



Tower Road Widening Project – Storm Water Drainage and Wet Utility Improvements

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June 29, 2015

Discussion Objective

1. Background & City Attorney's Opinion
2. Technical Options
 - a) Storm Water Drainage
 - b) Water and Sanitary
3. Staff's Recommendations



Project Status

- Roadway design in Commerce City portion is 75% complete
- Need to finalize drainage, water main, and sanitary sewer main components to move forward with final design

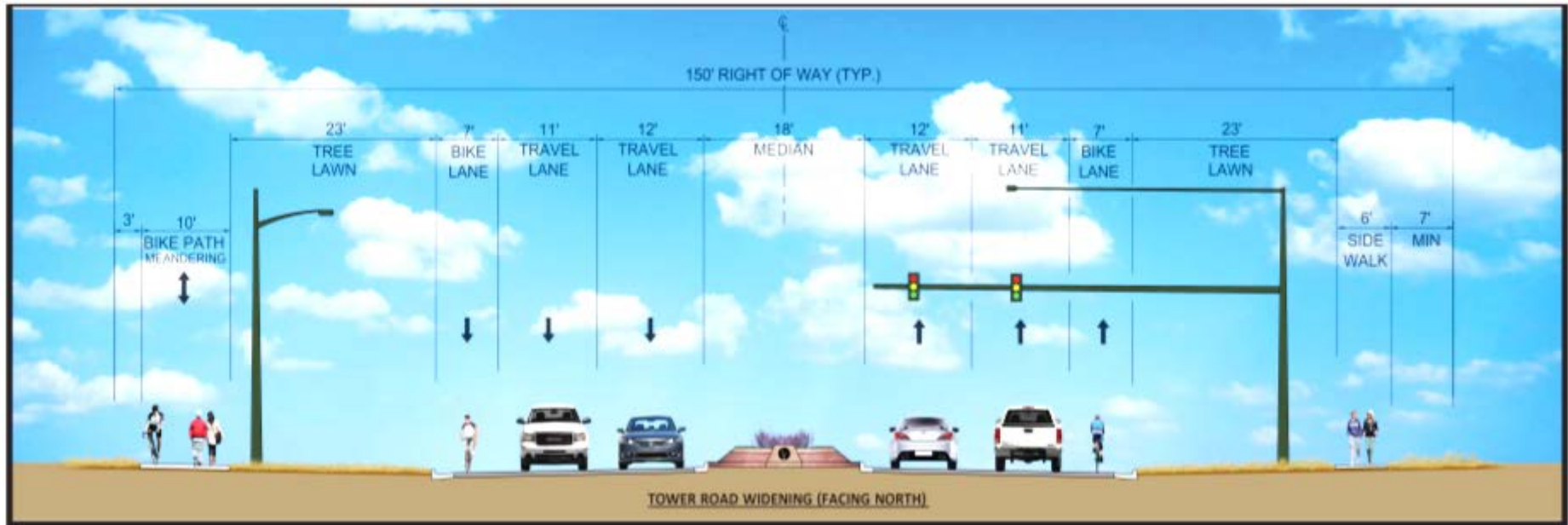


Background

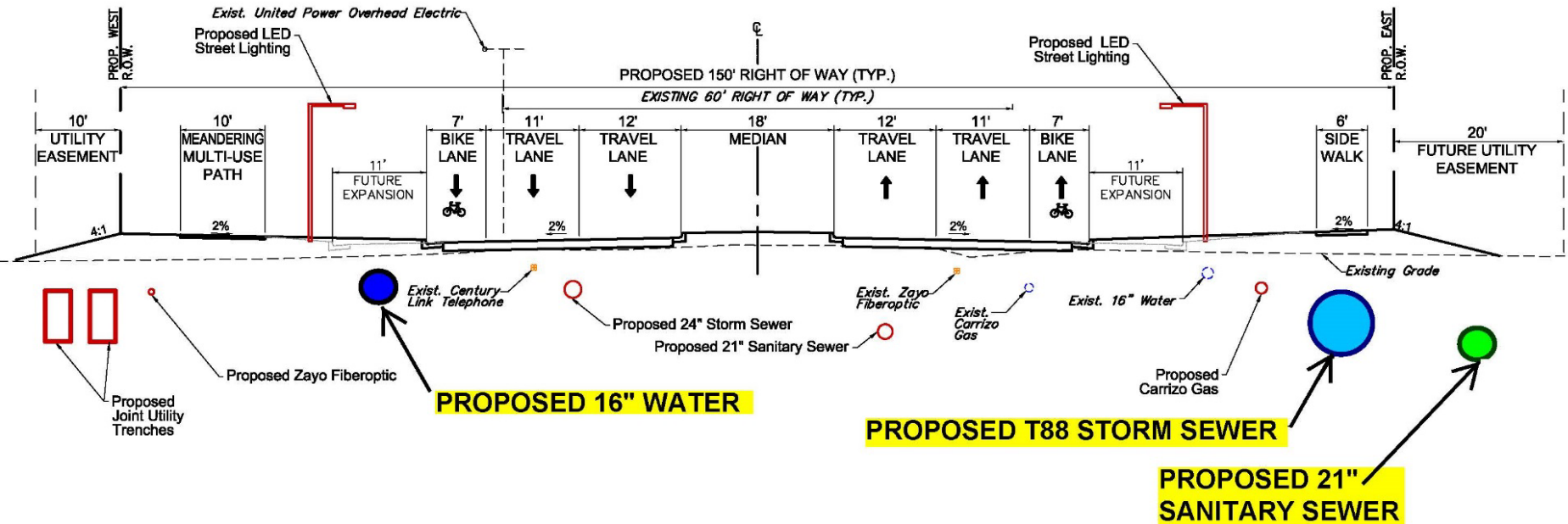
- Regional drainage, water & sewer identified as potential additions to the Tower Road Project, using 2K funds, during ECAGID/ERAGID meetings in late-2014
 - Goal was to solve for both short-term & longer-term issues to further advance development opportunities while building on economies of scale from Tower Road project and minimizing future traffic impacts & potentially higher costs to install these at a later date
 - At that time, City Attorney's Office had presented an opinion that these costs were eligible for 2K usage
- 2/19/15 Council presentation on potential cost savings to project resulting in 2K “capacity” to fund these additional improvements
- 5/18/15 Upon further evaluation, City Attorney determined that only design costs for wet utilities and design & construction costs for drainage, associated with Tower Road, were eligible



Proposed Typical Section



Typical Utility Cross Section



Storm Water Drainage - Options

- Option 1: Tower Road Drainage only (short-term solution)
 - Build retention and water quality ponds with storm water sewer pipes for conveyance

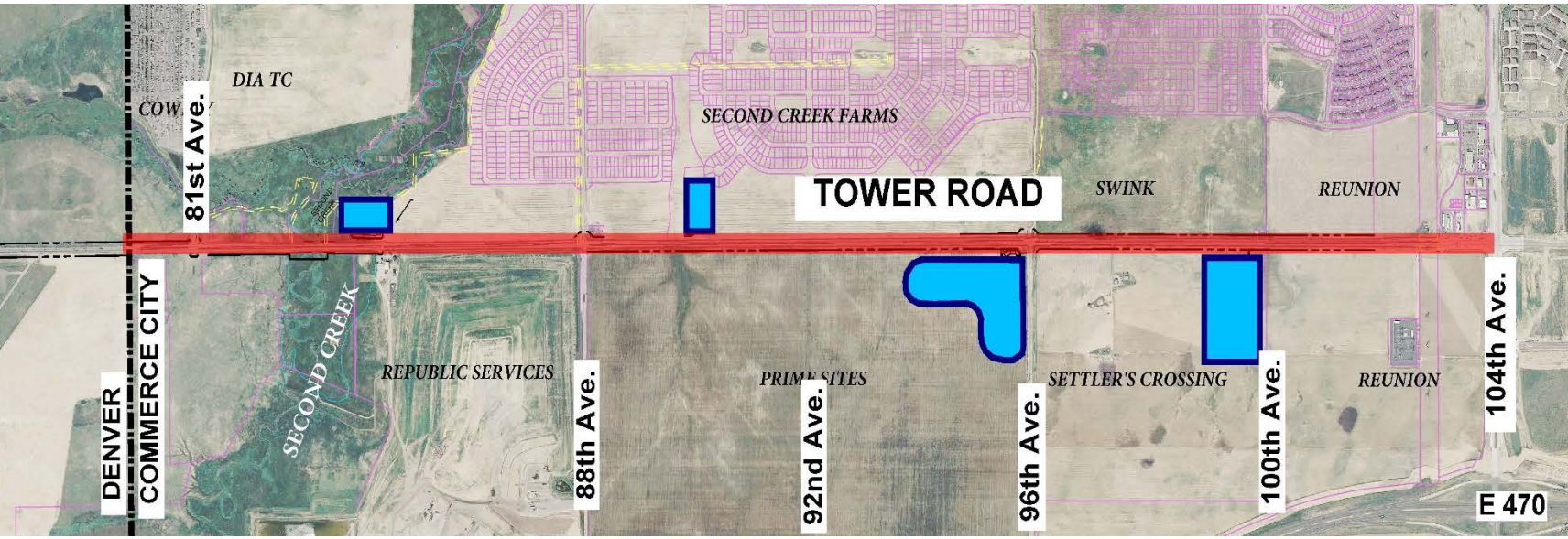
Focus: Build a system that handles only the Tower Road storm water requirements

- Option 2: Tower Road Drainage + Regional (medium-term solution)
 - Build a modified T-88 storm water drainage system

Focus: Build the backbone of a regional storm water system that handles the Tower Road storm water requirements, and can be expanded to accommodate development to meet future storm water requirements



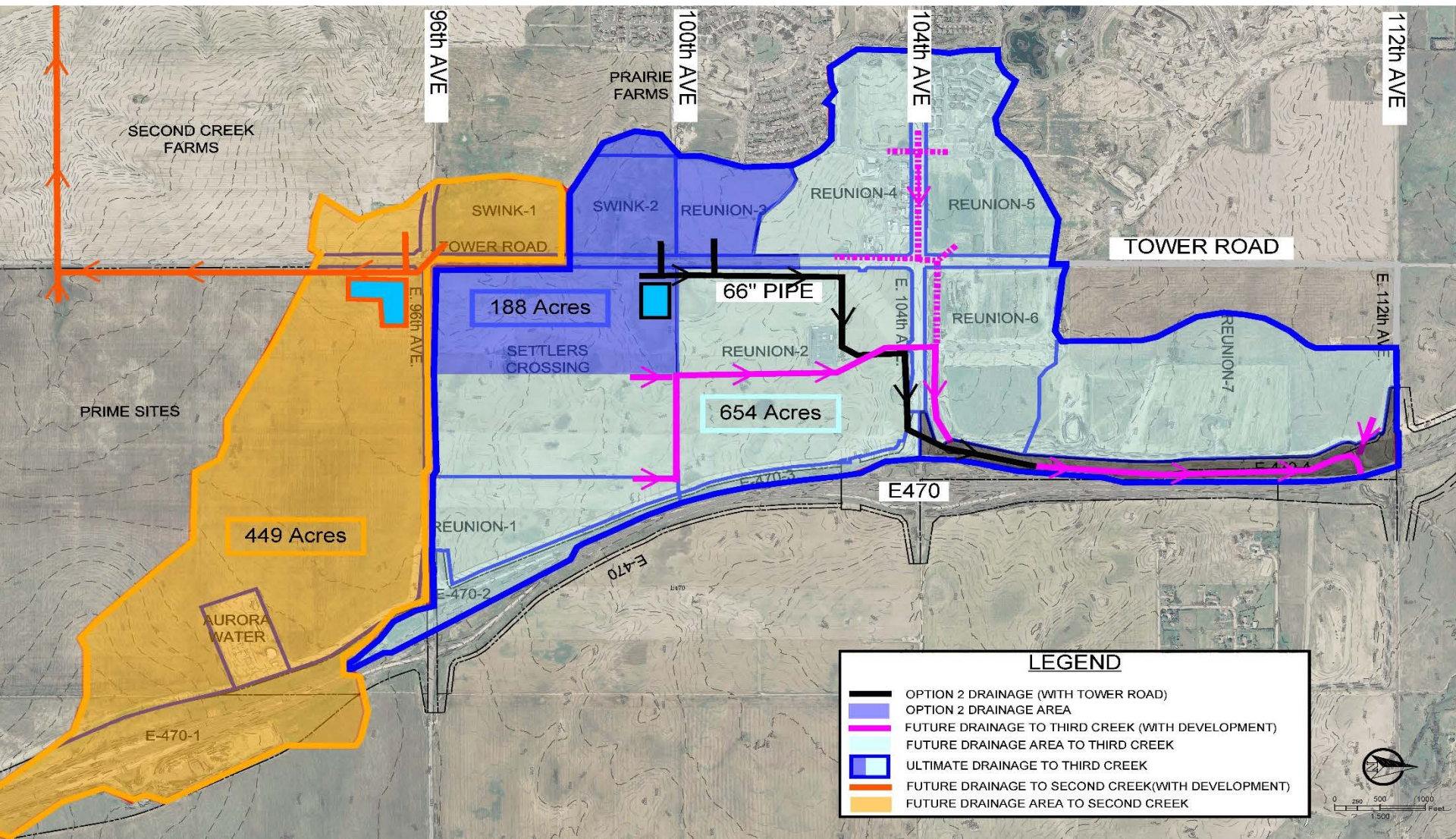
Option 1: Tower Road Only



Second Creek – Detention
Gramma Gulch – Detention
96th Ave – Retention
100th Ave – Retention



Option 2: Tower Road + Regional Modified T-88 Drainage Outfall Plan



Storm Water Drainage Build Options



Build Option	Advantages	Challenges
1. Option 1: Tower Road Only - Retention Ponds	<ul style="list-style-type: none">• 2K funds would be used for a direct cost in the Tower Road ROW	<ul style="list-style-type: none">• Uses more developable land• Higher on-going maintenance costs (mowing, mosquitos)• A portion of City's costs reimbursed from GID
2. Option 2: Tower Road + Regional "Modified T-88"	<ul style="list-style-type: none">• Storm water drains• Uses less developable land• Allows for more readily developable properties• Minimizes future disruption (road construction, traffic)	<ul style="list-style-type: none">• Higher upfront cost to city• Some portions will be outside of Tower Road ROW

Costs and Funding Sources

Build Option	System Owner	Funding Source	Upfront City Cost	Net City Cost	Repayment Terms
1. Retention Ponds	C3	2K	\$2.01 M*	\$302 K	A portion of costs (up to 85%) reimbursed from ECAGID/ERAGID once funds become available
2. Modified T-88	C3	2K	\$3.21 M	\$417 K	A portion of costs, based on contributory area, reimbursed from developer at time of development

* Construction costs already included in project budget; might require additional land costs

Staff recommends proceeding with the Retention Ponds Option

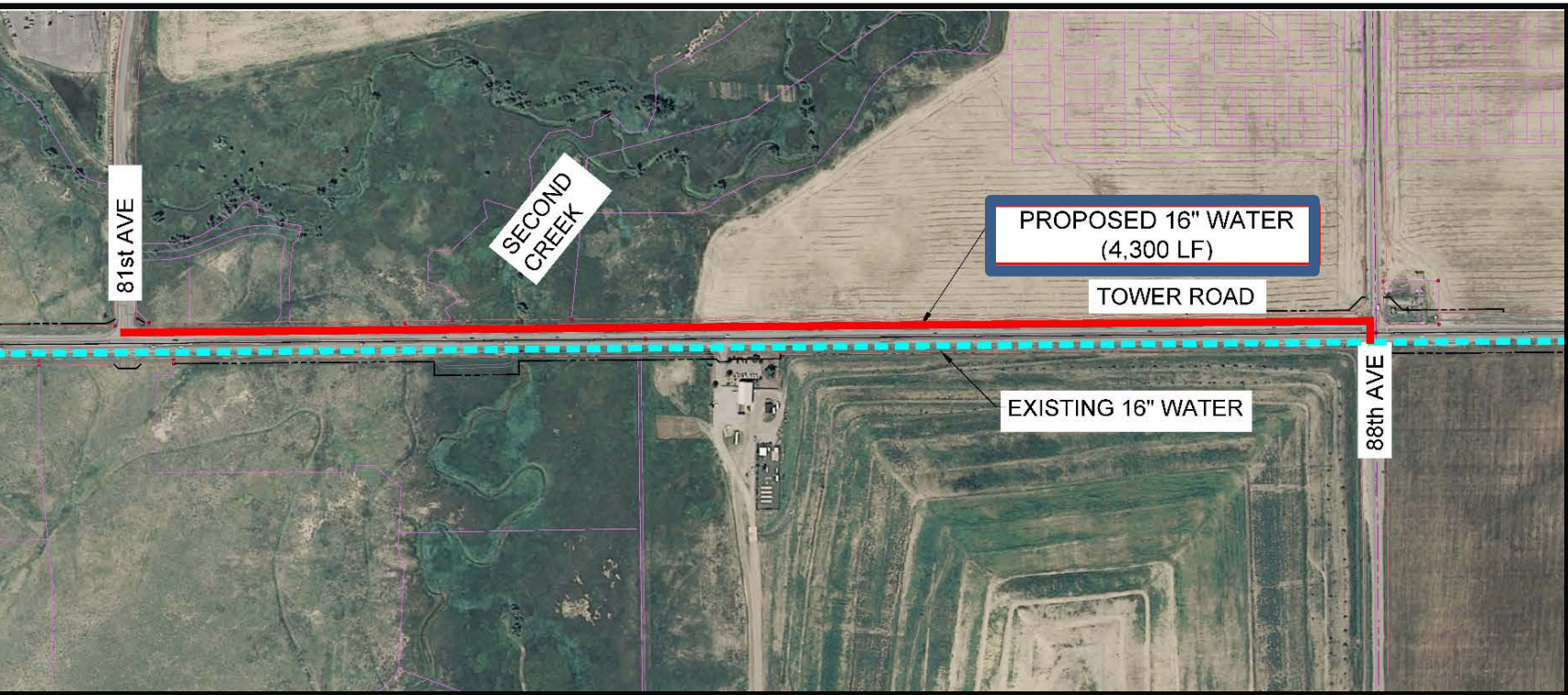


Wet Utility Options

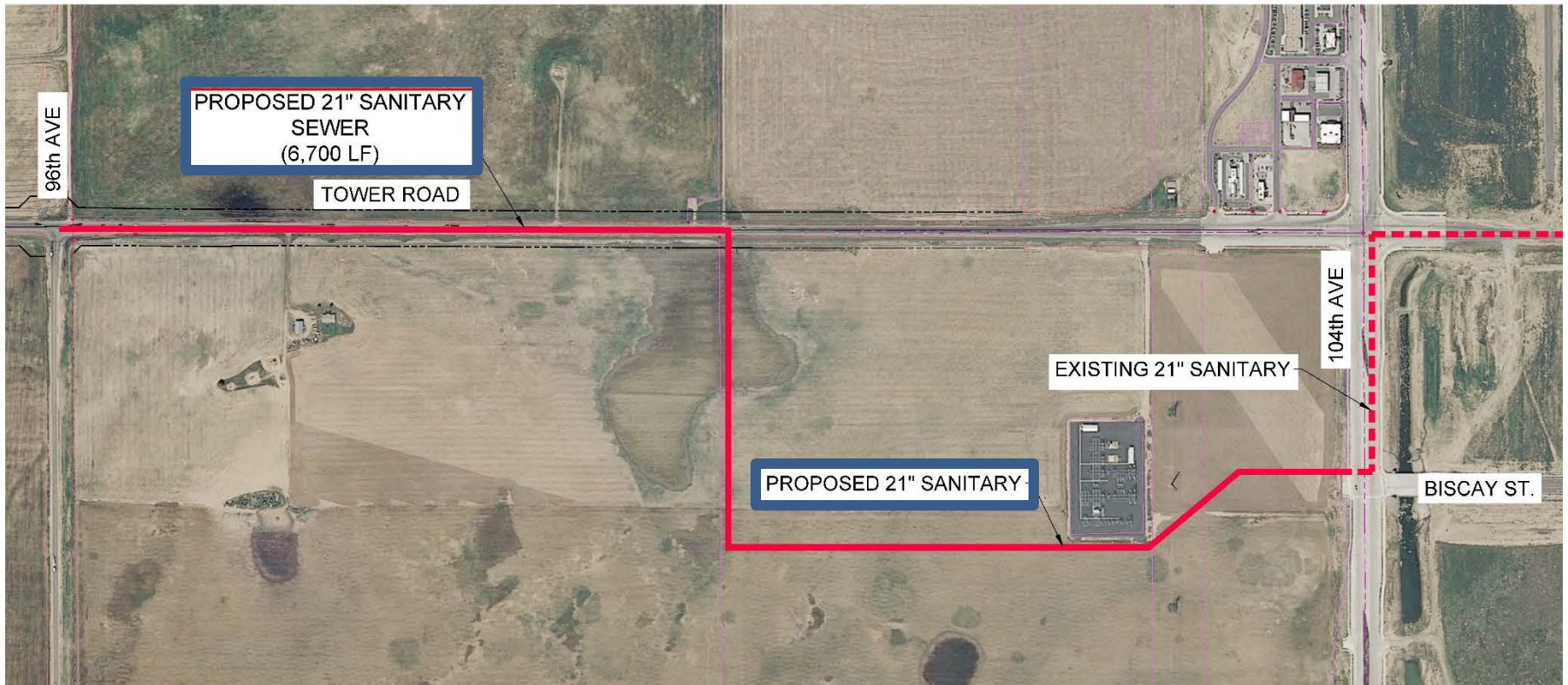
- Build Option
 - Build the new 16” waterline between 81st & 88th Avenue and build the new 21” sanitary sewer line between 96th & 104th Avenue
- No Build Option
 - Do not build the new waterline and sanitary sewer line



Water Infrastructure



Sanitary Sewer Infrastructure



Wet Utilities Build Options

Option	Advantages	Challenges
Build	<ul style="list-style-type: none">• Further enables development• Construction done at same time - no disruptions to traffic or damages to roadway in the future• Costs would be reimbursed by GIDs	<ul style="list-style-type: none">• Alternate funding source needs to be identified• Timeframe for GID repayment is unknown
No Build	<ul style="list-style-type: none">• No upfront cost to city	<ul style="list-style-type: none">• Development will be delayed until developers can pay for utilities• Possible traffic impacts in the future• Additional utility easement needed for sanitary sewer

Estimated Costs and Funding

Option	Improvement	System Owner	Funding Source	Upfront City Cost	Net City Cost	Repayment Terms
Build	Water	SACWD	CIP	\$680 K	\$340 K	CIP reimbursed from GID over X yrs., based upon development
Build	Sanitary	SACWD	CIP	\$795 K	\$0	CIP reimbursed from GID over X yrs., based upon development
	Total			\$1.48 M	\$340 K	
No Build	Water	SACWD				
No Build	Sanitary	SACWD				
	Total			\$0	\$0	

Staff recommends proceeding with the No Build Option



Questions & Discussion

