

Site Plans

Burt Road Development

3, 3R, 4 Executive Place
Andover & Tewksbury, Massachusetts

Site Plans Index

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Reference Plans Index

No.	Drawing Title	Latest Issue
-	Existing Conditions Plot Plan (TEC, Inc., 2 sheets)	December 12, 2018
LT1	Lighting Plan (Boston Light Source, 1 sheet)	TBD

APPROVALS RECEIVED FROM TOWN OF TEWKSBURY:

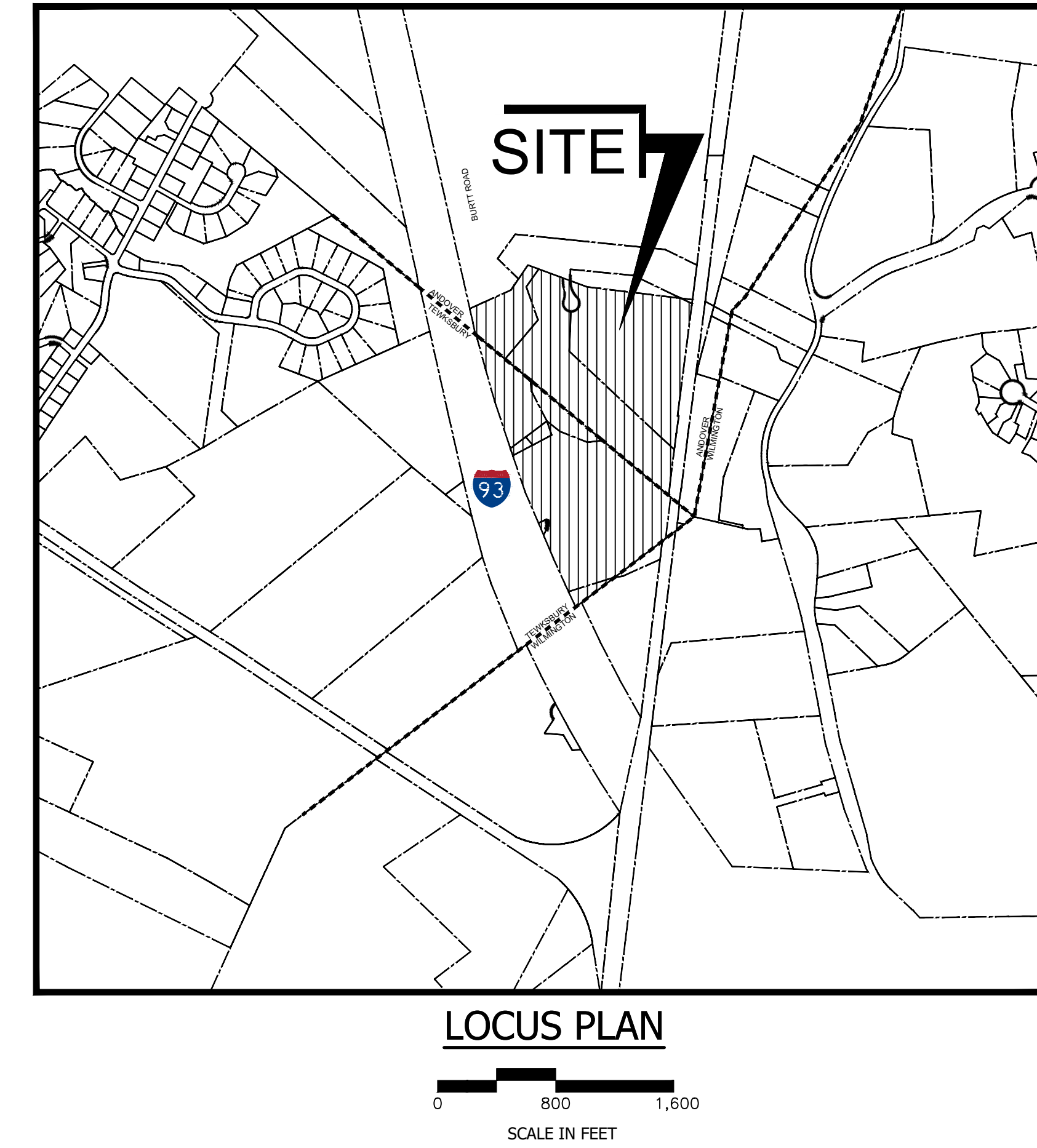
- SITE PLAN SPECIAL PERMIT & USE SPECIAL PERMIT FROM TEWKSBURY PLANNING BOARD (SP2020-05), DATED MARCH 30, 2020
- ORDER OF CONDITIONS FROM TEWKSBURY CONSERVATION COMMISSION (DEP#305-1093), DATED APRIL 23, 2020

APPROVALS REQUESTED FROM TOWN OF TEWKSBURY:

- SPECIAL PERMIT TO EXCEED 40' BUILDING HEIGHT IN INDUSTRIAL ZONE (SECTION 5.3.4, FOOTNOTE B)

APPROVALS RECEIVED FROM TOWN OF ANDOVER:

- SPECIAL PERMIT (MAJOR NON-RESIDENTIAL PROJECT, SP19-05) FROM ANDOVER PLANNING BOARD DATED MAY 21, 2020
- ORDER OF CONDITIONS FROM ANDOVER CONSERVATION COMMISSION (DEP#090-1337), DATED FEBRUARY 23, 2021



SEWER DESIGN FLOW CALCULATIONS

TYPE	FLOW RATE (GPD)	UNIT	TOTAL EMPLOYEES	TOTAL FLOW (GPD)
WAREHOUSE 1	15	PER PERSON	153	2,295

1. FLOW RATES PER 310 CMR 15 THE STATE ENVIRONMENTAL CODE TITLE 5, DEPARTMENT OF ENVIRONMENTAL PROTECTION

GPD=GALLONS PER DAY
SF=SQUARE FEET



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DESIGNED BY	BM
DRAWN BY	WNB/JRM/JD
CHECKED BY	PFE
DATE	08/30/2022
SCALE	AS NOTED

PREPARED FOR

MCP/Howland Burt
Owner, LLC
260 Franklin Street,
Suite 620
Boston, MA 02110

REVISIONS

1	PER ANDOVER COMMENTS	09/27/2022
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ISSUED FOR

Permitting

PROJECT TITLE

Burt Road
Development

PROJECT LOCATION

3, 3R, 4 Executive Place
Andover MA, 01810

DRAWING TITLE

Title &
Index Sheet

PROJECT NO.	T1126
TEC CAD FILE	T1126_COV.dwg
DRAWING NO.	C-1
SHEET	1 OF 16



GENERAL NOTES

- CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888-344-7233) AND THE LOCAL MUNICIPAL WATER & SEWER DEPT. AT LEAST 72 HOURS BEFORE EXCAVATING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS. A 6-FOOT TEMPORARY CHAINLINK FENCE SHALL BE PROVIDED AROUND ALL CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL LEAVE NO UNSECURED OPEN EXCAVATIONS.
- HANDICAP ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT/ARCHITECTURAL ACCESS BOARD (AAB), AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
- WORK WITHIN THE LOCAL RIGHT-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHT-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENT STANDARD SPECIFICATION FOR HIGHWAYS AND BRIDGES.
- UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALK, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
- TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
- CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
- CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO THE OWNER.
- EXISTING CONDITIONS SURVEY PREPARED BY TEC, INC. VIA GROUND FIELD SURVEY PERFORMED IN NOVEMBER AND DECEMBER, 2019.

ABBREVIATIONS

GENERAL		UTILITIES	
ABAN	ABANDON	ACCP	ASPHALT COATED CORRUGATED
AC	ACRES	AD	METAL PIPE
ADJ	ADJUST	AD	AREA DRAIN
APPROX	APPROXIMATE	BOC	BOTTOM OF CHANNEL
BLDG	BUILDING	CB	CATCH BASIN
BO	BY OTHERS	CAP	CORRUGATED ALUMINUM PIPE
BC	BOTTOM OF CURB	CIP	CAST IRON PIPE
BOS	BOTTOM OF SLOPE	CIT	CHANGE IN TYPE
BOW	BOTTOM OF WALL	CLDI	CEMENT LINED DUCTILE IRON
BVW	BORDERING VEGETATED	COND	CONDUIT
	WETLAND	DCB	DOUBLE CATCH BASIN
CC	CONCRETE CURB	DIP	DUCTILE IRON PIPE
CEM	CEMENT	DMH	DRAINAGE MANHOLE
CLF	CHAIN LINK FENCE	ETC	ELECTRIC, TELEPHONE, & CABLE
CONC	CONCRETE	F&G	FRAME AND GRATE
COORD	COORDINATE	F&C	FRAME AND COVER
DIA	DIAMETER	FES	FLARED END SECTION
ELEV	ELEVATION	GV	GAS VALVE
EOP	EDGE OF PAVEMENT	HDPE	HIGH DENSITY POLYETHYLENE PIPE
EQ	EQUAL	HYD	HYDRANT
EXIST	EXISTING	INV	INVERT ELEVATION
FDC	FIRE DEPT. CONNECTION	LP	LIGHT POLE
FFE	FINAL FLOOR ELEVATION	LP	OUTLET CONTROL STRUCTURE
FND	FOUNDATION	PVC	POLYVINYL CHLORIDE PIPE
GC	GRANITE CURB	PWW	PAVED WATER WAY
GE	GRANITE EDGING	RCP	REINFORCED CONCRETE PIPE (CLASS III)
HMA	HOT MIX ASPHALT	RD	ROOF DRAIN
LA	LANDSCAPE AREA	SMH	SEWER MANHOLE
LF	LINEAR FEET	TD	TRENCH DRAIN
LOG	LIMIT OF GRADING	TSV	TAPPING SLEEVE AND VALVE
LOW	LIMIT OF WORK	UP	UTILITY POLE
MAX	MAXIMUM	VCP	VITRIFIED CLAY PIPE
MCC	MONOLITHIC CONCRETE CURB	WG	WATER GATE
MIN	MINIMUM		
NM	NON-METALLIC		
NTS	NOT TO SCALE		
PCC	PRECAST CONCRETE CURB		
PROP	PROPOSED		
PVMT	PAVEMENT		
R	RADIUS		
REM	REMOVE		
REMOD	REMODEL		
RET	RETAIN		
R&R	REMOVE AND RESET		
R&S	REMOVE AND STACK		
S	SLOPE		
SF	SQUARE FOOT		
SF##	SEDIMENT FOREBAY ##		
SW	SIDEWALK		
TC	TOP OF CURB		
TOS	TOP OF SLOPE		
TOW	TOP OF WALL		
TYP	TYPICAL		
UON	UNLESS OTHERWISE NOTED		
WCR	WHEELCHAIR RAMP		
VGC	VERTICAL GRANITE CURB		

GRADING, DRAINAGE AND UTILITY NOTES

- THE LOCATIONS, SIZES, AND TYPES OF EXISTING UNDERGROUND UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATION, SIZES, AND ELEVATION OF EXISTING UTILITIES.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT. FAILURE TO PROVIDE OR PERFORM THE ABOVE PRIOR TO PERFORMING ANY WORK SHALL NOT BE GROUNDS FOR EXTRA PAYMENTS TO THE CONTRACTOR.
- AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE, BLEND NEW PAVEMENT, CURBS, AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES, AND JOINTS.
- THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED.
- ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED.
- INSTALL ALL UTILITIES (INCLUDING CONCRETE PADS) PER UTILITY COMPANY, DPW, AND STATE STANDARDS.
- EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.
- ALL SANITARY SEWER PIPE SHALL BE SDR-35 PVC UNLESS OTHERWISE NOTED.
- WATER LINE SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON.
- INSULATE SANITARY PIPES WHERE INVERT DEPTH IS LESS THAN FIVE (5) FEET BELOW FINISHED GRADE.
- CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION (AT NO ADDITIONAL COST TO THE OWNER) BY THE CONTRACTOR.
- ALL WATER AND SEWER UTILITY WORK SHALL CONFORM TO LOCAL DPW, WATER DIVISION SPECIFICATIONS, DETAILS, RULES AND REGULATIONS AND HAVE FIVE (5) FEET OF MINIMUM COVER. GAS, ELECTRIC, AND TELEPHONE LOCATIONS AND ROUTING ARE SUBJECT TO REVIEW AND APPROVAL BY THE APPROPRIATE UTILITY COMPANIES.
- FIRE ALARM CONNECTION LOCATIONS AND ROUTING ARE SUBJECT TO REVIEW AND APPROVAL BY THE FIRE DEPARTMENT OR BUILDING INSPECTOR.
- THE CONTRACTOR SHALL REMOVE ALL EROSION CONTROL BARRIERS AFTER REVEGETATION OF DISTURBED AREAS AND AFTER APPROVAL BY THE LOCAL APPROVING AUTHORITY.
- EXCAVATION REQUIRED IN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- STOCKPILED TOPSOIL SHALL BE PLACED NEATLY IN AN AREA APPROVED BY THE OWNER/REPRESENTATIVE.
- THE CONTRACTOR SHALL SCHEDULE THEIR WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PUDDLING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUBGRADE AND/OR SURFACE PAVING.
- UNLESS OTHERWISE INDICATED, ABANDONED EXISTING UTILITY LINES SHALL BE CAPPED AND ABANDONED IN PLACE UNLESS THEY CONFLICT WITH PROPOSED IMPROVEMENTS, WHERE THEY SHALL THEN BE REMOVED. CAP REMAINING PORTIONS WHERE PARTIALLY REMOVED.
- PROPOSED LIGHTING FIXTURES, POLES, AND OTHER ASSOCIATED CONNECTIONS TO MATCH SPECIFICATIONS DETAILED IN THE ATTACHED LIGHTING PLAN BY BOSTON LIGHT SOURCE, OR AN APPROVED EQUAL BY THE SITE DESIGN ENGINEER.

GENERAL SYMBOLS

EXISTING	PROPOSED	
		CATCH BASIN
		DOUBLE CATCH BASIN
		DRAIN MANHOLE
		SEWER MANHOLE
		ELECTRIC MANHOLE
		TELEPHONE MANHOLE
		MANHOLE
		HANDHOLE
		BOLLARD
		WATER GATE
		FIRE HYDRANT
		GAS GATE
		STREET SIGN
		LIGHT POLE
		BUILDING/WALL MOUNTED LIGHT
		UTILITY POLE
		GUY POLE
		GUY WIRE
		MONITORING WELL
		TEST PIT (W/ I.D.)
		UTILITY STRUCTURE
		EDGE OF PAVEMENT
		MONOLITHIC CONCRETE CURB
		GRANITE CURB (TYPE VA 4)
		GRANITE EDGING
		BITUMINOUS BERM
		GUARD RAIL
		CHAINLINK FENCE
		DRAINAGE LINE
		SEWER LINE
		WATER LINE
		GAS LINE
		UNDERGROUND ELECTRIC/TELEPHONE LINE
		ELEC., TELE., CATV, CONDUIT
		OVERHEAD WIRE
		STONE WALL
		TREE LINE
		ENTRANCE/EXIT DOOR
		LOADING DOCK DOOR
		OVERHEAD DOOR
		FLARED END SECTION
		OUTLET CONTROL STRUCTURE

PAVEMENT MARKINGS AND SIGNING SYMBOLS

EXISTING	PROPOSED	
		CROSSWALK, 12" WHITE LINE (WIDTH NOTED)
		STOP LINE, 12" WHITE LINE 4' BEHIND CW (TYP.)
		SOLID WHITE LINE/SOLID WHITE LANE LINE-4"
		BROKEN WHITE LANE LINE-4"
		DOTTED WHITE LANE LINE-4"
		SOLID YELLOW LINE-4"
		DOUBLE YELLOW CENTER LINE- 2-4" LINES
		ADA-ACCESSIBLE PARKING SPACE



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DESIGNED BY: BM
 DRAWN BY: WNB/JRM/JD
 CHECKED BY: PFE
 DATE: 08/30/2022
 SCALE: NTS

PREPARED FOR

MCP/Howland Burt
 Owner, LLC
 260 Franklin Street,
 Suite 620
 Boston, MA 02110

REVISIONS

1 PER ANDOVER COMMENTS 09/27/2022

ISSUED FOR

Permitting

PROJECT TITLE

Burt Road
 Development

PROJECT LOCATION

3, 3R, 4 Executive Place
 Andover MA, 01810

DRAWING TITLE

Legend &
 General Notes



PROJECT NO. T1126

TEC CAD FILE T1126_LEG.DWG

DRAWING NO. C-2

SHEET 2 OF 16

TOWN OF ANDOVER ZONING TABLE		
ZONING DISTRICT	INDUSTRIAL A MEDICAL MARIJUANA OVERLAY DISTRICT	
PROPOSED USE	WAREHOUSE	
PROPOSED USE ALLOWABLE BY	BY RIGHT	
DIMENSIONAL REQUIREMENTS	REQUIRED	PROVIDED
LOT AREA	N/A	53.02 AC
LOT FRONTAGE/WIDTH	N/A	--*
FRONT YARD SETBACK	50 FT	--*
REAR YARD SETBACK	40 FT	906.7 FT
SIDE YARD SETBACK	40 FT	45.2 FT
BUFFER WIDTH	N/A	N/A
MAXIMUM BUILDING HEIGHT	60 FT	46.7 FT
MAXIMUM STORIES	4 STORIES	1 STORY
MAX BUILDING COVERAGE	30%	7.26%

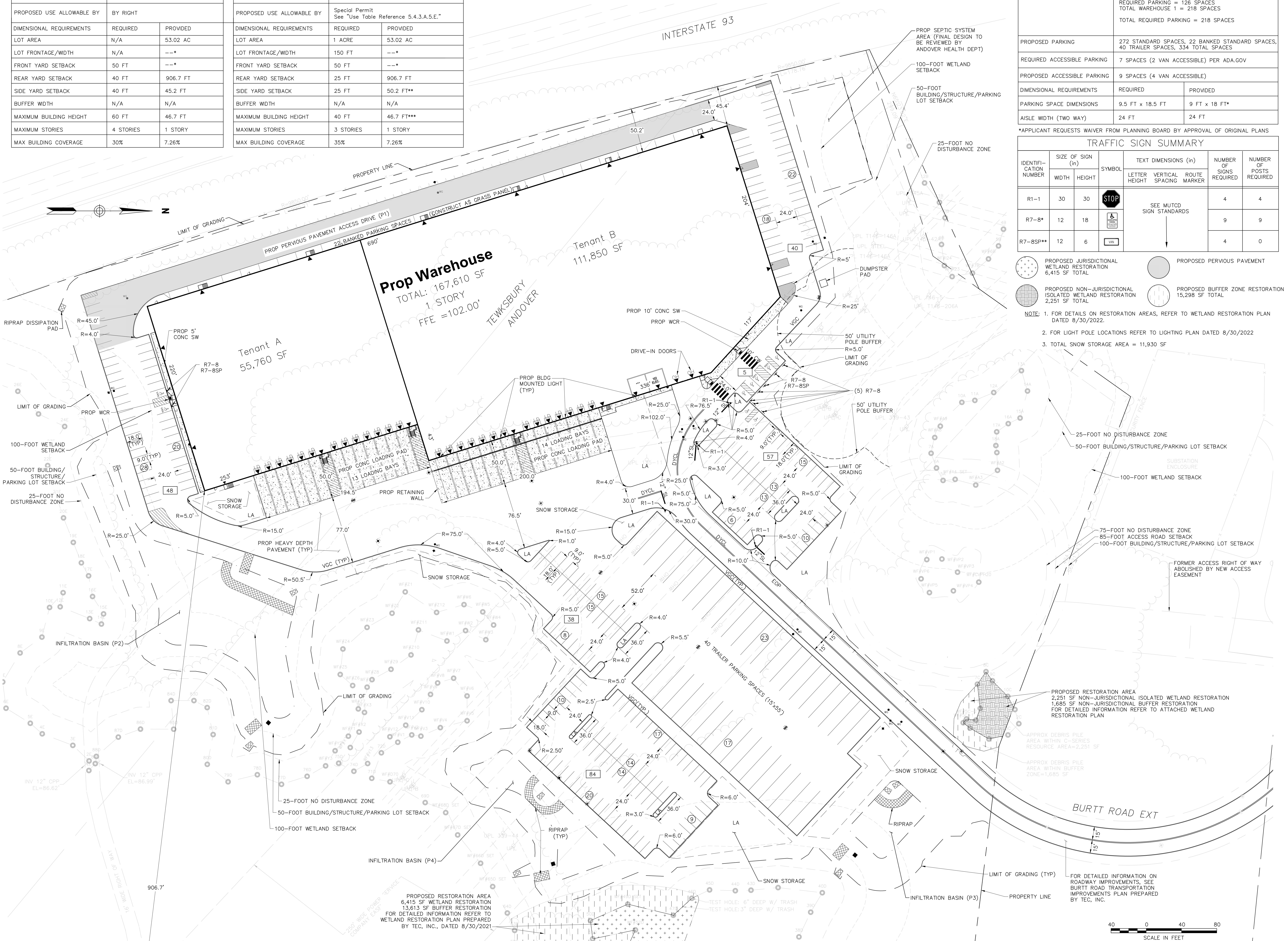
TOWN OF TEWKSBURY ZONING TABLE		
ZONING DISTRICT	INDUSTRIAL 1, OVERLAY DISTRICT FOR WIRELESS COMMUNICATIONS FACILITIES	
PROPOSED USE	WAREHOUSE	
PROPOSED USE ALLOWABLE BY	Special Permit See "Use Table Reference 5.4.3.A.5.E."	
DIMENSIONAL REQUIREMENTS	REQUIRED	PROVIDED
LOT AREA	1 ACRE	53.02 AC
LOT FRONTAGE/WIDTH	150 FT	--*
FRONT YARD SETBACK	50 FT	--*
REAR YARD SETBACK	25 FT	906.7 FT
SIDE YARD SETBACK	25 FT	50.2 FT**
BUFFER WIDTH	N/A	N/A
MAXIMUM BUILDING HEIGHT	40 FT	46.7 FT***
MAXIMUM STORIES	3 STORIES	1 STORY
MAX BUILDING COVERAGE	35%	7.26%

*ACCESS TO THE PROPERTY IS PROVIDED IN THE TOWN OF ANDOVER WHERE NO FRONTAGE REQUIREMENT EXISTS.
 **SIDE YARD SETBACK IS MEASURED FROM THE POINT CLOSEST TO THE SIDE PROPERTY LINE WITHIN THE TOWN OF TEWKSBURY. THE SIDE YARD SETBACK WITHIN THE TOWN OF ANDOVER IS A MINIMUM OF 40 FEET, WITH 45.2 FEET PROVIDED.
 ***PROPOSED BUILDING HEIGHT EXCEEDING MAXIMUM BUILDING HEIGHT IS ALLOWABLE BY SPECIAL PERMIT

PARKING TABLE		
REQUIRED PARKING	PROP WAREHOUSE: TEWKSBURY (92,445 SF) - 1 SPACE/1st 1,000 SF ANDOVER (75,165 SF) - 1 SPACE/600 SF TOTAL WAREHOUSE 1 = 218 SPACES TOTAL REQUIRED PARKING = 218 SPACES	
PROPOSED PARKING	272 STANDARD SPACES, 22 BANKED STANDARD SPACES, 40 TRAILER SPACES, 334 TOTAL SPACES	
REQUIRED ACCESSIBLE PARKING	7 SPACES (2 VAN ACCESSIBLE) PER ADA.GOV	
PROPOSED ACCESSIBLE PARKING	9 SPACES (4 VAN ACCESSIBLE)	
DIMENSIONAL REQUIREMENTS	REQUIRED	PROVIDED
PARKING SPACE DIMENSIONS	9.5 FT x 18.5 FT	9 FT x 18 FT*
aisle width (TWO WAY)	24 FT	24 FT

TRAFFIC SIGN SUMMARY								
IDENTIFICATION NUMBER	SIZE OF SIGN (in)		SYMBOL	TEXT DIMENSIONS (in)			NUMBER OF SIGNS REQUIRED	NUMBER OF POSTS REQUIRED
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ROUTE MARKER		
R1-1	30	30	STOP	SEE MUTCO SIGN STANDARDS			4	4
R7-8*	12	18	5	SEE MUTCO SIGN STANDARDS			9	9
R7-8SP**	12	6	WIN	SEE MUTCO SIGN STANDARDS			4	0

- PROPOSED JURISDICTIONAL WETLAND RESTORATION 6,415 SF TOTAL
 - PROPOSED NON-JURISDICTIONAL ISOLATED WETLAND RESTORATION 2,251 SF TOTAL
 - PROPOSED PERVIOUS PAVEMENT 15,298 SF TOTAL
 - PROPOSED BUFFER ZONE RESTORATION 15,298 SF TOTAL
- NOTE: 1. FOR DETAILS ON RESTORATION AREAS, REFER TO WETLAND RESTORATION PLAN DATED 8/30/2022.
 2. FOR LIGHT POLE LOCATIONS REFER TO LIGHTING PLAN DATED 8/30/2022
 3. TOTAL SNOW STORAGE AREA = 11,930 SF



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1	PER ANDOVER COMMENTS	09/27/2022

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Permitting

PROJECT TITLE:
Burt Road Development

PROJECT LOCATION:
**3, 3R, 4 Executive Place
 Andover MA, 01810**

DRAWING TITLE:
Layout & Materials Plan

PROJECT NO. T1126
 TEC CAD FILE T1126_LM.dwg
 DRAWING NO. C-3
 SHEET 3 OF 16

PERMITTING SET - NOT FOR CONSTRUCTION



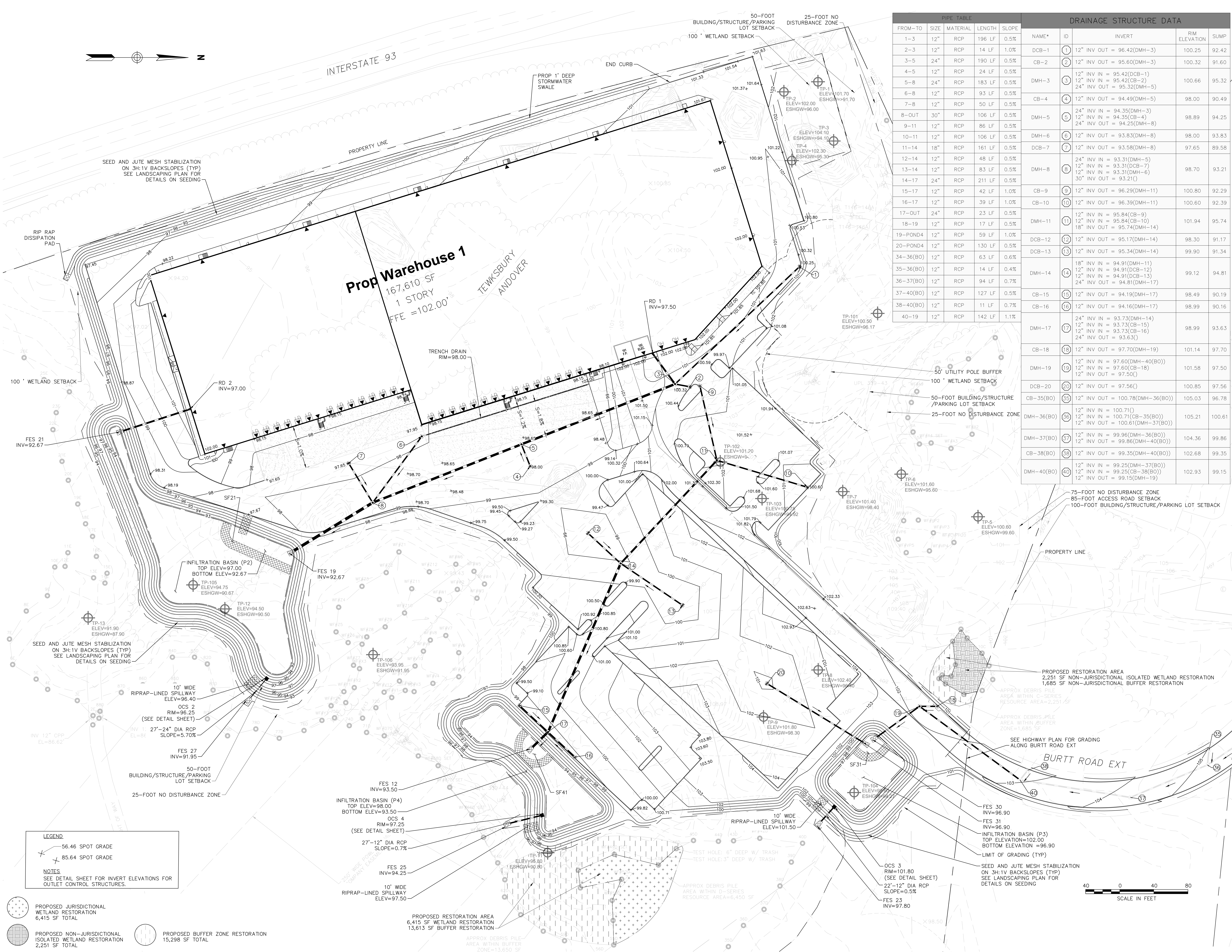
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DESIGNED BY: BM
DRAWN BY: WNB/JRM/JD
CHECKED BY: PFE
DATE: 08/30/2022
SCALE: 1" = 40'

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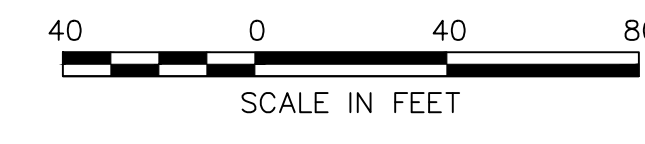
PIPE TABLE				DRAINAGE STRUCTURE DATA					
FROM-TO	SIZE	MATERIAL	LENGTH	SLOPE	NAME*	ID	INVERT	RIM ELEVATION	SUMP
1-3	12"	RCP	196 LF	0.5%	DCB-1	1	12" INV OUT = 96.42(DMH-3)	100.25	92.42
2-3	12"	RCP	14 LF	1.0%	CB-2	2	12" INV OUT = 95.60(DMH-3)	100.32	91.60
3-5	24"	RCP	190 LF	0.5%	DMH-3	3	12" INV IN = 95.42(DCB-1) 12" INV IN = 95.42(CB-2) 24" INV OUT = 95.32(DMH-5)	100.66	95.32
4-5	12"	RCP	24 LF	0.5%	CB-4	4	12" INV OUT = 94.49(DMH-5)	98.00	90.49
5-8	24"	RCP	183 LF	0.5%	DMH-5	5	24" INV IN = 94.35(DMH-3) 12" INV IN = 94.35(CB-4) 24" INV OUT = 94.25(DMH-8)	98.89	94.25
6-8	12"	RCP	93 LF	0.5%	CB-4	4	12" INV OUT = 94.49(DMH-5)	98.00	90.49
7-8	12"	RCP	50 LF	0.5%	DMH-6	6	12" INV OUT = 93.83(DMH-8)	98.00	93.83
8-OUT	30"	RCP	106 LF	0.5%	DMH-5	5	24" INV IN = 94.35(DMH-3) 12" INV IN = 94.35(CB-4) 24" INV OUT = 94.25(DMH-8)	98.89	94.25
9-11	12"	RCP	86 LF	0.5%	DCB-7	7	12" INV OUT = 93.58(DMH-8)	97.65	89.58
10-11	12"	RCP	106 LF	0.5%	DMH-6	6	12" INV OUT = 93.83(DMH-8)	98.00	93.83
11-14	18"	RCP	161 LF	0.5%	DCB-7	7	12" INV OUT = 93.58(DMH-8)	97.65	89.58
12-14	12"	RCP	48 LF	0.5%	DMH-8	8	24" INV IN = 93.31(DMH-5) 12" INV IN = 93.31(DCB-7) 12" INV IN = 93.31(DMH-6) 30" INV OUT = 93.21(C)	98.70	93.21
13-14	12"	RCP	83 LF	0.5%	DMH-8	8	24" INV IN = 93.31(DMH-5) 12" INV IN = 93.31(DCB-7) 12" INV IN = 93.31(DMH-6) 30" INV OUT = 93.21(C)	98.70	93.21
14-17	24"	RCP	211 LF	0.5%	CB-9	9	12" INV OUT = 96.29(DMH-11)	100.80	92.29
15-17	12"	RCP	42 LF	1.0%	CB-10	10	12" INV OUT = 96.39(DMH-11)	100.60	92.39
16-17	12"	RCP	39 LF	1.0%	CB-10	10	12" INV OUT = 96.39(DMH-11)	100.60	92.39
17-OUT	24"	RCP	23 LF	0.5%	DMH-11	11	12" INV IN = 95.84(CB-9) 12" INV IN = 95.84(CB-10) 18" INV OUT = 95.74(DMH-14)	101.94	95.74
18-19	12"	RCP	17 LF	0.5%	DMH-11	11	12" INV IN = 95.84(CB-9) 12" INV IN = 95.84(CB-10) 18" INV OUT = 95.74(DMH-14)	101.94	95.74
19-POND4	12"	RCP	59 LF	1.0%	DCB-12	12	12" INV OUT = 95.17(DMH-14)	98.30	91.17
20-POND4	12"	RCP	130 LF	0.5%	DCB-13	13	12" INV OUT = 95.34(DMH-14)	99.90	91.34
34-36(BO)	12"	RCP	63 LF	0.6%	DMH-14	14	18" INV IN = 94.91(DMH-11) 12" INV IN = 94.91(DCB-12) 12" INV IN = 94.91(DCB-13) 24" INV OUT = 94.81(DMH-17)	99.12	94.81
35-36(BO)	12"	RCP	14 LF	0.4%	DMH-14	14	18" INV IN = 94.91(DMH-11) 12" INV IN = 94.91(DCB-12) 12" INV IN = 94.91(DCB-13) 24" INV OUT = 94.81(DMH-17)	99.12	94.81
36-37(BO)	12"	RCP	94 LF	0.7%	CB-15	15	12" INV OUT = 94.19(DMH-17)	98.49	90.19
37-40(BO)	12"	RCP	127 LF	0.5%	CB-16	16	12" INV OUT = 94.16(DMH-17)	98.99	90.16
38-40(BO)	12"	RCP	11 LF	0.7%	DMH-17	17	24" INV IN = 93.73(DMH-14) 12" INV IN = 93.73(CB-15) 12" INV IN = 93.73(CB-16) 24" INV OUT = 93.63(C)	98.99	93.63
40-19	12"	RCP	142 LF	1.1%	DMH-17	17	24" INV IN = 93.73(DMH-14) 12" INV IN = 93.73(CB-15) 12" INV IN = 93.73(CB-16) 24" INV OUT = 93.63(C)	98.99	93.63
CB-18	18"	12"	INV OUT = 97.70(DMH-19)	101.14	97.70				
DMH-19	12"	INV IN = 97.60(DMH-40(BO)) 12" INV IN = 97.60(CB-18) 12" INV OUT = 97.50(C)	101.58	97.50					
DCB-20	12"	INV OUT = 97.56(C)	100.85	97.56					
CB-35(BO)	12"	INV OUT = 100.78(DMH-36(BO))	105.03	96.78					
DMH-36(BO)	12"	INV IN = 100.71(C) 12" INV IN = 100.71(CB-35(BO)) 12" INV OUT = 100.61(DMH-37(BO))	105.21	100.61					
DMH-37(BO)	12"	INV IN = 99.96(DMH-36(BO)) 12" INV OUT = 99.86(DMH-40(BO))	104.36	99.86					
CB-38(BO)	12"	INV OUT = 99.35(DMH-40(BO))	102.68	99.35					
DMH-40(BO)	12"	INV IN = 99.25(DMH-37(BO)) 12" INV IN = 99.25(CB-38(BO)) 12" INV OUT = 99.15(DMH-19)	102.93	99.15					



FROM-TO	SIZE	MATERIAL	LENGTH	SLOPE
1-3	12"	RCP	196 LF	0.5%
2-3	12"	RCP	14 LF	1.0%
3-5	24"	RCP	190 LF	0.5%
4-5	12"	RCP	24 LF	0.5%
5-8	24"	RCP	183 LF	0.5%
6-8	12"	RCP	93 LF	0.5%
7-8	12"	RCP	50 LF	0.5%
8-OUT	30"	RCP	106 LF	0.5%
9-11	12"	RCP	86 LF	0.5%
10-11	12"	RCP	106 LF	0.5%
11-14	18"	RCP	161 LF	0.5%
12-14	12"	RCP	48 LF	0.5%
13-14	12"	RCP	83 LF	0.5%
14-17	24"	RCP	211 LF	0.5%
15-17	12"	RCP	42 LF	1.0%
16-17	12"	RCP	39 LF	1.0%
17-OUT	24"	RCP	23 LF	0.5%
18-19	12"	RCP	17 LF	0.5%
19-POND4	12"	RCP	59 LF	1.0%
20-POND4	12"	RCP	130 LF	0.5%
34-36(BO)	12"	RCP	63 LF	0.6%
35-36(BO)	12"	RCP	14 LF	0.4%
36-37(BO)	12"	RCP	94 LF	0.7%
37-40(BO)	12"	RCP	127 LF	0.5%
38-40(BO)	12"	RCP	11 LF	0.7%
40-19	12"	RCP	142 LF	1.1%

LEGEND
 56.46 SPOT GRADE
 85.64 SPOT GRADE
NOTES
 SEE DETAIL SHEET FOR INVERT ELEVATIONS FOR OUTLET CONTROL STRUCTURES.

PROPOSED JURISDICTIONAL WETLAND RESTORATION 6,415 SF TOTAL
 PROPOSED NON-JURISDICTIONAL ISOLATED WETLAND RESTORATION 2,251 SF TOTAL
 PROPOSED BUFFER ZONE RESTORATION 15,298 SF TOTAL
 PROPOSED RESTORATION AREA 6,415 SF WETLAND RESTORATION 13,613 SF BUFFER RESTORATION
 APPROX DEBRIS PILE AREA WITHIN BUFFER ZONE=13,650 SF



PERMITTING SET - NOT FOR CONSTRUCTION

REVISIONS
1 PER ANDOVER COMMENTS 09/27/2022

ISSUED FOR
Permitting

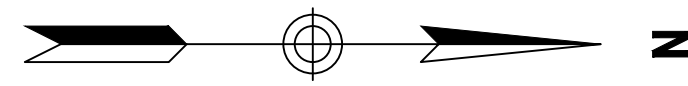
PROJECT TITLE
Burt Road Development

PROJECT LOCATION
3, 3R, 4 Executive Place Andover MA, 01810

DRAWING TITLE
Grading & Drainage Plan

PROJECT NO. T1126
 TEC CAD FILE T1126_GD.DWG
 DRAWING NO. C-4
 SHEET 4 OF 16





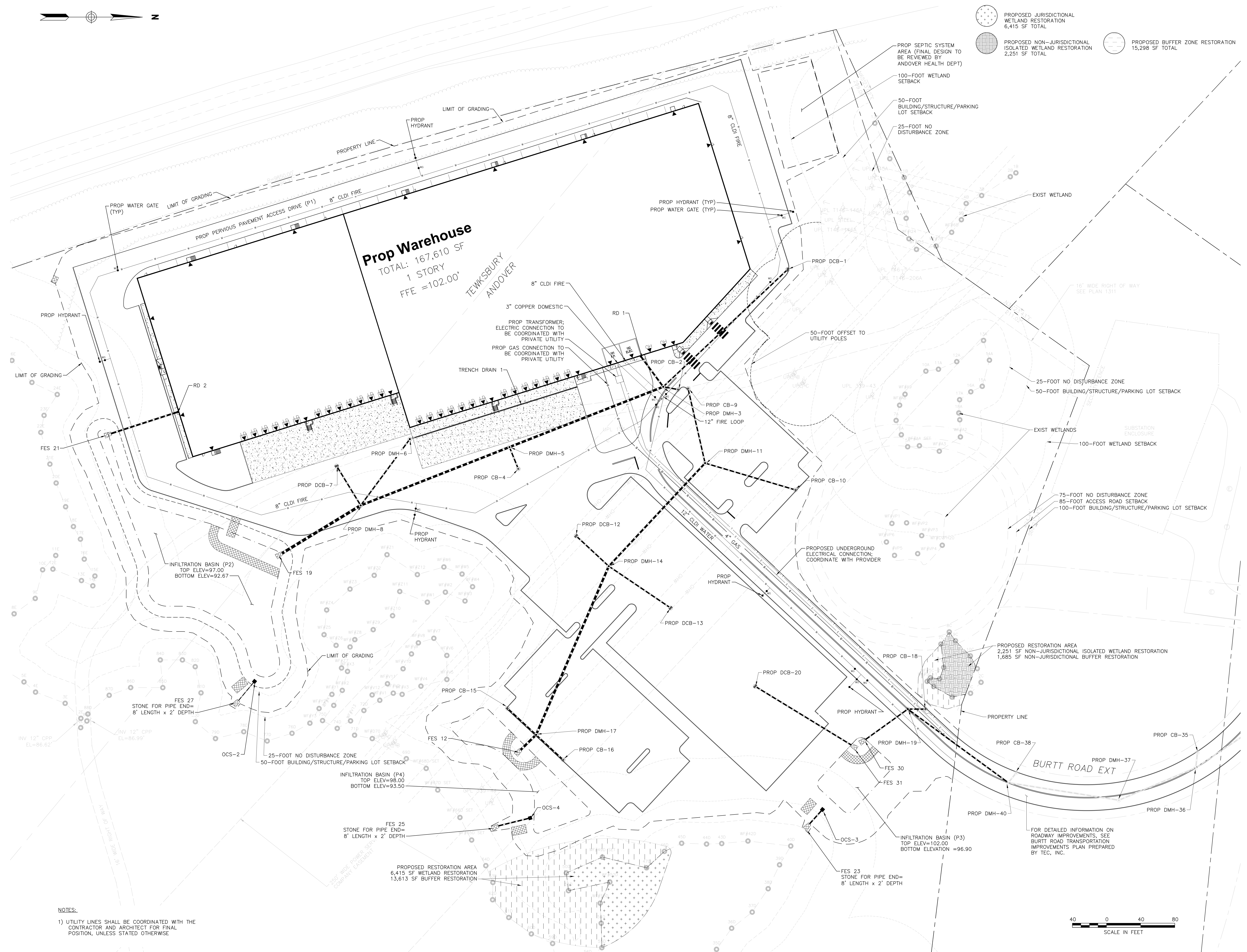
- PROPOSED JURISDICTIONAL WETLAND RESTORATION 6,415 SF TOTAL
- PROPOSED NON-JURISDICTIONAL ISOLATED WETLAND RESTORATION 2,251 SF TOTAL
- PROPOSED BUFFER ZONE RESTORATION 15,298 SF TOTAL



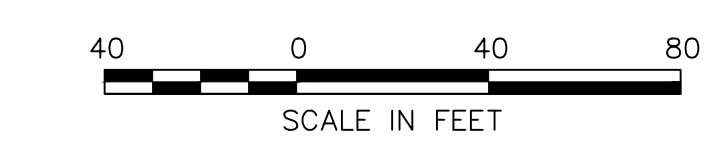
TEC, Inc.
 282 Merrimack Street | 169 Ocean Boulevard
 2nd Floor | Unit 101, PO Box 249
 Lawrence, MA 01843 | Hampton, NH 03842
 (978) 794-1792 | (603) 601-8154
 www.TheEngineeringCorp.com

DESIGNED BY: BM
 DRAWN BY: WNB/JRM/JD
 CHECKED BY: PFE
 DATE: 08/30/2022
 SCALE: 1" = 40'

PREPARED FOR:
MCP/Howland Burt
Owner, LLC
 260 Franklin Street,
 Suite 620
 Boston, MA 02110



NOTES:
 1) UTILITY LINES SHALL BE COORDINATED WITH THE CONTRACTOR AND ARCHITECT FOR FINAL POSITION, UNLESS STATED OTHERWISE



REVISIONS	
1	PER ANDOVER COMMENTS 09/27/2022

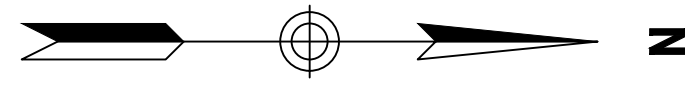
ISSUED FOR
Permitting

PROJECT TITLE
Burt Road Development

PROJECT LOCATION
**3, 3R, 4 Executive Place
 Andover MA, 01810**

DRAWING TITLE
Utility Plan

	PROJECT NO.	T1126
	TEC CAD FILE	T1126_UT.DWG
	DRAWING NO.	C-5
	SHEET 5	OF 16



INTERSTATE 93

Prop Warehouse
TOTAL: 167,610 SF
1 STORY
FFE = 102,00'

TEWKSBURY
ANDOVER

- NOTES:
- DEVELOPMENT SHALL BE ORIENTED TO THE SITE SO THAT CUTTING AND STRIPPING OF VEGETATION AND GRADING ARE MINIMIZED.
 - PRIOR TO ANY LAND DISTURBANCE ACTIVITIES COMMENCING ON THE SITE, THE DEVELOPER SHALL PHYSICALLY MARK LIMITS OF NO LAND DISTURBANCE ON THE SITE WITH TAPE, SIGNS, OR ORANGE CONSTRUCTION FENCE, SO THAT WORKERS CAN SEE THE AREA TO BE PROTECTED.
 - APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
 - EXISTING CATCH BASINS WITHIN 100FT OF THE CONSTRUCTION ENTRANCE SHALL HAVE SILT SACKS IN THEM FOR THE DURATION OF CONSTRUCTION.
 - RUNOFF SHALL BE CONTROLLED AND CONVEYED INTO STORM DRAINS AND OTHER OUTLETS SO IT WILL NOT ERODE THE LAND OR CAUSE OFF-SITE DAMAGE; SEDIMENT IN RUNOFF SHALL BE TRAPPED BY USING STACKED HAY BALES; SILT FENCING, COMPOST FILTER TUBES, SEDIMENTATION TRAPS, OR OTHER APPROVED EROSION CONTROL DEVICES.
 - SEDIMENT BASINS SHALL BE CONSTRUCTED WHERE NECESSARY TO DETAIN RUNOFF AND TO TRAP SEDIMENT DURING CONSTRUCTION.
 - SEDIMENT SHALL BE REMOVED ONCE THE VOLUME REACHES 1/4 TO 1/2 THE HEIGHT OF THE EROSION CONTROL BARRIER.
 - OFFSITE RUNOFF SHALL BE DIVERTED FROM HIGHLY ERODIBLE SOILS AND STEEP SLOPES TO STABLE AREAS. EROSION AND SEDIMENT CONTROLS SHALL BE COORDINATED WITH THE SEQUENCE OF GRADING, DEVELOPMENT AND CONSTRUCTION OPERATIONS; CONTROL MEASURES SHALL BE IN EFFECT PRIOR TO COMMENCEMENT OF EACH INCREMENT/PHASE OF THE PROCESS.
 - LAND DISTURBANCE ACTIVITIES EXCEEDING TWO ACRES IN SIZE SHALL NOT BE DISTURBED WITHOUT A SEQUENCING PLAN THAT REQUIRES STORMWATER CONTROLS TO BE INSTALLED AND SOIL STABILIZED, AS DISTURBANCE BEYOND THE TWO ACRES CONTINUES. MASS CLEARINGS AND GRADING OF THE ENTIRE SITE SHOULD BE AVOIDED. PRIOR TO ANY CONSTRUCTION ON THE SITE, APPLICANT SHALL SUBMIT A CONSTRUCTION PHASING PLAN TO THE PLANNING DEPARTMENT FOR REVIEW AND APPROVAL.
 - SOIL AND OTHER MATERIALS SHALL NOT BE STOCKPILED OR REDISTRIBUTED, EITHER TEMPORARILY OR PERMANENTLY, IN LOCATIONS OR IN SUCH A MANNER AS WOULD CAUSE SUFFOCATION OF TREE ROOT SYSTEMS.
 - TOPSOIL SHALL BE STRIPPED FROM DISTURBED AREAS, STOCKPILED IN APPROVED AREAS AND STABILIZED WITH TEMPORARY VEGETATIVE COVER IF IT IS TO BE LEFT FOR MORE THAN THIRTY (30) CALENDAR DAYS; PERIMETER SEDIMENT CONTROLS SHALL BE INSTALLED AROUND EACH AREA OF STOCKPILED TOPSOIL.
 - SOIL STOCKPILES SHALL BE STABILIZED OR COVERED AT THE END OF EACH WORKDAY.
 - THE AREA OF DISTURBANCE SHALL BE KEPT TO A MINIMUM. DISTURBED AREAS REMAINING IDLE FOR MORE THAN 14 DAYS SHALL BE STABILIZED.
 - GRADING SHALL BE KEPT TO A MINIMUM; TREE REMOVAL SHALL BE MINIMIZED;
 - FOR ACTIVE CONSTRUCTION AREAS SUCH AS BORROW OR STOCKPILE AREAS, ROADWAY IMPROVEMENTS, AND AREAS WITHIN 50 FEET OF A BUILDING UNDER CONSTRUCTION, A PERIMETER SEDIMENT CONTROL SYSTEM SHALL BE INSTALLED AND MAINTAINED TO CONTAIN SOIL.
 - A TRACKING PAD SHALL BE CONSTRUCTED AT ALL ENTRANCE/EXIT POINTS OF THE SITE TO REDUCE THE AMOUNT OF SOIL CARRIED ONTO ROADWAYS AND OFF THE SITE.
 - DUST SHALL BE CONTROLLED AT THE SITE. DUST CONTROL MEASURES SHALL BE USED DURING GRADING OPERATIONS. DUST CONTROL METHODS MAY CONSIST OF GRADING FINE SOILS ON CALM DAYS ONLY, OR DAMPENING THE GROUND WITH WATER.
 - ON THE CUT SIDE OF THE ROADS, DITCHES SHALL BE STABILIZED IMMEDIATELY WITH ROCK RIP-RAP OR OTHER NON-ERODIBLE LINERS, OR WHERE APPROPRIATE, VEGETATIVE MEASURES SUCH AS SOD.
 - ALL GRADABLE AREAS BEYOND THE STREET RIGHT-OF-WAY SHALL BE COVERED WITH FOUR (4) INCHES OF TOPSOIL AND PLANTED WITH A NATIVE SPECIE OF VEGETATIVE COVER, SUFFICIENT TO PREVENT EROSION;
 - TEMPORARY SEEDING, MULCHING, OR OTHER SUITABLE STABILIZATION METHODS SHALL BE USED TO PROTECT EXPOSED SOIL AREAS DURING CONSTRUCTION; AS FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED; DURING THE MONTHS OF OCTOBER THROUGH MARCH, WHEN SEEDING MAY BE IMPRACTICAL, AN ANCHORED MULCH OR SOIL SHALL BE APPLIED AS APPROVED BY THE PLANNING BOARD OR BY ITS DESIGNEE; DIVERSIONS AND/OR PREPARED OUTLETS MAY BE REQUIRED IN CRITICAL AREAS DURING CONSTRUCTION.
 - PERMANENT SEEDING SHOULD BE UNDERTAKEN IN THE SPRING FROM MARCH THROUGH MAY, AND IN LATE SUMMER AND EARLY FALL FROM AUGUST TO OCTOBER 15. DURING PEAK SUMMER MONTHS AND IN THE FALL AFTER OCTOBER 15, WHEN SEEDING IS FOUND TO BE IMPRACTICAL, AN APPROPRIATE TEMPORARY MULCH SHALL BE APPLIED. PERMANENT SEEDING MAY BE UNDERTAKEN DURING THE SUMMER IF PLANS PROVIDE FOR ADEQUATE MULCHING AND WATERING.
 - PERMANENT VEGETATION AND EROSION CONTROL STRUCTURES, AS NECESSARY, SHALL BE INSTALLED PREFERABLY IMMEDIATELY AFTER CONSTRUCTION IS COMPLETED BUT OTHER WISE NO LATER THAN THE FIRST FULL SPRING SEASON IMMEDIATELY THEREAFTER; THEY SHALL COMPLY WITH THE EROSION AND SEDIMENTATION VEGETATIVE PRACTICES RECOMMENDED BY THE U.S. SOIL CONSERVATION SERVICE;
 - TEMPORARY GROUND COVER OR EROSION/SEDIMENTATION CONTROLS SHALL BE ESTABLISHED ON ANY UNBUILT LOTS AS REQUIRED BY THE PLANNING BOARD;
 - NATIVE SPECIES SHALL BE USED FOR RE-VEGETATION;
 - ALL SLOPES STEEPER THAN 3:1 (H:V, 33.7%) AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS SHALL, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOIL, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES. AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM SHALL NOT BE DISTURBED.
 - MONITORING AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION SHALL BE REQUIRED. THE APPLICANT SHALL SUBMIT TO THE PLANNING BOARD, A COMPLETE OPERATION AND MAINTENANCE PLAN FOR TEMPORARY AND PERMANENT EROSION CONTROL MEASURES, AS PART OF THE APPLICATION PACKAGE.
 - TEMPORARY SEDIMENT TRAPPING DEVICES SHALL NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONTRIBUTORY DRAINAGE AREAS. SIMILARLY, STABILIZATION SHALL BE ESTABLISHED PRIOR TO CONVERTING SEDIMENT TRAPS/BASINS INTO PERMANENT (POST-CONSTRUCTION) STORMWATER MANAGEMENT FACILITIES. ALL FACILITIES USED AS TEMPORARY MEASURES SHALL BE CLEANED PRIOR TO BEING PUT INTO FINAL OPERATION.
 - ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS; THE APPLICANT'S ENGINEER SHALL SUBMIT WRITTEN CERTIFICATION THAT THIS CONDITION HAS BEEN MET.



TEC, Inc.
282 Merrimack Street Unit 101, PO Box 249
Lawrence, MA 01843 Hampton, NH 03842
(978) 794-1792 (603) 601-8154
www.TheEngineeringCorp.com

DESIGNED BY BM
DRAWN BY WNB/JRM/JD
CHECKED BY PFE
DATE 08/30/2022
SCALE 1" = 40'

PREPARED FOR
MCP/Howland Burt
Owner, LLC
260 Franklin Street,
Suite 620
Boston, MA 02110

REVISIONS		
1	PER ANDOVER COMMENTS	09/27/2022

ISSUED FOR
Permitting

PROJECT TITLE
Burt Road Development

PROJECT LOCATION
**3, 3R, 4 Executive Place
Andover MA, 01810**

DRAWING TITLE
**Erosion &
Sedimentation Control
Plan**

PROJECT NO. T1126
TEC CAD FILE T1126_ER.DWG
DRAWING NO. **C-6**
SHEET 6 OF 16

- PROPOSED CONSTRUCTION SEQUENCING
- SELECTIVELY REMOVE VEGETATION FOR EROSION CONTROL BARRIER INSTALLATION;
 - INSTALL EROSION CONTROL BARRIERS;
 - INSTALL CONSTRUCTION FENCING AT LIMITS OF WORK, AND NO-DISTURB/TREE SAVE AREAS, IF ANY;
 - STABILIZE CONSTRUCTION ENTRANCE;
 - PREPARE CONSTRUCTION TRAILER/STAGING LOCATION;
 - CONSTRUCT NEW SEDIMENT BASINS AS NECESSARY;
 - BEGIN DEMOLITION OF EXISTING BUILDING SIDES;
 - SELECTIVELY CLEAR AND GRUB WOODS;
 - STRIP AND STOCKPILE TOPSOIL AND PAVEMENT;
 - TEMPORARILY STABILIZE TOPSOIL (SEED AND SILT FENCE (GRASSSED AREA) OR COMPOST FILTER TUBE OR STRAW BALES (PAVEMENT AREA) AROUND TOE OF SLOPE;
 - CONDUCT EARTHWORK CUTS AND FILLS TO BRING SITE TO GRADE;
 - INITIATE BUILDING CONSTRUCTION;
 - CONSTRUCT UTILITIES (WATER, SEWER, STORM DRAIN, ETC.);
 - CONSTRUCT DRIVEWAY/PARKING/SIDEWALK PAVEMENT AREAS THROUGH BINDER COURSE;
 - COMPLETE BUILDING CONSTRUCTION;
 - FINISH GRADE LANDSCAPING AREAS;
 - PERMANENTLY STABILIZE LANDSCAPING AND ALL DISTURBED AREAS WITH SEED/LANDSCAPING;
 - CONSTRUCT DRIVEWAY/PARKING AREAS THROUGH TOP COURSE; AND
 - REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES UPON PERMANENT SITE STABILIZATION AND APPROVAL BY THE ENGINEER AND TOWN OF ANDOVER.

NOTE: CONTRACTOR SHALL CONDUCT ALL WORK IN ACCORDANCE WITH THE 2022 NPDES CONSTRUCTION GENERAL PERMIT. A COPY OF THE SWPPP WILL BE PROVIDED TO THE TOWN OF ANDOVER PRIOR TO THE START OF CONSTRUCTION.

PERMITTING SET - NOT FOR CONSTRUCTION

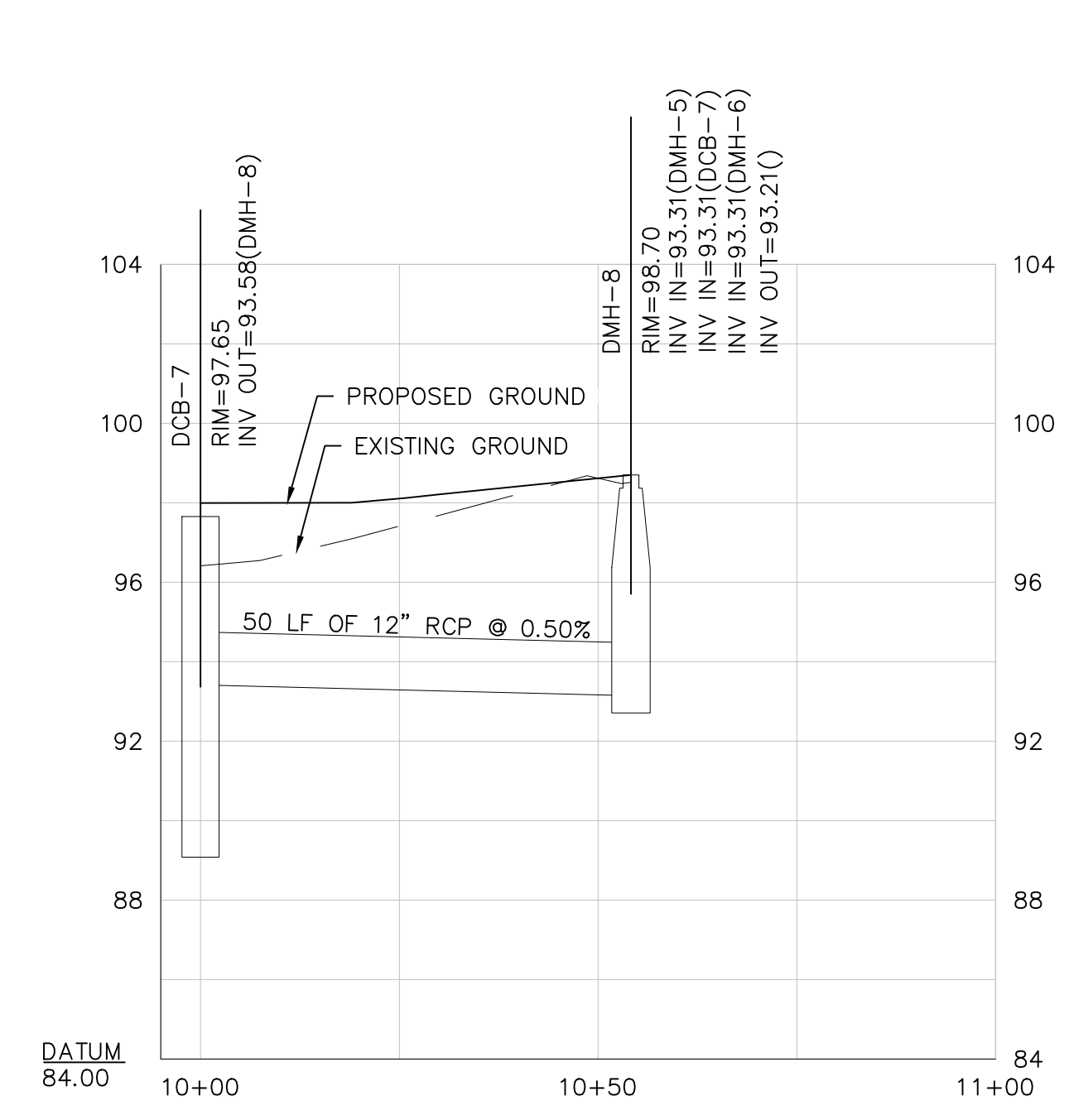
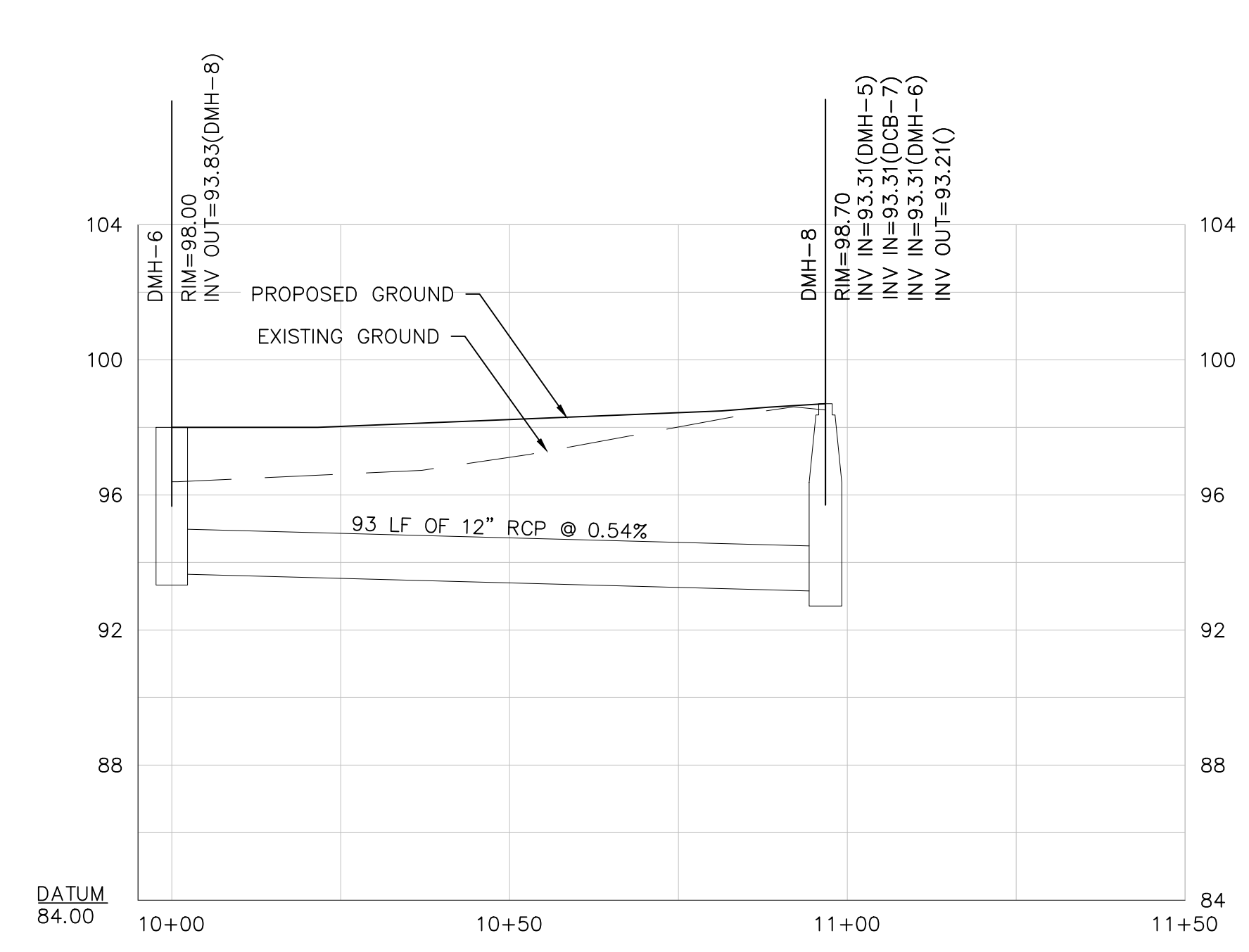
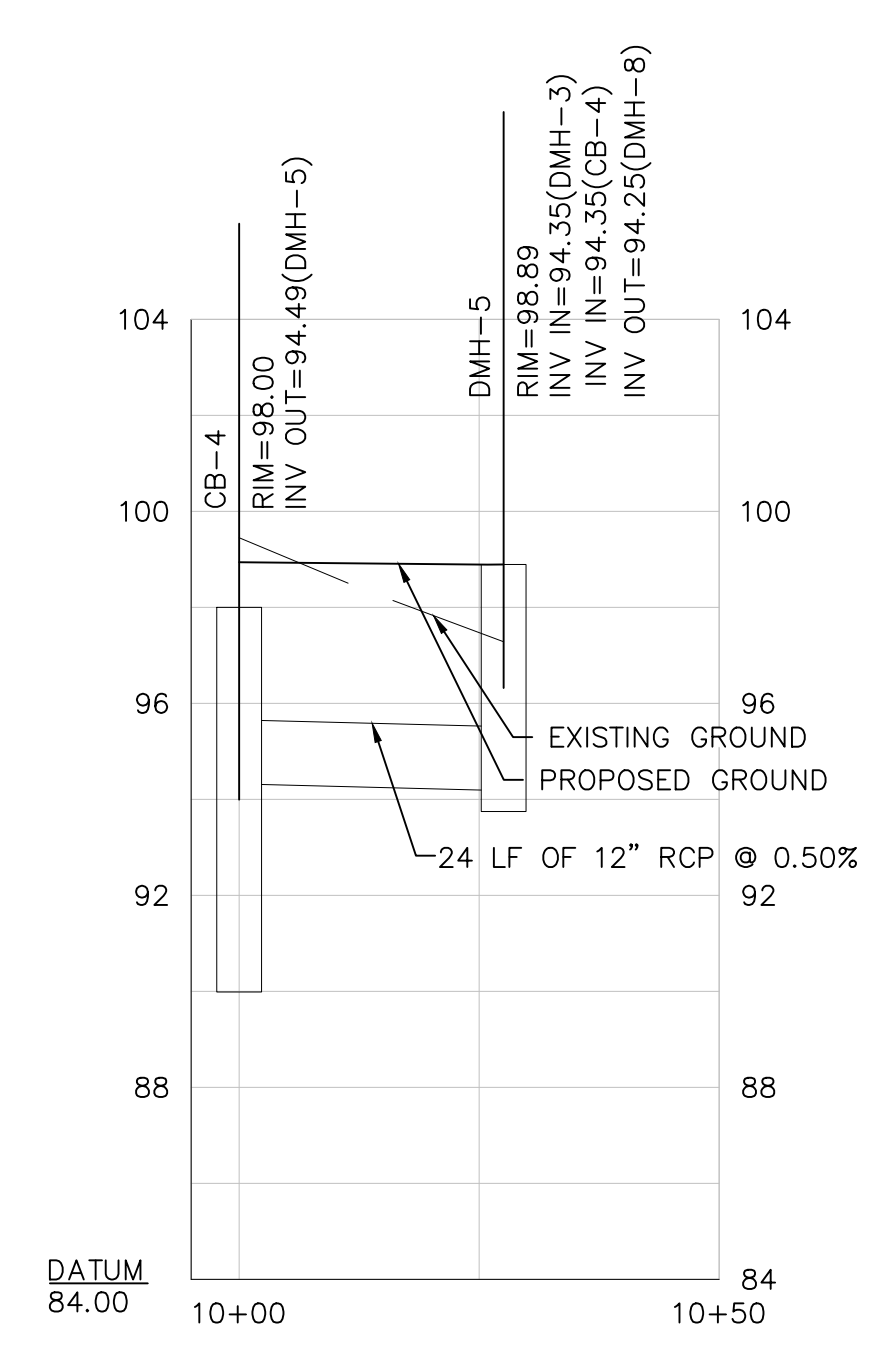
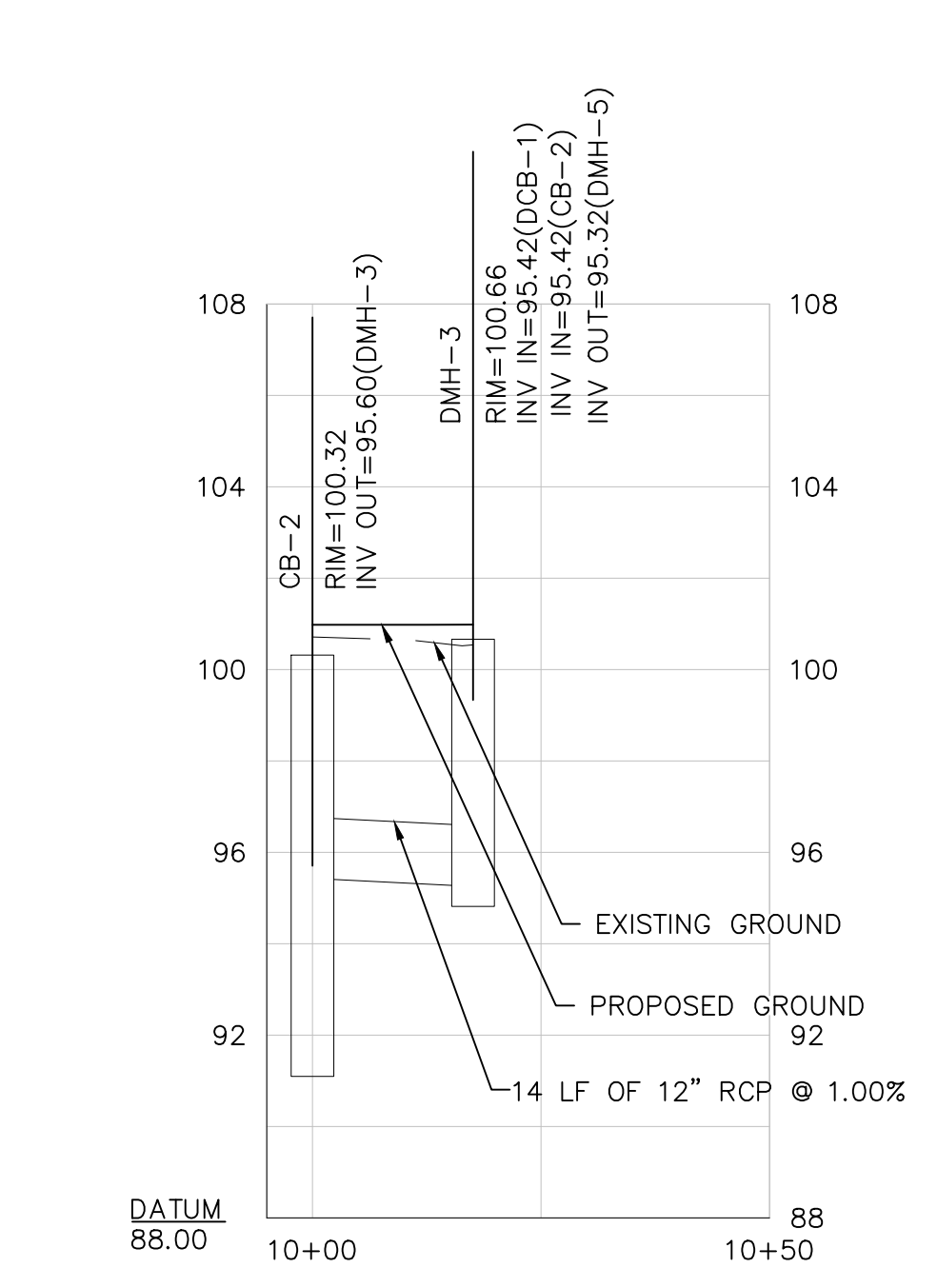
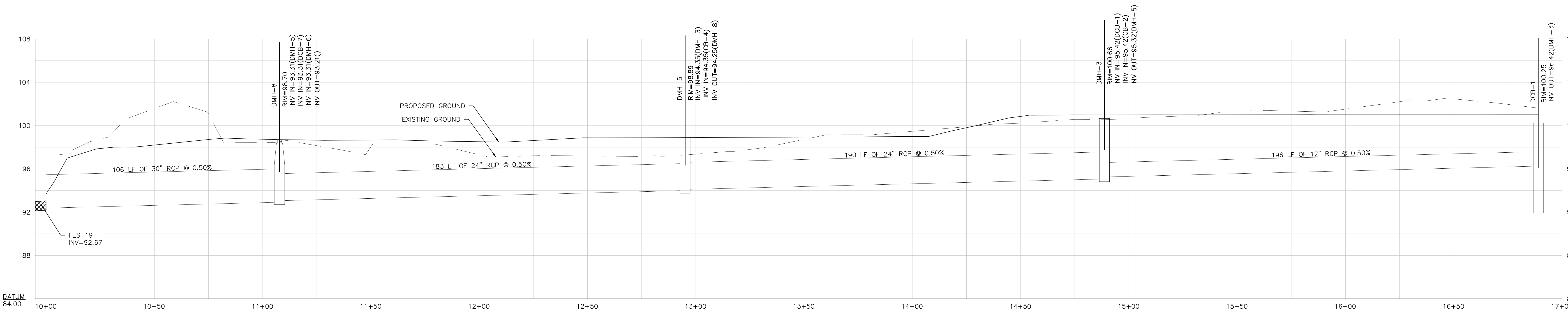
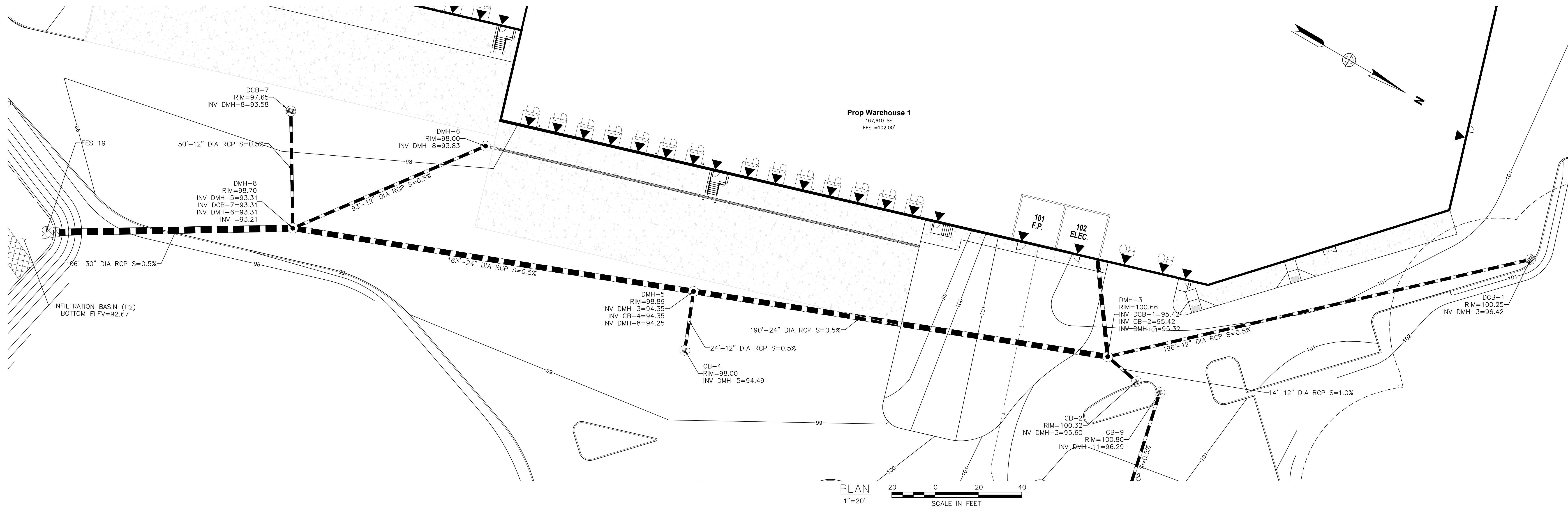


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www.TheEngineeringCorp.com

DESIGNED BY: BM
DRAWN BY: WNB/JRM/JD
CHECKED BY: PFE
DATE: 08/30/2022
SCALE: AS NOTED

PREPARED FOR:
MCP/Howland Burt
Owner, LLC
260 Franklin Street,
Suite 620
Boston, MA 02110



PROFILES
H: 1"=20'
V: 1"=4'

REVISIONS		
1	PER ANDOVER COMMENTS	09/27/2022

ISSUED FOR:
Permitting

PROJECT TITLE:
Burt Road Development

PROJECT LOCATION:
3, 3R, 4 Executive Place Andover MA, 01810

DRAWING TITLE:
Drainage Plan & Profile

	PROJECT NO.:	T1126
	TEC CAD FILE:	T1126_DR_PROF.DWG
	DRAWING NO.:	C-7
	SHEET 7 OF 16	



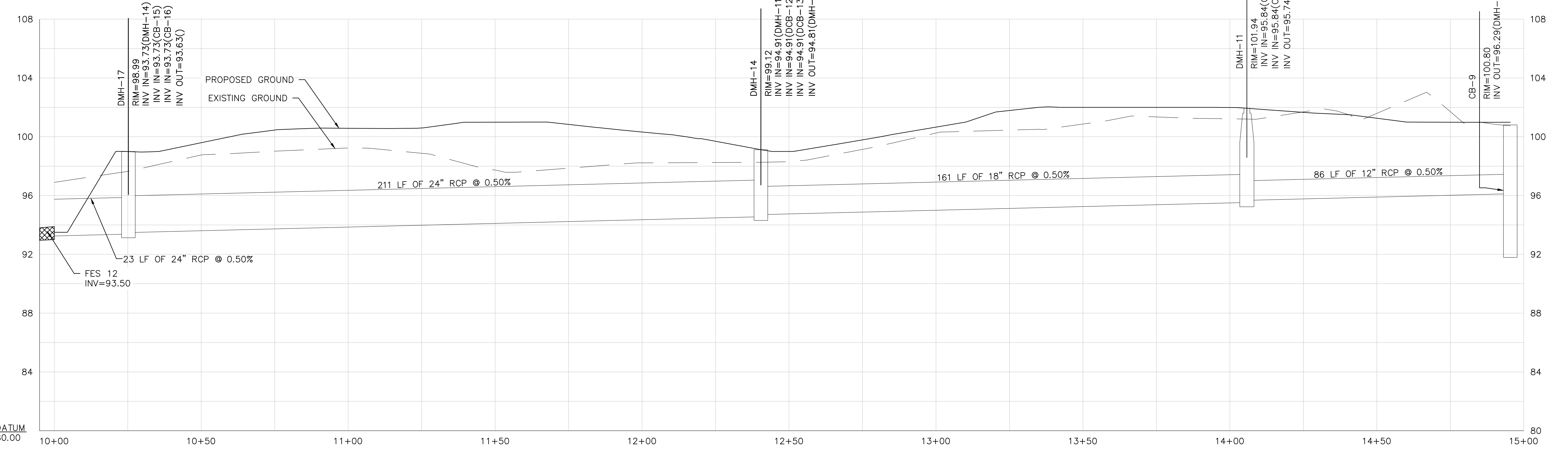
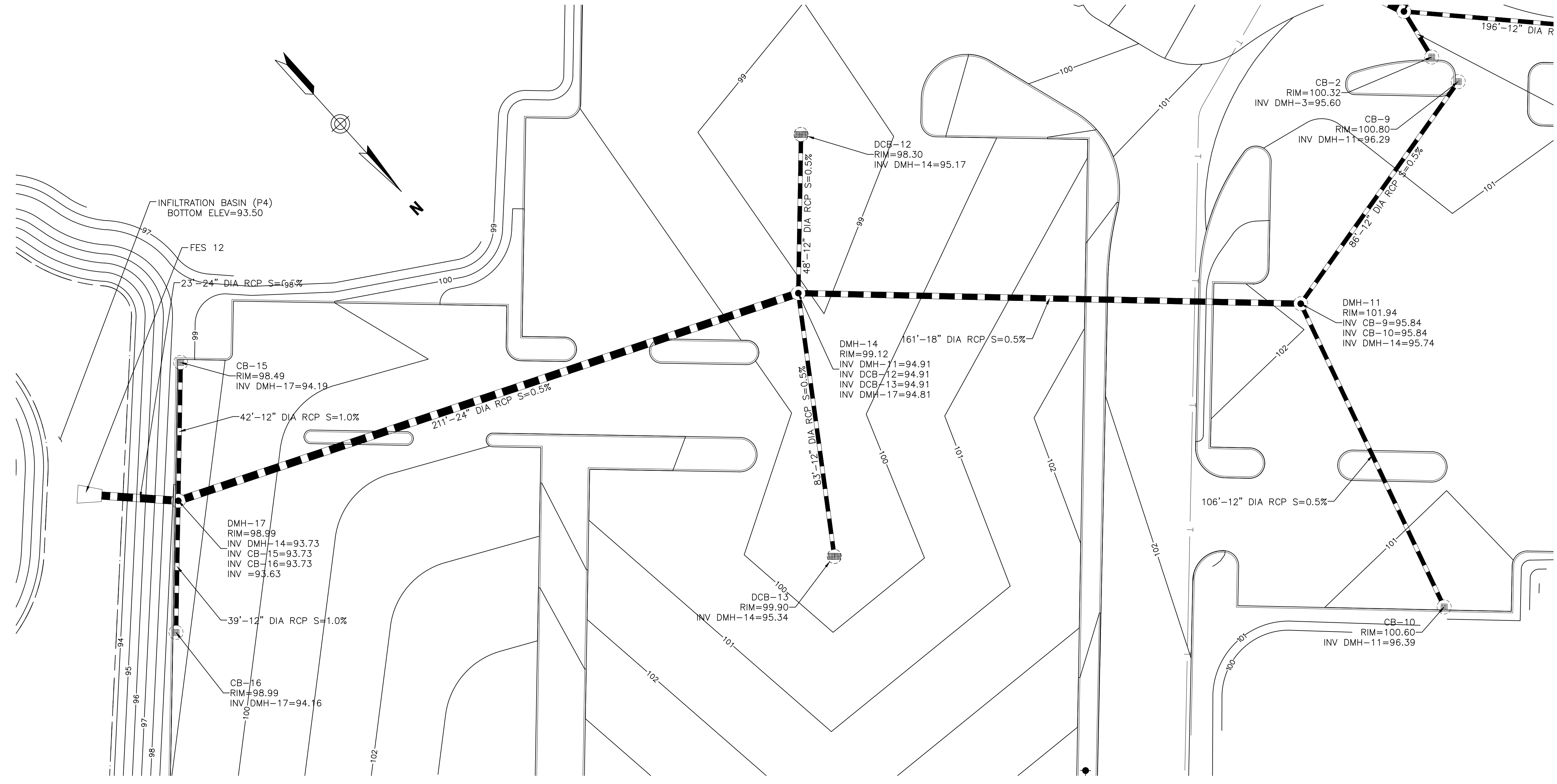
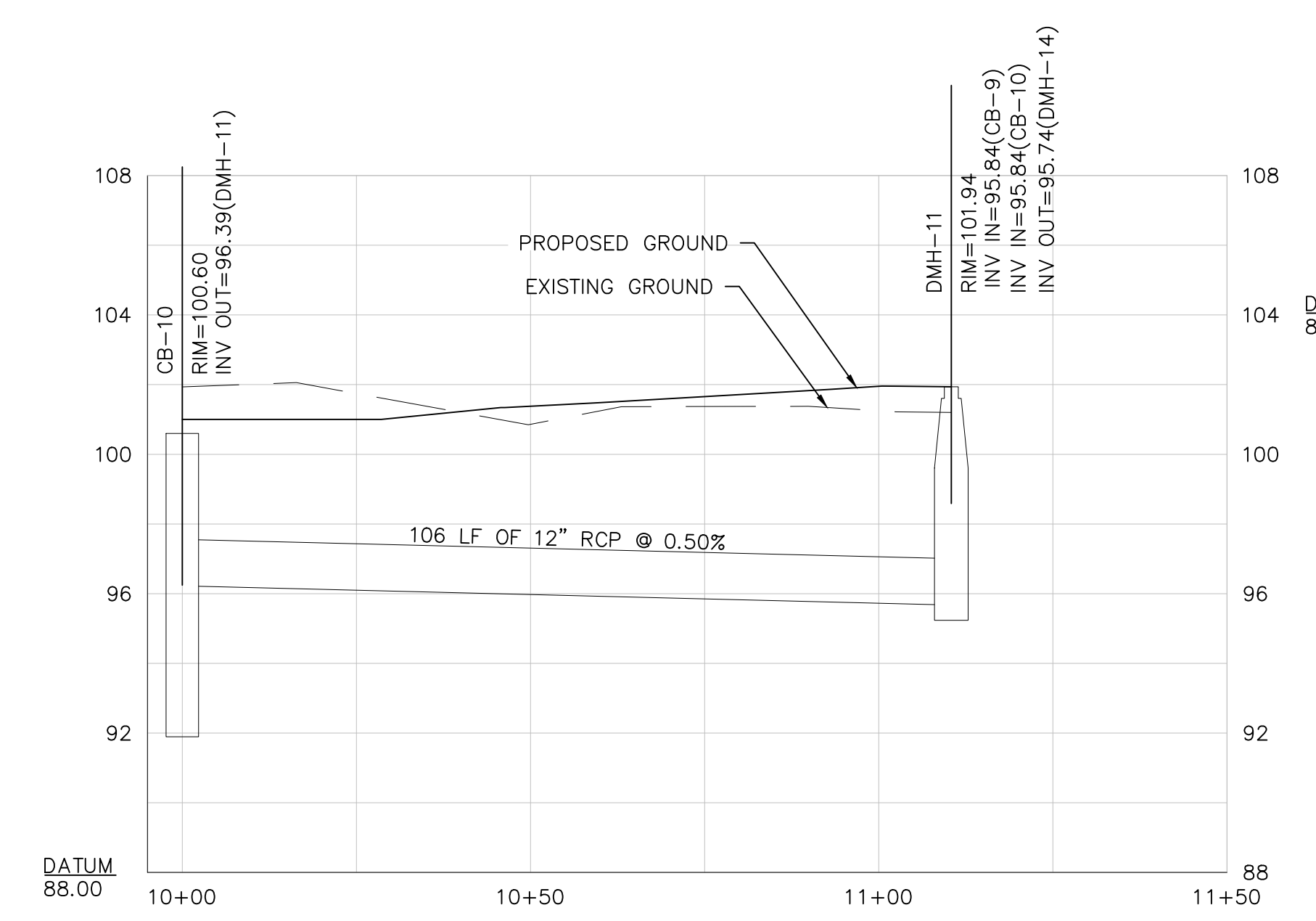
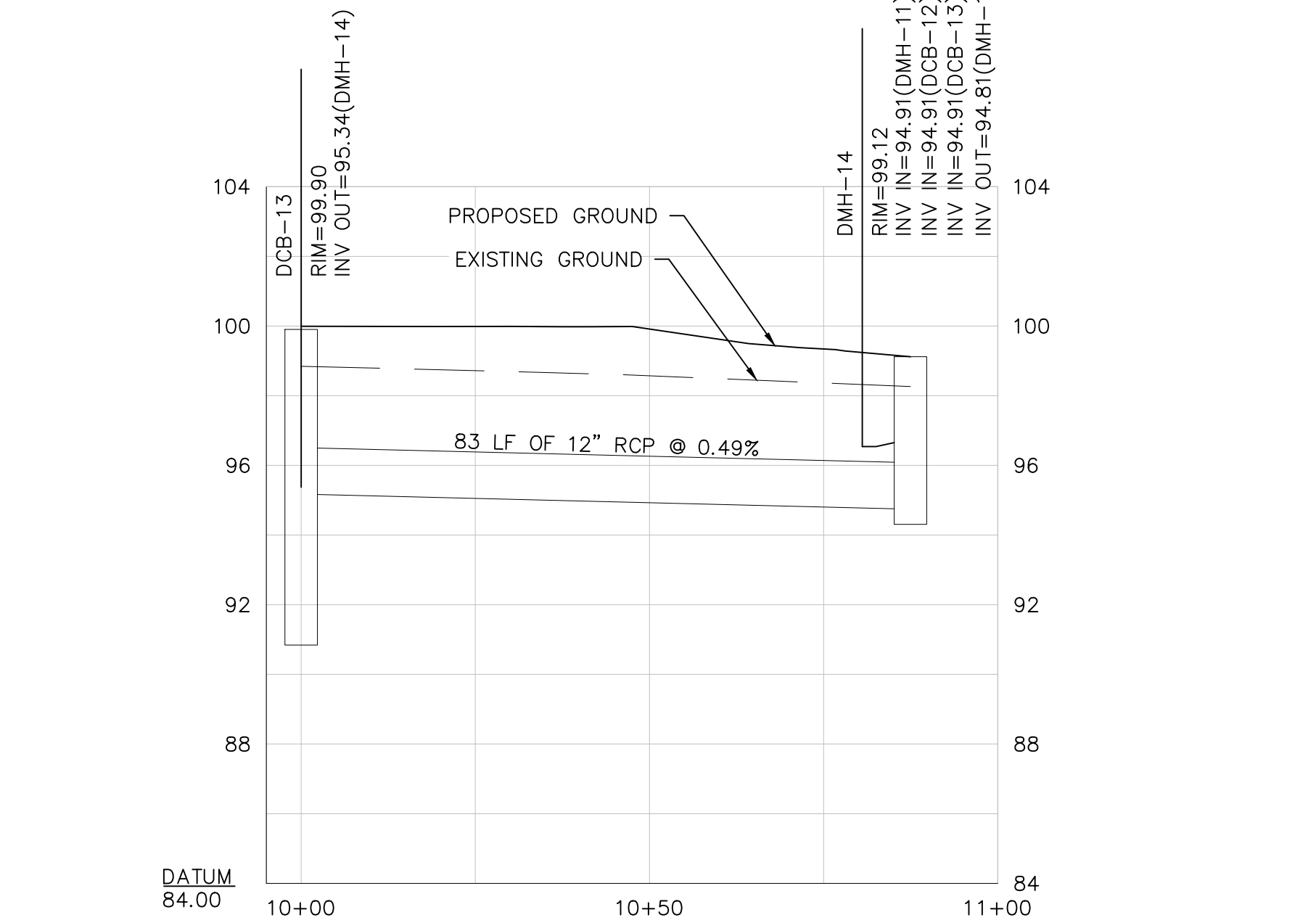
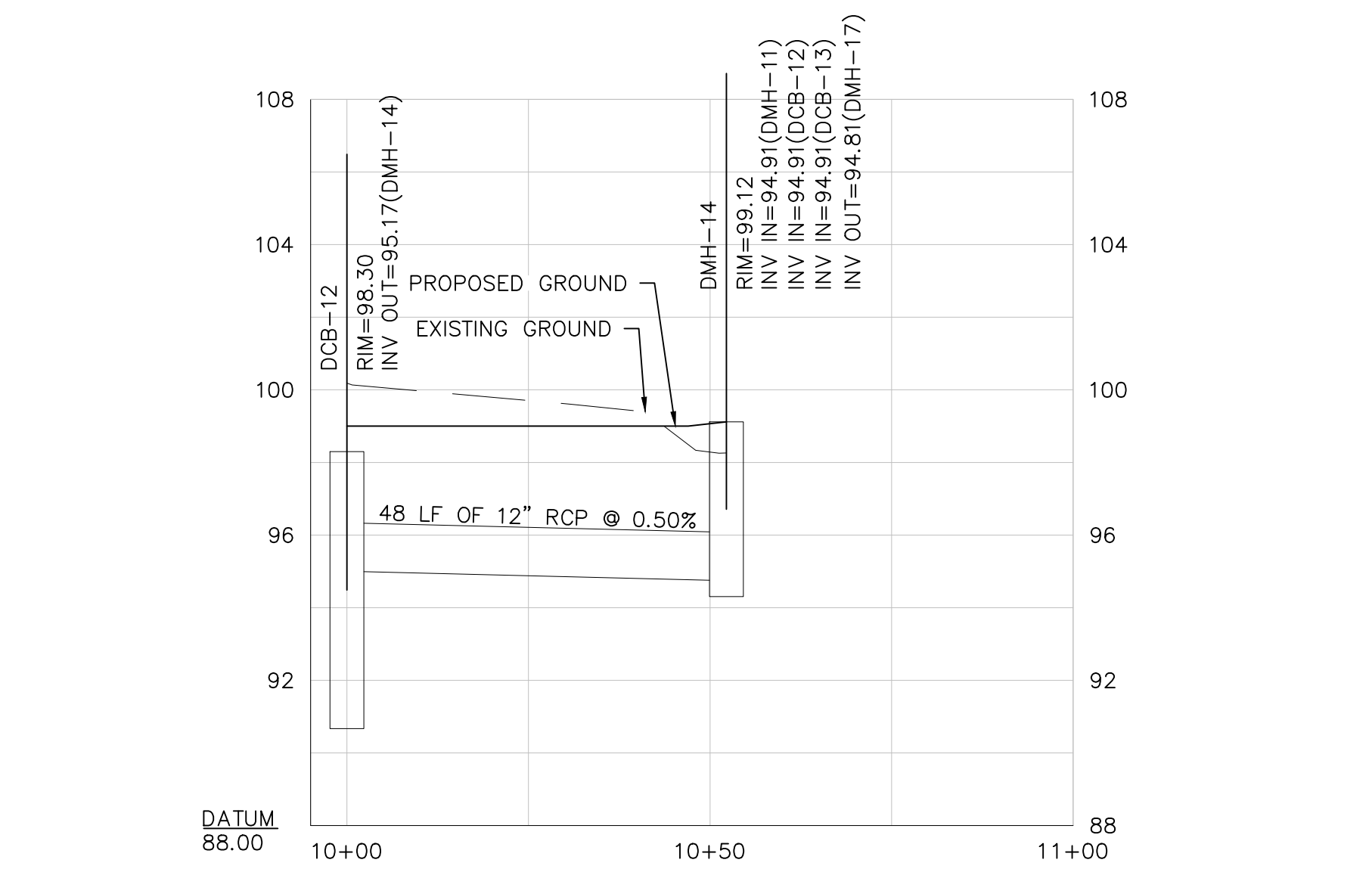
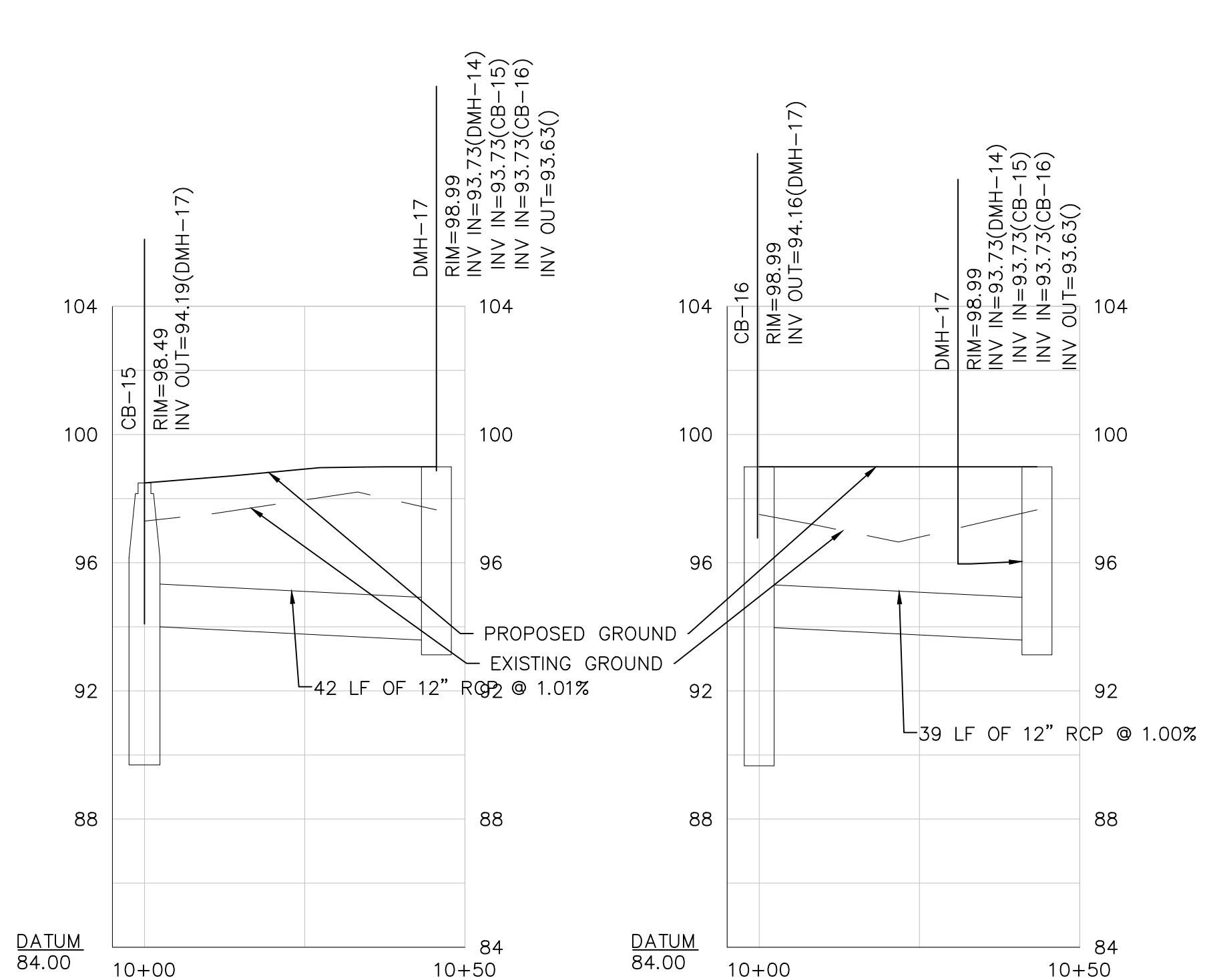
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SCALE: AS NOTED

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PROFILES
H: 1"=20'
V: 1"=4'

REVISIONS

11	REVISED COMMENTS	08/27/2022
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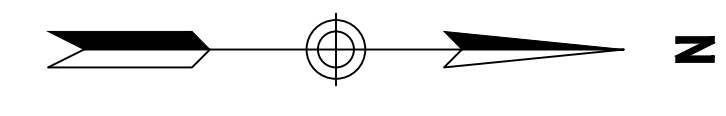
ISSUED FOR
Permitting

PROJECT TITLE
Burt Road
Development

PROJECT LOCATION
3, 3R, 4 Executive Place
Andover MA, 01810

DRAWING TITLE
Drainage Plan &
Profile

PROJECT NO. T1126
TEC CAD FILE T1126_DR_PROF.DWG
DRAWING NO. C-8
SHEET 8 OF 16



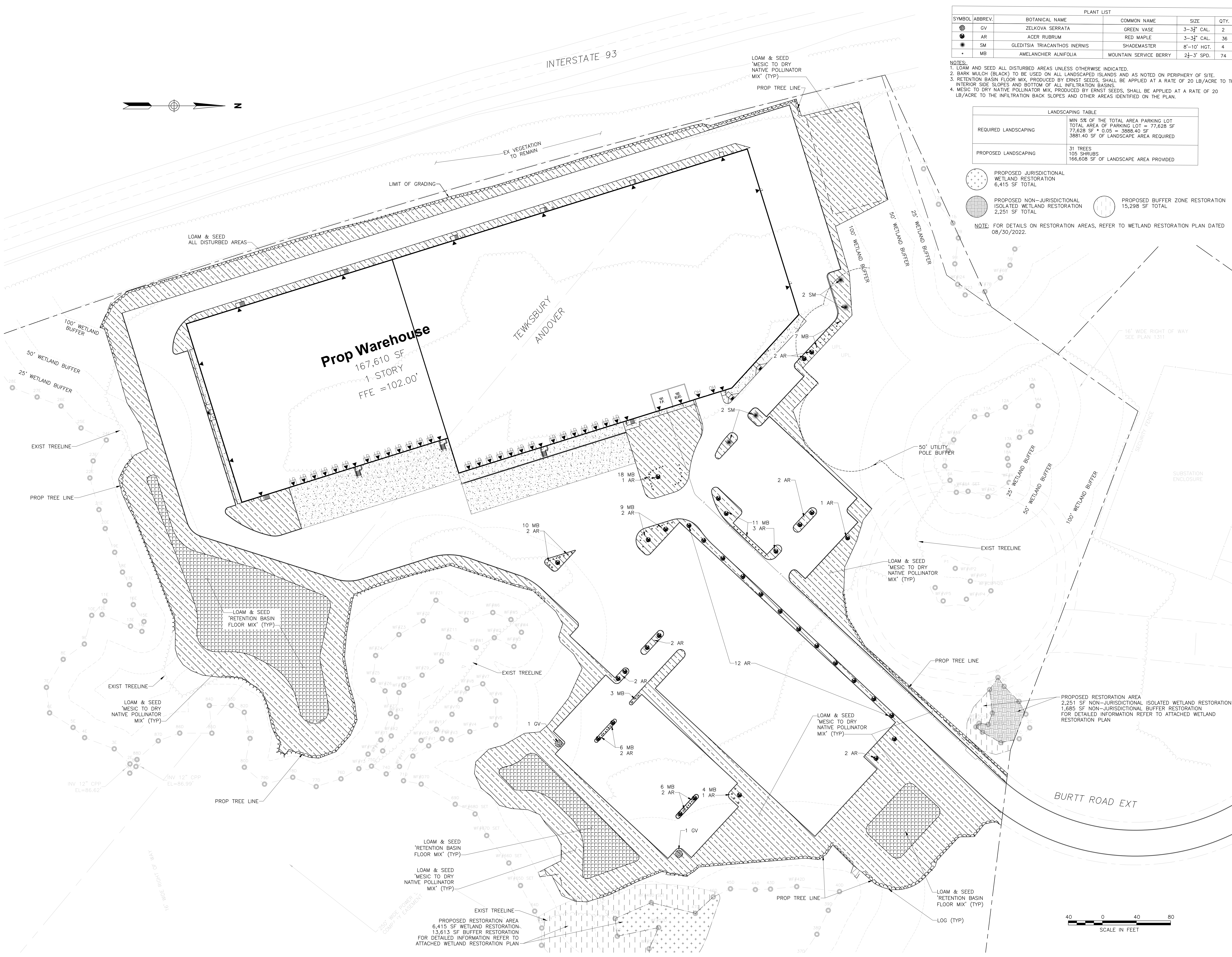
PLANT LIST					
SYMBOL	ABBREV.	BOTANICAL NAME	COMMON NAME	SIZE	QTY.
GV		ZELKOVA SERRATA	GREEN VASE	3-3 1/2" CAL.	2
AR		ACER RUBRUM	RED MAPLE	3-3 1/2" CAL.	36
SM		GLEDTISIA TRIACANTHOS INERNIS	SHADEMASTER	8'-10' HGT.	4
MB		AMELANCHIER ALNIFOLIA	MOUNTAIN SERVICE BERRY	2 1/2-3" SPD.	74

- NOTES:
1. LOAM AND SEED ALL DISTURBED AREAS UNLESS OTHERWISE INDICATED.
 2. BARK MULCH (BLACK) TO BE USED ON ALL LANDSCAPED ISLANDS AND AS NOTED ON PERIPHERY OF SITE.
 3. RETENTION BASIN FLOOR MIX, PRODUCED BY ERNST SEEDS, SHALL BE APPLIED AT A RATE OF 20 LB/ACRE TO THE INTERIOR SIDE SLOPES AND BOTTOM OF ALL INFILTRATION BASINS.
 4. MESIC TO DRY NATIVE POLLINATOR MIX, PRODUCED BY ERNST SEEDS, SHALL BE APPLIED AT A RATE OF 20 LB/ACRE TO THE INFILTRATION BACK SLOPES AND OTHER AREAS IDENTIFIED ON THE PLAN.

LANDSCAPING TABLE	
REQUIRED LANDSCAPING	MIN 5% OF THE TOTAL AREA PARKING LOT TOTAL AREA OF PARKING LOT = 77,628 SF 77,628 SF * 0.05 = 3881.40 SF 3881.40 SF OF LANDSCAPE AREA REQUIRED
PROPOSED LANDSCAPING	31 TREES 105 SHRUBS 166,608 SF OF LANDSCAPE AREA PROVIDED

- PROPOSED JURISDICTIONAL WETLAND RESTORATION 6,415 SF TOTAL
- PROPOSED NON-JURISDICTIONAL ISOLATED WETLAND RESTORATION 2,251 SF TOTAL
- PROPOSED BUFFER ZONE RESTORATION 15,298 SF TOTAL

NOTE: FOR DETAILS ON RESTORATION AREAS, REFER TO WETLAND RESTORATION PLAN DATED 08/30/2022.



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 Lawrence, MA 01843 Hampton, NH 03842
 (978) 794-1792 (603) 601-8154
 www.TheEngineeringCorp.com

DESIGNED BY BM
 DRAWN BY WNB/JRM/JD
 CHECKED BY PFE
 DATE 08/30/2022
 SCALE 1" = 40'

PREPARED FOR
MCP/Howland Burt
Owner, LLC
 260 Franklin Street,
 Suite 620
 Boston, MA 02110

REVISIONS		
1	PER ANDOVER COMMENTS	09/27/2022

ISSUED FOR
Permitting

PROJECT TITLE
Burt Road Development

PROJECT LOCATION
**3, 3R, 4 Executive Place
 Andover MA, 01810**

DRAWING TITLE
Landscaping Plan

	PROJECT NO.	T1126
	TEC CAD FILE	T1126_LAND.DWG
	DRAWING NO.	C-10
	SHEET 10 OF 16	



TEC, Inc.

282 Merrimack Street | 169 Ocean Boulevard
2nd Floor | Unit 101, PO Box 249
Lawrence, MA 01843 | Hampton, NH 03842
(978) 794-1792 | (603) 601-8154
www.TheEngineeringCorp.com

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Suite 620
Boston, MA 02110

REVISIONS
1 PER ANDOVER COMMENTS 09/27/2022

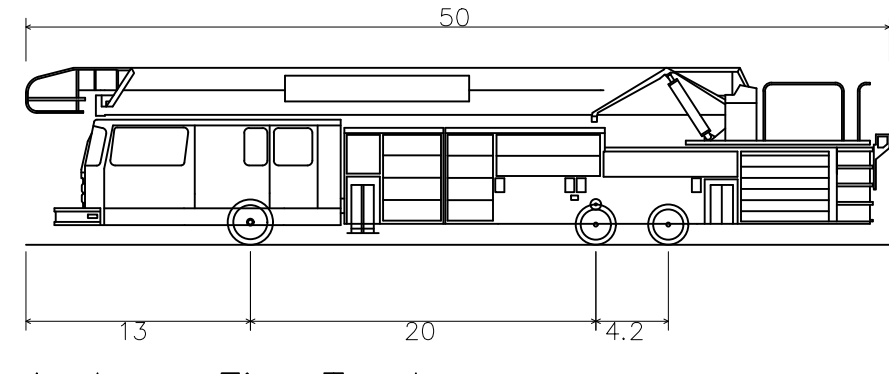
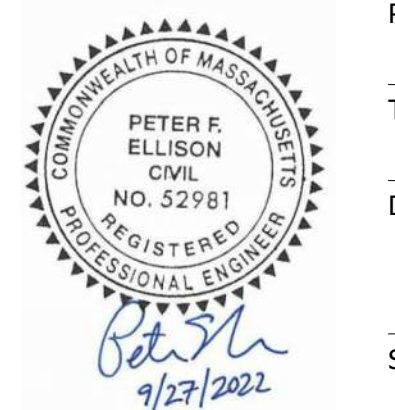
ISSUED FOR
Permitting

PROJECT TITLE
Burt Road
Development

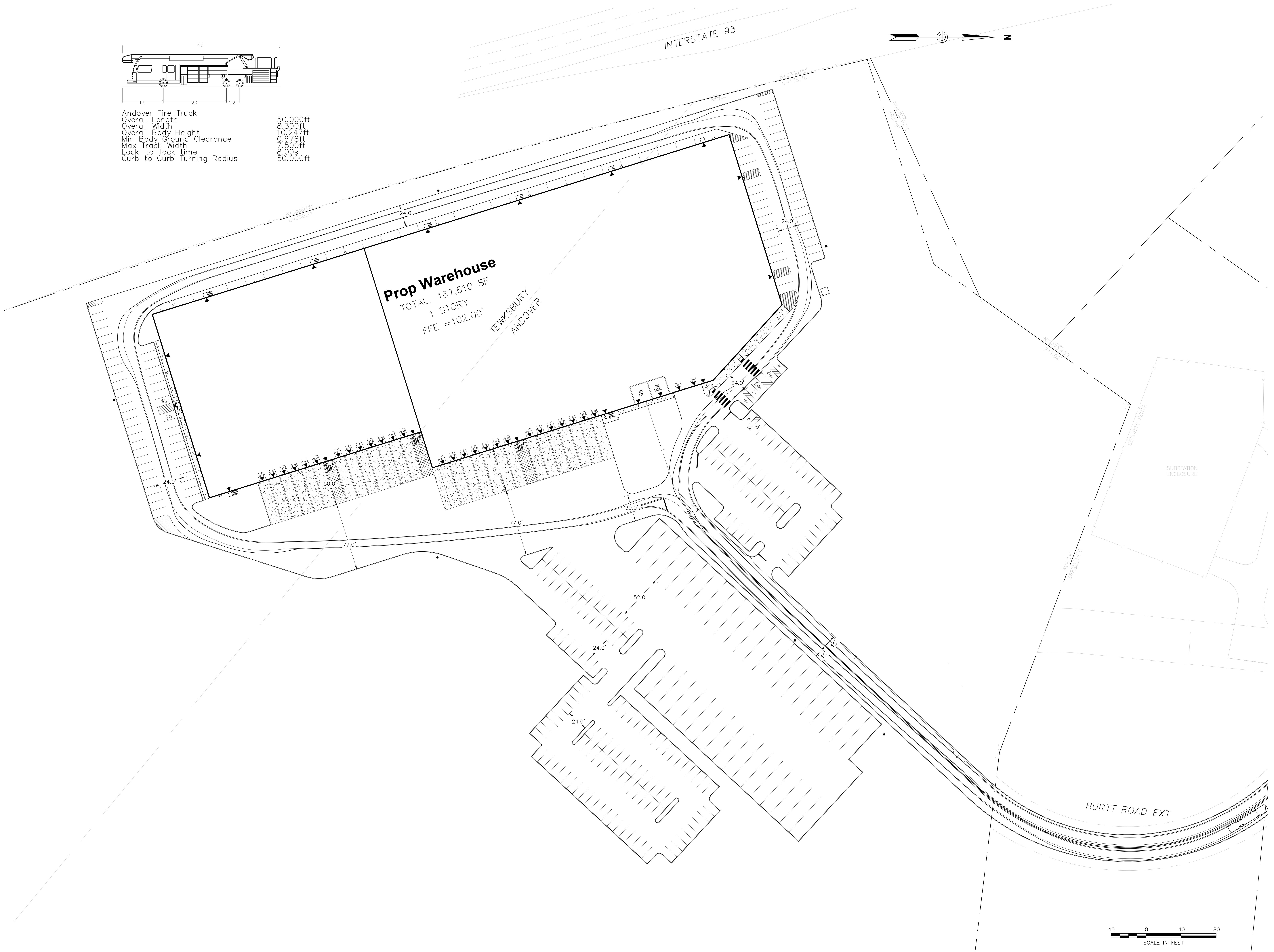
PROJECT LOCATION
3, 3R, 4 Executive Place
Andover MA, 01810

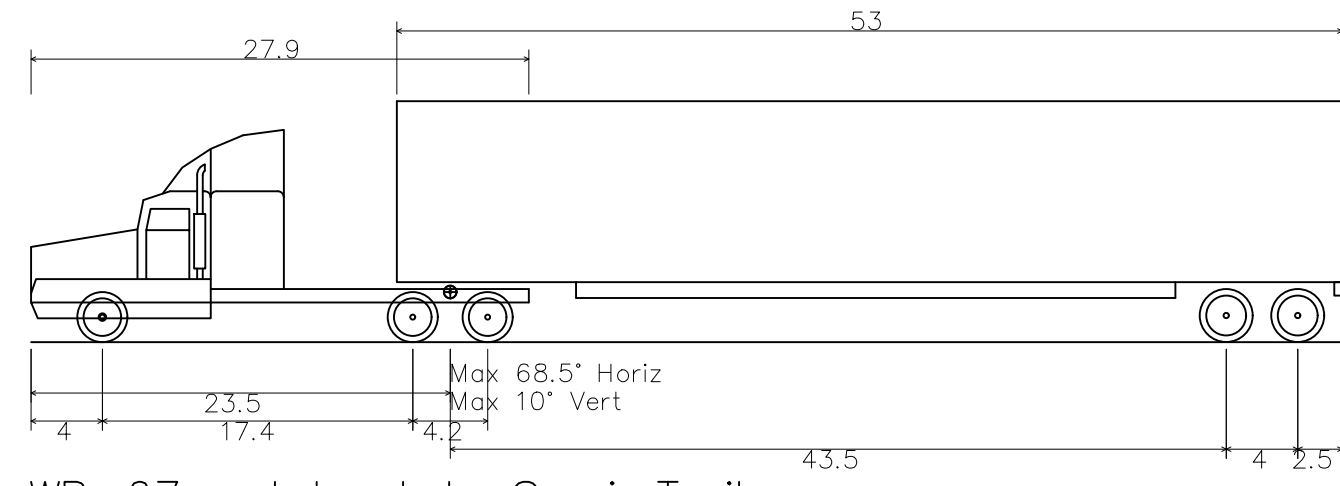
DRAWING TITLE
Fire Truck
Access Plan

PROJECT NO. T1126
TEC CAD FILE T1126_FIRE.dwg
DRAWING NO. C-11
SHEET 11 OF 16



Andover Fire Truck
Overall Length 50.000ft
Overall Width 8.300ft
Overall Body Height 10.247ft
Min Body Ground Clearance 0.678ft
Max Track Width 7.500ft
Lock-to-lock time 8.00s
Curb to Curb Turning Radius 50.000ft





WB-67 - Interstate Semi-Trailer
 Overall Length 73.501ft
 Overall Width 8.500ft
 Overall Body Height 13.500ft
 Min Body Ground Clearance 1.334ft
 Max Track Width 8.500ft
 Lock-to-lock time 6.00s
 Max Steering Angle (Virtual) 28.40°

Prop Warehouse
 TOTAL: 167,610 SF
 1 STORY
 FFE = 102.00'
 TEWKSBURY
 ANDOVER

INV 12" CPP
 EL=86.62'
 INV 12" CPP
 EL=86.99'



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 Suite 620
 Boston, MA 02110

REVISIONS

1	PER ANDOVER COMMENTS	09/27/2022
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ISSUED FOR
Permitting

PROJECT TITLE
**Burt Road
 Development**

PROJECT LOCATION
**3, 3R, 4 Executive Place
 Andover MA, 01810**

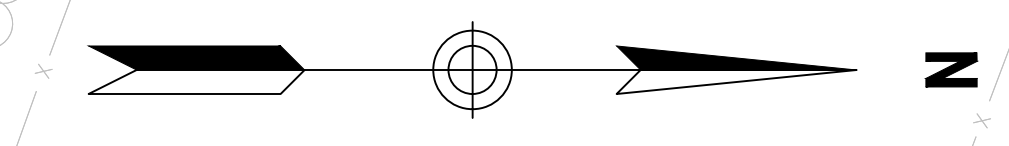
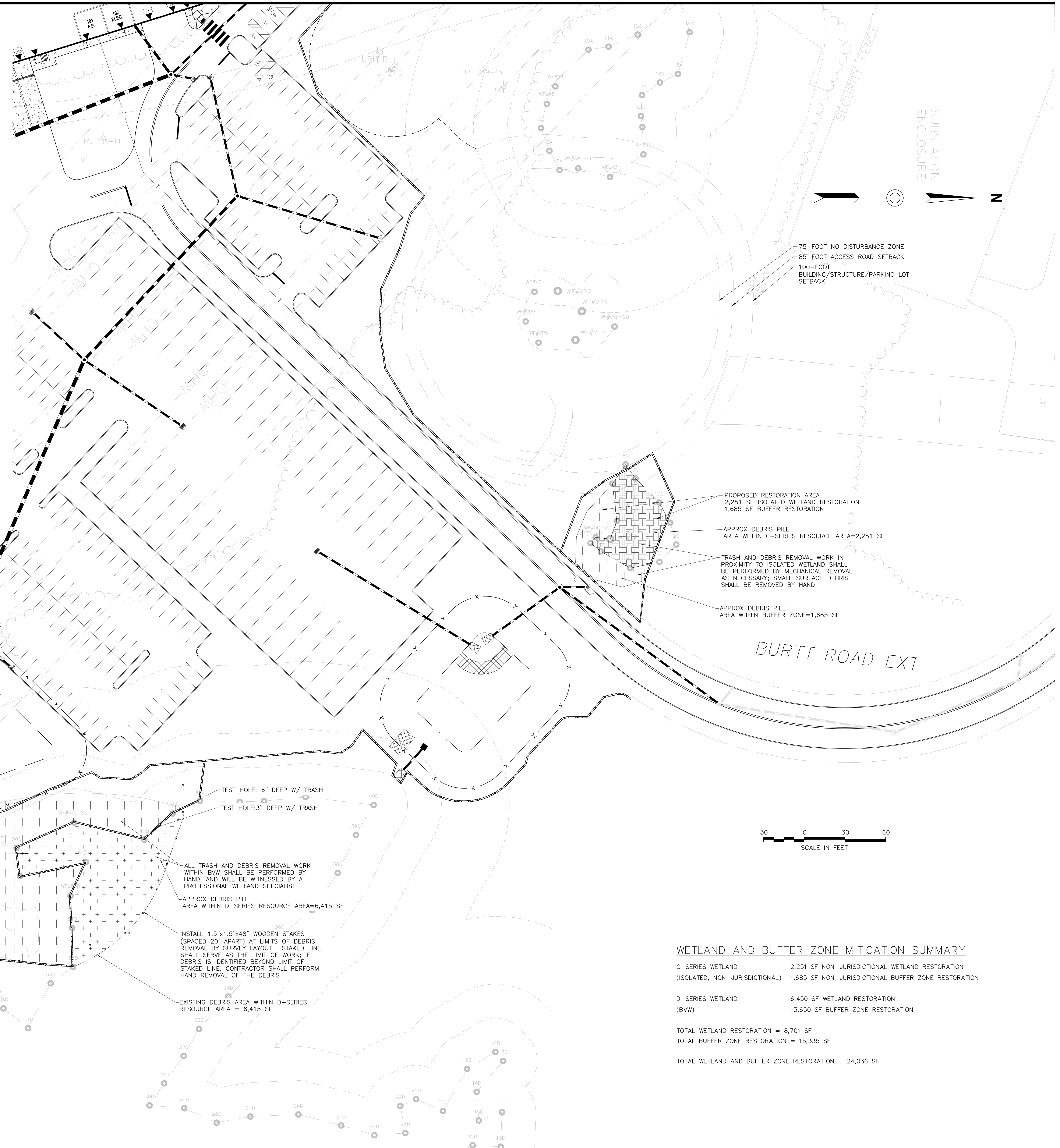
DRAWING TITLE
**WB-67 Tractor Trailer
 Access Plan**

PROJECT NO. T1126
 TEC CAD FILE T1126_WB-67.dwg
 DRAWING NO. **C-12**
 SHEET 12 OF 16

RESTORATION AREAS CONSTRUCTION SEQUENCING

THE FOLLOWING IS A PROPOSED SEQUENCE OF CONSTRUCTION FOR THE COMPLETION OF THE WETLAND AND BUFFER ZONE RESTORATION:

1. A PRE-CONSTRUCTION CONFERENCE WITH THE CONTRACTOR AND A QUALIFIED WETLAND SPECIALIST SHALL BE CONDUCTED TO ENSURE ALL ASPECTS OF THE PROJECT, AS WELL AS ANY ORDER OF CONDITIONS ARE UNDERSTOOD. ACCESS ROUTES TO THE PROPOSED RESTORATION AREAS SHALL BE FIRMLY ESTABLISHED. ALL RESTORATION WORK MUST BE COMPLETED PRIOR TO ANY OTHER WORK ON THE PROJECT SITE.
2. THE BOUNDARY OF BORDERING VEGETATED WETLAND SHALL BE RE-ESTABLISHED IN THE FIELD AS NEEDED BY SURVEY LAYOUT.
3. EROSION CONTROL BARRIERS SHALL BE INSTALLED AT THE PROPOSED LIMIT OF WORK LINE. THE LIMIT OF WORK LINE SHALL NOT BE MOVED, REMOVED, OR ALTERED AT ANY POINT DURING CONSTRUCTION. THIS LIMIT OF WORK LINE WILL SERVE AS A CLEAR BARRIER FOR CONSTRUCTION EQUIPMENT AND MACHINERY. ALL WORK WITHIN THE BVW SHALL ONLY BE DONE BY HAND OR WITH HAND TOOLS IF REQUIRED.
4. DURING ANY RESTORATION WORK TAKING PLACE, A QUALIFIED WETLAND SPECIALIST SHALL BE ONSITE TO WITNESS AND OVERSEE THE REMOVAL OF DEBRIS AND TRASH FROM THE WETLANDS AND BUFFER ZONES. THE WETLAND SPECIALIST SHALL PROVIDE DIRECTION ON WHERE THE CONTRACTOR SHALL REMOVE TRASH, AND THE APPROPRIATE METHOD OF REMOVAL. ALL RESTORATION WORK WITHIN BVW SHALL BE PERFORMED BY HAND OR WITH HAND TOOLS. NO HEAVY CONSTRUCTION EQUIPMENT OR MACHINERY SHALL GO BEYOND THE LIMIT OF WORK LINE AT ANY POINT. ALONG THE D-SERIES WETLAND, WOODEN STAKES SHALL BE INSTALLED BY FIELD SURVEY LAYOUT AT 20-FOOT SPACING INTERVALS. THIS STAKED LINE WILL SERVE AS THE LIMIT OF WETLAND RESTORATION. TOTAL WETLAND RESTORATION WITHIN THE D-SERIES WETLAND SHALL BE 6,450 SQUARE FEET.
5. WITHIN THE C-SERIES ISOLATED WETLAND, DEBRIS WILL BE REMOVED USING MECHANICAL EQUIPMENT IF NEEDED AS IT IS NOT CONSIDERED A PROTECTED WETLAND AND HENCE, DOES NOT REQUIRE HAND REMOVAL.
6. TRASH AND DEBRIS WITHIN THE RESTORATION AREAS SHALL BE STOCKPILED AWAY FROM THE WETLAND RESOURCE AREAS. ALL MATERIAL REMOVED FROM THE RESTORATION AREAS SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
7. TRASH VISIBLE AT THE SURFACE AND ANY DEBRIS IDENTIFIED WITHIN THE RESTORATION AREAS SHALL BE REMOVED BY THE CONTRACTOR. WITHIN THE BVW, HAND REMOVAL SHALL BE PERFORMED. WITHIN BUFFER ZONES AND THE ISOLATED WETLAND, MECHANICAL MEANS OF REMOVAL IS ACCEPTABLE.
8. THE RESTORATION AREAS SHALL BE GENTLY HAND COMPACTED AND HAND RAKED TO ENHANCE SURFACE WATER RETENTION.
9. THE PURPOSE OF HAND REMOVAL OF ALL DEBRIS IS TO LIMIT DISTURBANCE AND MAINTAIN EXISTING WETLAND VEGETATION TO THE MAXIMUM EXTENT PRACTICABLE.
10. WHERE MINOR LAND DISTURBANCE TAKES PLACE WITHIN THE D-SERIES BVW, A WETLAND SEED MIX, SUCH AS OBL WETLAND MIX FROM ERNST SEEDS SHALL BE HAND SOWN AS AN UNDERSTORY COVER TO PROVIDE SHORT-TERM EROSION CONTROL, WILDLIFE FOOD, AND COVER, AND TO DISCOURAGE THE ESTABLISHMENT OF INVASIVE, NON-NATIVE SPECIES.
11. WHERE LAND DISTURBANCE OCCURS WITHIN THE C-SERIES IVW AND UPLAND BUFFER ZONES, A MESIC TO DRY NATIVE POLLINATOR MIX FROM ERNST SEEDS SHALL BE HAND SOWN TO ESTABLISH A DIVERSE UPLAND PLANT COVER. SPREAD SEED PER MANUFACTURER RECOMMENDATIONS.



75-FOOT NO DISTURBANCE ZONE
85-FOOT ACCESS ROAD SETBACK
100-FOOT BUILDING/STRUCTURE/PARKING LOT SETBACK

PROPOSED RESTORATION AREA
2,251 SF ISOLATED WETLAND RESTORATION
1,685 SF BUFFER RESTORATION

APPROX DEBRIS PILE
AREA WITHIN C-SERIES RESOURCE AREA=2,251 SF

TRASH AND DEBRIS REMOVAL WORK IN PROXIMITY TO ISOLATED WETLAND SHALL BE PERFORMED BY MECHANICAL REMOVAL AS NECESSARY; SMALL SURFACE DEBRIS SHALL BE REMOVED BY HAND

APPROX DEBRIS PILE
AREA WITHIN BUFFER ZONE=1,685 SF



LIMIT OF WORK LINE TO BE ESTABLISHED BY SURVEY LAYOUT. SILT FENCE AND FILTER TUBE EROSION CONTROL TO BE INSTALLED AS LIMIT OF WORK.

PROPOSED RESTORATION AREA
6,415 SF WETLAND RESTORATION
13,613 SF BUFFER RESTORATION

SECONDARY EROSION CONTROL SILT FENCE LIMIT FOR MECHANICAL BUFFER ZONE DEBRIS REMOVAL

APPROX DEBRIS PILE
AREA WITHIN BUFFER ZONE=13,613 SF

DEBRIS REMOVAL WITHIN BUFFER ZONE SHALL BE PERFORMED BY MECHANICAL MEANS AS NECESSARY; SMALL SURFACE DEBRIS SHALL BE REMOVED BY HAND TO LIMIT GROUND DISTURBANCE

TEST HOLE: 6" DEEP W/ TRASH
TEST HOLE: 3" DEEP W/ TRASH

ALL TRASH AND DEBRIS REMOVAL WORK WITHIN BVW SHALL BE PERFORMED BY HAND, AND WILL BE WITNESSED BY A PROFESSIONAL WETLAND SPECIALIST

APPROX DEBRIS PILE
AREA WITHIN D-SERIES RESOURCE AREA=6,415 SF

INSTALL 1.5"x1.5"x48" WOODEN STAKES (SPACED 20' APART) AT LIMITS OF DEBRIS REMOVAL BY SURVEY LAYOUT. STAKED LINE SHALL SERVE AS THE LIMIT OF WORK; IF DEBRIS IS IDENTIFIED BEYOND LIMIT OF STAKED LINE, CONTRACTOR SHALL PERFORM HAND REMOVAL OF THE DEBRIS

EXISTING DEBRIS AREA WITHIN D-SERIES RESOURCE AREA = 6,415 SF

- PROPOSED JURISDICTIONAL WETLAND RESTORATION
6,415 SF TOTAL
- PROPOSED NON-JURISDICTIONAL ISOLATED WETLAND RESTORATION
2,251 SF TOTAL
- PROPOSED BUFFER ZONE RESTORATION
15,298 SF TOTAL

WETLAND AND BUFFER ZONE MITIGATION SUMMARY

C-SERIES WETLAND (ISOLATED, NON-JURISDICTIONAL)	2,251 SF NON-JURISDICTIONAL WETLAND RESTORATION 1,685 SF NON-JURISDICTIONAL BUFFER ZONE RESTORATION
D-SERIES WETLAND (BVW)	6,450 SF WETLAND RESTORATION 13,650 SF BUFFER ZONE RESTORATION
TOTAL WETLAND RESTORATION	= 8,701 SF
TOTAL BUFFER ZONE RESTORATION	= 15,335 SF
TOTAL WETLAND AND BUFFER ZONE RESTORATION	= 24,036 SF



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DATE	08/30/2022
SCALE	1"=30'

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REVISIONS	DATE
1 PER ANDOVER COMMENTS	09/27/2022

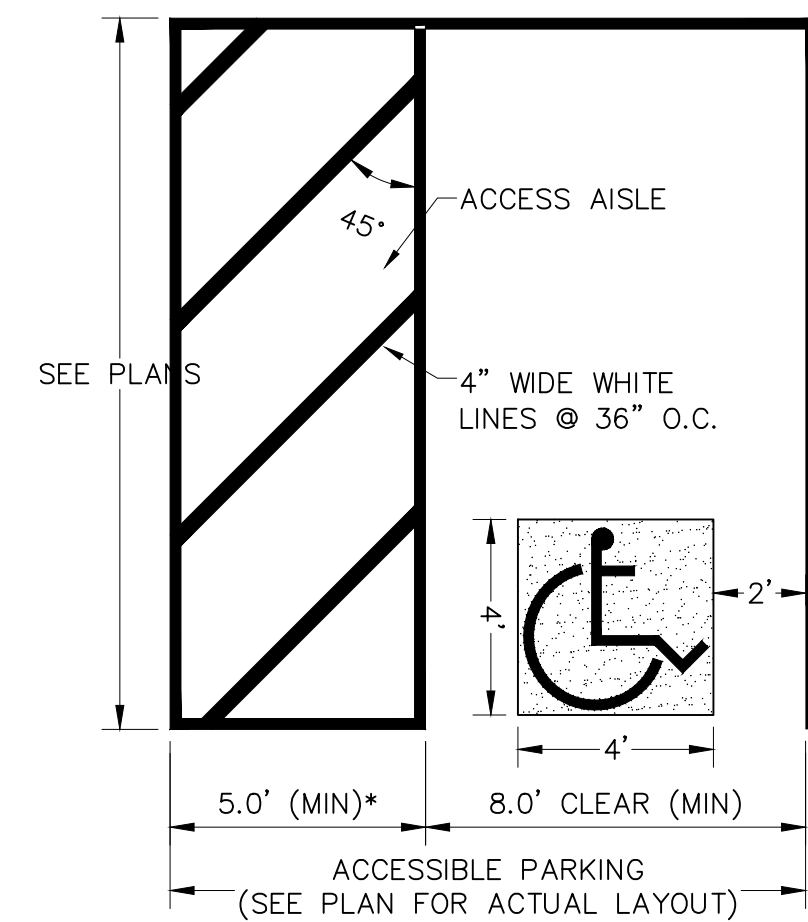
ISSUED FOR
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PROJECT TITLE
Burt Road Development

PROJECT LOCATION
**3, 3R, 4 Executive Place
Andover MA, 01810**

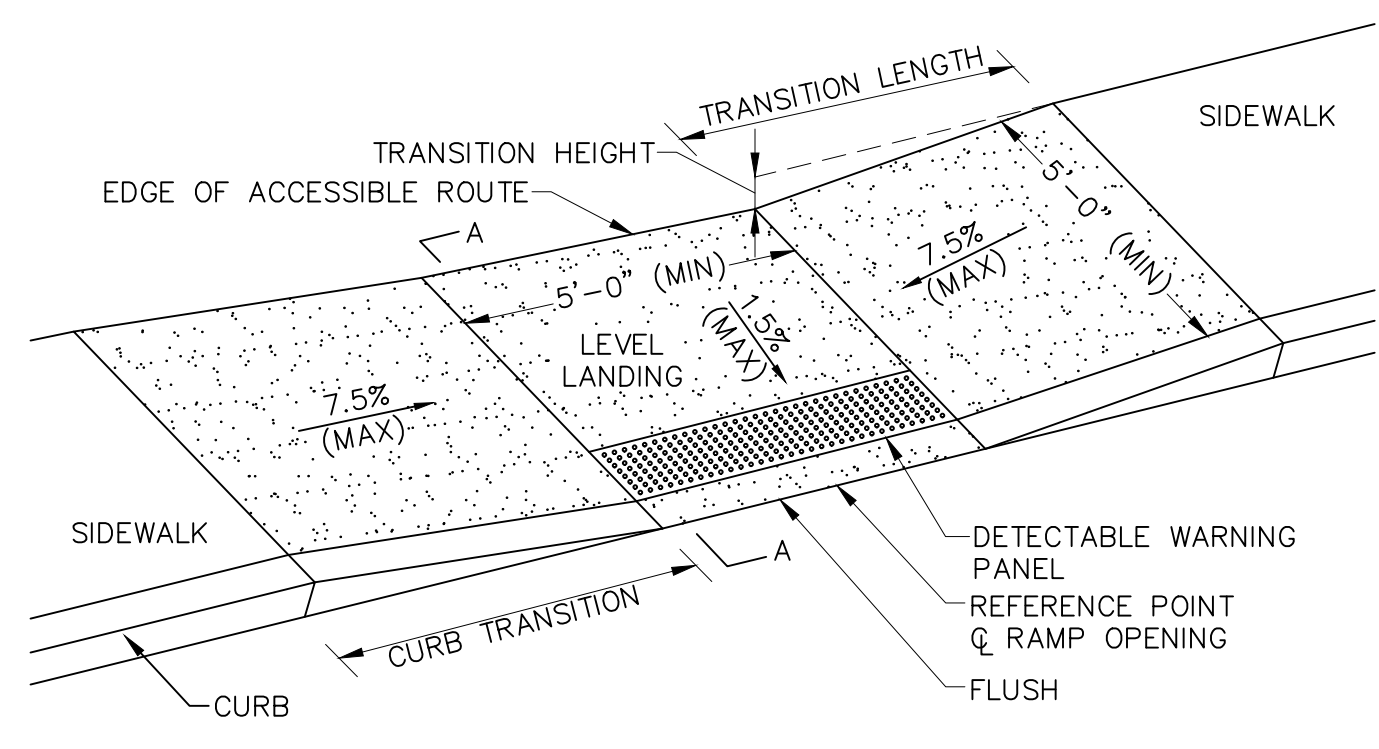
DRAWING TITLE
Wetland Restoration Plan

PROJECT NO. T1126
TEC CAD FILE T1126.MIT.dwg
DRAWING NO. C-13
SHEET 13 OF 16

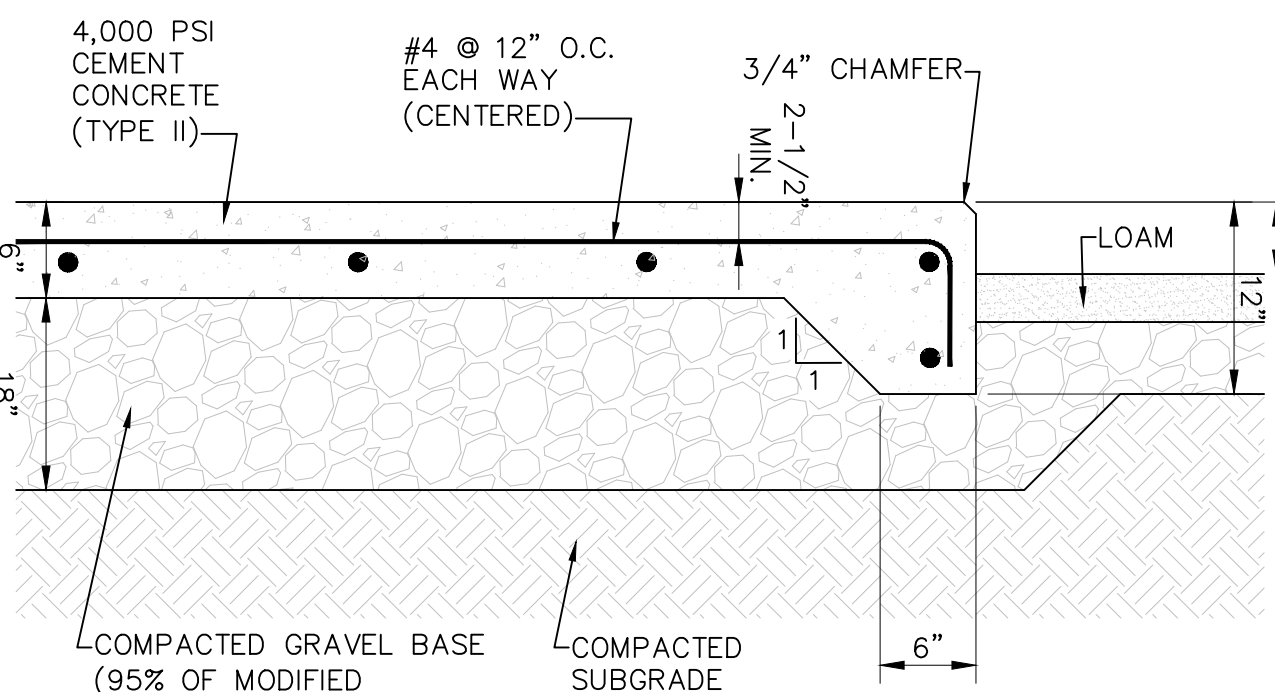


- *8' ADJACENT TO VAN ACCESSIBLE PARKING SPACES
- NOTES:
1. ALL DIMENSIONS TO EDGE OF 4\"/>

ACCESSIBLE PARKING SPACE
N.T.S.

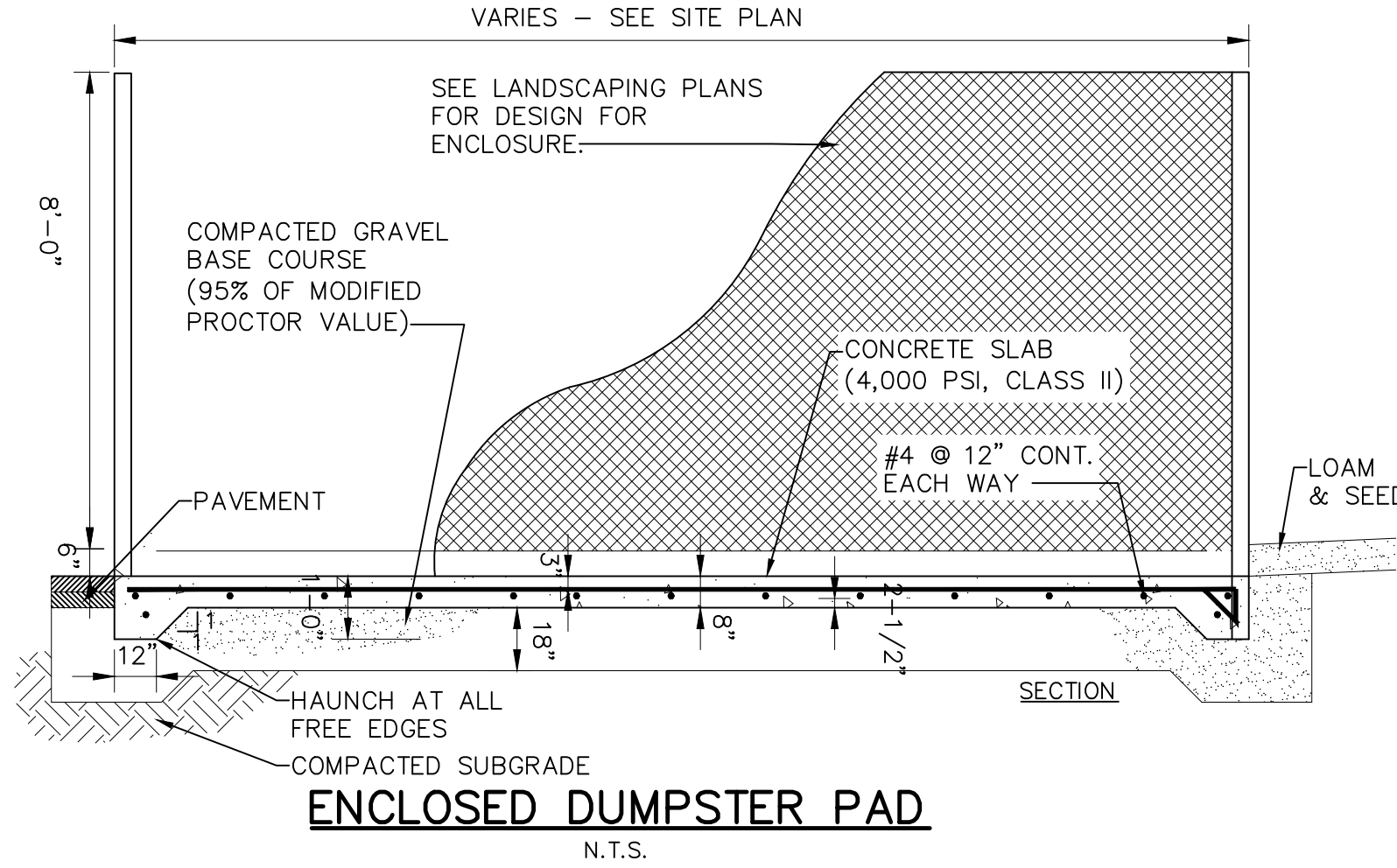
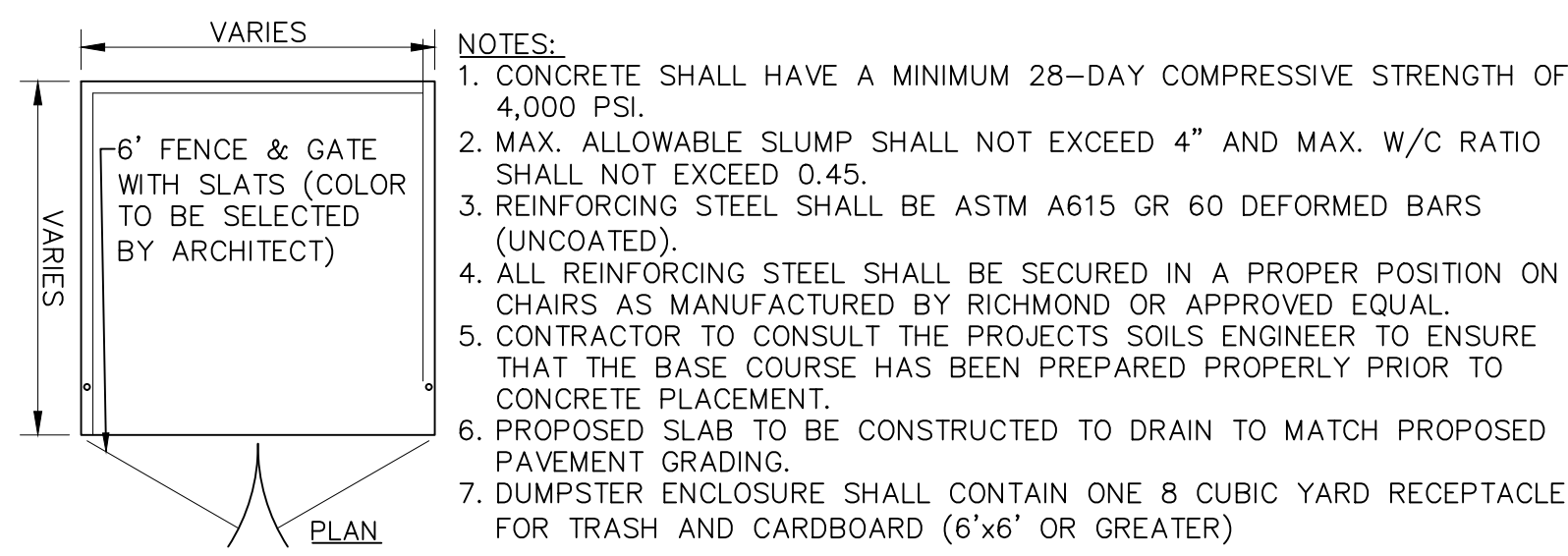


WHEELCHAIR RAMP TYPE A
N.T.S.

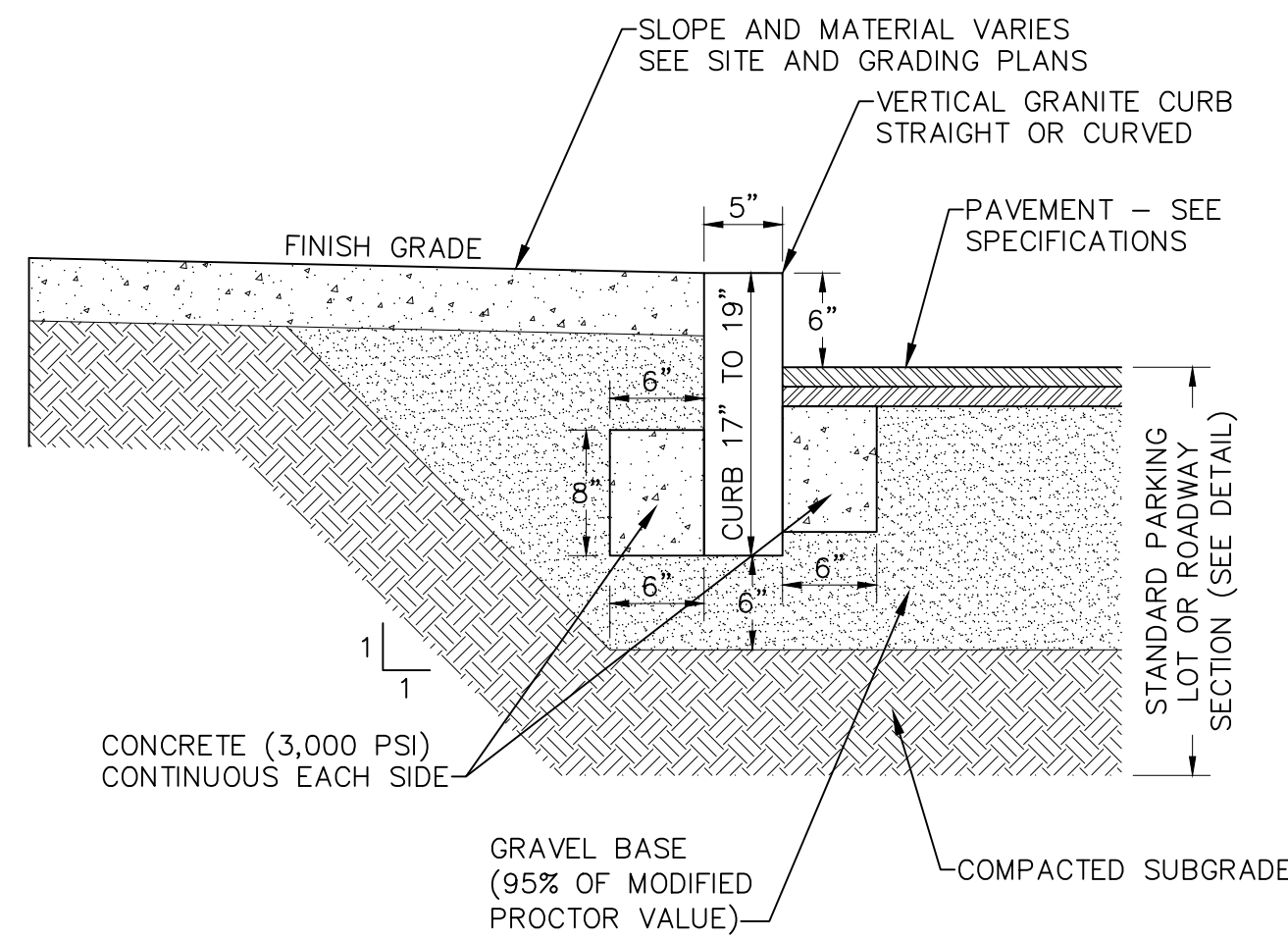


- NOTES:
1. SIZE OF LOADING PAD TO BE AS INDICATED ON PLANS.
 2. DETAIL PROVIDED FOR GENERAL INFORMATION ONLY. FINAL DESIGN TO BE BASED ON GEOTECHNICAL ENGINEERS RECOMMENDATIONS.
 3. THE NEED FOR PLACEMENT OF A GEOTEXTILE OVER THE EXISTING FILL SUBGRADES SHOULD BE DETERMINED IN THE FIELD BY THE GEOTECHNICAL ENGINEER.

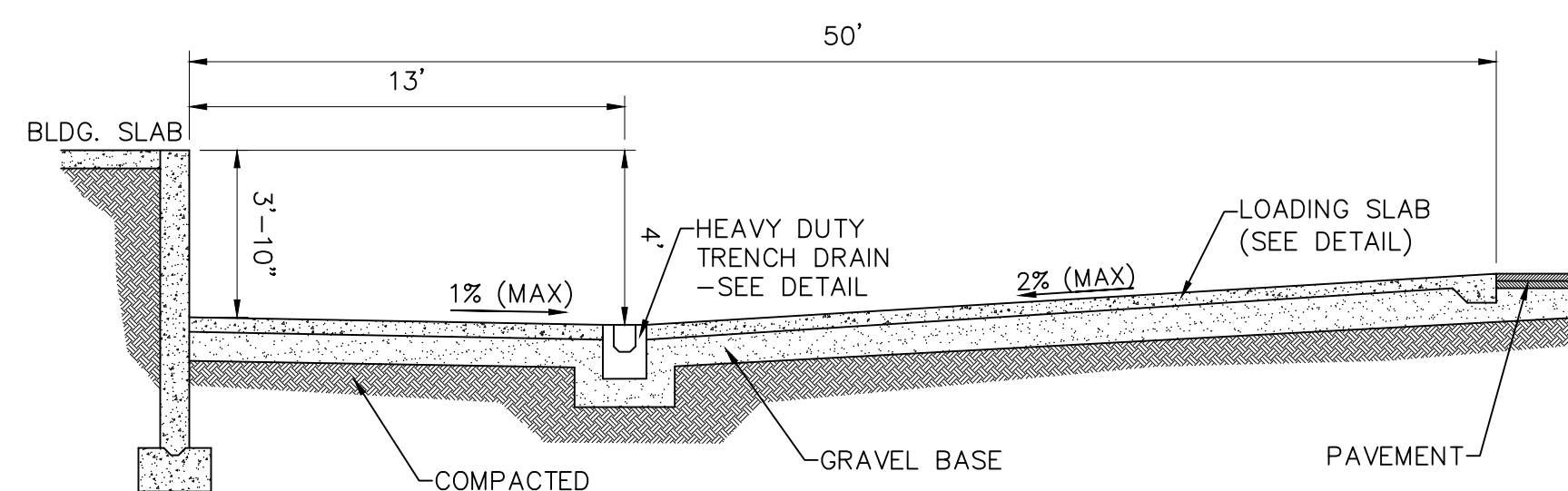
DUMPSTER/LOADING PAD
N.T.S.



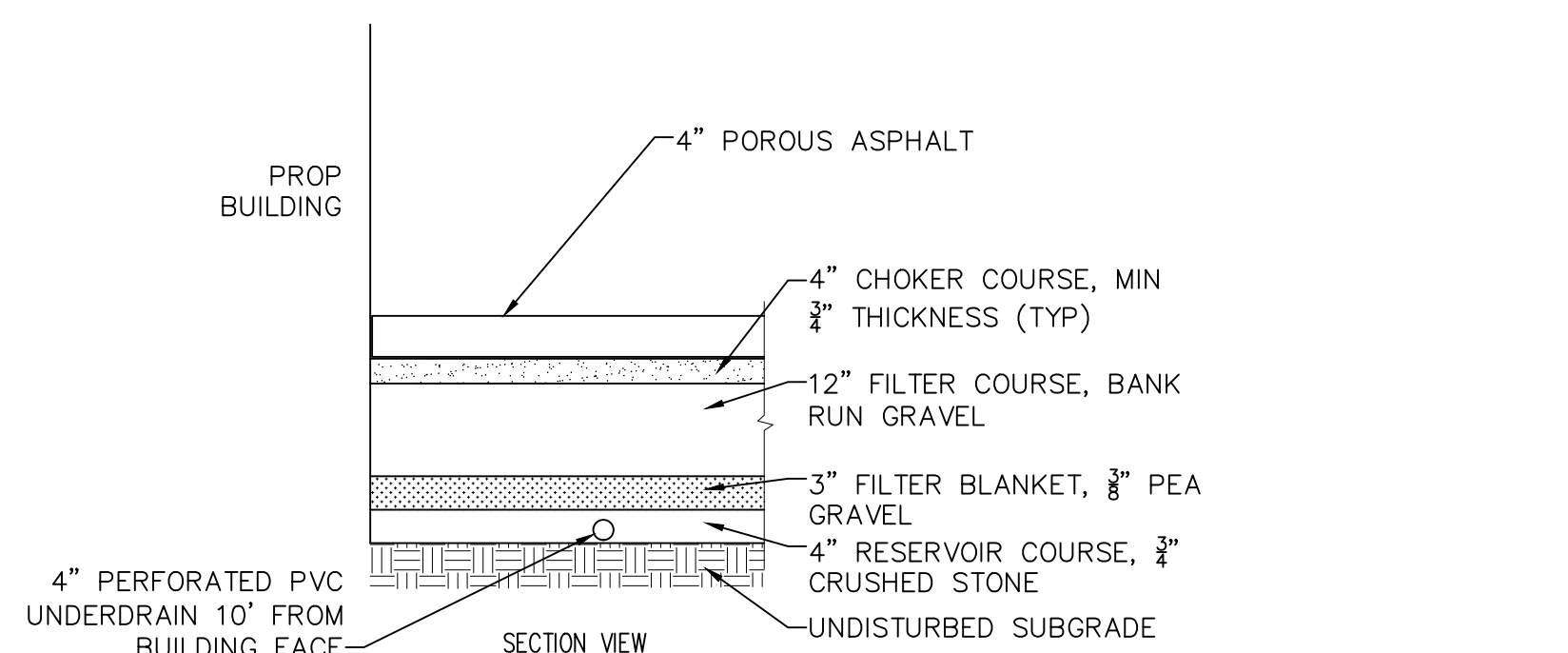
ENCLOSED DUMPSTER PAD
N.T.S.



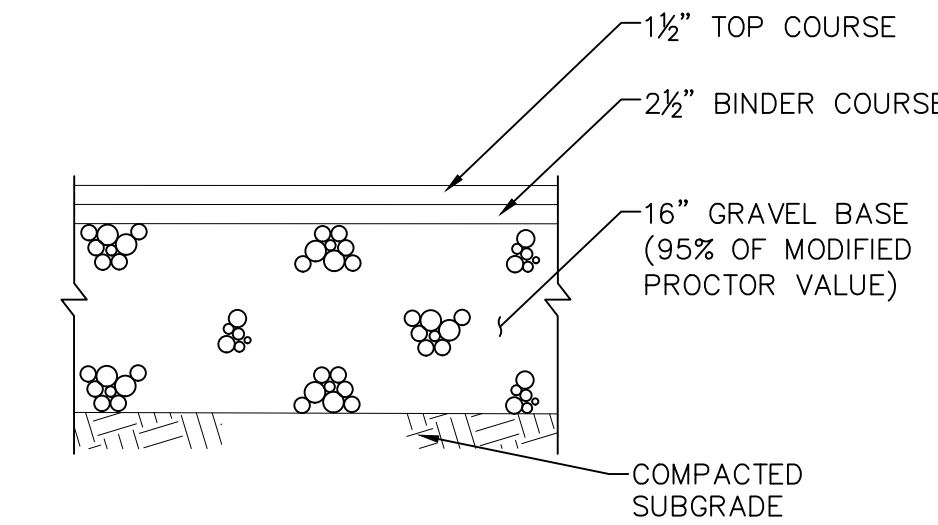
VERTICAL GRANITE CURB
N.T.S.



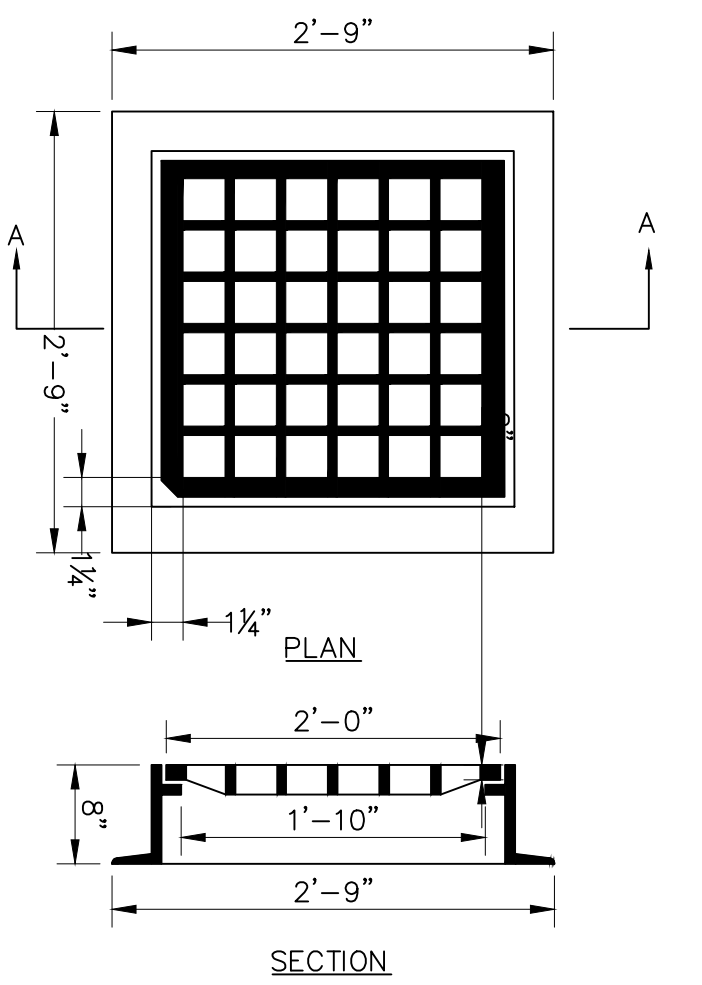
LOADING DOCK SECTION (WELL)
N.T.S.



PERVIOUS PAVEMENT
N.T.S.

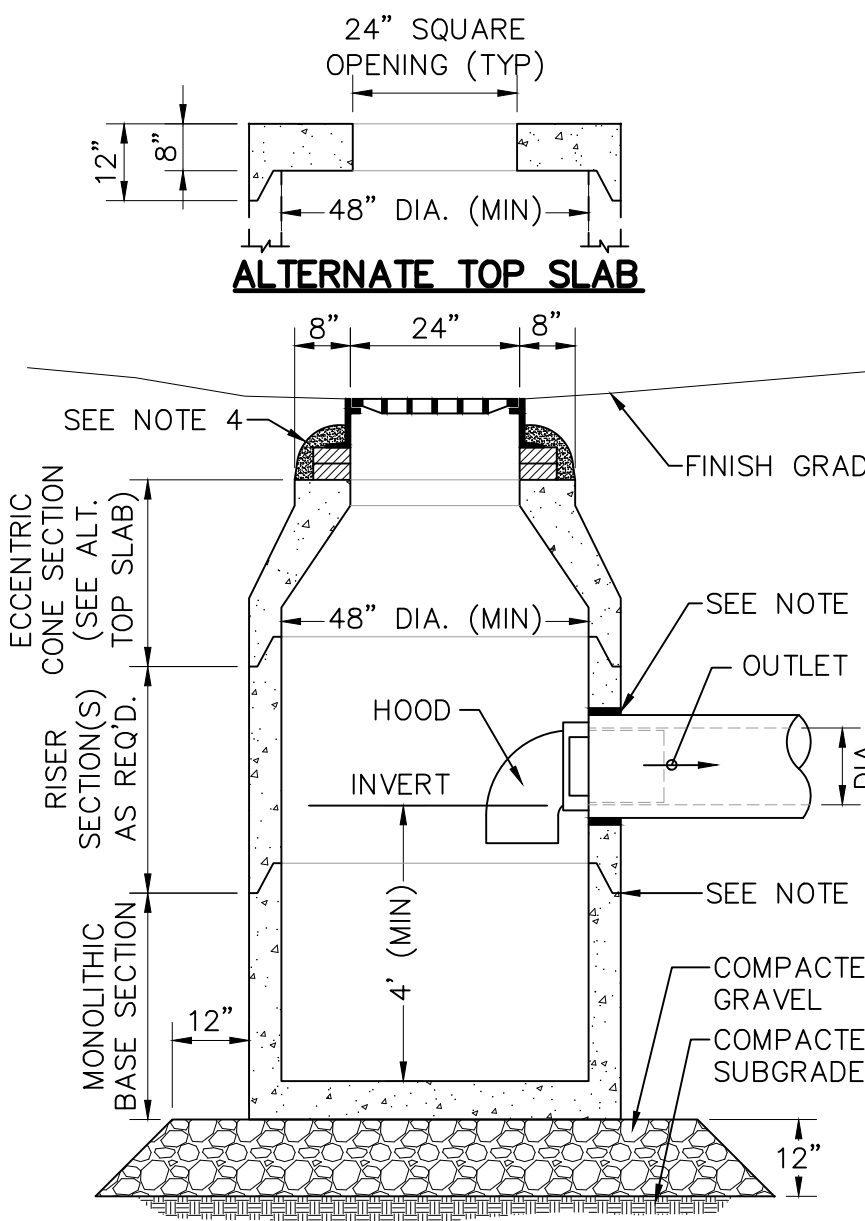


HEAVY DUTY PAVEMENT
N.T.S.



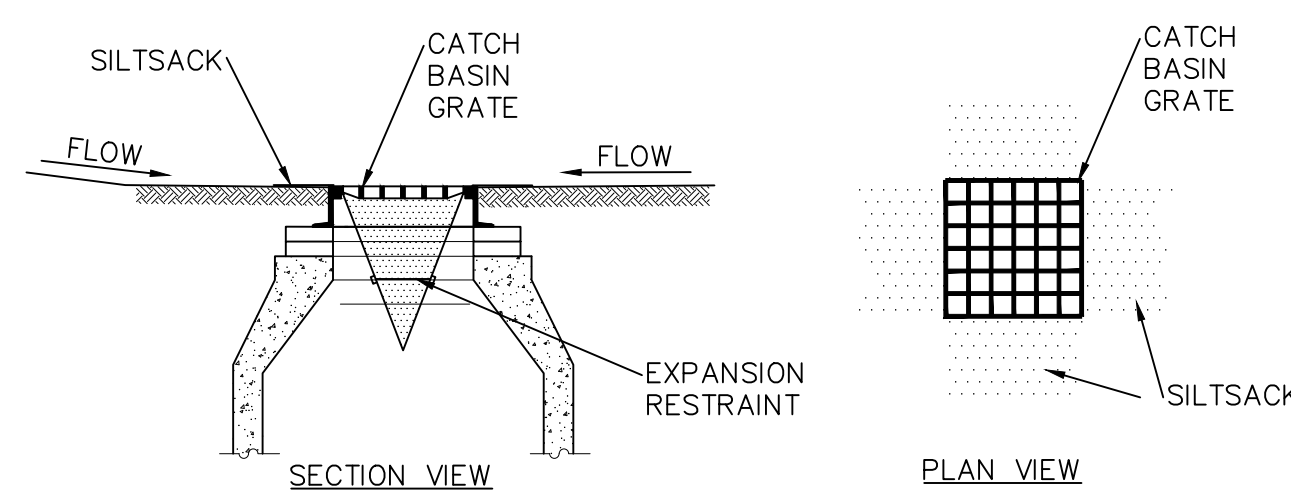
- NOTES:
1. FRAME AND GRATE SHALL BE RATED FOR HS-20 LOADING.
 2. USE 3 FLANGE FRAMES AT CURB INLET.
 3. MIN FRAME WEIGHT: 4 FLANGE - 295 LB, 3 FLANGE - 264 LB

CATCH BASIN FRAME & GRATE
N.T.S.



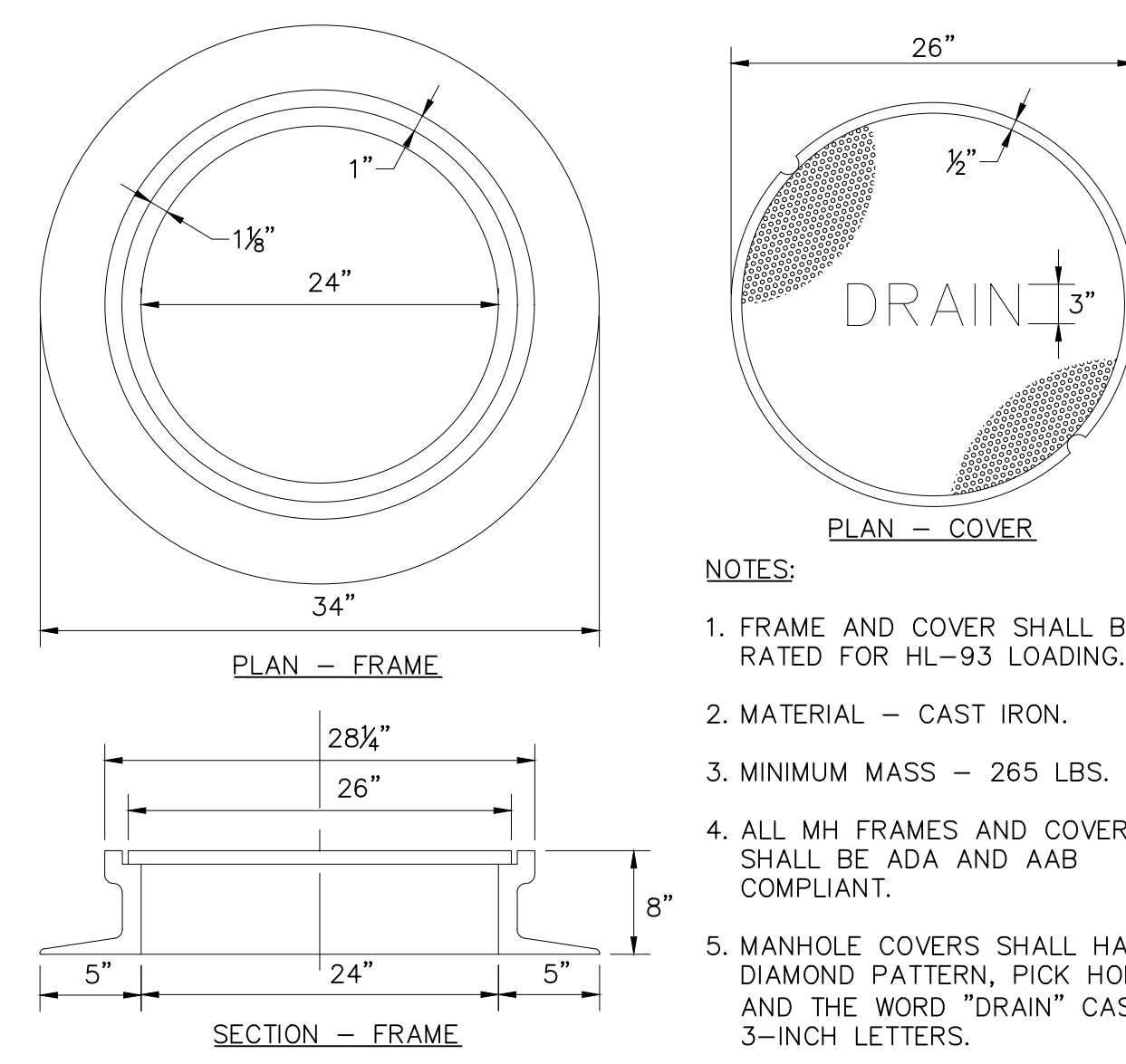
DEEP SUMP CATCH BASIN WITH HOOD
N.T.S.

- NOTES:
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. PROVIDE \"V\" KNOCKOUTS FOR PIPES WITH 2\"/>



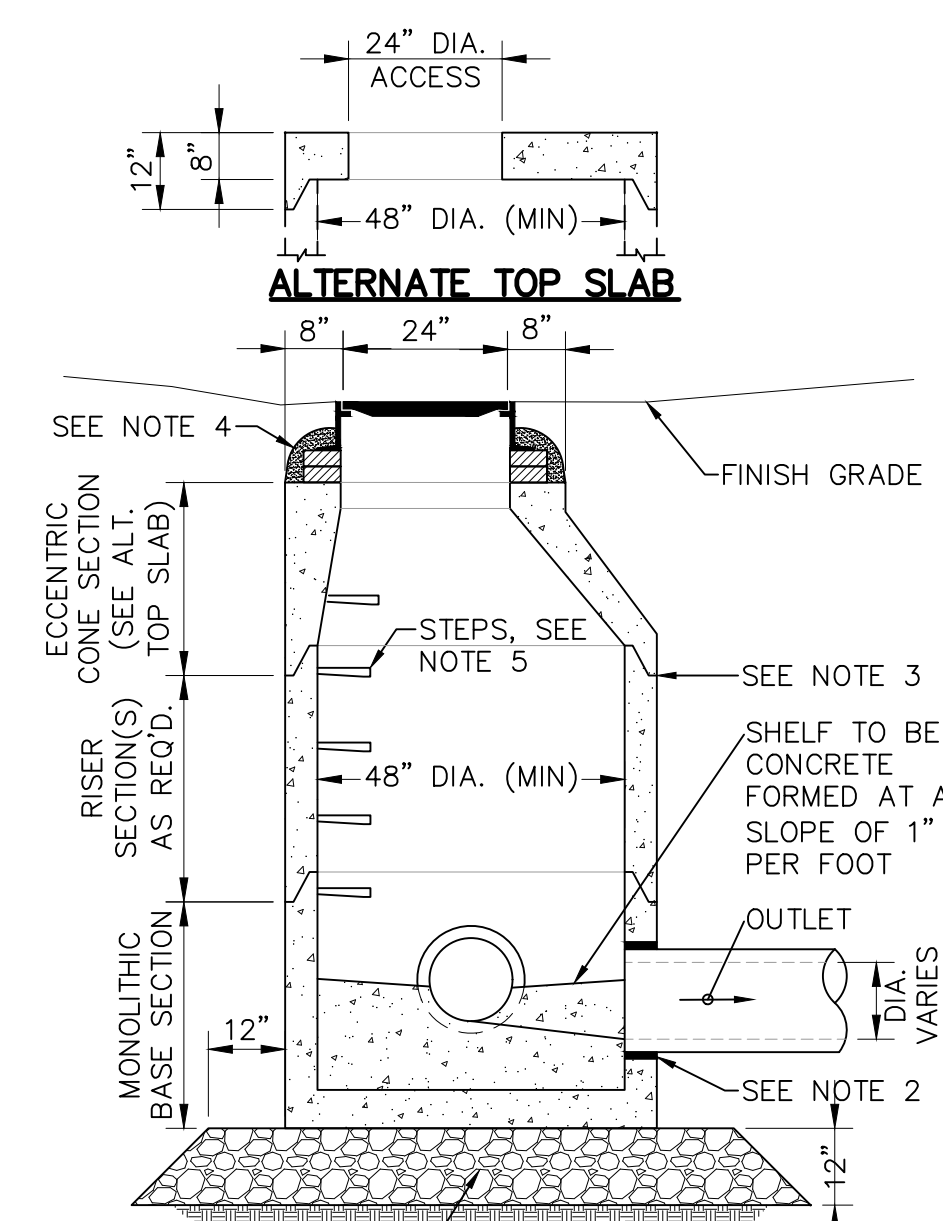
- NOTES:
1. INSTALL SILTSACK IN EXISTING CATCH BASINS BEFORE COMMENCING WORK, AND IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION OF STRUCTURE. MAINTAIN UNTIL BINDER COURSE PAVING IS COMPLETE OR A PERMANENT STAND OF GRASS HAS BEEN ESTABLISHED.
 2. GRATE TO BE PLACED OVER SILTSACK.
 3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

INLET PROTECTION - SILT SACK IN CATCH BASIN
N.T.S.



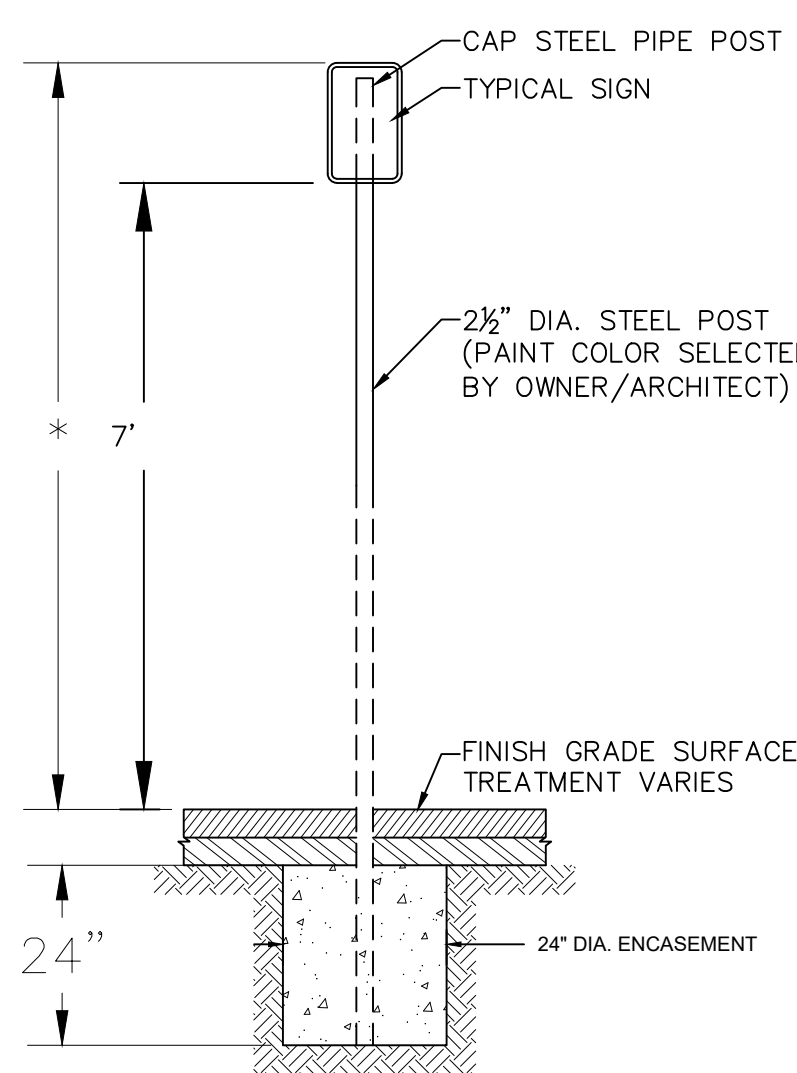
MANHOLE FRAME & COVER
N.T.S.

- NOTES:
1. FRAME AND COVER SHALL BE RATED FOR HL-93 LOADING.
 2. MATERIAL - CAST IRON.
 3. MINIMUM MASS - 265 LBS.
 4. ALL MH FRAMES AND COVERS SHALL BE ADA AND AAB COMPLIANT.
 5. MANHOLE COVERS SHALL HAVE A DIAMOND PATTERN, PICK HOLES, AND THE WORD \"DRAIN\" CAST IN 3-INCH LETTERS.

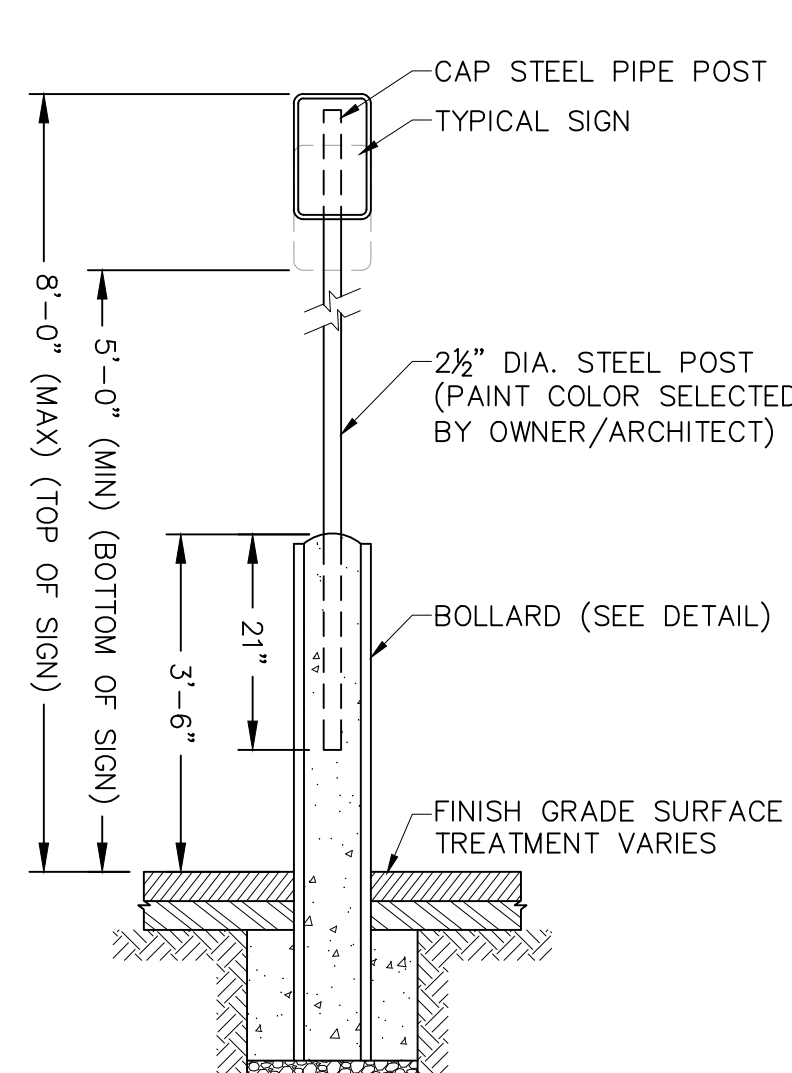


DRAINAGE MANHOLE
N.T.S.

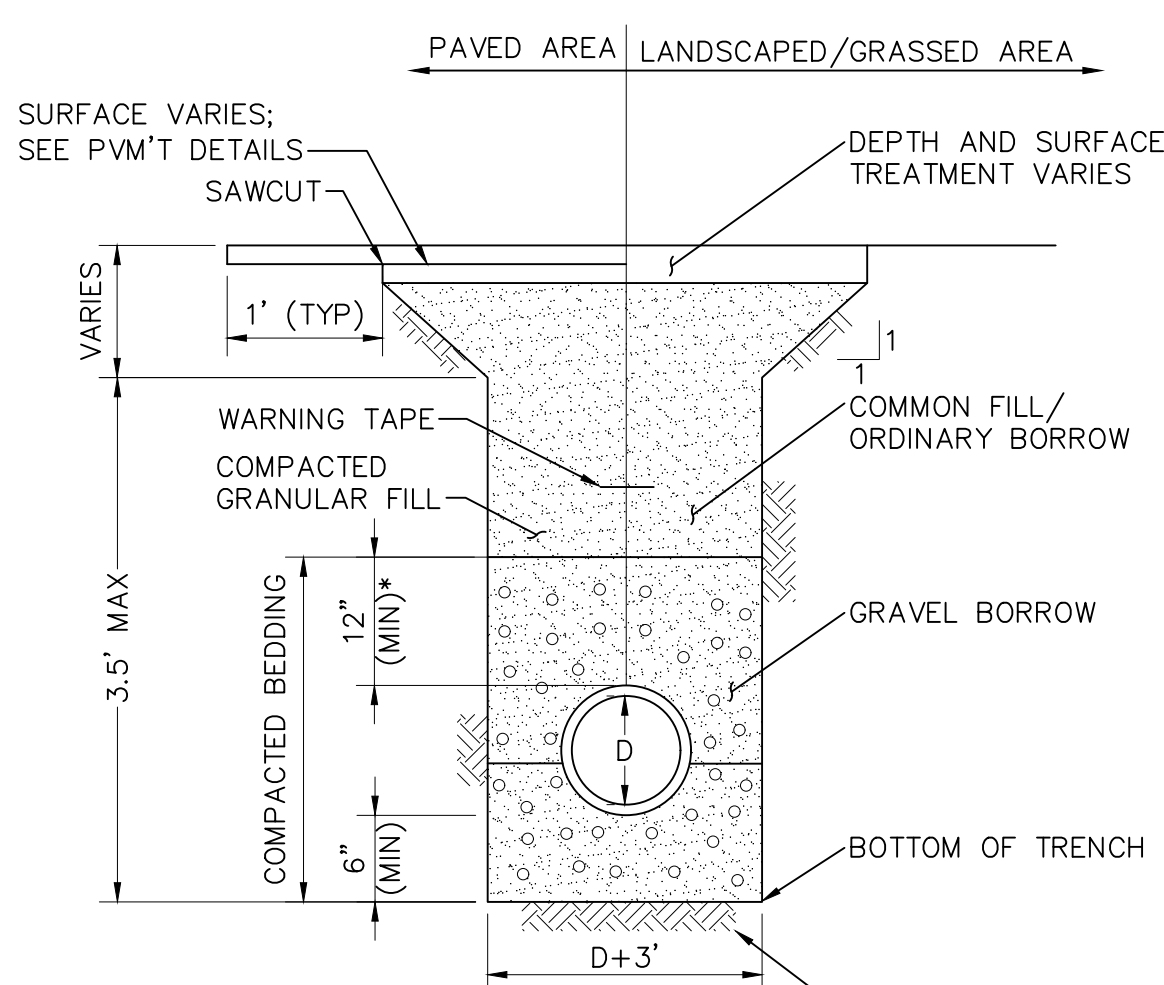
- NOTES:
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
 2. PROVIDE \"V\" KNOCKOUTS FOR PIPES WITH 2\"/>



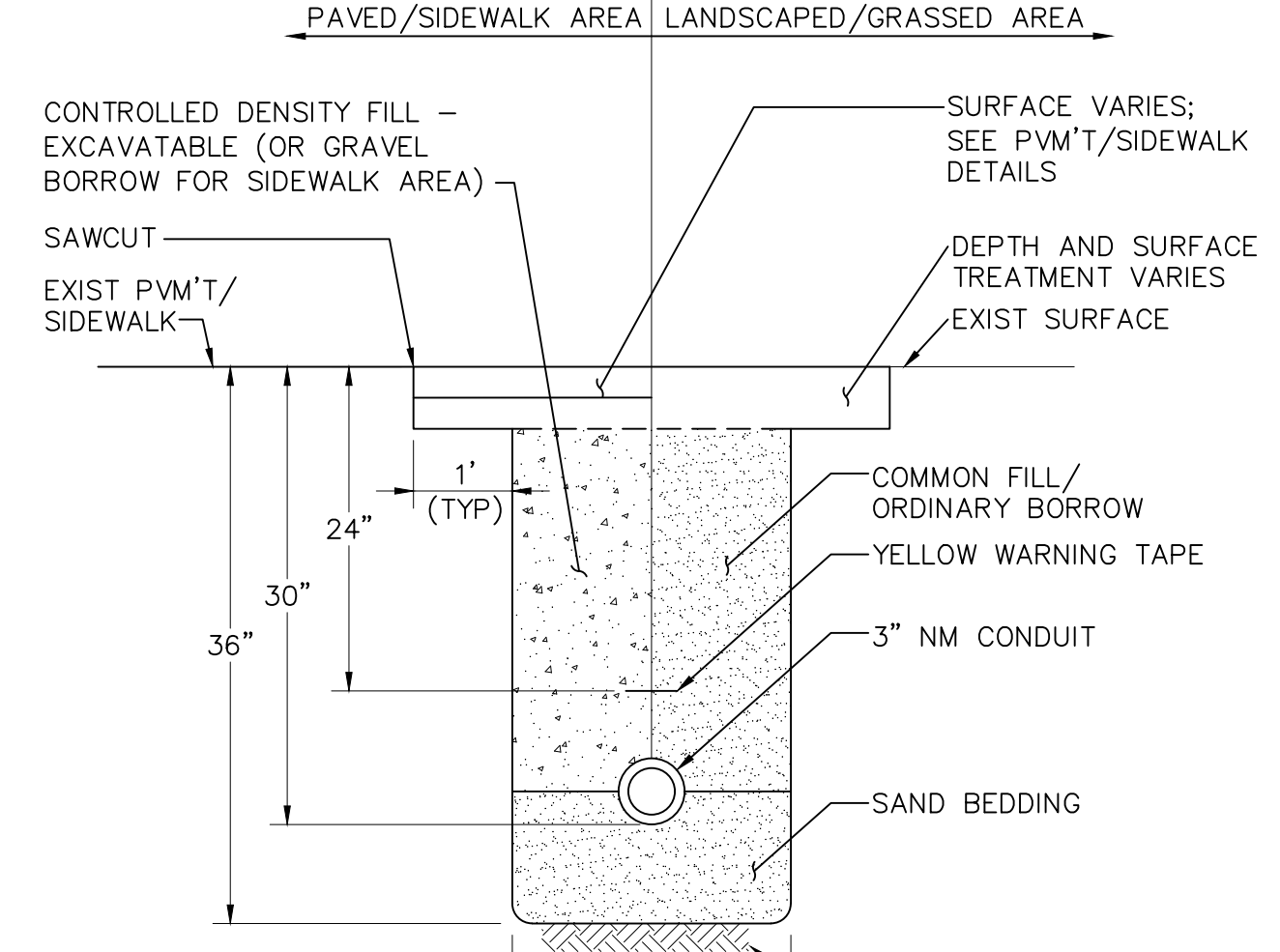
SIGN POST
N.T.S.



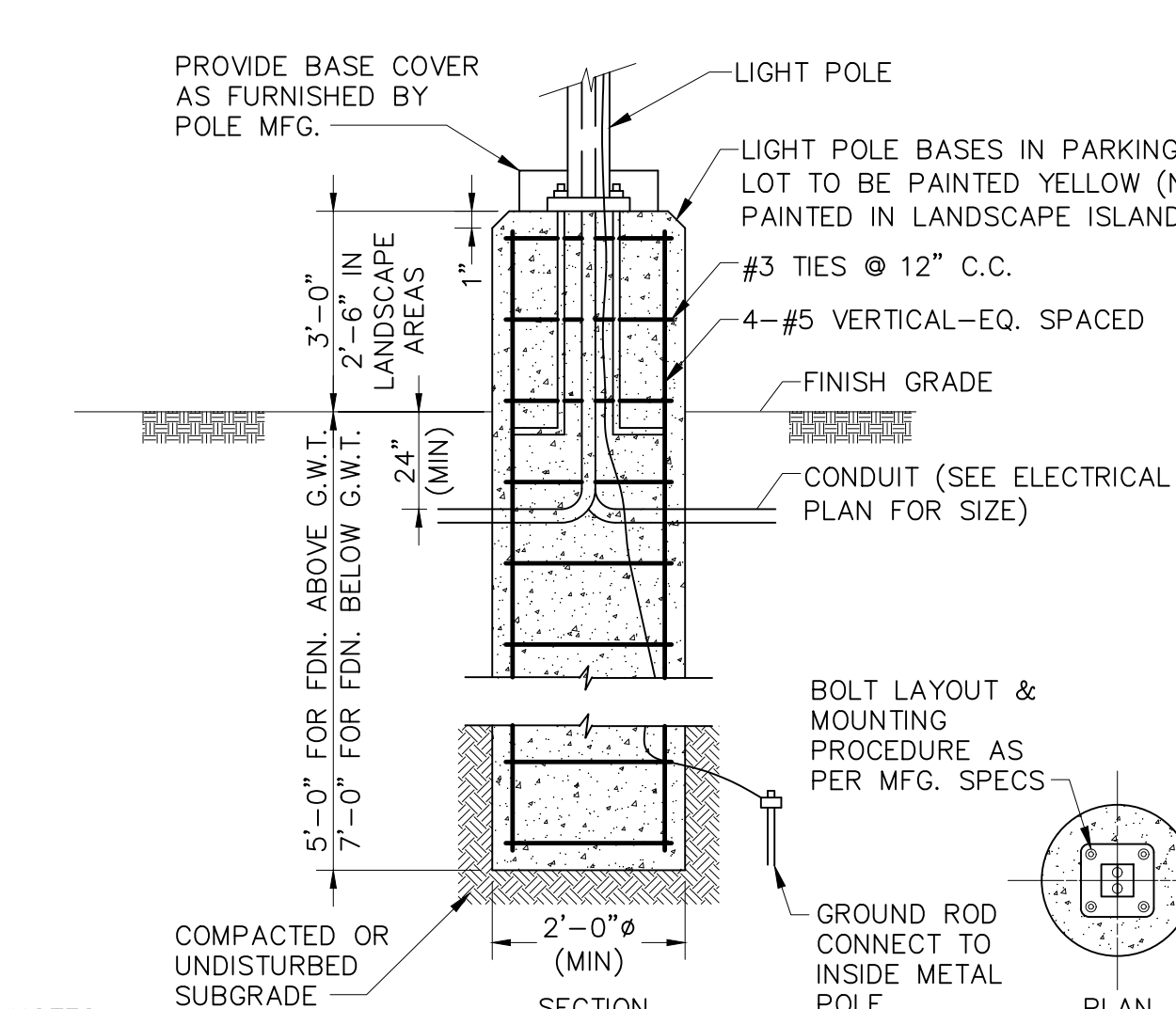
BOLLARD MOUNTED SIGN
N.T.S.



UTILITY TRENCH DETAIL
N.T.S.



CONDUIT TRENCH DETAIL
N.T.S.



LIGHT POLE BASE
N.T.S.

- NOTES:
1. LIGHT POLE FOUNDATION DESIGN IS SUBJECT TO CHANGE BASED ON FINAL POLE AND FIXTURE SELECTION AND GEOTECHNICAL SITE INVESTIGATION.



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SCALE NTS

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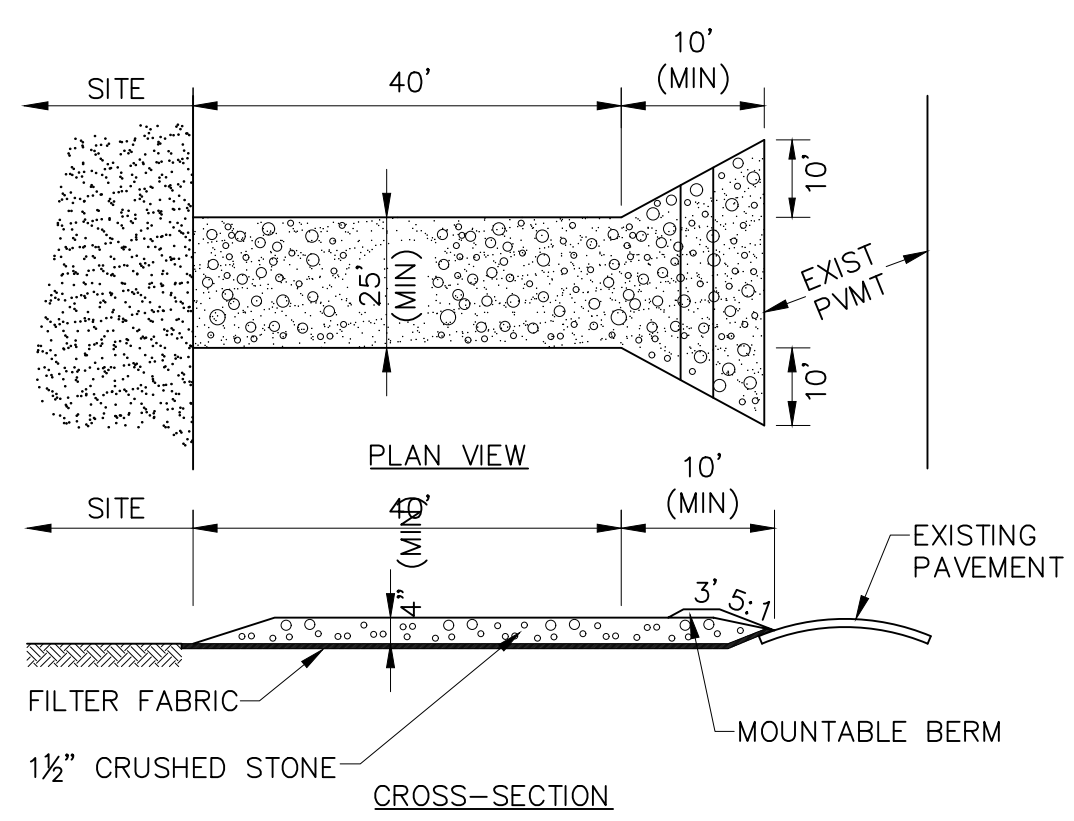
ISSUED FOR
Permitting

PROJECT TITLE
Burt Road Development

PROJECT LOCATION
3, 3R, 4 Executive Place Andover MA, 01810

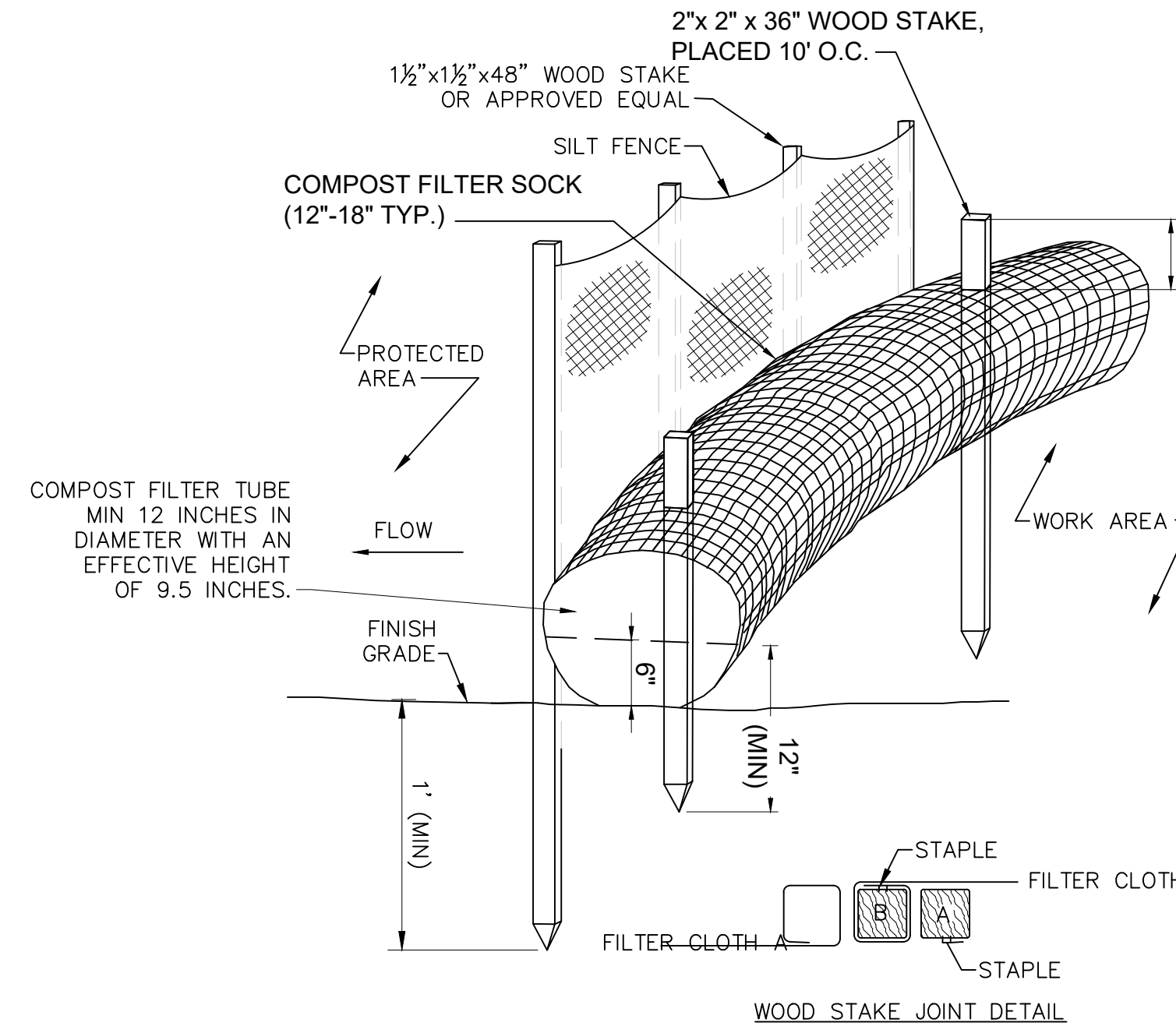
DRAWING TITLE
Construction Details

PROJECT NO. T1126
TEC CAD FILE T1126_DET.DWG
DRAWING NO. **C-14**
SHEET 14 OF 16



- ENTRANCE WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
- STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

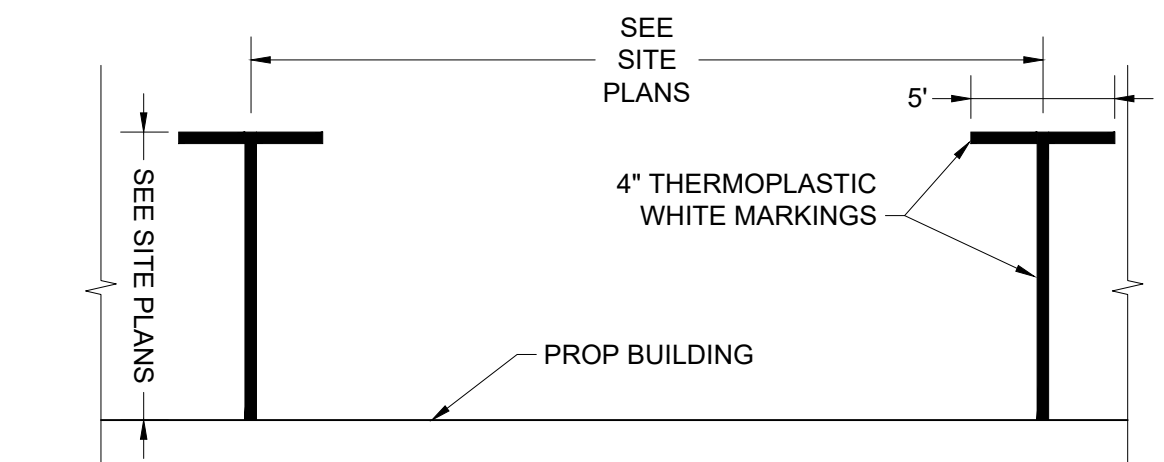
STABILIZED CONSTRUCTION EXIT
N.T.S.



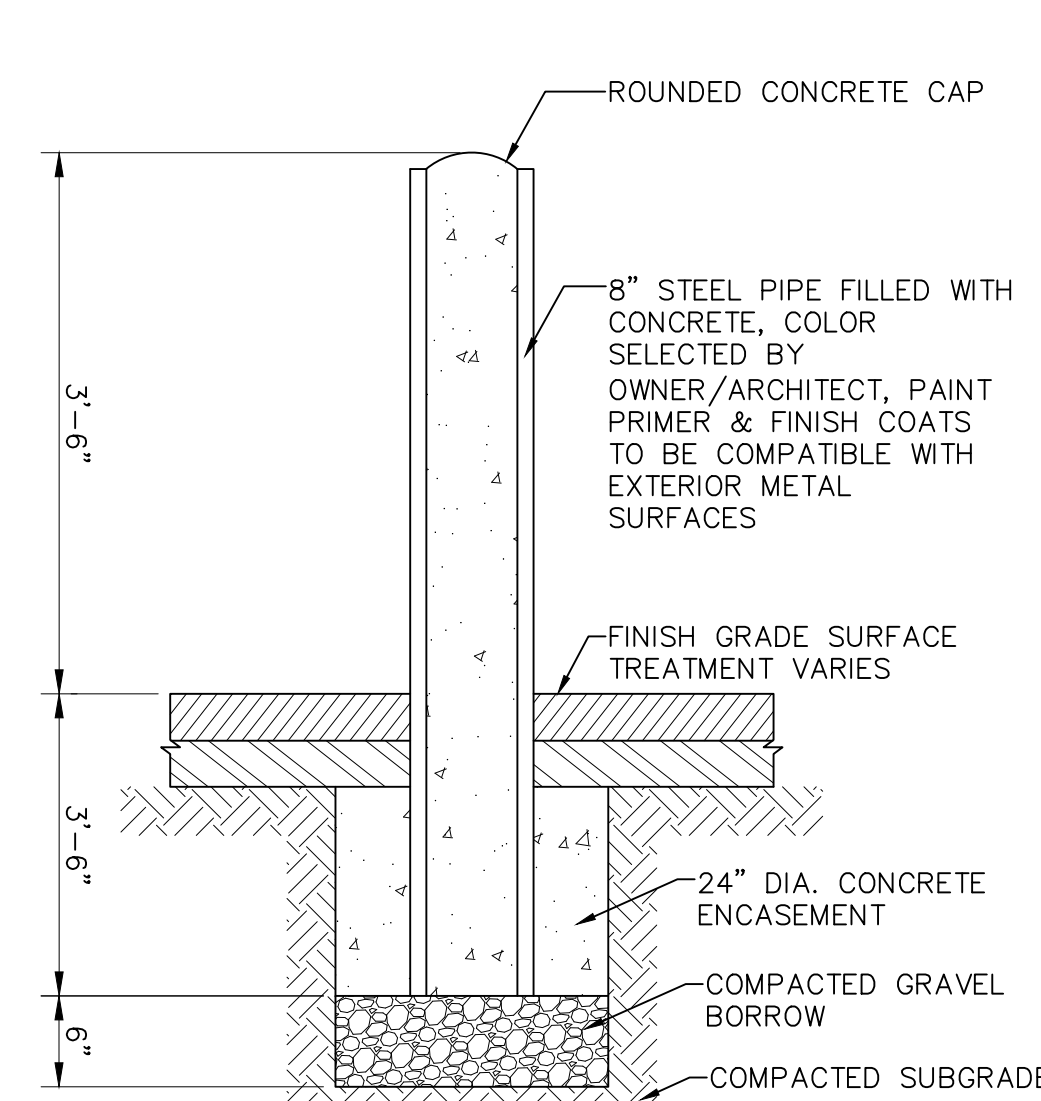
NOTES:

- FILTER CLOTH SHALL BE FASTENED SECURELY TO POSTS WITH STAPLES. POSTS SHALL BE SPACED 8'-10' ON CENTER.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- ENTRENCH SILT FENCE BUT NOT FILTER TUBE.
- INSPECTIONS SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED, OR WHEN SEDIMENT ACCUMULATES TO HALF THE HEIGHT OF FENCING.
- CONFIGURE TUBES AROUND EXISTING FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF. TUBES SHALL BE PLACED PERPENDICULARLY TO STORMWATER FLOW WHERE POSSIBLE.
- TUBES FOR COMPOST FILTERS SHALL BE JUTE MESH OR APPROVED BIODEGRADABLE MATERIAL. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
- TAMP TUBES IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE. IT IS NOT NECESSARY TO TRENCH TUBES INTO EXISTING GRADE.
- WHEN STAKING IS NOT POSSIBLE, SUCH AS WHEN TUBES MUST BE PLACED ON PAVEMENT, HEAVY CONCRETE OR CINDER BLOCKS CAN BE USED BEHIND TUBES UP TO 5 FT. APART OR AS REQUIRED TO SECURE TUBES IN PLACE. DO NOT PUNCTURE TUBES WITH STAKES.
- TUBES CAN BE PLACED DIRECTLY ON EXISTING PAVEMENT WHEN NECESSARY.
- UPON COMPLETION OF PROJECT, ALL TUBES USED FOR EROSION CONTROL SHALL BE REMOVED FROM PROJECT LIMITS.

EROSION CONTROL BARRIER-COMPOST FILTER TUBE & SILT FENCE
N.T.S.

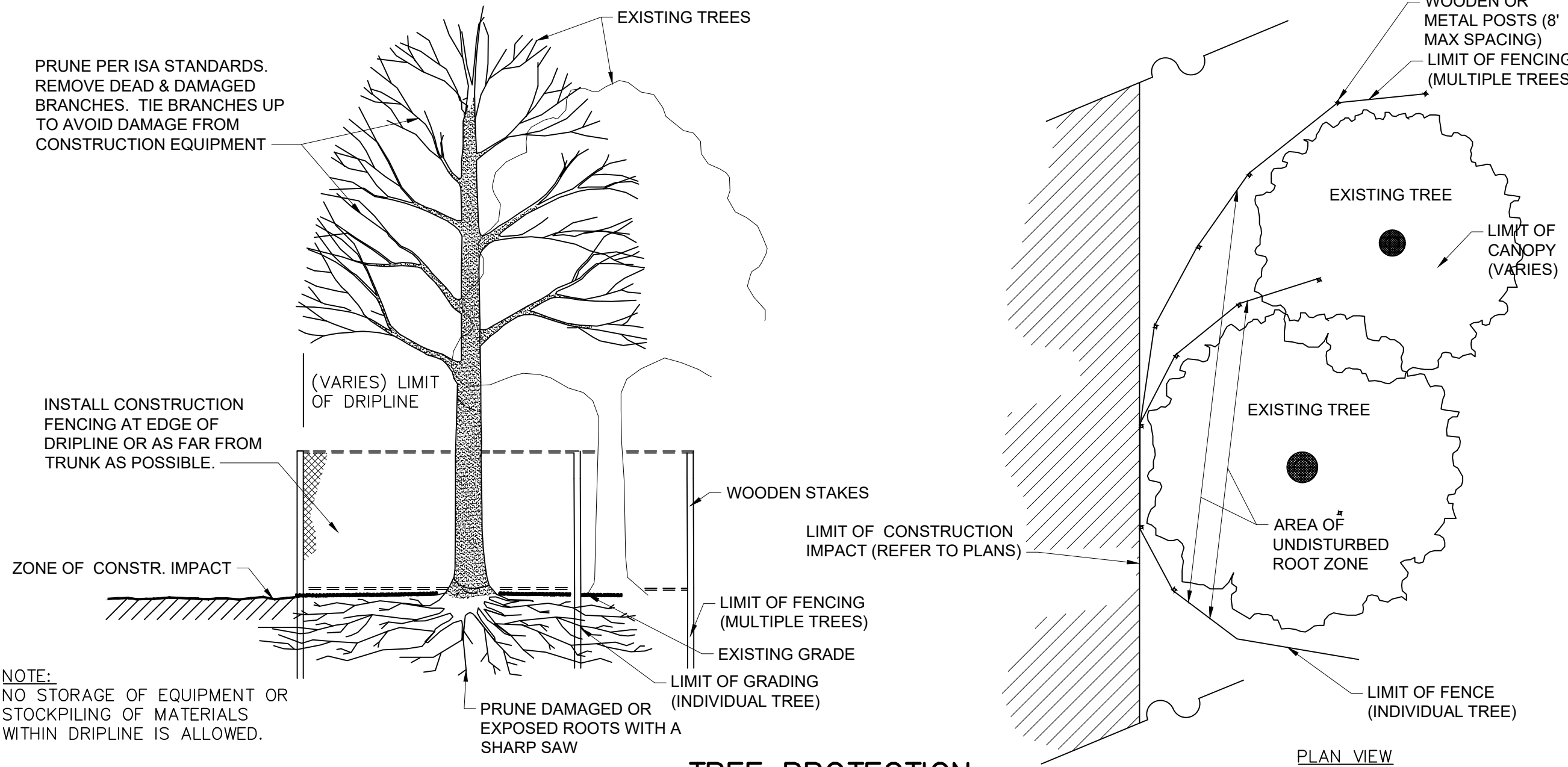


PARALLEL PARKING STALL PAVEMENT MARKING
N.T.S.

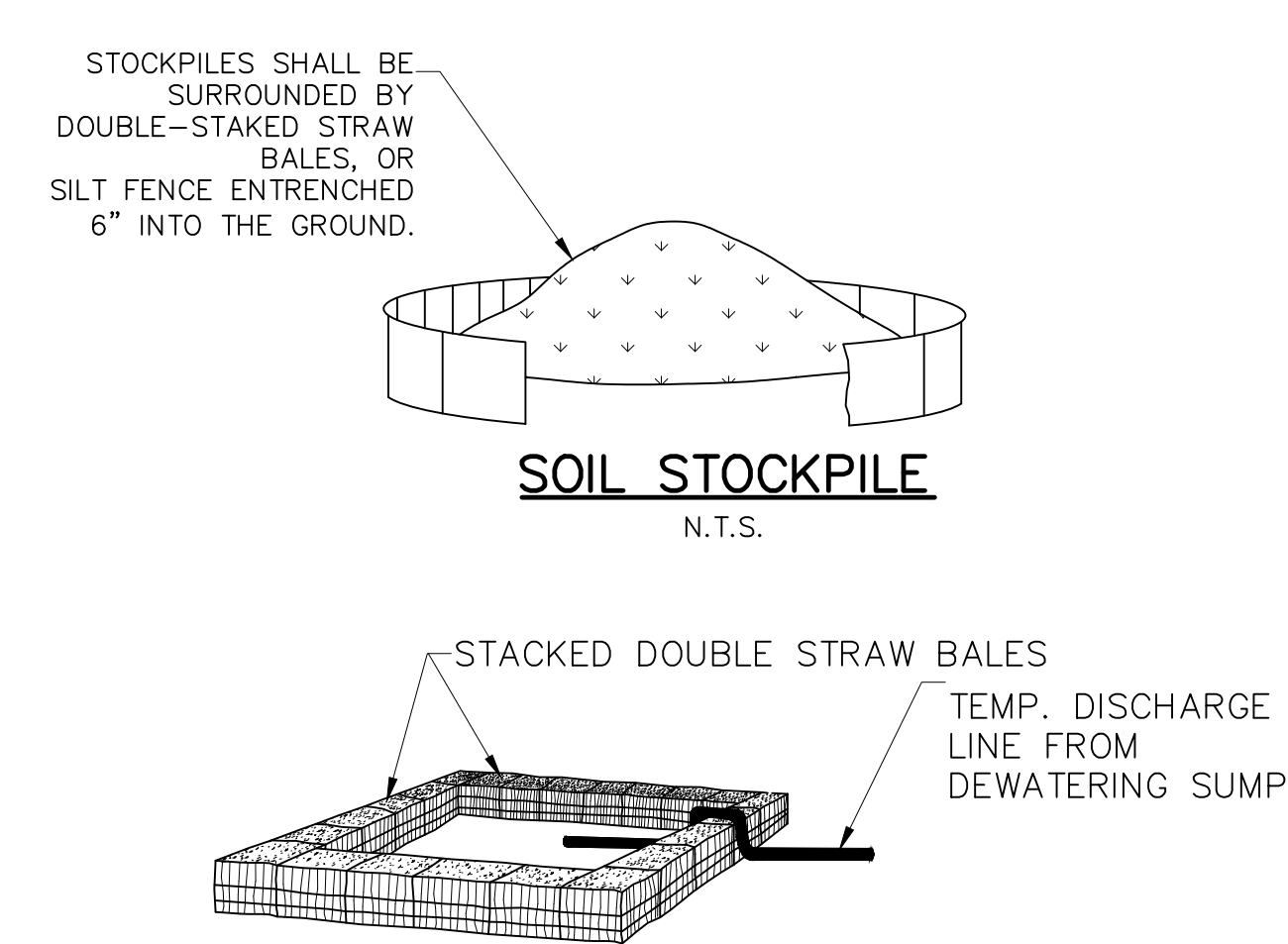


NOTE: BOLLARDS SHALL BE PLACED IN ACCORDANCE WITH THE ADA ACCESSIBILITY GUIDELINES. A MINIMUM CLEAR WIDTH OF 36" SHALL BE PROVIDED TO MAINTAIN AN ACCESSIBLE PATH.

BOLLARD
N.T.S.

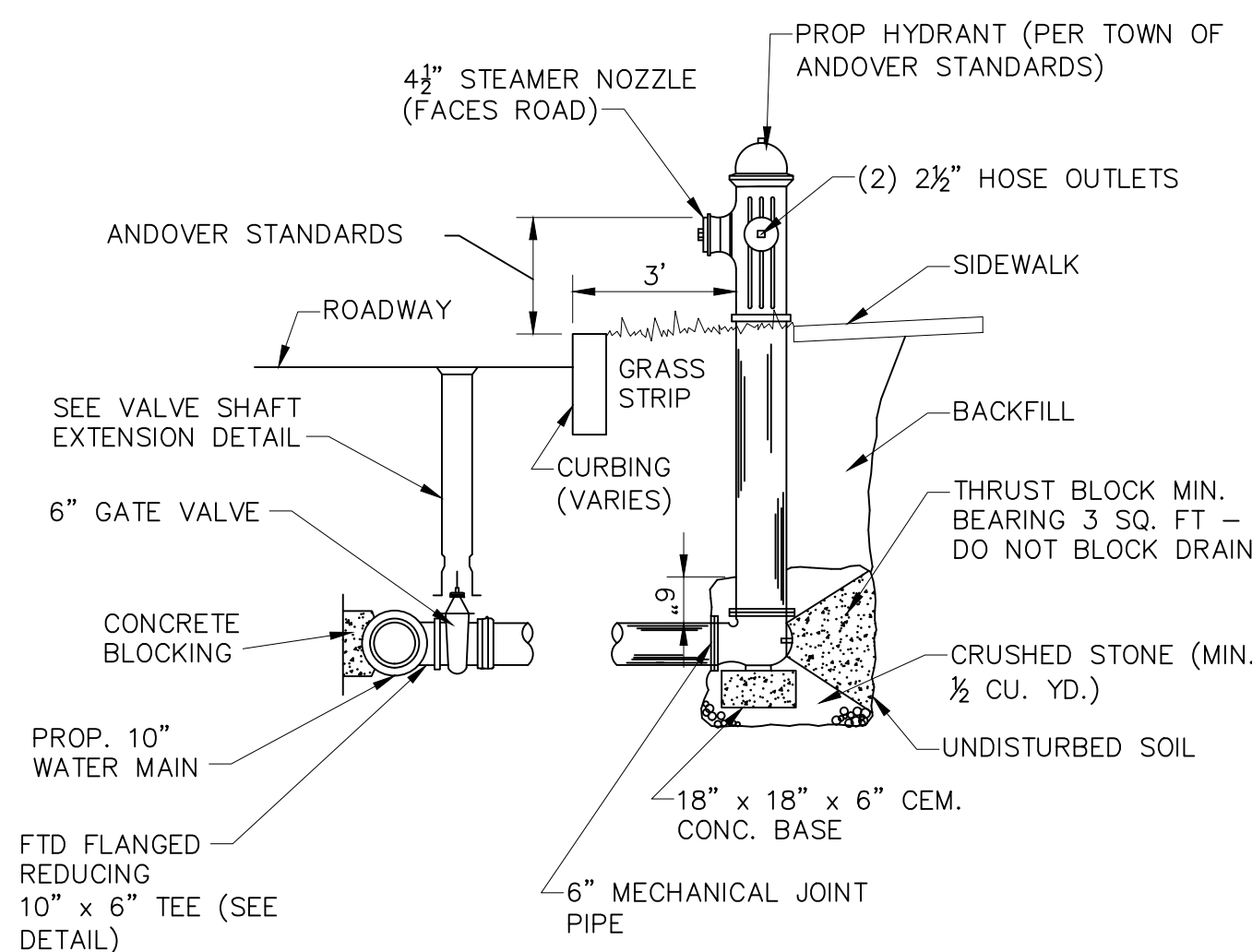


TREE PROTECTION
N.T.S.

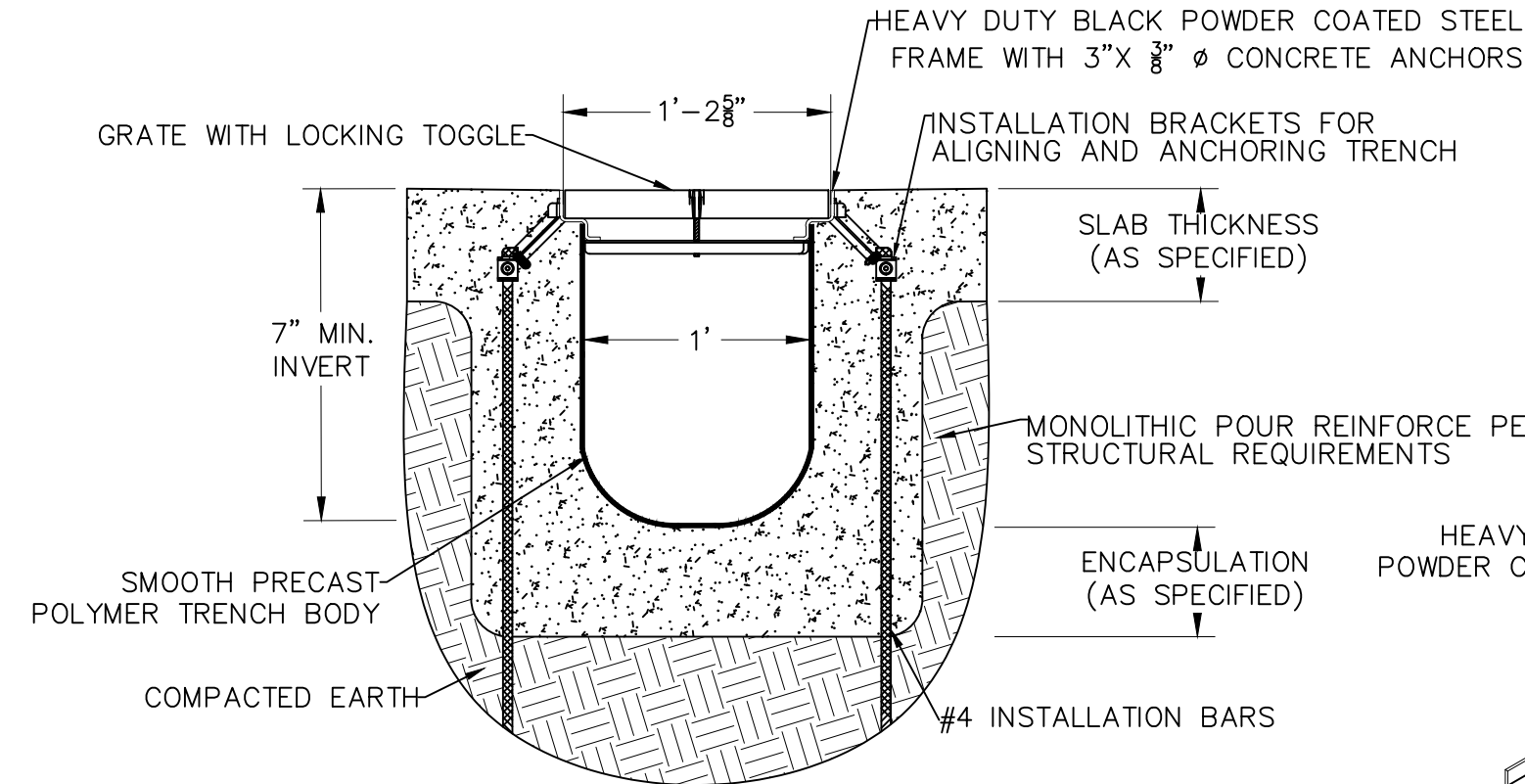


NOTES:
DISCHARGE TO SEDIMENTATION BASIN (AS SHOWN) OR TO SILTATION/DEWATERING BAG SUCH AS FLOGARD DEWATERING BAG MODEL SC-DW1215Z, OR EQUAL APPROVED BY CONSERVATION COMMISSION. ALL DISCHARGE LOCATIONS SHALL BE A MINIMUM OF 50' FROM EXISTING BVW.

TEMPORARY STILLING AREA
N.T.S.

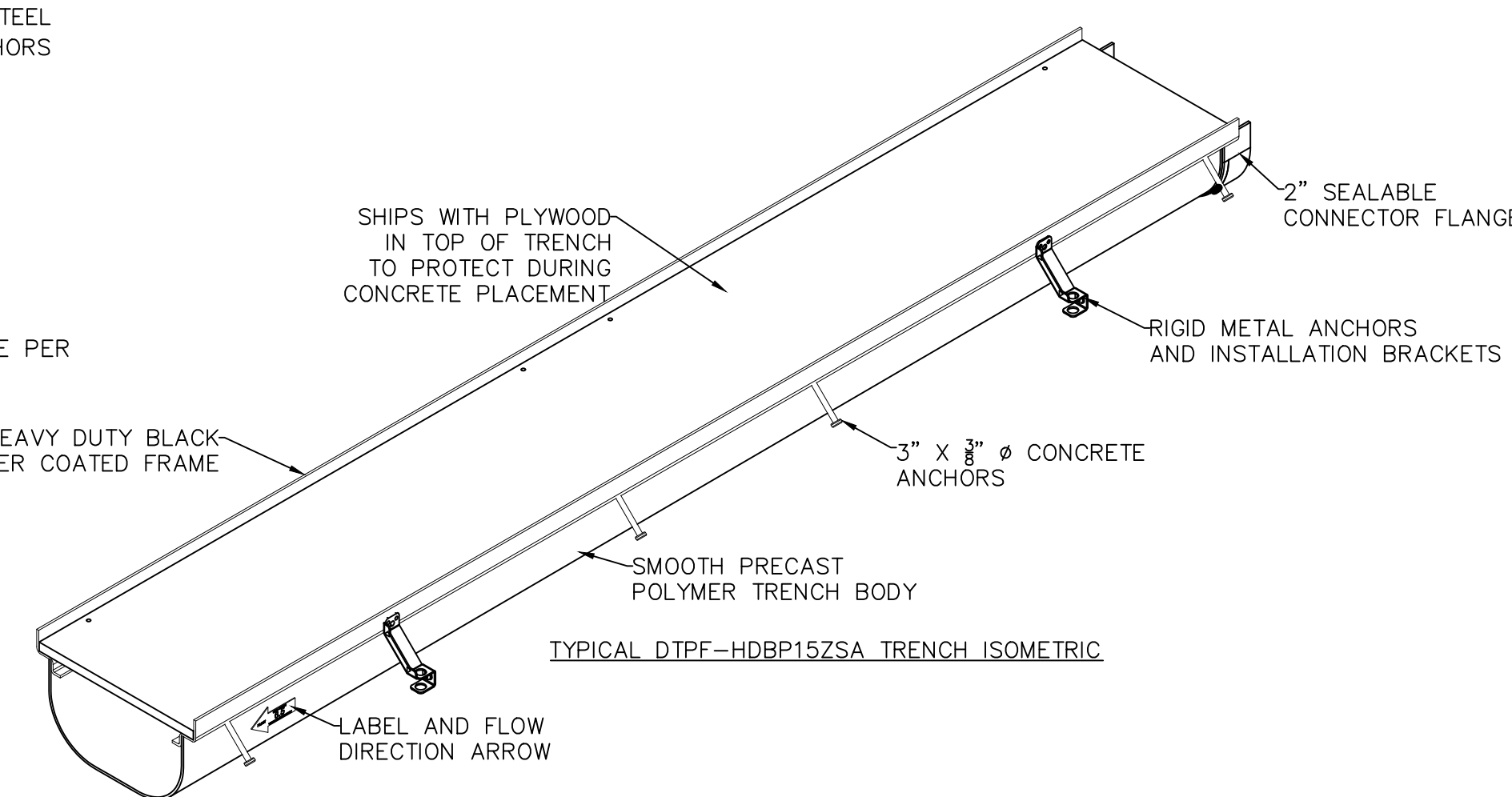


HYDRANT DETAIL
N.T.S.



NOTES:
1. STANDARD SLOPE IS 0.5% UNLESS OTHERWISE SPECIFIED
2. REINFORCE ACCORDING TO STRUCTURAL REQUIREMENTS
3. TRENCH DRAIN MUST BE 1/8" BELOW FINISHED CONCRETE GRADE

TYPICAL DTPF-HDBP15ZSA TRENCH SECTION
N.T.S.



TYPICAL DTPF-HDBP15ZSA TRENCH ISOMETRIC



TEC, Inc.

282 Merrimack Street
2nd Floor
Lawrence, MA 01843
(978) 794-1792
www.TheEngineeringCorp.com

DESIGNED BY: BM
DRAWN BY: WNB/JRM/JD
CHECKED BY: PFE
DATE: 08/30/2022
SCALE: NTS

PREPARED FOR

MCP/Howland Burt
Owner, LLC
260 Franklin Street,
Suite 620
Boston, MA 02110

REVISIONS		
1	PER ANDOVER COMMENTS	09/27/2022

ISSUED FOR
Permitting

PROJECT TITLE
Burt Road Development

PROJECT LOCATION
3, 3R, 4 Executive Place Andover MA, 01810

DRAWING TITLE
Construction Details

PROJECT NO. T1126
TEC CAD FILE T1126_DET.DWG
DRAWING NO. **C-15**
SHEET 15 OF 16



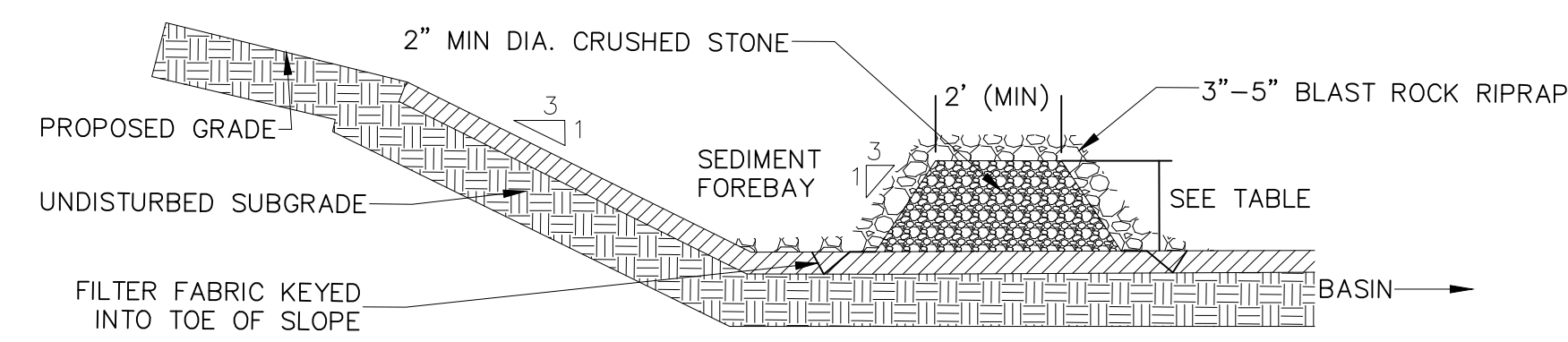
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PREPARED FOR:

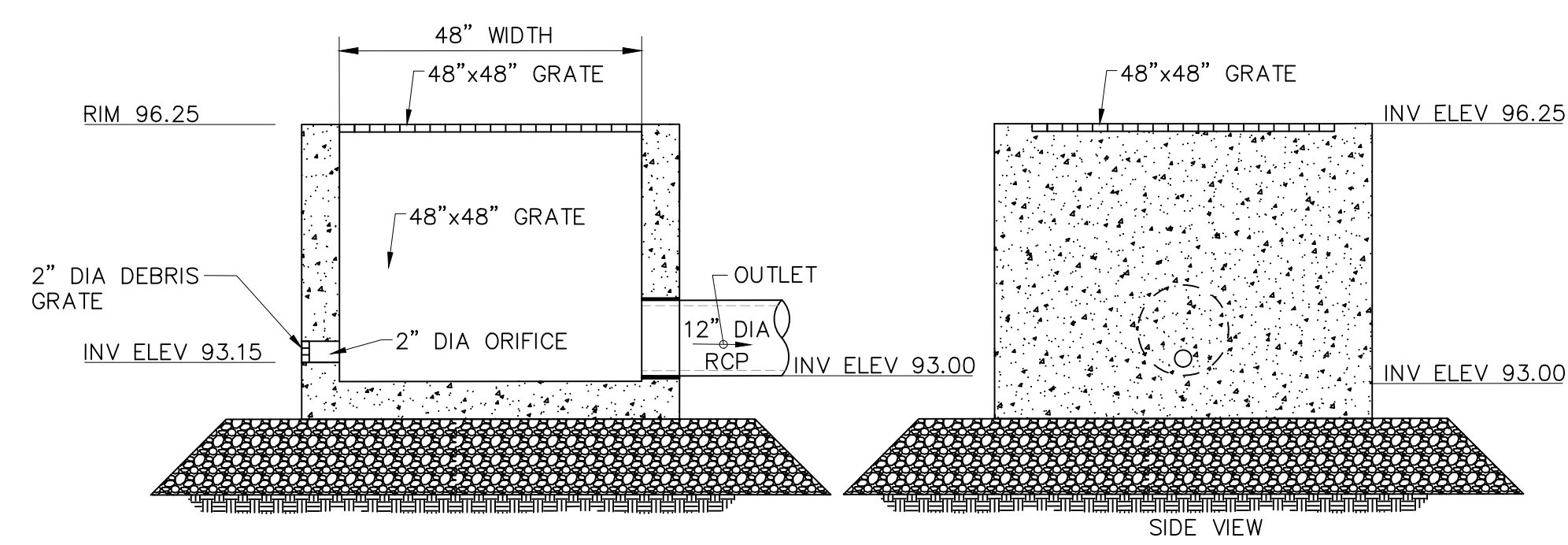
MCP/Howland Burt
Owner, LLC
260 Franklin Street,
Suite 620
Boston, MA 02110



NOTES:
1. STONE SHALL BE PLACED MECHANICALLY OR BY HAND.
STONES SHALL NOT BE DUMPED DIRECTLY INTO FOREBAY

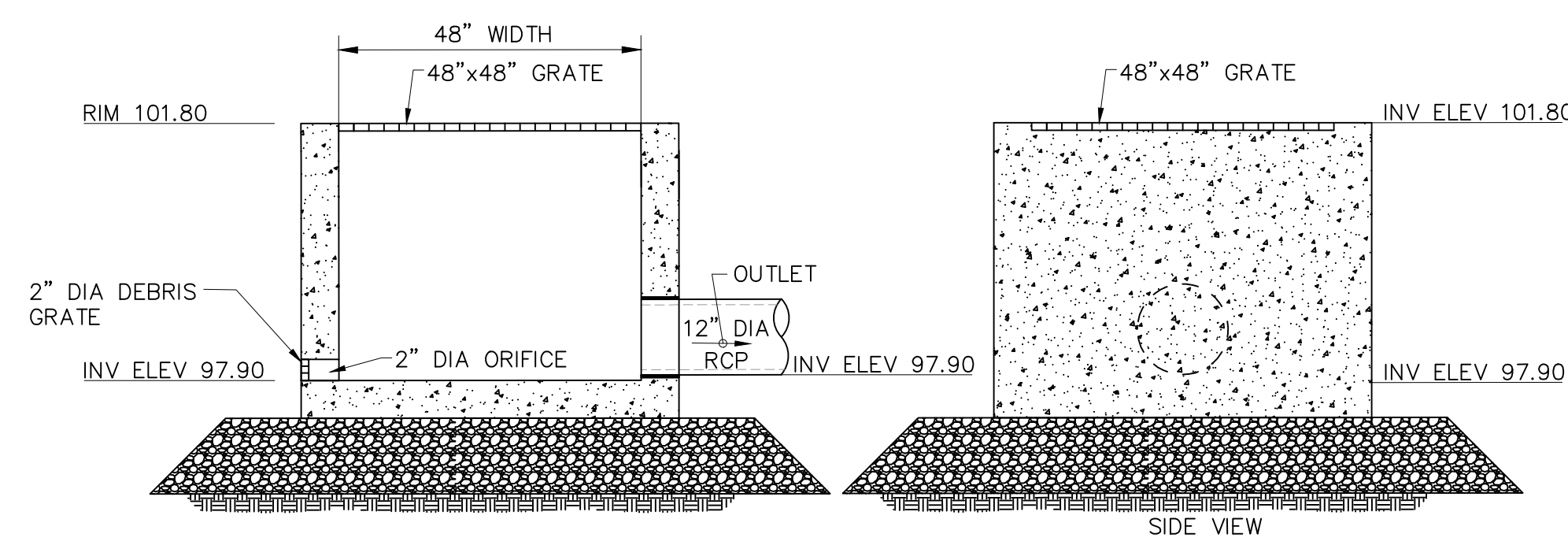
SEDIMENT FOREBAY SUMMARY						
NAME	BASIN	IMPERVIOUS PVMT (SF)	REQ WOV (CF)	PROVIDED WOV (CF)	BOTTOM ELEV (FT)	TOP ELEV (FT)
SF21	P2	157,576	1,315	1,828	92.67	93.67
SF31	P3	29,750	250	619	96.90	97.90
SF41	P4	88,827	740	1024	93.50	94.80

STONE FOREBAY CHECK DAM DETAILS
N.T.S.



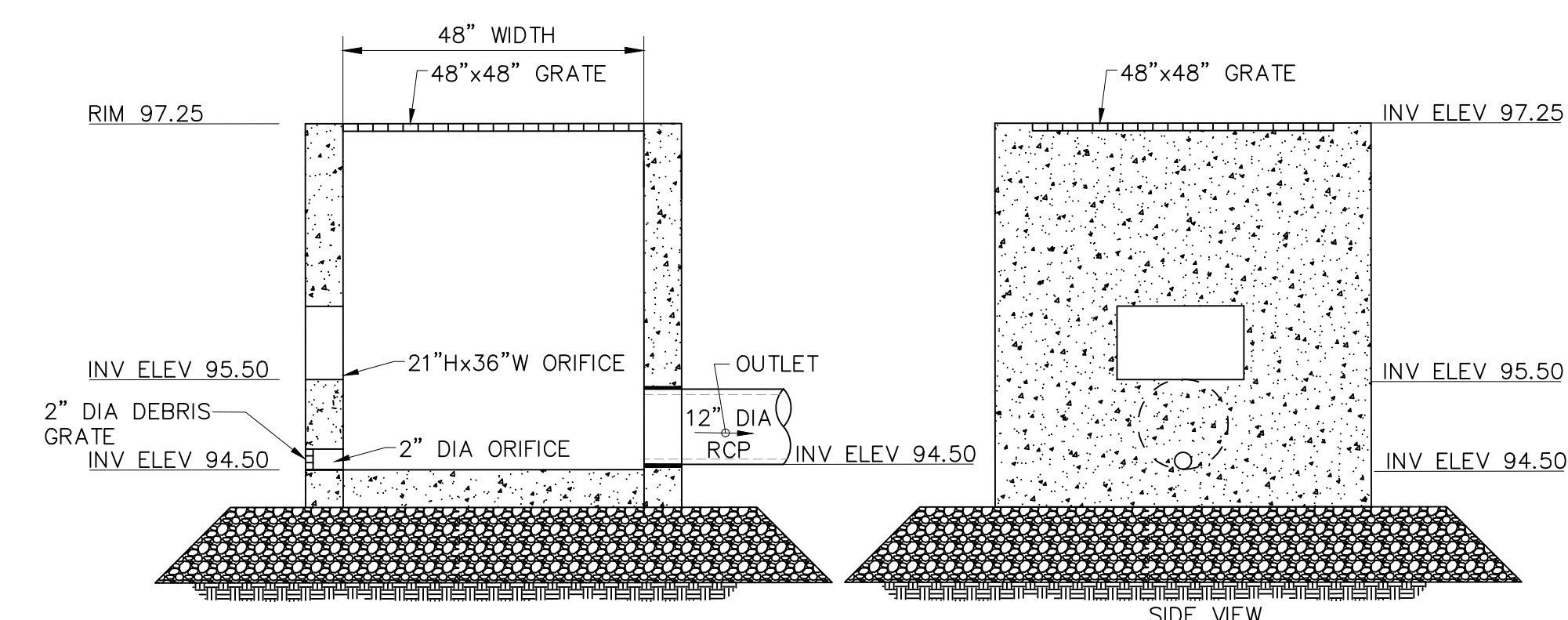
NOTES:
1. STRUCTURE SHALL BE 48"x48" (INNER DIMENSIONS) PRECAST CONCRETE BOX STRUCTURE.
2. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
3. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.

OUTLET CONTROL STRUCTURE 2 (OCS 2) DETAIL
N.T.S.



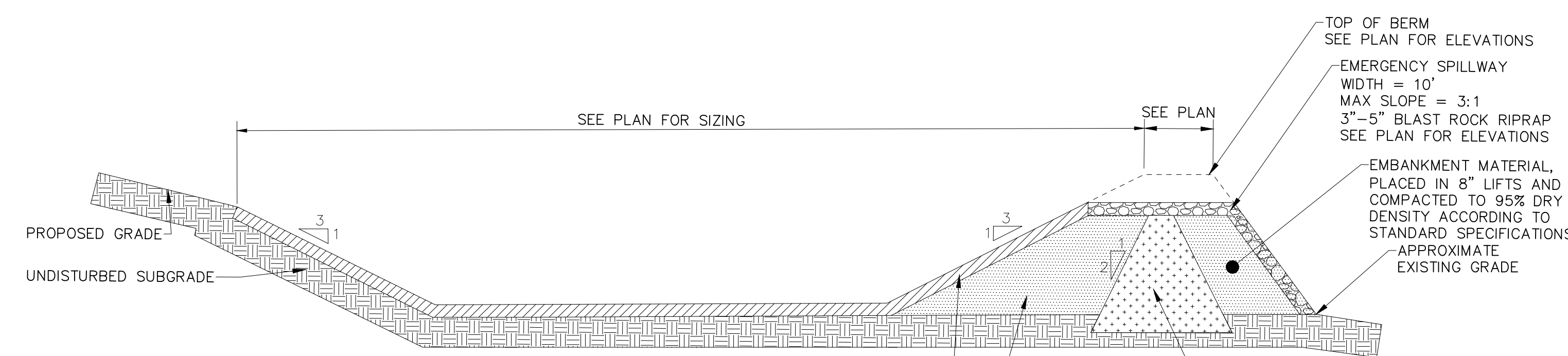
NOTES:
1. STRUCTURE SHALL BE 48"x48" (INNER DIMENSIONS) PRECAST CONCRETE BOX STRUCTURE.
2. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
3. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.

OUTLET CONTROL STRUCTURE 3 (OCS 3) DETAIL
N.T.S.



NOTES:
1. STRUCTURE SHALL BE 48"x48" (INNER DIMENSIONS) PRECAST CONCRETE BOX STRUCTURE.
2. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.
3. PROVIDE "V" KNOCKOUTS FOR PIPES WITH 2" MAX CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.

OUTLET CONTROL STRUCTURE 4 (OCS 4) DETAIL
N.T.S.



BERM MATERIALS (SEE SPECIAL NOTE BELOW)

1) IMPERVIOUS CORE (CLAY SILT & SAND SHALL CONFORM TO AASHTO T27 HAVING A COEFFICIENT OF PERMEABILITY OF 1×10^{-10} CM/SEC AND MEET THE GRADATION AS FOLLOWS:
ROLLED TO 6 LAYERS (95% COMPACTION)

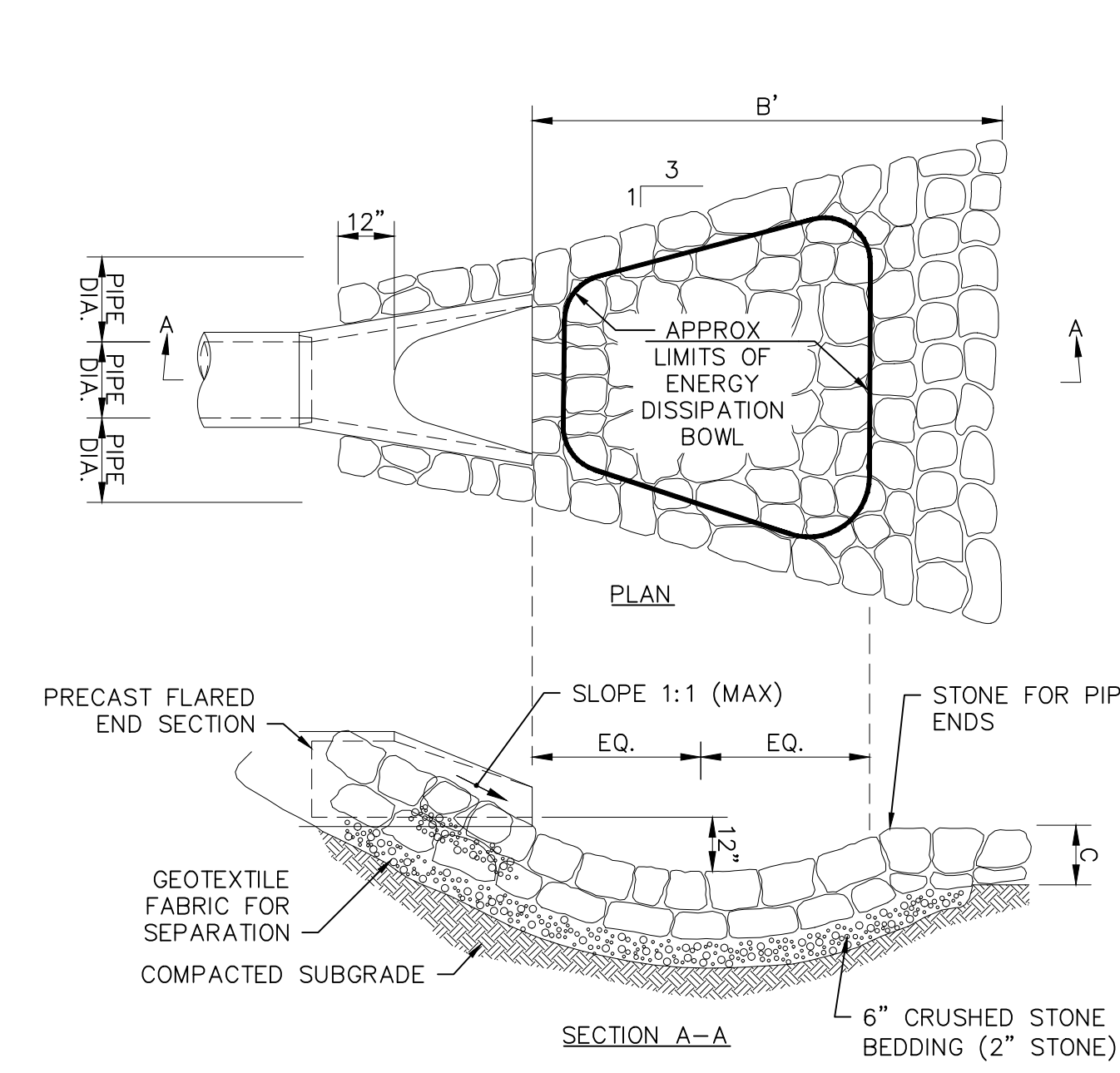
PERCENT FINER	SIEVE SIZE	
100	#4	
30 TO 85	#40	
20 TO 50	#200	

2) FILTER LAYER F2
EMBANKMENT MATERIAL SHALL CONFORM TO AASHTO M57 AND MEET THE FOLLOWING GRADATION:

PERCENT FINER	SIEVE SIZE	
100	3 IN.	
95-100	2 IN.	
55-85	1 IN.	
27-52	#4	
50 MAX	#40	
25 MAX	#200	

INFILTRATION BASIN
N.T.S.

*** SPECIAL NOTE ***
SPECIAL MATERIALS 1, 2 AND ANTI-SEEP COLLARS CAN BE ELIMINATED AND REPLACED WITH GENERAL MATERIALS IN AREAS OF OVERALL EMBANKMENT CUT AND IN AREAS WHERE THE GEOTECHNICAL & CITY ENGINEERS DETERMINE THAT FIELD CONDITIONS DO NOT WARRANT THESE ITEMS.



NOTE:
SEE PLANS FOR STONE LENGTH AND DEPTH

STONE AT FLARED END SECTION
N.T.S.

REVISIONS

NO.	PER AND/OVER COMMENTS	DATE
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