



Tower Road Lighting & Landscaping Review

April 13, 2015

Purpose

- Discuss proposed lighting and landscaping design for Tower Road Project
- Provide feedback received from CIP citizen advisory committee
- Obtain city council input on key questions to complete design



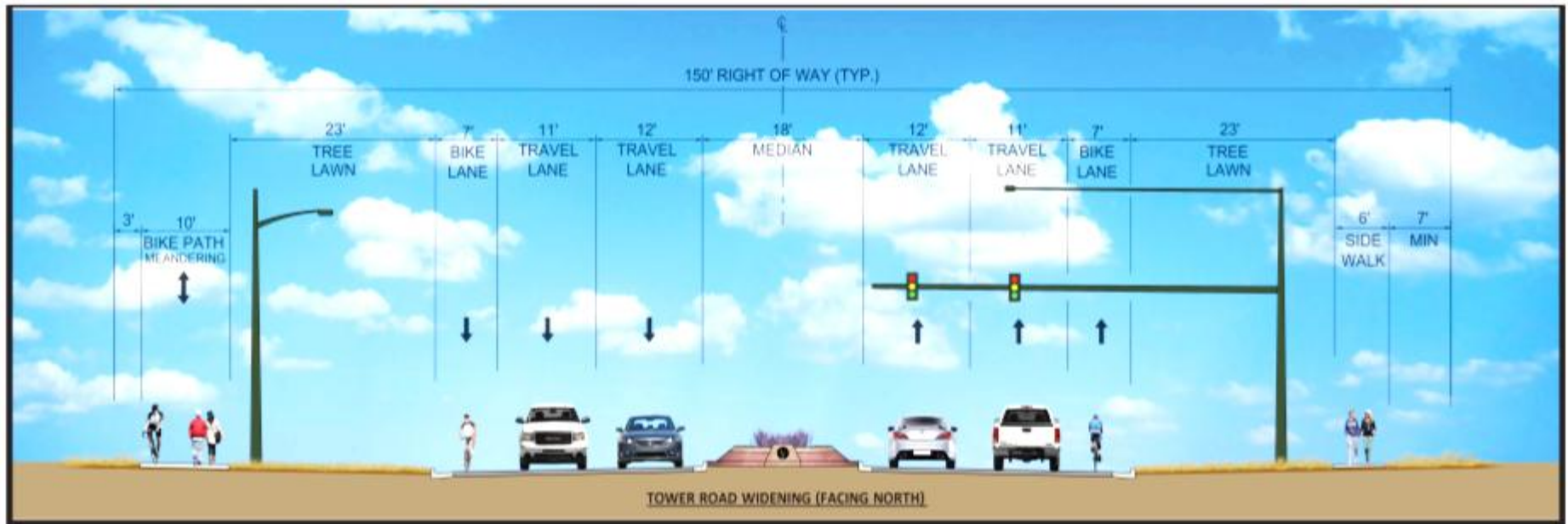
Project Goals

The project is intended to accomplish the following:

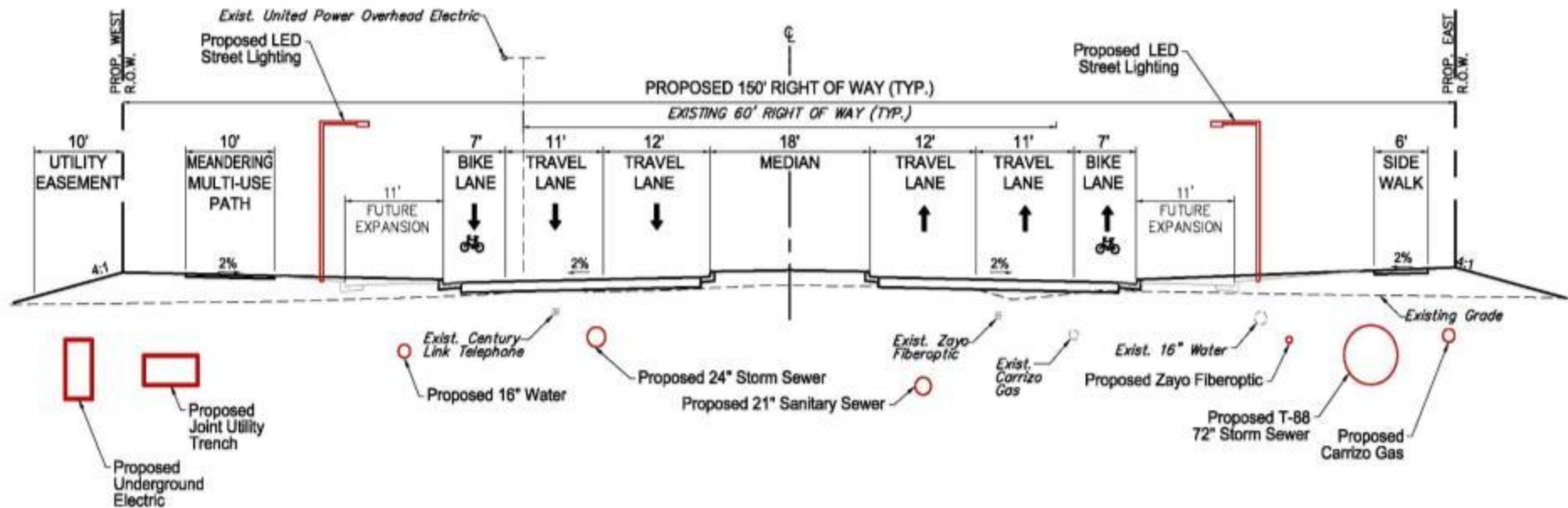
- Increased vehicle capacity
- Improved safety
- Higher level of service
- Eliminate flooding & improve water quality
- Environmentally sensitive/ contextually sensitive
- Multi-modal – accommodate pedestrians, bicyclists and vehicles



Proposed Project



Utility Cross Section



* Evaluating funding alternatives for regional utilities

Street Lighting Analysis

- Xcel & United Power own & maintain street lights within the City
- \$32 monthly service (\$10) & maintenance (\$22) cost, per pole
- Council asked staff to evaluate LED lighting
- Xcel does not support LED lighting
- United Power does but only one fixture type



Street Lighting Analysis

Consultant performed a cost analysis over a 10-year period including:

- Initial Luminaire cost
- Energy cost
- Maintenance cost

Comparison:

- High Pressure Sodium (HPS) - United Power owned & maintained
- Light-Emitting Diode (LED) - United Power owned & maintained
- Light-Emitting Diode (LED) - City owned & maintained



10-Year Street Lighting Analysis

	Initial Luminaire Cost	Energy Cost	Maintenance Cost	Total Cost
HPS (United Power)	\$172,400	\$301,900	\$683,500	\$1,157,800
LED (United Power)	\$412,500	\$194,500	\$683,500	\$1,290,500
LED (City)	\$396,800	\$167,600	\$151,500*	\$564,400

* Assumes replacing 3 poles a year and associated drivers for 10 years.



Pros & Cons

LED Pros:

- More energy efficient
- Whiter light
- Lights fade over time
- Better able to control light “spill”

LED Cons:

- LED lights are not available in the current luminaire design

City Ownership & Maintenance Pros:

- Less maintenance costs
- Able to install banner poles & banners
- More responsive to knock-downs & other issues
- Future infrastructure for WiFi, broadband service







Commerce
CITY









Commerce
CITY

Questions & Discussion

- LED City-owned or other?
- Keep poles the same design & color as existing?
- Arms or no-arms?
- Banner poles? Single or double?
- Should sidewalk be lighted?





Tower Road Landscaping Review

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Landscaping Review

In keeping with project goals:

- Sustainable design with low-water, xeric-type materials
- No spray irrigation; surface irrigation
- “Pockets” of landscaping vs. entire median planted and irrigated
- Vary height and plant material
- Use rock & boulders for visual interest; no mulch
- CIP CAC recommended against trees due to concerns about sight lines



“As Installed” Landscape Condition

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(narrowest raised median condition)

“Grown/Mature” Landscape Condition

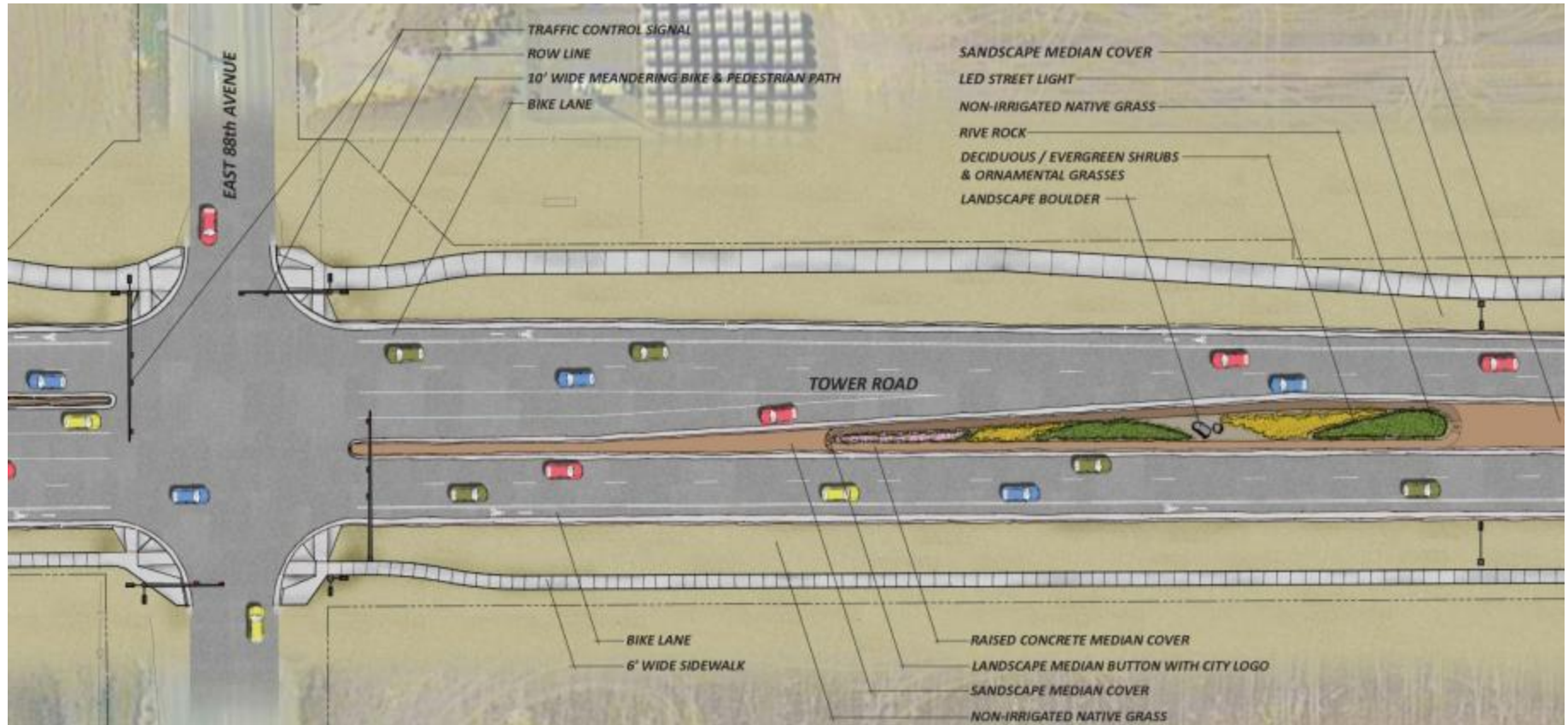


(widest raised median condition)

Tower Road “At Dusk”



Plan View of Landscaping Improvements



Landscaping Questions & Discussion

- Trees versus no trees in the median?
- More variation preferred in heights of planting materials?
- Mix plant types to add interest?



Next Steps

- Incorporate council feedback into project design
- Finalize packaging of construction elements
- Anticipated construction bid released Q3 2015





Questions

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