

September 5, 2025

To All Bidders:

Subject: Bid #: 8501-W6, Complete Streets Improvements – Endicott – Bigelow / DPW - CDBG

ADDENDUM NO. 5

To Whom It May Concern:

With reference to our bid request relative to the above subject, please refer to the changes/modifications/clarifications to the original request.

- BID DUE DATE EXTENDED TO WEDNESDAY, SEPTEMBER 17, 2025 AT 10:00 AM
- PLEASE SEE ATTACHED GENERAL BID CLARIFICATIONS INCLUDING QUESTIONS RECEIVED, RESPONSES FROM CITY AND UPDATED DRAWINGS
- AN ADDITIONAL ADDENDUM, WHICH WILL INCLUDE REVISED UNIT PRICING PAGES, IS EXPECTED TO BE POSTED BY 9/10

Bidders are requested to acknowledge and/or include this addendum with submission. All other terms, conditions and specifications remain unchanged.

Very truly yours

Christopher J. Gagliastro Purchasing Director

Green Island Phase II Addendum No. 4: Questions and Clarifications

Q: The city's "Complete Form For General Bid" file states that the complete bid package submission consists of "Form for General Bid (80-85) and unit price pages". There are no unit price pages in this file. The city has a different "Bid Documents" file which contains unit bid price items. Please verify that this project is a unit price job, and provide a complete, updated bid package for the contractors to submit.

A: Weston & Sampson has provided updated Bid Items to the City.

Q: The "Hot Mix Asphalt Pavement, Mill And Overlay" detail (Detail 4) on plan sheet L504 calls for 1 ½" Mill and Overlay. We assume that bid item #58 (Mill & Overlay Bituminous Concrete @ 1.5") is the proper item to pay for this work. What is bid item #21 (Remove & Dispose Asphalt Pavement – Mill @ 2") for?

A: Removal and disposal of asphalt pavement shall be compensated under bid item #403.1 Grinding Full Depth-6" Maximum for full depth bituminous pavement and #403.0 Grinding and Milling 1 ½" for top course.

Q: Please verify that bid item #22 (Remove & Dispose Asphalt Pavement – Full Depth) is only for the removal and disposal of asphalt in the full depth sections. If so, under what bid item will the contractor be paid for the full depth excavation to install all of compacted dense graded crushed stone shown on Detail 2 and 3 on plan sheet L504?

A: Except in areas where excavation is required for proposed utility work, contractor to remove and dispose pavement only, not base course. For areas where existing bituminous pavement is being removed due to required excavation, contractors shall be compensated under bid item # 127, Dense Graded Crushed Stone.

Q: Please specify the exact items of work that are necessary to complete bid item #27 (Misc. Protection, Salvage and Demo of Site Elements). Also, the bid tab shows a quantity of #2 but it is a lump sum item. Please clarify.

A: Miscellaneous Protection, Salvage and Demo of Site Elements is covered under bid item # 901

Q: What work is covered under bid item #28 (Initial Earthwork {Excavation} @ 2' depth)?

A: Initial Earthwork Excavation 2' shall be covered under bid item # 112 Unclassified Excavation and Backfill and #116 Excavation

Q: What is bid item #29 (Cut/Fill) for?

A: This line item has been removed from the project.

Q: Under what bid item is the contractor to be paid for the installation of dense grade crushed stone for Hot Mix Asphalt Pavement (Detail #2 & #3 on plan sheet L504), Concrete Unit Pavers (Detail #5 on plan sheet L504), Cast-In Place Concrete Pavement (Detail #9 on plan sheet L-504) and Reinforced Cast-In-Place Concrete Pavement (Detail #10 on plan sheet L504)?

A: Installation of dense graded crushed stone shall be compensated under bid item# 127, Dense Graded Crushed Stone.

Q: It appears that bid item #'s 25 and #26 are for the removal and disposal of contaminated soils (either Group A-1 or Group B-1). Please explain exactly what the intention of bid item #'s 31 and #32 are for.

A: Refer to specification 02 61 00.16 Handling, Transportation, Reuse, and Off-Site Disposal of Excavated Material Section 3.04 Excavated Material Categories and 3.07 Transport of Surplus Excavated Material for intentions of bid items #'s 31 and 32.

Q: Please verify the quantity (4,600 cubic feet) of bid item #37 (R-Tank) is correct. We only see R-Tanks in two (2) locations (plan sheet L121 & L122). Also, please verify that the height of these R-Tanks is only 9.4" as shown on Detail 1 on plan sheet L502.

A: Please refer to sheets L141 and L142 Grading Enlargement Plan for clarifications.

Q: Please identify the locations of bid item #39 (Non-Woven Geotextile Filter Fabric).

A: Refer to construction details for locations.

Q: Please identify the locations of bid item #40 (Subsurface Stone Reservoirs).

A: Subsurface Stone Reservoirs shall be paid for in bid item # 130, ¾" Stone. Refer to Materials, Grading, and Layout Enlargement sheets for Subsurface Stone Reservoir locations.

Q: What is included for payment under bid item #43 (Focal Point System)? Is the material for the structural underdrain for the Focal Point System (shown on plan sheet L503) R-Tanks? If so, is that paid under the R-Tank item (bid item #37)? How is the FP 100 Geotextile fabric, bridging stone, high flow media, observation port and Aged Double Shredded Hardwood Mulch (all shown on plan sheet L503) compensated?

A: All pertinent components of R-Tank, Focal Point, and Tree Filters such as drainage/geotextile fabric, containment soil, stone, and drainage pipe shall be included in each System bid item. Refer to Construction Detail Sheets L502, L503, and L505.

Q: Where is bid item #47 (Base Course @ 1.5") intended to be used?

A: This item shall be compensated under bid item # 422.1-Superpave 9.5mm Level 2. It shall be used in all locations on plans that call for mill and overlay.

Q: Where is bid item #48 (Compacted Aggregate Base) intended to be used?

A: This item was intended to be used for all compacted dense graded crush stone.

Q: Where is bid item #50 (Choker Course @ 2.5") intended to be used?

A: This item has been removed. Vehicular Bituminous Asphalt Pavement shall be compensated under bid item # 422.1-Superpave 9.5mm Level 2, and 422.2-Superpave 12.5mm level 2.

Q: Where are the rapid flashing beacons (bid item #63) to be installed?

A: Rapid flashing Beacons have been deleted from the project scope.

Q: Plan sheet E100 has a detail for Electrical Handholes. How are these to be compensated?

A: Electrical Handholes will be compensated under bid item #810.20 Electrical Handholes

Q: Item #1 has a quantity of 2 Lump Sum

A: Refer to section 748: Mobilization of MassDOT Specifications for method of payment.

Q: Item #2 Moveable Street Barricade – please provide a specification and/or detail for this item. A: Moveable barricade has been removed from bid items.

Q: Item #10 Remove and Salvage Monument & Sign – the plans call to relocate the monument and sign.

A: Remove and Reset Existing Sign shall be compensated under bid item # 903. Remove and Reset Existing Monument shall be compensated under bid item # 904.

Q: Item #21 Remove & Dispose Asphalt Pavement Mill @ 2" – Where do the plans call to mill 2"? A: This item has been removed from the project.

Q: Item #29 Cut/Fill (SY) should be paid by the Cubic Yard rather than Square Yard?

A: Cut/Fill has been removed from the project

Q: Item #39 Non-Woven Geotextile Filter Fabric – should this include the geotextile fabric in 31 05 19.13, Containment Fabric, R-Tank Filter/Drainage Fabric, Focal Point Fabric and Storm Tree Filter System.

A: All components of R-Tank, Focal Point, and Tree Filter system including but not limited to geotextile fabric, containment soil, stone, drainage pipe shall be included in each system's bid item.

Q: Item #44 New Vertical Granite Curb – please add an item for Granite Curb – Curved

A: Circular Curb (10' Radius & Over) shall be compensated under bid item #408. Circular Curb (10' Radius & Under) shall be compensated under bid item #408.

Q: Item #47 Base Course @ 1.5" (CY) – I assume this is for the Bituminous Concrete Pedestrian (Bike) – This item should be paid by the Ton rather than CY

A: This item is covered under bid item #426, New Bituminous Concrete Sidewalk.

Q: Item #50 Choker Course @ 2.5" (CY) - I assume this is for the Bituminous Concrete Vehicular – This item should be paid by the Ton rather than CY

A: This item is covered under bid item #426, New Bituminous Concrete Sidewalk.

Q: Item #57 Impervious Paver Concrete Base (CY) – Detail 5/L504 shows a HMA base

A: Pavers on bituminous concrete base shall be compensated under bid item # 447, Modular Unit Paver Sidewalk.

Q: Item #59 Painted Crosswalks (LF) – please confirm these are to be thermoplastic per C100 Pavement Marking Legend – please confirm all lines in the crosswalk bars and hatching will be measured for payment.

A: Confirmed.

Q: Item #60 Traffic Striping Yellow Center Lines – please confirm these are to be paint per C100 Pavement Marking Legend – please confirm that each individual line of the centerline will be measured for payment.

A: Traffic Striping Yellow Center Lines shall be covered under bid item #502. Measurement of payment is by linear foot.

Q: Item #61 Traffic Markings – please confirm these are to be performed thermoplastic per C100 General Notes

A: Confirmed. Traffic Markings will be covered under bid item #501, 502, 503, and 504, 509.01

Item #63 RRFB – please provide a specification and/or detail for this item.

A: Rectangular Rapid Flashing Beacons have been removed from the project.

Q:Item #67 has a quantity of 0 Lump Sum

Remove and Reset Street Lights, new footings shall be compensated under bid item #812.20 Light Standard Foundation Concrete,

Q: Section 02 32 13.13 (1.01 B)

Please add an item for test pits to the bid items.

A: Test Pits shall be compensated under bid item #112.2.

Q: Section 31 23 16.26 Rock Excavation and Disposal

Please provide an item for Rock Excavation and Disposal

A: Rock Excavation and disposal shall be compensated under bid item # 118-Class A Rock Excavation and Disposal, and #120 Class B Rock Excavation and Disposal.

Q:"Miscellaneous Work and Resurfacing of Bigelow & Endicott Streets

Bid No. 8501-W6 (Contract M25-2)":

-Regarding pay item #28 Initial Earthwork (Excavation) 2' Depth 5,165CY

& Pay item #29 Cut/Fill 10,993SY, we have been unable to find the measurement and payment Specifications for these 2 pay items. Please clarify.

A: These line items have been removed from the project.

Q: Please create an item for Excavatable Controlled Density Fill Per 26 00 00 Section C Measurement and Payment.

A: Excavatable Controlled Density Fill shall be compensated under bid item # 485.1

Q: Please provide bid items for the following:

Granite Inlet Stone

A: Granite Inlet Stone shall be compensated under bid item #245 Granite Inlet Stone.

Q: Existing Granite Inlet Stone Remove & Reset

A: Granite Inlet Stone shall be compensated under bid item #245.1, Granite Inlet Stone Remove and Reset.

Q: Circular Curb (10' Radius & Over) (VA-4)

A: Circular Curb (10' Radius & Over) shall be compensated under bid item #408.

Q: Circular Corner (Worc. Std)

A: Circular Corner shall be compensated under bid item #410

Q: Circular Corner Remove & Reset

A: Circular Corner shall be compensated under bid item #416-Curb Remove and Reset

Q: Will the removal of HMA sidewalks be measured and paid under Item 22- R&D Asphalt Pavement Full Depth.

A: Removal of HMA sidewalks will be measured and paid under bid item #441-Replacing Bituminous Concrete Sidewalk with Cement Concrete Sidewalk 4 inch.

Q: Please add an item for Removal of Pavement Markings (Crosswalks on Quinsigamond St. and crosswalks/stop line on Harding Street.

A: Removal of Pavement Markings will be compensated under bid item #905 Pavement Marking Removal.

Q: L124 calls to relocate existing sign and monument. Please provide specifications and details for the work.

A: Addendum 4 includes details for relocating existing sign and monument. Refer to sheets L504 and L505.

Q: Will the City or Design Engineer be providing the daily construction inspection for this project? A: Yes

Q: The Specifications state that the contract bid price shall include concrete encasement. Please provide a separate line item for concrete encased conduit so that the Contractor may be compensated for concrete encasement when field changes result in relocating the conduit into the roadway.

A: Concrete Encasement shall be compensated under bid item # 804.2-2 Inch Electrical Conduit Type NM Plastic For Street Lighting, and 804.21 Additional 2 Inch Electrical Conduit Type NM for Street Lighting Within the Same Trench.

Will there be any restrictions on removing streetlights and not immediately resetting them?

A: The Contractor shall maintain at least 50% of the existing streetlights operational on each street each night. If work requires removal of more than 50% of the lights at any given time, the Contractor shall provide temporary lighting to maintain equivalent illumination levels until permanent lighting is restored. Temporary lighting will be incidental to the lighting items.

Clarification: The westernmost street light on Endicott has a Shot Spotter mounted to it.

-The contractor will need to coordinate a schedule with the Worcester Police Department. The WPD/Shot Spotter Representative will find a temporary location to mount the equipment when needed.

Attachments:

Sheet L111 Site Preparation Enlargement Plan

Sheet L121 Materials Enlargement Plan

Sheet L122 Materials Enlargement Plan

Sheet L123 Materials Enlargement Plan

Sheet L124 Materials Enlargement Plan

Sheet L125 Materials Enlargement Plan

Sheet L126 Materials Enlargement Plan

Sheet L127 Materials Enlargement Plan

Sheet 140 Overall Grading and Drainage plan

Sheet L141 Grading and Drainage Enlargement Plan

Sheet L142 Grading and Drainage Enlargement Plan

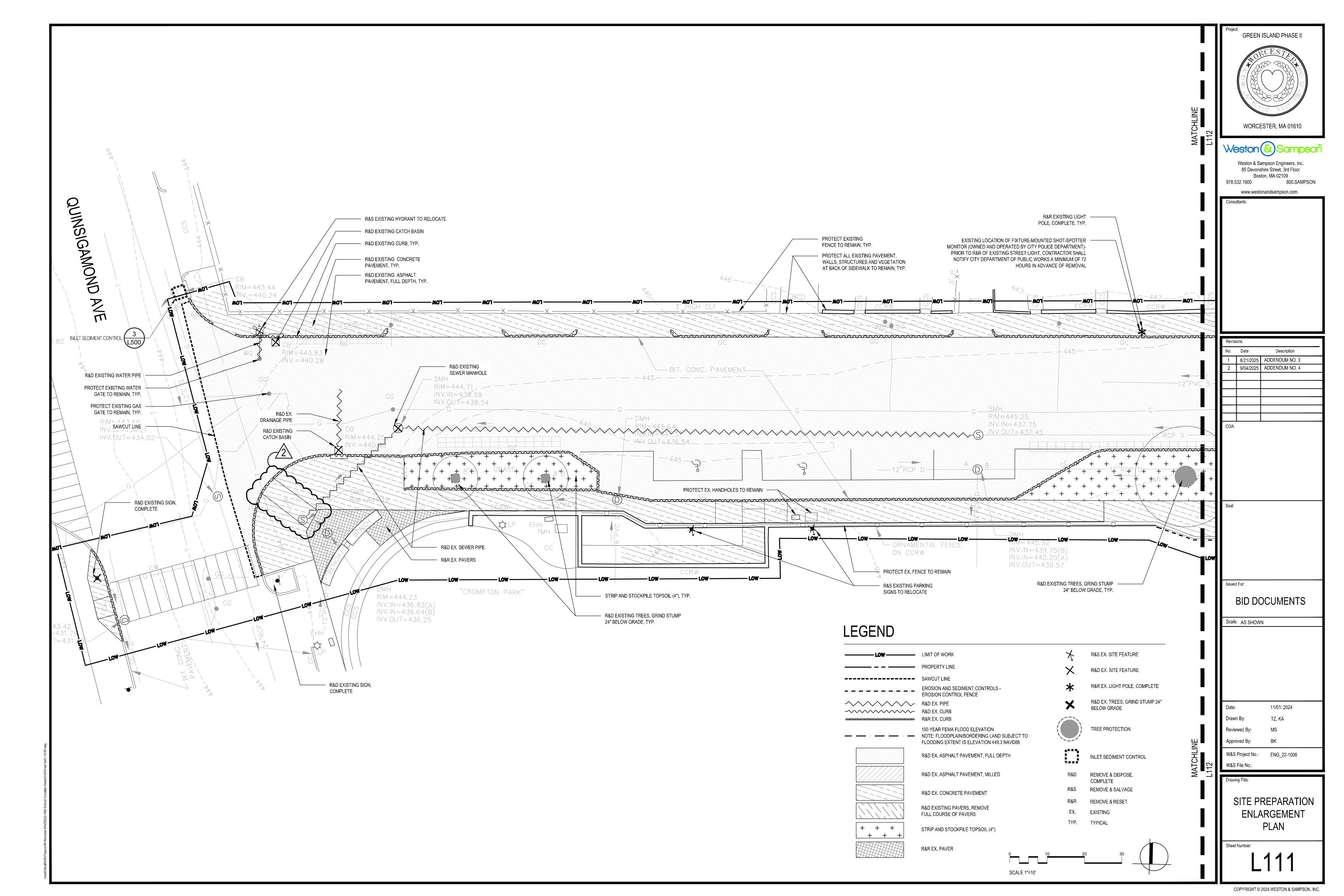
Sheet L151 Planting Enlargement Plan

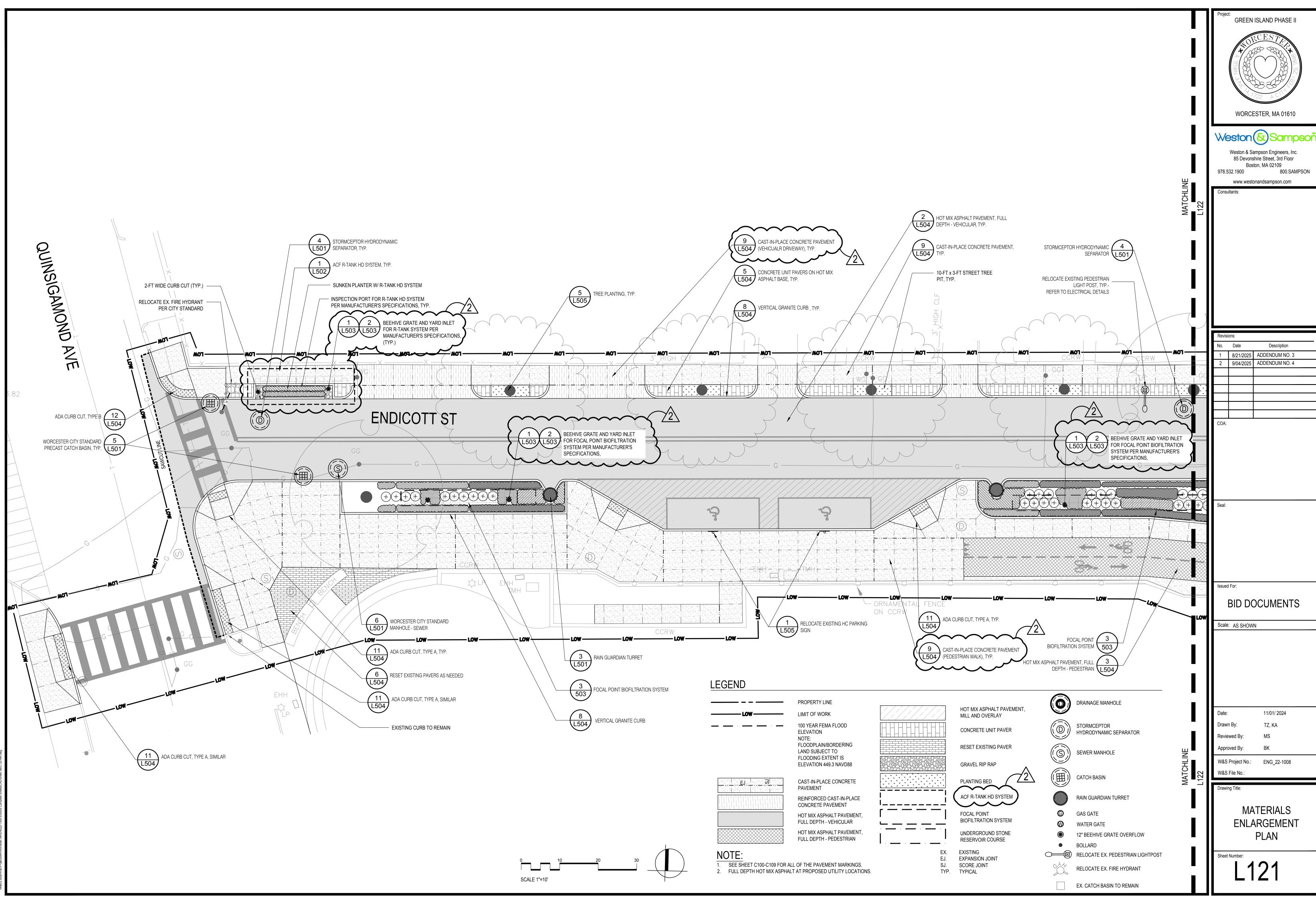
Sheet L152 Planting Enlargement Plan

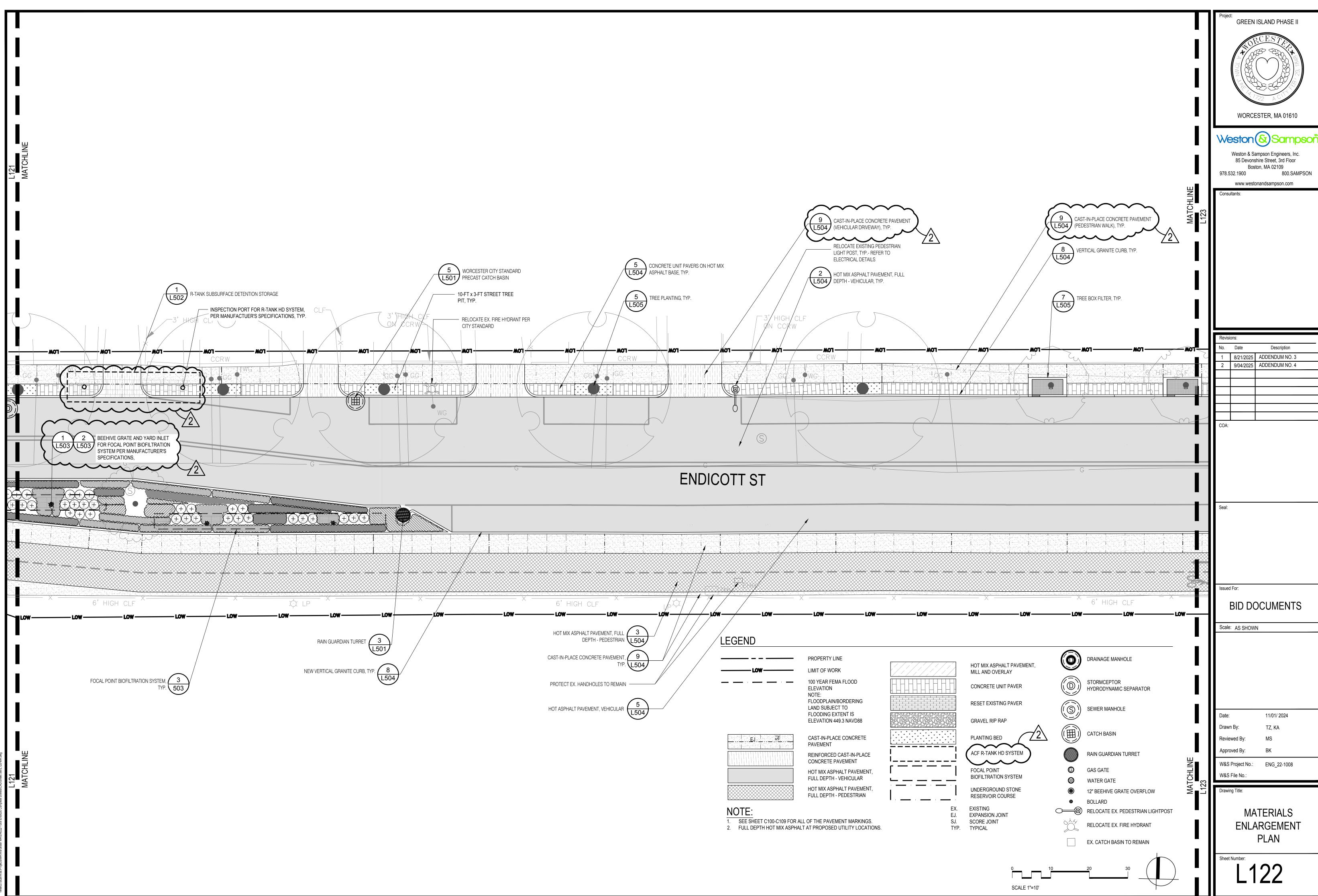
Sheet L502 Construction Details

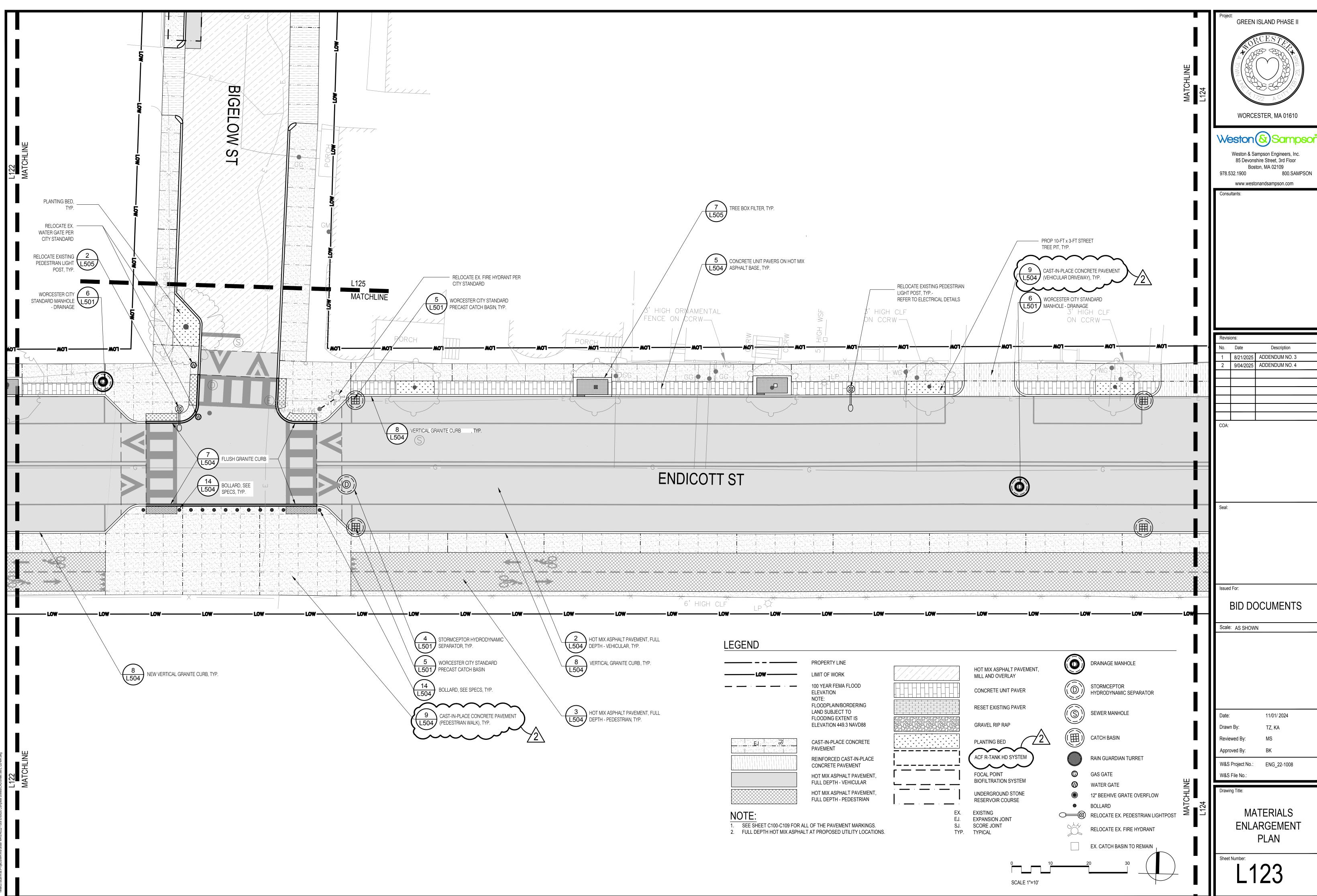
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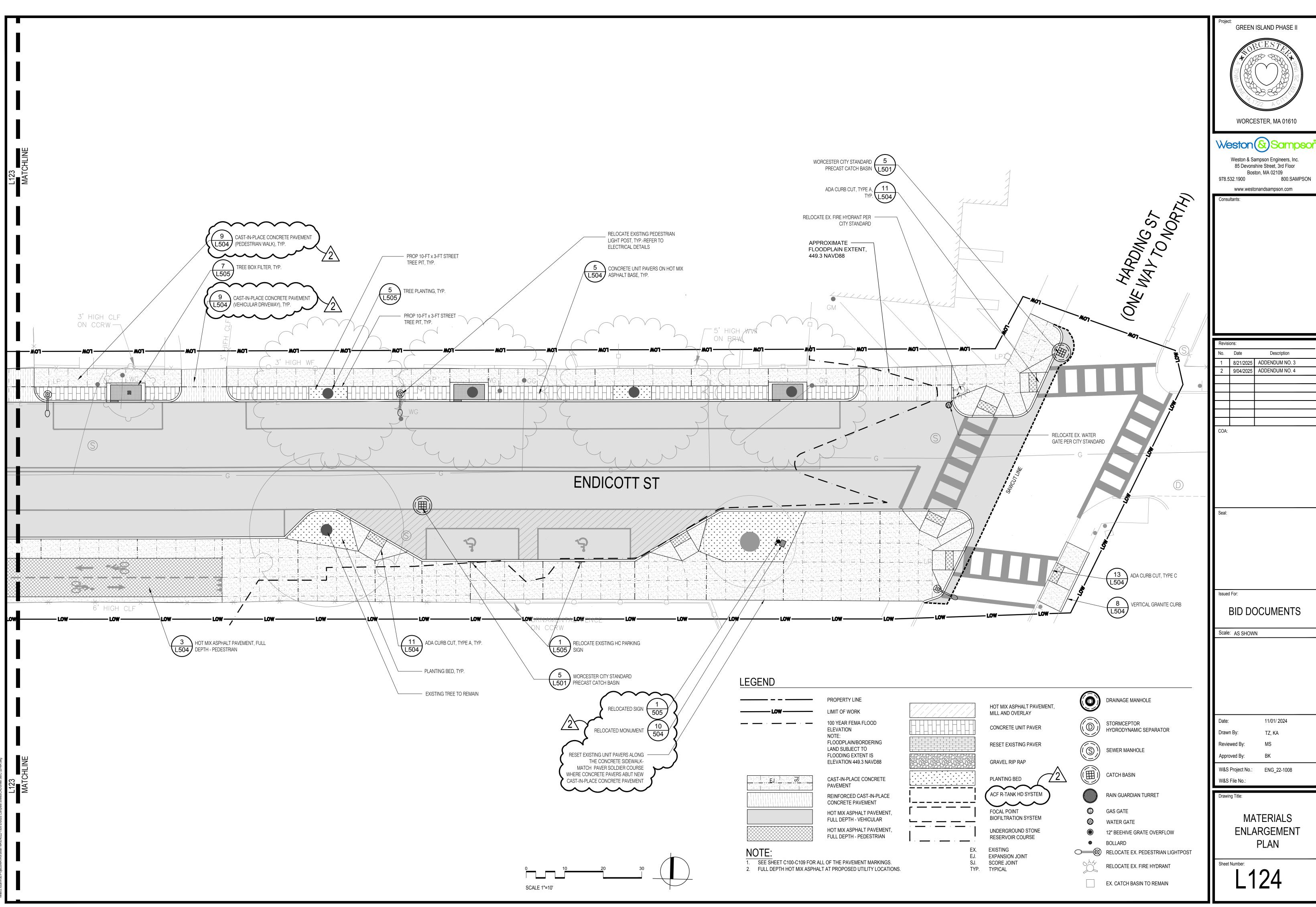
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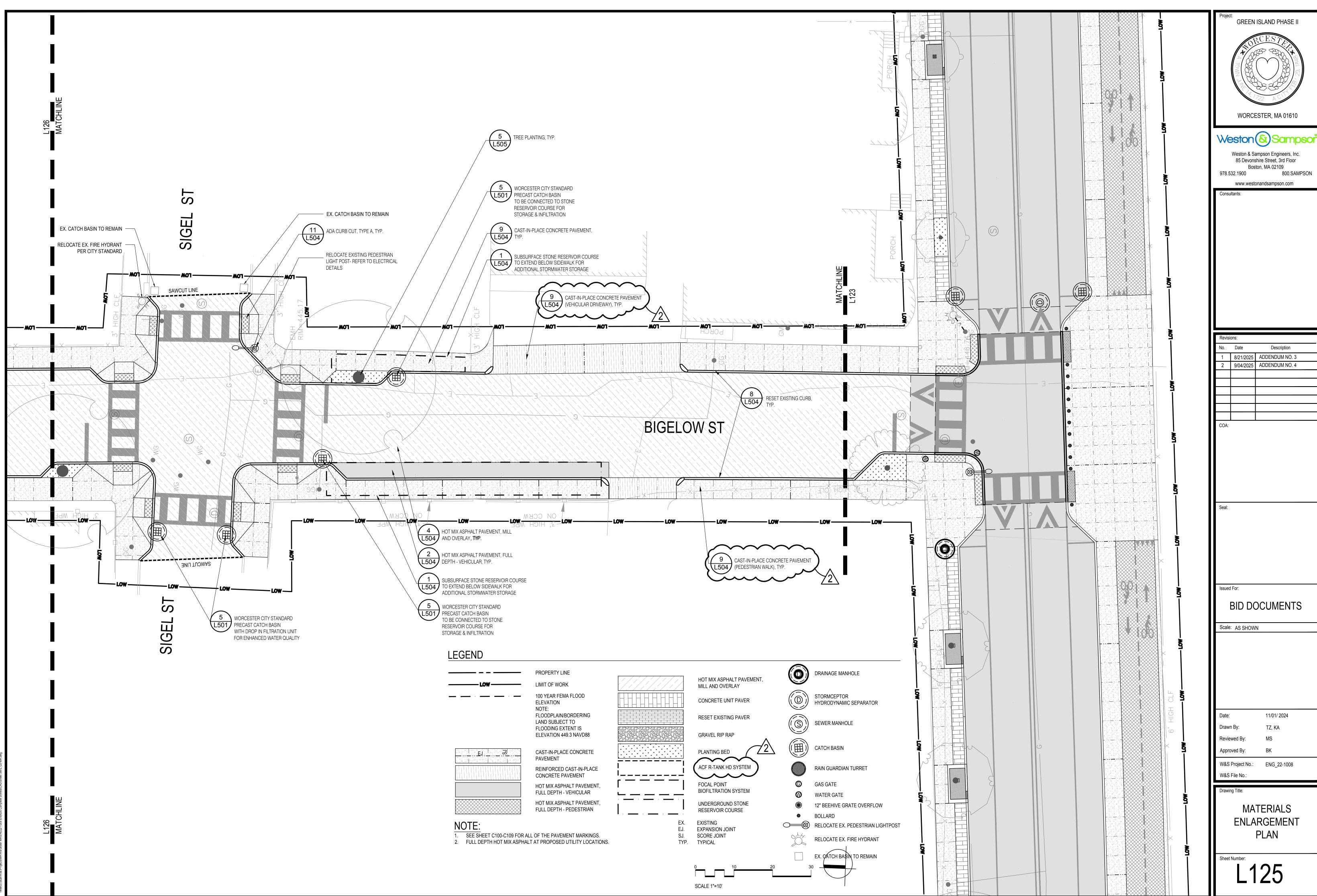


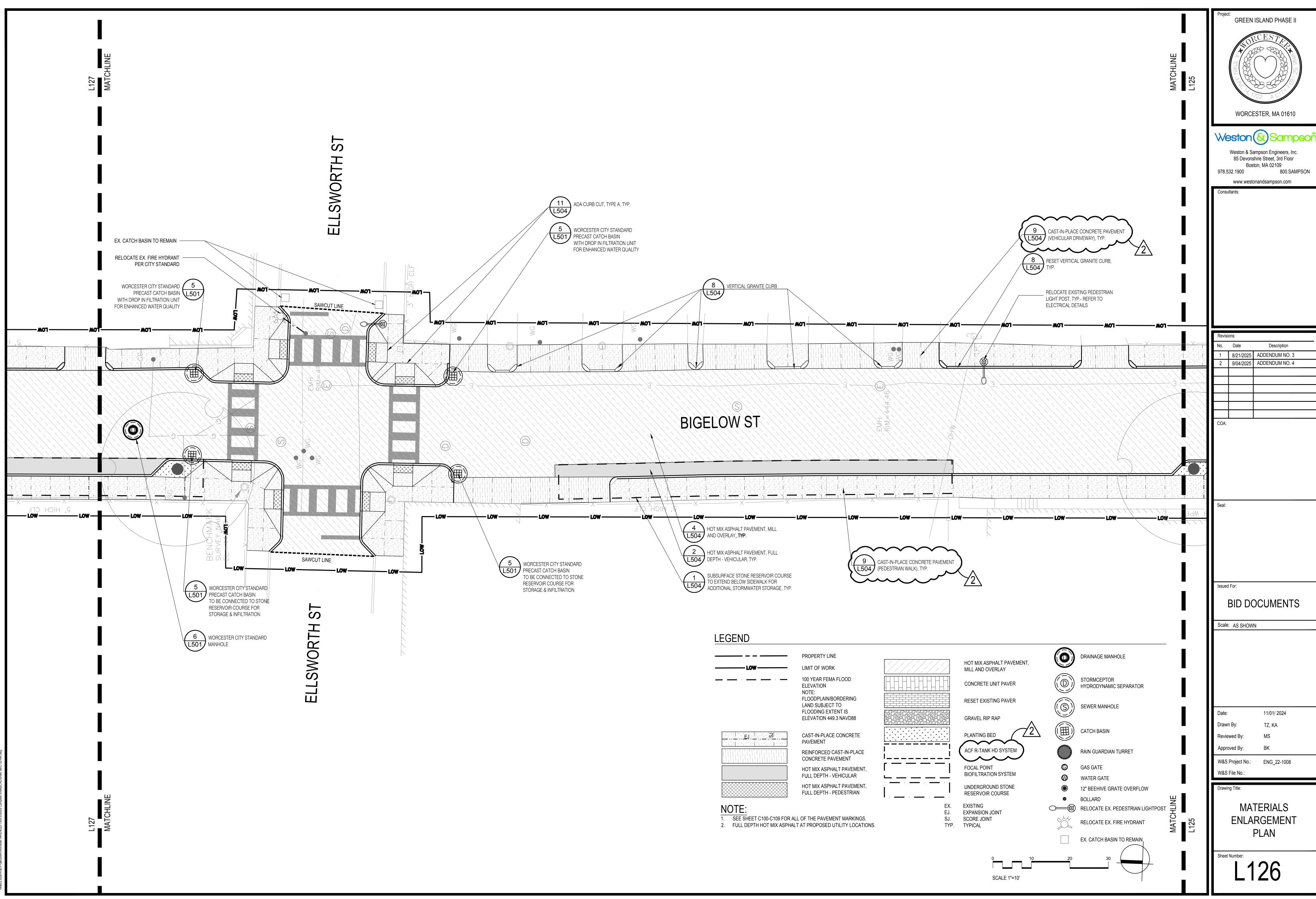


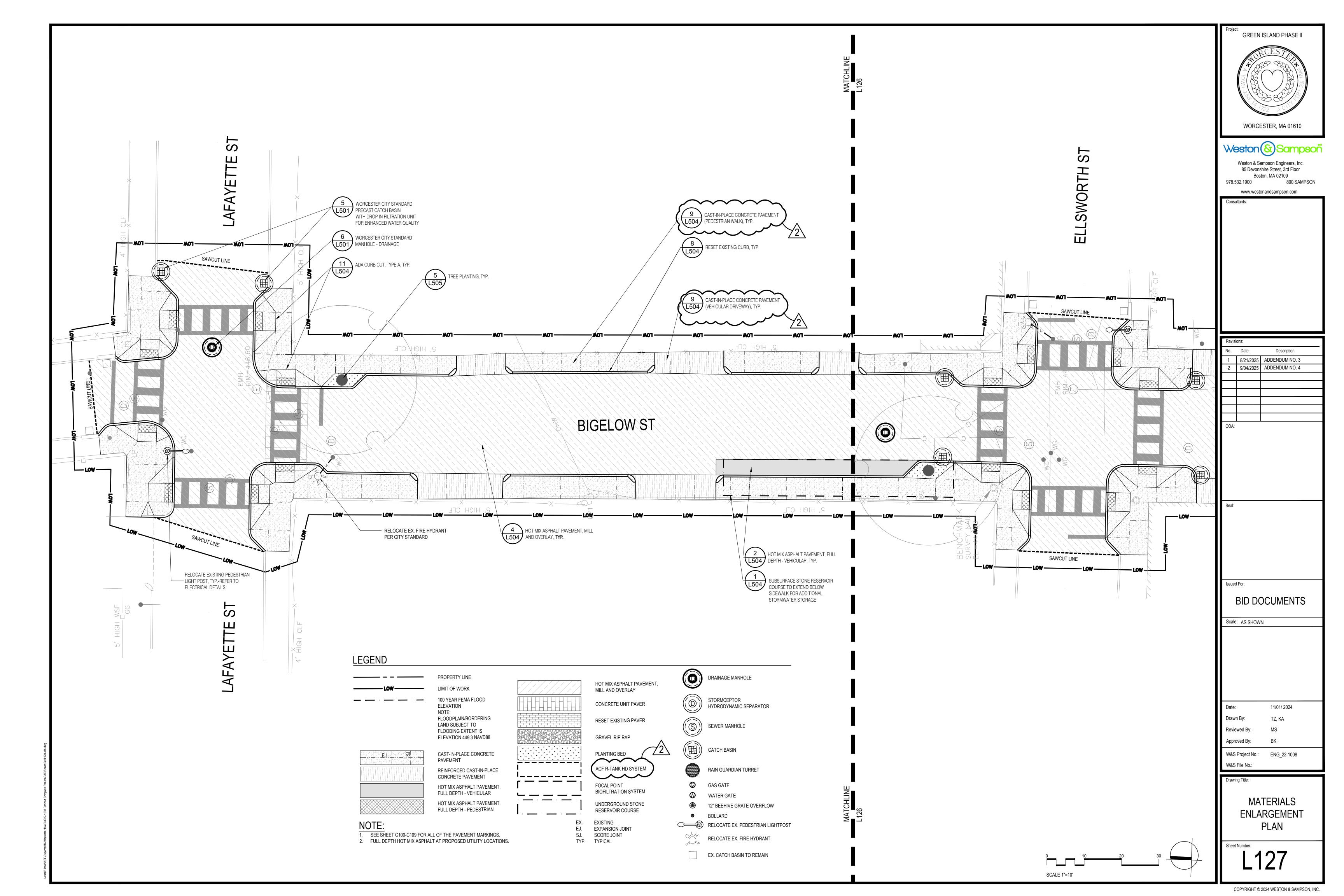


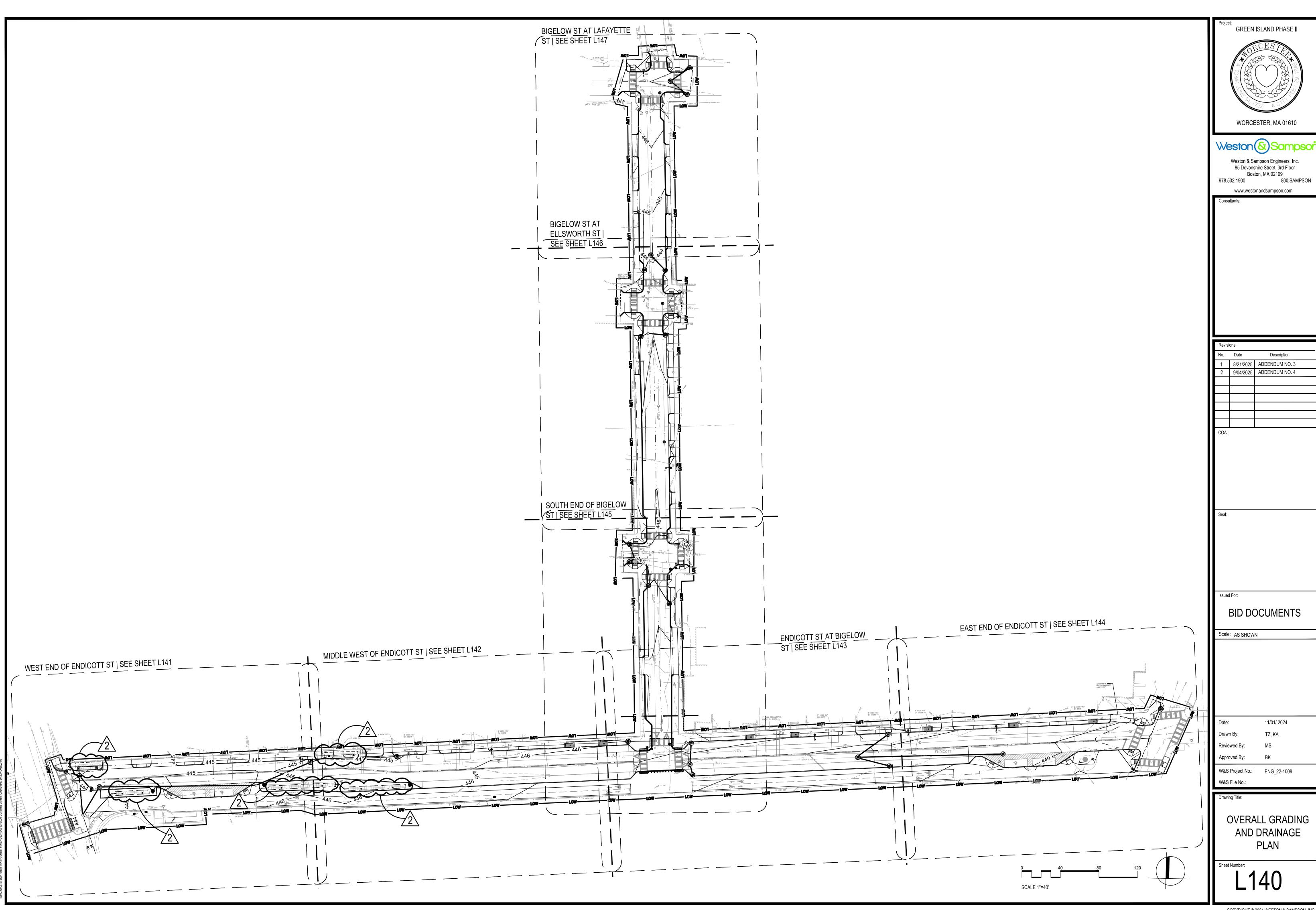


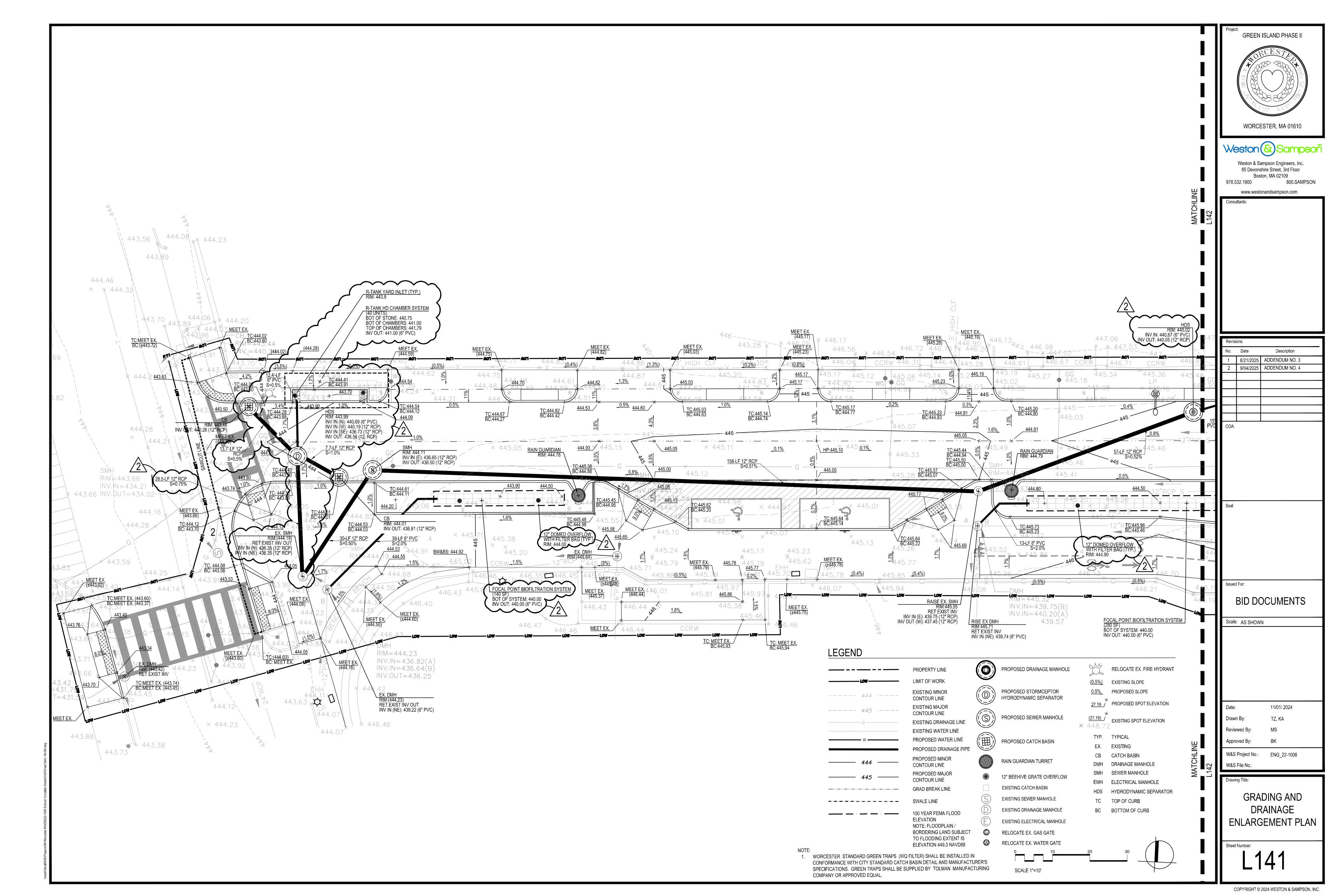


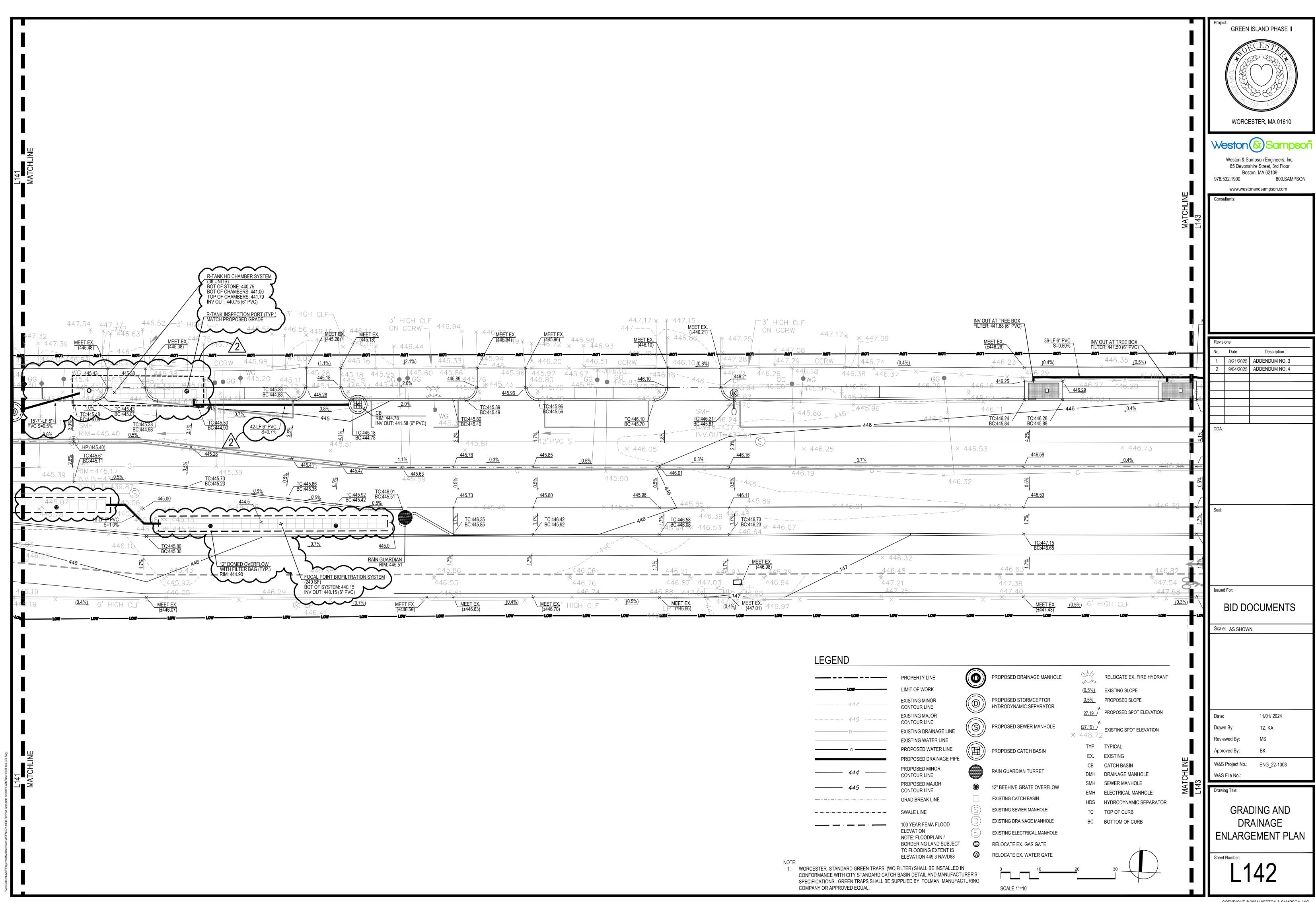


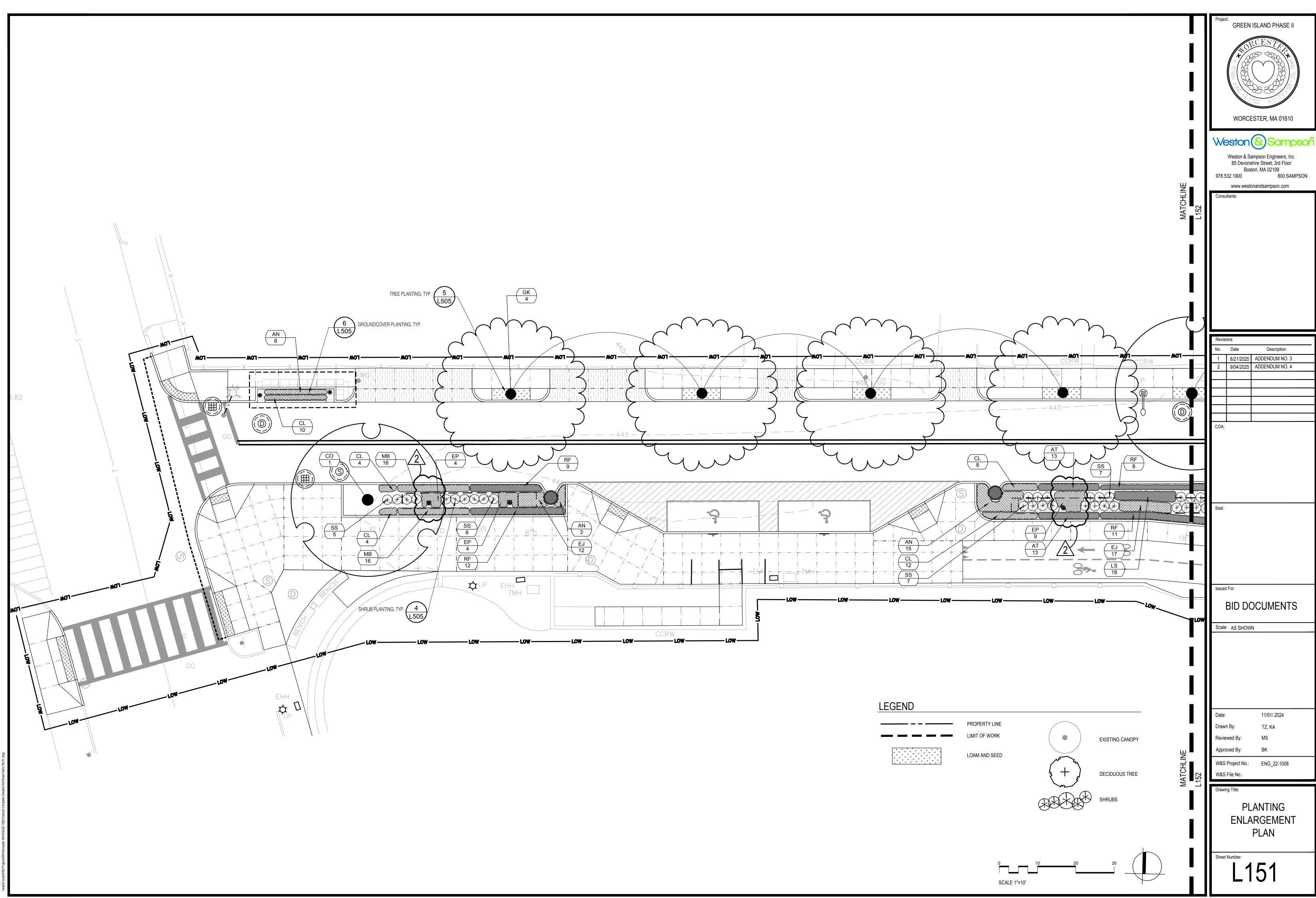


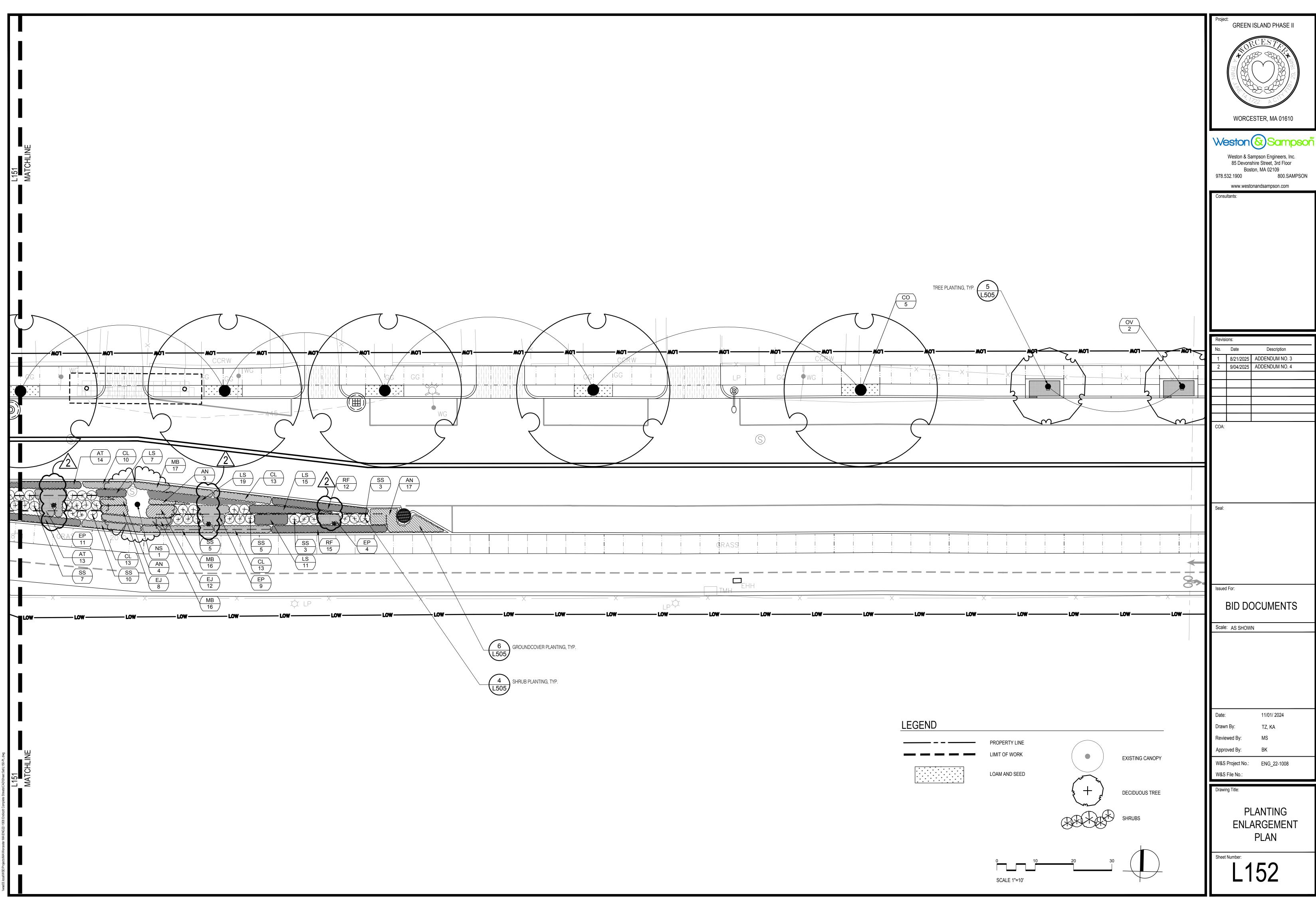


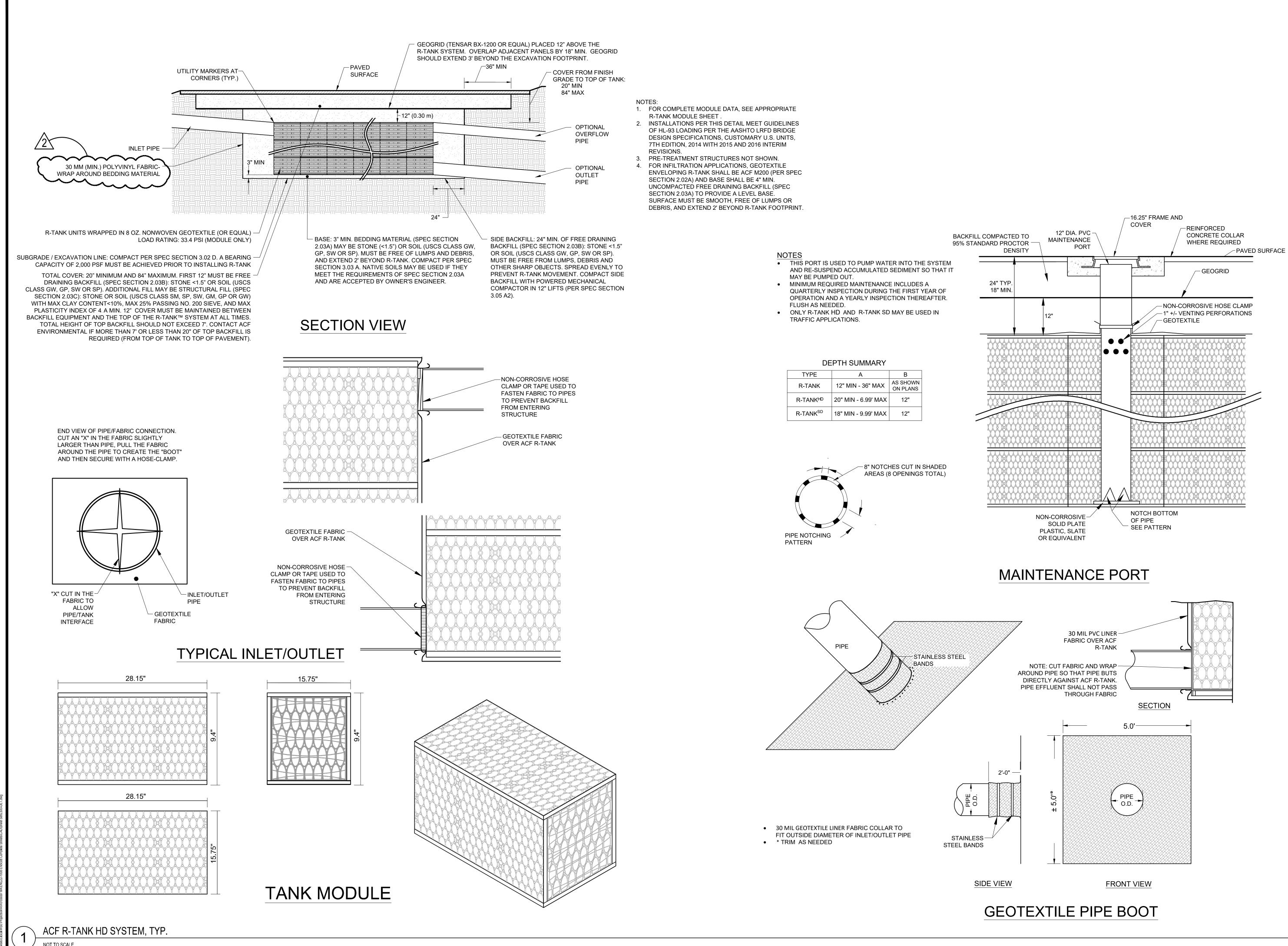












Project:

GREEN ISLAND PHASE II

WORCESTER, MA 01610

Weston & Sampson

Weston & Sampson Engineers, Inc. 85 Devonshire Street, 3rd Floor Boston, MA 02109 978.532.1900 800.SAMPSON

www.westonandsampson.com

Consultants:

Revisions:

No. Date Description

1 8/21/2025 ADDENDUM NO. 3

2 9/04/2025 ADDENDUM NO. 4

COA:

BID DOCUMENTS

Scale: AS SHOWN

Date: 11/01/2024

Drawn By: TZ, KA

Reviewed By: MS

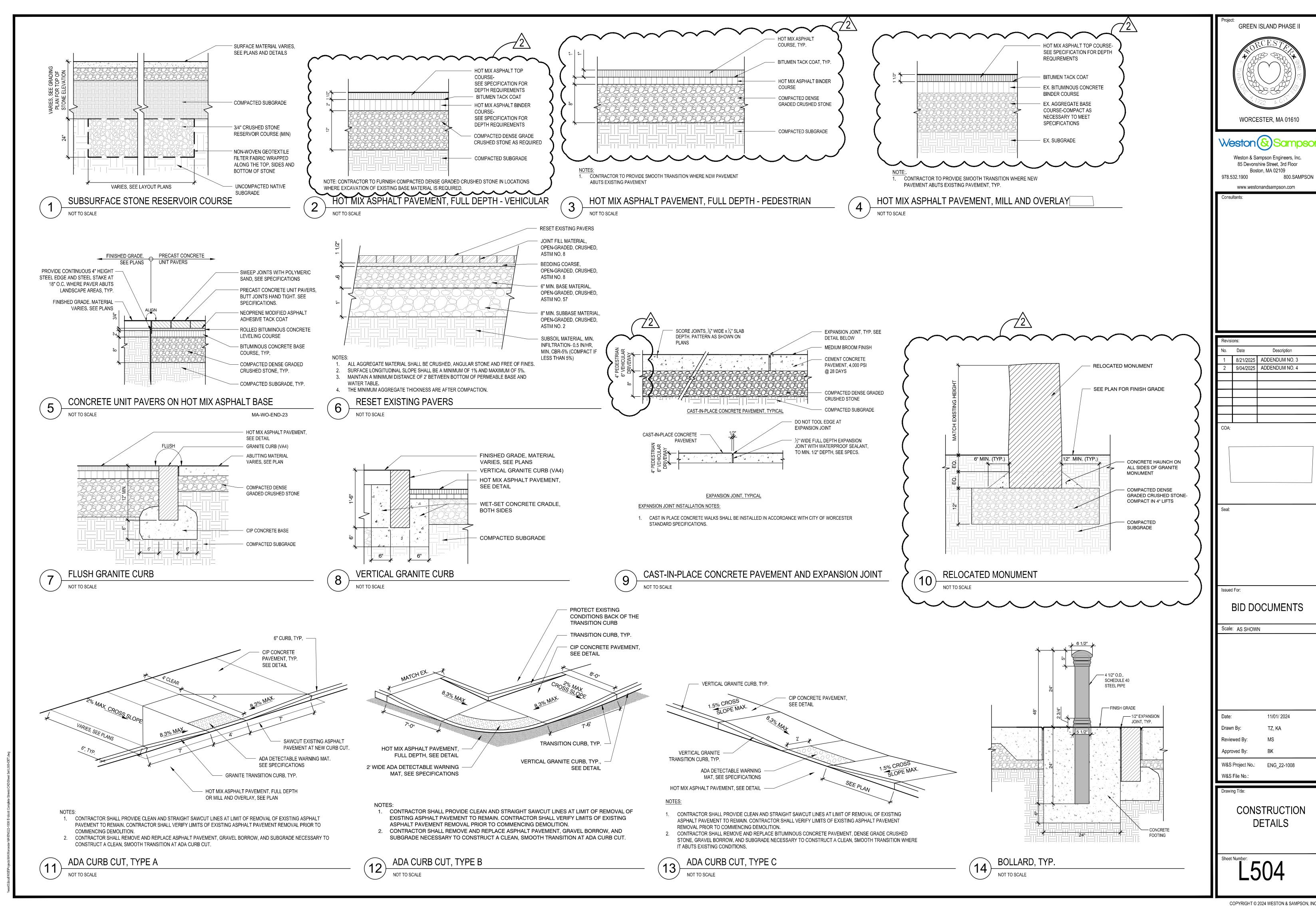
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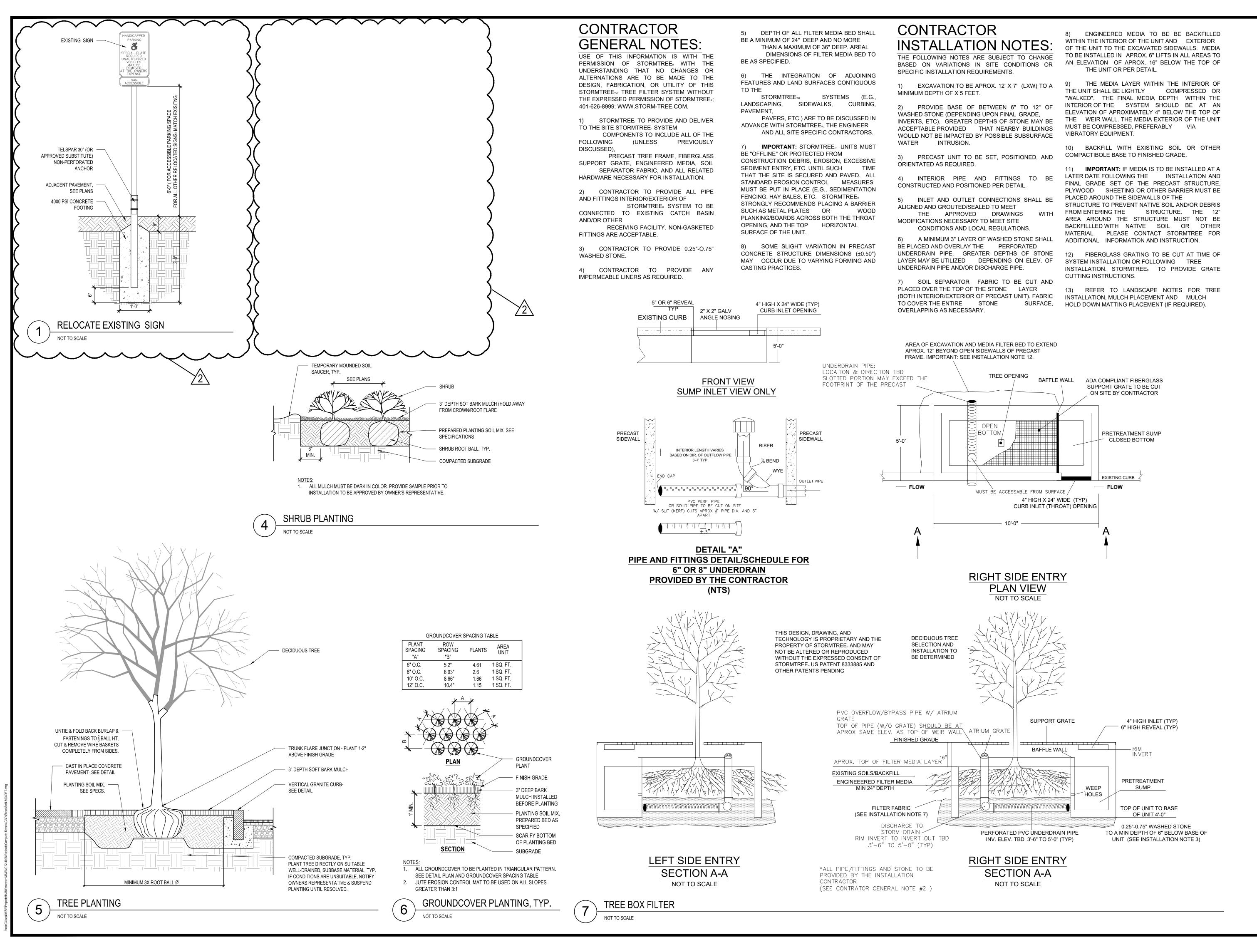
W&S Project No.: ENG_22-1008
W&S File No.:

Drawing Title:

CONSTRUCTION DETAILS

L502





GREEN ISLAND PHASE II

WORCESTER, MA 01610

Weston & Sampson

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11/01/ 2024 By: TZ, KA

Reviewed By: MS

Approved By: BK

W&S Project No.: ENG_22-1008

W&S File No.:

Drawing Title:

CONSTRUCTION DETAILS

L505

GENERAL NOTES:

- 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF WORCESTER DPW'S STANDARD SPECIFICATIONS, AND THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFCIATIONS FOR HIGHWAYS AND BRIDGES.
- 2. CONTRACTOR SHALL PROVIDE ALL REQUIRED EQUIPMENT, MATERIALS, LABOR AND SERVICES AND PERFORM ALL OPERATIONS TO COMPLETE THE CONSTRUCTION WORK FOR THIS PROJECT. ANY WORK NOT SPECIFICALLY COVERED BY THESE SPECIFICATIONS OR INDICATED ON THE CONTRACT DRAWINGS, BUT NECESSARY TO COMPLETE OR PERFECT ANY PART OF THIS INSTALLATION IN A SUBSTANTIAL MANNER, SHALL BE PROVIDED WITHOUT EXTRA COST TO THE OWNER.
- 3. THE WORK SHALL CONFORM TO THE MORE STRINGENT OF ALL APPLICABLE CODES & REGULATIONS, UL AND FM GUIDELINES (AS APPLICABLE), MANUFACTURER'S LITERATURE AND RECOMMENDATIONS, BUILDING OPERATOR'S REQUIREMENTS, AND TO THE REQUIREMENTS OF FEDERAL, STATE AND LOCAL REGULATORY AGENCIES AND AUTHORITIES HAVING JURISDICTION. PROJECTS PURSING LEED, PASSIVE HOUSE, FITWEL OR OTHER SUSTAINBILITY CERTIFATIONS SHALL CONFORM TO ALL APPLICABLE REQUIREMENTS.
- 4. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE EXTENT, GENERAL CHARACTER, LOCATION AND ARRANGEMENT OF THE WORK UNDER THIS CONTRACT. EXACT LOCATIONS OF ALL COMPONENTS ARE TO BE DETERMINED IN THE FIELD AND BY THE ACTUAL BUILDING CONDITIONS. WHERE JOB CONDITIONS REQUIRE MINOR CHANGES OR ADJUSTMENTS IN THE INDICATED LOCATIONS OR ARRANGEMENT OF THE WORK, SUCH CHANGES SHALL BE PROVIDED WITHOUT EXTRA COST. THE CONTRACTOR SHALL RE-INSTALL EQUIPMENT THAT HAS INADEQUATE OR UNSAFE ACCESSIBILITY.
- 5. THE TERM "FURNISH" SHALL MEAN TO OBTAIN AND SUPPLY TO THE JOB SITE. THE TERM "INSTALL" SHALL MEAN TO FIX IN POSITION AND CONNECT FOR USE. THE TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL. THE TERM "MECHANICAL WORK", "ELECTRICAL WORK", "PLUMBING WORK", ETC. SHALL MEAN ALL LABOR, MATERIAL, EQUIPMENT, SCAFFOLDING, RIGGING, TOOLS, SUPERVISION, SERVICES AND OTHER INCIDENTALS NECESSARY FOR COMPLETE AND OPERABLE INSTALLATION.
- 6. THE CM/GC SHALL MAKE SETS OF THE BID DOCUMENTS CONSISTING OF COMPLETE SETS OF DRAWINGS AND SPECIFICATIONS; AND ISSUE THEM TO EACH OF THE PRIME AND SUB-CONTRACTORS. EVERY PRIME AND SUB-CONTRACTOR ON EACH BIDDING TEAM SHALL RECEIVE COMPLETE SETS OF DRAWINGS AND SPECIFICATIONS. THERE ARE NOTES AND CROSS REFERENCES FOR VARIOUS TRADE CONTRACTORS IN MULTIPLE TRADE OR DISCIPLINE DRAWINGS AND SPECIFICATIONS, THUS, EACH CONTRACTOR IS TO RECEIVE COMPLETE SETS OF THE BID DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THESE DRAWINGS FROM CM/GC. EACH CONTRACTOR IS RESPONSIBLE FOR THEIR WORK, AS NOTED ON THE OTHER DISCIPLINE DOCUMENTS. BIDDERS ARE RESPONSIBLE FOR ALL COSTS FOR EACH SET OF BID DOCUMENTS REQUESTED.
- 7. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A FULL COORDINATION EFFORT IN ORDER TO CREATE A FINALIZED COORDINATED LAYOUT OF ALL EQUIPMENT, SYSTEMS, DUCTWORK, PIPING AND ALL OTHER ITEMS WITHIN THEIR RESPECTIVE SCOPE. THE CONTRACTOR'S COORDINATION EFFORT SHALL INCLUDE COORDINATED INFORMATION FROM ALL OTHER TRADE CONTRACTOR'S INVOLVED IN THE PROJECT SCOPE IN ORDER TO PROVIDE COORDINATION BETWEEN TRADES AND ALL EXISTING CONDITIONS. ALL ERRORS MADE AS A RESULT OF A LACK OF COORDINATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND CORRECTED AT NO ADDITIONAL COST TO THE PROJECT. MINOR RELOCATIONS AND SHIFTS OF EQUIPMENT AND PIPING WHICH DO NOT CHANGE THE DESIGN INTENT INDICATED ON THE CONTRACT DOCUMENTS, REQUIRED TO ACCOMMODATE FIELD CONDITIONS ARE AT THE CONTRACTORS DISCRETION AND DO NOT REQUIRE ENGINEER APPROVAL.
- 8. CONTRACTOR SHALL ARRANGE AND OBTAIN ALL PERMITS, INSPECTIONS AND APPROVALS, AND PAY ALL RELATED FEES.
- 9. THE DRAWINGS INDICATE APPROXIMATE LOCATIONS. THEREFORE, THE CONTRACTOR SHALL INCLUDE IN THEIR BID CONTINGENCY COSTS TO ADDRESS CONFLICTS BETWEEN DESIGN AND EXISTING CONDITIONS. ANY CHANGES AND/OR MODIFICATIONS MUST BE REVIEWED AND APPROVED BY THE ENGINEER AND/OR OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- 10. FOR ANY DISCREPANCY BETWEEN DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL BASE THEIR BID UPON THE MOST STRINGENT REQUIREMENT (QUALITY, QUANTITY, SIZE, ETC.). THE CONTRACTOR SHALL IDENTIFY DISCREPANCIES AS PART OF THEIR BID.
- 11. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL LOG ALL EXISTING EQUIPMENT AND TRACE ELECTRICAL CIRCUITS SERVING EXISTING LIGHTING POLES.
- 12. ALL SERVICES TO EXISTING BUILDINGS SHALL BE MAINTAINED DURING CONSTRUCTION UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL COORDINATE ALL SYSTEM SHUT DOWNS AND TIMING WITH OWNER AND UTILITY.
- 13. THE CONTRACTOR SHALL EFFECTIVELY PROTECT ALL MATERIALS AND EQUIPMENT FROM ENVIRONMENTAL AND PHYSICAL DAMAGE UNTIL FINAL ACCEPTANCE. CLOSE AND PROTECT ALL OPENINGS DURING CONSTRUCTION. PROVIDE NEW MATERIALS AND EQUIPMENT TO REPLACE ITEMS DAMAGED.
- 14. EXISTING EQUIPMENT THAT INTERFERES WITH NEW ARRANGEMENT SHALL BE REMOVED, REINSTALLED, RELOCATED, REROUTED, EXTENDED OR ABANDONED AS REQUIRED, TO SUIT THE NEW ARRANGEMENT.
- 15. PROVIDE CUTTING AND PATCHING AS REQUIRED AND WHERE NECESSARY TO ACCOMMODATE NEW WORK AND THE REPAIR OF EXISTING WORK.
- 16. WHEN WORK INVOLVES CONTACT WITH MATERIALS CONTAINING ASBESTOS, PCB, OR OTHER TOXIC MATERIALS,
- 17. CONTRACTOR SHALL SCHEDULE THE WORK UNDER THIS CONTRACT WITH WORK OF OTHER TRADES AS NOT TO

NOTIFY OWNER, WHO WILL ESTABLISH PROCEDURES FOR REMEDIATION AND REMOVAL.

- DELAY THE OVERALL PROGRESS OF THE PROJECT.

 18. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS PRIOR TO PURCHASING EQUIPMENT AND
- PRIOR TO CUTTING OPENINGS.

 19. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS PER SPECIFICATIONS PRIOR TO PURCHASING OR INSTALLING

EQUIPMENT AND SYSTEMS INDICATED ON CONTRACT DOCUMENTS. PRIOR TO SUBMITTAL, CONTRACTOR SHALL

- VERIFY THAT ADEQUATE SPACE EXISTS FOR THE SUBMITTED EQUIPMENT. SHOP DRAWINGS MUST BE REVIEWED BY ARCHITECT/ENGINEER.

 20. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY OTHER TRADES DUE TO SUBSTITUTION OF
- ADDITIONAL ELECTRICAL SERVICE, STRUCTURAL AND RELATED WORK SHALL BE PAID BY THIS CONTRACTOR.

 21. ALL WORK SHALL BE EXECUTED IN A NEAT AND WORKMANLIKE MANNER AND SHALL BE DONE IN ACCORDANCE WITH

GOOD TRADE PRACTICE AND IN CONFORMANCE WITH APPLICABLE MANUFACTURERS' RECOMMENDATIONS.

OTHER THAN SCHEDULED EQUIPMENT. WHEN EQUIPMENT FURNISHED IS DIFFERENT THAN INDICATED, THE COST OF

- 22. CONTRACTOR SHALL REMOVE ALL TRASH, DEBRIS AND DEMOLITION MATERIAL FROM PREMISES AT THE END OF EACH
- 23. RESTORE ALL SURFACES THAT ARE DAMAGED BY THE WORK OF THIS CONTRACT TO THEIR ORIGINAL CONDITION AT
- NO EXTRA COST TO THE OWNER.
- 24. IN THE ABSENCE OF OTHER SPECIFIC INSTRUCTIONS, ALL WORK AND MATERIALS SUPPLIED SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF THEIR ACCEPTANCE BY THE OWNER.
- 25. BALA CONSULTING ENGINEERS, INC. (BALA) WILL PROVIDE CONTRACTOR WITH ELECTRONIC CADD FILES OF THE ENGINEERING DESIGNS FOR THE SOLE USE IN EXPEDITING SHOP DRAWINGS. BALA'S FILES SHALL NOT BE DIRECTLY COPIED AND ISSUED AS SHOP DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD COORDINATION, DIMENSIONING AND ADHERENCE TO THE SHOP DRAWING REQUIREMENTS AS NOTED IN THE SPECIFICATIONS. SHOULD THE SHOP DRAWINGS SUBMITTED PROVE TO BE A DIRECT COPY OF OUR FILES WITHOUT THE NECESSARY FIELD COORDINATION, DIMENSIONING AND ADHERENCE TO THE SHOP DRAWING REQUIREMENTS AS NOTED IN THE SPECIFICATIONS, THESE SHOP DRAWINGS WILL BE RETURNED AS REJECTED. BALA'S ELECTRONIC FILES ARE CREATED IN AUTOCAD OR REVIT BASED ON THE PROJECT'S DOCUMENTATION REQUIREMENTS. BALA MAKES NO REPRESENTATION AS TO THE COMPATIBILITY OF THESE FILES WITH THE CONTRACTOR'S HARDWARE OR THEIR SOFTWARE. DATA CONTAINED ON THESE ELECTRONIC FILES ARE PART OF BALA'S "INSTRUMENTS OF SERVICE" AND ARE COPYRIGHTED. CONTRACTOR'S USE OF FILES IS FOR THE SOLE PURPOSE AS A CONVENIENCE IN THE PREPARATION OF DRAWINGS FOR THE REFERENCED PROJECT. ANY OTHER USE OR REUSE BY CONTRACTOR IS UNLAWFUL.

ELECTRICAL DEMOLITION NOTES:

- 1. UNLESS OTHERWISE NOTED ALL ELECTRICAL EQUIPMENT IN THE AREAS TO BE RENOVATED SHALL BE DEMOLISHED TO CLEAR FOR NEW CONSTRUCTION. ELECTRICAL EQUIPMENT SHALL INCLUDE BUT NOT LIMITED TO: DEVICES, CONDUIT, WIRE, DISCONNECTS, AND ALL APPURTENANCES TO THE ABOVE.
- 2. THE ELECTRICAL CONTRACTOR (E.C.) SHALL REVIEW THE DEMOLITION PLANS OF ALL TRADES FOR ADDITIONAL ELECTRICAL EQUIPMENT TO BE REMOVED THAT IS NOT SHOWN IN THIS DRAWING. THE E.C. SHALL DISCONNECT AND REMOVE ALL ELECTRICAL APPURTENANCES ASSOCIATED WITH THIS EQUIPMENT. SEE MECHANICAL AND PLUMBING DEMOLITION DRAWINGS.
- 3. THE E.C. SHALL TRACE AND FIELD VERIFY ALL CONDUIT AND WIRING RUNS IN THE AREA DESIGNATED TO BE DEMOLISHED AND DETERMINE WHICH CIRCUITS EFFECT AREAS OUTSIDE THE DEMOLITION ZONE. WHERE CIRCUITS INCLUDING BUT NOT LIMITED TO FIRE ALARM, SECURITY, POWER, LIGHTING, ETC, ARE DETERMINED TO FEED OTHER AREAS TO REMAIN, THE E.C. SHALL REMOVE THE CONDUIT AND CABLE IN THE DEMOLITION ZONE AND REROUTE A NEW RUN OF CONDUIT AND CABLE TO RE-ESTABLISH THE EXISTING CIRCUIT INTEGRITY, INCLUDING FIRE ALARM LOOPS. NEW CONDUIT AND CABLE RUNS SHALL BE RUN THROUGH THE EXISTING BUILDING, OUTSIDE THE ENVELOPE OF DEMOLITION AREA.
- 4. BEFORE REMOVING ELECTRICAL EQUIPMENT, CONDUIT, OR CABLING WHICH MAY AFFECT OTHER AREAS, THE E.C. SHALL COORDINATE TIE OVER AND TRANSITION PERIODS WITH THE OWNER AND UTILITY.
- 5. THE DEMOLITION WORK TO BE DONE UNDER THIS PROJECT INCLUDES REMOVING EQUIPMENT AND MATERIALS AND PROVIDING LABOR AND SERVICES AND PERFORMING ALL OPERATIONS FOR DEMOLITION IN AREAS INDICATED ON DRAWINGS
- 6. THE E.C. SHALL PROVIDE ALL SCAFFOLDING, LADDERS, RIGGING, HOISTING, ETC., FOR THIS WORK, KEEP PREMISES FREE FROM RUBBISH AND REMOVE ALL ELECTRICAL RUBBISH FROM SITE.
- 7. ANY FUNCTIONING EQUIPMENT TO BE REMOVED BY DEMOLITION SHALL BE REVIEWED WITH OWNER TO DETERMINE IF IT SHOULD BE SAVED AND STORED. OWNER SHALL BE RESPONSIBLE FOR HANDLING OF EQUIPMENT TO OFF-SITE STORAGE LOCATION.

ELECTRICAL GENERAL NOTES:

- 1. ENTIRE INSTALLATION, INCLUDING MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL CONFORM WITH THE CURRENTLY ADOPTED NATIONAL ELECTRICAL CODE, WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS AND REGULATORY BODIES HAVING JURISDICTION OVER THIS WORK.
- THE ELECTRICAL CONTRACTOR SHALL CONFIRM THE LOCATIONS OF ALL UTILITIES. CONTRACTOR IS RESPONSIBLE
 FOR REPAIRING ANY DAMAGE TO EXISTING UTILITIES AND TO EXISTING EQUIPMENT OR SURFACE DAMAGED SHALL BE
 RESTORED TO ITS ORIGINAL CONDITION OR REPLACED.
- 3. AFTER HOURS SHUTDOWN WORK SHALL BE AT SUCH TIME AND IN SUCH MANNER AS DIRECTED BY THE OWNER. PROVIDE A MINIMUM ONE (1) WEEK NOTICE. WHERE SHUTDOWN PERIODS CANNOT BE OF DURATION TO ACCOMMODATE THE NEW WORK, THE ELECTRICAL CONTRACTOR SHALL PERFORM THE WORK IN A SERIES OF PRE PLANNED STAGES OF MINIMAL ALLOWABLE SHUTDOWN PERIODS. PROVIDE TEMPORARY FACILITIES TO ALLOW RE-ENERGIZING OF SERVICE BETWEEN WORKING STAGES.
- 4. THE ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY POWER AND LIGHTING FOR ALL WORK AREAS AND TRADES UNDER THIS CONTRACT AS REQUIRED FOR CONSTRUCTION OR AS REQUIRED TO MAINTAIN NORMAL OPERATIONS OF THE SITE ACTIVITIES. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL EQUIPMENT, MAKING ALL ARRANGEMENTS WITH THE UTILITY CO. WHERE ADEQUATE, EXISTING SERVICES MAY BE USED.
- 5. EXISTING ELECTRICAL EQUIPMENT THAT INTERFERES WITH NEW ARRANGEMENT SHALL BE REMOVED, REINSTALLED, RELOCATED, REROUTED, EXTENDED OR ABANDONED AS REQUIRED, TO SUIT THE NEW ARRANGEMENT. EXISTING ELECTRICAL EQUIPMENT THAT INTERFERES WITH NEW ARRANGEMENT SHALL BE REMOVED, REINSTALLED, RELOCATED. REROUTED, EXTENDED OR ABANDONED AS REQUIRED, TO SUIT THE NEW ARRANGEMENT.
- 6. DIVISION 26, OR EC SHALL BE USED INTERCHANGEABLY AND SHALL INDICATE WORK INCLUDED UNDER THE ELECTRICAL CONTRACTORS SCOPE.

UTILITY COORDINATION:

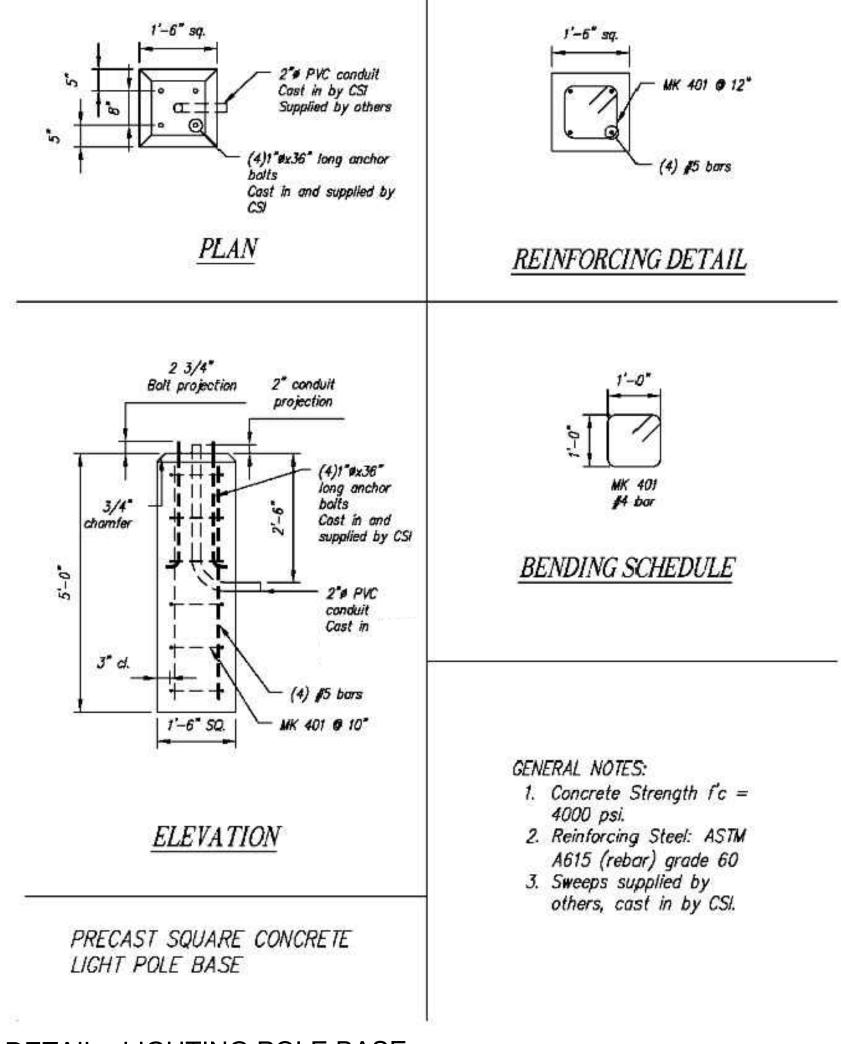
- 1. EXISTING LIGHTING POLES ARE ON UNMETERED SERVICES FOR WHICH THE CITY OF WORCESTER PAYS AN ANNUAL TARIFF PER LIGHTING POLE. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED COORDINATION WITH THE UTILITY FOR EXISTING UNDERGROUND CONDUIT AND WIRE AFFECTED BY THIS WORK, AND SHALL PAY ANY AND ALL UTILITY FEES.
- 2. APPROXIMATE NEW LOCATION OF CONDUIT AND WIRE IS SHOWN ON PLANS BUT SHALL BE FIELD COORDINATED. CIRCUIT TIE-IN POINTS FOR CONDUIT AND WIRE ASSOCIATED WITH STREET LIGHTING POLES NOT BEING REPLACED AS PART OF THIS PROJECT SHALL BE FIELD COORDINATED AND COORDINATED WITH DPW AND THE UTILITY.
- 3. PROVIDE TO THE UTILITY THE IDENTIFICATION NUMBER OF THE LIGHT POLES THAT ARE BEING REMOVED AND REINSTALLED. ALSO NOTIFY THE UTILITY OF THE ELECTRICAL MANHOLES WHERE NEW CIRCUIT CONNECTIONS ARE INTENDED TO BE MADE.

CONDUIT AND WIRE:

- 1. WIRE SHALL BE RHH-RHW AS SPECIFIED IN 26 00 00.
- 2. EXISTING CONDUIT AND WIRE SIZE, QUANTITY, AND ROUTE SHALL BE INVESTIGATED. QUANTITY AND SIZE OF WIRE IN NEW CONDUIT SHALL MATCH EXISTING. ASSUME WIRES ENTERING EXISTING POLES ARE MINIMUM #2 AWG AND THAT EACH POLE CONTAINS TWO 120/240V HOT LEGS AND ONE NEUTRAL.
- 3. NO SPLICING SHALL OCCUR WITHIN CONDUIT. PROVIDE SPLICES WITHIN NEW HANDHOLES. PROVIDE ALL NEW CONDUIT AND WIRE FOR NEW HANDHOLES AND RELOCATED LIGHTING POLES.
- 4. UNDERGROUND CONDUIT SHALL BE MINIMUM 24" BELOW GRADE. CONDUIT UNDER ROADWAYS SHALL BE CONCRETE
- 5. NEW CONDUITS SHALL BE SCHEDULE 80 PVC AND 2" TRADE SIZE MINIMUM UNLESS REQUIRED TO BE LARGER DUE TO FILL REQUIREMENTS.
- CONDUIT AND WIRE ROUTING, AND LOCATION OF HANDHOLES, SHOWN ON THE PLANS IS ONLY DIAGRAMMATICAL. FIELD COORDINATE ALL LOCATIONS AND ROUTING.
- 7. ALL NEW ELECTRICAL CONDUIT, WIRING, AND RELOCATED LIGHTING POLES SHALL BE GROUNDED IN ACCORDANCE WITH ANY UTILITY REQUIREMENTS.

RELOCATED LIGHTING POLES:

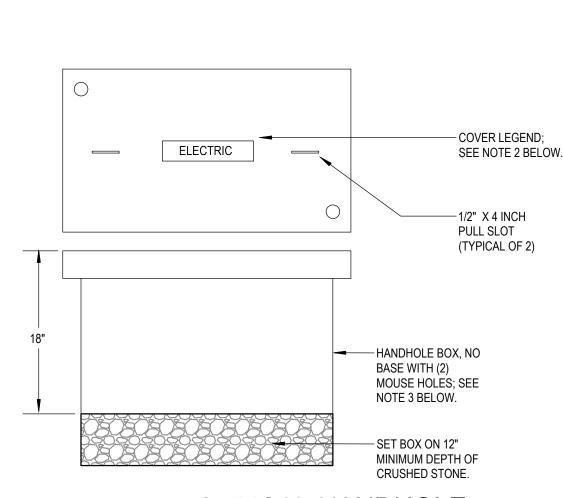
- 1. ELECTRICAL CONTRACTOR SHALL REMOVE, STORE, AND RELOCATE EXISTING STREET LIGHTING POLES AS INDICATED ON THE PLANS. STORE THE LIGHTING POLES AND CLEAN PRIOR TO INSTALLATION IN NEW LOCATIONS. UNLESS OTHERWISE NOTED, POLES SHALL BE RELOCATED TO THE NEW LOCATION THAT IS CLOSEST TO ITS PREVIOUS LOCATION. PROVIDE NEW LIGHTING POLE BASE IN ACCORDANCE WITH SPECIFICATIONS AND DETAIL THIS SHEET.
- EXISTING POLES ARE EQUIPPED WITH POLE-TOP PHOTOCELLS/CONTROLLERS. COORDINATE WITH WORCESTER DPW AND PROVIDE ALL COORDINATION AND WORK REQUIRED FOR ANY CHANGES TO PROGRAMMING OR PROPER OPERATION OF THE LIGHTING CONTROL SCHEME DURING THE COURSE OF WORK.
- 3. EXISTING LIGHTING POLES HAVE A HANDHOLE OPENING NEAR THEIR BASE. UPON RELOCATION, PROVIDE A NEW COVER AND FASTENER FOR THE HANDHOLE ON THE POLE. COVER SHALL BE DPW STANDARD. COORDINATE WITH DPW.
- 4. EACH RELOCATED LIGHTING POLE SHALL BE PROVIDED A NEW 1' x 2' HANDHOLE ADJACENT TO POLE. FIELD COORDINATE EXACT LOCATION OF HANDHOLE. PROVIDE 2" CONDUIT FROM HANDHOLE TO POLE AND CONDUIT BETWEEN HANDHOLES AS INDICATED ON PLAN. REFER TO HANDHOLE DETAIL FOR ADDITIONAL NOTES.
- 5. PROVIDE GROUNDING AND 10' GROUND ROD AT EACH POLE.



DETAIL - LIGHTING POLE BASE

NOTES:

1. PROVIDE NEW LIGHTING POLE BASE AND ANCHORAGE FOR ALL RELOCATED LIGHTING POLES.



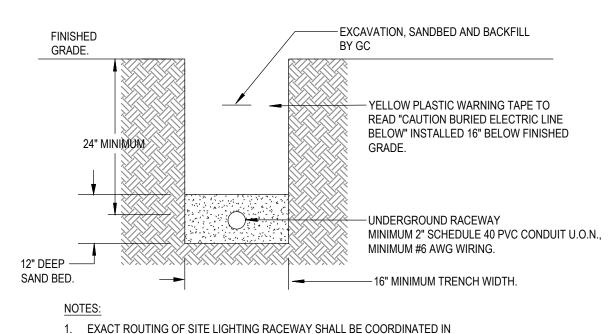
DETAIL - ELECTRICAL HANDHOLE

NOTES:

- PROVIDE PRECAST CONCRETE HANDHOLES PER SPECS AND WITH CONDUIT SIZES PER SITE PLAN.
- GASKETING LOCKING COVER ID SHALL READ: "ELEC" FOR POWER DISTRIBUTION.
- "ELEC" FOR POWER DISTRIBUTION.
 "LIGHTING" FOR SITE LIGHTING

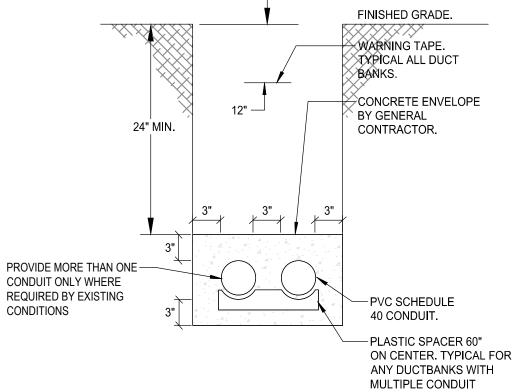
WIRING AND SPLICING

- HANDHOLE SIZES SHALL BE AS FOLLOWS:
 12" X 24" FOR SITE LIGHTING UNLESS SMALLER SIZE IS PERMITTED BY WORCESTER DPW AND IS ALSO SUFFICIENT SIZE FOR ANY INTERNAL
- 4. HANDHOLES SHALL BE AASHTO H20 RATED WITH CAST IRON COVER UNLESS OTHERWISE PERMITTED BY WORCESTER DPW UPON REQUEST

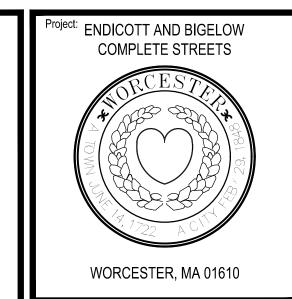


THE FIELD TO AVOID TREE PLANTINGS AND OTHER UNDERGROUND UTILITIES.

DETAIL - DIRECT BURIED CONDUIT



DETAIL - CONCRETE ENCASED DUCTBANK



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STRUCTURAL | TEP-INCLOPY | COMMISSIONING

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ELECTRICAL
GENERAL NOTES 8
DETAILS

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