HMGP Green Infrastructure Projects

St. Roch Drainage Upgrades

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City of New Orleans

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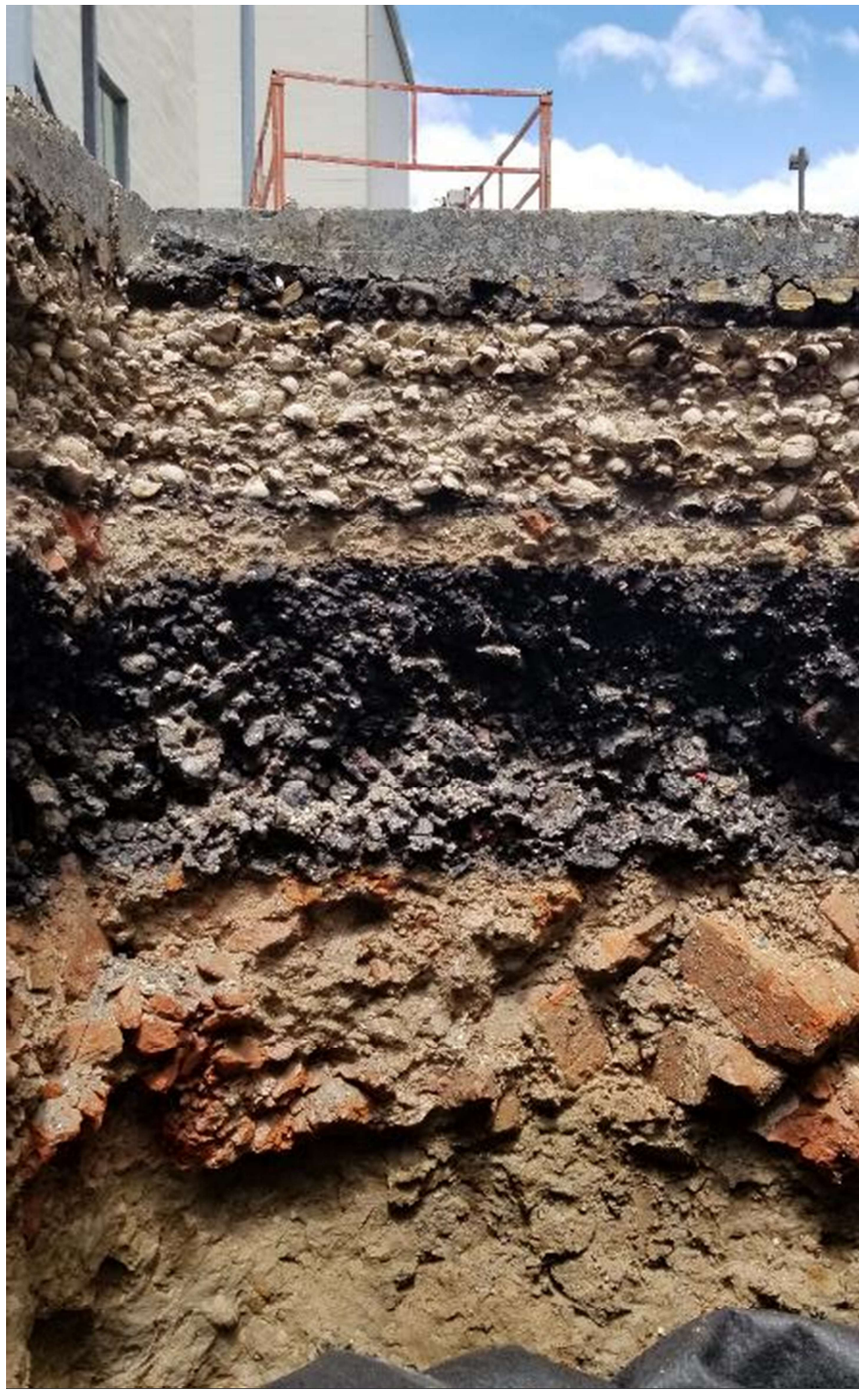
What makes Stormwater Management in New Orleans Challenging?

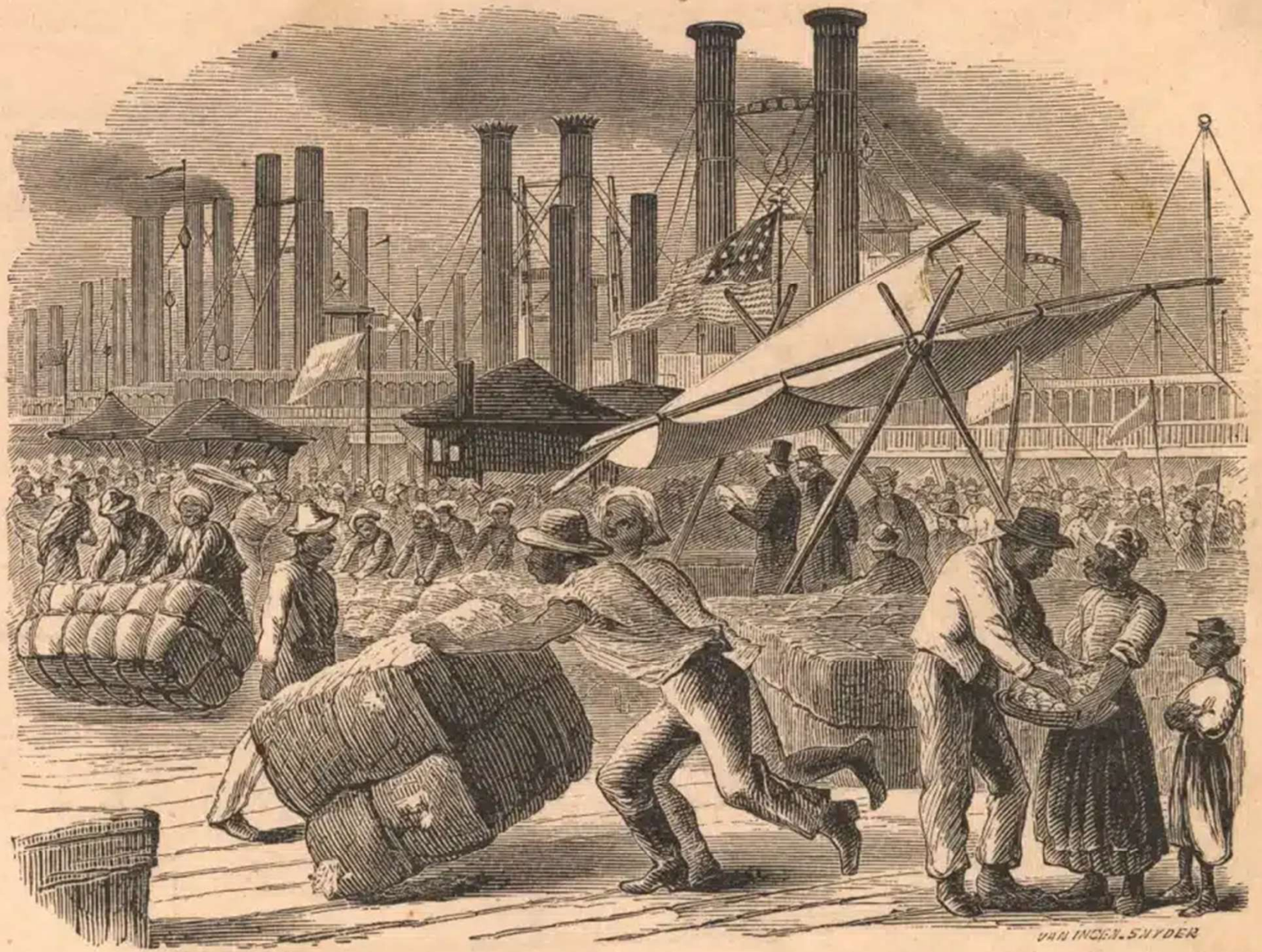
- Soil Conditions
- High Water Table
- Flat Terrain
- Shallow Storm Sewers
- Maintenance
- Flooding & 100-year old Pump System
- Enforcement of Stormwater Regulations



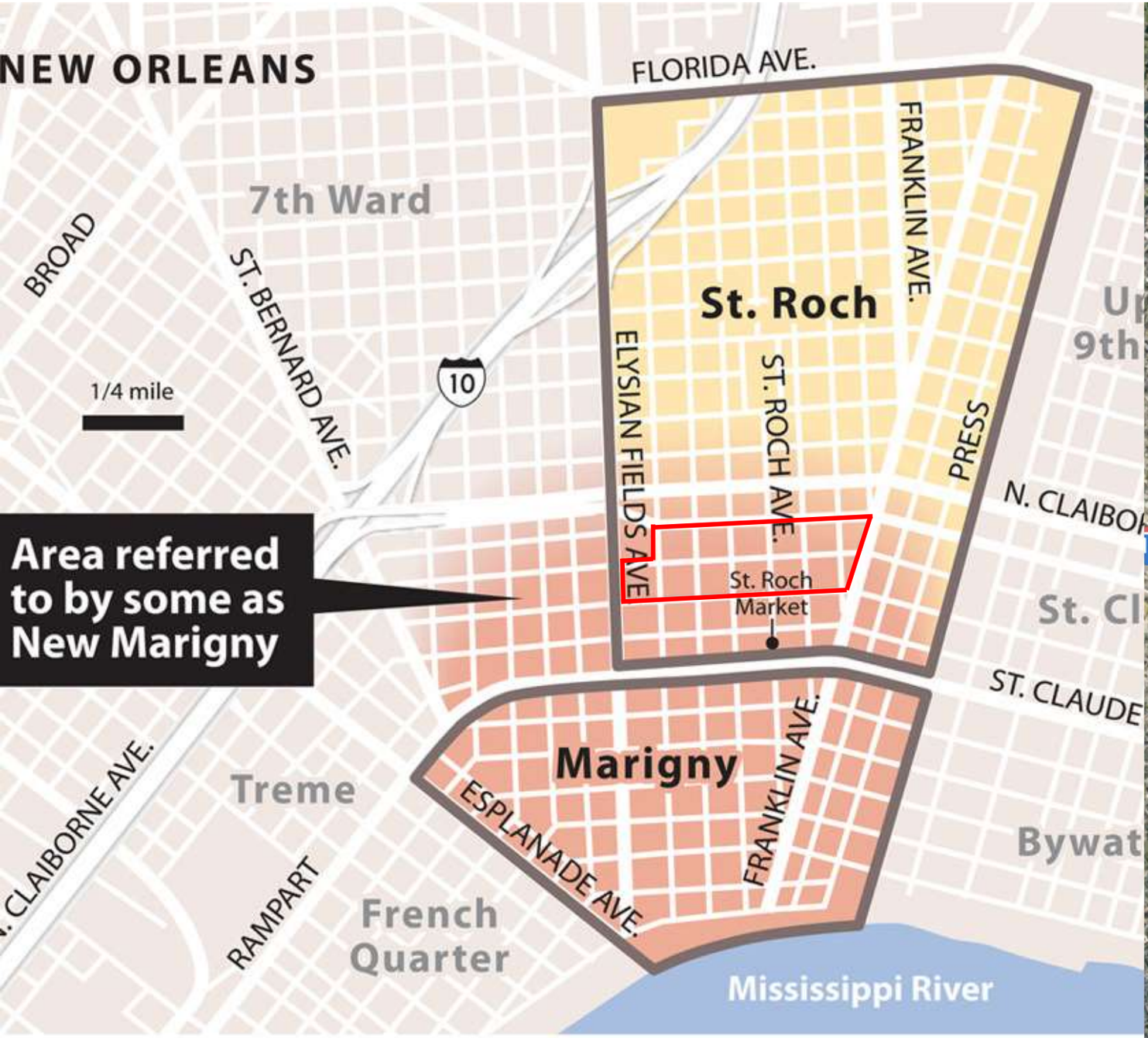

NO
MOTOR
CES

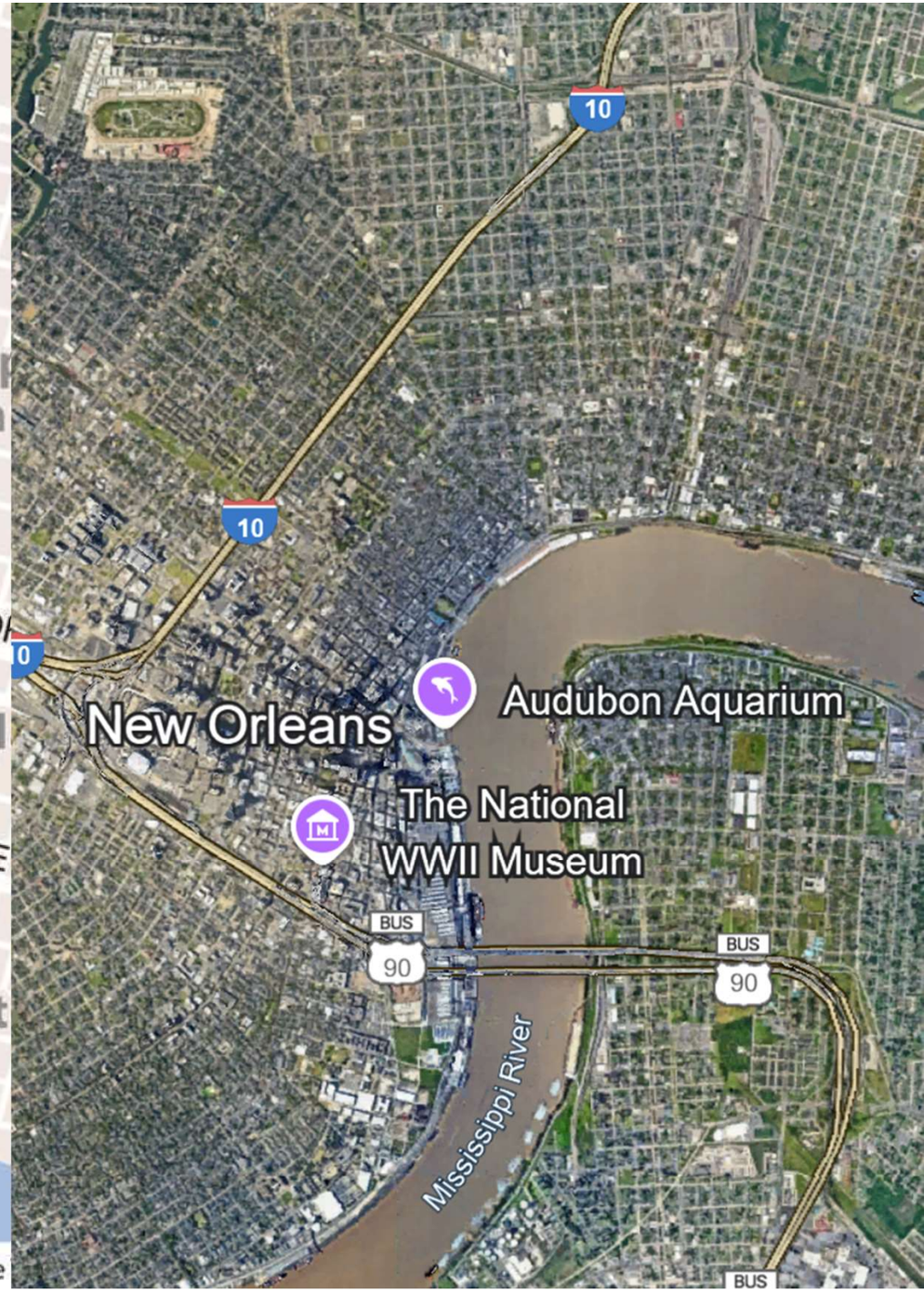

BLD SERVICES, LLC


OOD FOOD
COCKTAILS
- 10:00 PM
LOSED
TUESDAYS
DIXIE
Parkway
clean



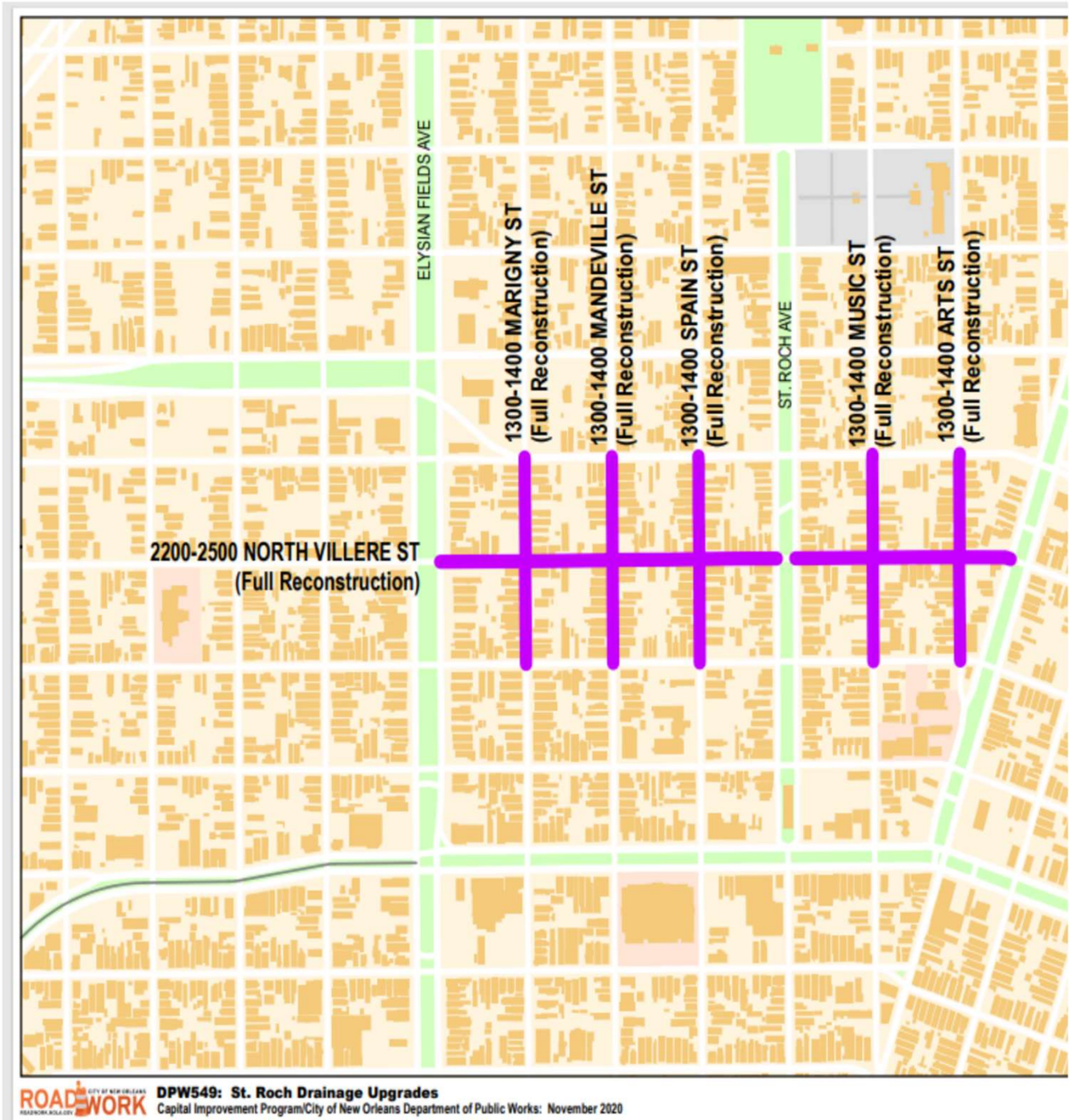
View in New Orleans.





e: City of New Orleans Neighborhood Engagement Office

Dan Swenson, NOLA.com | The



Project Overview – St. Roch

- Over 1 acre of permeable pavers. Increase parking by 80+ spaces
- 100 rain gardens with 3000+ native plants and 100+ native trees
- Full Re-construction of 17 blocks, from stoop to stoop. Includes sewer & water utilities
- 26% less impervious surfaces & increase shade to minimize urban heat island effect
- Decrease neighborhood flooding during a much more severe 10-year, 24-hour storm event (8.5 inches of rain).

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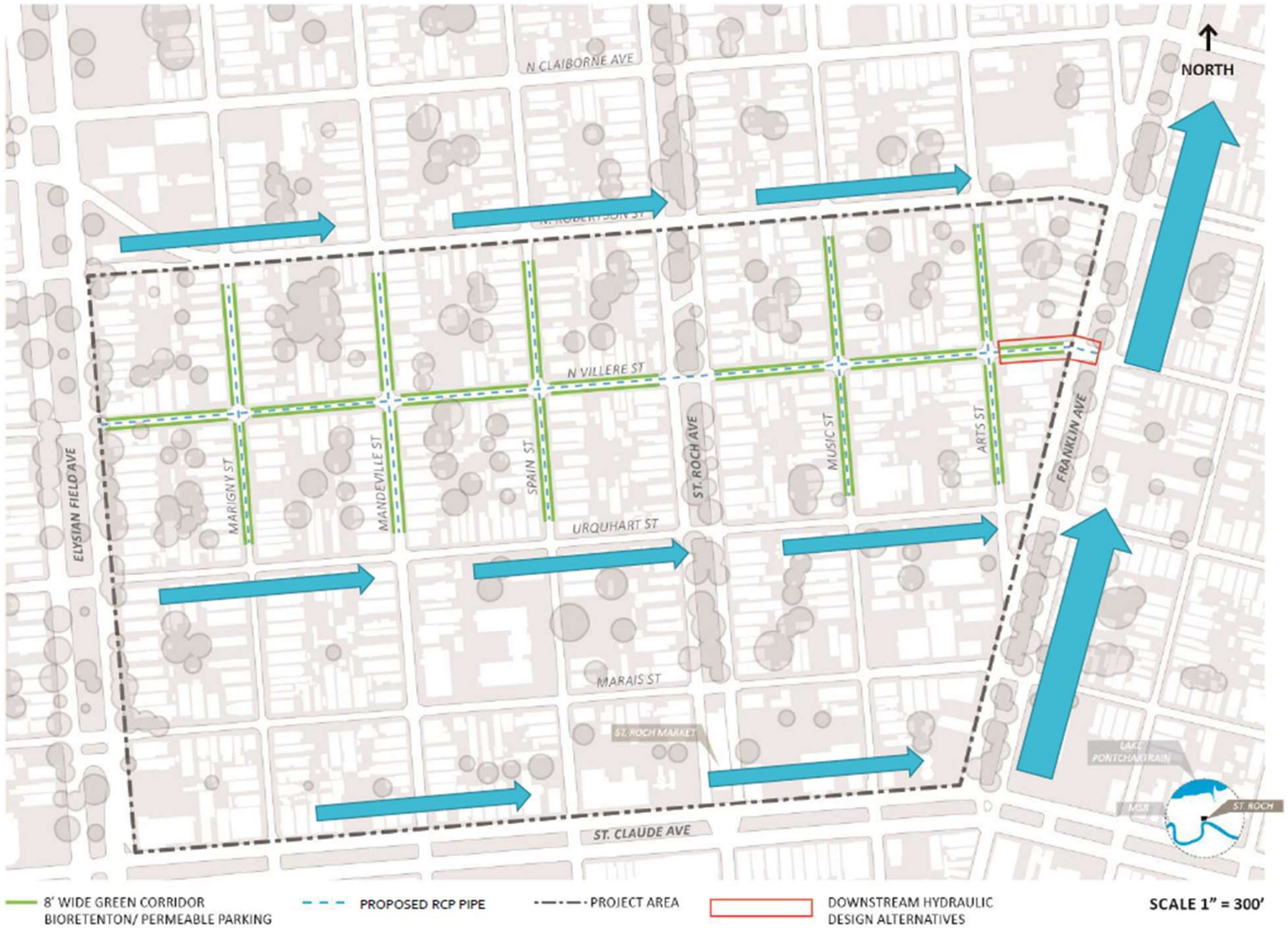
Design Overview



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Existing Conditions

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Proposed Design

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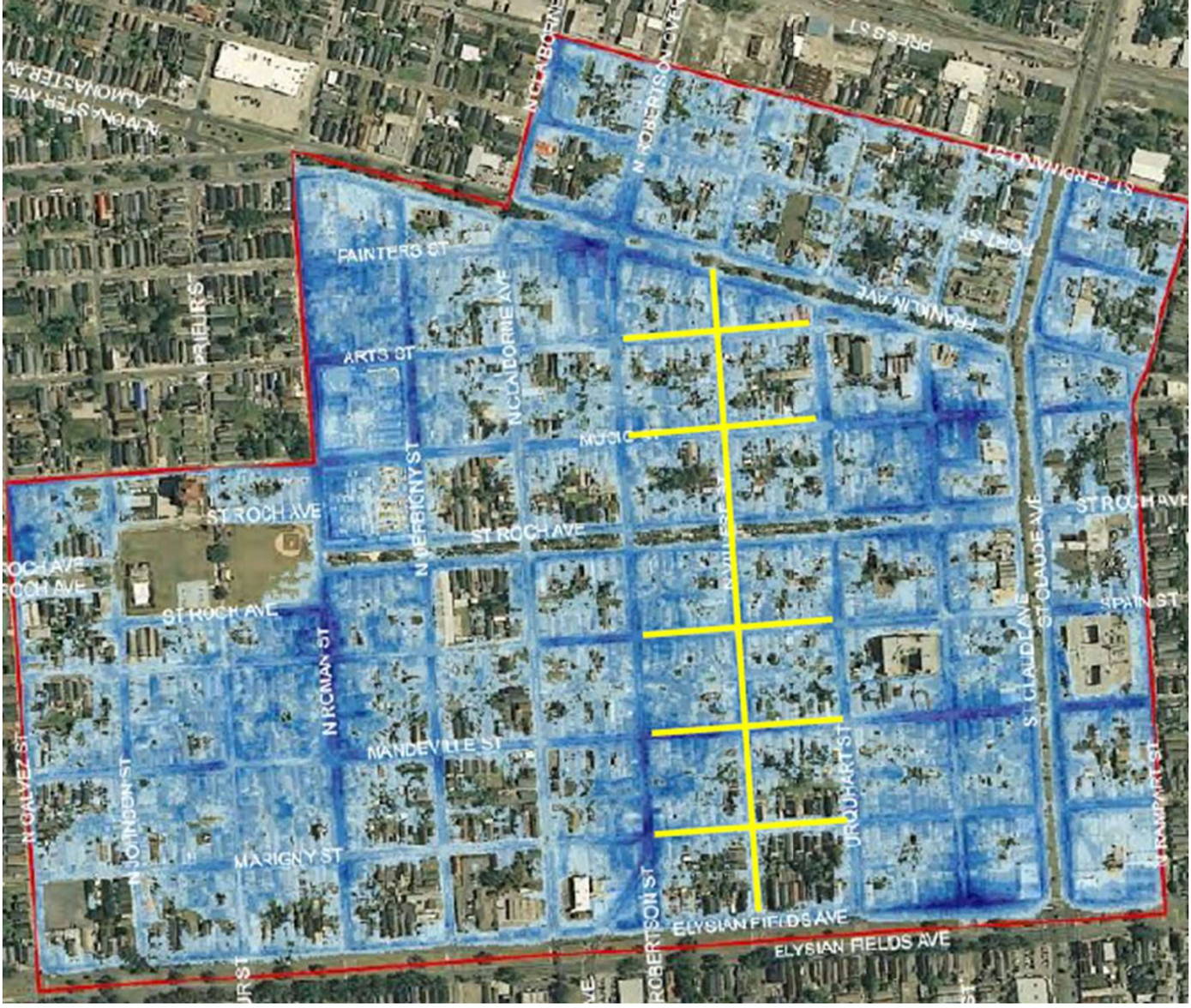
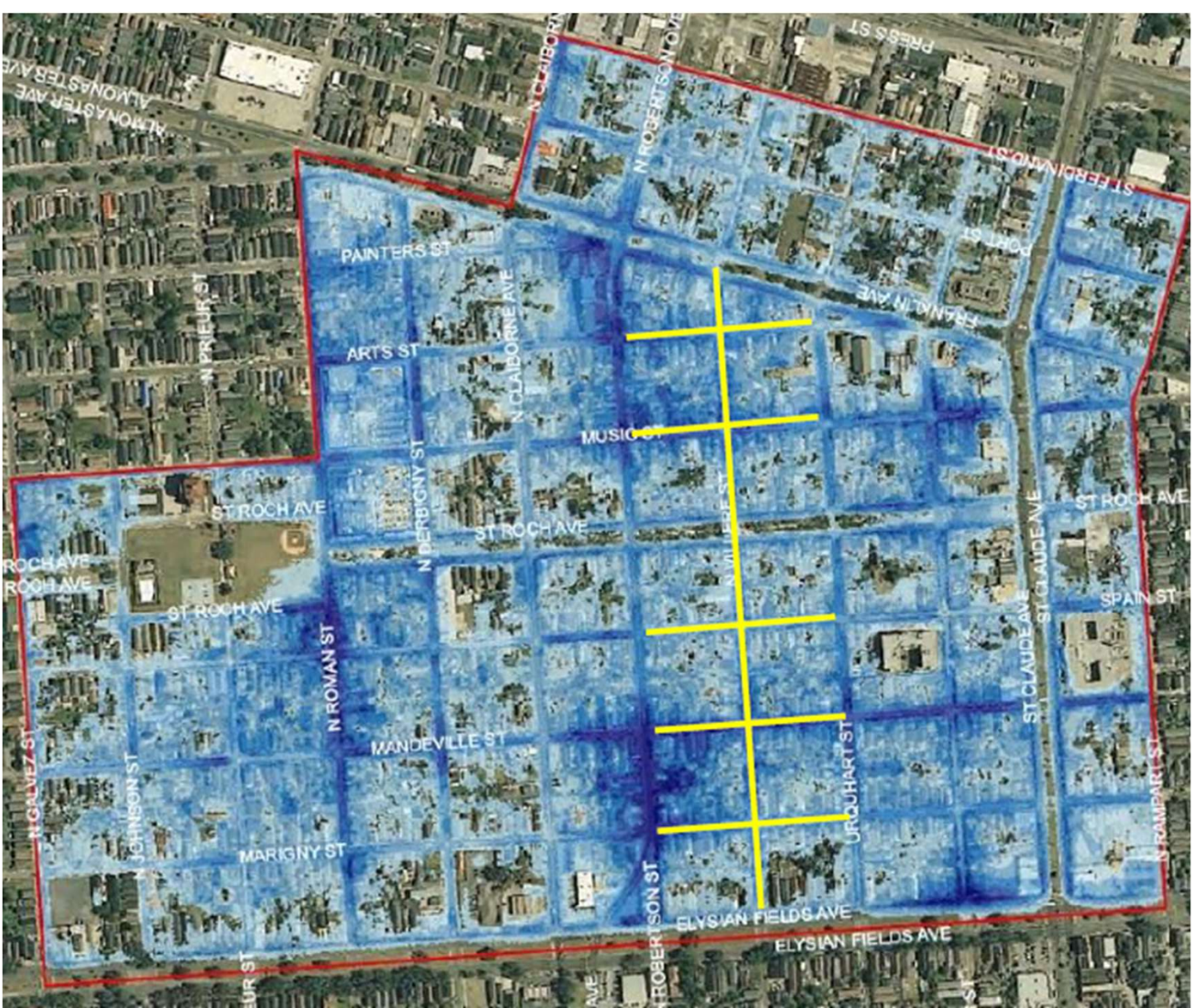

PAINTERS ST
ARTS ST
MUSIC ST
ST ROCH AVE
MANDEVILLE ST
MARIGNY ST
ELYSIAN FIELDS AVE
N PRIEUR ST
N CLAIBORNE AVE
N DERBIGNY ST
N ROMAN ST
N GALVEZ ST
N JOHNSON ST
N ROBERTSON ST
URQUHART ST
ST CLAUDE AVE
FRANKLIN AVE
SPAIN ST
PRESS ST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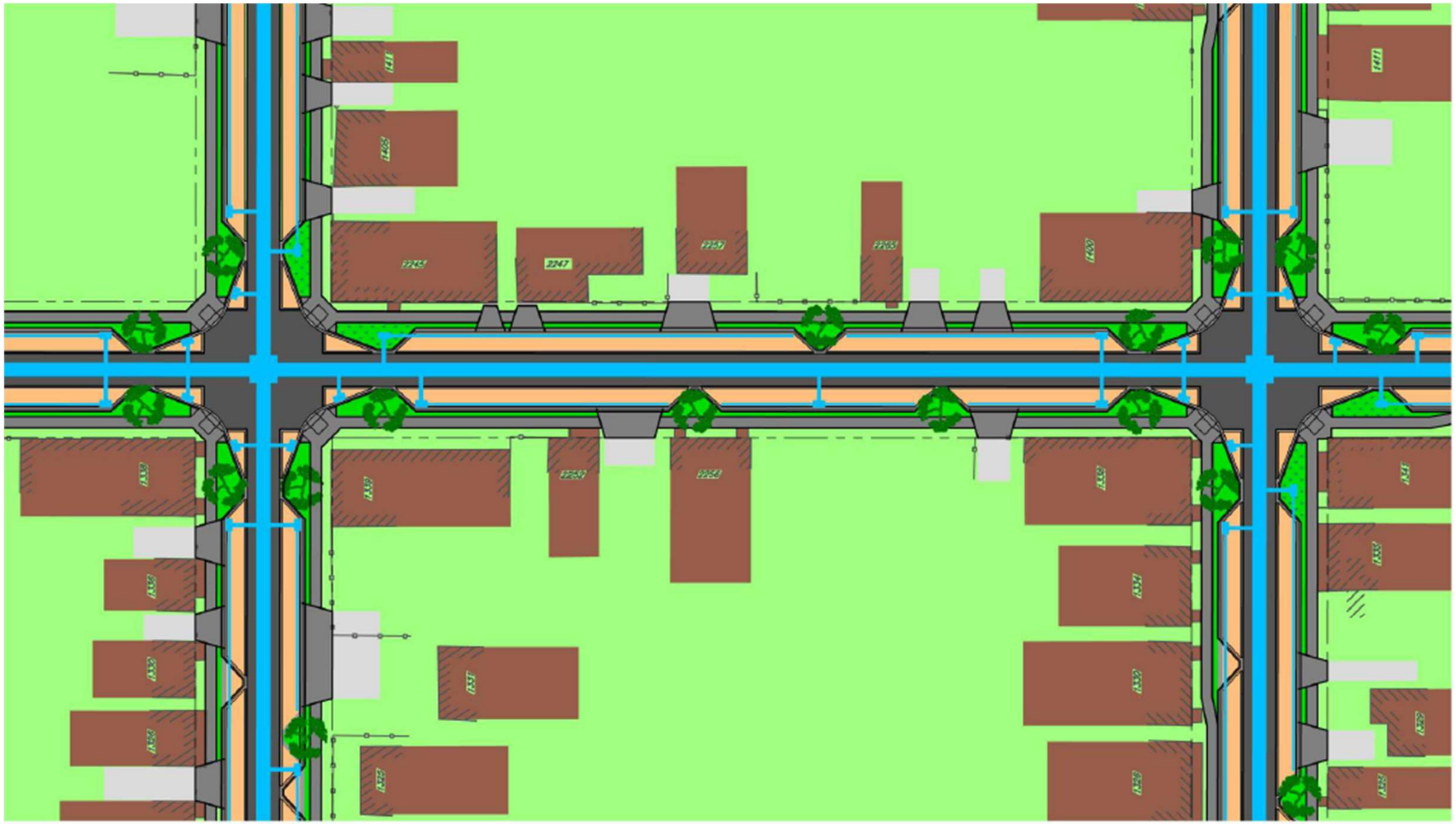


LEGEND

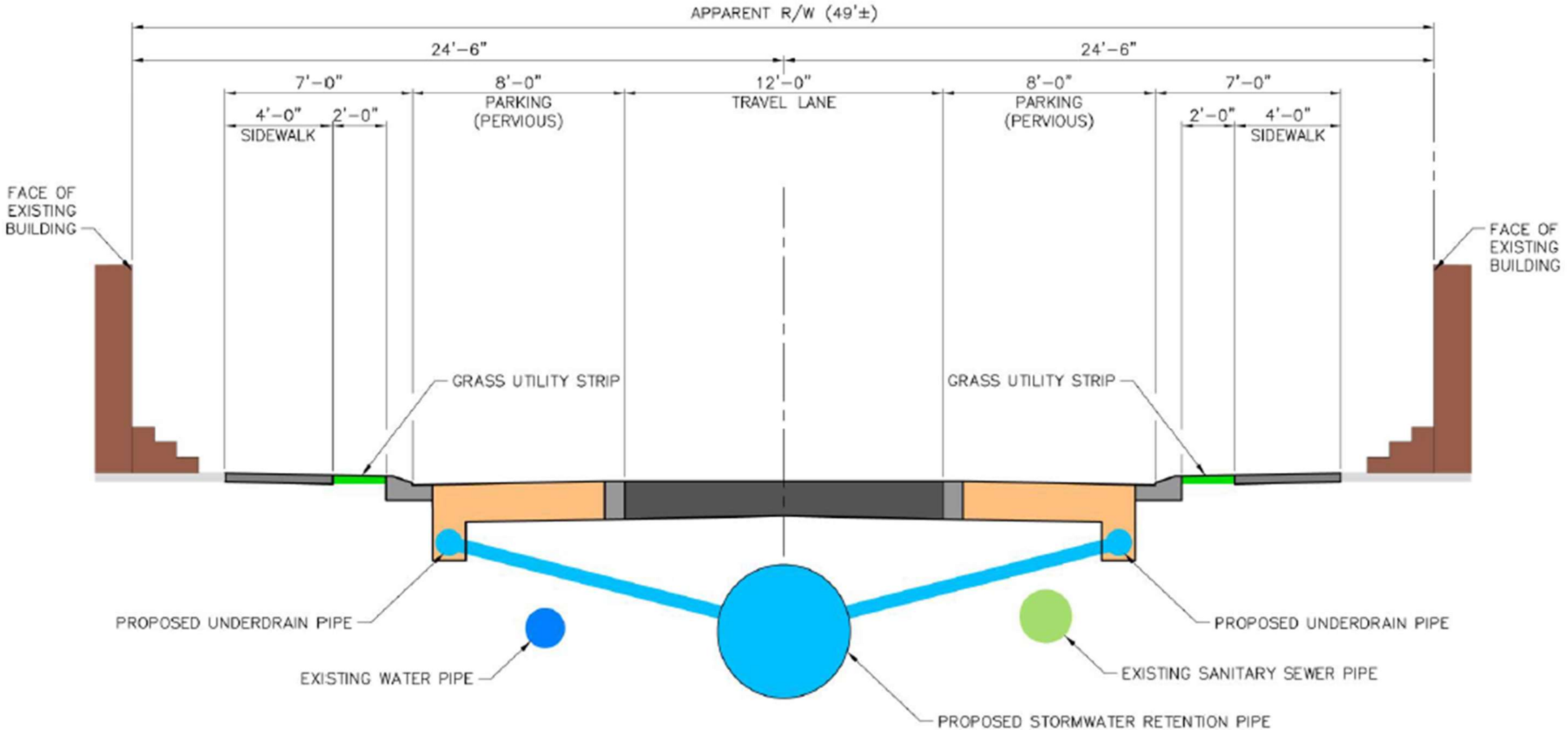
- EXISTING DRIVEWAY
- EXISTING BUILDING
- PROPOSED ASPHALT PAVEMENT
- PROPOSED PERVIOUS PAVEMENT
- PROPOSED SIDEWALK / DRIVEWAY
- PROPOSED LANDSCAPE / GRASS
- PROPOSED LANDSCAPE / BIORETENTION
- PROPOSED LANDSCAPE / TREES
- PROPOSED DRAINAGE SYSTEM

N

25' 0' 25' 50'

SCALE: 1"=50'

moffatt & nichol



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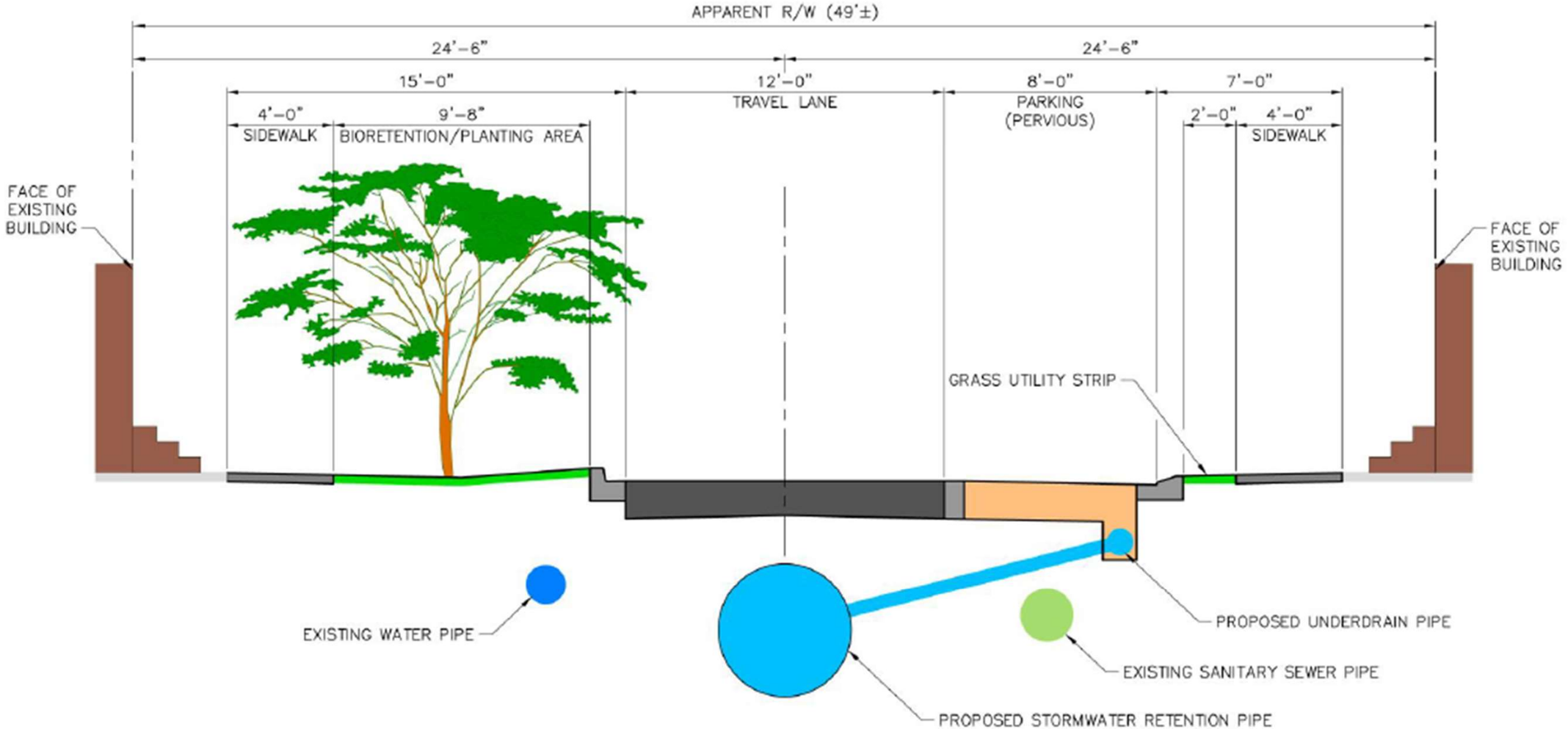

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Historic Rail Ties

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Historic Rail Line Removal & Preservation

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Stone Curbs

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St. Roch Ave – Belgian Blocks

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St. Roch Ave – Belgian Blocks

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Utility Conflicts

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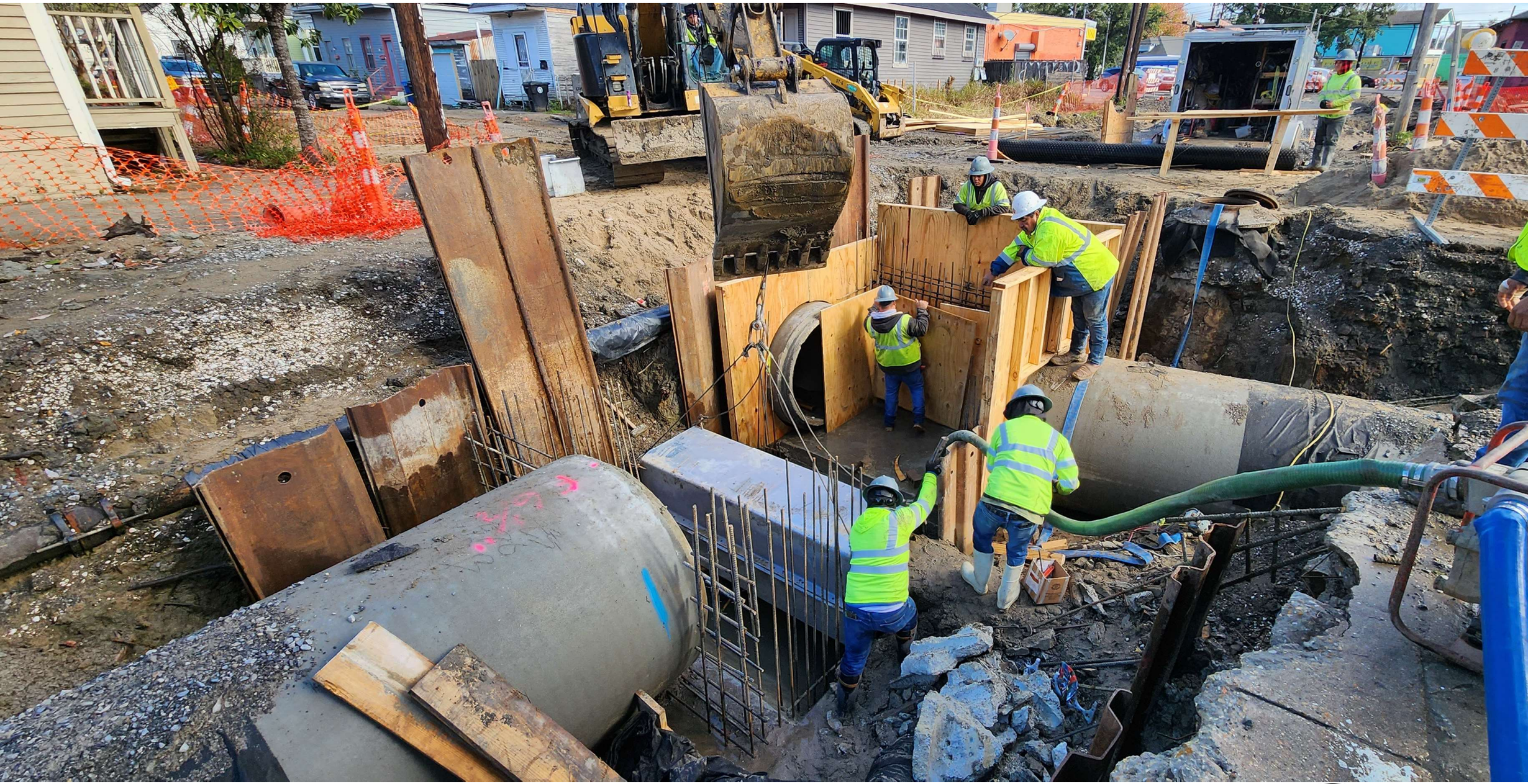

Utility Conflicts

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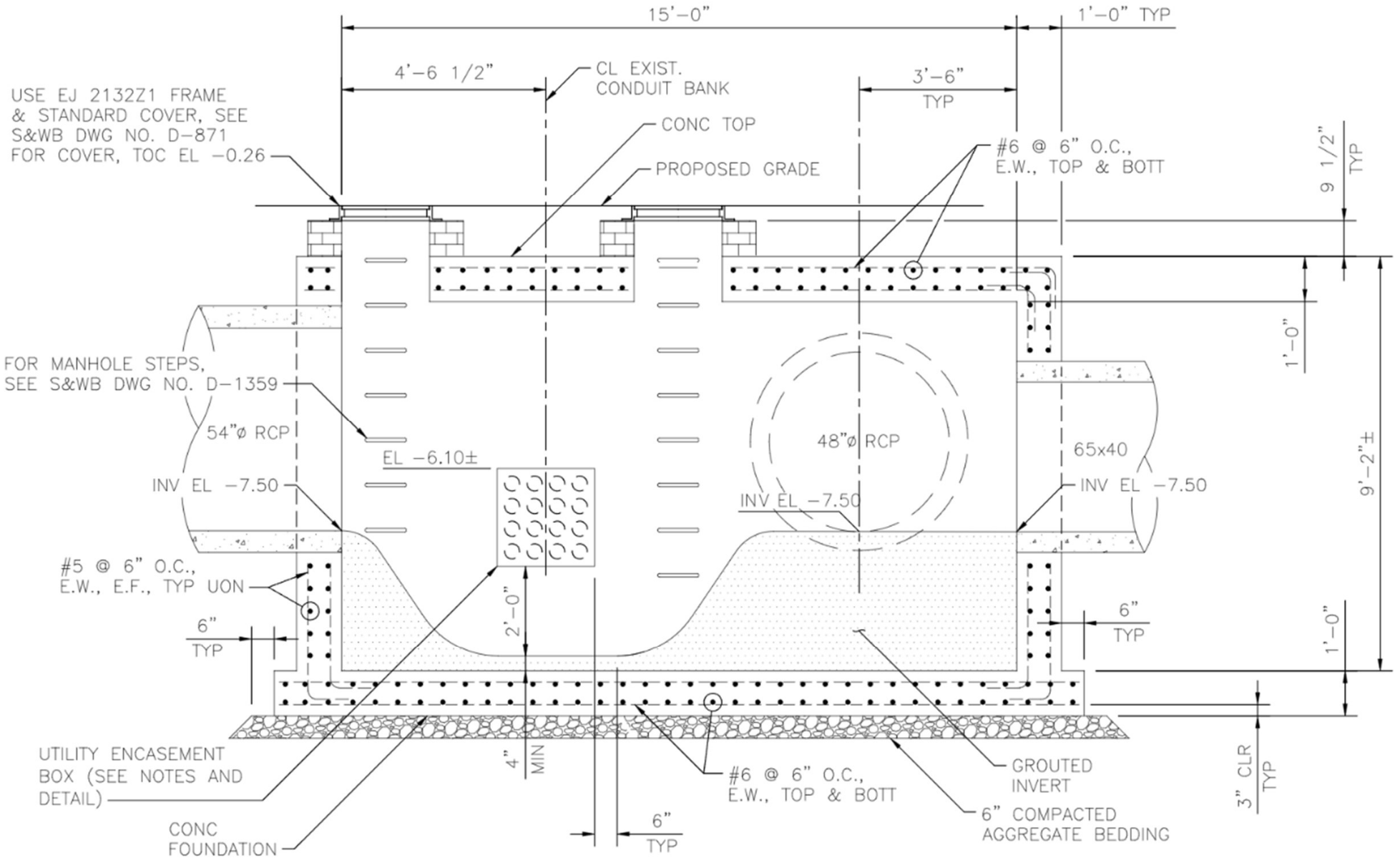

Utility Conflicts

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Rain Gardens

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Permeable Pavement – Street Parking

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Permeable Pavement – Street Parking

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Permeable Pavement – Street Parking

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Alternate Permeable Pavement Design

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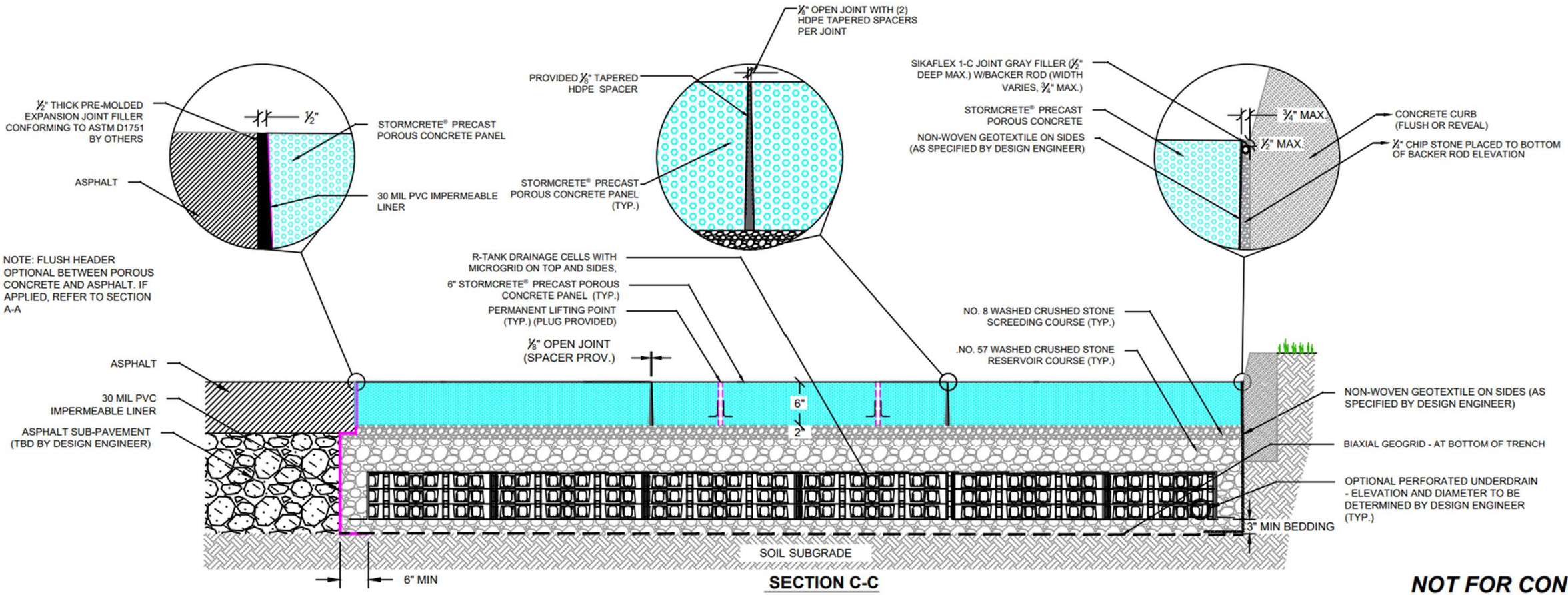

SECTION C-C

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Alternate Permeable Pavement Design

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Lessons Learned

- Older neighborhoods require more due diligence than typical projects. It's important to have utility companies provide updated maps and for the design team to review historical records.

- Large pipe storage is not cost efficient. Using modular detention below permeable pavers would have been a better option.

- Interlocking permeable pavers are expensive to install, pre-cast pervious concrete panels are now used on city projects.

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Lessons Learned

- Protecting permeable pavement was extremely difficult. Contractor should have waited until landscaping was installed before installing pavers.

- Bioretention design was out-dated and was not redesigned. Integrating the storage design with the permeable pavement system would have been more efficient.

- Resident inspection is challenging. Most inspectors are not used to green infrastructure construction and there was a lot of “on the job training” needed.

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