

ALBANY
INTERNATIONAL



AIRPORT DRIVE, ROCHESTER, NH

DEVELOPER
SNECMA, SAFRAN GROUP
216 AIRPORT DRIVE
ROCHESTER, NH 03867
(603) 330-7215

COVER
SHEET NUMBER

DATE	ISSUE/REVISION
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AE JOB NUMBER
33222201

1000

1000

COVER |

SHEET NUMBER

TABLE 1

D

C

B

A

EXISTING FEATURES LEGEND

	EXISTING GRANITE OR CONCRETE BOUND
	EXISTING IRON PIN, PIPE OR STAKE
	WETLAND
	EXISTING SIGN
	EXISTING GAS VALVE
	EXISTING WATER GATE VALVE
	EXISTING WATER SHUTOFF
	EXISTING FIRE HYDRANT
	EXISTING SEWER MANHOLE
	EXISTING DRAIN MANHOLE
	EXISTING CATCH BASIN
	EXISTING TELEPHONE MANHOLE
	PROPOSED SEWER GATE VALVE
	EXISTING ELECTRIC MANHOLE
	EXISTING LIGHT POLES
	EXISTING LAMP POST
	EXISTING UTILITY POLE
	EXISTING PROPERTY LINE
	EXISTING EASEMENT LINE
	SETBACK LINE
	EDGE OF WETLAND
	EXISTING TREE LINE
	EXISTING GRANITE CURB
	EXISTING GRANITE SLOPED CURB
	EXISTING BITUMINOUS CURB
	EXISTING CONCRETE CURB
	EXISTING SINGLE SOLID WHITE LINE
	EXISTING SINGLE BROKEN WHITE LINE
	EXISTING SINGLE SOLID YELLOW LINE
	EXISTING SINGLE BROKEN YELLOW LINE
	EXISTING DOUBLE SOLID YELLOW LINE
	EXISTING GAS LINE
	EXISTING WATER LINE
	EXISTING SEWER LINE
	EXISTING DRAIN LINE
	EXISTING UNDERGROUND TELEPHONE
	EXISTING UNDERGROUND ELECTRIC
	EXISTING UNDERGROUND UTILITIES
	EXISTING OVERHEAD WIRES
	EXISTING ACCESSIBLE PARKING SPACE
	EXISTING PAINTED ISLAND
	EXISTING PARKING SPACE COUNT
	EXISTING CONTOURS
	EXISTING SPOT GRADE
	FIRM MAP FLOODPLAIN BOUNDARY
	SOIL TYPE BOUNDARY
	SOIL TYPE
	TEST PIT LOCATION
	PERCOLATION TEST LOCATION
	MONITORING WELL LOCATION
	BORING LOCATION

PROPOSED ITEMS LEGEND

	PROPOSED MONUMENT
	PROPOSED SIGN
	PROPOSED GAS VALVE
	PROPOSED WATER GATE VALVE
	PROPOSED WATER SHUTOFF
	PROPOSED FIRE HYDRANT
	PROPOSED THRUST BLOCK
	PROPOSED SEWER MANHOLE
	PROPOSED DRAIN MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED CATCH BASIN (D-FRAME, SEE DETAIL)
	PROPOSED CATCH BASIN (ROUND-FRAME)
	PROPOSED FLARED END SECTION (FES)
	PROPOSED HEADWALL
	PROPOSED TELEPHONE MANHOLE
	PROPOSED LIGHT POLES
	PROPOSED LAMP POST
	PROPOSED UTILITY POLE
	PROPOSED PROPERTY LINE
	PROPOSED EASEMENT LINE
	PROPOSED TREE LINE
	PROPOSED GRANITE CURB
	PROPOSED GRANITE SLOPED CURB
	PROPOSED BITUMINOUS CURB
	PROPOSED CONCRETE CURB
	PROPOSED SINGLE SOLID WHITE LINE
	PROPOSED SINGLE BROKEN WHITE LINE
	PROPOSED SINGLE SOLID YELLOW LINE
	PROPOSED SINGLE BROKEN YELLOW LINE
	PROPOSED DOUBLE SOLID YELLOW LINE
	PROPOSED GAS LINE
	PROPOSED WATER LINE
	PROPOSED SEWER LINE
	PROPOSED SEWER FORCE MAIN
	PROPOSED DRAIN LINE
	PROPOSED UNDERGROUND TELEPHONE
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED UNDERGROUND UTILITIES
	PROPOSED OVERHEAD WIRES
	PROPOSED ACCESSIBLE PARKING SPACE
	PROPOSED PAINTED ISLAND
	PROPOSED PARKING SPACE COUNT
	PROPOSED CONTOURS
	PROPOSED SPOT GRADE
	PROPOSED HAY BALES
	PROPOSED STONE CHECK DAM
	PROPOSED INLET PROTECTION
	PROPOSED INLET PROTECTION
	PROPOSED SILT FENCE
	PROPOSED ORANGE CONSTRUCTION FENCE

CAREFULLY REVIEW ALL SHEETS OF THIS PACKAGE TO INSURE PROPER CONSTRUCTION. SPECIFIC SITE CONDITIONS SHOULD BE EXPLORED PRIOR TO CONSTRUCTION. CONTACT BOTH THE DESIGN ENGINEER AND THE PROJECT OWNER FOR ANY AVAILABLE GEOTECHNICAL OR HYDROGEOLOGICAL INFORMATION AVAILABLE BUT NOT CONTAINED WITH IN THE PLAN SET. IF THERE ARE ANY QUESTIONS WITH THE DESIGN PRESENTED IN THIS PLAN SET PLEASE CONTACT THE ENGINEERING STAFF AT NORWAY PLAINS ASSOCIATES, INC. (603) 335-3948.

STATE OF NEW HAMPSHIRE PERMIT NUMBERS:
NHDES ALTERATION OF TERRAIN: REQUIRED
NHDES WETLANDS PERMIT: PENDING
NHDES DAM PERMIT: NOT REQUIRED
NHDES SUBDIVISION PERMIT: NOT REQUIRED
NHDES SUBSURFACE SYSTEMS PERMIT: NOT REQUIRED
NHDES SEWER CONNECTION PERMIT: NOT REQUIRED
NHDOT DRIVEWAY/ENTRANCE PERMIT: NOT REQUIRED

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES):
NPDES PERMITS ARE ONLY REQUIRED FOR PROJECTS MEETING THE DISTURBED AREA CRITERIA BELOW AND HAVING A POINT SOURCE STORMWATER DISCHARGE FROM THE SITE TO AN ADJACENT WETLAND OR WATER BODY (I.E. CULVERT, SWALE, ETC. OUTLETING TO A WETLAND, CREEK, STREAM OR RIVER).

NPDES PERMIT: REQUIRED

NPDES PERMITS CONSIST OF A NOTICE OF INTENT (NOI) FILED WITH THE ENVIRONMENTAL PROTECTION AGENCY AT LEAST 48 HOURS PRIOR TO CONSTRUCTION COMMENONG AND A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) BEING PREPARED, KEPT ON SITE AND FOLLOWED BY THE CONTRACTOR.

FOR STATUS OF THIS PERMIT CONTACT THE PROJECT GENERAL CONTRACTOR.

CIVIL SHEET INDEX

C-100	OVERALL SITE PLAN	1" = 60'
C-101	EXISTING FEATURES PLAN	1" = 60'
C-102 TO C-107	SITE PLAN	1" = 20'
C-108	OVERALL GRADING & DRAINAGE PLAN	1" = 60'
C-109 TO C-114	GRADING & DRAINAGE PLAN	1" = 20'
C-115	UTILITY PLAN	1" = 60'
C-500 TO C-501	EROSION CONTROL DETAILS	AS SHOWN
C-502	GRAVEL WETLAND DETAILS	AS SHOWN
C-503	DRAINAGE STRUCTURE DETAILS	AS SHOWN
C-504	UTILITY DETAILS	AS SHOWN
C-505	SEWER DETAILS	AS SHOWN
C9-C11	CONSTRUCTION DETAILS	AS SHOWN

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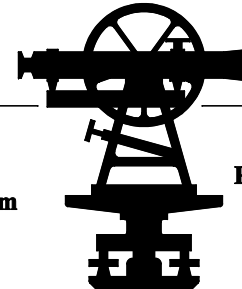
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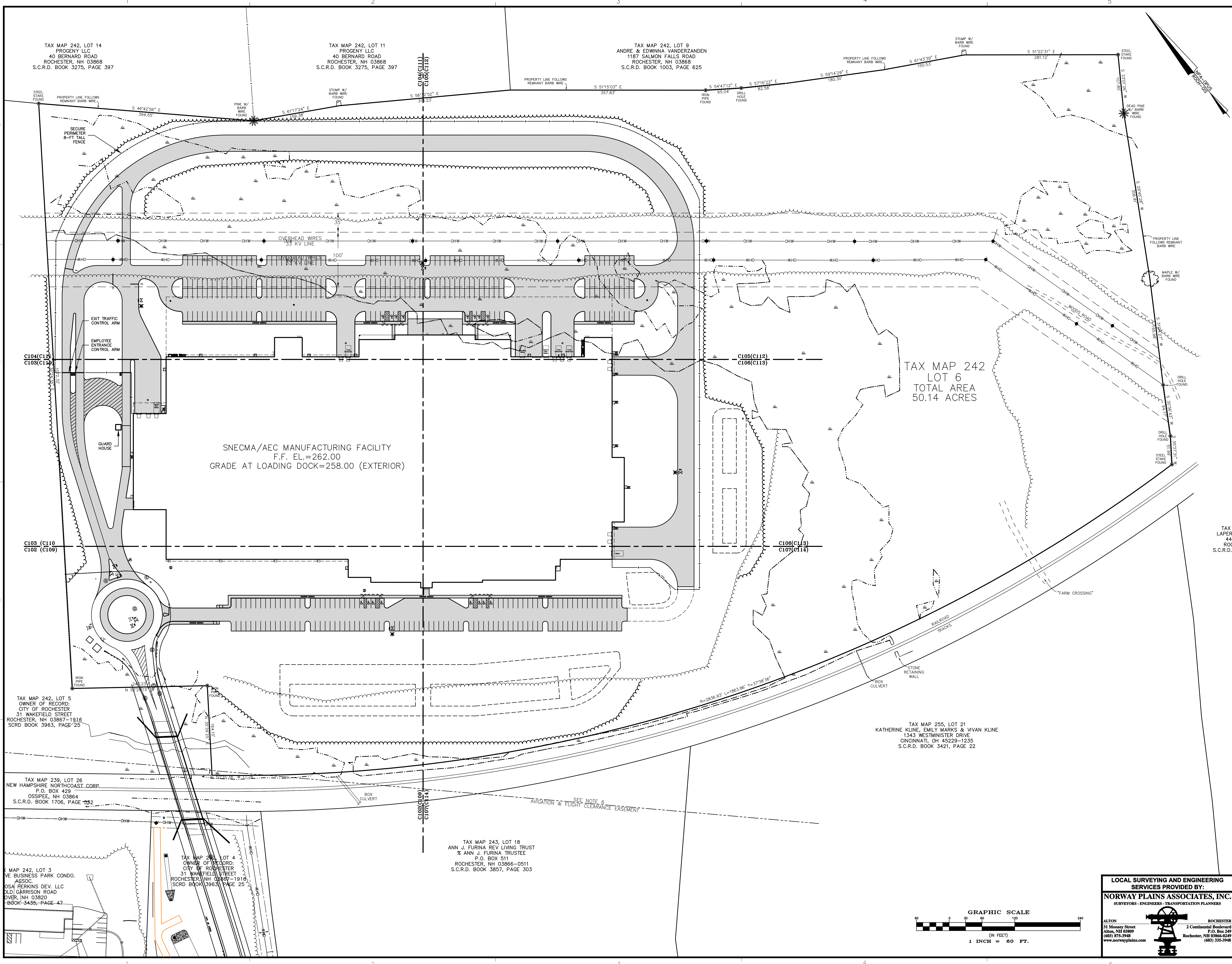
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(603) 335-3948

LEGEND
ABBREVIATIONS
AND
GENERAL NOTES

C-001
SHEET NUMBER



TAX MAP 242, LOT 14
PROGENY, LLC
40 BERNARD ROAD
ROCHESTER, NH 03868
S.C.R.D. BOOK 3275, PAGE 397

TAX MAP 242, LOT 11
PROGENY, LLC
40 BERNARD ROAD
ROCHESTER, NH 03868
S.C.R.D. BOOK 3275, PAGE 397

TAX MAP 242, LOT 9
ANDRE & EDWINNA VANDERZANDEN
1187 SALMON FALLS ROAD
ROCHESTER, NH 03868
S.C.R.D. BOOK 1003, PAGE 625

TAX MAP 242, LOT 5
OWNER OF RECORD:
CITY OF ROCHESTER
31 WAKEFIELD STREET
ROCHESTER, NH 03867-1916
SCRD BOOK 3963, PAGE 25

TAX MAP 239, LOT 26
NEW HAMPSHIRE NORTHCOST CORP.
P.O. BOX 429
OSSISPEE, NH 03864
S.C.R.D. BOOK 1708, PAGE 252

TAX MAP 242, LOT 3
VE BUSINESS PARK CONDO.
ASSOC.
OSA PERKINS DEV. LLC
310 GARRISON ROAD
OVER, NH 03820
BOOK 3435, PAGE 47

TAX MAP 242, LOT 4
OWNER OF RECORD:
CITY OF ROCHESTER
31 WAKEFIELD STREET
ROCHESTER, NH 03867-1916
SCRD BOOK 3963, PAGE 25

TAX MAP 243, LOT 18
ANN J. FURINA REV LIVING TRUST
% ANN J. FURINA TRUSTEE
P.O. BOX 511
ROCHESTER, NH 03866-0511
S.C.R.D. BOOK 3857, PAGE 303

TAX MAP 255, LOT 21
KATHERINE KLINE, EMILY MARKS & VIVAN KLINE
1343 WESTMINSTER DRIVE
CINCINNATI, OH 45229-1235
S.C.R.D. BOOK 3421, PAGE 22

SNECMA/AEC MANUFACTURING FACILITY
F.F. EL.=262.00
GRADE AT LOADING DOCK=258.00 (EXTERIOR)

TAX MAP 242
LOT 6
TOTAL AREA
50.14 ACRES

GRAPHIC SCALE
(IN FEET)
1 INCH = 60 FT.

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TAX
LAPAR
44
ROD
S.C.R.D.

DATE

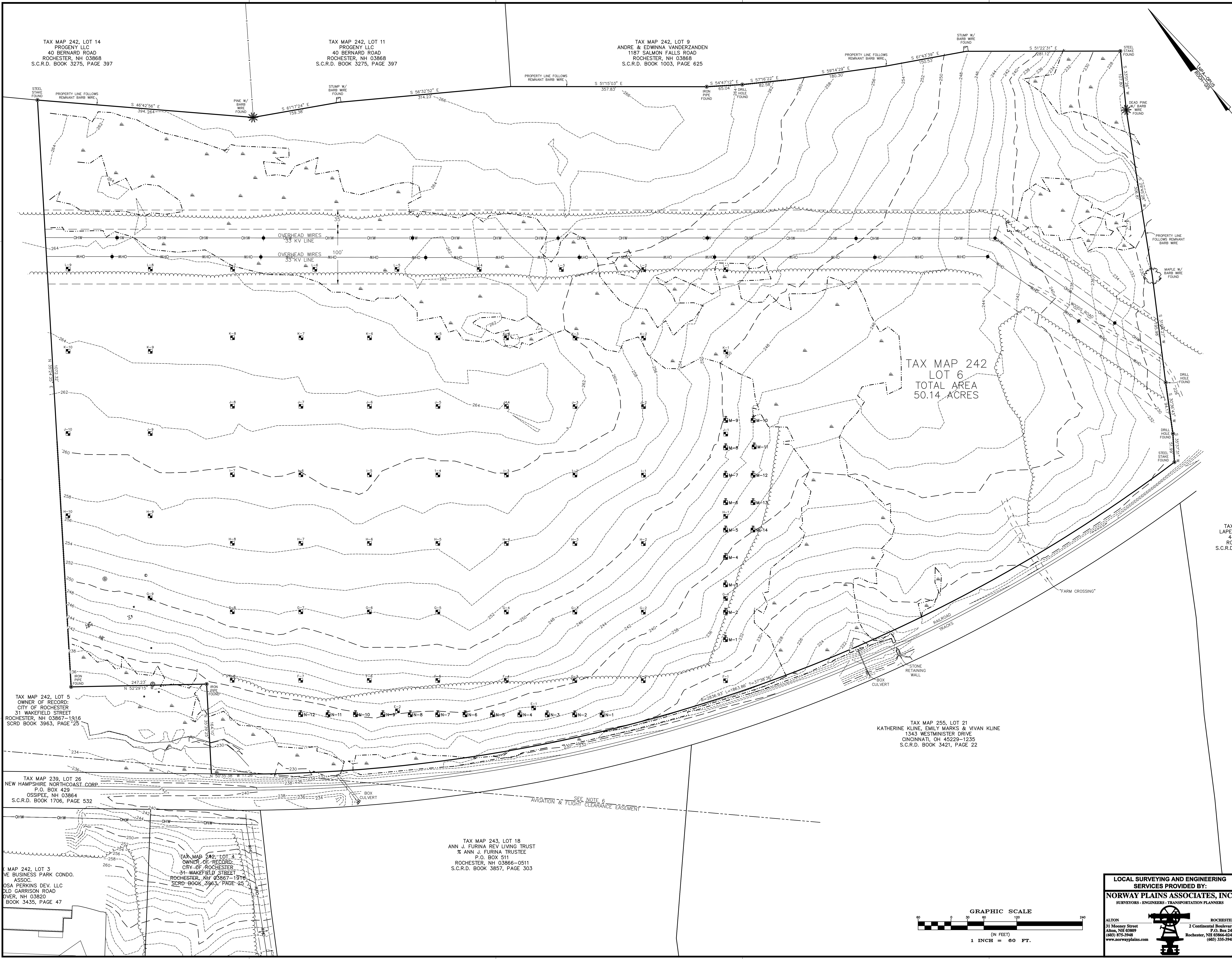
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OVERALL
SITE
PLAN
C-100
SHEET NUMBER



TAX MAP 242, LOT 14
PROGENY LLC
40 BERNARD ROAD
ROCHESTER, NH 03868
S.C.R.D. BOOK 3275, PAGE 397

TAX MAP 242, LOT 11
PROGENY LLC
40 BERNARD ROAD
ROCHESTER, NH 03868
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1187 SALMON FALLS ROAD
ROCHESTER, NH 03868
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TAX MAP 242
LOT 6
TOTAL AREA
50.14 ACRES

TAX MAP 242, LOT 5
OWNER OF RECORD:
CITY OF ROCHESTER
31 WAKEFIELD STREET
ROCHESTER, NH 03867-1316
SCRD BOOK 3963, PAGE 25

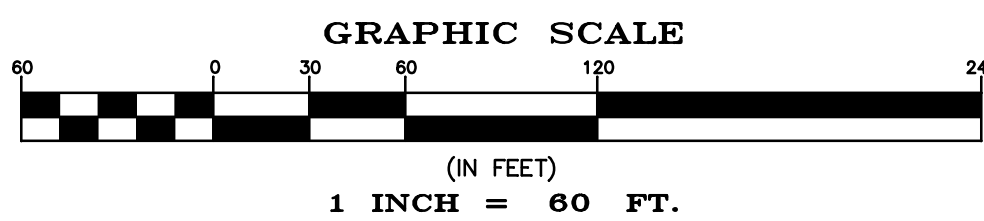
TAX MAP 239, LOT 26
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P.O. BOX 429
OSSISPEE, NH 03864
S.C.R.D. BOOK 1708, PAGE 532

MAP 242, LOT 3
VE BUSINESS PARK CONDO.
ASSOC.
OSA PERKINS DEV. LLC
310 GARRISON ROAD
OVER, NH 03820
BOOK 3435, PAGE 47

TAX MAP 242, LOT 4
OWNER OF RECORD:
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% ANN J. FURINA TRUSTEE
P.O. BOX 511
ROCHESTER, NH 03866-0511
S.C.R.D. BOOK 3857, PAGE 303

TAX MAP 255, LOT 21
KATHERINE KLINE, EMILY MARKS & VIVAN KLINE
1343 WESTMINSTER DRIVE
CINCINNATI, OH 45229-1235
S.C.R.D. BOOK 3421, PAGE 22



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TAX MAP 242, LOT 6 LAPAR 44 ROCHESTER, NH S.C.R.D.	
DATE	ISSUE/REVISION
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AE JOB NUMBER: 33222201	EXISTING FEATURES
	SITE PLAN
	C-101
	SHEET NUMBER

A



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C-103
SHEET NUMBER



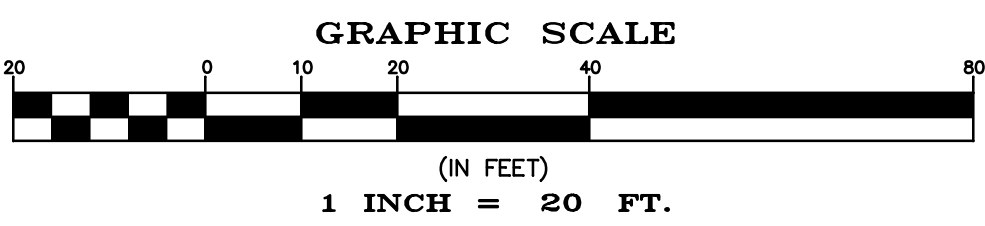
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S.C.R.D. BOOK 3275, PAGE 397

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S.C.R.D. BOOK 3275, PAGE 397



C104(C111)
C105(C112)

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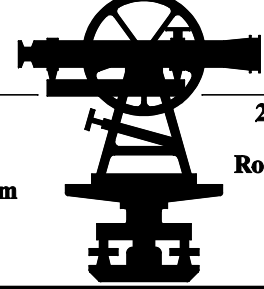
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SITE PLAN
C-104
SHEET NUMBER

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GRAPHIC SCALE

(IN FEET)

1 INCH = 20 FT.

$$\frac{S \ 51^{\circ}15'03'' \ E}{357.83'}$$

S 54°47'12" E

DRILL
HOLE
FOUND

56°32'52" E
314.23'

$$\frac{C_{104}(C_{111})}{C_{105}(C_{112})}$$

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**SITE
PLAN**

C-105
SHEET NUMBER

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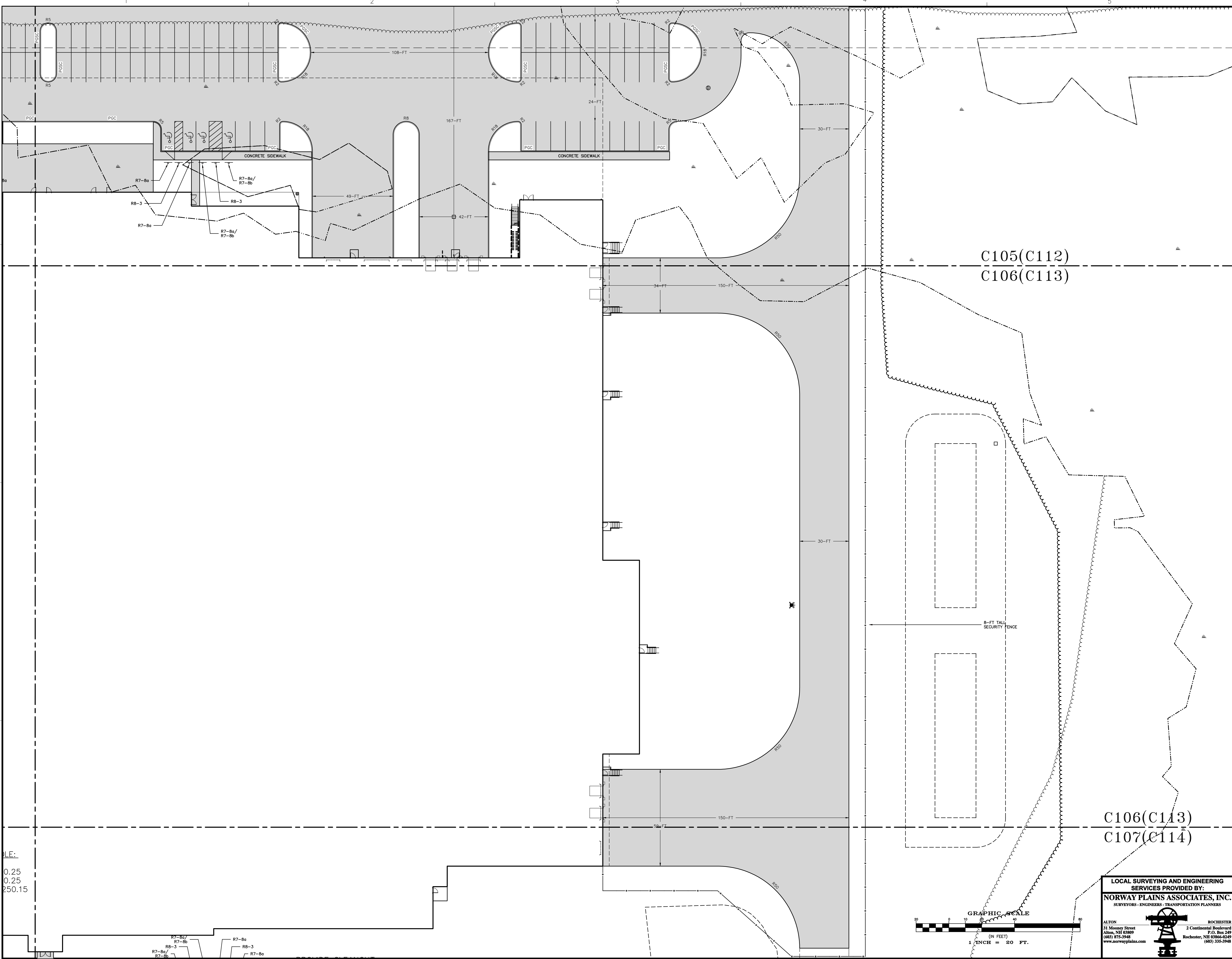
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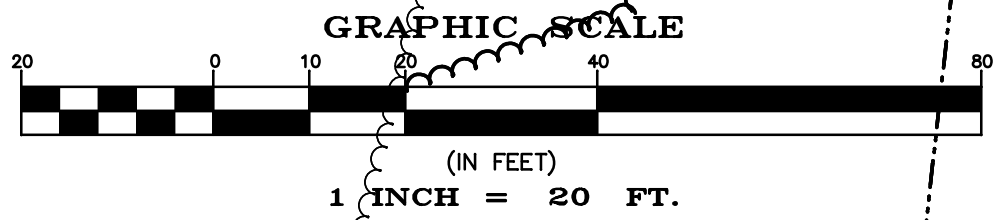


Rochester, NH 03866-024
(603) 335-394

$$\frac{C105(C112)}{C106(C113)}$$



NOTE:
0.25
0.25
250.15



C106(C113)
C107(C114)

C105(C112)
C106(C113)

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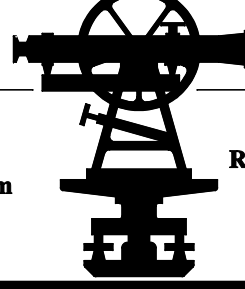
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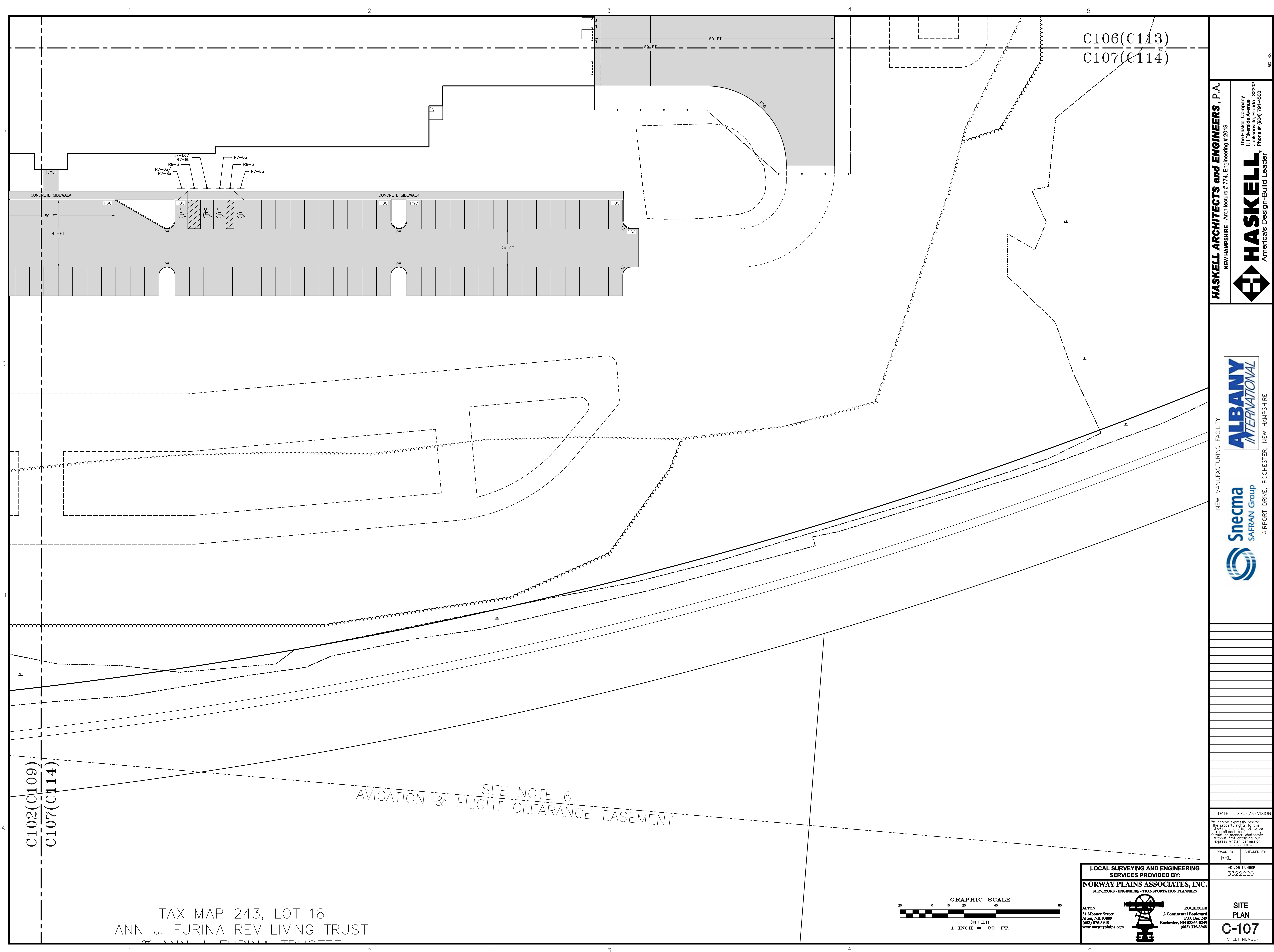
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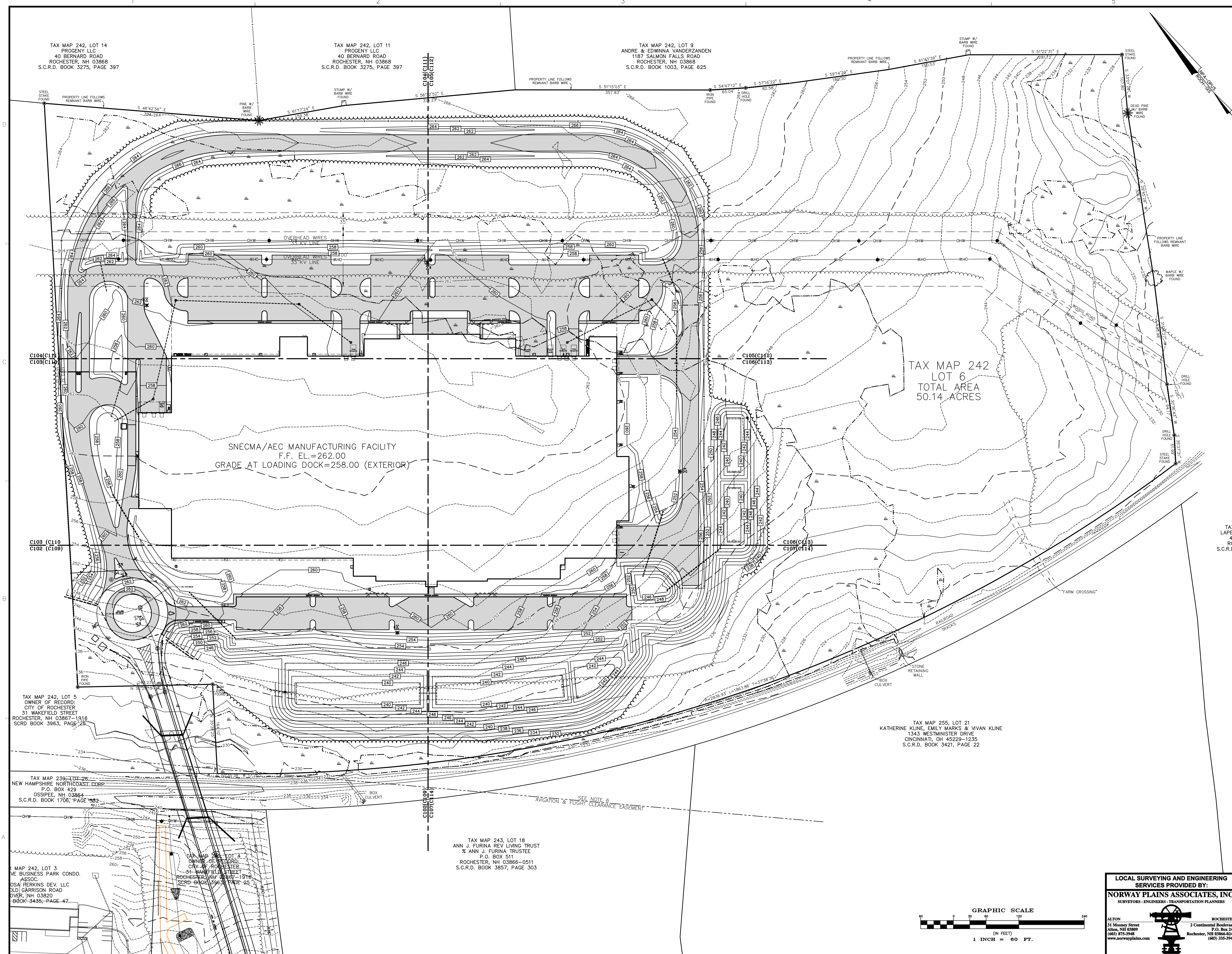
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SITE PLAN
C-106
SHEET NUMBER





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NEW MAN

TAX
LAPE
4
RO
S.C.R.

[illegible]

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OVERALL	100%
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GRADING & DRAINAGE

PLAN

8 | **C-108**
SHEET NUMBER

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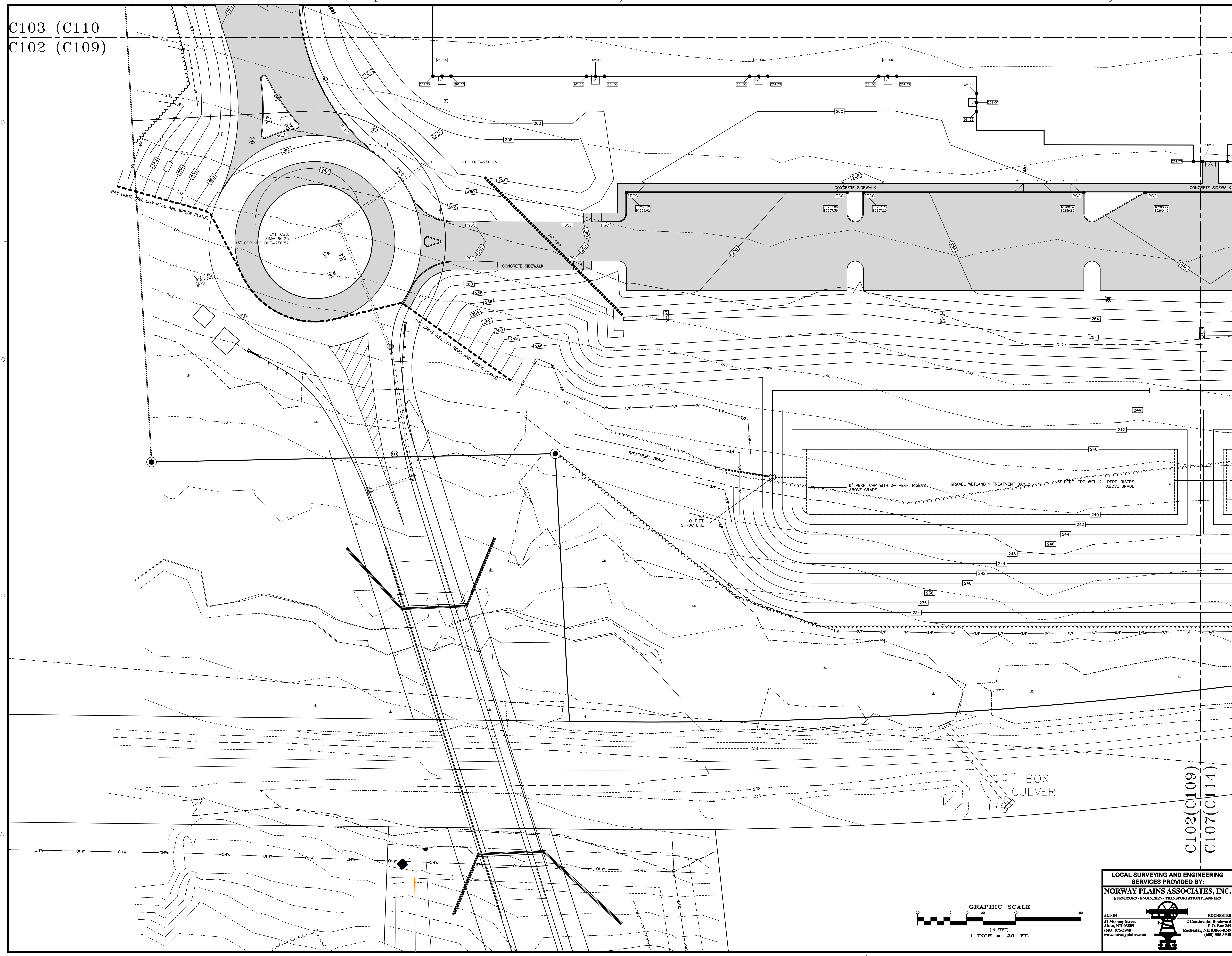


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$$\frac{C_{103}}{C_{102}} - \frac{(C_{110})}{(C_{109})}$$
~~$$\frac{C102(C109)}{C107(C114)}$$~~

An advertisement for Norway Plains Associates, Inc. The top section has a black background with white text: "LOCAL SURVEYING AND ENGINEERING SERVICES PROVIDED BY:". Below this is a white horizontal bar. The main section has a black background with white text: "NORWAY PLAINS ASSOCIATES, INC." and "SURVEYORS - ENGINEERS - TRANSPORTATION PLANNERS". In the center is a black silhouette of a surveying instrument, likely a transit or level. Below the instrument, the company's name "NORWAY PLAINS ASSOCIATES, INC." is written in a stylized, outlined font. The bottom section has a white background with black text for two locations: ALTON and ROCHESTER. The ALTON address is 31 Mooney Street, Alton, NJ 07809, with phone (603) 875-3948 and website www.norwayplains.com. The ROCHESTER address is 2 Continental Boulevard, P.O. Box 249, Rochester, NJ 07666-0249, with phone (603) 335-3948.

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<h1>GRADING & DRAINAGE PLAN</h1>	
<h1>C-109</h1>	
SHEET NUMBER	

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SAFRAN Group

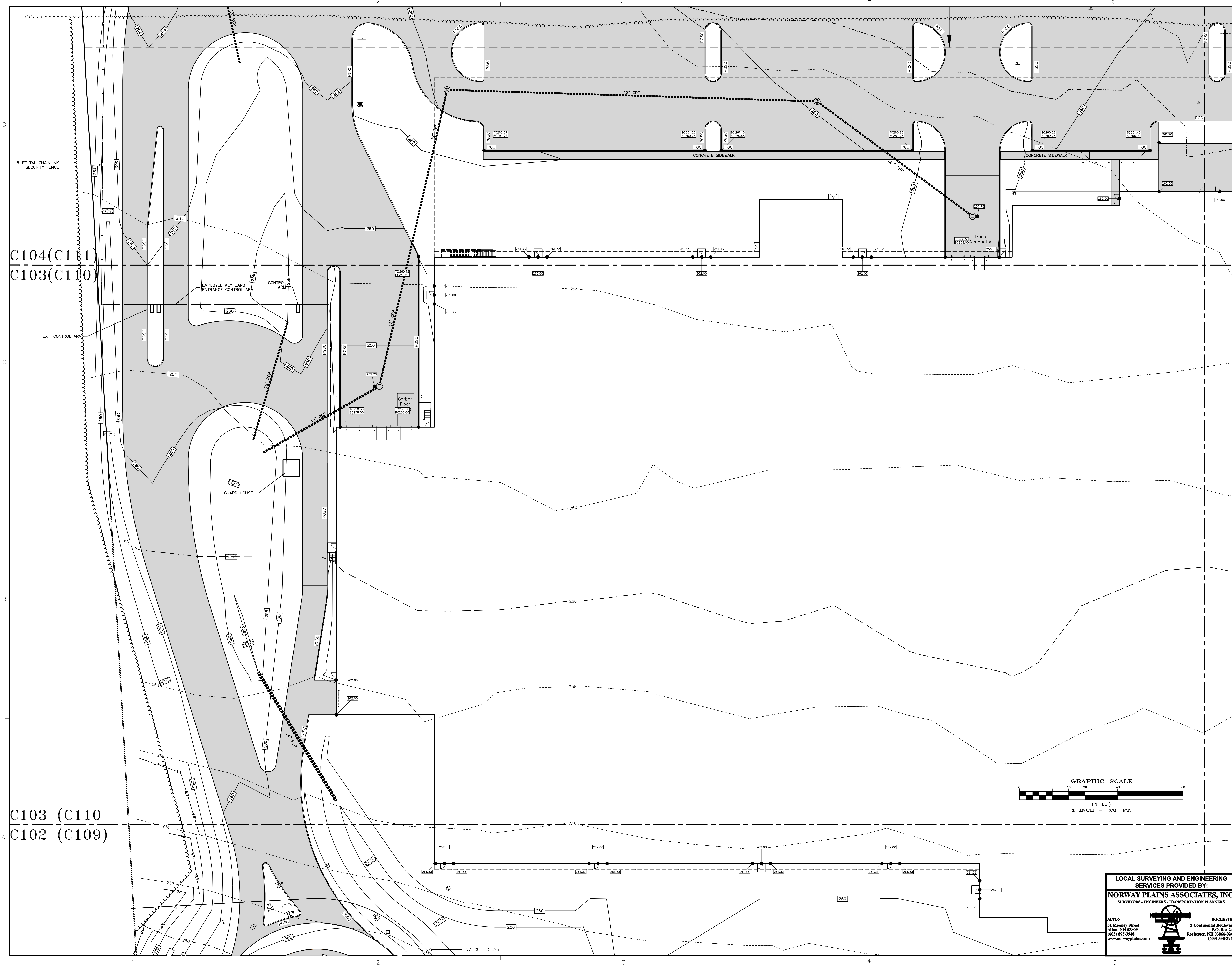
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NEW MAN

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1	
2	

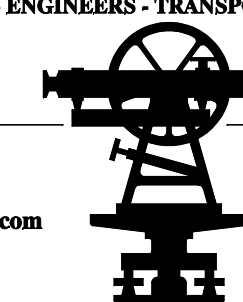
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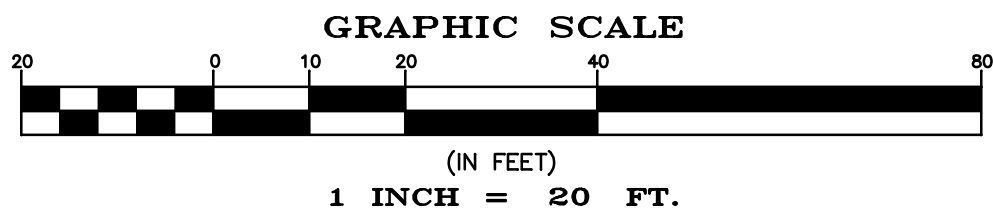
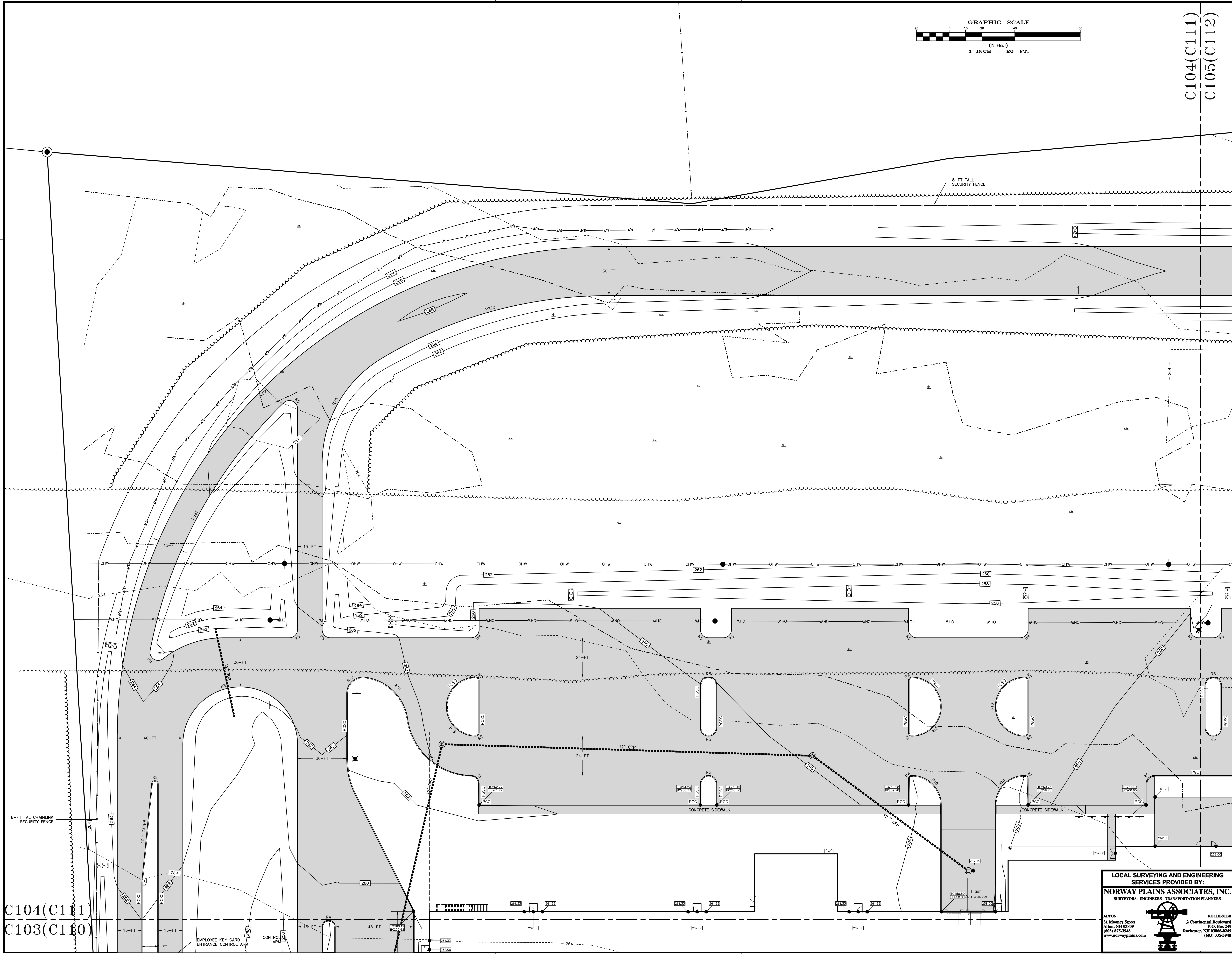
C-110
SHEET NUMBER

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C104(C111)
C105(C112)

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NEW MANUFACTURING FACILITY
AIRPORT DRIVE, ROCHESTER, NEW HAMPSHIRE

DATE ISSUE/REVISION

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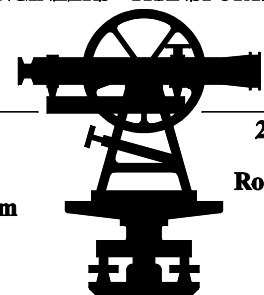
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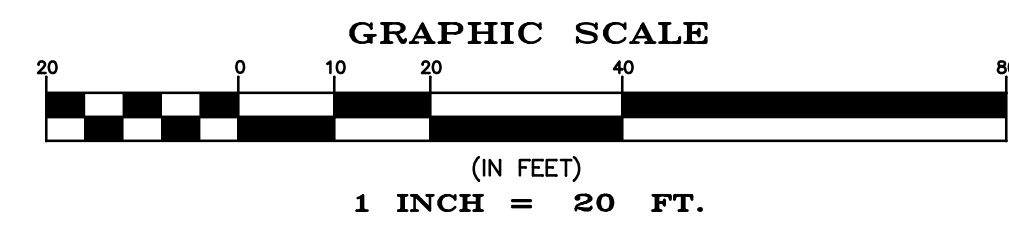
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1187 SALMON FALLS ROAD
ROCHESTER, NH 03868
S.C.R.D. BOOK 1003, PAGE 625



PROPERTY LINE FOLLOWS
REMNANT BARB WIRE

S 51°15'03" E
357.83'

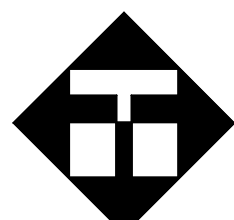
S 54°47'12" E
65.04'
IRON PIPE FOUND

S 57°16'22" E
82.58'
DRILL HOLE FOUND

8-FT. TALL
SECURITY FENCE

HASKELL ARCHITECTS and ENGINEERS, P.A.
NEW HAMPSHIRE - Architecture # 774, Engineering # 2019

The Haskell Company
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NEW MANUFACTURING FACILITY

AIRPORT DRIVE, ROCHESTER, NEW HAMPSHIRE

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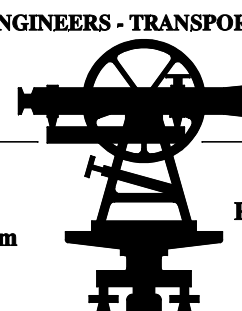
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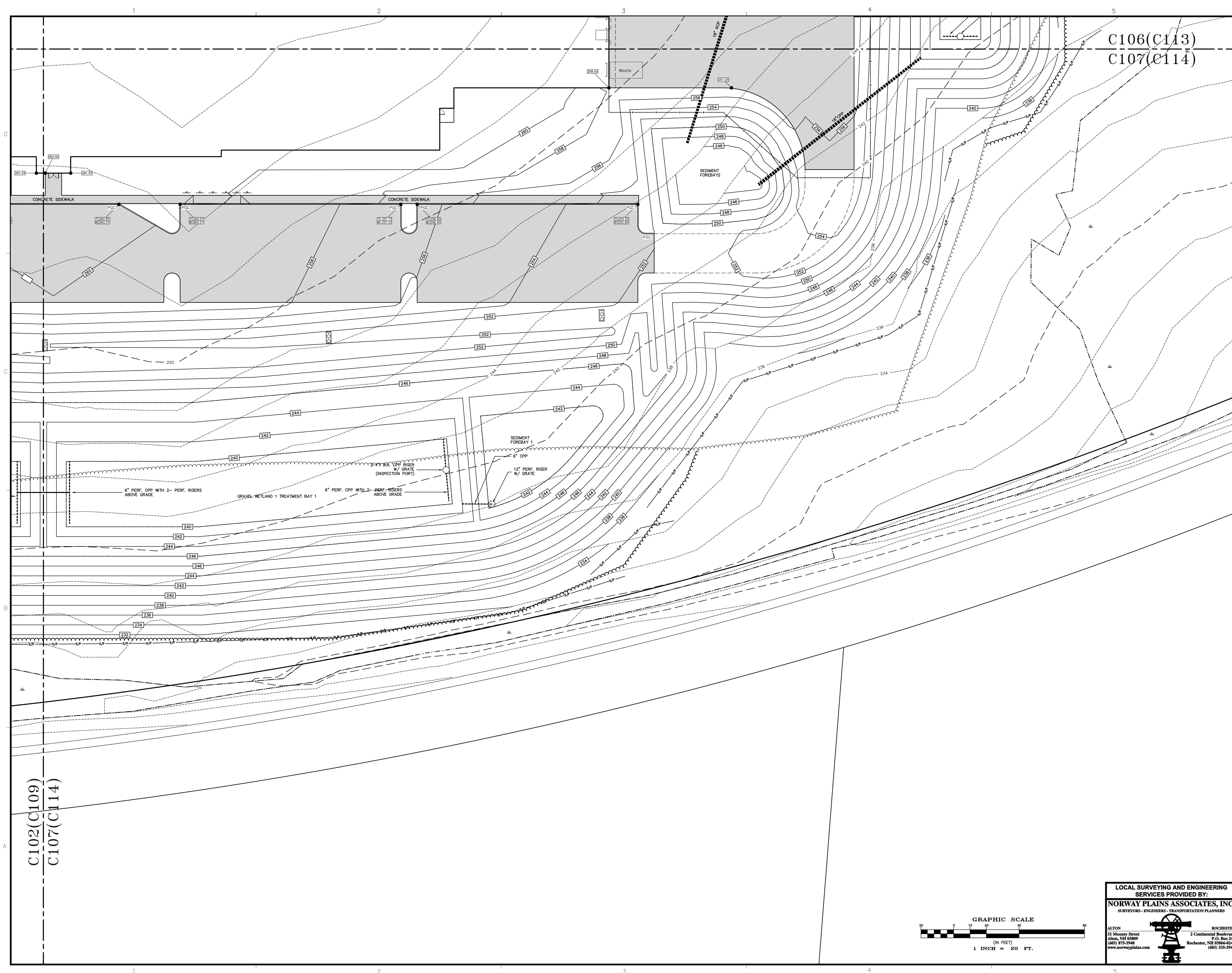
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~~$$\frac{C106(C113)}{C107(C114)}$$~~~~$$\frac{C102(C109)}{C107(C114)}$$~~

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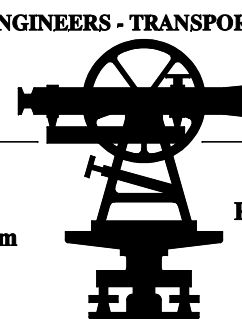
GRADING & DRAINAGE PLAN

C-114
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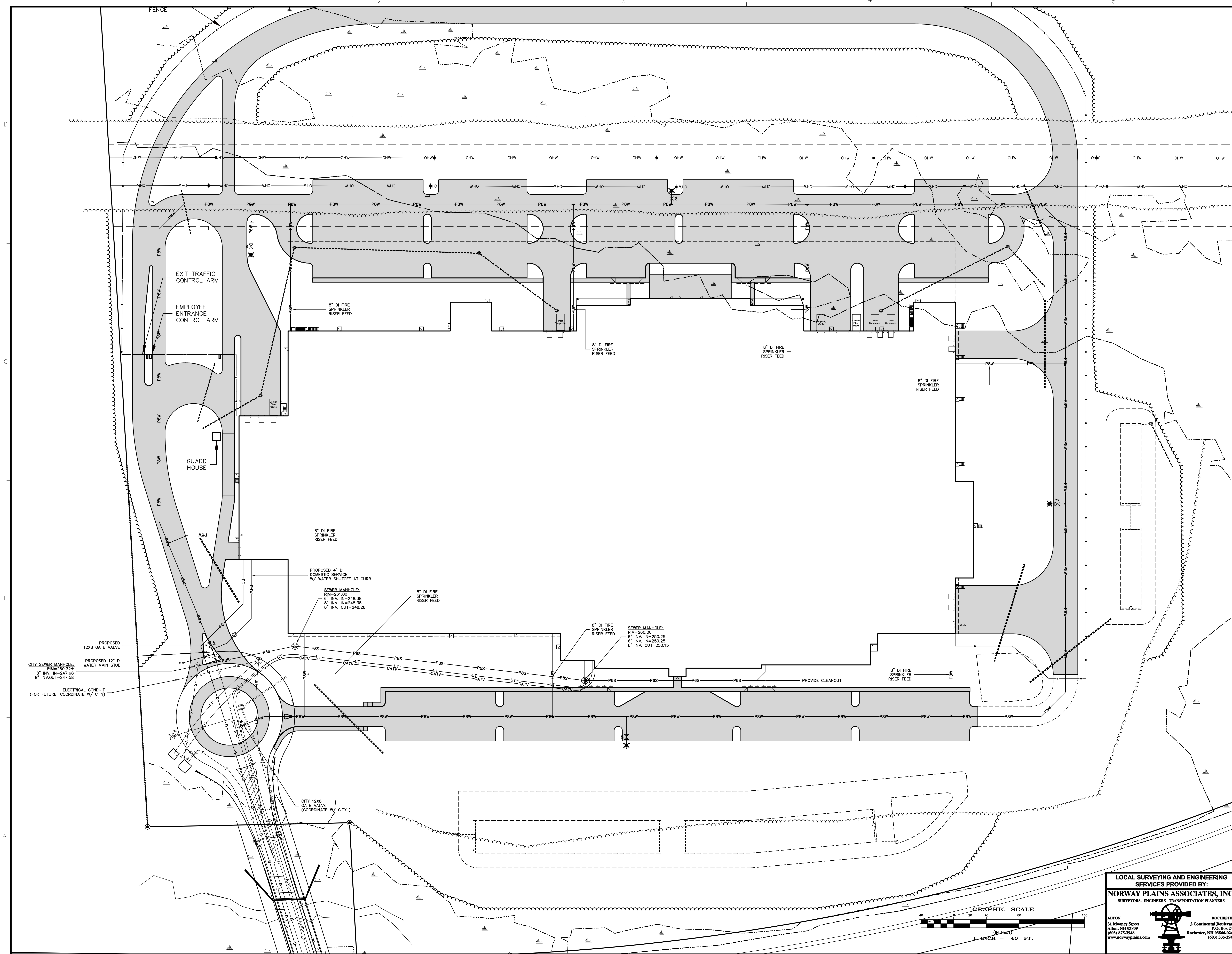
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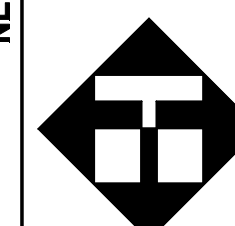
GRAPHIC SCALE

(IN FEET)
1 INCH = 20 FT.



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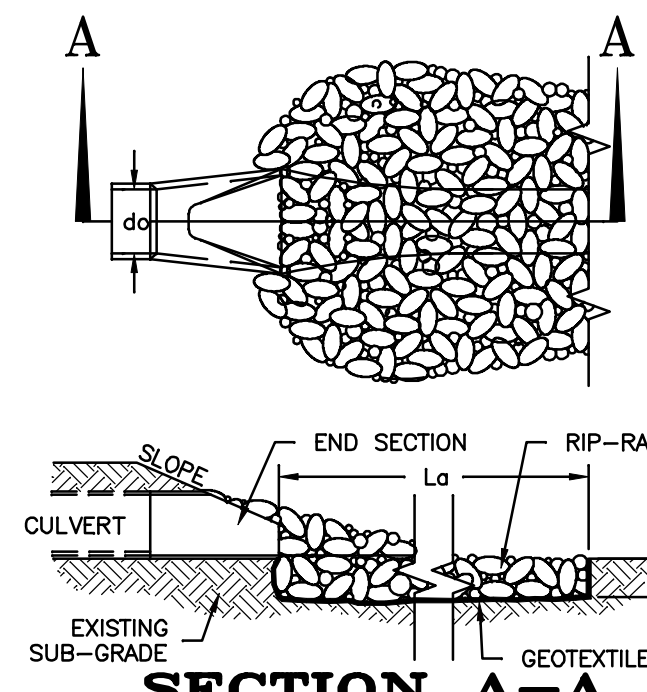
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UTILITY SITE PLAN

C-115
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D10=3" RIP-RAP GRADATION				D10=10" RIP-RAP GRADATION			
% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)			% OF WEIGHT SMALLER THAN THE GIVEN SIZE	SIZE OF STONE (INCHES)		
100	5	10	6	100	15	10	20
85	4	10	5	85	13	10	18
50	3	10	5	50	10	10	15
15	1	10	2	15	3	10	5

APRON DIMENSION TABLE

PIPE OUTLET	W ₀	W	L ₀	L	W ₀
24" CIP OUTLET FROM DMH #1	6'	28'	23'	30'	10'
INF. BASIN OUTLET	3.0'	11'	8'	12'	3'
8" ROOF DRAIN	2.0'	11'	8'	12'	3'

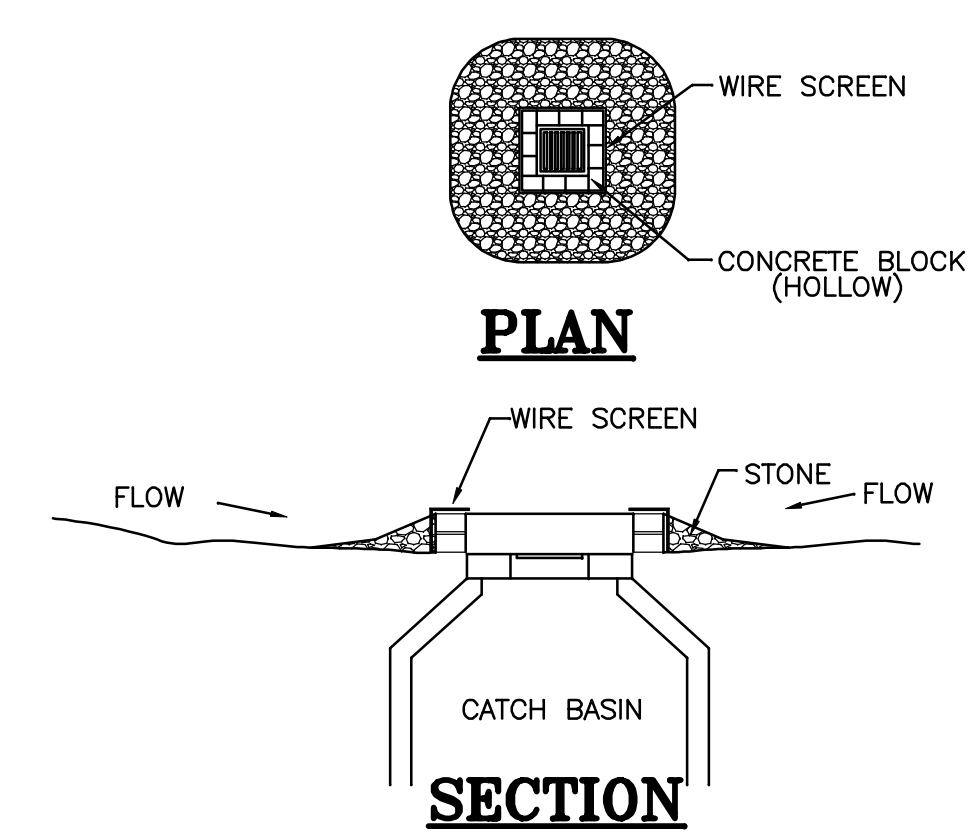
- NOTES:
- ALL PIPE CULVERTS SHALL HAVE END SECTIONS OR HEADWALLS. END SECTION MATERIAL AND MANUFACTURER SHALL MATCH THAT OF THE PIPE CULVERT.
 - THE LARGEST RIP-RAP SIZE DETERMINED DURING HYDROLOGIC ANALYSIS HAS BEEN USED FOR ALL OUTLETS FOR ECONOMY AND SIMPLICITY.
 - APRON LENGTHS, WIDTHS AND THICKNESSES HAVE BEEN ROUNDED UP TO WHOLE NUMBERS FOR EASE OF CONSTRUCTION.

- CONSTRUCTION SPECIFICATIONS:
- PREPARE THE SUB-GRADE FOR THE FILTER MATERIAL, GEOTEXTILE FABRIC, AND RIP-RAP TO THE GRADES SHOWN ON THE PLANS.
 - MINIMUM 6" SAND/GRAVEL BEDDING OR GEOTEXTILE FABRIC REQUIRED UNDER ALL ROCK RIP-RAP.
 - THE ROCK OR GRAVEL USED FOR FILTER OR RIP-RAP SHALL CONFORM TO THE SPECIFIED GRADATION.
 - GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF ROCK RIP-RAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO (2) PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
 - STONE FOR THE RIP-RAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
 - RIP-RAP SIZE CHOSEN FOR THE WORST CASE OF ALL OUTLETS. ALL RIP-RAP USED FOR PIPE OUTLET PROTECTION WILL HAVE THE SAME GRADATION AND THICKNESS.

- MAINTENANCE NOTES:
- OUTLETS SHALL BE INSPECTED AND CLEANED ANNUALLY AND AFTER ANY MAJOR STORM EVENT. ANY EROSION OR DAMAGE TO THE RIP-RAP SHALL BE REPAIRED IMMEDIATELY.
 - THE CHANNEL IMMEDIATELY DOWNSTREAM FROM THE OUTLET SHOULD BE CHECKED TO SEE THAT NO EROSION IS OCCURRING.
 - THE DOWNSTREAM CHANNEL SHOULD BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET PROTECTION APRON.

PIPE OUTLET PROTECTION DETAIL

NOT TO SCALE



BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER

NOT TO SCALE

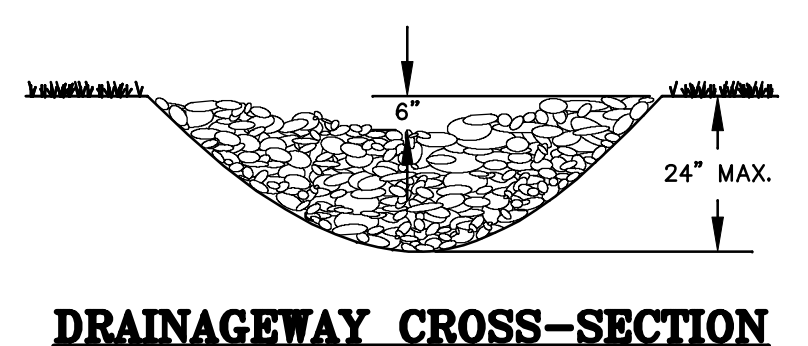
- CONSTRUCTION SPECIFICATIONS:
- PLACE CONCRETE BLOCKS LENGTHWISE ON THEIR SIDE IN A SINGLE ROW AROUND THE PERIMETER OF THE INLET, WITH THE ENDS OF ADJACENT BLOCKS ABUTTING. THE HEIGHT OF THE BARRIER CAN BE VARIED, DEPENDING ON DESIGN NEEDS, BY STACKING COMBINATIONS OF 4-INCH, 6-INCH AND 12-INCH WIDE BLOCKS. THE BARRIER OF BLOCKS SHALL BE AT LEAST 12 INCHES HIGH AND NO GREATER THAN 24 INCHES HIGH.
 - WIRE MESH SHALL BE PLACED OVER THE OUTSIDE VERTICAL FACE (WEBBING) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE HOLES IN THE BLOCKS. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED.
 - STONE SHALL BE FIRED AGAINST THE WIRE TO THE TOP OF THE BLOCK BARRIER, AS SHOWN ABOVE. STONE GRADATION SHALL BE WELL GRADED WITH THE MAXIMUM STONE SIZE OF 6 INCHES AND MINIMUM STONE SIZE OF 1 INCH.
 - IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE BLOCKS, CLEANED AND REPLACED.

- MAINTENANCE NOTES:
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 - SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 - STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

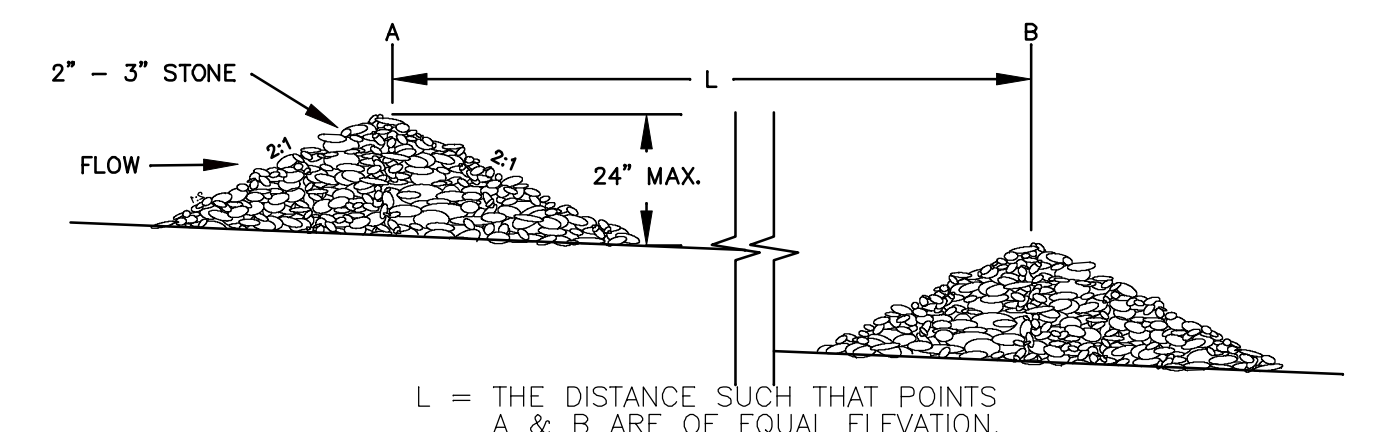
SEDIMENTATION CONTROL AT CATCH BASINS

NOT TO SCALE

SPACING BETWEEN CHECK DAMS	LENGTH (FT)
0.020	25
0.030	50
0.040	37
0.050	30
0.060	19
0.100	15
0.120	13
0.150	10



DRAINAGEWAY CROSS-SECTION

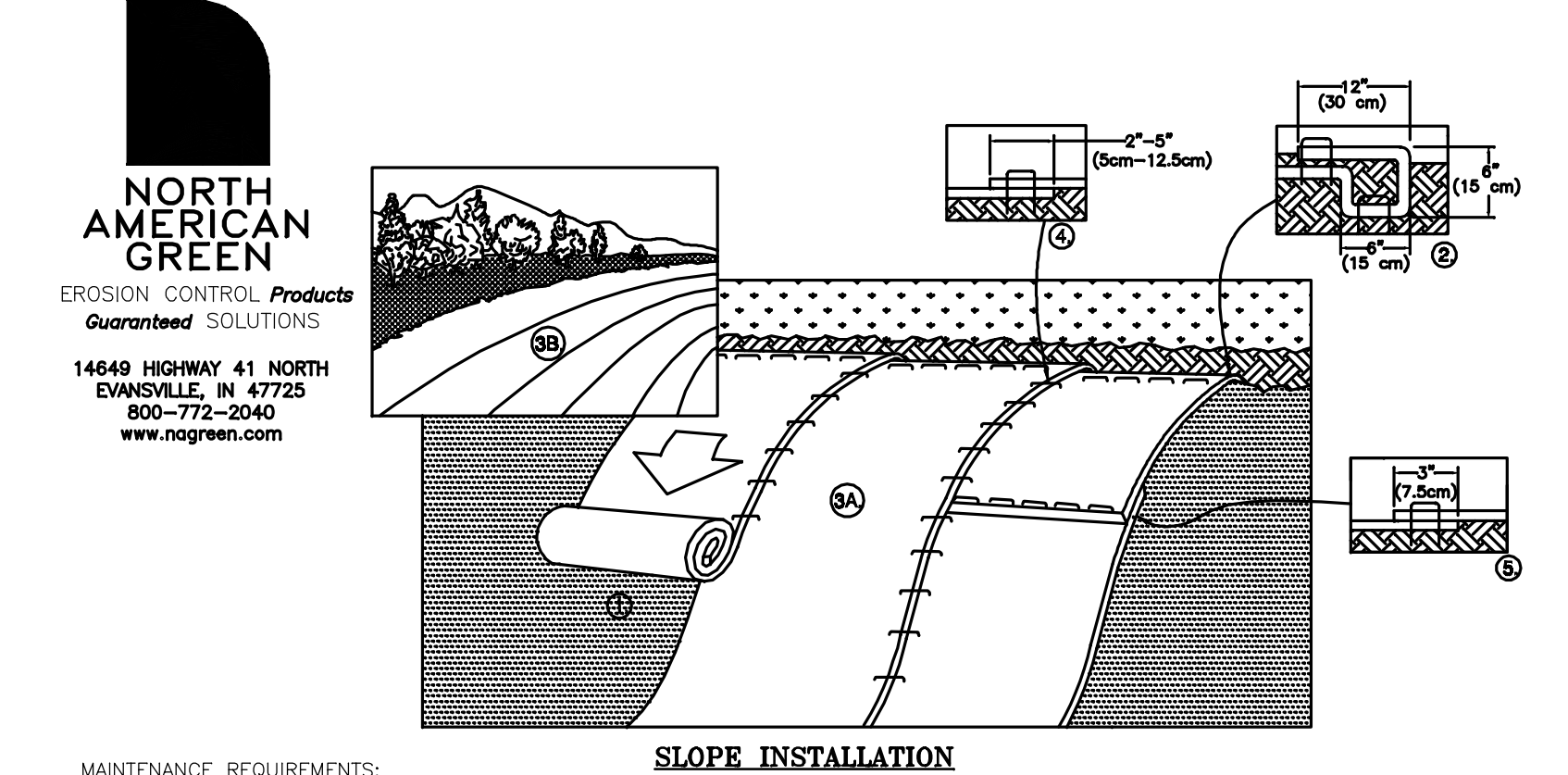


SPACING BETWEEN STONE CHECK DAMS

- CONSTRUCTION SPECIFICATIONS:
- STRUCTURES SHALL BE INSTALLED ACCORDING TO THE DIMENSIONS SHOWN ON THE PLANS AT THE APPROPRIATE SPACING.
 - CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER SO THAT EROSION, AIR AND WATER POLLUTION WILL BE MINIMIZED.
 - STRUCTURES SHALL BE REMOVED FROM THE CHANNEL WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED.
- MAINTENANCE NOTES:
- TEMPORARY GRADE STABILIZATION STRUCTURES SHOULD BE INSPECTED AFTER EACH STORM AND DAILY DURING PROLONGED STORM EVENTS. ANY DAMAGE TO THE STRUCTURES SHALL BE REPAIRED IMMEDIATELY.
 - PARTICULAR ATTENTION SHOULD BE GIVEN TO END RUN AND EROSION AT THE DOWNSTREAM TOE OF THE STRUCTURE.
 - WHEN REMOVING THE STRUCTURES, THE DISTURBED AREAS SHALL BE BROUGHT UP TO EXISTING CHANNEL GRADE AND THE AREAS PREPARED, SEED, AND MULCHED.
 - SEDIMENT SHALL BE REMOVED FROM BEHIND THE STRUCTURES WHEN IT REACHES 1/2 THE ORIGINAL HEIGHT OF THE STRUCTURE.

STONE CHECK DAM INSTALLATION DETAIL

NOT TO SCALE



- MAINTENANCE REQUIREMENTS:
- ALL BLANKET AND MATS SHOULD BE INSPECTED WEEKLY DURING THE CONSTRUCTION PERIOD, AND AFTER ANY RAINFALL EVENT EXCEEDING 1/2 INCH IN A 24-HOUR PERIOD.
 - ANY FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUT OF THE SLOPE, DISPLACEMENT OF THE MAT, OR DAMAGE TO THE MAT OCCURS, THE AFFECTED SLOPE SHALL BE REPAIRED AND RESEDED, AND THE AFFECTED AREA OF MAT SHALL BE RE-INSTALLED.

- CONSTRUCTION SPECIFICATIONS:
- MANUFACTURER'S INSTALLATION INSTRUCTIONS:
 - PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 - NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
 - ROLL THE RECP'S (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
 - CONSECUTIVE RECP'S SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

- SITE PREPARATION:
- PROPER SITE PREPARATION IS ESSENTIAL TO ENSURE COMPLETE CONTACT OF THE PROTECTION MATING WITH THE SOIL.
 - GRADE AND SHAPE AREA IF INSTALLATION.
 - REMOVE ALL ROCKS, CLOUDS, TRASH, VEGETATIVE OR OTHER OBSTRUCTIONS SO THAT THE INSTALLED BLANKETS WILL HAVE DIRECT CONTACT WITH THE SOIL.
 - PREPARE SEEDING BY LOOSENING 2-3 INCHES OF TOPSOIL ABOVE FINAL GRADE.
 - INCORPORATE AMENDMENTS, SUCH AS LIME AND FERTILIZER, INTO SOIL ACCORDING TO SOIL TEST AND THE SEEDING PLAN.

- SEEDING:
- SEED AREA BEFORE BLANKET INSTALLATION FOR EROSION CONTROL AND REVEGETATION. SEEDING AFTER MAT INSTALLATION IS OFTEN SPECIFIED FOR TURF REINFORCEMENT APPLICATIONS. WHEN SEEDING PRIOR TO BLANKET INSTALLATION, ALL CHECK SLOPES AND OTHER AREAS DISTURBED DURING INSTALLATION MUST BE RESEDED.
 - WHEN SOIL FILLING IS SPECIFIED, SEED THE MATTING AND THE ENTIRE DISTURBED AREA AFTER INSTALLATION AND PRIOR TO FILLING THE MAT WITH SOIL.

TEMPORARY EROSION CONTROL BLANKET DETAIL

NOT TO SCALE

TEMPORARY VEGETATION: SPECIFICATIONS.

- SITE PREPARATION:
- INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SITUATION BARRIERS, OVERSEEDS, AND SEDIMENT TRAPS.
 - GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
 - RUNOFF SHOULD BE DIVERTED FROM THE SEEDBED AREA.
 - ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

- SEEDBED PREPARATION:
- STONES AND TRASH SHOULD BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.
 - WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
 - IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:

LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)*
*EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE
FERTILIZER APPLICATION RATE = 600 LB./ACRE (13.8 LB./1,000-SF)*
*LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT

- FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250-FT FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25-FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

- SEEDING:
- APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULPACKER TYPE SEEDER OR HYDRO SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.
 - TEMPORARY SEED SHOULD TYPICALLY OCCUR PRIOR TO SEPTEMBER 15.
 - AREAS SEEDING BETWEEN MAY 15 AND AUGUST 15 SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL. 3.
 - VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

- MAINTENANCE REQUIREMENTS:
- TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES. TEMPORARY SEEDING SHOULD BE INSPECTED JUST PRIOR TO SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.
 - BASED ON INSPECTION, AREAS SHOULD BE RESEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS 100% LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHOULD BE IMPLEMENTED.
 - IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEDED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

TEMPORARY VEGETATION SEEDING RECOMMENDATIONS

SPECIES	PER ACRE BUSHES (BU) OR POUNDS (LBS.)	PER 1,000-SF	REMARKS
WINTER RYE	2.5 BU OR 112 LBS.	2.5 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.
OATS	2.5 BU OR 80 LBS.	2.0 LBS.	BEST FOR SPRING SEEDING. SEED NO LATER THAN MAY 15 FOR SUMMER PROTECTION. SEED TO A DEPTH OF 1 INCH.
ANNUAL RYEGRASS	40 LBS.	1.0 LB.	GROWS QUICKLY, BUT IS OF SHORT DURATION. USE WHERE APPEARANCES ARE IMPORTANT. SEED EARLY SPRING AND/OR BETWEEN AUGUST 15 AND SEPTEMBER 15. COVER THE SEED WITH NO MORE THAN 0.25 INCH OF SOIL.
PERENNIAL RYEGRASS	30 LBS.	0.7 LBS.	BEST FOR FALL SEEDING. SEED FROM AUGUST 15 TO SEPTEMBER 15 FOR BEST COVER. SEED TO A DEPTH OF 1 INCH.

- SOURCES:
- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLE 4-1
 - MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)

PERMANENT VEGETATION: SPECIFICATIONS.

- SITE PREPARATION:
- INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SITUATION BARRIERS, OVERSEEDS, AND SEDIMENT TRAPS.
 - GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
 - RUNOFF SHOULD BE DIVERTED FROM THE SEEDBED AREA.
 - ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

- SEEDBED PREPARATION:
- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY AND SILT SOILS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
 - REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE CLOUDS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
 - INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE TILLED AND TURNED AS ABOVE.
 - WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
 - IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
 - APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL FERTILIZER AND LIMESTONE MAY BE APPLIED AT THE FOLLOWING RATES:

LIMESTONE APPLICATION RATE = 3 TONS/ACRE (138 LB./1,000-SF)*
*EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE
FERTILIZER APPLICATION RATE = 600 LB./ACRE (13.8 LB./1,000-SF)*
*LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT

- FERTILIZER SHOULD BE RESTRICTED TO LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 AND 250-FT FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25-FT OF A SURFACE WATER BODY. THESE ARE THE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

- SEEDING:
- INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE OF INOCULANT.
 - APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL CULPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE.
 - WHERE FEASIBLE EXCEPT WHERE EITHER CULPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
 - SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO FIRST KILLING FROST. WHEN CROWN VETCH IS SEEDING IN LATE SUMMER AT LEAST 50% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL. 3, AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
 - AREAS SEEDING BETWEEN MAY 15 AND AUGUST 15 SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE DESCRIBED IN THE NHSSM, VOL. 3.
 - VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION.

- HYDROSEEDING:
- WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER.
 - SLOPES MUST BE NO STEEPER THAN 2:1 (2 FEET HORIZONTALLY BY 1 FOOT VERTICALLY).
 - LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
 - SEEDING RATES MUST BE INCREASED BY 10% WHEN HYDROSEEDING.

- MAINTENANCE REQUIREMENTS:
- PERMANENT SEEDING AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTION, MAINTENANCE AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
 - SEEDING AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION. MOWING HEIGHT AND FREQUENCY DEPEND OF TYPE OF GRASS COVER.
 - BASED ON INSPECTION, AREAS SHOULD BE RESEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.
 - AT A MINIMUM 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.
 - IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEDED, WITH OTHER TEMPORARY MEASURES (I.E. MULCH, ETC.) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

PERMANENT VEGETATION SEEDING RECOMMENDATIONS

USE	MIXTURE	SPECIES	LBS./ACRE	LBS./1,000-SF
STEEP CUTS AND FILLS, BORROW AND DISPOSAL AREAS	A	TALL FESCUE	20	0.45
		CREEPING RED FESCUE	20	0.45
		REDTOP	42	0.95
WATERWAYS, EMERGENCY SPILLWAYS, AND OTHER CHANNELS WITH FLOWING WATER	A	TALL FESCUE	20	0.45
		CREEPING RED FESCUE	20	0.45
		REDTOP	42	0.95
LIGHTLY USED PARKING LOTS, ODD AREAS, UNUSED LANDS, AND LOW INTENSITY RECREATION SITES	A	TALL FESCUE	20	0.45
		CREEPING RED FESCUE	20	0.45
		REDTOP	42	0.95
PLAY AREAS AND ATHLETIC FIELDS (TOPSOIL ESSENTIAL FOR GOOD TURF)	F	CREEPING RED FESCUE	50	1.15
		KENTUCKY BLUEGRASS	50	1.15
		TOTAL	100	2.30

- SOURCES:
- NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, TABLES 4-2 AND 4-3
 - MINNICK, E.L. AND H.T. MARSHALL, (AUGUST 1992)

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AIRPORT DRIVE, ROCHESTER, NEW HAMPSHIRE

DATE: ISSUE/REVISION:

Drawn By: JDR Checked By:

AE JOB NUMBER: 33222201

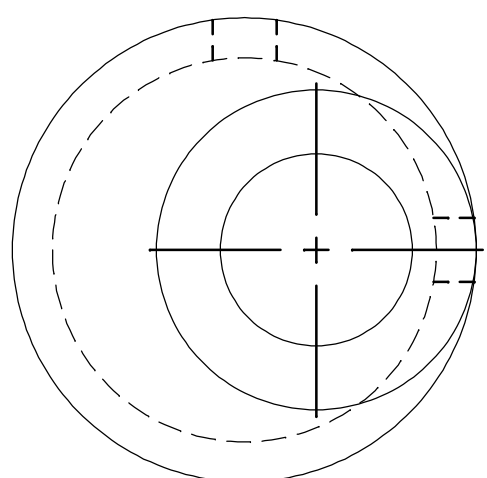
EROSION CONTROL DETAILS

C-501
SHEET NUMBER

NOTES:
1. FRAME AND GRATE SHALL BE CAST IRON. FRAME AND GRATE SHALL BE NHD0PW & H TYPE 'B'.
2. USE 3 PLANGE FRAME IF INSTALLED ADJACENT TO GRANITE CURB.

CATCH BASIN TYPE 'B' FRAME AND GRATE DETAIL

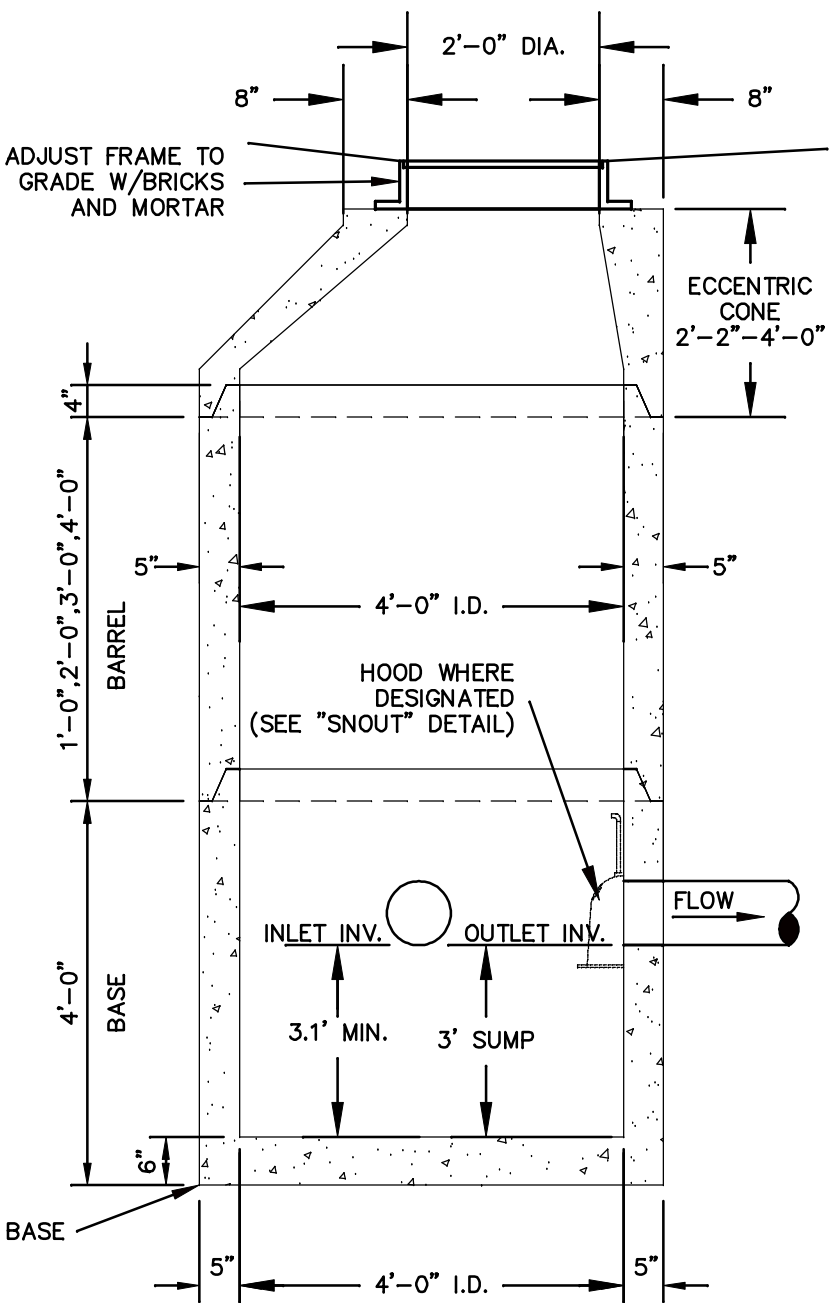
NOT TO SCALE



PLAN VIEW

DRAIN LINE DIAMETER	SUM OF DRAIN LINE DIAMETER	CATCH BASIN DIAMETER
15" TO 18"	LESS THAN 54"	4'
21" TO 27"	LESS THAN 72"	5'
30" TO 33"	LESS THAN 90"	6'
36" & LARGER	GREATER THAN 90"	REFER TO THE STANDARD

- NOTES:
1. CONCRETE: 4,000 PSI AFTER 28 DAYS.
2. REINFORCING: SHALL BE PROVIDED FOR H=20
LOADING.
3. SNIPLAP JOINTS SEALED WITH 1 STRIP OF BUTYL
RUBBER SEALANT.
4. PIPE OPENINGS: CAST IN AS REQUIRED.
5. RISER HEIGHT VARIES 1'-2'-3' OR 4' TO REACH
DESIRED DEPTH.
6. PIPE CONNECTIONS SHALL BE MORTARED.
7. PRECAST SECTIONS SHALL CONFORM TO ASTM
C-478.
8. SEE SLAB TOP DETAIL FOR STRUCTURES REQUIRING
SLAB TOPS, I.E. DOUBLE GRATE AND FRAME
STRUCTURES.

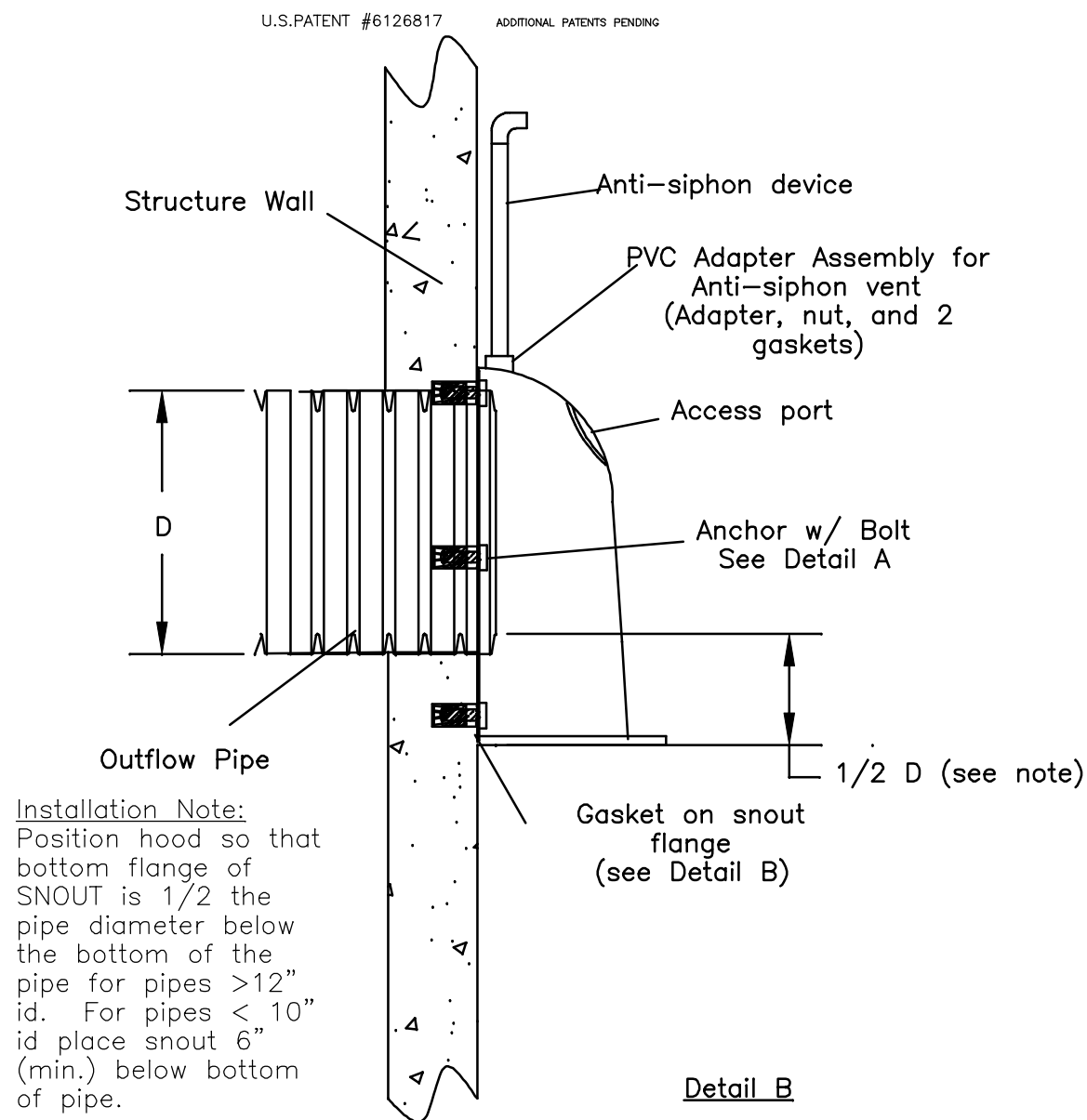


SECTION VIEW

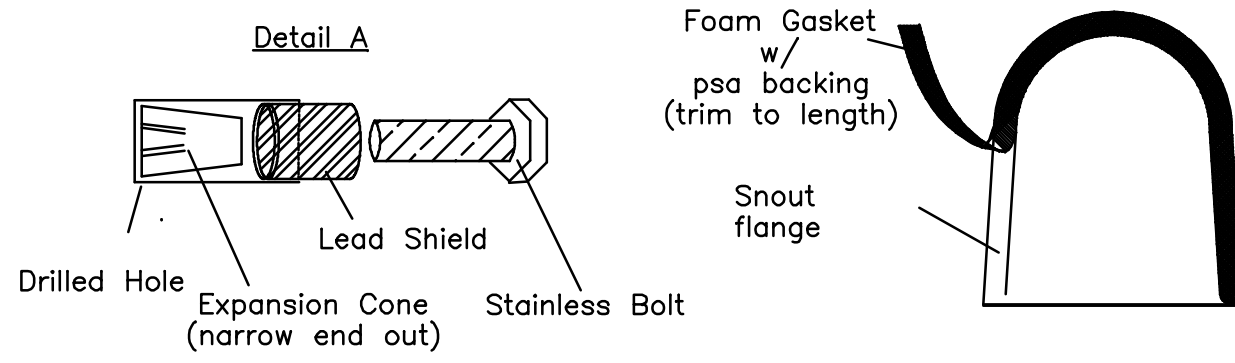
PRE-CAST REINFORCED CATCH BASIN

NOT TO SCALE

BEST MANAGEMENT PRODUCTS, INC. SNOUT OIL & DEBRIS STOP DRAWING NUMBER: IN-SN INSTALLATION DIAGRAM (TYPICAL)



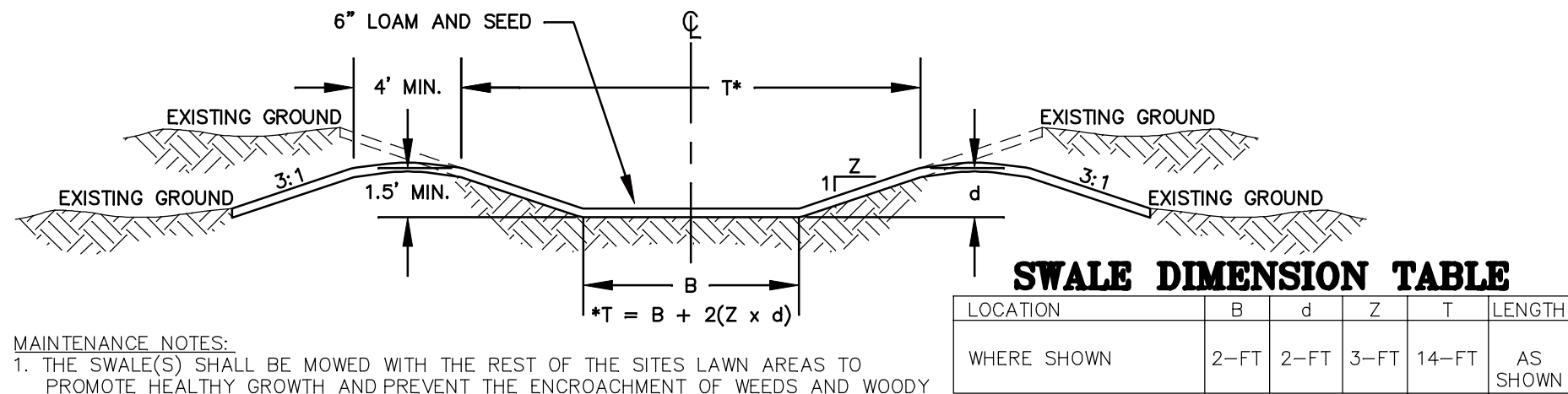
Installation Note:
Position hood so that
bottom flange of
SNOUT is 1/2 the
pipe diameter below
the bottom of the
pipe for pipes >12"
id. For pipes < 10"
id place snout 6"
(min.) below bottom
of pipe.



- NOTES:
1. ALL HOODS AND TRAPS FOR PVC CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE
AS MANUFACTURED BY:
BEST MANAGEMENT PRODUCTS, INC.
53 MT. ARCHER RD.
LYME, CT 06371
(860) 434-0277, (860) 434-3195 FAX
TOLL FREE: (800) 504-8008
WEB SITE: www.bmpinc.com
OR PRE-APPROVED EQUAL
ALL PVC CATCH BASINS SHALL BE MANUFACTURED BY NYLOPLAST, A DIVISION OF ADVANCED DRAINAGE SYSTEMS, INC.
800-821-6710 OR PRE-APPROVED EQUAL.
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH
A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS
DRAWN. (SEE CONFIGURATION DETAIL).
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S
RECOMMENDATION.
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A
MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE
CONFIGURATION.
7. THE HOOD SHALL BE INSTALLED IN PVC CATCH BASIN WITH SUMP AS MANUFACTURED BY NYLOPLAST OR PRE-APPROVED
EQUAL.
8. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH STAINLESS STEEL SCREWS, STAINLESS RUBBER
BACKED WASHERS, AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL).
9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
INSTALLATION KIT SHALL INCLUDE:
A. INSTALLATION INSTRUCTIONS
B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
C. OIL-RESISTANT GROUDED CELL FOAM GASKET WITH PSA BACKING
D. STAINLESS STEEL SCREWS
E. SCREW GASKETS

HOOD "SNOUT" INSTALLATION DETAIL

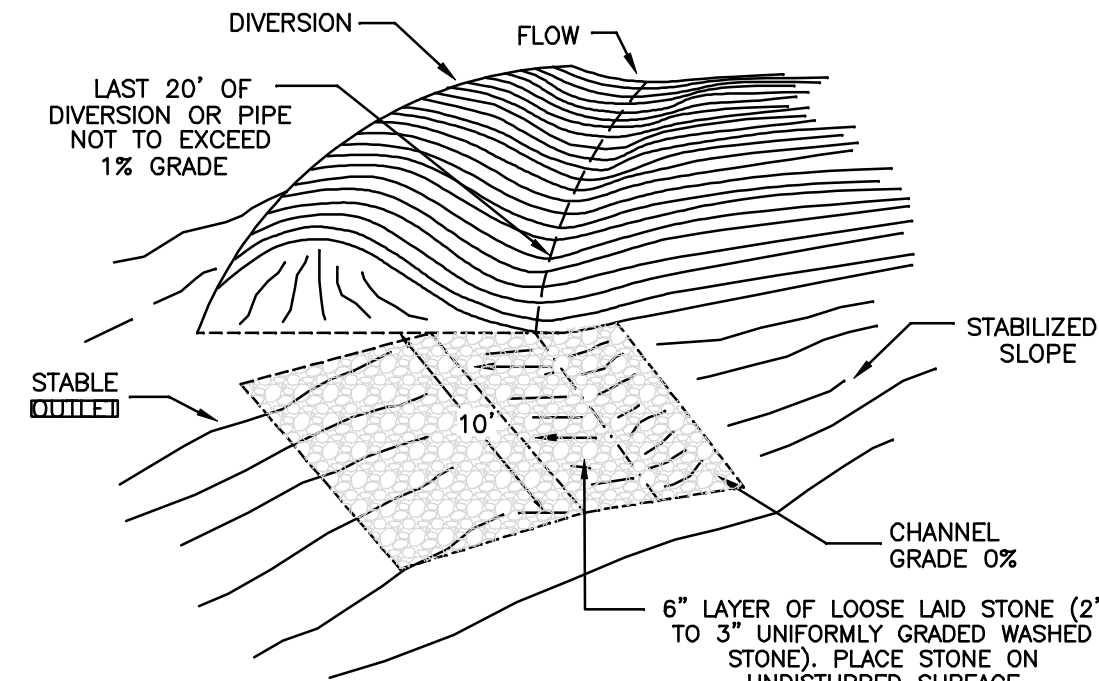
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- MAINTENANCE NOTES:
1. THE SWALE(S) SHALL BE MOWED WITH THE REST OF THE SITE'S LAWN AREAS TO
PROMOTE HEALTHY GROWTH AND PREVENT THE ENCROACHMENT OF WEEDS AND WOODY
VEGETATION. DO NOT MOW GRASS IN SWALE(S) TOO SHORT. THIS WILL REDUCE THE
SWALES FILTERING ABILITY.
2. THE SWALE(S) SHOULD BE FERTILIZED ON AN AS NECESSARY BASIS, TO KEEP THE
GRASS HEALTHY. OVER FERTILIZATION COULD RESULT IN THE SWALE(S) BECOMING A
SOURCE OF POLLUTION TO THE SURROUNDING WETLAND AREAS.
3. THE SWALE(S) SHOULD BE INSPECTED PERIODICALLY AND AFTER EVERY MAJOR STORM.
RILLS AND DAMAGED AREAS SHOULD BE PROMPTLY REPAIRED AND RE-VEGETATED AS
NECESSARY TO PREVENT FURTHER DETERIORATION.

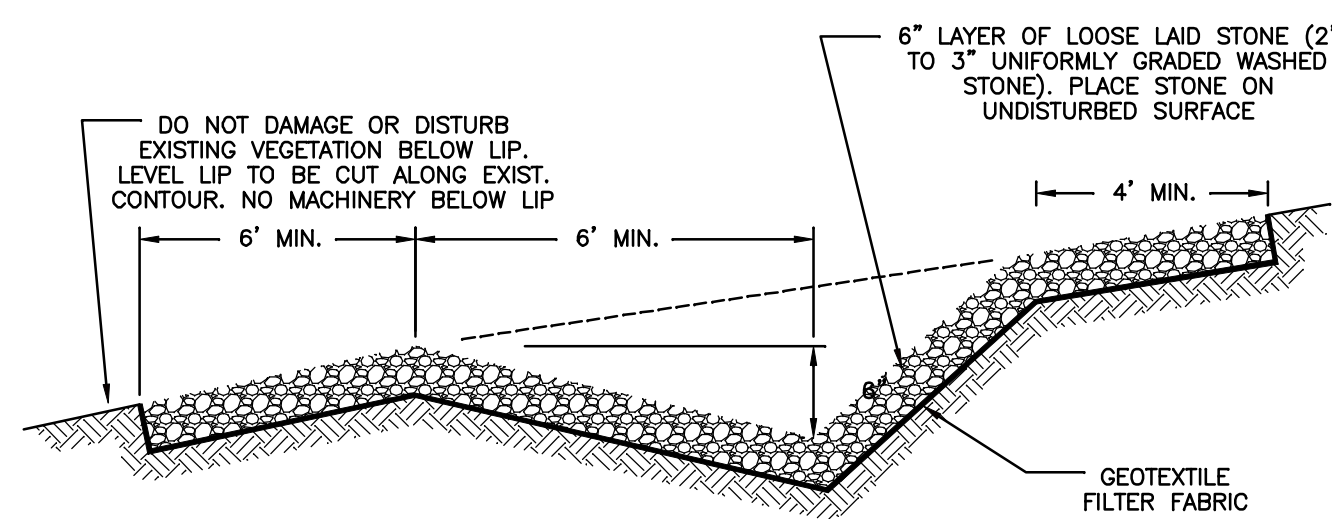
DIVERSION SWALE DETAIL

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PLAN VIEW

- MAINTENANCE NOTES:
1. THE LEVEL SPREADER SHOULD BE
CHECKED PERIODICALLY AND AFTER EVERY
MAJOR STORM TO DETERMINE IF THE LIP
HAS BEEN DAMAGED AND TO DETERMINE
THAT THE DESIGN CONDITIONS HAVE NOT
CHANGED.
2. ANY DETRIMENTAL ACCUMULATION OF
SEDIMENTS SHOULD BE REMOVED.
3. IF RILLING HAS TAKEN PLACE ON THE LIP,
THEN THE DAMAGE SHOULD BE REPAIRED
AND RE-VEGETATED.
4. THE VEGETATION SHOULD BE MOWED
OCCASIONALLY TO CONTROL WEEDS AND
THE ENCROACHMENT OF WOODY
VEGETATION. CLIPPINGS SHOULD BE
REMOVED AND DISPOSED OF OUTSIDE THE
SPREADER AND AWAY FROM THE OUTLET
AREA.



CROSS SECTION

STONE LINED LEVEL SPREADER

NOT TO SCALE

- UTILITIES NOTES:
1. CONTRACTOR SHALL NOTIFY DIG-SAFE (1-888 344-7233) 72 HOURS
PRIOR TO THE START OF CONSTRUCTION.
2. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AS SHOWN. THE
CONTRACTOR SHALL VERIFY THEIR LOCATIONS AND ELEVATIONS.
3. THIS PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY
APPARENT ON THE DATE OF THE SURVEY. THE ABSENCE OF SUBSURFACE
STRUCTURES, UTILITIES, ETC. FROM THIS PLAN, BUT IN EXISTENCE IS NOT
INTENDED OR IMPLIED.
4. ANY UTILITY POLES THAT NEED TO BE RELOCATED SHALL BE
COORDINATED WITH PSNH OR FAIRPOINT TELECOMMUNICATIONS.
5. PROPOSED UTILITIES ARE TO BE UNDERGROUND. COORDINATE LOCATION
OF UNDERGROUND UTILITIES AND TRANSFORMER PADS WITH PSNH AND
OTHER PERTINENT UTILITY COMPANIES.
6. WATER AND SEWER LINES SHALL BE INSTALLED A MINIMUM OF 10-FT
APART HORIZONTALLY.
7. WHERE SEWER AND WATER LINES MUST CROSS, SEWER PIPE JOINTS SHALL
BE LOCATED A MINIMUM 9-FT HORIZONTALLY FROM THE WATER LINE AND
A VERTICAL SEPARATION OF 18-INCHES SHALL BE MAINTAINED.
8. SEWER PIPE JOINTS SHALL BE TESTED WITH ZERO LEAKAGE AT 25
POUNDS PER SQUARE INCH FOR GRAVITY SEWER AND AT 1-1/2 TIMES
WORKING PRESSURE FOR ALL FORCE MAINS.
9. WATERLINE CONSTRUCTION:
A. ALL PROPOSED WATER LINE MATERIAL USED SHALL MEET
SOMERSWORTH WATER DEPARTMENT AND SOMERSWORTH
ENGINEERING DEPARTMENT SPECIFICATIONS. WATER LINES SHALL
BE: A.W.W.A. C-15, CLASS 52, CEMENT LINED, DUCTILE IRON PIPE,
POLYWRAPPED.
B. PROPOSED WATER GATE VALVES SHALL BE MANUFACTURED BY
KENNEDY OF AMERICAN FLOW CONTROL, RESILIENT SEAT TYPE.
C. ALL WATER LINES SHALL BE BURIED A MINIMUM OF 5'.
D. IF 5' OF COVER IS NOT AVAILABLE WATER LINE SHALL BE INSULATED
AS SHOWN IN THE "SHALLOW COVER TRENCH DETAIL FOR
INSULATED WATER PIPE".
E. ALL WATER FITTINGS SHALL BE CLASS 350.
F. PROPOSED WATER GATE VALVE SHALL OPEN CLOCKWISE (LEFT).
10. WORK TO CONNECT INTO THE WATER OR SEWER MAINS REQUIRES A
PERMIT FROM THE SOMERSWORTH PUBLIC WORKS DEPARTMENT.
CONTRACTORS ARE TO BE PRE-QUALIFIED.
11. CONTRACTOR SHALL LOCATE EXISTING SERVICES AND COORDINATE WITH
THE CITY OF SOMERSWORTH FOR DISCONTINUATION OF THE SERVICES.

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DRAINAGE
STRUCTURE
DETAILS
C-503
SHEET NUMBER

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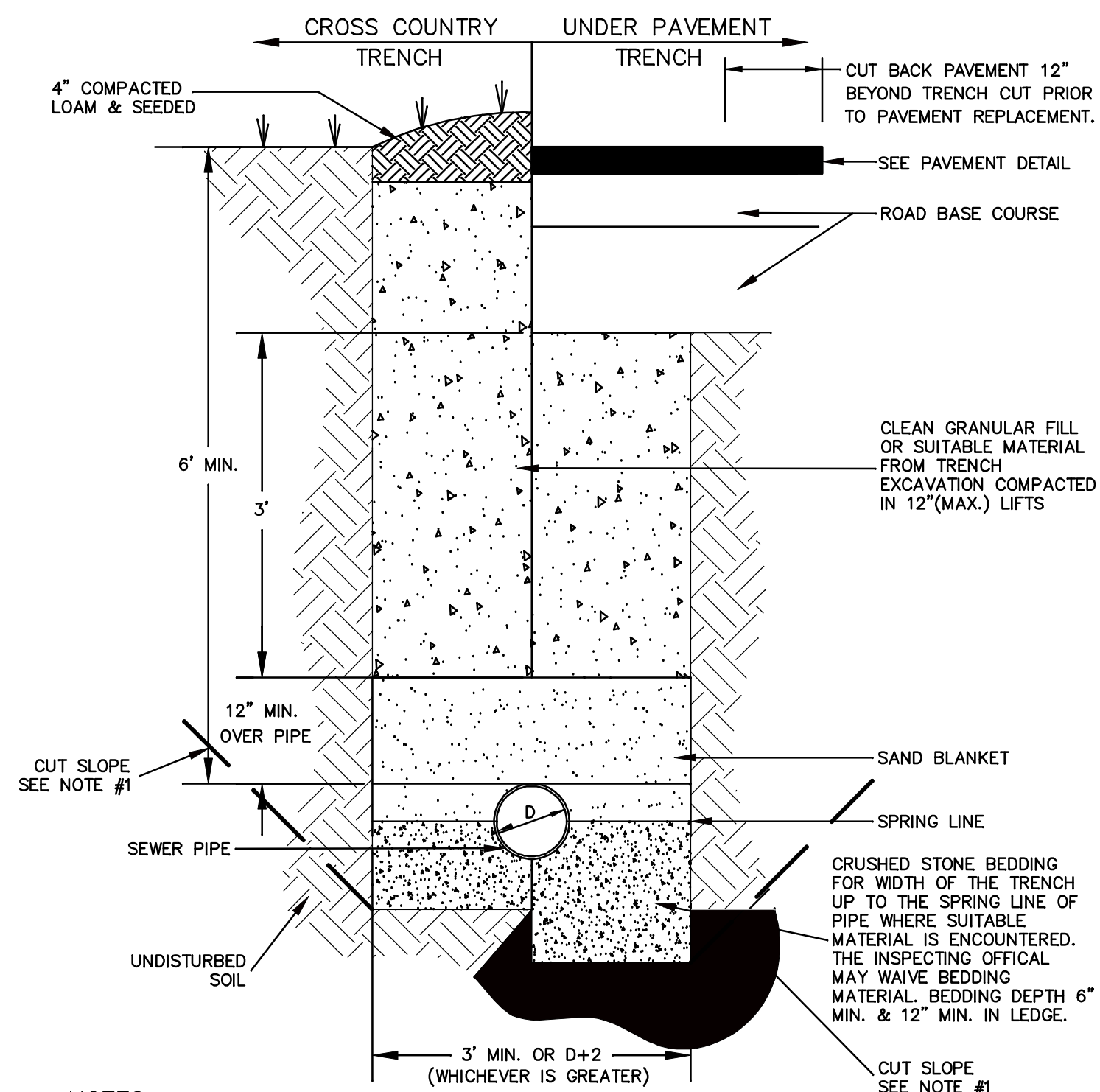
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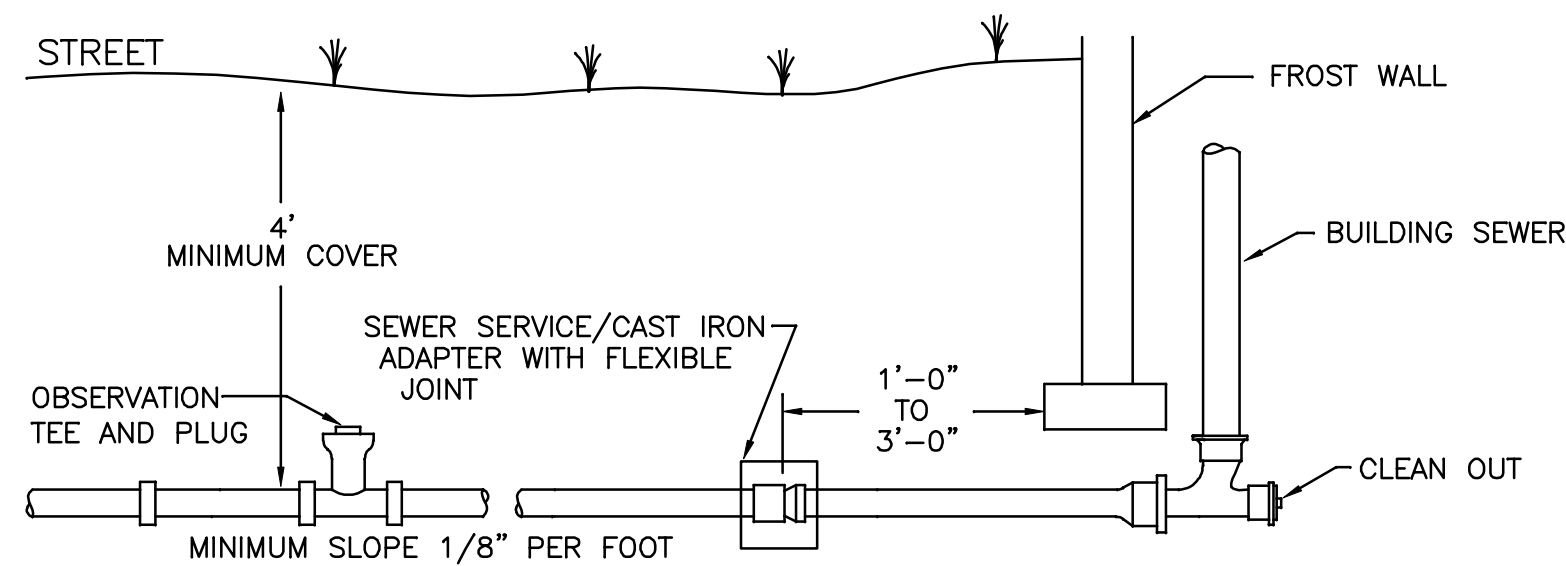
AIRPORT DRIVE, ROCHESTER, NEW HAMPSHIRE



- NOTES:
1. PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT. INSTALLATIONS DEEPER THAN 4-FT REQUIRE THE USE OF A TRENCH BOX.
 2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 3. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.

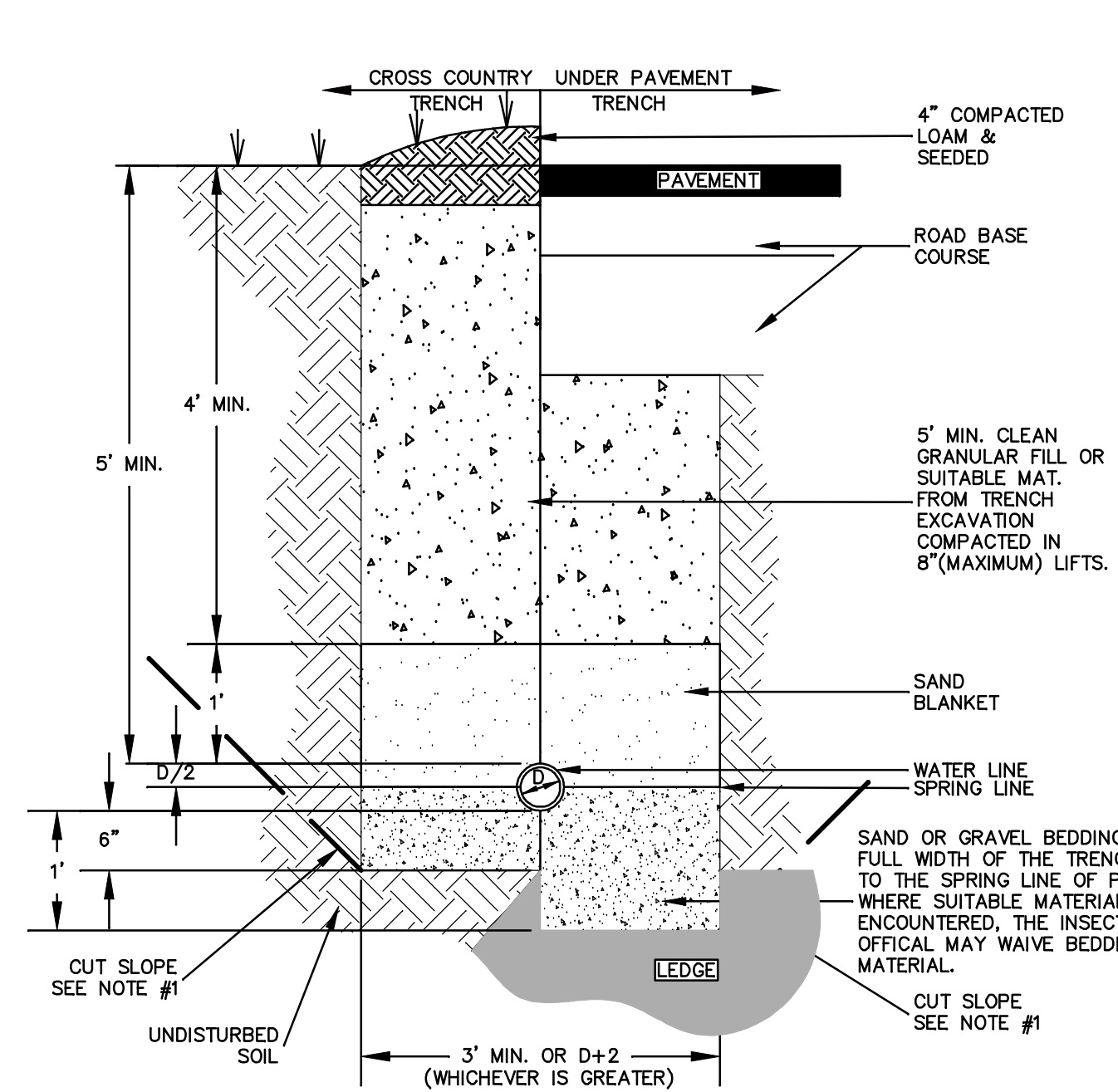
SEWER PIPE TRENCH INSTALLATION DETAIL

NOT TO SCALE



BUILDING SEWER SERVICE DETAIL

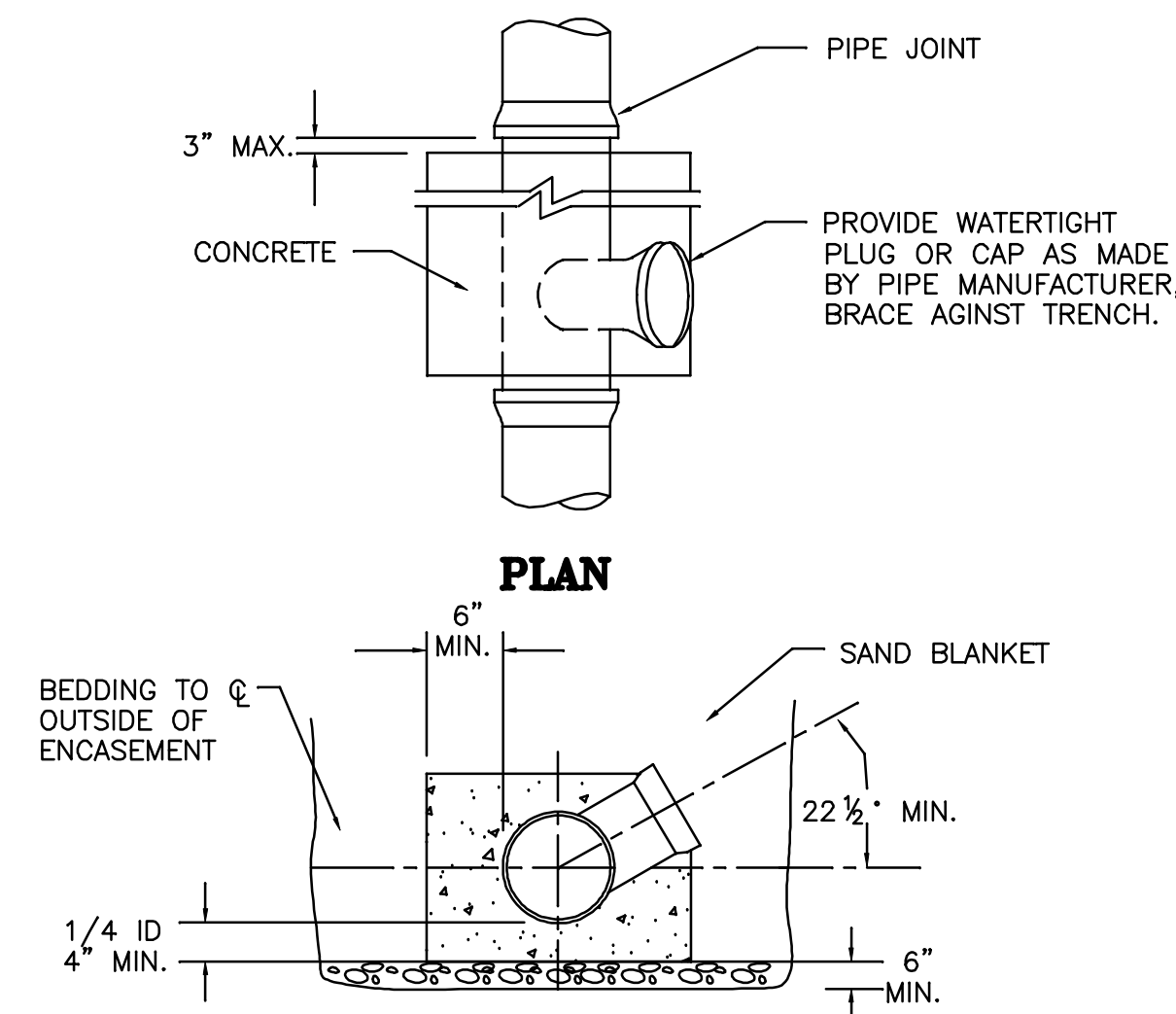
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- NOTES:
1. PIPES MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT. INSTALLATIONS DEEPER THAN 4-FT REQUIRE THE USE OF A TRENCH BOX.
 2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 3. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.

WATER PIPE TRENCH INSTALLATION DETAIL

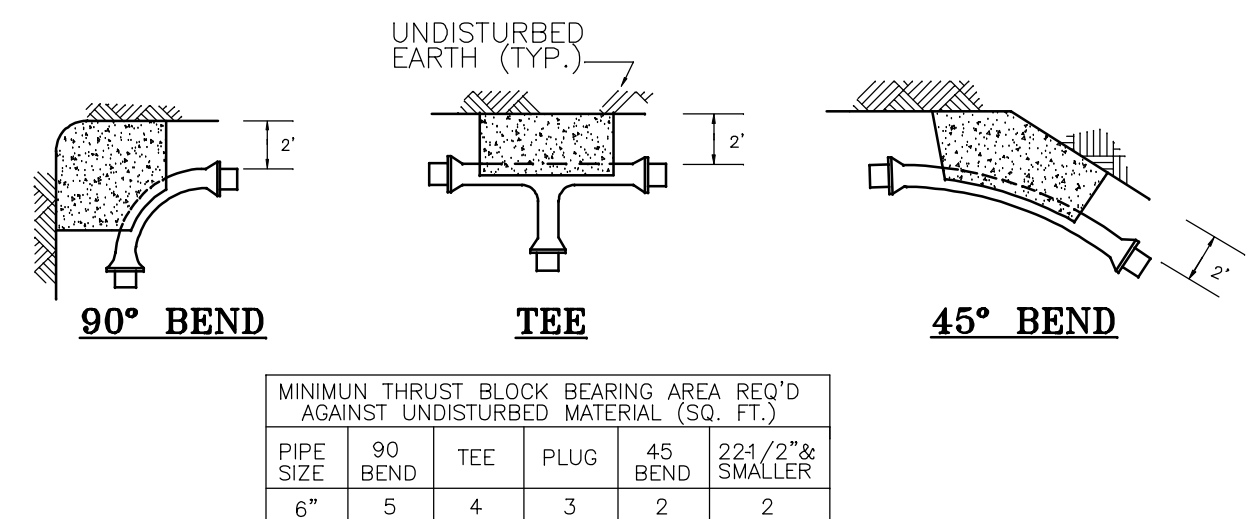
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SECTION

CONCRETE FULL ENCASEMENT

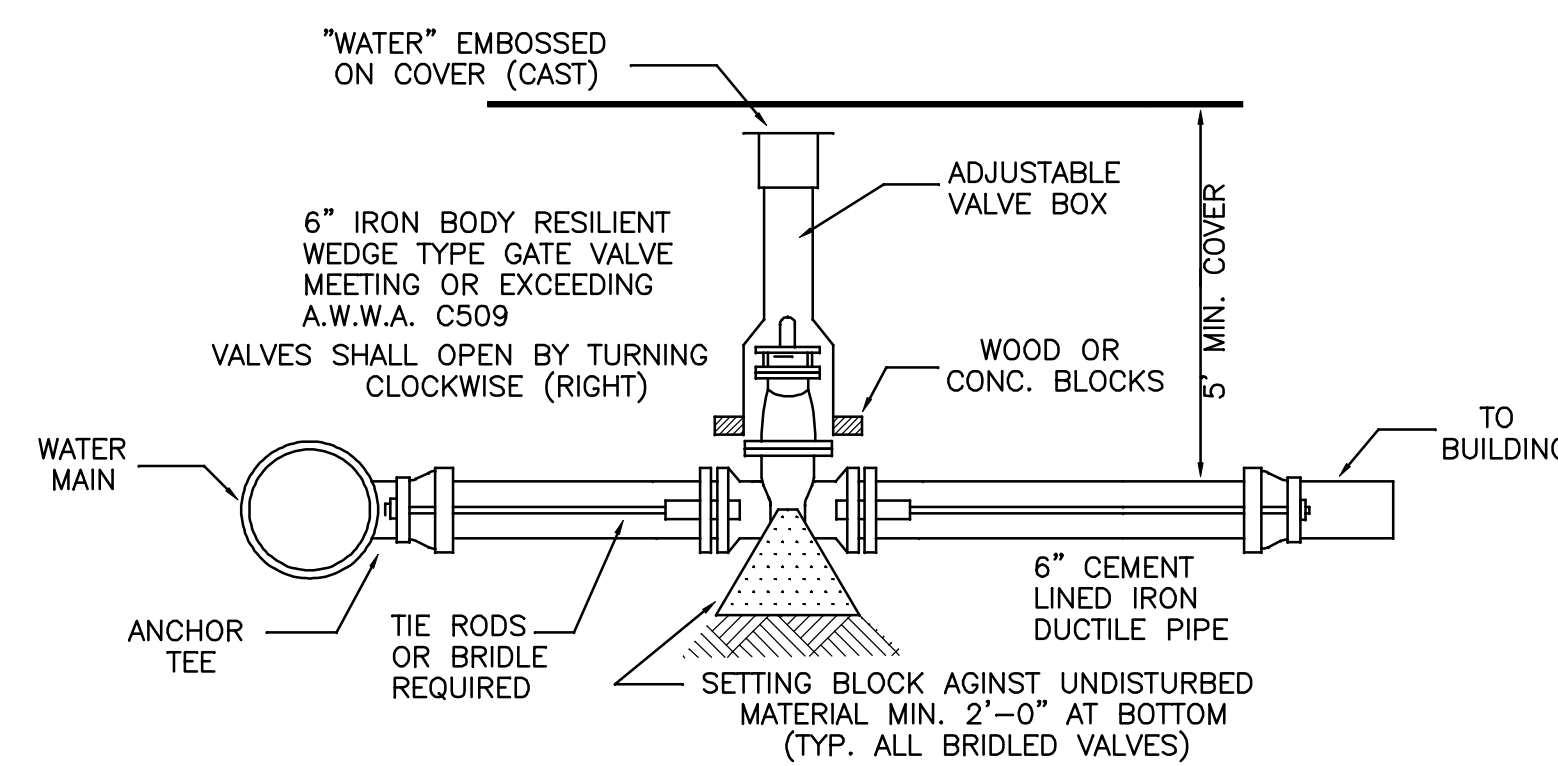
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NOTE: SIZE OF THRUST BLOCKS MAY BE INCREASED BY THE ENGINEER TO MEET SOIL CONDITIONS FOUND DURING CONSTRUCTION.

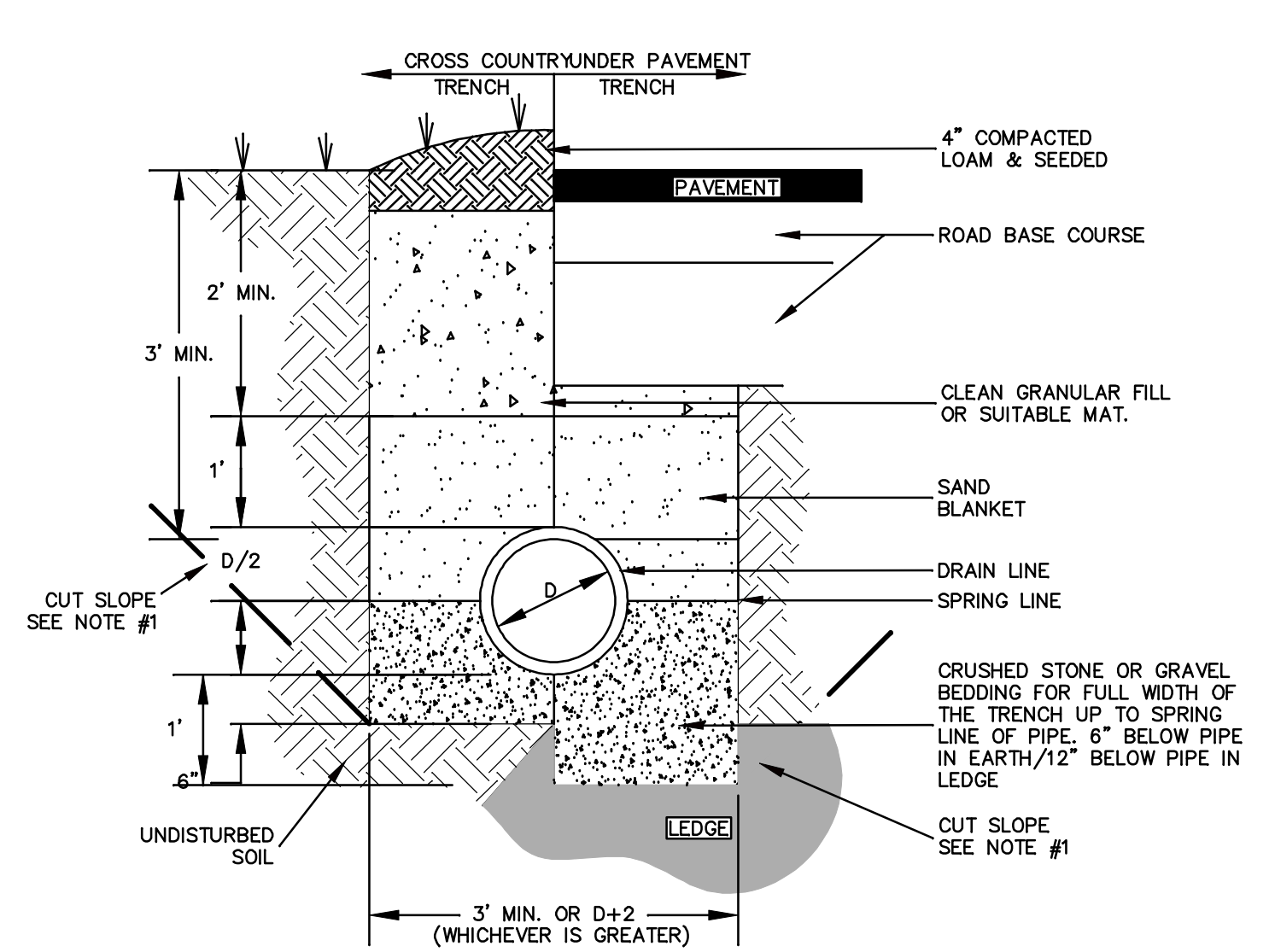
WATER MAIN THRUST BLOCK DETAILS

NOT TO SCALE



TYPICAL WATER MAIN SERVICE CONNECTION

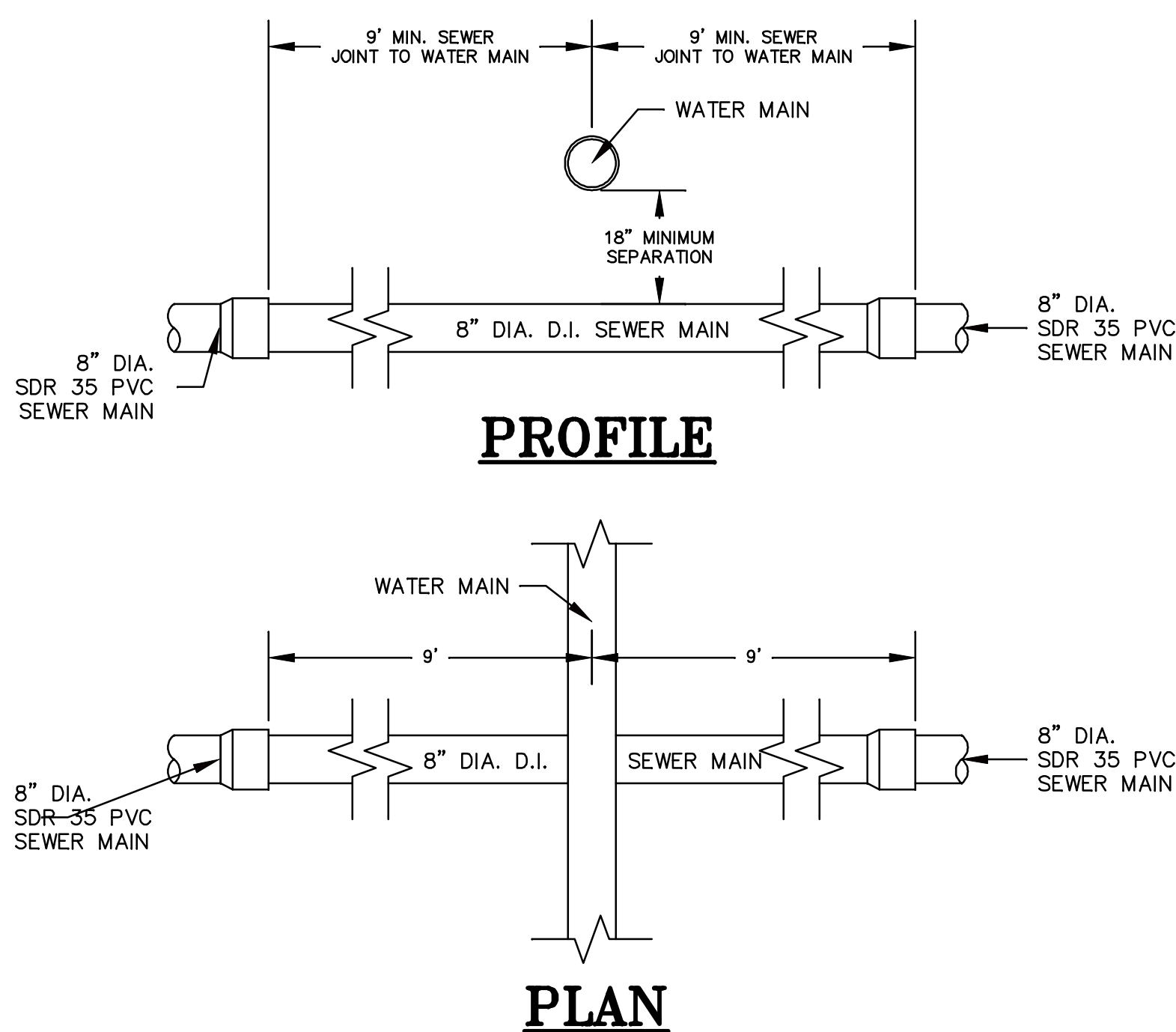
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- NOTES:
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 2. PIPE MATERIALS SHALL BE AS SPECIFIED ON THE DESIGN PLAN.
 3. SAND BLANKET MAY BE OMITTED FOR REINFORCED CONCRETE PIPE.

DRAINAGE PIPE TRENCH INSTALLATION DETAIL

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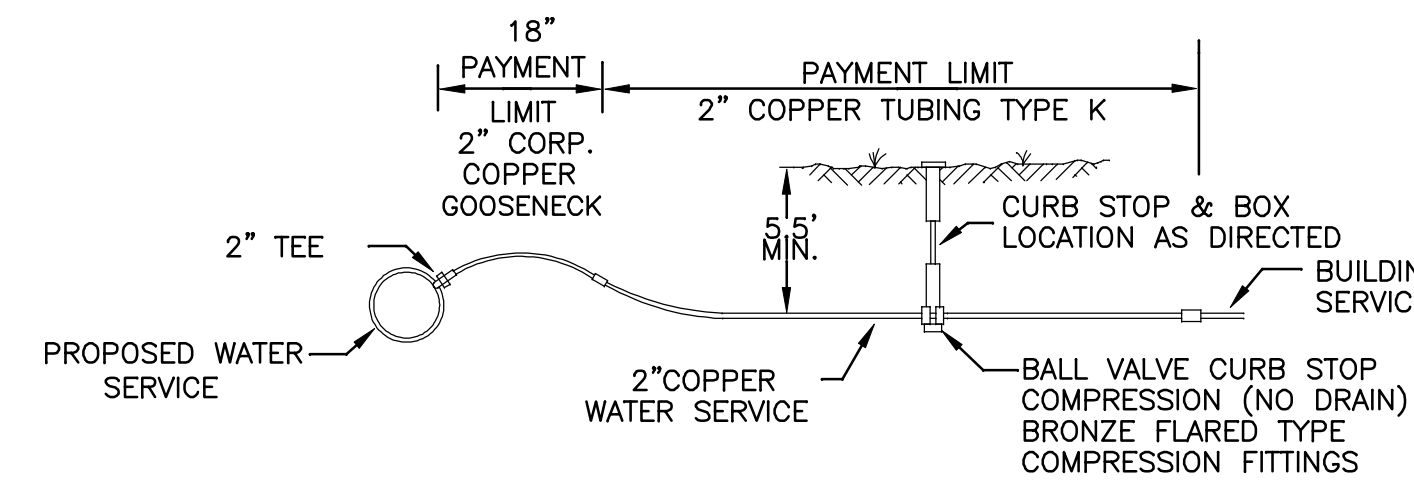
PROFILE

PLAN

- SEWER MAIN CROSSING WATER MAIN NOTES:
1. SEWER PIPE SHALL BE CLASS 52 DUCTILE IRON.
 2. SEWER PIPE JOINTS SHALL BE LOCATED AT LEAST 9-FT HORIZONTALLY FROM THE WATER MAIN.
 3. SEWER PIPE JOINTS SHALL BE PRESSURE TESTED TO 25 POUNDS PER SQUARE INCH FOR GRAVITY SEWERS, AND AT 1-1/2 TIMES WORKING PRESSURE FOR FORCE MAINS.
 4. VERTICAL SEPARATION OF THE SEWER AND WATER MAIN SHALL NOT BE LESS THAN 18 INCHES.

WATER MAIN/SEWER MAIN CROSSING DETAIL

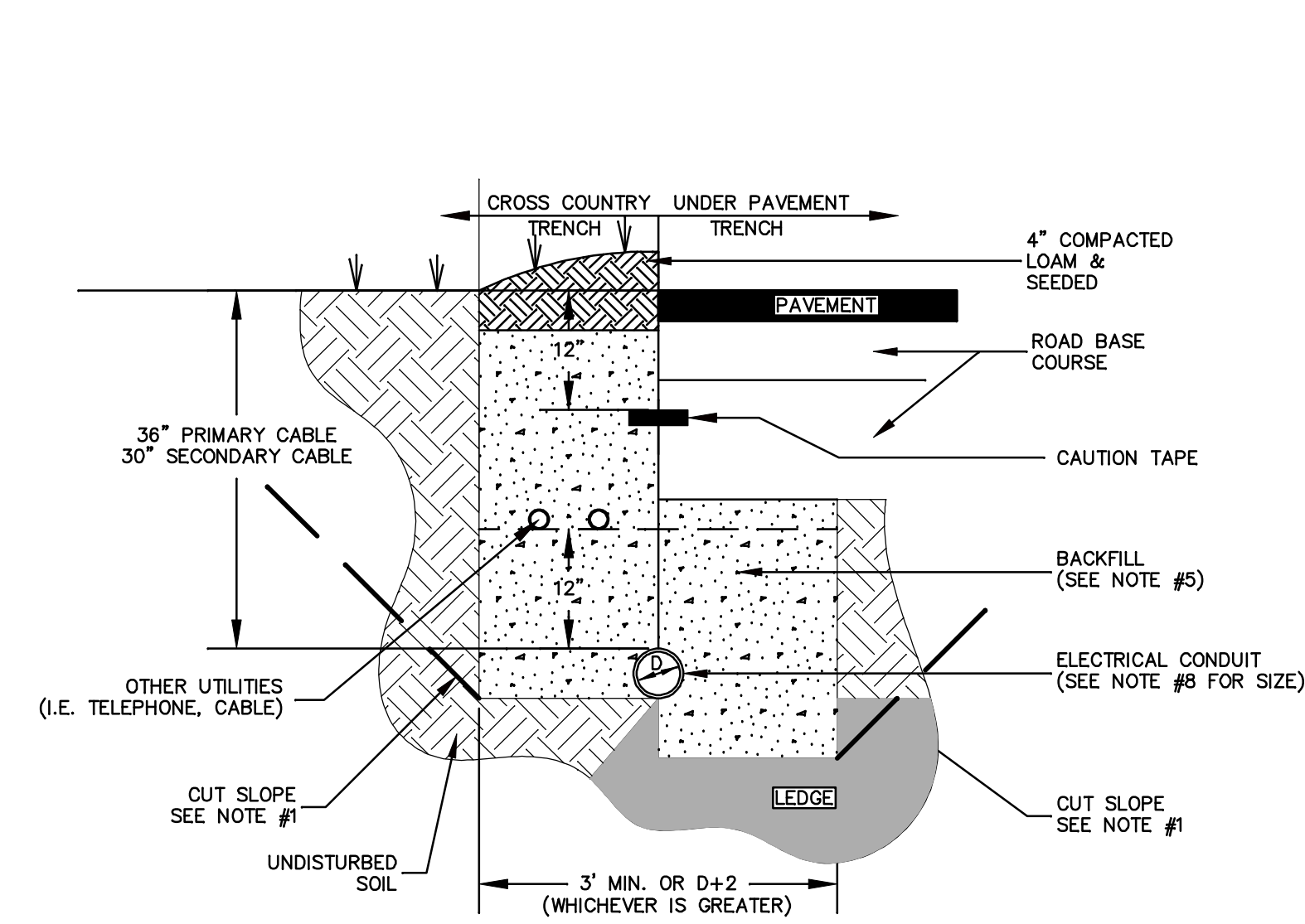
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NOTE: SERVICE LINE SHALL BE TYPE K COPPER CONFORMING TO ASTM-D88

TYPICAL SERVICE CONNECTION

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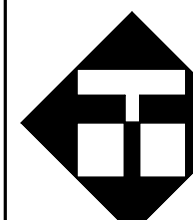
- NOTES:
1. ALL NON-METALLIC CONDUIT AND FITTINGS SHALL BE ELECTRICAL GRADE, SCHEDULE 40 PVC, AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEMA TC2-1990 AND BE UL LISTED. ONLY GRAY-COLORED CONDUIT WILL BE ACCEPTED. ANY PVC CONDUIT NOT HAVING THE PROPER NEMA AND UL MARKINGS WILL NOT BE ACCEPTED. ALL STEEL CONDUITS SHALL CONFORM TO ASTM A120 AND BE RIGID GALVANIZED STEEL. ALL PVC JOINTS MUST BE CEMENTED. STEEL FITTINGS SHALL BE SEALED WITH COMPOUND.
 2. ALL 90 DEGREE SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL WITH A MINIMUM RADIUS OF 36 INCHES FOR PRIMARY CABLES AND 24 INCHES FOR SECONDARY CABLES. ALL STEEL SWEEPS WITHIN 18\" OF THE SURFACE SHALL BE PROPERLY GROUNDED.
 3. A 10-FOOT HORIZONTAL SECTION OF RIGID GALVANIZED STEEL CONDUIT WILL BE REQUIRED AT EACH SWEEP, UNLESS IN THE OPINION OF THE PSNH DESIGNER, THE SWEEP-PVC JOINT IS NOT SUBJECT TO FAILURE DURING CABLE PULLING.
 4. THE CONDUIT SHALL CROSS PAVED AREAS AT APPROXIMATELY 90 DEGREES.
 5. BACKFILL MAY BE MADE WITH EXCAVATED MATERIAL OR COMPARABLE, UNLESS MATERIAL IS DEEMED UNSUITABLE BY PSNH. BACKFILL SHALL BE FREE OF FROZEN LUMPS, ROCKS, DEBRIS, AND RUBBISH. ORGANIC MATERIAL SHALL NOT BE USED AS BACKFILL. BACKFILL SHALL BE THOROUGHLY COMPACTED IN 6-INCH LAYERS.
 6. A SUITABLE PULL STRING, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE PSNH IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
 7. ROUTING OF THE CONDUIT AND INSPECTION PRIOR TO BACKFILL WILL BE PROVIDED BY PSNH. INSTALLATION OF THE CONDUIT WILL BE DONE BY THE CONTRACTOR. THE PSNH SUPERVISOR MUST BE NOTIFIED 2 BUSINESS DAYS PRIOR TO BACKFILLING THE TRENCH. IN THE EVENT THAT A CABLE CANNOT BE SUCCESSFULLY PULLED THROUGH THE COMPLETED CONDUIT SYSTEM DUE TO A CONSTRUCTION ERROR, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND REPAIR THE INVOLVED CONDUIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL RESULTING EXPENSES.
 8. NORMAL CONDUIT SIZES FOR PSNH ARE 3-INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4-INCH FOR THREE PHASE SECONDARY, AND 5-INCH FOR THREE PHASE PRIMARY.
 9. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE THE NATIONAL ELECTRIC CODE.
 10. CONDUIT MAY BE INSTALLED BY EXCAVATING AN OPEN TRENCH WITH SIDE SLOPES OF 1:1 MAXIMUM TO A DEPTH OF 4-FT. INSTALLATIONS DEEPER THAN 4-FT REQUIRE THE USE OF A TRENCH BOX.

ELECTRICAL & UNDERGROUND UTILITY TRENCH INSTALLATION DETAIL

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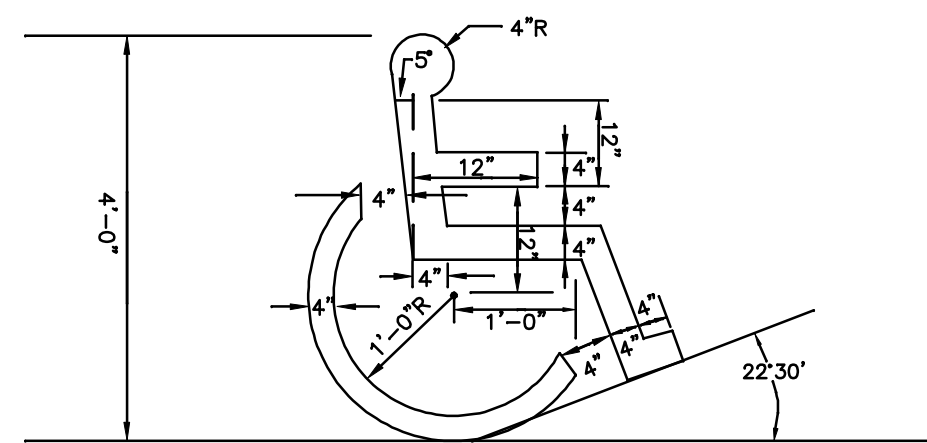
AE JOB NUMBER 33222201

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NORWAY PLAINS ASSOCIATES, INC.
SURVEYORS - ENGINEERS - TRANSPORTATION PLANNERS

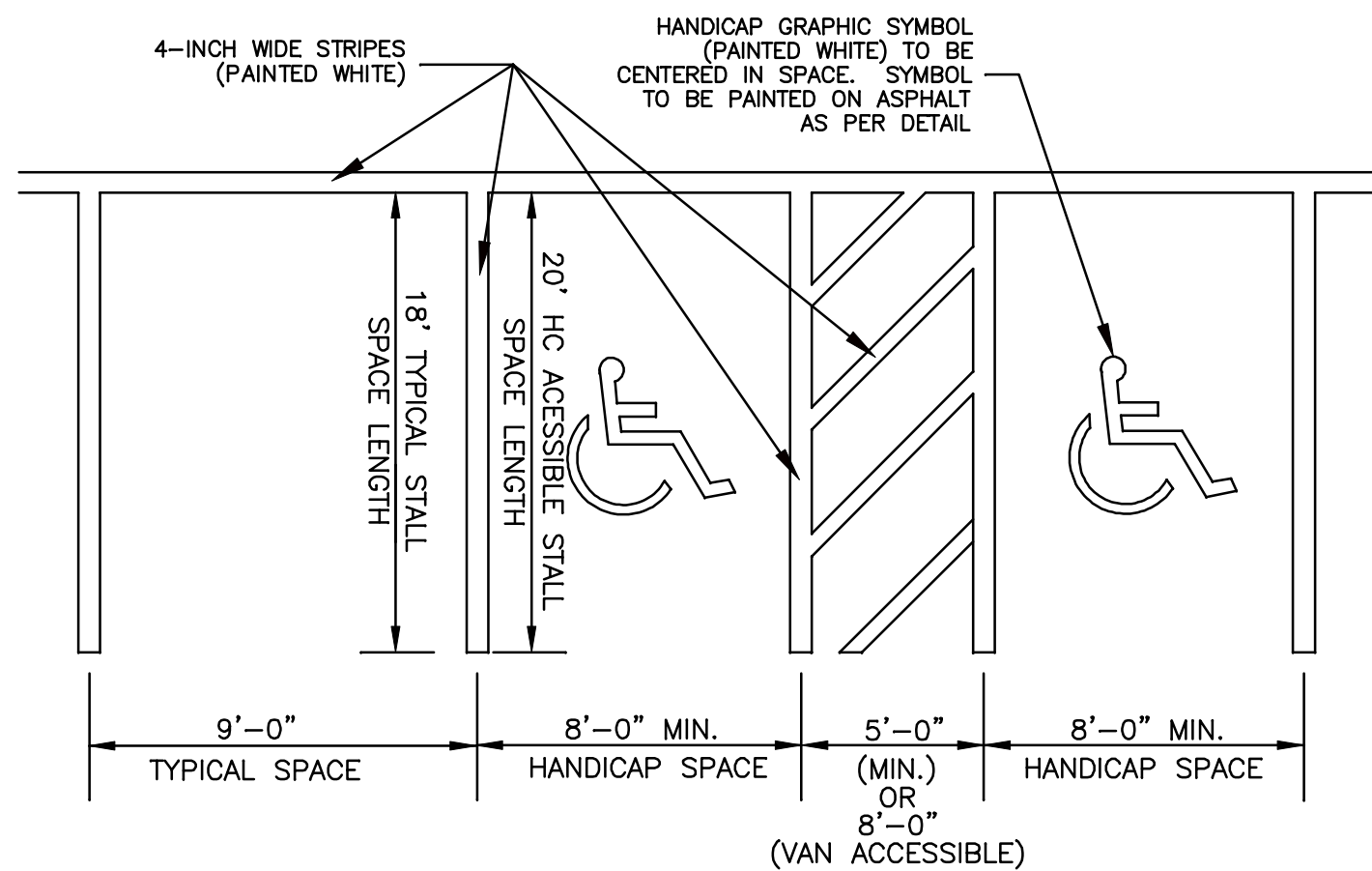
ALTON 31 Mooney Street Alton, NH 03809 (603) 575-5948 www.norwayplains.com

ROCHESTER 2 Continental Boulevard P.O. Box 249 Rochester, NH 03866-0249 (603) 335-3948

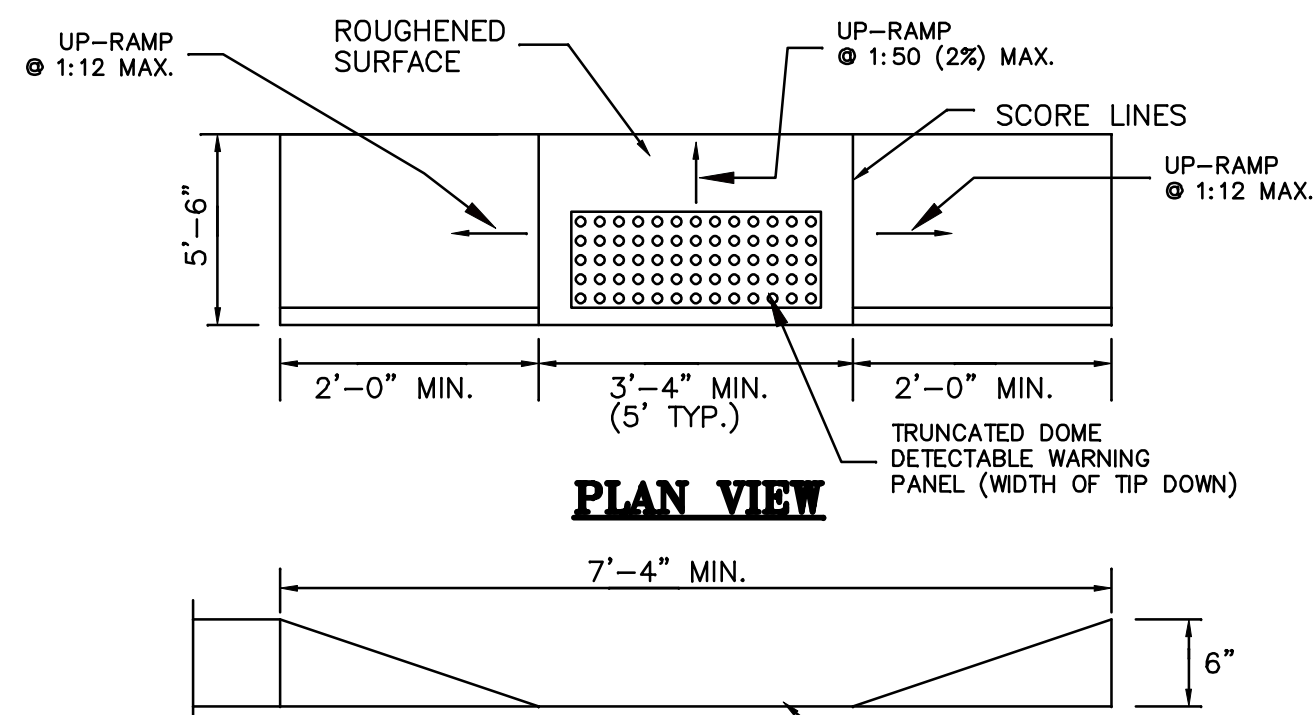
UTILITY DETAILS
C-504
SHEET NUMBER



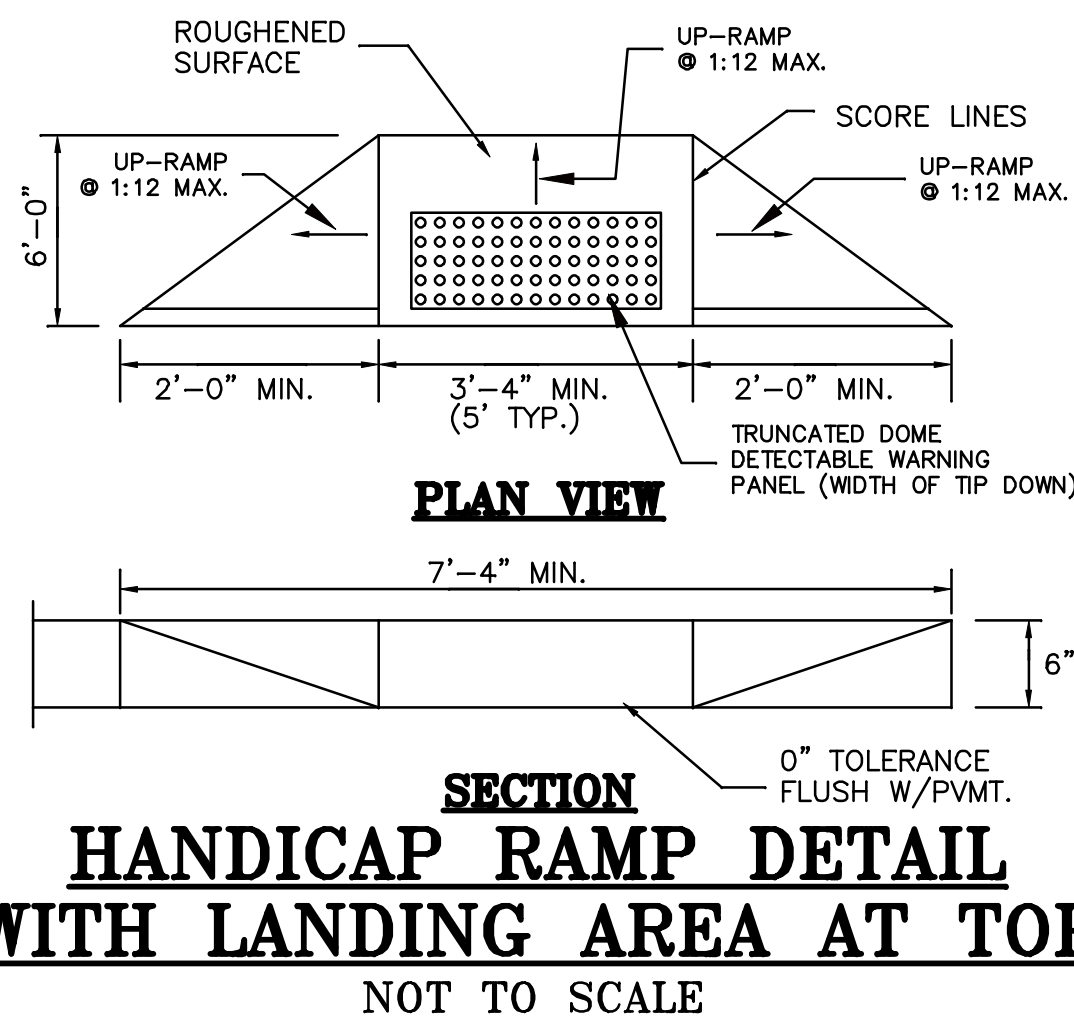
HC SPACE SYMBOL



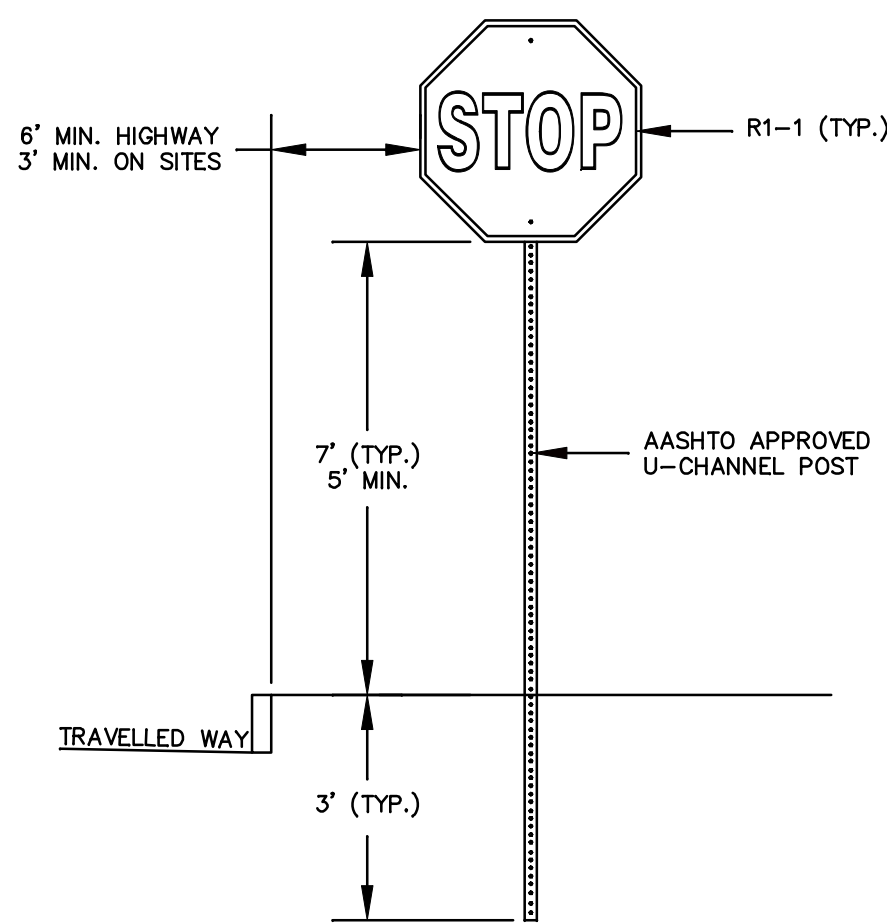
STALL STRIPING DETAIL
NOT TO SCALE



HANDICAP RAMP DETAIL (5-FT SIDEWALK)
NOT TO SCALE



HANDICAP RAMP DETAIL
(WITH LANDING AREA AT TOP)
NOT TO SCALE



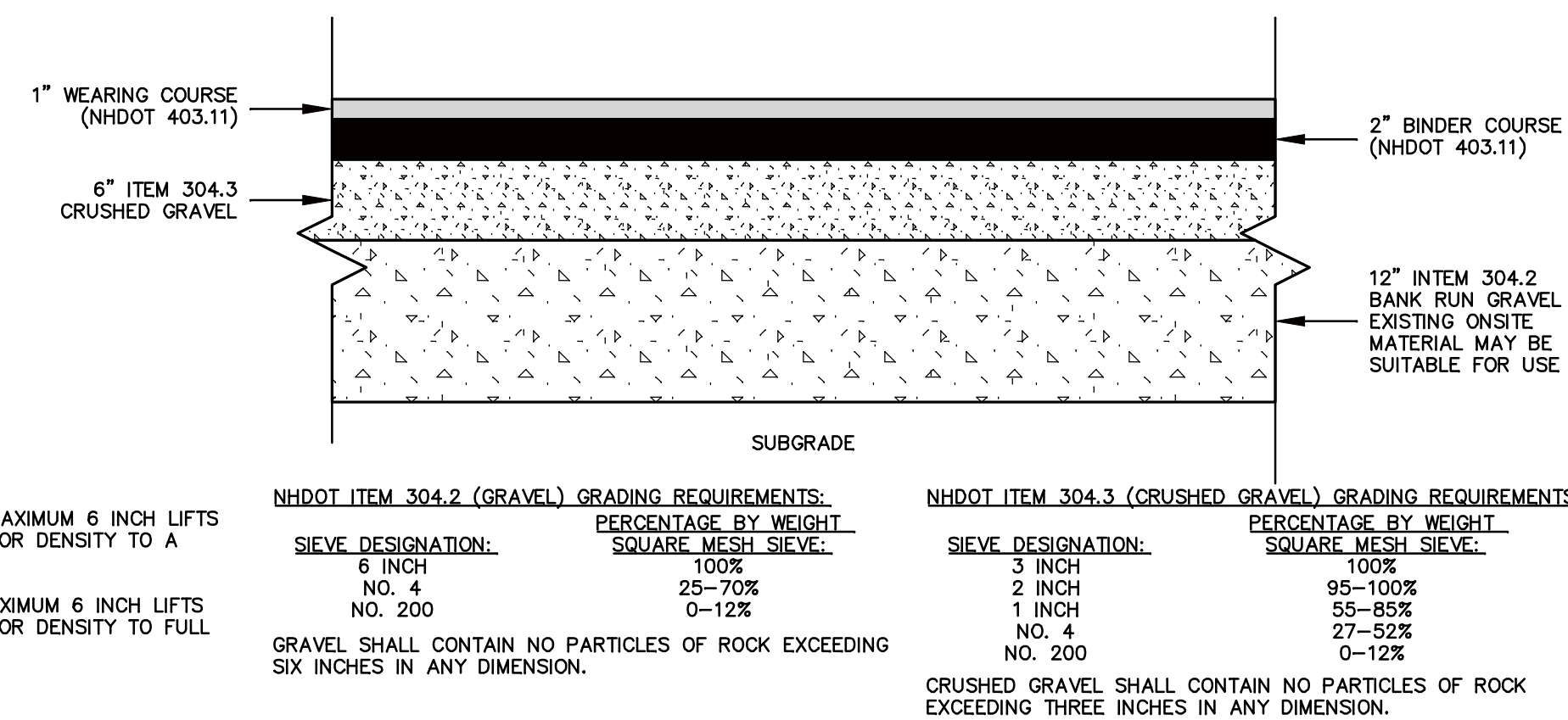
- NOTES:
1. SIGN POST SHALL BE AASHTO APPROVED U-CHANNEL OR OTHER PER AASHTO "SPECIFICATIONS FOR STRUCTURAL SUPPORT OF HIGHWAY SIGNS, LUMINAIRES AND SIGNALS", LATEST EDITION.
 2. SIGNS SHALL BE MOUNTED 7 FT FROM GROUND TO BOTTOM EDGE WHERE PARKING AND PARKING LOT MOVEMENTS TAKE PLACE.
 3. SIGNS SHALL BE PLACED SO THAT NEAREST EDGE IS 6 FT. FROM TRAVELED WAY.

TYPICAL TRAFFIC SIGN
NOT TO SCALE

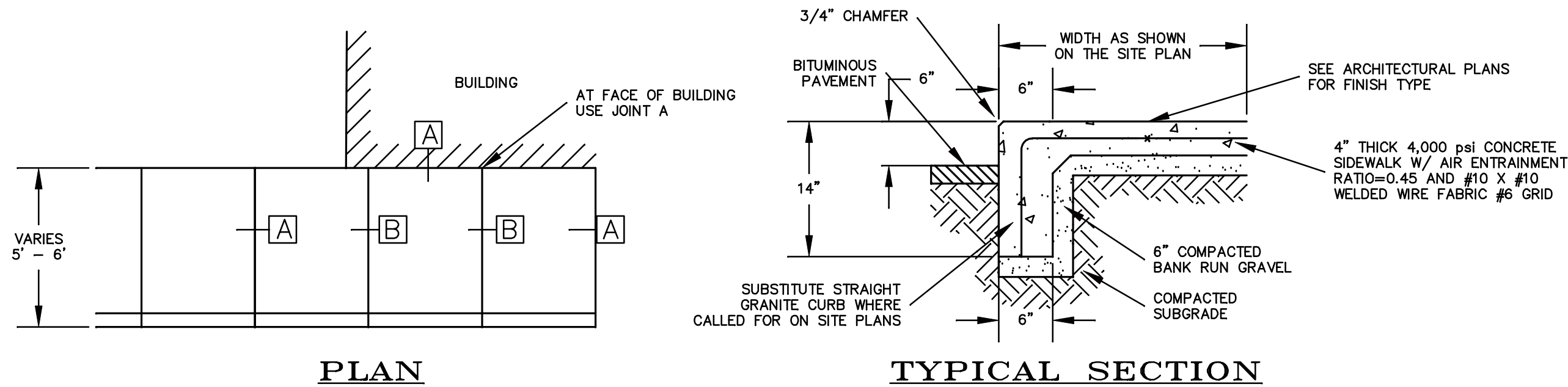
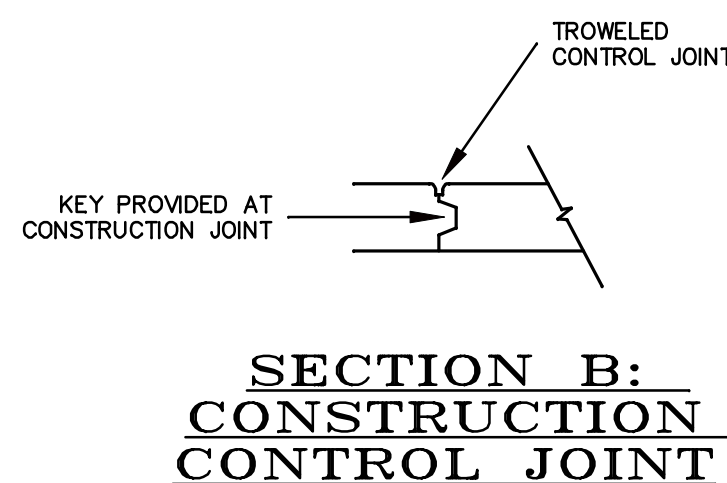
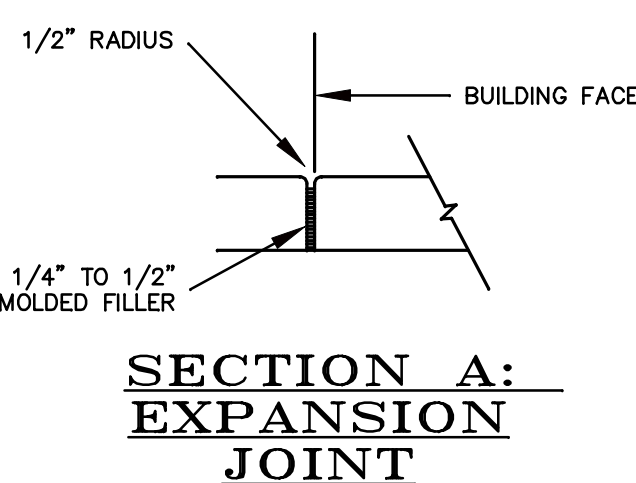
ITEM NO.	SIGN SIZE		TEXT	NO. SIGNS REQ'D
	HEIGHT	WIDTH		
R1-1	24"	24"	STOP	4
R7-8a	18"	12"		16
R7-8b	6"	12"	VAN ACCESSIBLE	8
R8-3	18"	12"	NO PARKING	8

- NOTES:
1. ALL SIGNS SHALL BE PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
 2. COAST BUS STOP SIGN TO BE PER COAST BUS PROGRAM.

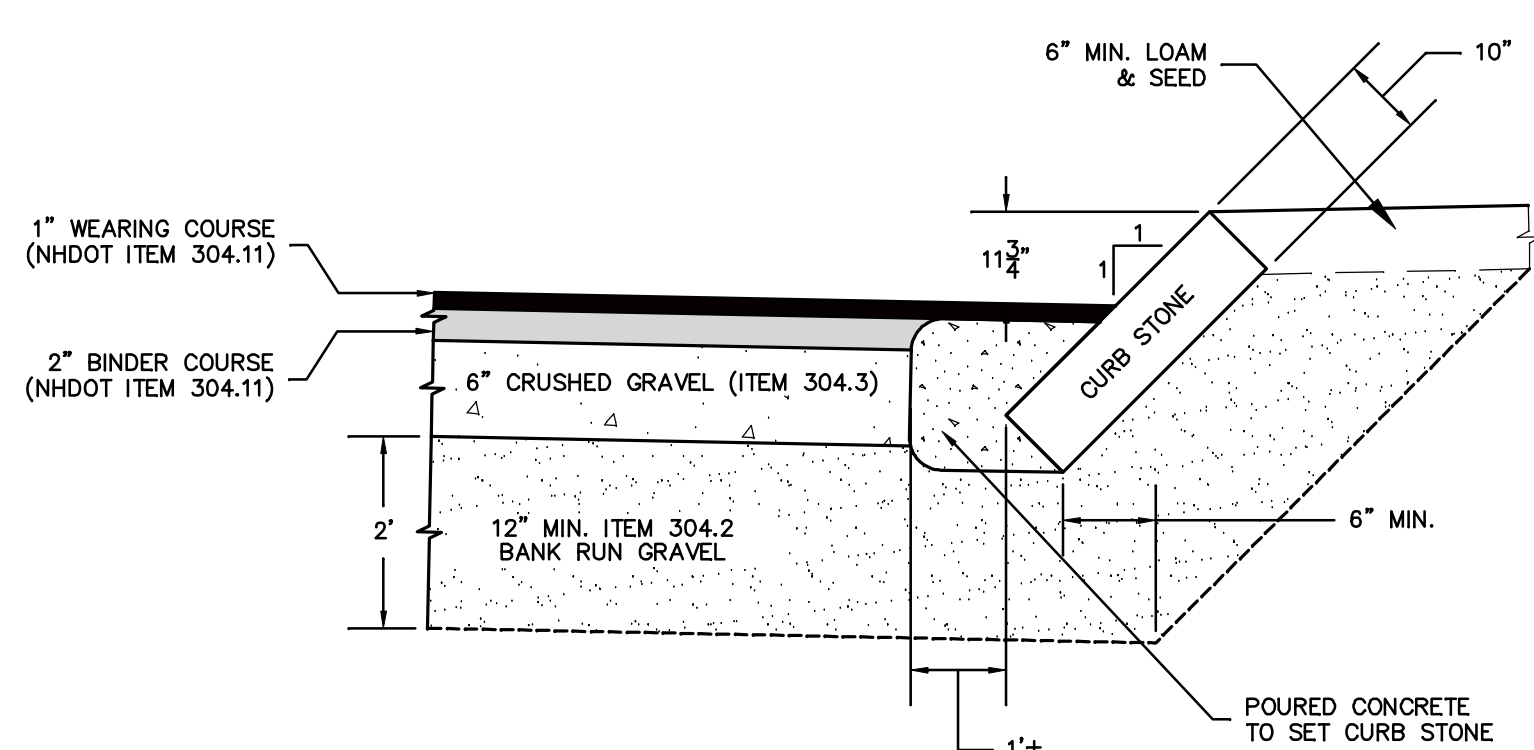
SIGN SCHEDULE
NOT TO SCALE



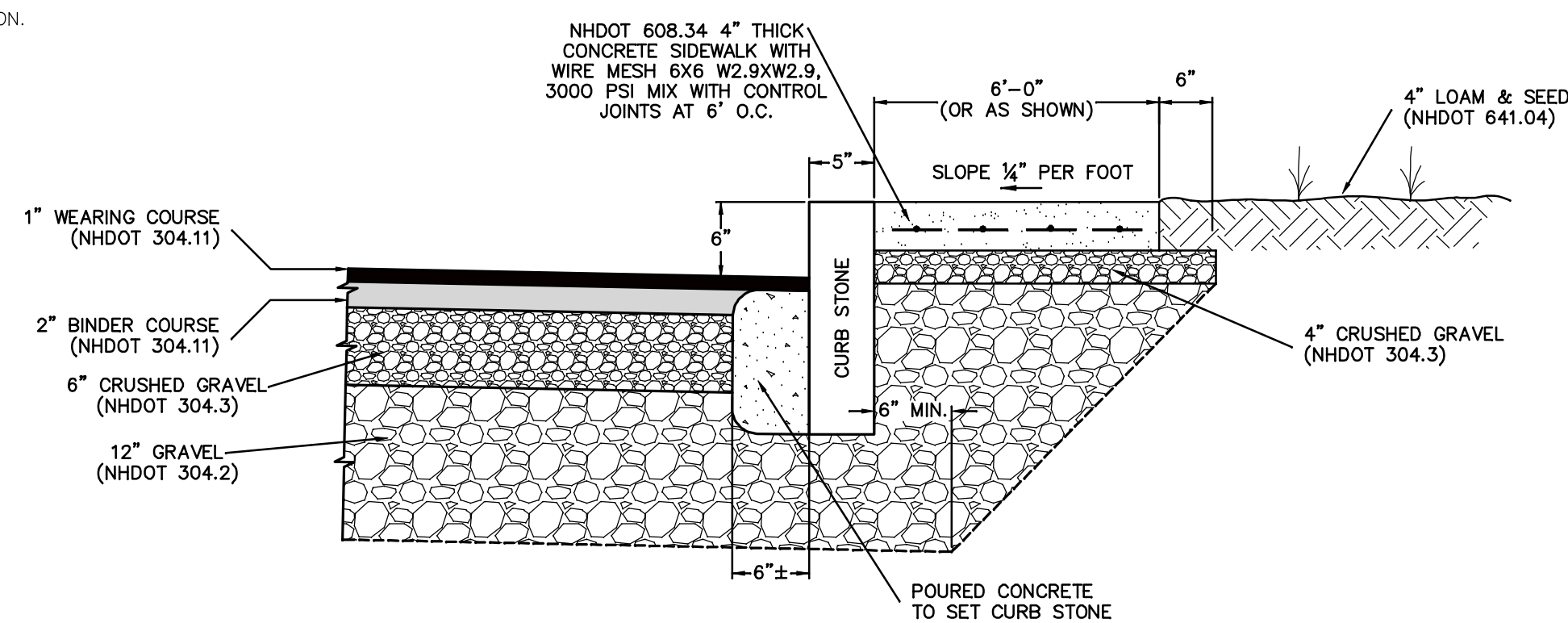
TYPICAL PAVEMENT CROSS-SECTION
NOT TO SCALE



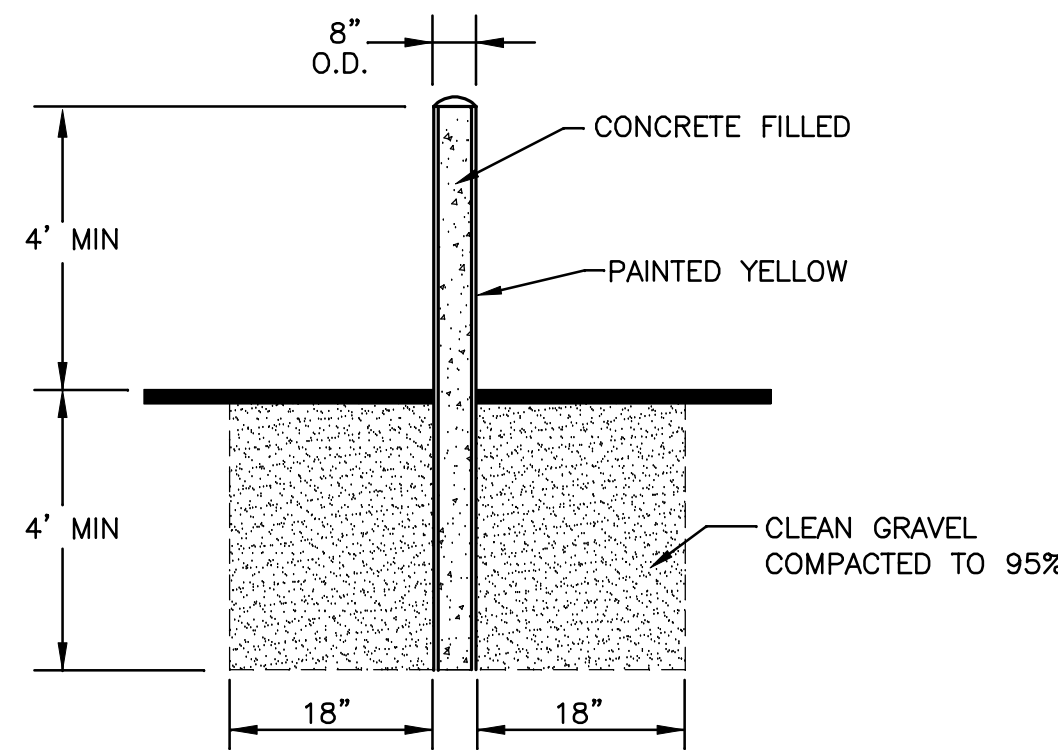
CONCRETE SIDEWALK WITH CURB
NOT TO SCALE



STANDARD HOT MIX PAVEMENT
GRANITE SLOPE CURB DETAIL
NOT TO SCALE



CONCRETE SIDEWALK WITH
GRANITE CURB DETAIL
NOT TO SCALE



STEEL BOLLARD DETAIL
NOT TO SCALE

