



NOTICE OF COMMISSION MEETING AND AGENDA
DES MOINES AREA REGIONAL TRANSIT AUTHORITY
DART MULTIMODAL ROOM, 620 CHERRY STREET
MARCH 3, 2015 – 12:00 PM

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1. CALL TO ORDER	
2. ROLL CALL AND ESTABLISHMENT OF QUORUM	
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13. OTHER – Communications	
14. NEXT MEETING: Regular DART Meeting Tuesday, April 7, 2015 – 12:00 p.m.	
15. ADJOURN	

Language, visual, hearing and transportation services are available at meetings upon request. For requests, please call DART at 515.283.8100 at least 48 hours in advance of the meeting.



PUBLIC HEARING



6: Public Hearing on Proposed FY2016 DART Budget and Tax Levy

Staff Resource: Jamie Schug, Chief Financial Officer

Background:

- Per the 28M Agreement and Section 28M.4 of the Iowa Code, the Regional Transit Authority must hold a public hearing on the proposed budget and allow any member community or the public to provide information to the Commission prior to its adoption of the budget.
- Any written correspondence received prior to the meeting will be available for review.

Public Hearing Procedures:

- Any participants wishing to speak on the proposed subject should sign up in advance on the appropriate speakers list.
- If necessary, DART staff will make a brief presentation regarding the subject of the hearing prior to receiving comment.
- Speakers will be asked to state their:
 - Name
 - Address
 - Affiliation (if any)
- Speakers will be asked to limit their remarks to 3 minutes.
- Written comments/emails received to date will be made available to anyone wishing to review them.



ACTION ITEM



6A:	FY 2016 Budget and Tax Levies
Action:	Certify the Proposed FY 2016 DART Budget and the FY 2016 Regional Transit Authority Tax Levy As Presented

Staff Resource: *Jamie Schug, Chief Financial Officer*

Background:

- A workshop was held with Commission members on January 23rd where staff explained the proposed FY 2016 Budget in detail.
- Staff met with the Service and Budget Committee on January 28th and shared the same detailed information regarding the FY2015 Budget.
- The notice of public hearing for the proposed budget was published on February 20th with a 7 cent levy increase. The rates published on February 20th are the maximum that could be approved for adoption.

Budget:

- The proposed budget (Fixed Route, Paratransit and RideShare):
 - The total budget will increase 5.4 percent, to \$30.1 million from \$28.5 million. The additional property tax revenue will be allocated to cost-of-living salary and wage increases, health insurance increases, technology maintenance agreements, local match for capital expenses and a pending contract with the Amalgamated Transit Union.
 - DART continues to transition federal funding used for operating expenses to capital expenses, such as regular bus replacement to maintain a state of good repair, as part of the DART Forward 2035 plan. The net effect is \$430,000 less available for operations. In addition, the elimination of two funding programs, JARC and New Freedom, resulted in a decrease of \$308,000 in non-operating revenue.
 - Due to the level of increase in the property tax levy required in order to fund expected increases in the cost of doing business, DART is foregoing any service level increases in service for FY 2016.
 - DART health insurance claims are increasing resulting in a projected increase for FY 2016 of thirty percent.

DART FY 2016 Budget	
Operating Revenue	\$8,023,000
Non-Operating Revenue	\$22,065,910
Total Revenue	\$30,088,910
Total Expenses	\$30,088,910



ACTION ITEM

6A: FY 2016 Budget and Tax Levies

Proposed Tax Levies:

- Proposed tax rates listed are 6.5 cents higher than those assessed in FY 2015.
- All rates are shown assuming all 19 member governments remain members of DART, which will occur as no community has provided the required notice ahead of FY 2016 of their intent to withdraw.

Jurisdiction	FY2016 DART Levy	FY 2016 Annual Cost for \$200K Home	Jurisdiction	FY2016 DART Levy	FY 2016 Annual Cost for \$200K Home
Alleman	\$0.590	\$65.76	Johnston	\$0.610	\$67.99
Altoona	\$0.669	\$74.57	Mitchellville	\$0.596	\$66.43
Ankeny	\$0.619	\$69.00	Pleasant Hill	\$0.589	\$65.65
Bondurant	\$0.583	\$64.99	Polk City	\$0.558	\$62.20
Carlisle	\$0.591	\$65.88	Runnells	\$0.514	\$57.30
Clive	\$0.613	\$68.33	Unincorporated Polk County	\$0.517	\$57.63
Des Moines	\$0.804**	\$89.62	Urbandale	\$0.662	\$73.79
Elkhart	\$0.510	\$56.85	West Des Moines	\$0.763	\$85.05
Granger	\$0.584	\$65.10	Windsor Heights	\$0.938	\$104.56
Grimes	\$0.582	\$64.87			

** The City of Des Moines has notified DART of their intention to reduce their computed levy rate to this listed amount by providing DART \$680,000 in accordance with DART's adopted "Levy Buy-Down" policy.

Recommendation:

- Certify the Proposed FY 2016 Budget and Regional Transit Authority Tax Levies as presented.



DES MOINES AREA REGIONAL TRANSIT AUTHORITY COMMISSION MEETING MINUTES

620 Cherry Street – Des Moines, Iowa 50309

February 3, 2015



ROLL CALL

Commissioners Present: Skip Conkling, Angela Connolly, Tom Gayman, Chris Hensley, Gaye Johnson, Bob Mahaffey, Joann Muldoon, Steve Peterson and Steve Van Oort

Commissioner Absent:

Alternates Present:

CALL TO ORDER

The meeting was called to order by Chair, Steve Van Oort at 12:01 pm. Roll call was taken and a quorum was present.

Notice of the meeting was duly published.

APPROVAL OF AGENDA

Mr. Van Oort asked for a motion to amend the agenda to not include the DART Fare Policy action item.

It was moved by Mr. Peterson and seconded by Ms. Johnson to approve the February 3, 2015 Agenda. The motion carried unanimously.

PUBLIC COMMENT

Ms. Jessica Lane, Site Director from Gigi's Playhouse Down Syndrome Achievement Center, located in Windsor Heights, offering over 2 dozen therapeutic, social & educational programs to kids and adults with Down Syndrome as well as their families. In December, they moved to Windsor Heights. One of the reason they chose their current location is because it is on the DART bus line. Transportation is often a barrier for receiving services with their program and they anticipate more people using the DART bus line to assist them with receiving their services. At their old location, some of their 20, up to 60 adults attending their programs could not get transportation. Now on the bus line, they are averaging attendance of around 60 individuals for every program. Gigi's Playhouse is very thankful as they could not do what they do without the bus line.

TRANSIT RIDERS ADVISORY COMMITTEE (TRAC) UPDATE:

Mr. Jay Peterson, TRAC Chair shared feedback discussions from their customer satisfaction survey; arrival times are good and improving, the drivers are safe and they discussed the new fare policy. TRAC unanimously voted to adapt the new fare policy.



FEDERAL LOBBYIST UPDATE:

Mr. Sante and Michael Esposito, Federal Advocates representing DART in Washington D.C presented at the meeting. They provided an update on the status of the next Surface Transportation Reauthorization bill. They also discussed the Bus Coalition, which DART is a member of, and is advocating for increased funding in the bus discretionary program as part of the new Surface Transportation Reauthorization bill. They are recommended that DART consider the TIGER Grant program for funding the Bus Rapid Transit project. The project would score well based on the program criteria.

Ms. Connolly left the meeting at 12:26 p.m.

CONSENT ITEMS

8A – Commission Meeting Minutes – January 6, 2015 – Updated

Mr. Van Oort entered a motion to approve the minutes as amended. It was moved by Mr. Conkling and seconded by Ms. Hensley that the updated items be approved. The motion carried unanimously.

ACTION ITEMS

9A – Rideshare Minivan Purchase

Mr. Tiedens, Procurement Manager, requested the purchase of six (6) 2015 model year Rideshare minivans from Stew Hansen's Dodge City for the amount of \$151,730.00. The total amount includes 5% contingency.

It was moved by Mr. Peterson and seconded by Mr. Gayman. The motion carried unanimously.

9B – Maintenance Lift Replacement Contract

Mr. Tiedens requested approval for a contract with Woodruff Construction for the Maintenance Lift Replacement Project for the amount of \$188,000. This amount includes the total lump sum for demolition, construction and any contingencies.

It was moved by Mr. Conkling and seconded by Mr. Mahaffey that the Commission approve the bid amount of \$163,700 for Woodruff Construction not allowing a contingency. The motion carried unanimously.

9C – ATU Labor Contract Agreement

Mr. Hansen, DART Human Resources Director and Mr. Brick, Legal Counsel with Brick Gentry P.C. outlined the labor negotiation process for the ATU Labor Contract as well as the resulting tentative agreement from mediation with PERB of a 4% wage increase for all ATU employees.

It was moved by Ms. Hensley and seconded by Mr. Conkling not to approve the one-year agreement - Vote: Conkling – Yea, Gayman – Yea, Hensley – Yea, Mahaffey – Yea, Peterson – Yea, Van Oort – Yea, Muldoon – Nay.

**DES MOINES AREA REGIONAL TRANSIT AUTHORITY
COMMISSION MEETING MINUTES – FEBRUARY 3, 2015**



9D – FY 2016 Budget Public Hearing Date

Ms. Schug provided an update to the Commission on the budget for FY 2016. Based on the decision to not to approve the one-year labor agreement with the ATU, staff was advised to publish the property tax levy increase at 7 cents.

It was moved by Ms. Hensley and seconded by Ms. Johnson that the Commission set the FY 2015 Budget Public Hearing Date for Tuesday, March 3, 2015 at 12:00 pm. The motion carried unanimously.

9E – December 2015 Financials

Ms. Dakan, Finance Manager, provided a presentation on the December FY 2015 Financials. Fixed Route performed near budget projections at 47.8% for the first six months of the year. Operating expenses are 4.93% below budget projections year to date.

Paratransit revenue is 5.33% lower than budget expectations. Operating expenses are currently 8.72% under forecasted levels.

Rideshare revenue is 15.96% below budgeted levels at year to date. Expenses are below budgetary expectations by 16.68%.

It was moved by Mr. Peterson and seconded by Mr. Mahaffey to approve the December FY 2015 Consolidated Financial Report. The motion carried unanimously.

DISCUSSION ITEMS

10A – Windsor Heights Wal-Mart Transit Station Project

Mr. Standard, Transit Planner, provided the Commission a presentation on the Windsor Heights Wal-Mart Transit Station Project. DART was successful in receiving ICAP funding for this project and staff expects to have it completed in late 2015.

10B – December 2014 Performance Report

Ms. Presutti provided an overview of updates on ridership and updates on SMS text messaging, tracking customer engagement scoring along with tool enhancements.

MONTHLY REPORTS

11A – Operations Report

No update

11B – Marketing Report

Ms. Baer-Harding, Marketing Director provided information about the upcoming DART Date Night.

11C – Planning Report

No update

**DES MOINES AREA REGIONAL TRANSIT AUTHORITY
COMMISSION MEETING MINUTES – FEBRUARY 3, 2015**



11D – Procurement

No update

11E – General Manager

Ms. Presutti provided a draft handout of the DART Forward 2035 accomplishments for review and feedback. Also distributed was the State Legislative Bill Tracking from DART's State Lobbyist.

FUTURE AGENDA ITEMS

No Update

COMMISSIONER ITEMS

13A – Nominating Committee

Mr. Van Oort proposed himself and asked if Ms. Connolly and Mr. Gayman to act as the Nominating Committee.

13B – Property Tax Levy

Mr. Van Oort wants to convene another workshop to have this discussion in late March or early April regarding the Property Tax Levy.

OTHER – Communications

No Update

NEXT MEETING

March 3, 2015 at 12:00pm

ADJOURNMENT

A motion by Mr. Conkling and second by Ms. Hensley to adjourn the regular Commission Meeting was made at 1:40 pm. The motion carried unanimously.

Future 2015 Meeting Dates

Apr 7, May 5, Jun 2, Jul 7, Aug 4, Sept 1, Sept 29, Nov 3, Dec 1

Chair

Clerk

Date



ACTION ITEM



8A: Medium Duty Bus Purchase

Action: Approve the purchase of six (6) Medium Duty Buses from Hoglund Bus Company at a cost not to exceed \$809,424.

Staff Resource: Mike Tiedens, Procurement Manager

Background:

- The six (6) buses are replacements for a mix of Paratransit and Flex/On Call vehicles that have met their useful life and are due for replacement.
- Paratransit Service Buses:
 - Three (3) 27' Defender Champions, model year 2015
 - \$133,654 per bus (\$400,962 total)
- Flex/On Call Service Buses:
 - Three (3) 27' Defender Champions, model year 2015
 - \$136,154 per bus (\$408,462 total)
- Useful life of the vehicles is seven (7) years.

Procurement:

- DART will be utilizing the State of Iowa, Department of Transportation contract for the purchase of the six (6) medium duty buses.
- DART has reviewed the state's purchasing documentation and determined that the solicitation meets DART's procurement policies and Hoglund Bus Company is a responsive and responsible bidder.

Funding:

- Funding will come from budgeted capital funds and the corresponding DART local match.

Recommendation:

- Approval of a purchase order with Hoglund Bus Company for six (6) 2015 model year Medium Duty Buses for the amount not to exceed \$809,424.



ACTION ITEM



8B: New DART Fare Policy

Action: Adopt the new DART Fare Policy for implementation with the roll-out of the new smart-card fare collection system.

Staff Resource: Jamie Schug, Chief Financial Officer

Background:

- DART is preparing a new fare box policy to prepare for the implementation of a new farebox system on DART buses in late 2015 or early 2016.
- The new policy will provide guidance for the consistency and fairness of DART's fare-collection process on fixed-route service and addresses fare structure, types of fare media and payment options.
- DART presented a fare policy concepts to the public at a series of public meetings and a survey in November 2013, as well as with stakeholder groups such as social service agencies during individual meetings during late 2013 and early 2014.
- DART presented reaction to the policy concepts to the Commission at the January 2014 meeting.
- DART presented a recommended policy to the Commission as a discussion item during the May 2014 meeting.
- DART conducted a Fare Policy Revenue and Ridership Analysis, which found that the new fare policy would have minimal impact on revenue or ridership.
- DART conducted a Fare Policy Title VI Analysis, which found that the new fare policy will comply with the U.S. DOT's Title VI Regulations under the Civil Rights Act of 1964. This is contingent on executing some mitigation measures that DART has planned.
- An updated draft of the policy is attached and includes two modifications from the version presented during the public meetings in November 2014 and the public hearing in December 2014. The updated policy adds a 24-hour day pass and a 31-day pass, replacing the day pass and 30-day pass, respectively.
- TRAC voted to approve the new fare policy at its January 14, 2015 meeting.
- DART is currently exploring a potential partnership with Dwolla to offer additional payment functionality. If the partnership moves forward, a revision to the DART Fare Policy will be necessary.

Recommendation:

- Adopt the new DART Fare Policy for implementation with the roll-out of the new smart-card fare collection system.



DART Fare Policy

Policy applies to: DART Customers
Policy Owner: Finance
Approved by:

Issued:
Revised: TBD

1. Purpose

The purpose of this Fare Collection Policy is to establish guidance for the consistency and fairness of DART's fare collection process on fixed-route service. This policy addresses DART's fare structure, types of fare media, and payment options.

2. Goals

The goal of the policy is to establish a fare collection system that is adaptable to the changing market conditions and technology in order to meet the varied needs of DART riders, operations, and community partners in business, government and social services.

Objectives relating to riders and community partners:

- Improve rider experience
- Expand payment options
- Speed up service by encouraging faster payment methods
- Ensure a clear, equitable and consistent fare structure
- Make the payment of fare as simple and convenient as possible
- Provide a variety of fare purchase options while respecting customers' privacy and ensuring security of personal payment information

Objectives related to operations:

- Improve system performance and increase ridership
- Minimize driver and customer interactions relating to fare payment
- Improve fare recovery
- Reduce fraudulent transactions and fare disputes with operators
- Simplify fare collection reporting, improve data collection and ridership use evaluation
- Decrease fare payments by cash on board buses and increase use of other payment methods to improve efficiency
- Replace use of tokens with single-use passes
- Eliminate use of paper transfers by offering free transfers on smart card products only

3. Fare Structure and Passes

DART riders can pay their fares onboard buses in the following ways:

A. Smart Card

A smart card is a plastic card with a computer chip that can be programmed in two basic ways – stored cash value and/or pass products.



Cash Value

- The amount of cash value on a card is tracked on the card in a “transit purse” (t-purse). If the user has created an account and linked the card to the account, a record of the cash value on the card will be stored in the user’s account
- Cash Value can be recovered for registered cards
- Can be drawn down over time
- Free transfers
- Eligible for bonus trips (Attachment A)
- A maximum amount on the card can be stored, including cash value and number of unused pass products. See Fare Schedule (Attachment A).
- Eligible for “pass backs,” meaning the value can be used to pay for multiple people boarding

Pass Products

- ~~3031~~-day pass (Local)
 - Activated on first use
 - Covers full fare on all Local routes
 - Covers partial fare on Express, On Call and Flex routes; difference must be paid in cash or with cash value on smart card
 - Valid for any ~~3031~~ consecutive days, ~~not counting~~including holidays with no DART service
 - Can be used by only one person for one ride at a single boarding; cannot be used by multiple people boarding at the same time
- ~~3031~~-day pass (Express)
 - Activated on first use
 - Covers full fare on all Local, Express, On Call and Flex routes
 - Valid for any ~~3031~~ consecutive days, ~~not counting~~including holidays with no DART service
 - Can be used by only one person for one ride at a single boarding; cannot be used by multiple people boarding at the same time
- 7-day pass (Local)
 - Activated on first use
 - Covers full fare on all Local routes
 - Covers partial fare on Express, On Call and Flex routes; difference must be paid in cash or with cash value on smart card
 - Valid for any 7 consecutive days, not counting holidays with no DART service
 - Can be used by only one person for one ride at a single boarding; cannot be used by multiple people boarding at the same time
- 24-Hour Day pass (Local and Express)



- o Activated on first use
- o Covers full fare on all Local and Express Routes.
- o Covers non-flex trips on Flex Routes.
- o Pass plus an upcharge (See Attachment A) for On Call trips and flex trips on Flex Routes
- o Valid for duration 24-hour period starting at the minute of the first use, including hours when DART is not in service including holidays with no DART service of service day in which card was activated
- o Can be used by only one person for one ride at a single boarding; cannot be used by multiple people boarding at the same time

Purchase of Smart Cards

Smart cards can be purchased at DART Central Station and DART pass sales outlets. Cards can also be reloaded through DART's website. To ensure access to sales locations and adequate time for sales to be updated in the system, smart card holders will be allowed to have a negative balance equivalent to one ride. The negative balance will be required to be repaid before another transaction will be allowed.

Smart cards cannot be purchased on the bus. Value cannot be added to smart cards on the bus.

Registration of Smart Cards

Smart cards can be registered with DART, allowing the user to add value or passes, and loss protection. Benefits include:

- Registered smart cards may be reloaded any number of times.
- If a registered smartcard is lost or stolen, riders should report the loss to DART Customer Service, and a new card will be issued with the value associated with their account, minus a card-replacement fee. See Attachment A.
- Riders who register their cards will be able to view their recent transaction history on DART's website through a secure account with log-in.

B. Special Programs with ID Smart Cards

Employers, colleges and universities, and other organizations and agencies can partner with DART to provide fare payment by allowing the use of their own issued identification cards, as feasible, to also function as DART smart cards for use by their employees, affiliates and students riding DART. Alternatively, if using their own issued cards is not an option, organizations can adhere stickers with chips to their own issued IDs that allow them to function as DART smart cards.

- **Unlimited Access** – Employers, colleges and universities, and other organizations and agencies participating in DART's Unlimited Access program.
- **Employee Support Program (ESP)** – Employers, colleges and universities, and other organizations and agencies participating in the Employee Support Program.
- **Opportunities Thru Transit (OTT)** – The implementation of smart cards for income-eligible residents enrolled in the OTT program will be developed in collaboration partner agencies.



- **Other Special Programs** – The implementation of smart cards for other special programs (~~such as Des Moines Public Schools and West Des Moines Human Services~~) will be developed in collaboration with staff members from the organization.

C. Limited-Use Smart Card

A limited-use smart card is a plastic or paper card with a computer chip. A limited-use smart card comes preprogrammed with a specific fare product already on it. A limited-use smart card is meant to be disposable after use; it cannot be reprogrammed or have value added to it.

- 7-day pass (Local and Express)
 - Activated on first use
 - ~~Valid for any 7 consecutive days, not counting holidays with no DART service~~
 - Covers full fare on all Local routes and non-flex trips on Flex Routes
 - Covers partial fare on Express, On Call and Flex routes; difference must be paid in cash or with cash value on smart card
 - Valid for any 7 consecutive days, ~~not counting including~~ holidays with no DART service
 - Can be used by only one person for one ride at a single boarding; cannot be used by multiple people boarding at the same time
- 24-Hour Day pass (Local and Express)
 - Activated on first use
 - Valid for 24-hour period starting at the minute of the first use, including hours when DART is not in service, including holidays with no DART service duration of service day in which card was activated
 - Can be used by only one person for one ride at a single boarding; cannot be used by multiple people boarding at the same time
- Single-use passes (Local)
 - Activated on first use
 - Valid for any one trip, including transfers between routes within two hours of first use
 - Covers full fare on Local Routes
 - Covers partial fare on Express, On Call and Flex routes; difference must be paid in cash or with cash value on smart card
 - Can be used by only one person for one ride at a single boarding

D. Cash (U.S. currency)

- Exact fare is required. No change will be given when paying cash.
- Can be used to pay for a single, one-bus fare
- The farebox will accept currency in the following US denominations: 1¢, 5¢, 10¢, 25¢, 50¢, \$1 coins – Susan B. Anthony (SBA) and "Golden Dollar" (Sacagawea and Presidential), \$1, \$2, \$5, \$10 and \$20. All other denominations will be rejected by the farebox.
- Does not include free transfer. (Note: Free transfers are offered on smart cards, only.)



4. Fare Levels

- A. Fares may vary to reflect operational characteristics and average trip length:
- 1) Local route bus trips are considered standard fixed-route service and are assessed a base fare rate.
 - 2) Express bus trips operating primarily in peak traffic periods are assessed higher single and period pass fares than standard fixed-route local service. Riders transferring from Local to Express service will be required to pay the difference between the Local and Express fare. See Attachment A. The additional Express fare will be deducted automatically from smart cards that have available stored value. Users who do not have enough stored value in the t-purse of their smart card will be asked to pay the additional Express fare with cash.
 - 3) On Call and Flex Route trips are assessed higher single and period pass fares than standard fixed-route local service. Riders transferring from local to On Call or Flex Route services will be required to pay the difference between the local and On Call or Flex Route fare. See Attachment A. The additional Express fare will automatically be deducted from smart cards that have available stored value. Users who do not have a smart card with available stored value will be asked to pay the additional Express fare in cash.
 - 4) Shuttle services operating within downtown Des Moines are assessed no fares. See Attachment A.
- B. Reduced fares are offered to persons with disabilities, seniors, students and or refugees and OTT program participants. The reduced fare will not exceed one-half of the adult full fare.
- 1) Seniors, persons with disabilities, refugees, OTT program participants and students outside the Des Moines Public Schools District who meet the relevant program criteria will be issued DART smart cards that are personalized with the individual's photo ID. These cards will be programmed to charge the appropriate reduced rates for single trips and passes.
- C. Reduced fares are offered to children when riding with adults.
- 1) Children 5 years old and younger accompanied by an adult ride fare-free.
 - 2) Children ages 6 to 10 years old ride at no more than one-half the adult full fare.

5. Transfer Trips

- A. Customers who use stored value on DART smart cards will be provided unlimited transfers within two hours of their initial trip without additional fare deducted. After two hours, another full fare will be deducted.
- B. Cash-paying riders will NOT receive free transfers. Alternatively, riders can receive free transfers by purchasing a limited-use smart card or put value on a smart card at a pass sales outlet; these products will not be available onboard DART buses.
- C. This transfer fare structure is meant to encourage the use of smart cards, which speed up boarding times on buses and shorter dwell times at stops, resulting in service that is more efficient.

6. Fare Disputes

Disputes over payment of fare will be resolved through the following process:



- DART bus operators will default to message on the fare box.
- Fare disputes will be resolved by a DART Supervisor or at DART Central Station's Customer Service.

7. Fare Changes

- A. DART will adhere to local and federal public involvement guidelines including the DART Public Participation Plan and Title VI of the Civil Rights Act of 1964 when considering fare increases.
- B. When fares change, passes will be honored at purchased value through expiration.

8. Distribution of Fare Media

- A. DART fare media will be available for purchase online at www.ridedart.com. DART will also continue to partner with retail outlets (see Attachment B) to meet demand and make purchasing DART fare media accessible throughout DART's service area.
- B. To encourage the use of smart cards, DART will provide smart cards free of charge to riders who purchase of smart card media. In other words, when a customer makes a purchase of a DART fare product on a smart card, DART will waive the cost of the actual physical card. To receive a free card, customers must purchase the value of at least a 24-Hour day pass on the card. DART smart cards will be available online, at DART Central Station or at DART pass sales outlets.
- C. Following the initial distribution of free cards, there will be a cost to buy a new smart card. However, when a customer registers their new smartcard for the first time the cost of the card will automatically be added to the card as stored value for use as bus fare.
- D. The cards can be purchased online using credit or debit cards issued by major banks. The cards can be purchased at pass sales outlets and DART Central Station using cash, check, or credit or debit cards issued by major banks. Neither checks nor credit or debit cards are accepted aboard DART buses.

Policy and Procedure Revision Log

Revision	Date

Related policies/forms:



 **ATTACHMENT A**
DART FARE SCHEDULE

DART's fare schedule reflects current pricing for use of DART service through the various fare products available. The schedule is laid out in four parts:

1. Cash
2. Smart card pass products
3. Smart card stored value
4. Limited-use smart cards

DRAFT



ATTACHMENT A
DART FARE SCHEDULE – CASH

Cash

Service Type	Full fare	Half-Fare	Children 6-10	Children 5 and younger	Transfer
Local Routes	\$1.75	\$0.75	\$0.75	FREE	No free transfer
Express Routes	\$2.00	\$0.75	\$0.75	FREE	No free transfer
On Call	\$3.50	\$0.75	\$0.75	FREE	No free transfer
Flex Route (regular route without flex trip)	\$1.75	\$0.75	\$0.75	FREE	No free transfer
Flex Route (off route for flex trip)	\$3.50	\$0.75	\$0.75	FREE	No free transfer
Shuttles (D-Line and Link)	FREE	FREE	FREE	FREE	No free transfer



ATTACHMENT A

DART FARE SCHEDULE – Smart Card Pass Products

Smart Card -- Pass Products

Service Type	301-day Express Pass	301-day regular	301-day Half Fare	7-day Local	7-day Half Fare	24 Hour Day pass	24 Hour Day pass Half-Fare
	\$58.00	\$48.00	\$24.00	\$16.00	\$7.00	\$4.00	\$2.00
Local Routes	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Express Routes	Pass	Pass + \$0.25	Pass	Pass	Pass + \$0.25	Pass	Pass
On Call	Pass	Pass + \$1.75	Pass + \$1.75	Pass + \$1.75	Pass + \$1.75	Pass + \$1.50	Pass + \$1.50
Flex Route (regular route without flex trip)	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Flex Route (off route for flex trip)	Pass	Pass + \$1.75	Pass + \$1.75	Pass + \$1.75	Pass + \$1.75	Pass + \$1.50	Pass + \$1.50
Shuttles (D-Line and Link)	FREE	FREE	FREE	FREE	FREE	FREE	FREE



ATTACHMENT A

DART FARE SCHEDULE – Smart Card Stored Value

**Smart Card -- Stored Value
 (Maximum value: \$250)**

Service Type	Full fare	Half-Fare	Children 6-10	Children 5 and younger	Bonus Trips	Transfer
Local Routes	\$1.75	\$0.75	\$0.75	FREE	Every 11th Trip FREE	FREE
Express Routes	\$2.00	\$0.75	\$0.75	FREE	Every 11th Trip FREE	FREE
On Call	\$3.50	\$0.75	\$0.75	FREE	Every 11th Trip FREE	FREE
Flex Route (regular route without flex trip)	\$1.75	\$0.75	\$0.75	FREE	Every 11th Trip FREE	FREE
Flex Route (off route for flex trip)	\$3.50	\$0.75	\$0.75	FREE	Every 11th Trip FREE	FREE
Shuttles (D-Line and Link)	FREE	FREE	FREE	FREE	Every 11th Trip FREE	FREE



ATTACHMENT A

DART FARE SCHEDULE – Limited-Use Smart Cards

Limited-Use Smart Card

Service Type	7-Day Local	7-Day Half-Fare	<u>24 Hour Day Pass</u>	<u>24 Hour Day Pass Half-Fare</u>	Single Use	Single-Use Half-Fare
	\$16.00	\$7.00	\$4.00	\$2.00	\$1.75	\$7.50 \$7.75
Local Routes	Pass	Pass	Pass	Pass	Pass	Pass
Express Routes	Pass	Pass + \$0.25	Pass	Pass	Pass + \$0.25	Pass
On Call	Pass	Pass + \$1.75	Pass + \$1.50	Pass + \$1.50	Pass + \$1.75	Pass + \$1.75
Flex Route (regular route without flex trip)	Pass	Pass	Pass	Pass	Pass	Pass
Flex Route (off route for flex trip)	Pass	Pass + \$1.75	Pass + \$1.50	Pass + \$1.50	Pass + \$1.75	Pass + \$1.75
Shuttles (D-Line and Link)	FREE	FREE	FREE	FREE	FREE	FREE



ATTACHMENT B
Pass Sales Outlets

DART's pass sales outlets show locations where DART fare media is available.

Organization	Address	City	Weekly Local	Monthly Local	Express	Tokens	Smart Cards	Limited Use cards
DAHL'S JOHNSTON	5440 NW 86TH STREET	JOHNSTON	yes	yes	yes	yes	yes	yes
DAHL'S 50TH & EP TRUE	5003 EP TRUE PARKWAY	WEST DES MOINES	yes	yes	yes	yes	yes	yes
DAHL'S 86TH & HICKMAN	8700 HICKMAN ROAD	CLIVE	yes	yes	yes	yes	yes	yes
DAHL'S BEAVER	1819 BEAVER AVENUE	DES MOINES	yes	yes	yes	yes	yes	yes
DAHL'S EAST 33RD	3400 EAST 33RD	DES MOINES	yes	yes	yes	yes	yes	yes
DAHL'S EUCLID	1320 EAST EUCLID AVENUE	DES MOINES	yes	yes	yes	yes	yes	yes
DAHL'S FLEUR	4121 FLEUR DRIVE	DES MOINES	yes	yes	yes	yes	yes	yes
DAHL'S INGERSOLL	3425 INGERSOLL AVENUE	DES MOINES	yes	yes	yes	yes	yes	yes
DAHL'S MERLE HAY	4343 MERLE HAY ROAD	DES MOINES	yes	yes	yes	yes	yes	yes
DAHLS WEST	15500 HICKMAN	CLIVE	no	no	yes	no	yes	no
HY-VEE 86TH & DOUGLAS	8701 DOUGLAS AVE	URBANDALE	yes	yes	yes	yes	yes	yes
HY-VEE ALTOONA	100 8TH STREET SW	ALTOONA	yes	yes	yes	yes	yes	yes
HY-VEE ANKENY	410 NORTH ANKENY BLVD	ANKENY	yes	yes	yes	yes	yes	yes
HY-VEE ANKENY	2510 SW STATE ST.	ANKENY	yes	yes	yes	yes	yes	yes
HY-VEE EUCLID	2540 EAST EUCLID AVENUE	DES MOINES	yes	yes	yes	yes	yes	yes



Organization	Address	City	Weekly Local	Monthly Local	Express	Tokens	Smart Cards	Limited Use cards
HY-VEE WINDSOR HEIGHTS	7101 UNIVERSITY	WINDSOR HEIGHTS	yes	yes	yes	yes	yes	yes
HY-VEE 35TH	1700 VALLEY WEST DRIVE	WEST DES MOINES	yes	yes	yes	yes	yes	yes
HY-VEE DRUGSTORE	4100 UNIVERSITY AVENUE	DES MOINES	yes	yes	yes	yes	yes	yes
HY-VEE FLEUR	4605 FLEUR DRIVE	DES MOINES	yes	yes	yes	yes	yes	yes
HY-VEE GRAND WDM	1990 GRAND AVENUE	DES MOINES	yes	yes	yes	yes	yes	yes
HY-VEE MILLS CIVIC PKWY	555 SOUTH 51ST STREET	WEST DES MOINES	yes	yes	yes	yes	yes	yes
HY-VEE MLK	3330 MARTIN LUTHER KING PKWY	DES MOINES	yes	yes	yes	yes	yes	yes
HY-VEE PARK AVENUE	3221 SE 14TH STREET	DES MOINES	yes	yes	yes	yes	yes	yes
HY-VEE PLEASANT HILL	4815 MAPLE DRIVE	PLEASANT HILL	yes	yes	yes	no	yes	no
HY-VEE SOUTHRIDGE	1107 EAST ARMY POST ROAD	DES MOINES	yes	yes	yes	yes	yes	yes
HYVEE WEST DES MOINES	1725 JORDAN CREEK PKWY	WEST DES MOINES	no	yes	yes	no	yes	no
WALMART ANKENY	1002 SE NATIONAL DRIVE	ANKENY	yes	yes	yes	no	yes	no
WALMART WINDSOR HEIGHTS	1001 73RD ST.	WINDSOR HEIGHTS	yes	yes	yes	no	yes	no
E-Z MONEY CHECK CASHING	904 ARMY POST ROAD	DES MOINES	yes	yes	yes	yes	yes	yes
E-Z MONEY CHECK CASHING	1238 EAST 14TH STREET	DES MOINES	yes	yes	yes	yes	yes	yes
E-Z MONEY CHECK CASHING	2910 EAST UNIVERSITY	DES MOINES	yes	yes	yes	yes	yes	yes



ACTION ITEM



8C: Stand Up 4 Transportation Proclamation

Action: Sign the Stand Up 4 Transportation Day Proclamation

Staff Resource: *Elizabeth Presutti, General Manager*
Kirstin Baer-Harding, Marketing Director

Background:

- The American Public Transportation Association (APTA) is making plans for a nationwide Stand Up for Transportation Day on Thursday, April 9, and is seeking a broad coalition of partners to participate in these events around the country.
- This is an opportunity to call attention to the importance of infrastructure investment and the need for a long-term surface transportation authorization bill. MAP-21, which is the federal surface transportation legislation, expires on May 31.
- APTA is encouraging local organizations and advocates who support public transit and highway investment to participate in these events, which are being held while Congress is on recess. So far, more than 90 events have been organized. The organizations also will be undertaking media and social media activities around the day and the need for more investment.
- "Stand Up for Transportation Day is a single day when all transportation organizations and their coalition partners unite in common purpose with a unified message," said APTA Chair Phillip Washington, who serves as general manager and chief executive officer of Denver's Regional Transportation District. "It's time to set aside partisanship and once again act in the best interest of our country to repair, strengthen and build transportation infrastructure."
- DART has committed to having an event to promote the Stand Up for Transportation Day on Thursday, April 9. We are partnering with the Des Moines MPO, the Greater Des Moines Partnership and the Urban Land Institute on the events being held that day.
- At the Commission meeting, DART will provide a presentation on the events being planned.
- Attached is a proclamation that APTA is requesting that transit agencies consider signing regarding the importance of investment in transportation infrastructure.

Recommendation:

- Sign the Stand Up 4 Transportation Day Proclamation.

**A PROCLAMATION ESTABLISHING
STAND UP FOR TRANSPORTATION
(A National Transportation Infrastructure Day)
IN DES MOINES, IOWA
On April 9, 2015**

WHEREAS April 9, 2015 marks the STAND UP FOR TRANSPORTATION DAY, a national transportation infrastructure day that highlights the critical need to invest in updating our nation's transportation infrastructure;

WHEREAS transportation is the economic backbone of our nation's economy and public transportation is an important part of our nation's transportation system, federal funding for public transportation infrastructure needs to increase and Congress needs to pass a long-term, multimodal transportation bill by May 31, 2015;

WHEREAS public transportation is a proven catalyst for economic growth since for every \$1 invested in public transportation, \$4 in economic returns is generated locally, creating economically vibrant and prosperous communities;

WHEREAS public transportation offers millions of Americans access to economic opportunities since nearly 60 percent of the trips taken on public transportation are for work commutes;

WHEREAS STAND UP FOR TRANSPORTATION DAY will be celebrated in small, medium, and large communities across the United States, as a day that highlights the critical need for funding transportation infrastructure, both public transportation and highway infrastructure;

THEREFORE BE IT RESOLVED THAT I, **DART COMMISSION CHAIR, STEVE VAN OORT, OF THE DES MOINES AREA REGIONAL TRANSIT AUTHORITY (DART)** proclaim April 9, 2015 as **STAND UP FOR TRANSPORTATION DAY DES MOINES, POLK COUNTY, IOWA** and that **DART** will join with public transportation agencies and business across the country to participate in STAND UP FOR TRANSPORTATION DAY to encourage greater federal investment in public transportation infrastructure;

ALSO BE IT RESOLVED THAT **DES MOINES, POLK COUNTY, IOWA** declares that quality public transportation services are essential for the economic prosperity of our country, our communities and for individuals;

ALSO BE IT RESOLVED THAT WHERE PUBLIC TRANSPORTATION GOES, COMMUNITY GROWS.

PASSED AND ADOPTED THIS 3rd DAY OF MARCH, 2015.
STEVE VAN OORT, DART COMMISSION CHAIR



ACTION ITEM



8D: January FY2015 Consolidated Financial Report

Action: Approve the December FY2015 Consolidated Financial Report

Staff Resource: Amber Dakan, Finance Manager

Year-to-Date Budget Highlights:

Revenue:

- Fixed Route Operating Revenue performed 4.8% below budget projections as of January year to date. Cash Fares and Monthly Passes fell slightly below budgeted levels while Unlimited Access and Other Contracted Services continued above budget.
- Fixed Route Non-Operating Revenue continues to be directly on target.
- Paratransit Operating Revenue is 5.97% lower than budget expectations. Cash fares are above target while contracted trips are currently lower than forecasted.
- Rideshare Revenues are 16.70% below budgeted levels at year to date. Currently, Rideshares revenue has exceeded its year to date expenses.

Operating Expense:

- Fixed Route Budget Summary – Operating expenses are 4.88% below budget projections year to date. Fuel and liability insurance are currently two large drivers of the savings.
- Paratransit Budget Summary – Operating expenses are currently 7.05% under forecasted levels. Fuel and Equipment Repairs are two categories seeing the most savings.
- Rideshare Expenses are below budgetary expectations by 19.97%. Fuel and Accident Repairs are driving the budget savings year to date.

Recommendation:

- Approve the January FY2015 Consolidated Financial Report.

**** TOTAL Un-Audited Year-End January FY2015 as Compared to Budget:**

Fixed Route	\$	466,511	Reserve for Accidents (See Balance Sheet):
Paratransit	\$	78,839	FY2015
Rideshare	\$	<u>23,165</u>	\$91,874.55
Total	\$	568,515	

FY2015 Financials:

January 2015

FIXED ROUTE	January 2015			Year-To-Date-(7) Months Ending 01/31/2015		
	Actual	Budgeted	Variance	Actual	Budgeted	Variance
Operating Revenue	391,179	413,208	(22,029)	2,753,341	2,892,454	(139,114)
Non-Operating Revenue	1,469,396	1,596,964	(127,568)	11,098,100	11,178,750	(80,649)
Subtotal	1,860,576	2,010,172	(149,596)	13,851,441	14,071,204	(219,763)
Operating Expenses	1,942,387	2,010,172	67,785	13,384,930	14,071,204	686,274
Gain/(Loss)	(81,811)	-	(81,811)	466,511	-	466,511

PARATRANSIT	January 2015			Year-To-Date-(7) Months Ending 01/31/2015		
	Actual	Budgeted	Variance	Actual	Budgeted	Variance
Operating Revenue	157,144	174,167	(17,023)	1,146,428	1,219,167	(72,739)
Non-Operating Revenue	106,349	107,516	(1,167)	765,249	752,611	12,638
Subtotal	263,493	281,683	(18,190)	1,911,677	1,971,778	(60,101)
Operating Expenses	290,027	281,683	(8,345)	1,832,838	1,971,778	138,939
Gain/(Loss)	(26,534)	-	(26,534)	78,839	-	78,839

RIDESHARE	January 2015			Year-To-Date-(7) Months Ending 01/31/2015		
	Actual	Budgeted	Variance	Actual	Budgeted	Variance
Operating Revenue	67,591	85,685	(18,094)	499,662	599,798	(100,136)
Non-Operating Revenue	-	-	-	3,518	-	3,518
Subtotal	67,591	85,685	(18,094)	503,179	599,798	(96,619)
Operating Expenses	51,672	85,685	34,013	480,014	599,798	119,784
Gain/(Loss)	15,919	-	15,919	23,165	-	23,165



DISCUSSION ITEM



9A: Ames – Des Moines I-35 Commuter Corridor Feasibility Study

Staff Resource: Jim Tishim, Planning Director

- A presentation will be provided on the Ames - Des Moines I-35 Commuter Corridor Feasibility Study by Metropolitan Planning Organization Senior Transportation Planner, Zach Young.
- Attached is the final report of the study.



Des Moines Metropolitan Planning Organization Ames – Des Moines I-35 Commuter Corridor Feasibility Study

Final Report – August 19, 2014



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Acknowledgements

The *DMAMPO Ames – Des Moines I-35 Commuter Corridor Feasibility Study* was produced with the guidance, support, and participation of the following people:

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Executive Summary

The DMAMPO Ames – Des Moines I-35 Commuter Corridor Feasibility Study, commissioned by the Des Moines Area Metropolitan Planning Organization (DMAMPO), examines the feasibility of operating transit in the I-35 corridor between downtown Des Moines, Ankeny, and Ames. This builds upon the work of the Capital Crossroads plan and other studies that called for examining a potential commuter-orientated transit service in this corridor.

While the Des Moines Area Regional Transit Authority (DART) operated Route 98 Ankeny Express does connect Ankeny with downtown Des Moines, there is currently no transit linking the economic and education centers between Ames and Des Moines, or Ames and Ankeny. This prevents persons without a car from taking advantage of educational or employment opportunities throughout the corridor. Other benefits from transit can include mobility benefits, cost savings from lowered vehicle ownership and parking costs, and benefits derived from more efficient land use. Before these benefits are realized, the transit concept best fitting the needs of residents in the corridor must be chosen.

Olsson Associates, along with LT Leon Associates, Inc., examined existing travel markets along the corridor, ridership potential generated by these markets, transit strategies to address those markets, associated capital and operations costs, and supportive land uses.

Using data from major employers, and the U.S. Census, major movements were identified along the corridor. The Des Moines – Ankeny segment experiences the highest amount of commuter and student flow. There is also a flow of Ames residents studying in Ankeny and Ames residents working in Des Moines. The combined flow of students and commuters from Ames south to Ankeny or Des Moines is approximately half the flow of the movement between Ankeny and Des Moines. These major movements are summarized in the table below.

Table 1 Commuter and Student Movement throughout the I-35 Corridor

	Commuter Trips		Student Trips	
	Direction	Commuters	Direction	Students
1	Ankeny to Des Moines	7,844	Des Moines to DMACC- Ankeny	3,249
2	*Ankeny to Downtown Des Moines	4,720	Ames to DMACC-Ankeny	1,096
3	Ankeny to West Des Moines	2,231	West Des Moines to DMACC-Ankeny	841
4	Des Moines to Ankeny	3,246	Urbandale to DMACC-Ankeny	689
5	Ames to Des Moines	1,474	Des Moines to DMACC-West	552

Source: U.S. Census Bureau OnTheMap LEHD Origin-Destination Statistics. (*) Census Transportation Planning Products CTPP. Iowa State University. Des Moines Area Community College.

Based on these movements, potential transit modes include express bus, traditional fixed route, flex route, point deviated, deviated fixed route, and expansion of ridesharing options. After studying several levels of service and the estimated ridership from those investments in transit, a strategy was recommended to include commuter express bus service along the I-35 corridor during the weekday peak period to serve the commuter market. In addition, a mid-day deviated fixed route could serve to meet some of the demand for non-work related trips and provide some access to public transit for rural areas between Ames and Ankeny.

This concept recommends service levels for the express bus between Ames, Ankeny and Des Moines to provide service on a 30-minute frequency Monday through Friday during the four-hour morning and evening peak periods, operating on I-35. A mid-day deviated fixed route bus service, operating on US 69, would also provide service, but on a 60-minute frequency Monday through Friday during the four hour off-peak period. In addition to the express and flexible bus service, ridesharing should be used as part of an overall corridor transportation alternatives strategy to provide transportation options for movements not directly served by the I-35 corridor service, such as between West Des Moines and Ames.

Although ridesharing programs can be structured so that most of the costs are covered by riders, fixed route options must be subsidized because of a lower cost recovery. The estimated annual operating cost for the express service will be approximately \$1.2 million with an initial capital investment of \$4.1 million, including the purchase of vehicles. The deviated fixed route amounts to a \$204,000 annual operating cost and an initial \$295,000 capital investment. These costs are approximate, and there may be opportunities to adjust capital costs to better suit funding levels. This mid-day connection to rural areas makes the service eligible for Federal Transit Administration Section 5311 (f) Intercity Bus assistance program funding. The project may be funded through a variety of sources – federal, state, local sources, as well as user fees. Appropriating local funding will be the primary funding constraint, as local governments or agencies will have to raise additional revenue, or reallocate existing service.

As available funding for transit becomes more limited, site development decisions can be made to help make the most of future investments in transit. Those areas with a higher land use density, greater diversity of uses, and higher density of employees or residents have greater opportunities to use transit than those areas with more dispersed land use characteristics. New and existing businesses in the region may consider these development strategies to help in both attracting and maintaining a talented workforce.

Existing development patterns for the I-35 corridor have areas of higher land use density, but major employment and residential areas are often sprawled. Future plans called for higher density uses in some identified areas, but there was also a desire to sustain the “small town” quality that much of the corridor exudes. While it is important to preserve the characteristics of a given neighborhood or city, it is also important to look at the changing needs of the corridor’s growing population. By implementing transit supportive development practices in a way that fits the scale of a Midwest community, the environment can not only be more supportive of future transit investment but also sustain the culture of the corridor.

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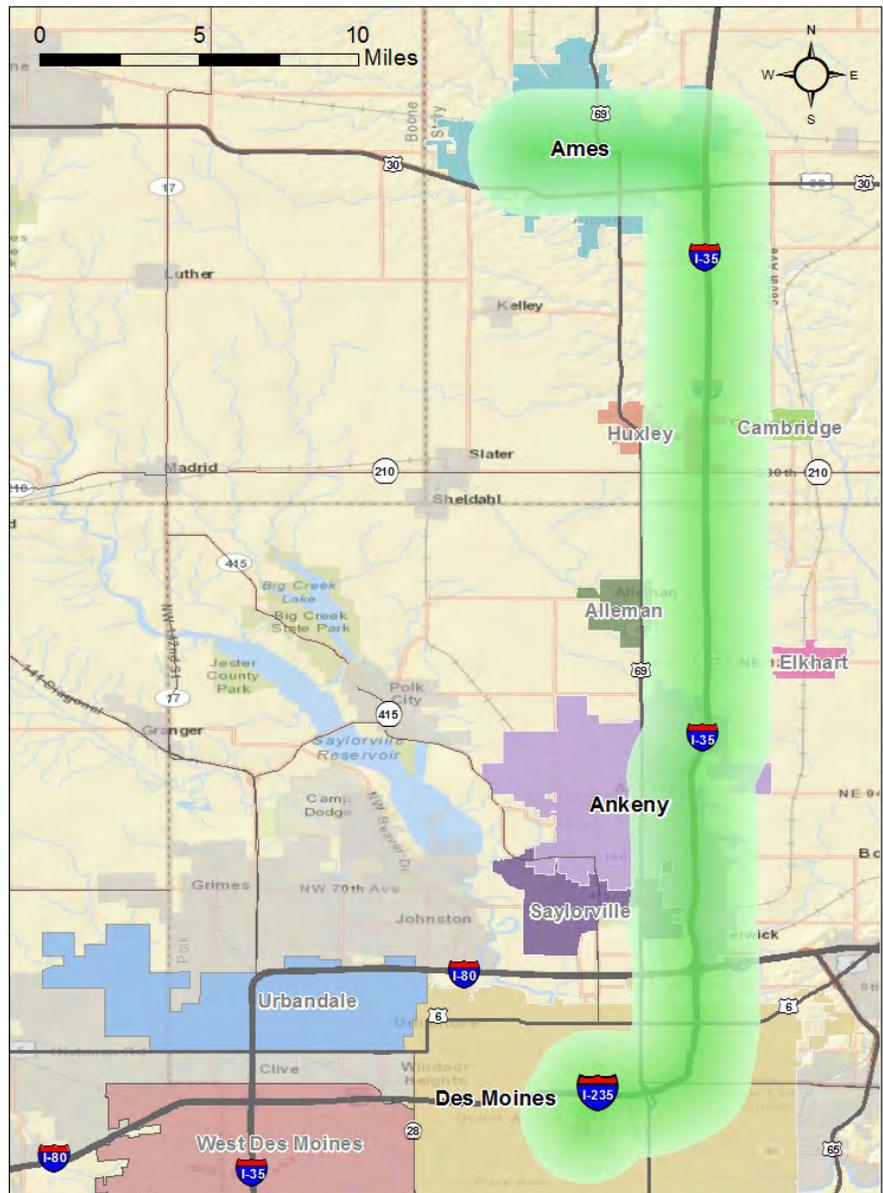
Chapter 1. Introduction

1.1 Purpose of the Study

The purpose of the project is to examine the feasibility of transit operating in the I-35 corridor in Iowa between downtown Des Moines, Ankeny, and Ames. In order to assess feasibility, this study examines existing travel markets along the corridor and the ridership potential generated by these markets. It also identifies transit strategies to address those markets, associated capital and operations costs, and identified supportive land uses. The Des Moines Area Metropolitan Planning Organization (DMAMPO) has led this project, with participation from Ames Area Metropolitan Planning Organization (AAMPO), Iowa Department of Transportation (IDOT), the city of Ankeny, the city of Ames, the Des Moines Downtown Community Alliance, CyRide, Heart of Iowa Regional Transit Agency (HIRTA), and the Des Moines Area Regional Transit Authority (DART).

This study is preceded by the Capital Crossroads plan. This regional plan discussed greater regional planning that would encompass both Des Moines and Ames to create a more cohesive opportunity for economic growth. As part of the Capital Crossroads plan and other studies, commuter-orientated transit service connecting Des Moines, Ankeny, and Ames was identified as a project to be examined for potential service feasibility.

Figure 1 Study Area



Study Team Organization

Olsson Associates is completing this project under contract to the DMAMPO. The project was guided by a stakeholder team comprised of DART, HIRTA, CyRide, AAMPO, IDOT, the city of Ankeny, the city of Ames, the city of Des Moines, and the Des Moines Downtown Community Alliance. The stakeholder team provided input on transit recommendations and coordination between communities, employer interests, major universities, and local transit systems.

1.2 Study Area

The primary study area is the I-35 corridor between Des Moines and Ames, although the project also considered travel movement outside this immediate corridor to include data and information for the communities adjacent to the corridor including Ankeny, Alleman, Huxley, Cambridge, and Elkhart. In addition, information has been obtained from West Des Moines and Urbandale, outside the study area, to investigate possible traveler interactions with communities and major attractions inside the corridor. The study area is shown in Figure 1.

1.3 Existing Transit Service

Des Moines Area Regional Transit

DART serves 19 cities in and around Polk County. DART has a number of routes and services that were considered when evaluating the I-35 corridor.

Route 98 Ankeny Express runs from downtown Des Moines to three Ankeny Park & Ride locations: Mercy North, Hawkeye Park, and Des Moines Area Community College (DMACC) Lot L Park & Rides. Buses run from roughly 7:00 a.m. – 7:00 p.m. and every half hour during morning and evening commutes but only every one and a half hours during the middle of the day. Express Routes cost \$2 per person one way. Alignment for Route 98 is shown in Figure 2. The DART Central Station is shown in Figure 3.

Figure 3 DART Central Station



Figure 2 Route 98 Ankeny Express



CyRide

CyRide is operated by the city of Ames, Iowa State University (ISU), and the ISU's Government of the Student Body. University students must only show their student IDs to ride the CyRide buses as a CyRide charge has been included in their student fees. Individuals pay \$1.25 for each trip. CyRide has a number of routes and services that were considered when evaluating the I-35 corridor. A primary service feature is the Ann Campbell Transit Station, which is a CyRide Park & Ride facility, mainly used during the semester by university students who commute to Ames and ride a bus into campus. Use of this facility enables a rider to have access to much of the ISU campus.

A second service feature is the Ames Intermodal Facility, which was funded by a federal Transportation Investment Generating Economic Recovery (TIGER) grant and is run by the city of Ames, CyRide, and ISU. It is a multilevel Park & Ride facility with nearly 400 parking stalls, and it services private bus lines from Ames to Des Moines including Executive Express, Jefferson Lines, and Burlington Trailways. Funding has been sought to complete another phase of the project, which would allow CyRide to make a stop at the facility.

Figure 7 CyRide Bus



Heart of Iowa Regional Transit Agency

HIRTA operates as the public transit service provider for Boone, Dallas, Jasper, Madison, Marion, Story, and Warren counties. HIRTA provides direct services for Jasper, Marion, and Story counties. The HIRTA services for the remaining four counties are contracted out to local providers. A rider must call the central office, preferably 24 hours in advance, to schedule a pick-up time. The driver will then meet the rider at the pick-up time.

Story County HIRTA operates buses during daytime hours seven days a week. Everyone is able to take advantage of the services offered by HIRTA, including elderly people and those with disabilities. Transportation within Ames is \$4 round trip per person. Trips taken within the county are \$8 round trip per person.

If a passenger wishes to travel outside of the county, the fee is \$25 per hour. However, Boone County HIRTA provides a trip that runs through Ames to and from Des Moines on Tuesdays and Thursdays for \$10.

Figure 8 HIRTA Bus



Vanpools and Carpools

DART also offers carpooling and vanpooling networking capability. Vanpooling service provides vans for groups of 5 – 15 passengers who meet at a specified location, ride to work, and return together after work. Riders pay a monthly fee and drivers drive for free. The drivers also have a limited number of personal miles they can put on the van. Currently, 11 DART vanpools from Ames to Des Moines serve 93 people. An additional two vanpools from Des Moines to Ames are in development. One vanpool will serve the area near IDOT, and the other vanpool will travel to the area near major employers like the U.S. Department of Agriculture (USDA), Danfoss, 3M, and Hach. Drivers must pass an orientation class, drug screen, physical exam, and Motor Vehicle Record check. Customers can sign up through the DART website. Monthly fares range from \$84 to \$96 for trips from Ames to Des Moines, depending on the number of riders.

People can also sign up on the DART website for a carpool, in which customers meet at a specified location and simply drive one of the customer’s personal vehicles. The only service DART provides for this program is a network where customers can connect with one another and coordinate rides. These services are primarily for customers to commute to and from their places of employment.

ISU employees can drive an ISU vehicle in a vanpool in order to commute to the campus from out of town. At the beginning of the fall 2013 semester, ISU advertised six vanpools. Half of the vanpools were from Des Moines and Ankeny. Monthly costs ranged from \$75 to \$90 per person.

ISU also offers a secure network for students, faculty, and staff to communicate about carpooling and ridesharing. Participants must have a University Identification Number and password to access the system. The service is sponsored by the Government of the Student Body (GSB) which is not liable for any complications once users are connected. Individuals work out driving relationships on their own and use their own vehicles. The service is free and provides a way for users to connect.

Executive Express

Executive Express is a privately owned shuttle service that provides transportation to the Des Moines International Airport from more than 25 locations in Iowa. There is a shuttle that runs daily from Ames to the Des Moines Airport. The shuttles run about hourly except from 1:00 a.m. – 4:00 a.m. Riders can park and meet the shuttle at the Ames Intermodal Facility or the Holiday Inn Express & Suites. Round trip costs range from \$30 to \$50, depending on the number of riders in the party.

Jefferson Lines

Jefferson Lines serves 13 states from Texas to Minnesota and Wisconsin to Wyoming, and focuses on the interstate and interregional markets. Three of the buses that travel through the corridor, for example, operate daily between Minneapolis and Kansas City.

The 801 leaves Ames at 10:00 p.m. and arrives in Des Moines at 10:45 p.m. The 803 leaves Ames at 5:00 p.m. and arrives in Des Moines at 5:45 p.m. The 805 departs from Clear Lake at 2:10 a.m. and reaches Des Moines at 4:00 a.m. These routes run daily.

The return bus schedule is as follows. The 802 leaves Des Moines at 11:30 p.m. and arrives in Ames at 12:10 a.m. The 804 leaves Des Moines at 11:40 a.m. and reaches Ames at 12:20 p.m. And the 806 takes off from Des Moines at 5:45 a.m., arriving in Ames at 6:25 a.m. These routes also run daily. Round trip costs are \$26 per person.

Burlington Trailways

Burlington Trailways serves Iowa, Illinois, Indiana, Colorado, Nebraska, and Missouri. In the I-35 corridor, Burlington Trailways has buses that run daily back and forth between Ames and Des Moines. Buses leave the Ames Intermodal Facility at 5:00 p.m. and arrive in Des Moines at Keosauqua Way at 5:45 p.m. Return trips run from Des Moines at 9:10 a.m. to Ames at 10:00 a.m. Round trip costs from Des Moines to Ames are \$32 per person.

Amtrak Thruway Service

Amtrak ran a temporary bus route at the end of the 2013 ISU fall semester and at the beginning of the 2014 spring semester. The bus departed from the Ames Intermodal Facility and made a stop in Des Moines before continuing to the Osceola train station. Trains then traveled to either Chicago or Denver. The bus ran once in the morning and once in the evening on a round trip each time. The combined fare from Ames to Chicago was \$61, and the fare from Ames to Denver was \$98. Both costs were one-way costs. Amtrak has not made any decision to continue or discontinue similar services in the future.

Greyhound and Megabus

No Greyhound bus service runs through the corridor. Through the Greyhound website, they offer services to riders from Ames and Des Moines via the previously mentioned bus providers.

No Megabus service runs through the corridor. Megabus has a stop in Des Moines, but routes only run east and west on I-80 from Omaha to Chicago. Another route runs from Chicago to Minneapolis by way of Madison, Wisconsin.

1.4 Previous Planning Studies

Ames Area MPO 2014 Final Passenger Transportation Plan

“The Ames Passenger Transportation Plan (PTP) is an effort of providing key community decision makers with the knowledge of how individuals are currently being transported throughout Ames, the additional transportation needs and service requests identified, and recommended projects to overcome these needs” (p. 1).

As part of the recommended projects for the next four years, 2014 – 2017, the need to address increased commuter travel through viable transit options along the I-35 corridor between Ames and Des Moines was identified in public meetings in Ames, Ankeny, and Des Moines. While the city of Ames currently has no coordinated vanpool program, this was identified as a need for the community within CyRide public meetings as well as through the PTP committee process. A small vanpool program operated by ISU’s transportation department is intended to be expanded to the entire Ames community. Furthermore, the PTP states, “A community program would be eligible for funding through the [Iowa Clean Air Attainment Program] ICAAP state program to reduce emissions from those commuting into the Ames area. This project would fund the operation, staff and purchase of 10 vans for commuting purposes. This project would not likely occur if federal funding was not found from the ICAAP source” (p. 30-31). This interest in creating a vanpool program could be used in coordination with efforts to identify potential commuter options for those wanting to commute to Ames.

Figure 9 CyRide Articulated Buses

Ames Area MPO 2035 Long Range Transportation Plan

This long-range plan identifies future transportation investments in the Ames area. Included in the list of transit issues identified by the public during public input sessions was the need for Park & Ride lots to Des Moines and formalized transit service to Des Moines.



Along with the future transportation projects are other transportation strategies that could be implemented based around travel demand management and intelligent transportation system measures. These strategies could have significant effects on the potential demand for commuter service from/to Ames.

One strategy introduced creating a city-wide Trip Reduction Ordinance (TRO). TRO characteristics discussed in the plan included:

- An employee trip reduction goal
- Employee transportation coordinator(s)
- Requiring support of carpooling and vanpooling, such as on-site parking places located in preferred locations and for exclusive use for carpoolers or vanpoolers

Another strategy included creating a Transportation Management Association (TMA). This would be a public/private partnership formed so employers, developers, building owners, and government entities could work collectively to establish policies, programs, and services to

address local transportation problems. TMA programs traditionally include those that are cost effective and that provide the maximum benefit to the member, including:

- Guaranteed ride home program
- Personalized carpool matching
- Vanpool creation
- Transit pass subsidy program
- Employee commute programs
- Seasonal promotional programs such as Bike to Work week or try Transit week
- Car share program
- City-wide bicycle sharing program

Figure 10 CyRide Bus Stop Shelter



The TMA may also encourage other Transportation Demand Management (TDM) measures such as:

- Flextime
- Compressed workweek
- Staggered shifts

Capital Crossroads: A Vision Forward

Capital Crossroads is a strategic plan for the greater Des Moines and central Iowa region, and it included input from ISU, DMAMPO, and Greater Des Moines Partnership, among others.

Capital Crossroads stated a goal to continue development of downtown neighborhoods. To support that place making, DART’s transit hub was identified as a

“lynchpin of a potential Downtown transit district” along with enhanced multimodal connectivity through transit planning, streetscaping, and bike/pedestrian infrastructure (p. 16). In addition, the plan discusses the need to promote and coordinate growth in the corridor between Des Moines and Ames (p. 30). This includes creating an “Ames-Des Moines Corridor Marketing Group” and determining how to brand and externally market development along the corridor, focused on animal health, place sciences, biofuels, food, and nutrition (p. 32). An additional strategy is to fund and produce a conceptual capital corridor development plan that includes a conceptual land use plan to

“(DART’s)...improved connectivity between Des Moines and its suburbs, workers to jobs, adults to training...and eventually, Des Moines to Ames is important to the region’s future.”

Capital Crossroads, section 8.1.1. p. 70

determine where densities would make the most sense, and where to prioritize infrastructure investments. This conceptual land use plan could help public and private developers “optimize I-35 development according to smart growth and sustainable principles” (p. 34).

Another strategy in the Capital Crossroads plan is to “Plan for One Region” (p. 68), which speaks of eventually combining the Ames MPO and Des Moines MPO into one statistical entity as population continually experiences high growth rates in both Des Moines and Ames. As part of this, the plan has a sub-strategy to “Ensure the Des Moines Area Regional Transit Authority (DART) effectively serves its current constituencies as it prepares for future geographic expansion, improved connectivity between Des Moines and its suburbs, workers to jobs, adults to training...and eventually, Des Moines to Ames is important to the region’s future” (p. 69-70).

Addressing movement between Ames and Des Moines is called out in section 8.3.5, which identifies the need to “study the development of Fixed-Rail or Bus-Rapid-Transit connectivity between Ames and Des Moines.” The strategy noted, “A high-capacity transit link would help ease congestion pressures for drivers as the Corridor develops and densifies” (p.75).

**DMAMPO Horizon 2035
Metropolitan
Transportation Plan**

Figure 11 Excerpt from Capital Crossroads

8.3.5: PARTNER WITH DART, REGIONAL MPOs AND OTHER AGENCIES TO STUDY THE DEVELOPMENT OF FIXED-RAIL OR BUS-RAPID-TRANSIT CONNECTIVITY BETWEEN AMES AND DES MOINES.

A key outcome of the eventual build-out of the Capital Corridor will be the need for enhanced connectivity between the two urban poles of the highway. As such, a component of future Capital Corridor planning should be the study of a transit link between Ames and Des Moines. A high-capacity transit link would help ease congestion pressures for drivers as the Corridor develops and densifies.

Evaluate and plan

- When regional officials determine a Capital Corridor land-use plan is justified, integrate the analysis of an Ames-Des Moines transit link into the process.
- Ensure that proposed service is consistent with the core principles of DART Forward 2035.
- Potentially leverage recommended fixed-route transit service to source needed monies for implementation.
- Capture potential opportunities for station-area planning and transit-oriented development generated by an approved Ames-Des Moines fixed-route linkage.

The DMAMPO Horizon 2035 Metropolitan Transportation Plan forecasts increased traffic along the Ames-Des Moines I-35 corridor, reaching more than 30,000 daily vehicles by 2035 along the entire corridor (p.3-40).

This plan includes objectives to reduce annual vehicle miles traveled, promote the use of alternative means of transportation, and reduce single-occupant vehicles by 10 percent over 2008 levels on the freeway during peak hours. Objective 3.3 in the plan aims to improve existing transit system performance, which includes triple-transit ridership from 2008 levels and double-transit and rideshare mode shares during peak hours

Mentioned in the DMAMPO transportation plan is the Transit 2030 Vision. This vision stated that, in 2030, the Metropolitan Planning Area (MPA) will move on a world-class transportation system that, among other goals, innovates and leads in providing regional and multimodal mobility solutions in a cost-efficient and cost-effective manner. This goal specifically supports developing additional commuter options this feasibility study is focused on.

DART is the principal public transportation provider in the MPA and plans capital and operational improvements to maintain and to enhance its service. Capital improvements for public transportation can include replacement and/or expansion of existing fleets; construction of public transportation facilities and stations; development of exclusive transit lanes; improvements to existing, or construction of new, tracks for fixed guideway public transportation systems; development of public transportation amenities such as shelters; and addition of miscellaneous support equipment.

Operating improvements can include expanding operating hours and increasing service frequency. This section discusses DART’s capital and operating strategies identified for the MPA. DART developed a summary of capital and operating improvements necessary to meet the 2035 Metropolitan Transportation Plan’s public transportation-related goals and objectives. Most of the identified improvements require additional funding in excess of what DART usually receives. These illustrative projects can be viewed in Table 2.

Table 2 DART Illustrative Projects: HY 2011 - 2035

Description	Capital Cost (\$000s)	Operating Cost (\$000s)	Total Cost (\$000s)
DART Illustrative Projects: HY 2011 – 2015			
Implement Bus Rapid Transit to Ankeny	\$9,730	\$970	\$10,700
Increase Park & Ride space	\$490	\$60	\$550
Construct 4 new Park & Ride facilities	\$18,250	\$60	\$18,310
DART Illustrative Projects: HY 2016 – 2025			
Ongoing operations for Ankeny BRT	\$0	\$12,810	\$12,810
Ongoing maintenance for Park & Ride spaces	\$0	\$160	\$160
Ongoing operations for increased express frequency	\$0	\$12,010	\$12,010
Triple transit ridership/double modeshare/reduce wait time	\$0	\$4,000	\$4,000
Double ridershare	\$5,760	\$0	\$5,760
DART Illustrative Projects: HY 2026 – 2035			
Ongoing operations for Ankeny BRT	\$0	\$18,960	\$18,960
Ongoing maintenance for Park & Ride spaces	\$0	\$240	\$240
Ongoing operations for increased express frequency	\$4,740	\$17,770	\$22,510
Ongoing operations/maintenance on Park & Ride facilities	\$0	\$1,180	\$1,180
Triple transit ridership/double modeshare/reduce wait time	\$0	\$59,250	\$59,250
Double rideshare	\$4,720	\$0	\$4,720

Source: DMAMPO Horizon 2035 Metropolitan Transportation Plan. Selections from Tables 6.13 – 6.15.

DART Forward 2035 Transit Services Plan (Executive Summary)

In DART’s Transit Services Plan, the market assessment and guiding principles outline specific improvements that would potentially endorse similar commuting movements detailed in this report. DART’s intentions to expand their market include claims like “a source of potential ridership demand exists in commute related demand to key employment centers in the region. Addressing specific ridership potential in DART’s service area will require market-tailored transit solutions” (p. 1.4). The plan went further in introducing particular expansions including, “expanding express network with opportunities for reverse commute travel” (p. 1.7).

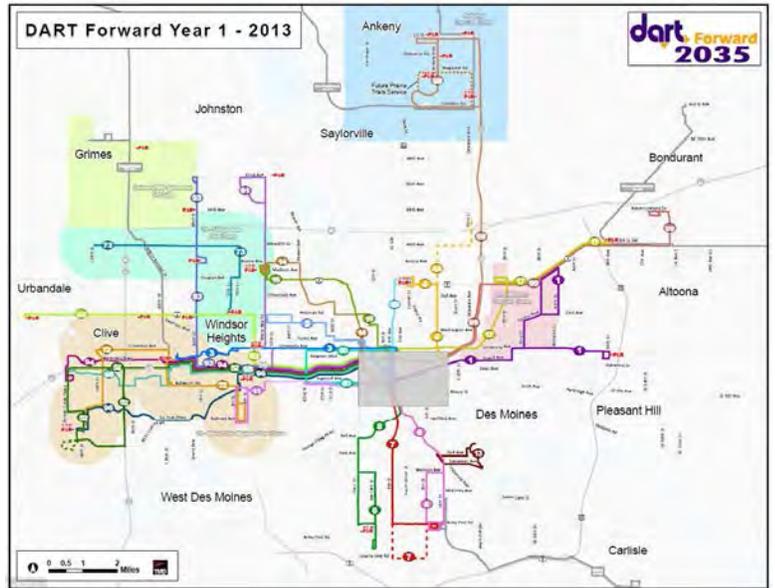
Specific recommendations were finally spread along the planning window ending in 2035. Transit route configurations included in this study are detailed in Figure 12 and Figure 13.

Ankeny Comprehensive Plan 2010, Chapter 7 Transportation

Following the completion of Ankeny’s 2004 comprehensive plan, the city experienced the highest growth year of all the municipalities within the Des Moines metro. This rapid growth made updating the plan an even more pressing issue.

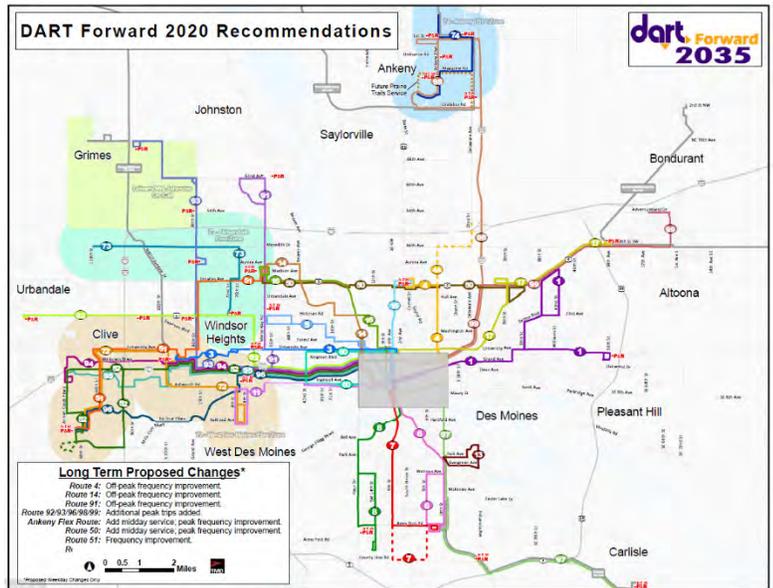
In the comprehensive plan’s transportation chapter, the city routinely speaks to improving the transportation network based on context-sensitive design. This process considers adjacent land uses, intensity of development, and multiple modes of travel as a high priority in street network design. These values in turn promote walkable communities and multimodal transportation, allowing for principals such as, “System-wide capacity should be achieved using high levels of connectivity and appropriately spaced and sized thoroughfares, along with capacity offered by

Figure 12 Year One Phasing Recommendations



Source: DART Forward 2035 Transit Services Plan

Figure 13 Long-Term Recommendations



Source: DART Forward 2035 Transit Services Plan

other modes of transit, rather than by focusing on increasing the capacity of an individual street” (p. 146).

Part of Ankeny’s interest in promoting a new multimodal mobility network consists of developing mass transit opportunities. While “existing land uses do not support widespread use of mass transit,” an “incremental approach will be necessary to develop a locally based system of transit with regular service throughout the community” (p.153). Plans detailing this incremental approach to improving transit access in the future include:

- Developing a shared system to serve the needs of the city and the school district, which would reduce the need to bus neighborhood school children and would also provide opportunities to develop regular community service routes for the public during off-peak hours
- Developing some type of local shuttle or loop system as demand increases, which might connect the N. 36th Street corridor to Ankeny Boulevard, Uptown, Prairie Trail, SE Delaware, or to other commercial areas or areas of employment
- Developing a Park & Ride or transit hub near the proposed interchange at I-35 and N. 36th Street as Ames, Polk City, Elkhart and other regional communities grow, which could also accommodate other service and connections to the regional DART system and downtown Des Moines

Since this feasibility study is interested in analyzing communities around the I-35 corridor, it is important to consider anticipated changes along the interstate highway. In addition to the long-term network improvements, there are plans to “improve or construct overpasses across Interstate 35 at SE Magazine, NE 18th Street and NE 54th Street as growth continues east of the interstate to better integrate neighborhoods east and west of Interstate 35 and provide access for emergency services” (p. 165). The future construction plans detailed above and the promotion of walkable communities and multimodal transportation makes the city of Ankeny an optimistic partner in potential efforts to increase transit options for commuters as the corridor continues to grow in terms of both employers and residents”

Chapter 2. Market Potential

2.1 Introduction

This chapter reviews the socio-economic characteristics and existing movements of the corridor. The purpose of this examination is to identify the potential markets that may be served by transit service along the I-35 corridor.

2.2 Corridor Characteristics

Population

The populations of the cities located in the I-35 corridor are listed in Table 3. City population provides a broad indication of the overall scale and potential related to the origin trip end for transit service.

Table 3 Corridor Population by City

Cities	Population
Alleman	432
Ames	58,965
Ankeny	45,582
Cambridge	827
Des Moines	203,433
Elkhart	683
Huxley	3,317
Saylorville	3,301
Total	316,540

*Source: 2010 U.S. Census Profile of General Population and Housing Characteristics
2010 Demographic Profile Data*

Employment

Since the potential service would cater primarily to commuters, attention has also been given to the type and location of employment in the I-35 corridor. The number of employees who work in the cities located in the I-35 corridor is listed in Table 4. These figures provide broad indications of the overall scale and potential related to the destination or trip end for transit service.

Employment in the downtown area of Des Moines has been listed separately for the larger communities and indicates a higher employment concentration.

Table 4 Corridor Employment by City

Cities	Employment
Alleman	170
Ames	29,736
Ankeny	19,797
Cambridge	93
Des Moines	130,807
<i>Downtown Area¹</i>	47,264
Elkhart	40
Huxley	566
Saylorville	2,600
Total	183,809

Notes: Due to the area defined as “downtown” by the Greater Des Moines Partnership, annual employment estimates for the downtown area are upwards of 70,000 employees.
 Source: U.S. Census bureau. 2011 On the Map Application.
 Longitudinal-Employer Household dynamics Program. <http://onthemap.ces.census.gov/>
 (1) U.S. Census Bureau, American Community Survey ACS 2006-2010 Five-year estimates, Census Transportation Planning Products CTPP
 - Only includes trips from within the Ames and Des Moines MPO boundaries.

2.3 Major Employers

Table 5 through Table 7 list the major employers in the I-35 corridor, and Figure 14 through Figure 16 show where they are located. Larger concentrations of employment provide additional opportunities for commuter-related transit. The largest employer is ISU in Ames, John Deere in Ankeny, and Wells Fargo in Des Moines. Through discussions, the employers were supportive of the project and provided basic information on commuting patterns. As this project moves forward, the major employers should be contacted to further coordinate operation details.

Table 5 Ames Major Employers

Rank	Company	# of Employees
1	Iowa State University	14,427
2	Mary Greeley Medical Center	1,356
3	Iowa DOT	962
4	City of Ames	944
5	McFarland Clinic PC	920
6	Hy-Vee Food Stores	743
7	Ames Community School	650
8	Sauer-Danfoss	650
9	Ames Laboratory	472
10	Walmart	440
Total		21,564

Source: Ames Comprehensive Annual Financial Report (2011-2012).

Figure 14 Ames Major Employers

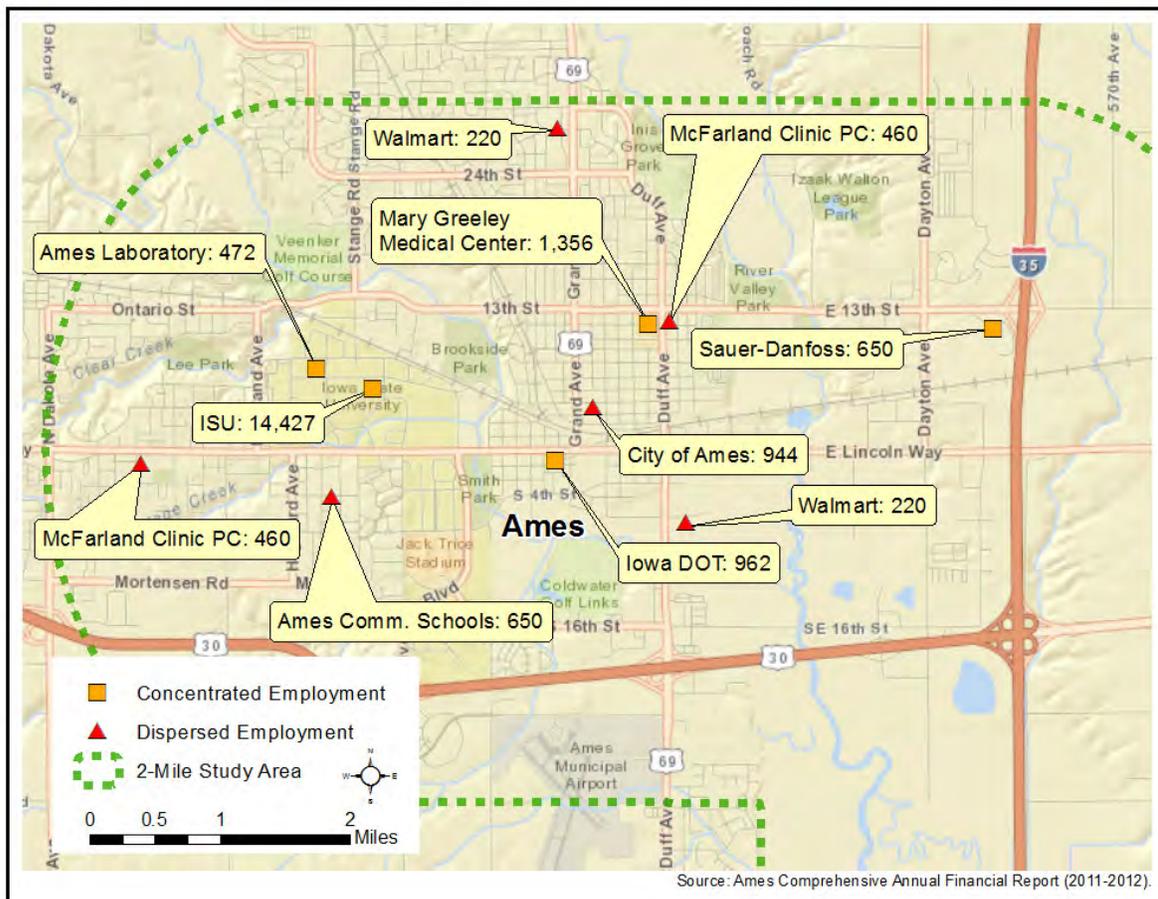


Table 6 Ankeny Major Employers

Rank	Company	# of Employees
1	John Deere Des Moines Works	1,953
2	Des Moines Area Community College	1,584
3	Ankeny Community Schools	1,202
4	Casey's General Stores, Inc.	1,139
5	City of Ankeny	638
6	Perishable Distributors of Iowa, LTD	547
7	ACH Food Companies, Inc.	462
8	SYSCO Food Services of Iowa	243
9	Accumold	168
10	Praxair	157
Total		8,093

Source: Ankeny Comprehensive Annual Financial Report (2012-2013)

Figure 15 Ankeny Major Employers

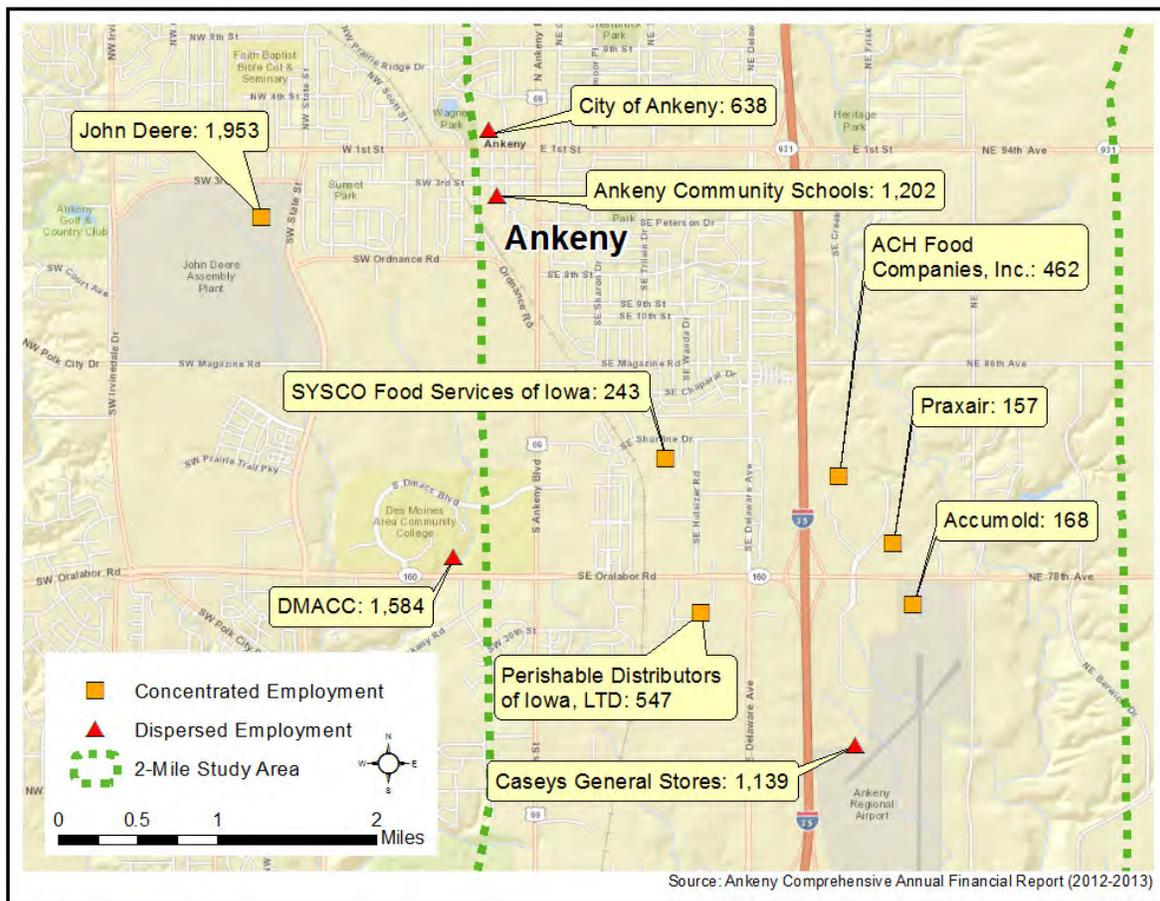
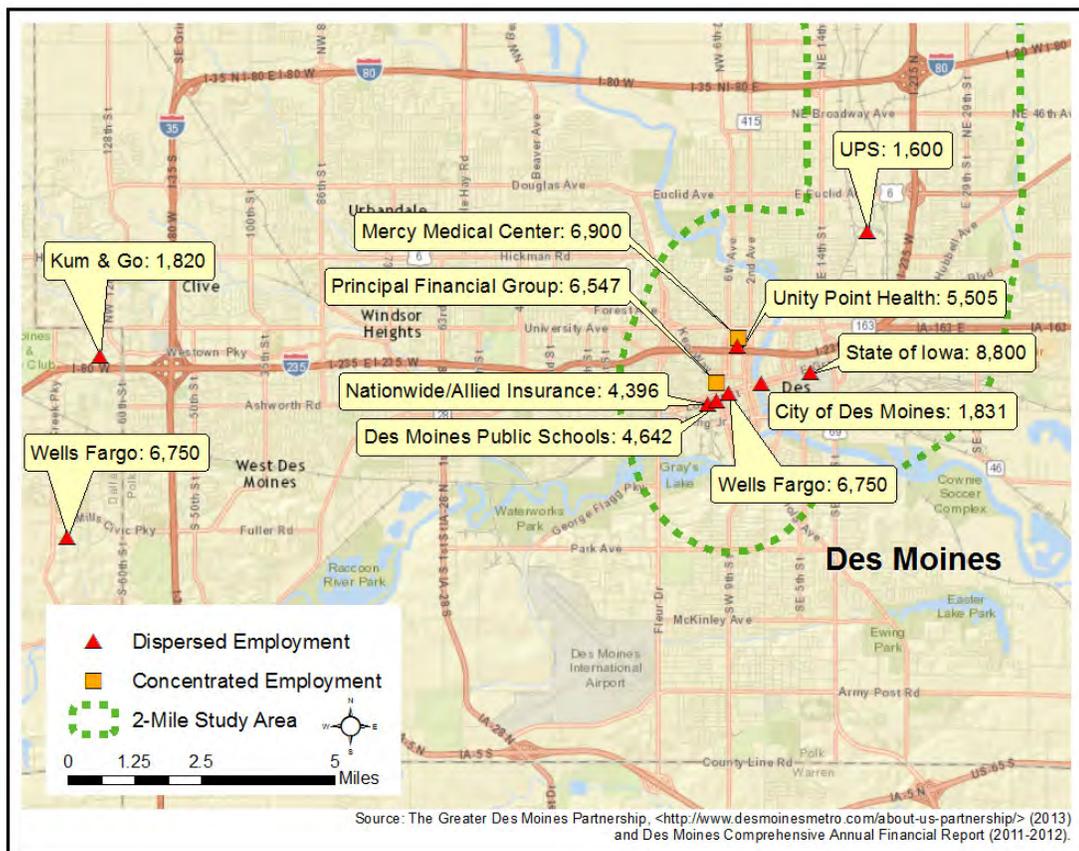


Table 7 Des Moines Major Employers

Rank	Company	# of Employees
1	Wells Fargo	13,500
2	State of Iowa	8,800
3	Mercy Medical Center	6,900
4	Principal Financial Group	6,547
5	Iowa Health Systems	5,005
6	Des Moines Public Schools	4,642
7	Nationwide/Allied Insurance	4,396
8	City of Des Moines	1,831
9	Kum & Go	1,820
10	United Parcel Service	1,600
Total		55,041

Source: <<http://www.desmoinesmetro.com/regional-workforce/job-support-services/major-employers/>> (2013) and Des Moines Comprehensive Annual Financial Report (2011-2012).

Figure 16 Des Moines Major Employers



2.4 Commuter Travel Patterns

Commuter travel patterns indicate the connection between where people live and where they work. These patterns were determined from the Year 2010 Census Longitudinal Employer-Household Dynamics (LEHD) program.

Table 8 Intercity Movements

Rank	Direction	Commuters
1	Ankeny to Des Moines	7,844
2	Ankeny to Downtown Des Moines*	4,720
3	Des Moines to Ankeny	3,246
4	Ames to Des Moines	1,474
5	Des Moines to Ames	817
6	Ankeny to Ames	555
7	Ames to West Des Moines	547
8	Ankeny to Downtown Des Moines*	515
9	West Des Moines to Ames	447
10	Ames to Ankeny	421

Source:

U.S. Census Bureau OnTheMap LEHD Origin-Destination Statistics.

() Census Transportation Planning Products CTPP.*

Longitudinal Employer-Household Dynamics

The LEHD program produces public-use information combining federal, state, and Census Bureau data on employers and employees under the Local Employment Dynamics (LED) Partnership. The LEHD data provides a dataset that describes geographic patterns of employees by their employment locations and residential locations as well as the connections between the two locations.

The work trip travel movements reported by LEHD for communities located in the I-35 corridor are shown in Figure 17. The information shows the number of workers living in each community and then the location of their employment. Table 9 shows the work trip movements for the city of Indianola and the 23 cities identified within the DMAMPO and the I-35 corridor.

Figure 17 Work Trip Movement Flow

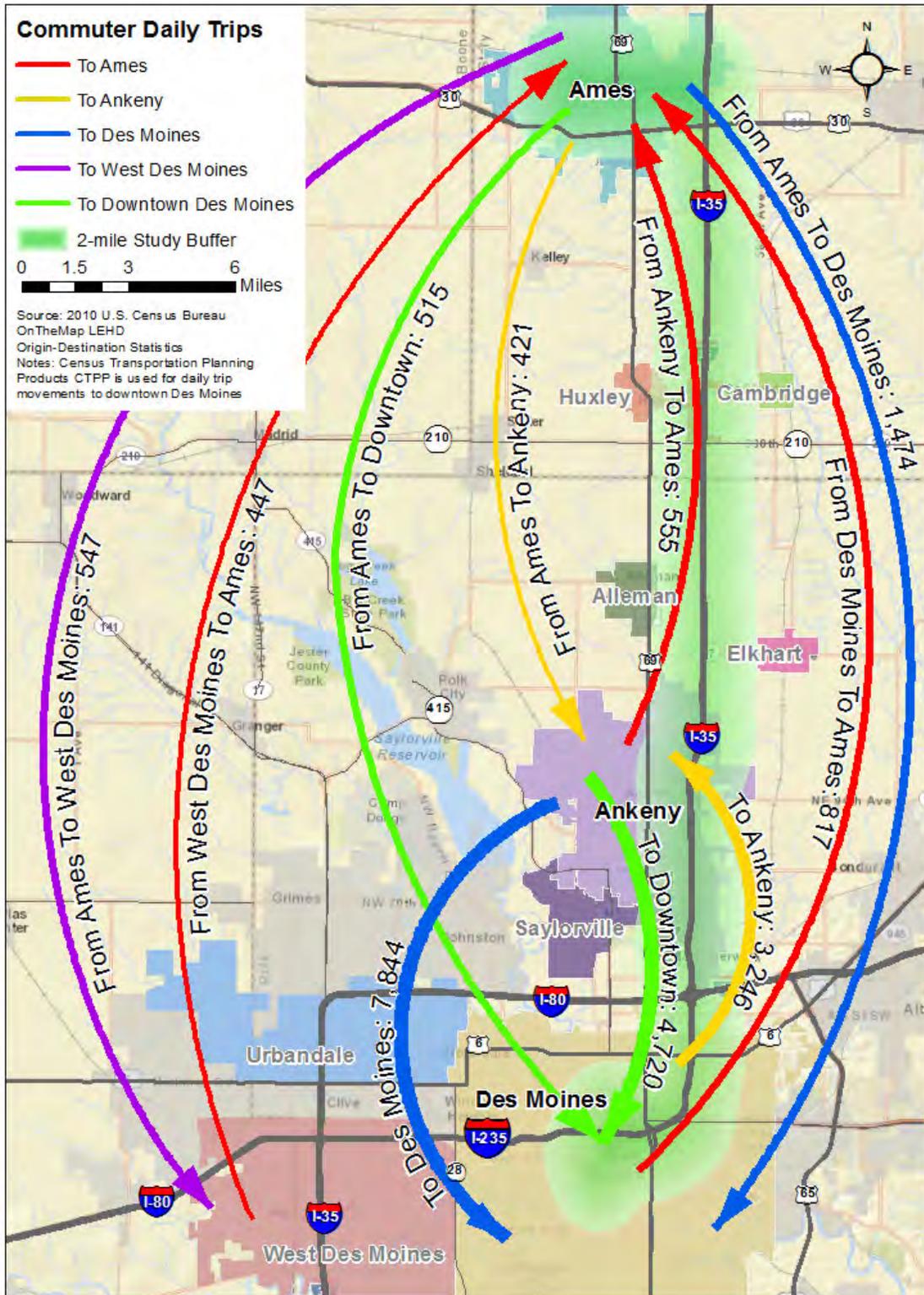


Table 9 Work trip Movements

		Working In																								
		Population	Alleman	Altoona	Ames	Ankeny	Bondurant	Cambridge	Carlisle	Clive	Des Moines	Elkhart	Grimes	Huxley	Indianola	Johnston	Mitchellville	Norwalk	Pleasant Hill	Polk City	Saylorville (CDP)	Urbandale	Waukee	West Des Moines	Windsor Heights	
Residents of	Alleman	432	5	5																						
	Altoona	14,541		827	139	460	31		10	161	3,041		60	2	56	168	57	17	155	3	71	273	42	691	40	
	Ames	58,965	11	62	10,830	421	8	11	4	101	1,474		30	49	42	179	2	10	18	8	34	206	29	547	42	
	Ankeny	45,582	22	287	555	4,211	58	6	38	548	7,844	7	165	32	99	1,019	14	19	102	51	249	1,052	132	2,231	111	
	Bondurant	3,860	3	85		246	71		6	39	674	3	12	4	10	65	7	3	18	3	26	92	7	171	3	
	Cambridge	827	2		111	24			3	1	9	55	1	3	25		7	1			2	2				2
	Carlisle	3,876	1	29	23	67	7			189	52	784		6		49	22	5	8	11		14	57	11	180	10
	Clive	15,447	1	46	98	205	2			18	567	2,602		75	2	40	287	5	11	16	3	18	603	127	1,495	52
	Des Moines	203,433	12	1,581	817	3,246	77	2	283	2,793	44,328	7	659	10	421	2,047	88	288	534	53	817	4,465	567	10,139	558	
	Elkhart	683	4	9		47	3	1			106	1		6		9		1			4	6				
	Grimes	8,246	2	27	88	110	5			169	1,212		135	3	18	284	4	8	3	3	17	430	45	681	18	
	Huxley	3,317	11	12	364	90	3	16			16	272		8	99	7	35				1	6	34	3	65	5
	Indianola	14,782		70	104	171	5	1	51	126	1,933		44	2	1,529	83		49	29	2	38	192	16	524	35	
	Johnston	17,278	2	73	109	310	4		10	296	2,819	1	110	1	43	1,243	3	10	20	6	47	776	66	1,202	33	
	Mitchellville	2,254		80	42	62	5			3	18	357		10		9	16	26	1	21	1	11	37		57	5
	Norwalk	8,945		38	38	203	1		28	130	1,988		63	4	72	84		385	18	3	15	221	34	698	14	
	Pleasant Hill	8,785		188	92	203	6	1	19	110	1,925	3	31	1	30	87	19	7	137	4	46	168	20	413	15	
	Polk City	3,418	16	15	56	130	2		6	43	527	3	32	2	6	111		3			63	9	114	13	187	9
	Saylorville (CDP)	3,301	2	19	54	195	1	3	6	33	589		11			57	1	2	3	3	23	74	10	158	6	
	Urbandale	39,463	3	189	322	677	13	3	20	942	6,797		328	8	57	1,134	4	43	66	11	93	2,262	299	3,592	100	
	Waukee	13,790		39	123	200			12	363	2,176		83		35	277	2	23	19	3	24	554	474	1,646	43	
	West Des Moines	56,609	9	212	447	759	17		71	1,328	10,843	1	265	8	139	887	16	105	76	6	82	1,809	340	7,919	225	
	Windsor Heights	422		19	45	74	2		2	123	1,045		23		8	88	1	7	3		15	173	26	403	49	
	Total Primary Jobs		N/A	170	6,219	29,736	19,797	509	93	1,247	11,347	130,807	40	3,445	566	5,060	11,463	425	1,442	1,963	404	2,600	19,621	3,495	47,637	2,351

Shaded cells are cities within the I-35 corridor.

Source: 2011 U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics (Beginning of Quarter Employment, 2nd Quarter of 2002-2011).

Population from 2010 Census demographic profile

Note: DMAMPO member cities area, cities in the I-35 corridor, and Indianola. Queried top 100 cities of residence for employees in selected city. A blank means the place of residence was not within the top 100 results.

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Census Transportation Planning Products

The Census Transportation Planning Products (CTPP) is a tool that analyzes where people are commuting to and from, and how those commuters get to their eventual destinations. Figure 18 through Figure 20 uses CTPP data to show where residents live who work in areas with the highest employment densities in Ames, Ankeny, and Des Moines. Using areas with the highest employment densities allowed for a more reasonable estimate of potential commuters, considering alternative commuter modes would be servicing only designated areas with large potential for ridership and not the entire city's area.

In comparison to the CTPP application, the LEHD program contains a more complete record of commuter flows within the corridor. LEHD records are able to track more than 90 percent of all workers and employers in the United States. With that being said, the CTPP application enabled the study team to look closer at where the highest densities of both employment and housing exists within the corridor. A portion of the remaining flow is not captured in the LEHD data because federal workers, self-employed workers, and uniformed military personnel are not under federal or state unemployment insurance laws¹. No large federal or military workforces were identified in the corridor.

Beginning in 2013, CTPP enabled users to analyze the American Community Survey (ACS) data at both the census tract and Transportation Analysis Zone (TAZ) levels. CTPP data differs from the LEHD in that it is based on a sample-based survey. The ACS information is a U.S. Census sample-based survey producing annual samples of detailed demographic, housing, and social and economic data at the census tract and block group level².

After reviewing the commuter maps and other information from CTPP for each of the three corridor cities, it was found that, more often than not, areas with the most concentrated employment and households were located near I-35, I-80 or I-235. Although a majority of workers live in the city where they work, those living outside the city they work in are concentrated near area interstates. This close proximity to interstates will limit the amount of time and distance commuters will have to travel to any future Park & Ride site, making alternative commuting modes more attractive for any commuter within the corridor.

¹ Spear, Bruce D. "NCHRP 08-36 Task 098: Improving Employment Data for Transportation Planning." (2011).

² U.S. Census Bureau. "Design and Methodology: American Community Survey." (2009).

Figure 18 Commuters from Home to Top Employment Areas in Ames

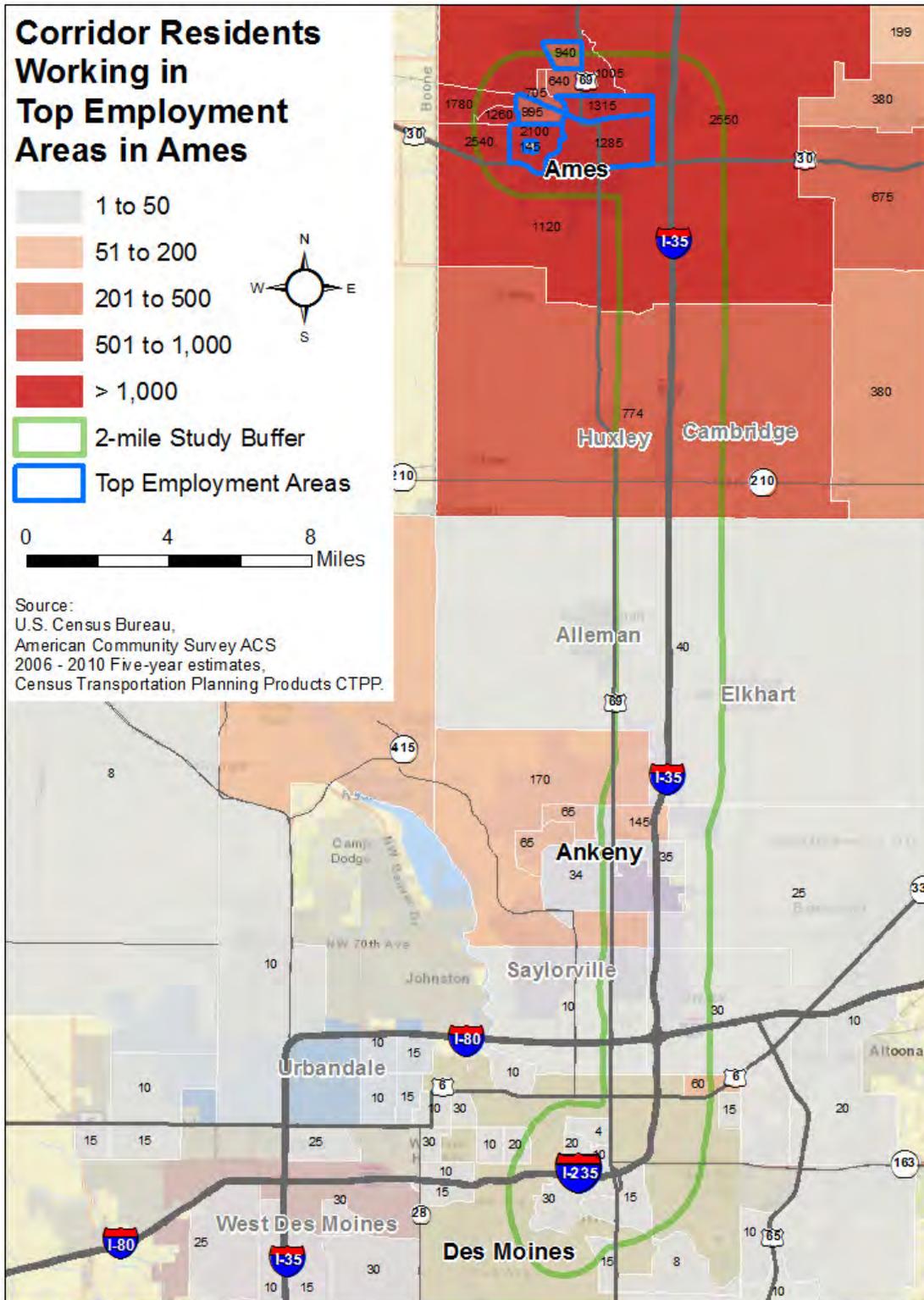


Figure 19 Commuters from Home to Top Employment Areas in Ankeny

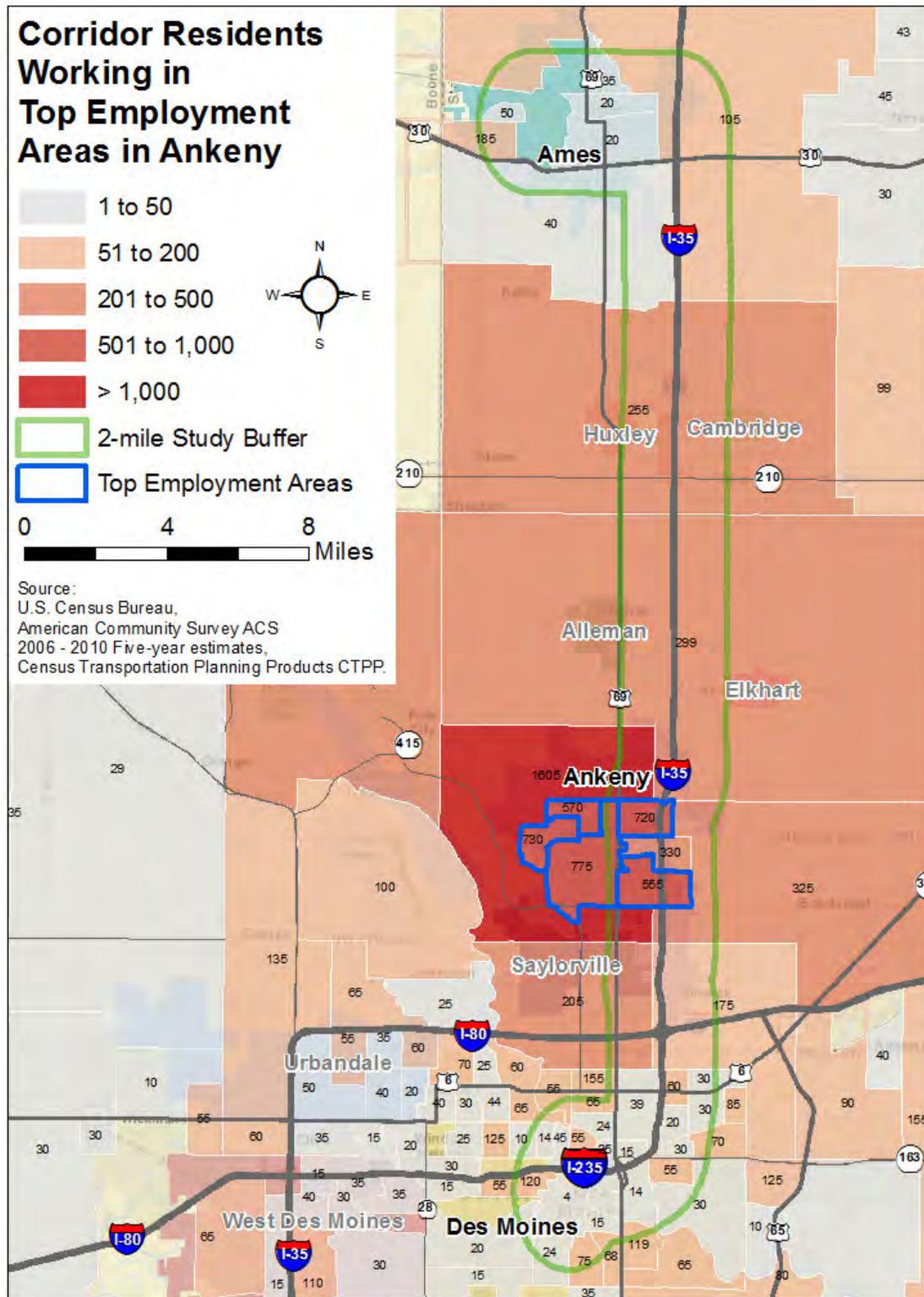
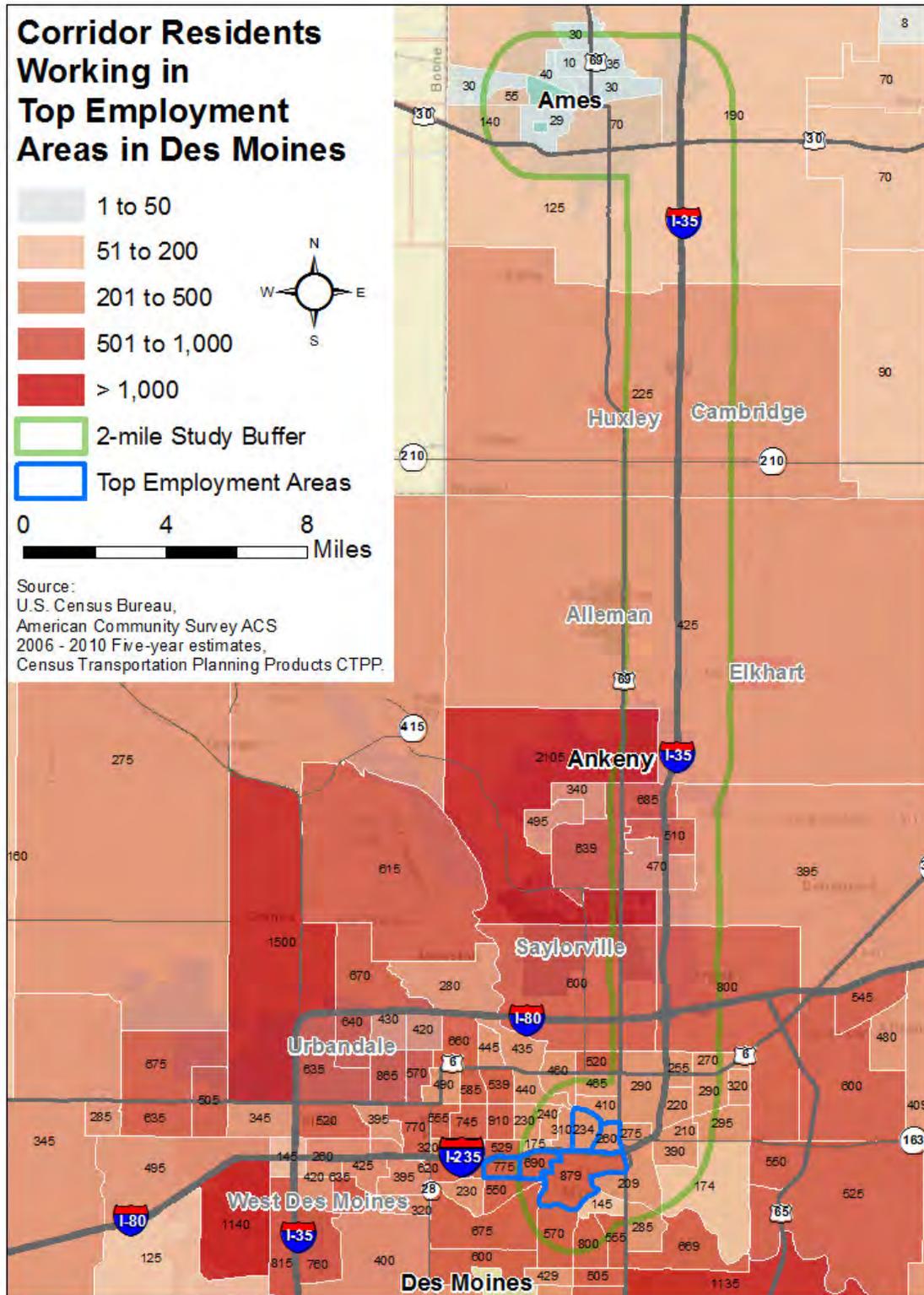


Figure 20 Commuters from Home to Top Employment Areas in Des Moines



Trip Patterns of Select Universities

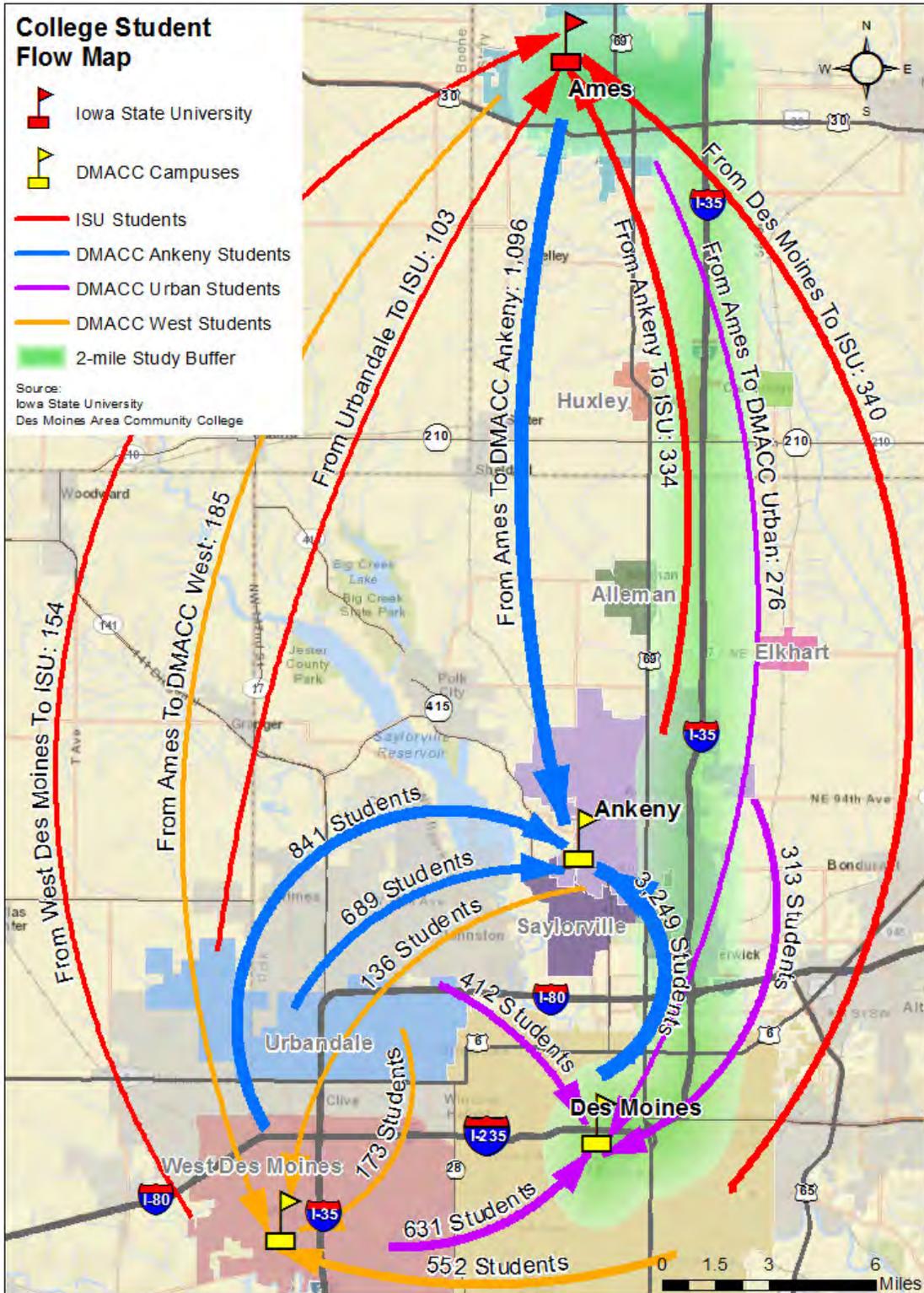
The previous section focused on home to work relationships throughout the corridor, but did not include the travel patterns of students. After meeting with area universities, ISU and DMACC provided student postal zip codes to see if any significant commuting patterns could be established from the student populations. See Figure 21 for the results of the zip code information collected.

Table 10 Students Commuting to DMACC & ISU Campuses

College	Students Commuting
Des Moines Area Community College	
Ankeny Campus	5,875
Urban Campus (Des Moines)	1,632
West Campus (West Des Moines)	1,046
Iowa State University	
Ames Campus	930

As seen in Table 10, of the students living within the larger cities of the corridor—Ames, Ankeny, Des Moines, Urbandale, and West Des Moines—the number of students commuting to the DMACC campus in Ankeny far outweighs those travelling to ISU, West DMACC, or Urban DMACC campuses.

Figure 21 Student Commute Flow Map



Non-Work Attractions

This feasibility study is primarily focused on commuter travel, but a secondary market for non-work travel to major activities or destinations is possible. Retail and recreational activities are also located in the I-35 corridor. The largest activities where large numbers of patrons gather at a concentrated time are primarily sporting events. Table 11 displays information on various events or attractions in the I-35 corridor.

Special events within the I-35 corridor area have potential for attracting riders onto a transit service scheduled to coincide with the event. Sporting events such as basketball and football games at ISU could potentially be served by transit service. These events would not coincide with commuter transit service, and so additional service would need to be provided if the riders to these events are to be served.

Table 11 Non-Work Attractions

City	Event/Venue	Time Period
Des Moines	Festivals: Arts Festival, World Food Fest, 80/35 Music Festival	Weekends in June, July & September
	State Fair (Fairgrounds)	Year-round
	Prairie Meadows & Adventureland	Prairie Meadows: Year-round Adventureland: May-Sept
	Wells Fargo & Principal Park	Year-round: sports events & concerts
	Des Moines International Airport	Year-round
	Science Center	Year-round
	East Village	Year-round
	Downtown Farmer’s Market	May 4 – Dec 14: Wed, Fri, and Sat depending on season
	Performing Arts Venues i.e. Des Moines Civic Center	Year-round
Ankeny	Ankeny Regional Airport	Year-round
Ames	Main Street Cultural District	Year-round
	Ames Airport	Year-round
	Reiman Gardens	Year-round
	ISU Football & Basketball Games	Football: 6 games Aug-Nov Basketball: 17 games Nov-Mar

Summary of Travel Markets

The travel corridor between Ames, Ankeny, and Des Moines experiences a diverse flow of travel composed of commuters, students, and special events. Analysis of 2010 U.S. Census data reveals the commuter trip patterns. The higher place-to-place movements for daily commuter trips in the I-35 corridor are:

- Ankeny to Des Moines (7,844)
- Ankeny to Downtown Des Moines (4,720)
- Ankeny to West Des Moines (2,231)
- Des Moines to Ankeny (3,246)
- Ames to Des Moines (1,474)
- Des Moines to Ames (817)
- West Des Moines to Ankeny (759)
- Ankeny to Ames (555)
- Ames to West Des Moines (547)
- Ankeny to Downtown Des Moines (515)
- West Des Moines to Ames (447)
- Ames to Ankeny (421)

After gathering data from both ISU and the DMACC, the higher place-to-place movements for daily student trips are:

- Des Moines to DMACC-Ankeny (3,249)
- Ames to DMACC-Ankeny (1,096)
- West Des Moines to DMACC-Ankeny (841)
- Urbandale to DMACC-Ankeny (689)
- Des Moines to DMACC-West (552)
- Des Moines to ISU (340)
- Ankeny to ISU (334)

The Des Moines – Ankeny segment experiences the highest amount of commuter and student flow. There is also a flow of Ames residents studying in Ankeny and Ames residents working in Des Moines. This combined flow of students and commuters from Ames south to Ankeny or Des Moines is approximately half the flow of the movement between Ankeny and Des Moines. In addition, travel flow related to special events adds to the flow in both directions.

Chapter 3. Concept Evaluation

3.1 Introduction

A series of transit service scenarios have been developed that potentially match the needs identified in the previous chapter for the I-35 Ames-Des Moines corridor. This chapter provides:

- A range of high level concepts described in terms of mode, market served, route, frequency, service characteristics, estimated public transit ridership, and general operating cost.
- An evaluation of this range of concepts
- Specific concepts recommended for more detailed study based on the market potential.

3.2 Service Concepts

This section describes a range of potential transit service concepts or options. The services described below are service concepts. These concepts are presented as illustrative options for transit service along the corridor intended to meet the transit market identified earlier in the report. These concepts provide the basis from which ridership and costs can be projected. The service concepts, presented as variations of service spans, can also provide the basis from which to balance cost of a particular service, with the number of riders and types of markets served.

Costs were developed for weekend service, but weekend service was not evaluated on a cost effectiveness basis, as the basic cost structure is not comparable to weekday service. The decision to operate a Saturday-Sunday service should be pursued on a policy basis, rather than a cost-effectiveness basis.

Express Bus

Definition

Express bus is transit service that intends to provide travel times that are closer to automobile travel times. Express buses operate on a faster schedule by stopping less frequently than normal bus services and often taking more direct routes, such as along freeways. Express bus services are typically oriented toward commuter trips and serve strong origin-destination pairs, such as between a major Park & Ride location and a major employment center. Express bus service is typically operated during peak hours only, but it may be supplemented by a midday trip.

Description

In the I-35 corridor, express bus options would operate primarily on the interstate system, transporting passengers between transit centers in Des Moines, Ankeny, and Ames. Express bus service is currently provided by DART between Des Moines and Ankeny. Generally, an express bus in the corridor would have the capacity for serving the highest number of riders while providing the highest service quality as compared to the other concepts, since fewer stops along the transit route provide shorter travel times comparable to an automobile.

In this concept, service could be provided between Ankeny and Ames or a one-seat ride could be provided between Ames and Des Moines with a stop in Ankeny. There are also different levels of service frequency that could be provided ranging from all day service during weekdays, providing evening service, Saturday service or just service during commuter peak times. Generally, commuter routes may include midday service to capture a greater share of the commuter market that may start or end work outside the traditional peak period, and also to present additional flexibility for commuters or students that may need to travel midday within the corridor. Evening service (generally until 10:00 PM) may appeal to commuters working an evening shift, or students accessing night classes. While Saturday and Sunday service has typically not been offered as part of a commuter service, weekend service may serve major employers with weekend shifts, or special events.

The two route options are described below:

Ames to Ankeny Express Bus

This route would operate primarily on I-35 between Ames and Ankeny, with a stop to serve Huxley. Once in Ankeny, the alignment matches the alignment of the *Route 98 Ankeny Express*, and would offer opportunities for passengers to transfer between routes to travel between Ames and Des Moines. The route alignment is presented in Figure 22.

The difference in service frequency impacts both operating cost and ridership. One service option is to provide a 30 minute peak service, with a 60 minute off-peak service. This service level would match the 30 minute peak frequency currently offered on the *Route 98 Ankeny Express*. A 60 minute frequency is generally seen as a minimum frequency for an all-day service and this level is used for off-peak service. The costs of service are shown in Table 12. The costs for additional segments of service are presented on a cumulative basis, including a peak-only weekday service, an all-day service with evenings, and Saturday and Sunday service.

Table 12 Ames - Ankeny Express bus Operating Costs

Service Period (Frequency)	Operating Vehicles	Daily Revenue Hours	Annual Operating Cost	Cumulative Total
5 Day/week Peak (30 minutes)	3	23	\$473,344	\$473,344
5 Day/week Off-Peak (60 minutes)	2	8	\$168,300	\$641,644
5 Evenings/week (60 minutes)	2	8	\$168,300	\$809,944
Saturday (60 minutes)	2	24	\$102,960	\$912,904
Sunday (60 minutes)	2	20	\$85,800	\$998,704

Notes:

Service Period: 4 hour a.m. peak and 4 hour p.m. peak. 4 hour midday (off-peak). 4 hour evening service span. 12 hour Saturday service span. 10 hour Sunday service span.

Trip Characteristics: One-way travel time with dwell time included accounts for 45 minutes/30.5 miles from Ames to Ankeny.

Vehicles: Operating vehicle totals do not include the required spare vehicles.

Ridership

The estimated ridership for the Ames to Ankeny express bus concept is shown in Table 13. The ridership estimates have been refined from the travel market information presented in Chapter 2. The ridership estimates reflect population and employment levels and travel patterns. Appendix I presents additional details on the ridership estimation methodology.

Table 13 Ames - Ankeny Express Bus Daily Ridership Summary

Service Period (Frequency)	Daily Ridership
EXPRESS: Ames-Ankeny	
5 Day/week Peak (30 minutes)	350
5 Day/week Off-Peak (60 minutes)	60
5 Evenings/week (60 minutes)	17

The cost per rider for the Ames-Ankeny Express service is shown in Table 14.

Table 14 Ames - Ankeny Express bus Cost per Rider Summary

Service Period (Frequency)	Cost per Rider
EXPRESS: Ames-Ankeny	
5 Day/week Peak (30 minutes)	\$5.30
5 Day/week Off-Peak (60 minutes)	\$11.04
5 Evenings/week (60 minutes)	\$38.64

Notes: The Cost per Rider is found by dividing the estimated annual

Ames to Des Moines Express Bus

This route would operate between Ames, Ankeny, and Des Moines primarily on I-35. The route alignment is presented in Figure 23.

Operating costs for the service are presented to provide an understanding of the different costs associated with different service spans along the alignment between Ames, Ankeny, and Des Moines. The base of these costs are a 30 minute peak service, with a 60 minute off-peak service. The costs for additional segments of service are presented on a cumulative basis, including a peak-only weekday service, an all-day service with evenings, and Saturday and Sunday service. Costs are presented in Table 15.

Table 15 Ames - Ankeny - Des Moines Express Bus Operating Costs

Service Period (Frequency)	Operating Vehicles	Daily Revenue Hours	Annual Operating Cost	Cumulative Total
5 Day/week Peak (30 minutes)	5	39	\$809,944	\$809,944
5 Day/week Off-Peak (60 minutes)	3	11	\$220,894	\$1,030,838
5 Evenings/week (60 minutes)	3	11	\$220,894	\$1,251,731
Saturday (60 minutes)	3	35	\$148,005	\$1,399,736
Sunday (60 minutes)	3	29	\$122,265	\$1,522,001

Notes: Service Period: 4 hour a.m. peak and 4 hour p.m. peak. 4 hour midday (off-peak).

4 hour evening service span. 12 hour Saturday service span. 10 hour Sunday service span.

Trip Characteristics: One-way travel time with dwell time included accounts for 45 minutes/30.5 miles from Ames to Ankeny and 30 minutes/13 miles between Ankeny and Des Moines.

Vehicles: Operating vehicle totals do not include the required spare vehicles.

Ridership

The estimated ridership for the Ames to Des Moines Express Bus Concept is shown in Table 16. The ridership estimates have been refined from the travel market information presented in Chapter 2. The ridership estimates reflect population and employment levels and travel patterns.

Table 16 Ames - Ankeny - Des Moines Express Bus Daily Ridership Summary

Service Period (Frequency)	Daily Ridership
EXPRESS: Ames-Ankeny-Des Moines	
5 Day/week Peak (30 minutes)	973
5 Day/week Off-Peak (60 minutes)	166
5 Evenings/week (60 minutes)	47

The cost per rider for the Ames-Ankeny-Des Moines Express service is shown in Table 17.

Table 17 Ames - Ankeny - Des Moines Cost per Rider Summary

Service Period (Frequency)	Cost per Rider
EXPRESS: Ames-Ankeny-Des Moines	
5 Day/week Peak (30 minutes)	\$3.27
5 Day/week Off-Peak (60 minutes)	\$5.22
5 Evenings/week (60 minutes)	\$18.26

Notes: The Cost per Rider is found by dividing the estimated annual operating cost by the forecasted annual ridership.

Figure 22 Ames to Ankeny Express Bus Alignment

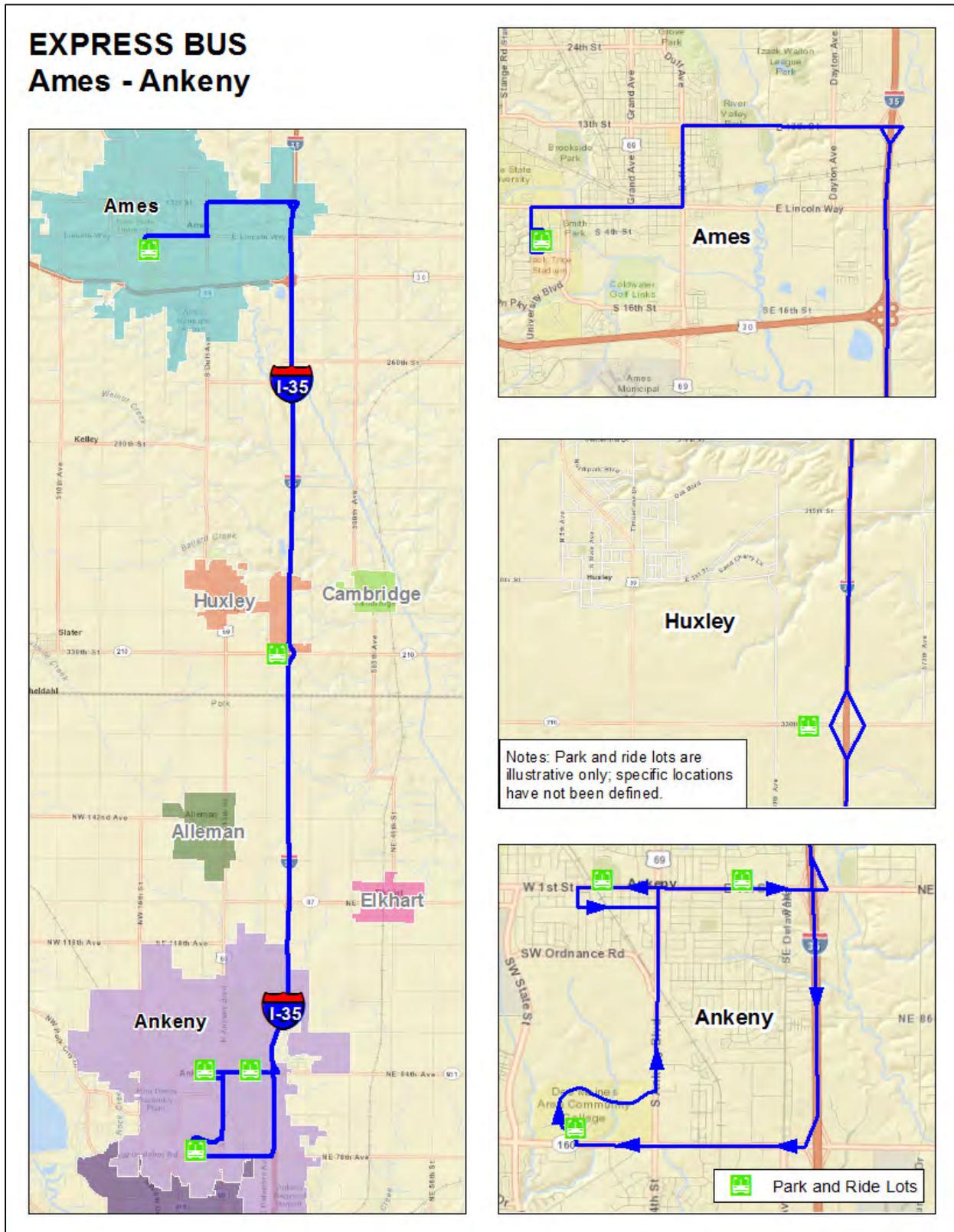
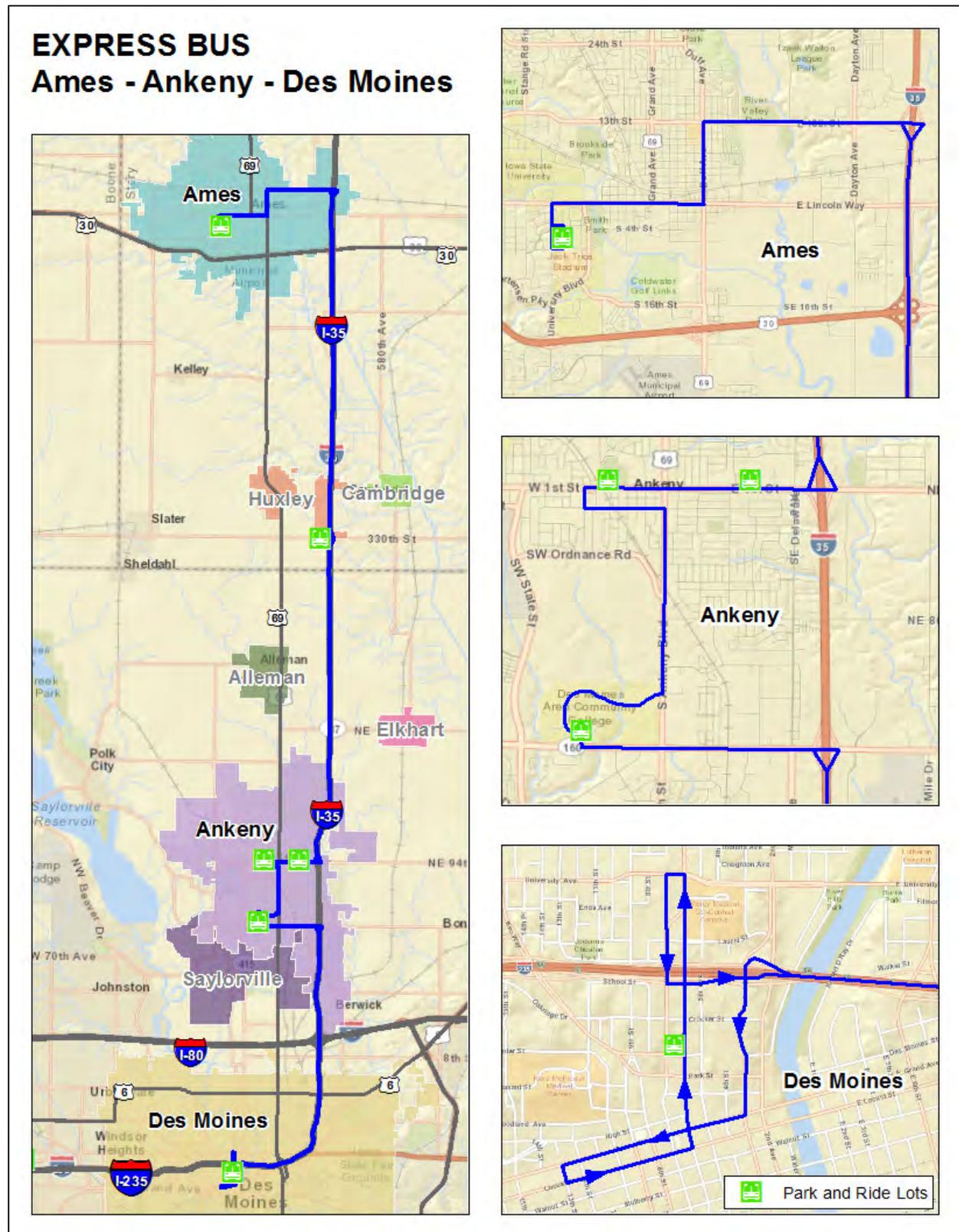


Figure 23 Ames to Ankeny to Des Moines Express Bus Alignment



Traditional Fixed Route, Flex Routes, Point Deviated, and Deviated Fixed Route

Definitions

Traditional fixed route service operates on a regular schedule and alignment using standard transit buses. Fixed route bus service typically emphasizes access to land use over speed, and may have frequent stop locations and a slower travel speed than automobile travel. Alignments in a traditional fixed route system are orientated to provide access to residential areas, neighborhood shopping centers, social service agencies, medical offices, and schools, as well as major employment centers and connections to other transit routes or modes such as express bus.

Fixed route service may have more stops, providing more opportunities for transit riders to access, but resulting in longer overall travel times. Service frequencies can be varied throughout the day to adjust to different levels of ridership, with service operated in the peak hours at a higher frequency than midday service.

A general public demand response or on-call service would operate in the same corridors as the express bus or in adjacent corridors but could be more narrowly tailored to specific markets and riders. A smaller transit vehicle or body-on-chassis vehicle would circulate around the end points of a route in designated demand response zones, pick up riders who reserve service, and deliver them to major destinations. Service span, or geographical areas where pick-ups or drop-offs occur, could be narrowed or broadened depending on the need to tailor travel times. Generally, subscription service in the corridor would have a more limited capacity and slower travel times due to the need to circulate at trip ends. However, reservations could be linked so each trip would have a relatively high number of passengers, creating a low-to-moderate cost per passenger. Subscription service could also be oriented toward specific market segments, with single trips geared toward either the commuter market or the student market.

A point deviated service, similar to some of DART's on-call service, combines elements of a fixed route with elements of a flex route service by having regularly scheduled pick-up times at designated locations, but without a designated alignment for the vehicle to follow between the designated locations. A variant of this allows the vehicle to pick up passengers that are not at a designated pick-up location, but are within a designed demand response zone, while the vehicle also maintains service to the scheduled pick-up locations. Passengers using the demand response option would be required to call ahead to schedule a pick-up, while passengers at the regular pick-up locations would not need to call ahead of time. A point deviated service, particularly with demand response elements, typically works well in a continuous, defined area.

A deviated fixed route maintains a defined alignment and defined schedule. However, passengers unable to access the defined alignment can call and order a pick-up within a defined service zone that is typically centered on the defined alignment. The defined schedule has additional time incorporated to allow for a number of pickups between the scheduled time points. This type of service is typically suited for areas where major attractions and destinations may be served by the fixed alignment, but where the transit provider wants to offer service to adjacent low-demand areas. Unlike a traditional fixed route, a service provider would

not be required to offer complementary paratransit service in areas served by a deviated fixed route.

Description

The fixed route service could be provided in a number of ways. A traditional fixed route system would operate along US-69 between Ames and Ankeny on fixed routes and with a fixed time schedule oriented to park-and-ride locations in the communities on or near I-35. The service could be modified to be more flexible to provide direct services to other destinations further away from I-35 such as major employment centers in Ankeny or the Des Moines central business district (CBD), ISU, or the various DMACC campuses. Another possible variation would be to have the service “deviate” off the fixed route to pick up passengers who had called in for a pick-up at a pre-arranged location.

For this concept, a smaller transit vehicle or body-on-chassis vehicle is envisioned to be used to circulate around end points of a route, pick up riders, and deliver them to major destination centers throughout the corridor. Service span, or geographical areas where pick-ups or drop-offs occur, could be narrowed or broadened depending on the need to tailor travel times. Generally, subscription service in the corridor would have a more limited capacity and slower travel times due to the need to circulate at trip ends. However, reservations could be linked so each trip would have a relatively high number of passengers, creating a low-to-moderate cost per passenger. Subscription service could also be oriented toward specific market segments, with single trips geared toward either the commuter market or the student market.

HIRTA operates on-demand service between Ames and Ankeny along the US-69 corridor. This proposed concept would look to formalize this connection into a fixed route style of service instead of the demand response service that is currently offered.

Ames to Ankeny Deviated Fixed Route

A deviated fixed route may be a way to provide commuter services in the corridor, while also providing a more flexible service type, particularly to the smaller communities between Ames and Ankeny, such as Huxley, Alleman, Cambridge, or Elkhart. A deviated fixed route provides general public demand response within a defined service zone which is called a flex area, while also generally following an alignment and schedule along a route. This concept is shown in Figure 24.

This service option would include flex areas and scheduled time points in portions of Ames, Huxley, Alleman, and in Ankeny – as was proposed in the DART Forward 2035 Plan for the city of Ankeny. This route would operate from Ames to Ankeny primarily along US-69. The Ames demand response area could encompass an area between 13th Street and Lincoln Way, and also include the Iowa State Center Park & Ride. A smaller demand response area could also function here, recognizing the proximity to the Iowa State Center and the high frequency available from campus to the Park & Ride lot on existing CyRide routes. The Ankeny flex area may generally be bounded by 1st Street, Ankeny Boulevard, Oralabor Road, and Delaware Avenue, as well as include the DMACC campus, and the industrial area along 78th Street east of I-35. These areas encompass many of the major employers in each city. Flex areas in Huxley and Alleman would encompass significant portions of each town, and would also include

a Park & Ride location that would serve as a collection point for persons from the wider geographic area, including the towns of Slater and Cambridge for Huxley, and the town of Elkhart for Alleman.

Operating costs for the service are presented to provide an understanding of the different costs associated with different service spans. The base of these costs are a 60 minute peak service, with a 60 minute off-peak service. Costs for additional segments of service are presented on a cumulative basis, from a peak-only weekday service, to an all-day service with evenings and Saturday and Sunday service. Costs are presented in Table 18.

Table 18 Ames - Ankeny Deviated Fixed Route Operating Costs

Service Period (Frequency)	Operating Vehicles	Daily Revenue Hours	Annual Operating Cost	Cumulative Total
5 Day/week Peak (60 minutes)	2	16	\$336,600	\$336,600
5 Day/week Off-Peak (60 minutes)	2	8	\$168,300	\$504,900
5 Evenings/week (60 minutes)	2	8	\$168,300	\$673,200
Saturday (60 minutes)	2	24	\$102,960	\$776,160
Sunday (60 minutes)	2	20	\$85,800	\$861,960

Notes:

Service Period: 4 hour a.m. peak and 4 hour p.m. peak. 4 hour midday (off-peak).

4 hour evening service span. 12 hour Saturday service span. 10 hour Sunday service span.

Trip Characteristics: One-way travel time including dwell and flex time accounts for 60 minutes/25 miles from Ames to Ankeny.

Vehicles: Operating vehicle totals do not include the required spare vehicles.

Ridership

The estimated ridership for the Ames to Ankeny Deviated Fixed Route Concept is shown in Table 19. For the Ames to Ankeny deviated route bus service the ridership forecasting model described previously yielded an average weekday ridership forecast of approximately 210 during the peak commute period and 90 during the midday off-peak period.

Table 19 Ames - Ankeny Deviated Fixed Route Daily Ridership

Service Period (Frequency)	Daily Ridership
Deviated Fixed Route: Ames-Ankeny	
5 Day/week Peak (60 minutes)	212
5 Day/week Off-Peak (60 minutes)	90
5 Evenings/week (60 minutes)	30

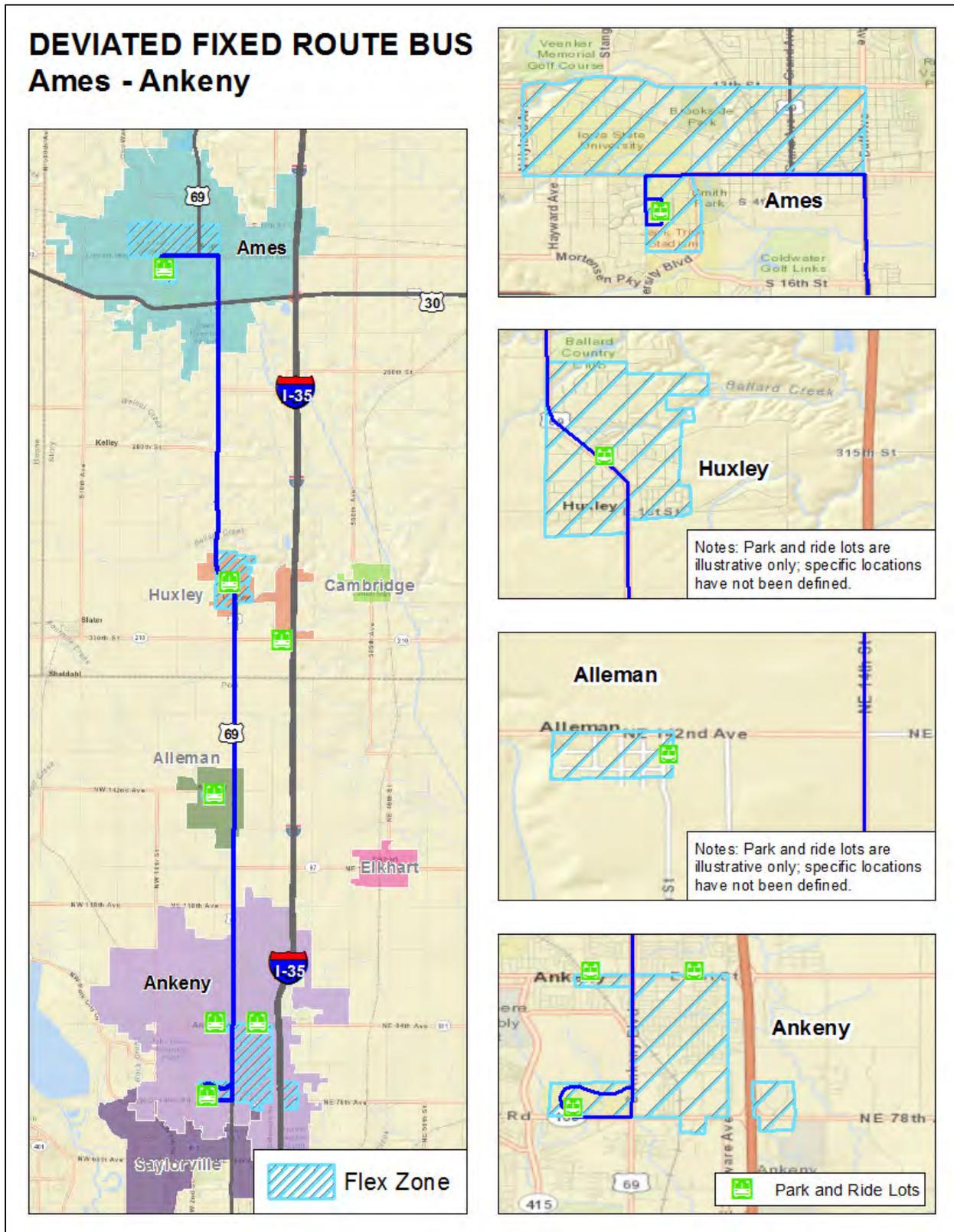
The cost per rider for the Ames-Ankeny Deviated Fixed Route service is shown in Table 20.

Table 20 Ames - Ankeny Deviated Fixed Route Cost per Rider Summary

Service Period (Frequency)	Cost per Rider
Deviated Fixed Route: Ames-Ankeny	
5 Day/week Peak (60 minutes)	\$6.21
5 Day/week Off-Peak (60 minutes)	\$7.36
5 Evenings/week (60 minutes)	\$20.09

Notes: The Cost per Rider is found by dividing the estimated annual operating cost by the forecasted annual ridership.

Figure 24 Ames to Ankeny Deviated Fixed Route Alignment



Notes: Local alignments are illustrative.

Ridesharing

Definition

Ridesharing includes both carpooling and vanpooling. A carpool is where two or more people share a ride in a private vehicle to a common destination. Carpools can have one designated driver and vehicle, who collects a fare from other passengers, or the driver and vehicle used can rotate among the group so users only “pay” when they drive. A vanpool is where a larger group of people share a ride in a prearranged vehicle. Vanpooling service provides vans for groups of 5 – 15 passengers who meet at a specified location, ride to work, and return together after work. Vanpools typically use vans leased by the users through transit agencies, employers, or private vanpool leasing companies. A longer-distance commute, such as that along the I-35 corridor, provides incentives for ridesharing. Typically, both carpooling and vanpooling are orientated towards the commuter market, although carpooling can be used for the student market also.

Description

Currently, there are numerous formal vanpools and carpools coordinated by transit agencies and informal carpools organized by individuals operating in the I-35 corridor. Beginning in 1995, the Des Moines Area Regional Transit Authority (DART) implemented a vanpool program consisting of 5 vanpools. Now, there are over 100 vanpools in the area transporting over 900 commuters daily³. These include 11 vanpools from Ames to Des Moines and two vanpools currently being developed to travel from Des Moines to Ames. ISU Transportation Services also offers vanpool opportunities to employees commuting to campus. At the beginning of the fall 2013 semester, ISU advertised six vanpools available for ISU staff. Half of the vanpools were from Des Moines and Ankeny traveling to Ames. Monthly fares for the ISU vanpools ranged from \$75 to \$90 per person. Monthly fares for DART range from \$84 to \$96 for trips from Ames to Des Moines, depending on the number of riders.

In addition, both DART and ISU facilitate connecting potential carpoolers through their own respective, dedicated Rideshare websites⁴. Ridesharing has low capacity but can be easily modified by the users to suit their needs. Unlike an express bus service, which may have multiple trips during a peak period, ridesharing users have only one opportunity during the day to use rideshare, and a rider may have to pay his share of the costs even if he skips a day. Costs depend on how many users share a vehicle, and users in a vanpool typically have to organize a minimum number of users before qualifying for the service. Compared to other forms of transit such as express or local bus or subscription service, ridesharing is more expensive for users but less costly for the transit agency or other administering organizations. Compared to driving a personal automobile, ridesharing is still the cheaper alternative.

Vanpool Expansion Concept

Expanding vanpool across DART’s 17-county RideShare region is beyond this project’s scope, so specific areas within the study area were identified where new vanpools could be considered. The concept is comprised of increasing rideshare in the form of vanpooling. DART and ISU

³ Transportation to Work: A Toolkit for the Business Community, *Innovative Vanpool Programs*, 2012.

⁴ DART’s Rideshare site: <http://www.ridedart.com/rideshare-vanpools-carpools.cfm>
ISU’s Rideshare site: <http://www.rideshare.gsb.iastate.edu/>

already facilitate connections to develop carpools. To increase rideshare in the corridor, this concept would target two segments currently without vanpools. Vanpools would be developed to serve commuter travel between Ames and Ankeny. Based on Journey-to-Work data from the U.S. Census, approximately 500 commuters travel each way between the two cities, and ISU vanpools are not currently available for non-ISU commuters. A vanpool option, in addition to the discussed fixed route options, may better serve major employer centers in Ames and Ankeny, than a fixed route option alone. Additional vanpools would also be promoted for the travel from Ames to the West Des Moines / Urbandale area; as well as beginning connections from the West Des Moines area to Ames. Journey-to-Work data indicates this segment sees approximately 800 commuters traveling each way. Vanpooling may offer one way to meet the demand in these corridors, at a low cost per rider. The cost associated with supporting ridesharing options in low ridership potential corridor segments would be minimal and associated only with administering the program. While DART's RideShare is considered to be a model for other transit providers interested in improving their vanpool programs, additional strategies were found to help in enhancing and expanding the use of vanpools in the corridor.

Strategies for Expansion

While many of these efforts could be addressed throughout the entire RideShare region, the areas within the I-35 corridor with the highest potential for new users are movements between Ames and Ankeny, as well as Ames and the West Des Moines/Urbandale area.

After reviewing numerous case studies on vanpools across the country, there were several approaches that a sponsoring transit agency could consider in order to expand vanpool ridership. Generally, techniques that have been successful to increase vanpool participation include:

- Developing innovative partnerships;
- Reaching out to and involving area employers;
- Understanding the unique needs of individual communities;
- Obtaining strong political support from local leaders;
- Emphasizing ease of use for businesses by, for example, working with reliable, experienced third-party operators; and
- Emphasizing ease of use for commuters.

Organization

- Allow for multiple types of vanpool service including:
 - those driven by a company's employees and paid for by riders,
 - those driven by the sponsoring transit agency's drivers and billed to employers on a monthly basis and
 - those driven by the sponsoring transit agency's drivers with weekly tickets purchased in advance by the passengers
- Design the fare structure depending on levels of participation from one to five rides per week.

Policy

- Establish legislation requiring businesses with 100 or more employees to have a ride reduction plan in place by a specified date. The sponsoring transit agency will work with those employers to facilitate the development of vanpools as needed.
- As part of a region-wide air quality regulation effort to reduce air pollution, require businesses with 250 or more employees or businesses and educational facilities with 1,000 or more students and employees combined to develop plans and set goals for reducing the number of times commuters drive alone to work or school by a specified rate, i.e. 25 percent.

Marketing

- Produce a survey by the sponsoring transit agency’s staff or a national vanpool service provider like VPSI in order to understand the travel patterns of employers by:
 - Reviewing employee commuting habits, mapping out where employees live and identified distances and clusters of residents. Determine the number of vans needed to transport all the participants based on the information gathered.
- Maintain follow-up calls to vanpool participants, to lower membership attrition rates.
- Take advantage of social media networks, i.e. Facebook and Twitter, to advertise the vanpool program and any other necessary resources.

3.3 Facilities

Type and Location

The transit concepts could utilize a number of existing Park & Ride lots located in Ames, Ankeny and Des Moines. In Ames, the Iowa State Center Park & Ride lot is located between the ISU Alumni Center and Jack Trice Stadium. The Ann Campbell Transit Station is also located there. Routes 23 and 4 are the two local CyRide routes accessing the lot. There are currently four Park & Ride lots in Ankeny, including:

- Mercy North at E 1st Street and NE Trilein Drive
- Hawkeye Park at W 1st Street and NW Ash Drive
- DMACC Lot L at SW Oralabor Road and DMACC Blvd

The lots above are served by DART’s *Route 98 Ankeny Express* and could also be served by either of the two express concepts. In Des Moines, there are numerous Park & Ride lots within the city limits. For the express service connecting Ames, Ankeny and Des Moines, the Link Center Street Park & Ride lot may serve as the main Park & Ride in downtown Des Moines. Since Ames, Ankeny, and Des Moines are currently using Park & Ride lots for their existing service, new investments for facilities could be directed towards the cities of Huxley and Alleman.

In Huxley, a Park & Ride lot would be needed for either the express bus or deviated fixed route concept. For the express service, a lot is suggested near the I-35 interchange at Highway 210. A higher level Park & Ride may be required at this location to safely park commuter vehicles,

and allow a full size transit vehicle to turn around to return to the interchange. Since the flexible service would be using an alignment on US-69, the Park & Ride would be situated near the highway between Centennial Drive and Campus Drive. This Park & Ride could be a basic level, and may consist of a gravel lot or improving an existing parking lot. Employing parking lots that are underutilized during working hours is a common strategy to reduce costs for Park & Ride lots.

A basic Park & Ride lot near US-69 or within Alleman would be required in the deviated fixed route concept. An existing parking lot may have spare capacity during working hours to serve this function.

Capital costs for either express bus concept would include both the necessary vehicles and the amenities needed in Huxley for a new Park & Ride lot near the interchange at I-35 and Highway 210. A specific location for the Park & Ride has not been identified. For the express bus travelling between Ames and Ankeny, a total of three buses and one spare would be required. A total of five buses and one spare would be required for an express bus service serving Ames, Ankeny and Des Moines. The buses used to operate this type of service would be the 40-foot-long over-the-road coaches, each costing approximately \$600,000. These buses generally have seating and features more suitable and comfortable for longer trips at highway speeds. Total capital costs for each express bus concept are identified below in Table 21 and Table 22.

Table 21 Ames - Ankeny Express Bus Capital Cost Summary

Ames – Ankeny Express Bus	Number Required	Unit Cost	Total
40' Over the Road Coach	4	\$600,000	\$2,400,000
Park & Ride	1	\$250,000	\$250,000
Total Cost			\$2,650,000

Notes: Park & Ride costs do not include land acquisition and maintenance

Table 22 Ames - Ankeny - Des Moines Express Bus Capital Cost Summary

Ames – Ankeny – Des Moines Express Bus	Number Required	Unit Cost	Total
40' Over the Road Coach	6	\$600,000	\$3,850,000
Park & Ride	1	\$250,000	\$250,000
Total Cost			\$4,100,000

Notes: Park & Ride costs do not include land acquisition and maintenance

Capital costs for the deviated fixed route concept would include both the vehicles for operating the route and the amenities needed in Huxley and Alleman for new Park & Ride lots. A specific location for both Park & Ride lots have not yet been defined. The deviated fixed route bus will require three cutaway buses, each costing approximately \$65,000. This includes the two vehicles necessary to operate the route, plus a spare. Presumably, an agency that already operates other routes may have sufficient existing vehicle stock to provide a spare. Park & ride costs would include bus pull-outs, shelter pads, and parking. Basic Park & Ride costs include

minimal site development and gravel paving. Total capital costs are identified below in Table 23.

Table 23 Ames - Ankeny Deviated Fixed route Bus Capital Cost Summary

Ames – Ankeny Deviated Fixed Route Bus	Number Required	Unit Cost	Total
Body-on-Chassis Vehicle	3	\$65,000	\$195,000
Basic Park & Ride	2	\$50,000	\$100,000
Total Cost			\$295,000

3.4 Concept Evaluation

The transit concepts were compared using this general criteria in order to identify which concepts to be described in greater detail. The following criteria were used:

- Directness and Travel Time
- Service to Different Markets
- Transit Access
- Ridership
- Cost/rider

The summary characteristics of the concepts with fixed route elements are shown in Table 24. The costs per rider range from just over \$3 for the peak-hour Ames-Ankeny-Des Moines express service to \$39 for the evening Ames-Ankeny express service. The deviated fixed route cost per rider is between \$6 to \$7 for both peak and off-peak service. Express service on I-35 offers a more direct connection, and greater travel time savings, for commuters and students, while deviated fixed route service offers greater flexibility and competitive cost, but as a mode that would be less attractive to travelers emphasizing travel time savings.

Table 24 Concepts Summary

EXPRESS: Ames-Ankeny	Costs		Ridership	Cost / Rider
	Capital	Operating		
5 Day/week Peak (30 minutes)	\$2,650,000	\$473,344	350	\$5.30
5 Day/week Off-Peak (60 minutes)		\$168,300	60	\$11.04
5 Evenings/week (60 minutes)		\$168,300	17	\$38.64
EXPRESS: Ames-Ankeny-Des Moines	Capital	Operating	Ridership	Cost / Rider
5 Day/week Peak (30 minutes)	\$4,100,000	\$809,944	973	\$3.27
5 Day/week Off-Peak (60 minutes)		\$220,894	166	\$5.22
5 Evenings/week (60 minutes)		\$220,894	47	\$18.26
DEVIATED FIXED ROUTE: Ames-Ankeny	Capital	Operating	Ridership	Cost / Rider
5 Day/week Peak (60 minutes)	\$295,000	\$336,600	212	\$6.21
5 Day/week Off-Peak (60 minutes)		\$168,300	90	\$7.36
5 Evenings/week (60 minutes)		\$168,300	30	\$20.09

The ability of each mode to meet the criteria is summarized below.

Express Transit

- Most direct and shortest travel time of the concepts
- Provides connections between the fixed route systems in Ames and Des Moines.
- Access to many locations in Des Moines and Ames would require transfer to those transit systems.
- Best serving the commuter transit market but can serve other markets also
- Access from more rural locations would be located at a Park & Ride near I-35
- Highest ridership levels in the peak period.
- Cost per rider is the lowest for peak periods and highest for evening periods.

Recommended for Further Evaluation: Move forward evaluating the potential to include in an overall corridor strategy with peak period commuter service, and midday service provided by a small number of express bus runs, or by use of deviated fixed route service during the midday.

Deviated Fixed Route Service

- Less direct and longer travel times than express service
- Better access and flexibility to pick up riders that are not at park-and-ride lots.
- Can serve the commuter market if service during commuter times is more direct, and serve other markets with more flexible routing
- Could provide access to university and colleges without transferring
- Ridership levels would be lower than with Express Bus, but service levels could match the demand.

- Cost per rider are comparable to express bus for both the commuter peak and midday time periods.
- Lower capital costs than express bus.

Recommended for Further Evaluation: Move forward evaluating the potential to include in an overall corridor strategy using deviated fixed route concepts as this service is competitive on a cost basis compared to express routes during the off-peak periods, while also providing additional flexibility for non-commute trips.

Ridesharing

- Provides the most flexibility
- Has a lower capacity than the other concepts
- Costs are potentially covered by riders.

Recommended for Further Evaluation: Move forward evaluating potential to include in an overall corridor strategy supporting ridesharing to provide service to movements not directly served by I-35 corridor service such as movements between West Des Moines and Ames.

Chapter 4. Land Use and Development Pattern Analysis

4.1 Introduction

This chapter examines potential land-use and development patterns that exist currently, that are part of current plans and includes a discussion of development practices that would help support higher transit use. The following sections briefly describe the existing land use, projected land use, and discusses potential development types supporting alternative transportation modes.

The opportunity to use transit is closely associated with the land use, population and employment characteristics of the area served. Those areas with a higher land use density, greater diversity of uses, and higher density of employees or residents have greater opportunities to use transit than those areas with more dispersed land use characteristics. Transit use is further supported when the pedestrian and bicycle network creates a safe, connected, and interesting environment for multi-modal users as they travel between the transit stop and their origins or destinations. When this corridor study was supported in the Capital Crossroads plan, explaining benefits of transit oriented development was thought to better connect employees to their employers and attract new businesses from outside the corridor.

4.2 Existing Land Use

This section describes the existing land uses in the I-35 corridor including Ames, Ankeny and Des Moines.

Residential Density

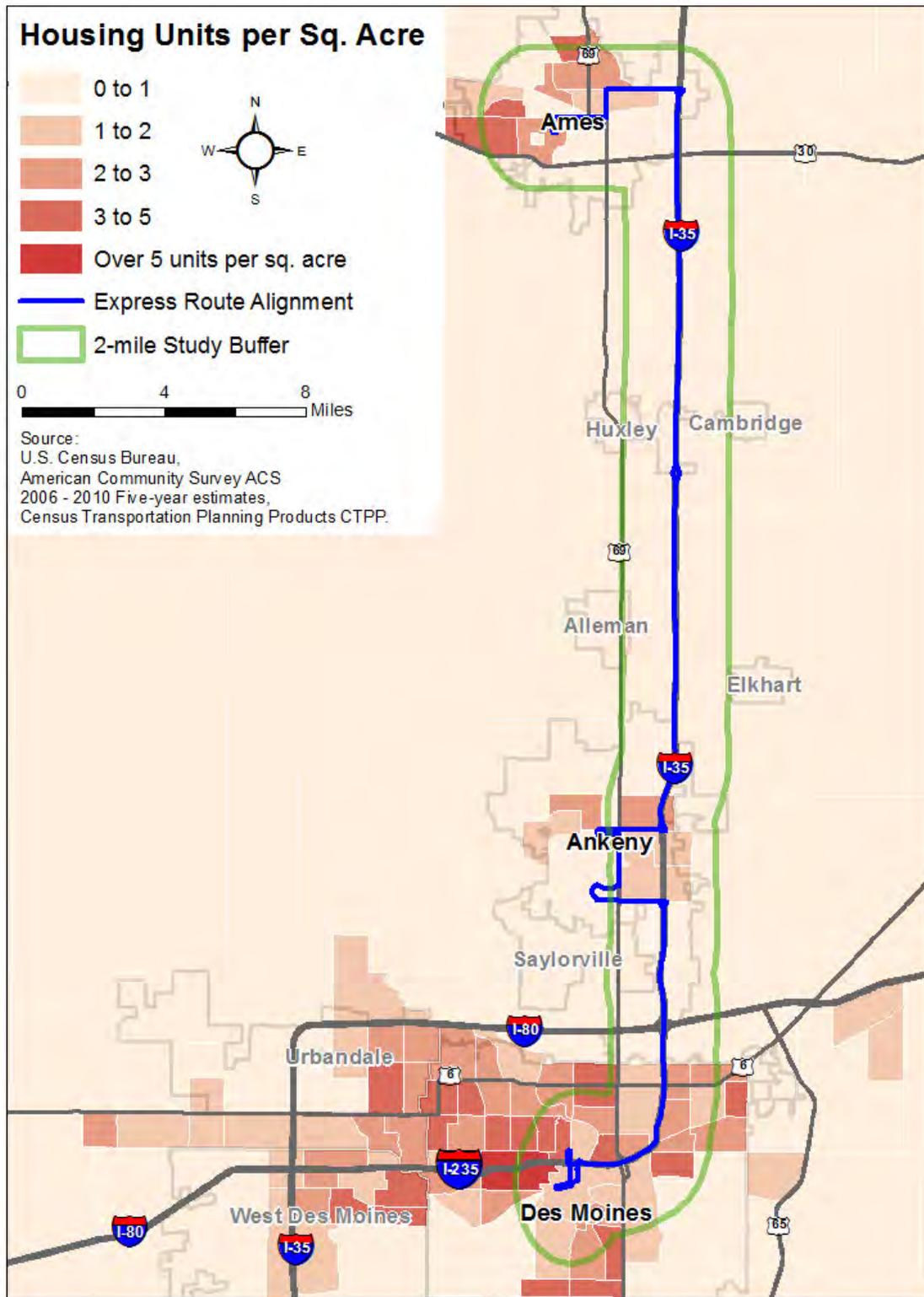
Higher density supports potential transit use. Higher density residential areas in Ames are located west of the ISU campus along Hyland Avenue and Campus Avenue, southwest of the campus between Y Avenue and State Avenue, and south of Lincoln Way. These densities range from just under three units per square acre southwest of campus, to just under five units per square acre west of the campus.

In Ankeny, the main areas of multi-family housing currently exists north of the Mercy North hospital on 1st Street, south of Magazine Road and Delaware Avenue, as well as areas west of the interstate along Delaware Avenue. Residential densities for Census Tracts in these areas range from over three units per square acre north of the hospital to over one unit per square acre along Delaware Avenue.

Higher density residential areas in Des Moines are located northwest of the central business district, just north and south of I-235. The densities are between five and seven units per square acre in the area northwest of Drake University between 30th and 41st Streets and in the area south of I-235 between 42nd and 28th Streets.

Figure 25 shows the existing population densities within the corridor.

Figure 25 Population Density 2010



Employment Density

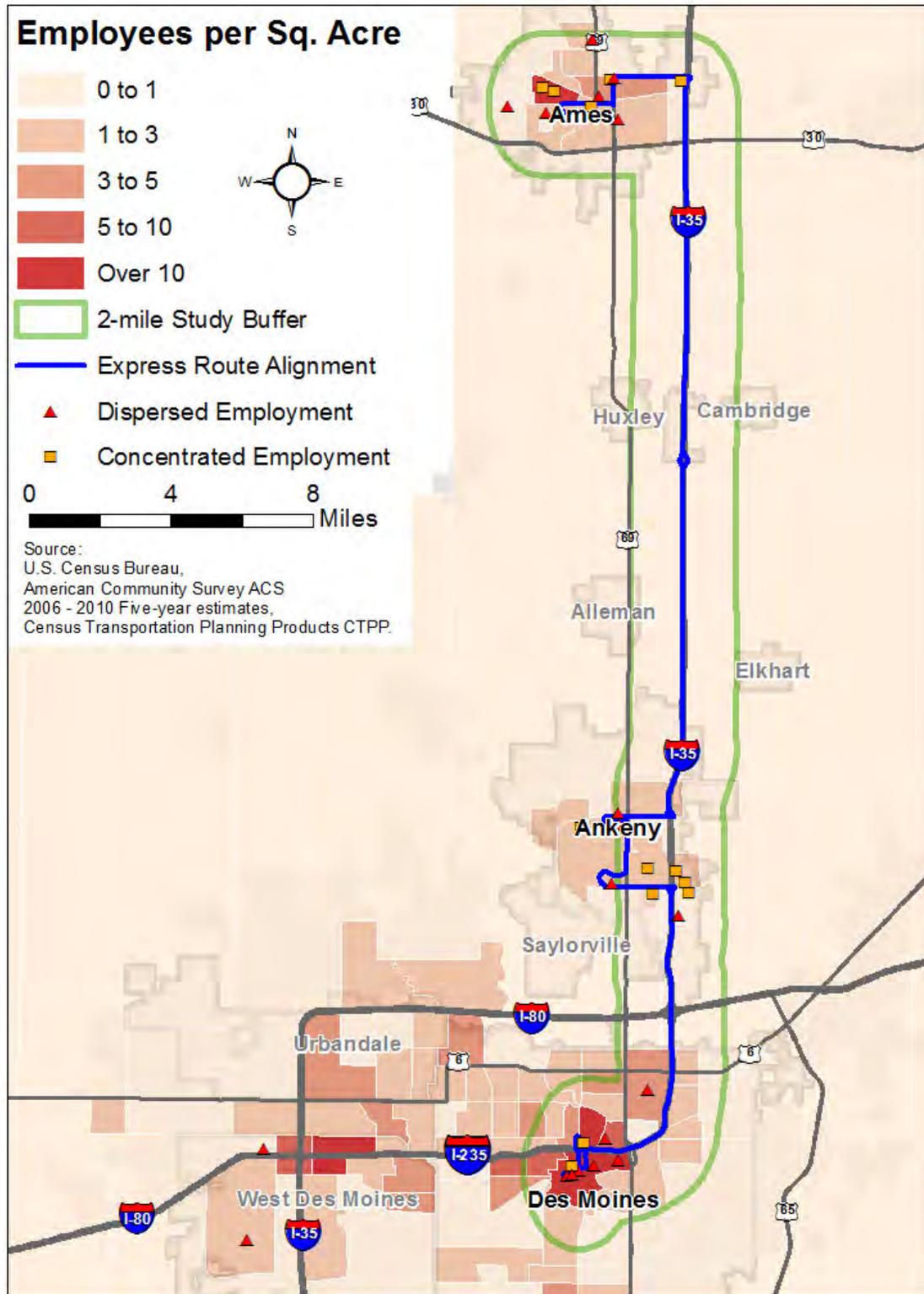
Employment density is shown in Figure 26. The greater concentrations are in Ames, Ankeny, and Des Moines.

Higher density employment areas in Ames are located on the ISU campus as well as near the downtown area. These densities range from over 11,000 employees per square mile on the campus to over 3,000 employees per square mile in the area including the downtown area south of 13th Street and west of Dayton Avenue.

In Ankeny, higher density areas were identified along Ankeny Boulevard both north and south of 1st Street, on 1st Street near Mercy North, and at the Oralabor Road and Delaware Avenue intersection, extending north along the Delaware Avenue. This development is characterized as a regional focus of commercial activities, providing retail commercial services, entertainment, and business offices for residents within the City and adjacent communities. The area including the Oralabor Road and Delaware intersection has the highest density of employment totaling nearly 2,000 employees per square mile.

In Des Moines, the higher density employment areas were found to be located in the downtown area, north of I-235 between 6th Avenue and the Des Moines River, and east of the I-235/I-80/I-35 interchange in West Des Moines. Employment densities ranged from over 19,000 employees per square mile downtown to over 10,000 employees per square mile north of downtown and nearly 8,500 employees per square mile in the West Des Moines area previously described.

Figure 26 Employment Density 2010

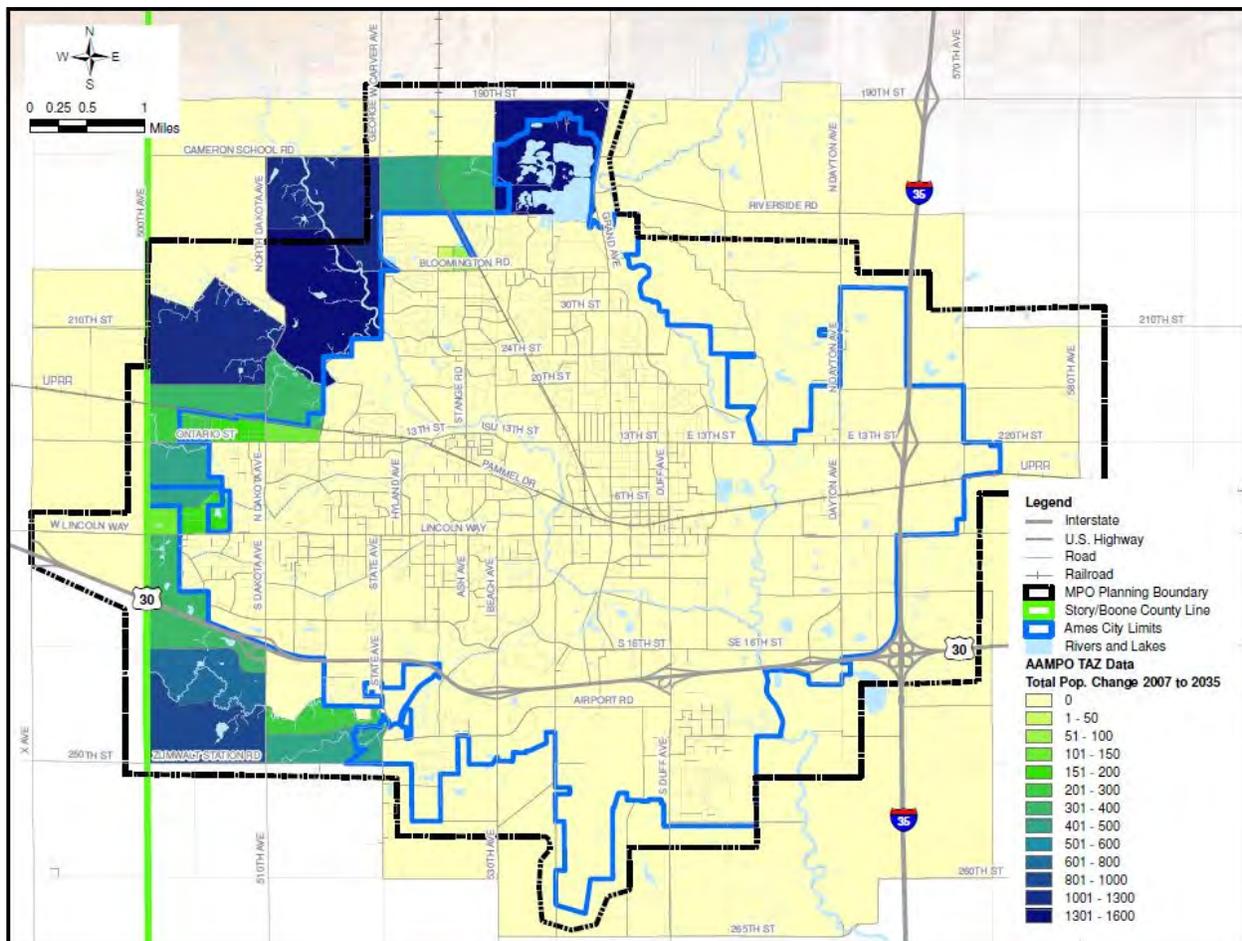


4.3 Projected Land Use

This section describes the projected land uses in the I-35 corridor including Ames, Ankeny and Des Moines. Locations of new residential or employment growth are opportunities to develop the land use and transportation infrastructure in ways more supportive of transit and multimodal connectivity.

According to the Ames’ comprehensive plan, Land Use Policy Plan, forecast models projected the population in Ames to grow from 59,000 people to between 61,000 and 72,000 people by 2030. In order to absorb this expected population growth, an additional 200 to 1,300 acres will be needed for residential development and another 350 to 2,100 acres for the remaining commercial, industrial and public space. Most of the population growth is expected to occur beyond the northwestern and southwestern perimeter of the current city limits. Policy options for future development were defined by five development areas including the urban core, university impacted land, new lands, near term lands, and urban fringe. Figure 27 shows the projected population change from 2007 to 2035 for the Ames Metropolitan Planning Area.

Figure 27 Ames MPA Projected Population Change 2007 - 2035

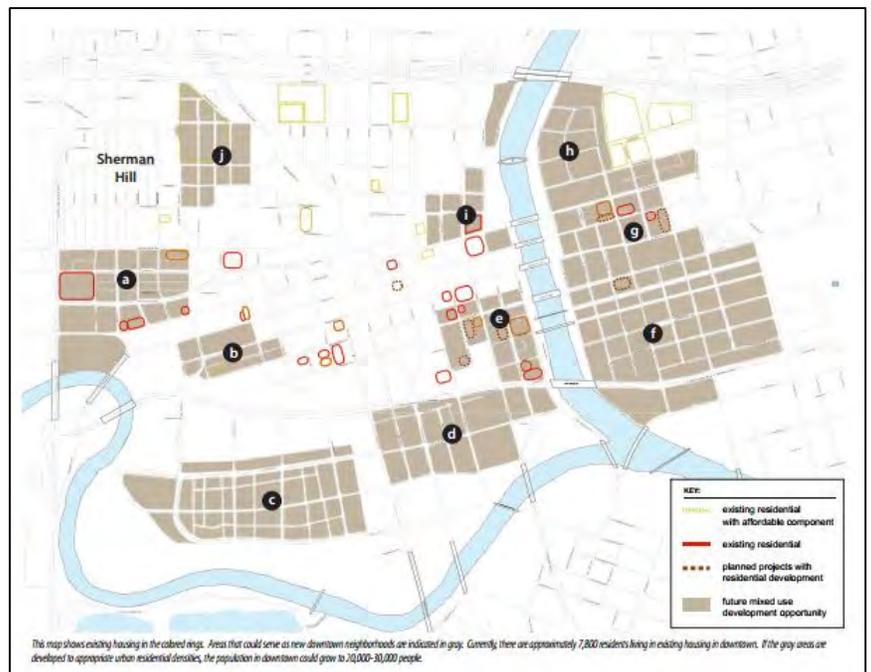


In the Ankeny Comprehensive Plan, from 2010, the city's residential projections were made for the target year of 2035. At a three percent annual growth, the total population is forecasted to more than double its current size, to nearly 93,000 people. This amounts to a need for approximately 6,000 additional acres; 65 percent from single-family detached, 20 percent from townhomes or duplexes, and 15 percent from multi-family. These ratios support part of the plan's neighborhood model of development by offering a variety of housing types and accommodating a range of incomes in each neighborhood.

In the DMAMPO Metropolitan Transportation Plan, residential projections for the city of Des Moines forecasted an increase of another 200,000 residents by the year 2035, making the total population near 400,000 people.

This growth in population is expected more towards the northern and western subareas, with lesser growth in the eastern and southern areas. The CBD is also projected to absorb some growth in population. According to the 2008 Downtown Des Moines Planning Project, downtown has doubled its resident population recently to 6,500 people. After inventorying potential neighborhoods for residential growth, as shown in Figure 28, the plan estimated a potential capacity of 8,000 to 12,000 additional housing units to be absorbed in multiple neighborhoods in the downtown area. Figure 29 shows the projected population growth areas for the Des Moines

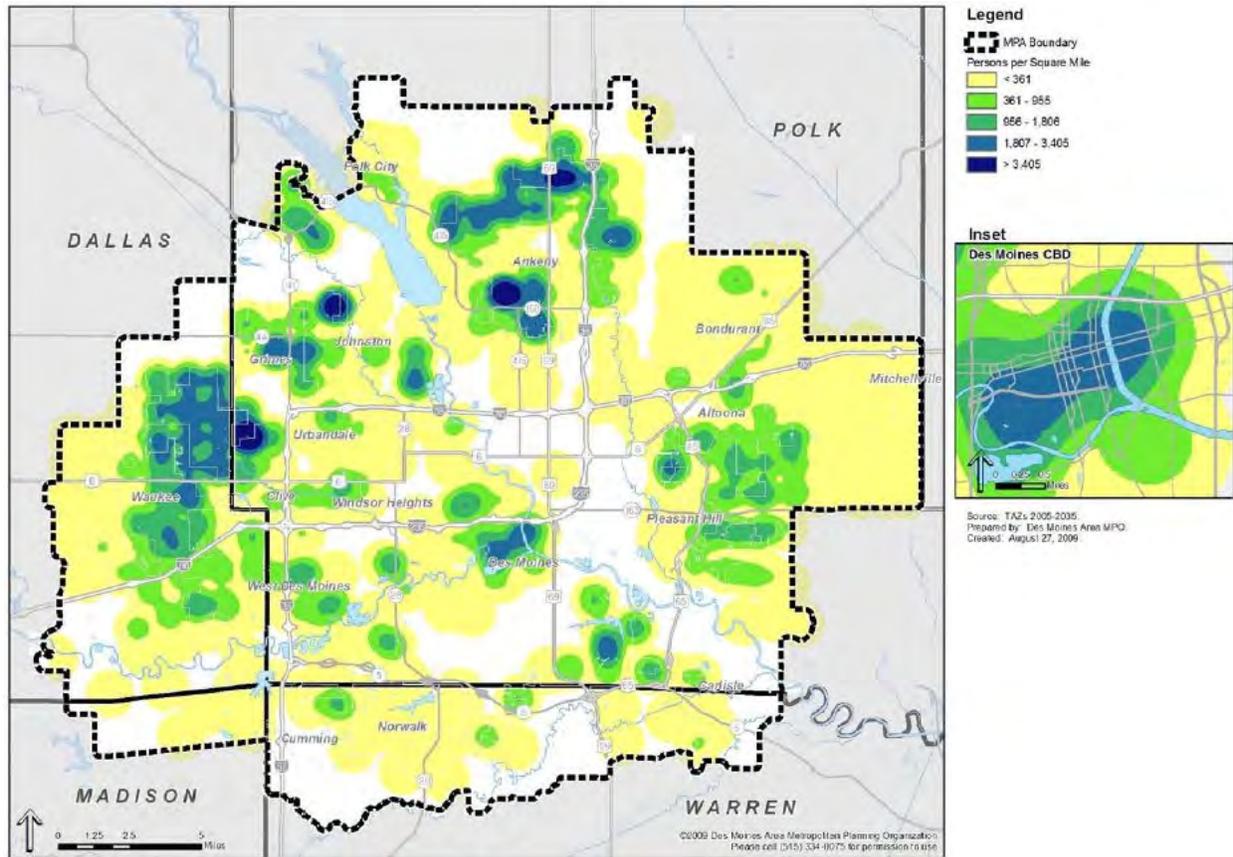
Figure 28 Future Mixed Use Development Opportunities



Source: Downtown Des Moines Planning Project, page 87.

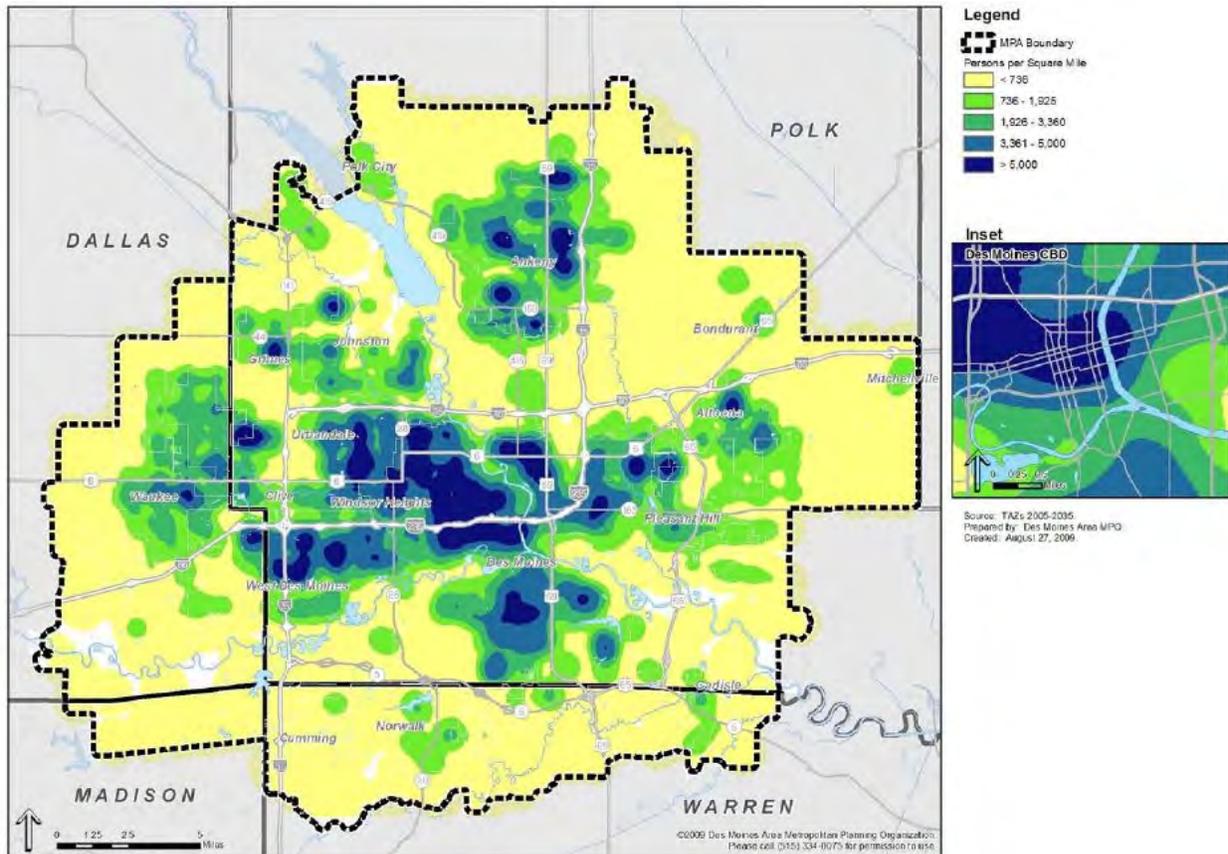
Metropolitan Planning Area (MPA) from 2005 to 2035. As indicated in Figure 30, areas of future growth in population density along the I-35 corridor are in downtown, and in portions of Ankeny.

Figure 29 Projected Growth Areas to 2035



Source: Des Moines Area MPO 2035 Metropolitan Transportation Plan, page 3-33.

Figure 30 Des Moines MPA Projected Population Density 2035

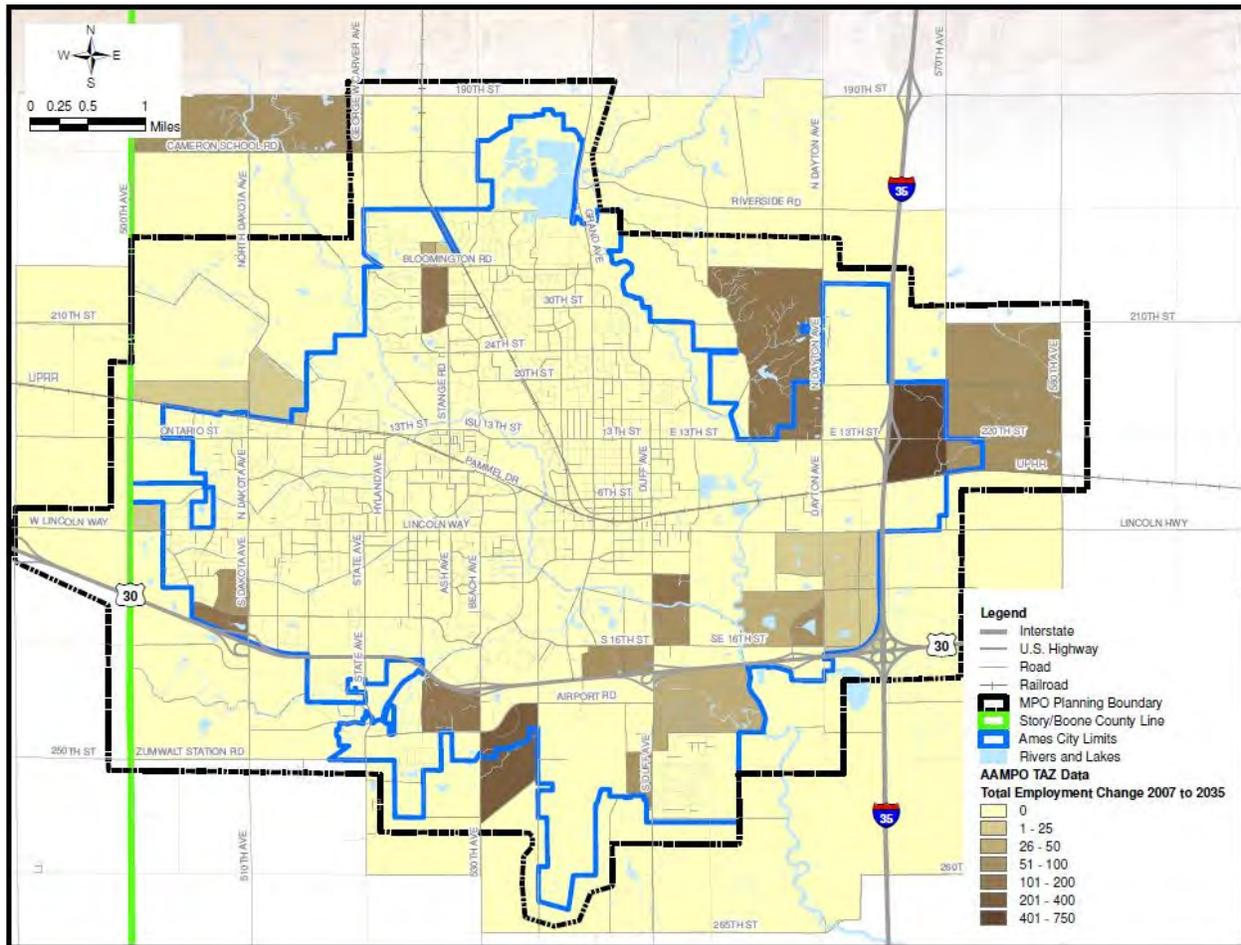


Source: Des Moines Area MPO 2035 Metropolitan Transportation Plan, page 3-27.

Projected Employment Density

Ames' Land Use Policy Plan experienced a 12.5 percent increase in the labor force from 28,700 in 2000 to 32,300 in 2010. As was done for population, projections were made for expected employment levels in the year 2030, which will be as much as 38,000. With this growth in employment, comes an emphasis on creating a more regional employment and market base. The areas noted for employment development along the route alignment include downtown, South Lincoln Sub-Area, medical center, university-impacted lands, and new lands. Figure 31 shows the projected employment change from 2007 to 2035 for the Ames MPA. Most of this employment change is in the eastern edge of the city, specifically along 13th Street and along 16th Street.

Figure 31 Ames MPA Employment change 2007 - 2035

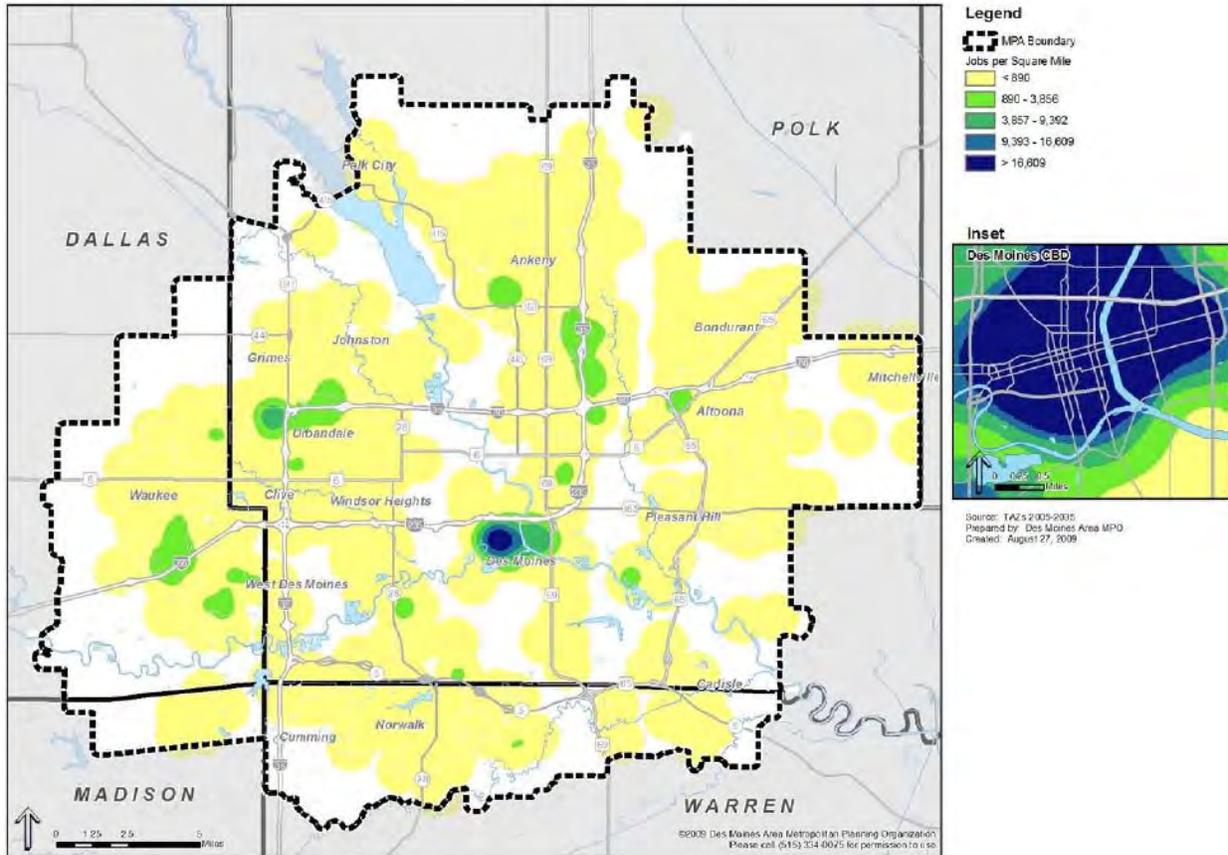


Source: Ames Area MPO 2035 Long Range Transportation Plan, page 4-8.

Ankeny's Comprehensive Plan projects commercial, industrial, and business needs based on the growth of the city's total population and the area needed to house the additional population. With this methodology, the amount of commercial need in 2035 will require around 800 acres in addition to the 555 vacant acres currently zoned commercial. An additional 3,600 to 4,200 acres will be needed for industrial and business parks.

DMAMPO's Metropolitan Transportation Plan projected employment will increase by 110,000 jobs from 2005 to 2035. This growth in employment is expected to take place mainly in the Des Moines CBD and the western subareas, along the I-35 corridor near Ankeny, along the I-80 and US 65 in Altoona, and in areas between the CBD and south to Iowa Highway 5. The central core has opportunities for both infill and redevelopment while the northern section has more potential for new construction on the available vacant land, surface parking lots, or under-utilized sites. Figure 32 shows the projected employment growth areas for the Des Moines MPA from 2005 to 2035.

Figure 32 Des Moines MPA Employment Growth Areas 2035



Source: Des Moines Area MPO 2035 Metropolitan Transportation Plan, page 3-34.

Future Connectivity

The design of a street network is an important component in determining the accessibility of transit within a community. Transit vehicles operate on the street network, and system administrators balance the relatively high speed afforded by traveling on major arterial streets, with high accessibility to transit on local streets. Most transit riders begin and end their trips as pedestrians, while the availability of a bike-friendly street network can greatly increase the pool of potential transit passengers.

The current design of the street systems in Ames, Ankeny, and downtown Des Moines, Iowa are representative of systems designed across a variety of time periods. The traditional grid street system is evident in the older parts of each city. As noted in Frank and Engleke⁵, the traditional grid system “contains the most amount of street frontage, the greatest number of the greatest number of intersections, the greatest number of blocks, the greatest number of access

⁵ Frank, L., Engleke, P. (undated). How Land Use and Transportation Systems Impact Public Health: A Literature Review of the Relationship Between Physical Activity and Built Form. City and Regional Planning Program College of Architecture. Georgia Institute of Technology.

points, and the total absence of loops and cul-de-sacs” as compared to other street patterns. These characteristics (e.g., short block lengths, high number of access points) have typically encouraged walkability and transit usage as it allows potential passengers to access transit routes through a wide variety of travel paths, based on the travelers personal preference for “variety, safety, and convenience” (pg. 48). Other street patterns can be seen throughout the three communities, including a fragmented parallel network (circa 1950’s) which lays streets generally in a grid, but limits cross-traffic opportunities, a warped parallel network (circa 1960’s) which introduces a patterned, curvilinear aspect to street network, and then the introduction of cul-de-sacs within a loop network (circa 1970’s), and cul-de-sacs within a very wide or loose grid (circa 1980’s and beyond). As the design of the street network has progressed over the 20th century, generally the number of blocks and the number of intersections have decreased, and thus, has created further impediments for walkability and the access to transit.

Figure 33 Comparative Analysis of Neighborhood Street Patterns in California Suburbs

	Gridiron (c. 1900)	Fragmented Parallel (c. 1950)	Warped Parallel (c. 1960)	Loops and Lollipops (c. 1970)	Lollipops on a Stick (c. 1980)
Street patterns					
Intersections					
Linear feet of streets	20,800	19,000	16,500	15,300	15,600

Source: *How Land Use and Transportation Systems Impact Public Health: A Literature Review of the Relationship Between Physical Activity and Built Form.* Pg. 53. Figure 4-2

Compared with the current design principles in Ames, Ankeny, and downtown Des Moines, each city is looking to focus on improving connectivity, making attractive living environments, and enhancing mobility for both the near and long-term future.

Ames

In the Ames Land Use Policy Plan, ten goals were established to guide the community's vision for future development. Those relevant to supporting connectivity principles include:

- Creating a greater sense of place and connectivity, physically and psychologically, in building a neighborhood and overall community identity and spirit.

The city looks to integrate more compact living and activity areas with readily available and accessible amenities. They are also pursuing a closer proximity of residential areas and supporting commercial uses and common design elements in hopes of creating more of a community identity.

- Establishing a cost-effective and efficient growth pattern

Ames aspires to continue development in emerging and infill areas where there is existing public infrastructure. In both these goals and objectives, the expected outcomes will support the development of alternative transportation options and make livable communities more attractive for pedestrians.

Ankeny

Ankeny's 2010 Comprehensive Plan looked to instill four primary principles for transportation in their community including:

- Maintaining a small hometown feel,
- Sustaining a safe community,
- Supporting active lifestyles and
- Providing easy movement and access

All these principles can be associated with the design elements of Context Sensitive Design. The design elements are intended to balance the needs of all modes of travel by using the entire right-of-way. Examples of elements comprise of specifications of lane widths, medians, on-street parking, pedestrian buffers, sidewalks and trails, landscaping and lighting, and utility corridors. By adopting guidelines for each of these noted elements, benefits can be seen in relation to traffic calming, access improvement, pedestrian interaction, highlighting of conflict points, coordination of streets and surround land uses, and the preservation of safety and capacity for all users.

Des Moines

As part of Des Moines' Downtown Plan, planning and design guidelines were identified to reinforce the downtown districts' movement and development proposals discussed in the land use and multimodal sections above. These themes included the integration of parking, creation of higher density, defining appropriate scales, providing transportation choices, and mixing of uses – among others. Opportunities were suggested for developing the themes into reality by incorporating strategies to support each theme.

Integrating Parking: The 15 to 20 percent share of the downtown area occupied for parking creates a disincentive for pedestrian travel. Ways to guide the future quantity and quality of

parking downtown included utilizing on-street parking, reducing the need for parking through alternative transportation options, and investing in underground structures.

Increasing Density: Des Moines' downtown is limited by physical boundaries from all directions, so creating higher densities is important to take advantage of what land is still available. By supporting a more dense development pattern, residents can more easily access the publically provided amenities and the city can also achieve a greater utility out of those resources.

Defining Scales: Walkability is often encouraged by smaller block sizes, so limiting the size of blocks in certain districts is recommended. Vertical scale must also be considered so that higher density areas can take advantage for the available land where space is limited, but also for lower density areas to be used for preserving visual landscapes such as the Capitol.

Providing Transportation Choices: While downtown movement is concentrated more towards automobile use than other modes, the future downtown looks to accommodate multiple transportation choices. This long-term objective for the city will require various stakeholders to buy-in to this change in priority. When additional transportation choices are offered, benefits can be seen from reduced parking needs, increase in connections to points of interest, as well as limiting the financial burden on residents. Examples of current and future efforts to create more transportation choices include the connections made from the trail along Martin Luther King Jr. Parkway, efforts to include bikes in future infrastructure upgrades, and potential transit routes servicing the downtown area.

Mixing Uses: For many of the areas in downtown Des Moines, mixed use development is being used for a single building or across an entire block. By mixing uses like office, residential and/or retail, areas that were once only active for certain parts of a day or week can draw people most hours of the day for seven-days-a-week. This constant movement creates a place where people feel safe and want to spend time. The plan also points out the importance of attracting residential uses for making an area a viable mixed use development. Having residents in the area not only helps to bring constant activity to the area, but also creates a stable market to help support future retail, commercial uses, and open space.

4.4 Transit Supportive Development Practices

Transit Oriented Development (TOD) is a broad term that generally involves a land use development with a higher population or employment density, greater mix of land uses than surrounding areas, and with an orientation of being conducive to the uses of the that land use, as well as having easy access to transit. TOD also has localized definitions; what would be seen as TOD in the Midwest may be viewed quite differently in other parts of the country. Even so, the goals of TOD are similar everywhere. As TCRP 102 notes, "Some hope that TOD can breathe new life and vitality into areas of need by channeling public investments into struggling inner-city settings. And by creating more walkable, mixed-use neighborhoods with good transit connectivity, TOD is thought to appeal to the lifestyle preferences of growing numbers of Americans, such as childless couples, those Americans belonging to "Generation X", and

empty nesters” (pg. 3). Increased density of either jobs and / or population is a key component of TOD, and is a means to increase ridership on transit. Kolko⁶ (pg. 22) determined that the “magnitude of the relationship between employment density and transit ridership is twice as large as that between residential density and transit ridership.” This reflects the situation that “unlike the home end of the trip, where there are many options for accessing transit, generally, walking is the only available option at the work end” (pg. 21).

While there are many TOD tools and strategies, based upon the review of TOD developments in TCRP 102, four general TOD principles could be applied to existing and new developments to improve the potential for transit use.

- 1) Population or housing density effects on transit ridership are important. TCRP 102 found transit use 10 units per gross acre was needed but transit use would nearly double if household density increased to 20 units per gross acre. Spillar and Rutherford⁷ determined that transit user per person grows with increasing density up to a ceiling of somewhere between 20 and 30 people per acre, and 0.1 to 0.2 daily per capita transit trips. As they put it, “total ridership will increase as density increases because greater numbers of people have access to transit.

- 2) A mix of uses within a TOD serves as both a destination, and as a way to service the needs of employees and residents of the TOD, minimizing their need for automobile use. In terms of mixing use, TCRP 102 suggests that horizontal mixing of uses is more successful development wise, than vertical mixing. This is suggested to be the result of more easily obtained financing and marketing associated with horizontal mixed use, compared to vertical mixed use, as both lenders and potential tenants can more easily quantify the value and appeal of a single vertical use.

- 3) Walking access, ease of circulation, and quality of pedestrian environment are key in creating successful TOD’s. “The majority of residents living within ¼ mile of a transit station arrive by foot or bicycle; however, this share plummets markedly if there are significant physical, symbolic, and psychological barriers to bicycle and pedestrian traffic like wide, busy roads and incomplete sidewalk networks.”

- 4) Achieving a higher density in the areas with transit will require new development or redevelopments with features often found in TOD development. These include mixed-uses, high quality pedestrian crossings, narrow streets, and fewer height restrictions for buildings as they become closer to a transit route.

⁶ Kolko, Jed. 2011 “Make the Most of Transit – Density, Employment Growth, and Ridership around New Stations.”

⁷ Spillar, Robert J., and G. Scott Rutherford. 1998. “The Effects of Population Density and Income on Per Capita Transit Ridership in Western American Cities.” Institute of Transportation Engineers’ Compendium of Technical Papers: 60th Annual Meeting, August 5-8, 327-331

TOD at the Development Level

One approach to examining transit orientation was to look at a development plan and compare how well the four TOD guidelines were applied to the plan. This plan is displayed in Figure 34, Figure 35, and Figure 36. These type of considerations could be made to review plans for transit services.

- 1) Population or housing density. The development contains a mix of higher and lower densities for residential, office, and retail uses.
- 2) A mix of uses. There is a mix of uses within the overall development, but each use tends to be segregated leading to longer distances between the uses, limiting walking opportunities in some cases.
- 3) Walking access, ease of circulation, and quality of pedestrian environment. If transit were to be provided, it would likely operate on the arterial route that bisects the development. Transit stops could be identified, and then the development buildings could be positioned to increase the number that could be reached within ¼ mile of a stop.
- 4) Urban design consideration. The availability of urban design features such as high quality pedestrian crossings, narrow streets, and fewer height restrictions could be reviewed as the development moves forward at a higher scale. Generally the graphic shows a high number of sidewalks throughout the site, and a mixture of buildings both directly next to streets, and set back behind parking lots. The site plan indicates some office buildings that directly face arterials, but still have a visible setback. Detail regarding setbacks, parking lot location, and review of pedestrian linkages could be completed.

Figure 34 Example Development Plan



Figure 35 shows the street grid through a portion of single family residential. This street system can be described as a warped parallel with cul de sacs. This type of street system provides a moderate level of walkability, but still incorporates cul de sacs and fragmented through streets. These features still require a pedestrian, from certain parts of the single family area, to walk longer distances in order to access adjacent land uses, than if the street system was laid out on a more regular grid pattern. These features would also impact the length of the walk to access adjacent arterial streets where residents may access transit.

Figure 35 Warped Parallel with Cul de Sacs Street Grid



Figure 36 displays an example of retail and office land use. Generally the graphic shows a high number of sidewalks throughout the site, and a mixture of buildings both directly next to streets, and set back behind parking lots. The site plan indicates some office buildings that directly face arterials, but still have a visible setback. Other buildings are set far back from the arterials. While there are sidewalks indicated parallel to the major roads, some pedestrian linkages appear to be missing that would connect interior buildings to the perimeter sidewalk network.

Figure 36 Retail & Office Use Areas



Chapter 5. Funding Analysis

5.1 Introduction

This chapter looks at how commuter transit in the corridor could be funded. This includes a review of funding sources from federal, state, and local levels.

5.2 Funding Sources

This project will be funded through a variety of sources – federal, state, local sources, as well as user fees. Significant constraints existing for each funding source: Federal transit funding is likely to experience flat or declining levels, including possible restriction of popular TIGER grant funds that would prevent their use for transit or multi-modal projects. State funding is very competitive and oversubscribed. In 2013, \$4 million in grant applications was received for \$1.8 million in available funding. Obtaining local funding may be an even more significant challenge. Existing local match for transit funding is already fully allocated, meaning that existing services will have to be realigned to support new services, or additional local funding will have to be generated.

This section inventories and analyzes information regarding funding sources at the local, state, and federal levels. Fare revenues are also considered when it comes to funding the operation of the commuter route. Table 25 summarizes the opportunities for funding and how they could apply to the proposed route concepts. After the overview of potential funding sources, Olsson examines and specifies an approach to establish a sustainable funding source for transit operations.

Table 25 Summary of Revenue Sources

Funding Source	Operating	Capital	Competitive	Formula	Comments
FEDERAL					
TIGER	-	X	X	-	
TIGGER	-	X	X	-	
CMAQ or (ICAPP)	X	X	X	-	80/20 local match
FTA Section 5307	X	X	-	X	Federal match: - 80% net project cost - 90% vehicle equipment - 50% operating cost
FTA Section 5339	-	X	-	X	Federal match is 80%, but is flexible for certain Americans with Disabilities (ADA), Clean Air, or bicycle projects.
Surface Transportation Program	-	X	-	X	
STATE					
State Transit Assistance	X	X	-	X	
Public Transit Infrastructure Grants	-	X	X	-	
Capital Match Revolving Loan Fund	-	X	X	-	
FTA Section 5311 (f)	X	X	-	X	
LOCAL					
TDD	-	X	-	-	
TIF	-	X	-	-	
CID	-	X	-	-	
Sales Tax	X	X	-	-	
Property Tax	X	X	-	-	
Income Tax	X	X	-	-	
General Fund	X	X	-	-	
Fuel Tax	X	X	-	-	
Business Tax	X	-	-	-	
Special Assessments	-	X	-	-	
Impact Fees	-	X	-	-	
Farebox	X	-	-	-	Consider elasticity of fare rates

Notes:

Transportation Investment Generating Economic Recovery program (TIGER),
Transit Investment for Greenhouse Gas & Energy Reduction program (TIGGER),
Congestion Mitigation and Air Quality Improvement program (CMAQ), Iowa Clean Air Attainment Program (ICAAP)
Federal Transit Administration (FTA), Transportation Development District (TDD), Tax Increment Financing (TIF),
Community Improvement District (CID).

(*) A \$1.25 net fare is required for both strategies to operate under a farebox recovery ratio of 35%.

Federal

Federal Transit Administration Section 5307 Urban Area Formula Grants

This program provides funding to urban area transit systems such as DART and Cy-Ride for transit capital, job access and reverse commute projects, transportation-related planning, and operating expenses in some cases. Funds from this source could be used for such capital expenditures as vehicle acquisition, station development, traffic signal priority, other technology infrastructure, and park and ride facilities. Federal shares cover 80 percent for capital assistance and 50 percent for operating assistance⁸. The former FTA Section 5316 Job Access and Reverse Commute (JARC) projects are now eligible under the MAP-21 Section 5307 funding program. JARC was designed to help address unique transportation issues of low-income workers who are attracted to an increasing number of jobs located in suburban areas away from the inner city, urban, or rural areas where they may reside.

The allocation of Section 5307 funds depends on an urban area's size. Funding for urban areas of 50,000 to 199,999 in population, like Ames, is based on population, population density, and the number of low-income individuals; whereas, areas over 200,000 in population, like Des Moines, receive funds based on the level of public transportation service provision in addition to population levels.

Federal Transit Administration Section 5339 Bus and Bus Facilities Program

Replacing the aging bus fleet may be the biggest issue facing Iowa transit systems. It is estimated that statewide, Iowa needs \$120 million to replace transit vehicles. With this backlog of need, expansion of any fleet with new vehicles is nearly impossible. The 5339 Bus and Bus Facilities program is the primary source for federal funding for capital assistance for new and replacement buses, related equipment, and facilities. Eligible capital projects include the purchasing of buses for fleet and service expansion, bus maintenance and administrative facilities, transfer facilities, bus malls, transportation centers, intermodal terminals, park and ride stations, acquisition of replacement vehicles, bus rebuilds, bus preventive maintenance, passenger amenities such as passenger shelters and bus stop signs, accessory and miscellaneous equipment such as mobile radio units, supervisory vehicles, fare boxes, computers, and shop and garage equipment. FY 2014 has authorized funding for \$428 million. Annually, \$65.5 million is to be allocated, where a minimum of \$1.25 million is available for each state. Remaining funds are distributed by a formula based on population, vehicle revenue miles, and passenger miles⁹. Transit systems serving populations over 200,000, like Des Moines, receive direct allocations from the Federal Transit Administration and are not included in the statewide distribution through the Public Transit Management System (PTMS).¹⁰

⁸ Federal Transit Administration. MAP-21: Urbanized Area Formula Grants. <http://www.fta.dot.gov/documents/MAP-21_Fact_Sheet_-_Urbanized_Area_Formula_Grants.pdf>

⁹Federal Transit Administration. MAP-21 Transit Programs Summary. http://www.fta.dot.gov/documents/MAP21_essay_style_summary_v5_MASTER.pdf

¹⁰ Iowa Department of Transportation, Transit Manager's Handbook, Chapter 3 Funding Programs: http://www.iowadot.gov/transit/handbook/Chapter_3.pdf.

Surface Transportation Program (STP)

The Federal Highway Administration (FHWA) allocates STP funds to be used toward various types of multimodal and roadway projects on federal-aid highways on an 80 percent federal and 20 percent local match. These funds can be used for transit capital costs, Intelligent Transportation Systems (ITS) capital improvements, bicycle/pedestrian infrastructure, car and vanpool projects, fringe and corridor parking facilities, and intercity/intracity bus terminals and facilities. After deductions for Transportation Alternatives (TA) and State Planning and Research (SPR), the FHWA sub-allocates 50 percent of the state's remaining funds to areas based on their share of the state's population. The remaining 50 percent is allocated to any area of the state. Transit typically competes with other road and bridge projects for these funds.

The Congestion Mitigation and Air Quality (CMAQ) Improvement Program / Iowa's Clean Air Attainment Program (ICAAP)

The primary purpose of the CMAQ program is to fund projects and programs which reduce transportation-related emissions in air quality nonattainment and maintenance areas for ozone, carbon monoxide (CO), and small particulate matter (PM-10).

CMAQ funds may be used to establish new or expanded transportation projects or programs that reduce emissions, including capital investments in transportation infrastructure, congestion relief efforts, diesel engine retrofits, or other capital projects. These funds can be used for capital expenditures related to the creation of a commuter transit route, and they would be applicable as match to any federal capital funding awarded to the project. CMAQ funds may also be used for operating assistance, including all costs of providing new transportation services. Previously, CMAQ funding was limited to three years. Interim guidance for the new federal transportation program, MAP-21, allows the same amount of funding to be spread out over five years. Applications for this program would be sent from the transit provider to the appropriate MPO.

Since Iowa is without any areas in non-attainment of transportation-related federal clean air standards, only a minimum allocation is given to the state to be used for any STP-eligible project. While 3 million dollars is set aside for vehicle replacement, a separate portion is dedicated towards a competitive grant program, Iowa's Clean Air Attainment Program (ICAAP), for eligible public transit clean air attainment projects. Selection of projects is based on the anticipated air quality or congestion relief benefits from a given project.

Summary of Federal Funding

Of the federal funds, the two most likely sources of funding would originate out of the ICAAP program, which would assist with operating costs for a set time period, or the Section 5339 program, which could fund some of the capital expenditures associated with the service, including vehicles.

State

Programs profiled in the Iowa DOT Transit Manager Handbook included public transit funding sources such as the State Transit Assistance (STA) program, Public Transit Infrastructure Grant program, Capital Match Revolving Loan fund (AMOCO Loan), and Section 5311 (f) Intercity Bus Assistance. The primary opportunity for state funding in the I-35 corridor is through the 5311(f) Intercity Bus Assistance program.

Federal Transit Administration Section 5311 (f) Intercity Bus Assistance

The Iowa DOT is the direct recipient of 5311 formula grants supporting transit activities in rural areas and communities under 50,000 in population. In 2013, \$4 million in grant applications was received for \$1.8 million in funding. While a majority of the Section 5311 funds are dedicated towards small urban and regional transit systems, a minimum of 15 percent of the formula funds are allocated to support intercity bus transportation through the Intercity Bus Assistance program. This program supports intercity bus transportation provided by private-for-profit companies, private non-profit corporations, or public entities. Eligible projects for assistance may involve operating assistance, capital assistance, planning, or administrative costs. Operating projects qualify for one year of funding while capital projects are for two years. In addition to serving rural areas, cities below 20,000 people, eligibility requirements include a connection to a nationwide transportation network, i.e. an intercity bus terminal. Grant applications are accepted no later than October 1st to the Iowa DOT Office of Systems Planning. Intercity bus assistance funding is available at \$0.50 per mile for the first three years.

State Transit Assistance program

The STA program offers funding for all public transit systems within the state of Iowa. Funds are collected from four percent of the fees for new vehicle registration fees and can be used towards operating, capital or planning expenses for open-to-the-public passenger transportation. The majority of funding is awarded based on a formula consisting of performance statistics from the most recent year. Another facet of the program includes STA Special Projects. An annual amount of \$300,000 is used for projects working in conjunction with human service agencies, or statewide projects to improve public transit in the state. Statewide projects can include things like technical training for transit systems or planning agency personnel, statewide marketing campaigns, etc. These grants can be applied for at any time.

Public Transit Infrastructure Grant

The Public Transit Infrastructure Grant offers assistance for capital improvements including storage facilities, maintenance, and administrative funding. This statewide grant program is awarded annually through the Iowa Public Transit Infrastructure Grant program on a competitive basis. No more than 80 percent of the total cost of a facility project can be covered by the grant and transit systems are restricted from receiving more than 40 percent of the available funding in a year. Grant applications are accepted no later than October 1st to the Iowa DOT Office of Systems Planning.

Capital Match Revolving Loan Fund

The Capital Match Revolving Loan Fund (AMOCO Loan) intends to increase the energy conservation benefits of public transit by expediting the implementation of transit capital projects. The program offers “no interest” loans to use towards the full amount of a required local match for a capital equipment project or 50 percent of a local match for a non-state or federal match. Loans are to be paid back in full within five years of receiving the funds. If loan funds remain, individuals may use funds towards purchasing vans for vanpooling.

Local

Numerous sources of local funding can be used for transit operations and/or capital investments. These include sales taxes, property taxes, general fund transfers, or special taxing districts. Coordinating funding from the different local entities throughout the project corridor would be a challenge. A funding allocation formula deemed fair and equitable would have to be determined and agreed upon by city and county governments as well as the involved transit agencies that would interact with the service in the corridor. Each entity would then have to determine the locally preferred option for generating the agreed-upon amount.

Sales taxes, property taxes, or transfers from general funds

Local funding strategies could include funds from dedicated sales taxes, property taxes, general fund or trust and agency. According to the Transit Manager’s Handbook, municipalities in Iowa may levy up to 95 cents per \$1,000 of assessed taxable property. Counties exceeding 175,000 in population may also create a district to levy the same amount of tax on property to form a regional transit district. The regional transit levy differs in that different levy rates can be assessed across the territory. Figure 37 shows the Des Moines Regional Transit Authority’s funds collected from participating communities and their varied tax rates.

Figure 37 Regional Transit Authority Levy Rates FY 2011/2012 Budgets for DART

REGIONAL TRANSIT AUTHORITY LEVY RATES
FY 2011/2012 BUDGETS--JANUARY 1, 2010 TAXABLE VALUATIONS
IOWA DEPARTMENT OF MANAGEMENT - LOCAL BUDGET DIVISION

Des Moines Regional Transit Authority

PARTICIPATING CITY	RECORD KEY	TOTAL DOLLARS	TAXABLE VALUATION WITH	TAX RATE	TAXABLE VALUATION WITHOUT GAS & ELECTRIC UTILITIES	PROPERTY TAX	UTILITY REPLACEMENT TAX
			GAS & ELECTRIC UTILITIES				
Polk County Rural	77W077	247,256	1,574,876,028	0.15700	1,528,684,974	240,004	7,252
Granger	77W234	9,921	44,290,229	0.22400	43,747,934	9,800	121
Alleman	77W712	4,606	20,024,063	0.23000	19,621,622	4,513	93
Altoona	77W713	152,965	495,031,660	0.30900	484,931,363	149,844	3,121
Ankeny	77W714	527,415	2,036,350,746	0.25900	2,007,746,035	520,006	7,409
Bondurant	77W715	22,488	100,843,709	0.22300	98,810,119	22,035	453
Clive	77W716	283,190	1,119,329,064	0.25300	1,104,666,911	279,481	3,709
Des Moines	77W717	2,925,845	6,589,742,101	0.44400	6,358,376,831	2,823,119	102,726
Elkhart	77W718	2,164	14,429,843	0.15000	14,022,871	2,103	61
Grimes	77W719	88,855	400,249,808	0.22200	383,970,520	85,241	3,614
Johnston	77W720	259,452	1,037,807,198	0.25000	998,869,679	249,717	9,735
Mitchellville	77W721	10,105	42,817,034	0.23600	41,843,819	9,875	230
Pleasant Hill	77W722	79,307	346,319,510	0.22900	263,480,489	60,337	18,970
Polk City	77W723	21,716	109,675,358	0.19800	107,112,827	21,208	508
Runnells	77W724	1,518	9,856,466	0.15400	9,553,530	1,471	47
Sheldahl	77W725	1100	7,143,122	0.15400	7,016,488	1081	19
Urbandale	77W726	707,537	2,342,839,394	0.30200	2,279,765,779	688,489	19,048
West Des Moines	77W727	1,530,544	3,797,874,751	0.40300	3,749,554,619	1,511,071	19,473
Windsor Heights	77W728	111,235	192,447,307	0.57800	189,760,936	109,682	1,553
Carlisle	77W870	25,703	111,269,283	0.23100	110,710,632	25,574	129
TOTAL		7,012,922				6,814,651	198,271

Source: DART

Taxing Districts

A Transportation Development District (TDD) is a special taxing district whereby a petitioner of 100 percent of the landowners in an area request either the levy of special assessments or the imposition of a sales tax of up to one percent on goods and services sold within a given area.

A Community Improvement District (CID) enables financing of certain projects through special assessments or a sales tax. Eligible projects include the acquisition, construction, refurbishing and equipping of transportation facilities, streetscaping, and landscaping. Projects can be funded with general or special obligation bonds or on a pay-as-you-go basis. Traditionally, special taxing districts such as TDDs, TIFs, or CIDs have not been used to fund highway-oriented commuter transit services.

Additional information regarding available funding assistance for transit in Iowa includes the Guide to Transportation Funding Programs and Chapter 3 of the Transit Manager’s Handbook, both produced by the Iowa DOT. Table 26 summarizes the possible local funding sources. Included in the table are the local revenue sources, whether those sources can be used toward capital or operating costs, and both the advantages and disadvantages of each source of revenue.

Table 26 Local Revenue Sources¹¹

Revenue Source	Use	Advantages	Disadvantages
Sales Tax	<ul style="list-style-type: none"> Operating Capital 	<ul style="list-style-type: none"> Generates significant revenue at low rates Easy to administer Successfully implemented by many transit agencies 	<ul style="list-style-type: none"> Requires state action and/or voter approval Hurts retailers Can be regressive Subject to economic cycles
Wage/Income Tax	<ul style="list-style-type: none"> Operating Capital 	<ul style="list-style-type: none"> Generates significant revenue at low rates Long-run growth potential Wage tax can capture commuter beneficiaries 	<ul style="list-style-type: none"> Unpopular with voters and the business community Subject to economic cycles Difficult to administer
Property Tax	<ul style="list-style-type: none"> Operating Capital 	<ul style="list-style-type: none"> Broad coverage of business and individuals Easy to administer Generates significant revenue at low rates More reliable than sales tax 	<ul style="list-style-type: none"> Requires voter approval Generally unpopular with taxpayers Heavy competition from school districts and other beneficiaries of tax
Motor Fuel Tax	<ul style="list-style-type: none"> Operating Capital 	<ul style="list-style-type: none"> Possible deterrent to driving Less visible to taxpayers Significant revenues from small increment Easy to administer 	<ul style="list-style-type: none"> Requires state action Revenues subject to decline as fuel economies improve
Vehicle Registration Fee/Tax	<ul style="list-style-type: none"> Operating Capital 	<ul style="list-style-type: none"> Possible deterrent to driving Easy to administer 	<ul style="list-style-type: none"> Requires state action No direct link to transit Regressive, depending on structure
Fare Box Revenue	<ul style="list-style-type: none"> Operating 	<ul style="list-style-type: none"> Direct users pay Ease of revenue collection 	<ul style="list-style-type: none"> Limited revenues Regressive
Business Tax(es)	<ul style="list-style-type: none"> Operating 	<ul style="list-style-type: none"> Employers pay for labor force mobility 	<ul style="list-style-type: none"> Unpopular with business Disincentive for business location decisions
Special Assessments	<ul style="list-style-type: none"> Capital 	<ul style="list-style-type: none"> Revenue tied to development Direct beneficiaries of improvement pay Small base of opposition 	<ul style="list-style-type: none"> May counter location incentives Limited revenues Complex administration
Impact Fees	<ul style="list-style-type: none"> Capital 	<ul style="list-style-type: none"> Revenues tied to development Direct users pay Small base of opposition 	<ul style="list-style-type: none"> Possible legal challenges Limited revenues
Tax Increment Financing	<ul style="list-style-type: none"> Capital 	<ul style="list-style-type: none"> Revenue tied to economic development Can tie to transit development specifically No direct new effect on taxpayers 	<ul style="list-style-type: none"> Limited and less-certain revenues Complex administration Competition from school and other local governments

¹¹ TCRP Report 89, Financing Capital Investment: A Primer for the Transit Practitioner. Washington D.C.: TRB. 2003.

Summary of Local Funding

Local funding, typically required to operate a large portion of operating costs and to provide a match for federal grants, will be the most challenging funding type to raise. DART and CyRide are utilizing their full amount of local funding to operate existing services. Funding new service would require adjustments to be made in existing service, or additional local funding to be raised. Of the areas of local funding discussed, the most likely source for funding would be through raising property levys among the cities served, transfer through general funds, or sales tax – which would require a vote.

Chapter 6. Summary

6.1 Summary of Service Types

The study has identified three distinct service types that can address transit needs in the I-35 corridor: ridesharing, deviated fixed route, and a commuter service. The characteristics of the three service types are listed below:

Express bus

Primarily serves commuter worker and commuter student markets

Higher capacity

Less available for those making medical or social appointments

Minimum service level and frequency require committed funding amount

Current funding environment may constrain current implementation of this service type

Deviated fixed route service

Serves both urban and rural areas

Routing meets demand

Serves multiple trip purposes such as medical or social trips

Amount of service can vary by demand or by funding available

Flexible routing may result in longer trips

Capacity is lower than with express bus

Ridesharing

Cost effective

Serves commuting market

Low capacity

Requires concentrated origins or destinations

Fixed or rigid arrangement

6.2 Impacts

Transit services can have impacts to the community at large and to those directly using the service. Economic benefits result from the existence of the service, from reduced automobile travel, and from the effects that transit has on land use development patterns. Transit benefits tend to be overlooked by conventional transportation economic evaluation which focuses primarily on vehicle speeds and operating costs. Benefits from transit can include mobility benefits, vehicle ownership and parking cost savings, and benefits derived from more efficient land use.

A commuter express service would provide mobility for non-drivers and the opportunity for choice-riders to reduce the cost of private vehicle operation inherent in a long-distance commute. Higher-capacity transit could provide other benefits, including stimulating transit-oriented development in multimodal neighborhoods with lower vehicle ownership rates whose

residents tend to drive less and rely more on alternative modes than in neighborhoods more orientated towards automobiles. Besides the benefit from travel shifted transit, the synergy between land use and transit can leverage additional travel reductions and benefits.

Direct economic impacts can be relatively straightforward. According to the methodology developed by www.publictransportation.org, an Ames to Des Moines commuter using transit would have an annual savings of \$1,498¹². The annual savings would increase to \$7,074 if the household reduced their number of cars by one. These savings could result in a higher consumption of consumer goods or services, or higher saving rates.

Indirect economic impacts are less straight, but can be particularly substantial for individuals affected. Currently, no transit links the economic and education centers of Ames and Des Moines, or Ames and Ankeny. This prevents persons without a car from taking advantage of educational or employment opportunities throughout the corridor. The creation of a transit connection in the corridor may mean that a person, who was previously unable to obtain vocational training due to transportation issues, can now obtain that training and start a new career. A transit connection would also allow persons living in one city due to spousal or family commitments, and without access to vehicles, to access employment in other cities. The economic benefits afforded to individuals in situations like these, because of a new transit connection where none previously existed, are real, tangible, and spread future indirect economic benefits to their families and local economies.

Improvements in the walking and bicycling infrastructure, commuter trip reduction programs, parking incentives, and improved information provided to transit users can all increase the impacts and benefits of transit. The costs of providing parking can be impacted, even with transit service for a lower level of demand. Another societal benefit is that walking and cycling complement public transit; transit travel tends to increase public fitness and health¹³.

Rising fuel prices, increasing urbanization, increasing traffic congestion, and rising roadway expansion costs all tend to be resisted by both the aging generation and the most recent generation entering the labor force. These changing consumer preferences and increasing health and environmental concerns are shifting travel toward alternative modes, and away from the automobile.

Economic benefits of the commuter express options include:

- Changes in energy consumption and air, noise, and water pollution.
- User benefits related to lower transportation costs.
- Reduced parking problems and non-residential parking facility costs.
- Improved mobility that makes people who are also economically, socially, or physically disadvantaged, relatively better off.

¹² Assumption of a 72-mile round trip in a medium car that gets 22 miles per gallon, with a \$7.50 round trip bus fare, no parking charges, and a cost of \$3.00/gallon gasoline.

¹³ Litman, Todd. (2010). Evaluating Public Transportation Health Benefits. *Victoria Transport Policy Institute for The American Public Transportation Association*. Downloaded at http://www.apta.com/resources/reportsandpublications/Documents/APTA_Health_Benefits_Litman.pdf

- Reductions in crash costs.
- Economic benefits associated with new access to employment and education opportunities.

6.3 Conclusion

A strategy to introduce transit connections within the corridor could be to move forward with services that appear to be more implementable, while also searching for local funding and new grants to transition to a higher level of service.

Based on the analysis conducted as part of this study, it would appear that sufficient demand exists to warrant an investment in an alternative transportation mode between Ames and Des Moines, i.e., public transit. This would take the form of an initial introduction of commuter express bus service operating along the I-35 corridor during the weekday peak period only aimed at serving work related commute trips primarily. In addition, a mid-day “flex” service could serve to meet some of the demand for non-work related trips and provide some access to public transit for rural areas between Ames and Ankeny, thus making the service eligible for Federal Transit Administration Section 5311 (f) Intercity Bus Assistance program funding.

In the event new transit connections from Ames to Des Moines are implemented, the *Route 98 Ankeny Express* would continue to operate independently of the new express route.

The costs presented in Table 27 are approximations, and there are opportunities to adjust capital costs to better suit funding levels.

Table 27 Strategy Cost Summary

EXPRESS: Ames-Ankeny-Des Moines	Capital Cost	Annual Operating Cost	Daily Ridership	Cost / Rider
5 Day/week Peak (30 minutes)	\$4,100,000	\$1,200,000	973	\$4.84
DEVIATED FIXED ROUTE: Ames-Ankeny	Capital Cost	Annual Operating Cost	Daily Ridership	Cost / Rider
5 Day/week Off-Peak (60 minutes)	\$295,000	\$204,000	90	\$8.89

In addition to express and flexible bus service, ridesharing should be included as part of an overall corridor transportation alternatives strategy. Ridesharing, which can include both carpooling and vanpooling, would provide transportation options for movements not directly served by the I-35 corridor service, such as movements between West Des Moines and Ames.

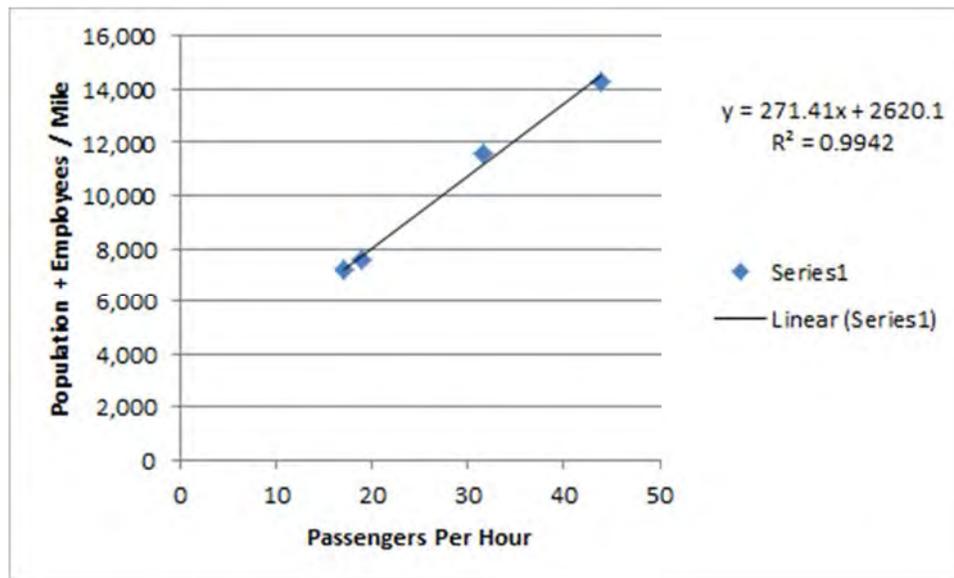
Ridesharing provides the most flexibility and can be adapted effectively for lower volume commute patterns. A ridesharing program can be structured in such a way that most, if not all of the costs are covered by the riders.

Appendix I

The association between transit ridership and land use density in terms of population and employment is well accepted in the transit industry. Literature in the transit industry specifies the “appropriate” level of density for different transit modes such as regular bus service, Bus Rapid Transit (BRT), light rail, or streetcar. This literature often refers to transit in major urban centers with an extensive legacy of transit such as Chicago or New York. The densities cited often exceed densities found in small or medium-sized urban areas typical in the Midwest or west.

To establish a correlation between density and transit ridership in Midwestern urban environments, a regression model was developed using ridership from a variety of Midwestern transit routes and the densities associated with their alignments. The regression yielded a strong correlation between the recorded ridership and the total of population density and employment density in the respective transit corridors. The result of the regression is illustrated in Figure 38.

Figure 38 Regression Model



To estimate the ridership, the following equation from the regression was used:

$$Y=271.41x + 2620.1$$

Where:

X = Riders/Hour

Y = (Population Density + Employment Density)

The study corridor density values were determined for TAZ's surrounding each transit access point as illustrated in Table 28.

Table 28 Community Density Values

Community	Population	Employment	Area (sq. mi)	Density
Ames	19,890	16,330	14	2,587
Huxley	3,317	1,155	3	1,491
Ankeny	17,515	94,35	7	3,850
Des Moines	18,730	64,210	6	13,823

Table 29 illustrates the estimated riders per hour for each of the service concepts being evaluated as determined from the regression formula. The riders per hour estimate was then used to determine an estimated ridership based on service hours.

Table 29 Estimated Ridership

Community	Riders/ Hour	Service Hours	Estimated Ridership
Ames-Huxley-Ankeny	10.4	32.0	332
Ankeny-Ames	11.1	38.5	427
Ames-Ankeny-Des Moines	19.9	59.5	1,186

The distribution of the estimated ridership totaled for peak, midday, and evening service periods was determined from the percentages representative of Midwestern transit usage. The values used were sixty-four percent during the peak period, twenty-seven percent during the midday

period, and nine percent during the evening period. Table 30 illustrates the distribution of ridership during a weekday full span of service.

Table 30 Distribution of Ridership in Weekdays

Community	Total Riders	Peak 64%	Midday 27%	Night 9%
Ames-Ankeny-Des Moines	1,186	759	320	107
Ames-Ankeny	427	273	115	38
Ames-Ankeny Flex	332	212	90	30



DISCUSSION ITEM



9B: 1100 DART Way Administration Remodel Project

Staff Resource: Matt Pitstick, Facilities Manager

- A presentation will be provided on the 1100 DART Way Administration Remodel Project.



DISCUSSION ITEM



9C: Quarterly Safety Report

Staff Resource: Randy McKern, Transportation Manager

Analysis of accidents for the 2nd Quarter of FY2015:

ACCIDENTS BY ROUTE:	2 nd QTR	2 nd QTR	YTD	YTD
	FY15	FY14	FY15	FY14
#1 –FAIRGROUNDS	2	1	4	2
#3 –UNIVERSITY	3	3	4	4
#4 –14TH	0	2	2	3
#5 –FRANKLIN AVE	0	0	0	0
#6 –INDIANOLA AVE	1	3	3	3
#7 –SW 9 th ST	0	1	1	4
#8 –FLEUR DR	0	1	1	1
#9 - EXPRESSES	2	3	6	4
#11 –INGERSOLL/VALLEY JCT	0	2	1	2
#12 - ON PROPERTY	1	1	5	3
#13 – PARK AVE	1	0	1	0
#14 - BEAVER AVE	0	0	0	1
#15 – 6 th AVE	3	5	4	8
#16 – DOUGLAS AVE	0	4	0	7
#17 – HUBBELL AVE/ALTOONA	1	4	4	5
#51 – MERLE HAY/CROSSTOWN	0	0	2	1
#52 – VALLEY WEST/JORDAN CR	1	2	1	3
#60 – INGERSOLL/UNIVERSITY	0	2	3	3
#40 - LINK	0	0	0	0
#42 STATE CAPITAL/D-LINE	1	4	2	5
#SS - SCHOOL ROUTES	0	0	1	3
#20 - PARATRANSIT	13	8	19	17
#R - RIDESHARE	4	7	8	11
#A - ADMIN	0	1	2	1
#M – MAINTENANCE	0	0	0	0
SF- STATE FAIR	0	0	0	0
Training	0	1	1	1
TOTALS	33	55	75	92

DISCUSSION ITEM
 9C: Quarterly Safety Report



<i>ACCIDENTS BY TYPE:</i>	2 nd QTR	2 nd QTR	YTD	YTD
	<u>FY15</u>	<u>FY 14</u>	<u>FY15</u>	<u>FY 14</u>
BUS INTO FIXED OBJECT	5	17	18	29
PERSONAL INJURY	10	0	10	2
BUS INTO VEHICLE	6	7	11	10
VEHICLE INTO BUS	10	25	29	43
OTHER	2	5	7	7
MAINTENANCE	0	0	0	0
VANDALISM	0	1	0	1
TOTALS	33	55	75	92

<i>ACCIDENTS BY CHARGEABILITY CODE:</i>	2 nd QTR	2 nd QTR	YTD	YTD
	<u>FY15</u>	<u>FY14</u>	<u>FY15</u>	<u>FY14</u>
NON PREVENTABLE	24	29	45	45
PREVENTABLE	9	19	25	36
NOT GRADED	0	7	5	11
TOTALS	33	55	75	92



System Summary Performance Report January 2015

	July 2014	August 2014	September 2014	October 2014	November 2014	December 2014	January 2015	January 2014	Percent Change 2015/2014	FY15 Year To Date	FY14 Year To Date	Percent YTD Change 2015/2014
DART Fixed Route												
Total Ridership	305,523	549,220	387,342	439,025	332,964	334,381	341,476	330,804	3.23%	2,689,931	2,603,208	3.33%
OTT Ridership	24,664	24,611	20,494	21,217	23,539	25,335	24,677	23,582	4.64%	164,537	155,640	5.72%
Unlimited Access Ridership	31,539	31,895	33,906	34,738	30,421	29,723	30,296	31,293	-3.19%	222,518	237,111	-6.15%
Bike Rack Usage	5,636	5,440	5,874	6,337	3,596	3,158	2,275	1,565	45.37%	32,316	34,420	-6.11%
Passengers/Revenue Hour	17.42	25.51	21.73	22.73	20.45	18.56	18.90	18.46	2.40%	20.92	20.98	-0.27%
Avg. Passengers Weekday	12,471	19,220	16,856	17,463	16,244	14,326	14,547	13,701	6.18%	15,866	15,335	3.46%
Avg. Passengers Weekend Day	3,895	14,560	4,170	4,673	3,688	3,354	3,999	3,674	8.86%	5,588	5,217	7.09%
Complaints/100,000 Riders	38.95	28.04	35.89	31.43	29.43	21.83	26.06	33.25	-21.62%	30.11	27.16	10.87%
Commendations/100,000 Riders	3.60	3.10	2.07	3.19	1.20	2.09	2.34	4.23	-44.64%	2.57	3.61	-28.96%
Accident Frequency Rate by Service:												
Preventable/100,000 Miles	1.53	1.85	1.46	1.68	0.81	1.08	2.17	2.60	-16.52%	1.53	1.92	-20.40%
Non-Preventable/100,000 Miles	0.77	1.85	2.92	1.34	0.81	0.00	2.53	2.23	13.63%	3.46	1.54	125.00%
Maintenance:												
Total Miles Operated	260,874	324,379	274,417	298,021	248,339	278,147	276,807	269,591	2.68%	1,960,984	1,821,030	7.69%
Road Calls/100,000 Miles	26.83	21.58	24.42	14.43	12.89	12.94	25.65	22.63	13.36%	19.84	15.76	25.87%
Active Vehicles in Fleet	126	126	126	126	126	126	126	126	0.00%	126	111	13.22%
DART Paratransit												
Total Ridership	12,433	11,372	11,502	12,536	9,862	11,086	10,563	11,090	-4.75%	79,354	81,589	-2.74%
Passengers/Revenue Hour	2.92	2.78	2.82	2.83	2.92	2.88	2.78	2.93	-5.12%	2.85	3.00	-4.96%
Average Trip Length	5.28	5.56	5.44	5.40	5.56	5.62	5.39	5.94	-9.26%	11.29	6.83	65.31%
Accident Frequency Rate by Service:												
Preventable/100,000 Miles	1.52	0.00	0.00	0.00	0.00	0.00	0.00	3.03	-100.00%	0.23	2.47	-90.64%
Non-Preventable/100,000 Miles	1.52	4.75	1.60	0.00	0.00	0.00	0.00	0.00	0.00%	1.15	1.44	-19.77%
Maintenance:												
Total Miles Operated	65,608	63,221	62,609	67,675	54,785	62,313	56,969	65,917	-13.57%	433,180	486,546	-10.97%
Active Vehicles in Fleet	20	20	20	20	20	20	20	23	-13.04%	20	25	-18.60%
DART RideShare												
Total Ridership	18,618	17,564	20,564	22,374	17,681	18,890	20,198	21,658	-6.74%	135,889	146,530	-7.26%
Total Vans in Circulation	90	90	95	95	94	94	94	94	0.00%	93	93	0.00%
Total Rideshare Customers	670	667	721	726	710	727	708	732	-3.28%	704	767	-8.14%
Accident Frequency Rate by Service:												
Preventable	0.62	0.00	0.00	0.56	0.00	0.62	0.00	0.00	0.00%	0.27	0.70	-61.90%
Non-Preventable	0.62	0.65	0.61	1.11	0.00	0.62	0.62	0.60	2.99%	0.62	0.61	1.61%
Maintenance:												
Total Miles Operated	161,031	152,736	165,201	180,022	142,972	161,112	161,301	166,124	-2.90%	1,124,375	1,142,446	-1.58%
Active Vehicles in Fleet	100	100	100	100	100	100	100	108	-7.41%	100	109	-8.02%



System Performance Ridership Report January 2015

	July 2014	August 2014	September 2014	October 2014	November 2014	December 2014	January 2015	January 2014	Percent Change 2015/2014	FY15 Year To Date	FY14 Year To Date	Percent YTD Change 2015/2014
DART Fixed Route Ridership	305,523	549,033	386,842	438,432	332,578	333,900	340,908	330,804	3.05%	2,689,931	2,603,208	3.33%
Local Routes:												
#1 - Fairgrounds	17,423	242,186	22,505	24,770	18,721	18,186	20,219	19,135	5.67%	364,010	347,300	4.81%
#3 - University	33,857	36,283	36,362	41,313	32,079	33,368	31,843	31,503	1.08%	245,105	250,944	-2.33%
#4 - E. 14th	15,812	16,144	19,712	22,056	17,498	17,240	17,018	17,632	-3.48%	125,480	126,183	-0.56%
#5 - Franklin Ave	1,220	2,233	3,879	4,069	3,489	3,071	3,000	3,269	-8.23%	20,961	22,717	-7.73%
#6 - Indianola Ave.	23,239	24,128	26,807	31,256	23,603	24,208	24,808	21,519	15.28%	178,049	168,340	5.77%
#7 - SW 9th St.	27,791	31,122	36,980	41,883	32,484	32,389	33,508	33,777	-0.80%	236,157	227,638	3.74%
#8 - Fleur Dr.	2,313	3,000	5,302	5,716	3,933	3,501	4,202	4,641	-9.46%	27,967	33,366	-16.18%
#11 - Ingersoll Ave.	2,454	2,506	2,489	2,573	1,912	2,087	2,143	1,788	19.85%	16,164	17,172	-5.87%
#13 - Evergreen/SE Park Ave.	508	3,138	7,879	8,450	6,189	5,179	6,541	6,166	6.08%	37,884	35,888	5.56%
#14 - Beaver Ave.	17,702	20,235	26,469	30,323	23,720	23,246	23,718	20,850	13.76%	165,413	144,904	14.15%
#15 - 6th Ave.	20,567	22,196	27,773	31,269	23,324	24,247	24,771	25,594	-3.22%	174,147	183,740	-5.22%
#16 - Douglas Ave.	31,741	34,421	42,304	49,027	36,569	36,816	35,779	32,752	9.24%	266,657	244,364	9.12%
#17 - Hubbell Ave.	19,750	20,059	22,046	25,991	18,806	19,661	19,128	17,641	8.43%	145,441	125,341	16.04%
#51 - Merle Hay Crosstown	2,609	2,178	2,465	2,958	2,767	2,266	2,269	2,248	0.93%	17,512	11,320	54.70%
#52 - Valley West/Jordan Creek	15,368	15,769	16,322	19,603	14,942	15,141	14,841	10,644	39.43%	111,986	81,769	36.95%
#60 - Ingersoll/University	27,381	28,921	33,883	37,864	28,113	28,850	30,594	31,034	-1.42%	215,606	198,685	8.52%
Shuttle Routes:												
Link Shuttle	684	742	752	1,038	863	980	825	1,008	-18.15%	5,884	5,604	5.00%
Dline	17,564	14,101	14,172	15,675	11,118	11,891	12,174	13,142	-7.37%	96,695	128,253	-24.61%
Lincoln/McCombs	0	4,084	10,764	10,760	8,025	7,104	7,956	8,871	-10.31%	48,693	51,598	-5.63%
Express Routes:												
#91 - Merle Hay Express	887	804	746	1,104	713	832	814	722	12.74%	5,900	6,254	-5.66%
#92 - Hickman Express	3,074	2,835	3,190	3,385	2,373	2,671	2,705	3,113	-13.11%	20,233	21,462	-5.73%
#93 - NW 86th Express	3,175	2,927	3,217	3,612	2,891	2,749	2,715	2,873	-5.50%	21,286	21,474	-0.88%
#94 - Westown	960	938	1,014	1,228	898	791	788	1,064	-25.94%	6,617	8,325	-20.52%
#95 - Vista	1,743	1,647	1,914	1,943	1,686	1,842	1,907	1,930	-1.19%	12,682	13,359	-5.07%
#96 - E.P. True	2,851	2,440	2,774	3,166	2,608	2,567	2,827	2,585	9.36%	19,233	18,880	1.87%
#98 - Ankeny	7,299	7,217	8,281	9,850	7,058	6,860	7,662	8,620	-11.11%	54,227	60,591	-10.50%
#99 - Altoona	1,793	1,668	1,661	1,572	1,523	1,329	1,608	1,885	-14.69%	11,154	13,073	-14.68%
On-Call/Flex Routes (Operated by Paratransit):												
On-Call: Ankeny	219	207	203	209	258	251	208	253	-17.79%	1,555	1,519	2.37%
On-Call: Des Moines	0	0	0	0	0	0	0	0	0.00%	0	422	-100.00%
On-Call: Johnston/Grimes	270	281	313	328	310	254	291	502	-42.03%	2,047	3,372	-39.29%
#73 Flex: Urbandale/Windsor Heigl	720	527	401	398	291	318	319	558	-42.83%	2,974	4,347	-31.59%
#72 Flex: West Des Moines/Clive	4,008	3,952	4,130	4,948	3,737	3,928	3,638	3,379	7.66%	28,341	23,951	18.33%
#74 Flex: NW Urbandale	0	187	500	593	386	481	568	0	100.00%	2,715	0	100.00%
On-Call: REGIONAL	541	144	133	95	77	77	89	106	-16.04%	1,156	1,053	9.78%
DART Paratransit Ridership	12,433	11,372	11,502	12,536	9,862	11,086	10,563	11,090	-4.75%	79,354	81,594	-2.75%
Bus/Van	11,457	10,475	10,545	11,585	9,146	10,329	9,815	10,426	-5.86%	73,352	76,518	-4.14%
Cab	976	897	957	951	716	757	748	664	12.65%	6,002	5,076	18.24%
DART RideShare Ridership	18,622	18,618	17,564	20,564	22,374	17,681	18,890	21,658	-12.78%	135,889	146,530	-7.26%
DART Commuters	415,908	471,532	364,814	362,667	370,361	363,552	363,552	1.87%	2,905,174	2,831,332	2.61%	



Customer Engagement Report January 2015

	July 2014	August 2014	September 2014	October 2014	November 2014	December 2014	January 2015	FY15 Year To Date
Total System Monthly Ridership	336,574	578,156	419,408	473,935	360,507	364,357	372,237	2,905,174
Total Fixed Route Ridership	305,523	549,220	387,342	439,025	332,964	334,381	341,476	2,689,931
Website								
Unique Visitors	40,898	49,900	42,583	41,187	34,366	32,230	36,111	277,275
Social Media								
Facebook Page Likes	692	703	716	757	778	778	837	
Twitter Followers	1,205	NA	NA	1,275	1,302	1,361	1,398	
Email								
Subscribers	NA	NA	NA	NA	3,027	3,039	3,073	9,139
MYDART Trip Planner								
Trip Plans	12,823	20,326	19,399	21,582	16,142	14,229	16,577	121,078
Next Bus	668	1,143	1,660	2,990	1,301	2,938	5,689	16,389
Schedules	4,985	8,973	6,917	4,077	2,769	2,818	3,580	34,119



MONTHLY REPORT



10A: Operations

Staff Resource: Anthony Lafata, Chief Operating Officer

Transportation - Randy McKern, Manager

- Fixed Route's Safety meeting was held on February 11, 2015. Matt Pitstick, Facilities Manager, provided an update on snow removal and upcoming renovations to 1100 DART Way. Kirstin Baer-Harding provided marketing updates regarding Date Night, Link Route routing change, and changes to DART's Bike and Ride Program. Steve Zimmerman presented DART's Drug and Alcohol program to Operator's.
- A General Bid was posted on January 27, 2015 with bidding starting on Friday, February 6, 2015 and concluding Monday, February 9, 2015. Service changes will become effective Sunday, February 22, 2015.

Maintenance - Scott Reed, Manager

- The monthly Safety Meeting was held on February 18th. Annual training items covered were, Hazardous Communication, Blood borne Pathogens and Drug and Alcohol training.
- Complete Coach Works has started the refurbishment of six (6) low floor articulated buses. The first bus is undergoing the re-building process and the second is in the disassembly stage. Expected delivery of the buses is scheduled for summer 2015.
- DART will be hosting a light duty air conditioning seminar on March 11th, 2015. The training will be provided by American Cooling Technologies.
- We have also scheduled a trainer from MAN axle to provided air disc brake training to our technicians March 17th and 18th. Items covered will be, wheels on and wheels off inspections, pad replacement and caliper overhaul.

Paratransit - Georgia Parkey, Manager

- Paratransit held their Safety meeting on February 10, 2015. Main topic, Drug and Alcohol awareness, presented by Steve Zimmerman.
- On February 4 & 5, 2015 Jason Holst from the Iowa Department of Human Services conducted an onsite billing review of our waiver services. The purpose of the review is to monitor our performance under the HCBS waiver program by evaluating the adequacy of the documentation created and maintained to substantiate the claims we have submitted to the Department for payment. In an exit interview with Mr. Holst, he advised that no deficiencies were found. Mr. Holst also advised that in lieu of a preliminary report, a final report would be issued within a month indicating successful completion of the review with no findings.

Training - Mike Kaiser, Interim

- The Training Department currently has one (1) Paratransit Operator and one (1) Maintenance employee in training.

MONTHLY REPORT
10A: Operations



- The Training Department graduated two (2) Fixed Route Operators from CDL training.

Facilities – Matt Pitstick, Manager

- Planning continues for the operations administration remodel with construction expected to begin in June. 90 percent has been delivered. The technician latrine remodel is out for bid. A preconstruction meeting has been completed for the lift project in the maintenance shop.
- Preventive maintenance and cleaning continue to be the priorities at the DART facilities. We are preparing plans for spring cleaning.
- Completed the door projects at 1100; the parts room has a new exterior door and overhead. The tire shop and brake room have new exterior doors as well. Preparing for the compressor project, paratransit doors and tire room heat.

Service Management - Mike Kaiser, Lead Supervisor

- Staff continue their on-street presence and supervision particularly during inclement weather. Staff were able to avert potential delays by identifying the problem street areas prior to runs and assisting Operators with road maintenance by salting challenging hills and roadways.
- A staff meeting was held on Wednesday, February 18th to discuss the new adherence reporting tool available to Supervisors. The report will provide a more comprehensive view of real-time performances comprised of Operator, Route, Run and Block data. The report will be used to communicate findings with non-compliant Operators and Planning.



MONTHLY REPORT



10B: Marketing

Kirstin Baer-Harding, Marketing Director
Staff Resources: John Clark, Customer Service Manager
Jennifer Long, RideShare Program Coordinator

Marketing and Communications Updates:

- DART's staff communicated timely service information via website and social media during two winter storms.
- DART's second annual Valentine's Date Night promotion offered free rides on all Local and Flex Routes from 5 p.m. Friday, Feb. 13 through end of service on Saturday, Feb. 14. More than 7,400 rides were provided during this promotion. Marketing materials included hang tags, interior signage, bus audio, DCS signage, email notifications, social media and website updates. Along with this promotion, a social media contest was promoted to encourage social media users to use #DARTHASMYHEART to win one of two prize packages. The campaign had a total of reach of 7,483 people and 74 likes.
- Staff deployed the schedules and marketing materials for the February service changes. Minor adjustments were made to 17 routes and The LINK was rerouted. Information was distributed to customers through hang tags, interior signage, bus audio, DCS signage, email notifications, social media and website updates.
- Staff continues to partner with other staff members and the vendor to verify the data for the rollout of the next MyDART tools which will consist of SMS, IVR phone system and a mobile app. Once the information is validated the tools will be released.
- Staff and GM Elizabeth Presutti met with the Des Moines MPO and the Greater Des Moines Partnership about partnering for Stand Up for Transportation Day on Thursday, April 9. DART, along with the partners, will host events to build awareness and advocate for a long-term federal transportation funding bill. More details to come.
- Staff is developing and coordinating second quarter marketing efforts which include event marketing, ridership campaigns and route specific marketing materials for additional community outreach.
- Staff is coordinating with RideShare on developing a spring ridership campaign, business outreach, enhanced referral program and promotional items. The marketing efforts aim to add new riders to existing vanpools through 25% off first three months' fare promotion, flyers, email marketing, social media, paid media.
- Staff attended the AMA conference on Feb. 6. The conference was on raising the bar of engagement.
- Staff attended the APTA Marketing & Communications Workshop Feb. 22-25 This workshop focuses on all aspects of public transportation marketing and communications, including media relations, customer service, ridership initiatives, and best practices.



**MONTHLY REPORT
10B: Marketing**

- Staff welcomes Madison Linkenmeyer as Marketing Coordinator. She comes to DART with advertising, marketing and journalism experience. We welcome her and are excited to have her part of marketing team.

Customer Service Report – John Clark:

January 2015 Employer and Group Presentations:

- Principal Orientation (4 visits)
- Train The Trainer

January 2015 Website Communication and Messages:

- Completed Answered emails – 0
- Bus Stop/Shelter Requests – 2
- Contact/Feedback Forms – 56
- Customer Service Requests – 5
- Other/Misc. – 8
- Voicemails – 42, voicemails requiring response – 13(31%)

Total Calls for January 2015:

- Schedule Information – 8449
- Spanish Line – 150
- Receptionist – 628
- Rideshare - 217

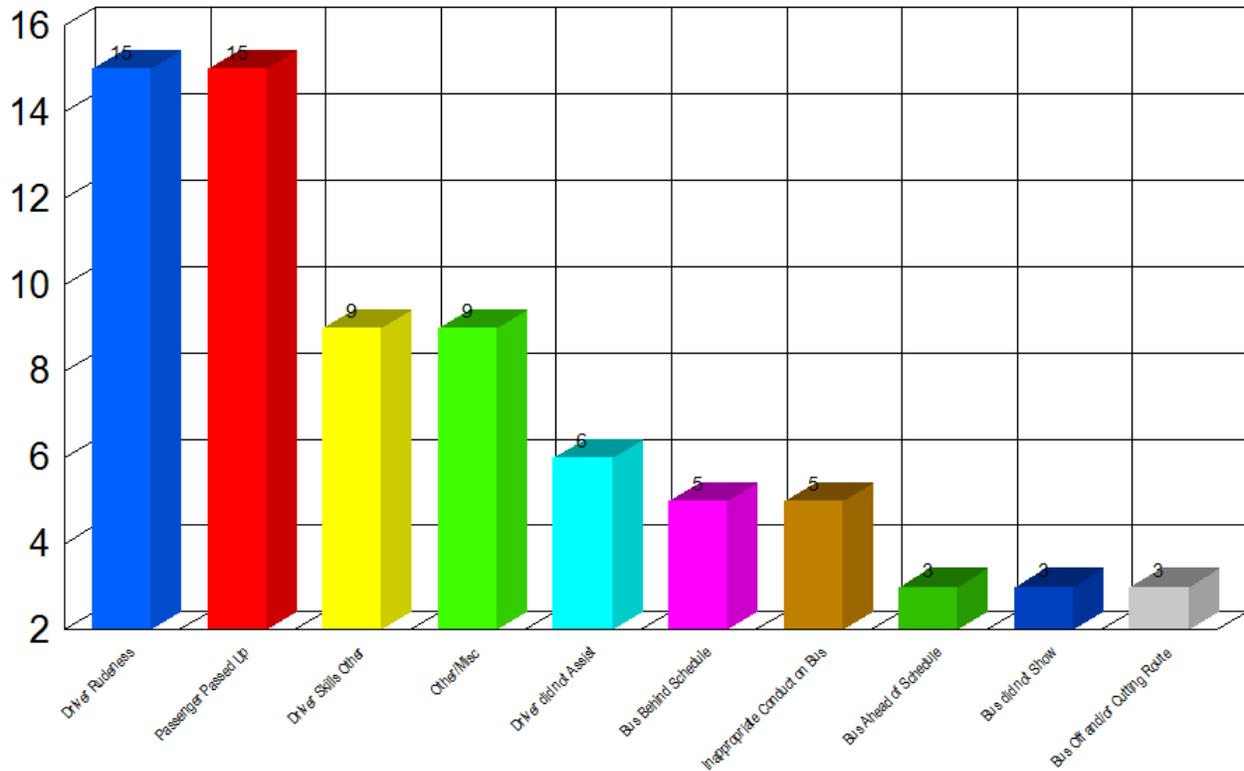


Top 10 Report

01-01-15 - 01-31-15

DART

Complaint



The top five comments for January 2015 were: Driver Rudeness, Passenger Passed Up, Driver Skills Other, Other Misc. and Driver Didn't Assist.

- In summary, in January 2015 we had 89 complaints, 8 commendations and 9 Inquiry/suggestions. Out of the total 89 complaints for January 2015, all have been investigated and closed. For January 2015 a total of 11 complaints were founded which is 8% of the total completed complaints.

RideShare – Jennifer Long:

- RideShare gave all Principal employees \$35 off January fare, \$25 off February fare and \$15 off March fare to help ease with reduction of their employer's subsidy.
- Staff met worked with Marketing Department to plan for Spring Special and RideShare's 20th Anniversary.

Staff Commendations:

DART had several comments in January 2015 recognizing DART staff:

- Customer stated: I would love to give a "shout out" to Demetrius, driver of the Route 73. I am an older paratransit rider and Demetrius picks me up at work every afternoon. He always provide excellent customer service. Today in this terrible winter weather, he pulled up at my work, walked to the door and helped me to the bus. As always, he drove carefully and safely, got me home. Thank you Demetrius all you do is greatly appreciated.
- Customer stated: The Route 52 was running late because of the weather, but he drove skillfully on I-235. I was happy to make it downtown in one piece in bad weather. KUDO's.
- Customer stated: I have to give a special "Shout out" to Demetrius who drives the Route 73. He always goes above and beyond, but today, in this terrible weather, he got me home safely. He provides such excellent customer service always, but today, he was my "knight in shining armor" Thank you to Demetrius.
- Customer stated: Everything is about this driver is excellent (Anastase Libonande). He is very professional, waits for people to be seated when floors are wet and slippery. I really appreciate this friendly driver, his driving skills and helpful demeanor.
- Customer stated: Dear DART-- I want to thank you for a most wonderful experience during last evenings weather event. I and several others waited at a stop at 12th and High for our westbound express buses. At one point, supervisor Pat drove up to ensure us that the buses were on the way. Later, he came back to say mine wasn't coming, and then he drove me home. Apparently I wasn't the only one he assisted in this way. I want to thank him personally and DART in general for this outstanding care and attention. By the way I wrote this experience on facebook, my comment got 74 likes, 9 comments and at least 2 shares. People in California, Texas, Florida, and Washington DC, know of this act of kindness.
- Customer stated: Driver (Raul Dominguez) went above and beyond by getting off the bus and helping me get my little cart full of groceries through the snow after it got stuck. I was very grateful and very impressed by this kindness.
- Customer stated: You have great drivers. Route 3 (Leon) is very polite and Sylvia is awesome!
- Customer stated: Bill just took over the route and he is doing a "Great Job"!



MONTHLY REPORT



10C: Planning

Staff Resource: Jim Tishim, Planning Director

Transit Master AVL/RTIS and Trip Planner Update:

- MyDART Phones (IVR) Service: The Spanish version of the new Interactive Voice Response service is undergoing some Spanish language corrections. Once completed, this will close out the last of the Trip Planner Programs.
- DART and Trapeze are in the process of finalizing the last two milestone payments to close out the AVL/RTIS and Trip Planner projects:
 - AVL/RTIS project retainage: DART worked with Trapeze to resolve a discrepancy on the total amount due Trapeze for the final AVL/RTIS retainage payment. After investigation, Trapeze agreed to amend the contract to credit DART for \$37,107 to resolve the discrepancy. DART and Trapeze also agreed to additional DART credits totaling \$3,390.84 that are tied to the final retainage payment.
 - IVR Spanish program: The IVR phone service, including the Spanish version is part of to the AVL/RTIS contract. Therefore, the final milestone retainage payment cannot be made until the Spanish language corrections are made and DART signs off the program as completed.

Planning Department Projects:

- Windsor Heights Transit Station and Park & Ride Project: DART held our first meeting on February 12 with the new Windsor Heights City Administrator, Brett Klein and Director of Planning, Sheena Danzer. The purpose of the meeting was to provide a brief history and overview of the project to date, and discuss strategies moving forward.
- ITT Technical Institute & William Penn University Feasibility study: DART was contacted by the City of Clive to investigate the feasibility of extending the hours of operation on the #72 West Des Moines/Clive Flex route to accommodate the night course dismissal of 10:00 p.m. for ITT Technical Institute and William Penn University for Working Adults. Both campuses are in Clive north of University Avenue between I-35/80 and NW 128TH Street. The study was completed and the findings were presented to the City of Clive, ITT Technical Institute and William Penn University. Based on the analysis, the number of potential students that would utilize extended late night service does not support the critical mass required to operate additional service.
- February Service Changes: On February 22, 2015, the following service changes were implemented, along with minor system schedule adjustments:
 - The service enhancements implemented on August 17, 2014 were evaluated for additional adjustments.
 - A review of all express routes has been underway over the past few service changes to improve operations. Staff implemented changes for the last three express routes needing evaluation.

MONTHLY REPORT
10C: Planning



- The LINK route realignments.
- Surface Transportation Program (STP) and Transportation Alternative Program (TAP) FY 2019 Grant Application Letters: The new STP and TAP Grant Application Guidelines require all grant application projects that will effect a street on a transit route to submit a letter from DART with our review and comments on the project. We reviewed and submitted comments on 13 projects from three cities; West Des Moines - five projects, Des Moines - seven projects and Altoona - one project.
- Altoona Projects: The Planning Department held a meeting with the Altoona Community Services Director, Vernon Willey and City Engineer, Jon Hanson to discuss three projects;
 - Altoona Walmart bus shelter: Staff has been working with Walmart to install a new bus shelter at the Walmart Park & Ride lot for the #99 Altoona Express and #17 Hubbell/Altoona fixed route services. In order to install a bus shelter, the ADA requires connecting an accessible sidewalk to the bus shelter. The FY 2019 STP Grant Application Altoona submitted was for improvements to 8th Street SW, which also included an accessible sidewalk to the Walmart Park & Ride. Based on both our plans, Altoona will be working with DART to provide the accessible sidewalks this year, earlier than planned in the STP application.
 - Adventureland Drive development: Staff has been working with City Engineer, Jon Hanson and the owner of the new Altoona Towers apartment complex between NW 14th Avenue and NW 17th Avenue on Adventureland Drive to improve our bus stop location to coincide with their new buildings. The discussion also included the future street plans for Adventureland Drive and a bus shelter, with accessible sidewalk connections to Altoona Towers.
 - The Prairie Crossing Outlet development plans.



MONTHLY REPORT



10D: Procurement

Staff Resource: Mike Tiedens, Procurement Manager

Procurements in Process:

Technician Latrine Remodel – DART is seeking an experienced Contractor to provide construction and enlargement of the existing Technician's Restroom. Work includes selective demolition of existing fixtures, masonry walls, and slab-on-grade; Infill existing wall openings, installation of a new door, fixtures, toilet partitions, and accessories; associated mechanical and electrical modifications.

- Bid opening was held on February 24, 2015, 2:00 PM, Central.
- Two (2) bids were received:
 - Breiholz Construction
 - Bergstrom Construction Inc.
- Breiholz submitted the lowest responsive, responsible bid at \$84,000.

Contracts and Task Orders Approved in January:

Substance Architecture, Architecture and Engineering Services Contract

- Route 60 – 10% Design – *Includes (but not limited to) update station location maps to reflect feedback from public and city officials, ADA evaluation of station locations, utility coordination, and conceptual cost estimate of typical station by type.*
 - Task order was approved for the amount of \$53,385.00.

Upcoming Procurements:

- Taxi Cab Services
- Heavy Duty Bus Manufacturer
- Schedule Printing Services
- Benefits Administration Services
- Insurance Broker Services
- 1100 DART Way Administration Area Remodel
- Housekeeping Services (DART Central Station)
- Security Services (DART Central Station)
- State and Federal Lobbyist Services
- Occupational Medical Services
- Talent Management and Applicant Tracking Systems



MONTHLY REPORT



10E: General Manager

Staff Resource: Elizabeth Presutti, General Manager

- **APTA CEO's Seminar** – I attended the APTA CEO Seminar from February 7-10, 2015. It was an interesting and valuable training opportunity as well as an exchange of ideas between other transit CEO's. Other training and information sharing took place around labor negotiations, safety and security and leadership development. I also presented as part of a session for deputy CEO's.
- **IPTA Legislative Meeting** - On February 17, 2015, the Iowa Public Transit Association was scheduled to meet with staff from the Iowa Congressional delegation. However, due to weather the Federal Government was closed and the meetings were cancelled. I was fortunate enough to have my flight cancelled from Des Moines and never made it to Washington DC. The trip has been rescheduled for April 2015.
- **APTA Legislative Conference** – Commissioner Van Oort, Kirstin Baer-Harding and I will be attending the APTA Legislative Conference in Washington DC on March 8-11, 2015. While in Washington DC we will be meeting directly with Senator Ernst and Senator Grassley and with Congressman Young staff members.



FUTURE DART COMMISSION ITEMS



FUTURE AGENDA ITEMS:

April 7, 2015 - 12:00 P.M.	
Action Items	Information Items
<ul style="list-style-type: none"> Paratransit Software Purchase 	<ul style="list-style-type: none"> Mobility Manager Update Predictive Maintenance Program Quarterly Investment Report
May 5, 2015 - 12:00 P.M.	
Action Items	Information Items
<ul style="list-style-type: none"> Taxi Cab Contract 1100 DART Way Admin Remodel Construction 1100 DART Way Admin Furniture 	<ul style="list-style-type: none"> Quarterly Safety Report DBE Program
June 2, 2015 - 12:00 P.M.	
Action Items	Information Items
July 7, 2015 - 12:00 P.M.	
Action Items	Information Items

Key Meetings/Dates:

- March 8-11, 2015: APTA Legislative Conference, Washington, D.C.

Other Future Items:

- Benefits Administration Services
- Insurance Broker Services
- Heavy Duty Buses
- Open Records Policy
- Records Retention Policy