



COMO TRANSPORTATION CENTER PROJECT

PROJECT DESCRIPTION

Infrastructure project
proposal

Shannon
Hemenway

Project Description

This project will have 3 components: the remodel of our Transit maintenance and parking facility, the addition of an upgraded time point located at the City's new Opportunity Center, and upgraded bus stops along our current routes.

The Remodel: The current building housing our fleet was constructed in 1965 and was intended for a much smaller fleet. Our current building is concrete block and tin with an interior frame of metal supports for the roof. It is way past its useful life and in poor shape. We have 2 additional lean-to buildings that were added in following years. The City of Columbia recognized the need for upgrades and has completed an RFP process. We received feedback from public surveys and Klingner & Associates have been selected as our architect/engineer/surveyors. We have a master plan completed with initial costs and priority list for the work to be completed.

The current plan is to revitalize the building we currently use to keep it operational, as well as expand the garage to house the entire fleet. This is a parking and maintenance facility and does not have public access in the transit area.

- We will remove the lean-tos and replace them with a garage that will house our current fleet and allow for additional growth.
- This garage will have entry and exit doors to provide drive through parking and eliminate the need for backing. This will be a major safety upgrade.
- We will also pave our current gravel lot to eliminate the potholes and uneven footing for employees.
- The bus wash that was installed in the 80's will be replaced by an efficient model that is drive through, recycles water and doesn't damage our paint and decals
- The storm water management system will be upgraded to benefit the surrounding community
- The fire alarm system will be upgraded to include pull stations
- The building will be upgraded to comply with ADA and OSHA guidelines
- Structural repairs, including the roof
- Surveillance system will be upgraded
- PA system will be installed
- A solar photovoltaic system will be installed with battery collection
- Our fueling station will be relocated
- The perimeter safety fence and gate will be upgraded and replaced
- The electrical system will be upgraded to handle the load of current and future electric vehicles

The Upgraded Time Point: The City of Columbia has recently acquired a building that will be the future location of our Opportunity Center. This building is undergoing upgrades and is currently run for our unhoused population. There will be additional community partners in this space to expand access to job coaching and securement, financial planning and

improvement, skills acquisition, and additional resources for our citizens. We have altered our current routes to service this location. It is a prime area to install an upgraded time point for our patrons to use. Currently there is a sign at this location

- We will install a concrete pad
- We will install a shelter with seating
- We will add solar lighting
- We will increase ADA accessibility
- We will add sustainable landscaping to beautify the area

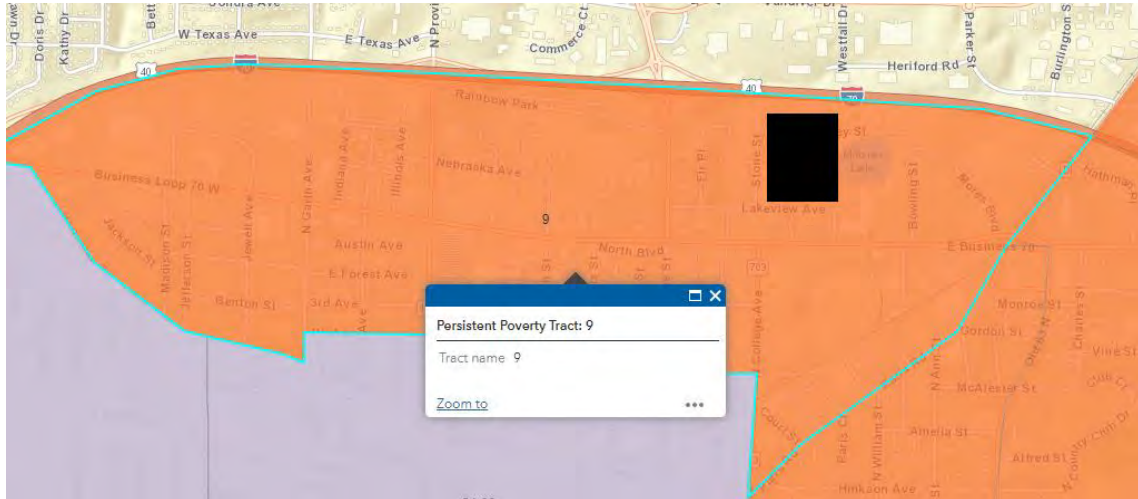
The Upgraded Bus Stops: We would like to improve safety and the curb appeal of our stops. Adding comfort and visibility to stops will benefit the local community.

- We will with add solar lighting, improved signage and seating where space allows

The upgrade to our maintenance facility will allow us to eliminate our diesel and CNG fleet and continue to add electric vehicles. Our current garage does not have the space or the electrical capability of adding beyond our current e-bus fleet of 4. With the dwindling resources provided to transit agencies outside of government grants, we have to become more sustainable. This upgrade will provide us with resources to reduce our reliance on the electric grid through adding solar photovoltaic system and batteries, reduce the frustrations of using a space we have long outgrown and upgrade to be a leader in technology and innovation. We will be able to serve the community better and provide better access at the Opportunity Center so the citizens can improve their lives, pursue self improvement and training opportunities, receive job counselling and improve their housing circumstances.

Project Location

This project is located at 1313 Lakeview Ave, Columbia MO 65201 in census tract 9 (the black square in the orange area). This is an area of persistent poverty. Our current fleet is housed at the property and this is where maintenance is performed after hours. The bus stop replacement will be throughout the City, with a focus on the Historically Disadvantaged Communities and the Areas of Persistent Poverty.



Another view of our maintenance and parking facility



The view of our maintenance and parking facility from the top on Google Maps.



Opportunity Center where upgraded time point will be located.



Current average bus stop



Current routes through one of our Historically Disadvantaged Communities where we would like to add lighting and benches where space allows.

Merit Criteria

I. Safety

Describe anticipated outcomes that support safety. Quantify known documented safety problems within project area and demonstrate how project will protect from systemic health and safety risks.

The safety improvements for this remodel are critical.

- The roof supports for our garage location are rusting through creating a danger that it could fail. We also have rain leaking on our electric charging stations. A new roof and roof supports will eliminate the danger of a cave in and keep water away from our electric chargers.
- We have had employee injuries from the uneven ground on our gravel lot. By paving that area, the gravel will no longer be able to wash away, reducing the likelihood that any additional employees will break an ankle due to potholes.
- The lighting is original from 1965 and an upgrade will help reduce accidents.
- With an expanded parking area, we will be able to move to a pull through style of parking which will eliminate the need for backing. This will save time for our maintenance crew when they put the buses away after cleaning and fueling. 20% of our accidents come from backing at the garage. This will be eliminated from pull through parking.
- We currently have no working air filtration system inside our garage. We have to open all the garage doors when any bus is started to exit the exhaust. Upgrading our HVAC and air system return will improve the air quality for our drivers, mechanics and maintenance staff greatly.
- There is currently no hand pulled fire alarm station in the parking area. Those will be installed, along with an updated fire suppression system that is highly effective, if ever needed. Currently there are only handheld units placed on the walls. This will provide protection during times when there are no staff in the garage to catch a fire that might occur.
- The doorways and halls will be addressed to comply with ADA standards and remove barriers.
- The perimeter fencing and gate were marked inadequate by Homeland Security. The replacement of this will make our employees safer as well as keep our equipment inaccessible to the public when outside hours of operation. The City of Columbia has had vehicles stolen for joy rides and also damaged, due to catalytic converter theft for example.
- The upgrade of the surveillance system will also comply with suggestions from Homeland Security. We are no longer able to get replacement parts and service for our current system. Currently we have very limited camera systems and the recording equipment is not functioning correctly.
- The remodel will also cut down on traffic to the surrounding community. We will complete a new entrance/exit for transit-only use that uses an existing

roadway which contains no residential. This will reduce the possibility of vehicular and pedestrian accident and decrease the noise and pollution to citizens on the southeast side of the facility.

- Installing solar lighting on our existing bus stops will increase safety for our passenger while waiting in the early morning hours and after sunset. The neighborhoods where these stops are located will also benefit from the increased security provided by the lighting.

II. Environmental Sustainability

Include information on how project will reduce air pollution and greenhouse gas emissions from transportation, increase use of lower-carbon travel modes and improve resiliency of infrastructure. Show incorporation of lower-carbon pavement and construction materials. Show it will promote efficiencies and incorporate electrification or zero emission vehicle infrastructure.

Environmental sustainability is actually a major goal of our updated facility. Our building was completed in 1965. We can increase our energy efficiency. There is no insulation, the doors must remain open for ventilation while the buses are running and the heating system is electric baseboards. The current power grid cannot handle additional electric chargers, so we will need to install a new transformer. The addition of a solar photovoltaic system will allow us to collect solar energy and store it for use of our electric fleet and building. The installation of charging stations for vehicles other than buses will allow us the potential to purchase non-revenue vehicles that are electric, as well as possible paratransit vehicles once they are available in electric models. This will all align with the City of Columbia's green initiative and sustainability goals that will be adopted in FY23.

- The goal of updating the electrical system will allow for expansion of our electric fleet. The installation of solar collection and storage will help us become less dependent on the grid itself. We will also be able to change over our non-revenue service vehicles to electric. We purchased our first electric bus in October 2015 and have only been able to expand to 4 e-buses because of limits in electric and space capacity.
- The building itself will be upgraded with materials that are geared towards a LEED certification or similar. Decreased carbon building materials will be used.
- We will be updating the storm water runoff to benefit the surrounding area and improve the habitat for plants, animals and people. We want to prevent water pollution from our facility and protect the surrounding area from flooding and erosion.
- We will also landscape the area with native plants to create a pollinator friendly habitat. We did this at our Wabash bus station when the addition was completed and it was a success.
- The current bus wash has no more parts available for repairs, so they must be fabricated. We can see large savings with a more efficient model that use less

soap and recycle the runoff water to reuse for the next wash. The newer bus wash will also be gentler on the paint and decals than our present wash.

- The improvement to air quality in this neighborhood by reducing our greenhouse gas emissions will multiply over time. The sooner we move to an all-electric fleet, the sooner the community will benefit. Based on our fuel usage, we will reduce carbon by 2402.8 kg/ton yearly, by eliminating our diesel and CNG fleet and moving to electric. With the upgraded electric systems, we will be able to run all-electric bus fleet by January 2032.
- Adding bike racks at time point will encourage multimodal travel

III. Quality of Life

Reduce transportation burden to community by improving environment, reducing costs by moving to sustainable vehicles. It's community investment to upgrade current infrastructure that is unable to be moved,

The quality of life for our employees and the surrounding neighborhood will improve with this update. The planned improvements to the transit maintenance and parking facility, located in an area of persistent poverty, will directly impact this community and provide a level of environmental justice. The upgrades will allow us to provide continued reliable, cost effective service to our community to depend upon.

- Reduced emissions will benefit this area. Reduction of carbon emissions based on fuel usage will be 2402.8 kg/ton yearly.
- Interior improvements will remove barriers for the differently abled. This will include updating the restrooms, removing threshold and ensuring hallways and entryways are assessable.
- Moving to an electric fleet will reduce maintenance costs so that our taxpayer dollars can be used to expand service to underserved parts of our community. This will open more of the City to our patrons and provide service to neighborhoods that are not currently serviced.
- Installing solar collection and batteries will save tax payer money on fuel and allow those savings to be reallocated to benefit the underserved community with increased service.
- Reduced bus traffic will make the neighborhood streets last longer and reduce the noise disturbance for residents. This will be achieved by creating a new entrance/ exit for transit vehicles to utilize. We will construct this off a street located on the north side of the current facility that does not have residential buildings on either side.
- The use of an all electric fleet will be quiet and eliminate all diesel and CNG engine noise. This will eliminate noise complaints from the early morning hours when our buses could disturb citizens along our routes, especially when idling at a time point for an extended time.

- Installing sustainable landscaping where there currently is none will beautify the area and improve the neighborhood satisfaction with our system. It will also provide a pollinator friendly habitat,
- Improving the storm water runoff will create a better habitat. This will also ensure that there is no flooding or erosion due to our facilities being located in the area. Improving the storm water system will keep the watershed safer and cleaner, improving the quality of life for the surrounding community
- Transit's goals comply with the City of Columbia's carbon reduction and sustainability plan
- Improvements to the time point will create a safer, more comfortable space for the customers to wait. This will occur from the addition of seating, a protected shelter to wait for the bus, solar lighting and bike racks to encourage multimodal travel.
- Improving the access to the Opportunity Center will provide a better usage experience for our customers, upgrading their satisfaction with our bus system
- Improvements to the bus stops will increase visibility and comfort for the passengers waiting for their bus. It will also improve safety in the neighborhoods by providing additional lighting to community members traveling by scooter, bike or on foot using the sidewalks.

IV. Mobility and Community Connectivity

Incorporate universal design for ADA compliance and easy accessibility with no thresholds, wider doors and hallways, minimizing hazards, symbols used throughout many cultures, efficient and comfortable use with minimum fatigue. Encourages individuals and communities to move freely with or without a car.

The upgrade to the building will include many aspects from Universal Design principles. We will also seek to conserve resources with the solar collection and batteries. Moving to electric vehicles should also show a saving of resources. All of this can be reinvested in our service to improve and expand our reach within the community and continue to provide cost effective transportation. We will be upgrading one of our time point locations to improve ADA accessibility and the bus stop improvements will have better visibility of signage.

- Upgrade the hallways and doorways. We will remove barriers and make our paths accessible
- Upgrade restrooms for easier maneuvering. Place items at accessible heights for ease of use.
- Use signage that is universally accepted throughout many countries and cultures.
- Create dedicated space for bike users to secure their ride.

- Proactively engage the community with updates posted to our website and social media on the progress of our upgrade. We will encourage feedback and interact with community members that engage with us.
- Put tracking in place to post updates on reduced usage of fossil fuels. Update the community with our progress towards a more sustainable operation, including our move to electric fleet. Involve our public relations officer to maximize community awareness of our dedication to making a better future for our City.
- ADA improvements at the Opportunity Center time point will eliminate barriers to usage of that stop
- Addition of bike racks may encourage multimodal travel

V. **Economic Competitiveness**

Expected improvements to the system increase reliability, help revitalize the surrounding area, improve overall well-being. Will comply with labor standards, policies and practices set by federal and state government and our local municipality.

Improvement to the maintenance and parking facility will have a long term impact. It will reduce cost through sustainability measures and increase productivity of staff. It will increase our ability to provide reliable, cost effective service to the community. By collecting solar energy in a power wall, we will cut our own costs and be an example to others in our City.

- We currently are working with local community colleges to run a pilot program for workforce development, not only for transit drivers but mechanics and maintenance staff as well.
- We will increase access to the Opportunity Center which is centered on creating improvements in all areas for our citizens.
- We will follow all labor regulations set by the federal and state government. We will ensure that any outside business and contractors that we engage will also comply with federal and state regulation and follow labor standards.
- We have several relationships within the community to recruit employees that may otherwise not consider a City job. We work with local refugee programs to aide people from different backgrounds that are learning to work within our community.
- We also work with re-entry programs to provide opportunities for employment. We will continue with those connections because we believe this benefits our community by providing continued employment for constituents that have challenges in finding good jobs.
- Our current routes serve all 5 hospitals in town, many of the clinics, all the campuses and universities, concert venues, and government offices. As well as major shopping centers and the downtown historic area of the City.
- The upgrade to our facilities will reduce costs over time. This will allow us to redirect resources back to the community. The ability to provide better, expanded service will benefit the City in untold ways. Accessing areas that

are currently not serviced and gaining patrons in those new areas will allow for better opportunities for community members.

- Additional service will also benefit visitors to the City by showing a robust, community-centered City that encourages and facilitates all lifestyles.
- Improvement of the facility and adding landscaping where there currently is none will improve the overall surrounding in the neighborhood

VI. State of Good Repair

Restoring and modernizing core infrastructure assets. Include info on current condition of asset and how project will improve. Also plan to ensure ongoing state of good repair and long-term cost structures and overall life-cycle costs.

This project will center on state of good repair. Our outdated facility will be revitalized and upgraded. It will create a safer and more enjoyable work environment.

- We will be more energy efficient by the building upgrades alone and reduce our future maintenance costs.
- Future energy efficiency is also assured by our ability to move to an entirely electric fleet after the upgrade, collect solar power and convert to a power wall.
- The repair completed on the existing infrastructure will allow for use of the building for many years in the future. With reduced repair costs and materials with long lifecycles used to create lower maintenance costs in the future.
- Additional moneys will be reserved in the budget going forward. These will be added to a specific project stream and allocated for upcoming maintenance and repair of our facility. This preplanning will help with cost mitigation in the future and prevent the current situation from repeating itself.
- Modernization of the electric capacity of the facility and collection of solar will lower our dependence on the grid and reduce cost to the taxpayer
- Modernization of our bus wash will save resources, reduce water usage and lower costs to the taxpayer
- Paving the parking area will reduce employee slips, falls and twists which will reduce workers comp claims and save money for the taxpayers. This will also greatly benefit the employees and reduce the complaints about the conditions they work in
- Improvements in the facility will make the day to day operations more efficient. We will spend less time walking, backing buses and using antiquated equipment. This time savings will allow us to focus on providing better service to our patron
- We will increase the resilience of this infrastructure for the future

VII. Partnership and Collaboration

Describe public involvement plan or targeted outreach. Describe plan that minimally disrupts communities and maintains community cohesion.

Public outreach has already started for this project. Creating the RFP for the architectural firm, getting public feedback and going through our City Council were all completed to date. We will continue to engage the public throughout this process.

- We will collaborate with many entities during the upgrade to our facilities. We will be using a local architectural/ engineering firm with offices here in Columbia MO.
- Our public relations officer will be working hard to update the community and gather feedback. We have several avenues of communication and we will push that information to the community and encourage them to use them. Our website has a contact form, they can connect with us on Facebook, Twitter and other social media platforms. We have a call center for all things City that is the communication hub.
- We will be continuing our work with the sustainability department to ensure the building is following a green program like LEED or Energy Star or similar.
- We have a community partner chosen from a bid process that will complete the electric upgrades.
- Our IT department will ensure all the innovative technology that we currently use will continue to function and any future tech will be implemented. They will ensure our cyber infrastructure and safety.
- Our upgraded facility will be in our current location. We will be using a street with no residential located at the back of the property to move any equipment in and out of the property. This will prevent any disruption to our surrounding neighborhood traffic pattern.
- We will continue to engage with our local advisory boards. CATSO is the Columbia Area Transit office and PTAC is the Public Transit Advisory committee. Their feedback will continue to provide us valuable input from community.
- We will be in contact with the University of Missouri for guidance from their plant sciences department in creating a beautiful habitat surrounding our facility.
- We have been researching the addition of micro transit and last mile service for our citizen. Future partnership of this kind is likely and will benefit from an upgraded facility capable of expansion.
- We currently partner with BIRD scooter to provide additional transportation options for our citizens.

VIII. Innovation: Technologies, Delivery, Financing

Application should demonstrate capacity to implement innovations. Describe how technologies or practices drive safety, equity, climate and resilience or economic outcomes and how will be incorporated into the project. Vehicle to infrastructure tech and systems that allow vehicles to interact with transportation infrastructure in ways that improve their mutual performance, encourage electric vehicle charging and broader sustainability of power grid.

We received our first electric bus in October 2015. We were one of the first in our area to adopt this technology and we often felt like test subjects. We adopted DoubleMap when they were beginning their company and before all their expansion. It was innovative, integrated technology that we were happy to test. Zonar is another upgrade that we were quick to employ. Digital record keeping in the transit sector started catching up a few years later. We are constantly trying to adopt better, more efficient, innovative technology and equipment. We are environmentally conscious and want to do good things for our City and its people. By moving to an all electric fleet, we can be an example for our community and encourage this to become common practice for our area.

- This infrastructure upgrade will incorporate all of our present technology and hopefully create a good basis for future tech.
- We will upgrade or surveillance system with the newest technology
- Our City has been researching micro transit and last mile trends to see if there's a way to integrate into the system. Upgrades in our infrastructure create a reliable base to pursue the citizens future transit requirements
- We absolutely need the electric upgrade to continue electrifying our fleet.
- The solar collection and batteries will help move us toward more sustainability
- The building upgrades will ensure future sustainability in heating, air quality, energy efficiency and water conservation
- We have received a building grant from the FTA in the past. Our historic Wabash station was given an addition in 2007. It was completed and continues to be maintained by transit in a highly effective manner. Continued investment in our system will allow us to better serve our community.

Project Readiness: Environmental Risk

Environmental Risk Review

Assessment analyzes the project's environmental approvals and likelihood of the necessary approval affecting project obligation

We have applied for a categorical exclusion from the NEPA review. We believe that because there is existing structure, we will not be changing the surroundings in any meaningful way with our project. We will, of course, follow through with all necessary environmental reviews if we are instructed to do so.

Financial Completeness Review

Assess the applicant's capacity to successfully deliver the project in compliance with applicable federal requirements based on factors including the recipient's experience working with federal agencies, previous experience with USDOT discretionary grant awards

Our agency routinely receives federal grants. We receive operating assistance yearly, we replace assets with federal dollars and we have also completed infrastructure upgrades in the past. Our last major building renovation in transit was the 2007 upgrade to our historic Wabash station.

Technical Assessment

If applicant presents a complete funding package.

Our proposed budget and benefit cost analysis is included in the grant proposal. We have included additional worksheet we used to calculate our proposal in the attachment section.

Census Tract	Project Costs per Census Tract	
2		\$1,600
3		\$1,600
5		\$7,600
7		\$9,600
9		\$20,650,490
13		\$5,200
15.02		\$12,400
15.03		\$800
21		\$6,400
Total Project Cost (without contingencies)		\$20,695,690

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ 1,655,655.00	\$ 0.00	\$ 1,655,655.00
2. Land, structures, rights-of-way, appraisals, etc.	\$ 0.00	\$ 0.00	\$ 0.00
3. Relocation expenses and payments	\$ 0.00	\$ 0.00	\$ 0.00
4. Architectural and engineering fees	\$ 1,655,655.00	\$ 0.00	\$ 1,655,655.00
5. Other architectural and engineering fees	\$ 0.00	\$ 0.00	\$ 0.00
6. Project inspection fees	\$.00	\$.00	\$.00
7. Site work	\$ 0.00	\$ 0.00	\$ 0.00
8. Demolition and removal	\$ 45,920.00	\$ 0.00	\$ 45,920.00
9. Construction	\$ 16,510,632.00	\$ 0.00	\$ 16,510,632.00
10. Equipment	\$ 0.00	\$ 0.00	\$ 0.00
11. Miscellaneous	\$ 827,828.00	\$ 0.00	\$ 827,828.00
12. SUBTOTAL (sum of lines 1-11)	\$ 20,695,690.00	\$ 0.00	\$ 20,695,690.00
13. Contingencies	\$ 248,348.00	\$ 0.00	\$ 248,348.00
14. SUBTOTAL	\$ 23,179,173.00	\$ 0.00	\$ 23,179,173.00
15. Project (program) income	\$ 0.00	\$ 0.00	\$ 0.00
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ 23,179,173.00	\$ 0.00	\$ 23,179,173.00
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.	Enter eligible costs from line 16c Multiply X <u>100.00</u> %		\$ 23,179,173.00

7% discount rate						
Year	Capital cost	discounted cost	7% discount rate	O & M costs	discounted benefits	
2026	\$20,099,173	\$18,692,231	\$258,850,011	\$3,127,908	\$237,821,556	
2027	\$18,692,231	\$17,383,775	\$258,850,011	\$3,127,908	\$221,174,047	
2028	\$17,383,775	\$16,166,910	\$258,850,011	\$3,127,908	\$205,691,864	
2029	\$16,166,911	\$15,035,227	\$258,850,011	\$3,127,908	\$191,293,434	
2030	\$15,035,227	\$13,982,761	\$258,850,011	\$3,127,908	\$177,902,894	
2031	\$13,982,761	\$13,003,968	\$258,850,011	\$3,127,908	\$165,449,691	
2032	\$13,003,968	\$12,093,693	\$258,850,011	\$3,127,908	\$153,868,213	
2033	\$12,093,690	\$11,247,132	\$258,850,011	\$3,127,908	\$143,097,438	
2034	\$11,247,132	\$10,459,832	\$258,850,011	\$3,127,908	\$133,080,617	
2035	\$10,459,832	\$9,727,644	\$258,850,011	\$3,127,908	\$123,764,974	
2036	\$9,727,644	\$9,046,709	\$258,850,011	\$3,127,908	\$115,101,426	
2037	\$9,046,709	\$8,413,439	\$258,850,011	\$3,127,908	\$107,044,326	
2038	\$8,413,439	\$7,824,499	\$258,850,011	\$3,127,908	\$99,551,223	
2039	\$7,824,499	\$7,276,784	\$258,850,011	\$3,127,908	\$92,582,637	
2040	\$7,276,784	\$6,767,409	\$258,850,011	\$3,127,908	\$86,101,852	
2041	\$6,767,409	\$6,293,690	\$258,850,011	\$3,127,908	\$80,074,722	
2042	\$6,293,690	\$5,853,132	\$258,850,011	\$3,127,908	\$74,469,491	
2043	\$5,853,132	\$5,443,413	\$258,850,011	\$3,127,908	\$69,256,627	
2044	\$5,443,413	\$5,062,374	\$258,850,011	\$3,127,908	\$64,408,663	Total
2045	\$5,062,374	\$4,708,008	\$258,850,011	\$3,127,908	\$59,900,057	\$2,601,635,752

3% discount rate for carbon						
Year	Capital cost	discounted cost	savings	O & M costs	discounted benefits	
2026	\$20,099,173.00	\$18,692,231	\$3,160,936	included above	\$3,066,108	
2027	\$18,692,230.89	\$17,383,775	\$3,160,936	included above	\$2,974,125	
2028	\$17,383,774.73	\$16,166,910	\$3,160,936	included above	\$2,884,901	
2029	\$16,166,910.50	\$15,035,227	\$3,160,936	included above	\$2,798,354	
2030	\$15,035,226.77	\$13,982,761	\$3,160,936	included above	\$2,714,403	
2031	\$13,982,760.90	\$13,003,968	\$3,160,936	included above	\$2,632,971	
2032	\$13,003,967.64	\$12,093,693	\$3,160,936	included above	\$2,553,982	
2033	\$12,093,689.91	\$11,247,132	\$3,160,936	included above	\$2,477,363	
2034	\$11,247,131.62	\$10,459,832	\$3,160,936	included above	\$2,403,042	
2035	\$10,459,832.41	\$9,727,644	\$3,160,936	included above	\$2,330,951	
2036	\$9,727,644.14	\$9,046,709	\$3,160,936	included above	\$2,261,022	
2037	\$9,046,709.05	\$8,413,439	\$3,160,936	included above	\$2,193,191	
2038	\$8,413,439.42	\$7,824,499	\$3,160,936	included above	\$2,127,395	
2039	\$7,824,498.66	\$7,276,784	\$3,160,936	included above	\$2,063,573	
2040	\$7,276,783.75	\$6,767,409	\$3,160,936	included above	\$2,001,666	
2041	\$6,767,408.89	\$6,293,690	\$3,160,936	included above	\$1,941,616	
2042	\$6,293,690.27	\$5,853,132	\$3,160,936	included above	\$1,883,368	
2043	\$5,853,131.95	\$5,443,413	\$3,160,936	included above	\$1,826,867	
2044	\$5,443,412.71	\$5,062,374	\$3,160,936	included above	\$1,772,061	Total
2045	\$5,062,373.82	\$4,708,008	\$3,160,936	included above	\$1,718,899	\$46,625,858

Benefit-Cost Ratio

Total discounted benefit \$2,648,261,610 562
Total discounted costs \$4,708,008

This BCR was created using the USDOT Benefit-Cost Analysis Guidance for Discretionary Grant Programs March (2022) Revised version. The numbers used were actual accident numbers, and utility and fuel costs for our facilities. I used our yearly days in service for calculation. For distances, I used odometer readings or tape measure. For the greenhouse gas reduction, I used the epa.gov site calculations. All other monetized values were taken from the USDOT BCA guidance.

Columbia Area Transportation Study Organization

MoDOT, Boone County, City of Columbia
Columbia, MO

May 20, 2022

Subject: GoCOMO, Columbia's Public Transit Submission to FTA's FY 2022 Low or No Emission Grant Program and the Grants for Buses and Bus Facilities Competitive Program

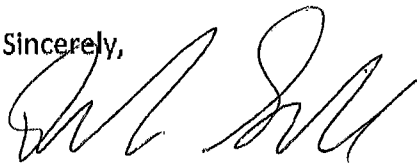
Dear Ms. Volz:

The Columbia Area Transportation Study Organization (CATSO) endorses GoCOMO's grant application submitted in response to the Federal Transit Administration's (FTA) FY 2022 Low or No Emission Grant Program and the Grants for Buses and Bus Facilities Competitive Program Notice of Funding Opportunity.

The CATSO is a Metropolitan Planning Organization (MPO) responsible for ensuring a coordinated transportation planning process within the metropolitan area. The 2050 Long Range Transportation Plan envisions a modern transportation system in which public transportation is a safe, viable option for all residents and visitors in the Columbia area. The Plan specifically recommends continuing to replace GoCOMO's diesel engine buses with electric and other non-combustion engine alternatives. This grant request, if fulfilled, would directly improve the MPO's performance measures regarding public transit and low-to-zero emission vehicles

GoCOMO is the primary public transit provider within the CATSO Metropolitan Area. Given the importance of investing in the public transportation system to achieve the vision of the Long Range Transportation Plan, CATSO is fully supportive of GoCOMO's Zero-Emission Fleet Transition Plan.

Sincerely,



De'Carlton Seewood, Chair

Columbia Area Transportation Study Organization Coordinating Committee

April 14, 2022
US Department of Transportation
Secretary Pete Buttigieg
1200 New Jersey Avenue SE,
Washington DC, 2059
United States

To Whom It May Concern:

As the Manager of the Office of Sustainability for the City of Columbia, I endorse the City of Columbia Public Works Department/Transit Division's application for federal funds through the RAISE grant. These funds will support much needed redevelopment of a key City facility located in a Historically Disadvantaged Community (Census tract 9 in Boone County, Missouri).

The Grissum Operations Center is heavily used by multiple divisions of the City of Columbia. This site supports fleet maintenance, fueling, hazardous waste collection, and transit activities. It is also one of the most significant municipal energy users in both quantity and intensity.

The planned improvements to this site support several of the City of Columbia's climate and equity goals.

- The electrification of space heating, water heating and installing charging infrastructure for the municipal fleet will dramatically reduce fossil fuel use on site and result in a healthier environment for the Grissum site's employees and neighbors.
- Energy and water use efficiency improvements will support lower operational costs, more cost effective delivery of services to our community and free up capacity for program improvements;
- Innovative solutions will maximize the impact of onsite renewable energy generation, reduce emissions from energy use in vehicles and buildings, and manage stormwater with nature-based green infrastructure;

Effective and sustainable transit operations are key to equitable access to services in our community. The Office of Sustainability supports this opportunity to advance the City of Columbia's equity and emissions reduction goals with these RAISE grant funds.

Sincerely,



Eric Hempel, Manager

City of Columbia, Office of Sustainability