

City of Boston  
Reconstruction of Broad  
Street  
As Part of the  
Crossroads Initiative

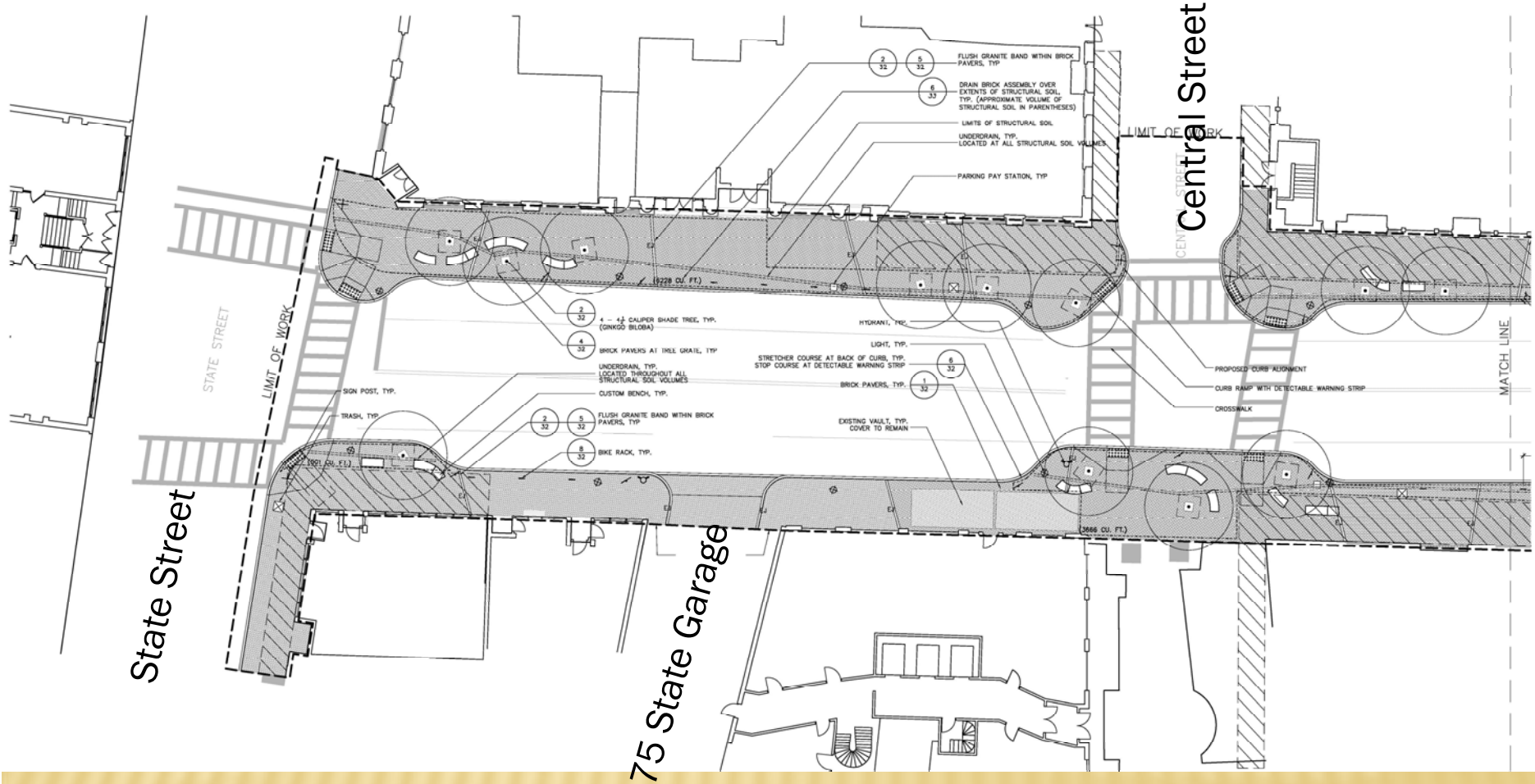
Abutters Informational  
Meeting  
September 25, 2012

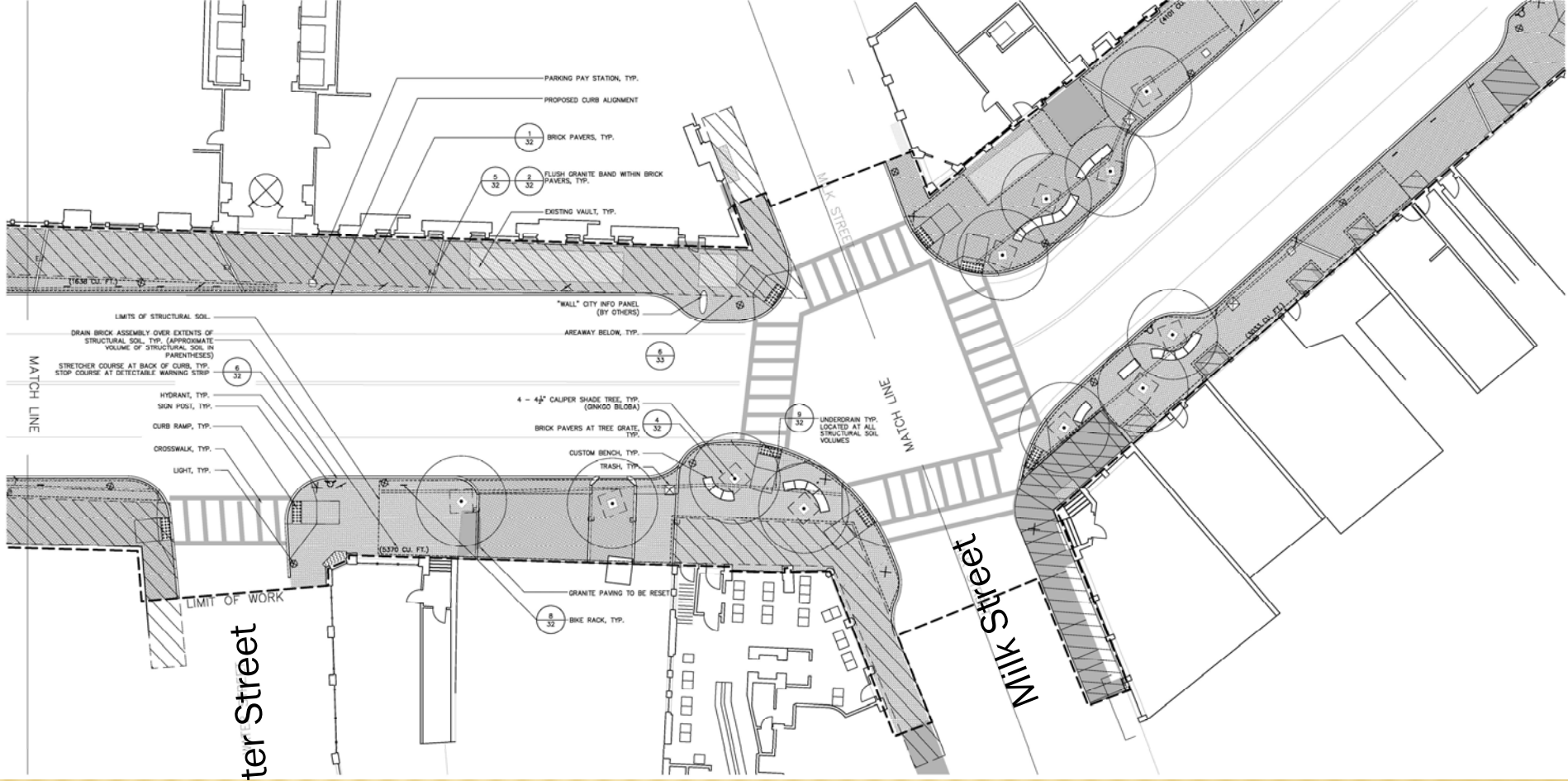
**Project Limits:**  
State Street to Greenway/Surface Road



## General Scope of Work:

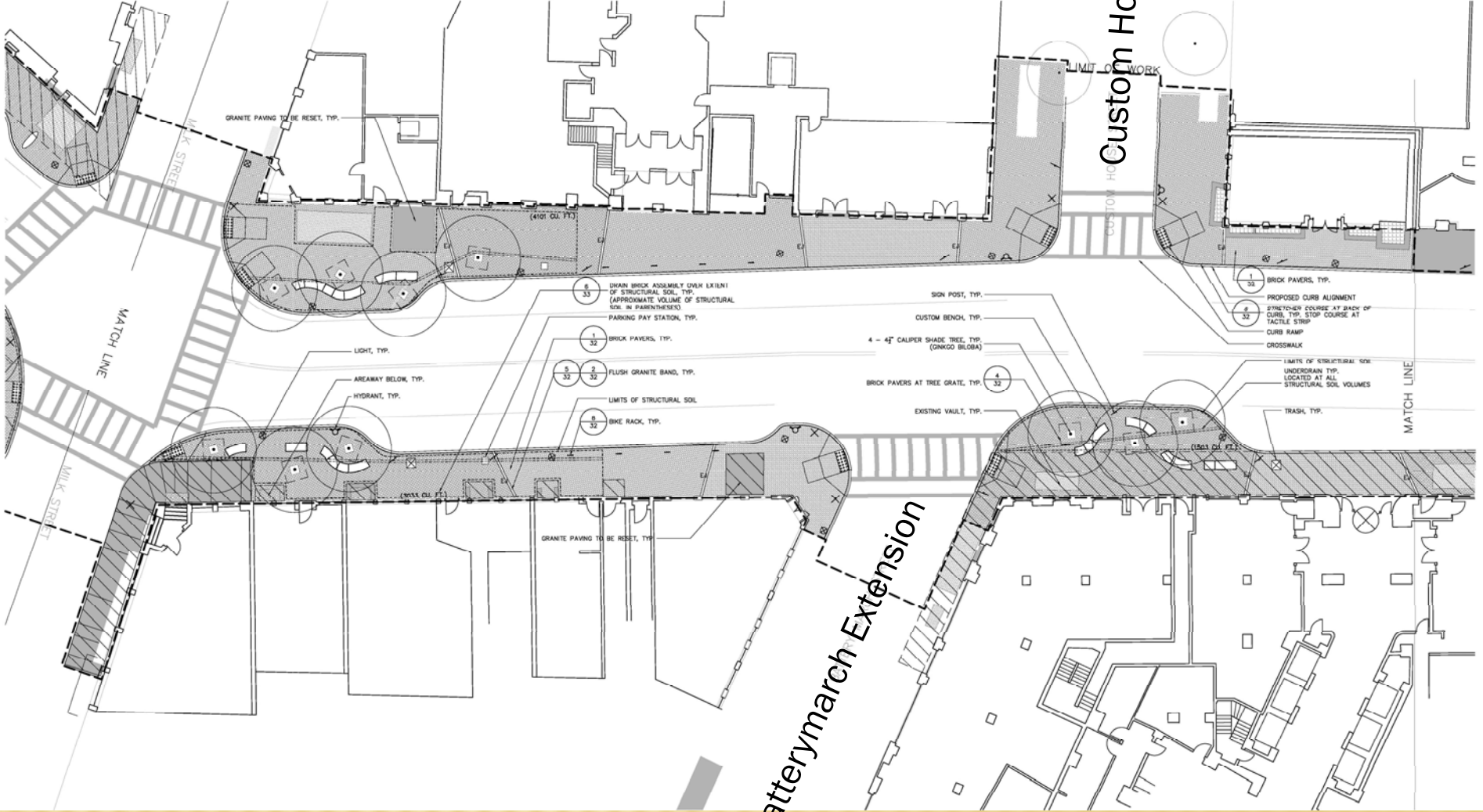
- Narrowing of Existing Roadway/ Widening of Sidewalks
- Addition of Urban Design Elements (trees/lighting/seating/street furniture)
- Related drainage and utility work
- Related Areaway Work





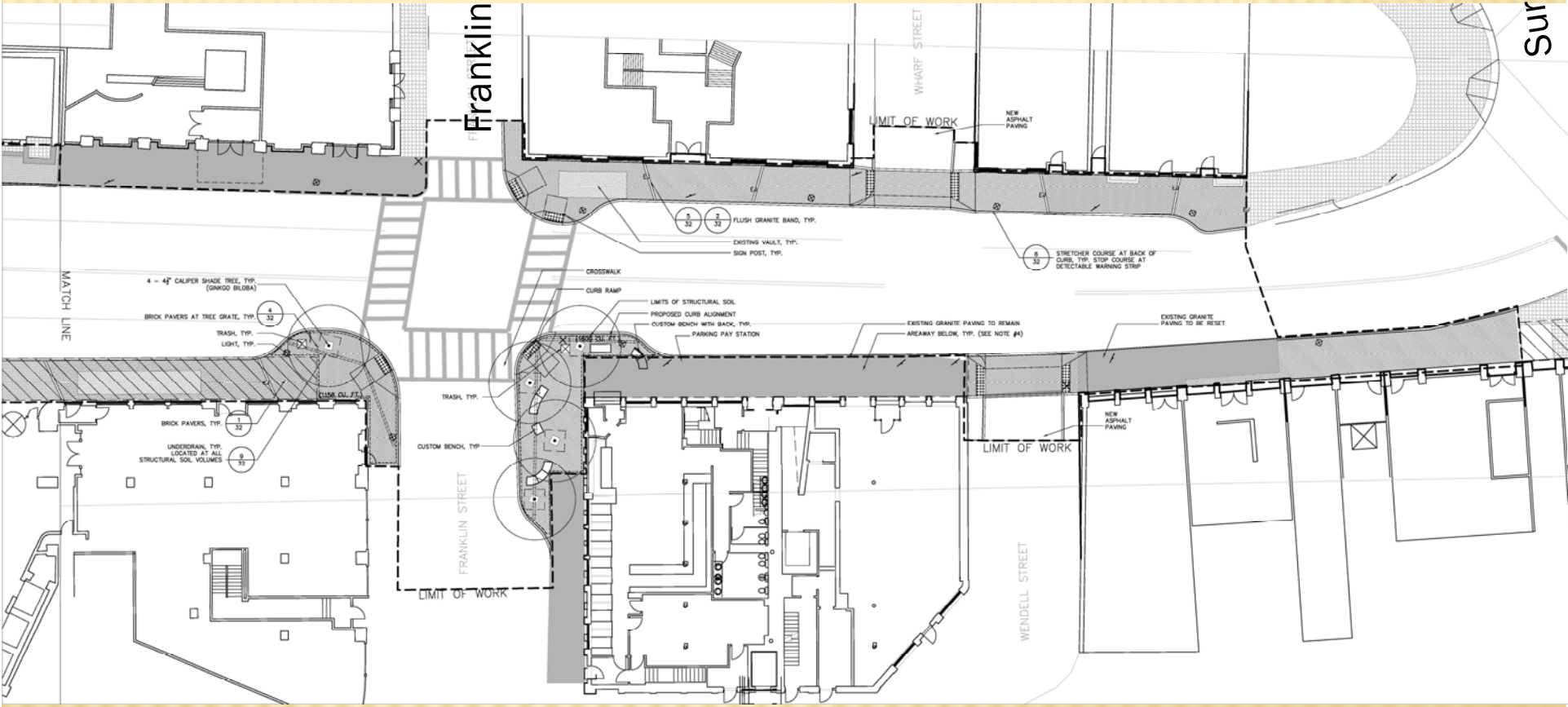
Water Street

Milk Street



Custom House St.

Battery March Extension



Franklin Street

Surface Road

WHARF STREET

WENDELL STREET

FRANKLIN STREET

LIMIT OF WORK

LIMIT OF WORK

LIMIT OF WORK

4 - 4" CALIPER SHADE TREE, TYP. (GWSD BELOW)

BRICK PAVERS AT TREE GRATE, TYP.

TRASH, TYP.

LIGHT, TYP.

BRICK PAVERS, TYP.

UNDERDRAIN, TYP. LOCATED AT ALL STRUCTURAL SOL VOLUMES

TRASH, TYP.

CUSTOM BENCH, TYP.

CROSSWALK

CURB RAMP

LIMITS OF STRUCTURAL SOL

PROPOSED CURB ALIGNMENT

CUSTOM BENCH WITH BACK, TYP.

PARKING PAY STATION

EXISTING GRANITE PAVING TO REMAIN AREAWAY BELOW, TYP. (SEE NOTE #4)

EXISTING GRANITE PAVING TO BE RESET

FLUSH GRANITE BAND, TYP.

EXISTING VAULT, TYP.

SIGN POST, TYP.

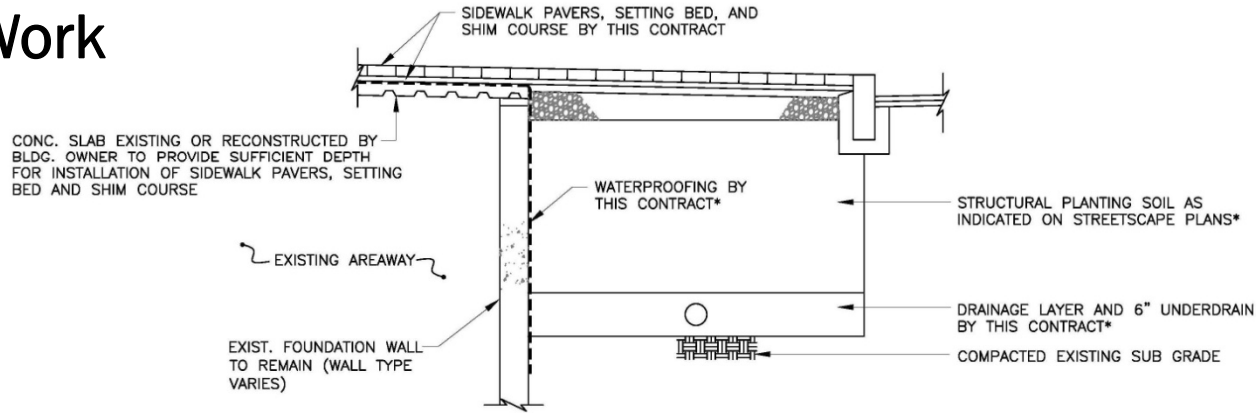
STRETCHER COURSE AT BACK OF CURB, TYP. STOP COURSE AT DETECTABLE MARKING STRIP

NEW ASPHALT PAVING

NEW ASPHALT PAVING

MATCH LINE

# Areaway Work

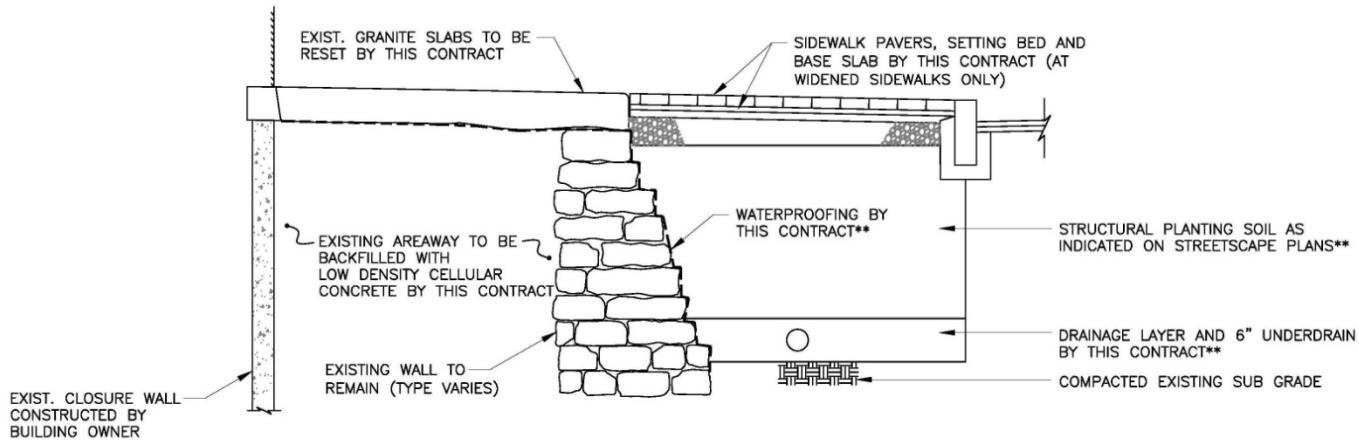


## AREAWAY SIDEWALK – TYPE 1

N.T.S.

SEE SHEETS 17-18 FOR ADDITIONAL DETAILS

\* STRUCTURAL PLANTING SOIL IS SHOWN AS A TYPICAL CONDITION ADJACENT TO TYPE 1 AREAWAYS. SEE STREETScape PLANS FOR ACTUAL LIMITS OF STRUCTURAL PLANTING SOIL. SEE SHEETS 17-18 FOR SPECIFIC LIMITS OF WATERPROOFING.



## AREAWAY SIDEWALK – TYPE 2 AND 3\*

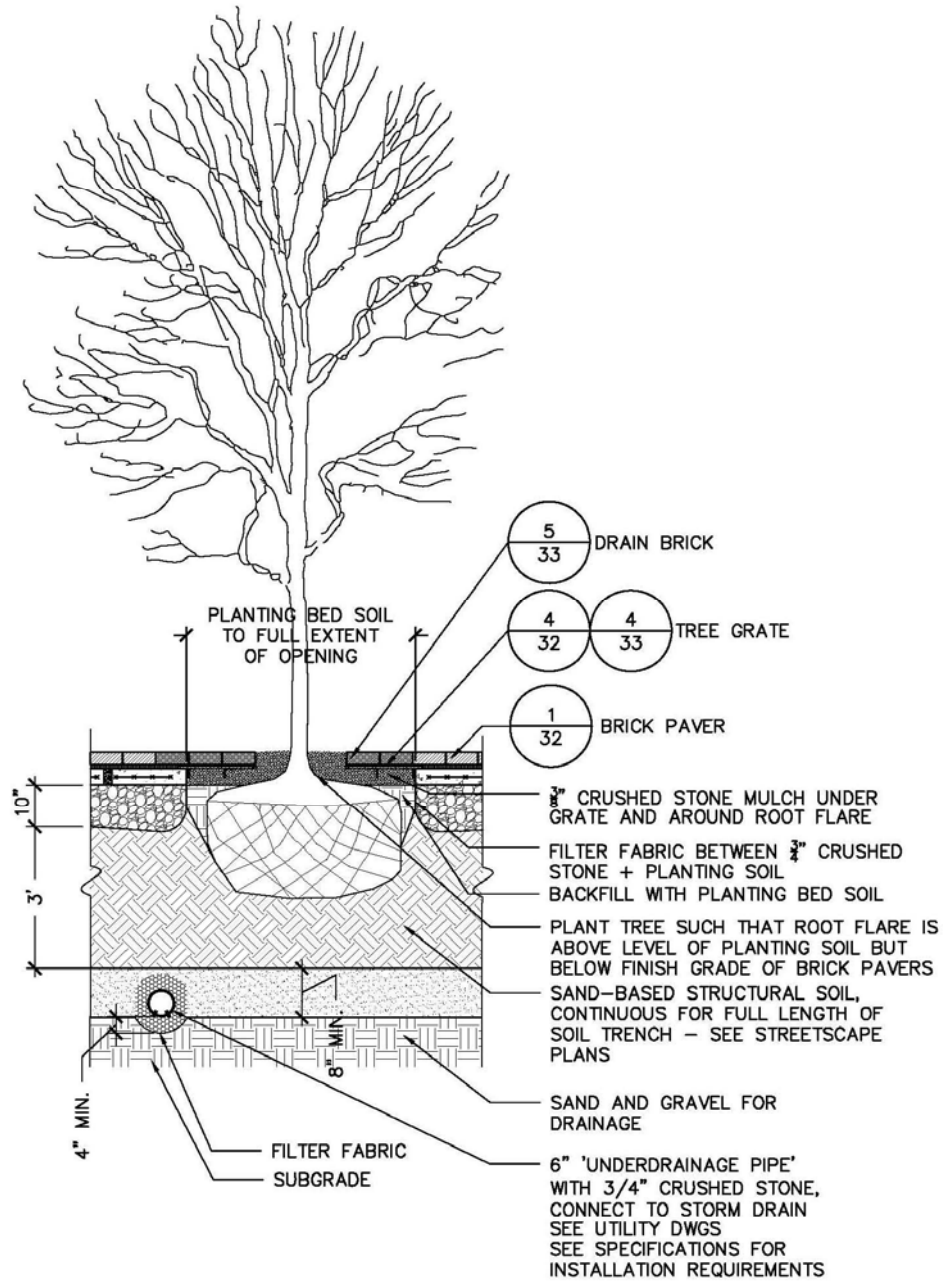
N.T.S.

\* TYPE 2 IS SHOWN. TYPE 3 IS SIMILAR, EXCEPT EXIST GRANITE SLAB TO BE DISCARDED AND PAVER SIDEWALK TO BE CONSTRUCTED OVER BACKFILLED AREAWAY.

\*\* STRUCTURAL PLANTING SOIL IS SHOWN AS A TYPICAL CONDITION ADJACENT TO AREAWAYS. SEE STREETScape PLANS FOR ACTUAL LIMITS OF STRUCTURAL PLANTING SOIL. SEE SHEETS 17-18 FOR SPECIFIC LIMITS OF WATERPROOFING.



# Tree Planting/ Structural Soil



**9** TREE PLANTING IN STRUCTURAL SOIL  
SCALE: 3/8" = 1'-0" section

# Water Harvesting

## DRAIN BRICK DENSITY DISTRIBUTION

ZONE 1 DRAIN BRICK DENSITY=100% OVER TREE GRATE, TYP.

ZONE 2 DRAIN BRICK DENSITY=16% IN AREAS 3' FROM EDGE OF TREE GRATE, TYP.

ZONE 3 DRAIN BRICK DENSITY=8% BETWEEN 3'-9' FROM TREE GRATE, TYP.

ZONE 4 DRAIN BRICK DENSITY=4% IN AREAS BEYOND 9' FROM TREE GRATE, TYP.

NOTE: 1-WHERE MULTIPLE ZONES OVERLAP, DEFAULT TO HIGHER DENSITY ZONE  
2-DRAIN BRICK DENSITY ONLY IN AREAS OVER STRUCTURAL SOIL  
3-DRAIN BRICK AREAS EXTEND UNDER BENCHES

DRAIN BRICKS BECOME LESS DENSE IN PAVING AS PATTERN MOVES AWAY FROM 100% DENSITY AT TREE GRATE TO A MAX OF 36" BETWEEN DRAIN BRICKS

4" - 4 1/2" CAL. TREE PLANTED IN SAND-BASED STRUCTURAL SOIL, TYP.

9  
32

4  
32

TREE GRATE, TYP. BRICKS OVER TREE GRATE TO BE DRAIN BRICKS

EXTENT OF TREE GRATE UNDER PAVING

EXTENT OF SAND-BASED STRUCTURAL SOIL

BENCH, TYP.

2  
33

5  
33

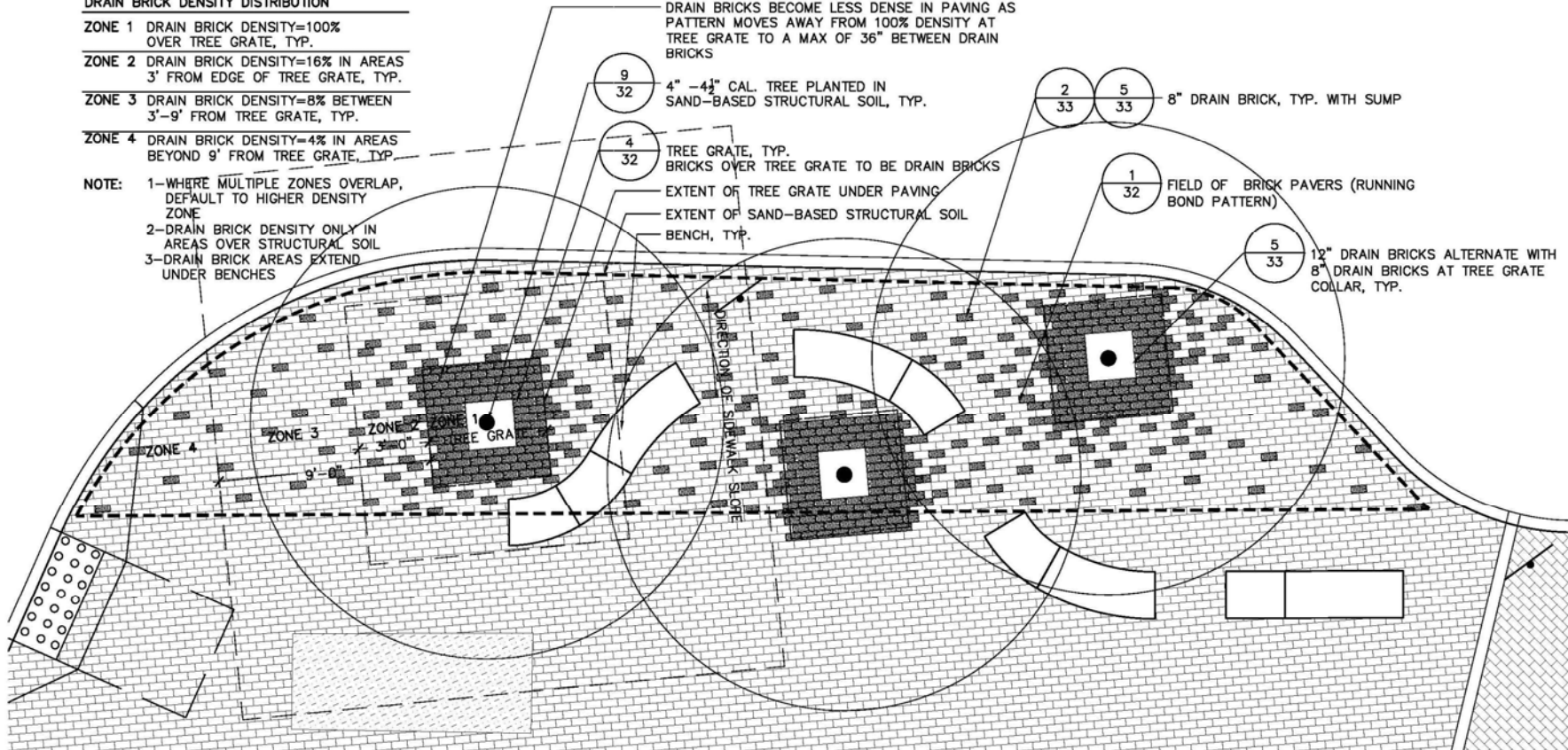
8" DRAIN BRICK, TYP. WITH SUMP

1  
32

FIELD OF BRICK PAVERS (RUNNING BOND PATTERN)

5  
33

12" DRAIN BRICKS ALTERNATE WITH 8" DRAIN BRICKS AT TREE GRATE COLLAR, TYP.



6

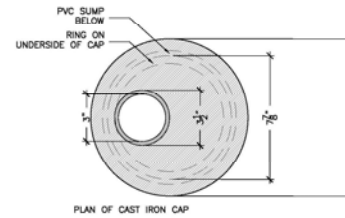
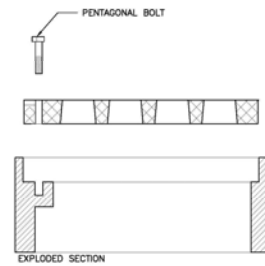
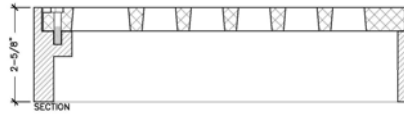
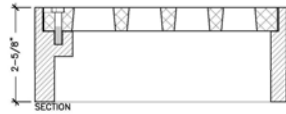
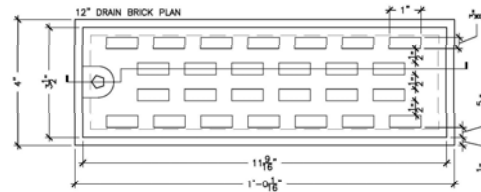
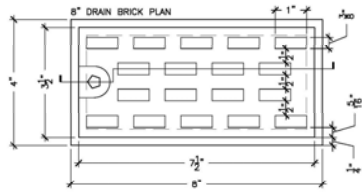
## DRAIN BRICK LAYOUT TYP.

SCALE: 1/4" = 1'-0"

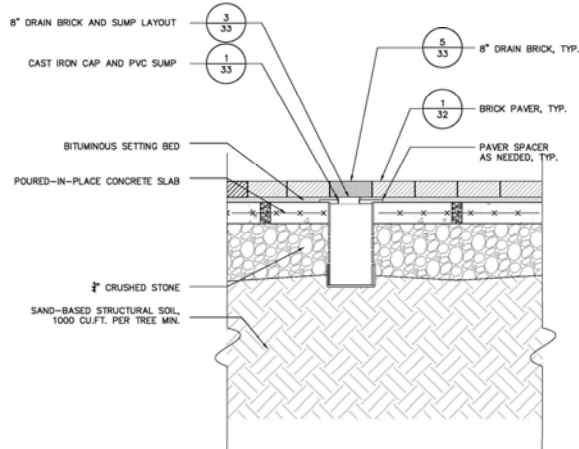
PLAN

# Water Harvesting

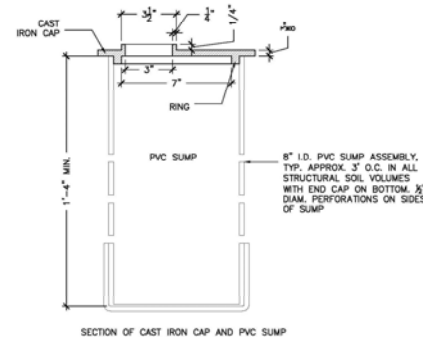
NOTES:  
1. DRAIN BRICK TO BE CAST (GREY) IRON.  
2. DRAIN BRICK TO ACCOMMODATE H-20 LOADING.



**5 DRAIN BRICK**  
SCALE: 6" = 1'-0" AS NOTED



**2 SUMP**  
SCALE: 1" = 1'-0" SECTION



**1 SUMP ASSEMBLY**  
SCALE: 3" = 1'-0" SECTION

# Water Harvesting

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EXTENT OF SAND-BASED STRUCTURAL SOIL

BENCH, TYP.

2  
33

5  
33

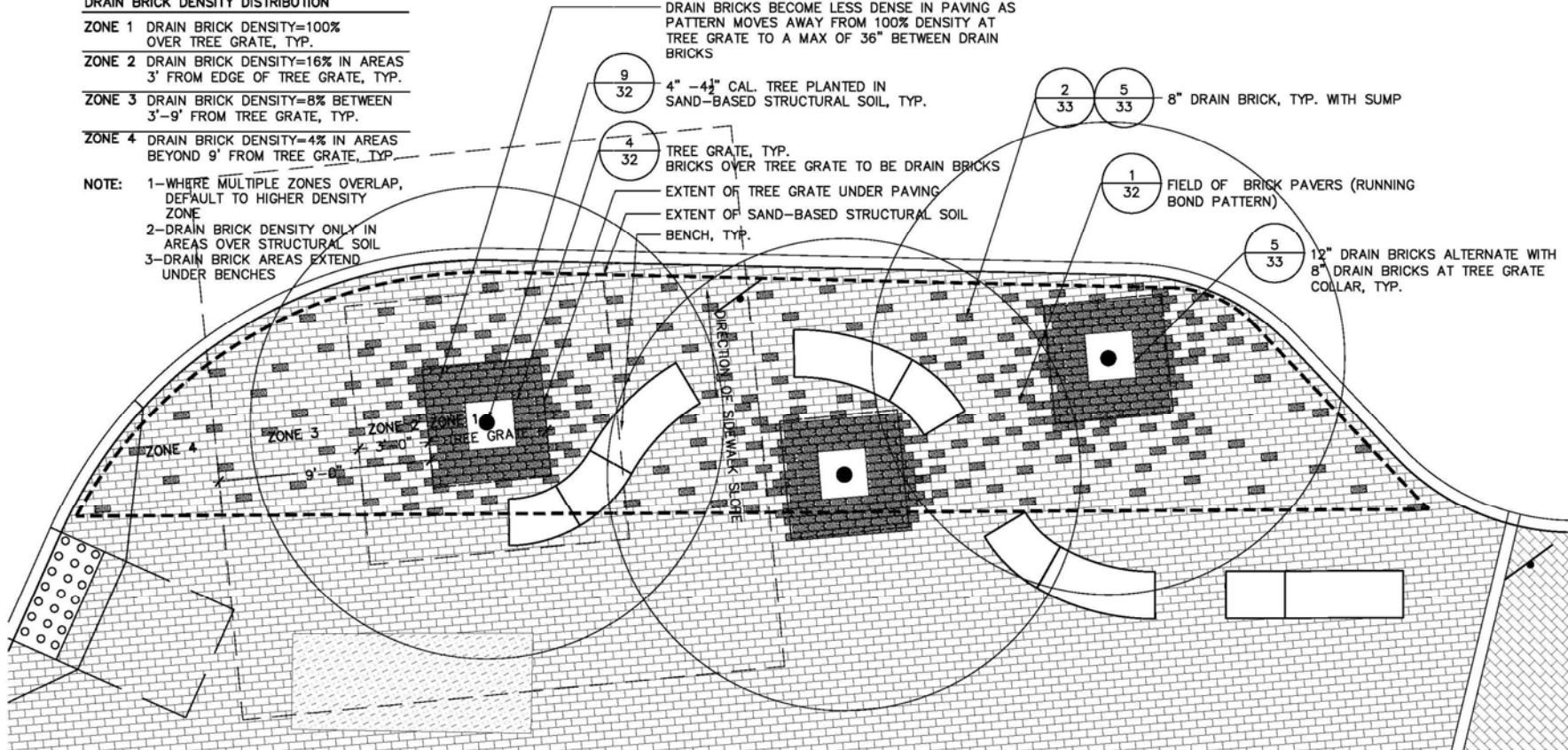
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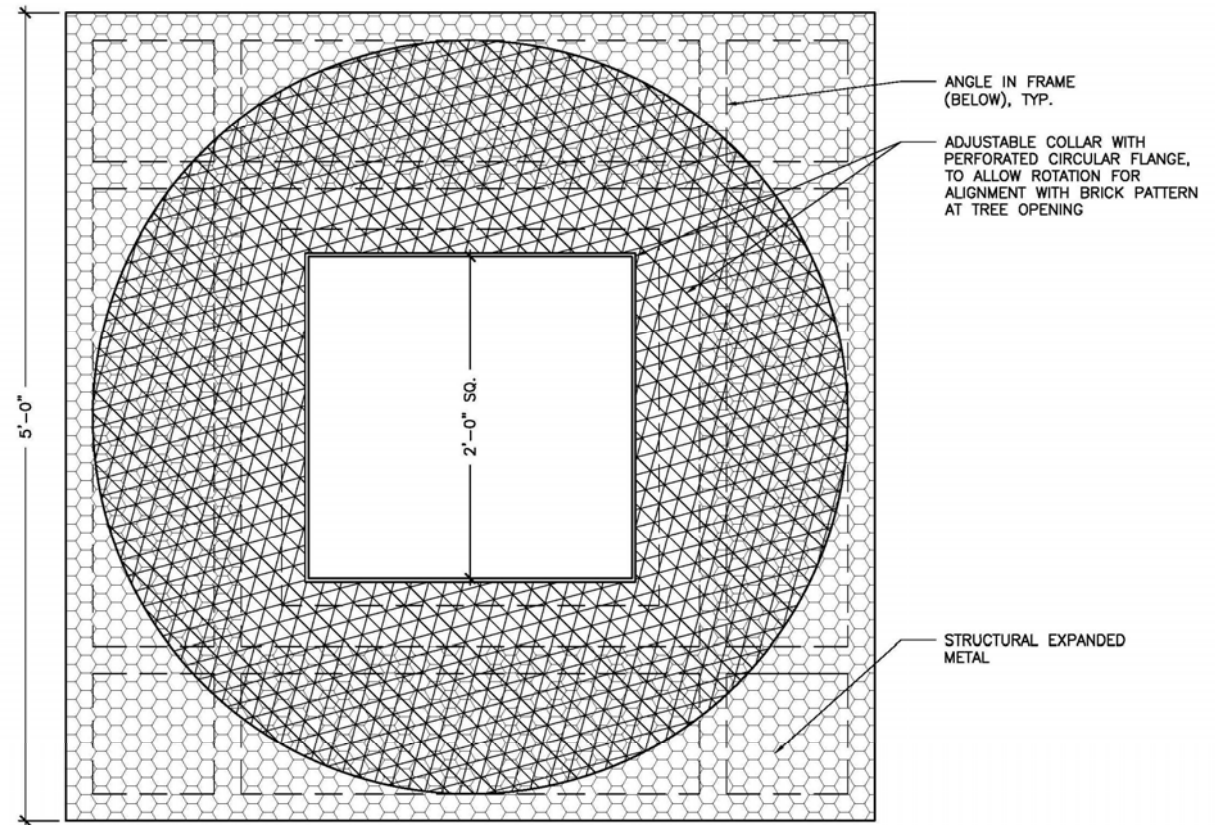
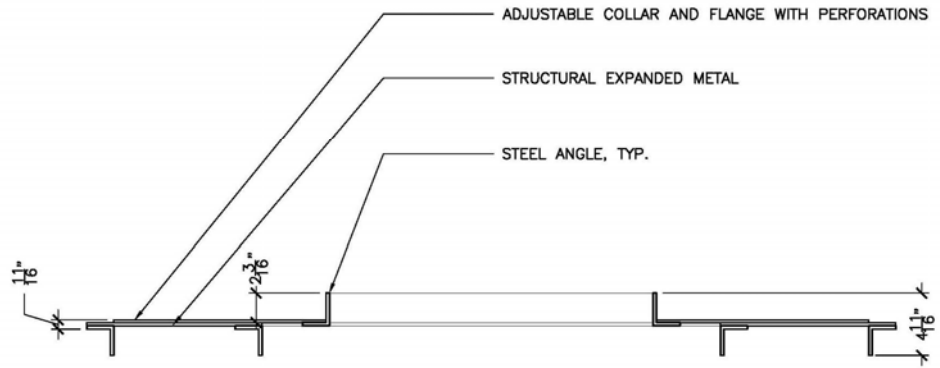
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## DRAIN BRICK LAYOUT TYP.

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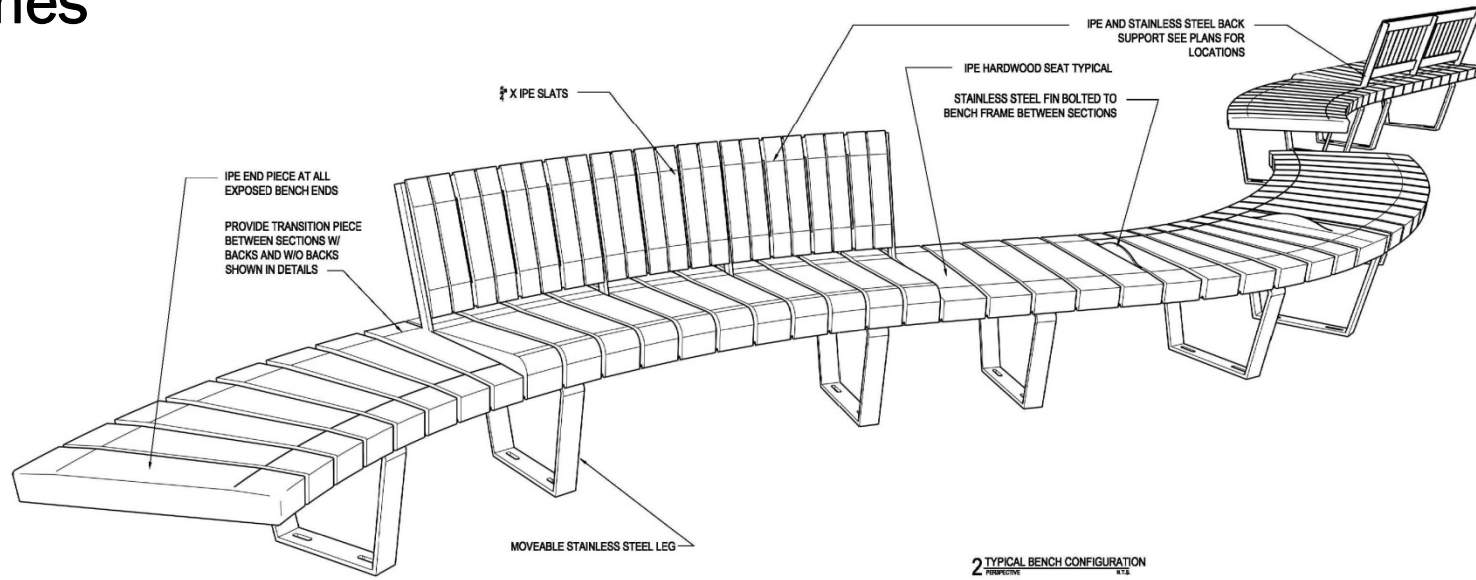
PLAN

# Water Harvesting / Paver Grates

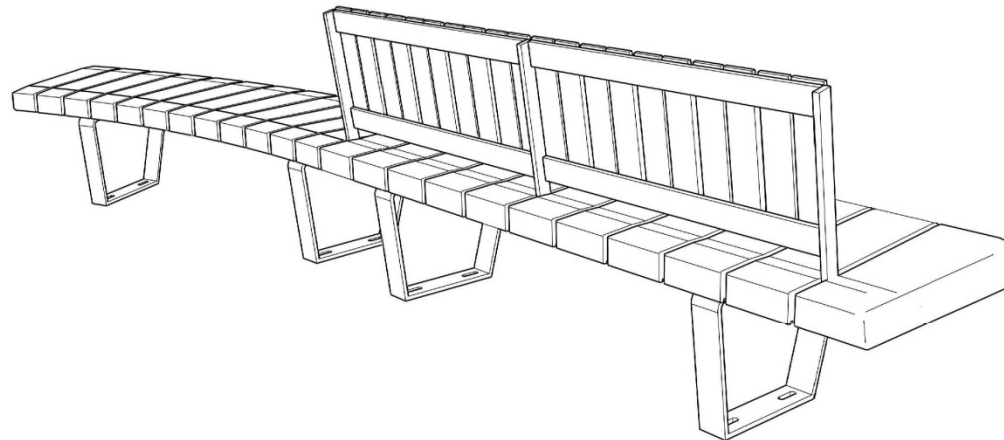


**4** TREE GRATE  
SCALE: 1 1/2" = 1'-0" PLAN/SECTION

# Benches

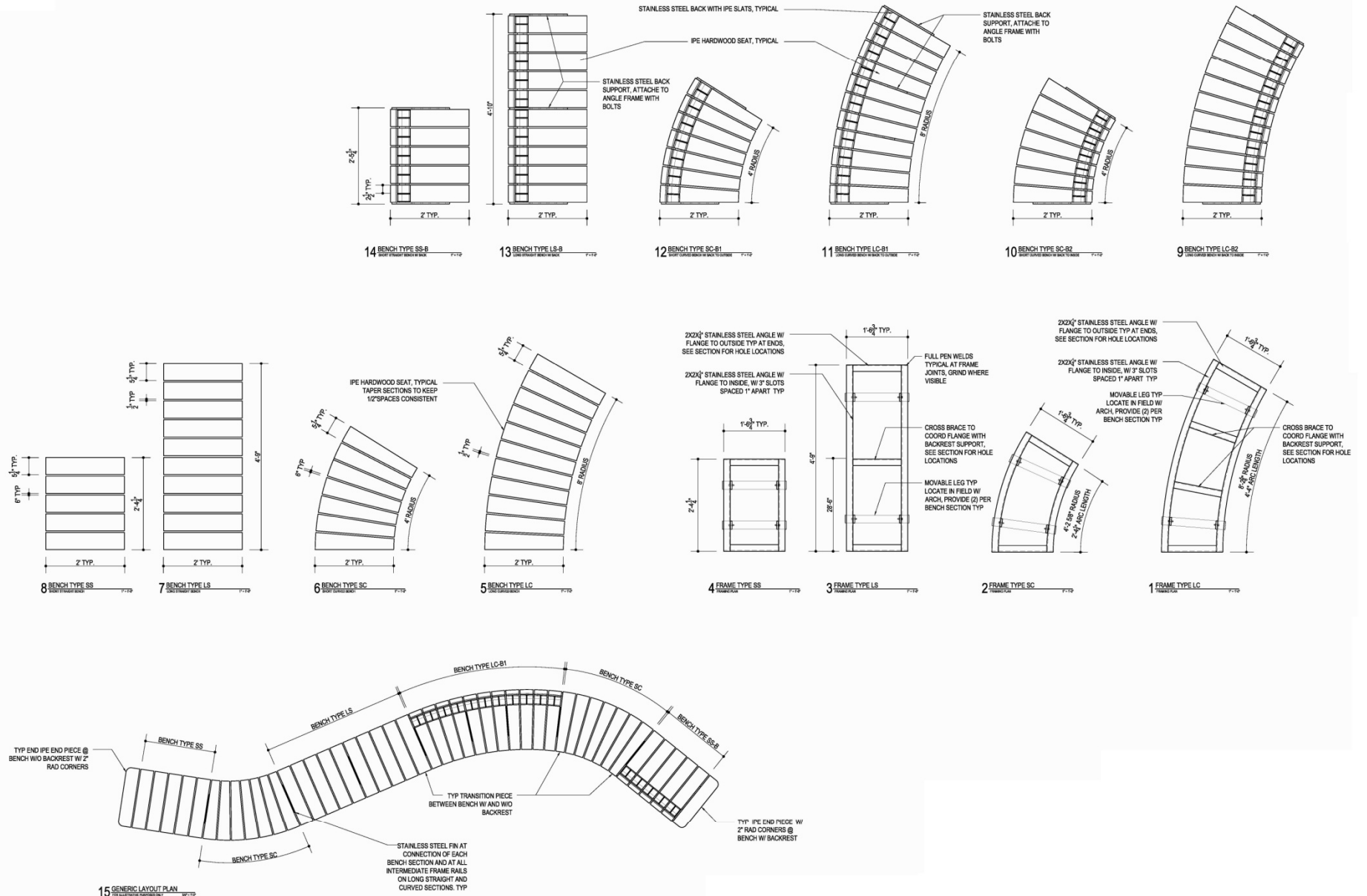


FOR MORE DETAILED INFORMATION ON THE BENCHES SEE SHEETS 35 AND 36.

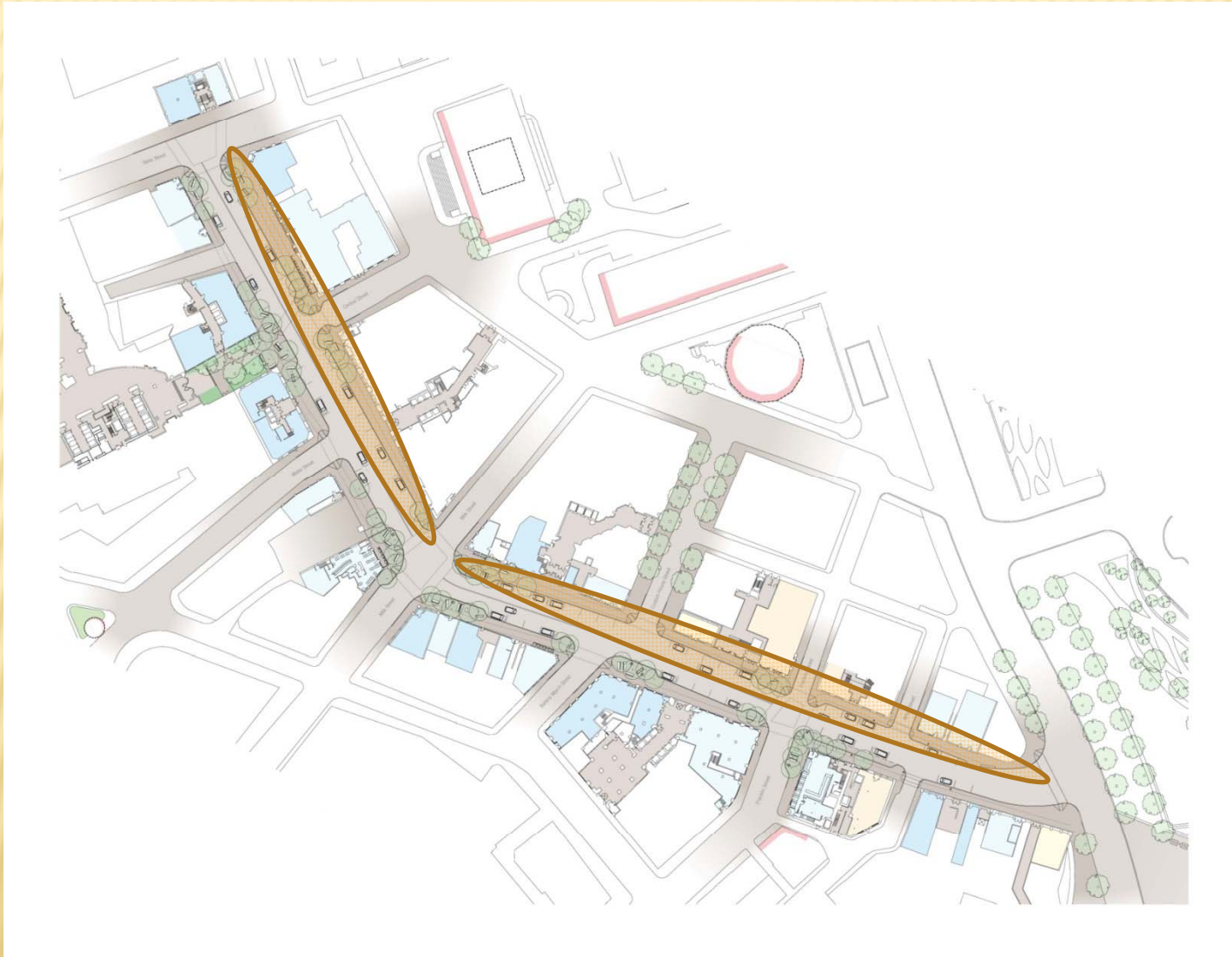


1 TYPICAL BENCH CONFIGURATION

# Benches



# Project Progress – End of 2012 East (Even) Side of Street



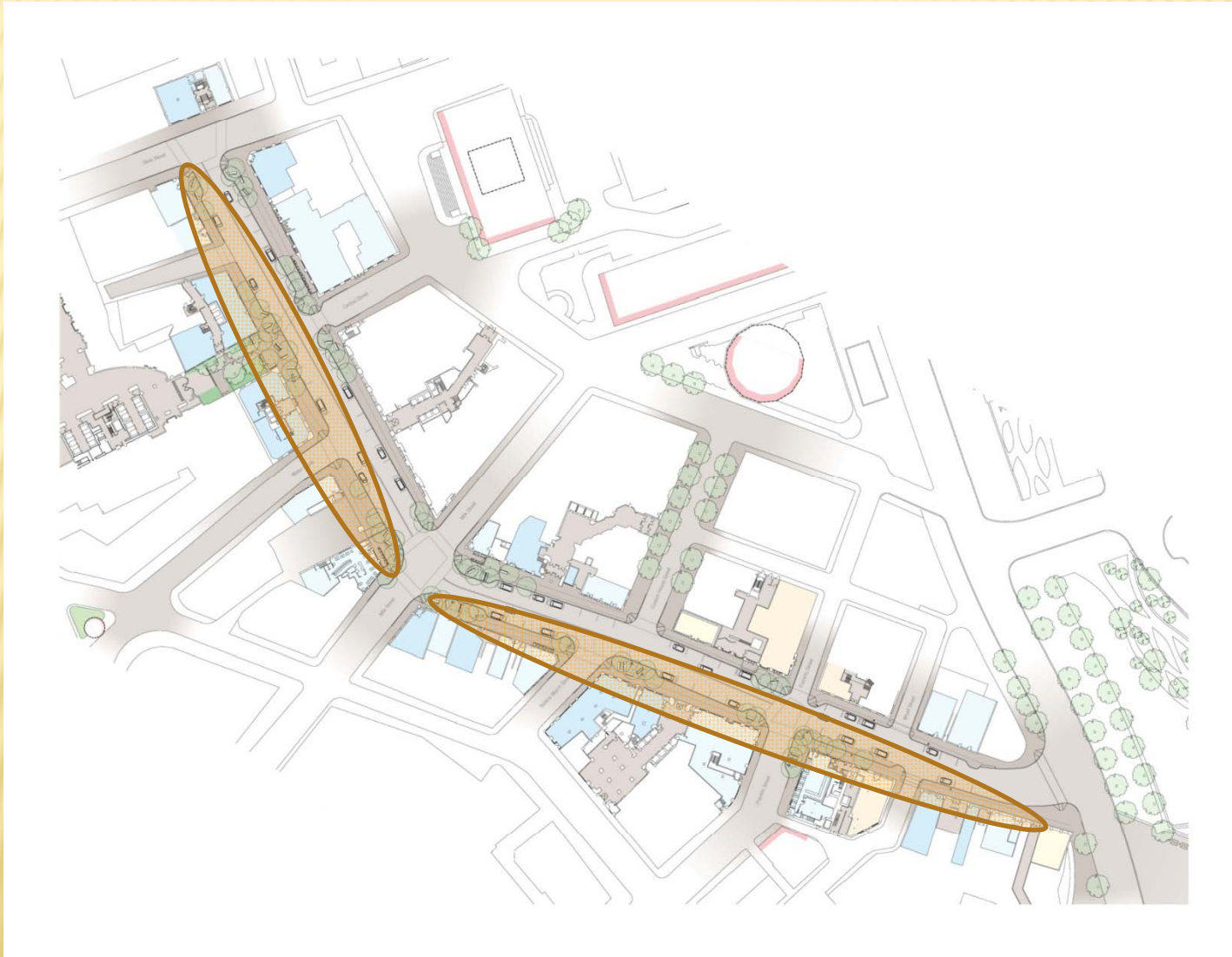


## East (Even) Side of Street

- ✓ Sidewalks and Ramps
  - ✓ Street Lighting
  - ✓ Areaways
  - ✓ Tree Grates and Trees
  - ✓ Bicycle Racks
  - ✓ Multi-Space Parking Meters
- 
- City to Provide Multi-Space Meters and Big Belly Trash Receptacles
  - Benches ?

# Project Progress – End of 2012

## West (Odd) Side of Street

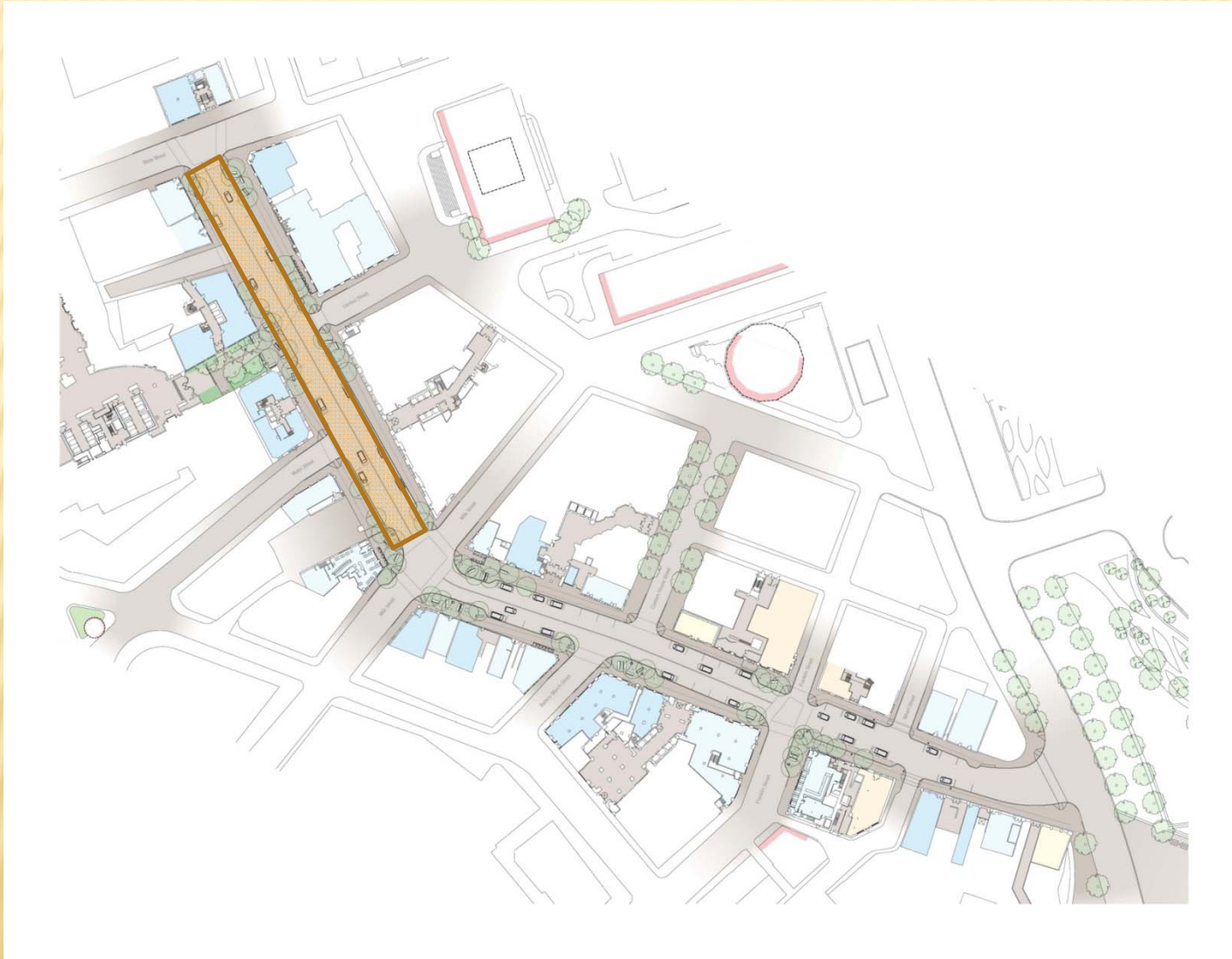


## West (Odd) Side of Street

- ✓ Sidewalks and Ramps (*except Wendell raised entry*)
  - ✓ Street Lighting
  - ✓ Areaways
  - ✓ Tree Grates and Trees – *State to Milk*
  - ✓ Bicycle Racks
- 
- City to Provide Multi-Space Meters and Big Belly Trash Receptacles
  - Benches?

# Project Progress – End of 2012

## Roadway Paving



## Abutter Maintenance Items

- Water Harvesting System
- Benches
- Brick Sidewalks
- Tree Grates
- Trees

# Water Harvesting System

- Inspect and Clean Drain Bricks and Sumps
- Replace Damaged/Missing Drain Bricks



# Benches

- Inspection and Minor Cleaning / Repairs
- Bench Replacement



# Brick Sidewalks



- Routine Maintenance / Cleaning / Snow Clearance Protocols
- Replace / Replenish Joint Sand
- Repair / Replace Bricks and Setting Bed



# Tree Grates

- Grate Replacement (unusual occurrence)



# Trees

- 4-Year Contractor Guarantee Period
- Programmed Maintenance
  - Arborist Monitoring (2x year)
  - Soil Biostimulant Drench (1x year)
  - Soil Assessment (every 3<sup>rd</sup> year)
  - Pruning (every 2<sup>nd</sup> year)
  - Supplemental Watering (weather dependent)
- Tree Replacement

## Abutter Maintenance Items

- Water Harvesting System
- Benches
- Brick Sidewalks
- Tree Grates
- Trees

Approx. Cost of  
\$25,000/year

# DISCUSSION/CONCERNS/COMMENTS