



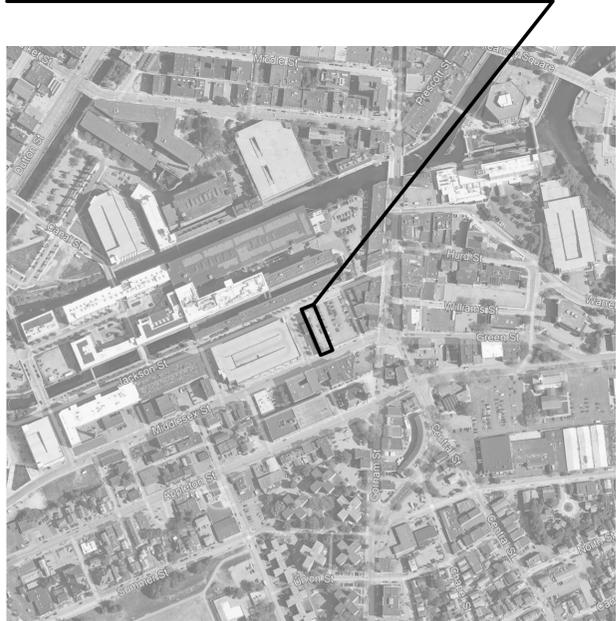
# City of Lowell

# Jackson Street Pocket Park

68 Jackson Street  
Lowell, MA 01852

**BID DOCUMENTS**  
**September 9, 2024**

### LOCATION MAP



### DRAWING LIST

L0-10	COVER SHEET	L5-06	FEATURE WALL
L0-20	ILLUSTRATIVE SITE PLAN	L5-07	PLAY EQUIPMENT DETAILS
L0-30	EXISTING CONDITIONS	L5-08	PLAY EQUIPMENT DETAILS
L0-40	SITE PREPARATION PLAN	L5-09	PLAY EQUIPMENT DETAILS
C100	SOIL MANAGEMENT PLAN	SG-1	FEATURE WALL STRUCTURAL NOTES
L1-01	MATERIALS PLAN	S-1	FEATURE WALL STRUCTURAL DETAILS
L2-01	LAYOUT PLAN	S-2	FEATURE WALL STRUCTURAL DETAILS
L3-01	GRADING PLAN	S-3	FEATURE WALL STRUCTURAL DETAILS
L3-02	SUBGRADE SECTIONS	S-4	FEATURE WALL STRUCTURAL DETAILS
L4-01	PLANTING PLAN	S-5	FEATURE WALL STRUCTURAL DETAILS
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L5-02	SITE DETAILS	S-7	FEATURE WALL STRUCTURAL DETAILS
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L5-04	PLANT RAIL DETAILS	C500	SITE UTILITIES PLAN
L5-05	PLANT RAIL DETAILS	C800	SITE UTILITY DETAILS
		C801	SITE UTILITY DETAILS
		C802	SITE PAVEMENT PATCH DETAILS

FULL SIZE PRINT: 34" x 22"

**Jackson Street Pocket Park**  
68 Jackson Street  
Lowell, MA 01852



Prepared for:  
The City of Lowell  
Department of Planning & Development  
50 Arcand Drive  
Lowell, MA 01852  
978-674-1413

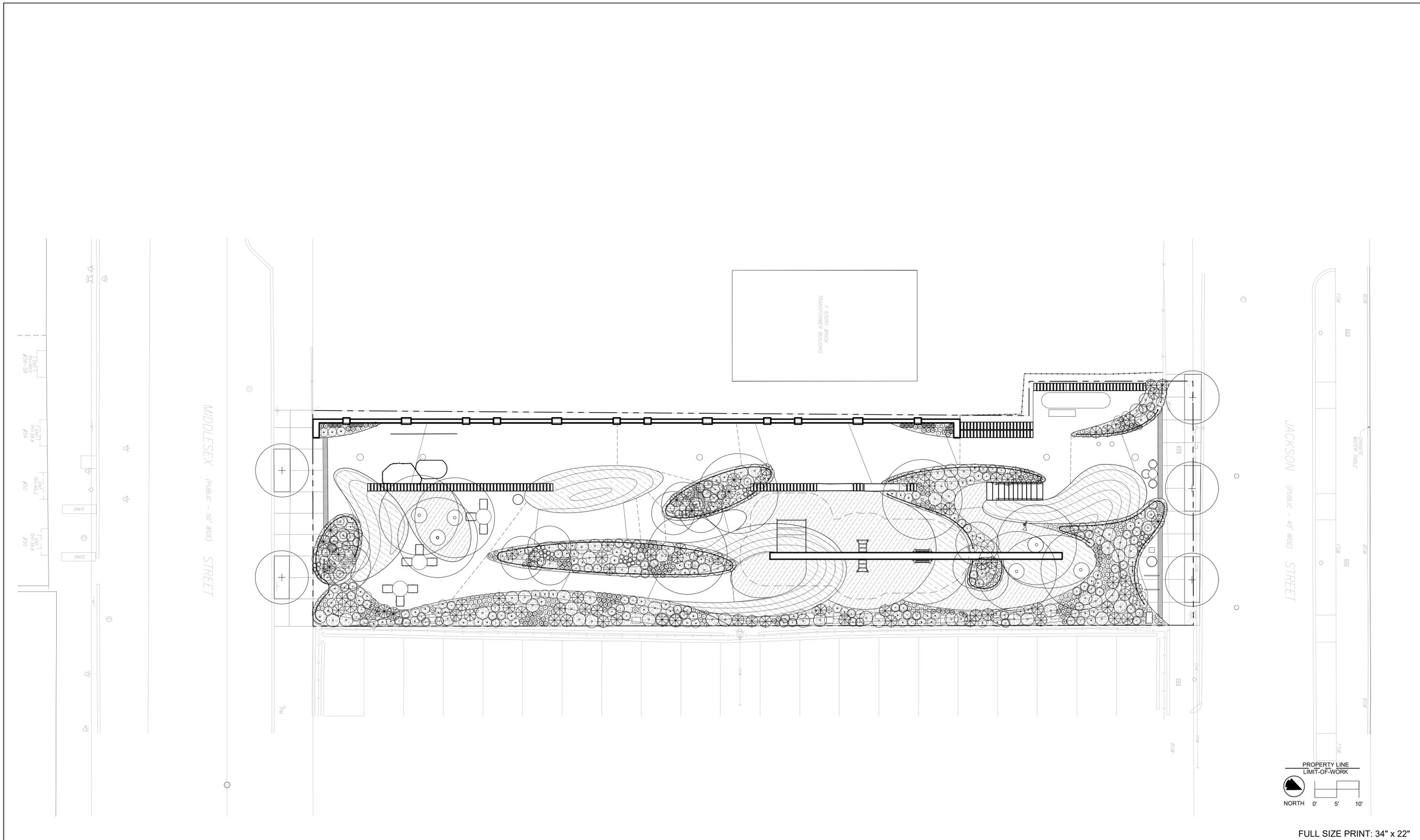
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GroundView  
5 Crescent Street  
Charlestown, MA 02129  
617-548-9688  
Civil & Environmental Consultants, Inc.  
Supernormal TAJ Engineering, LLC



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1	09-09-2024	BID DOCUMENTS

Date:  
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GV

Drawing Title:  
**COVER SHEET**  
Drawing Number:  
**L0-10**



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SITE ENGINEER  
 Civil & Environmental Consultants, Inc.  
DESIGNER  
 Supernormal  
STRUCTURAL ENGINEER  
 TAJ Engineering, LLC



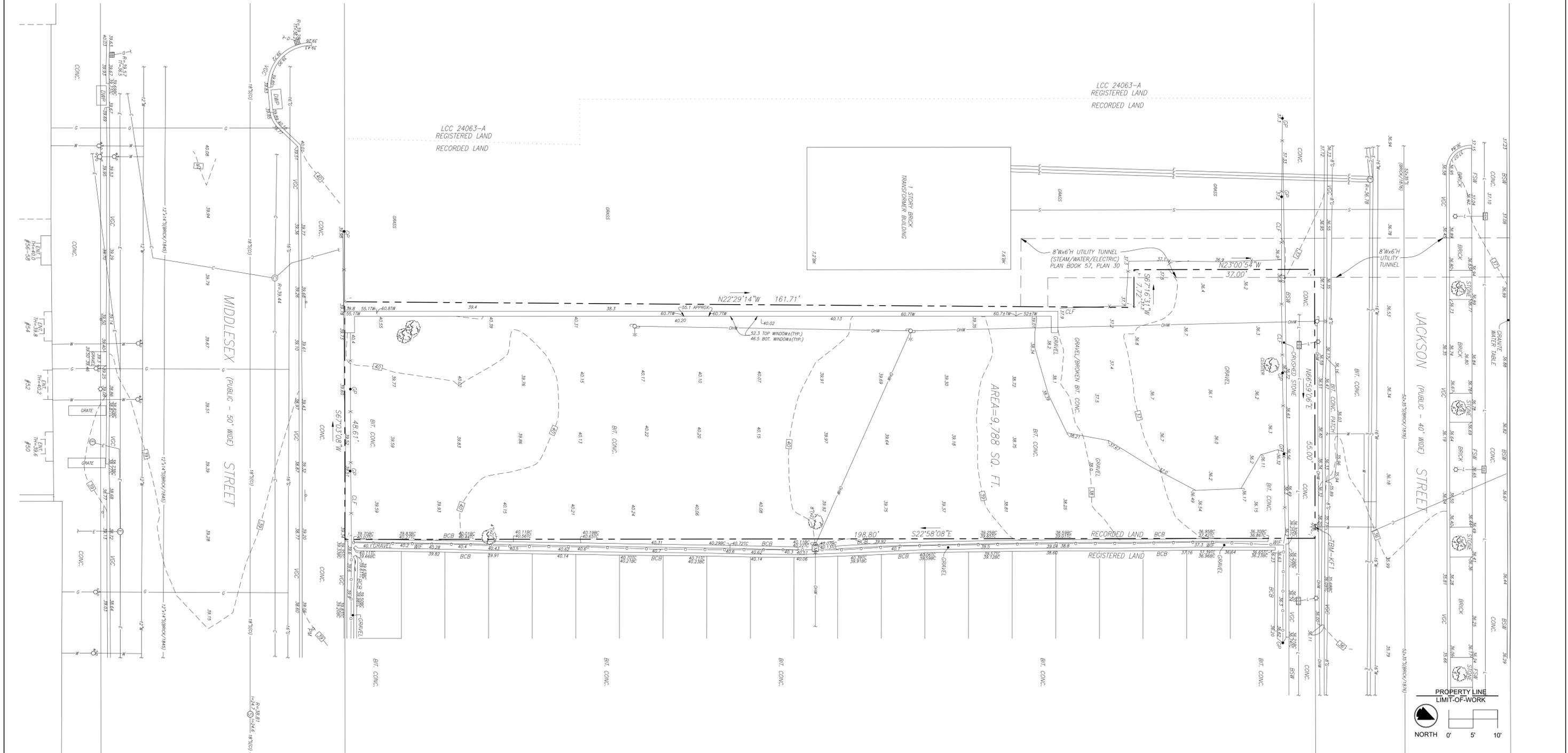
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**Date:**  
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**Scale:**  
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**Drawn By:**  
 GV

**Drawing Title:**  
 ILLUSTRATIVE SITE PLAN  
 (REFERENCE ONLY)  
**Drawing Number:**  
 L 0-20

**EXISTING CONDITIONS NOTES**

1. Topographic and boundary survey was performed by Feldman Geospatial in March 2024 and is depicted on an Existing Conditions plan prepared by Feldman Geospatial dated March 26, 2024. GroundView is not responsible for the accuracy or completeness of the information shown.
2. Vertical elevations refer to the City of Lowell's Vertical Datum.



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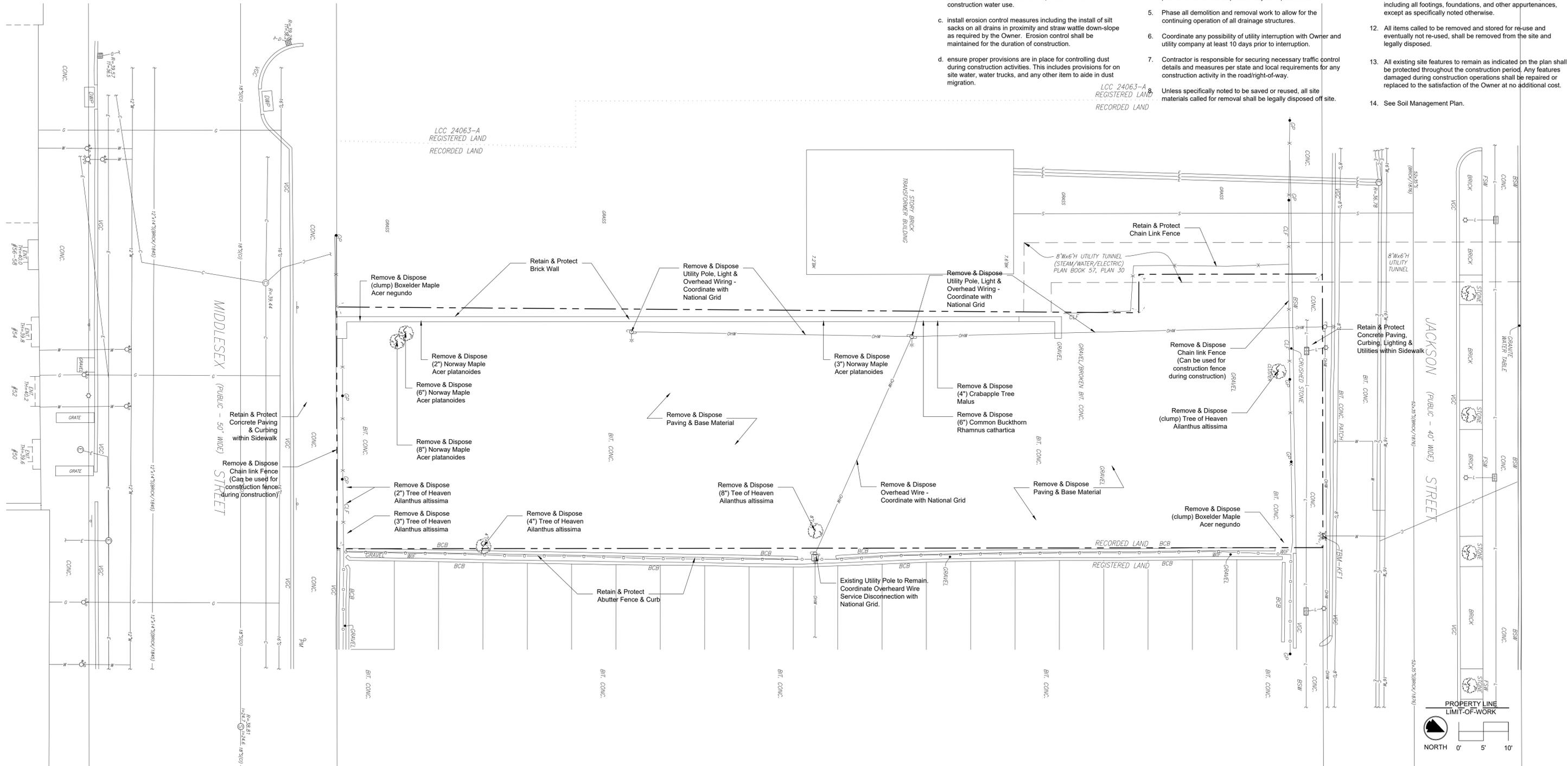
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Drawing Title:  
**EXISTING CONDITIONS**

Drawing Number:  
**L0-30**

**SITE PREPARATION NOTES**

- In accordance with MGL chapter 82, section 40 including all amendments, all contractors should notify in writing all utility companies and government agencies prior to any excavation work, and call DIGSAFE (811 OR 1-888-344-7233) prior to commencement of construction. Report any discrepancies in writing to the Owner and receive instructions prior to proceeding.
- Prior to construction:
  - field verify limit of work with the Owner's Representative.
  - obtain a temporary permit from the Owner for water use/meter. Contractor shall be responsible for all construction water use.
  - install erosion control measures including the install of silt sacks on all drains in proximity and straw wattle down-slope as required by the Owner. Erosion control shall be maintained for the duration of construction.
  - ensure proper provisions are in place for controlling dust during construction activities. This includes provisions for on site water, water trucks, and any other item to aide in dust migration.
- The storage of materials and equipment will be permitted at locations designated by the Owner. Protection of stored materials and equipment shall be the sole responsibility of the Contractor.
- The Contractor shall saw cut at existing sidewalk pavement prior to removal and disposal of adjacent pavements.
- Phase all demolition and removal work to allow for the continuing operation of all drainage structures.
- Coordinate any possibility of utility interruption with Owner and utility company at least 10 days prior to interruption.
- Contractor is responsible for securing necessary traffic control details and measures per state and local requirements for any construction activity in the road/right-of-way.
- Unless specifically noted to be saved or reused, all site materials called for removal shall be legally disposed off site.
- secure the site by installing a temporary construction fencing as required by the Owner. The site shall be secured for the duration of construction.
- confirm a designated construction access and laydown areas for the project site with the Owner.
- Remove trees following TCIA Standards for safety and removal. Trees shall be cut to level with existing grade, with stumps and roots removed and legally disposed. Depressions caused by removal of stumps or roots shall be filled and compacted with material suitable for filling and compacting.
- All items called for removal shall be removed to full depth including all footings, foundations, and other appurtenances, except as specifically noted otherwise.
- All items called to be removed and stored for re-use and eventually not re-used, shall be removed from the site and legally disposed.
- All existing site features to remain as indicated on the plan shall be protected throughout the construction period. Any features damaged during construction operations shall be repaired or replaced to the satisfaction of the Owner at no additional cost.
- See Soil Management Plan.



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**Supernormal**

STRUCTURAL ENGINEER  
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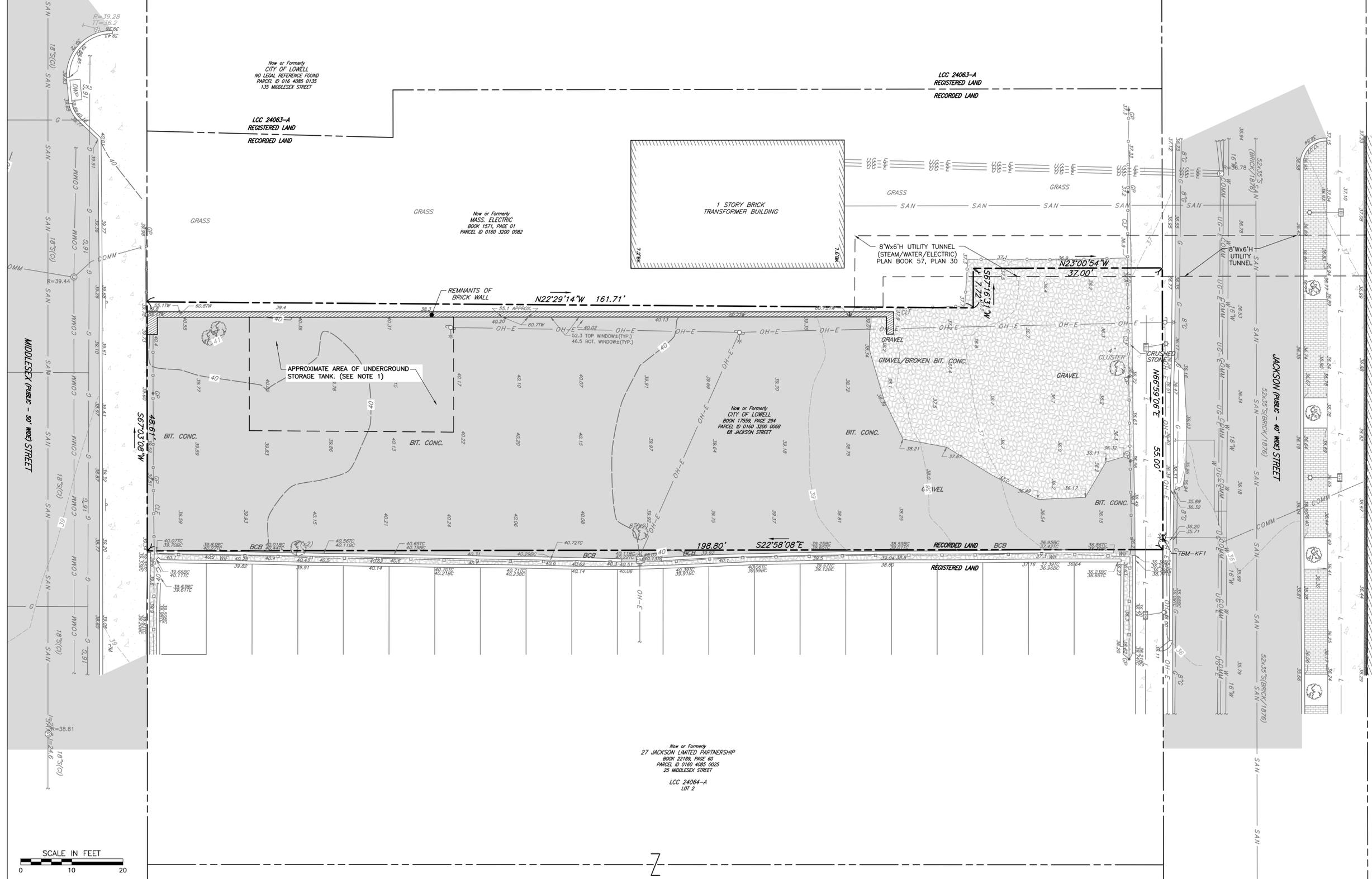
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**SITE PREPARATION PLAN**

Drawing Number:  
**L0-40**

FULL SIZE PRINT: 34" x 22"



NORTH

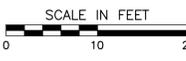


**LEGEND**

	EXISTING PROPERTY LINE
	EXISTING ABUTTERS PROPERTY LINE
	EXISTING EASEMENT
	EXISTING INDEX (MAJOR) CONTOUR
	EXISTING INTERMEDIATE (MINOR) CONTOUR
	EXISTING SPOT SHOT
	EXISTING CHAINLINK FENCE LINE
	EXISTING WROUGHT IRON FENCE LINE
	EXISTING CURB
	EXISTING EDGE OF PAVEMENT
	EXISTING ASPHALT PAVEMENT
	EXISTING STRUCTURE
	EXISTING STORM PIPE
	EXISTING SANITARY SEWER LINE
	EXISTING WATER LINE
	EXISTING GAS LINE
	EXISTING OVERHEAD WIRE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING LIGHTING LINE
	EXISTING COMMUNICATIONS LINE
	EXISTING CATCHBASIN
	EXISTING HYDRANT
	EXISTING WATER GATE
	EXISTING SEWER MANHOLE
	EXISTING GAS SERVICE VALVE
	EXISTING ELECTRIC MANHOLE
	EXISTING COMMUNICATIONS MANHOLE
	EXISTING ELECTRIC MANHOLE
	EXISTING HANDHOLD
	EXISTING LIGHT POST
	EXISTING GUY WIRE
	EXISTING SIGN
	EXISTING GATE POST
	EXISTING TREE

- NOTES**
- CONTRACTOR TO CONDUCT SUBSURFACE EXPLORATION, SUCH AS GROUND PENETRATING RADAR IN VICINITY OF PATCHED PAVEMENT IN SOUTHWEST CORNER OF PROPERTY AS REFERENCED IN WESTON & SAMPSON PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT, DATED FEBRUARY 8, 2012. IF AN UNDERGROUND STORAGE TANK IS DETERMINED TO EXIST, IT IS TO BE PROMPTLY EMPTIED AND REMOVED, IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS FOR JUST CLOSURE.
  - THE CONTRACTOR SHALL IMMEDIATELY NOTIFY A LICENSED SITE PROFESSIONAL IF ANY ODORS, STAINING, OR OTHER EVIDENCE INDICATIVE OF CONTAMINATION ARE OBSERVED DURING SUBSURFACE WORK.
  - ALL SOIL SPOILS FROM EXCAVATIONS ARE TO REMAIN ON THE PROPERTY. ALL SOIL OR DEBRIS STOCKPILED AND STORED ON-SITE ARE TO BE PLACED ON A BASE LINED WITH A 6-MIL POLYETHYLENE SHEETING AND BE COMPLETELY AND SECURELY COVERED WITH THE SAME POLYETHYLENE MATERIAL FOR THE DURATION OF THE MATERIAL STORAGE. STRAW WATLES, OR HAY BALES, SHOULD ENCASE THE MATERIAL STOCKPILE, TO CREATE A BERM UNDER THE BASE LAYER OF POLY SHEETING, WITH THE TOP LAYER OF POLY SHEETING OVERLYING THE BERM AND BASE LAYER OF POLY SHEETING TO DIVERT ANY PRECIPITATION OUTSIDE THE BERM. POLY SHEETING TO BE INSPECTED WEEKLY AND MAINTAINED TO ASSURE IT IS FUNCTIONING PROPERLY.
  - TRENCH SPOILS THAT MEET THE FOLLOWING REQUIREMENTS FROM EXCAVATIONS CAN BE USED FOR BEDDING MATERIAL OF STORM WATER AND UTILITY LINES: AGGREGATES ARE NOT LARGER THAN 3/4-INCH AND NOT SMALLER THAN NO. 8 SIEVE, AND MATERIAL IS FREE OF SILT AND FINES. BEDDING TO EXTEND MINIMUM OF 6-INCHES BELOW AND 12-INCHES ABOVE THE PIPE AND AS SHOWN ON THE DETAILS. MATERIAL THAT EXCEEDS THESE PARAMETERS CAN BE USED AS GENERAL FILL MATERIAL IN ACCORDANCE WITH LANDSCAPE ARCHITECT SPECIFICATIONS.
  - EXISTING SOILS, INCLUDING SOILS TO REMAIN IN PLACE AND SOILS EXCAVATED AND REUSED, ARE TO HAVE A BRIGHT, ORANGE, NON-WOVEN GEOTEXTILE DEMARCATION FABRIC PLACED OVER IT AND BE COVERED WITH EITHER TWO FEET OF IMPORTED SOILS OR 5 INCHES OF PAVEMENT UNDERLAIN BY 5-INCHES OF STONE.
  - EXCAVATIONS FOR STRUCTURAL FOUNDATIONS, E.G. LIGHT POLES, BENCHES, WALLS, ETC., THAT EXTEND BELOW TWO FEET OF COVER, DO NOT REQUIRE OVEREXCAVATION. DEMARCATION BARRIER TO BE PLACED IN EXCAVATION THEN COVERED WITH CLEAN MATERIAL.
  - EXCAVATIONS FOR LANDSCAPING THAT EXTEND BELOW TWO FEET TO BE OVEREXCAVATED BY A MINIMUM OF ONE FOOT. A DEMARCATION BARRIER SHOULD BE ENCASED IN A DEMARCATION BARRIER WITH SIX INCHES OF CLEAN FILL OVER THE DEMARCATION BARRIER AND UNDER THE UTILITY TO MINIMIZE PUNCTURING OR TEARING THE DEMARCATION BARRIER.

- REFERENCE**
- TOPOGRAPHIC AND BOUNDARY SURVEY WAS PERFORMED BY FELDMAN GEOSPATIAL IN MARCH 2024 AND IS DEPICTED ON AN EXISTING CONDITIONS PLAN PREPARED BY FELDMAN GEOSPATIAL DATED MARCH 26, 2024.
  - VERTICAL ELEVATIONS REFER TO LOWELL CITY BASE DATUM.



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STRUCTURAL ENGINEER  
**Supernormal TAJ Engineering, LLC**



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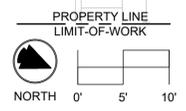
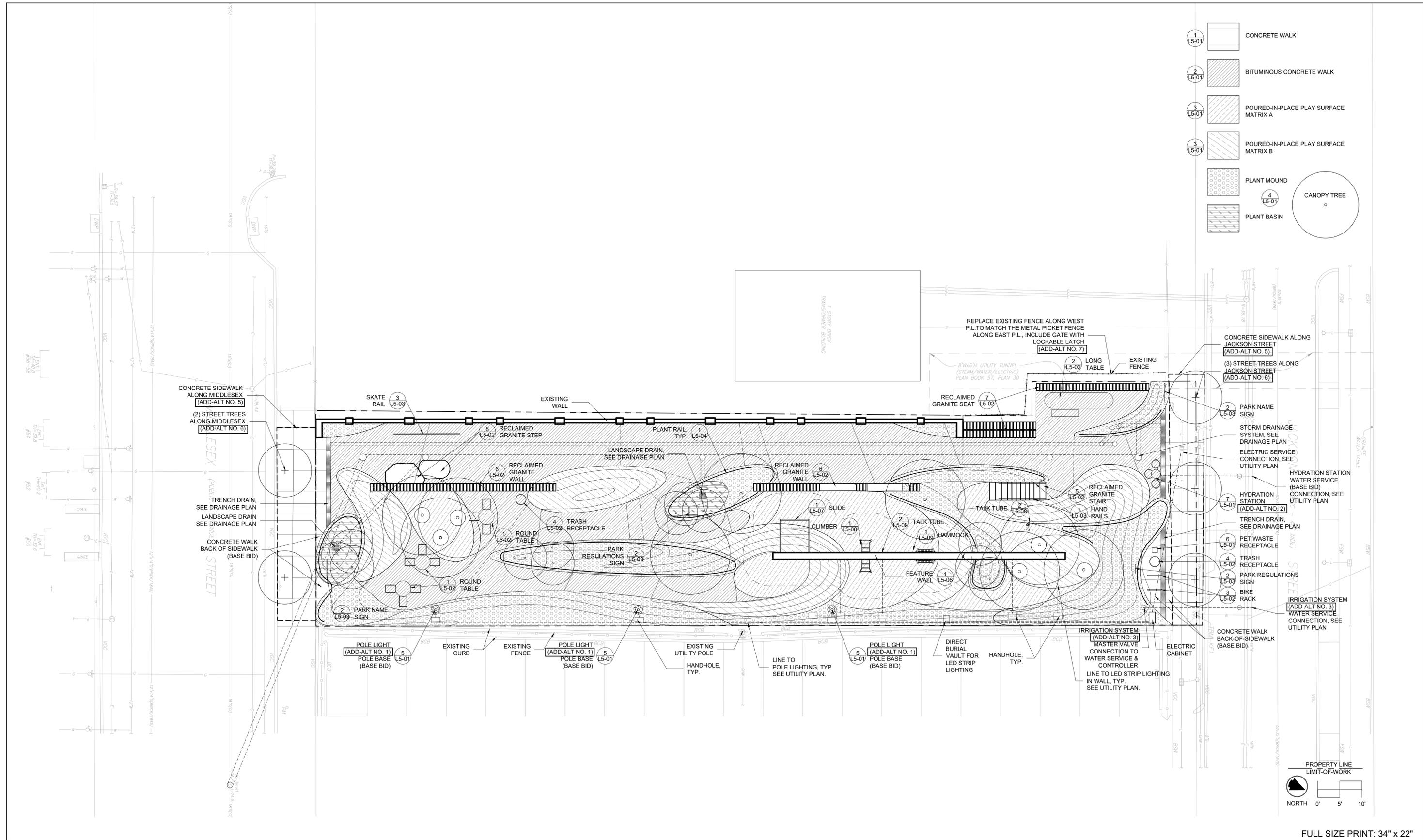
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1" = 10'

Drawn By:  
EMW

Drawing Title:  
**GENERAL NOTES AND SOIL MANAGEMENT PLAN**

Drawing Number:  
**C100**

- 1 L5-01 CONCRETE WALK
- 2 L5-01 BITUMINOUS CONCRETE WALK
- 3 L5-01 POURED-IN-PLACE PLAY SURFACE MATRIX A
- 3 L5-01 POURED-IN-PLACE PLAY SURFACE MATRIX B
- PLANT MOUND
- 4 L5-01 CANOPY TREE
- PLANT BASIN



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SITE ENGINEER  
DESIGNER  
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STRUCTURAL ENGINEER



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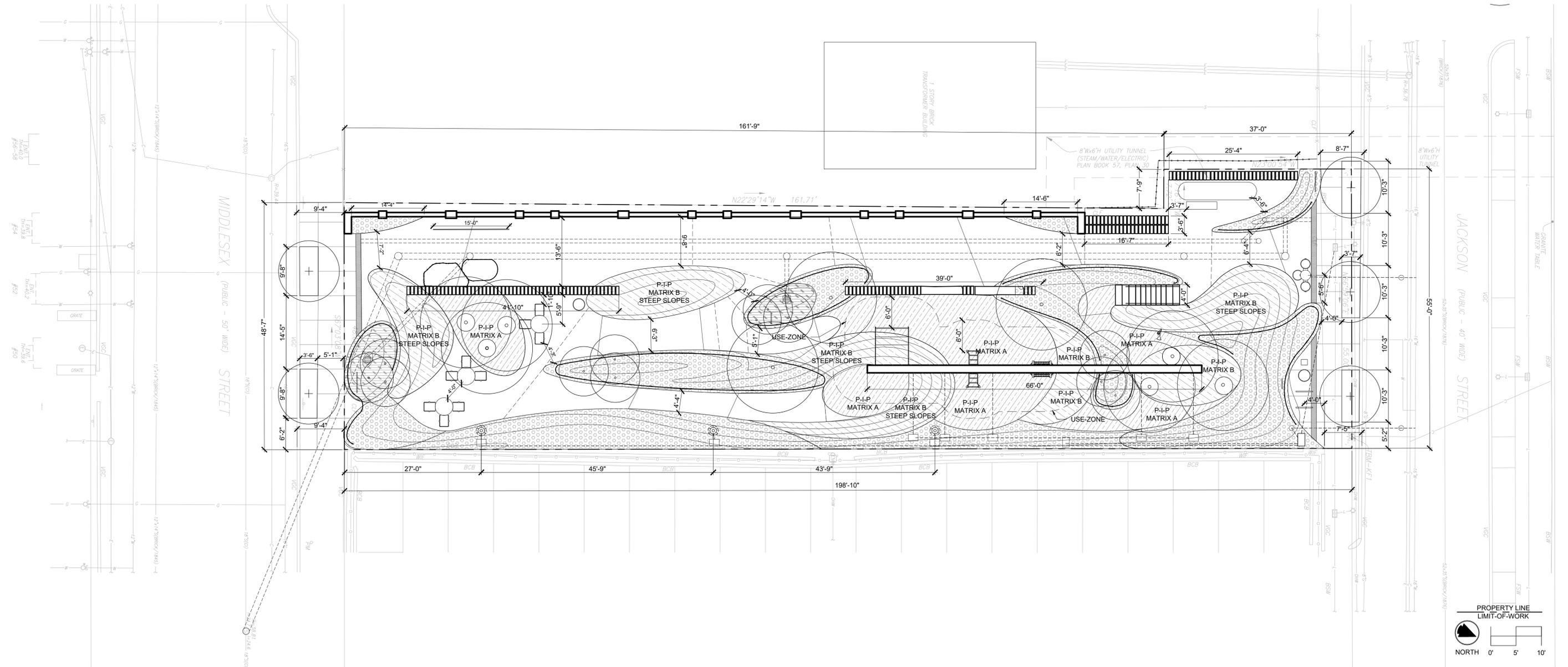
Drawn By:  
GV

Drawing Title:  
**MATERIALS SITE PLAN**

Drawing Number:  
**L 1-01**

**LAYOUT NOTES**

- The Contractor shall familiarize himself with the existing conditions and shall be responsible for locating or re-establishing survey field ties, property lines, and benchmarks indicated on the plans.
- The Contractor shall engage the services of a Land Surveyor registered in the Commonwealth of Massachusetts and shall submit the name, address, and registration number of such person to the Owner's Representative in writing.
- The Surveyor shall layout the essential or necessary grades and locations of site furnishings, footings, pavements, utilities, structures and other proposed elements. The surveyor shall verify the location of any existing benchmarks and shall be responsible for their accuracy. Proposed features shall be located in relation to layout shown on the drawings and adjusted as directed by the Owner's Representative.
- Confirm only designated play equipment and play surfacing are within use-zones. Verify use-zone dimensions with play equipment requirements.
- The Contractor shall inform the Owner's Representative and the Owner when the general layout is completed and shall not begin excavation until the Owner's Representative approves the various alignments. Any discrepancies encountered in field conditions shall be reported to the Owner's Representative and the Owner immediately and shall be adjusted as directed.
- The Contractor shall be responsible for maintaining the correct vertical and horizontal alignment of all elements, which responsibility shall not be waived by the Owner's Representative's approval of basic layout and stakeout.
- The Contractor shall be responsible for meeting the following ADA construction tolerances and demonstrating adherence to these regulations prior to Final Acceptance and Final Payment.  
  
Final graded surface of all pedestrian pavement areas is to comply to Federal ADA accessibility regulations with a maximum allowed running slope of less than 5%, a maximum allowed cross slope of less than 2% and a minimum of 1% cross slope and pitched to drain as shown on drawings.



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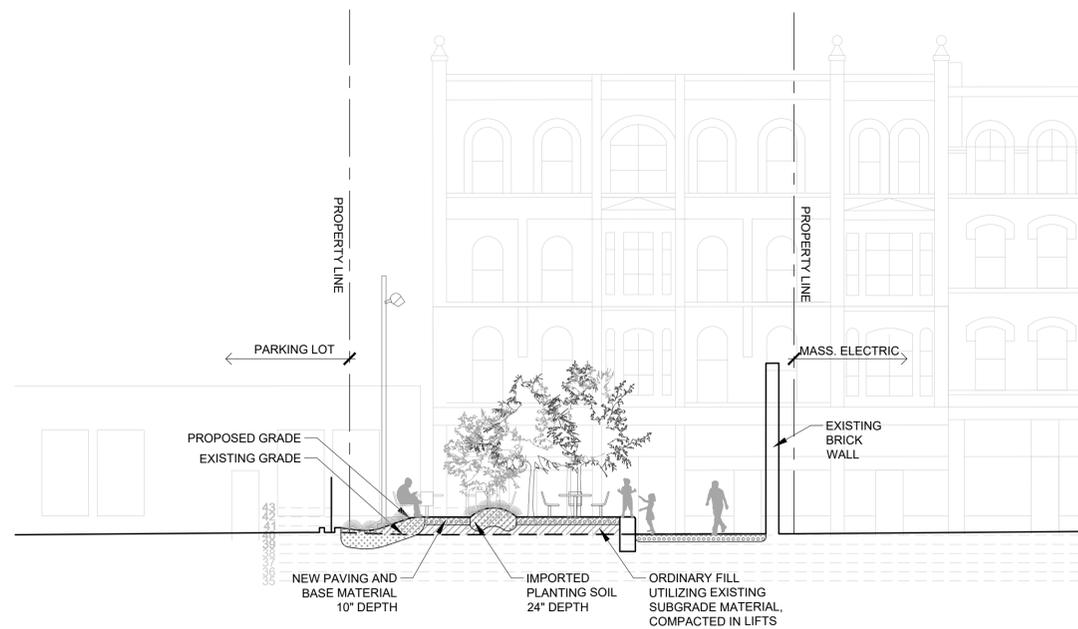


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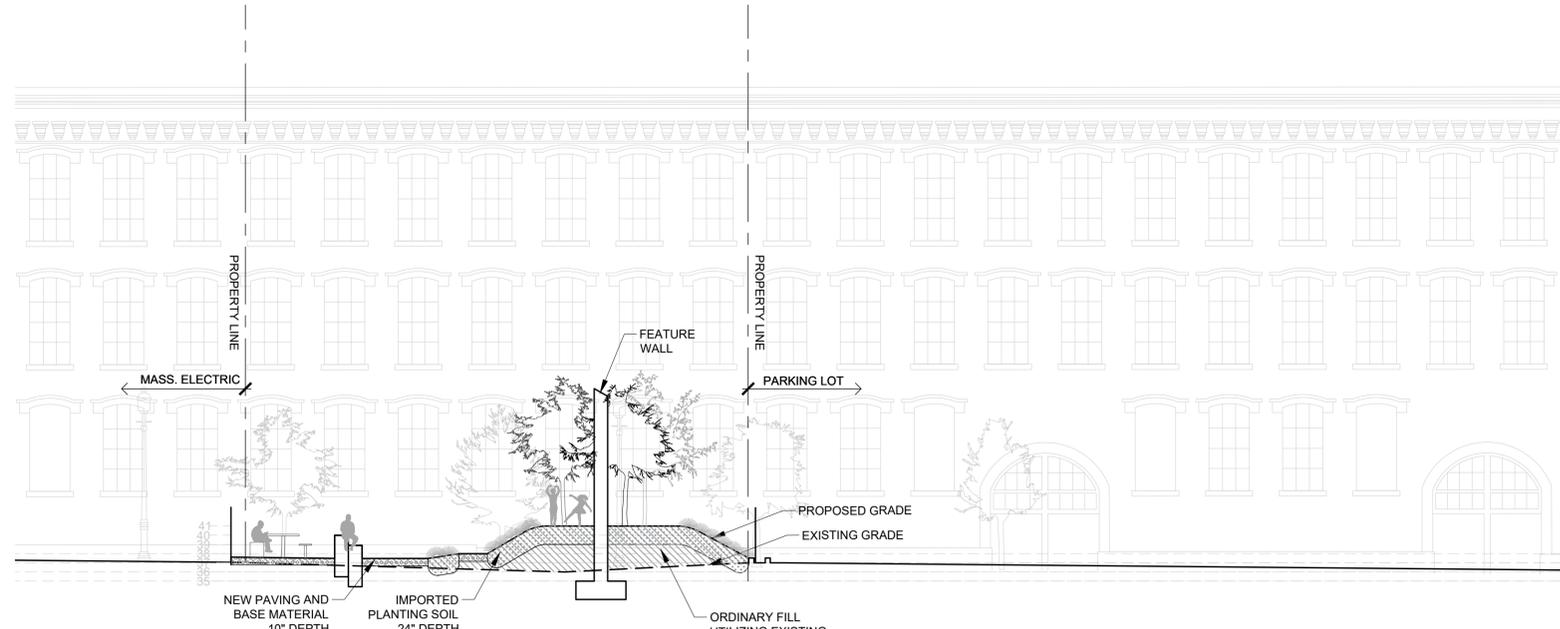
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Drawing Title:  
**LAYOUT PLAN**  
  
Drawing Number:  
**L 2-01**

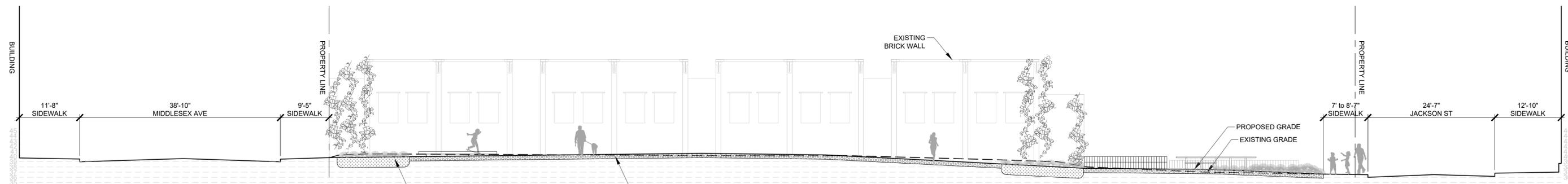




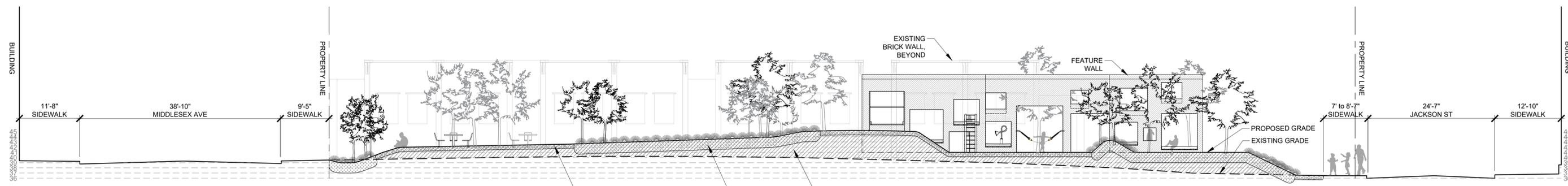
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SCALE: 1" = 10'



**#2 SECTION - NORTH**  
SCALE: 1" = 10'



**#3 SECTION - WEST**  
SCALE: 1" = 10'



**#4 SECTION - WEST**  
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Drawing Title:  
**SUBGRADE SECTIONS**  
*(REFERENCE ONLY)*  
Drawing Number:  
**L3-02**

**PLANTING NOTES**

- All plant material to be tagged and approved by the Owner's Representative prior bringing to the site.
- The Contractor shall identify proposed tree locations prior to placement with a stake and coordinate with the Owner's Representative to make any necessary adjustments before actual placement. The Contractor shall not place new trees directly under overhead wires or above utility lines.
- Plant locations shown on this plan are approximate only. Owner's Representative provide updated plan layout once plants have been confirmed and source.
- The Contractor shall layout plants and coordinate with the Owner's Representative to make any necessary adjustments before installing.

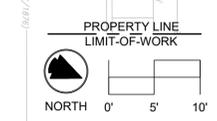
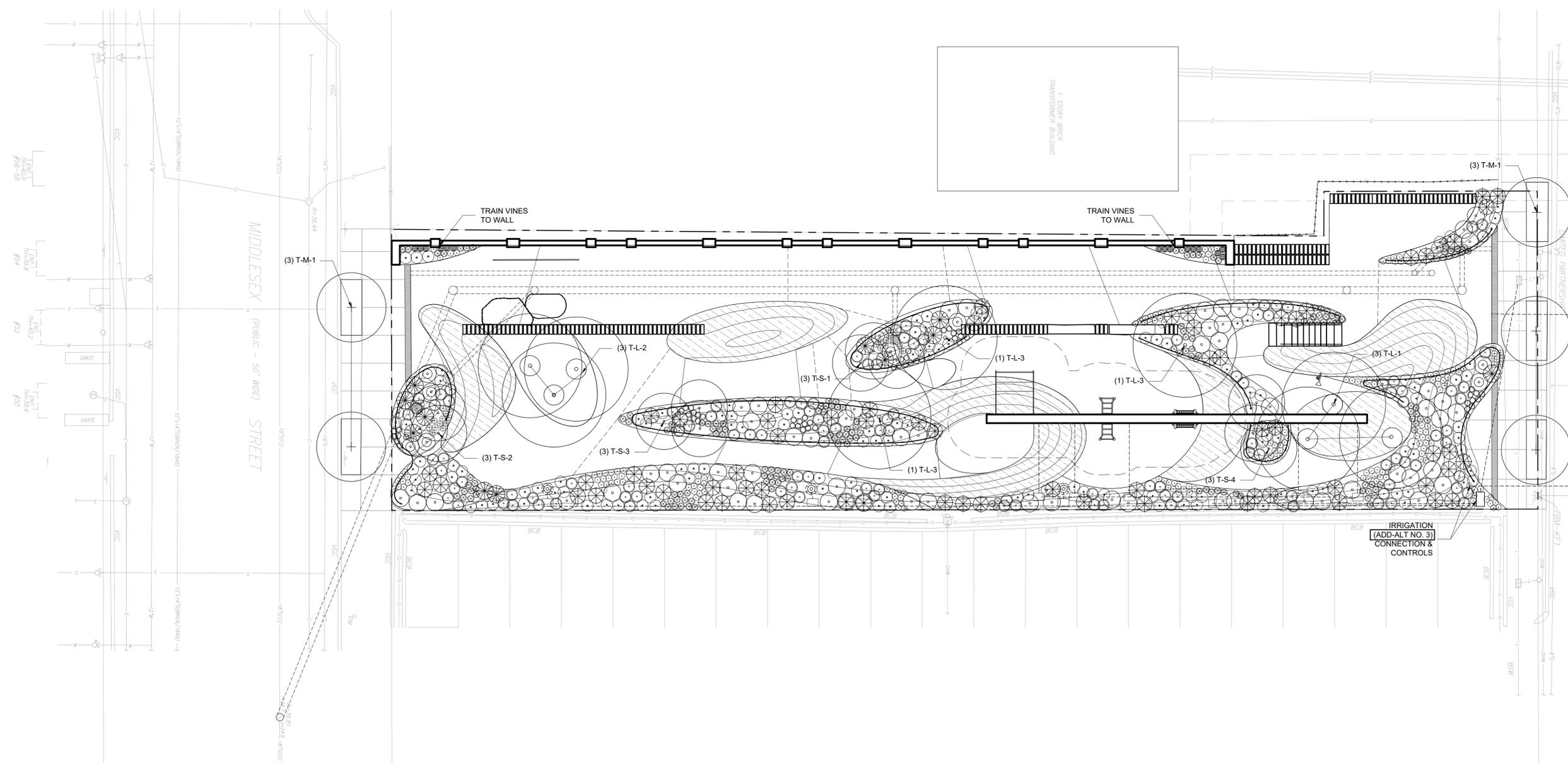
(ADD-ALT NO. 3)

**IRRIGATION NOTES**

- Contractor to design, furnish and install drip irrigation system for all plant bed areas.

**PLANT LIST**

Symbol	Botanical Name	Size
Quantity	Common Name	Notes
<b>DECIDUOUS TREES</b>		
(FURNISH N-I-C)	T-S-1 3 <i>Acer saccharinum</i> Silver Maple	1.5' - 2' cal.
(FURNISH N-I-C)	T-S-2 3 <i>Quercus bicolor</i> Swamp White Oak	1.5' - 2' cal.
(FURNISH N-I-C)	T-S-3 3 <i>Gymnocladus dioica</i> Kentucky Coffeetree	1.5' - 2' cal.
(FURNISH N-I-C)	T-S-4 3 <i>Carya ovata</i> Shagbark Hickory	1.5' - 2' cal.
(ADD-ALT NO. 7)	T-M-1 5 Street Tree to be decided	2.5' - 3' cal.
T-L-1	3 <i>Quercus muhlenbergii</i> Chinquapin Oak	3.5' - 4' cal.
T-L-2	3 <i>Celtis occidentalis</i> Common Hackberry	3.5' - 4' cal.
T-L-3	3 <i>Metasequoia glyptostroboides</i> Dawn Redwood	3.5' - 4' cal.
<b>SHRUBS - EVERGREEN</b>		
S-E-1	40 <i>Pinus mugo</i> var. <i>pumilo</i> Dwarf Mountain Pine	3 gallon pot
S-E-2	40 <i>Thuja occidentalis</i> 'Congabe' Fire Chief Arborvitae	3 gallon pot
<b>SHRUBS - DECIDUOUS</b>		
S-D-1	40 <i>Cornus sericea</i> Yellow Twig Dogwood	3 gallon pot
S-D-2	40 <i>Salix candida</i> Sage Leaf Willow	3 gallon pot
<b>GRASSES</b>		
G-1	135 <i>Muhlenbergia capillaris</i> Pink Muhly Grass	1 gallon pot
G-1	135 <i>Schizachyrium scoparium</i> 'Blue Paradise' Prairie Winds 'Blue Paradise'	1 gallon pot
<b>PERENNIALS</b>		
P-1	70 Agastache Black Adder	1 quart pot
P-2	70 <i>Baptisia</i> Decadence 'Blueberry Sunday'	1 quart pot
P-3	70 <i>Salvia</i> Color Spies 'Azure Blue'	1 quart pot
P-4	70 <i>Monarda fistulosa</i> Blue Stocking	1 quart pot
P-5	70 <i>Nepeta faassenii</i> Cat's Meow Calmint	1 quart pot
P-6	70 <i>Perovskia atriplicifolia</i> Deli, 'n Lace'	1 quart pot
P-7	70 <i>Symphyotrichum oblongifolium</i> Aromatic Aster	1 quart pot
P-8	70 <i>Echinops ritro</i> Platinum Blue	1 quart pot
<b>VINES</b>		
V-1	8 <i>Lonicera periclymenum</i> 'Scentation' Scentation Honeysuckle	1 quart pot
V-2	8 <i>Parthenocissus quinquefolia</i> 'Monham' Star Showers Virginia Creeper	1 quart pot
<b>BULBS</b>		
	350 <i>Scilla sibirica</i> Siberian Squill	bulb
	250 <i>Camassia</i> Wild Hyacinth	bulb
	150 <i>Allium</i> Summer Drummer	bulb



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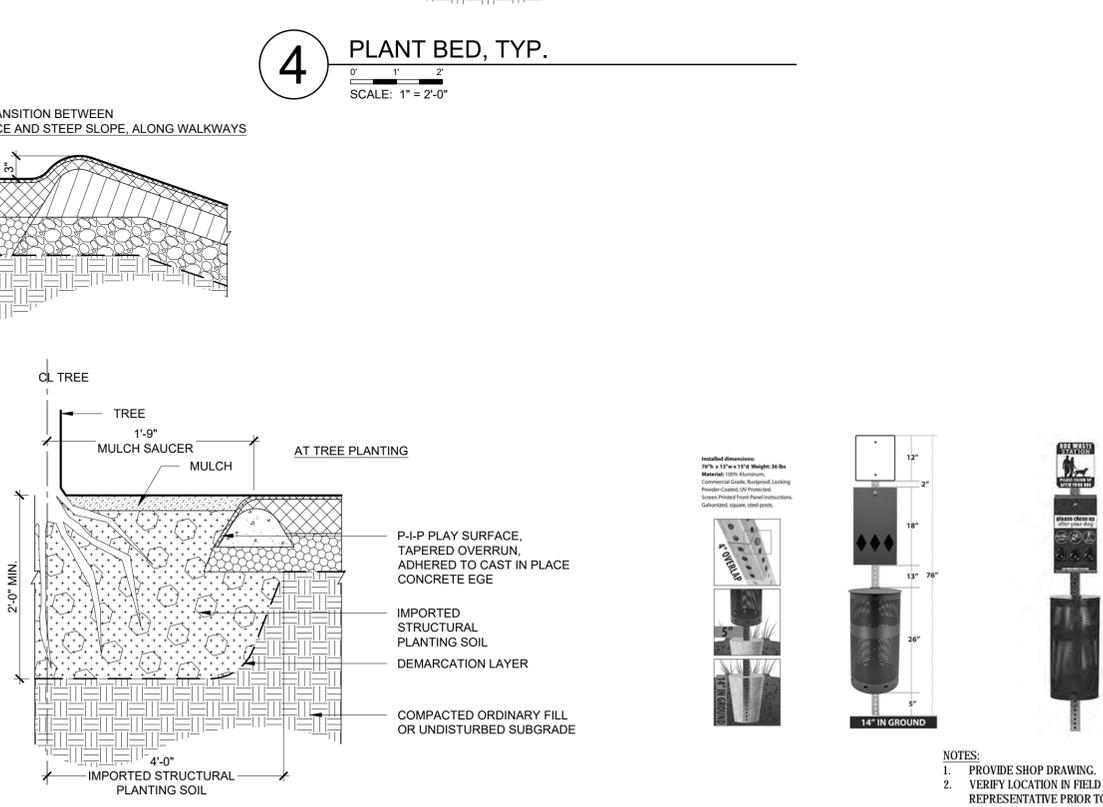
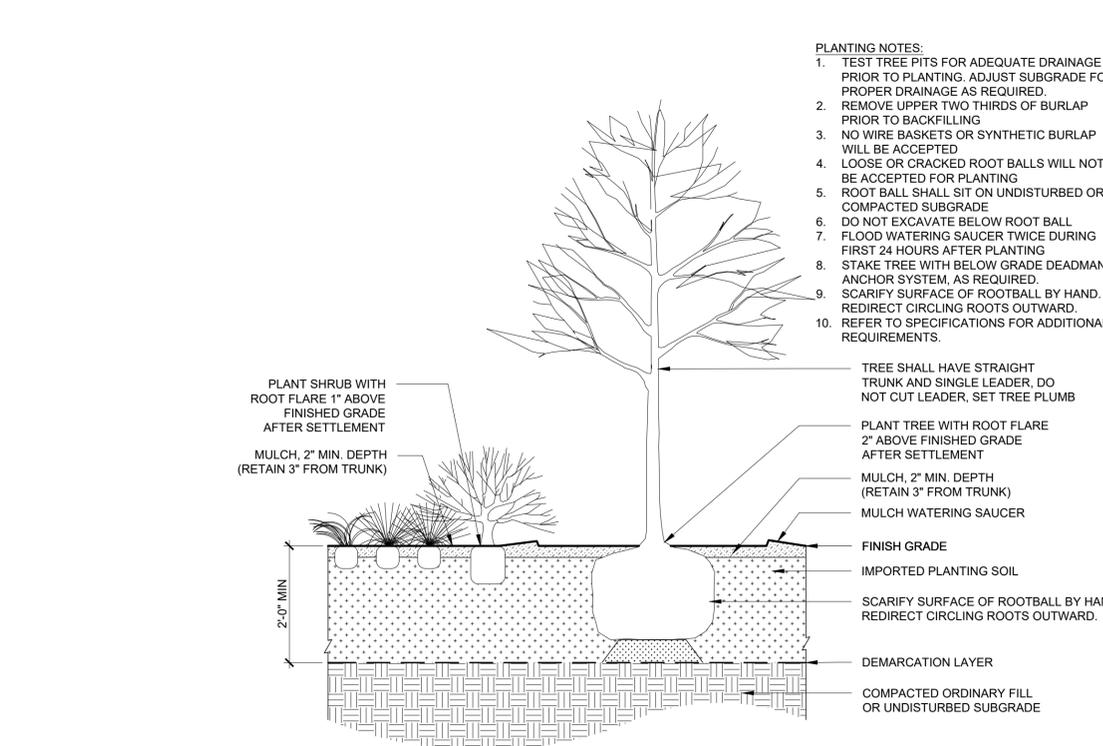
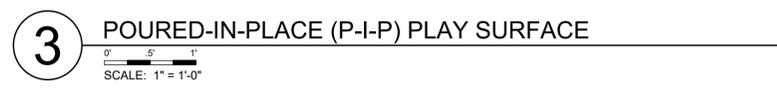
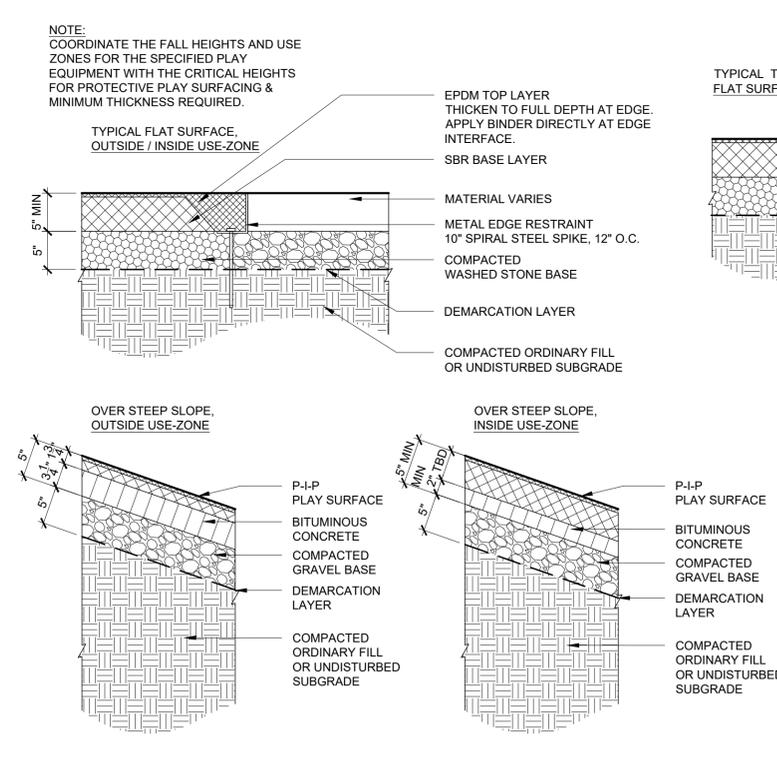
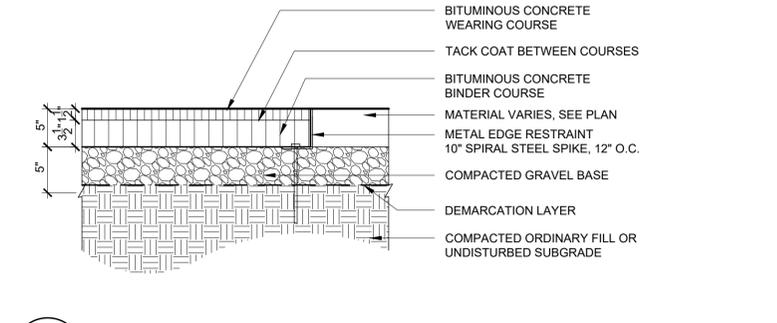
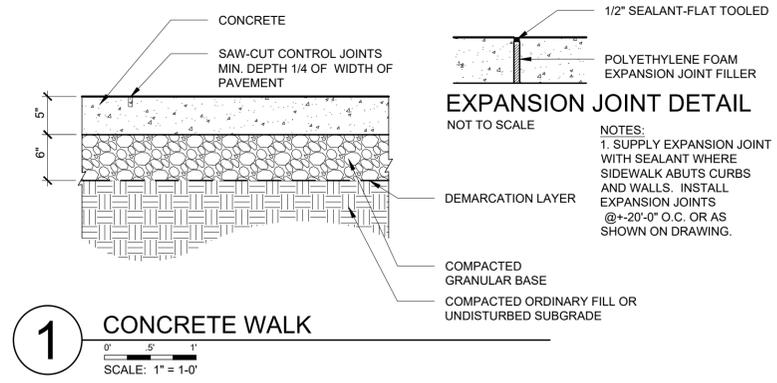
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09-09-2024

Scale:  
AS SHOWN

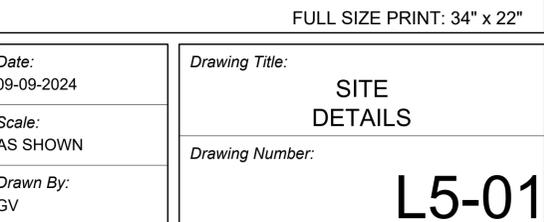
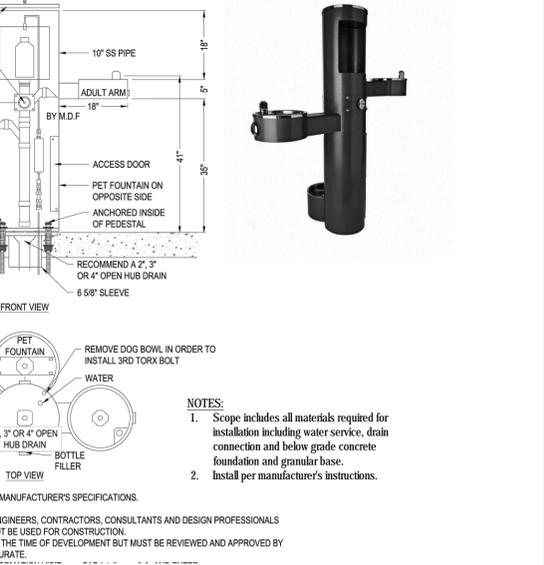
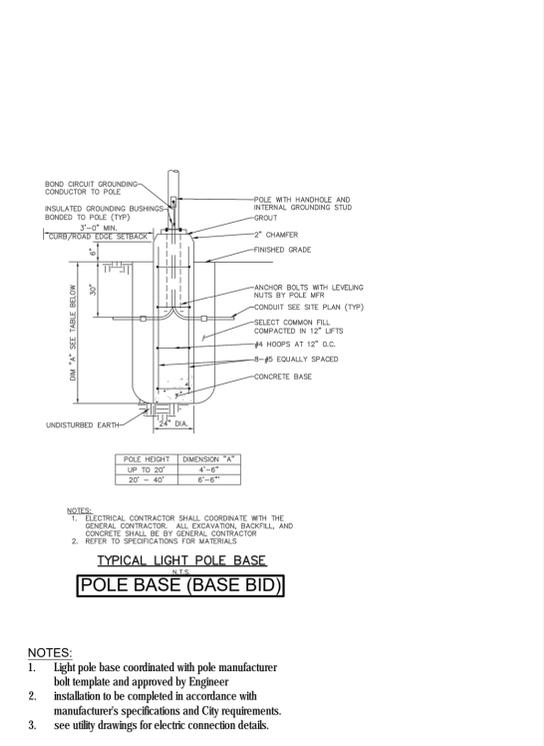
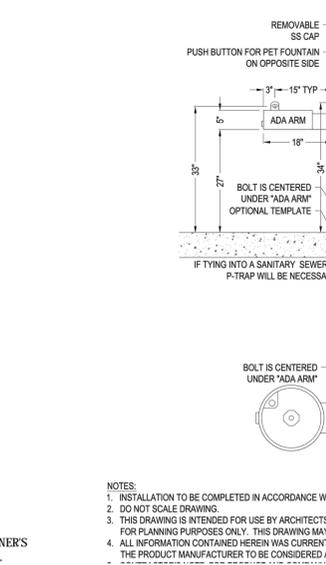
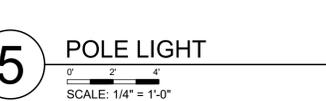
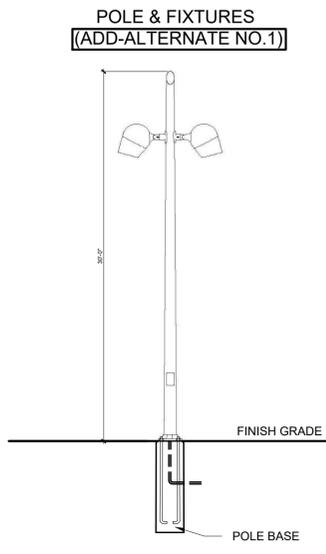
Drawn By:  
GV

Drawing Title:  
**PLANTING PLAN**

Drawing Number:  
**L 4-01**



- PLANTING NOTES:**
- TEST TREE PITS FOR ADEQUATE DRAINAGE PRIOR TO PLANTING. ADJUST SUBGRADE FOR PROPER DRAINAGE AS REQUIRED.
  - REMOVE UPPER TWO THIRDS OF BURLAP PRIOR TO BACKFILLING
  - NO WIRE BASKETS OR SYNTHETIC BURLAP WILL BE ACCEPTED
  - LOOSE OR CRACKED ROOT BALLS WILL NOT BE ACCEPTED FOR PLANTING
  - ROOT BALL SHALL SIT ON UNDISTURBED OR COMPACTED SUBGRADE
  - DO NOT EXCAVATE BELOW ROOT BALL
  - FLOOD WATERING SAUCER TWICE DURING FIRST 24 HOURS AFTER PLANTING
  - STAKE TREE WITH BELOW GRADE DEADMAN ANCHOR SYSTEM, AS REQUIRED.
  - SCARIFY SURFACE OF ROOTBALL BY HAND. REDIRECT CIRCLING ROOTS OUTWARD.
  - REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



**Jackson Street Pocket Park**  
68 Jackson Street  
Lowell, MA 01852



Prepared by:  
**The City of Lowell**  
Department of Planning & Development  
50 Arcand Drive  
Lowell, MA 01852  
978-674-1413

Prepared by:  
**GroundView**  
5 Crescent Street  
Charlestown, MA 02129  
617-548-9688

**Civil & Environmental Consultants, Inc.**  
Supernormal

**TAJ Engineering, LLC**



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Date:  
09-09-2024

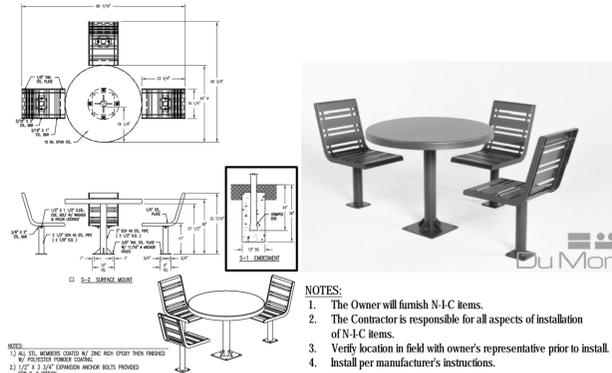
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Drawn By:  
GV

Drawing Title:  
**SITE DETAILS**

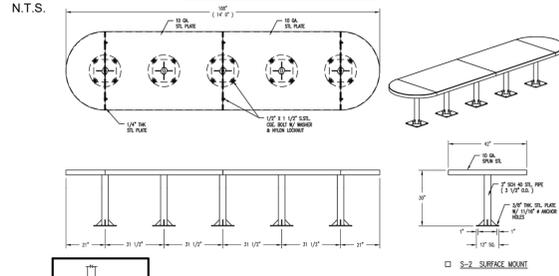
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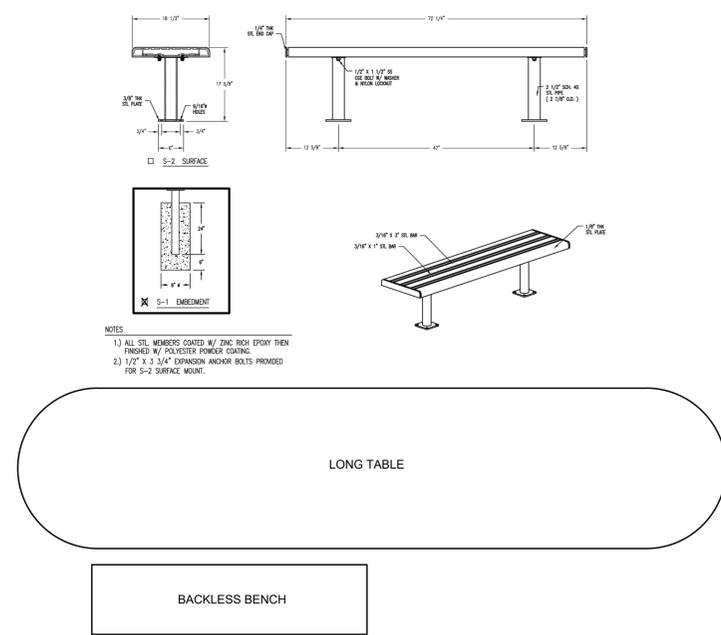


- NOTES:**
1. The Owner will furnish N-I-C items.
  2. The Contractor is responsible for all aspects of installation of N-I-C items.
  3. Verify location in field with owner's representative prior to install.
  4. Install per manufacturer's instructions.

**1 ROUND TABLE (FURNISH N-I-C)**

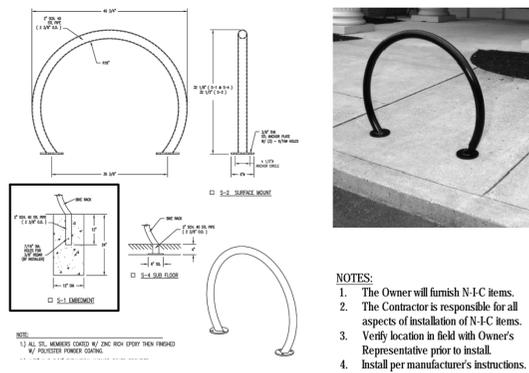


- NOTES:**
- 1) ALL STL MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
  - 2) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED FOR S-2 SURFACE MOUNT.



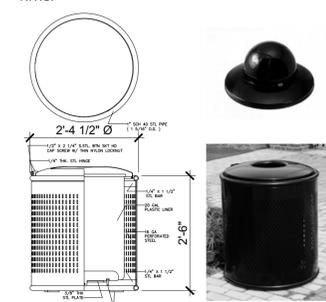
- NOTES:**
1. The Owner will furnish N-I-C items.
  2. The Contractor is responsible for all aspects of installation of N-I-C items.
  3. Verify location in field with owner's representative prior to install.
  4. Install per manufacturer's instructions.

**2 LONG TABLE (FURNISH N-I-C)**



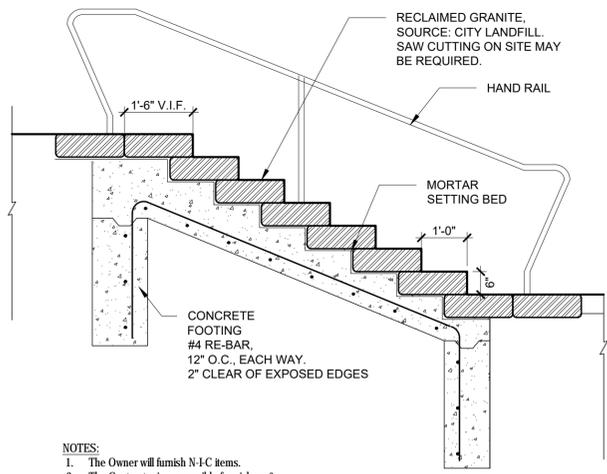
- NOTES:**
1. The Owner will furnish N-I-C items.
  2. The Contractor is responsible for all aspects of installation of N-I-C items.
  3. Verify location in field with Owner's Representative prior to install.
  4. Install per manufacturer's instructions.

**3 BIKE RACK (FURNISH N-I-C)**



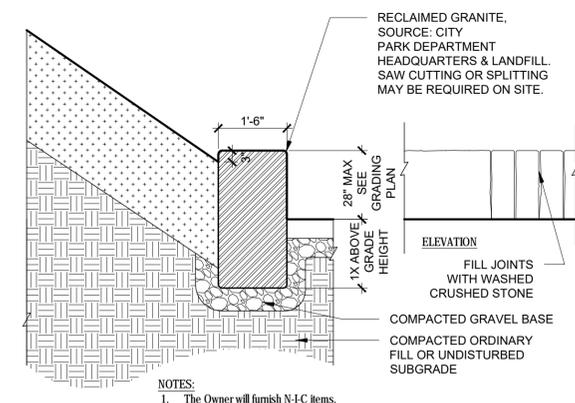
- NOTES:**
1. The Owner will furnish N-I-C items.
  2. The Contractor is responsible for all aspects of installation of N-I-C items.
  3. Verify location in field with owner's representative prior to install.
  4. Install per manufacturer's instructions.
  5. Provide below grade concrete footing as required for attachment.

**4 TRASH RECEPTACLE (FURNISH N-I-C)**



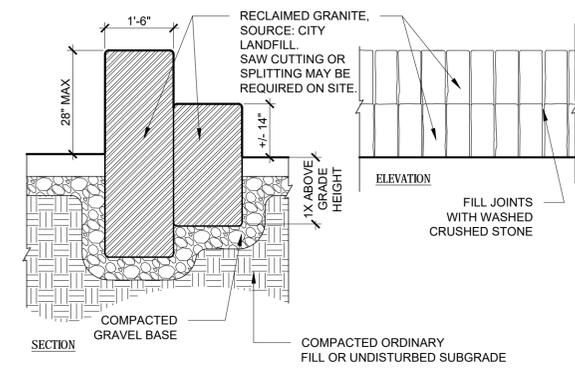
- NOTES:**
1. The Owner will furnish N-I-C items.
  2. The Contractor is responsible for pick-up & delivery to the site and all aspects of installation of N-I-C items.
  3. coordinate granite selection and placement in field with Owner's Representative.
  4. Coordinate hand rail placement with concrete rebar layout.

**5 RECLAIMED GRANITE STAIR (FURNISH N-I-C)**



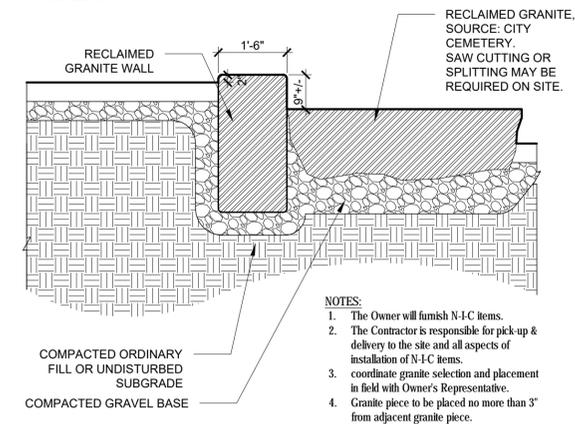
- NOTES:**
1. The Owner will furnish N-I-C items.
  2. The Contractor is responsible for pick-up & delivery to the site and all aspects of installation of N-I-C items.
  3. coordinate granite selection and placement in field with Owner's Representative.
  4. Granite piece to be placed no more than 3" from adjacent granite piece.

**6 RECLAIMED GRANITE WALL (FURNISH N-I-C)**



- NOTES:**
1. The Owner will furnish N-I-C items.
  2. The Contractor is responsible for pick-up & delivery to the site and all aspects of installation of N-I-C items.
  3. Coordinate granite selection and placement in field with Owner's Representative.
  4. Granite piece to be placed no more than 3" from adjacent granite piece.

**7 RECLAIMED GRANITE SEAT (FURNISH N-I-C)**



- NOTES:**
1. The Owner will furnish N-I-C items.
  2. The Contractor is responsible for pick-up & delivery to the site and all aspects of installation of N-I-C items.
  3. coordinate granite selection and placement in field with Owner's Representative.
  4. Granite piece to be placed no more than 3" from adjacent granite piece.

**8 RECLAIMED GRANITE STEP (FURNISH N-I-C)**



FULL SIZE PRINT: 34" x 22"

**Jackson Street Pocket Park**  
68 Jackson Street  
Lowell, MA 01852

Prepared by:  
The City of Lowell  
Department of Planning & Development  
50 Arcand Drive  
Lowell, MA 01852  
978-674-1413

Prepared by:  
LANDSCAPE ARCHITECT  
GroundView  
5 Crescent Street  
Lowell, MA 02129  
617-548-9688

SITE ENGINEER  
Civil & Environmental Consultants, Inc.

DESIGNER  
Supernormal

STRUCTURAL ENGINEER  
TAJ Engineering, LLC

Professional Seal  
MASSACHUSETTS REGISTERED LANDSCAPE ARCHITECT  
NO. 1541

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NO.	DATE	DESCRIPTION
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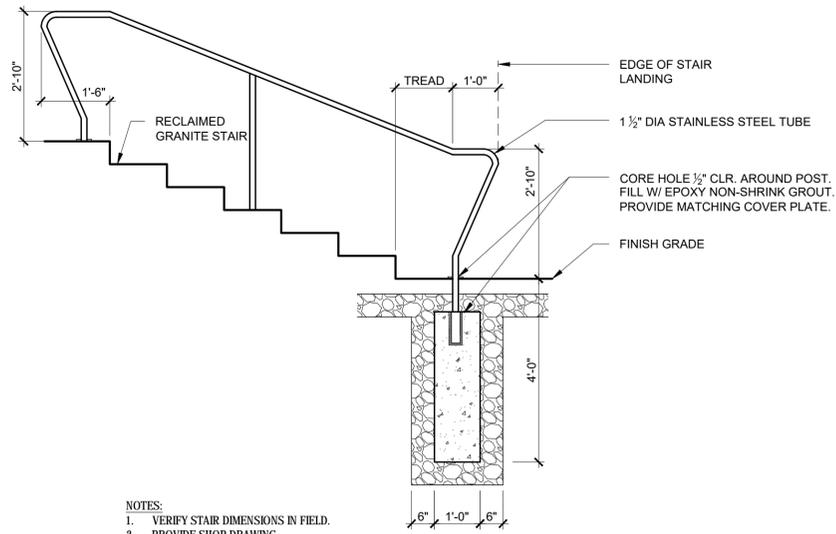
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Scale:  
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Drawn By:  
GV

Drawing Title:  
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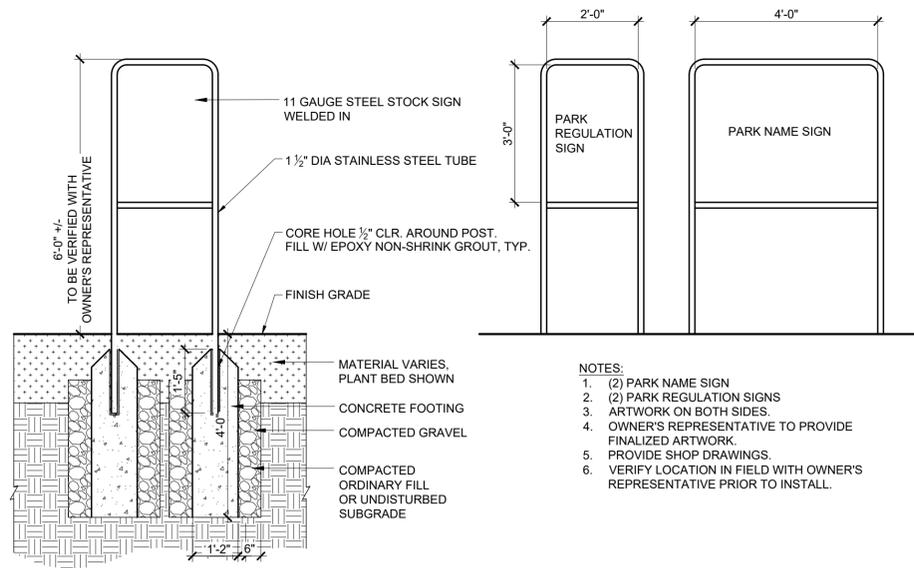
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L5-02



NOTES:  
 1. VERIFY STAIR DIMENSIONS IN FIELD.  
 2. PROVIDE SHOP DRAWING.

**1** HAND RAIL

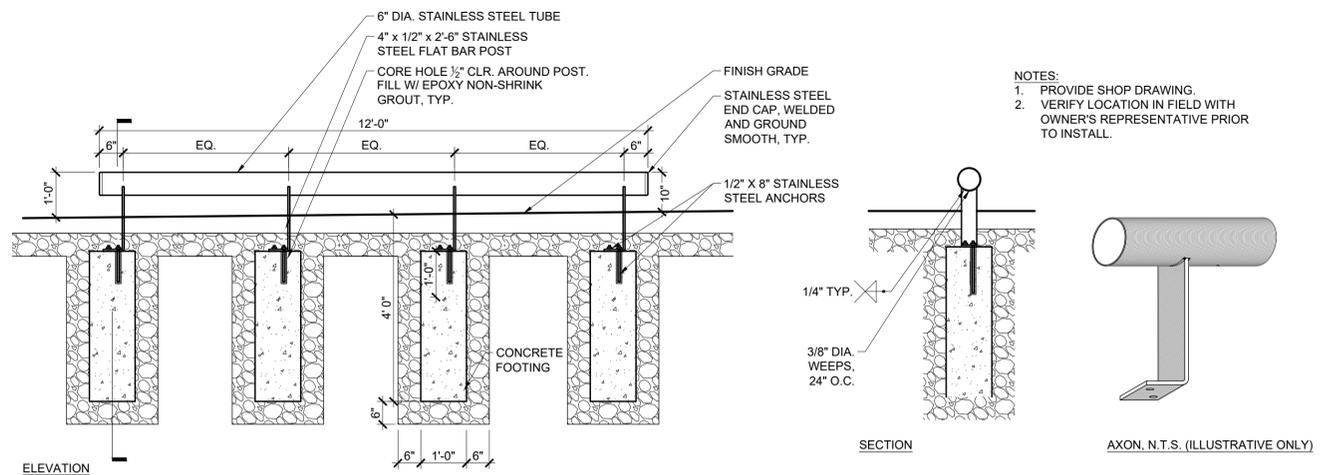
SCALE: 1/2" = 1'-0"



NOTES:  
 1. (2) PARK NAME SIGN  
 2. (2) PARK REGULATION SIGNS  
 3. ARTWORK ON BOTH SIDES.  
 4. OWNER'S REPRESENTATIVE TO PROVIDE FINALIZED ARTWORK.  
 5. PROVIDE SHOP DRAWINGS.  
 6. VERIFY LOCATION IN FIELD WITH OWNER'S REPRESENTATIVE PRIOR TO INSTALL.

**2** PARK SIGNS

SCALE: 1/2" = 1'-0"



NOTES:  
 1. PROVIDE SHOP DRAWING.  
 2. VERIFY LOCATION IN FIELD WITH OWNER'S REPRESENTATIVE PRIOR TO INSTALL.

**3** SKATE RAIL

SCALE: 1/2" = 1'-0"

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 68 Jackson Street  
 Lowell, MA 01852



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 Department of Planning & Development  
 50 Arcand Drive  
 Lowell, MA 01852  
 978-674-1413

Prepared by:

LANDSCAPE ARCHITECT  
**GroundView**  
 5 Crescent Street  
 Charlestown, MA 02129  
 617-548-9688

SITE ENGINEER  
**Civil & Environmental Consultants, Inc.**  
 DESIGNER  
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 STRUCTURAL ENGINEER  
**TAJ Engineering, LLC**



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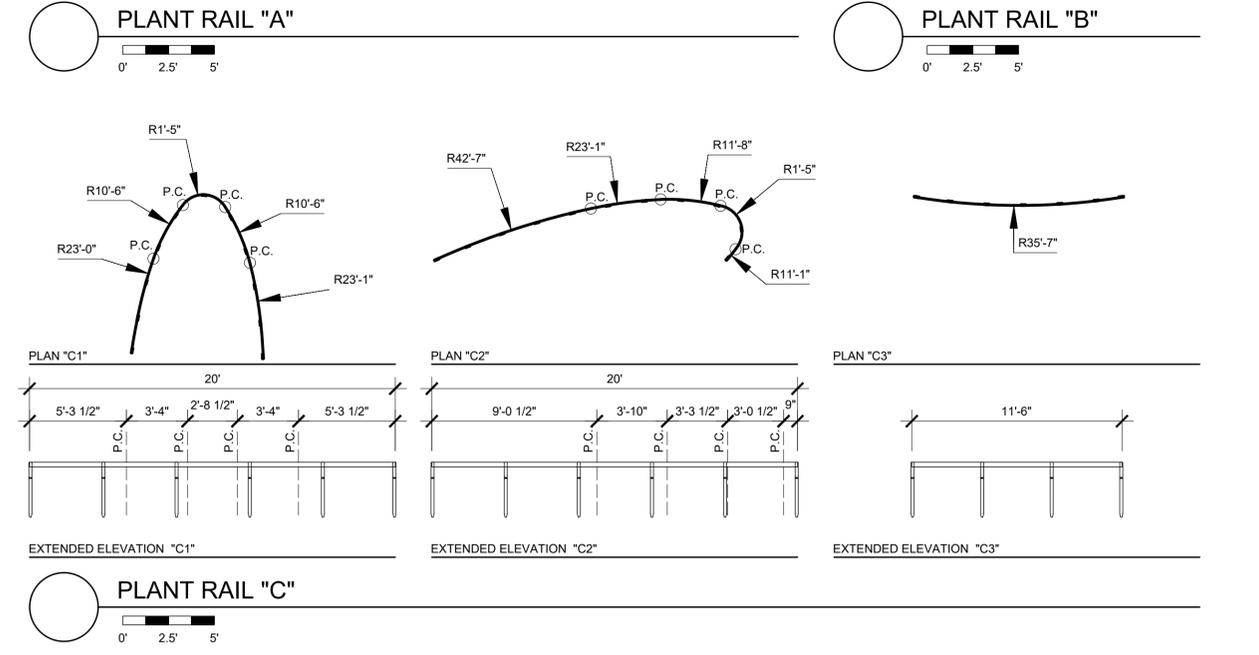
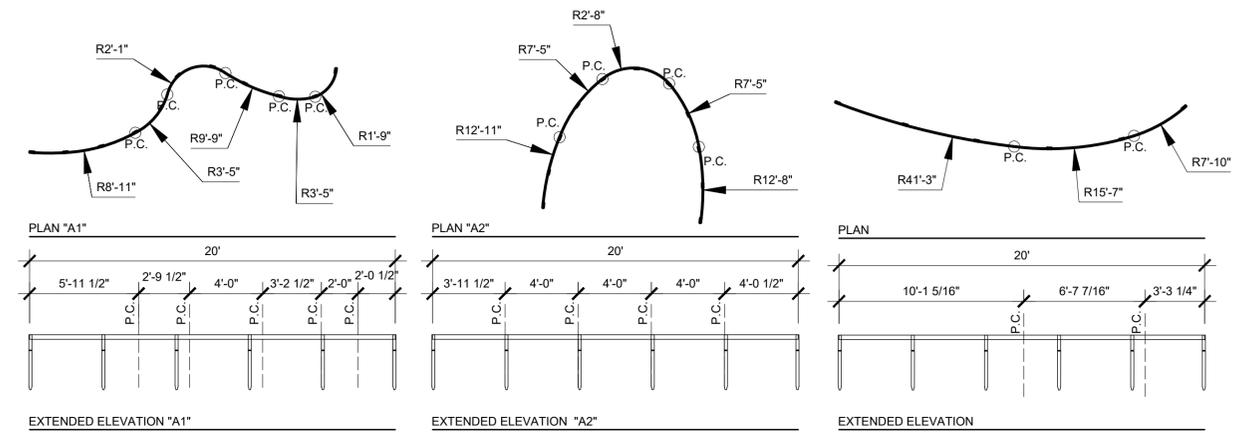
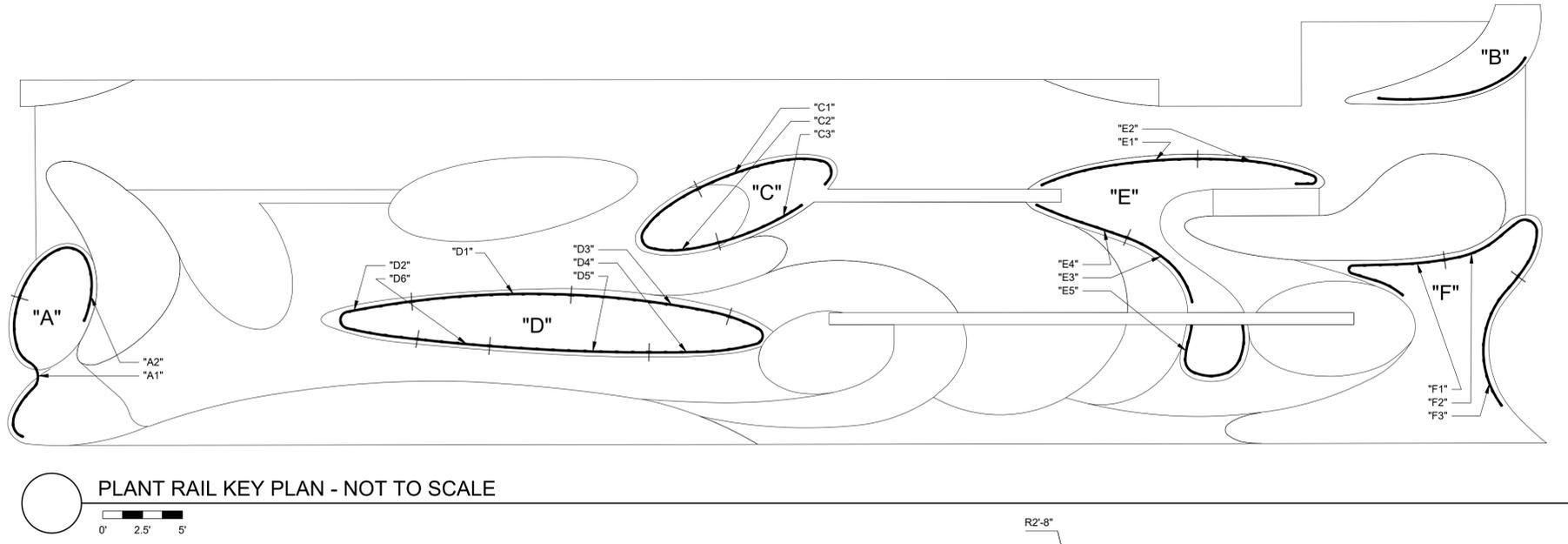
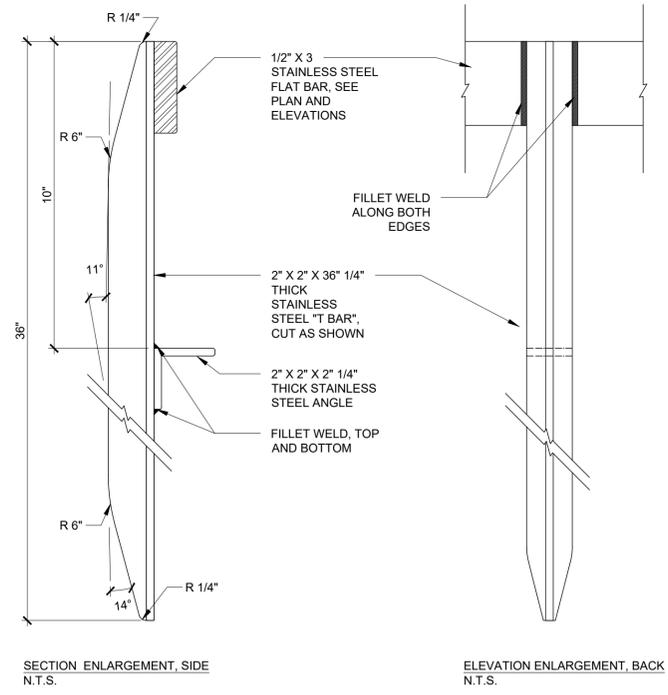
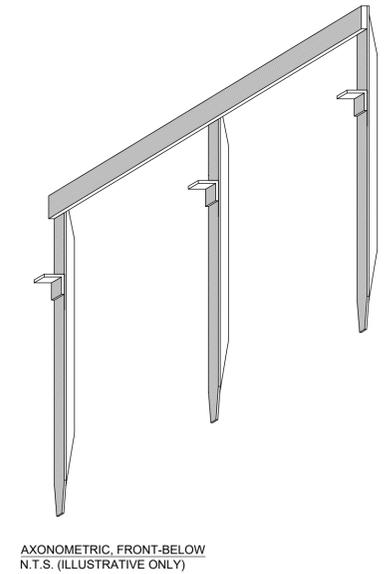
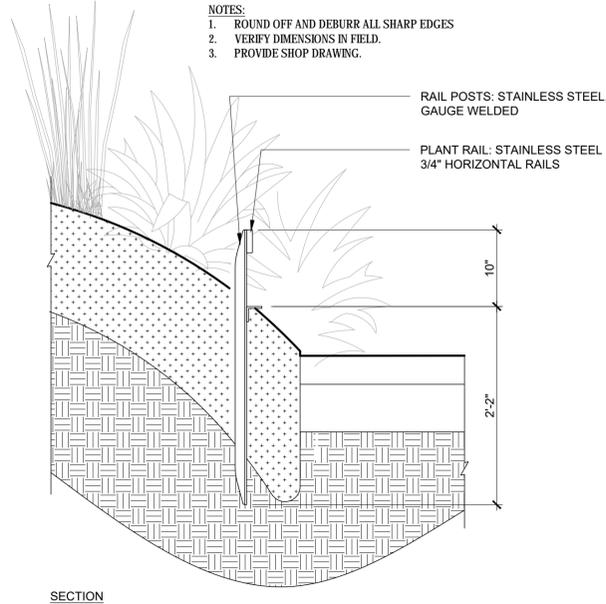
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 Scale:  
 AS SHOWN  
 Drawn By:  
 GV

Drawing Title:  
**CUSTOM METAL DETAILS**

Drawing Number:

**L5-03**

FULL SIZE PRINT: 34" x 22"



**1** PLANT RAIL (ADD-ALTERNATE NO. 4)  
 SCALE: 1" = 1'-0"

FULL SIZE PRINT: 34" x 22"

**Jackson Street Pocket Park**  
 68 Jackson Street  
 Lowell, MA 01852



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 The City of Lowell  
 Department of Planning & Development  
 50 Arcand Drive  
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 978-674-1413

Prepared by:  
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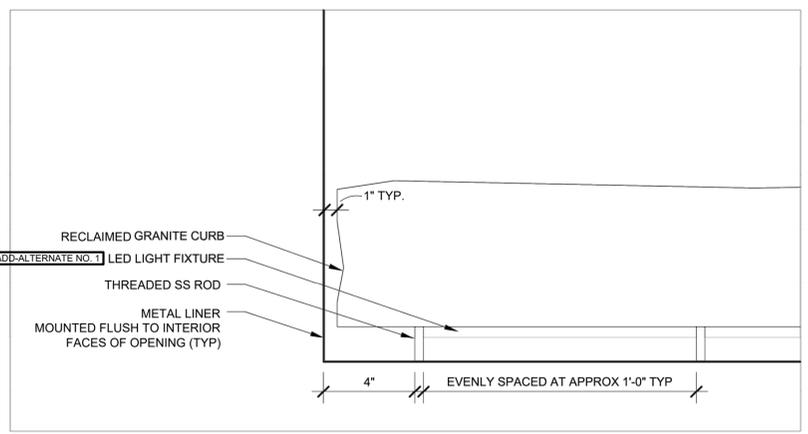


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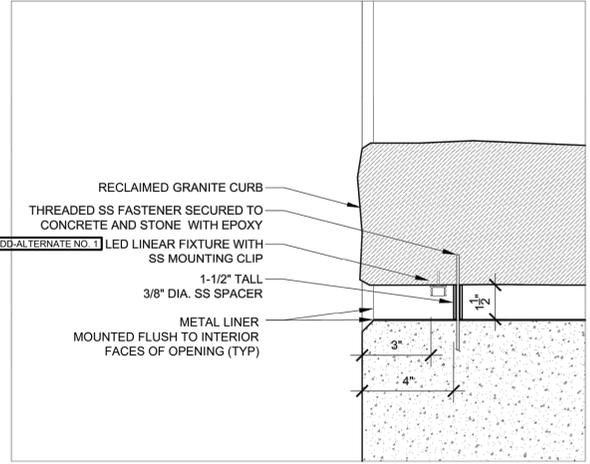
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 Drawn By:  
 GV

Drawing Title:  
 PLANT RAIL DETAILS  
 Drawing Number:  
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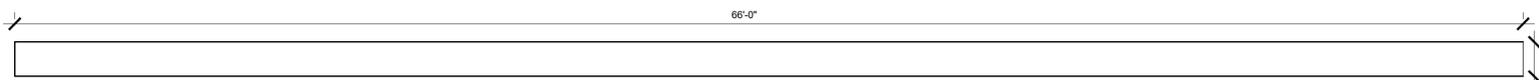




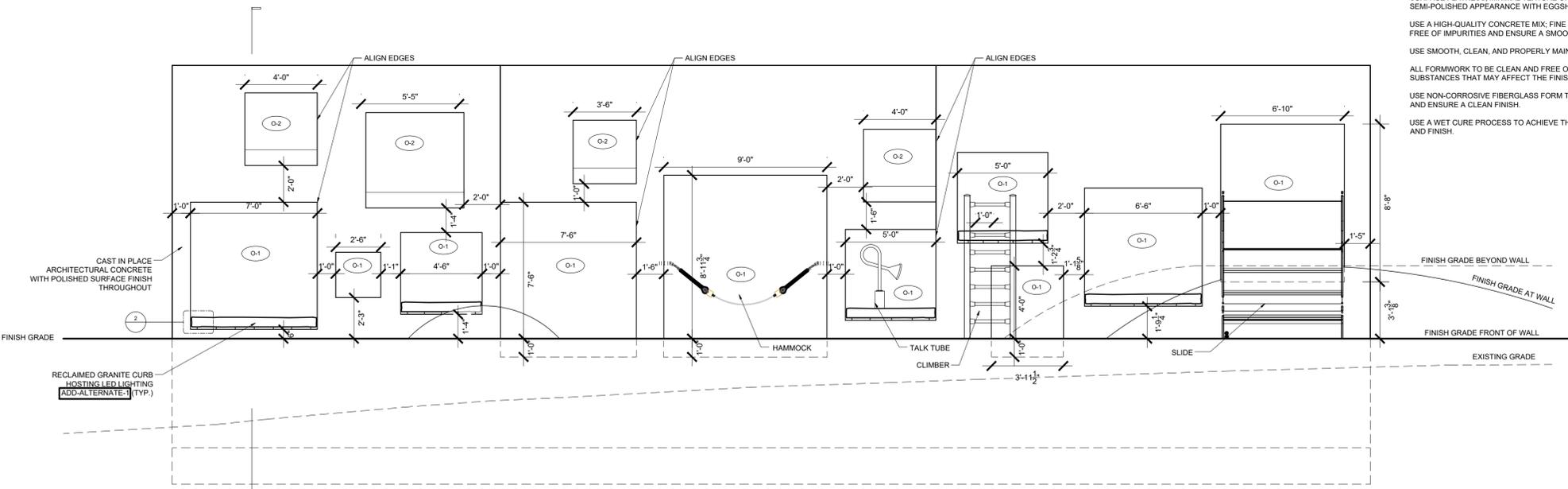
2 DETAILED ELEVATION AT OPENING TYPE 1  
3" = 1'-0"



2 DETAILED SECTION AT GRANITE CURB  
3" = 1'-0"



WALL PLAN  
1/4" = 1'



WALL ELEVATION  
1/4" = 1'

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

**CONCRETE WALL NOTES**

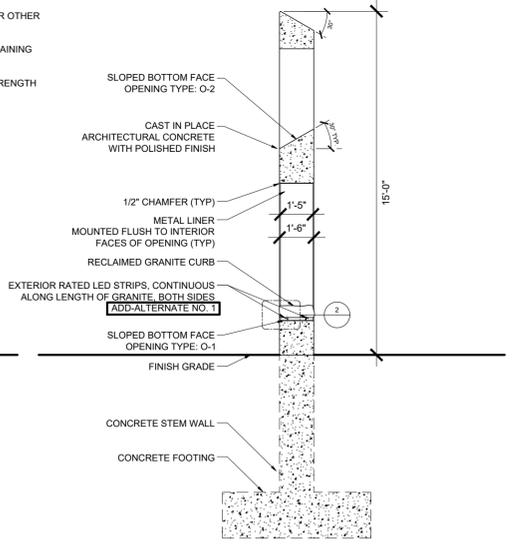
PROVIDE SHOP DRAWINGS OF CONCRETE WALL.  
ALL OPENINGS ARE SQUARE UNLESS OTHERWISE NOTED.  
THERE ARE TWO OPENING TYPES:  
O-1: THE INNER FACES OF CONCRETE OPENINGS ARE 90-DEGREES ON ALL FOUR SIDES (TOP, BOTTOM, SIDES).  
O-2: THE INNER FACES OF CONCRETE OPENINGS ARE 90-DEGREES ON THREE SIDES (TOP, SIDES), AND SLOPED AT THE BOTTOM FACE.  
POSITION OF FORM TIES TO BE DETERMINED THROUGH SHOP DRAWINGS TO MINIMIZE VISUAL IMPACT.  
USE SELF-CONSOLIDATING ARCHITECTURAL CONCRETE TO ACHIEVE A VISUALLY UNIFORM AND SMOOTH FINISH WITH A HIGH DEGREE OF SURFACE FLATNESS, MINIMAL TEXTURE OR IMPERFECTIONS, AND A SEMI-POLISHED APPEARANCE WITH EGGSHELL-LIKE REFLECTIVITY.  
USE A HIGH-QUALITY CONCRETE MIX, FINE AGGREGATES TO BE FREE OF IMPURITIES AND ENSURE A SMOOTH SURFACE.  
USE SMOOTH, CLEAN, AND PROPERLY MAINTAINED FORM LINERS.  
ALL FORMWORK TO BE CLEAN AND FREE OF DEBRIS, OIL, OR OTHER SUBSTANCES THAT MAY AFFECT THE FINISH.  
USE NON-CORROSIVE FIBERGLASS FORM TIES TO AVOID STAINING AND ENSURE A CLEAN FINISH.  
USE A WET CURE PROCESS TO ACHIEVE THE REQUIRED STRENGTH AND FINISH.

**METAL LINER NOTES**

PROVIDE SHOP DRAWINGS OF METAL LINERS.  
INSIDES OF ALL OPENINGS TO BE LINED WITH 16-GAUGE POWDER COATED METAL LINER, FLUSH MOUNT ATTACHMENT PER FABRICATOR USING EXTERIOR GRADE ADHESIVE OR STAINLESS STEEL, TAMPER PROOF, COUNTER SUNK FASTENERS.  
FINAL DIMENSIONS OF THE METAL LINERS ARE TO BE BASED ON FIELD MEASUREMENTS OF THE CONCRETE WALL.  
ALL CUTTING, CORING, SLOTTING, AND BENDING OF METAL TO BE EXECUTED IN THE SHOP PRIOR TO FINISHING AND INSTALLATION.

**RECLAIMED GRANITE CURB NOTES**

THE OWNER WILL FURNISH GRANITE.  
THE CONTRACTOR IS RESPONSIBLE FOR PICK-UP AND DELIVERY TO THE SITE AND ALL ASPECTS OF GRANITE INSTALLATION.  
COORDINATE GRANITE SELECTION AND PLACEMENT IN FIELD WITH OWNER'S REPRESENTATIVE.  
SAW CUTTING OR SPLITTING OF GRANITE MAY BE REQUIRED ON SITE.



WALL SECTION  
1/4" = 1'

FULL SIZE PRINT: 34" x 22"

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68 Jackson Street  
Lowell, MA 01852



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**The City of Lowell**  
Department of Planning & Development  
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Prepared by:  
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LANDSCAPE ARCHITECT  
5 Crescent Street  
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**Civil & Environmental Consultants, Inc.**  
SITE ENGINEER  
DESIGNER  
Supernormal

**TAJ Engineering, LLC**  
STRUCTURAL ENGINEER



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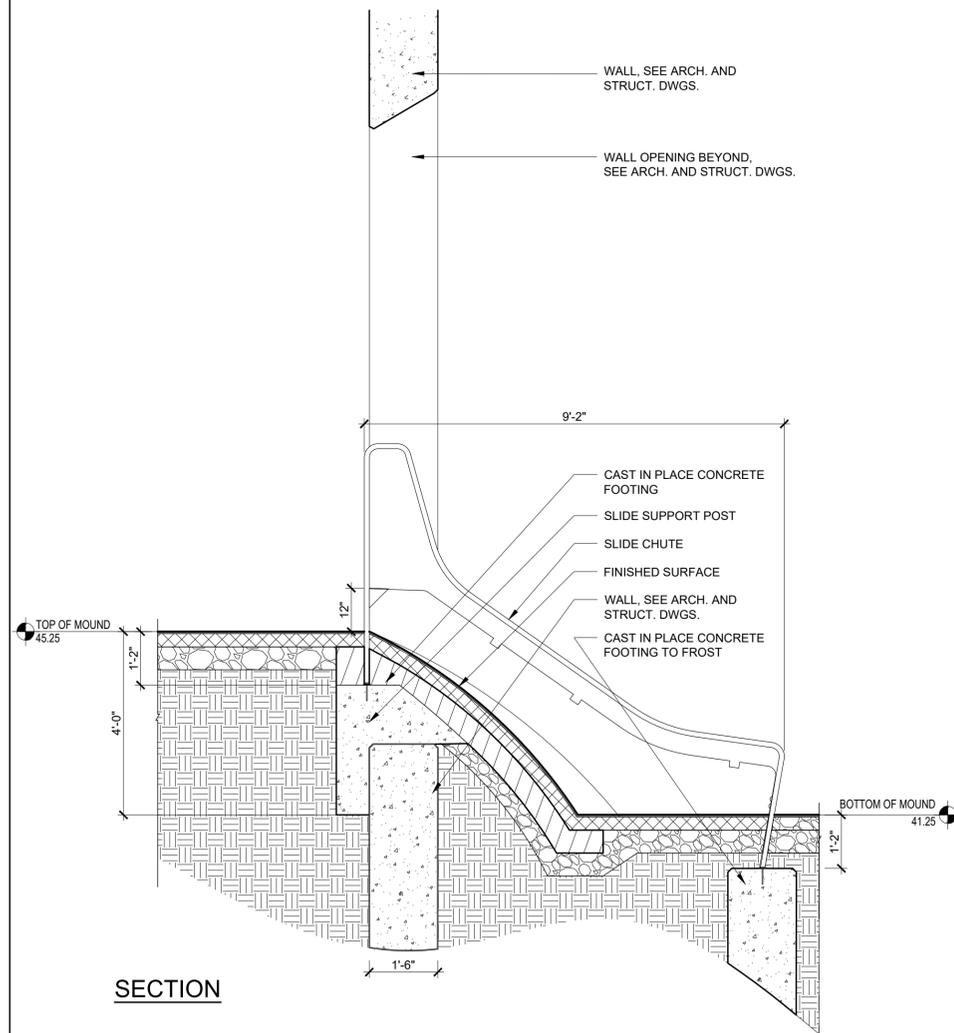
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Scale:  
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Drawn By:  
GV

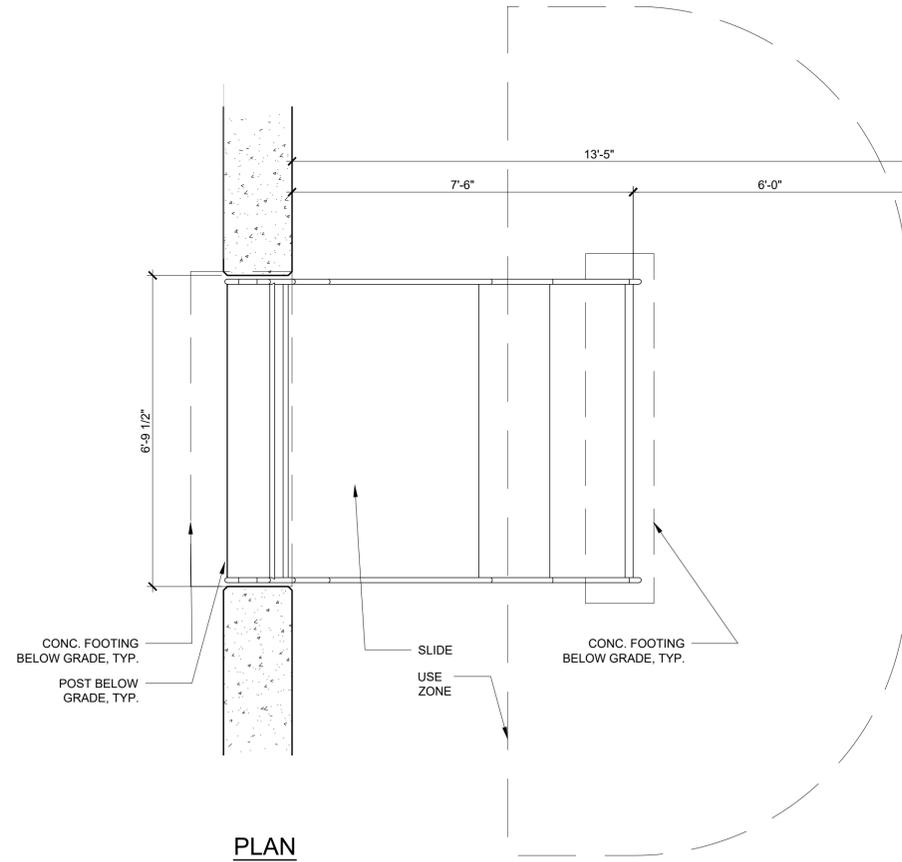
Drawing Title:  
**FEATURE WALL**

Drawing Number:  
**L5-06**



SECTION

**1** SLIDE @ WALL  
SCALE: 1" = 2'-0"



PLAN

- NOTES
1. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
  2. MANUFACTURER TO PROVIDE SHOP DRAWINGS WITH USE ZONE REQUIREMENTS.
  3. COORDINATE THE PROTECTIVE SURFACE THICKNESS AS REQUIRED BY THE CRITICAL FALL HEIGHT WITHIN THE USE ZONE.

FULL SIZE PRINT: 34" x 22"

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68 Jackson Street  
Lowell, MA 01852



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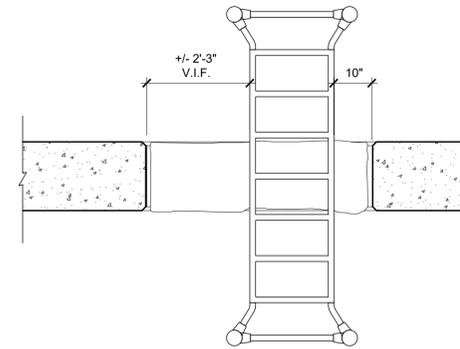
SITE ENGINEER  
**Civil & Environmental Consultants, Inc.**  
DESIGNER  
**Supernormal**  
STRUCTURAL ENGINEER  
**TAJ Engineering, LLC**



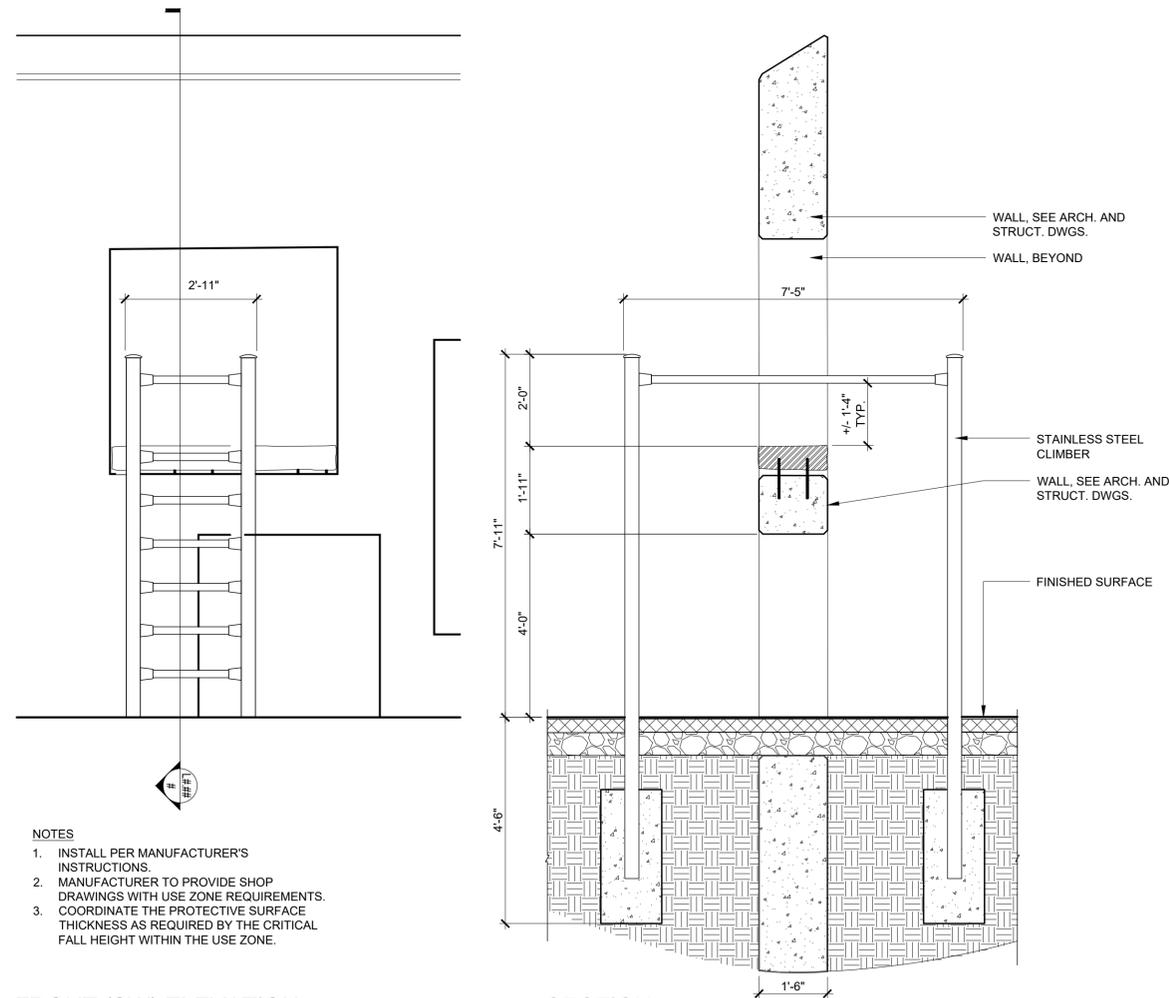
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NO.	DATE	DESCRIPTION
1	09-09-2024	BID DOCUMENTS

Date:  
09-09-2024  
Scale:  
AS SHOWN  
Drawn By:  
GV

Drawing Title:  
**PLAY EQUIPMENT  
DETAILS**  
Drawing Number:  
**L5-07**



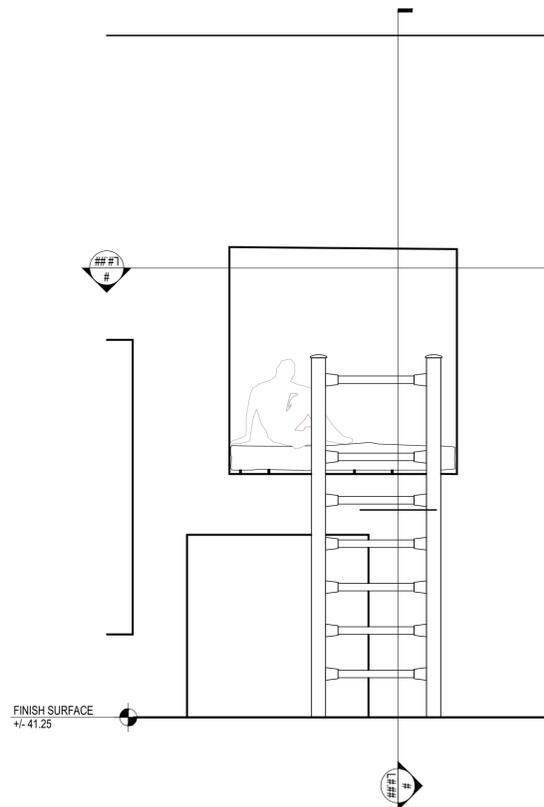
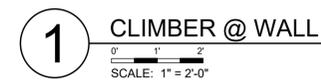
PLAN



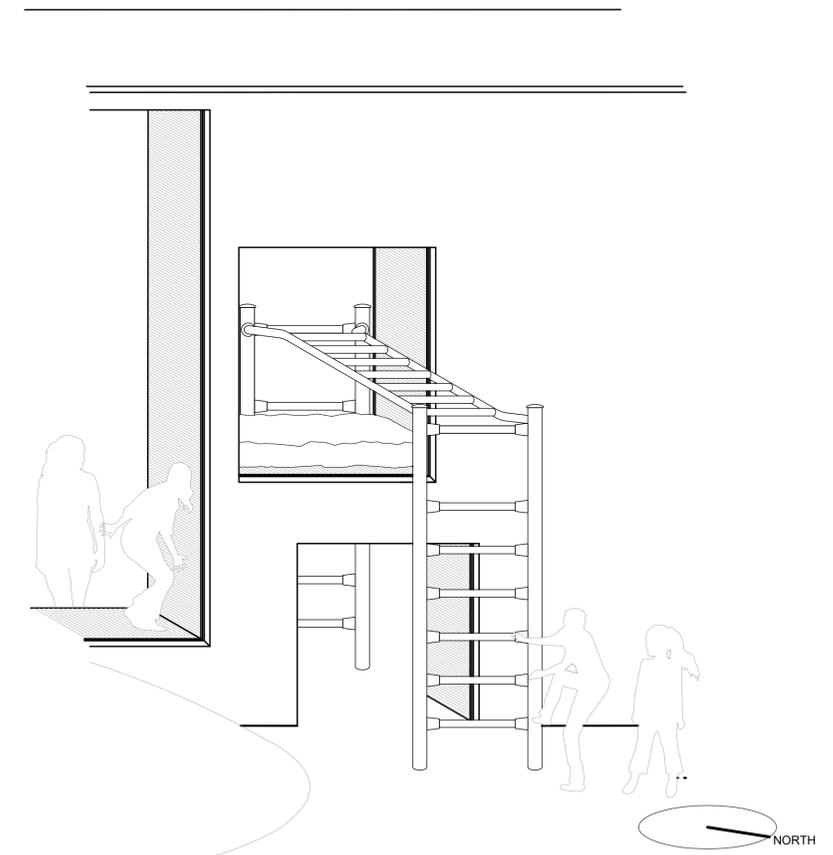
FRONT (SW) ELEVATION

SECTION

- NOTES
1. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
  2. MANUFACTURER TO PROVIDE SHOP DRAWINGS WITH USE ZONE REQUIREMENTS.
  3. COORDINATE THE PROTECTIVE SURFACE THICKNESS AS REQUIRED BY THE CRITICAL FALL HEIGHT WITHIN THE USE ZONE.



BACK (NE) ELEVATION



AXONOMETRIC, FOR ILLUSTRATIVE PURPOSES ONLY

FULL SIZE PRINT: 34" x 22"

**Jackson Street Pocket Park**  
68 Jackson Street  
Lowell, MA 01852



Prepared for:  
**The City of Lowell**  
Department of Planning & Development  
50 Arcand Drive  
Lowell, MA 01852  
978-674-1413

Prepared by:  
LANDSCAPE ARCHITECT  
**GroundView**  
5 Crescent Street  
Charlestown, MA 02129  
617-548-9688

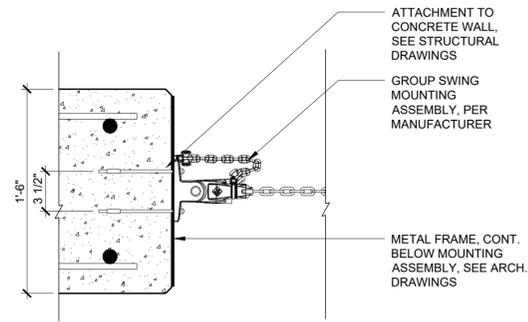
SITE ENGINEER  
**Civil & Environmental Consultants, Inc.**  
DESIGNER  
**Supernormal**  
STRUCTURAL ENGINEER  
**TAJ Engineering, LLC**



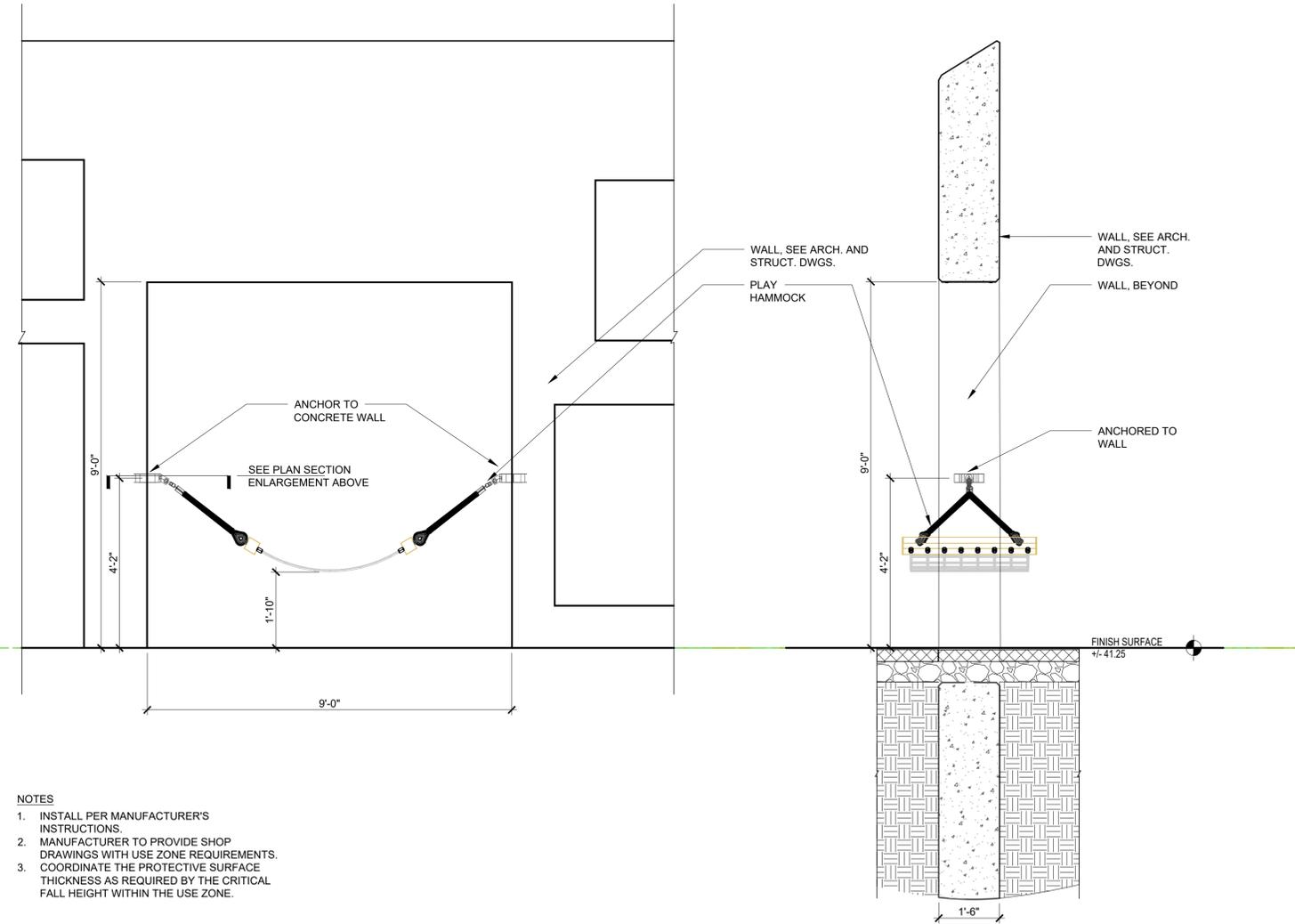
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09-09-2024  
Scale:  
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Drawn By:  
GV

Drawing Title:  
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DETAILS**  
Drawing Number:  
**L5-08**

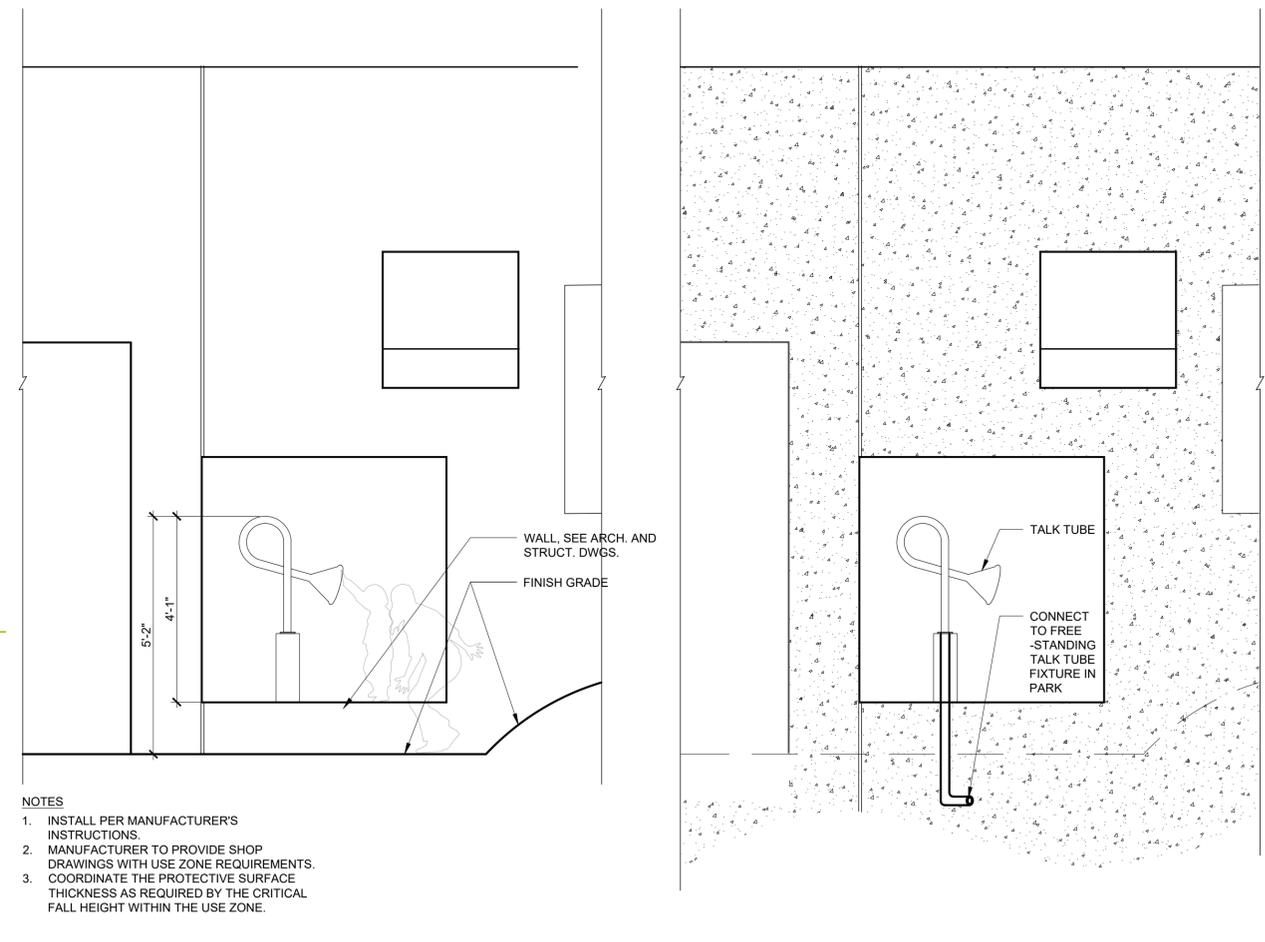


PLAN SECTION ENLARGEMENT, TYP., NOT TO SCALE



- NOTES
1. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
  2. MANUFACTURER TO PROVIDE SHOP DRAWINGS WITH USE ZONE REQUIREMENTS.
  3. COORDINATE THE PROTECTIVE SURFACE THICKNESS AS REQUIRED BY THE CRITICAL FALL HEIGHT WITHIN THE USE ZONE.

ELEVATION



- NOTES
1. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
  2. MANUFACTURER TO PROVIDE SHOP DRAWINGS WITH USE ZONE REQUIREMENTS.
  3. COORDINATE THE PROTECTIVE SURFACE THICKNESS AS REQUIRED BY THE CRITICAL FALL HEIGHT WITHIN THE USE ZONE.

ELEVATION



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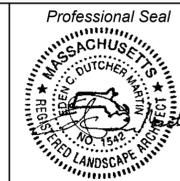
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68 Jackson Street  
Lowell, MA 01852



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**The City of Lowell**  
Department of Planning & Development  
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Lowell, MA 01852  
978-674-1413

Prepared by:  
**GroundView**  
LANDSCAPE ARCHITECT  
5 Crescent Street  
Charlestown, MA 02129  
617-548-9688

DESIGNER: **Supernormal**  
SITE ENGINEER: **Civil & Environmental Consultants, Inc.**  
STRUCTURAL ENGINEER: **TAJ Engineering, LLC**



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09-09-2024  
Scale:  
AS SHOWN  
Drawn By:  
GV

Drawing Title:  
**PLAY EQUIPMENT DETAILS**  
Drawing Number:  
**L5-09**

**CONTRACTORS RESPONSIBILITIES:**

- G.C. TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN FIELD. IF THERE ARE ANY QUESTIONS, CONSULT WITH THE ENGINEER IMMEDIATELY.
- THE G.C. IS RESPONSIBLE FOR VISITING THE SITE AND FAMILIARIZING HIMSELF WITH THE EXISTING CONDITIONS AND THESE DRAWINGS. ANY DISCREPANCIES OR INCONSISTENCIES MUST BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE BEGINNING CONSTRUCTION.
- PERMITS AND INSPECTIONS MUST BE ATTAINED AND SCHEDULED BY THE G.C. THE G.C. SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS OF ANY PUBLIC AUTHORITY BEARING ON THE PERFORMANCE OF THIS WORK.
- PROPERTY INSURANCE AND LIABILITY INSURANCE MUST BE RETAINED BY THE GENERAL CONTRACTOR.
- G.C. IS RESPONSIBLE FOR ALL TEMPORARY SHORING, BRIDGING, AND ANY OTHER ACTIVITY REQUIRED AS PART OF THE MEANS & METHODS OF CONSTRUCTION.
- ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE STANDARDS INDICATED IN THESE DRAWINGS, IN CONFORMANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, IN CONFORMANCE WITH THE REQUIREMENTS OF LOCAL BUILDING OFFICIALS, AND IN CONFORMANCE WITH GENERALLY ACCEPTED STANDARDS OF GOOD WORKMANSHIP AND GOOD BUILDING PRACTICE IN THIS REGION.
- ALL CONSTRUCTION SHALL BE IN FULL COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL BUILDING CODES.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION BETWEEN THE TRADES.
- MODIFICATIONS TO THE DESIGN DRAWINGS SHALL NOT BE PERMITTED UNLESS THE MODIFICATIONS ARE REVIEWED BY THE ENGINEER. REVIEW DOES NOT NECESSARILY IMPLY ACCEPTANCE.

**REINFORCED CONCRETE:**

- ALL CONCRETE (EXCEPT SLAB ON GRADE) SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI IN 28 DAYS. SLAB ON GRADE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. SUBMIT CONCRETE BREAK TEST REPORTS TO THE ENGINEER FOR REVIEW. THREE TEST CYLINDERS SHALL BE TAKEN PER SAMPLING. SAMPLES SHALL OCCUR AS FOLLOWS: NOT LESS THAN (1) SET OF CYLINDERS PER DAY. NOT LESS THAN (1) SET OF CYLINDERS PER EACH 150 CUBIC YARDS OF CONCRETE NOT LESS THAN (1) SET OF CYLINDERS PER 5000 SQUARE FEET OF SURFACE AREA OF SLAB OR WALL. RESULTS SHALL BE SUBMITTED FOR BREAKS OCCURRING AT 7, 28, AND 52 DAYS.
- ALL REINFORCING BARS TO BE ASTM A615. MATERIAL CERTIFICATIONS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW.
- CONTRACTOR TO PROTECT CONCRETE FROM DAMAGE DUE TO FREEZING OR HIGH TEMPERATURES.
- CONCRETE COVER SHALL BE PER LATEST ACI REQUIREMENTS.
- LAP BARS PER LATEST ACI REQUIREMENTS.
- DO NOT EXPOSE CONCRETE TO ANY CALCIUM CHLORIDES PRIOR OR DURING CONSTRUCTION.
- PLACE VAPOR BARRIER DIRECTLY BELOW THE SLAB ON GRADE.
- PORTLAND CEMENT MUST CONFORM TO ASTM C150 REQUIREMENTS. NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C33. NO LIGHT WEIGHT CONCRETE IS SPECIFIED FOR THE PROJECT.
- WATER USED IN MIXES SHALL CONFORM TO ASTM C1602.
- PROPOSED MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. MIX DESIGNS SHALL INCLUDE BUT NOT BE LIMITED TO INDICATING WATER CEMENT RATIO, AGGREGATE SIZE AND PROPORTIONING, ADMIXTURES, SLUMP, AND HISTORY OF PROPOSED MIX DESIGNS WITH SPECIFIC PROJECT EXAMPLES.
- SUBMIT SPECIFICATIONS AND PRODUCT DATA FOR FLOOR HARDENER AND SEALER TO BE USED ON SLABS.
- SUBMIT CONCRETE REINFORCING BAR SHOP DRAWINGS TO THE ENGINEER FOR REVIEW. CONSTRUCTION OF REINFORCED CONCRETE WORK THAT PROCEEDS WITHOUT REVIEWED AND APPROVED SHOP DRAWINGS IS DONE AT THE RISK OF THE CONTRACTOR.
- MINIMUM MIX DESIGNS ARE AS FOLLOWS:

**STRUCTURAL STEEL:**

- ALL BARS SHALL HAVE A YIELD STRENGTH (FY) OF 60,000 PSI.
- ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554. USE 3/4 INCH DIAMETER RODS WITH NINE INCHES OF EMBEDMENT AND 4 INCHES OF PROJECTION, UNLESS OTHERWISE NOTED (UON) ON THE DRAWINGS.

**FOUNDATIONS:**

- ASSUMED BEARING CAPACITY IS 3000 PSF. WHEN EXCAVATION FOR FOUNDATIONS STARTS CONTRACTOR SHALL CONTACT THE ENGINEER TO ALLOW THE ENGINEER TO OBSERVE IN SITU SOIL CONDITIONS. IF SOIL APPEARS TO HAVE BEARING CAPACITY LESS THAN ASSUMED VALUE, ENGINEER WILL EVALUATE FOUNDATION DESIGN AND INFORM CONTRACTOR OF DESIGN IMPACT.
- DO NOT PLACE FOOTINGS ON FROZEN GROUND OR IN WATER.
- PLACE FOOTINGS ON UNDISTURBED MATERIAL. COMPACT MATERIALS AS REQUIRED.
- CONTRACTOR IS RESPONSIBLE FOR PROPERLY BRACING FOUNDATION WALLS DURING BACKFILLING OPERATIONS.
- CONCRETE TO HAVE A 28 DAY STRENGTH OF 3,500 PSI MINIMUM.
- ALL COMPACTION SHALL BE DONE TO A MINIMUM OF 95 % OF MAX DENSITY

**FOOTINGS:**

MAXIMUM W/C RATIO 0.45  
 AIR ENTRAINMENT N/A  
 CEMENT TYPE II  
 f'c 3,500 PSI  
 MAXIMUM AGGREGATE 3/4"

**FOUNDATION WALLS:**

MAXIMUM W/C RATIO 0.45  
 AIR ENTRAINMENT 5% MAX  
 CEMENT TYPE II  
 f'c 3,500 PSI  
 MAXIMUM AGGREGATE 3/4"

**SLAB ON GRADE:**

MAXIMUM W/C RATIO 0.5  
 AIR ENTRAINMENT N/A  
 CEMENT TYPE II  
 f'c 3,000 PSI  
 MAXIMUM AGGREGATE 3/4"

**STRUCTURAL DESIGN CRITERIA**

- THE STRUCTURAL DESIGN IS BASED ON THE MASSACHUSETTS STATE BUILDING CODE, 780 CMR, NINTH EDITION  
 WIND LOAD:  
 BASIC WIND SPEED 134 MPH  
 RISK CATEGORY III OR IV

**SUBMITTALS:**

- SUBMIT SHOP DRAWINGS FOR CONCRETE REINFORCING TO THE ENGINEER OF RECORD FOR REVIEW.



9-12-24

JOB. NO: 24-385	FLD. BK: TAJ-24	<p><b>TAJ ENGINEERING, LLC</b>                  CIVIL &amp; STRUCTURAL ENGINEERS, ARCHITECTS, LAND SURVEYORS                  PROJECT MANAGEMENT, PERMITTING                  225 STEDMAN ST, SUITE 36B, LOWELL, MA, 01851                  PHONE: 978-250-8173 FAX: 978-770-0632                  Info@tajengineering.net</p>	<p><b>ORNAMENTAL CAST-IN-PLACE CONCRETE WALL</b>                  NOTES AND SPECIFICATIONS                  68 JACKSON STREET                  LOWELL, MA                  PREPARED FOR:                  GROUND VIEW LDSP ARCHITECTS</p>	SHEET NO.
DATE: 09/09/2024	CHECK: HSA			<p><b>G-1</b></p>
SCALE: AS NOTED	SURVEY: --			
SHEET: 1 OF 8	CALC: HSA DRAFT: YJ			

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 68 Jackson Street  
 Lowell, MA 01852



Prepared for:  
**The City of Lowell**  
 Department of Planning & Development  
 50 Arcand Drive  
 Lowell, MA 01852  
 978-674-1413

Prepared by:  
 LANDSCAPE ARCHITECT  
**GroundView**  
 5 Crescent Street  
 Charlestown, MA 02129  
 617-548-9688

SITE ENGINEER  
**Civil & Environmental Consultants, Inc.**

DESIGNER  
**Supernormal**

STRUCTURAL ENGINEER  
**TAJ Engineering, LLC**

SUBMISSIONS		
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09-09-2024

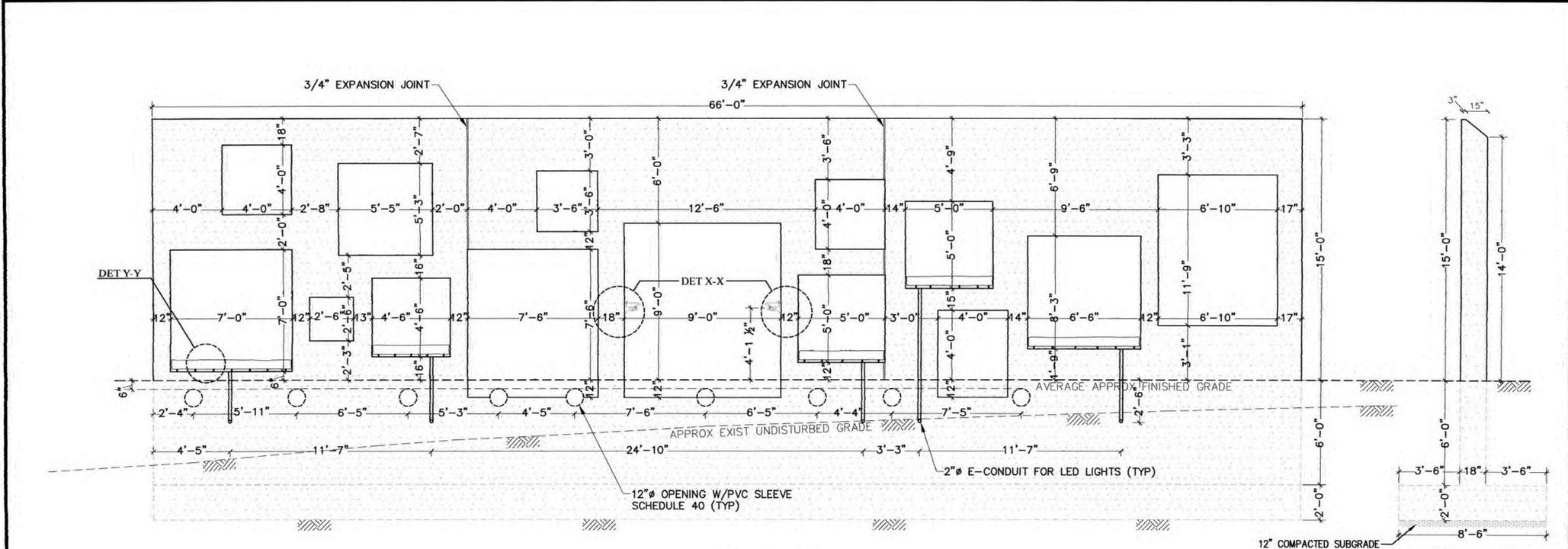
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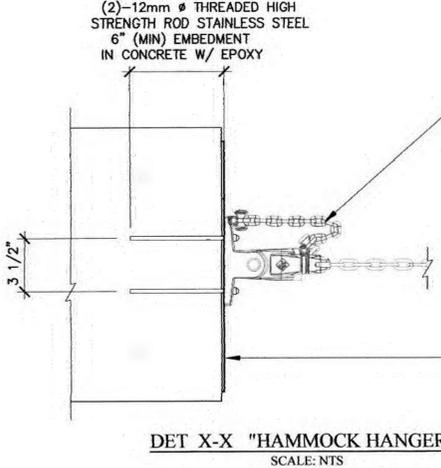
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 STRUCTURAL NOTES**

Drawing Number:

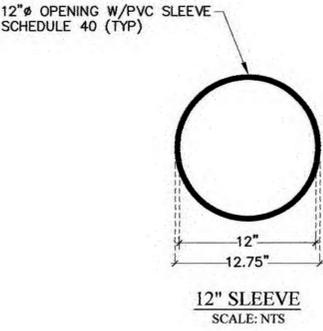
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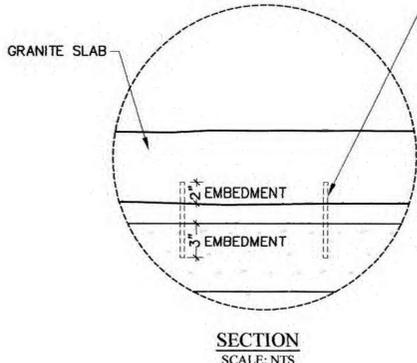
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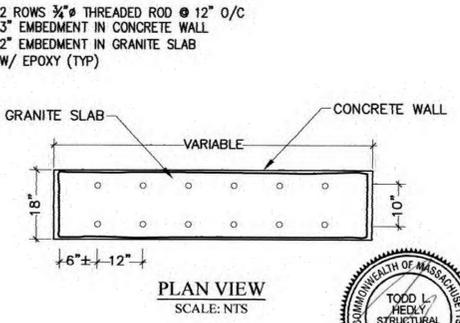
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SCALE: NTS



**12" SLEEVE**  
SCALE: NTS



**SECTION**  
SCALE: NTS



**PLAN VIEW**  
SCALE: NTS

**DET Y-Y CONNECTION DETAILS GRANITE SLAB ON CONCRETE WALL**  
SCALE: NTS



JOB. NO: 24-385	FLD. BK: TAJ-24
DATE: 09/09/2024	CHECK: HSA
SCALE: AS NOTED	SURVEY: --
SHEET: 2 OF 8	CALC: HSA
	DRAFT: YJ

**TAJ ENGINEERING, LLC**  
CIVIL & STRUCTURAL ENGINEERS, ARCHITECTS, LAND SURVEYORS  
PROJECT MANAGEMENT, PERMITTING  
225 STEDMAN ST, SUITE 36B, LOWELL, MA, 01851  
PHONE: 978-250-8173 FAX: 978-770-0632  
Info@tajengineering.net

**ORNAMENTAL CAST-IN-PLACE CONCRETE WALL WALL OPENINGS LAYOUT**  
68 JACKSON STREET  
LOWELL, MA  
PREPARED FOR:  
GROUND VIEW LDSP ARCHITECTS

SHEET NO.  
**S-1**  
SHEET: 2 OF 8

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**Jackson Street Pocket Park**  
68 Jackson Street  
Lowell, MA 01852



Prepared for:  
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Department of Planning & Development  
50 Arcand Drive  
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978-674-1413

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LANDSCAPE ARCHITECT  
**GroundView**  
5 Crescent Street  
Charlestown, MA 02129  
617-548-9688

SITE ENGINEER  
**Civil & Environmental Consultants, Inc.**

DESIGNER  
**Supernormal**

STRUCTURAL ENGINEER  
**TAJ Engineering, LLC**

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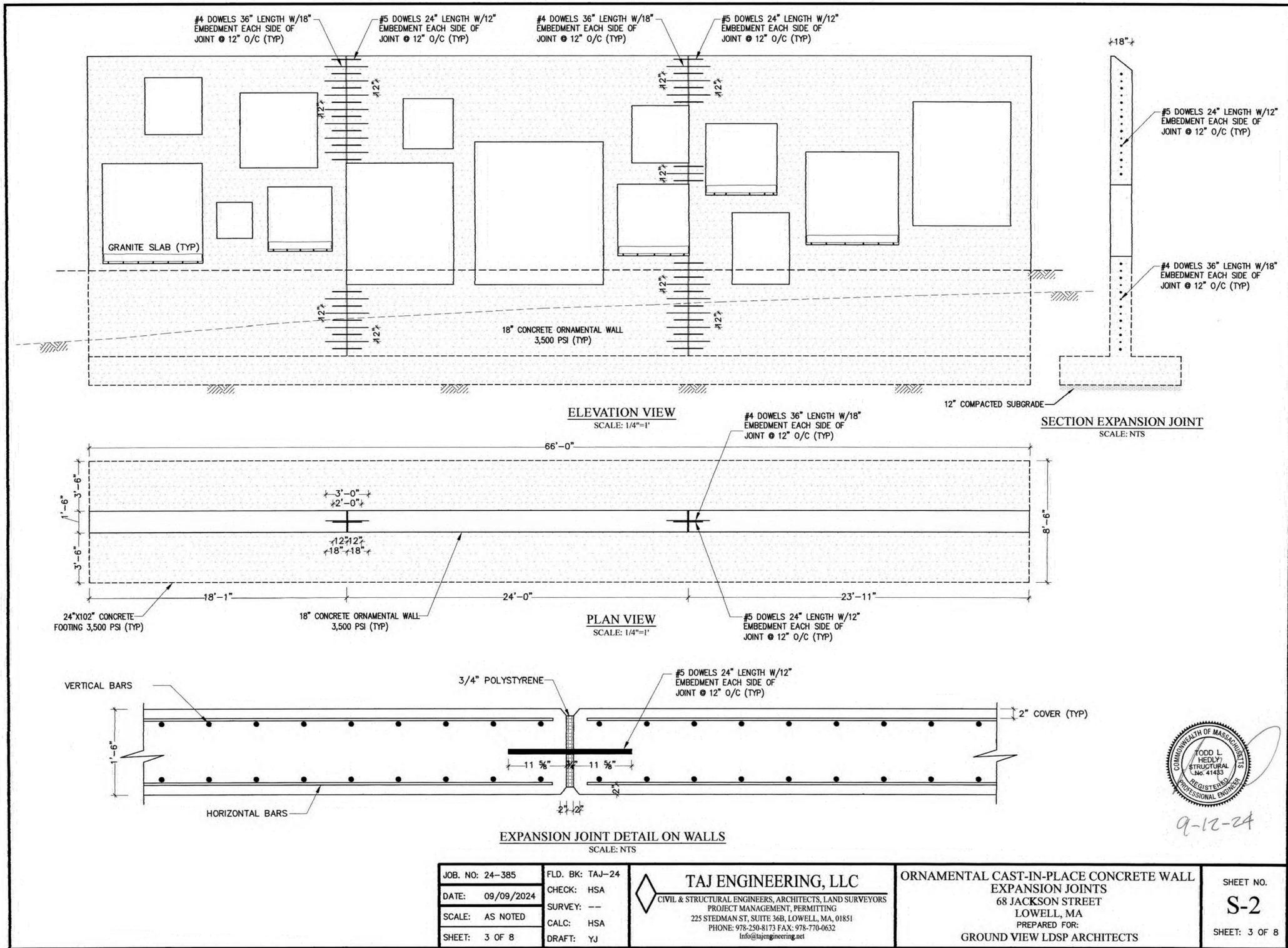
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09-09-2024

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Drawn By:  
GV

Drawing Title:  
**FEATURE WALL STRUCTURAL DETAILS**

Drawing Number:  
**S-1**



TODD L. HEDDY
   
 STRUCTURAL
   
 No. 41483
   
 REGISTERED
   
 PROFESSIONAL ENGINEER
   
 9-12-24

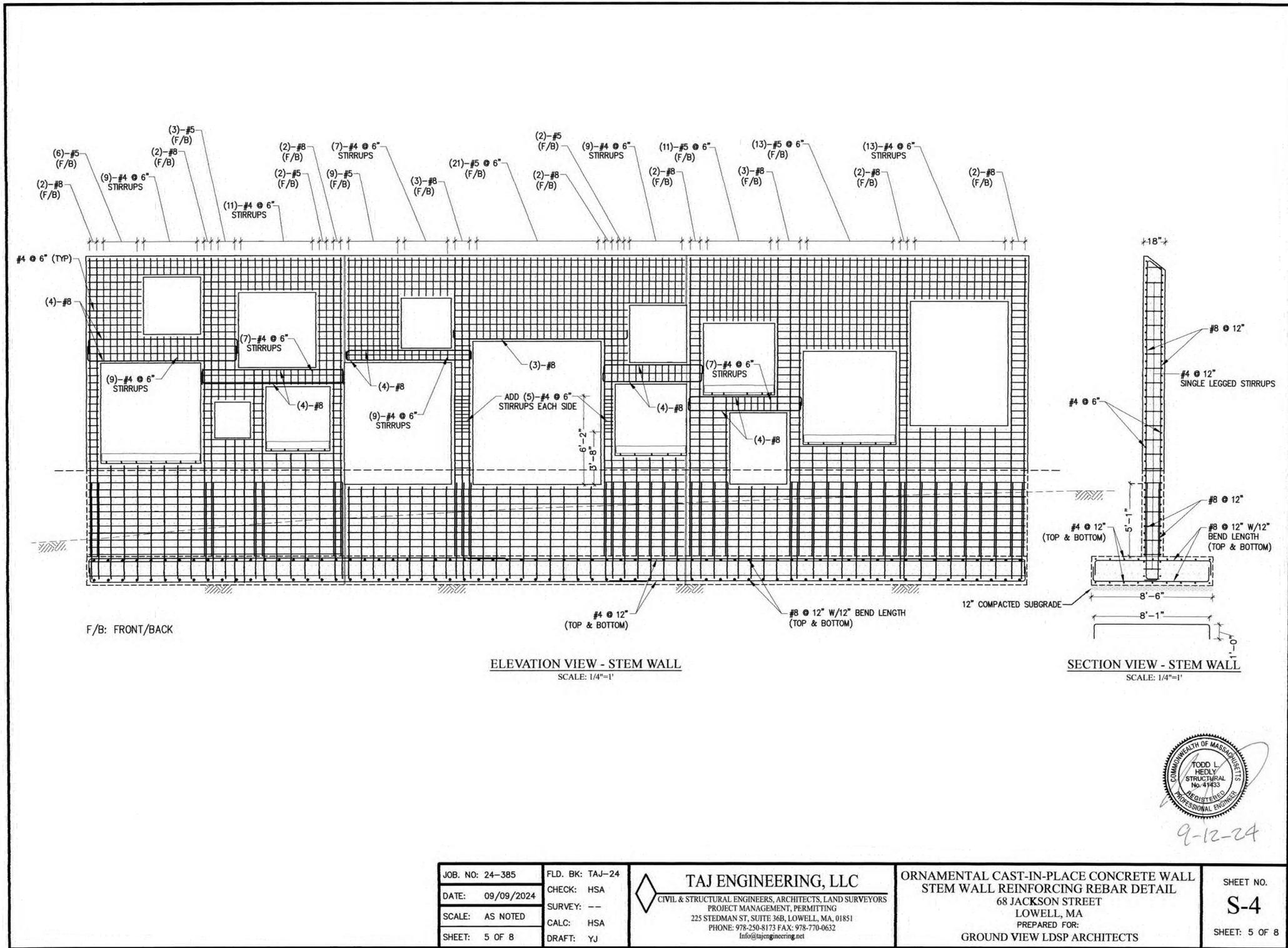
JOB. NO: 24-385	FLD. BK: TAJ-24	 <b>TAJ ENGINEERING, LLC</b> CIVIL & STRUCTURAL ENGINEERS, ARCHITECTS, LAND SURVEYORS PROJECT MANAGEMENT, PERMITTING 225 STEDMAN ST, SUITE 36B, LOWELL, MA, 01851 PHONE: 978-250-8173 FAX: 978-770-0632 info@tajengineering.net	<b>ORNAMENTAL CAST-IN-PLACE CONCRETE WALL</b> <b>EXPANSION JOINTS</b> 68 JACKSON STREET LOWELL, MA PREPARED FOR: GROUND VIEW LDSP ARCHITECTS	SHEET NO.	
DATE: 09/09/2024	CHECK: HSA			<b>S-2</b>	
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SHEET: 3 OF 8	CALC: HSA				
	DRAFT: YJ				

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<b>Jackson Street Pocket Park</b> 68 Jackson Street Lowell, MA 01852	 Prepared for: <b>The City of Lowell</b> Department of Planning & Development 50 Arcand Drive Lowell, MA 01852 978-674-1413	Prepared by: LANDSCAPE ARCHITECT <b>GroundView</b> 5 Crescent Street Charlestown, MA 02129 617-548-9688	SITE ENGINEER <b>Civil &amp; Environmental Consultants, Inc.</b> DESIGNER <b>Supernormal</b> STRUCTURAL ENGINEER <b>TAJ Engineering, LLC</b>	<b>SUBMISSIONS</b>	Date: 09-09-2024	Drawing Title: <b>FEATURE WALL</b> <b>STRUCTURAL DETAILS</b>		
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1	09-09-2024	BID DOCUMENTS						





ELEVATION VIEW - STEM WALL  
SCALE: 1/4"=1'

SECTION VIEW - STEM WALL  
SCALE: 1/4"=1'

JOB. NO: 24-385	FLD. BK: TAJ-24
DATE: 09/09/2024	CHECK: HSA
SCALE: AS NOTED	SURVEY: --
SHEET: 5 OF 8	CALC: HSA
	DRAFT: YJ

**TAJ ENGINEERING, LLC**  
 CIVIL & STRUCTURAL ENGINEERS, ARCHITECTS, LAND SURVEYORS  
 PROJECT MANAGEMENT, PERMITTING  
 225 STEDMAN ST, SUITE 36B, LOWELL, MA, 01851  
 PHONE: 978-250-8173 FAX: 978-770-0632  
 Info@tajengineering.net

ORNAMENTAL CAST-IN-PLACE CONCRETE WALL  
 STEM WALL REINFORCING REBAR DETAIL  
 68 JACKSON STREET  
 LOWELL, MA  
 PREPARED FOR:  
 GROUND VIEW LDSP ARCHITECTS

SHEET NO.  
**S-4**  
 SHEET: 5 OF 8



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 68 Jackson Street  
 Lowell, MA 01852



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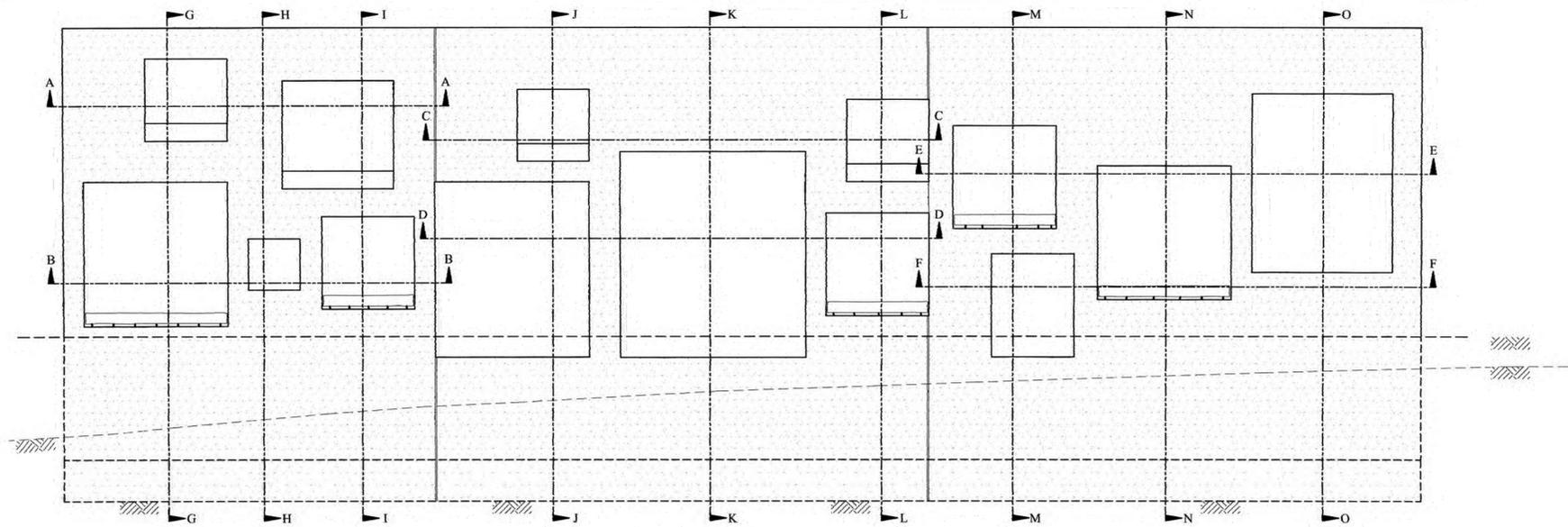
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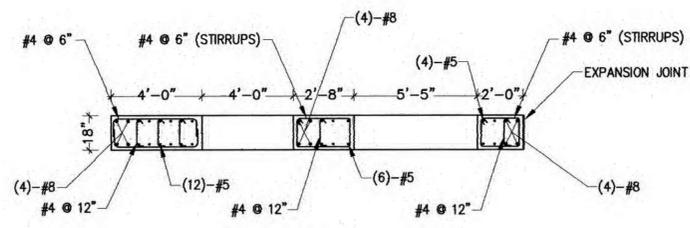
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**FEATURE WALL  
 STRUCTURAL DETAILS**

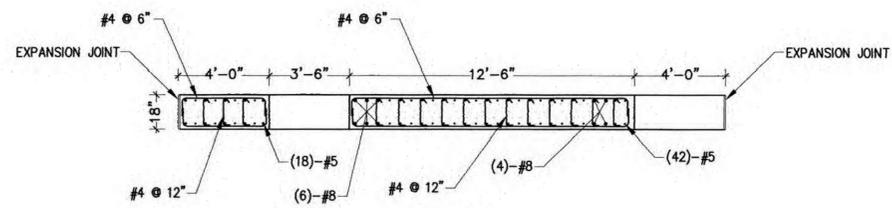
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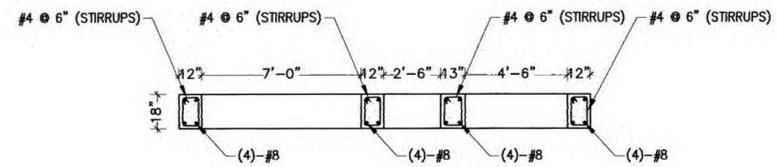
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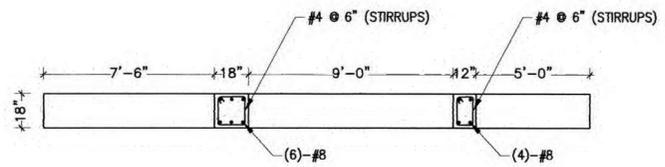
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SEC C-C  
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SEC B-B  
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SEC D-D  
SCALE: 1/4"=1'



JOB. NO: 24-385	FLD. BK: TAJ-24
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SCALE: AS NOTED	SURVEY: --
SHEET: 6 OF 8	CALC: HSA
	DRAFT: YJ

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 info@tajengineering.net

ORNAMENTAL CAST-IN-PLACE CONCRETE WALL  
 SECTIONS  
 68 JACKSON STREET  
 LOWELL, MA  
 PREPARED FOR:  
 GROUND VIEW LDSP ARCHITECTS

SHEET NO.  
**S-5**  
 SHEET: 6 OF 8

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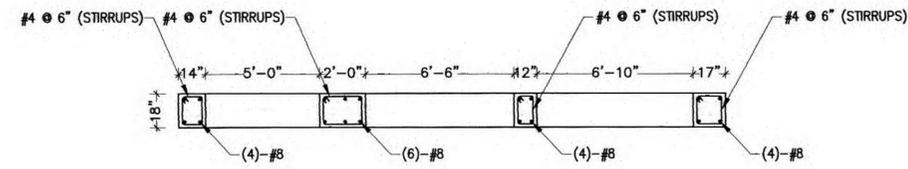
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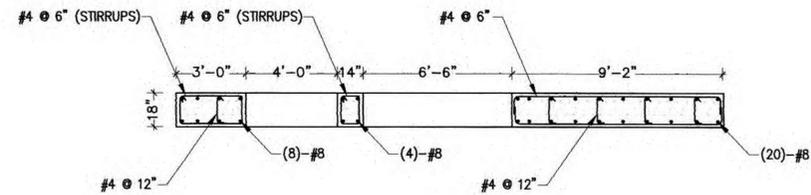
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 GV

Drawing Title:  
**FEATURE WALL  
 STRUCTURAL DETAILS**

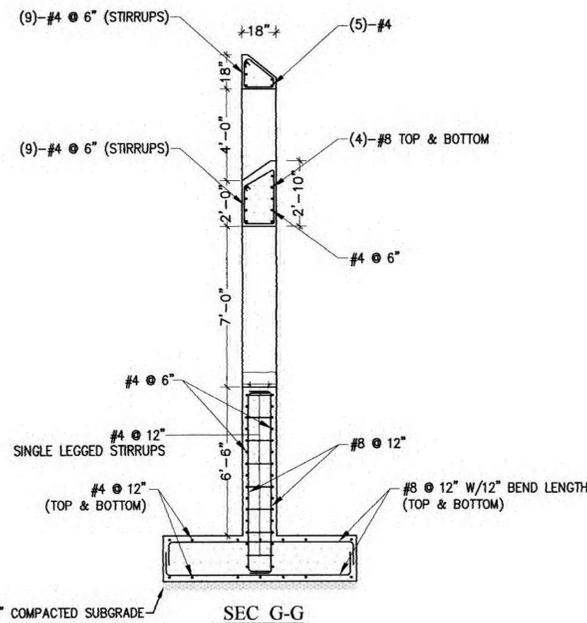
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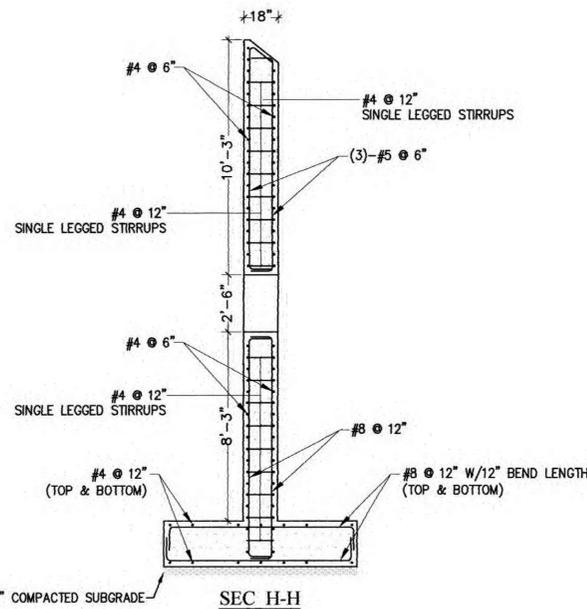
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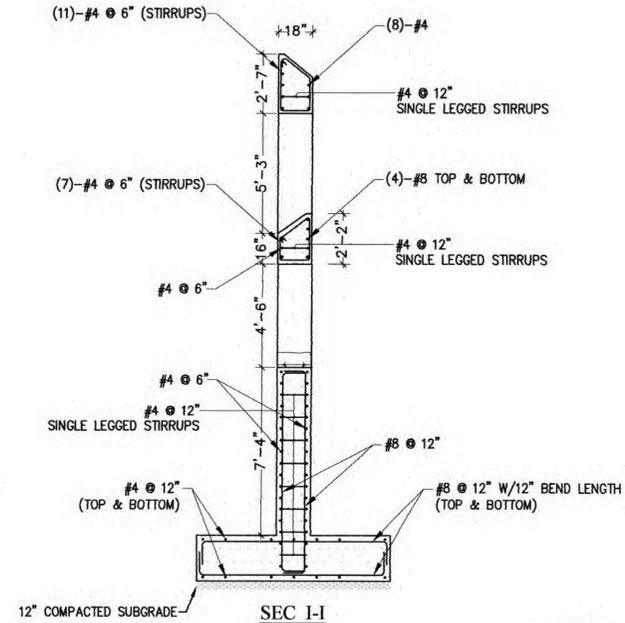
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SCALE: 1/4"=1'



SEC G-G  
SCALE: 1/4"=1'



SEC H-H  
SCALE: 1/4"=1'



SEC I-I  
SCALE: 1/4"=1'



9-12-24

JOB. NO: 24-385	FLD. BK: TAJ-24
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SCALE: AS NOTED	SURVEY: --
SHEET: 7 OF 8	CALC: HSA
	DRAFT: YJ

**TAJ ENGINEERING, LLC**  
 CIVIL & STRUCTURAL ENGINEERS, ARCHITECTS, LAND SURVEYORS  
 PROJECT MANAGEMENT, PERMITTING  
 225 STEDMAN ST, SUITE 36B, LOWELL, MA, 01851  
 PHONE: 978-250-8173 FAX: 978-770-0632  
 info@tajengineering.net

ORNAMENTAL CAST-IN-PLACE CONCRETE WALL  
 SECTIONS  
 68 JACKSON STREET  
 LOWELL, MA  
 PREPARED FOR:  
 GROUND VIEW LDSP ARCHITECTS

SHEET NO.	S-6
SHEET: 7 OF 8	

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FULL SIZE PRINT: 34" x 22"

**Jackson Street Pocket Park**  
 68 Jackson Street  
 Lowell, MA 01852



Prepared for:  
**The City of Lowell**  
 Department of Planning & Development  
 50 Arcand Drive  
 Lowell, MA 01852  
 978-674-1413

Prepared by:  
 LANDSCAPE ARCHITECT  
**GroundView**  
 5 Crescent Street  
 Charlestown, MA 02129  
 617-548-9688

SITE ENGINEER  
**Civil & Environmental Consultants, Inc.**

DESIGNER  
**Supernormal**

STRUCTURAL ENGINEER  
**TAJ Engineering, LLC**

SUBMISSIONS		
NO.	DATE	DESCRIPTION
1	09-09-2024	BID DOCUMENTS

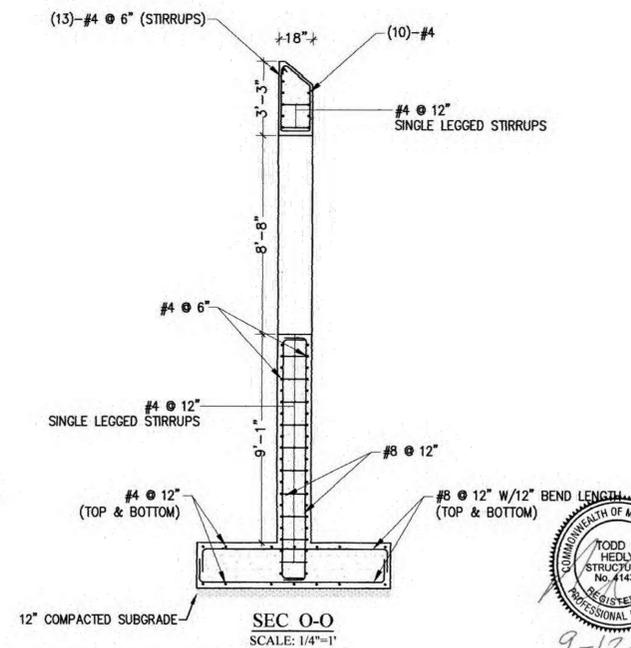
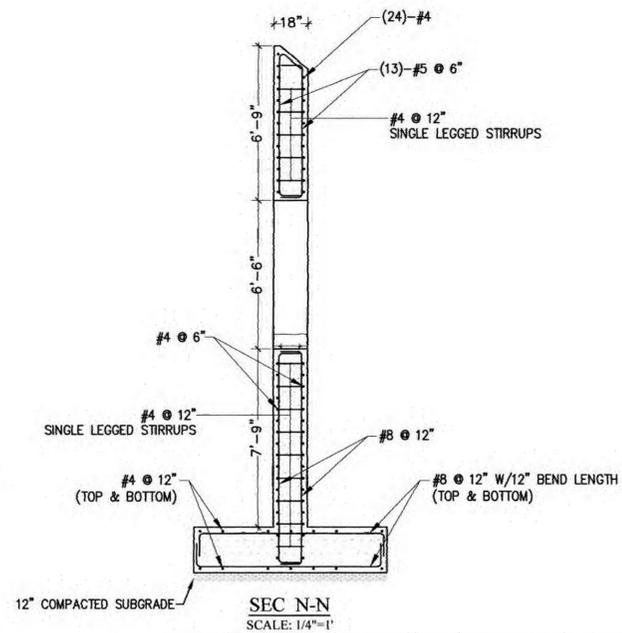
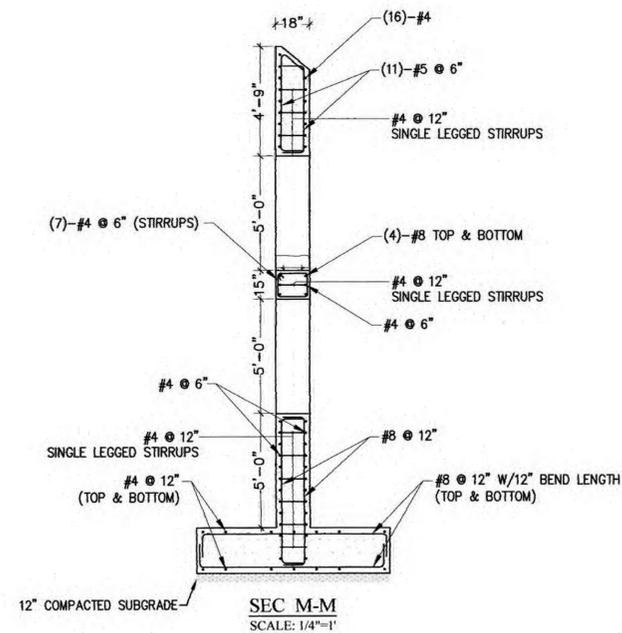
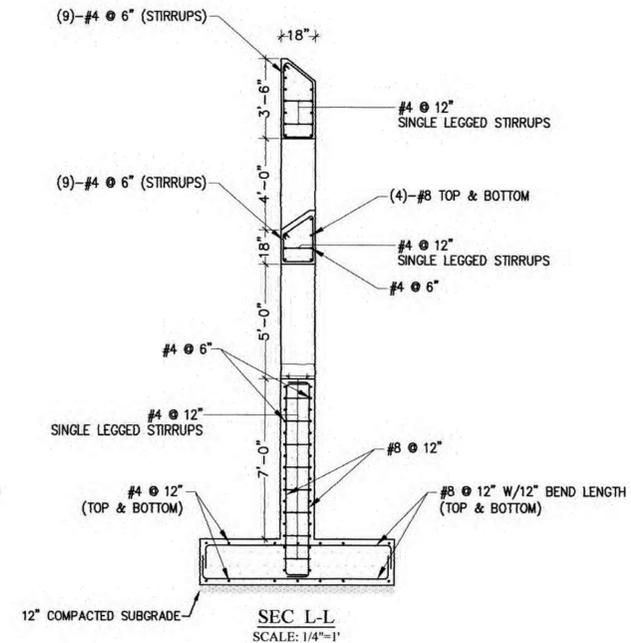
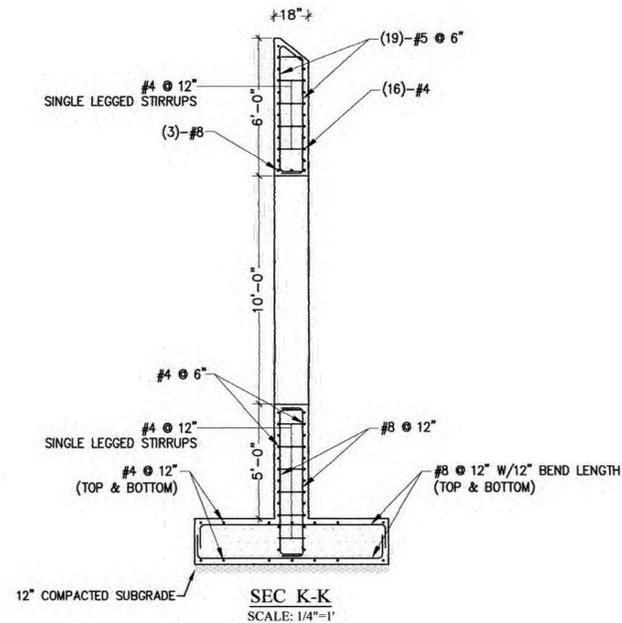
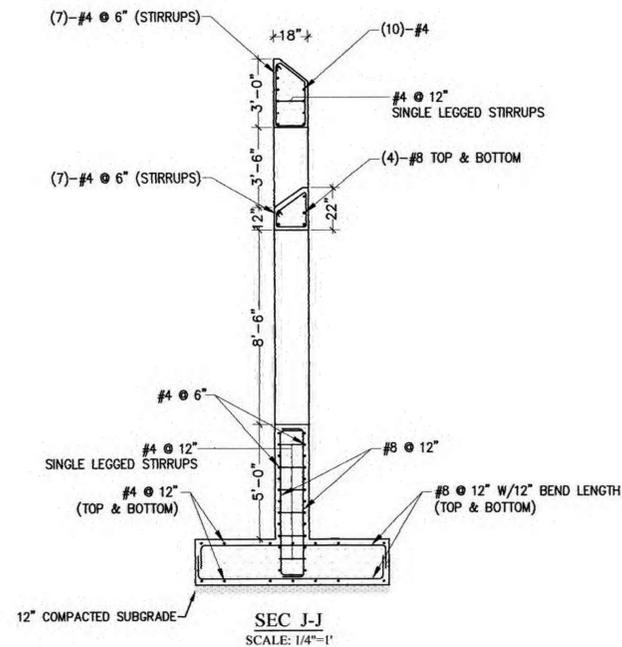
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09-09-2024

Scale:  
AS SHOWN

Drawn By:  
GV

Drawing Title:  
**FEATURE WALL  
STRUCTURAL DETAILS**

Drawing Number:  
**S-6**



JOB. NO: 24-385	FLD. BK: TAJ-24
DATE: 09/09/2024	CHECK: HSA
SCALE: AS NOTED	SURVEY: --
SHEET: 8 OF 8	CALC: HSA
	DRAFT: YJ

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SHEET NO.  
**S-7**  
 SHEET: 8 OF 8

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 Lowell, MA 01852



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DESIGNER  
 Supernormal

STRUCTURAL ENGINEER  
 TAJ Engineering, LLC

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 AS SHOWN

Drawn By:  
 GV

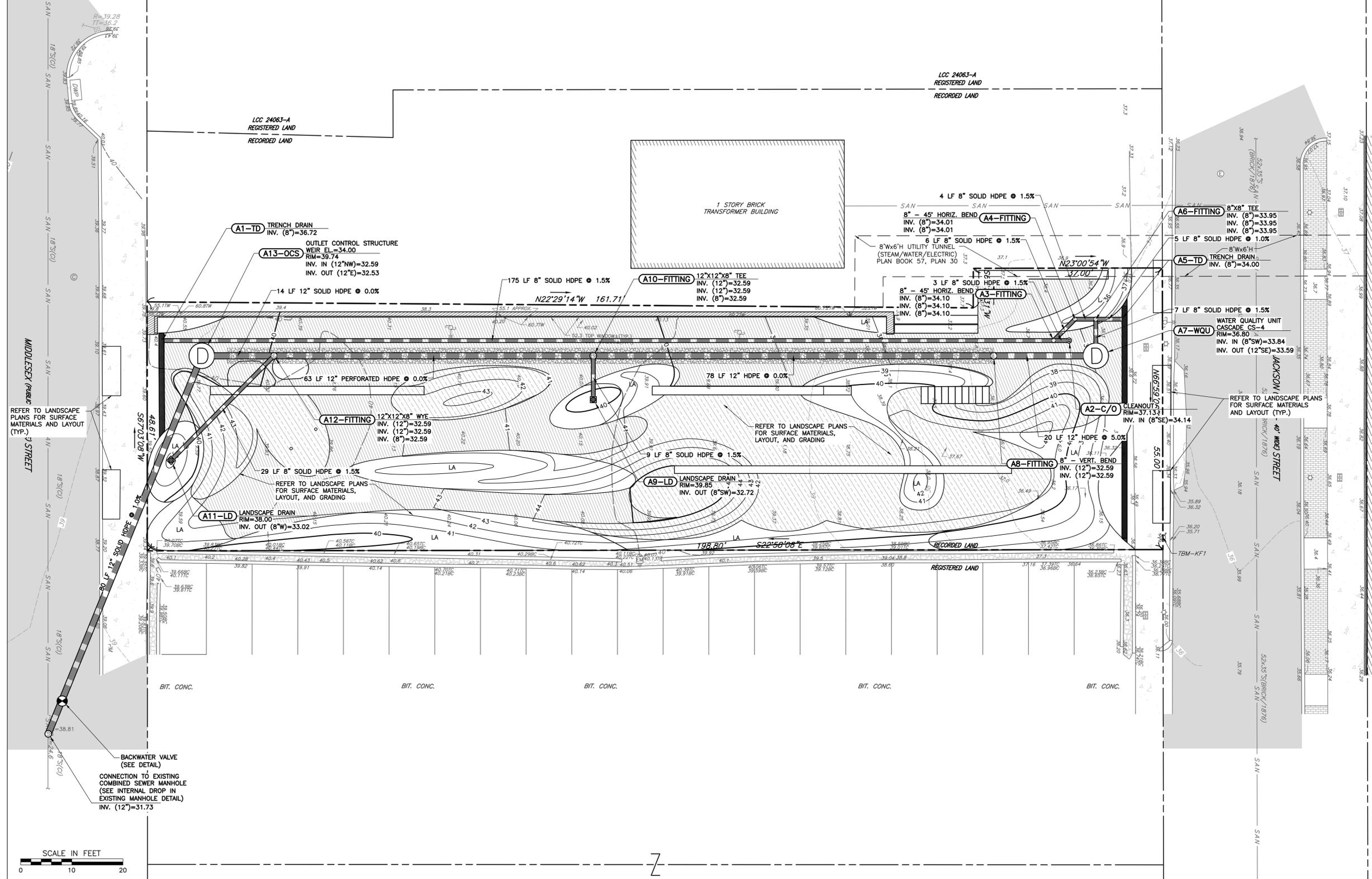
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**FEATURE WALL  
 STRUCTURAL DETAILS**

Drawing Number:

**S-7**



NORTH



**LEGEND**

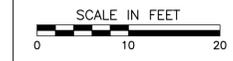
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	EXISTING ABUTTERS PROPERTY LINE
	EXISTING EASEMENT
	EXISTING INDEX (MAJOR) CONTOUR
	EXISTING INTERMEDIATE (MINOR) CONTOUR
	EXISTING SPOT SHOT
	EXISTING CURB
	EXISTING EDGE OF PAVEMENT
	EXISTING ASPHALT PAVEMENT
	EXISTING STRUCTURE
	EXISTING STORM PIPE
	EXISTING SANITARY SEWER LINE
	EXISTING CATCHBASIN
	EXISTING HYDRANT
	EXISTING WATER GATE
	EXISTING SEWER MANHOLE
	EXISTING GAS SERVICE VALVE
	EXISTING ELECTRIC MANHOLE
	EXISTING COMMUNICATIONS MANHOLE
	EXISTING ELECTRIC MANHOLE
	EXISTING HANDHOLD
	EXISTING LIGHT POST
	EXISTING GUY WIRE
	PROPOSED BITUMINOUS CONCRETE WALK
	PROPOSED POURED-IN-PLACE PLAY SURFACE
	PROPOSED LANDSCAPE AREA
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED STORM PIPE
	PROPOSED STORM MANHOLE
	PROPOSED CHECK VALVE
	PROPOSED STORMWATER STRUCTURE LABEL

**NOTES**

- DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS NOTED OTHERWISE.
- SOIL EVALUATION TO DETERMINE GROUNDWATER ELEVATION AT LOCATION OF UNDERGROUND INFILTRATION SYSTEM TO BE CONDUCTED PRIOR TO CONSTRUCTION. RESULTS OF THE EVALUATION ARE TO BE COORDINATED WITH THE CITY OF LOWELL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING, AND FINAL ACCEPTANCE OF ALL NEW STORMWATER MANAGEMENT FACILITIES. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION, AND APPROVAL OF THE STORM DRAINAGE SYSTEM CONSTRUCTION.
- ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES, SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
- ALL CATCH BASINS AND MANHOLES WITH A DEPTH GREATER THAN 4- FEET SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
- TRENCH SPOILS ARE TO REMAIN ONSITE. TRENCH SPOILS THAT MEET THE FOLLOWING REQUIREMENTS MAY BE USED FOR BEDDING MATERIAL: AGGREGATES ARE NOT LARGER THAN 3/4-INCH AND NOT SMALLER THAN NO. 8 SIEVE, AND MATERIAL IS FREE OF SILT AND FINES; BEDDING TO EXTEND MINIMUM OF 6-INCHES BELOW AND 12-INCHES ABOVE THE PIPE AND AS SHOWN ON THE DETAILS.

**REFERENCE**

- TOPOGRAPHIC AND BOUNDARY SURVEY WAS PERFORMED BY FELDMAN GEOSPATIAL IN MARCH 2024 AND IS DEPICTED ON AN EXISTING CONDITIONS PLAN PREPARED BY FELDMAN GEOSPATIAL DATED MARCH 26, 2024.
- VERTICAL ELEVATIONS REFER TO LOWELL CITY BASE DATUM.



SCALE IN FEET

**Jackson Street Pocket Park**  
 68 Jackson Street  
 Lowell, MA 01852



Prepared for:  
 The City of Lowell  
 Department of Planning & Development  
 50 Arcand Drive  
 Lowell, MA 01852  
 978-674-1413

Prepared by:  
 LANDSCAPE ARCHITECT  
 GroundView  
 5 Crescent Street  
 Charlestown, MA 02129  
 617-548-9688

STRUCTURAL ENGINEER  
 Civil & Environmental Consultants, Inc.  
 5 Crescent Street  
 Charlestown, MA 02129  
 617-548-9688



**SUBMISSIONS**

NO.	DATE	DESCRIPTION
1	09-09-2024	BID DOCUMENTS

Date:  
09-09-2024

Scale:  
1" = 10'

Drawn By:  
EMW

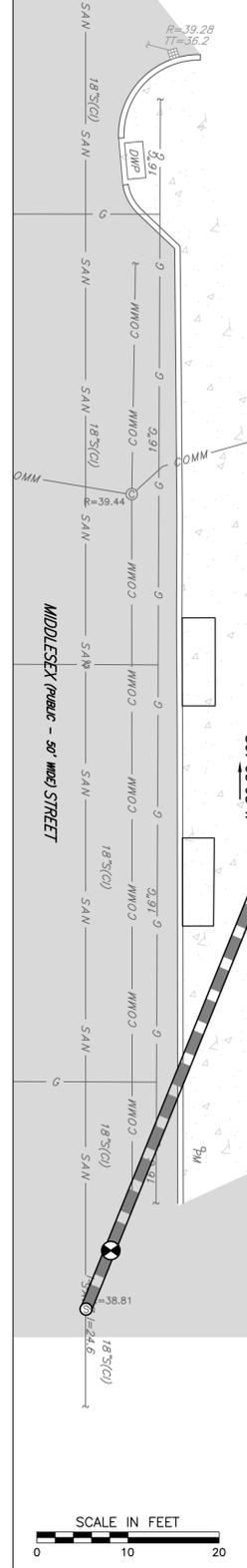
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Drawing Number:  
**C300**

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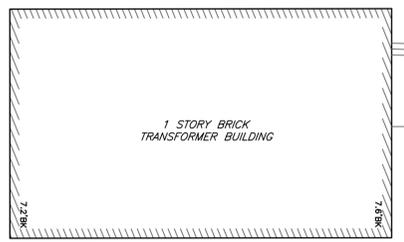


NORTH



Now or Formerly  
CITY OF LOWELL  
NO LEGAL REFERENCE FOUND  
PARCEL ID 016 4085 0135  
135 MIDDLESEX STREET

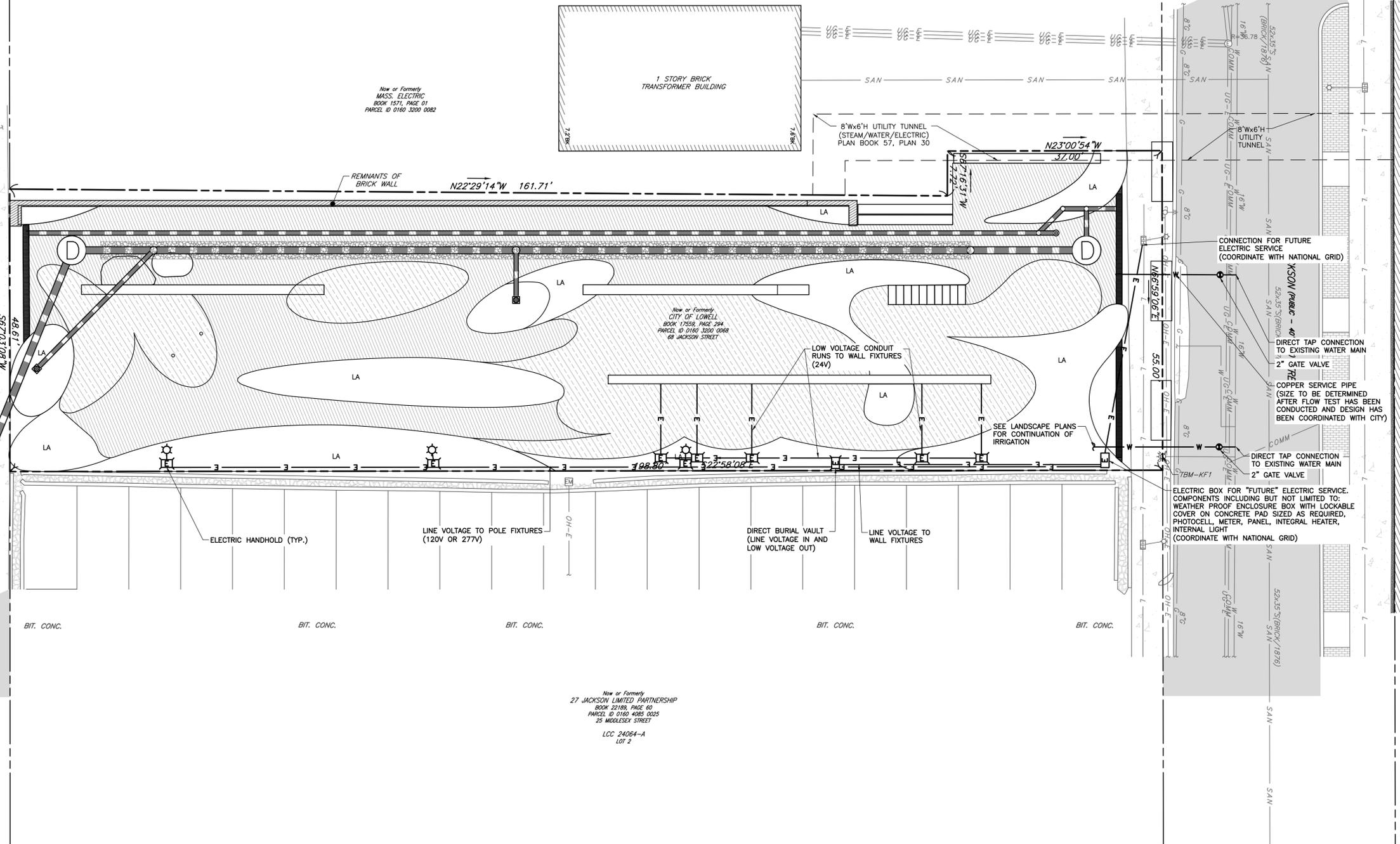
Now or Formerly  
MASS. ELECTRIC  
BOOK 1571, PAGE 01  
PARCEL ID 0160 3200 0082



1 STORY BRICK  
TRANSFORMER BUILDING

Now or Formerly  
CITY OF LOWELL  
BOOK 17259, PAGE 294  
PARCEL ID 0160 3200 0068  
68 JACKSON STREET

Now or Formerly  
27 JACKSON LIMITED PARTNERSHIP  
BOOK 22189, PAGE 60  
PARCEL ID 0160 4085 0025  
69 MIDDLESEX STREET  
LCC 24064-A  
LOT 2



**LEGEND**

	EXISTING PROPERTY LINE
	EXISTING ABUTTERS PROPERTY LINE
	EXISTING EASEMENT
	EXISTING CURB
	EXISTING EDGE OF PAVEMENT
	EXISTING ASPHALT PAVEMENT
	EXISTING STRUCTURE
	EXISTING STORM PIPE
	EXISTING SANITARY SEWER LINE
	EXISTING WATER LINE
	EXISTING GAS LINE
	EXISTING OVERHEAD WIRE
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING LIGHTING LINE
	EXISTING COMMUNICATIONS LINE
	EXISTING CATCHBASIN
	EXISTING HYDRANT
	EXISTING WATER GATE
	EXISTING SEWER MANHOLE
	EXISTING GAS SERVICE VALVE
	EXISTING ELECTRIC MANHOLE
	EXISTING COMMUNICATIONS MANHOLE
	EXISTING ELECTRIC MANHOLE
	EXISTING HANDHOLD
	EXISTING LIGHT POST
	EXISTING GUY WIRE
	PROPOSED BITUMINOUS CONCRETE WALK
	PROPOSED POURED-IN-PLACE PLAY SURFACE
	PROPOSED LANDSCAPED AREA
	PROPOSED STORM PIPE
	PROPOSED STORM MANHOLE
	PROPOSED CHECK VALVE
	PROPOSED WATER LINE
	PROPOSED WATER VALVE
	PROPOSED ELECTRIC
	PROPOSED ELECTRIC HANDHOLD
	PROPOSED LIGHT POLE

- NOTES**
- LOCATION OF SUBSURFACE UTILITIES IS BASED ON AVAILABLE RECORD INFORMATION AND SUBSURFACE FEATURES SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL NOT RELY UPON THIS INFORMATION AS BEING EXACT OR COMPLETE. SHOULD UNCHARTERED UTILITIES BE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE FOR INSTRUCTIONS. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO RELOCATE EXISTING UTILITIES CONFLICTING WITH IMPROVEMENTS SHOWN HEREON IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
  - THE CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
  - COORDINATE PUBLIC UTILITY IMPROVEMENTS WITH THE CITY OF LOWELL. SEQUENCING AND PHASING TO BE COORDINATED WITH THE CITY OF LOWELL PRIOR TO CONSTRUCTION.
  - ELECTRICAL DESIGN SHOWN FOR REFERENCE ONLY. COORDINATE FINAL DESIGN AND APPROVAL WITH THE CITY OF LOWELL AND NATIONAL GRID.
  - WATER CONNECTION SHOWN FOR REFERENCE ONLY. FLOW TEST TO BE PERFORMED PRIOR TO CONSTRUCTION. FINAL SIZE OF WATER SERVICE LINE TO BE DETERMINED AFTER FLOW TEST HAS BEEN PERFORMED AND THE CITY OF LOWELL HAS REVIEWED AND APPROVED THE DESIGN.
  - ALL PROPOSED UTILITY LIES AND EXTENSIONS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PRIVATE UTILITY COMPANY SPECIFICATIONS. CONTRACTOR SHALL COORDINATE UTILITY CONNECTIONS WITH THE APPROPRIATE AGENCY.
  - TRENCH SPOILS ARE TO REMAIN ONSITE. TRENCH SPOILS THAT MEET THE FOLLOWING REQUIREMENTS MAY BE USED FOR BEDDING MATERIAL: AGGREGATES ARE NOT LARGER THAN 3/4-INCH AND NOT SMALLER THAN NO. 8 SIEVE, AND MATERIAL IS FREE OF SILT AND FINES. TRENCHES TO BE A MINIMUM OF 3- FEET WITH BEDDING TO EXTEND MINIMUM OF 6-INCHES BELOW AND 12-INCHES ABOVE THE PIPE, AND AS SHOWN ON THE DETAILS.
  - MAINTAIN MINIMUM 10-FOOT HORIZONTAL AND 18-INCH MINIMUM VERTICAL SEPARATION BETWEEN SANITARY SEWER, STORM SEWER, AND WATER SUPPLY LINE, UNLESS OTHERWISE NOTED.

- REFERENCE**
- TOPOGRAPHIC AND BOUNDARY SURVEY WAS PERFORMED BY FELDMAN GEOSPATIAL IN MARCH 2024 AND IS DEPICTED ON AN EXISTING CONDITIONS PLAN PREPARED BY FELDMAN GEOSPATIAL DATED MARCH 26, 2024. SEC IS NOT RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.
  - VERTICAL ELEVATIONS REFER TO LOWELL CITY BASE DATUM.



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**Jackson Street Pocket Park**  
68 Jackson Street  
Lowell, MA 01852



Prepared for:  
**The City of Lowell**  
Department of Planning & Development  
50 Arcand Drive  
Lowell, MA 01852  
978-674-1413

Prepared by:  
LANDSCAPE ARCHITECT  
**GroundView**  
5 Crescent Street  
Charlestown, MA 02129  
617-548-9688

STRUCTURAL ENGINEER  
**Supernormal TAJ Engineering, LLC**



**SUBMISSIONS**

NO.	DATE	DESCRIPTION
1	09-09-2024	BID DOCUMENTS

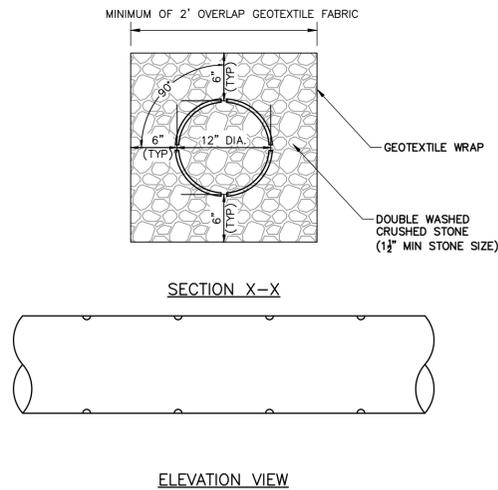
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1" = 10'

Drawn By:  
EMW

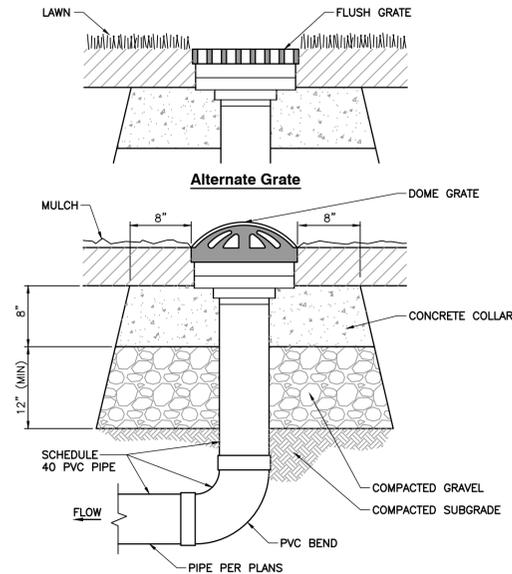
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Drawing Number:  
**C500**

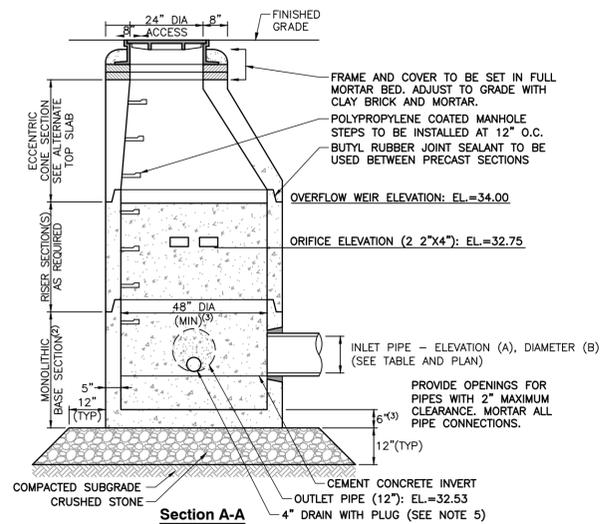


- NOTES:**
1. PROVIDE 12" DIA. HDPE PIPE PERFORATED WITH 1/8" DIA. HOLES SPACED 90° APART CIRCUMFERENTIALLY, AND 6 INCHES ON CENTER AXIALLY.
  2. PIPE PERFORATIONS SHALL BE FACTORY INSTALLED
  3. CRUSHED STONE TO BE WRAPPED IN 140N FILTER FABRIC OR APPROVED EQUAL

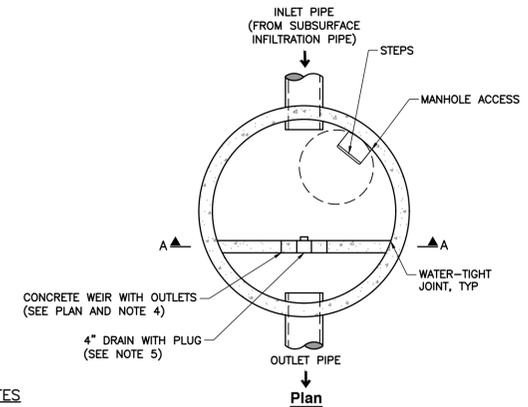
**TYPICAL PERFORATED PIPE DETAIL**  
N.T.S.



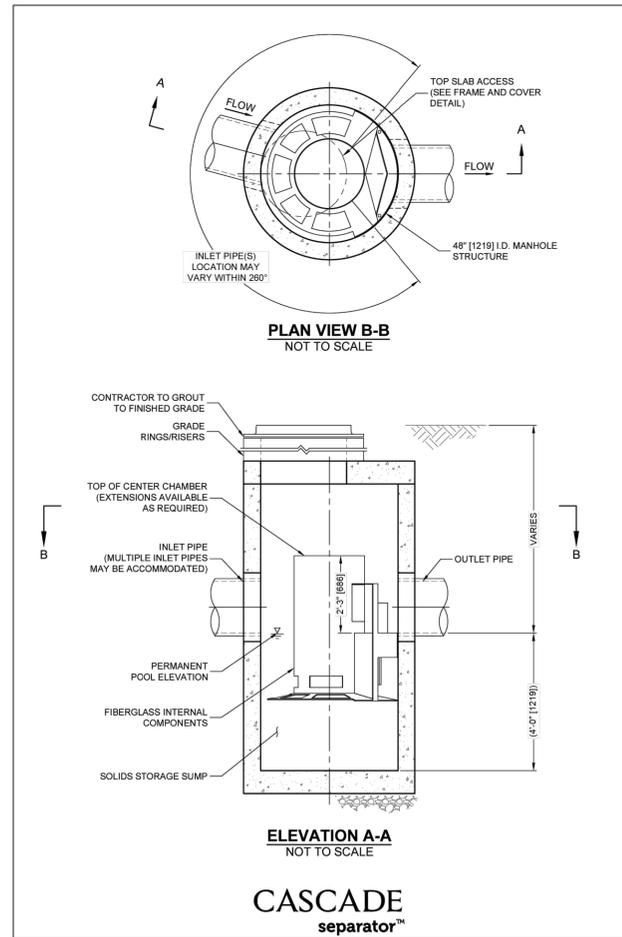
**LANDSCAPE (AREA) DRAIN DETAIL**  
N.T.S.



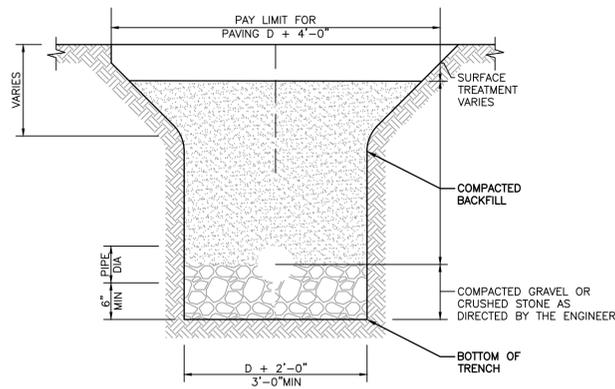
**OUTLET CONTROL STRUCTURE DETAIL**  
N.T.S.



- NOTES**
1. STRUCTURE TO BE PRECAST CONCRETE, MINIMUM 4,000 PSI. ALL SECTIONS TO BE DESIGNED TO MEET OR EXCEED HS-20 LOADING.
  2. BASE TO BE SINGLE POUR MONOLITHIC SECTION.
  3. 60" (5'-0") INSIDE DIAMETER FOR ALL MANHOLE DEPTHS GREATER THAN 20 FEET. 6" MINIMUM WALL THICKNESS AND 7" MINIMUM BASE THICKNESS FOR 5'-0" DIAMETER PRECAST MANHOLE.
  4. SEE PLANS FOR WEIR ELEVATIONS AND CONFIGURATIONS.
  5. PLUG SHALL CONSIST OF A 4" PVC PIPE WITH A THREADED PLUG.

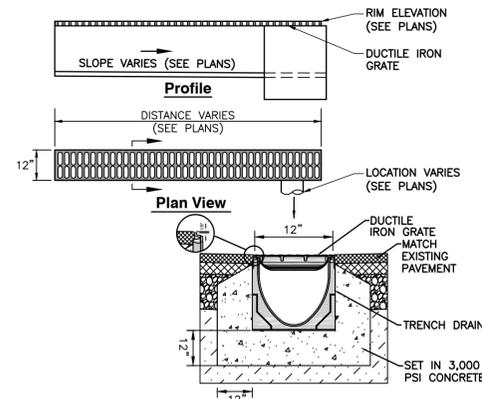


**CONTECH CS-4 CASCADE SEPARATOR DETAIL**  
N.T.S.



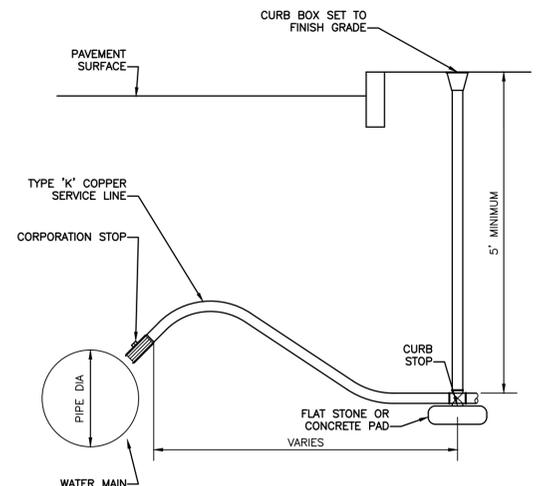
- CONSTRUCTION NOTES**
1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.

**TRENCH DETAIL**  
N.T.S.



- Expansion Joint Detail**
- NOTES**
1. TRENCH DRAIN SHALL BE HEAVY DUTY TYPE DESIGNED FOR CLASS D(H-20) LOADING.
  2. CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000 PSI, TYPE II CEMENT.
  3. TRENCH DRAIN GRATE SHALL MEET AMERICANS WITH DISABILITY ACT (ADA) REGULATIONS WHEN PLACED IN ACCESSIBLE ROUTES.
  4. METHOD OF INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS
  5. TRENCH DRAIN SHALL BE FITTED WITH VERTICAL OUTLET ADAPTER TO CONNECT 8" DRAIN WITH DRAINAGE STRUCTURE.
  6. TRENCH DRAIN TO BE KLASSIKDRAIN K300/KS300 OR APPROVED EQUAL

**TRENCH DRAIN DETAIL**  
N.T.S.



- CONSTRUCTION NOTES**
1. INSTALLATION SHALL CONFORM WITH MUNICIPAL WATER WORKS SPECIFICATIONS AND STANDARDS.

**CORPORATION / CURB STOP WITH BOX DETAIL**  
N.T.S.

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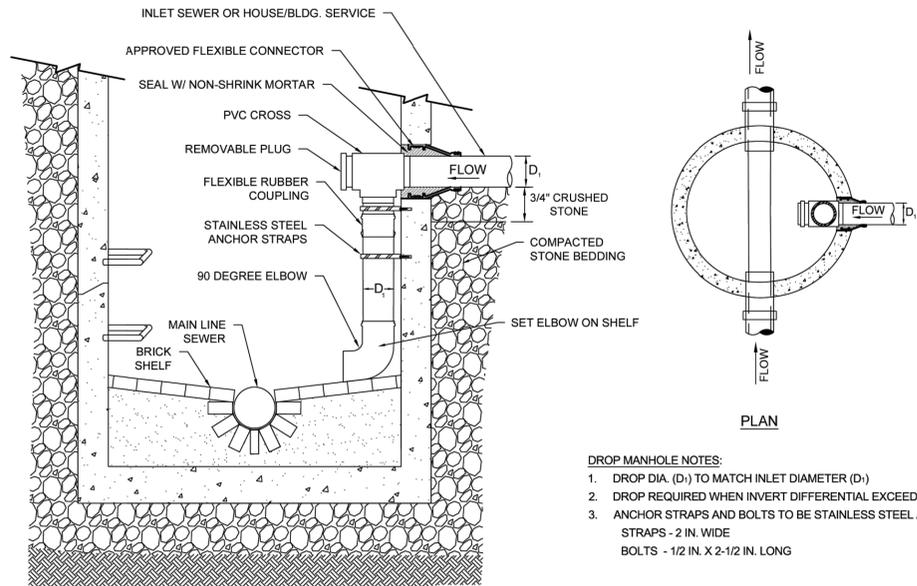
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Drawing Title:  
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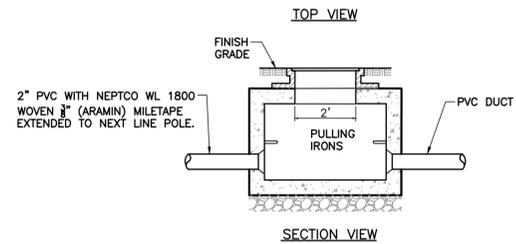
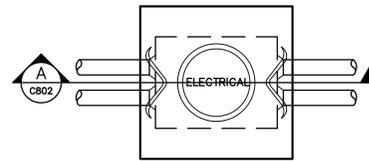
Drawing Number:  
**C800**



- DROP MANHOLE NOTES:**
1. DROP DIA. (D<sub>1</sub>) TO MATCH INLET DIAMETER (D<sub>1</sub>)
  2. DROP REQUIRED WHEN INVERT DIFFERENTIAL EXCEEDS 2 VF OR WHERE SHOWN ON DRAWINGS.
  3. ANCHOR STRAPS AND BOLTS TO BE STAINLESS STEEL AND NOT MORE THAN 2 FT ON CENTER. STRAPS - 2 IN. WIDE  
BOLTS - 1/2 IN. X 2-1/2 IN. LONG

**INTERNAL DROP IN EXISTING MANHOLE**

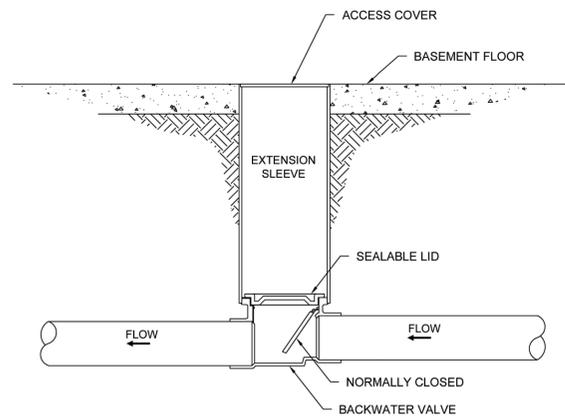
CITY OF LOWELL REGIONAL WASTEWATER UTILITY      DATE: 01/2023



- NOTES**
1. COVERS SHALL BE LABELED AS "ELECTRICAL", "COMMUNICATION", "CATV", OR "TELECOM", AS REQUIRED.
  2. HANDHOLE SIZE PER NATIONAL ELECTRIC CODE UNLESS OTHERWISE NOTED.
  3. LOADING REQUIREMENTS SHALL BE BASED ON APPLICATION TYPE. MINIMUM RATINGS SHALL BE TIER 15. PROVIDE TRAFFIC RATED HANDHOLES WHERE REQUIRED.
  4. THE ELECTRICAL SUBCONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING PRE-CAST HANDHOLES.
  5. PROVIDE IN-LINE WATERPROOF FUSE HOLDER-BUSS "TRON" TYPE HEB OR HEX, AS REQUIRED.
  6. CONTRACTOR SHALL PROVIDE FINALE DESIGN OF ELECTRICAL IMPROVEMENTS AND COORDINATE REVIEW AND APPROVAL WITH CITY.

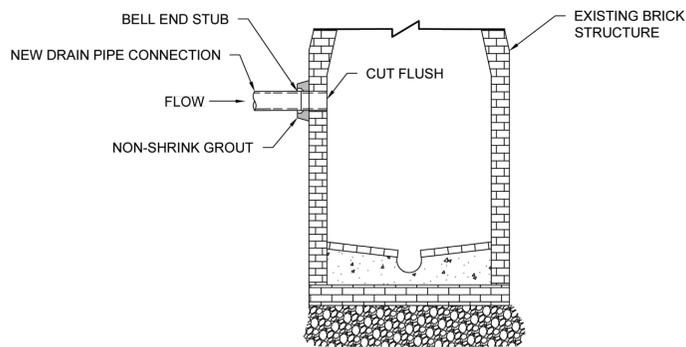
**NATIONAL GRID UTILITY HANDHOLE DETAIL**

N.T.S.



**BACKWATER VALVE DETAIL**

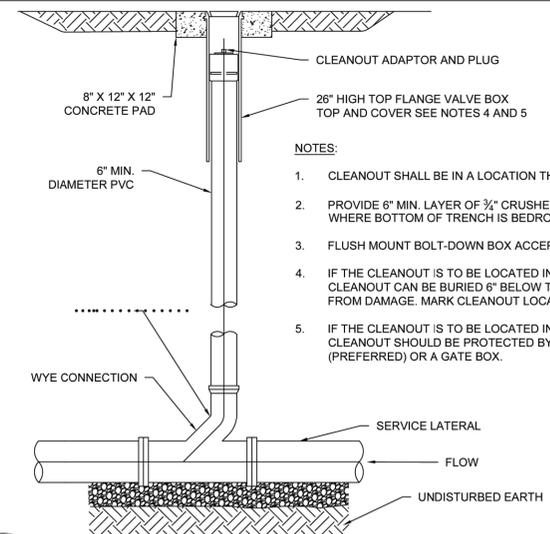
CITY OF LOWELL REGIONAL WASTEWATER UTILITY      DATE: 01/2023



- NOTES:**
1. EXISTING BRICK PENETRATION SHALL BE SAWCUT. BELL END STUB WITH NON-SHRINK GROUT REQUIRED FOR CONNECTION. REPAIR VOIDS AROUND NEW PIPE PENETRATION WITH NEW BRICK AND NON-SHRINK GROUT.
  2. FOR SEWER CONNECTIONS TO EXISTING SEWER MANHOLES, SEE DETAIL FOR INTERNAL DROP IN EXISTING MANHOLE. DIRECT SEWER PIPE CONNECTIONS AS SHOWN ABOVE ONLY ALLOWED WITH APPROVAL OF THE CITY ENGINEER.

**CONNECTION TO EXISTING BRICK STRUCTURE**

CITY OF LOWELL REGIONAL WASTEWATER UTILITY      DATE: 01/2023



- NOTES:**
1. CLEANOUT SHALL BE IN A LOCATION THAT IS ACCESSIBLE AT ALL TIMES.
  2. PROVIDE 6" MIN. LAYER OF 3/4" CRUSHED STONE BEDDING. PROVIDE 12" WHERE BOTTOM OF TRENCH IS BEDROCK.
  3. FLUSH MOUNT BOLT-DOWN BOX ACCEPTABLE UPON APPROVAL OF CITY.
  4. IF THE CLEANOUT IS TO BE LOCATED IN A LAWN AREA, THE TOP OF THE CLEANOUT CAN BE BURIED 6" BELOW THE SURFACE TO OFFER PROTECTION FROM DAMAGE. MARK CLEANOUT LOCATION WITH DETECTABLE METAL.
  5. IF THE CLEANOUT IS TO BE LOCATED IN A PAVED AREA, THE TOP OF THE CLEANOUT SHOULD BE PROTECTED BY A WELLHEAD COVER BOX (PREFERRED) OR A GATE BOX.

**SERVICE CLEANOUT**

CITY OF LOWELL REGIONAL WASTEWATER UTILITY      DATE: 01/2023

**Jackson Street Pocket Park**  
68 Jackson Street  
Lowell, MA 01852



**Prepared for:**  
The City of Lowell  
Department of Planning & Development  
50 Arcand Drive  
Lowell, MA 01852  
978-674-1413

**Prepared by:**  
LANDSCAPE ARCHITECT: GroundView  
DESIGNER: Supernormal  
SITE ENGINEER: Civil & Environmental Consultants, Inc.  
STRUCTURAL ENGINEER: TAJ Engineering, LLC

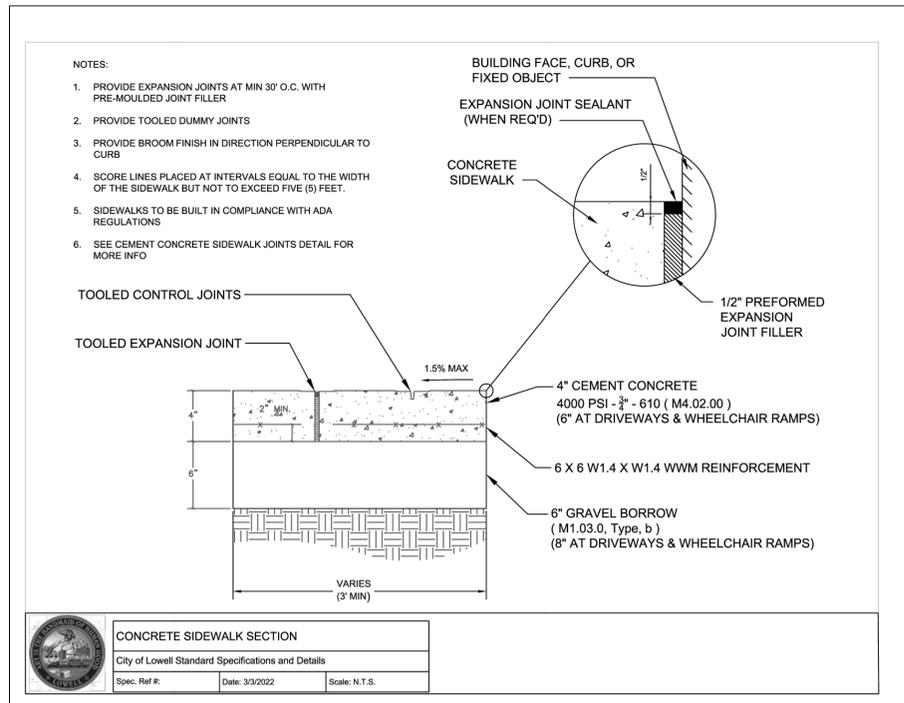
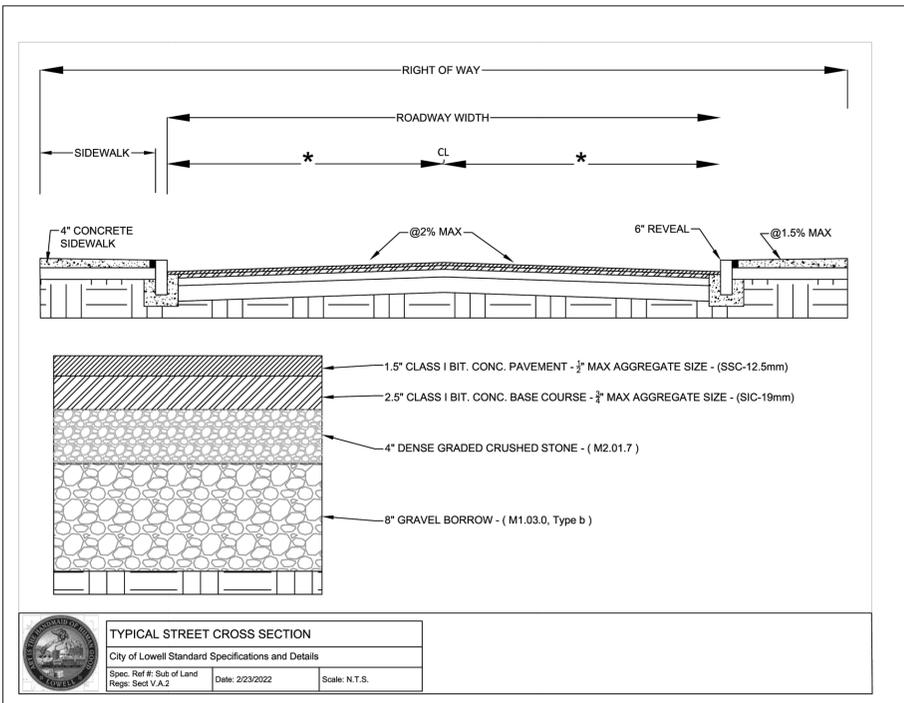
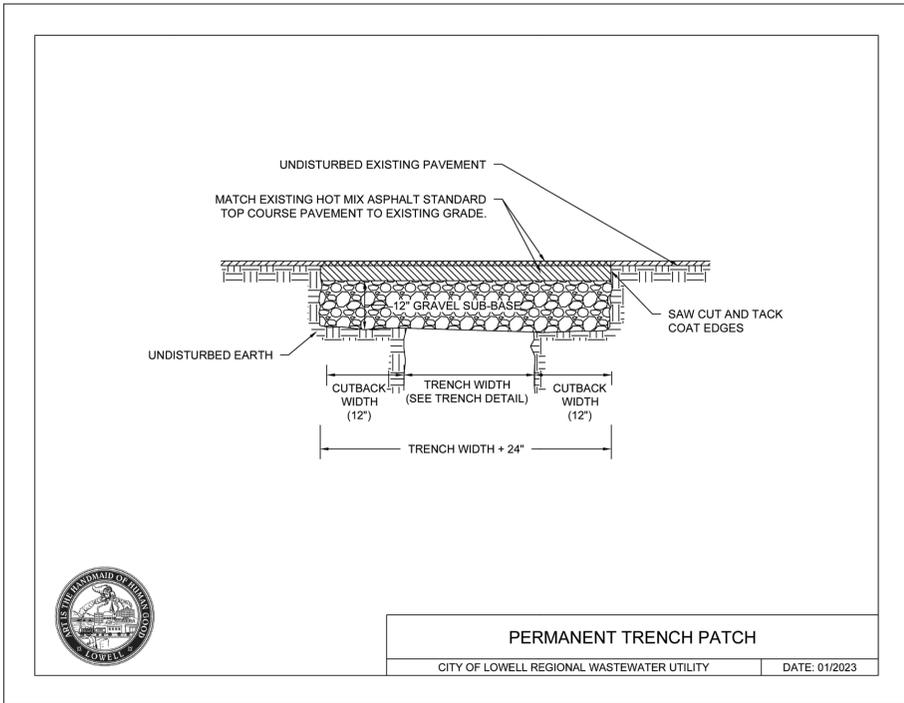


SUBMISSIONS		
NO.	DATE	DESCRIPTION
1	09-09-2024	BID DOCUMENTS

Date: 09-09-2024  
Scale: AS SHOWN  
Drawn By: EMW

Drawing Title: **SITE UTILITIES DETAILS**  
Drawing Number: **C801**

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68 Jackson Street  
Lowell, MA 01852



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**The City of Lowell**  
Department of Planning & Development  
50 Arcand Drive  
Lowell, MA 01852  
978-674-1413

Prepared by:  
LANDSCAPE ARCHITECT  
**GroundView**  
5 Crescent Street  
Charlestown, MA 02129  
617-548-9688

SITE ENGINEER  
**Civil & Environmental Consultants, Inc.**

DESIGNER  
**Supernormal**

STRUCTURAL ENGINEER  
**TAJ Engineering, LLC**



SUBMISSIONS		
NO.	DATE	DESCRIPTION
1	09-09-2024	BID DOCUMENTS

Date:  
09-09-2024

Scale:  
AS SHOWN

Drawn By:  
EMW

Drawing Title:  
**SITE PAVEMENT DETAILS**

Drawing Number:

**C802**