Collector	39	1,332	1,577	-245	-15.5%	3%	3%
Total	204	48,484	46,567	1,917	4.1%	100%	100%

Table 11.7: Regional Activity Validation by Area Type (Trucks Only)

Area Type	Number of Counts	VMT Estimated	VMT Observed	Error Difference	Error Percent	Distribution Estimated	Distribution Observed
CBD	7	61	35	26	75.1%	0%	0%
Urban	45	1,511	1,196	315	26.3%	3%	3%
Suburban	29	923	659	263	39.9%	2%	1%
Rural	123	45,990	44,676	1,313	2.9%	95%	96%
Total	204	48,484	46,567	1,917	4.1%	100%	100%

Measures of Error

While it is important to ensure that the model accurately represents the overall level of activity, it is also important to verify that the model has an acceptably low level of error on individual links. It is expected that the model will not perfectly reproduce count volumes on every link, but it is important to monitor the level of error. The plot shown in in the folloing figure demonstrates the ability of the AAMPO TDM to match individual traffic count data and notes the resulting R^2 value. Tables 11.8 and Table 11.11.9 list percent root mean square error (RMSE) values for each facility type along with target values. General guidelines suggest that percent RMSE should be below 30% region-wide, with values below 30% for high volume facility types. The percent RMSE measure tends to over-represent errors on low volume facilities, so values on collector and local facilities are not particularly significant. Overall, the percent RMSE for all traffic and truck only looks reasonable and follows the desired trend where higher facility types (Interstate and Principal Arterials) show less error compared to lower facility types (collectors).

Figure 11.1: Model Count/Volume Comparison (Coefficient of Determination)

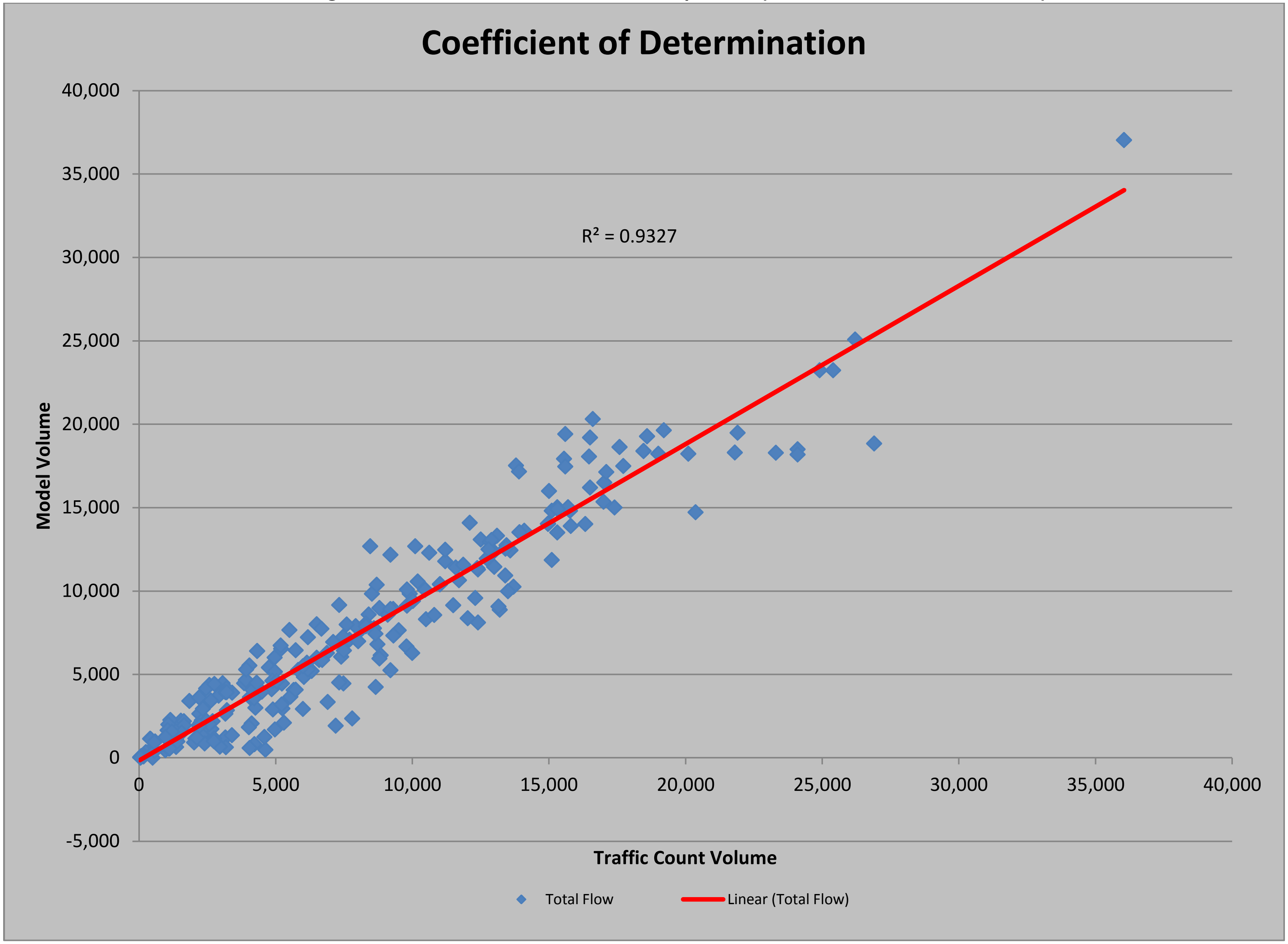


Table 11.8: Model Percent Root Mean Square Error by Facility Type and Area Type

Link Type	Number of Counts	% RMSE	Validation Target
Freeway	84	6.78%	30%
Principal Arterial	42	16.86%	30%
Minor Arterial	81	24.40%	40%
Collector	101	48.53%	50%
CBD	21	31.57%	N/A
Urban	63	23.77%	N/A
Suburban	85	24.31%	N/A
Rural	139	10.51%	N/A
Total	308	20.30%	N/A

Table 11.9: Percent Root Mean Square Error by Volume Group

Low	High	Mid-Point	Number of Counts	% RMSE
0	5000	2500	113	52.75%
5001	10000	7500	69	26.93%
10001	15000	12500	77	12.83%
15001	20000	17500	36	9.29%
20001	25000	22500	8	19.03%
25001	30000	27500	3	18.58%
30001	35000	32500	0	N/A
35001	40000	37500	2	2.75%

Table 11.10: Model Percent Root Mean Square Error by Facility Type and Area Type (Truck Only)

Link Type	Number of Counts	% RMSE
Freeway	84	8.15%
Principal Arterial	36	36.20%
Minor Arterial	45	69.05%
Collector	39	71.59%
CBD	7	95.89%
Urban	45	41.44%
Suburban	29	49.59%
Rural	123	13.05%
Total	204	18.42%

Table 11.11: Percent Root Mean Square Error by Volume Group (Truck Only)

Low	High	Mid-Point	Number of Counts	% RMSE
0	500	250	102	66.14%
501	1000	750	32	41.06%
1001	2000	1500	7	36.42%
2001	3000	2500	60	6.17%
3001	4000	3500	0	N/A
4001	5000	4500	1	0.07%
5001	6000	5500	2	10.18%

Hot-Cold Maps

In addition to comparing measures of percent RMSE and R^2 values and flow to count differences, it is beneficial to see the magnitude of the differences between model volumes to traffic count volumes on a map. The following maps display the roadway network flows and counts for the 2010 base year model. The maps display the count layer on top of the flow layer and vice versa, to get a better understanding of where the flows/counts may be higher/lower compared to the other variable. The first variable listed in the figure title and the variable on the left side of the legend will be the top layer on all the maps.

When viewing the hot-cold maps, it is important to understand that not all segments have field observed traffic counts and instead may include synthetic or estimated counts based on previous count year information. All segments are shown to provide a contiguous map without breaks or gaps in the geographic comparison between traffic counts and model flow.

Figure 31.2: Total Daily Traffic Count over Total Daily Flow (Region-wide)

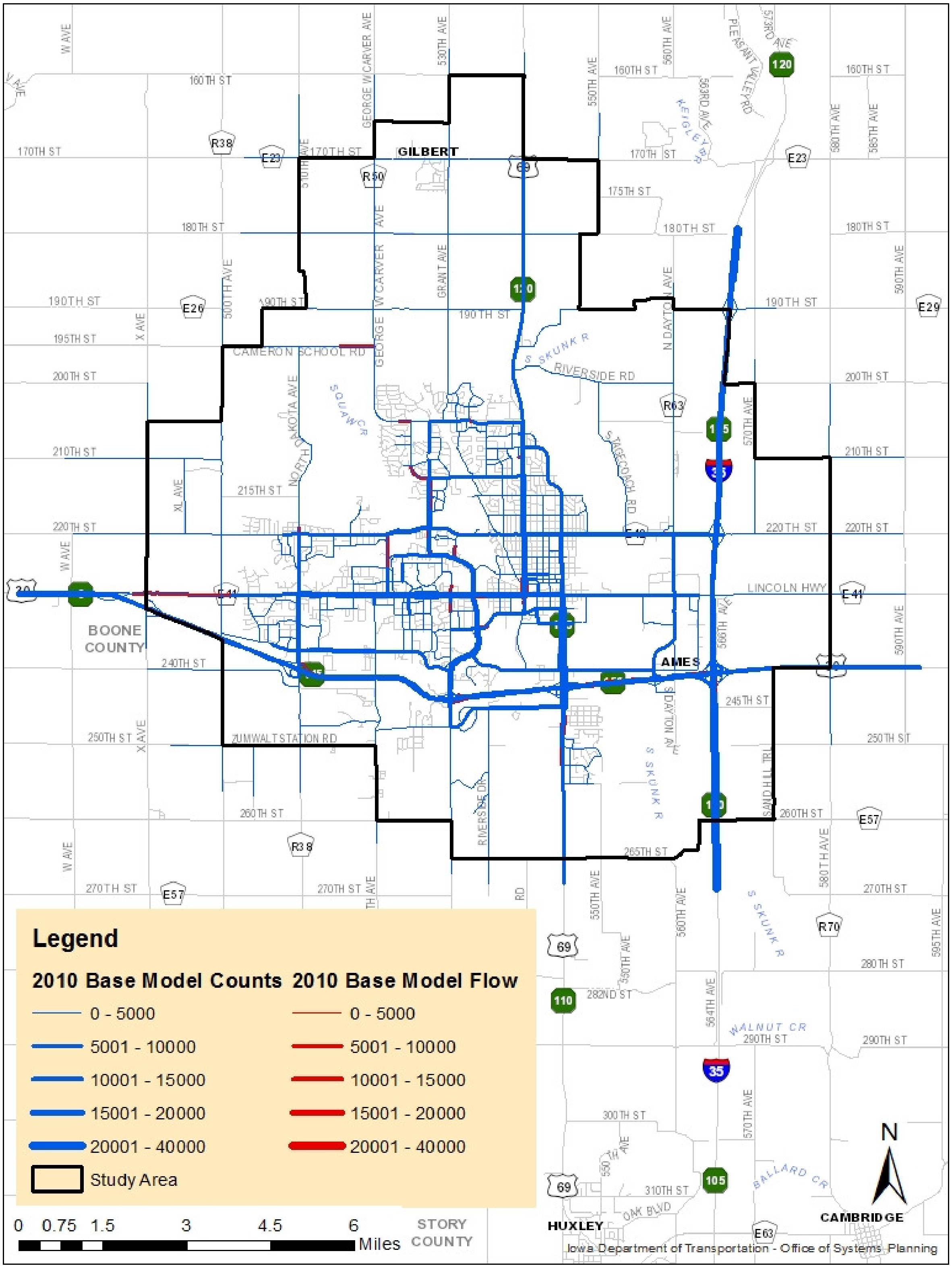
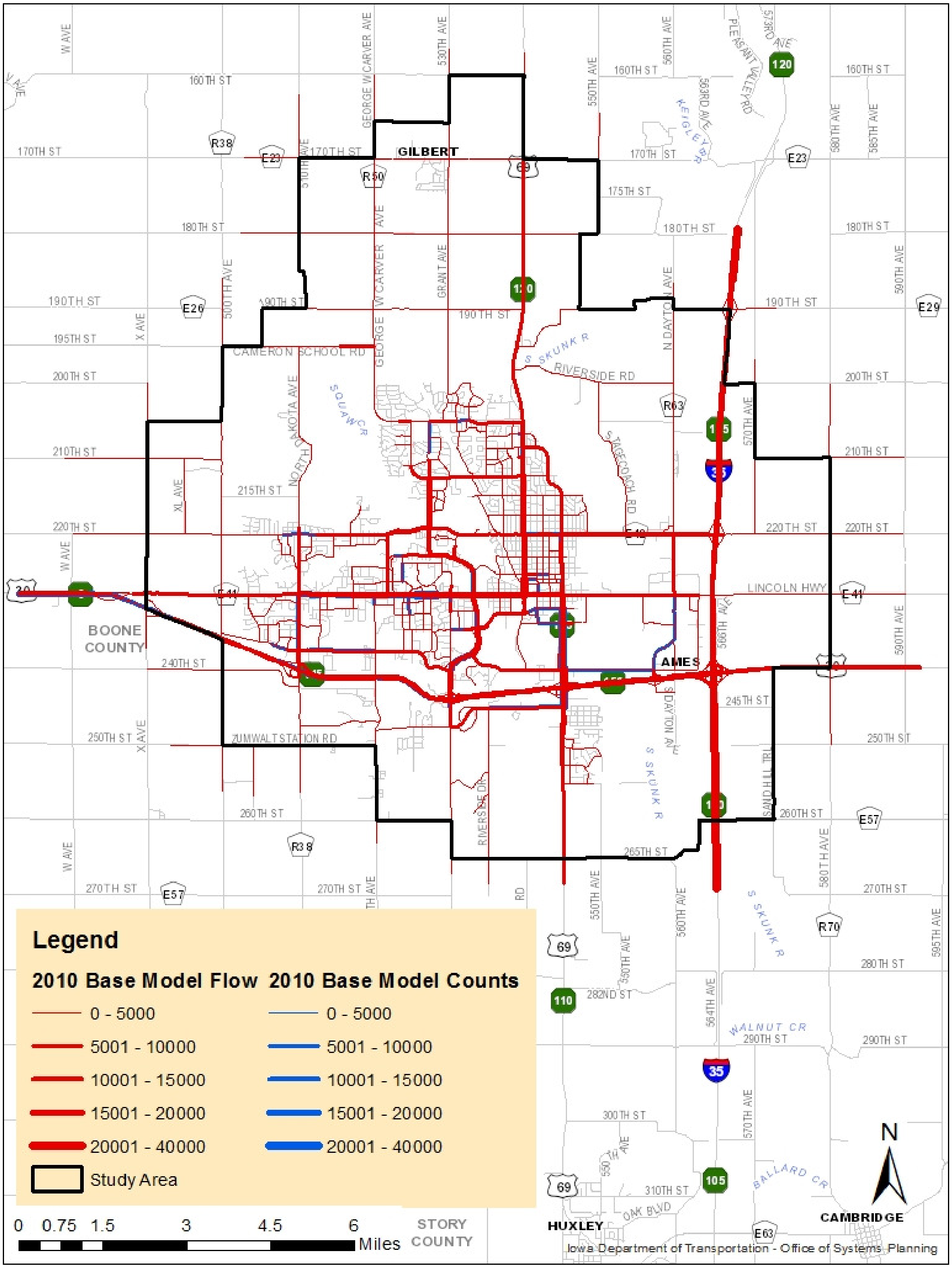


Figure 4.3: Total Daily Flow over Total Daily Traffic Count (Region-wide)



CHAPTER:12 Forecast Year Models

Context and Background

Future year socioeconomic data and a future year road network are used to predict future year traffic flows that can be used to run various scenarios. It is well-known that the AAMPO area is growing quickly. However, local knowledge can better determine exactly how much and where the growth is occurring.

Horizon Year Socioeconomic Data

Future year socioeconomic data was determined using independent third-party projections as well as local knowledge. Woods and Poole county control totals for 2025 and 2040 were collected for population, households, and employment by each NAICS code category that is used in the model. These control totals are given for both Story County and Boone County, so it was necessary to estimate the AAMPO portion of those counties to trim the control totals down. These control totals were then adjusted based on local input from City of Ames planning staff, and allocated among TAZs.

Additionally, ISU and K-12 school enrollment projections were determined separately. ISU enrollment for 2040 was determined through discussions with ISU planning staff and City of Ames planning staff. On-campus students were allocated to where future student housing is going to be located. All other students were considered off-campus students and allocated to TAZs based on current off-campus student housing locations as well as input from City of Ames planning staff. K-12 enrollment was determined mathematically by adjusting enrollment up by the same percentage as the population growth that was being projected within each school boundary. These were then reviewed by City of Ames planning staff. Some adjustments were made to account for new school locations and probable boundary changes.

Table 12.1 shows the 2010 and 2040 control totals for production each land use category, as well as the overall percentage change. Similar amounts of growth are expected for the various segments of the population, with ISU enrollment increasing slightly more than the non-student population. This is logical given the large amount of ISU enrollment growth in the years directly after 2010. Table 12.2 shows the employment land use category growth. Service jobs are expected to have the largest amount of overall growth, with retail jobs having the largest percent increase.

Table 12.1 – Production Land Use Category Control Totals

Population Category	2010	2040	Change
Total Population	63,040	85,102	35.0%
Households	24,415	32,254	32.1%
Non-ISU School Enrollment	5,818	8,445	45.2%
ISU Enrollment	27,254	38,000	39.4%
On-Campus Students (in Ames)	9,513	11,926	25.4%
ISU Off-Campus Students (in Ames)	12,722	19,614	54.2%
ISU Off-Campus Students (outside of Ames)	5,019	6,460	28.7%
Non-student Population	40,805	53,562	31.3%

Table 12.2 – Attraction Land Use Category Control Totals

Employment Type	2010	2040	Change
Retail	4,162	6,914	66%
Service	16,730	24,696	48%
Other	5,878	7,330	27%
Iowa State jobs	12,733	15,789	24%
Total	**39,503**	**54,729**	**39%**

Horizon Year Vehicle Miles Traveled and Vehicle Hours Traveled

Vehicle Miles Traveled (VMT) and Vehicle Hours Traveled (VHT) are calculated using the entire model network. However, the model network does not include local roads. Therefore, these values do not represent the total VMT and VHT in the AAMPO area. Yet, the numbers can be used to check the amount of VMT and VHT growth that is expected in the horizon year to ensure that the model is producing reasonable results.

The VMT and VHT growth while holding the network constant is shown in Table 12.3. Both VMT and VHT grow at a higher percentage than the socioeconomic data. This occurs because external traffic increases at a higher rate than internal-internal traffic (e.g. internal-internal traffic is determined by socioeconomic data). VMT and VHT grow at a similar percentage.

Table 12.3 – VMT and VHT Growth to Horizon Year

Year	VMT	Percent Change	VHT	Percent Change
2010	1,129,819	-	29,274	-
2040	1,783,767	57.9%	45,806	56.5%

Interim Years

Other forecast years were desired to have the flexibility to report numbers for years in the future but before 2040. Interim years can be run for every five years between 2010 and 2040 in the Ames model.

In order to produce interim year results, interim year socioeconomic data needed to be produced. 2025 population, household, and employment growth was allocated by City of Ames planning staff. For all other types of socioeconomic data and all other five year increment, interim year input values were produced by interpolating between the base year and forecast year with a straight line interpolation.

Future Road Network

The road network will likely change in the future as well. Some future road network changes are already known and committed projects. Other road network changes will occur further in the future and are currently only planned. Lastly, some road network changes may happen in the future, but are not planned or committed at this time. This last category is referred to as illustrative. The four road networks (Existing, Committed, Planned, and Illustrative) can be selected separately within the model to run the model for the correct network.

CHAPTER:13 Future Model Enhancements

Context and Background

The following chapter discusses various improvements to consider when updating the AAMPO TDM. All models can and should be continually improved to allow for more flexible and accurate outputs. The following is a list of potential improvements that should be considered in the next model update.

Terminal Times

Terminal time is the additional travel time that is required at the beginning or end of a trip. For example, someone that drives to a CBD may have to park in a parking garage that is a block away from the final destination. This additional time is part of travel but is not explicitly considered in a model.

It is recommended terminal times be included in the trip distribution step by area type. This may especially improve travel time results when one trip end occurs on campus or downtown. However, other area types may have improved travel times as well by adding terminal time (e.g., big box retailers with large parking lots, the mall, etc.).

CBD Model Accuracy

Overall the model produces reasonable results. Yet, no model is perfect and so it is important to identify areas of improvement. Downtown Ames and Campustown model flows showed the largest amounts of error in the base year model and therefore should be used with caution when reporting results. Future models may find it desireable to improve these flows with special generators or other methods.

Household Travel Survey

Many trip characterists used in the model were borrowed from other areas due to the lack of household travel survey (such as the NHTS add-on program). Although overall assignment results seem reasonable, an improvement could be made by having local data since travel behavior varies among each community.

The travel survey could serve many purposes for the AAMPO model. For example, trip rates could be extracted from it by each unique trip purpose or local auto occupancy rates could be determined. Additionally, it would open the door to more advanced and more accurate modeling techniques such as destination choice for distributing trips. Furthermore, the survey can be used during validation to review the accuracy certain steps such as trip distribution in more detail.

Although there are many benefits to household travel surveys, there is also a cost. These must be weighed in any decision about whether to obtain a travel survey in the future.

Transit Time Periods

Future models may want to include four transit time periods to have consistency with the highway model. In Ames this may make even more sense because the mid-day time period is relatively busier than an average community due to the presence of Iowa State University.

Intersection Delay

To better capture real travel time, intersection delay may be desireable. Currently, delay is incorporated into link travel speeds. However, intersection delay may provide a more realistic representation.

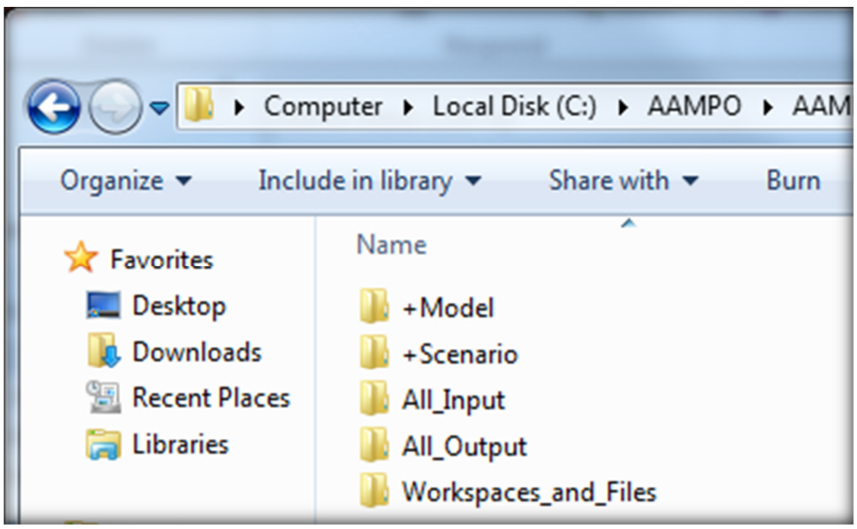
Truck Counts

Having truck count information on non-primary city streets would help improve the validation of the truck sub-model in the AAMPO TDM.

CHAPTER:14 User Guide

Model File Architecture and Storage

1. Copy the latest model folder to your computer submitted by the Iowa DOT or stored on your local network.
2. Rename Folder: C:\AAMPO\AAMPO
    a. This is the base directory and is necessary given the way the script is written. Although the base directory can be changed, it is important to keep the active model files in this folder because the transit route layer requires the use of the highway network in this folder.
    b. If any scenario runs are present, back-up all files before writing over them or deleting them.
3. The work directory should be structured as follows:



4. Summary of work directory

    Do not delete any files from the All_input folders; the script reads the All_Input files in order to create the files in the All_Output folder. If a name is changed or file is deleted, the model will not run correctly.

    a. +MODEL
        i) Location of the model GISDK script.
            1) The only file needed is the AAMPO.model file. Upon opening this file, other reference files will be created if they do not already exist.
            2) This directory contains archived batch code used in developing the AAMPO model.
    b. All_Input
        i) The location of all inputs used in the model.
    c. All_Output

i) The location of all outputs used in the model.

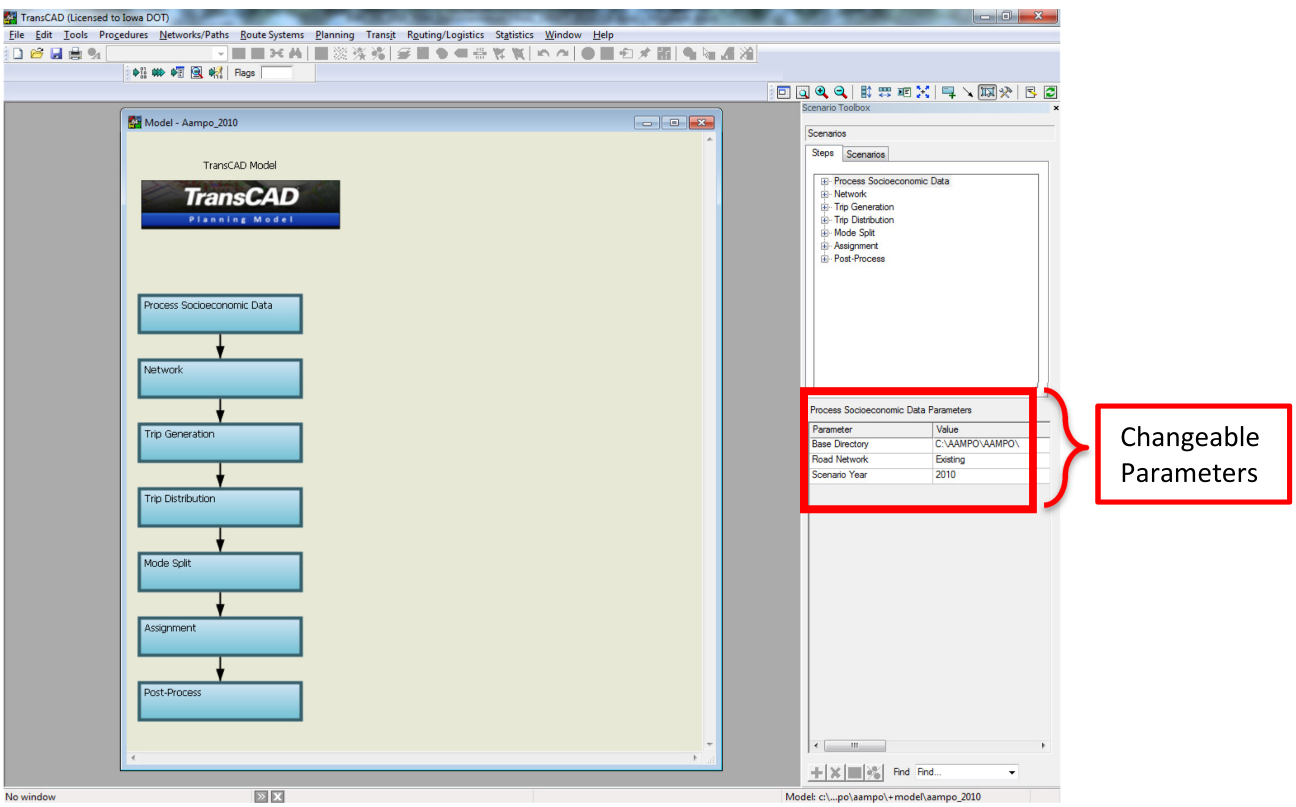
d. Workspaces_and_Files

i) Commonly used workspaces and files can be kept in this folder for easy access and transferability.

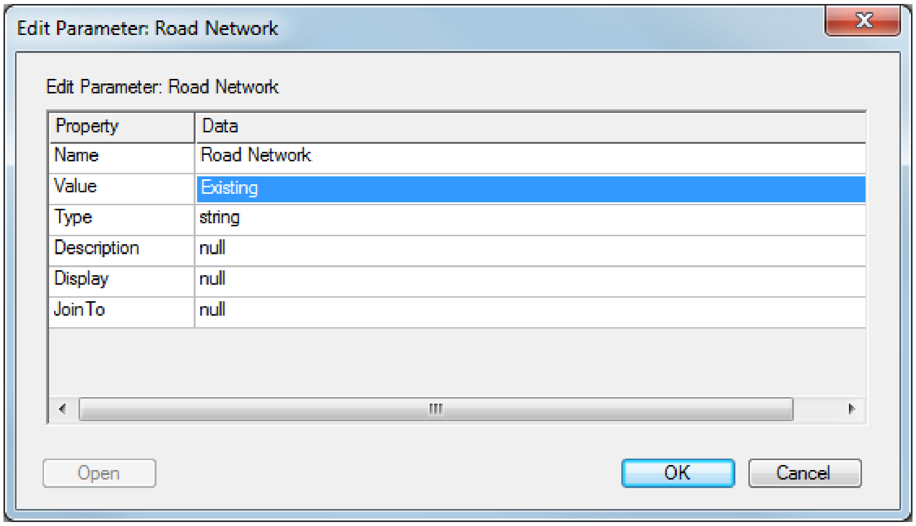
Running the AAMPO Travel Demand Model Model

1. Open the .model file in the +MODEL folder. The flowchart of the model run process should open, similar to the graphic below.

   a. The simplest way to open this file is to double click it or drag and drop it from Windows explorer. Otherwise, go to File, Open, and open the file by changing the file type to planning model.



2. Next, the user has a number of options that can be changed to run the model scenario desired by double-clicking on a value and changing the wording in the Value row and Data column.



a. Base Directory – This should be left as the default under most circumstances. The route layer requires a matching road network is in C:\AAMPO\AAMPO\All_Input\Network\. If it must be changed, then special care should be made to ensure that the route layer references an appropriate road network instead so that the mode split step can be run correctly.

b. Road Network – There are four road network sets that can be run:

   (1) "Existing"

   (2) "Committed"

   (3) "Planned"

   (4) "Illustrative"

   These must be typed in exactly as shown above or else the model will produce an error.

c. Scenario Year – The base year and each forecast year can be run as shown below:

   (1) "2010"

   (2) "2015"

   (3) "2020"

   (4) "2025"

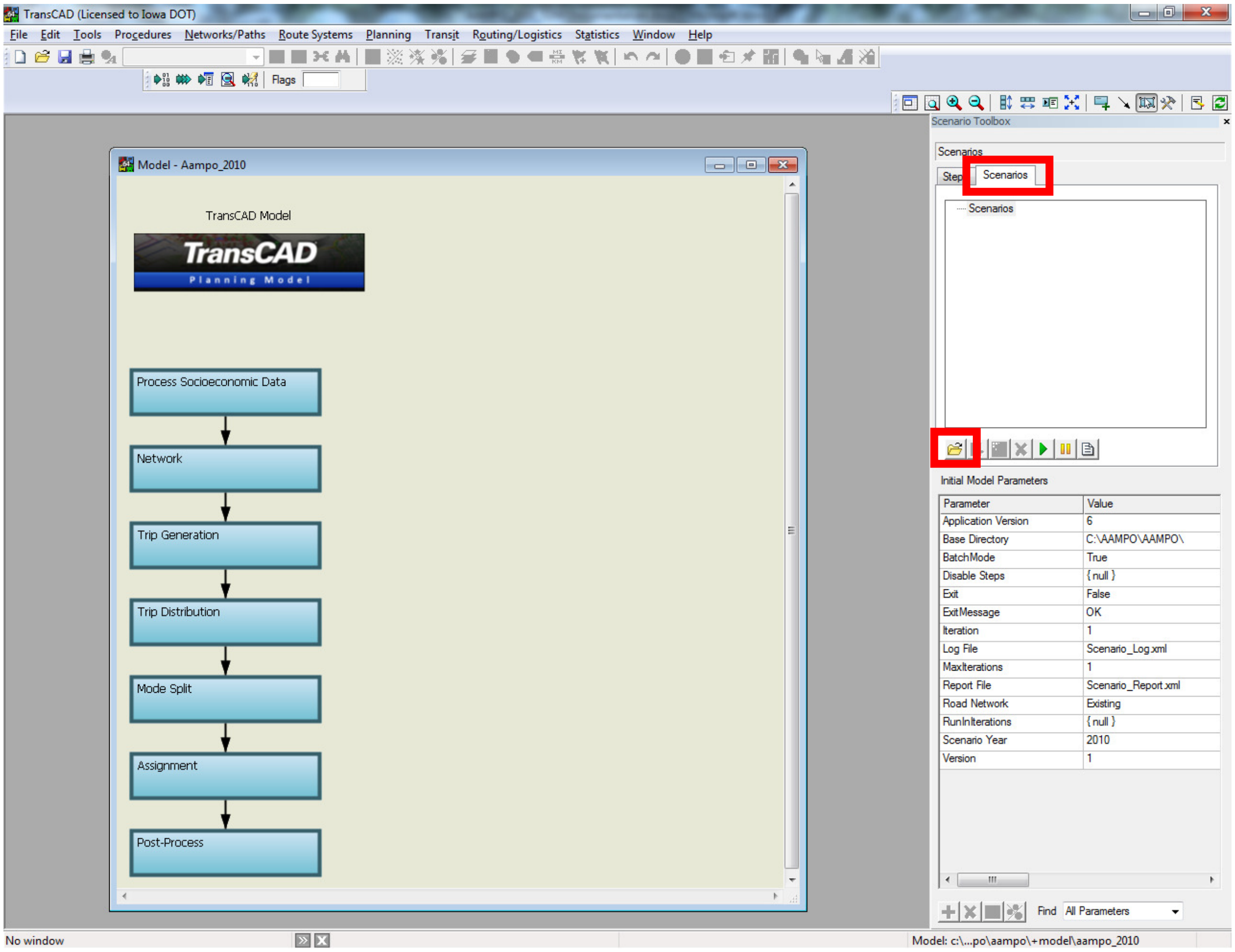
   (5) "2030"

   (6) "2035"

   (7) "2040"

   These must be typed in exactly as shown above or else the model will produce an error.

3. Alternatively, a Scenario file can be added by activating the "Scenarios" tab and then clicking on the "New/Open Scenario File" button, and adding AAMPO_Scenarios.scenarios from the +Scenario folder. This file has a number of pre-set scenarios that can be run.



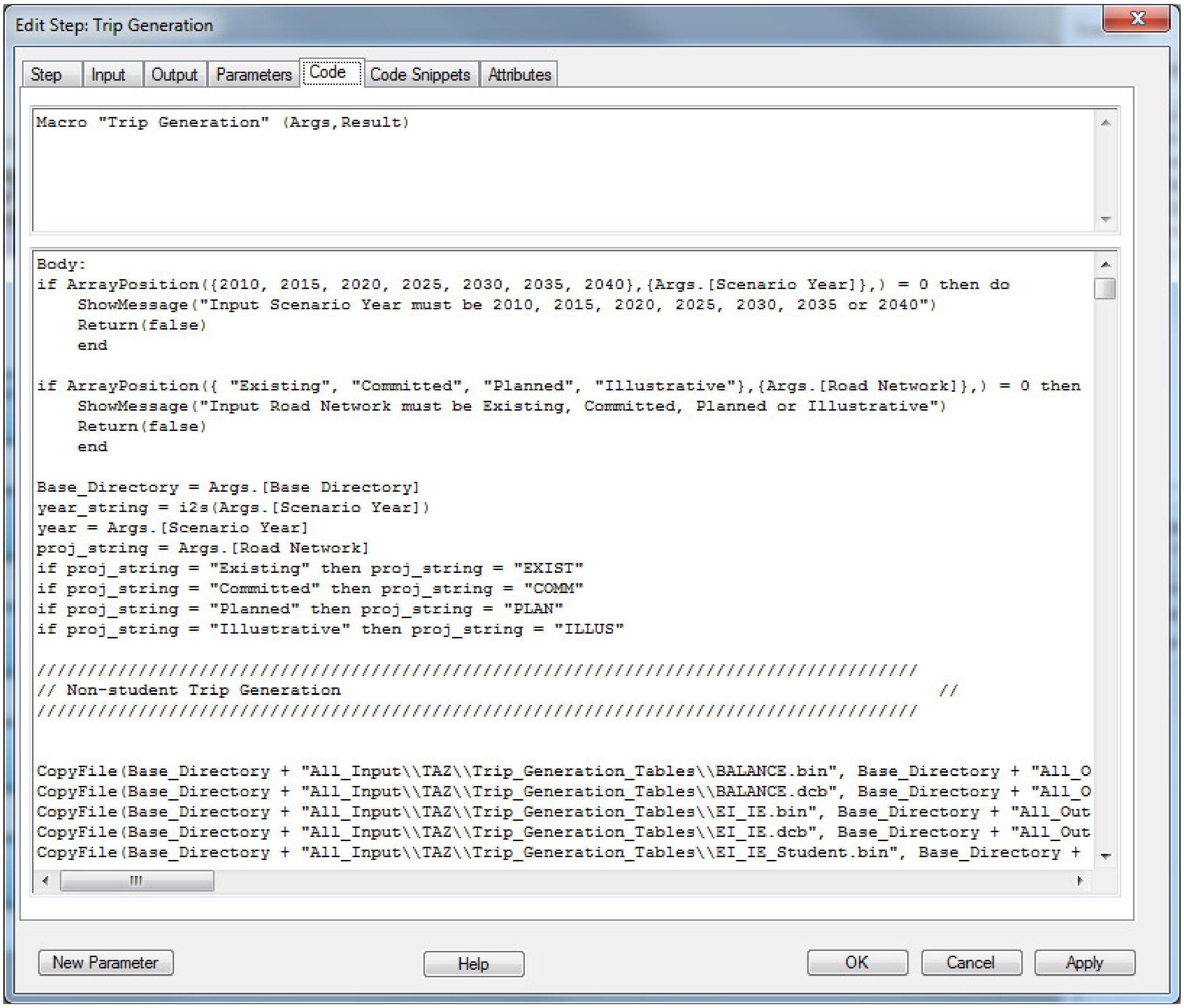
4. Click the green "Run Model" button or right-click on the first step and click "Run Model from Here"
5. If the 2010 base modeling is being run, a prompt will appear that will report the study area RMSE and percent deviation.
6. Click OK for the model to continue to finish.
7. Click OK again.
8. **Final vehicle Origin-Destination trip matrices are processed to the C:\AAMPO\AAMPO\All_Output\6 Assignment\Auto_TOD folder.** Typically, the final O-D matrices would be processed in the Trip Distribution folder. However, this model reprocesses the trip distribution step after mode split and before assignment. Therefore, they are placed in a less intuitive location.
9. The model output for the completed run will be saved in the following directories by each time period:

   a. C:\AAMPO\AAMPO\All_Output\5 TransitAssignment
   b. C:\AAMPO\AAMPO\All_Output\6 Assignment

   2010 and 2040 assignment results are post-processed onto the highway network. These are further post-processed into daily flows, combined auto and truck flows, VMTs, VHTs, volume:capacity ratios, and level-of-services. 2040 flows are also adjusted and adjusted flows are processed into volume:capacity ratios and level of services. Interim year post-processing must be done manually.

Additional Comments

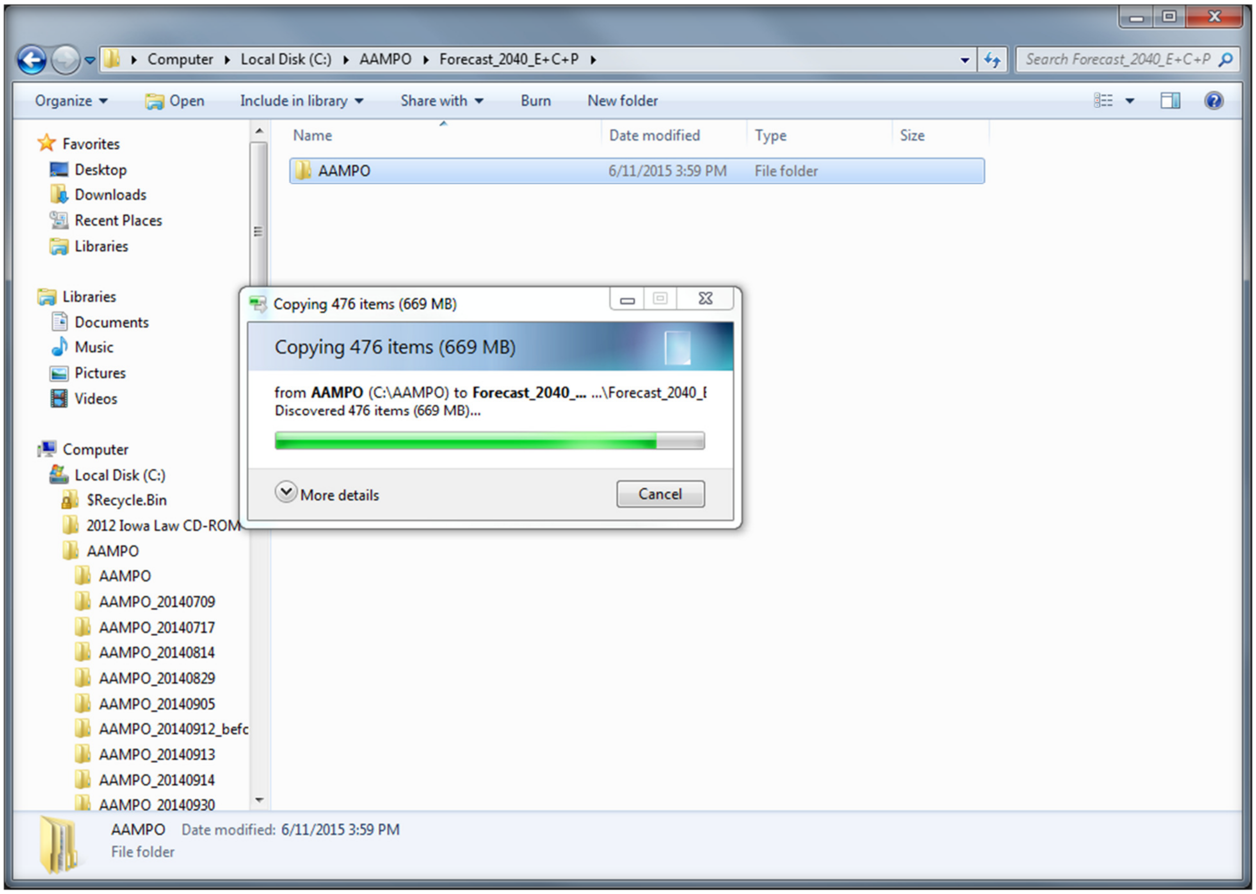
a. The GISDK syntax can be viewed by double clicking on the desired step and selecting the code tab. The figure below shows the code for the network step. The code can also be viewed in Notepad or Notepad ++, among other programs.



b. Once a model has completed, it is important to check the model report to verify that the model executed without any errors. To do this, click on Tools → Logging → View Report or View Log. An example of a report with and without a fail error is provided on the final two pages of this document.

Managing Model Scenarios

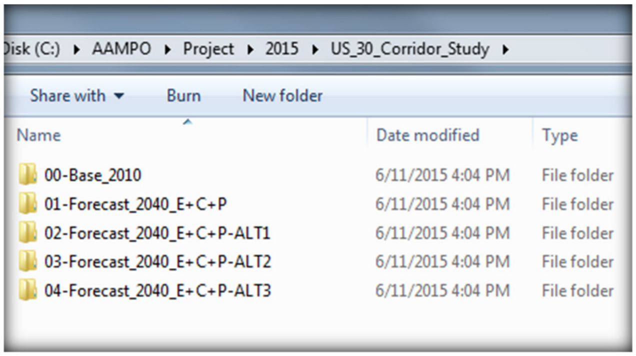
1. Once a model has executed, the files need to be archived so they may be referenced and mapped or utilized at a later date. The recommended procedure to save scenarios is to simply copy the second of the AAMPO folders and paste the files into a folder with an appropriate name.
2. In the example below, folders for the 2040 E+C+P are shown and were copied from C:\AAMPO\AAMPO\. All of the input and output files are within the copied AAMPO folder. These input and output folders were saved prior to running the model again so the analysis could be archived elsewhere for future reference. **The model should not be executed from this new folder location unless special care is taken to ensure that the route layer references an appropriate road network and the base directory is changed. The model will always default to C:\AAMPO\AAMPO**



3. In the event an alternative scenario is needed, the following directory structure is recommended. The root directory (US_30_Corridor_Study) name should clarify where the project is for all model scenario runs located within. Include a brief tech memo or readme file to summarize the differences between the scenario alternatives if they deviate from the base committed and planned network scenarios.
    a. Create a Project Folder
    b. Project Year
        i) 2015

c. Project

ii) US_30



4. In the above examples, the archived scenarios are shown within the work directory C:\AAMPO. It is recommended that this directory be treated as a work directory and only a temporary location for archived scenarios. Given this, it is recommended that once all alternative scenarios have been run and executed that they be put on a local area network or server to be backed up. This reduces clutter within the work directory and decreases the potential for confusion and misplacing files and directories.

Preparing the Highway Network for an Alternative Scenario

1. As previously mentioned, the All_Input and All_Output directories as well as all respective directories and files contained within are necessary in order for the model to run. However, at times an alternative highway scenario may need to be executed for long range plan development or a particular project. Given this, the network located within C:\AAMPO\AAMPO\All_Input\Network is the network that should be adjusted to remove/add links or change capacity for the scenario alternative.

2. As mentioned before, the road network parameter (in the GISDK file) is what determines the links to be included for a given model run. If a different selection is desired for a given model run, the codes in the model network field need to be changed accordingly. For example, if an alternative is closely related to the 2040 E+C+P model, but some links need to be removed, then change the coding of the Built_Status field to a code of 99 so they are not included. (Note: metadata codes are provided within the highway network by going to Dateview and then Table Structure.

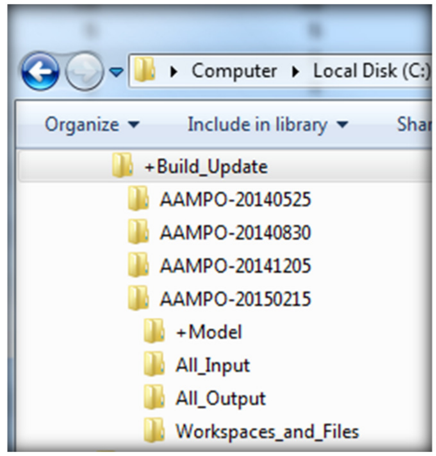
   The model script for the existing, committed, planned, and illustrative scenarios is as follows:

   If "Existing" then BUILT_STATUS = 0 or BUILT_STATUS = 5
   If "Committed" then BUILT_STATUS <= 1
   If "Planned" then BUILT_STATUS <= 2
   If "Illustrative" then BUILT_STATUS <= 3

   By coding any links with a value greater then 5, they will not be included. A value of 99 is recommended so it can be easily found and referred to at a later date. Document this change in a text file or tech memo so it can be easily referenced at a later date.

3. In the event capacity will need to be adjusted, the fields that need to be changed are the AB/ BA lane (AB/BA_LANES_ "XXXXXX") and the facility code (FACILITY_CODE_"XXXXXX") for the corresponding existing, committed, planned, or illustrative network.

4. If the highway network in the All_Input directory is being adjusted for an alternative scenario, and an original base, committed, or planned model run is needed, the All_Input directory will need to be set back to the original. This can be done by keeping an official copy of the model on a network that maintains a log. In the figure to the right, a recommended directory structure is provided for a server or local area network. It has build updates archived and logged by the date they were updated or changed and contain all files necessary to run the model. Also included within the model archive folder are the scenarios models run conducted for that particular year.



   Given the many changes that can occur to the model, it is strongly recommended that the model build be updated for any changes to the highway network, TAZs, model script file, or scenario file. Also, including a brief tech memo or read me document within each corresponding scenario run directory will help facilitate better file management.

Preparing the traffic analysis zones (TAZ) for an alternative socioeconomic data scenario

1. Split TAZ:
   a. Use the Map Editing toolbox to make the physical TAZ split.
2. Create new centroid and connectors
   a. Use the Map Editing toolbox to add at least one new connector.
   b. Edit the old connectors as necessary.
   c. Copy attributes from an old connector to any new connectors. In almost all cases all attributes will match exacly.
   d. With the nodes layer active, copy the attributes from an old centroid to the new centroid. Update the TAZ number of the new centroid. The TAZ number should not match any other TAZ number and should be less than 1000.
3. Files and fields to update:
   a. TAZ layer:
      1) Update TAZ number of new TAZ. This number should match the new centroid's TAZ number.
      2) Update Employment data

(i) There are seven category fields called NAICSy_20xx; where y is equal to 1, 2, 3, 4, 5, 6, or 7 and 20xx represents the year in five-year increments.

(ii) These seven fields are used to summarize the employment data into more general employment categories such as retail, non-retail, and other. The AAMPO TDM GISDK script will automatically update these more general categories used in calculating person trip attractions and truck productions and attractions.

3) Other fields to update in the TAZ layer:

(i) SCHL_ENRLL_20xx

(ii) FTE_EMP_20xx

(iii) ISU_EMP_20xx

(iv) ISU_STUDENT_EMP_20xx

(v) ISU_ONCAMPUS_20xx

(vi) ISU_OFFCAMPUS_20xx

(vii) Where xx represents the year in five-year increments. For more details about each field, please refer to the documentation.

b. CTPP folder contents

1) CTPP.bin file:

(i) Add one new record (Edit→Add Records). Type in TAZ number of new TAZ.

(ii) The fields [HHx_VEHy-CTPP2010 are used to calculate trip productions using the cross classification method. In the field, HHx represents the household size and can be a value of 1, 2, 3 or 4 (or more) and VEHy represents the autos available and can be a value of 0, 1, 2, or 3 (or more). The sum of these sixteen fields should equal a value of 1 (it may be slightly off due to rounding). This information is used to calculate the household size and vehicle ownership distribution from the HHTOTAL_20xx fields where 20xx is the year. The sum of the fields HHx_VEHy_20xx should equal the input HU_20xx data fields. This should be copied from a nearby TAZ unless specific information is known.

2) CTPP_smoothing_20xx Excel files:

(i) On the “CTPP Distributions” tab, the new TAZ can be added, along with the household size and vehicle availability percent distribution. On this tab, the total number of household size and vehicle availability categories is greater, so it is recommended that the percent distributions be copied from the same nearby TAZ within the Excel file.

(ii) On the “With Decimals” tab, add the new TAZ number again. Then, enter the total number of households that will be in the new TAZ in column B. Copy the formulas in the subsequent columns down.

(iii) On the “Without Decimals” tab, copy the formulas down.

(iv) On the “Final distribution” tab, copy the formulas down. Make sure the HU_OCC-CheckSum field equals null.

(v) On the "Redist_3_4_veh" tab, copy the formulas down.

(vi) On the "Final" tab, copy the formulas down.

(vii) Save as, C20xx.csv in the C:\AAMPO\AAMPO\All_Input\TAZ\CTPP folder for the appropriate year.

c. Trip_Generation_Tables folder content:

3) Balance.bin:

(i) Add a new record.

(ii) Type in the ID. This number can be found in the new centroid.

4) HBU_A_redistribution.bin:

(i) Add a new record.

(ii) Type in the ID number and TAZ number of the new TAZ.

5) Also add a new record and type in the new TAZ number in the following tables:

(i) Non-Student.bin

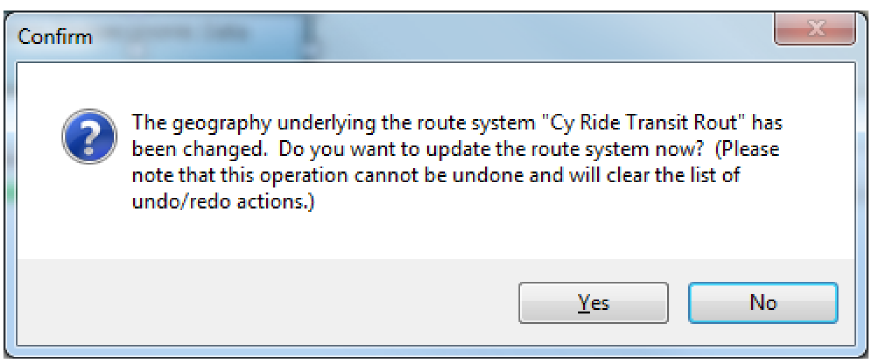
(ii) Student.bin

(iii) Truck.bin

(iv) All other fields will update automatically.

Other important considerations in the GISDK batch procedures

- Network Changes
  - If the underlying network geography changes the transit route layer will require an update. Generally, this can be done while the model is processing by clicking "Yes" on the window shown below.



- Model Run Errors
  - At times, errors can occur when running the model. In recent version updates of TransCAD, the model may have an error but will still complete. Consequently, it's important to check the log and report files after each model run to ensure the model executed without errors. These files can be checked in TransCAD by going to the Tools menu, selecting Logging, and then selecting either View Log or View Reports. Examples on the following pages are provided to show when a model run is successful .

Scenario Report Examples

1. Correct report without errors

2. Report - Model: AAMPO_2010 - Scenario: Default Values (6/12/2015 2:31:26 PM)

Step	Time
Operation Fill Dataview	00:00:00.00
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Operation Fill Dataview	00:00:18.00
Operation Build Highway Network	00:00:19.00
Operation Highway Network Setting	00:00:19.00
Procedure TCSPMAT	00:00:20.00
Operation Add Matrix Index	00:00:20.00
Procedure Intrazonal	00:00:20.00
Procedure Intrazonal	00:00:21.00
Operation Fill Dataview	00:00:21.00
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Operation Fill Dataview	00:00:41.00
Operation Fill Dataview	00:00:41.00
Operation Fill Dataview	00:00:41.00
Procedure Balance	00:00:41.00
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Operation Add Matrix Core	00:00:41.00
Operation Drop Matrix Core	00:00:41.00
Operation Fill Matrices	00:00:41.00
Operation Fill Matrices	00:00:41.00
Operation Add Matrix Core	00:00:42.00
Operation Add Matrix Core	00:00:42.00
Operation Add Matrix Core	00:00:42.00
Operation Add Matrix Core	00:00:42.00
Operation Add Matrix Core	00:00:42.00
Operation Add Matrix Core	00:00:42.00
Operation Drop Matrix Core	00:00:42.00
Operation Add Matrix Index	00:00:42.00
Procedure Gravity	00:00:44.00
Operation Transpose Matrix	00:00:48.00
Operation Transpose Matrix	00:00:53.00
Operation Transpose Matrix	00:00:58.00
Operation Transpose Matrix	00:01:03.00
Procedure TLD	00:01:05.00
Procedure TLD	00:01:05.00
Procedure TLD	00:01:05.00
Procedure TLD	00:01:05.00
Procedure TLD	00:01:05.00
Procedure TLD	00:01:06.00
Procedure TLD	00:01:06.00
Procedure TLD	00:01:06.00
Procedure TLD	00:01:06.00
Procedure TLD	00:01:06.00
Procedure TLD	00:01:06.00
Procedure TLD	00:01:07.00
Operation Fill Dataview	00:01:07.00
Operation Fill Dataview	00:01:07.00
Operation Add Matrix Index	00:01:08.00
Operation Add Matrix Index	00:01:08.00
Operation Add Matrix Index	00:01:08.00
Operation Add Matrix Index	00:01:09.00
Operation Add Matrix Index	00:01:09.00
Operation Add Matrix Index	00:01:09.00

Operation Add Matrix Index	00:01:09.00
Operation Add Matrix Core	00:01:10.00
Procedure MMA	00:01:11.00
Operation Highway Network Setting	00:01:11.00
Procedure TCSPMAT	00:01:12.00
Procedure Intrazonal	00:01:12.00
Procedure Intrazonal	00:01:12.00
Operation Add Matrix Core	00:01:12.00
Operation Fill Dataview	00:01:13.00
Operation Add Matrix Index	00:01:13.00
Operation Add Matrix Core	00:01:13.00
Operation Build Transit Network	00:01:42.00
Operation Transit Network Setting PF	00:01:42.00
Procedure Transit Skim PF	00:01:47.00
Operation Add Matrix Core	00:01:47.00
Operation Add Matrix Core	00:01:47.00
Operation Add Matrix Core	00:01:47.00
Operation Fill Dataview	00:01:49.00
Operation Build Transit Network	00:01:51.00
Operation Transit Network Setting PF	00:01:51.00
Procedure Transit Skim PF	00:01:56.00
Operation Add Matrix Core	00:01:56.00
Operation Add Matrix Core	00:01:56.00
Operation Add Matrix Core	00:01:56.00
Operation Add Matrix Index	00:01:56.00
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Procedure NestedLogitEngine	00:02:00.00
Procedure Intrazonal	00:02:00.00
Procedure Intrazonal	00:02:00.00
Operation Matrix QuickSum	00:02:00.00
Procedure Intrazonal	00:02:01.00
Procedure Intrazonal	00:02:01.00
Operation Matrix QuickSum	00:02:02.00
Procedure Intrazonal	00:02:02.00
Procedure Intrazonal	00:02:02.00
Operation Matrix QuickSum	00:02:03.00
Procedure Intrazonal	00:02:03.00
Procedure Intrazonal	00:02:04.00
Operation Matrix QuickSum	00:02:04.00
Operation Add Matrix Index	00:02:05.00
Procedure Transit Assignment PF	00:02:09.00

Procedure Transit Assignment PF	00:02:10.00
Operation Combine Matrix Files	00:02:10.00
Operation Add Matrix Core	00:02:11.00
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Operation Drop Matrix Core	00:02:12.00
Operation Drop Matrix Core	00:02:12.00
Operation Add Matrix Index	00:02:12.00
Operation Add Matrix Core	00:02:28.00
Operation Add Matrix Core	00:02:28.00
Operation Add Matrix Core	00:02:29.00
Operation Add Matrix Core	00:02:30.00
Operation Add Matrix Core	00:02:31.00
Operation Fill Dataview	00:02:31.00
Operation Add Matrix Index	00:02:32.00
Operation Add Matrix Core	00:02:32.00
Operation Build Transit Network	00:02:36.00
Operation Transit Network Setting PF	00:02:36.00
Procedure Transit Skim PF	00:02:43.00
Operation Add Matrix Core	00:02:43.00
Operation Add Matrix Core	00:02:43.00
Operation Add Matrix Core	00:02:43.00
Operation Fill Dataview	00:02:44.00
Operation Build Transit Network	00:02:46.00
Operation Transit Network Setting PF	00:02:46.00
Procedure Transit Skim PF	00:02:51.00
Operation Add Matrix Core	00:02:51.00
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Operation Add Matrix Index	00:02:52.00
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Procedure NestedLogitEngine	00:02:54.00
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Procedure Intrazonal	00:02:55.00
Operation Matrix QuickSum	00:02:55.00
Procedure Intrazonal	00:02:56.00
Procedure Intrazonal	00:02:56.00
Operation Matrix QuickSum	00:02:57.00
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Procedure Intrazonal	00:02:57.00
Operation Matrix QuickSum	00:02:58.00
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Procedure Intrazonal	00:02:58.00
Operation Matrix QuickSum	00:02:59.00
Operation Add Matrix Index	00:03:00.00
Procedure Transit Assignment PF	00:03:03.00
Procedure Transit Assignment PF	00:03:05.00
Operation Combine Matrix Files	00:03:05.00
Operation Add Matrix Core	00:03:06.00
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Operation Add Matrix Index	00:03:06.00
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Operation Drop Matrix Core	00:03:26.00
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Operation Add Matrix Index	00:03:26.00
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Operation Transpose Matrix	00:03:41.00
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Procedure MMA	00:03:51.00
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Procedure Assignment	00:03:57.00
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Procedure MMA	00:03:58.00
Operation Highway Network Setting	00:03:59.00
Procedure Assignment	00:04:03.00
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Operation Highway Network Setting	00:04:08.00
Procedure Assignment	00:04:11.00

Operation Fill Dataview	00:04:11.00
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Procedure TLD	00:04:17.00
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Operation Highway Network Setting	00:04:20.00
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Operation Highway Network Setting	00:04:23.00
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Operation Fill Dataview	00:04:26.00
Operation Fill Dataview	00:04:26.00
Operation Fill Dataview	00:04:27.00
Operation Fill Dataview	00:04:27.00
Operation Highway Network Setting	00:04:27.00
Procedure TCSPMAT	00:04:28.00
Procedure Intrazonal	00:04:28.00
Operation Add Matrix Index	00:04:28.00
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Operation Fill Dataview	00:04:37.00
Operation Fill Dataview	00:04:37.00
Operation Fill Dataview	00:04:37.00
Operation Fill Dataview	00:04:38.00
Operation Fill Dataview	00:04:38.00

Appendix E

System and Project Feedback

Multimodal Issues Input Summary

Multimodal Alternatives Development Input Summary

Potential Alternatives for Roadway, Bicycle/Pedestrian and Transit Maps and Tables

Candidate Project Scorecards

Bicycle/Pedestrian Project Alternative Phase vs. Final LRTP Project ID Numbers

Multimodal Issues Input Summaries

Overview

The Long-Range Transportation Plan is a process that is formed based on the issues and opportunities received as input from the Ames community. The community engagement process for receiving input included several elements- both traditional/ live (face-to-face workshops), and virtual (via internet). The variety of tools utilized for identifying issues in the Ames area has allowed the study team to reach as many residents and stakeholders as possible to obtain a breadth of input from the public.

Traditional Workshop Format

On September 30, 2014, the Ames Area MPO and HDR worked with stakeholders in Ames to gather input on issues, opportunities and collect vision themes for the regional transportation system. Each of these workshops provided opportunity for engaged dialogue and meaningful exchange of LRTP information. HDR worked with MPO staff to lead three workshops with different groups to get input:

- **The Project Management Team (PMT),** with engineering and planning staffs from the various jurisdictions and agencies in the MPO area.
- The study **Focus Group**, with stakeholder representation from various civic groups, modal interests (including bicycle, pedestrian, transit, and freight), Iowa State University, Schools, businesses, and first responders in the community.
- **Public Meeting** held in the evening at the Scheman Building.

A short presentation was provided at each workshop that included introductions, brief background on the LRTP update, draft overview of the existing conditions, and instructions for the workshop exercises. The first exercise was to break the attendees at each workshop into small groups and complete a **geographic issues (challenges) and opportunities (solutions) mapping exercise**. Three large basemaps were provided to each group to write on:

1) Blank street map for recording roadway issues and opportunities.
2) Street map with current trails and on-street bike routes shown for reference, to allow workshop attendees to record bicycle and pedestrian system issues and opportunities.
3) Street map with current transit routes shown for reference, to allow workshop attendees to record transit system issues and opportunities.

In total, there were 36 sets of comments received from each of the groups at all 3 meetings:

- At the public meeting, there were 6 plots with comments received for each of the 3 modes, for 18 total plots of issues comments.
- At the Focus Group meeting, there were 4 plots with comments received for each of the 3 modes, for 12 total plots of issues comments.

- At the Project Management Team meeting, there were 2 plots with comments received for each of the 3 modes, for 6 total plots of issues comments.

Location-Based Issues Summary- Traditional Workshops

The geographic responses received from each group at these workshops have been summarized into modal issues and opportunities maps: one for roadway, one for transit, and one for the bicycle and pedestrian system. The geographic issues and opportunities identified by the groups are summarized on the attached figures. Each figure focuses on a separate mode, and each identified issue has a mode-specific identifying number that corresponds to the comments listed in tabular format.

- **Figure 1** shows the **bicycle and pedestrian issues** identified for the entire AAMPO area from any of the traditional workshops. Many of the issues were identified for Central Ames, and **Figure 2** provides a more detailed illustration. A summary of the bicycle and pedestrian issues identified any of the traditional workshops are provided in **Table 1**. Each individual issue in the table corresponds to the identifying number on the figure, and also indicates which input group(s) provided that comment with a "YES".
- **Figure 3** shows the **transit issues** identified for the MPO area from any of the traditional workshops. A summary of the transit issues identified are provided in **Table 2**.
- **Figure 4** shows the **roadway and traffic issues** identified for the MPO area for any of the traditional workshops. A summary of the roadway and traffic issues identified are provided in **Table 3**.

Regional Issues Summary

Many of the issues identified at the workshops were not specific to one location, but summarized an issue or opportunity that could be addressed on a regional basis. Those regional issues from any of the traditional workshops included:

Bicycle-Pedestrian Regional Issues

1. Connectivity Issues
    a. Desire for safe bike lanes to get across town
    b. Students want to go from campus to downtown on bikes
    c. Better regional connections to surrounding communities
    d. Desire for on-street bike route for north-south travel across Ames
    e. Focus on connecting bike facilities within Ames
    f. Pave shoulders on rural roads for long distance cyclists
    g. Safe bike facilities desired around schools
    h. Need E/W and N/S dedicated routes
2. Classify routes: Recreational vs Commuting
3. Quality is better than quantity for bike / pedestrian facilities
4. Name trails for easier wayfinding
5. Evaluate at-grade vs grade separated bike/street crossings along arterial streets.
6. Consider road diet options to add bike lanes
7. Bicycle parking concerns:
    a. Campustown/Downtown
    b. Business Districts
    c. Modern Bike Racks needed for larger wheel bikes, ex. Road bikes
8. Shared Use Trails confuse traffic at intersections
9. Poor surface quality on some trails
10. Snow removal should be a priority
11. Bikes should be recognized as transportation, not just recreation
12. Update trails map on city website
13. Sidewalks are not shared use paths

Transit Regional Issues

1. Desire for the overall transit system to have fewer stops
2. Desire for better site development planning to coordinate with routes / stops
3. Need transfer pass that lasts 2.5 hours so people can take CyRide to store or meetings (like Minneapolis system)
4. Need Bus Storage for 20-30 more buses

5. Need 20% spare ratio (14) Buses for spares throughout.
6. Need more affordable option to access airport.
7. Need shelters on campus for transfers
8. Connection with night and weekend service to Senior Housing.
9. Connect West #1 to South #3, especially evening and weekends
10. Contract all of Cardinal Route.
11. CyRide needs more funding.
12. Bigger and better bus garage would help.
13. Red routes are too full.
14. Fund Des Moines bus service outside of CyRide funding sources.

Traffic/Roadway Regional Issues

1. New residencies causing higher traffic on suburban streets.
2. Need more access to Hwy 30 and I-35 (from Lincoln Way).
3. Development should be street-oriented with backage roads.
4. Improve vehicular / pedestrian interaction at intersections
5. Upgrade intersections to radar detection
6. Upgrade signal interconnectivity
7. Pavement quality issues (potholes)
8. Concerns with no traffic control signs at neighborhood intersections
9. Downtown parking

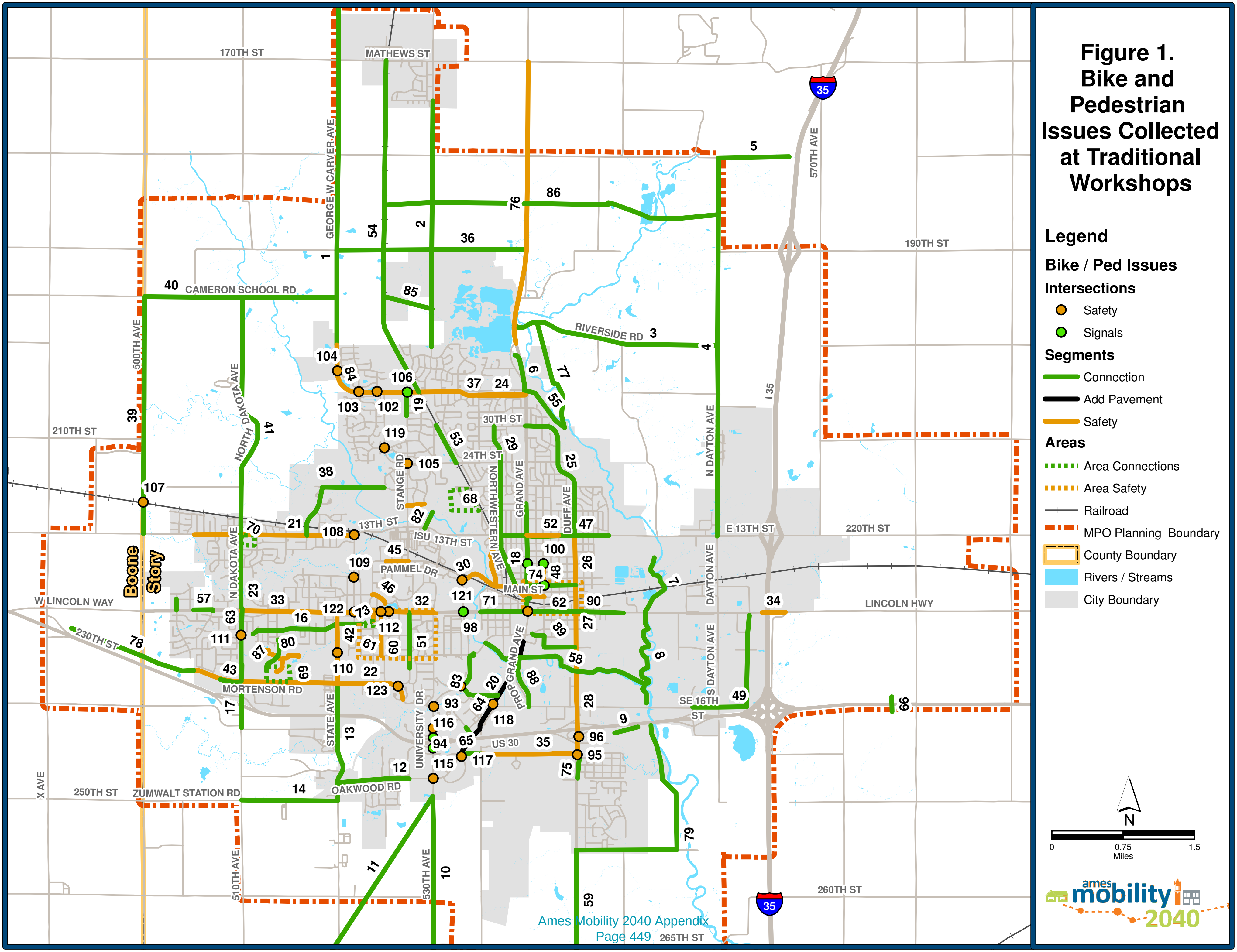
Figure 1. Bike and Pedestrian Issues Collected at Traditional Workshops
Legend
Bike / Ped Issues
Intersections
Safety
Signals
Segments
Connection
Add Pavement
Safety
Areas
Area Connections
Area Safety
Railroad
MPO Planning Boundary
County Boundary
Rivers / Streams
City Boundary
0
0.75
1.5
Miles
N
ames mobility 2040
Boone
Story
170TH ST
MATHEWS ST
190TH ST
210TH ST
220TH ST
CAMERON SCHOOL RD
RIVERSIDE RD
30TH ST
24TH ST
13TH ST
ISU 13TH ST
E 13TH ST
PAMMEL DR
MAIN ST
W LINCOLN WAY
LINCOLN HWY
230TH ST
MORTENSON RD
SE 16TH ST
US 30
OAKWOOD RD
250TH ST
ZUMWALT STATION RD
260TH ST
265TH ST
GEORGE W CARVER AVE
500TH AVE
NORTH DAKOTA AVE
N DAKOTA AVE
STANGE RD
NORTHWESTERN AVE
GRAND AVE
DUFF AVE
N DAYTON AVE
DAYTON AVE
S DAYTON AVE
570TH AVE
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510TH AVE
530TH AVE
X AVE
35

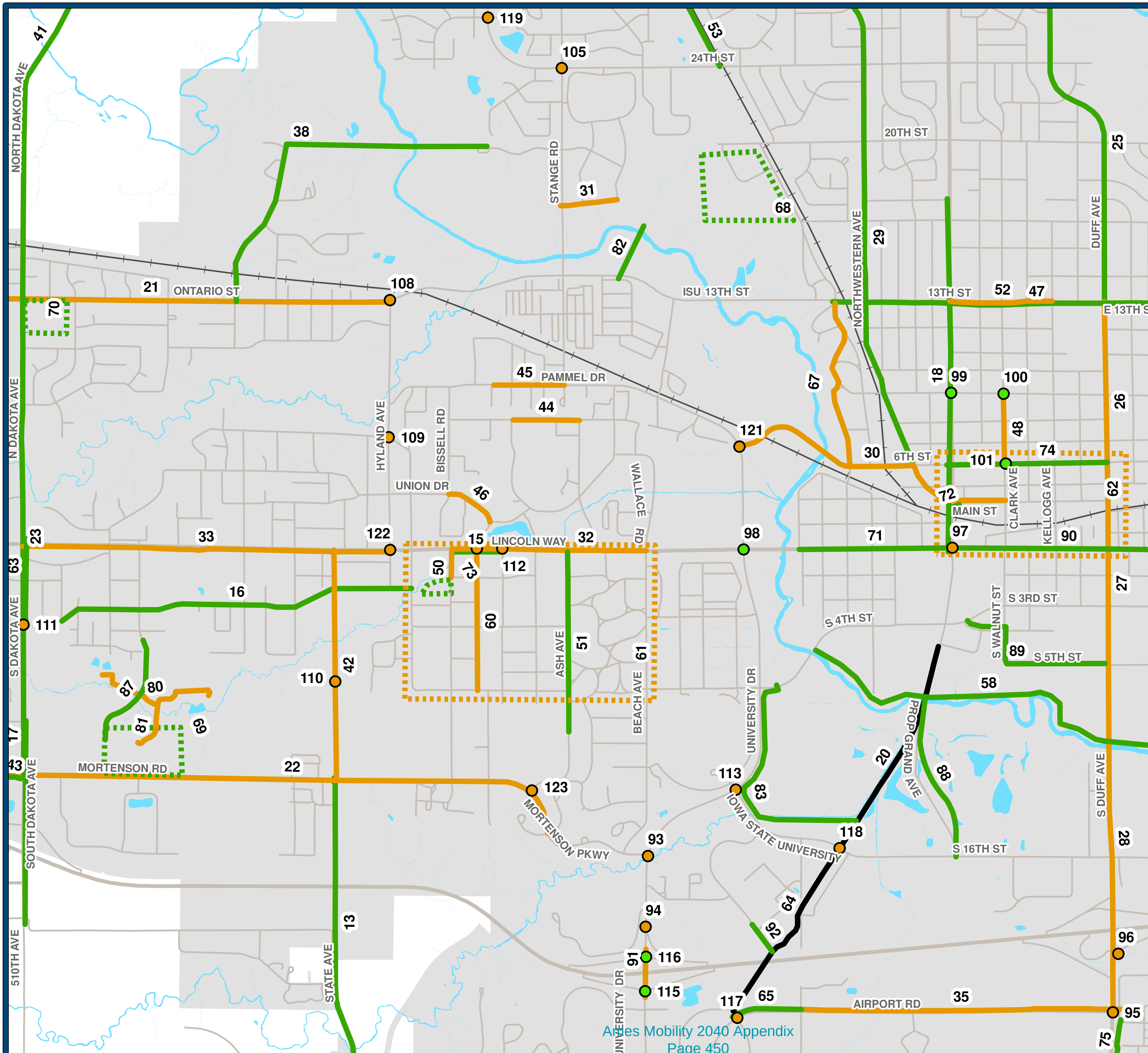


Figure 2. Bike and Pedestrian Issues Collected at Traditional Workshops (Central Ames)

Legend

Bike / Ped Issues

Intersections
- Safety
- Signals

Segments
- Connection
- Add Pavement
- Safety

Areas
- Area Connections
- Area Safety
- Railroad
- MPO Planning Boundary
- County Boundary
- Rivers / Streams
- City Boundary

N

0 0.275 0.55
Miles

ames mobility 2040

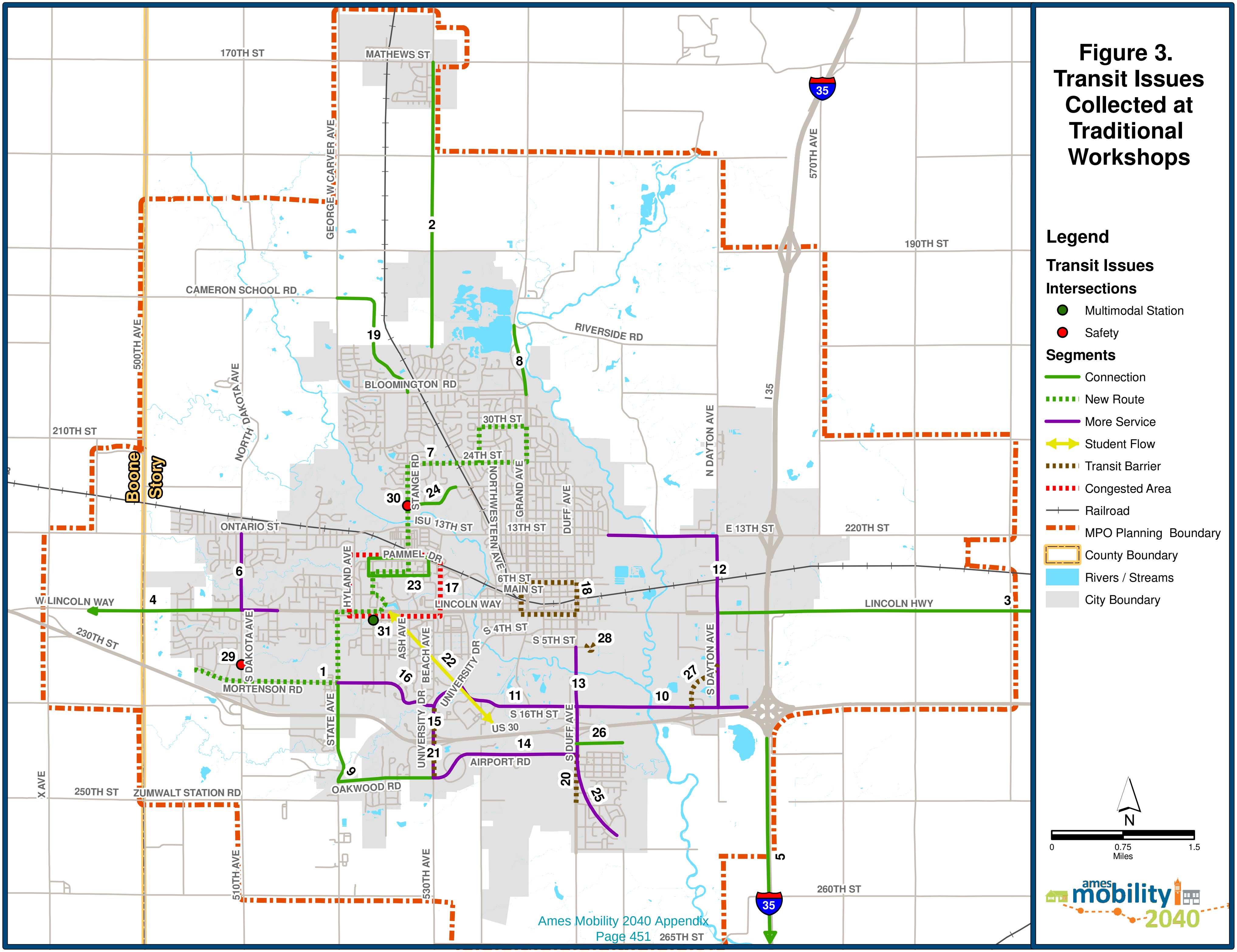
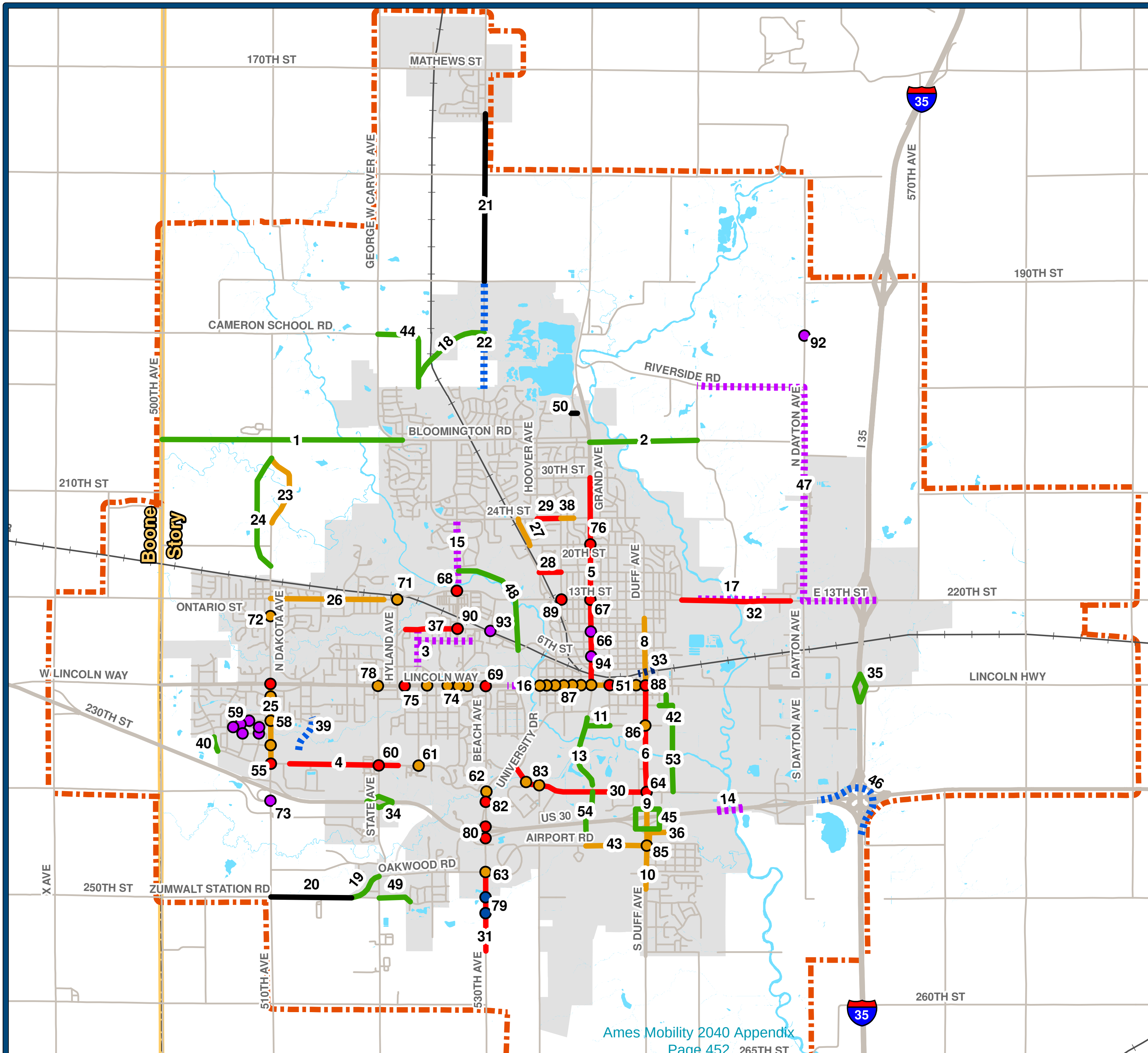


Figure 3. Transit Issues Collected at Traditional Workshops

Figure 4. Roadway Issues Collected at Traditional Workshops



Legend

Traffic/Roads Issues

Intersections

- 2015 Project
- Congestion
- Safety
- Signals
- Other Concern

Segments

- Congestion
- Connection
- Safety
- Add Pavement
- RR Conflicts
- Future Construction
- Other Concern
- Railroad
- MPO Planning Boundary
- County Boundary
- Rivers / Streams
- City Boundary

N

0 0.75 1.5
Miles

Table 1. Bicycle and Pedestrian Issues Collected at Traditional Workshops

ID	Issue Type	Meeting Where Raised			Specific Comments from Public Meeting	Specific Comments from Focus Group	Specific Comments from Project Management Team
		Public Meeting	Focus Group	Project Management Team			
1	Desired Connection	YES	YES	YES			
2	Desired Connection	YES	YES				
3	Desired Connection	YES			Many riders use this road		
4	Desired Connection	YES			Many riders use this road		
5	Desired Connection	YES	YES		Need to get to McFarland Park	Paved connection	
6	Desired Connection	YES	YES	YES			2015 TIP
7	Desired Connection	YES	YES	YES			2015/2016 Construction
8	Desired Connection	YES	YES	YES			Construction anticipated in 2-3 years.
9	Desired Connection	YES	YES				
10	Desired Connection	YES		YES			
11	Desired Connection	YES		YES	Connect to Heart of Iowa Trail		
12	Desired Connection	YES		YES			
13	Desired Connection	YES					
14	Desired Connection			YES			
15	Desired Connection	YES					
16	Desired Connection	YES			Good candidate for Quiet Street or Cycletrack		
17	Desired Connection	YES					
18	Desired Connection	YES					
19	Desired Connection	YES		YES		Need multiuse path on both sides	
20	Pave Trail	YES	YES				
21	Safety Concern	YES	YES		Too many driveways cross paths. Need bike lanes	Too many driveways. Need Bike Lanes	
22	Safety Concern	YES	YES		Need bike lanes	Need shared use path/sidewalk on both sides	
23	Desired Connection	YES			Need bike lanes		
24	Safety Concern	YES			Rebuild		
25	Desired Connection	YES			Need bike lanes		
26	Safety Concern	YES			Need bike lanes		
27	Safety Concern	YES			Need bike lanes. Congestion. Little infrastructure for cyclists		
28	Safety Concern	YES			Congested. Difficult to access by bike. Safety Concern. Bike Lanes?		
29	Desired Connection	YES			Need bike lanes		
30	Safety Concern	YES			Confusing. Better Signage, improved bike infrastructure.		
31	Safety Concern	YES			Sharrows. Crossing/Signage		
32	Safety Concern	YES		YES	Too congested for bikes		Bikes/Crossings conflicts
33	Safety Concern	YES			Too many driveways cross path		
34	Safety Concern	YES			Road narrows across bridge so gap in bike lanes. better signage		

Table 1. Bicycle and Pedestrian Issues Collected at Traditional Workshops

ID	Issue Type	Meeting Where Raised: Public Meeting	Focus Group	Project Management Team	Specific Comments from Public Meeting	Specific Comments from Focus Group	Specific Comments from Project Management Team
35	Safety Concern	YES	YES		Improve Maintenance. Consider Bike Lanes	Need path on both sides	
36	Desired Connection		YES				
37	Safety Concern		YES			Need bike lane	
38	Desired Connection		YES	YES		Connection Needed - ISU / YMCA	bikes
39	Desired Connection	YES	YES		used for long distance riding. Pave shoulders		
40	Desired Connection	YES	YES		used for long distance riding. Pave shoulders	bike route	
41	Desired Connection	YES	YES		used for long distance riding. Pave shoulders		
42	Safety Concern		YES			No sidewalk or unsafe sidewalk	
43	Desired Connection		YES				
44	Safety Concern		YES			Pedestrian Safety	
45	Safety Concern		YES			Pedestrian Safety	
46	Safety Concern		YES			Pedestrian Safety	
47	Desired Connection		YES			Gap	
48	Safety Concern		YES			Not Friendly	
49	Desired Connection		YES	YES		Extend to DMACC	
50	Safety Concern		YES			Sidewalk gap	
51	Desired Connection		YES			Extend path	
52	Safety Concern			YES			Narrow Sidewalk
53	Desired Connection			YES			
54	Desired Connection			YES			
55	Desired Connection		YES	YES			
56	Desired Connection			YES			Development driven
57	Desired Connection			YES			Gap
58	Desired Connection			YES			
59	Desired Connection			YES			
60	Safety Concern	YES	YES	YES	High congestion. Make Bus/Bike/Ped only	Make Pedestrian Mall, move fire department	Bikes
61	Area Bike Safety Concern	YES		YES	Opportunity to Improve Campustown Bike Safety and bike/pedestrian/transitway		Campustown has multimodal conflicts - provide solutions
62	Area Bike Safety Concern			YES			Bike Conflicts
63	Desired Connection	Yes					
64	Pave Trail	YES					
65	Desired Connection	YES					
66	Desired Connection	YES					

Table 1. Bicycle and Pedestrian Issues Collected at Traditional Workshops

ID	Issue Type	Meeting Where Raised: Public Meeting	Focus Group	Project Management Team	Specific Comments from Public Meeting	Specific Comments from Focus Group	Specific Comments from Project Management Team
67	Safety Concern				Fast autos - safety concern for bikers		
68	Improved Bike / Ped Desired Connections						
69	Improved Bike / Ped Desired Connections	YES			Improved connections, including Mortenson crossing (pedestrian signal?)		
70	Improved Bike / Ped Desired Connections	YES			Elementary School needs better bike facilities		
71	Desired Connection	YES	YES		Connect to Trail	Need bike lanes to get cross-town	
72	Desired Connection	YES			Fix Stairs		
73	Improved Bike / Ped Desired Connections	YES					
74	Desired Connection	YES	YES		More Infrastructure Connectivity	Extend Lane Markings to City Hall	
75	Desired Connection	YES			Pave Existing Trail		
76	Safety Concern	YES			Bikes on shoulders / sign / mark pavement for bike usage		
77	Desired Connection	YES			path connection		
78	Desired Connection	YES			Future extension?		
79	Desired Connection	YES					
80	Safety Concern	YES			Sharp Corners		
81	Safety Concern	YES			Lighting		
82	Desired Connection						
83	Desired Connection		YES			Connect	
84	Safety Concern		YES			Sidewalk only on one side	
85	Desired Connection		YES			Possible trail connection along railroad?	
86	Desired Connection		YES			Possible trail along power lines	
87	Desired Connection			YES			Extend when road is extended
88	Desired Connection			YES			Trail with Grand Ave extension
89	Desired Connection			YES			
90	Desired Connection			YES			Gap
91	Safety Concern	YES			30 Ramps Difficult to Cross for Bikes / Pedestrians		
92	Desired Connection		Yes			Connect ISU Research Center to Orange Route	
93	Safety Concern	YES			Bad Intersection		
94	Safety Concern	YES			Trail Crosses Hwy Ramp		
95	Safety Concern	YES			Cars unaware of Ped/Bike		
96	Safety Concern	YES			Trail Crosses Hwy Ramp		

Table 1. Bicycle and Pedestrian Issues Collected at Traditional Workshops

ID	Issue Type	Meeting Where Raised: Public Meeting	Focus Group	Project Management Team	Specific Comments from Public Meeting	Specific Comments from Focus Group	Specific Comments from Project Management Team
97	Safety Concern	YES	YES		Bike Safety	Improved for cars, difficult for bikes / pedestrians	
98	Signal Issue	YES			Longer cross time desired		
99	Signal Issue	YES			Need radar detection for bikes		
100	Signal Issue	YES			Need radar detection for bikes		
101	Signal Issue	YES			Need radar detection for bikes		
102	Safety Concern	YES			Terrible bike intersection		
103	Safety Concern	YES			Terrible bike intersection		
104	Safety Concern	YES			Terrible bike intersection		
105	Safety Concern		YES			Pedestrian safety concerns	
106	Signal Issue		YES			Skips Ped Turns	
107	Safety Concern		YES			Narrow under bridge for Ped	
108	Safety Concern		YES			Safety concern. Can't see Pedestrians.	
109	Safety Concern		YES			Safety concern. Can't see Pedestrians.	
110	Safety Concern		YES			Cars don't stop for pedestrians	
111	Safety Concern		YES			Cars don't stop for pedestrians	
112	Safety Concern		YES			Need crosswalk. Grade separated.	
113	Safety Concern		YES			No Crosswalk. Pedestrian safety concern.	
114	Safety Concern		YES			No Crosswalk. Pedestrian safety concern.	
115	Signal Issue		YES			Need Signals for Bike/Ped	
116	Signal Issue		YES			Need Signals for Bike/Ped	
117	Safety Concern		YES			No crosswalk for path	
118	Safety Concern		YES			Need to slow traffic for pedestrians	
119	Safety Concern			YES			Sidewalk
120	Safety Concern			YES			Bike/Car/Bus Conflicts
121	Safety Concern	YES			Motorists do not yield to pedestrians / bikes. Signal improvement?		
122	Safety Concern	YES					
123	Safety Concern	YES			Difficult to turn left on Mortensen Trail		

Table 2. Transit Issues Collected at Traditional Workshops

ID	Issue Type	Meeting Where Raised: Public Meeting	Focus Group	Project Management Team	Specific Comments from Public Meeting	Specific Comments from Focus Group	Specific Comments from Project Management Team
1	Desired New Route	YES	YES	YES	Suggested BRT Route	New express route	New route
2	Desired Connection	YES	YES		Bus to Gilbert. After school service?	Commuter busing like DSM and Ankeny	
3	Desired Connection	YES	YES	YES	Bus to Nevada		Bus to Nevada
4	Desired Connection	YES		YES	Bus to Boone		
5	Desired Connection	YES	YES	YES	Bus to Des Moines		
6	More Service Desired	YES	YES		Food Desert access to Hy-Vee	Food Desert access to Hy-Vee	
7	Desired New Route	YES			Suggested BRT Route		
8	Desired Connection		YES				
9	Desired Connection						
10	More Service Desired	YES	YES		Service to hotels	service to DMACC	
11	More Service Desired	YES	YES	YES			Desire more service
12	More Service Desired	YES					
13	More Service Desired	YES			#3 to S. 16th Street		
14	More Service Desired	YES			Future service improvement to research park		
15	More Service Desired	YES	YES	YES		New Residential Service Gap	New Bus
16	More Service Desired	YES					
17	Congested Area	YES	YES			Too many buses on campus	
18	Transit Barrier			YES			
19	Desired Connection		YES	YES		Access new residential areas	
20	Transit Barrier	YES			No sidewalk for waiting riders		
21	Transit Barrier		YES	YES		No sidewalk for stops	No sidewalk for stops
22	Students Flow to/from ISU		YES			Need to get students from housing to ISU	
23	Desired Connection			YES			Transit Hub
24	Desired Connection		Yes			Construct Transitway	
25	More Service		YES			Hours of Operation	
26	Desired Connection		YES			Connect to Hunziker Sports Complex	
27	Transit Barrier	YES			No sidewalk for transit access		
28	Transit Barrier	YES			Create Bus Turnaround - get station closer to shopping		
29	Safety			YES			Cannot make turn with traffic
30	Safety			YES			Cannot turn
31	Multimodal Station			YES			Make higher traffic use (Multimodal station)

Table 3. Roadway / Traffic Issues Collected at Traditional Workshops

		Meeting Where Raise					
ID	Issue Type	Public Meeting	Focus Group		Specific Comments from Public Meeting	Specific Comments from Focus Group	Specific Comments from Project Management Team
1	Desired Connection	YES			Possible Connection		
2	Desired Connection	YES			Connect		
3	Other Concern	YES			Eliminate Private Vehicles Driving / Parking on Central Campus		
3	Other Concern	YES			Eliminate Private Vehicles Driving / Parking on Central Campus		
4	Congestion	YES		YES			Capacity Increase 3-4 Total Lanes
5	Congestion	YES					
6	Congestion	YES	YES	YES	Congested. Access Concerns	Turning Either Way is Difficult. Remove TWLTL for access management	Safety/Confusion
7	Safety Concern	YES	YES			Turning Either Way is Difficult.	
8	Safety Concern		YES			Turning Either Way is Difficult.	
9	Safety Concern	YES		YES	Congested		Safety/Confusion on Duff through interchange area
10	Safety Concern	YES			Congested south of Airport Rd		
11	Desired Connection	YES		YES	Connect		
13	Desired Connection	YES		YES	Connect		
14	Other Concern	YES			Flooding		
15	Other Concern	YES			Flooding		
16	Other Concern	YES			Flooding		
17	Other Concern	YES			Flooding		
18	Desired Connection	YES		Yes	Connect Stange to Grant		
19	Desired Connection	YES		YES	Connect and Pave		New Road
20	Pave Roadway	YES		YES			New Road
21	Pave Roadway	YES	YES	YES			
22	Future Construction	YES	YES	YES	Pave	Pave	2015 Construction - Pave Roadway
23	Safety Concern	YES			Difficult for through Traffic		
24	Desired Connection	YES			New Arterial Bypass Route Needed		
25	Safety Concern		YES	YES		Turning onto Dakota is Difficult	Left Turn lane used for passing
26	Safety Concern		YES			Wide road - illegal passing	
27	Safety Concern		YES			High School cut-through street	
28	Congestion		YES			High School Traffic	
29	Congestion		YES			High School Traffic	
30	Congestion		YES			High Traffic	
31	Congestion		YES			Future Traffic Increase with ISU Research Park	
32	Congestion		YES			Widen to 4 Lanes	
33	Railroad Conflicts	YES	YES		Overpass desired. Provide Main St access to 5th St.	Railroad makes traffic back up	
34	Desired Connection		YES			Hwy 30 access from State Ave	
35	Desired Connection		YES			I-35 access from Lincoln Way	
36	Safety Concern		YES			One lane each way. Kid/parent traffic every day.	

Table 3. Roadway / Traffic Issues Collected at Traditional Workshops

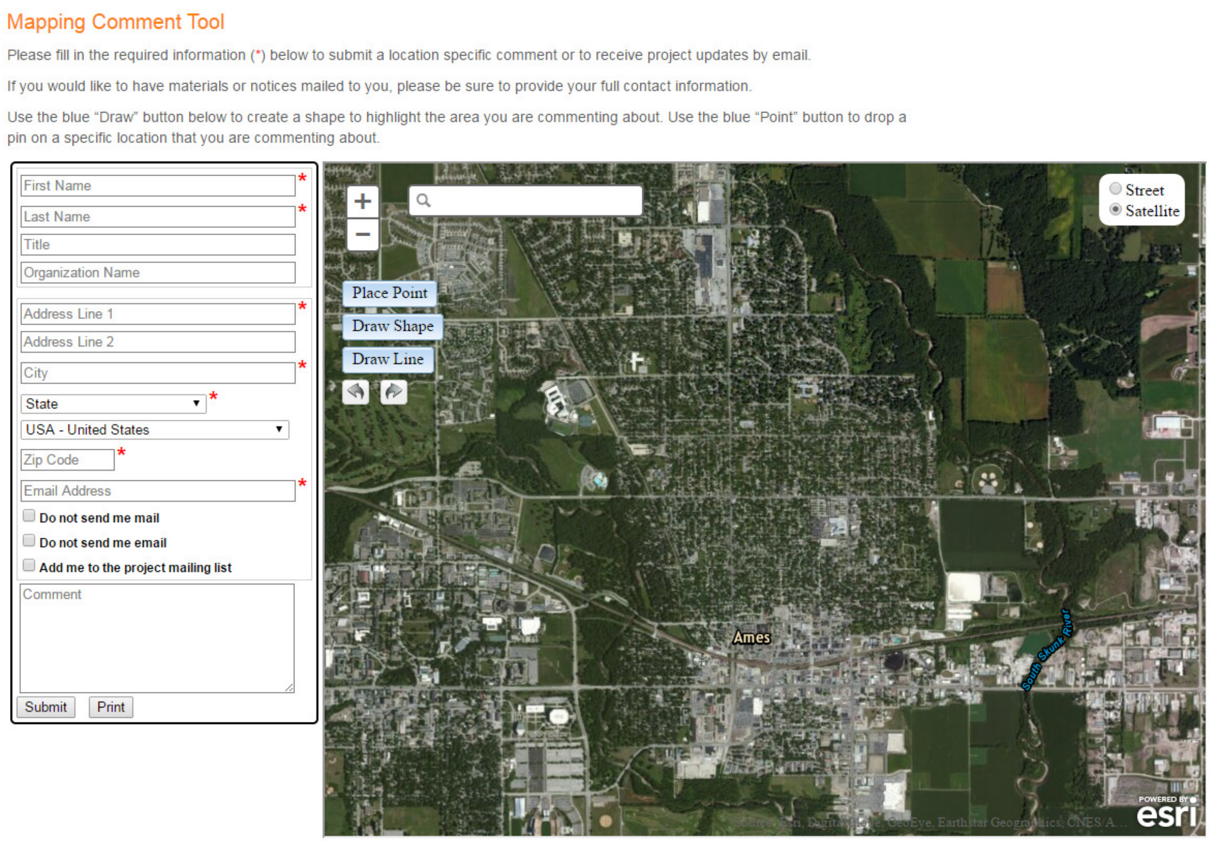
ID	Issue Type	Meeting Where Raise			Specific Comments from Public Meeting	Specific Comments from Focus Group	Specific Comments from Project Management Team
		Public Meeting	Focus Group				
37	Congestion		YES			High Traffic from ISU. 2 lane with turn lanes.	
38	Safety Concern			YES			Confusing Lanes
39	Future Construction			YES			2015 Construction
40	Desired Connection			YES			
42	Desired Connection			YES			Connection in current retail area
43	Safety Concern			YES			
44	Desired Connection			YES			New Road to Cameron School Rd
45	Desired Connection			YES			Interchange Improvements
46	Future Construction			YES			New Interchange Flyover (2017/18)
47	Other Concern		YES			Truck traffic between the mines and I-35	
48	Desired Connection			YES			
49	Desired Connection			YES			option to Oakwood Rd connection
50	Pave Roadway						
51	Safety Concern		YES			No turn lanes, high access	
53	Desired Connection	YES			Parallel Route to Duff for retail backage		
54	Desired Connection	YES		YES	Connect with underpass/Overpass at Hwy 30		
55	Congestion	YES	YES		Roundabout Suggested	FG-"Merge Left" causes all to speed up. Switch to "Zipper Merge"	
56	Congestion	YES		YES	Roundabout Suggested		Lanes
58	Safety Concern	YES	YES		Turning traffic	"Merge Left" NB to Lincolnway causes speed up. Switch to "Zipper Merge"	
59	Other Concern	YES	YES		Concern that local intersections are not controlled	Concern that local intersections are not controlled.	
60	Congestion	YES	YES	YES	Roundabout Suggested	Signal?	Roundabout
61	Safety Concern	YES			Roundabout Suggested		
62	Safety Concern	YES			Multimodal Safety Concerns		
63	Safety Concern	YES	YES	YES	Difficult Bike Crossing	Need Roundabout. High AM traffic. Transit Concern for Roundabout	2015 TIP - Roundabout
64	Congestion	YES	YES	YES	Left Turn Congestion		
65	Congestion	YES	YES	YES		Left Turns	Left Turns
66	Other Concern	YES			Bad Detection		
67	Congestion	YES	YES	YES	Need EBLT Signal. Split phasing is slow.	Congestion makes people drive less	Congestion
68	Congestion	YES		YES	Need SB RT Lane and Suggested a Roundabout. Split phasing is slow.		
69	Congestion	YES	YES		No Turn Arrows for N & S	Turning	

Table 3. Roadway / Traffic Issues Collected at Traditional Workshops

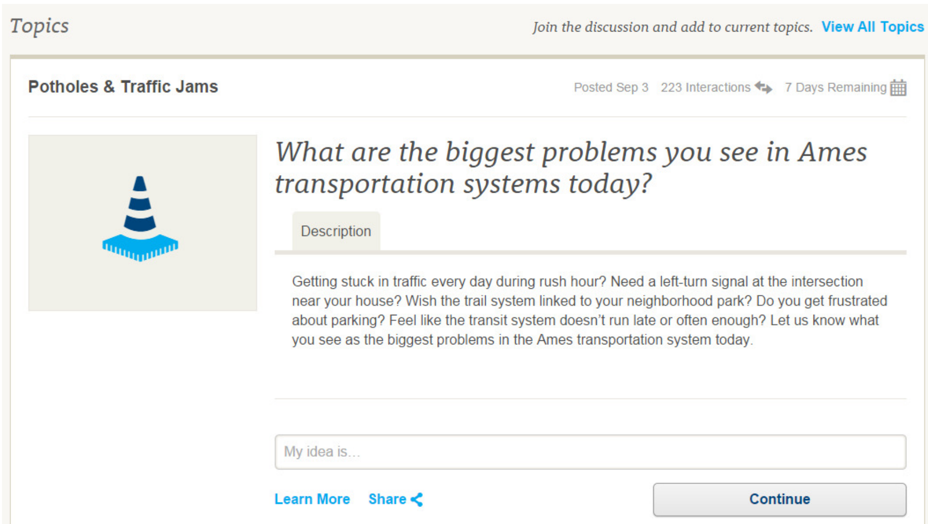
ID	Issue Type	Meeting Where Raised: Public Meeting	Meeting Where Raised: Focus Group		Specific Comments from Public Meeting	Specific Comments from Focus Group	Specific Comments from Project Management Team
71	Safety Concern		YES			"Merge Left" causes all to speed up. Switch to "Zipper Merge"	
72	Safety Concern		YES			Turning onto N.Dakota is Difficult	
73	Other Concern		YES				
74	Safety Concern		YES			Turning traffic on Lincolnway along campus impacts traffic flow / safety	
74	Safety Concern		YES			Turning traffic on Lincolnway along campus impacts traffic flow / safety	
75	Congestion		YES			Queuing	
76	Congestion		YES	YES			NBL Blocks Traffic/Queues
77	Safety Concern		YES			To wide for Ped/Bike	
78	Safety Concern			YES			WBLT
79	2015 Construction			YES			2015 TIP - Roundabout at Research Park
80	Congestion		YES			Special Event Traffic Signals for US 30 / University	
80	Congestion		YES			Special Event Traffic Signals for US 30 / University	
82	Congestion			YES			
83	Safety Concern			YES			Turning Capacity at Vet Medicine
83	Safety Concern			YES			Turning Capacity at Vet Medicine
85	Safety Concern			YES			Extend SB Left Turn Lane
86	Safety Concern			YES			Add RT Lane
87	Safety Concern		YES	YES		Left turns between Duff and University Drive stop traffic	Left Turns
88	Congestion		YES	YES	Slow light due to split phases	No Turn Lane	Left Turns
89	Congestion			YES			
90	Congestion			YES			
92	Other Concern		YES				
93	Other Concern			YES			Is there historic significance for underpass?
94	Other Concern	YES			Light changes takes long time		

Project Website and Virtual Town Hall Forum Format

The Ames Mobility 2040 website, http://www.amesmobility2040.com/, includes project information for the 2040 Long Range Transportation Plan and process. On this website, viewers are able to submit a comment, either via a written “online comment form”, or through a mapping comment tool. The online comment form allows the submission of input directly through the website, email to the project team, social meeting sites of Twitter or Facebook, or by mail to the AAMPO address. The mapping comment tool allows website visitors to specify the location of the specific issue, as shown below.



Through partnership with MindMixer, the Virtual Town Hall website, http://www.imagineames.org, serves as a high-level idea generation and information sharing platform for community members to submit ideas about any number of topics. Together, these two sites supplement the traditional public meeting and outreach programs, and are an alternative method for obtaining public input, especially from difficult-to-reach populations that typically do not attend public meetings. The Virtual Town Hall site allows website visitors to respond on specific questions as a means to share community issues and ideas, as shown in an example below.

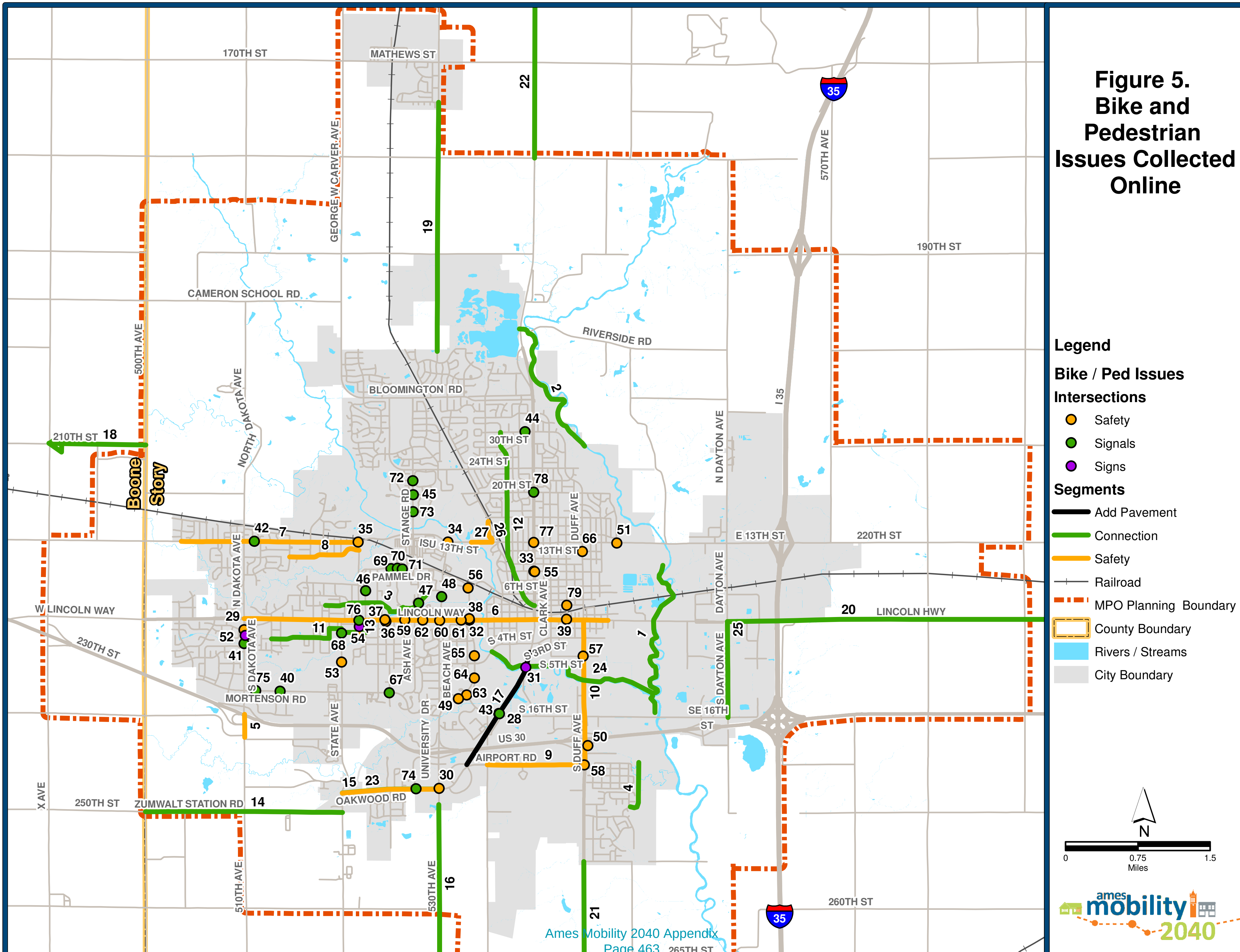


Location-Based Issues Summary- Online Comments

The online comments received from both from the online mapping comment tool or the Virtual Town Hall have been summarized into issues by mode. Each figure focuses on a separate mode, and each identified issue has a mode-specific identifying number that corresponds to the descriptive tables listing the comments in tabular format.

- **Figure 5** shows the **bicycle and pedestrian issues** identified for the entire AAMPO area, from any of the online tools. A central Ames inset map of issues provides a more detailed illustration in **Figure 6**. A summary of the bicycle and pedestrian issues identified online are provided in **Table 4**. Each individual issue in the table corresponds to the identifying number on the figure, and also indicates which input group(s) provided that comment with a "YES".
- **Figure 7** shows the **transit issues** identified for the AAMPO area, from any of online tools. A summary of the transit issues identified are provided in **Table 5**.
- **Figure 8** shows the **roadway and traffic issues** identified for the AAMPO area, from any of the online tools. A summary of the roadway and traffic issues identified are provided in **Table 6**.

Figure 5. Bike and Pedestrian Issues Collected Online



Ames Mobility 2040 Appendix

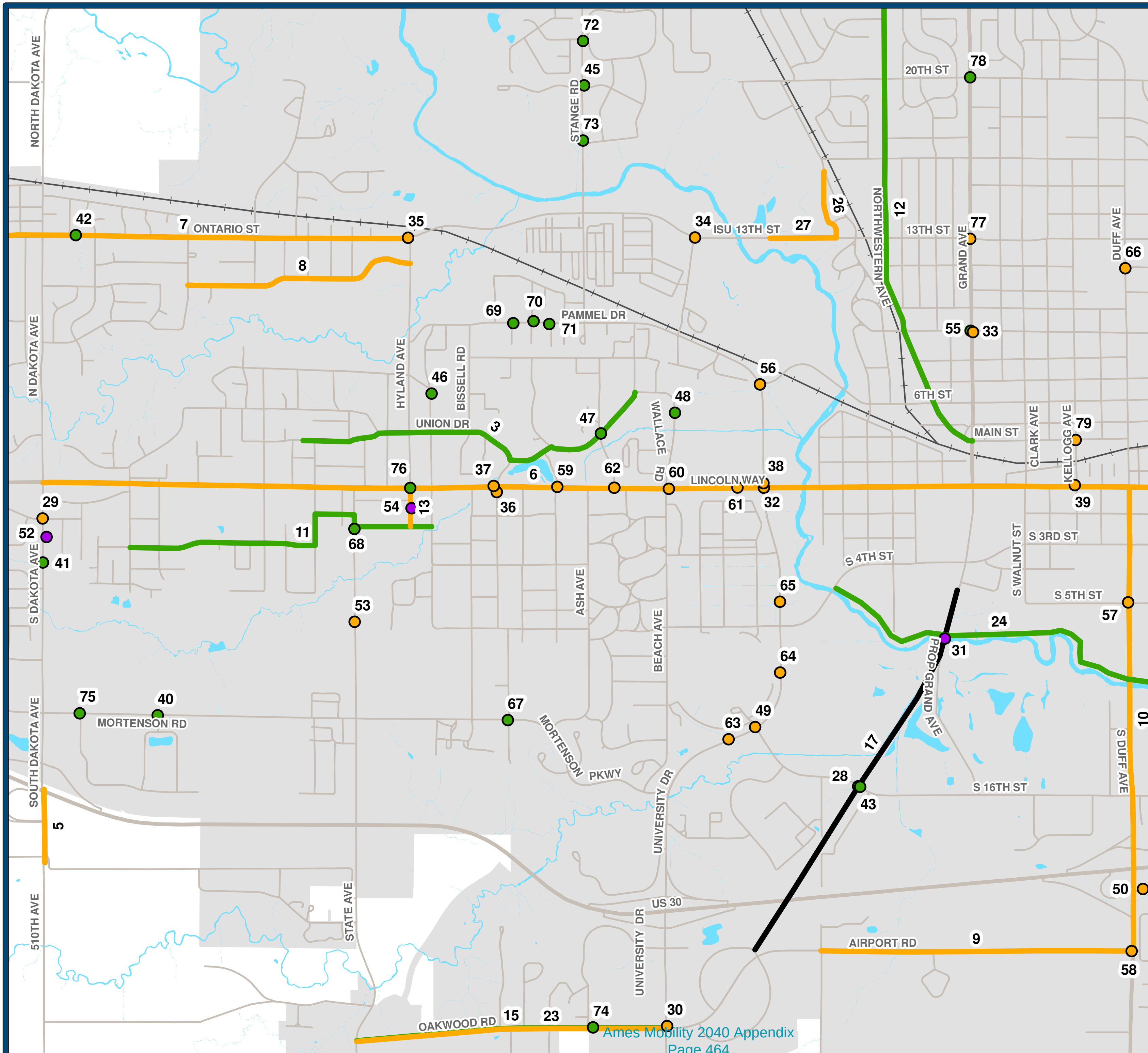


Figure 6. Bike and Pedestrian Issues Collected Online (Central Ames)

Legend

Bike / Ped Issues

Intersections
- Safety
- Signals
- Signs

Segments
- Add Pavement
- Connection
- Safety
- Railroad
- MPO Planning Boundary
- County Boundary
- Rivers / Streams
- City Boundary

N

0 0.275 0.55
Miles

ames mobility 2040

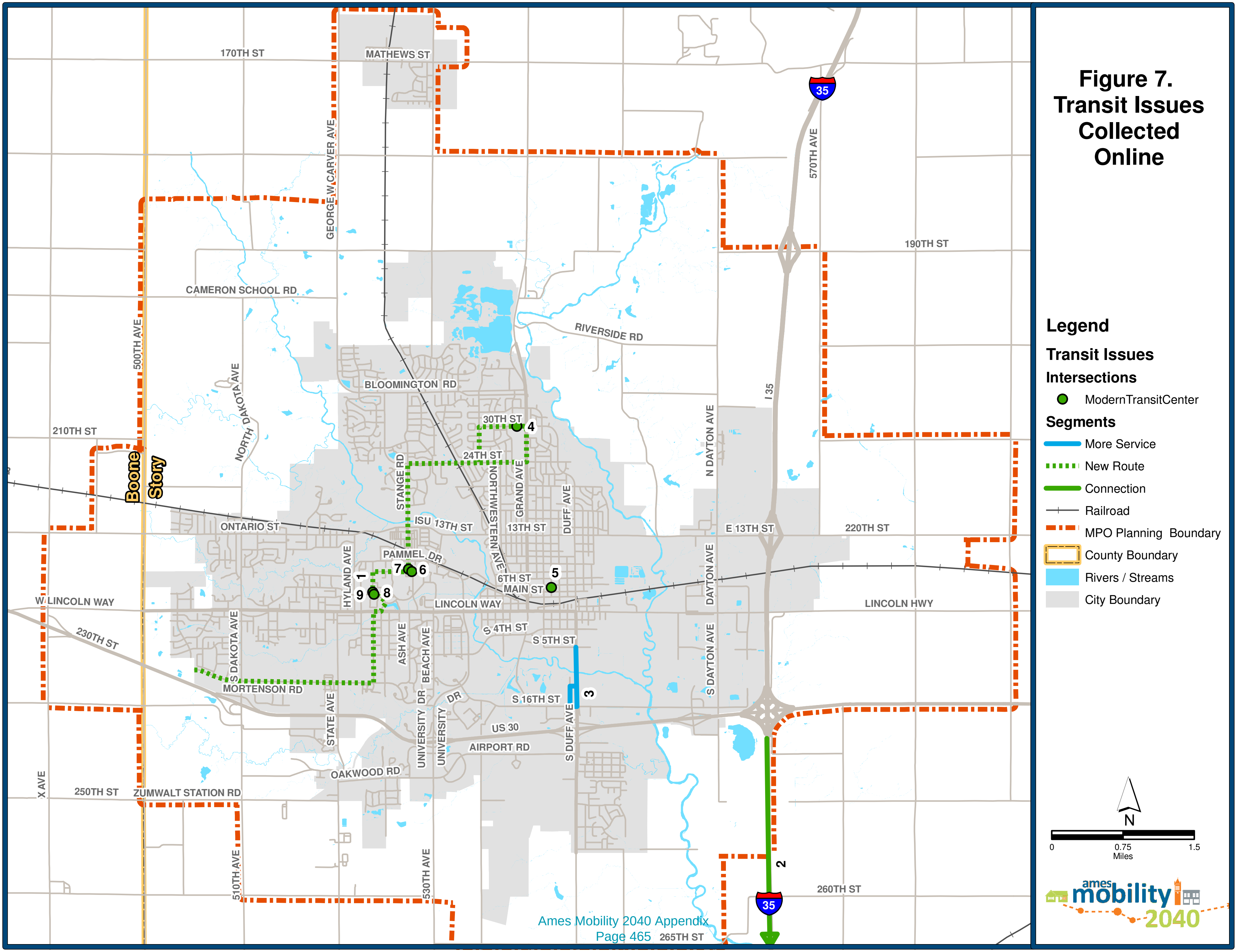


Figure 7. Transit Issues Collected Online

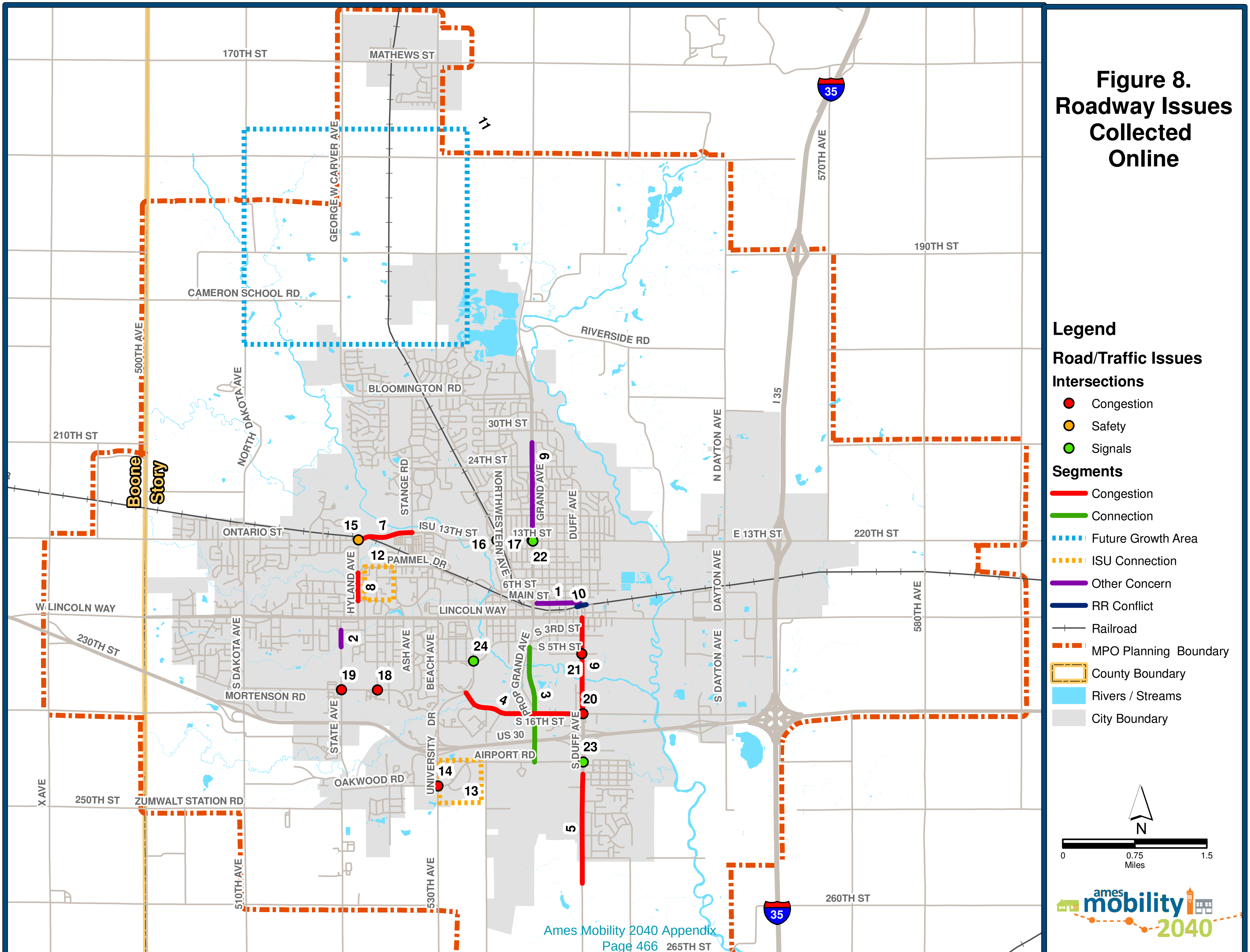


Figure 8. Roadway Issues Collected Online
Legend
Road/Traffic Issues
Intersections
Congestion
Safety
Signals
Segments
Congestion
Connection
Future Growth Area
ISU Connection
Other Concern
RR Conflict
Railroad
MPO Planning Boundary
County Boundary
Rivers / Streams
City Boundary
N
0
0.75
1.5
Miles
ames mobility 2040
170TH ST
MATHEWS ST
GEORGE W CARVER AVE
CAMERON SCHOOL RD
RIVERSIDE RD
190TH ST
570TH AVE
BLOOMINGTON RD
30TH ST
24TH ST
210TH ST
500TH AVE
NORTH DAKOTA AVE
STANGE RD
NORTHWESTERN AVE
GRAND AVE
DUFF AVE
N DAYTON AVE
I 35
Boone
Story
ONTARIO ST
ISU 13TH ST
13TH ST
E 13TH ST
220TH ST
PAMMEL DR
HYLAND AVE
6TH ST
MAIN ST
LINCOLN WAY
W LINCOLN WAY
230TH ST
DAYTON AVE
580TH AVE
S DAKOTA AVE
ASH AVE
BEACH AVE
S 3RD ST
S 5TH ST
S GRAND AVE
MORTENSON RD
STATE AVE
UNIVERSITY DR
S 16TH ST
US 30
AIRPORT RD
S DUFF AVE
S DAYTON AVE
OAKWOOD RD
250TH ST
ZUMWALT STATION RD
X AVE
510TH AVE
530TH AVE
260TH ST
265TH ST
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Table 4. Bicycle and Pedestrian Issues Collected Online

ID	Issue Type	Internet Source: Website Map Comment Tool	Internet Source: Mind Mixer	Specific Comments from Website Map Comment Tool	Specific Comments from Mind Mixer
1	Desired Connection	YES	YES	Need to connect trail all along Skunk River to Ada Hayden	Continuous path along the Skunk River
2	Desired Connection	YES	YES	Need to extend trail north to Ada Hayden	Continuous path along the Skunk River
3	Desired Connection	YES		Need bicycle lane to encourage corridor from West St through campus to 6th Street	
4	Desired Connection	YES		City could develop bike/ped path to allow residential to south access to athletic fields	
5	Safety Concern	YES		Should along E side cuts off abruptly	
6	Safety Concern	YES		Lincoln Way is unsafe for pedestrians	
7	Safety Concern	YES	YES	Need for bicycle lanes on Ontario	Remove parking on north side of Ontario St for bike lanes
8	Safety Concern	YES	YES	Need for sidewalks leading to E.M. Lee Park	No sidewalks. Hazard for walkers/runners/pet owners
9	Safety Concern	YES		Need sidewalks on both sides of street	
10	Safety Concern	YES		South Duff corridor dangerous for pedestrians	
11	Desired Connection		YES		Quiet Streets
12	Desired Connection		YES		It would be nice if Northwestern had a bike lane
13	Safety Concern		YES		Very Dangerous becuase bike lane ends
14	Desired Connection		YES		Pave Zumwalt Station Rd & add bike lanes
15	Desired Connection		YES		Add bike lanes
16	Desired Connection		YES		Pave and Add bike lanes
17	Pave Trail		YES		Pave Trail
18	Desired Connection		YES		Connect Bikers to Boone
19	Desired Connection		YES		Connect Bikers to Gilbert: Pave
20	Desired Connection		YES		Connect Bikers to Nevada
21	Desired Connection		YES		Connect Bikers to Slater, Cambridge, Huxley
22	Desired Connection		YES		Connect Bikers to Story City
23	Safety Concern		YES		Oakwood Rd is treacherous for walkers/runners
24	Desired Connection		YES		Create Bike/Ped Trail for Duff Access
25	Desired Connection		YES		No safe place for people to ride from S. 16th to Lincoln
26	Safety Concern		YES		Breaks in sidewalk on Summit Ave
27	Safety Concern		YES		No Sidewalk on North side of Road leading to water park
28	Safety Concern	YES		Unsafe intersection for pedestrians and Bikers	
29	Safety Concern	YES		Need for safe pedestrian crossing	
30	Safety Concern	YES		Need for crosswalks	
31	Signage Issue	YES		Need to name bicycle path	
32	Safety Concern	YES		Large intersection with little to no safety zones for peds	
33	Signal Issue	YES		Poor response by traffic light, esp to bikes, east - west	
34	Safety Concern	YES	YES	Hazardous intersection for bikes	I do not feel safe bicycling at most intersections
35	Safety Concern	YES		Another poor intersection for bikes and peds	
36	Safety Concern	YES		High hazard intersection for bikes/peds/cars	
37	Safety Concern	YES		Need pedestrian bridge across Lincoln Way	
38	Safety Concern	YES		Need pedestrian bridge across University	
39	Safety Concern	YES		Need pedestrian bridge across Lincoln Way	
40	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	

Table 4. Bicycle and Pedestrian Issues Collected Online

ID	Issue Type	Internet Source: Website Map Comment Tool	Internet Source: Mind Mixer	Specific Comments from Website Map Comment Tool	Specific Comments from Mind Mixer
41	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
42	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
43	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
44	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
45	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
46	Signal Issue	YES		Intermittent Flashing Light Pedestrian Crosswalk	
47	Signal Issue	YES		Intermittent Flashing Light Pedestrian Crossing	
48	Signal Issue	YES		Intermittent Flashing Light Pedestrian Crossing	
49	Safety Concern	YES	YES	Unsafe intersection for pedestrians	I do not feel safe bicycling at most intersections
50	Safety Concern	YES		Unsafe intersection for pedestrians	
51	Safety Concern	YES		Unsafe pedestrian crossing	
52	Signage Issue	YES		Need sign for new bicycle trail that leads to campus	
53	Safety Concern	YES		Crosswalk should be better labeled, fast traffic cannot see paint	
54	Signage Issue	YES		Hyland bike lane/sharrows need to be extended	
55	Safety Concern	YES		Major Bike Crossing Location	
56	Safety Concern	YES		Right turn traffic endangers peds and bikes	
57	Safety Concern	YES		Heavy use intersection with history of ped and bike collisions	
58	Safety Concern	YES		Another bad intersection for peds/bikes	
59	Safety Concern	YES		Need pedestrian bridge across Lincoln Way	
60	Safety Concern	YES		Need pedestrian bridge across Lincoln Way	
61	Safety Concern	YES		Need pedestrian bridge or tunnel across Lincoln Way	
62	Safety Concern	YES		Need pedestrian bridge across Lincoln Way	
63	Safety Concern	YES		Need pedestrian bridge across University	
64	Safety Concern	YES		Need pedestrian bridge across University	
65	Safety Concern	YES		Need pedestrian bridge across University (connect w/ pre-existing trails)	
66	Safety Concern	YES		Need pedestrian bridge across Duff	
67	Signal Issue	YES		Intermittent Flashing Pedestrian Signs	
68	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
69	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
70	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
71	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
72	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	

Table 4. Bicycle and Pedestrian Issues Collected Online

ID	Issue Type	Internet Source		Specific Comments from Website Map Comment Tool	Specific Comments from Mind Mixer
		Website Map Comment Tool	Mind Mixer		
73	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
74	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
75	Signal Issue	YES		Button Controlled Intermittent Flashing Lights at Pedestrian Crossings (See MG Hospital)	
76	Signal Issue		YES		Installation of Radar Bike Sensors at More Traffic Lights
77	Safety Concern		YES		Difficlut to cross on bike
78	Signal Issue		YES		Light changes quickly making it difficult to cross
79	Safety Concern		YES		Cars don't stop for pedestrians. Seen pregnant women dodging cars.

Table 5. Transit Issues Collected Online

ID	Issue Type	Internet Source		Specific Comments from Website Map Comment Tool	Specific Comments from Mind Mixer
		Website Map Comment Tool	Mind Mixer		
1	Desired New Route	YES	YES	Suggested BRT Route	Suggested BRT Route
2	Desired Connection		YES		Bus to Des Moines and Ankeny
3	More Service Desired		YES		Extend CyRide 3 Blue on S. Duff
4	Desired Modern Transit Center	YES		Modern Transit Center on 30th St to replace Mall Bus Stop	
5	Desired Modern Transit Center	YES		Modern Transit Center on Burnett to replace City Hall Bus Stop.	
6	Desired Modern Transit Center	YES		Modern Transit Center on Stange for Routes 1A, 2, 3, 6 & 21.	
7	Desired Modern Transit Center	YES		Modern Transit Center on Osborn for Routes 4, 7 & 23.	
8	Desired Modern Transit Center	YES		Modern Transit Center for Routes 1A, 2, 3, 6, 7 & 21.	
9	Desired Modern Transit Center	YES		Modern Transit Center for Routes 1 and 22.	

Table 6. Roadway / Traffic Issues Collected Online

ID	Issue Type	Internet Source		Specific Comments from Website Map Comment Tool	Specific Comments from Mind Mixer
		Website Map Comment Tool	Mind Mixer		
1	Other Concern	YES		Convert Main St to back in diagonal parking	
2	Other Concern	YES		Proposed 35 MPH zone	
3	Desired Connection		YES		Grand Extension
4	Congestion		YES		Long Back ups, especially on game day
5	Congestion		YES		Too much traffic. Need to expand to 2 lanes
6	Congestion		YES		Frontage roads needed on south Duff Avenue
7	Congestion		YES		Right Lane must merge left, causing congestion and safety issues
8	Congestion		YES		SB Traffic frequently backs up during rush hr and end/start classes
9	Other Concern		YES		Grand Ave improvements near North Grand Mall: Pavement
10	Railroad Conflict		YES		Grade separate Duff and the Railroad
11	Future Growth Area	YES		Anticipate population growth in this area and the transp. problems that will result.	
12	Desired ISU Connection	YES		Engineering Campus: Better Connection to Research Park	
13	Desired ISU Connection	YES		Research Park: Need Better Connection to Engineering Campus	
14	Congestion	YES		Need for roundabout to ease heavy 8AM traffic	
15	Safety Concern	YES		Need sign for cars to zipper merge	
16	Signal Issue	YES		Poor responsiveness by traffic light, north-south	
17	Congestion	YES	YES	13th and Grand - no turning lanes	Traffic Gets backed up as much as two blocks E/W
18	Congestion		YES		Roundabout to prevent bottleneck on Mortensen Rd
19	Congestion		YES		Roundabout to prevent bottleneck on Mortensen Rd
20	Congestion		YES		Add turn lane and change the stop light at S. 16th & Duff
21	Congestion		YES		South 5th and Duff Ave is nighmare. Add turn lanes
22	Signal Issue		YES		Need efficient vehicle movement - RTOR arrows.
23	Signal Issue		YES		Need efficient vehicle movement - RTOR arrows.
24	Signal Issue		YES		Need efficient vehicle movement - RTOR arrows.

General Summary of Issues- Combined Tradition and Online Sources

Table 7 summarizes those issues, for all modes, that were received via at least one of the workshops and one of the online tools.

Table 7. Issues Identified by both Traditional Workshops and Online Tools

Mode	Figure # for ID Reference	ID	Issue Type	Location	Issue Summary
Bike/Ped	1 & 2	2	Desired Connection	Grand Ave / 530th Ave	Connect Gilbert: Pave and add infrastructure for bikes
Bike/Ped	1 & 2	7	Desired Connection	Skunk River Trail	Complete the Trail along Skunk River
Bike/Ped	1 & 2	8	Desired Connection	Skunk River Trail	Complete the Trail along Skunk River
Bike/Ped	1 & 2	10	Desired Connection	530th Ave	Pave shoulders for long distance cyclists. Regional Connection
Bike/Ped	1 & 2	12	Desired Connection	Oakwood Rd	Add bike/ped infrastructure. Pedestrian safety concern.
Bike/Ped	1 & 2	14	Desired Connection	Zumwalt Station Rd	Pave and add infrastructure for cyclists
Bike/Ped	1 & 2	16	Desired Connection	Tripp St / Lettie St / Arbor St	Suggested quiet streets
Bike/Ped	1 & 2	17	Desired Connection	S. Dakota Ave	Shoulder cuts off. Dangerous for Cyclists
Bike/Ped	1 & 2	20	Pave Trail	Warrell Creek Trail	Pave this trail
Bike/Ped	1 & 2	21	Safety Concern	Ontario St	Too many driveways cross path. Need bike lanes
Bike/Ped	1 & 2	28	Safety Concern	S. Duff Ave	Cyclist and pedestrian safety concern
Bike/Ped	1 & 2	29	Desired Connection	Northwestern Ave	Add bicycle lanes
Bike/Ped	1 & 2	33	Safety Concern	Lincoln Way	Cyclist and pedestrian safety concern
Bike/Ped	1 & 2	35	Safety Concern	Airport Rd	Need sidewalks/paths on both sides of road
Bike/Ped	1 & 2	55	Desired Connection	Skunk River	Complete the Trail along Skunk River
Bike/Ped	1 & 2	58	Desired Connection	Squaw Creek	Create shared use path along Squaw Creek
Bike/Ped	1 & 2	59	Desired Connection	S. Duff Ave / US 69	Pave shoulders for long distance cyclists. Regional Connection
Bike/Ped	1 & 2	95	Safety Concern	S. Duff & Airport Rd	Cars are unaware of Bikers and Pedestrians
Bike/Ped	1 & 2	96	Safety Concern	S. Duff & US 30 on Ramp	Path crosses highway ramp. Conflict between cars & bike/ped
Bike/Ped	1 & 2	99	Signal Issue	9th & Grand Ave	Need radar detection for bikes

Table 7. Issues Identified by both Traditional Workshop and Online Tool (Continued)

Mode	Figure # for ID Reference	ID	Issue Type	Location	Issue Summary
Bike/Ped	1 & 2	108	Safety Concern	Ontario & Hyland Ave	Vehicles can't see pedestrians
Bike/Ped	1 & 2	110	Safety Concern	State Ave & Bike/Ped Trail	Cars don't stop for pedestrians and cyclists
Bike/Ped	1 & 2	111	Safety Concern	S. Dakota Ave & Bike/Ped Trail	Cars don't stop for pedestrians and cyclists
Bike/Ped	1 & 2	113	Safety Concern	University Dr & S. 16th St	No crosswalk for pedestrians
Bike/Ped	1 & 2	115	Signal Issue	University Dr & US 30	Need signals for bikers and pedestrians
Bike/Ped	1 & 2	118	Safety Concern	S. 16th & Unpaved Trail	Conflict between cars & bike/ped. Bad sight lines.
Bike/Ped	1 & 2	120	Safety Concern	Linconl Way & Welch Ave	Bike/Car/Bus Conflicts. Suggested pedestrian bridge
Bike/Ped	1 & 2	121	Safety Concern	6th & University Dr	Motorists don't yield to pedestrians and bikers
Bike/Ped	1 & 2	122	Safety Concern	Lincoln Way & Hyland Ave	Dangerous intersection for bike/ped. Install radar bike sensors
Transit	3	1	Desired New Route	Mortensen to 30th & Grand Ave	New BRT from Mortensen to North Grand Mall
Transit	3	5	Desired Connection	I-35	Bus to Des Moines and Ankeny
Transit	3	13	More Service Desired	S. Duff Ave	More Service. Specifically for the Blue # 3
Roadway	4	5	Congestion	Grand Ave	Congestion and pavement quality concerns
Roadway	4	6	Congestion	S. Duff Ave	Among the most problematic areas in Ames
Roadway	4	13	Desired Connection	Grand Ave	Extend Grand Ave to Airport Rd
Roadway	4	30	Congestion	S. 16th St	Congestion. Especially on football game days
Roadway	4	33	Railroad Conflicts	Duff Ave & Railroad	Grade separate Duff and railroad
Roadway	4	60	Congestion	Mortensen & State Ave	Congestion. Suggested roundabout
Roadway	4	61	Safety Concern	Mortensen & Hayward	Congestion. Suggested roundabout
Roadway	4	63	Safety Concern	University & Oakwood Dr	Safety concern for all modes.
Roadway	4	64	Congestion	S. 16th & S. Duff Ave	Congested, especially during gamedays
Roadway	4	67	Congestion	13th & Grand	Among the most problematic intersections in Ames
Roadway	4	71	Safety Concern	Ontario & Hyland Ave	Intersection safety concern
Roadway	4	85	Safety Concern	S. Duff & Airport Rd	Intersection safety concern
Roadway	4	86	Safety Concern	S. 5th & S. Duff	Intersection safety concern

Multimodal Alternatives Development Summaries

Overview

Ideas for new transportation projects were gathered from the Ames community and stakeholders as part of the Alternatives Development stage of the Long Range Transportation Plan process.

Alternatives Development Workshop Format

On March 11, 2015, the Ames Area MPO and HDR worked with stakeholders in Ames to gather input on the development of transportation project alternatives. At these meetings, a summary of the transportation issues gathered during the initial phase of the Ames Mobility 2040 Long Range Transportation Plan update, along with preliminary technical analysis of the roadway, bicycle/pedestrian, and transit systems were presented.

HDR worked with MPO staff to lead two workshops, which were held at the Ames Public Library:

- The study **Focus Group**, with stakeholder representation from various civic groups, modal interests (including bicycle, pedestrian, transit, and freight), Iowa State University, Schools, businesses, and first responders in the community.
- **Public Meeting**, held from 5:30 to 7:30pm.

Multiple large-scale display boards were shown around the meeting rooms as reference from the Issues/Visioning stage of the planning process, and from the multimodal technical analyses that have been completed to date. These display boards included:

- ***Vision and Goals***
- ***Community Transportation Survey Results***
- ***Environmental Assessment***
  - Human Environmental Constraints
  - Natural Environmental Constraints
- ***Roadway System***
  - Roadway Issues Collected at Traditional Workshops
  - Roadway Issues Collected from Online Comments
  - Previous 2035 Transportation Plan Roadway Projects
    - Overview list map of projects
    - Concept drawings of individual projects
  - Existing Conditions Level of Service
  - Forecasted Traffic Growth- No Build Network
  - Safety Analysis

- Fatal and Major Injury Crashes, 2009 to 2013
- Highest Crash Frequency Intersections, 2009 to 2013

- ***Bicycle/Pedestrian System***
  - Bicycle/Ped Issues Collected at Traditional Workshops
  - Bicycle/Ped Issues Collected from Online Comments
  - Previous 2035 Transportation Plan Bike/Pedestrian Project List
  - Historical Bike/Pedestrian Plans (1972, 1990, 1997, 2000, 2005)
- ***Transit System***
  - Transit Issues Collected at Traditional Workshops
  - Transit Issues Collected from Online Comments
  - Previous 2035 Transportation Plan Transit Projects
  - Future Transit Route Considerations

Workshop participants were asked to visit various modal "Idea Stations" to draw or write down their input on future transportation in the Ames area. Workshop participants were asked to consider the following when providing input on alternatives:

System Expansion

- Widened Roadway, New Bikeway Connections, Expanded Transit Service
- New Roadways, New Routes, New Trails, New Services

System Management

- Added Turn Lanes
- New Uses within Existing Roadway (Bike lanes, Ped Treatments, Center Turn lanes)
- New Intersection / Access Point Treatments
- Technology

Demand Management

- Shift Commute Times
- Increased Ridesharing
- Corridor / Lane Management
- Pricing / Parking Policy
- Policies to Shift Travel to Other Modes

Location-Based Alternatives Summary

The geographic responses received from each "Idea Station" at these workshops have been summarized into modal alternatives maps: one for roadway, one for transit, and one for the bicycle and pedestrian system. Each figure focuses on a separate mode, and each identified alternative has a mode-specific identifying number that corresponds to the comments listed in tabular format.

- FIGURE 1 shows the **bicycle and pedestrian alternatives** identified for the entire AAMPO area from either the Focus Group or Public Meeting workshop. Many of the alternatives were identified for Central Ames, and FIGURE 2 provides a more detailed illustration. A summary of the bicycle and pedestrian alternatives and specific comments provided any of the workshops are provided in TABLE 1. Each individual alternative in the table corresponds to the identifying number on the figure.
- FIGURE 3 shows the **transit alternatives** identified for the MPO area. A summary of the transit alternatives and specific comments are identified in TABLE 2.
- FIGURE 4 shows the **roadway and traffic alternatives** identified for the MPO area. A summary of the roadway and traffic alternatives are provided in TABLE 3.

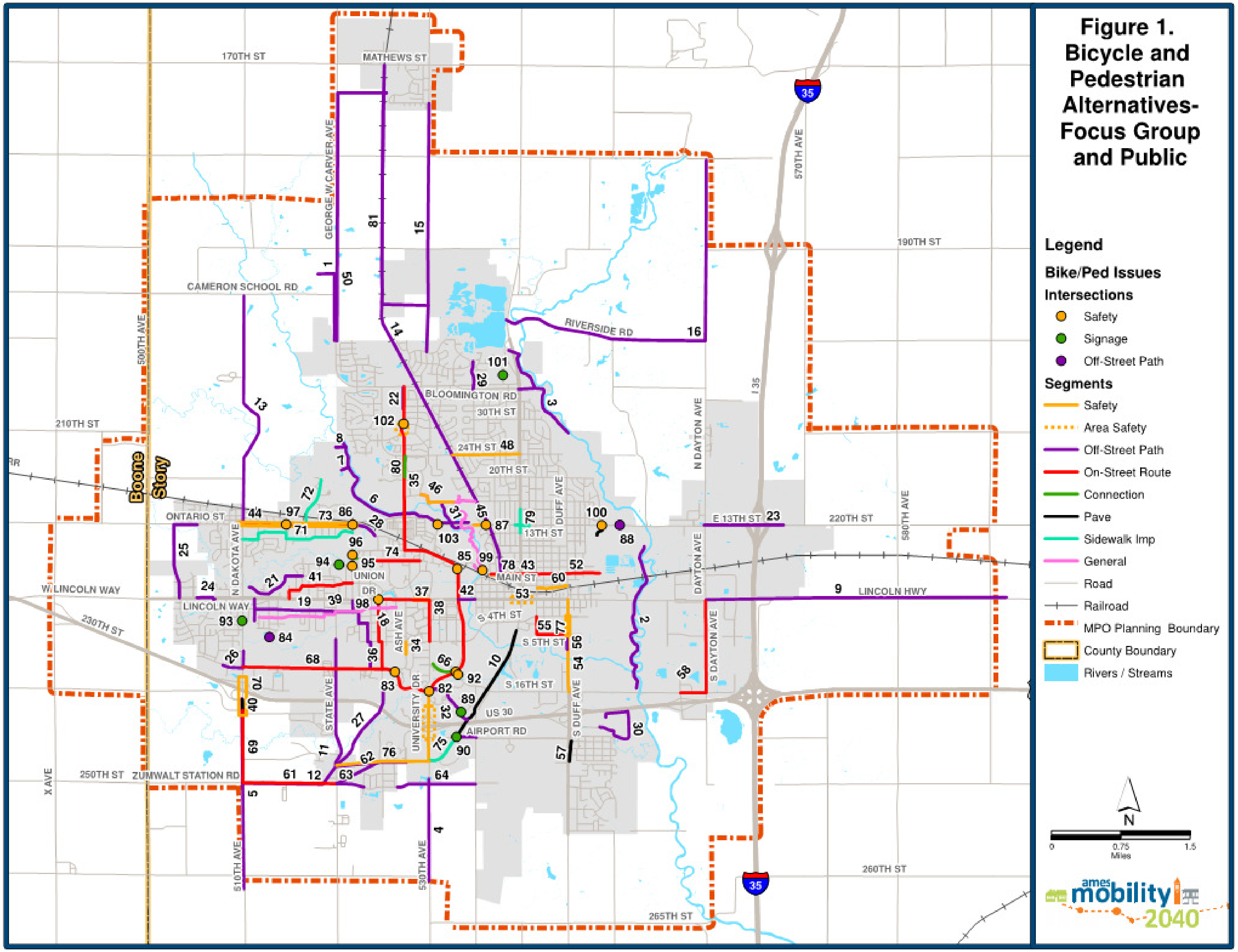


Figure 1. Bicycle and Pedestrian Alternatives- Focus Group and Public
Legend
Bike/Ped Issues
Intersections
Safety
Signage
Off-Street Path
Segments
Safety
Area Safety
Off-Street Path
On-Street Route
Connection
Pave
Sidewalk Imp
General
Road
Railroad
MPO Planning Boundary
County Boundary
Rivers / Streams
N
0
0.75
1.5
Miles
ames mobility 2040
170TH ST
MATHEWS ST
190TH ST
CAMERON SCHOOL RD
RIVERSIDE RD
210TH ST
BLOOMINGTON RD
30TH ST
24TH ST
20TH ST
13TH ST
E 13TH ST
220TH ST
ONTARIO ST
W LINCOLN WAY
LINCOLN WAY
LINCOLN HWY
230TH ST
MAIN ST
S 4TH ST
S 5TH ST
S 16TH ST
US 30
AIRPORT RD
250TH ST
ZUMWALT STATION RD
260TH ST
265TH ST
Boone
Story

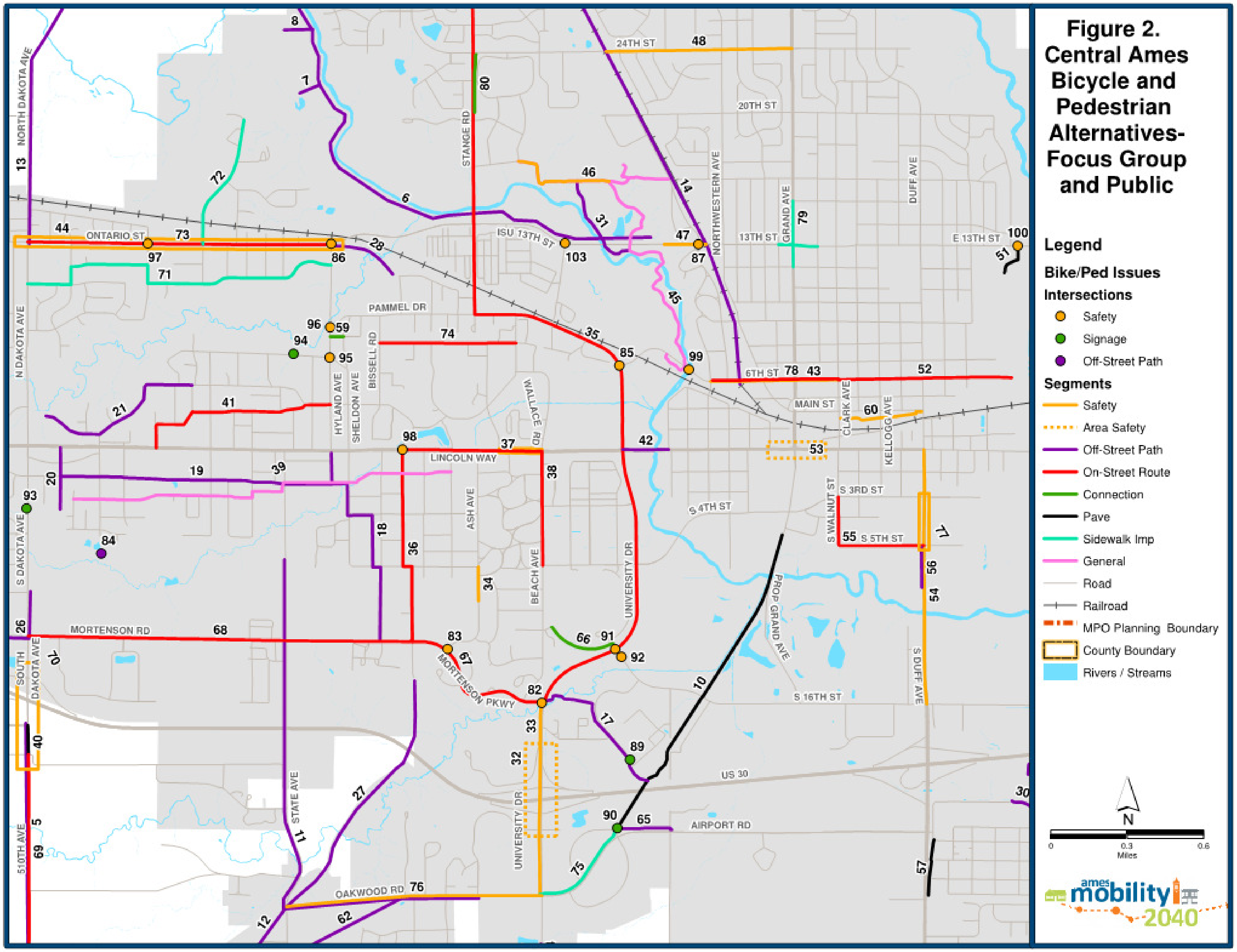


Figure 2.
Central Ames Bicycle and Pedestrian Alternatives-Focus Group and Public
Legend
Bike/Ped Issues
Intersections
Safety
Signage
Off-Street Path
Segments
Safety
Area Safety
Off-Street Path
On-Street Route
Connection
Pave
Sidewalk Imp
General
Road
Railroad
MPO Planning Boundary
County Boundary
Rivers / Streams
N
0
0.3
0.6
Miles
ames mobility 2040
24TH ST
20TH ST
13TH ST
E 13TH ST
ISU 13TH ST
ONTARIO ST
PAMMEL DR
6TH ST
MAIN ST
LINCOLN WAY
S 3RD ST
S 4TH ST
S 5TH ST
S 16TH ST
MORTENSON RD
MORTENSON PKWY
US 30
AIRPORT RD
OAKWOOD RD
NORTH DAKOTA AVE
N DAKOTA AVE
S DAKOTA AVE
SOUTH DAKOTA AVE
510TH AVE
STANGE RD
NORTHWESTERN AVE
GRAND AVE
DUFF AVE
S DUFF AVE
HYLAND AVE
SHELDON AVE
BISSELL RD
WALLACE RD
ASH AVE
BEACH AVE
UNIVERSITY DR
STATE AVE
CLARK AVE
KELLOGG AVE
S WALNUT ST
PROP GRAND AVE

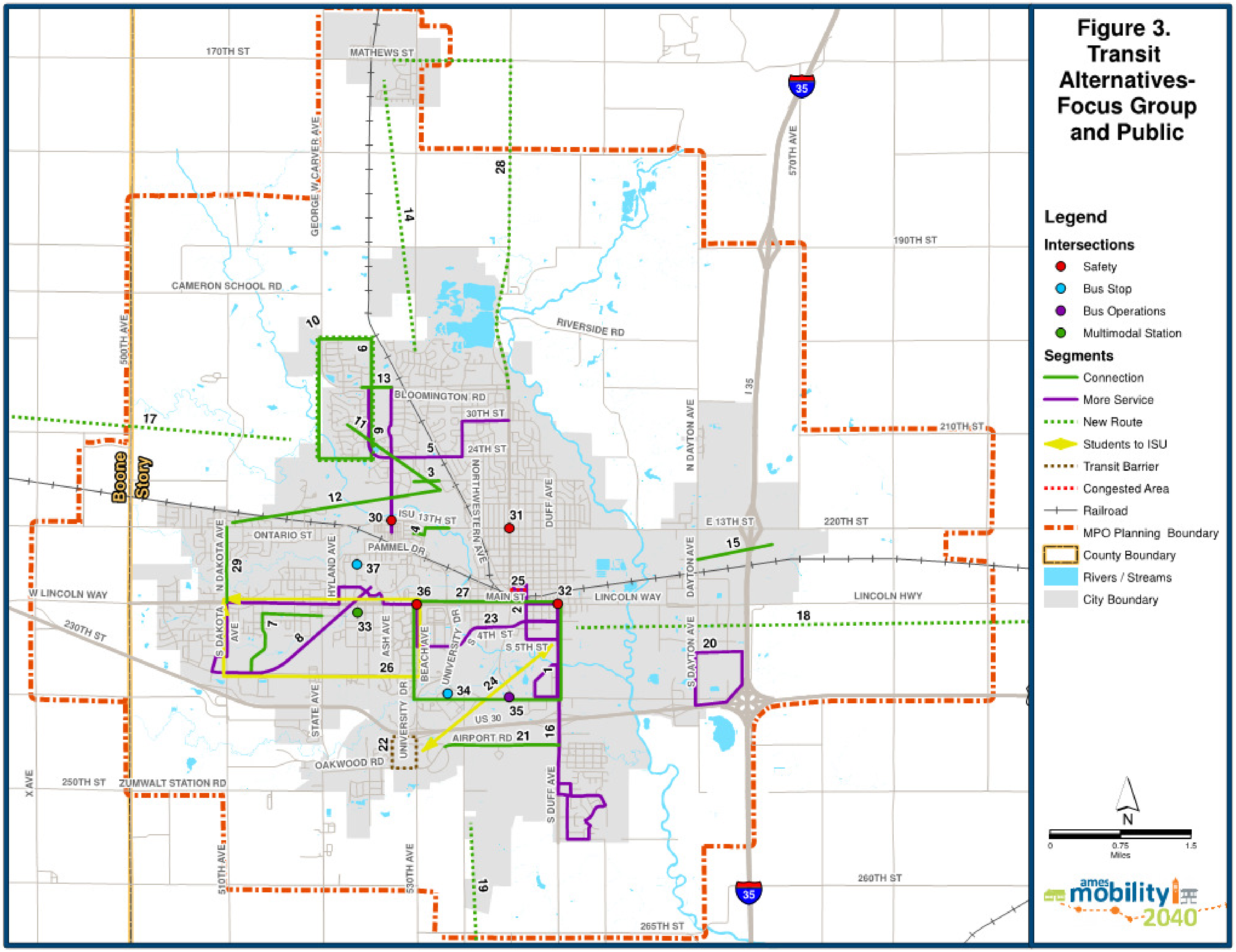


Figure 3. Transit Alternatives- Focus Group and Public

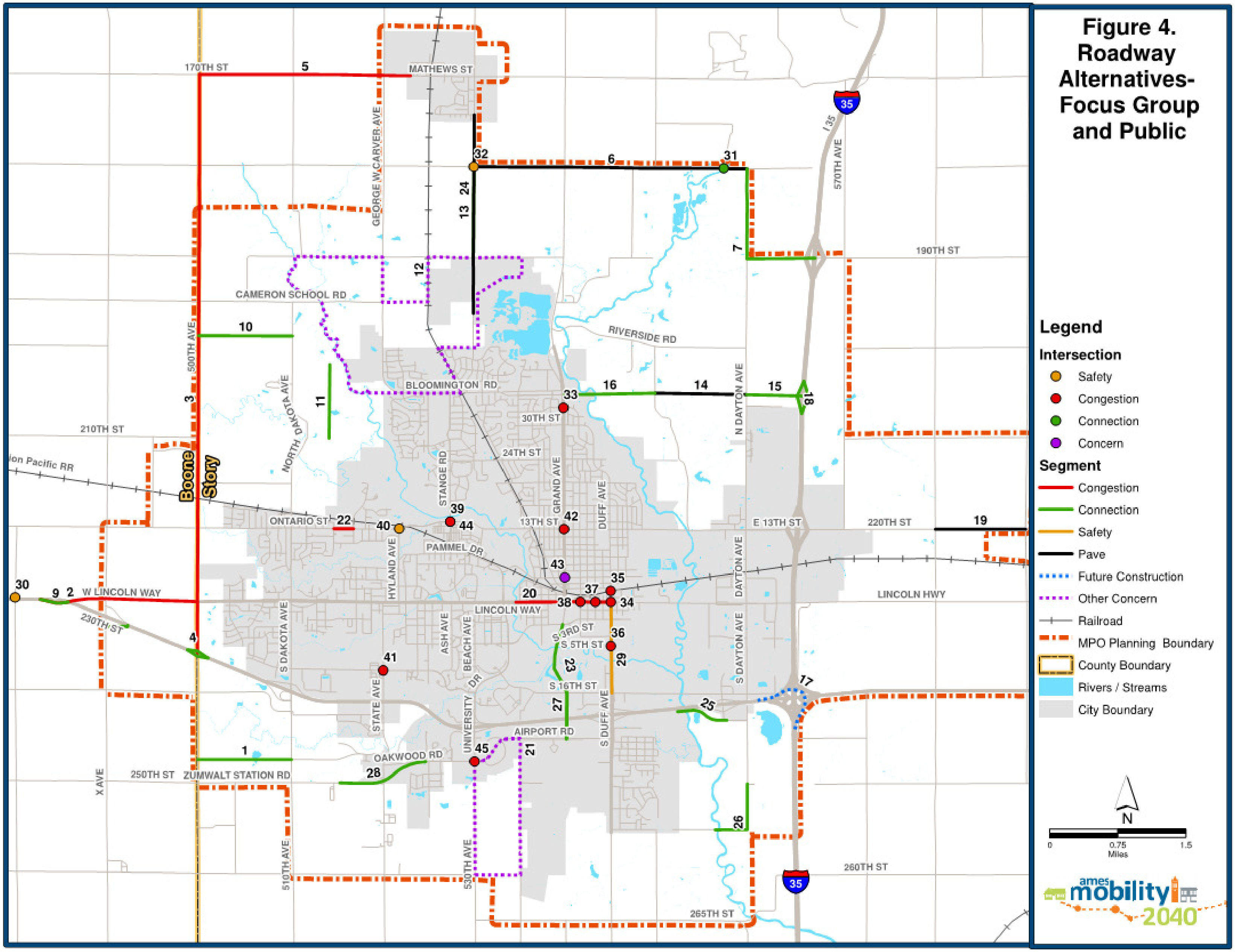


Figure 4.
Roadway Alternatives-Focus Group and Public
Legend
Intersection
Safety
Congestion
Connection
Concern
Segment
Congestion
Connection
Safety
Pave
Future Construction
Other Concern
Railroad
MPO Planning Boundary
County Boundary
Rivers / Streams
City Boundary
N
0
0.75
1.5
Miles
ames mobility 2040
170TH ST
MATHEWS ST
GEORGE W CARVER AVE
190TH ST
CAMERON SCHOOL RD
RIVERSIDE RD
BLOOMINGTON RD
30TH ST
24TH ST
13TH ST
E 13TH ST
220TH ST
210TH ST
ONTARIO ST
PAMMEL DR
W LINCOLN WAY
LINCOLN WAY
LINCOLN HWY
230TH ST
S 3RD ST
S 5TH ST
S 16TH ST
AIRPORT RD
OAKWOOD RD
250TH ST
ZUMWALT STATION RD
260TH ST
265TH ST
500TH AVE
NORTH DAKOTA AVE
STANGE RD
GRAND AVE
DUFF AVE
N DAYTON AVE
DAYTON AVE
S DAYTON AVE
570TH AVE
HYLAND AVE
S DAKOTA AVE
ASH AVE
BEACH AVE
STATE AVE
UNIVERSITY DR
S DUFF AVE
X AVE
510TH AVE
530TH AVE
I 35
Boone
Story
Union Pacific RR

Table 1. Bicycle and Pedestrian Alternatives- from Focus Group and Public Meeting

ID	Issue Type	Meeting Alternative Noted	Comment
1	Off-Street Path	Focus Group & Public	Link to Subdivision Trail in Gilbert
2	Off-Street Path	Focus Group & Public	Skunk River Connection
3	Off-Street Path	Focus Group	Skunk River Connection to Ada Hayden
4	Off-Street Path	Focus Group	Connect to High Trestle Trail
5	Off-Street Path	Focus Group	Connect to High Trestle Trail
6	Off-Street Path	Focus Group	Need trail
7	Off-Street Path	Focus Group	Need trail
8	Off-Street Path	Focus Group	Need trail
9	Off-Street Path	Focus Group	General comment for Connection to Nevada
10	Off-Street Path	Focus Group & Public	Pave trail or include bike lane if street extended
11	Off-Street Path	Public	Path (buffered on-street)
12	Off-Street Path	Public	Zumwalt Station Trail
13	Off-Street Path	Public	Bike path to new housing development
14	Off-Street Path	Public	Rail with Trail
15	Off-Street Path	Focus Group & Public	Bike path to Gilbert, off-street or on-shoulder
16	Off-Street Path	Public	Bike connection to McFarland Lake
17	Off-Street Path	Public	Connect
18	Off-Street Path	Public	Bike Path
19	Off-Street Path	Public	Bike Path
20	Off-Street Path	Public	Bike Path
21	Off-Street Path	Public	
22	Off-Street Path	Public	Gap Causes Problems
23	Off-Street Path	Public	Extend to future commercial
24	Off-Street Path	Public	Connection
25	Off-Street Path	Public	Bike path
26	Off-Street Path	Public	
27	Off-Street Path	Public	Zumwalt Station to Property Break in Rail Corridor
28	Off-Street Path	Public	Shallow Grade Multi-Use Path
29	Off-Street Path	Public	Easier Connection
30	Off-Street Path	Public	Connect this - 2 options
31	Off-Street Path	Public	
32	Area Safety	Public	Dangerous - cars turning
33	Safety	Public	Cycle track
34	Safety	Public	Exiting cycle track going north, have to go across traffic
35	On-Street Route	Focus Group & Public	Buffered bike lane instead of 3 lane roadway

Table 1. Bicycle and Pedestrian Alternatives- from Focus Group and Public Meeting (continued)

ID	Issue Type	Meeting Alternative Noted	Comment
36	On-Street Route	Public	Sharrows
37	Safety	Public	Not really shared use
38	On-Street Route	Public	Need bike lanes
39	General	Public	E-W quiet street west of Campustown
40	Pave	Public	Pave this shoulder
41	On-Street Route	Public	Sharrows
42	Off-Street Path	Public	Connect to trail
43	Safety	Public	Wider would be safer for on-street
44	Safety	Public	Too many driveways - need a better option
45	General	Public	Love this - no traffic interactions and it actually goes somewhere
46	Safety	Public	This is too narrow
47	Safety	Public	Driveway risk
48	Safety	Public	Driveway risk
49	Area Safety	Public	Increased pedestrian use makes this section hard to use for bikes
50	Off-Street Path	Public	Bike path to school
51	Pave	Public	Pave
52	On-Street Route	Public	Do we really need a turn lane? Extend bike path instead.
53	Area Safety	Public	Very risky area
54	Safety	Public	Duff's the only way to get to the businesses here, but drivers don't pay attention to the mixed-use paths. On street would be safer
55	On-Street Route	Public	Sharrows
56	Off-Street Path	Public	This is a sidewalk
57	Pave	Public	Pave this
58	On-Street Route	Public	This is pretty bike friendly but we need a facility to get north
59	Connection	Public	Sidewalk to connect
60	Safety	Public	This is an alley and parking lot
61	On-Street Route	Public	This is gravel - could be a path
62	Off-Street Path	Public	
63	Off-Street Path	Public	
64	Off-Street Path	Public	
65	Off-Street Path	Focus Group	Make Airport Rd path/sidewalk continuous
66	Connection	Focus Group	Sidewalk ends - sidewalk to connect
67	On-Street Route	Focus Group	Need bike lane
68	On-Street Route	Focus Group	Need to have bike lane on both sides

Table 1. Bicycle and Pedestrian Alternatives- from Focus Group and Public Meeting (continued)

ID	Issue Type	Meeting Alternative Noted	Comment
69	On-Street Route	Focus Group	Widen bike lane
70	Safety	Focus Group	Connect bike lanes more safely
71	Sidewalk Imp	Focus Group	Need sidewalk
72	Sidewalk Imp	Focus Group	Need sidewalk
73	On-Street Route	Focus Group	Need bike lane
74	On-Street Route	Focus Group	Need bike lane or sharrows
75	Sidewalk Imp	Focus Group	Renovate sidewalk
76	Safety	Focus Group	Very narrow for bikes
77	Safety	Focus Group	Need less driveways
78	On-Street Route	Focus Group	Extend bike lane with sharrows
79	Sidewalk Imp	Focus Group	Widen sidewalks
80	Connection	Focus Group	Connect sidewalk
81	Off-Street Path	Focus Group	Connect to Upstill Park
82	Safety	Public	Dangerous - cars turning
83	Safety	Public	Going south, path forces you back into traffic, fix
84	Off-Street Path	Public	Reuse curb for trail access
85	Safety	Focus Group & Public	Bad intersection for bikes and pedestrians, leading pedestrian interval
86	Safety	Public	Cars turning east don't watch for bikes from the east
87	Safety	Focus Group	Very narrow sidewalk on north side of 13th St
88	Off-Street Path	Public	Shared use path disconnect
89	Signage	Focus Group	Advise people that they can walk to Research Park
90	Signage	Focus Group	Name trail
91	Safety	Focus Group	Need crosswalk
92	Safety	Focus Group	Need barrier between sidewalk and roadway
93	Signage	Focus Group	Make trail access visible, name trail so people know what it is
94	Signage	Focus Group	Sign to access park
95	Safety	Focus Group	Need crosswalk
96	Safety	Focus Group	Need crosswalk
97	Safety	Focus Group	Need crosswalk
98	Safety	Focus Group	Leading pedestrian interval
99	Safety	Focus Group	Widen bridge
100	Safety	Focus Group	Dangerous to cross street
101	Signage	Focus Group	Need sign - "To park access"
102	Safety	Focus Group	Need crosswalk (always running pedestrians at night), long term - need stop light
103	Safety	Focus Group	Need crosswalk

Table 2. Transit Alternatives from Focus Group and Public Meeting

ID	Issue Type	Meeting Alternative Noted	Comment
1	More Service	Public	Redevelopment – Transit-Oriented, Pedestrian-Oriented, Opportunity for transfers
2	More Service	Public	Redevelopment Potential – Provide transit service if possible
3	Connection	Public	Multimodal connection behind Ames High School – R.O.W. exists, reversible lanes/transit way/bike-ped/roadway shared
4	Connection	Focus Group & Public	Extend Cardinal to Aquatic Center during school year
5	More Service	Public	Blue Express – Mall to Campus
6	Connection	Public	Connect new North Ames with demand response service (rideshare)
7	Connection	Public	Develop as transitway before land develops
8	More Service	Public	Express service
9	More Service	Public	Consider upscale, low platform, branded transit service between North Ridge/Somerset/Valley View via Stange Rd/Bloomington Rd/George Washington Carver Ave
10	New Route	Public	Need service in new residential area
11	Connection	Public	Travel to/from H.S. at peak. Possible express trips (West Ames)
12	Connection	Public	Travel to/from H.S. at peak. Possible express trips (West Ames)
13	Connection	Public	Long, cold walk in winter
14	New Route	Public	Routes to Gilbert - AM/PM Peak?
15	Connection	Public	Connection to new development - Menards/development/shops
16	More Service	Public	Add mid-day and peak service to #5 Yellow
17	New Route	Public	Routes to Boone
18	New Route	Public	Routes to Nevada
19	New Route	Public	Routes to Des Moines
20	More Service	Public	DMACC land addition
21	Connection	Public	Need cross route on Airport Rd linking Union Blvd to S. Duff
22	Transit Barrier	Public	After hours access is tough
23	More Service	Public	Night and Saturday/Sunday afternoon service – every 20 minutes
24	Students to ISU	Public	Connect SW students to Duff Ave
25	Congested Area	Public	Make Main Street one way so busses can go downtown. No busses means no/less students, means less revenue for downtown businesses.
26	Students to ISU	Focus Group	Special event student circulation

Table 2. Transit Alternatives from Focus Group and Public Meeting (continued)

ID	Issue Type	Meeting Alternative Noted	Comment
27	Connection	Focus Group	More direct transit access to commercial corridor on Duff Ave
28	New Route	Focus Group	Commuter bus to Gilbert – weekday and weekends (vanpool or HIRTA could be options)
29	Connection	Focus Group	Connect
30	Safety	Public	Traffic
31	Safety	Public	Traffic
32	Safety	Public	Traffic
33	Multimodal Station	Public	Intermodal needs information for bike lockers. Make pricing comparable with street parking
34	Bus Stop	Public	Could bus stop here?
35	Bus Operations	Focus Group	The Grove – "Figure 8" loop relieves gray/red routes
36	Safety	Focus Group	Traffic issues on game day
37	Bus Stop	Focus Group	North red route stop at special events/game day. Not used

Table 3. Roadway Alternatives from Focus Group and Public Meeting

ID	Issue Type	Meeting Alternative Noted	Comment
1	Connection	Focus Group	New
2	Congestion	Focus Group	Widen
3	Congestion	Focus Group	Widen (County to widen)
4	Connection	Focus Group	US 30 access from 500th Ave
5	Congestion	Focus Group	Widen (Gilbert access to US 30)
6	Pave	Focus Group	Pave (Gilbert access to I-35)
7	Connection	Focus Group	To I-35
8	Connection	Focus Group	Access to EB US 30
9	Connection	Focus Group	Access to EB US 30
10	Connection	Focus Group	New
11	Connection	Focus Group	New
12	Other Concern	Focus Group	Future Residential - Street grid rather than long streets
13	Connection	Focus Group	Improve school connections
14	Pave	Focus Group	Pave
15	Connection	Focus Group	New
16	Connection	Focus Group	New
17	Future Construction	Focus Group & Public	New Interchange Flyover (2017/18)

Table 3. Roadway Alternatives from Focus Group and Public Meeting (continued)

ID	Issue Type	Meeting Alternative Noted	Comment
18	Connection	Focus Group	I-35 access from suggested Old Bloomington Rd connection
19	Pave	Focus Group	Pave
20	Congestion	Focus Group	Increase the cost of downtown parking
21	Other Concern	Focus Group	Future Emplyment (5,000-6,000)
22	Congestion	Focus Group	Remove parking from north side of street
23	Connection	Public	Build this
24	Pave	Public	Pave this road
25	Connection	Public	
26	Connection	Public	
27	Connection	Public	
28	Connection	Public	
29	Safety	Focus Group	Operations/Safety
30	Safety	Focus Group	Crossing Lincoln Way
31	Connection	Focus Group	New bridge
32	Safety	Focus Group	Accident solutions?
33	Congestion	Focus Group	Congestion at stop light
34	Congestion	Focus Group	Avoid at rush hour
35	Congestion	Focus Group	Suggest grade separation
36	Congestion	Focus Group	Allow left turns into Wal-Mart parking lot
37	Congestion	Focus Group	Left turn lane or arrows
38	Congestion	Focus Group	Left turn lane or arrows
39	Congestion	Focus Group	Need longer left turn lane
40	Safety	Focus Group	Encourage zipper merge (right turn ends)
41	Congestion	Public	Roundabout
42	Congestion	Public	Turn arrow
43	Concern	Public	Slow light change
44	Congestion	Public	Roundabout
45	Congestion	Public	Roundabout

Regional Alternatives Summary

Many of the alternatives identified at the workshops were not specific to one location, but summarized an alternative or strategy that could be addressed on a regional basis. Those regional alternatives from either the Focus Group or Public meeting included:

Bicycle-Pedestrian Regional Alternatives

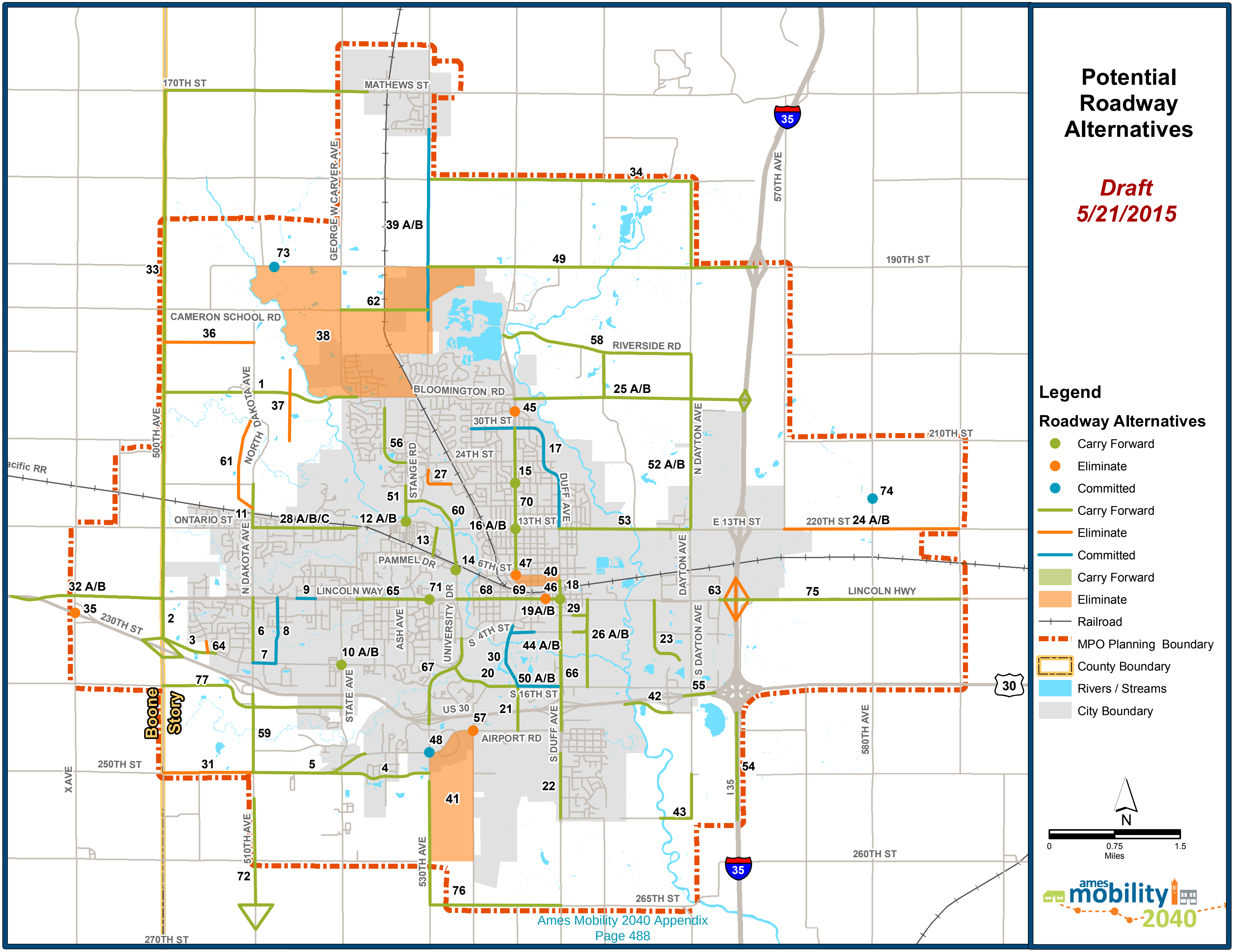
- Less recreational paths, need more for general transportation
- Need complete streets policy
- Recognize bicycles as a form of transportation
- Transportation equity
- Sharrows where needed
- Bike lanes where appropriate
- Need designated lanes to separate bikes and peds on shared use paths
- Better East/West connectivity
- Better Gilbert/Ames connectivity
- Better Ames/ High Trestle connectivity
- Better Ames/Nevada connectivity
- Bike share program- work with ISU College of Design
- “Scramble Pattern” or “Leading Interval” crosswalks: Welch, Duff, Lincoln Way
- Link Nevada residential areas by bike trail to Ames work areas
- Tie South Ames bike trails to High Trestle trail
- Connect Gilbert subdivisions

Transit Regional Alternatives

- No regional comments noted

Traffic/Roadway Regional Alternatives

- Consider an alternative to widening Lincoln Way to 5-lane in West Ames near Franklin.
- The future of Ames needs a more robust transportation plan rather than widening roads to solve problems.


Potential Roadway Alternatives
Draft 5/21/2015
Legend
Roadway Alternatives
Carry Forward
Eliminate
Committed
Carry Forward
Eliminate
Committed
Carry Forward
Eliminate
Railroad
MPO Planning Boundary
County Boundary
Rivers / Streams
City Boundary
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ames mobility 2040
170TH ST
MATHEWS ST
GEORGE W CARVER AVE
39 A/B
34
570TH AVE
35
190TH ST
49
73
33
62
CAMERON SCHOOL RD
36
38
58
RIVERSIDE RD
1
37
BLOOMINGTON RD
25 A/B
45
30TH ST
N DAYTON AVE
210TH ST
500TH AVE
NORTH DAKOTA AVE
56
24TH ST
17
STANGE RD
27
15
DUFF AVE
52 A/B
Pacific RR
61
51
70
74
60
13TH ST
53
E 13TH ST
220TH ST
24 A/B
ONTARIO ST
11
28 A/B/C
12 A/B
16 A/B
13
N DAKOTA AVE
PAMMEL DR
14
6TH ST
47
40
DAYTON AVE
32 A/B
9
LINCOLN WAY
65
71
68
69
46
18
63
75
LINCOLN HWY
35
230TH ST
2
19A/B
29
UNIVERSITY DR
6
8
S 4TH ST
44 A/B
26 A/B
23
S DAYTON AVE
3
64
7
10 A/B
ASH AVE
30
67
20
66
77
STATE AVE
50 A/B
S 16TH ST
42
55
30
Boone
Story
US 30
21
57
S DUFF AVE
59
48
AIRPORT RD
250TH ST
31
5
4
54
I 35
X AVE
580TH AVE
41
22
43
510TH AVE
530TH AVE
260TH ST
72
76
265TH ST
270TH ST

Roadway- Potential Alternatives

Alternative Number	Description	Source of Idea	In 2035 Final Plan?	Assess in Travel Model?	Recommended Action	Reason Eliminated
1	Bloomington Road Extension -2 lane 500th Ave. to George W. Carver Ave.	2035 LRTP	Yes	Yes	Carry Forward	
2	500th Avenue Pave/ Reconstruction -W. Lincoln Way to Mortensen Road	2035 LRTP	Yes	Yes	Carry Forward	
3	Mortensen Road Extension- 500th Ave. to Miller Ave.	2035 LRTP	Yes	Yes	Carry Forward	
4	Cottonwood Extension- State Ave. to University Blvd.	2035 LRTP	No	Yes	Carry Forward	
5	Zumwalt Station Road/ Oakwood Road Realignment- 510th Ave. to Worle Ln.	2035 LRTP	No	Yes	Carry Forward	
6	S. Dakota Ave., Lincoln Way to Mortensen Road- Widen to 5 lanes	2035 LRTP	No	Yes	Carry Forward	
7	Mortensen Rd. Widening to 3 lanes- S. Dakota Ave. to Dotson Dr.	2035 LRTP	Yes	No	Committed	
8	Dotson Dr./Beedle Dr. Extension- Lincoln Way to Mortensen Road	2035 LRTP	Yes	Yes	Committed	
9	Widen Lincoln Way to 5 lanes- Marshall Ave. to Franklin Ave.	2035 LRTP	Yes	Yes	Committed	
10.A	State Ave. /Mortensen Rd. Roundabout	2035 LRTP	Yes	No	Carry Forward	
10.B	State Ave. /Mortensen Rd. - Signalize and Add Turn Lanes	2040 Traffic Operations	No	No	Carry Forward	
11	N. Dakota Widening to 3 lanes with railroad grade -Ontario Street to 215th Street	2035 LRTP	No	Yes	Carry Forward	
12.A	Stange Rd./13th Street- roundabout	2035 LRTP	Yes	No	Carry Forward	
12.B	Stange Rd./13th Street -add turn lanes	2035 LRTP	No	No	Carry Forward	
13	Haber Rd. Realignment and Widening- Pammel Dr. to 13th Street	2035 LRTP	Yes	Yes	Carry Forward	
14	University Blvd./ 6th Street Intersection Improvements for Bicycles and Pedestrians	2035 LRTP	No	No	Carry Forward	
15	Grand Ave./ 20th Street Intersection Improvements	2035 LRTP	Yes	No	Carry Forward	
16.A	Grand Ave./ 13th Street Intersection Improvements-roundabout	2035 LRTP	No	No	Eliminate	High ROW Impacts
16.B	Grand Ave./ 13th Street Intersection Improvements- turn lanes	2035 LRTP	Yes	No	Carry Forward	
17	30th Street/ Duff Ave. Lane Reductions - Hoover Ave. to 13th Street	2035 LRTP	Yes	Yes	Committed	
18	Duff Ave. Underpass at Union Pacific Railroad	2035 LRTP	No	Yes	Carry Forward	
19.A	Lincoln Way Lane Reduction- Gilcrest Ave. to Duff Ave.	2035 LRTP	Yes	No	Carry Forward	
19.B	Lincoln Way Conversion- 3 lane with bike lanes	New	No	Yes	Carry Forward	
20	S. 16th Street Widening to 3 lanes- University Blvd. to Grand Ave. Extension	2035 LRTP	Yes	Yes	Carry Forward	
21	Grand Ave. Extension- 3 lanes from S. 16th to Airport Rd.	2035 LRTP	No	Yes	Carry Forward	
22	S. Duff Ave. Widening to 3 lanes- Kitty Hawk Dr. to Ken Maril Rd.	2035 LRTP	Yes	Yes	Carry Forward	
23	Freel Dr. Reconstruction/ 3-lane Extension to Dayton Ave.	2035 LRTP	Yes	Yes	Carry Forward	
24.A	13th Street (220th St) Widening- 570th Ave. to 580th Ave.	2035 LRTP	No	No	Eliminate	Developer-funded turn lanes
24.B	13th Street (220th St) Widening- 570th Ave. to 590th Ave.	Focus Group	No	No	Eliminate	Developer-funded turn lanes
25.A	Bloomington Rd. Extension- 2 lane Grand Ave. to 570th Ave. and Stagecoach Rd- 2 lane Riverside to Bloomington Rd	2035 LRTP	No	Yes	Carry Forward	
25.B	Bloomington Rd. Extension- 2 lane Grand Ave. to new I-35 interchange and Stagecoach Rd- 2 lane Riverside to Bloomington Rd	Focus Group	No	Yes	Carry Forward	
26.A	Cherry Ave. Extension- Lincoln Way to SE 5th Street	2035 LRTP	Yes	Yes	Carry Forward	
26.B	Cherry Ave. Extension- Lincoln Way to S. 16th Street through Creek Floodway	Issues/Visioning Workshop	No	Yes	Carry Forward	

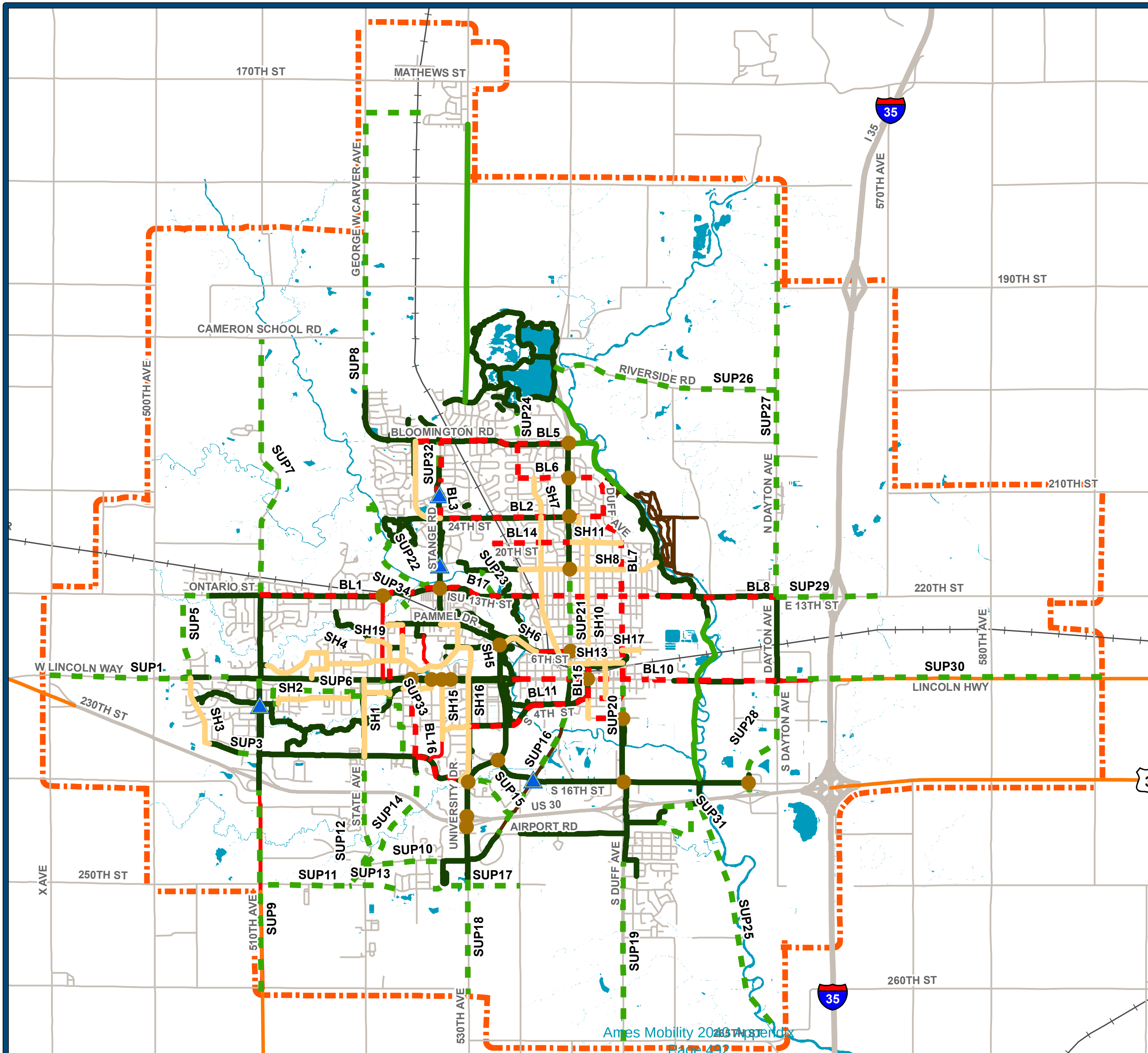
Roadway- Potential Alternatives

Alternative Number	Description	Source of Idea	In 2035 Final Plan?	Assess in Travel Model?	Recommended Action	Reason Eliminated
27	20th St. Extension- Prairie View West to Ridgewood Ave.	2035 LRTP	No	Yes	Eliminate	High environmental impacts
28.A	Ontario St. - Hyland Ave. to N. Dakota Ave.: widen for Center Left-Turn Lane	2035 LRTP	Yes	Yes	Eliminate	Inconsistent with Alternative 28B
28.B	Ontario St. - Hyland Ave. to N. Dakota Ave.: Remove Parking, Convert to 3-lane	Focus Group	No	No	Carry Forward	
28.C	Ontario St/Hyland Ave Intersection Improvements- add 2nd WB lane for acceleration	Focus Group		no	Eliminate	Education/signing issue
29	Lincoln Way/ Duff Avenue Intersection Improvements- Restripe for dedicated east-west left-turn lanes	2035 LRTP	Yes	No	Carry Forward	
30	Grand Ave. Extension-2 lanes from Squaw Creek Dr. to S. 16th and 5th Street Extension- Grand Ave. to Duff Ave.	2035 LRTP	Yes	Yes	Committed	
31	Zumwalt Station Road- 500th Ave. to S Dakota Ave.	Focus Group	No	No	Eliminate	Developer-funded (if needed)
32.A	Lincoln Way- Highway 30 to 500th Ave-Widen to 4 lanes	Focus Group	No	Yes	Eliminate	Limited travel demand need
32.B	Lincoln Way- Highway 30 to 500th Ave-Widen to 3 lanes plus bike lane	New	No	No	Carry Forward	
33	Gilbert Bypass- 500th Ave/Highway 30 to western Gilbert limits (intersection improvements). New interchange 500th/Hwy 30	Focus Group	No	Yes	Carry Forward	
34	180th Street- Grant Ave to Dayton, Dayton from 180th to 190th, and 190th from Dayton to I-35: Pave as 2-lane road and paved shoulders and turn lanes at key intersections	Focus Group	No	Yes	Carry Forward	
35	Standardize/consolidate US30 interchange at X Ave/Lincoln Way	Focus Group	No	No	Eliminate	High Cost/ Limited Need
36	200th Street- 500th Ave to N Dakota St	Focus Group	No	Yes	Eliminate	Developer-funded (if needed)
37	Deer Run Lane- Residential collector connection	Focus Group	No	No	Eliminate	Private/Developer-Funded
38	Establish Grid Pattern- Future development near GW Carter/ Cameron School Rd	Focus Group	No	No	Eliminate	Private/Developer-Funded
39.A	Grant Avenue- Ada Hayden to Gilbert. Pave and widen.	Focus Group	No	no	Committed	
39.B	180th/Grant Intersection safety improvements	Focus Group	No	No	Eliminate	Addressed by Alternative 39A
40	Manage and standardize downtown parking rates with supply and demand.	Focus Group	No	No	Eliminate	Part of a larger TDM Strategy.
41	Improve roads to serve demand at research park expansion- south	Focus Group	No	no	Eliminate	Private/Developer-Funded
42	Billy Sunday/ S 18th - roadway extension/ bridge to Dayton	Public	No	Yes	Carry Forward	
43	Ken Maril Rd - 2 lane extension to connect S. Duff to Dayton	Public	No	Yes	Carry Forward	
44.A	S Duff- S 16th to Lincoln Way- Access Control/ Safety Improvement	Focus Group	No	No	Carry Forward	
44.B	S Duff- allow left-turns into Walmart parking lot driveway	Focus Group	No	No	Eliminate	Inconsistent with safety needs
45	N Grand/ Northwood/Wheeler Intersection Improvements	Focus Group	No	No	Eliminate	Signal timing issue
46	Lincoln Way/ Kellogg Ave Intersection Improvements	Focus Group	No	no	Eliminate	Inconsistent with Alternative 19
47	6th/Grand- traffic signal timing adjustment	Public	No	No	Eliminate	Signal timing issue
48	Airport/ University- roundabout	Public	No	No	Committed	
49	190th St: 2 lane connection- Grant Ave to I-35	Council Member	No	Yes	Carry Forward	
50.A	S 16th- Grand to Duff- widen to 5 lanes	2040 Traffic Operations	No	Yes	Carry Forward	
50.B	S 16th/ Duff- add turn lanes at intersection	2040 Traffic Operations	No	No	Committed	
51	Stange Rd widening to 5 lanes- 20th to 13th	2040 Traffic Operations	No	No	Carry Forward	
52.A	Dayton- 13th to Riverside Rd- add turn lanes at key intersections	2040 Traffic Operations	No	No	Carry Forward	
52.B	Dayton- 13th to Riverside Rd- widen to 3 lanes	2040 Traffic Operations	No	No	Carry Forward	

Roadway- Potential Alternatives

Alternative Number	Description	Source of Idea	In 2035 Final Plan?	Assess in Travel Model?	Recommended Action	Reason Eliminated
53.A	13th Street- Duff to Dayton- add turn lanes at key intersections	2040 Traffic Operations	No	No	Carry Forward	
53.B	13th Street- Duff to Dayton- convert to 3-lane section with bike lanes	2040 Traffic Operations	No	No	Carry Forward	
54	I-35 south of US30- widen to 6 lanes	2040 Traffic Operations	No	Yes	Carry Forward	
55	US30 WB - I-35 to Dayton, widen with auxiliary or basic lane addition	2040 Traffic Operations	No	No	Carry Forward	
56	GW Carver- Stange to Bloomington - add turn lanes	2040 Traffic Operations	No	No	Carry Forward	
57	S. Riverside/Airport Rd- turn lane additions and intersection control (Private Funding)	2040 Traffic Operations	No	No	Eliminate	Private/Developer-Funded
58	Riverside - Grand to Dayton- add turn lanes at key locations	2040 Traffic Operations	No	No	Carry Forward	
59	S Dakota - S. of US 30 to Zumwalt Station Rd- add turn lanes	2040 Traffic Operations	No	No	Carry Forward	
60	Extend University to Bruner/Stange (South of University Village)	Issues/Visioning Workshop	No	Yes	Carry Forward	
61	N. Dakota Rural Arterial Bypass	Issues/Visioning Workshop	No	No	Eliminate	High Cost and Impacts. Limited safety or demand need
62	New connection and railroad grade separation- 3 lanes Cameron School Rd to Grant Ave	Issues/Visioning Workshop	No	Yes	Carry Forward	
63	Lincoln Way/ I-35 Interchange	Issues/Visioning Workshop	No	Yes	Eliminate	Interchange spacing (<1 mile)
64	Extend Wilder Blvd. to Mortensen Rd. (Privately Funded)	Issues/Visioning Workshop	No	No	Eliminate	Privately Funded element of Alt 3.
65	Adaptive Traffic Signal Technology: Lincoln Way- Hyland Ave to Beach Ave.	New	No	Yes	Carry Forward	
66	Adaptive Traffic Signal Technology: S. Duff Ave- S. 3rd St to Airport Rd.	New	No	Yes	Carry Forward	
67	Adaptive Traffic Signal Technology: University Drive: S. 4th St to Highway 30	New	No	Yes	Carry Forward	
68	Adaptive Traffic Signal Technology: Lincoln Way- University Dr. to Grand Ave.	New	No	Yes	Carry Forward	
69	Adaptive Traffic Signal Technology: Lincoln Way- Grand Ave. to Duff Ave.	New	No	Yes	Carry Forward	
70	Adaptive Traffic Signal Technology: Grand Ave- 6th St. to 30th St.	New	No	Yes	Carry Forward	
71	Lincoln Way/ Beach Ave. Traffic Signal Improvement/ Transit Priority	Focus Group	No	No	Carry Forward	
72	West Ames to Ankeny High Capacity Corridor	PMT	No	No	Carry Forward	
73	W. 190th Bridge Replacement, between 510th Ave and Pine Grove Lane	Story County	No	No	Committed	
74	580th Bridge Replacement, 0.25 mi north of 220th St	Story County	No	No	Committed	
75	E Lincoln Way- Bell Avenue to MPO Boundary- add turn lanes	AAMPO	No	No	Carry Forward	
76	Pave 265th Street and 530th Avenue for Connectivity	City of Ames	No	No	Carry Forward	
77	Create Southwest Collector by Paving Existing Gravel Roads south of US 30 between County Line and State Ave	City of Ames	No	Yes	Carry Forward	

Bicycle and Pedestrian Alternatives



Legend

Crossing Improvements

- Intersection
- MidBlock

Alternatives

- On-Street Bike Lane
- Sharrow/BikeBlvd
- Side Path/Rec Trail
- Committed Trail

Existing Facilities

- On-Street Bike Lane
- Shared Use Path
- Paved Shoulder
- Unpaved Path
- Railroad
- MPO Planning Boundary
- Rivers / Streams

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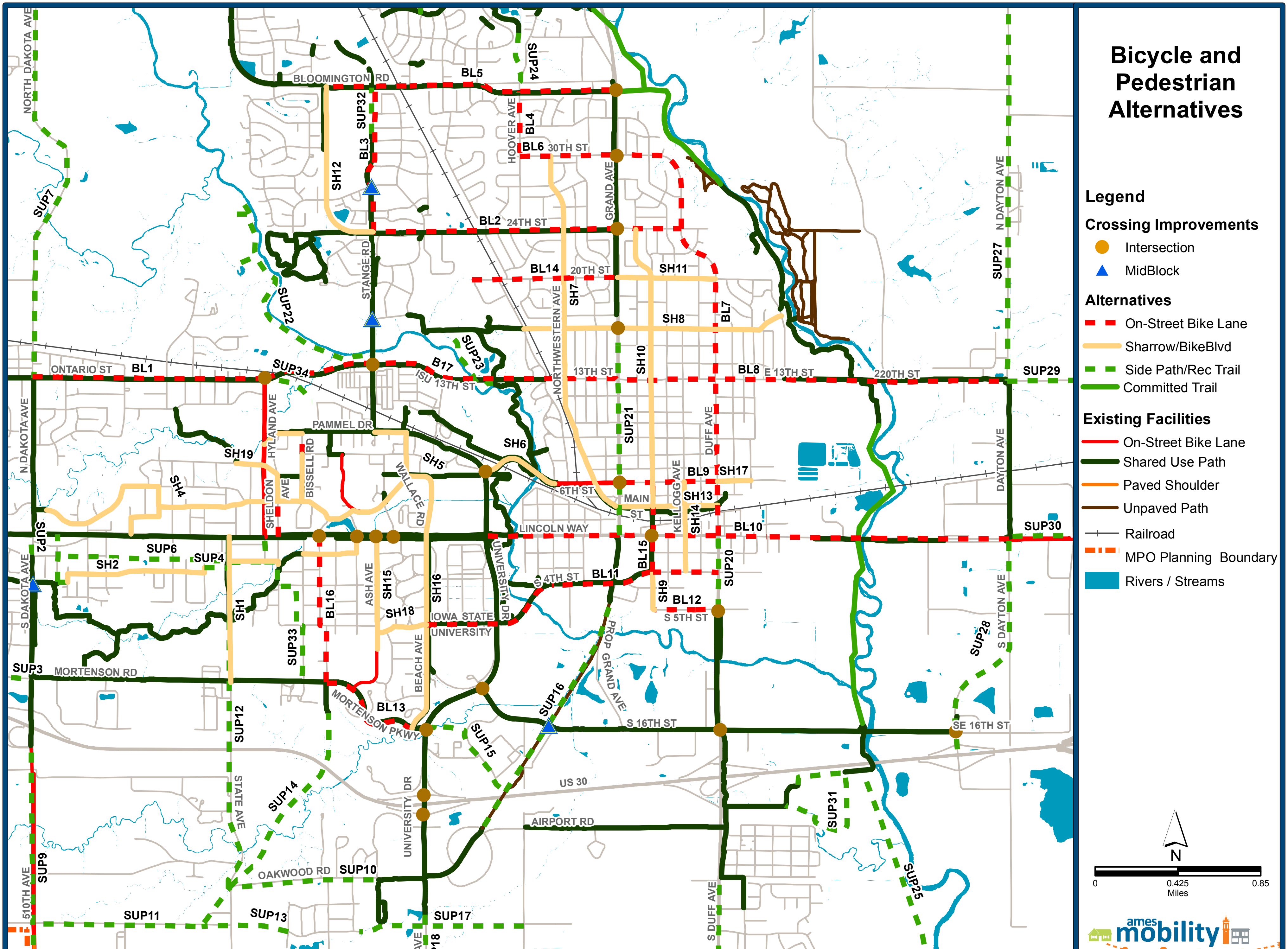
Bicycle and Pedestrian Alternatives
Legend
Crossing Improvements
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Alternatives
On-Street Bike Lane
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Shared Use Path
Paved Shoulder
Unpaved Path
Railroad
MPO Planning Boundary
Rivers / Streams
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BLOOMINGTON RD
BL5
SUP24
SUP32
HOOVER AVE
BL4
BL3
BL6
30TH ST
SH12
GRAND AVE
BL2
24TH ST
STANGE RD
BL14
20TH ST
SH7
SH11
NORTHWESTERN AVE
SUP22
SH8
BL7
SUP23
SUP7
NORTH DAKOTA AVE
N DAYTON AVE
SUP27
ONTARIO ST
BL1
SUP34
B17
ISU 13TH ST
13TH ST
SH10
BL8
E 13TH ST
220TH ST
SUP29
N DAKOTA AVE
HYLAND AVE
PAMMEL DR
SH19
SH6
SUP21
DUFF AVE
SH4
SH5
BISSELL RD
SHELDON AVE
WALLACE RD
6TH ST
BL9
SH17
SH13
MAIN ST
KELLOGG AVE
SH14
LINCOLN WAY
BL10
SUP30
DAYTON AVE
SUP2
SUP6
SUP4
SH2
S DAKOTA AVE
BL15
4TH ST
BL11
SUP20
UNIVERSITY DR
SH1
BL16
ASH AVE
SH15
SH16
SH18
SH9
BL12
S 5TH ST
IOWA STATE UNIVERSITY
SUP33
PROP GRAND AVE
S DAYTON AVE
SUP28
SUP3
MORTENSON RD
BEACH AVE
MORTENSON PKWY
BL13
SUP16
SUP15
S 16TH ST
SE 16TH ST
SUP12
US 30
SUP14
STATE AVE
UNIVERSITY DR
SUP31
AIRPORT RD
SUP9
510TH AVE
OAKWOOD RD
SUP10
SUP25
S DUFF AVE
SUP11
SUP13
SUP17
530TH AVE
SUP18
SUP19

Bicycle/Pedestrian- Candidate Projects

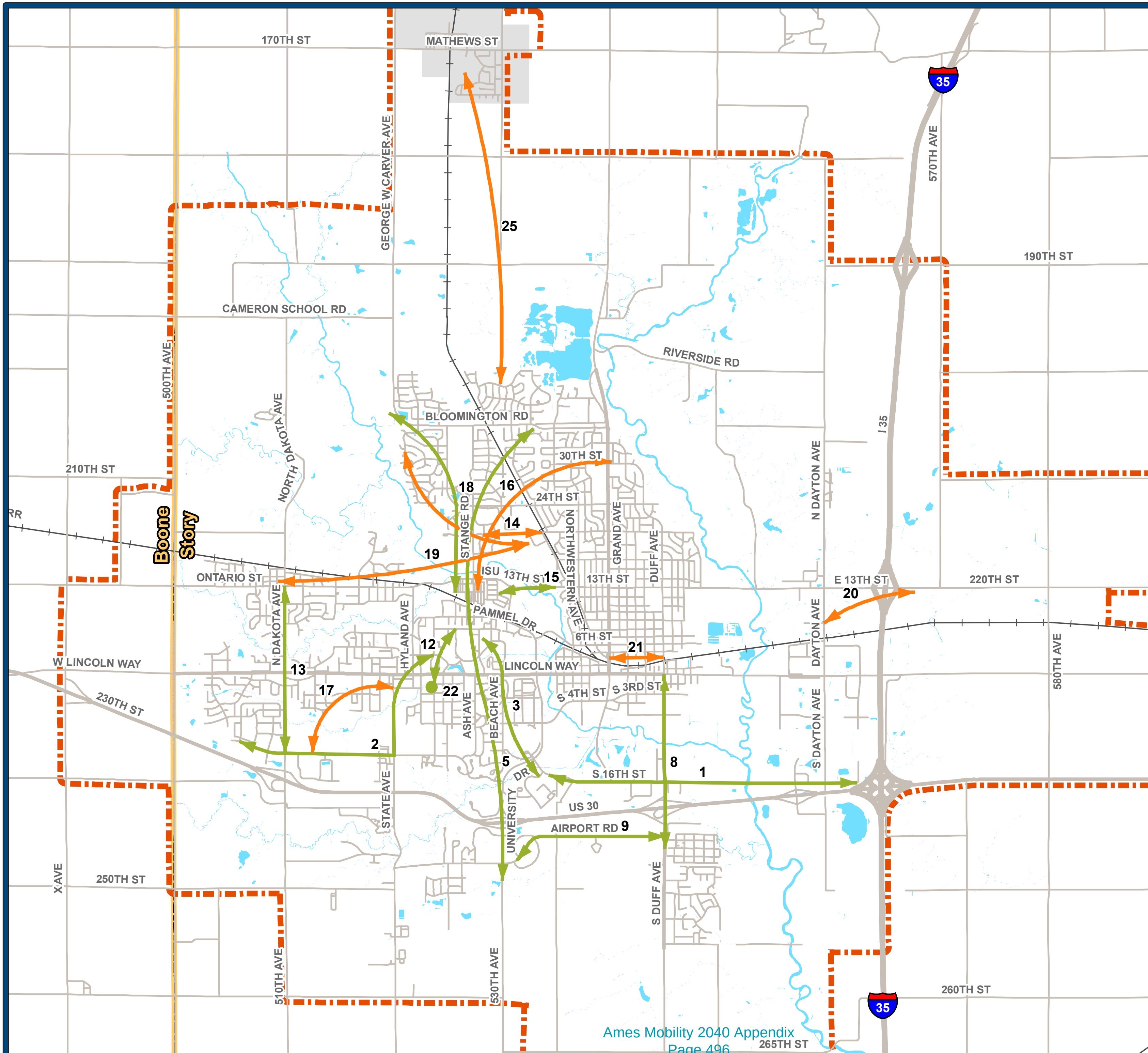
Alternative Number	Description
Bike Lanes	
BL1	Ontairio Bike Lanes, North Dakota to Stange
BL2	24th St Bike Lanes, Stange to Duff
BL3	Stange Bike Lanes, 24th St to Bloomington
BL4	Hoover Bike Lanes, 30th St to Bloomington
BL5	Bloomington Bike Lanes, GW Carver to Grand
BL6	30th St Bike Lanes, Hoover to Grand
BL7	North Duff Bike Lanes, Lincoln Way to Grand
BL8	East 13th Street Bike Lanes, Orchard Drive to Dayton Ave
BL9	6th Street Bike Lanes, Grand to Duff
BL10	Lincoln Way Bike Lanes, University Dr to Dayton
BL11	3rd St-4th St Bike Lanes, Beach to Duff
BL12	5th St Bike Lanes, Walnut to Duff
BL13	Mortenson Bike Lanes, Welch to University Dr
BL14	20th St Bike Lanes, Ames High to Grand
BL15	Clark / Walnut Bike Lanes, South 3rd to Main
BL16	Welch Bike Lanes, Mortenson to Lincoln Way
BL17	13th Street, Stange to Orchard Dr
Shared-Use Paths / Trails	
SUP1	West Lincoln Way Side Path to MPO Boundary
SUP2	South Dakota Side Path, fill in gap south of Lincoln Way
SUP3	West Mortenson Side Path, fill in gap west of South Dakota
SUP4	Paths to connect roadway gaps south of Lincoln Way
SUP5	Wilder-Ontario Side Path Connection
SUP6	Trail connection between Mortenson and Campustown south of Lincoln Way
SUP7	North Dakota Side Path (Paved Shoulder is Alternative)
SUP8	George Washington Carver Sidepath to Gilbert (Paved Shoulder is Alternative)
SUP9	S Dakota Side Path, MPO boundary to US 30 (Paved Shoulder is Alternative)
SUP10	Oakwood Side Path
SUP11	Zumwalt Station to Oakwood Trail
SUP12	S State St Side Path between Oakwood and Mortenson
SUP13	Zumwalt to Cottonwood Trail Connection
SUP14	Worrell Creek Trail with US 30 Crossing (Identify Grade Separation)
SUP15	Vet med - University Trail Connection
SUP16	Pave existing gravel trail between South 4th St to Airport Rd
SUP17	Cottonwood Trail Extension south of Research Park
SUP18	S Unviersity Side Path to MPO Boundary (Paved Shoulder is Alternative)
SUP19	S Duff Side Path between MPO Boundary and Airport Rd (Paved Shoulder is Alternative)
SUP20	S Duff Side Path between S 5th Street and Lincoln Way
SUP21	Grand Ave Side Path between Lincoln Way and 17th Street
SUP22	Recreational Trail to reactor woods
SUP23	Recreational Trail near aquatic center
SUP24	Trail Connection north of Hoover Ave from Bloomington to Ada Hayden
SUP25	South Skunk River Trail extension to MPO Boundary
SUP26	Riverside Rd Trail (Paved Shoulder is Alternative)
SUP27	Dayton Trail north of 13th Street (Paved Shoulder is Alternative)
SUP28	South Dayton Side Path between S 16th St and Lincoln Way
SUP29	E 13th St Trail Extension past I-35
SUP30	Lincolnway Trail to MPO Boundary (Paved Shoulder is Alternative)
SUP31	Skunk River - South Duff Trail Connection
SUP32	Stange Road trail extension to Bloomington Trail
SUP33	Hyland-Hayward South Campus Trail Connection
SUP34	Pammel Woods Recreational Trail
Sharrows / Bike Boulevards	
SH1	Sharrows on South State, Mortenson and Lincoln Way
SH2	East-West Bike Boulevard South of Lincoln Way between South Dakota and Campustown
SH3	Sharrows Along Wilder, Mortenson to Lincoln Way
SH4	Sharrows / Bike Boulevard north of Lincoln Way between North Dakota and Iowa State Campus
SH5	Sharrows along Beach and Stange between Mortenson and Stange

Bicycle/Pedestrian- Candidate Projects

Alternative Number	Description
SH6	6th St sharrows between campus and downtown bike lanes
SH7	Northwestern Sharrows, Grand to 30th St
SH8	16th St Sharrows / Bike Boulevard, trail south of High School to Meadowlane Ave
SH9	S Walnut Sharrows, S 5th to S 3rd
SH10	N Clark Sharrows / Bike Boulevard, Main St to 24th St
SH11	20th Street Sharrows, Grand to Duff
SH12	George Washington Carver Sharrows, 24th to Bloomington
SH13	Main St Sharrows, Grand Ave to Duff
SH14	Kellog Sharrows, S 3rd to 6th St
SH15	Ash Ave Sharrows, current bike lane end to Lincoln Way
SH16	Beach Ave Sharrows, Mortenson to Lincoln Way
SH17	6th St Sharrows east of Duff
SH18	Cessna St Bike Boulevard
SH19	Oakland St between Trail and Hyland Ave
Intersection / Crossing Improvements	
Intersections	University / Mortenson
	University / S 16th St
	Dayton / S 16th
	Duff / S 16th St
	Duff / S 5th
	Lincoln Way / Lynn
	Grand / 6th St
	Lincoln Way / Clark
	Grand / (N) 16th St
	Grand / 24th St
	Grand / 30th St
	Grand / Bloomington Rd
	Stange / 13th St
	US 30 / University South Ramp
	US 30 / University North Ramp
	Lincoln Way / Ash
	Lincoln Way / Knoll
	Lincoln Way / Welch
	Hyland / Ontario
	6th St / University
Mid-Block Crossings	S 16th midblock trail crossing near Vet Med
	South Dakota midblock trail xing north of Clemons
	Stange at Bruner Dr Midblock
	Stange at Somerset

Potential Transit Alternatives

Draft 5/4/2015



Legend

- Carry Forward
- Carry Forward
- Eliminate
- Railroad
- MPO Planning Boundary
- County Boundary
- Rivers / Streams

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Transit Potential Alternatives

Alternative Number	Description	Project Type	Source of Idea	Recommended Action	Reason Eliminated
CyRide Short-Term (1-10 years)					
1	S. 16th Corridor Service Improvements	Corridor Project	CyRide	Carry Forward	
2	Mortensen/ State Street Corridor Service Improvements	Corridor Project	CyRide	Carry Forward	
3	Orange Route Corridor Service Improvements	Corridor Project	CyRide	Carry Forward	
4	Automatic Passenger Counters	Technology Project	CyRide	Carry Forward	
5	Brown Route North/South Corridor Service Improvements	Corridor Project	CyRide	Carry Forward	
6	Buses (Expansion/ Replacement)	Bus/Facility Project	CyRide	Carry Forward	
7	Bus stop improvements	Bus/Facility Project	2035 LRTP	Carry Forward	
8	S. Duff Corridor Service Improvements	Corridor Project	Focus Group/Public	Carry Forward	
9	Airport Road Corridor Service Improvements	Corridor Project	CyRide	Carry Forward	
10	CyRide Facility Expansion	Bus/Facility Project	2035 LRTP	Carry Forward	
CyRide Long-Term (11-25 years)					
11	Farebox system	Technology Project	CyRide	Carry Forward	
12	Intermodal Circulator	Intermodal Project	2035 LRTP	Carry Forward	
13	North/South Dakota Corridor Service Improvements	Corridor Project	Focus Group/Public	Carry Forward	
14	New transitway/multi-modal connection north of Ames High School.	Corridor Project	Focus Group/Public	Eliminate	High Cost/ Environmental Impact
15	Park & Ride (north side of ISU campus)	Bus/Facility Project	Focus Group/Public	Eliminate	Short-term PNR improvements focused on Orange Rte service / Iowa State Center
16	Blue Express route- mall to central campus	Corridor Project	Focus Group/Public	Eliminate	Mall is not a Park n Ride location
17	New transitway- ISU Arboretum to Ames Middle School	Corridor Project	Focus Group/Public	Eliminate	CyRide buses restricted from local roads
18	New transit service between North Ridge/ Somerset/ Valley View via Stange Rd/Bloomington Rd/ GW Carver Ave	Corridor Project	Focus Group/Public	Carry Forward	
19	Express service to Ames High school from West Ames	Corridor Project	Focus Group/Public	Eliminate	Expected low demand
20	Extension of pink route to SE corner of 13th/I-35	Corridor Project	Focus Group/Public	Eliminate	No current development plans in this area
21	Convert Main Street to 1-way downtown for transit access	Roadway Project	Focus Group/Public	Eliminate	No transit funding source / impacts to downtown character
22	Intermodal facility Improvements	Intermodal Project	2035 LRTP	Carry Forward	
23	Automatic Vehicle Location Technology	Technology Project	2035 LRTP	Carry Forward	
Regional Transit Alternatives					
24	Regional commuter study (North Ames, Nevada, Gilbert, Boone, etc.)	Regional Project	Focus Group/Public	Carry Forward	
25	Regional extension from Gilbert to Ames	Regional Project	Focus Group/Public	Eliminate	Complete Regional commuter study first
26	Identify private provider for special event service	Regional Project	Focus Group/Public	Eliminate	Private provider only; CyRide cannot legally provide
27	Des Moines to Ames Transit Corridor Improvements	Regional Project	CyRide	Carry Forward	
28	Bus Thruway- Ames to Amtrak in Osceola	Regional Project	Ames MPO	Carry Forward	

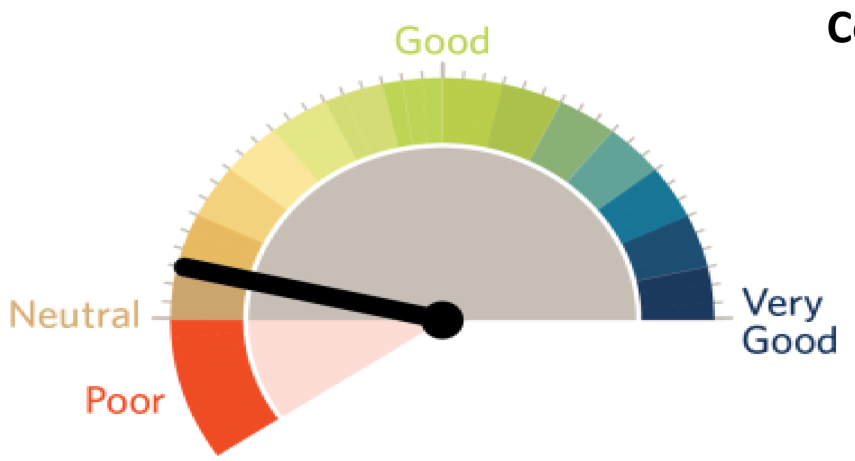
Roadway Project Scorecards

Alternative		Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Composite Score
Alternative 1	Extend Bloomington Road to 500th Ave. from George W. Carver Ave.	3	0	0	-2	0	0	1
Alternative 2	500th Avenue Pave and Reconstruct from W. Lincoln Way to Mortensen Road	1	3	0	2	0	0	6
Alternative 3	Extend Mortensen Road from 500th Ave. to Miller Ave.	3	0	1	0	1	0	5
Alternative 4	Extend Cottonwood from State Ave. to University Blvd.	2	0	-2	0	1	0	1
Alternative 5	Zumwalt Station Road/ Oakwood Road Realignment- 510th Ave. to Worle Ln.	2	1	-2	0	0	0	1
Alternative 6	Widen S. Dakota Ave. to 5 Lanes from Lincoln Way to Mortensen Road	2	3	0	2	2	0	9
Alternative 10.A	Convert the State Ave. /Mortensen Rd. Intersection to a Roundabout	2	3	1	2	1	0	9
Alternative 10.B	Add a Traffic Signal and Turn Lanes at the State Ave. /Mortensen Rd. Intersection	2	2	1	2	1	0	8
Alternative 11	Widen N. Dakota to 3 lanes with railroad grade separation - Ontario Street to 215th Street	0	3	-2	2	1	2	6
Alternative 12.A	Convert Stange Rd./13th Street intersection to a roundabout	1	3	1	2	1	0	8
Alternative 12.B	Add turn lanes at Stange Rd./13th Street intersection	2	2	1	2	1	0	8
Alternative 13	Haber Rd. Realignment and Widening- Pammel Dr. to 13th Street	0	2	-2	2	1	0	3
Alternative 14	University Blvd./ 6th Street Intersection Improvements for Bicycles and Pedestrians	2	4	0	2	1	0	9
Alternative 15	Grand Ave./ 20th Street Intersection Improvements	2	2	0	2	2	0	8
Alternative 16.B	Add Turn Lanes at Grand Ave./ 13th Street Intersection	2	2	1	0	2	0	7
Alternative 18	Construct a Duff Ave. Underpass at Union Pacific Railroad	0	4	0	0	0	0	4
Alternative 19.A	Convert Lincoln Way to a 3-lane with bike lanes between Gilcrest Ave. and Duff Ave.	3	4	0	4	1	0	12
Alternative 19.B	Widen Lincoln Way to a 5-lane with a Median at Clark/Walnut intersection	2	3	0	0	3	2	10
Alternative 20	Widen S. 16th Street to 3 lanes from University Blvd. to Grand Ave. Extension	1	3	-2	0	2	2	6
Alternative 21	Extend Grand Ave as a 3-lane street from S. 16th to Airport Rd.	4	0	2	0	2	0	8
Alternative 22	Widen S. Duff Ave. to 3 lanes-Jewel Dr. to Ken Maril Rd.	0	3	-2	2	4	2	9
Alternative 23	Reconstruct and Extend Freel Dr. 2-lane to Dayton Ave.	1	2	-2	0	1	2	4
Alternative 25.A	Extend Bloomington Rd. as a 2-lane from Grand Ave. to 570th Ave. Improve Stagecoach Rd from Riverside to Bloomington Rd	3	1	0	-2	1	0	3
Alternative 25.B	Bloomington Rd. Extension- 2 lane Grand Ave. to new I-35 interchange. Improve Stagecoach Rd from Riverside to Bloomington Rd	2	0	0	-2	3	0	3
Alternative 26.B	Extend Cherry Ave. between S 5th St and S 16th Street through Creek Floodway	1	1	-2	0	2	0	2
Alternative 28.B	Ontario St. - Hyland Ave. to N. Dakota Ave.: Remove Parking, Convert to 3-lane	1	4	0	2	2	0	9
Alternative 29	Lincoln Way/ Duff Avenue Intersection Improvements- Restripe for dedicated east-west left-turn lanes	2	2	0	0	3	0	7
Alternative 32.B	Widen Lincoln Way to 3-lanes plus bike lane - X Ave. to 500th Ave	2	3	0	2	0	0	7
Alternative 33	Regional Connection to Gilbert via 500th Ave/Highway 30 to western Gilbert limits (intersection improvements). New interchange at 500th/Hwy 30	2	2	-2	0	1	0	3
Alternative 34	180th Street- Grant Ave to Dayton, Dayton from 180th to 190th, and 190th from Dayton to I-35: Pave as 2-lane road and paved shoulders and turn lanes at key intersections	2	3	-2	0	2	0	5
Alternative 42	Extend Billy Sunday/ S 18th with bridge to Dayton	2	0	-2	2	1	0	3
Alternative 43	Extend Ken Maril Rd to connect S. Duff to Dayton	1	0	-2	0	0	0	-1
Alternative 44.A	Provide Improved Access Control and Safety Improvments along S Duff between S 16th and Lincoln Way	2	3	0	4	3	2	14
Alternative 49	Extend 190th St between Grant Ave and I-35 Interchange	3	0	-2	-2	0	0	-1
Alternative 50.A	Widen S 16th to 5-Lanes between Grand and Duff	0	2	0	0	1	2	5
Alternative 51	Widen Stange Rd to 5 lanes from 20th St to 13th St	1	2	0	0	1	2	6
Alternative 52.A	Add Turn Lanes at Key Intersections along Dayton between 13th and Riverside Rd	0	2	0	0	3	0	5
Alternative 52.B	Widen Dayton to 3 Lanes between 13th and Riverside Rd	0	2	0	0	3	0	5
Alternative 53.A	13th Street- Duff to Dayton- add turn lanes at key intersections	0	2	0	0	1	2	5
Alternative 53.B	13th Street- Duff to Dayton- convert to 3-lane section with bike lanes	1	4	0	4	1	0	10
Alternative 54	Widen I-35 to 6 Lanes south of US30	2	0	0	0	5	0	7
Alternative 56	Add Turn Lanes to George Washington Carver between Stange and Bloomington	0	2	0	2	0	0	4
Alternative 58	Add turn lanes at key locations on Riverside between Grand and Dayton	0	2	0	0	0	0	2
Alternative 59	Add Turn Lanes to S Dakota south of US 30 to Zumwalt Station Rd	0	2	0	0	0	0	2
Alternative 60	Extend University to Bruner/Stange (South of University Village)	3	0	0	-2	0	0	1
Alternative 62	New connection and railroad grade separation- 3 lanes Cameron School Rd to Grant Ave	2	1	0	0	0	0	3
Alternative 65	Adaptive Traffic Signal Technology: Lincoln Way- Hyland Ave to Beach Ave.	4	2	1	2	1	0	10
Alternative 66	Adaptive Traffic Signal Technology: S. Duff Ave- S. 3rd St to Airport Rd.	4	2	0	2	3	0	11
Alternative 67	Adaptive Traffic Signal Technology: University Drive: S. 4th St to Highway 30	3	2	0	0	1	0	6
Alternative 68	Adaptive Traffic Signal Technology: Lincoln Way- University Dr. to Grand Ave.	4	2	1	2	1	0	10
Alternative 69	Adaptive Traffic Signal Technology: Lincoln Way- Grand Ave. to Duff Ave.	4	2	1	0	3	0	10
Alternative 70	Adaptive Traffic Signal Technology: Grand Ave- 6th St. to 30th St.	4	2	0	2	3	0	11
Alternative 71	Lincoln Way/ Beach Ave. Traffic Signal Improvement/ Transit Priority	3	2	0	2	1	0	8
Alternative 72	West Ames to Ankeny High Capacity Corridor	1	0	0	0	1	0	2
Alternative 75	Add Turn Lanes to E Lincoln Way between Bell Avenue and MPO Boundary	0	2	0	0	3	0	5
Alternative 76	Pave 265th Street and 530th Avenue for Connectivity	1	2	0	0	1	0	4
Alternative 77	Create Southwest Collector by Paving Existing Gravel Roads south of US 30 between County Line and State Ave	3	2	2	0	0	0	7

Alternative 1 **Extend Bloomington Road to 500th Ave. from George W. Carver Ave.**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	2	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	-2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score **1**



Alternative 2 **500th Avenue Pave and Reconstruct from W. Lincoln Way to Mortensen Road**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score **6**

Alternative 3 **Extend Mortensen Road from 500th Ave. to Miller Ave.**

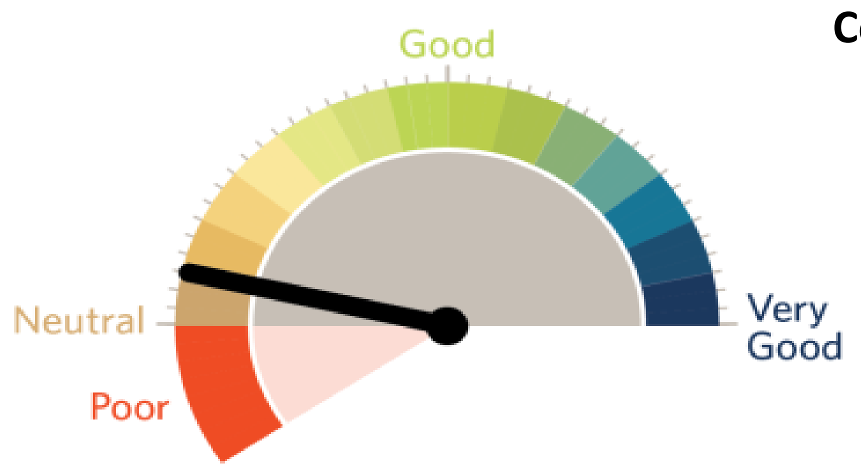
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	1	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 5

Alternative 4 **Extend Cottonwood from State Ave. to University Blvd.**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

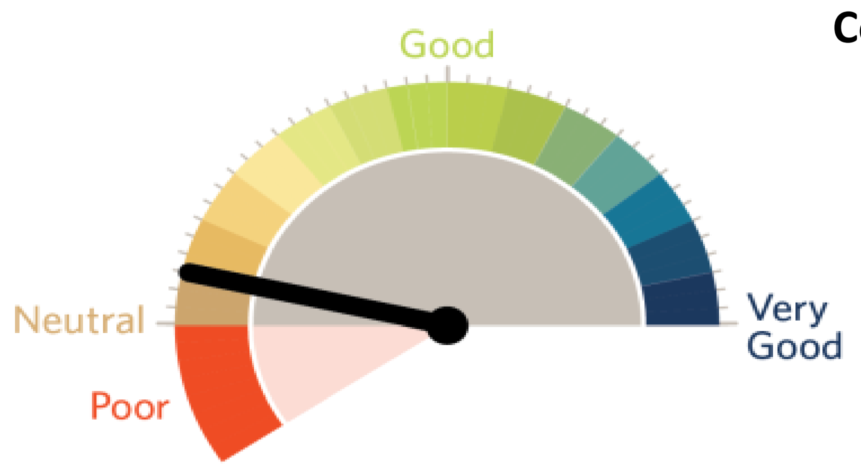
Composite Score 1



Alternative 5 Zumwalt Station Road/ Oakwood Road Realignment- 510th Ave. to Worle Ln.

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 1



Alternative 6 **Widen S. Dakota Ave. to 5 Lanes from Lincoln Way to Mortensen Road**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score **9**

Alternative 10.A Convert the State Ave. /Mortensen Rd. Intersection to a Roundabout

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	1	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 9

Alternative 10.B Add a Traffic Signal and Turn Lanes at the State Ave. /Mortensen Rd. Intersection

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	1	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 8

Alternative 11 Widen N. Dakota to 3 lanes with railroad grade separation - Ontario Street to 215th Street

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	2	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 6

Alternative 12.A Convert Stange Rd./13th Street intersection to a roundabout

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	1	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	1	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 8

Alternative 12.B Add turn lanes at Stange Rd./13th Street intersection

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	1	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 8

Alternative 13 Haber Rd. Realignment and Widening- Pammel Dr. to 13th Street

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 3

Alternative 14 University Blvd./ 6th Street Intersection Improvements for Bicycles and Pedestrians

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 9

Alternative 15 Grand Ave./ 20th Street Intersection Improvements

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 8

Alternative 16.B Add Turn Lanes at Grand Ave./ 13th Street Intersection

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	1	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 7

Alternative 18 Construct a Duff Ave. Underpass at Union Pacific Railroad

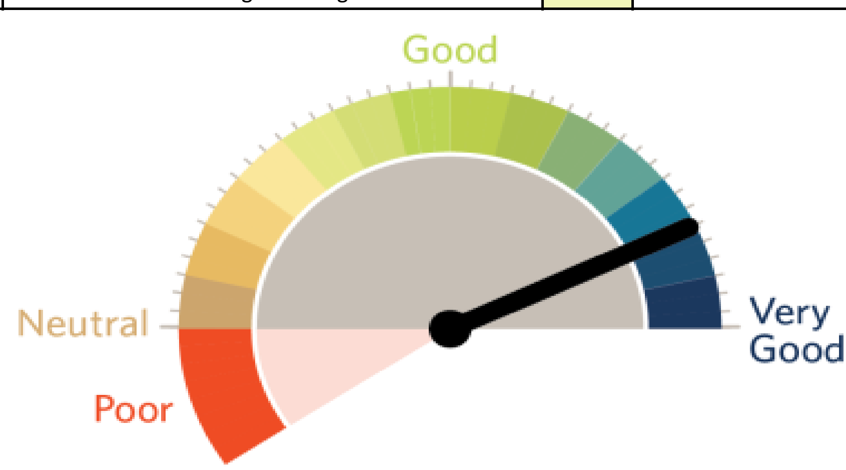
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 4

Alternative 19.A Convert Lincoln Way to a 3-lane with bike lanes between Gilcrest Ave. and Duff Ave.

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 12



Alternative 19.B Widen Lincoln Way to a 5-lane with a Median at Clark/Walnut intersection

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	2	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 10

Alternative 20 Widen S. 16th Street to 3 lanes from University Blvd. to Grand Ave. Extension

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	1	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	2	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 6

Alternative 21 **Extend Grand Ave as a 3-lane street from S. 16th to Airport Rd.**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	2	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 8

Alternative 22 Widen S. Duff Ave. to 3 lanes-Jewel Dr. to Ken Maril Rd.

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	2	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 9

Alternative 23 Reconstruct and Extend Freel Dr. 2-lane to Dayton Ave.

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	2	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 4

Alternative 25.A Extend Bloomington Rd. as a 2-lane from Grand Ave. to 570th Ave. Improve Stagecoach Rd from Riverside to Bloomington Rd

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	2	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	-2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 3

Alternative 25.B Bloomington Rd. Extension- 2 lane Grand Ave. to new I-35 interchange. Improve Stagecoach Rd from Riverside to Bloomington Rd

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	2	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	-2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 3

Alternative 26.B Extend Cherry Ave. between S 5th St and S 16th Street through Creek Floodway

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 2

Alternative 28.B Ontario St. - Hyland Ave. to N. Dakota Ave.: Remove Parking, Convert to 3-lane

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	-2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 9

Alternative 29 Lincoln Way/ Duff Avenue Intersection Improvements- Restripe for dedicated east-west left-turn lanes

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 7

Alternative 32.B Widen Lincoln Way to 3-lanes plus bike lane - X Ave. to 500th Ave

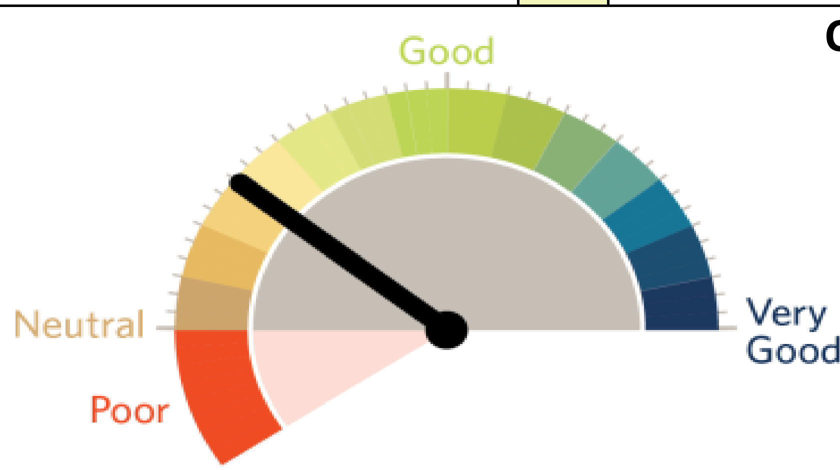
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 7

Alternative 33 **Regional Connection to Gilbert via 500th Ave/Highway 30 to western Gilbert limits (intersection improvements). New interchange at 500th/Hwy 30**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

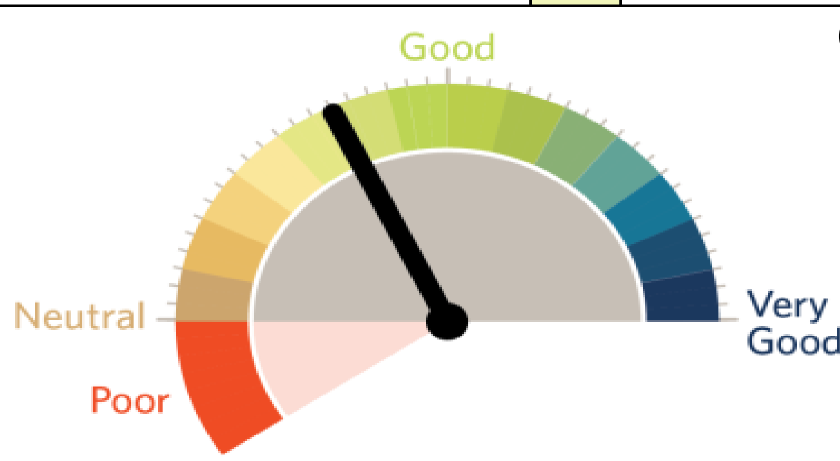
Composite Score 3



Alternative 34 180th Street- Grant Ave to Dayton, Dayton from 180th to 190th, and 190th from Dayton to I-35: Pave as 2-lane road and paved shoulders and turn lanes at key intersections

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 5



Alternative 42 Extend Billy Sunday/ S 18th with bridge to Dayton

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 3

Alternative 43 Extend Ken Maril Rd to connect S. Duff to Dayton

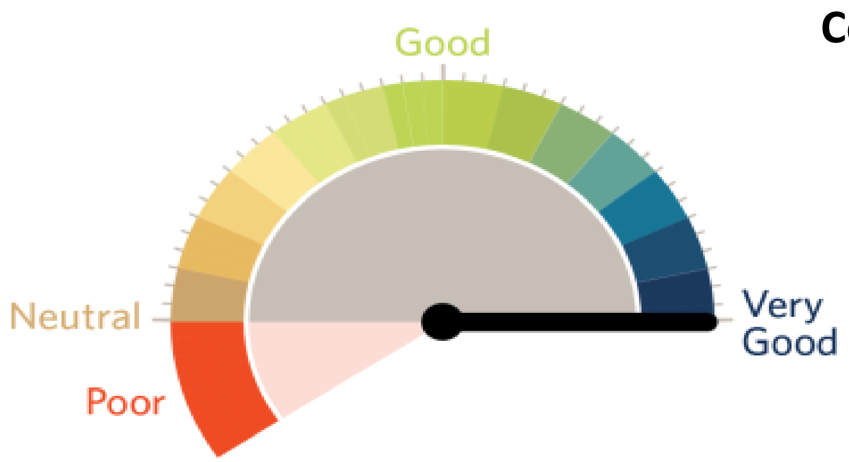
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score -1

Alternative 44.A Provide Improved Access Control and Safety Improvments along S Duff between S 16th and Lincoln Way

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	2	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 14



Alternative 49 Extend 190th St between Grant Ave and I-35 Interchange

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	-2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score -1

Alternative 50.A Widen S 16th to 5-Lanes between Grand and Duff

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	2	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 5

Alternative 51 Widen Stange Rd to 5 lanes from 20th St to 13th St

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	1	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	2	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 6

Alternative 52.A Add Turn Lanes at Key Intersections along Dayton between 13th and Riverside Rd

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 5

Alternative 52.B Widen Dayton to 3 Lanes between 13th and Riverside Rd

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 5

Alternative 53.A 13th Street- Duff to Dayton- add turn lanes at key intersections

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	2	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 5

Alternative 53.B 13th Street- Duff to Dayton- convert to 3-lane section with bike lanes

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 10

Alternative 54 Widen I-35 to 6 Lanes south of US30

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	2	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 7

Alternative 56 Add Turn Lanes to George Washington Carver between Stange and Bloomington

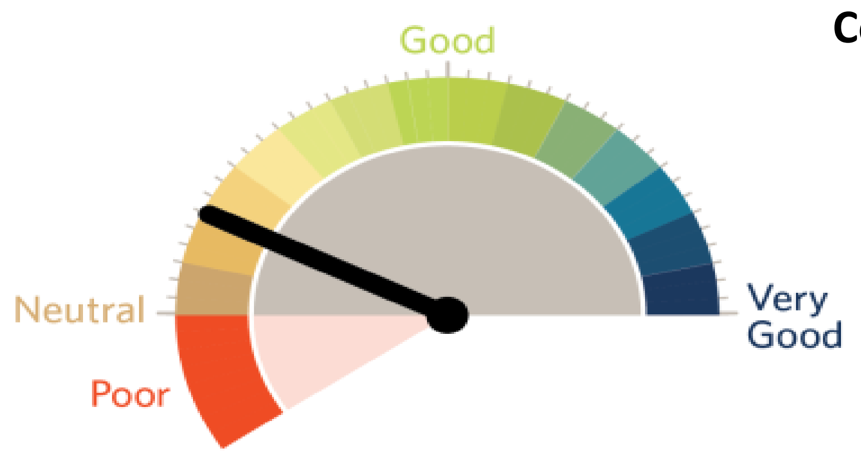
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 4

Alternative 58 Add turn lanes at key locations on Riverside between Grand and Dayton

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 2



Alternative 59   Add Turn Lanes to S Dakota south of US 30 to Zumwalt Station Rd

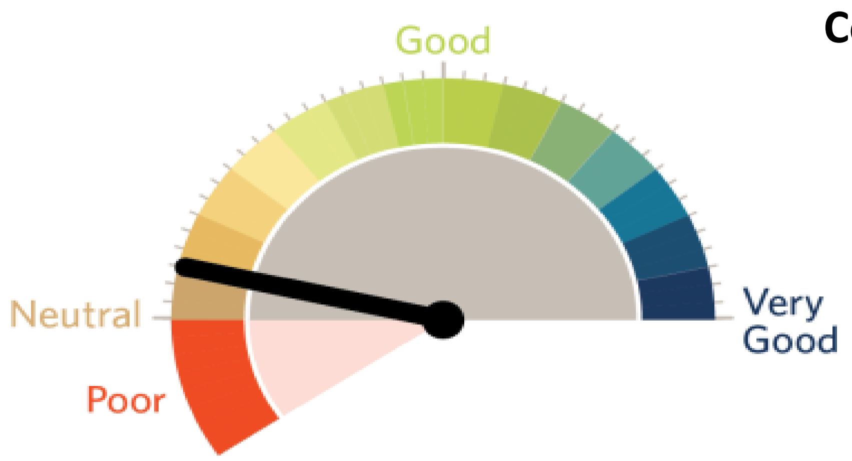
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score   2

Alternative 60 Extend University to Bruner/Stange (South of University Village)

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	-2	
3B	VMT / VHT Estimation	2	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	-2	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 1



Alternative 62 New connection and railroad grade separation- 3 lanes Cameron School Rd to Grant Ave

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 3

Alternative 65 Adaptive Traffic Signal Technology: Lincoln Way- Hyland Ave to Beach Ave.

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	1	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 10

Alternative 66 Adaptive Traffic Signal Technology: S. Duff Ave- S. 3rd St to Airport Rd.

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 11

Alternative 67 Adaptive Traffic Signal Technology: University Drive: S. 4th St to Highway 30

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	1	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 6

Alternative 68 Adaptive Traffic Signal Technology: Lincoln Way- University Dr. to Grand Ave.

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	1	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 10

Alternative 69 Adaptive Traffic Signal Technology: Lincoln Way- Grand Ave. to Duff Ave.

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	1	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 10

Alternative 70   Adaptive Traffic Signal Technology: Grand Ave- 6th St. to 30th St.

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	2	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score   11

Alternative 71 Lincoln Way/ Beach Ave. Traffic Signal Improvement/ Transit Priority

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 8

Alternative 72 West Ames to Ankeny High Capacity Corridor

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 2

Alternative 75 Add Turn Lanes to E Lincoln Way between Bell Avenue and MPO Boundary

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	2	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 5

Alternative 76 Pave 265th Street and 530th Avenue for Connectivity

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 4

Alternative 77 Create Southwest Collector by Paving Existing Gravel Roads south of US 30 between County Line and State Ave

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	1	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	1	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	2	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and becomes more focused during project planning and development.		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transit Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 7

BikePed Project Scorecards

Bike Lanes		Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Composite Score
BL 1	Ontario Bike Lanes, North Dakota to Stange	2	2	0	5	3	0	12
BL 2	24th St Bike Lanes, Stange to Duff	2	2	0	5	2	0	11
BL 3	Stange Bike Lanes, 24th St to Bloomington	2	2	0	5	1	0	10
BL 4	Hoover Bike Lanes, 30th St to Bloomington	3	2	0	5	2	0	12
BL 5	Bloomington Bike Lanes, GW Carver to Grand	2	2	0	7	1	0	12
BL 6	30th St Bike Lanes, Hoover to Grand	3	2	0	7	3	0	15
BL 7	North Duff Bike Lanes, Lincoln Way to Grand	3	4	0	5	3	0	15
BL 8	East 13th Street Bike Lanes, Orchard Drive to Dayton Ave	3	2	0	5	2	0	12
BL 9	6th Street Bike Lanes, Grand to Duff	3	4	0	5	3	0	15
BL 10	Lincoln Way Bike Lanes, University Dr to Dayton	3	4	0	7	5	0	19
BL 11	3rd St-4th St Bike Lanes, Beach to Duff	2	2	0	7	2	0	13
BL 12	5th St Bike Lanes, Walnut to Duff	3	2	0	7	3	0	15
BL 13	Mortenson Bike Lanes, Welch to University Dr	2	4	0	7	1	0	14
BL 14	20th St Bike Lanes, Ames High to Grand	3	2	0	5	3	0	13
BL 15	Clark / Walnut Bike Lanes, South 3rd to 6th St	2	2	0	5	2	0	11
BL 16	Welch Bike Lanes, Mortenson to Union Drive	3	2	0	7	5	0	17
BL 17	13th Street, Stange to Orchard Dr	2	2	0	7	3	0	14
Shared-Use Path/Trails								
SUP 1	West Lincoln Way Side Path to MPO Boundary	4	0	0	7	1	0	12
SUP 2	South Dakota Side Path, fill in gap south of Lincoln Way	4	2	0	7	1	0	14
SUP 3	West Mortenson Side Path, fill in gap west of South Dakota	4	0	0	7	3	0	14
SUP 4	Paths to connect roadway gaps south of Lincoln Way	4	0	0	7	1	0	12
SUP 5	Wilder-Ontario Side Path Connection	4	0	0	5	1	0	10
SUP 6	Trail connection between Mortenson and Campustown south of Lincoln Way	4	0	0	7	3	0	14
SUP 7	North Dakota Side Path (Paved Shoulder is Alternative)	4	0	0	7	3	0	14
SUP 8	George Washington Carver Sidepath to Gilbert (Paved Shoulder is Alternative)	4	0	0	5	3	0	12
SUP 9	S Dakota Side Path, MPO boundary to US 30 (Paved Shoulder is Alternative)	3	0	0	5	1	0	9
SUP 10	Oakwood Side Path	4	0	0	7	3	0	14
SUP 11	Zumwalt Station to Oakwood Trail	4	0	0	5	1	0	10
SUP 12	S State St Side Path between Oakwood and Mortenson	4	0	0	7	1	0	12
SUP 13	Zumwalt to Cottonwood Trail Connection	4	0	0	5	1	0	10
SUP 14	Worrell Creek Trail with US 30 Crossing (Identify Grade Separation)	4	0	0	7	1	0	12
SUP 15	Vet med - University Trail Connection	4	0	0	5	3	0	12
SUP 16	Pave existing gravel trail between South 4th St to Airport Rd	3	0	0	7	3	0	13
SUP 17	Cottonwood Trail Extension south of Research Park	4	0	0	5	3	0	12
SUP 18	S Unviersity Side Path to MPO Boundary (Paved Shoulder is Alternative)	4	0	0	5	3	0	12
SUP 19	S Duff Side Path between MPO Boundary and Airport Rd (Paved Shoulder is Alternative)	4	0	0	7	5	0	16
Sup 20	S Duff Side Path between S 5th Street and Lincoln Way	4	2	0	7	3	0	16

SUP 21	Grand Ave Side Path between Lincoln Way and 6th Street	4	0	0	7	3	0	14
SUP 22	Recreational Trail to reactor woods	4	0	0	7	1	0	12
SUP 23	Recreational Trail near aquatic center	4	0	0	7	2	0	13
SUP 24	Trail Connection north of Hoover Ave from Bloomington to Ada Hayden	4	0	0	5	1	0	10
SUP 25	South Skunk River Trail extension to MPO Boundary	4	0	0	7	1	0	12
SUP 26	Riverside Rd Trail (Paved Shoulder is Alternative)	4	0	0	5	1	0	10
SUP 27	Dayton Trail north of 13th Street (Paved Shoulder is Alternative)	4	0	0	5	3	0	12
SUP 28	South Dayton Side Path between S 16th St and Lincoln Way	4	0	0	7	3	0	14
SUP 29	E 13th St Trail Extension past I-35	4	0	0	5	3	0	12
SUP 30	Lincolnway Trail to MPO Boundary (Paved Shoulder is Alternative)	3	0	0	7	3	0	13
SUP 31	Skunk River - South Duff Trail Connection	4	0	0	7	1	0	12
SUP 32	Stange Road trail extension to Bloomington Trail	4	0	0	7	1	0	12
SUP 33	Hyland-Hayward South Campus Trail Connection	4	0	0	7	1	0	12
SUP 34	Pammel Woods Recreational Trail	4	0	0	5	3	0	12
	Sharrows/Bike Boulevards							
SH 1	Sharrows on South State, Mortenson and Lincoln Way	3	1	0	7	1	0	12
SH 2	East-West Bike Boulevard South of Lincoln Way between South Dakota and Campustown	3	1	0	7	3	0	14
SH 3	Sharrows Along Wilder, Mortenson to Lincoln Way	3	1	0	7	2	0	13
SH 4	Sharrows / Bike Boulevard north of Lincoln Way between North Dakota and Iowa State Campus	3	1	0	7	5	0	16
SH 5	Sharrows along Beach/ Wallace/ University between Lincoln Way and Stange	3	3	0	7	3	0	16
SH 6	6th St sharrows between campus and downtown bike lanes	2	3	0	7	3	0	15
SH 7	Northwestern Bike Boulevard, Grand to 30th St	3	1	0	7	4	0	15
SH 8	16th St Sharrows / Bike Boulevard, trail south of High School to Meadowlane Ave	3	1	0	5	1	0	10
SH 9	S Walnut Bike Boulevard, S 5th to S 3rd	3	1	0	7	3	0	14
SH 10	N Clark Sharrows / Bike Boulevard, Main St to 24th St	3	3	0	7	3	0	16
SH 11	20th Street Sharrows, Grand to Duff	3	1	0	7	3	0	14
SH 12	George Washington Carver Sharrows, 24th to Bloomington	3	1	0	7	1	0	12
SH 13	Main St Sharrows, Grand Ave to Duff	3	1	0	7	3	0	14
SH 14	Kellog Sharrows, S 3rd to 6th St	3	3	0	7	3	0	16
SH 15	Ash Ave Sharrows, current bike lane end to Lincoln Way	3	1	0	7	3	0	14
SH 16	Beach Ave Sharrows, Mortenson to Lincoln Way	2	1	0	7	3	0	13
SH 17	6th St Sharrows east of Duff	3	1	0	5	3	0	12
SH 18	Cessna St Bike Boulevard	3	1	0	5	1	0	10
SH 19	Oakland St between Trail and Hyland Ave	3	1	0	7	3	0	14

BL 1 **Ontario Bike Lanes, North Dakota to Stange**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

BL 2 **24th St Bike Lanes, Stange to Duff**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 11

BL 3 **Stange Bike Lanes, 24th St to Bloomington**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 10

BL 4 **Hoover Bike Lanes, 30th St to Bloomington**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

BL 5 **Bloomington Bike Lanes, GW Carver to Grand**

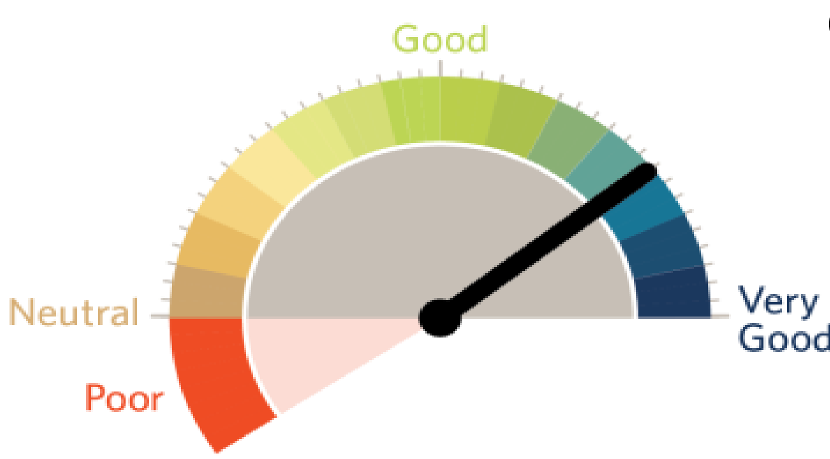
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

BL 6 **30th St Bike Lanes, Hoover to Grand**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 15



BL 7 **North Duff Bike Lanes, Lincoln Way to Grand**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 15

BL 8 **East 13th Street Bike Lanes, Orchard Drive to Dayton Ave**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

BL 9 **6th Street Bike Lanes, Grand to Duff**

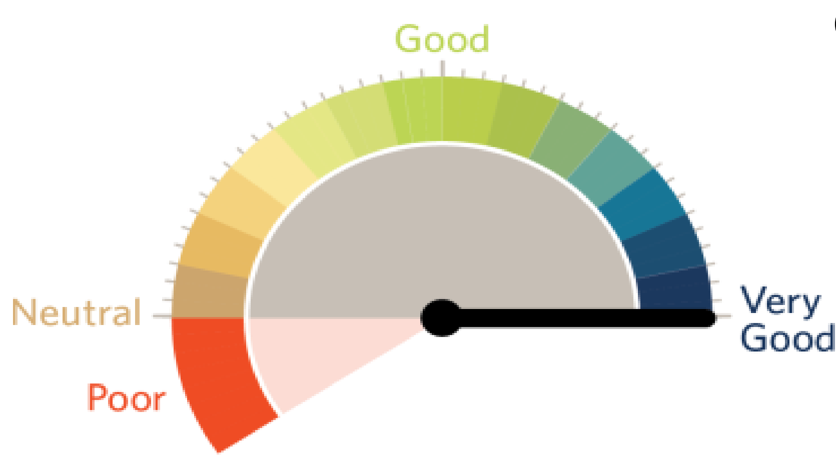
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 15

BL 10 **Lincoln Way Bike Lanes, University Dr to Dayton**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 19



BL 11 **3rd St-4th St Bike Lanes, Beach to Duff**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 13

BL 12 **5th St Bike Lanes, Walnut to Duff**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 15

BL 13 **Mortenson Bike Lanes, Welch to University Dr**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

BL 14 **20th St Bike Lanes, Ames High to Grand**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 13

BL 15 **Clark / Walnut Bike Lanes, South 3rd to 6th St**

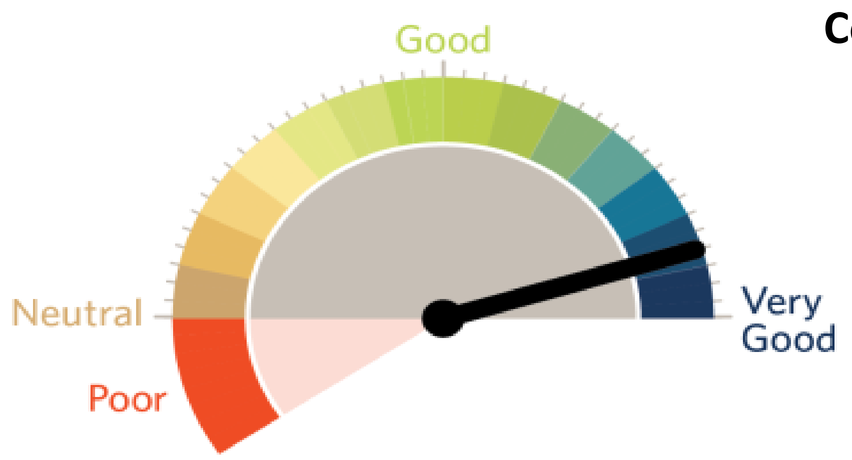
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 11

BL 16 **Welch Bike Lanes, Mortenson to Union Drive**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 17



BL 17 **13th Street, Stange to Orchard Dr**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	2	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SUP 1 **West Lincoln Way Side Path to MPO Boundary**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 2 **South Dakota Side Path, fill in gap south of Lincoln Way**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SUP 3 **West Mortenson Side Path, fill in gap west of South Dakota**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SUP 4 **Paths to connect roadway gaps south of Lincoln Way**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 5 **Wilder-Ontario Side Path Connection**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 10

SUP 6 **Trail connection between Mortenson and Campustown south of Lincoln Way**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SUP 7 **North Dakota Side Path (Paved Shoulder is Alternative)**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SUP 8 **George Washington Carver Sidepath to Gilbert (Paved Shoulder is Alternative)**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 9 **S Dakota Side Path, MPO boundary to US 30 (Paved Shoulder is Alternative)**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 9

SUP 10 **Oakwood Side Path**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SUP 11 **Zumwalt Station to Oakwood Trail**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 10

SUP 12 **S State St Side Path between Oakwood and Mortenson**

2	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 13 **Zumwalt to Cottonwood Trail Connection**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 10

SUP 14 **Worrell Creek Trail with US 30 Crossing (Identify Grade Separation)**

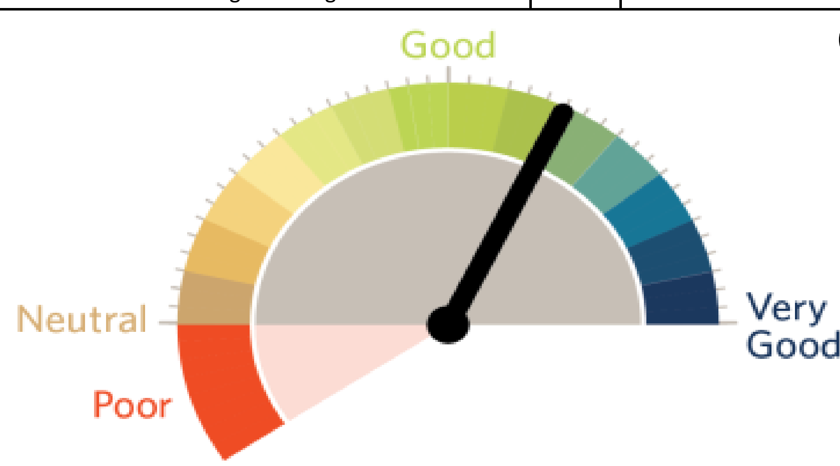
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 15 **Vet med - University Trail Connection**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12



SUP 16 **Pave existing gravel trail between South 4th St to Airport Rd**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 13

SUP 17 **Cottonwood Trail Extension south of Research Park**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 18 **S Unviersity Side Path to MPO Boundary (Paved Shoulder is Alternative)**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 19 **S Duff Side Path between MPO Boundary and Airport Rd (Paved Shoulder is Alternative)**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 16

SUP 20 **S Duff Side Path between S 5th Street and Lincoln Way**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 16

SUP 21 **Grand Ave Side Path between Lincoln Way and 6th Street**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SUP 22 **Recreational Trail to reactor woods**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 23 **Recreational Trail near aquatic center**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 13

SUP 24 **Trail Connection north of Hoover Ave from Bloomington to Ada Hayden**

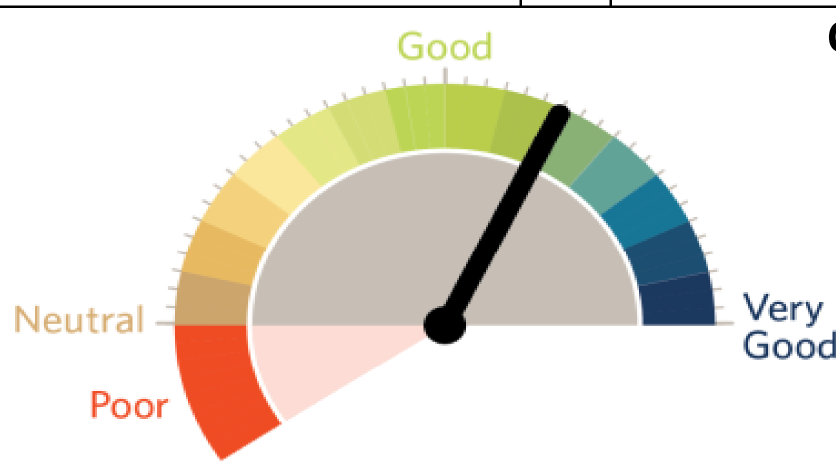
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 10

SUP 25 **South Skunk River Trail extension to MPO Boundary**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12



SUP 26 **Ontario Bike Lanes, North Dakota to Stange**

46	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 10

SUP 27 **Dayton Trail north of 13th Street (Paved Shoulder is Alternative)**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 28 **South Dayton Side Path between S 16th St and Lincoln Way**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SUP 29 **Ontario Bike Lanes, North Dakota to Stange**

49	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 30 **Lincolnway Trail to MPO Boundary (Paved Shoulder is Alternative)**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 13

SUP 31 **Skunk River - South Duff Trail Connection**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 32 **Ontario Bike Lanes, North Dakota to Stange**

52	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 33 **Hyland-Hayward South Campus Trail Connection**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SUP 34 **Pammel Woods Recreational Trail**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SH 1 **Sharrows on South State, Mortenson and Lincoln Way**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SH 2 **East-West Bike Boulevard South of Lincoln Way between South Dakota and Campustown**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SH 3 **Sharrows Along Wilder, Mortenson to Lincoln Way**

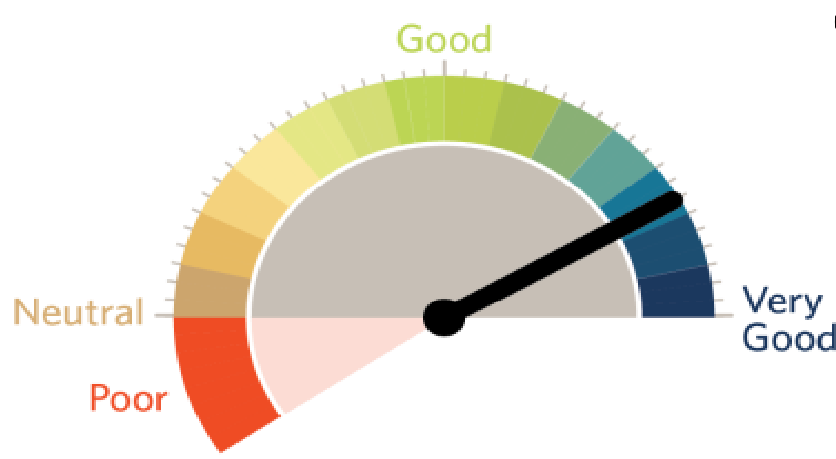
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 13

SH 4 **Sharrows / Bike Boulevard north of Lincoln Way between North Dakota and Iowa State Campus**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

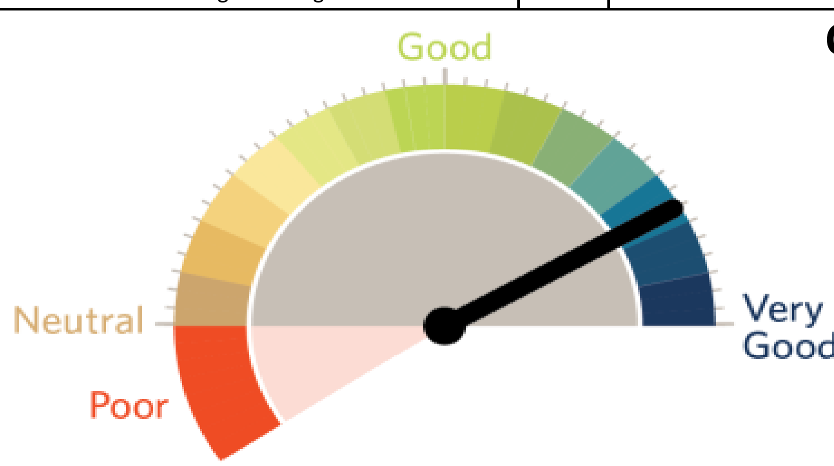
Composite Score 16



SH 5 **Sharrows along Beach/ Wallace/ University between Lincoln Way and Stange**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 16



SH 6 **6th St sharrows between campus and downtown bike lanes**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 15

SH 7 **Northwestern Bike Boulevard, Grand to 30th St**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	1	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 15

SH 8 **16th St Sharrows / Bike Boulevard, trail south of High School to Meadowlane Ave**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 10

SH 9 **S Walnut Bike Boulevard, S 5th to S 3rd**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SH 10 **N Clark Sharrows / Bike Boulevard, Main St to 24th St**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 16

SH 11 **20th Street Sharrows, Grand to Duff**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SH 12 **George Washington Carver Sharrows, 24th to Bloomington**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SH 13 **Main St Sharrows, Grand Ave to Duff**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SH 14 **Kellog Sharrows, S 3rd to 6th St**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	2	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 16

SH 15 **Ash Ave Sharrows, current bike lane end to Lincoln Way**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

SH 16 **Beach Ave Sharrows, Mortenson to Lincoln Way**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 13

SH 17 **6th St Sharrows east of Duff**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 12

SH 18 **Cessna St Bike Boulevard**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 10

SH 19 **Oakland St between Trail and Hyland Ave**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	-	
1C	Transportation Management Assessment	-	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	1	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of overall LRTP, and		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	2	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	2	
4E	Transity Density Screening	-	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	-	
5B	I-35 Freight Assessment	-	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	1	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	-	
6B	NBI Ratings	-	
6C	Average Fleet Age	-	

Composite Score 14

Transit Project Scorecards

	Cyride Short-term (1-10 years)	Goal 1	Goal 2	Goal 3	Goal 4	Goal 5	Goal 6	Composite Score
Alternative 1	S. 16th Corridor Service Improvements	3	0	0	3	4	0	10
Alternative 2	Mortensen/ State Street Corridor Service Improvements	3	0	0	5	4	0	12
Alternative 3	Orange Route Corridor Service Improvements	3	0	0	5	2	0	10
Alternative 4	Automatic Passenger Counters	2	0	0	0	0	0	2
Alternative 5	Brown Route North/South Corridor Service Improvements	3	0	0	5	2	0	10
Alternative 6	Buses (Expansion/ Replacement)	2	0	0	0	0	0	2
Alternative 7	Bus stop improvements	2	0	0	0	0	0	2
Alternative 8	S. Duff Corridor Service Improvements	4	0	0	6	2	0	12
Alternative 9	Airport Road Corridor Service Improvements	4	0	0	6	2	0	12
Alternative 10	CyRide Facility Expansion	1	0	0	0	0	0	1
CyRide Long-Term (11-25 years)								
Alternative 11	Farebox system	2	0	0	0	0	0	2
Alternative 12	Intermodal Circulator	5	0	0	6	2	0	13
Alternative 13	North/South Dakota Corridor Service Improvements	4	0	0	6	4	0	14
Alternative 18	New transit service between North Ridge/ Somerset/ Valley View via Stange Rd/Bloomington Rd/ GW Carver Ave	4	0	0	6	1	0	11
Alternative 22	Intermodal facility Improvements	1	0	0	0	1	0	2
Alternative 23	Automatic Vehicle Location Technology	2	0	0	0	0	0	2
Regional Transit Alternatives								
Alternative 24	Regional commuter study (North Ames, Nevada, Gilbert, Boone, etc.)	0	0	0	0	1	0	1
Alternative 27	Des Moines to Ames Transit Corridor Improvements	0	0	0	0	2	0	2
Alternative 28	Bus Thruway- Ames to Amtrak in Osceola	0	0	0	0	0	0	0

Alternative 1 **S. 16th Corridor Service Improvements**

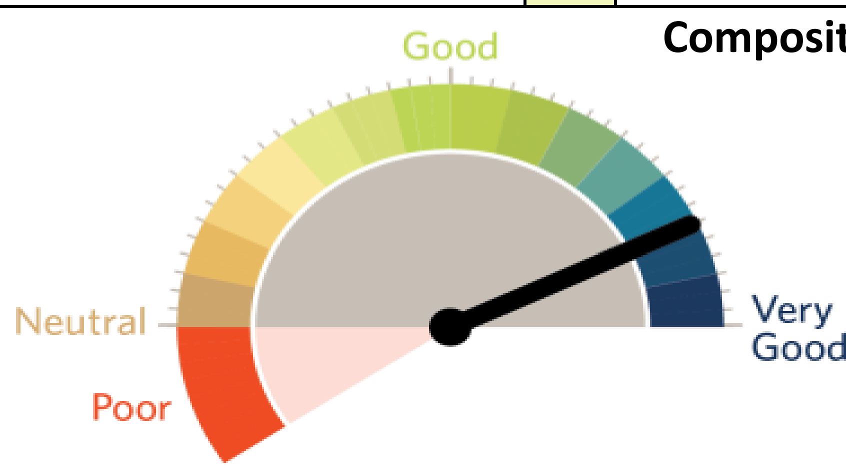
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	2	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 10

Alternative 2 **Mortensen/ State Street Corridor Service Improvements**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	2	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 12



Alternative 3 **Orange Route Corridor Service Improvements**

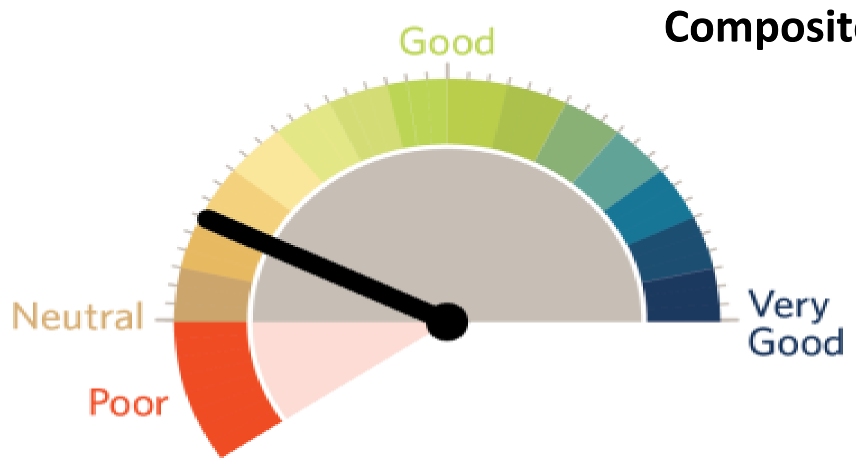
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	2	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 10

Alternative 4 **Automatic Passenger Counters**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 2



Alternative 5 **Brown Route North/South Corridor Service Improvements**

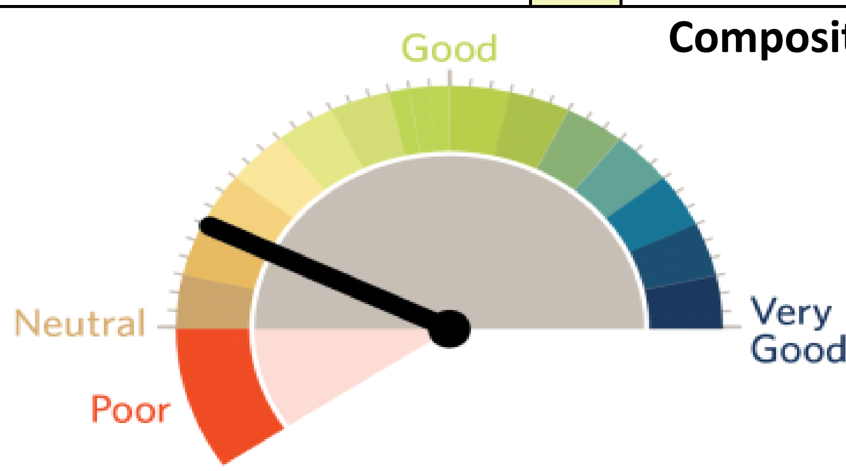
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	1	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	1	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	2	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 10

Alternative 6 **Buses (Expansion/ Replacement)**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

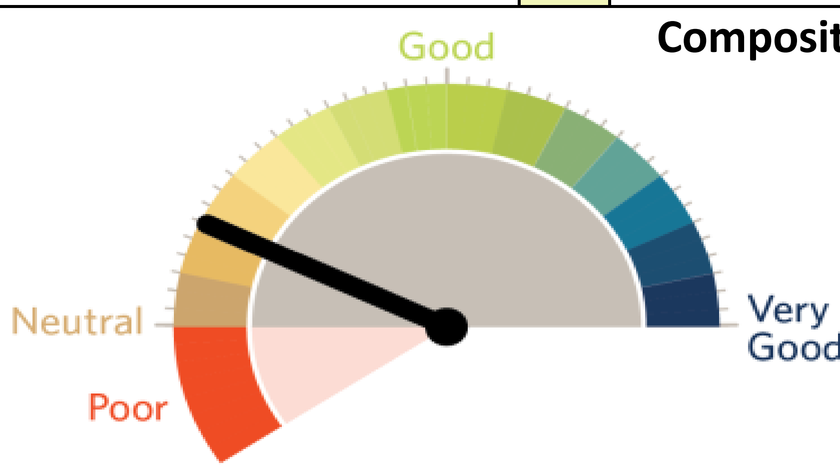
Composite Score 2



Alternative 7 **Bus stop improvements**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

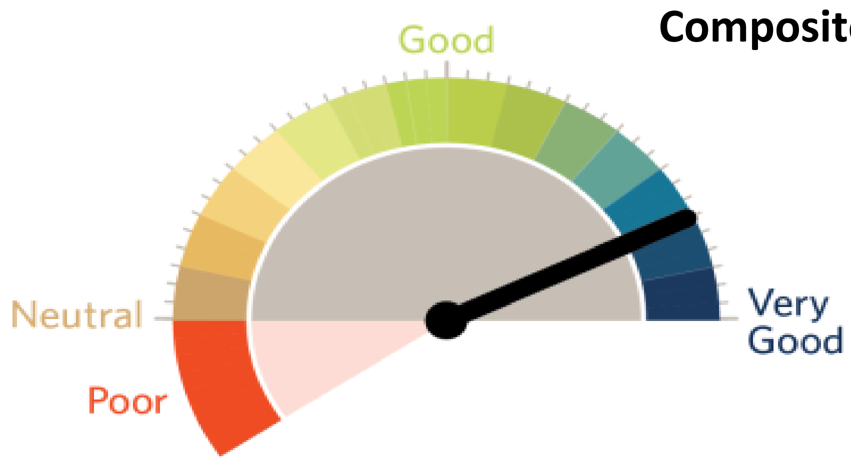
Composite Score 2



Alternative 8 **S. Duff Corridor Service Improvements**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	2	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	2	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

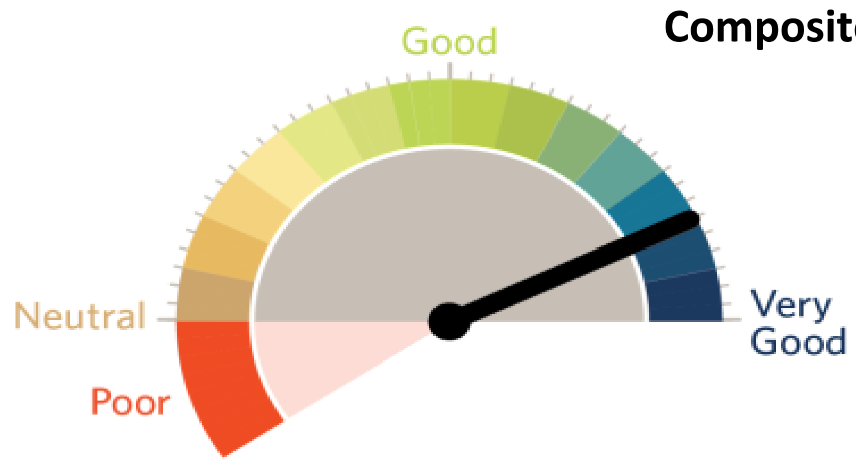
Composite Score 12



Alternative 9 Airport Road Corridor Service Improvements

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	2	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	2	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 12



Alternative 10 CyRide Facility Expansion

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 1

Alternative 11 **Farebox system**

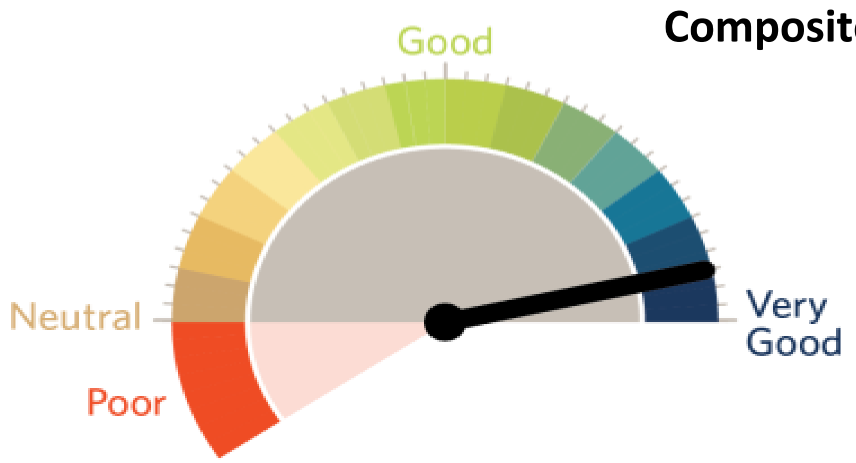
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 2

Alternative 12 Intermodal Circulator

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	2	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	2	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	2	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 13



Alternative 13 **North/South Dakota Corridor Service Improvements**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	2	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	2	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	2	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 14

Alternative 18 **New transit service between North Ridge/ Somerset/ Valley View via Stange Rd/Bloomington Rd/ GW Carver A**

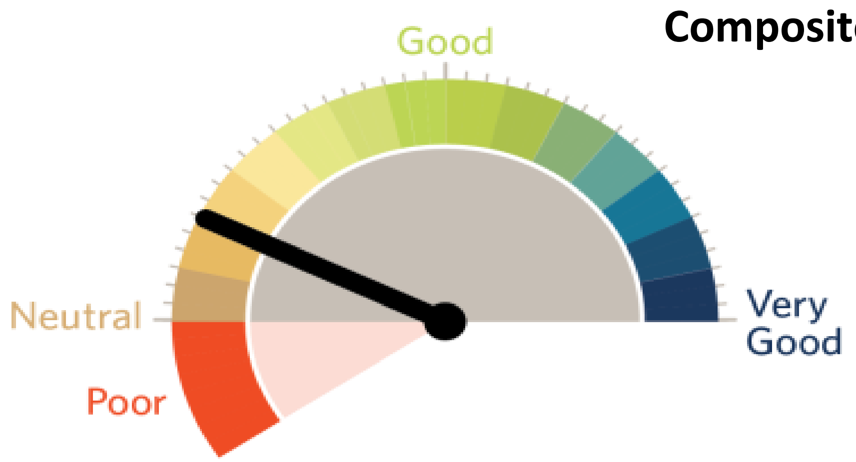
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	1	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	2	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	2	
4C	Environmental Justice Assessment	2	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	2	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score **11**

Alternative 22 **Intermodal facility Improvements**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	1	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score **2**



Alternative 23 Automatic Vehicle Location Technology

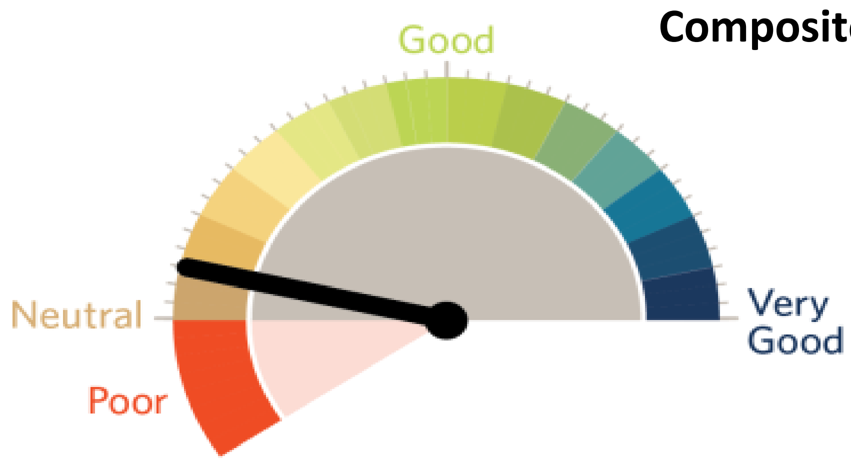
LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	2	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 2

Alternative 24 Regional commuter study (North Ames, Nevada, Gilbert, Boone, etc.)

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	1	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

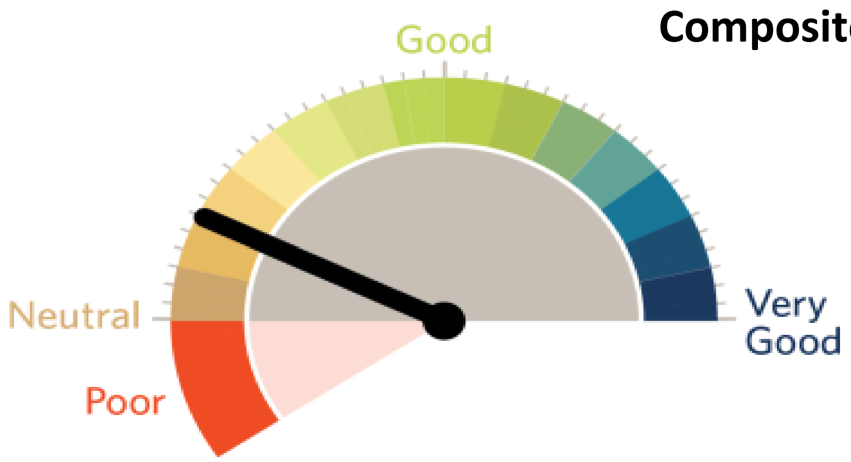
Composite Score 1



Alternative 27   Des Moines to Ames Transit Corridor Improvements

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	2	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

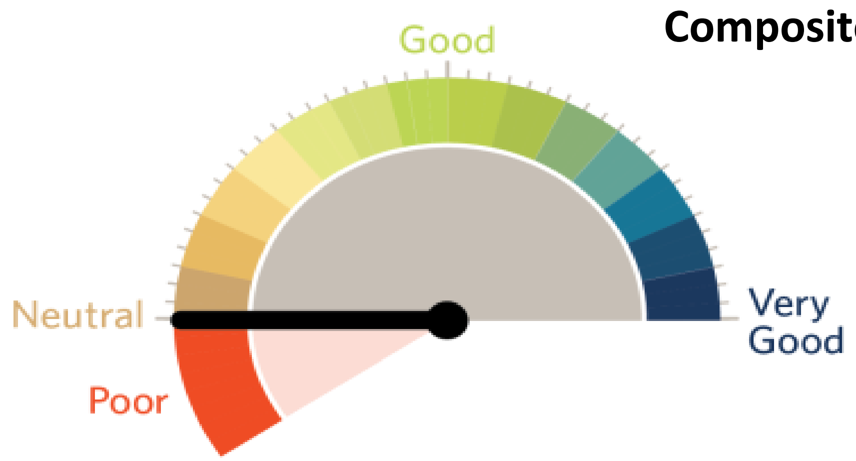
Composite Score 2



Alternative 28 **Bus Thruway- Ames to Amtrak in Osceola**

LRTP Project Performance Objective	Performance Method	Score	Scoring Discussion
Goal 1: Provide a connected transportation system that offers efficient and reliable mobility options for all modes of travel.			
1A	Multimodal Connectivity Ranking	0	
1B	Vehicular Level of Service	0	
1C	Transportation Management Assessment	0	
1D	System Connectivity Assessment	0	
1E	Not Measured		
Goal 2: Provide a safe transportation system.			
2A	Safety Assessment	0	
2B	Qualitative Safety Assessment	0	
2C	Qualitative Security Assessment	0	
Goal 3: Consider and mitigate the impacts of the transportation system on the natural and built environment.			
3A	Environmental Screening	0	
3B	VMT / VHT Estimation	0	
3C	No way to measure and compare in LRTP on an alternative basis. Coordination is part of		
Goal 4: Provide an accessible transportation system that fits within the context of its surroundings and preserves community character.			
4A	CSS Assessment	0	
4B	Bicycle / Pedestrian / Transit Screening	0	
4C	Environmental Justice Assessment	0	
4D	Active Transportation Screening	0	
4E	Transity Density Screening	0	
Goal 5: Provide a transportation system that supports the regional economy and efficiently moves goods.			
5A	Freight Route Assessment	0	
5B	I-35 Freight Assessment	0	
5C	Employment / Retail Connectivity Assessment	0	
5D	K-12 School Connectivity Assessment	0	
5E	Not Measured		
5F	Travel Benefits per Dollar Spent	0	
Goal 6: Maintain transportation infrastructure in a state-of-good-repair.			
6A	PCI	0	
6B	NBI Ratings	0	
6C	Average Fleet Age	0	

Composite Score 0



Alternatives Analysis Phase	Final LRTP Phase	Project Description
Project ID	Project ID	
SUP 1	OFF- 1	West Lincoln Way Sidepath to MPO Boundary
SUP 3	OFF- 2	West Mortensen Side Path, fill in gap west of South Dakota
SUP 4	OFF- 3	Paths to connect roadway gaps south of Lincoln Way
SUP 5	OFF- 4	Wilder-Ontario Side Path Connection
SUP 6	OFF- 5	Trail connection between Beedle Mortensen and Campustown south of Lincoln Way Intermodal Facility
SUP 7	OFF- 6	North Dakota Side Path
SUP 8	OFF- 7	George Washington Carver Side path or bike lanes on shoulder to Gilbert
SUP 9	OFF- 8	S Dakota Side Path, MPO boundary to US 30 (Paved Shoulder is Alternative)
SUP 11	OFF- 9	Zumwalt Station to Oakwood Trail
SUP 12	OFF- 10	S State St Side Path between Oakwood and Mortensen
SUP 13	OFF- 11	Zumwalt to Cottonwood Trail Connection
SUP 14	OFF- 12	Worrell Creek Trail with US 30 Crossing (Identify Grade Separation)
SUP 15	OFF- 13	Vet med - University Trail Connection to Airport Rd
SUP 16	OFF- 14	Pave existing gravel trail between South 4th St to SUP 15
SUP 17	OFF- 15	Cottonwood On-Street Facility, Cedar Lane to University
SUP 18	OFF- 16	Research Park / University Blvd Trail connection to Heart of Iowa trail (beyond MPO Boundary)
SUP 19	OFF- 17	S Duff Side Path or Improved Shoulders for Bikes between Ken Maril and Airport Rd
SUP 20	OFF- 18	S Duff Side Path between S 5th Street and Lincoln Way
SUP 21.A	OFF- 19	Grand Ave Side Path between Lincoln Way and 6th Street
SUP 21.B	OFF- 20	Grand Ave Side Path between 6th and 17th Street
SUP 22	OFF- 21	Recreational Trail Adjacent to Veenker Golf Course and Reactor Woods
SUP 23	OFF- 22	Recreational Trail near aquatic center
SUP 25	OFF- 24	South Skunk River Trail extension to MPO Boundary
SUP 26	OFF- 25	Riverside Rd Trail (Paved Shoulder is Alternative)
SUP 27	OFF- 26	Dayton Trail or Improved Shoulders north of 13th Street
SUP 28	OFF- 27	South Dayton Side Path between S 16th St and Lincoln Way
SUP 29	OFF- 28	E 13th St Trail or Paved Shoulders for Bikes Extension past I-35
SUP 30	OFF- 29	Lincoln Way Trail to MPO Boundary
SUP 31	OFF- 30	Skunk River - South Duff Trail Connection along Billy Sunday Rd.
SUP 33	OFF- 31	Hyland-Hayward South Campus Trail Connection

Alternatives Analysis Phase	Final LRTP Phase	Project Description
Project ID	Project ID	
SUP 34	OFF- 32	Pammel Woods Recreational Trail
SUP 35	OFF- 33	Squaw Creek Trail from Grand Avenue Extension to 4th Street
SUP 36	OFF- 34	Bloomington Road and Squaw Creek Trail connection to north MPO Boundary
SUP 37	OFF- 35	Onion Creek Trail connection to west MPO Boundary
SUP 38	OFF- 36	Cameron School Road sidepath to west MPO Boundary
SUP 39	OFF- 37	US 69 South Trail to MPO Boundary
SUP 40	OFF- 38	South Dakota / R38 Northbound Bike Connection between 240th Street and Mortensen.
SUP 41	OFF- 39	Skunk River Trail connection between soft-surfaced trails near Peterson Park to Ada Hayden Park. Continued connections north of MPO Boundary.
BL 1	ON- 1	Ontario On-Street Bike Treatment, North Dakota to Stange
BL 2	ON- 2	24th St On-Street Bike Treatment, Stange to Duff
BL 3	ON- 3	Stange Bike Lanes, 24th St to Bloomington
BL 4	ON- 4	Hoover On-Street Bike Treatment, 30th St to 24th St
BL 5	ON- 5	Bloomington On-Street Bike Treatment, George Washington Carver to Grand
BL 8.A	ON- 6	East 13th Street Bike Treatment, Ridgewood Ave to Meadowlane Ave
BL 8.B	ON- 7	East 13th Street On-Street Bike Treatment, Meadowlane Ave to Dayton Ave
BL 10.A	ON- 8	Lincoln Way Bike Lanes, University Dr to Grand Ave
BL10.B	ON- 9	Lincoln Way Bike Lanes, Grand Ave to Duff Ave
BL10.C	ON- 10	Lincoln Way Bike Lanes, Duff Ave to Dayton
BL 11	ON- 11	S 3rd St-S 4th St Widen for Bike Lanes, Grand to Duff
BL 12	ON- 12	5th St Sharrows, Walnut to Duff
BL 13	ON- 13	Mortensen Bike Lanes, Welch to University Dr
BL 14	ON- 14	20th St Bike Lanes, Ames High to Grand
BL 15	ON- 15	Clark / Walnut Bicycle Treatment, South 3rd to 6th Street
BL 16	ON- 16	Welch On-Street Bike Treatment, Mortensen to Union Drive
BL 17	ON- 17	13th Street, Stange to Ridgewood Ave
SH 1	ON- 18	Sharrows on South State, Mortensen and Lincoln Way
SH 2	ON- 19	East-West Bike Boulevard South of Lincoln Way between South Dakota and Campustown
SH 3	ON- 20	Sharrows Along Wilder, Mortensen to Lincoln Way
SH 4	ON- 21	On-Street connection north of Lincoln Way between North Dakota and Iowa State Campus

Alternatives Analysis Phase	Final LRTP Phase	Project Description
Project ID	Project ID	
SH 5	ON- 22	On-Street connection across Campus between Beach/Lincoln Way and Pammel/Stange
SH 6	ON- 23	6th St Bicycle Treatment between campus and downtown bike lanes
SH 8	ON- 24	N 16th St Bicycle Treatment, connects trail south of High School to Skunk River trail by Meadowlane Ave. Continues along Meadowlane to connect to East 13th St trail.
SH 9	ON- 25	S Walnut Bike Boulevard, S 5th to S 3rd
SH 11	ON- 26	20th Street Sharrows, Grand to Duff
SH 12	ON- 27	George Washington Carver Sharrows, 24th to Bloomington
SH 13	ON- 28	Main St Sharrows or Back-in-Angle Parking, Grand Ave to Duff
SH 14	ON- 29	Kellogg Sharrows, S 3rd to 6th St
SH 15	ON- 30	Ash Ave Sharrows, current bike lane end to Lincoln Way
SH 16	ON- 31	Beach Ave Sharrows, Mortensen to Lincoln Way
SH 17	ON- 32	6th St Sharrows east of Duff
SH 18	ON- 33	Cessna St Bike Boulevard
SH 19	ON- 34	Oakland St between Trail and Hyland Ave
SH 20	ON- 35	Campustown On-Street Bicycle Treatments
SUP 24	ON-36	On-Street Bike connection north of Hoover Ave from Bloomington to Ada Hayden

Appendix F

Funding Assessment and Techniques

Transportation Funding Summary

Background

The purpose of this document is to provide background and proposed assumptions for projecting transportation funding levels for the 2040 Ames Area MPO Long Range Transportation Plan (LRTP), called *Ames Mobility 2040*. Included are historical data of Federal-aid, state, and local-only transportation funding for roadway, bicycle and pedestrian, and transit projects in the Ames area. The Federal-aid data are from programmed and implemented projects included in the MPO's Transportation Improvement Program (TIP) since 2004, and available City of Ames Capital Improvement Programs (CIP) and funding information from Story County.

Note that all annual funding and cost growth figures provided in this document are provided in linear growth terms.

MPO Funds / Federal and State Program Overview

There are two primary (formula-based) Federal program funding sources that the MPO uses for transportation projects in the region:

- **Surface Transportation Program (STP)**: provides funding for projects on any Federal-aid highway, bridge, pedestrian and bicycle facilities, and transit capital projects.
- **Transportation Alternatives Program (TAP)**[1]: provides funding for projects including on-street and off-street pedestrian and bicycle facilities, improved access to transit, and safe routes to school projects.
  - Some TAP program funds the MPO receives are via their formula allocation, while other funds have been awarded to the region competitively.
  - "TAP Flex" funds are formula-allocated to the MPO annually based on excess unobligated Federal funds that are available. TAP Flex funds can be used for bicycle and pedestrian projects under TAP, or flexed into the STP program.

Other funding programs that the MPO has used in the past include:

- **National Highway Systems (NHS) Program**: funding for projects on roads that are part of the NHS, which includes I-35, US 30, US 69, and parts of Lincoln Way. NHS funding was consolidated under the National Highway Performance Program (NHPP) as a part of MAP-21.
- **Emergency Relief (ER) Program:** funding for repair or reconstruction of Federal-aid facilities which have suffered serious damage as a result of natural disasters.
- **Primary Roads Program**: funding that is 100% state funding from the Road Use Tax Fund (RUTF) dedicated to state primary roads. This funding has been used on US 30 and I-35 over the past 10 years.

[1] TAP was authorized as a part of the MAP-21 transportation authorization, and replaces the Transportation Enhancements (TE) program that was discontinued under MAP-21.

- **Iowa's Clean Air Attainment Program (ICAAP):** The DOT has a discretionary program based on the Federal Congestion Mitigation and Air Quality (CMAQ) program to fund transportation projects and programs that result in reductions in emission and improve air quality. CyRide Transit projects have received ICAAP grants in the past.
- **Federal Demonstration Projects:** a funding program that was "earmarked" through designation of the US Congress. This funding source, and all transportation earmarks, was eliminated under MAP-21.
- **American Recovery and Reinvestment Act (ARRA):** an authorization passed by Congress in February 2009 as a comprehensive stimulus package in response to the financial crisis of 2007-2008 and recession that followed. During the period of 2009 to 2011, the Congressional Budget Office estimated that nearly $32 billion had been spent on transportation projects nationwide as a result of ARRA.[2] There were three 2010 pavement rehabilitation projects in the region as a part of ARRA.

Reviewing several years' of past TIPs provides an effective means of establishing funding trends by general funding source. Past funding levels for project, capital and operations / maintenance is indicative of potential future funding level trends. The remainder of this section provides an overview of past modal spending levels (and indirectly long-term funding levels) by reviewing 11-12 years of TIPs and agency spending information.

The Highway Safety Improvement Program (HSIP) is an additional discretionary funding source for safety projects that the study area has not been received in the past, but the area is eligible for.

Transit Funding Sources

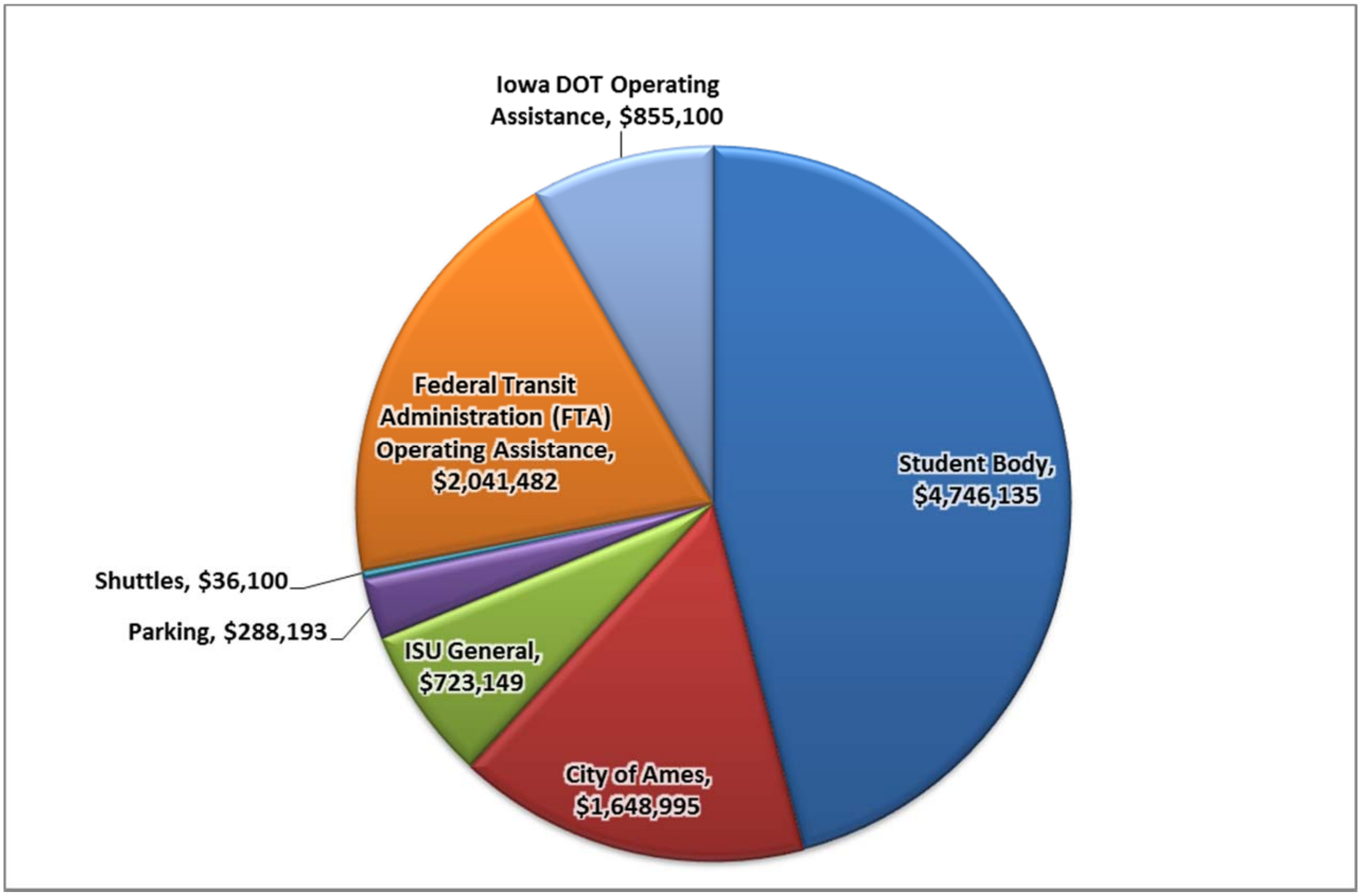
CyRide receives Federal transit funding through several programs, including

- **Urbanized Area Formula 5307**: funds for urbanized areas with a population over 50,000 while providing transit capital, operating assistance, and transportation planning.
- **Capital Program Formula 5309**: funds for upgrading of bus system capital, including fleet, equipment, and buildings. Due to changes in MAP-21, this funding source will no longer be available to CyRide after the current fiscal year.
- **Transportation for Elderly Persons and Persons with Disabilities Formula 5310**: funds for assisting private nonprofit groups that provides transportation for the elderly and persons with disabilities.
- **Transportation 5339**: funds for replacing, rehabilitating, and purchasing buses and transit equipment and to construct bus-related facilities.

[2] *Actual ARRA Spending Over the 2009-2011 Period Quite Close to CBO's Original Estimate*, Congressional Budget Office, January 5, 2012, https://www.cbo.gov/publication/42682.

CyRide receives the majority of its local funding from the City of Ames, Iowa State University, and the Iowa State University Student Government (formerly the Government Student Body, or GSB). Additional sources include parking and shuttle revenues. FIGURE 1 shows a breakdown of revenue sources for the current 2015-2016 Fiscal Year.

Figure 1. Breakdown of FY 2015 CyRide Non-Farebox Revenue



Source: City of Ames, CyRide

City / County Funding Sources

City and County funding sources for transportation improvements include:

- General obligation bonds.
- 1 % City Sales Tax in both Ames and Gilbert. Story County and Boone County have no sales tax. In the City of Ames, most of the sale tax revenues are directed towards non-transportation programs and projects.
- Road use tax revenue from the State of Iowa. For 2015 this increased significantly for all communities, as the state just passed a 10 cent increase in the gasoline tax.

- Miscellaneous sources such as assessments.

Current and Historical Transportation Funding Levels

MPO Roadway and Bicycle / Pedestrian Historical Fiscally-Constrained Spending Levels

The projects in the 2004-2015 TIP documents were classified by funding source as shown in TABLE 1. The costs shown in TABLE 1 have been normalized to 2015 dollars, assuming a 4.5% annual construction cost increase[3]. Normalizing historical TIP costs to a baseline year of 2015 accounts for the change in transportation construction costs over time, and puts historical spending into current year dollars.

Table 1. MPO TIP Funding by Program Source, 2004-2015 (in 2015 dollars[4])[5]

Program Source	2004-2015 Funding Levels by Source			
	Federal Funding	Local Funding	State Funding	Total Funding
STP	$12,406,740	$9,794,220	$0	$22,200,960
TAP / TE[6]	$1,954,670	$2,788,110	$0	$4,742,780
NHS	$25,715,200	$0	$6,428,800	$32,144,000
ER	$172,280	$43,660	$0	$215,940
Primary Roads	$0	$0	$1,956,000	$1,956,000
Demonstration / Earmarks	$601,800	$149,860	$0	$751,660
ARRA	$842,800	$210,700	$0	$1,053,500
Total	$41,693,490	$12,986,550	$8,384,800	$63,064,840

Source: Transportation Improvement Programs, 2004-2015, Ames Area MPO.

As shown in TABLE 1, federal-aid eligible spending on roadway and bicycle/pedestrian projects for the 2004 to 2015 period totaled $63,064,840, for average annual spending level of $5,343,195. For the purposes of forecasting, TABLE 1 provides the following key information:

- A basis for forecasting the NHS system (NHPP) and Primary Roads discretionary programs' future funds, based on past annual averages.
  - NHS average annual funding (in 2015$): $2,678,667
  - Primary Roads average annual funding (in 2015$): $163,000
- A basis for estimating a reasonable level of local match on future STP and TAP projects. Note that future Federal projections of STP and TAP are not based on this data, but are based on the target levels actually allocated to the MPO (documented later in this section).

[3] Costs have historically varied significantly, but 4.5% annual construction cost increase is the planning estimate provided by Iowa DOT staff.

[4] Assuming a 4.5% annual increase in construction costs. Does not include planning, illustrative, pavement management system, or urban specifications projects from past TIPs.

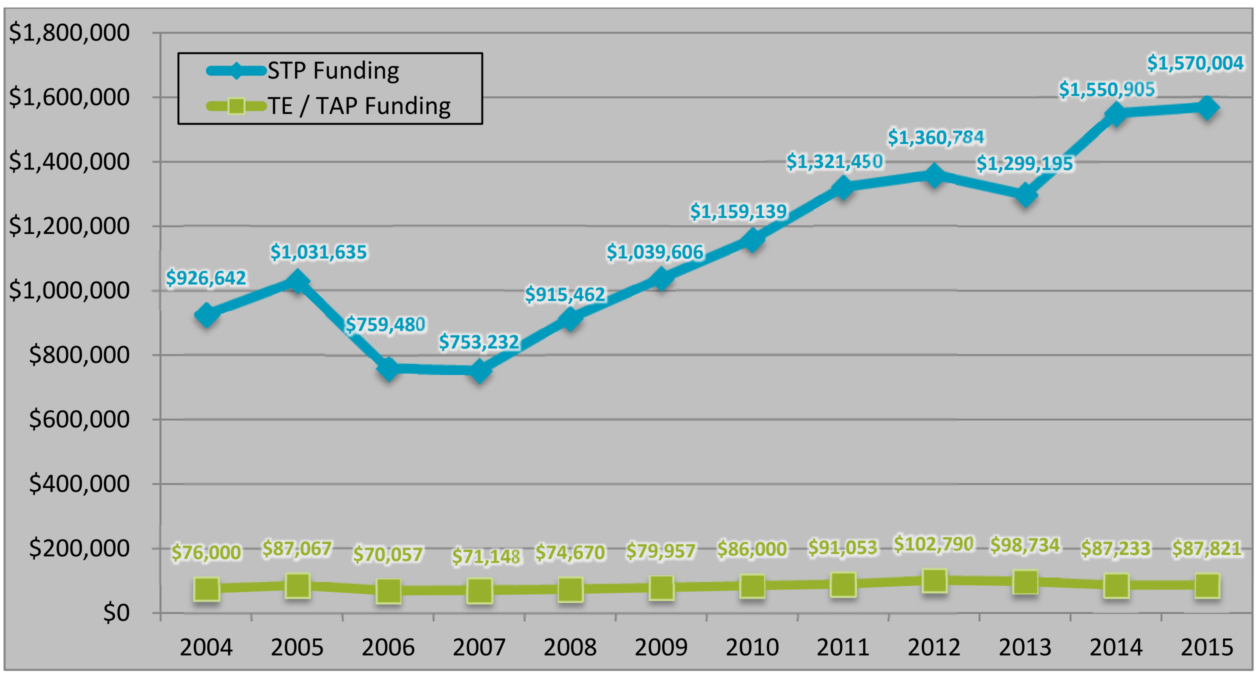
[5] Note that the project cost totals represent estimates based on programmed (TIP) costs in the year of construction. Projects that show up in multiple TIPs were only counted for the final year they were in the TIP, and not double counted.

[6] TAP target funds (formula funds allocated to the MPO) for the period 2004-2015 were $1,144,015. Thus, $810,655 worth of TAP discretionary funds awards are estimated to the Ames area for the period 2004-2015.

- STP funding share percentages: 56% Federal / 44% Local. Thus for every Federal STP dollar spent in the future, $0.79 in local funds will be utilized to match the Federal dollars.
- TAP funding share percentages: 41% Federal / 59% Local. Thus, for every Federal TAP dollar spent, $1.44 in local funds will be utilized to match the Federal dollars.

It should be noted that the programs described above as "discretionary" are not guaranteed, are allocated at the discretion of the Iowa DOT, and these forecasts represent best projections available based on historical averages. The historical funding levels for STP and TAP (formerly TE) programs are shown in FIGURE 2.

Figure 2. MPO Formula Funding by Formula Program, 2004-2015[7]



Source: Iowa DOT

[7] Not including TAP Flex funds, which were $66,642 in 2014 and $67,230 in 2015.

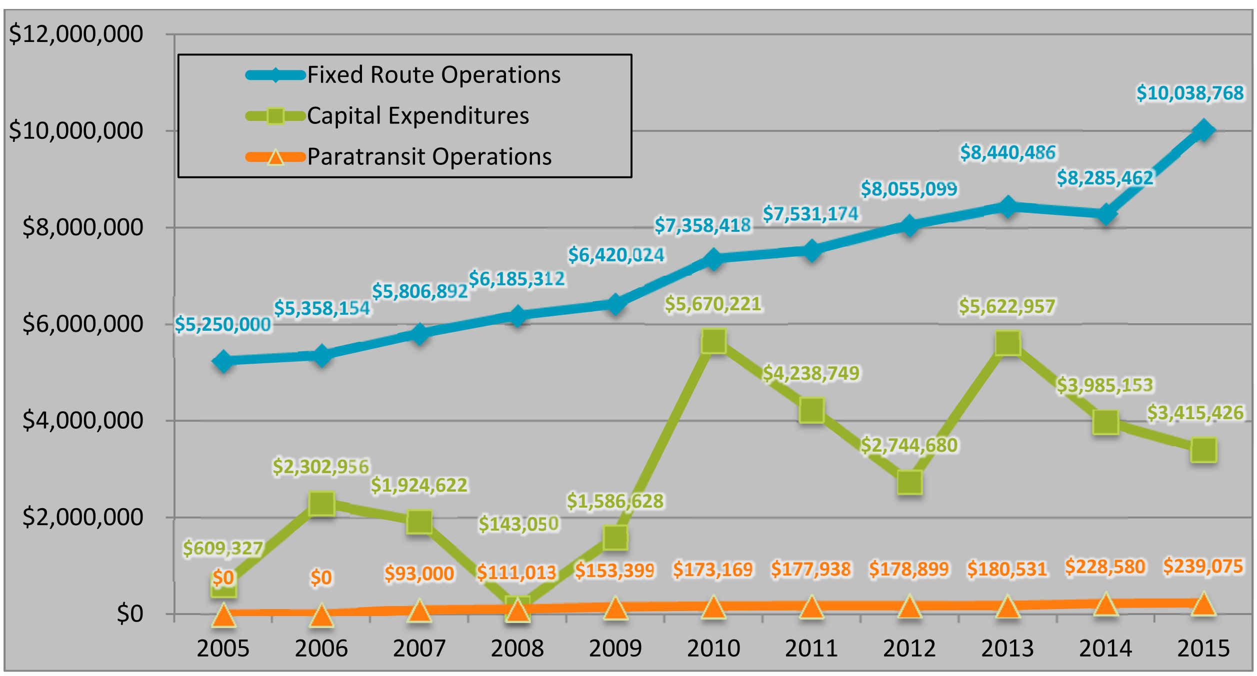
As shown in FIGURE 2:

- STP program funds have increased from $926,642 in 2004 to $1,539,075 in 2015; a 6.3% annual growth rate.
- TAP program funds have increased from $76,000 in 2004 to $86,304 in 2015; a 1.4% annual growth rate.

Transit Spending Levels

Transit funding levels for operations were taken from past MPO TIPs. Capital expenditures were taken from actual data provided by CyRide staff. CyRide has experienced extensive growth on the transit system since 2005, with the numbers of riders growing by 54% since 2005. The need to serve this increased demand is reflected in increased costs to operate this system. Historical CyRide funding levels are shown in FIGURE 3.

Figure 3. CyRide Funding by Type, 2005-2015



Source: CyRide

As shown in FIGURE 3:

- Fixed Route Bus Operations spending has increased from $5,250,000 in 2005 to $10,038,768 in 2015; a 9.1% annual growth rate.
- Paratransit operations spending for purchased services has increased from $93,000 in 2007 to $239,075 in 2015; an 19.6% annual growth rate.
- Over the 2005 to 2015 period, capital expenditures have averaged $3,290,000 in 2015 dollars.

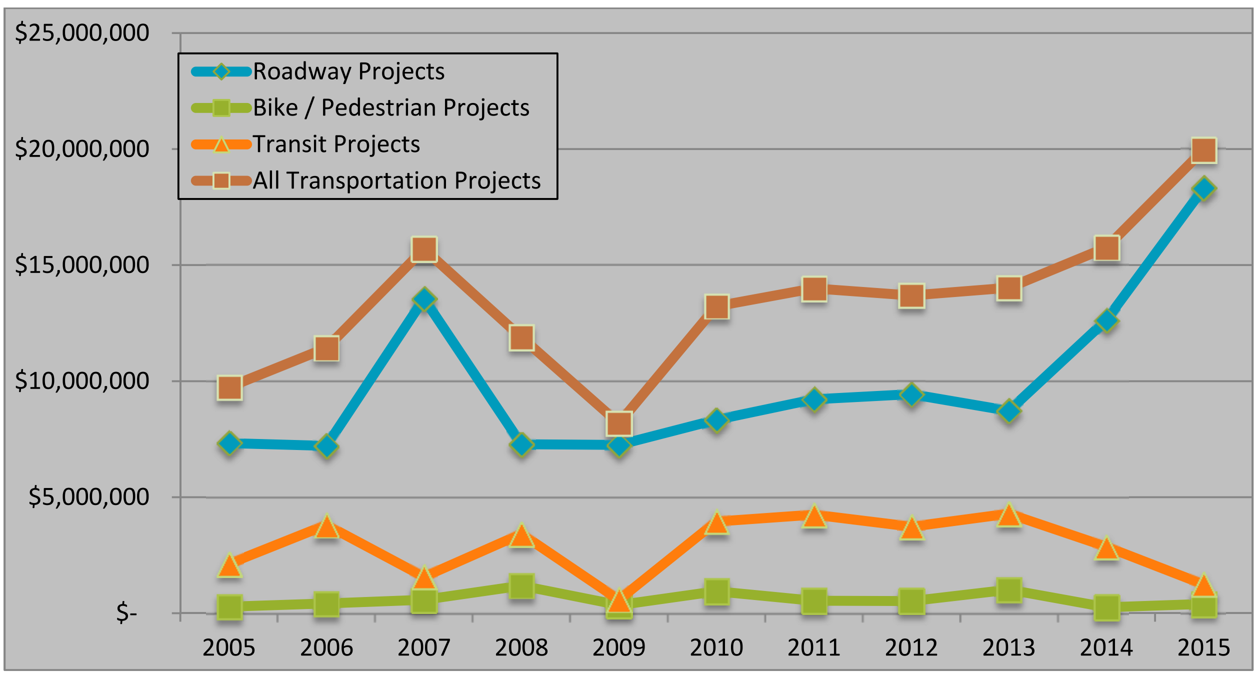
Local Funding Levels

Many transportation projects in the Ames area are completely locally-funded. These projects do not involve any Federal-aid, and are not reflected in MPO Historical Funding levels (2004-2015 TIP projects). While these projects are not part of the MPO's funding, it is important to understand how much local governments spend on preservation and expansion of the Ames area transportation system, particularly on the Federal-aid system.

City of Ames

The City of Ames represents the majority of locally-sourced transportation funding in the study area. FIGURE 4 provides an annual summary of City of Ames local-only budgets for project funding by mode.

Figure 4. City of Ames Local-Only Transportation Project Budget by Mode



Source: City of Ames, Capital Improvement Plans (CIP), 2005 to 2015

During the 2005 to 2015 period, the annual percentage breakdown of Ames' funding allocated to each mode was:

- **City of Ames Roadway Projects**: 74%. Of those roadway projects, it is estimated that:
  - 60% of funding went to the Federal-aid roadway system
  - 40% of funding went to non-Federal-aid roads.[8]
- **City of Ames Bike and Pedestrian Projects**: 4%
- **City of Ames Transit Projects**: 22%

[8] Estimates from City of Ames staff.

The total local-only spending on transportation projects in Ames was $19,969,700 in 2015. Over the period, total City of Ames local spending was highly variable, but averaged 6.5% per year growth between 2005 and 2015[9].

Story County

The current Story County program within the MPO boundary includes three roadway projects for 2015 and 2016 that are anticipated to cost $2,270,000. If taken over the 5-year span of the current program, the County is spending $454,000 annually on roadway projects in the study area.

Of those three projects:

- 23% of funding went to the Federal-aid roadway system
- 77% of funding went to non-Federal-aid roads.

City of Gilbert and Boone County

Transportation funding information has been requested from the City of Gilbert. From reviewing recent council minutes, it appears that they have a very limited transportation budget for operations and maintenance activities only. That information will be incorporated as it becomes available.

Boone County has a very limited amount of roadway in the study area, and there is no historical spending data available on it. Future spending levels are assumed to be negligible for the purposes of this plan.

Preservation and Expansion Spending Comparison

In order to project future system preservation needs, the levels of spending on system preservation (rehabilitation, reconstruction, resurfacing, operations and maintenance) in current and past TIPs was evaluated to understand the area's roadway and bicycle / pedestrian funding requirements. This step included a breakdown of historic and current 2015-2018 TIP individual project and program costs for:

- **Preservation projects**: These projects are those that support existing infrastructure in the form of rehabilitation or resurfacing.
- **Expansion projects**: These projects include expanding the multimodal system to address current or emerging operational or safety needs through new corridors, new programs, widening of existing corridors, new turn lanes, widened bridges, improved intersection treatments, traffic signal improvements, etc.

[9] The annual growth when comparing 2005 spending of $9,741,730 and 2015 spending of $19,969,718 was 10.5% annually. Given the variability, it was believed to be more conservative to use a regression fit of that 10-year period to identify the general trend. That regression ($y = 662040.71\,x - 1317283486$; r=0.69) indicates a more conservative growth rate of 6.55% per year.

Past and current TIPs and CIPs have allocated the following levels of funding by source and mode:

- MPO Roadway Funding: 59% Expansion, 41% Preservation
- City/County Roadway Funding: 32% Expansion, 68% Preservation
- MPO Bicycle and Pedestrian Funding: 100% Expansion
- City/County Bicycle and Pedestrian Funding: 73% Expansion, 27% Preservation

Funding Projections

Based on the analysis of past funding trends by type and mode, the following assumptions for 2016-2040 funding projections were made:

- Funding levels for the STP, TAP, and TAP Flex programs for the 2016-2019 period are taken directly from the target level estimates provided by Iowa DOT.
- Where sufficient historical information is not available, a funding growth rate of 2% per year is assumed. This represents a "conservative" budget growth rate for planning purposes and reflects a condition where transportation revenues do not keep up with construction costs (+4.5% per year).
- STP funding will continue to grow from 2015 levels at its historical trend of 6.3% per year (increasing by $98,910 annually) through 2025, and then return to a more conservative growth rate of 2% per year from 2026 levels (increasing by $42,949 annually) through 2040.
- TAP funding will continue to grow at its historical trend of 1.4% per year from 2015 levels (increasing by $1,219 annually) through 2040.
- TAP Flex allocation will be grown at the same rate as TAP allocation, at 1.4% per year from 2015 levels (increasing by $941 annually) through 2040. TAP Flex can be spent on either TAP or STP projects.
- HSIP funding is assumed available at $345,000 a year in 2015 dollars. HSIP funds are targeted towards projects by the DOT districts, and not eligible for non-DOT projects. This is based on the assumption of $23,000,000 in total urban HSIP funding available statewide[10], and the Ames urban area representing approximately 1.5% of total needs in the state[11]).
- Discretionary state and Federal funding (not including STP and TAP) programs will grow from 2015 levels at a rate of 2% per year.
- City of Ames funding levels will grow from 2015 levels at a rate of 1.5% per year through 2040. This is based on forecasts provided by the City of Ames.

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[10] Source: Iowa DOT systems planning staff.

[11] For simplicity, it was assumed that allocations would be a function of population and road mileage. The Ames urban area was 2.6% of state population according to 2010 Census counts. The Ames Area MPO contained 0.4% of all state roads. The average of these two elements would be 1.5% of statewide needs.

- Other local jurisdiction funding levels grow from 2015 levels at a rate of 2% per year through 2040.

TABLE 2 illustrates application of the above assumptions and provides projected transportation funding levels for the 2016-2040 period. The amount of funding dedicated to both expansion and preservation projects is based on the historical breakdown of transportation funding dedicated to each project type. Local engineering staff has indicated that current preservation spending levels are believed to be sufficient to maintain the system in a state of good repair through the planning horizon. Thus, historic levels preservation spending levels will be maintained into the future, such that:

- 41% of all future MPO Roadway spending will be dedicated to preservation (state-of-good-repair) projects.
- 68% of all future City/County roadway funding will be dedicated to preservation projects.
- No future MPO bicycle and pedestrian (TAP) funding will be dedicated to preservation projects.
- 27% of future City/County bicycle and pedestrian funding will be dedicated to preservation projects.

Expansion Funding and Year-of-Expenditure "Cost Band" Periods

Ames Mobility 2040 plan identifies when projects will be implemented, in a manner consistent with the anticipated long-term transportation budget. "Cost bands", or funding periods, are used to group projects into a generalized timeframe for implementation.

The levels of funding for expansion projects on the Federal-aid system, which are the projects that *Ames Mobility 2040* is tasked with identifying, are provided in TABLE 3. The expansion project funding levels shown in TABLE 3 are also grouped into the "cost bands", which will be inflated to year-of-expenditure dollars, at the linear rate of 4.5% per year to the midterm of each cost band. *Ames Mobility 2040* uses the following cost bands/funding periods:

- **TIP Years (2016-2019):** costs taken from the TIP itself. Those funds identified as an unobligated carryover balance from the last year (2019) of the TIP are applied into the budget for 2020 to 2040 planning horizon. The carryover totals identified in the TIP are:
  - $4,871,125 balance for carryover STP funding.
  - $201,015 balance for carryover TAP funding.
- **Short-Term (2020-2024):** costs grown to 2022 dollars, which is 31.5% higher than 2015 cost.
- **Mid-Term (2025-2032):** costs grown to the midpoint of 2028/2029 dollars, which is 60.75% higher than 2015 cost.
- **Long-Term (2033-2040):** costs grown to midpoint of 2036/2037 dollars, which is 96.75% higher than 2015 cost.

The levels of funding by program and funding period are documented in TABLE 4.

Table 2. Federal and State Funding Projections by Program, Total Funding (Includes System Maintenance and Expansion Projects)

Year	State and Federal Funding Sources						
	Formula-Based Programs[12]			Discretionary Programs			
	Surface Transportation Program (STP)	Transportation Alternatives (TAP)	Transportation Alternatives Flex (TAP Flex)	Highway Safety Improvement Program (HSIP)	National Highway System (NHS)	Primary Road Program	State / Federal Funding Subtotal
2015	$1,570,004	$87,821	$67,230	$345,000	$2,678,667	$163,000	$4,911,722
2016	$1,554,000	$86,914	$66,323	$351,900	$2,732,240	$166,260	$4,957,637
2017	$1,554,000	$87,000	$66,000	$358,800	$2,785,813	$169,520	$5,021,133
2018	$1,554,000	$87,000	$66,000	$365,700	$2,839,387	$172,780	$5,084,867
2019	$1,554,000	$87,000	$66,000	$372,600	$2,892,960	$176,040	$5,148,600
2020	$1,652,910	$88,229	$66,941	$379,500	$2,946,533	$179,300	$5,313,414
2021	$1,751,821	$89,459	$67,882	$386,400	$3,000,107	$182,560	$5,478,229
2022	$1,850,731	$90,688	$68,824	$393,300	$3,053,680	$185,820	$5,643,043
2023	$1,949,641	$91,918	$69,765	$400,200	$3,107,253	$189,080	$5,807,857
2024	$2,048,551	$93,147	$70,706	$407,100	$3,160,827	$192,340	$5,972,671
2025	$2,147,462	$94,377	$71,647	$414,000	$3,214,400	$195,600	$6,137,486
2026	$2,190,411	$95,606	$72,589	$420,900	$3,267,973	$198,860	$6,246,339
2027	$2,233,360	$96,836	$73,530	$427,800	$3,321,547	$202,120	$6,355,192
2028	$2,276,309	$98,065	$74,471	$434,700	$3,375,120	$205,380	$6,464,046
2029	$2,319,258	$99,295	$75,412	$441,600	$3,428,693	$208,640	$6,572,899
2030	$2,362,208	$100,524	$76,353	$448,500	$3,482,267	$211,900	$6,681,752
2031	$2,405,157	$101,754	$77,295	$455,400	$3,535,840	$215,160	$6,790,605
2032	$2,448,106	$102,983	$78,236	$462,300	$3,589,413	$218,420	$6,899,459
2033	$2,491,055	$104,213	$79,177	$469,200	$3,642,987	$221,680	$7,008,312
2034	$2,534,005	$105,442	$80,118	$476,100	$3,696,560	$224,940	$7,117,165
2035	$2,576,954	$106,672	$81,060	$483,000	$3,750,133	$228,200	$7,226,019
2036	$2,619,903	$107,901	$82,001	$489,900	$3,803,707	$231,460	$7,334,872
2037	$2,662,852	$109,131	$82,942	$496,800	$3,857,280	$234,720	$7,443,725
2038	$2,705,802	$110,360	$83,883	$503,700	$3,910,853	$237,980	$7,552,578
2039	$2,748,751	$111,590	$84,824	$510,600	$3,964,427	$241,240	$7,661,432
2040	$2,791,700	$112,819	$85,766	$517,500	$4,018,000	$244,500	$7,770,285
2016-2040 Total	$54,982,946	$2,546,748	$1,867,745	$10,867,500	$84,378,000	$5,134,500	$159,689,618

[12] The 2015-2019 totals for STP, TAP, and TAP Flex are based on TIP targets provided by Iowa DOT.

Table 3. Federal and State Funding Projections for Expansion Projects

Year	State and Federal Funding Sources						
	Formula-Based Programs			Discretionary Programs			
	STP	TAP	TAP Flex	HSIP	NHS	Primary Road Program	State / Federal Funding Subtotal
2015	$926,000	$88,000	$67,000	$204,000	$1,580,000	$96,000	$2,961,000
2016	$917,000	$87,000	$66,000	$208,000	$1,612,000	$98,000	$2,988,000
2017	$917,000	$87,000	$66,000	$212,000	$1,644,000	$100,000	$3,026,000
2018	$917,000	$87,000	$66,000	$216,000	$1,675,000	$102,000	$3,063,000
2019	$917,000	$87,000	$66,000	$220,000	$1,707,000	$104,000	$3,101,000
2020	$975,000	$88,000	$67,000	$224,000	$1,738,000	$106,000	$3,198,000
2021	$1,034,000	$89,000	$68,000	$228,000	$1,770,000	$108,000	$3,297,000
2022	$1,092,000	$91,000	$69,000	$232,000	$1,802,000	$110,000	$3,396,000
2023	$1,150,000	$92,000	$70,000	$236,000	$1,833,000	$112,000	$3,493,000
2024	$1,209,000	$93,000	$71,000	$240,000	$1,865,000	$113,000	$3,591,000
2025	$1,267,000	$94,000	$72,000	$244,000	$1,896,000	$115,000	$3,688,000
2026	$1,292,000	$96,000	$73,000	$248,000	$1,928,000	$117,000	$3,754,000
2027	$1,318,000	$97,000	$74,000	$252,000	$1,960,000	$119,000	$3,820,000
2028	$1,343,000	$98,000	$74,000	$256,000	$1,991,000	$121,000	$3,883,000
2029	$1,368,000	$99,000	$75,000	$261,000	$2,023,000	$123,000	$3,949,000
2030	$1,394,000	$101,000	$76,000	$265,000	$2,055,000	$125,000	$4,016,000
2031	$1,419,000	$102,000	$77,000	$269,000	$2,086,000	$127,000	$4,080,000
2032	$1,444,000	$103,000	$78,000	$273,000	$2,118,000	$129,000	$4,145,000
2033	$1,470,000	$104,000	$79,000	$277,000	$2,149,000	$131,000	$4,210,000
2034	$1,495,000	$105,000	$80,000	$281,000	$2,181,000	$133,000	$4,275,000
2035	$1,520,000	$107,000	$81,000	$285,000	$2,213,000	$135,000	$4,341,000
2036	$1,546,000	$108,000	$82,000	$289,000	$2,244,000	$137,000	$4,406,000
2037	$1,571,000	$109,000	$83,000	$293,000	$2,276,000	$138,000	$4,470,000
2038	$1,596,000	$110,000	$84,000	$297,000	$2,307,000	$140,000	$4,534,000
2039	$1,622,000	$112,000	$85,000	$301,000	$2,339,000	$142,000	$4,601,000
2040	$1,647,000	$113,000	$86,000	$305,000	$2,371,000	$144,000	$4,666,000
2016-2040 Total	$32,440,000	$2,547,000	$1,868,000	$6,412,000	$49,783,000	$3,029,000	$95,991,000

Table 4. Local Transportation Funding Projections, Total Funding (Includes System Maintenance and Expansion Projects)

Year	Ames		Story Co		Gilbert		Boone County	
	Roadway	Bike-Ped	Roadway	Bike-Ped	Roadway	Bike-Ped	Roadway	Bike-Ped
2015				None based on historical trends.			None based on historical trends.	None based on historical trends.
2016								
2017								
2018								
2019								
2020								
2021								
2022								
2023								
2024								
2025								
2026								
2027								
2028								
2029								
2030								
2031								
2032								
2033								
2034								
2035								
2036								
2037								
2038								
2039								
2040								
Total				$	$	$		

Table 5. Local Transportation Funding Projections for Expansion Projects

Year	Ames		Story Co		Gilbert		Boone County	
	Roadway	Bike-Ped	Roadway	Bike-Ped	Roadway	Bike-Ped	Roadway	Bike-Ped
2015	$1,478,013	$386,845	$104,420	None based on historical trends.			None based on historical trends.	None based on historical trends.
2016	$1,500,183	$392,648	$106,508					
2017	$1,522,353	$398,450	$108,597					
2018	$1,544,524	$404,253	$110,685					
2019	$1,566,694	$410,056	$112,774					
2020	$1,588,864	$415,858	$114,862					
2021	$1,611,034	$421,661	$116,950					
2022	$1,633,204	$427,464	$119,039					
2023	$1,655,375	$433,266	$121,127					
2024	$1,677,545	$439,069	$123,216					
2025	$1,699,715	$444,872	$125,304					
2026	$1,721,885	$450,674	$127,392					
2027	$1,744,055	$456,477	$129,481					
2028	$1,766,226	$462,280	$131,569					
2029	$1,788,396	$468,082	$133,658					
2030	$1,810,566	$473,885	$135,746					
2031	$1,832,736	$479,688	$137,834					
2032	$1,854,906	$485,490	$139,923					
2033	$1,877,077	$491,293	$142,011					
2034	$1,899,247	$497,096	$144,100					
2035	$1,921,417	$502,899	$146,188					
2036	$1,943,587	$508,701	$148,276					
2037	$1,965,757	$514,504	$150,365					
2038	$1,987,927	$520,307	$152,453					
2039	$2,010,098	$526,109	$154,542					
2040	$2,032,268	$531,912	$156,630					
Total	**$45,633,651**	**$11,943,839**	**$3,393,650**	**$**	**$**	**$**		

Table 4. Federal, State and Local Funding Projections by Funding Period for Expansion Projects

Cost Band / Funding Period	State and Federal Funding Sources					
	Formula-Based Programs			Discretionary Programs		
	STP	TAP	TAP Flex	HSIP	NHS	Primary Road Program
TIP Period (2016-2019)	Funds Already Programmed					
Carryover Balance after 2016 – 2019 TIP Period[13]	$4,871,125	$201,015	$0	$0	$0	$0
Short-Term (2020-2025)	$6,727,000	$547,000	$417,000	$1,404,000	$9,008,000	$549,000
Mid-Term (2026-2032)	$9,578,000	$696,000	$527,000	$1,824,000	$16,057,000	$976,000
Long-Term (2033-2040)	$12,467,000	$868,000	$660,000	$2,328,000	$18,080,000	$1,100,000
Total Funds Available, 2020-2040	$33,643,125	$2,312,015	$1,604,000	$5,556,000	$43,145,000	$2,625,000

[13] These are the formula funds that are allocated to the MPO, but are not programmed to be spent during the 2016-2019 TIP period.

Alternative Funding for Highway and Bicycle Projects

The Federal Highway Administration (FHWA) has historically financed highways primarily through grants that cover approximately 80 percent of a project's total costs. Because of the fiscal constraints on public budgets, including the federal government, this approach alone cannot meet the nation's transportation investment needs. As a result, innovative financing for highway improvements has been pursued by communities and states across the country. The idea is that these innovative techniques will supplement traditional funding approaches.

FHWA considers innovative finance as "a broadly defined term that encompasses a combination of specially designed techniques that supplement traditional highway financing methods. While many of these techniques may not be new to other sectors, their application to transportation is innovative."[1] According to FHWA, the primary objectives of innovative finance are to:

- Maximize the ability of states and other project sponsors to leverage federal capital for needed investment in the nation's transportation system;
- More effectively utilize existing funds;
- Move projects into construction more quickly than under traditional financing mechanisms; and
- Make possible major transportation investments that might not otherwise receive financing.

There are a number of non-traditional and innovative financing techniques available to support funding for roadway interchanges and bridge improvements in Iowa. They include:

- Tax Increment Financing (TIF)
- Self-Supporting Municipal Improvement District (SSMID)
- Revitalize Iowa's Sound Economy (RISE) Fund
- Local Option Sales Tax (LOST)
- Farm-to-Market (FM) Road Fund, and
- Traffic Safety Improvement Program (TSIP)
- Electric Utility Fund
- Road Use Tax Fund (RUTF)

For bicycle path projects, alternative funding options include:

- Tax Increment Financing (TIF)
- Local Option Sales Tax (LOST)
- Federal Transportation Alternatives Program (TAP)
- Rebuild Iowa's Infrastructure Fund (RIIF)
- State Recreational Trails Program
- Vision Iowa Community Attraction and Tourism (CAT) Grant, and
- Iowa Resource Enhancement and Protection (REAP) Program

The following provides greater detail related to these funding sources for both types of infrastructure.

[1] FHWA, http://www.fhwa.dot.gov/ipd/finance/resources/general/innovative_finance_primer_2004.aspx#chapter1

Alternative Funding Options for Roadways

Investment in infrastructure is often publicly funded through government budget line-item, public bonding, or award of federal or state grants. With pressure on sources and uses of public resources increasing, more attention is being given to private participation in infrastructure finance. Value capture strategies are one type of public-private partnership (P3) that may be utilized to support transportation investment. These and other non-traditional funding sources available for Ames transportation projects are described below.

Tax-increment Financing

When an infrastructure investment is made, there is often an increase in the value of the surrounding real estate. When an increase in property value and private investment generates an increase in tax revenues, this increase is considered the "tax increment." **Tax increment financing** (TIF) dedicates these tax increments within a certain defined district to finance the debt that is issued to pay for the project. TIF creates funding for public or private projects by borrowing against the future increase in these property tax revenues.

In Iowa, TIF districts impose taxes on increases in property value to fund current economic development and infrastructure improvement projects. Municipalities in Iowa have employed TIF heavily, as 10 percent of urban areas are designated TIF areas.[2] Furthermore, local municipalities' use of TIF for economic development has increased significantly during the last decade, according to a report released in January 2014 by the Iowa Department of Revenue. In a recent study, the department reported that urban-renewal districts using TIF grew from 1,125 in 2000 to 1,614 in 2012—a 43.5 percent increase.[3] Specific examples include:

- In 2015, the City of Davenport, Iowa, approved a mile-long Elmore Avenue extension project,[4] funding the $13 million project exclusively through TIF. The funds enabled the extension of Elmore Avenue to a future land-based Rhythm Casino.
- In 2009, Mitchell County Board of Supervisors approved TIF on a property with wind turbines to help pay for 30 miles of road paving throughout the county. The project, which is estimated to cost between $6 million to $9.5 million, will provide vital maintenance and improvements to the county's existing secondary road system.[5]
- In 2015, Story County allocated $350,000, partially drawing on TIF, for Secondary Roads Building Improvements.[6]
- For FY 2017, Story County has allocated $1.75 million for the Paving of Grant Avenue from 190th to Gilbert, and $950,000 for the Paving of 600th Avenue from Highway 30 to Lincoln Highway.[7] Both projects draw funding from TIF, and the latter will also draw funding from another non-traditional source: the FM Roads Fund, described later in this report.

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[2] http://journalistsresource.org/studies/government/municipal/tax-increment-financing-economic-development-urban-politics
[3] http://www.dailyiowan.com/2014/06/23/Metro/38106.html
[4] http://qctimes.com/traffic/davenport-to-finance-elmore-avenue-extension/article_dd498606-9dc9-50b8-8663-24a8675bbc6e.html
[5] Michelle Haacke and David Namanny, "TIF district approved for wind turbines," The Globe Gazette, April 10, 2009, available at http://globegazette.com/news/local/tif-district-approved-for-wind-turbines/article_a8d21a43-5282-5fed-b44f-309bd2e40a25.html
[6] http://www.storycountyiowa.gov/AgendaCenter/ViewFile/Item/2557?fileID=1883
[7] http://www.storycountyiowa.gov/AgendaCenter/ViewFile/Item/2557?fileID=1883

Other Funding Options

Recently, road construction and improvement projects in the State of Iowa have utilized other nontraditional financing sources for supplemental funding, including SSMID, RISE, LOST, and FM. These programs are briefly described below:

- **Self-Supported Municipal Improvement District (SSMID)** is a designated area of contiguous property within a city where at least 25 percent of all owners of eligible property, representing at least 25 percent of the value of all eligible property, agree to impose an additional tax levy on property within the district for improvements, administrative fees, and debt for the cost of improvements.
- **Revitalize Iowa's Sound Economy (RISE)** is a program that funds the establishment, construction, improvement, and maintenance of roads and streets that promote economic development in the state by improving or maintaining highway access.
- **Local Option Sales Tax (LOST)** is a sales tax, in addition to the state sales tax, that can be expended for any lawful purpose, including infrastructure improvements. The tax, which is not to exceed one percent, is imposed by the county on incorporated and unincorporated areas where a majority vote in favor of the tax.
- **Traffic Safety Improvement Program (TSIP)** is a state program designed to provide safety funds to cities, counties, and the Iowa Department of Transportation (DOT) for roadway safety improvements, research, studies or public information initiatives.
- **Farm-to Market (FM) Fund** is a funding source for the establishment, construction, reconstruction, or improvement to the FM system that draws revenues from the State Road Use Tax Fund.
- **Road Use Tax Fund (RUTF)** is a dedicated highway user revenue source, collected through a state excise tax on fuels. The RUTF has provided a stable and reliable source for investing in the state's primary, secondary and municipal roadway systems.
- **Electric Utility Fund** accounts for the operation of a municipality owned electric utility, which generates and distributes electrical power to customers within the City and some contiguous areas. The fund balance is available for operations and improvements.

Examples of SSMID improvements include:

- In 2011, leaders of the Fort Dodge SSMID committed funding for the design and construction of a new link between First and Second avenues south between Fifth and Sixth streets in Fort Dodge, Iowa.[8] The $600,000 in SSMID funding represents 22 percent of the total project cost, and enabled the connection of previously independent avenues.
- In Waukee, Iowa, the Alice's Road Project is partially funded through SSMID funding. The funds enabled the connection of a vital corridor between Hickman Road and Interstate 80. The development of 1,700 acres will become one of the longest north-south transportation corridors in the western Des Moines metropolitan areas.[9]

Examples of RISE Fund applications include:

- In Dyersville, Iowa, the construction of approximately 2,000 feet on Industrial Parkway Southwest was funded through the city share of the RISE Fund. The $326,255 in funding, which was

[8] http://messengernews.net/page/content.detail/id/544543/SSMID-pledges--600-000-for-street-project.html?nav=5010
[9] http://www.hkgi.com/projects/alicesroad/Master_Plan_Final_Web.pdf

approved for a Local Development grant, will provide necessary access to seven lots totaling more than 43 acres for industrial purposes.[10]

- In Marshalltown, Iowa, the construction of two left-turn lanes on South 18th Avenue was funded through the city share of the RISE Fund. The $79,088 in funding, which was approved for a Local Development grant, will provide access to approximately 50 acres for manufacturing and distribution purposes.[11]
- In Grimes, Iowa, the construction of approximately 680 feet of Southeast Destination Drive was funded through the city share of the RISE Fund. The $164,096 in funding, which was approved for a Local Development grant, will provide access to six lots totaling more than 10 acres for light industrial, manufacturing, and warehousing purposes.[12]
- In Grinnell, Iowa, the construction of turn lanes on Iowa 146 was funded through the city share of the RISE Fund and the county share of the RISE Fund. The $549,000 in total funding, which was approved for an Immediate Opportunity grant, will provide improved access to Grinnell Mutual Reinsurance Co., a property and casualty insurance and reinsurance provider, to support the creation of 61 new full-time jobs and nearly $13 million in associated capital investment.[13]

In the City of Marion, five current road construction projects are utilizing LOST Funding.[14] The projects provide necessary infrastructural upgrades and include: 10th Street Reconstruction, 13th Street Asphalt Overlay, Boyson Road Lighting Project, Irish Drive Extension, and 35th Street/29th Avenue Mini Roundabout. The latter project will also draw on TSIP Funding.

In the City of Ames, numerous current and future roadway construction and improvement projects outlined in the Capital Improvements Plan 2013-2018 draw on supplemental funding from the Road Use Tax and the Electric Utility Fund.[15] The Collector Street Pavement Improvements were funded partially through the Electric Utility Fund. The funds enabled pavement improvements that should result in lower street maintenance costs. CyRide was funded partially through the Electric Utility Fund. The funds enabled improvements that will reduce the street's maintenance budget needs, thereby allowing for additional and earlier maintenance of other streets, and prolonging the useful life of other streets. Downtown Street Pavement Improvements were funded partially through the Electric Utility Fund. The funds enabled the rehabilitation and reconstruction of Lincoln Way to 7th Street and Grand Avenue to Duff Avenue.

Also in Ames, the Concrete Pavement Improvements were partially funded through the Electric Utility Fund and the Road Use Tax. The funds enabled the rehabilitation and reconstruction of concrete street sections that have deteriorated in order to prevent premature breakdown of the pavement. The Asphalt/Seal Coast Street Rehabilitation Program was partially funded through the Road Use Tax. The funds enabled the proactive prevention of deterioration and will reduce maintenance operation costs for patching. The Arterial Street Pavement Improvements were funded partially through the Electric Utility Fund. The funds enabled street improvements, which will reduce maintenance budget needs and allow for additional and earlier maintenance of other streets. The Mortensen Road Improvements were partially funded through the Road Use Tax. The funds enabled the widening of Mortensen Road between South Dakota Avenue and Dotson Drive into a three-lane roadway section, which will reduce traffic congestion

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[10] http://www.manchester247.com/manchester-iowa-news-story-2015-04-27-1.html
[11] http://www.manchester247.com/manchester-iowa-news-story-2015-04-27-1.html
[12] http://www.manchester247.com/manchester-iowa-news-story-2015-04-27-1.html
[13] http://www.manchester247.com/manchester-iowa-news-story-2015-04-27-1.html
[14] http://www.cityofmarion.org/departments/engineering/construction-information/road-construction-projects
[15] http://www.cityofames.org/modules/showdocument.aspx?documentid=11537

on the roadway. The Asphalt Street Reconstruction Program was partially funded through the Electric Utility Fund. The funds enabled the reconstruction of full-depth asphalt streets that will reduce future maintenance costs.

Alternative Funding Options for Bicycle Path Projects

Currently, many programs exist at the federal, state and municipal levels for bike path funding. Some of the aforementioned roadway construction financing mechanisms have recently been utilized in the State of Iowa for bike path construction, including TIF and LOST. In addition to these funding sources, including the traditional Transportation Alternatives Program (TAP) funding, federal and state-level programs have provided financing for bike path projects, including the Rebuild Iowa's Infrastructure Fund (RIIF),[16] the State Recreational Trails Program,[17] the Vision Iowa Community Attraction and Tourism (CAT) Grant,[18] and the Iowa Resource Enhancement and Protection (REAP) Program.[19] These programs are described below:

- **Rebuild Iowa's Infrastructure Fund (RIIF)** is the primary funding source for public infrastructure-related expenditures. In recent years appropriations to other funds have included, among others, the State Recreational Trails Program.
- **State Recreational Trails Program** is a program designed to provide funds to establish recreational trails in Iowa for the use, enjoyment, and participation of the public.
- **Vision Iowa Community Attraction and Tourism (CAT) Grant** is designed to assist projects that will provide recreational, cultural, entertainment, and educational attractions to the general public. These attractions position a community to take advantage of economic development opportunities in tourism and strengthen a community's competitiveness as a place to work and live.
- **Iowa Resource Enhancement and Protection (REAP) Program** invests in the enhancement and protection of the state's natural and cultural resources through state agency budgets or grants. In its 25 years, REAP has benefitted every county in Iowa by supporting 14,535 projects with $264 million in state investments.[20]

In Story County, Iowa, the Dakin's Lake Expansion and Praeri Rail Trail Extension projects were funded through TIF, which covered XXX percentage of the total project cost. The funds enabled the 1-mile connection of the existing Praeri Rail Trail to Dakin's Lake.

In the City of Ames, Iowa, the Shared Use Path System Expansion was funded largely through LOST revenues. The funds, which represented 67 percent of the total project cost, enabled the construction of shared use paths on street rights-of-way, adjacent to streets, and through greenbelts.[21]

Examples of the use of State Recreational Trails Program include:

- In the City of Waterloo, Iowa, the future Shaulis Trail Extension project received a $756,000 State Recreational Trails Program grant and a $412,000 Federal Transportation Alternatives Program

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[16] http://www.advocacyadvance.org/statefunding/dedicated#iowa
[17] http://www.iowadot.gov/iowabikes/trailsfunding.html
[18] http://www.iowaeconomicdevelopment.com/Community/VisionIowa
[19] https://www.legis.iowa.gov/DOCS/LSA/Fiscal_Topics/2013/FTAJB009.PDF
[20] http://www.cityofdubuque.org/ArchiveCenter/ViewFile/Item/4574
[21] http://www.cityofames.org/modules/showdocument.aspx?documentid=11537

grant. The funds will enable the extension of an existing recreational trail along Shaulis Road by nearly two miles, from Iowa Highway 21 to Isle of Capri Blvd.[22]

- In 2012, Upper Iowa University and the City of Fayette received a $700,000 State Recreational Trails Program grant for the 2.5-mile extension of the Fayette Volga River Multiuse Trail.
- In the townships of Clinton and Camanche, Iowa, the Mississippi River Trail Final Connection Project received a $400,000 State Recreational Trails Program grant. The funds enabled the construction of the 4-mile trail which connects the riverfronts of the townships of Clinton and Camanche.[23]
- In the City of Muscatine, Iowa, the Musser Park to Wiggens Road Trail received a $510,000 Federal Transportation Alternatives Program grant and a $300,000 State Recreational Trails Program grant. The funds enabled a 3.4-mile expansion to the existing 17-mile Running River Trail System.[24]
- In the City of Robins, Iowa, the South Troy Park Trail received a $204,000 State Recreational Trails Program grant. The Brushy Creek All Weather Multi-Use Lake Trail Bridge Project received a $78,000 State Recreational Trails Program grant. The funds enabled the construction of a 75-feet long, 10-feet wide multi-use trail bridge.[25]

Examples of the use of CAT grants include:

- In 2013, the City of Cherokee, Iowa, received a $40,000 CAT grant for the Koser Spring Lake Park Renovation Project. The funds enabled multiple enhancements, including the resurfacing and widening of a 20-year old, 5-foot wide asphalt trail around the lake, and a new trail from Spring Lake Park East to Sequoia Drive.[26]
- In 2013, the City of Coon Rapids received a $400,000 CAT grant for the Iowa's Backcountry Trail Attraction. The funds enabled the construction of 35 miles of state-of-the-art "soft trails" through a seven-square-mile landscape at Whiterock Conservancy.[27]

Examples of the use of REAP grants include:

- In 2014, the City of Burlington, Iowa, secured a $150,000 REAP grant for the construction of Phase 1 of the Flint River Trail. The funds enabled the construction of the 0.44-mile south portion of the trail, which travels along Highway 99.[28]
- In 2014, the City of Cedar Falls, Iowa, secured a $121,200 REAP grant for the construction of additions to the Washington Park Trail. The funds enabled the construction of two new sections of asphalt trail, one which connect the current Washington Park Trail end to a detached segment of the trail, and the other which connects the previously detached segment of the trail back to the park entrance and trail start. These additions would create a 0.9 mile loop encircling the park.[29]
- In 2014, Marshalltown, Iowa secured a $150,000 REAP grant for Phase 1 of the Iowa River Trail Development Project. The funds enabled the construction of a 1.28 mile trail and rehabilitation of

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[22] http://wcfcourier.com/news/local/govt-and-politics/meeting-set-on-shaulis-road-trail-project/article_518fffe5-c4d0-5b23-9e89-4d66cfb88eeb.html
[23] http://www.qcbc.org/initiatives/mrt/clinton-camanche.cgi
[24] http://muscatinejournal.com/news/local/muscatine-therein-lies-a-trail/article_9081d902-0ec1-5e28-a360-6d8511c56a2c.html
[25] http://www.iowadnr.gov/hunting/ctl/detail/mid/2858/itemid/2327
[26] http://www.radioiowa.com/2013/12/26/cat-grants-totaling-42-million-awarded-to-23-projects-in-2013/
[27] http://www.radioiowa.com/2013/12/26/cat-grants-totaling-42-million-awarded-to-23-projects-in-2013/
[28] file:///C:/Users/mrosen/Downloads/FY15%20Large%20City%20Project%20Descriptions.pdf
[29] file:///C:/Users/mrosen/Downloads/FY15%20Large%20City%20Project%20Descriptions.pdf

the 85' long Summit Street Bridge, providing a crucial link in Marshalltown's Trail System and connection to the Iowa River Trails/American Discovery Trail.[30]

- Between the years 2005 through 2014, the City of Dubuque, Iowa has received $1,000,000 in REAP grants for 5 phases of construction to the Iowa 32 (Northwest Arterial) Bike/Hike Trail.[31] In 2014, Phase 5 of the project received a $200,000 REAP grant. The funds enabled the construction of the final connection between two popular recreation venues: Dubuque County Heritage Trail and the City of Dubuque's Bergfeld Recreation Area. This project will also complete the trail network within the Bergfeld Rec. Area through ADAcompliant access to a historic bridge.[32]

[30] file:///C:/Users/mrosen/Downloads/FY15%20Large%20City%20Project%20Descriptions.pdf
[31] http://www.cityofdubuque.org/ArchiveCenter/ViewFile/Item/4574
[32] file:///C:/Users/mrosen/Downloads/FY15%20Large%20City%20Project%20Descriptions%20(1).pdf