

AMES TRANSIT AGENCY BOARD OF TRUSTEES
CYRIDE CONFERENCE ROOM

February 14, 2019

1. CALL TO ORDER: 4:15 P.M.
2. Approval of January 10, 2019 and January 22, 2019 Minutes
3. Public Comments
4. Electric Bus Presentation
5. Facility Site Study
6. Farebox Revenue Analysis
7. Rate Setting Resolution – Fares
8. Rate Setting Resolution – Passes
9. Quarterly Operations Report (October – December 2018)
10. Transit Director's Report
11. Trustee Item: Director - Interim Plan
12. Set Spring/Summer Meeting Dates/Times:
 - March 12, 2019, 4:15 PM
 - April 11, 2019, 4:15 PM
 - May 9, 2019, 4:15 PM
 - June, 13, 2019, 4:15 PM
 - July 11, 2019, 4:15 PM
13. Adjourn

AMES TRANSIT AGENCY BOARD OF TRUSTEES

AMES, IOWA

January 10, 2019

The Ames Transit Agency Board of Trustees met on January 10, 2019 at 3:30 p.m. in CyRide's Conference room. President Bibiloni called the meeting to order at 3:37 p.m. with Trustees Bibiloni, Cain, Jeffrey, Schainker, and Schrader present. Absent: Trustee Nelson.

Public in Attendance: Peter Hallock and Sarah Lawrence, ISU Facilities Planning & Management.

Approval of December 12, 2018 Minutes: Trustee Jeffrey made a motion to adopt the December 12, 2018 transit board minutes as presented and Trustee Cain seconded the motion. (Ayes: Four. Nays: None.) Motion carried.

Public Comments: No public comments.

Five Year Capital Improvement Plan: Director Kyras explained that the information contained in the staff report for the Five Year Capital Plan recommendations was the same as presented at the December 2018 transit board meeting, with one modification - reduction of \$5,000 from shop equipment. This change allows for a five-year, positive fund balance. Director Kyras also shared that the plan's expenditures emphasized facility expansion and bus replacement needs of the transit system.

Trustee Schainker made a motion to approve the Five Year Capital Improvement Plan as presented and Trustee Jeffrey seconded the motion. (Ayes: Four. Nays: None.) Motion carried.

Service Change Recommendations: Director Kyras explained the feedback that staff had received, via email, telephone calls, and surveys, from customers requesting modifications to its CyRide 2.0 service. She shared the results from the feedback, as documented in the staff report identifying the top five requests from each source of the comments. She shared the five general themes from this input:

- Previous service (comfort with old service level) – routes and campus circulation
- Additional Peach Route service to address Vet. Med concerns
- More evening service on Gold, Brown and Cherry service
- More service during breaks/summers on Gold and West Ames routes
- Earlier trips in the morning on various routes with better connections

Director Kyras then explained the ridership trends that were occurring on the new route structure, highlighting five patterns - #23 Orange route, West Ames, #25 Gold, other routes and peak passenger loads.

Director Kyras then provided staff's recommendation for service modifications to enhance its CyRide 2.0 service. She indicated that of the ten service changes proposed, five improvements and one reduction were recommended, which added less than the

board-directed \$200,000 in improvements. She then explained a staff idea to further reduce expenses, while still achieving improvement to serve ISU's Vet. Med. College. This idea consisted of deviating the #9 Plum route inbound to campus and shortening the #14 Peach route to offer more service in North Ames. She indicated that she had proposed the idea to Vet Med. staff and was waiting to receive input on this idea, but that she anticipated input after a January 15th meeting of the college's council.

Trustee Nelson arrived at 3:43pm.

She recommended that the Gold route summer schedule change be implemented on May 13, 2019 and the remainder of the service modifications in August 2019, if approved. The Gold route change would impact the current fiscal year budget by adding \$27,223 to expenses; however, she indicated that CyRide would be receiving additional federal funding in the current year that would more than offset this increase.

Trustee Cain asked staff for the difference in time in walking "up the hill" to Vet Med. from S. 16th Street on the #9 Plum route versus staying on the bus and being dropped off at the door of Vet. Med. on the bus' return trip to campus. Rob Jennings, CyRide's Budget Analyst/Scheduler, indicated the difference was approximately 7 – 9 mins. additional to stay on the bus versus walking.

Director Kyras then explained the three alternative actions that board members could take to establish service levels for the next year. – approve staff's recommendation, table action until the February board meeting on service improvements, but approved \$176,672 in additional expenses in the budget to address board-directed improvements or approve only the service reduction of \$76,000 .

Trustee Schainker shared his discomfort in the second alternative, indicating that he preferred to only ask for taxpayer dollars, for approved service changes.

Trustee Cain made a motion to approve alternative #1 for staff's recommendation to implement five service enhancements and one service reduction, as presented, effective August 19, 2019 and implementation of the #25 Gold summer/breaks recommendation effective May 13, 2019 at a cost of \$27,223 in the current budget year. Further, to investigate the Plum route option with the ISU College of Veterinary Medicine to determine their preference for the option (Plum Route) or original proposal (Peach Route) and provide information at a special board meeting in January to finalize the budget. Schrader seconded the motion. (Ayes: Five, Nays: None.) Motion carried.

2019-2020 Operating Budget: Director Kyras recapped the discussion from the December 12, 2018 board meeting regarding the 2019-2020 budget, indicating that the new information presented in the staff report reflected the board's direction to "include additional expenses for a Chief Safety Officer, labor negotiation proposals, up to \$200,000 in new services and reduced operating expenses, and, at the same time, do

not exceed a 5% local funding increase for the 2019-2020 budget.” She indicated this was labeled as “Option #2A” in the board’s materials. She then briefly discussed the specific expense reductions made to this option’s budget – Director’s wages/benefits, Chief Safety Officer wages/benefits - as well as increases in state operating funding. She indicated Option #2A resulted in a local funding partner increase of 4.8%.

Director Kyras then briefly recapped the specific service changes included in the budget option, which totaled \$176,672. The recommended routes impacted by these service improvements included the #14 Peach, #25 Gold, #11 Cherry and early morning trips.

Trustee Schainker asked what the difference was between serving ISU’s Applied Science College and ISU’s Vet. Med. College, as both were off-campus facilities. Trustee Cain shared her thoughts that the need for service to the Vet. Med. college was important to provide service for students between central campus and the college; whereas, there were no/few students at the Applied Science complex. She indicated the priority was for student transportation to classes. Additionally, Director Kyras shared past conversations where past board member Warren Madden had explained that the university’s portion of CyRide funding was meant, in large part, to provide transportation to Vet Med. via the #23 Orange route. Trustee Cain asked what route previously providing transportation to Vet. Med. Director Kyras indicated the #23 Orange route, which no longer provided this service under CyRide 2.0. Trustee Cain also explained that the staff-recommended changes totaled less than the \$200,000, which the board had indicated was the maximum service improvement expenses that could be considered for next year.

President Biblioni shared his thoughts about the funding level and Vet. Med. service request. He indicated that it was important to be at or below the 5% local funding partner increase, but that he supported getting the Vet. Med. college’s feedback before making a final decision on the services/budget for next year. He shared that he believes that funding for Vet. Med. is different than trying to improve service to an apartment complex.

Trustee Schainker made a motion to approve staff’s recommendation #3 to approve budget option #2A, but with a provision to adjust the alternative upon response from Vet. Med. at the special transit board meeting to be scheduled later in January. Trustee Cain seconded the motion. (Ayes: Five. Nays: None.) Motion carried.

CyRide Drug and Alcohol Policy: Director Kyras began the discussion with a general overview of the federally-required Drug & Alcohol Policy. Assistant Director Neal then summarized the new policy and the changes it represented from the previously adopted policy in January 2018. She indicated that the Federal Transit Administration (FTA) had recently raised the drug testing threshold from 25% to 50%, effective January 1, 2019. She indicated that CyRide had been testing at this rate since the first of the year, but that the board would need to approve the policy changes as the final step toward full compliance with the law. She indicated that the policy changes were developed based

upon a “policy builder” recommended by FTA and that CyRide-specific changes were indicated in bold letters in the policy. She indicated these requirements indicated CyRide’s policy that exceeds federal standards. She then briefly explained the CyRide-specific sections that were bolded.

Trustee Cain made a motion to approve the revisions to CyRide’s Drug and Alcohol Testing Policy. Trustee Schainker seconded the motion. (Ayes: Five, Nays: None.) Motion carried.

Transit Director’s Report:

- 1) **Facility Update:** Director Kyras provided a brief update of the field site review for the facility expansion study and the resulting narrowing of sites to ten. She shared the next steps in the process, indicating that the list had been narrowed by staff to the top five to start and that these sites has been provided to ASK Studio for further analysis. She indicated that the results of this architectural/engineering review would be provided to the board at the February board meeting.

- 2) **2018 ICAAP Grant Submission:** Director Kyras shared that the CyRide 2.0 new services that the board approved for submission in an Iowa Clean Air Attainment (ICAAP) grant application had been approved by the Iowa DOT Commission. She indicated that the award was for \$702,848 dollars to support capital and operating expenses of this new service. She indicated that the operating dollars would create a budget savings and be reflected in a higher operating closing balance.

She also shared that CyRide will be able to reapply for these projects for the next two years. Shari Atwood, CyRide’s Transit Planner, indicated that the operating cost savings would begin in October 2019, reflecting the federal fiscal year.

Director Kyras also mentioned that there would be two presentations at the February board meeting - CTE electric bus presentation and the facility study results.

Adjourn: Trustee Jeffrey made a motion to adjourn the meeting at 4:45 PM and Trustee Cain seconded the motion. (Ayes: Five. Nays: None.) Motion carried.

Next Meeting Dates/Times:

- February 14, 2019 – 4:15 pm
- March 14, 2019 – 4:15 pm
- April 11, 2019 – 4:15 pm
- May 9, 2019 – 4:15 pm
- June 13, 2019 – 4:15 pm
- July 11, 2019 – 4:15 pm

Juan Bibiloni, President

Joanne Van Dyke, Recording Secretary

AMES TRANSIT AGENCY BOARD OF TRUSTEES

AMES, IOWA

January 22, 2019

The Ames Transit Agency Board of Trustees met on January 22, 2019 at 7:45 a.m. by conference call as board members were unable to satisfy the in-person meeting requirement. President Bibiloni called the meeting to order at 7:46 a.m. with roll call: Trustees Bibiloni, Cain, Jeffrey, Nelson, and Schrader were present. Absent: Trustee Schainker.

Public in Attendance: Cathy Brown and Sarah Lawrence, ISU Facilities Planning & Management.

Public Comments: No public comments were received.

2019-2020 Service Improvements and Budget: Director Kyras recapped the transit board action taken at the January 20, 2019 meeting - approval of Option #2A. She indicated that she had reached out to ISU's Vet. Med. and Facilities Planning & Management (FP&M) Departments and had received comments back. She indicated that the Vet. Med. College preferred the option to deviate the #9 Plum route and shorten the #14 Peach Route (Option #2B in the information provided). She indicated that FP&M shared concerns regarding Option #2B, due to the lack of sidewalks to the facility, which could cost from \$135,000 up to \$150,000 to construct.

Trustee Schainker joined the conference call at 7:49 A.M.

Director Kyras explained that if board members chose to approve Option #2B, that staff recommended implementing this change with the summer schedule on May 13, 2019.

Trustee Jeffrey asked if there was a possibility to implement the #9 Plum route deviation and #14 Peach route modification for the current semester. Director Kyras indicated that schedules were already set and it was not possible to modify service prior to May 13, 2019.

Director Kyras shared the alternative actions that board members could take to set the 2019-2020 service level: reconfirm Option #2A, rescind the previous board action and approve Option #2B or #2C. She briefly explained that Option #2C was the same as Option #2B, but that it included two additional service improvements - #6 Brown evening service extension and #12 Lilac midday service. She shared the impact of these three options on the local funding partner increases.

Trustee Jeffrey shared her thoughts that she appreciated the concern of walking up the hill to get to Vet. Med. and the lack of sidewalks in this area, but believes that these challenges can be addressed through ISU's processes. As a result, she indicated that she could support Option #2C, as it provided more benefits to CyRide customers at a cost under the maximum increase desired by the Transit Board.

Trustee Jeffrey made a motion to rescind the Transit Board's action taken at the January 10, 2019 board meeting and to approve Option #2C, which is contained in Alternative #3. She indicated that this option included the: baseline increase, Chief Safety Officer, Labor Negotiation proposals, six service improvements and one service reduction for a total local funding partner increase in the 2019-2020 budget of 4.6%. She also included in the motion that the #9 Plum, #14 Peach route and #25 Gold route summers/break proposal will be implemented on May 13, 2019, with the remainder of the service modifications being implemented in August 2019. Trustee Schrader seconded the motion. (Ayes Per Roll Call Vote: Trustee Jeffrey, Schrader, Nelson, Cain, and Schainker. Nays: None.) Motion carried.

Transit Director's Report:

1) Spring construction Bids – Plans & Specifications: Director Kyras explained that CyRide's three summer construction projects were progressing and that the plans and specifications would be presented to the City Council in February, with bids to be submitted in March 2019. She indicated that the results of the bids would be presented to the Transit Board for action, prior to taking the bids to the City Council. She also indicated that a special conference call board meeting may be required, tentatively scheduled for March 25, 2019, as the bids will be received after the board's regularly-scheduled March meeting.

Trustee Nelson asked Mark Lambert, City of Ames Attorney, if The Transit Board had legal reason to go into closed session and Mark Lambert, City of Ames Attorney, said "yes" by Section 20.177, subsection 3, *Code of Iowa* to discuss matters relating to contract negotiations.

Trustee Jeffrey moved to go into closed session at 8:02 A.M. and seconded by Trustee Nelson. (Ayes Per Roll Call Vote: Trustee Jeffrey, Schrader, Nelson, Cain, and Schainker. Nays: None.) Motion carried.

Trustee Cain made a motion to reconvene in open session at 8:29 A.M. and seconded by Trustee Jeffrey. (Ayes: Five. Nays: None.) Motion carried.

Next Meeting Dates/Times:

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- March 12, 2019 – 4:15 pm
- April 11, 2019 – 4:15 pm
- May 9, 2019 – 4:15 pm
- June 13, 2019 – 4:15 pm
- July 11, 2019 – 4:15 pm

Adjourn: Trustee Jeffrey made a motion to adjourn the meeting and Trustee Nelson seconded the motion. The meeting was adjourned at 8:30 A.M. (Ayes: Five. Nays: None.) Motion carried.

Juan Bibiloni, President

Joanne Van Dyke, Recording Secretary

CITY OF AMES, Iowa

MEMO TO: Ames Transit Board of Trustees

FROM: Sheri Kyras

DATE: February 14, 2019

SUBJECT: Electric Bus Presentation

BACKGROUND: At the May 3, 2018 board meeting, members approved development of a Request for Proposal to conduct an Electric Bus Study; at the September 17, 2018 board meeting, members awarded a contract to the Center for Transportation and the Environment (CTE) to conduct a “Zero Emission Roadmap” for deployment of electric bus technology within CyRide’s facility, maintenance and operations.

INFORMATION: CyRide staff has been working with CTE over the last four months in providing CyRide-specific data regarding its fleet and facilities. This information has allowed the consultant to analyze CyRide’s system and provide recommendations on the feasibility, costs, benefits/challenges and other factors that would need to be considered to deploy electric buses at CyRide in the future, based upon current technology. The attached presentation will be discussed in detail at the board meeting with CTE representatives present at the meeting to thoroughly explain their analysis and answer board member’s questions.

Next Steps

Based on the consultant’s recommendations for electric buses, CyRide could consider two different directions to begin an electric bus project – electric bus demonstration project or grant to fund buses/equipment/facility construction. Each is briefly discussed below.

Electric Bus Demonstration Project

Under this option, CyRide could rent a bus from a bus manufacturer or ask a nearby transit system, who has electric buses, to borrow one for a period of time to test the vehicle on CyRide’s routes and gain a greater level of understanding of how this bus technology could operate on a daily basis in Ames, Iowa, as well as how/when to charge the vehicles. This would require renting a generator as the facility’s electrical capacity does not have adequate voltage to charge the buses (208 versus 480). The estimated cost of this project would be at follows:

| <u>Item</u> | <u>Estimated Cost</u> | |
|------------------------|-----------------------|-------------------|
| | <u>Rent Bus</u> | <u>Borrow Bus</u> |
| Rent Generator | \$2,000 | \$2,000 |
| Electric Bus Transport | \$6,000 | ---- |
| Bus Rental | <u>\$5,000</u> | <u>----</u> |
| Total Cost | \$13,000 | \$2,000 |

The estimated local cost to CyRide would be \$2,000 (borrow) to \$13,000 (rent) based on a two-week trial.

Grant to Fund Buses

CyRide could apply for a No-Low federal grant, in conjunction with a Volkswagen Settlement grant, to operate two electric buses in CyRide’s fleet. The grants would also include the cost of retrofitting the facility to accommodate the higher voltage electric, as well as charging stations, dispensers, spare parts, etc. Below is a preliminary cost estimate for accomplishing the above described project with federal-local-VW funding shares identified.

| Item | Est. Tot. Cost | Federal Share | VW Grant | Local Share |
|--|-----------------------|----------------------|------------------|--------------------|
| Depot Charging Station and Dispensers | \$100,000 | \$85,000 | \$10,000 | \$5,000 |
| Spare Parts and Tools | \$50,000 | \$40,000 | \$0 | \$10,000 |
| Facility Construction (From Transformer to Charging/Dispensing Stations) | \$152,200 | \$129,370 | \$0 | \$22,830 |
| Transformer | \$22,000 | \$18,700 | \$0 | \$3,300 |
| Engineering Design/Construction | \$48,000 | \$40,800 | \$0 | \$7,200 |
| Two, 40’ Electric Buses (\$800,000 ea.) | \$1,600,000 | \$1,280,000 | \$300,000 | \$20,000 |
| Mechanic/Driver Training | \$10,600 | \$9,010 | \$0 | \$1,590 |
| Consultant – Deployment Consultation/ Reporting* | \$120,000 | \$102,000 | \$0 | \$18,000 |
| Total Cost | \$2,102,800 | \$1,704,880 | \$310,000 | \$87,920 |
| Percent | | 81% | 15% | 4% |

* Assistance with deployment issues, documented impacts, review of specifications, etc.

The above funding chart is based upon the following assumptions for overmatching a federal grant:

- Federal share for buses is 80% (85% max. allowed)
- Federal share for facility rehabilitation, equipment and training is 85% (90% max allowed)
- Federal share for consultant is 85% (85% max allowed)
- VW grant allows a maximum \$500,000 per applicant with \$300,000 per electric bus and \$10,000 per charging station

The estimated local cost to CyRide could be \$87,920 for two buses, facility rehabilitation to accommodate the vehicles, charging and dispensing stations, new transformer, etc. It would be staff's recommendation that up to \$100,000 be committed from CyRide's closing balance above 10% (currently at (\$647,880) as additional costs may be identified in preparing a grant application. In comparison, the local match required to purchase just the two, diesel buses would be between \$147,990 - \$197,320, depending upon a 15% or 20% local match requirement.

In summary, the cost for a much larger project would be lower than the local dollars needed to purchase two diesel buses.

A possible, tentative schedule of activities for deployment of this bus technology under this option, based on previous year's grant timing, is identified in the chart below, which also highlights in "red" Transit Board actions required. The government shutdown may modify this schedule due to delays in releasing the No-Low grant opportunities.

| Activity | Timeline |
|---|----------------------------|
| Research Other Manufacturer RFP's* | Late Feb – Early Mar. 2019 |
| Release RFP to Partner with CyRide on Grant* | March 2019 |
| Release of No-Low Grant Notice/Begin Application | April 2019 |
| Board commitment of VW Savings for Grant Local Match | April 2019 |
| Select Bus Manufacturer/Complete Grant | May 2019 |
| Board approval of No-Low Grant Application | May 2019 |
| Submit Grant | June 2019 |
| No-Low Grant Awards Announced | September 2019 |
| Submit VW grant for VW Local Match if the No-Low Grant is Approved | January 2020 |
| VW Grant Awards Announced | April 2020 |
| Board Action to Use 2020 VW Grant Award, as Opposed to 2019 VW Savings, as Local Match for the No-Low Grant/ Board and Council Approval of Bus Purchase | April 2020 |
| Begin Plans & Specification for Facility Construction | April 2020 |
| Construction Bid | January 2021 |
| Construction | Spring/Summer 2020 |
| Electric Buses Delivered (18-20 Month Delivery) | Winter/Spring 2022 |

* FTA's No-Low grant allows for manufacturers to be named in the grant application; this meets federal procurement requirements or a competitive procurement

This schedule will meet the VW grant requirements of bus delivery within two years. However, due to the timing between the two grants (VW and Low-No), **the Transit Board would need to commit an amount of local dollars equal to the VW and local share funding, combined, to the Low-No grant before the results of 2020 VW grant awards were made.** Without the VW grant,

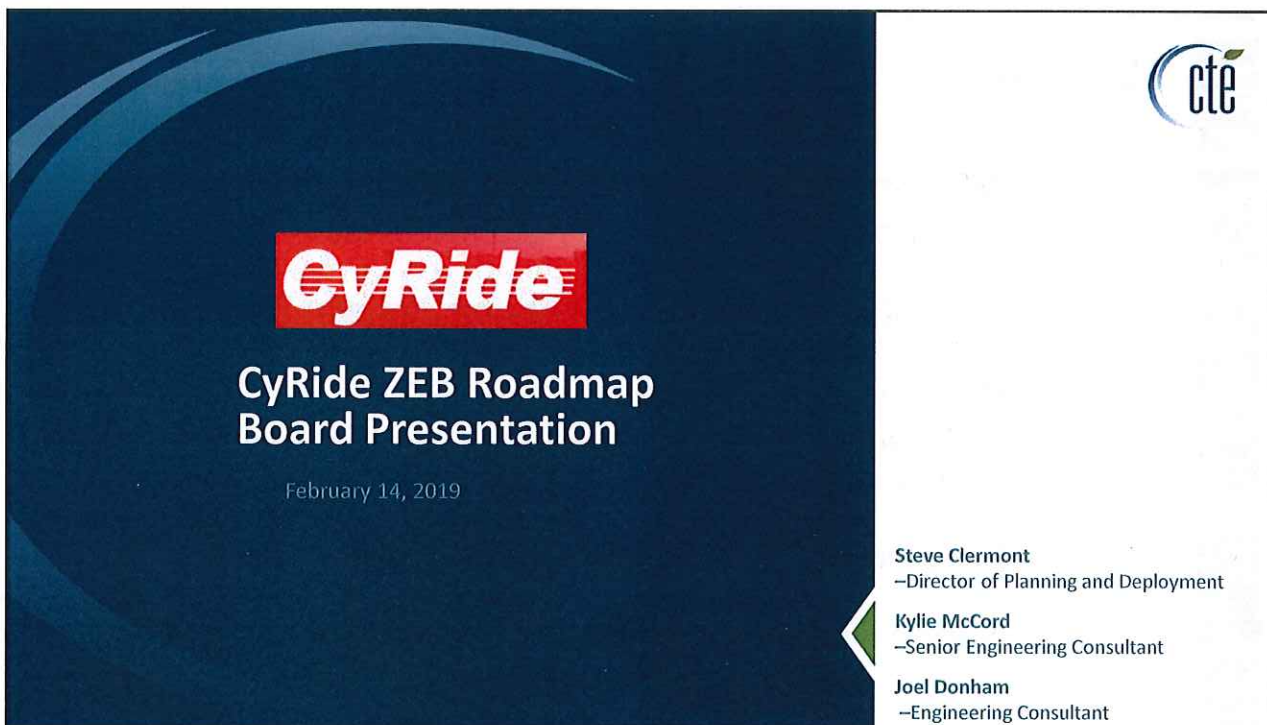
the local match required for the Low-No grant would be difficult for CyRide to secure through its budgeting process. Additionally, there are only two more rounds of the VW Settlement grants, most likely January 2020 and January 2021.


ALTERNATIVES:


1. Direct staff to begin development of a No-Low grant application for two electric buses, facility modifications and supporting equipment when the federal funding opportunity is released. Further, that staff will present a final budget to the Transit Board for approval prior to submitting the grant application.
2. Direct staff to begin coordinating a demonstration project with either a manufacturer's rental bus or a cooperating transit system's borrowed bus to test this bus technology on its routes and in its facility for a short-term trial.
3. Do not proceed forward with an electric bus project at this time.

RECOMMENDATION:

The Transit Director recommends Alternative #1 to submit a No-Low Grant application during the next round of funding opportunities. The Director believes that, after completion of the Electric Bus Study and its recommendations, that this technology is feasible for 17% or more of its service and could provide positive benefits for the community through zero bus emissions and a positive image/forward movement toward sustainability goals for CyRide, the City of Ames and ISU. The low amount of local funding needed to enter into this new bus technology, due to the combination of two grant sources, will allow CyRide to gain actual experience over the life of the buses for a relatively small dollar amount. This project would assist CyRide in determining electric bus technology's long-term feasibility for a larger portion of CyRide's fleet to become electric, as funding becomes available and battery technology improves.



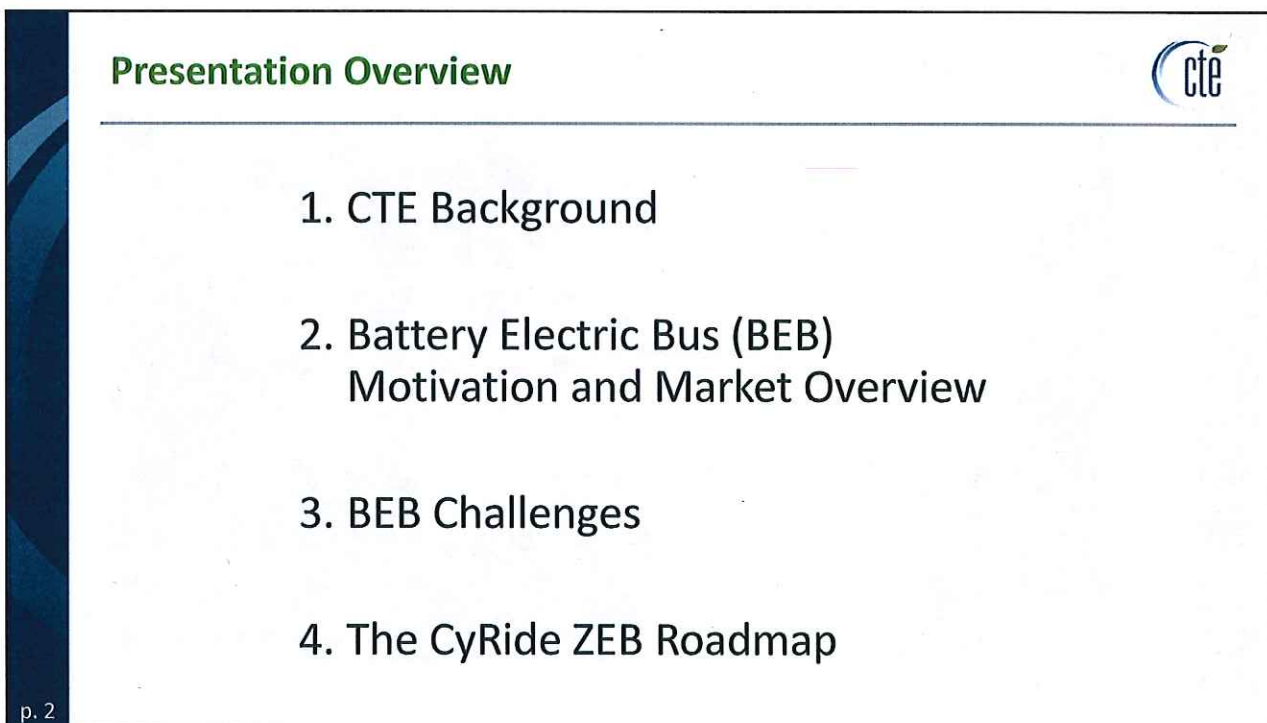

**CyRide ZEB Roadmap
Board Presentation**
February 14, 2019




Steve Clermont
–Director of Planning and Deployment

Kylie McCord
–Senior Engineering Consultant

Joel Donham
–Engineering Consultant



Presentation Overview 

1. CTE Background
2. Battery Electric Bus (BEB)
Motivation and Market Overview
3. BEB Challenges
4. The CyRide ZEB Roadmap

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About CTE



- Mission: To advance clean, sustainable, innovative transportation and energy technologies
- 501(c)(3) non-profit engineering and planning firm
- Portfolio - \$500 million
 - Research, demonstration, deployment
 - 95 Active Projects Totaling over \$300 million
- Focused on Zero Emission Technologies
- National presence
 - Atlanta, St. Paul, Berkeley, Los Angeles

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CTE Zero Emission Bus Projects



- ZEB Planning Projects
- ZEB Deployment Projects

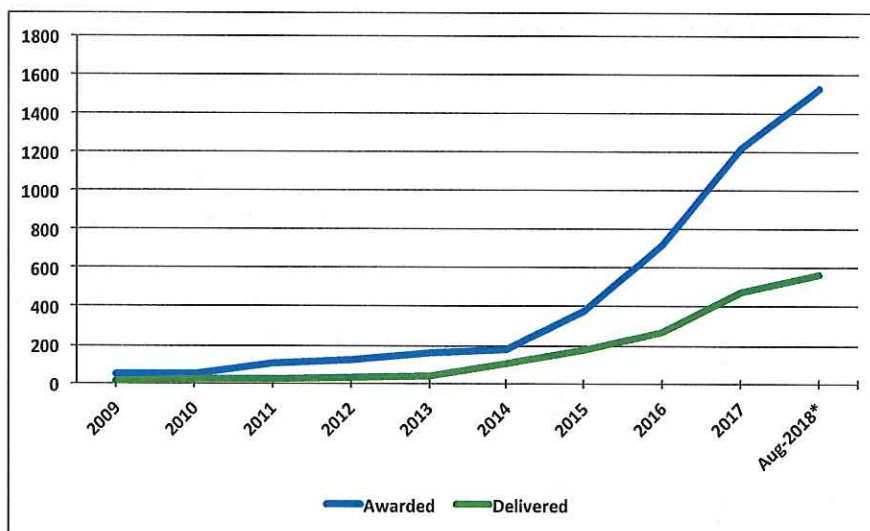
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CTE Clients of Similar Agency Size



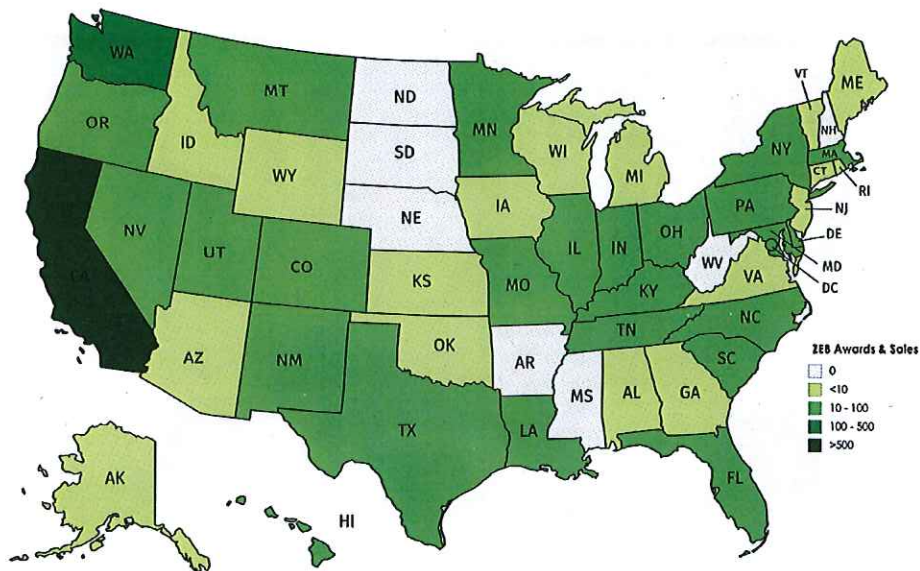
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US ZEB Annual Awards & Deliveries



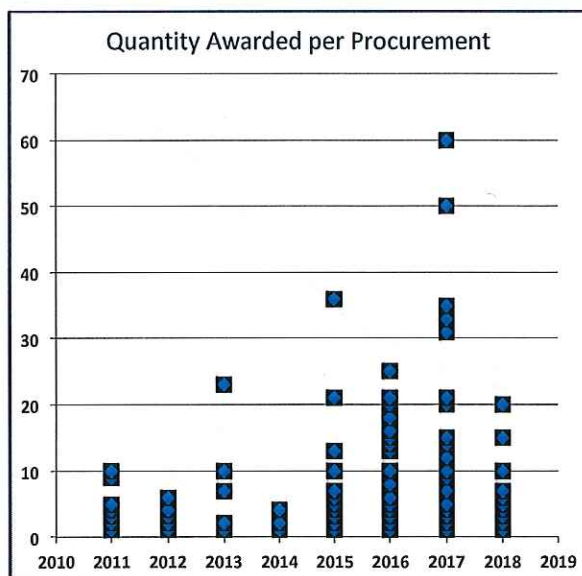
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ZEB Awards & Sales



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U.S. Buses-Per-Order Quantity



With over 300 ZEB awards/sales in the U.S., 81% have been for five (5) or fewer buses, demonstrating that most agencies are currently conducting ZEB pilot projects.

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ZEB Market Development



BEB

| Calendar Year | Awards & Sales |
|---------------|----------------|
| 2009 - 2014 | 138 |
| 2015 | 179 |
| 2016 | 322 |
| 2017 | 492 |
| Aug-2018 | 314 |

FCEB

| Calendar Year | Awards & Sales |
|---------------|----------------|
| 2009 - 2014 | 44 |
| 2015 | 12 |
| 2016 | 28 |
| 2017 | 1 |
| Aug-2018 | 0 |

| Calendar Year | Base Price | Energy Storage |
|---------------|------------|----------------|
| 2010 | \$1.2 mm | 75 kWh |
| 2016 | \$750k | 300+ kWh |
| 2018 | \$750k | 450+kWh |

| Calendar Year | Base Price |
|---------------|------------|
| 2010 | \$2.2 mm |
| 2016 | \$1.2mm |
| 2018 | \$1.2mm |

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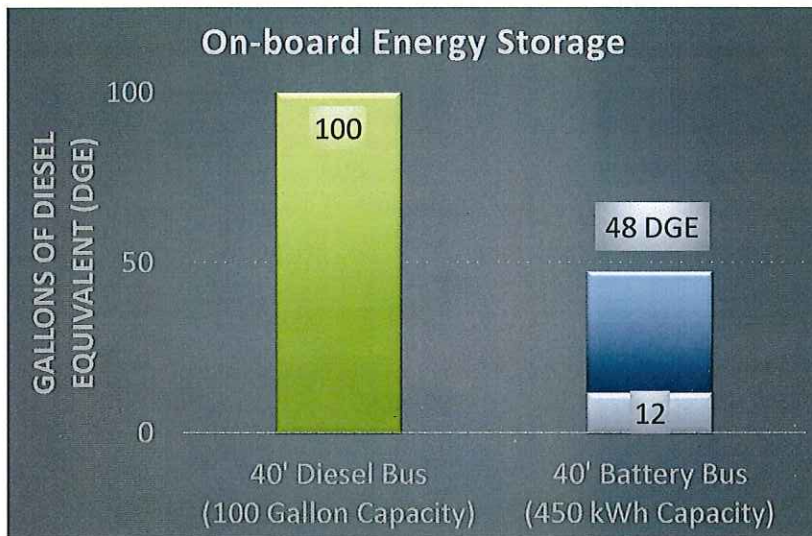
BEB Technology Uncertainties



- Rapidly developing technologies
 - Bus: energy storage, vehicle efficiencies
 - Charging: new vendors, charge rates, configurations, software
- Timeline for improvements in Energy Density
 - Currently, some CyRide blocks are too long for 1:1 replacement with BEB
- Electricity cost
 - In some areas of the country, electricity costs more than diesel
 - Despite short term utility programs, long-term range outlook is unknown
- Battery degradation impact on range
 - Beginning-of-life vs. End-of-Life

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BEB Challenge #1: Energy Storage Capacity



Electric Drive is four times as efficient as a diesel engine.

12 DGE of electricity can deliver the energy of 48 gallons of diesel

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U.S. Department of Energy: 38 kWh is equivalent to 1 gallon of diesel

BEB Challenge #2: Cabin Heating and Cooling



- In a diesel bus, heat is a free byproduct of the engine, and AC has a minimal effect on fuel consumption.
- In an electric bus heating and AC use up energy that would otherwise be available to power the motor.

Range vs. Temperature

| | |
|-------------------------------|-----------------------------|
| Spring/Fall (70° F): | 2.0 kWh/mi. → 176 mi. range |
| Winter (<0° F w/Diesel Heat): | 3.5 kWh/mi. → 100 mi. range |
| Summer (90° F): | 2.7 kWh/mi. → 130 mi. range |

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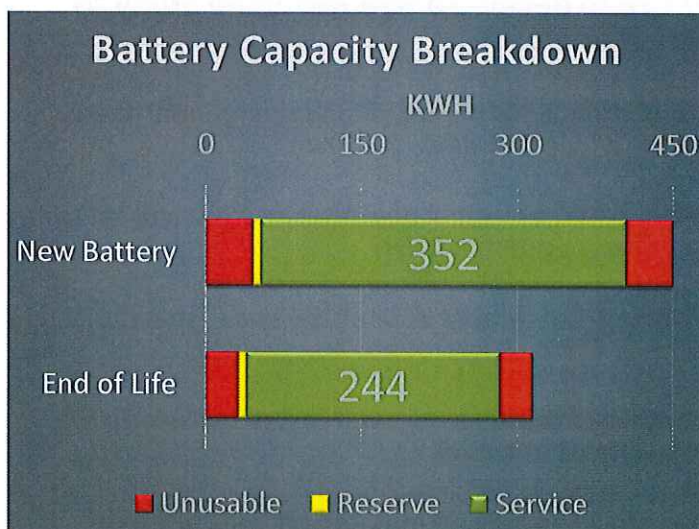
BEB Challenge #2 Continued—Preconditioning the cabin



- Preconditioning the bus and batteries on a cold morning can use significant battery energy without even moving the bus (more than 10% in severe cases)
- To avoid unnecessary drain on the battery, buses can be preconditioned prior to pullout while still on the charger

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BEB Challenge #3: Battery Degradation



“Service Energy” excludes;

Unusable top and bottom portions

Reserve (energy to return to depot in case of an issue)

“End of Life” battery: 70-80% of new energy capacity depending on manufacturer. This is based on the typical warranty limit.

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But there are Benefits!



- Zero Emission
 - No tailpipe emissions, improving local air quality by reducing particulate matter that leads to asthma and lung disease
 - Regardless of the source of electricity, the energy used by ZEBs produce less greenhouse gas than diesel buses, reducing climate change impacts
- Fuel Cost
 - Electricity is locally produced and generally costs less than diesel
 - Diesel is subject to supply disruptions and price spikes
- Maintenance Costs
 - ZEBs cost 30% - 50% less to maintain due to fewer moving parts, longer time between brake changes, fewer fluids to maintain.

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ZEB Roadmap Project Overview



CyRide contracted CTE to develop a BEB Roadmap Study to review the following four areas:

- **Operations** - How could BEBs meet CyRide's operational needs, and what would a CyRide BEB fleet look like?
- **Facility/Equipment**—What supporting infrastructure and equipment is needed to operate BEBs?
- **Fleet/Maintenance**—How would BEB reliability and maintenance requirements affect CyRide's operations and budget?
- **Financial/Economic**—How does the total cost of ownership of BEBs compare to diesels at CyRide?

CTE is now compiling analyses into a Final Report for CyRide to support future BEB planning

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ZEB Roadmap Summary



1. Feasibility of BEBs in CyRide's operations
2. Fleet transition analysis
3. Facility, equipment, and maintenance needs
4. Financial evaluation
5. Benefits of potential CyRide BEB fleet
6. Best practices and challenges for deploying BEBs
7. Training needs
8. BEB funding opportunities

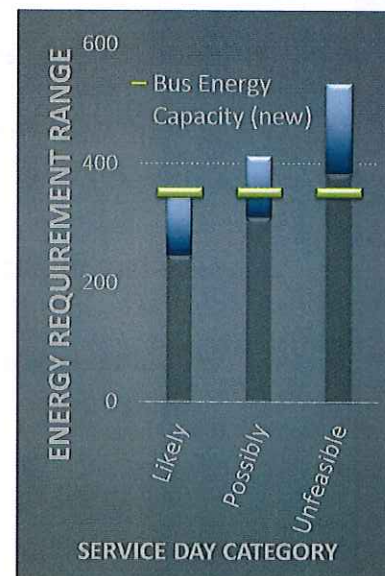
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Operational Review Framework

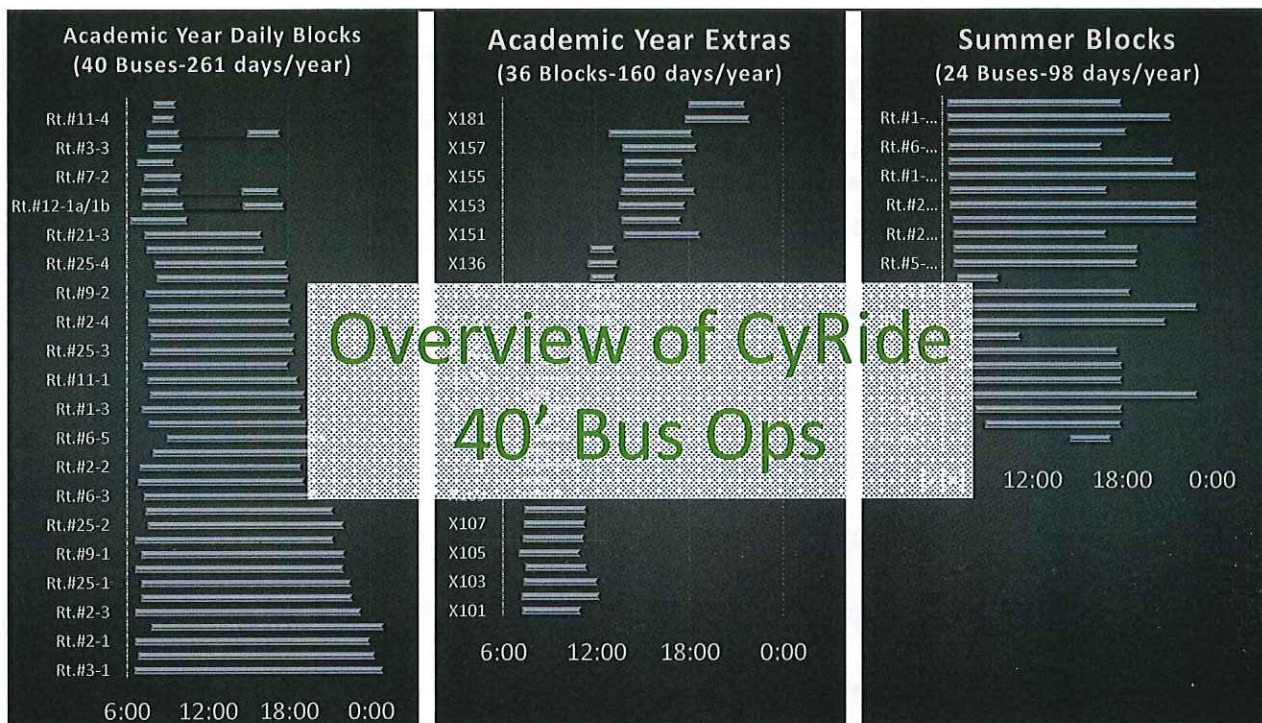



- Analyzed CyRide operational data using screening-level feasibility assessment method
- Method based on field data from CTE projects and previous modeling results
- Provided estimated energy consumption range for each bus's service day on hard days (-10° F and 95° F)
- Groups bus service days into three categories: likely feasible, possibly feasible, and unfeasible

NOTES: (1) CTE did not evaluate cut-away operations and 60' operations were determined to be unfeasible with today's BEB technology
 (2) Analysis was based on today's technology. Anticipated technology and market developments will improve feasibility and business case



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Overview of BEB Modeling Approach 

- Evaluate academic year blocks first, then summer
 - Estimate which daily blocks can be done on hard days (i.e. high AC/Heat demand, high passenger counts)
 - Gauge impacts of battery degradation
 - Evaluate what additional ‘extras’ can be run to increase utilization
 - See what operations can be done on typical days

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Feasibility of BEBs in Current CyRide Operations—Hard Days



| Route | #1 Red Route | #2 Green Route | #3 Blue Route | #5 Yellow Route | #6 Brown Route | #7 Purple Route | #9 Plum Route | #11 Cherry Route | #12 Lilac Route | #14 Peach Route (cut away line) | #21 Cardinal Route | #23 Orange Route (artic line) | #25 Gold Route | Totals |
|--------------------------------|--------------|----------------|---------------|-----------------|----------------|-----------------|---------------|------------------|-----------------|---------------------------------|--------------------|-------------------------------|----------------|--------|
| Current 40' Buses Needed | 6 | 4 | 4 | 1 | 5 | 2 | 2 | 5 | 2 | - | 3 | 1 | 5 | 40 |
| Likely to be feasible w/BEBs | - | 1 | 1 | - | 2 | 2 | 1 | 5 | 2 | - | 2 | 1 | - | 17 |
| Possibly feasible w/BEBs | 4 | 1 | 2 | 1 | 3 | - | 1 | - | - | - | 1 | - | 3 | 16 |
| Unlikely to be feasible w/BEBs | 2 | 2 | 1 | - | - | - | - | - | - | - | - | - | 2 | 7 |

Conclusion: CyRide can run at least 17 2019 model year electric buses without modifying current operations—nearly 20% of the fleet

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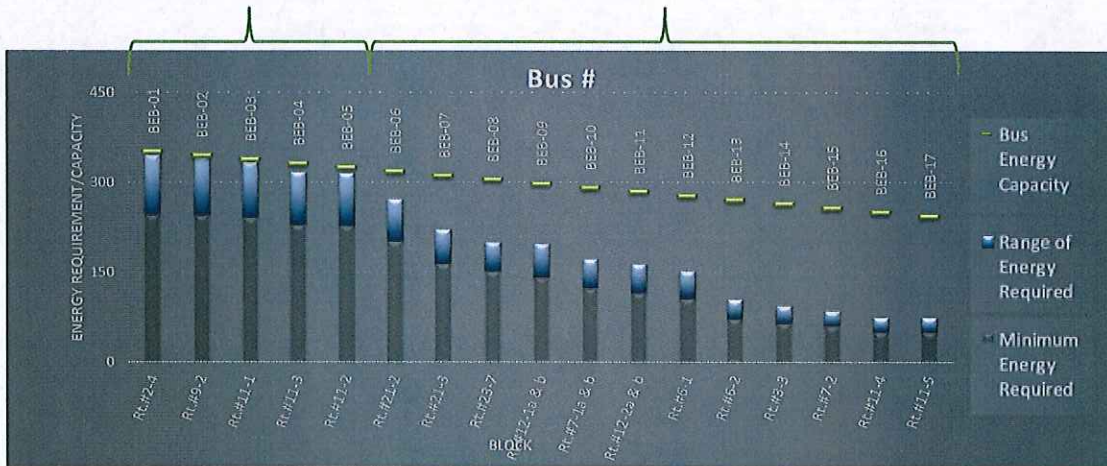
Coldest Day CyRide BEB Operations with 2018-Spec. 40' Buses



---No extras---

Newest batteries would run the most challenging, yet feasible routes: 116 mi./day avg.

Older batteries would run shorter blocks (30-85 mi./day), but have potential to run additional extras



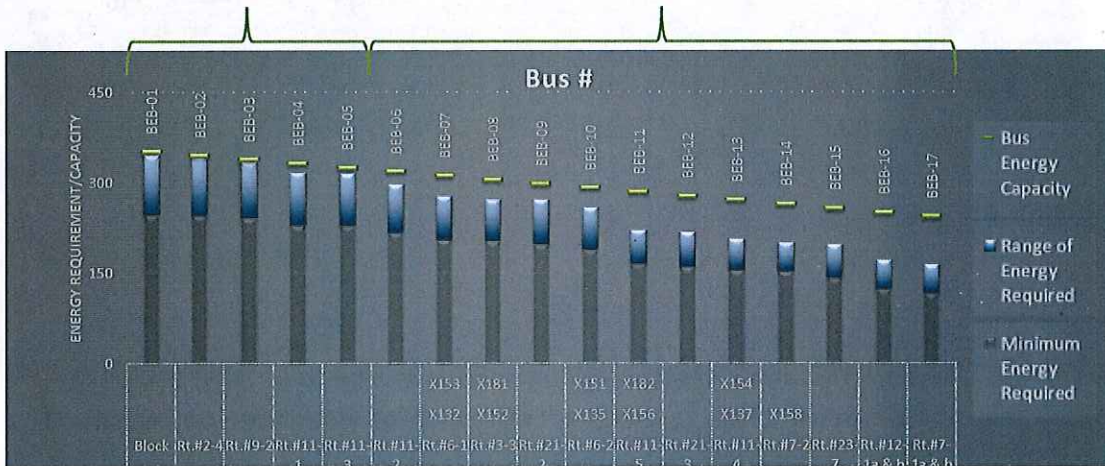
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Coldest Day CyRide BEB Operations with 2018-Spec. 40' Buses ---With extras---



Newest batteries would run the most challenging, yet feasible routes: 116 mi./day avg.

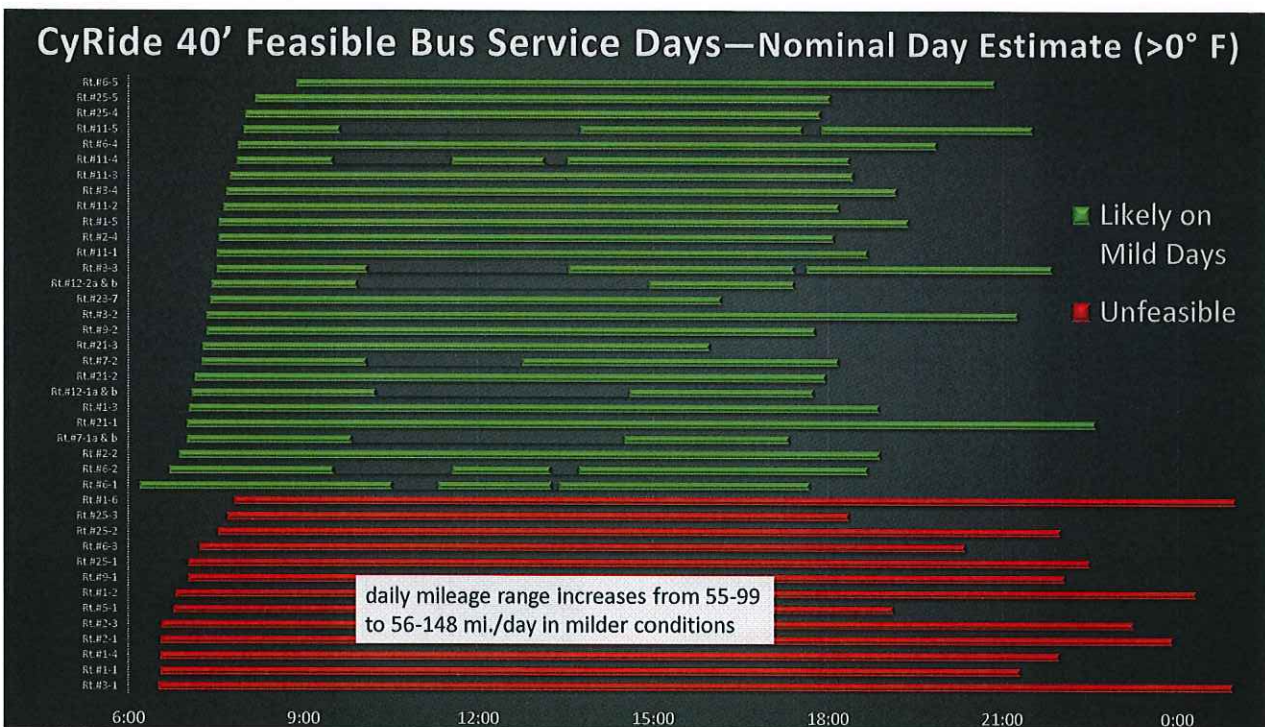
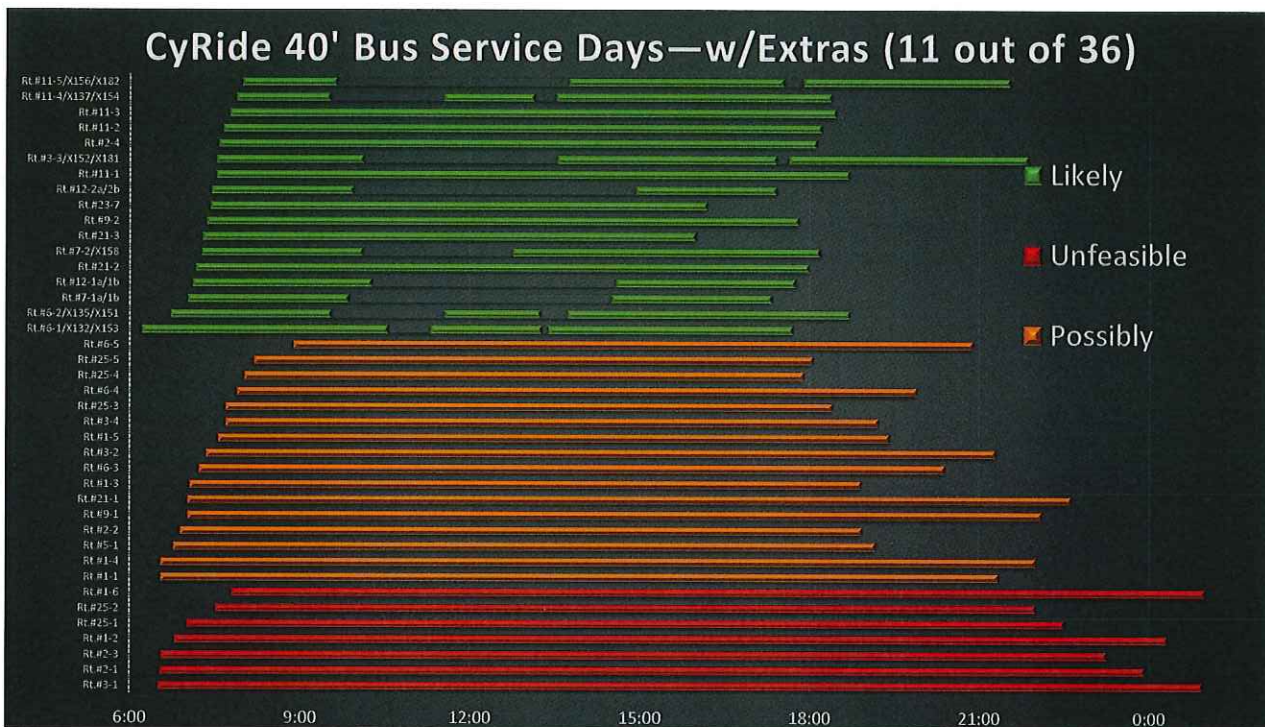
Older batteries would run shorter blocks (30-85 59-99 mi./day)



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CyRide 40' Bus Service Days—No Extras





Summer Day Analysis



- Summer service requirements
 - 24 Bus Service Days Total (vs. 40 during academic year)
 - Current bus mileage: 30-192 mi./day/bus—128 mi./day avg.
- Feasible BEB service days
 - hottest days (>85° F avg.) –estimated 20% of the time:
 - 7 BEBs feasible
 - 30-102 mi./day—61 mi./day avg. for 7 buses
 - cooler days (<85° F avg.):
 - 15 BEBs feasible
 - 30-140 mi./day—93 mi./day avg. for 15 buses
- CyRide could more fully utilize all 17 electric buses by sending out fully-charged relief buses with relief drivers on long blocks.

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CyRide BEB Operations Conclusions



- 17 blocks are likely feasible nearly all days throughout academic year
- Summer operations may be limited to 7 buses on hottest days, 15 on milder days
- Running extras, and longer blocks on nicer days can increase utilization
- 17 Buses could do meaningful service in CyRide operations
 - Schedules developed could result in 37,000+ miles per BEB
 - Compared to 30,000/bus/year current fleet average
 - Including limited utilization in summer
 - Assumes 80% utilization
 - Without splitting long summer days

| Operations | Avg. hours /bus | Avg. miles /bus | Estimated Days/year |
|------------------------------------|-------------------|-------------------|---------------------|
| Academic Year, Cold Day, No Extras | 7 hrs. | 50 mi. | 12 |
| Academic Year, Cold Day w/Extras | 9 hrs. | 88 mi. | 18 |
| Academic Year Mild Day | 11.5 hrs. | 126 mi. | 231 |
| Summer, Hot Day ¹ | 3 hrs. | 25 mi. | 20 |
| Summer Mild Day ¹ | 8 hrs. | 82 mi. | 78 |
| Total/Year/bus² | 3,460 hrs. | 37,000 mi. | - |

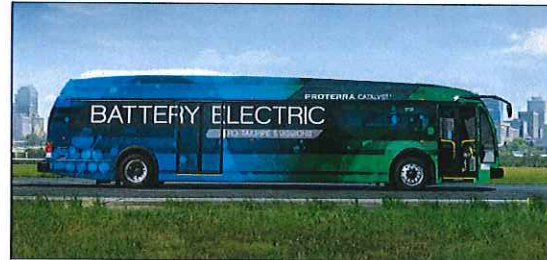
¹ across 17 bus BEB fleet. All BEBs may not run every day
² assuming 80% utilization

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BEB Fleet Transition Methodology

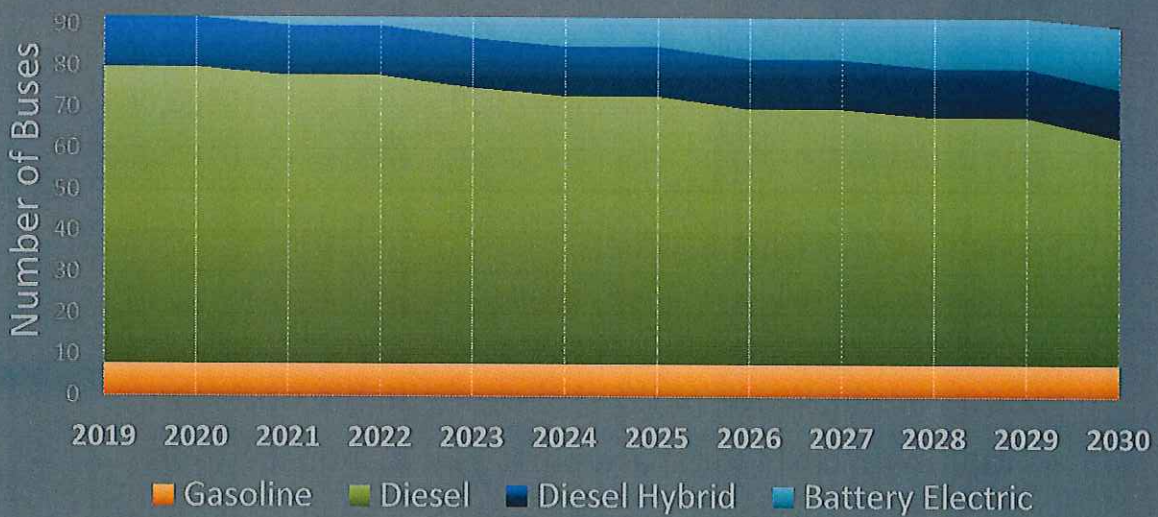


- BEB Transition Projections based on
 - Current service levels
 - Current fleet composition
 - Current fleet replacement cycles
 - 18-year bus life
- Evaluated the following costs:
 - Fleet costs
 - Estimated infrastructure needs and costs
 - Fuel costs
 - Maintenance costs
- Developed Total Cost of Ownership for Diesel vs. Battery-Electric Fleet that can be supported without changes to existing operations



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ZEB Fleet Transition



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BEB Fleet Transition Timeline



2019 – FTA Low-No Emission Vehicle Program Application

2021 – Two (2) bus pilot deployment

2023 – 2030 – Purchase between 0 – 3 BEBs per year in accordance with vehicle replacement needs and funding availability; up to 17 buses total (~ 20% of fixed route fleet)

2023 – 2030 – Complete phased capital projects (charger installation) to support deployment

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Fleet Cost Assumptions



| Price for 40' Bus by Fuel Type | | |
|--------------------------------|-----------|------------------|
| | Diesel | Battery-Electric |
| Baseline Cost | \$450,000 | \$800,000 |
| Local Cost to CyRide | \$90,000 | \$160,000 |

- **Baseline Bus Cost Source:**
 - Recent diesel bus purchases by CyRide
 - Industry quotes (from other agencies)
- Costs are inclusive of tax and configurable options
- Additional costs for spare parts and diagnostic tools
- Local Cost to CyRide based on 80% Federal Cost Share

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BEB Infrastructure



- 750 kVA Transformer
- Electrical switchgear, breakers, disconnects, conduit, and wiring
- Charger – one for every 3 buses (3 overnight charge windows)
- Plug-in or overhead pantograph dispensers
- Charge management system
- No movement of buses overnight
- Engineering design



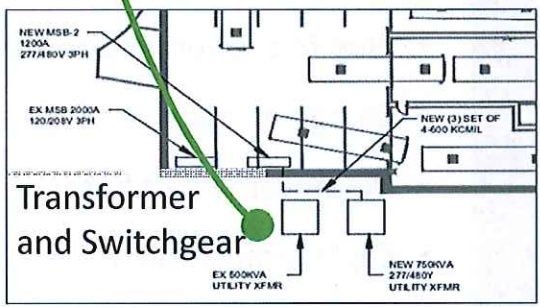
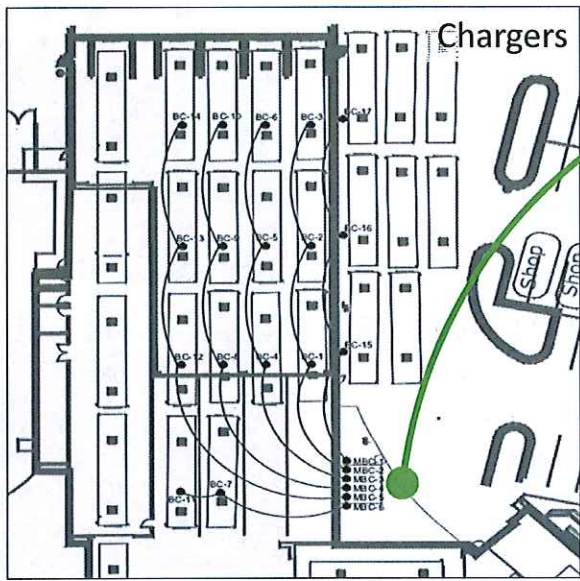
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Dispensing Equipment - Options



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Concept Charger Layout



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BEB Infrastructure Cost Evaluation



| | Two (2) Bus Pilot | Additional 15 Bus Deployment |
|--|-------------------|------------------------------|
| Transformer Upgrade | \$22,000 | NA |
| Switchgear and Feeders | \$73,050 | \$13,750 |
| Conduit, Wiring, Terminations | \$19,550 | \$109,500 |
| Equipment Connections | \$19,900 | \$75,150 |
| Chargers | \$100,000 | \$650,000 |
| Contractor General Conditions, Bonding, Fees | \$18,300 | \$29,800 |
| Contingency | \$21,400 | \$34,800 |
| Engineering Design/ Construction Support | \$48,000 | \$140,000 |
| Total | \$322,200 | \$1,053,000 |
| Local Cost to CyRide | \$38,300 | \$210,600 |

- Cost estimates (+/- 20%) provided by Singh and Associates, Inc. and CTE
- Local Cost to CyRide for Pilot Deployment assumes 15% cost share; \$10,000 from VW funding for charger purchase
- Local Cost to CyRide for Additional 15 Bus Deployment assumes 20% (Bus and Bus Facilities Program)

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Fuel Cost Evaluation



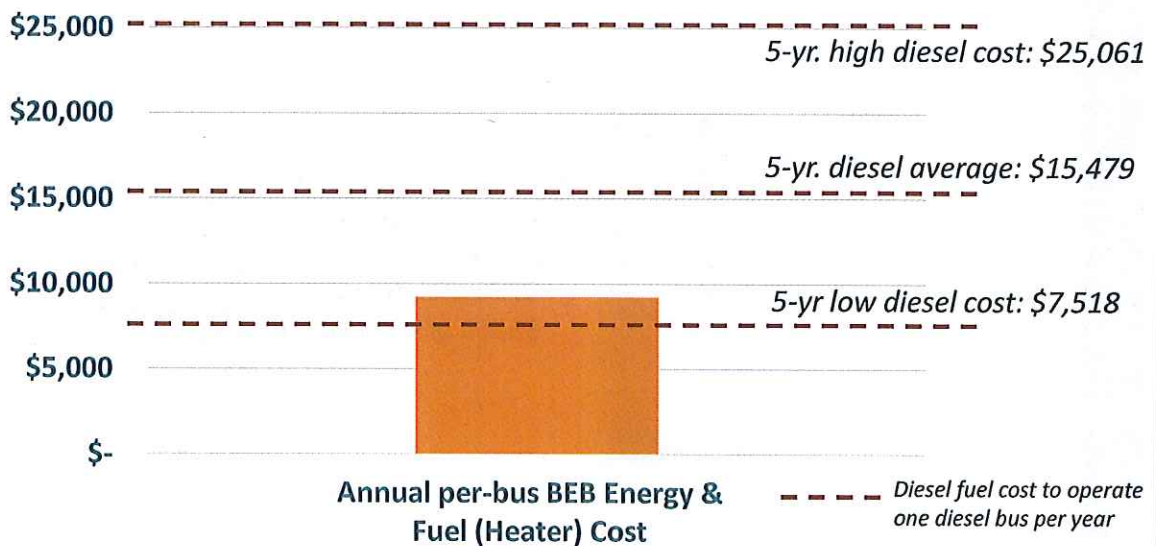
| Fuel | Estimate | \$/mi | Source |
|-------------|---------------|-----------|--|
| Diesel | \$2.10/gallon | \$0.52/mi | CyRide |
| Electricity | \$0.0644/kWh | \$0.16/mi | Ames Municipal Electric System (AMES), adjusted Commercial Rate ¹ |

- Diesel 5 year average cost for CyRide = \$2.10
- Average fuel efficiency for 40' CyRide fleet = 4.07 mpg
- Electricity rate based on adjusted AMES Commercial Rate; billing demand based on 4:00 pm -8:00 PM peak only¹
- Assume BEBs equipped with diesel-fired auxiliary heat (operates 3 months/year @ 10 hours/day)

¹ potential rate based on meeting with Ames Electric on December 18, 2018.

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Annual Per-Bus BEB Energy and Fuel (Heater) Cost



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Maintenance Cost Evaluation



Labor & Materials

| Type | Estimate | Source |
|--------|--------------------------------------|--|
| Diesel | \$0.57 per mile | CyRide – weighted average cost for 40' fleet |
| BEB | 37% less than diesel ^{1, 2} | U.S. DOE NREL |

¹ Limited datasets, fleet composition may not be representative

² Conventional Wisdom: electric drive will require 30% - 50% less maintenance

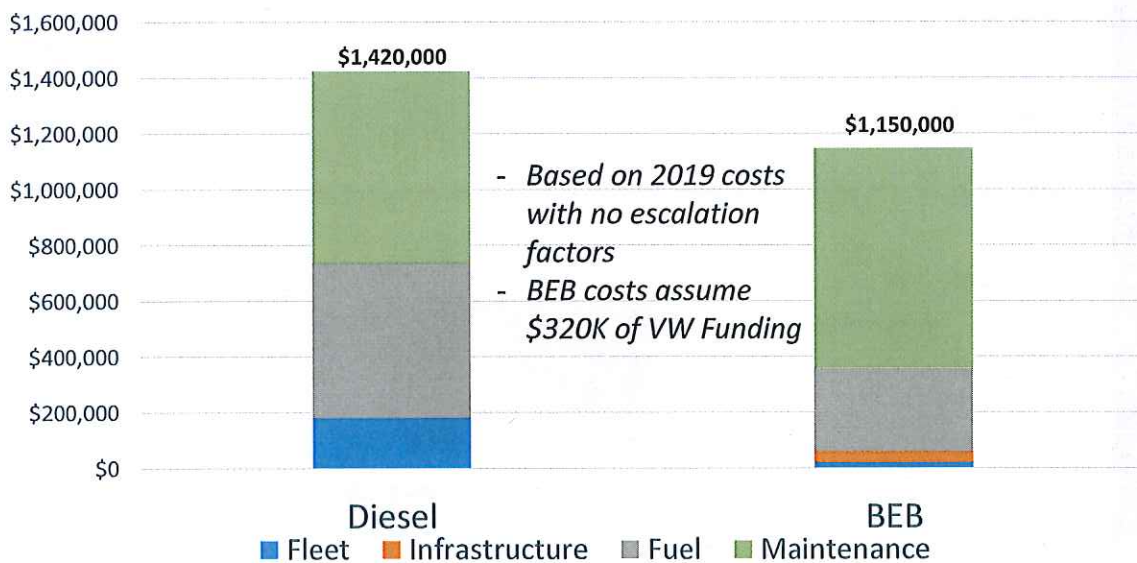
Mid-Life Overhauls

| Type | Overhaul Scope | Estimate | Source |
|--------|---------------------------------|---------------|-----------------|
| Diesel | Engine and Transmission Rebuild | \$35k/bus | CyRide estimate |
| BEB | Battery Replacement | \$200,000/bus | Bus OEM |

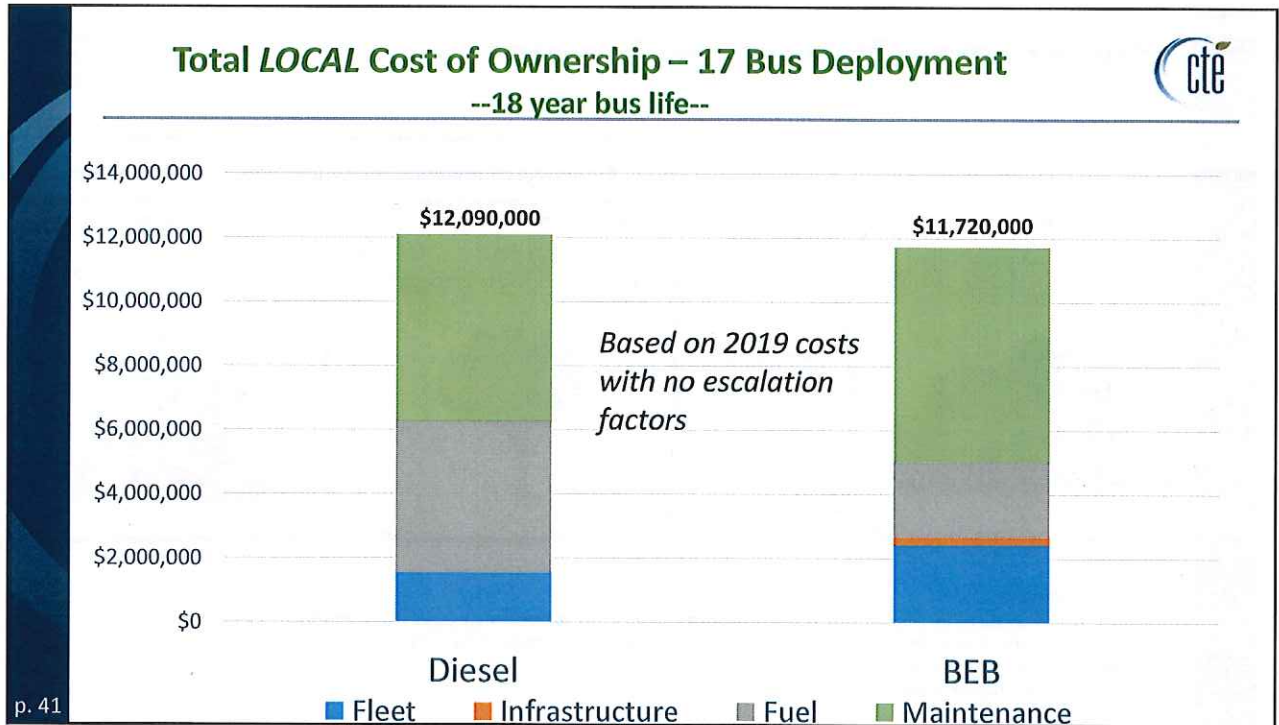
One mid-life overhaul estimated for both diesel and BEB

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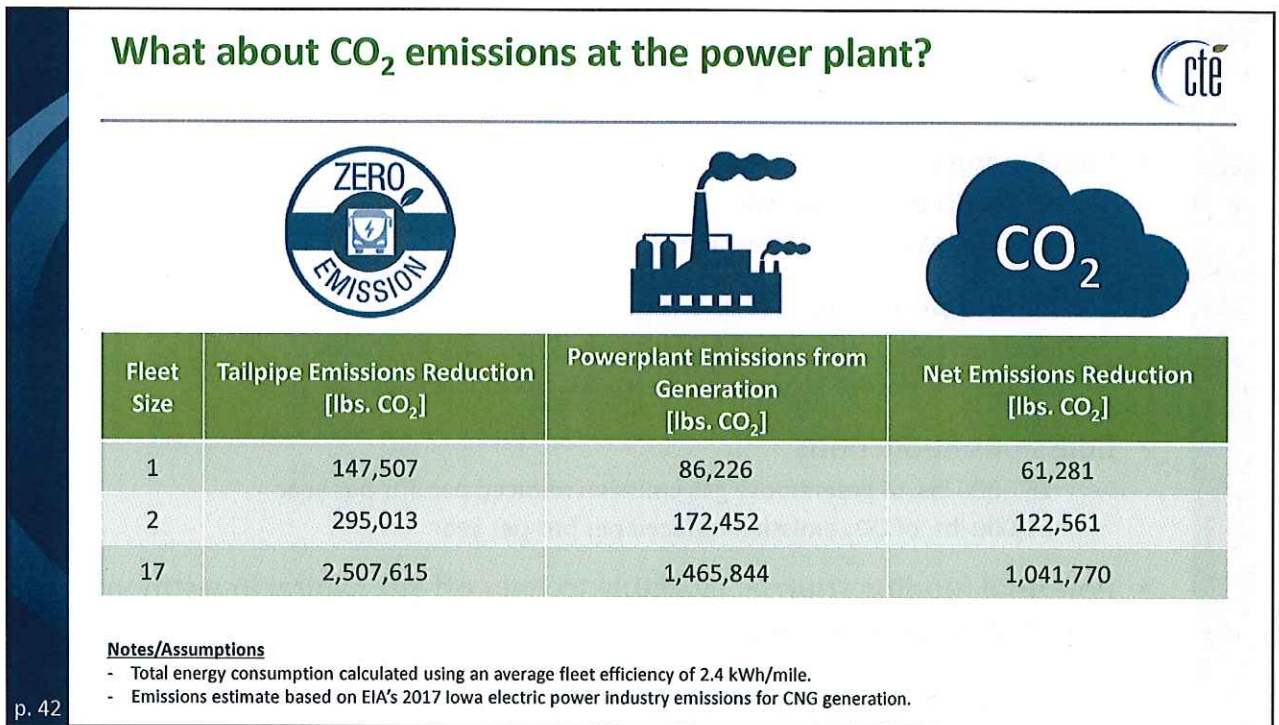
Total LOCAL Cost of Ownership – Pilot Deployment (2 Bus) -- 18 Year bus life --



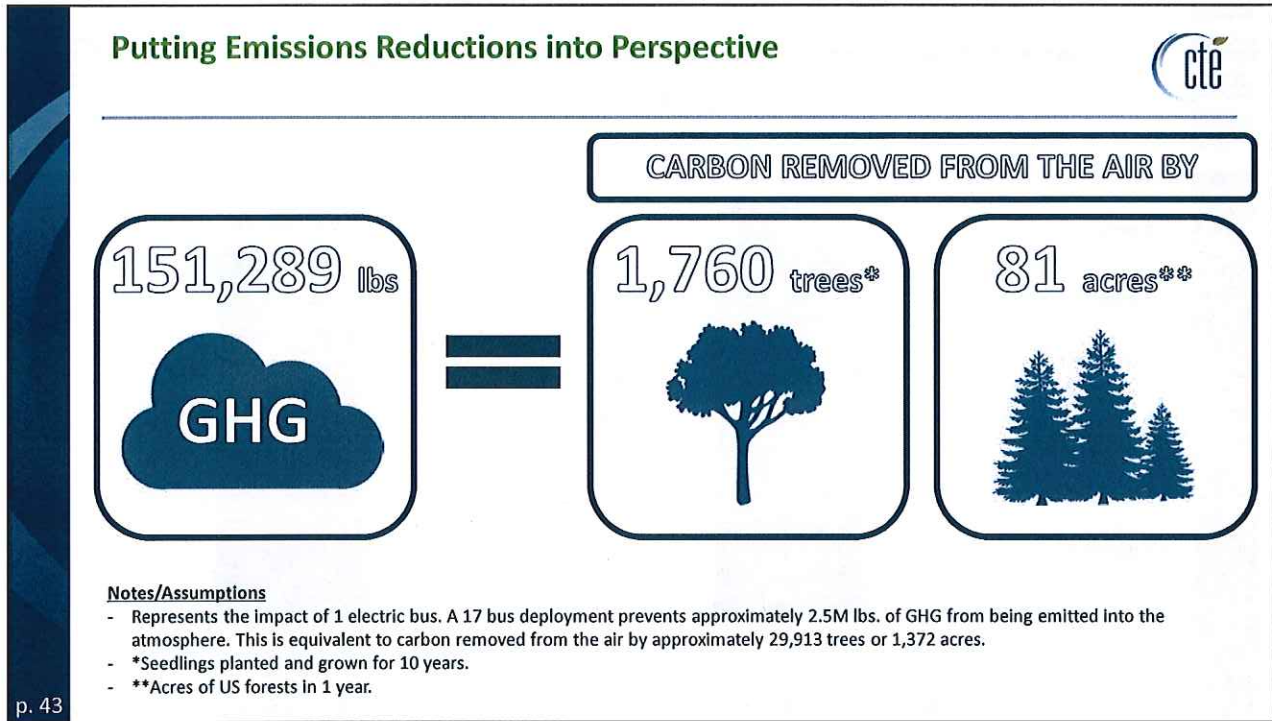
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- ### Benefits to BEB Deployment at CyRide
- Fuel Savings
 - ~ \$112K per bus (18 year life)
 - ~ \$2.4M for 17 buses (18 year life)
 - Stable and predictable fuel costs
 - Diesel fuel cost over previous 5 years vary: \$1.02 - \$3.40 / gallon
 - Average energy costs expected to be +/- 9% from 2018 levels by 2050*
 - Emissions Reductions
 - ~ 151,000 lbs. of greenhouse gas emission reduced per bus per year
 - ~ 61,000 lbs. of CO₂ emission reduced per bus per year
 - Potential funding sources available to help off-set capital investment required for deployment
- * Source: U.S. Energy Information Administration *Annual Energy Outlook 2019*
- p. 44

Best Practices for CyRide BEB Deployment



- Model bus performance with bus specifics and service area
- Prepare technical specifications for bus RFP
- Engage charging manufacturers during charger selection
- Hold bus manufacturer responsible for charger procurement and certify that the charger properly operates with the bus
- Incorporate 'smart charging' strategies
- Identify plan for emergency operations and backup energy supply
- Discuss plans with other agencies
- Develop conditions-dependent BEB dispatch strategies that maximize utilization
- Maintain adequate spare parts inventory
- Develop testing and validation plan for bus delivery and acceptance
- Conduct data collection and analysis for key performance indicators following deployment

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BEB Funding Sources



FTA- Low or No Emissions Vehicle Program

- Specific funding just for low emission buses and infrastructure
- Minimum of \$55M/yr. total
- Awards from \$400k to \$2.3M in 2018
- Minimum local match: 15% local match for buses, 10% for infrastructure, 0% for technical assistance
- Issued in April, due in June (most years)

FTA- Bus & Bus Facilities Program

- General program for all fuel types
- Bus Awards up to \$6M in 2018—80% federal share
- 13 of 107 awards were for BEBs in 2018
- Issued in June or July, due 60 days later

Iowa VW Mitigation Trust

- 45% of trust is for buses (\$3.1M/yr. for 3 yrs.)
- Up to \$300k per BEB
- Max of \$500k/project
- Issued in Nov., due in Dec.
- Projects must be completed within two years of award

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CITY OF AMES, Iowa

MEMO TO: Ames Transit Board of Trustees

FROM: Sheri Kyras

DATE: February 14, 2019

SUBJECT: Facility Site Study

BACKGROUND: In January 2019, CyRide staff informed board members that, after a site review, the list of possible expansion sites for CyRide’s facility had been narrowed to ten sites and that staff would begin an analysis of the top five sites. These top sites are as follows (see attached map for the location of these sites):

- **Site #5** – State Street, south of Hwy. 30
- **Site #8** – S. Dakota, south of Hwy. 30
- **Site #13** – Lincoln Way, west of the city limits
- **Site #15** – Lincoln Way & Countyline Rd, west of the city limits
- **Site #17** – Countyline Rd., north of Ontario

This report is for informational purposes only; no action is needed at this time.

INFORMATION: This report will provide further information regarding the site analysis in working toward a “preferred” site for expansion of CyRide’s facility. Next steps in this process will also be discussed.

Site Analysis

Over the past month, ASK Studio has been reviewing each of the top sites from a construction and engineering perspective to further evaluate the potential of these possible expansion properties. The chart on the next page includes CyRide staff’s previous site evaluation/ranking of the properties (top part of the chart), as well as ASK studio’s recent evaluation of the sites from a “buildability” perspective (bottom part of chart in blue). Additionally, site #15 was deleted from consideration early in ASK Studio’s review as it was found that it could not meet requirements for a sewage lagoon and allow adequate space for CyRide’s building, leaving four sites remaining for consideration.

| Criteria | Site | | | |
|---|-----------|-----------|-----------|-----------|
| | Site #5 | Site #8 | #13 | Site #17 |
| CyRide Staff Field Review | | | | |
| Terrain - Size and Shape | 4 | 5 | 5 | 5 |
| Paved Roads | 5 | 5 | 5 | 5 |
| Property Access | 4 | 4 | 4 | 4 |
| Proximity to Thoroughfare | 5 | 5 | 5 | 3 |
| Proximity to CyRide | 4 | 2 | 2 | 1 |
| Wetlands/Neighbors/Other | 3 | 5 | 5 | 5 |
| Native Trees | 5 | 5 | 5 | 5 |
| Safety/Security | 5 | 5 | 5 | 5 |
| Additional Costs for Split Site | 5 | 5 | 5 | 5 |
| Staff Field Review Rating | 40 | 41 | 41 | 38 |
| Architectural/Engineering Review | | | | |
| Terrain - Excavation | 5 | 5 | 5 | 4 |
| Availability of Water (fire sprinkler) | 5 | 4 | 3 | 4 |
| Availability of Sewer | 4 | 4 | 2 | 4 |
| Availability of Gas | 5 | 4 | 5 | 5 |
| Availability of Electricity | 5 | 4 | 4 | 4 |
| Community Land Use Profile | 4 | 4 | 5 | 5 |
| Architectural/Engineering (A/E) Rating | 28 | 25 | 24 | 26 |
| A/E Overall Rank | 1 | 3 | 4 | 2 |

The Architectural/Engineering ratings given to the sites are based upon the following criteria:

- **Terrain - Excavation** – Review of the site’s terrain based upon its topography and the amount of work/cost to excavate the site. *Ratings: 5 – less grading, 4 – more grading required.*
- **Availability of Water** – Whether the site currently has water to the property and if it is adequate for CyRide’s heavy industrial use or whether water service is nearby. *Ratings: 5 – City of Ames water available, 4 – extension possible, 3 – County water available.*
- **Availability of Sewer** - Whether site currently has sewer service to the site; if it is adequate for CyRide’s heavy industrial use or whether a septic tank would be required. *Ratings: 5 – City of Ames sewer available, 3-4 – extension of service possible, septic system possible – 2.*

- **Availability of Gas** - Whether site currently has a gas line to the property; if it is adequate for CyRide's heavy industrial use or whether gas service is nearby. 5 – *Alliant gas available*, 4 – *extension possible*, 3 – *extension difficult*.
- **Availability of Electricity** - Whether site currently has an electrical line to the property; if it is adequate for CyRide's heavy industrial use or whether a line is nearby. 5 – *City of Ames electric available*, 4 – *extension possible*, 3 – *extension difficult*.
- **Community Land Use Profile** – If there are neighbors nearby or the buses traveling to the city limits would be on/near a neighborhood; owner's preference for the site. 5 – *No issues/owner preference*, 4 – *fewer issues/not owner's preference*

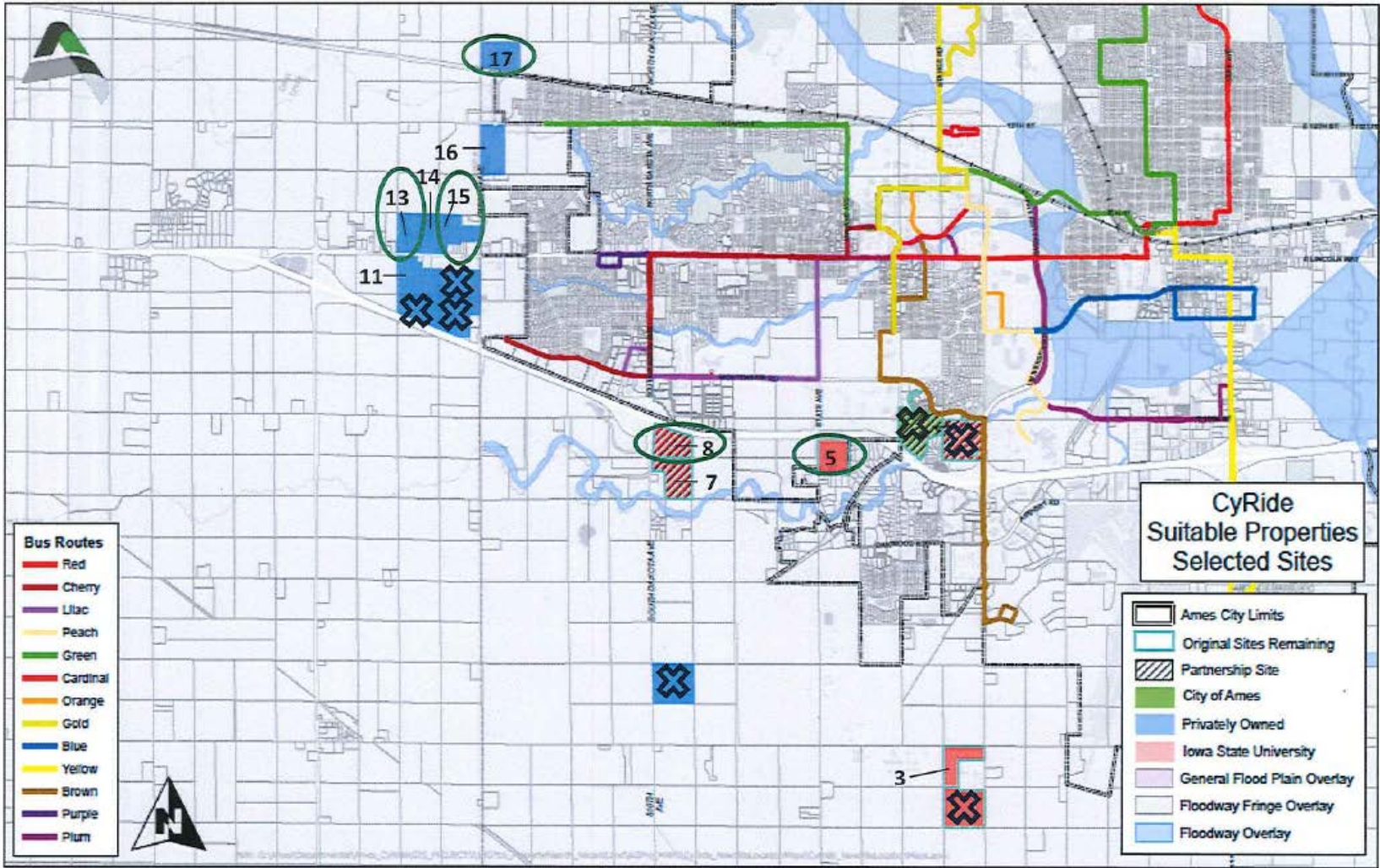
At the meeting, ASK Studio will also present conceptual building designs for each site based on two scenarios - a building in the first construction phase (equivalent to potential funding that could be secured through grants) and a full-build out concept.

Next Steps

There are two additional pieces of information regarding a facility expansion project to be presented at the March Transit Board meeting – cost estimate for each site option and financial/grant information. The cost estimates will complete the information for the site analysis; while the financial and grant information will provide information about whether CyRide is in position to seek grant funding. Based on this information, board members could consider selecting a “preferred” and “secondary” facility expansion site based upon the information prepared and presented over the last six months. When these sites are selected, CyRide staff would begin working with the Federal Transit Administration (FTA) to implement their environmental and CyRide's feasibility study review, delineating the process that CyRide's staff/board have taken to arrive at the “preferred” and “secondary” sites. FTA will need to agree to the fundability of these two sites before grant funds could be spent on an expansion site. Completing this federal review, prior to submitting a federal grant, would strengthen CyRide's application for consideration.

In the meantime, CyRide staff and ASK Studio could begin developing detailed conceptual drawings of the “preferred” site and refining cost figures in early summer. This information could be used when board members choose to submit a grant application for federal funding to support construction of an expanded facility. The earliest possible grant opportunity is anticipated in the summer of 2019, with the next opportunity most likely in the summer of 2020.

CyRide Results of Field Evaluation



 Top 5 Sites

 Eliminated Sites

CITY OF AMES, Iowa

MEMO TO: Ames Transit Board of Trustees

FROM: Sheri Kyras

DATE: February 14, 2019

SUBJECT: Farebox Revenue

BACKGROUND: CyRide reduced its fare structure in May 2018 returning to pre-2011 rates. A comparison of a few of the more popular, full-fare categories is as follows:

| Fare Category | Current Rates | Previous Rates |
|-----------------------------|---------------|----------------|
| Cash | \$1.00 | \$1.25 |
| Tickets (book of 10) | \$10.00 | \$12.00 |
| Monthly Pass | \$35.00 | \$40.00 |
| Semester Pass (Fall/Spring) | \$130.00 | \$160.00 |
| School Year Pass | \$260.00 | \$320.00 |

The purpose of this change was intended to reduce recent-year declines in non-student ridership and provide a more affordable transportation option within the community.

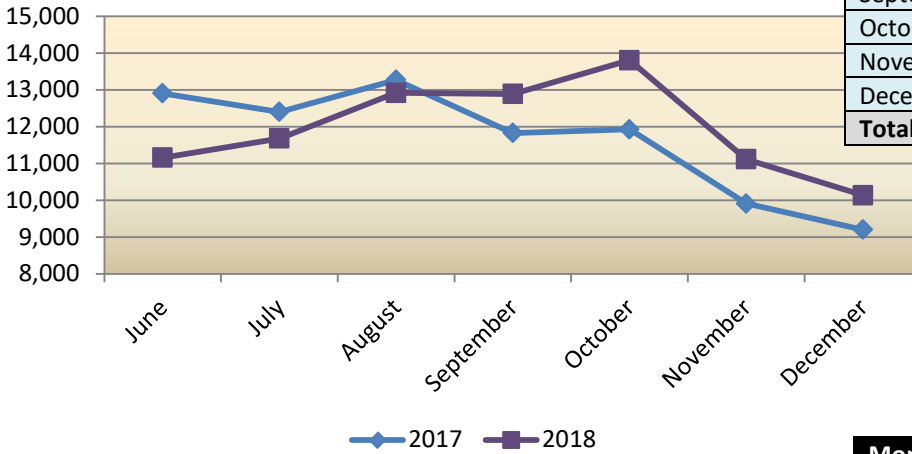
This is an informational report only and does not require board action.

INFORMATION: CyRide has collected ridership and revenue data over the past seven-month period to determine the initial impact of this fare reduction on these two CyRide characteristics. The graphics below illustrates these changes.

Ridership

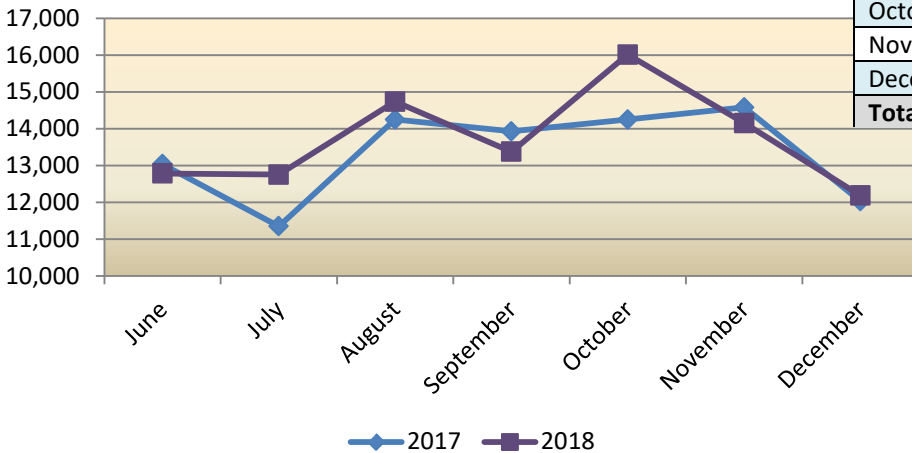
Ridership is higher year-to-date for both categories (cash/tickets and passes) than one year ago (see charts/graphs on next page). This is a positive trend and illustrates that the reduction in fares has encourage more non-student rides within the community. The cash/ticket fare category shows a positive trend (highlighted in blue on the chart) beginning in September and continuing for each month thereafter; whereas the pass fare category has experienced a mixed impact, but is trending higher overall.

Cash/Ticket Ridership Analysis



| Month | 2017 | 2018 |
|--------------|---------------|---------------|
| June | 12,903 | 11,159 |
| July | 12,402 | 11,678 |
| August | 13,269 | 12,917 |
| September | 11,828 | 12,888 |
| October | 11,925 | 13,804 |
| November | 9,912 | 11,115 |
| December | 9,200 | 10,134 |
| Total | 81,439 | 83,695 |

Pass Ridership Analysis



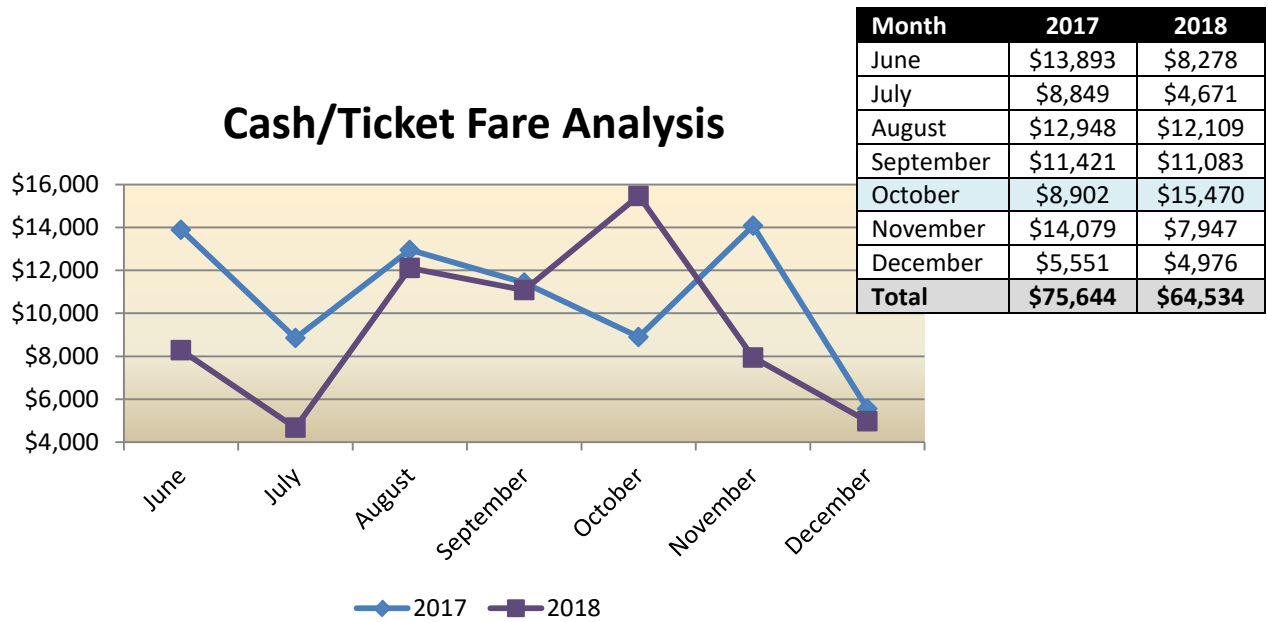
| Month | 2,017 | 2,018 |
|--------------|---------------|---------------|
| June | 13,035 | 12,783 |
| July | 11,351 | 12,753 |
| August | 14,249 | 14,736 |
| September | 13,925 | 13,374 |
| October | 14,250 | 16,013 |
| November | 14,579 | 14,154 |
| December | 12,029 | 12,186 |
| Total | 93,418 | 95,999 |

Revenue

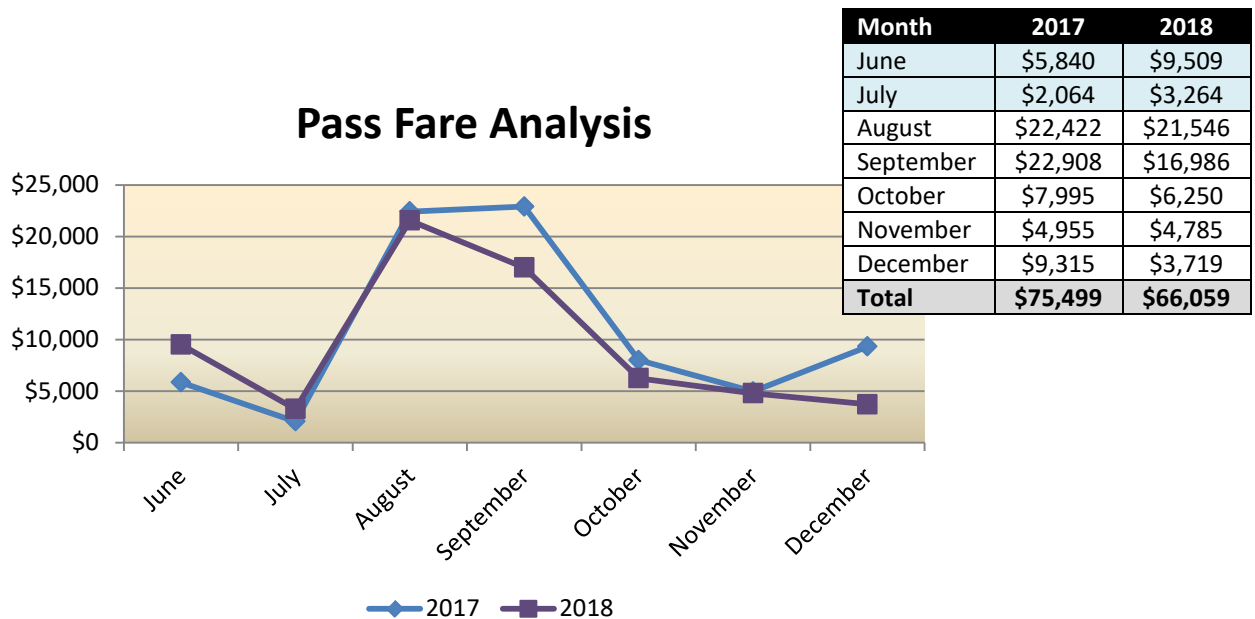
The positive trend that is occurring with ridership is not occurring with revenue generated through the sales of cash, tickets and passes. There are two reasons that staff believes revenues are lower, as opposed to higher ridership:

- More rides are being taken using the unlimited monthly, semester and school year passes while cost of the pass was reduced – there have not been enough new customers to compensate for the lower fares/revenue generated
- More reduced fare rides are being taken, which does not generate as much revenue for CyRide

The charts/graphs below illustrate the trend with cash/ticket revenue.



The revenue impact from pass sales is illustrated below.



It is still early to determine trends; therefore, CyRide staff will continue to monitor farebox revenues to determine if there are opportunities for policy modifications in the future to encourage more non-student ridership and revenue within the community.

CITY OF AMES, Iowa

MEMO TO: Ames Transit Board of Trustees

FROM: Sheri Kyras

DATE: February 14, 2019

SUBJECT: Rate Setting Resolution - Fares

BACKGROUND: Below is background regarding CyRide’s fare history.

CyRide established its cash rate when it began service in 1976 at 50¢ per ride. Since that time, CyRide has modified its fares six times over the last 43 years that it has been in operation, with varying successes, as detailed below.

- August 1985 – Raised to 60¢ per ride
- May 1993 – Raised to 90¢ per ride
- May 1994 – Decreased to 75¢ per ride (as a result of lower revenues)
- March 2004 – Raised to \$1.00 per ride
- January 2012 – Raised to \$1.25 per ride
- May 12, 2018 – Lowered to \$1.00 per ride (as a result of lower revenues)

INFORMATION:

Each year the Transit Board is required by City Ordinance to formally establish its fares for the next budget year. The Transit Board approved the 2019-2020 budget on January 22, 2019, which included no change in the fare structure anticipated, but reflected a slight decrease in revenue to mirror current revenue trends.

The attached sheet entitled, “Rate Setting Resolution 2018-1” details the current 2018-2019 rate structure, with basic cash and ticket prices listed below.

| Fare Type | Full Fare | ISU Discounted Fare | Disabled Discounted Fare |
|-------------------------|------------------|----------------------------|---------------------------------|
| Cash | \$1.00 | N/A | \$.50 |
| Ticket Book (10) | \$10.00 | N/A | \$5.00 |

ALTERNATIVES:

1. Approve the 2019-2020 rates, which reflect no change from the 2018-2019 rate structure.
2. Modify rates per board priorities.

RECOMMENDATION:

The Transit Director recommends approving Alternative #1 in the 2019-2020 budget, as the budget was approved with the current fare structure anticipated. This alternative will encourage more community ridership at a time when fuel prices are lower and assist residents in providing an economical alternative to move throughout the community.

AMES TRANSIT AGENCY BOARD OF TRUSTEES

RATE SETTING RESOLUTION 2019-1

BE IT RESOLVED by the Ames Transit Agency Board of Trustees, pursuant to rate setting authority granted by Section 26A.8, Ames Municipal Code, that:

SECTION ONE – CyRide Rates Effective May 11, 2019

Fixed Route Fares

| | |
|-----------|---|
| \$ 1.00 | Regular cash fare |
| \$.50 | Reduced cash fare (K-12, Medicare, Medicaid, persons over 65, persons with a disability) |
| \$ 5.00 | 10-ride reduced fare ticket book (\$.50 per ride) |
| \$ 10.00 | 10-ride regular fare ticket book, (\$1.00 per ride) |
| \$ 35.00 | Regular fare monthly pass. |
| \$ 17.00 | Reduced fare monthly pass (Medicare, Medicaid, persons over 65, persons with a disability) |
| \$ 130.00 | Regular Fare Semester Pass (fall and spring). Price varies depending on date purchased. |
| \$ 65.00 | Reduced Fare Semester Pass (fall and spring). Price varies depending on date purchased. |
| \$ 120.00 | Regular Fare Winter Pass. November to spring break. Price varies depending on date purchased. |
| \$ 60.00 | Reduced Fare Winter Pass. November to spring break. Price varies depending on date purchased. |
| \$ 80.00 | Regular Fare Summer Pass |
| \$ 40.00 | Reduced Fare Summer Pass |
| \$ 260.00 | Regular Fare School Year Pass. Price varies depending on date purchased. (May also be used in conjunction with tickets or cash on Dial-A-Ride.) |
| \$ 130.00 | Reduced Fare School Year Pass. Price varies depending on date purchased. |
| Free | Children under six years of age accompanied by a person age 13 or older (maximum of three children per rider). |
| Free | Attendant accompanying and assisting ADA-eligible person |
| \$ 10.00 | Replacement fee for lost or stolen passes |
| \$ 1.00 | Fare for person not assisting passenger riding with ADA-eligible passenger is same fare as ADA-eligible passenger's |

RATE SETTING RESOLUTION 2019-1

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Dial-A-Ride Fares

- \$ 2.00 Dial-A-Ride cash fare for passengers eligible under the ADA or HIRTA bucks equal to \$2.00.
- \$ 6.00 Dial-A-Ride cash fare for all ADA-eligible passengers riding to or from a point more than 3/4 mile from the nearest fixed route operating at the time of the ride.
- \$ 18.00 Dial-A-Ride cash fare for general public (not ADA eligible).
- Free Attendant accompanying and assisting ADA-eligible person on Dial-A-Ride
- \$ 2.00 Fare for person not assisting Dial-A-Ride passenger riding with DAR eligible passenger is same fare as Dial-A-Ride eligible passenger's fare
- Free ISU students who are ADA eligible traveling within 3/4 mile of a fixed route operating at the time of the ride.

Miscellaneous Revenue

- \$ 86.00 Shop rate per hour
- \$ 86.00 Shuttle rate, as subcontractor, to other bus operators, one-hour minimum
- \$ 86.00 Shuttle rate for every hour after the minimum
- \$ Variable Fuel surcharge for shuttle service

Enacted this 14th day of February 2019

AMES TRANSIT AGENCY BOARD OF TRUSTEES:

BY: _____
Juan Bibiloni, President

CITY OF AMES, Iowa

MEMO TO: Ames Transit Board of Trustees

FROM: Sheri Kyras

DATE: February 14, 2019

SUBJECT: Rate Setting Resolution - Passes

BACKGROUND: Below is background information regarding CyRide’s fare history.

CyRide established its pass rate when it began service in 1976 at \$20.00 per month. Since that time, CyRide has modified its fares six times over the last 43 years that it had been in operation, with varying successes, as detailed below.

- August 1985 – Raised to \$22.00 per month
- May 1993 – Raised to \$30.00 per month
- May 1994 – Decreased to \$25.00 per month (as a result of lower revenues)
- March 2004 – Raised to \$35.00 per month
- January 2012 – Raised to \$40.00 per month
- May 12, 2018 – Lowered to \$35.00 per month (as a result of lower revenues)

INFORMATION:

Each year the Transit Board is required by City Ordinance to formally establish its fares for the next budget year. The Transit board approved the 2019-2020 budget on January 22, 2019, which included no change in the fare structure anticipated, but reflected a slight decrease in revenue to mirror current revenue trends.

The attached sheet entitled, “Rate Setting Resolution 2018-2” details the current 2018-2019 rate structure, with basic pass prices listed below.

| Fare Type | Full Fare | ISU Discounted Fare | Disabled Discounted Fare |
|-------------------------|------------------|----------------------------|---------------------------------|
| Monthly Pass | \$35.00 | N/A | \$17.00 |
| School Year Pass | \$260.00 | \$155.00 | \$130.00 |
| Semester Pass | \$130.00 | \$80.00 | \$65.00 |
| Winter Pass | \$120.00 | \$70.00 | \$60.00 |

ALTERNATIVES:

1. Approve the 2017-2018 rates reflecting no change from the 2018-2019 rate structure.
2. Modify rates per board priorities.

RECOMMENDATION:

The Transit Director recommends approving Alternative #1 as the 2019-2020 budget was approved with no change in the fare structure. This alternative will encourage more community ridership at a time when fuel prices are lower and assist residents in providing an economical alternative to move throughout the community.

AMES TRANSIT AGENCY BOARD OF TRUSTEES

RATE SETTING RESOLUTION 2019

BE IT RESOLVED by the Ames Transit Agency Board of Trustees, pursuant to rate setting authority granted by Section 26A.8, Ames Municipal Code, that:

SECTION ONE – CyRide Rates Effective May 11, 2019

REDUCED FARE PASSES

2019 SUMMER REGULAR PASS

| PURCHASE DATE | Expiration Date | Price |
|--|------------------------|--------------|
| Wednesday, May 1, 2019 – Saturday, August 31, 2019 | August 31, 2019 | \$40.00 |

2019 FALL REGULAR PASS

| PURCHASE DATE | Expiration Date | Price |
|--|------------------------|--------------|
| Monday, August 12, 2019 – Friday, September 13, 2019 | December 31, 2019 | \$65.00 |
| Saturday, September 14, 2019 –Tuesday, December 31, 2019 | December 31, 2019 | \$50.00 |

2019/19 SCHOOL YEAR REGULAR FARE PASS

| PURCHASE DATE | Expiration Date | Price |
|---|------------------------|--------------|
| Monday, August 12, 2019 – Friday, September 13, 2019 | June 1, 2020 | \$130.00 |
| Saturday, September 14, 2019 – Friday, December 6, 2019 | June 1, 2020 | \$115.00 |
| Saturday, December 7, 2019 – Friday, February 14, 2020 | June 1, 2020 | \$65.00 |
| Saturday, February 15, 2020 – Sunday, May 31, 2020 | June 1, 2020 | \$50.00 |

2019/19 WINTER REGULAR FARE PASS

| PURCHASE DATE | Expiration Date | Price |
|---|------------------------|--------------|
| Saturday, November 2 – Friday, December 6, 2019 | March 22, 2020 | \$60.00 |
| Saturday, December 7, 2019 – Friday, March 20, 2020 | March 22, 2020 | \$40.00 |

RATE SETTING RESOLUTION 2019-2

Page 2

REGULAR FARE PASSES

2019 SUMMER REGULAR PASS

| PURCHASE DATE | Expiration Date | Price |
|--|------------------------|--------------|
| Wednesday, May 1, 2019 – Saturday, August 31, 2019 | August 31, 2019 | \$80.00 |

2019 FALL REGULAR PASS

| PURCHASE DATE | Expiration Date | Price |
|--|------------------------|--------------|
| Monday, August 12, 2019 – Friday, September 13, 2019 | December 31, 2019 | \$130.00 |
| Saturday, September 14, 2019 –Tuesday, December 31, 2019 | December 31, 2019 | \$100.00 |

2019/20 SCHOOL YEAR REGULAR FARE PASS

| PURCHASE DATE | Expiration Date | Price |
|---|------------------------|--------------|
| Monday, August 12, 2019 – Friday, September 13, 2019 | June 1, 2020 | \$260.00 |
| Saturday, September 14, 2019 – Friday, December 6, 2019 | June 1, 2020 | \$230.00 |
| Saturday, December 7, 2019 – Friday, February 14, 2020 | June 1, 2020 | \$130.00 |
| Saturday, February 15, 2020 – Friday, May 31, 2020 | June 1, 2020 | \$100.00 |

2019/20 WINTER REGULAR FARE PASS

| PURCHASE DATE | Expiration Date | Price |
|---|------------------------|--------------|
| Saturday, November 2 – Friday, December 6, 2019 | March 20, 2020 | \$120.00 |
| Saturday, December 7, 2019 – Friday, March 20, 2020 | March 20, 2020 | \$80.00 |

SECTION TWO -- \$10.00 Replacement fee for lost or stolen passes

SECTION THREE – Other Conditions

Other conditions pertaining to any Semester Pass are:

1. One person may not use the pass of another, unless the original issue has sold it to the new user, the sale registered in the Ames Transit Agency Office, and the pass replaced by the Ames Transit Agency Office. The person to whom it has been sold may then use the pass.
2. Misuse of the pass may result in confiscation and cancellation of the pass without a refund.

Enacted this 14th day of February 2019.

AMES TRANSIT AGENCY BOARD OF TRUSTEES

By: _____

Juan Bibiloni, President

CITY OF AMES, Iowa

MEMO TO: Ames Transit Board of Trustees

FROM: Sheri Kyras

DATE: February 14, 2019

SUBJECT: Quarterly Operations Report (October – December 2018)

BACKGROUND: Each quarter, staff develops a detailed report regarding the performance of the system, which includes fixed-route, Dial-A-Ride and Moonlight Express services. Staff utilizes this report to determine aspects of the service that are struggling and areas where additional monitoring is necessary to efficiently and safely operate the system or determine where positive trends are occurring.

INFORMATION: Attached are the detailed system performance report **and a summary** for the second quarter of the fiscal year – October to December 2018. Below is a discussion regarding the negative trends (in red boxes) or positive trend (green boxes) occurring during the quarter.

- **Total Passengers** – Ridership for CyRide’s three services was lower for the quarter with 69,843 fewer rides (-3.6%). A summary of the three services for the fiscal year-to-date is as follows:

| Total Passengers | Fixed Route | Dial-A-Ride | Moonlight Exp. |
|-------------------------|--------------------|--------------------|-----------------------|
| -3.4% | -3.3% | -12.5% | -15.8% |

Possible reasons for the declines remain as reported in previous quarters – lower student enrollment and development changes with more walkable housing near campus, fewer DAR customers and for Moonlight Express, fewer Campustown business customers combined with Uber and Lyft. **In light of significantly lower Moonlight Express ridership, CyRide is reducing service levels on this service effective February 1, 2019. Customers were notified the first few weeks of ISU’s spring semester.**

- **Maintenance Expenses** – Maintenance expenses are 20.4% higher for the quarter and 13.4% higher year-to-date. The quarter’s increase is attributed, in large part, to an engine replacement (\$18,000), significant amount of failures regarding the bus’ emission equipment (\$16,500) and the cost of tires (\$56,000). These issues have been addressed in the 2019-2020 budget, but will reflect higher in the current budget. In the meantime, internal discussions have begun about the possibility of minimizing these expenses in the current budget.

- **Passengers/Hour** - CyRide's passengers per hour have been declining as enrollment and development patterns modify ridership travel patterns; however, with implementation of CyRide 2.0 this fall, the reduction in this performance measure is less significant, even with lower ISU enrollment this year. Staff believes this was accomplished by implementation of a more efficient system, which accommodate higher ridership levels.
- **Expense/Passenger** – With ridership declines, financial measures using ridership statistics are less positive as expenses increase each year and ridership is slightly declining.
- **Average Drivers Per Month** – The second quarter of the year was slightly lower, - 0.5%, but is slightly higher year-to-date (+0.4%). This continues to be a focus for the agency.
- **Miles/Preventable Accidents and Preventable Accidents** – Both performance measures are positive for the second quarter and year-to-date with seven fewer preventable accidents and an increase in the number of miles driven per preventable accident (40,230 vs. 25,242).
- **Passengers Per Comment** – As was predicted with the implementation of the CyRide 2.0 system, the number of passenger complaints year-to-date is 32% higher than last year; however is lower for the quarter – 20%. A positive second quarter trend.
- **Farebox Revenue** – Farebox revenue continues to trend downward and is -13.8% lower year-to-date (\$120,921 vs. \$140,329 last year) and -14.2% for the second quarter. After further analysis, cash and most reduced fare categories have increased and regular fare tickets and passes have declined.
- **Operation's Expense** – This expense is lower for the quarter and year-to-date (-3.2% and -1.5%, respectively), reflecting lower revenue hours operated under the CyRide 2.0 system.
- **Major Mechanical Repairs, # of Roadcalls** - The number of major bus repairs was lower in the second quarter (-18.2%), with the number of roadcalls also lower (-42.1%).

Operation's Report Summary (Oct. – Dec. 2018)

| Performance Category | Change From Same Quarter Last Year | Change Year-To-Date From Last Year |
|--------------------------------|---|---|
| General | | |
| Fixed-Route Ridership | - | - |
| Fixed Route Passengers/Hour | - | - |
| Fixed Route Expense/Passenger | + | + |
| | | |
| Dial-A-Ride Ridership | - | - |
| Dial-A-Ride Passengers/Hour | + | + |
| Dial-A-Ride Expenses/Passenger | + | + |
| | | |
| Moonlight Express Ridership | - | - |

| | | |
|----------------------------------|---|---|
| Operations | | |
| Average Drivers Per Month | - | + |
| Percent of Preventable Accidents | + | - |
| Miles/Preventable Accidents | + | + |
| Passengers Per Comment | + | - |
| Farebox Revenue | - | - |

| | | |
|-----------------------------|---|---|
| Maintenance | | |
| Major Mechanical Repairs | - | + |
| # of Roadcalls | - | - |
| # of Interior Buses Cleaned | - | + |

Key:

| | | |
|----------------|---------------|----------------|
| Positive Trend | Neutral Trend | Negative Trend |
|----------------|---------------|----------------|

CYRIDE QUARTERLY OPERATIONS REPORT

October 1st, 2018 to December 31st, 2018 (2nd Quarter)

| | FY 2019 2nd Qtr | FY 2018 2nd Qtr | % CHANGE | FY 2019 YTD | FY 2018 YTD | % CHANGE |
|----------------------------|--------------------|--------------------|-------------|----------------|----------------|-------------|
| MAINTENANCE | | | | | | |
| Interior Clean | 144 | 146 | -1.4% | 320 | 257 | 24.5% |
| Shop Road Calls | 11 | 19 | -42.1% | 23 | 33 | -30.3% |
| Miles per Shop Road Call | 36,572 | 22,585 | 61.9% | 33,026 | 24,596 | 34.3% |
| NTD Minor Mech. | 66 | 53 | 24.5% | 124 | 101 | 22.8% |
| NTD Major Mech. | 9 | 11 | -18.2% | 21 | 20 | 5.0% |
| Total NTD Mechanical Prob. | 75 | 64 | 17.2% | 145 | 121 | 19.8% |
| Miles per Major Mech. | 44,700 | 39,011 | 14.6% | 36,171 | 40,584 | -10.9% |
| Gasoline Vehicles | | | | | | |
| Gas Miles Driven | 38,197 | 33,894 | 12.7% | 77,205 | 71,126 | 8.5% |
| Total Gallons Gas | 4,762 | 4,329 | 10.0% | 8,865 | 8,437 | 5.1% |
| Total Gas Cost | 11,477 | 8,935 | 28.4% | \$21,309 | 16,662 | 27.9% |
| Avg. Gas Cost/Gallon | \$2.41 | \$2.06 | 16.8% | \$2.40 | \$1.97 | 21.7% |
| Gas Cost per Mile | \$0.30 | \$0.26 | 14.0% | \$0.28 | \$0.23 | 17.8% |
| Average Gas MPG | 8.0 | 7.8 | 2.5% | 8.7 | 8.4 | 3.3% |
| Diesel Vehicles | | | | | | |
| Diesel Miles Driven | 364,100 | 395,228 | -7.9% | 682,389 | 740,555 | -7.9% |
| Total Gallons Diesel | 90,017 | 97,528 | -7.7% | 165,028 | 180,066 | -8.4% |
| Total Diesel Cost | 202,918 | 189,635 | 7.0% | 374,253 | 334,690 | 11.8% |
| Avg. Diesel Cost/Gallon | \$2.25 | \$1.94 | 15.9% | \$2.27 | \$1.86 | 22.0% |
| Diesel Cost per Mile | \$0.56 | \$0.48 | 16.2% | \$0.55 | \$0.45 | 21.4% |
| Average Diesel MPG | 4.0 | 4.1 | -0.2% | 4.1 | 4.1 | 0.5% |
| All Vehicles | | | | | | |
| Total Miles Driven | 402,297 | 429,122 | -6.3% | 759,594 | 811,681 | -6.4% |
| Total Gallons Fuel | 94,779 | 101,857 | -6.9% | 173,893 | 188,503 | -7.8% |
| Total Fuel Cost | \$214,395 | \$198,570 | 8.0% | \$395,561 | \$351,352 | 12.6% |
| Avg. Cost/Gallon | \$2.26 | \$1.95 | 16.0% | \$2.27 | \$1.86 | 22.0% |
| Total Cost per Mile | \$0.53 | \$0.46 | 15.2% | \$0.52 | \$0.43 | 20.3% |
| Avg. MPG all Vehicles | 4.2 | 4.2 | 0.8% | 4.4 | 4.3 | 1.4% |
| Small Bus/Sup. Mileage | 31,567 | 32,293 | -2.2% | 67,413 | 69,059 | -2.4% |
| Large Bus Mileage | 370,730 | 396,829 | -6.6% | 692,181 | 742,622 | -6.8% |
| % Rev. Mi./Total Miles | 87.3% | 83.1% | 5.1% | 87.4% | 83.4% | 4.7% |
| Percentage Small Bus | 7.8% | 7.5% | 4.3% | 8.9% | 8.5% | 4.3% |
| Maintenance Expense | \$720,659 | \$598,796 | 20.4% | \$1,123,325 | \$990,915 | 13.4% |

CYRIDE QUARTERLY OPERATIONS REPORT

October 1st, 2018 to December 31st, 2018 (2nd Quarter)

| | FY 2019 2nd Qtr | FY 2018 2nd Qtr | % CHANGE | FY 2019 YTD | FY 2018 YTD | % CHANGE |
|---------------------------|--------------------|--------------------|--------------|--------------------|--------------------|---------------|
| OPERATIONS | | | | | | |
| Total Passengers | 1,849,481 | 1,919,324 | -3.6% | 3,196,972 | 3,308,665 | -3.4% |
| Average Drivers per Month | 139.6 | 140.3 | -0.5% | 142.5 | 142.0 | 0.4% |
| Driving Hours | 44,318.9 | 46,576 | -4.8% | 82,416 | 88,046 | -6.4% |
| Drivers Late | 21 | 12 | 75.0% | 38 | 21 | 81.0% |
| Drivers No Show | 0 | 0 | #DIV/0! | 3 | 0 | #DIV/0! |
| Late/No Show per Driver | 0.15 | 0.09 | 75.9% | 0.29 | 0.15 | 94.6% |
| Total Comments | 40 | 50 | -20.0% | 128 | 97 | 32.0% |
| Driver Fault | 10 | 15 | -33.3% | 16 | 31 | -48.4% |
| System Complaints | 15 | 16 | -6.3% | 59 | 26 | 126.9% |
| Service Requests | 7 | 0 | #DIV/0! | 33 | 2 | 1550.0% |
| Compliments | 3 | 7 | -57.1% | 7 | 13 | -46.2% |
| Passengers/Comment | <u>46,237</u> | <u>38,386</u> | <u>20.5%</u> | <u>24,976</u> | <u>34,110</u> | <u>-26.8%</u> |
| Pass./Complaint (D & U) | 168,135 | 112,901 | 48.9% | 188,057 | 97,314 | 93.2% |
| Driving Hours/Comment | 1,108 | 932 | 18.9% | 644 | 908 | -29.1% |
| Driving Hrs/Comment (D&U) | 4,029 | 2,740 | 47.1% | 4,848 | 2,590 | 87.2% |
| Accident Reports | 14 | 26 | -46.2% | 33 | 50 | -34.0% |
| Preventable Accidents | 10 | 17 | -41.2% | 22 | 34 | -35.3% |
| Percent Preventable | 71.4% | 65.4% | 9.2% | 66.7% | 68.0% | -2.0% |
| Miles/Prev. Accident | 40,230 | 25,242 | 59.4% | 34,527 | 23,873 | 44.6% |
| Hours/Prev. Accident | 4,432 | 2,740 | 61.8% | 3,746 | 2,590 | 44.7% |
| Unreported Accidents | 0 | 1 | -100.0% | 2 | 3 | -33.3% |
| Damage to Buses/Equip. | | | | | | |
| Caused by CyRide | \$13,096 | \$5,150 | 154.3% | \$15,503 | \$10,228 | 51.6% |
| Caused by Others | \$4,248 | \$2,742 | 54.9% | \$4,501 | \$5,704 | -21.1% |
| Caused by Unreported | \$0 | \$1,187 | -100.0% | \$506 | \$1,826 | -72.3% |
| Claims by Others (#) | \$5 | \$2 | 150.0% | 6 | 4 | 50.0% |
| Claims by Others (\$) | \$4,470 | \$3,500 | 27.7% | \$4,570 | \$5,100 | -10.4% |
| Personal Injury Claims | \$0 | \$0 | #DIV/0! | \$0 | \$0 | #DIV/0! |
| Operations Expense | \$1,720,798 | \$1,777,678 | -3.2% | \$3,091,968 | \$3,139,338 | -1.5% |
| SYSTEM TOTAL | | | | | | |
| Passengers | 1,849,481 | 1,919,324 | -3.6% | 3,196,972 | 3,308,665 | -3.4% |
| Revenue Miles | 351,376 | 356,633 | -1.5% | 663,604 | 677,054 | -2.0% |
| Revenue Hours | 35,180 | 34,508 | 1.9% | 65,497 | 65,126 | 0.6% |
| Revenue Miles per Hour | 10.0 | 10.3 | -3.4% | 10.1 | 10.4 | -2.5% |
| Pass./Rev. Mile | 5.3 | 5.4 | -2.2% | 4.8 | 4.9 | -1.4% |
| Pass./Rev. Hour | 52.6 | 55.6 | -5.5% | 48.8 | 50.8 | -3.9% |
| Operations Expense | \$1,720,798 | \$1,777,678 | -3.2% | \$3,091,968 | \$3,139,338 | -1.5% |
| Maintenance Expense | <u>\$720,659</u> | <u>\$598,796</u> | <u>20.4%</u> | <u>\$1,123,325</u> | <u>\$990,915</u> | <u>13.4%</u> |
| Total Expenses | <u>\$2,441,457</u> | <u>\$2,376,474</u> | <u>2.7%</u> | <u>\$4,215,293</u> | <u>\$4,130,253</u> | <u>2.1%</u> |
| Farebox Revenue | \$47,369 | \$55,207 | -14.2% | \$120,921 | \$140,329 | -13.8% |
| Rev./Exp. Ratio | 1.9% | 2.3% | -16.5% | 2.9% | 3.4% | -15.6% |
| Oper. Exp./Passenger | \$1.32 | \$1.24 | 6.6% | \$1.32 | \$1.25 | 5.6% |
| Oper. Exp./Rev. Mile | \$6.95 | \$6.66 | 4.3% | \$6.35 | \$6.10 | 4.1% |
| Oper. Exp./Rev. Hour | \$69.40 | \$68.87 | 0.8% | \$64.36 | \$63.42 | 1.5% |

CYRIDE QUARTERLY OPERATIONS REPORT

October 1st, 2018 to December 31st, 2018 (2nd Quarter)

| | FY 2019 2nd Qtr | FY 2018 2nd Qtr | % CHANGE | FY 2019 YTD | FY 2018 YTD | % CHANGE |
|------------------------|--------------------|--------------------|--------------|--------------------|--------------------|--------------|
| FIXED ROUTE | | | | | | |
| Fixed Route Passengers | 1,835,419 | 1,903,469 | -3.6% | 3,168,236 | 3,276,126 | -3.3% |
| Shuttle Passengers | 0 | 0 | #DIV/0! | 2,804 | 1,911 | 46.7% |
| Total Passengers | <u>1,835,419</u> | <u>1,903,469</u> | <u>-3.6%</u> | <u>3,171,040</u> | <u>3,278,037</u> | <u>-3.3%</u> |
| Transfers | 7,162 | 8,353 | -14.3% | 17,005 | 20,643 | -17.6% |
| Revenue Miles | 335,517 | 339,087 | -1.1% | 632,932 | 643,625 | -1.7% |
| Revenue Hours | 33,883 | 32,981 | 2.7% | 62,946 | 62,238 | 1.1% |
| Revenue Miles per Hour | 9.9 | 10.3 | -3.7% | 10.1 | 10.3 | -2.8% |
| Pass./Rev. Mile | 5.5 | 5.6 | -2.5% | 5.0 | 5.1 | -1.6% |
| Pass./Rev. Hour | 54.2 | 57.7 | -6.1% | 50.4 | 52.7 | -4.4% |
| Operations Expense | \$1,669,248 | \$1,722,901 | -3.1% | \$2,988,115 | \$3,031,815 | -1.4% |
| Maintenance Expense | \$708,425 | \$586,675 | 20.8% | \$1,100,325 | \$968,613 | 13.6% |
| Total Expenses | <u>\$2,377,673</u> | <u>\$2,309,576</u> | <u>2.9%</u> | <u>\$4,088,440</u> | <u>\$4,000,428</u> | <u>2.2%</u> |
| Farebox Revenue | \$43,762 | \$51,627 | -15.2% | \$113,695 | \$133,069 | -14.6% |
| Rev./Exp. Ratio | 1.8% | 2.2% | -17.7% | 2.8% | 3.3% | -16.4% |
| Exp./Passenger | \$1.30 | \$1.21 | 6.8% | \$1.29 | \$1.22 | 5.6% |
| Exp./Rev. Mile | \$7.09 | \$6.81 | 4.0% | \$6.46 | \$6.22 | 3.9% |
| Exp./Rev. Hour | \$70.17 | \$70.03 | 0.2% | \$64.95 | \$64.28 | 1.0% |

| | | | | | | |
|------------------------|-----------------|-----------------|---------------|-----------------|-----------------|--------------|
| DIAL-A-RIDE | | | | | | |
| Passengers | 1,938 | 2,190 | -11.5% | 3,926 | 4,487 | -12.5% |
| Revenue Miles | 8,590 | 10,345 | -17.0% | 17,007 | 20,179 | -15.7% |
| Revenue Hours | 776 | 1,078 | -28.0% | 1,581 | 2,048 | -22.8% |
| Revenue Miles per Hour | 11.1 | 9.6 | 15.4% | 10.8 | 9.9 | 9.2% |
| Pass./Rev. Mile | 0.23 | 0.21 | 6.6% | 0.23 | 0.22 | 3.8% |
| Pass./Rev. Hour | 2.5 | 2.0 | 22.9% | 2.5 | 2.2 | 13.3% |
| Operations Expense | \$37,592 | \$41,971 | -10.4% | \$77,806 | \$83,532 | -6.9% |
| Maintenance Expense | \$0 | \$0 | #DIV/0! | \$0 | \$0 | #DIV/0! |
| Total Expenses | <u>\$37,592</u> | <u>\$41,971</u> | <u>-10.4%</u> | <u>\$77,806</u> | <u>\$83,532</u> | <u>-6.9%</u> |
| Farebox Revenue | \$3,607 | \$3,580 | 0.8% | \$7,226 | \$7,260 | -0.5% |
| Rev./Exp. Ratio | 9.6% | 8.5% | 12.5% | 9.3% | 8.7% | 6.9% |
| Exp./Passenger | \$19.40 | \$19.16 | 1.2% | \$19.82 | \$18.62 | 6.5% |
| Exp./Rev. Mile | \$4.38 | \$4.06 | 7.9% | \$4.57 | \$4.14 | 10.5% |
| Exp./Rev. Hour | \$48.44 | \$38.93 | 24.4% | \$49.21 | \$40.79 | 20.7% |

| | | | | | | |
|--------------------------|-----------------|-----------------|-------------|-----------------|-----------------|-------------|
| MOONLIGHT EXPRESS | | | | | | |
| Passengers | 12,124 | 13,665 | -11.3% | 22,006 | 26,141 | -15.8% |
| Revenue Miles | 7,269 | 7,201 | 0.9% | 13,665 | 13,250 | 3.1% |
| Revenue Hours | 522 | 449 | 16.2% | 970 | 840 | 15.4% |
| Revenue Miles per Hour | 13.9 | 16.0 | -13.1% | 14.1 | 15.8 | -10.6% |
| Pass./Rev. Mile | 1.7 | 1.9 | -12.1% | 1.6 | 2.0 | -18.4% |
| Pass./Rev. Hour | 23.2 | 30.4 | -23.6% | 22.7 | 31.1 | -27.1% |
| Operations Expense | \$13,958 | \$12,806 | 9.0% | \$26,047 | \$23,991 | 8.6% |
| Maintenance Expense | \$12,234 | \$12,121 | 0.9% | \$23,000 | \$22,302 | 3.1% |
| Total Expenses | <u>\$26,192</u> | <u>\$24,927</u> | <u>5.1%</u> | <u>\$49,047</u> | <u>\$46,293</u> | <u>5.9%</u> |
| Exp./Passenger | \$2.16 | \$1.82 | 18.4% | \$2.23 | \$1.77 | 25.9% |
| Exp./Rev. Mile | \$3.60 | \$3.46 | 4.1% | \$3.59 | \$3.49 | 2.7% |
| Exp./Rev. Hour | \$50.22 | \$55.53 | -9.6% | \$50.56 | \$55.08 | -8.2% |

CYRIDE QUARTERLY OPERATIONS REPORT

October 1st, 2018 to December 31st, 2018 (2nd Quarter)

| | FY 2019 2nd Qtr | FY 2018 2nd Qtr | % CHANGE | FY 2019 YTD | FY 2018 YTD | % CHANGE |
|---------------------------|--------------------|--------------------|--------------|--------------------|--------------------|-------------|
| OPERATIONS REVENUE | | | | | | |
| Farebox | \$47,369 | \$55,207 | -14.2% | \$120,921 | \$140,329 | -13.8% |
| Transit Contracts | \$0 | \$0 | #DIV/0! | \$216 | \$0 | #DIV/0! |
| I.S.U. | \$0 | \$0 | #DIV/0! | \$0 | \$0 | #DIV/0! |
| Student Body Government | \$2,543,290 | \$2,481,723 | 2.5% | \$2,543,290 | \$2,481,723 | 2.5% |
| City of Ames | \$865,578 | \$815,708 | 6.1% | \$1,020,887 | \$975,614 | 4.6% |
| IDOT - STA | \$114,049 | \$142,720 | -20.1% | \$429,054 | \$346,739 | 23.7% |
| Section 5307 | \$0 | \$0 | #DIV/0! | \$0 | \$0 | #DIV/0! |
| Other Grants | \$30,245 | \$164,977 | -81.7% | \$72,962 | \$164,977 | -55.8% |
| Other | \$131,179 | \$112,992 | 16.1% | \$165,941 | \$139,839 | 18.7% |
| Total Operating Revenue | <u>\$3,731,710</u> | <u>\$3,773,327</u> | <u>-1.1%</u> | <u>\$4,353,271</u> | <u>\$4,249,221</u> | <u>2.4%</u> |
| TOTAL EXPENSES | | | | | | |
| Administration | \$277,448 | \$308,517 | -10.1% | \$518,692 | \$541,775 | -4.3% |
| Safety & Training | \$95,239 | \$106,433 | -10.5% | \$182,734 | \$186,776 | -2.2% |
| Promotion | \$0 | \$0 | #DIV/0! | \$0 | \$0 | #DIV/0! |
| Bldg. & Grounds | \$100,310 | \$114,768 | -12.6% | \$144,045 | \$174,575 | -17.5% |
| Fixed Route | \$2,377,673 | \$2,309,576 | 2.9% | \$4,088,440 | \$4,000,428 | 2.2% |
| Dial-A-Ride | \$37,592 | \$41,971 | -10.4% | \$77,806 | \$83,532 | -6.9% |
| Moonlight Express | \$26,192 | \$24,927 | 5.1% | \$49,047 | \$46,293 | 5.9% |
| Operating Total | <u>\$2,914,454</u> | <u>\$2,906,192</u> | <u>0.3%</u> | <u>\$5,060,764</u> | <u>\$5,033,379</u> | <u>0.5%</u> |
| Farebox Revenue | \$47,369 | \$55,207 | -14.2% | \$120,921 | \$140,329 | -13.8% |
| Farebox Rev./Exp. Ratio | 1.6% | 1.9% | -14.4% | 2.4% | 2.8% | -14.3% |
| Admin. Expense/Pass. | \$0.26 | \$0.28 | -7.3% | \$0.26 | \$0.27 | -3.1% |
| Admin. Exp./Rev. Mile | \$1.35 | \$1.49 | -9.4% | \$1.27 | \$1.33 | -4.5% |
| Admin. Exp./Rev. Hour | \$13.45 | \$15.35 | -12.4% | \$12.91 | \$13.87 | -6.9% |
| Total Expense/Passenger | \$1.58 | \$1.51 | 4.1% | \$1.58 | \$1.52 | 4.1% |
| Total Expense/Rev. Mile | \$8.29 | \$8.15 | 1.8% | \$7.63 | \$7.43 | 2.6% |
| Total Expense/Rev. Hour | \$82.84 | \$84.22 | -1.6% | \$77.27 | \$77.29 | 0.0% |

Transit Director's Report

February 2019

1. Radio System Funding Shortfall

CyRide staff met with city representatives, who are leading the new radio switch to the new countywide P25 system. During this meeting, it was discovered that a radio lease option was not part of the two bidder's proposals. In CyRide's Capital Improvement Plan (CIP), approved by the Transit Board at the January 10, 2019 meeting, the assumption was that there would be a lease option possible, which would have resulted in a lower cost in the 2019-2020 capital budget. As a result, CyRide will need to purchase a new radio system consisting of 109 radios at an estimated cost of \$370,000. The CIP has \$150,000 budgeted for this purchase, leaving CyRide approximately \$220,000 short in the 2019-2020 capital budget. Staff is currently researching options to address this shortfall and will include information at the Board's March meeting.

2. Summer Construction Projects Update

As a result of the radio funding shortfall, CyRide will proceed to bidding at this time with only the two turnaround projects and bus wash projects. The security system project (\$200,000) will be placed on hold pending resolution of this capital budget issue at the March meeting. A special, conference call board meeting will be required on March 25, 2019 to consider award of these two projects. A meeting time will need to be determined.

| <i>Sun</i> | <i>Mon</i> | <i>Tue</i> | <i>Wed</i> | <i>Thu</i> | <i>Fri</i> | <i>Sat</i> |
|--------------|------------|---------------------------------|------------|------------|---|------------|
| March | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | Transit Board Mtg. 4:15pm | | | | |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| Spring ← | | | | | → | Break |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| | | | | | Sheri's Retirement Party 2 – 4pm | |
| 31 | | | | | 2019 | |

April

| <i>Sun</i> | <i>Mon</i> | <i>Tue</i> | <i>Wed</i> | <i>Thu</i> | <i>Fri</i> | <i>Sat</i> |
|------------|------------|------------|------------|--|------------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 Transit Board Mtg. 4:15pm needs to be rescheduled | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | | | | |

2019