

**CITY OF NEWTON, MASSACHUSETTS
PURCHASING DEPARTMENT
purchasing@newtonma.gov
Fax (617) 796-1227**

November 12, 2024

**ADDENDUM #2
INVITATION FOR BID #25-29**

ALBEMARLE PLAYGROUND IMPROVEMENTS PHASE I
--

THIS ADDENDUM IS TO AMEND THE FORM OF CONTRACT ATTACHED TO INVITATION FOR BID 25-29 (IFB), MAKE CHANGES TO THE PROJECT SPECIFICATIONS AND ANSWER THE QUESTIONS BELOW:

PART 1 - WRITTEN CHANGES AND CLARIFICATIONS TO SPECIFICATIONS

1.1 Contract Forms, CITY- CONTRACTOR AGREEMENT (Agreement), is amended as follows:

Section V of the Agreement is deleted:

V. **CONTRACT TERM.** The term of this Contract shall extend from day of contract execution through September 30, 2026. A termination due to non-appropriation or withdrawal of funds shall be effective as of the last day of the fiscal year in which such non-appropriation or decision to withdraw funding occurred, or as of the date when such appropriated and authorized funds are exhausted or withdrawn, whichever is later, without liability to the City for damages, penalties or other charges on account of such termination.

The following Section V is substituted therefor:

V. CONTRACT TERM

- A. The term of this Contract shall extend from day of contract execution through September 30, 2026. A termination due to non-appropriation or withdrawal of funds shall be effective as of the last day of the fiscal year in which such non-appropriation or decision to withdraw funding occurred, or as of the date when such appropriated and authorized funds are exhausted or withdrawn, whichever is later, without liability to the City for damages, penalties or other charges on account of such termination.
- B. The City and the Contractor recognize that the Contract Term so specified are of the essence of this Contract, and the City will suffer financial losses if the Work is not completed within the Contract Term specified plus any extensions authorized by Change Order. Accordingly, if the Contractor fails to complete the Work, or designated part of the Work, within the corresponding Contract Times, he shall pay the City liquidated damages in accordance with the penalties described in accordance with paragraph V.C.
- C. The Contractor agrees to allow the City to deduct from progress payments and retention and to pay to the City as liquidated damages, and not as a penalty, the amount of One Thousand, Five Hundred Dollars and No/Cents (\$1,500.00) for each calendar day that expires after the Contract Time specified in paragraph V.A. for Substantial Completion until the Work is Substantially

Complete. The Contractor further agrees to allow the City to deduct from progress payments or retention and to pay to the City as liquidated damages, and not as a penalty, the amounts designated subject to the terms and conditions specified, for each day that expires after each of the Contract Term specified for Substantial Completion or Partial Completion of each of those separable parts of the Work until each of the parts is so substantially or partially complete.

The final Agreement, as so amended, shall be substantially similar to that attached to the IFB.

1.2 Specification Section 11 68 33 – ATHLETIC FIELD EQUIPMENT, G

REMOVE:

1. Model # BSSNUC, 4” O.D., 3 ½” schedule 80 aluminum straight pole ball stopper system with standard coated black pole finish. Model BSSNUC Ultra Cross Knotless Dyneema UHMWPE netting, 1 ¾” square mesh with sewn rope binding on perimeter edges as manufactured by Sportsfield Specialties, Inc., PO Box 231, 41155 State Highway 10, Delhi, NY 13753 (888) 975-3343 www.sportsfieldspecialties.com or

REPLACE:

1. Model # BSS420 “STORMGUARD” professionally pre-engineered breakaway ball safety system, 4” O.D., 3 ½” schedule 80 aluminum straight pole ball stopper system with standard coated black pole finish. Model BSSNUC Ultra Cross Knotless Dyneema UHMWPE netting, 1 ¾” square mesh with sewn rope binding on perimeter edges as manufactured by Sportsfield Specialties, Inc., PO Box 231, 41155 State Highway 10, Delhi, NY 13753 (888) 975-3343 www.sportsfieldspecialties.com or

1.3 Technical Specifications and Appendices Table of Contents

ADD: Specification Section 33 46 23.02 – CONCRETE DRY FILTER BOX

1.4 Specification Section 01 56 26 – TEMPORARY CHAIN LINK FENCE, Part 2-Products, 2.01 A

REMOVE: Unless otherwise indicated, type of 8-foot temporary chain link fencing shall be Contractor's option.

REPLACE: Unless otherwise indicated, type of 6-foot temporary chain link fencing shall be Contractor's option.

1.5 Specification Section 11 68 33 – ATHLETIC FIELD EQUIPMENT

REMOVE:

- N. SAFETY FENCE TOP CAP (BASEBALL FIELD, SOFTBALL FIELD, AND TURF FIELD)
 1. Model # 125-107-249Y as manufacture red by Beacon Athletics, 8233 Forsythia St, STE 120, Middleton WI 53562, (800) 747-5985, www.beaconathletics.com Color shall be Safety Yellow. or
 2. Approved equal.

1.6 **ADD:** Specification Section 00 31 32 – SUBSURFACE DATA

1.7 **DELETE:** Specification Section 02 61 00.16 – HANDLING, REUSE, TRANSPORTATION, AND OFFSITE DISPOSAL OF EXCAVATED MATERIAL

REPLACE: Specification Section 02 61 00.16 – HANDLING, REUSE, TRANSPORTATION, AND OFFSITE DISPOSAL OF EXCAVATED MATERIAL per attachments

1.8 Specification Section 32 18 23.13 – INFIELD MIX

REMOVE:

2.01 GRAVEL BASE:

B. The 4-inch Gravel Base shall be in conformance with Section 31 23 00 Excavation, Borrow and Backfill.

REPLACE:

2.02 ROOT ZONE SAND:

A. The Root Zone Sand shall be in conformance with Section 31 00 00 EARTHWORK.

PART 2 - CHANGES AND CLARIFICATIONS TO THE CONTRACT DRAWINGS

2.1 **DELETE:** SHEETS L101, L102, L103, L104, L105, L501, L701, L702, L705

REPLACE: SHEETS L101, L102, L103, L104, L105, L501, L701, L702, L705 PER ATTACHMENTS

2.2 **ADD:** SHEETS L200A

PART 3 - QUESTIONS

Q1. Will you please provide the liquidated damages amount for this project?

A1. Liquidated damages shall be \$1,500 for each calendar day that expires after the Contract Time. Clarification of the liquidated damages has been included herein as an adjustment to the Contract Forms. See Section 1.1 above.

Q2. Please let me know what is the estimated value of the project.

A2. This City will not be providing an estimated project value as part of these Contract Documents.

Q3. The data for the existing topsoil does not have any sieve breakdown. Can't determine ratio of topsoil, sand and peat for rootzone blend with out it. Can you provide the mix ratio so everyone is bidding apples to apples?

A3. For bidding purposed, Contractor shall assume the import of new root zone mix within the limits of the athletic field areas as described on the plans. Contractor, at its own risk, may choose to test and amend existing topsoil to comply with root zone specifications.

Q4. : Can you clearly show the limits of the erosion control. There are many overlapping lines, hard to determine the limits?

A4. See Sheet L200A Erosion Control Diagram for clarification, per attachment.

Q5. There is a detail for turf boxes 5/L702. I can't find any on the plans. Can you clarify.

A5. The turf boxes shall be used at outlet control structure #4 because it is the only structure within the turf field. See sheet C100.

Q6. Many of your details are missing dimensions e.g.:

- Detail 12/L701 What is the depth of the wall below grade?
- Detail 13/L701 What is the height of the Kick Plate
- Detail 8/L702 I don't understand this detail. The grading plan shows the exposed height of wall going from 6" reveal to 0" reveal. The detail says that wall below grade is 1.5 times the exposed height. That doesn't make sense to me. Please clarify.
- Can you provide TOW and BOW for the West side

A6. See revised Sheets L701, L702, L501 per the attachments in this addendum.

Q7. Please clarify how the contaminated soil disposal is to be paid for? IS it going to be paid by the unit prices? If yes how is that going to effect the outcome of the bid?

A7. Given the site is net fill, we do not anticipate soil will be removed from the site. Should excavated materials require removal, costs associated with handling and off-site disposal shall be addressed through a change order negotiated with the Supplemental Unit Prices identified in the Bid Form. Any handling and off-site disposal shall be in accordance with Specification 02 61 00.16 and the Engineer's Release Abatement Measure Plan.

Q8. The existing contour lines do not have elevations on them. Seems like the plan only has spot grades. Can you provide?

A8. See revised Sheets L101, L102, L103, L104 and, L105 per attachment.

Q9. The Spec shows no liquidated damages on this project. Can you please confirm.

A9. See A1.

Q10. Which scoreboard is being relocated? And could you please confirm the overall size of the scoreboard and panel? We are not familiar with the existing scoreboard and I do not see any measurements or specific info in the bid documents. We'd need that information to accurately quote a replacement structure.

A10. The scoreboard to be relocated at Cole Softball Field is shown on sheet L103 adjacent to the end of the 3rd base foul line. The existing scoreboard is 9' wide by 7' tall and shall be relocated to the location shown on sheet L303. The bottom of the existing scoreboard panel shall be reinstalled at 12' from proposed finish grade. The Contractor shall salvage the existing scoreboard panel, as well as its post. The Contractor shall remove the existing footing from the post complete such that the salvaged post can be installed in a new footing. The Contractor shall furnish all materials and labor associated with a new foundation per Sheet L706 Detail 11 for the relocated scoreboard.

Q11. On Page 4 of the Project Manual on the above referenced project, Paragraph 8 reads:

“Note that Massachusetts law may impose certain documentation requirements for public contracts, including but not limited to, contractor DCAMM certification, bid, performance and payment bonds, and non-collusion and tax certifications.

Question: Can you please confirm if DCAMM certification is required by the General Contractor on this project.

A11. DCAMM certification is not required on this project. If the Contractor has DCAMM certification and would like to provide it, that is acceptable, but it is not required.

Q12. Is the storage shed from Reeds Ferry coming assembled?

A12. The storage shed will be delivered and installed by Reeds Ferry employees on site.

Q13: Specs mention orange separation fabric. I don't see any detail that shows it. Where does this go?

A13. All references to orange separation fabric shall be deleted from the Contract Documents. See clarifications to specifications in Part 1 of this addendum.

Q14. Please provide clarification to the electrical work:

- a. **Contract drawings do not call out conductor sizes, nor quantities of conductors. Is this information forthcoming, or is it up to the contractor to design the underground wiring?**
- b. **In many locations, the underground conduit sizes are not defined. Please advise.**
- c. **Are all pedestrian light fixtures to be controlled by Musco contactors?**
- d. **Are electrical permit fees for the project waived?**
- e. **Is the City of Newton responsible for payment of Eversource charges?**

A14.

- a. *The conductors should be 2#10 & 1#10G to account for voltage drop.*
- b. *There are ductbank sections shown on E301 that indicate conduit sizing.*
- c. *Yes.*
- d. *See Specification Section 26 00 00, Electrical, Part 1.2, General Requirements, section G. The Contractor is responsible for applying for, obtaining and paying for all permits, inspections, and fees required, and complying with all prerequisites for and post-issuance requirements of such permits and inspection documentation.*
- e. *See Specification Section 26 00 00, Electrical, Part 1.6.. The Contractor shall carry an allowance in the bid for utility company back charges.*

Q15. Could you please confirm the overall size of the salvaged relocated scoreboard/panels as well as the desired distance to grade from the lowest panel? There are no measurements of the scoreboard and panels provided in the bid documents. We'd need that information to accurately quote a replacement structure.

A15. See A10.

Q16. Will the City pay for any police details required for traffic control to perform the construction work? If not, what should we carry for an allowance?

A16. The contractor shall coordinate and pay for all police details needed to complete the work.

Q17. Please clarify if the 20ft sports netting at the baseball field is to be a tensioned system or a traditional netting system.

A17. The sports netting shall be a traditional netting system. See clarifications to specifications in Part 1 of this addendum.

Q18. Please clarify where the fence guard is to be installed.

A18. For clarification, the fence kick plates shall be located on the perimeter fencing at turf field only. All safety fence top cap shall be removed from the project. See clarifications to the specifications in Part 1 of this addendum.

Q19. Are we to carry the transport & disposal of any particular soils from the site in our base bid or is the design intent to keep all soils on site?

A19. No. See A7.

Q20. The specifications and plans differ in description of the topsoil strip – specs say 4” and site prep plan says 6”. Please clarify.

A20. The topsoil shall be stripped to a depth of 6”. See revised Specification Section 00 31 32 in the attachments in this addendum.

Q21. Is air monitoring for a particular part of the site or the entire site?

A21. Air monitoring is required for the entirety of the Site due to nearby sensitive receptors (e.g., F.A. Day Middle School, The Fessenden School, and Newton Early Childhood Program).

Q22. Please clearly state what types of geotextile fabrics are to be used where. Is the contractor to subgrade the entire site and place Mirafi 380i woven fabric down everywhere? Please define limits of fabric on plans and details.

A22. Geotextile fabric shall only be placed under and around materials as shown in the details and as specified. Refer to details listed below. For additional clarification, geotextile fabric shall be placed under and/or around all, but not limited to, the following materials:

- *2/L700 - Construction entrance*
- *12/L701 - BVCL Fence in CIP retaining wall*
- *1/L702 - Synthetic turf, 2/L702 - Collector drain at synthetic turf, 3/L702 - Stone basin under field, 4/L702 - Synthetic turf nailer curb*
- *4/C200 - Drainage trench, 6/C200 - Bioretention area*

Q23. Please confirm the temporary fencing for the project shall be 6ft tall clf temp fence with a windscreen/scrim. One reference to 8ft in the spec.

A23. Construction fence shall be 6’ height. No windscreen/scrim is required.

Q24. Do we need to install new beams and get a new stamped engineered drawing for the relocated scoreboard?

A24. No. See A10.

Q25. Please provide the cut sheets for the existing scoreboard.

A25. The cut sheet for the existing scoreboard is not available. Contractors are responsible for reviewing all existing site conditions prior to submitting their bids, as noted in the Contract Documents.

Q26. Please forward spec section Subsurface Data 00 31 32 per the table of contents and various other spec section references.

A26. See specification section 00 31 32 – SUBSURFACE DATA in the attachments in this addendum.

Q27. Please clarify if we are to place 4” of sand under the infield mix per the detail on L701 or are we to place 4” of gravel base under the infield mix per the specification. If sand is to be placed under the infield mix, please provide a specification.

A27. Yes, 4” of sand shall be placed under the infield mix. See clarifications to the specifications in Part I of this addendum.

Q28. Please provide a fabric and soil capping detail, i.e. type of fabric, depth of cover, etc., for where we are relocating onsite soils.

A28. Soil capping is not required on site.

Q29. What is the thickness of the asphalt pavement at the basketball court and pickleball courts in base bid?

A29. The thickness of the asphalt pavement at the basketball court and pickleball courts in the base bid shall be 3" thick per the pedestrian hot mix asphalt. See detail 2 on sheet L701 in the contract drawings.

Q30. Please confirm which detail we should use for the dugout slab. Are we to follow details on L705 detail 1 & 4 or detail 10 on L701

A30. The concrete slab for the dugout foundation shall be designed by the manufacturer as shown in detail 10 on sheet L701 and as specified. See the revised sheet L705 in the attachments in this addendum.

Q31. Please provide a detail for the backstop post where it shares the 20ft sports netting system. Or are we to install 2 separate posts for each?

A31. The backstop and the netting shall share one post. Shop drawings shall be reviewed during construction.

Q32. Sports lighting poles typically require an in ground handhole at every pole. Are handholes to be installed on this project at each sports lighting pole?

A32. Ground handhole are required at every light pole including the sports and pedestrian poles. Refer to detail 5 on sheet E900 for handhole requirements per the attachment in Addendum #1.

PART 4 - ATTACHMENTS:

Drawing Sheet L101 – Existing Conditions Plan
Drawing Sheet L102 – Existing Conditions Plan
Drawing Sheet L103 – Existing Conditions Plan
Drawing Sheet L104 – Existing Conditions Plan
Drawing Sheet L105 – Existing Conditions Plan
Drawing Sheet L200A – Erosion Control Diagram
Drawing Sheet L501 – Grading Plan
Drawing Sheet L701 – Construction Details
Drawing Sheet L702 – Construction Details
Drawing Sheet L705 – Construction Details
Specification Section 00 31 32 – Subsurface Data
Specification Section 02 61 00.16 - Handling, Reuse, Transportation, and Offsite Disposal of Excavated Material

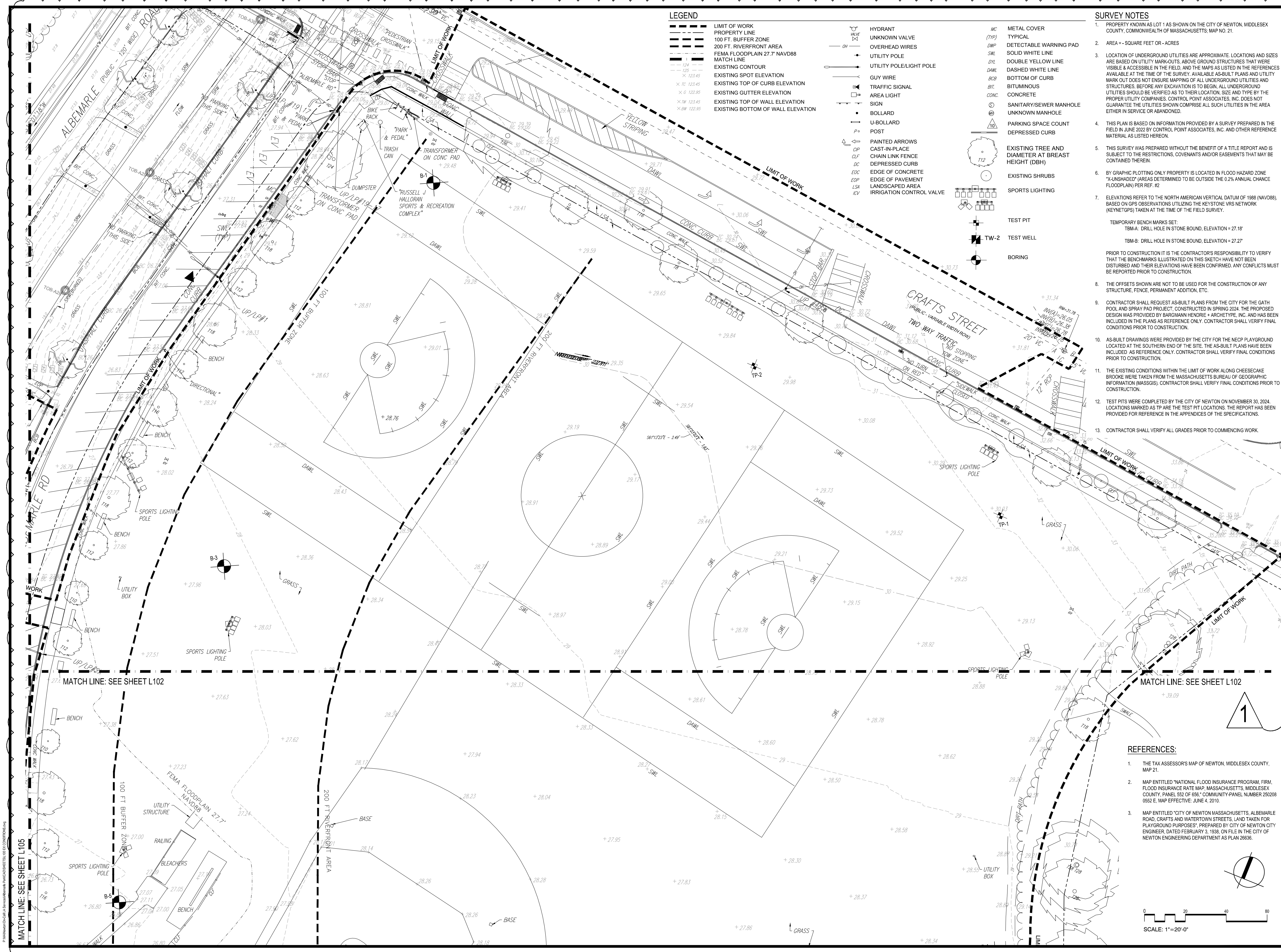
All other terms and conditions of the IFB remain unchanged.

**PLEASE ENSURE THAT YOU ACKNOWLEDGE ALL ADDENDA ON YOUR
BID FORM. FAILURE TO ACKNOWLEDGE ALL ADDENDA COULD
RESULT IN REJECTION OF YOUR BID AS NONRESPONSIVE.**

Thank you.



Nicholas Read
Chief Procurement Officer



LEGEND

- LIMIT OF WORK
- - - PROPERTY LINE
- - - 100 FT. BUFFER ZONE
- - - 200 FT. RIVERFRONT AREA
- - - FEMA FLOODPLAIN 27.7 NAVD88
- - - MATCH LINE
- - - EXISTING CONTOUR
- - - EXISTING SPOT ELEVATION
- - - EXISTING TOP OF CURB ELEVATION
- - - EXISTING GUTTER ELEVATION
- - - EXISTING TOP OF WALL ELEVATION
- - - EXISTING BOTTOM OF WALL ELEVATION
- HYDRANT
- UNKNOWN VALVE
- OVERHEAD WIRES
- UTILITY POLE
- UTILITY POLE/LIGHT POLE
- GUY WIRE
- TRAFFIC SIGNAL
- AREA LIGHT
- SIGN
- BOLLARD
- U-BOLLARD
- POST
- PAINTED ARROWS
- CAST-IN-PLACE CHAIN LINK FENCE
- DEPRESSED CURB
- EDGE OF CONCRETE
- EDGE OF PAVEMENT
- LANDSCAPED AREA
- IRRIGATION CONTROL VALVE
- MC METAL COVER
- (TP) TYPICAL
- DWP DETECTABLE WARNING PAD
- SWL SOLID WHITE LINE
- DWL DOUBLE YELLOW LINE
- DAWL DASHED WHITE LINE
- BCB BOTTOM OF CURB
- BIT BITUMINOUS
- CONC CONCRETE
- SANITARY/SEWER MANHOLE
- UNKNOWN MANHOLE
- PARKING SPACE COUNT
- DEPRESSED CURB
- EXISTING TREE AND DIAMETER AT BREAST HEIGHT (DBH)
- EXISTING SHRUBS
- SPORTS LIGHTING
- TEST PIT
- TW-2 TEST WELL
- BORING

SURVEY NOTES

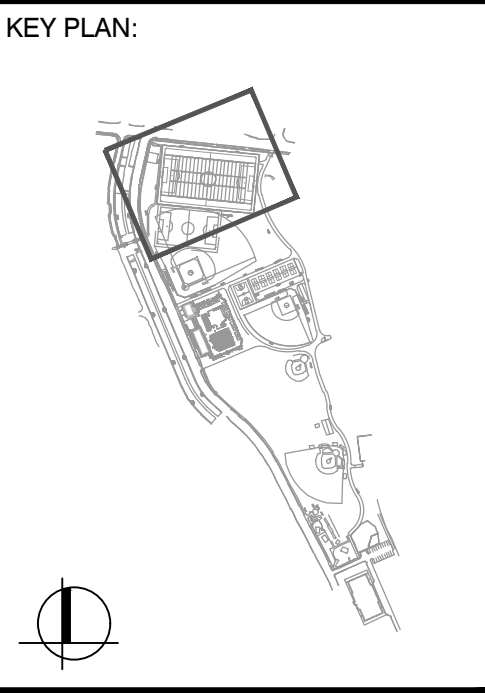
1. PROPERTY KNOWN AS LOT 1 AS SHOWN ON THE CITY OF NEWTON, MIDDLESEX COUNTY, COMMONWEALTH OF MASSACHUSETTS, MAP NO. 21.
2. AREA = - SQUARE FEET OR - ACRES
3. LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS AS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK OUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD IN JUNE 2022 BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE "X UNSHADED" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2
7. ELEVATIONS REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON GPS OBSERVATIONS UTILIZING THE KEYSTONE VRS NETWORK (KEYNETGPS) TAKEN AT THE TIME OF THE FIELD SURVEY.
- TEMPORARY BENCH MARKS SET:
 - TBM-A: DRILL HOLE IN STONE BOUND, ELEVATION = 27.18'
 - TBM-B: DRILL HOLE IN STONE BOUND, ELEVATION = 27.27'
- PRIOR TO CONSTRUCTION IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE BENCHMARKS ILLUSTRATED ON THIS SKETCH HAVE NOT BEEN DISTURBED AND THEIR ELEVATIONS HAVE BEEN CONFIRMED. ANY CONFLICTS MUST BE REPORTED PRIOR TO CONSTRUCTION.
8. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
9. CONTRACTOR SHALL REQUEST AS-BUILT PLANS FROM THE CITY FOR THE GATH POOL AND SPRAY PAD PROJECT, CONSTRUCTED IN SPRING 2024. THE PROPOSED DESIGN WAS PROVIDED BY BARGOMANN HENRIQUE + ARCHETYPE, INC. AND HAS BEEN INCLUDED IN THE PLANS AS REFERENCE ONLY. CONTRACTOR SHALL VERIFY FINAL CONDITIONS PRIOR TO CONSTRUCTION.
10. AS-BUILT DRAWINGS WERE PROVIDED BY THE CITY FOR THE NECP PLAYGROUND LOCATED AT THE SOUTHERN END OF THE SITE. THE AS-BUILT PLANS HAVE BEEN INCLUDED AS REFERENCE ONLY. CONTRACTOR SHALL VERIFY FINAL CONDITIONS PRIOR TO CONSTRUCTION.
11. THE EXISTING CONDITIONS WITHIN THE LIMIT OF WORK ALONG CHEESECAKE BROOKE WERE TAKEN FROM THE MASSACHUSETTS BUREAU OF GEOGRAPHIC INFORMATION (MASSGIS), CONTRACTOR SHALL VERIFY FINAL CONDITIONS PRIOR TO CONSTRUCTION.
12. TEST PITS WERE COMPLETED BY THE CITY OF NEWTON ON NOVEMBER 30, 2024. LOCATIONS MARKED AS TP-1 AND TP-2 ARE THE TEST PIT LOCATIONS. THE REPORT HAS BEEN PROVIDED FOR REFERENCE IN THE APPENDICES OF THE SPECIFICATIONS.
13. CONTRACTOR SHALL VERIFY ALL GRADES PRIOR TO COMMENCING WORK.

IMPROVEMENTS TO ALBEMARLE PLAYGROUND NORTH AND MULTI-USE PATH, PHASE 1

250 ALBEMARLE RD
NEWTON, MA 02460

Weston & Sampson

Weston & Sampson Engineers, Inc.
100 Foxborough Boulevard, Suite 250
Foxborough, MA 02035
978.532.1900 800.SAMPSON
www.westonandsampson.com



Revisions:

No.	Date	Description
1	11/11/2024	ADDENDUM #2

COA:

Seal:

Issued For:

BID DOCUMENTS

Scale: 1"=20'

Date: 10/24/2024

Drawn By: AG, JCF, TF

Reviewed By: JM, CB

Approved By: CB

W&S Project No.: ENG22-0315

City Proj. No.: IFB #25-29

Drawing Title:

EXISTING CONDITIONS PLAN

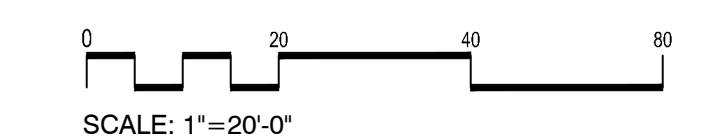
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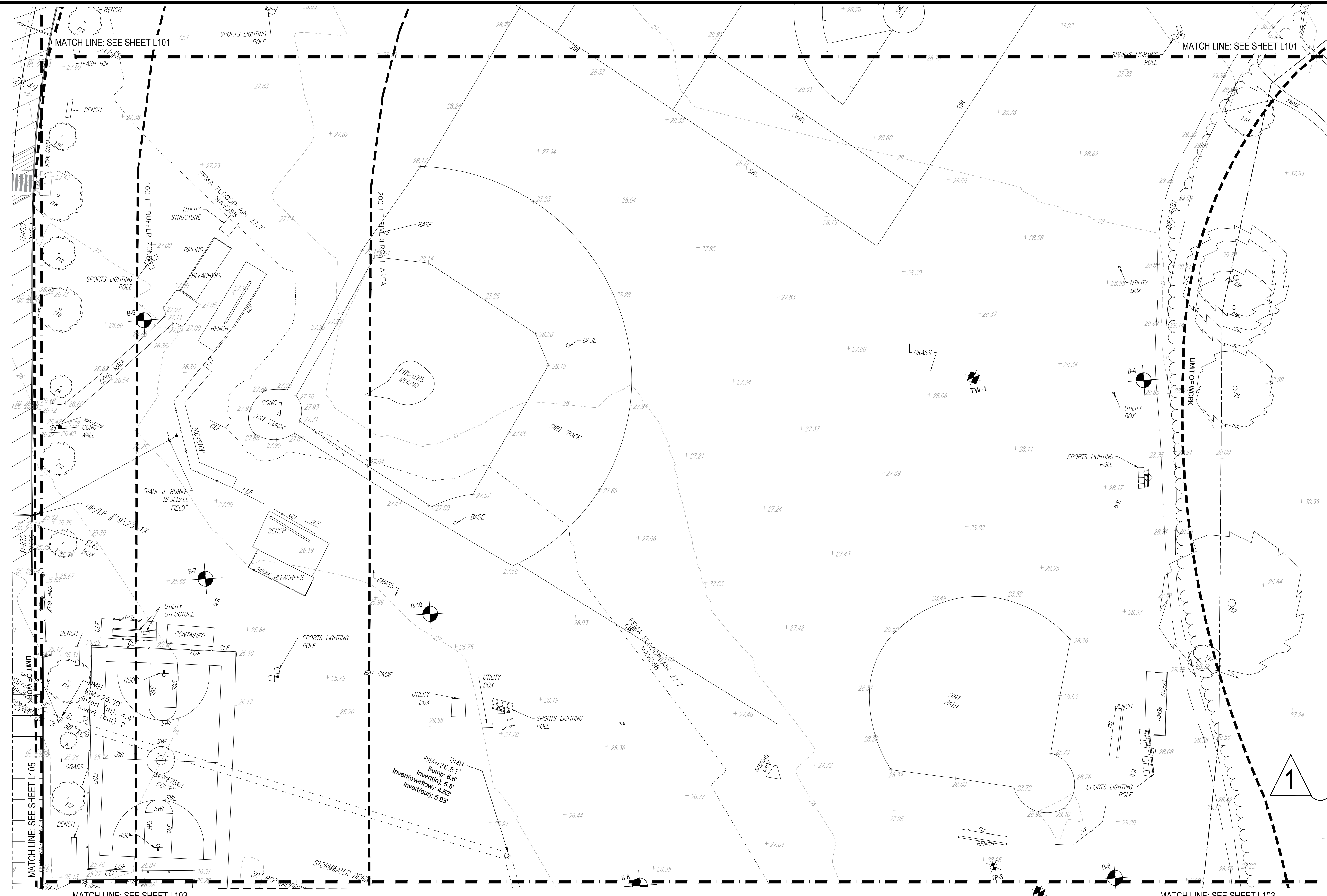
L101

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REFERENCES:

1. THE TAX ASSESSOR'S MAP OF NEWTON, MIDDLESEX COUNTY, MAP 21.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, MASSACHUSETTS, MIDDLESEX COUNTY, PANEL 552 OF 656," COMMUNITY-PANEL NUMBER 250208 0552 E, MAP EFFECTIVE: JUNE 4, 2010.
3. MAP ENTITLED "CITY OF NEWTON MASSACHUSETTS, ALBEMARLE ROAD, CRAFTS AND WATERTOWN STREETS, LAND TAKEN FOR PLAYGROUND PURPOSES", PREPARED BY CITY OF NEWTON CITY ENGINEER, DATED FEBRUARY 3, 1938, ON FILE IN THE CITY OF NEWTON ENGINEERING DEPARTMENT AS PLAN 26636.



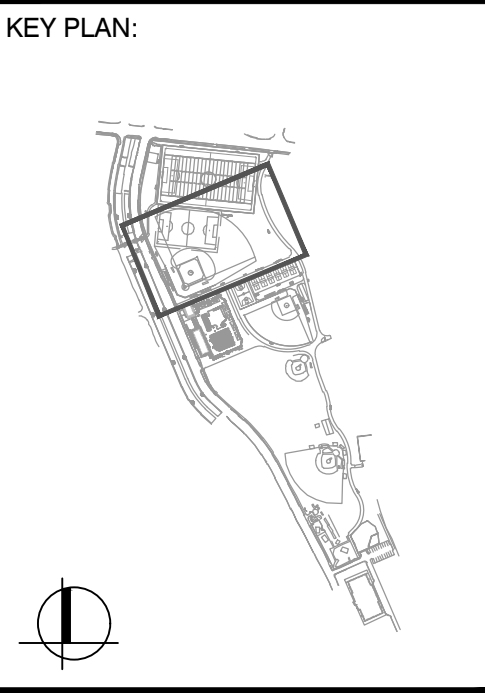


LEGEND

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|---|---|---|--|---|
| <ul style="list-style-type: none"> --- LIMIT OF WORK --- PROPERTY LINE --- 100 FT. BUFFER ZONE --- 200 FT. RIVERFRONT AREA --- FEMA FLOODPLAIN 27.7' NAVD88 --- MATCH LINE --- EXISTING CONTOUR × 123.45 EXISTING SPOT ELEVATION TC 123.45 EXISTING TOP OF CURB ELEVATION × G 122.95 EXISTING GUTTER ELEVATION × TW 123.45 EXISTING TOP OF WALL ELEVATION BW 122.85 EXISTING BOTTOM OF WALL ELEVATION | <ul style="list-style-type: none"> ○ HYDRANT ○ UNKNOWN VALVE --- OVERHEAD WIRES ○ UTILITY POLE ○ UTILITY POLE/LIGHT POLE ○ GUY WIRE ○ TRAFFIC SIGNAL ○ AREA LIGHT ○ SIGN ○ BOLLARD ○ U-BOLLARD | <ul style="list-style-type: none"> Po POST → PAINTED ARROWS (TYP) TYPICAL ○ SANITARY/SEWER MANHOLE ○ UNKNOWN MANHOLE ○ PARKING SPACE COUNT ○ DEPRESSED CURB ○ EXISTING SHRUBS | <ul style="list-style-type: none"> T12 EXISTING TREE AND DIAMETER AT BREAST HEIGHT (DBH) ○ SPORTS LIGHTING ○ TEST PIT ○ TW-2 TEST WELL ○ BORING | <ul style="list-style-type: none"> MC METAL COVER (TYP) TYPICAL DWP DETECTABLE WARNING PAD SWL SOLID WHITE LINE DYL DOUBLE YELLOW LINE DWL DASHED WHITE LINE BCB BOTTOM OF CURB BIT BITUMINOUS CONC. CONCRETE CIP CAST-IN-PLACE CLF CHAIN LINK FENCE DC DEPRESSED CURB EOC EDGE OF CONCRETE EOP EDGE OF PAVEMENT LSA LANDSCAPED AREA ICV IRRIGATION CONTROL VALVE |
|---|---|---|--|---|

SURVEY NOTES:

- SEE SHEET L101 FOR SURVEY NOTES.



Revisions:

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1	11/11/2024	ADDENDUM #2

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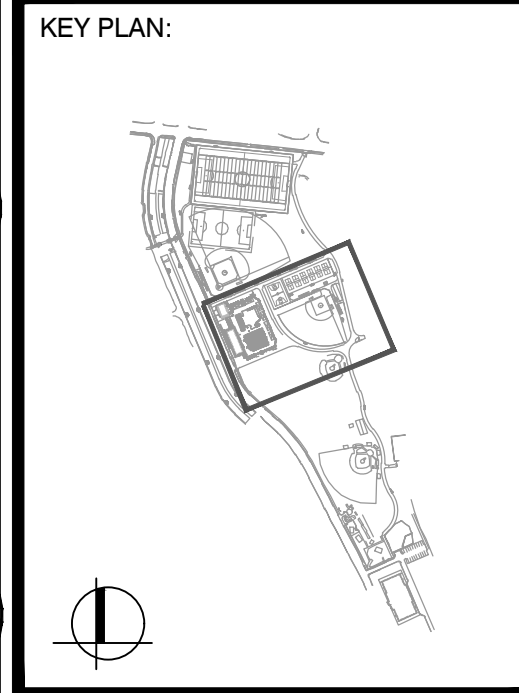
W&S Project No.: ENG22-0315
City Proj. No.: IFB #25-29

Drawing Title:

EXISTING CONDITIONS PLAN

Sheet Number:

L102



Revisions:

No.	Date	Description
1	11/11/2024	ADDENDUM #2

COA:

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Issued For:

BID DOCUMENTS

Scale: 1"=20'

Date: 10/24/2024
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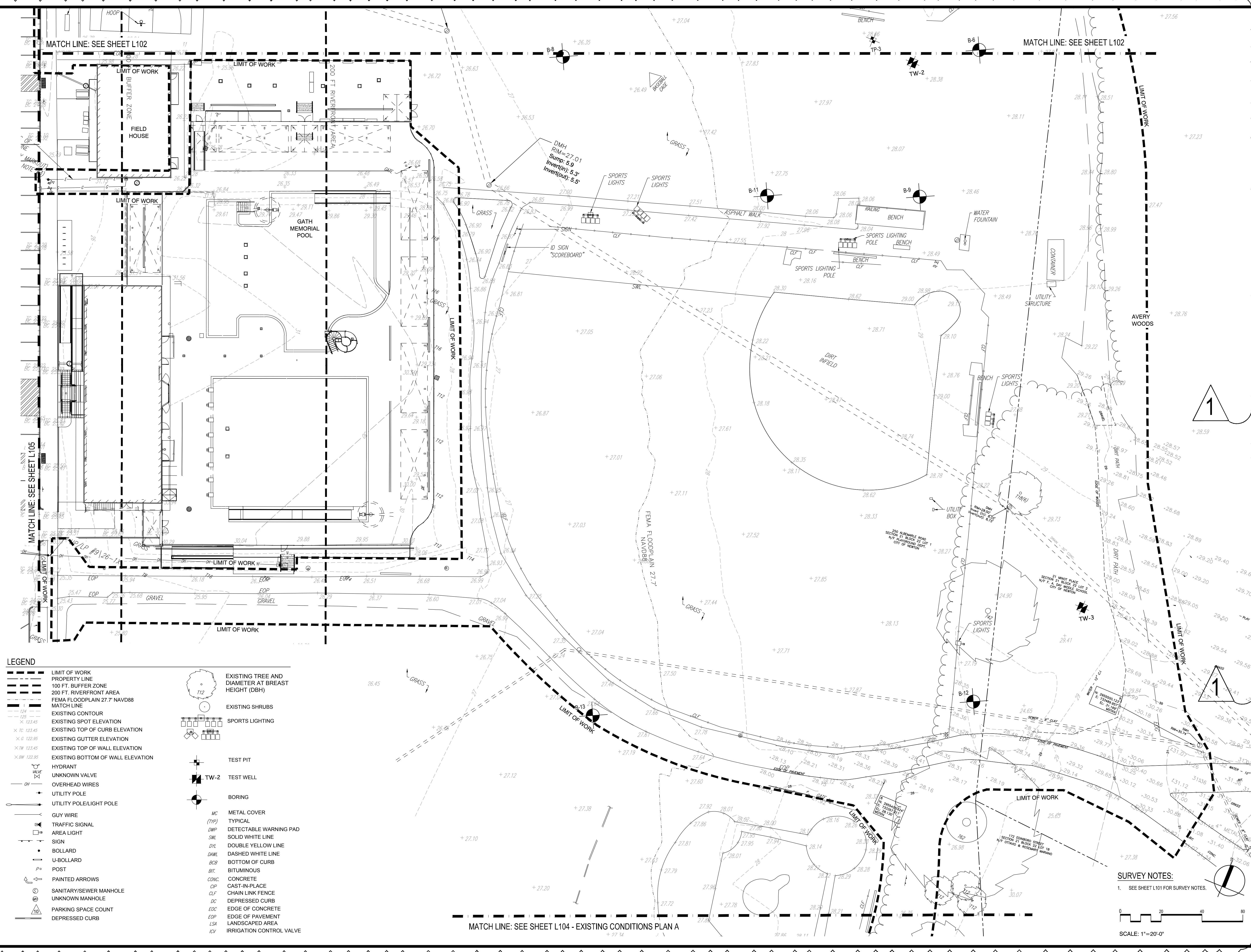
Drawing Title:

EXISTING CONDITIONS PLAN

Sheet Number:

L103


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LEGEND

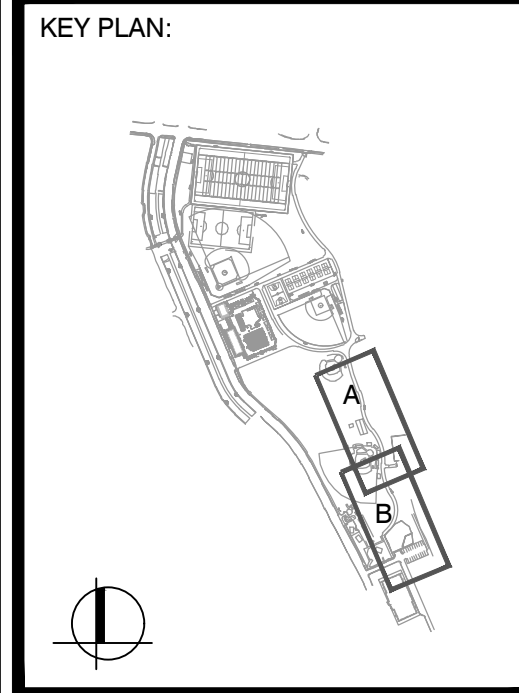
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	PROPERTY LINE		EXISTING SHRUBS
	100 FT. BUFFER ZONE		SPORTS LIGHTING
	200 FT. RIVERFRONT AREA		TEST PIT
	FEMA FLOODPLAIN 27.7' NAVD88		TEST WELL
	MATCH LINE		BORING
	EXISTING CONTOUR		METAL COVER
	EXISTING SPOT ELEVATION		TYPICAL
	EXISTING TOP OF CURB ELEVATION		DETECTABLE WARNING PAD
	EXISTING GUTTER ELEVATION		SOLID WHITE LINE
	EXISTING TOP OF WALL ELEVATION		DOUBLE YELLOW LINE
	EXISTING BOTTOM OF WALL ELEVATION		DASHED WHITE LINE
	HYDRANT		BOTTOM OF CURB
	UNKNOWN VALVE		BITUMINOUS
	UTILITY POLE		CONCRETE
	UTILITY POLE/LIGHT POLE		CAST-IN-PLACE
	GUY WIRE		CHAIN LINK FENCE
	TRAFFIC SIGNAL		DEPRESSED CURB
	AREA LIGHT		EDGE OF CONCRETE
	SIGN		EDGE OF PAVEMENT
	BOLLARD		LANDSCAPED AREA
	U-BOLLARD		IRRIGATION CONTROL VALVE
	POST		
	PAINTED ARROWS		
	SANITARY/SEWER MANHOLE		
	UNKNOWN MANHOLE		
	PARKING SPACE COUNT		
	DEPRESSED CURB		

SURVEY NOTES:
 1. SEE SHEET L101 FOR SURVEY NOTES.



SCALE: 1"=20'-0"

MATCH LINE: SEE SHEET L104 - EXISTING CONDITIONS PLAN A



Revisions:

No.	Date	Description
1	11/11/2024	ADDENDUM #2

COA:

Seal:

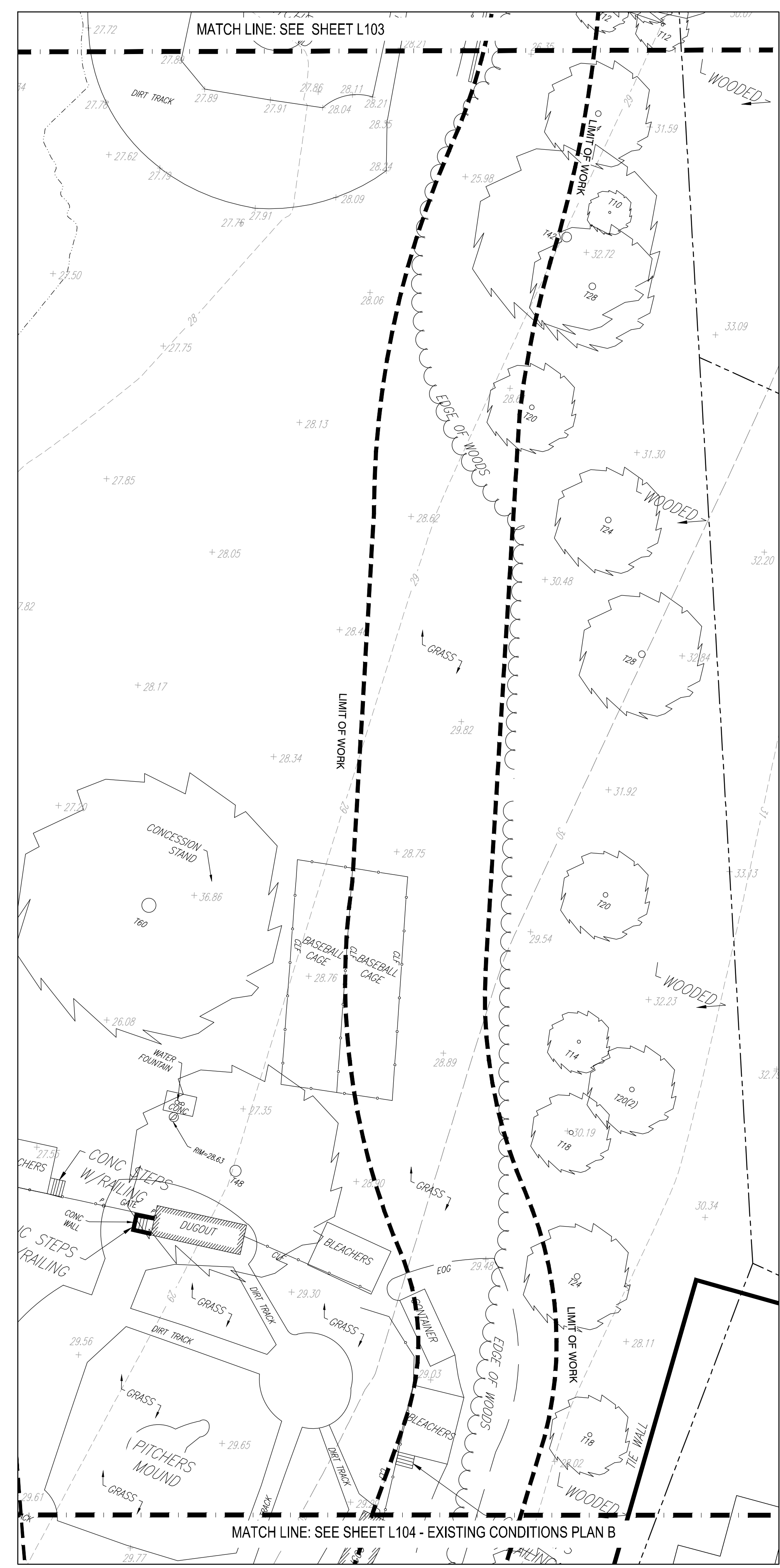
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BID DOCUMENTS

Scale: 1"=20'

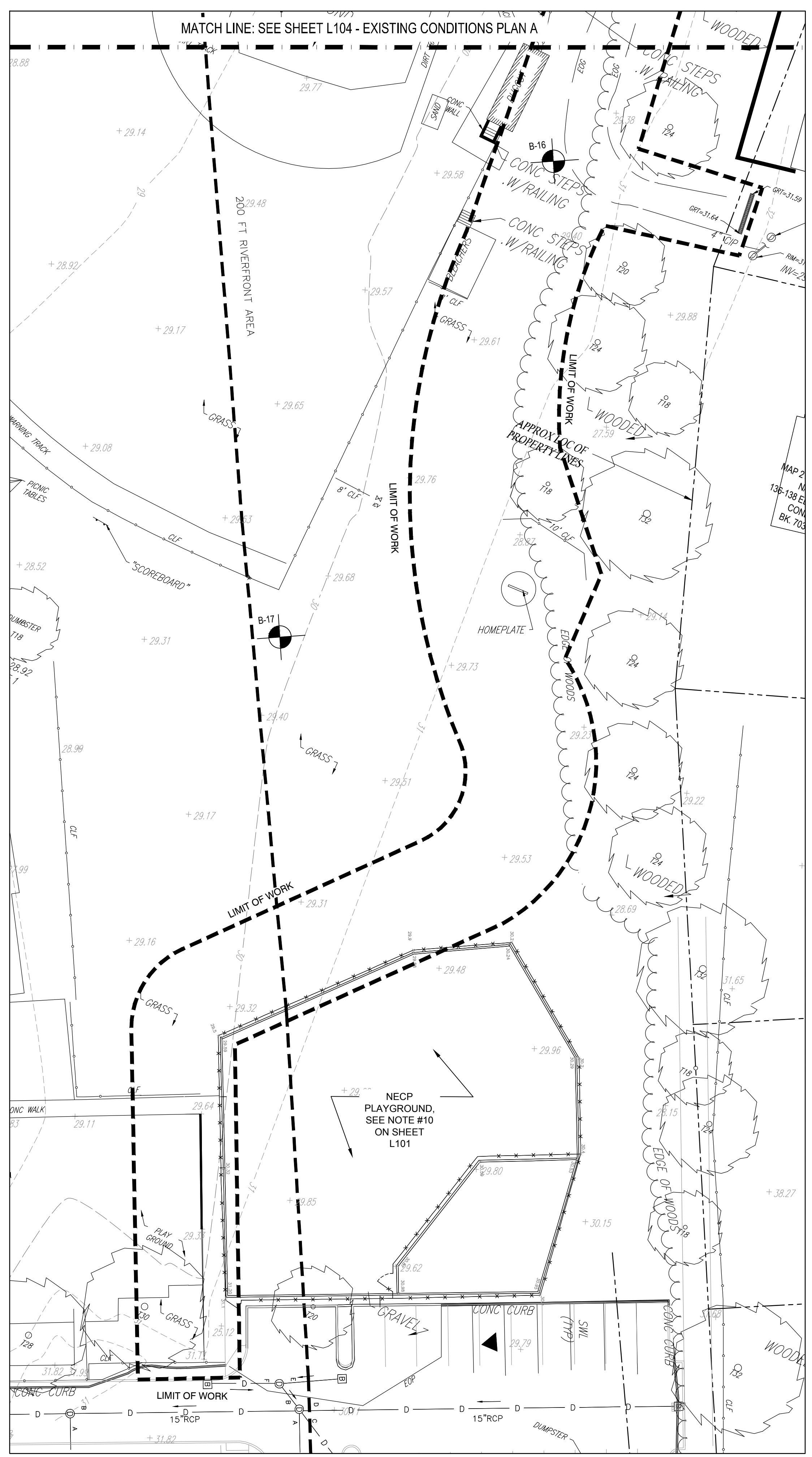
Date: 10/24/2024
Drawn By: AG, JCF, TF
Reviewed By: JM, CB
Approved By: CB
W&S Project No.: ENG22-0315
City Proj. No.: IFB #25-29

Drawing Title:
EXISTING CONDITIONS PLAN

Sheet Number:
L104



A EXISTING CONDITIONS PLAN A
SCALE: 1"=20'-0"



B EXISTING CONDITIONS PLAN B
SCALE: 1"=20'-0"

LEGEND

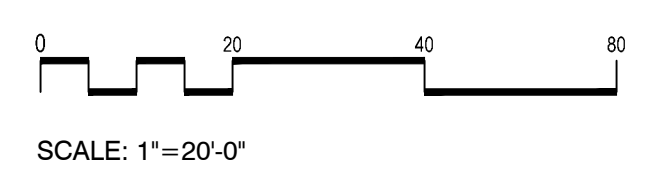
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- PROPERTY LINE
- 100 FT. BUFFER ZONE
- 200 FT. RIVERFRONT AREA
- FEMA FLOODPLAIN 27.7' NAVD88
- MATCH LINE
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- EXISTING TOP OF CURB ELEVATION
- EXISTING GUTTER ELEVATION
- EXISTING TOP OF WALL ELEVATION
- EXISTING BOTTOM OF WALL ELEVATION
- HYDRANT
- UNKNOWN VALVE
- OVERHEAD WIRES
- UTILITY POLE
- UTILITY POLE/LIGHT POLE
- GUY WIRE
- TRAFFIC SIGNAL
- AREA LIGHT
- SIGN
- BOLLARD
- U-BOLLARD
- POST
- PAINTED ARROWS
- SANITARY/SEWER MANHOLE
- UNKNOWN MANHOLE
- PARKING SPACE COUNT
- DEPRESSED CURB
- EXISTING TREE AND DIAMETER AT BREAST HEIGHT (DBH)
- EXISTING SHRUBS
- SPORTS LIGHTING
- TEST PIT
- TW-2 TEST WELL
- BORING
- MC METAL COVER (TYP)
- DWP DETECTABLE WARNING PAD
- SWL SOLID WHITE LINE
- DYL DOUBLE YELLOW LINE
- DAWL DASHED WHITE LINE
- BCB BOTTOM OF CURB
- BIT. BITUMINOUS
- CONC. CONCRETE
- CIP CAST-IN-PLACE
- CLF CHAIN LINK FENCE
- DC DEPRESSED CURB
- EOC EDGE OF CONCRETE
- EOP EDGE OF PAVEMENT
- LSA LANDSCAPED AREA
- ICV IRRIGATION CONTROL VALVE

SPECIAL NOTES:

- EXISTING CONDITIONS WERE SURVEYED PRIOR TO PLAYGROUND INSTALLATION. ALL GRADES AND MATERIALS SHALL BE VERIFIED IN FIELD.

SURVEY NOTES:

- SEE SHEET L101 FOR SURVEY NOTES.

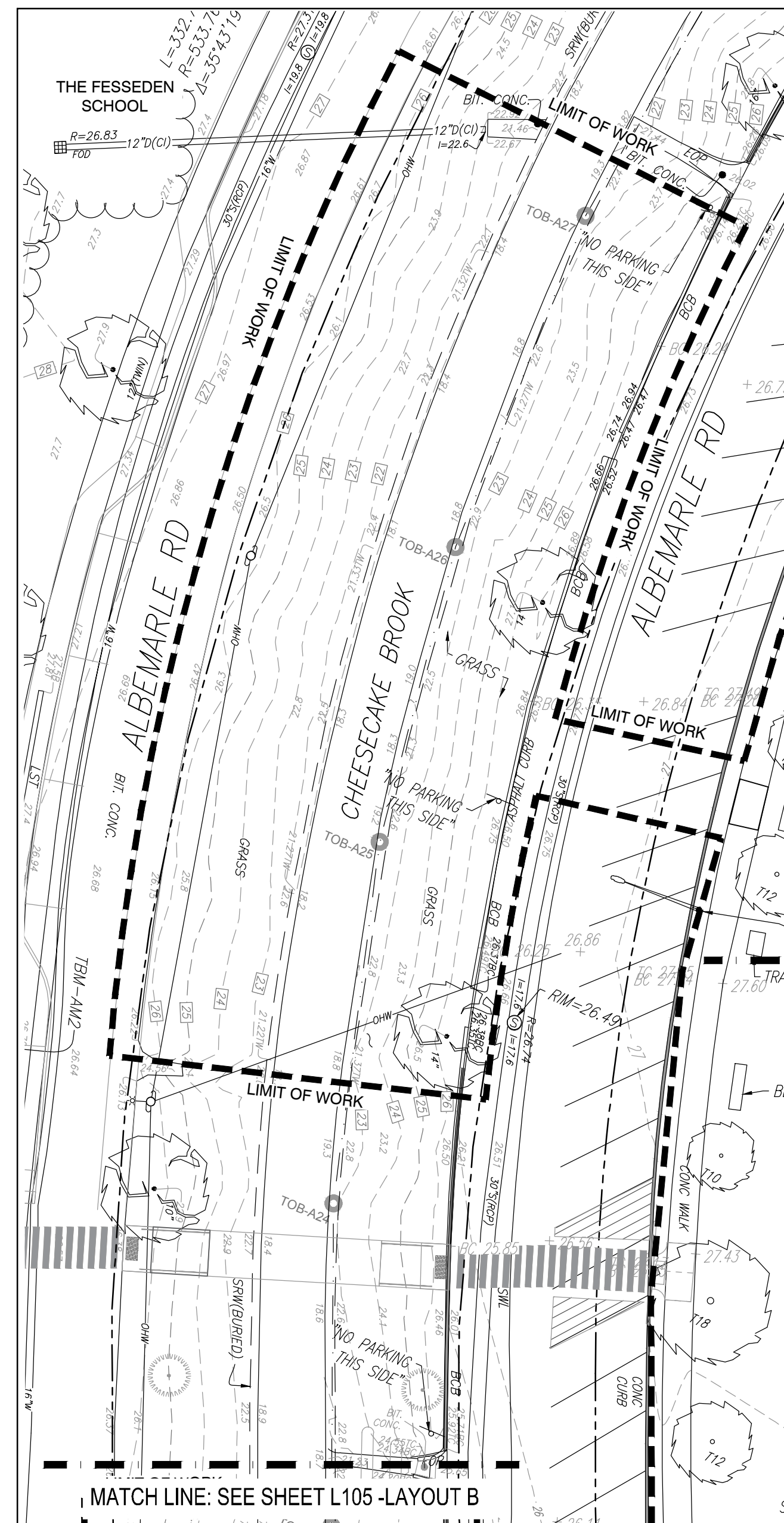


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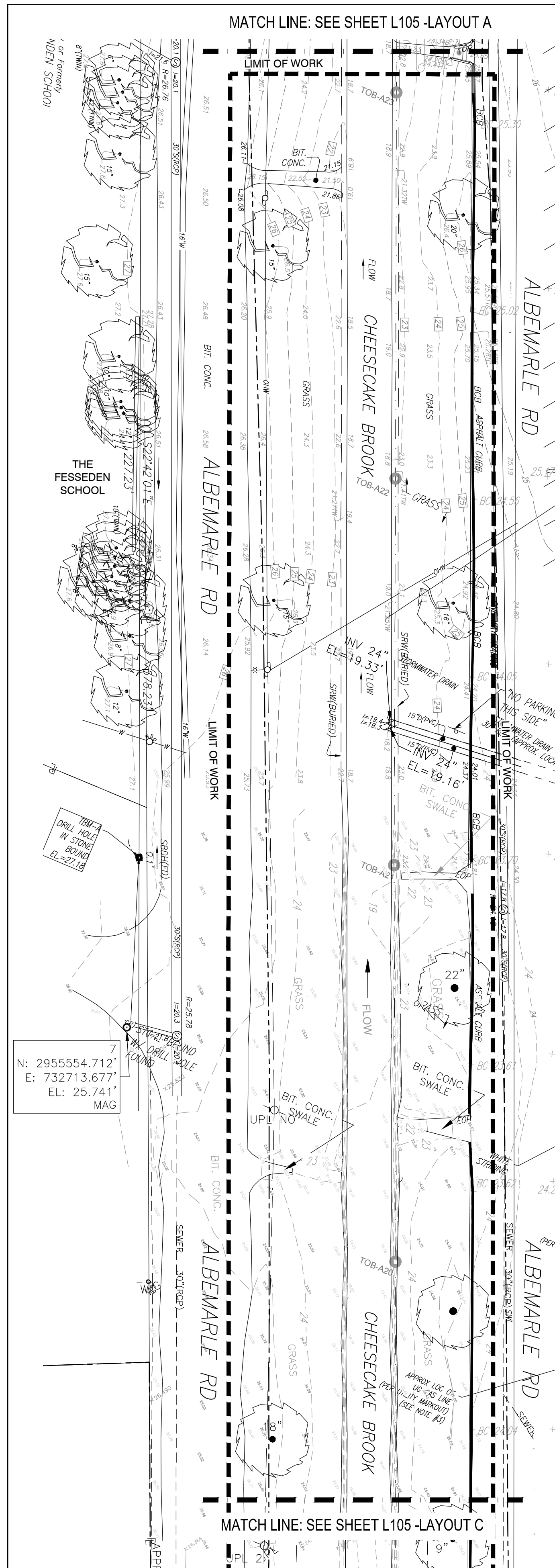
FILED AT THE OFFICE OF THE REGISTRAR OF PROFESSIONAL ENGINEERS AND ARCHITECTS, STATE OF MASSACHUSETTS, ON 11/11/2024 AT 10:00 AM. EXISTING CONDITIONS PLAN A AND B.

- LEGEND**
- LIMIT OF WORK
 - PROPERTY LINE
 - 100 FT. BUFFER ZONE
 - 200 FT. RIVERFRONT AREA
 - FEMA FLOODPLAIN 27.7 NAVD88
 - MATCH LINE
 - EXISTING CONTOUR
 - EXISTING SPOT ELEVATION
 - EXISTING TOP OF CURB ELEVATION
 - EXISTING GUTTER ELEVATION
 - EXISTING TOP OF WALL ELEVATION
 - EXISTING BOTTOM OF WALL ELEVATION
 - HYDRANT
 - UNKNOWN VALVE
 - OVERHEAD WIRES
 - UTILITY POLE
 - UTILITY POLE/LIGHT POLE
 - GUY WIRE
 - TRAFFIC SIGNAL
 - AREA LIGHT
 - SIGN
 - BOLLARD
 - U-BOLLARD
 - POST
 - PAINTED ARROWS
 - SANITARY/SEWER MANHOLE
 - UNKNOWN MANHOLE
 - PARKING SPACE COUNT
 - DEPRESSED CURB
 - EXISTING TREE AND DIAMETER AT BREAST HEIGHT (DBH)
 - EXISTING SHRUBS
 - SPORTS LIGHTING
 - ⊕ TEST PIT
 - ⊕ TW-2 TEST WELL
 - BORING
 - MC METAL COVER
 - (TYP) TYPICAL
 - DWP DETECTABLE WARNING PAD
 - SML SOLID WHITE LINE
 - DYL DOUBLE YELLOW LINE
 - DARL DASHED WHITE LINE
 - BCB BOTTOM OF CURB
 - BIT BITUMINOUS
 - CONC CONCRETE
 - CIP CAST-IN-PLACE
 - CLF CHAIN LINK FENCE
 - DC DEPRESSED CURB
 - EDC EDGE OF CONCRETE
 - EDP EDGE OF PAVEMENT
 - LSA LANDSCAPED AREA
 - ICV IRRIGATION CONTROL VALVE

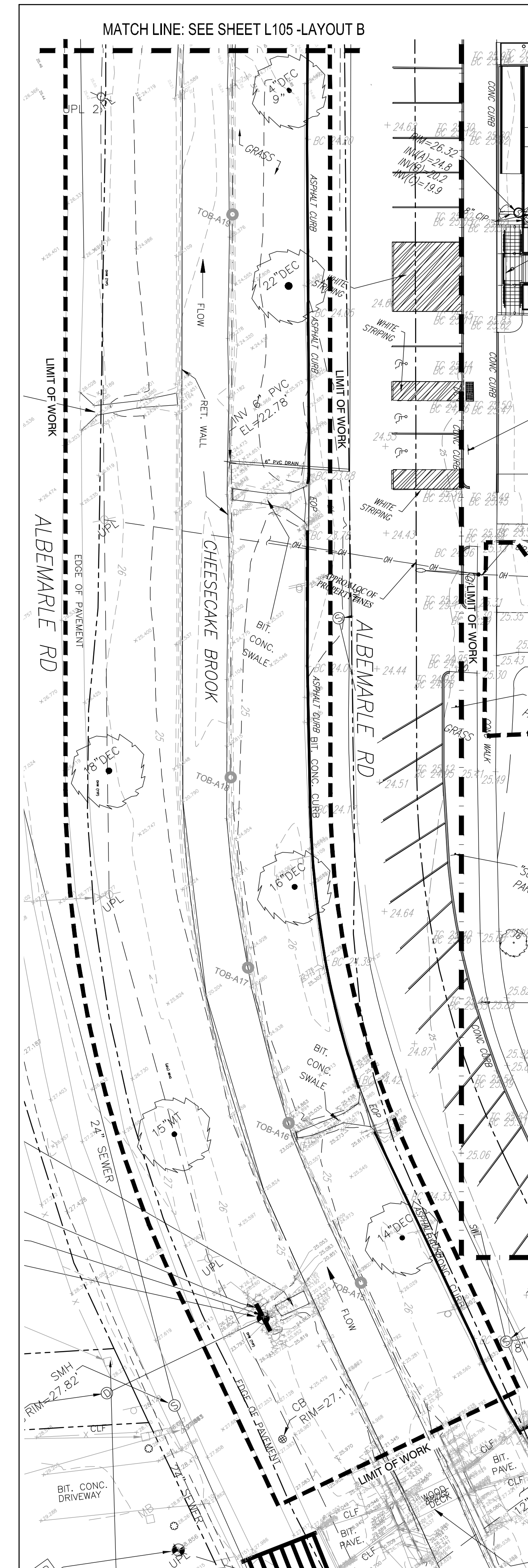
SURVEY NOTES:
1. SEE SHEET L101 FOR SURVEY NOTES.



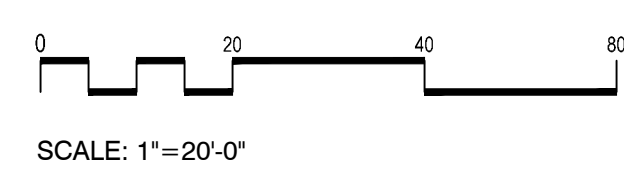
A EXISTING CONDITIONS PLAN A
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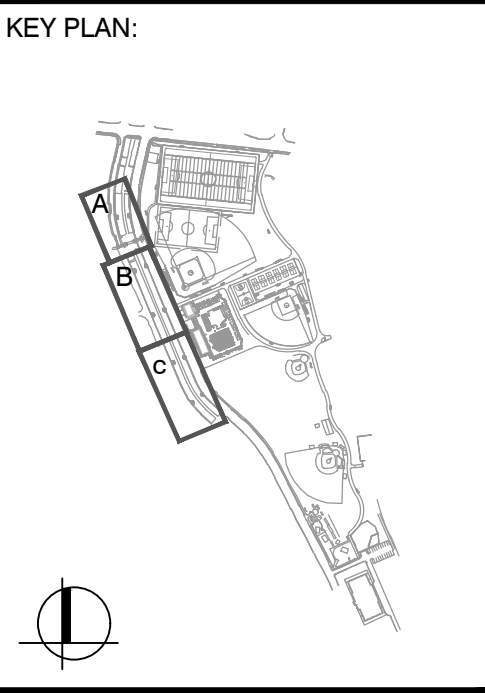
B EXISTING CONDITIONS PLAN B
SCALE: 1"=20'-0"



C EXISTING CONDITIONS PLAN C
SCALE: 1"=20'-0"



1



Revisions:

No.	Date	Description
1	11/11/2024	ADDENDUM #2

COA:

Seal:

Issued For:
BID DOCUMENTS

Scale: 1"=20'

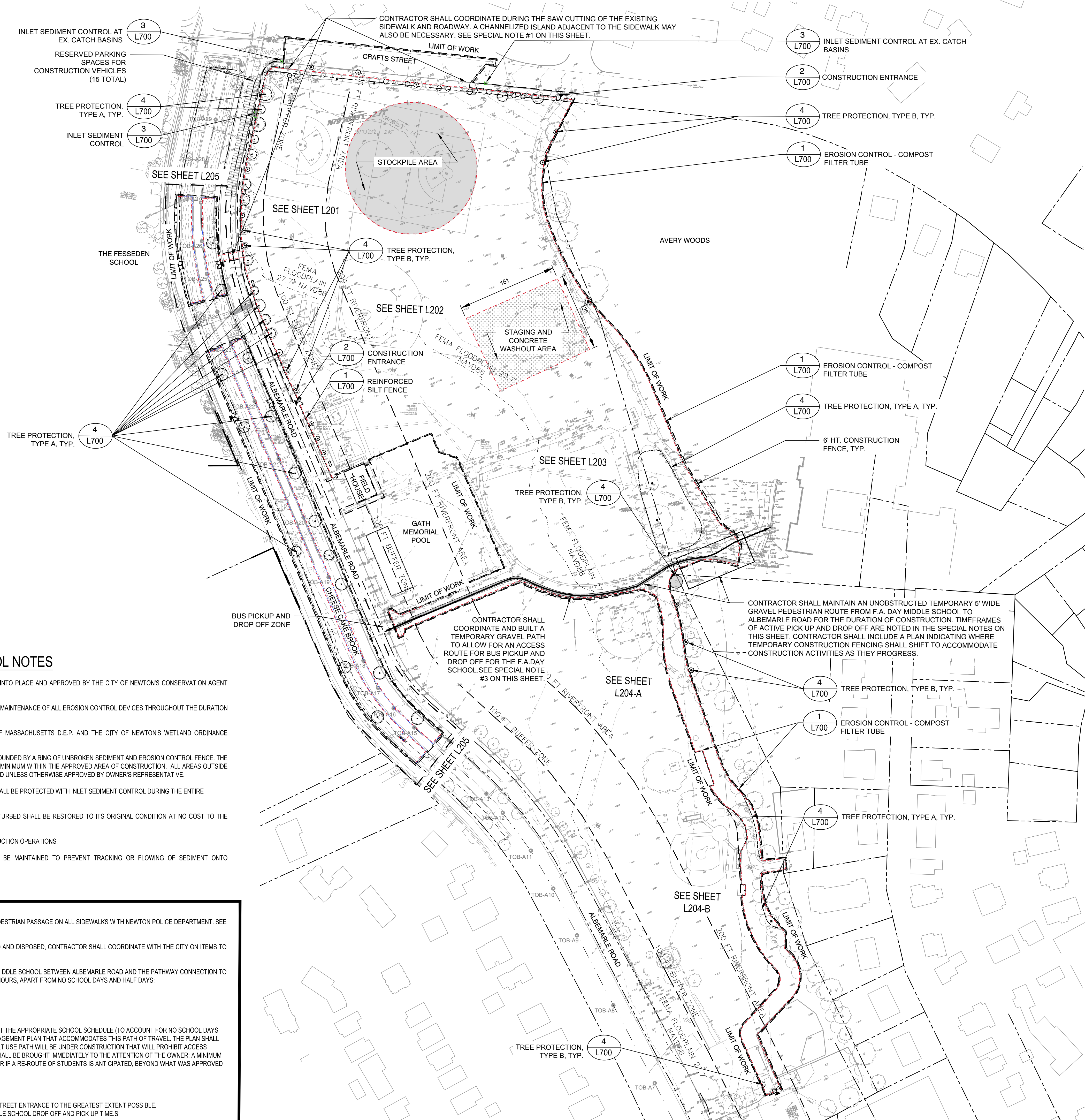
Date: 10/24/2024
Drawn By: AG, JCF, TF
Reviewed By: JM, CB
Approved By: CB
W&S Project No.: ENG22-0315
City Proj. No.: IFB #25-29

Drawing Title:
EXISTING CONDITIONS PLAN

Sheet Number:
L105

LEGEND

- LIMIT OF WORK
- PROPERTY LINE
- 100 FT. BUFFER ZONE
- 200 FT. RIVERFRONT AREA
- FEMA FLOODPLAIN 27.7 NAVD88
- 6 HT. CONSTRUCTION FENCE
- REINFORCED SILT FENCE
- EROSION CONTROL - COMPOST SOCK
- INLET SEDIMENT CONTROL
- RESERVED PARKING SPACES FOR CONSTRUCTION VEHICLES
- STAGING AND CONCRETE WASHOUT AREA
- STOCKPILE AREA
- ◀ CONSTRUCTION ENTRANCE
- EXISTING SHRUB/TREE NOT SURVEYED
- INLET SEDIMENT CONTROL
- TREE PROTECTION, TYPE A
- TREE PROTECTION, TYPE B



EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE PUT INTO PLACE AND APPROVED BY THE CITY OF NEWTON'S CONSERVATION AGENT PRIOR TO BEGINNING ANY CONSTRUCTION OR DEMOLITION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
3. CONTRACTOR SHALL MEET ALL REQUIRED COMMONWEALTH OF MASSACHUSETTS D.E.P. AND THE CITY OF NEWTON'S WETLAND ORDINANCE REGULATIONS FOR SEDIMENT AND EROSION CONTROL.
4. EXCAVATED MATERIAL STOCKPILED ON THE SITE SHALL BE SURROUNDED BY A RING OF UNBROKEN SEDIMENT AND EROSION CONTROL FENCE. THE LIMITS OF ALL GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMIT OF CONTRACT SHALL REMAIN TOTALLY UNDISTURBED UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
5. ALL CATCH BASINS AND DRAIN GRATES WITHIN LIMIT OF WORK SHALL BE PROTECTED WITH INLET SEDIMENT CONTROL DURING THE ENTIRE DURATION OF CONSTRUCTION.
6. ANY AREA OUTSIDE THE PROJECT LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER.
7. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR CONSTRUCTION OPERATIONS.
8. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC/Private ROADS, SEE SPECIFICATIONS.

SPECIAL NOTES:

1. CONTRACTOR SHALL COORDINATE ALL ROADWORK AND SAFE PEDESTRIAN PASSAGE ON ALL SIDEWALKS WITH NEWTON POLICE DEPARTMENT. SEE SPECIFICATIONS.
 2. FOR ALL SITE ELEMENTS/AMENITIES CALLED OUT TO BE REMOVED AND DISPOSED, CONTRACTOR SHALL COORDINATE WITH THE CITY ON ITEMS TO BE SALVAGED.
 3. CONTRACTOR SHALL ALLOW FOR STUDENT ACCESS TO F.A. DAY MIDDLE SCHOOL BETWEEN ALBEMARLE ROAD AND THE PATHWAY CONNECTION TO F.A. DAY MIDDLE SCHOOL EVERY DAY BETWEEN THE FOLLOWING HOURS, APART FROM NO SCHOOL DAYS AND HALF DAYS:
 - MONDAY - FRIDAY: 7:20-7:50 AM
 - ALL DAYS EXCEPT WEDNESDAY: 2:30-2:50 PM
 - WEDNESDAY: 1:30-2:00 PM
- PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONSULT THE APPROPRIATE SCHOOL SCHEDULE (TO ACCOUNT FOR NO SCHOOL DAYS AND HALF DAYS) AND SUBMIT TO THE OWNER A PEDESTRIAN MANAGEMENT PLAN THAT ACCOMMODATES THIS PATH OF TRAVEL. THE PLAN SHALL INDICATE THE SHORT TIME PERIOD IN WHICH THE SECTION OF MULTIUSE PATH WILL BE UNDER CONSTRUCTION THAT WILL PROHIBIT ACCESS ACROSS. ANY ANTICIPATED DISRUPTIONS TO STUDENT ACCESS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE OWNER; A MINIMUM OF ONE (1) WEEK NOTICE MUST BE PROVIDED BY THE CONTRACTOR IF A RE-ROUTE OF STUDENTS IS ANTICIPATED, BEYOND WHAT WAS APPROVED IN THE PEDESTRIAN MANAGEMENT PLAN.
4. CONSTRUCTION OPERATIONS:
 - MATERIAL DELIVERY VEHICLES SHALL USE THE CRAFTS STREET ENTRANCE TO THE GREATEST EXTENT POSSIBLE.
 - ALL DELIVERIES SHALL BE SCHEDULED OUTSIDE OF MIDDLE SCHOOL DROP OFF AND PICK UP TIME.

CONTRACTOR SHALL COORDINATE DURING THE SAW CUTTING OF THE EXISTING SIDEWALK AND ROADWAY. A CHANNELIZED ISLAND ADJACENT TO THE SIDEWALK MAY ALSO BE NECESSARY. SEE SPECIAL NOTE #1 ON THIS SHEET.

CONTRACTOR SHALL MAINTAIN AN UNOBSTRUCTED TEMPORARY 5' WIDE GRAVEL PEDESTRIAN ROUTE FROM F.A. DAY MIDDLE SCHOOL TO ALBEMARLE ROAD FOR THE DURATION OF CONSTRUCTION. TIMEFRAMES OF ACTIVE PICK UP AND DROP OFF ARE NOTED IN THE SPECIAL NOTES ON THIS SHEET. CONTRACTOR SHALL INCLUDE A PLAN INDICATING WHERE TEMPORARY CONSTRUCTION FENCING SHALL SHIFT TO ACCOMMODATE CONSTRUCTION ACTIVITIES AS THEY PROGRESS.

CONTRACTOR SHALL COORDINATE AND BUILD A TEMPORARY GRAVEL PATH TO ALLOW FOR AN ACCESS ROUTE FOR BUS PICKUP AND DROP OFF FOR THE F.A. DAY SCHOOL. SEE SPECIAL NOTE #3 ON THIS SHEET.

Revisions:		
No.	Date	Description
1	11/11/2024	ADDENDUM #2

COA:

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Approved By: CB

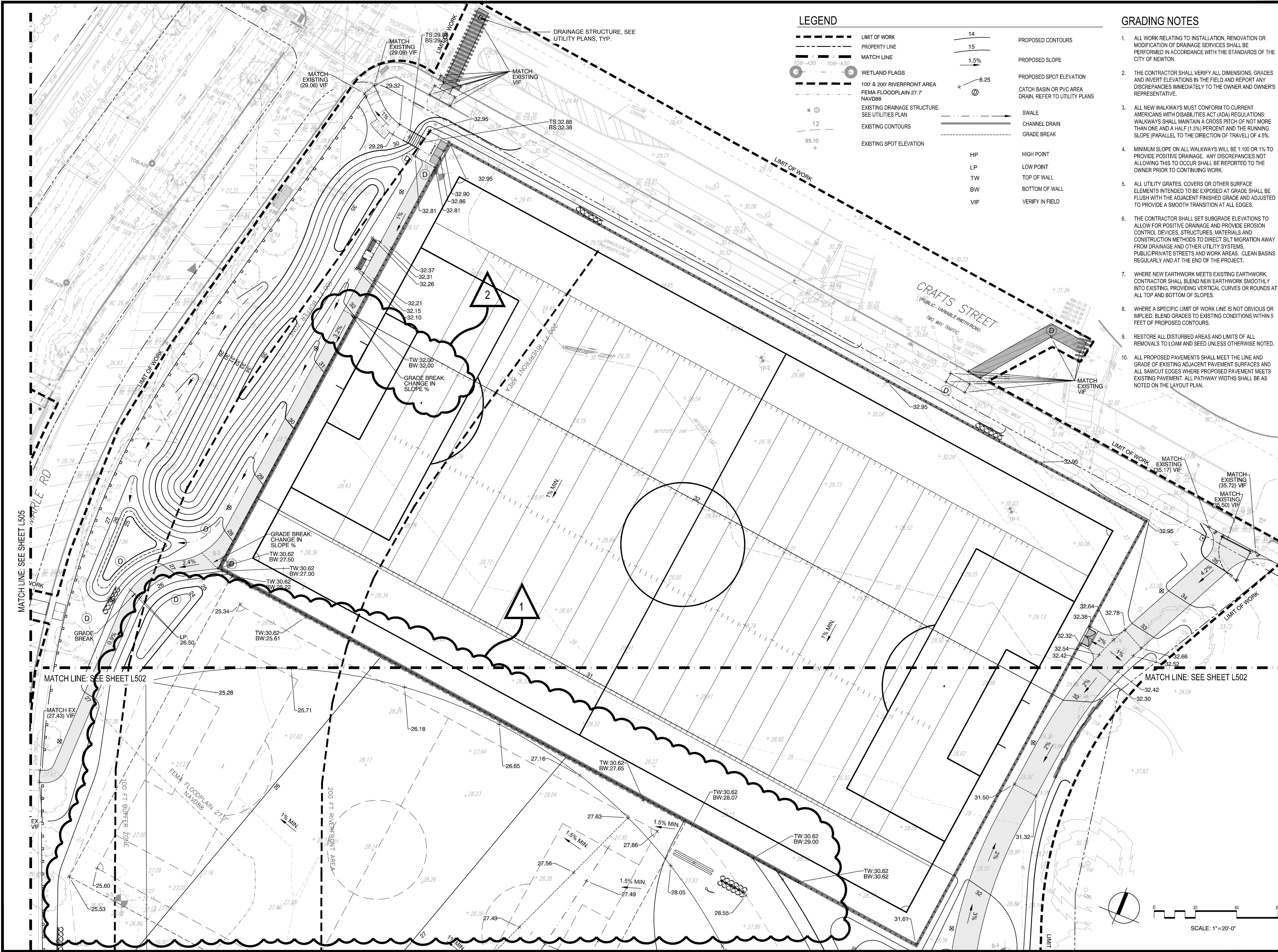
W&S Project No.: ENG22-0315
City Proj. No.: IFB #25-29

Drawing Title:

EROSION CONTROL DIAGRAM

Sheet Number:

L200A



LEGEND

- LIMIT OF WORK
- - - PROPERTY LINE
- - - MATCH LINE
- ⊙ WETLAND FLAGS
- 100' & 200' RIVERFRONT AREA
- FEMA FLOODPLAIN 27.7' NAVD88
- ⊙ EXISTING DRAINAGE STRUCTURE. SEE UTILITIES PLAN
- - - EXISTING CONTOURS
- 95.10 + EXISTING SPOT ELEVATION
- 14 PROPOSED CONTOURS
- 15 PROPOSED SLOPE
- 1.5% PROPOSED SLOPE
- ⊙ PROPOSED SPOT ELEVATION
- CATCH BASIN OR PVC AREA DRAIN, REFER TO UTILITIES PLANS
- SWALE
- CHANNEL DRAIN
- GRADE BREAK
- HP HIGH POINT
- LP LOW POINT
- TW TOP OF WALL
- BW BOTTOM OF WALL
- VIF VERIFY IN FIELD

GRADING NOTES

1. ALL WORK RELATING TO INSTALLATION, RENOVATION OR MODIFICATION OF DRAINAGE SERVICES SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS OF THE CITY OF NEWTON.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, GRADES AND INVERT ELEVATIONS IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE OWNER AND OWNER'S REPRESENTATIVE.
3. ALL NEW WALKWAYS MUST CONFORM TO CURRENT AMERICANS WITH DISABILITIES ACT (ADA) REGULATIONS: WALKWAYS SHALL MAINTAIN A CROSS PITCH OF NOT MORE THAN ONE AND A HALF (1.5%) PERCENT AND THE RUNNING SLOPE (PARALLEL TO THE DIRECTION OF TRAVEL) OF 4.5%.
4. MINIMUM SLOPE ON ALL WALKWAYS WILL BE 1:100 OR 1% TO PROVIDE POSITIVE DRAINAGE. ANY DISCREPANCIES NOT ALLOWING THIS TO OCCUR SHALL BE REPORTED TO THE OWNER PRIOR TO CONTINUING WORK.
5. ALL UTILITY GRATES, COVERS OR OTHER SURFACE ELEMENTS INTENDED TO BE EXPOSED AT GRADE SHALL BE FLUSH WITH THE ADJACENT FINISHED GRADE AND ADJUSTED TO PROVIDE A SMOOTH TRANSITION AT ALL EDGES.
6. THE CONTRACTOR SHALL SET SUBGRADE ELEVATIONS TO ALLOW FOR POSITIVE DRAINAGE AND PROVIDE EROSION CONTROL DEVICES, STRUCTURES, MATERIALS AND CONSTRUCTION METHODS TO DIRECT SILT MIGRATION AWAY FROM DRAINAGE AND OTHER UTILITY SYSTEMS. PUBLIC/PRIVATE STREETS AND WORK AREAS. CLEAN BASINS REGULARLY AND AT THE END OF THE PROJECT.
7. WHERE NEW EARTHWORK MEETS EXISTING EARTHWORK, CONTRACTOR SHALL BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING, PROVIDING VERTICAL CURVES OR ROUNDS AT ALL TOP AND BOTTOM OF SLOPES.
8. WHERE A SPECIFIC LIMIT OF WORK LINE IS NOT OBVIOUS OR IMPLIED, BLEND GRADES TO EXISTING CONDITIONS WITHIN 5 FEET OF PROPOSED CONTOURS.
9. RESTORE ALL DISTURBED AREAS AND LIMITS OF ALL REMOVALS TO LOAM AND SEED UNLESS OTHERWISE NOTED.
10. ALL PROPOSED PAVEMENTS SHALL MEET THE LINE AND GRADE OF EXISTING ADJACENT PAVEMENT SURFACES AND ALL SAWCUT EDGES WHERE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT. ALL PATHWAY WIDTHS SHALL BE AS NOTED ON THE LAYOUT PLAN.

IMPROVEMENTS TO ALBEMARLE PLAYGROUND NORTH AND MULTI-USE PATH, PHASE 1

250 ALBEMARLE RD
NEWTON, MA 02460

Weston & Sampson

Weston & Sampson Engineers, Inc.
100 Foxborough Boulevard, Suite 250
Foxborough, MA 02035
978.532.1900 800.SAMPSON
www.westonandsampson.com

KEY PLAN:

Revisions:

No.	Date	Description
1	11/6/2024	ADD. #1 - BB INFIELD SHIFT
2	11/11/2024	ADDENDUM #2

COA:

Seal:

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Drawn By: AG, JCF, TF

Reviewed By: JM, CB

Approved By: CB

W&S Project No.: ENG22-0315

City Proj. No.: IFB #25-29

Drawing Title:

GRADING PLAN

Sheet Number:

L501



Revisions		
No.	Date	Description
1	11/06/2024	ADDENDUM #1
2	11/11/2024	ADDENDUM #2

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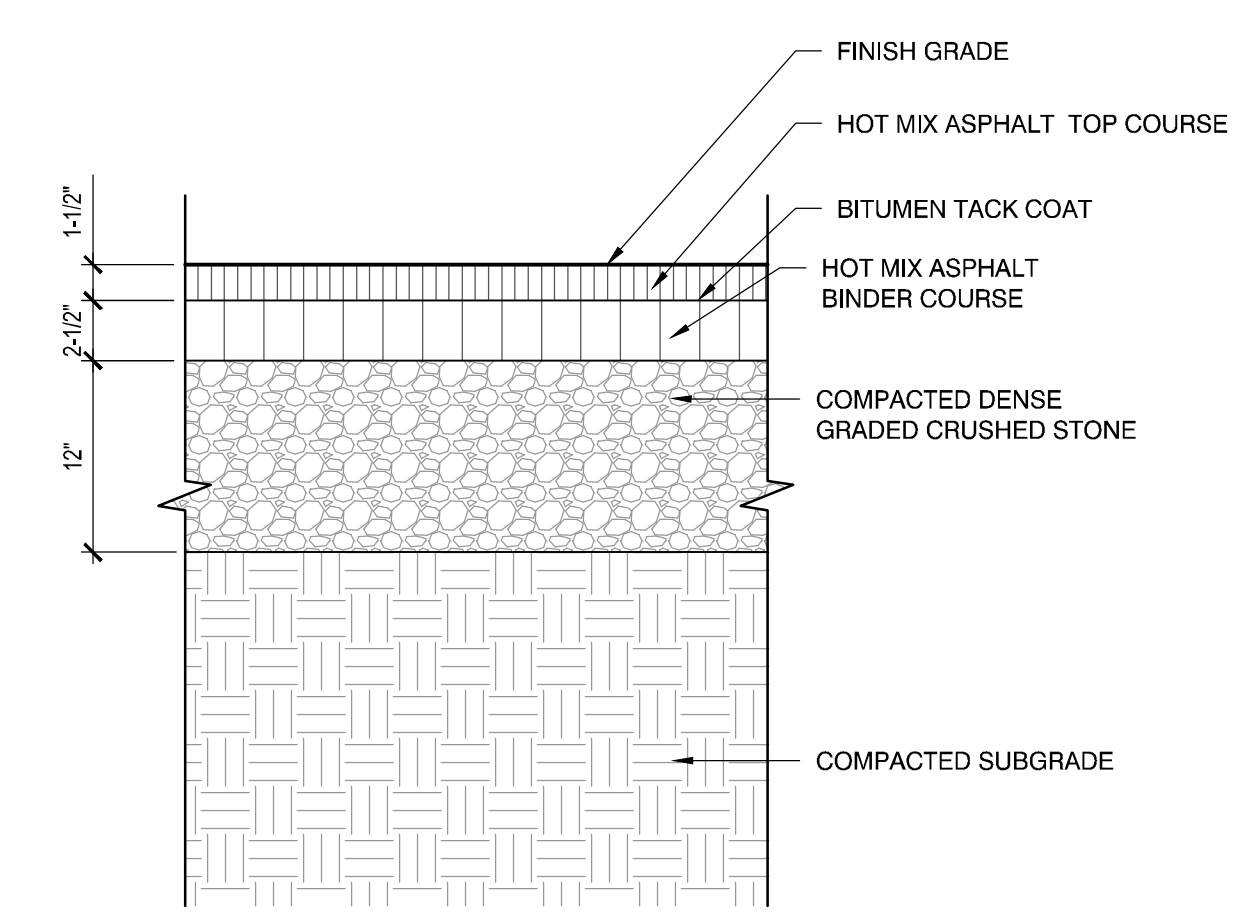
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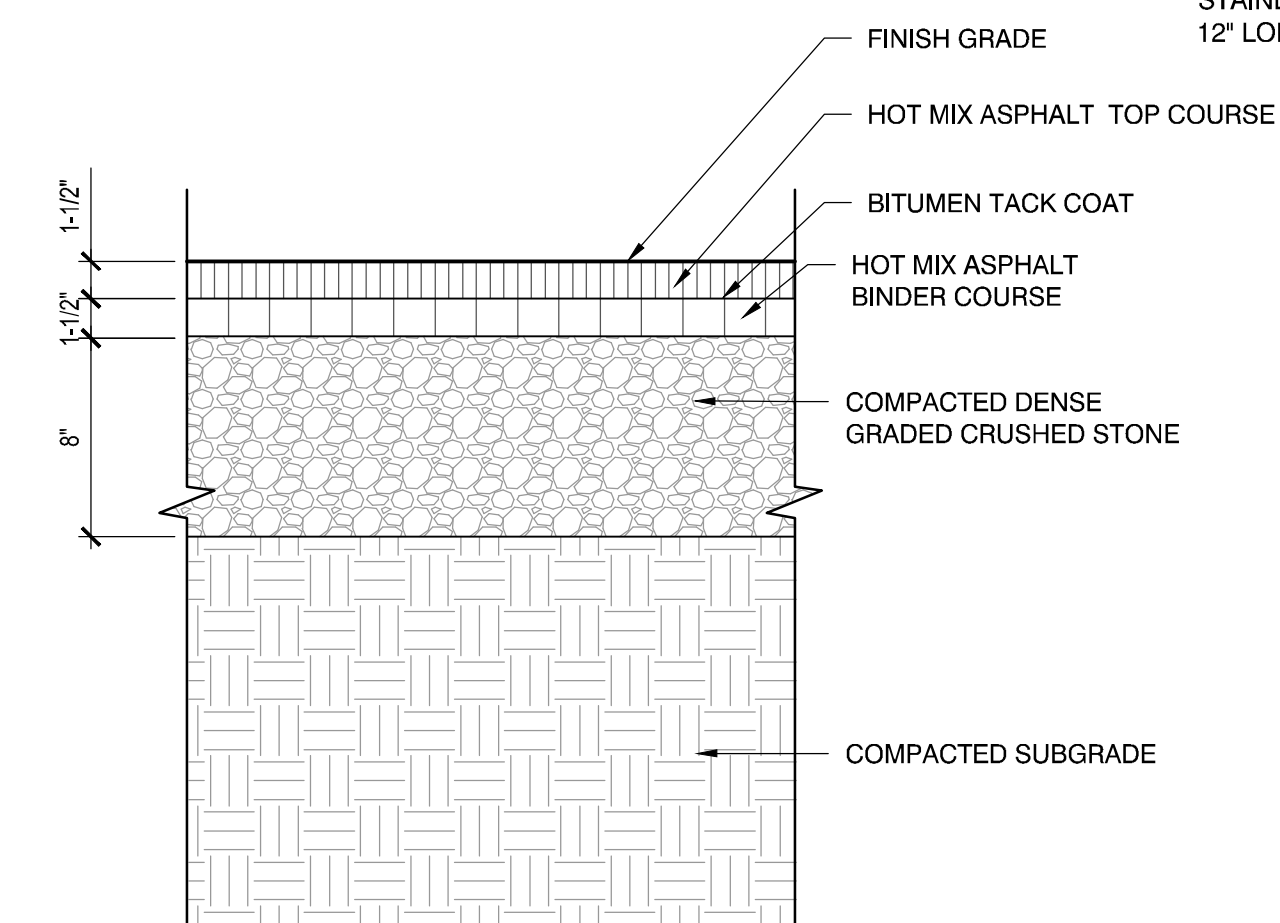
Date: 10/24/2024
 Drawn By: AG, JCF, TF
 Reviewed By: JM, CB
 Approved By: CB
 W&S Project No.: ENG22-0315
 City Proj. No.: IFB #25-29

CONSTRUCTION DETAILS

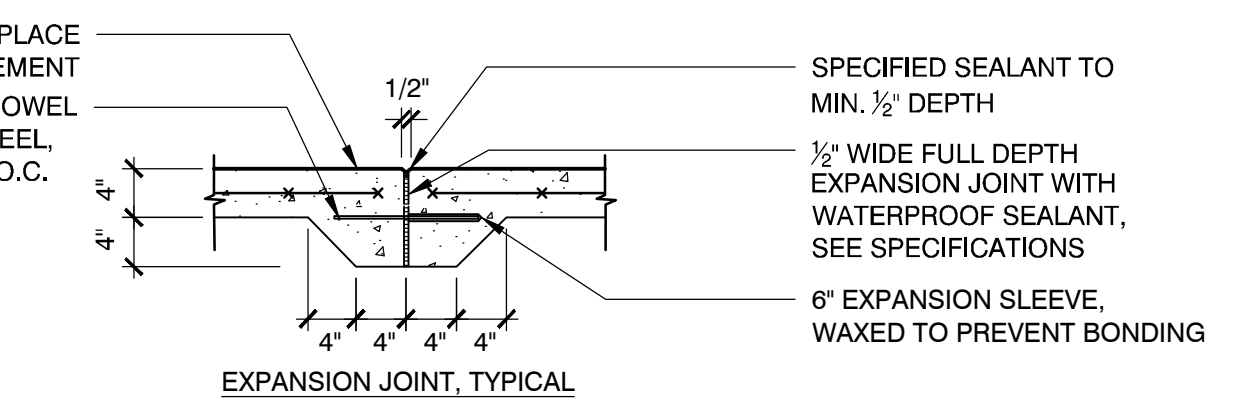
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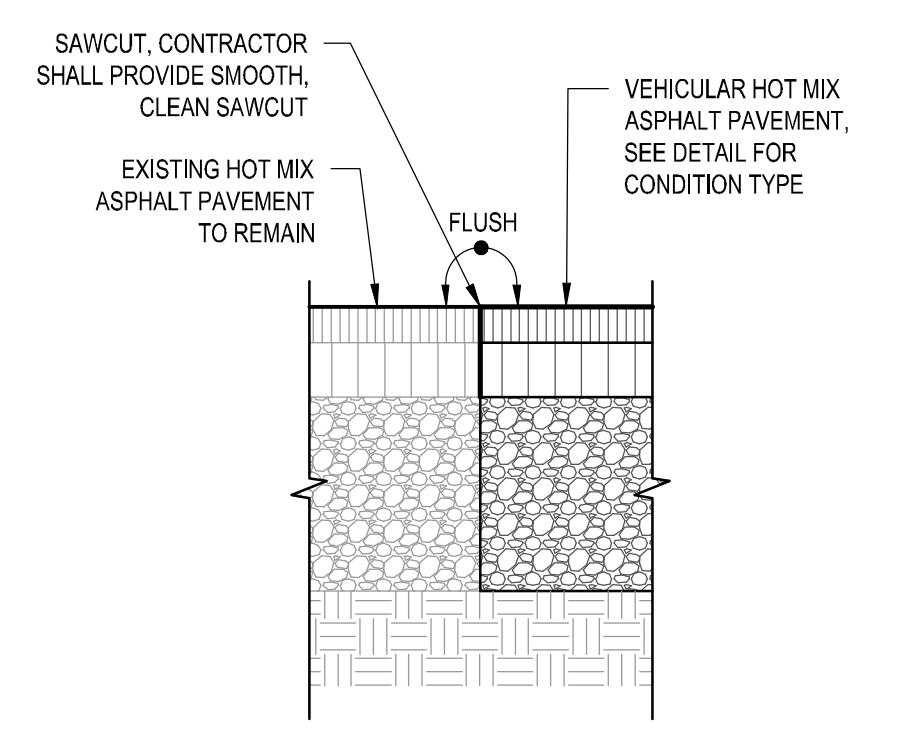
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SCALE: N.T.S.



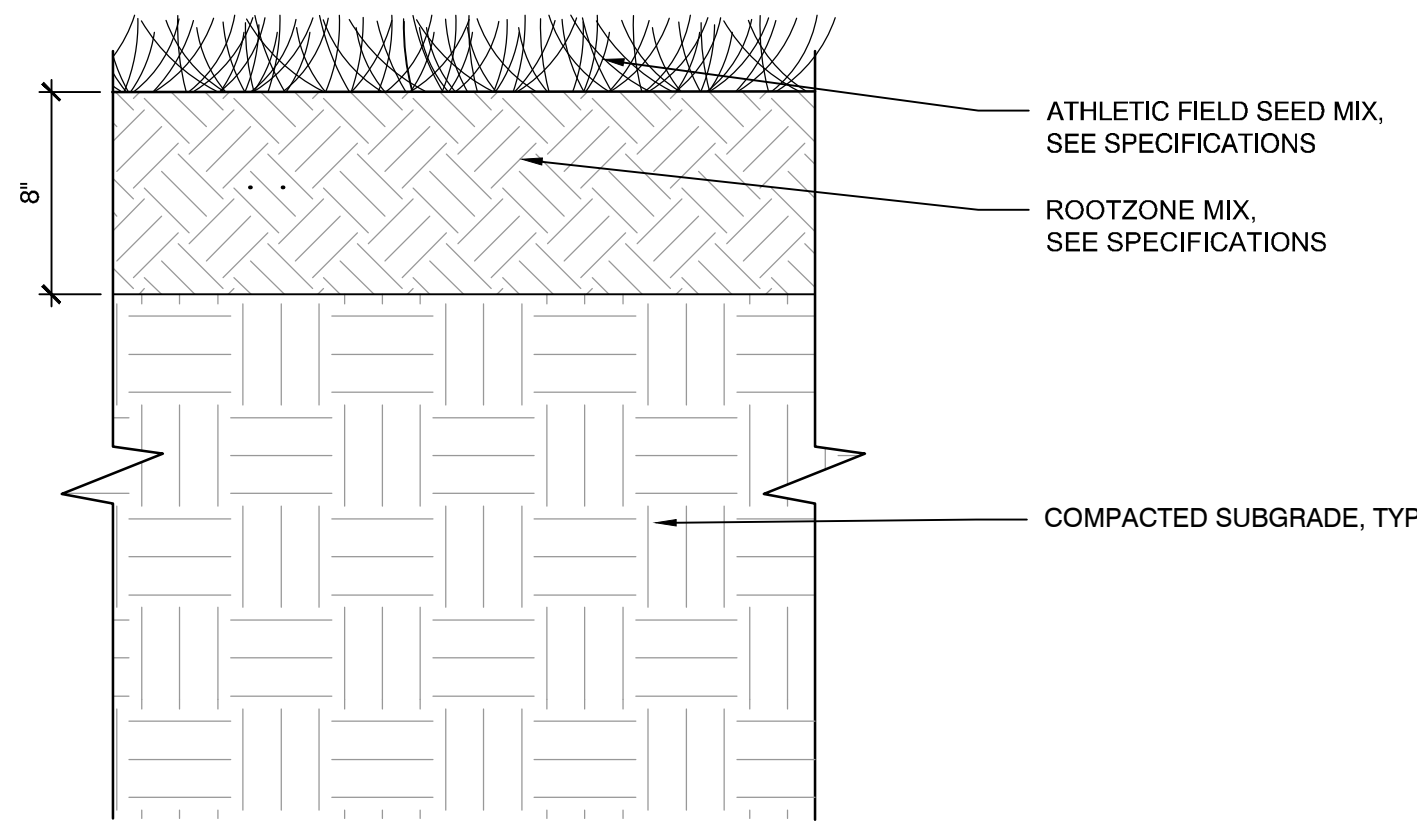
2 HOT MIX ASPHALT PAVEMENT, PEDESTRIAN
SCALE: N.T.S.



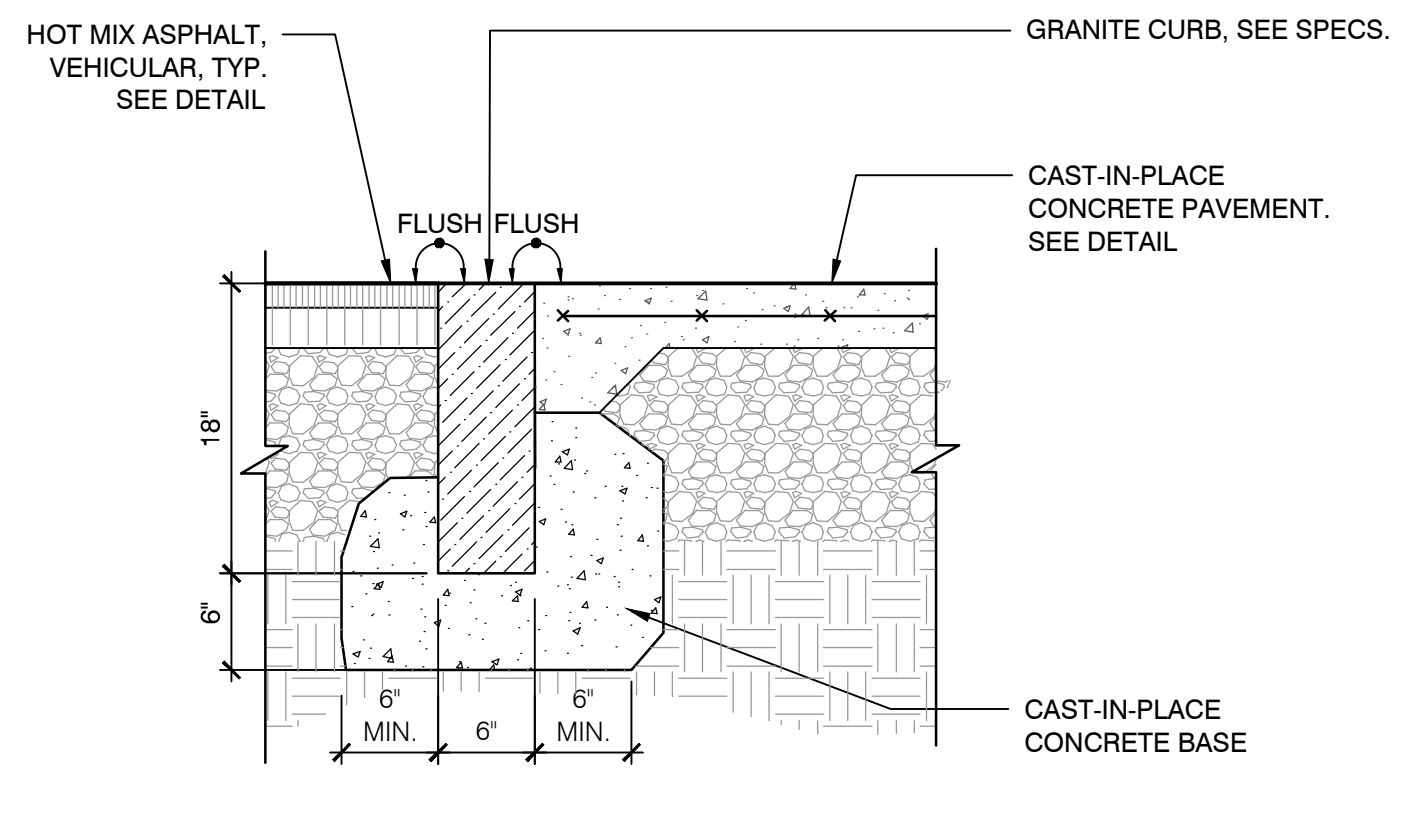
3 CAST-IN-PLACE CONCRETE PAVEMENT
SCALE: N.T.S.



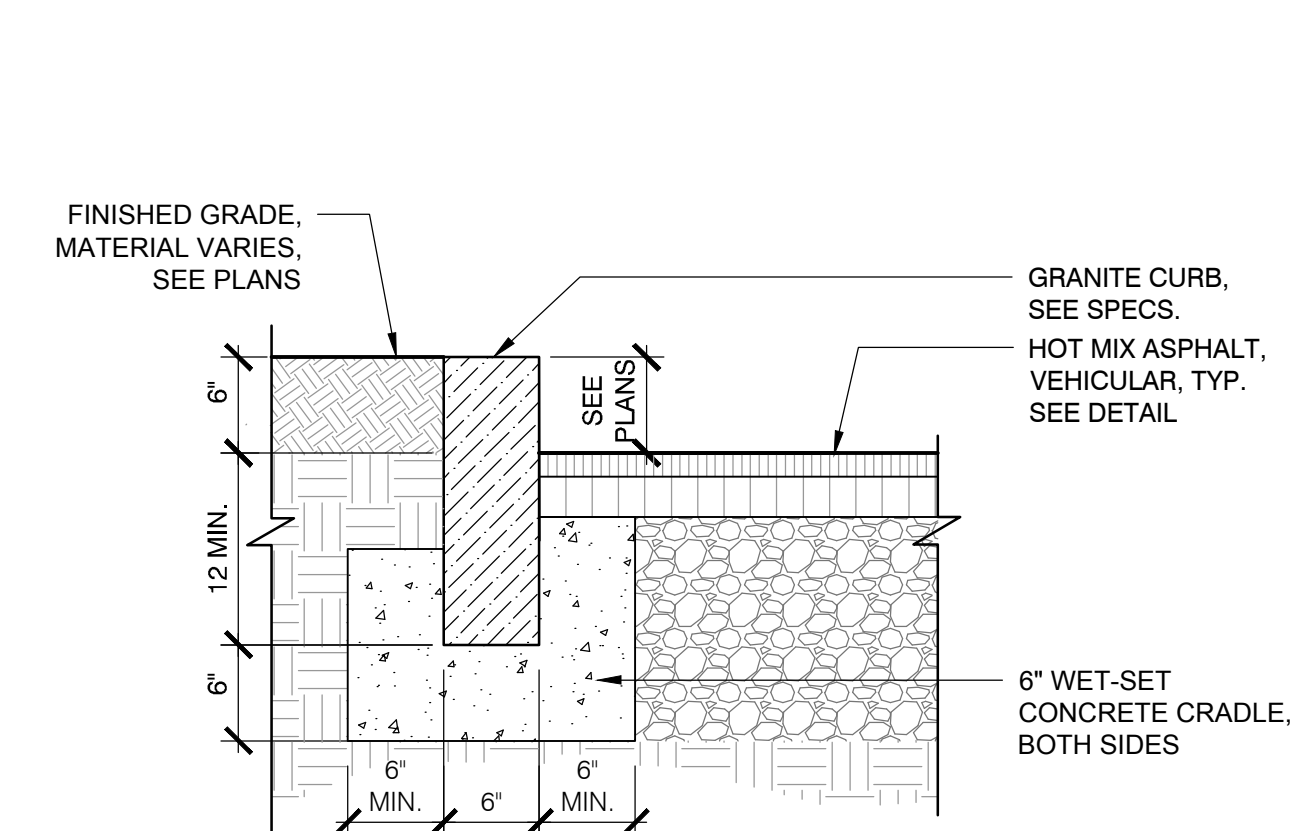
4 HOT MIX ASPHALT PAVEMENT, VEHICULAR AT EX. HOT MIX ASPHALT PAVEMENT
SCALE: N.T.S.



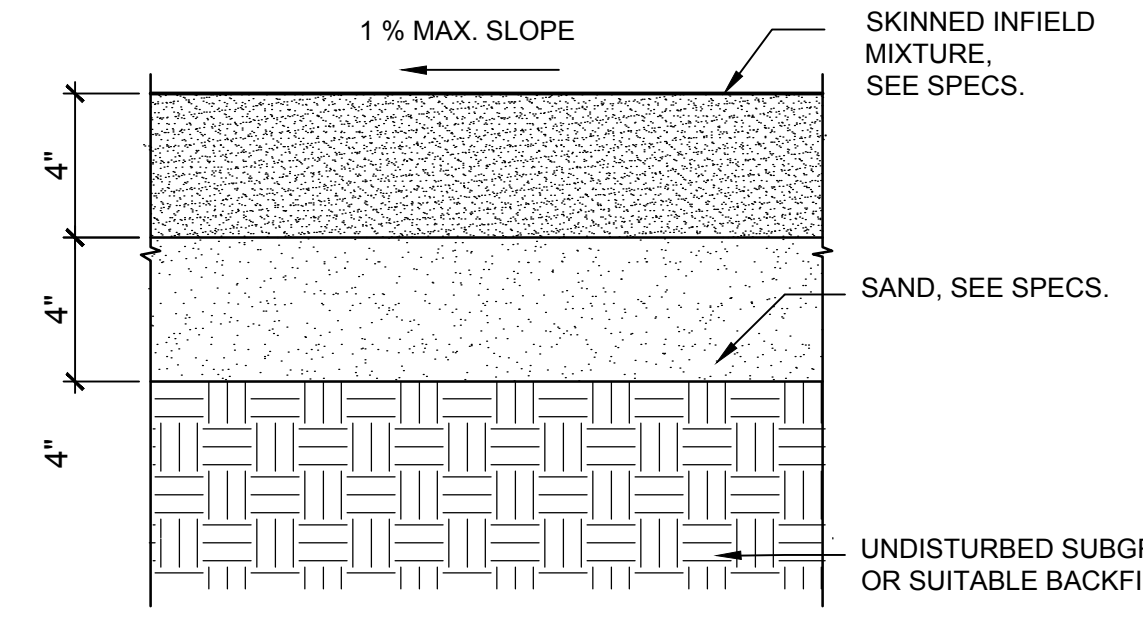
5 ROOTZONE MIX
SCALE: N.T.S.



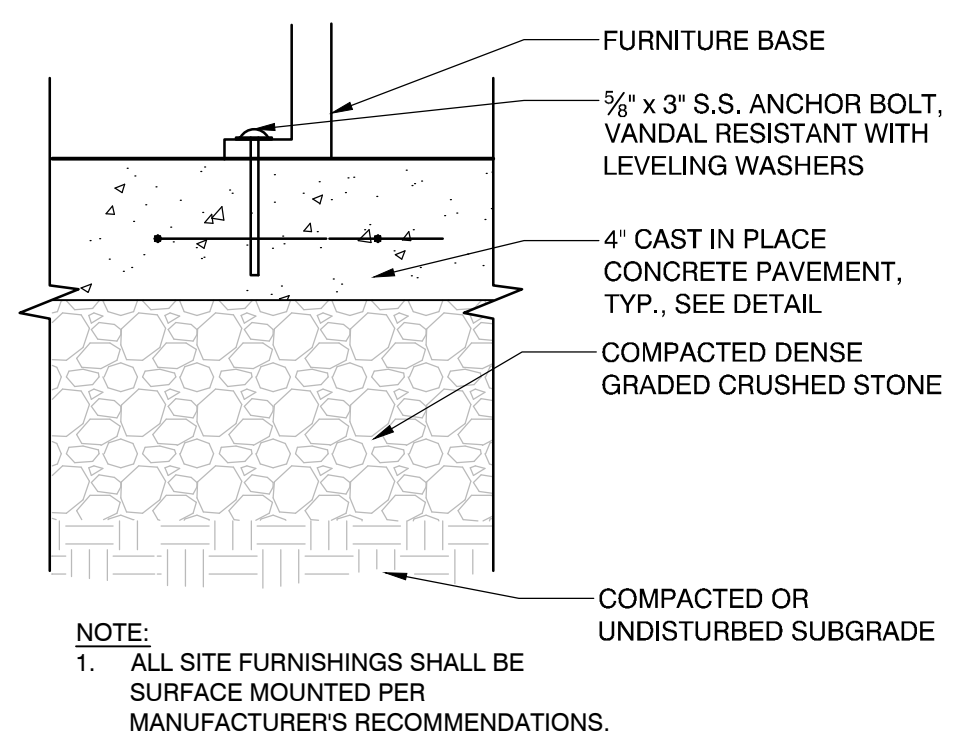
6 FLUSH GRANITE CURB
SCALE: N.T.S.



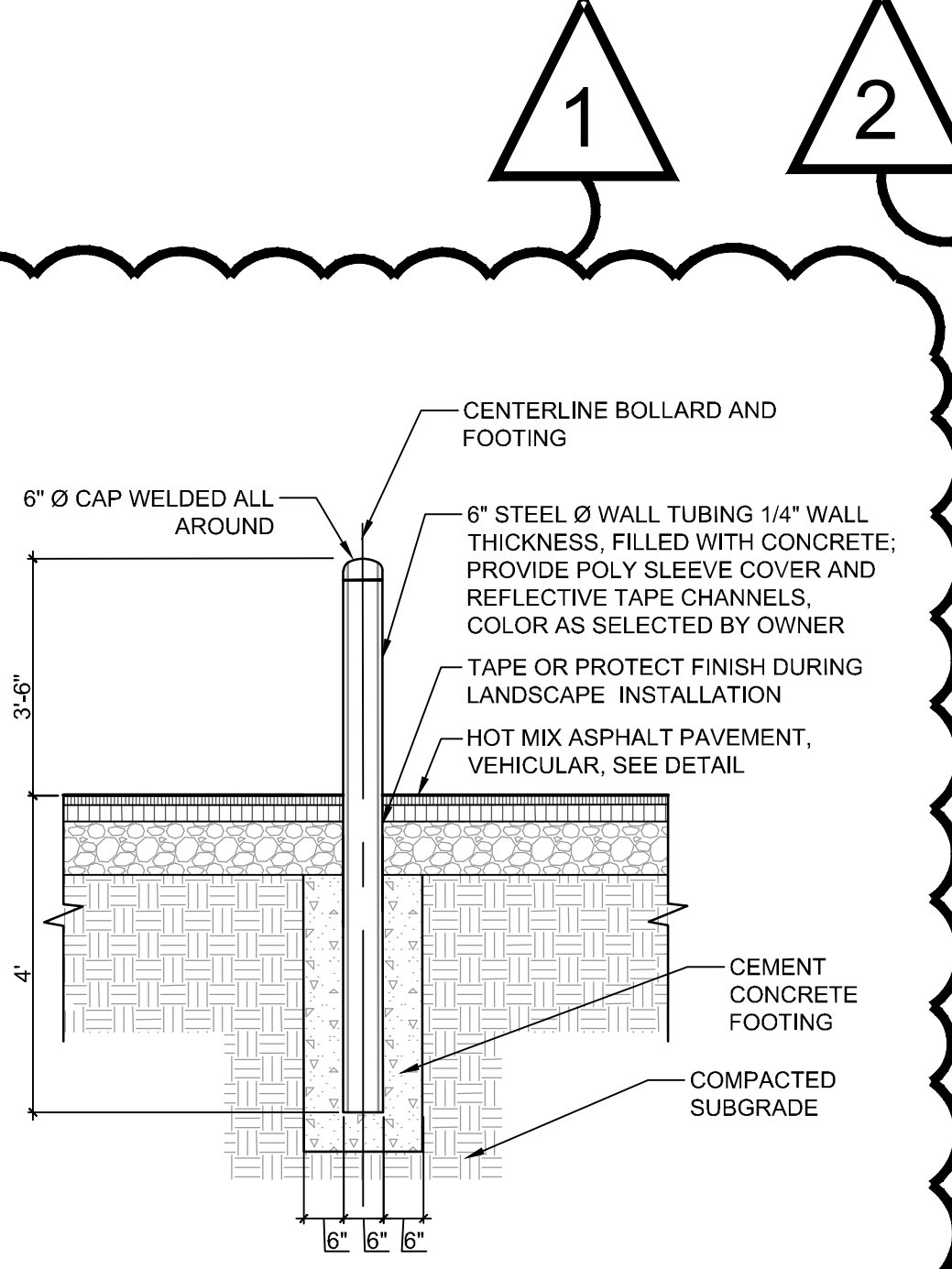
7 VERTICAL GRANITE CURB
SCALE: N.T.S.



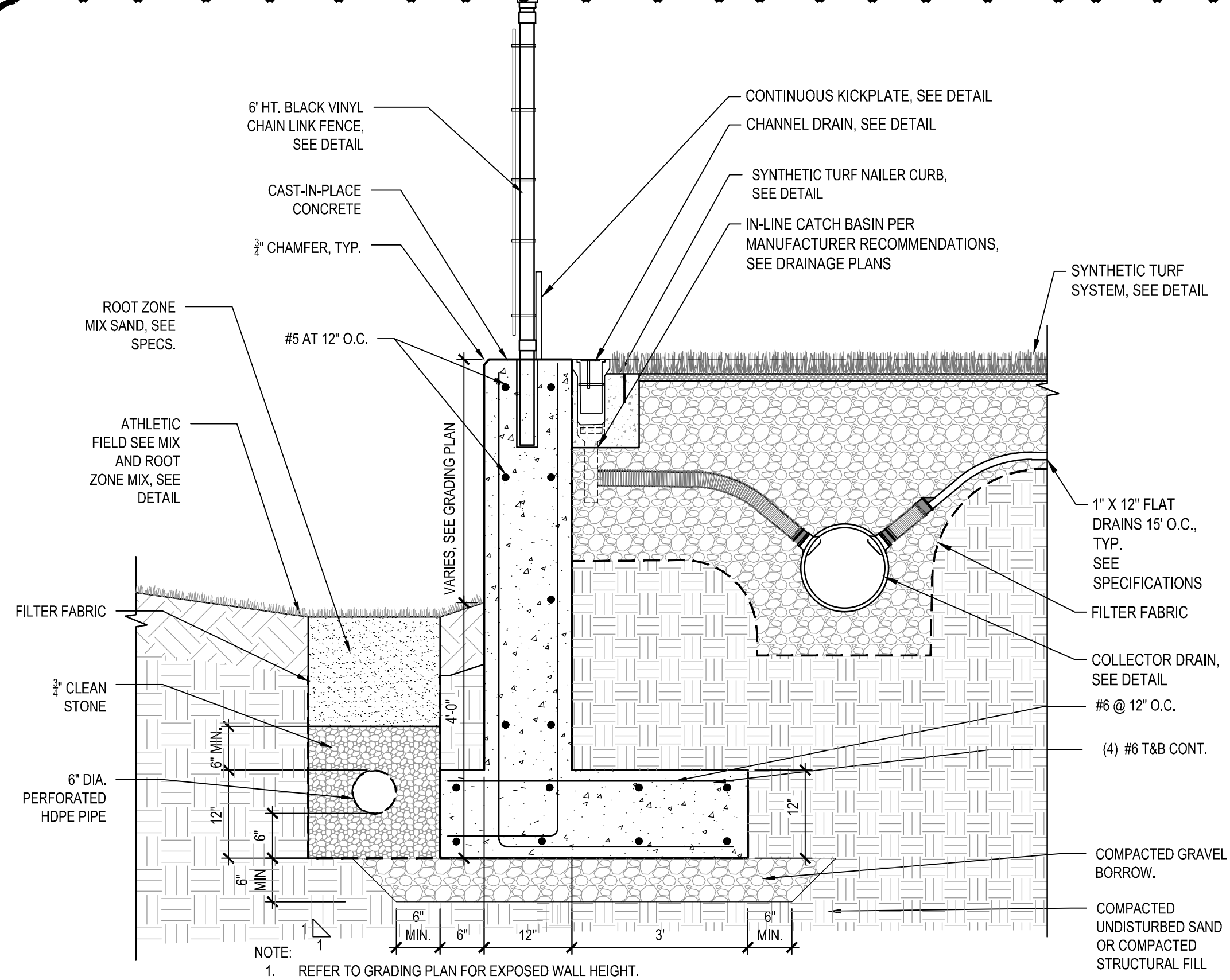
8 SKINNED INFIELD MIX
SCALE: N.T.S.



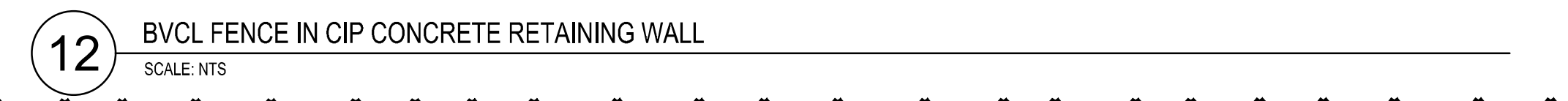
9 SURFACE MOUNT TO CONCRETE
FURNITURE SURFACE MOUNT
SCALE: N.T.S.



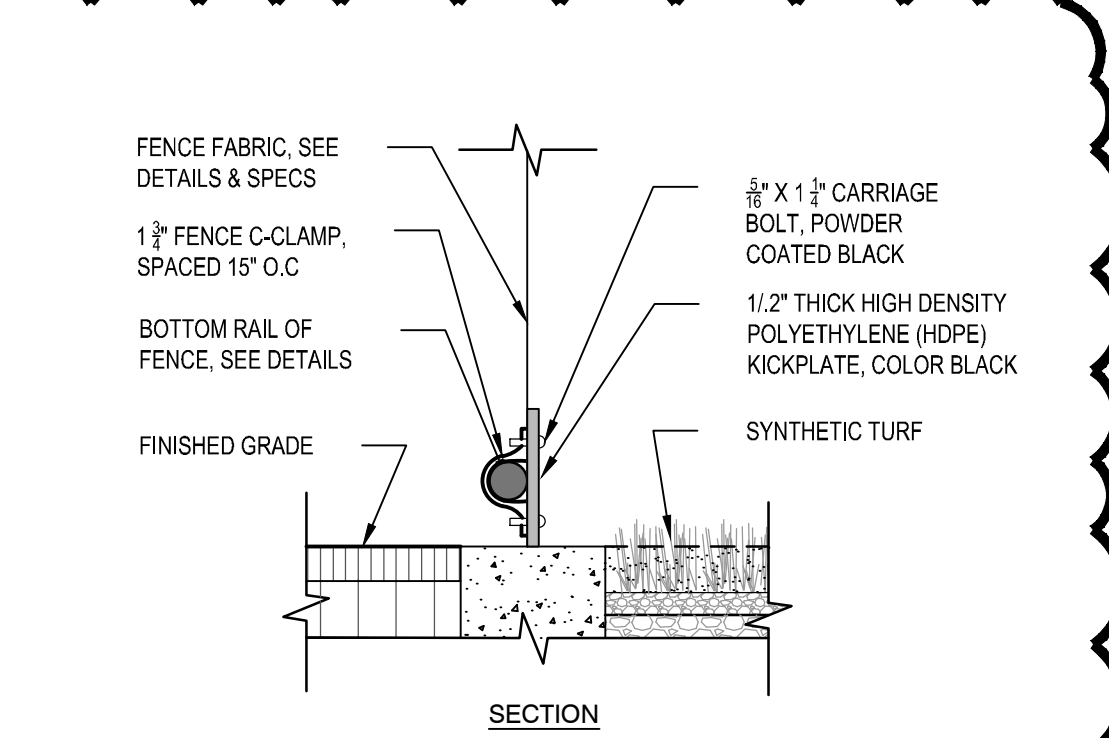
10 CAST IN PLACE CONCRETE AT DUGOUT LOCATIONS
SCALE: N.T.S.



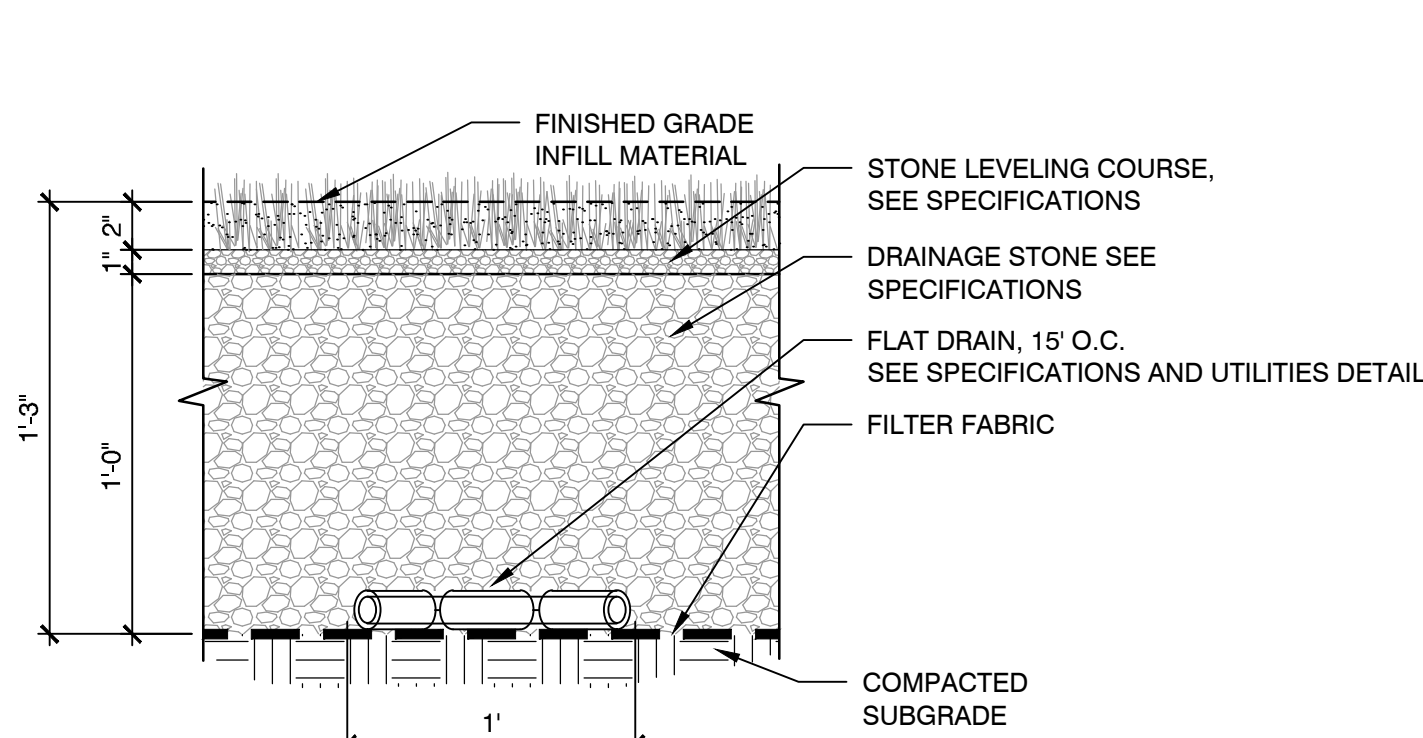
11 BOLLARD AT VEHICULAR SWING GATE
SCALE: N.T.S.



12 BVCL FENCE IN CIP CONCRETE RETAINING WALL
SCALE: N.T.S.

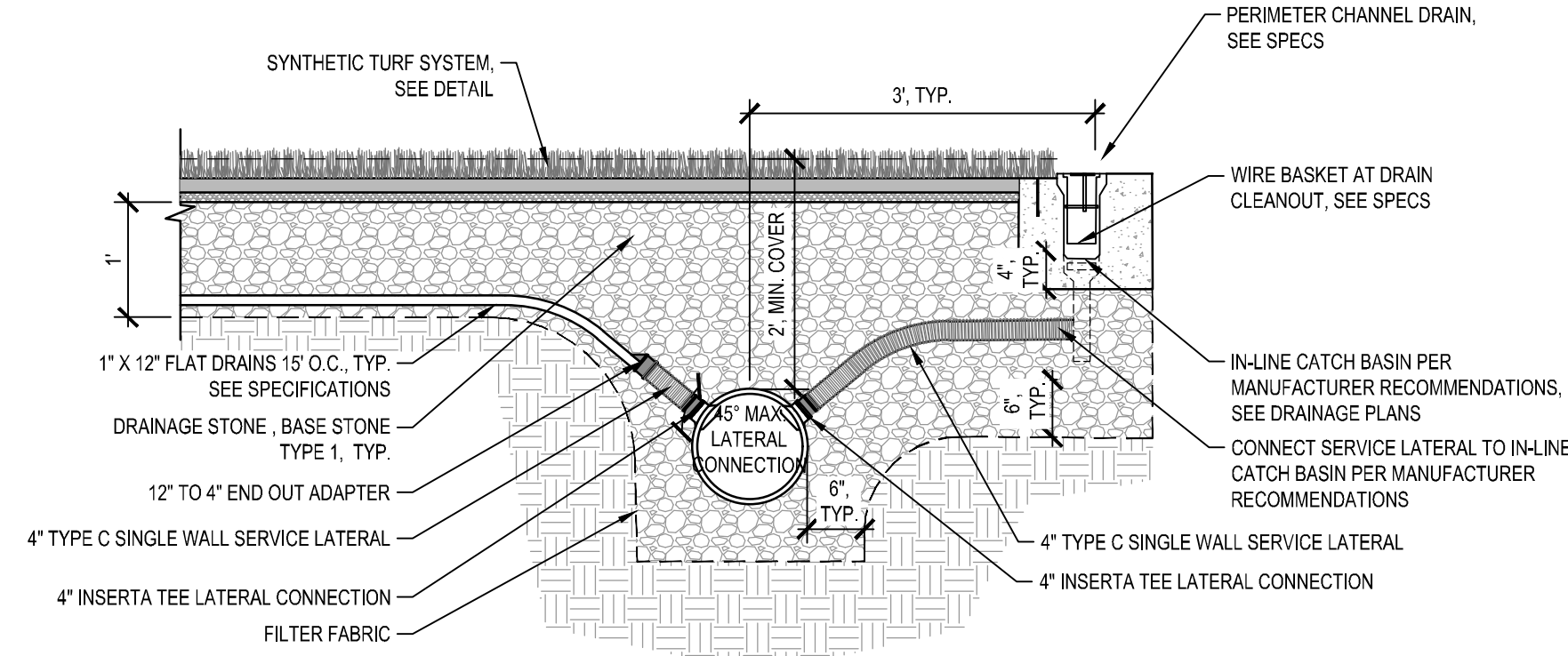


13 CONTINUOUS KICKPLATE
SCALE: N.T.S.



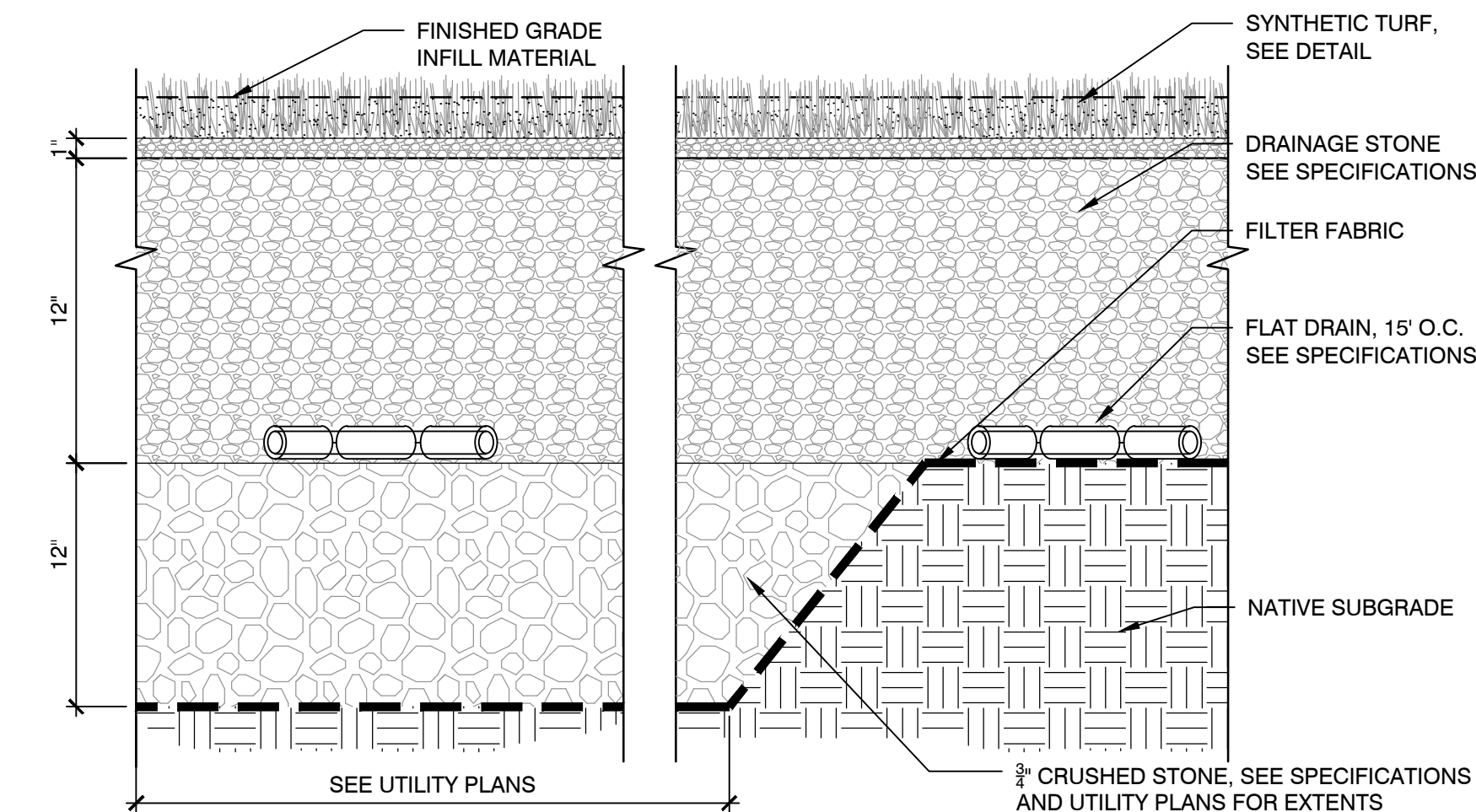
- NOTES:**
1. SUBGRADE ELEVATIONS TO FOLLOW SAME SLOPE AS FINISHED SURFACE ELEVATIONS WITHIN TURF LIMITS.
 2. ABSOLUTELY NO SUBSTITUTIONS SHALL BE ALLOWED FOR BOTH THE STONE LEVELING COURSE AND DRAINAGE STONE WITHOUT A WRITTEN AND SIGNED DOCUMENT DIRECTLY FROM THE TURF MANUFACTURER. DOCUMENT SHALL STATE: THE MATERIAL IS AN ACCEPTABLE MATERIAL TO BE USED DIRECTLY UNDER THEIR TURF FIELD FABRIC AND THAT THE SUBSTITUTION MATERIAL PROVIDES THE SAME CHARACTERISTICS (DRAINAGE, STRUCTURAL INTEGRITY, PLAYABILITY, ETC.) AS THE MATERIALS SPECIFIED. FAILURE TO PROVIDE SUCH A DOCUMENT SHALL BE AT THE RISK AND COST OF THE CONTRACTOR.

1 SYNTHETIC TURF
SCALE: N.T.S.

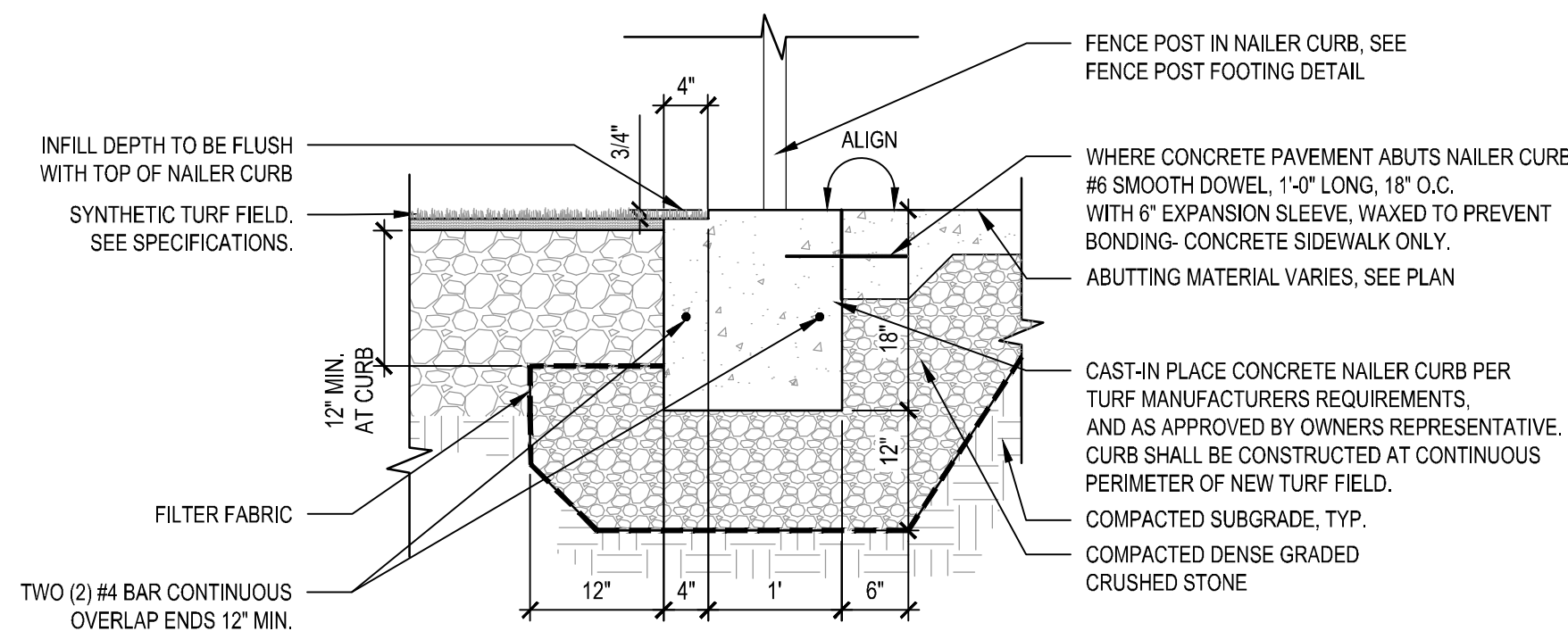


- NOTES:**
1. FLAT DRAIN TO BE DIRECTLY CONNECTED TO PERIMETER DRAIN. PROVIDE MANUFACTURED FITTINGS TO MAKE THE CONNECTION AS REQUIRED AND APPROVED BY THE OWNERS REPRESENTATIVE.
 2. SERVICE LATERALS TO BE DIRECTLY CONNECTED TO IN-LINE CATCH BASIN PER MANUFACTURER RECOMMENDATIONS. PROVIDE MANUFACTURED FITTINGS TO MAKE THE CONNECTION AS REQUIRED AND APPROVED BY THE OWNERS REPRESENTATIVE.

2 COLLECTOR DRAIN AT SYNTHETIC TURF
SCALE: N.T.S.

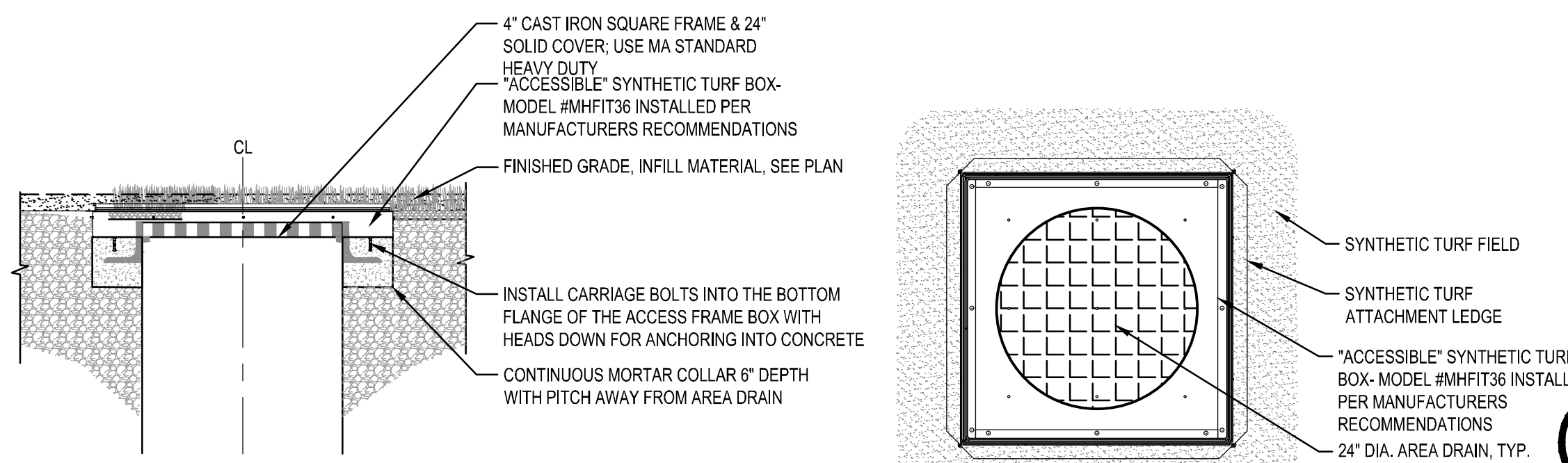


3 STONE BASIN UNDER FIELD
SCALE: N.T.S.



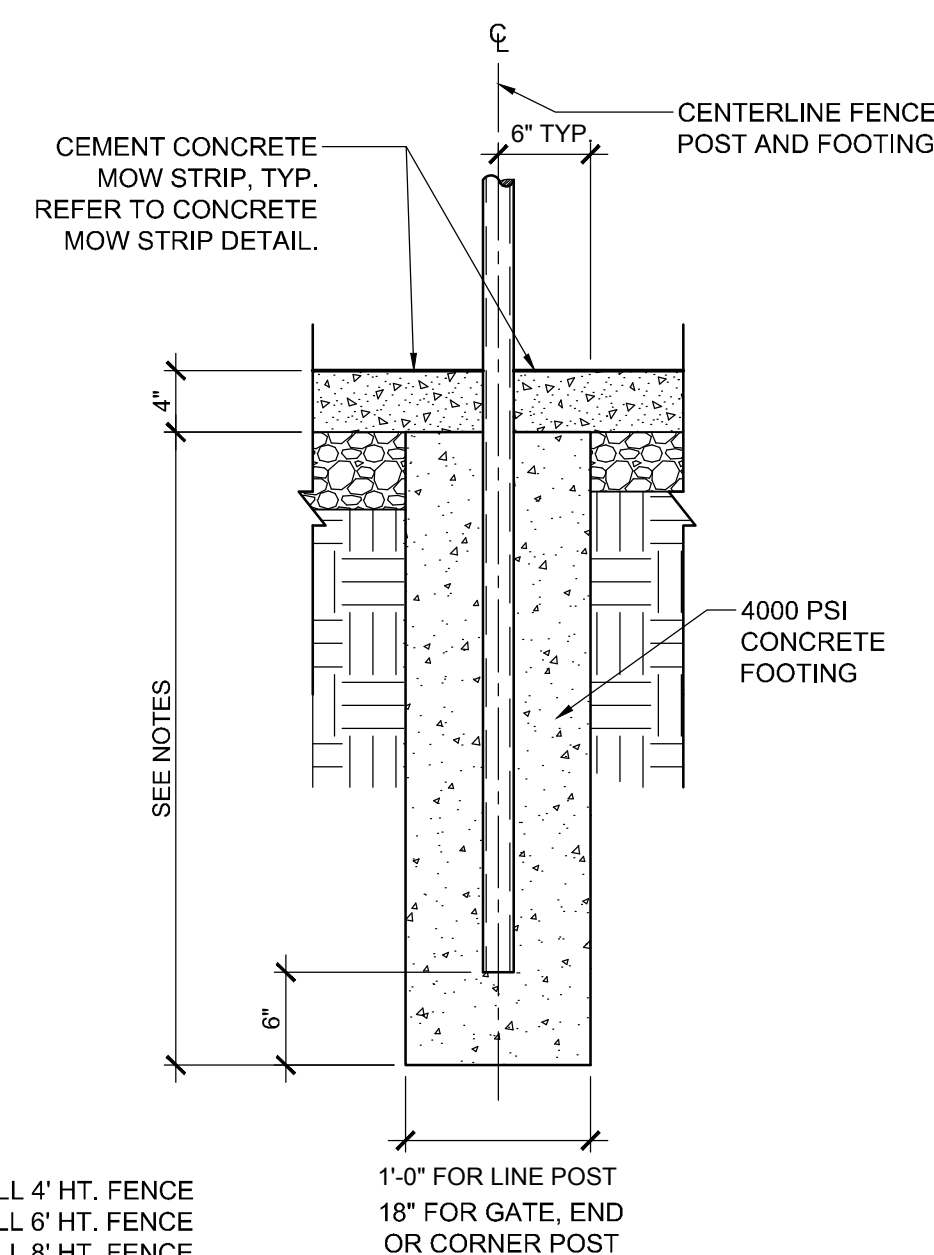
- NOTES:**
1. CONTRACTOR TO PROVIDE CONTROL JOINTS (PREFORMED OR SAWCUT) 10' O.C. MIN. 1/2" DEEP
 2. CONTRACTOR TO PROVIDE EXPANSION JOINTS EVERY 40' O.C.

4 SYNTHETIC TURF NAILER CURB
SCALE: N.T.S.



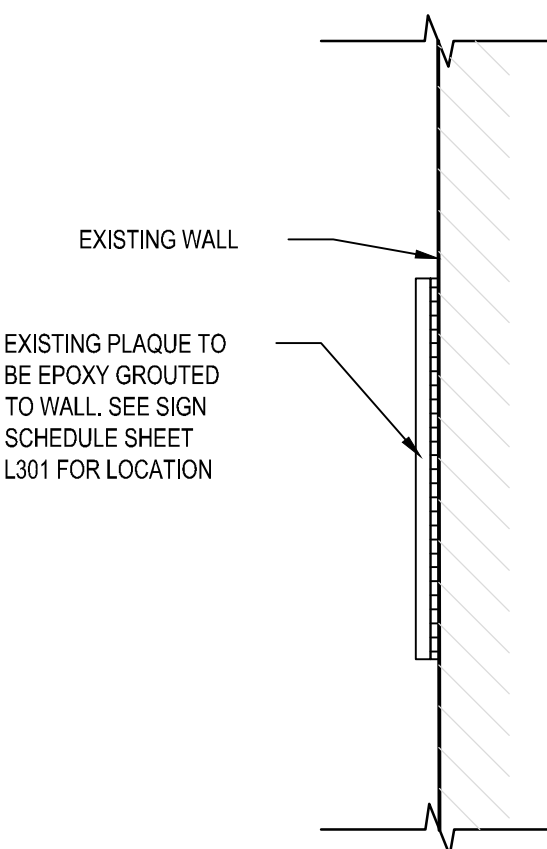
- NOTES:**
1. SYNTHETIC TURF CAN BE CUT AND SECURED TO THE PROVIDED TURF ATTACHMENT LEDGE PER MANUFACTURERS DIRECTIONS
 2. CONTRACTOR SHALL CONFIRM SIZE AND EXACT MODEL NUMBER WITH MANUFACTURER PRIOR TO ORDERING

5 SYNTHETIC TURF BOX COVER
SCALE: N.T.S.

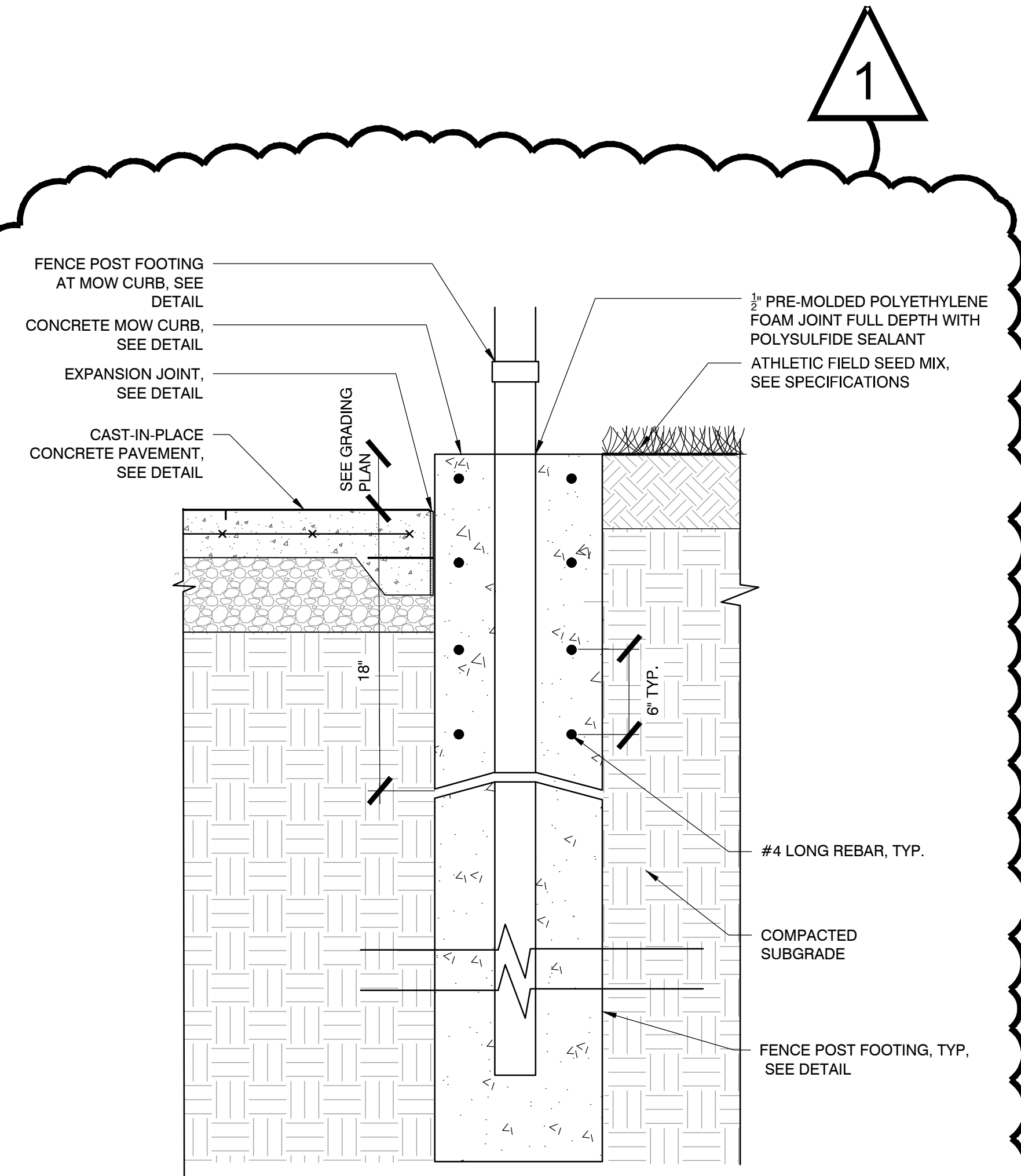


- NOTES:**
1. 4" ON ALL 4' HT. FENCE
 2. 5" ON ALL 6' HT. FENCE
 3. 6" ON ALL 8' HT. FENCE
- 1'-0" FOR LINE POST
18" FOR GATE, END OR CORNER POST

6 FENCE POST FOOTING
SCALE: N.T.S.



7 BRONZE PLAQUE MOUNTED ON FIELD HOUSE
SCALE: N.T.S.



8 RETAINING MOW CURB WITH FENCING
SCALE: N.T.S.



Revisions		
No.	Date	Description
1	11/11/2024	ADDENDUM #2

COA:

Seal:

Issued For:
BID DOCUMENTS

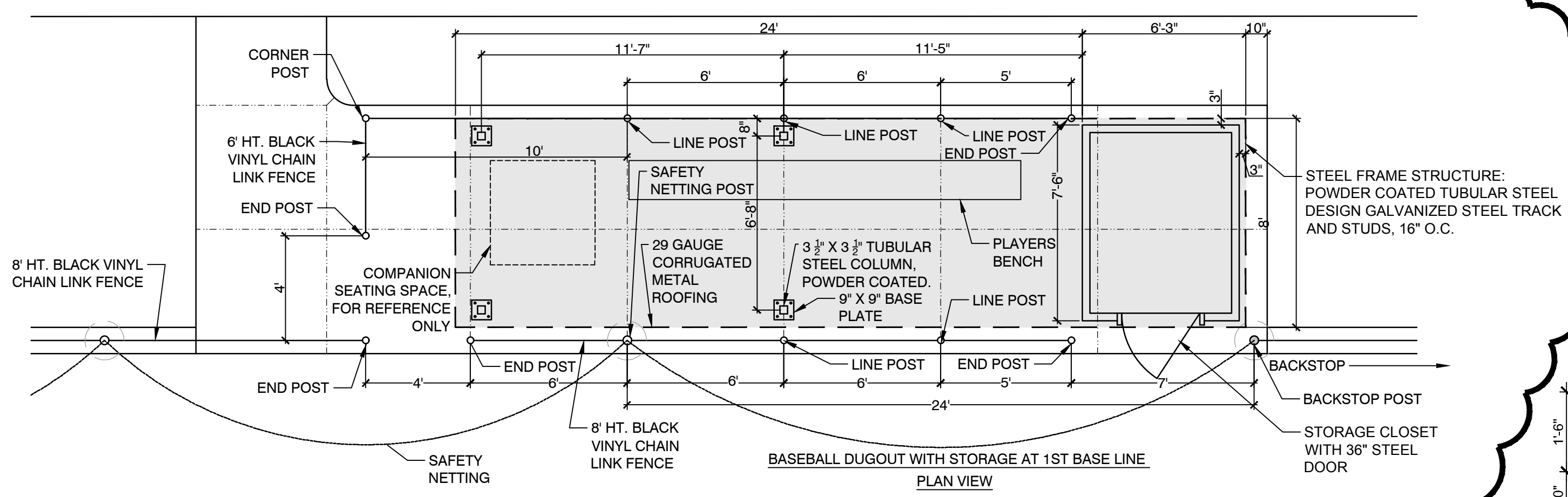
Scale:

Date: 10/24/2024
Drawn By: AG, JCF, TF
Reviewed By: JM, CB
Approved By: CB
W&S Project No.: ENG22-0315
City Proj. No.: IFB #25-29

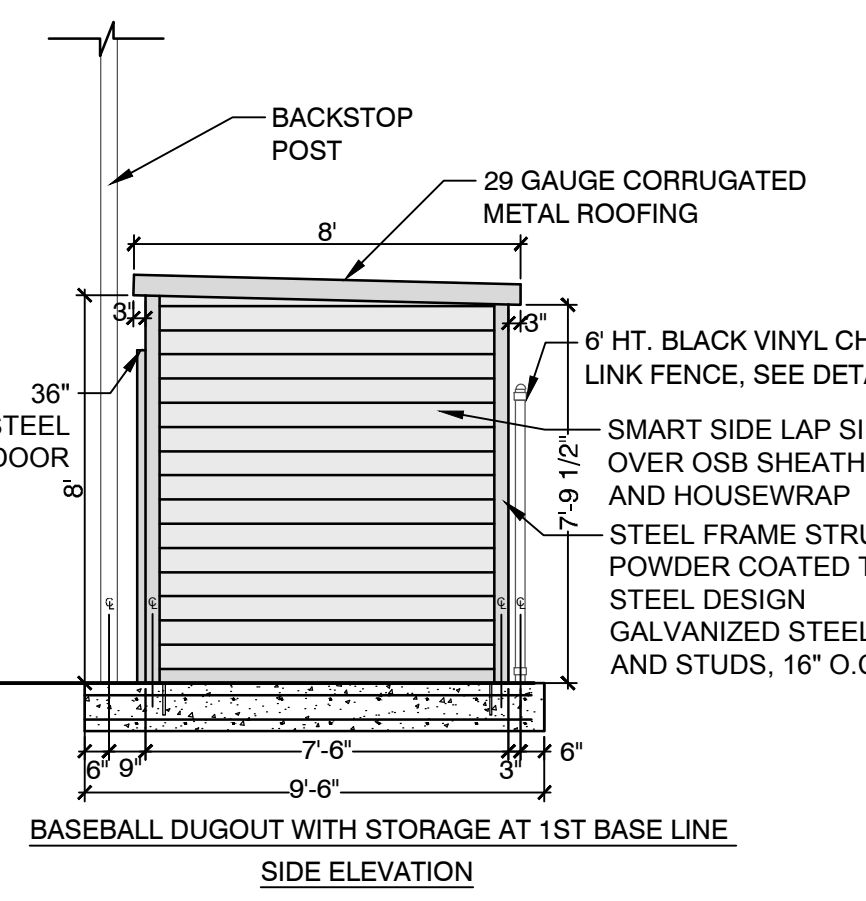
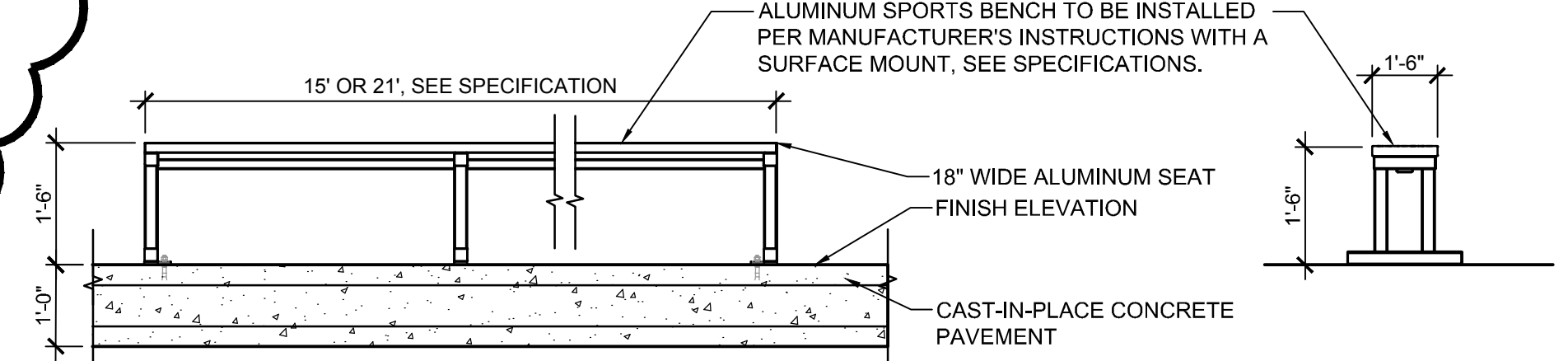
Drawing Title:
CONSTRUCTION DETAILS

Sheet Number:
L702

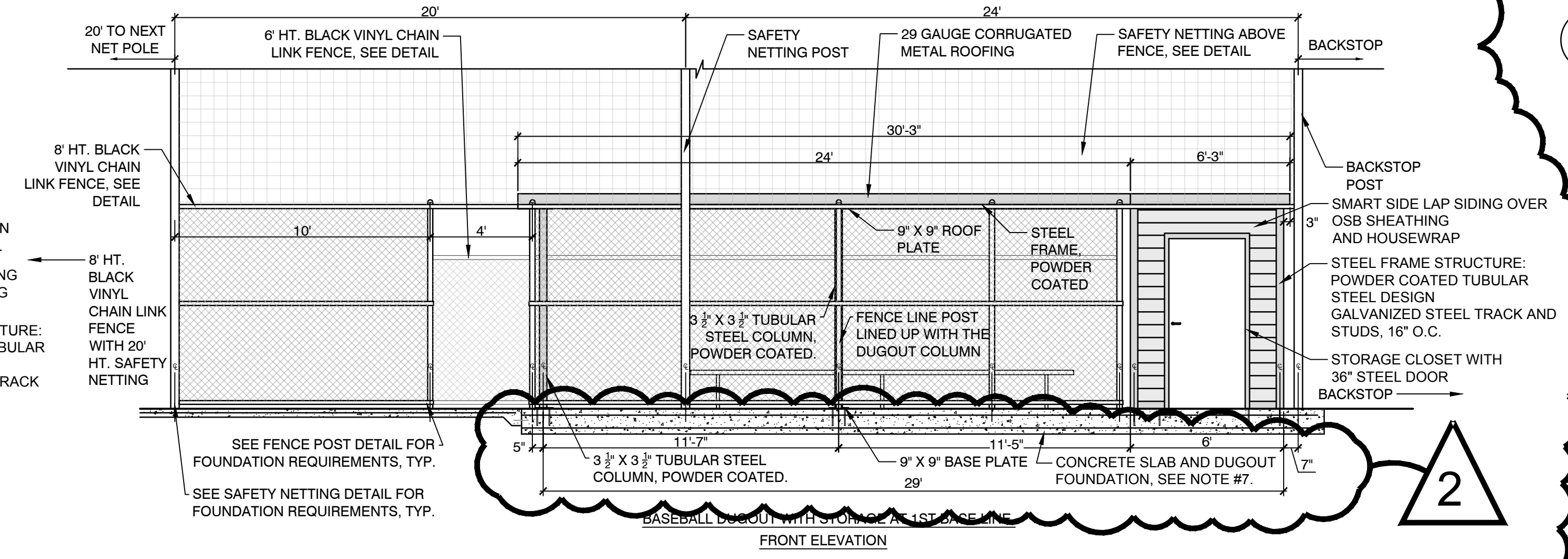
- NOTES:
1. ALL STRUCTURAL STEEL, UNLESS OTHERWISE NOTED, SHALL BE ASTM A-36, MINIMUM YIELD STRENGTH 36,000 PSI.
 2. ALL ALUMINUM MEMBERS, UNLESS OTHERWISE NOTED, SHALL BE OF ALLOY 6063-T5.
 3. ALL HOLES SHALL BE DRILLED OR PUNCHED.
 4. STEEL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STANDARD D1.1-98.
 5. ELECTRODES SHALL CONFORM TO AWS A5.1, CLASS E70XX.
 6. ALUMINUM WELDING SHALL CONFORM TO AWS/SFA 5.10 CLASS ER4043.
 7. ALL WELDING TO BE DONE BY MANUFACTURING CO.
 8. DUGOUT FOUNDATION DESIGNS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. SEE SPECIFICATIONS.



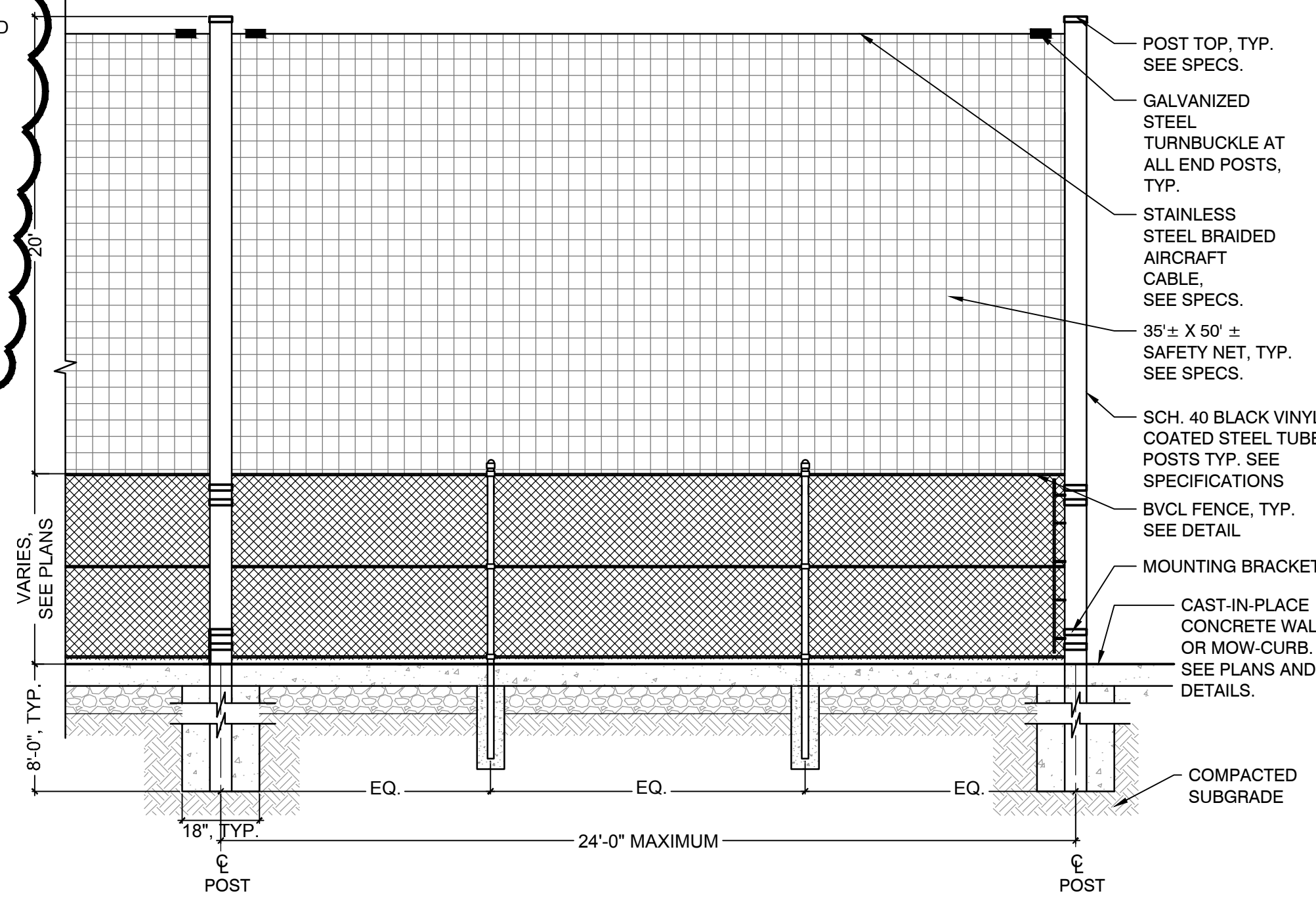
2 TEAM BENCH
SCALE: N.T.S.



1 DUGOUT STRUCTURE WITH STORAGE
SCALE: N.T.S.

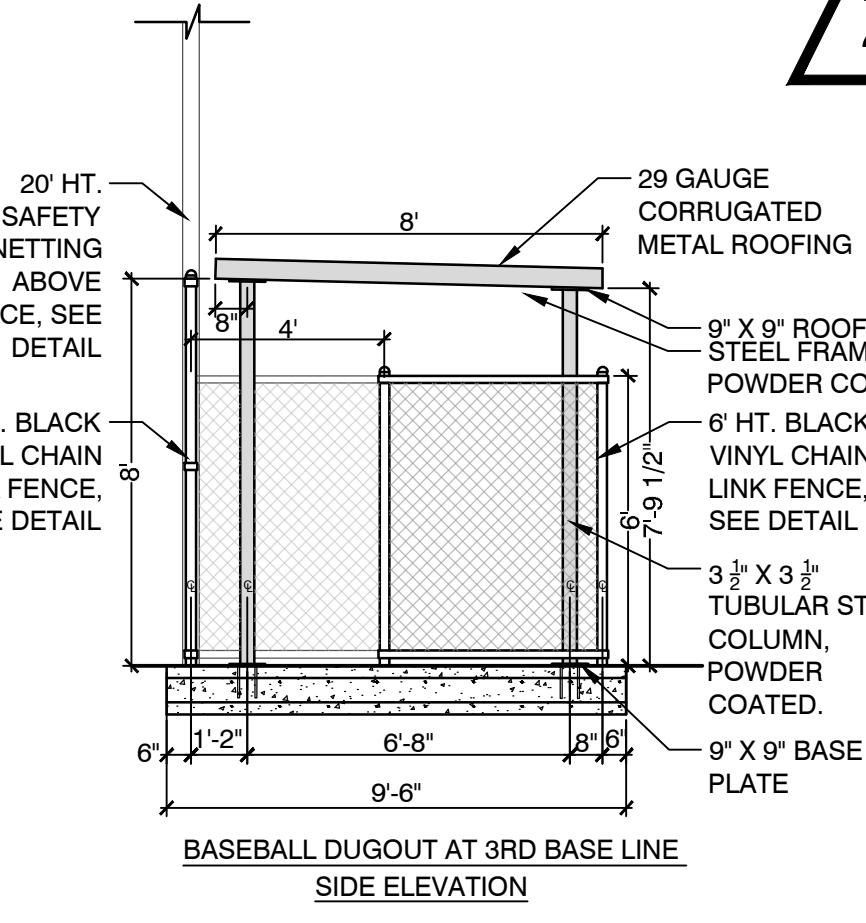
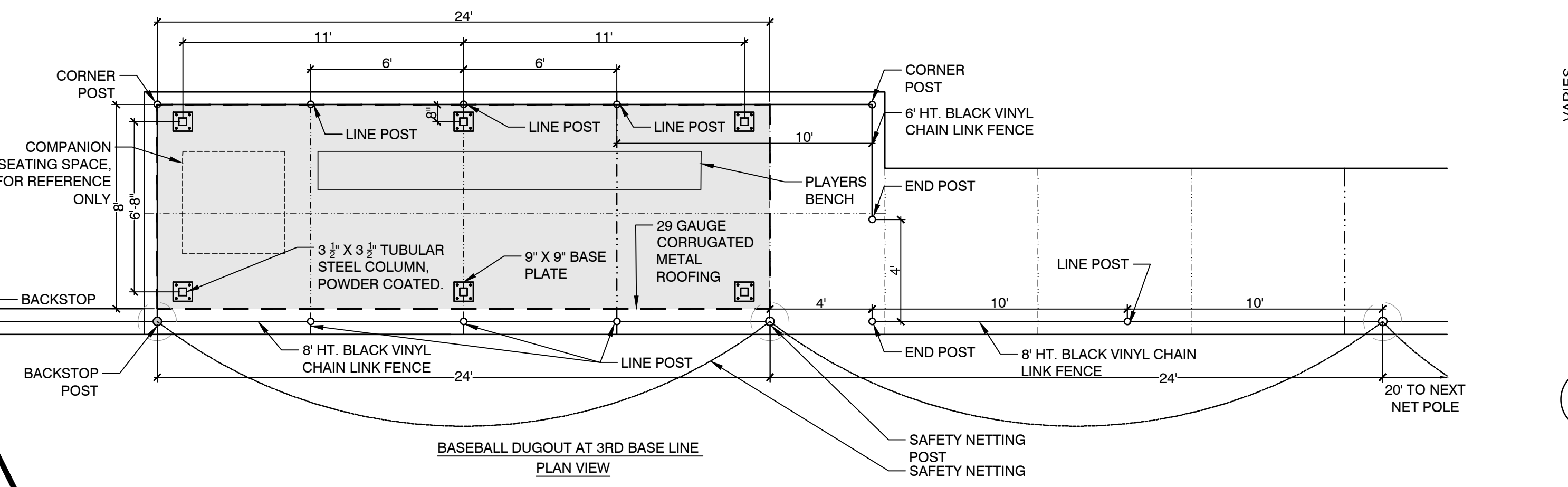


2

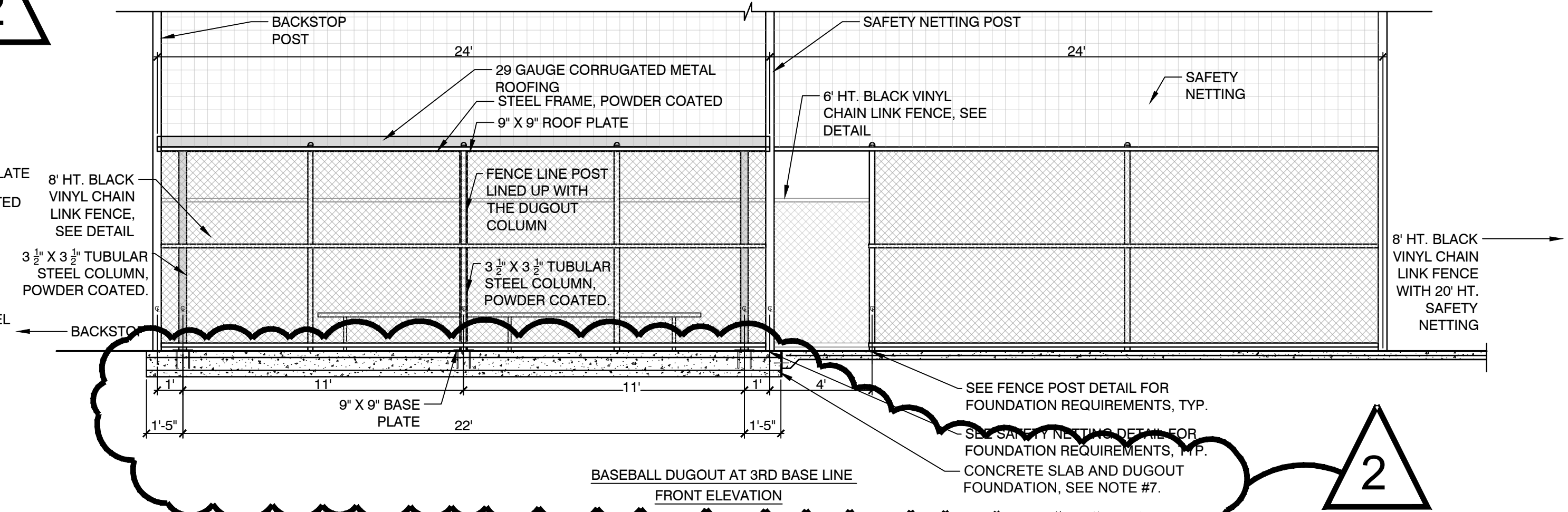


3 20' HT. SAFETY NETTING ABOVE BVCL FENCING
SCALE: N.T.S.

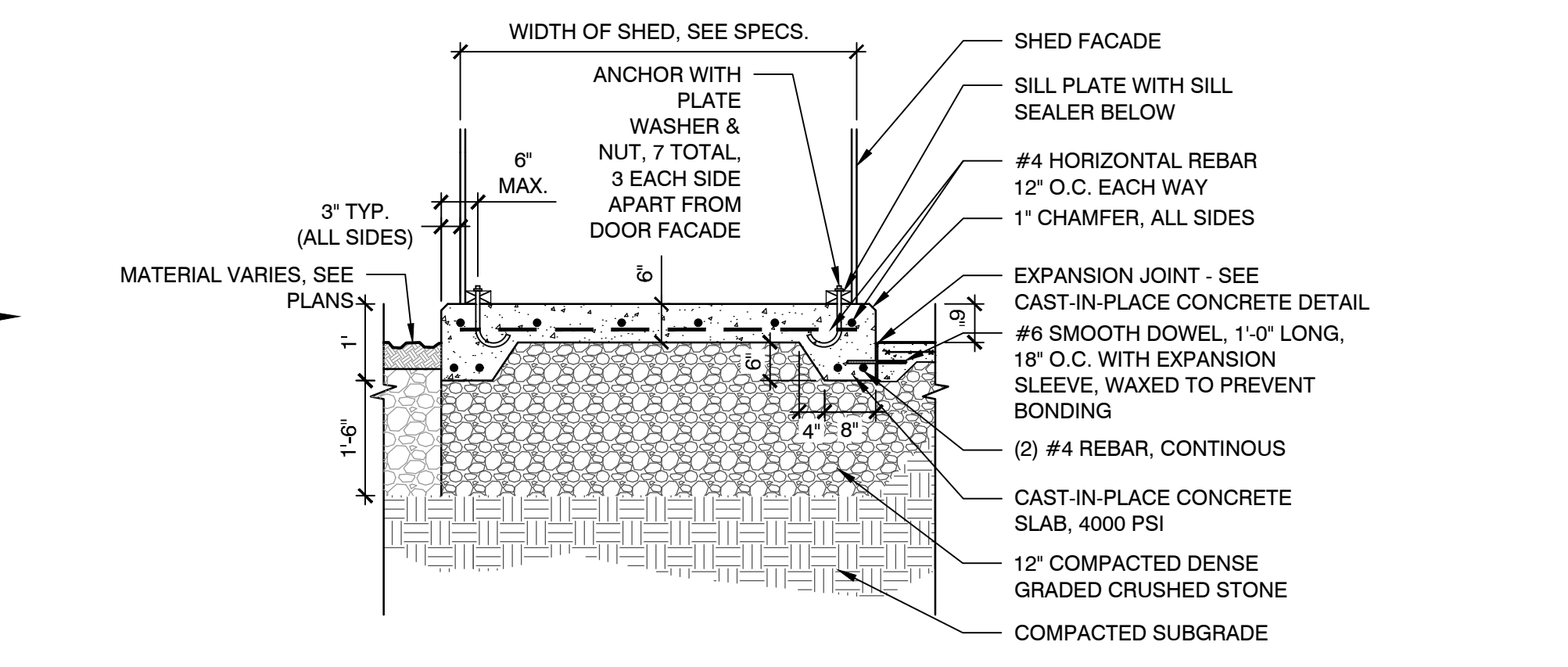
- NOTES:
1. ALL STRUCTURAL STEEL, UNLESS OTHERWISE NOTED, SHALL BE ASTM A-36, MINIMUM YIELD STRENGTH 36,000 PSI.
 2. ALL ALUMINUM MEMBERS, UNLESS OTHERWISE NOTED, SHALL BE OF ALLOY 6063-T5.
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 7. ALL WELDING TO BE DONE BY MANUFACTURING CO.
 8. DUGOUT FOUNDATION DESIGNS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. SEE SPECIFICATIONS.



4 DUGOUT STRUCTURE
SCALE: N.T.S.



2



5 STORAGE SHED ON CONCRETE PAD
SCALE: N.T.S.

Revisions:

No.	Date	Description
1	11/18/2024	ADDENDUM #1
2	11/11/2024	ADDENDUM #2

BID DOCUMENTS

Date: 10/24/2024
Drawn By: AG, JCF, TF
Reviewed By: JM, CB
Approved By: CB
W&S Project No.: ENG22-0315
City Proj. No.: IFB #25-29

CONSTRUCTION
DETAILS

Sheet Number:
L705

SECTION 00 31 32

SUBSURFACE DATA

PART I - GENERAL

1.01 SCOPE:

- A. A subsurface exploration program consisting of soil borings, test pits, and geotechnical laboratory testing has been performed, with reasonable care.
- B. Laboratory analytical data for the site soil samples are summarized in the table attached in Appendix A. The Project Area appears to have been filled with contaminated historic fill materials prior to 1903. Additionally, concentrations of polycyclic aromatic hydrocarbons (PAHs) were identified above MassDEP RCS-1 Standards, which constitute a 120-day Reportable Condition. The release was reported to Massachusetts Department of Environmental Protection (MassDEP) on September 23, 2024. MassDEP subsequently assigned Release Tracking Number (RTN) 3-50880.
- C. The Contractor shall review environmental reports to familiarize themselves with the property conditions including but not limited to the RTN listed above at the following MassDEP website:

<https://eeaonline.eea.state.ma.us/portal/dep/wastesite/>

The Contractor shall note excavation and management of impacted materials will be conducted under an Engineer-prepared Release Abatement Measure (RAM) Plan (or other Plan, as appropriate) in accordance with the requirements of the Massachusetts Contingency Plan (MCP). The RAM Plan will include the requirements of the Contract Documents.

- D. The subsurface data provided in Appendix A is provided for informational purposes only and are not a warranty of subsurface conditions. The Contractor has no right to rely on the interpretations, opinions, conclusions, or recommendations included in the report, only the factual data relative to the specific times, locations, and depths/elevations. Specific project requirements are referenced only in the drawings and specifications.
- E. Samples of the materials encountered may be seen upon request during the bidding period only at the office of Weston & Sampson Engineers, Inc., 55 Walkers Brooke Drive, Reading, MA, 08167. If Contractors deem the subsurface information insufficient, they may, after obtaining Owner's permission, carry out additional subsurface explorations, at no expense to the Owner.
- F. Subsurface information provided in the Contract Documents is limited by the methods used for obtaining and expressing such data and is subject to various interpretations. The

terms used to describe soils, rock, groundwater, and such other conditions are subject to local usage and individual interpretation.

- G. Borings and test pits have been completed substantially at the locations indicated on the drawings and advanced to the depths shown on the logs. Soil information presented in the boring logs, as to classification, gradation, properties, density and consistency, is based on visual observation of recovered samples. Reported groundwater levels are those measured in the field at the particular location and at the time measurements were made, and do not necessarily represent permanent or seasonal groundwater elevations. Groundwater elevations may be affected by temperature, rainfall, tidal fluctuation, and other factors that may not have been present at the time the measurements were made. The Contractors should be aware that groundwater level fluctuations may affect methods of construction.
- H. Subsurface exploration, soil and rock data are for the general information of the Contractors. The Contractors are obligated to examine the site, review boring and test pit logs, all available information and records of explorations, investigations and other pertinent data for the site, and then based upon their own interpretations and investigations decide the character of material to be encountered and excavated, the suitability of the materials to be used for backfilling and such other purposes, the groundwater conditions, difficulties or obstacles likely to be encountered, and other conditions affecting the work. The subsurface data is accurate only at the particular locations and times the subsurface explorations were made. No other warranty either expressed or implied by the Owner, Engineer or their agents is made as to the accuracy of the subsurface information and data shown on the drawings or presented in the Contract Documents.

PART 2 – PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION

SECTION 02 61 00.16

HANDLING, TRANSPORTATION, REUSE AND OFF-SITE DISPOSAL OF EXCAVATED MATERIAL

PART 1 – GENERAL

1.01 DESCRIPTION:

- A. The Work of this Section consists of all labor, equipment, materials, and services for excavating, stockpiling, sampling, handling, segregating, stabilizing (where required), reusing, tracking, transporting, and off-Site recycling and/or disposing of excavated material generated during the course of the Work.
- B. Furnish all labor, materials, equipment, and incidentals necessary to properly excavate, segregate, handle, reuse as on-site backfill, stockpile, sample, load, transport and recycle/dispose of excavated materials off-Site. Work includes preparing Material Shipping Records (MSRs), Bills of Lading (BOLs), and Hazardous Waste Manifests, as required, and obtaining approval from recycle/disposal facilities for recycling and/or disposal, loading, and hauling of excavated materials, as required. The Contractor shall be responsible for analytical testing of soils for off-Site disposal, and confirmatory purposes, as required by the off-Site disposal/recycling facility and Engineer.
- C. This Project is under the regulation of a Massachusetts Department of Environmental Protection (MassDEP) Remedial Abatement Measure (RAM) Plan. All soil handling shall be in accordance with the Engineer-prepared RAM Plan drafted in accordance with the Massachusetts Contingency Plan. The Release Tracking Numbers (RTNs) for the Site are 3-50880 and all available MassDEP reports for the Site can be reviewed at <http://www.mass.gov/eea/agencies/massdep/cleanup/>. See Section 00 31 32 – ENVIRONMENTAL SUBSURFACE DATA for additional information.
- D. The Contractor shall be responsible for the management of miscellaneous material accumulated from catch basins filter fabric cleaning (see Section 01 57 19 – ENVIRONMENTAL PROTECTION), dewatering system (see Section 31 23 19 - DEWATERING), and anti-tracking/decontamination pads.
- E. The Contractor shall remove the top 6-inches of topsoil and stockpile separately to evaluate for reuse through analytical testing. Pending analytical testing results, topsoil may be able to be reused on Site.
- F. Excavated material not approved by the Engineer for backfilling because of its chemical characteristics shall be handled as specified herein.
- G. The Contractor shall establish and maintain soil excavation area limits/perimeter using appropriate survey instrument layout techniques, as well as establish vertical control points in the vicinity of the soil excavation areas such that depths of excavation can be

readily determined from instrument survey by the Contractor and approved by the Engineer.

- H. See the Contract Drawings and Section 31 00 00 – EARTHWORK for on-Site soil reuse details. The Contractor shall backfill per the final grading plan (Sheets L501 through L505), or as required by the Engineer and Owner. Backfill shall be imported and placed per the Contract Drawings, Section 31 00 00 – EARTHWORK, as specified herein, and as required and approved by the Engineer and Owner.

1.02 RELATED WORK:

- A. Section 00 31 33 – ENVIRONMENTAL SUBSURFACE DATA
- B. Section 00 31 43 – PERMITS
- C. Section 01 14 19.16 – AIR MONITORING AND DUST CONTROL
- D. Section 01 35 29 – HEALTH AND SAFETY PLAN
- E. Section 01 57 19 – ENVIRONMENTAL PROTECTION
- F. Section 02 41 19 – SELECTIVE SITE DEMOLITION
- G. Section 31 00 00 – EARTHWORK
- H. Section 31 23 19 – DEWATERING

1.03 SUBMITTALS:

- A. Submit to the Engineer, for review, and in accordance with the requirements of the general specifications, the information required by Paragraph 1.03.B of this Section, a minimum of 15 calendar days after issuance of the Notice to Proceed.
- B. Excavated Materials Management Plan (EMMP) for Construction in the Work Area.

The EMMP shall include the following:

1. Proper protection techniques for excavation (shoring, etc.).
2. Plans and procedures for the soil excavation and soil handling activities.
3. Plans and procedures for the segregation, stockpiling, stabilization (where required), characterization sampling (where required) and on-site management of excavated soils from contaminated areas. The EMMP shall include a site plan showing proposed locations of soil stockpiling areas. Stockpiles are limited to 200 Cubic Yards each. Provide a schedule detailing the proposed sequence of excavation, stockpiling, and sampling. Refer to Paragraph 3.04 of this Section.
4. Details of containers, if used as part of this Work, to store and/or transport excavated material. Refer to Paragraph 2.01 of this Section.
5. All pertinent information relating to the transport of excavated material. The information, at a minimum, shall include:

- a. Name and address of all transporters.
 - b. Transporter identification number (USEPA or Massachusetts Department of Transportation Transporter) and expiration date.
 - c. Proof of permit, license, or authorization to transport excavated material, when applicable, in all affected states.
 - d. Dust control measures.
6. Identify each waste stream and propose appropriate disposal/recycling facilities that will accept the impacted material. The Contractor shall submit names of two (2) facilities for each category of excavated material, as identified in Paragraph 3.05 of this Section. Disposal/recycling facilities listed in the EPA Superfund Program will not be accepted as disposal/recycling facilities for this Work. For each facility, the Contractor shall submit the following information:
- a. General Information
 - i. Facility Name
 - ii. Facility Address
 - iii. Name of Contact Person
 - iv. Title of Contact Person
 - v. Telephone Number of Contact Person
 - vi. Permit Number
 - b. The facility shall specify the volume of material that can be accepted from the Site on a weekly and a total basis.
 - c. The facility shall provide written confirmation that they are permitted to accept and will accept the excavated material and/or accumulated sediment of the general quality and quantity described by these Specifications.
 - d. The facility shall provide a listing of all current and valid permits, licenses, letters of approval, and other authorizations to operate that they hold, pertaining to the receipt and management of the soils or materials specified in this Contract.
 - e. The Contractor shall submit a complete list of the disposal facility's permitted allowable contaminant levels and physical characteristic requirements for impacted material, and list any required regulatory approvals for individual waste streams.
7. Documentation of an emergency service agreement between the Contractor and a certified emergency response contractor.
- C. Laboratory results for all samples collected and/or analyzed by the Contractor shall be submitted to the Engineer within 2 days of receipt in tabulated spreadsheet form summarizing detections and exceedances of applicable criteria along with the raw

laboratory data package. The results shall include all Chain-of-Custody forms and all documentation provided by the laboratory, including MCP data enhancement requirements. Analytical data shall be kept confidential, distributed only to the Engineer.

1.04 REFERENCES:

- A. Massachusetts Department of Environmental Protection (DEP) Policy Number:
 - 1. WSC-94-400, Interim Remediation Waste Management Policy for Petroleum Contaminated Soils.
 - 2. WSC-94-320, Construction Activities in Contaminated Areas.
 - 3. COMM-97-001, Reuse and Disposal of Contaminated Soils at Massachusetts Landfills.
- B. Massachusetts Contingency Plan (MCP), 310 CMR 40.0000.
- C. Toxic Substances Control Act (TSCA), 40 CFR 761.00.
- D. Massachusetts Hazardous Waste Regulations, 310 CMR 30.000 and the Resource Conservation Recovery Act (RCRA), 40 CFR 148 and 268.
- E. All other applicable Federal, State, and local regulations. It is the Contractor's responsibility to know, understand, and abide by all such regulations and common practices. In the event of a conflict, the most stringent regulations shall govern.

1.05 DEFINITIONS:

- A. Common Fill: Well-graded, natural inorganic soil imported from off-Site sources to form the appropriate substrate for the cap/surface park features as defined in the Contract Specifications. The materials shall be free of trash, ice, snow, tree stumps, roots, and other organic and deleterious materials. It shall be free of plastic clays, of all materials subject to decay or other materials that will corrode piping or metals. Common Fill shall be free of releases of oil and/or hazardous materials and/or from virgin sources. The Contractor shall provide the necessary documentation to the Engineer that the backfill material is not contaminated (at a minimum, backfill material must be consistent with published background concentrations in Natural Soil, as defined below and must be below MCP Method 1/S-1 Standards).
- B. Contaminants of Concern: Contaminants identified via laboratory analytical testing where reported are concentrations equal to and/or exceeding Massachusetts Contingency Plan Reportable Concentrations or Method 1 Cleanup Standards.
- C. Impacted material: Fill material, located between approximately 1 foot and 9 feet below the current grade; includes subsurface soils and/or debris contaminated with PAHs and

other Contaminants of Concern. Also includes any soil and/or debris containing oil and/or hazardous material at concentrations above Massachusetts Contingency Plan Reportable Concentrations.

- D. Suspected Impacted Material: Excavated material with any of the following characteristics: significant petroleum and/or chemical odor; an oily sheen; and/or material with staining or significant change of color.
- E. Natural Soil: The 90th percentile value from MassDEP 1995 dataset assigns background concentrations in soils. Background concentrations are published in “Technical Update Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil”.
- F. Excavated Material: All soil and/or debris excavated from within the Limit of Work.
- G. Unsuitable Material: Any material that is not appropriate for reuse due to presence of debris or solid waste, or geotechnically unsuitable for compaction. Unsuitable soils include topsoil, loam, peat, other organic materials, snow, ice, solid waste, and debris.
- H. Suitable Material: Any material that is not classified as Unsuitable Material as defined above and meets the requirements for on-site reuse specified herein and in Section 31 00 00 – EARTHWORK.

1.06 PERMIT REQUIREMENTS:

- A. The Contractor shall obtain all Federal, State, and local permits required for the transport and disposal of unsuitable and surplus excavated material and accumulated sediment. The Contractor shall adhere to all permit requirements.
- B. The Contractor shall document that the disposal facilities proposed have all current certifications and permits as required by Federal, State, and local regulatory agencies to receive and dispose of the excavated material and/or accumulated sediment.

1.07 EXISTING CONDITIONS:

- A. Work under this Project will occur within the disposal site boundary associated with Department of Environmental Protection (DEP) Release Tracking Number (RTN) 3-50800. See Section 00 31 33 – ENVIRONMENTAL SUBSURFACE DATA for additional information.

1.08 QUALITY CONTROL:

- A. The Contractor shall engage the services of a Licensed Site Professional (LSP) or Environmental Consultant prior to and during the course of the Work. The responsibilities of the Contractor’s LSP or Environmental Consultant shall include, but not be limited to, the following:

1. LSPs shall meet all requirements, as defined in MGL c. 21A and as adopted by the Board of Registration of Hazardous Waste Site Cleanup Professionals under 309 CMR 1.00 through 9.00.
2. Completed the 40-hour OSHA health and safety training course, with current 8-hour OSHA refresher training.
3. Performance of characterization sampling required for the disposal of excavated materials to meet all State and Federal regulations and disposal requirements.
4. Preparation of draft MSRs, BOLs, and/or Hazardous Waste Manifests for transportation of excavated materials. Such documents shall be submitted to the Engineer for review and comment. The Owner's LSP (the Engineer) shall sign all BOLs prepared by the Contractor upon final approval. The Contractor shall be responsible for submitting completed MSRs, BOLs, hazardous waste manifests, and other shipping documents to the Engineer within two weeks of shipment to a disposal/recycling facility.
5. Prepare the necessary documents to transport and dispose/recycle of stockpiled material and submit the executed transportation and disposal/recycle documents to the appropriate Federal, State and Local agencies with copies of all documents submitted to the Engineer in the required time frame for submittal.
6. Preparation of necessary documents to support MCP response actions for oil and/or hazardous material releases resulting from Contractor activities. These documents shall be submitted to the Engineer for review prior to submittal to any regulatory agency.
7. Preparation, signing, and stamping of all final LSP Opinions submitted to MassDEP for any response actions taken during the project for releases of oil and/or hazardous materials caused by the Contractor.
8. Ensuring compliance with all references listed in Paragraph 1.04 of this Section.
9. Ensuring that the work shall conform to local, State and Federal regulatory agencies governing the handling of impacted and hazardous materials.
10. Ensuring that Best Management Practices shall take place while performing the work described in this Section.
11. Submitting to the Engineer daily logs summarizing field screening and excavating activities.
12. Develop and implement Site-specific emergency response and health and safety protocols and procedures.

13. Advise the Engineer at least three working days in advance of the schedule for off-Site disposal/recycling.
14. Keep records, including daily logs and photographs, of all waste streams, weights, stockpiles, and excavated materials for the purposes of tracking points of origin.

PART 2 – PRODUCTS

2.01 GENERAL:

- A. All Contractor personnel shall wear personal protective equipment and protective clothing consistent with the levels of protection for this Work as indicated in Section 01 35 29 – HEALTH AND SAFETY PLAN.
- B. If containers are used by the Contractor for storing and/or hauling the excavated material, the containers shall be constructed of steel, in good condition and designed for the intended purpose of safe, secure storage of impacted and hazardous materials during loading and transport. The containers shall have a secure cover that will prevent a release of material from truck during transportation. The containers and covers shall be at no additional cost to the Owner and shall be approved by the Engineer prior to mobilization of trucks/containers. The containers must be approved by and labeled in accordance with the U.S Department of Transportation (DOT). The containers shall be sift-proof and water resistant in accordance with the DOT.
- C. The Contractor shall decontaminate vehicles, construction equipment, tools and appliances used during the Work as required in, Section 01 35 29 – HEALTH AND SAFETY PLAN and Section 01 14 19.16 – AIR MONITORING AND DUST CONTROL.

2.02 FILL MATERIALS:

- A. Suitable Material from the Site (RTN 3-50880) shall be reused on-Site in accordance with the Contract Drawings.
- B. Backfill material, other than excavated material, shall be in accordance with Section 31 00 00 – EARTHWORK.

2.03 STORAGE LABELS:

- A. Provide signage to label all stockpiles. Labels shall be of 6-inch by 12-inch weatherproof material, such as plastic, affixed to 1-inch x 3-inch wood straps, 3-feet long. The labels shall be clearly marked with indelible ink marker. Markings shall be as agreed upon between Engineer and Contractor.

2.04 STOCKPILE SHEETING:

- A. 10-mil (minimum) nylon-reinforced polyethylene (NRPE) or 10-mil (minimum) polyethylene sheeting shall be used for all stockpile sheeting.
- B. NRPE sheeting shall conform to the following specifications:
 - 1. The membrane shall be manufactured of new, first quality product designed and manufactured specifically for the intended use.
 - 2. The material shall be 10-mil polyethylene reinforced with a non-woven grid of high strength nylon cord.
 - 3. The material shall be ultra-violet resistant and cold crack resistant to -40 degrees Fahrenheit.
 - 4. The materials shall be manufactured in a minimum 12-foot seamless width. Labels on the roll shall identify the thickness, length, width and manufacturer's mark number.

PART 3 – EXECUTION

3.01 GENERAL:

- A. Unsuitable Soils will be stockpiled based on field observations by the Engineer as specified herein. Excavated materials will be segregated based on field observations by the Engineer. Suitable materials shall be placed, graded and compacted as shown on Sheets C501 through C505. Unsuitable materials shall be stockpiled in the designated off-site disposal area. Unsuitable materials shall be placed into 200 CY stockpiles (max). The Contractor shall remove the top 6-inches of topsoil and stockpile separately for reuse pending laboratory analytical testing.
- B. For all Unsuitable and surplus soils, the Contractor shall perform disposal characterization sampling and analytical testing as required by the permitted disposal/recycling facility. Sampling shall be paid for as specified in Section 01 22 00 – MEASUREMENT AND PAYMENT.
- C. Based upon all analytical results, the Contractor shall transport and dispose/recycle the excavated material as specified in Paragraph 3.04 of this Section.
- D. The Owner will be the generator of all excavated materials removed from the Site and will sign all manifests and BOLs. The Contractor shall be the generator of material contaminated as a result of the Contractor or Sub-Contractors release of oil/hazardous materials on the Site caused by them. The Contractor shall prepare all MSRs, BOLs, and Hazardous Waste Manifests and shall submit all transportation paperwork to the Engineer for approval prior to shipment. The Owner's LSP (the Engineer) shall sign all

BOLs upon final review and approval (with the exception of spills caused by the Contractor, which will be the Contractor's LSP's responsibility).

- E. The Owner shall have final approval over all disposal/recycling options based on the analytical data.
- F. Immediately notify the Engineer of visible stains or unnatural odor of any excavated material, or if potentially impacted and/or hazardous material is encountered. Excavate and stockpile areas of suspected impacted and/or hazardous material as required by the Engineer and the procedures described in this Section.
- I. A LSP Opinion from the Owner's LSP shall be required for all material shipped using a Massachusetts BOL.

3.02 SOIL STABILIZATION:

- A. For material failing Toxicity Characteristic Leaching Procedure (TCLP) lead analysis, the Contractor shall conduct pretreatment of soil prior to off-Site disposal using stabilization/solidification techniques. Soils exceeding 5.0 mg/L for TCLP lead are regulated as hazardous waste under the MCP, 310 CMR 30.000. Treatment of lead and all other underlying hazardous constituents prior to landfilling the waste is required by the Land Disposal Restriction requirements of RCRA, 40 CFR 148 and 40 CFR 268.
- B. Soil stabilization shall be conducted *in-situ* or *ex-situ* in a location approved by the Engineer. *Ex-situ* stabilization areas shall have a bin constructed of concrete jersey barriers. The bin shall be lined with ethylene propylene diene terpolymer (EPDM) roofing liner to contain all soil, dust control water and stabilization agent within the bin. The liquid stabilization agent shall be mixed into the soils in lifts and carefully mixed with an excavator, so no dust is generated during mixing.
- C. The Contractor shall continuously wet the stabilization area during soil mixing for dust control. The area shall be wetted to the point of no visible dust. The stabilized soils shall be covered with polyethylene once mixing is complete and remain covered until analytical results are received from the testing lab.
- D. The Contractor shall pretreat soil failing TCLP lead (greater than 5.0 mg/L) as specified herein. The pretreatment technique shall involve stabilization/solidification to bind the lead to the contaminated material and reduce the lead TCLP levels to meet disposal criteria as a non-hazardous waste, as required by the approved disposal facility. The Contractor shall submit, for approval by the Engineer, a stabilization/solidification plan for all soils failing TCLP lead analysis, including the proposed liquid stabilization agent to be used. The Contractor shall perform confirmatory sampling after stabilization/solidification to ensure the soils are sufficiently stabilized (below 5.0 mg/L for TCLP lead analysis) at no extra cost to the Owner. If treated soils fail TCLP lead after stabilization due to poor blending techniques, the Contractor shall treat and stabilize the soils with additional stabilization agents until the sampling confirms the soils are below

5.0 mg/L for TCLP lead analysis at no extra cost to the Owner. Stabilized soils shall be disposed of as Out-of-State soils as described in Section 3.05.

3.03 CHARACTERIZATION SAMPLING:

A. Disposal Characterization Sampling

1. All disposal characterization sampling and analysis performed by the Contractor shall be paid for under the unit price in the Contract.
2. The Contractor shall be responsible for sampling and characterizing the stockpiled excavated material for the purpose of obtaining approvals from the disposal/recycling facility(ies). The Contractor shall provide the Engineer with a minimum of 2-days' notice prior to sampling and shall not sample unless Engineer's approval is received and the Engineer is present to witness the collection of the samples.
 - a. The Contractor shall perform all sampling and analysis of stockpiled excavated material as required by potential receiving facilities and this Section.
 - b. The Contractor shall collect additional samples to perform additional testing of the excavated material as required by the disposal/recycling facility(ies) to be paid for under the unit price in the Contract.
3. The collected samples shall be submitted, at a minimum, for the following chemical analyses:
 - a. total petroleum hydrocarbons (TPH) using modified EPA Method 8100,
 - b. semi-volatile organic compounds (SVOCs) using EPA Method 8270,
 - c. volatile organic compounds (VOCs) using EPA Method 8260,
 - d. polychlorinated biphenyls (PCBs) using EPA Method 8082,
 - e. RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver) using Method 6010/7471,
 - f. reactive cyanide and sulfide using EPA Method SW-846,
 - g. Ignitability using modified EPA Method 1010,
 - h. corrosivity using EPA Method 9045, and
 - i. conductivity using EPA Method 120.1.

Any samples found to contain contaminant concentrations equal to or greater than "20 times" their hazardous waste toxicity threshold (i.e., the 20-times rule) shall be analyzed for toxicity characteristic leaching procedure (TCLP).

4. Submit a copy of all chemical analyses and a tabulated summary of the data in Microsoft Excel format to the Engineer within 2-days of receipt of the laboratory report, per Paragraph 1.03.C of this Section.
5. Take samples in such a manner as not to cause any cross-contamination. All sampling equipment shall be decontaminated between usage.

6. All analyses shall be performed by a laboratory certified for such analyses by the Commonwealth of Massachusetts.

3.04 TEMPORARY STOCKPILING OF EXCAVATED MATERIALS:

- A. The Contractor shall be allowed to stockpile excavated material on-Site if the conditions of this Section are met and after notifying the Engineer of potential stockpile location(s) as required in the EMMP and at least two (2) days prior to initial excavation. The Owner shall have final approval over all stockpile locations. Suitable Materials shall be reused to the maximum extent feasible in accordance with this Specification, the Contract Drawings, and Section 31 00 00 – EARTHWORK. Unsuitable Materials shall be stockpiled in an approved location for disposal characterization sampling and loadout. Unsuitable Stockpiles shall be limited to 200 CY and shall be covered and secured as required by this Section.
- B. Stockpiled material must be removed and reused/disposed/recycled off-Site as soon as possible. Stockpiled material must be removed from the Site within 120 days, unless otherwise approved by the Engineer.
- C. All excavated material shall be stored in a secure manner to prevent exposure to humans and the environment.
- D. The stockpiling or consolidating of excavated material near sensitive human health receptors such as public and private water supply wells shall be prohibited.
- E. The unsuitable material will be covered entirely 10-mil (minimum) NRPE or 10-mil (minimum) polyethylene sheeting at the end of each workday to minimize infiltration of precipitation, dust borne contaminants and erosion of the stockpile. Cover materials will be properly secured to resist tearing by the wind and other elements. Stockpiles will be bermed around the edges with compost filter tubes to prevent any infiltration of stormwater or exfiltration of leachate.
- F. Any failure of materials or procedures used in employing the base layer or cover layer shall be immediately repaired, replaced or re-secured so as to minimize precipitation infiltration, volatilization, dust, and erosion/runoff of the excavated material.
- G. Movement and/or aeration of excavated material shall be limited to those activities that are necessary to manage such stockpiles.
- H. Transfer excavated material from the excavation to a stockpile area in a manner to prevent cross-contamination with other materials.
- I. Disposal of material that is contaminated as a result of careless handling or use of unauthorized procedures shall be disposed of off-Site at the Contractor's expense. Delays of Work resulting from temporary storage of excavated material, regardless of the

classification, shall be at no additional cost to the Owner.

- J. The Contractor shall segregate Unsuitable Material into stockpiles no greater than 200 CY. The Contractor shall collect the necessary samples of stockpile material at that time for classification and after giving Engineer at least two (2) days' notice of sampling. After the initial classification of the stockpile, the Engineer may require the Contractor to segregate stockpiled excavated material into smaller, separate stockpiles for additional sampling to further classify the excavated material.
- K. The stockpiles shall be clearly labeled and securely barricaded from contact by workers and the general public.

3.06 EXCAVATED MATERIAL CATEGORIES:

All Suitable Material excavated as part of the work per the Contract Documents will be reused on-Site, to the extent possible to meet subgrade elevations. Unsuitable material and surplus Suitable Material shall be stockpiled and sampled as specified herein. Based on the results of stockpile sampling, Unsuitable Material and surplus Suitable Material will be categorized as one of the categories defined below:

- A. Administrative Consent Order (ACO) Material- excavated material that meets DEP criteria for reuse or recycling at a soil reclamation facility:
 - 1. The Contractor shall handle and transport ACO material using MSRs. The Contractor shall submit the names and addresses of the proposed soil reclamation facilities, as required by the EMMP, to the Engineer and Owner for review and approval prior to transportation of ACO material.
 - 2. ACO material shipped to a soil reclamation facility must meet the selected facility's chemical and physical acceptance criteria. Selected facilities must be established, fully operational, appropriately insured, and be operating in compliance with all applicable local, State, and Federal regulations.
 - 3. ACO excavated material that meets the Massachusetts solid and hazardous waste regulations and the receiving facility's operating permit(s) may be used for contouring material at soil reclamation facilities.
 - 4. ACO excavated material that meets the Massachusetts criteria for soil reclamation and the receiving facility's operating permit(s) may be transported to the selected facility given the selected facility must be established, fully operational, appropriately insured, and be operating in compliance with all applicable local, State, and Federal regulations.
- B. In-State Material - excavated material that meets DEP criteria for disposal/recycling at in-state unlined/or lined landfill, or recycling facility:

1. The Contractor shall handle and transport In-State material using Bills of Lading. The Contractor shall submit the names and addresses of the proposed landfills or facilities, as required by the EMMP, to the Engineer and Owner for review and approval prior to transportation of In-State material.
 2. In-State material shipped to a disposal/recycling facility must meet the selected facility's chemical and physical acceptance criteria. Selected facilities must be established, fully operational, appropriately insured, and be operating in compliance with all applicable local, State, and Federal regulations.
 3. In-State excavated material that meets the Massachusetts solid and hazardous waste regulations and the receiving facility's operating permit(s) may be used for daily cover, intermediate cover, and pre-cap contouring material or material shipped for disposal.
 4. In-State excavated material that meets the Massachusetts criteria for recycling or thermal desorption and the receiving facility's operating permit(s) may be transported to the selected facility given the selected facility must be established, fully operational, appropriately insured, and be operating in compliance with all applicable local, State, and Federal regulations.
- C. Out-of-State Material - excavated material that does not meet DEP criteria for disposal/recycling at in-state unlined/or lined landfill, recycling or thermal desorption facility but does meet applicable criteria for out-of-state lined landfill, recycling or thermal desorption facility:
1. The Contractor shall handle and transport Out-of-State material using BOLs or Hazardous Waste Manifests. The Contractor shall submit the names and addresses of the proposed landfills or facilities, as required by the EMMP, to the Engineer and Owner for review and approval prior to transportation of Out-of-State material.
 2. Out-of-State material shipped to a disposal/recycling facility must meet the selected facility's chemical and physical acceptance criteria. Selected facilities must be established, fully operational, appropriately insured, and be operating in compliance with all applicable local, State, and Federal regulations.
 3. Out-of-State excavated material that meets the destination state's solid and hazardous waste regulations and the receiving facility's operating permit(s) may be used for daily cover, intermediate cover, and pre-cap contouring material or material shipped for disposal.
 4. Out-of-State excavated material that meets the destination state's criteria for recycling or thermal desorption and the receiving facility's operating permit(s) may be transported to the selected facility given the selected facility must be established, fully operational, appropriately insured, and be operating in compliance with all applicable local, State, and Federal regulations.

- D. Out-of-State Hazardous Waste – Excavated material that does not meet ACO, In-State, or Out-of-State criteria, contains a listed or characteristic hazardous waste under RCRA, or other Hazardous Wastes that must be disposed of at a Subtitle C disposal facility.
1. The Contractor shall handle and transport Out-of-State Hazardous Waste material using a Hazardous Waste Manifests. The Contractor shall submit the names and addresses of the proposed landfills or facilities, as required by the EMMP, to the Engineer and Owner for review and approval prior to transportation of Out-of-State Hazardous Waste material.
 2. Out-of-State Hazardous Waste material shipped to a Subtitle C disposal facility must meet the selected facility's chemical and physical acceptance criteria. Selected facilities must be established, fully operational, appropriately insured, licensed to accept Hazardous Waste, and be operating in compliance with all applicable local, State, and Federal regulations.
 3. If the material is only a characteristic hazardous waste under RCRA due to TCLP exceedances, the Contractor can stabilize the soils per paragraph 3.02 of this Section and re-analyze after stabilization. The stabilized soils shall be transported and disposed of as Out-of-State material after stabilization under a BOL.
- E. The Contractor will not be allowed to dispose excavated material at disposal facilities listed in the EPA Superfund Program.

3.07 WEIGHT AND MEASUREMENT:

- A. The tare and gross weight for every vehicle, container, and trailer transporting soil and/or debris for off-Site reuse, recycling, treatment or disposal shall be measured to determine the net weight.
- B. The Contractor shall provide certified tare and gross weight slips for each load received at the accepted facility and these shall be attached to each returned Massachusetts manifests or Bill of Ladings within 21 days of obtaining final signatures.

3.08 WASTE PROFILES AND MANIFESTS:

- A. The Contractor shall prepare and submit to the Engineer for review all waste profile applications and questionnaires, and coordinate with disposal facilities and all Federal and State Environmental Agencies.
- B. The Contractor shall prepare all MSRs, BOLs, and Hazardous Waste Manifests with all applicable analytical backup, notification, and control forms. Final copies of BOLs shall be signed by the Owner as generator and by the Engineer as LSP of record following submissions and approvals of draft BOLs.

- C. The Contractor shall also provide certified tare and gross weight slips for each load received at the designated facility which shall be attached to each returned Massachusetts manifests or BOLs within 21 days of obtaining final signatures.
- D. The Owner will be designated as generator and will sign all manifests and waste profile application or questionnaires.
- E. The Contractor shall furnish all generator copies of the Hazardous Waste Manifest to the Owner for submittal to the appropriate regulatory agencies and to retain for the Owner's records.
- F. The Contractor shall submit to the Engineer, prior to receiving progress payment, documentation certifying that all materials were transported to, accepted, and disposed of, at the selected disposal facility(ies). The documentation shall include the following, as a minimum.
 - 1. Documentation shall be provided for each load from the Site to the disposal facility, including all manifests and any other transfer documentation as applicable.
 - 2. All documentation for each load shall be tracked by the original manifest document number that was assigned by the Engineer at the Site.
 - 3. All ORIGINAL signatures (including signatures of Owner and disposal facility's representative) associated with shipment of any material from the Site under a Massachusetts Bill of Lading within 21 days of obtaining the final signatures.

3.09 TRANSPORT OF EXCAVATED MATERIAL:

- A. The Contractor shall not be permitted to transport excavated materials off-Site until all applicable disposal, or recycling facility documentation has been received, reviewed, and approved by the Engineer. The Contractor shall transport the excavated material under a Massachusetts BOL or Hazardous Waste Manifest and the requirements of this Section.
- B. The Contractor shall take all precaution and any actions necessary, at no additional cost to the Owner, to prevent cross-contamination from transport vehicles to areas outside the site. The Contractor shall decontaminate equipment and vehicles as specified in Section 01 35 29 – HEALTH AND SAFETY PLAN.
- C. The Contractor shall transport excavated materials from the Site to the storage, disposal, reuse or recycling facility or off-Site reuse location in accordance with all United States Department of Transportation (DOT), USEPA, MassDEP, and applicable State and local regulations.
- D. The Hauler(s) shall be licensed in all states affected by transport.

- E. The Contractor shall be responsible for ensuring that free liquid is properly transported. “Wet soils” shall not be loaded for transport. The Contractor shall dewater “wet soils”, and properly dispose of free liquid in accordance with local, State, and Federal regulations and at no additional cost to the Owner. The Contractor shall also dispose of any free liquids that may result during transportation in accordance with local, State, and Federal regulations and at no additional cost to the Owner.
- F. Temporary stockpiled excavated material must be removed from the Site within 90 days; however, no later than the completion date of this Contract as may be extended.
- G. Transporters shall submit proof of permit, license, or authorization to transport excavated material, when applicable, in all affected states.
- H. A LSP Opinion from the Owner’s LSP shall be required for all material shipped using a Massachusetts BOL.
- I. Utilization of a Hazardous Waste Manifest shall require the use of a licensed hazardous material transporter in conformance with the Massachusetts Hazardous Material Regulations as required by 310 CMR 30.000. An LSP Opinion is not required when using a Hazardous Waste Manifest for transporting excavated materials.

3.10 DISPOSAL:

- A. ACO, In-State, Out-of-State, and Out-of-State Hazardous Waste excavated material shall be disposed of at an approved facility as specified in Paragraph 3.04 of this Section and in accordance with all Federal, State, and local regulations.
- B. The Contractor shall perform analyses on the stockpiled excavated material as necessary to fulfill any disposal testing requirements of the approved facility.
 - 1. The Contractor shall bear all costs incurred in sampling and analyses for those tests required by the facility in excess of those specified in this Section.
 - 2. The Contractor shall submit a copy of all sampling analyses to the Engineer within two (2) days of receipt of the laboratory report. Analytical data shall be kept confidential, distributed to the Engineer only.
- C. The Contractor shall provide to the Engineer copies of all weight slips; both tare and gross, for every load weighed and disposed of at the approved facility. The slips shall be tracked by the original manifest document number that was assigned by the Engineer at the Site. The Engineer shall make progress payments after receipt of these weight slips.

3.11 LOGS, REPORTS, AND RECORDKEEPING:

- A. The Contractor shall maintain daily logs and reports covering the work to be performed for this Section of the Contract. The format shall be developed by the Contractor to

include daily logs, weekly reports, and a phase out report. Contractor shall provide Engineer with copies of all logs and reports on a weekly basis in a Microsoft Excel spreadsheet format.

B. Weekly Reports shall include, at a minimum, the following:

1. A summary of the work performed during the week;
2. Area (Site specific) of work being performed;
3. Equipment being utilized by employees;
4. Type of work performed;
5. References to material shipping records, manifests, bills of lading, and waste profiles;
6. Stockpile locations, sample locations, and sample identifications;
7. Details and documentation of excavated materials management including excavated material from stockpiles to be used as backfill;
8. Protective clothing being worn by employees; and
9. Project manager signature and date.

C. Phase Out Report shall include, at a minimum, the following:

1. Summary of work performed under this Section of the Contract;
2. As-Built documents shall include excavation areas and depths, final grades and GPS coordinates, including depths below grade, for any structures left in place;
3. Copies of all material shipping records, manifests, bills of lading, and waste profiles; and
4. Laboratory reports and plans indicating sample locations.

END OF SECTION