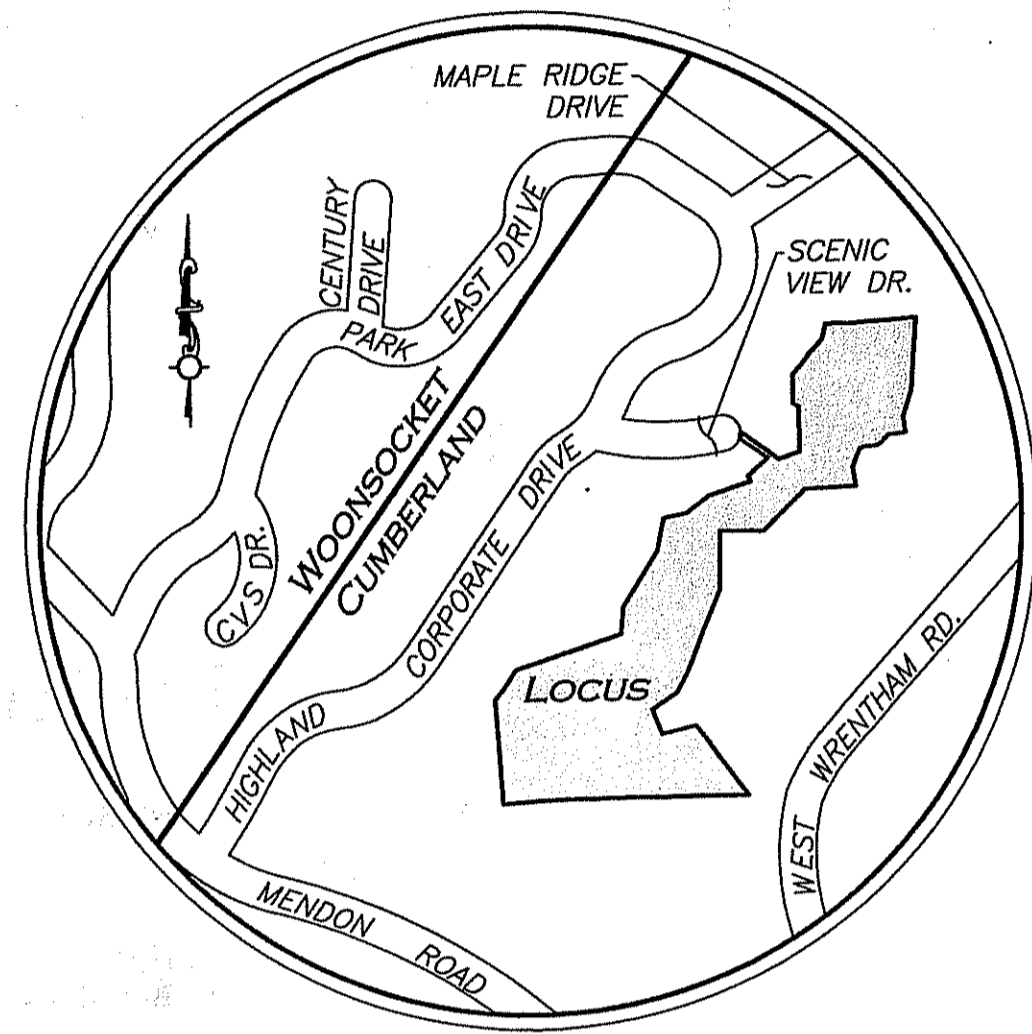


SITE DEVELOPMENT PLANS FOR CVS CUSTOMER SUPPORT CENTER

200 HIGHLAND CORPORATE DRIVE TOWN OF CUMBERLAND, PLAT CARD #51, CUMBERLAND, RI

DEC - 1 2009

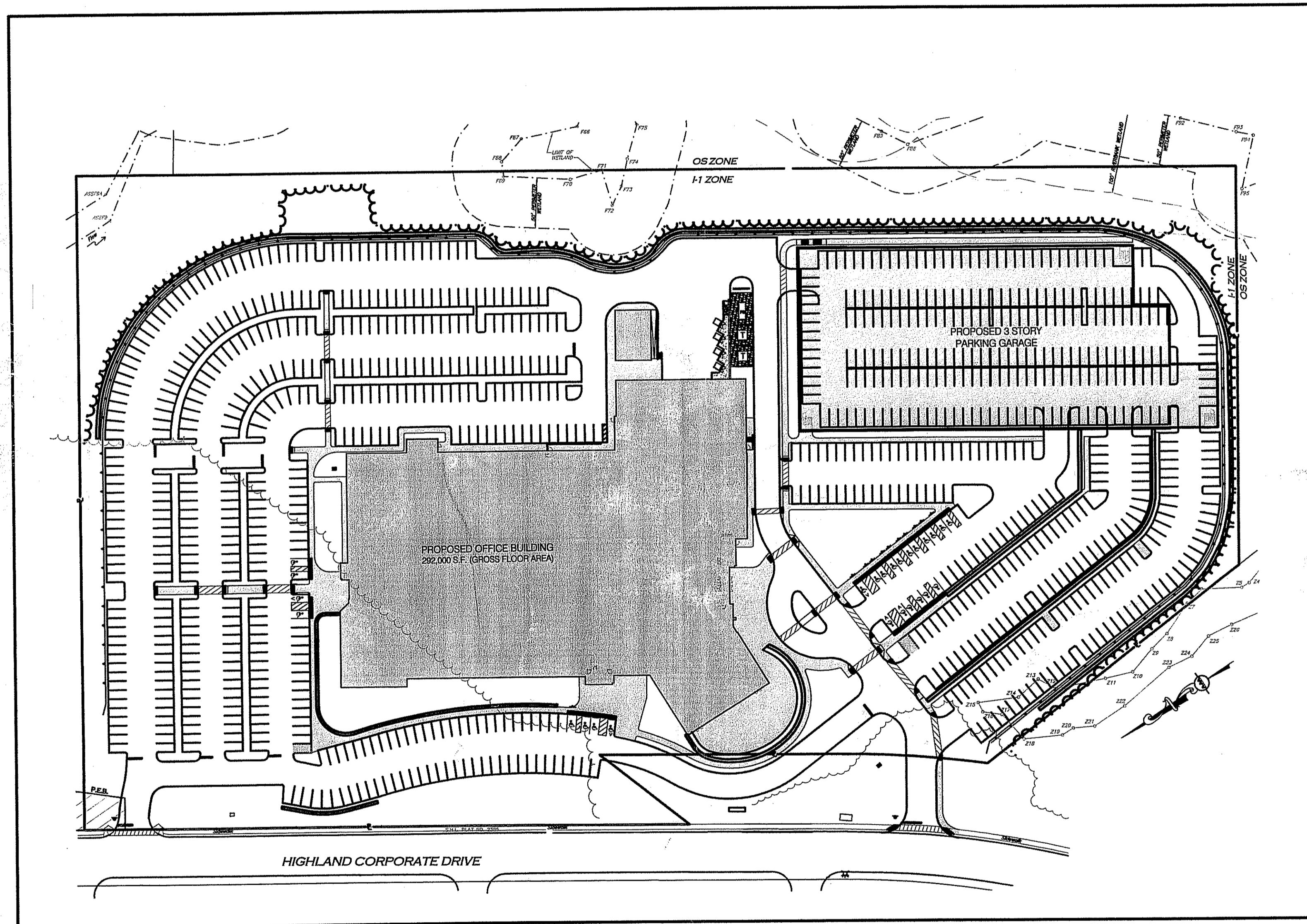


LOCUS MAP
NOT TO SCALE

APPLICANT:
CVS PHARMACY INC.
ONE CVS DRIVE
WOONSOCKET, RI 02895

**CIVIL ENGINEER,
LANDSCAPE ARCHITECT
& LAND SURVEYOR:**
ALLEN & MAJOR ASSOCIATES, INC.
250 COMMERCIAL STREET
SUITE 1001
MANCHESTER, NH 03101

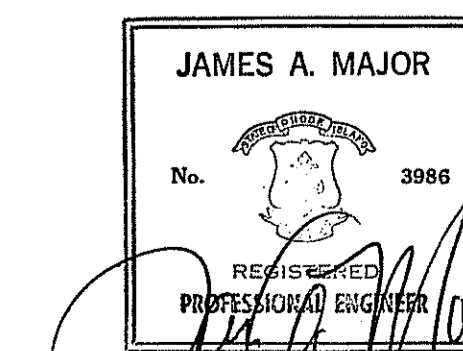
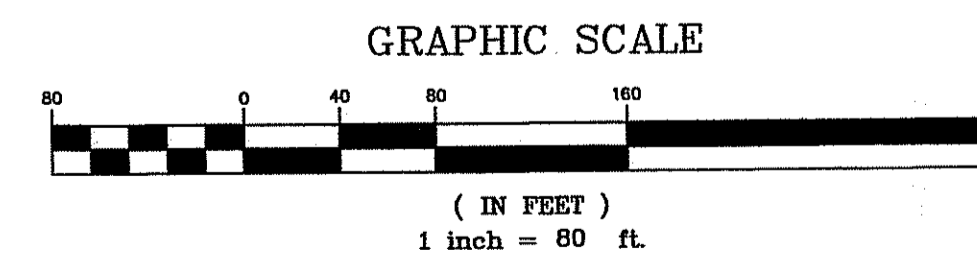
ARCHITECT:
CUBE 3 STUDIO LLC
360 MERRIMACK STREET
BUILDING 5, FLOOR 3
LAWRENCE, MA 01843



SCALE: 1"=80'

**ISSUED FOR RIDEM WETLANDS AND UIC
FRESHWATER WETLANDS APPLICATION 09-0271
UNDERGROUND INJECTION CONTROL FILE 001362**

PREPARED BY:
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PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

LIST OF CIVIL DRAWINGS			
DRAWING TITLE	SHEET NO.	ISSUED	REVISED
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PLOT PLAN	I	10-15-09	11-20-09
LAYOUT & MATERIALS PLAN	C-1	10-15-09	11-20-09
GRADING PLAN	C-2A	10-15-09	11-20-09
DRAINAGE PLAN	C-3	10-15-09	11-20-09
UTILITY PLAN	C-4	10-15-09	11-20-09
EROSION CONTROL PLAN	C-5A	10-15-09	11-20-09
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DETAILS	D-1	10-15-09	11-20-09
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DETAILS	D-2D	-	11-20-09
DETAILS	D-3	10-15-09	11-20-09
DETAILS	D-4	10-15-09	11-20-09
DETAILS	D-5	10-15-09	11-20-09
DETAILS	D-6	10-15-09	11-20-09
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DETAILS	D-9	10-15-09	11-20-09
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DETAILS	D-11	10-15-09	11-20-09
DETAILS	D-12	10-15-09	11-20-09
DETAILS	D-13	10-15-09	11-20-09

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 9 2009 FILE # 09-0271
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Major

SHEET 1 OF 27

ISSUED DATE: OCTOBER 15, 2009

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GENERAL NOTES

ABBREVIATIONS

ADJ	ADJUST
AD	AREA DRAIN
B	BORING
BC	BOTTOM OF CURB
BIT	BITUMINOUS
BCB	BITUMINOUS CONCRETE BERM
BM	BENCH MARK
BVW	BORDERING VEGETATED WETLAND
BOR	BOTTOM OF RAMP
CATV	CABLE TELEVISION
CB	CATCH BASIN
CI	CAST IRON (PIPE)
CLDI	CEMENT LINED DUCTILE IRON (PIPE)
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
CONC	CONCRETE
CPP	CORRUGATED POLYETHYLENE PIPE
DB	DISTRIBUTION BOX
DBL	DOUBLE
DET	DETENTION
DICL	DUCTILE IRON (PIPE)
DIA	DIAMETER
DMH	DRAIN MANHOLE
EHH	ELECTRIC HANDHOLE
EL	ELEVATION
ELEC	ELECTRIC
EMH	ELECTRIC MANHOLE
EOP	EDGE OF PAVEMENT
EOR	EDGE OF ROAD
EOW	EDGE OF WETLANDS
EXIST	EXISTING
FCC	FLUSH CONCRETE CURB
FES	FLARED END SECTION
FFE	FINISH FLOOR ELEVATION
FGC	FLUSH GRANITE CURB
FT	FOOT/FEET
GG	GAS GATE
GRAN	GRANITE
GV	GATE VALVE
HW	HEADWALL
HYD	HYDRANT
IN	INCHES
INV, I	INVERT
L	LENGTH
LP	LIGHT POLE
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MW	MONITORING WELL
N	NORTH
NTS	NOT TO SCALE
OHW	OVERHEAD WIRE
OW	OBSERVATION WELL
PCC	PRECAST CONCRETE CURB
PL	PROPERTY LINE
PROP, P	PROPOSED
PVC	POLYVINYL CHLORIDE (PIPE)
R&R	REMOVE & RESET/REPLACE
R&S	REMOVE & STACK
ADS	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SF	SQUARE FEET
SMH	SEWER MANHOLE
SW	SIDEWALK
SGC	SLOPED GRANITE CURB
TB	TEST BORING
TC	TOP OF CURB
TOR	TOP OF RAMP
TMH	TELEPHONE MANHOLE
TOW	TOP OF WALL
TP	TEST PIT
TYP	TYPICAL
UP	UTILITY POLE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VGC	VERTICAL GRANITE CURB
WD	WOOD
WG	WATER GATE
WMH	WATER MANHOLE
WSO	WATER SHUTOFF

SEE EROSION CONTROL PLAN C-5A & C-5B
FOR EROSION CONTROL NOTES AND LEGEND

SEE LANDSCAPING PLAN C-5A & C-5B
FOR LANDSCAPING NOTES AND LEGEND

PARKING AND TRAFFIC CONTROL NOTES

- HANDICAP ACCESSIBLE PARKING SPACES SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (A.D.A.).
- ACCESSIBLE PARKING SPACES DESIGNATED WITH A "VAN" SHALL BE SIGNED AS "VAN ACCESSIBLE" PER A.D.A. 4.1.2.5b.
- ALL LIMITS OF PAVEMENT SHALL BE CURBED UNLESS NOTED OR DETAILED OTHERWISE.
- ALL STANDARD PARKING SPACES SHALL BE 9 FT. WIDTH BY 18 FT. LENGTH, WITH 24 FT. AISLES UNLESS NOTED OR DETAILED OTHERWISE.
- ALL PAVEMENT STRIPING SHALL BE PAINTED WITH 2 COATS OF PAINT.
- SAWCUT AND REMOVE ALL EXISTING PAVEMENT IN AREAS WHERE THE PROPOSED GRADES ARE LESS THAN ONE (1") INCH GREATER THAN THE EXISTING GRADES. IN FILL AREAS WHERE PROPOSED GRADES ARE ONE (1") TO THREE (3") INCHES HIGHER THAN THE EXISTING PAVEMENT, THE PROPOSED GRADES SHALL BE MET BY ADDING PAVEMENT OVERLAYS (1.5" MAXIMUM THICKNESS EACH LIFT) TO EXISTING PAVEMENT.
- THE CONTRACTOR SHALL RAISE ALL UTILITY CASTINGS TO THE PROPOSED GRADE.

GRADING AND DRAINAGE NOTES

- ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
- STORM PIPE SHALL BE HDPE UNLESS NOTED OTHERWISE. SEE DRAINAGE PLAN FOR LOCATION AND C-2A FOR SIZE & TYPE.
- EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
- EXISTING GRADE CONTOUR INTERVALS SHOWN AT 2 FOOT.
- PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "DRAIN".
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- TOPOGRAPHIC INFORMATION AND WETLANDS OBTAINED FROM CROSSMAN ENGINEERING, INC, PROJECT TITLE, CVS CUSTOMER SUPPORT CENTER, PREPARED FOR ECONOMIC DEVELOPMENT FOUNDATION OF R.I., EXISTING CONDITIONS PLAN C5 DATED OCTOBER, 2008 LAST REVISED 12/10/08.
- ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH TOWN SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- ALL CATCH BASINS ON-SITE SHALL BE EQUIPPED WITH HOODS AND 4 FOOT SUMPS AND SHALL CONFORM TO LOCAL DRAINAGE REQUIREMENTS.
- A MINIMUM OF 18" VERTICAL CLEARANCE SHALL BE MAINTAINED WHERE WATER SERVICES CROSS STORM DRAIN LINES. WATER SERVICES SHALL BE ENCASED IN CONCRETE REGARDLESS OF CLEARANCE WHEN PASSING BELOW STORM DRAIN LINES. ENCASEMENT SHALL EXTEND ALONG WATER SERVICE A MINIMUM DISTANCE OF TEN FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
- ALL DRAINAGE SHALL CONFORM TO LOCAL REQUIREMENTS.

STORMWATER SYSTEM OPERATION AND MAINTENANCE NOTES

- UPON COMPLETION OF ALL TERRAIN ACTIVITIES THAT DIRECT STORMWATER TO A PARTICULAR PRACTICE, THE RESPONSIBLE PARTY(IES) SHALL INITIATE THE O&M ACTIVITIES.
- PAVED AREAS SHOULD BE SWEEP AS PART OF THE ROUTINE SITE MAINTENANCE. PAVEMENT SWEEPING IS AN EXCELLENT SOURCE CONTROL FOR SEDIMENTATION TO THE DRAINAGE SYSTEM AND IS TYPICALLY PERFORMED IN THE SPRING OF EACH YEAR FOLLOWING THE SNOW MELT.
- SALT FOR DE-ICING ON THE PAVED AREAS DURING THE WINTER MONTHS SHALL BE LIMITED TO THE MINIMUM AMOUNT PRACTICABLE. SAND CONTAINING THE MINIMUM AMOUNT OF CALCIUM CHLORIDE (OR APPROVED EQUIVALENT) NEEDED FOR HANDLING MAY BE APPLIED AS PART OF THE ROUTINE WINTER MAINTENANCE ACTIVITIES.
- CATCH BASIN GRATES SHALL BE INSPECTED ONCE A YEAR AND FOLLOWING HEAVY RAINFALLS TO VERIFY THAT THE INLET OPENINGS ARE NOT CLOGGED BY DEBRIS. DEBRIS SHALL BE REMOVED FROM THE GRATES AND DISPOSED OF PROPERLY. OVERSIZED CATCH BASINS SHALL BE INSPECTED AND CLEANED ANNUALLY OF ALL ACCUMULATED SEDIMENTS. MATERIAL SHALL BE REMOVED FROM SUMPS AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- ALL VEGETATED AREAS ON THE SITE SHALL BE STABILIZED AND MAINTAINED TO CONTROL EROSION. ANY DISTURBED AREAS SHALL BE RE-SEEDED AS SOON AS PRACTICABLE.
- THE UNDERGROUND INFILTRATION SYSTEMS SHOULD BE INSPECTED TWICE PER YEAR, AND CLEANED AS NECESSARY. ANY SEDIMENT ACCUMULATION WITHIN THE SYSTEM SHOULD BE REMOVED TO PREVENT CLOGGING. ANY MATERIAL REMOVED FROM THE SYSTEM SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- THE OIL WATER SEPARATORS SHOULD BE INSPECTED TWICE PER YEAR AND CLEANED AS NECESSARY. ANY MATERIAL REMOVED FROM THE STRUCTURES SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
- ALL SEDIMENTS REMOVED FROM SITE DRAINAGE FACILITIES SHALL BE DISPOSED OF PROPERLY, AND IN ACCORDANCE WITH THE APPLICABLE LOCAL AND STATE REGULATIONS.
- WORK WITHIN ANY DRAINAGE STRUCTURE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS, AND ONLY BY INDIVIDUALS WITH THE APPROPRIATE OSHA CERTIFICATION.
- ALL POST CONSTRUCTION MAINTENANCE ACTIVITIES SHALL BE DOCUMENTED AND KEPT ON FILE AND MADE AVAILABLE TO THE PROPER TOWN AND STATE AUTHORITIES UPON REQUEST.
- IF OWNERSHIP OF THE PROPERTY IS TRANSFERRED, THE NEW OWNER(S) SHALL BECOME THE RESPONSIBLE PARTY(IES).
- IF WATER DOES NOT COMPLETELY DRAIN FROM UNDERGROUND INFILTRATION SYSTEMS WITHIN 72 HOURS AFTER A STORM EVENT, THEN FAILURE OF THE SYSTEM HAS OCCURRED AND WILL NECESSITATE THE REPAIR AND OR REPLACEMENT OF THE SYSTEM.

UTILITY NOTES

- ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITY'S INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
- SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE PIPE SDR35 AND SHALL CONFORM TO ASTM D 3034 WITH A MINIMUM OF 4 FEET OF COVERAGE.
- MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
- ALL WATER LINE PIPING, JOINTS AND JOINT RESTRAINT SYSTEMS AND APPURTENANCES SHALL BE DESIGNED, SPECIFIED AND INSTALLED IN ACCORDANCE WITH TOWN OF CUMBERLAND PUBLIC WATER DEPARTMENT REQUIREMENTS.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5'-0" COVER ON ALL WATERLINES AND A MAXIMUM OF 8'-0" COVER.
- WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CAN NOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDED THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHENEVER IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER MAIN AND THE SANITARY SEWER SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF TEN FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE TO MEET THE REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
- UNDERGROUND UTILITY LINES SHALL BE INSTALLED, INSPECTED AND APPROVED BY THE RESPECTIVE INSPECTING UTILITY AUTHORITY PRIOR TO BACKFILLING.
- TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND MANHOLES NOT IN PAVEMENT TO BE FLUSH WITH FINISHED GROUND ELEVATIONS WITH WATER TIGHT LIDS.
- ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 P.S.I.
- DRAWINGS DO NOT NECESSARILY SHOW ALL EXISTING UTILITIES.
- EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
- REFER TO INTERIOR PLUMBING AND MECHANICAL DRAWINGS FOR TIE-IN OF ALL UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF THE TOWN AND APPLICABLE UTILITY COMPANY REQUIREMENTS WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER, SEWER, GAS AND ELECTRICAL AND TELECOMMUNICATIONS LINES.
- ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
- CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
- ALL HYDRANTS SHALL MEET LOCAL MUNICIPAL SPECIFICATION REQUIREMENTS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE TOWN OF CUMBERLAND REQUIREMENTS.
- ALL WATER MAINS 3 INCHES AND LARGER SHALL BE CEMENT LINED DUCTILE IRON - CLASS 52, AND SHALL BE INSTALLED WITH APPROPRIATELY SIZED FITTINGS AND GATE VALVES.
- DOMESTIC WATER SERVICES SHALL BE INSTALLED WITH APPROPRIATELY SIZED GATE, BOX, AND TEE FITTINGS.
- ALL WATER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL MEET OR EXCEED THE TOWN OF CUMBERLAND REQUIREMENTS.
- ALL WATER MAIN FITTINGS, VALVES AND TEES ETC. SHALL BE RESTRAINED WITH THRUST BLOCKS AS REQUIRED BY THE . WHERE ADEQUATE RESTRAINT CANNOT BE OBTAINED WITH THRUST BLOCKS, USE OF RETAINER GLANDS IS REQUIRED. THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
- THE CONTRACTOR SHALL FIELD VERIFY/LOCATE EXISTING WATER MAINS AND SERVICES.
- VALVES SHALL BE GATE VALVES AND SHALL BE RESILIENT SEAT, MODIFIED WEDGE DISK CONFORMING TO AWWA C-509, AND BE APPROVED BY THE MUNICIPALITY.

UTILITY NOTES CONTINUED

- PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH ALL LOCAL AND MUNICIPAL STANDARDS AND REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTION WITH THE UTILITY TESTS, FLUSHING AND INSPECTIONS AS REQUIRED BY THE LOCAL MUNICIPALITY.
- ALL WATER SERVICES SHALL BE INSTALLED WITHIN 5' OF PROPOSED BUILDING FACE.
- SEWER PIPE BEDDING MATERIAL SHALL BE AS SPECIFIED ON THE DRAWINGS. IF LOCAL OR STATE AUTHORITIES REQUIRE DIFFERENT BEDDING OR BACKFILL MATERIAL, THEN THE MORE STRINGENT SHALL APPLY.
- ALL SEWER FORCEMAIN PIPE SHALL BE PVC CLASS 200 WITH A MINIMUM COVERAGE OF 4 FEET.
- PRESSURE AND LEAKAGE TESTS AND DISINFECTING PIPES SHALL BE PERFORMED BY THE CONTRACTOR IN CONFORMANCE TO AMERICAN WATER WORKS ASSOCIATION (AWWA) RECOMMENDATIONS, CUMBERLAND WATER DEPARTMENT REQUIREMENTS, AND GOVERNMENTAL AGENCIES HAVING JURISDICTION.
- WATER LINE TRENCH TO BE AWWA TYPE 5. A METALIZED DETECTABLE IDENTIFICATION TAPE 2" IN WIDTH, BLUE IN COLOR AND PRINTED WITH "CAUTION WATERLINE BURIED BELOW" SHALL BE UTILIZED OVER ALL MAINS. TAPE SHALL BE SET AT APPROXIMATELY 1'-0" BELOW FINISHED GRADE.
- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL COMPLETE AND SUBMIT THE "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE" FOR UNDERGROUND PIPING TO THE CUMBERLAND WATER DEPARTMENT AND ENGINEERING. IN ADDITION, THE CONTRACTOR IS REQUIRED TO SUBMIT THE FOLLOWING ITEMS TO THE ENGINEER FOR THEIR REVIEW AND APPROVAL:
 - TYPE AND MANUFACTURER OF SERVICE BOXES
 - TYPE AND MANUFACTURER OF CORPORATIONS AND CURB STOPS
 - TYPE AND MANUFACTURER OF VALVE BOXES
 - TYPE AND MANUFACTURER OF D.I. MECHANICAL JOINTS AND FITTINGS
 - TYPE AND MANUFACTURER OF TAPPING SLEEVES
 - TYPE AND MANUFACTURER OF D.I. PIPING
 - TYPE AND MANUFACTURER OF RESILIENT SEALED GATE VALVES
 - TYPE AND MANUFACTURER OF POLYETHYLENE SERVICE LINE
- THE CONTRACTOR SHALL VERIFY THE FIRE SERVICE PIPE SIZE REQUIREMENT WITH THE BUILDING ARCHITECT AND PLUMBING/FIRE SPRINKLER CONTRACTOR PRIOR TO ORDERING PIPE, METERS AND BACKFLOW PREVENTORS. COORDINATION WITH THE CUMBERLAND WATER DEPARTMENT IS REQUIRED TO DETERMINE THE EXISTING WATER PRESSURE AVAILABLE.
- ALL VALVES TO BE RESILIENT WEDGE GATE VALVES.
- ALL FITTINGS TO BE RESTRAINED WITH MECHANICAL JOINTS. RESTRAINTS TO BE MEGA-LUG OR EQUAL. ALL DESIGN AND/OR PLACEMENT SHALL BE REVIEWED AND APPROVED BY THE CUMBERLAND WATER DEPARTMENT.
- RESTRAIN ALL PUSH-ON BELL JOINTS WITHIN 20 FEET OF MECHANICAL JOINTS. RESTRAINTS TO BE SERIES 800 COVER-ALL BY EBAA IRON OR EQUAL.

LEGEND:

PROP. PROPERTY LINE	---
SIGN	+
BOLLARD	○
BUILDING	▭
BUILDING ARCHITECTURE	▭
CURB	▬
RETAINING WALL	▬
PARKING STRIPING	▬
ROADWAY STRIPING	▬
TRAFFIC ARROWS	→
HEAVY DUTY CONCRETE	▬
HEAVY DUTY PAVEMENT	▬
SIDEWALK	▬
ADA ACCESSIBLE RAMP	▬
ADA DET. WARNING SURFACE	▬
SNOW STORAGE	▬
SETBACK LINE	▬
BASELINE	▬
BASELINE DATA LABEL	10
BASELINE STATIONING	10+00
PARKING COUNT	⊙
STEEL GUARDRAIL	▬
WOOD GUARDRAIL	▬
CHAIN LINK FENCE	▬
WOOD FENCE	▬

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 9 2009 FILE # 09-0371
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APPROVED PLANS MUST BE AT CONSTRUCTION SITE

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CVS
CAREMARK

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Smithfield, RI; Lincoln, RI

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Issued for RIDEM
Wetlands & UIC

drawing by: MR / MP

drawing checked by: RC

drawing scale: AS NOTED

drawing date: 15 October 2009

drawing revision:

project number: 08020.00

rev. description date

1 Per RIDEM Comments 11/20/09

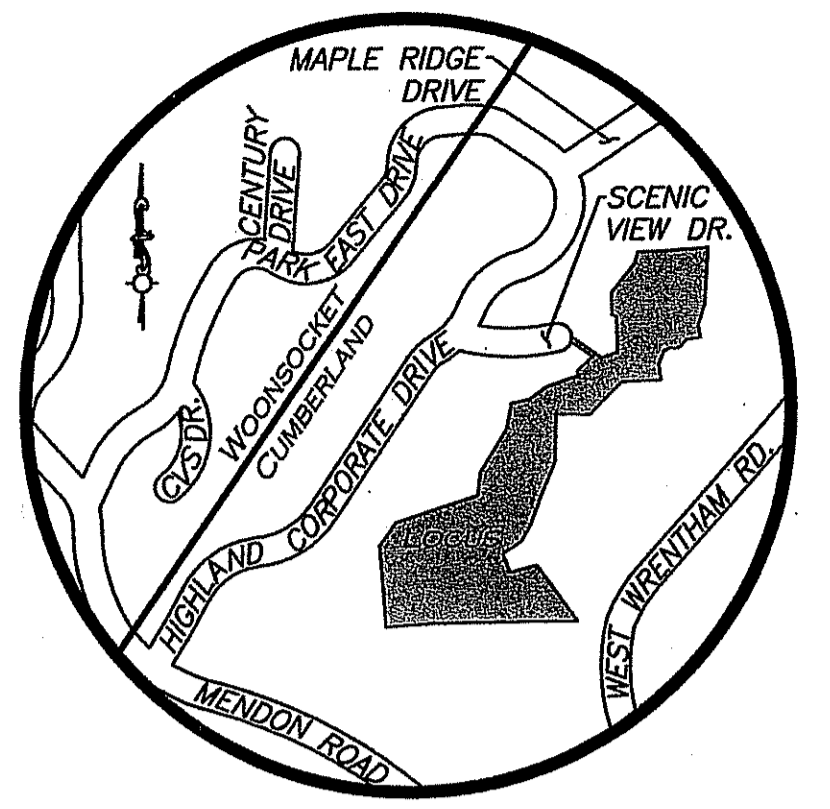
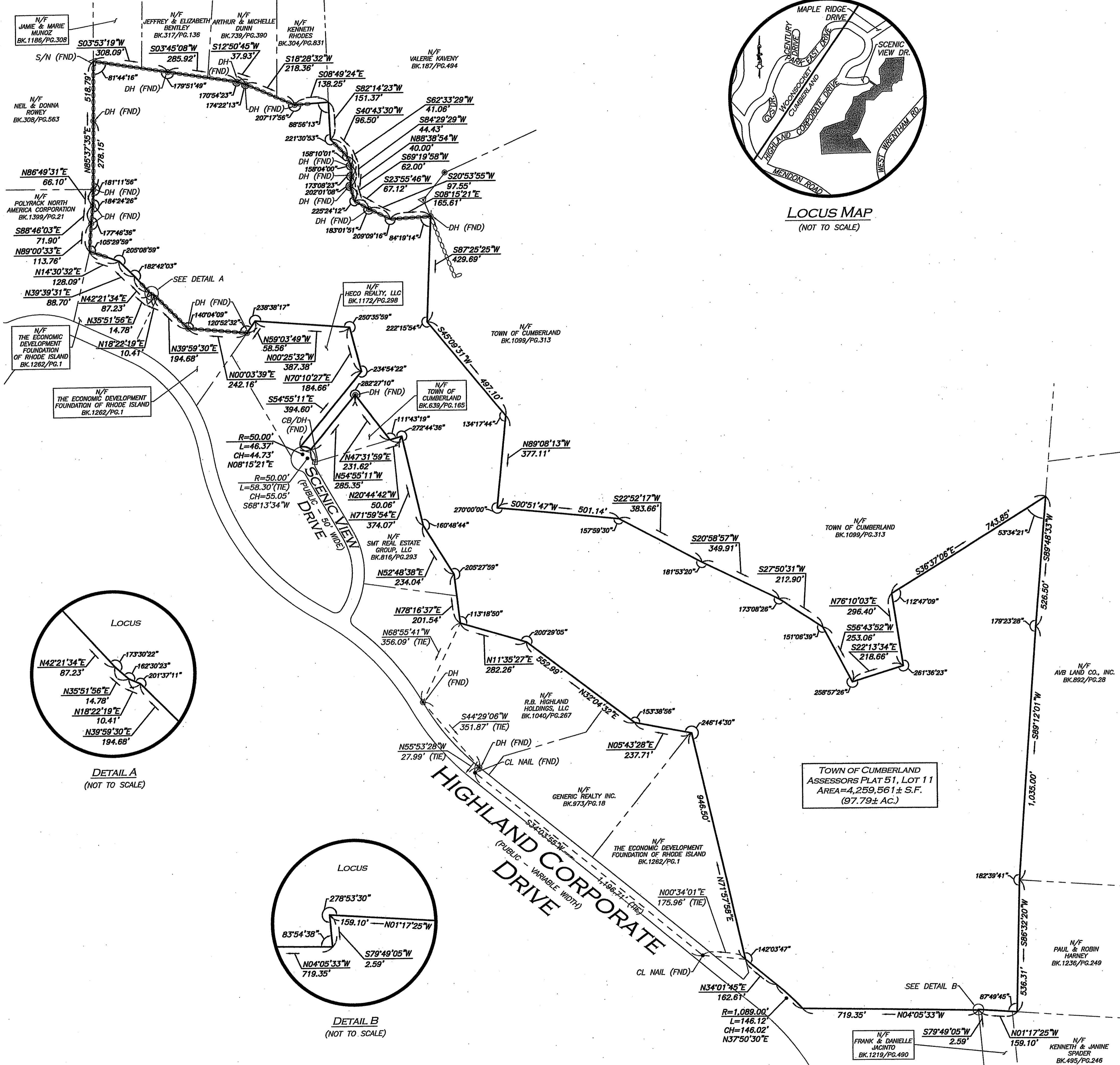
0 Issued for RIDEM 10/15/09

JAMES A. MAJOR

No. 3986

REGISTERED PROFESSIONAL ENGINEER

Abbreviations & Notes



LEGEND

DRILL HOLE (DH)	⊙
CONCRETE BOUND	□
STAKE & NAIL (S/N)	△
CENTERLINE NAIL (CL NAIL)	•
PROPERTY LINE	—
ABUTTERS LINE	- - -
STONE WALL	⊘⊘⊘⊘
CONCRETE	CONC.
CONC. BOUND W/DRILL HOLE	CB/DH
NOW OR FORMERLY	N/F
FOUND	(FND)
BOOK	BK.
PAGE	PG.
CHORD DISTANCE	CH

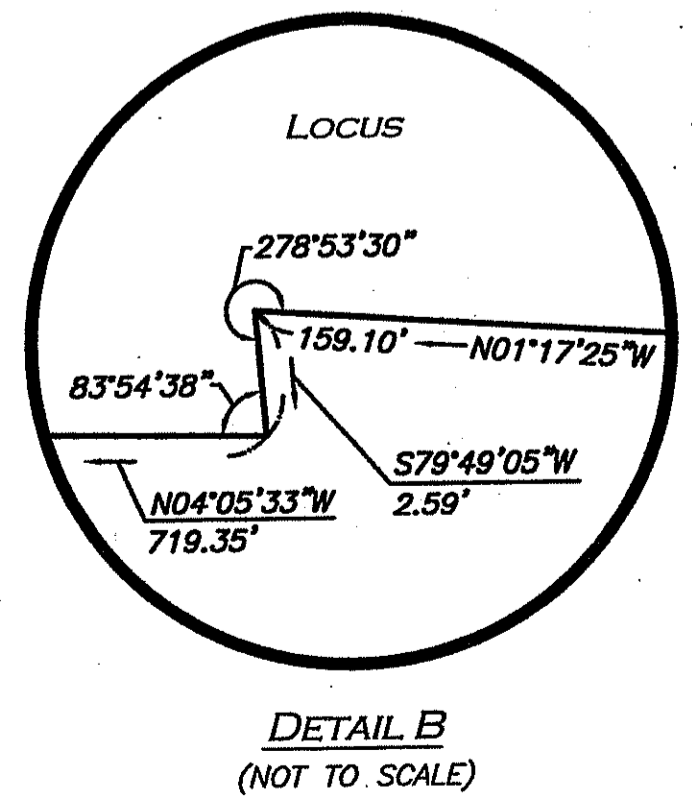
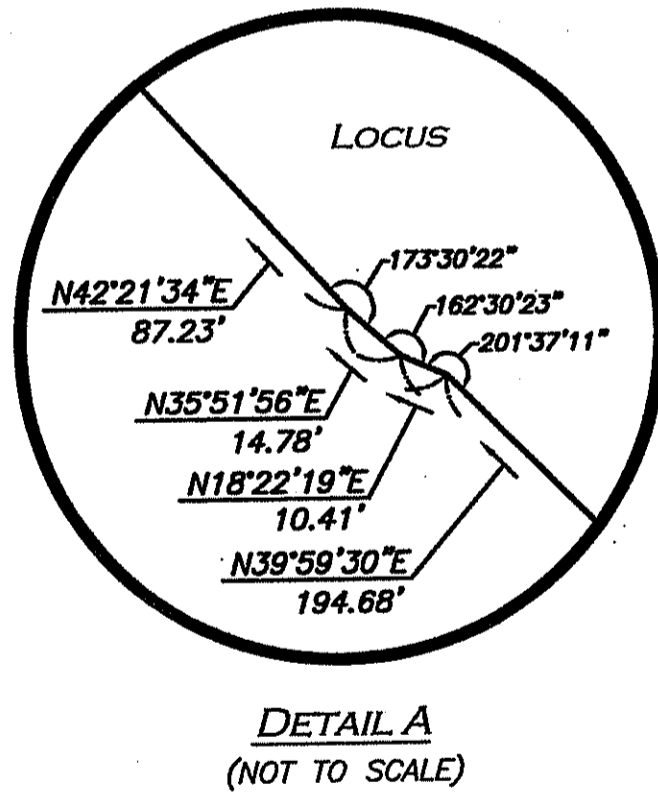
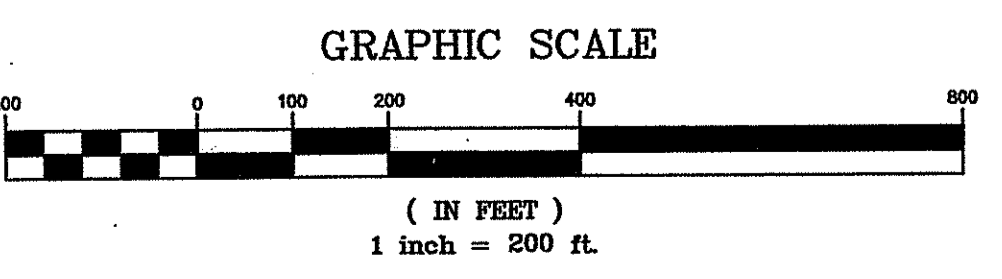
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 DIVISION OF WATER RESOURCES
 DEC 2 2009
 FILE # 09-0271
 DECISION MADE WITHOUT PRIOR APPROVAL AT CONSTRUCTION SITE

Charles A. Harbert

LOCUS REFERENCES
 -TOWN OF CUMBERLAND ASSESSORS PLAT 51, LOT 11
 -DEED BOOK 1048, PAGE 265

PLAN REFERENCES
 -TOWN OF CUMBERLAND PLAT CARDS 987-991
 -TOWN OF CUMBERLAND PLAT CARD 1312
 -TOWN OF CUMBERLAND PLAT CARD 1309
 -TOWN OF CUMBERLAND PLAT CARD 1081
 -TOWN OF CUMBERLAND PLAT CARD 1161
 -TOWN OF CUMBERLAND PLAT CARD 1271
 -TOWN OF CUMBERLAND PLAT CARD 2386

NOTES
 1. NORTH ARROW TAKEN FROM TOWN OF CUMBERLAND PLAT CARD 989.
 2. BOOK/PAGE AND PLAT REFERENCES ARE TAKEN FROM THE TOWN OF CUMBERLAND HALL OF RECORDS.



TOWN OF CUMBERLAND
 ASSESSORS PLAT 51, LOT 11
 AREA=4,259,561± S.F.
 (97.79± AC.)

N/F FRANK & DANIELLE JACINTO BK.1219/PG.490
 N/F KENNETH & JANINE SPADER BK.495/PG.246

I HEREBY CERTIFY THAT:
 THIS PLAN IS THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED ON OR BETWEEN MARCH 17, 2008 AND OCTOBER 18, 2008.
 THIS SURVEY AND PLAN CONFORMS TO A CLASS I STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS.

KEVIN J. KIERNAN
 No. 1970
 PROFESSIONAL LAND SURVEYOR
 REGISTERED PROFESSIONAL LAND SURVEYOR FOR ALLEN & MAJOR ASSOCIATES, INC.

RECEIVED
 DEC - 1 2009

REV DATE DESCRIPTION
 APPLICANT/OWNER:
 CVS PHARMACY INC.
 ONE CVS DRIVE
 WOONSOCKET, RI 02895

PROJECT:
 LOT 11
 TOWN OF CUMBERLAND
 ASSESSORS PLAT 51
 CUMBERLAND, RI

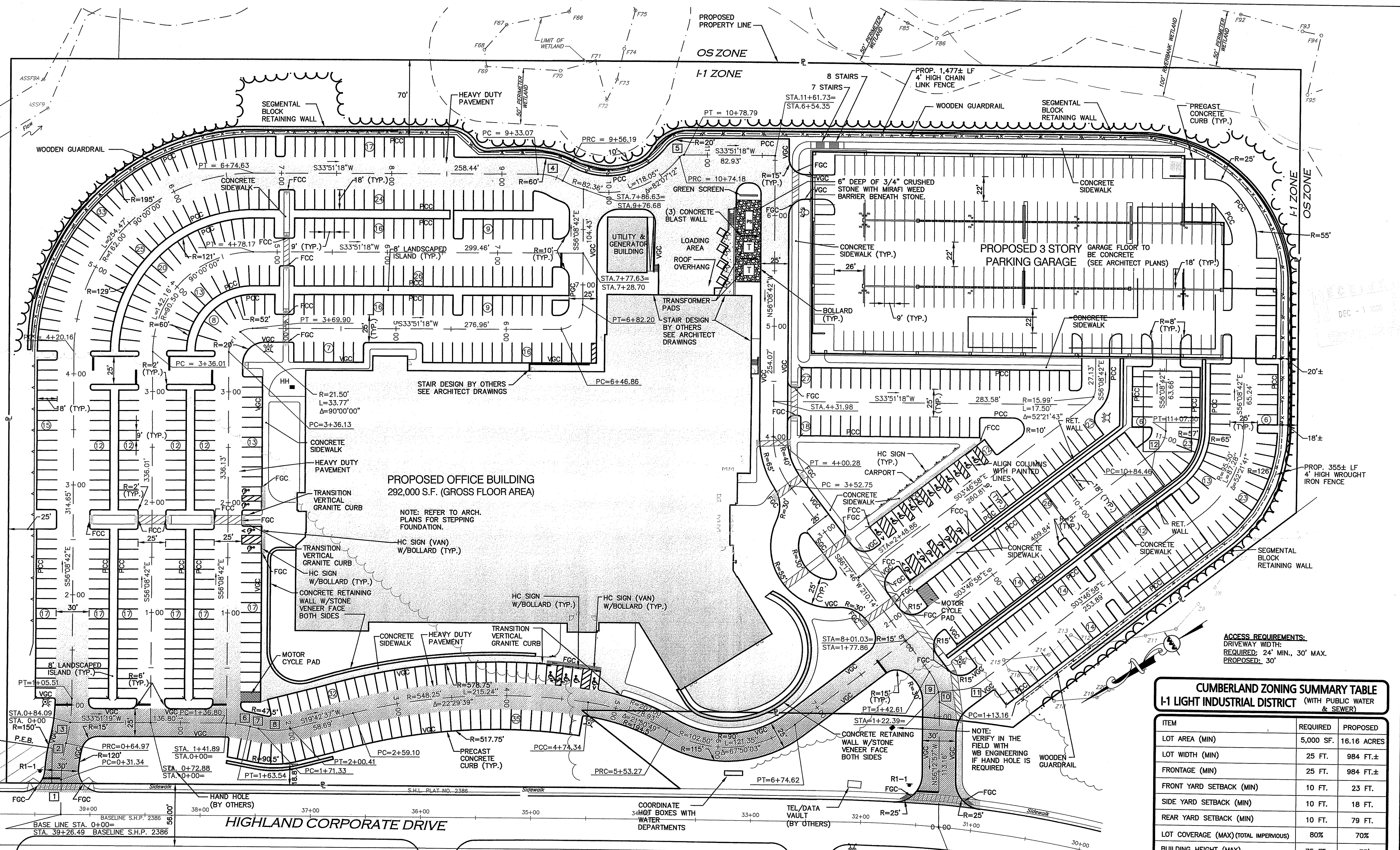
PROJECT NO. 1514-026 DATE: 04/02/09
 SCALE: 1"=200' DWG. NAME: 5-1514-026-PLAT
 DRAFTED BY: COB CHECKED BY: KIK

PREPARED BY:

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DRAWING TITLE: PLOT PLAN SHEET No. 1 of 27



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Issued for RIDEM
Wetlands & UIC

drawing by: MR / MP
drawing checked by: RC
drawing scale: 1"=40'
drawing date: 15 October 2009
drawing revision: 1 Per RIDEM Comments 11/20/09
project number: 08020.00
rev. description date

rev.	description	date
1	Per RIDEM Comments	11/20/09
0	Issued for RIDEM	10/15/09

JAMES A. MAJOR
No. 3988
REGISTERED PROFESSIONAL ENGINEER

Layout & Materials Plan

CUMBERLAND ZONING SUMMARY TABLE
I-1 LIGHT INDUSTRIAL DISTRICT (WITH PUBLIC WATER & SEWER)

ITEM	REQUIRED	PROPOSED
LOT AREA (MIN)	5,000 SF.	16.16 ACRES
LOT WIDTH (MIN)	25 FT.	984 FT.±
FRONTAGE (MIN)	25 FT.	984 FT.±
FRONT YARD SETBACK (MIN)	10 FT.	23 FT.
SIDE YARD SETBACK (MIN)	10 FT.	18 FT.
REAR YARD SETBACK (MIN)	10 FT.	79 FT.
LOT COVERAGE (MAX) (TOTAL IMPERVIOUS)	80%	70%
BUILDING HEIGHT (MAX)	75 FT.	<75'
BUILDING IMPERVIOUS COVERAGE	-	13%
PARKING LOT/WALKWAY IMPERVIOUS COVERAGE	75 FT.	<75'

PARKING AREA REQUIREMENTS

ITEM	REQUIRED	PROPOSED
SETBACK FROM BUILDING	5'	10'
SETBACK FROM PROPERTY LINE	10'	18'
SETBACK FROM STREET LINE	10'	18'
AISLE WIDTH	25'	25'-30'
PARKING STALL SIZE	9'x18'	9'x18'
LOADING AREA SIZE	14'x60'	14'x60'
DRIVEWAY ACCESS WIDTH	24' MIN., 30' MAX.	30'

PROPOSED BASELINE DATA

LABEL	R	Δ	L	COURSE	PC. STA.	PT. STA.
1			31.34'	S55°56'43"E	0+00	0+31.34
2	138.80'	13°52'44"	33.62'		0+31.34	0+64.96
3	165.00'	14°04'49"	40.55'		0+64.97	1+05.51
4	45.00'	29°26'28"	23.12'		9+33.07	9+56.19
5	5.00'	52°46'56"	4.61'		10+74.18	10+78.79
6	112.50'	13°36'59"	26.74'		1+36.80	1+63.54
7		7.80'	S47°28'18"W		1+63.54	1+71.33
8	60.00'	27°45'41"	29.07'		1+71.33	2+00.41
9	45.00'	37°29'16"	29.44'		1+13.16	1+42.61

PROPOSED BASELINE DATA

LABEL	R	Δ	L	COURSE	PC. STA.	PT. STA.
10			23.34'	S 26°48'10" W		
11	27.50'	30°35'08"	14.68'			
12	25.00'	52°21'43"	22.85'		10+84.46	11+07.30

NOTES:
1. SEE SHEET A-1 FOR ABBREVIATIONS, LEGEND & NOTES.
2. SEE PLOT PLAN SHEET #1 FOR EXISTING PROPERTY LINES.

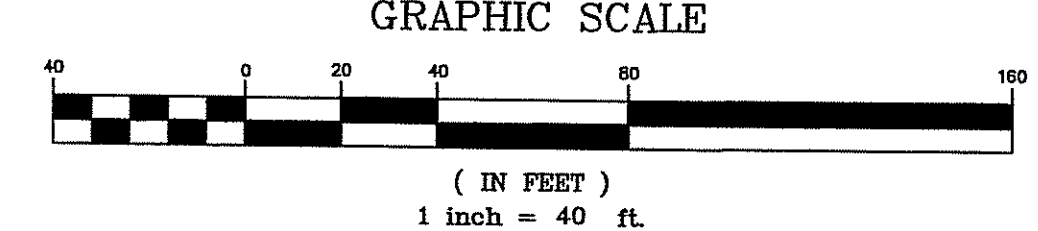
PARKING SUMMARY

ITEM	REQUIRED	PROPOSED
STANDARD	974	1,351
HANDICAPPED	19	25
TOTAL	993	1,376
PARKING RATIO	1 SPACE PER 300 G.F.A.	1 SPACE PER 216 G.F.A.

ASSUMING 292,000 TOTAL GROSS FLOOR AREA
1. TOTAL GARAGE PARKING = 669

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WETLAND CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 9 2009 FILE # 04-0271
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Harbert



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CVS CAREMARK

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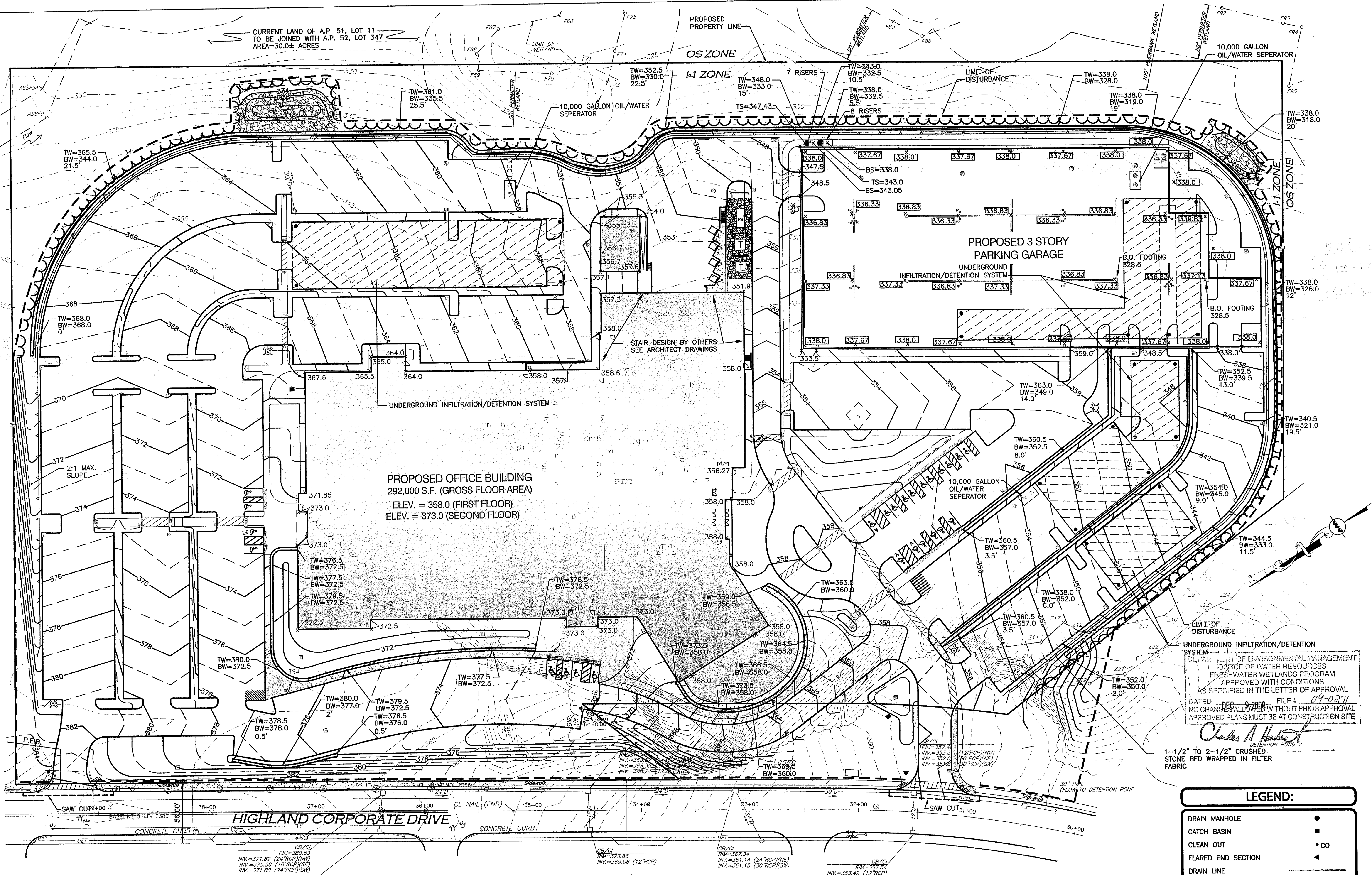
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Issued for RIDEM Wetlands & UIC

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drawing checked by:	RC	
drawing scale:	1"=40'	
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project number:	08020.00	
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JAMES A. MAJOR
No. 3986
Professional Engineer

Grading Plan



DRAINAGE NOTES:

- CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
- SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER, PRIOR TO ORDERING.
- ALL STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
- FRAMES AND GRATES/COVERS FOR CATCH BASINS AND MANHOLES SHALL BE SHALLOW/LOW PROFILE 4". EXCEPT CB 1, 27 and 41-47, ALL CATCH BASINS SHALL HAVE A 3" SUMP.
- ALL CATCH BASINS SHALL BE PRECAST CONCRETE WATER TIGHT STRUCTURES. (NO WEEP HOLES)
- ALL DRAINAGE PIPE SHALL BE ADS N-12 HDPE OR RCP CLASS IV. PIPE BEDDING SHALL BE IN CRUSHED STONE WRAPPED IN FILTER FABRIC OR GRAVEL BORROW COMPACTED TO 95% DRY DENSITY (MODIFIED PROCTOR METHOD).

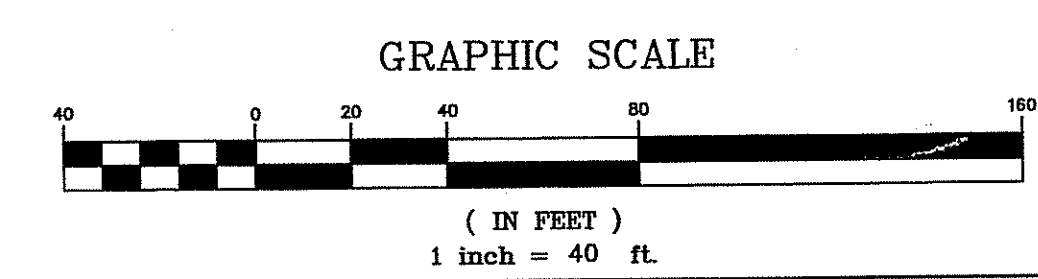
GRADING NOTE:
SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL SITE IS STABILIZED WITH VEGETATION.

RETAINING WALL NOTE

- CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION METHODS, STRUCTURAL REQUIREMENTS, AND DETAILS ASSOCIATED WITH PROPOSED ON-SITE RETAINING WALLS.
- PEDESTRIAN FENCING SHALL BE PROVIDED AT THE TOP OF ALL WALLS.

NOTES:

- SEE SHEET A-1 FOR ABBREVIATIONS, LEGEND & NOTES.
- SEE PLOT PLAN SHEET #1 FOR EXISTING PROPERTY LINES.



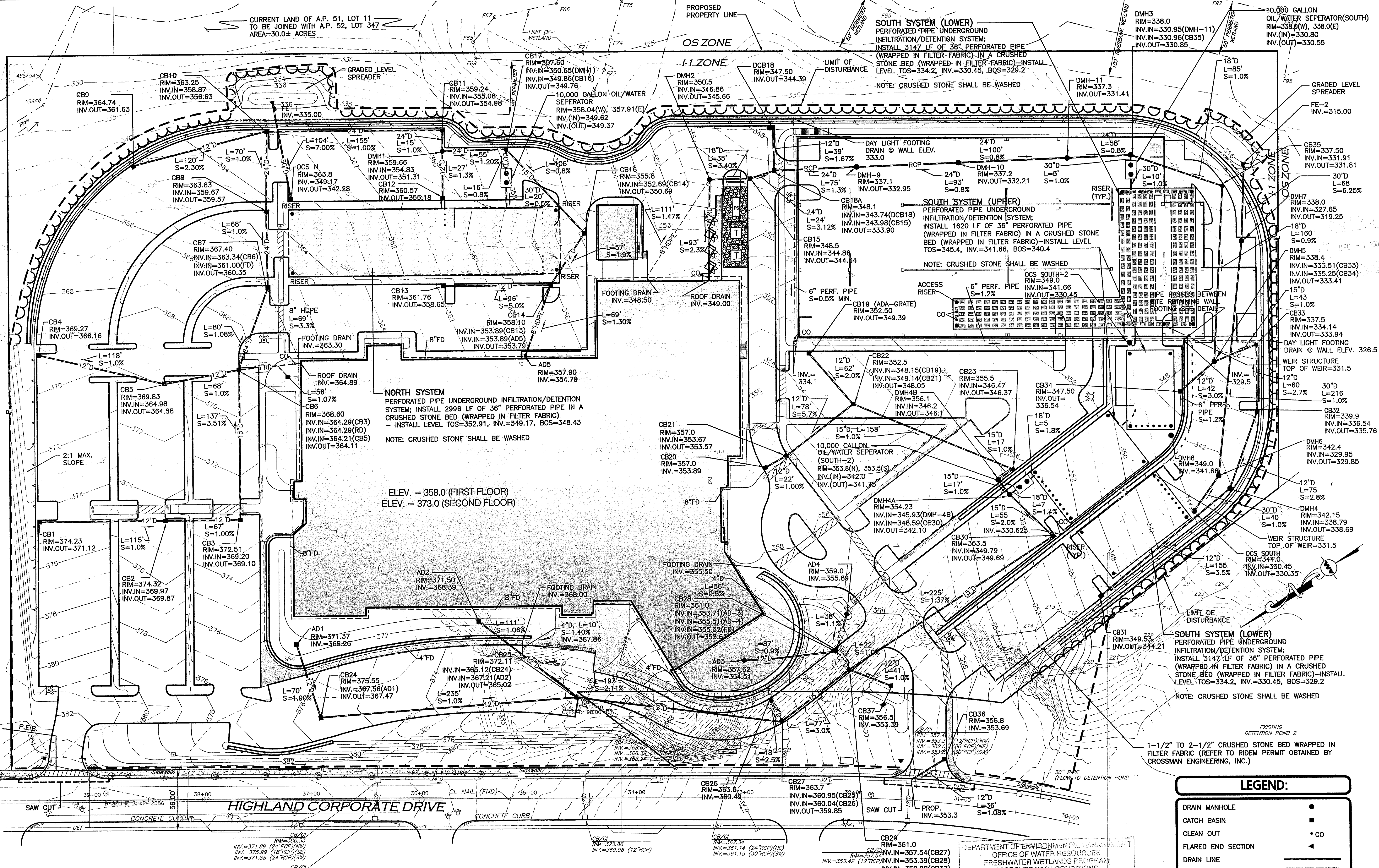
LEGEND:

DRAIN MANHOLE	●
CATCH BASIN	■
CLEAN OUT	● CO
FLARED END SECTION	◀
DRAIN LINE	—
RIPRAP OUTFALL	▨
10' CONTOUR	150
1' CONTOUR	128
SPOT GRADE	x128
DETENTION BASIN	▨
SAW-CUT LINE	- - -
INFILTRATION SYSTEM	▨

drawing by:	MR / MP	
drawing checked by:	RC	
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REGISTERED PROFESSIONAL ENGINEER
 JAMES A. MAJOR
 No. 3988

Drainage Plan



DRAINAGE NOTES:

- CONTRACTOR TO VERIFY THAT ALL STRUCTURES ARE COMPATIBLE WITH FRAME AND GRATE.
- SHOP DRAWINGS AND SPECIFICATIONS FOR ALL DRAINAGE RELATED ITEMS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER, PRIOR TO ORDERING.
- ALL STRUCTURES SHALL BE DESIGNED FOR H-20 LOADING.
- FRAMES AND GRATES/COVERS FOR CATCH BASINS AND MANHOLES SHALL BE SHALLOW/LOW PROFILE 4".
- ALL CATCH BASINS SHALL HAVE A 4" SUMP.
- ALL CATCH BASINS SHALL BE PRECAST CONCRETE WATER TIGHT STRUCTURES. (NO WEEP HOLES)
- ALL DRAINAGE PIPE SHALL BE HDPE UNLESS NOTED OTHERWISE. PIPE BEDDING SHALL BE IN CRUSHED STONE WRAPPED IN FILTER FABRIC OR GRAVEL BORROW COMPACTED TO 95% DRY DENSITY (MODIFIED PROCTOR METHOD).

GRADING NOTE:
 SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL SITE IS STABILIZED WITH VEGETATION.

RETAINING WALL NOTE

- CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION METHODS, STRUCTURAL REQUIREMENTS, AND DETAILS ASSOCIATED WITH PROPOSED ON-SITE RETAINING WALLS.
- PEDESTRIAN FENCING SHALL BE PROVIDED AT THE TOP OF ALL WALLS.

NOTES:

- SEE SHEET A-1 FOR ABBREVIATIONS, LEGEND & NOTES.
- SEE PLOT PLAN SHEET #1 FOR EXISTING PROPERTY LINES

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
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 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Herbert

GRAPHIC SCALE
 (IN FEET)
 1 inch = 40 ft.

LEGEND:

- DRAIN MANHOLE
- CATCH BASIN
- CLEAN OUT
- FLARED END SECTION
- DRAIN LINE
- RIPRAP OUTFALL
- 10' CONTOUR
- 2' CONTOUR
- SPOT GRADE
- DETENTION BASIN
- SAW-CUT LINE
- INFILTRATION SYSTEM
- INFILTRATION PIPE

1-1/2" TO 2-1/2" CRUSHED STONE BED WRAPPED IN FILTER FABRIC (REFER TO RIDEM PERMIT OBTAINED BY CROSSMAN ENGINEERING, INC.)

SOUTH SYSTEM (LOWER)
 PERFORATED PIPE UNDERGROUND INFILTRATION/DETENTION SYSTEM;
 INSTALL 3147 LF OF 36" PERFORATED PIPE (WRAPPED IN FILTER FABRIC) IN A CRUSHED STONE BED (WRAPPED IN FILTER FABRIC)-INSTALL LEVEL TOS=334.2, INV.=330.45, BOS=329.2

SOUTH SYSTEM (UPPER)
 PERFORATED PIPE UNDERGROUND INFILTRATION/DETENTION SYSTEM;
 INSTALL 1620 LF OF 36" PERFORATED PIPE (WRAPPED IN FILTER FABRIC) IN A CRUSHED STONE BED (WRAPPED IN FILTER FABRIC)-INSTALL LEVEL TOS=345.4, INV.=341.66, BOS=340.4

NORTH SYSTEM
 PERFORATED PIPE UNDERGROUND INFILTRATION/DETENTION SYSTEM; INSTALL 2996 LF OF 36" PERFORATED PIPE IN A CRUSHED STONE BED (WRAPPED IN FILTER FABRIC) - INSTALL LEVEL TOS=352.91, INV.=349.17, BOS=348.43

NOTE: CRUSHED STONE SHALL BE WASHED

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1 Per RIDEM Comments 11/20/09

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JAMES A. MAJOR

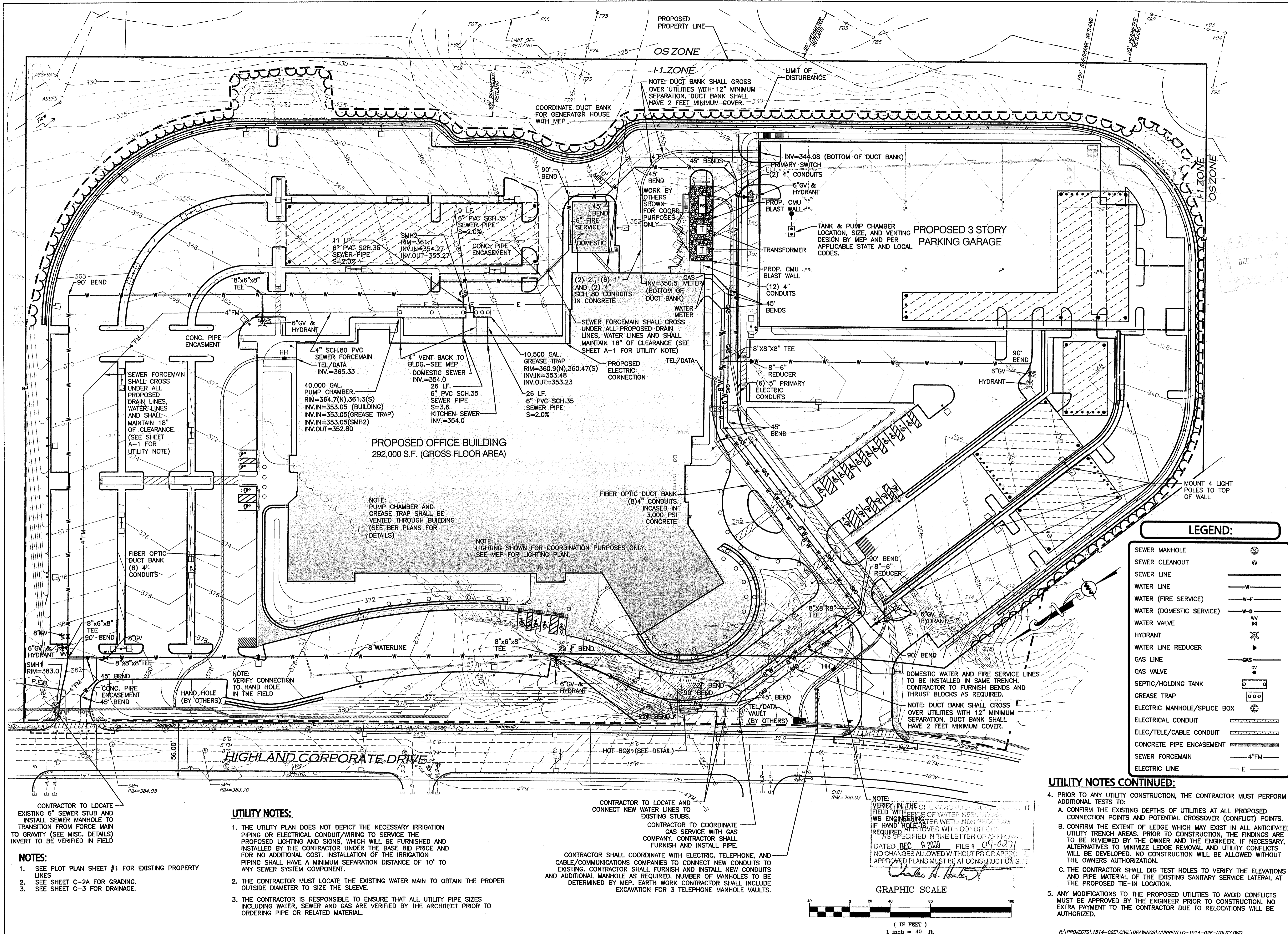
No. 3986

REGISTERED PROFESSIONAL ENGINEER

Utility Plan

C-4

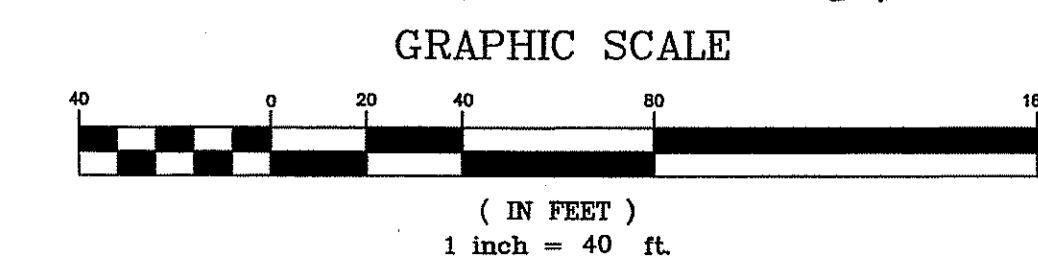
7 OF 27

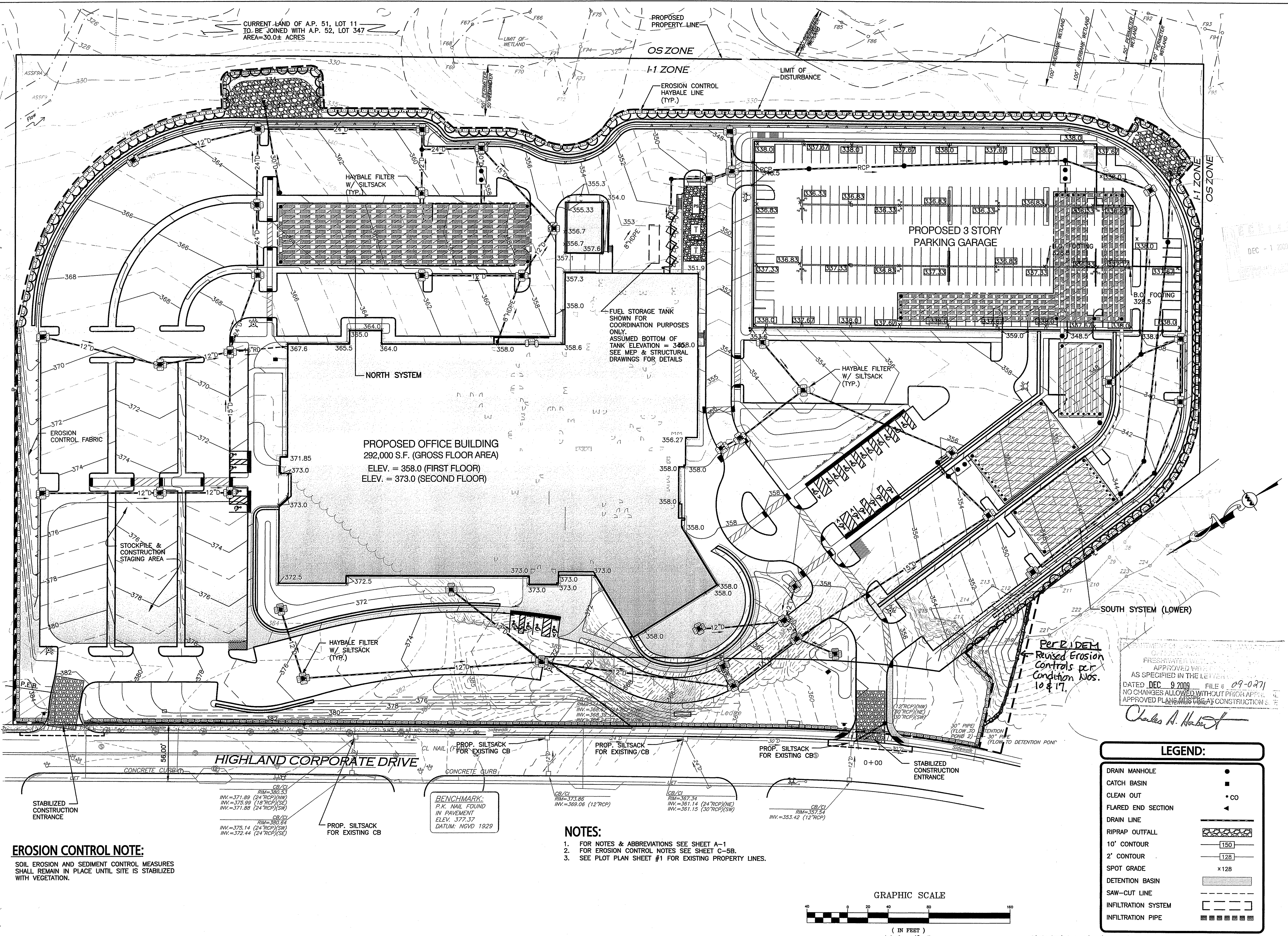


LEGEND:

SEWER MANHOLE	⊙
SEWER CLEANOUT	⊙
SEWER LINE	—
WATER LINE	—
WATER (FIRE SERVICE)	—F—
WATER (DOMESTIC SERVICE)	—D—
WATER VALVE	⊕
HYDRANT	⊙
WATER LINE REDUCER	—R—
GAS LINE	—GAS—
GAS VALVE	⊕
SEPTIC/HOLDING TANK	⊕
GREASE TRAP	⊕
ELECTRIC MANHOLE/SPLICE BOX	⊕
ELECTRICAL CONDUIT	—
ELEC./TELE./CABLE CONDUIT	—
CONCRETE PIPE ENCASUREMENT	—
SEWER FORCEMAIN	—4"FM—
ELECTRIC LINE	—E—

- UTILITY NOTES CONTINUED:**
- PRIOR TO ANY UTILITY CONSTRUCTION, THE CONTRACTOR MUST PERFORM ADDITIONAL TESTS TO:
 - CONFIRM THE EXISTING DEPTHS OF UTILITIES AT ALL PROPOSED CONNECTION POINTS AND POTENTIAL CROSSOVER (CONFLICT) POINTS.
 - CONFIRM THE EXTENT OF LEDGE WHICH MAY EXIST IN ALL ANTICIPATED UTILITY TRENCH AREAS. PRIOR TO CONSTRUCTION, THE FINDINGS ARE TO BE REVIEWED BY THE OWNER AND THE ENGINEER. IF NECESSARY, ALTERNATIVES TO MINIMIZE LEDGE REMOVAL AND UTILITY CONFLICTS WILL BE DEVELOPED. NO CONSTRUCTION WILL BE ALLOWED WITHOUT THE OWNERS AUTHORIZATION.
 - THE CONTRACTOR SHALL DIG TEST HOLES TO VERIFY THE ELEVATIONS AND PIPE MATERIAL OF THE EXISTING SANITARY SERVICE LATERAL AT THE PROPOSED TIE-IN LOCATION.
 - ANY MODIFICATIONS TO THE PROPOSED UTILITIES TO AVOID CONFLICTS MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. NO EXTRA PAYMENT TO THE CONTRACTOR DUE TO RELOCATIONS WILL BE AUTHORIZED.





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Per RIDEM Reused Erosion Controls per Condition Nos. 10 & 17.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WETLANDS AND WATER RESOURCES
FRESHWATER WETLANDS
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER DATED DEC 9 2009 FILE # 09-0271
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLAN FOR CONSTRUCTION

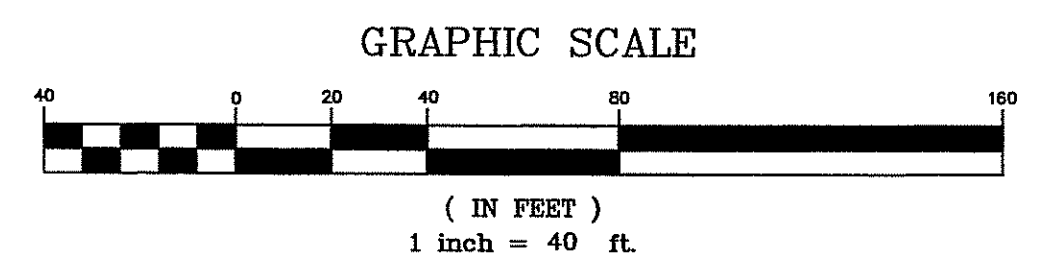
Charles A. Harter

LEGEND:

- DRAIN MANHOLE
- CATCH BASIN
- CLEAN OUT
- FLARED END SECTION
- DRAIN LINE
- RIPRAP OUTFALL
- 10' CONTOUR
- 2' CONTOUR
- SPOT GRADE
- DETENTION BASIN
- SAW-CUT LINE
- INFILTRATION SYSTEM
- INFILTRATION PIPE

EROSION CONTROL NOTE:
SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL SITE IS STABILIZED WITH VEGETATION.

- NOTES:**
- FOR NOTES & ABBREVIATIONS SEE SHEET A-1
 - FOR EROSION CONTROL NOTES SEE SHEET C-5B.
 - SEE PLOT PLAN SHEET #1 FOR EXISTING PROPERTY LINES.



JAMES A. MAJOR
Professional Engineer
No. 3986

Erosion Control Plan

C-5A
8 OF 27

GENERAL NOTES:

- AS A RI RIDEM REQUEST FOR PRELIMINARY DETERMINATION WETLAND FILING HAS BEEN SUBMITTED, A SEPARATE RIDEM RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIDDES) PERMIT IS NOT REQUIRED ONCE THE PERMIT IS ISSUED.
- IF A SEPARATE RIDEM RIDDES PERMIT IS REQUIRED, THE RIDDES PERMIT FOR STORM WATER DISCHARGE, & CONSTRUCTION GENERAL PERMIT NOI AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) WILL BE REQUIRED TO BE SUBMITTED AT LEAST 7 DAYS PRIOR TO COMMENCING CONSTRUCTION.
- APPLICABLE WORK AND MATERIALS SHALL COMPLY WITH ALL TOWN OF CUMBERLAND, RI REGULATIONS AND CODES, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF WATER RESOURCES REGULATIONS FOR THE RIDDES; JUNE 26, 1984 & AMENDED FEBRUARY 5, 2003, RIDEM, RHODE ISLAND DEM SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, USDA, SOIL CONSERVATION SERVICE VEGETATIVE PRACTICES IN SITE DEVELOPMENT, O.S.H.A. STANDARDS, THE TOWN OF CUMBERLAND PUBLIC WORKS DEPARTMENT SPECIFICATIONS, APPLICABLE RIDEM REGULATIONS AND NBC SEWER REGULATIONS.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES, AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO CARRY OUT THE WORK INCLUDING BUT NOT LIMITED TO DEMOLITION.
- DISPOSAL OF ALL DEMOLISHED MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL MUNICIPAL REQUIREMENTS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN. THE CONTRACTOR SHALL PROTECT AND/OR CAP OFF ALL EXISTING ON-SITE UTILITY SERVICES DESIGNATED ON THESE DRAWINGS. SERVICES SHALL BE CAPPED OFF WHERE SAME ENTER THE PERIMETER OF THE PROPERTY LINE.
- THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL AS DETERMINED BY THE ENGINEER OR OWNER'S REPRESENTATIVE.
- PROPOSED UTILITIES ARE SHOWN IN SCHEMATIC ONLY. EXACT LOCATIONS SHALL BE DETERMINED TO ALLOW FOR THE MOST ECONOMICAL INSTALLATION.
- CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
- ALL DISTURBED AREAS ARE TO RECEIVE SIX INCHES OF TOPSOIL, SEED, MULCH AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
- ALL ISLANDS WITH CURB & GUTTER SHALL BE LANDSCAPED. ALL REMAINING ISLANDS ARE TO BE STRIPED AS SHOWN.
- CURB RADI SHALL BE AS SHOWN ON THE PLAN, THOUGH TYPICALLY 10-FT. AT CORNERS AND 2-FT. ADJACENT TO PARKING STALLS.
- ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COSTS SHALL BE INCLUDED IN BASE BID.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH THE TOWN OF CUMBERLAND GOVERNING AUTHORITY'S SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COSTS SHALL BE INCLUDED IN BASE BID.
- TOTAL LAND AREA IS 16.16± ACRES.
- REFER TO ARCHITECTURAL, PLUMBING AND MECHANICAL PLANS FOR SEWER, WATER AND GAS CONNECTIONS.
- THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE EXACT POINT OF SERVICE CONNECTION AT EXISTING UTILITY. REFER TO THE BUILDING ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY SERVICE ENTRANCE LOCATIONS, SIZES, AND CIRCUITING.
- ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR AT GROUND BREAK.
- FINISH WALK AND CURB ELEVATIONS VARY FROM FLUSH TO A MAXIMUM OF 6" ABOVE FINISH GRADE.
- PROPOSED GAS SERVICE LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL CONFIRM WITH THE GAS COMPANY THAT GAS LINE INSTALLATION SHALL BE BY THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL GIVE THE GAS COMPANY ADVANCE NOTICE OF WHEN THE GAS LINE CAN BE INSTALLED.
- PROPOSED ELECTRIC AND COMMUNICATIONS (TELEPHONE, CABLE, AND FIRE ALARM SYSTEMS) LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE COORDINATED AND SCHEDULED WITH THE APPROPRIATE UTILITY COMPANY SERVICING THE PROJECT SITE.
- CONTRACTOR IS RESPONSIBLE FOR DIGGING TEST HOLES AND VERIFYING ANY EXISTING UTILITY OR STRUCTURE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY THAT BASED ON EXACT LOCATION OF EXISTING UTILITIES, THERE ARE NO CONFLICTS BETWEEN THEM AND THE PROPOSED UTILITIES.
- THE CONTRACTOR SHALL GIVE TWENTY FOUR (24) HOUR NOTICE TO THE PERTINENT TOWN OF CUMBERLAND DEPARTMENT BEFORE COMMENCING ANY WORK IN THE FIELD.
- ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
- IF NEEDED STORM PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) CLASS IV, AND HDPE. SEE DRAINAGE PLAN FOR SIZE, TYPE, AND LOCATION.
- EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
- EXISTING GRADE CONTOUR INTERVALS SHOWN AT 2 FOOT
- PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "DRAIN".

GENERAL NOTES CONTINUED:

- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- ALL UNSURFACED AREAS TEMPORARILY OR PERMANENTLY DISTURBED BY GRADING OPERATION SHALL RECEIVE 6 INCHES OF LOAM AND SEED. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH TOWN SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- ALL CATCH BASINS ON-SITE SHALL BE EQUIPPED WITH HOODS AND 4 FOOT SUMPS AND SHALL CONFORM TO LOCAL DRAINAGE REQUIREMENTS.

CONSTRUCTION GENERAL PERMIT NOTES

THE EROSION CONTROL PLAN WILL BE IMPLEMENTED TO:

- TREAT EROSION AS SOON AS POSSIBLE AFTER DISTURBANCE.
- PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA AND ENTERING THE WETLANDS.
- CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED TO MINIMIZE EROSION.
- ONLY DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION.

MAINTENANCE

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN AND NOTES, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
- ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
- SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
- THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
- THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
- OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

SEQUENCE OF CONSTRUCTION:

- INSTALL STABILIZED CONSTRUCTION ENTRANCES.
- PREPARE TEMPORARY PARKING AND STORAGE AREA. UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTA POTTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., DENOTE THEM ON THE SITE MAPS IMMEDIATELY AND NOTE ANY CHANGES IN THE LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.
- CONSTRUCT THE SILT FENCE, HAY BALES ON THE SITE.
- CONSTRUCT THE SEDIMENTATION AND SEDIMENT TRAP BASINS.
- CONSTRUCT DETENTION AREA.
- CLEAR AND GRUB THE SITE.
- HALT ALL ACTIVITIES AND CONTACT THE CIVIL ENGINEERING CONSULTANT TO PERFORM INSPECTION OF BMPS. GENERAL CONTRACTOR SHALL SCHEDULE AND CONDUCT STORM WATER PRE-CONSTRUCTION MEETING WITH ENGINEER AND ALL GROUND DISTURBING CONTRACTORS BEFORE PROCEEDING WITH CONSTRUCTION.
- START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
- BEGIN GRADING THE SITE.
- TEMPORARILY SEED DENUDED AREAS.
- INSTALL UTILITIES, UNDERDRAINS, STORM SEWERS, CURBS AND GUTTERS.
- INSTALL RIP RAP AROUND OUTLET STRUCTURES.
- INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
- PREPARE SITE FOR PAVING.
- PAVE SITE.
- INSTALL INLET PROTECTION DEVICES.
- COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
- REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED).

EROSION CONTROL AND SEDIMENT CONTROL NOTES:

- SILT CONTROL SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE ADEQUATE TO MAINTAIN SEDIMENT ON SITE. ANY MODIFICATIONS TO SILT CONTROLS SHOWN ON THE APPROVED PLANS AS A RESULT OF ACTUAL FIELD CONDITIONS OR CONSTRUCTION PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH B.M.P. (BEST MANAGEMENT PRACTICES) PER THE E.P.A. 1992 "STORMWATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES" MANUAL. ANY SUCH MODIFICATIONS SHALL BE INSTALLED AS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL CONDUCT INSPECTIONS AFTER EACH RAINFALL EVENT IN ADDITION TO WEEKLY INSPECTIONS & MAINTAINING A LOG IN ACCORDANCE WITH RI DEM, AND TOWN OF CUMBERLAND, RI.
- AREAS OF EXPOSED SOIL UNDERGOING CONSTRUCTION THAT WILL NOT BE COVERED AND OR FINISHED GRADED WITHIN 7 DAYS OF EXPOSURE SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL MEASURES WITHIN 7 DAYS OF DISTURBANCE. TEMPORARY EROSION CONTROL MEASURES SHALL INCLUDE EROSION CONTROL MESH, NETTING OR MULCH AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND SHOWN ON THE DESIGN PLANS. IF MULCH IS USED, HAY OR STRAW MULCH SHALL BE APPLIED AT THE RATE OF 2 BALES PER 1,000 SQUARE FEET. APPLICATION AREA SHALL BE SUFFICIENTLY COVERED WITH MULCH TO AVOID ANY VISIBLE SOIL EXPOSURE. MULCH SHALL BE KEPT MOIST TO AVOID LOSS DUE TO WIND. MULCH AND NETTING SHALL BE APPLIED IN THE BASE OF ALL GRASSED WATERWAYS AND IN VEGETATIVE SLOPES WHICH EXCEED 15% AND DISTURBED AREAS WITHIN 100 FEET OF WETLANDS OR STREAMS.
- IF DISTURBED AREAS DO NOT RECEIVE FINAL SEEDING BY SEPTEMBER 15 OF THE CONSTRUCTION YEAR, THEN ALL DISTURBED AREAS SHALL BE SEED WITH A WINTER COVER CROP AT THE RATE OF 3 LBS PER 1,000 SQUARE FEET. WINTER SEEDING SHALL BE COVERED WITH EROSION CONTROL MESH (MULCH AND NETTING). HEAVY GRADE MATS SHALL BE USED IN THE BASE OF ALL GRASSED WATERWAYS ON VEGETATED SLOPES IN EXCESS OF 15%, AND ANY DISTURBED AREAS WITHIN 100 FEET OF WETLANDS OR STREAMS. MULCH AND NETTING SHALL ALSO BE PROVIDED FOR ADDITIONAL WINTER PROTECTION.
- SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH HAY AND MULCH (AT 100LBS/1,000 SF), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEED WITH WINTER RYE (FOR FALL SEEDING AT 3LB/1,000 SF) OR OATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH HAY MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL. LOAM SHALL BE STOCKPILED AT LOCATIONS DESIGNATED BY THE OWNER AND ENGINEER.
- ALL FILTER BARRIERS, SILT SACKS, AND EROSION CONTROL BERMS SHALL BE INSTALLED ACCORDING TO THE EROSION CONTROL PLAN. THESE SHALL BE MAINTAINED DURING CONSTRUCTION TO REMOVE SEDIMENT FROM RUNOFF WATER. ALL THE FILTER BARRIERS AND EROSION CONTROL BERMS SHALL BE INSPECTED AFTER ANY RAINFALL OR RUNOFF EVENT, MAINTAINED AND CLEANED UNTIL ALL AREAS HAVE AT LEAST 85-90% VIGOROUS PERENNIAL COVER OF GRASSES.
- THE EXISTING PARKING LOT SHALL BE PERIODICALLY SWEEP OR WASHED TO AVOID TRACKING MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA. A WATERING TRUCK WILL BE USED TO PERIODICALLY SPRINKLE CONSTRUCTION AREAS IN ORDER TO KEEP THE LEVEL OF DUST TO A MINIMUM DURING THE DRY MONTHS AND AS REQUIRED.
- THE CONTRACTOR SHALL USE EXTREME CAUTION TO AVOID ALLOWING SEDIMENTS TO ENTER THE STORM DRAIN SYSTEM DURING CONSTRUCTION. CATCH BASIN INLETS SHALL ALSO BE PROTECTED DURING CONSTRUCTION BY THE USE OF STRAW BALE BARRIERS AROUND EACH INLET. SILT SACKS SHALL BE INSTALLED IN ALL EXISTING BASINS. INLET PROTECTION MAY BE REMOVED ONLY AFTER FINISHED AREAS ARE PAVED AND THE VEGETATED SLOPES ARE ESTABLISHED WITH AT LEAST 85-90% OF VIGOROUS PERENNIAL GROWTH.
- REVEGETATION MEASURES SHALL COMMENCE IMMEDIATELY UPON THE COMPLETION OF CONSTRUCTION. FOLLOWING SEED BED PREPARATION, SWALE AREAS, FILL AREAS AND BACK SLOPES SHALL BE SEED AT A RATE OF 3LBS PER 1,000 S.F. WITH A MIXTURE OF 35% CREEPING RED FESCUE, 8% RED TOP, 24% KENTUCKY BLUEGRASS, 10% PERENNIAL RYE GRASS, 20% ANNUAL RYE GRASS AND 5% WITH DUTCH COVER.
- IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:
 - 10-20-20 FERTILIZER (N-P205-K20 OR EQUAL) - APPLICATION RATE= 18.4 LB/1,000 S.F.
 - GROUND LIMESTONE (50% CALCIUM & MAGNESIUM OXIDE) - APPLICATION RATE= 138 LB/1,000 S.F.
- LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE PER SPECIFICATIONS. LOAM SHALL BE FREE OF SOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 1 INCH IN DIAMETER, AND WITHOUT WEEDS, ROOTS OR OTHER DELETERIOUS MATERIAL.
- EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISHED SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.
- ALL HAY BALE AND FILTER FABRIC SHALL REMAIN IN PLACE UNTIL SEEDINGS HAVE BECOME 85-90% ESTABLISHED AND THEN REMOVED WITHIN 10 DAYS.
- AT THE OWNER'S DISCRETION ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED TO MAINTAIN STABILITY OF EARTHWORKS AND FINISHED GRADED AREAS. THE CONTRACTOR, AT HIS EXPENSE, WILL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY ADDITIONAL MEASURES AS SPECIFIED BY THE OWNER. THIS INCLUDES BUT IS NOT LIMITED TO REQUESTS BY RIDEP AND THE MUNICIPALITY, AS AUTHORIZED BY THE OWNER.
- INSPECTIONS AND MONITORING MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. WEEKLY INSPECTIONS SHALL BE HELD THROUGH THE DURATION OF CONSTRUCTION ACTIVITY. WEEKLY INSPECTION REPORTS SHALL BE MAINTAINED IN THE CONTRACTORS FIELD OFFICE. IN ADDITION TO THE NORMAL WEEKLY INSPECTIONS, THE CONTRACTOR SHALL PERFORM AN INSPECTION OF ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL OR RUNOFF EVENT, AND PERFORM THE NECESSARY REPAIRS. THE INSPECTIONS SHALL INCLUDE BUT NOT BE LIMITED TO THE SITE'S DOWN STREAM DISCHARGE POINTS.
- IF ANY EVIDENCE OF SEDIMENTATION IS OBSERVED IN THE INLETS, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE A PLAN TO THE ENGINEER TO REMOVE ANY ACCUMULATED SEDIMENT IN THESE AREAS. THE CONTRACTOR SHALL ALSO IMMEDIATELY PROVIDE ADDITIONAL ON SITE EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT FURTHER DEGRADATION OF THE AREA.
- FOLLOWING THE TEMPORARY OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA BIMONTHLY TO ENSURE THE AREAS HAVE A MINIMUM OF 85-90% VEGETATED VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.
- THE CONTRACTOR SHALL USE EXTREME CAUTION TO AVOID ALLOWING SEDIMENTS TO ENTER THE STORM DRAIN SYSTEM DURING CONSTRUCTION. CATCH BASIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION BY THE USE OF STRAW BALE BARRIERS AROUND EACH INLET. SILT SACKS SHALL BE INSTALLED IN ALL EXISTING BASINS. INLET PROTECTION MAY BE REMOVED ONLY AFTER FINISHED AREAS ARE PAVED AND THE VEGETATED SLOPES ARE ESTABLISHED WITH AT LEAST 85-90% OF VIGOROUS PERENNIAL GROWTH.
- EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISHED SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.
- THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED DEC 07 2009 FILE # 09-071
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Hester

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 Cumberland, RI 02865

CVS CAREMARK
 Woonsocket, RI, Cumberland, RI, Smithfield, RI, Lincoln, RI

BER
 BUILDING ENGINEERING ASSOCIATES, INC.
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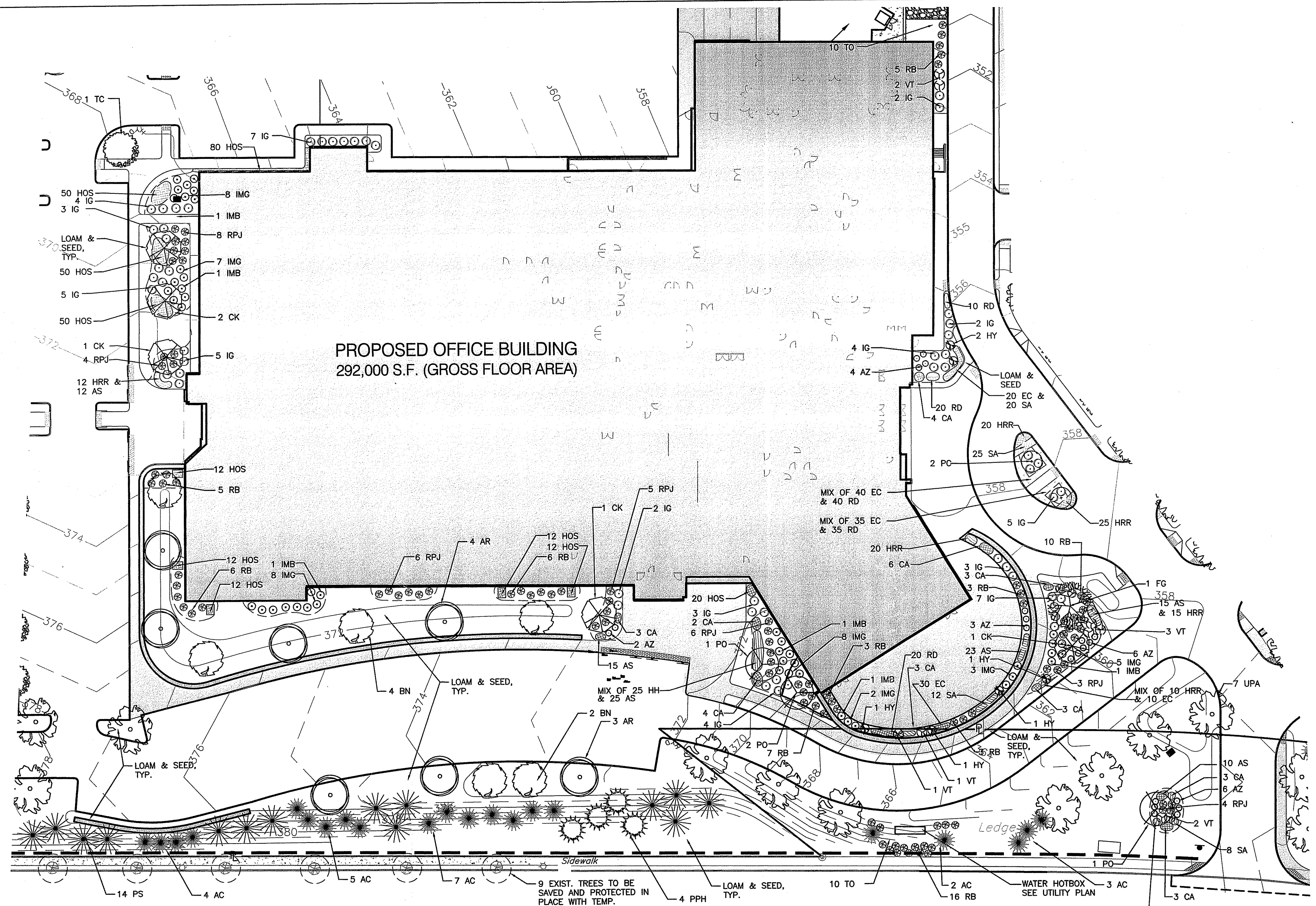
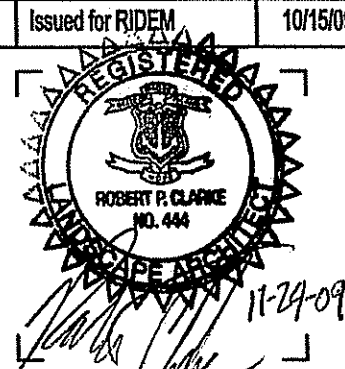
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Issued for RIDEM Wetlands & UIC

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JAMES A. MAJOR
 No. 3996
 REGISTERED PROFESSIONAL ENGINEER (L)

Erosion Control Notes



PROPOSED OFFICE BUILDING
292,000 S.F. (GROSS FLOOR AREA)

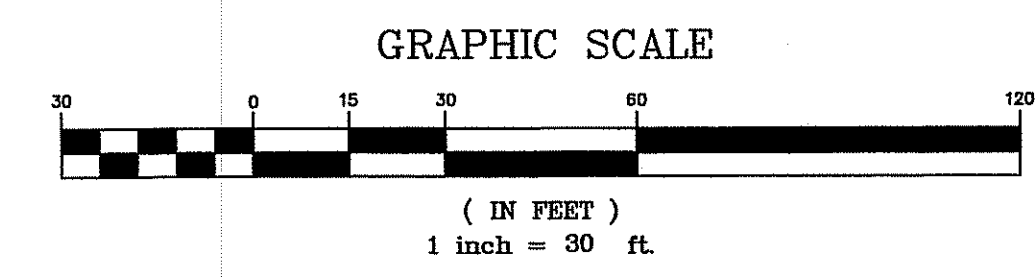
LANDSCAPE NOTES

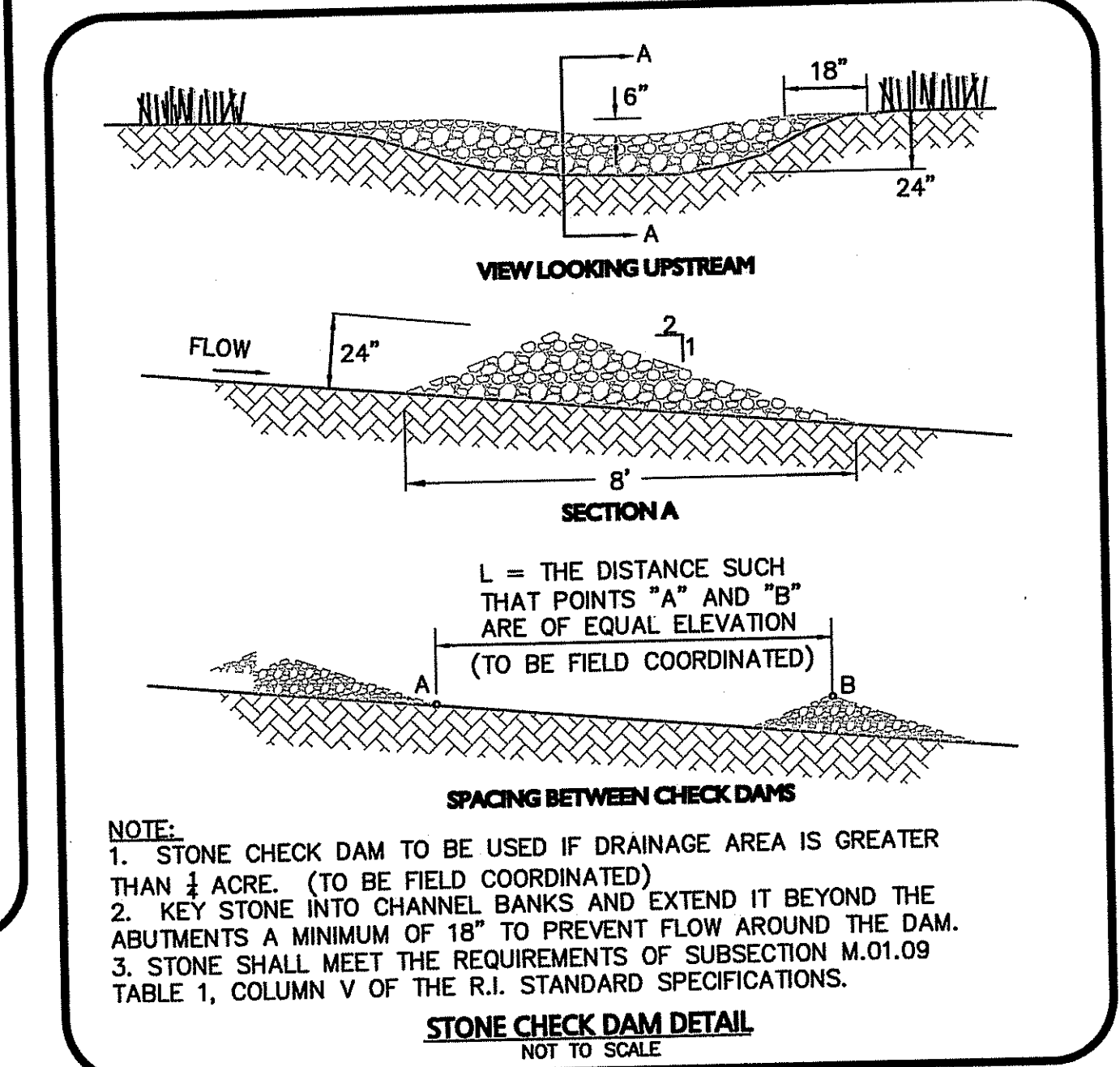
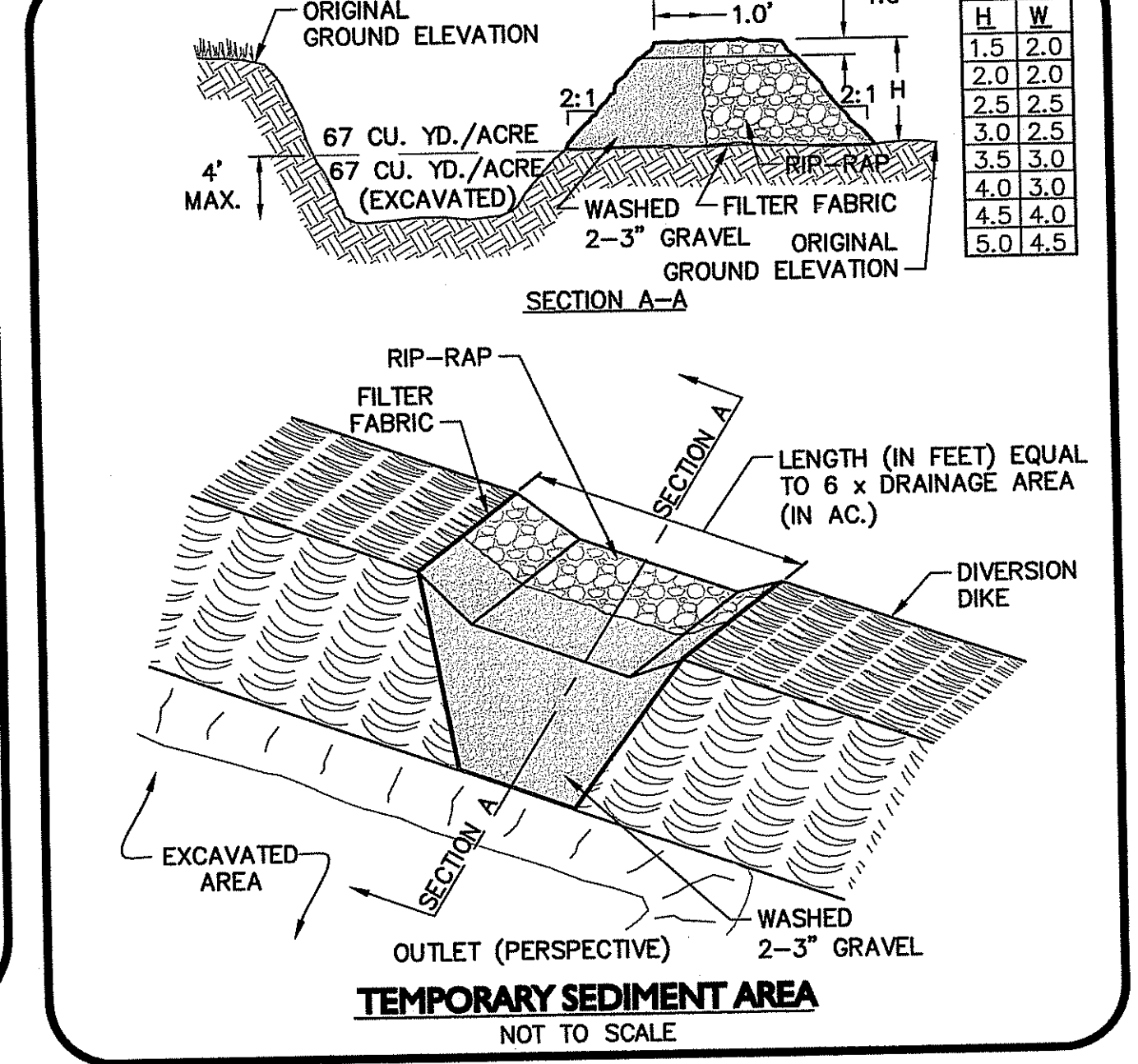
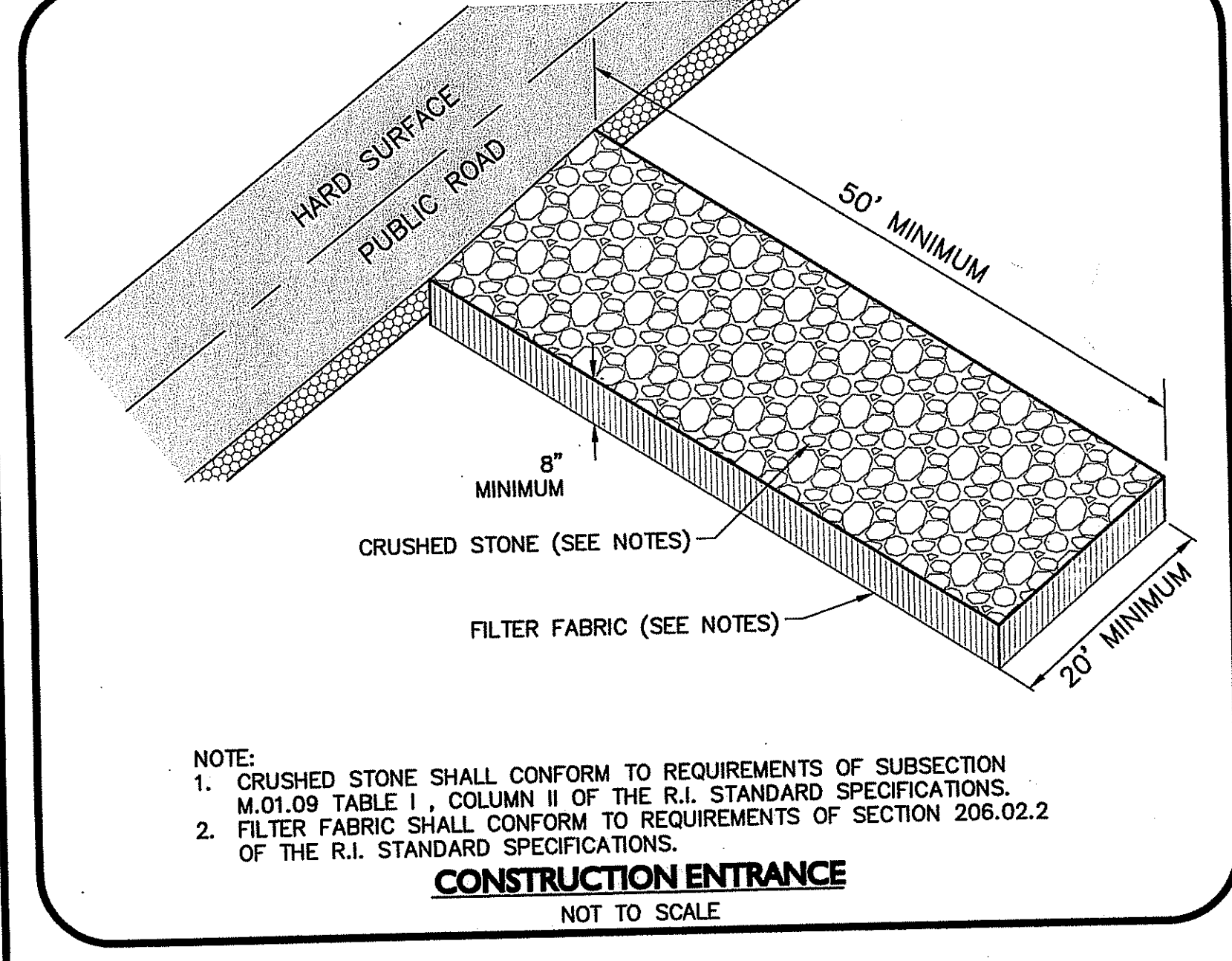
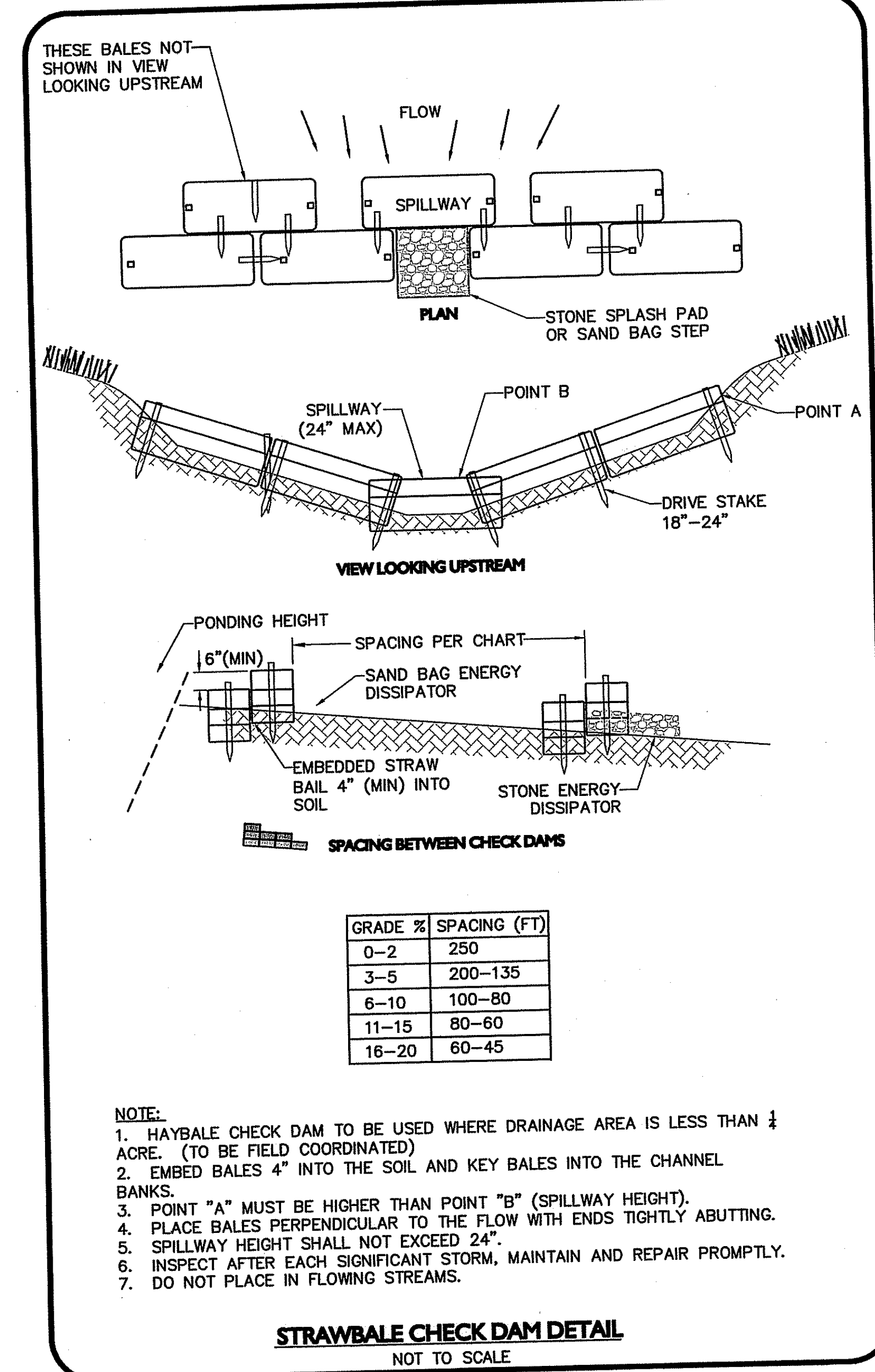
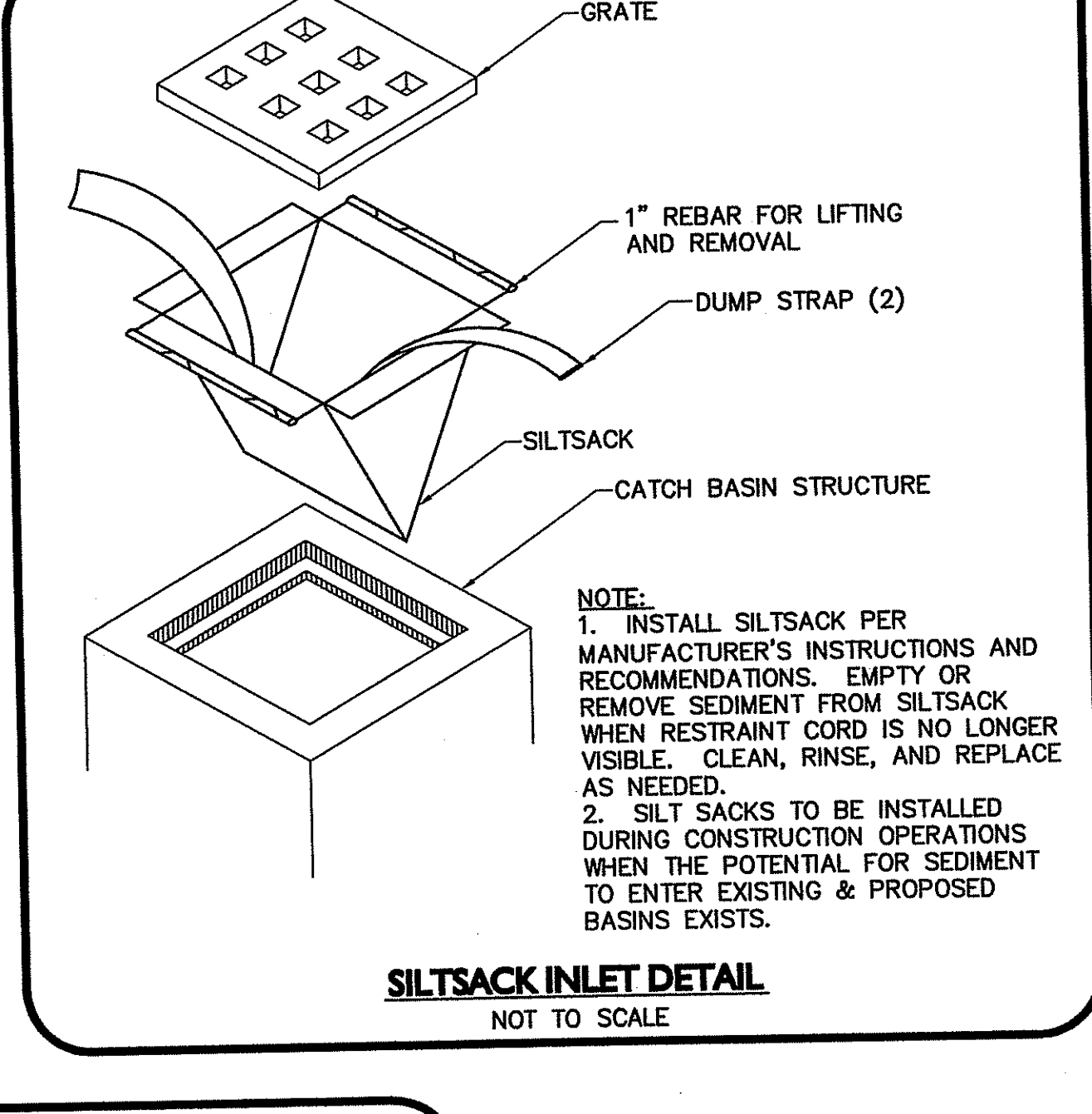
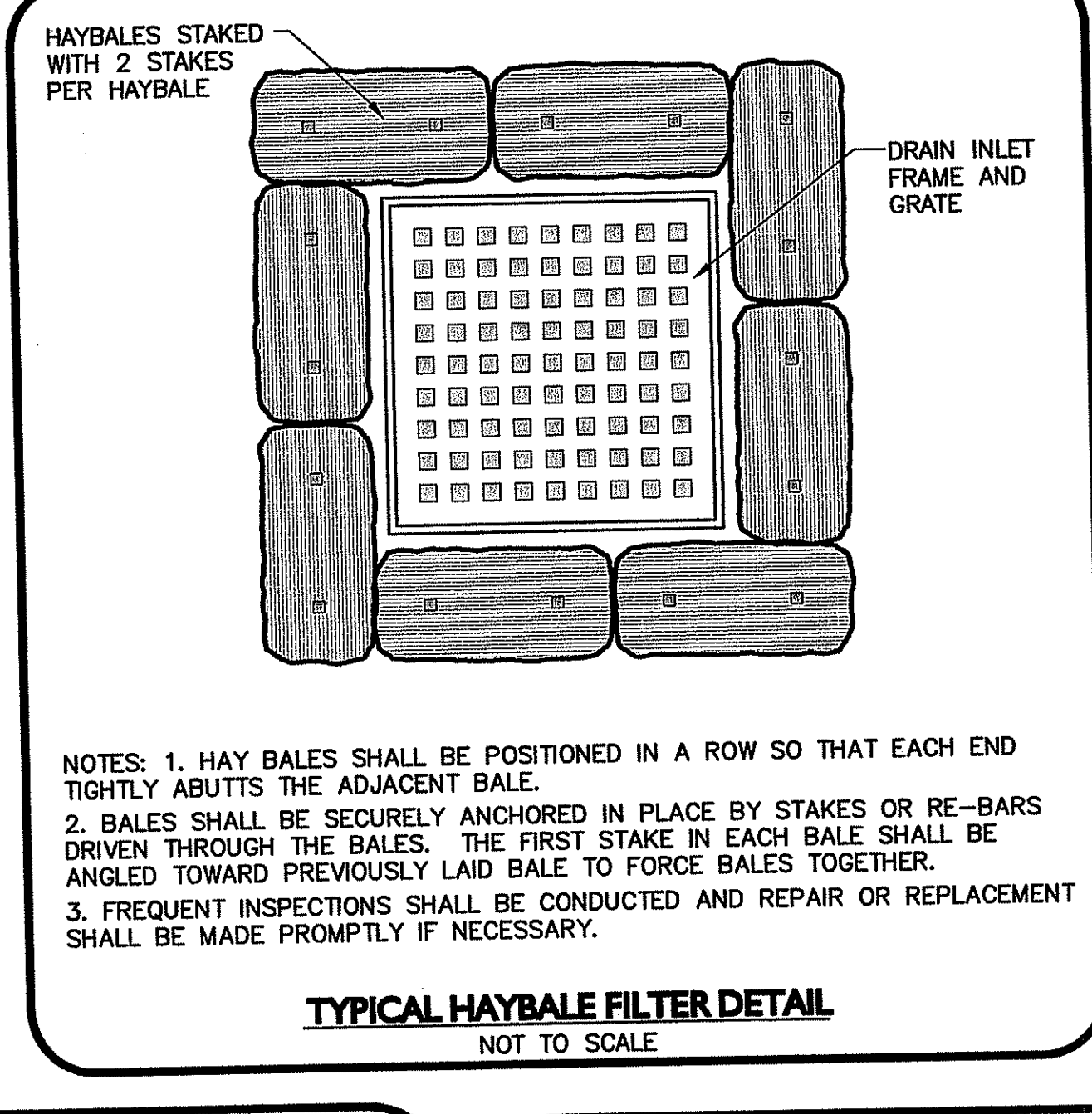
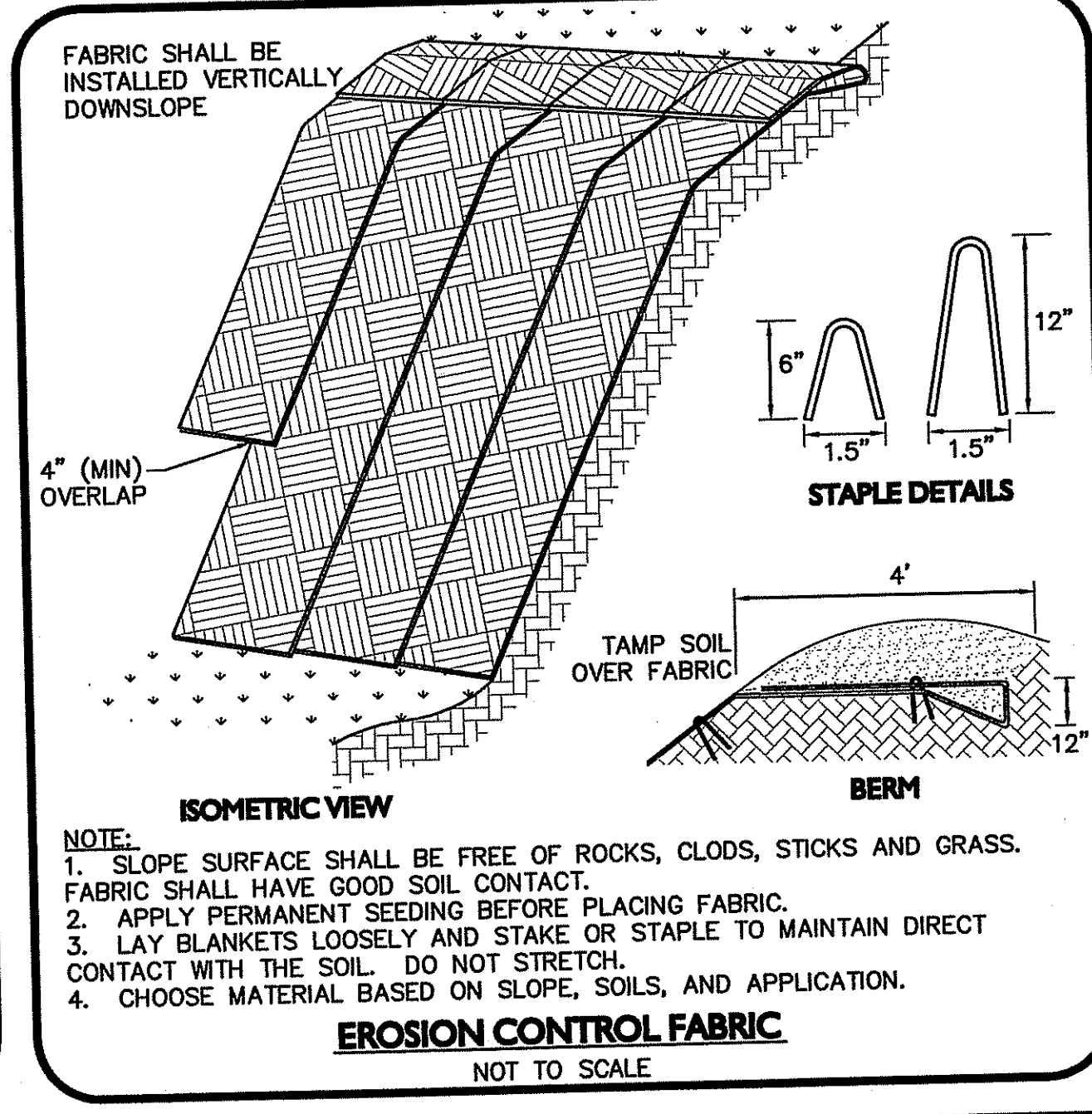
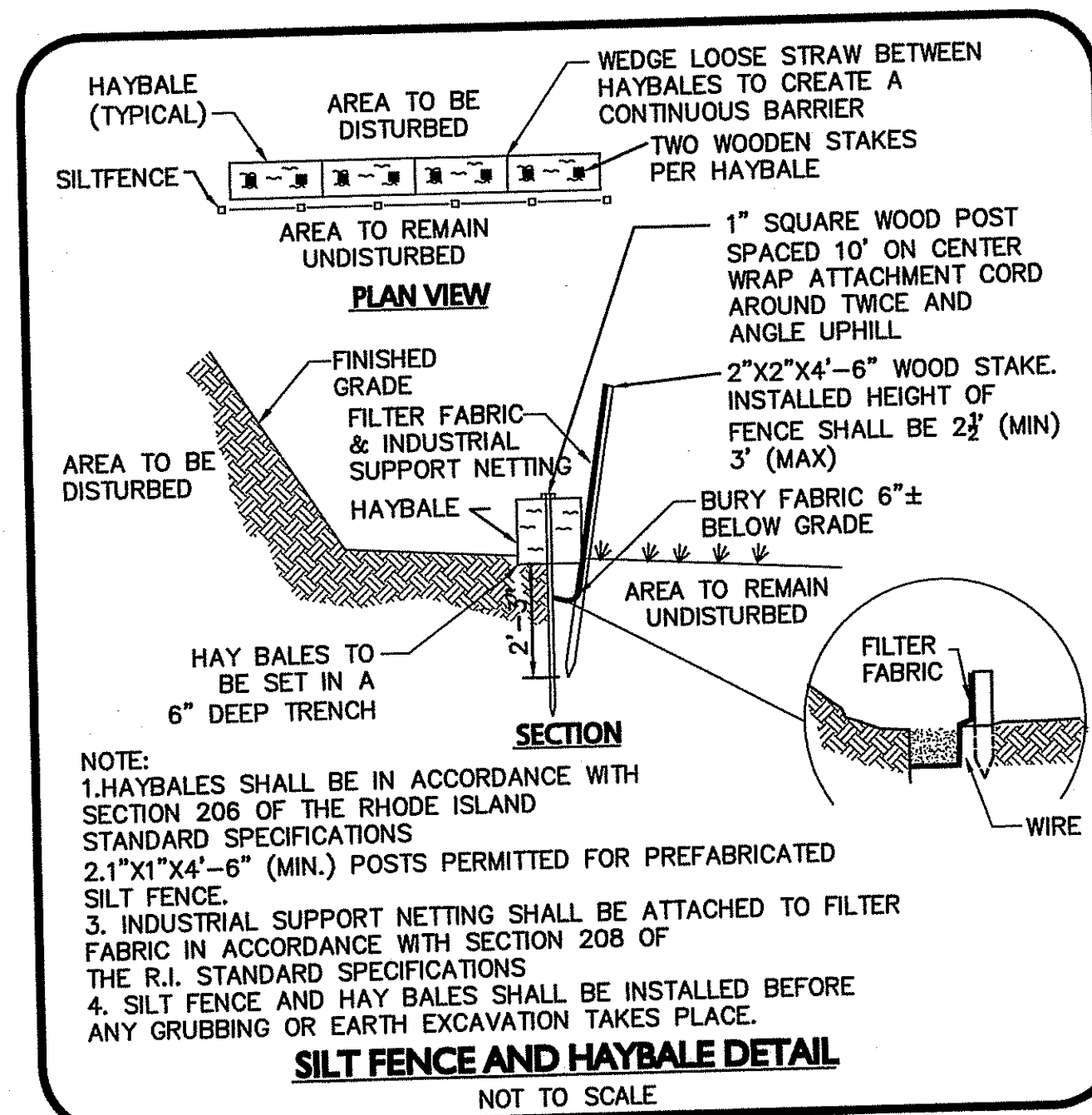
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE TOWN OF CUMBERLAND, RI
 2. PLANTING PLAN IS DIAGRAMMATIC IN NATURE. FINAL PLACEMENT OF PLANTS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES, ANY PERMITTING AGENCIES, AND "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS IN ADVANCE OF ANY WORK THAT WILL REQUIRE EXCAVATION. CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE OF ANY CONFLICTS IN WRITING.
 4. NO PLANT MATERIAL SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA, ANY TREES NOTED AS "SEAL OR SELECTED SPECIMEN" SHALL BE TAGGED AND SEALED BY THE LANDSCAPE ARCHITECT.
 5. ALL TREES SHALL BE BALLED AND BURLAPPED (B&B) UNLESS OTHERWISE NOTED OR APPROVED BY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
 6. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON PLANT LIST. QUANTITIES SHOWN ON PLANS SHALL GOVERN OVER PLANT LIST.
 7. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
 8. ALL PLANT MATERIALS INSTALLED SHALL MEET THE GUIDELINES ESTABLISHED BY THE STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
 9. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF ACCEPTANCE.
 10. ALL DISTURBED AREAS NOT OTHERWISE NOTED SHALL RECEIVE 6" OF SUITABLE LOAM & SEED. LAWNS WITH OVER 3:1 SLOPES SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET.
 11. ANY FALL TRANSPLANTING HAZARD PLANTS SHALL BE DUG AND PLANTED IN THE SPRING.
 12. TREES SHALL HAVE A MINIMUM CALIPER OF 3-3.5" ONE FOOT ABOVE THE ROOT CROWN.
 13. ALL PLANT BEDS AND TREE SAUCERS TO RECEIVE 3" OF PINE BARK MULCH, AND GROUND COVER AREAS SHALL RECEIVE 1" OF PINE BARK MULCH.
 14. ALL DECIDUOUS TREES ADJACENT TO WALKWAYS AND ROADWAYS SHALL HAVE A BRANCHING PATTERN TO ALLOW FOR A MINIMUM OF 7' OF CLEARANCE BETWEEN THE GROUND AND THE LOWEST BRANCH.
 15. ALL TREE STAKES SHALL BE STAINED DARK BROWN.
 16. CONTRACTOR RESPONSIBLE FOR WATERING, AND RESEEDING OF BARE SPOTS UNTIL A UNIFORM STAND OF VEGETATION IS ESTABLISHED AND ACCEPTED.
 17. ALL PARKING ISLANDS PLANTED WITH SHRUBS SHALL HAVE 24" OF TOP SOIL. FINISH GRADE SHALL BE EQUAL TO THE TOP OF CURB.
 18. SOIL SAMPLES AND TESTS SHALL BE PROVIDED TO THE LANDSCAPE ARCHITECT OR THE OWNER.
 19. SPREAD THE FOLLOWING 2 SEED MIXES AT AT AREAS SHOWN ON THE PLAN.
 1. NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DRY SITES.
 2. NEW ENGLAND CONSERVATION / WILDLIFE MIX
- MIX BOTH THE 2 SEED MIXES TOGETHER AT A RATIO OF 50/50 AND SPREAD AT A RATIO OF 1 LB PER 600 SQ. FT. SEED MIXES AVAILABLE FROM NEW ENGLAND WETLAND PLANTS, 820 WEST ST., AMHERST, MA, 413-548-8000.
- SEEDED AREAS TO BE TEMPORARILY IRRIGATED UNTIL ESTABLISHMENT AND ACCEPTANCE. CONTRACTOR RESPONSIBLE FOR RE-SEEDING AS NECESSARY AND MAINTENANCE UNTIL ESTABLISHMENT AND ACCEPTANCE. A NON-INVASIVE WINTER RYE MAY BE ADDED TO THE MIX TO OBTAIN SOIL STABILIZATION IN THE FALL.

HIGHLAND CORPORATE DRIVE

PLANTING SCHEDULE - TREES						
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
DECIDUOUS TREES						
AR	43	ACER RUBRUM 'OCTOBER GLORY'	RED MAPLE	3"-3.5" CAL	AS SHOWN	B&B
BN	8	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	3"-3.5" CAL	AS SHOWN	B&B
FG	1	FAGUS SYLVATICA 'PURPLE FOUNTAIN'	EUROPEAN BEECH	3"-3.5" CAL	AS SHOWN	B&B
PC	15	PYRUS CALLERY 'CHANTICLEER'	CLEVELAND SELECT PEAR	3"-3.5" CAL	AS SHOWN	B&B
TC	27	TILIA CORDATA 'GREENSPIRE'	LITTLELEAF LINDEN	3"-3.5" CAL	AS SHOWN	B&B
UPA	29	ULMUS PARVIFOLIA ALEE	ALEE LACEBARK ELM	3"-3.5" CAL	AS SHOWN	B&B
EVERGREEN / FLOWERING TREES						
AC	54	ABIES CONCOLOR	WHITE FIR	10"-12' HT.	AS SHOWN	B&B
PO	4	PRUNUS X 'OKAME'	OKAME CHERRY	3"-3.5" CAL	AS SHOWN	B&B
CK	5	CORNUS KOUSA	KOUSA DOGWOOD	3"-3.5" CAL	AS SHOWN	B&B
PPH	8	PICEA PUNGENS 'HOOPSI'	'HOOPSI' BLUE SPRUCE	10"-12' HT.	AS SHOWN	B&B
PS	19	PINUS STROBUS	WHITE PINE	10"-12' HT.	AS SHOWN	B&B

PLANTING SCHEDULE - SHRUBS & PERENNIALS						
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	COMMENTS
SHRUBS						
AZ	27	RHODODENDRON X KOSTERANUM	AZALEA - WHITE MOLLIS	3' TO 3.5'	AS SHOWN	B&B
HY	6	HYDRANGEA PANICULATA 'LITTLE LAMB'	LITTLE LAMB HYDRANGEA	#7 POT	AS SHOWN	
IG	117	ILLEX GLABRA 'SHAMROCK'	INKBERRY	3.5" TO 4"	AS SHOWN	
JC	105	JUNIPERUS CHINENSIS 'SARGENTI GLAUCA'	SARGENTI JUNIPER	3' TO 3.5'	4' O.C.	#3 POT
RB	80	RHODODENDRON 'BOULE DE NEIGE'	RHODODENDRON	4' TO 5'	AS SHOWN	B&B
RPJ	52	RHODODENDRON 'PJM'	PJM RHODODENDRON	4' TO 5'	AS SHOWN	B&B
IMB	7	ILLEX MESERVEA 'CHINA BOY'	CHINA BOY HOLLY	3' TO 3.5'	AS SHOWN	#5 POT
IMG	57	ILLEX MESERVEA 'CHINA GIRL'	CHINA GIRL HOLLY	3' TO 3.5'	AS SHOWN	#5 POT
TO	20	TILIA OCCIDENTALIS 'SMARAGD'	EMERALD ARBORVITAE	8'-9' HT.	AS SHOWN	STAGGERED
VT	11	VIBURNUM TRILOBUM	AMERICAN CRANBERRY	6' TO 7'	AS SHOWN	#5 POT
PERENNIALS						
AS	98	ASTER NOVAE-ANGLIAE 'PURPLE DOME'	NEW ENGLAND ASTER	#2 POT	18" O.C.	STAGGERED
CA	40	CALAMAGROSTIS ARUNDINACEA 'KARL FOERSTER'	FEATHER REED GRASS	#3 POT	24" O.C.	STAGGERED
EC	125	ECHINACEA PURPUREA	PURPLECONE FLOWER	#2 POT	18" O.C.	STAGGERED
HH	32	HEMEROCALLIS 'HAPPY RETURNS'	DAYLILY	#2 POT		STAGGERED
HOS	344	HOSTA PATRIOT	PATRIOT HOSTA	#2 POT	18" O.C.	STAGGERED
HRR	102	HEMEROCALLIS 'ROSEY RETURNS'	DAYLILY	#2 POT	18" O.C.	STAGGERED
PT	16	PARTHENOCISSUS QUINQUEFOLIA	VIRGINIA CREEPER	3 GAL.	12" O.C.	STAGGERED
RD	169	RUDBECKIA FULGIDA	BLACK EYED SUSAN	#2 POT	18" O.C.	STAGGERED
SA	73	SEDUM AUTUMN JOY	SEDUM	#3 POT	24" O.C.	STAGGERED





DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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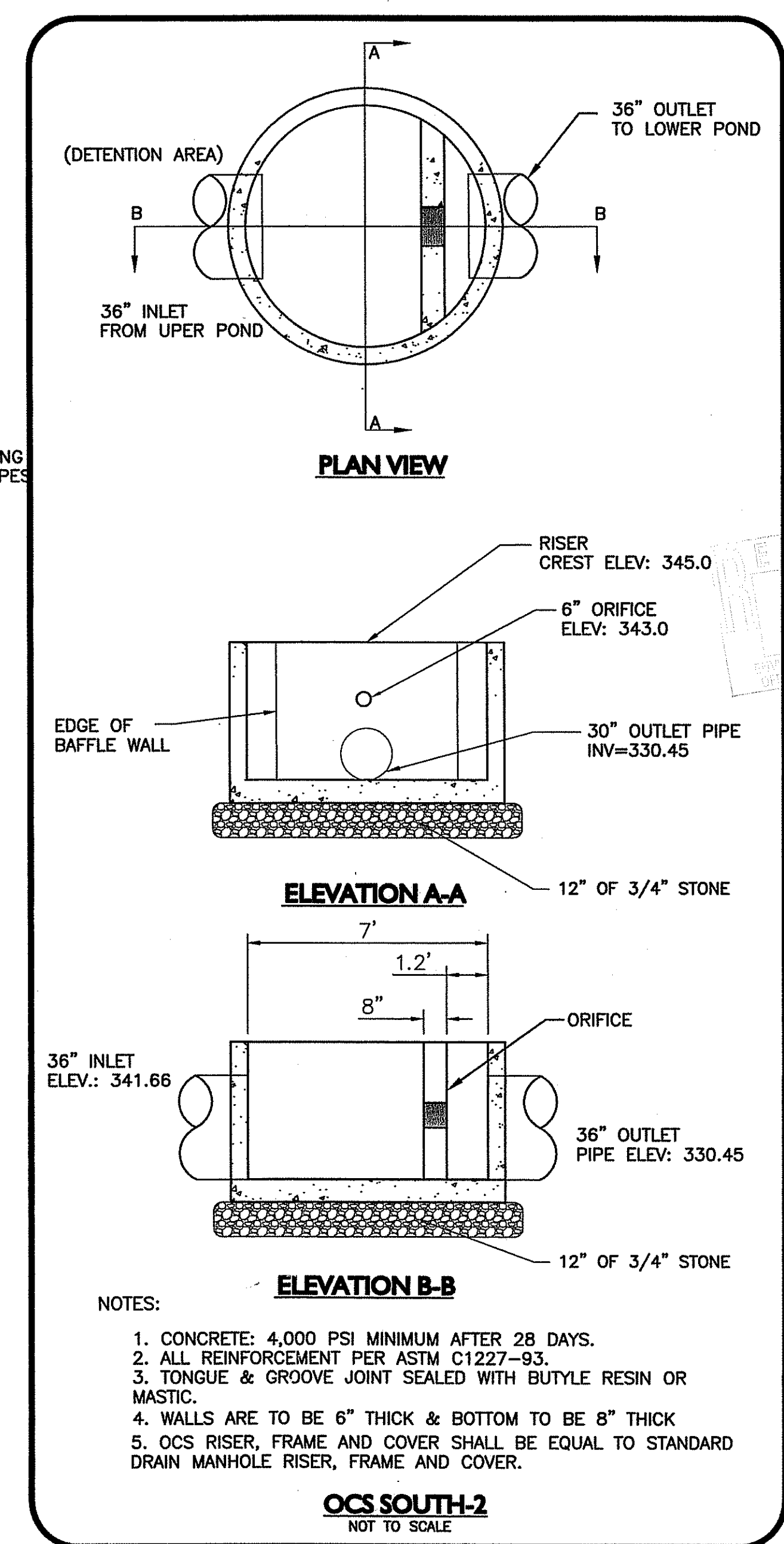
drawing by:	MR / MP	
drawing checked by:	RC	
drawing scale:	AS NOTED	
drawing date:	15 October 2009	
drawing revisions:		
project number:	08020.00	
rev.	description	date
1	Per RIDEM Comments	11/20/09
0	Issued for RIDEM	10/15/09

JAMES A. MAJOR
No. 3986
REGISTERED PROFESSIONAL ENGINEER
Details

drawing by:	MR / MP	
drawing checked by:	RC	
drawing scale:	AS NOTED	
drawing date:	15 October 2009	
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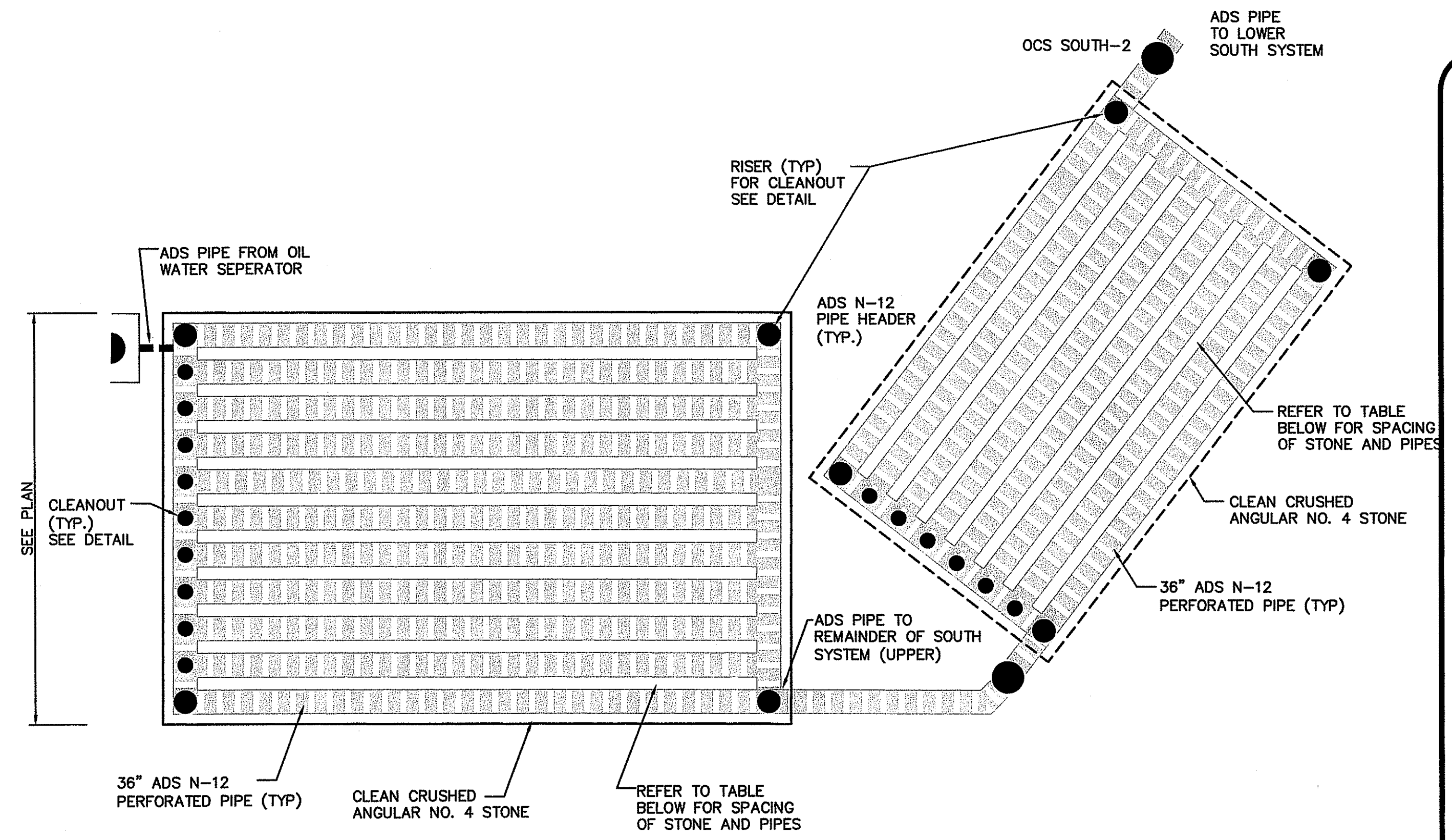
James A. Major
Professional Engineer
No. 8086
State of Rhode Island

Details



- NOTES:**
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
 2. ALL REINFORCEMENT PER ASTM C1227-93.
 3. TONGUE & GROOVE JOINT SEALED WITH BUTYLE RESIN OR MASTIC.
 4. WALLS ARE TO BE 6" THICK & BOTTOM TO BE 8" THICK
 5. OCS RISER, FRAME AND COVER SHALL BE EQUAL TO STANDARD DRAIN MANHOLE RISER, FRAME AND COVER.

OCS SOUTH-2
NOT TO SCALE

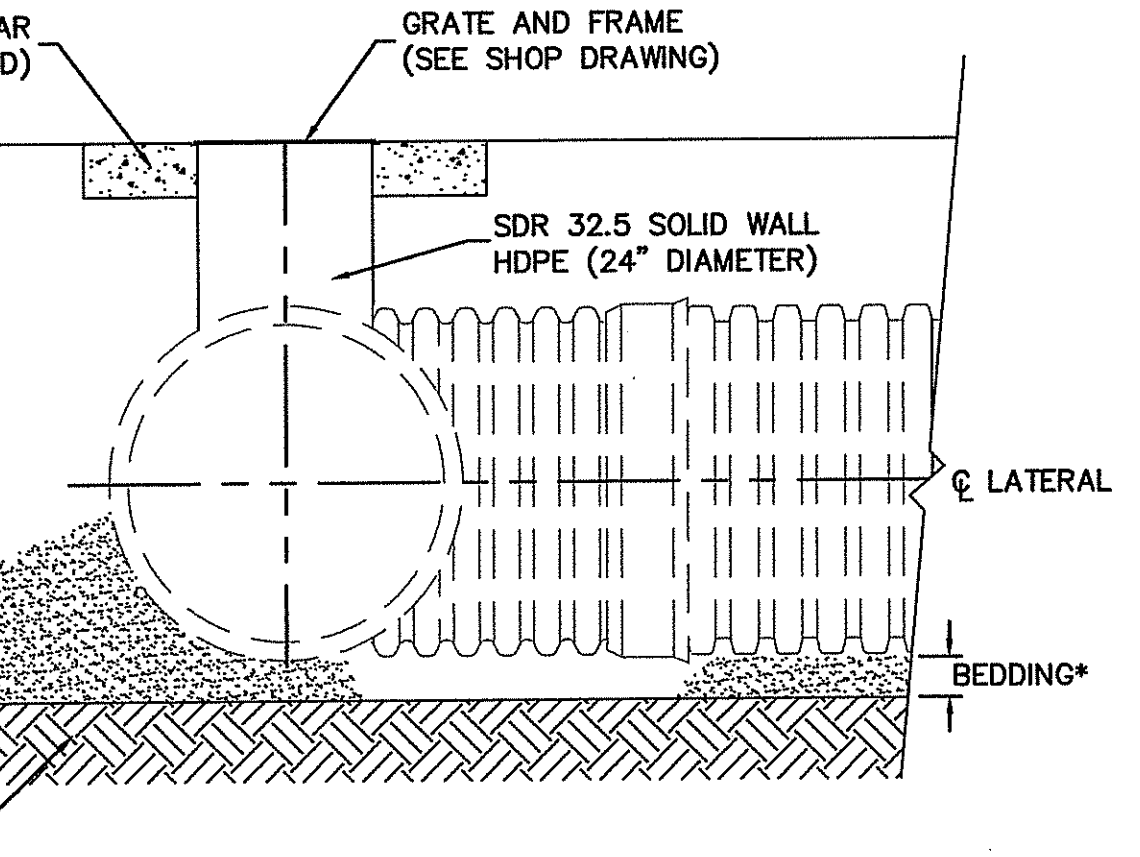
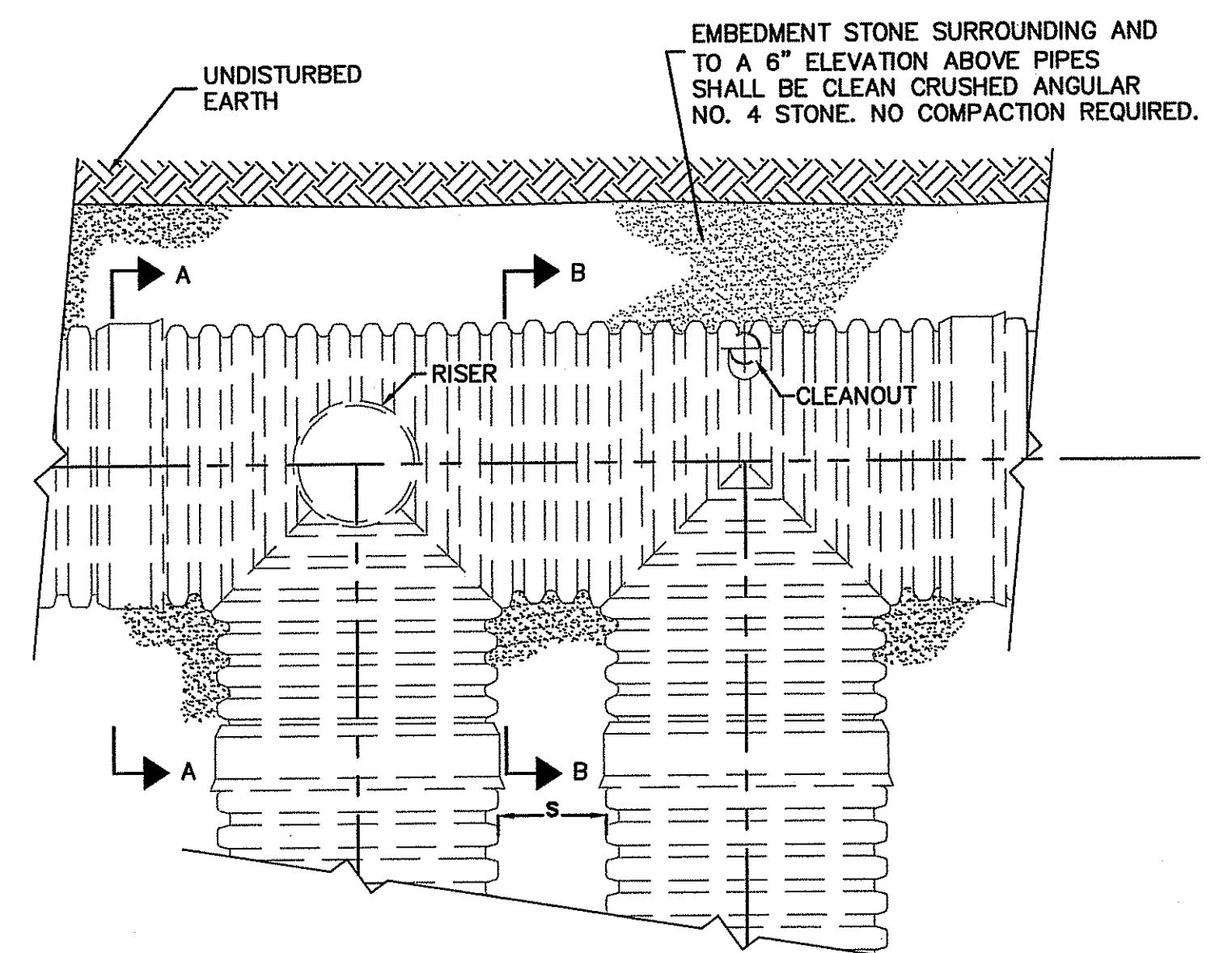


- NOTES:**
1. THE PIPE INSTALLATION SHALL CONFORM TO ALL MANUFACTURE'S SPECIFICATIONS.
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 3. THE FILTER FABRIC SHOULD BE COMPATIBLE WITH THE SOIL TEXTURES AND APPLICATION.
 4. AS REQUIRED, REMOVE A AND B HORIZONS (OR APPROVED EQUAL SOILS). REPLACE REMOVE SOIL WITH BANK RUN GRAVEL FROM SYSTEM TO BOTTOM OF EXCAVATION.
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 7. THE BANK RUN GRAVEL BELOW THE DETENTION/INFILTRATION SYSTEMS SHALL NOT BE COMPACTED BY HEAVY VIBRATORY COMPACTORS OR SIMILAR.

SOUTH DETENTION/INFILTRATION AREA (UPPER) 36" HDPE UNDERGROUND DETENTION/INFILTRATION SYSTEM
NOT TO SCALE

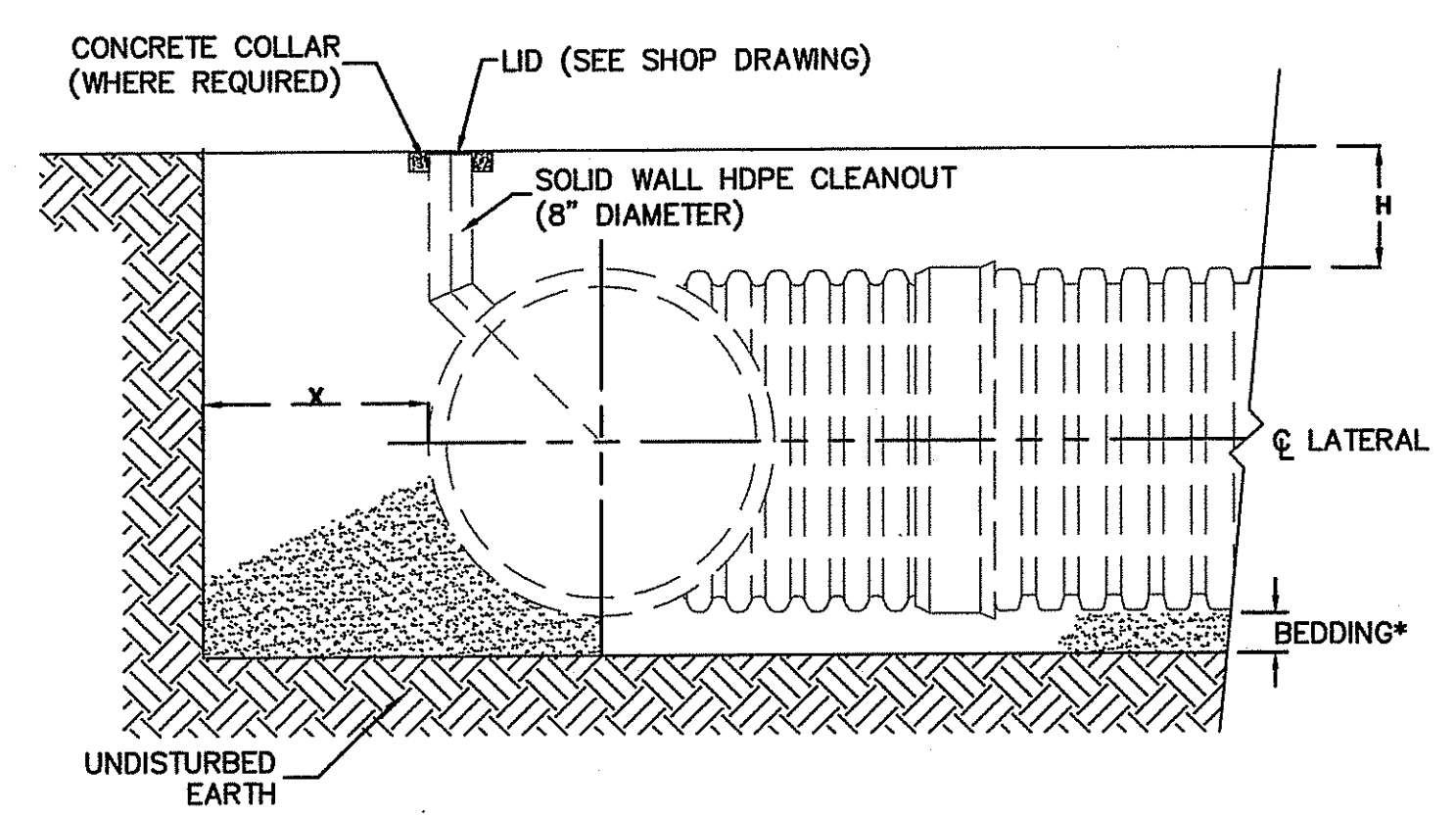
- NOTES:**
1. FOR INVERTS AND LAYOUT SEE DRAWING C-2 PROPOSED GRADING & DRAINAGE PLAN.

NOMINAL DIAMETER	TYPICAL SPACING "S"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12"	11"	8"	12"	12"
(300 MM)	(279 MM)	(203 MM)	(292 MM)	(292 MM)
15"	12"	8"	12"	12"
(375 MM)	(292 MM)	(203 MM)	(292 MM)	(292 MM)
18"	13"	9"	12"	12"
(450 MM)	(330 MM)	(229 MM)	(292 MM)	(292 MM)
24"	13"	10"	12"	12"
(600 MM)	(330 MM)	(254 MM)	(292 MM)	(292 MM)
30"	18"	18"	12"	12"
(750 MM)	(457 MM)	(457 MM)	(292 MM)	(292 MM)
36"	22"	18"	12"	12"
(900 MM)	(559 MM)	(457 MM)	(292 MM)	(292 MM)
42"	24"	18"	12"	24"
(1050 MM)	(610 MM)	(457 MM)	(292 MM)	(610 MM)
48"	25"	18"	12"	24"
(1200 MM)	(635 MM)	(457 MM)	(292 MM)	(610 MM)
60"	24"	18"	12"	24"
(1500 MM)	(610 MM)	(457 MM)	(292 MM)	(610 MM)



* CLEAN CRUSHED ANGULAR NO. 4 STONE. COMPACTED TO 95% MIN. OF MAX SPD = 12" MIN.

SECTION A-A



* CLEAN CRUSHED ANGULAR NO. 4 STONE. COMPACTED TO 95% MIN. OF MAX SPD = 12" MIN.

SECTION B-B

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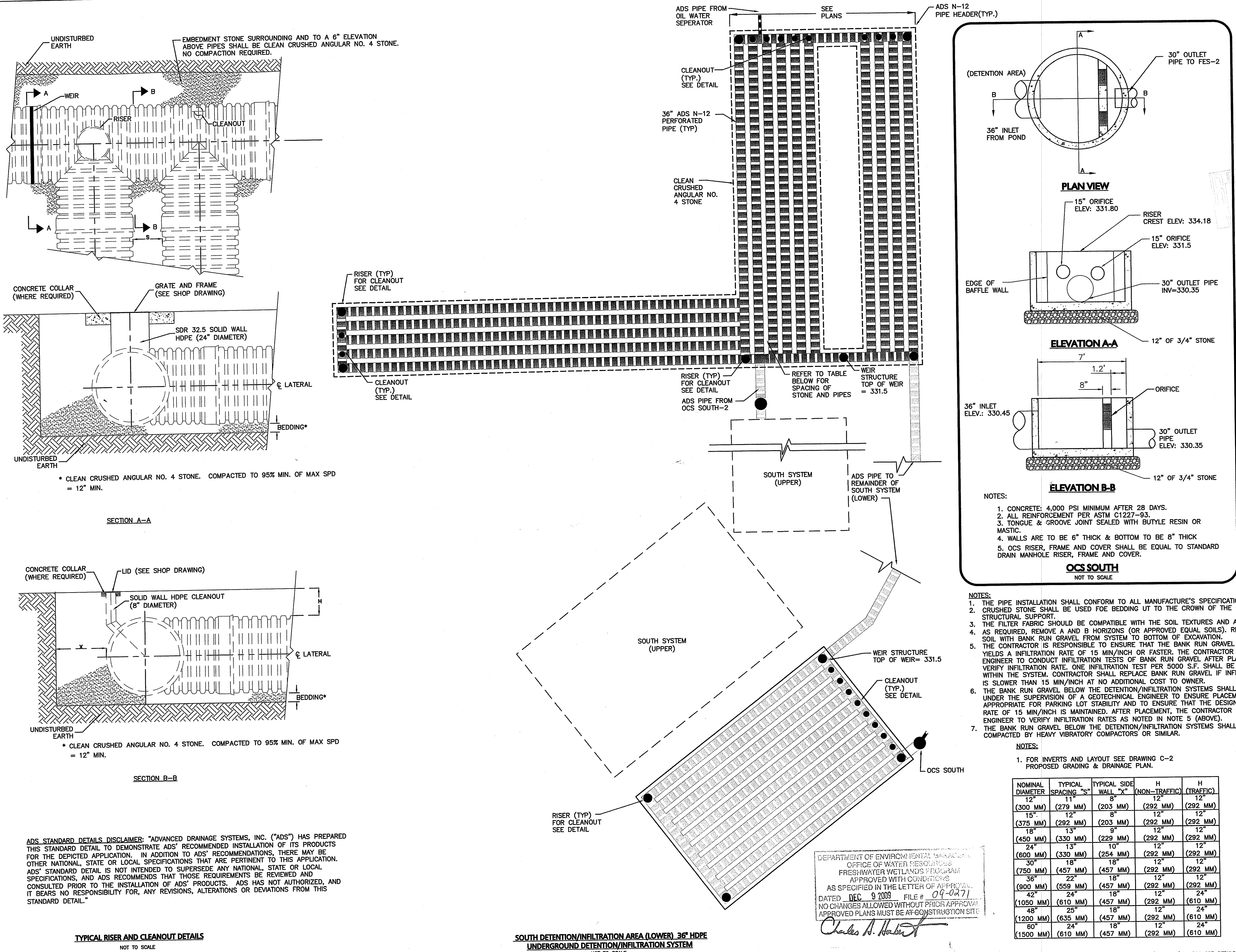
TYPICAL RISER AND CLEANOUT DETAILS
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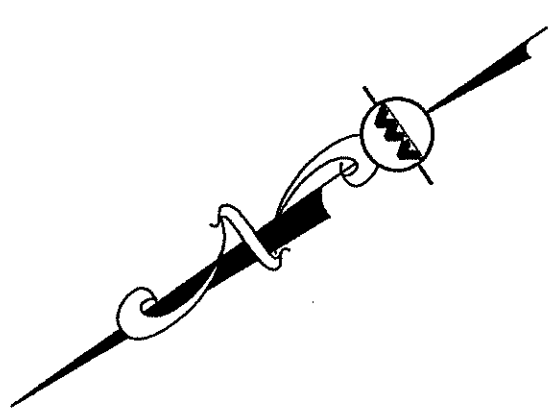
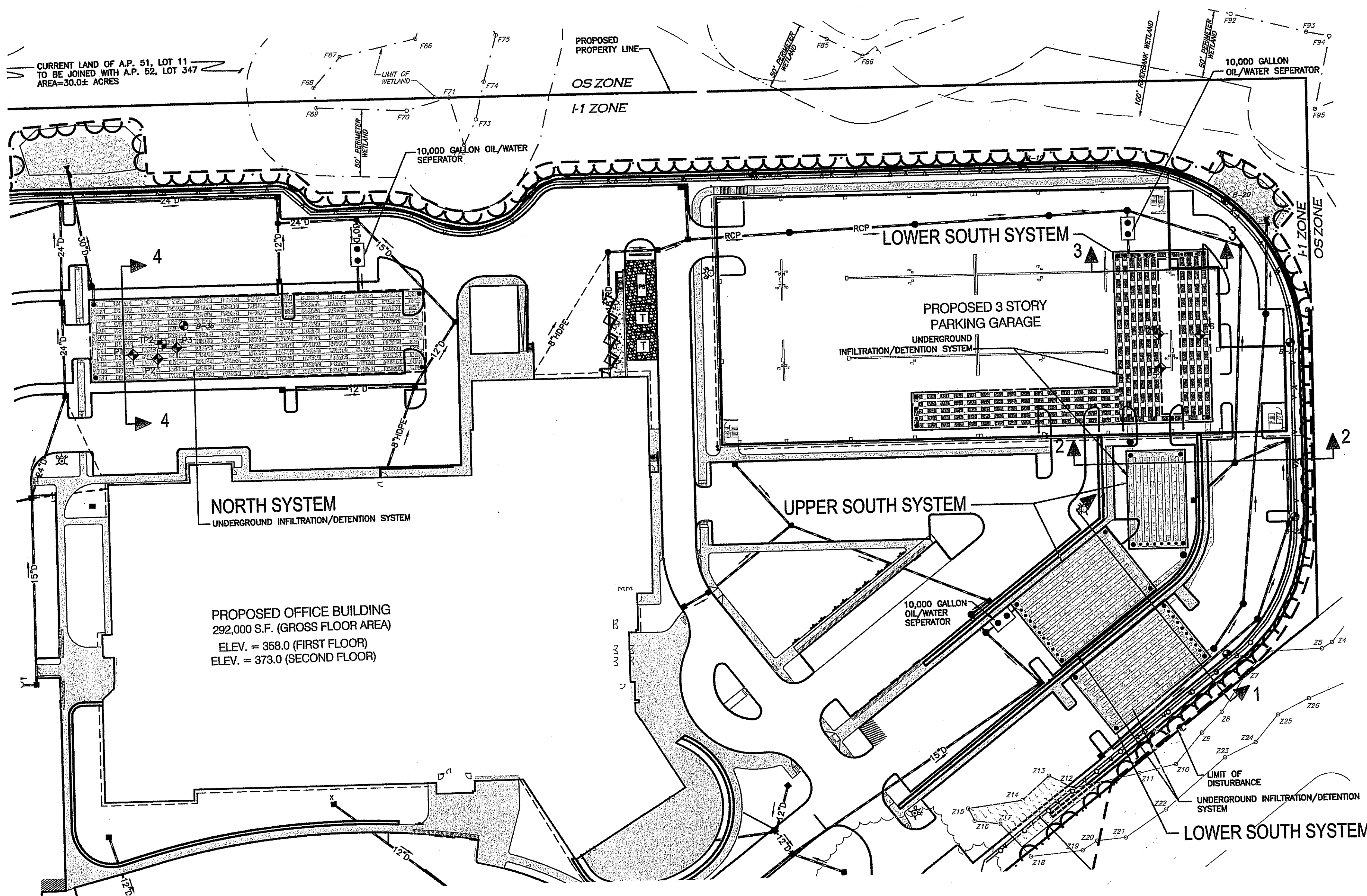
drawing by: MR / MP
drawing checked by: RC
drawing scale: AS NOTED
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drawing revisions:
project number: 08020.00

rev.	description	date
1	Per RIDEM Comments	11/20/09
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JAMES A. MAJOR
No. 3988
REGISTERED PROFESSIONAL ENGINEER

Details





LEGEND

TP3
B-4
P1

TEST PIT
SOIL BORING
INFILTRATION TEST

NORTH SYSTEM	
BORING	REFUSAL/BEDROCK ELEVATION
B-36	340.0

SOUTH SYSTEM	
BORING	REFUSAL/BEDROCK ELEVATION
B-19	323.0
B-20	314.5
B-21	318.5
B-22	317.0
B-23	322.5

NOTE
SEE SHEET D-2D
FOR SITE SECTIONS.

PLAN
NOT TO SCALE

**TEST PIT INFORMATION
FOR NORTH SYSTEM**

TP2 CE1

3"	ORGANIC LITTER	Oi
(EL.=348.0) 0"	DARK YELLOWISH BROWN FINE SANDY LOAM	A (VERY FRIABLE)
4"	DARK YELLOWISH BROWN FINE SANDY LOAM	Bw1 (VERY FRIABLE)
16"	YELLOWISH BROWN VERY FINE SANDY LOAM	Bw2 (VERY FRIABLE)
37"	GRAYISH BROWN STONY GRAVELLY LOAMY SAND	C1 (FRIABLE)
66"	GRAYISH BROWN VERY STONY GRAVELLY LOAMY SAND	C2 (FRIABLE)
(EL.=340.0) 96"	96" REFUSAL (POSSIBLE LEDGE/BOULDERS) NO WATER SEEPAGE (DRY @ 96") NO REDOX FEATURES 44" ROOTS RIDEM SOIL CATEGORY = 7m	

**INFILTRATION TEST INFORMATION
FOR NORTH SYSTEM**

P1	10 MIN./IN.
P2	5 MIN./IN.
P3	5 MIN./IN.

**INFILTRATION TEST INFORMATION
FOR SOUTH SYSTEM**

P4	5 MIN./IN.
P5	5 MIN./IN.
P6	5 MIN./IN.

NOTES:

- SOIL EVALUATION WERE CONDUCTED BY CROSSMAN ENGINEERING INC. ON 9/24/08.
- INFILTRATION TESTS WERE CONDUCTED BY CROSSMAN ENGINEERING, INC. USING A TURF TEC DOUBLE RING INFILTRMETER.

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Issued for RIDEM
Wetlands & UIC

drawing by: MR / MP

drawing checked by: RC

drawing scale: As Noted

drawing date: 20 November 2009

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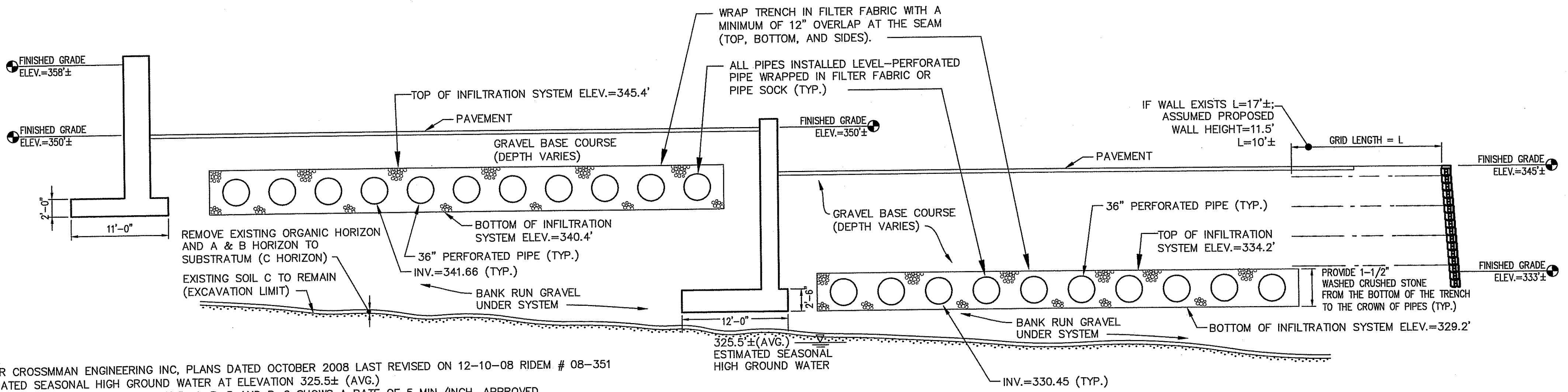
REV.	description	date
0	Per RIDEM Comments	11/20/09

JAMES A. MAJOR
No. 3986
REGISTERED PROFESSIONAL ENGINEER

Site Section Plan

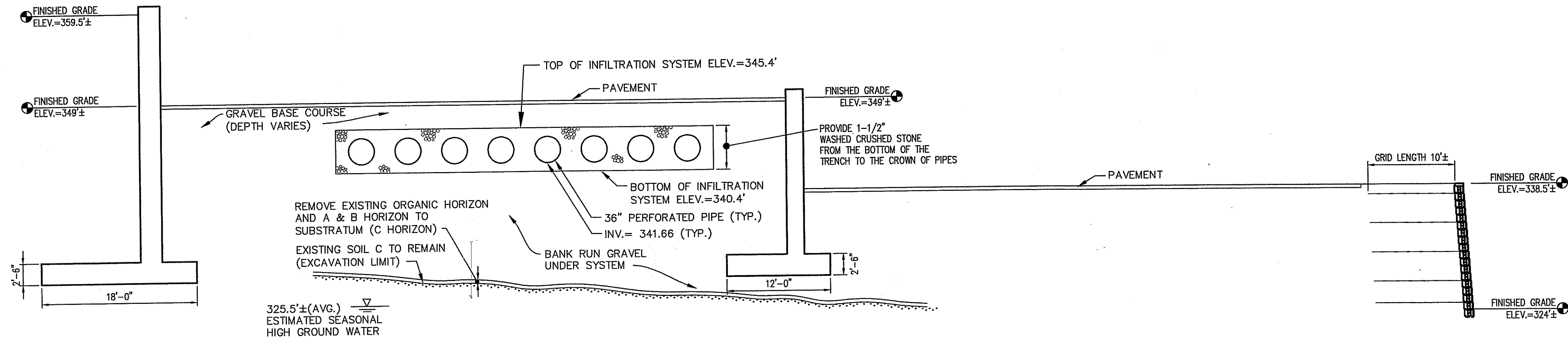
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15 OF 27



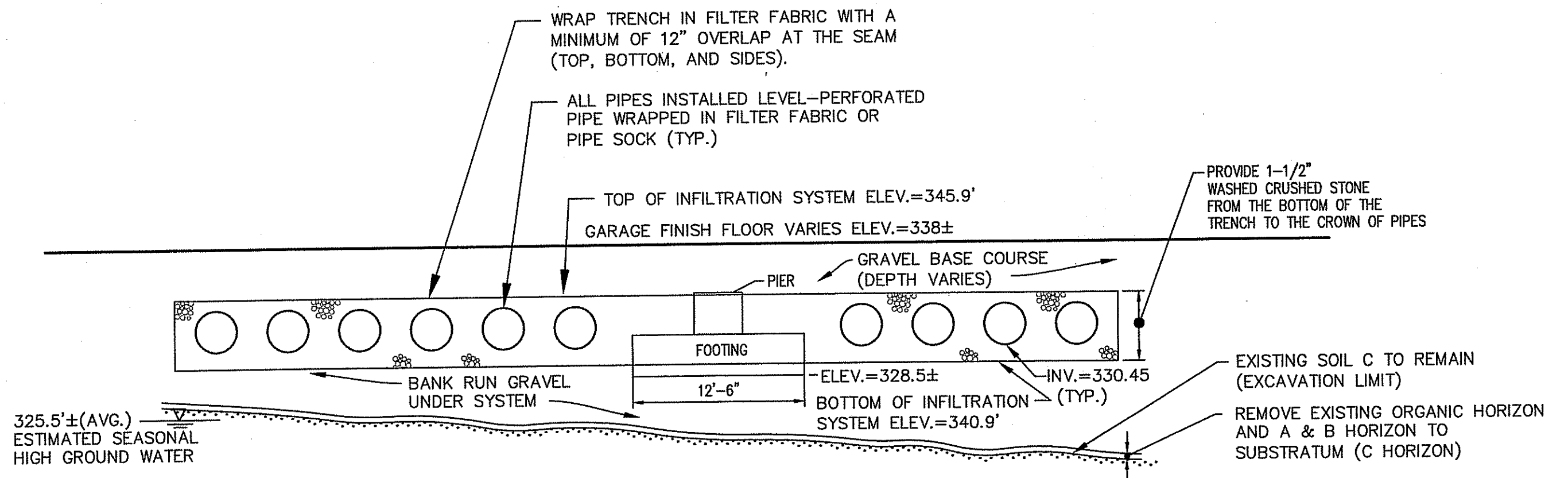
SOUTH SYSTEM SITE SECTION 1
SCALE: 1/8" = 1'-0"

NOTE:
1. PER CROSSMAN ENGINEERING INC, PLANS DATED OCTOBER 2008 LAST REVISED ON 12-10-08 RIDEM # 08-351 ESTIMATED SEASONAL HIGH GROUND WATER AT ELEVATION 325.5± (AVG.)
2. PER CROSSMAN PLAN PERC TEST P-4, P-5 AND P-6 SHOWS A RATE OF 5 MIN./INCH. APPROVED RIDEM ORDER OF CONDITIONS ALLOWED GEOTECH TO VERIFY MATERIAL.



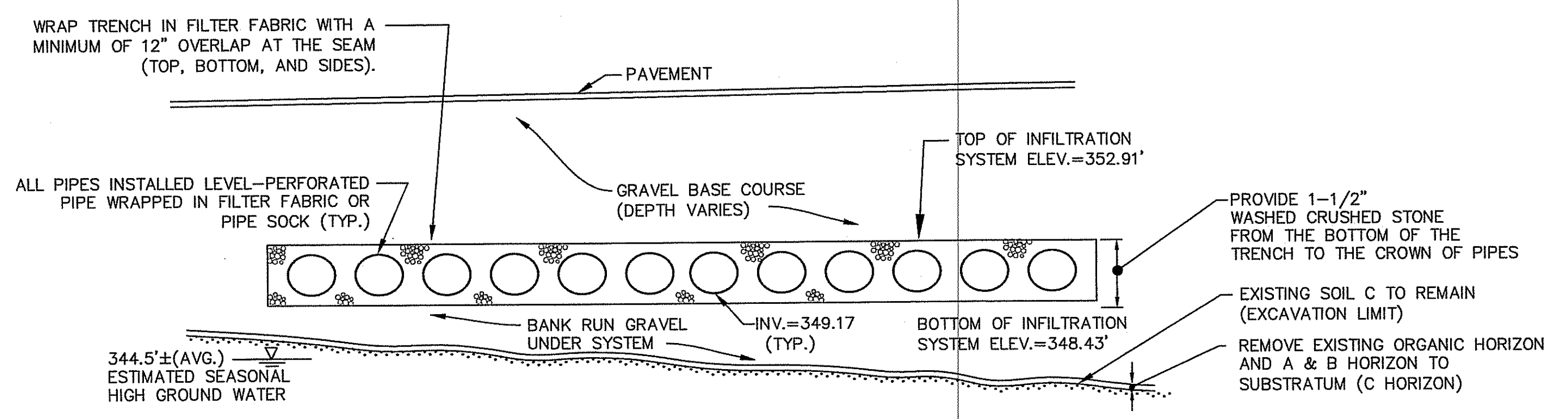
SOUTH SYSTEM SITE SECTION 2
SCALE: 1/8" = 1'-0"

NOTE:
1. PER CROSSMAN ENGINEERING INC, PLANS DATED OCTOBER 2008 LAST REVISED ON 12-10-08 RIDEM # 08-351 ESTIMATED SEASONAL HIGH GROUND WATER AT ELEVATION 325.5± (AVG.)
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SOUTH SYSTEM SITE SECTION 3
SCALE: 1/8" = 1'-0"

NOTE:
1. PER CROSSMAN ENGINEERING INC, PLANS DATED OCTOBER 2008 LAST REVISED ON 12-10-08 RIDEM # 08-351 ESTIMATED SEASONAL HIGH GROUND WATER AT ELEVATION 325.5± (AVG.)
2. PER CROSSMAN PLAN PERC TEST P-4, P-5 AND P-6 SHOWS A RATE OF 5 MIN./INCH. APPROVED RIDEM ORDER OF CONDITIONS ALLOWED GEOTECH TO VERIFY MATERIAL.



NORTH SYSTEM SITE SECTION 4
SCALE: 1/8" = 1'-0"

NOTE:
1. PER CROSSMAN ENGINEERING INC, PLANS DATED OCTOBER 2008 LAST REVISED ON 12-10-08 RIDEM # 08-351 ESTIMATED SEASONAL HIGH GROUND WATER AT ELEVATION 344.5± (AVG.)
2. PER CROSSMAN PLAN TEST PIT#2 WITHIN THE SYSTEM SHOWS REFUSAL POSSIBLE BOULDER OR LEDGE AT ELEV. 340.0. BOTTOM OF SYSTEM PROPOSED AT 348.43.

INFILTRATION SYSTEM NOTES

- NOTES:
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Tel: (508) 754-0202 Fax: (508) 754-0203
Tel: (508) 754-0204 Fax: (508) 754-0205

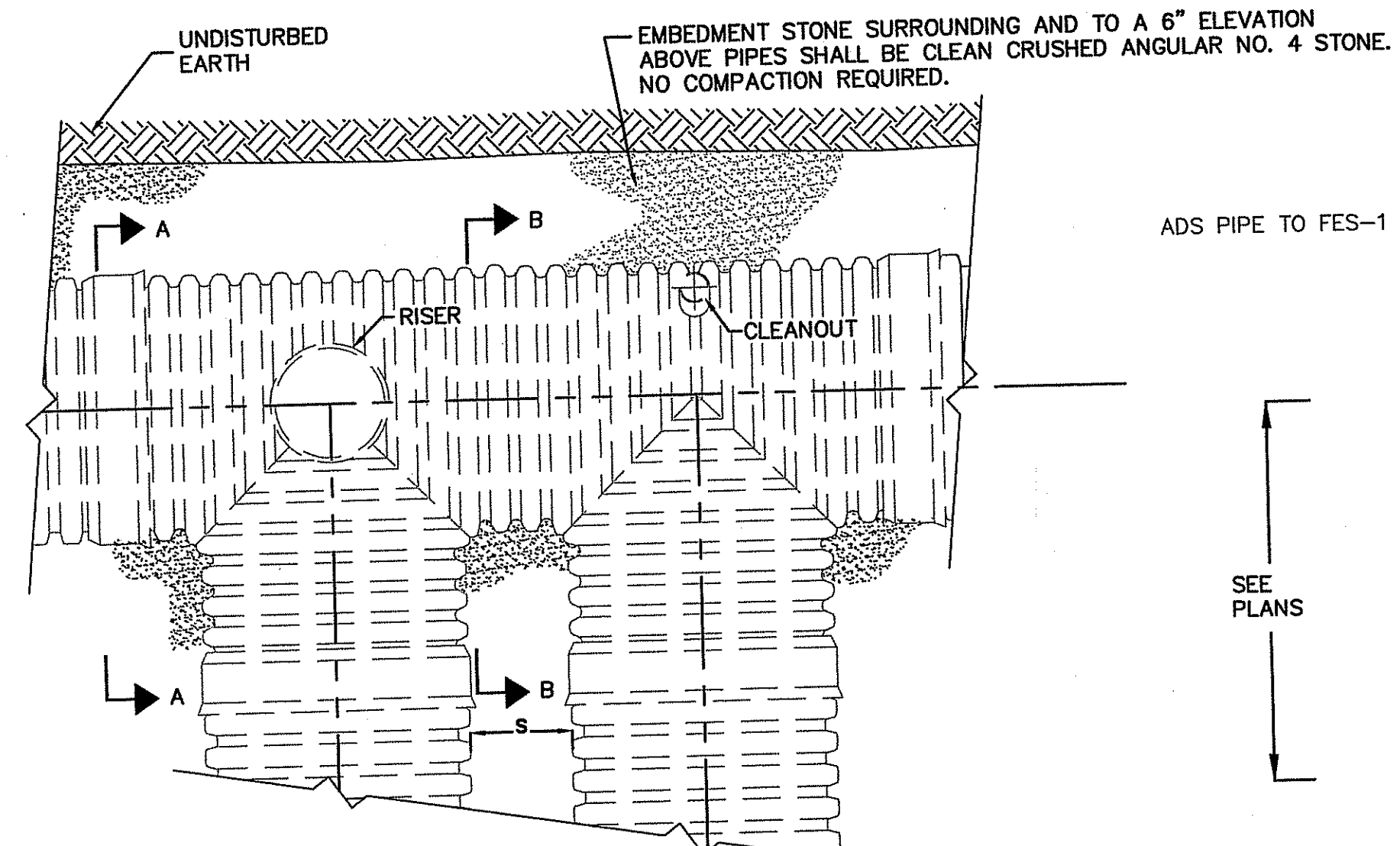
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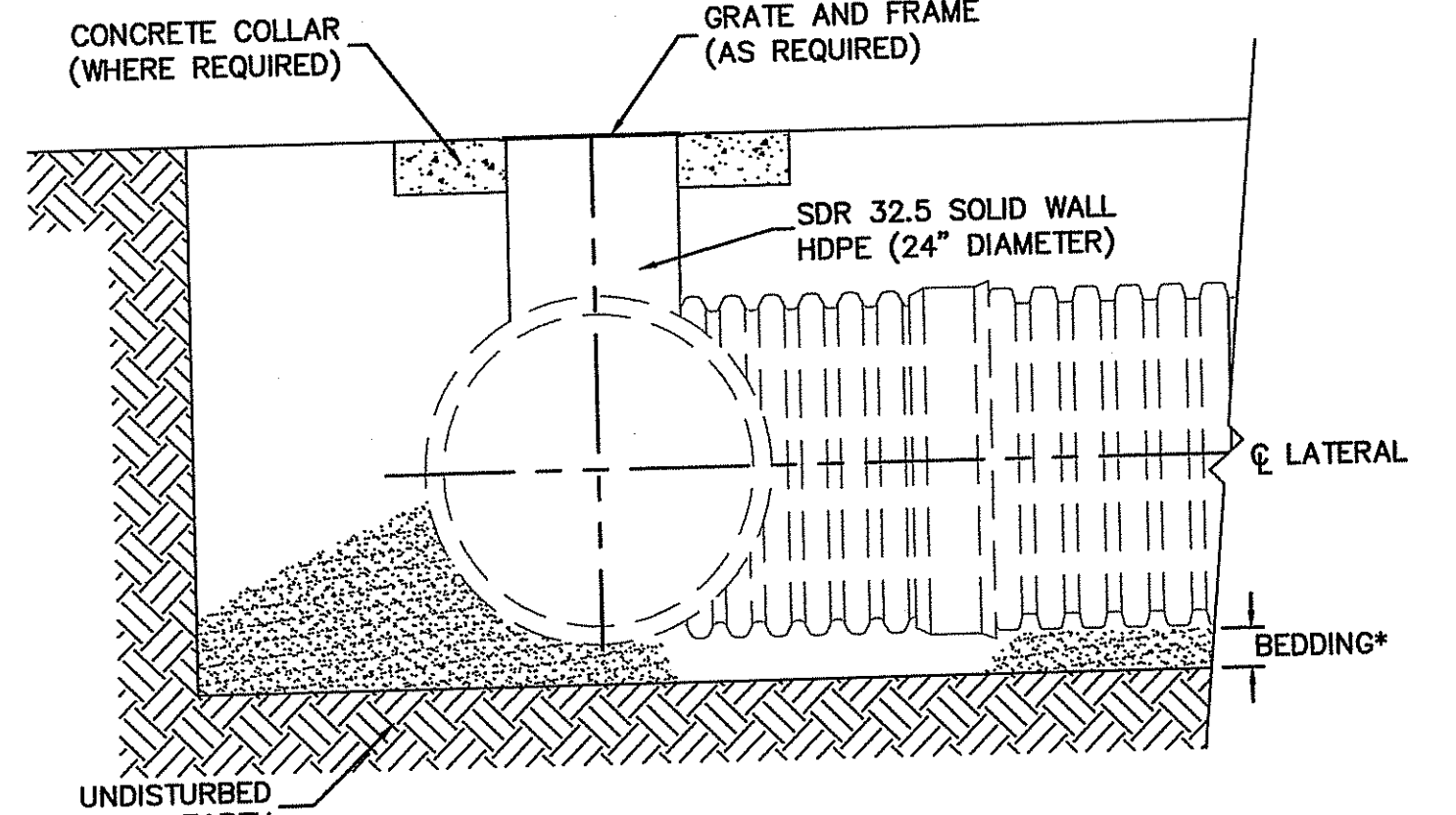
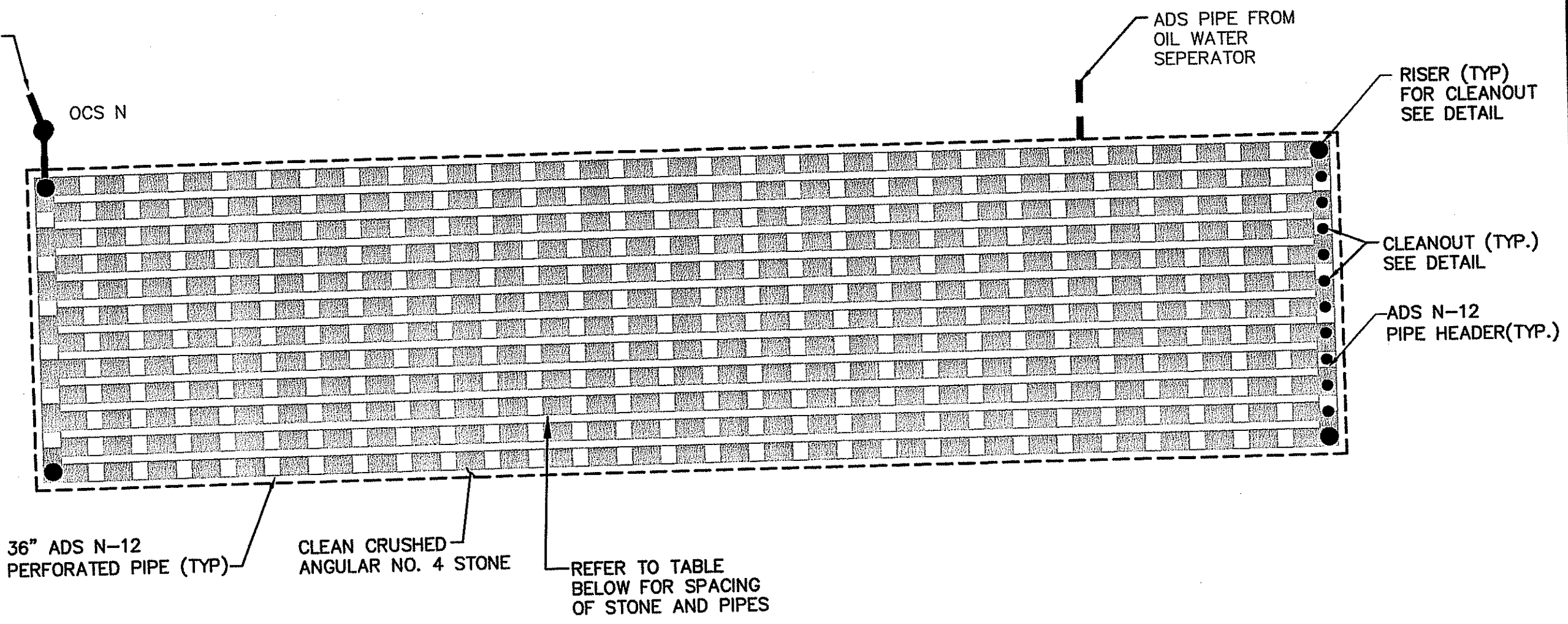
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JAMES A. MAJOR
No. 3986
PROFESSIONAL ENGINEER
James A. Major
Site Sections

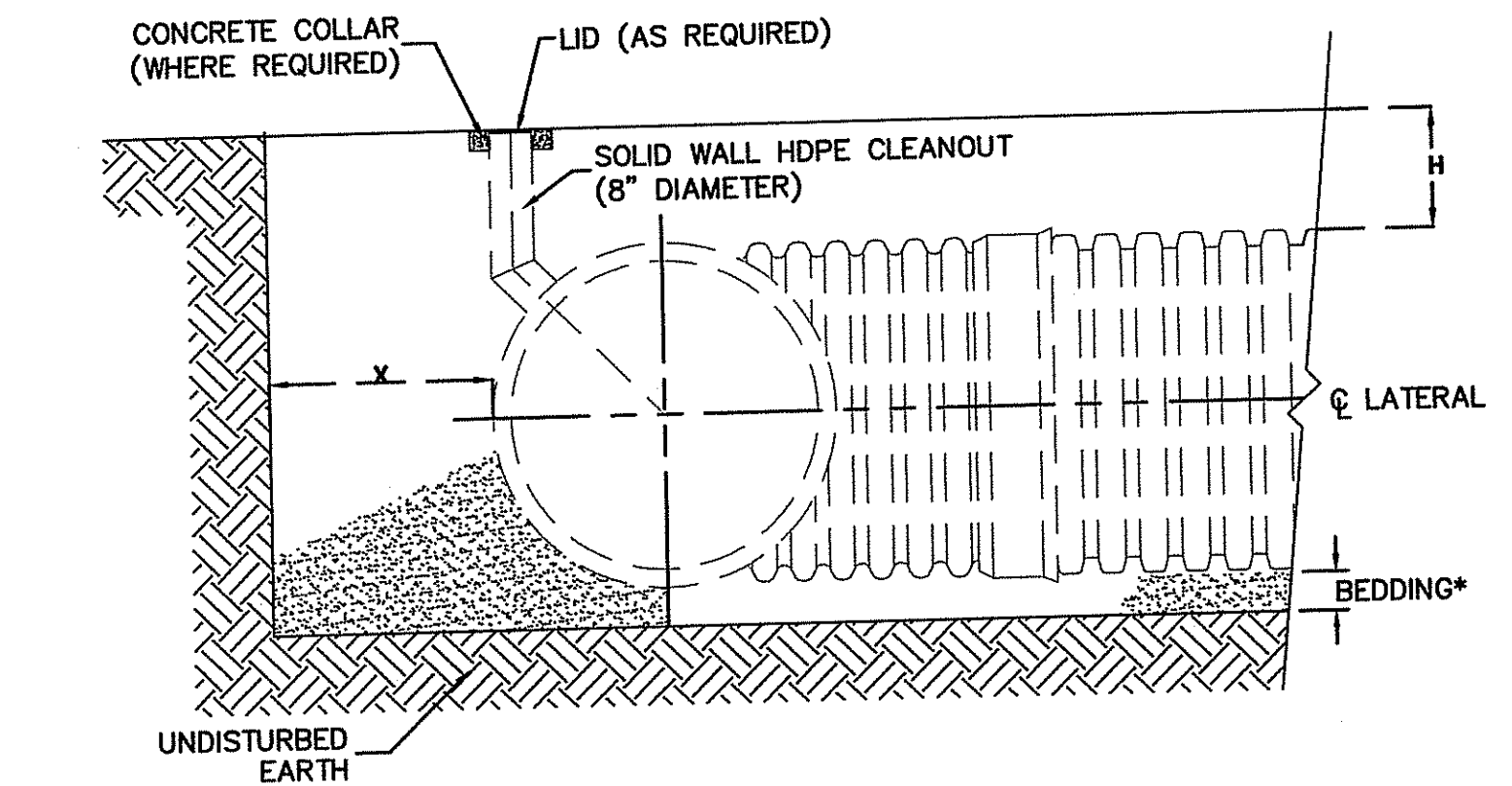


SEE PLANS



* CLEAN CRUSHED ANGULAR NO. 4 STONE. COMPACTED TO 95% MIN. OF MAX SPD
= 4" MIN. FOR 12"-24" N-12, 42"-60" HC
= 6" MIN. FOR 30"-60" N-12

SECTION A-A



* CLEAN CRUSHED ANGULAR NO. 4 STONE. COMPACTED TO 95% MIN. OF MAX SPD
= 4" MIN. FOR 12"-24" N-12, 42"-60" HC
= 6" MIN. FOR 30"-60" N-12

SECTION B-B

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TYPICAL RISER AND CLEANOUT DETAILS
NOT TO SCALE

NOTES:

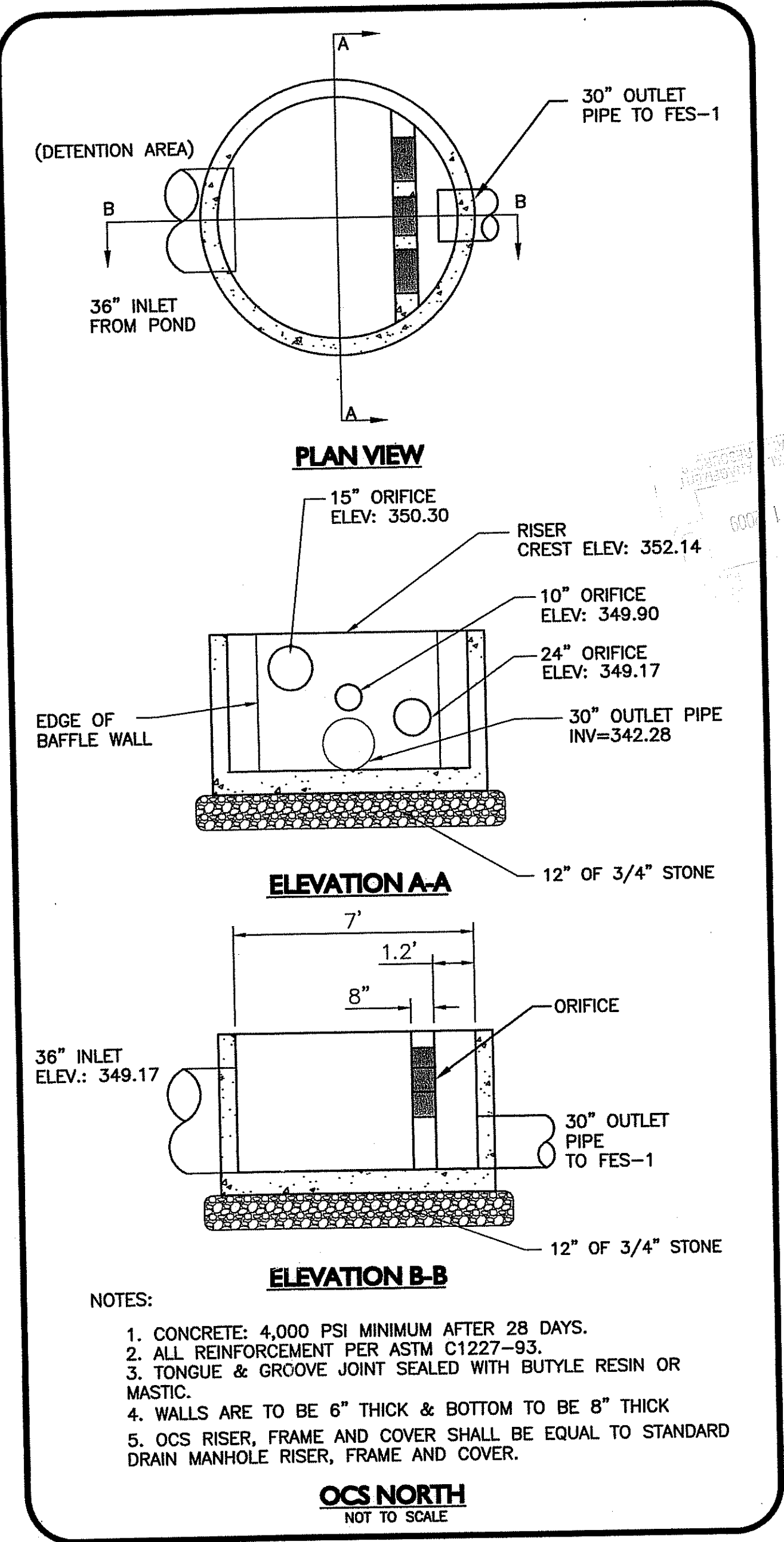
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6. THE BANK RUN GRAVEL BELOW THE DETENTION/INFILTRATION SYSTEMS SHALL BE INSTALLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER TO ENSURE PLACEMENT IS APPROPRIATE FOR PARKING LOT STABILITY AND TO ENSURE THAT THE DESIGN INFILTRATION RATE OF 15 MIN/INCH IS MAINTAINED. AFTER PLACEMENT, THE CONTRACTOR SHALL CONTACT ENGINEER TO VERIFY INFILTRATION RATES AS NOTED IN NOTE 5 (ABOVE).
7. THE BANK RUN GRAVEL BELOW THE DETENTION/INFILTRATION SYSTEMS SHALL NOT BE COMPACTED BY HEAVY VIBRATORY COMPACTORS OR SIMILAR.

NORTH DETENTION/INFILTRATION AREA 36" HDPE UNDERGROUND DETENTION/INFILTRATION SYSTEM
NOT TO SCALE

NOTES:

1. FOR INVERTS AND LAYOUT SEE DRAWING C-2 PROPOSED GRADING & DRAINAGE PLAN.

NOMINAL DIAMETER	TYPICAL SPACING "S"	TYPICAL SIDE WALL "X"	H (NON-TRAFFIC)	H (TRAFFIC)
12"	11"	8"	12"	12"
(300 MM)	(279 MM)	(203 MM)	(292 MM)	(292 MM)
15"	12"	8"	12"	12"
(375 MM)	(292 MM)	(203 MM)	(292 MM)	(292 MM)
18"	13"	9"	12"	12"
(450 MM)	(330 MM)	(229 MM)	(292 MM)	(292 MM)
24"	13"	10"	12"	12"
(600 MM)	(330 MM)	(254 MM)	(292 MM)	(292 MM)
30"	18"	18"	12"	12"
(750 MM)	(457 MM)	(457 MM)	(292 MM)	(292 MM)
36"	22"	18"	12"	12"
(900 MM)	(559 MM)	(457 MM)	(292 MM)	(292 MM)
42"	24"	18"	12"	24"
(1050 MM)	(610 MM)	(457 MM)	(292 MM)	(610 MM)
48"	25"	18"	12"	24"
(1200 MM)	(635 MM)	(457 MM)	(292 MM)	(610 MM)
60"	24"	18"	12"	24"
(1500 MM)	(610 MM)	(457 MM)	(292 MM)	(610 MM)



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OFFICE OF WATER RESOURCES
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Charles A. H...
Professional Engineer

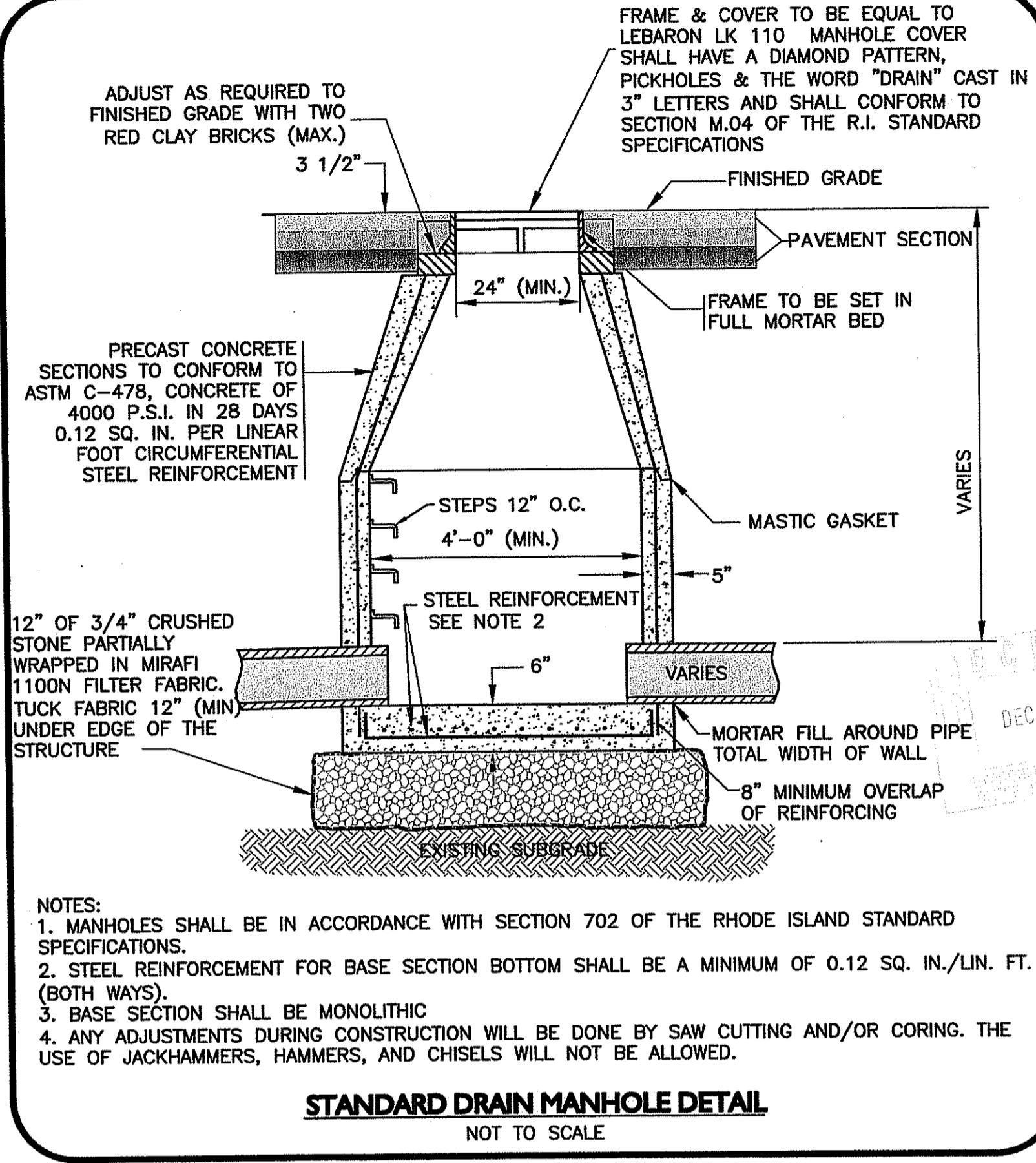
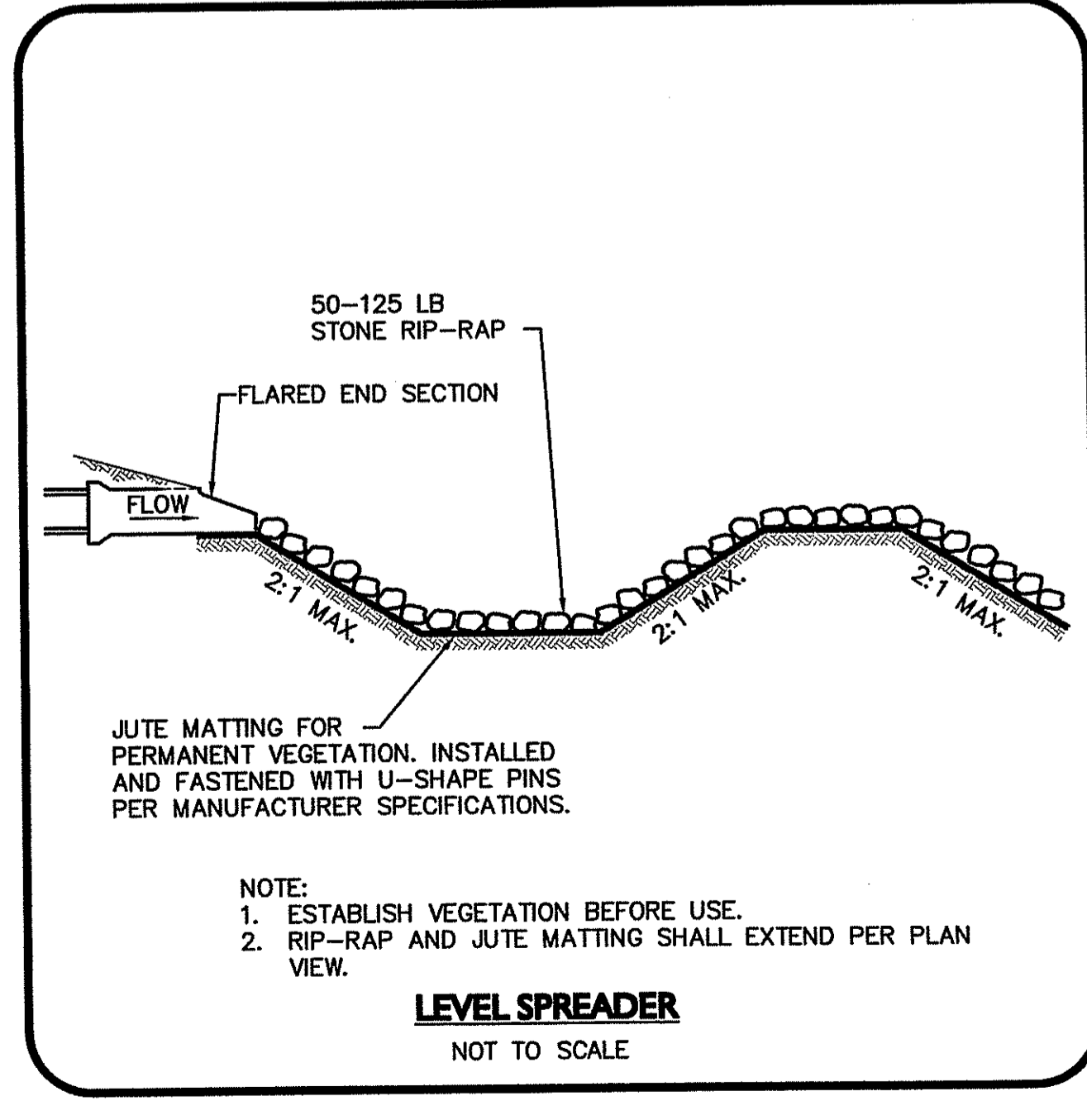
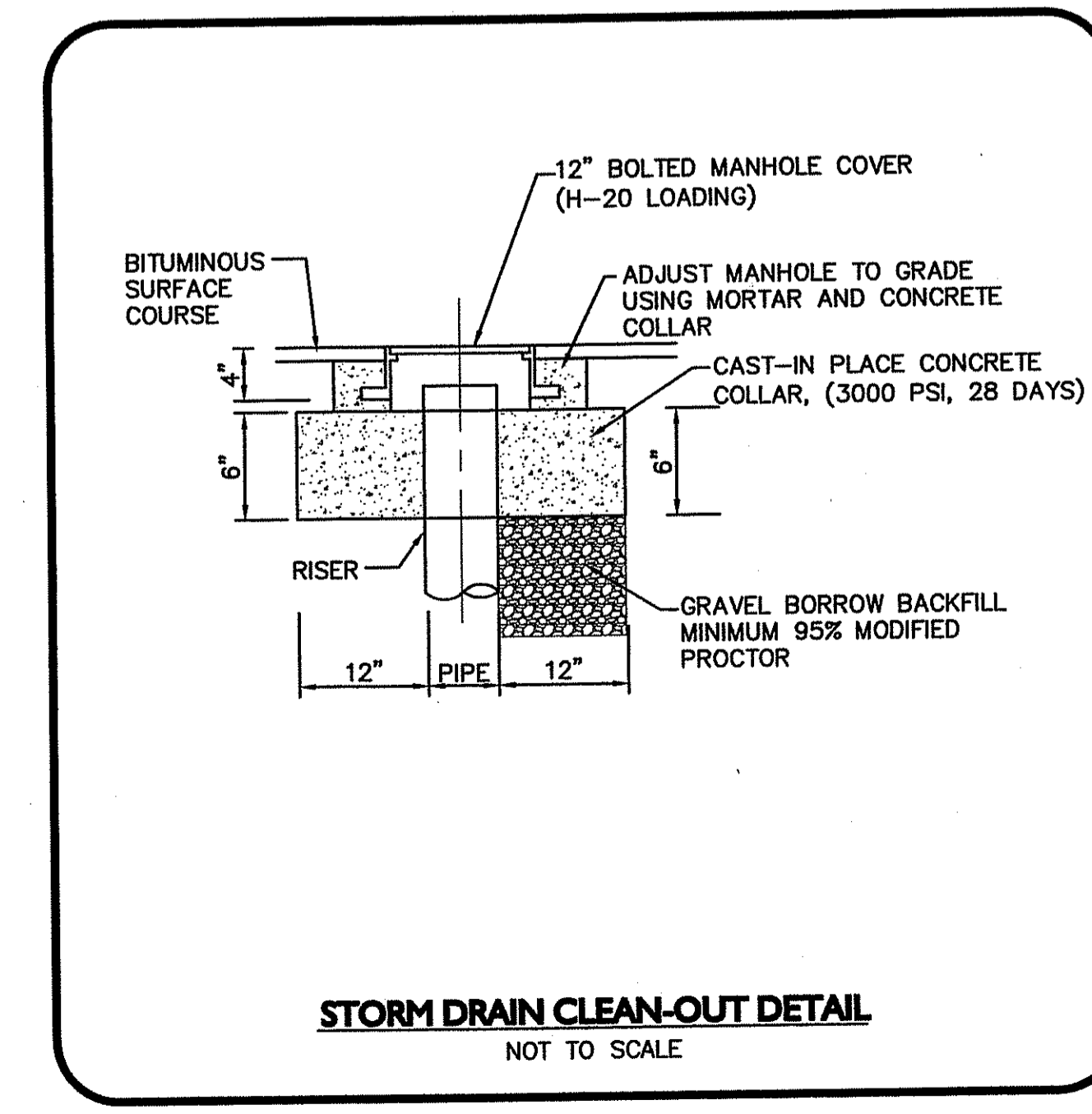
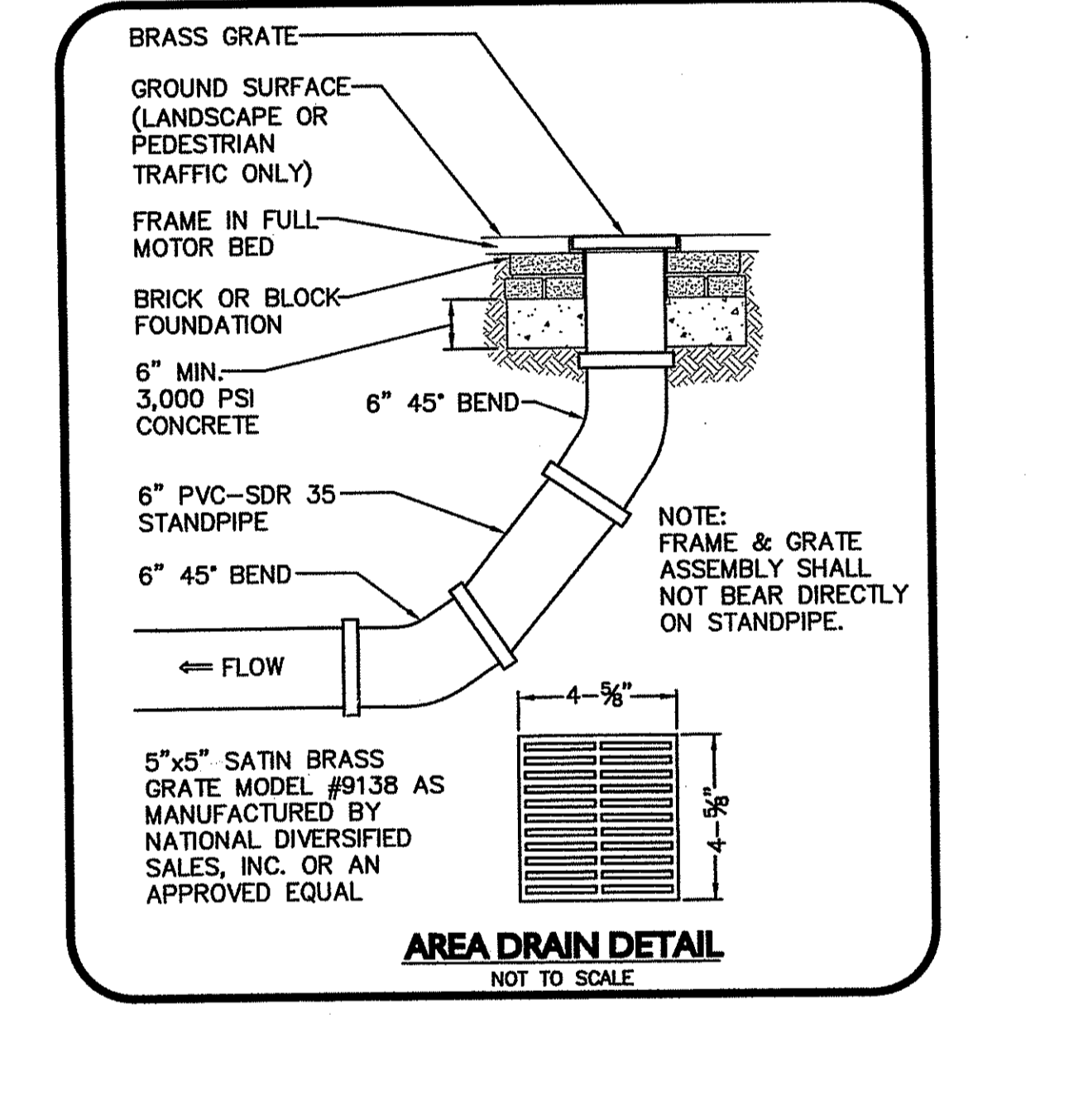
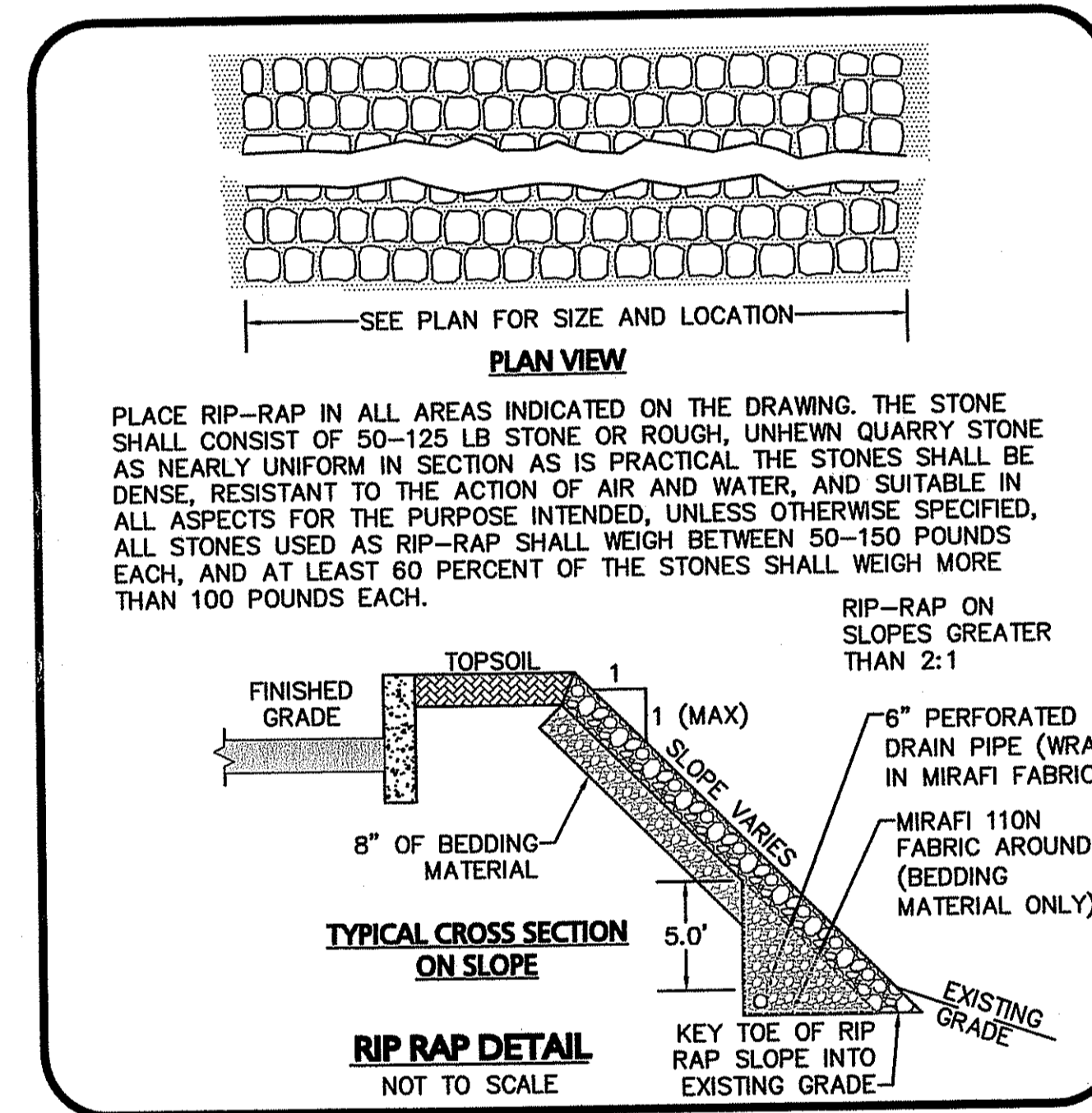
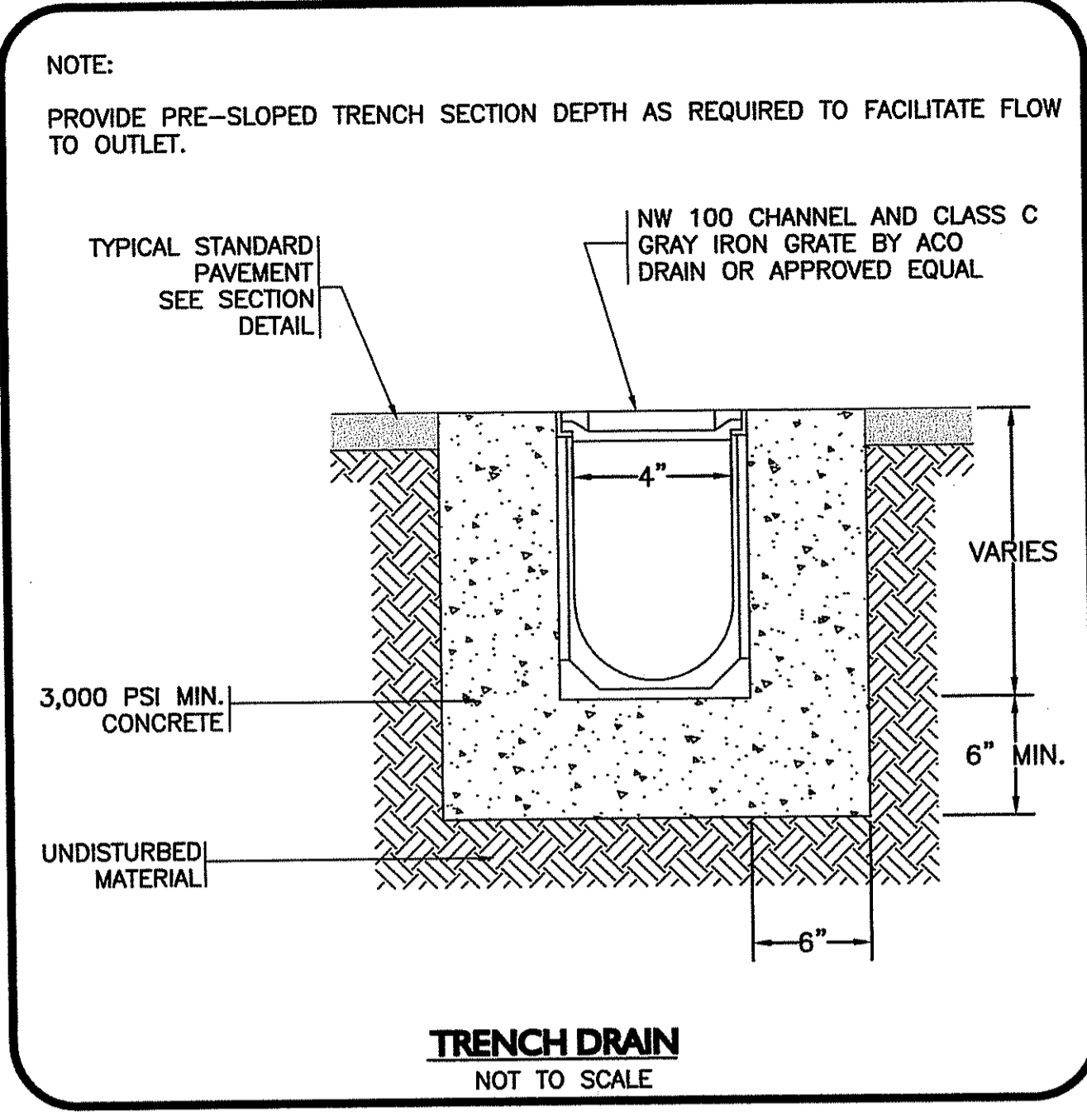
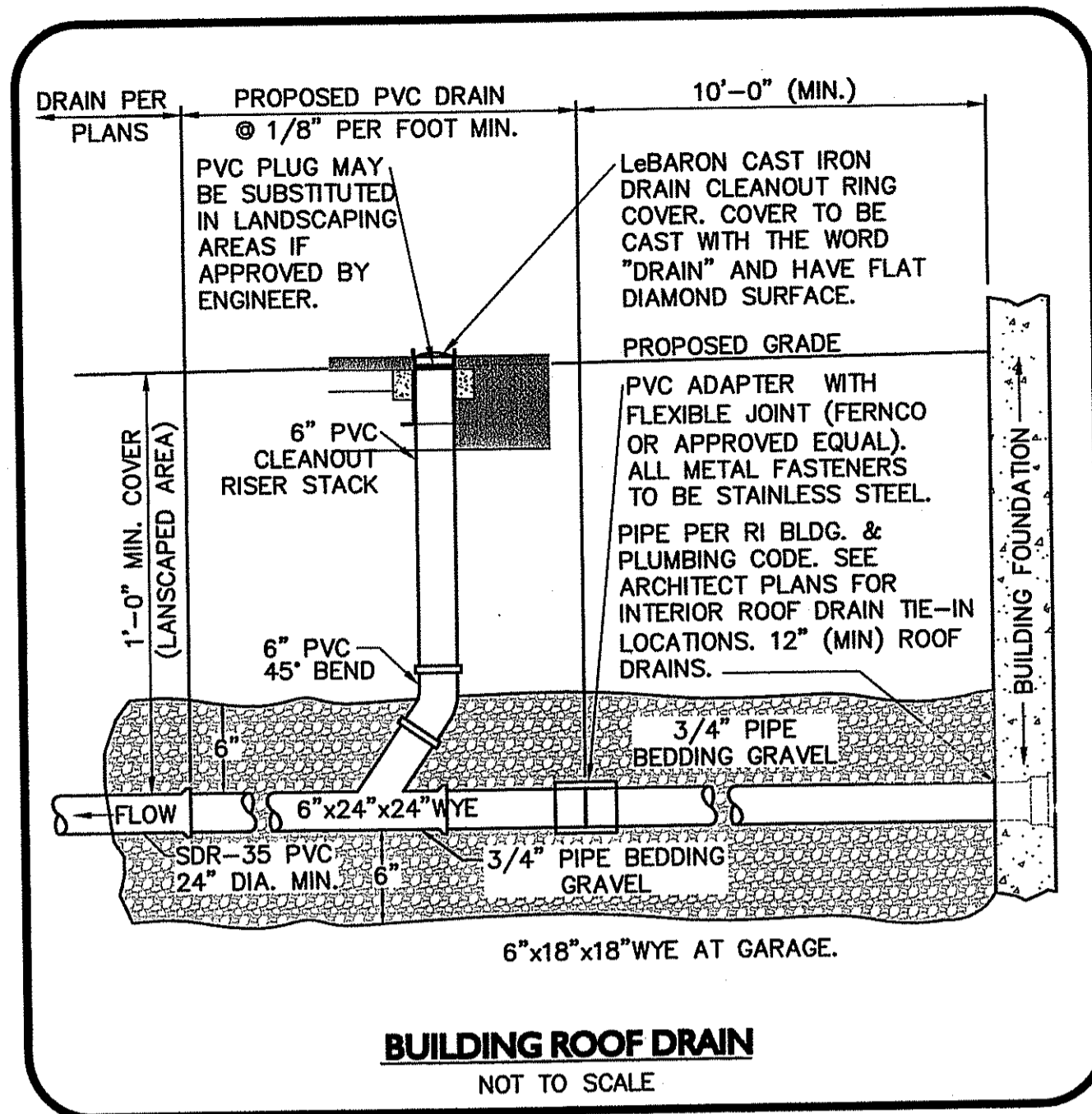
JAMES A. MAJOR
No. 3986
Professional Engineer

Details

DRAINAGE STRUCTURE SCHEDULE

NUMBER	STRUCTURE
CB 1	PRECAST CONCRETE (4' DIA.)
CB 2	PRECAST CONCRETE (4' DIA.)
CB 3	PRECAST CONCRETE (4' DIA.)
CB 4	PRECAST CONCRETE (4' DIA.)
CB 5	PRECAST CONCRETE (4' DIA.)
CB 6	PRECAST CONCRETE (8' DIA.)
CB 7	PRECAST CONCRETE (5' DIA.)
CB 8	PRECAST CONCRETE (5' DIA.)
CB 9	PRECAST CONCRETE (4' DIA.)
CB 10	PRECAST CONCRETE (7' DIA.)
CB 11	PRECAST CONCRETE (5' DIA.)
CB 12	PRECAST CONCRETE (4' DIA.)
CB 13	PRECAST CONCRETE (4' DIA.)
CB 14	PRECAST CONCRETE (4' DIA.)
CB 15	PRECAST CONCRETE (4' DIA.)
CB 16	PRECAST CONCRETE (6' DIA.)
CB 17	PRECAST CONCRETE (8' DIA.)
DCB 18	PRECAST CONCRETE (5' DIA.)
CB 18A	PRECAST CONCRETE (4' DIA.)
CB 19	PRECAST CONCRETE (4' DIA.)
CB 20	PRECAST CONCRETE (4' DIA.)
CB 21	PRECAST CONCRETE (4' DIA.)
CB 22	PRECAST CONCRETE (4' DIA.)
CB 23	PRECAST CONCRETE (6' DIA.)
CB 24	PRECAST CONCRETE (4' DIA.)
CB 25	PRECAST CONCRETE (4' DIA.)
CB 26	PRECAST CONCRETE (4' DIA.)
CB 27	PRECAST CONCRETE (5' DIA.)
CB 28	PRECAST CONCRETE (5' DIA.)
CB 29	PRECAST CONCRETE (6' DIA.)
CB 30	PRECAST CONCRETE (4' DIA.)
CB 31	PRECAST CONCRETE (4' DIA.)
CB 32	PRECAST CONCRETE (4' DIA.)
CB 33	PRECAST CONCRETE (4' DIA.)
CB 34	PRECAST CONCRETE (4' DIA.)
CB 35	PRECAST CONCRETE (4' DIA.)
CB 36	PRECAST CONCRETE (4' DIA.)
CB 37	PRECAST CONCRETE (4' DIA.)
DMH 1	PRECAST CONCRETE (5' DIA.)
DMH 2	PRECAST CONCRETE (4' DIA.)
DMH 3	PRECAST CONCRETE (6' DIA.)
DMH 4	PRECAST CONCRETE (4' DIA.)
DMH 4A	PRECAST CONCRETE (4' DIA.)
DMH 4B	PRECAST CONCRETE (4' DIA.)
DMH 5	PRECAST CONCRETE (4' DIA.)
DMH 6	PRECAST CONCRETE (4' DIA.)
DMH 7	PRECAST CONCRETE (4' DIA.)
DMH 8	PRECAST CONCRETE (4' DIA.)
DMH 9	PRECAST CONCRETE (4' DIA.)
DMH 10	PRECAST CONCRETE (4' DIA.)
DMH 11	PRECAST CONCRETE (4' DIA.)
OCS NORTH	PRECAST CONCRETE (7' DIA.)
OCS SOUTH	PRECAST CONCRETE (7' DIA.)
OCS SOUTH-2	PRECAST CONCRETE (7' DIA.)

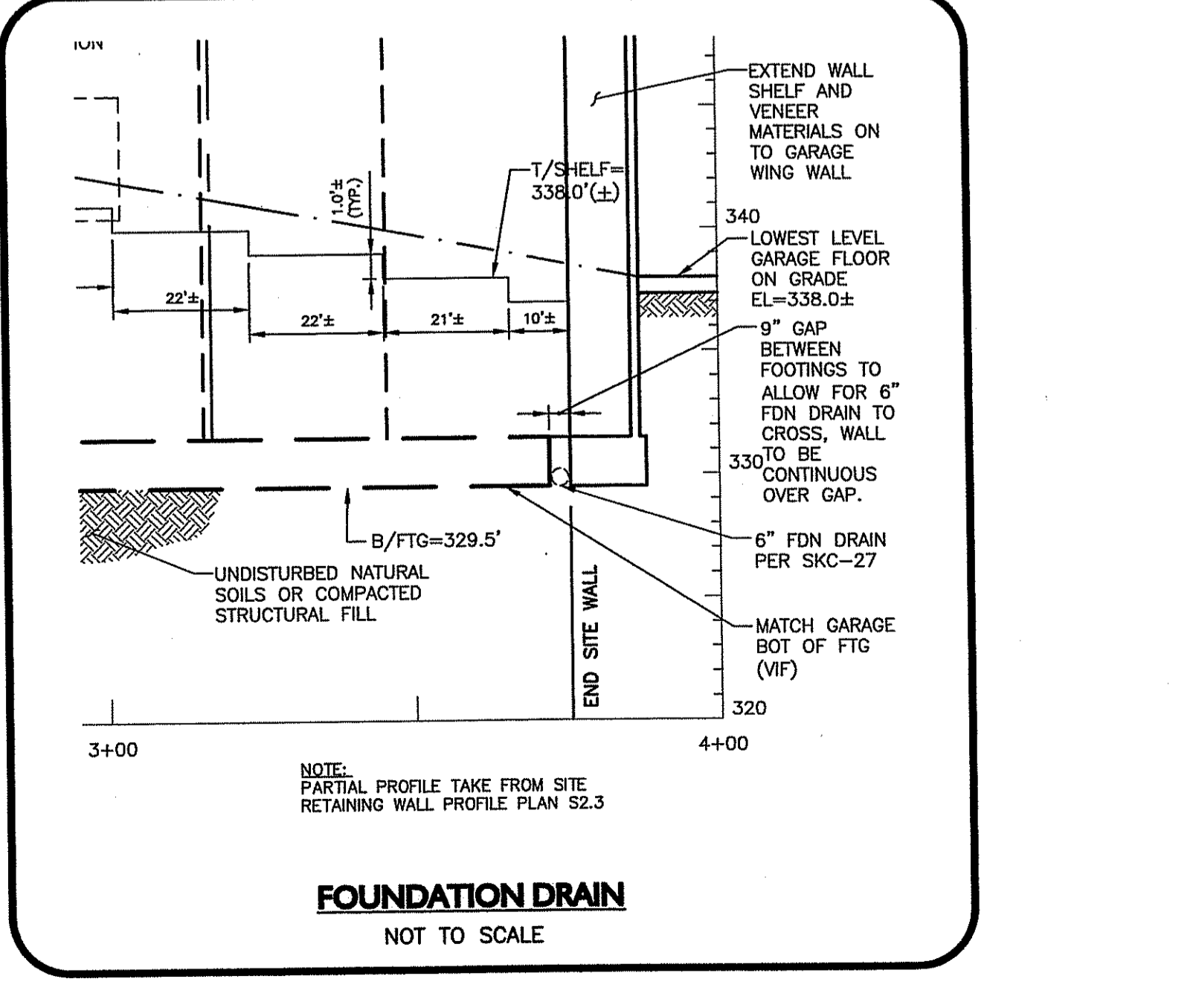
NOTE: ALL CATCHBASINS ARE TO HAVE A 4' SUMP & HOODS ON OUTLET PIPES.



NOTES:
 1. MANHOLES SHALL BE IN ACCORDANCE WITH SECTION 702 OF THE RHODE ISLAND STANDARD SPECIFICATIONS.
 2. STEEL REINFORCEMENT FOR BASE SECTION BOTTOM SHALL BE A MINIMUM OF 0.12 SQ. IN./LIN. FT. (BOTH WAYS).
 3. BASE SECTION SHALL BE MONOLITHIC
 4. ANY ADJUSTMENTS DURING CONSTRUCTION WILL BE DONE BY SAW CUTTING AND/OR CORING. THE USE OF JACKHAMMERS, HAMMERS, AND CHISELS WILL NOT BE ALLOWED.

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Charles A. Hester



Issued for RIDEM Wetlands & UIC

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drawing checked by:	RC	
drawing scale:	AS NOTED	
drawing date:	15 October 2009	
drawing revision:		
project number:	08020.00	
rev.	description	date
1	Per RIDEM Comments	11/20/09
0	Issued for RIDEM	10/15/09

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1 Per RIDEM Comments 11/2/09

0 Issued for RIDEM 10/15/09

registration: **JAMES A. MAJOR**

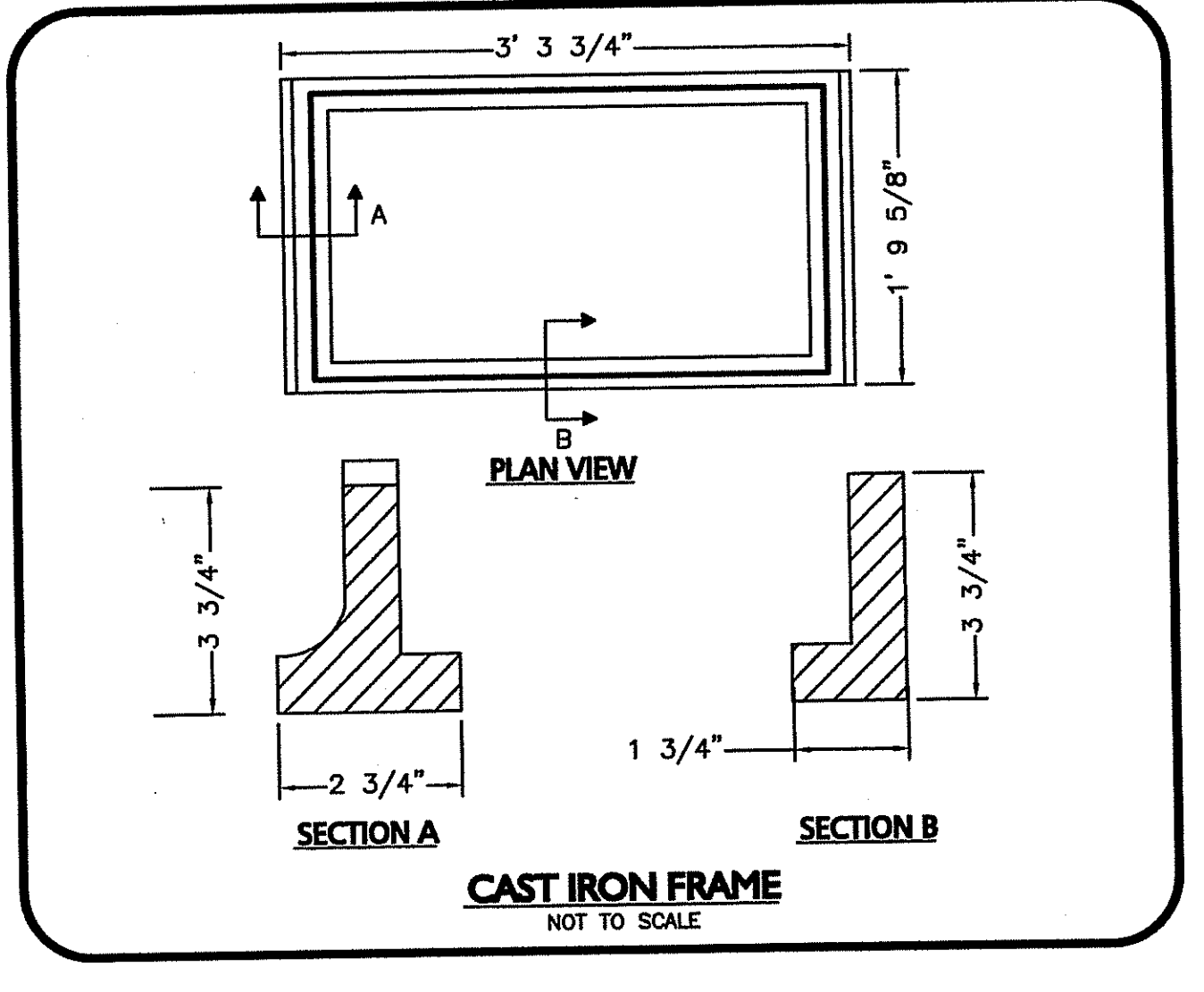
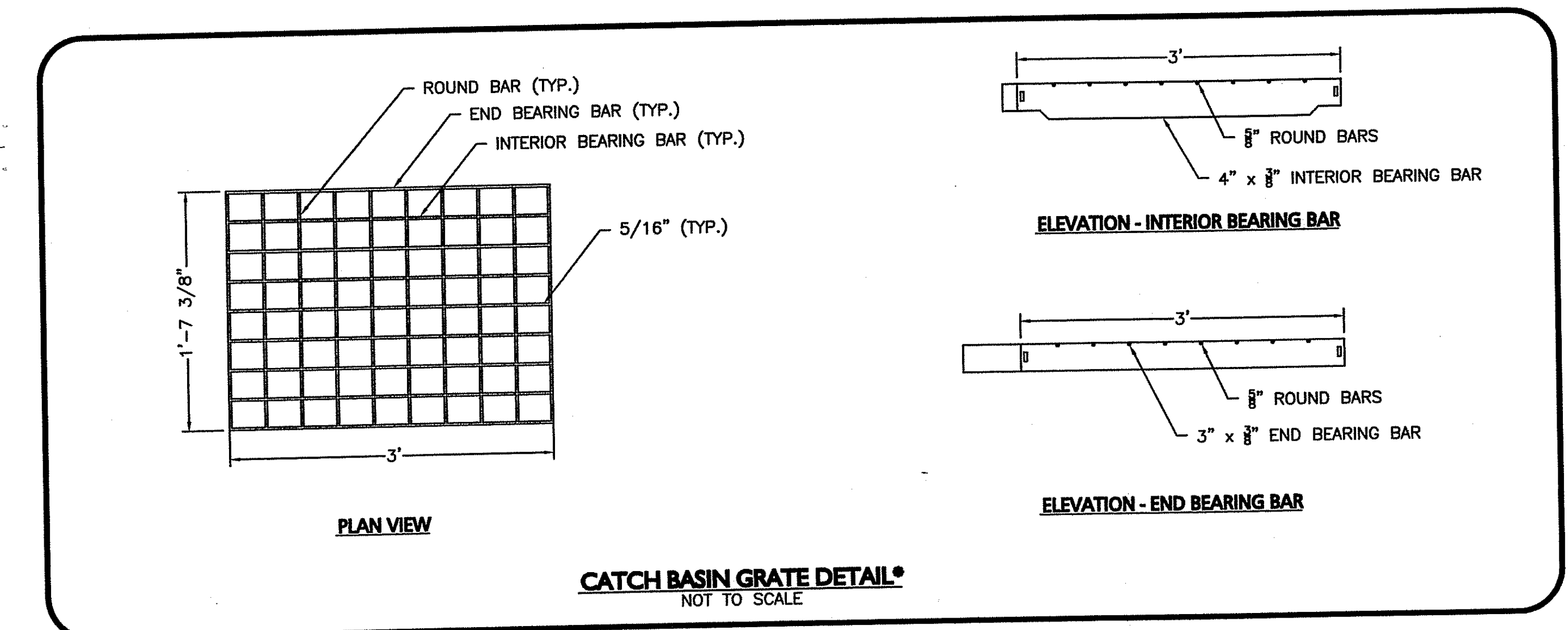
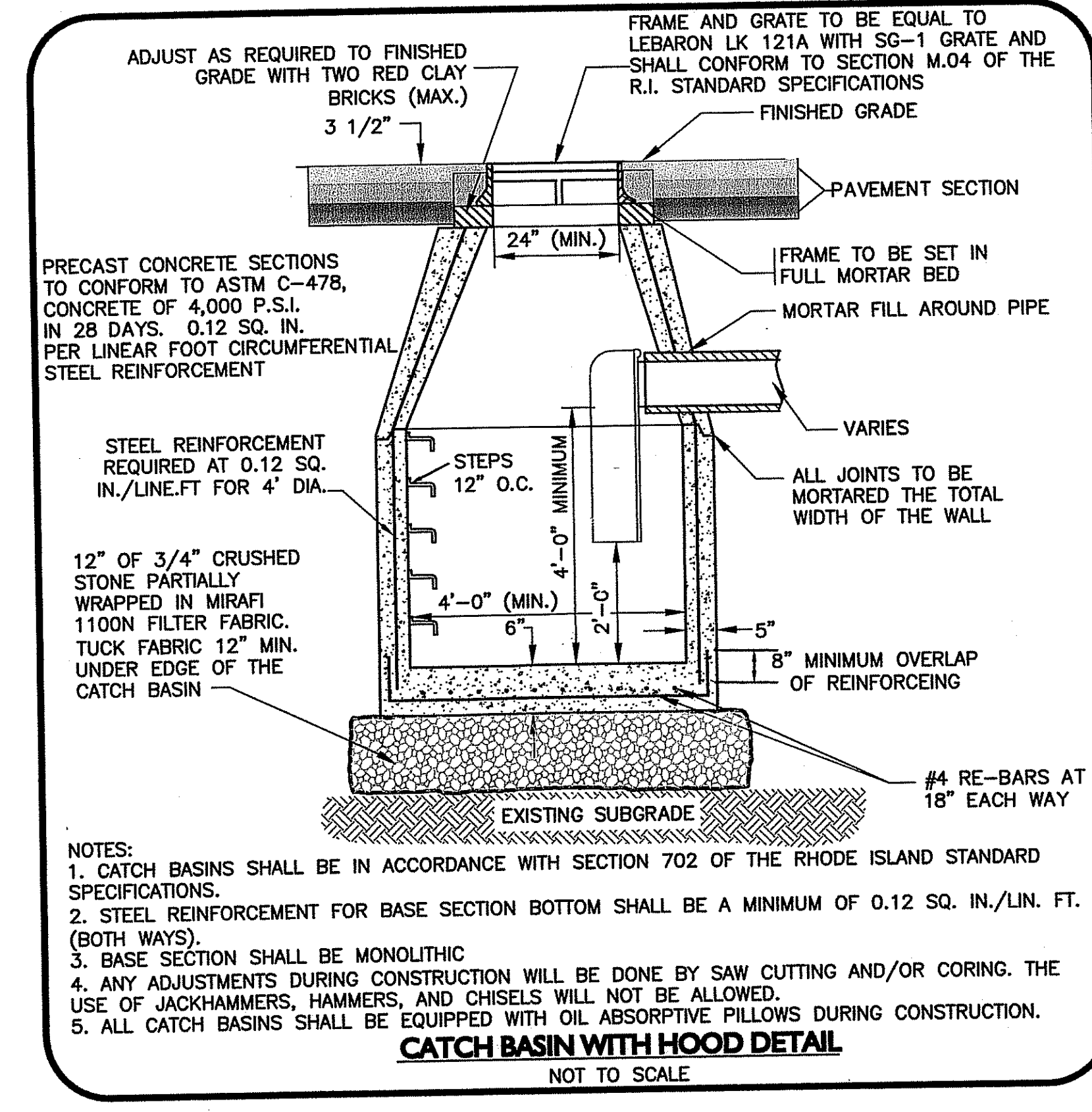
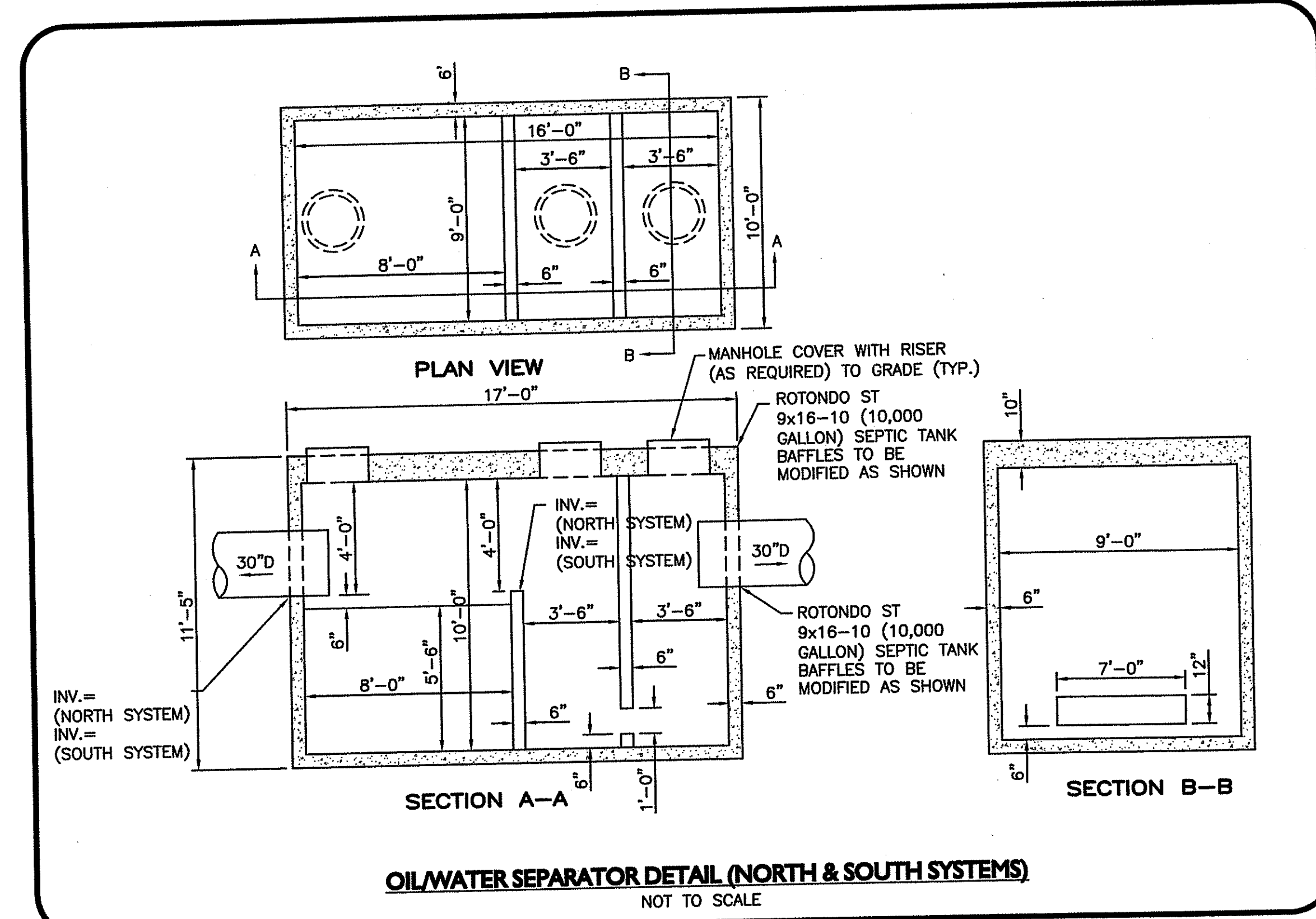
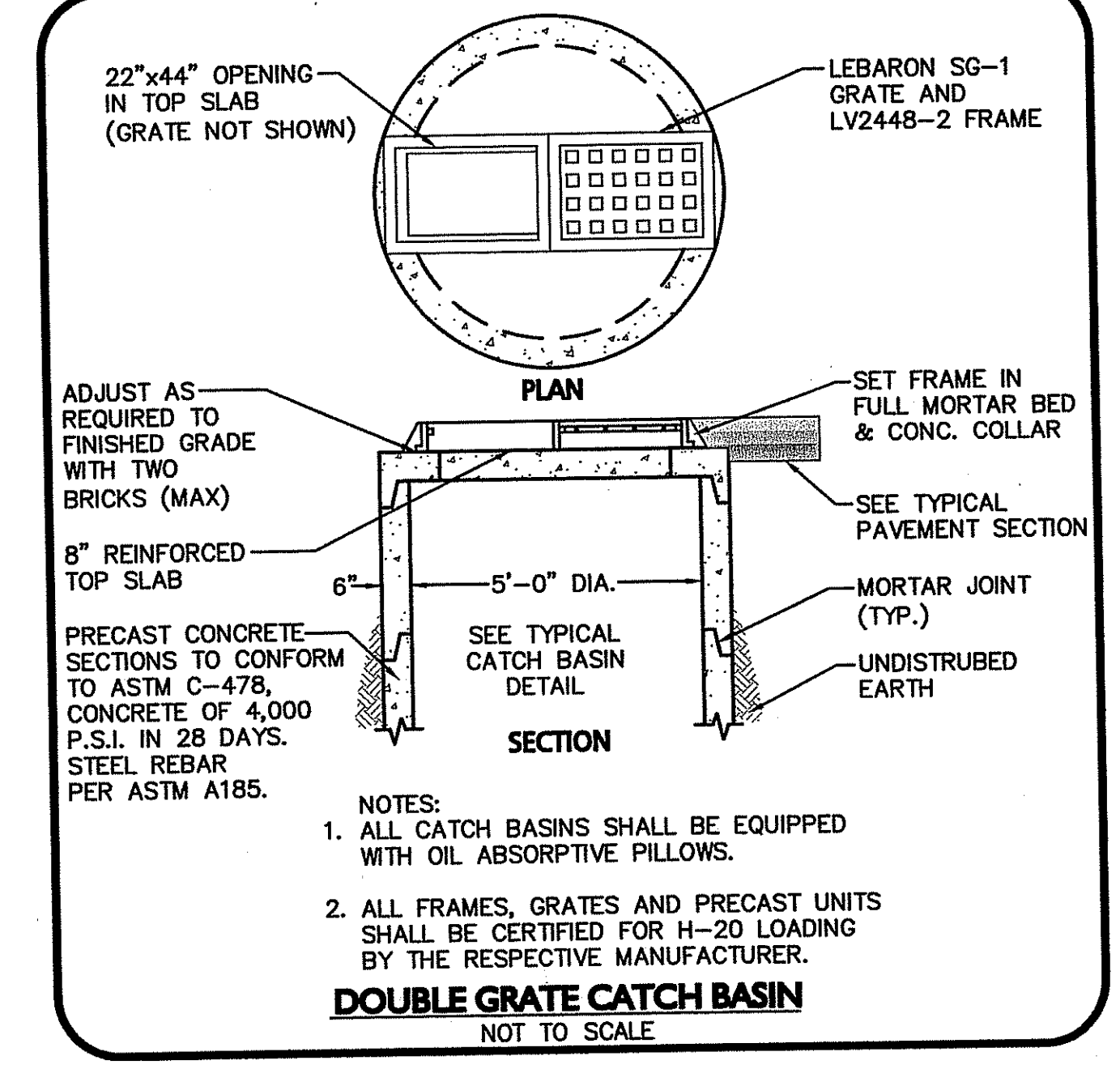
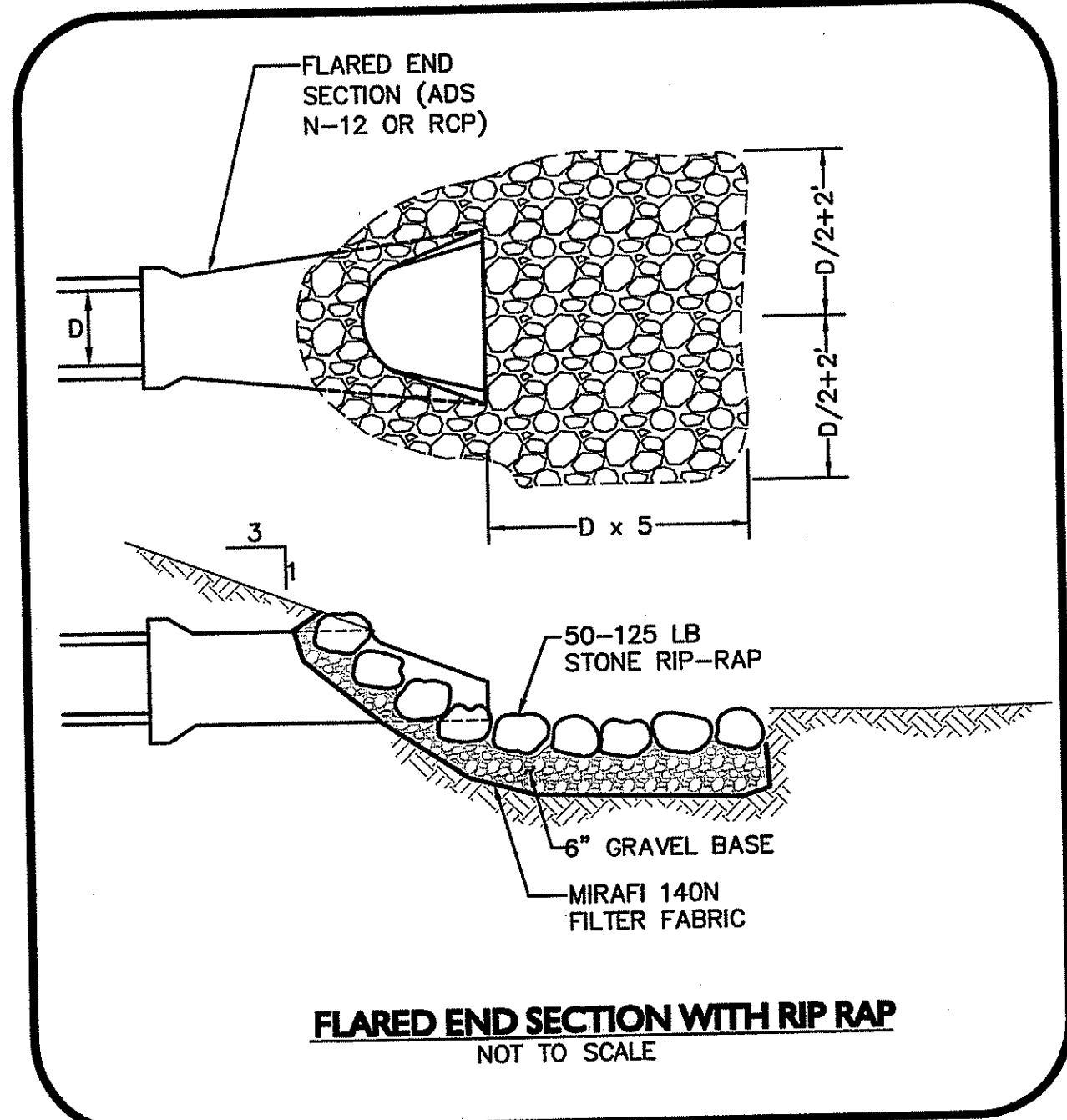
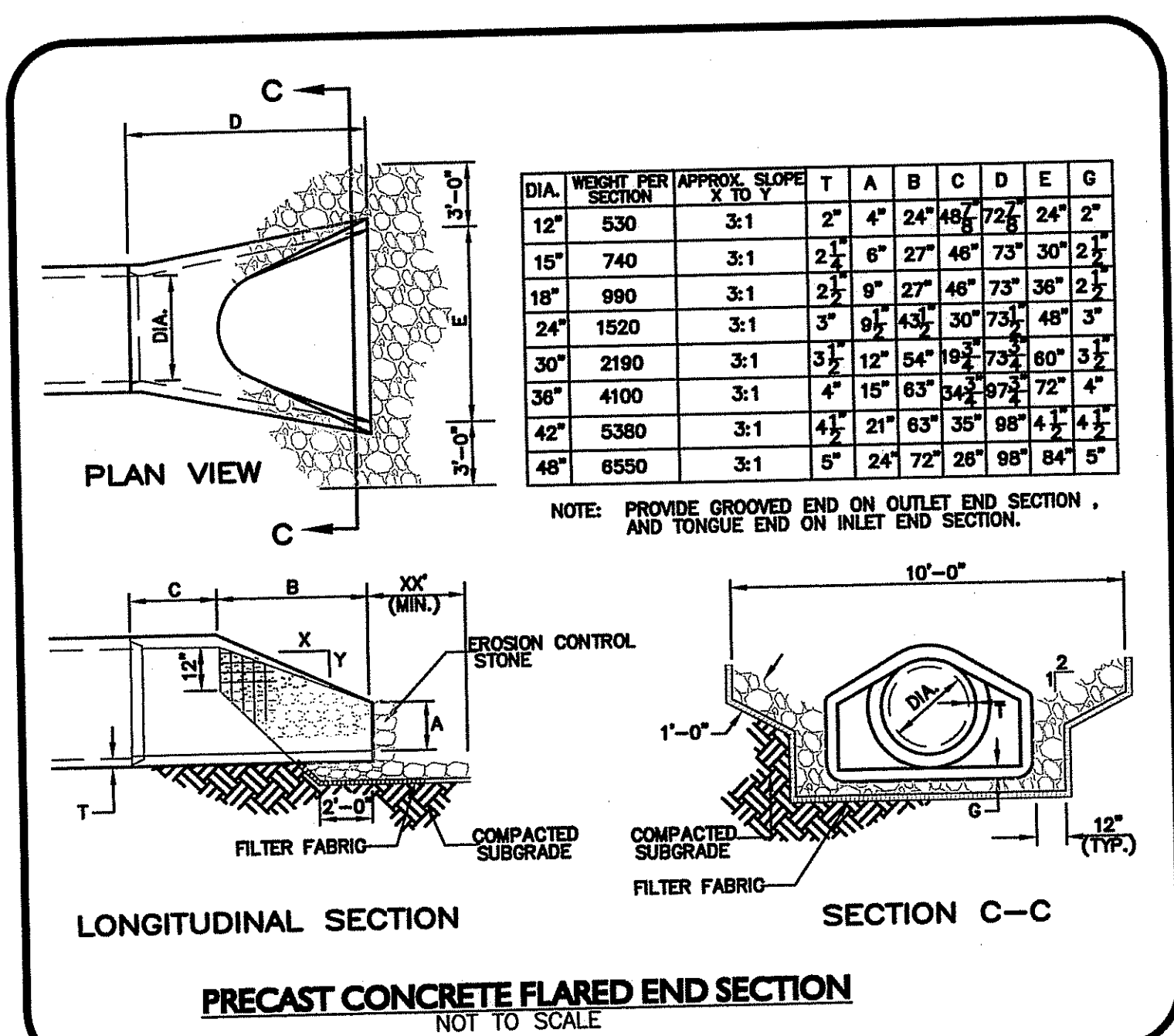
No. 9986

PROFESSIONAL ENGINEER

Details

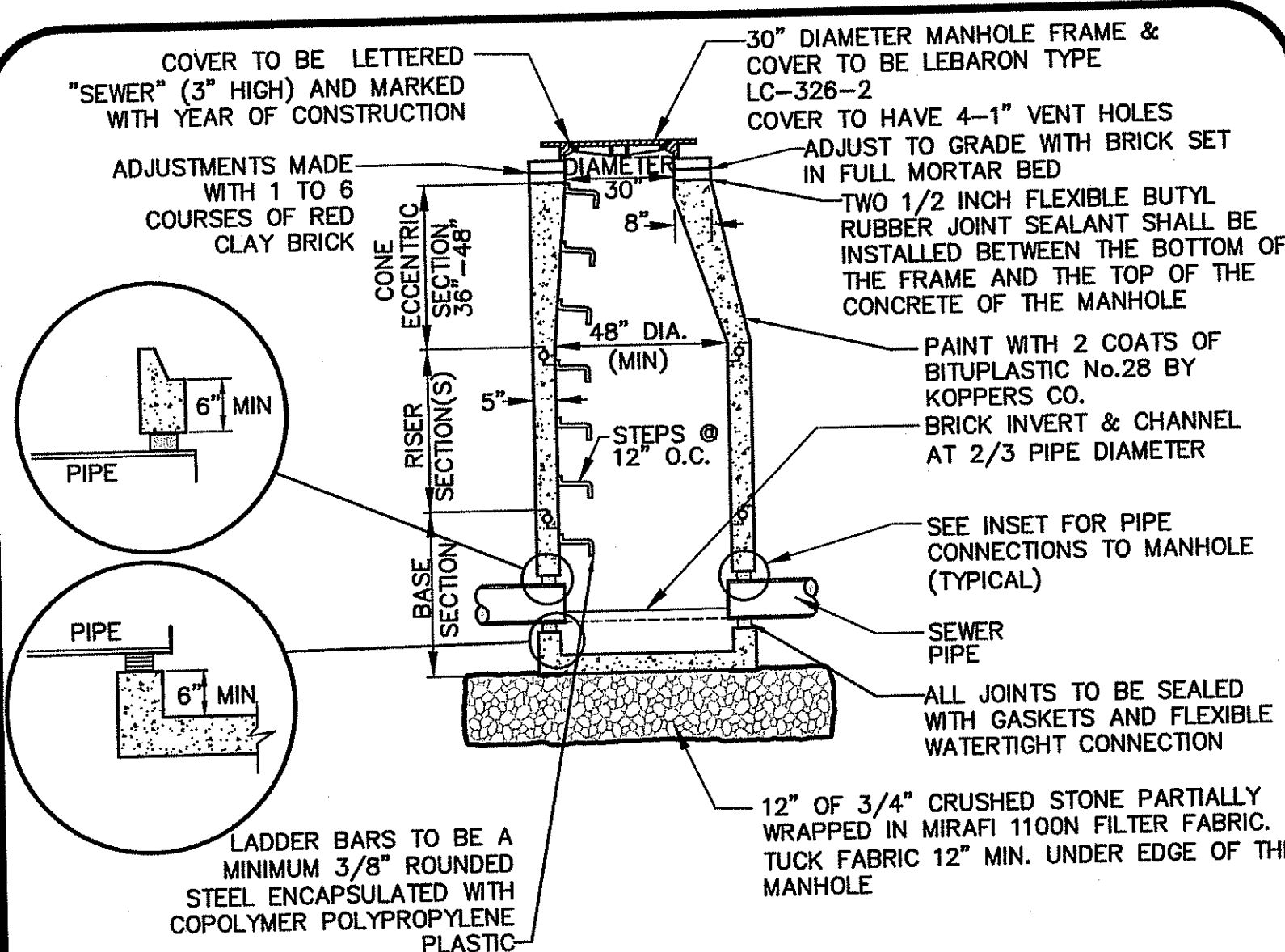
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19 OF 27



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Charles A. Major



COVER TO BE LETTERED "SEWER" (3" HIGH) AND MARKED WITH YEAR OF CONSTRUCTION

ADJUSTMENTS MADE WITH 1 TO 6 COURSES OF RED CLAY BRICK

30" DIAMETER MANHOLE FRAME & COVER TO BE LEBARON TYPE LC-326-2

COVER TO HAVE 4-1" VENT HOLES

ADJUST TO GRADE WITH BRICK SET IN FULL MORTAR BED

TWO 1/2 INCH FLEXIBLE BUTYL RUBBER JOINT SEALANT SHALL BE INSTALLED BETWEEN THE BOTTOM OF THE FRAME AND THE TOP OF THE CONCRETE OF THE MANHOLE

PAINT WITH 2 COATS OF BITUASTIC No.28 BY KOPPERS CO.

BRICK INVERT & CHANNEL AT 2/3 PIPE DIAMETER

SEE INSET FOR PIPE CONNECTIONS TO MANHOLE (TYPICAL)

SEWER PIPE

ALL JOINTS TO BE SEALED WITH GASKETS AND FLEXIBLE WATERTIGHT CONNECTION

12" OF 3/4" CRUSHED STONE PARTIALLY WRAPPED IN MIRAFI 1100N FILTER FABRIC. TUCK FABRIC 12" MIN. UNDER EDGE OF THE MANHOLE

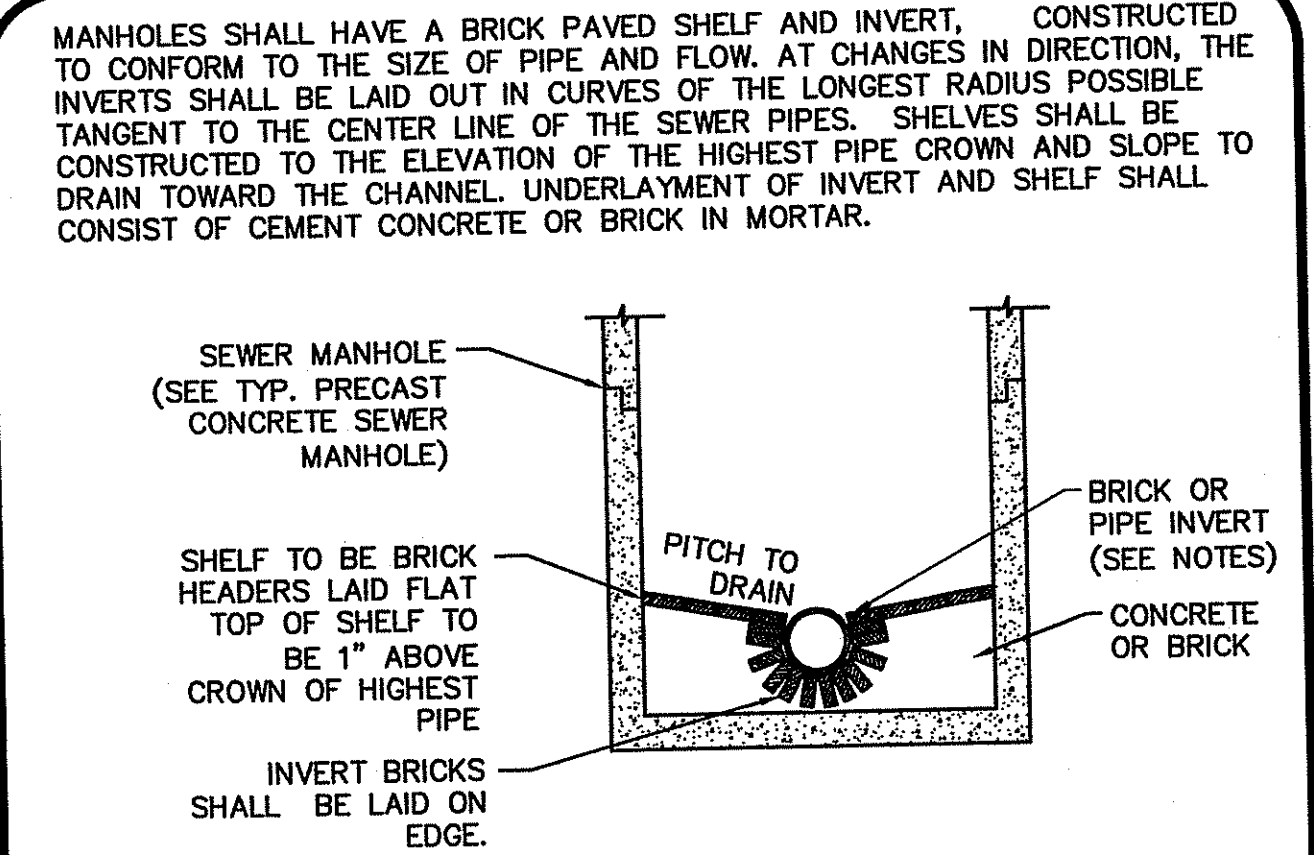
LADDER BARS TO BE A MINIMUM 3/8" ROUNDED STEEL ENCAPSULATED WITH COPOLYMER POLYPROPYLENE PLASTIC

NOTE: THE MANHOLE, INCLUDING ALL COMPONENT PARTS, SHALL HAVE ADEQUATE SPACE, STRENGTH AND LEAKPROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENT AND CONFIGURATIONS SHALL BE AS SHOWN ON THE DRAWING. MANHOLES MAY BE AN ASSEMBLY OR PRECAST SECTIONS, WITH OR WITHOUT STEEL REINFORCEMENT, IN ANY APPROVED MANHOLE, THE CAST MONOLITHICALLY IN PLACE WITH OR WITHOUT REINFORCEMENT. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND LOADS OF 8 TONS (H-20 LOADING) WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER DAY PER VERTICAL FOOT OF MANHOLE.

ALL CONSTRUCTION METHODS SHALL CONFORM TO THE REQUIREMENTS OF THE TOWN OF CUMBERLAND SPECIFICATIONS.

RED SEWER BRICK MANHOLES ARE AN ACCEPTABLE ALTERNATIVE TO PRECAST STRUCTURES.

TYPICAL PRECAST CONCRETE SEWER MANHOLE (SMH)
NOT TO SCALE



MANHOLES SHALL HAVE A BRICK PAVED SHELF AND INVERT, CONSTRUCTED TO CONFORM TO THE SIZE OF PIPE AND FLOW. AT CHANGES IN DIRECTION, THE INVERTS SHALL BE LAID OUT IN CURVES OF THE LONGEST RADIUS POSSIBLE TANGENT TO THE CENTER LINE OF THE SEWER PIPES. SHELVES SHALL BE CONSTRUCTED TO THE ELEVATION OF THE HIGHEST PIPE CROWN AND SLOPE TO DRAIN TOWARD THE CHANNEL. UNDERLAYMENT OF INVERT AND SHELF SHALL CONSIST OF CEMENT CONCRETE OR BRICK IN MORTAR.

SEWER MANHOLE (SEE TYP. PRECAST CONCRETE SEWER MANHOLE)

SHELF TO BE BRICK HEADERS LAID FLAT TOP OF SHELF TO BE 1" ABOVE CROWN OF HIGHEST PIPE

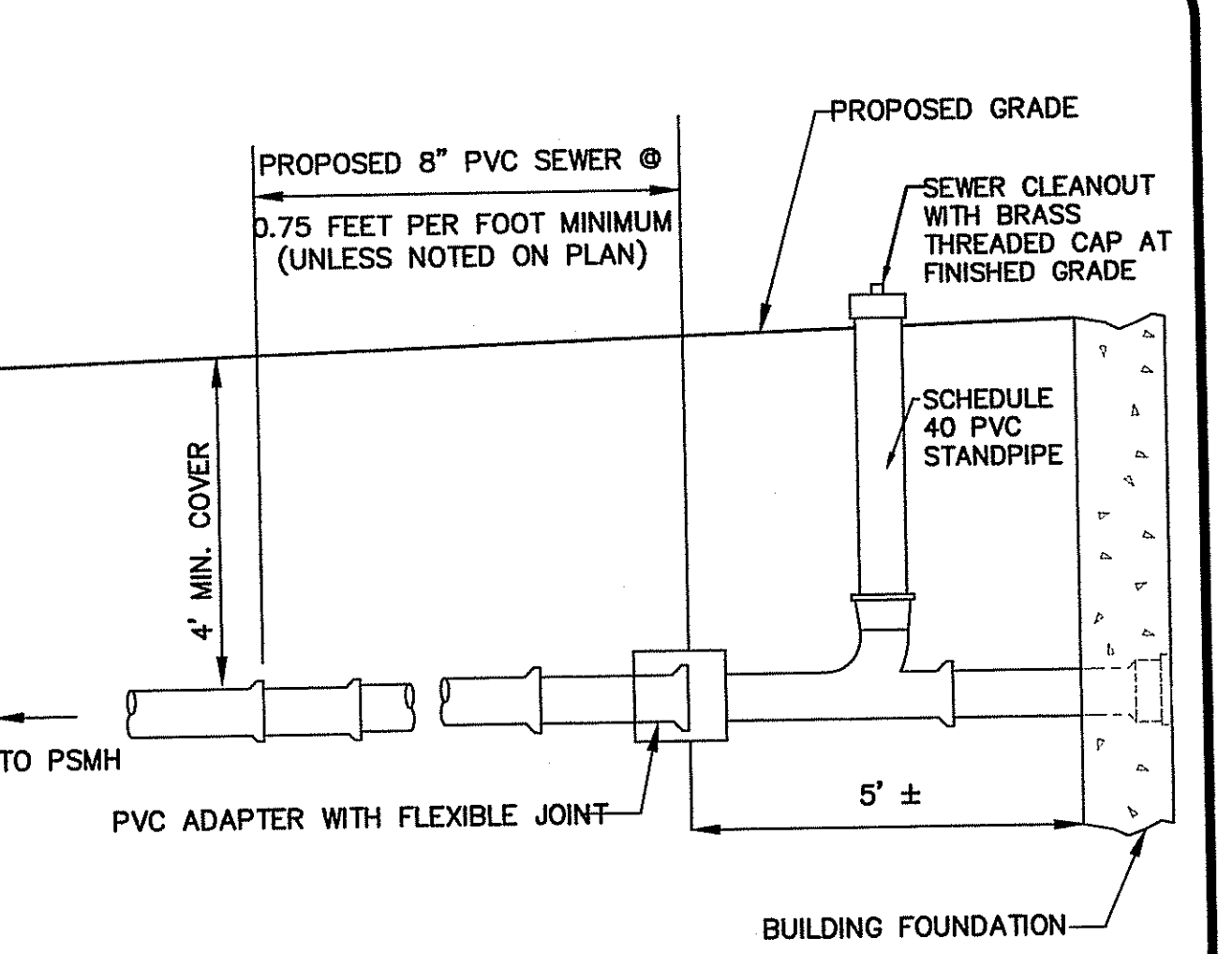
INVERT BRICKS SHALL BE LAID ON EDGE.

PITCH TO DRAIN

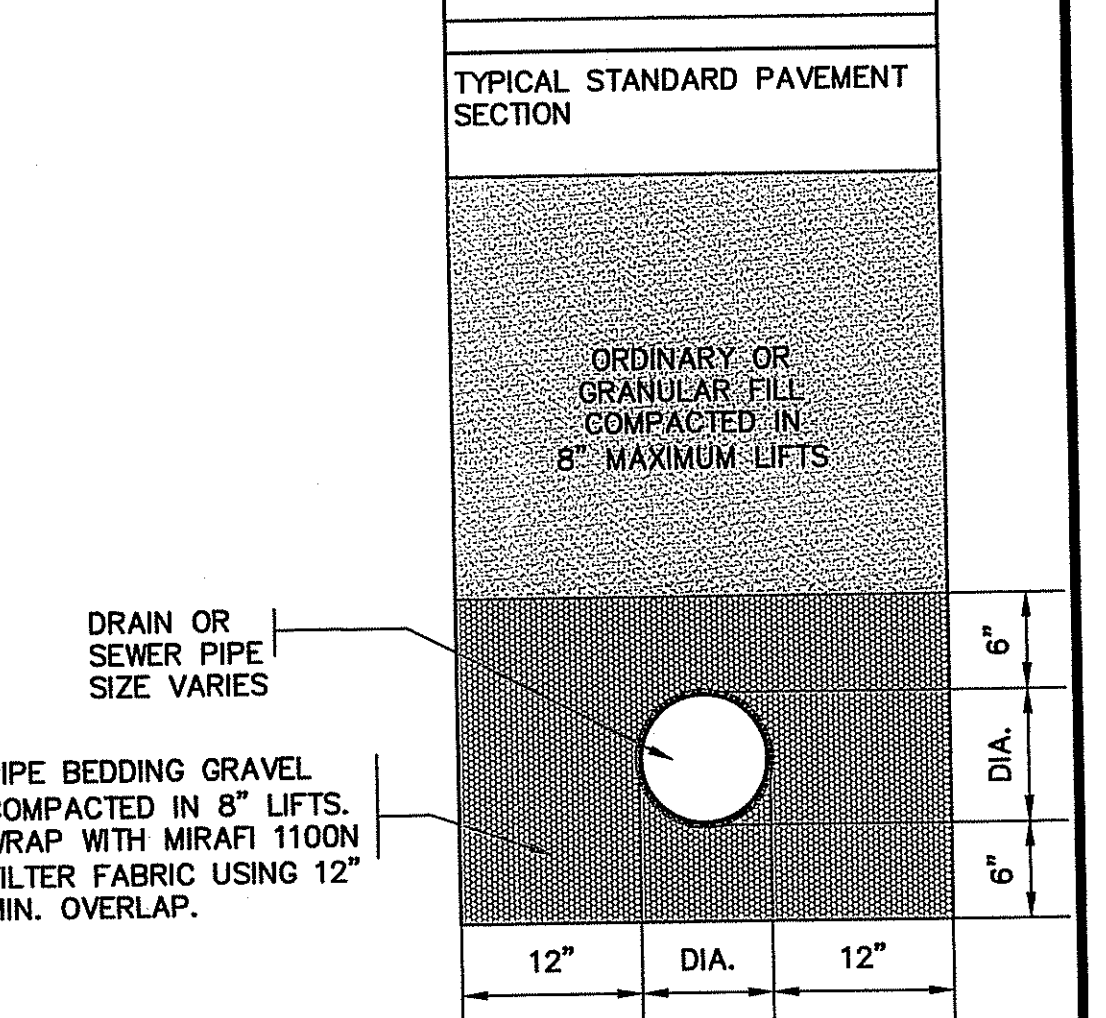
BRICK OR PIPE INVERT (SEE NOTES)

CONCRETE OR BRICK

TYPICAL BRICK INVERT SECTION FOR SEWER MANHOLES
NOT TO SCALE

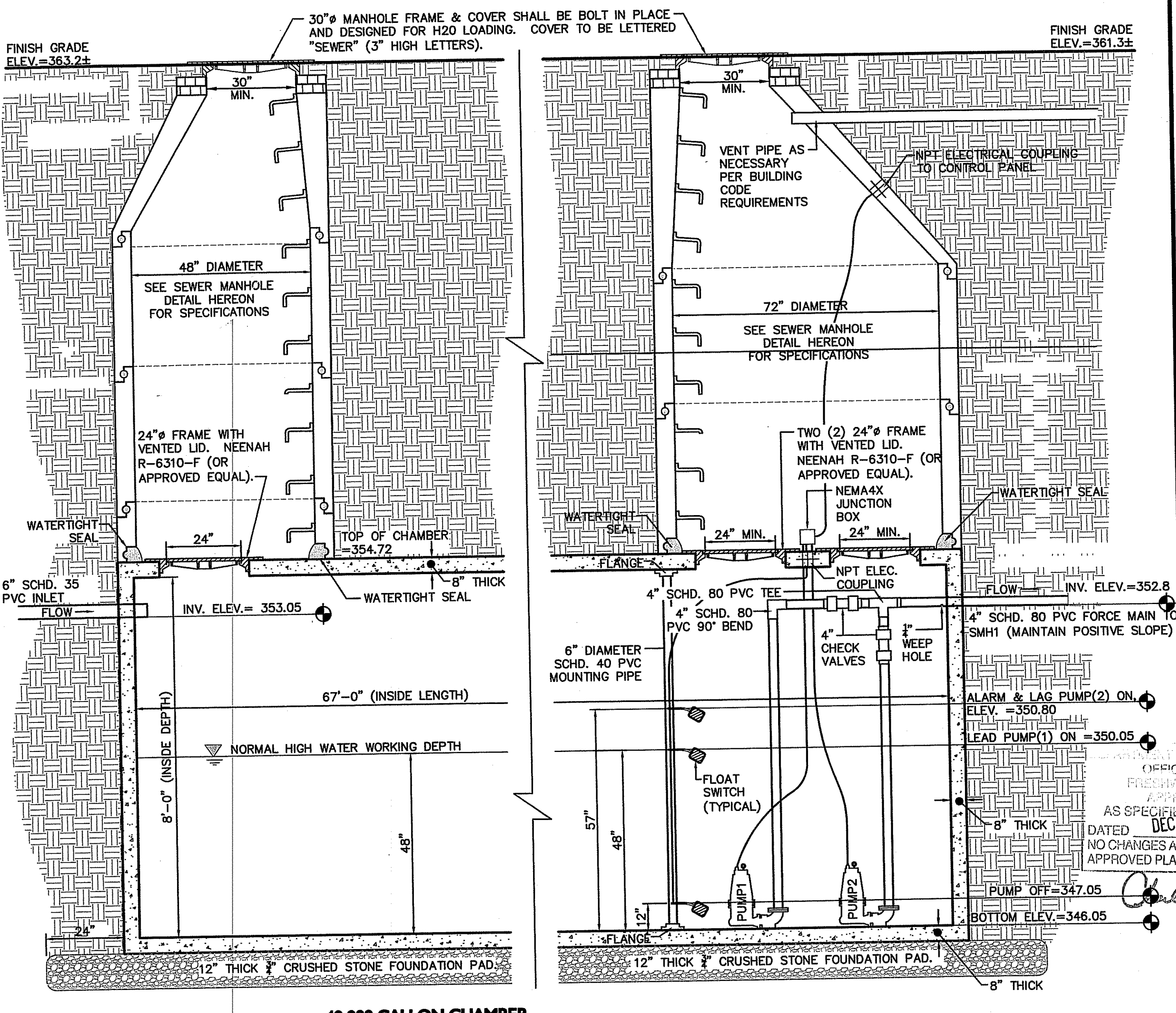


BUILDING SEWER SERVICE
NOT TO SCALE

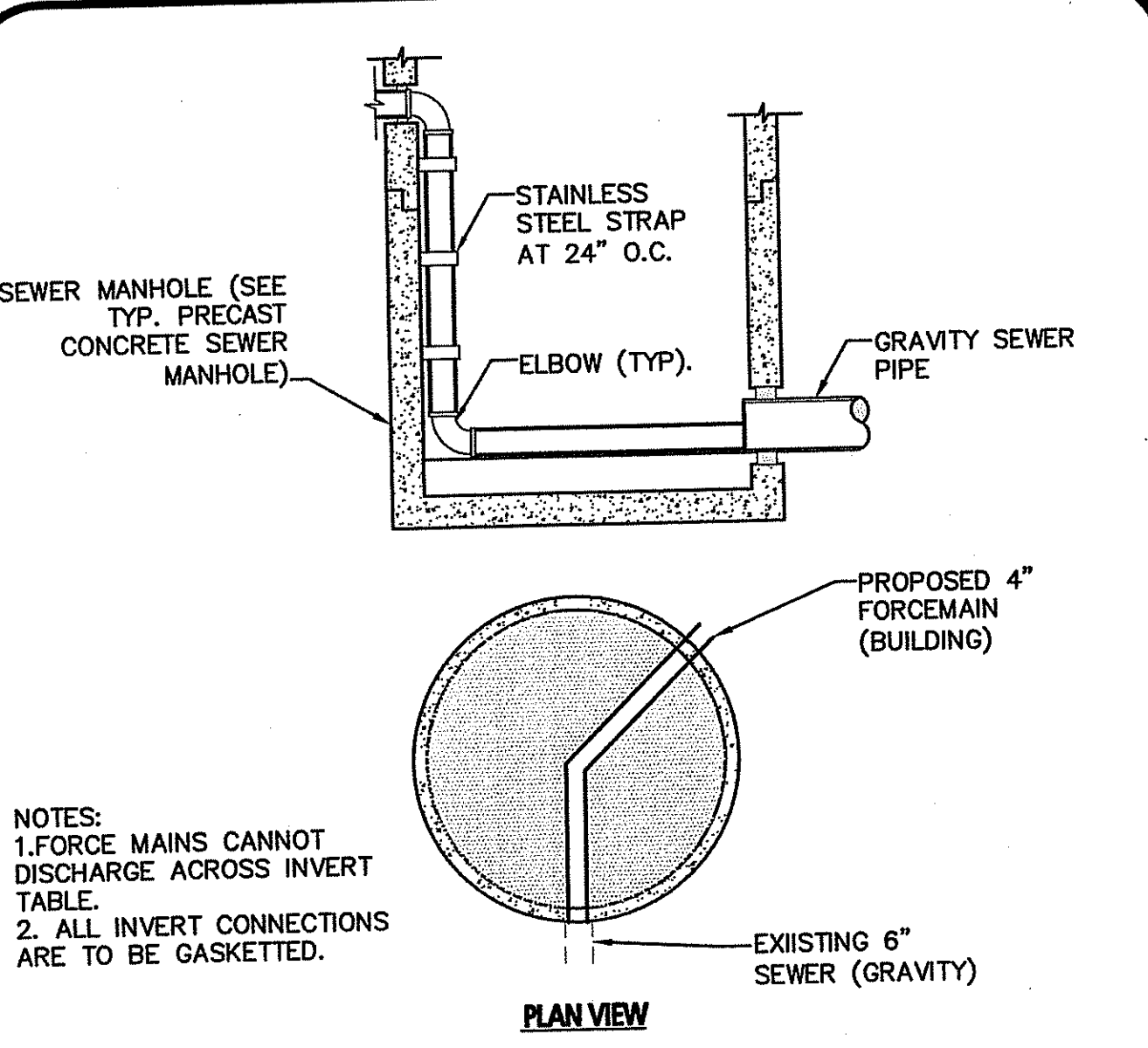


TYPICAL SEWER & DRAIN TRENCH
NOT TO SCALE

- NOTES:
- THE CHAMBER SHALL BE CONSTRUCTED OF PRECAST OR CAST IN PLACE REINFORCED CONCRETE; WATER TIGHT AND ABLE TO WITHSTAND H2O LOADING. THE CHAMBER MAY BE SEGMENTAL PROVIDED THE JOINTS ARE WATER TIGHT.
 - THE CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS AND A MINIMUM DENSITY OF 140 PCF
 - THE CEMENT SHALL BE PORTLAND TYPE 1 OR 3 PER ASTM C150-81.
 - ADMIXTURES SHALL CONFORM TO ASTM C233-82.
 - REINFORCING SHALL CONFORM TO ASTM A615 FOR WIRE FABRIC. GRADE #8 R'd OR EQUIVALENT. THE MINIMUM WALL THICKNESS SHALL BE EIGHT INCHES.
 - THE CHAMBER SHALL BE SET LEVEL ON A STABLE BASE WHICH HAS BEEN MECHANICALLY COMPACTED.
 - THE CHAMBER SHALL BE EQUIPPED WITH TWO PUMPS. THE DISCHARGE LINES OF WHICH SHALL BE VALVED TO ALLOW FOR REPAIR OF EITHER PUMP.
 - PUMPS SHALL BE CAPABLE OF PASSING A MINIMUM 3" DIAMETER AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THE PUMPS SHALL BE ABLE TO MAINTAIN 325 G.P.M. AT A TOTAL DYNAMIC HEAD OF 79 FEET.
 - PUMPS SHALL OPERATE IN THE FOLLOWING SEQUENCE:
 - PUMPS OFF
 - PRIMARY (LEAD) PUMP ON
 - BACKUP (LAG) PUMP ON AND ALARM ON
 - PUMPS MUST ALTERNATE DURING NORMAL USE
 - THE CHAMBER SHALL BE EQUIPPED WITH AN ALARM LOCATED IN THE BUILDING SERVED WHICH IS POWERED BY A SEPARATE CIRCUIT FROM THE CIRCUIT TO THE PUMPS.
 - ALL PIPE PENETRATIONS SHALL BE MADE WITH A KOR-N-SEAL BOOT OR EQUAL FLEXIBLE WATER TIGHT CONNECTION.
 - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION OF CHAMBER, PUMPS AND COMPONENTS.
 - INSTALLATION OF THE SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE CUMBERLAND PUBLIC WORKS SPECIFICATIONS & REQUIREMENTS.
 - PRIOR TO RECEIVING AUTHORIZATION TO CONSTRUCT, ALL MATERIALS SHALL MEET THE STANDARDS AND RECEIVE THE WRITTEN APPROVAL, BASED ON MANUFACTURER'S DRAWINGS AND OTHER DATA, FROM THE ENGINEER.
 - ALL SEWERAGE FACILITIES SHALL MEET TESTING AND CLEANING REQUIREMENTS PRIOR TO ACCEPTANCE.
 - AS-BUILT DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR AS A CONDITION FOR OWNER ACCEPTANCE OF THE NEW SEWERAGE FACILITIES.
 - ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND MATERIALS, STANDARDS AND SPECIAL DETAILS, AND STANDARD SPECIFICATIONS. ANY WORK NOT MEETING THE APPROVED STANDARDS SHALL BE IMMEDIATELY REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
 - THE CONTRACTOR SHALL CONFINE HIS OPERATIONS AND ACTIVITIES FOR CONSTRUCTION WITHIN THE LIMITS OF WORK AS SHOWN ON THE DRAWINGS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING REQUIRED IN THE SEWER INSTALLATION.
 - THE PROPOSED GRAVITY SANITARY SEWER PIPES SHALL BE 6" SDR-35, AS SHOWN ON PLANS.
 - THE CONTRACTOR IS RESPONSIBLE TO VERIFY THE ELEVATIONS OF EXISTING SEWER LINES PRIOR TO INSTALLATION.

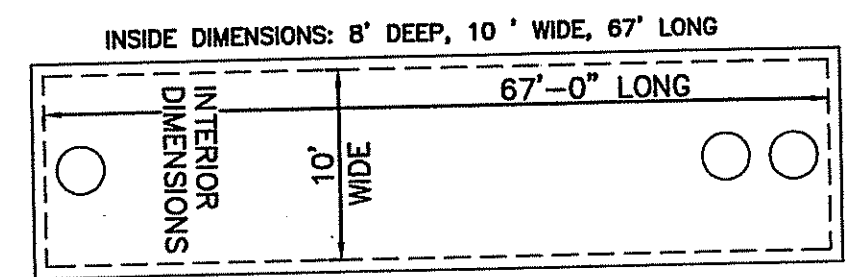


40,000 GALLON CHAMBER
NOT TO SCALE



BUILDING FORCE MAIN CONNECTION TO EXISTING SEWER LINE (SMH-1)
NOT TO SCALE

- NOTES:
- ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO EXTRA COST TO THE OWNER. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE LOAMED AND SEEDDED.
 - LOCATION AND DEPTHS OF EXISTING UTILITIES ARE APPROXIMATE AND HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND NOTIFY THE APPROPRIATE UTILITY AUTHORITIES INCLUDING "DIG-SAFE" PRIOR TO STARTING WORK. ANY DAMAGE TO UTILITIES CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND THE COST OF REPAIRS SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.



PLAN VIEW
NOT TO SCALE

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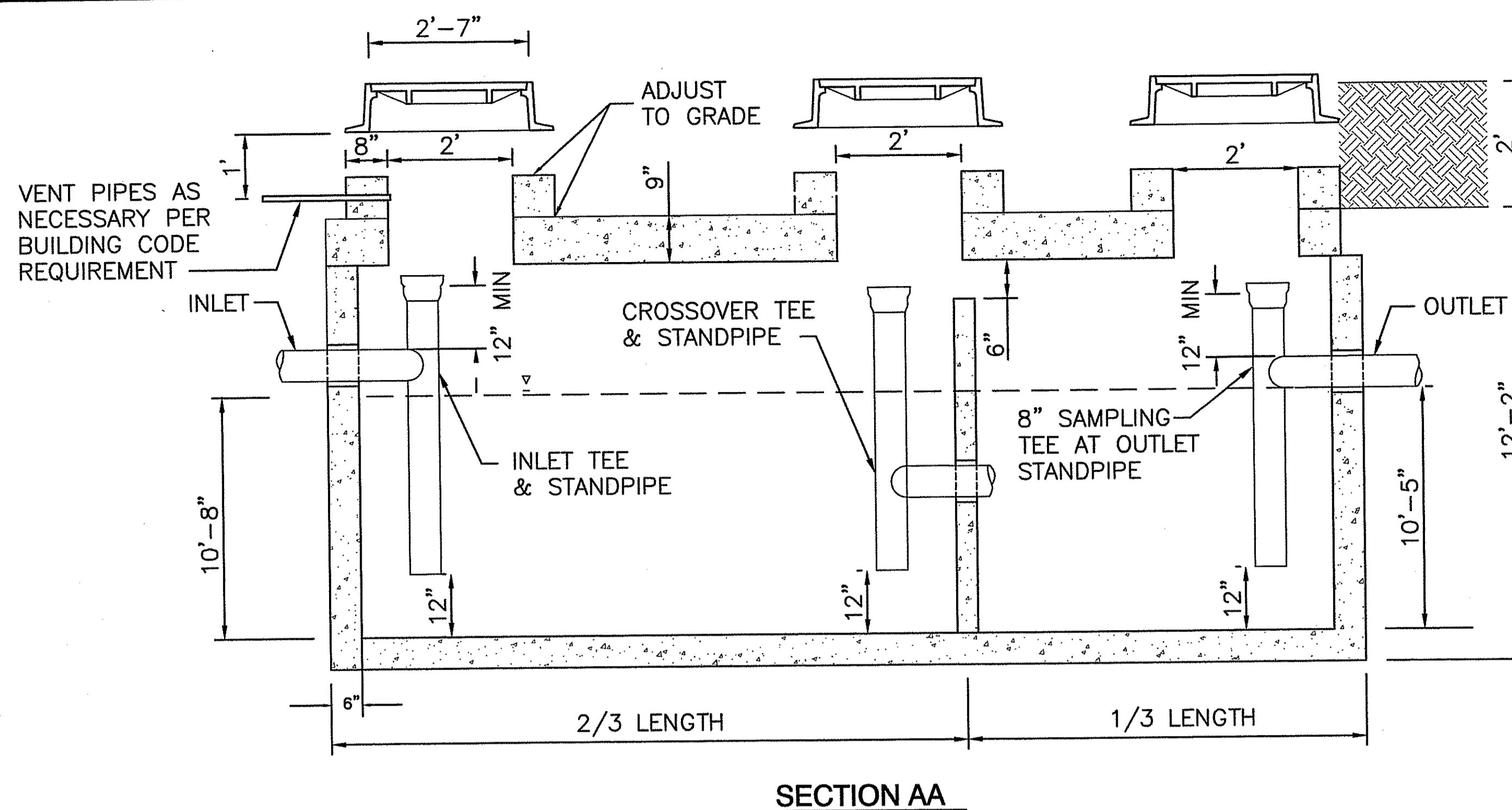
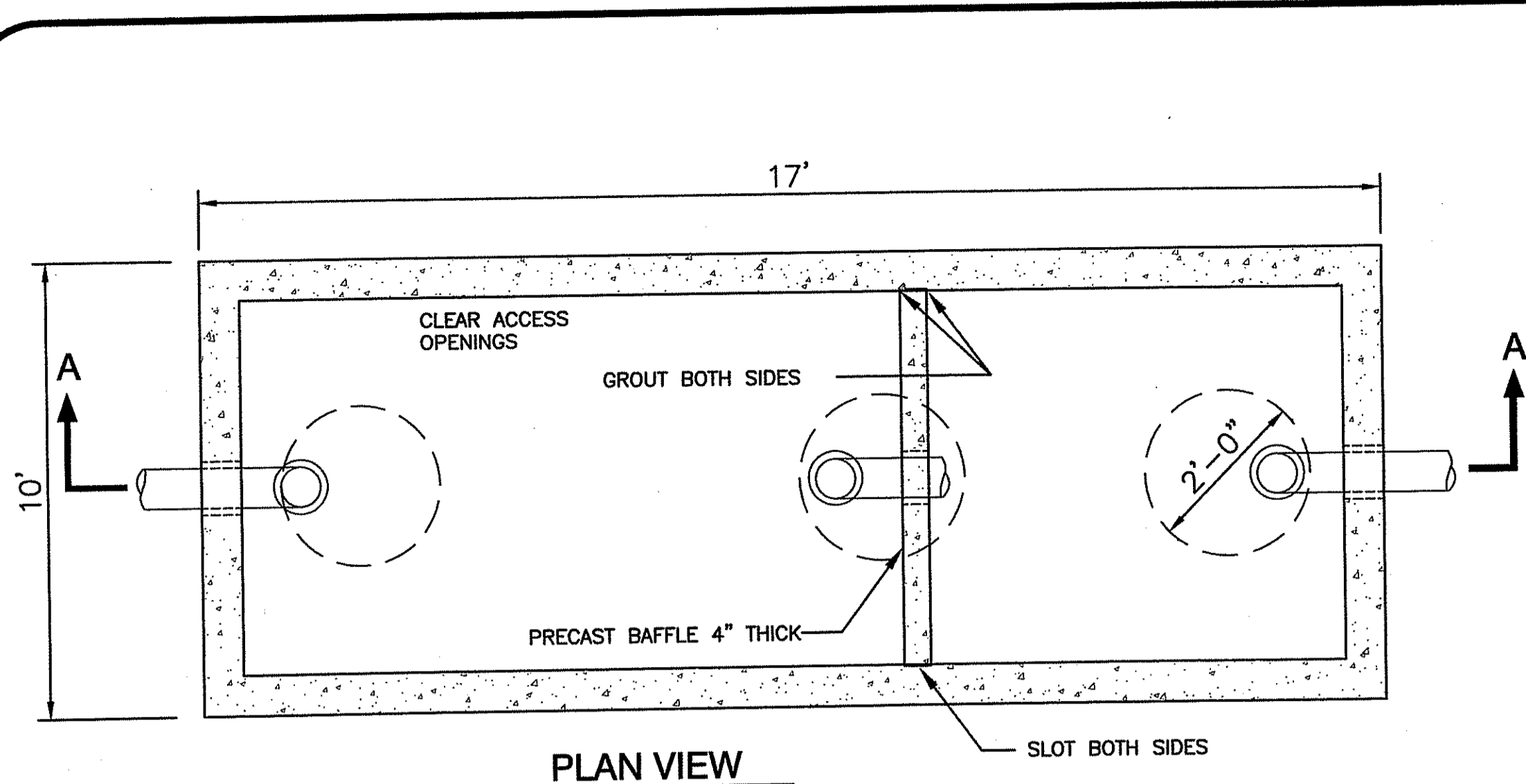
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JAMES A. MAJOR
No. 3986
Professional Engineer
State of Rhode Island
Dated DEC 9 2008
FILE # 09-0271
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- NOTES:**
- CONCRETE : 28 DAY F'c= 4500 psi.
 - REBAR : ASTM A615 GRADE 60.
 - MESH : ASTM A-185 GRADE 65.
 - DESIGN : AC1318-83 BUILDING CODE
ASTM C-857 MINIMUM STRUCTURAL DESIGN
LOADING FOR UNDERGROUND PRECAST
CONCRETE UTILITY STRUCTURES.
 - LOADS :H-20 LOADING.
 - FILL w/CLEAN WATER PRIOR TO START UP OF SYSTEM.
 - CONTRACTOR TO SUPPLY AND INSTALL ALL PIPING AND
SANITARY TEES & CLEAN OUTS FOR CLEANING TOWARD
TRAP AND FOR CLEANING AWAY FROM TRAP ON BOTH THE
INLET AND OUTLET / ALT. DUAL SWEEP CLEANOUTS.
 - GRAY WATER ONLY, BLACK WATER SHALL BE CARRIED BY
SEPARATE SEWER.
 - TRAP SIZE IS BASED ON 15 GPD PER SEAT.

10,500 GALLON GREASE TRAP
NOT TO SCALE

NOTES:

- PUMPS SHALL MEET THE FOLLOWING PERFORMANCE REQUIREMENT:
 - 134 GPM AT 37 FT HEAD.
 - DESIGN PUMP (OR APPROVED EQUAL):
MODEL 4VC/4VCX, 7.5 BHP WITH A 11.75" IMPELLER DIAMETER AS MANUFACTURED BY MYERS. (REQUIRES THREE PHASE POWER SUPPLY)
- PUMPS SHALL BE SUBMERSIBLE NON-CLOG PUMPS MOUNTED ON GUIDE RAILS AND BE EQUIPPED WITH QUICK DISCONNECT SYSTEM AT THE DISCHARGE.
- PUMPS SHALL BE EQUIPPED WITH AN AUDIBLE AND VISUAL ALARM LOCATED WITHIN THE BUILDING POWERED BY A CIRCUIT SEPARATE FROM THE CIRCUIT TO THE PUMPS.
- PUMP CONTROLS SHALL BE MOUNTED ABOVE GROUND NEXT TO THE DOSING CHAMBER AND SHALL MEET THE FOLLOWING PERFORMANCE STANDARDS (MINIMUM):
 - WEATHERPROOF OUTDOOR NEMA 3R ENCLOSURE OF GALVANIZED STEEL WITH ENAMEL FINISH.
 - DESIGNED FOR USE WITH STANDARD FLOAT SWITCHES (FOUR SWITCHES FOR DUPLEX OPERATION).
 - ALTERNATOR RELAY TO EQUALIZE PUMP WEAR.
 - OVERRIDE RELAY FOR LAG PUMP IF FIRST PUMP FAILS.
 - LAG PUMP DELAY CIRCUITRY
 - AUXILIARY ALARM CONTACTS
 - CONDENSATION HEATER
 - LIGHTNING ARRESTOR
 - FULL INNER DOOR
 - A HAND-OFF-AUTO SELECTOR SWITCH FOR EACH PUMP.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO PROJECT ENGINEER FOR APPROVAL PRIOR TO INSTALLATION OF PUMPS AND CONTROLS.

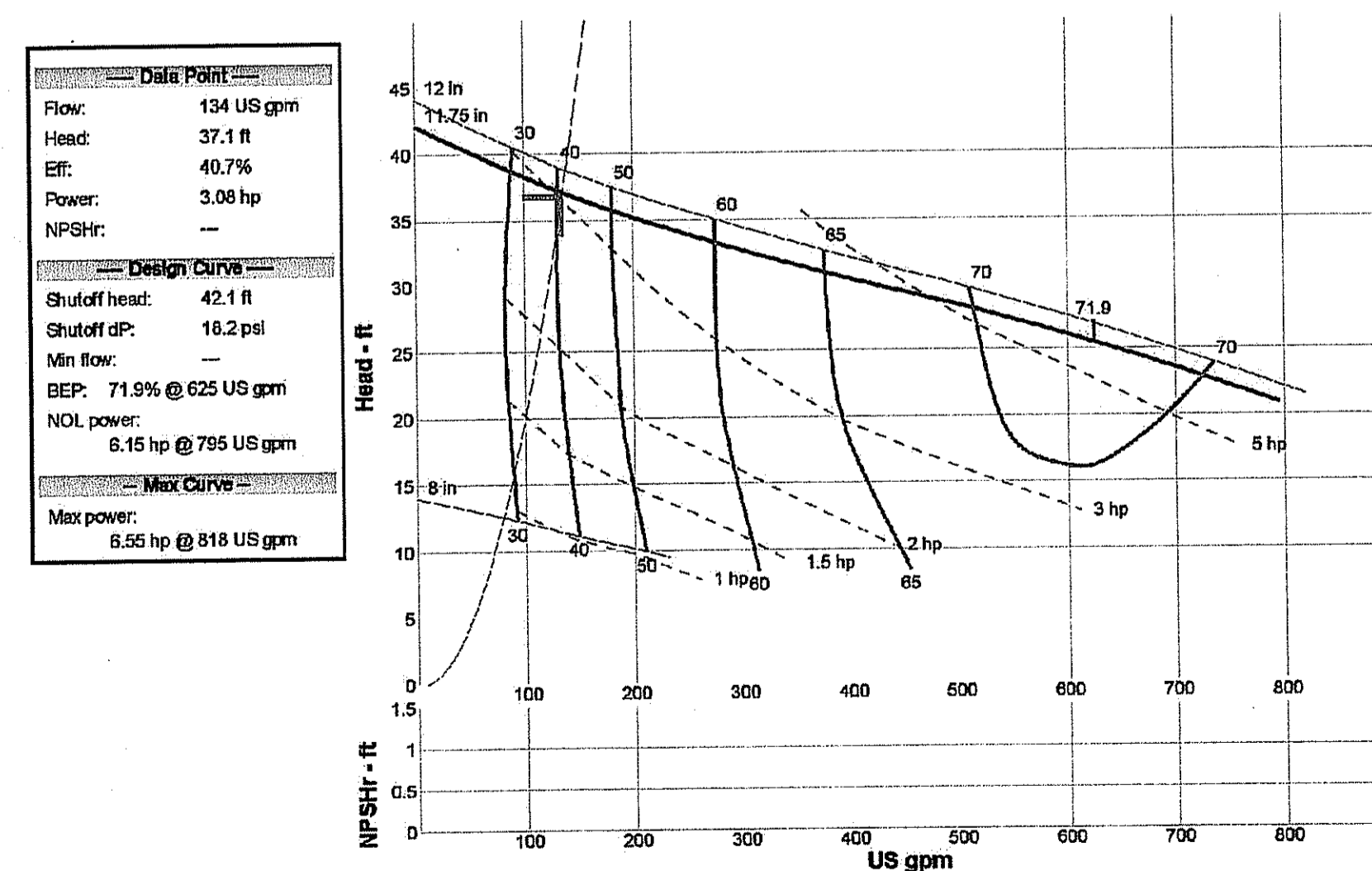
PUMP INFORMATION
NOT TO SCALE

Company: Allen & Major Associates
Name: 200 Highland Corp Drive
Date: 8/17/2009

Pump Data Sheet - Myers

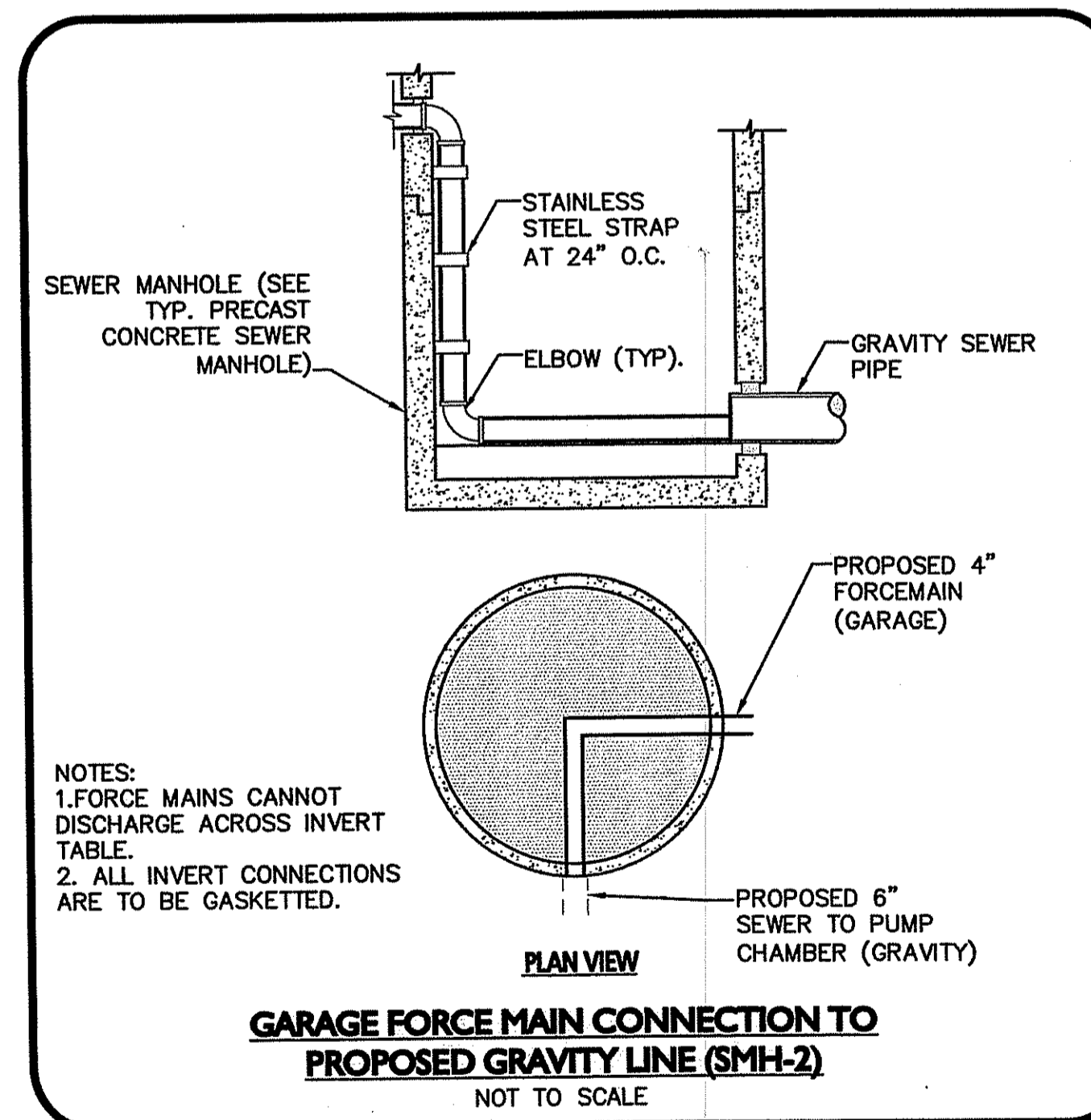


Pump:		Search Criteria:	
Size: 4VC/4VCX	Speed: 870 rpm	Flow: 134 US gpm	Head: 36.66 ft
Type: Non-dog	Dis: 11.75 in	Max power: 10 hp	
Synch speed: 900 rpm	Impeller:	Fluid:	
Curve:	No: --	Water	Temperature: 60 °F
Specific Speed:	Nss: --	SG: 1	Vapor pressure: 0.2563 psi a
Dimensions:	Suction: --	Viscosity: 1.105 cP	Atm pressure: 14.56 psi a
	Discharge: 4 in	NPSHr: --	
Pump Limits:		Motor:	
Temperature: --	Power: --	Standard: NEMA	Size: 7.5 hp
Pressure: --	Eye area: --	Enclosure: TEFC	Speed: 900
Sphere size: 3.1875 in		Frame: 25GT	Frame: 25GT
Pump Selection Warnings:		Sizing criteria: Max Power on Design Curve	
Catalog does not contain data to verify power limit.			



Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
161	870	36.3	46.2	3.18	--
134	870	37.1	40.7	3.08	--
107	870	38	34.6	2.94	--
80.4	870	39	28.4	2.81	--
53.6	870	--	--	--	--

Selected from catalog: Myers.60 Vers: 1



- NOTES:**
- FORCE MAINS CANNOT DISCHARGE ACROSS INVERT TABLE.
 - ALL INVERT CONNECTIONS ARE TO BE GASKETTED.

GARAGE FORCE MAIN CONNECTION TO PROPOSED GRAVITY LINE (SMH-2)
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 9 2009 FILE # 09-0371
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Horvath

200 Highland Corporate Dr.
Cumberland, RI 02865



Woonsocket, RI; Cumberland, RI;
Smithfield, RI; Lincoln, RI



VEITAS VEITAS
engineers

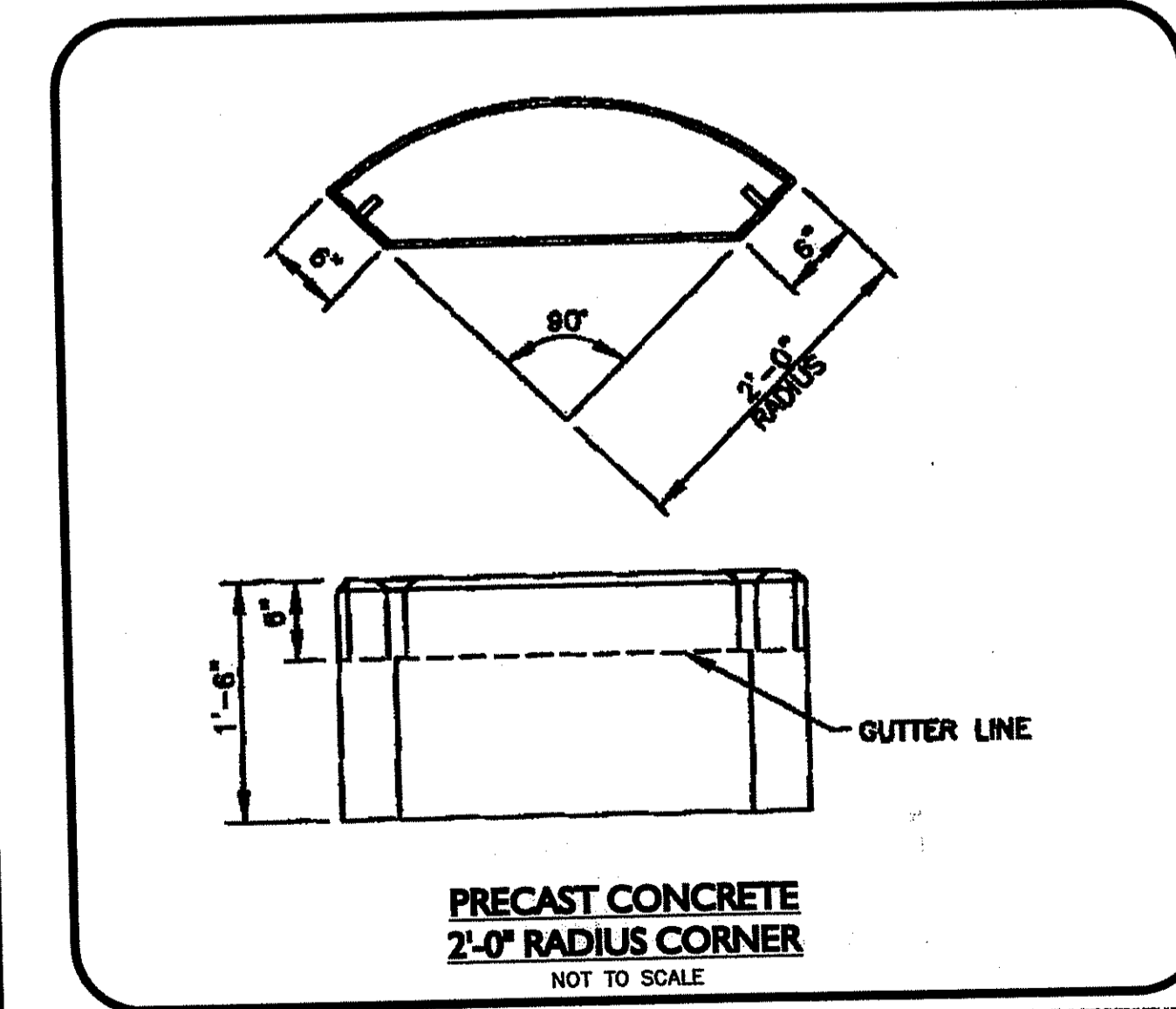
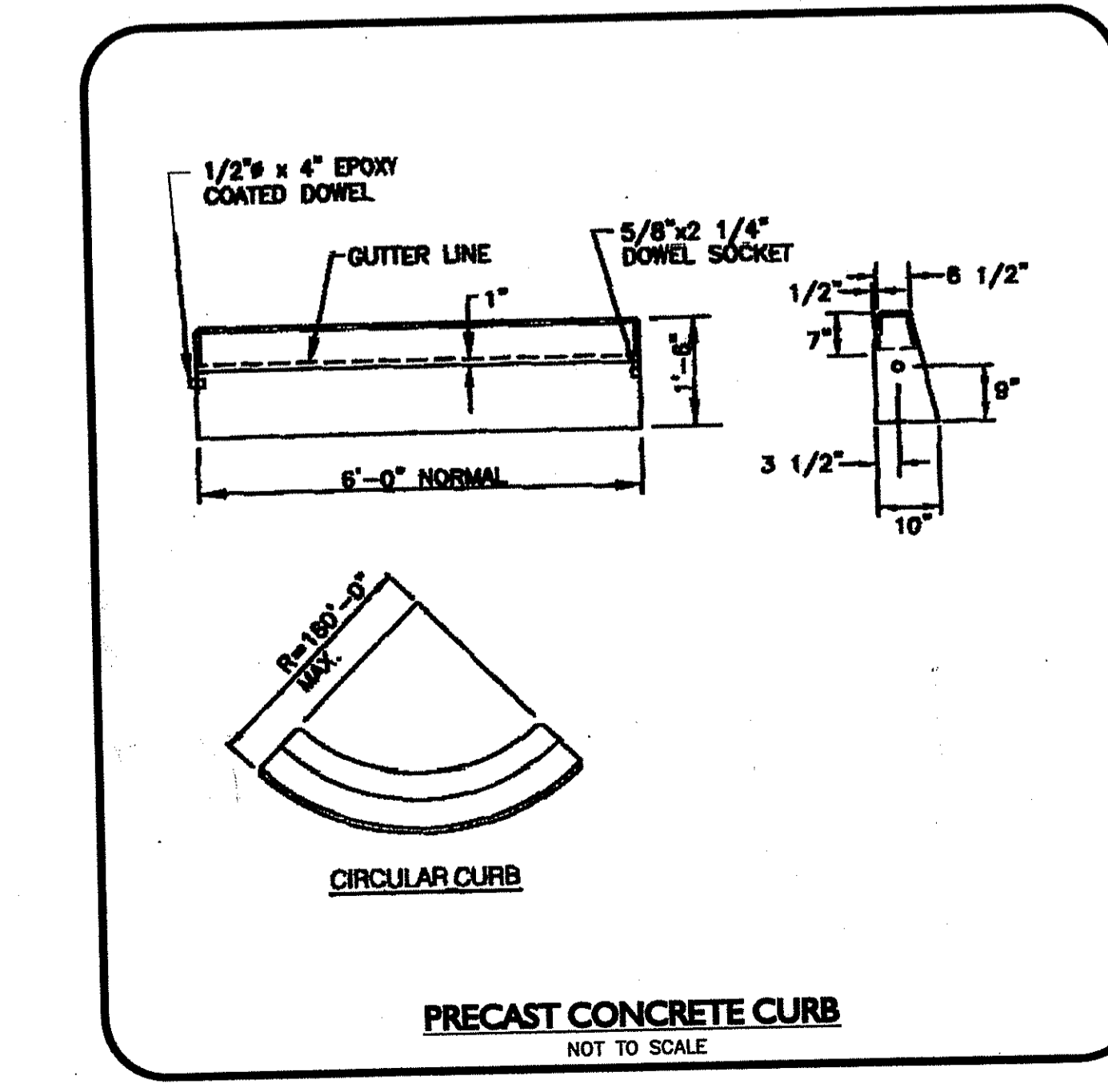
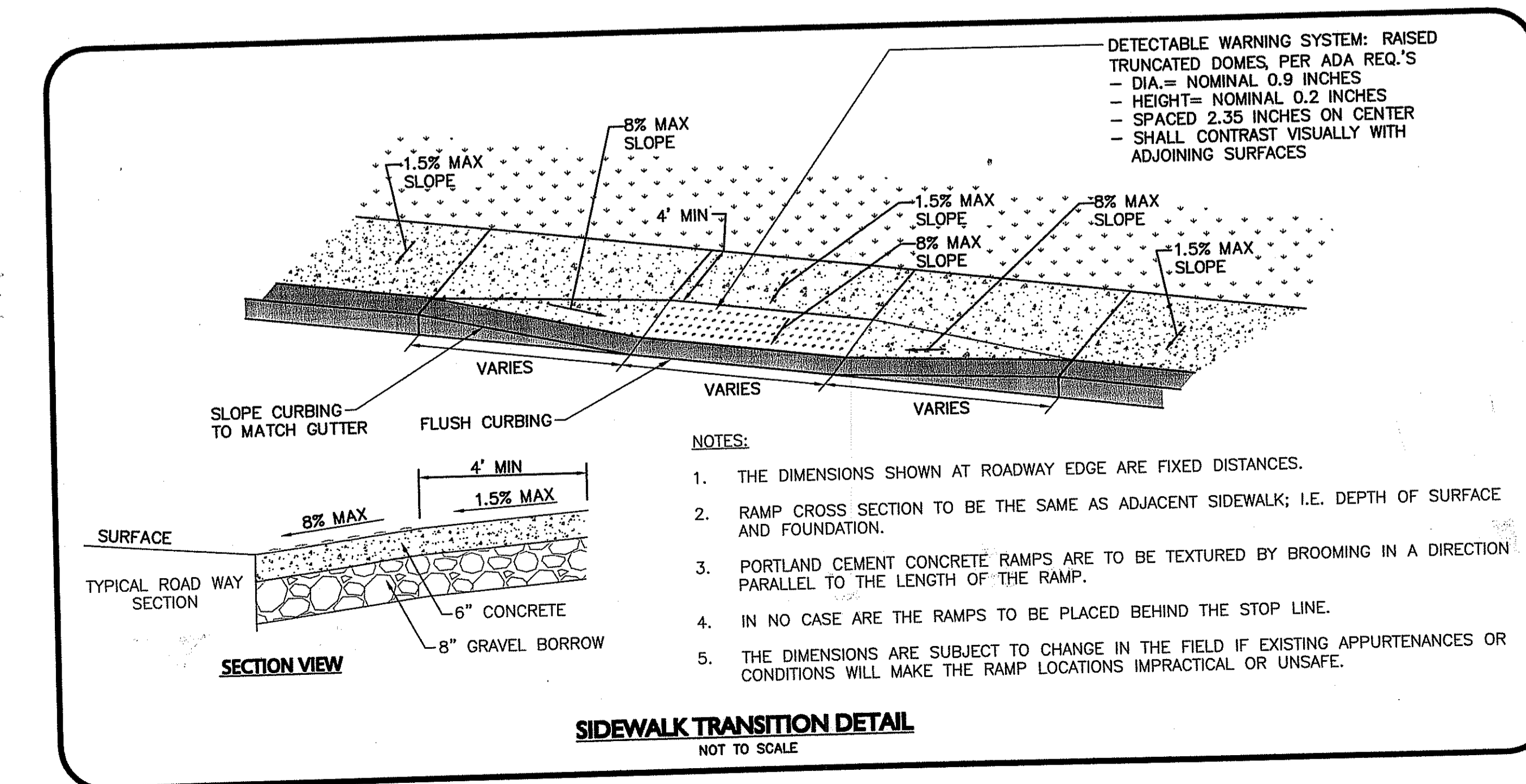
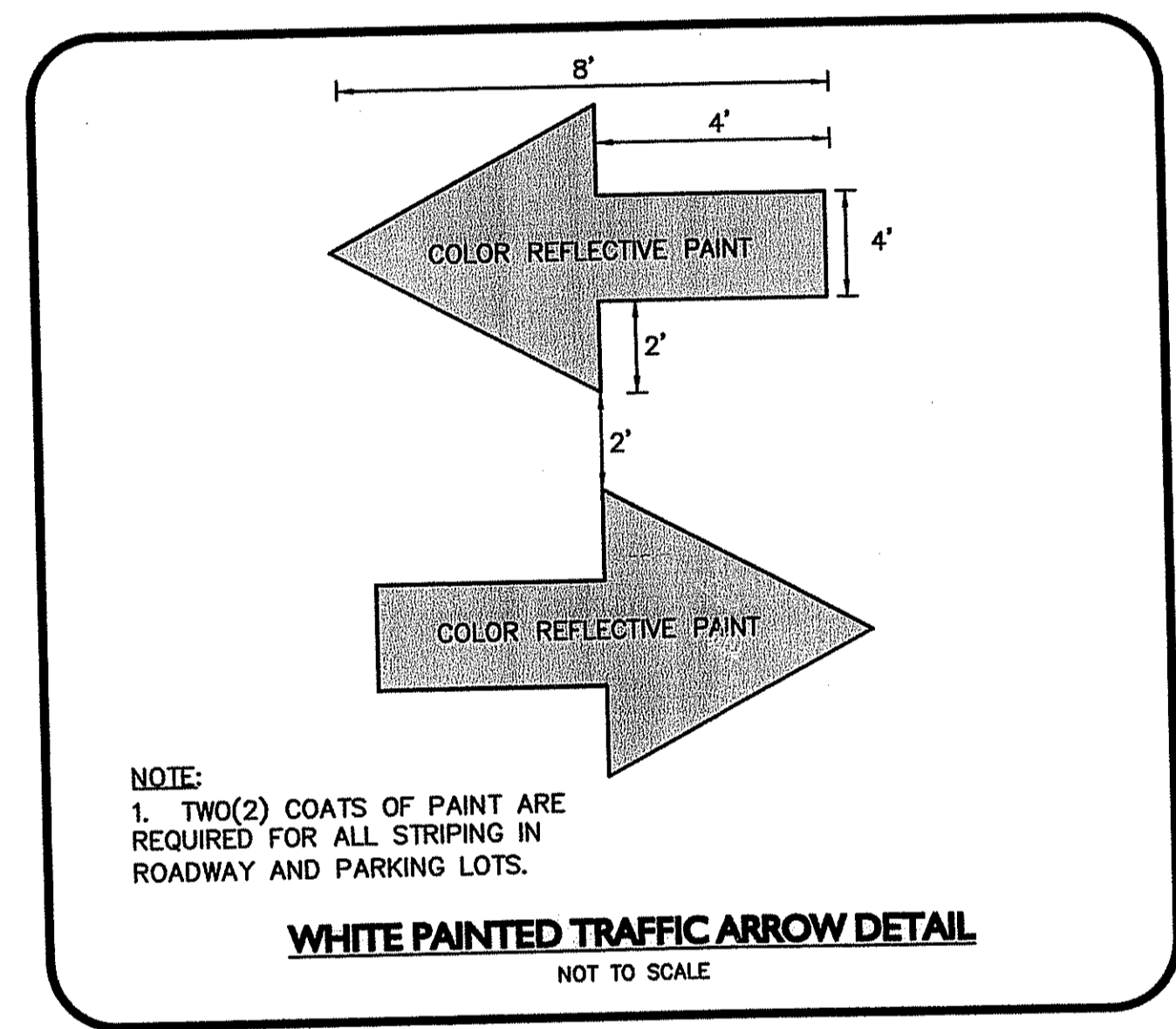
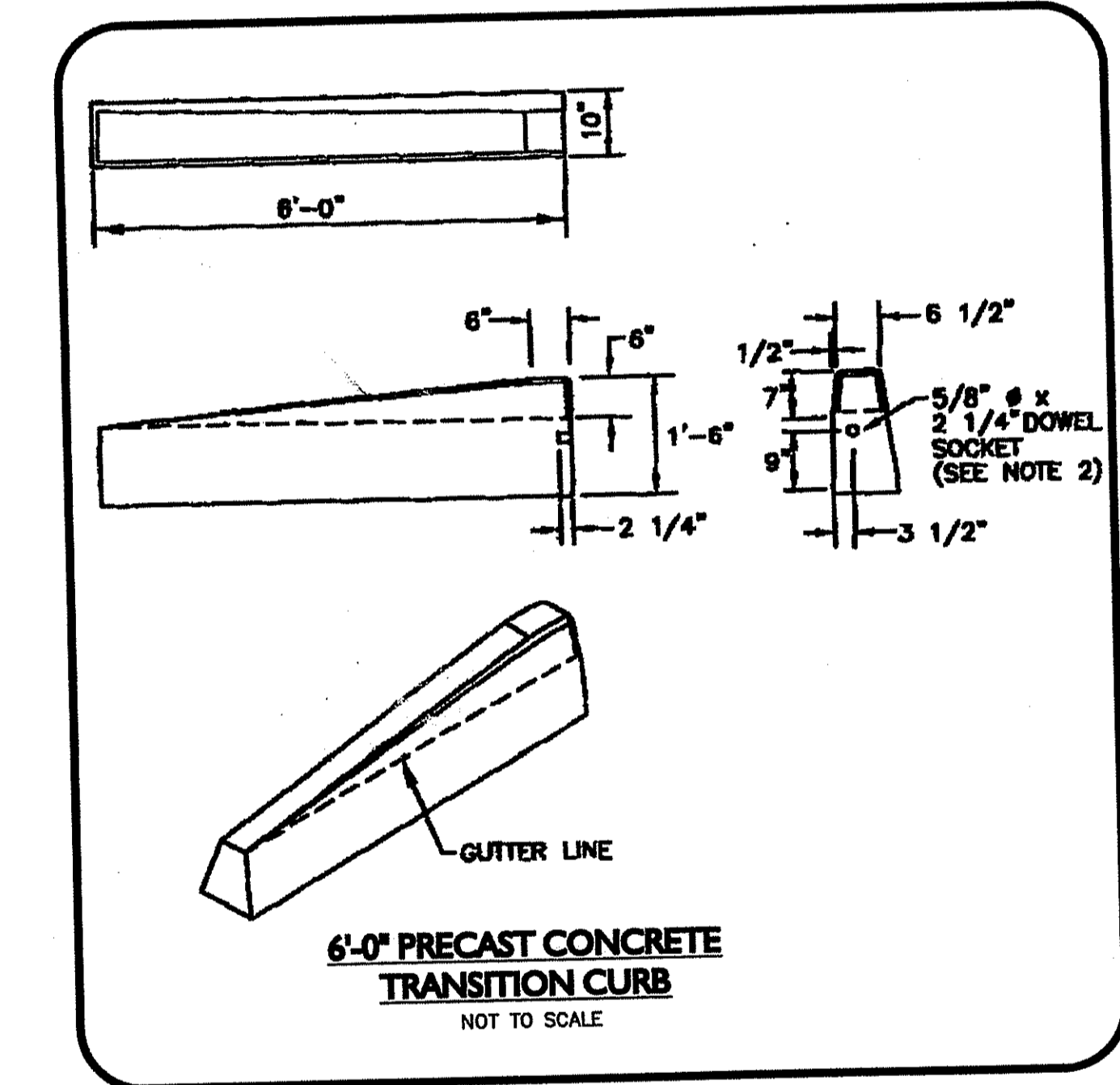
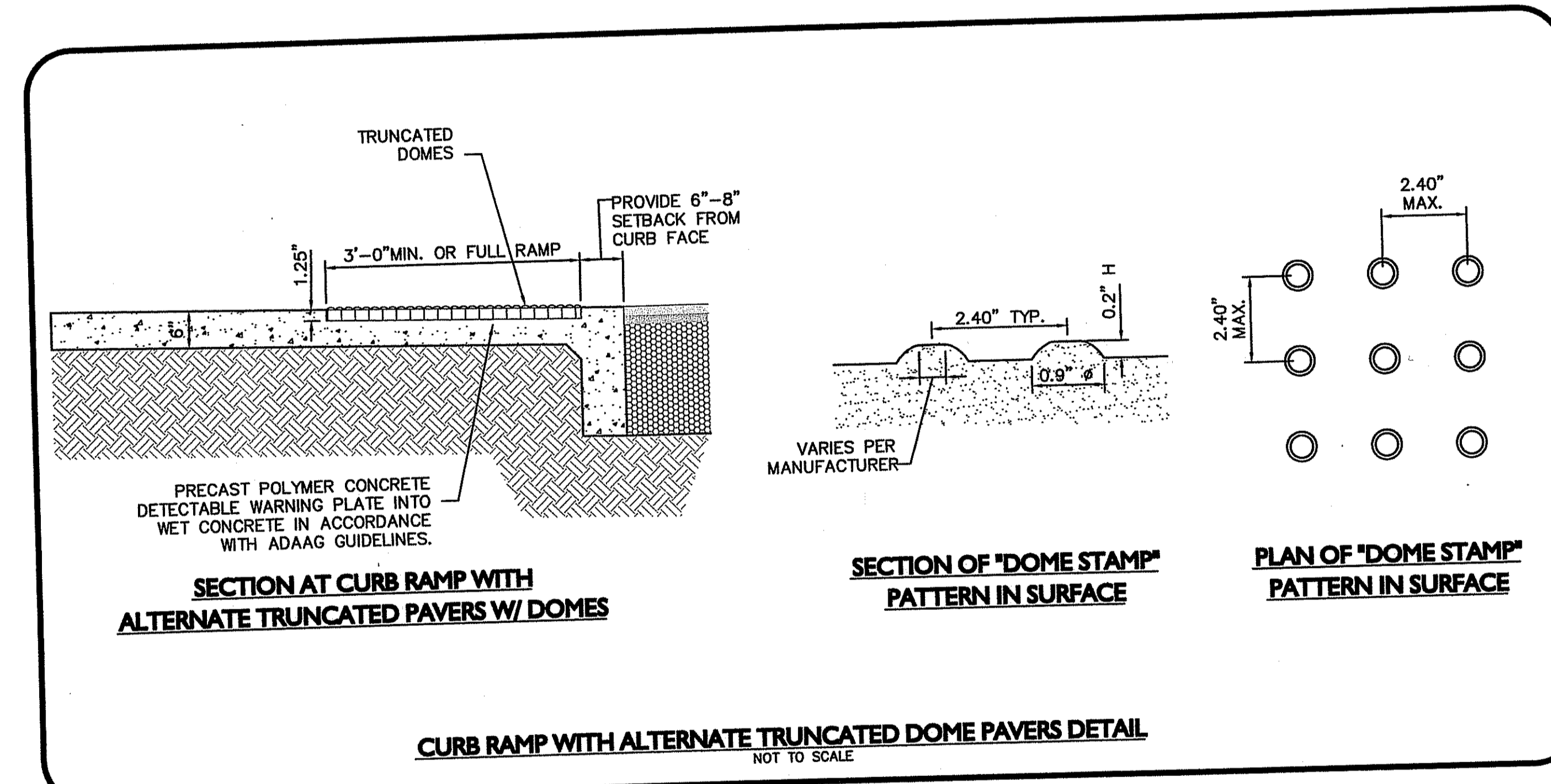
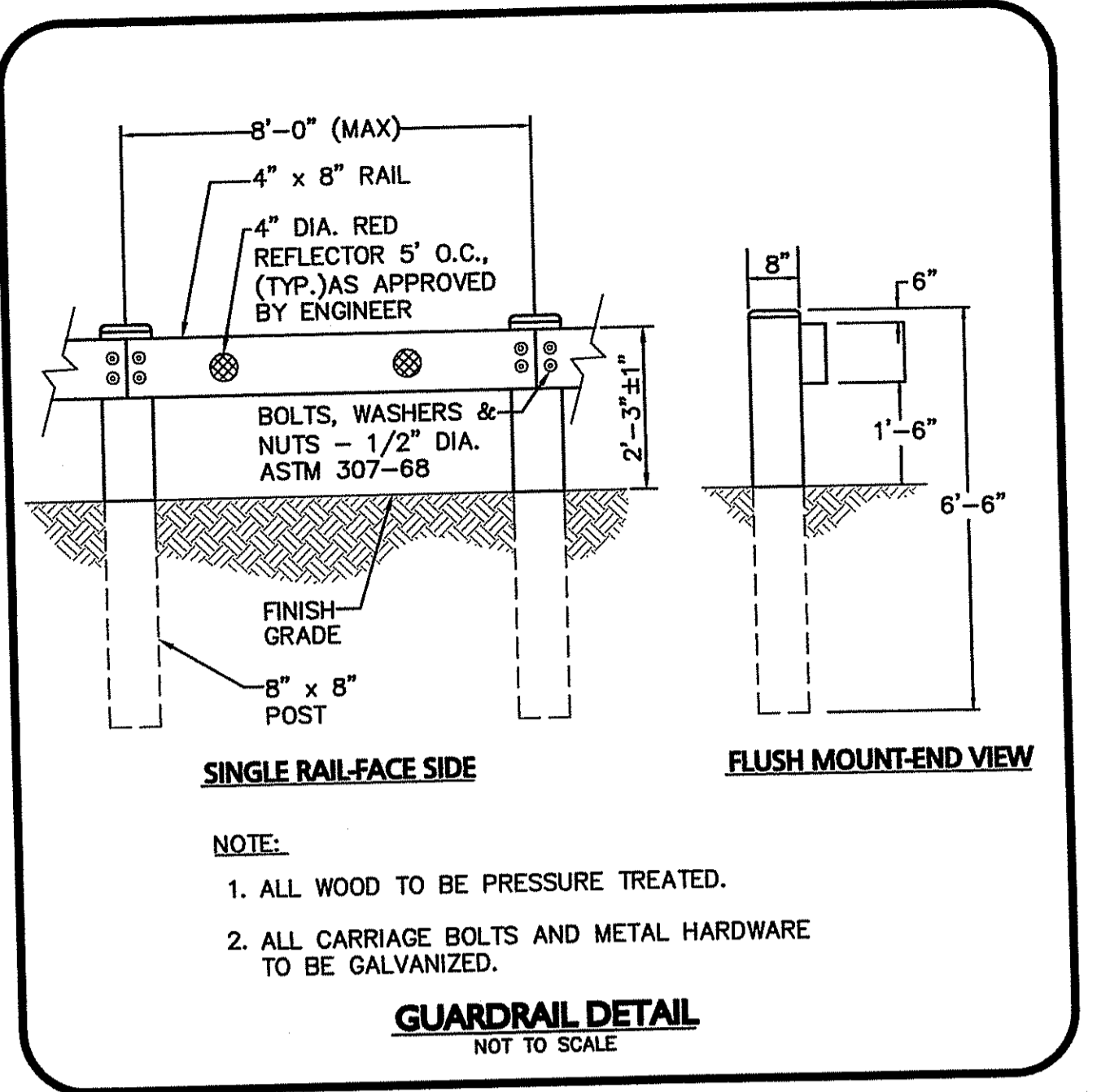
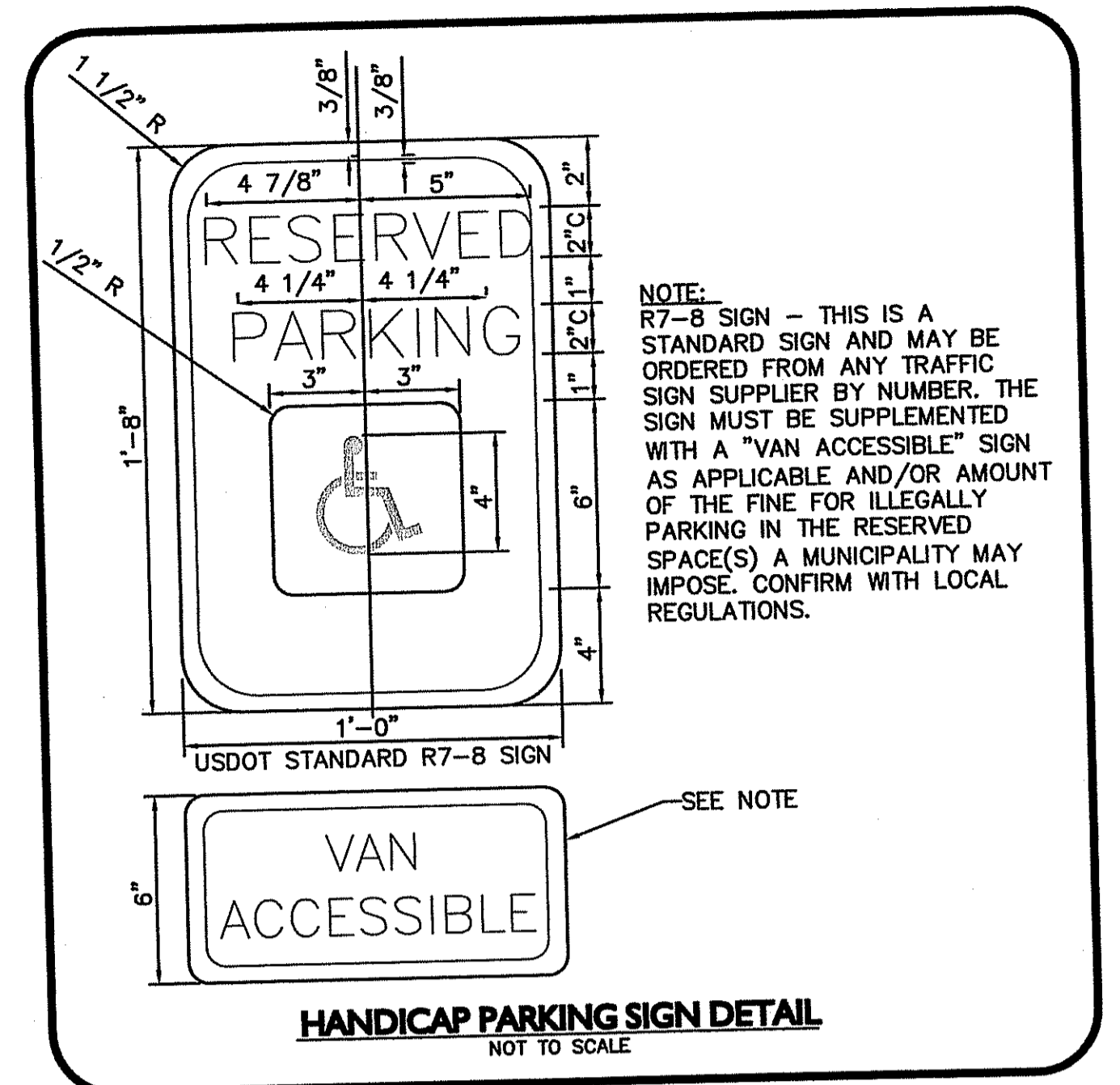
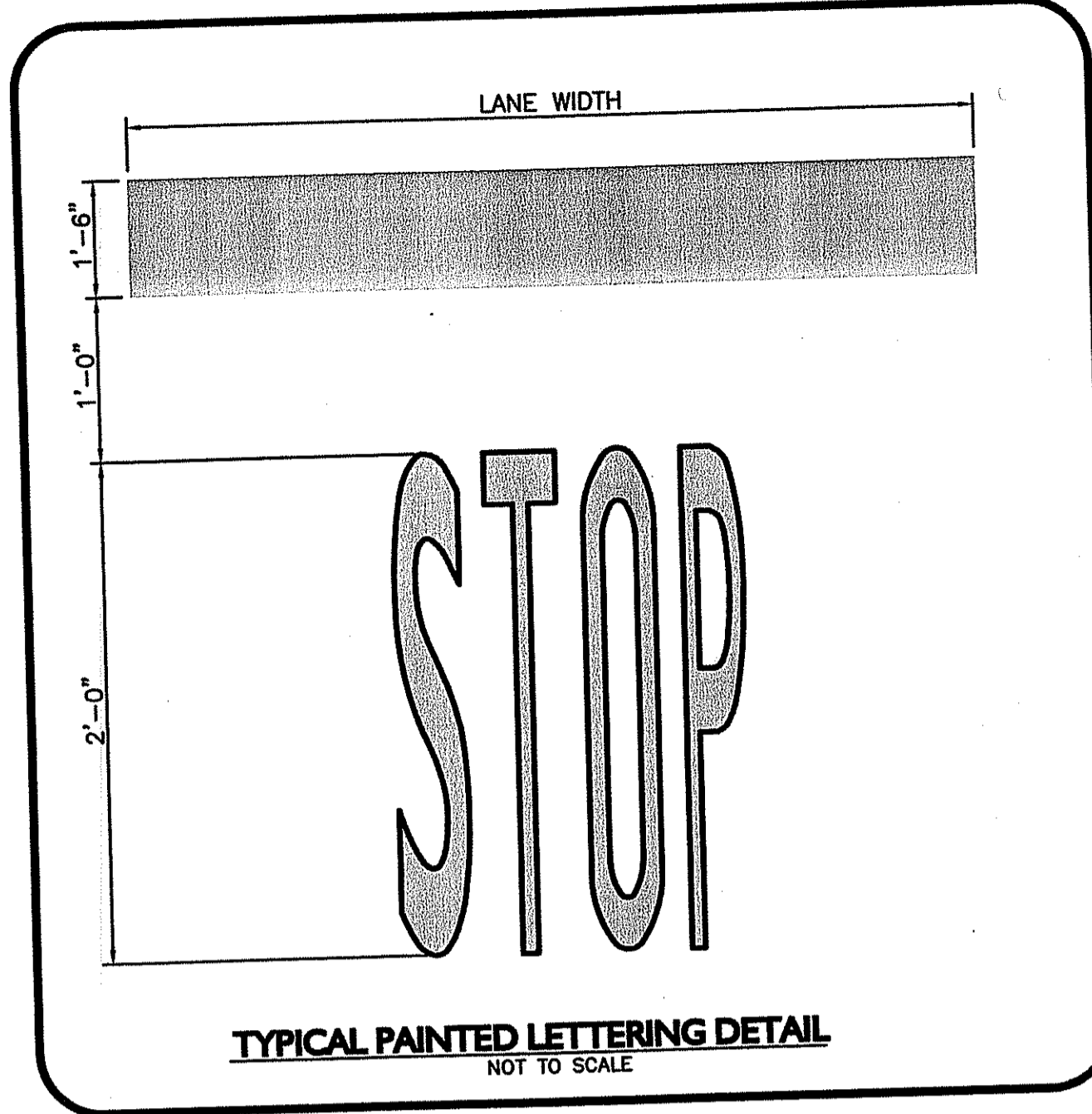
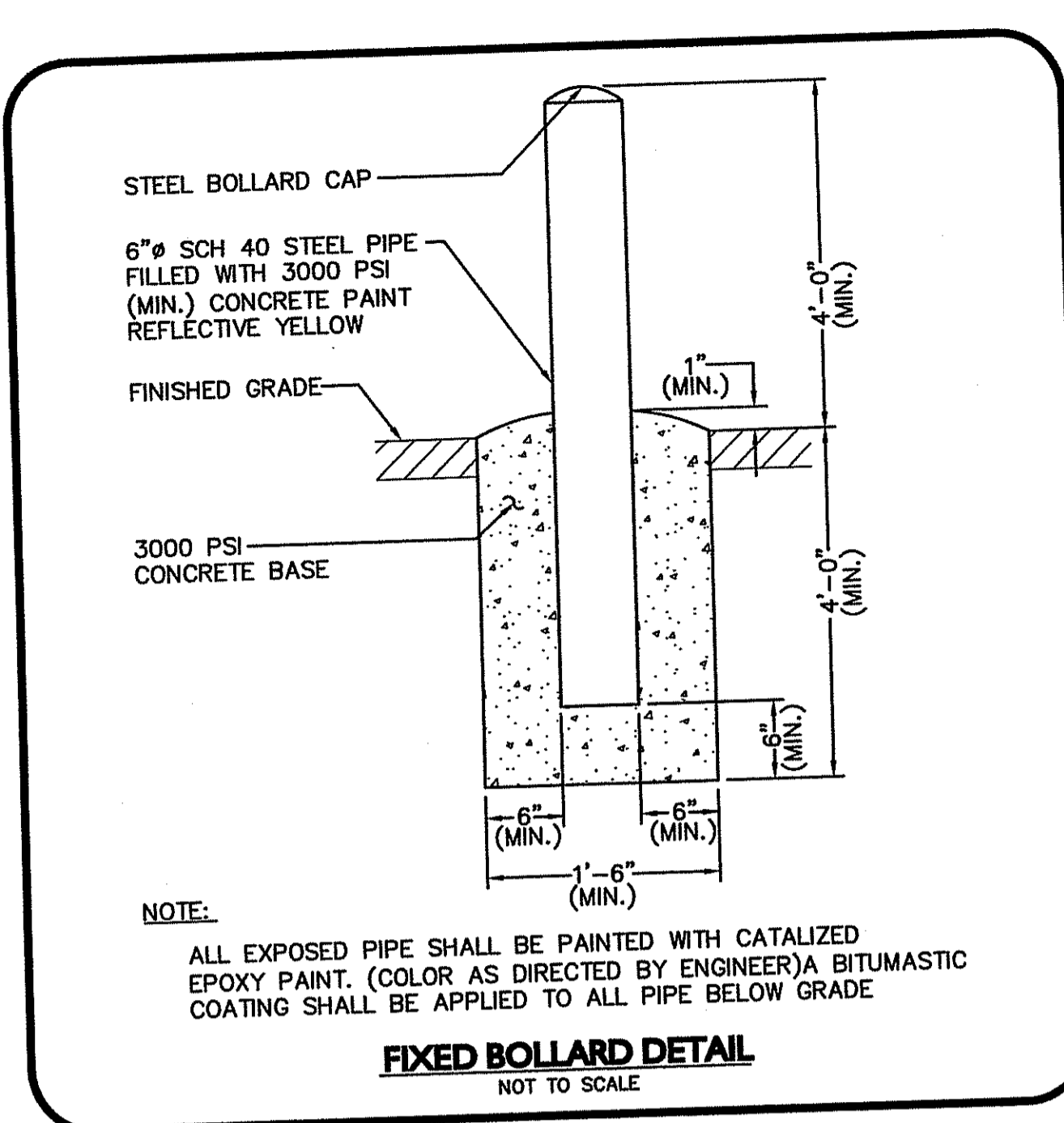


ALLEN & MAJOR
ASSOCIATES, INC.
civil & structural engineering and concrete
environmental consulting & landscape architecture

Issued for RIDEM
Wetlands & UIC

drawing by:	MR / MP	
drawing checked by:	RC	
drawing scale:	AS NOTED	
drawing date:	15 October 2009	
drawing revision:		
project number:	08020.00	
rev.	description	date
1	Per RIDEM Comments	11/20/09
0	Issued for RIDEM	10/15/09

JAMES A. MAJOR
No. 3986
REGISTERED PROFESSIONAL ENGINEER
James A. Major
Details



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Charles A. Major

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BER
BUREAU OF ENGINEERING & SURVEYING, INC.
200 CONVENT ROAD, SUITE 100
MANCHESTER, NH 03101
TEL: 603-881-0000 FAX: 603-881-0000

ALLEN & MAJOR ASSOCIATES, INC.
411 & 4th Street, Suite 100
Cumberland, Rhode Island 02865
TEL: 401-925-1000 FAX: 401-925-1000

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Wetlands & UIC

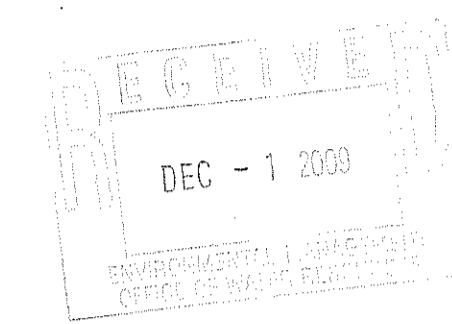
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JAMES A. MAJOR
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CVS CAREMARK

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Smithfield, RI; Lincoln, RI



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www.berlinco.com

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engineers

ALLEN & MAJOR ASSOCIATES, INC.
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Commercial, Residential & Landscape Architecture
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Manchester, NH 03101
Tel: (603) 874-0000 Fax: (603) 874-0001
Worcester, MA • Middletown, MA • Manchester, NH

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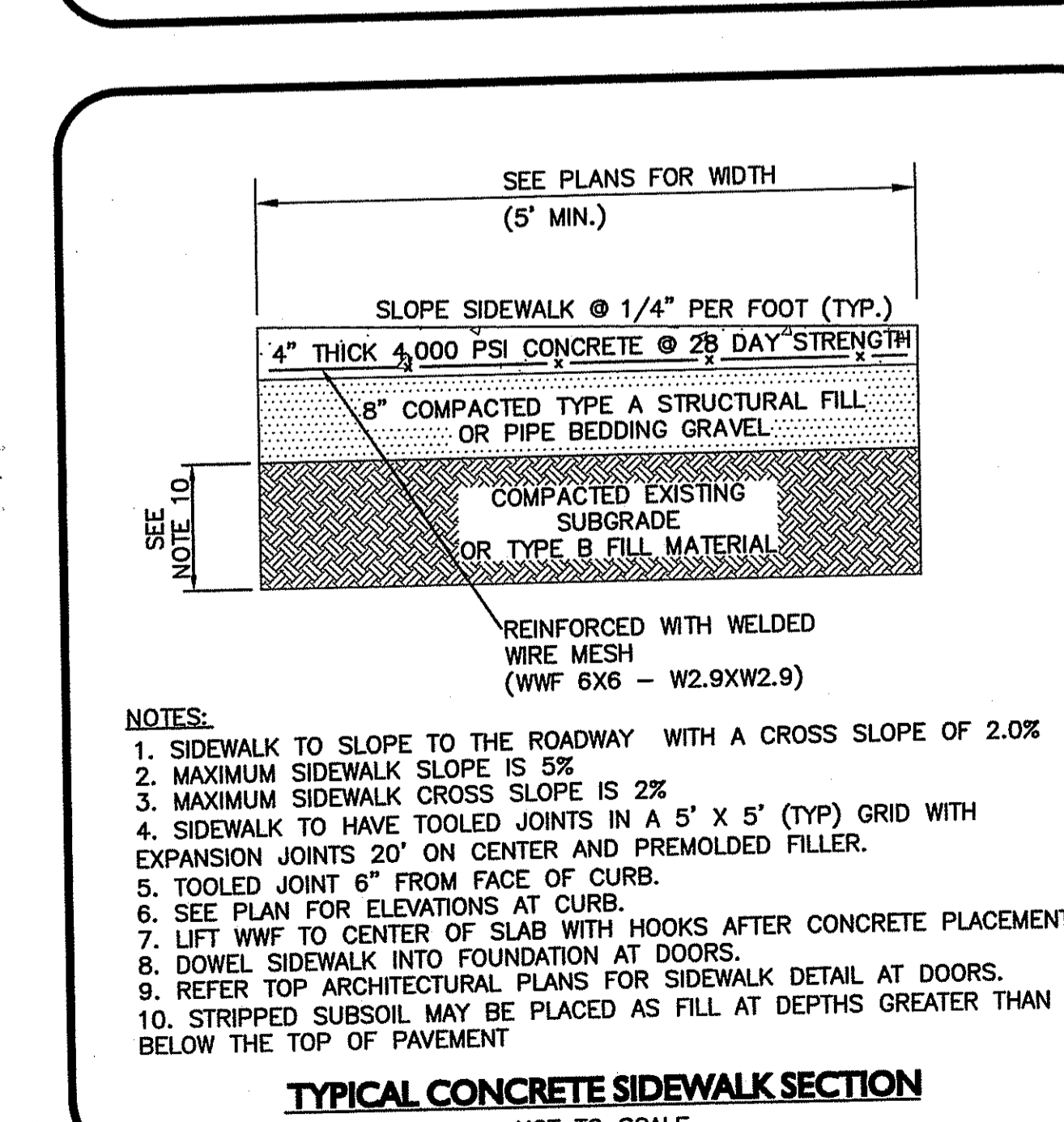
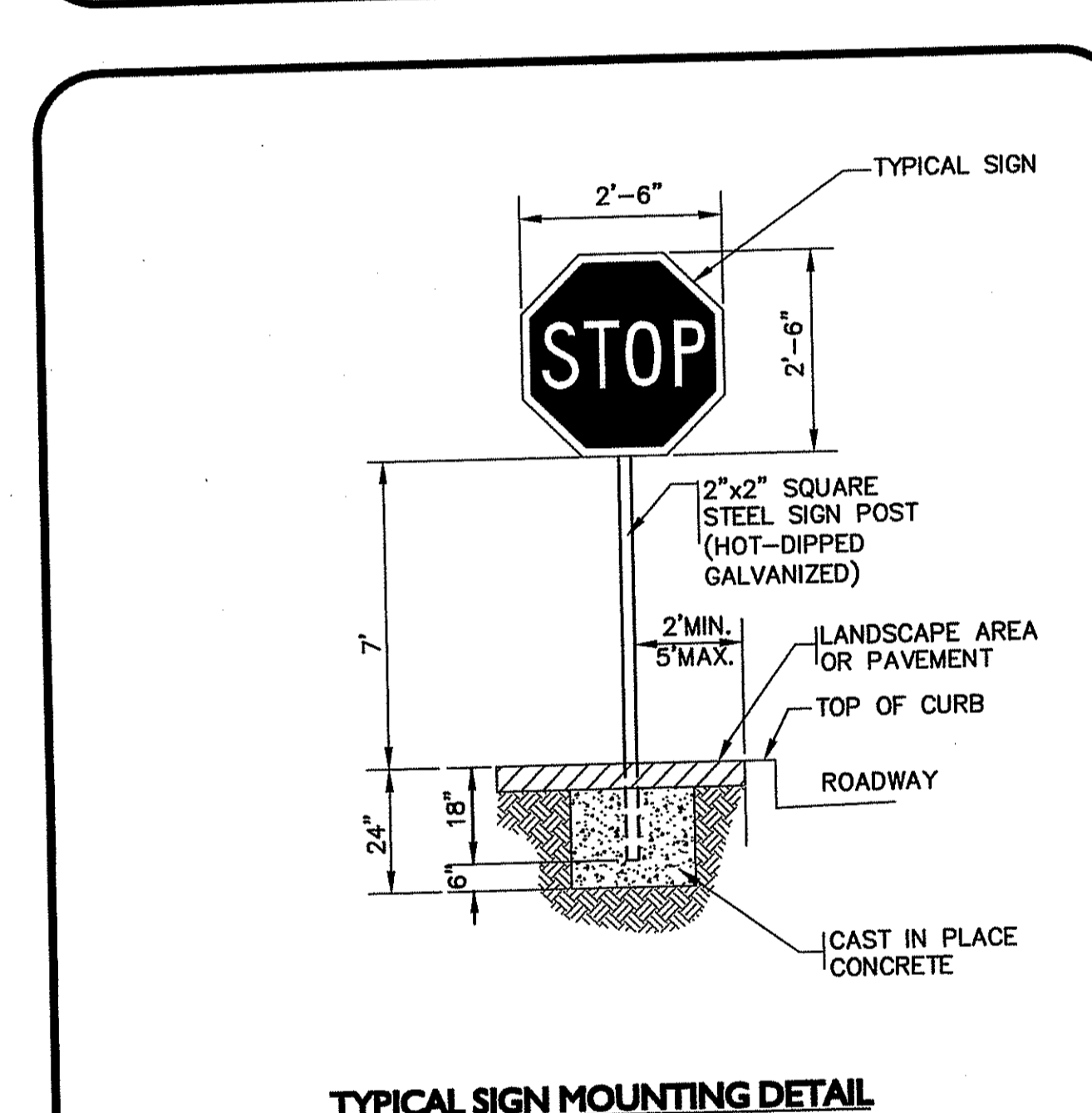
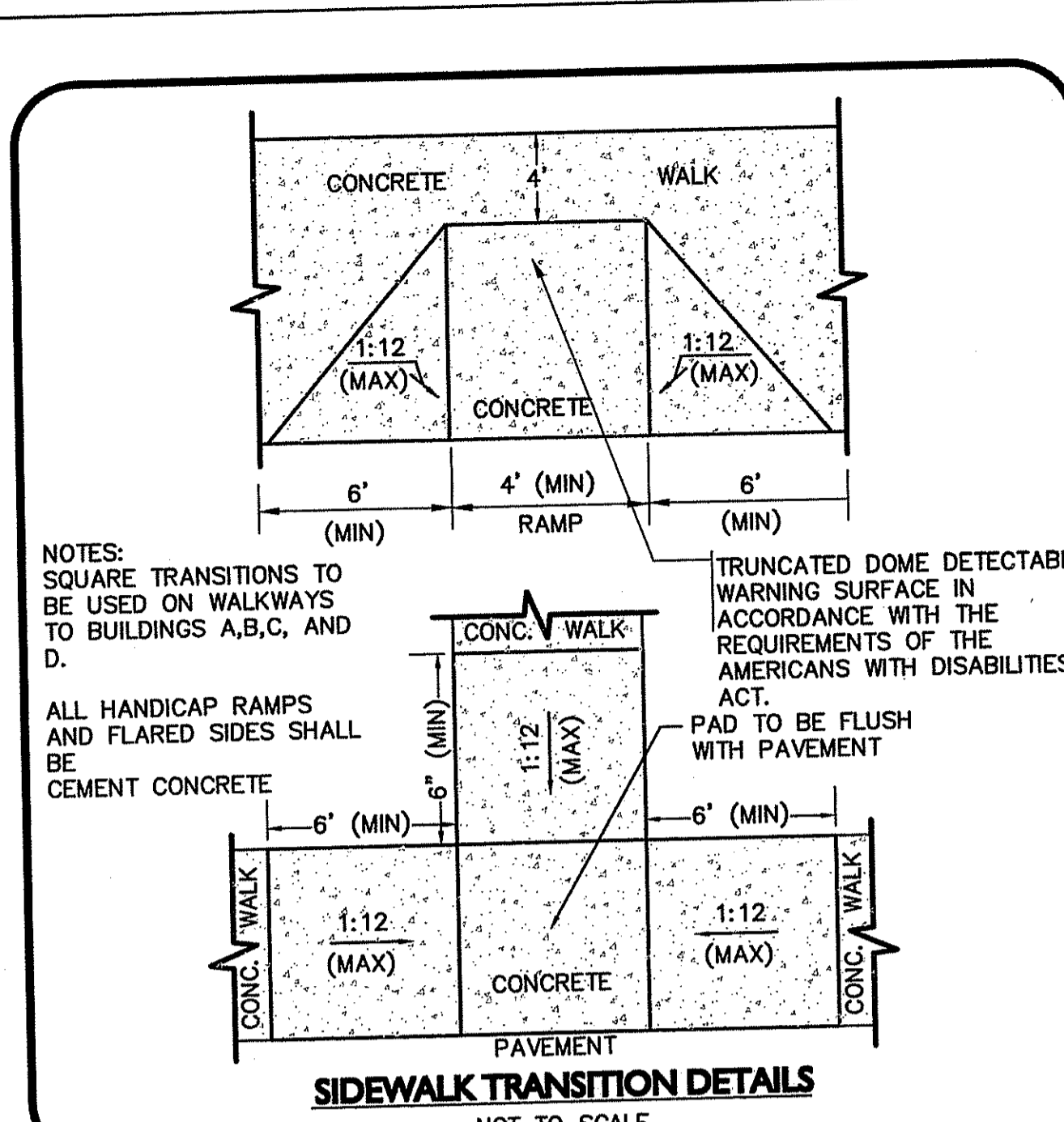
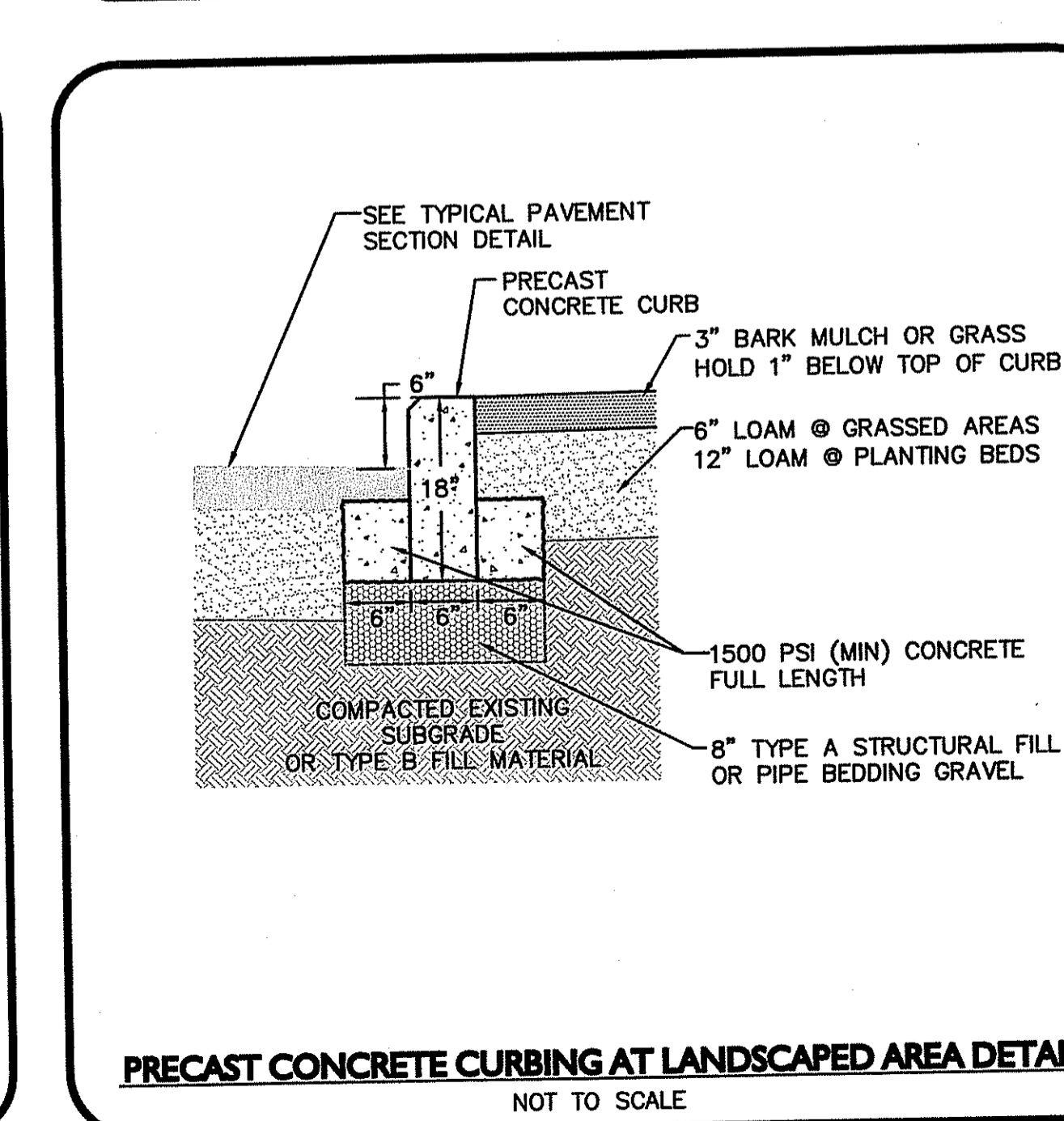
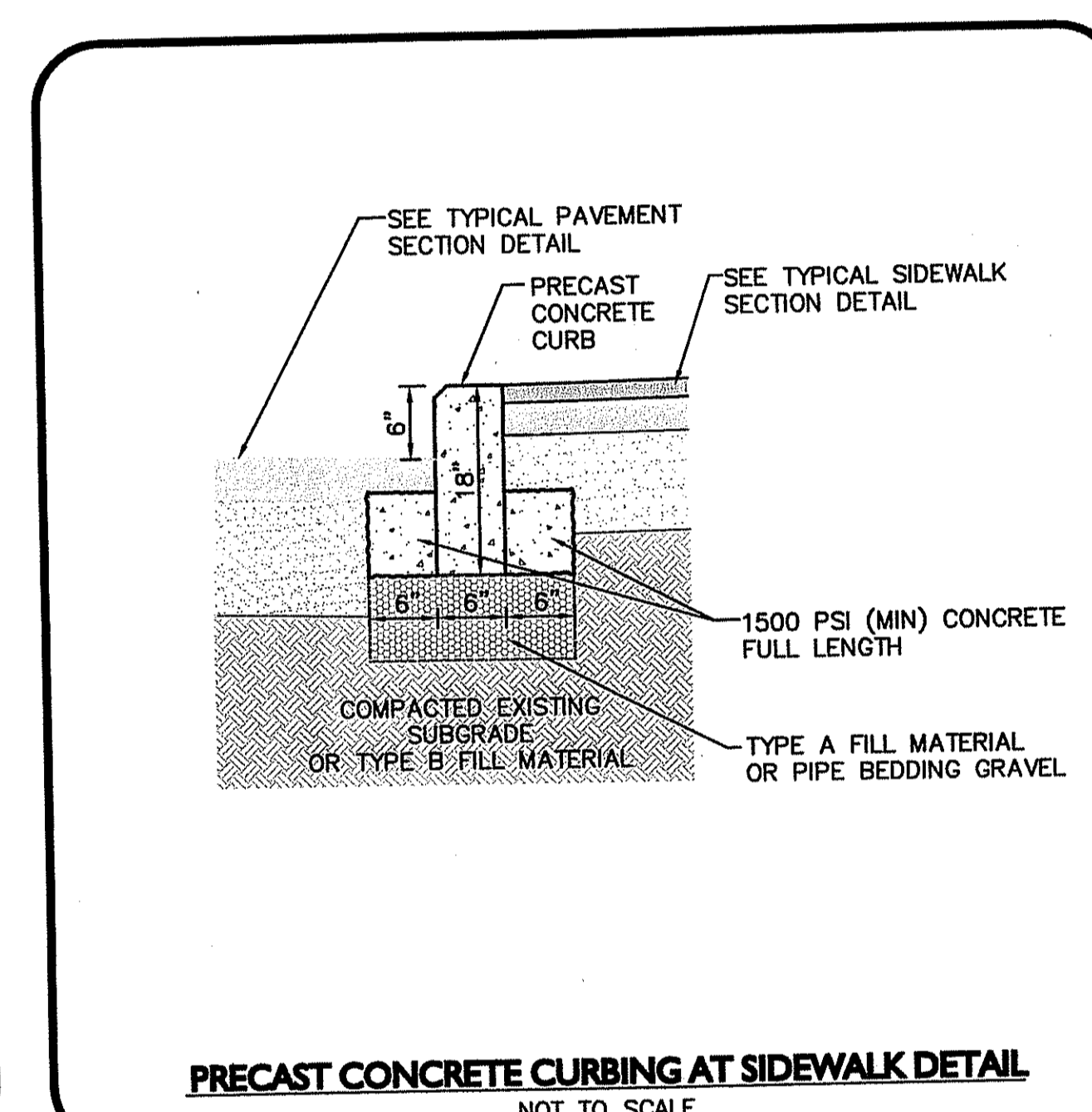
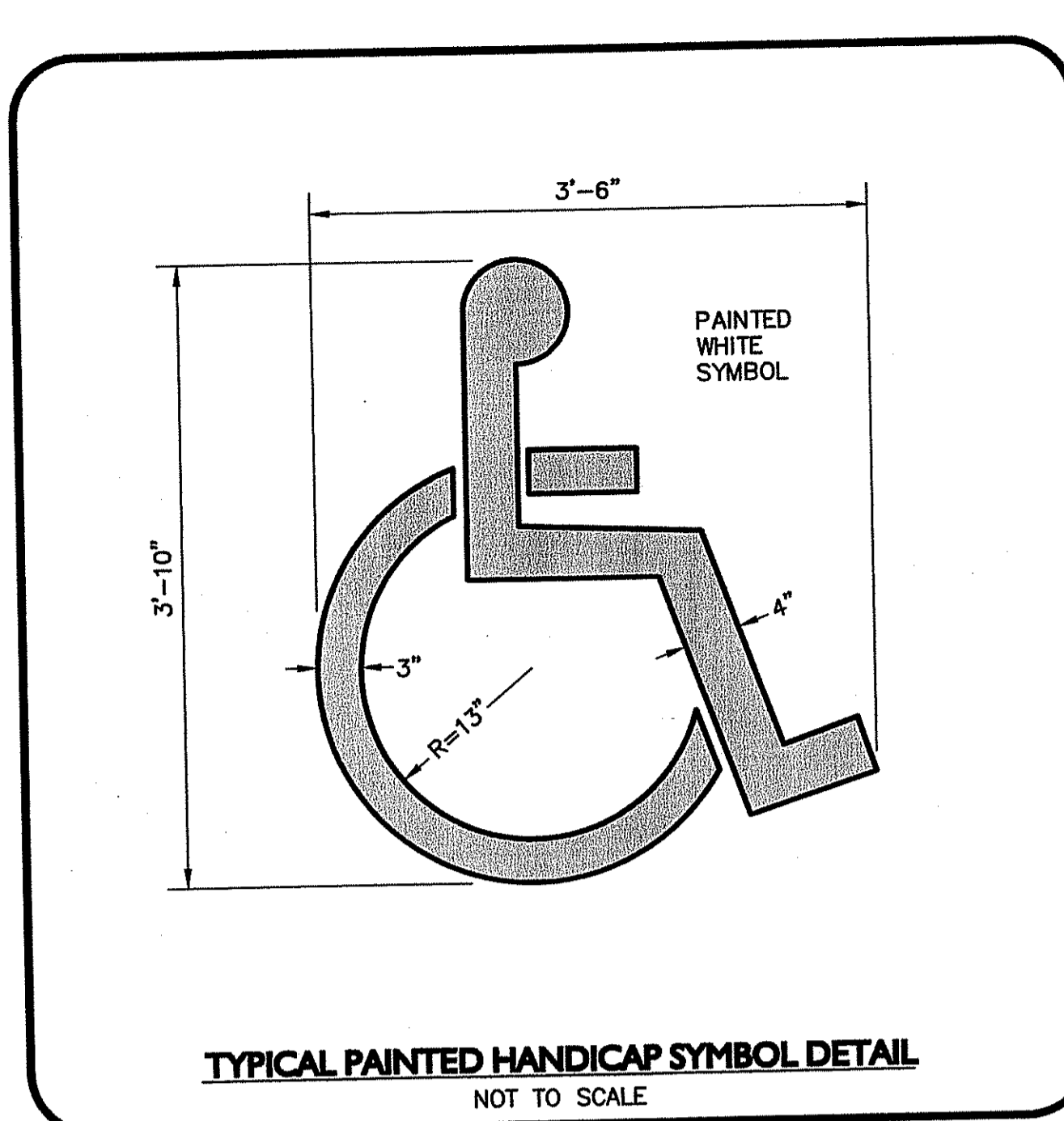
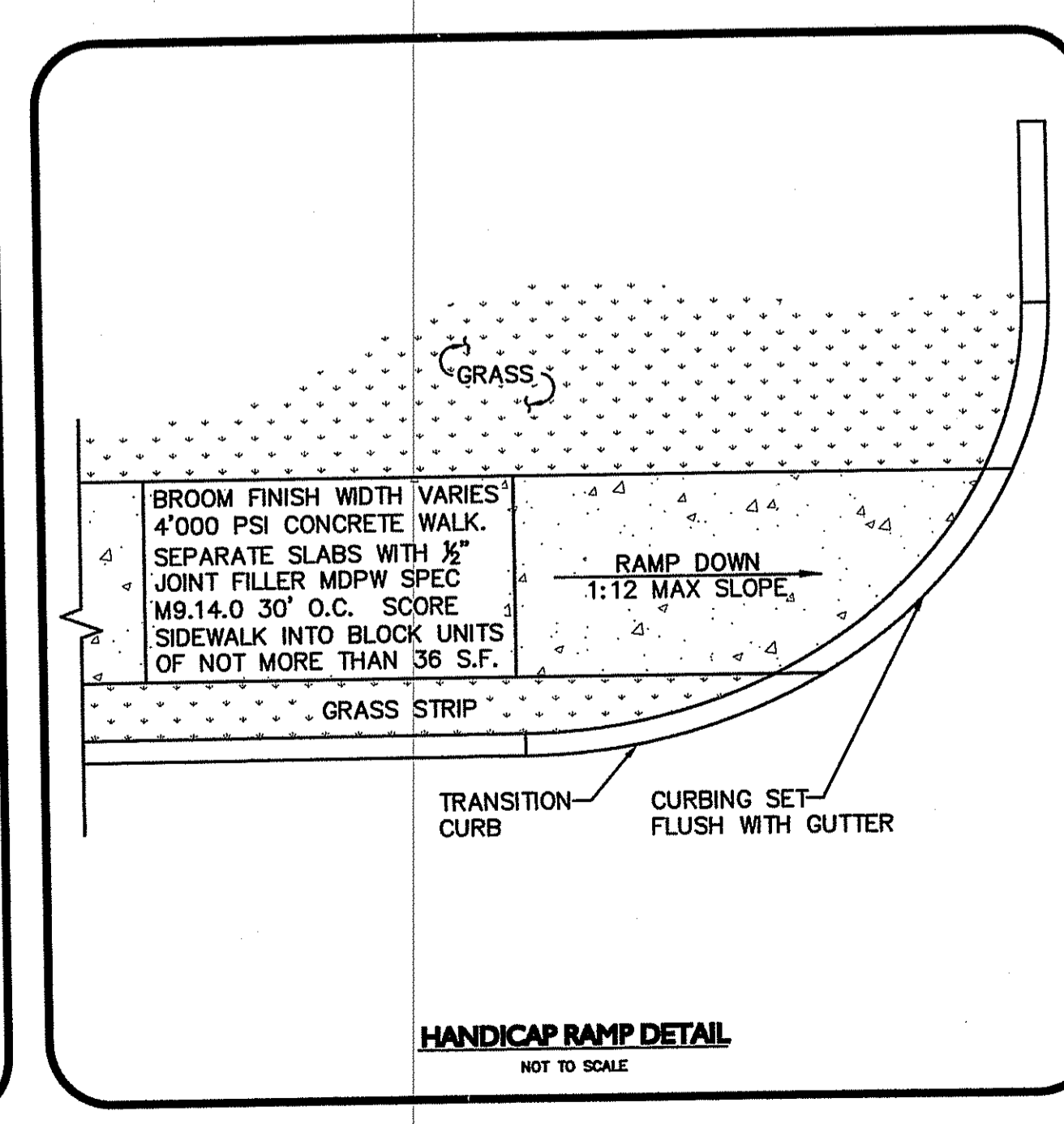
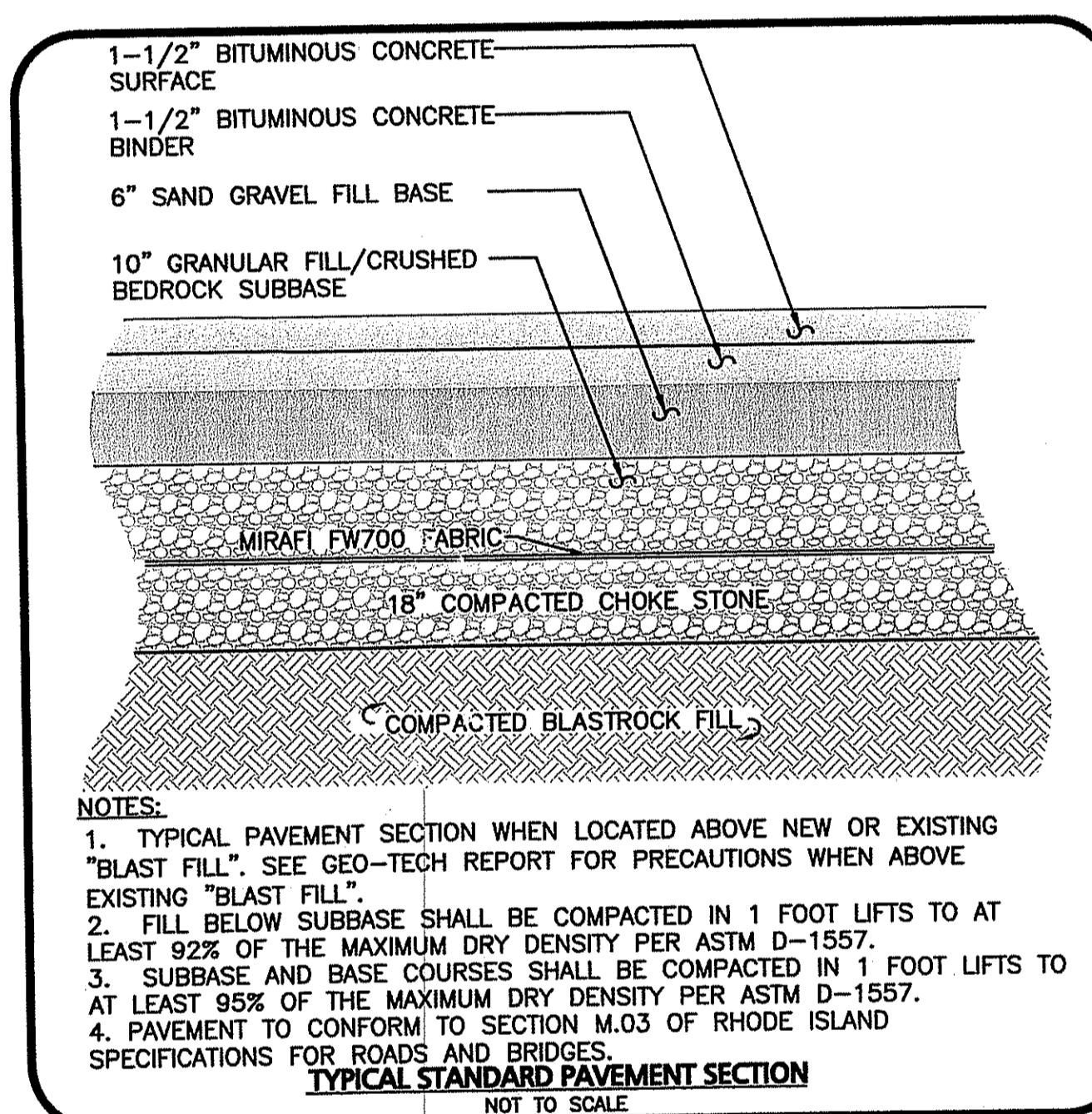
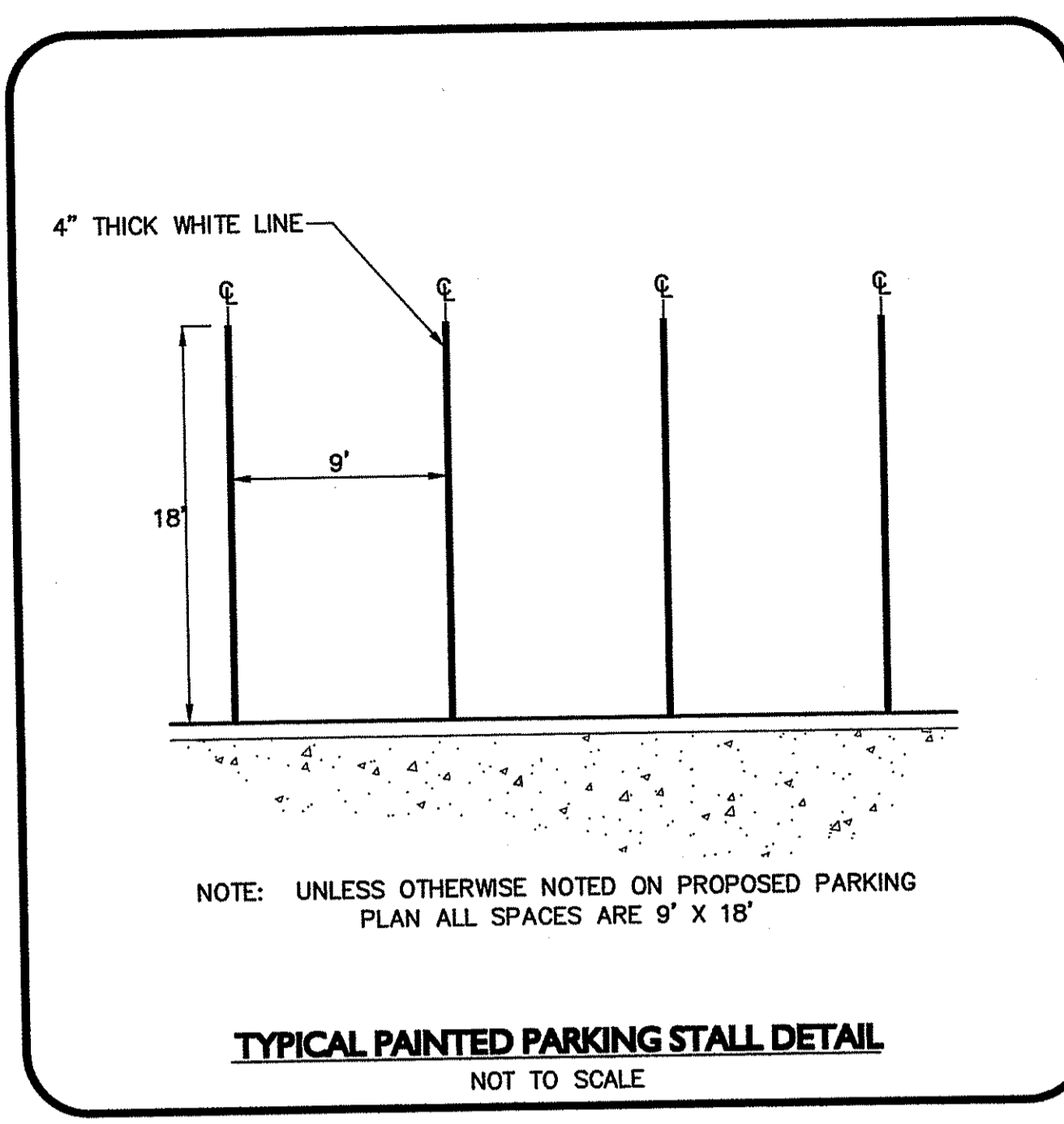
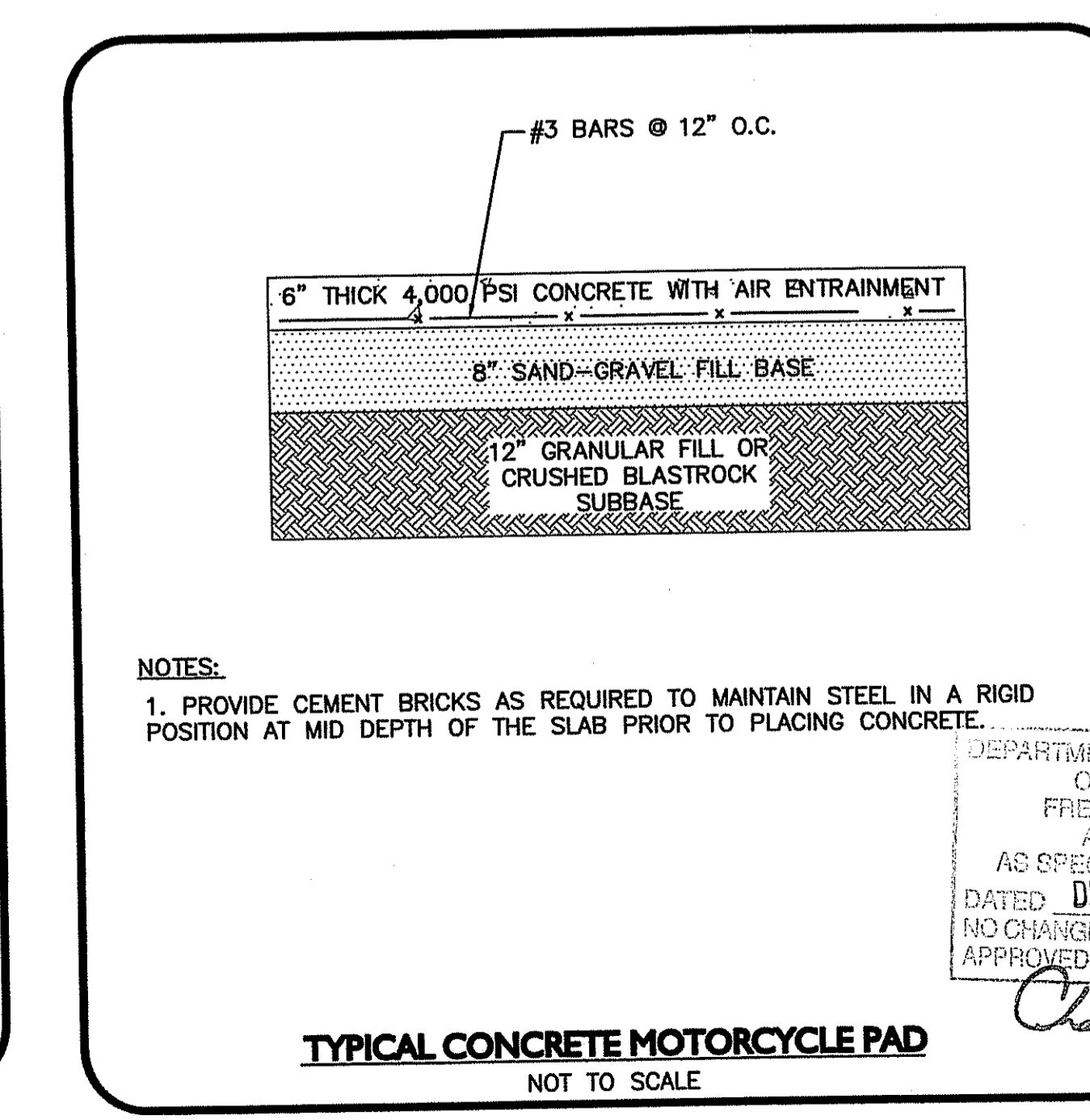
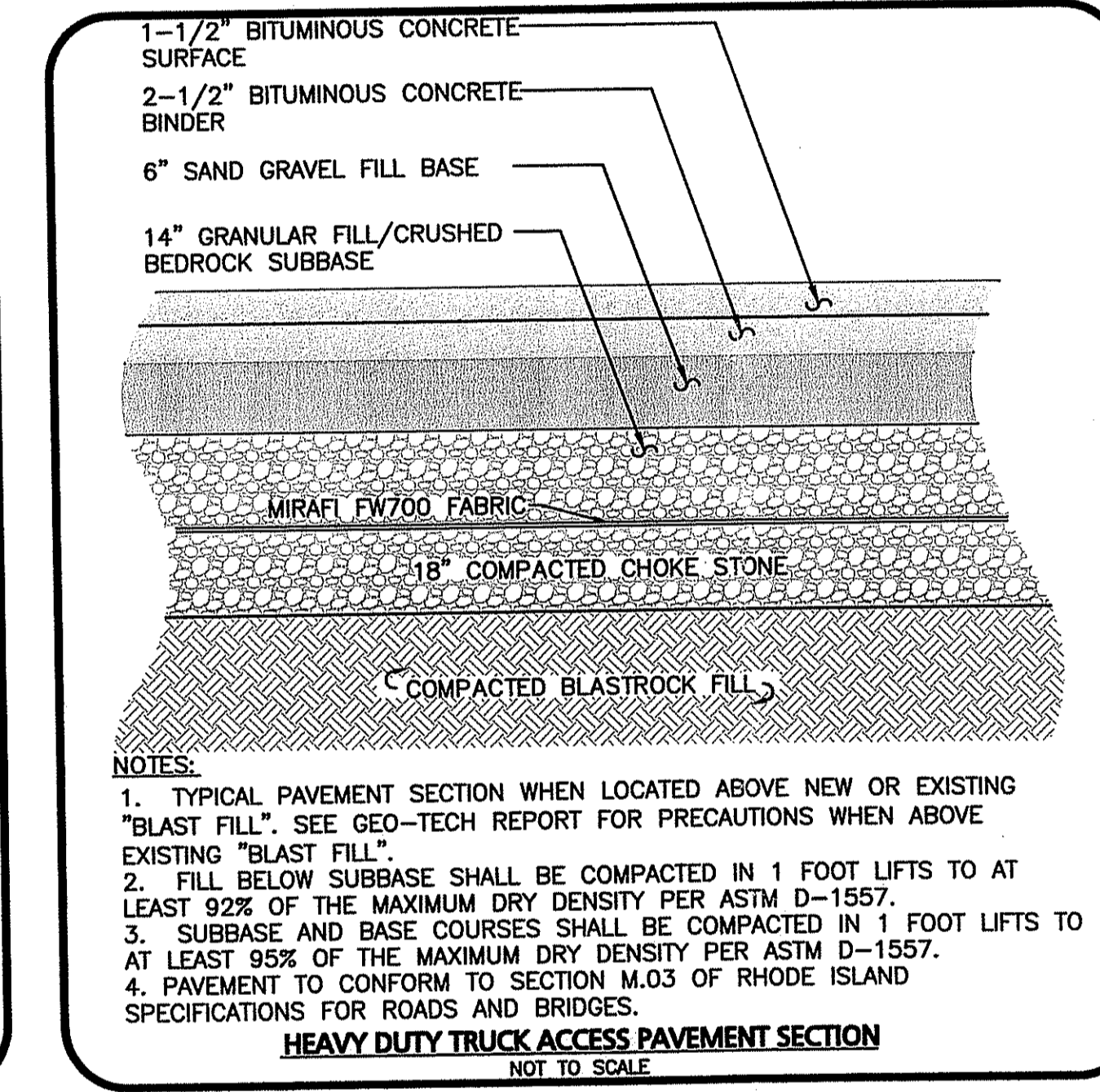
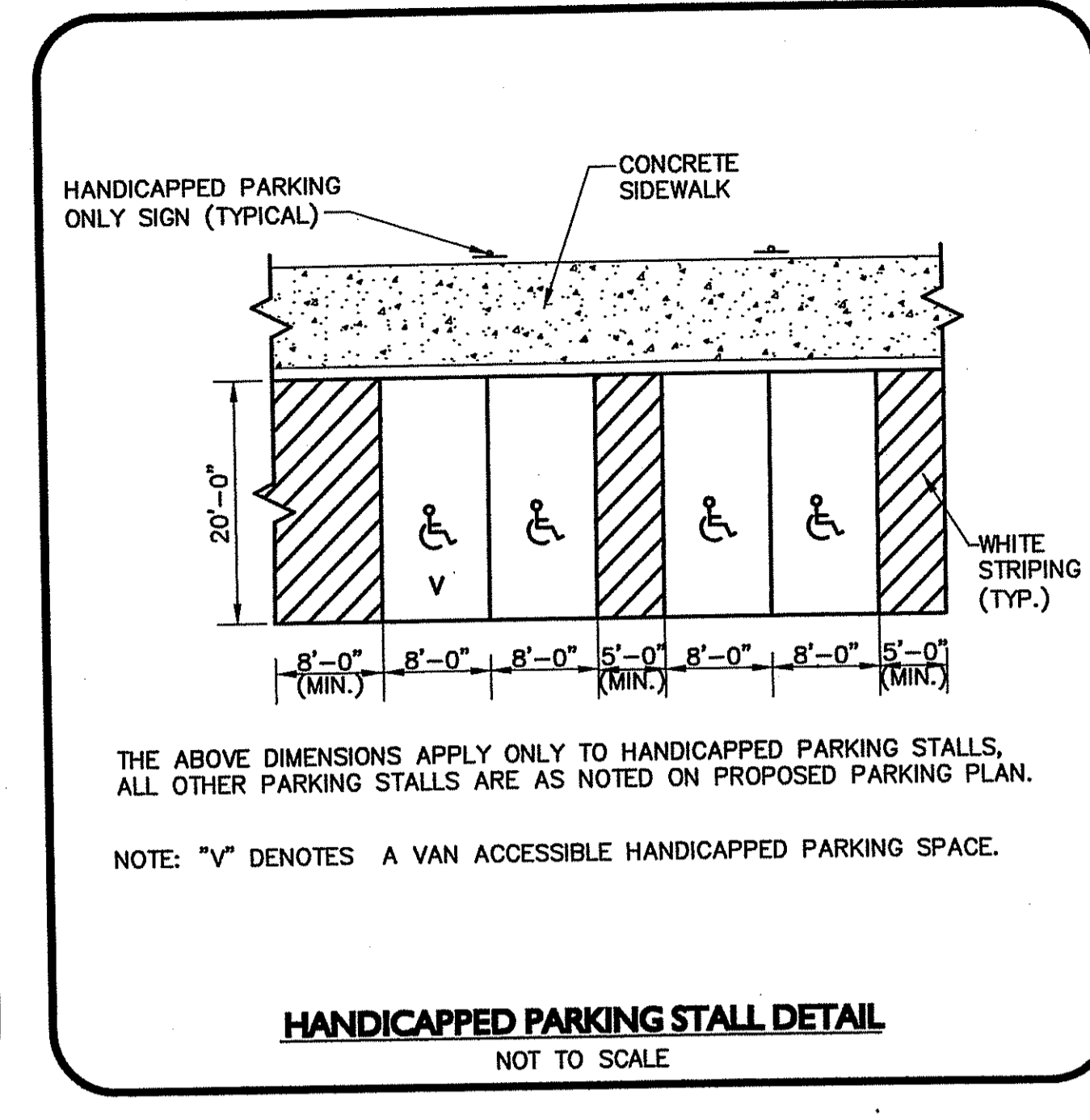
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drawing checked by: RC
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project number: 08020.00

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registration:
JAMES A. MAJOR
No. 3986
REGISTERED PROFESSIONAL ENGINEER

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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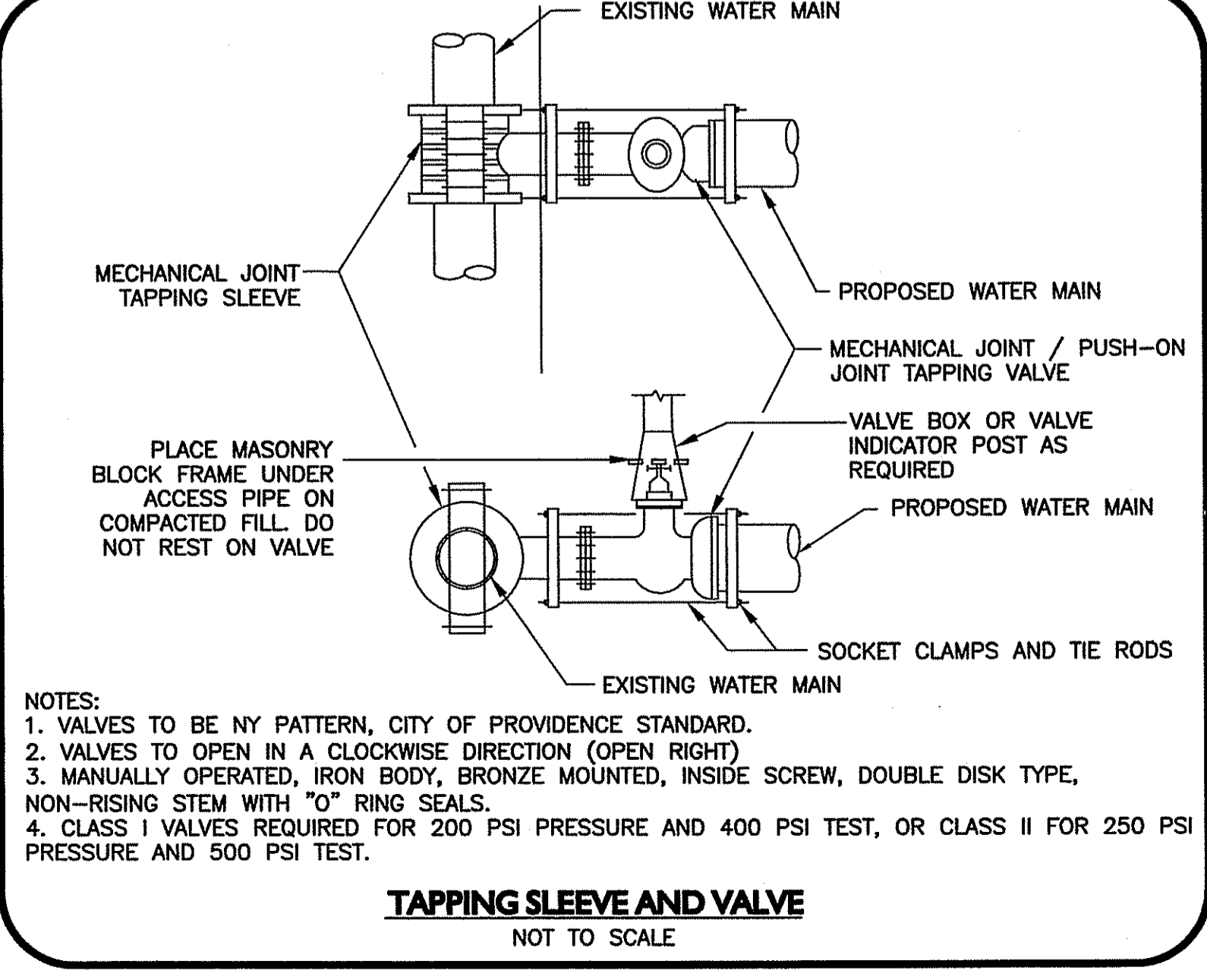
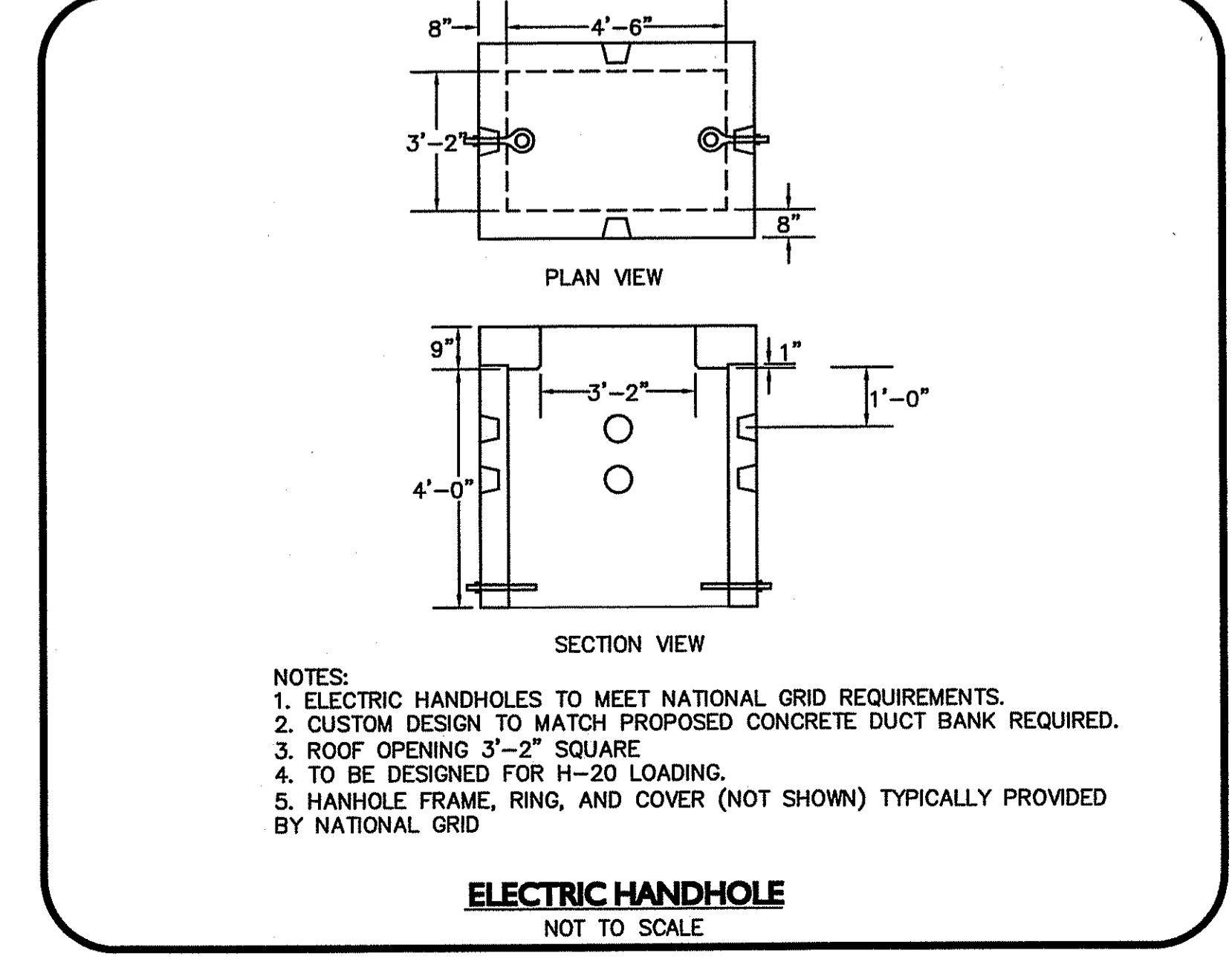
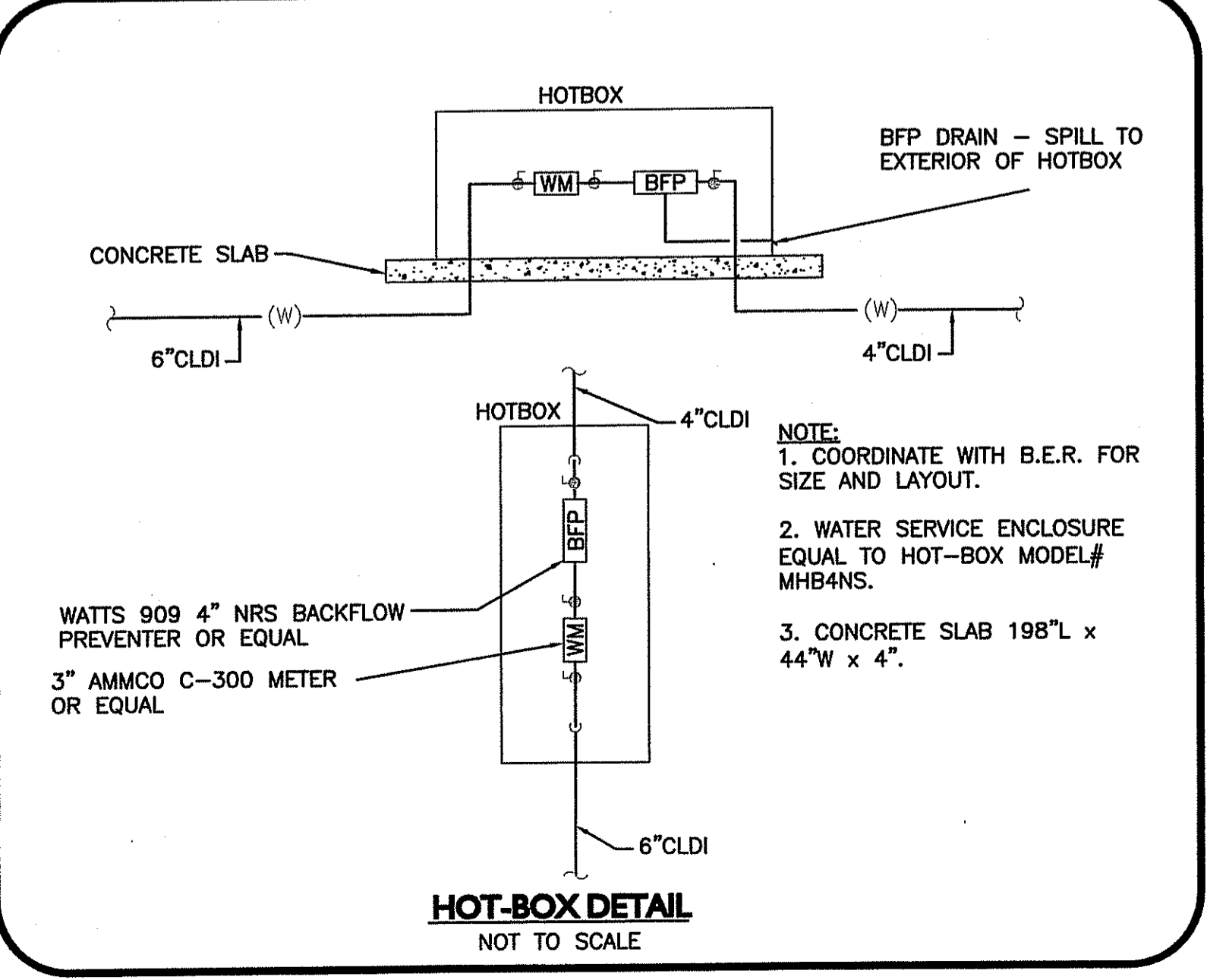
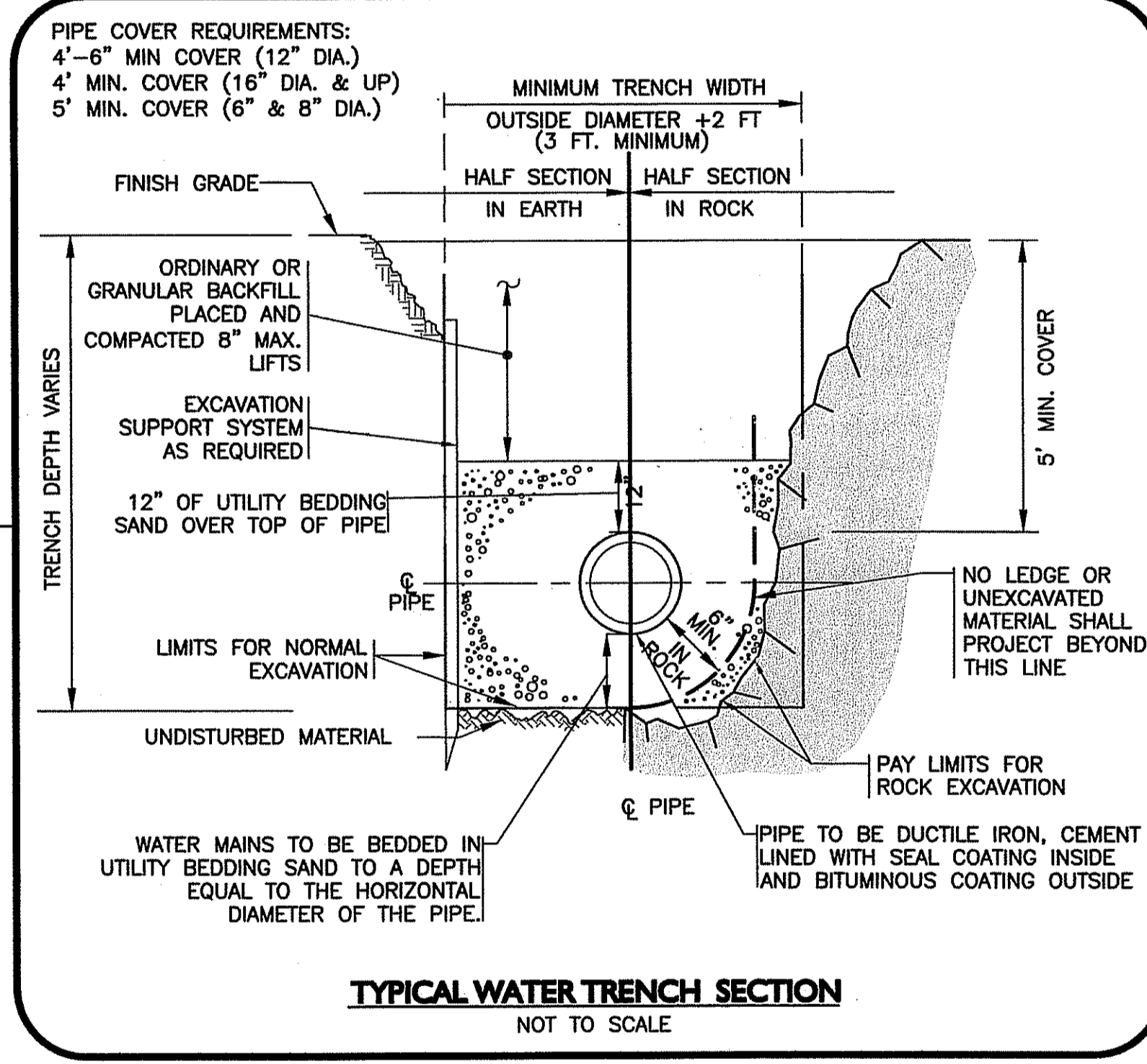
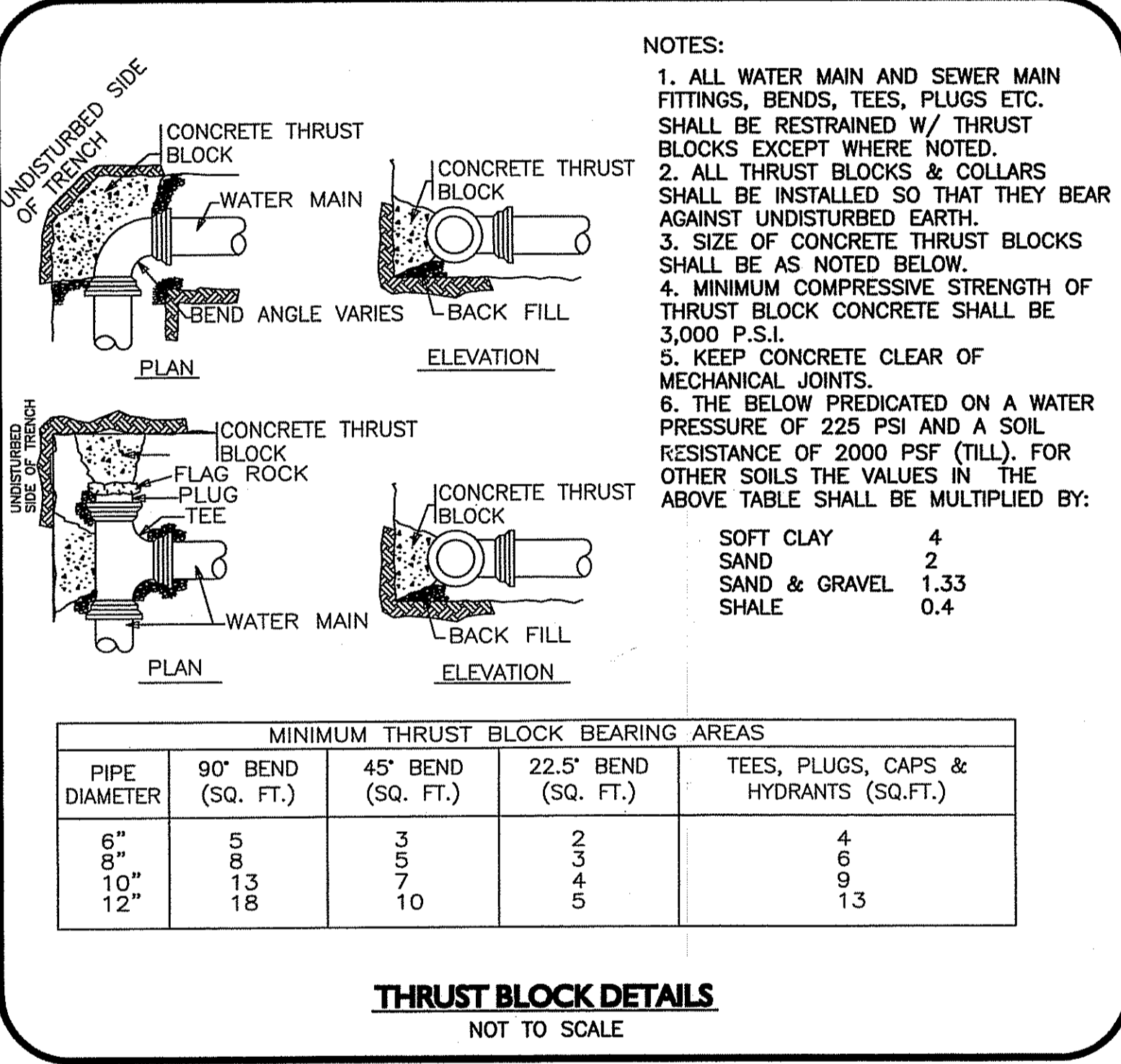
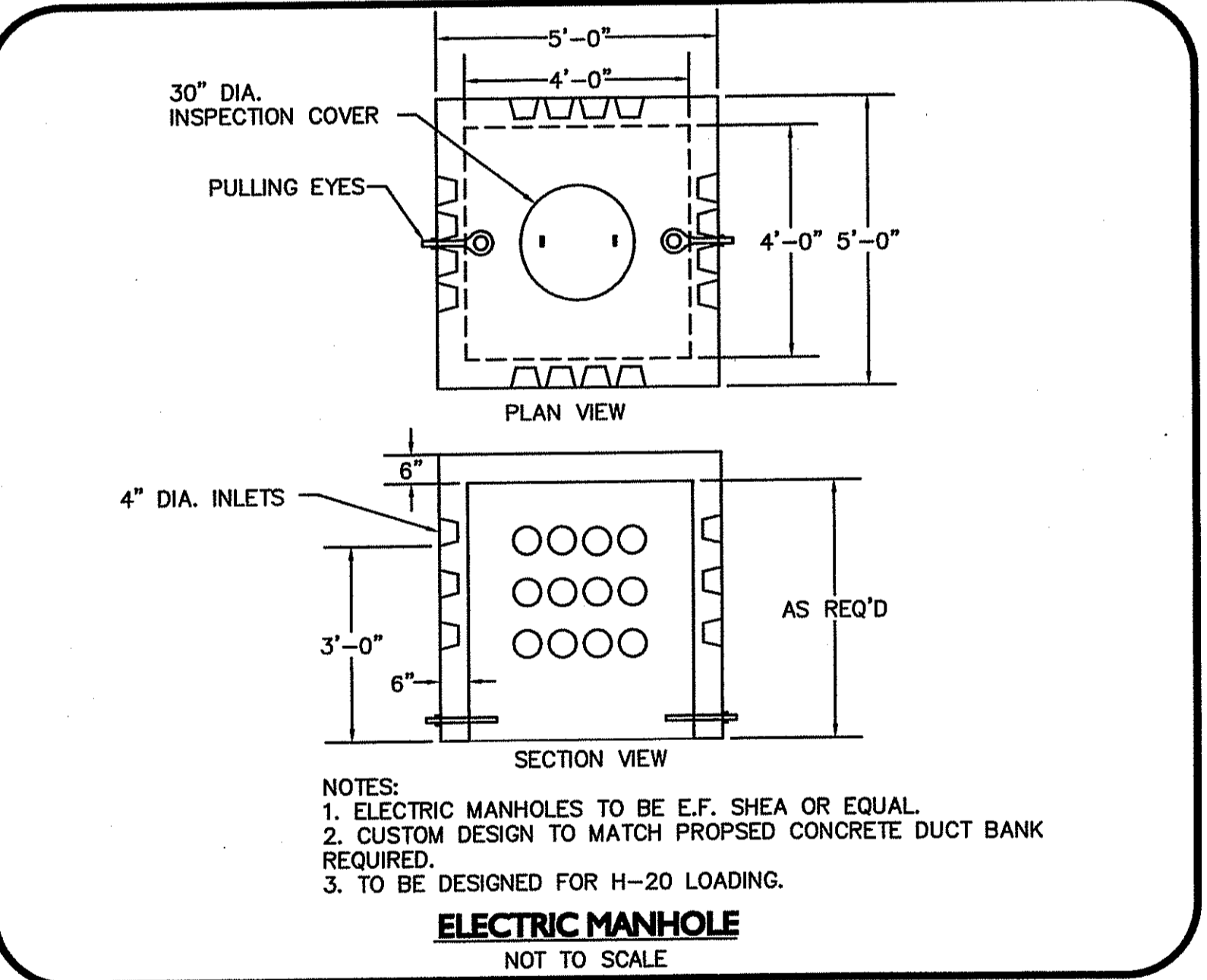
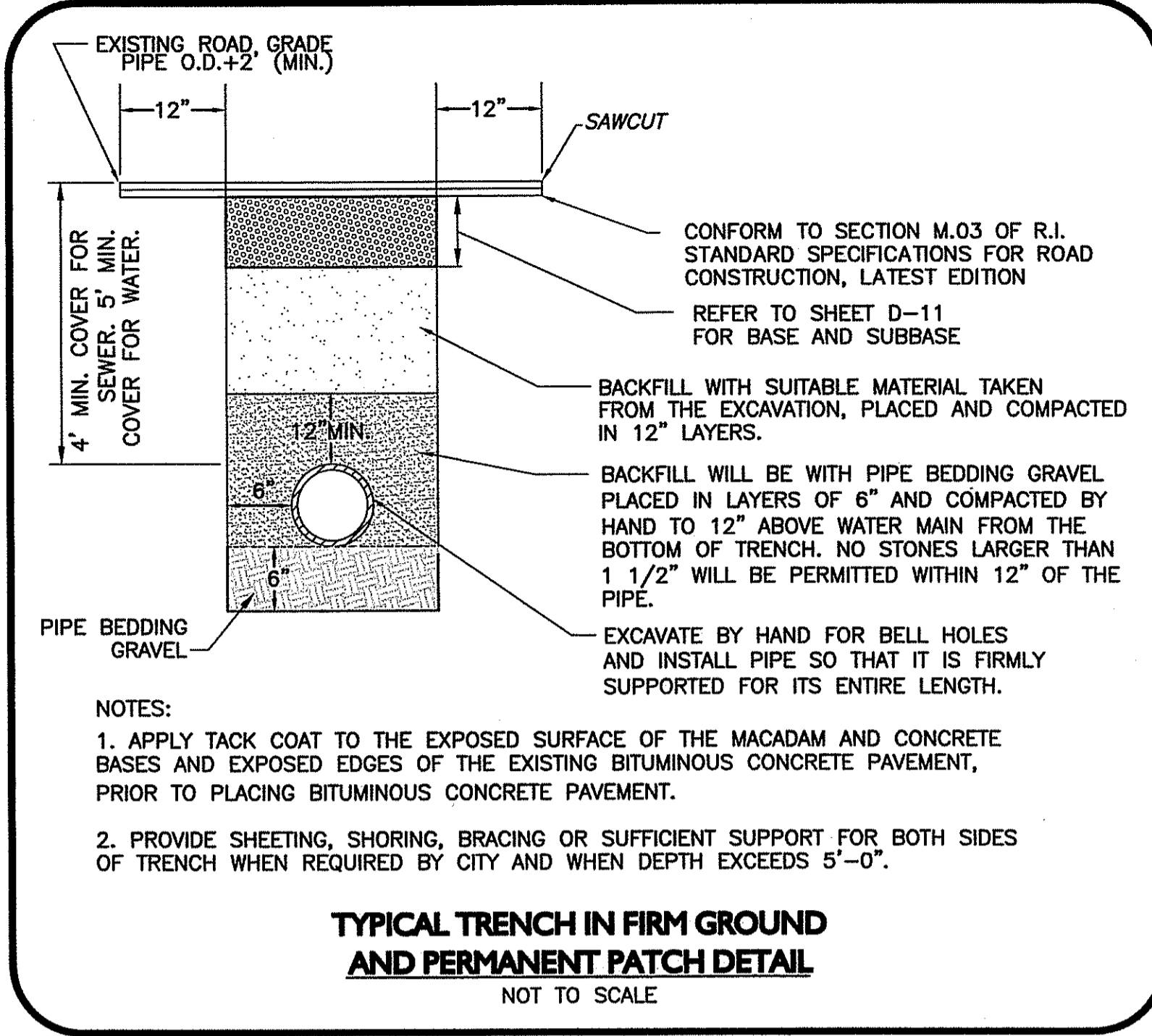
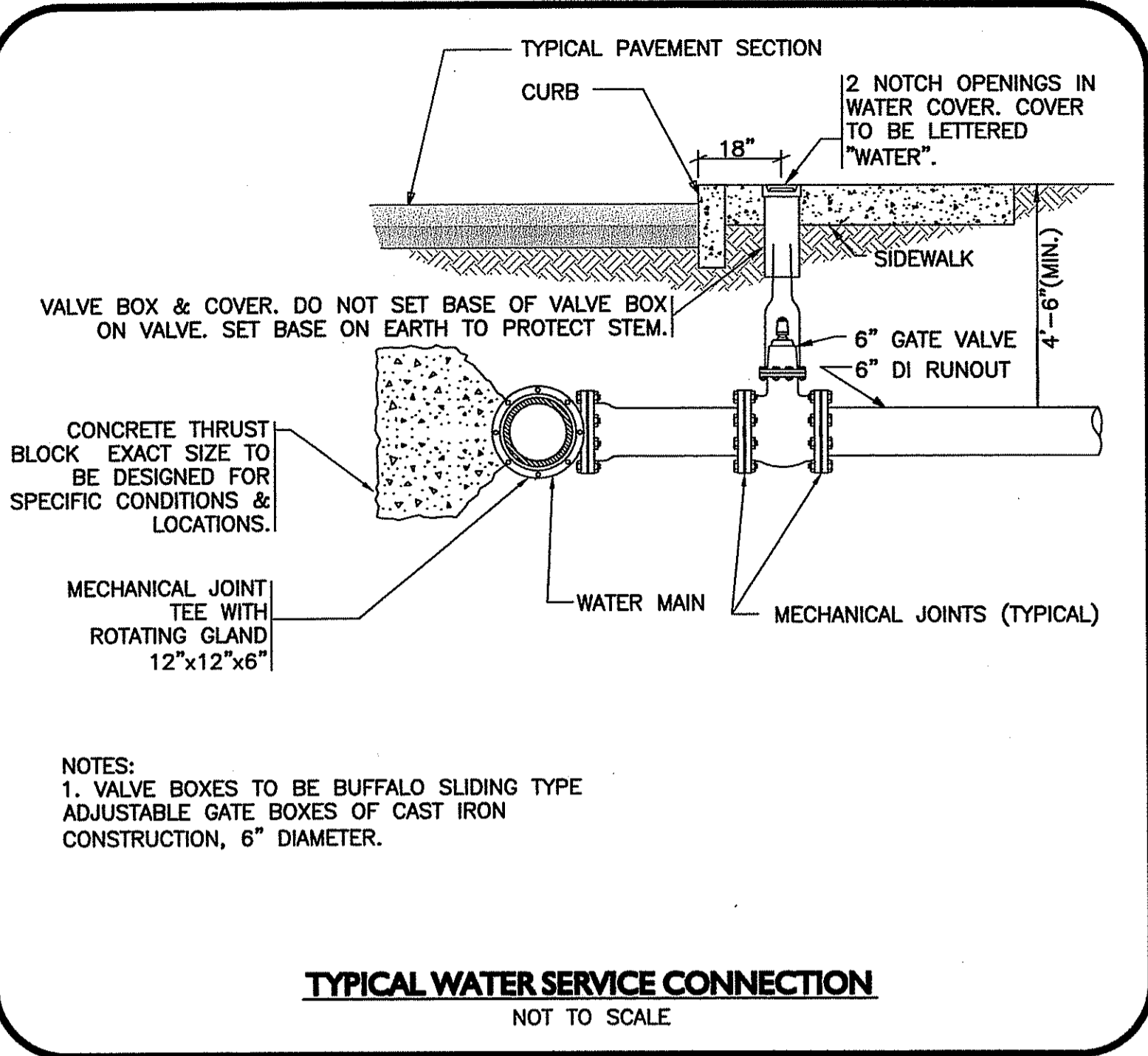
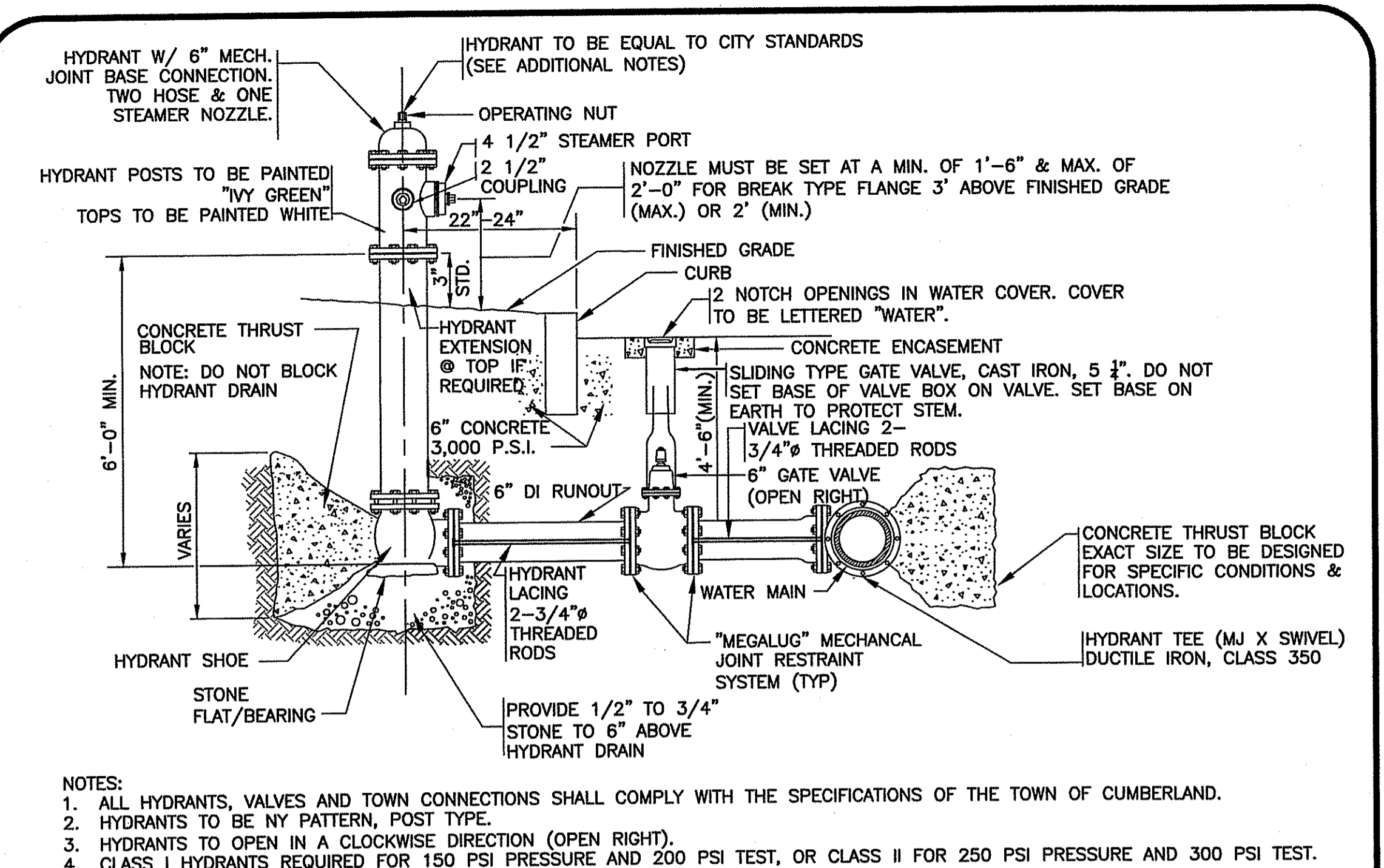
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23 OF 27

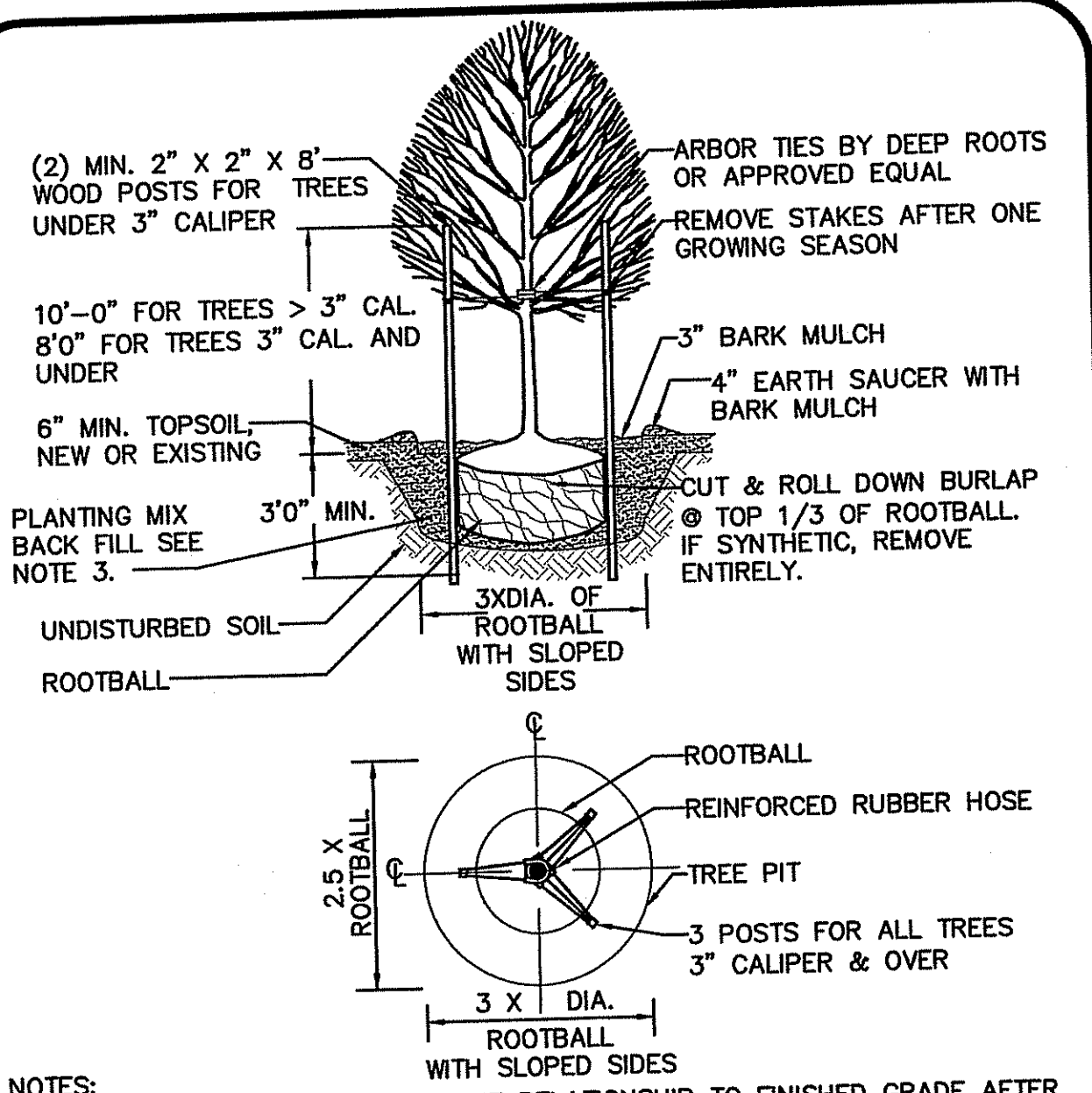


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JAMES A. MAJOR
No. 3986
Professional Engineer
Details

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Charles A. Hart

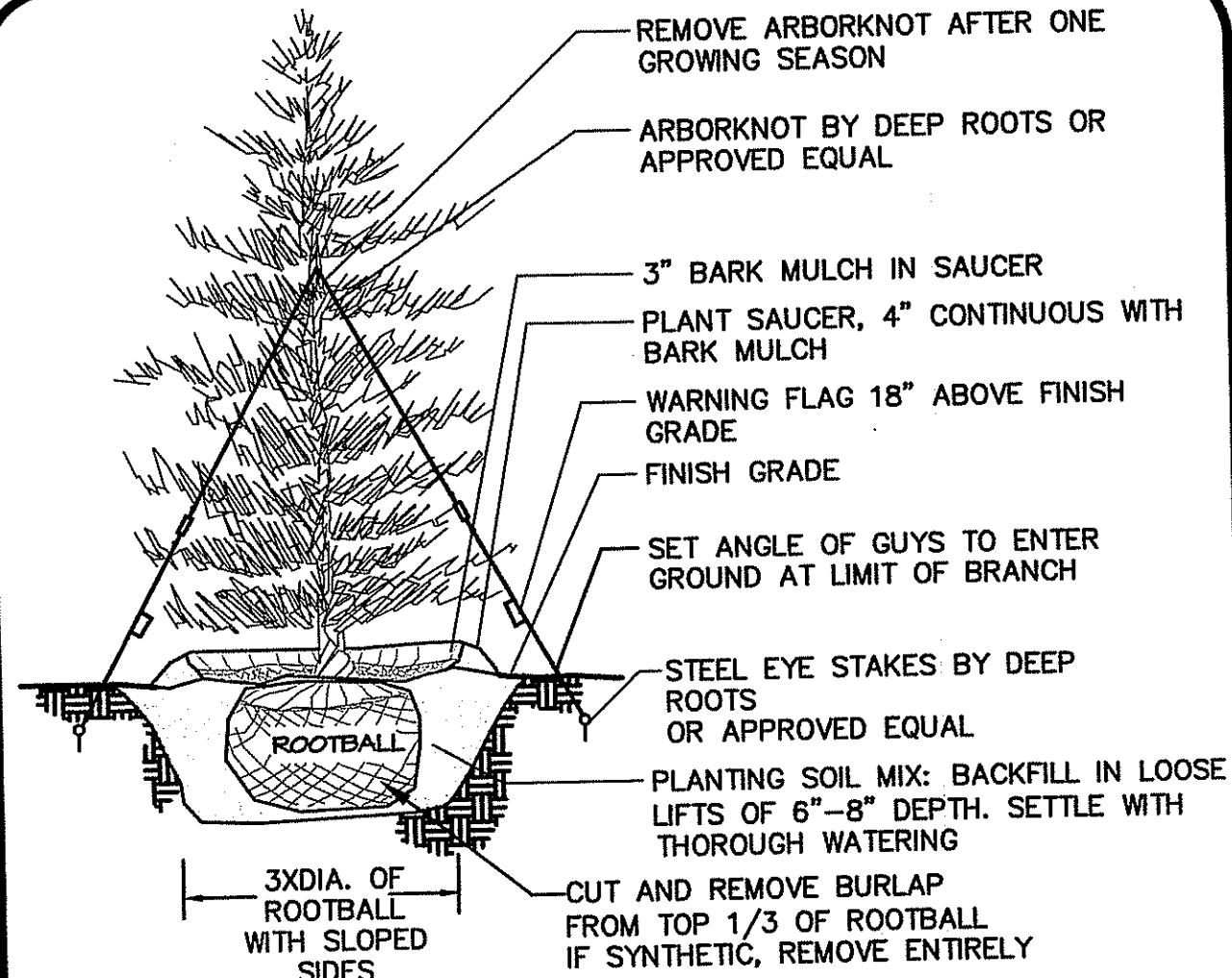




DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

NOTES:

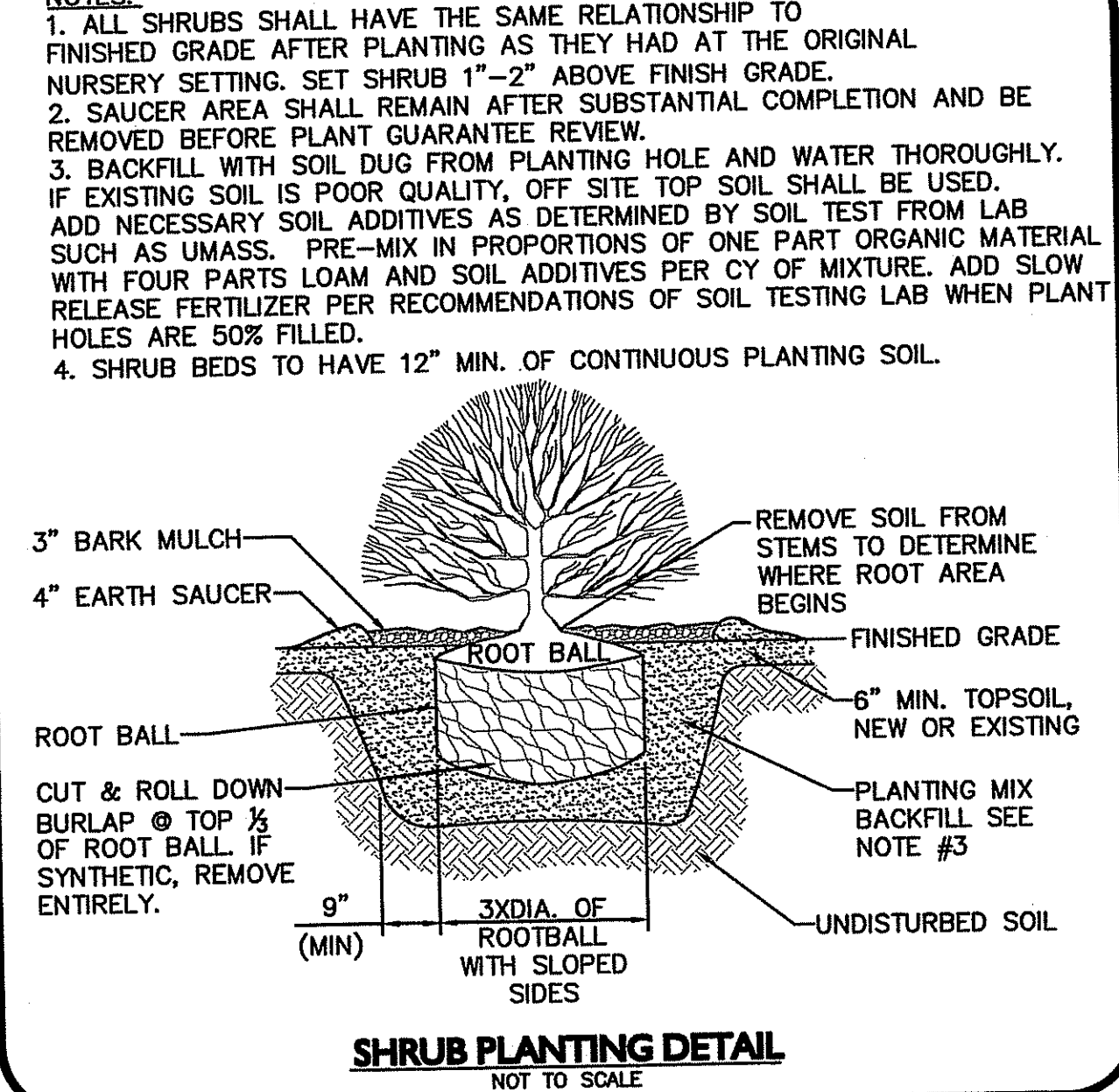
- ALL TREES SHALL HAVE THE SAME RELATIONSHIP TO FINISHED GRADE AFTER PLANTING AS THEY HAD AT THE ORIGINAL NURSERY SETTING. ROOT FLARE SHALL BE 2" ABOVE FINISHED GRADE. REMOVE SOIL FROM TRUNK FLARE OF TREE TO DETERMINE ACTUAL ROOTBALL AREA.
- SAUCER AREA SHALL REMAIN AFTER SUBSTANTIAL COMPLETION AND BE REMOVED BEFORE PLANT GUARANTEE REVIEW.
- BACKFILL WITH SOIL DUG FROM PLANTING HOLE AND WATER THOROUGHLY. IF EXISTING SOIL IS POOR QUALITY, OFF SITE TOP SOIL SHALL BE USED. ADD NECESSARY SOIL ADDITIVES AS DETERMINED BY SOIL TEST AND PRE-MIX IN PROPORTIONS OF ONE PART ORGANIC MATERIAL WITH FOUR PARTS LOAM AND SOIL ADDITIVES PER CY OF MIXTURE. ADD SLOW RELEASE FERTILIZER PER SOIL TESTING LAB RECOMMENDATIONS WHEN PLANT HOLES ARE 50% FILLED.



EVERGREEN TREE DETAIL
NOT TO SCALE

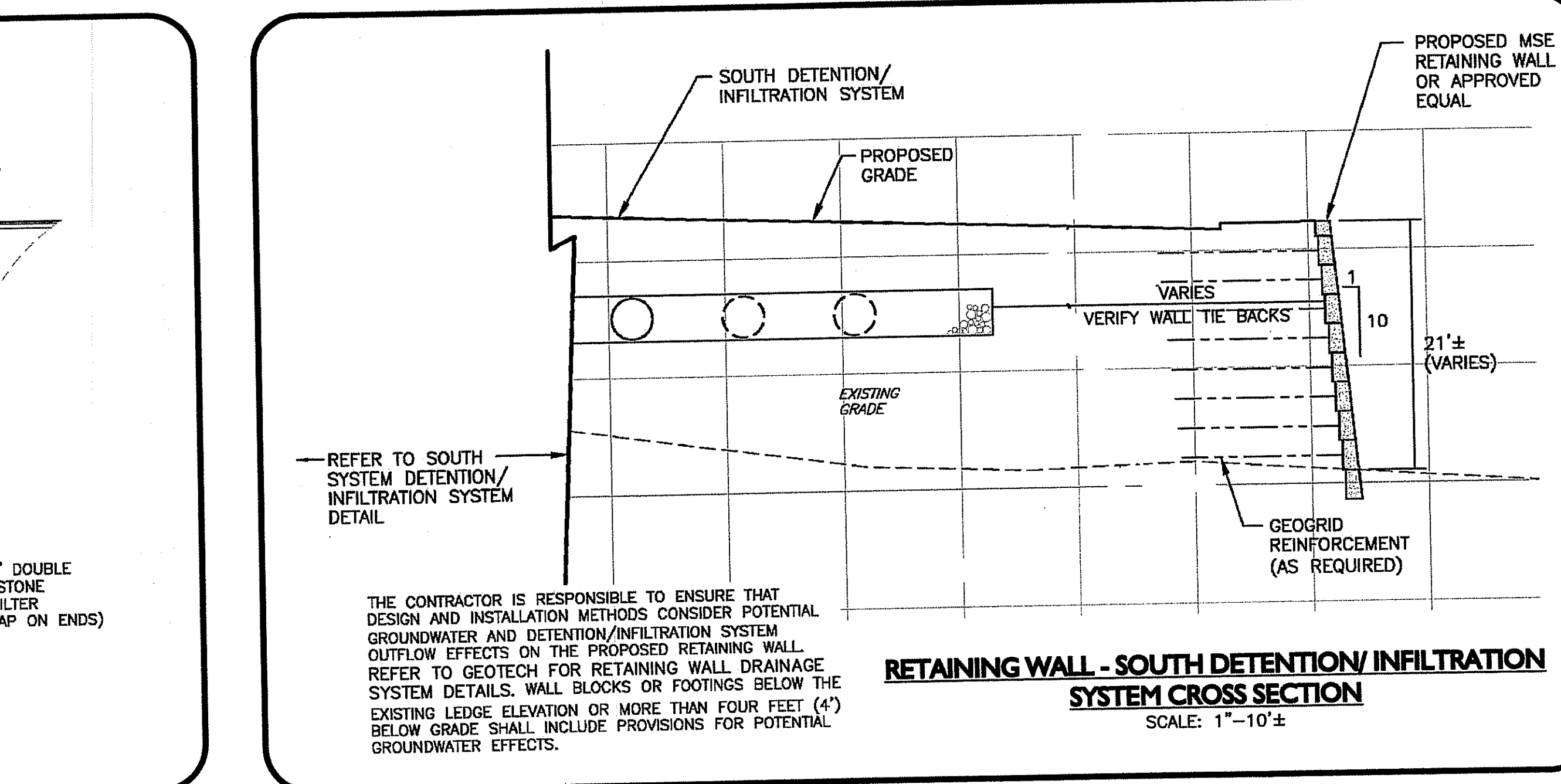
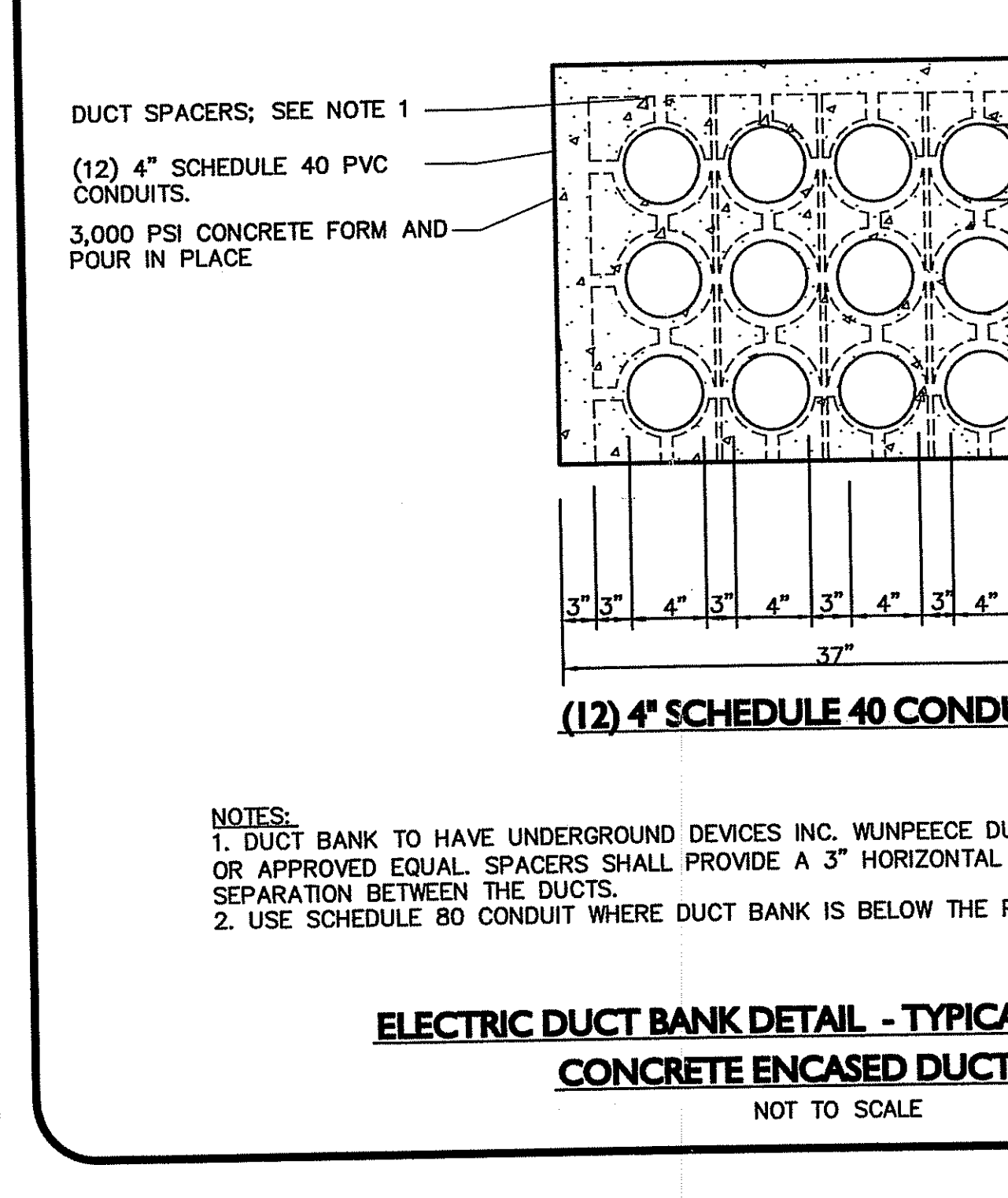
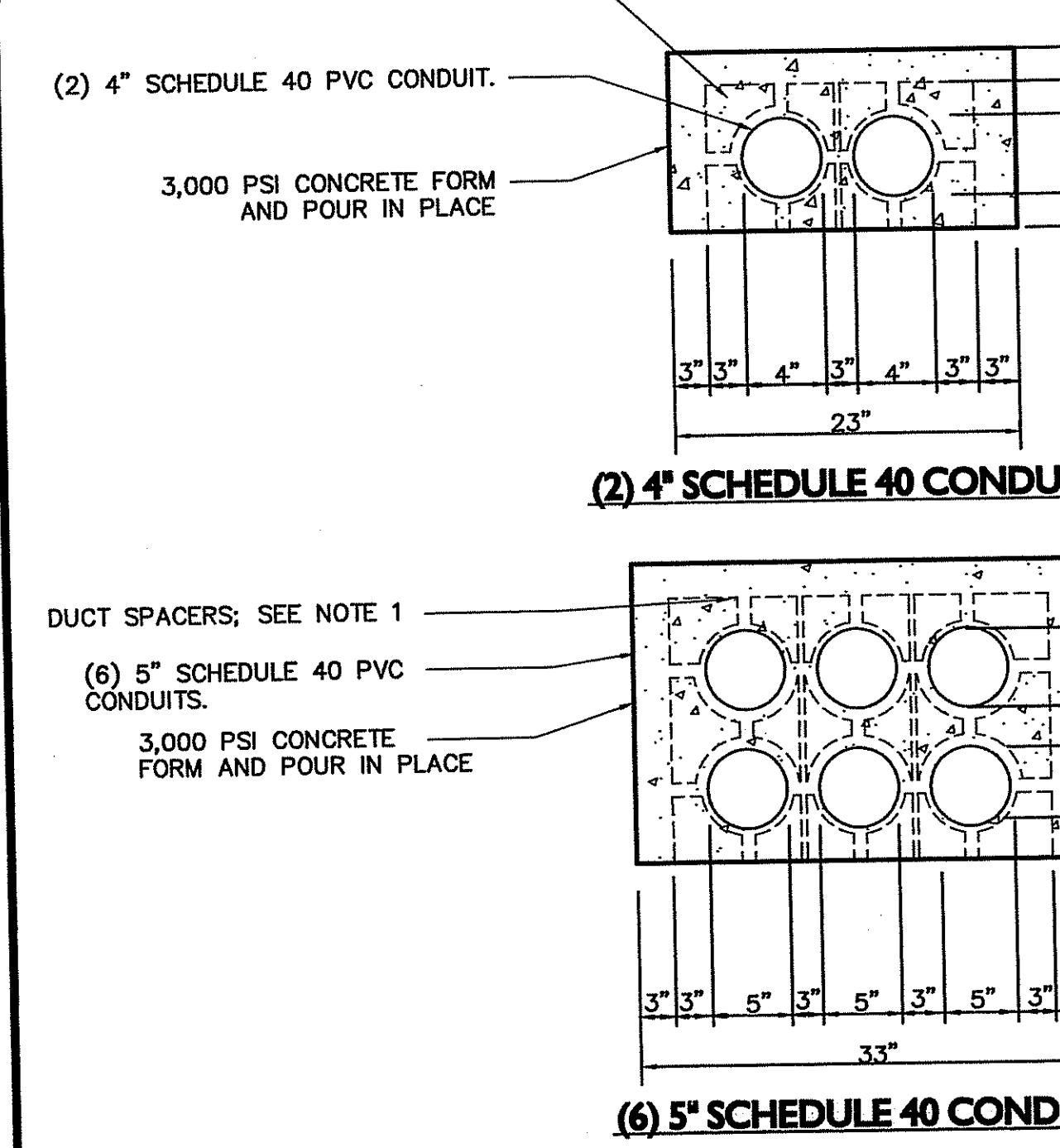
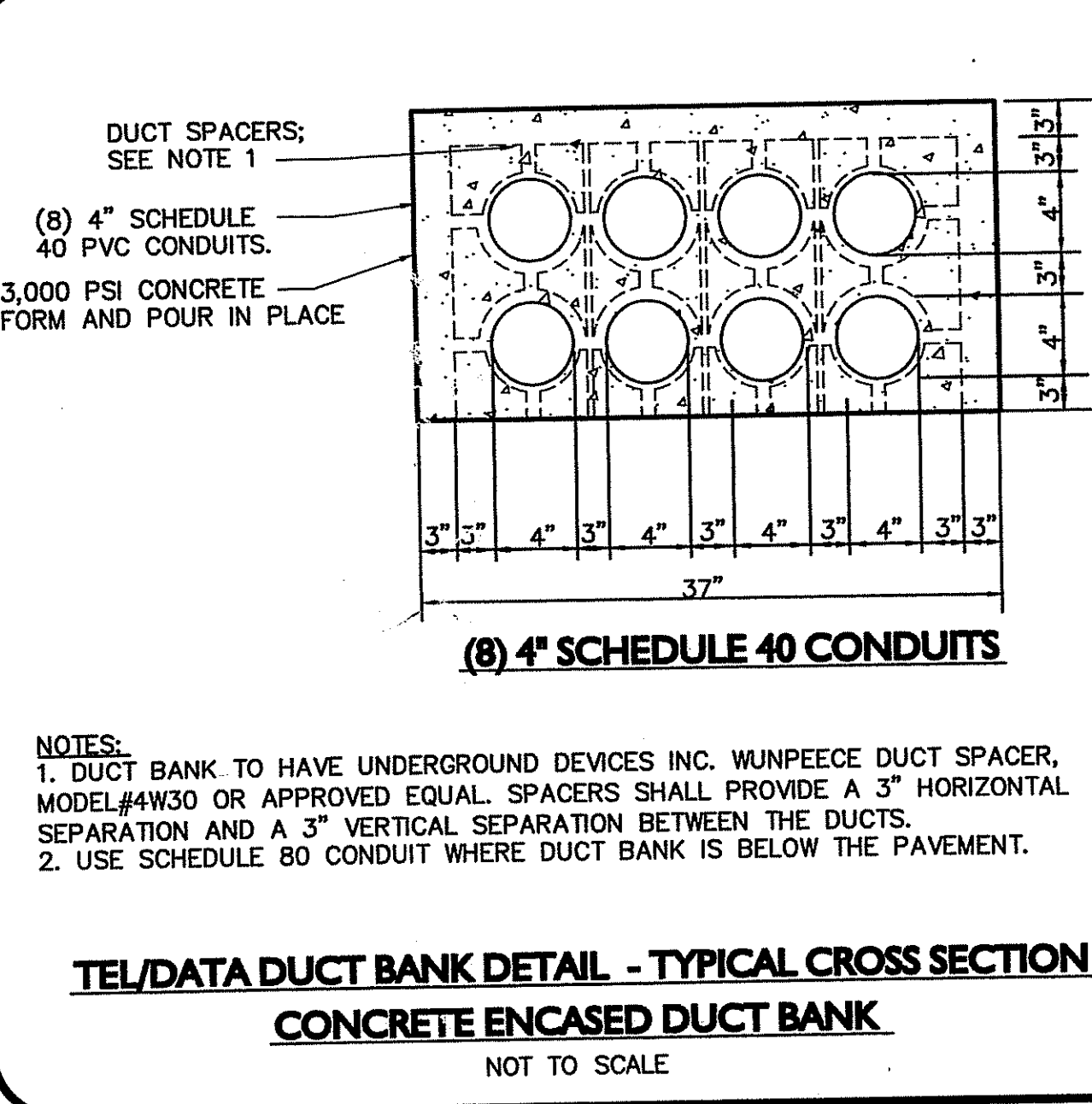
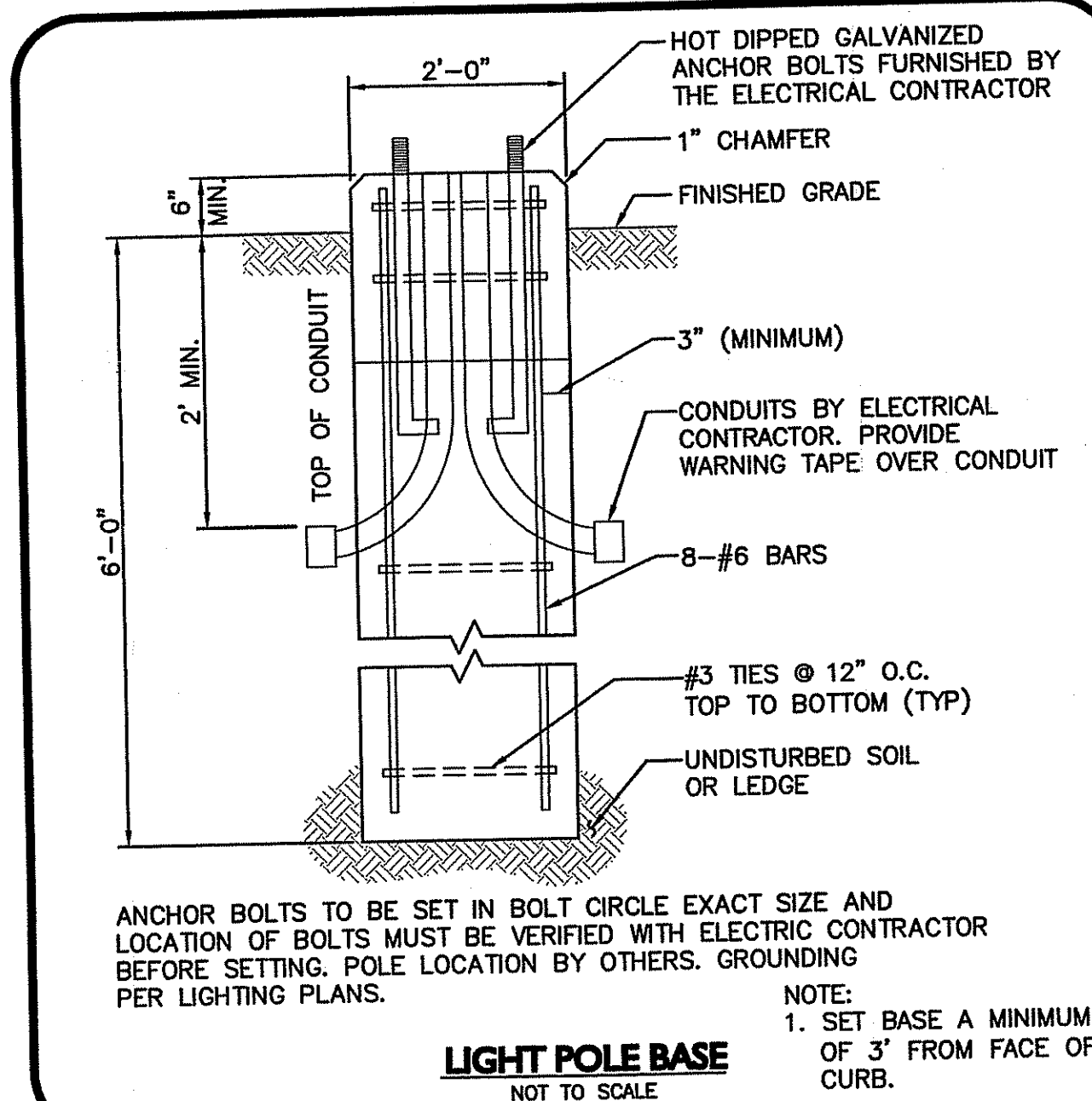
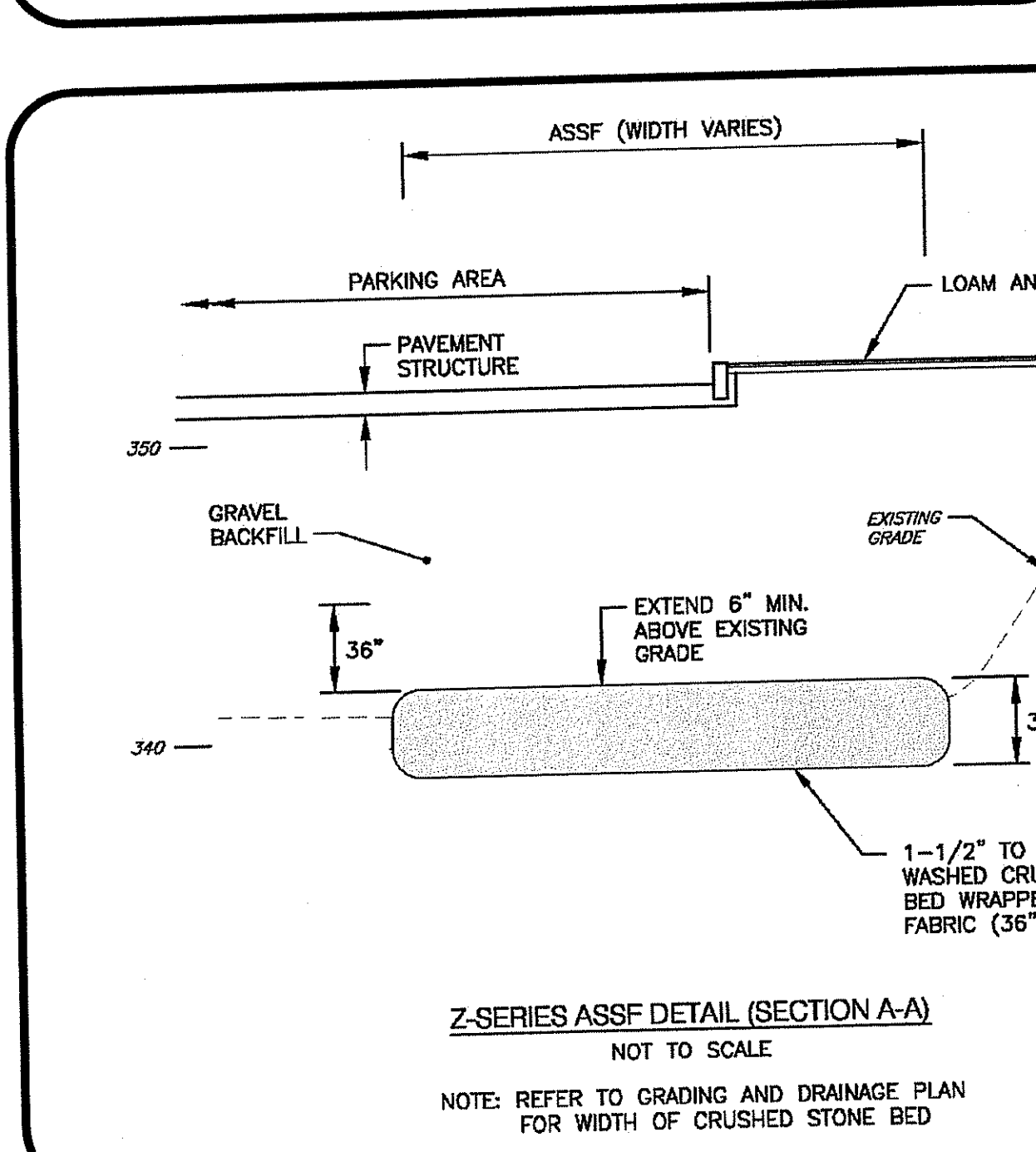
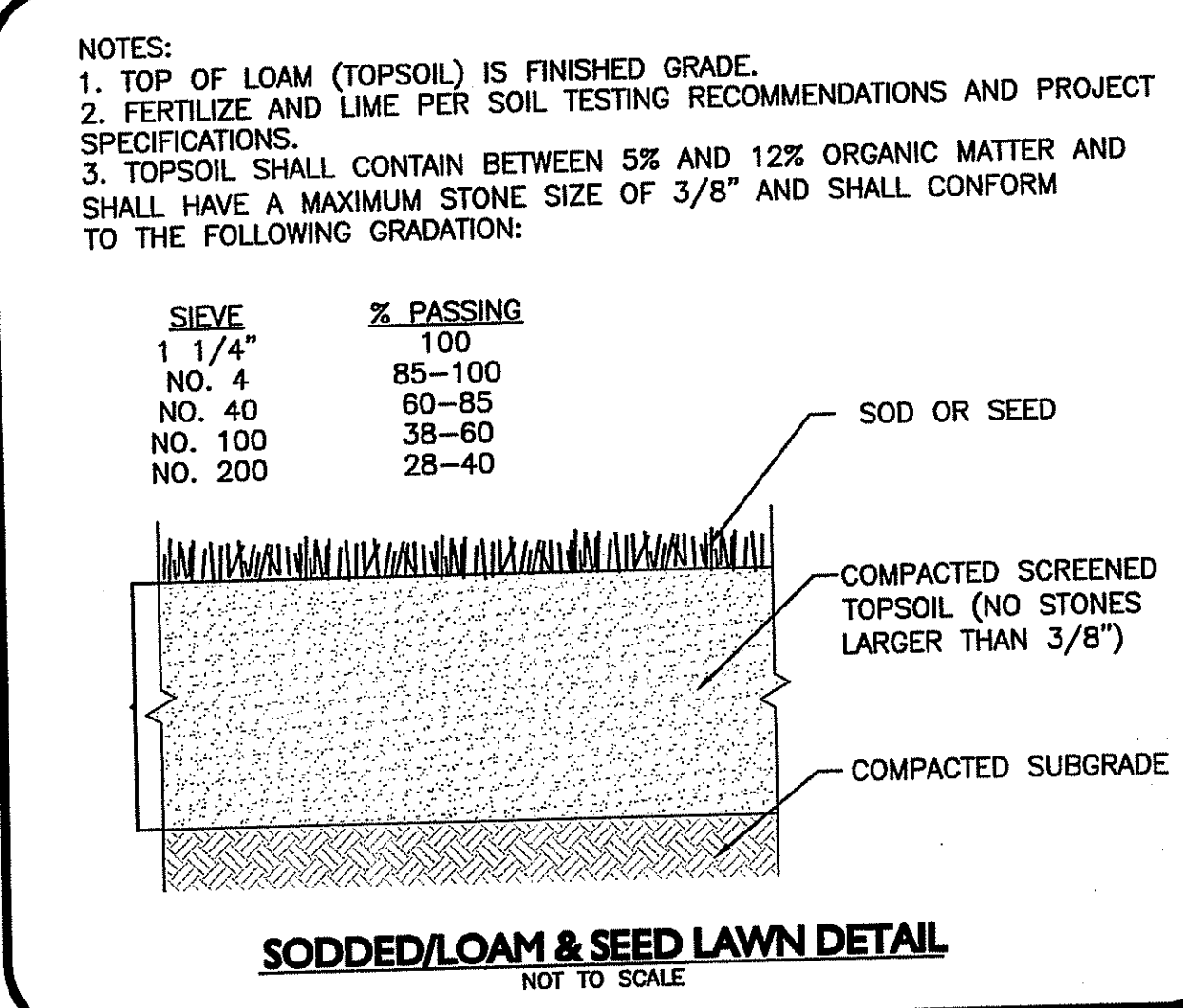
NOTES:

- TREES SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS IT BORE TO NURSERY OR FIELD GRADE. ROOT FLARE SHALL BE 2" ABOVE FINISHED GRADE. REMOVE SOIL FROM TRUNK FLARE OF TREE TO DETERMINE ACTUAL TOP OF ROOTBALL AREA.
- INSTALL THREE GUYS PER TREE, EQUALLY SPACED AROUND BALL
- ATTACH GUYS AT 2/3 HEIGHT OF TREE.
- SAUCER AREA SHALL REMAIN AFTER SUBSTANTIAL COMPLETION AND BE REMOVED BEFORE PLANT GUARANTEE REVIEW.
- BACKFILL WITH SOIL DUG FROM PLANTING HOLE AND WATER THOROUGHLY. IF EXISTING SOIL IS POOR QUALITY, OFF SITE TOP SOIL SHALL BE USED. ADD NECESSARY SOIL ADDITIVES AS DETERMINED BY SOIL TEST AND PRE-MIX IN PROPORTIONS OF ONE PART ORGANIC MATERIAL WITH FOUR PARTS LOAM AND SOIL ADDITIVES PER CY OF MIXTURE. ADD SLOW RELEASE FERTILIZER PER SOIL TESTING LAB RECOMMENDATIONS WHEN PLANT HOLES ARE 50% FILLED.



NOTES:

- ALL SHRUBS SHALL HAVE THE SAME RELATIONSHIP TO FINISHED GRADE AFTER PLANTING AS THEY HAD AT THE ORIGINAL NURSERY SETTING. SET SHRUB 1"-2" ABOVE FINISHED GRADE.
- SAUCER AREA SHALL REMAIN AFTER SUBSTANTIAL COMPLETION AND BE REMOVED BEFORE PLANT GUARANTEE REVIEW.
- BACKFILL WITH SOIL DUG FROM PLANTING HOLE AND WATER THOROUGHLY. IF EXISTING SOIL IS POOR QUALITY, OFF SITE TOP SOIL SHALL BE USED. ADD NECESSARY SOIL ADDITIVES AS DETERMINED BY SOIL TEST AND PRE-MIX IN PROPORTIONS OF ONE PART ORGANIC MATERIAL WITH FOUR PARTS LOAM AND SOIL ADDITIVES PER CY OF MIXTURE. ADD SLOW RELEASE FERTILIZER PER SOIL TESTING LAB RECOMMENDATIONS WHEN PLANT HOLES ARE 50% FILLED.
- SHRUB BEDS TO HAVE 12" MIN. OF CONTINUOUS PLANTING SOIL.



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Charles A. Major

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architecture interiors planning
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phone: 978.688.9900 www.cube3studio.com

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Business Engineering Resources, Inc.
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120 Providence Avenue
Tel: (401) 451-4822 Fax: (401) 451-4822
New Bedford, MA 01945
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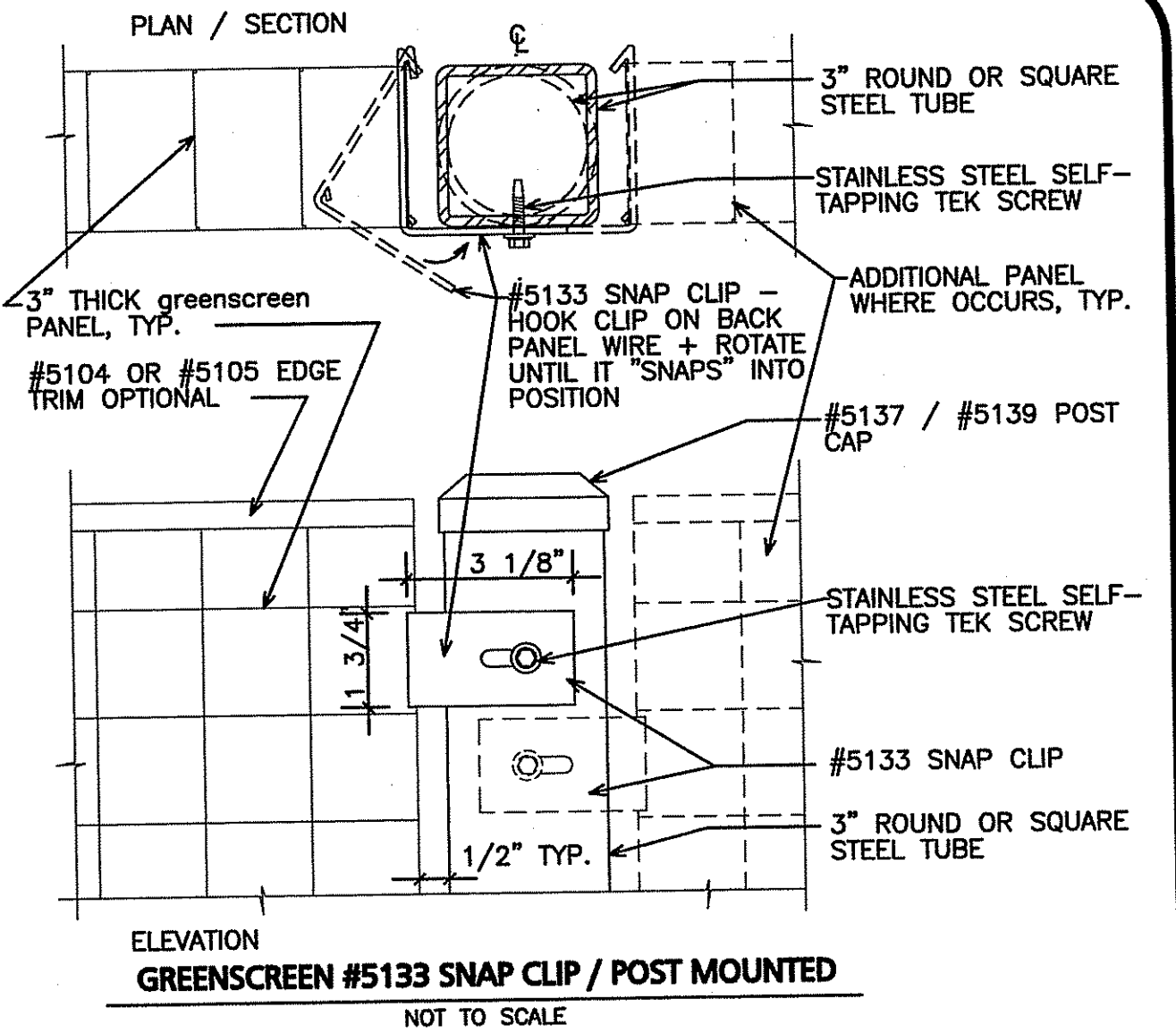
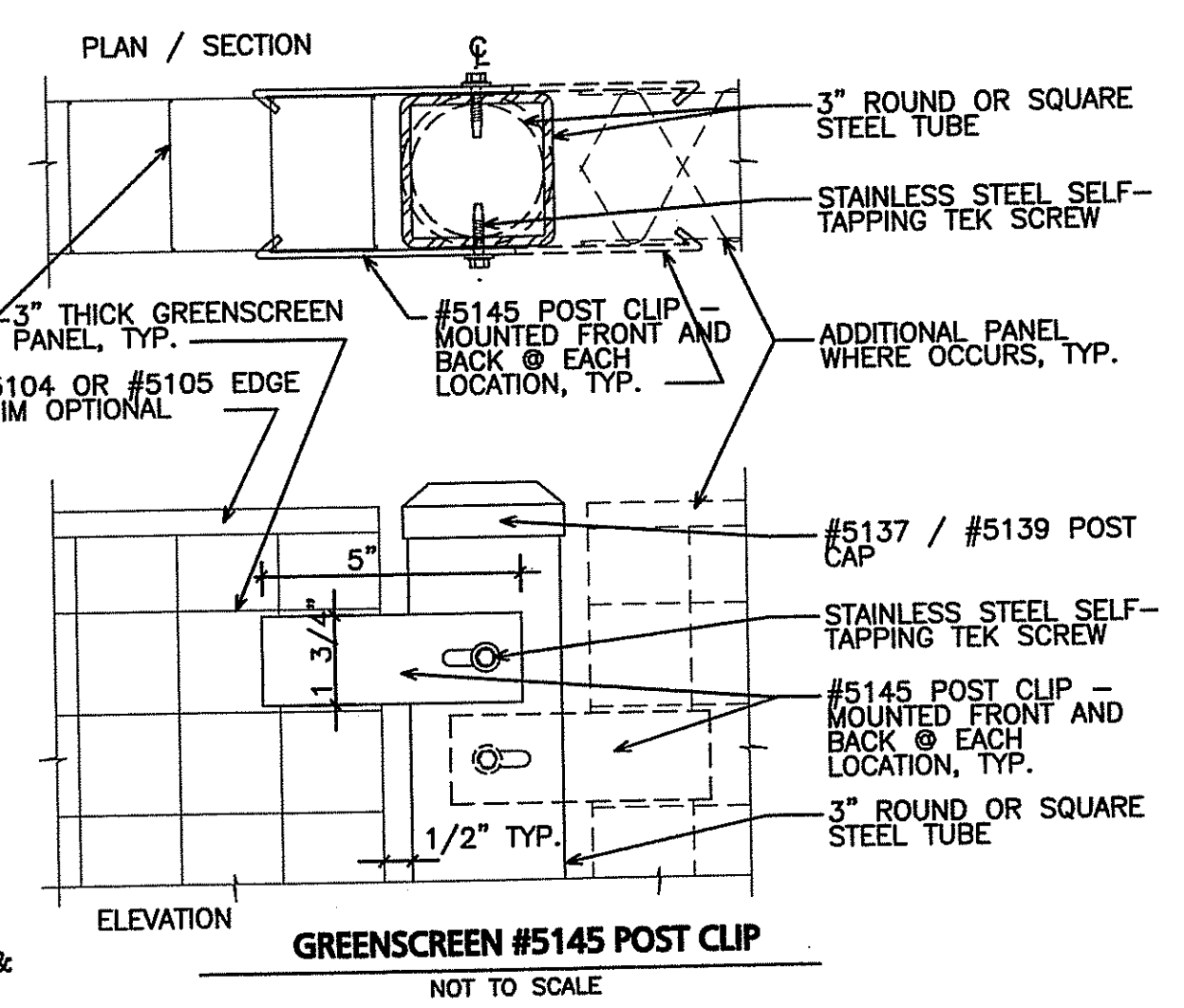
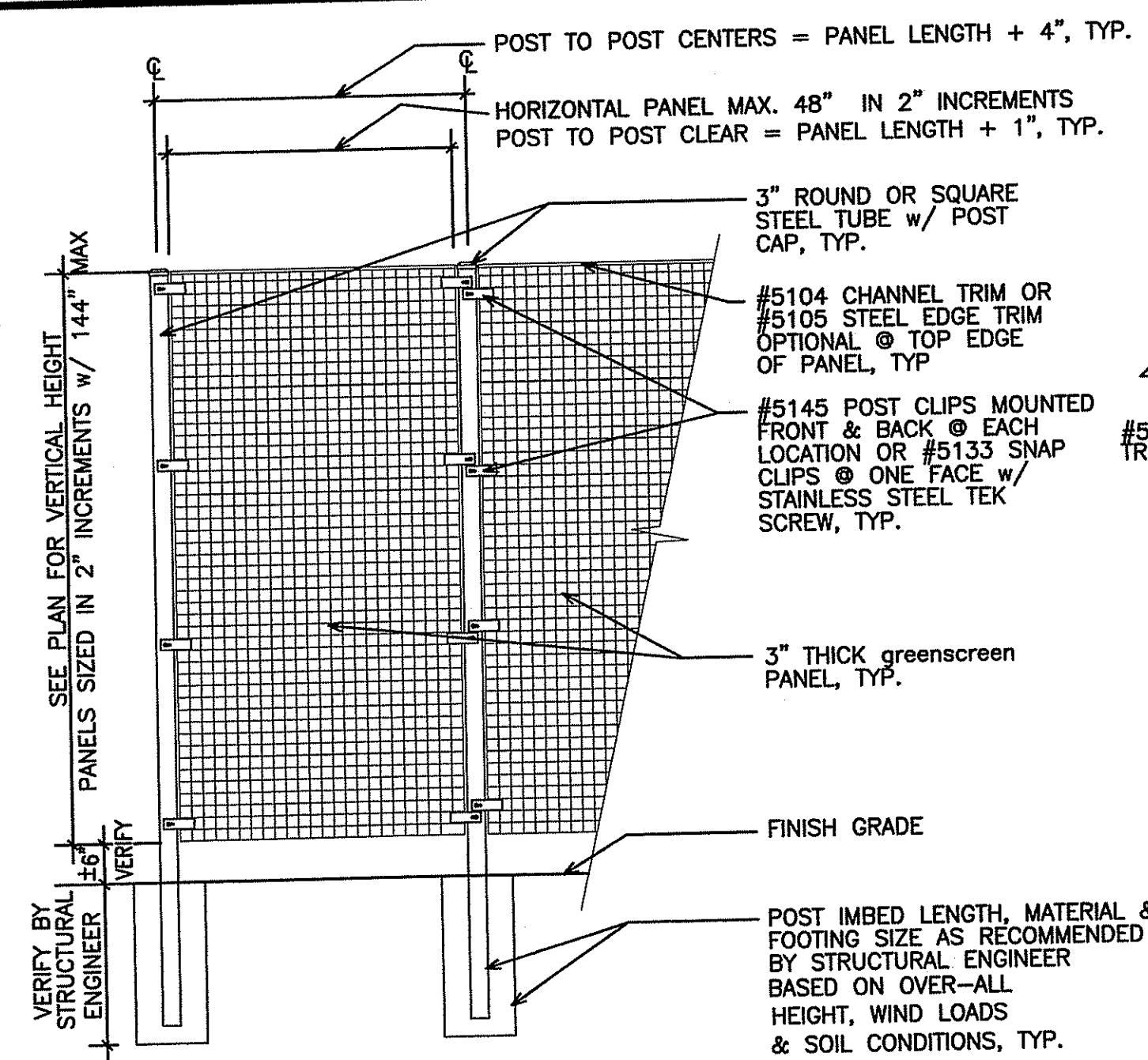
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JAMES A. MAJOR
No. 3986
PROFESSIONAL ENGINEER

Details

D-11
25 OF 27

R:\PROJECTS\1514-02E\CIVIL\DRAWINGS\CURRENT\C-1514-02E-DETAILS.DWG



- NOTES:**
- SCREEN PROVIDED BY "GREENSCREEN" 1743 S. LA CIENEGA BLVD. LOS ANGELES, CA 90035-4650, PH- 1-800-450-3494.
 - INSTALL PER MANUFACTURERS RECOMMENDATIONS.
 - VERTICAL GREENSCREEN AND FOOTING TO BE REVIEWED AND STAMPED BY STRUCTURAL ENGINEER PROVIDED BY CONTRACTOR AND LICENSED IN THE STATE OF RHODE ISLAND.
 - PROVIDE SHOP DRAWINGS FOR FREESTANDING VERTICAL SCREEN, FOOTING, CLIPS, AND TOP CHANNEL.

GREENSCREEN FREESTANDING SCREEN - VERTICAL
NOT TO SCALE

RECEIVED
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200 Highland Corporate Dr.
Cumberland, RI 02865

CVS CAREMARK

Woonsocket, RI; Cumberland, RI; Smithfield, RI; Lincoln, RI

B E R
BRUNNEN ENGINEERING ASSOCIATES, INC.
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VEITAS VEITAS
engineers

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civil & structural engineering • land use planning
environmental consulting • landscape architecture
100 Commercial Street
Worcester, MA 01608
TEL: (508) 853-2200 FAX: (508) 853-2205
WORCESTER, MA • HULLSBURG, MA • MANCHESTER, NH

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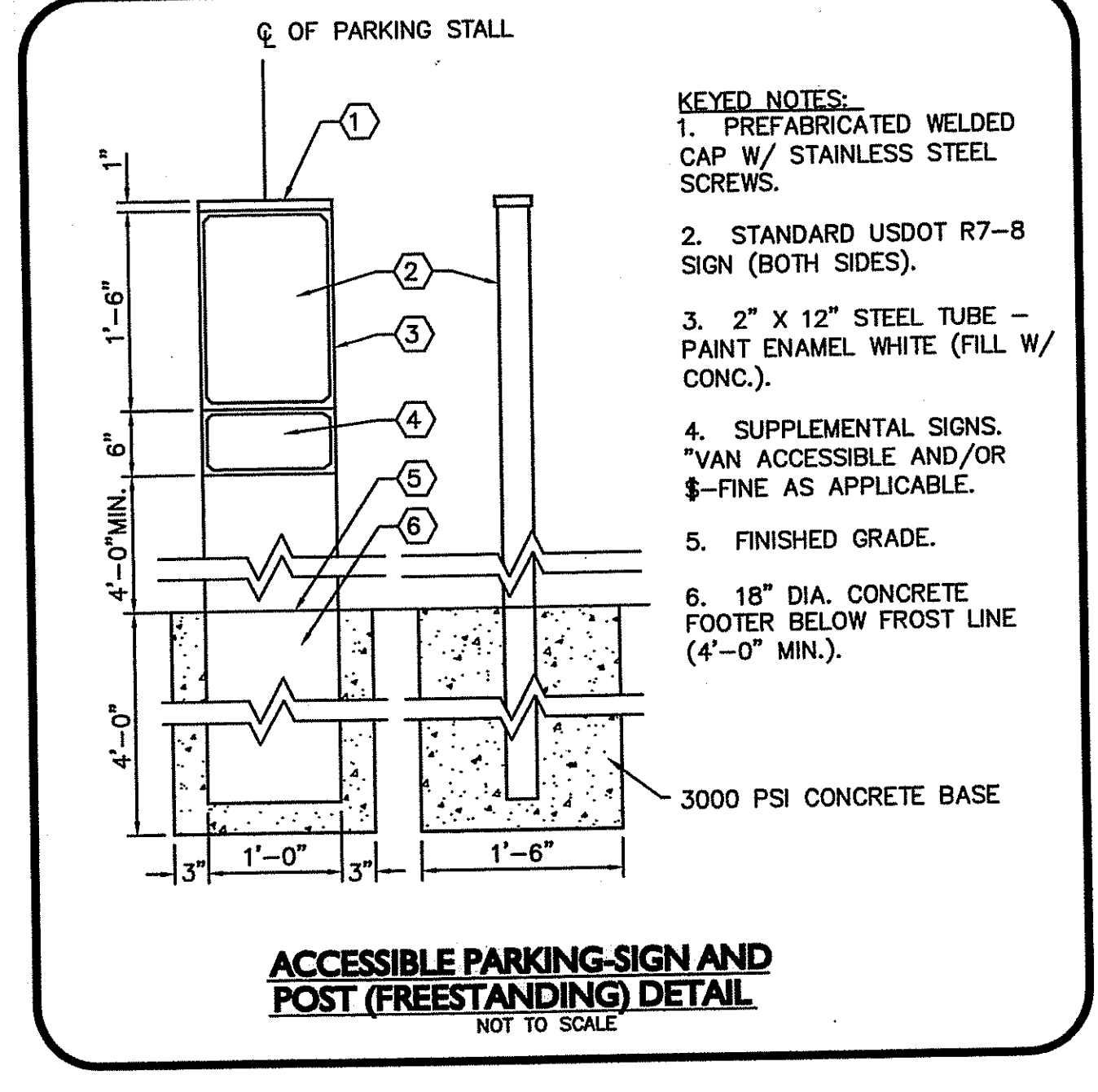
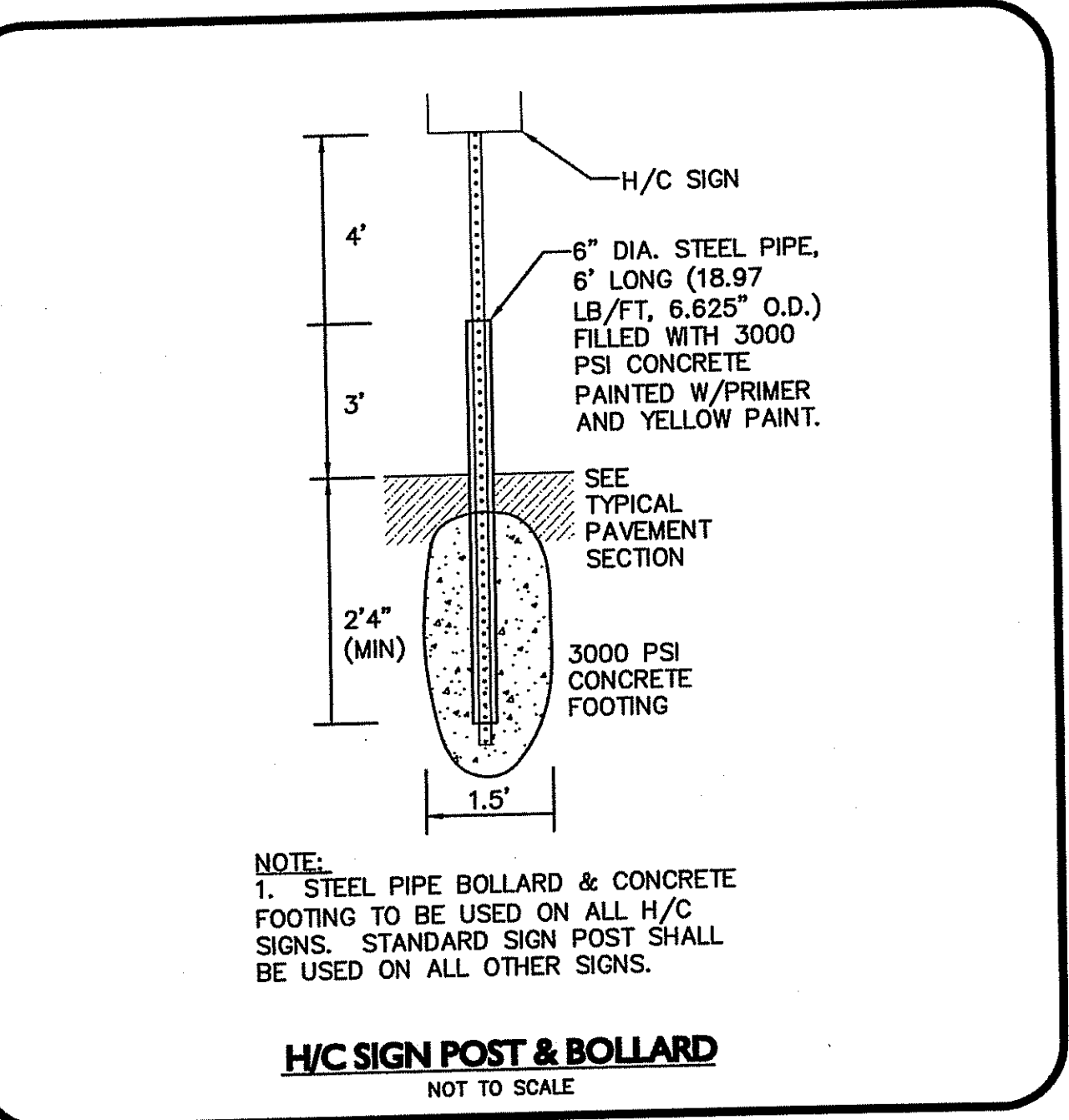
JAMES A. MAJOR
No. 3986
REGISTERED PROFESSIONAL ENGINEER

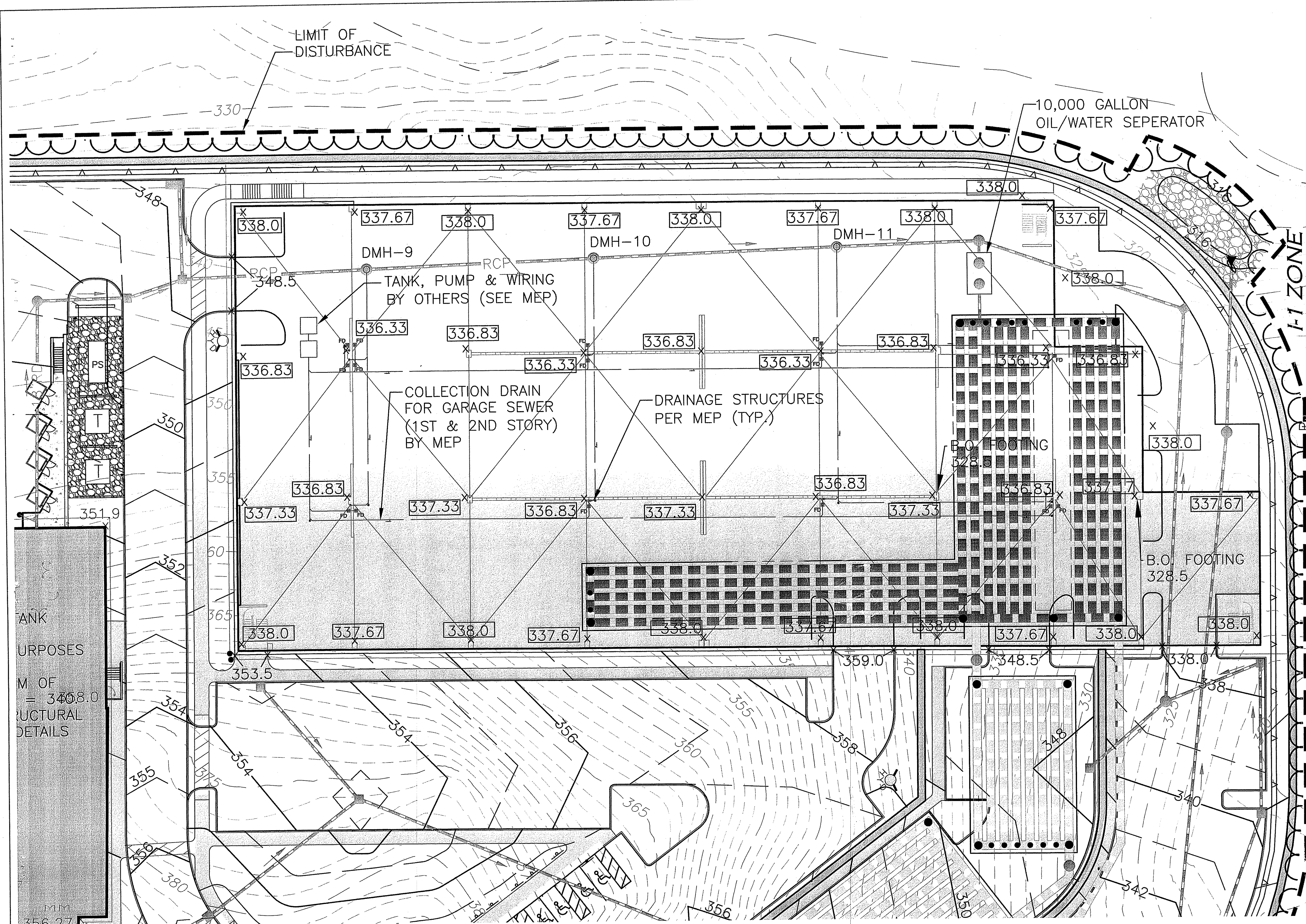
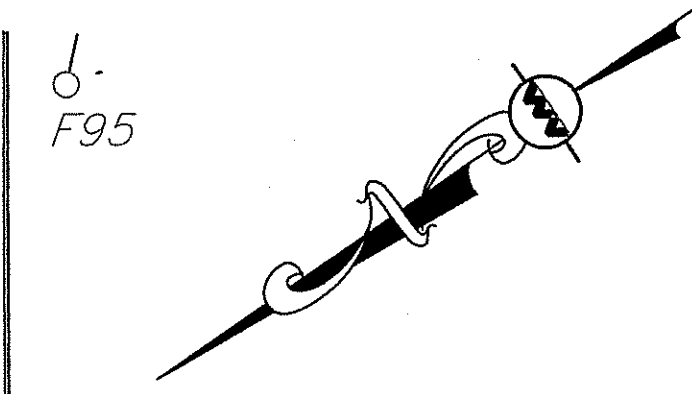
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH EXCEPTIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED DEC 9 2009 FILE # 09-0271
NO CHANGES ALLOWED WITHOUT PRIOR WRITTEN APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Charles A. Barber

Details

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NOTES:

1. GARAGE TO HAVE 7.5 FEET MINIMUM HEIGHT CLEARANCE SEE ARCHITECT DRAWINGS.
2. MATCH FINISH GRADES WITH GARAGE TO MAINTAIN 7.5 FEET MINIMUM HEIGHT CLEARANCE.

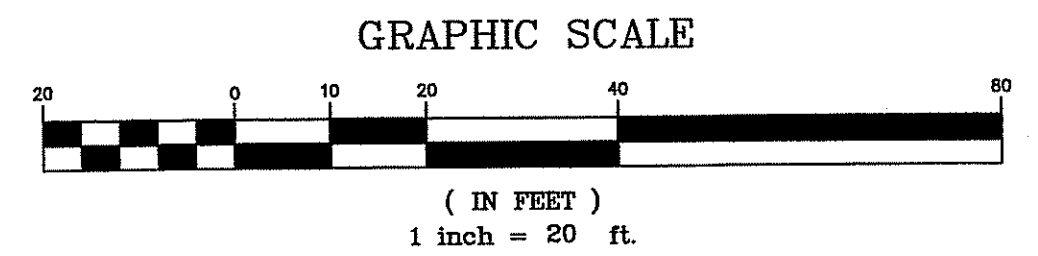
LEGEND:

DRAIN MANHOLE	●
CATCH BASIN	■
CLEAN OUT	• CO
FLARED END SECTION	▲
DRAIN LINE	—
RIPRAP OUTFALL	▨
10' CONTOUR	150
2' CONTOUR	128
SPOT GRADE	x 338.0
GARAGE FIRST FLOOR	x 337.83
SPOT GRADE	x 337.83
DETENTION BASIN	▨
SAW-CUT LINE	- - -
INFILTRATION SYSTEM	▨
INFILTRATION PIPE	▨

NOTE:
DRAINAGE OF THE 3 LEVEL PARKING DECK IS SHOWN FOR COORDINATION PURPOSES ONLY. SEE MEP DRAWINGS FOR TYPE, SLOPE, INVERTS AND SIZE OF PIPE BELOW GRADE AS WELL AS ATTACHMENT TO PARKING GARAGE.
ALLEN & MAJOR'S WORK STARTS AT DMH 9, 10 & 11

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
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Issued for RIDEM Wetlands & UIC

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0	Issued for RIDEM	10/15/09

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Garage Drainage & Coordination Plan

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