

**Sustainability Commission
Planning Commission**

Memorandum

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Date: September 24, 2012

To: Mayor Piercy, Members of the Eugene City Council and City Manager Jon Ruiz

From: Kathi Jaworski, Chair of the Sustainability Commission and Randy Hledik, Chair of the Planning Commission

Subject: Triple Bottom Line Analysis of the West Eugene EmX Corridor Proposal

The Coordinated Land Use and Transportation Action Committee (CLUTAC), the joint committee of the Planning Commission and Sustainability Commission, has completed a Triple Bottom Line (TBL) analysis of the West Eugene EmX Corridor. After reviewing the TBL analysis, both commissions endorsed the CLUTAC report; the Sustainability Commission voted 12-0 and the Planning Commission voted 5-2.

The analysis covered three timeline impacts: construction, short-term (within five years), and long-term (between five and twenty years).

The methodology assigned a positive, negative or neutral impact to various aspects of the Corridor proposal. These impacts are shown in the enclosed Detailed Table with supporting documents indicated via endnotes.

The TBL analysis takes a holistic view of the issues related to social equity, economy and the environment. This results in a balanced perspective of all issues surrounding the topic, in this case, the West Eugene EmX.

Based on this analysis, the CLUTAC has determined that the benefits to our community from the West Eugene EmX Corridor far outweigh any potential negative impacts. CLUTAC, therefore, strongly recommends your approval of the West Eugene EmX Corridor.

To honor the process of the Planning Commission, which allows the opportunity to those with dissenting votes to provide comment, following are concerns raised by two planning commissioners who support the EmX project but voted against endorsing the CLUTAC report.

Planning Commissioner and former CLUTAC member Jeff Mills supports the EmX extension concept but cannot endorse the findings of the joint committee. In his opinion the final report significantly underestimates the negative impacts and costs of the project, and overestimates the benefits. He believes this to be particularly true during the 'short term' period following completion of construction.

Another planning commissioner, Richard Duncan, could not endorse the CLUTAC report, but does support the EmX Project, including the extension of the West 11th corridor. Mr. Duncan felt there were various unsubstantiated "negative impact" comments in the CLUTAC report. Those comments may be appropriate, but without a source reference, the validity of the statements was unknown. Mr. Duncan indicated that the West 11th EmX project is a sensitive subject in Eugene and the endorsement by the Planning Commission was an endorsement of all the statements presented in the CLUTAC report, therefore he voted against the report.

Present and past members of CLUTAC include:

Sasha Luftig

Jeff Mills

Bill Randall

Will Shaver

Jon Belcher

Josh Skov

Jessica Bloomfield

Heidi Beierle

Sue Wolling

Triple Bottom Line Assessment of Proposed EmX Corridor in West Eugene

Prepared by the Coordinated Land Use and Transportation Action Committee (CLUTAC), a joint effort of the Planning Commission and the Sustainability Commission.

In 2011, the Mayor and the City Manager asked the Coordinated Land Use and Transportation Action Committee (CLUTAC) to apply Eugene's Triple Bottom Line (TBL) analysis to the question, "is a West Eugene bus rapid transit corridor a good idea?" The TBL analysis is a framework that considers the social equity, economic, and environmental impacts, benefits and trade-offs of project alternatives.¹ This document summarizes CLUTAC's results of the TBL analysis as it applies to the proposed EmX corridor expansion in West Eugene.

Eugene has a mosaic of policies, plans, goals, and supporting attitudes among citizens that represent a vision for the community's development.² When considered together, these efforts call for a modal shift away from the car and toward bicycle, pedestrian and transit modes, significant expansion of the bus rapid transit (BRT) system, compact, mixed-use, higher density development along transit corridors, and lower greenhouse gas (GHG) emissions from transportation sources. As the Council considers the potential costs and benefits of a new West Eugene EmX corridor, it should consider this overall framework so that our decisions are consistent with the broader vision that citizens and elected officials have assembled over many years.

The CLUTAC considered the social equity, economic, and environmental impacts of the proposed corridor during three distinct time periods: 1) during construction, 2) short-term (within 5 years) and 3) long-term. While during construction the impacts are generally negative, the short and long-run benefits of the project far outweigh these initial effects.

I. Impacts on social equity:

- **During construction**, there will be decreased roadway access for adjacent households. There will be more particulate matter in the air and a higher level of noise pollution for residents and employees located near the transit line. *Overall negative impact.*
- **In the short term**, social equity impacts will be similar to long-term impacts, but smaller magnitude in some cases. *Overall positive impact.*
- **In the long term**, quality of life will improve in adjacent neighborhoods as traffic is concentrated onto the West 11th corridor and air pollution is reduced. The transit rider experience will improve due to shorter wait times, new lighting and security at EmX stations, and more predictability. The new corridor will offer more transportation options for more people, increasing disposable income for families that spend a higher-than-average share of income on transportation. Although some people may find it more difficult to access the transit stops (which will be on average 300 feet farther apart than stops in the current system), the EmX buses will have improved boarding mechanisms for seniors and altered-abled individuals. The corridor will improve pedestrian safety (by improving sidewalks), and bicycle safety (by expanding access and connectivity to the Fern Ridge Path). *Overall positive impact.*

II. Impacts on the local economy:

- **During construction**, some businesses will experience reduced access and revenues. Construction will also create new jobs and a demand for related goods and services. Mitigation measures planned by LTD will reduce construction impacts on businesses. *Overall neutral impact.*
- **In the short term**, some business may lose revenues and operational viability. There will be more opportunities for new development along the corridor and increased pedestrian and bicycle access for businesses. Some businesses will also receive site improvements; however, there will be a net decrease in parking spaces. *Overall positive impact.*
- **In the long term**, there will be an overall increase in investment due to a feeling of permanence in transit infrastructure. Although rental prices may rise along the corridor, land value will increase³ and new businesses will re-locate there, resulting in a net increase in jobs. Transit riders will have more personal time (commute times will be shorter on the EmX) and the community will experience a greater resilience to fuel price volatility (due to the addition of more transportation options). *Overall positive impact.*

III. Impacts on the environment

- **During construction** there will be an increase in greenhouse gas (GHG) emissions and energy use due to the operation of diesel equipment and traffic congestion. Construction materials (concrete, asphalt and steel) are very carbon-intensive.⁴ *Overall negative impact.*
- **In the short term**, there will be a net decrease in GHG emissions and fuel consumption due to increased transit ridership and more pedestrian and bicycle use instead of vehicle use. *Overall positive impact.*
- **In the long term**, the short-term impacts will grow significantly. A functioning transit corridor will reduce overall traffic congestion, facilitate higher density and higher land values, and reduce pressure to develop elsewhere in the city. The transit project will be a catalyst for additional mode shift from cars to transit, walking and biking. *Overall positive impact.*

TBL Analysis: Detailed Table

	Social Equity	Economy	Environment
Impacts during construction	- Decreased roadway access along construction corridor for adjacent households (i.e., getting to and from homes). - Increased levels of pollution and particulate matter in the air near construction sites due to diesel equipment use and traffic congestion. - Noise pollution for residents and employees located near construction corridor.	+ 2,852 short-term direct and indirect jobs, adding up to \$103 million in labor income⁵. - Reduction of access to some businesses and properties, which may result in decreased revenues. + LTD mitigation measures to reduce construction impacts on businesses include late night construction and maintaining access to all businesses.	- Increased energy and materials use; increased emissions. - Additional air pollution from traffic congestion due to construction delays and operation of diesel equipment. - Removal of an estimated 143 street trees and 61 landscape trees, which will be partially mitigated through replanting or replacement (no charter trees or heritage trees affected).⁶
Short-term impacts (within five years)	<i>Similar to long-term effects (see below), but smaller magnitude in some cases.</i>	+ Opportunity for new business and housing growth on the transit line.⁷ - Some businesses may lose revenue and operational viability - Total area proposed for acquisition in the project area is 110,000 sq ft (2.53 acres) or 2% of all 118 properties within project boundary⁸. - Loss of 18 off-street parking spaces affecting 5 businesses; potential loss of up to 53 on-street parking spaces. + Access improvements for some businesses.⁹ + Increased pedestrian and bicycle access for existing businesses.¹⁰	+ Reduced fuel consumption due to replacing traditional LTD buses with more fuel-efficient EmX vehicles. + Reduced GHG emissions and VMTs due to increased transit ridership and more bicyclists and pedestrians due to enhanced infrastructure¹¹.
Long-term impacts	+ Improved access for seniors/alter-abled due to easier boarding mechanisms. + Improved quality of life in nearby neighborhoods due to the concentration of travel in the West 11th corridor and the reduction of traffic in adjacent neighborhoods. + Improved transit rider experience (shorter wait times, lighting/security at stations, more predictability/flexibility, etc.).¹² + Increased health benefits due to less air pollution. + Facilitates more active transportation with increased health benefits. + Increased access/mobility and disposable income for populations that spend a higher-than-average share of household income on transportation. - Some decrease in access/mobility for populations that find it difficult to access wider-spaced transit stops (1600ft vs. 1300ft on average). + Improved safety for pedestrians and bicyclists by widening sidewalks and moving utility poles from the middle to the outside of sidewalks. + Improved access and safety for bicyclists with connections to Fern Ridge Path.	+ Increased investment due to feeling of permanence of right of way infrastructure.¹³ + Improved desirability as a corridor for new businesses to locate.¹⁴ + Increased land values along transit corridor.¹⁵ - Some businesses will pay increased rent and may need to relocate business. + More money staying in the local economy due to residents spending less income on gas and vehicles (due to riding EmX and bike/walk).¹⁶ + Greater productivity and/or personal time for bus commuters due to reduced commute time. + More jobs due to higher levels of density. + Greater resilience to fuel price volatility because more transportation options are available when gas prices go up. + Lower costs for operating EmX routes compared to equivalent traditional bus service.	+ Reduction in energy and GHG emissions from transportation in West Eugene are effects of a functioning transit corridor, including to varying degrees: + EmX is catalyst for additional mode shift from cars to transit, walking and biking.¹⁷ + Reduced traffic congestion. + Facilitated density and higher-value land use. + Assuming higher densities on transit corridor: -/+ Creates need for design standards or tools to moderate impacts to nearby properties. + Pressure reduced on land use elsewhere in the city (e.g., in neighborhoods seeking to preserve character). + Active transportation modes are more viable. + Compact urban form and reduced sprawl. (+/-)For additional impacts on water quality, wetlands and storm water see Environmental Assessment.¹⁸

References

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- ¹ *Triple Bottom Line*, City of Eugene. Available at <http://www.eugene-or.gov/index.aspx?NID=512>.
- ² See, e.g. 1) Council-approved policies, including growth management policies, the TransPlan (original and the 2004 update), and the Metro Plan; 2) Council-approved goals, including a 50% reduction in fossil fuel use by 2030 and a “carbon neutral” local government by 2020; and 3) Stakeholder processes sanctioned by Council, including the Community Climate and Energy Action Plan (CEAP), Infill Compatibility Standards (ICS) and Opportunity Siting (OS), Envision Eugene, Bicycle and Pedestrian Strategic Plan (complete) and the Pedestrian and Bicycle Master Plan (on-going), and the West Eugene Collaborative (WEC) final report.
- ³ Federal Transit Administration (2009). Land Use Impacts of Bus Rapid Transit: Effect of BRT Station Proximity on Property Values along the Pittsburgh Martin Luther King, Jr. East Busway. Available at http://www.nbtri.org/docs/pdf/Property%20Value%20Impacts%20of%20BRT_NBRTI.pdf
- ⁴ U.S. Environmental Protection Agency (2009). Potential for Reducing Greenhouse Gas Emissions in the Construction Sector. Available at <http://www.epa.gov/sectors/pdf/construction-sector-report.pdf>
- ⁵ U.S. Department of Transportation, Federal Transit Administration (2012). Environmental Assessment West Eugene EmX Extension Project. Summary of Possible Impacts, Benefits and Mitigation. Appendix ES-1. Available at http://www.ltd.org/pdf/WEE%20EA%202012/Appendix/Appendix_ES-1_2012_06_21.pdf
- ⁶ U.S. Department of Transportation, Federal Transit Administration (2012). Environmental Assessment West Eugene EmX Extension Project. Chapter 3: Affected Environment and Environmental Consequences (page 117). Available at http://www.ltd.org/pdf/WEE%20EA%202012/EA%20documents/WEEE_EA_Ch3_AffectedEnvironmentandEnvironmentalConsequences_2012_06_21.pdf
- ⁷ Between 2004 and 2010 along the Eugene-Springfield EmX corridor, jobs outside 0.50 miles of BRT station areas fell by about five percent, or more than 5,000 jobs. Jobs located between 0.25 and 0.50 miles of station areas stayed about the same. Jobs located within 0.25 miles of stations increased by about 10 percent, or nearly 3,000 jobs. Bus Rapid Transit and Economic Development Case Study of the Eugene-Springfield, Oregon BRT System, Arthur C. Nelson et.al., Metropolitan Research Center, University of Utah. See also U.S. Government Accountability Office (2012). Bus Rapid Transit: Projects Improve Transit Service and Can Contribute to Economic Development, GAO-12-811. Available at <http://www.gao.gov/products/GAO-12-811>
- ⁸ Duncan & Brown (2012). LTD EmX Property Impact Analysis. Available at <http://www.ltd.org/pdf/WEE%202012/D&B%20-%20Technical%20Report%202011-12%20LTD%20rev%202-12.pdf>
- ⁹ *Ibid.*
- ¹⁰ U.S. Department of Transportation, Federal Transit Administration (2012). Environmental Assessment West Eugene EmX Extension Project. Chapter 4: Transportation Facilities. Available at http://www.ltd.org/pdf/WEE%20EA%202012/EA%20documents/WEEE_EA_Ch4_TransportationFacilities_2012_06_21.pdf
- ¹¹ National Cooperative Highway Research Program (2011). Cost/Benefit Analysis of Converting a Lane for Bus Rapid Transit –Phase II Evaluation and Methodology. Available at http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rrd_352.pdf. See also Los Angeles County Metropolitan Transportation Authority, ICF International and Fehr and Peers. (2011) Metro Orange Line Mode Shift Study and Greenhouse Gas Emissions Analysis. Available at http://lite.metro.net/riding_metro/bikes/images/mol_study.pdf
- ¹² U.S. Department of Transportation, Federal Transit Administration. Chapter 1: Creating Better Bus Systems. Available at <http://fta.dot.gov/4393.html>
- ¹³ Federal Transit Administration (2009). Land Use Impacts of Bus Rapid Transit: Effect of BRT Station Proximity on Property Values along the Pittsburgh Martin Luther King, Jr. East Busway. Available at http://www.nbtri.org/docs/pdf/Property%20Value%20Impacts%20of%20BRT_NBRTI.pdf
- ¹⁴ Transportation Research Board (2012). Bus Rapid Transit and Economic Development: Case Study of Eugene-Springfield, Oregon, Bus Rapid Transit System. Available at <http://onlinepubs.trb.org/onlinepubs/1sn2af/1sn2af/1>

¹⁵ *Ibid.*

¹⁶ Joe Cortright (2007). Portland's Green Dividend: A White Paper from CEOs for Cities. Available at <http://documents.scribd.com/s3.amazonaws.com/docs/9grp6cwnk01hnrn0.pdf?t=1332875680>

¹⁷ Los Angeles County Metropolitan Transportation Authority, ICF International and Fehr and Peers. (2011) Metro Orange Line Mode Shift Study and Greenhouse Gas Emissions Analysis. Available at http://lite.metro.net/riding_metro/bikes/images/mol_study.pdf

¹⁸ U.S. Department of Transportation, Federal Transit Administration (2012). Environmental Assessment West Eugene EmX Extension Project. Available at <http://www.ltd.org/search/showresult.html?versionthread=5846cd084b147a3da05d11d5fa2c4eff>