EXECUTIVE SUMMARY

With productivity metrics that rivals and exceeds many urban bus systems, CyRide service functions extremely efficiently. CyRide served nearly seven million passengers in 2015 and serves as a vital transportation service for ISU students, faculty/staff, and Ames residents. The purpose of the System Redesign is to develop a sustainable path for the future of a system bursting at the seams while also examining opportunities to extend transit service to better meet the needs of the community in Ames. Key issues addressed in the System Redesign include:

- Balancing Coverage and Productivity. While CyRide is incredibly effective at serving ISU students, there are opportunities to enhance service quality for other members of the community. Development occurring on the city's fringes that is difficult to serve with fixed-route transit service was also evaluated as part of the System Redesign.
- **Examining Constraints.** In addition to financial constraints, CyRide faces very real physical constraints in terms of vehicle storage capacity. This study looks at optimizing use of peak vehicles to limit the use of "extra" vehicles when possible with a goal of relieving stress on the current storage facility and streets on ISU's campus.
- **Managing Demand.** CyRide operates highly efficient service, to the point that even evening service has experienced overcrowding. A thorough, data-driven understanding of ridership patterns allows CyRide to allocate service more effectively to meet demand in the system.

Important steps in the System Redesign process included gathering meaningful stakeholder involvement throughout the project, understanding the market for transit, analyzing strengths and weaknesses of existing service, developing and evaluating service options, and creating implementable recommendations. This Executive Summary provides an overview of the findings and recommendations for CyRide's System Redesign.

SYSTEM REDESIGN GUIDING PRINCIPLES

CyRide's Board of Trustees developed six guiding principles designed to inform the future of transit service in Ames. The six guiding principles are as follows:

- **Financial:** Strive to maintain local funding partner annual increases of no more than 5%.
- **Rider Demographic:** Increase the number of non-student riders within the community.
- Minimum Service Frequencies: Strive to maintain peak hour service at 20 minutes (7 a.m. – 6 p.m.), and non-peak hour service at 40 minutes (weekday evenings and weekends).

- **Geographic Coverage:** 85% of Ames residents in transit supportive areas are within ¹/₄ mile of a fixed-route.
- **Travel Time Maximum:** The maximum travel time a customer rides a bus would be 45 minutes (based on sample trips).
- **Safety:** Strive to increase safety and decrease vehicular congestion within the community.

SYSTEM REDESIGN OPERATIONAL GOALS

A series of goals and objectives were established early in the System Redesign process to guide the development of service scenarios and additional recommendations. CyRide's System Redesign goals included the following:

- Improve routing where applicable
- Reduce use of extras and formalize schedules to the extent possible
- Reduce impacts on ISU's campus
- Add capacity where it is needed most
- Improve coverage at ISU Research Park
- Improve service frequency and service span on weekday evenings
- Improve service on South Duff Avenue

THE MARKET FOR TRANSIT

The market analysis reviews demographic characteristics associated with the market for transit ridership, including population, employment, and land use. The purpose of this analysis is twofold: (1) to identify gaps in transit service in areas with high demand, and conversely (2) to identify overserved areas where transit demand is weak. This market analysis assesses 11 demographic characteristics that are commonly associated with demand for transit. The analysis helps understand where people who are likely to use transit live and work. More information about the market for transit is available in Chapter 2.

These are the key findings from the market analysis:

- **ISU is the primary existing market for transit.** Student housing complexes and destinations on ISU's main campus generate huge demand for transit service.
- CyRide effectively serves areas with high transit demand. In addition to ISU's main campus, this includes areas southwest of ISU, Downtown Ames, north of ISU, and northeast Ames. Concurrently, CyRide enables increased mobility for zero-vehicle households and other transit dependent populations.
- There are opportunities to improve service to large employment centers. ISU Research Park and jobs located in the eastern portion of Ames are a potential market with a limited level of existing service. However, these locations are less dense in terms of land use than other areas in the city and difficult to serve with traditional fixed-route transit service.
- CyRide may be able to achieve a more balanced system for non-student transit users. While transit coverage in Ames is extensive, there are opportunities to streamline routing and improve service to meet transit needs for a greater proportion of the community.

PEER REVIEW

Eight peer agencies were selected for CyRide's peer review: Athens Transit System and University of Georgia Transit System (Athens, GA), Champaign-Urbana Mass Transit District (Champaign-Urbana, IL), Chapel Hill Transit (Chapel Hill, NC), Regional Transit System (Gainesille, FL), Iowa City Transit and CAMBUS (Iowa City, IA), CityBus (Lafayette, IN), Citibus (Lubbock, TX), and Centre Area Transportation Authority (State College, PA). Peer agencies were chosen based on the size, organizational structure, and demographic similarity to CyRide. With the exception of one peer (Centre Area Transportation Authority), all agencies in the peer group are either divisions of a city government or are operated by a large university. All of the cities in the peer group are home to a major university.

Overall, CyRide's performance measures demonstrate that the agency provides effective and efficient service, and performs above average when compared with peer transit agencies. Findings from the peer review include the following:

- **CyRide operates with a high degree of efficiency and is extremely productive.** The agency recorded an average 56.9 passenger trips per revenue hour in 2014.
- CyRide's fleet of vehicles is larger and slightly older than the peer group average. As CyRide has both high ridership per revenue hour and a large fleet of vehicles, there may be room to optimize routes and service to reduce the number of vehicles needed to meet peak demand.
- **CyRide service is more heavily peak-oriented than some of its peers.** Despite operating 74 vehicles in maximum fixed route service and serving one of the densest service areas included in the peer review, CyRide currently operates fewer annual revenue miles and annual revenue hours.
- **The agency has strong financial performance,** with a farebox recovery ratio of 51%, compared with the peer group average of 45%. This figure includes revenue generated by the agreement with ISU's Student Government, which provides funding through student fees.

Additional information is available in Chapter 4.

REVIEW OF PLANS AND DEVELOPMENT

Transit in Ames exists within a broader planning and development context. The review of plans and development is available in Chapter 5 and addresses three components:

- **Survey Review.** The review presents the results of three surveys that each relate to transit in Ames: (1) the Ames Residential Satisfaction Survey (2015); (2) the Ames Mobility 2040 On-Board Transit Survey (2014); and (3) two CyRide Stoplight Surveys of transit drivers—one from 2013 and another from 2015.
- **Plan Review.** This review evaluates two plan documents that will have an impact on transit in Ames: (1) the Ames Transit Feasibility Study (2007); and (2) the Alternatives Analysis Study: Orange Route Corridor Study (2016).
- **Development Review.** This review summarizes upcoming development in Ames—both residential and non-residential.

Planning issues and anticipated development in the City of Ames will influence future CyRide service. The following are key findings from the plans and development review:

- **Approximately 700 units are anticipated for construction in 2017 alone,** with about 1,000 more to come on-line in 2018 and 2019. Transit demand will inevitably follow given existing activity levels oriented toward ISU, though some housing is geared toward the general workforce due to employment growth at the ISU Research Park, and not students exclusively.
- New commercial development planned for S Duff Avenue may provide opportunities to better serve non-university trips. However, much of this commercial development will be big box retail and low density in nature, and therefore may prove difficult to serve effectively with traditional fixed-route transit service.
- Some development will occur outside the service area or in areas with low levels of existing service. Additionally, increased demand in existing areas could lead to additional crowding on already-overloaded buses.
- Additional funding has not been identified to meet increased demand. If additional vehicles are required for providing service to new development, more financial resources will be required to meet transit needs.

Figure ES-1 provides a summary from the plans and development review.

Figure ES-1 Development Review Summary

Section	Key Findings
Survey Review	 The Ames Residential Satisfaction Survey (2015) finds that CyRide is the highest priority for increased spending among 10 ongoing public services in Ames. The CyRide On-Board Transit Survey (2014) finds:
	 The majority of transit riders reach the bus stop and their destination on foot (84% and 91% respectively).
	 Three-quarters of transit riders are aged 18 to 24; nine out of 10 are students.
	 Most transit riders are choice riders: 86% have a valid driver's license and 74% have at least one vehicle in their household.
	 CyRide drivers are frustrated with scheduling practices for peak demand trips, the lack of online administrative functions, and the way in which CyRide has dealt with growing demand. However, they are eager to help improve operations.
Plan Review	 The Ames Transit Feasibility Study (2007) identifies two corridors in Ames that warrant increased transit service: Corridor 1 (between the main ISU campus and ISC), and Corridor 5 (along Mortensen Road in the southwestern part of Ames).
	 The Alternatives Analysis Study: Orange Route Corridor Study (2016) further assesses the potential for high-capacity transit for the CyRide Orange Route. It recommends:
	 Splitting the route into an inter-residence/ISC circulator and the remainder of the Orange Route; or creating a BRT system along the current Orange Route alignment, including dedicated right-of-way and transit signal priority. A BRT system is the preferred alternative.
	 Purchasing articulated buses to allow higher on-board loads during peak periods.
Development Review	 Eleven apartment complexes are slated for development in the City of Ames between 2017 and 2019.
	 The City anticipates growth within five key zones: (1) North Ames, (2) Northwest Ames, (3) Southwest Ames, and to a lesser extent (4) Campustown and the Lincoln Way corridor, and (5) Downtown Ames.
	 New commercial development will likely take place along S Duff Avenue and SE 16th Street in the form of big box retail.

EXISTING TRANSIT SERVICES

Overall ridership has increased 45% since the ISU student government agreement began in 2002, which allowed for unlimited rides for ISU students.

With this ridership growth in mind, the existing transit service analysis conducted as part of the System Redesign describes CyRide's fixed-routes in detail, including alignment characteristics, service span, headway, destinations served, ridership, and schedule adherence. Systemwide ridership based on data collection conducted in September 2016 is shown in Figure ES-2. Key findings from the existing service analysis include the following:

- **Red and Orange routes** have outstanding ridership.
- Routes that serve ISU typically have a much higher ridership than those not serving campus. Routes 5 (Yellow) and 10 (Pink) have extremely low ridership and do not serve ISU. Routes with low ridership that *do* serve ISU are Route 4/4A (Gray), Route 22 (Gold), and Route 7 (Purple).
- Segments near ISU have higher ridership than segments located farther from ISU, for routes that serve the main ISU campus (other than the west end of Route 1 Red).
- Ridership is strongly correlated to class times for routes that serve the main ISU campus. Inbound segments are more closely associated with ridership in the leadup to classes, and outbound segments are closely associated with ridership immediately following classes.

Detailed information about CyRide's existing transit routes is available in Chapter 6.

Figure ES-2 CyRide Systemwide Ridership



SYSTEM REDESIGN CIVIC ENGAGEMENT

A primary objective for civic engagement conducted as part of the CyRide System Redesign was to obtain feedback regarding transit needs and potential improvements from a wide range of community members. The target audiences for outreach were transit riders, major stakeholders, ISU students and representatives, and the general public.

While stakeholder opinions varied between groups, many participants identified a core set of themes that are important to the success of the CyRide System Redesign Study. These themes included:

- **Financial Constraint.** CyRide service in the future should be financially sustainable as measured by CyRide's current operating budget and expected future revenues.
- **Balancing Service.** Serving ISU and the residents of Ames are equally important to CyRide's long-term success.
- Creating Simplicity. CyRide's current route structure is focused on efficiency; however, a balance of efficiency and effectiveness, through simplifying operational/scheduling practices, will benefit CyRide and the public.
- **Ensuring Accessibility.** An important part of CyRide's mission is providing transportation to residents who have limited mobility or who do not have a car. Ensuring accessibility requires the provision of service to many destinations in the city.
- **Scalability.** As Ames and ISU continue to grow, CyRide will need to accommodate an increasing level of demand.

Civic engagement was conducted in two phases throughout the study. Phase One of public outreach consisted of public meetings, pop-up meetings, an online "Design Your Transit System" tool (with more than 1,700 responses, including approximately 12% of respondents not affiliated with ISU), an on-board survey (with more than 1,400 responses), front line staff and operator outreach, and stakeholder outreach.

The goal of Phase Two public outreach was to receive public input related to two initial short-term service scenarios to assist in developing a preferred scenario. Phase Two consisted of continued stakeholder involvement, public meetings, an online recommendations survey, and pop-up meetings. More than 600 responses were collected as part of Phase Two. Key themes from comments received during this outreach phase included the following:

- Overall, the sentiment is that Scenario 2 makes the most sense for achieving the longterm vision of CyRide and serving the community. Many commenters were excited about the proposed changes.
- Overall, people commented in support of improved frequencies.
- Provide better access to Applied Science Center and throughout Research Park.
- Maintain service to high school at all times, not just morning and afternoon trips. Several people noted that they work irregular hours at the school or take midday trips for classes at ISU from Ames High School.
- Many people commented in favor of retaining Route 1A Red on campus; however, a few noted that they would be happy to see fewer buses on campus.

- People commenting on the proposed Innovative Transit Service zone are generally supportive of the idea or have additional questions about funding, service, and other details of the proposed service.
- People are supportive of improved services in West Ames.
- Requests for service to new areas, including: West Ames, South Duff, Lincoln Way/Wilder, Woodland/West/Oakland Street, Research Park, 13th/Northwestern, Y Ave/Lincoln Way, Mortensen Road, West HyVee, 13th/Ontario.
- Increase span of service later in the evening. Specific requests included Yellow and Blue.

More information regarding civic engagement is available in Chapter 7.

SHORT-TERM RECOMMENDATIONS

Initial Service Scenarios

Two preliminary scenarios were developed to improve CyRide service. Each of these scenarios was fiscally constrained, represented specific service tradeoffs, and focused service on several different locations of emphasis. The initial scenarios were developed based on a combination of public input, market research, and existing operating conditions.

Scenario 1: Modest Changes

Scenario 1 seeks to address capacity issues and adjust service to better match demand, increase the number of scheduled trips to balance demand, adjust bus routing to improve on-time performance, and improve service to Southdale and East Ames. The route structure of Scenario 1 represents an incremental step away from the existing route network. Six routes are modified and two routes are consolidated into others.

Scenario 2: Transformative Change

Scenario 2 takes a more transformative approach to providing transit service in Ames. This scenario seeks to address capacity issues and adjust service to better match demand, increase the number of scheduled trips to balance demand, improve all-day frequency in the highest ridership areas, adjust bus routing to improve on-time performance, and improve service to West Ames, South Duff, Southdale, and East Ames.

Preferred Scenario

Both initial scenarios were presented to the public and key stakeholders at multiple meetings. Based on feedback from the outreach, the Preferred Scenario was created. A summary of the Preferred Scenario is provided in Figure ES-3 and Figure ES-4. Figure ES-5 highlights neighborhood benefits associated with Preferred Scenario service recommendations.

As with the previous scenarios, the Preferred Scenario is fiscally constrained. Goals of the scenario include addressing capacity issues and adjusting service to better match demand; increasing the number of scheduled trips to balance demand; improving all-day frequency in high ridership areas; adjusting routing to improve on-time performance; improving service to West Ames, South Duff, Southdale, and East Ames; and maintaining service quality for existing customers.

Several changes to the Preferred Scenario responded directly to public feedback. These included:

- More frequent scheduled service on Routes 1 Red, 3 Blue, 23 Orange, and 26 Gold.
- Modification of Route 26 Gold to remove segment operating on Hayward Avenue. This
 requires the construction of a new bus turnaround at The Towers by the intersection of
 Welch Avenue and Storm Street.
- Route 5 Yellow provides more coverage to the south part of the Southdale neighborhood.
- Innovative Transit Service zone recommended in East Ames.
- New Route 25 Peach operates from Vet Med to North Grand Mall via 24th Street, maintaining coverage currently provided by the Blue Route.
- Twenty-minute service added on Route 6 Brown from 8 a.m.-10 a.m. to respond to anticipated demand.
- More frequent scheduled service on Routes 1 Red, 3 Blue, 23 Orange, and 26 Gold.
- Modification of Route 26 Gold to remove segment operating on Hayward Avenue. This
 requires the construction of a new bus turnaround at The Towers by the intersection of
 Welch Avenue and Storm Street.
- Route 5 Yellow provides more coverage to the south part of the Southdale neighborhood.
- Innovative Transit Service zone recommended in East Ames.
- New Route 25 Peach operates from Vet Med to North Grand Mall via 24th Street, maintaining coverage currently provided by the Blue Route.
- Twenty-minute service added on Route 6 Brown from 8 a.m.-10 a.m. to respond to anticipated demand.

More information about short-term recommendations is available in Chapter 8.

Figure ES-3 Preferred Scenario



Figure ES-4 Preferred Scenario Summary of Changes

		Frequency (Minutes between buses)		Span	
Route	Summary of Changes	Existing (Peak)	Preferred Scenario (Peak)	Existing	Preferred Scenario
1 Red	Operates from Ames Middle School to ISU via Mortensen and S. Dakota (no left turn at Steinbeck/S. Dakota). Operates more frequently during peak periods times.	15 - 20	15	6:21 a.m 12:32 a.m. 7:11 a.m. – 10:26 p.m. (Saturday) 8:31 a.m. – 11:40 p.m. (Sunday)	6:30 a.m 12:30 a.m. 7:00 a.m. – 10:30 p.m. (Saturday) 8:30 a.m. – 11:30 p.m. (Sunday)
2 Green	Eliminate Ames High School deviation except for school start/end times.	20	20	6:22 a.m 11:28 p.m. 7:50 a.m 10:32 p.m. (Saturday) 8:33 a.m 11:38 p.m. (Sunday)	6:30 a.m 11:30 p.m. 8:00 a.m 10:30 p.m. (Saturday) 8:30 a.m 11:30 p.m. (Sunday)
3 Blue	Truncate to operate between S. Duff and ISU campus. Extend route to serve Target and Walmart more directly. Operate more frequently during peak times.	15 - 20	10 - 15	6:22 a.m 12:34 a.m. 7:19 a.m. – 10:27 p.m. (Saturday) 8:30 a.m. – 11:39 p.m. (Sunday)	6:30 a.m 12:30 a.m. 7:30 a.m. – 10:30 p.m. (Saturday) 8:30 a.m. – 11:30 p.m. (Sunday)
4 Gray	Eliminate route (new all-day "Innovative Transit Service" zone in eastern Ames).	60 - 120	-	7:22 a.m 11:06 a.m. (4) 10:51 a.m 2:37 p.m. (4A) 2:05 p.m 9:19 p.m. (4)	-
5 Yellow	Provide all-day service from Southdale to Downtown via South Duff.	30-40	30	6:46 a.m 10:59 a.m. 3:17 p.m 6:52 p.m. 8:57 a.m. – 6:39 p.m. (Saturday)	6:30 a.m 7:00 p.m. 9:00 a.m. – 7:00 p.m. (Saturday)
6 Brown	In conjunction with high frequency service on new Gold Route, adjust Brown Route frequency to reflect demand. Operate through campus via Union-Lynn- Knapp-Welch-Storm. Operate later along entire route. Deviate weekend service to Schilletter and University Village in the southbound direction.	15 - 20	20-30	6:25 a.m 6:43 p.m. 5:40 p.m 10:15 p.m. (6A) 6:34 p.m 9:00 p.m. (6B) 8:34 a.m 8:15 p.m. (Saturday) 11:00 a.m 8:15 p.m. (Sunday)	6:30 a.m 9:00 p.m. 8:00 a.m. – 9:00 p.m. (Saturday) 8:30 a.m. – 8:30 p.m. (Sunday)
7 Purple	Improve span and add more trips. Begin route at Todd/S. Dakota; operate on campus via Welch-Union-Hayward in counterclockwise manner.	40 - 60	15 - 30	6:54 a.m 8:58 a.m. 3:02 p.m 5:25 p.m.	7:00 a.m 10:00 a.m. 2:30 p.m 5:30 p.m.
8 Aqua	No changes	30	30	12:27 p.m 8:17 p.m. (summer only)	12:27 p.m 8:17 p.m. (summer only)
9 Plum	No changes are recommended.	20	20	7:08 a.m 10:22 p.m.	7:00 a.m 10:30 p.m.

		Frequency (Minutes between buses)		Span	
Route	Summary of Changes	Existing (Peak)	Preferred Scenario (Peak)	Existing	Preferred Scenario
10 Pink	Eliminate route (new all-day "Innovative Transit Service" zone in eastern Ames).	50 - 60	-	7:29 a.m 9:46 a.m. 2:55 p.m 5:31 p.m.	-
11 Cherry	Rebrand Route 1A Red as Route 11 Cherry. Operate to ISU via Mortensen, S. Dakota, and Lincoln Way and on campus via Welch-Union-Hayward in counterclockwise manner.	8 - 20	7 - 15	7:20 a.m 6:59 p.m.	7:30 a.m 6:30 p.m.
12 Lilac	New express service from Dickenson to ISU via Mortensen and State; operate on campus via Welch-Union-Hayward in counterclockwise manner.	-	20	-	7:00 a.m 10:00 a.m. 2:30 p.m 5:30 p.m.
21 Cardinal	No changes are recommended.	8	8	7:10 a.m 10:22 p.m.	7:00 a.m 10:30 p.m.
22 Gold	Eliminate route (deviate Route 6 Brown to Lynn)	20	-	7:06 a.m 5:51 p.m.	-
23 Orange	Show more trips on schedule. No longer serves Vet Med.	10 - 20	4	6:30 a.m 10:20 p.m.	6:30 a.m 10:30 p.m.
24 Silver	No changes	-	-	6:00 p.m 10:00 p.m. (Sunday nights only)	6:00 p.m 10:00 p.m. (Sunday nights only)
25 Peach	New route between Vet Med and North Grand Mall via Stange and $24^{\mbox{th}}$ Street.	-	60	-	7:00 a.m 7:00 p.m.
26 Gold	New high-frequency route serving Schilletter Village, University Village, ISU, and Towers.	-	10	-	7:00 a.m 10:30 p.m.
Moonlight Express	No changes	-	-	10:00 p.m 3:00 a.m. (Friday and Saturday nights only)	10:00 p.m. – 3:00 a.m. (Friday and Saturday nights only)
Innovative Transit Service	Service between City Hall and pink zone area in East Ames on an hourly basis. Passengers will call CyRide for a return trip from East Ames back to City Hall.	-	60	-	7:00 a.m 7:00 p.m.

Neighborhood	Preferred Scenario Benefits		
South Duff Commercial Area/Southdale	 Evening service, weekend service, all-day 30-minute service, and direct service to Downtown 		
	 Extension of service to Target and closer to Walmart 		
Schilletter/Towers	 New 10-minute service between The Towers and Schilletter Village from 7 a.m. to 6 p.m. (30-minute service from 6 p.m. to 10 p.m.) 		
West Ames	 More frequent scheduled service during peak times 		
	New express service		
ISU Campus	 More scheduled trips will reduce "platoons" of buses on campus 		
	 Fewer buses overall on Osborn Drive 		
Research Park	 Service span improved to 9 p.m. on weekdays 		
	 Weekend service added 		
Northeast Ames	 Improved speed and reliability by only deviating to Ames High School during school start and end times 		
East Ames	 New flexible service (the Innovative Transit Service zone), where passengers could call or potentially use an app to schedule service to and from DMACC and job centers within the zone 		

Figure FS-5	Preferred Scenario	Neighborhood Benefits
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SHORT-TERM RECOMMENDATIONS PHASING PLAN

Anticipated phasing for the Preferred Scenario service recommendations is provided in Figure ES-6. CyRide will continue to evaluate the feasibility of implementing service improvements in West Ames and on Routes 3 Blue, Route 6 Brown, Route 23 Orange, Route 25 Peach, and Route 26 Gold at the same time.

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Timeframe	Activit	
May 2018	 Implement Innovative Transit Service, improving the service of Paula 1/10 Service and 1/10 Service and 1/10 Service and Paula 1/10 Service and 1/10	

Figure FS-6	Preferred	Scenario	Phasing	Plan
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May 2018	 Implement Innovative Transit Service, improvements to Route 5 Yellow, and elimination of Route 4/4A Gray and Route 10 Pink
Summer 2018	 Complete construction of bus turnaround for Route 26 Gold
August 2018	 Improvements to Union Drive/Bissell Road are anticipated to be complete Implement West Ames service changes (Route 1 Red, Route 7 Purple, Route 11 Cherry, Route 12 Lilac) Implement recommended changes for Route 2 Green, Route 3 Blue, Route 6 Brown, Route 23 Orange, Route 25 Peach, and Route 26 Gold Eliminate Route 22 Gold

LONG-TERM RECOMMENDATIONS

Long-term recommendations for CyRide consist of a series of opportunities and options to enhance existing service levels to meet projected future demand. These recommendations require additional capital and operating resources beyond CyRide's current budget. As such, long-term recommendations should be implemented as CyRide's budget and vehicle capacity constraints allow.

The highest priority recommendations for future implementation are summarized in Figure ES-7. High priority recommendations include improvements to Route 5 Yellow, Route 6 Brown, Route 7 Purple, Route 12 Lilac, and Route 26 Gold, as well as new service to ISU Applied Sciences and Research Park North Loop.

All long-term recommendations (including high priority recommendations) are summarized in Figure ES-8. Themes for improvements include increased frequency, extended hours of service, and new services to meet future demand needs and planned development.

Fare Recommendations

A fare analysis was also conducted as part of the System Redesign. Based on the fare analysis, it is recommended that CyRide consider reducing standard fares to \$1 to ease the logistics of fare collection and increase the attractiveness of service to passengers not affiliated with ISU. More information about the fare analysis is available in Appendix D.

Capital Needs

In addition to service and fare recommendations, several capital improvements are also recommended for CyRide, including the following:

- **Increase the size of the articulated bus fleet**, with a goal of operating articulated vehicles on Route 23 Orange, as well as routes originating from West Ames to the extent possible.
- **Implement all-door boarding on free ISU circulator routes**. This would be facilitated through purchase and installation of Automatic Passenger Counters (APCs) on these routes to ensure accurate passenger counts.
- Improve bus stop infrastructure, including installing heated bus shelters at high ridership stops.

More information about long-term recommendations is available in Chapter 9.

Route	Long-Term Service Recommendations
5 Yellow	Extension to ISU campus
6 Brown	 Later weekday evening service (extend to 10:30 p.m.)
7 Purple	 Due to new residential development along Lincoln Way, improve frequency from 15 to 10 minute service in the morning period and to 15 minutes in afternoon period
12 Lilac	 Due to new residential development along Mortensen, improve frequency from 20 to 15 minute service in morning period and to 15 minutes in afternoon period
26 Gold	 Later weekday evening and additional weekend service (weekdays extend to 12:30 a.m., Saturday 8 a.m. to 9 p.m., Sunday 8:30 a.m. to 8:30 p.m.)
New Service: Applied Sciences	 New service to Applied Sciences (one new vehicle, 60 minute frequency, operating from 7 a.m. to 7 p.m.)
New Service: Research Park North Loop	 New service to Research Park North Loop (60 minute frequency, operating from 7 a.m. to 7 p.m.)

Figure ES-7 Summary of Highest Priority Long-Term Service Recommendations





GENERAL EXPANSION RECOMMENDATIONS

