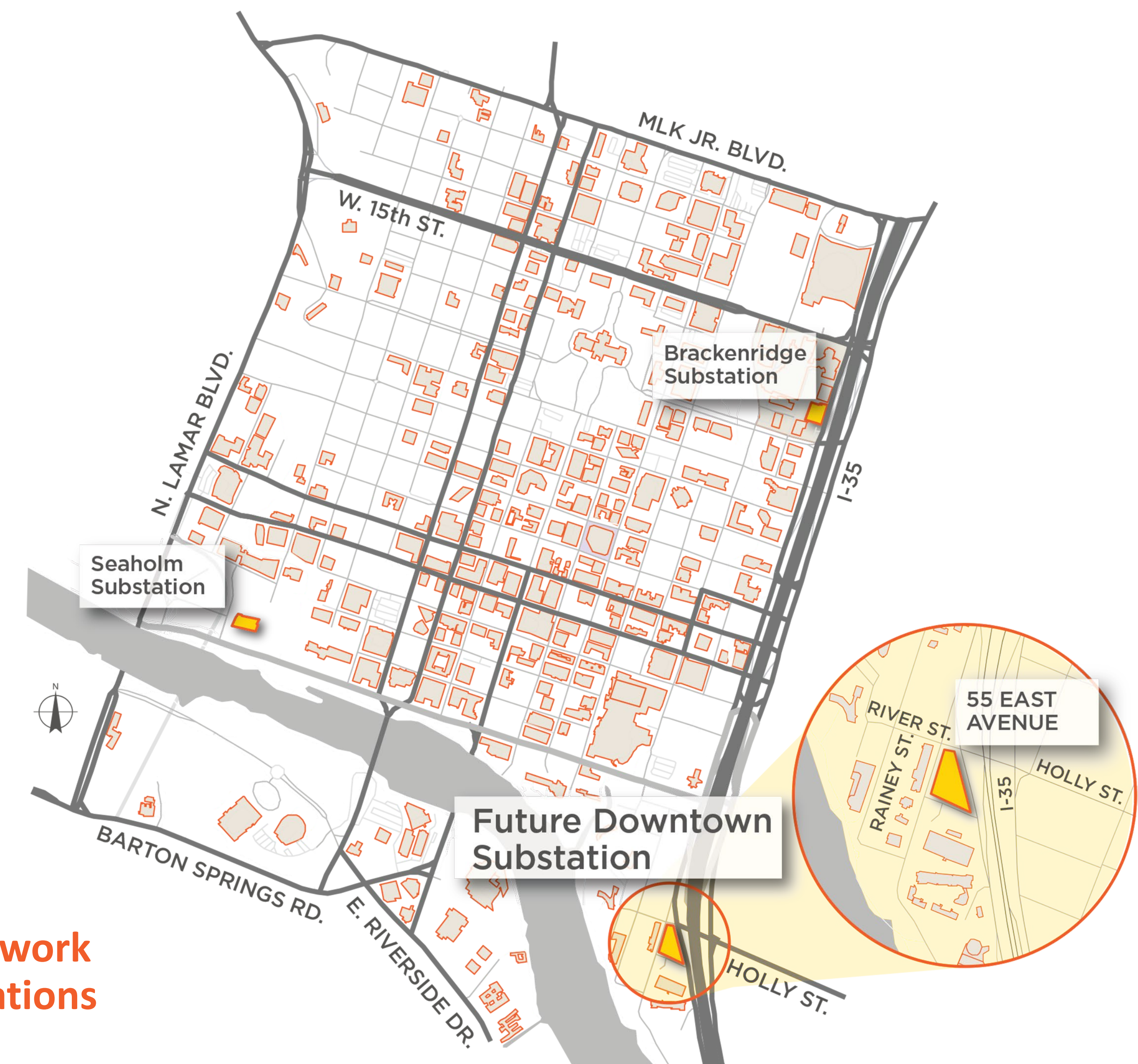


Repowering Downtown

\$60M initiative to increase capacity, resiliency, and reliability to meet the needs of our growing city.

- Increase Distribution Tie Circuits
- Add 70 MVA to Seaholm Substation
- Build New Downtown Substation
- Rebuild Brackenridge Substation
- Upgrade Network Distribution Feeder Circuits
- Convert 69kV Transmission Lines to 138kV



**Downtown Network
Substation Locations**



Downtown Substation

Austin Energy operates 77 substations across 437 square miles of service area. The downtown substation is being designed as a gas-insulated switchgear substation, which is ideal for densely-populated urban locations.

Gas-Insulated Switchgear (GIS) Compared to Air-Insulated Switchgear (AIS)	
Compact Design	Significant footprint reduction (approximately 70% smaller)
Capital Costs	Approximately 2x more
O&M	Lower maintenance costs
Aesthetics	GIS portion in a building and station surrounded by enclosure
Reliability	GIS is less susceptible to faults
Installation	Faster site assembly with pre-assembly and testing completed at manufacturer
Equipment	Standard power transformers and enclosed medium voltage utilized to reduce cost and increase maintainability



The Site

- Selected in 1999 for the future electric needs of downtown
- Austin Energy is coordinating with other involved agencies, including:
 - TxDOT
 - Watershed Protection for storm drain
 - City of Austin to incorporate Great Streets
- **Total Site: 1.46 acres**
- **Substation Footprint: 0.81 acres**
- **Site Updates:**
 - 3 transmission poles (currently 2) to allow clearance over heritage trees
 - Two driveways



PRELIMINARY SITE PLAN – SUBJECT TO FINAL SITE APPROVAL



Repowering Downtown

Community Engagement

- Public meeting held in June 2018 – 178 surveys received

Top Preference for Outward Aesthetics



Input on the Site

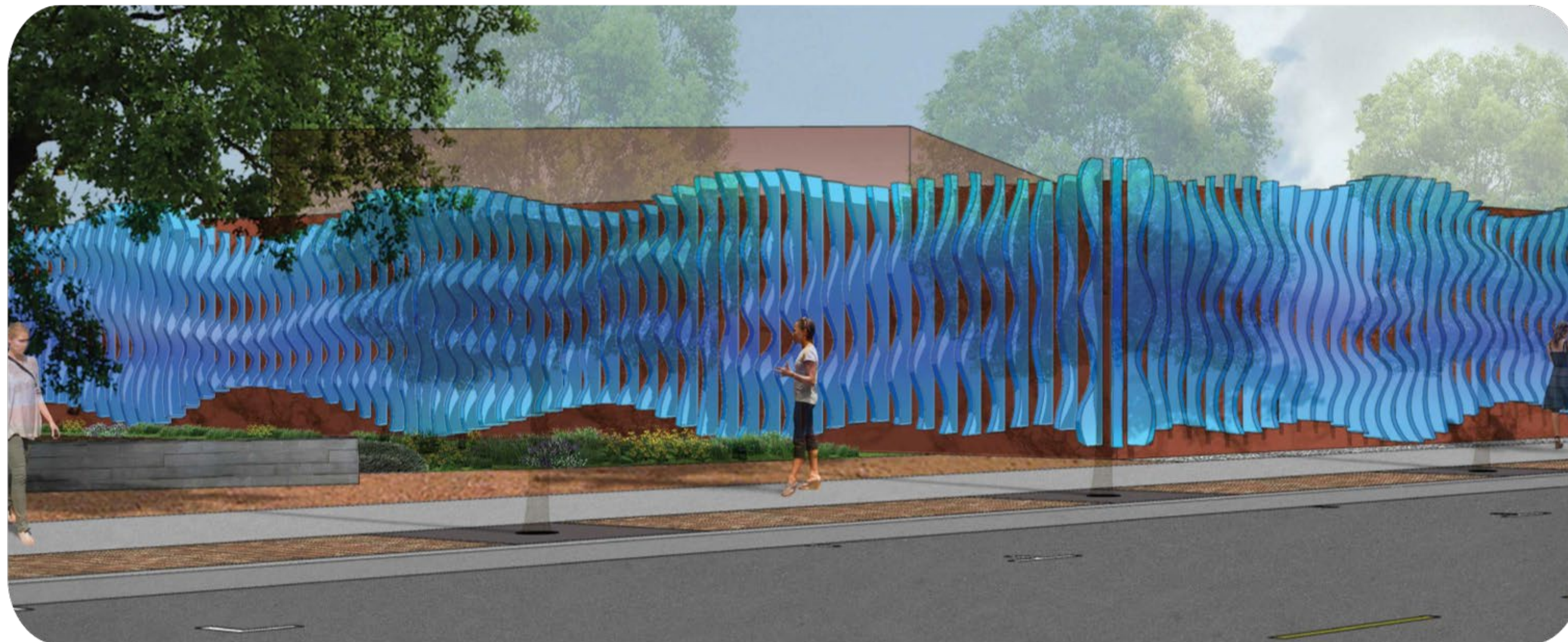
- Priority placed on an attractive enclosure
- Desire to preserve trees and incorporate landscaping
- Concern for impact the facility would have on neighborhood



Most Preferred Design Options

- Public meeting held in February 2019 – 440 surveys received

Design Theme: Modern



Name:

Rainey Street Substation

98%

reported that they were satisfied with the opportunities to provide public input

Landscaping



Native Grasses
& Wildflowers

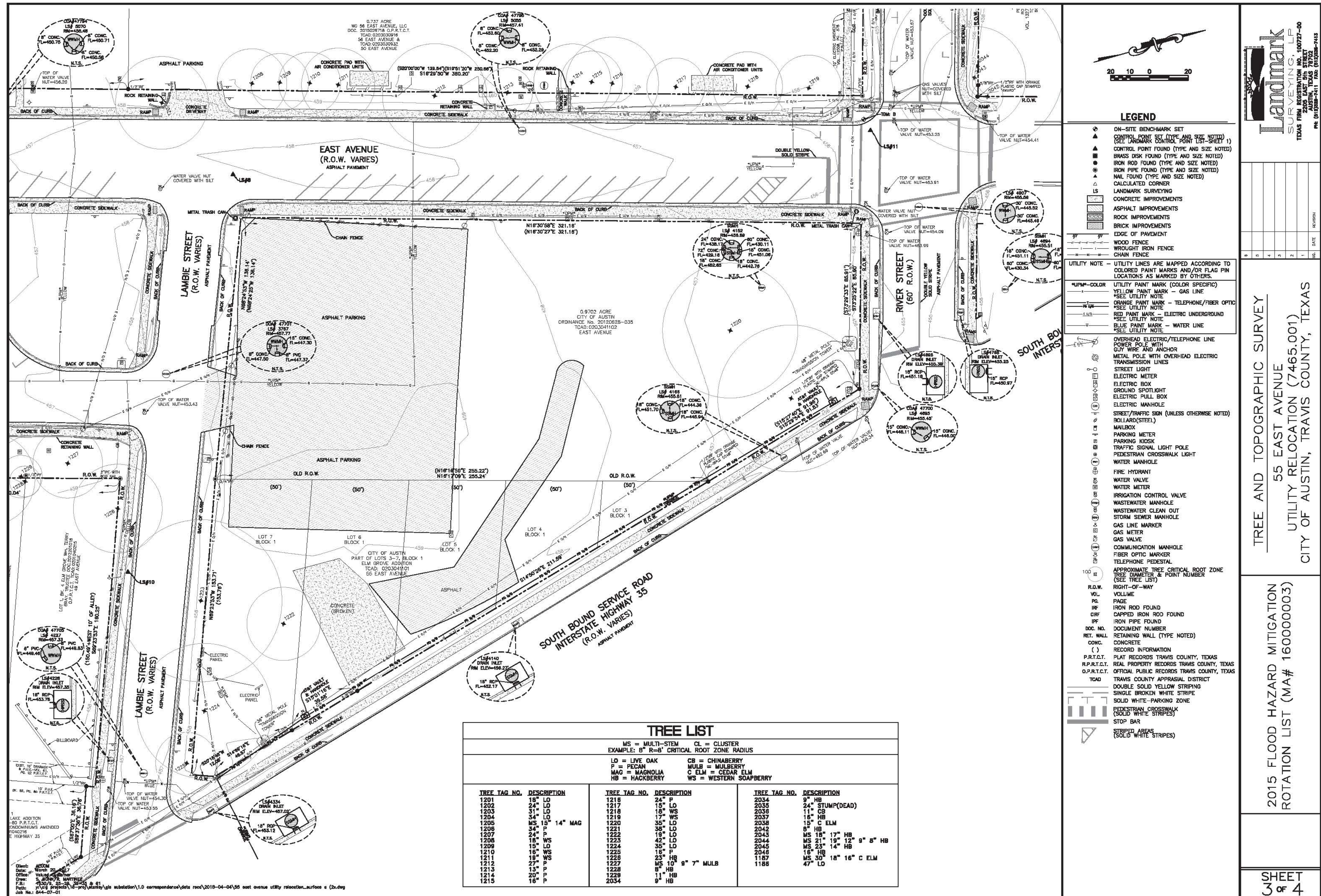


Natural Boulders



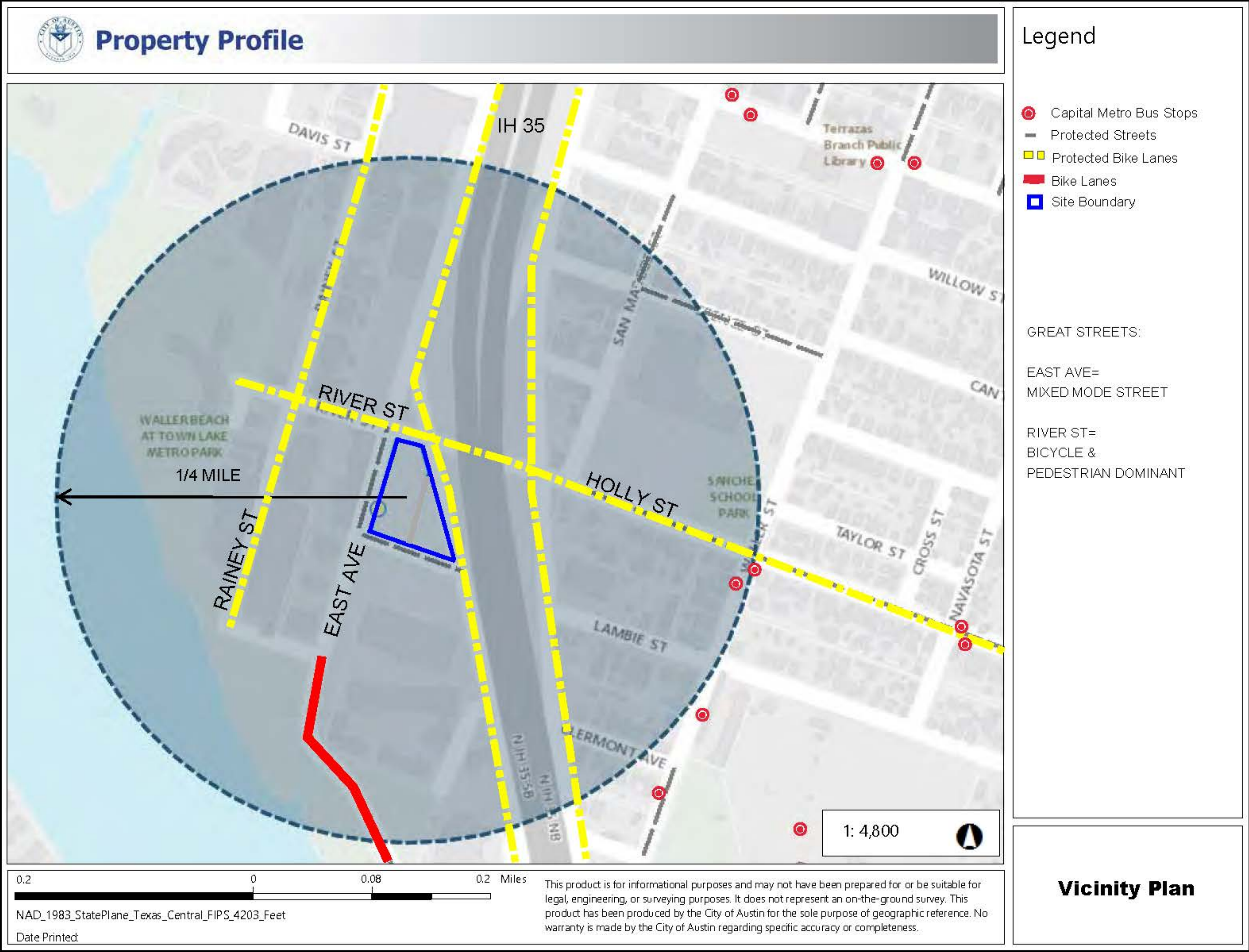
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Survey

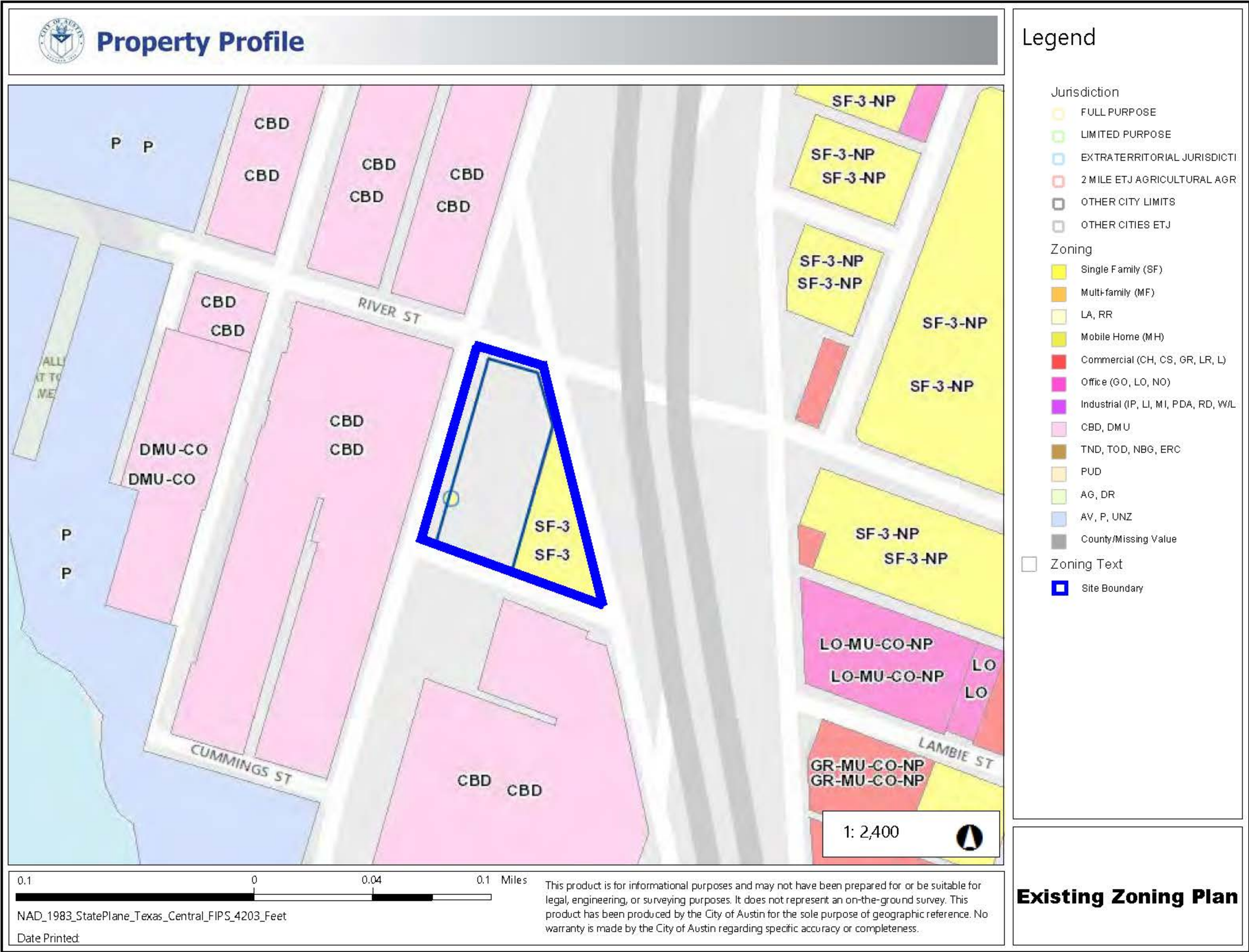


Repowering Downtown

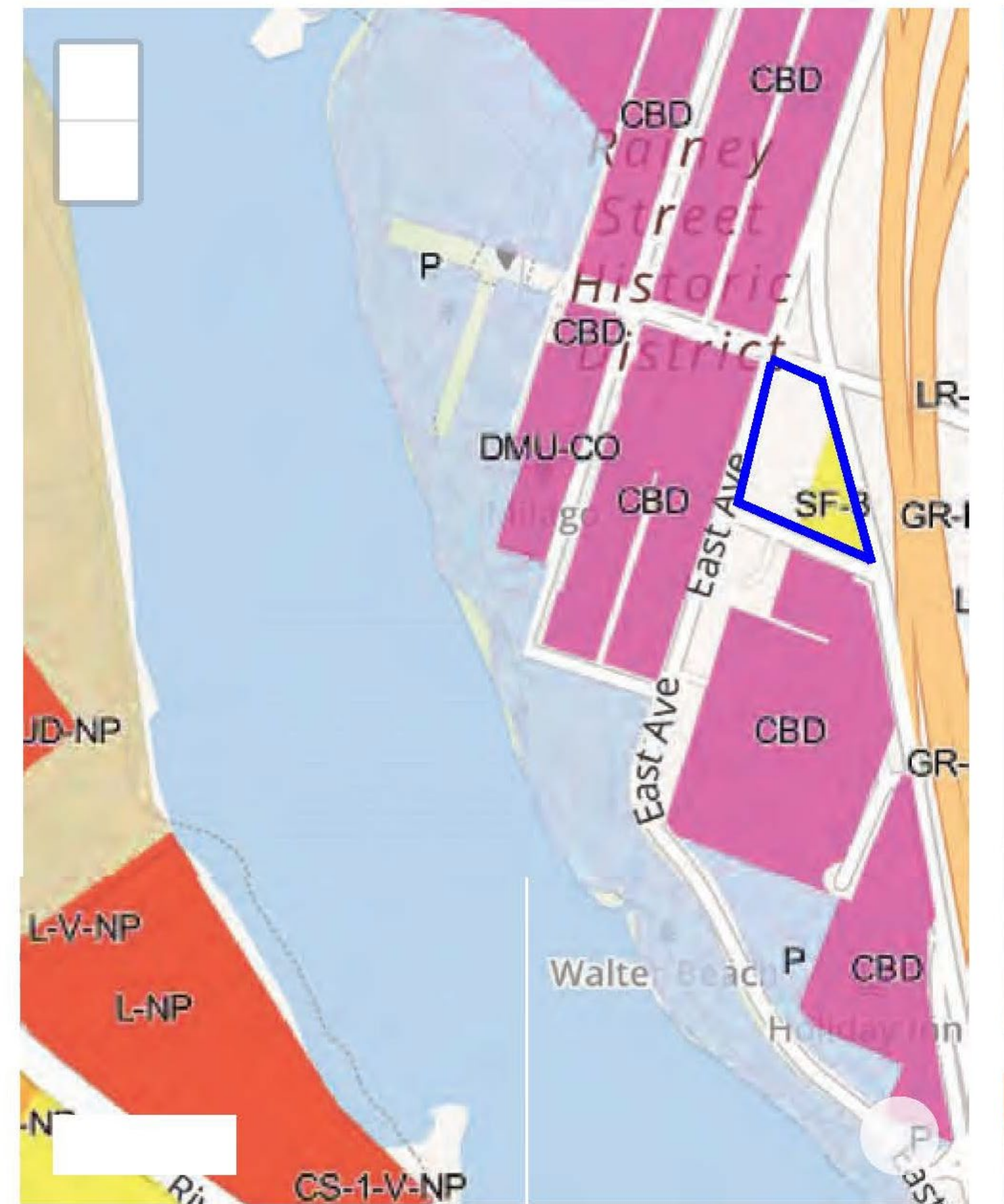
Profile



Profile



Zoning



Existing Zoning Legend

Rural Residence (RR)	Central Business District (CBD)
Single Family Residence (SF-1, SF-2, SF-3, SF-4A, SF-4B)	Downtown Mixed Use (DMU)
Lake Austin Residence (LA)	Limited Industrial Services (LI)
Urban Family Residence (SF-5)	Industrial Park (IP)
Townhouse & Condo Residence (SF-6)	Warehouse Limited Office (W/LO)
Multifamily Residence (MF-1, MF-2, MF-3, MF-4, MF-5, MF-6)	Major Industrial (MI)
Mobile Home Residence (MH)	Research and Development (R&D)
Commercial Recreation (CR)	Public (P)
Neighborhood Office (NO) Limited Office (LO)	Aviation Services (AV)
Neighborhood Commercial (LR)	Agricultural (AG)
General Office (GO)	Development Reserve (DR)
Community Commercial (GR)	Planned Unit Development (PUD)
Commercial Services (CS) Commercial Liquor Sales (CS-1)	Planned Development Area (-PDA)
Commercial Highway (CH)	Transit Oriented Development (TOD)
Lake Commercial (L)	East Riverside Corridor (ERC)
	North Burnet/Gateway District (NBG)
	Traditional Neighborhood District (TND)
	Unzoned (UNZ)



Proposed Zoning Legend

Rural Residential (RR)	Mixed-Use 1 (MU1A, MU1B, MU1C, MU1D)	Commercial Recreation (CR)
Lake Austin (LA)	Mixed-Use 2 (MU2A, MU2B)	Commercial Warehouse (CW)
Residential 1 (R1A, R1B, R1C)	Mixed-Use 3 (MU3A, MU3B)	Industrial Flex (IF) Industrial General (IG)
Residential 2 (R2A, R2B, R2C, R2D, R2E)	Mixed-Use 4 (MU4A, MU4B)	Industrial Heavy (IH)
Residential 3 (R3A, R3B, R3C, R3D)	Mixed-Use 5 (MU5A)	Research and Development (R&D)
Residential 4 (R4A, R4B, R4C)	Main Street 1 (MS1A, MS1B)	Public (P)
Manufactured Home (MH)	Main Street 2 (MS2A, MS2B, MS2C)	Aviation Services (AV)
Residential Multi-Unit 1 (RM1A, RM1B)	Main Street 3 (MS3A, MS3B)	Agricultural (AG)
Residential Multi-Unit 2 (RM2A, RM2B)	Commercial Center (CC)	Parks (PR)
Residential Multi-Unit 3 (RM3A)	Urban Center (UC)	Conservation Lands (CL)
Residential Multi-Unit 4 (RM4A)	Downtown Core (DC)	Unzoned (UNZ)
Residential Multi-Unit 5 (RM5A)		Former Chapter 25 (F25)



Repowering Downtown

Landscaping Considerations

Preserve Heritage Oak Trees on Site

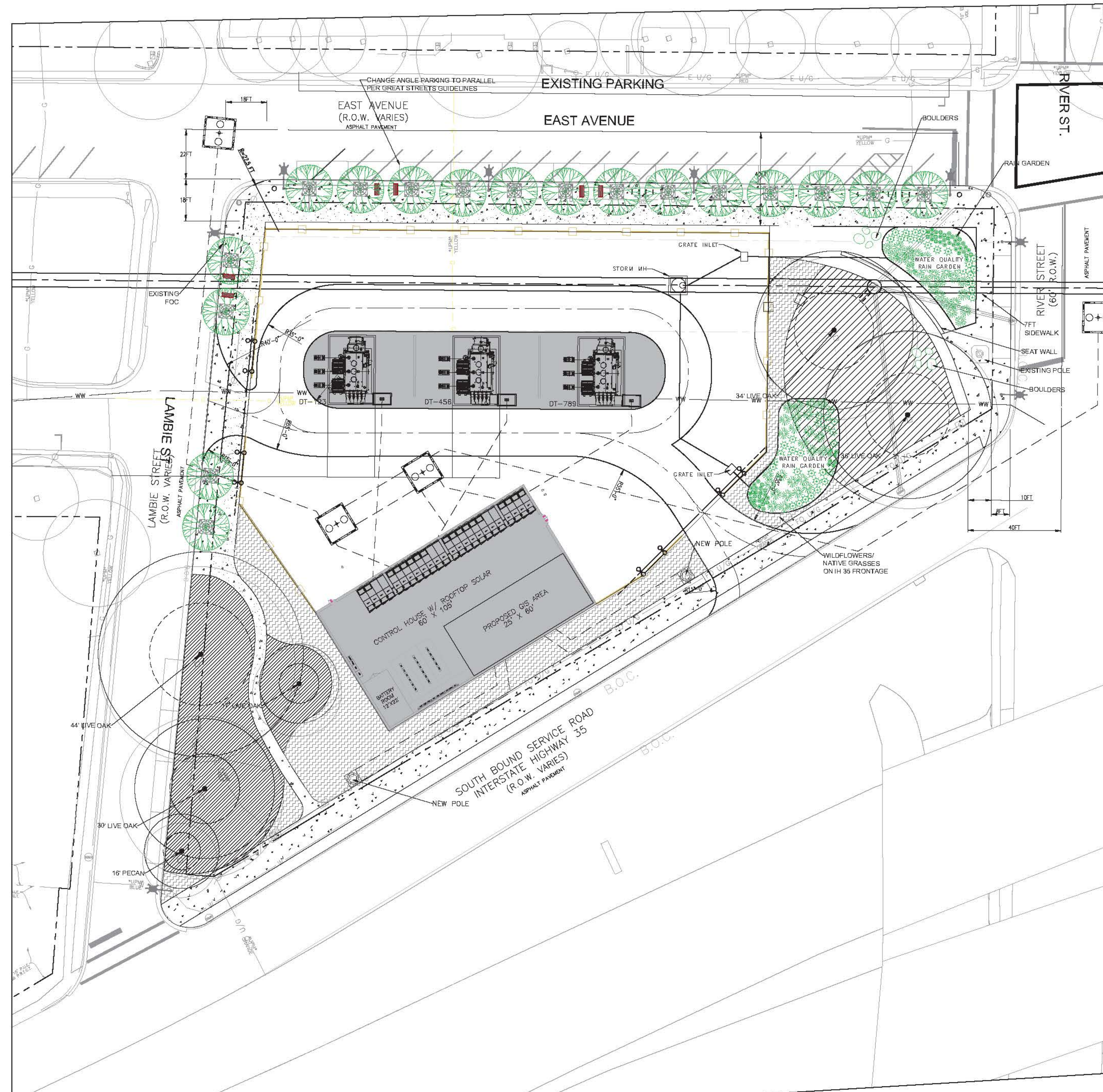
Native Plants Selected for Drought Tolerance and Water Conservation

Consider Great Streets Guidelines

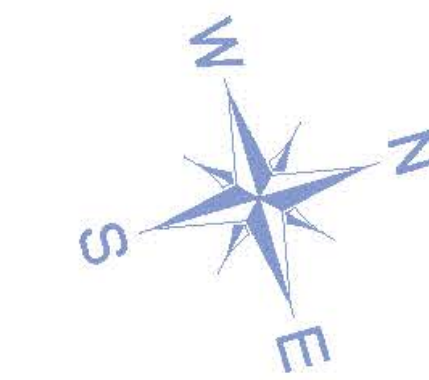
- Compatible with Rainey Historic District
- 18-foot-wide zone for public use
- Incorporate trees, benches, and bicycle parking



Landscaping Plan



**RAINEY STREET SUBSTATION
SITE & LANDSCAPE PLAN
DATE: 06/14/19**



LEGEND

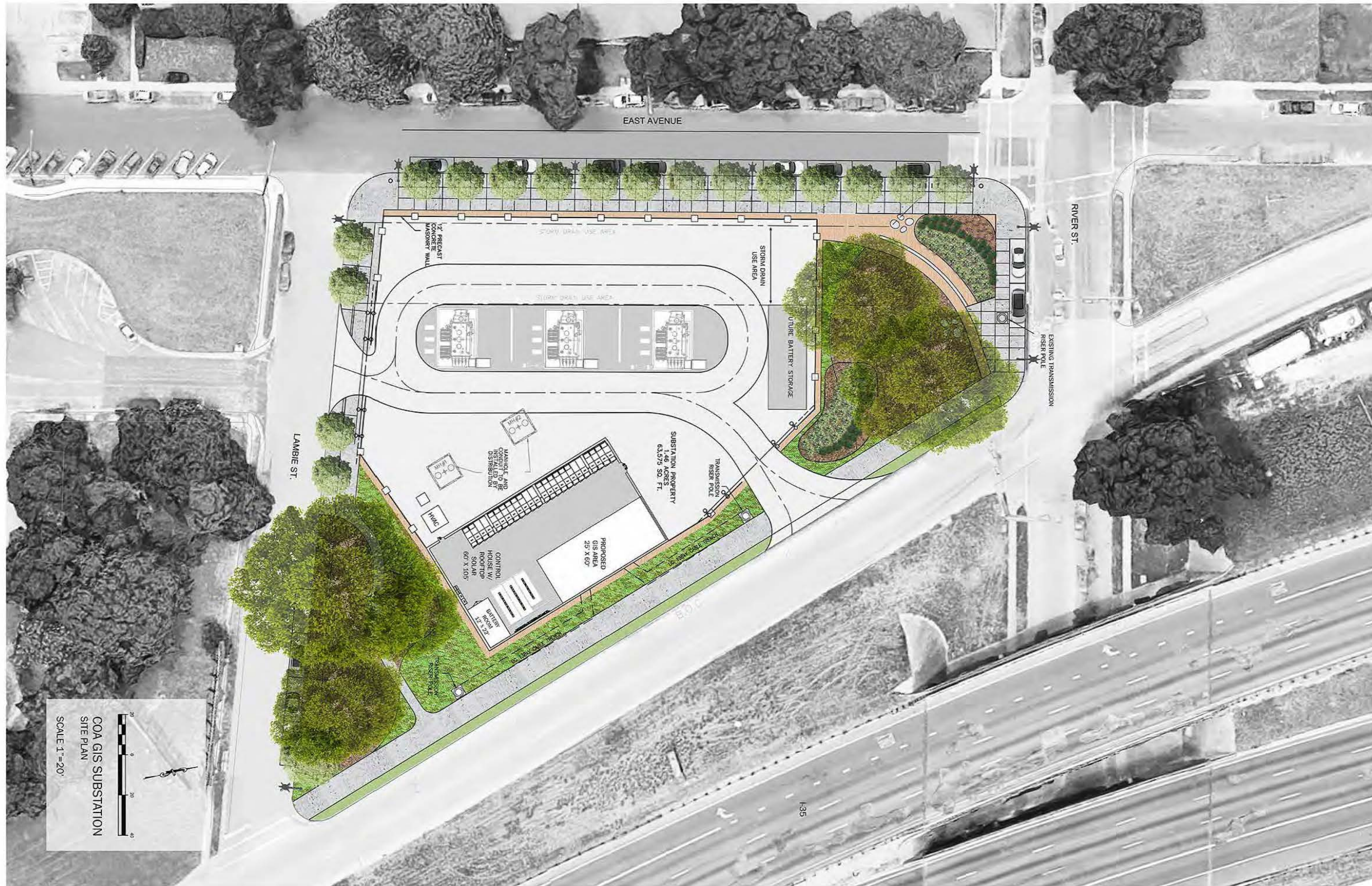
- STREET LIGHT
- TREE GRATE
- BENCH
- TRASH BIN
- BIKE RACK
- NEW TREE (17)
- 100% CRZ
- EXISTING TREE
- 50% CRZ
- PERIMETER FENCE OR WALL & GATES
- CONCRETE SIDEWALK
- GRAVEL
- WILDFLOWER/NATIVE GRASSES
- UNDISTURBED/NATURAL CONDITION TO REMAIN

AT FULL SIZE
0 1 2 3 IN
0 5 10 15 25 30 35 45 50 55 FT



Repowering Downtown

Landscaping Plan



Enclosure Considerations

Parameters

- GIS building height up to 30 feet tall
- Enclosure height up to 10 to 12 feet tall
- Enclosure will include removable panels for future maintenance and cannot be climbable
- Entrance gates will be integrated into design of the wall
- Equipment located outside of the GIS building is required to remain open and uncovered for safety, accessibility, and operational reasons



Enclosure Wall

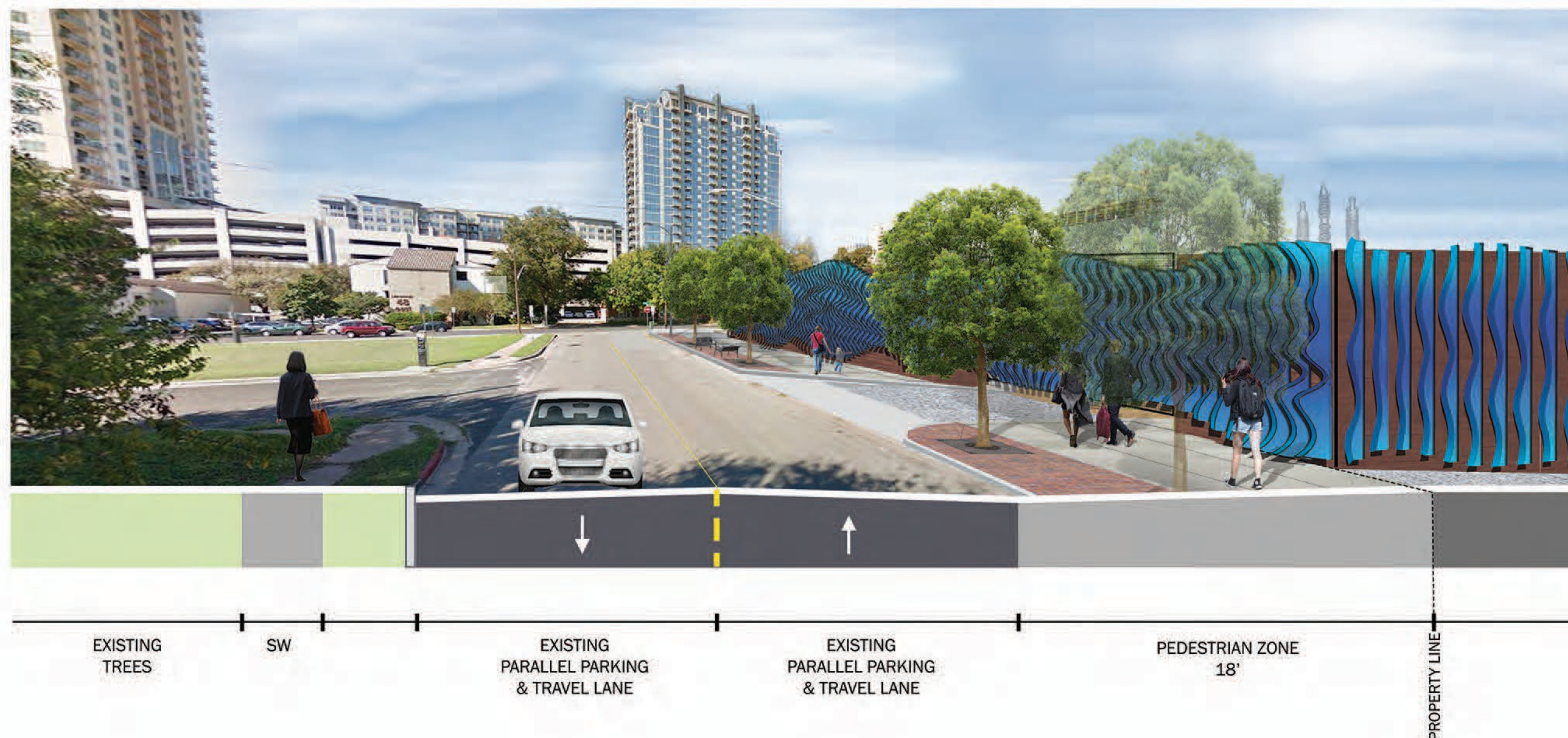


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Lambie Street



SECTION PERSPECTIVE: LAMBIE STREET LOOKING WEST

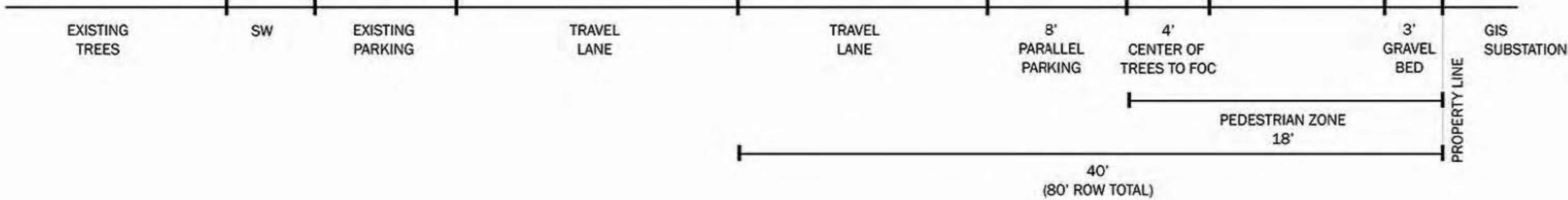
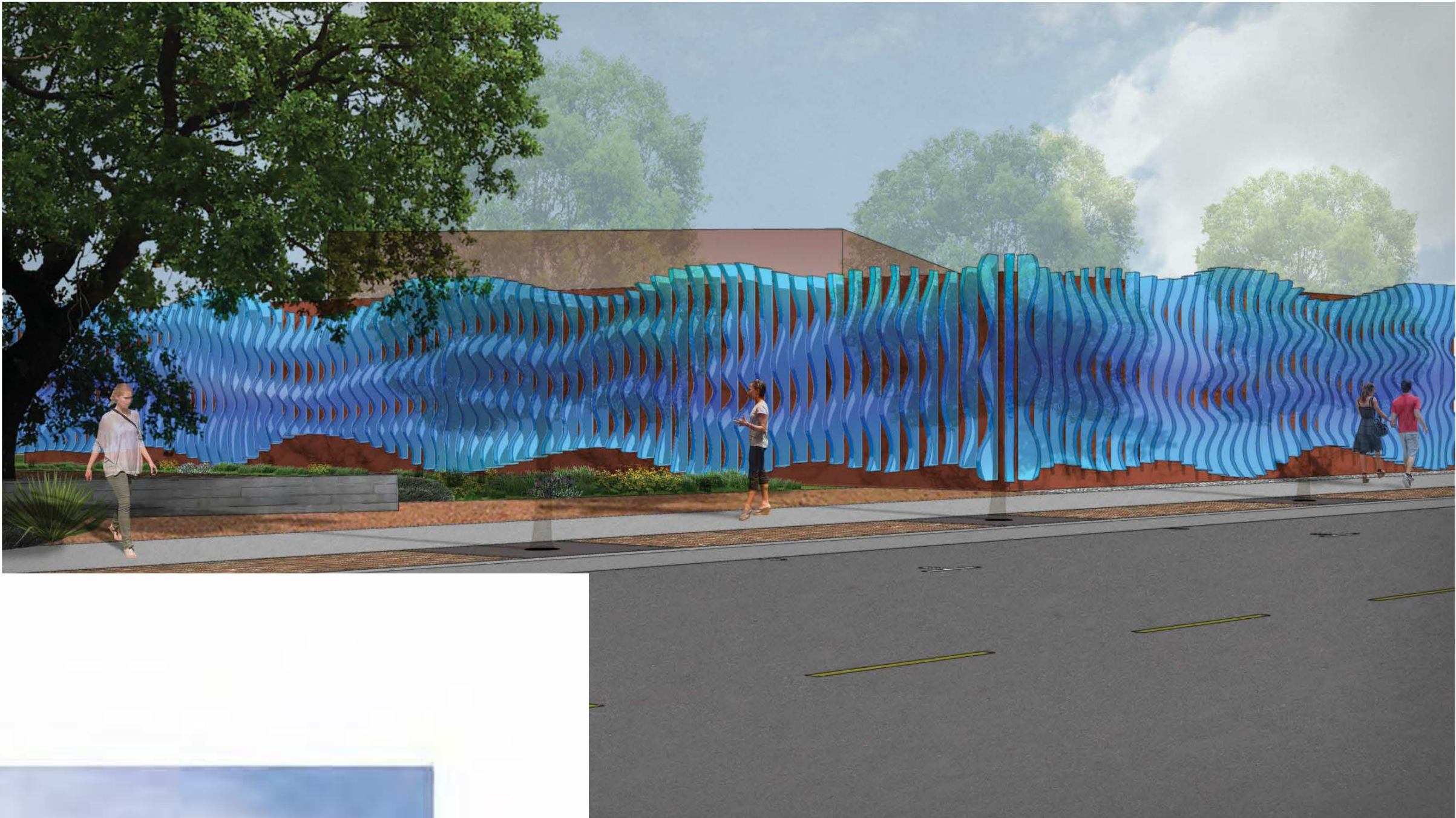
0 2' 4' SCALE 1"=2'



Repowering Downtown



East Ave.



SECTION PERSPECTIVE: EAST AVENUE LOOKING NORTH

0 2' 4' SCALE 1"=2'

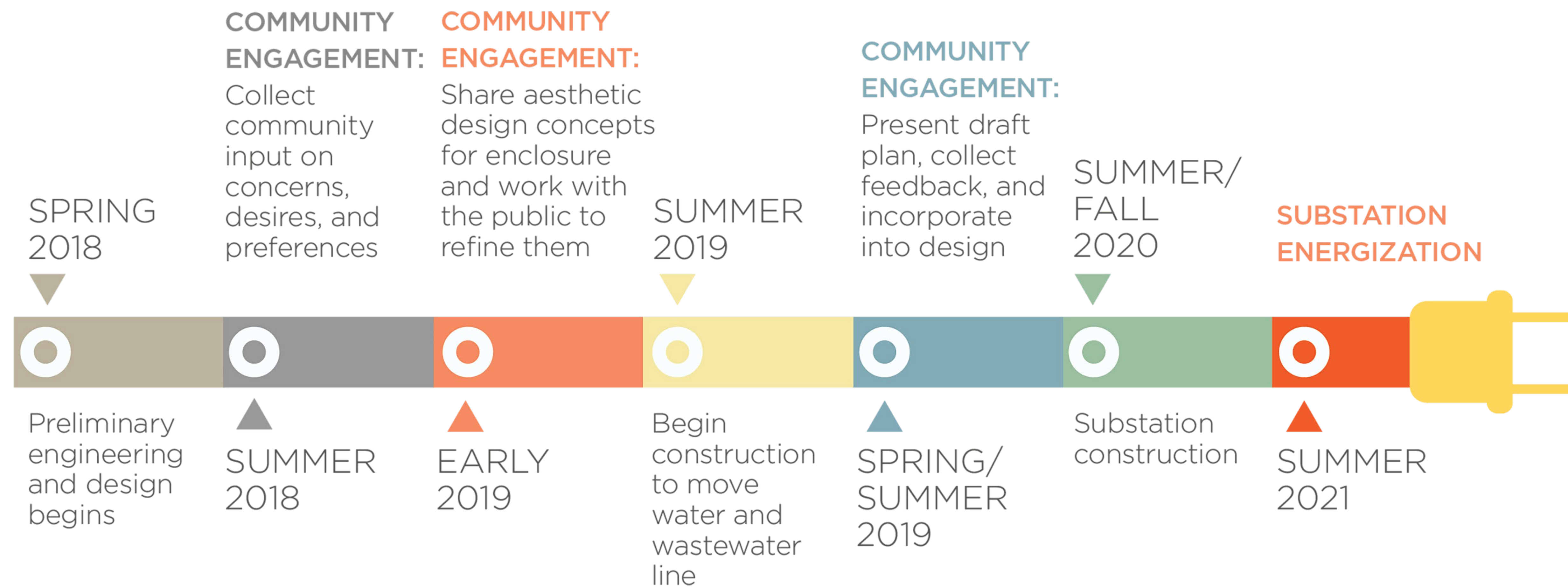
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Schedule



Next Steps:

- Final engineering and design
- Coordinate next public meeting (August 2019) to share design and renderings

