AGENDA

1. Introductions
2. Williamson Creek Interceptor
3. Where We are Today
4. What Is Being Looked At?
5. Schedule
6. What to Expect
7. Questions?
WILLIAMSON CREEK INTERCEPTOR

The Project

- AW modeling of the Williamson Creek Sewer Basin has determined need to increase capacity
- Portions of existing 36-inch and 42-inch pipes currently at capacity
- **Current** and **Long-range** capacity needs
- Solution - Construct 18,000 feet of large diameter gravity wastewater interceptor
WILLIAMSON CREEK INTERCEPTOR

Goals for the Project

1. PROVIDE ADDITIONAL CAPACITY TO CONVEY WASTEWATER FLOWS
2. INCREASE WASTEWATER SYSTEM RELIABILITY AND REDUCE OVERFLOW RISKS
3. DECREASE LONG-TERM O&M COSTS ASSOCIATED WITH AGED INFRASTRUCTURE
4. MINIMIZE ENVIRONMENTAL IMPACTS AND PROTECT WATER QUALITY
5. REDUCE ODOR ISSUES ASSOCIATED WITH THE INFRASTRUCTURE
6. REMOVE DIVERSION BOX AND IMPEDIMENTS TO FLOOD FLOW IN THE CHANNEL
WILLIAMSON CREEK INTERCEPTOR

Overview of the Project Area

EXISTING INTERCEPTOR
WILLIAMSON CREEK INTERCEPTOR

Reasons for the Project

- Eroded Encasement
- Manhole Conflict with Streambank Structure
- Infiltration into Encasement
- Sanitary Sewer Overflow (example)
- Access for O&M Equipment
- Diversion Box
WILLIAMSON CREEK INTERCEPTOR

History

- 1963: Constructed 3.7 Miles of 36-inch/42-inch Concrete Pipe
- 1981: Connected 48-inch from Lost Creek
- 1985: Connected to Onion Creek Tunnel
- 1986: Concept to Replace 36-inch Section (Revised in 1992) ... Design commenced ... Put on Hold due to Budget
- 2000: Concept to Replacement Complete Interceptor ... Put on Hold due to Budget
- Nov 2016: New Design Contract Commenced
- 2017: Rehabilitation of 36-inch and 42-inch underway
1. Optimizing open-cut and tunneling.
2. Protecting the environment.
4. Addressing public concerns proactively.
5. Incorporating sustainable ideas.
WHERE WE ARE TODAY

Challenges

Bottleneck to Flow

- Diversion Box (Impediment to Creek Flow)
- Cutover Main
- Floodplain -CQWZ
- Canyon Rimrock
- Wetland
- High Traffic
- School
WHERE WE ARE TODAY

Process

- **Establish Interceptor Route Options**
  - Incorporate Old Work ... Update to Present Requirements and Needs
  - Bring in New Options ... Incorporate Changes to Project Area, New Rules/Requirements

- **Establish Stakeholder Interests**
  - Community: Maintain Service, Noise, Dust, Traffic, Access, Protect Creek
  - Environmental: Minimize Impacts (trees, creek, wetlands)
  - Austin Water: Maintain Service, O&M, Meet Future Needs, Budget

- **Review Route Options Against All Stakeholder Interests**

  - **Select Route that Provides Best Solution**
WHAT IS BEING LOOKED AT?
Prior Ideas from Work in 2000

EXISTING INTERCEPTOR
WHAT IS BEING LOOKED AT?

New Ideas

EXISTING INTERCEPTOR
WHAT IS BEING LOOKED AT?
Narrowed Routes for Detailed Analysis
### WHAT IS BEING LOOKED AT?
#### Detailed Analysis (example)

<table>
<thead>
<tr>
<th>Screening Criterion</th>
<th>Creek Segment</th>
<th>Wagon/Creek Bend Segment</th>
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</thead>
<tbody>
<tr>
<td><strong>Length</strong></td>
<td>7,980 feet</td>
<td>8,320 feet</td>
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<tr>
<td><strong>Number/Type of Shafts</strong></td>
<td>1 - Launch Shaft 2 – Combination Shafts</td>
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<tr>
<td><strong>Cost</strong></td>
<td>$21,700,000</td>
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</table>
| **Easements Required**    | • Private: 1  
• City of Austin: 5 | • Private: 10  
• City of Austin: 3 |
| **Permitting**            | • Shafts in DE/floodplain  
• Access and construction in CWQZ/EHZ  
• Permanent access in DE/floodplain | • Most work in/under ROW  
• ROWMAN for excavation in ROW  
• Difficult ROWMAN for shaft locations |
| **Proximity to Cut-over Mains** | • Best access to mains south of creek  
• Vertical drop access to all CO mains  
• Closest access to 24-inch at CO6 – Requires vortex insert | • Poor access to CO mains south of creek  
• Vertical drop access to CO 3, 5, 7, 8 access to all mains  
• Difficult deep extension of CO4, 6, 9  
• CO 3, 2 “manageable” |
| **Flexibility to Implement** | More direct access for CO connects  
• Min open cut in DE/CWQZ/EHZ | Difficult to connect CO4, 6, 9  
• Max open cut in DE/CWQZ/EHZ  
• Deep connections in ROW |
| **O&M Considerations**    | Need to construct perm access in DE/floodplain  
• Combine w/PARD improvements? | Easy access to shafts  
• Difficult/costly shaft placement  
• Vertical drop still in DE/floodplain |
| **Inconvenience to Public** | All tunnel hauling/delivery out East William Cannon – Little impact | All tunnel hauling/delivery out East William Cannon – Little impact  
• Shaft locations limited to ROW, Deep, Extended street closure(s)  
• Open cut in ROW for combining CO7 and 8 |

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**WHAT IS BEING LOOKED AT?**

**Detailed Analysis (example)**

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6943.031 - WCI Task 5 – Route Narrowing Workshop

2017.03.29

SCHEDULE
NEXT STEPS

Design Phase

- Next 12 Months
- Field visits and survey
- Contact Letter from City Regarding Access to Collect Information
- Additional Public Meetings
- AW Crews in Streets/Manhole Inspections

Construction Phase

- More Contact from City Regarding Project Status
- Additional Public Meetings
- Tunneling for Main Interceptor – Open Trenching or Drilling for Connections
- Environmental Protections (E&S control, tree protection, etc...)
- Possible Temporary Neighborhood Impacts
NEXT STEPS

1. Record Input from Tonight's Meeting
2. Include Tonight's Input in Overall Evaluation Process
3. Finalize Evaluation
4. Make Final Route Recommendation to City
5. Commence Design
QUESTIONS OR COMMENTS?

Eric.Bailey@austintexas.gov
(512) 974-7713

http://www.austintexas.gov/department/williamson-creek-wastewater-interceptor