

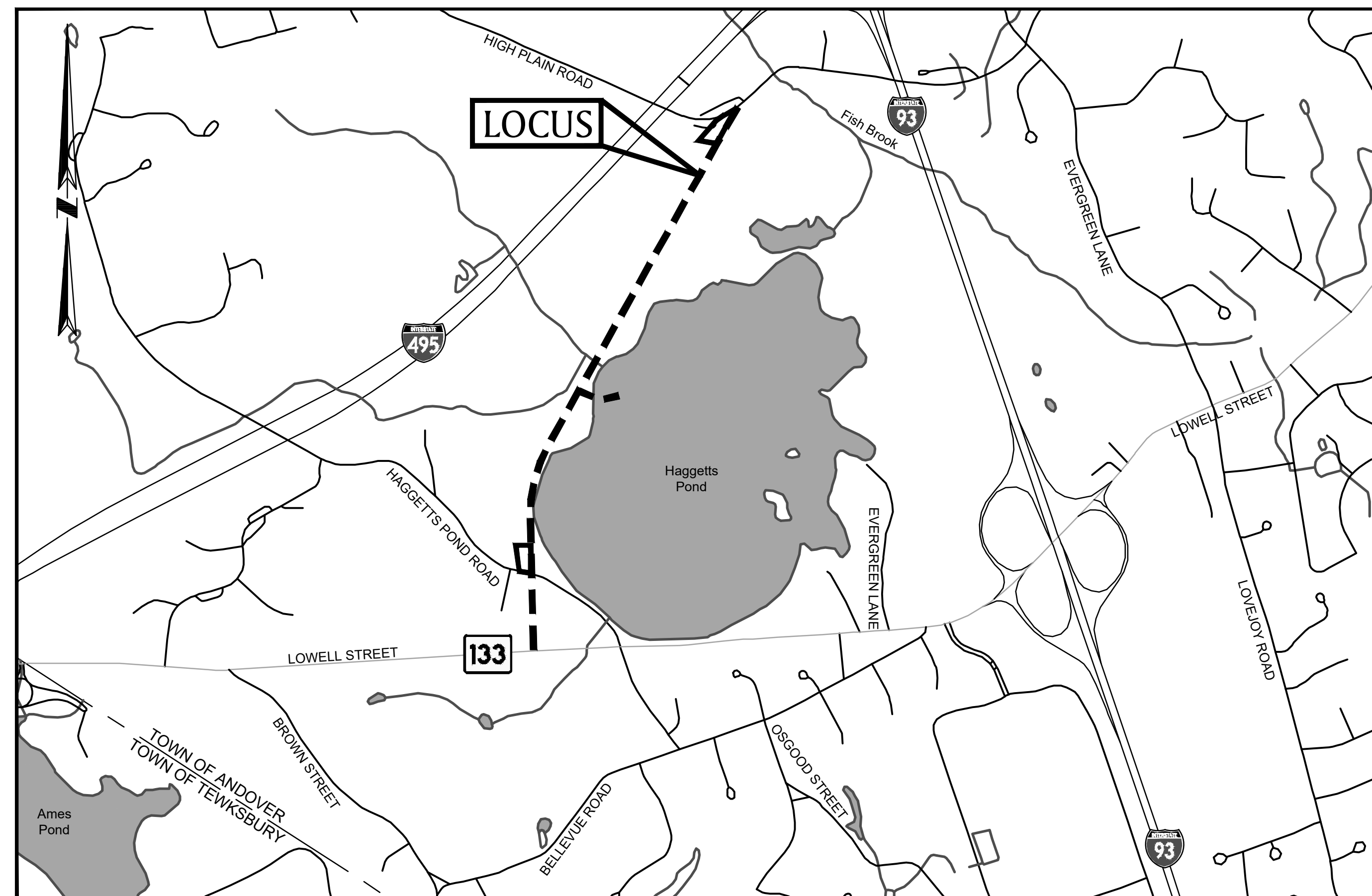
HAGGETTS POND RAIL TRAIL

ANDOVER, MA

NOVEMBER 7, 2023



PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA
01810



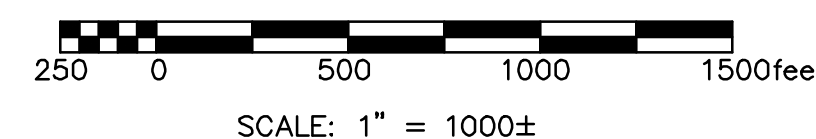
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PREPARED BY:

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

LOCUS MAP



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LEGEND

EXISTING	DESC.	PROPOSED
AC.	ACRES	
BK	BOOK	
BIT CONC	BITUMINOUS CONCRETE	BIT CONC
	CABLE MANHOLE	
	CATCH BASIN	
CONC	CONCRETE	
	DRAIN MANHOLE	
	ELECTRIC HANDHOLE	
	ELECTRIC MANHOLE	
	GAS GATE	
GC	GRANITE CURB	
	HANDHOLE	
	HYDRANT	
	LIGHT POLE	
	MANHOLE	
N/F	NOW OR FORMERLY	
PG	PAGE	
	PEDESTRIAN SIGNAL	
R=	RIM ELEVATION	
	SEWER MANHOLE	
SBC	SLOPED BITUMINOUS CURB	
SGC	SLOPED GRANITE CURB	
SIGN	SIGN	
SQ. FT.	SQUARE FEET	
	TELEPHONE MANHOLE	
TOB	TOP OF BELL	
	TRAFFIC CONTROL BOX	
	TRAFFIC SIGNAL	
	WATER GATE	
W	WATER LINE	W
T	TELEPHONE LINE	T
D	DRAIN LINE	D
S	SEWER LINE	S
GF	SEWER FORCE MAIN	GF
G	GAS LINE	G
E	ELECTRIC LINE	UGE
OHW	OVERHEAD WIRE	OHE
	CABLE TELEVISION CONDUIT	
	CHAIN LINK FENCE	X
	ELEC/TEL/CABLE	CTV
	VERTICAL GRANITE CURB	VGC
	BUILDING OVERHANG	
	ACCESSIBLE PARKING	
59	MINOR CONTOUR	59
60	MAJOR CONTOUR	60
	NUMBER OF PARKING SPACES	
	WETLAND DELINEATION	
	GUARD RAIL	
	STONE WALL	
	GRADE TO DRAIN	GTD

GENERAL EROSION CONTROL NOTES:

- THE PROPOSED PROJECT REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES) FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) UNDER THE 2022 CONSTRUCTION GENERAL PERMIT (CGP) FOR MASSACHUSETTS. A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED FOR THE PROJECT. THE SITE CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR FOLLOWING THE CONDITIONS OF THE CGP AND SWPPP.
- SEDIMENT BASINS SHALL BE APPROPRIATELY SIZED AND LOCATED/RELOCATED BY THE CONTRACTOR DURING EARTHWORK OPERATIONS.
- THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SUITABLE EROSION AND SEDIMENTATION CONTROL DEVICES ON SITE DURING CONSTRUCTION AS REQUIRED TO PREVENT SILT FROM LEAVING THE SITE INCLUDING CONSTRUCTION ENTRANCES AND PERIMETER SEDIMENT CONTROLS. SILT SHALL NOT BE ALLOWED BEYOND CONSTRUCTION LIMITS.
- EROSION CONTROL SHALL, AT MINIMUM, BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL ADDITIONAL EROSION CONTROLS AS NECESSARY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY BUILDUP OF SEDIMENT WHICH ESCAPES FROM THE SITE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING SILT AND DEBRIS OUT OF ALL STORM DRAINAGE STRUCTURES UPON THE COMPLETION OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY FINES LEVIED AGAINST THE SITE FOR VIOLATIONS OF EROSION CONTROL REGULATIONS.
- CONTRACTOR SHALL STABILIZE ALL AREAS WITH EXPOSED SOIL WHICH WILL NOT BE DISTURBED BY GRADING OPERATIONS FOR A PERIOD OF 14 DAYS OR MORE IN ACCORDANCE WITH THE SWPPP. IF WORK ON THIS PROJECT IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROL FACILITIES IN GOOD CONDITION DURING THE SUSPENSION OF WORK.
- SPRINKLE OR APPLY DUST SUPPRESSERS TO KEEP DUST WITHIN TOLERABLE LIMITS AT THE CONSTRUCTION SITE.
- SILT SACS SHALL BE INSTALLED IN ALL CATCH BASINS, WITH PERIODIC CLEANING AND/OR REPLACING OF THE FILTER FABRIC, WHEN NECESSARY, THROUGHOUT THE DURATION OF THE CONSTRUCTION.
- ALL STOCKPILE LOCATIONS SHALL BE LOCATED OUTSIDE THE 100-FT BUFFER ZONES SHOWN ON THE PLANS.

DURING CONSTRUCTION

- THE CONTRACTOR SHALL INSPECT THE SITE IN ACCORDANCE WITH THE SWPPP, AND AT A MINIMUM OF ONCE A WEEK TO INSURE THAT EROSION OF SLOPES, STOCKPILES, ETC, ARE NOT OCCURRING. IN INSTANCES WHERE EROSION IS OBSERVED, SILT FENCE/HAYBALES SHALL BE INSTALLED DOWN GRADIENT OF ERODING AREAS. APPROPRIATE REPAIRS TO THE SEDIMENT CONTROLS SHALL BE MADE AS NECESSARY.
- INSTALL SILT SACS UNDER ALL CATCH BASIN RIMS. SILT SACS SHALL BE INSPECTED ONCE A WEEK AND WITHIN 24 HOURS OF A 1/4 INCH OR GREATER RAIN STORM EVENT TO INSURE THAT DAMAGE TO THE SILT SACS HAS NOT OCCURRED. APPROPRIATE REPAIRS TO THE FILTER FABRIC SHALL BE MADE AS NECESSARY.
- CONSTRUCTION ENTRANCES SHALL BE INSPECTED WEEKLY AND AFTER HEAVY RAINS OR HEAVY USE. THE CONSTRUCTION ENTRANCE SHALL BE TOP DRESSED WITH NEW STONE ONCE THE ENTRANCE BECOMES COMPLETELY CLOGGED WITH MUD AND SOIL PARTICLES.
- SEDIMENT BEHIND PERIMETER SEDIMENT CONTROLS SHALL BE REMOVED ONCE SEDIMENT REACHES A LEVEL OF DEPOSITION EQUAL TO HALF THE HEIGHT OF THE BARRIER OR LOWER IF RECOMMENDED BY THE MANUFACTURER.

SITE PREPARATION AND DEMOLITION:

- AREAS OUTSIDE THE LIMIT OF WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE ENGINEER. ALL AREAS DISTURBED DURING CONSTRUCTION NOT COVERED WITH BUILDINGS, STRUCTURES, OR PAVEMENTS SHALL RECEIVE FOUR INCHES OF LOAM AND SEED, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH OSHA REGULATIONS AND LOCAL & STATE REQUIREMENTS.
- ALL MATERIALS SHALL BE DISPOSED OF PER APPLICABLE LAWS AND REGULATIONS.
- WHERE EXISTING PAVEMENT TO BE REMOVED MEETS EXISTING PAVEMENTS TO REMAIN, CONTRACTOR SHALL SAWCUT A STRAIGHT LINE UNLESS INDICATED OTHERWISE. ADDITIONALLY, EXISTING PAVEMENT SHALL BE SAWCUT, AS NECESSARY, FOR ALL PROPOSED UTILITY CONNECTIONS WITHIN THE RIGHT-OF-WAY. ALL WORK SHALL CONFORM TO STANDARD SPECIFICATIONS & DETAILS OF THE TOWN OF ANDOVER AND, "CONSTRUCTION STANDARDS" OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASS DOT) HIGHWAY DIVISION, LATEST EDITION, AND THESE CONTRACT DOCUMENTS.
- ALL EXISTING REMAINING UTILITIES SHALL BE PROTECTED, UNLESS NOTED OTHERWISE.

GENERAL CONSTRUCTION NOTES:

- ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO STANDARD SPECIFICATIONS & DETAILS OF THE TOWN OF ANDOVER AND, "CONSTRUCTION STANDARDS" OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASS DOT) HIGHWAY DIVISION, LATEST EDITION, AND THESE CONTRACT DOCUMENTS.
- FILL MATERIALS PLACED UNDER PROPOSED TRAILWAYS AND PARKING AREAS SHALL MEET THE FILL MATERIAL GRADATION AND COMPACTION REQUIREMENTS OF THE PROJECT PLANS AND SPECIFICATIONS.
- UNLESS OTHERWISE INDICATED, CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- ALL EXCAVATIONS SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS.
- ALL ACCESSIBLE PARKING SPACES AND WALKWAYS SHALL BE IN COMPLIANCE WITH THE COMMONWEALTH OF MASSACHUSETTS 521 AAB AND DEPARTMENT OF JUSTICE ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION. FOR ANY DISCREPANCIES OR CLARIFICATION THE CONTRACTOR SHALL CONTACT THE ENGINEER.
- CONTRACTOR SHALL CONSTRUCT ALL PEDESTRIAN WAYS IN ACCORDANCE WITH ADA/AAB STANDARDS.
- ALL EXISTING PAVEMENT IN THE VICINITY OF THE PROPOSED WORK SHALL BE RESTORED, IF DAMAGED, AT NO ADDITIONAL COST TO THE OWNER. ALL PAVEMENT WORK SHALL BLEND WITH EXISTING PAVEMENT WITH SAWCUTS AND EMULSION APPLIED TO ALL CUT SURFACES.
- CONTRACTOR SHALL PROVIDE FULL AS-BUILT OF UTILITY WORK PRIOR TO FINAL PAYMENT. AS-BUILT PLANS SHALL BE SUBMITTED ON MYLAR AND ELECTRONICALLY UPON COMPLETION OF PROJECT.
- THIS PROJECT IS SUBJECT TO MASSDEP'S ORDER OF CONDITIONS (OOC) AND HAS A MASSDEP FILE NUMBER: XX-XXXX THE CONTRACTOR IS TO FOLLOW ANY AND ALL CONDITIONS NECESSARY IN ACCORDANCE WITH THE PERFORMANCE STANDARDS SET FORTH IN THE WETLAND REGULATIONS. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NOTICE OF INTENT, THE GENERAL CONDITIONS, AND OTHER SPECIAL CONDITIONS RELATED TO THE OOC. TO THE EXTENT THAT THE FOLLOWING CONDITIONS MODIFY OR DIFFER FROM THE PLANS, SPECIFICATIONS, OR OTHER PROPOSALS SUBMITTED WITH THE NOTICE OF INTENT, THESE CONDITIONS SHALL CONTROL.

UTILITY NOTES:

- LOCATIONS OF UTILITIES AS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES AND REPAIRING ANY DAMAGE DONE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE COORDINATION WITH UTILITY COMPANIES AND PUBLIC AGENCIES AND FOR OBTAINING ALL REQUIRED PERMITS AND PAYING ALL REQUIRED FEES. IN ACCORDANCE WITH M.G.L., CHAPTER 82, SECTION 40, INCLUDING AMENDMENTS; CONTRACTORS SHALL NOTIFY ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES IN WRITING PRIOR TO SUCH EXCAVATION. CONTRACTOR SHALL ALSO CALL "DIG SAFE" AT 1(888)344-7233 NO LESS THAN 72 HOURS (EXCLUSIVE OF SATURDAYS, SUNDAYS AND HOLIDAYS TO SUCH EXCAVATION. DOCUMENTATION OF REQUESTS SHALL BE PROVIDED TO PROJECT REPRESENTATIVE PRIOR TO EXCAVATION WORK.
- EXISTING UTILITIES ARE A COMPIATION OF ON THE GROUND SURVEY AND DIGITIZED INFORMATION FROM PREVIOUSLY APPROVED DESIGN PLANS BASED ON FIELD OBSERVATIONS. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO FIELD LOCATE EXISTING UTILITIES. CONTRACTOR SHALL CONDUCT TEST PITS, AS NEEDED, TO LOCATE EXISTING UTILITIES. ALL LOCATION WORK SHALL BE CONDUCTED PRIOR TO CONSTRUCTION AND COORDINATED WITH THE ENGINEER.
- ALL UNDERGROUND STRUCTURES AND UTILITIES SHALL BE CAPABLE OF WITHSTANDING HS-20 WHEEL LOADS.
- RIM ELEVATIONS OF PROPOSED MANHOLES AND ASSOCIATED STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS SHALL BE SET FLUSH AND CONSISTENT WITH THE PROPOSED FINISHED GRADES.
- ALL DRAINAGE STRUCTURES SHALL BE CLEANED AT COMPLETION OF THE PROJECT.

EARTHWORK/GRADING NOTES:

- CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO EARTHWORK OPERATION AND MAINTAIN ALL EROSION CONTROL MEASURES AND SEEDED EMBANKMENTS DURING CONSTRUCTION. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH EPA'S NPDES PERMITTING FOR CONSTRUCTION ACTIVITIES, AS WELL AS ANY EROSION AND SEDIMENTATION CONTROL PERMIT ISSUED FOR THIS PROJECT.
- THE CONTRACTOR SHALL GIVE FOURTY-EIGHT (48) HOUR NOTICE, OR AS REQUIRED BY PROJECT PERMITS, TO PERTINENT TOWN DEPARTMENTS BEFORE COMMENCING WORK IN THE FIELD.

SUGGESTED CONSTRUCTION SEQUENCE:

- PROTECT AND MAINTAIN EXISTING VEGETATION WHEREVER POSSIBLE.
- MINIMIZE THE AREA OF DISTURBANCE.
- TO THE EXTENT POSSIBLE, ROUTE UNPOLLUTED FLOWS AROUND DISTURBED AREAS.
- INSTALL MITIGATION DEVICES AS EARLY AS POSSIBLE.
- MINIMIZE THE TIME DISTURBED AREAS ARE LEFT UNSTABILIZED.
- MAINTAIN SILTATION CONTROL DEVICES IN PROPER CONDITION.
- THE CONTRACTOR SHOULD USE THE SUGGESTED SEQUENCE AND TECHNIQUES AS A GENERAL GUIDE AND MODIFY THE SUGGESTED METHODS AND PROCEDURES AS REQUIRED TO BEST SUIT SEASONAL, ATMOSPHERIC, AND SITE SPECIFIC PHYSICAL CONSTRAINTS FOR THE PURPOSE OF MINIMIZING THE ENVIRONMENTAL IMPACT OF CONSTRUCTION.

DEMOLITION, GRUBBING AND STRIPPING OF LIMITS OF CONSTRUCTION PHASE

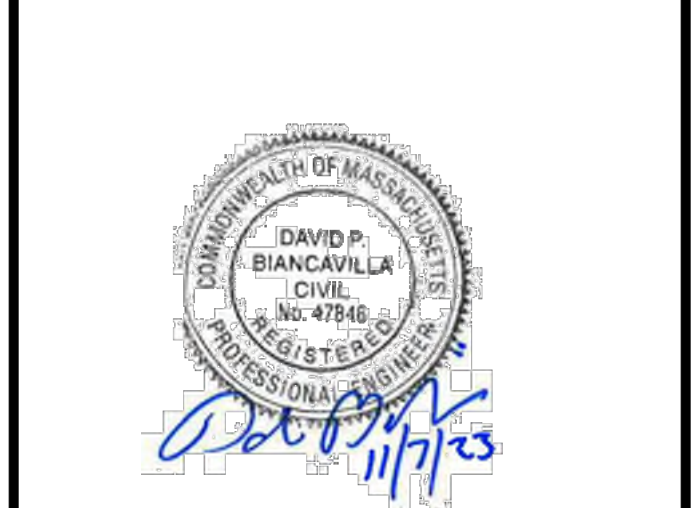
- INSTALL TEC DEVICES AS REQUIRED TO PREVENT SEDIMENT TRANSPORT INTO RESOURCE AREAS.
- PLACE A RING OF SILT SOCKS AND/OR HAY BALES AROUND STOCKPILES.
- STABILIZE ALL EXPOSED SURFACES THAT WILL NOT BE UNDER IMMEDIATE CONSTRUCTION.
- STORE AND/OR DISPOSE ALL PAVEMENT AND DEMOLITION DEBRIS AS INDICATED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.

PARKING AND TRAIL AREA SUB-BASE CONSTRUCTION

- INSTALL TEMPORARY CULVERTS AND DIVERSION DITCHES AND ADDITIONAL TEC DEVICES AS REQUIRED BY INDIVIDUAL CONSTRUCTION AREA CONSTRAINTS TO DIRECT POTENTIAL RUNOFF TOWARD DETENTION AREAS DESIGNATED FOR THE CURRENT CONSTRUCTION PHASE.
- COMPACT GRAVEL AS WORK PROGRESSES TO CONTROL EROSION POTENTIAL.
- AVOID CREATING AN EROSION CONDITION DUE TO OVER-WATERING.
- INSTALL PIPED UTILITY SYSTEMS AS REQUIRED AS WORK PROGRESSES, KEEPING ALL INLETS SEALED UNTIL ALL DOWNSTREAM DRAINAGE SYSTEM COMPONENTS ARE FUNCTIONAL.

PARKING AND TRAIL CONSTRUCTION

- FINE GRADE GRAVEL BASE AND INSTALL PROCESSED GRAVEL TO THE DESIGN GRADES.
- COMPACT BASE AS WORK PROGRESSES.
- INSTALL HOT MIX ASPHALT PAVING AS SHOWN ON THE PROJECT PLANS TO THE DEPTHS AND LIMITS SHOWN.



PROFESSIONAL ENGINEER DATE

HAGGETTS POND RAIL TRAIL

IN ANDOVER, MA

LEGEND & NOTES

NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: NOT TO SCALE

FILE: P:\8998501\C_D
DWG.:
JOB. NO: 8-9985.01 SHEET G-200

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HAGGETTS POND RAIL TRAIL

IN ANDOVER, MA

EXISTING CONDITIONS PLAN (SHEET 1 OF 4)

NOVEMBER 7, 2023

REVISIONS:

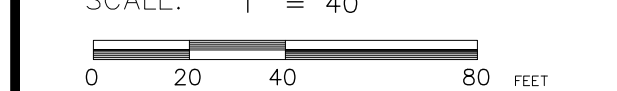
Table with 2 columns: Description, Date

PREPARED FOR: TOWN OF ANDOVER, 36 BARTLET STREET, ANDOVER, MA, 01810

BSC GROUP, 300 Brickstone Square, Suite 203, Andover, Massachusetts 01810, 617 896 4300

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SCALE: 1" = 40'

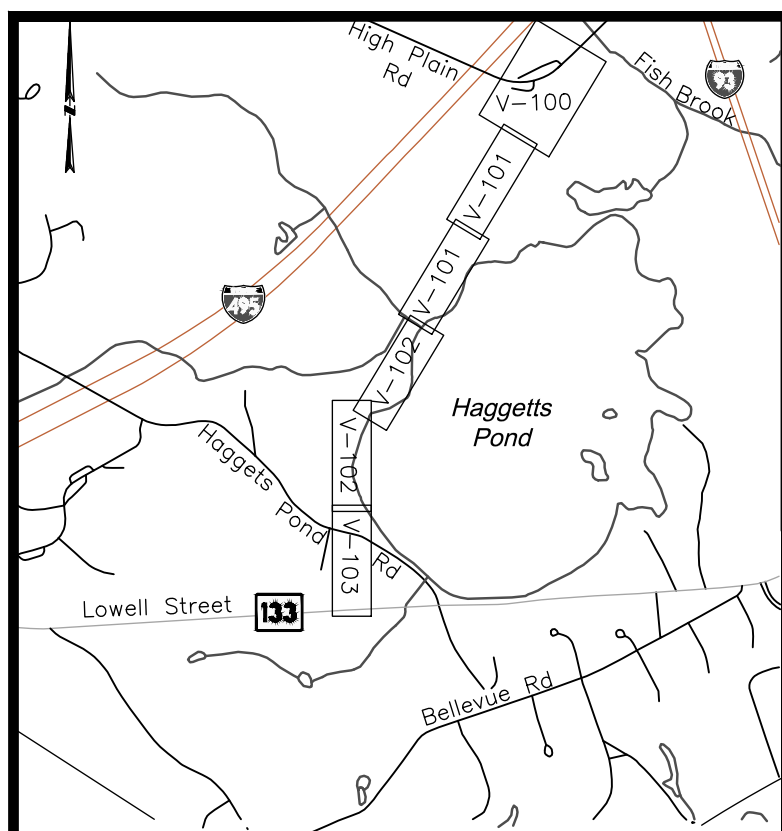


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JOB. NO: 8-9985.01

SHEET V-100



Locus Map (NOT TO SCALE)

PRIORITY HABITAT PH-1926

GENERAL NOTES

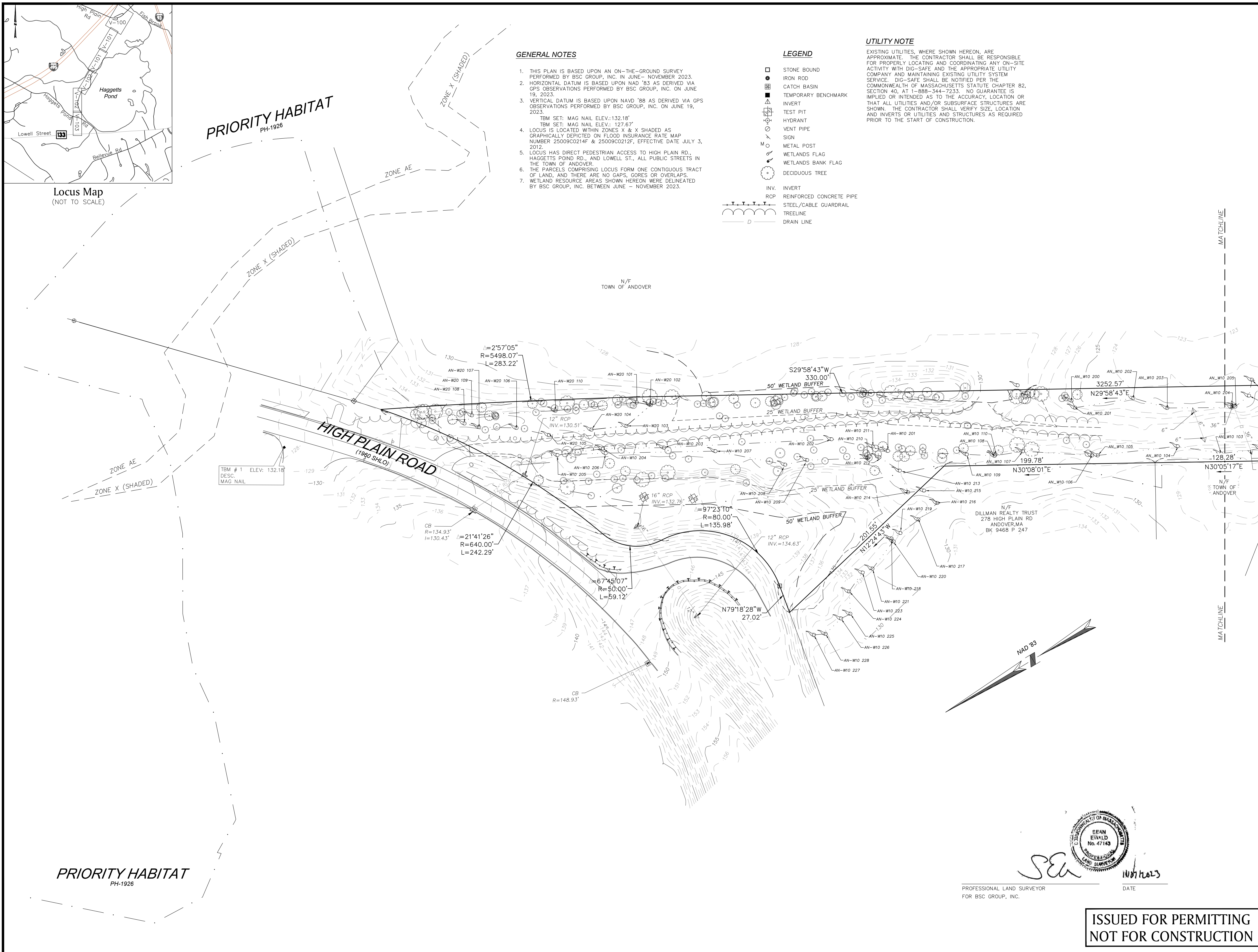
- 1. THIS PLAN IS BASED UPON AN ON-THE-GROUND SURVEY PERFORMED BY BSC GROUP, INC. IN JUNE- NOVEMBER 2023.
2. HORIZONTAL DATUM IS BASED UPON NAD '83 AS DERIVED VIA GPS OBSERVATIONS PERFORMED BY BSC GROUP, INC. ON JUNE 19, 2023.
3. VERTICAL DATUM IS BASED UPON NAVD '88 AS DERIVED VIA GPS OBSERVATIONS PERFORMED BY BSC GROUP, INC. ON JUNE 19, 2023.
4. LOCUS IS LOCATED WITHIN ZONES X & X SHADED AS GRAPHICALLY DEPICTED ON FLOOD INSURANCE RATE MAP NUMBER 25009C0214F & 25009C0212F, EFFECTIVE DATE JULY 3, 2012.
5. LOCUS HAS DIRECT PEDESTRIAN ACCESS TO HIGH PLAIN RD., HAGGETTS POINT RD., AND LOWELL ST., ALL PUBLIC STREETS IN THE TOWN OF ANDOVER.
6. THE PARCELS COMPRISING LOCUS FORM ONE CONTIGUOUS TRACT OF LAND, AND THERE ARE NO GAPS, GORES OR OVERLAPS.
7. WETLAND RESOURCE AREAS SHOWN HEREON WERE DELINEATED BY BSC GROUP, INC. BETWEEN JUNE - NOVEMBER 2023.

LEGEND

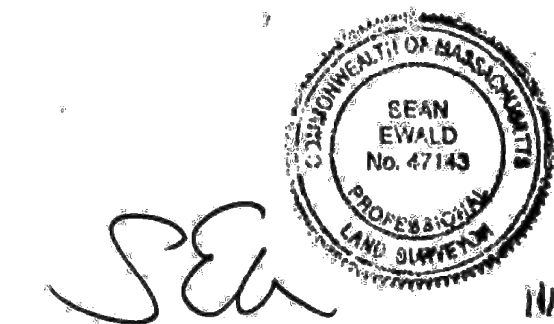
- STONE BOUND, IRON ROD, CATCH BASIN, TEMPORARY BENCHMARK, INVERT, TEST PIT, HYDRANT, VENT PIPE, SIGN, METAL POST, WETLANDS FLAG, WETLANDS BANK FLAG, DECIDUOUS TREE, INVERT, RCP, STEEL/CABLE GUARDRAIL, TREE LINE, DRAIN LINE

UTILITY NOTE

EXISTING UTILITIES, WHERE SHOWN HEREON, ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY LOCATING AND COORDINATING ANY ON-SITE ACTIVITY WITH DIG-SAFE AND THE APPROPRIATE UTILITY COMPANY AND MAINTAINING EXISTING UTILITY SYSTEM SERVICE. DIG-SAFE SHALL BE NOTIFIED PER THE COMMONWEALTH OF MASSACHUSETTS STATUTE CHAPTER 82, SECTION 40, AT 1-888-344-7233. NO GUARANTEE IS IMPLIED OR INTENDED AS TO THE ACCURACY, LOCATION OR THAT ALL UTILITIES AND/OR SUBSURFACE STRUCTURES ARE SHOWN. THE CONTRACTOR SHALL VERIFY SIZE, LOCATION AND INVERTS OR UTILITIES AND STRUCTURES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.



PRIORITY HABITAT PH-1926



PROFESSIONAL LAND SURVEYOR FOR BSC GROUP, INC.

DATE

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HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

EXISTING
CONDITIONS PLAN
(SHEET 4 OF 4)

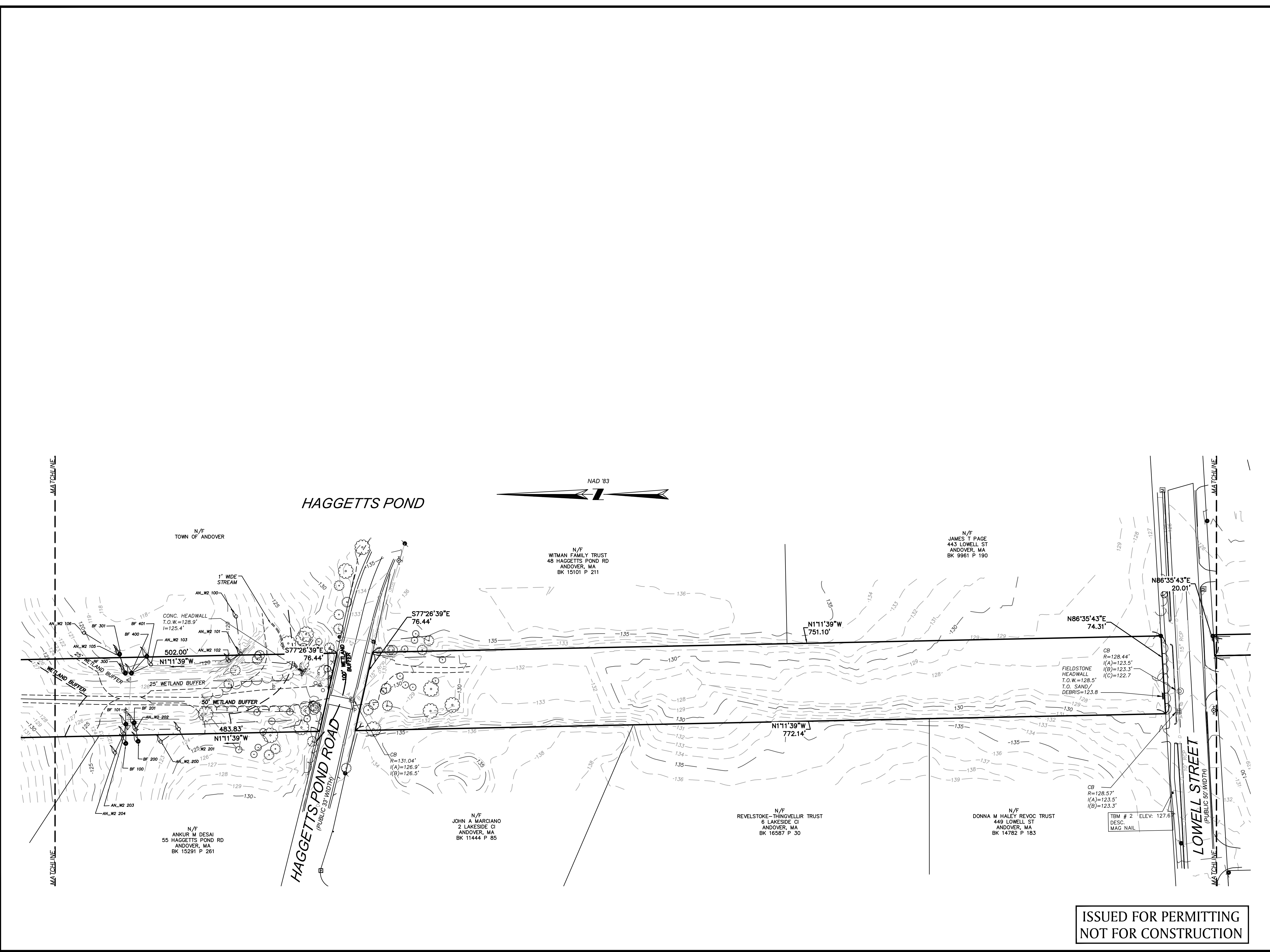
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REVISIONS:

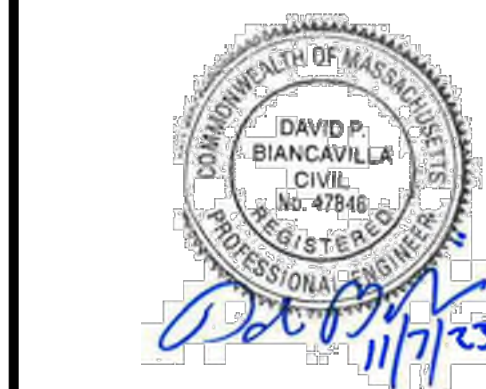
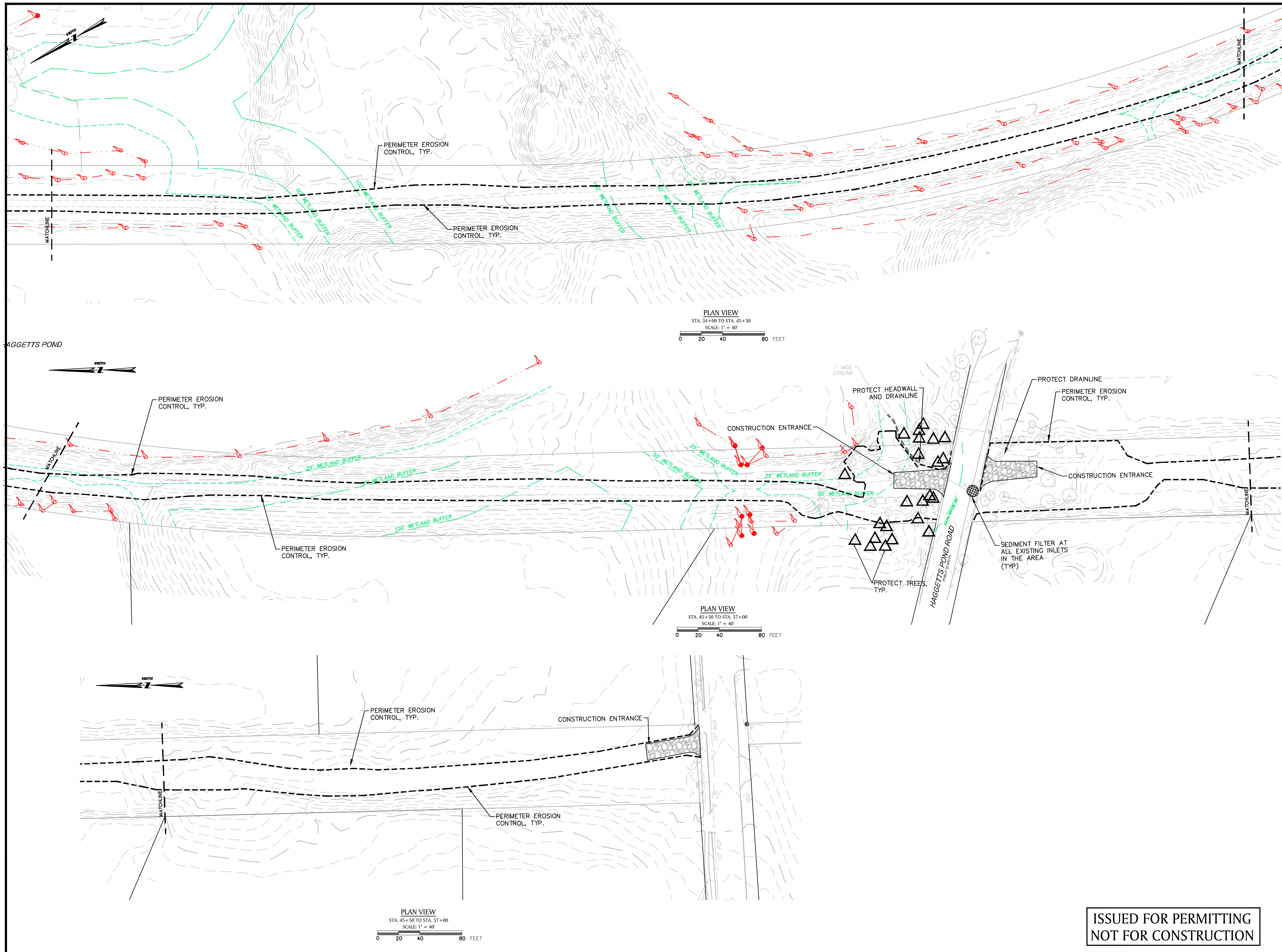
PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 40'
0 20 40 80 FEET
FILE: P:\8998501\C_D
DWG.:
JOB. NO: 8-9985.01 SHEET V-103



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PROFESSIONAL ENGINEER DATE

**HAGGETTS POND
RAIL TRAIL**

IN
ANDOVER,
MA

**EROSION &
SEDIMENTATION
CONTROL PLAN**

NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

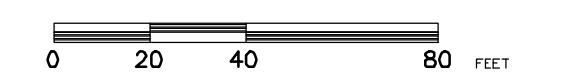


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SCALE: 1" = 40'

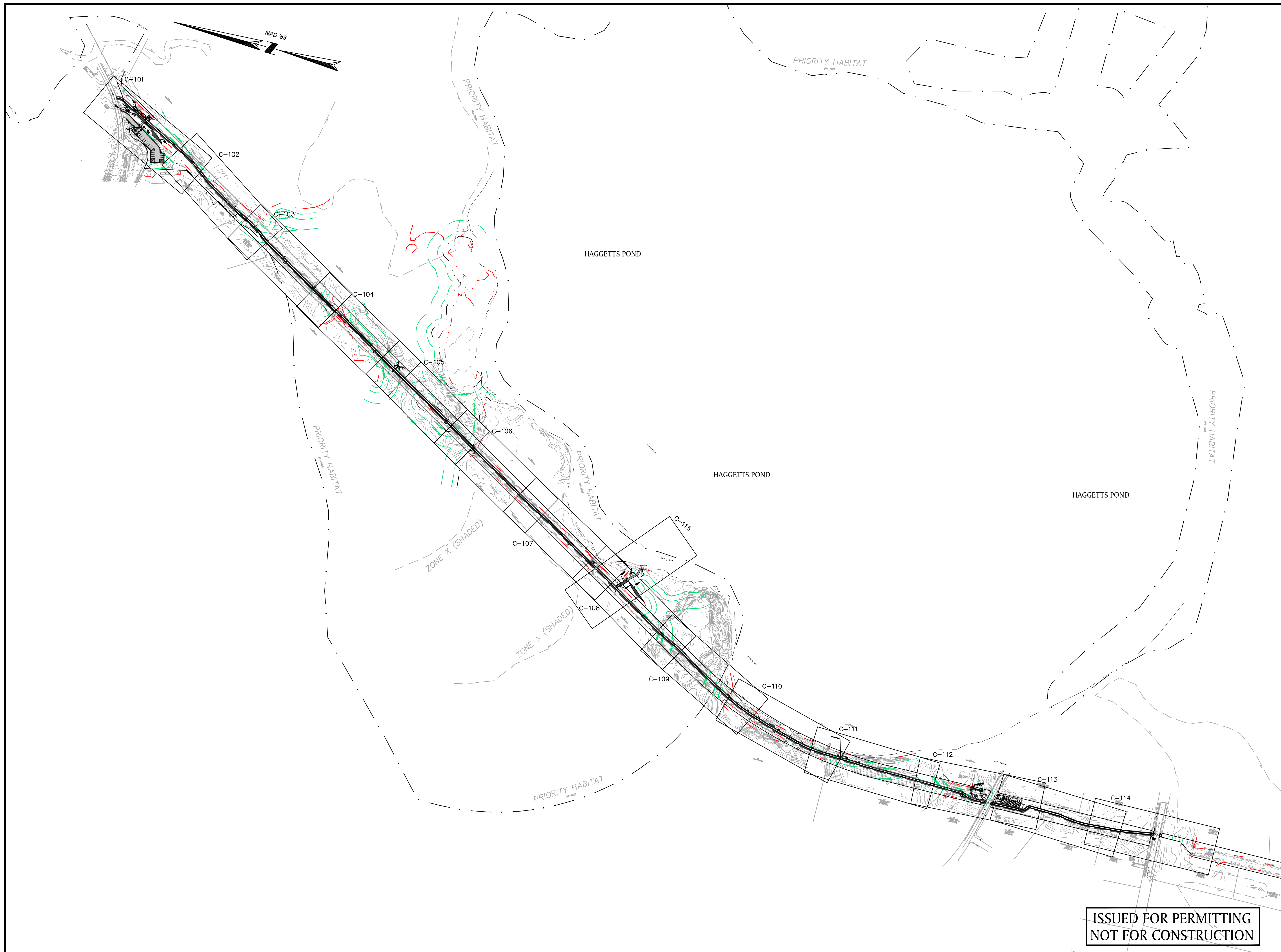


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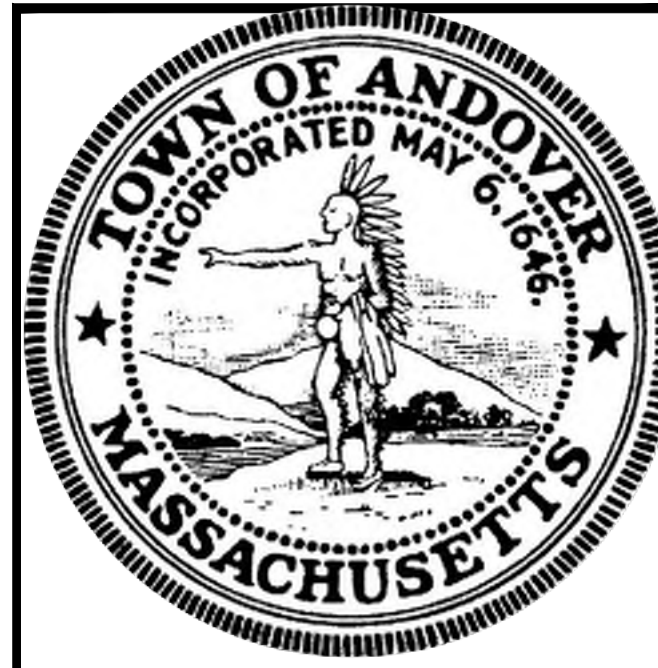
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SHEET ESC-101

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 DAVID P. BIANCAVILLA
 CIVIL
 No. 47848
 REGISTERED PROFESSIONAL ENGINEER
 PROFESSIONAL ENGINEER DATE

**HAGGETTS POND
RAIL TRAIL**

IN
ANDOVER,
MA

SITE KEY PLAN

NOVEMBER 7, 2023

REVISIONS:

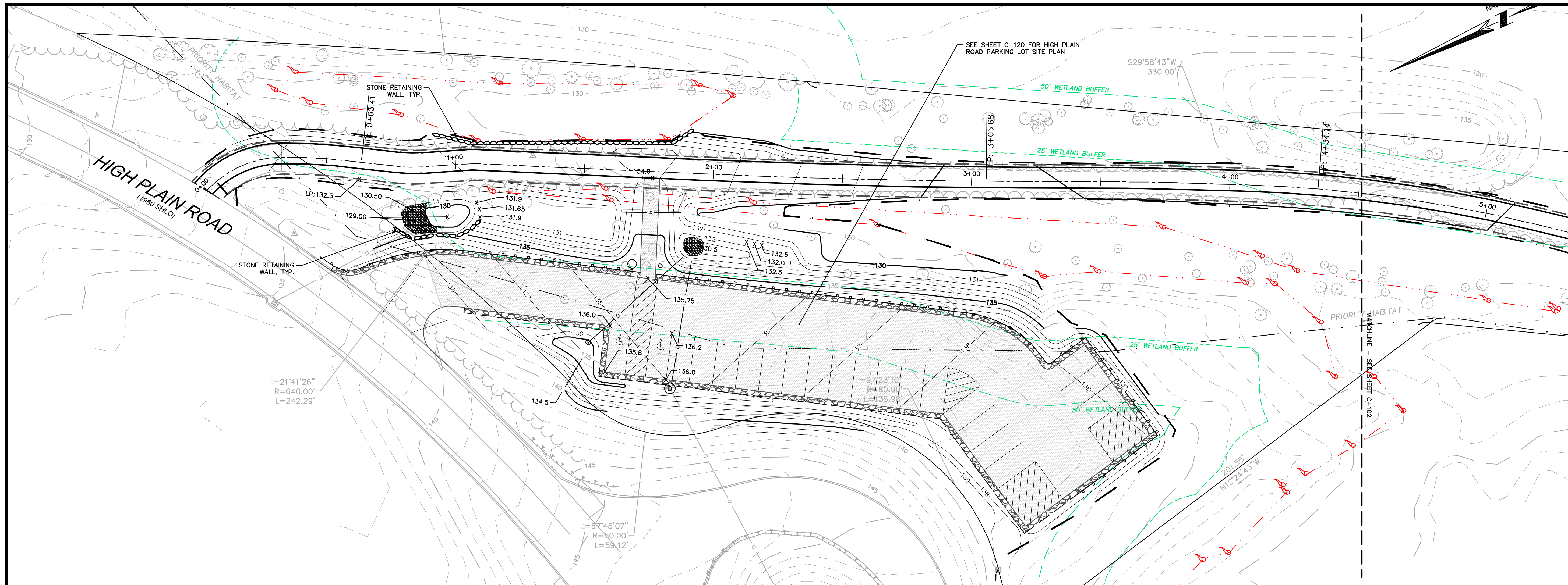
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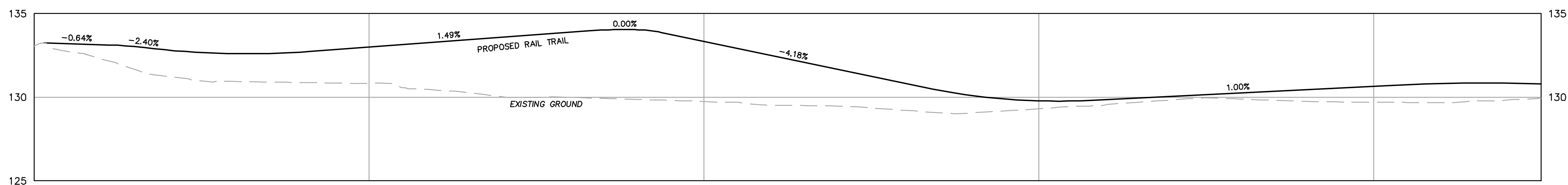
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SCALE: 1"=200'
0 100 200 400 FEET

FILE: P:\8998501\C_D
DWG.:
JOB. NO: 8-9985.01 SHEET C-100



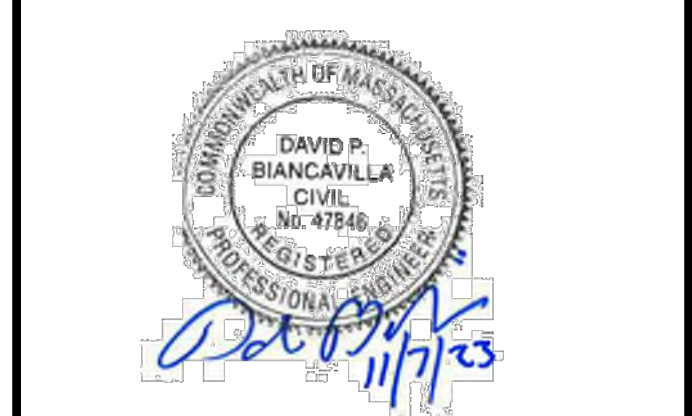
PLAN VIEW
 STA. 0+00 TO STA. 4+50
 SCALE: 1" = 20'



0+00	0+50	1+00	1+50	2+00	2+50	3+00	3+50	4+00	4+50
133.1	131.0 132.67	130.8 133.00	130.0 133.75	129.7 133.34	129.4 131.25	129.1 129.76	130.0 130.16	129.7 130.66	129.9 130.81

PROFILE VIEW
 STA. 0+00 TO STA. 4+50
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.

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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
 RAIL TRAIL
 IN
 ANDOVER,
 MA

TRAIL PLAN AND PROFILE
 STA. 0+00 TO STA. 4+50
 NOVEMBER 7, 2023

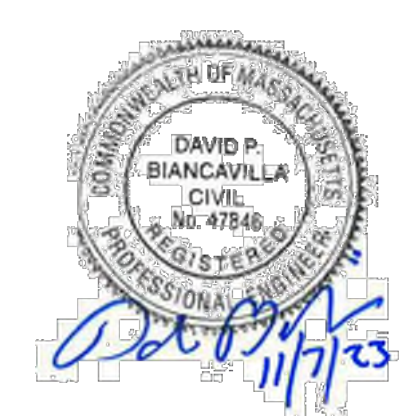
REVISIONS:

PREPARED FOR:
 TOWN OF ANDOVER
 36 BARTLET STREET
 ANDOVER, MA, 01810

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 SCALE: 1" = 20'
 0 10 20 40 FEET

FILE: P:\8998501\C_D
 DWG.:
 JOB. NO: 8-9985.01 SHEET C-101



PROFESSIONAL ENGINEER DATE

HAGGETTS POND RAIL TRAIL

IN
ANDOVER,
MA

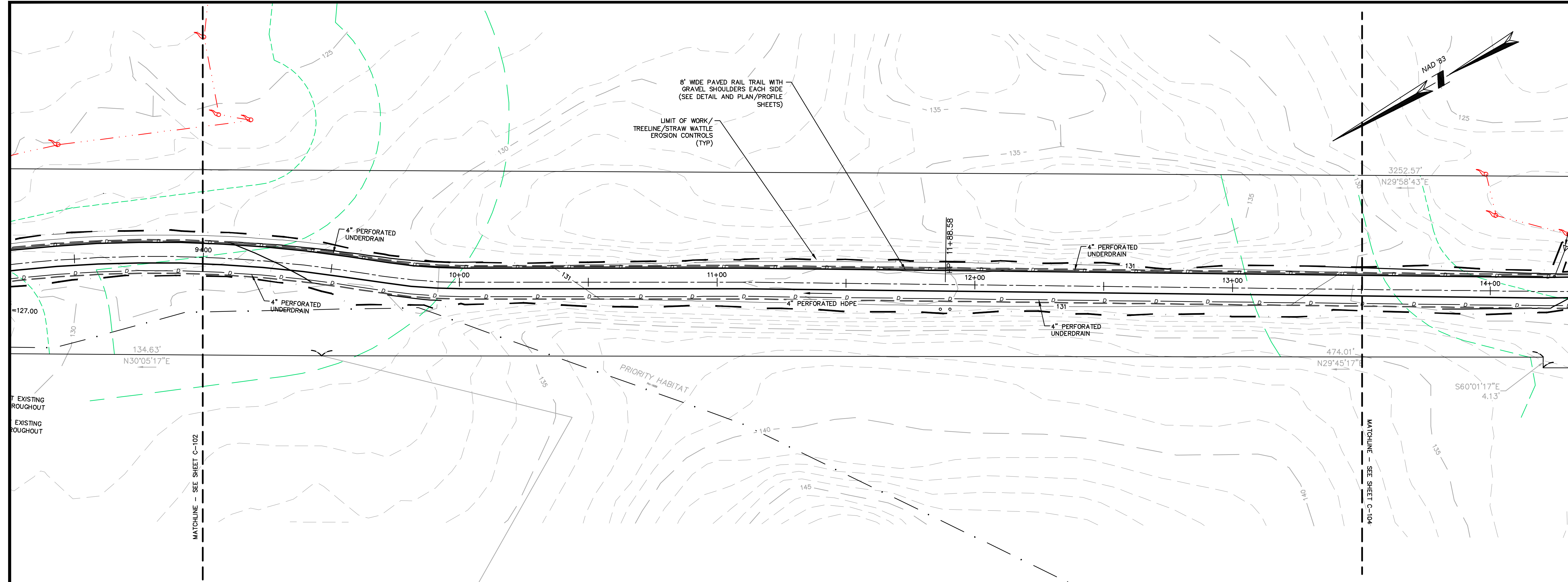
TRAIL PLAN AND PROFILE
STA. 9+00 TO STA. 13+50
NOVEMBER 7, 2023

REVISIONS:

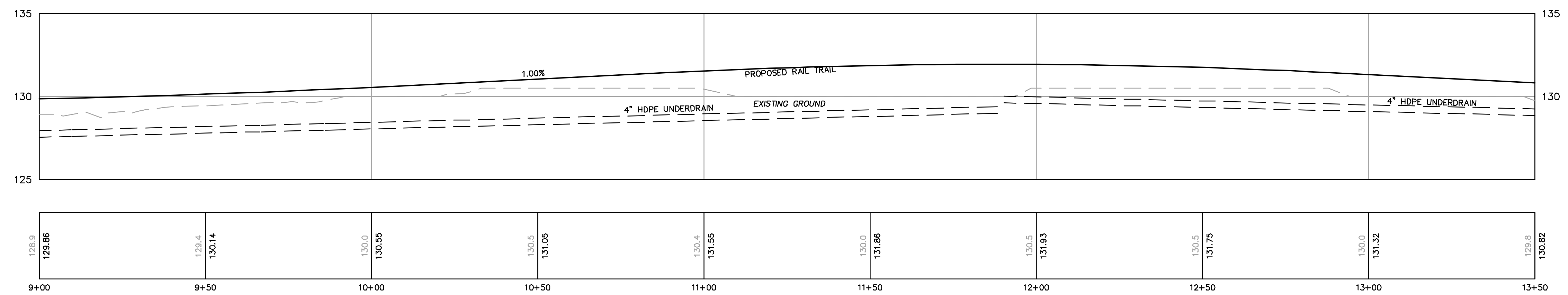
PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

© 2023 BSC GROUP, INC.
SCALE: 1" = 20'
0 10 20 40 FEET
FILE: P:\8998501\C\...
DWG: ...
JOB. NO: 8-9985.01 SHEET C-103



PLAN VIEW
STA. 9+00 TO STA. 13+50
SCALE: 1" = 20'
0 10 20 40 FEET



PROFILE VIEW
STA. 9+00 TO STA. 13+50
SCALE: 1" = 20' HORIZ.
1" = 4' VERT.
HORIZ. 0 10 20 40 FEET
VERT. 0 2 4 8 FEET

**ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION**



PROFESSIONAL ENGINEER DATE

**HAGGETTS POND
RAIL TRAIL**

IN
ANDOVER,
MA

TRAIL PLAN AND PROFILE
STA. 13+50 TO STA. 18+00

NOVEMBER 7, 2023

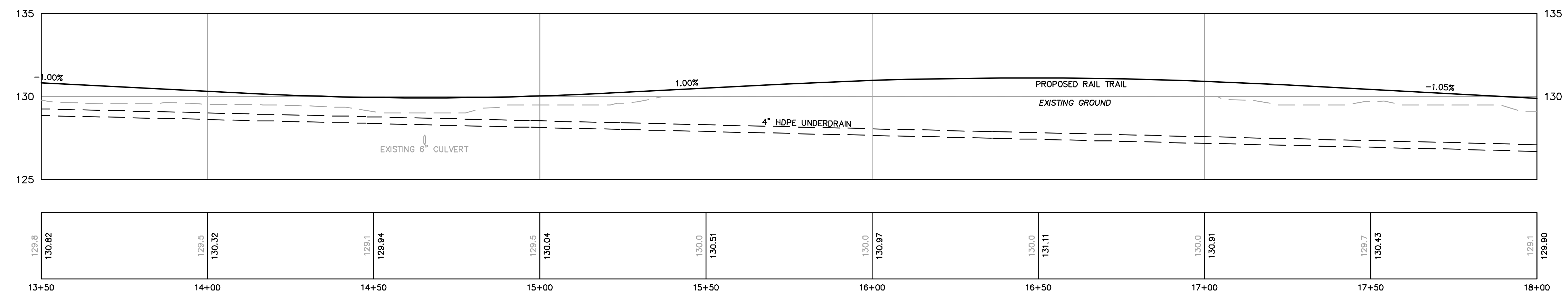
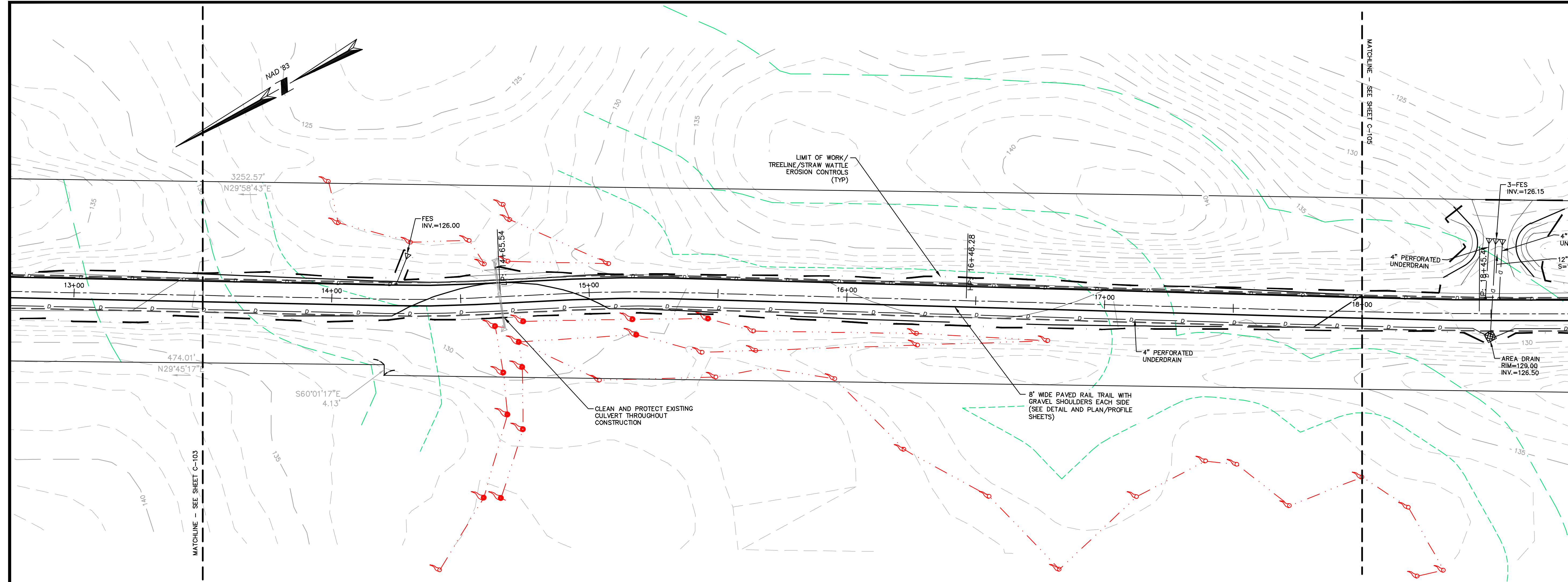
REVISIONS:

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ANDOVER, MA, 01810

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SCALE: 1" = 20'
0 10 20 40 FEET

FILE: P:\8998501\C_
DWG.:
JOB. NO: 8-9985.01 SHEET C-104



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PROFILE VIEW
STA. 13+50 TO STA. 18+00
SCALE: 1" = 20' HORIZ.
1" = 4' VERT.

HORIZ. 0 10 20 40 FEET
VERT. 0 2 4 8 FEET



PROFESSIONAL ENGINEER DATE

HAGGETTS POND RAIL TRAIL

IN
ANDOVER,
MA

TRAIL PLAN AND PROFILE

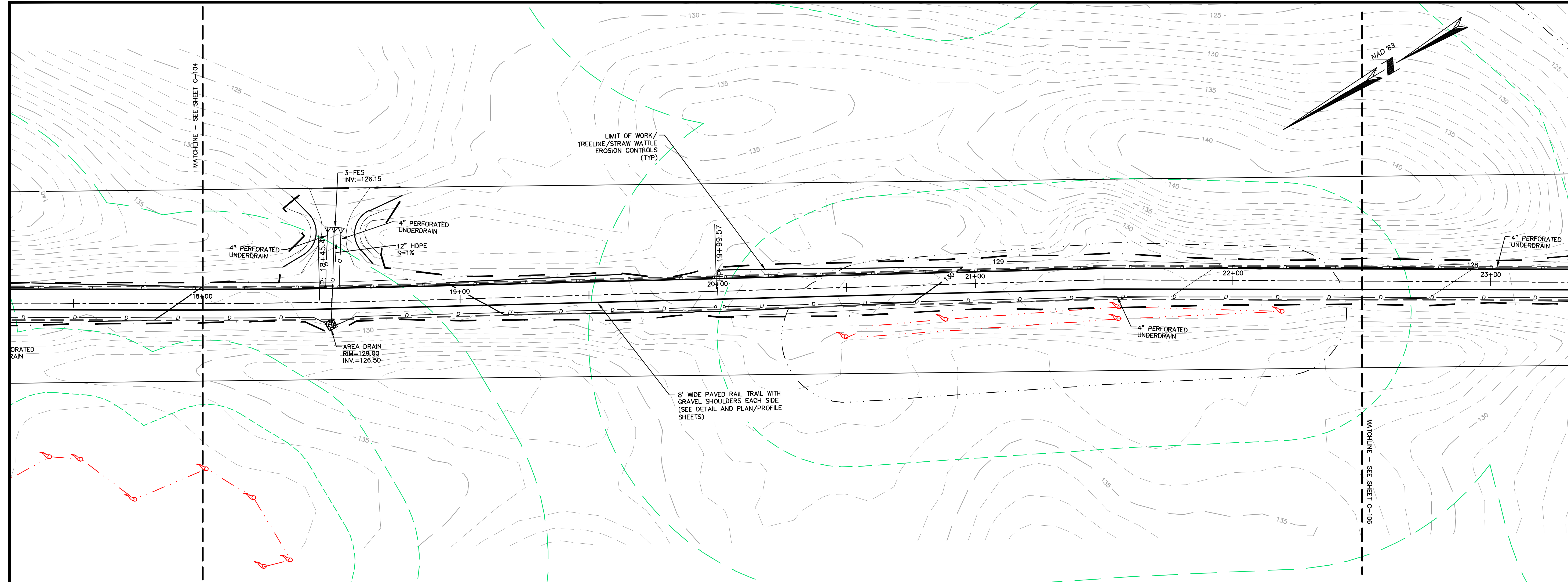
STA. 18+00 TO STA. 22+50
NOVEMBER 7, 2023

REVISIONS:

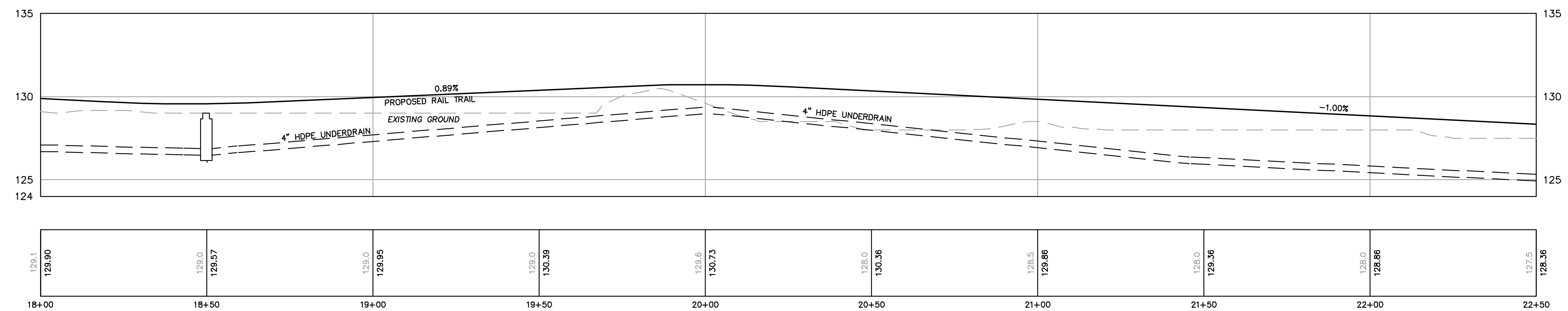
PREPARED FOR:
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SCALE: 1" = 20'
0 10 20 40 FEET
FILE: P:\8998501\C\DWG
JOB. NO: 8-9985.01 SHEET C-105

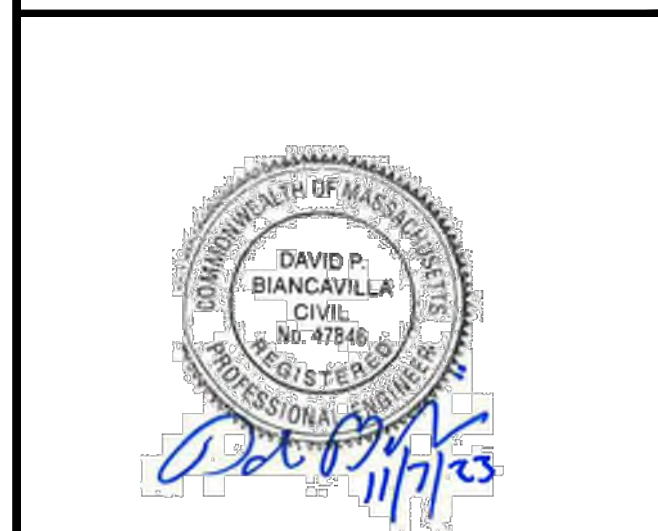


PLAN VIEW
STA. 18+00 TO STA. 22+50
SCALE: 1" = 20'
0 10 20 40 FEET



PROFILE VIEW
STA. 18+00 TO STA. 22+50
SCALE: 1" = 20' HORIZ.
1" = 4' VERT.
HORIZ. 0 10 20 40 FEET
VERT. 0 2 4 8 FEET

**ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION**



PROFESSIONAL ENGINEER DATE

**HAGGETTS POND
RAIL TRAIL**

IN
ANDOVER,
MA

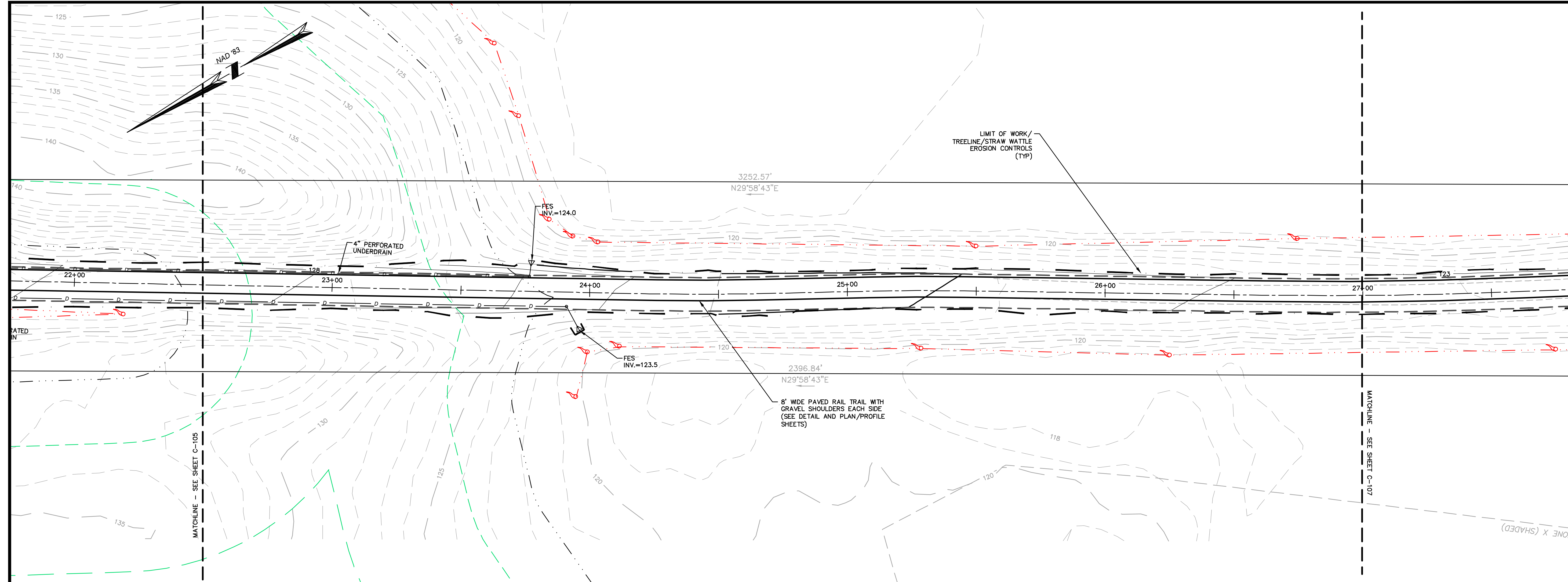
TRAIL PLAN AND PROFILE
STA. 22+50 TO STA. 27+00
NOVEMBER 7, 2023

REVISIONS:

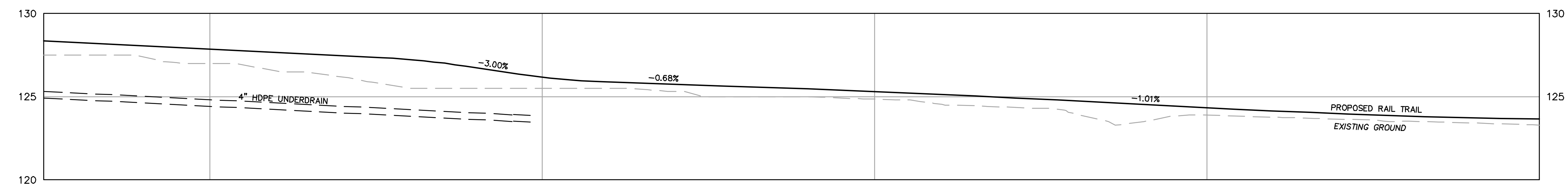
PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

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Andover, Massachusetts
01810
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SCALE: 1" = 20'
0 10 20 40 FEET
FILE: P:\8998501\C\D
DWG.:
JOB. NO: 8-9985.01 SHEET C-106



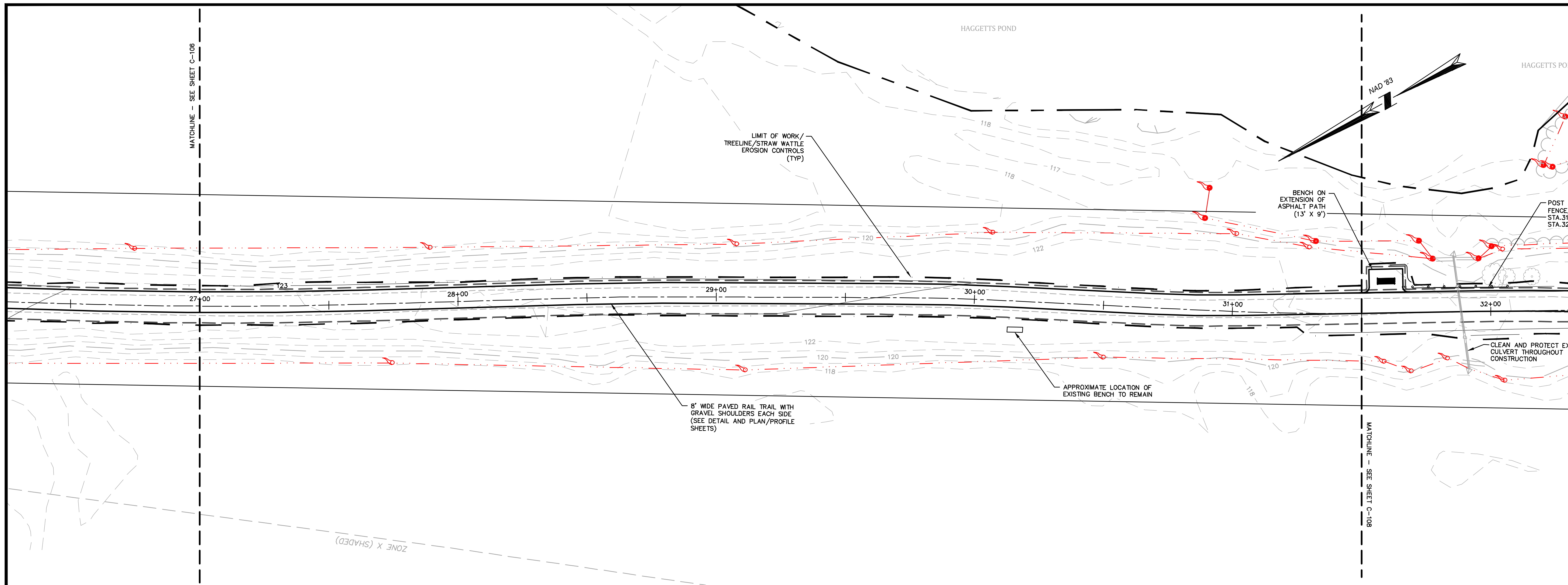
PLAN VIEW
STA. 22+50 TO STA. 27+00
SCALE: 1" = 20'
0 10 20 40 FEET



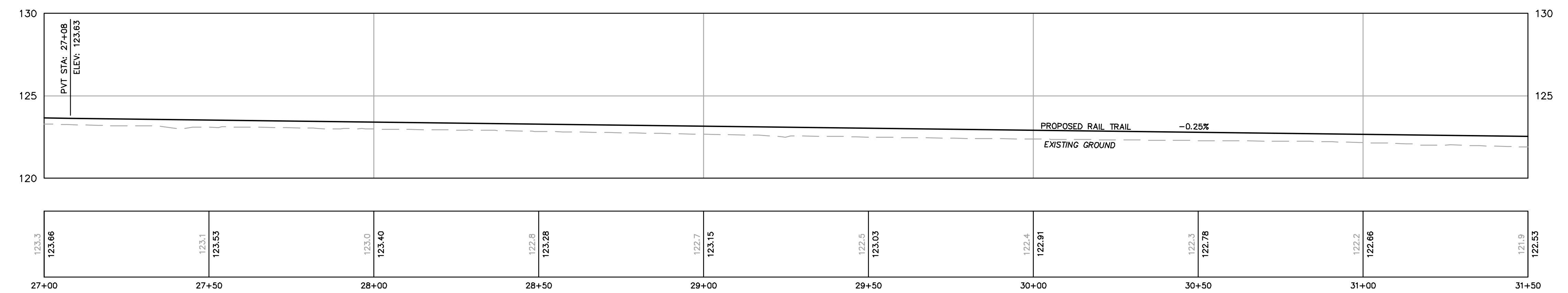
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22+50	23+00	23+50	24+00	24+50	25+00	25+50	26+00	26+50	27+00										

PROFILE VIEW
STA. 22+50 TO STA. 27+00
SCALE: 1" = 20' HORIZ.
1" = 4' VERT.
HORIZ. 0 10 20 40 FEET
VERT. 0 2 4 8

**ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION**



PLAN VIEW
 STA. 27+00 TO STA. 31+50
 SCALE: 1" = 20'
 0 10 20 40 FEET



PROFILE VIEW
 STA. 27+00 TO STA. 31+50
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.
 HORIZ. 0 10 20 40 FEET
 VERT. 0 2 4 8 FEET



PROFESSIONAL ENGINEER DATE

DAVID P. BIANCIVILLA
 CIVIL
 No. 47848
 REGISTERED PROFESSIONAL ENGINEER

HAGGETTS POND RAIL TRAIL

IN
 ANDOVER,
 MA

TRAIL PLAN AND PROFILE
 STA. 27+00 TO STA. 31+50
 NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
 TOWN OF ANDOVER
 36 BARTLET STREET
 ANDOVER, MA, 01810

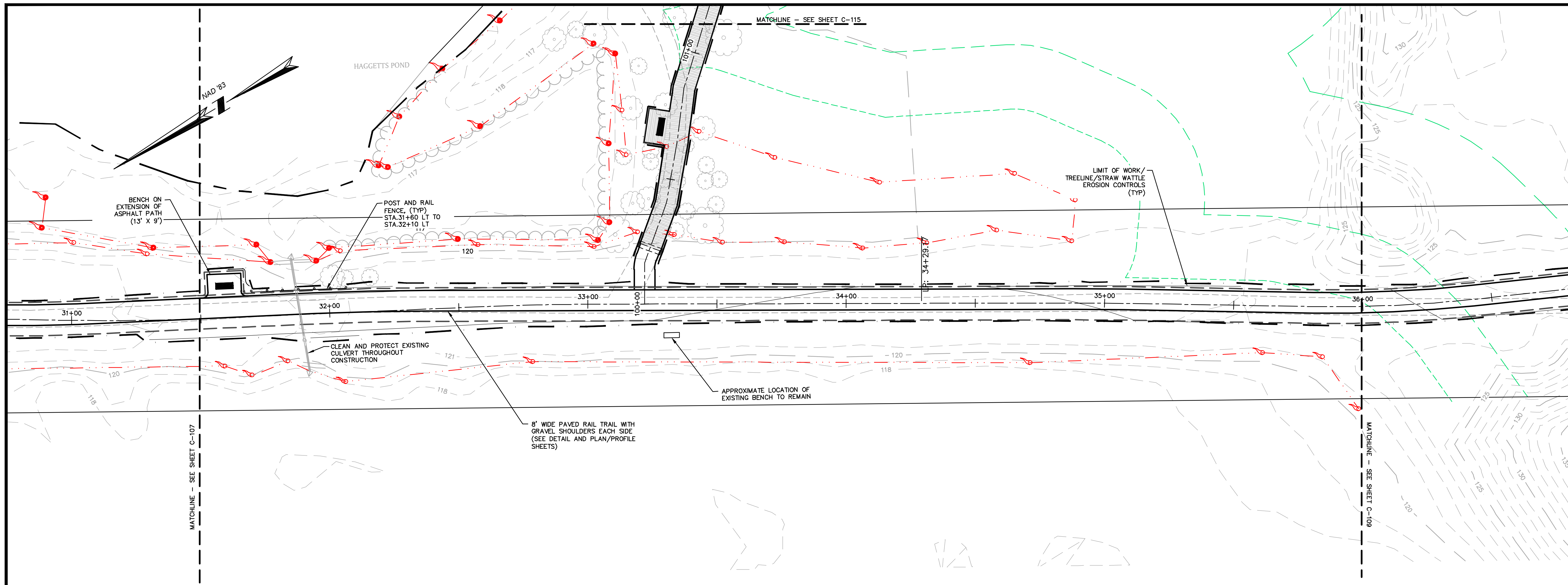
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 01810
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 SCALE: 1" = 20'
 0 10 20 40 FEET

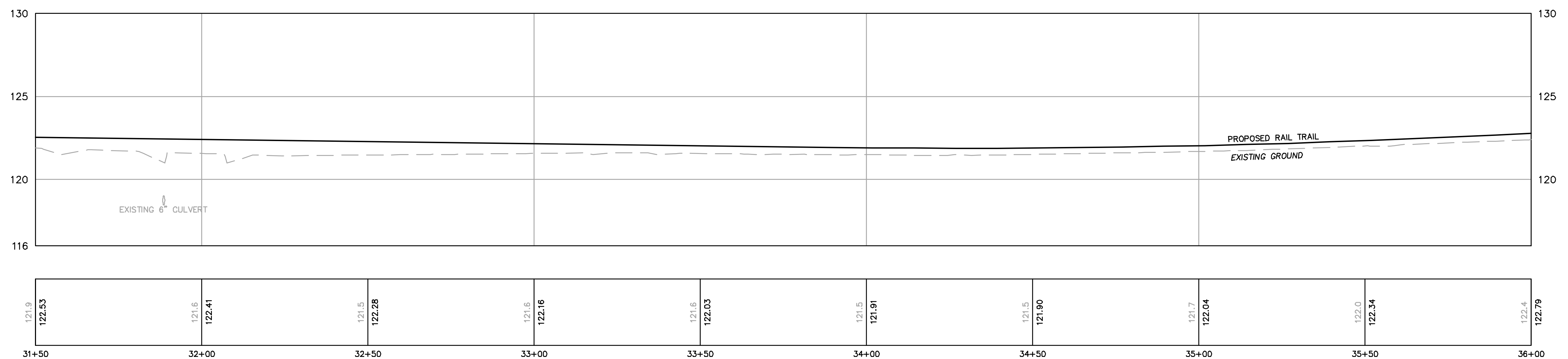
FILE: P:\8998501\C\D
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 JOB. NO: 8-9985.01

SHEET C-107

**ISSUED FOR PERMITTING
 NOT FOR CONSTRUCTION**



PLAN VIEW
 STA. 31+50 TO STA. 36+00
 SCALE: 1" = 20'



PROFILE VIEW
 STA. 31+50 TO STA. 36+00
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.

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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
 RAIL TRAIL
 IN
 ANDOVER,
 MA

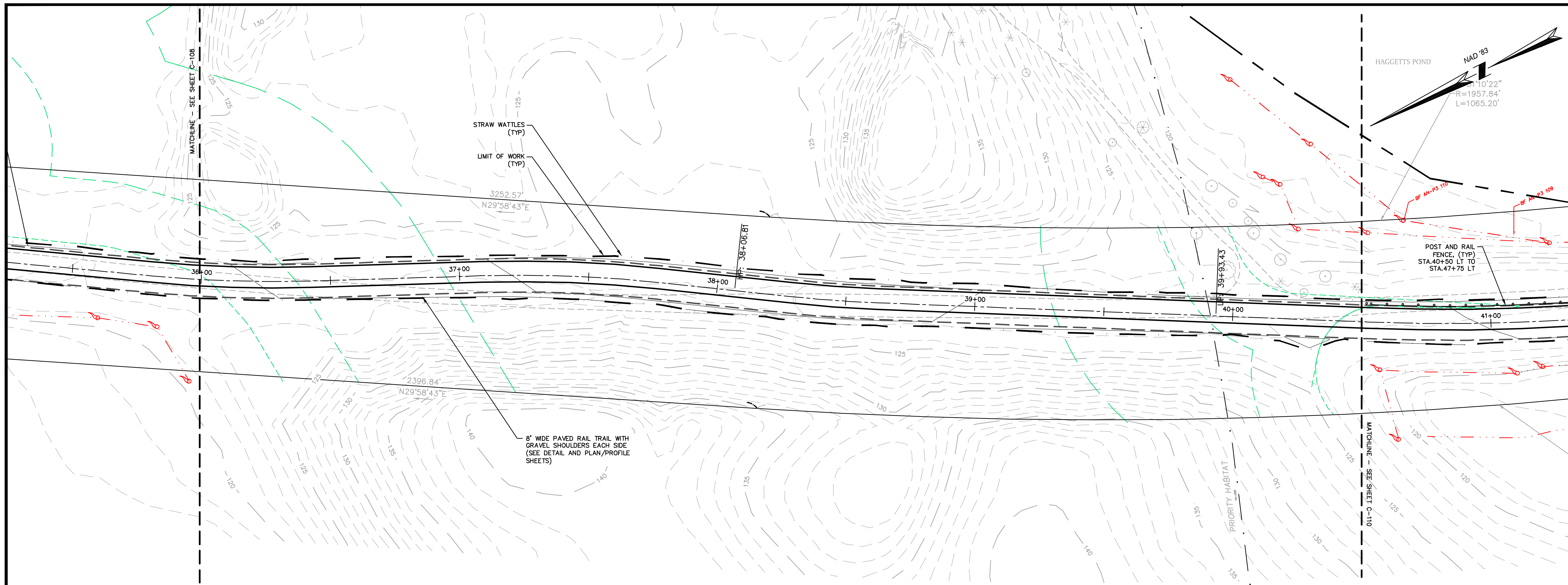
TRAIL PLAN AND PROFILE
 STA. 0+00 TO STA. 4+60
 NOVEMBER 7, 2023

REVISIONS:

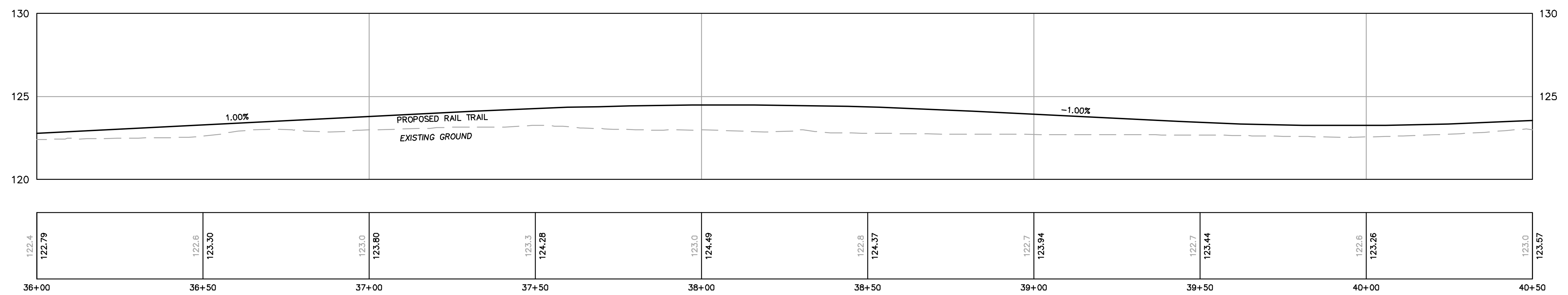
PREPARED FOR:
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 SCALE: 1" = 20'
 0 10 20 40 FEET
 FILE: P:\8998501\C_D
 DWG.:
 JOB. NO: 8-9985.01 SHEET C-108



PLAN VIEW
 STA. 36+00 TO STA. 40+50
 SCALE: 1" = 20'



PROFILE VIEW
 STA. 36+00 TO STA. 40+50
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.

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PROFESSIONAL ENGINEER DATE

**HAGGETTS POND
 RAIL TRAIL**
 IN
 ANDOVER,
 MA

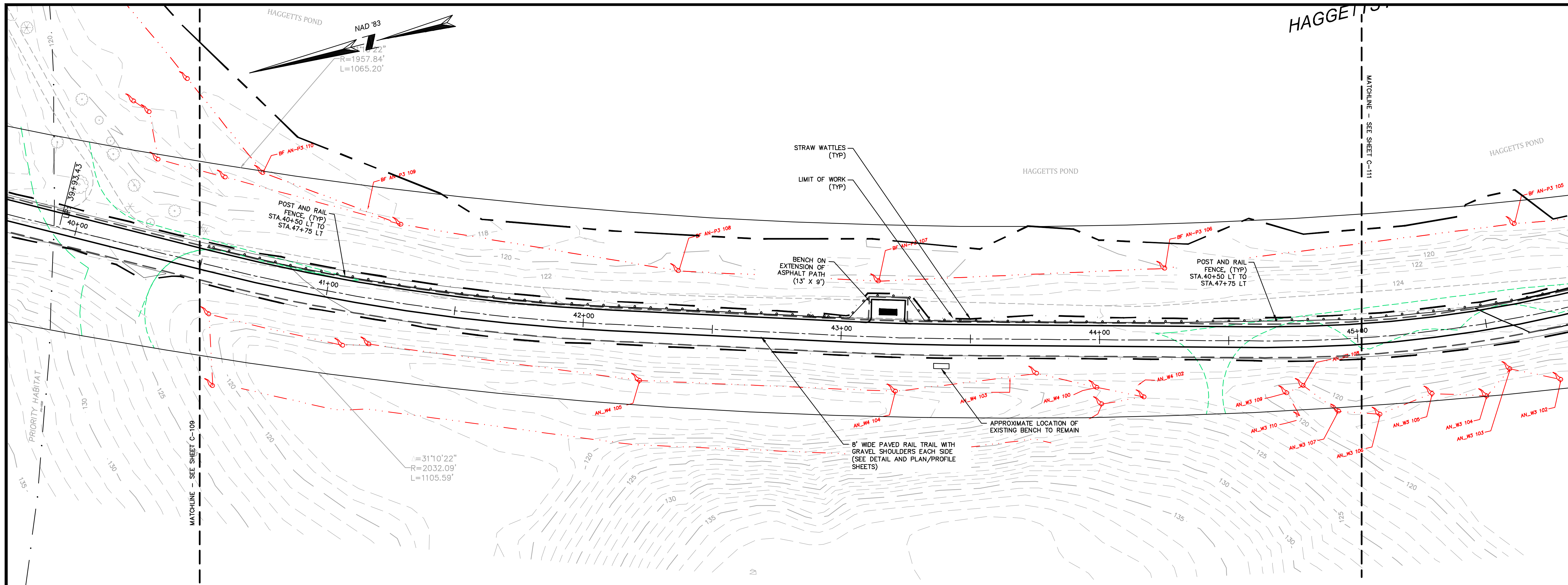
TRAIL PLAN AND PROFILE
 STA. 36+00 TO STA. 40+50
 NOVEMBER 7, 2023

REVISIONS:

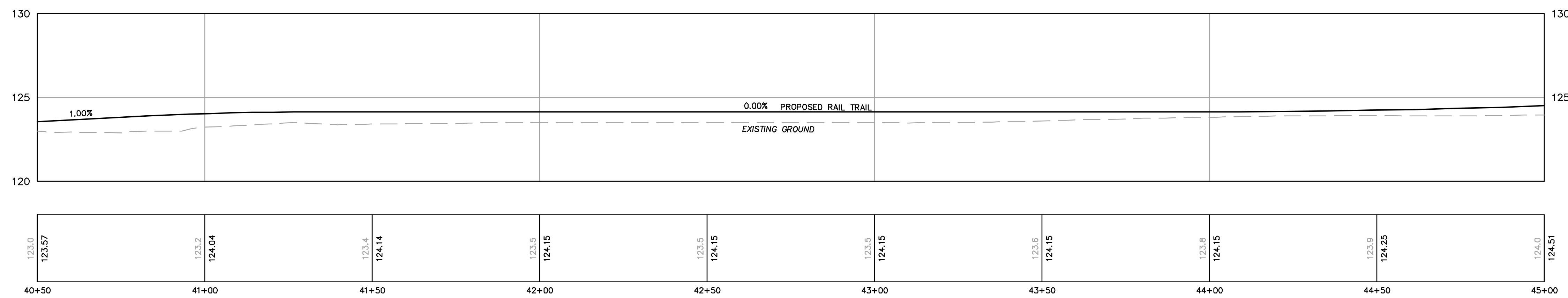
PREPARED FOR:
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 ANDOVER, MA, 01810

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 SCALE: 1" = 20'
 0 10 20 40 FEET
 FILE: P:\8998501\C\...
 DWG.:
 JOB. NO: 8-9985.01 SHEET C-109

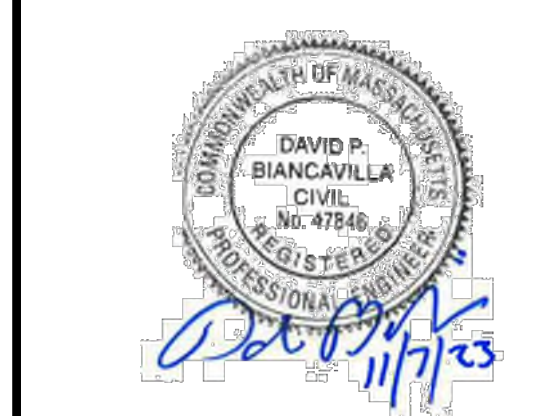


PLAN VIEW
 STA. 40+50 TO STA. 45+00
 SCALE: 1" = 20'



PROFILE VIEW
 STA. 40+50 TO STA. 45+00
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.

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 NOT FOR CONSTRUCTION**



PROFESSIONAL ENGINEER DATE

**HAGGETTS POND
 RAIL TRAIL**
 IN
 ANDOVER,
 MA

TRAIL PLAN AND PROFILE
 STA. 40+50 TO STA. 45+00
 NOVEMBER 7, 2023

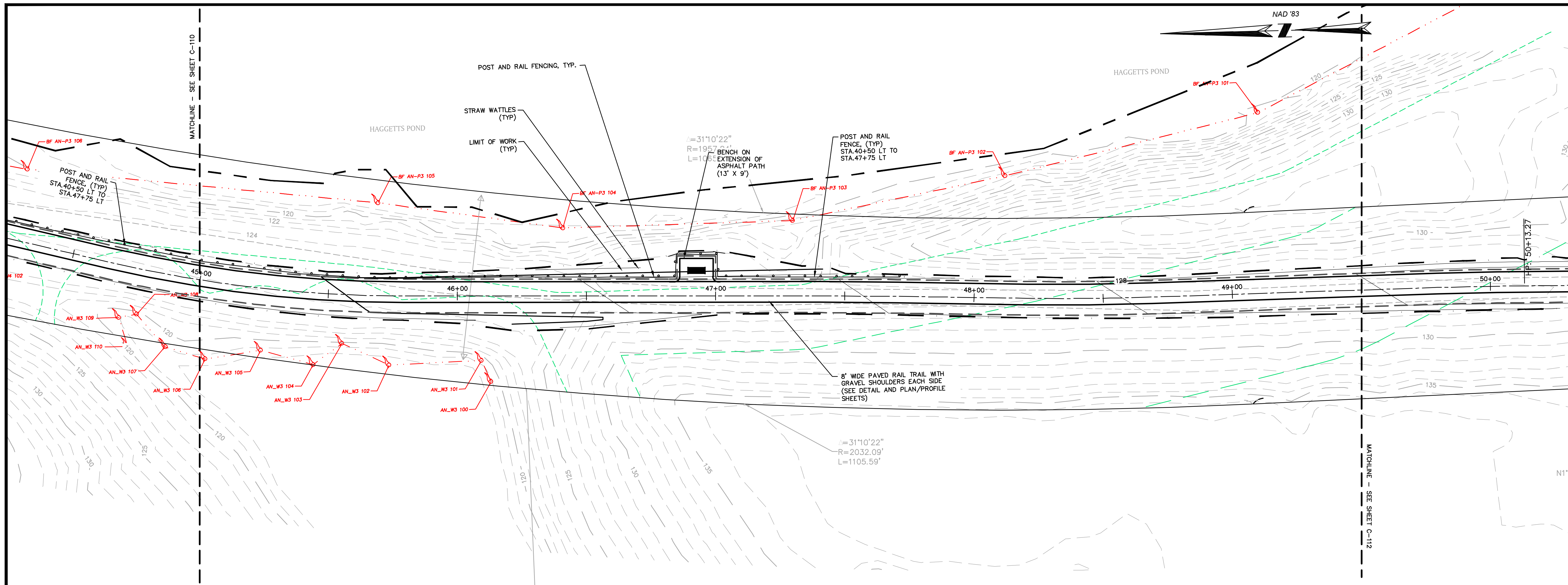
REVISIONS:

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 TOWN OF ANDOVER
 36 BARTLET STREET
 ANDOVER, MA, 01810

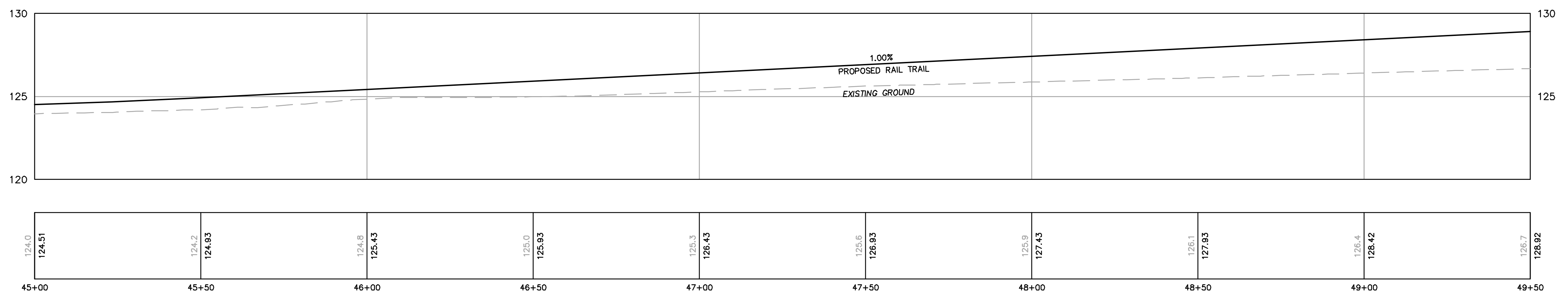
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 01810
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 SCALE: 1" = 20'
 0 10 20 40 FEET

FILE: P:\8998501\C\...
 DWG.:
 JOB. NO: 8-9985.01 SHEET C-110

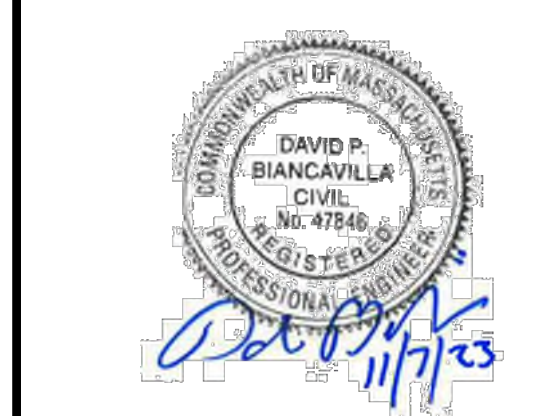


PLAN VIEW
 STA. 45+00 TO STA. 49+50
 SCALE: 1" = 20'



PROFILE VIEW
 STA. 45+00 TO STA. 49+50
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.

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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
 RAIL TRAIL
 IN
 ANDOVER,
 MA

TRAIL PLAN AND PROFILE
 STA. 45+00 TO STA. 49+50
 NOVEMBER 7, 2023

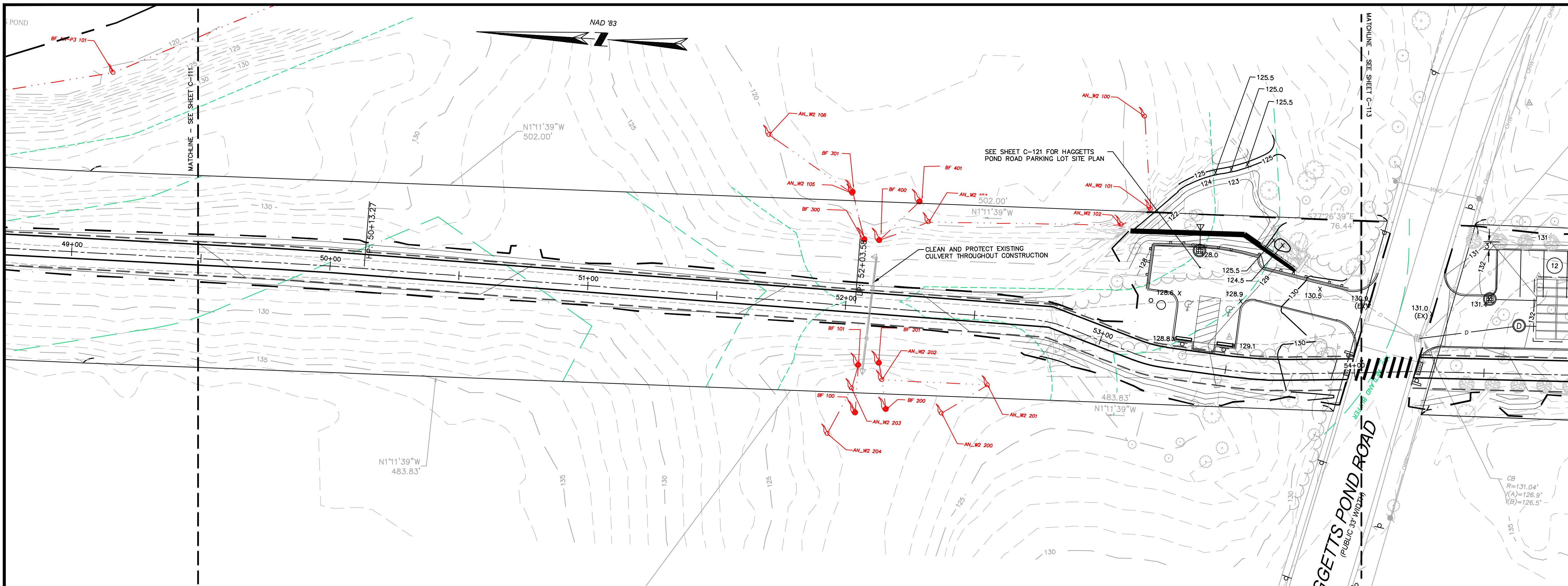
REVISIONS:

PREPARED FOR:
 TOWN OF ANDOVER
 36 BARTLET STREET
 ANDOVER, MA, 01810

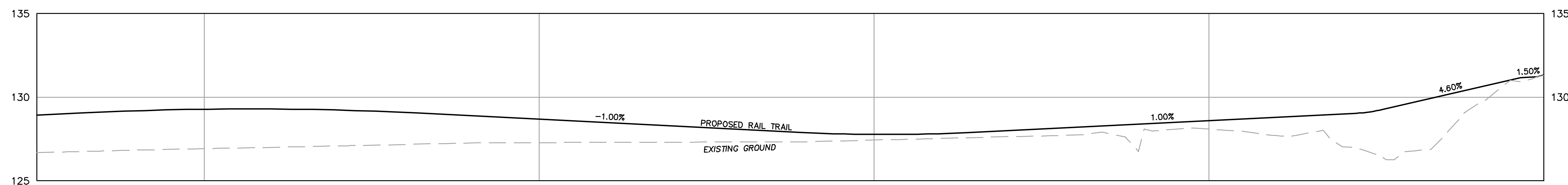
BSC GROUP
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 Andover, Massachusetts
 01810
 617 896 4300

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 SCALE: 1" = 20'
 0 10 20 40 FEET

FILE: P:\8998501\C\ _D
 DWG.:
 JOB. NO: 8-9985.01 SHEET C-111



PLAN VIEW
 STA. 49+50 TO STA. 54+00
 SCALE: 1" = 20'



126.7	126.9	127.1	127.3	127.4	127.7	128.1	128.6	131.3
128.92	128.29	128.17	128.69	128.18	127.77	128.61	128.19	131.32
49+50	50+00	50+50	51+00	51+50	52+00	52+50	53+00	54+00

PROFILE VIEW
 STA. 49+50 TO STA. 54+00
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.

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 NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER DATE

HAGGETTS POND
 RAIL TRAIL
 IN
 ANDOVER,
 MA

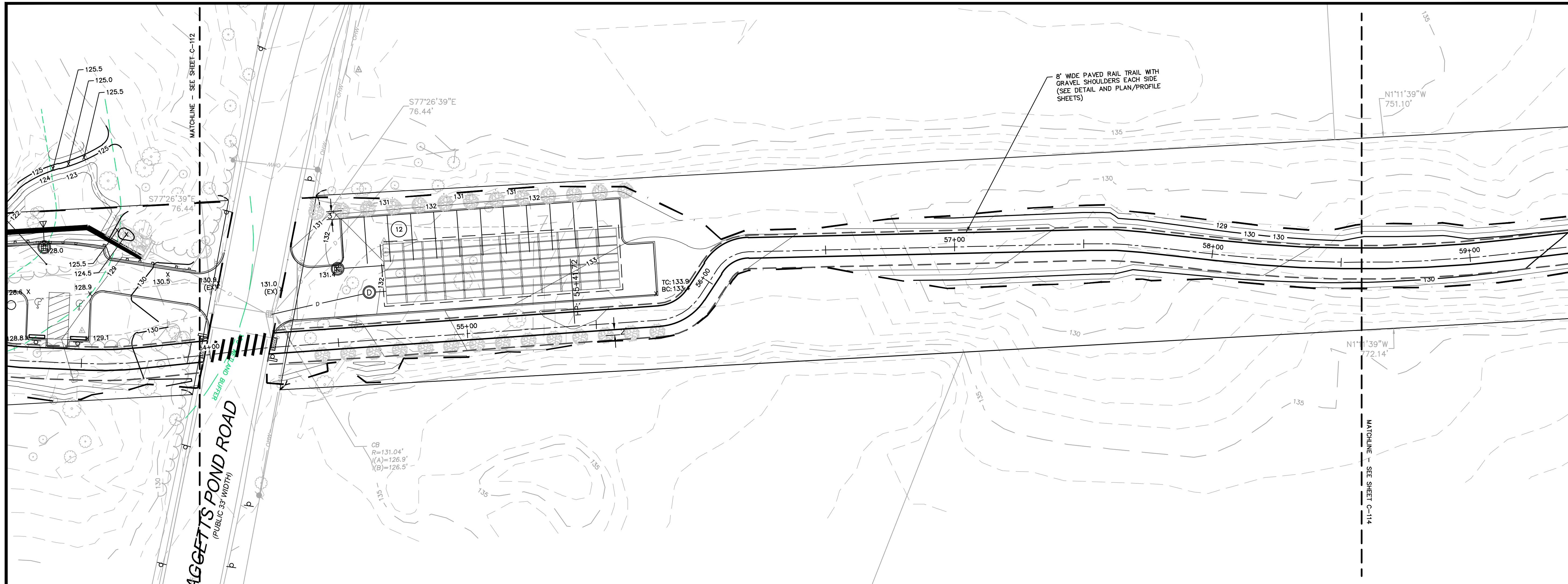
TRAIL PLAN AND PROFILE
 STA. 49+50 TO STA. 54+00
 NOVEMBER 7, 2023

REVISIONS:

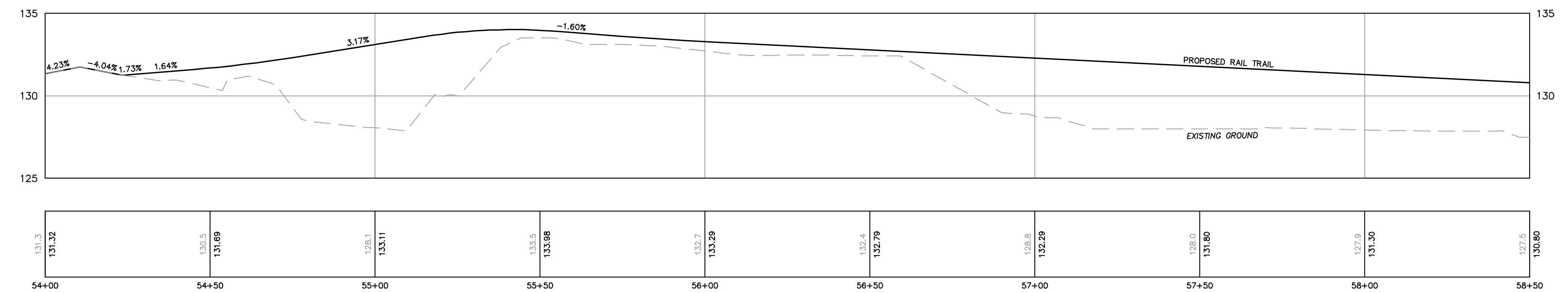
PREPARED FOR:
 TOWN OF ANDOVER
 36 BARTLET STREET
 ANDOVER, MA, 01810

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 Andover, Massachusetts
 01810
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 SCALE: 1" = 20'
 0 10 20 40 FEET
 FILE: P:\8998501\C_
 DWG.:
 JOB. NO: 8-9985.01 SHEET C-112



PLAN VIEW
 STA. 54+00 TO STA. 58+50
 SCALE: 1" = 20'
 0 10 20 40 FEET



PROFILE VIEW
 STA. 54+00 TO STA. 58+50
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.
 HORIZ. 0 10 20 40 FEET
 VERT. 0 2 4 8 FEET

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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
 RAIL TRAIL

IN
 ANDOVER,
 MA

TRAIL PLAN AND PROFILE
 STA. 54+00 TO STA. 58+50
 NOVEMBER 7, 2023

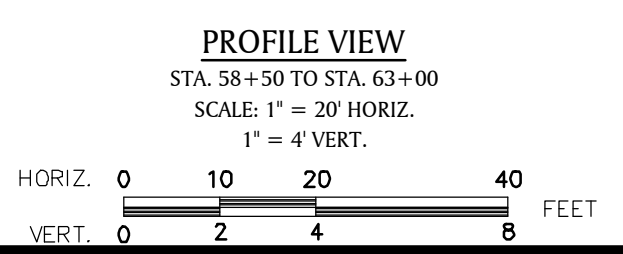
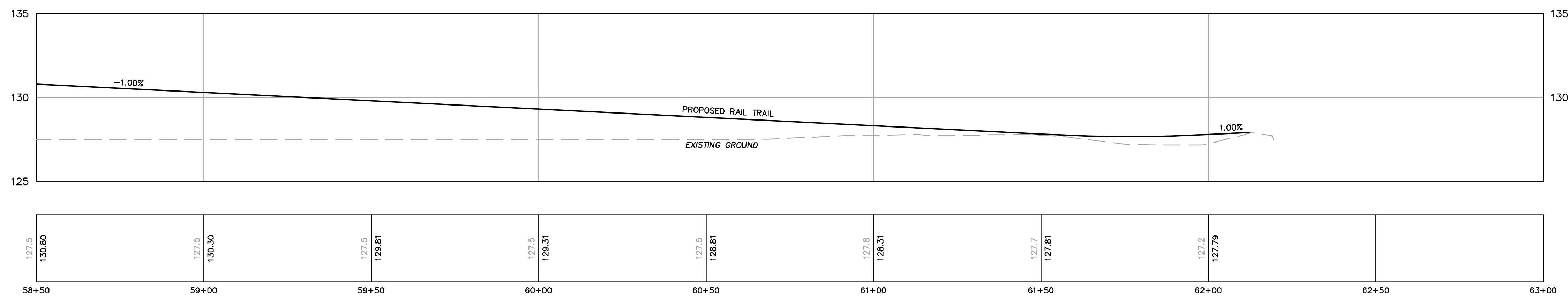
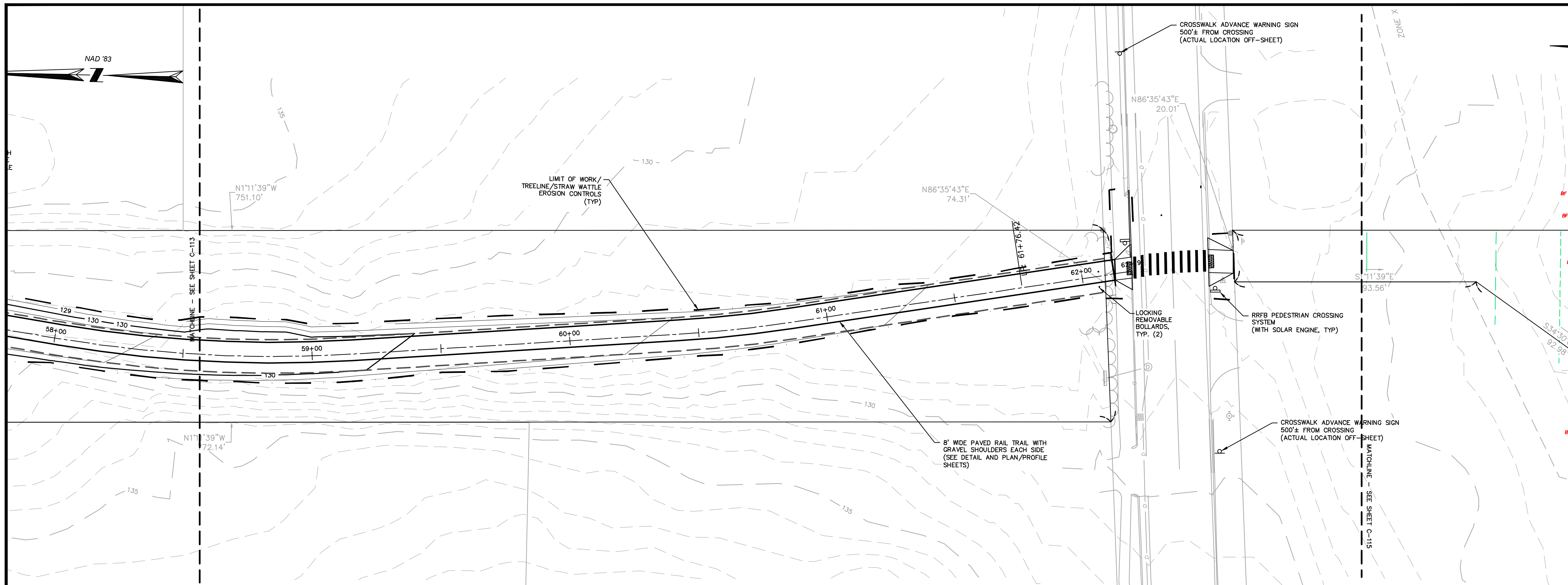
REVISIONS:

PREPARED FOR:
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 ANDOVER, MA, 01810

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 SCALE: 1" = 20'
 0 10 20 40 FEET

FILE: P:\8998501\C\...
 DWG.:
 JOB. NO: 8-9985.01 SHEET C-113



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DAVID P. BIANCAVILLA
 CIVIL
 No. 47848
 PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER DATE

**HAGGETTS POND
 RAIL TRAIL**

IN
 ANDOVER,
 MA

TRAIL PLAN AND PROFILE
 STA. 58+50 TO STA. 63+00
 NOVEMBER 7, 2023

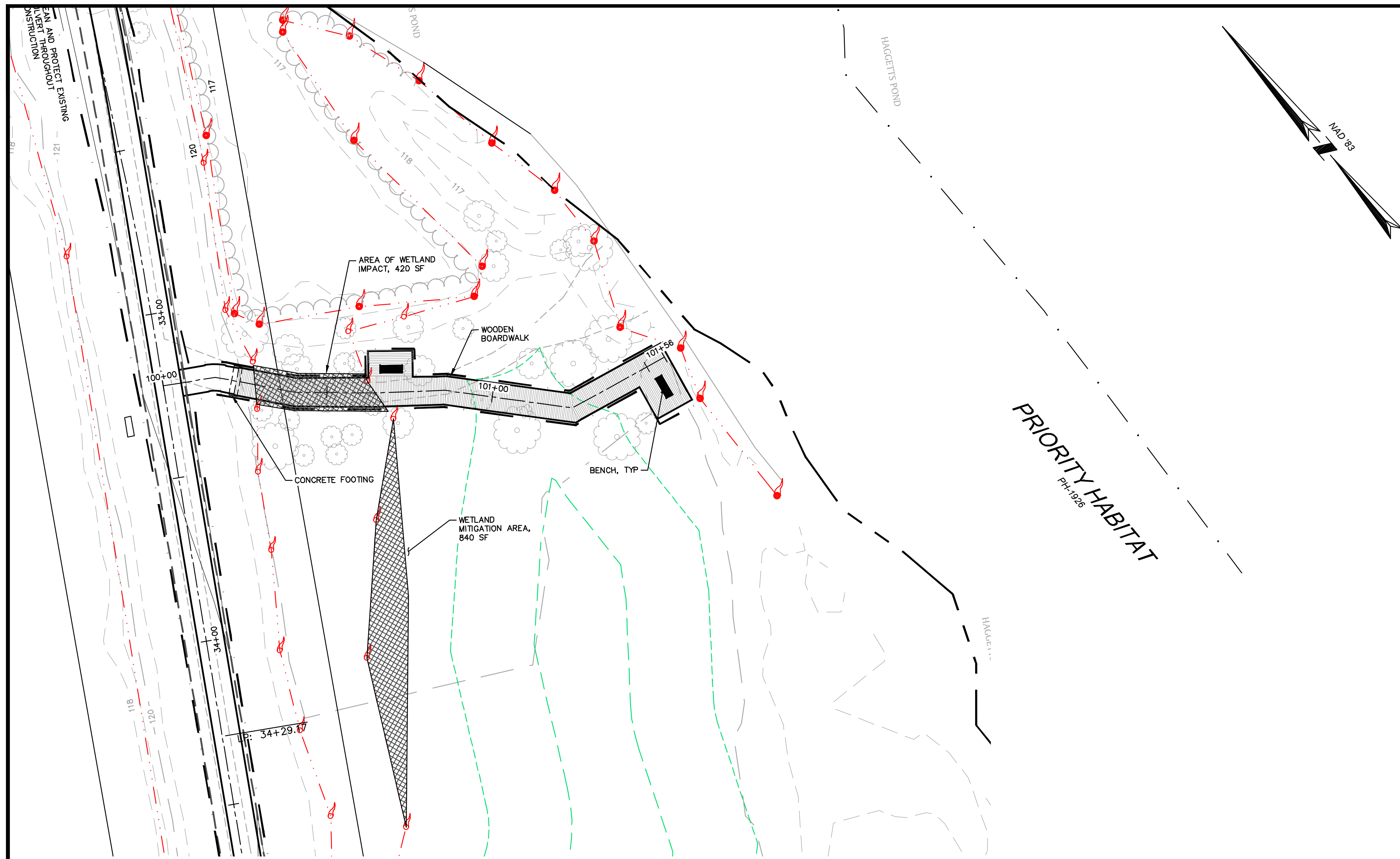
REVISIONS:

PREPARED FOR:
 TOWN OF ANDOVER
 36 BARTLET STREET
 ANDOVER, MA, 01810

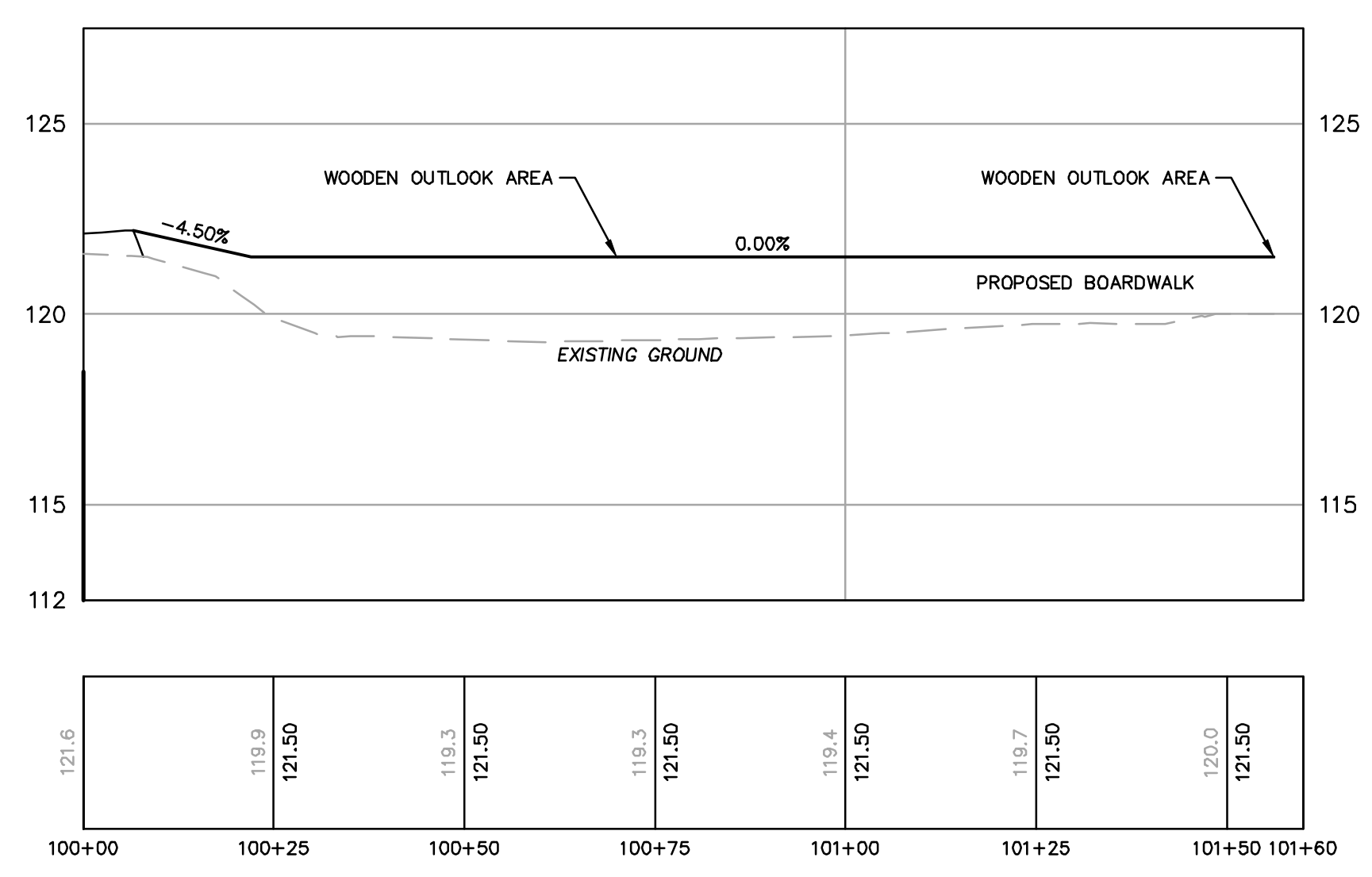
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 Andover, Massachusetts
 01810
 617 896 4300

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 SCALE: 1" = 20'
 0 10 20 40 FEET

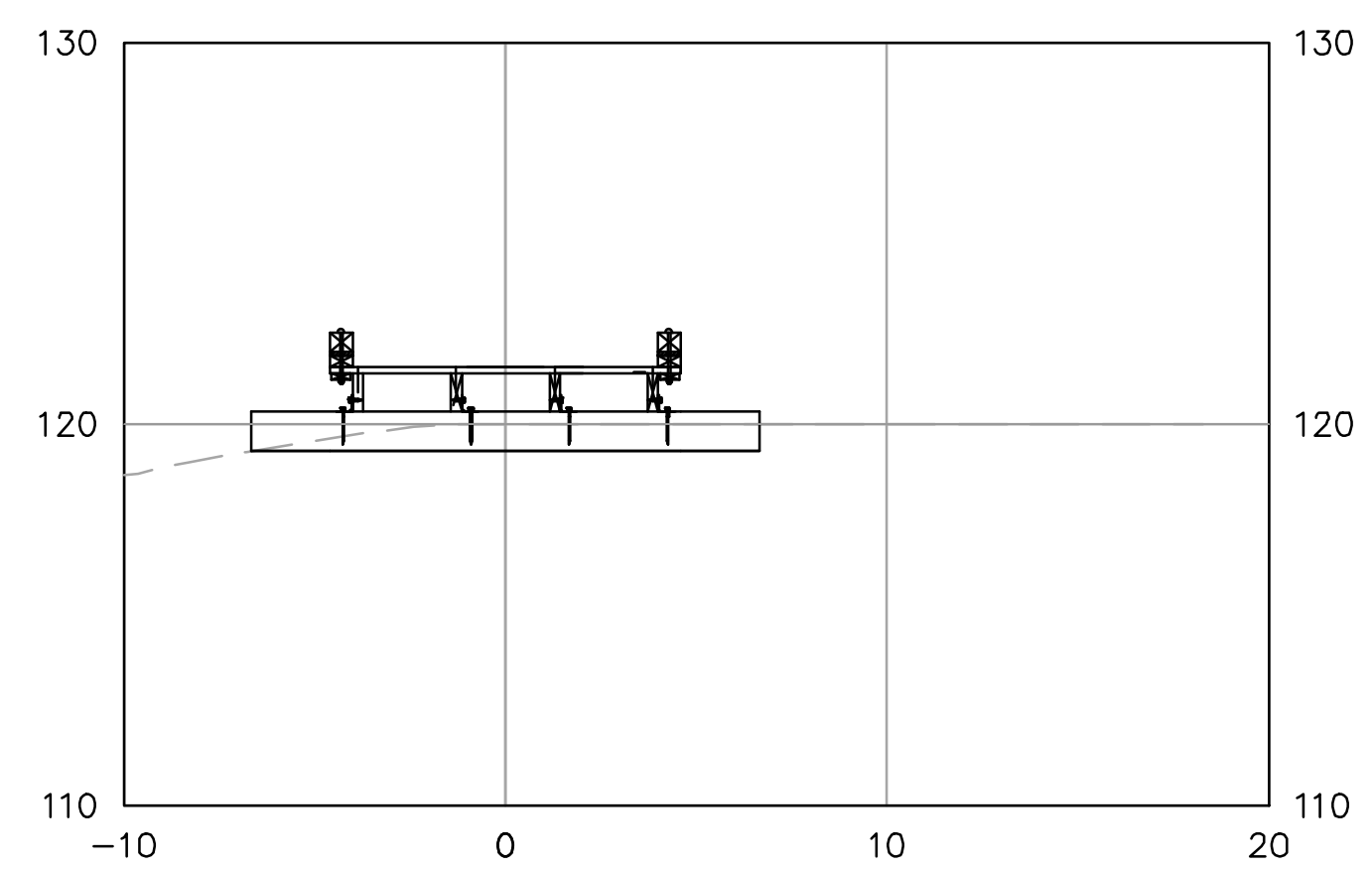
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 DWG: ...
 JOB. NO: 8-9985.01 SHEET C-114



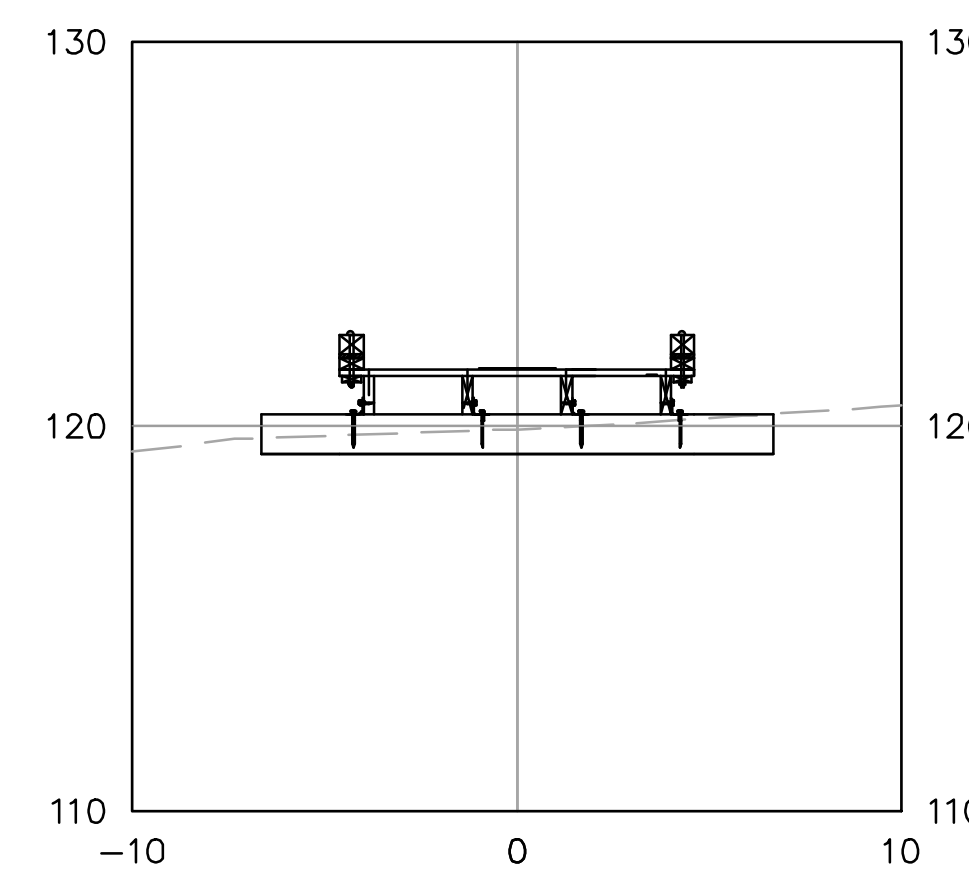
PLAN VIEW
 STA. 100+00 TO STA. 101+56
 SCALE: 1" = 20'



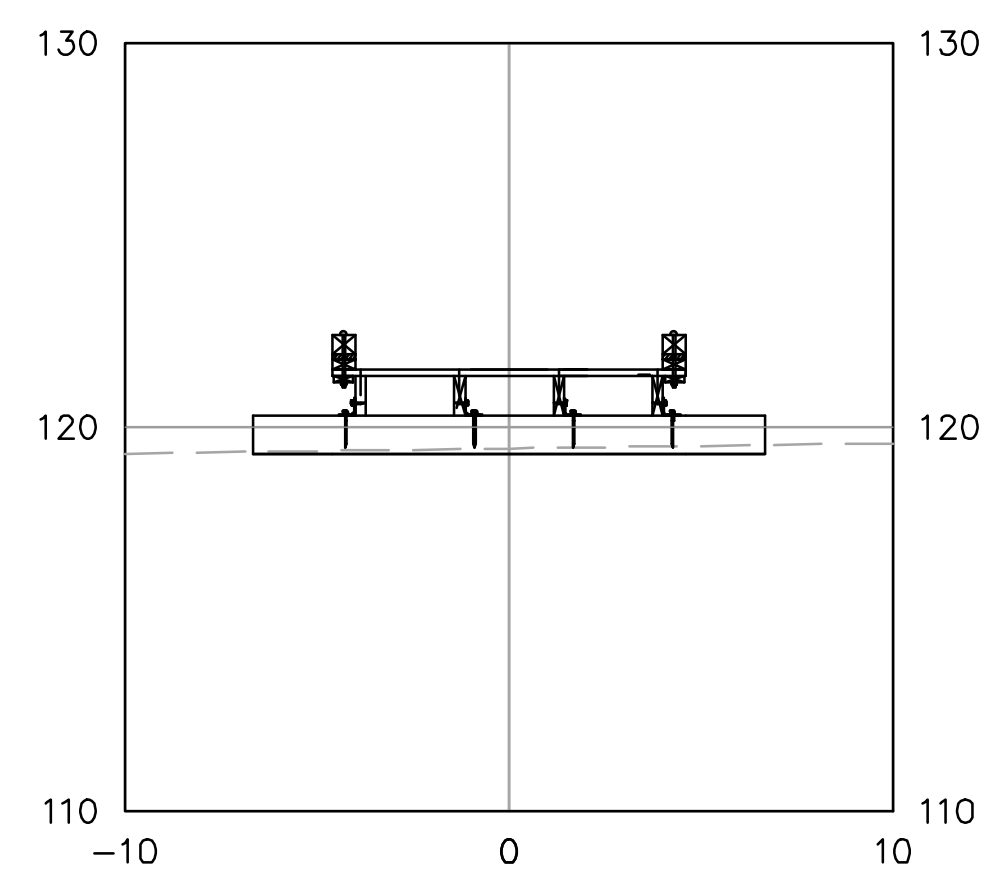
PROFILE VIEW
 STA. 100+00 TO STA. 101+56
 SCALE: 1" = 20' HORIZ.
 1" = 4' VERT.



101+50



100+25



101+00

SECTION VIEW
 SCALE: 1" = 5'

**ISSUED FOR PERMITTING
 NOT FOR CONSTRUCTION**



**HAGGETTS POND
 RAIL TRAIL**

IN
 ANDOVER,
 MA

**BOARDWALK SPUR PLAN
 AND PROFILE**
 NOVEMBER 7, 2023

REVISIONS:

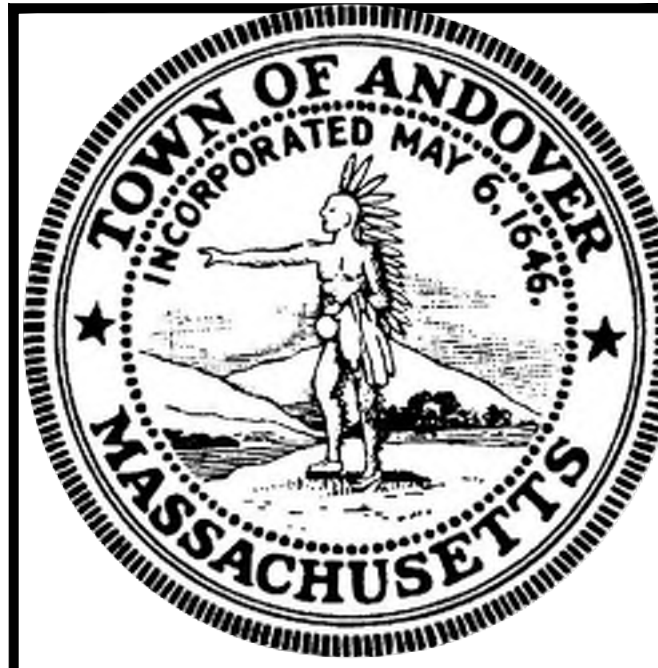
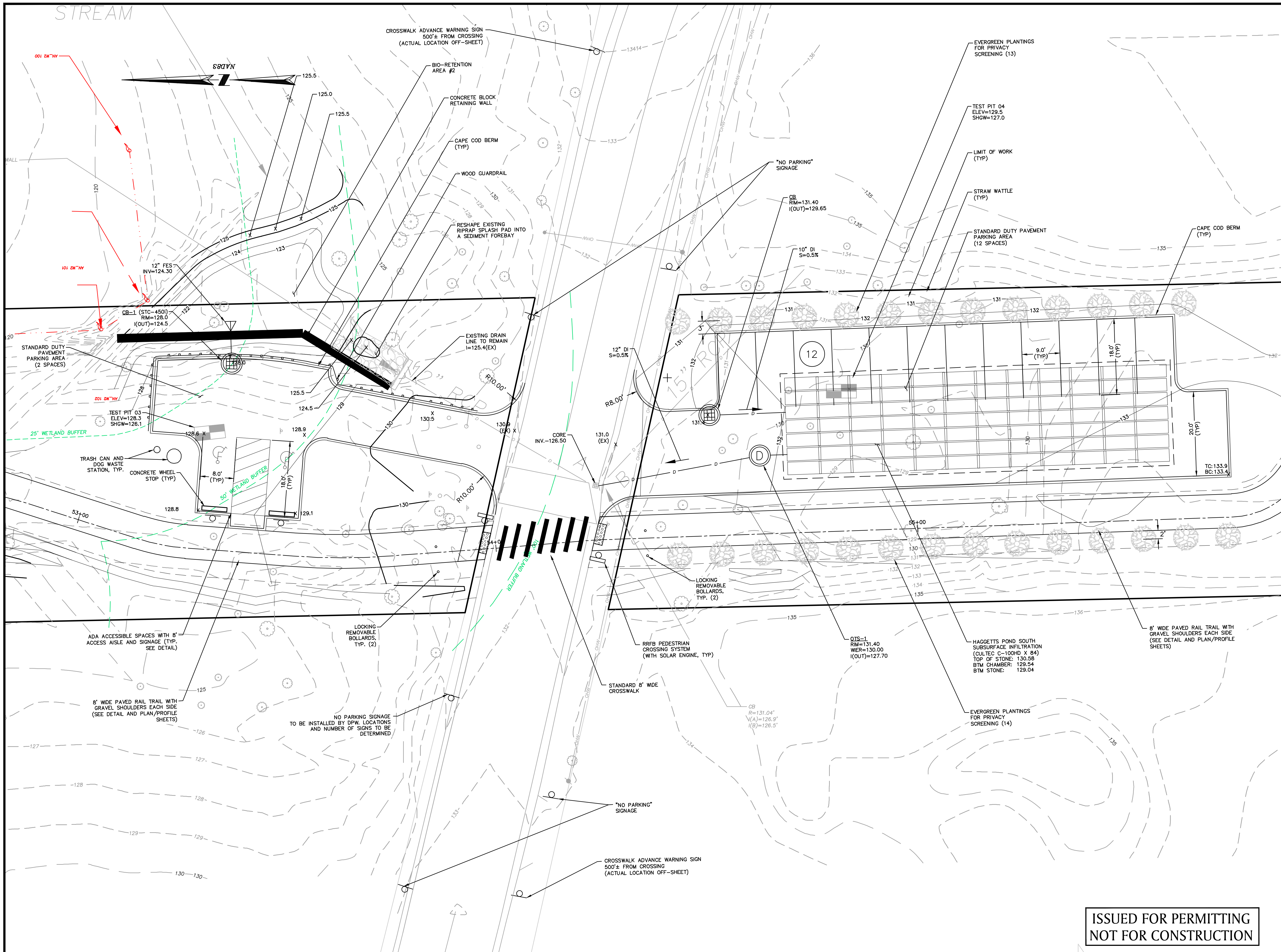
PREPARED FOR:
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 Andover, Massachusetts
 01810
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 SCALE: 1" = 20'
 0 10 20 40 FEET

FILE: P:\8998501\C_D
 DWG.:
 JOB. NO: 8-9985.01

SHEET **C-115**



PROFESSIONAL ENGINEER DATE

HAGGETTS POND RAIL TRAIL
 IN
 ANDOVER, MA
HAGGETT'S POND ROAD PARKING SITE PLAN
 NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
 TOWN OF ANDOVER
 36 BARTLET STREET
 ANDOVER, MA, 01810

BSC GROUP
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 Andover, Massachusetts
 01810
 617 896 4300

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 SCALE: 1" = 10'
 0 5' 10' 20' FEET
 FILE: P:\8998501\C\DWG
 DWG: SHEET C-121
 JOB. NO: 8-9985.01

**ISSUED FOR PERMITTING
 NOT FOR CONSTRUCTION**



PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

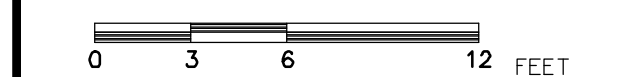
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
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Andover, Massachusetts
01810
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SCALE: 1" = 5'

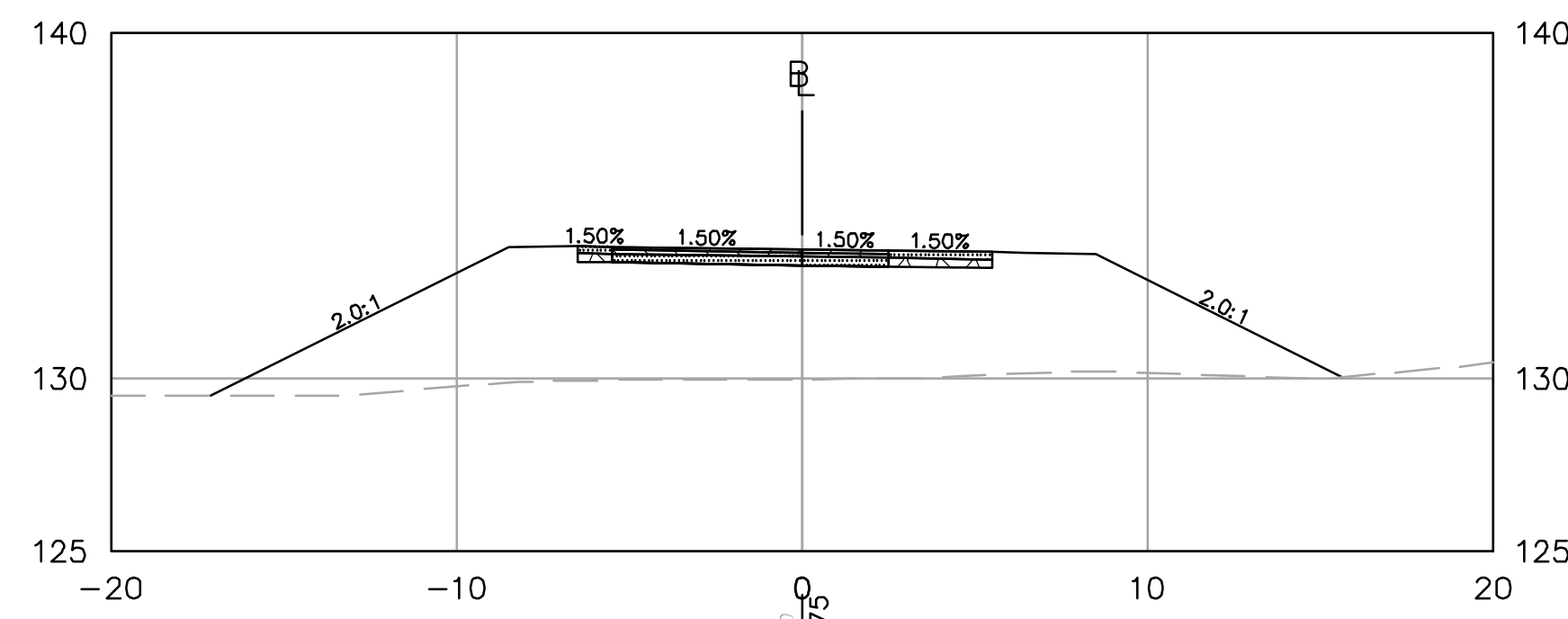


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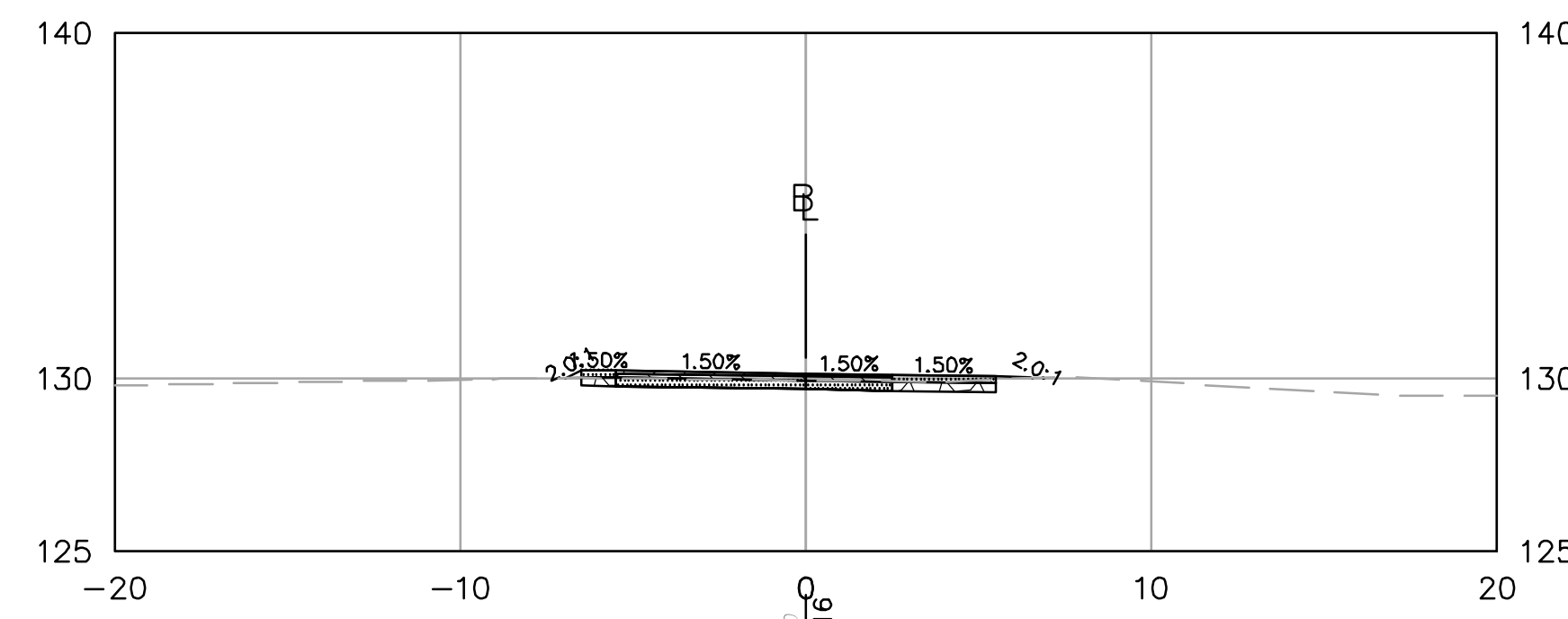
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JOB. NO: 8-9985.01

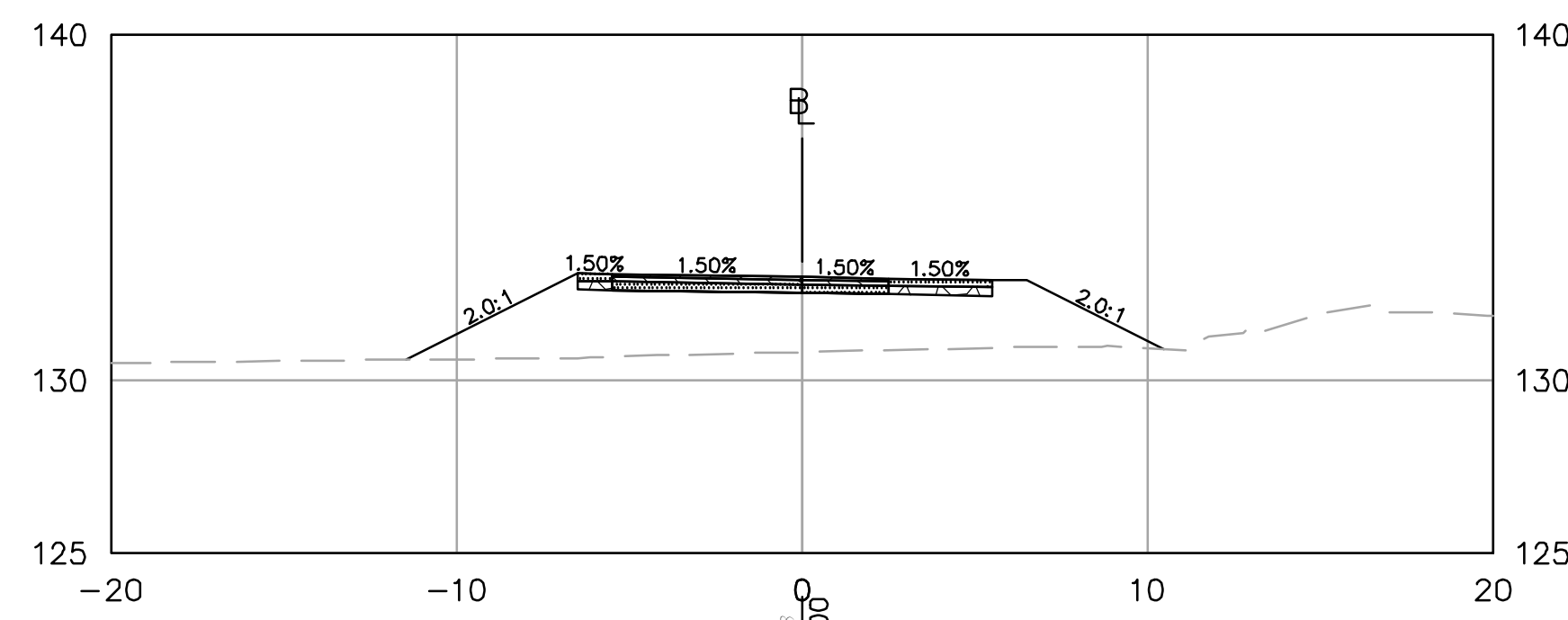
SHEET C-200



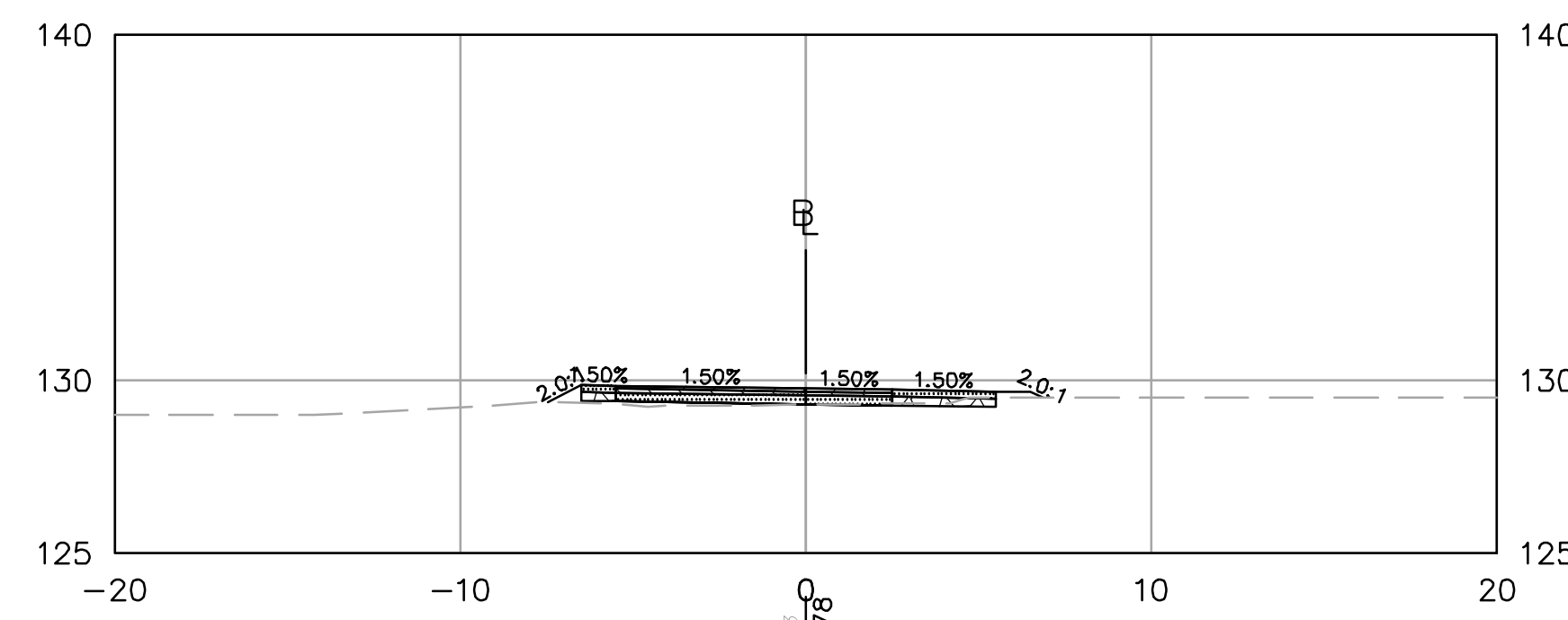
1+50



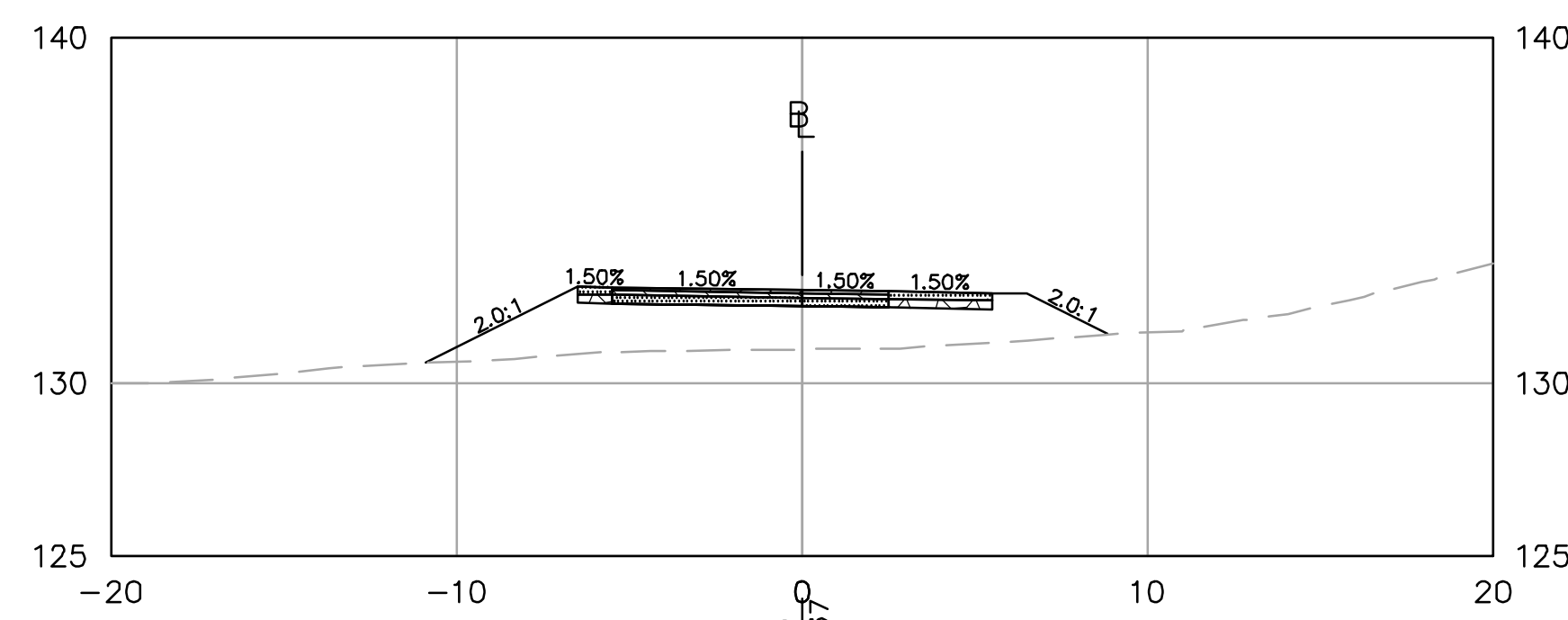
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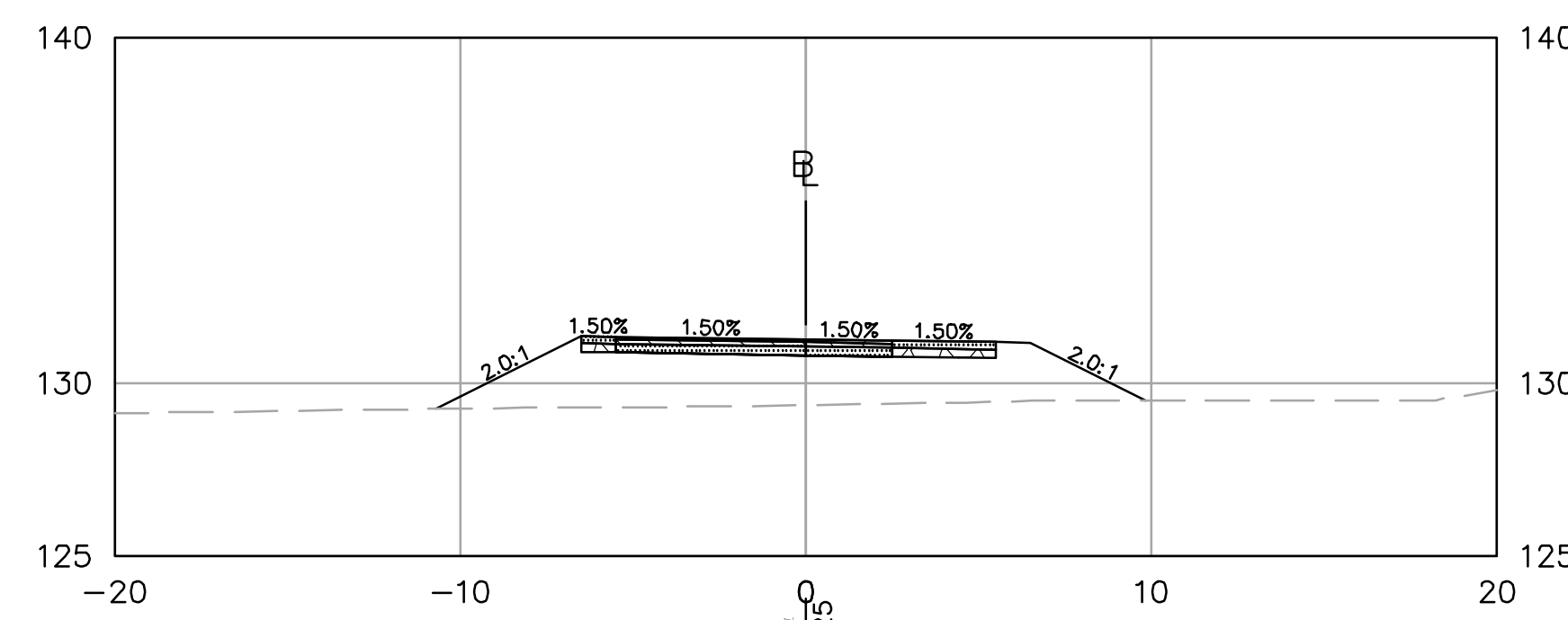
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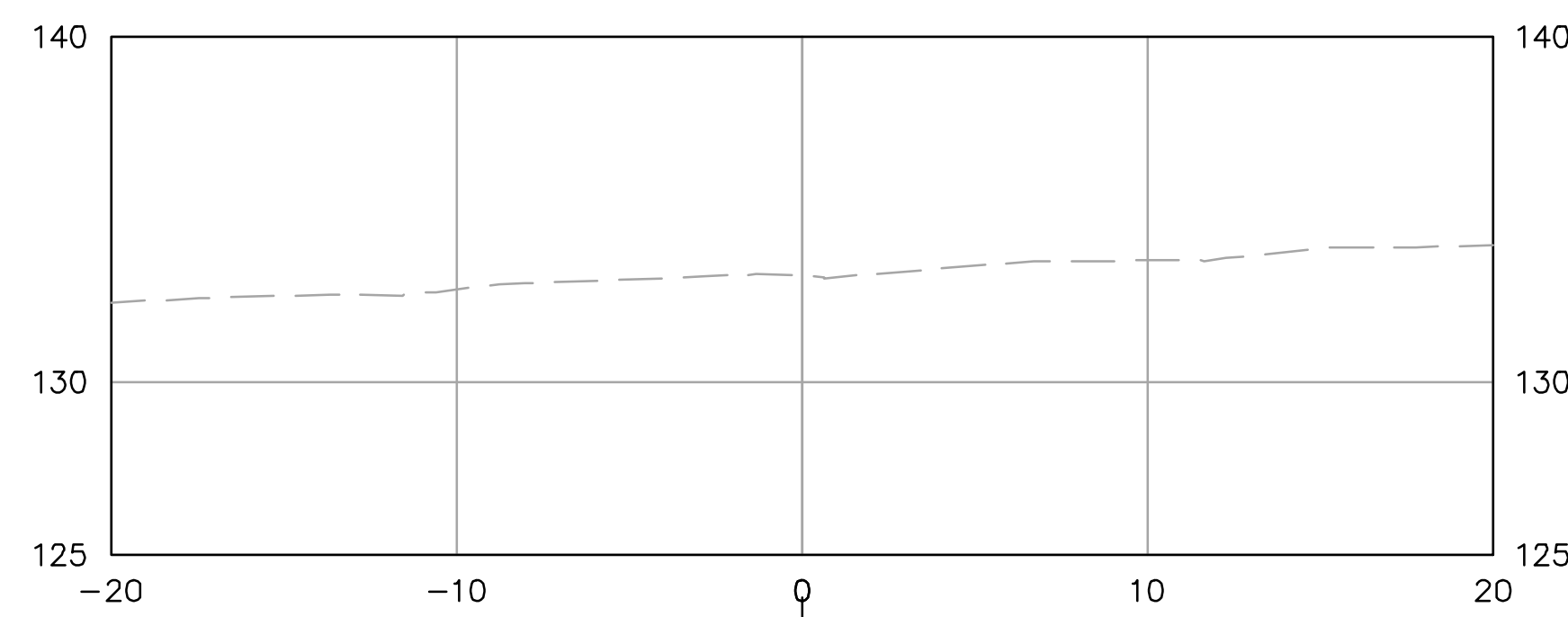
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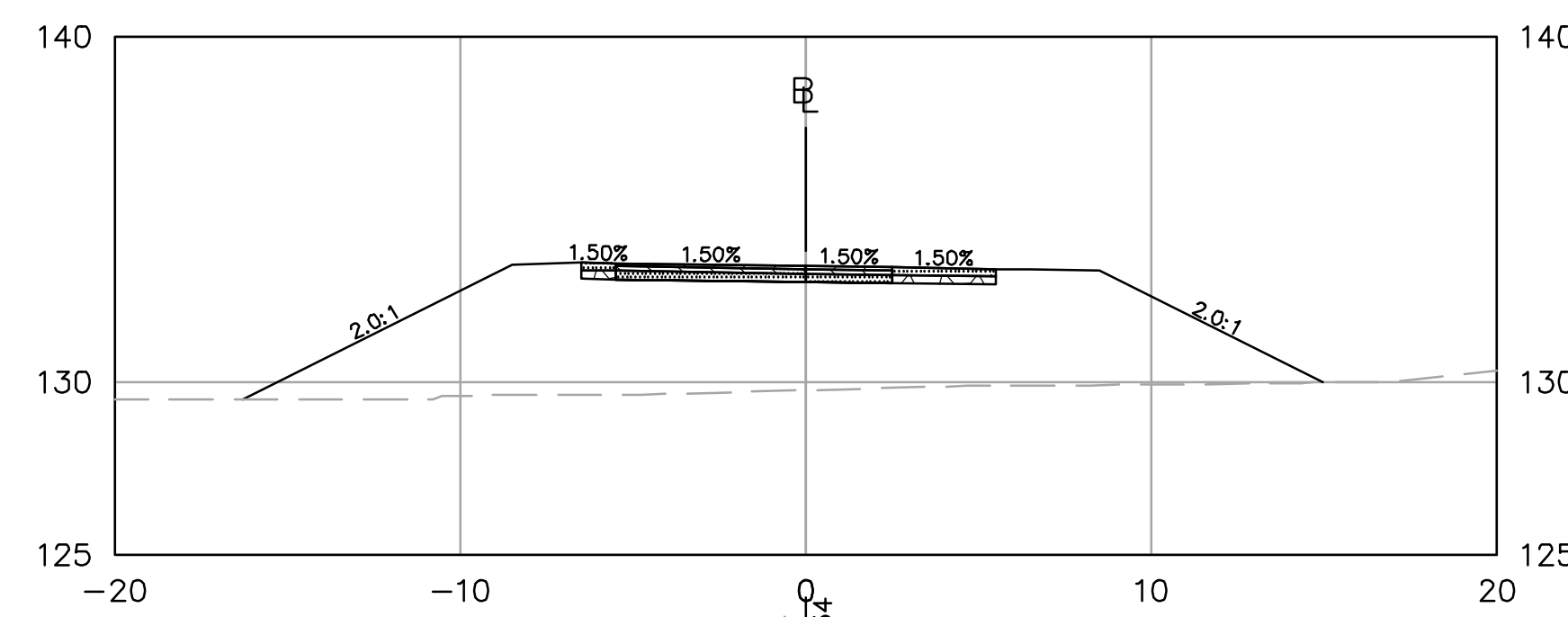
0+50



2+50



0+00



2+00

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

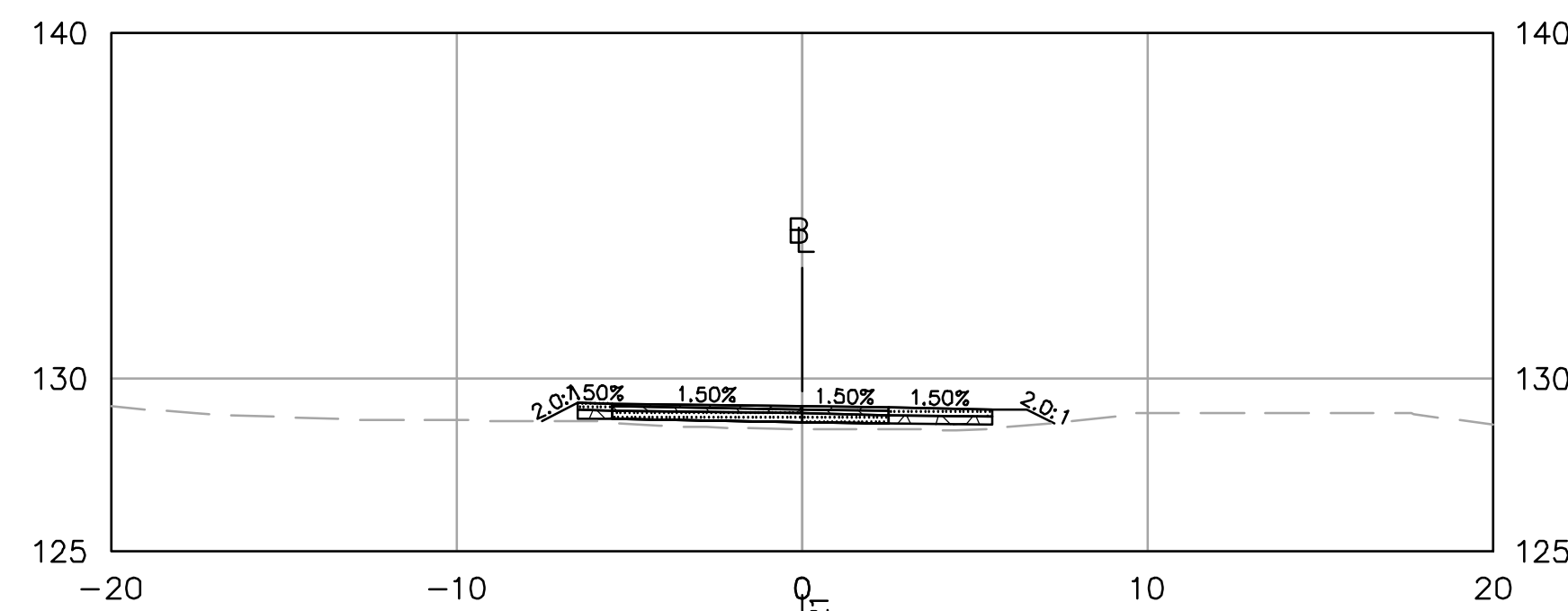


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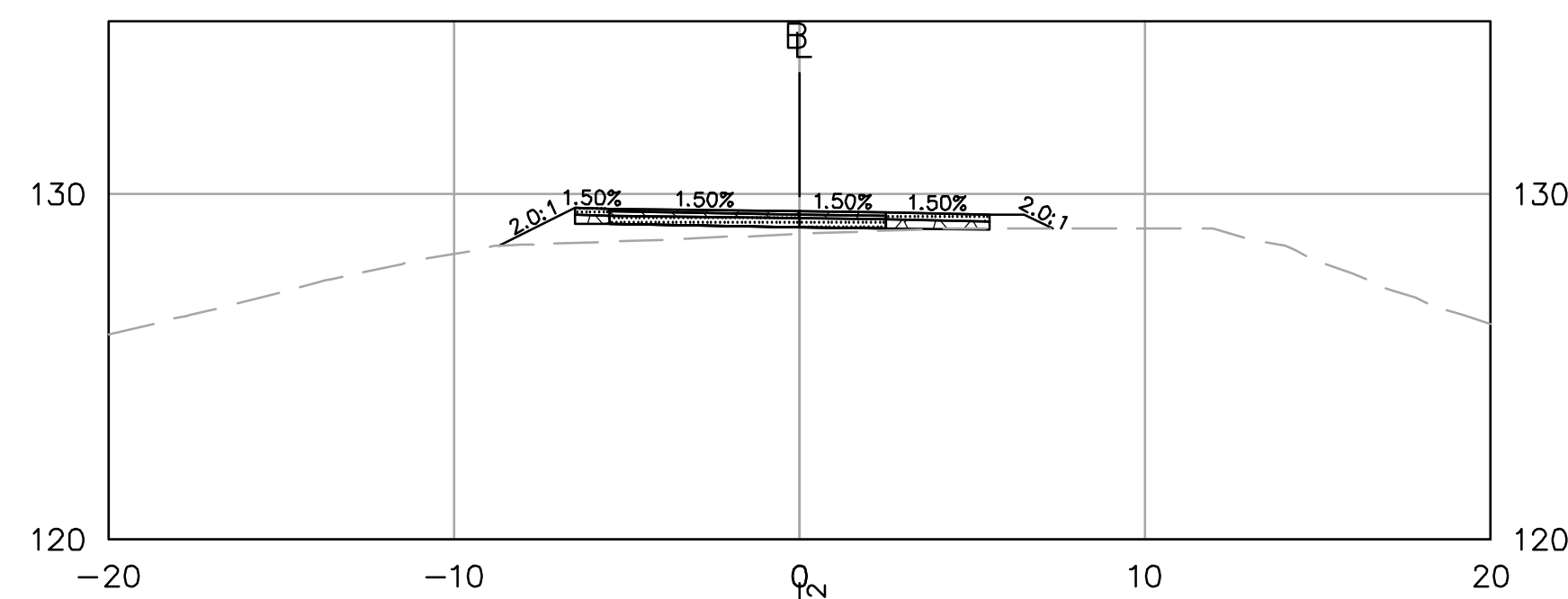
DWG.:

JOB. NO: 8-9985.01

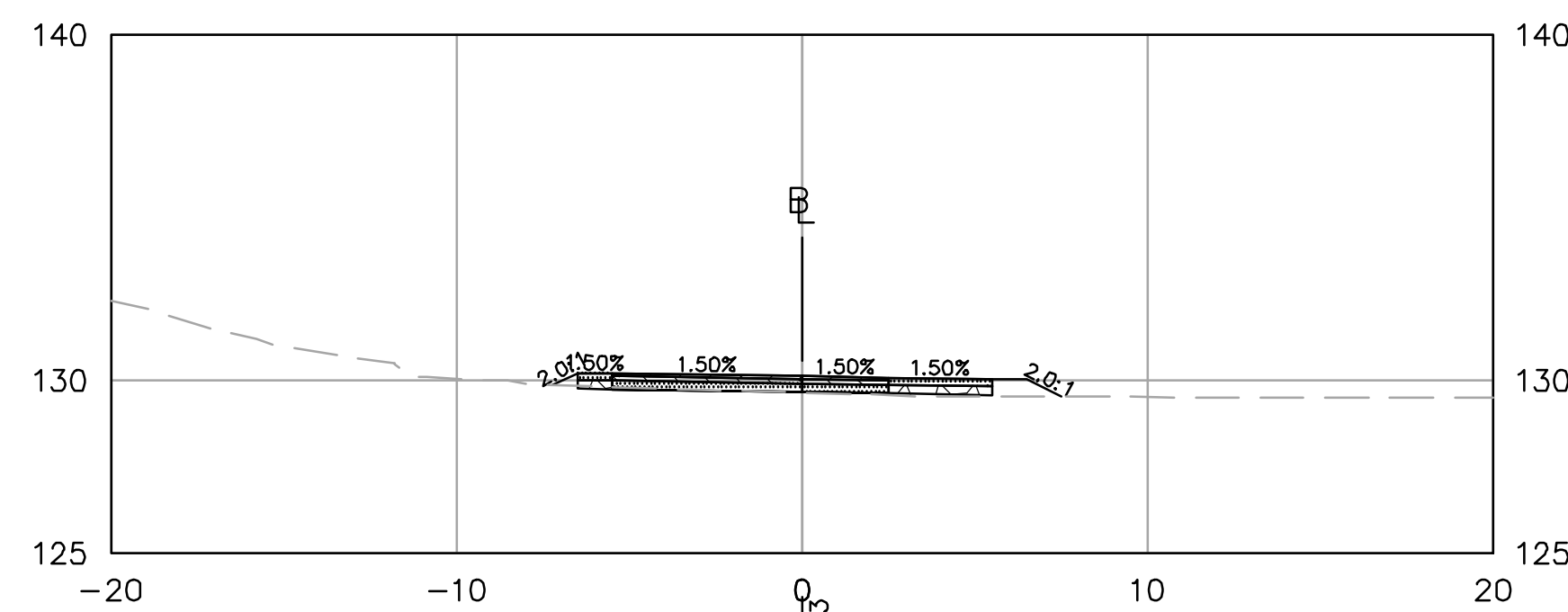
SHEET C-201



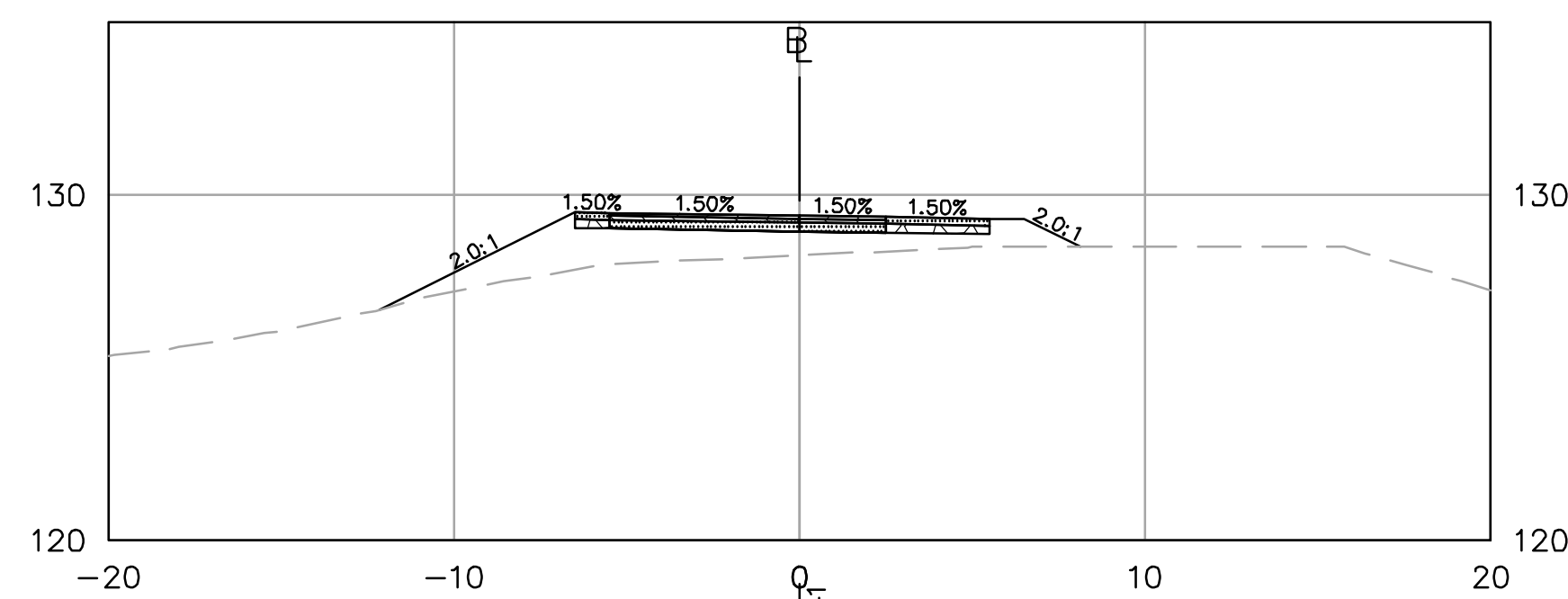
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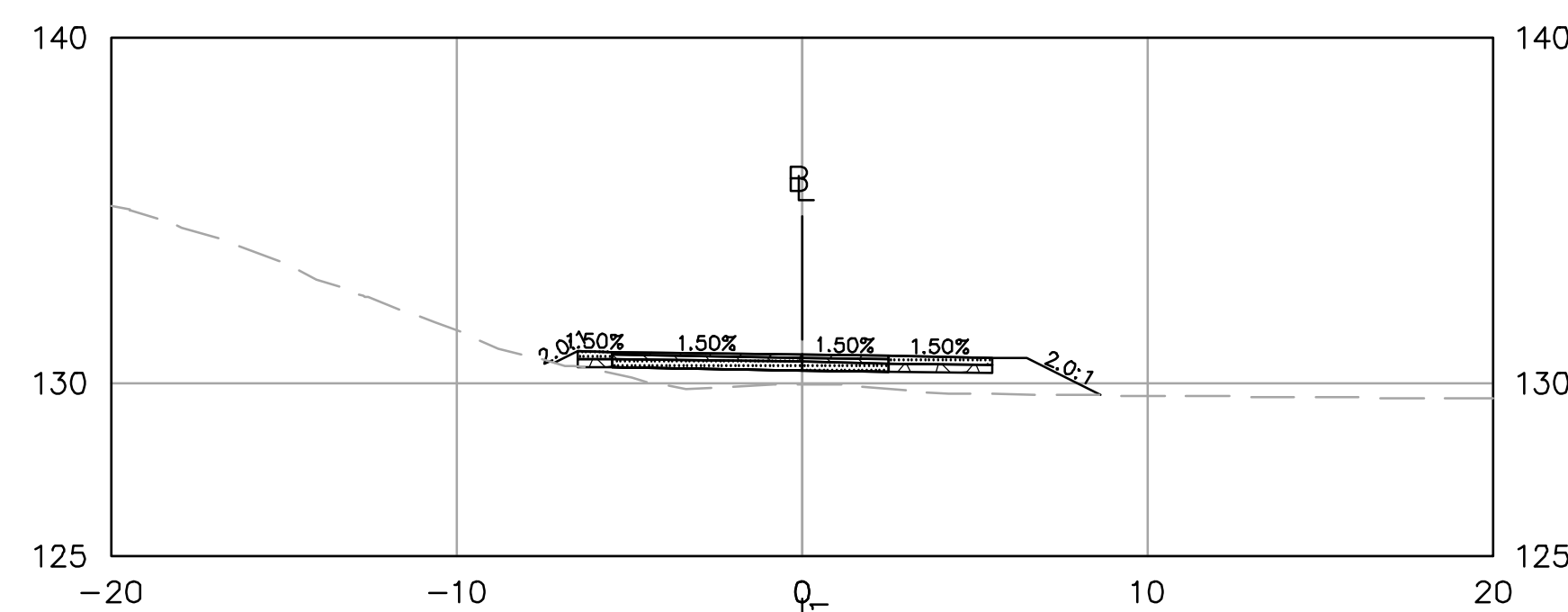
7+50



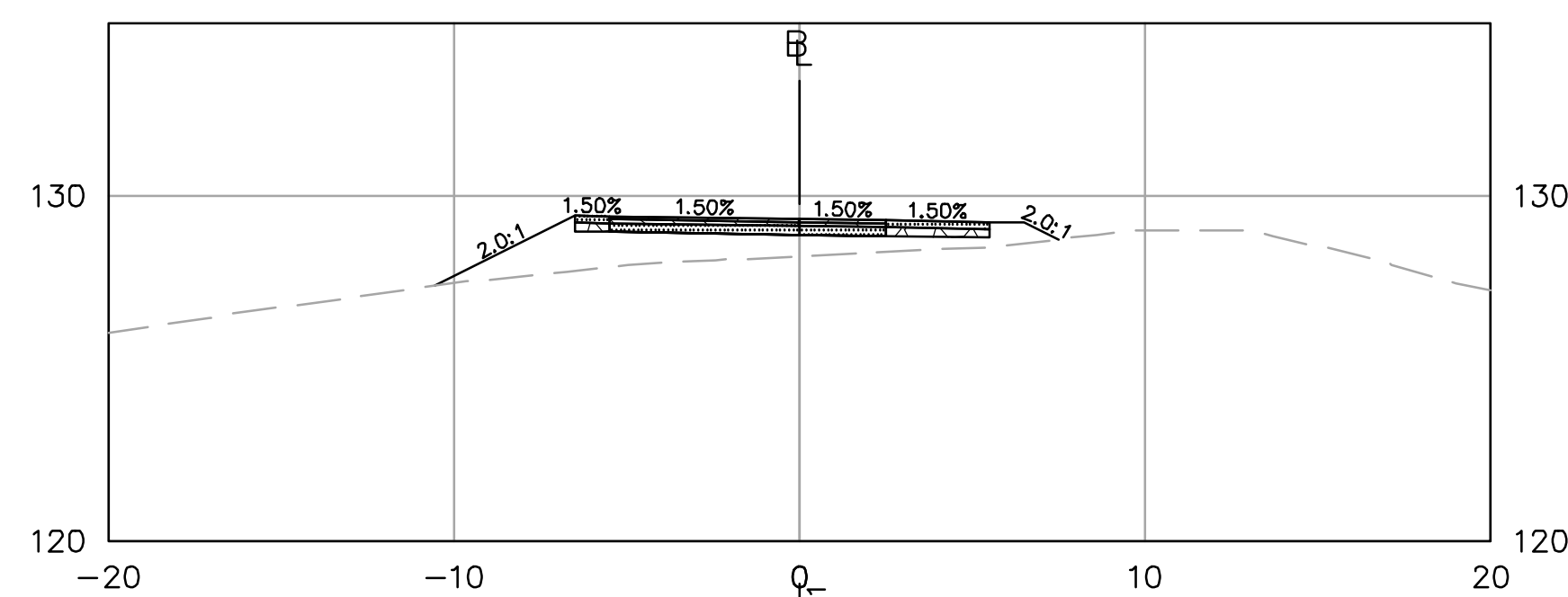
5+00



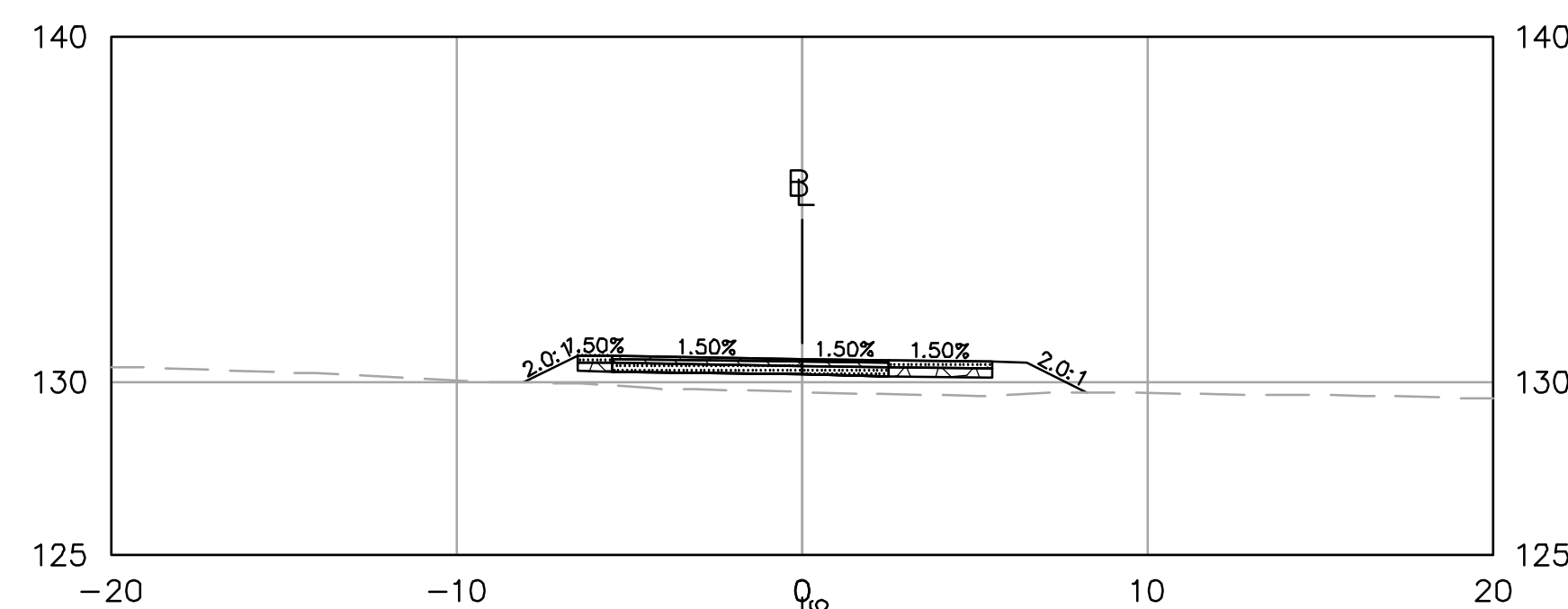
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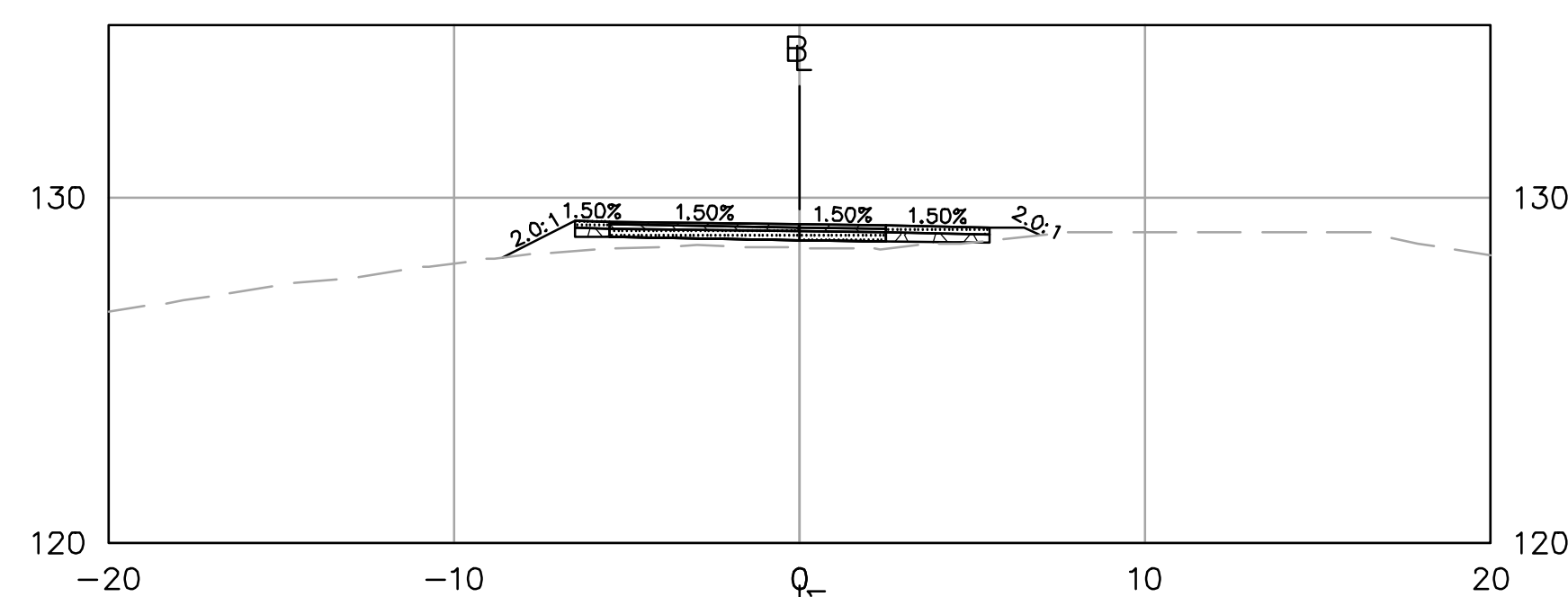
4+50



6+50



4+00



6+00

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER DATE

HAGGETTS POND RAIL TRAIL

IN ANDOVER, MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

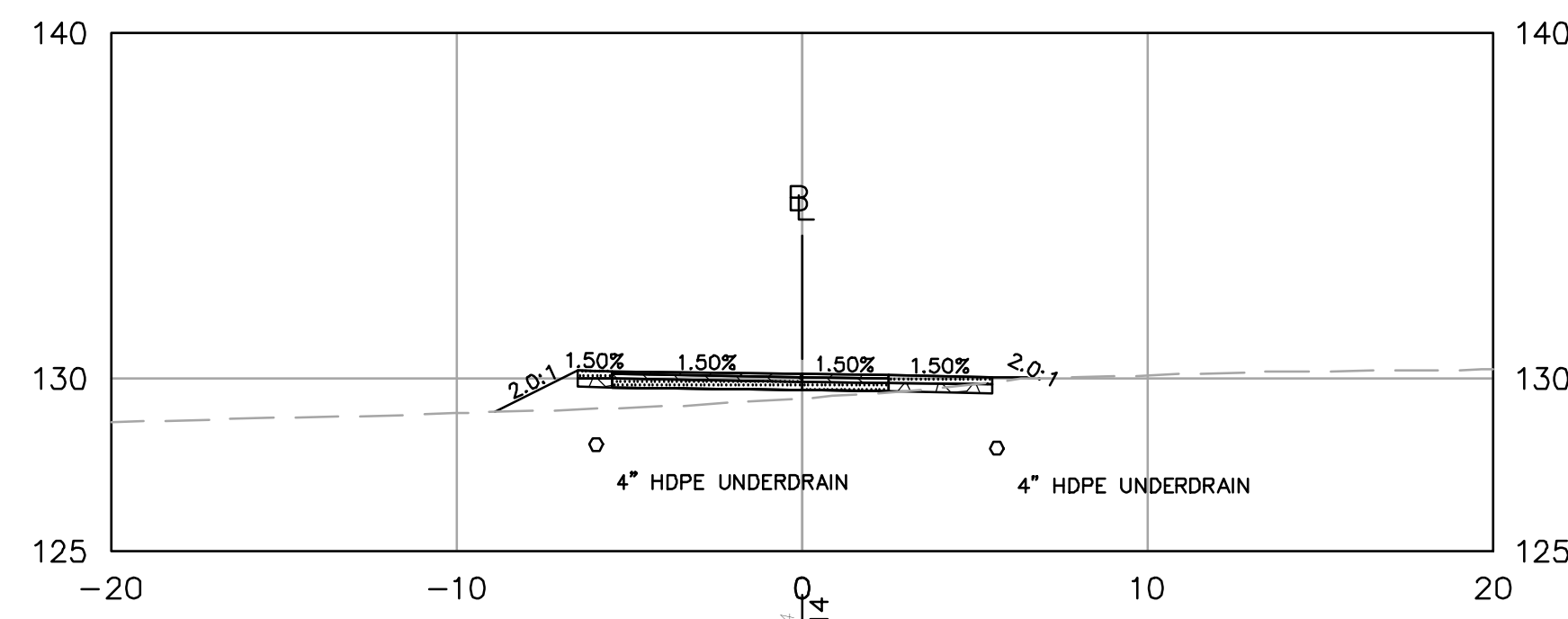


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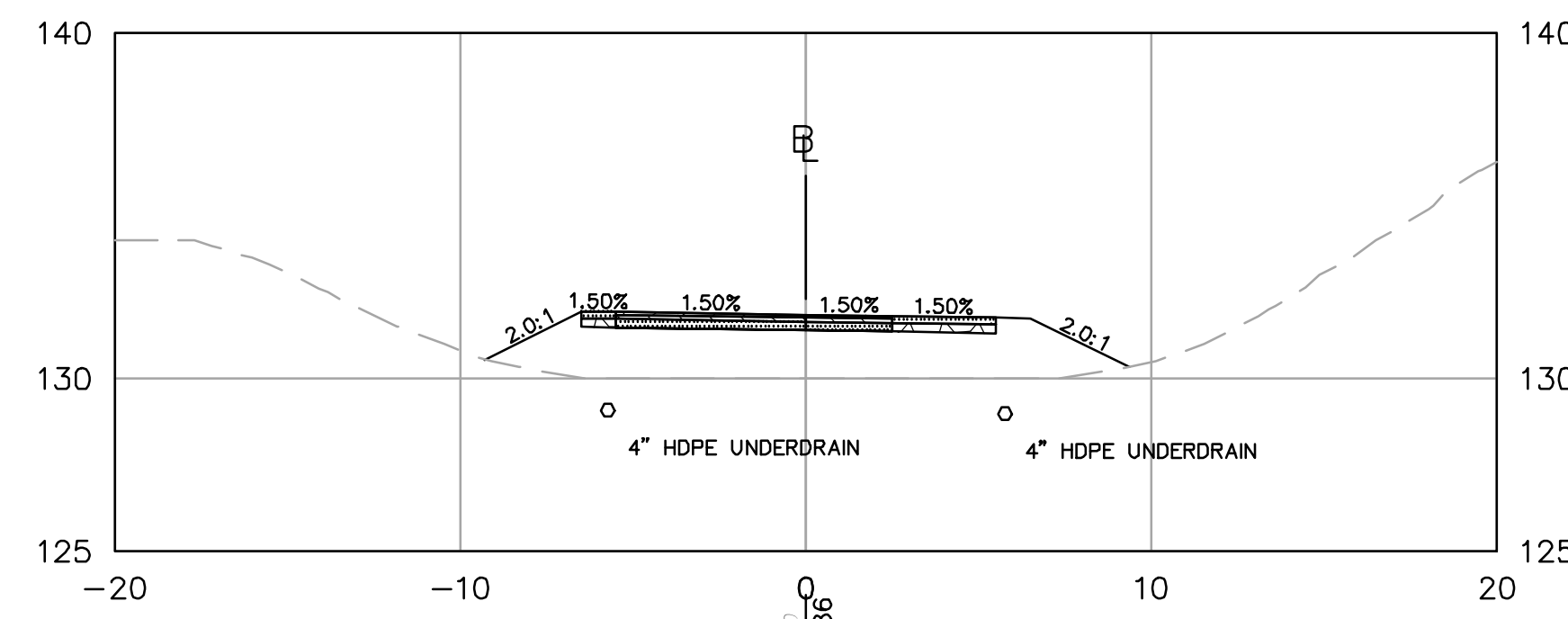
DWG.:

JOB. NO: 8-9985.01

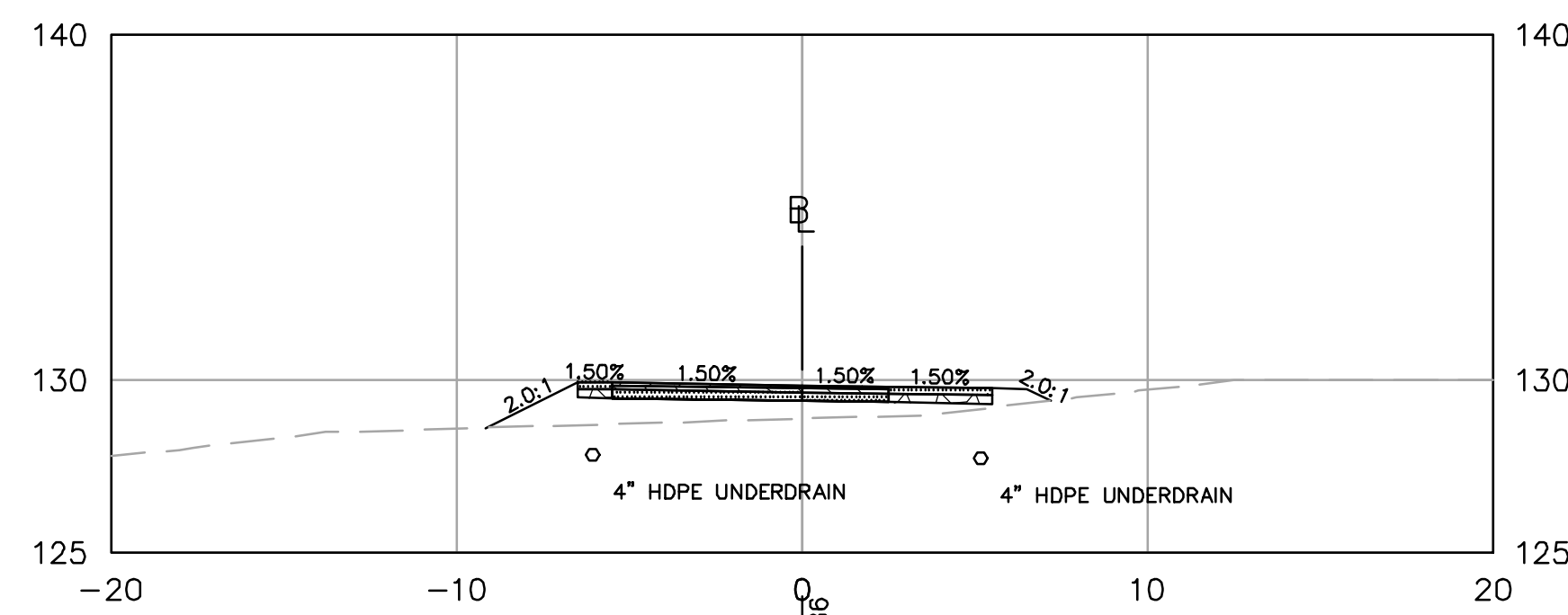
SHEET C-202



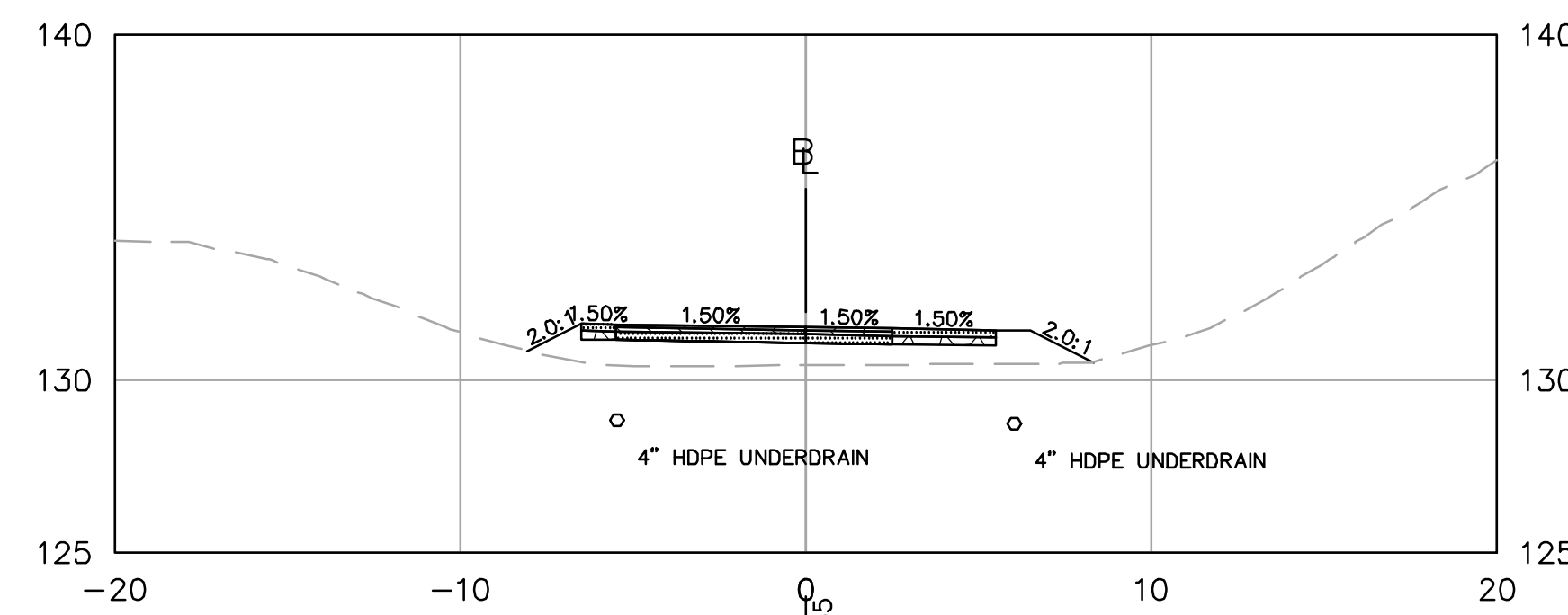
9+50



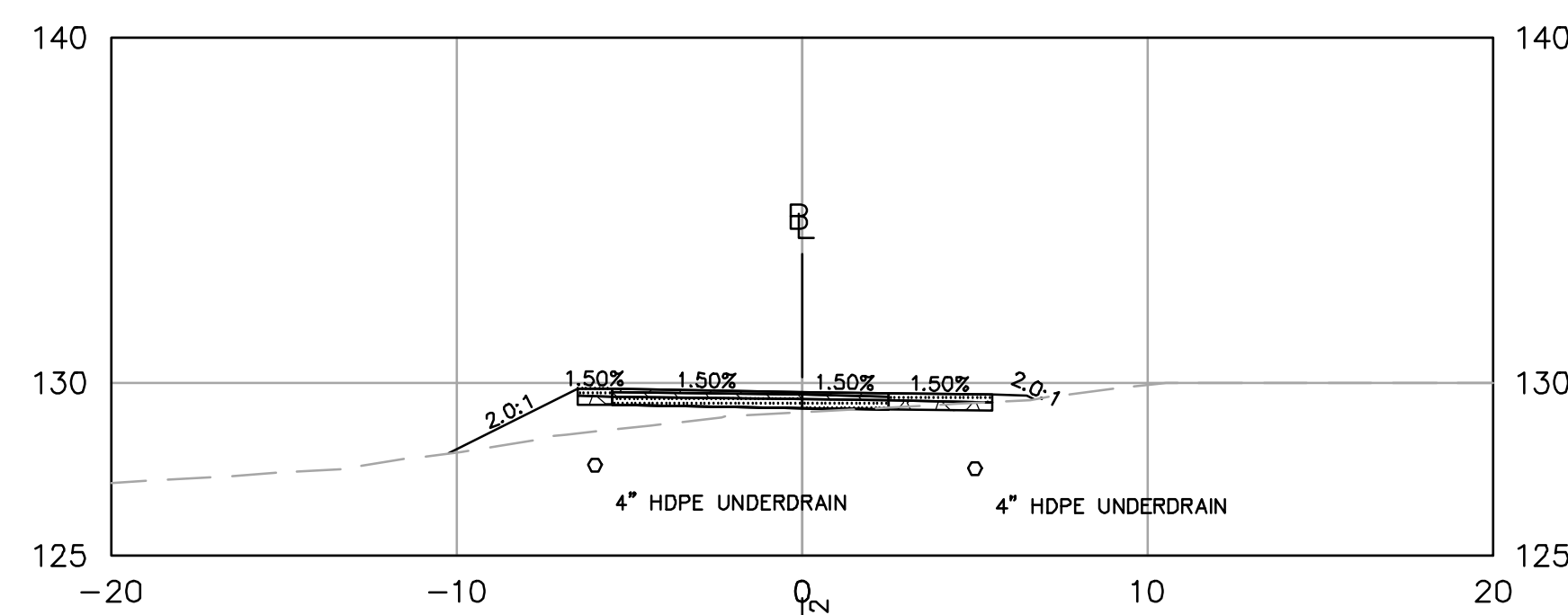
11+50



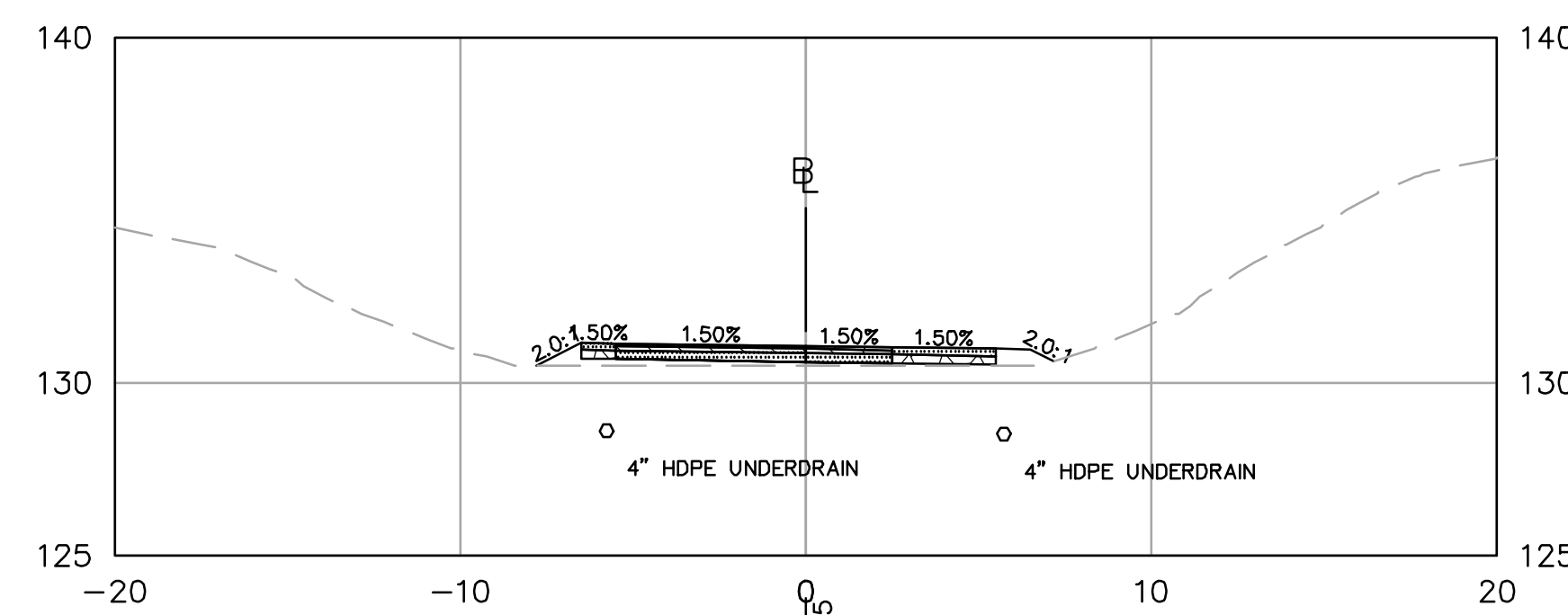
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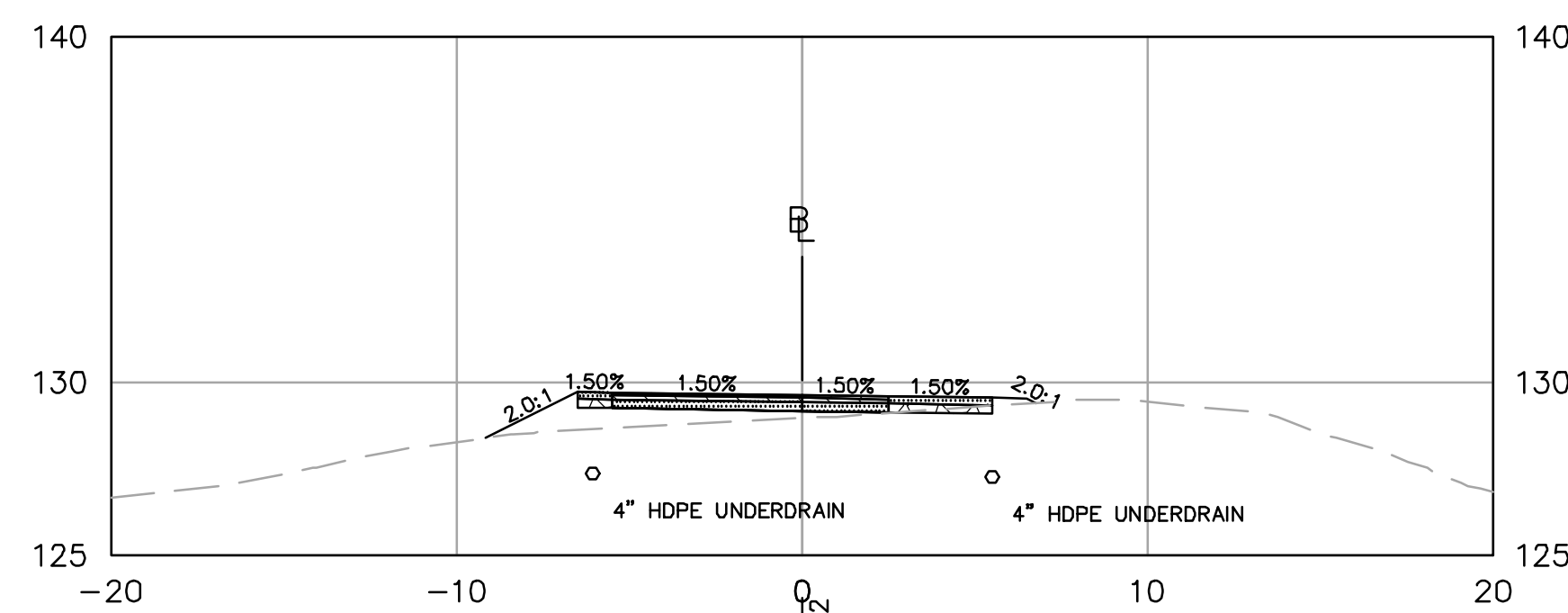
11+00



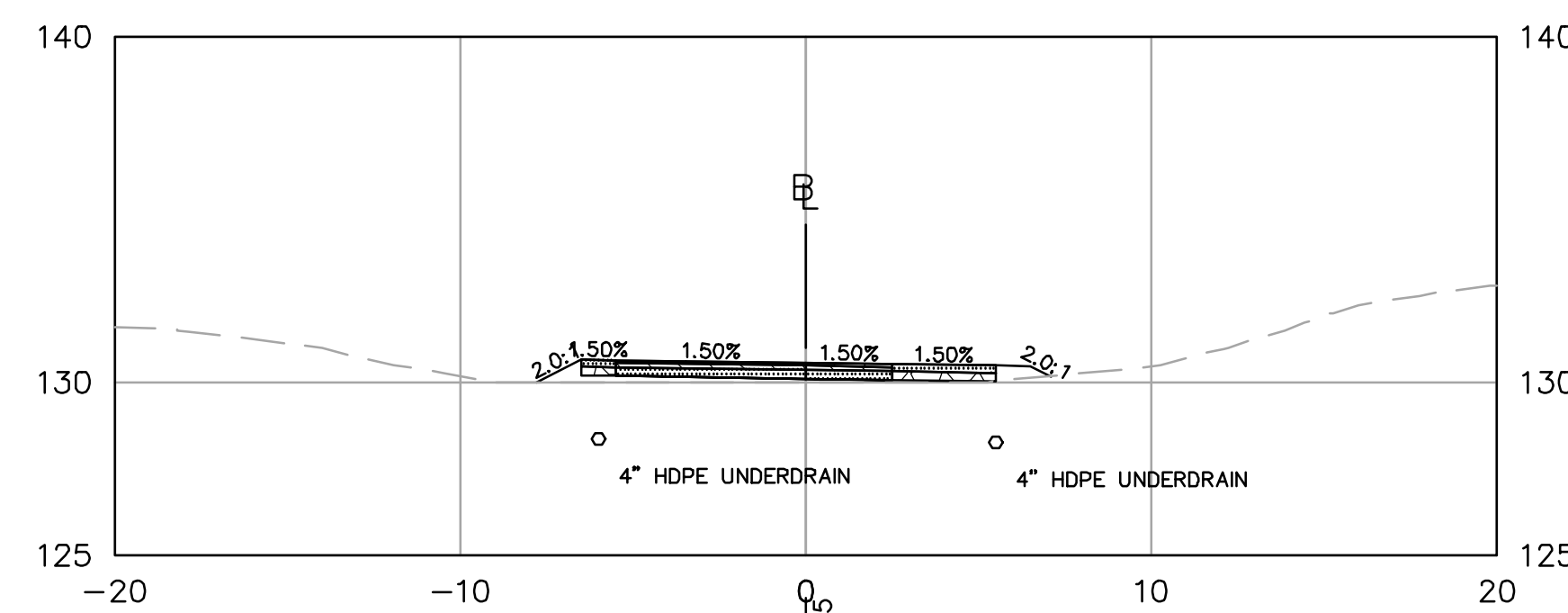
8+50



10+50



8+00



10+00

ISSUED FOR PERMITTING
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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

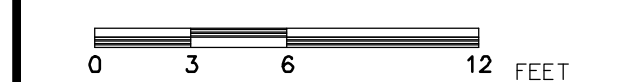
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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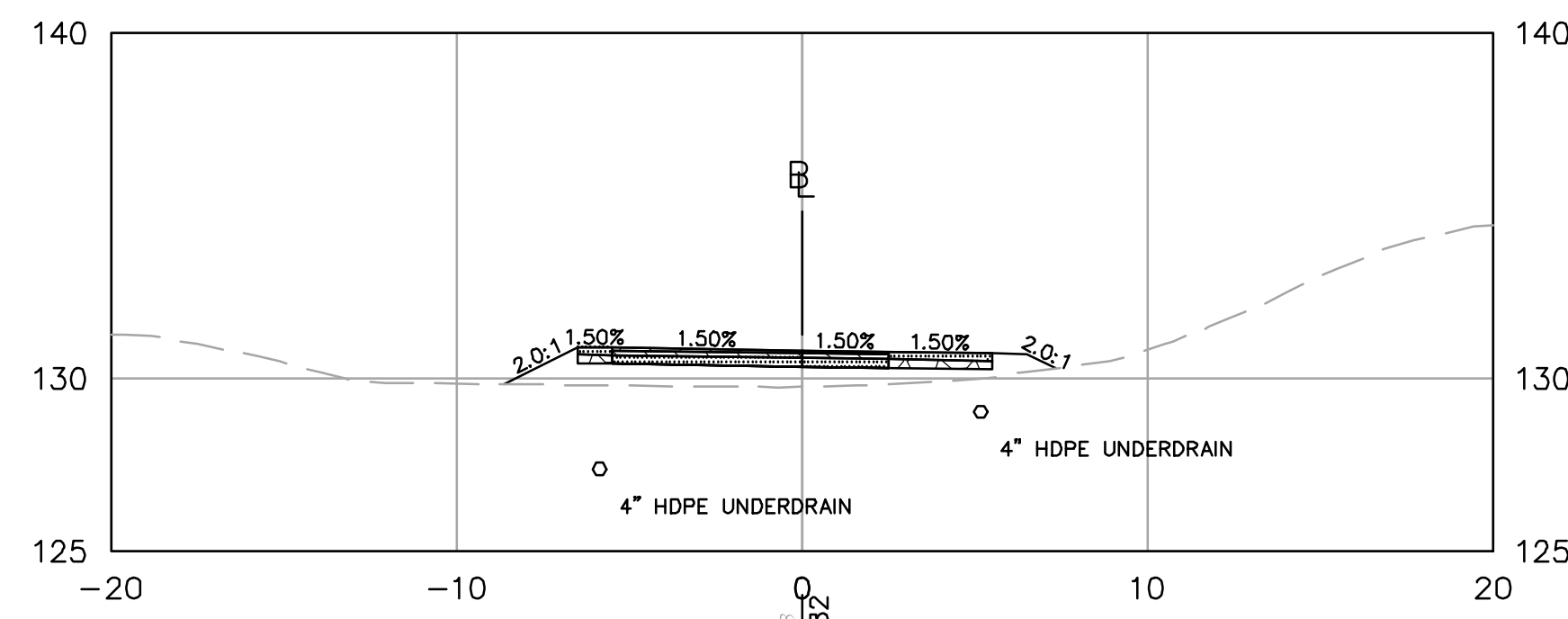
SCALE: 1" = 5'



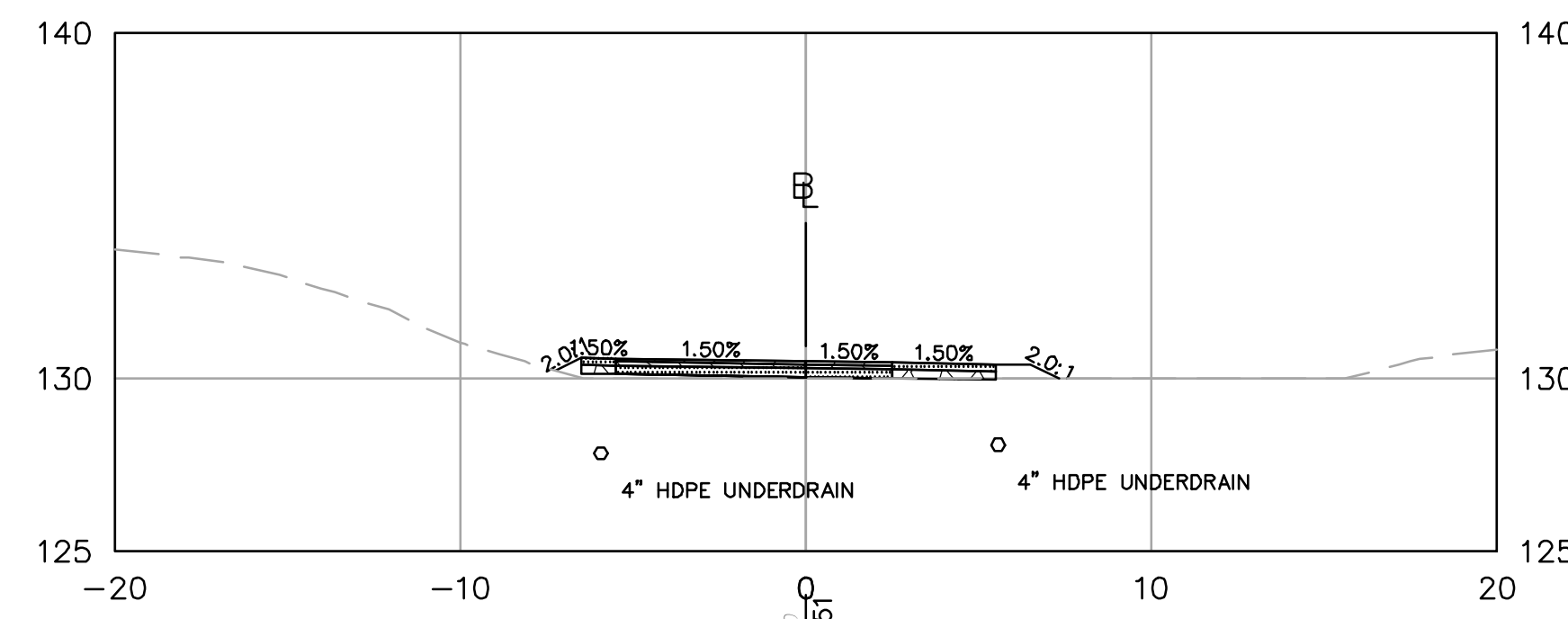
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DWG.: SHEET C-203

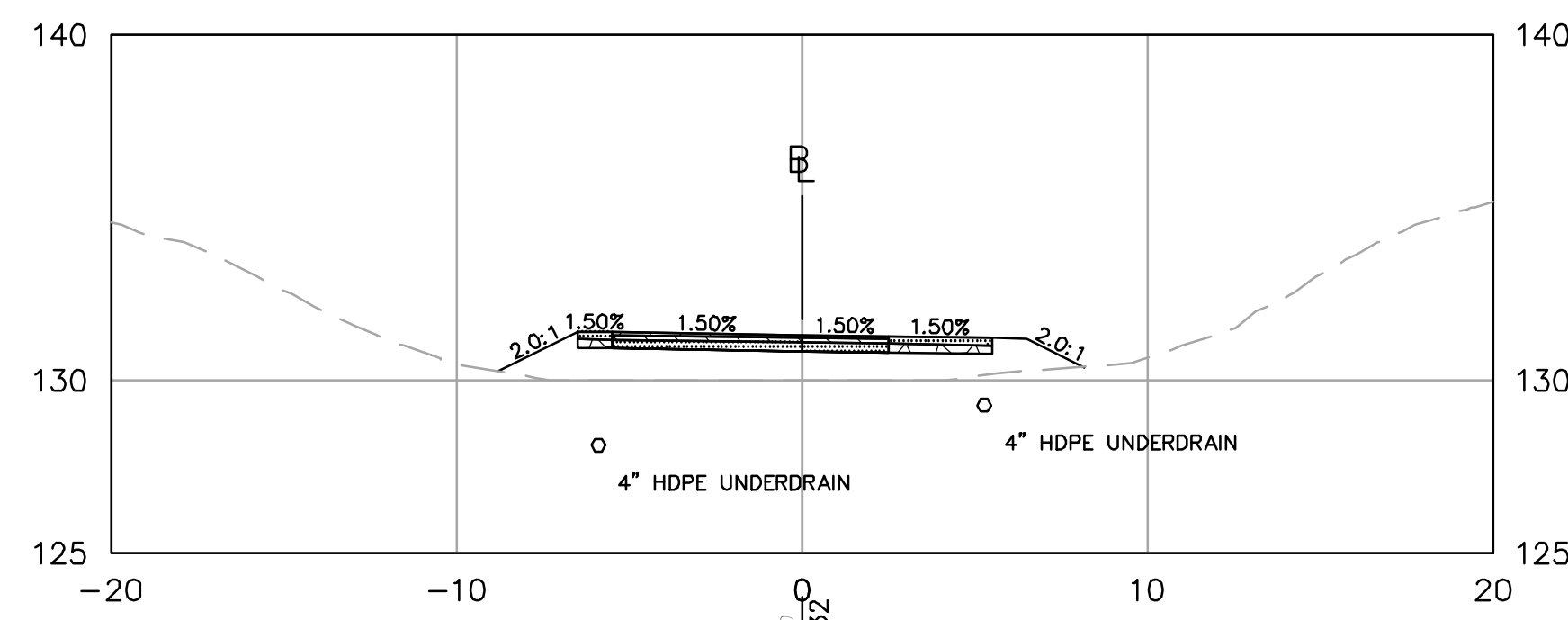
JOB. NO: 8-9985.01



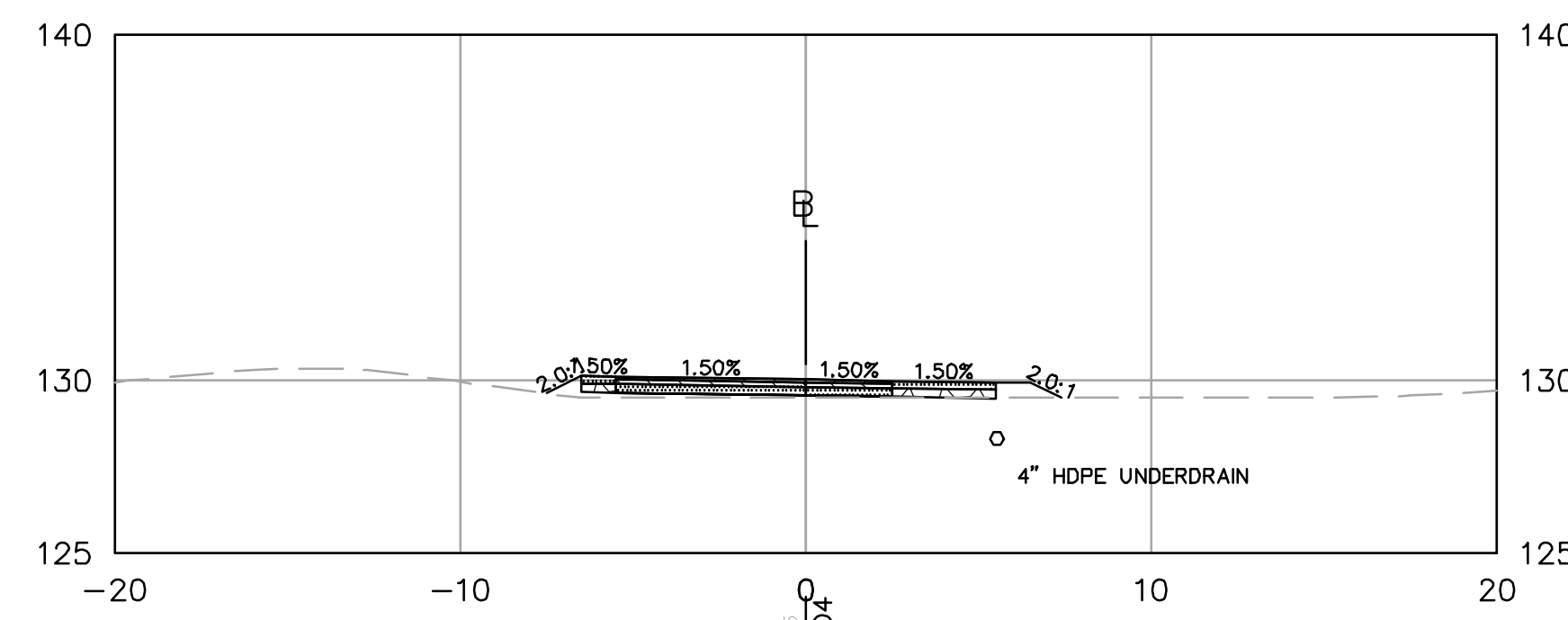
13+50



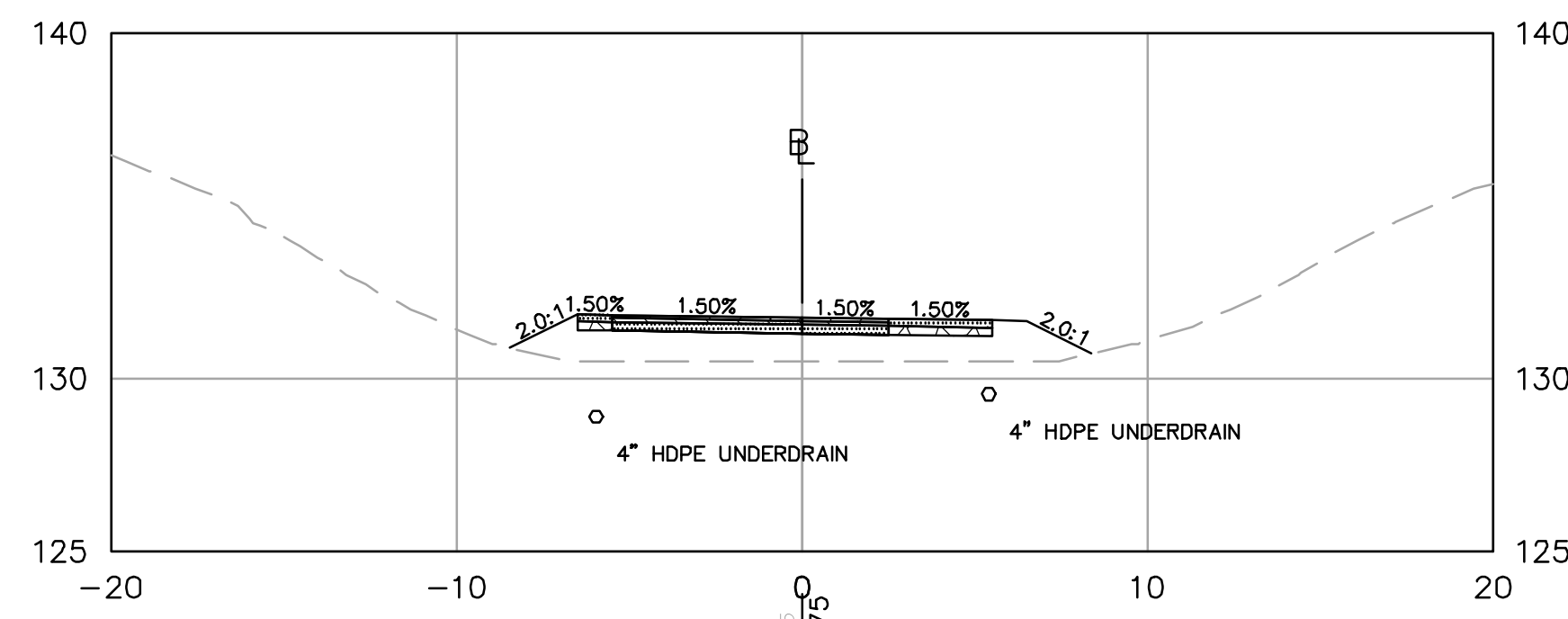
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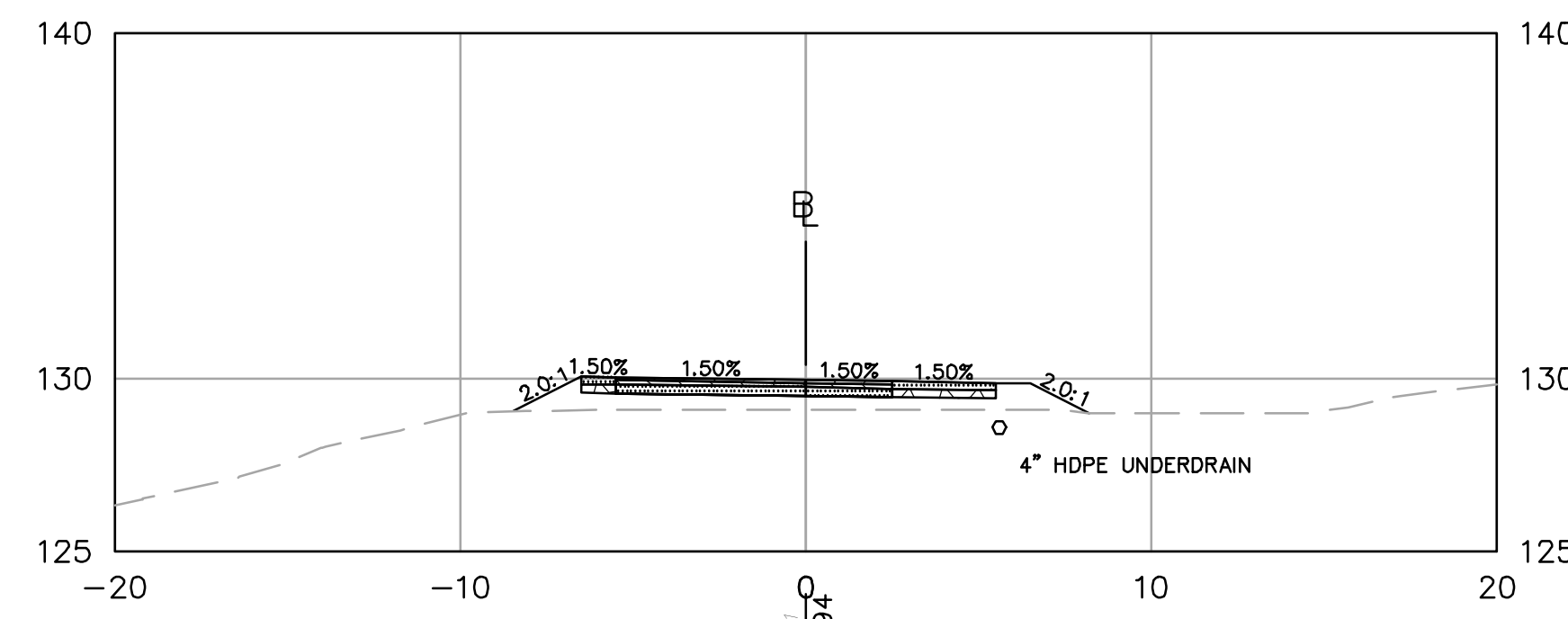
13+00



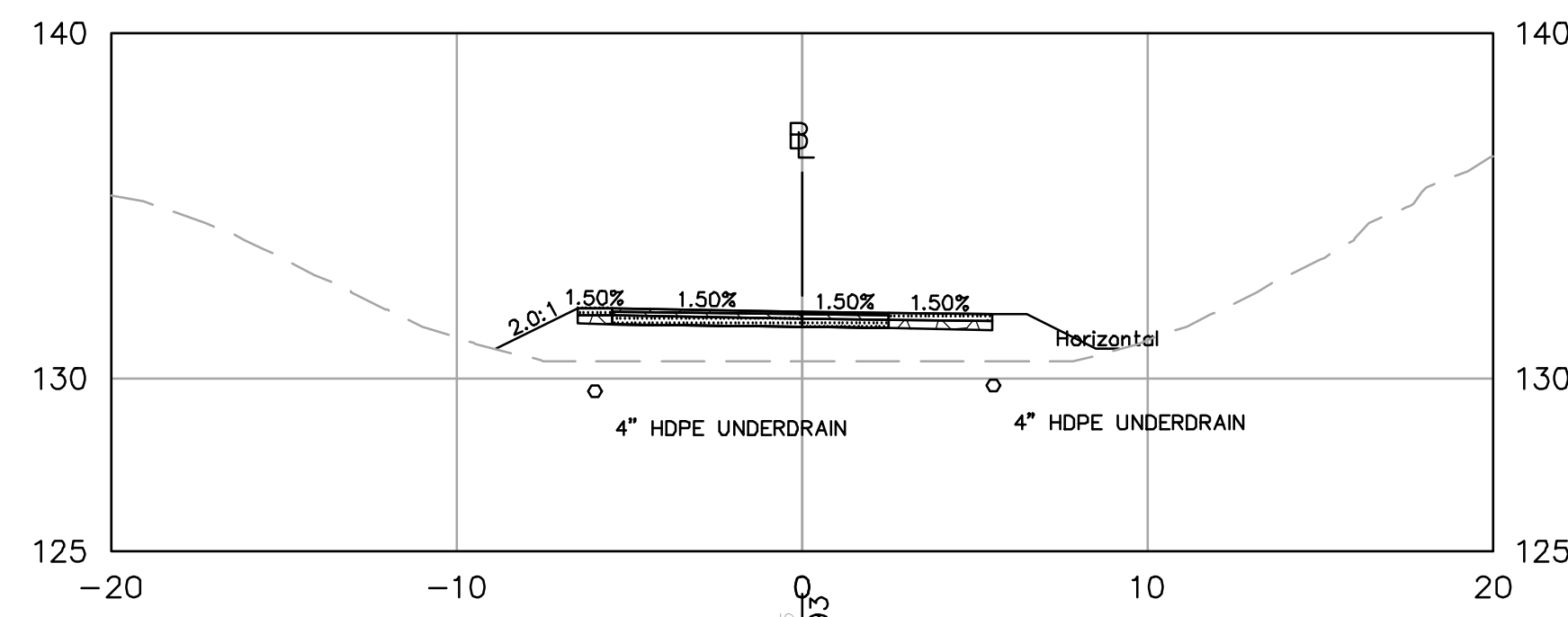
15+00



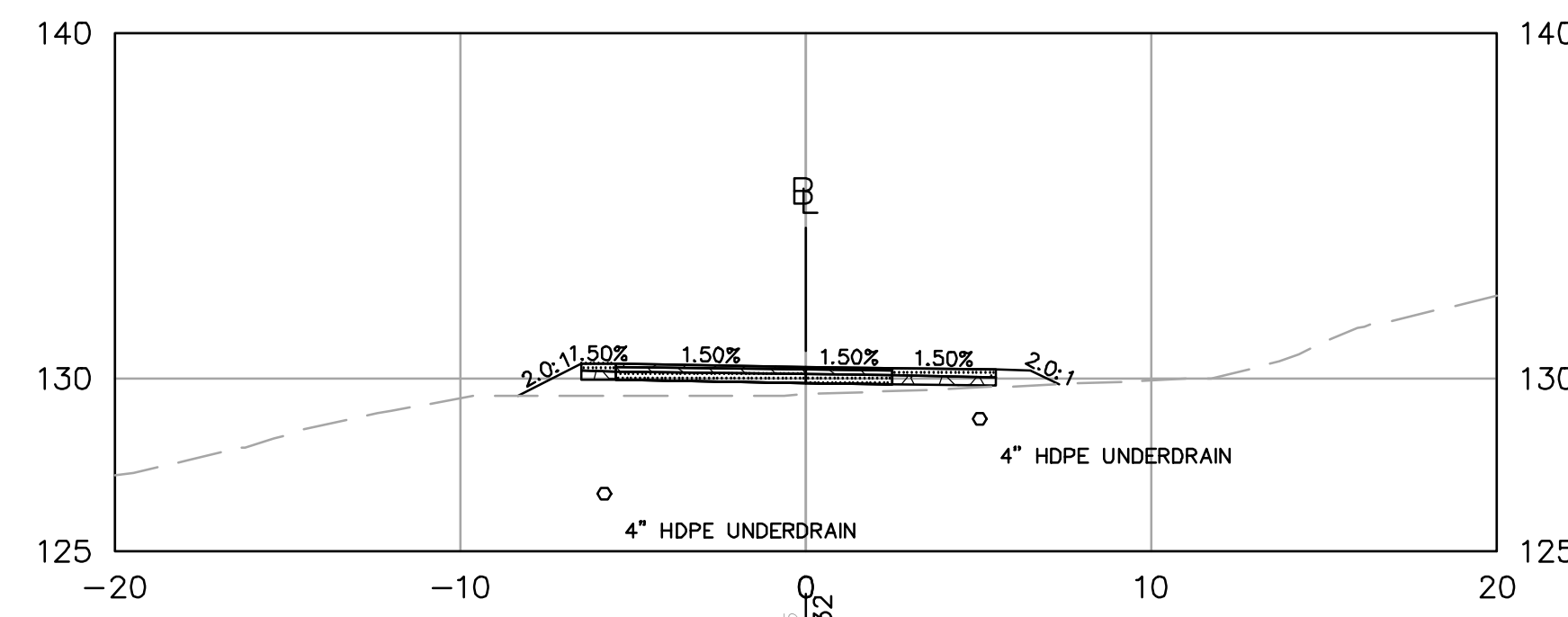
12+50



14+50

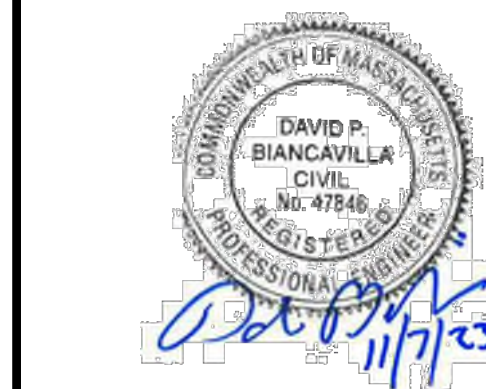


12+00



14+00

ISSUED FOR PERMITTING
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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

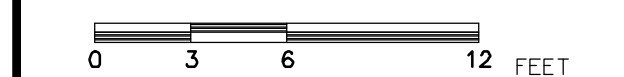
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

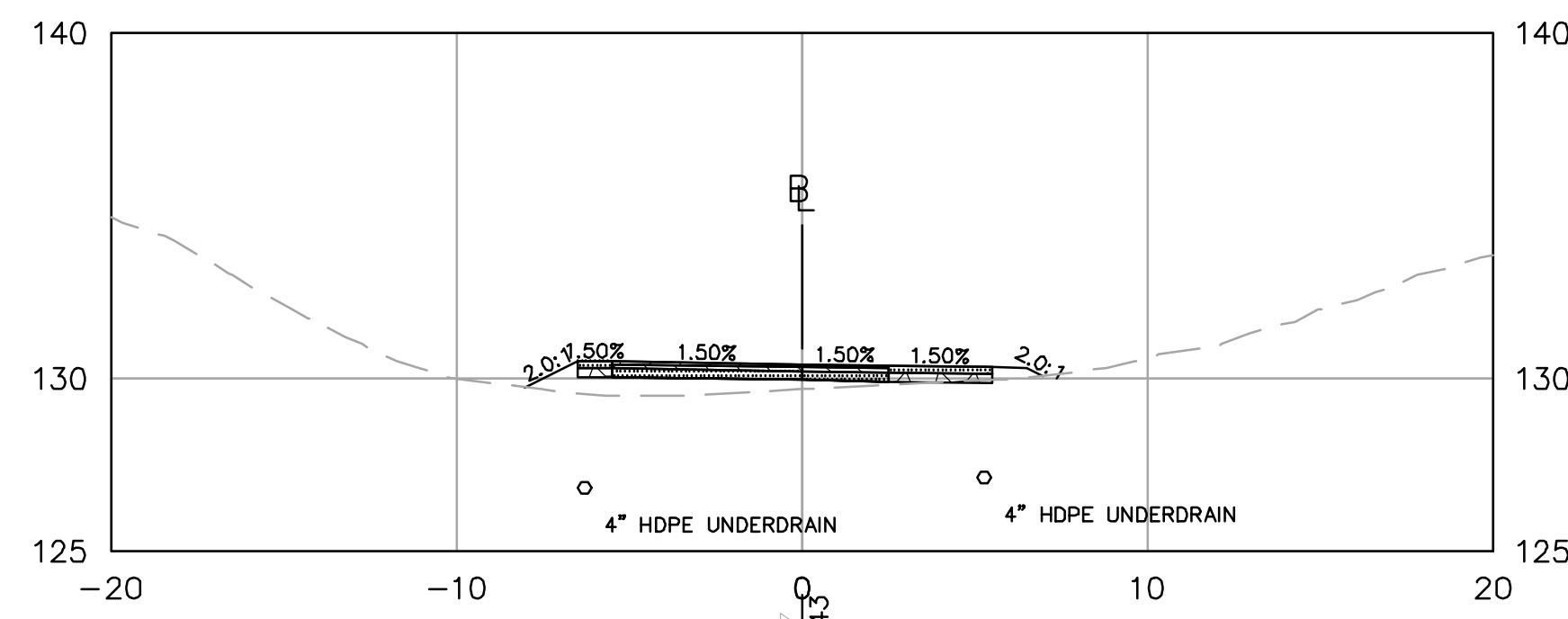


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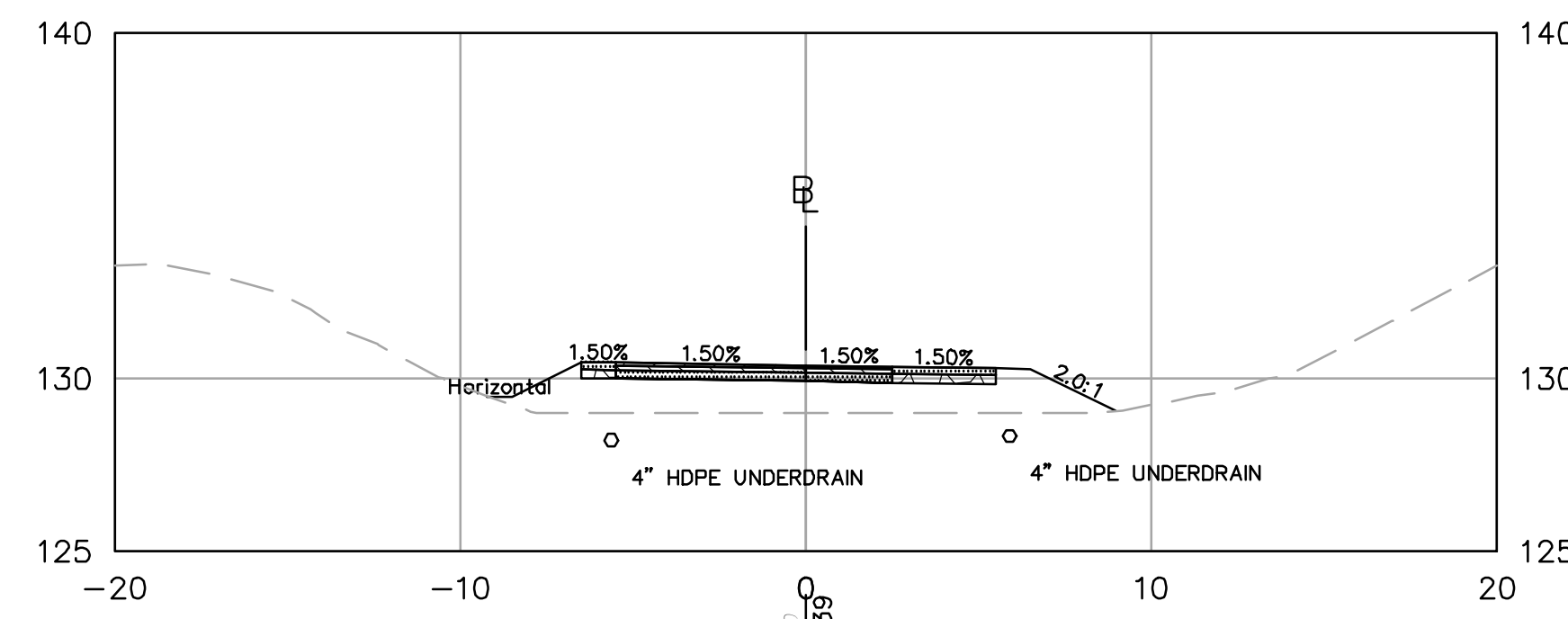
DWG.:

JOB. NO: 8-9985.01

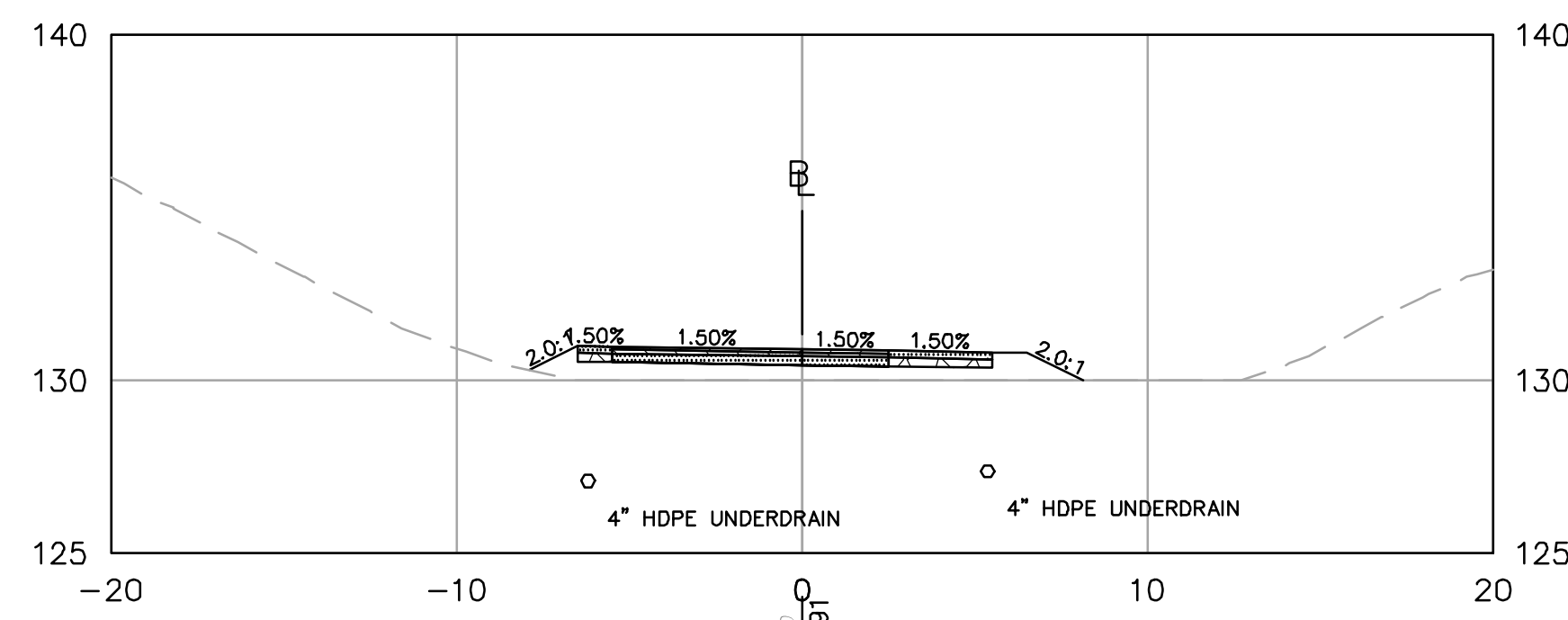
SHEET C-204



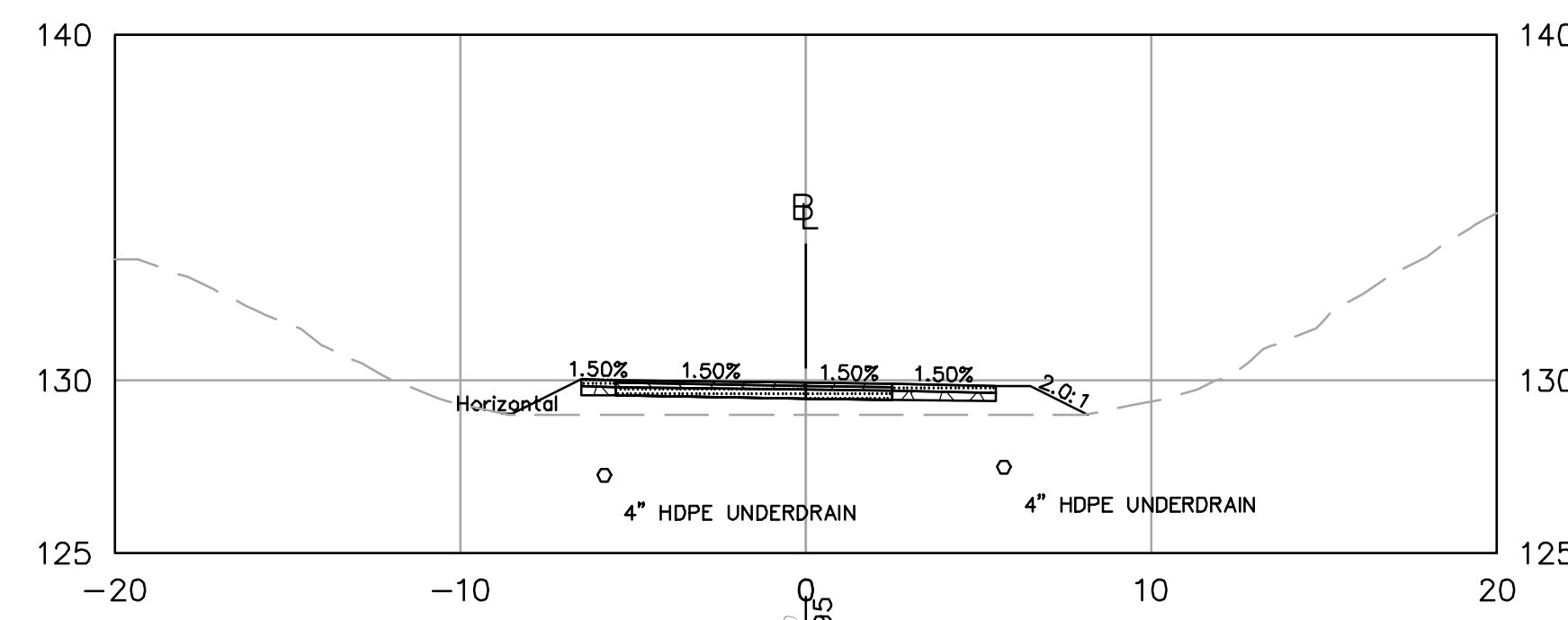
17+50



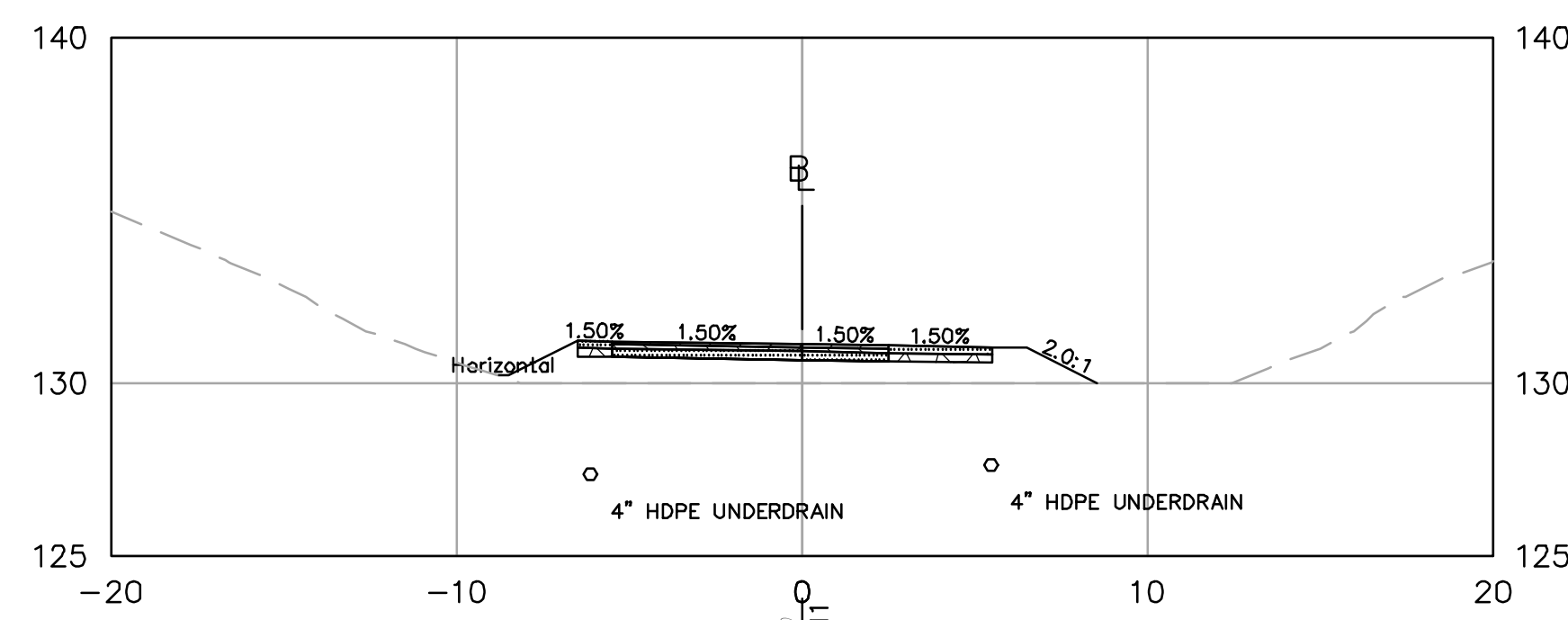
19+50



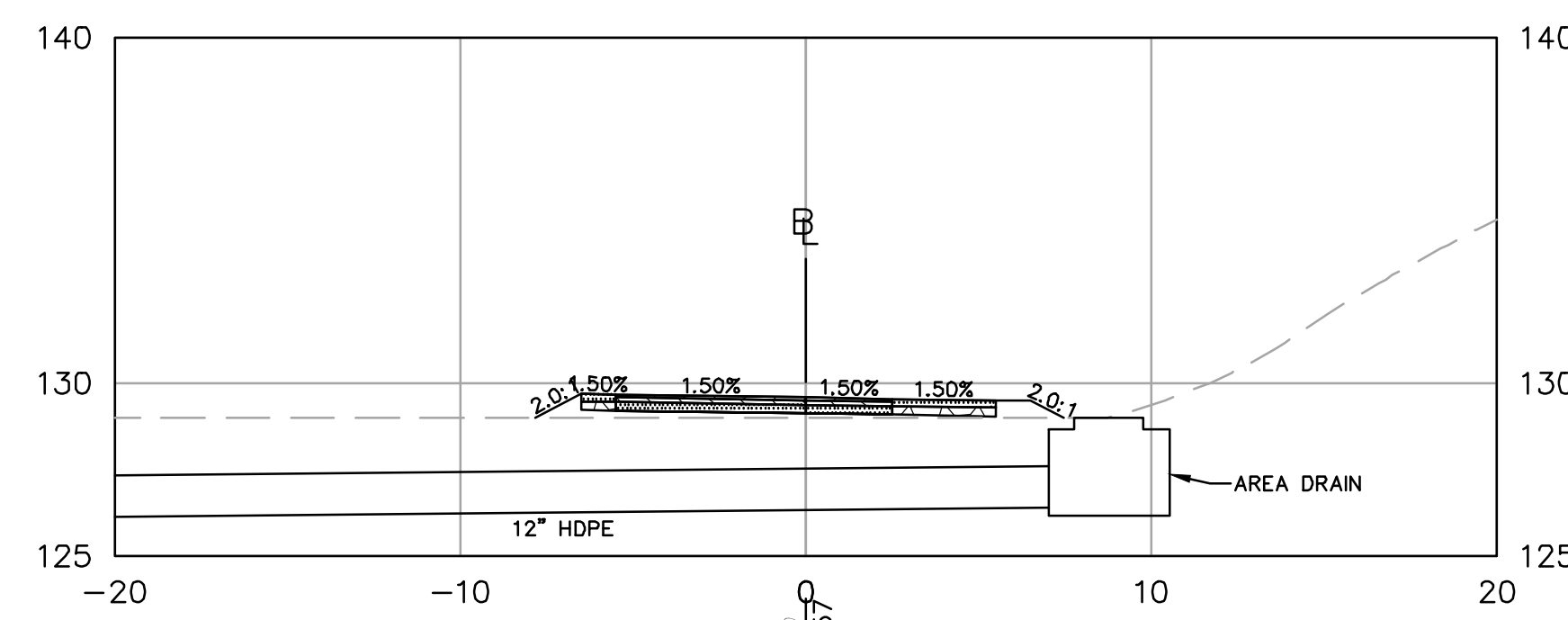
17+00



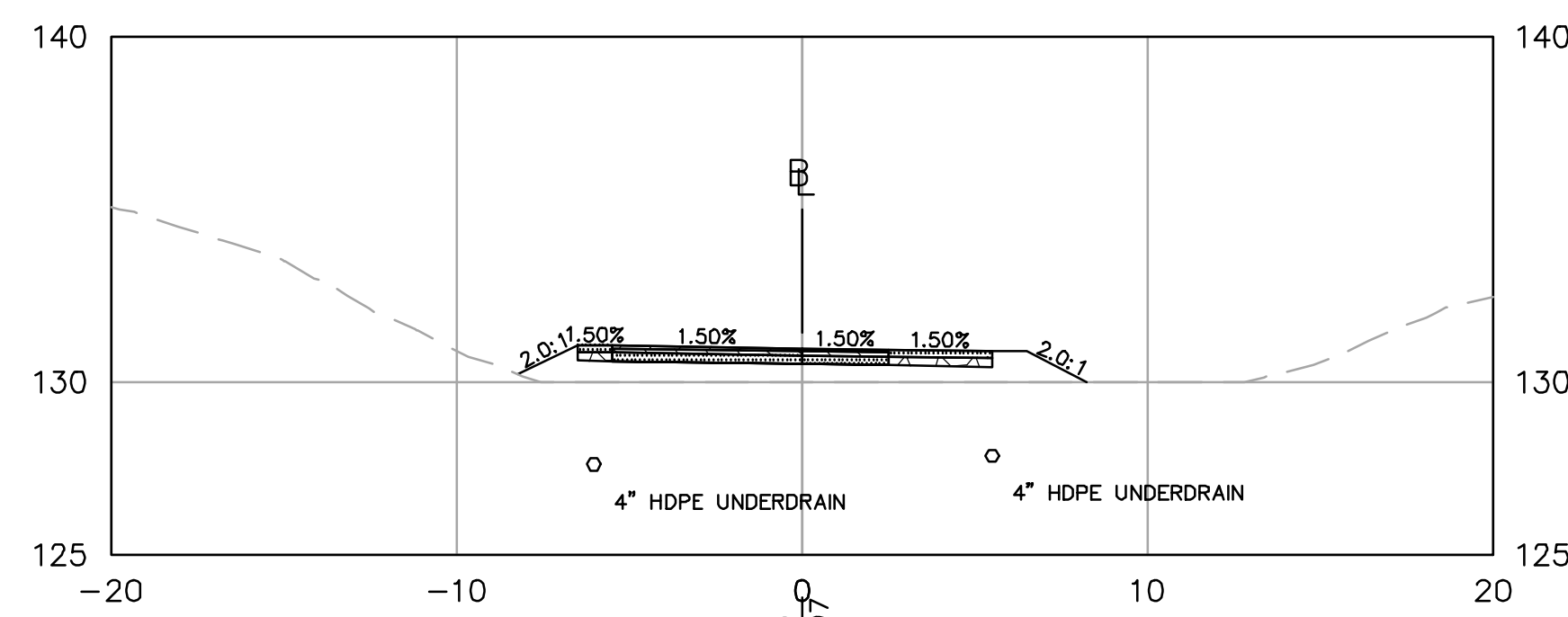
19+00



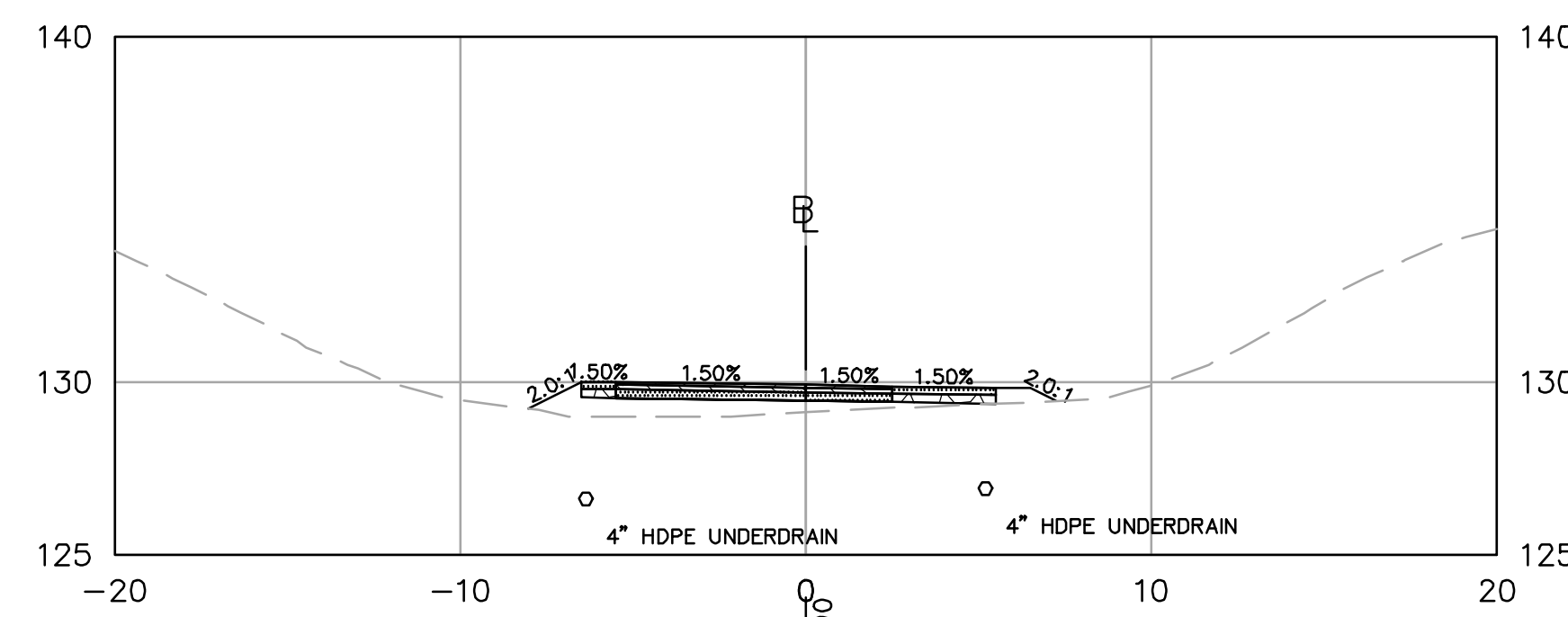
16+50



18+50



16+00



18+00

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

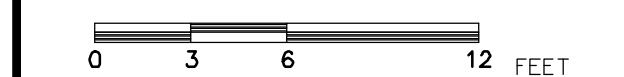
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

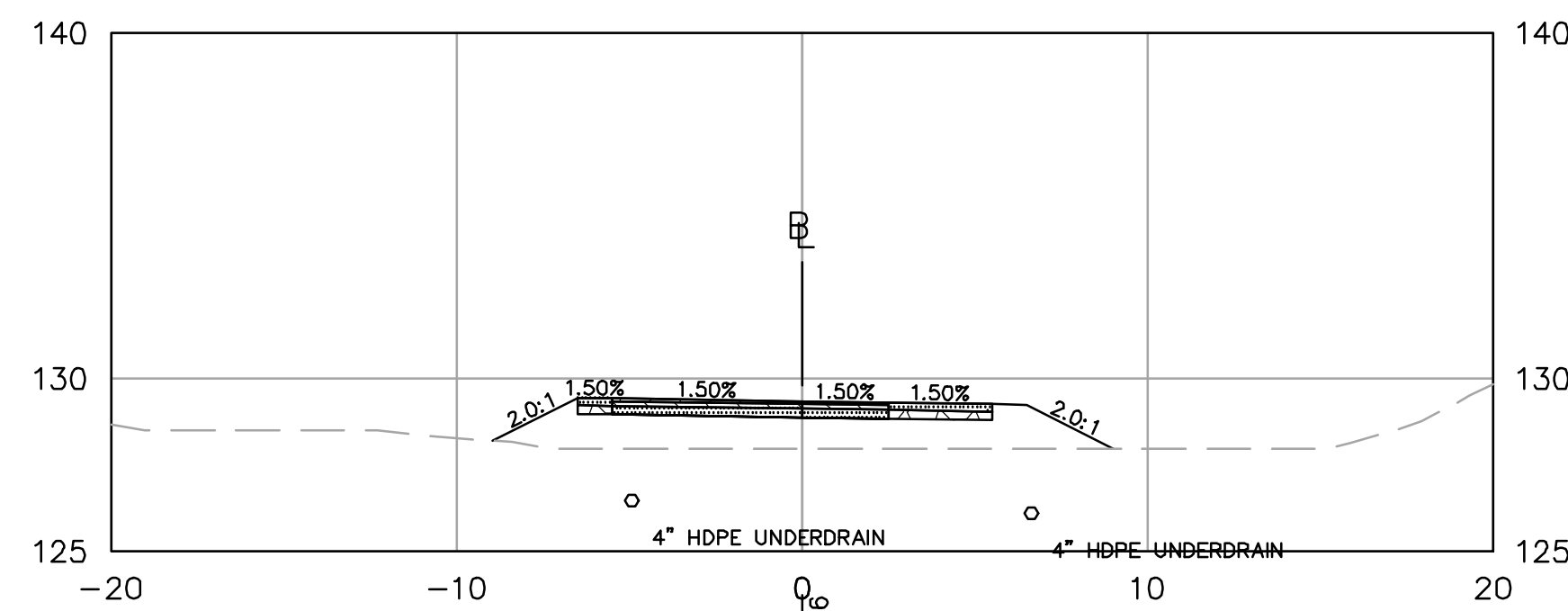


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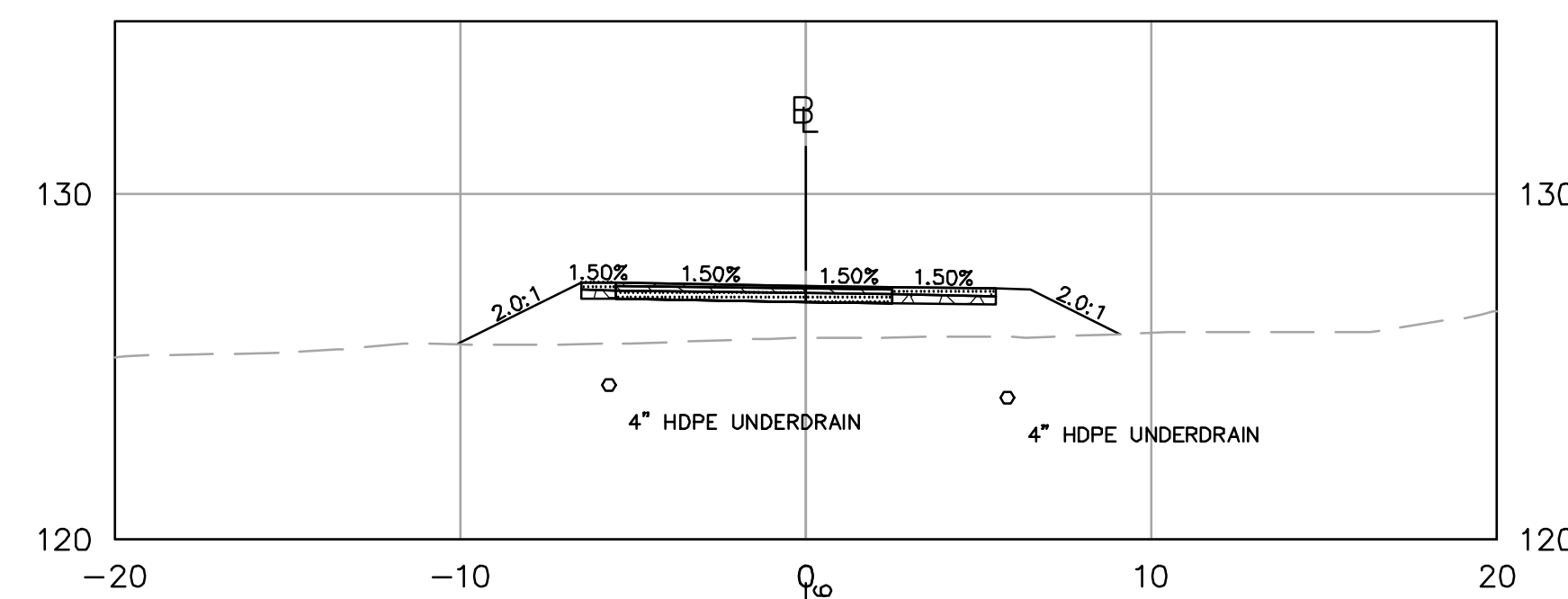
DWG.:

JOB. NO: 8-9985.01

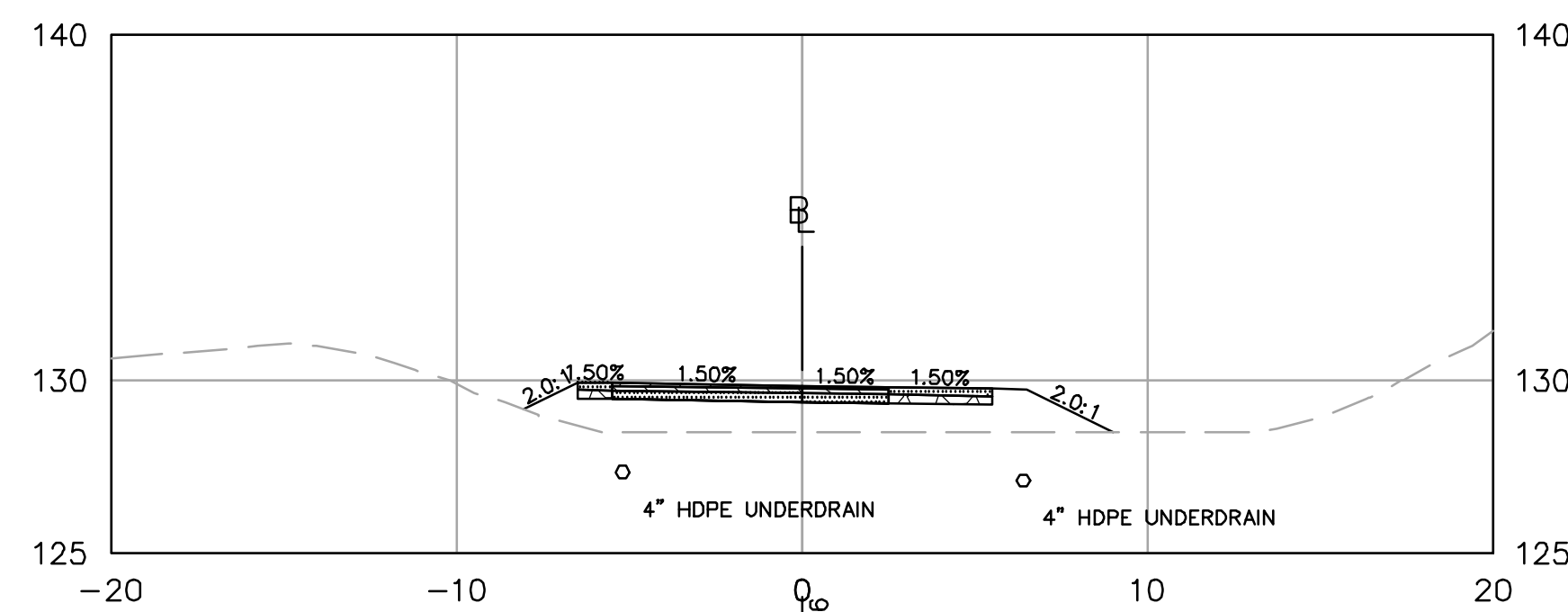
SHEET C-205



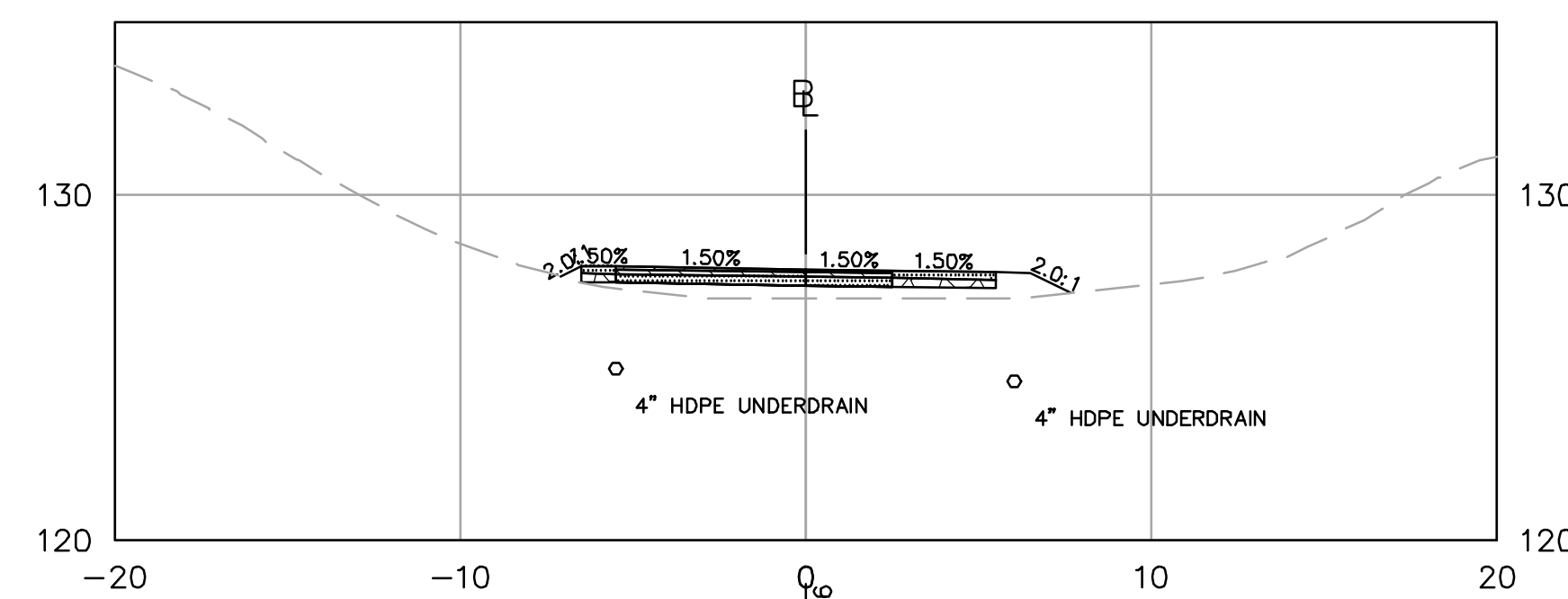
21+50



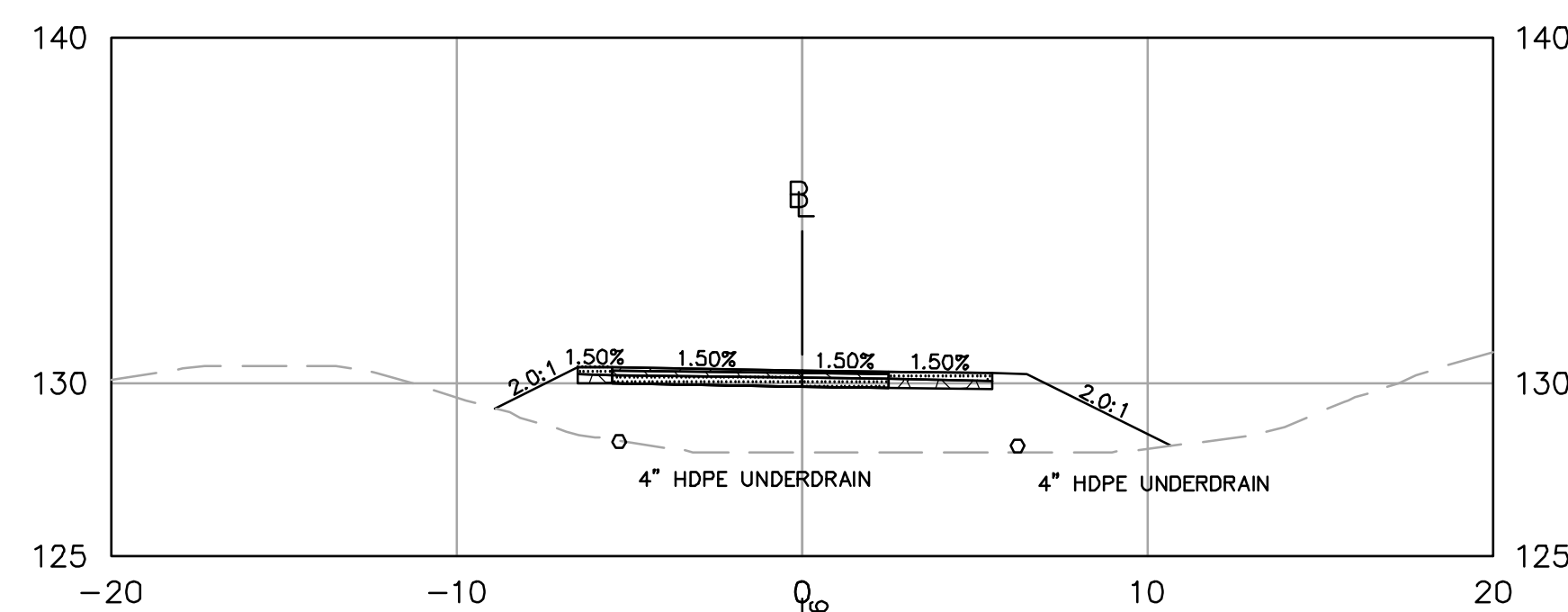
23+50



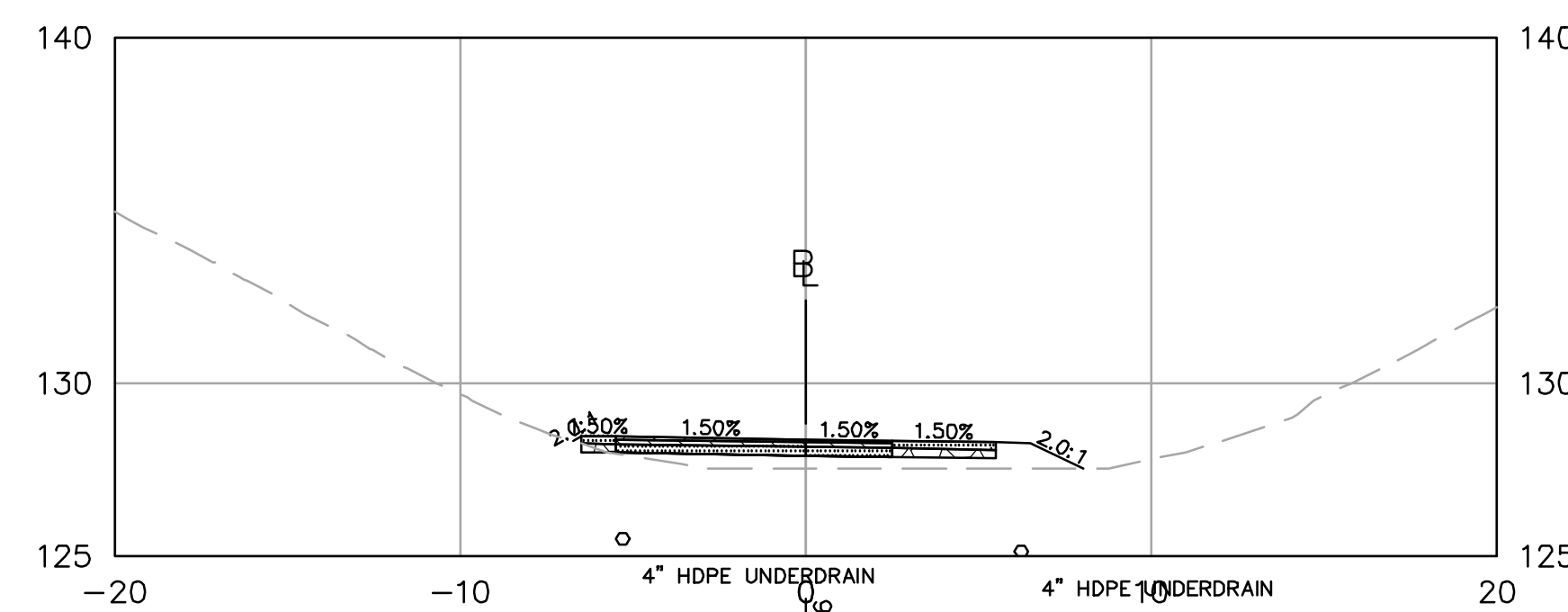
21+00



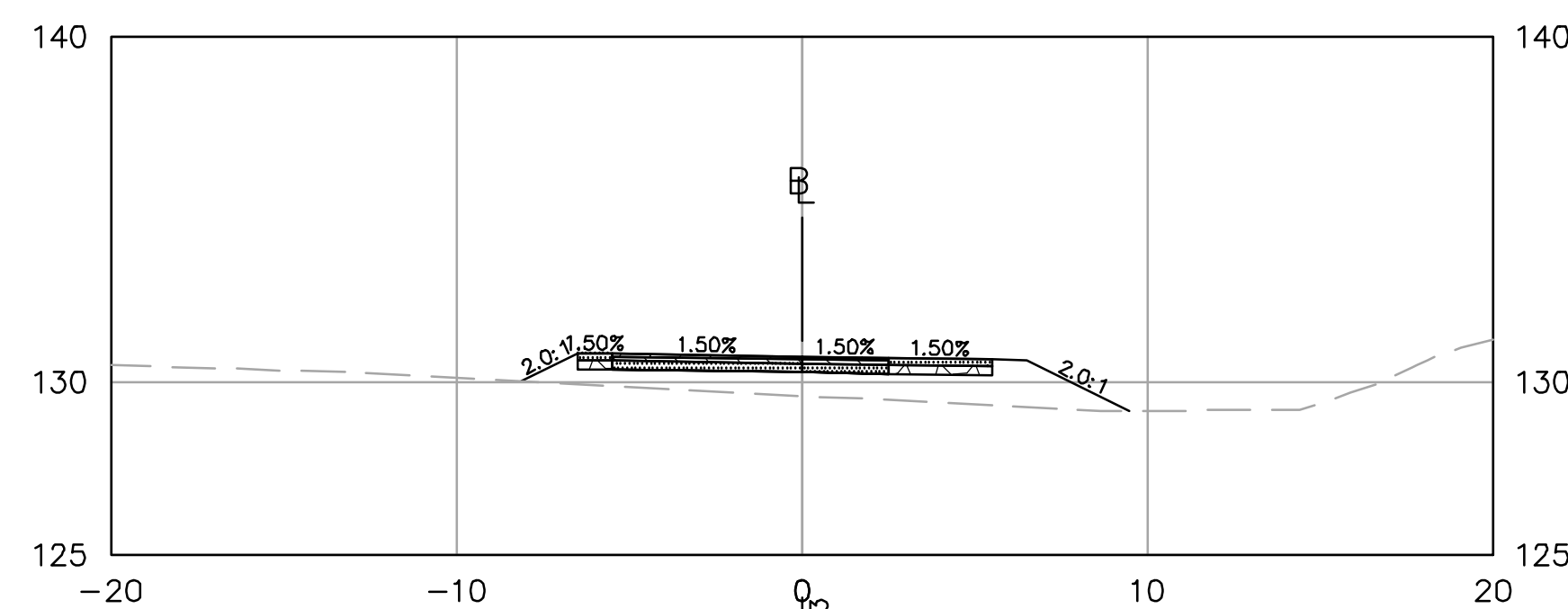
23+00



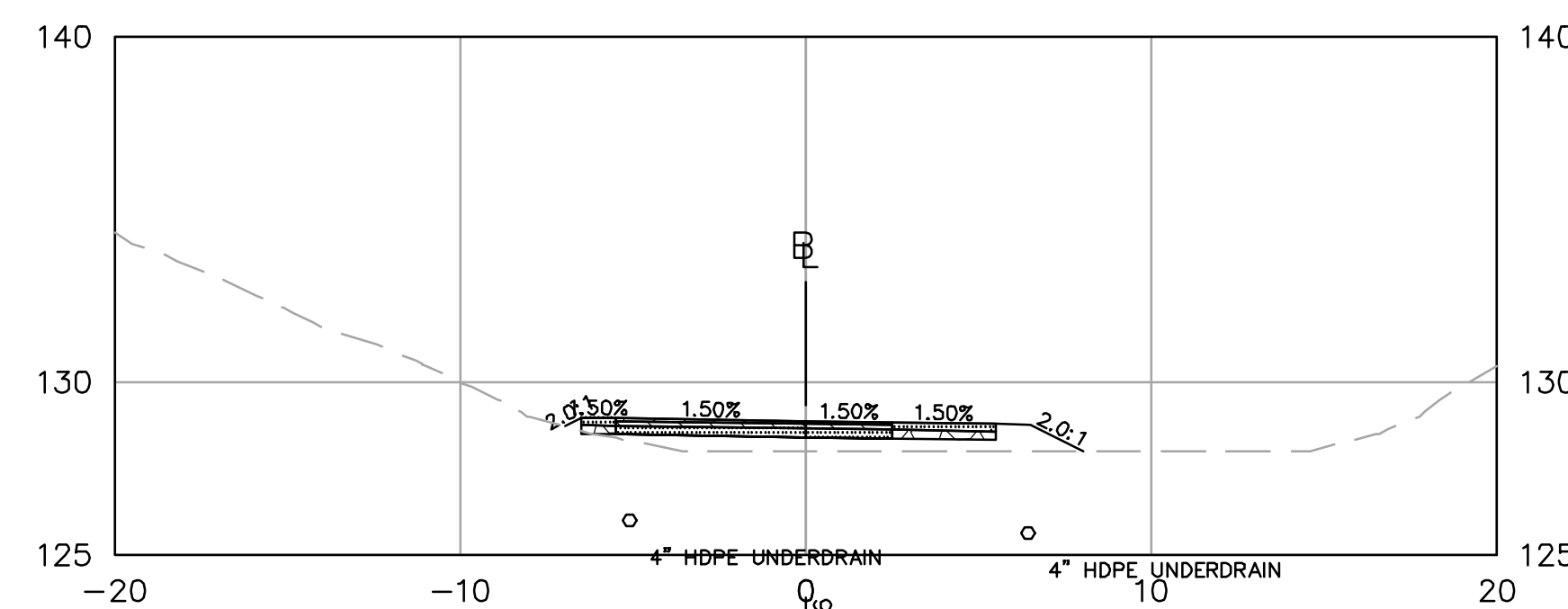
20+50



22+50

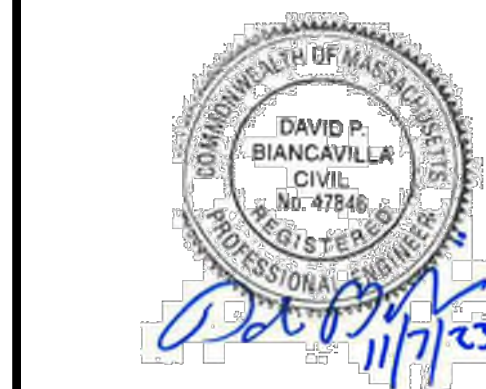


20+00



22+00

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER DATE

HAGGETTS POND RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

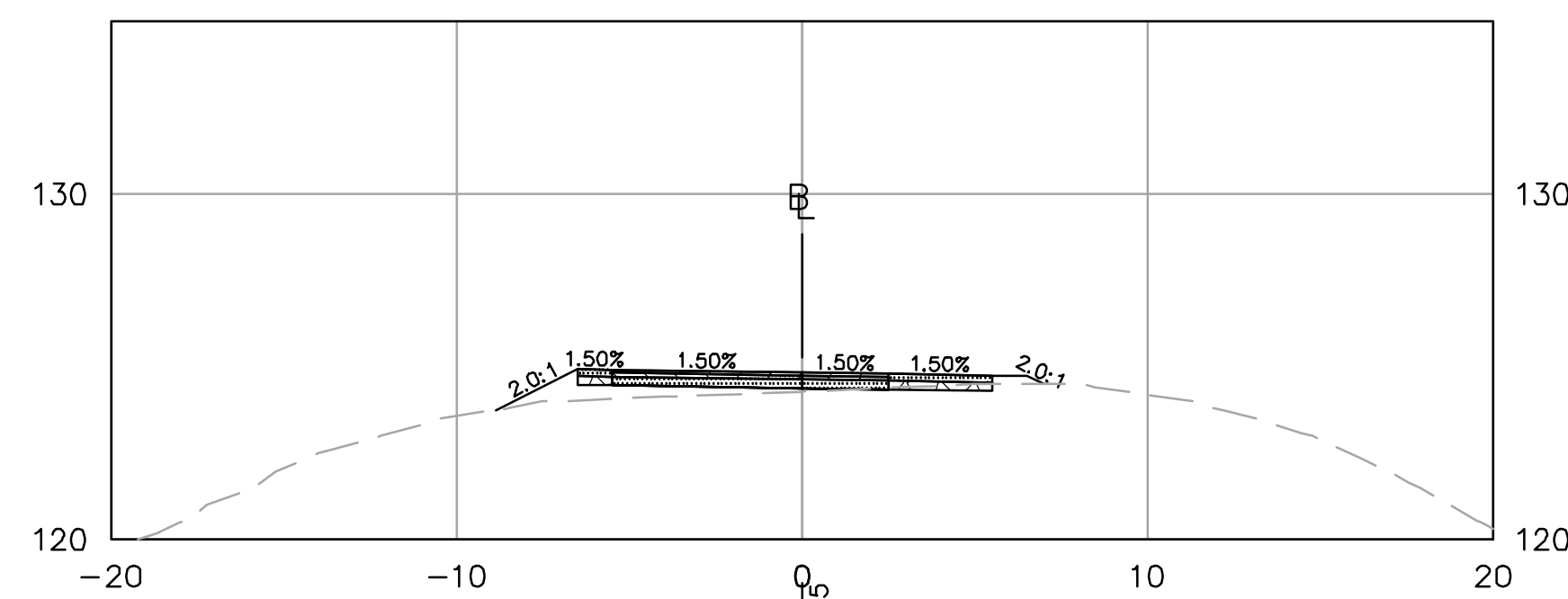


FILE: P:\8998501\C_D

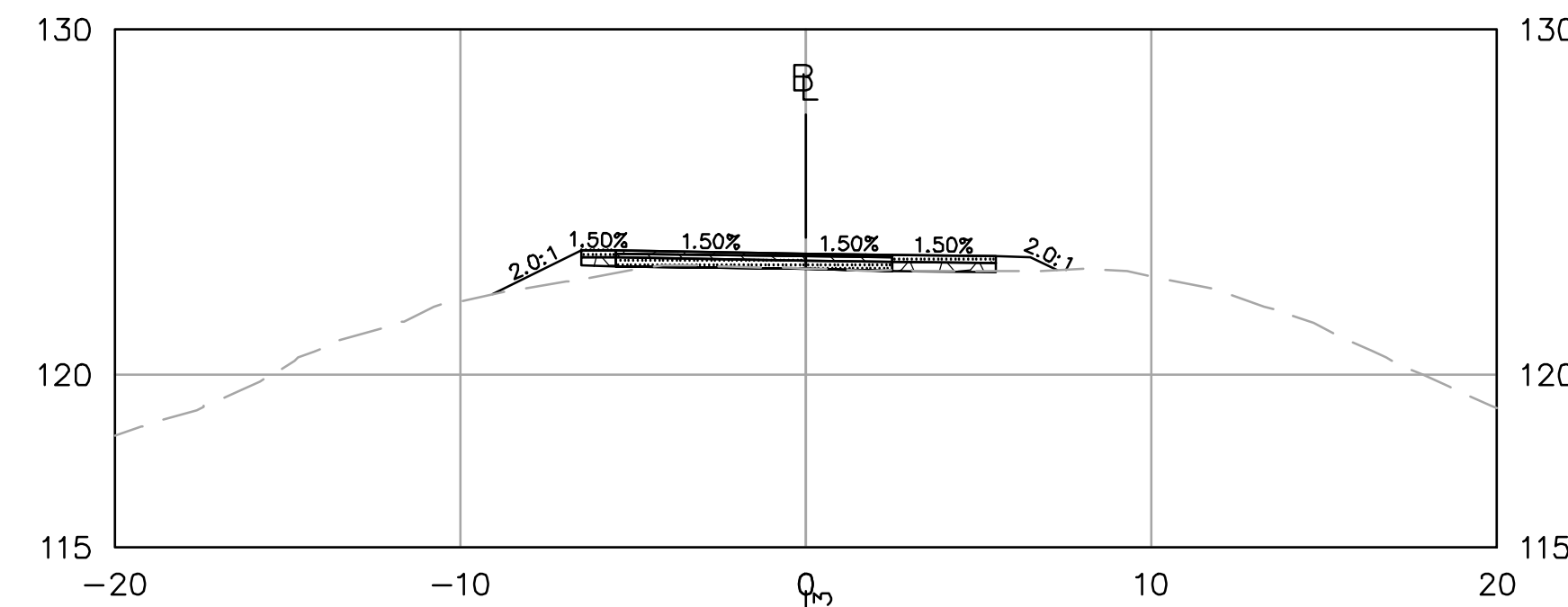
DWG.:

JOB. NO: 8-9985.01

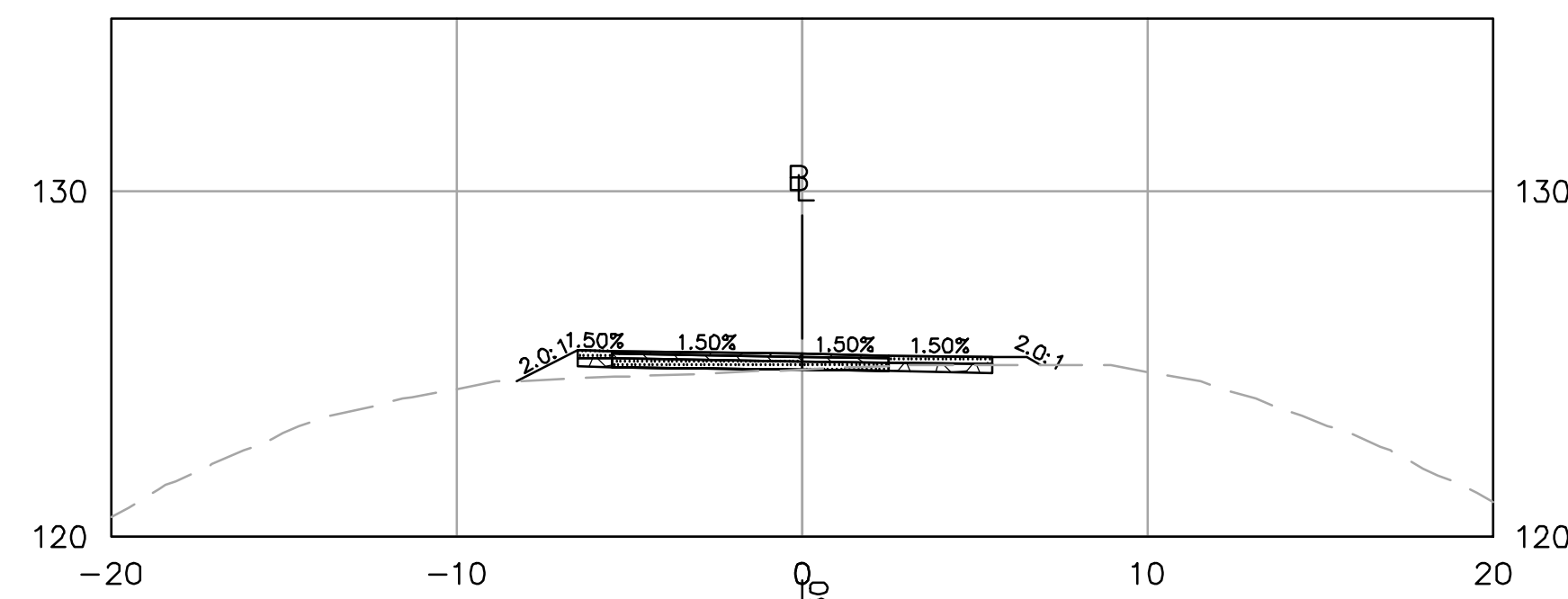
SHEET C-206



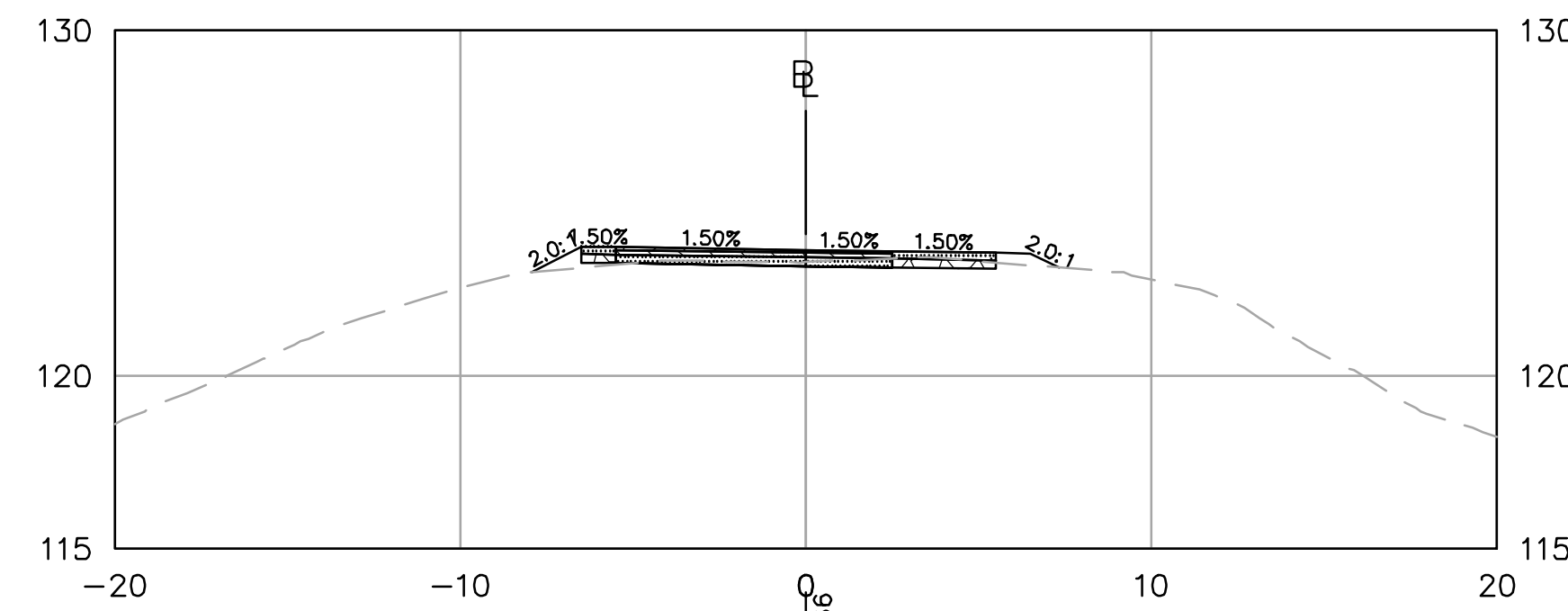
25+50



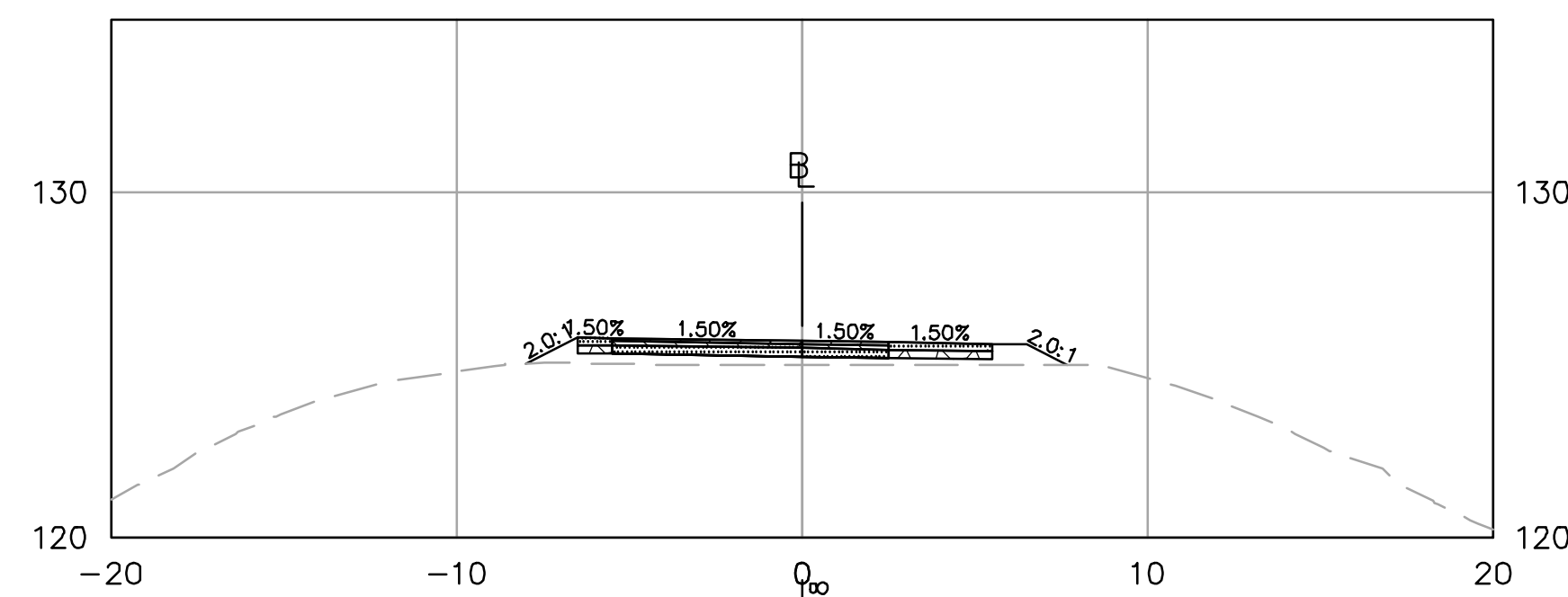
27+50



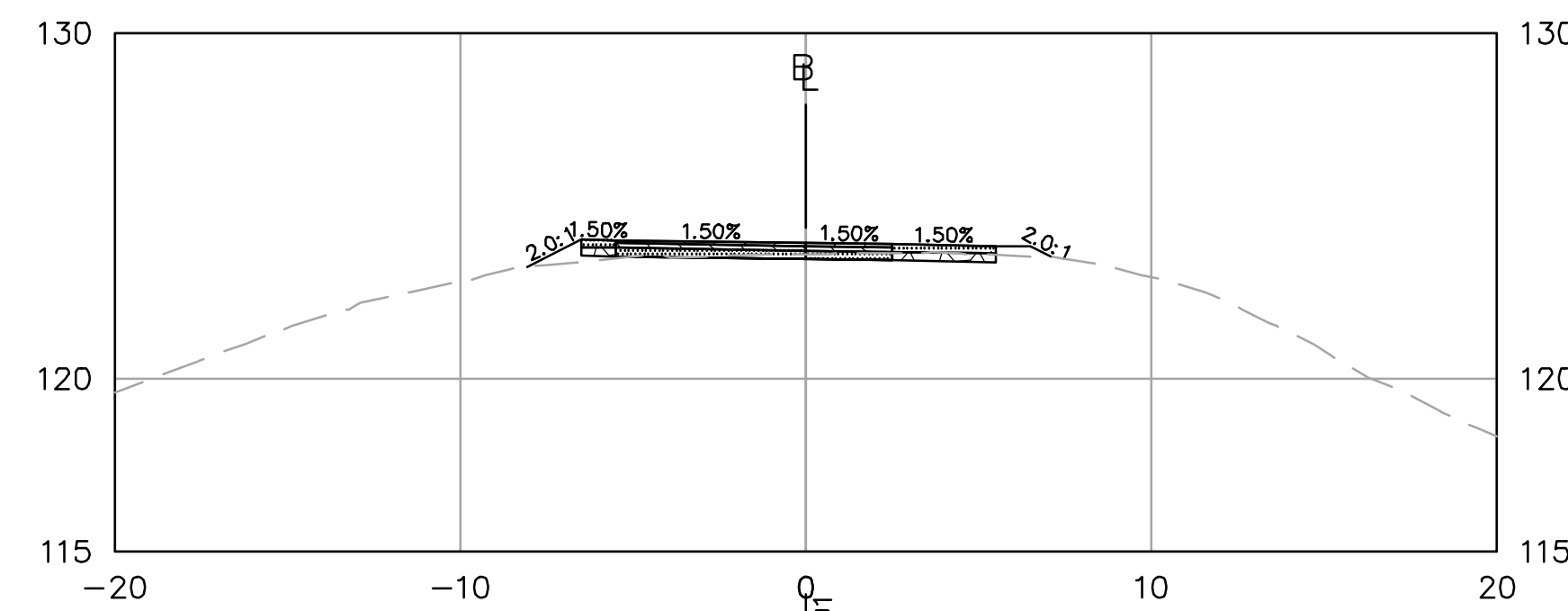
25+00



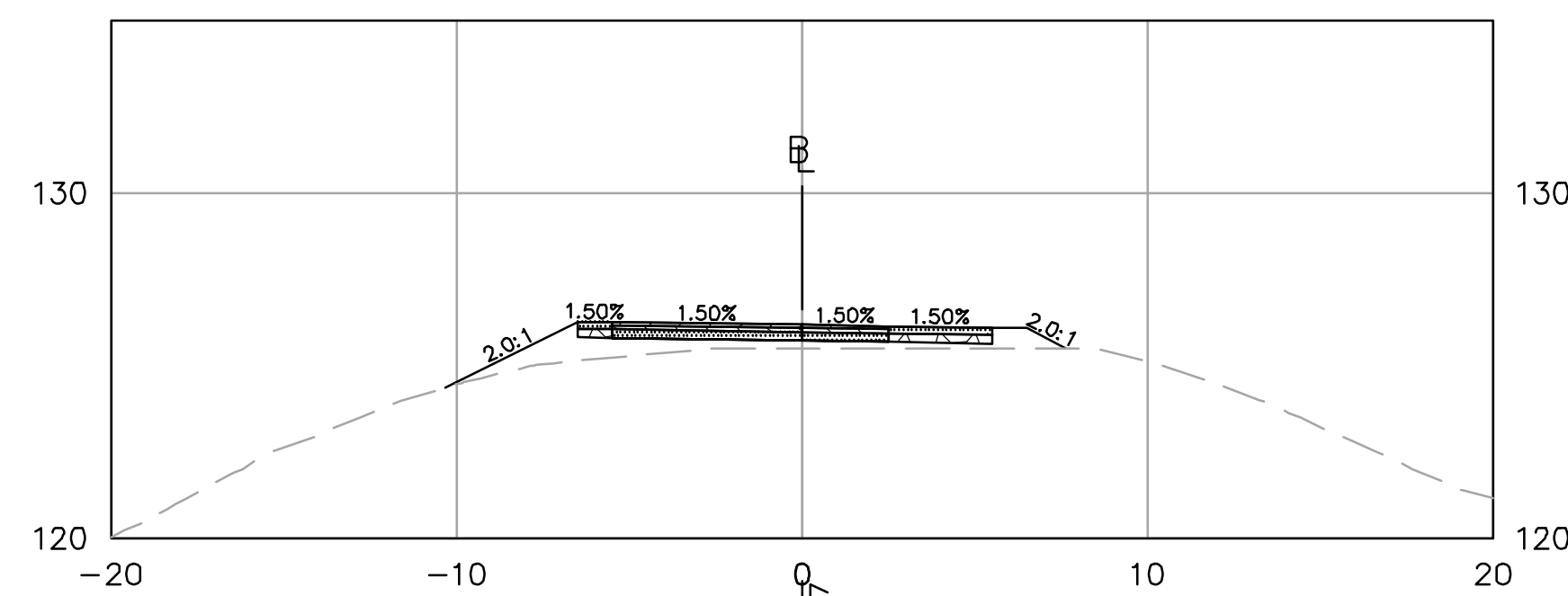
27+00



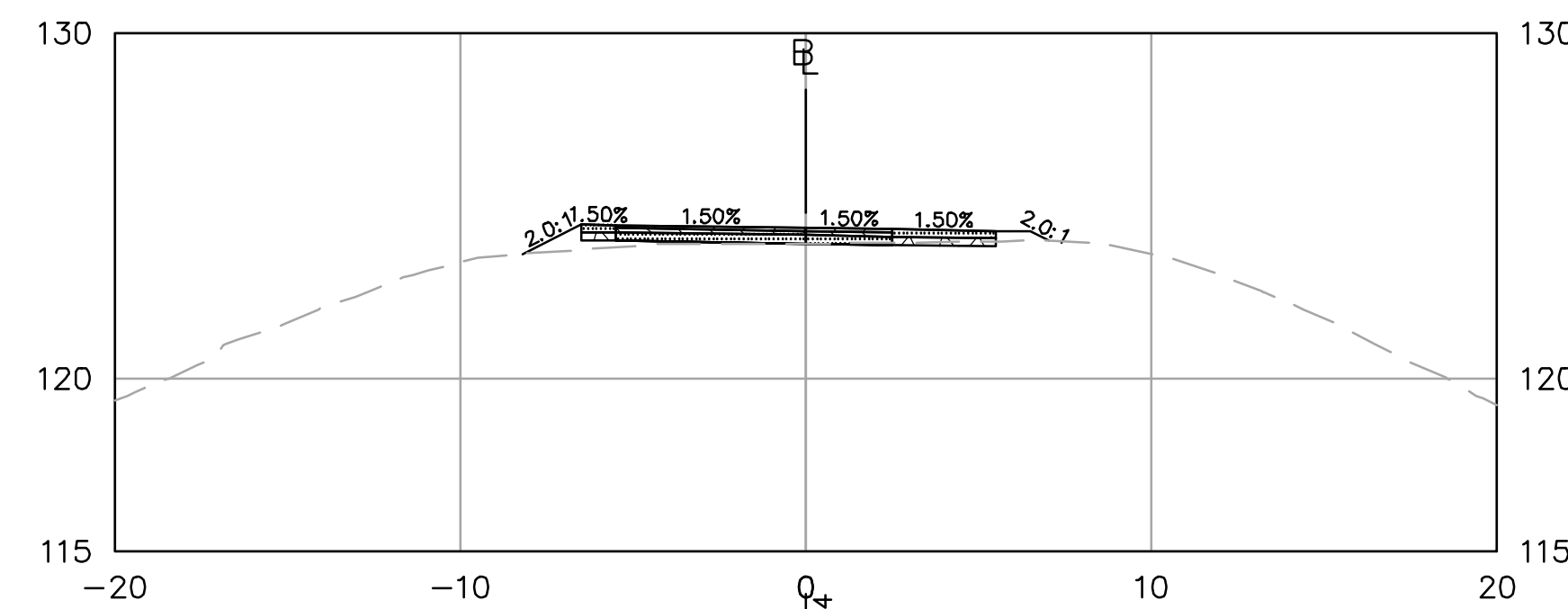
24+50



26+50



24+00



26+00

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

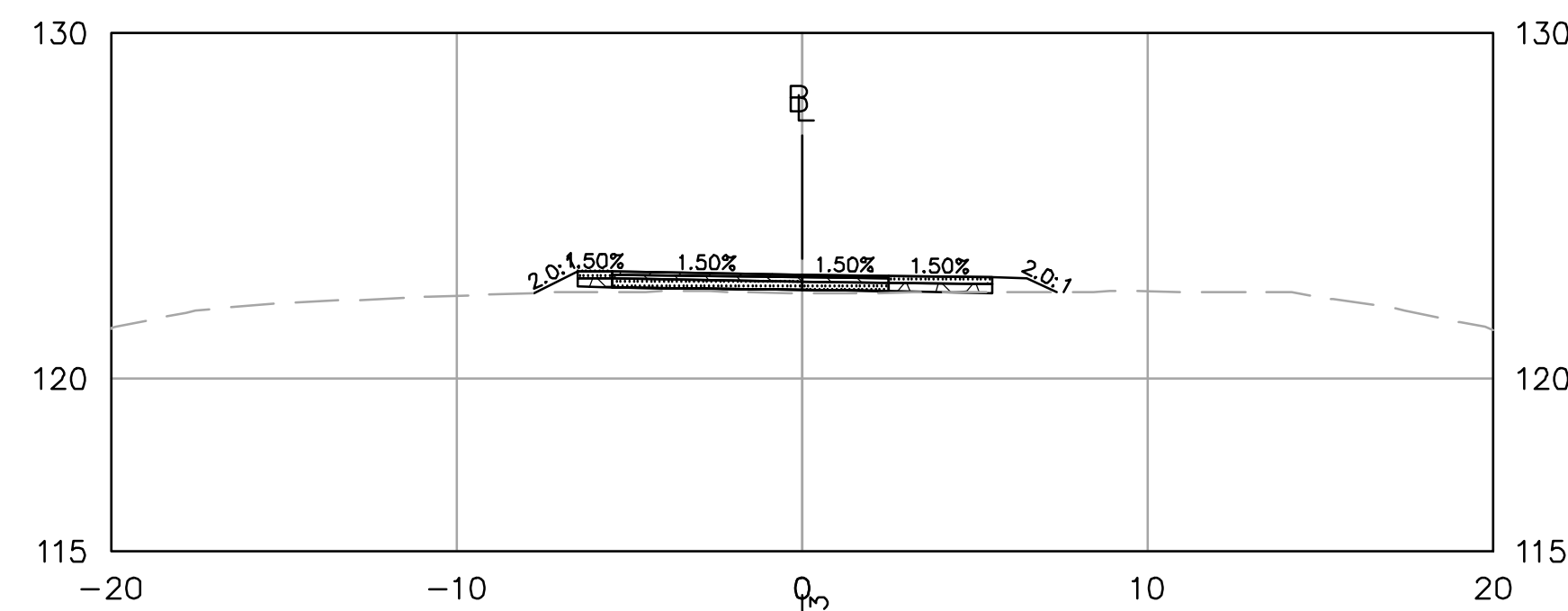
NOVEMBER 7, 2023

REVISIONS:

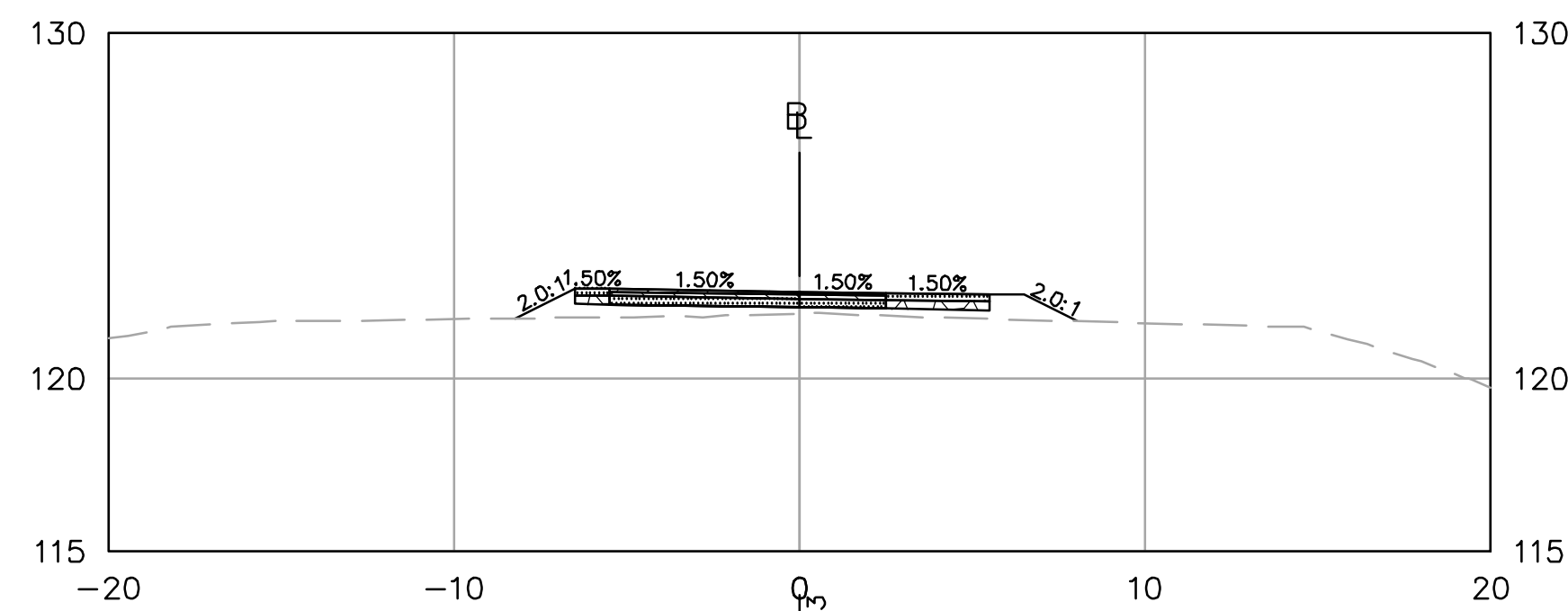
PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

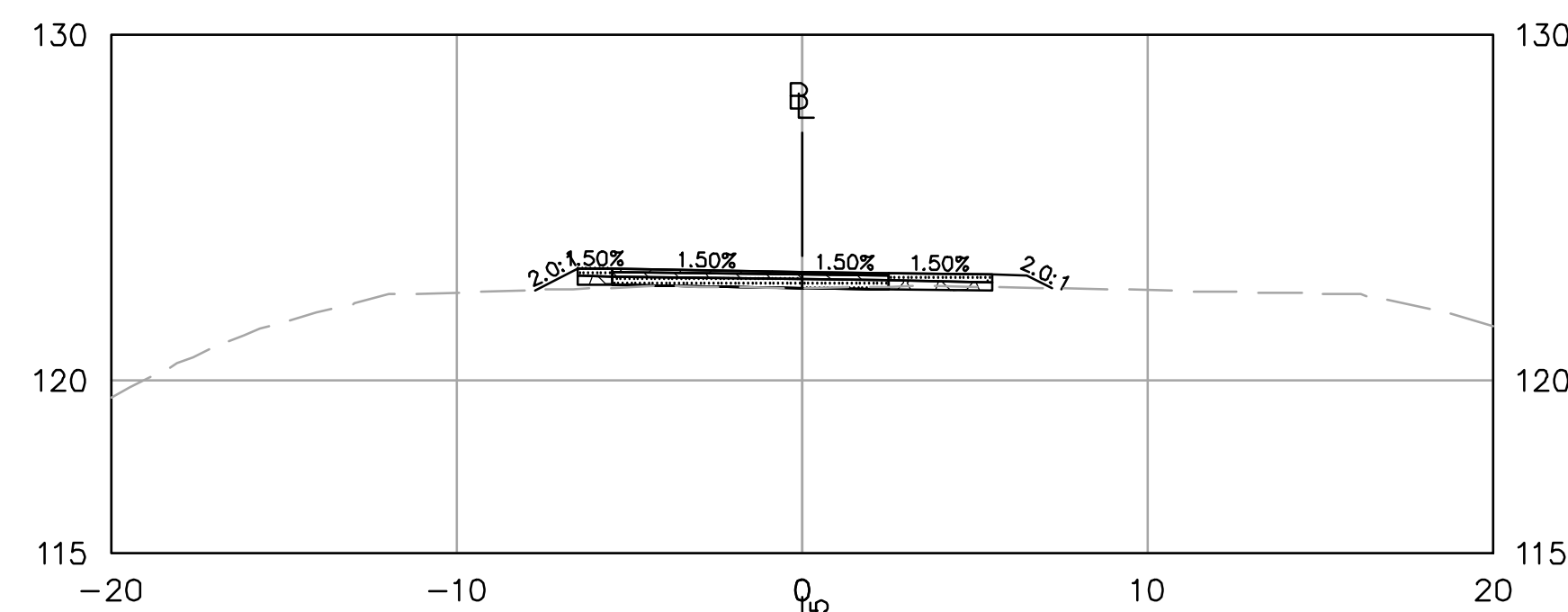
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SCALE: 1" = 5'
0 3 6 12 FEET
FILE: P:\8998501\C_D
DWG.:
JOB. NO: 8-9985.01 SHEET C-207



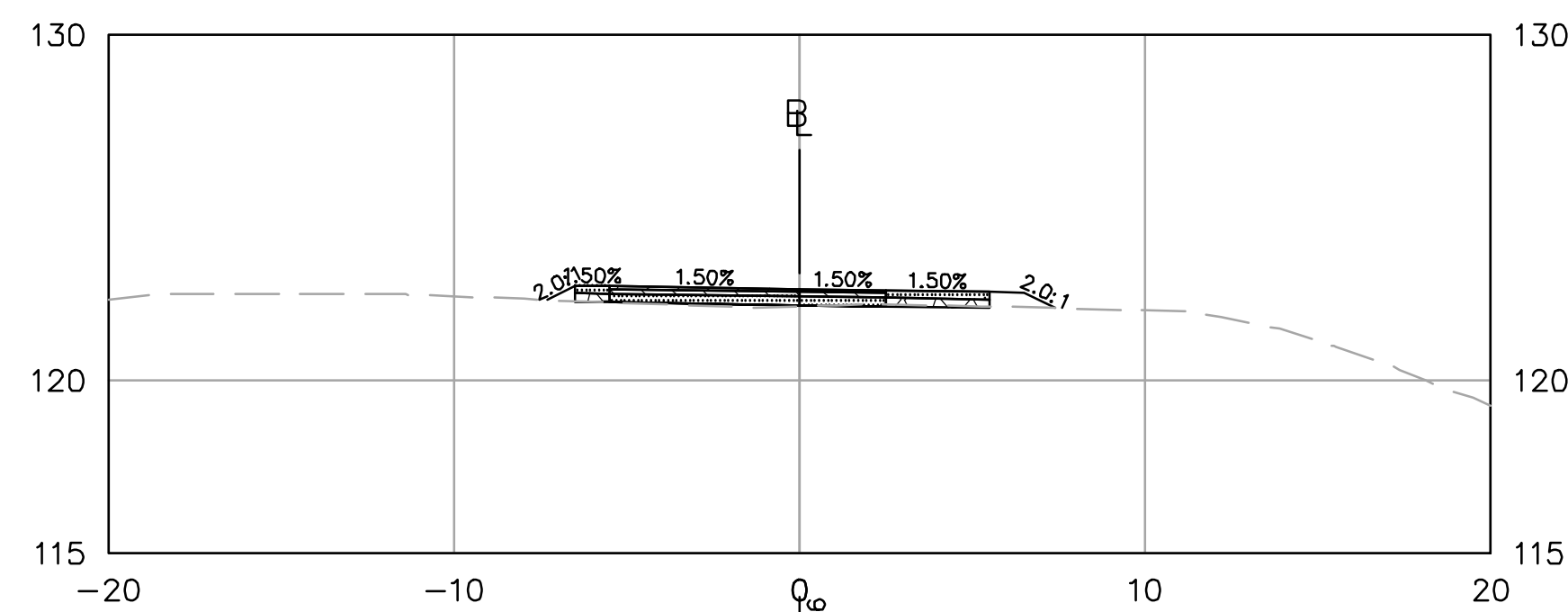
29+50



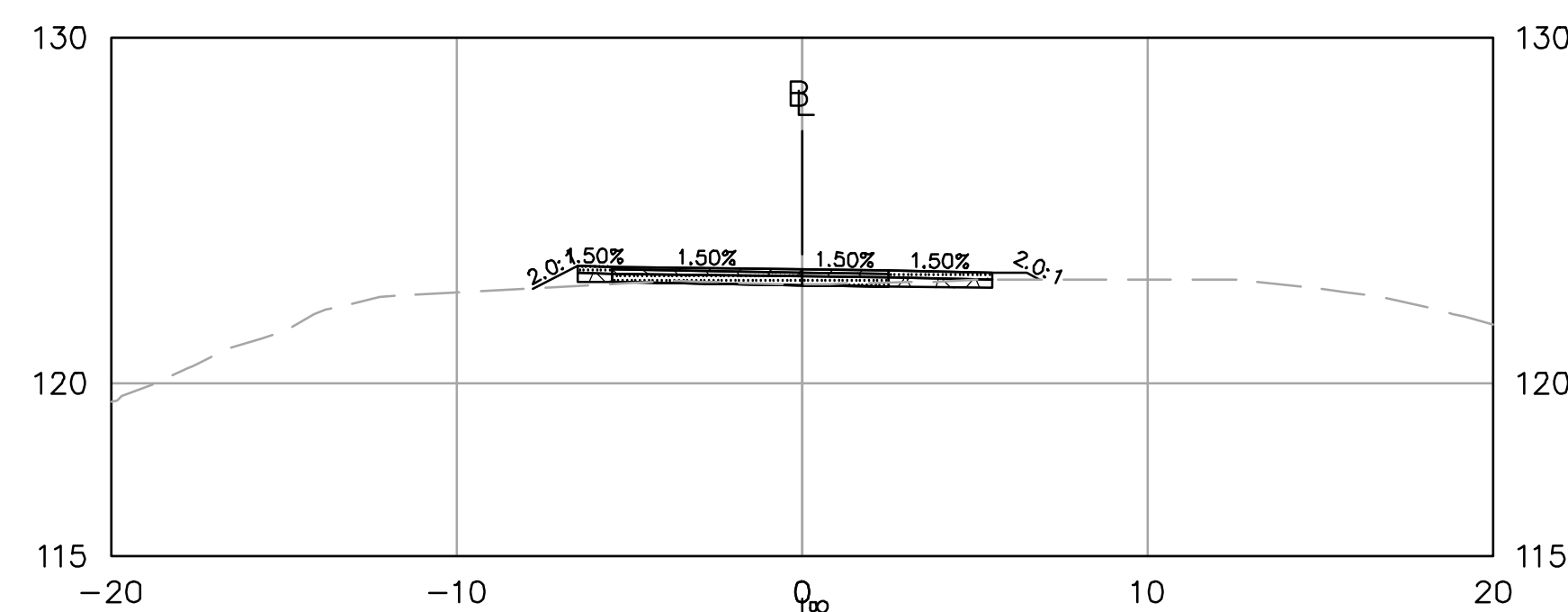
31+50



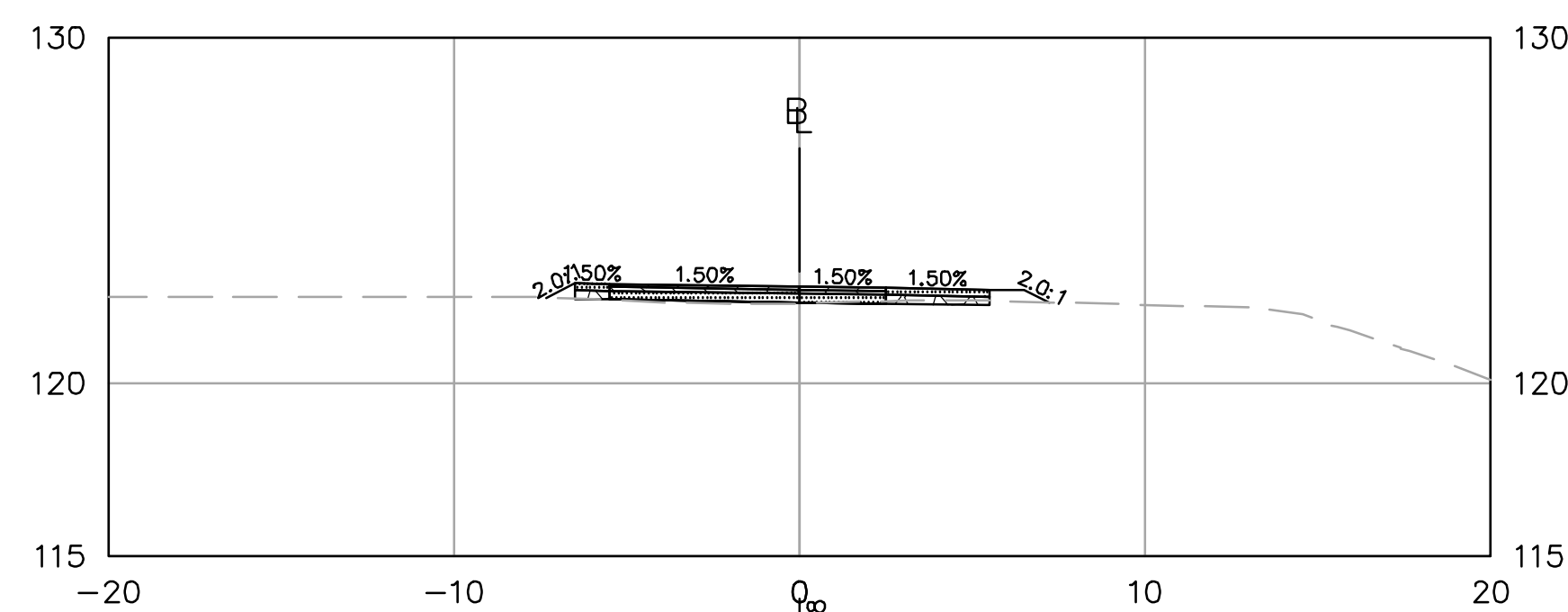
29+00



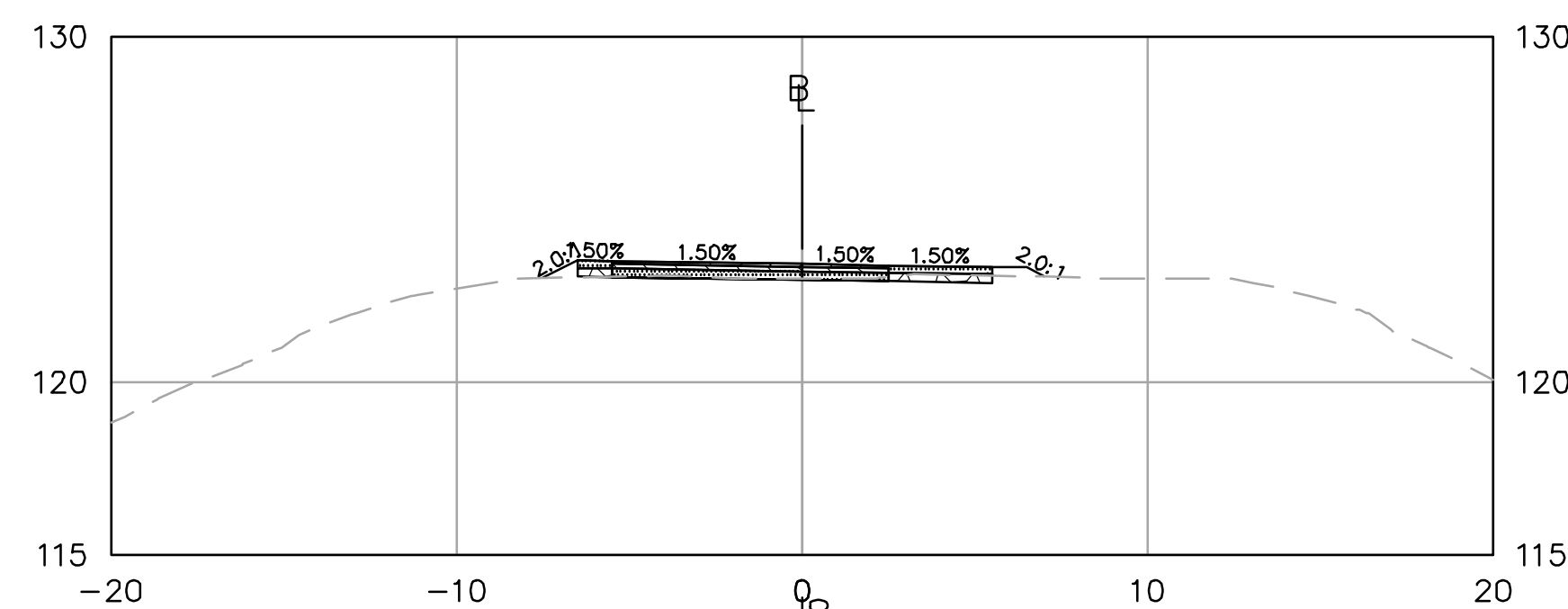
31+00



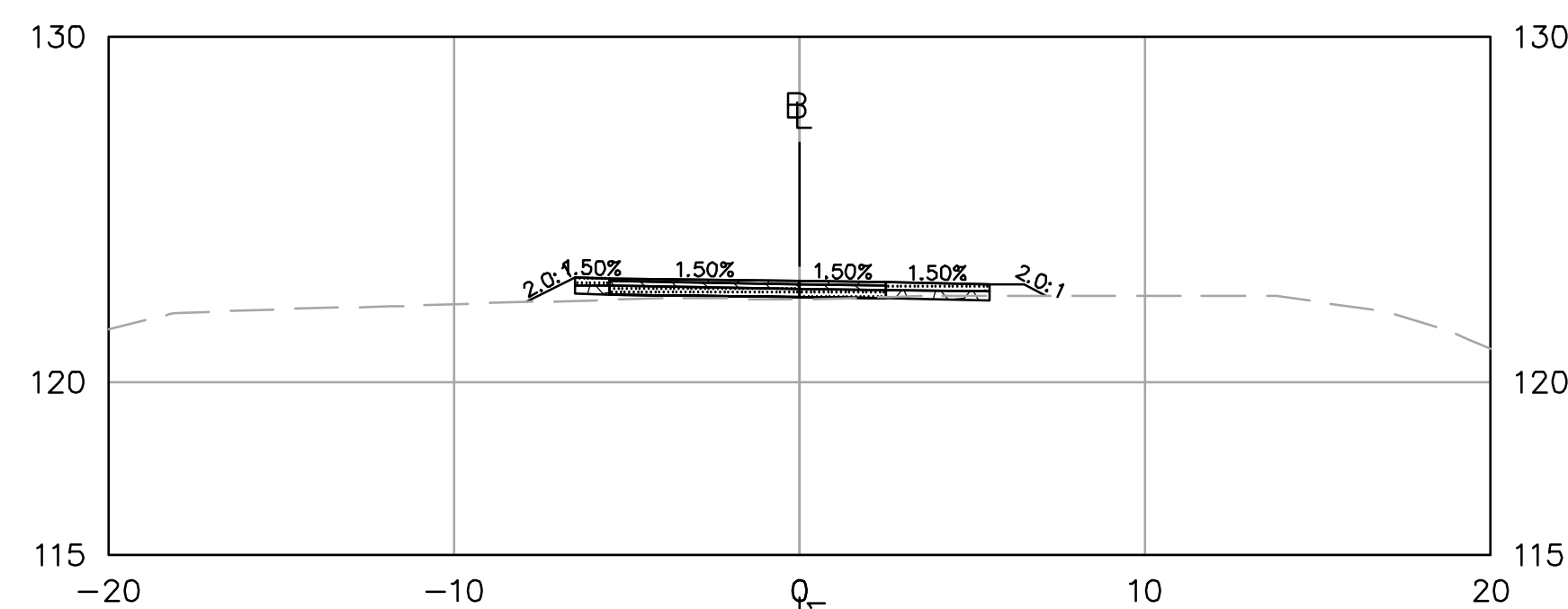
28+50



30+50



28+00



30+00

ISSUED FOR PERMITTING
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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
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617 896 4300

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SCALE: 1" = 5'

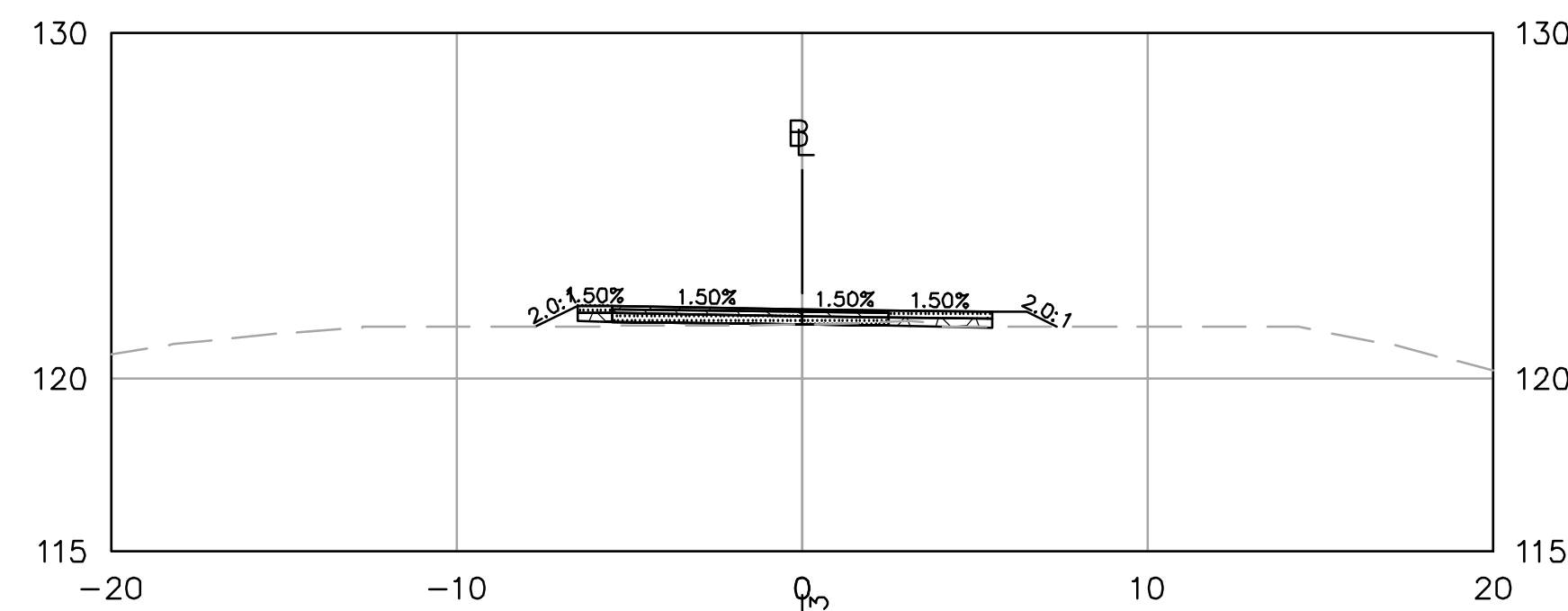


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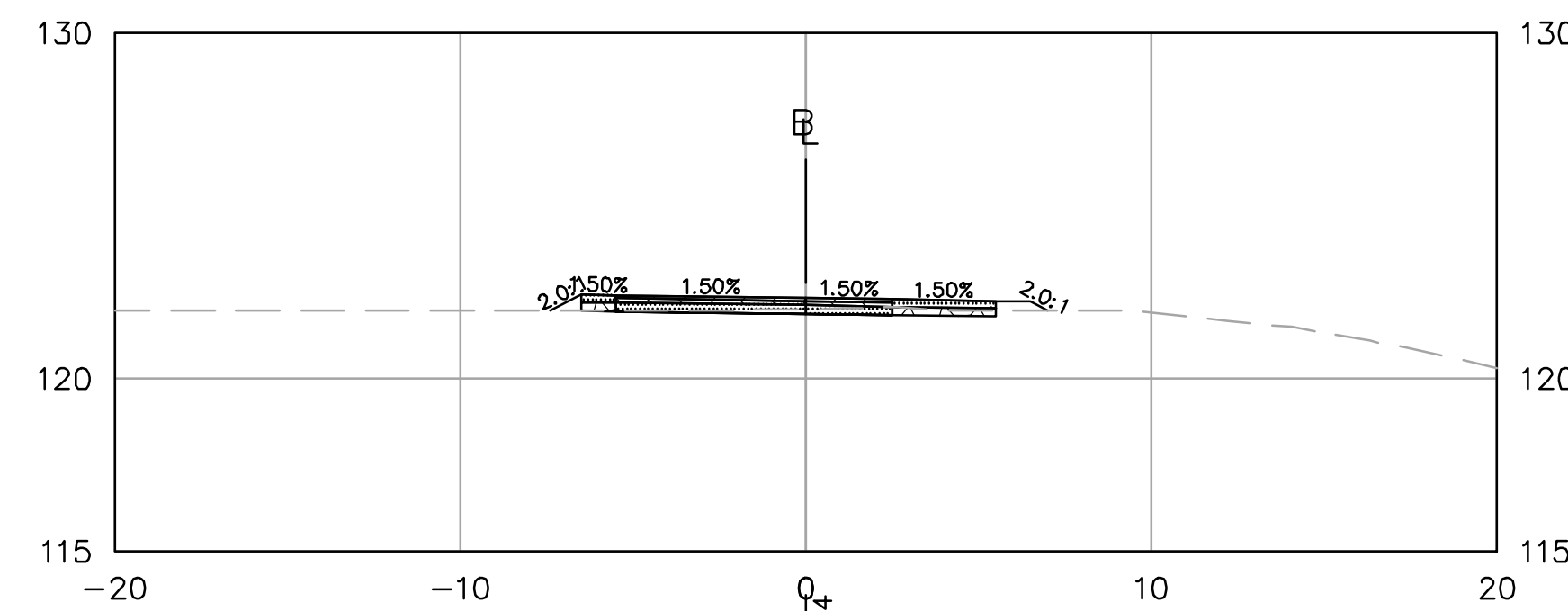
DWG.:

JOB. NO: 8-9985.01

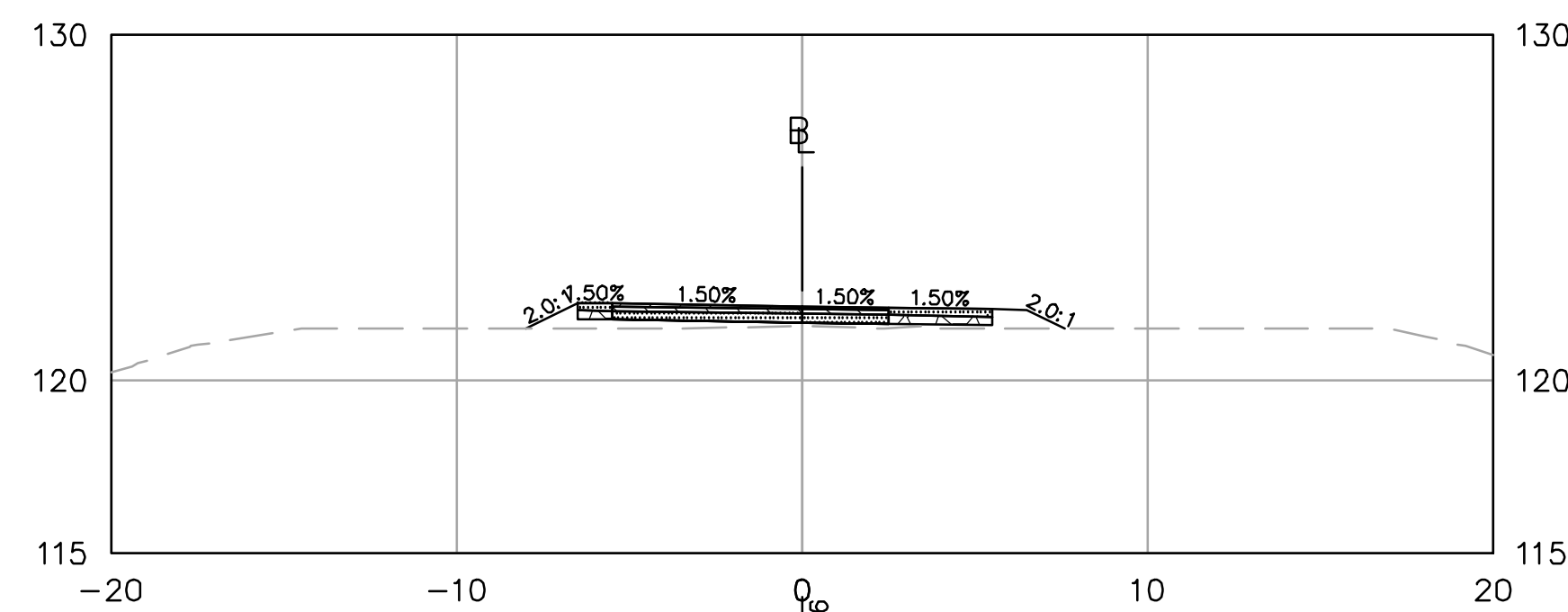
SHEET C-208



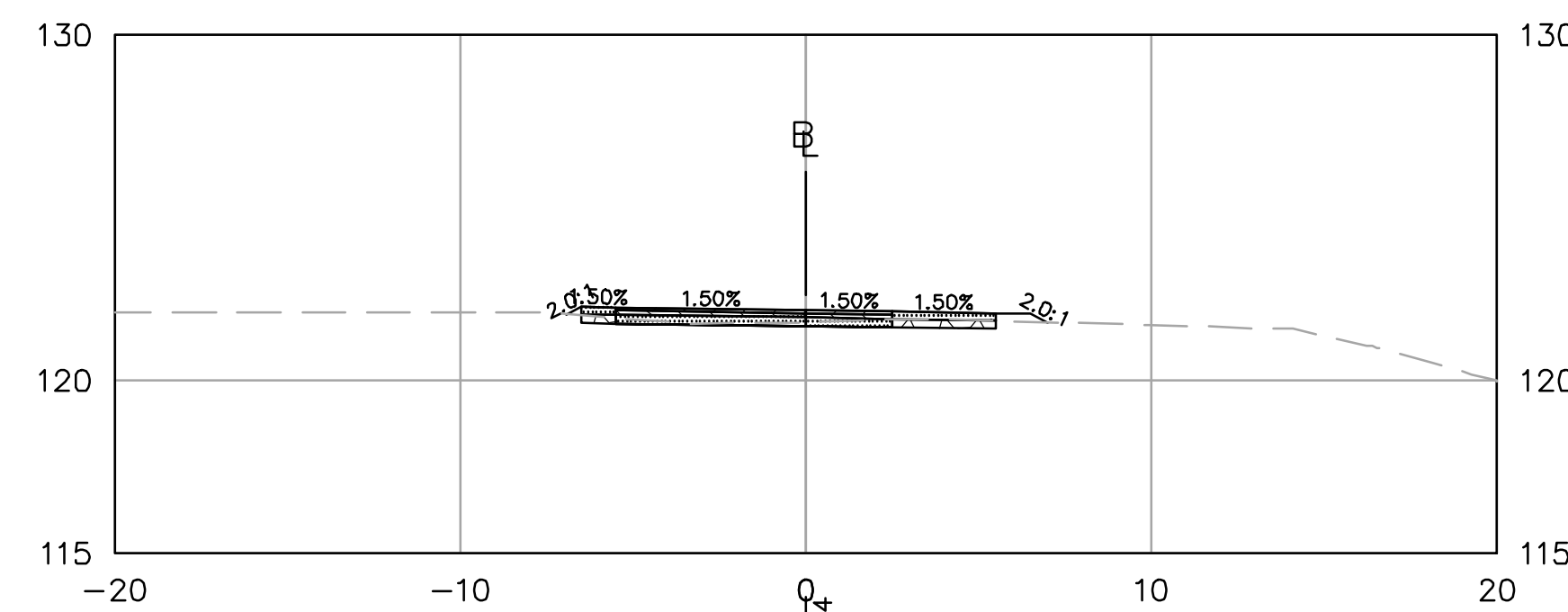
33+50



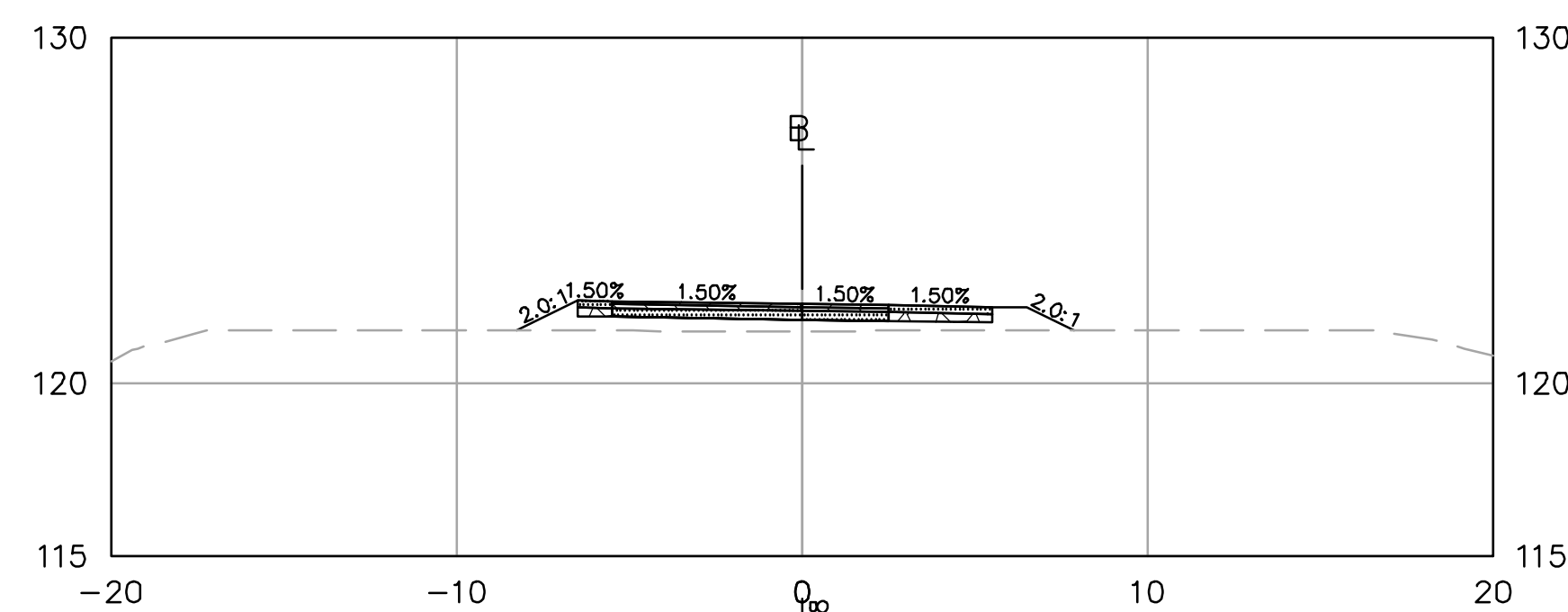
35+50



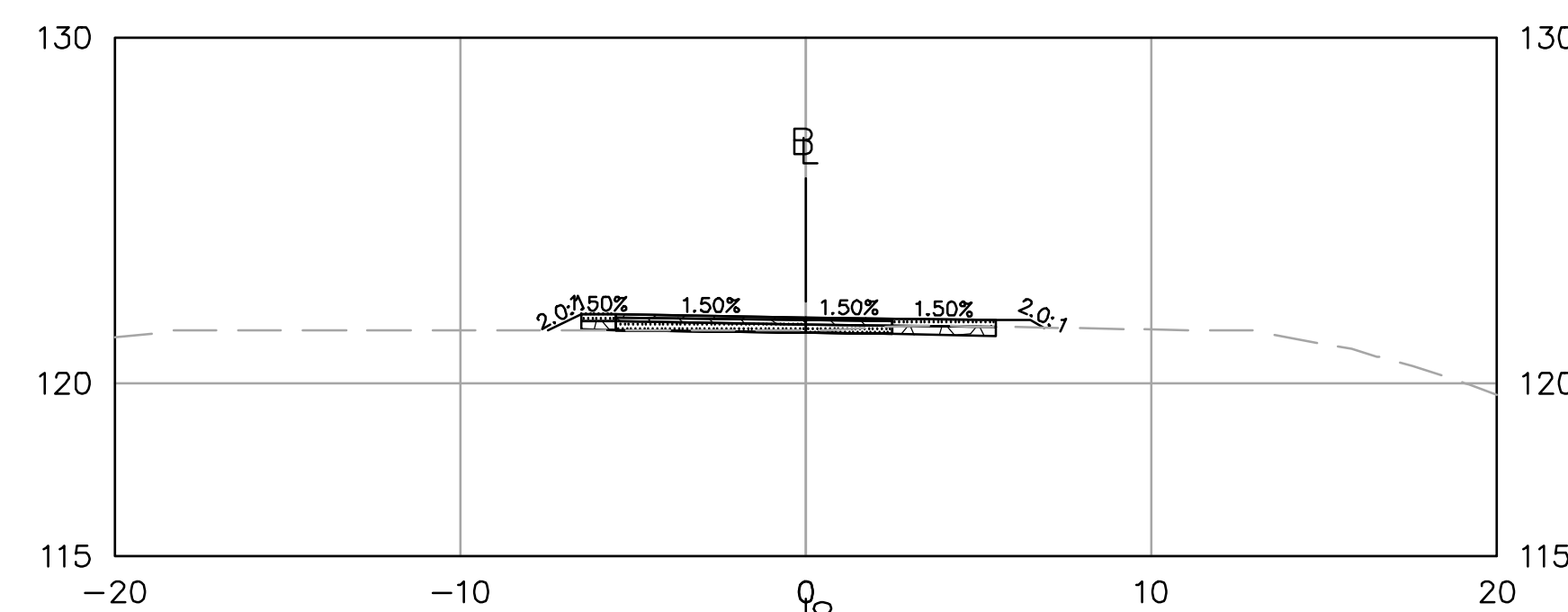
33+00



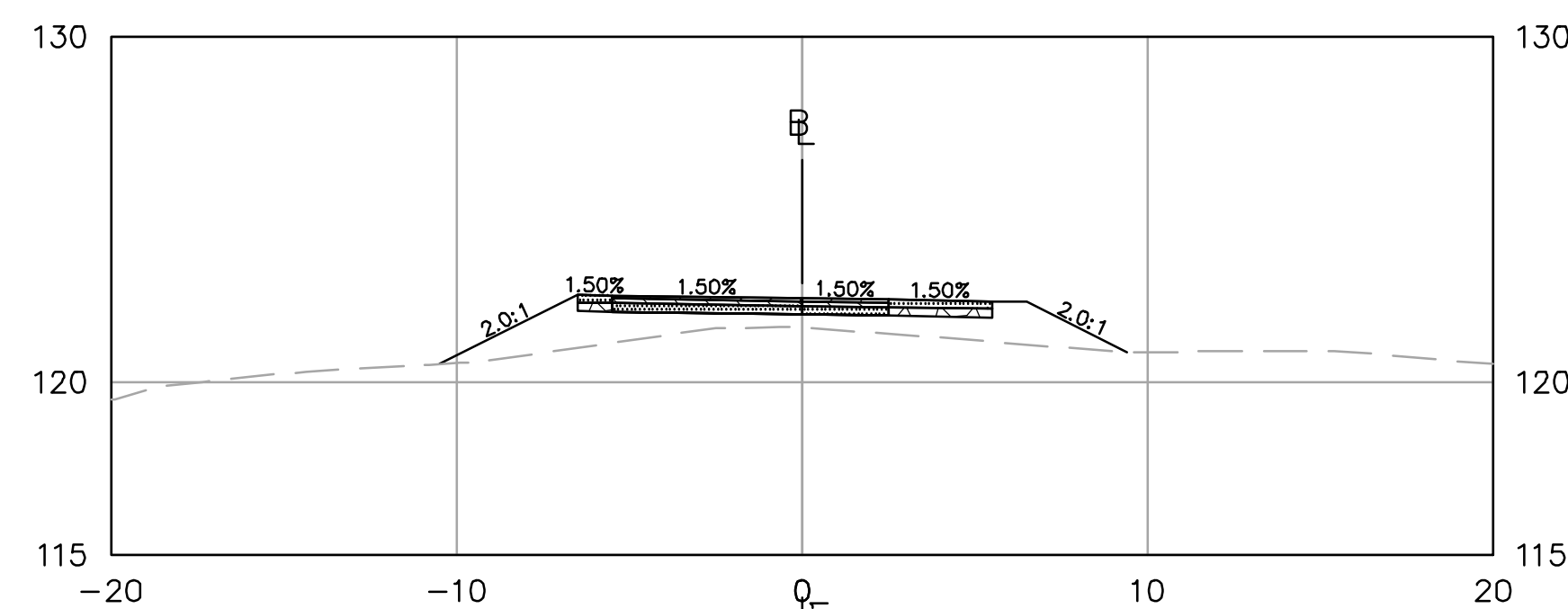
35+00



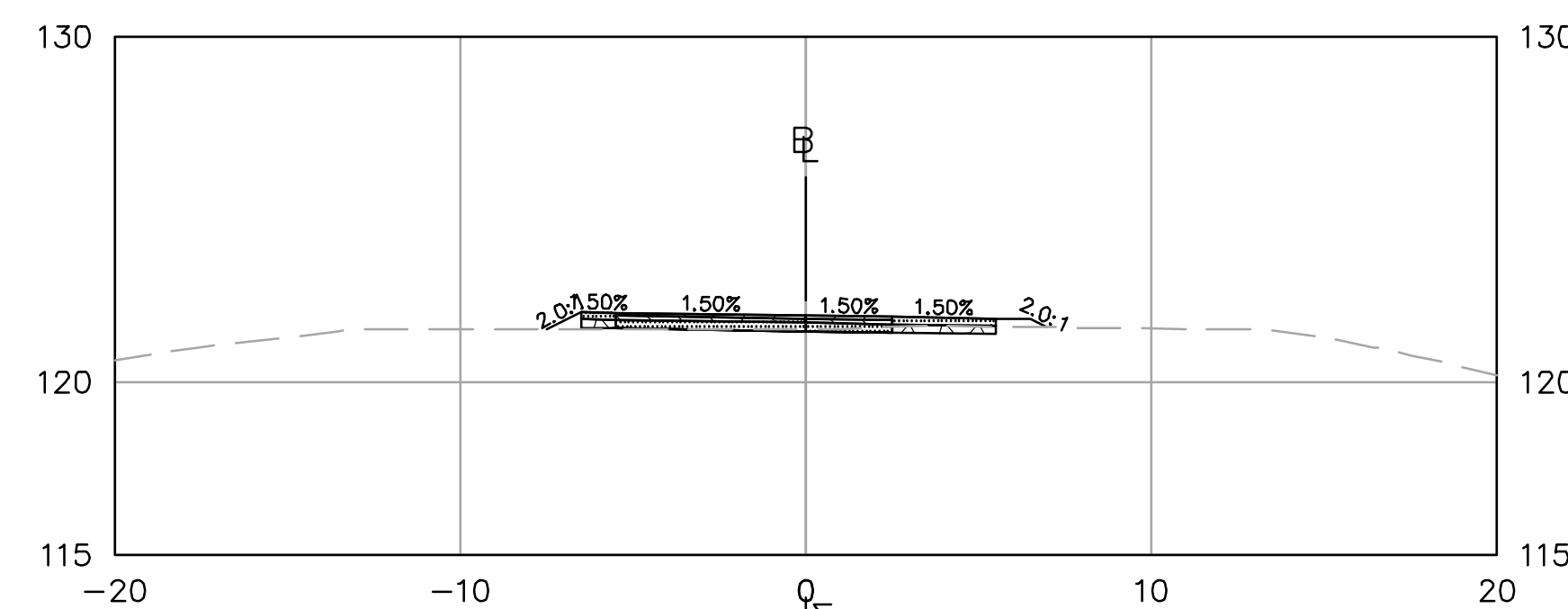
32+50



34+50



32+00



34+00

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

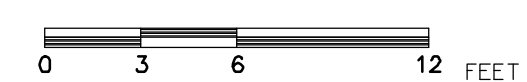
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

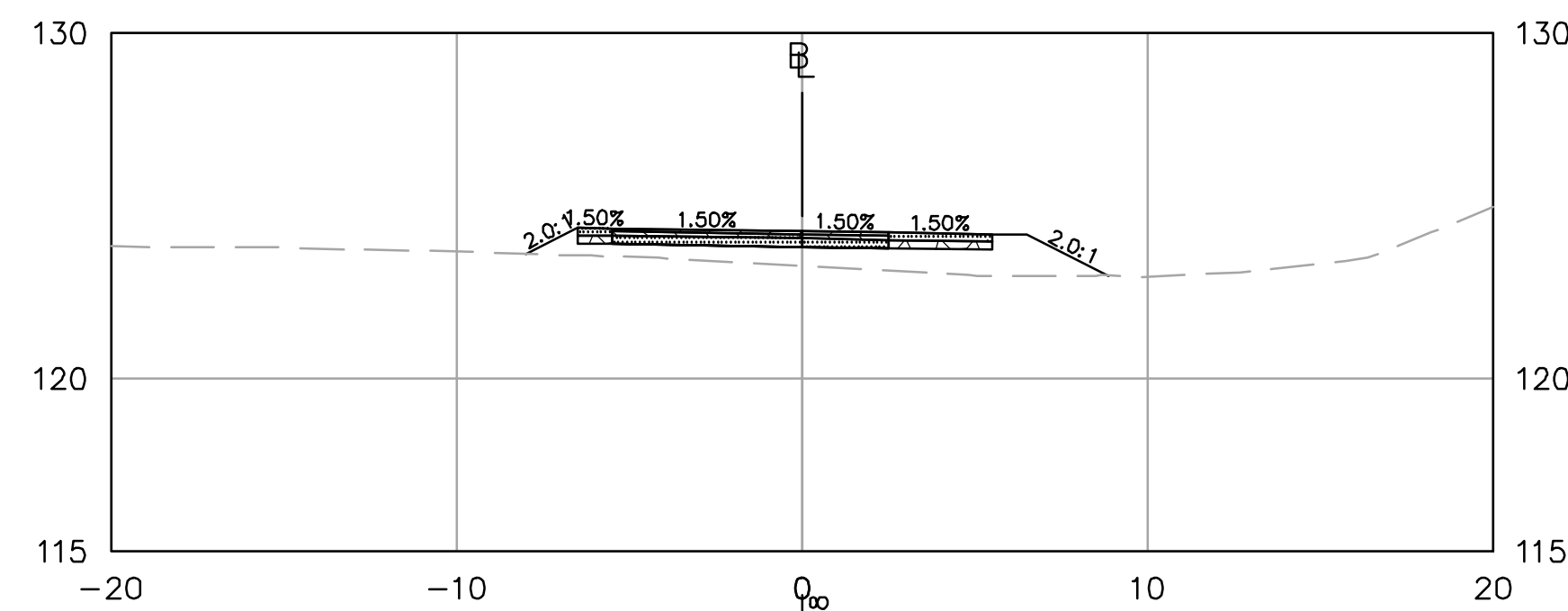


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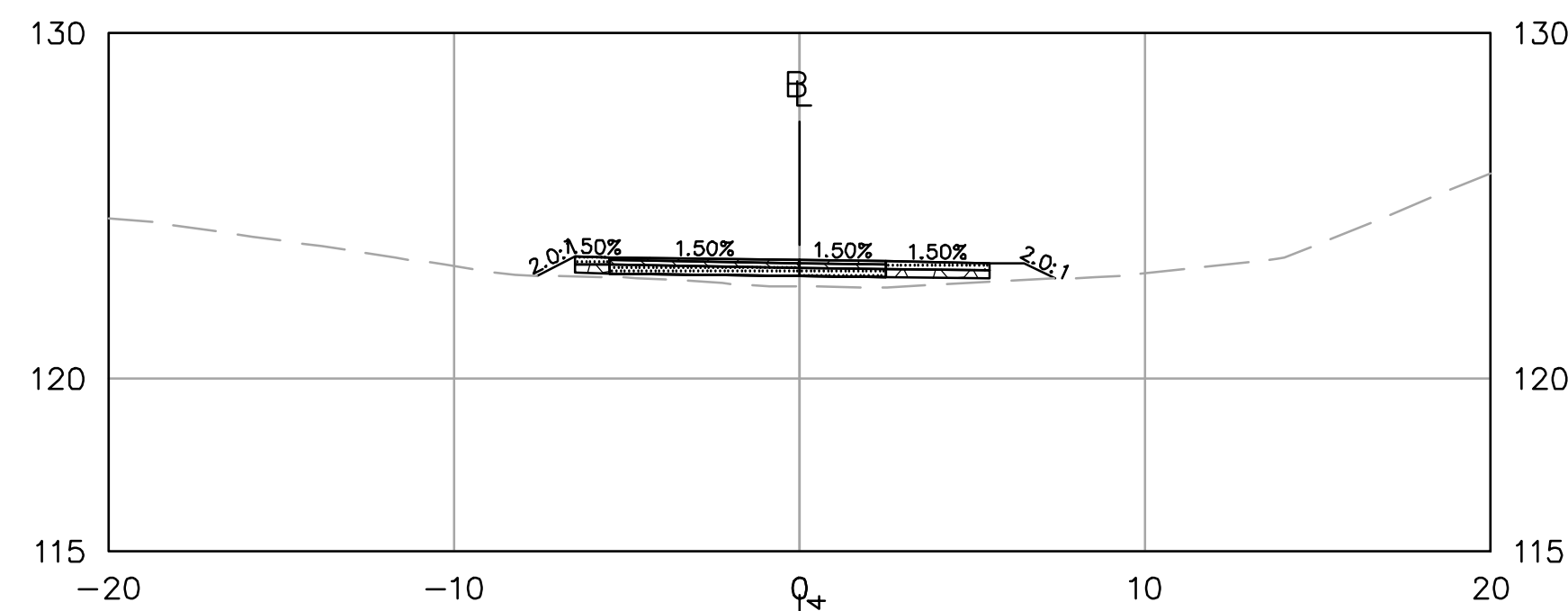
DWG.:

JOB. NO: 8-9985.01

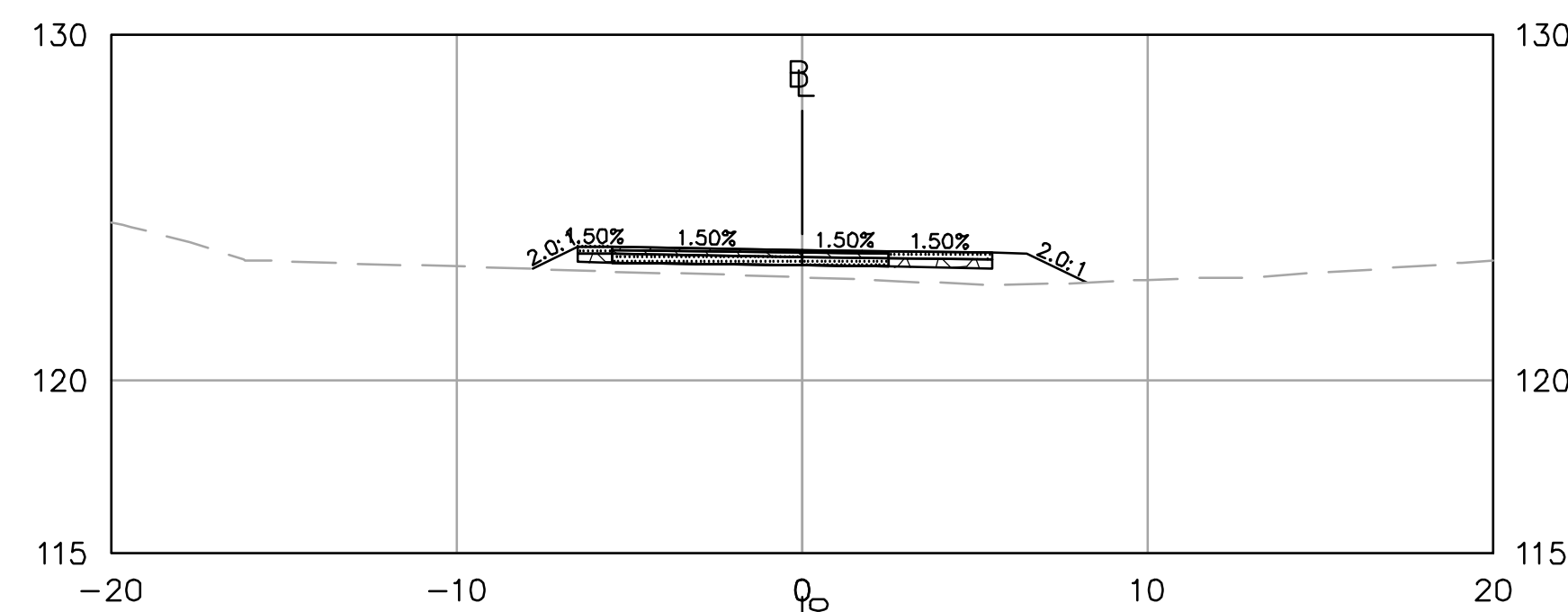
SHEET C-209



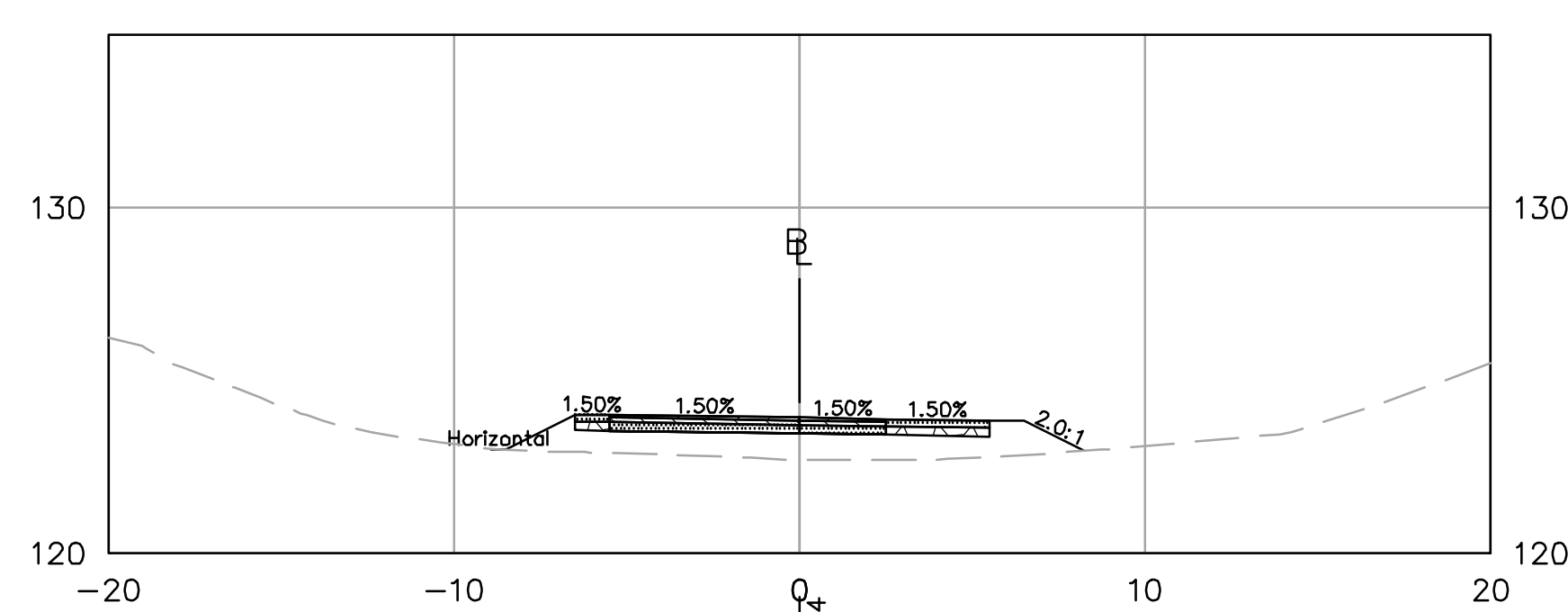
37+50



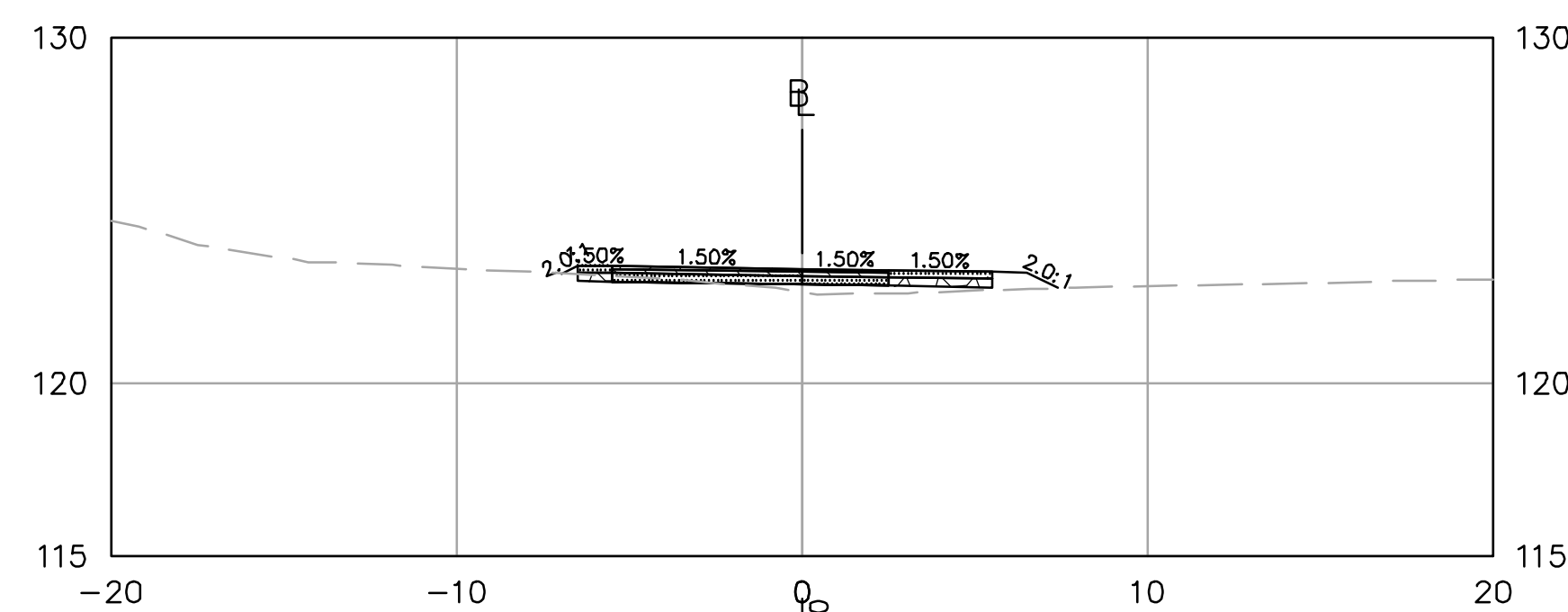
39+50



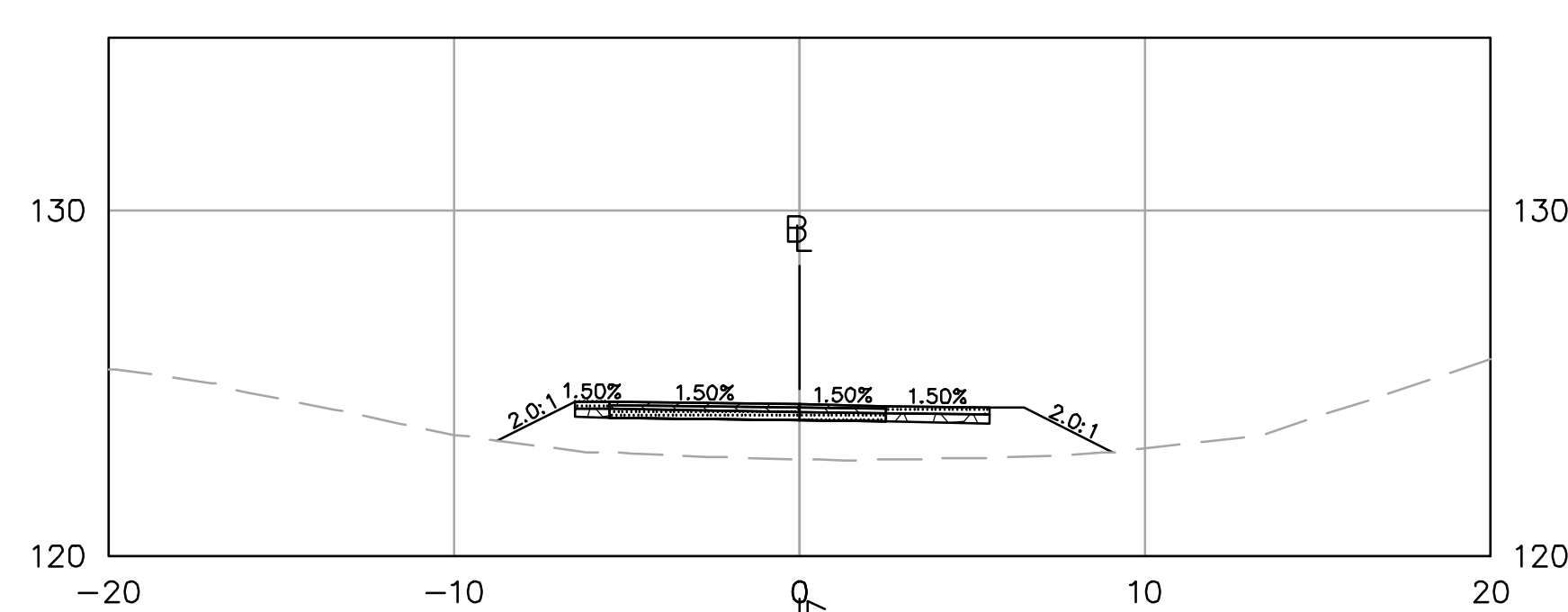
37+00



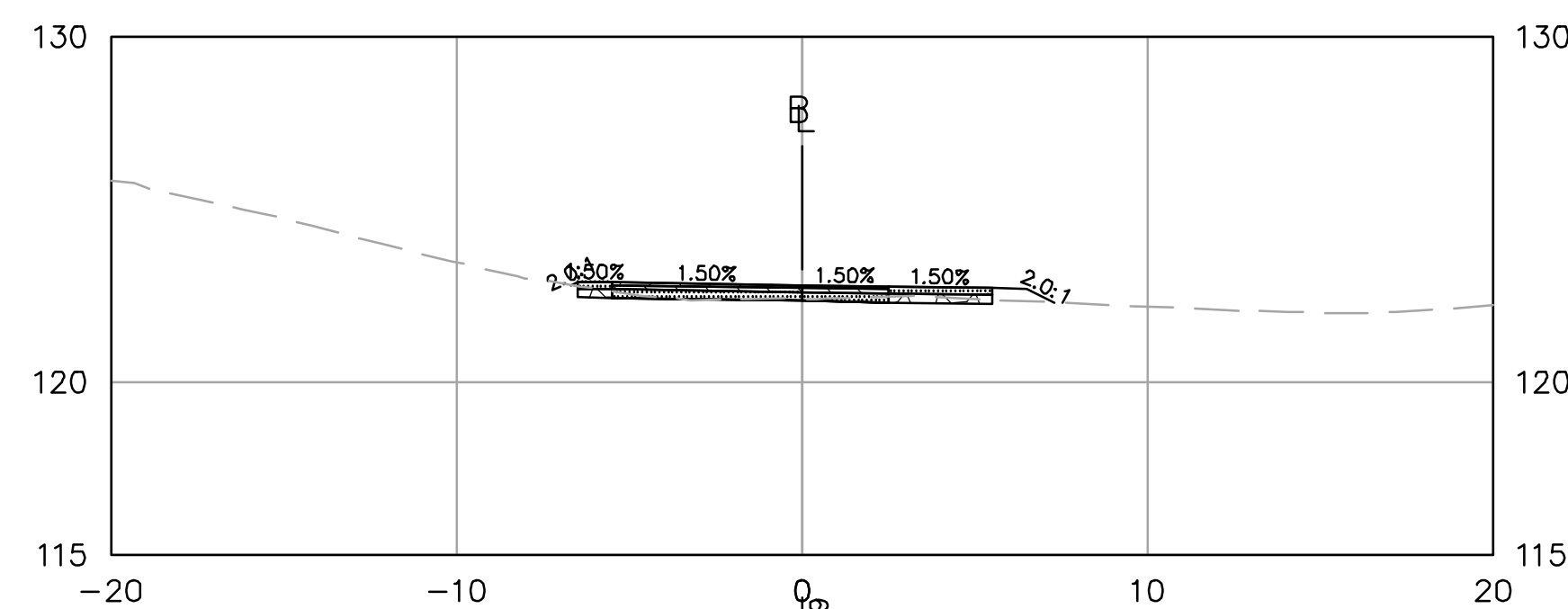
39+00



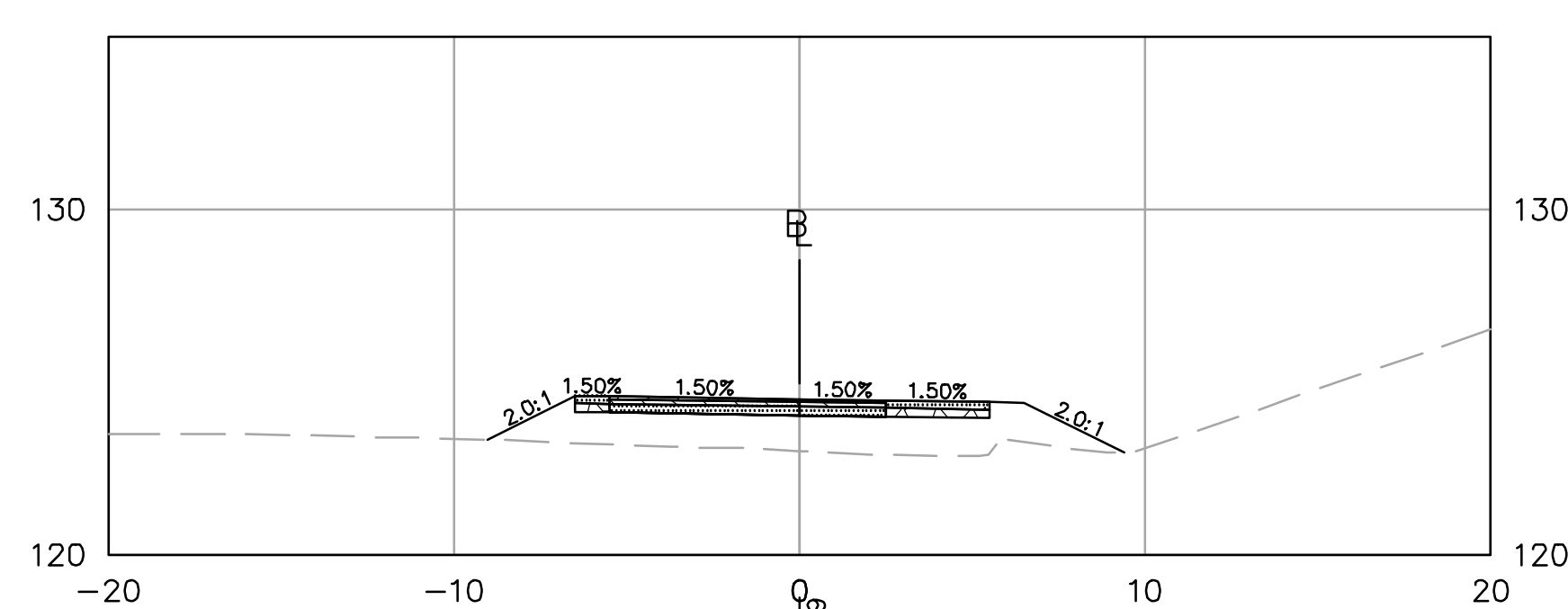
36+50



38+50



36+00



38+00

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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

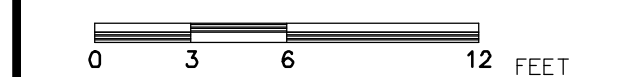
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

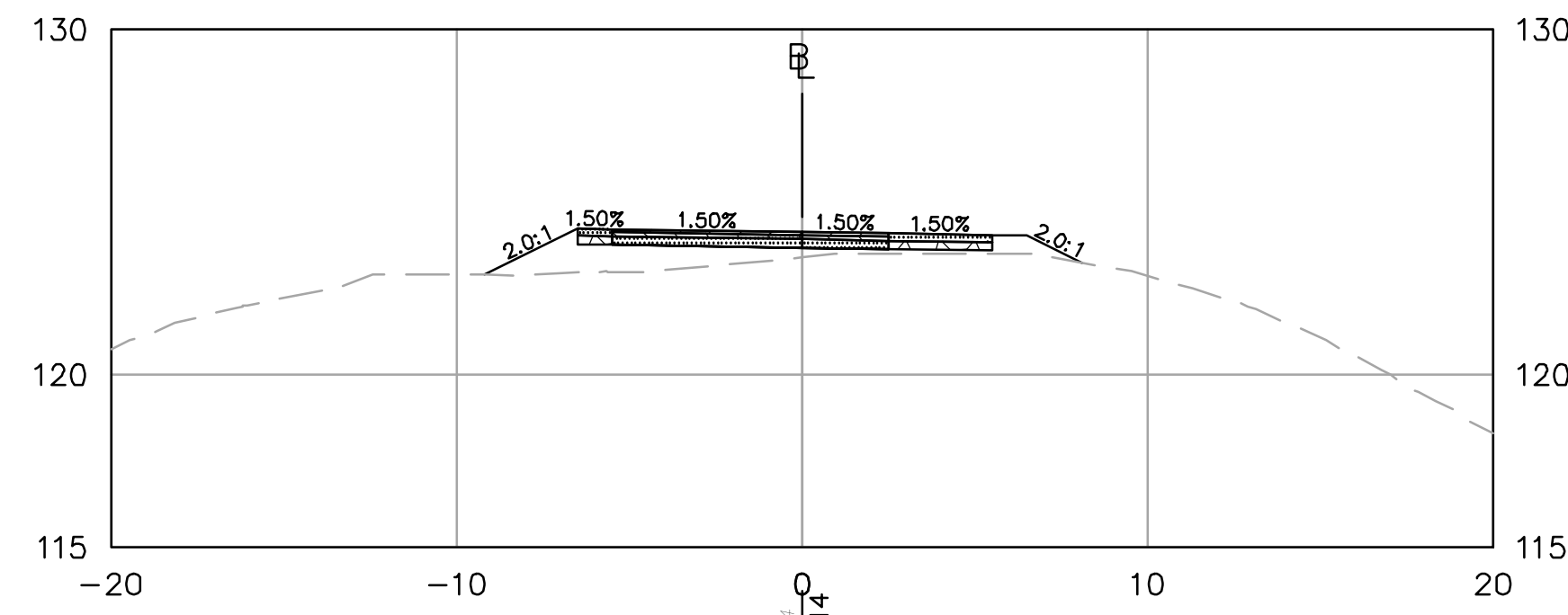


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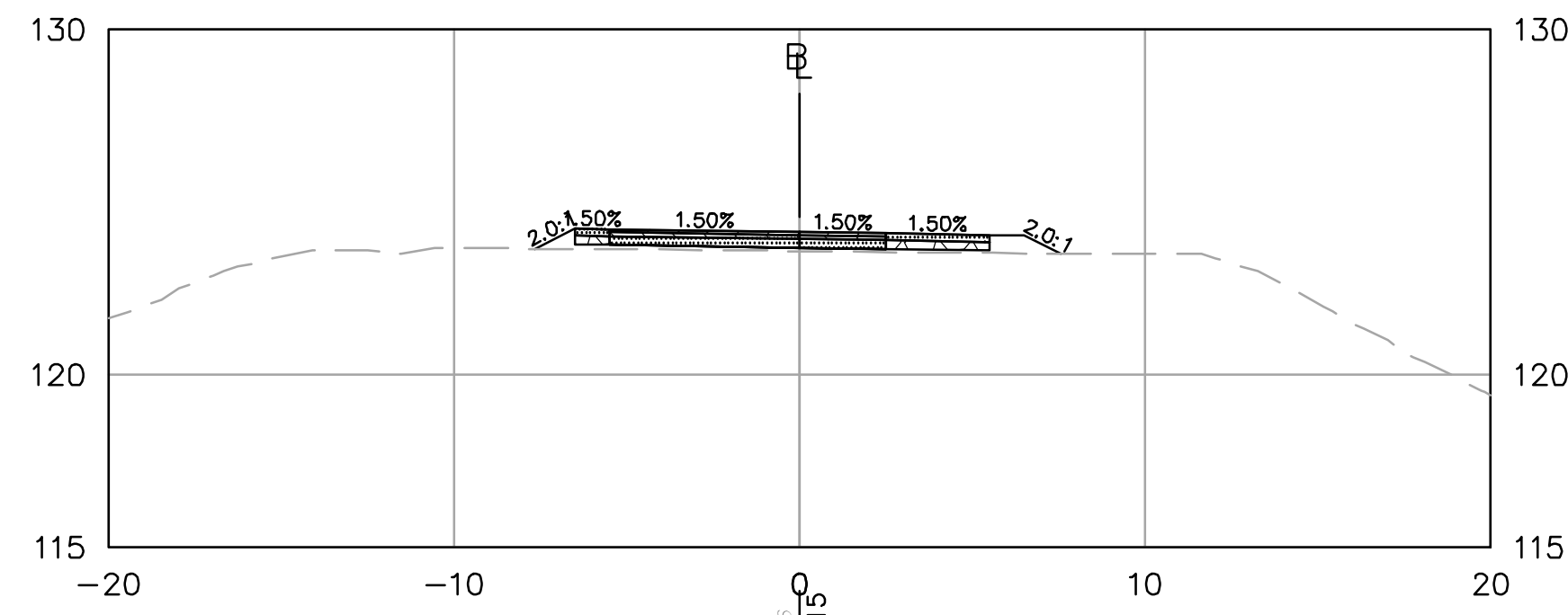
DWG.:

JOB. NO: 8-9985.01

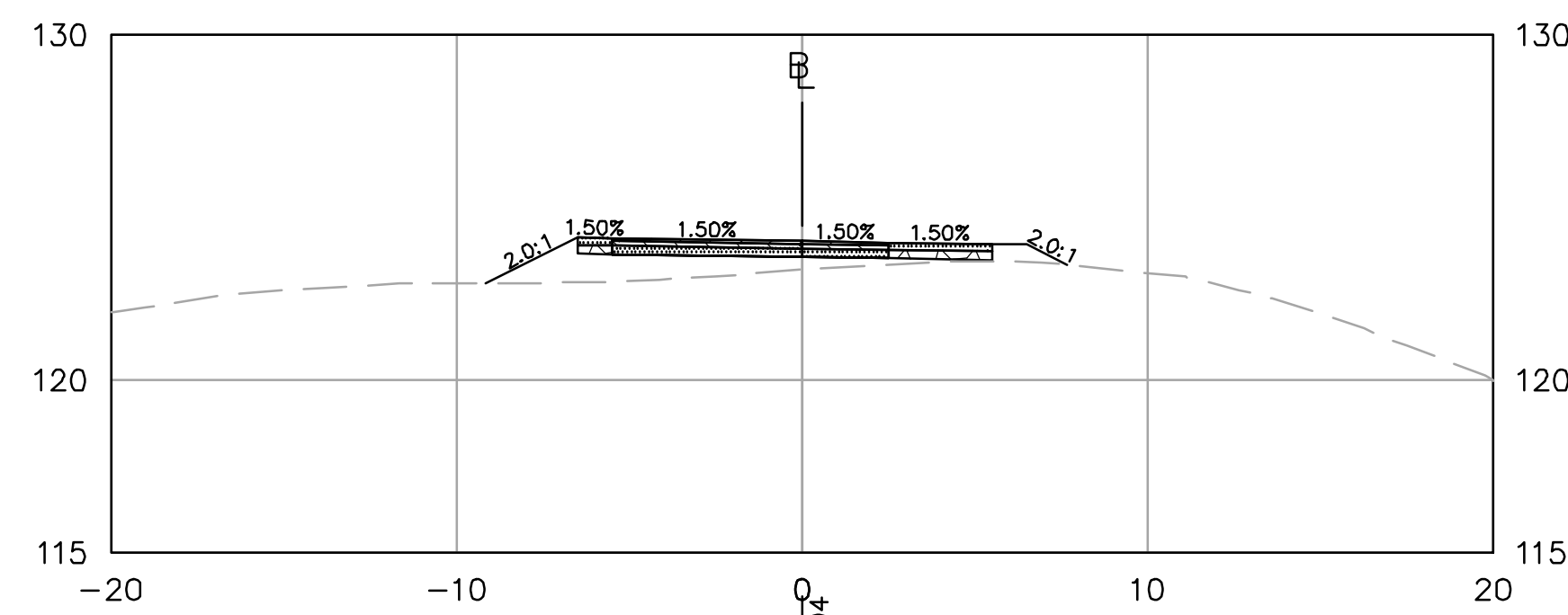
SHEET C-210



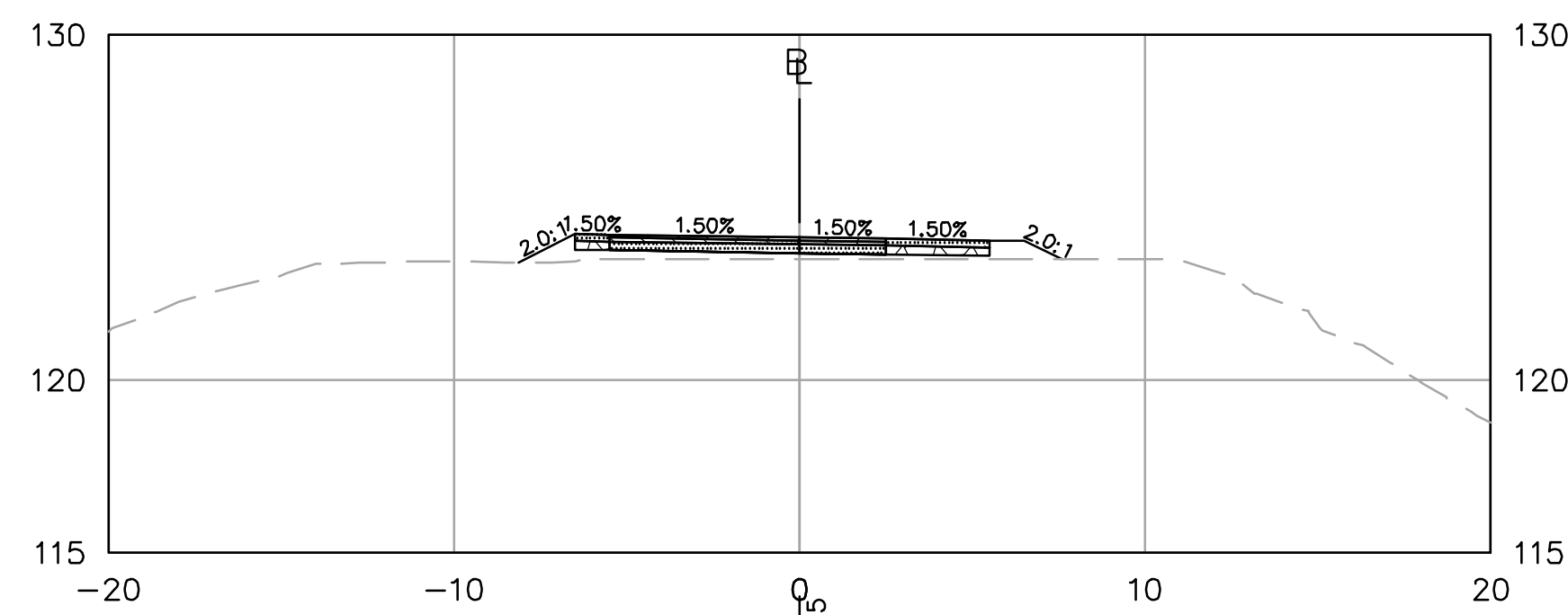
41+50



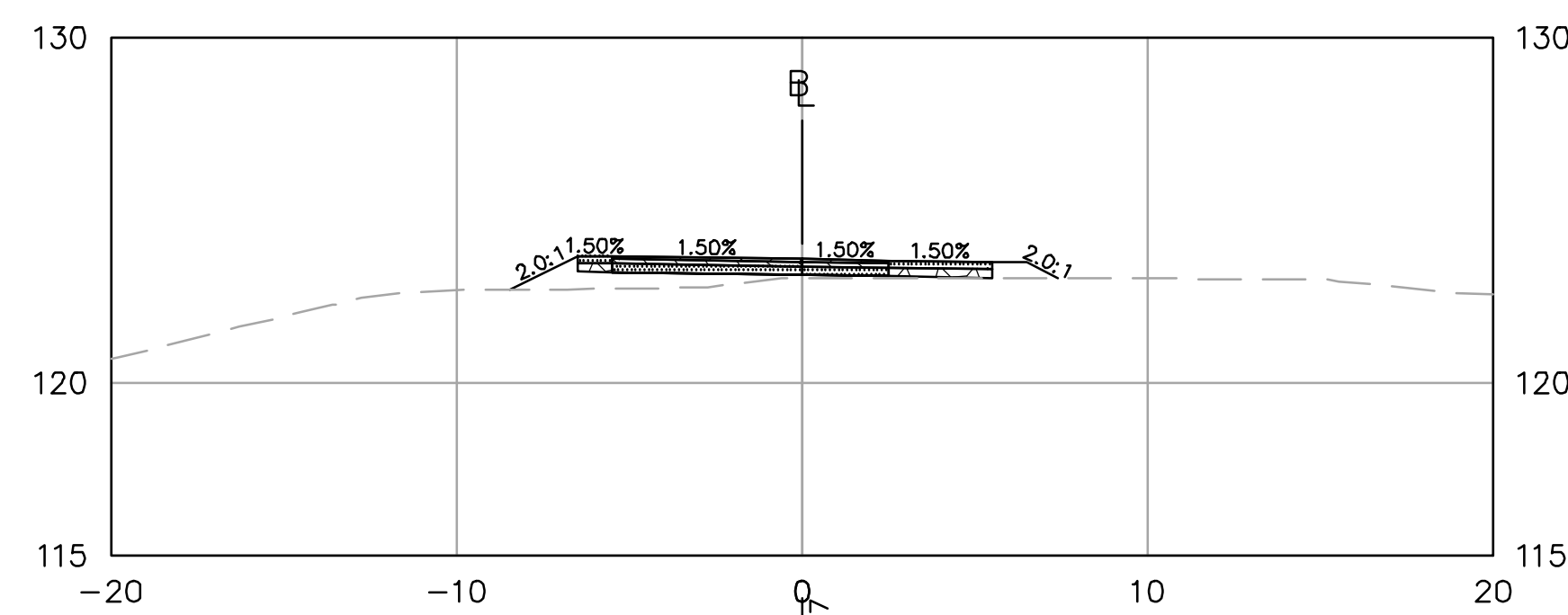
43+50



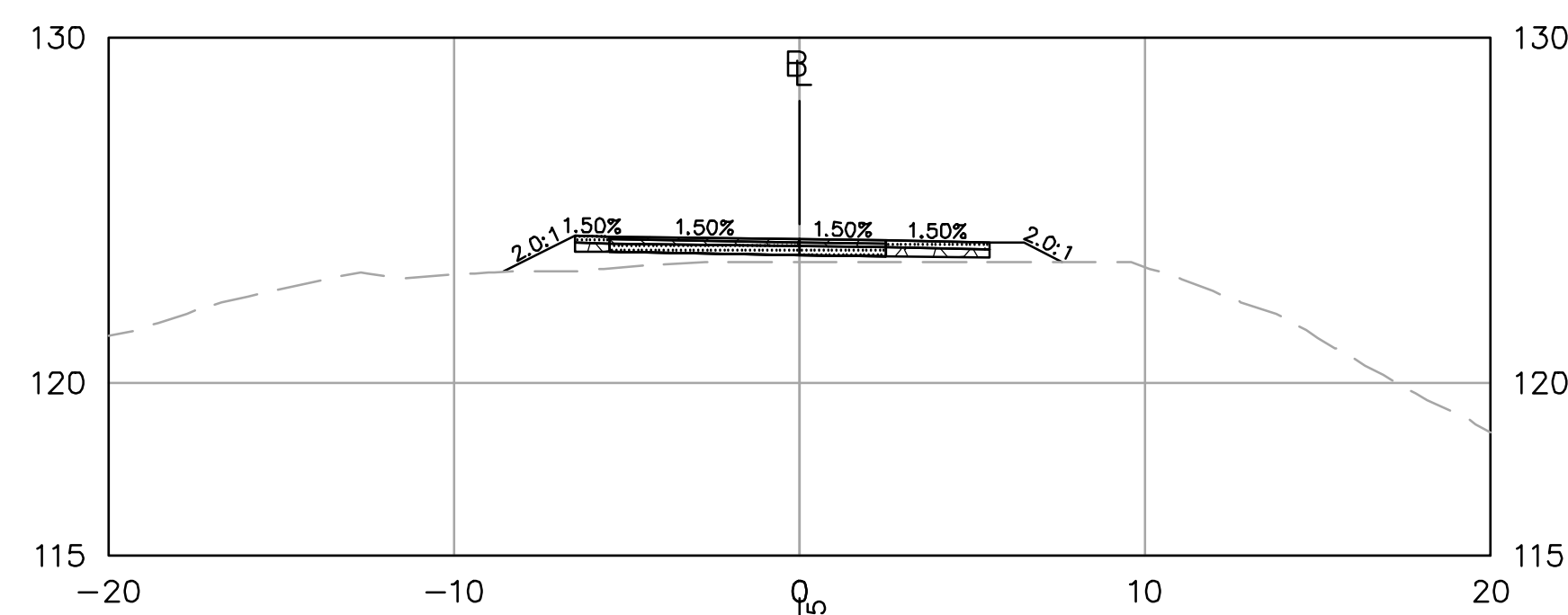
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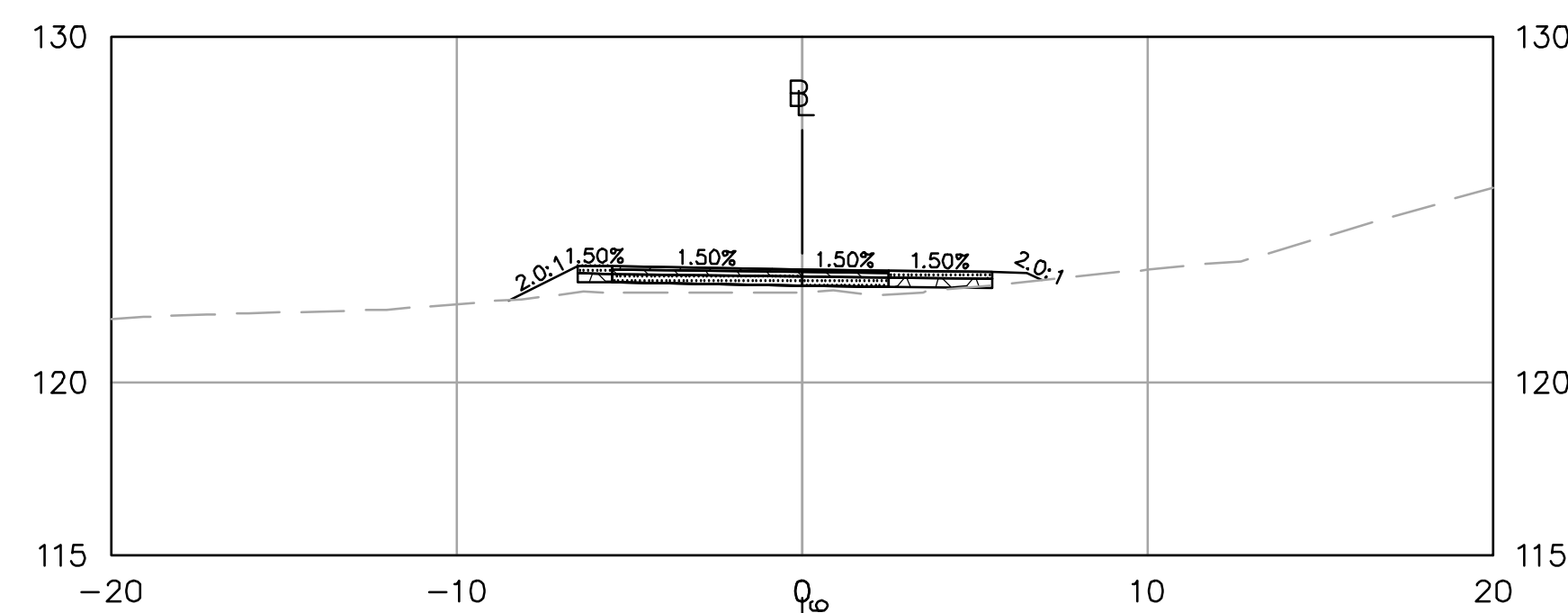
43+00



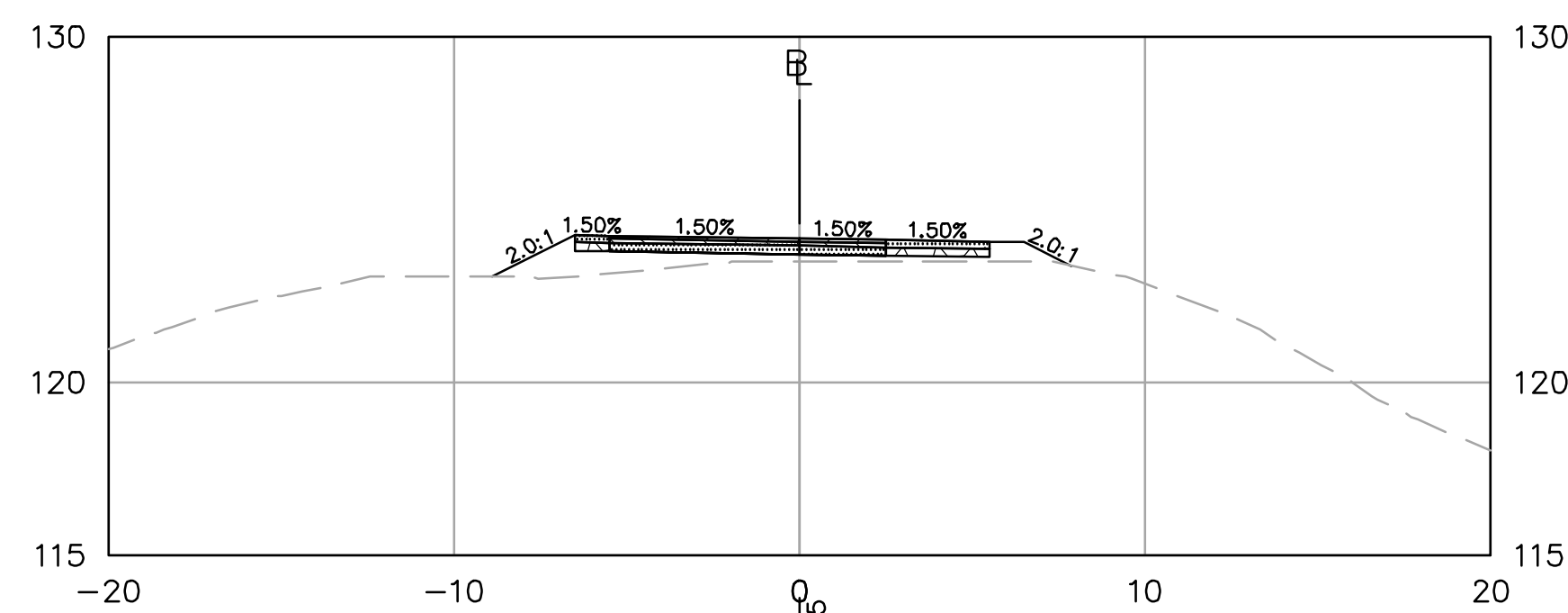
40+50



42+50



40+00



42+00

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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

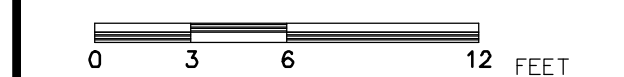
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

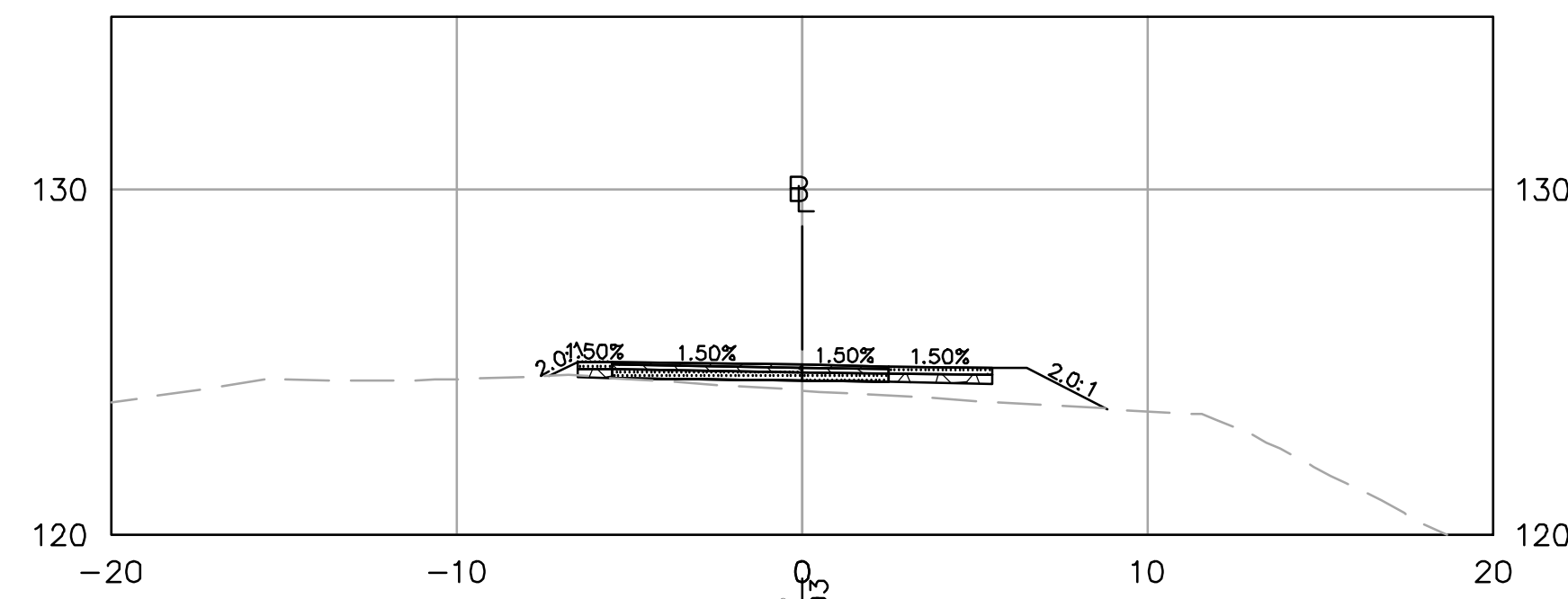


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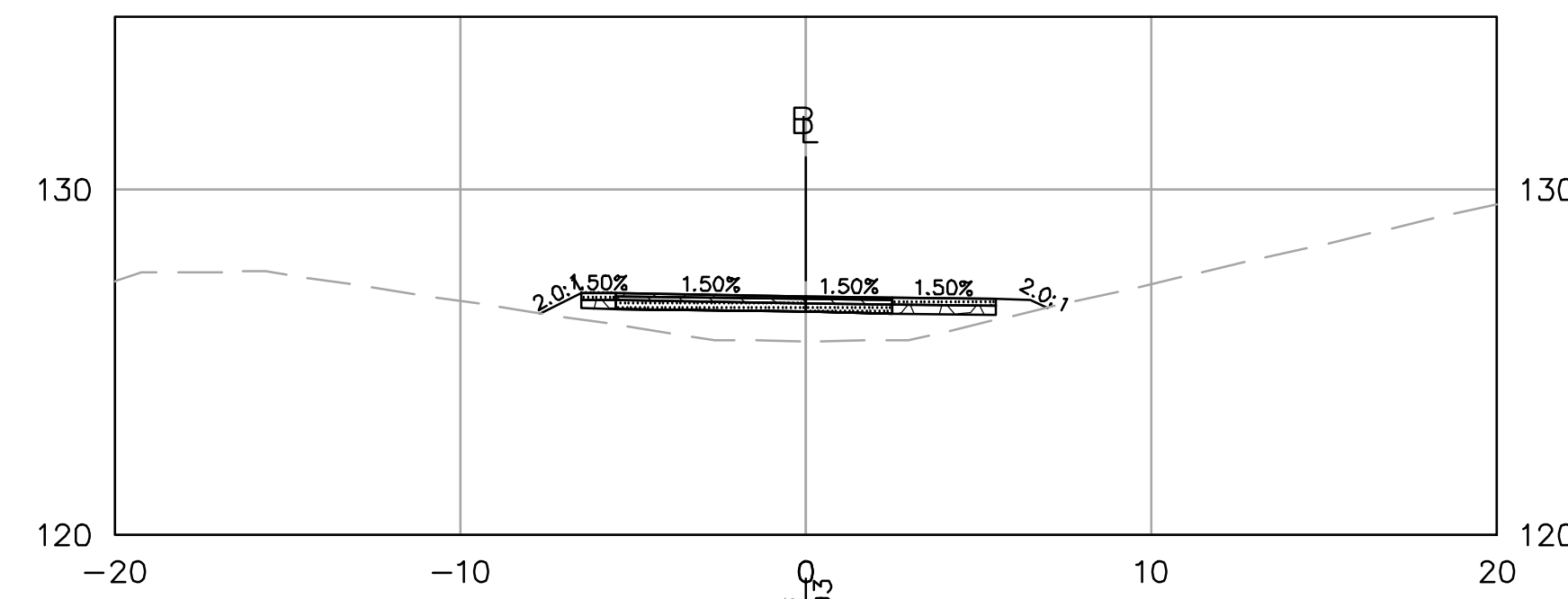
DWG.:

JOB. NO: 8-9985.01

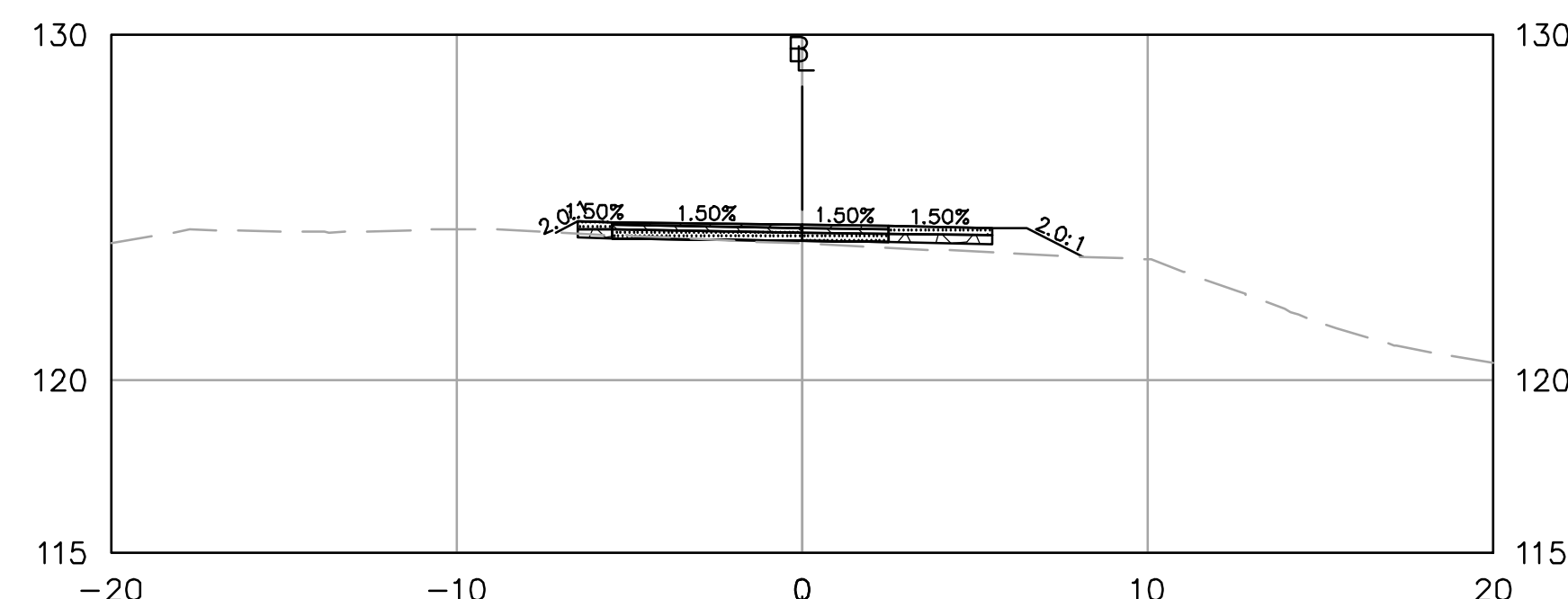
SHEET C-211



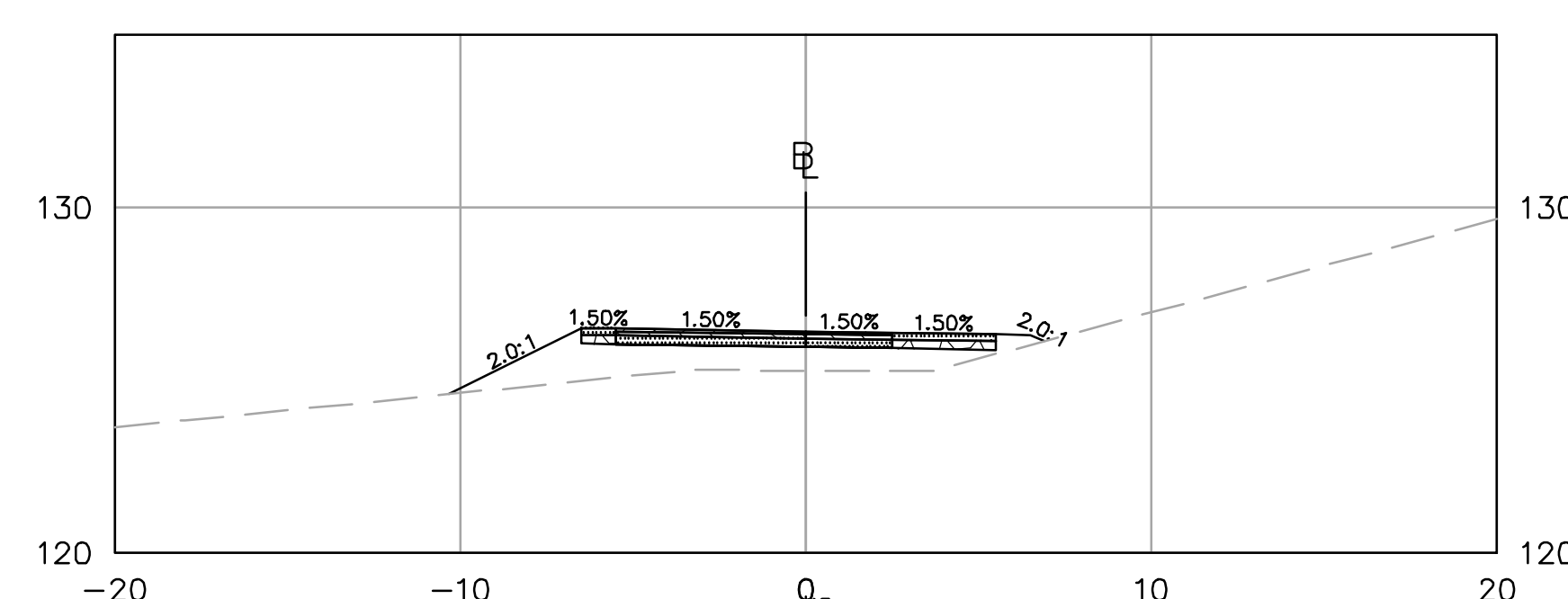
45+50



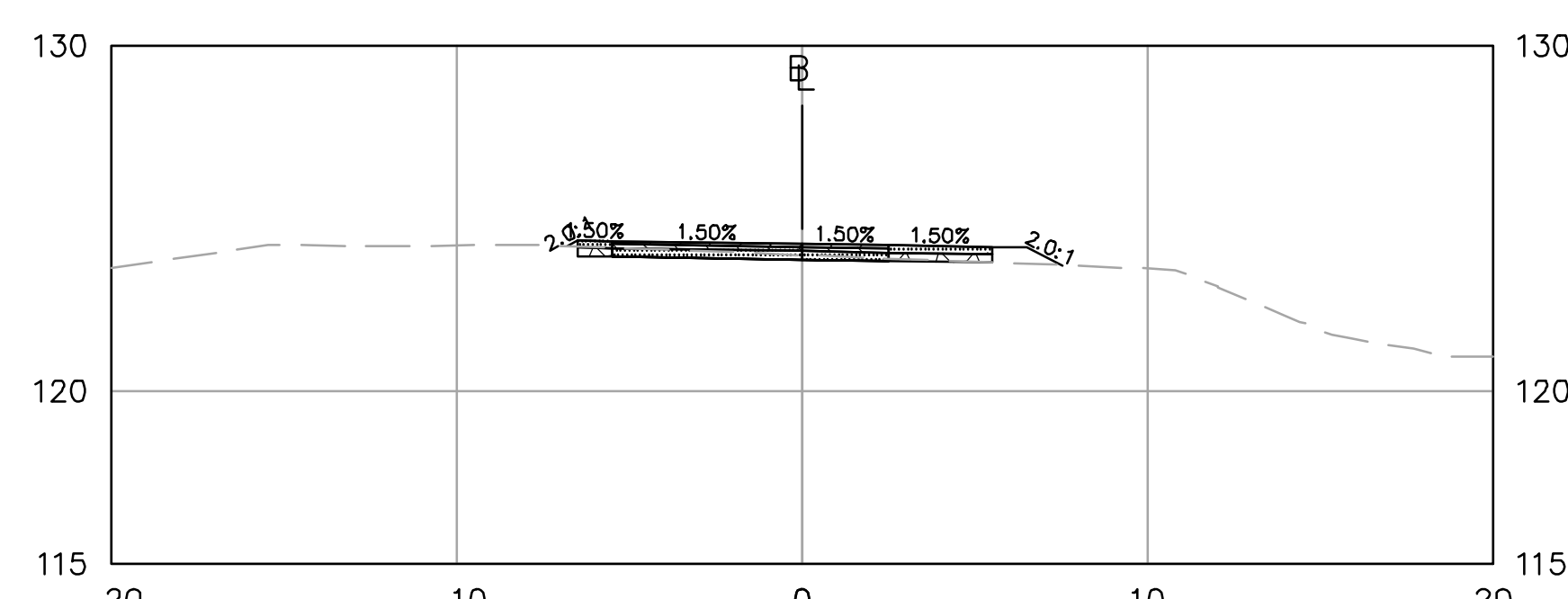
47+50



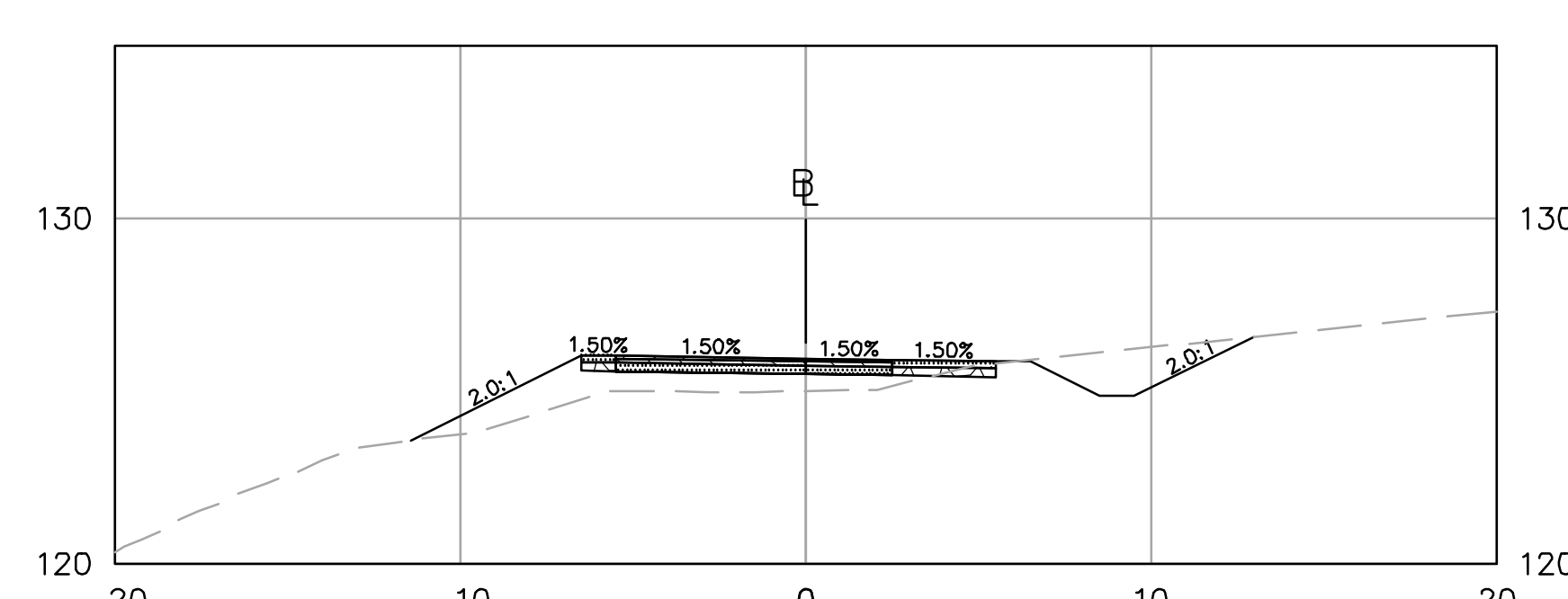
45+00



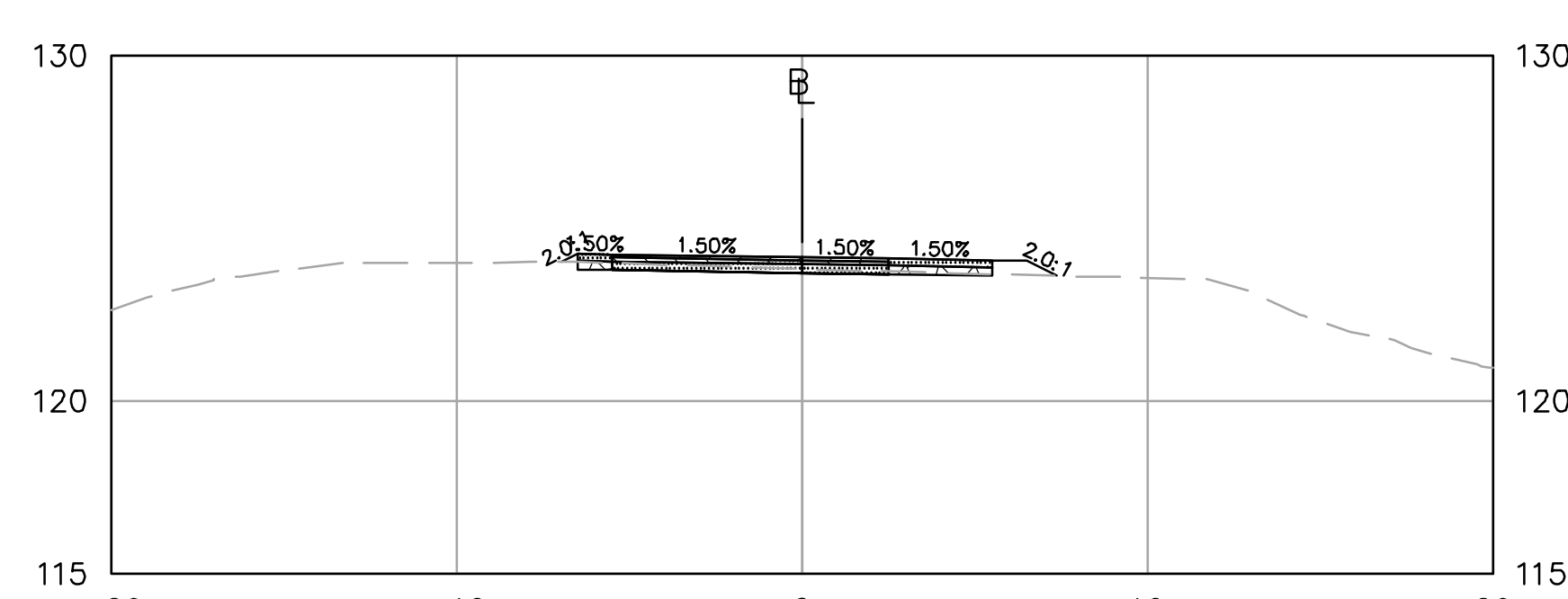
47+00



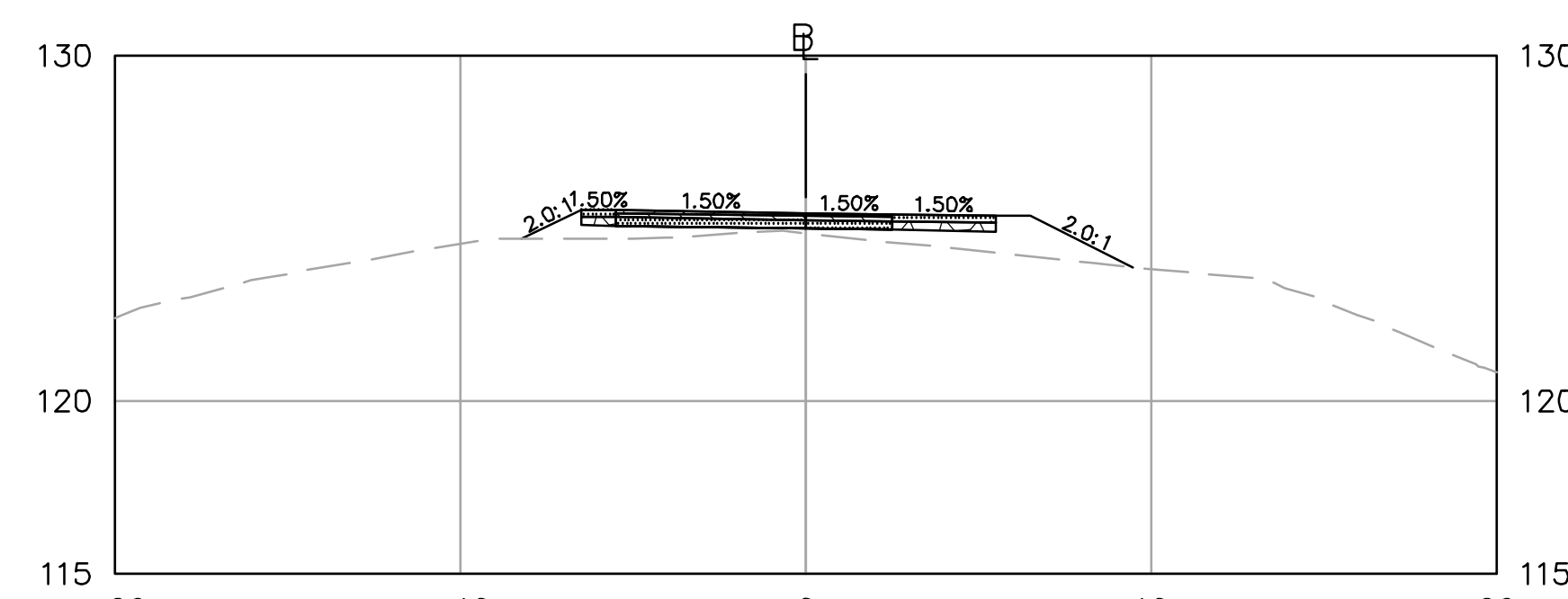
44+50



46+50



44+00



46+00

ISSUED FOR PERMITTING
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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

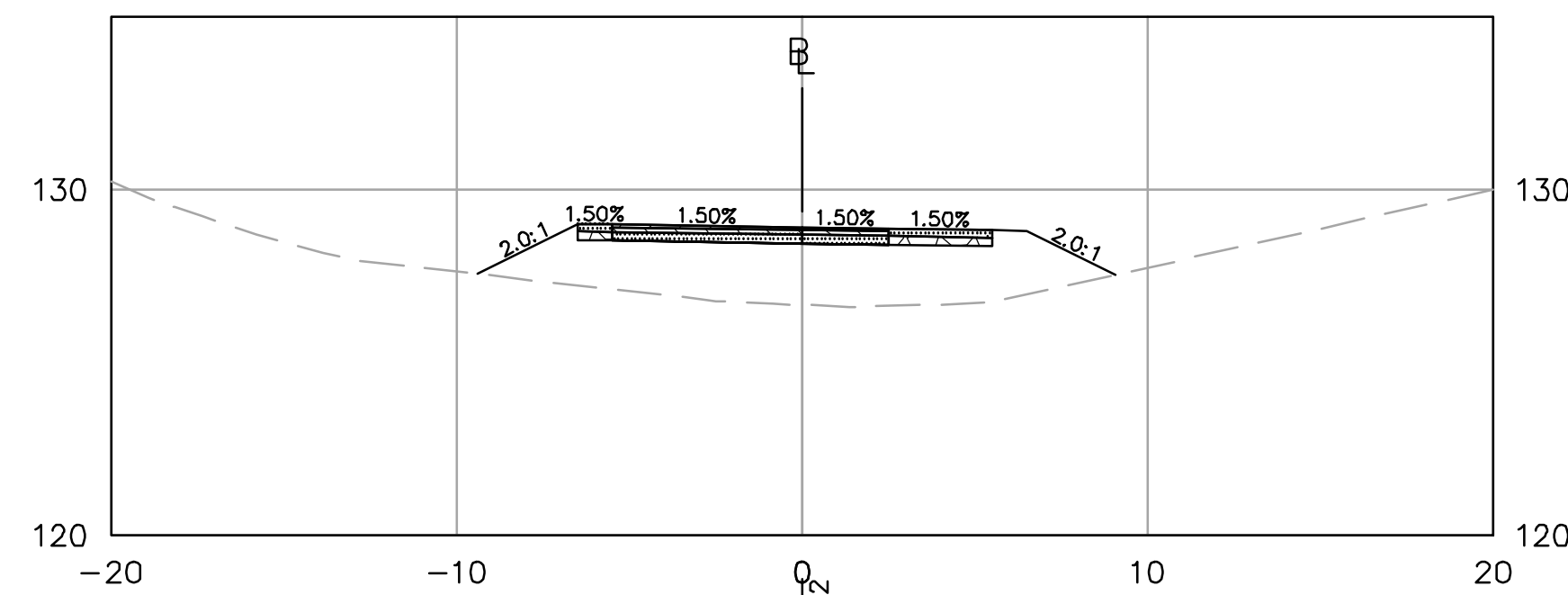


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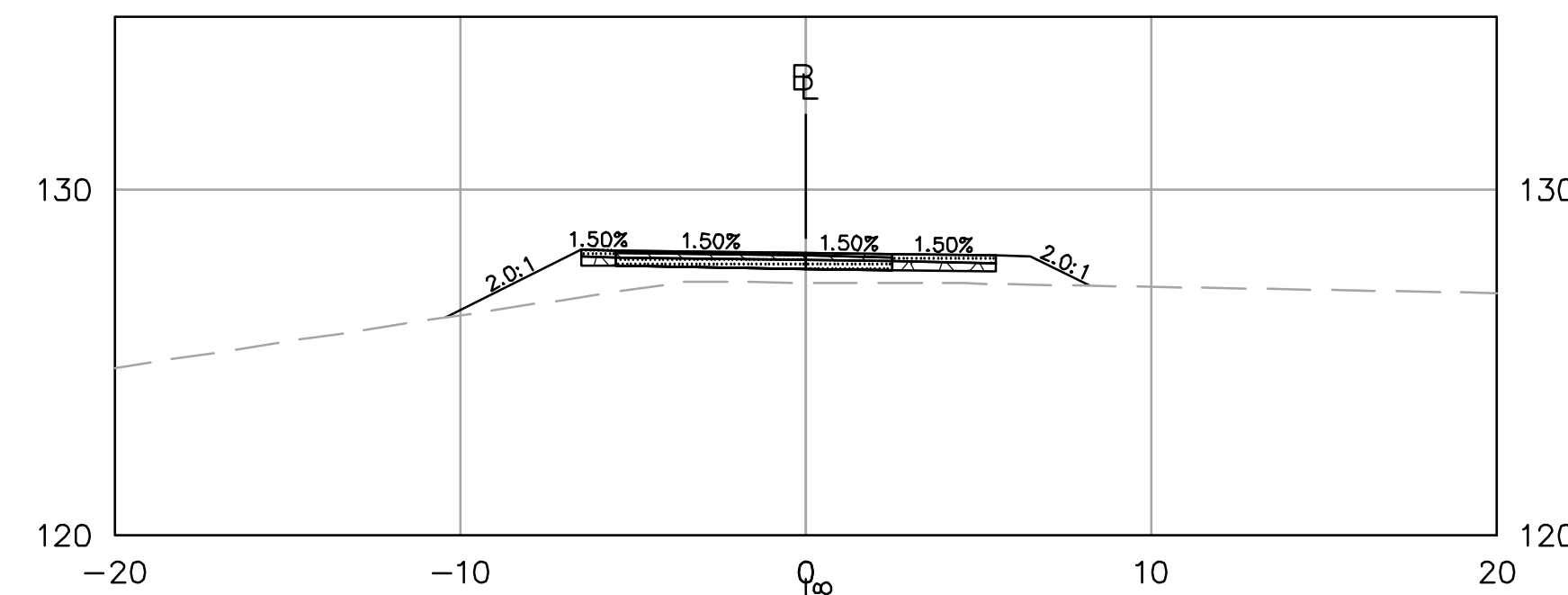
DWG.:

JOB. NO: 8-9985.01

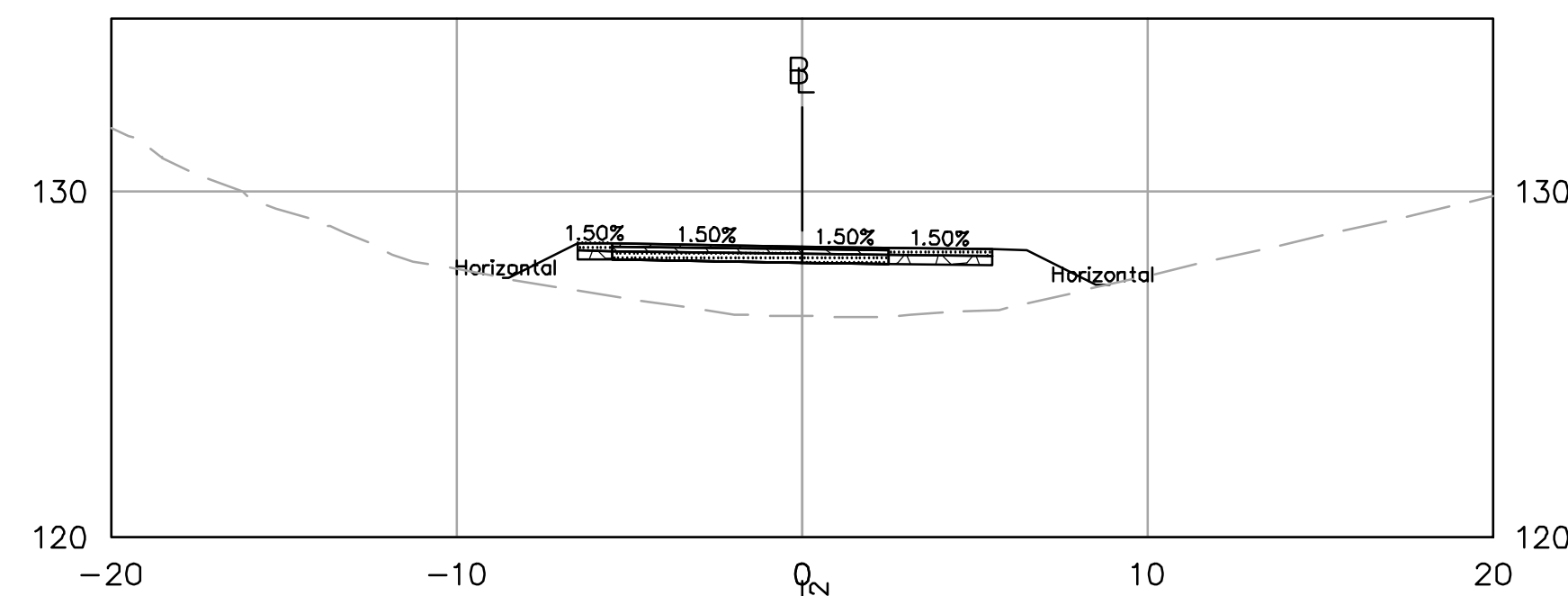
SHEET C-212



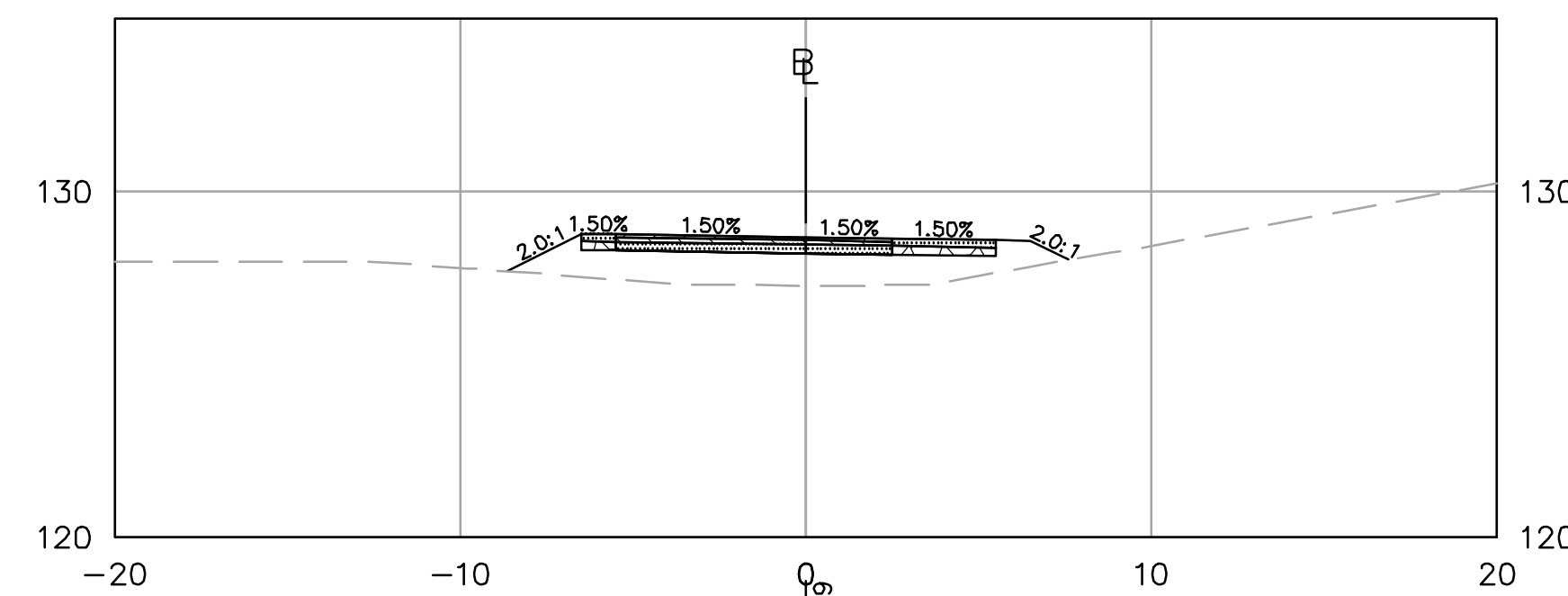
49+50



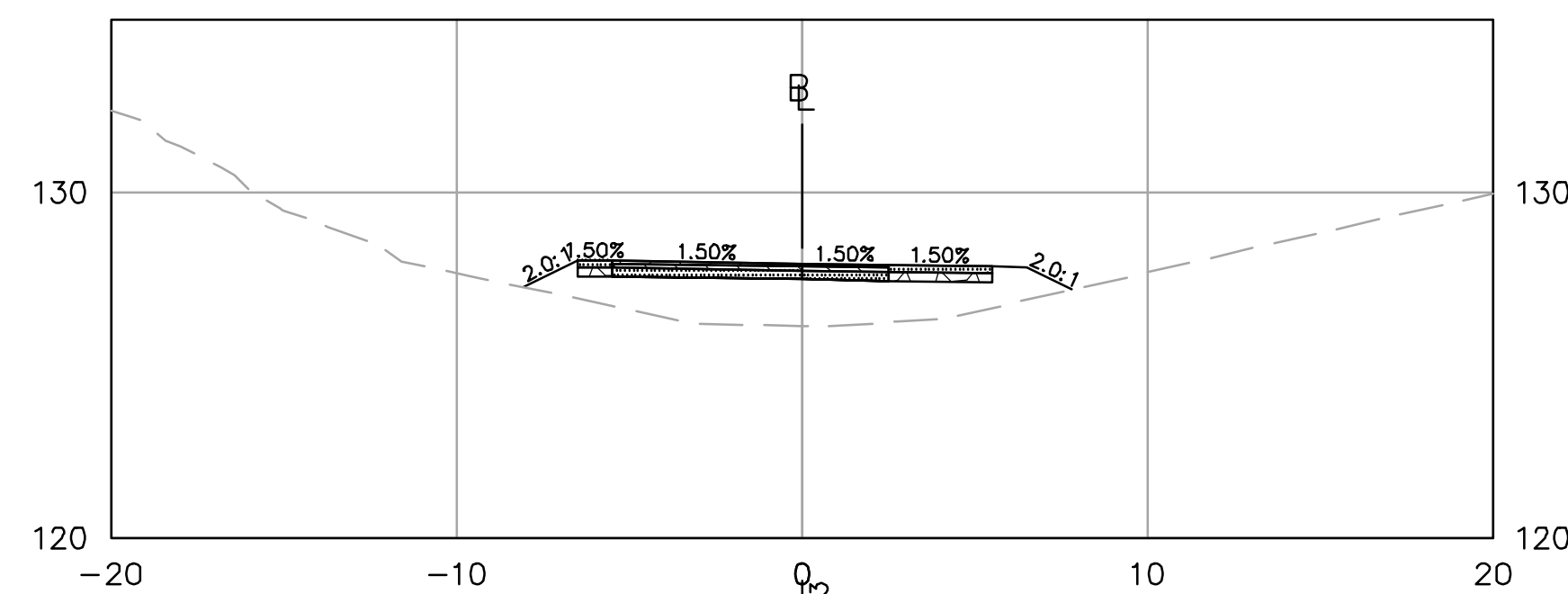
51+50



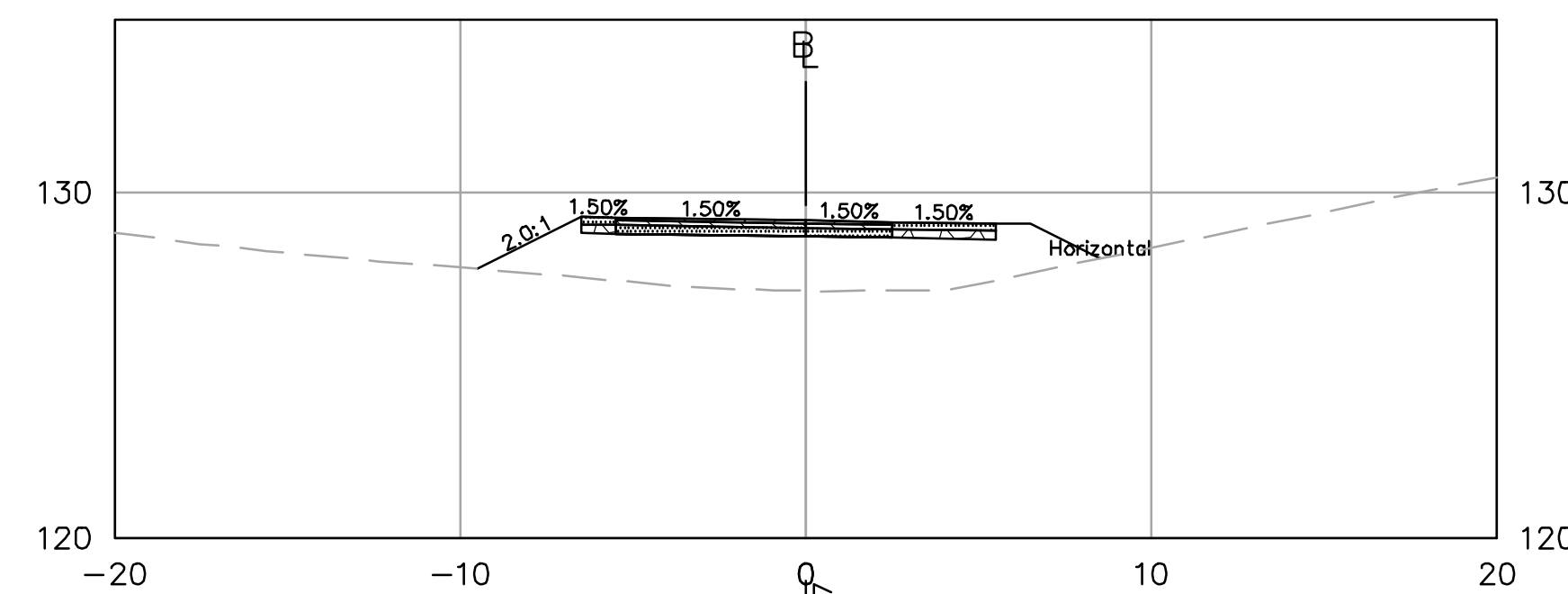
49+00



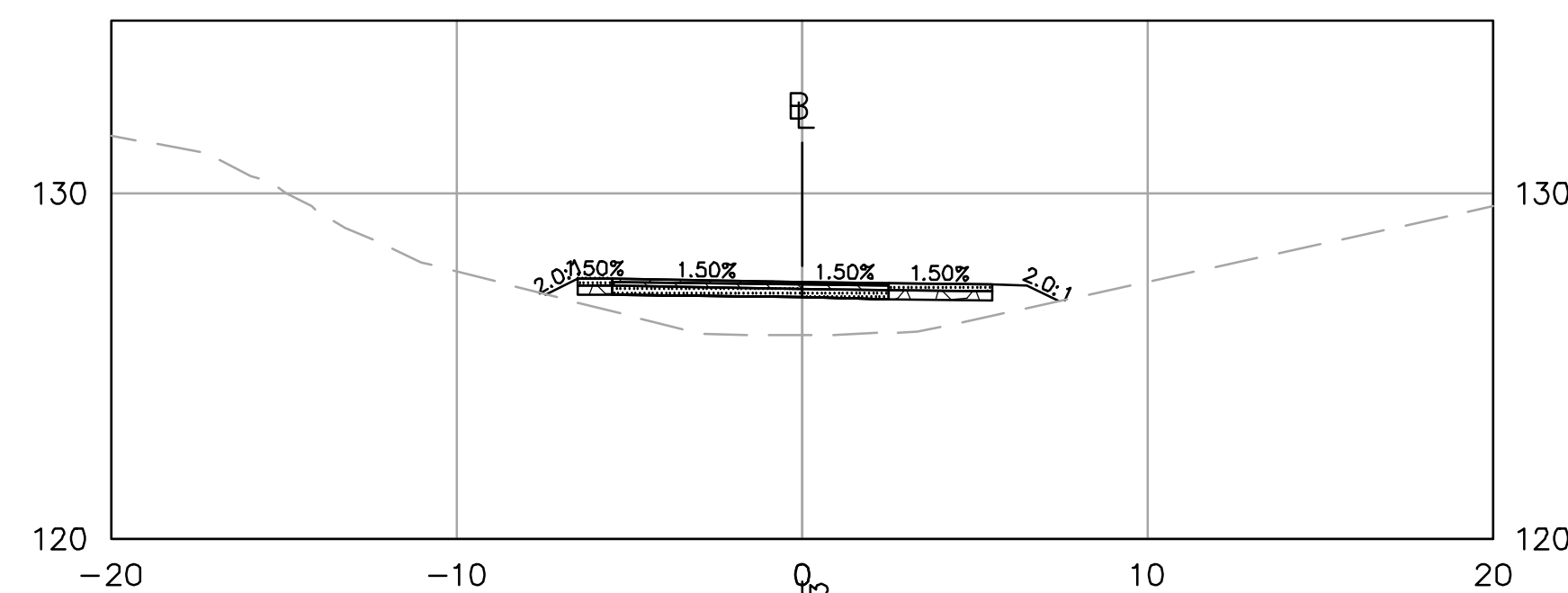
51+00



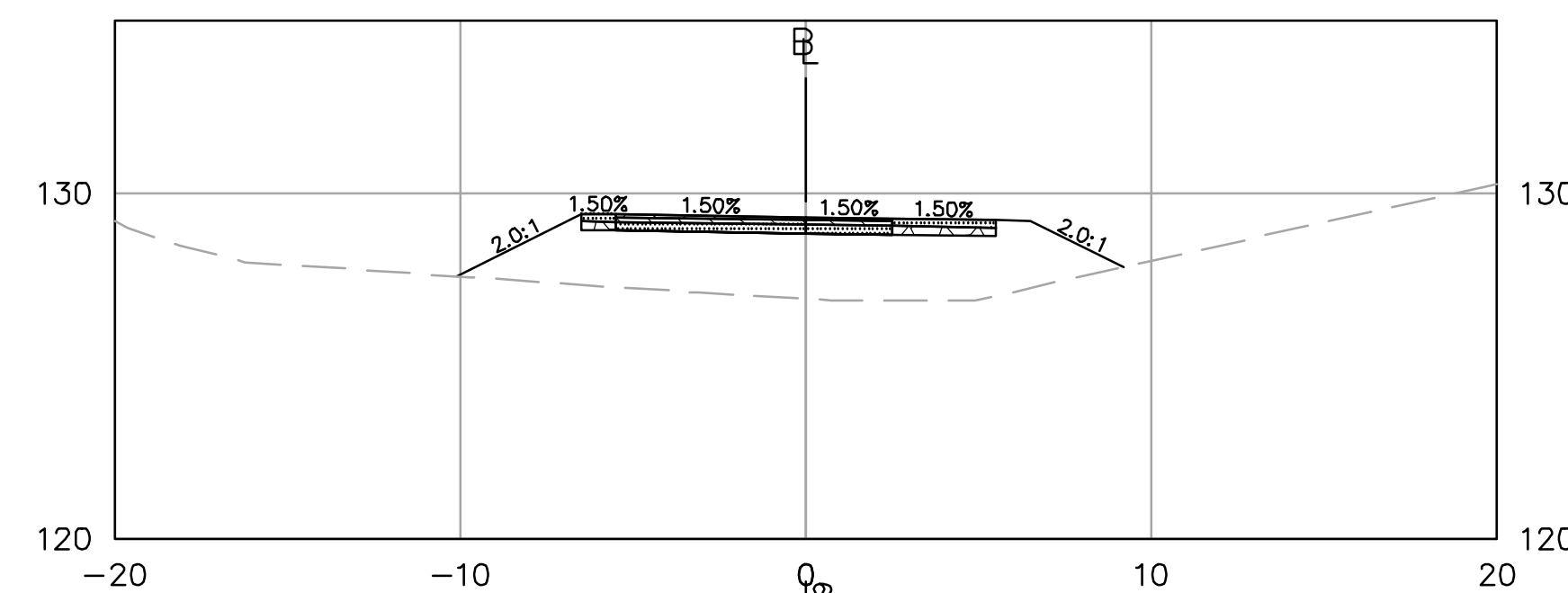
48+50



50+50



48+00



50+00

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER DATE

HAGGETTS POND RAIL TRAIL

IN ANDOVER, MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

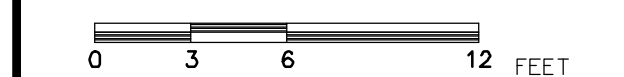
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

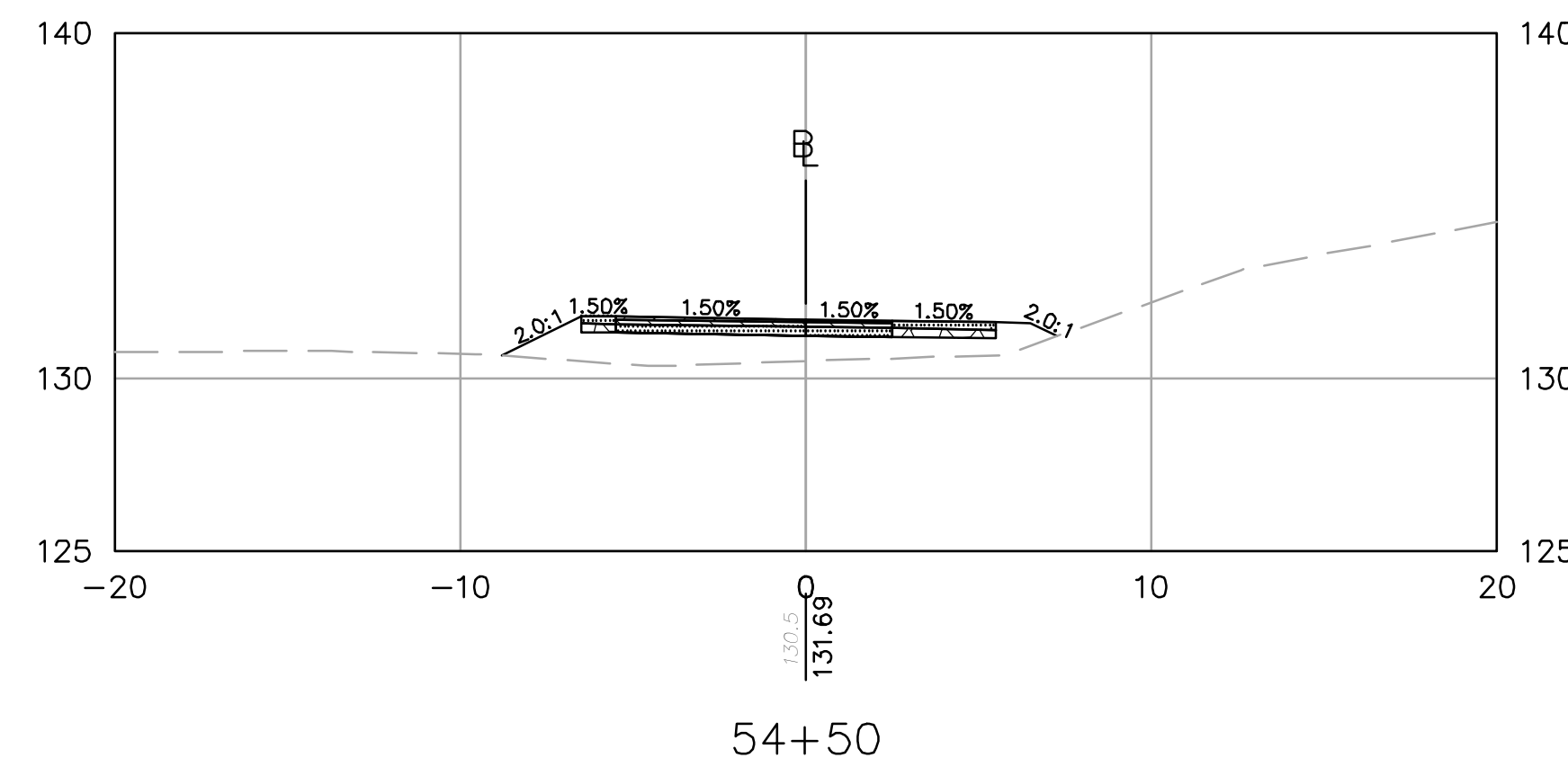
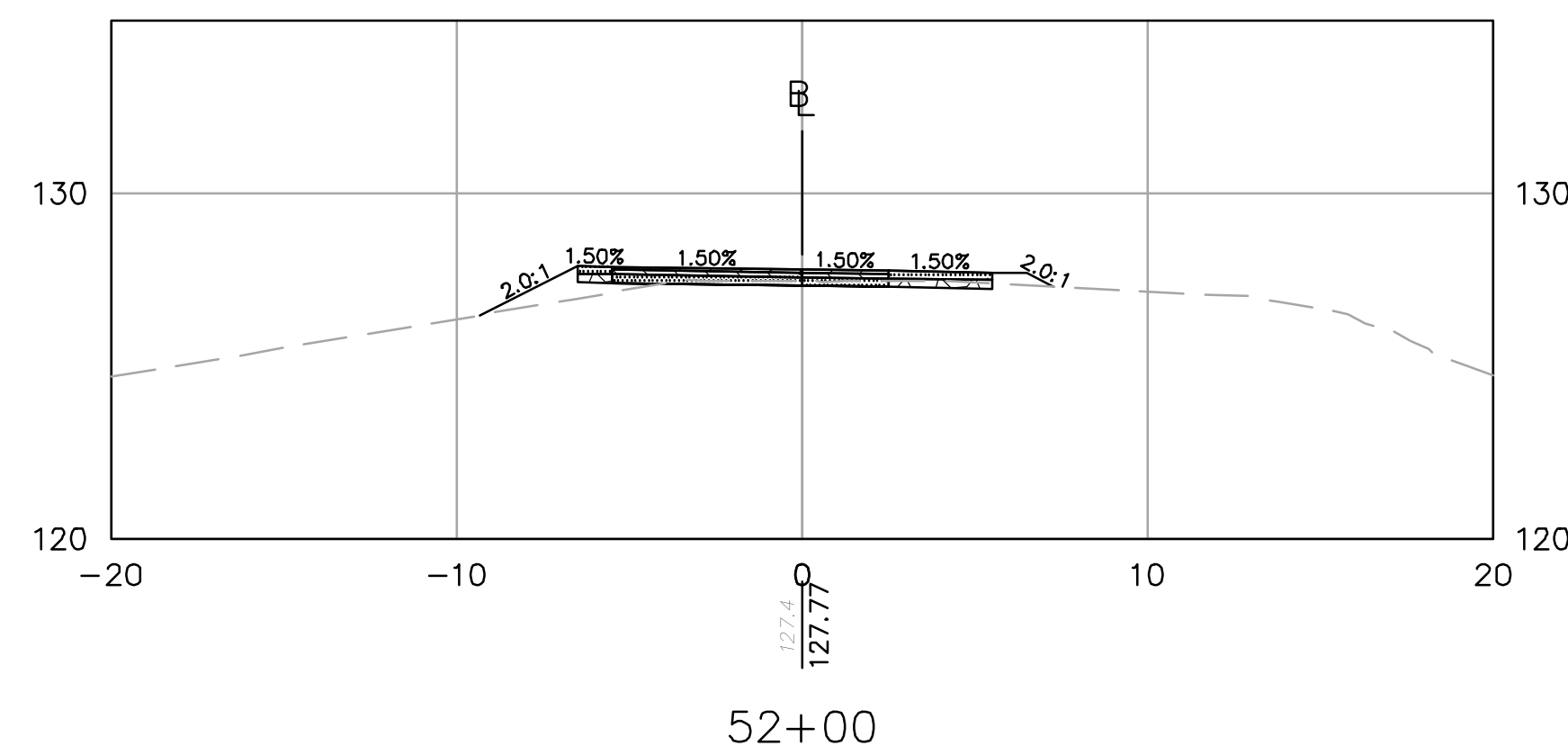
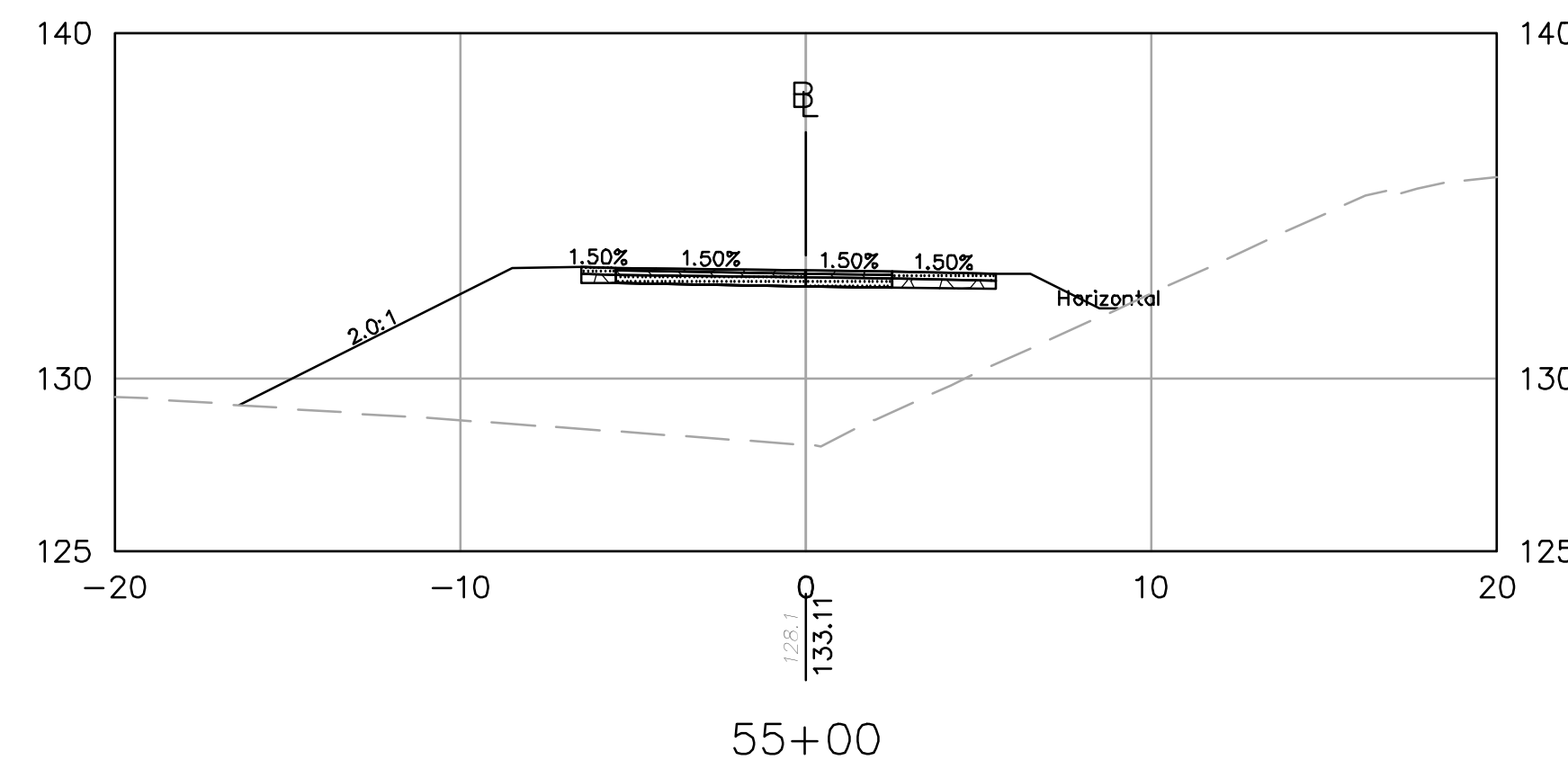
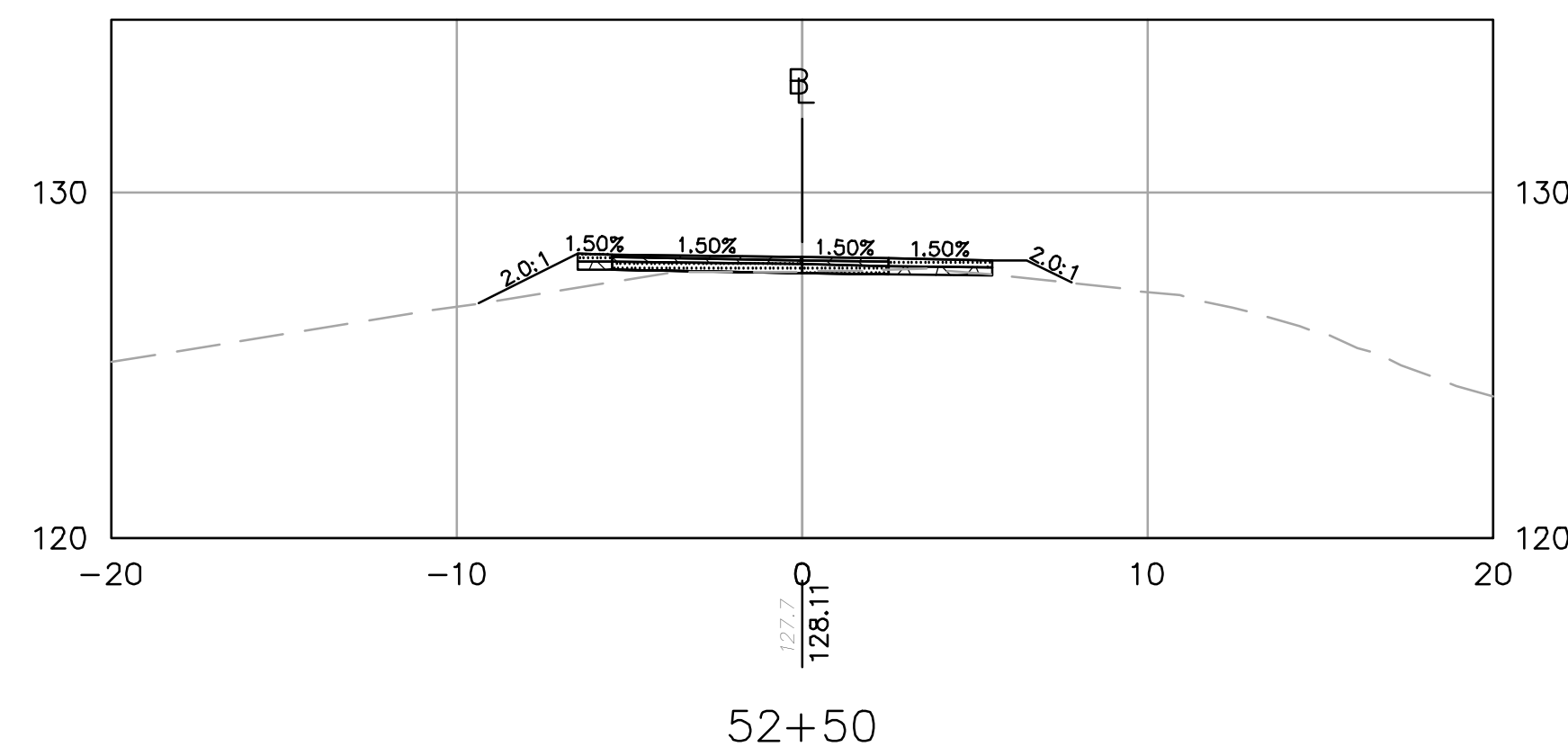
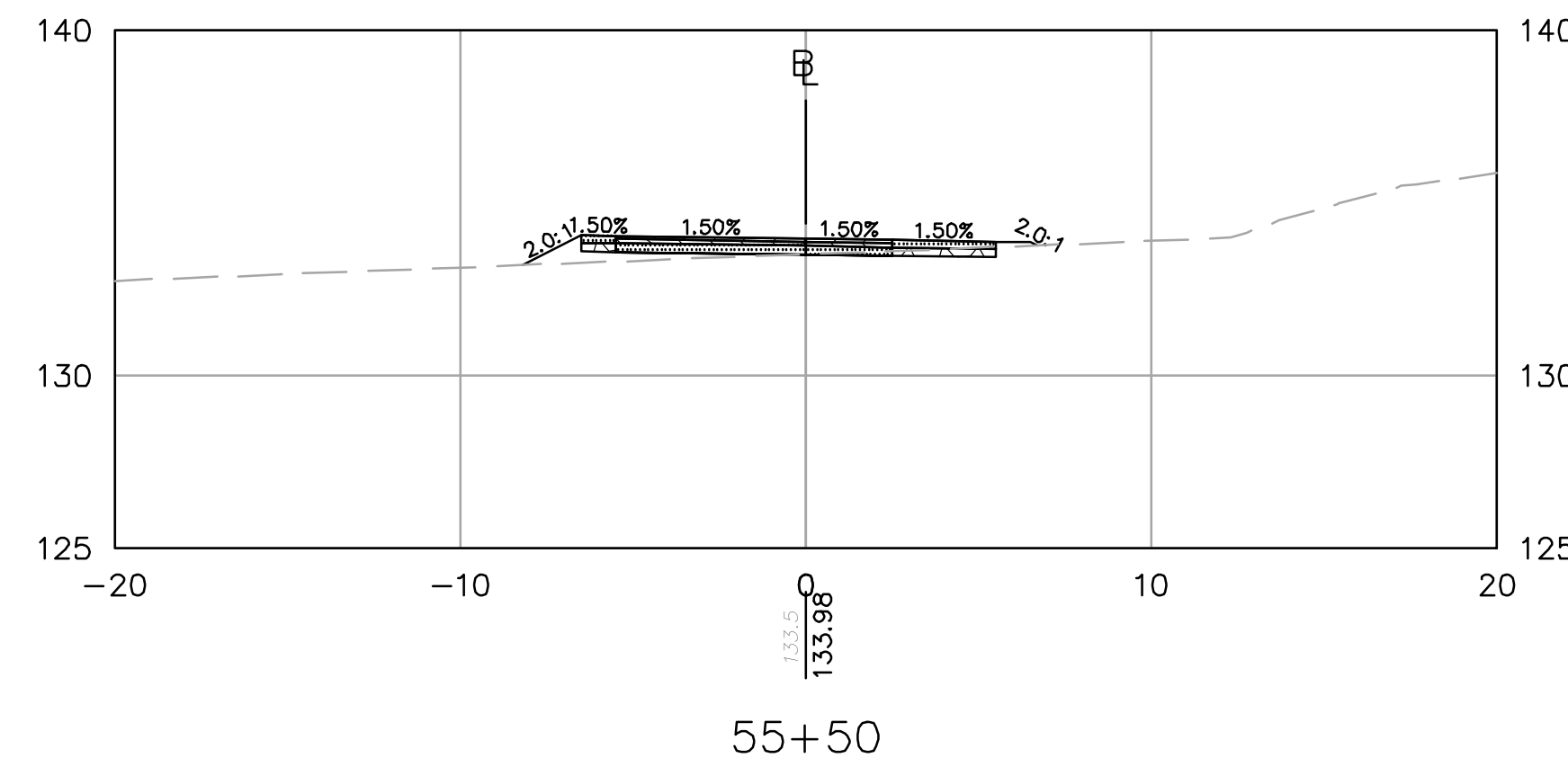
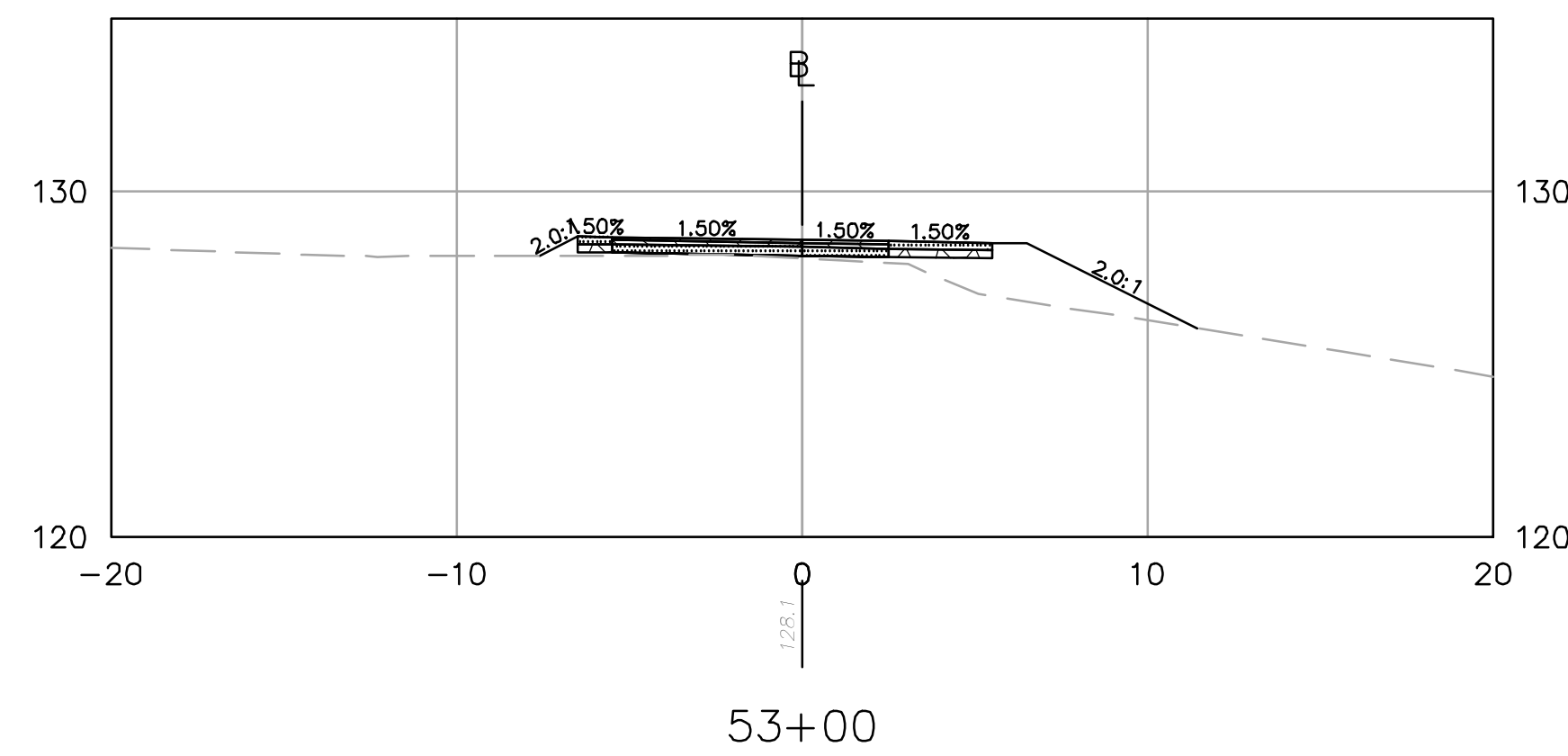
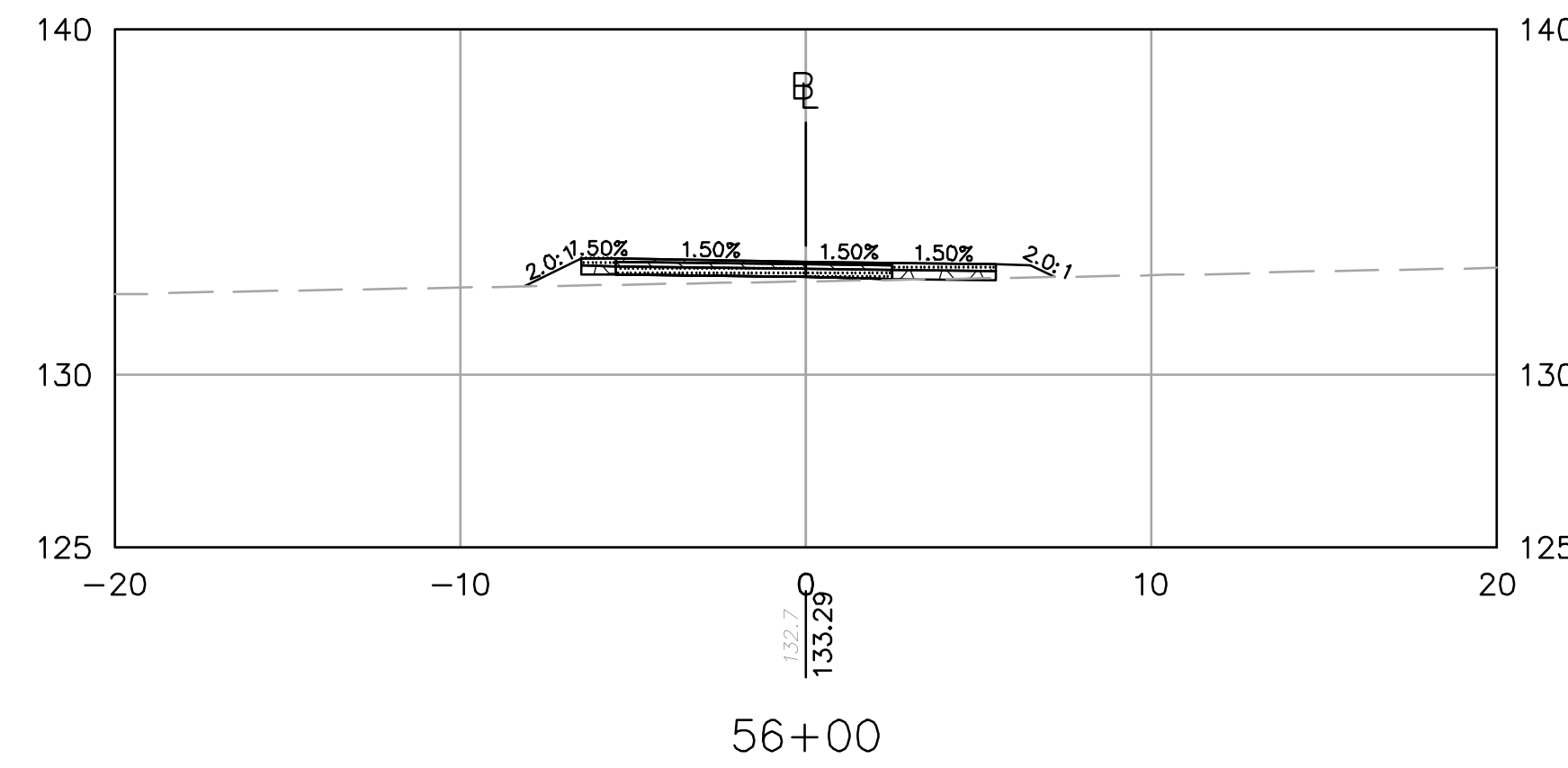
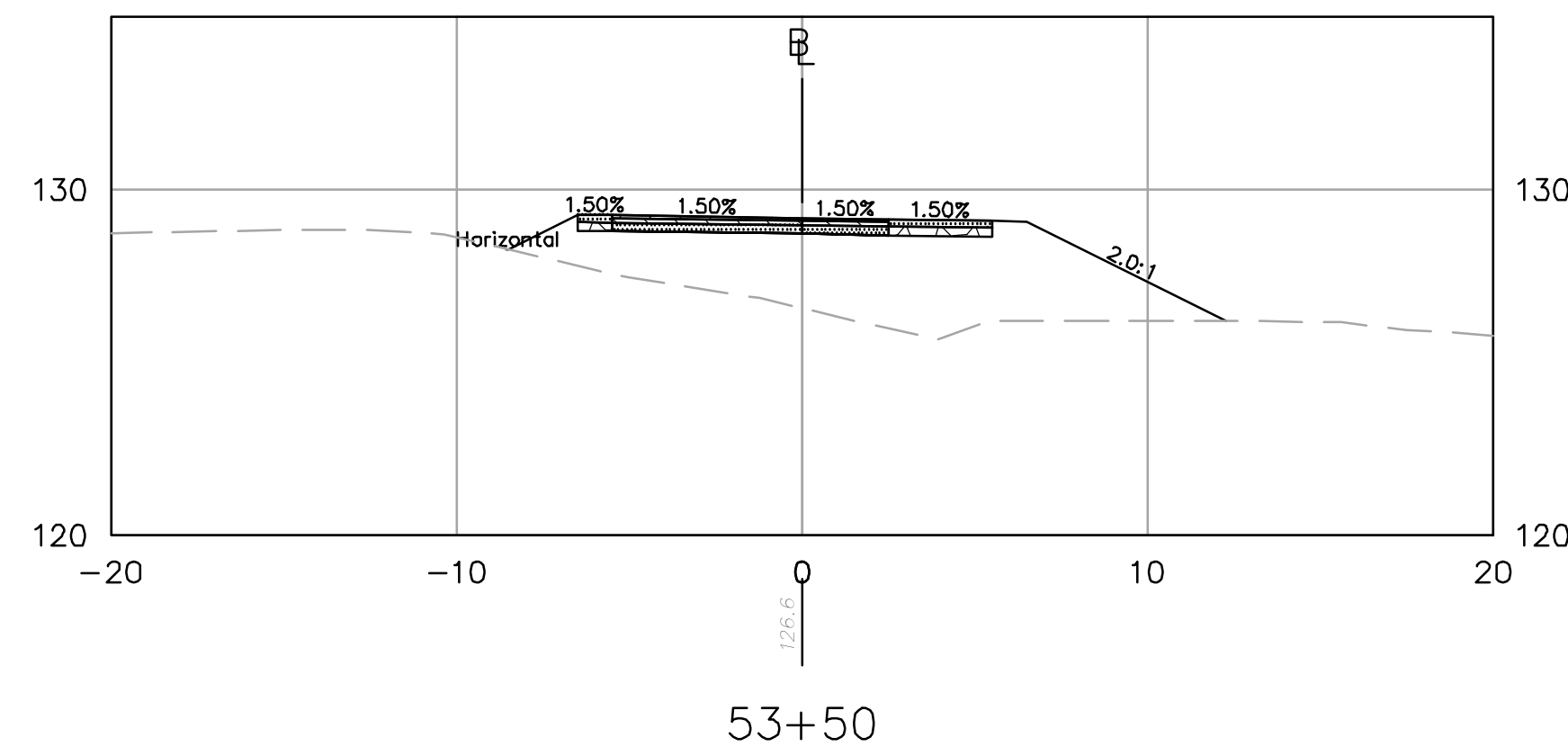


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DWG.:

JOB. NO: 8-9985.01

SHEET C-213



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NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

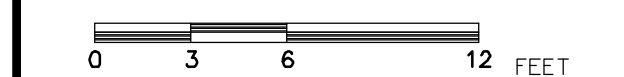
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

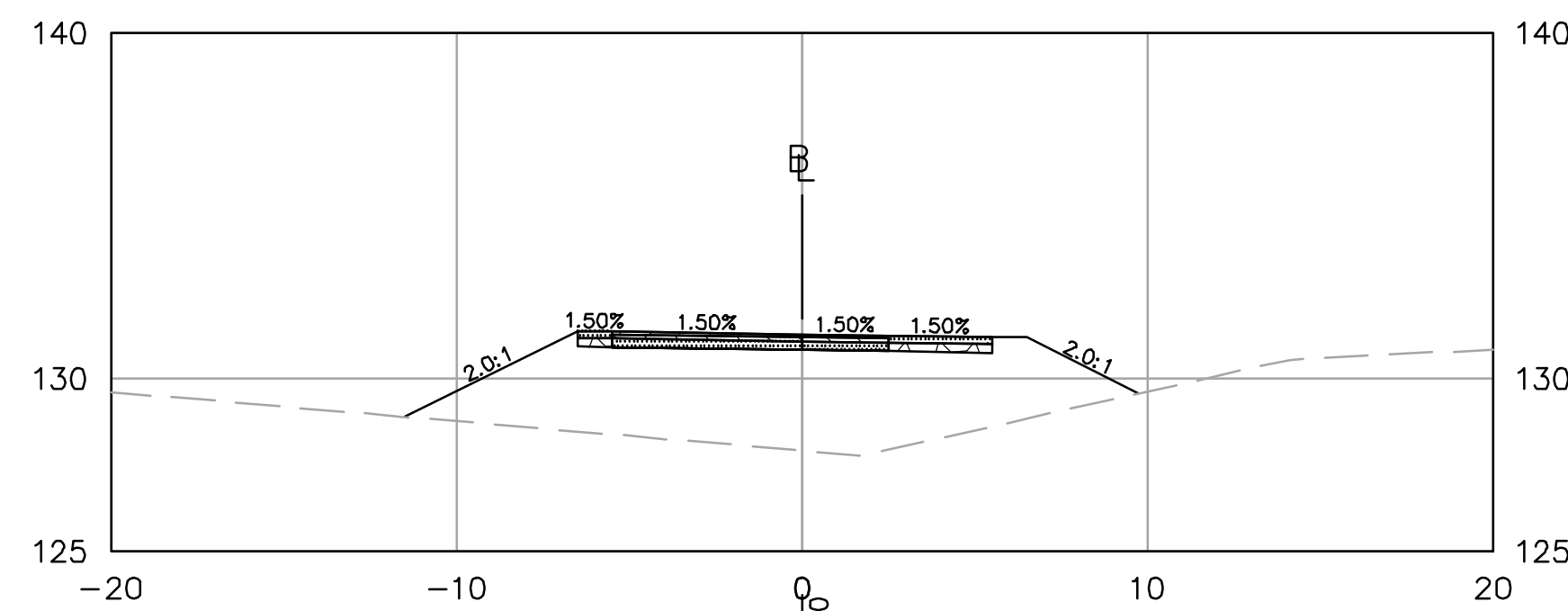


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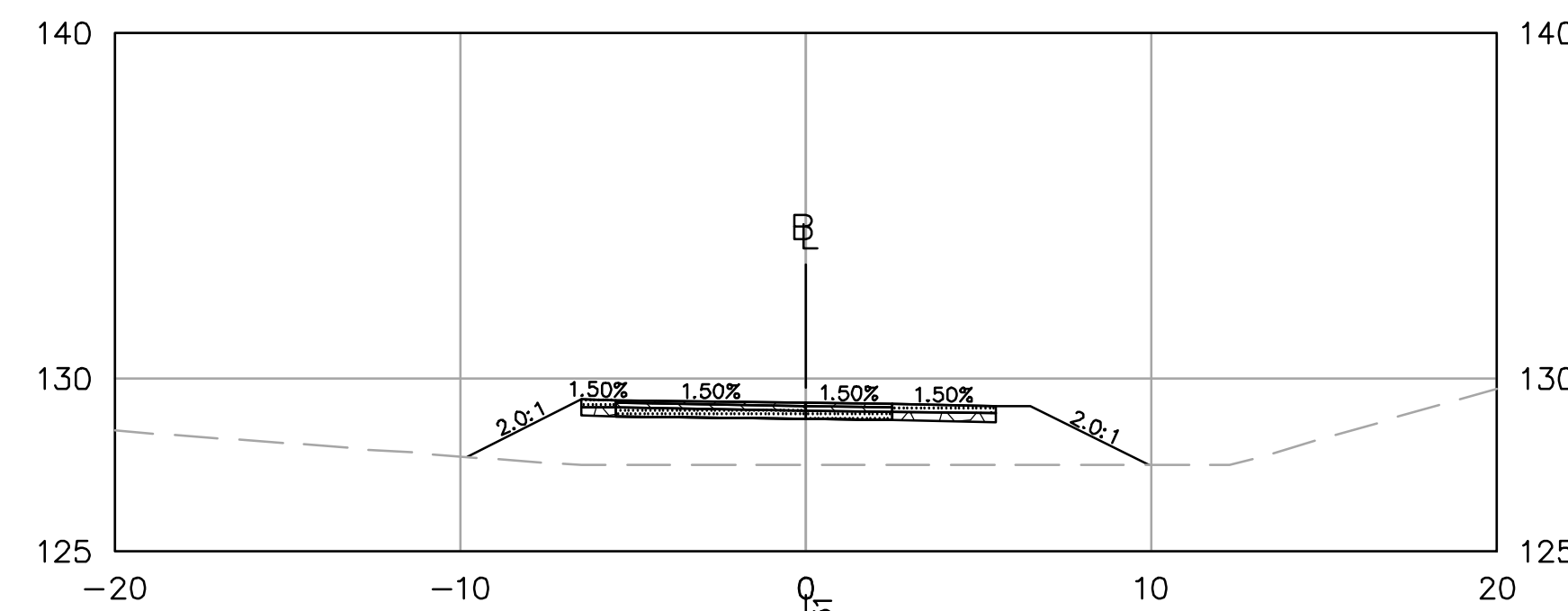
DWG.:

JOB. NO: 8-9985.01

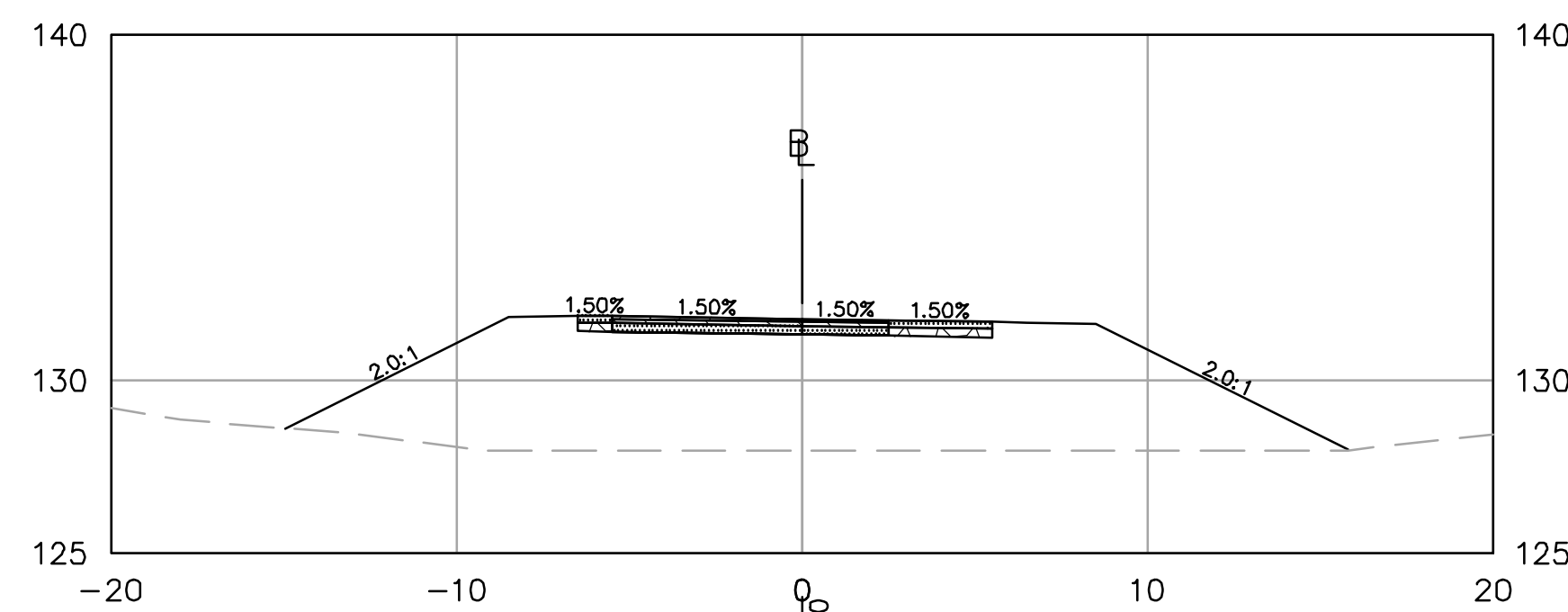
SHEET C-214



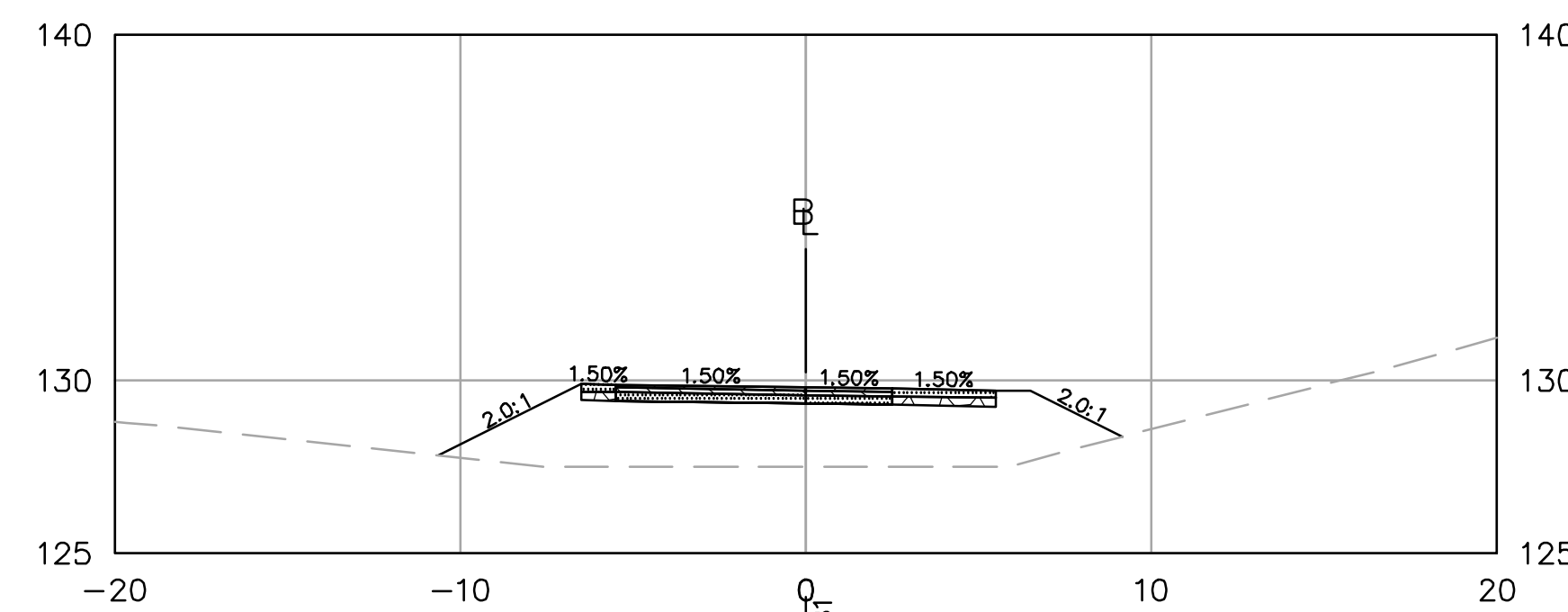
58+00



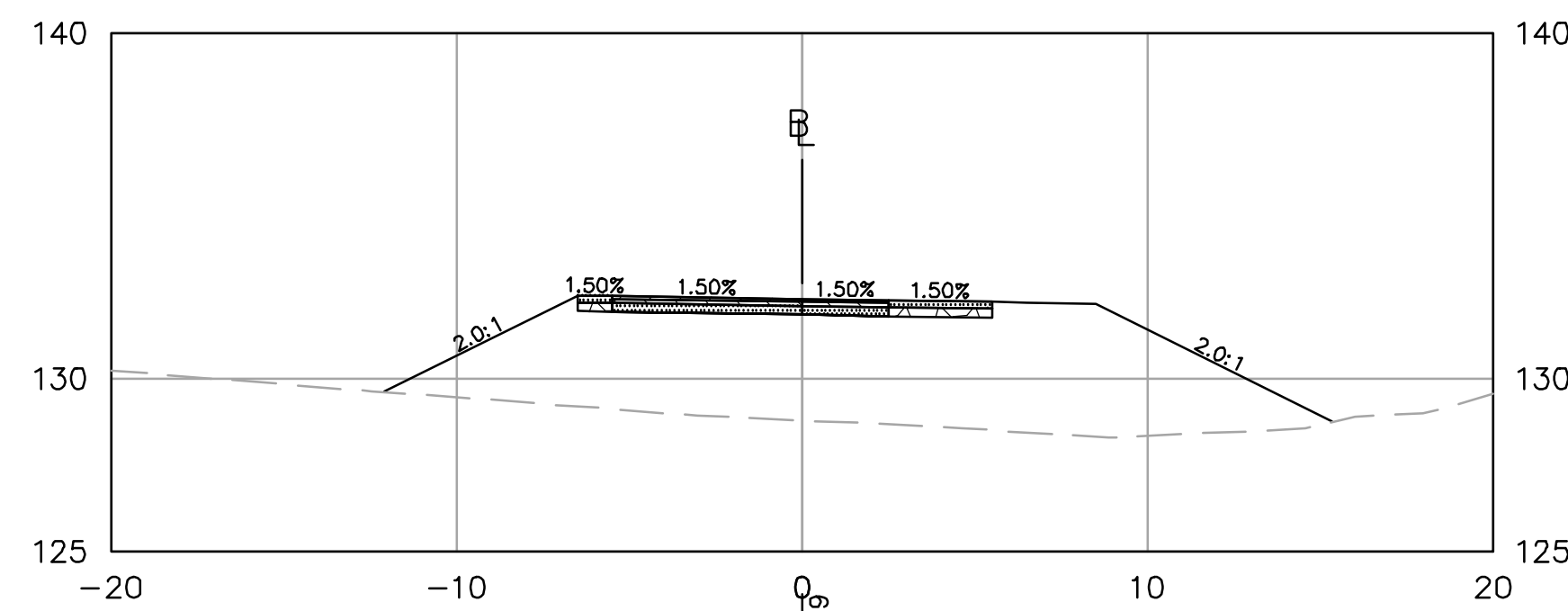
60+00



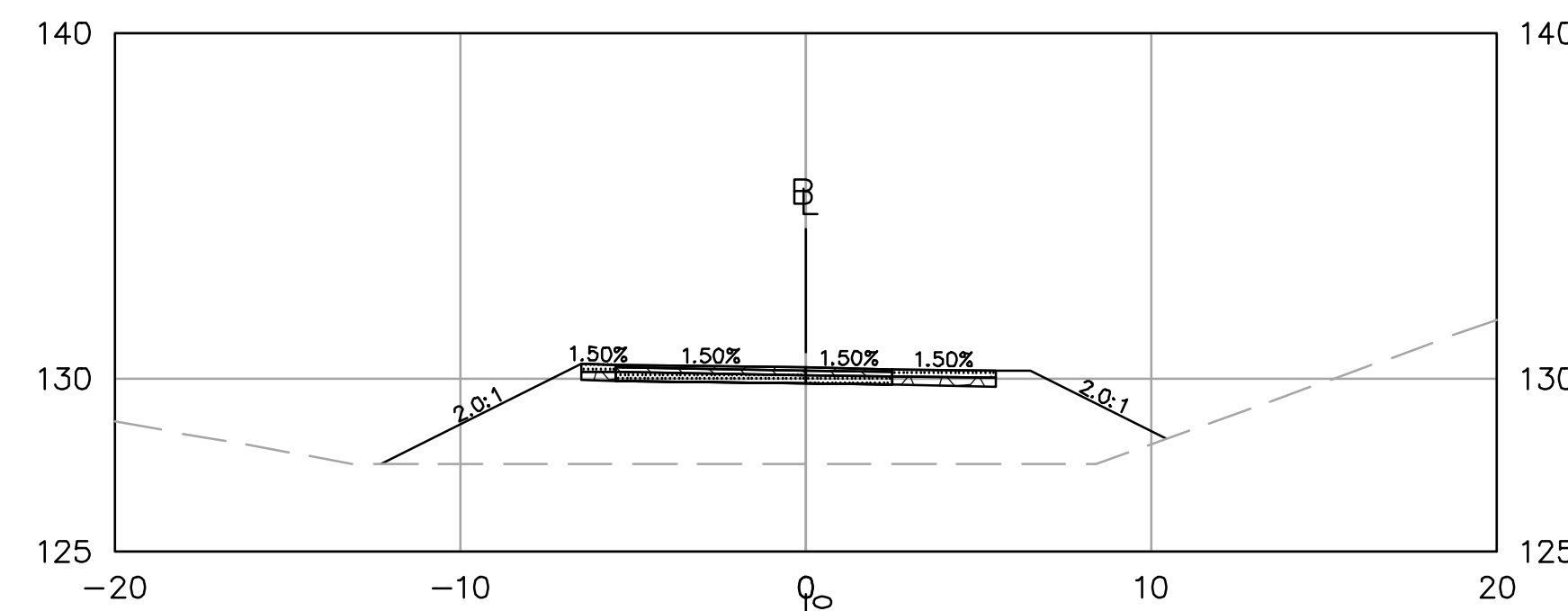
57+50



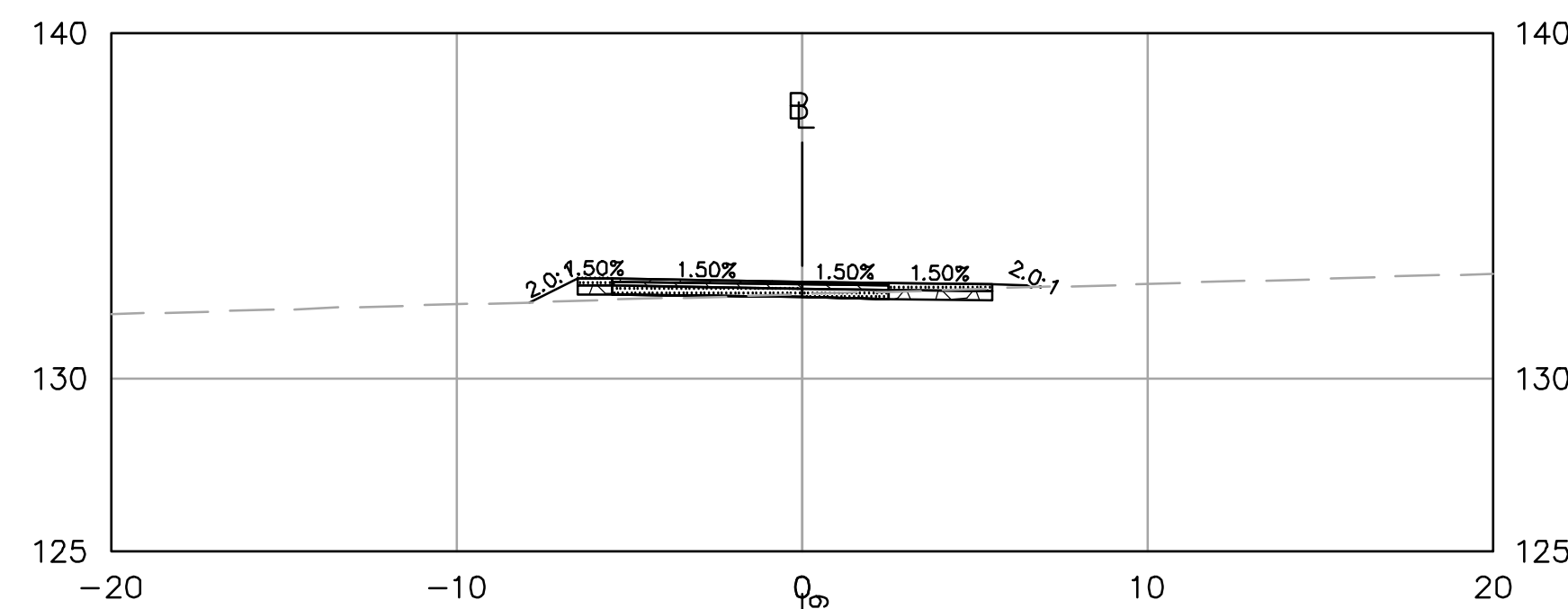
59+50



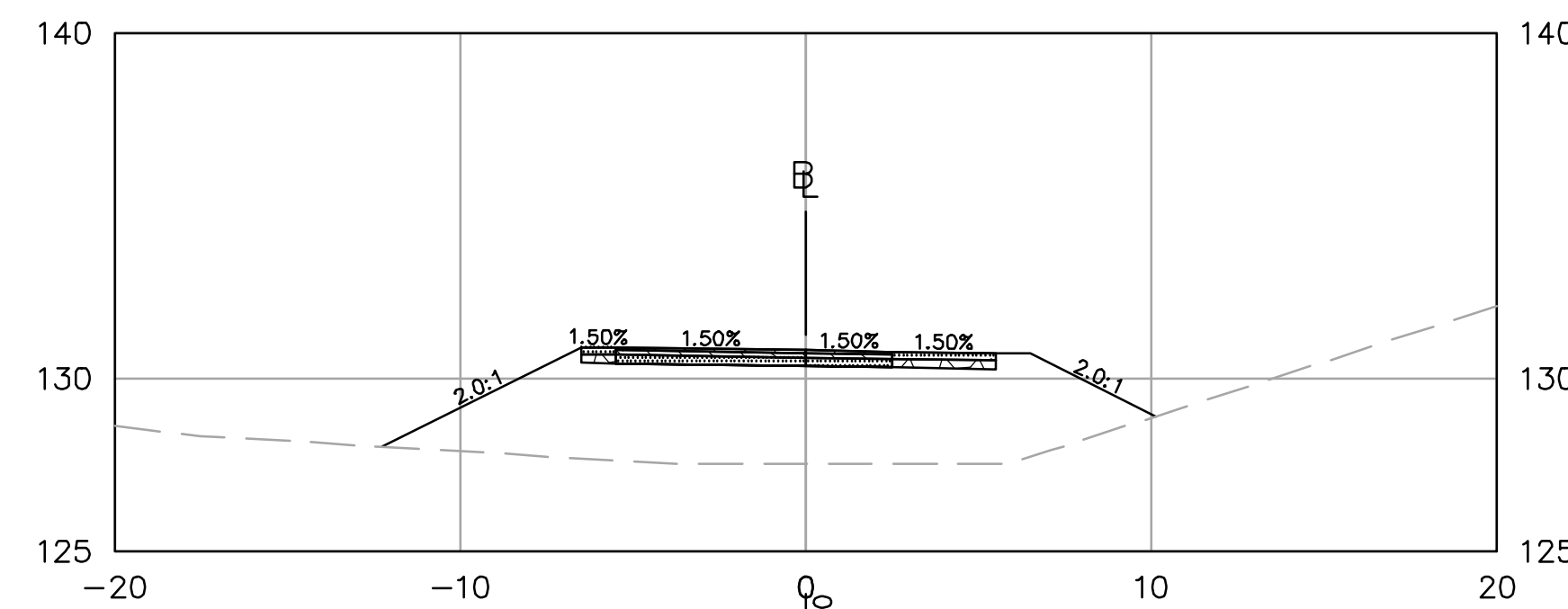
57+00



59+00



56+50



58+50

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PROFESSIONAL ENGINEER DATE

HAGGETTS POND
RAIL TRAIL

IN
ANDOVER,
MA

CROSS SECTIONS

NOVEMBER 7, 2023

REVISIONS:

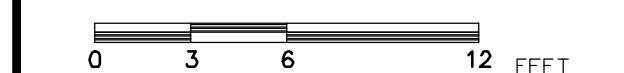
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 5'

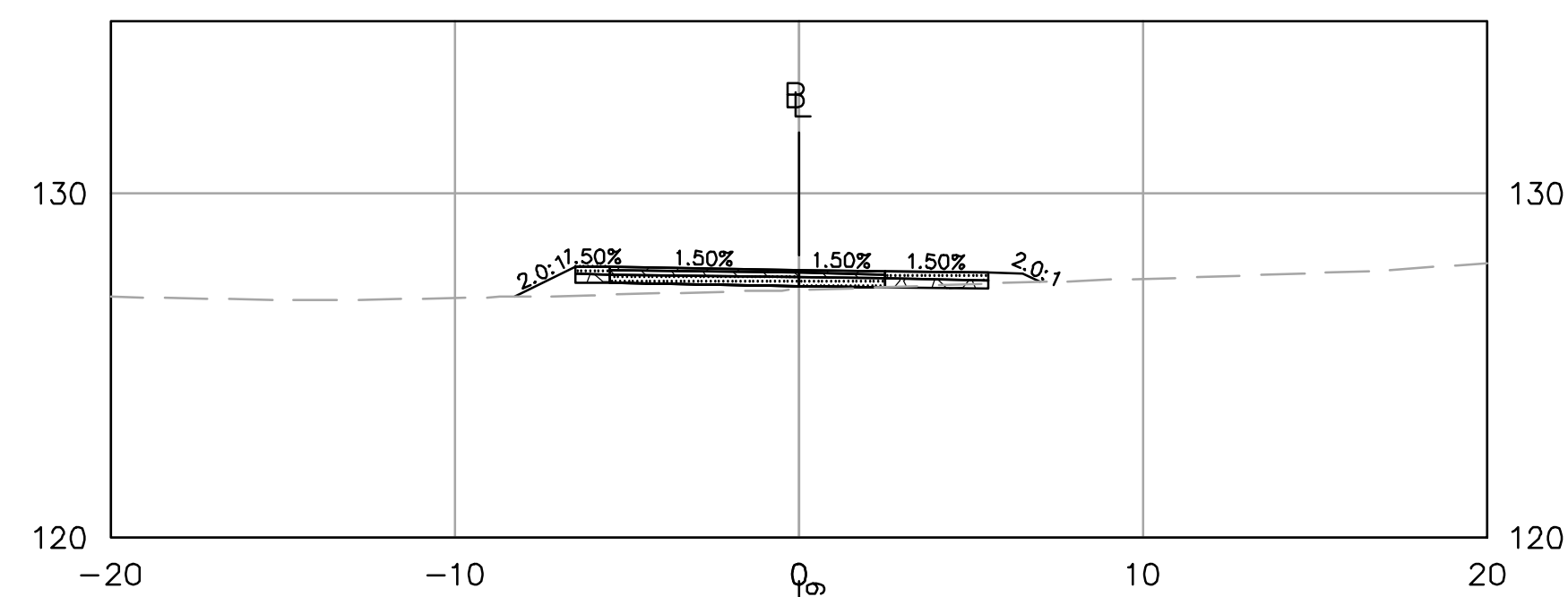


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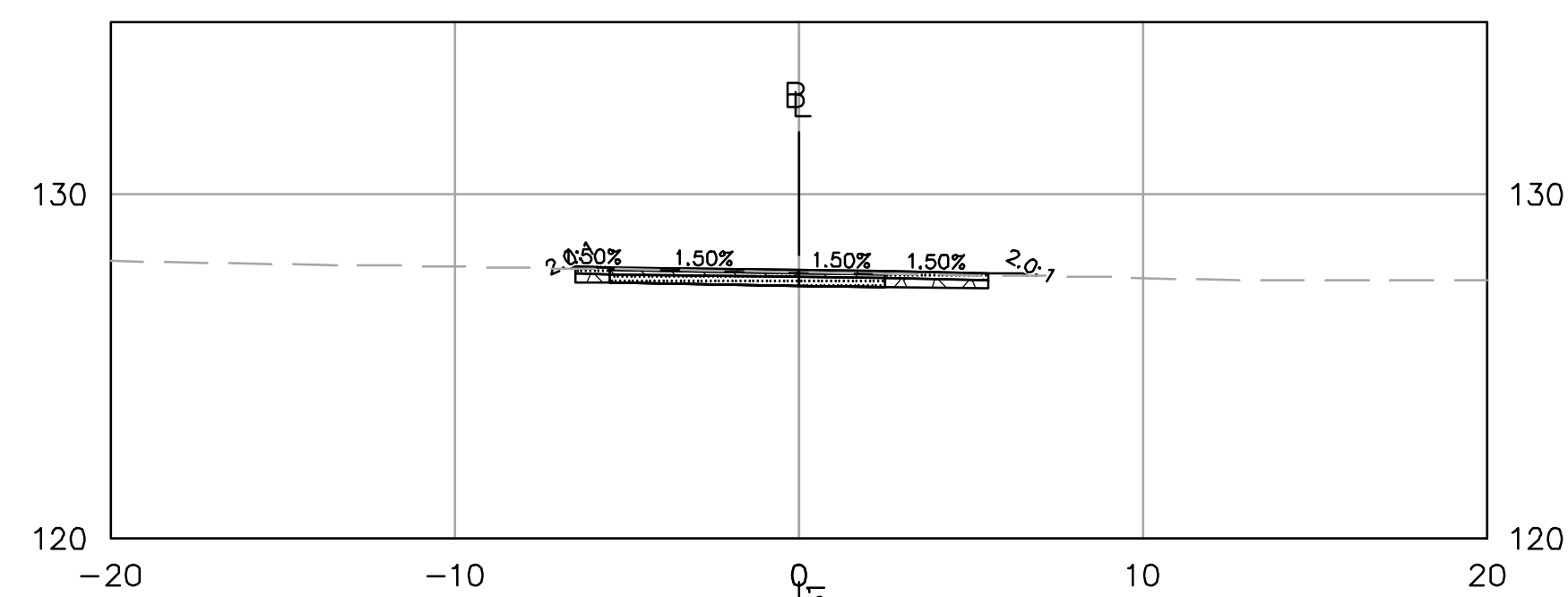
DWG.:

JOB. NO: 8-9985.01

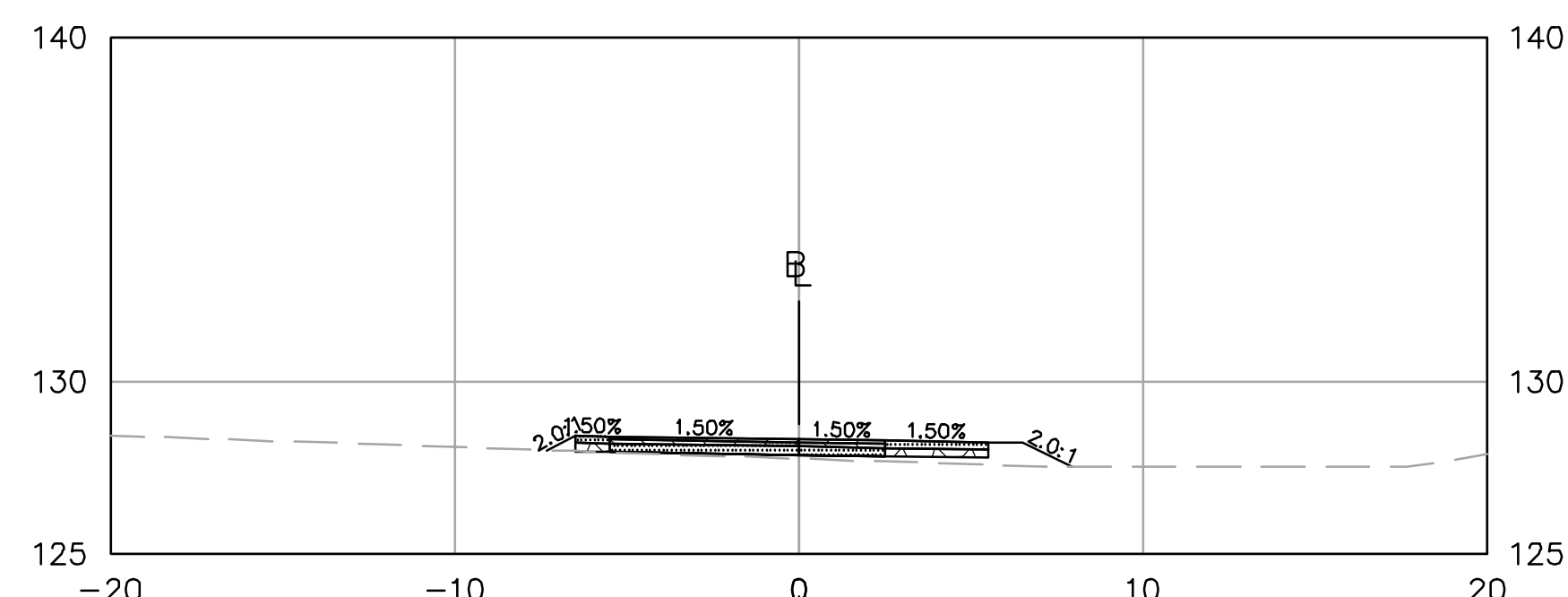
SHEET C-215



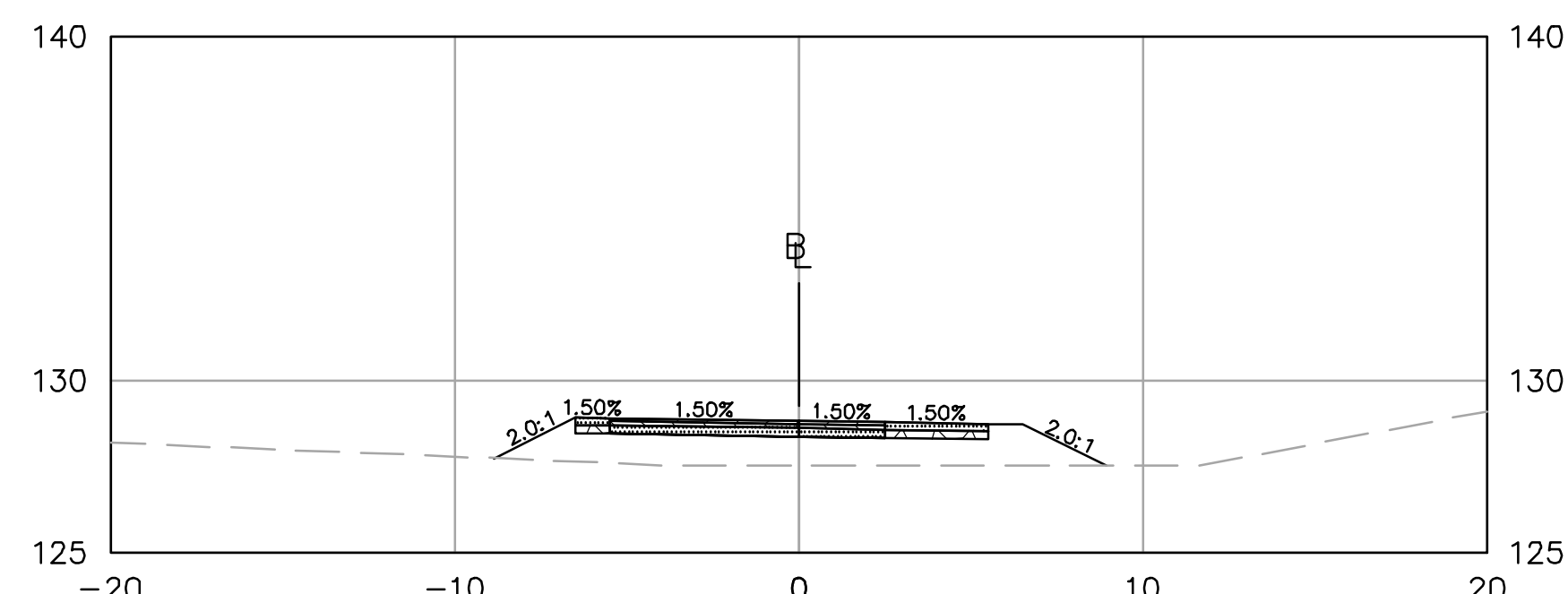
62+00



61+50

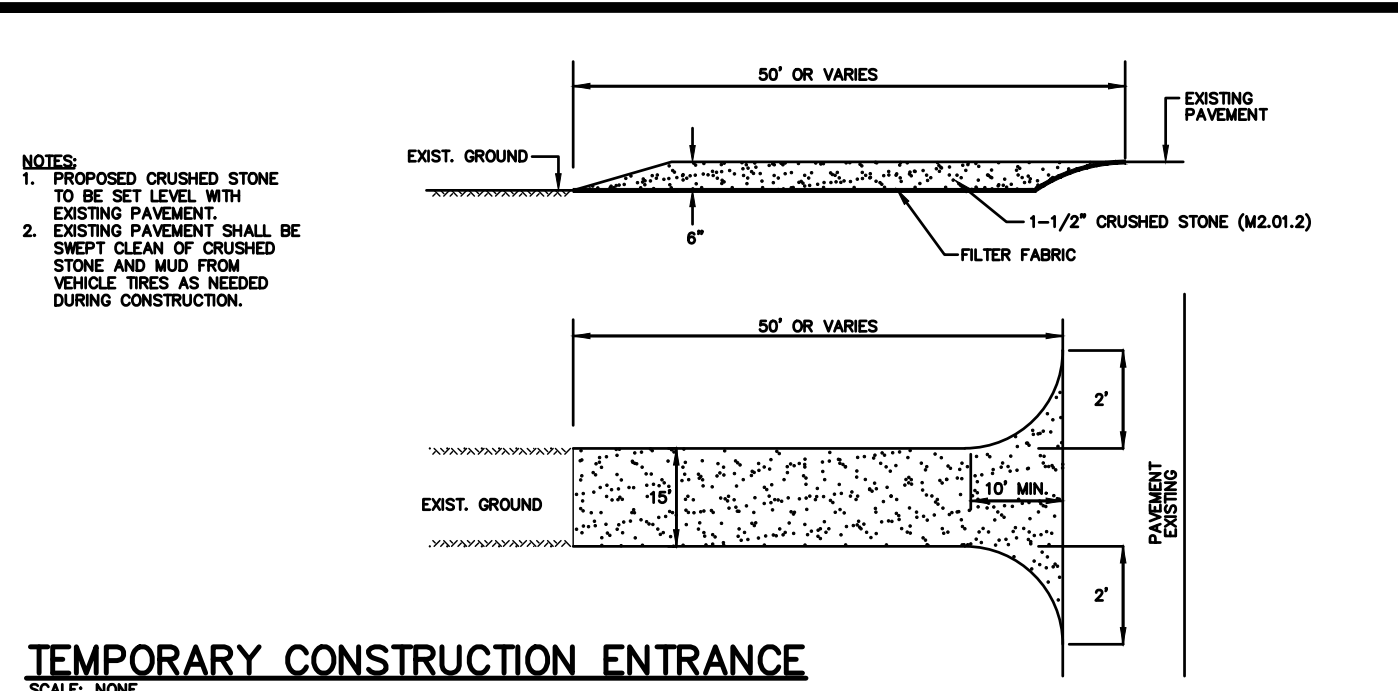


61+00

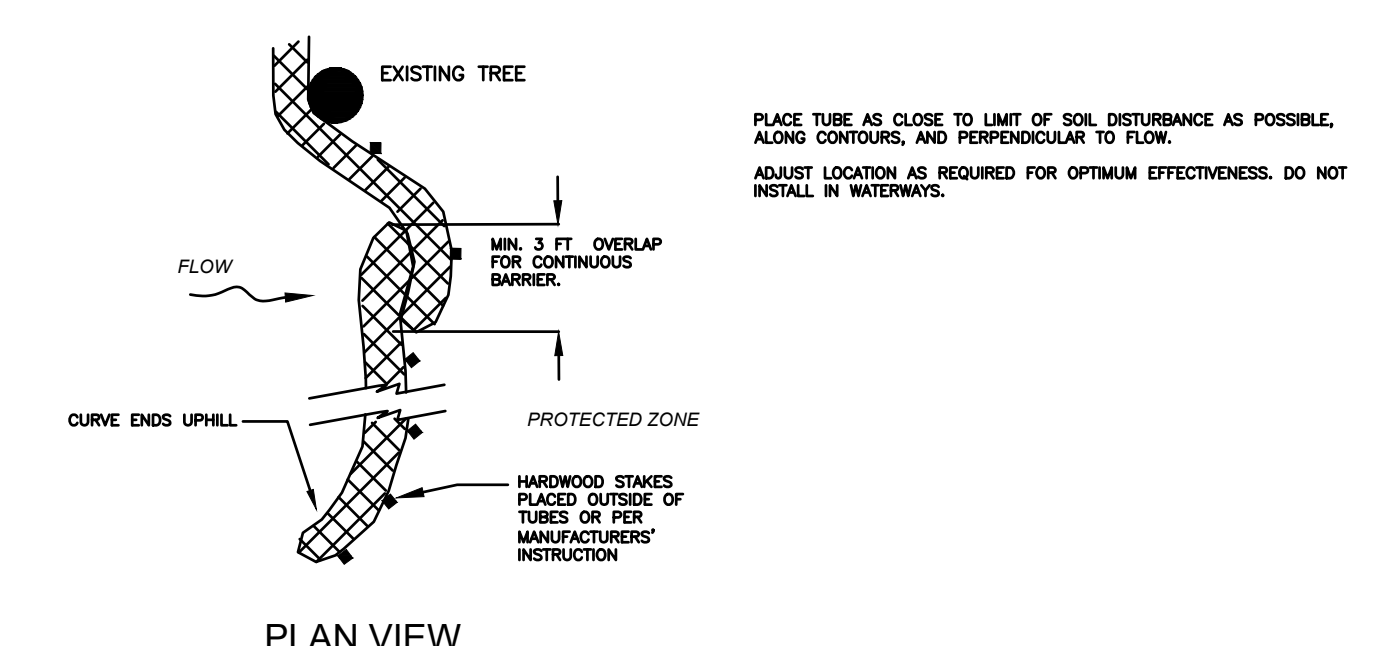


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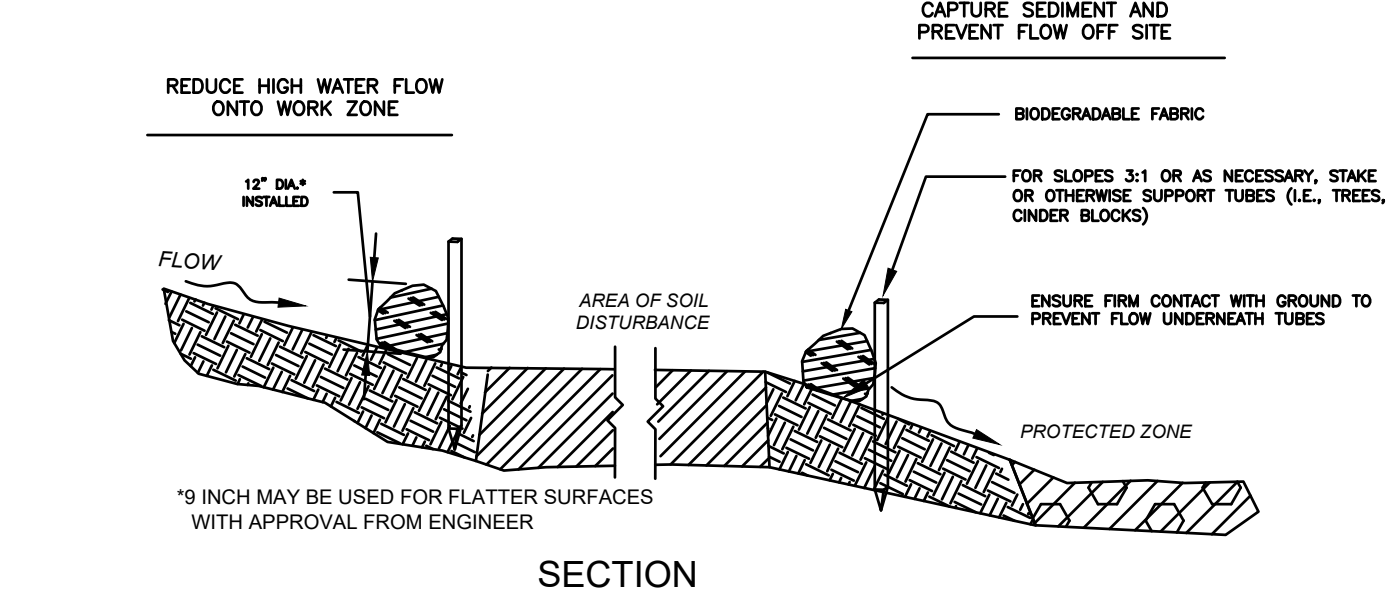
ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION



TEMPORARY CONSTRUCTION ENTRANCE
SCALE: NONE

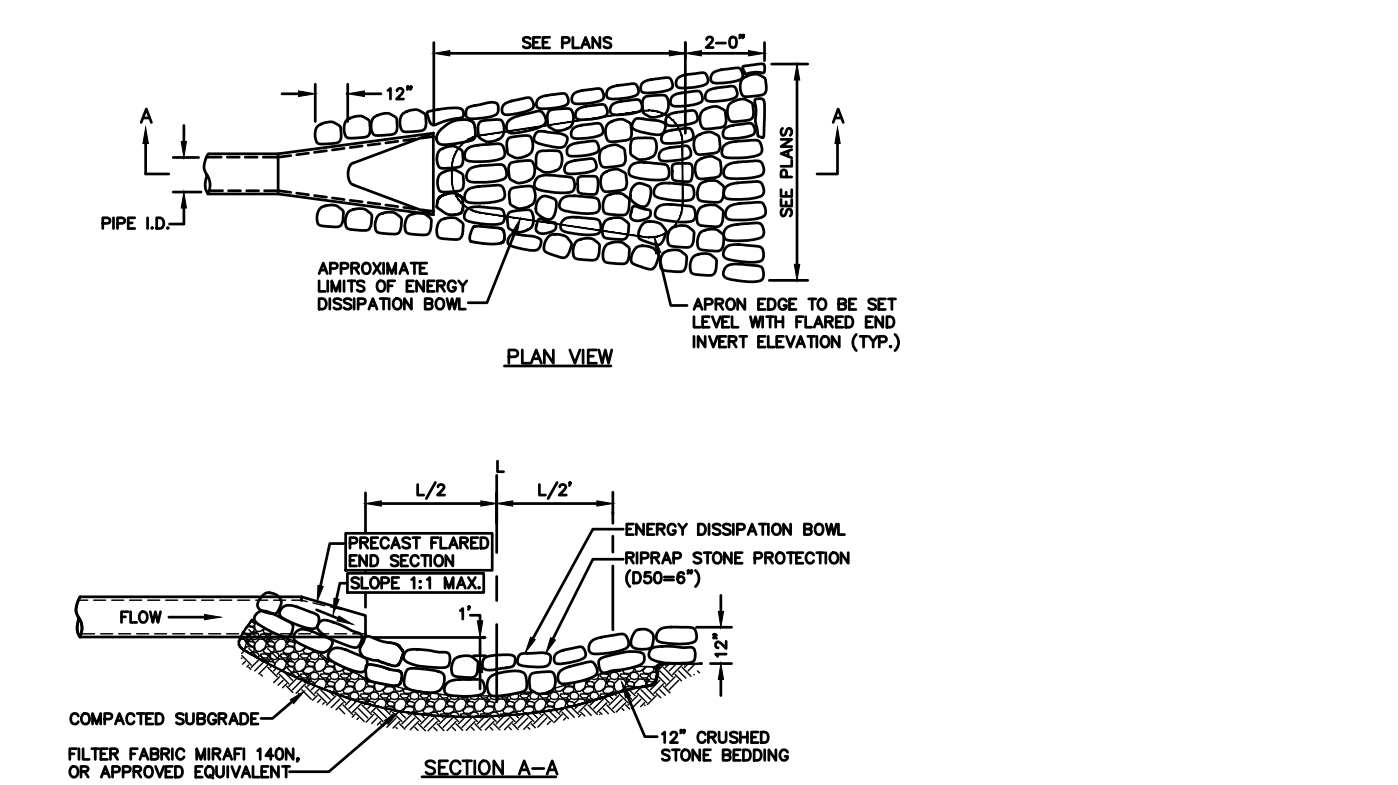


PLAN VIEW

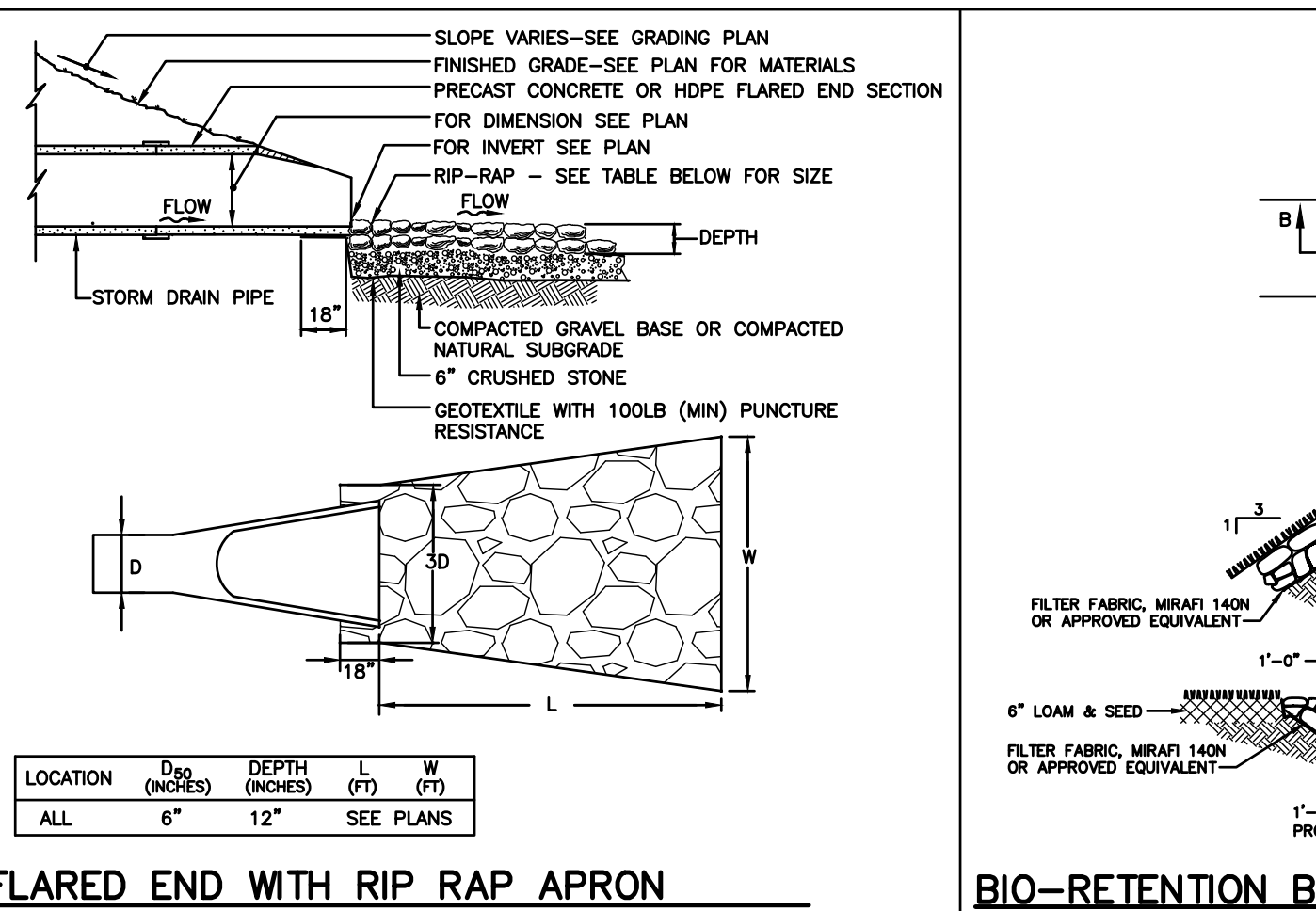


SECTION

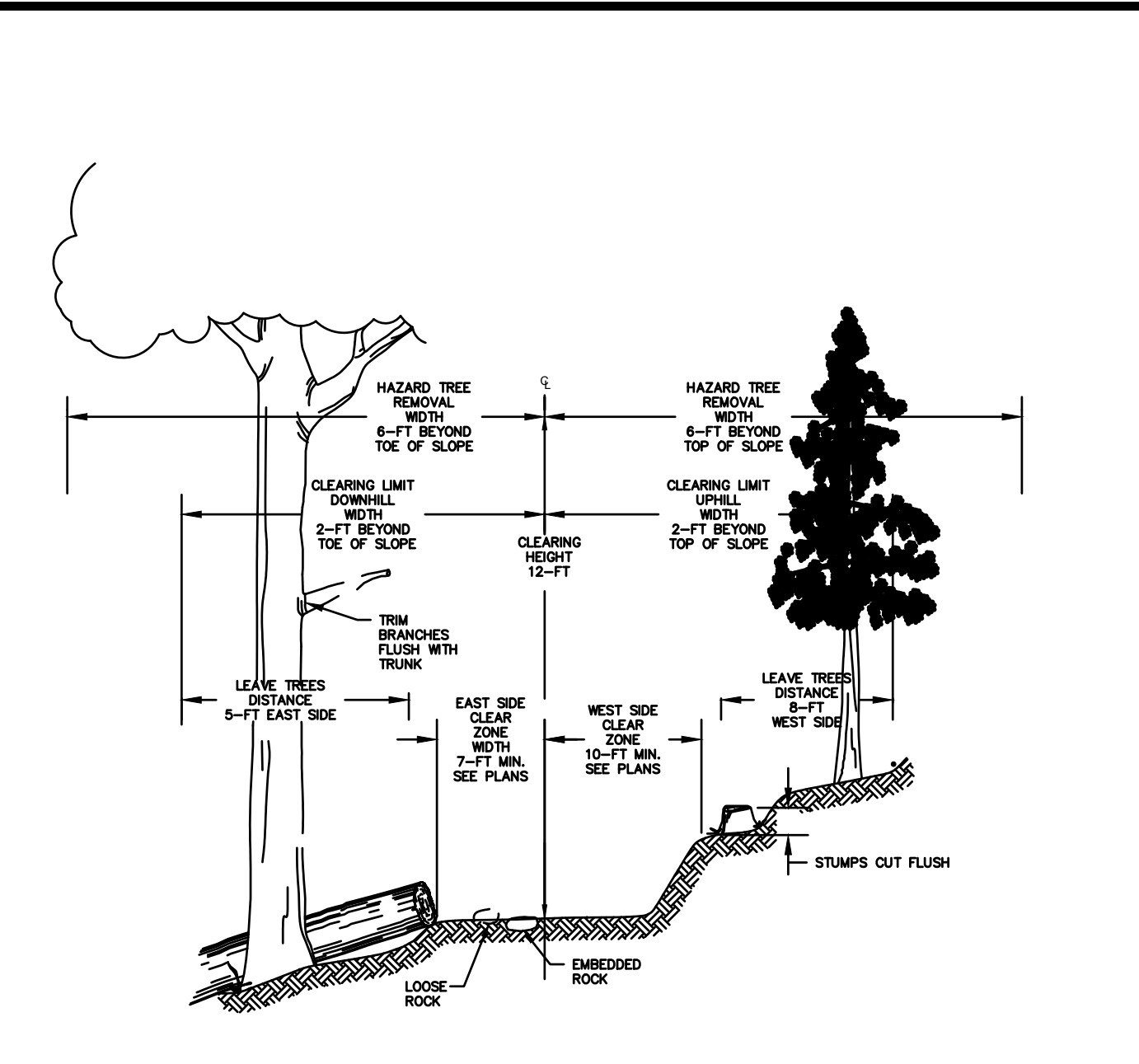
SEDIMENT CONTROL BARRIER
SCALE: NONE



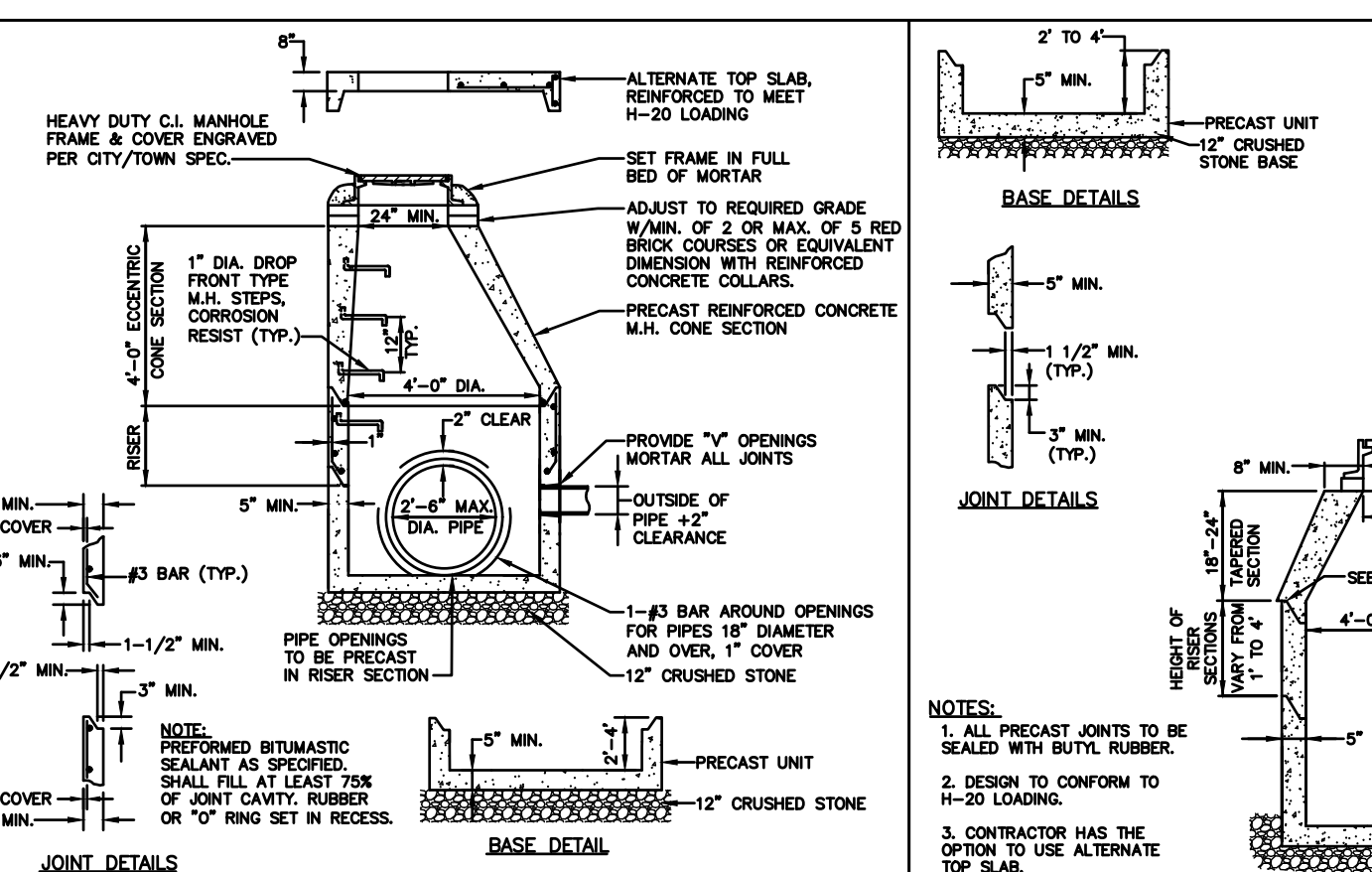
FLARED END SECTION W/ STONE PROTECTION (DISSIPATION BOWL)
SCALE: NONE



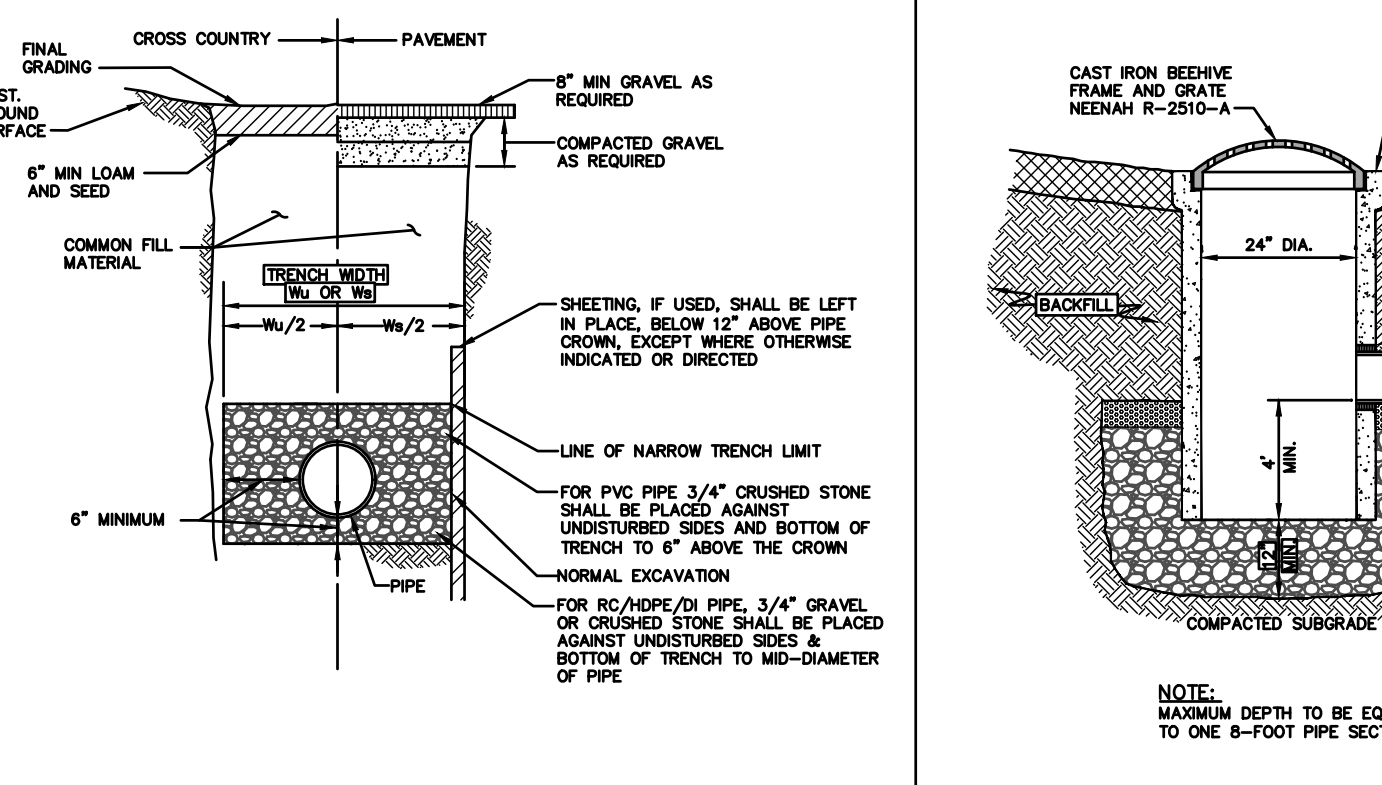
FLARED END WITH RIP RAP APRON
SCALE: NONE



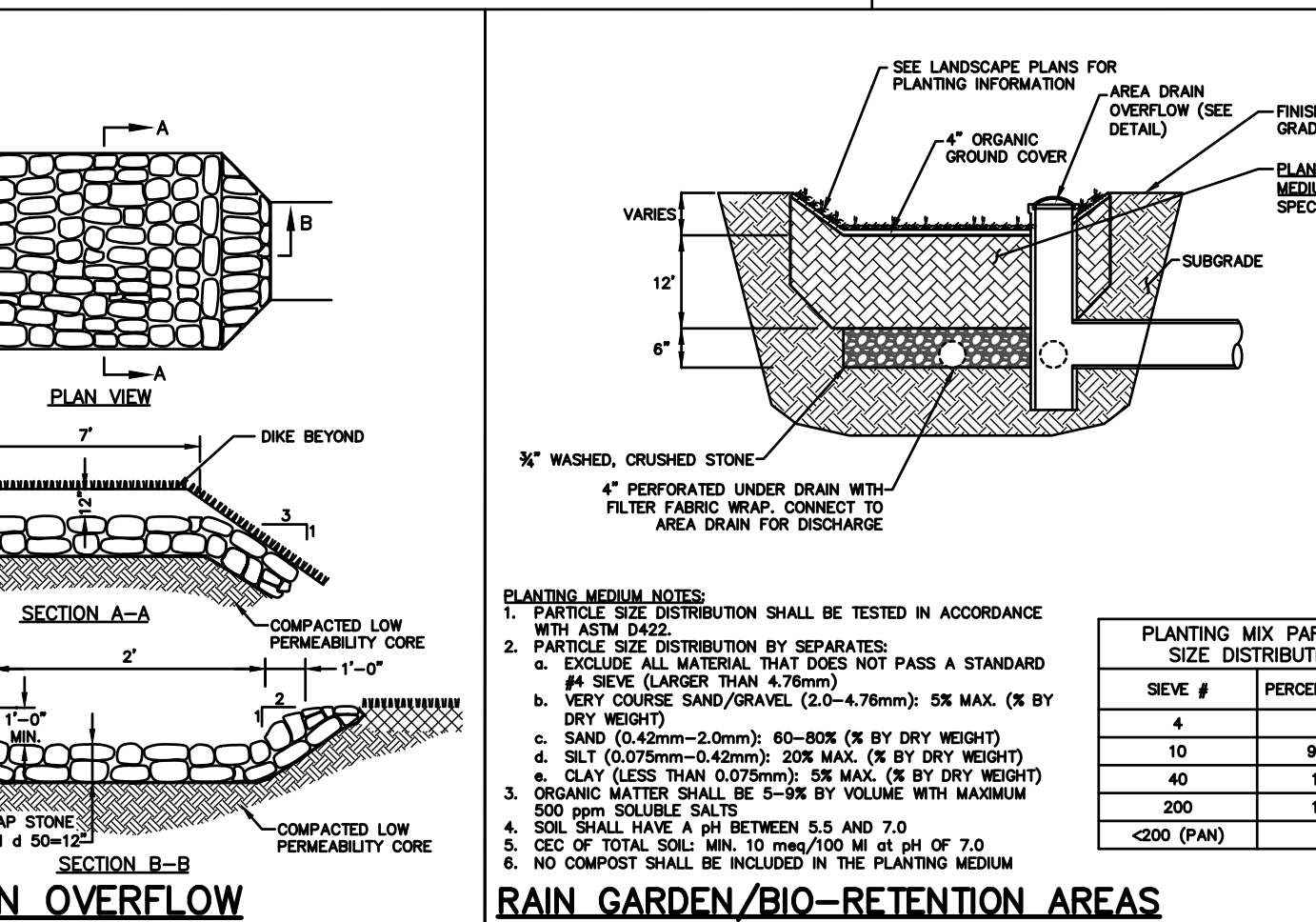
TRAIL CLEAR LIMITS
SCALE: NONE



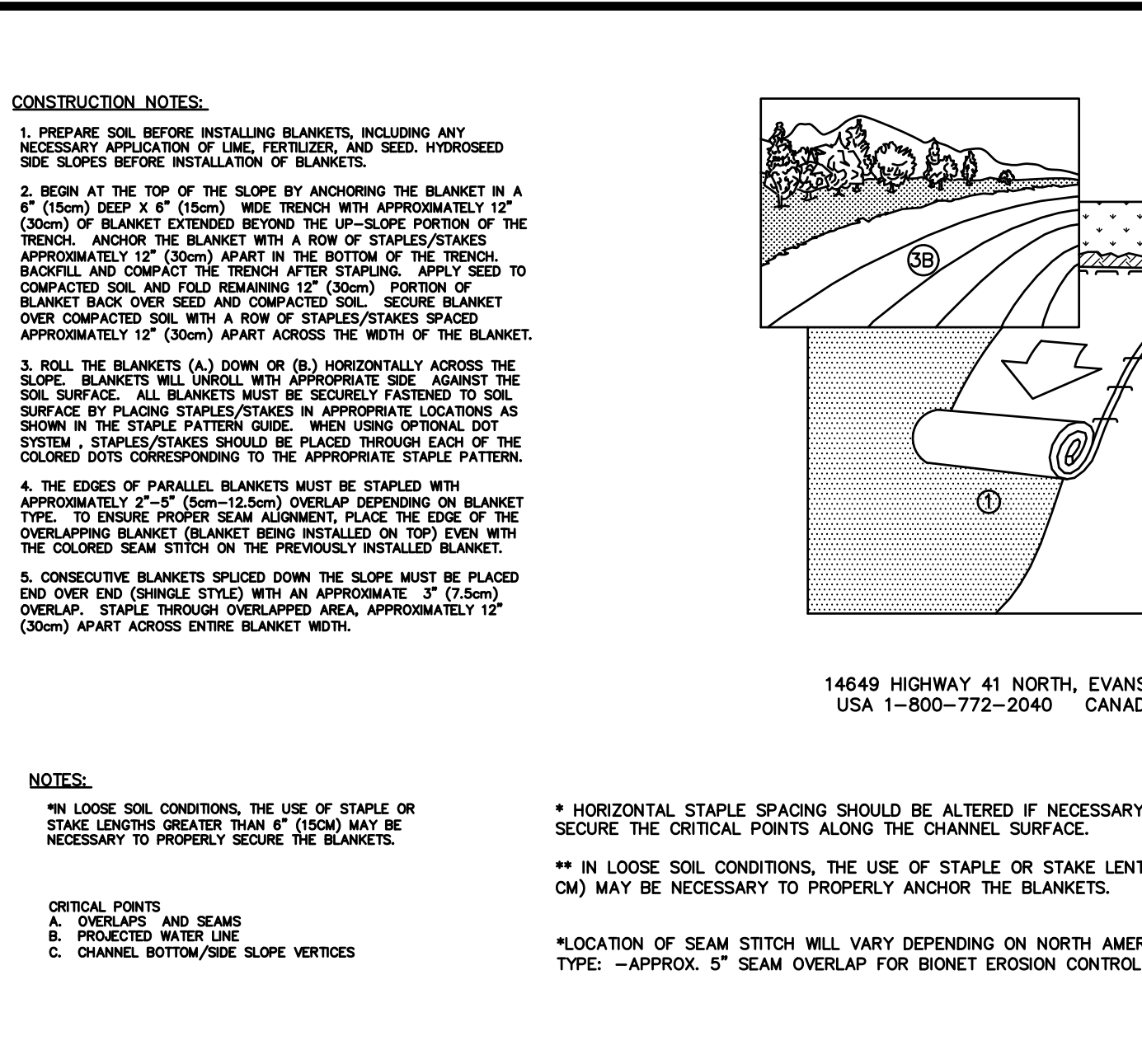
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SCALE: NONE



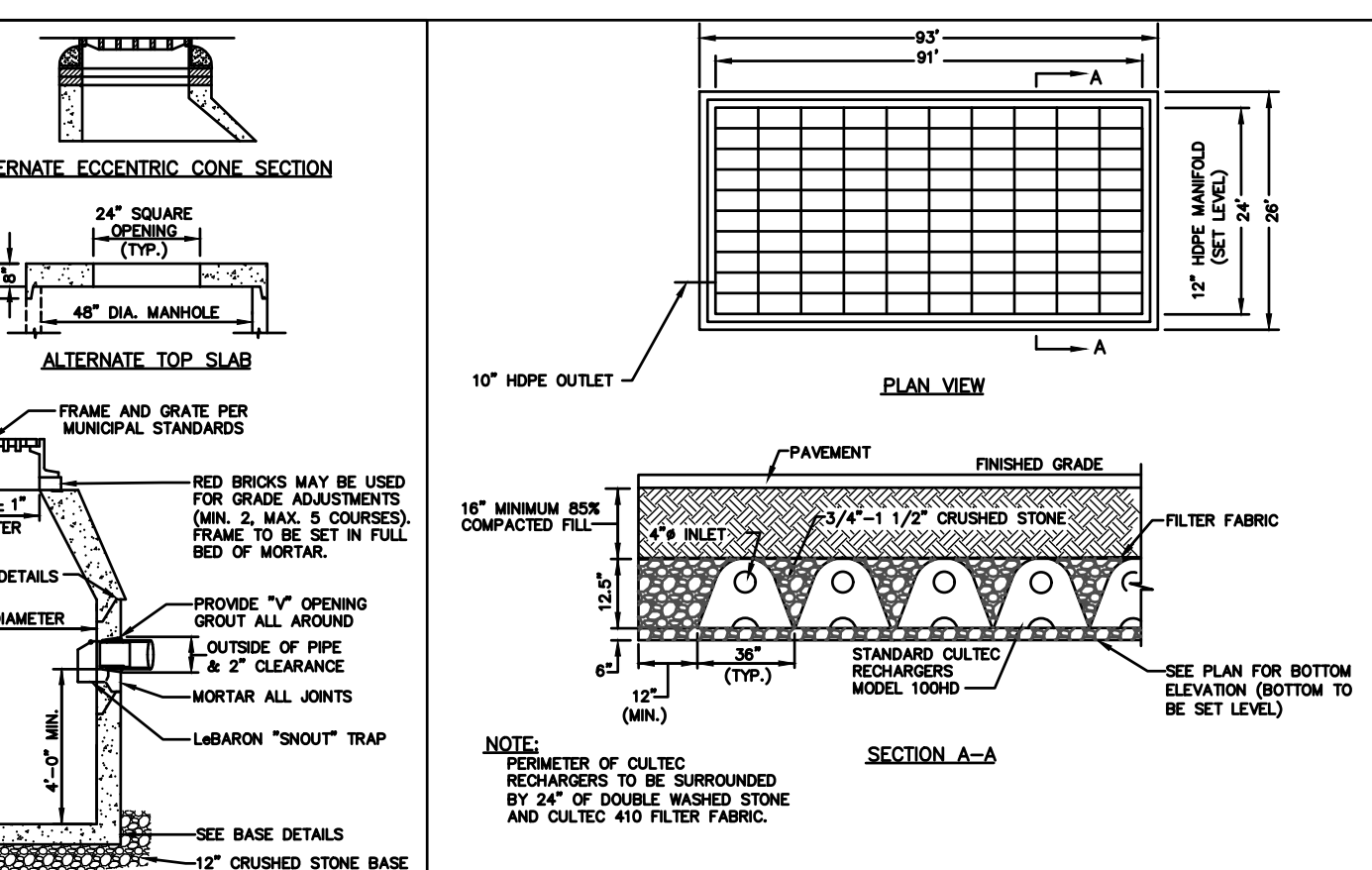
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SCALE: NONE



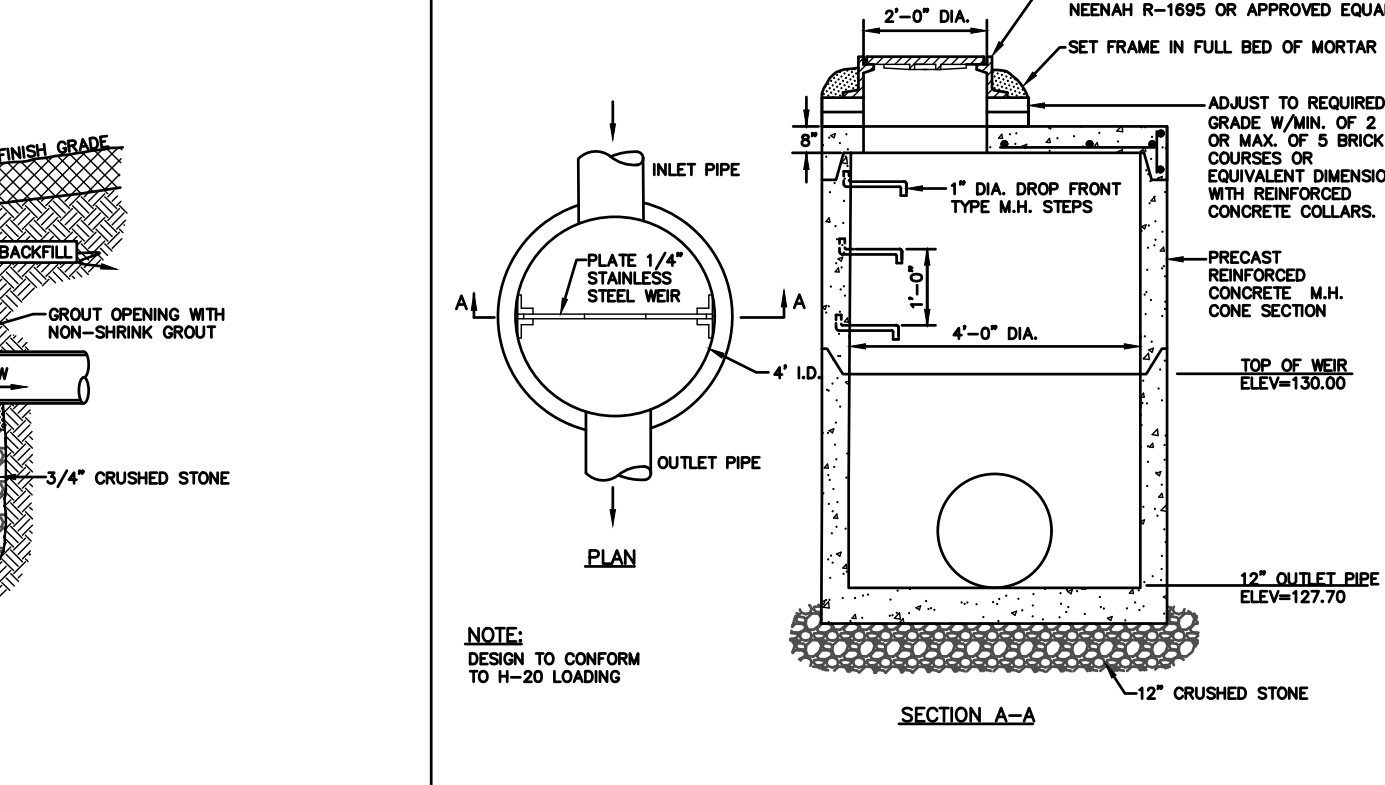
RAIN GARDEN/BIO-RETENTION AREAS
SCALE: NONE



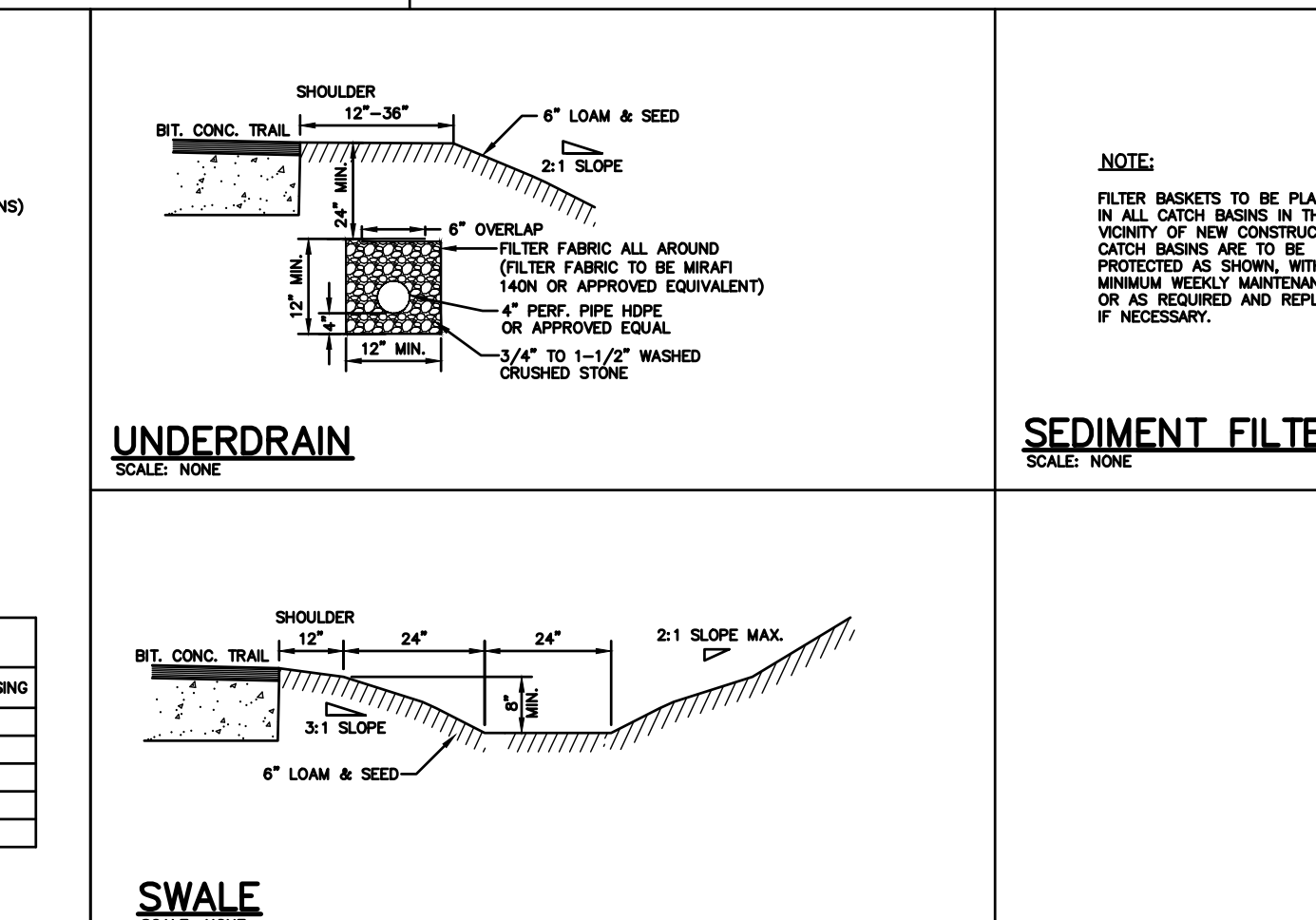
SLOPE STABILIZATION INSTALLATION (AS REQUIRED)
SCALE: NONE



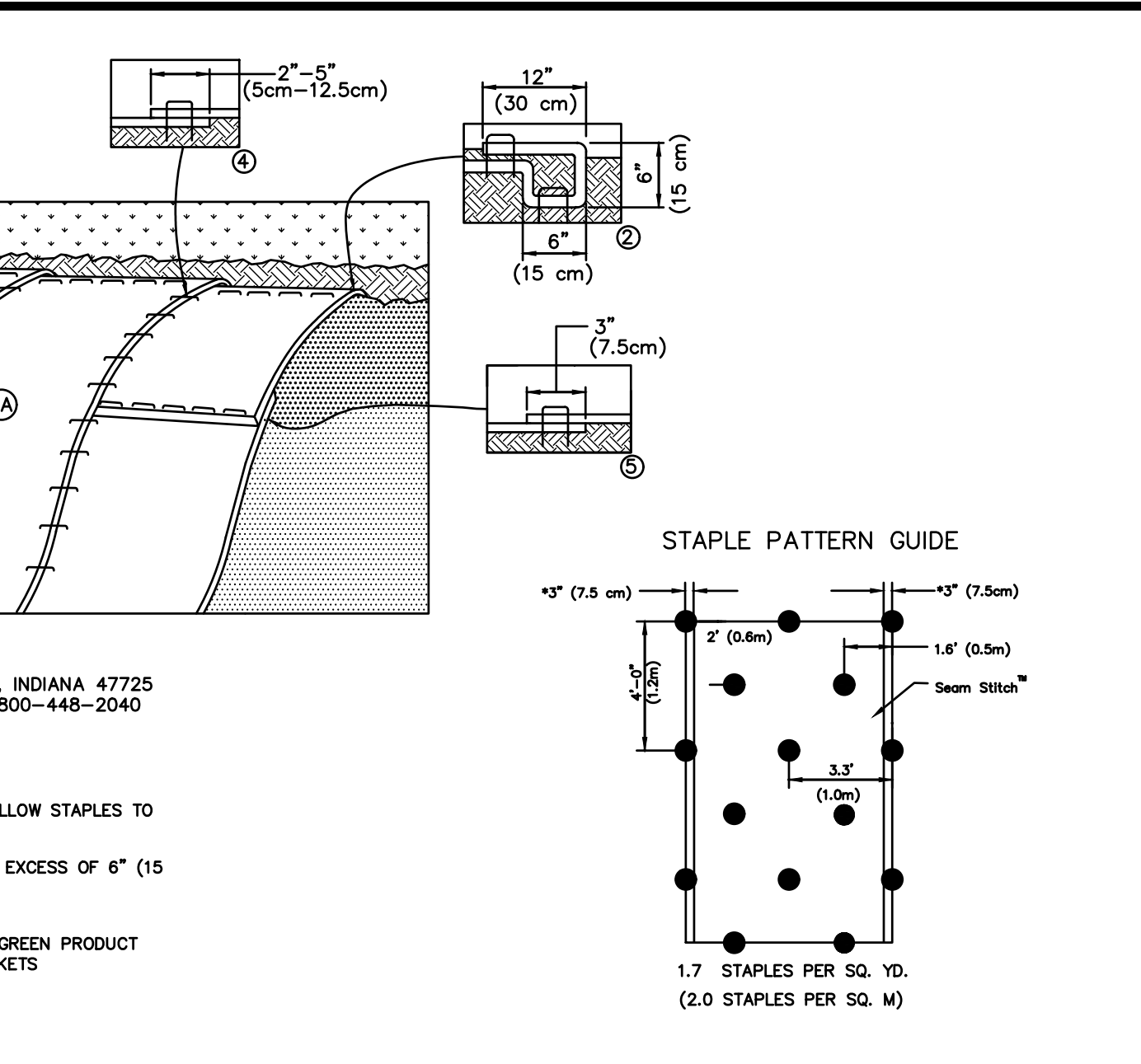
PRECAST CONCRETE CATCH BASIN
SCALE: NONE



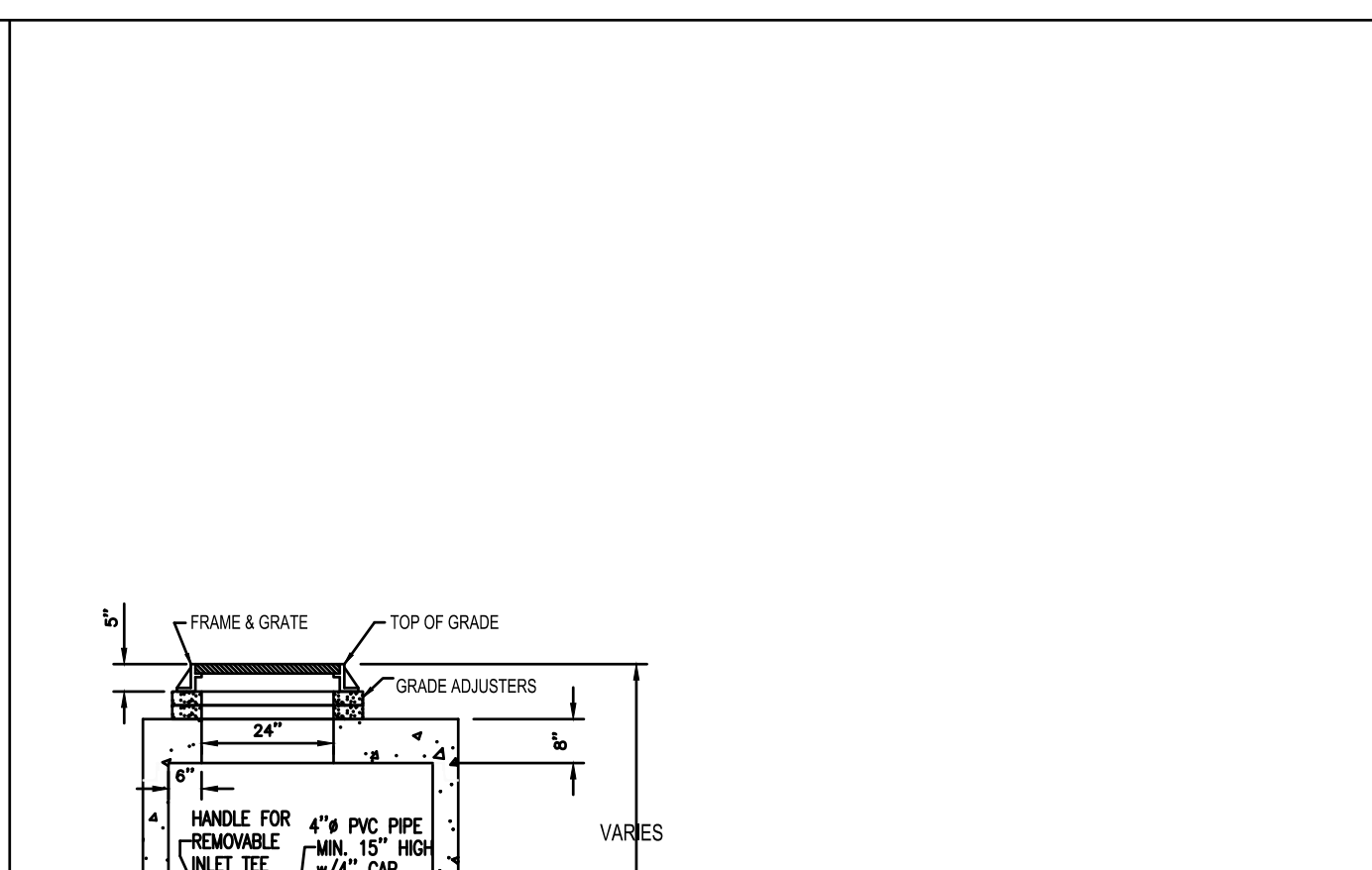
OUTLET CONTROL STRUCTURE
SCALE: NONE



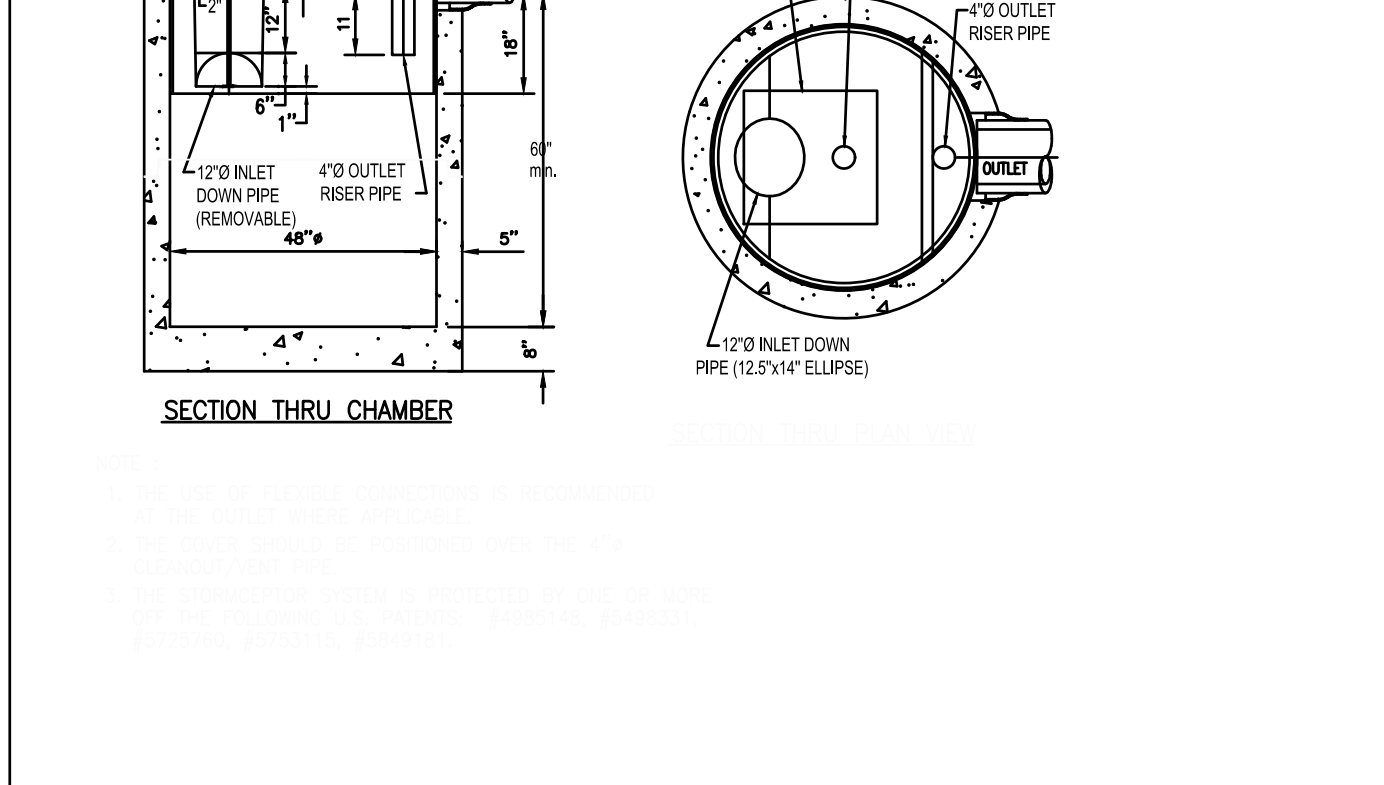
SWALE
SCALE: NONE



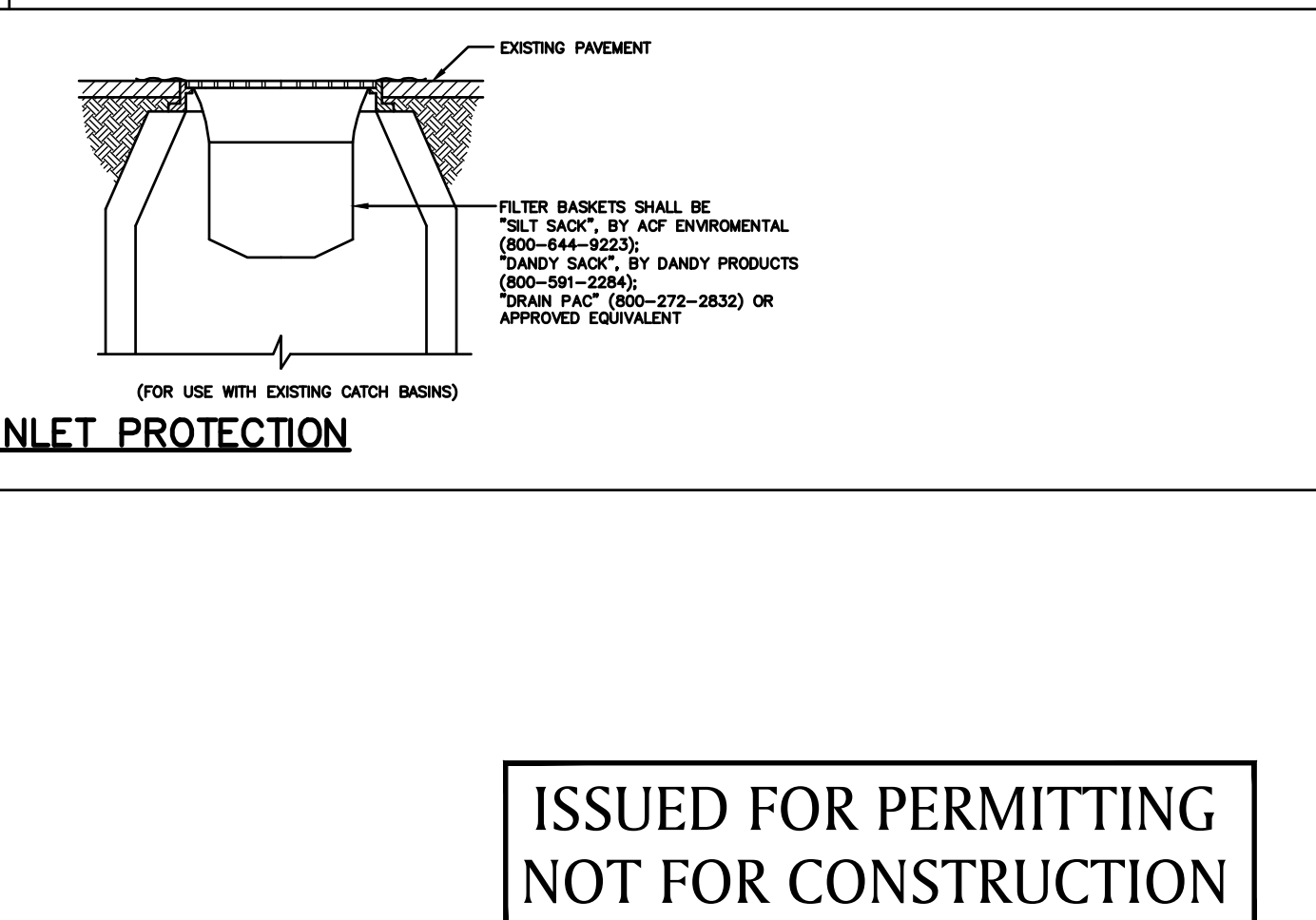
STAPLE PATTERN GUIDE



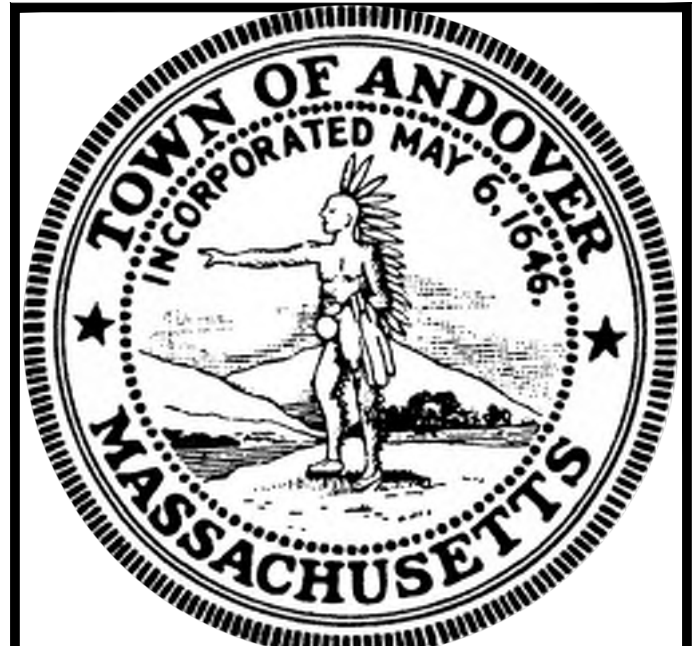
CULTEC CONTACTOR 100HD
SCALE: NONE



WATER QUALITY OUTLET (OR APPROVED EQUAL)
SCALE: NONE



SEDIMENT FILTER INLET PROTECTION
SCALE: NONE



HAGGETTS POND RAIL TRAIL
IN ANDOVER, MA
DETAIL SHEET
NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

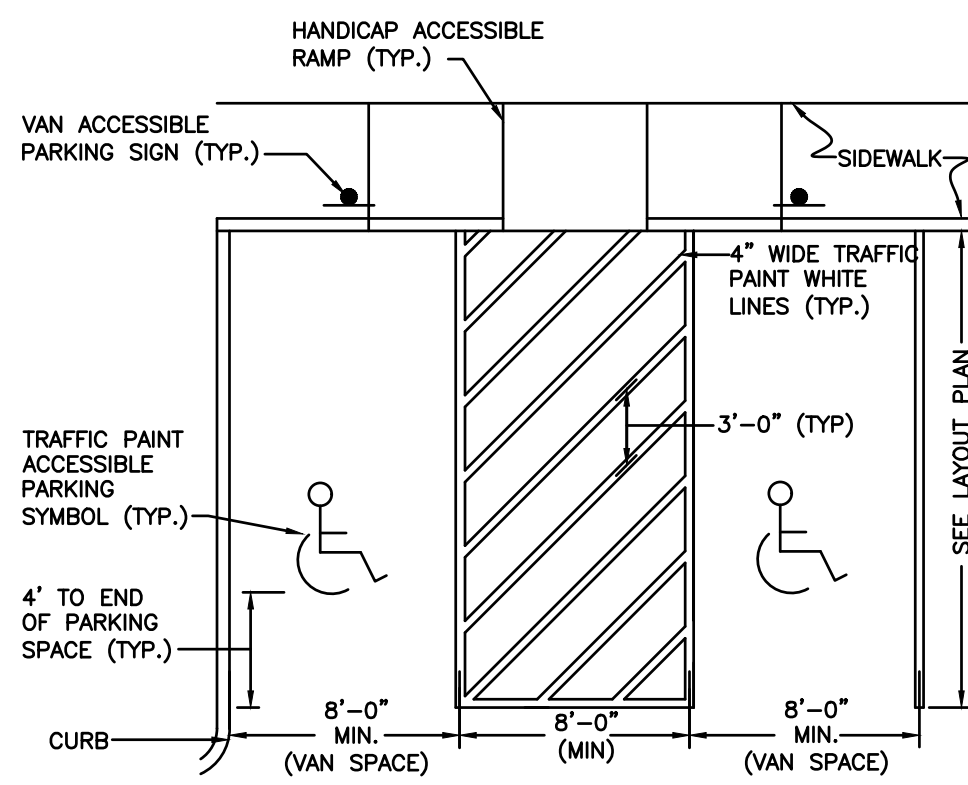
PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: AS SHOWN

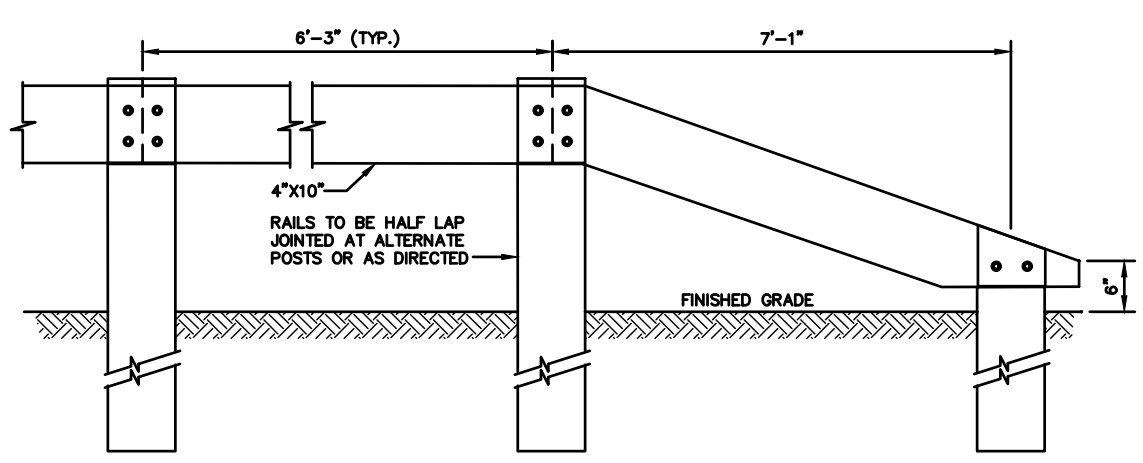
ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION

FILE: P:\8998501\C_
DWG.:
JOB. NO: 8-9985.01 SHEET C-300

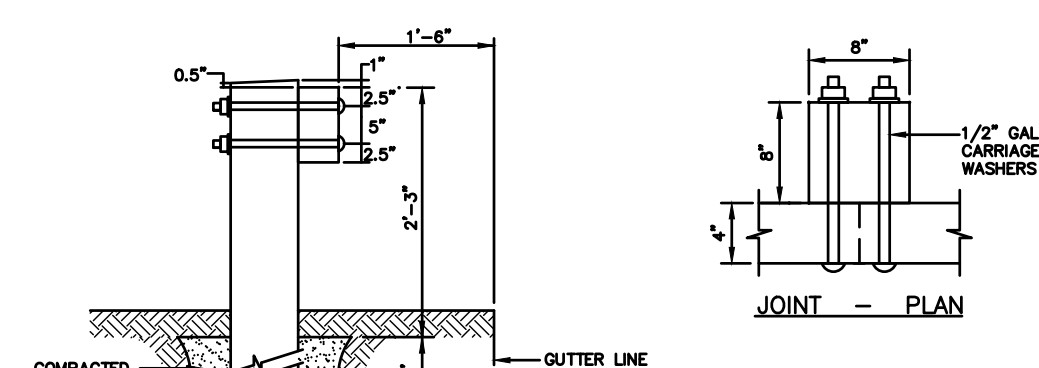


PAINTED PAVEMENT ACCESSIBLE VAN PARKING SPACES

SCALE: NONE

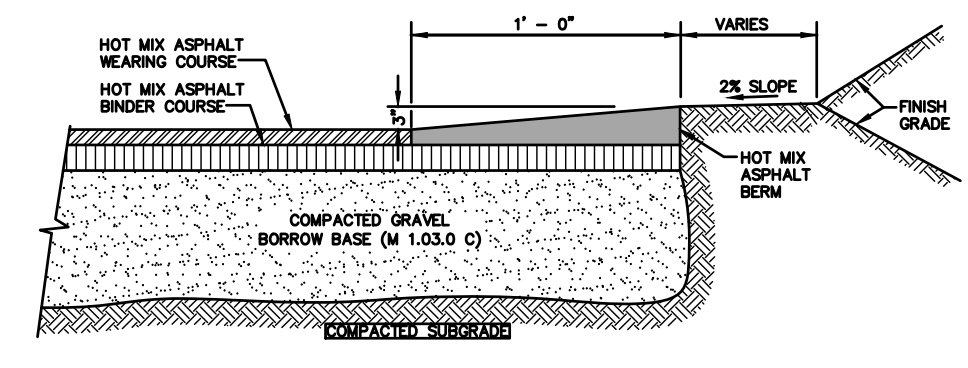


ELEVATION - END TREATMENT



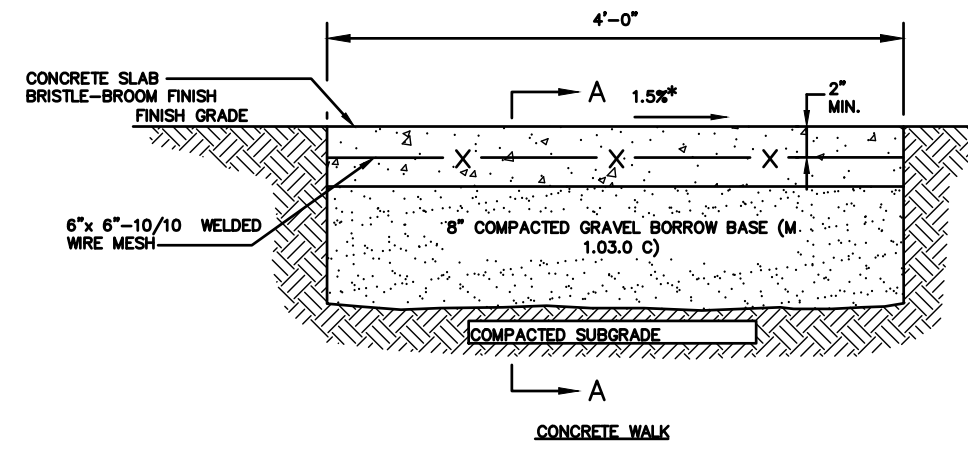
SECTION SINGLE FACE WOOD GUARD RAIL

SCALE: NONE



MODIFIED CAPE COD BERM

SCALE: NONE



CONCRETE WALKWAY

- NOTES:**
- WALK TO 6" THICK IF SUBJECT TO VEHICULAR LOAD.
 - PROVIDE EXPANSION JOINTS AT MAX. 20 FT O.C. WITH PRE-MOLDED JOINT FILLER.
 - PROVIDE CONTROL JOINTS AT 8' O.C.
 - PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
 - CONCRETE SHALL BE 4,000 PSI-TYPE I.
 - CONSTRUCTION TOLERANCE = 0.5%.

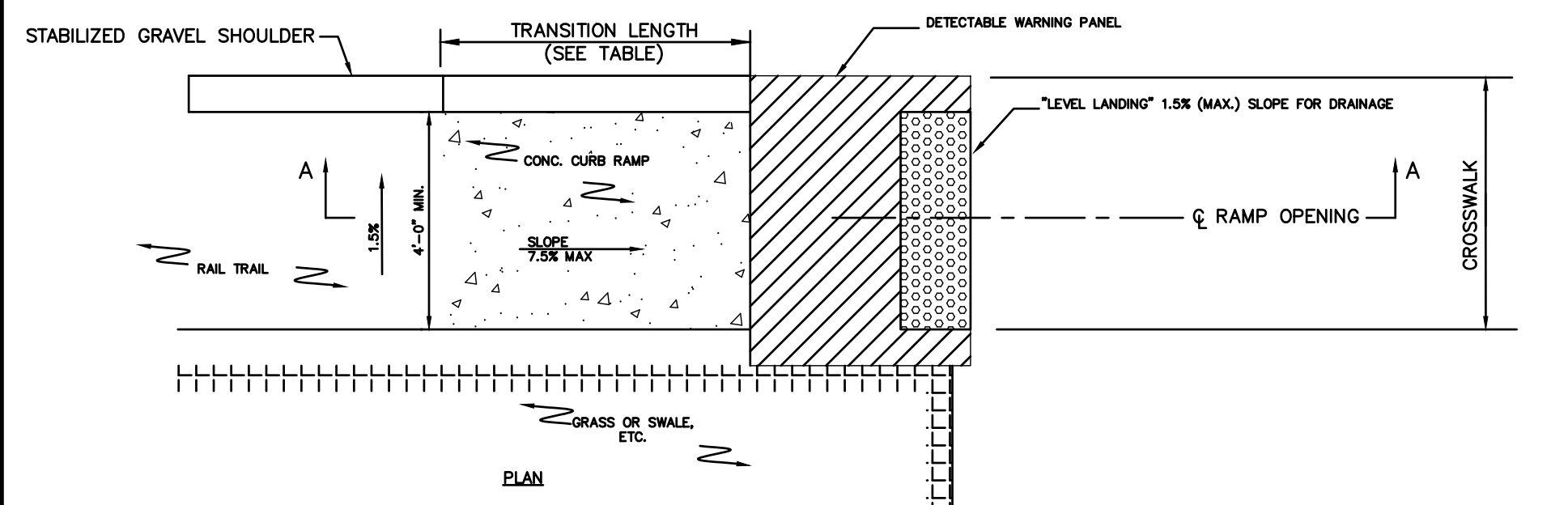
CONTROL/EXPANSION JOINT SPACING

WIDTH	CJ	EJ
4'	5'	25'
5'	5'	25'
6'	6'	24'
7'	5'	28'
8'	4'x4'	24'
9'	4.5'x4.5'	27'
10'	5'x5'	30'

CJ= CONTROL JOINT
EJ= EXPANSION JOINT

CONCRETE WALKWAY

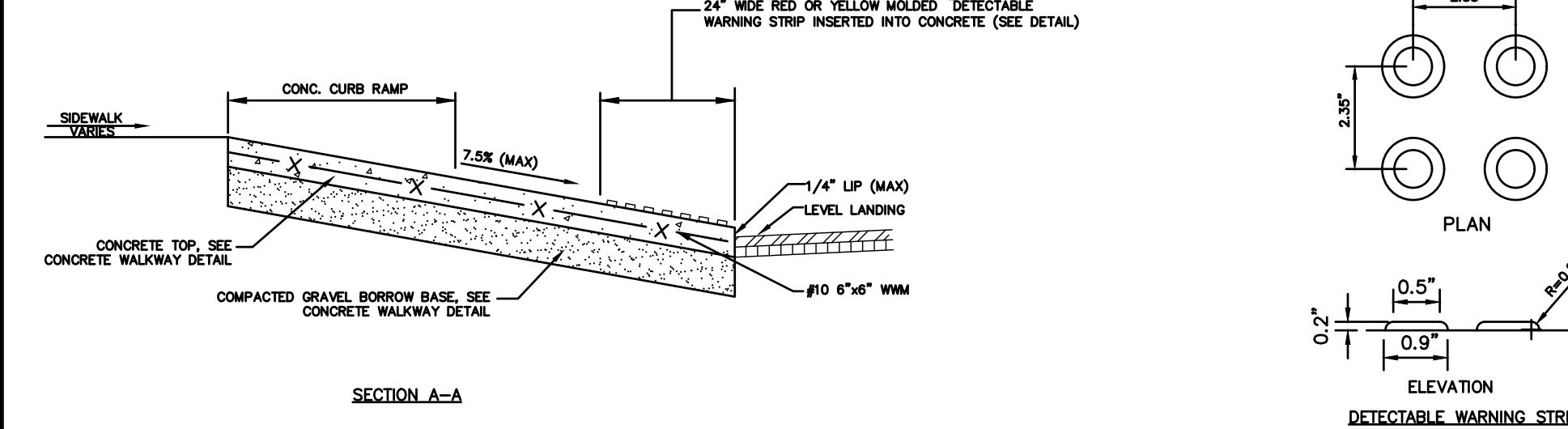
SCALE: NONE



CURB TRANSITION LENGTH FOR WHEELCHAIR RAMPS

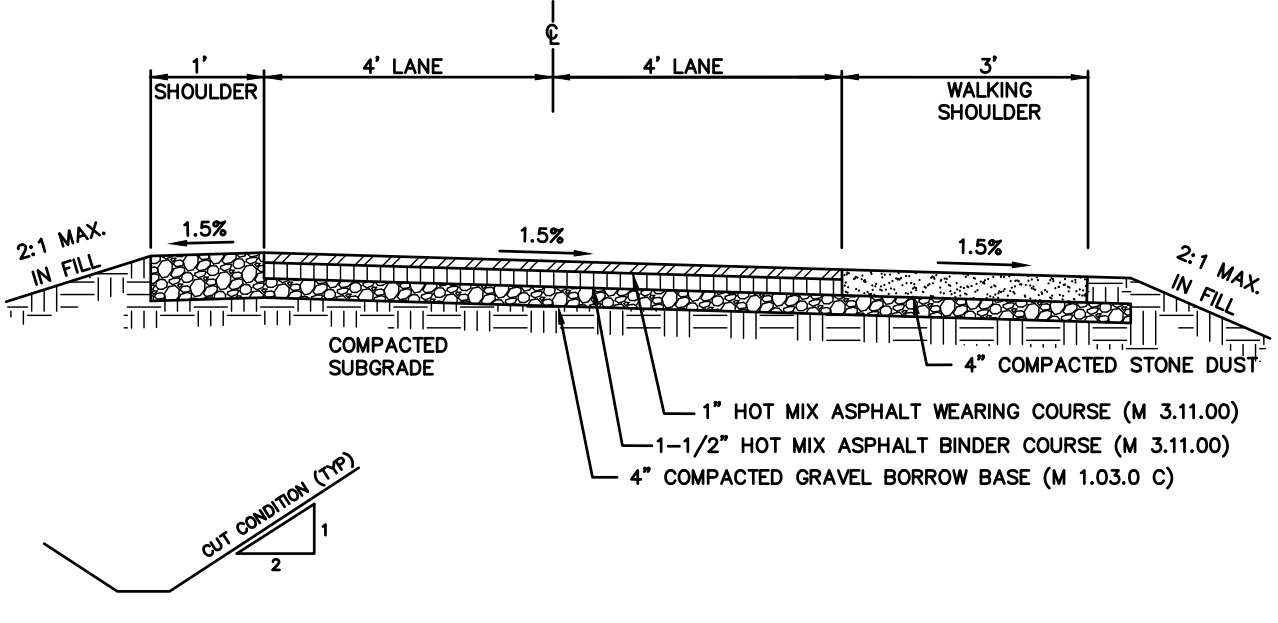
ROADWAY PROFILE GRADE (%)	TRANSITION LENGTH ROUNDED TO THE NEAREST 4"
0 OR LOW SIDE	6'-6"
>0 - 1	7'-8"
>1 - 2	9'-0"
>2 - 3	11'-0"
>3 - 4	14'-0"
>4	15'-0" (MAX)

- NOTES:**
- SLOPE TOLERANCE FOR RAMP AND SIDEWALK CONSTRUCTION = ± 0.50%
 - THE MAX. ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
 - THE MAX. ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 7.5%.
 - A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E. HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
 - BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.



ACCESSIBLE CURB RAMP TYPE 'B' - SINGLE DIRECTION WITH LEVEL ENTRANCE

SCALE: NONE

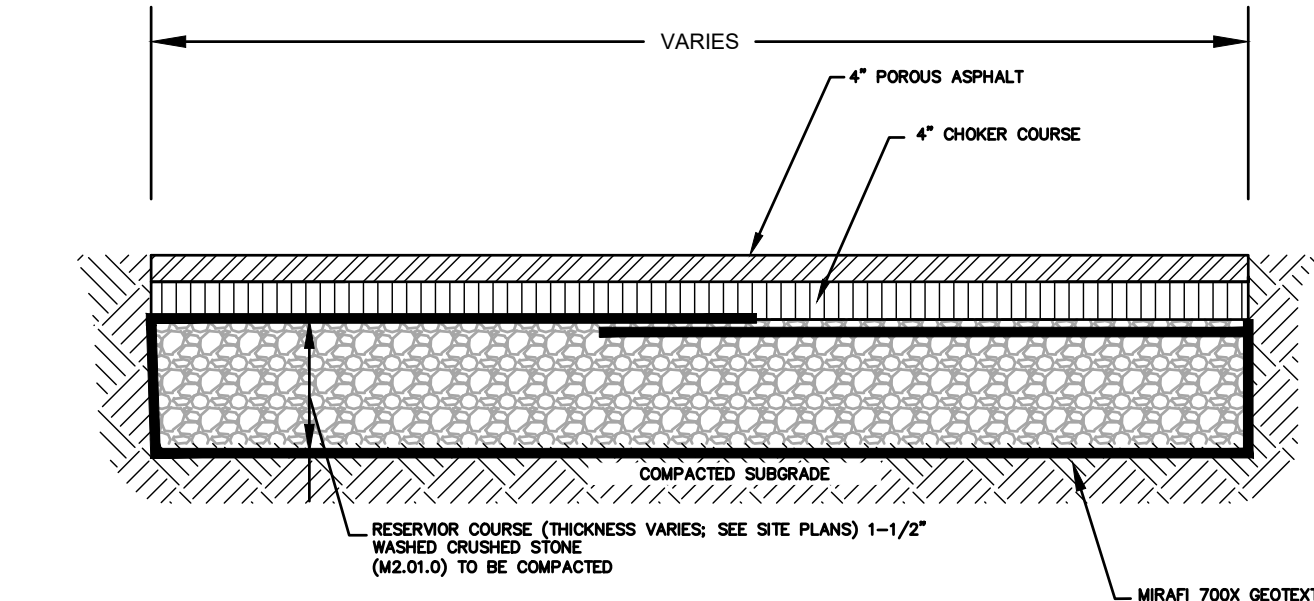


HOT MIX ASPHALT RAIL TRAIL SECTION

SCALE: NONE

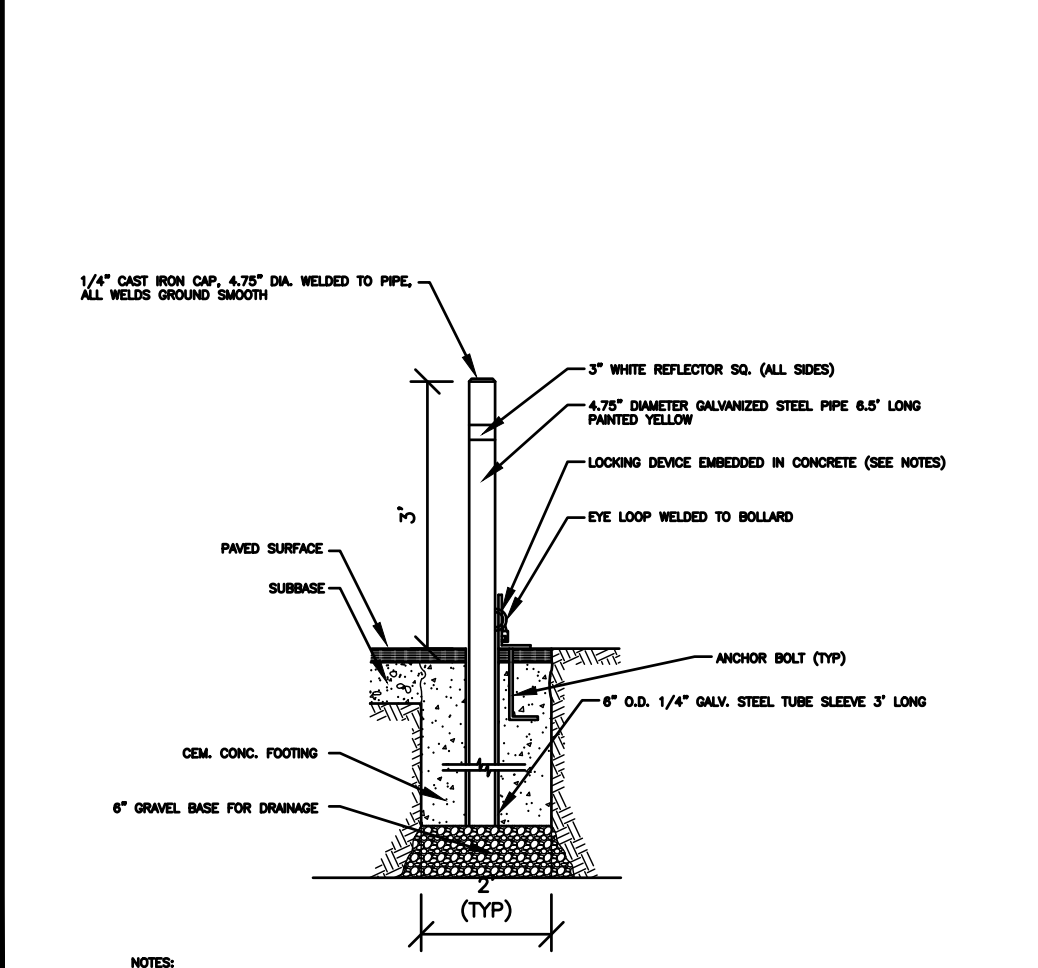
- NOTES:**
- POROUS ASPHALT AND CHOKER COURSES SHALL MEET THE FOLLOWING REQUIREMENTS:

- 4" POROUS ASPHALT -**
- SHALL BE SOFT-BLENDED PG 64-28 SRB WITH 5 POUNDS OF FIBER PER TON OF ASPHALT MIX
 - 3/4" = 100%
 - 1/2" = 85-100%
 - 3/8" = 55-75%
 - #4 = 10-25%
 - #8 = 5-10%
 - #200 = 2-4%
 - AIR VOID CONTENT = 16-22%
- 4" CHOKER COURSE -** SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:
- 1-1/2" = 100%
 - 1" = 95-100%
 - 1/2" = 25-60%
 - #4 = 0-10%
 - #8 = 0-5%
 - 90% COMPACTION



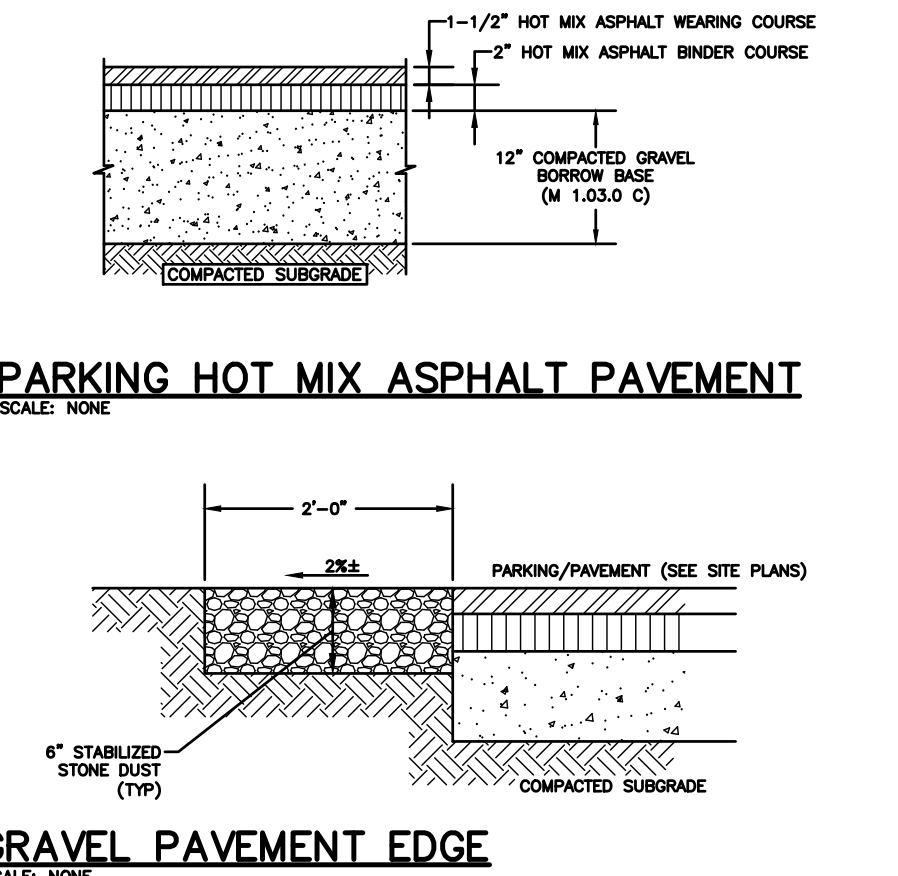
HIGH PLAIN ROAD PARKING POROUS PAVEMENT PARKING AREAS

SCALE: NONE



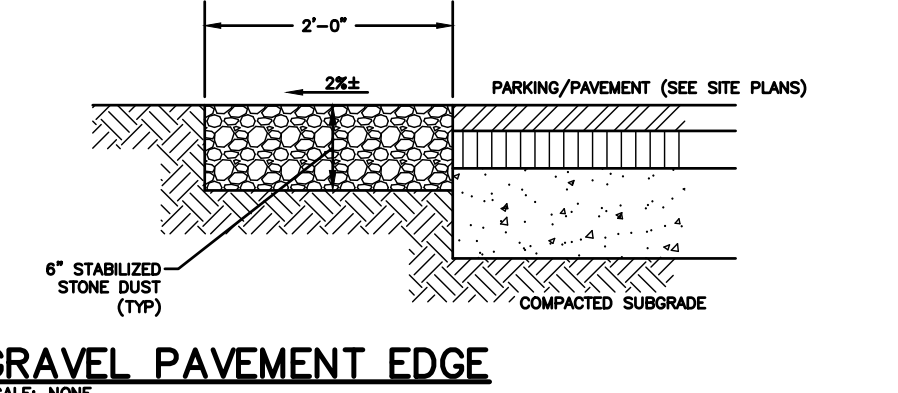
REMOVABLE BOLLARD

N.T.S.



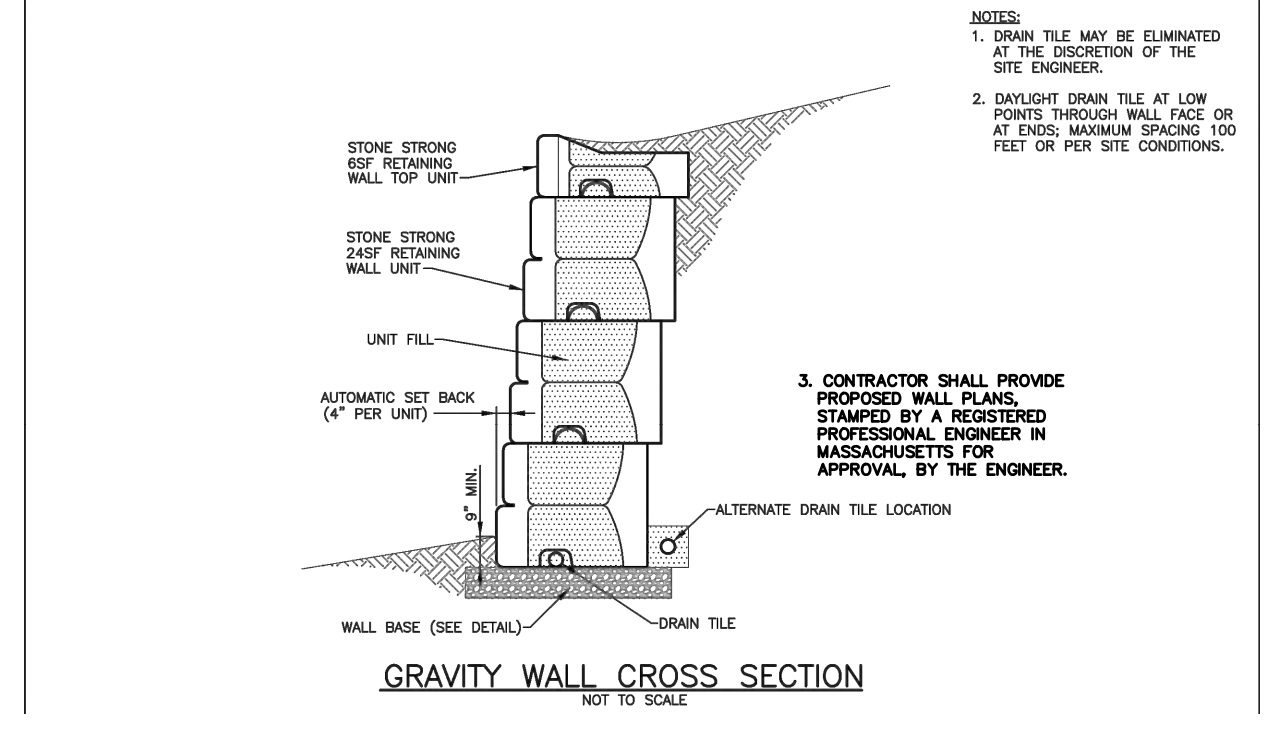
PARKING HOT MIX ASPHALT PAVEMENT

SCALE: NONE



GRAVEL PAVEMENT EDGE

SCALE: NONE



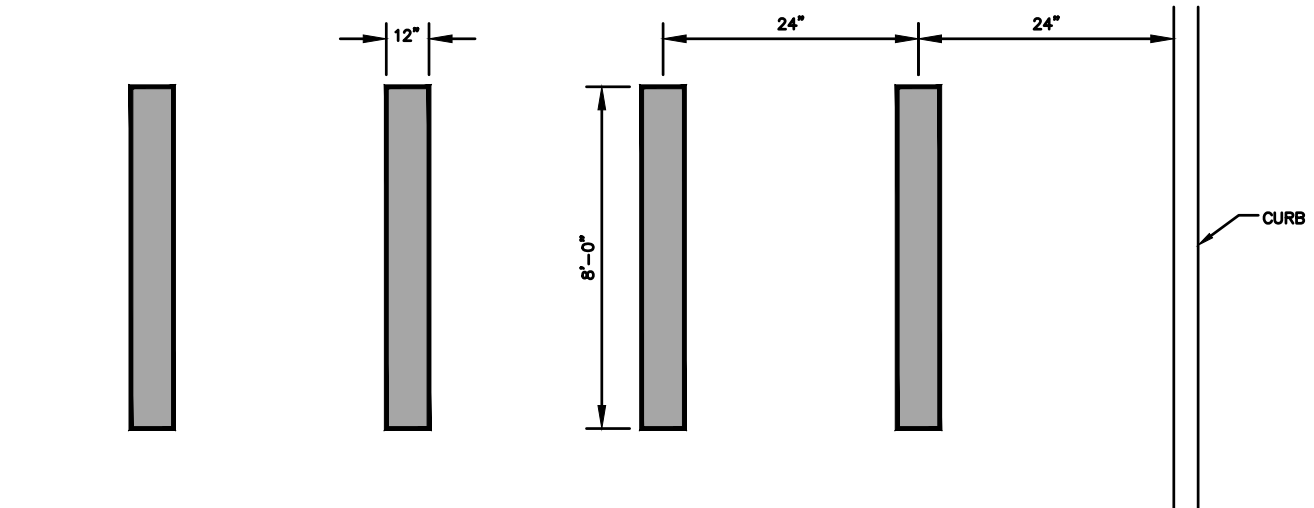
GRAVITY WALL CROSS SECTION

NOT TO SCALE

- NOTES:**
- DRAIN TILE MAY BE ELIMINATED AT THE DISCRETION OF THE SITE ENGINEER.
 - DAYLIGHT DRAIN TILE AT LOW POINTS THROUGH WALL FACE OR AT END; MAXIMUM SPACING 100 FEET OR PER SITE CONDITIONS.
 - CONTRACTOR SHALL PROVIDE PROPOSED WALL PLAN, STAMPED BY A REGISTERED PROFESSIONAL ENGINEER IN MASSACHUSETTS FOR APPROVAL BY THE ENGINEER.

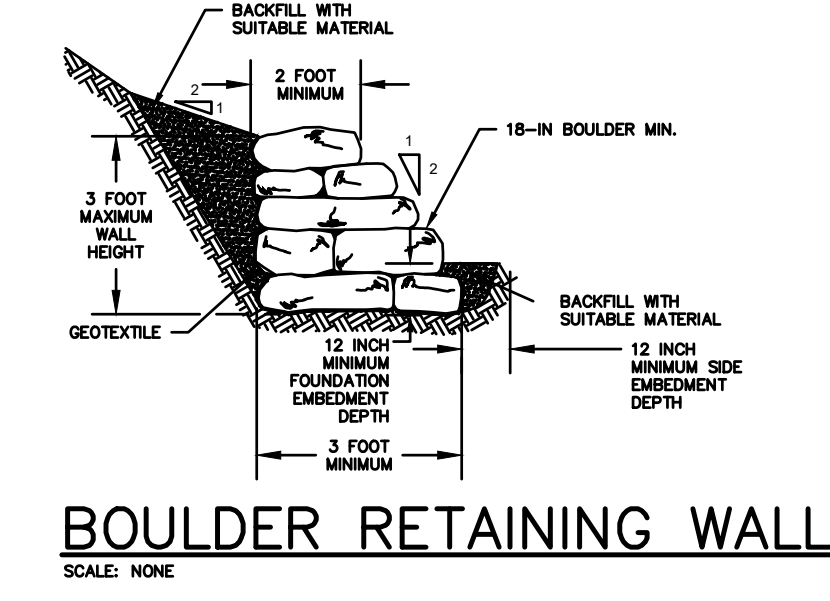
GRAVITY BLOCK RETAINING WALL

SCALE: NONE



PEDESTRIAN CROSSWALK MARKINGS

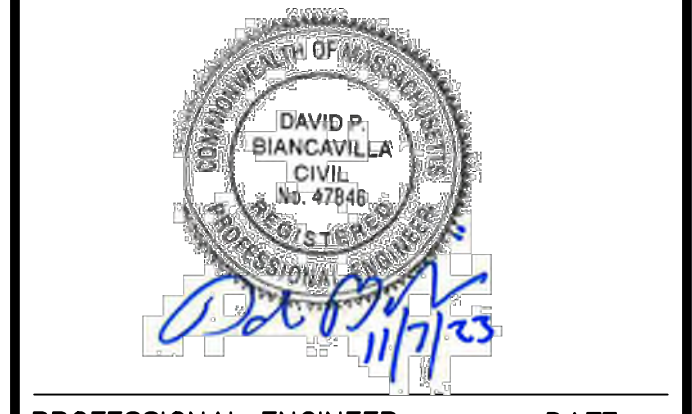
SCALE: NONE



BOULDER RETAINING WALL

SCALE: NONE

**ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION**



PROFESSIONAL ENGINEER DATE

HAGGETTS POND RAIL TRAIL

IN
ANDOVER,
MA

DETAIL SHEET

NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: AS SHOWN

FILE: P:\8998501\C_D
DWG.:
JOB. NO: 8-9985.01 SHEET C-301



PROFESSIONAL ENGINEER DATE

HAGGETTS POND RAIL TRAIL

IN ANDOVER, MA

DETAIL SHEET

NOVEMBER 7, 2023

REVISIONS:

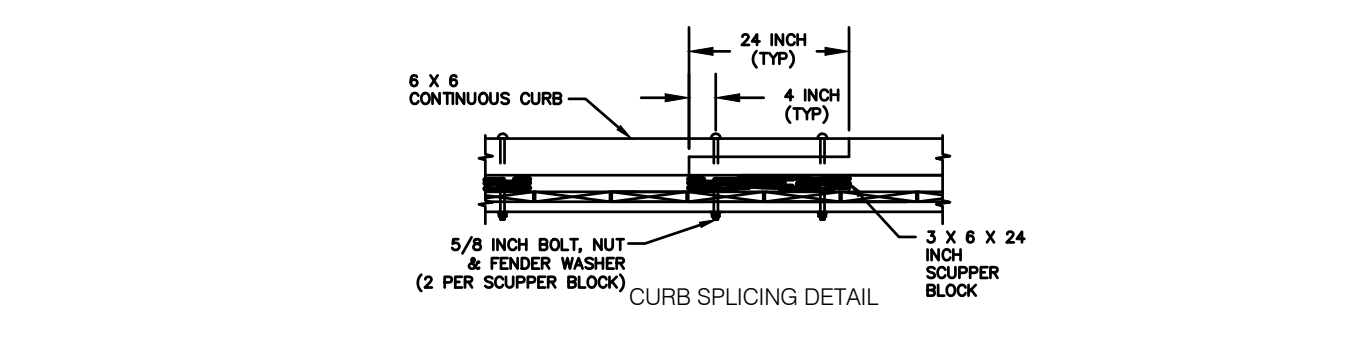
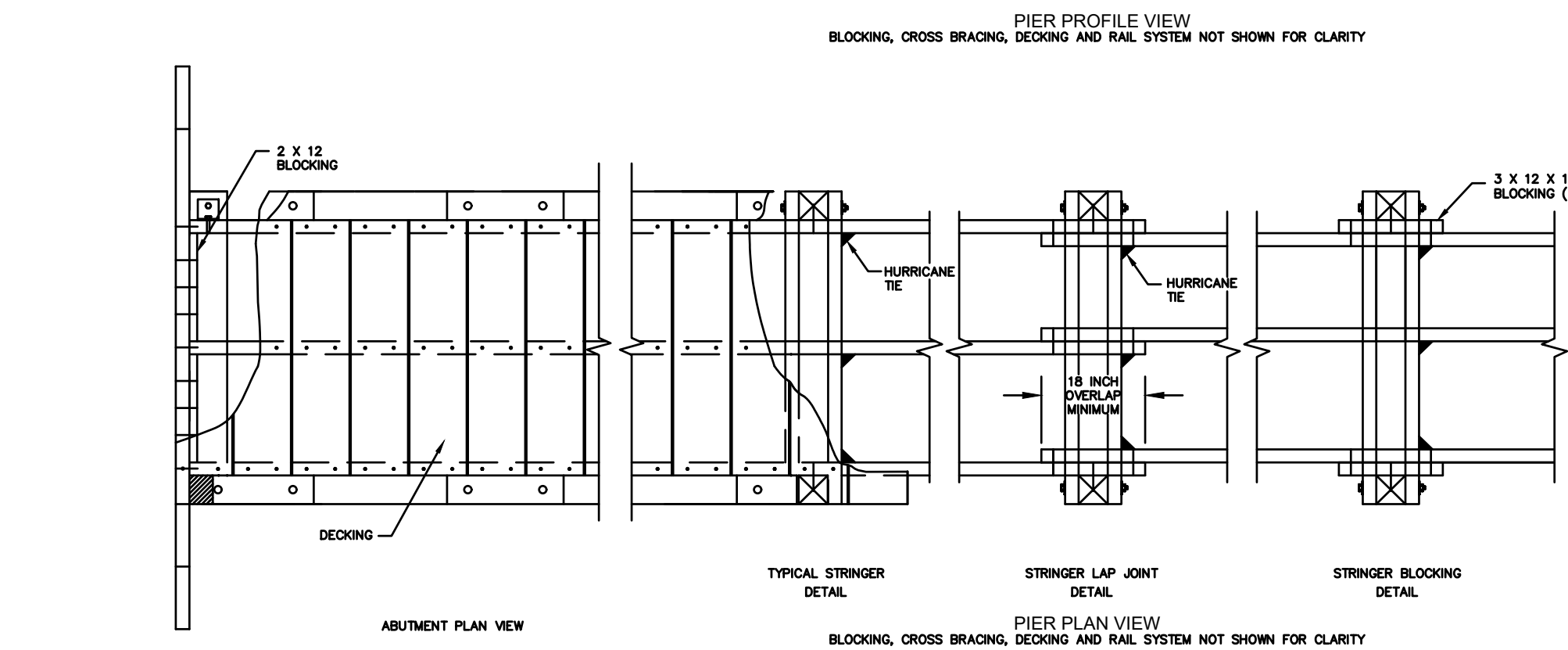
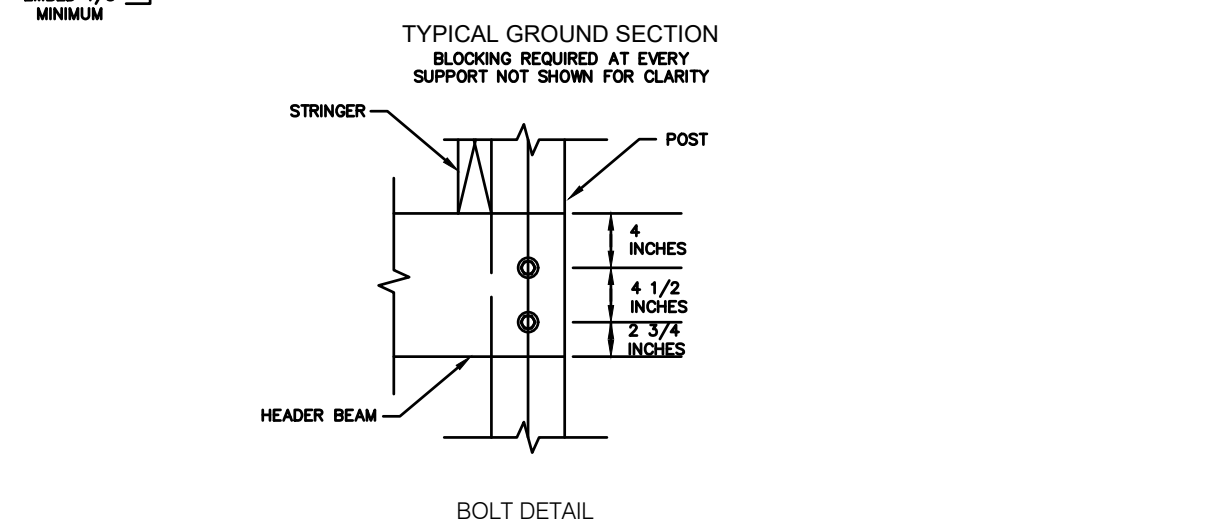
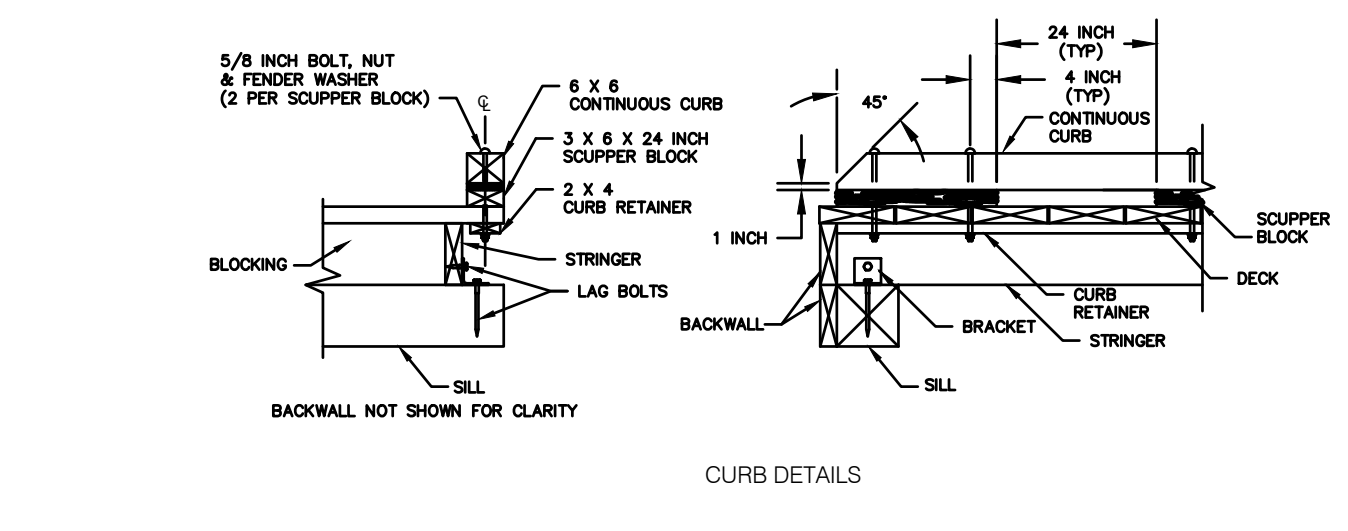
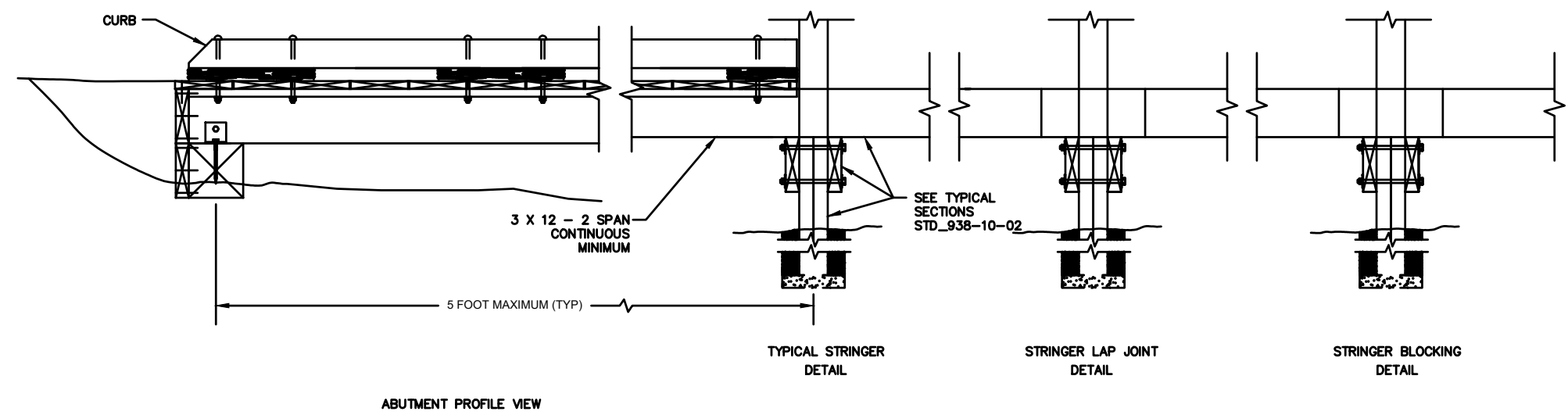
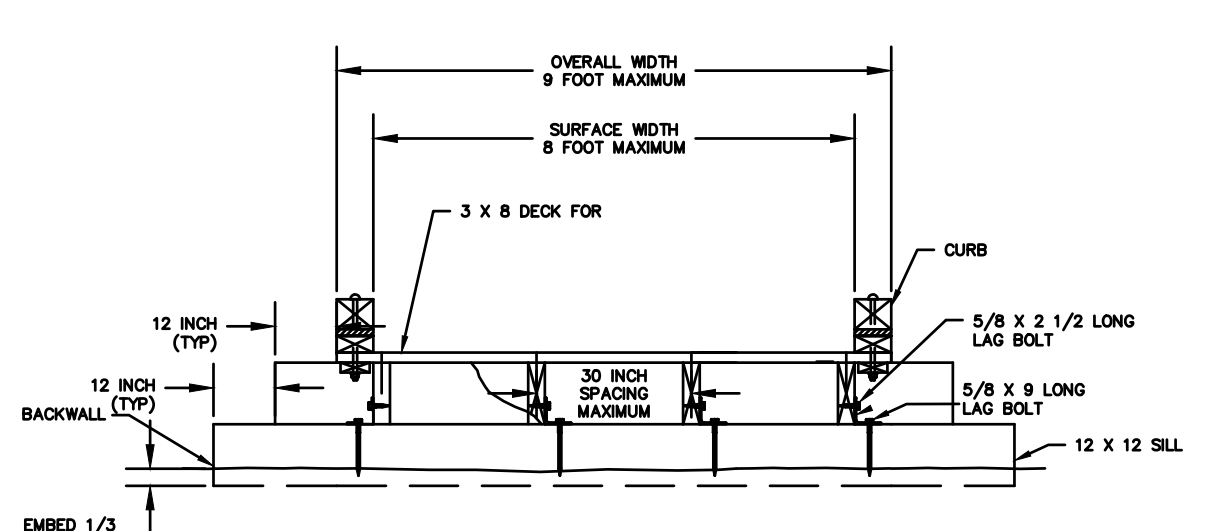
PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

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300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: AS SHOWN

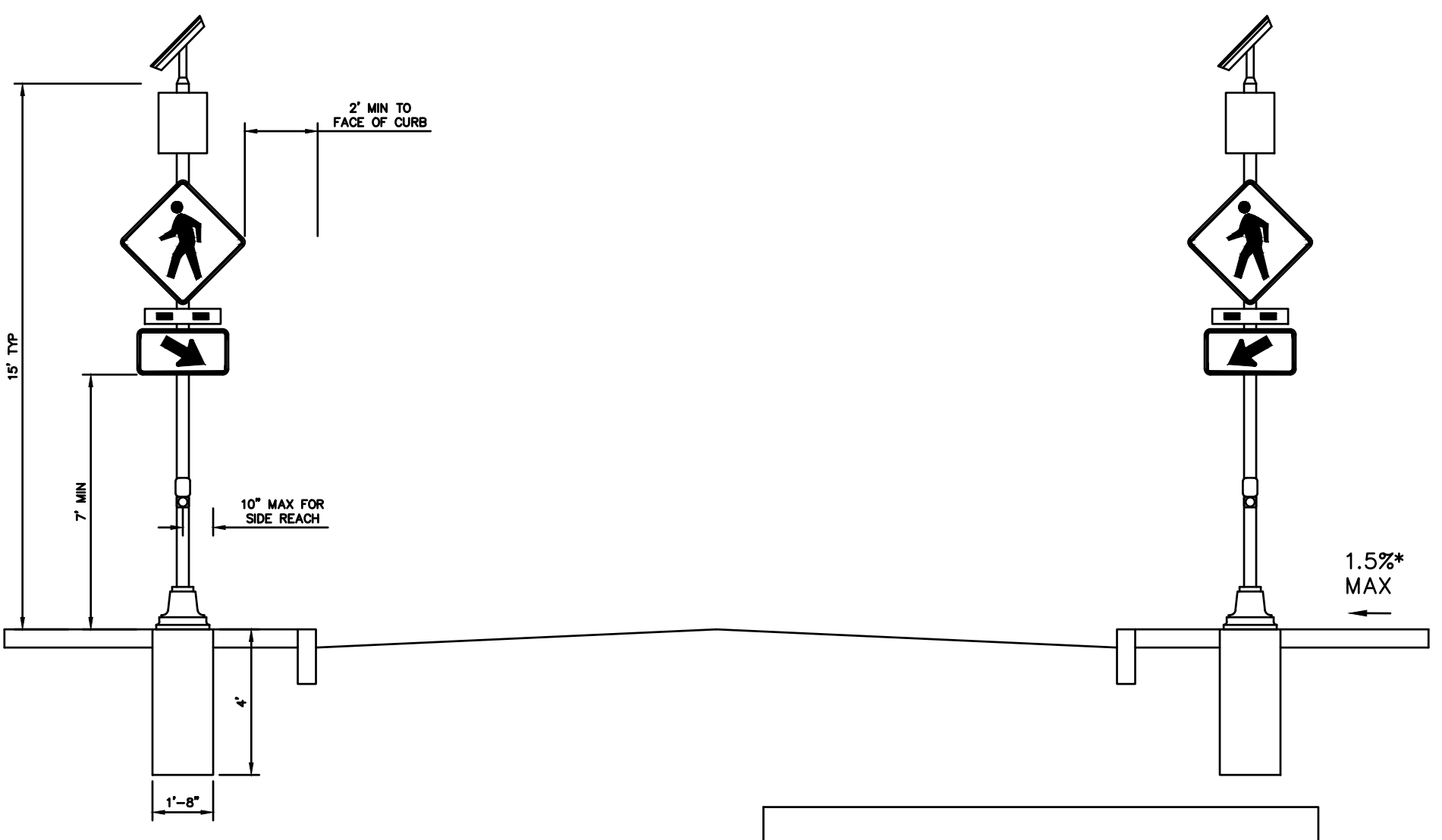
FILE: P:\8998501\C\DWG:
JOB. NO: 8-9985.01 SHEET C-302

ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION

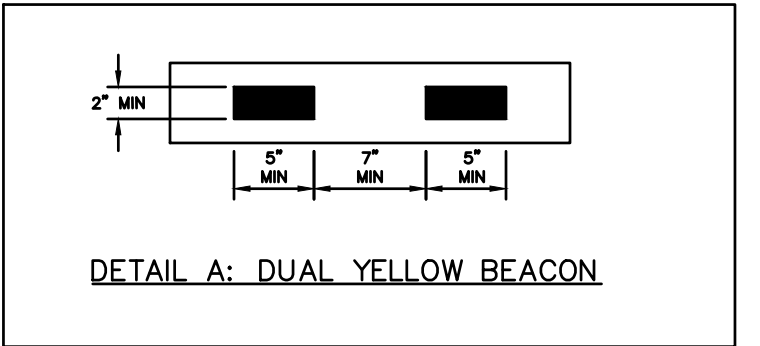


NOTE
DETAIL PROVIDED FOR POSITION AND DESIGN INTENT.
CARPENTER TO SUBMIT SHOP DRAWING

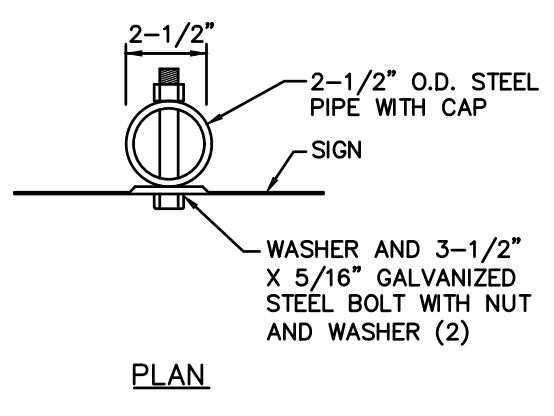
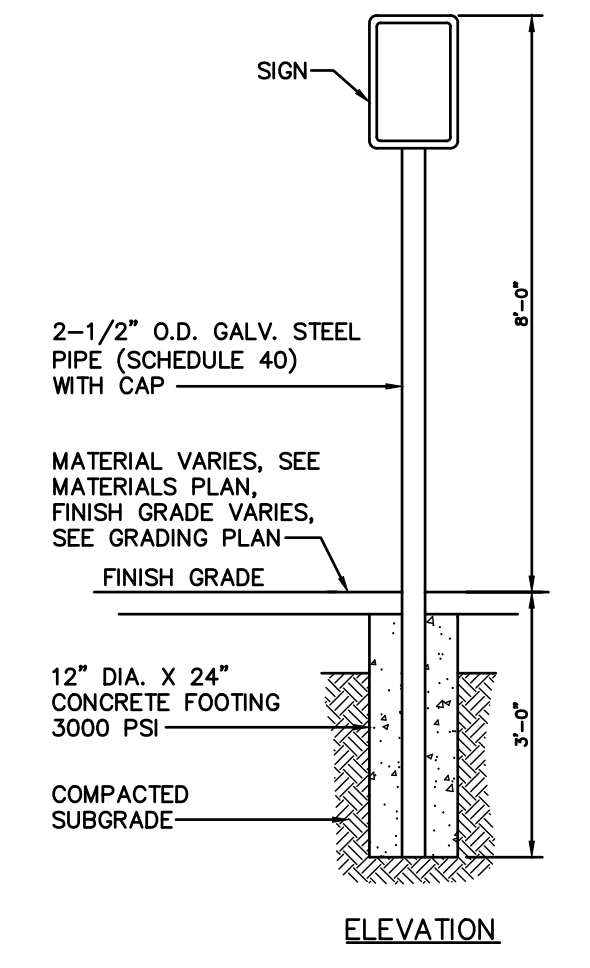
BOARDWALK
SCALE: NONE



- NOTES:
1. CROSSWALK AND ADA COMPLIANT RAMPS NOT SHOWN. SEE PLANS FOR LOCATIONS.
2. REFER TO THE SIGN SUMMARY FOR SIGN DIMENSIONS.
3. ACCESS TO ALL PEDESTRIAN ACTUATED CONTROLS SHALL BE ADA/ANS COMPLIANT.
4. TOLERANCE CONSTRUCTION TOLERANCE FOR CROSS-SLOPE.
5. FINISH FOR POST AND PEDESTALS SHALL BE TIG POLYESTER POWDERCOAT, FED STD COLOR #14036.

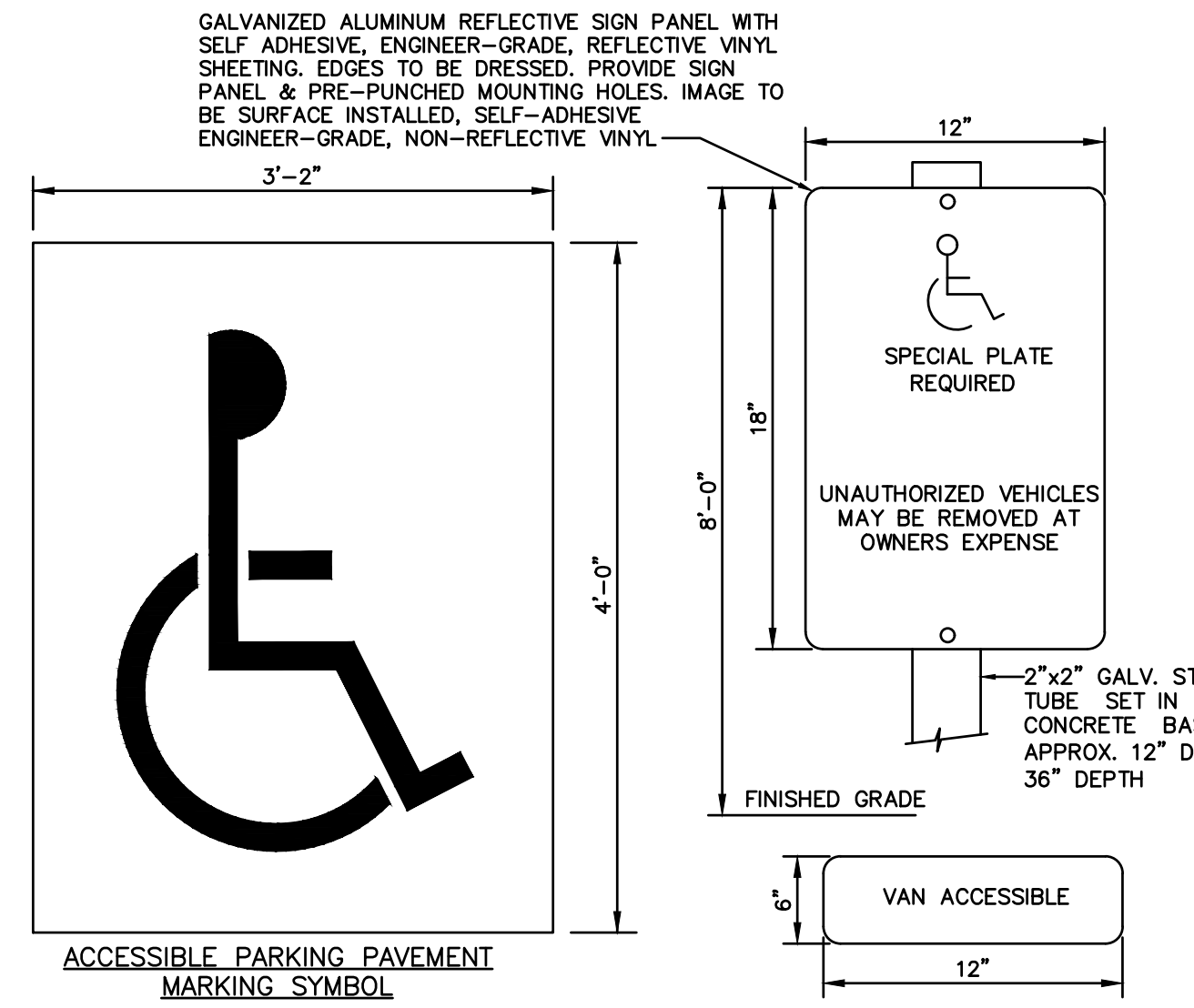


RECTANGULAR RAPID FLASH BEACON
SCALE: NONE



TYPICAL SIGN SUPPORT AND SIGNAGE
SCALE: NONE

NOTE:
LOCATION OF ALL SIGNS WILL BE COORDINATED WITH
DRW PRIOR TO INSTALLATION.



NOTE:
ACCESSIBLE SYMBOL SHALL BE TRAFFIC PAINT AND CENTERED IN STALL.
ACCESSIBLE SIGN & POST (VISITOR SIGN & POST TYP.)

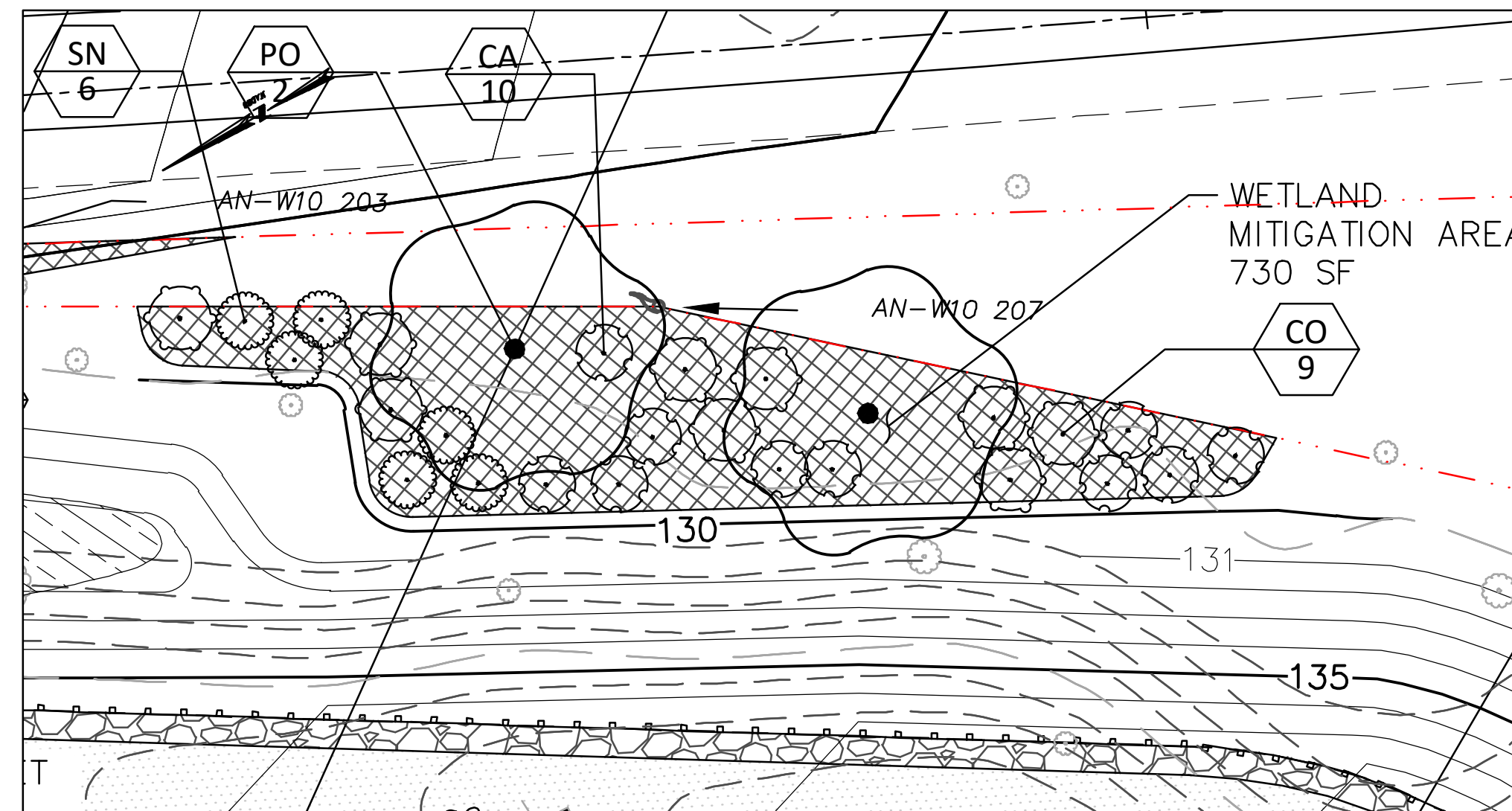
PAINTED PAVEMENT MARKINGS ACCESSIBLE PARKING SYMBOL & ACCESSIBLE PARKING SIGN

SCALE: NONE

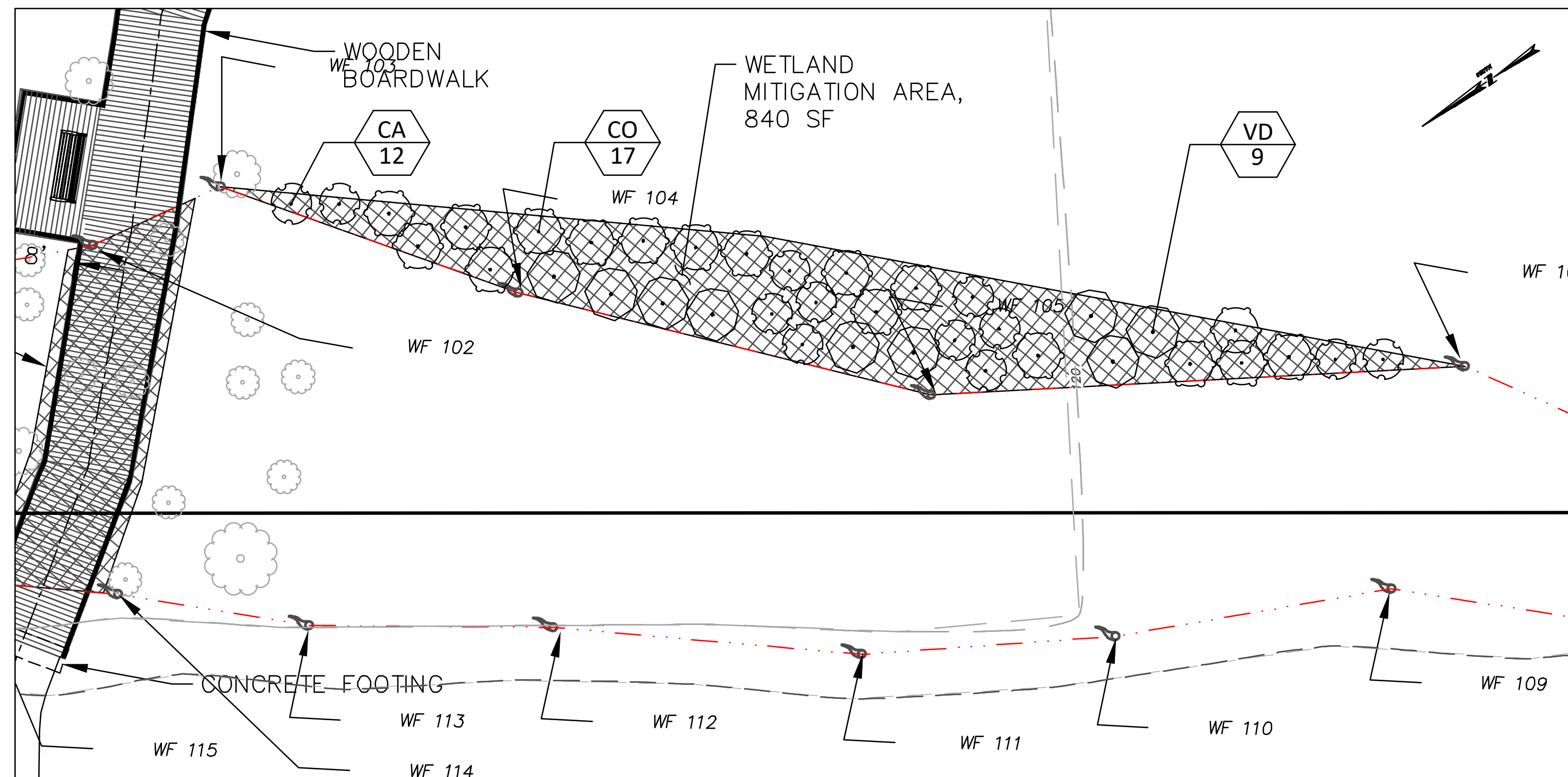
PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	NOTES	SIZE
PO	2	PLATANUS OCCIDENTALIS AMERICAN SYCAMORE		4.5'
SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	SIZE
CA	22	CORNUS AMOMIUM SILKY DOGWOOD	1 GAL	
CO	26	CORYLUS AMERICANA AMERICAN HAZELNUT	1 GAL	
SN	6	SAMBUCUS NIGRA BLACK ELDERBERRY	2 GAL	
VD	9	VIBURNUM DENTATUM ARROW WOOD VIBURNUM	2 GAL	
GROUND COVERS	QTY	BOTANICAL / COMMON NAME	CONT	SIZE
DC	115	DESMODIUM CANADENSE SHOWY TICK TRIFOLIUM	PLUGS	
IV	50	IRIS VERSICOLOR BLUE FLAG	PLUGS	
SO	100	SOLIDAGO ODORA SWEET GOLDENROD	PLUGS	

SEEDED UPLAND AREAS W/ HYDRO-MULCH
OR PUNCHED STRAW EROSION CONTROL



WETLAND MITIGATION AREA-1 @ STA 2+50± RT
SCALE: 1"=10'



WETLAND MITIGATION AREA-1 @ STA 2+50± RT
SCALE: 1"=10'

WETLAND SOIL NOTES

1. REMOVE AND DISPOSE SOLID WASTE FROM THE SOIL SURFACE AND DISPOSE IN ACCORDANCE WITH REGULATIONS.
2. ADDITIONAL TOPSOIL MATERIAL MAY BE NEEDED TO ACHIEVE A PROPOSED A HORIZONTAL TOPSOIL DEPTH.
3. ADDITIONAL TOPSOIL SHALL BE NATURAL, FERTILE, PRODUCTIVE, AND CLOSELY MATCH THE ORGANIC CONTENT AND USDA TEXTURAL CLASSIFICATION OF THE ON SITE WETLAND TOP SOIL.
4. OFFSITE SUPPLEMENTAL TOPSOIL SHALL BE HAND MIXED WITH ONSITE TOPSOIL. CONTRACTOR SHALL PROVIDE A DESCRIPTION OF THE SOURCE, PREPARATION, STOCKPILING AND PLACEMENT OF TOPSOIL BROUGHT FROM OFFSITE.
5. WETLAND TOPSOIL SHALL BE MANAGED TO MAINTAIN A LOOSE TO FRABLE CONSISTENCY, AND TO AVOID BOTH OVER-COMPACTION AND UNDER-COMPACTION.
6. EXISTING A HORIZONTAL TOPSOIL AND OFFSITE SUPPLEMENTAL TOPSOIL SHALL BE TESTED TO DETERMINE ORGANIC CONTENT, USDA TEXTURAL CLASSIFICATION, SIEVE ANALYSIS, PH, AND NUTRIENT AND MICRO-NUTRIENT ANALYSIS.
7. IF COMPOSITION OF EXISTING A HORIZONTAL TOPSOIL DOES NOT INCLUDE A MINIMUM OF 10% ORGANIC CONTENT BY WEIGHT ON COMBUSTION IT SHALL BE AMENDED WITH ADDITIONAL ORGANIC COMPOST AS DIRECTED BY THE WETLAND SCIENTIST.
8. THE LANDSCAPE CONTRACTOR SHALL FURNISH LOAM BORROW/ TOPSOIL AND/ OR COMPOST. THESE SHALL BE FERTILE, FRABLE, NATURAL AND PRODUCTIVE TOPSOIL. WITHOUT ADMIXTURE OF SUBSOIL AND SHALL BE REASONABLY FREE OF STONES, LUMPS, ROOTS, STICKS INVASIVE SEED OR STOCK AND OTHER FOREIGN MATTER. PROVIDE SOIL TEST REPORTS FOR ONSITE TOP SOIL TO BE REUSED AND FOR LOAM BORROW TO BE IMPORTED. SOIL TEST REPORT SHALL INCLUDE USDA TEXTURAL CLASSIFICATION TEXTURAL SIEVE ANALYSIS, AS WELL AS NUTRIENT ANALYSIS, AND MICRO-NUTRIENTS.
9. FERTILIZER SHALL NOT BE APPLIED PER THE PROVISIONS OF 330 CMR 31.00-31.11
10. PROVIDE SOIL AMENDMENTS AS DIRECTED BY THE AE BASED UPON THE FINDINGS OF SOIL TESTS PROVIDED FOR EXISTING TOP SOIL TO BE REUSED AND OR IMPORTED MATERIAL.

WETLAND SEED MIX

1. NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES FROM NEW ENGLAND WETLAND PLANTS INC. OR APPROVED EQUIVALENT.
2. FOR DETENTION BASINS THAT EXPERIENCE REGULAR INUNDATION BUT DO NOT HOLD STANDING WATER.
3. TO BE APPLIED BY HAND AND ROLLED WITH PUNCHED STRAW AND COMPOST MULCH TO INSURE GOOD SEED TO SOIL CONTACT.
4. LATE FALL AND WINTER DORMANT SEEDING REQUIRES A 25% INCREASE IN THE APPLICATION RATE.
5. APPLICATION RATE: 35 LBS/ACRE | 1250 SQ FT/LB
6. SPECIES TO INCLUDE: Virginia Wild Rye, (Elymus virginicus), Creeping Red Fescue, (Festuca rubra), Little Bluestem, (Schizachyrium scoparium), Big Bluestem, (Andropogon gerardii), Fox Sedge, (Carex vulpinoidea), Switch Grass, (Panicum virgatum), Rough Bentgrass, (Agrostis scabra), New England Aster, (Aster novae-angliae), Boneset, (Eupatorium perfoliatum), Grass Leaved Goldenrod, (Euthamia graminifolia), Green Bulrush, (Scirpus atrovirens), Blue Vervain, (Verbena hastata), Soft Rush, (Juncus effusus), Wool Grass, (Scirpus cyperinus)

PLANTING NOTES

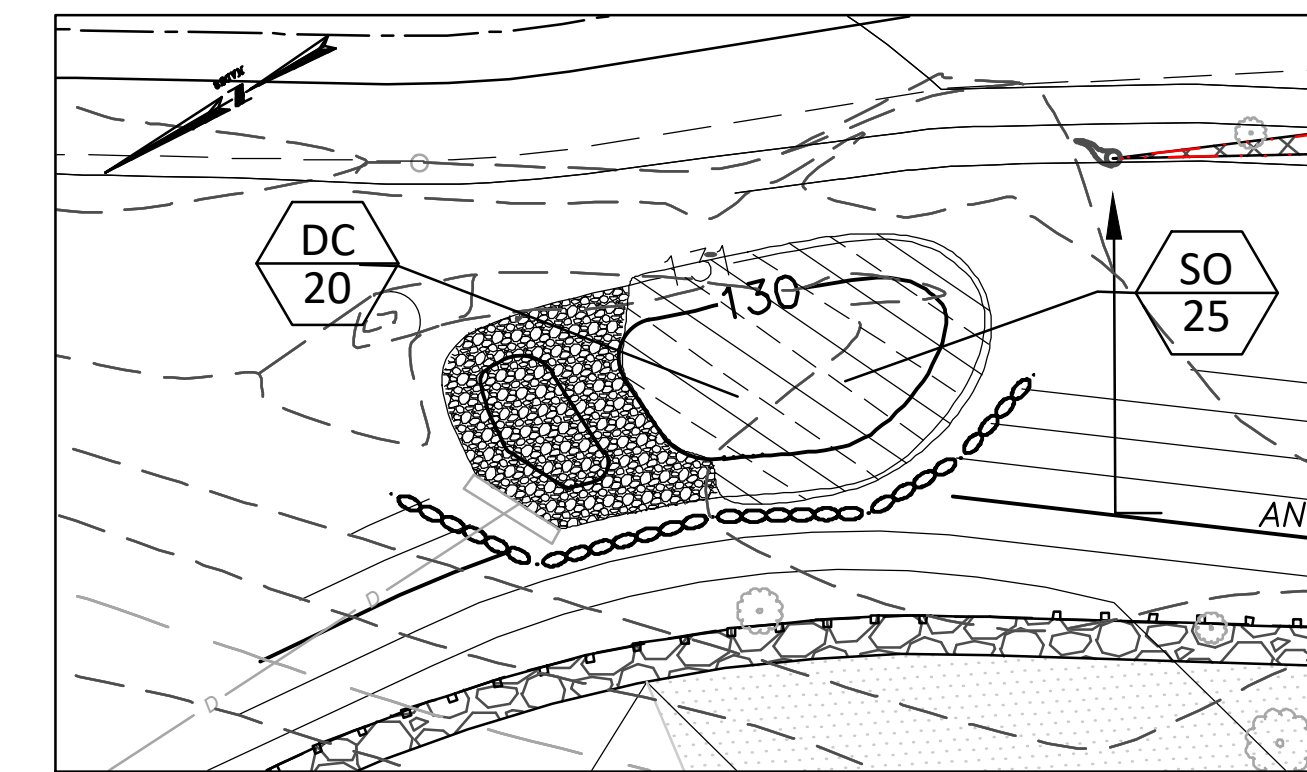
1. ALL PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
2. ANY PROPOSED SUBSTITUTIONS OF PLANT MATERIAL SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
3. VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICTS TO THE OWNER OR HIS REPRESENTATIVE.
4. NO PLANT SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING.
5. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
6. THE CONTRACTOR SHALL CLEARLY MARK LIMITS OF CLEARING AND LIMITS OF SELECTIVE PRUNING AND THINNING, FOR REVIEW BY THE WETLAND SCIENTIST PRIOR TO ANY CLEARING OPERATIONS.
7. PLANT QUANTITIES NOTED IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FURNISHING AND INSTALLATION OF ALL PLANT MATERIALS NOTED ON THE PLANTING PLAN.
8. COMPOST MULCH AND HYDRO-SEED ALL DISTURBED AREAS WITH SPECIFIED SEED MIX PER APPLICATION.
9. ALL PLANTING BEDS TO BE FILLED WITH SOIL AND MULCHED PER DETAILS AND/ OR SPECIFICATIONS.
10. CAUTION SHALL BE USED NOT TO EXTEND MULCH LAYER ABOVE SOIL LEVEL AT TRUNKS/STEMS OF INSTALLED PLANT MATERIAL.
11. PROVIDE FIVE (5) FOOT DIAMETER MULCH CIRCLE AROUND ALL INDIVIDUAL TREE PLANTINGS AND CONTINUOUS MULCH BED AROUND SHRUB/ VEGETATIVE PLANTINGS.

BIORETENTION SEED MIX

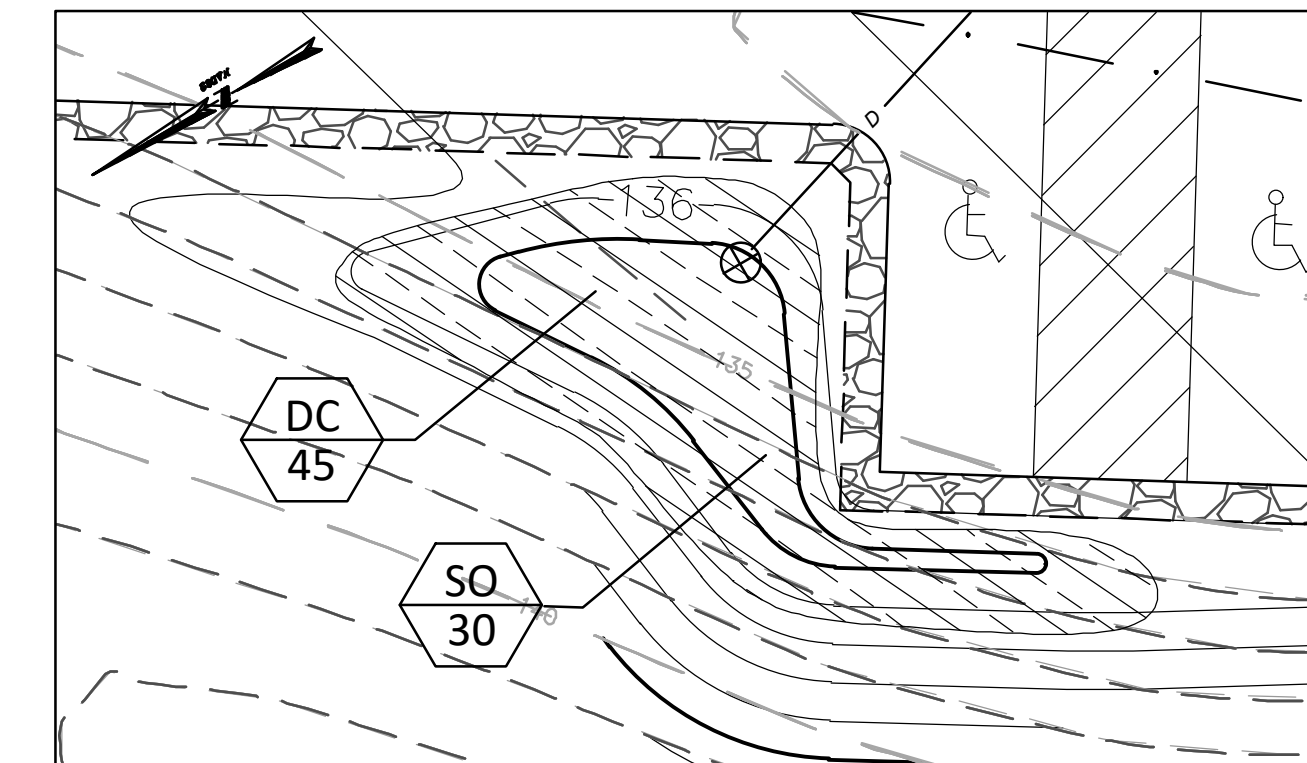
1. NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES FROM NEW ENGLAND WETLAND PLANTS INC. OR APPROVED EQUIVALENT.
2. FOR WETLAND RESTORATION AREAS AND DETENTION BASINS THAT EXPERIENCE REGULAR INUNDATION BUT DO NOT HOLD STANDING WATER.
3. TO BE APPLIED BY HAND AND ROLLED WITH PUNCHED STRAW AND COMPOST MULCH TO INSURE GOOD SEED TO SOIL CONTACT.
4. LATE FALL AND WINTER DORMANT SEEDING REQUIRES A 25% INCREASE IN THE APPLICATION RATE.
5. APPLICATION RATE: 1 LB/ PER 1,000 SF
6. SPECIES TO INCLUDE: Virginia Wild Rye, (Elymus virginicus), Creeping Red Fescue, (Festuca rubra), Little Bluestem, (Schizachyrium scoparium), Big Bluestem, (Andropogon gerardii), Fox Sedge, (Carex vulpinoidea), Switch Grass, (Panicum virgatum), Rough Bentgrass, (Agrostis scabra), New England Aster, (Aster novae-angliae), Boneset, (Eupatorium perfoliatum), Grass Leaved Goldenrod, (Euthamia graminifolia), Green Bulrush, (Scirpus atrovirens), Blue Vervain, (Verbena hastata), Soft Rush, (Juncus effusus), Wool Grass, (Scirpus cyperinus)

UPLAND SLOPE STABILIZATION SEED MIX:

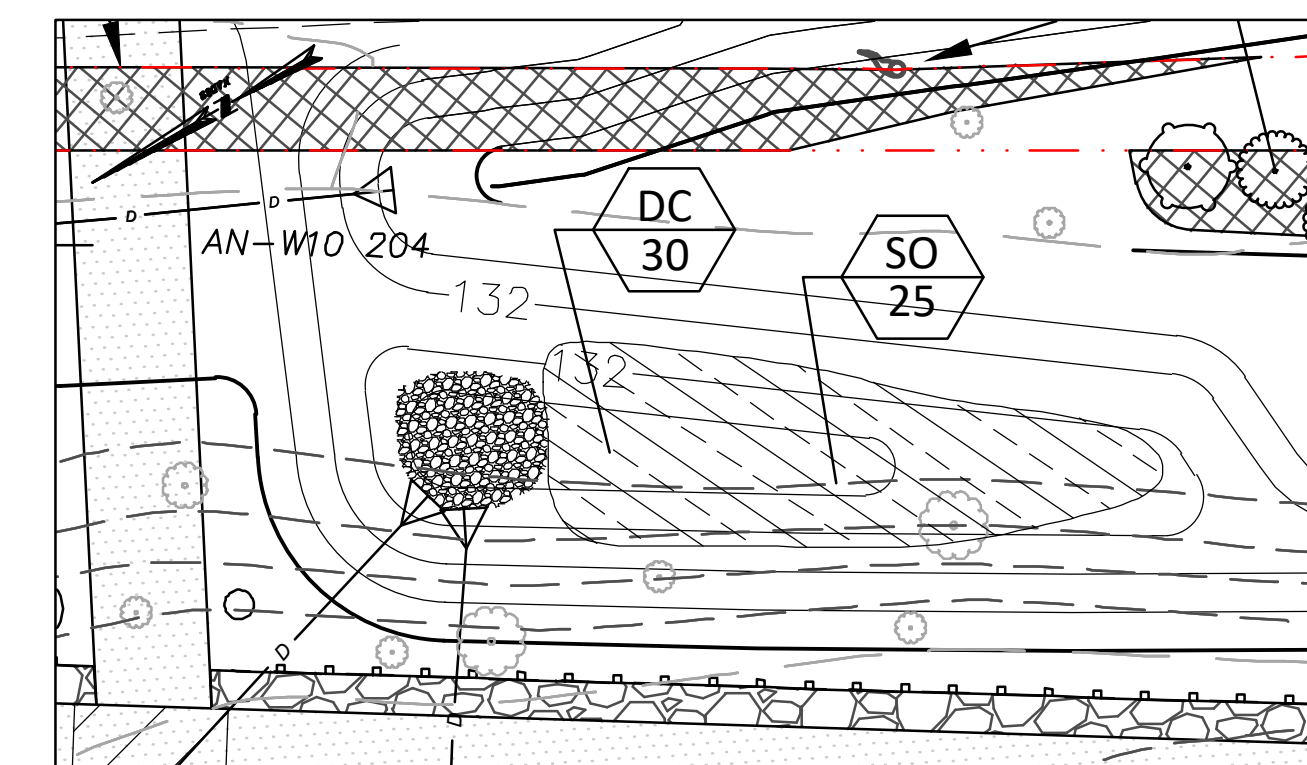
1. TO INCLUDE A BLEND OF TWO SEED MIXES:
- 1.1. FESTUCA RUBRA RED FESCUE APPLIED AT A RATE OF 100 LBS/ACRE | 2.5 LB/1,000 SF.
- 1.2. NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES FROM NEW ENGLAND WETLAND PLANTS INC. OR APPROVED EQUIVALENT. APPLIED AT 0.5 LB/1,000 SF.
2. FOR EXPOSED SLOPES AND GENERAL RESTORATION AREAS.
3. TO BE APPLIED BY HAND WITH TACKIFIER AND COMPOST MULCH TO INSURE GOOD SEED TO SOIL CONTACT.
4. LATE FALL AND WINTER DORMANT SEEDING REQUIRES A 25% INCREASE IN THE APPLICATION RATE.
5. MIX SPECIES TO INCLUDE:
 - 5.1. Creeping Red Fescue, (Festuca rubra), Canada Wild Rye, (Elymus canadensis), Annual Ryegrass, (Lolium multiflorum), Perennial Ryegrass, (Lolium perenne), Blue Grama, (Bouteloua gracilis), Little Bluestem, (Schizachyrium scoparium), Indian Grass, (Sorghastrum nutans), Rough Bentgrass, (Agrostis scabra), Upland Bentgrass, (Agrostis perennans)



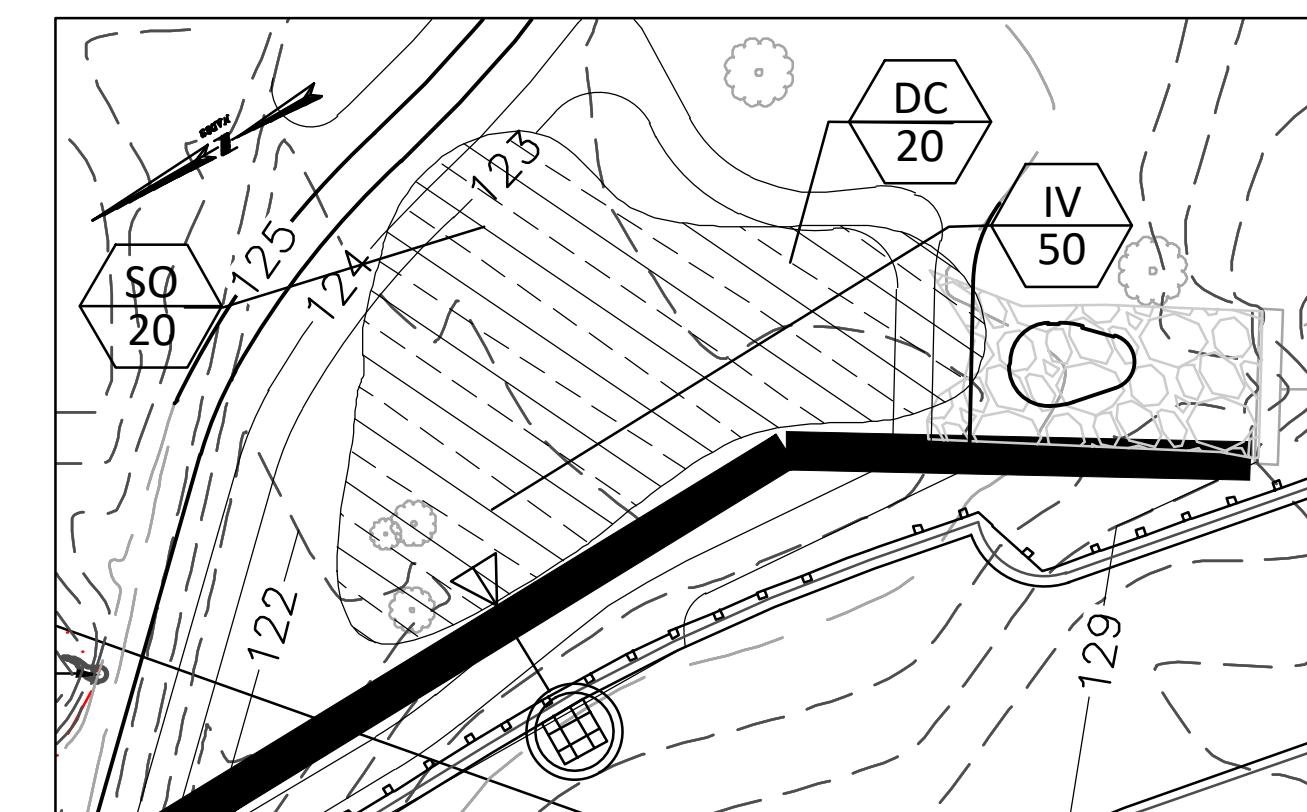
BIO-RETENTION BASIN-1 @ STA 1+00± RT
SCALE: 1"=10'



BIO-RETENTION BASIN-2 @ STA 1+50± RT
SCALE: 1"=10'

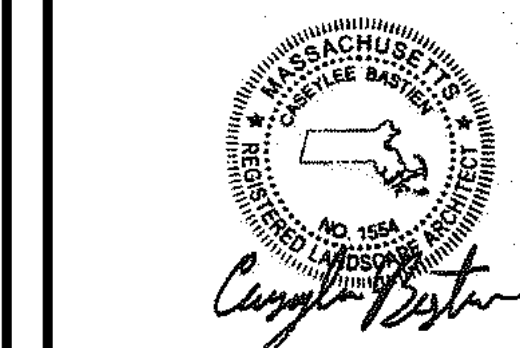
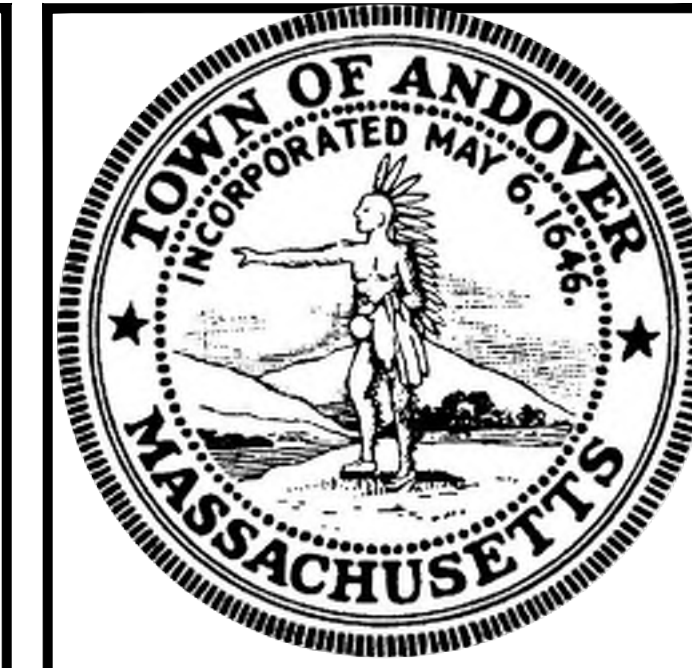


BIO-RETENTION BASIN-3 @ STA 2+00± RT
SCALE: 1"=10'



BIO-RETENTION BASIN-4 @ STA 53+50± LT
SCALE: 1"=10'

**ISSUED FOR PERMITTING
NOT FOR CONSTRUCTION**



CASEYLEE BASTIEN RLA 1554

LANDSCAPE ARCHITECT 11/6/2023

**HAGGETTS POND
RAIL TRAIL**

IN
ANDOVER,
MA

LANDSCAPE PLAN

NOVEMBER 7, 2023

REVISIONS:

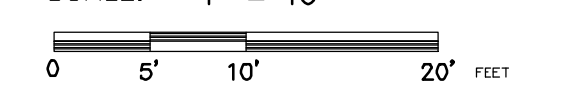
NO.	DESCRIPTION

PREPARED FOR:
TOWN OF ANDOVER
36 BARTLET STREET
ANDOVER, MA, 01810

BSC GROUP
300 Brickstone Square, Suite 203
Andover, Massachusetts
01810
617 896 4300

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SCALE: 1" = 10'



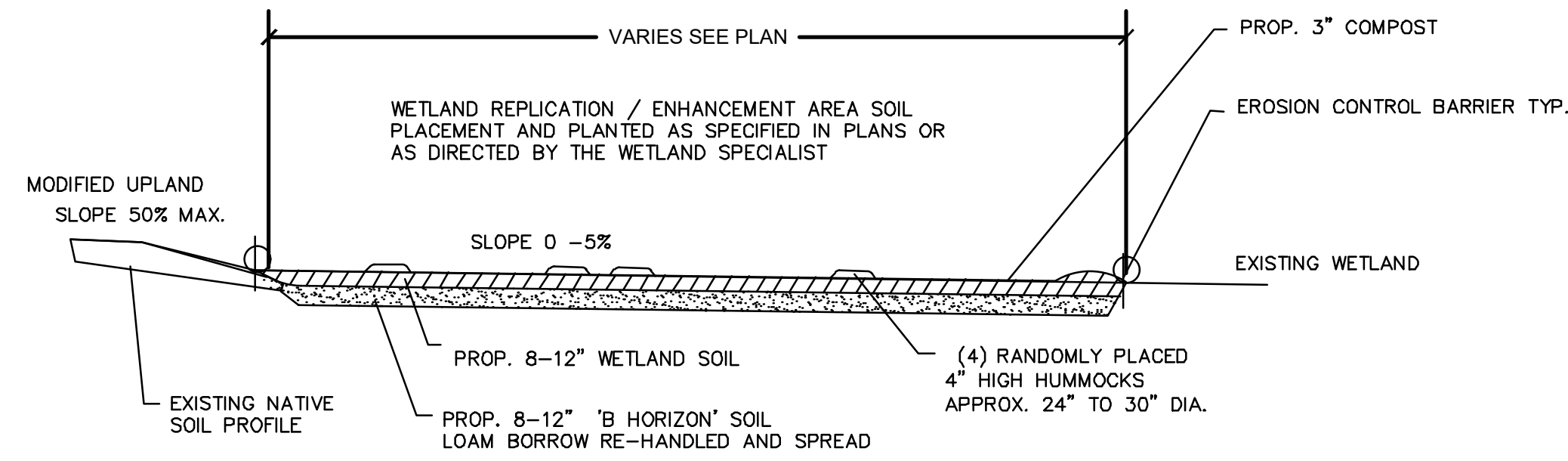
FILE: P:\8998501\C_\D

DWG.:

JOB. NO: 8-9985.01

SHEET L-100

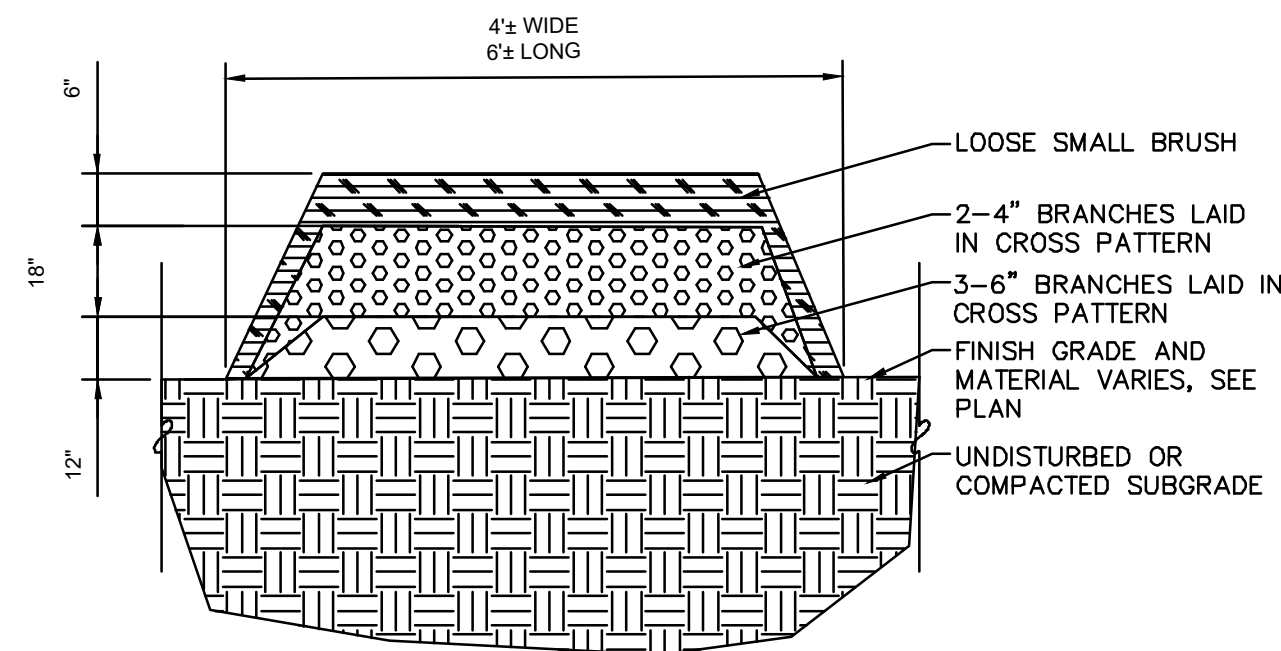
1. PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, LATEST EDITION.
2. TOPSOIL STRIPPED FROM THE SITE AND PROPERLY STOCKPILED PRIOR TO APPLICATION MAY, UPON APPROVAL OF THE ENGINEER, BE USED FOR PREPARATION OF REPLICATION. IT SHOULD BE FREE OF CONTAMINANTS AND OF A FRIABLE CONSISTENCY AND SUITABLE FOR PLANT GROWTH.
3. PROVIDE ORGANIC WEED FREE COMPOST FROM A LOCAL SOURCE FOR PLANTING BACK FILL AND TOP DRESSING
4. ALL PLANTS ARE SUBJECT TO THE APPROVAL OF ENVIRONMENTAL SCIENTIST BEFORE, DURING, AND AFTER INSTALLATION.
5. PLANTING WILL BE CONDUCTED WITH OVERSIGHT BY AN ENVIRONMENTAL SCIENTIST AND PLANTS WILL BE SPACED EVENLY TO THE EXTENT PRACTICABLE.
6. CONTRACTOR SHALL PROVIDE CLEAN WATER, HOSES AND ALL NECESSARY EQUIPMENT FOR WATERING ASSOCIATED WITH THE PLANTING AND SEEDING OPERATIONS.
7. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE REMOVED FROM THE SITE AND REPLACED WITH MATERIAL APPROVED BY THE ENVIRONMENTAL SCIENTIST.
8. THE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING ON THE DATE OF ACCEPTANCE. CONTRACTOR SHALL REQUEST REVIEW AND FORMAL NOTICE OF ACCEPTANCE IN WRITING. THE CONTRACTOR SHALL MAKE ALL REPLACEMENTS BEFORE THE END OF THE GUARANTEE PERIOD NO LATER THAN THE NEXT GROWING SEASON.
9. REPLACEMENT SCHEDULE AND CONTENT MAY BE ADJUSTED BY MUTUAL AGREEMENT BASED ON PLANTING SEASON AND AVAILABILITY, AS APPROVED BY THE OWNER.



WETLAND REPLICATION - DETAIL TYPICAL SECTION

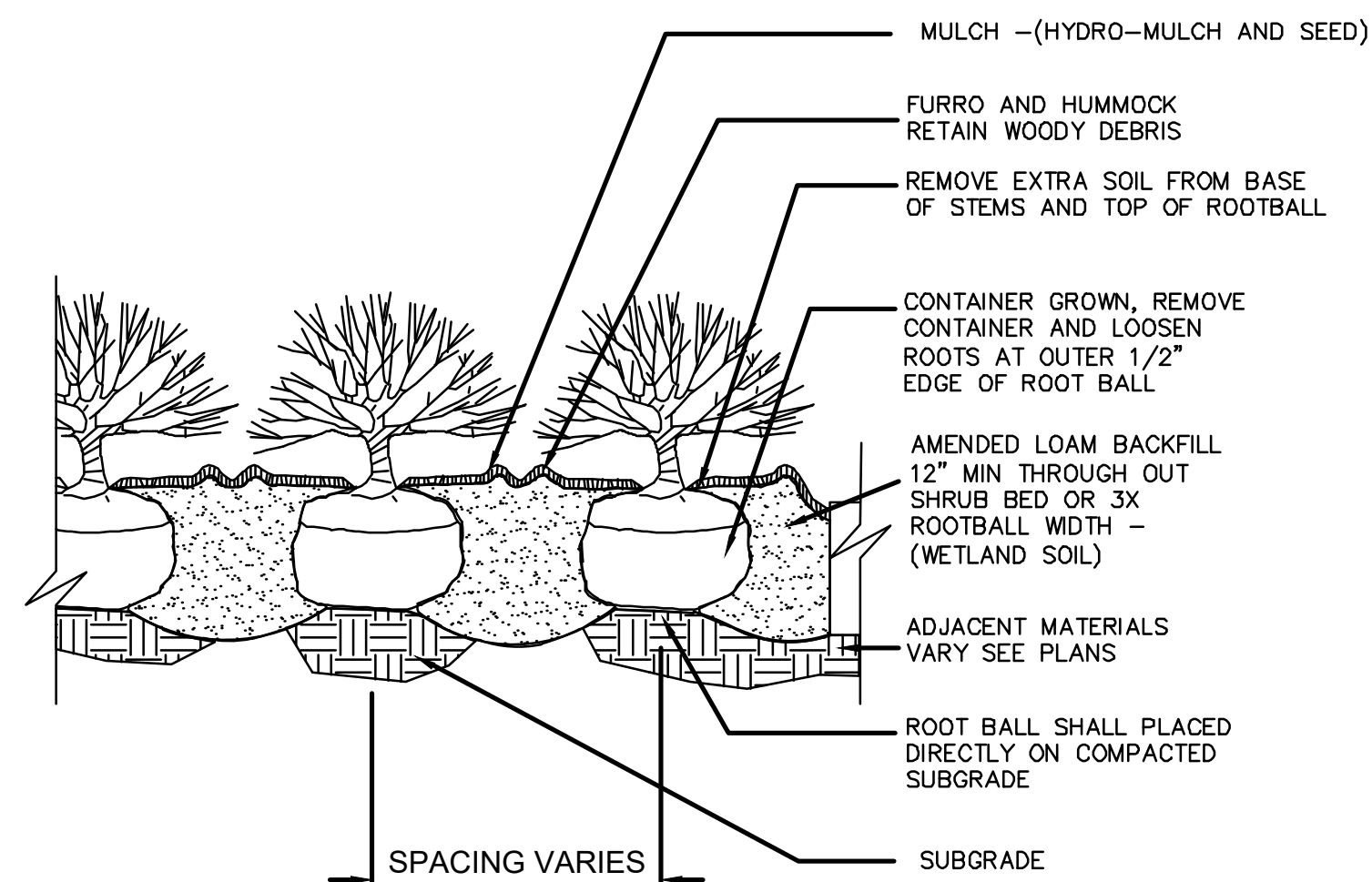
SCALE: NONE

- NOTES:
 THICKET BRUSH PILE SHALL CONSIST OF WOODY MATERIAL CLEARED FROM THE SITE CUT TO SIZE AND PLACED AS DIRECTED.
 BRUSH MAY NOT INCLUDE INVASIVE WEED SEED. REVIEW MATERIAL TO BE SET ASIDE FOR BRUSH PILE WITH DOT WETLAND SPECIALIST OR LANDSCAPE ARCHITECT.



HABITAT: BRUSHY THICKET - BRUSH PILE

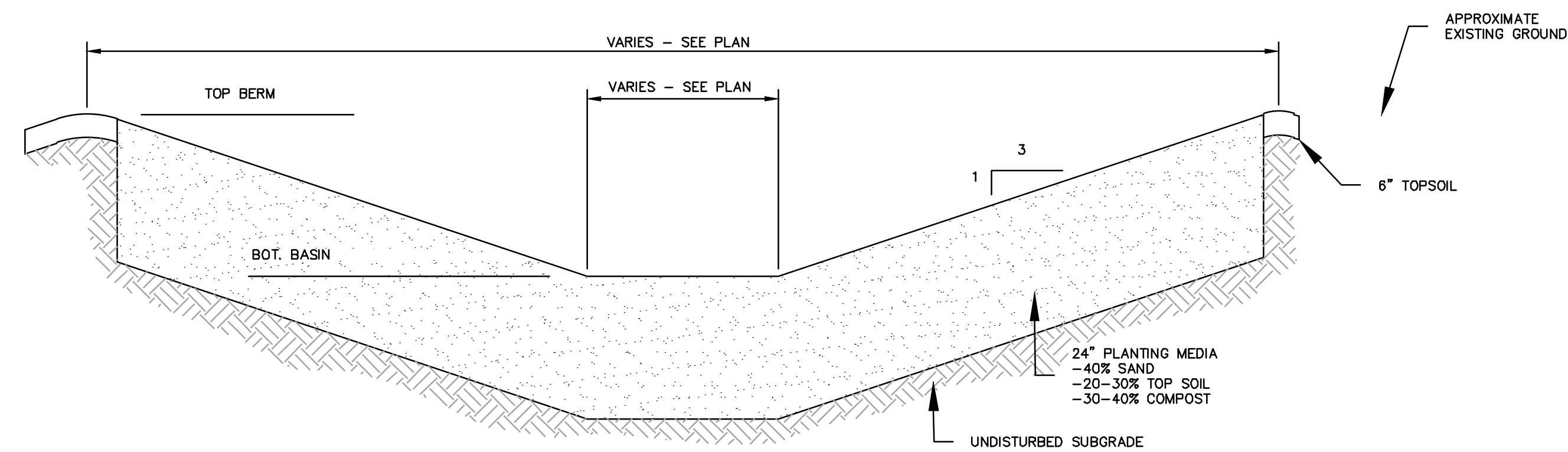
SCALE: NONE



- NOTES:
 1. NO PRUNING OR CUTTING UNLESS DIRECTED BY THE ENVIRONMENTAL SCIENTIST.
 2. WATERING SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 48 HOURS AFTER PLANTING.
 3. SHRUBS SHALL BE SET PLUMB AND PLANTED SO THAT THE TOP OF THE ROOTBALL IS 1" ABOVE FINISHED GRADE.

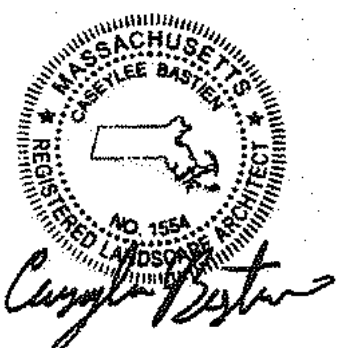
TREE/ SHRUB PLANTING - (WETLAND)

SCALE: NONE



BIO-RETENTION BASIN SECTION

SCALE: NONE



CASEYLEE BASTIEN RLA 1554

LANDSCAPE ARCHITECT 11/6/2023

HAGGETTS POND RAIL TRAIL

IN
 ANDOVER,
 MA

LANDSCAPE DETAILS

NOVEMBER 7, 2023

REVISIONS:

NO.	DESCRIPTION

PREPARED FOR:
 TOWN OF ANDOVER
 36 BARTLET STREET
 ANDOVER, MA, 01810



300 Brickstone Square, Suite 203
 Andover, Massachusetts
 01810

617 896 4300

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SCALE: NOT TO SCALE



FILE: P:\8998501\C\ _D

DWG.:

JOB. NO: 8-9985.01

SHEET L-200

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 NOT FOR CONSTRUCTION**