CAMPO *Capital Area Metropolitan Planning Organization*

M E M O R A N D U M

TO: CAMPO Transit Working Group

FROM: Joseph Cantalupo, Executive Director

DATE: November 18, 2008

SUBJECT: Capital Metro Austin-Manor-Elgin Transit Corridor

CAMPO staff reviewed the Capital Metro proposal for the Austin-Manor-Elgin Transit Corridor (aka, the Green Line), dated August 2008, and offers the following for your consideration.

Our review focused on whether or not the proposal for the Green Line met the two criteria outlined on the memorandum from Mayor Wynn dated October 9, 2008. The first was to evaluate transit proposals against the Transit Working Group (TWG) Decision Tree as a simple accounting and assessment of completeness. The second was to evaluate the technical aspects of the proposal, assessing the overall quality of the data used, whether taken from existing regional data sets or developed solely for the proposal. Based on our review, CAMPO staff recommends that the TWG convene to review the Green Line proposal. In support of this recommendation, we offer the following for your consideration:

- The proposal is complete when reviewed against each element of the Decision Tree. The attached spreadsheet summarizes how the Green Line proposal meets each element of the TWG Decision Tree. The spreadsheet also includes the questions raised to Capital Metro by CAMPO staff and the responses we received from Capital Metro.

- The proposal's technical assumptions and analyses are based on currently available data, were done under generally accepted practices, and overall appear to be reasonable. While we are sure that the technical aspects of the Green Line proposal will be reviewed again and perhaps more rigorously, at this early point in the development of the Green Line proposal, we have not identified anything of great concern or that would otherwise serve as a fatal flaw. It is evident that, to develop the Green Line proposal, Capital Metro consulted various state and national level studies, professional reports, and government documents such as the CAMPO Mobility 2030 Plan. The following points are examples of how the Green Line proposal either follows or supports the provisions of our long range plan.

  - The projected ability of the Green Line to reduce vehicle miles traveled (VMT) within the corridor and our region is consistent with the VMT results of the CAMPO travel demand model and is consistent with CAMPO's adopted environmental policies.

  - The Green Line's projection of 7,000 daily riders is comparable with Capital Metro's Red Line projected daily ridership of 11,000 when considered against how CAMPO's adopted demographics for each area differ.

  - The Green Line's land use projections for the areas surrounding the rail line are reflective of the land use policies within the CAMPO Mobility 2030 Plan and CAMPO's Draft Regional Growth Concept.

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- The Green Line proposal addresses serving the low to moderate income population located along the corridor which complies with CAMPO's adopted social and economic policies.

- The Green Line's economic benefits were established using studies from the Dallas Area Rapid Transit (DART) system and the San Antonio region. Each of these areas can be seen as dependable sources of information; DART as an established rail system and San Antonio by its geographic proximity to Austin.

If CAMPO staff can provide more information or if there is any aspect of the Green Line proposal we can further explore for you, please let me know. CAMPO staff, additionally, will be prepared to answer questions before the TWG when it reconvenes – including any questions you may have about potential incorporation of this project into the regional transportation planning and programming processes

cc: Mr. Doug Allen, Capital Metro
Mr. Todd Hemingson, Capital Metro
Ms. Maureen McCoy, CAMPO
Mr. Daniel Yang, CAMPO
Mr. Michael Dutton, CAMPO
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Section	Question / Response
1	**Is the process transparent and accountable?**
	The Green Line has been incorporated as a future rail corridor in the planning of multiple public agencies and government authorities.
1A	**To what degree have local governmental authorities or the public previously endorsed this or related proposals?**
	Voters approved the Red Line passenger rail service by a 62% margin. Public meetings have been conducted and letters of endorsement were received.
1B	**To what degree have local governmental authorities or the public incorporated this or related proposals into their planning or other projects?**
	The Capital Metro Board approved the All Systems Go Plan (which was adopted into the CAMPO 2030 regional plan) and identifies the Austin-Manor-Elgin corridor as a future passenger rail corridor.
1C	**Should this proposal receive special consideration relative to other proposals because of its previous governmental or public endorsement or because it has been incorporated into other plans or projects?**
	The Green Line: includes previous public investments; corridor and infrastructure is already owned and operated for freight by Capital Metro; is a natural extension of service from the Red Line; would provide access to future TOD and maintenance facility investments; initiated community land use with the potential rail investment; policy commitments have been made; expands the accessibility of Leander and greater Austin to the east.
2	**What is the purpose of the project?**
	To provide passenger rail and increase mobility along the corridor, as travel demand between Elgin, Manor, East Austin and downtown Austin, continues to grow.
2A	Mobility Benefits
2A-1	**Can the project manage growth of vehicle miles traveled (VMT), congestion, commute times or other appropriate, applicable measures? If so, how?**
	A passenger rail investment in the Austin-Manor-Elgin corridor will reduce automobiles and private vehicle VMT by between 113 and 194 million
2A-2	**Can the project increase or conserve transportation network capacity?**
	The Austin-Manor-Elgin line would provide an initial capacity increase of approximately 450 passenger spaces per hour in each direction and initial capacity could expand to 2,400 passenger spaces per hour which is roughly equivalent to two freeway lanes.
2A-3	**Can the project increase public security (evacuations, fire, police, etc.)?**
	The Austin-Manor-Elgin passenger rail line would provide an alternative means of moving people in case of emergencies/hurricane evacuations/etc.
2A-4A	**Can the project improve productive operation and management of the existing and planned transportation system?**
	The project can expand the existing passenger rail service while at the same time serving new populations. The Green Line would increase the effectiveness of the existing transit system by leveraging regional transit investment requirements necessary to operate the Red Line over a larger base of operations. The operation of the Austin-Manor-Elgin line would provide an alternate travel option to multiple parallel roadways for commuters traveling between served locations.
2A-4B	**Can the project improve connectivity with other travel modes or transportation facilities?**
	Yes, with connections through downtown Austin to the Red Line and possible other transit investments and to the regional bus network, the proposed Green Line would connect the communities of Elgin, Manor, east Austin, downtown Austin, northwest Austin, and Leander.
2A-4C	**Can the project serve or manage existing or future demand?**
	East Austin, Manor and Elgin have been identified by several plans as desirable growth areas. The 2000 Census also shows that this portion of the region is home to the greatest percentage of low to moderate income families. As demand within the corridor grows, transit capacity can be increased by increasing the number of trains, adding additional cars, double tracking and by adding express busses.

Section	Question / Response
2A-4D	**Can the project be part of a regional transportation corridor?**
	Passenger rail would complement the roadway capacity in the US 183, US 290 and IH 35 corridors including the US 290 E Toll Road improvements under development providing between two and four additional lane's worth of person throughput.
2A-4E	**Can the project allow more continuity of travel or access to surrounding areas?**
	A passenger rail investment would expand the service reach and coverage of the Capital Metro Red Line. It would provide expanded mobility for portions of the region that demonstrates a high concentration of low to moderate income households. It would also improve mobility for areas of high minority household concentrations – expanding job opportunities and general access to the region.
2A-4F	**Can the project be compatible with existing or future land uses?**
	Both the City of Austin and the City of Elgin have demonstrated a willingness to organize land uses surrounding rail stations to promote pedestrian access, dense urban developments, mixed concentrations of residential and commercial land uses. These policies are consistent with the needs of high capacity transit such as passenger rail. Likewise, Capital Metro has demonstrated the willingness to construct park-and-ride facilities in areas of low suburban densities with stated policies to convert these facilities to future TODs as the market demand allows. This approach is consistent with the practice of the industry as seen in rail cities such as Portland; Seattle; Vancouver, BC; and the New York/New Jersey corridor.
SQ	**Are these new transit riders, or combinations of existing and new?**
	The proposed Green Line will improve the overall mobility of the Austin-Manor-Elgin corridor and region, especially during periods of peak congestion. The initial Green Line capacity would provide an additional 450 passenger spaces per hour with the ability to ultimately increase more than five-fold which would represent nearly two lanes of highway in each direction between Elgin and downtown Austin. Public security would be improved with the addition of an alternate form of transportation for emergencies or major regional events.
2B	**Economic Development Benefits for the Community**
2B-1	**Can the project encourage financial stability? If so, how and at what levels? (e.g., an indicator could be to measure impacts on affected school district, city and county revenues)**
	Passenger rail service would: reduce household transportation costs for residents within the corridor by reducing dependence on the private automobile; enhance land value alon the corridor due to the investment in the public infrastructure and improved mobility; foster a more efficient land use pattern; improve connectivity to the region making Austin-Manor-Elgin corridor more attractive to development.
2B-2	**Can the project encourage regional economic competitiveness?**
	Studies show that rail transit is particularly important in large, growing cities. Large cities that lack well-established rail systems are at a disadvantage when compared with similar cities that do have established rail systems in terms of congestion costs, consumer costs, and accident risk.
2B-3	**Can the project increase property value?**
	The property tax base would be expected to increase with improvements in fixed guideway transit. A March 20, 2006, Capital Metro analysis of the Austin to Manor portion of the Austin-Manor-Elgin line estimates that by 2030, the value existing and planned real property within proposed station areas served by passenger rail along this line would produce an additional $398.5 million in property values (16% higher than if the rail were not implemented) . Although the portion of the line between Manor and Elgin was not included in this preliminary analysis, one might assume that similar value increases would be expected around stations served by the entire line.

Section	Question / Response
2B-4	**Can the project enhance the financial viability of small cities and towns?**
	The Elgin Economic Development Corporation, responding to the need for higher density communities and in support of a proposed high capacity transit service in the Green Line corridor, has purchased an 80 acre site in their downtown to promote transit oriented development. The purchase was made with the expressed purpose of developing a high density, new-urban type of development adjacent the Capital Metro rail line
2B-5	**Can the project generate excess funds to invest in other transportation priorities?**
	A March 2006 Tax Increment Financing (TIF) analysis of the Austin to Manor portion of the corridor suggests a preliminary TIF financing plan for rail improvements in the Green Line corridor. That analysis indicated a financing structure that could provide up to 70% of the required financial backing for the construction of the Austin to Manor section of the Green Line. The portion of property tax revenues dedicated to the Green Line equates to 28% of the city and county property tax collections in 2010 and rising to approximately 50% of collections in 2030 (note: only the increased taxing revenue from increased property values would be shared through TIF financing).
2B-6	**Can the local community put the policies and services in place to capitalize on the investment?**
	Passenger rail will provide opportunities for value capture mechanisms that can generate funds to be reinvested in local accessibility (sidewalks, park & rides, etc.). Access to these excess funds requires cooperative land use regulations such as those already in place in Austin and being implemented in Elgin.
2B-7	**Can the project encourage Smart Growth, activity centers, or more sustainable development?**
	City of Austin Station Area Planning processes, stated goals related to transit oriented development, and emerging station area ordinances all suggest that the City of Austin is supportive of transit supportive sustainable development. Supportive land use policies and improved infrastructure will encourage smart growth in these newly forming activity centers around transit stations. Evidence from some cities such as Portland show that new transit oriented neighborhoods, when supported by appropriate public policy, can generate new transit oriented neighborhoods where residents tend to own fewer cars and drive less and where rail ridership is steadily growing.
SQ	**Does this project consider the Travis County Greenprint?**
	Plan does incorporate smart and compact growth, but needs to acknowledge the newly developed Travis County Greenprint in order to maximize land preservation.
2C	**Environmental and Public Health Benefits**
2C-1	**Can the project have a positive impact on air quality? If so, how and at what levels? Would the project have a negative impact on air quality?**
	The proposed project would have a positive benefit to regional air quality by reducing carbon monoxide emissions, volatile organic compounds and carbon dioxide and nitrogen emissions on a per capita basis. Research has shown that travel by public transportation produces, on average, 95% less carbon monoxide, 90% less volatile organic compounds, and about 45% less carbon dioxide and nitrogen oxide, per passenger mile, as travel by private vehicles, including autos, SUVs or light trucks.
2C-2	**Can the project have a positive impact on water quality?**
	Investment in the Austin-Manor-Elgin corridor will encourage new urban development into the corridor and away from more environmentally sensitive areas in north and west Austin where the Edwards Aquifer Recharge zone lies. This is consistent with the stated policy of the City of Austin, City of Elgin, the emerging CAMPO 2035 Plan, and Envision Central Texas. Passenger rail offers a transportation alternative to the private automobile which have been found to have high concentrations of toxic metals, suspended solids, and hydrocarbons, which originate largely from automobiles. Reducing the dependence on the private automobile will have both a direct and indirect benefit to water quality in the region.
2C-3	**Can the project have a positive noise impact?**
	Operation of passenger rail in the Green Line corridor may create intermittent and brief periods of noise when the vehicles are present, but adjacent land uses and future land uses will likely be compatible with these operations, similar to the conditions found in the Red Line corridor where no significant impact was determined .

Section	Question / Response
2C-4	**Can the project have a positive impact on pedestrian activity?**
	The project would have a positive effect on pedestrian activity. As envisioned, the proposed Green Line will encourage transit oriented development (TOD) in east Austin and the traditional town centers in Manor and Elgin. Transit oriented development is designed to provide a walkable environment so that residents can access transit without the use of a private automobile.
2C-5	**Can the project promote/direct growth away from sensitive areas and toward desired growth areas?**
	The project will encourage urban growth within the corridor, drawing that development demand away form the more ecologically sensitive areas of western Travis County. This is consistent with the City of Austin's Desired Development Zone concept that seeks to place a majority of the region's future growth into areas east of IH 35 such as the SH 130, US 290 and US 183 corridors. The trend for more dense development near stations, rather then spreading low-density development along roadways, will be enhanced by public investment in rail service. This will in turn draw a diverse range of future residents to the east side of Austin which is typically viewed as more environmentally receptive to urban development then is the western portion of the region.
2D	**Social Equity / Quality Of Life Benefits**
2D-1	**Can the project improve mobility that increases access to: jobs; health care; educational, cultural and/or other recreational destinations; etc. for everyone, especially the most vulnerable members of our community?**
	Providing improved mobility for the regions east of IH 35 would provide greater access to low and moderate households in reaching employment and educational opportunities in the central portion of the region.
2D-2	**Can the project create a time-certain or more predictable and acceptable travel time?**
	A passenger rail investment in the Austin-Manor-Elgin corridor will provide higher certainty and predictability for commuters from the eastern portion of the region when accessing central Austin. As envisioned, the Green Line will use an existing dedicated right-of-way corridor wholly owned and controlled by Capital Metro. Where that corridor crosses existing streets, fully barrier enforced crossings will be constructed. These two elements of the envisioned system minimize potential conflicts that congested roadways may have on the rail line and transit service. This in turn allows the rail service to be predictable and reliable and even congestion-proof commute service.
2D-3	**Can the project improve personal safety (e.g., fatalities, serious injuries, property damage)?**
	Transit, and specifically rail transit, improves the overall safety of the transportation system by giving individuals alternatives to increasing traffic congestion on the roadway network and by carrying a portion of the population that would otherwise travel on the roadway network. A study of Federal Transit Administration data collected in 2001 suggests that cities that have rail transit systems as opposed to bus-only systems, have significantly fewer traffic fatalities.
2D-4	**Can the project help serve a "historically underserved" area of the region? ("historically underserved" needs to be defined for transportation context)**
	The proposed Green Line, serving east Austin, Manor, and Elgin will provide high capacity transit service to areas of the region that are traditionally home to historically underserved and socioeconomicaly disadvantaged populations as demonstrated by the high concentrations of low to moderate income households, high concentrations of ethnic non-white, and low English speaking households found east of IH 35. This portion of the region (especially south and east), is characterized as having greater poverty, fewer jobs, more struggling schools than the northern and western parts of the region. Providing greater connectivity via high capacity transit will lower the personal cost for these residents needed to access employment and educational opportunities throughout the region.

Section	Question / Response
SQ	**How will the increase in the tax base mentioned above affect the lower income residents?**
	East Austin, Manor, and Elgin have higher concentrations of economically disadvantaged and historically underserved residents then other parts of the Central Texas region and the Green Line project will address some social equality and quality of life issues. More transit choices will provide access to additional employment opportunities, more healthcare options, and educational and cultural resources located in the Austin area.
2D-5	**Can the project help create positive visual and aesthetic impacts?**
	Yes, Capital Metro is actively promoting high quality station area developments surrounding its initial Red Line investments. Capital Metro has established a TOD program within its management structure to actively engage the development community and encourage high quality, visually and aesthetically pleasing developments surrounding its station areas. While the primary value of a TOD is economic in nature, high quality development that creates visual improvement is considered an additional value. The City of Austin is currently developing station area ordinances for the Red Line to encourage a harmonious blending of the station areas with the surrounding neighborhoods while at the same time encouraging significant growth in the station areas. One would expect similar policies to be applied to the Green Line corridor. The City of Elgin has developed an Envision Elgin plan that relies heavily on future extension of rail transit to that city in meeting its goals for quality of life and highly desirable developments.
2D-6	**Can the project help promote or detract from a sense of place at the regional and/or local level?**
	Passenger rail investment in the Austin-Manor-Elgin corridor can preserve or re-create a sense of place for the communities within the corridor. In March 2004, the City of Elgin's Strategic plan called "Envision Elgin" had a kick off meeting with community constituents to discuss the vision concept being developed for Elgin. Over 150 community leaders participated in the Envision Elgin meeting. The response from the community indicated the overwhelming belief that a passenger rail investment in the Austin-Manor-Elgin corridor can help accomplish one or all the strategic plan elements identified by the City of Elgin in the plan. This is important because the City of Elgin is an historic city. As new growth pressures from the greater Austin region push into Bastrop County, the residents there believe that a transit mode that can maintain high density development within Elgin is beneficial to the community's identity.
3	**What does the project cost?**
3A	**What is the actual capital cost, in dollars, of the project and any additional, necessary, directly related projects as determined by SAFETEA-LU standards or some other uniform criteria?**
	Preliminary order of magnitude capital cost estimates have been developed for a typical passenger rail investment in the Green Line. The service is based on a system that would be similar to the Red Line operations planned for the Leander/Austin corridor, beginning fall 2008. Future expansions of the initial system would be anticipated as demand warrants. Those costs are not identified in this response, but would likely include additional siding track and some double tracking; additional train vehicles, station investments, and signaling control.
3B	**What are the actual operating and maintenance costs of the project over its anticipated useful life?**
	Operations and maintenance costs for initial service on the Green line is estimated at between $10 and $15 million annually (2008 dollars). Capital Metro will begin operation of the passenger rail Red Line service between Austin and Leander in the fall of 2008. (Table 2)

Section	Question / Response
3C	**Have the following cost measures been considered?**
	NOTE: Preliminary transit ridership estimates for the Green Line have been developed for the purpose of the Transit Working Group (TWG) CAMPO analysis. Ridership estimates are very preliminary and represent a 2030 horizon year, consistent with CAMPO 2030 transportation model. The ridership estimate is based off CAMPO 2030 trip tables, estimated transit travel times between residential zones and downtown, and estimated auto travel times. A logit-based sketch planning mode choice model, calibrated approximately to the CAMPO 2007 person trip data for the corridor, was applied to corridor conditions with commuter rail for the year 2030. The resulting estimate is useful for evaluation as part of the TWG evaluation matrix, however further detailed ridership estimates, incorporating various operational options and modeling the proposed commuter rail line directly into the transportation model should be completed as part of a refined future analysis and 2035 CAMPO model update.
3C-1	**What is the ridership of the project based on origin/destination modeling and analysis? What time frame is being measured?**
	A 2030 daily ridership for the Green Line is projected at between 7,000 and 12,000 daily riders, resulting in an annual ridership of between 1.8 and 3.1 Million annual riders. For purposes of the Transit Working Group (TWG) analysis, a preliminary 2030 ridership estimate for the Green Line was developed by Capital Metro and is based on existing development scenarios adopted within the CAMPO model.
3C-2	**What is the cost per passenger mile?**
	An annualized cost per passenger mile of between $0.64 and $1.20 has been estimated for the Green Line, assuming all-day service. This number is based on 2008 annualized costs and 2030 ridership.
3C-3	**What is the cost per passenger trip?**
	An annualized cost per passenger trip of between $8.82 and $16.48 has been estimated for the Green Line, assuming all-day service (note: this is without a reduction due to fare box revenue, based on 2008 cost estimates and a 2030 ridership forecast.).
3C-4	**What is the cost per additional transit rider?**
	A 2030 annualized cost per new transit rider of between $14.33 and $26.79 has been estimated for the Green line, assuming all-day service (Note: this estimate is without a reduction due to fare box revenue. Costs are stated for 2008 and ridership estimates are for a 2030 horizon year). Of the nearly 1.8 to 3.1 million annual transit trips anticipated on the proposed green line, the majority would represent new transit riders because of the lack of existing transit service in the corridor. New transit riders on the Green Line are anticipated to total between 1.12- and 1.92-million annual travelers.
3C-5	**What percentage of the annual operating and maintenance costs will be covered by system revenues (e.g., fares)?**
	Between 21% and 35% of the annual operating and maintenance costs will likely be covered by system revenues (e.g., fare box recovery), assuming all-day operation on the Green Line.
3C-6	**What percentage of the total costs (amortized capital plus annual operating and maintenance) will be covered by system revenues (e.g., fares)?**
	Between 14% and 22% of total annualized costs will likely be covered by system revenues (e.g., fare box recovery), assuming all-day operation on the Green Line.
SQ	**Are differences in the demographics around the two rail lines taken into consideration when forecasting revenue?**
	While more detailed financial analysis is needed, an initial system cost for the Green Line, providing passenger rail between downtown Austin and Elgin, would range between $161 Million and $192 Million (2008 dollars). A future Phase II expansion of the corridor to provide higher capacities and more frequent service will add costs at a future date. Operating and maintenance costs for the Green Line are anticipated to be similar to those projected for the Red Line providing service between downtown Austin and Leander: approximately between $10 and $15 Million annually (2008 dollars). Such a system would be anticipated to generate between 1.8 and 3.1 Million annual riders by 2030, assuming an all-day, weekday, bi-directional service.

Section	Question / Response
3C-7	**Other applicable measures of cost-effectiveness**
	Avoided costs, Transit benefits, Regional competitiveness
3C-8	**Are there other actual costs that should be considered because of the type or nature of the project?**
	Expanding the passenger rail system will eventually trigger system investment needs. A regional rail maintenance facility, if constructed in conjunction with new rail investments, would take the place of individual maintenance facilities constructed on a line by line basis. The estimated cost for a regional maintenance facility has been estimated as $23 Million plus the $14 to $17 Million contribution for the Green Line maintenance allocation (2008 dollars).
4	**What are the indirect costs necessary to implement the project?**
	Detailed analysis has not been completed but there may be a nominal cost to freight users in the corridor due to shifting delivery times. Few to no business interruptions are anticipated and few utility issues are expected due to utilization of the pre-existing, Capital Metro owned rail corridor.
5	**What jurisdictions can or should fund the project?**
	Cities of Austin, Manor and Elgin Travis and Bastrop Counties, Federal Transit Authority, TxDOT, CTRMA, Capital Metro, Private Sector
5B	**What criteria are being considered?**
	Those entities and individuals who benefit from investment should contribute to the project through tax revenue sharing, coordination of land use policies, in-kind contribution, etc.
5C	**Should a jurisdiction that benefits from the project not contribute?**
	Participation should be based on benefit and ability to pay, and should allow for in-kind or similar contribution. A jurisdiction's willingness to regulate land use to maximize project benefits should be credited. Future contribution due to increased land values, donation of land for stations, etc., could be financed in lieu of up-front funding.
5D	**Is there a way for a regional entity to be involved in the financing (or to be created to assist the financing)?**
	Benefits from future urban development, future tax revenues, etc. require advance financing in order to construct the system in advance of revenue generation. Financing will be an important part of the delivery approach to accelerate the delivery process. Potential candidates for financing of the overall project might include: Capital Metro, CTRMA, TxDOT, State Infrastructure Bank, local government corporation, FTA, and private sector.
6	**What mechanisms are available to fund the project?**
	A variety of funding mechanisms for funding initial capital and operations are available from both public and private sector sources. Identified mechanisms include value capture/TIF, development fees, state and federal funding, toll road/parking revenue, public-private partnerships, and direct public contributions via taxes.
6A	**Are the financing mechanisms associated with specific participating jurisdictions?**
	See Table 3
6B	**Are the financing mechanisms available for capital costs, operations costs, or both?**
	CMTA can finance capital and operations, for further information see Table 3
7	**How will the financing mechanism be funded?**
7A	**How are estimates of revenue made?**
	Revenue estimates will be based on detailed ridership forecasts. Revenue from the fare box can be calculated using the anticipated average fare per trip on rail. Capital Metro estimates of the anticipated rail fare in 2008/2009 for the Red Line will be $1.50 per trip. This rate can be expected to increase by approximately $.50 every other year to maintain pace with inflation and operational needs. This would suggest a rail fare of $6.50 in the year 2030.

Section	Question / Response
7B	**What impact will the use of this source of funds have on Central Texas (e.g., tax rates)? To what extent will the project be funded by users or by beneficiaries beyond the users?**
	TIF financing using a defined benefit district surrounding the proposed Austin-Manor-Elgin passenger rail Corridor could play an important role in financing of the system. According to the Capital Metro Report, the up-front contribution from a TIF could fund up to 70% of the initial capital costs necessary to construct the portion of the project between the Austin Wye and Manor (not including rolling stock, regional maintenance facility, etc.).
	In addition to the 2006 analysis completed by Capital Metro, the City of Elgin and Elgin Economic Development Corporation (EDC) published an analysis in 2007 related to the purchase of the 80-acres surrounding the Elgin Station. The purchase was completed in an effort to preserve this site for future transit oriented development, assuming that commuter rail service would be implemented in the Manor-Elgin corridor. The EDC report identifies the net benefit from TOD development at the Elgin station in comparison to continued development in the style now observed in Elgin. The analysis indicates that for the 80-acre site, TOD type development would increase the tax base for this site by $664 Million. This results in net city annual revenue of $2,446,081 as compared to an anticipated annual deficit of <$1,026,184> due to conventional development on this same 80-acre site. This suggests that a portion of this additional revenue and cost savings from developing TOD on the 80-acre site could be used to support the extension of commuter rail to Elgin.
	Costs for implementation not covered by TIF contributions would need to be raised from either a similar TIF covering the areas not previously covered by the above two analyses or from other potential funding sources (City and County direct participation, private land owner/developer participation, etc.).
7C	**Are there ways to decrease actual costs (i.e. efficiency in infrastructure work, etc.)?**
	Detailed engineering studies have not yet been conducted for the Austin-Manor-Elgin line. Those studies will be focused to provide the most comprehensive transit services within the corridor while at the same time minimizing the costs. Alternative design options will be considered during the design phase, again to minimize actual costs. By selecting an extension of the current passenger rail service being offered in the Red Line corridor, re-use of vehicles during operation, coordination of maintenance needs, and the use of other system-wide attributes will continue to make the overall system more efficient to operate and maintain. The initial costs for new rail rolling stock can be reduced by opening initial service utilizing previously used, refurbished cars in lieu of new rail cars.
	Costs can be further reduced by considering the right-of-way as an access corridor for a variety of utilities. Water from eastern ground reserves could be transported via the Elgin-Manor-Austin right-of-way and then transferred to the MOKAN or even the Red Line corridor. These access corridors present opportunities for developing franchise opportunities, generating revenue for both capital expenditures and on-going operations and maintenance. They also provide an opportunity to generate efficiencies within other infrastructure networks when thought of holistically.
8	**What is the project's timeline? Should the project be phased? If so, how?**
	The proposed project could be operational in 36-48 months from project authorization. This depends largely on the financing approach – if federal funds are to be sought and used, access to those funds require a federally mandated process with specific time lines. The proposed project should be implemented in a single-build scenario. This approach is required to capture benefits in the outer portion of the corridor (e.g., Manor and Elgin) and maximize system efficiencies. The minimum operable segment is in fact the entire green line.
SQ	**How will the current financial climate affect the timeline?**
	The proposed project could be operational in 36-48 months from project authorization. This depends largely on the financing approach, and if federal funds are to be sought and used. The proposed project should be implemented in a single-build scenario to capture benefits in the outer portion of the corridor (e.g., Manor and Elgin) and maximize system efficiencies.

Section	Question / Response
9	**Will there be a need for an election or legislative action?**
9A	**What type of election would be required (i.e. funding vs. operating authority)?**
	Assuming CMTA operates, an election is required for operation of the system. Entities using bonding or other obligation of taxing authority may require elections.
9B	**What jurisdictions will have the election?**
	Election authorization is dependent on financing mechanisms used, but would include cities and counties pledging public funds that require such votes.
9C	**Could elections by multiple jurisdictions conflict?**
	Yes, assuming bond elections in addition to authorization elections are held. For example, one could pass and the other could fail.
9D	**What is the impact of potential conflicts?**
	A positive vote giving Capital Metro that authority to operate passenger rail on the Green Line without a supporting vote implementing funding could deny a needed mechanism to fund and/or operate the service. Without alternate funding resources, Capital Metro may not be able to fund the project yet still have the authority to operate.
10	**What entity or entities will govern (i.e., construct, operate and maintain) the project?**
	Capital Metro will construct, operate, and maintain the proposed Green Line.
10A	**Could entities with governance responsibilities be in conflict with each other?**
	With any multi-jurisdictional infrastructure project there are opportunities for conflict between governing jurisdictions. In Central Texas, there are mechanisms to minimize the impact of these conflicts and to assist in brokering compromises to resolve the technical or governance issues.
10B	**What mechanism is there for resolving governance conflicts?**
	Numerous options exist for resolving governance issues such as intergovernmental agreements, inter local agreements (ILAs), joint governance, local government corporations (LGCs), etc.
11	**What are the opportunity costs of moving forward with the project relative to alternate projects?**
	Three alternatives were considered in making this recommendation to the CAMPO Transit Working Group: **the No-Build**, a **TSM-BRT** option, and the **expansion of passenger rail** (See statement of Need and Purpose).
11A	**Is there another comparable project that accomplishes the same purpose and/or benefits at lower costs?**
	The **No-Build** would likely not meet the identified needs for improved high capacity transit service to the eastern suburbs.
	The **BRT** alternative could provide improved service and possibly service to Manor and Elgin at a lower cost then could a passenger rail investment in the corridor. However, this alternative would not provide the financial incentives for dense urban development sought by these communities. Given the existing infrastructure and adjacent Red Line Service, extension of passenger rail into the Austin-Manor-Elgin line is a logical investment.
11B	**Are there services or projects, including non-transportation projects, either now or in the future that will be impacted by the creation of this project?**
	The investments planned for the US 290 E corridor will benefit from a parallel investment in the Austin-Manor-Elgin rail line. Similarly, future surface street improvements in the communities served by the investment will need coordination with the rail plan to minimize the number of at-grade crossings of the Green Line. Appropriate land use controls and plans should also be enacted in the communities and areas being served by the system.