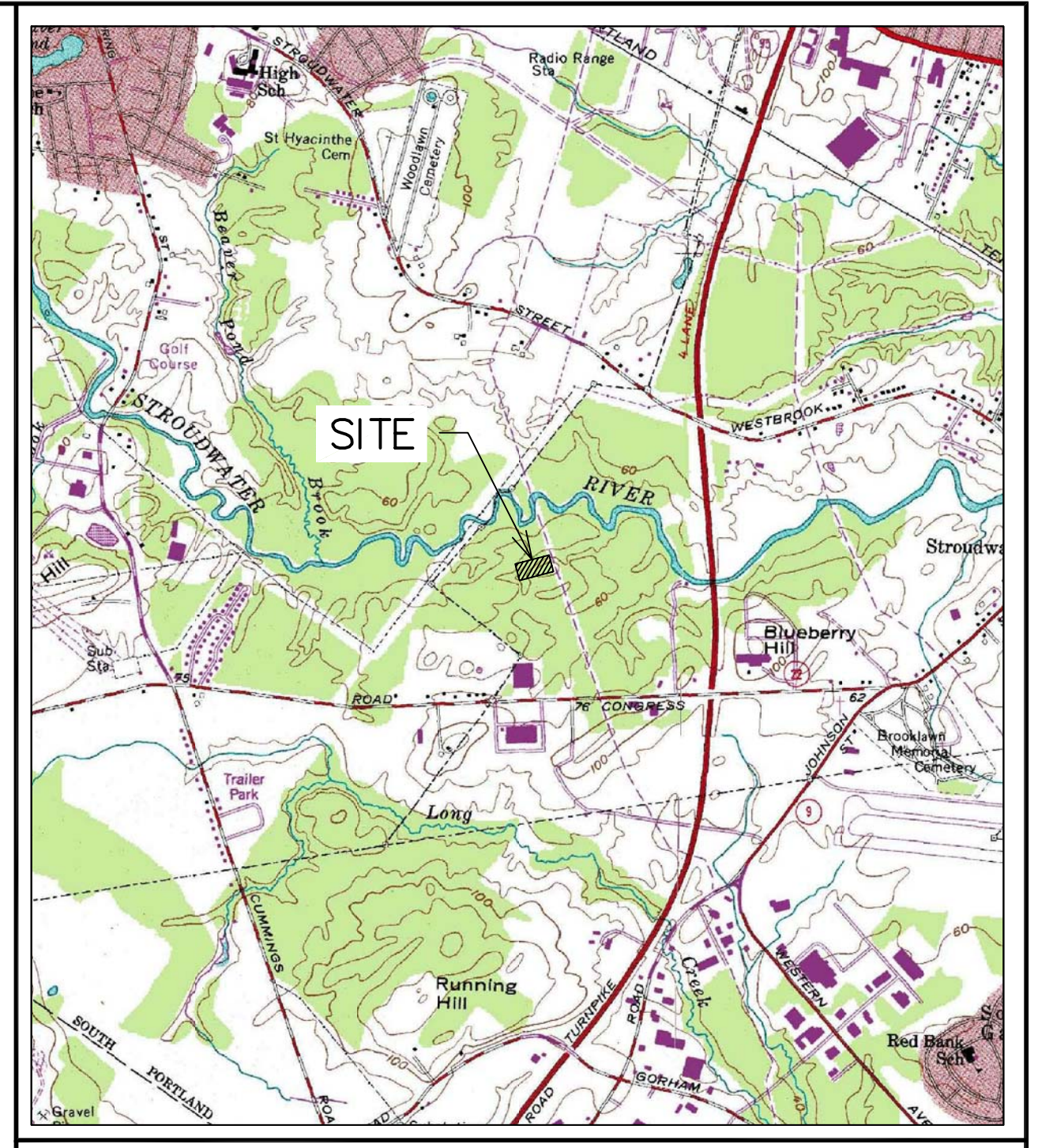


INDEX OF SHEETS

1. SITE
2. GRADING AND UTILITY
3. SITE DETAILS
4. SITE DETAILS
5. SITE DETAILS
6. BOUNDARY SURVEY
7. LIGHTING PLAN

LEGEND

EXISTING CONTOUR	---	XXX
FINAL CONTOUR	---	XXX
WETLAND BOUNDARY	---	UPLAND
UTILITY POLE	EXT. Ⓞ	PRP. Ⓞ
EXT. WATER	---	EW
EXT. SEWER	---	ES
EXT. OVERHEAD UTIL.	---	EOHU
EXT. UNDERGROUND UTIL.	---	EUE
EXISTING EASEMENT	---	
PRP. WATER	---	PW
PRP. SEWER	---	PS
PRP. UTILITY	---	PUE/T/C
PRP. GAS	---	PG
WATER VALVE	⊗	
WATER SHUTOFF	⊕	
SEWER MANHOLE	⊙	
LIGHT POLE	EXT. Ⓢ	PRP. Ⓢ
EROSION CONTROL BERM	---	X
PROPOSED FENCE	---	
EXISTING FENCE	---	
ASPHALT CURB	---	AC
SLOPED GRANITE CURB	---	SGC
VERTICAL GRANITE CURB	---	VGC
EXISTING CURB	---	
FIRE HYDRANT	EXT. Ⓢ	PRP. Ⓢ
LANDSCAPED AREA	---	LA
SPOT GRADE	EXT. X	PRP. X



LOCATION MAP APPROXIMATE SCALE: 1" = 200'

GENERAL NOTES

1. THIS PLAN PROVIDES DETAILS FOR THE APPROVAL AND CONSTRUCTION OF A 7,000 SF INDUSTRIAL BUILDING WITH A SEPARATE 2,400 SF SALT SHED IN PORTLAND, MAINE. THE SITE IS LOCATED AT 144 HUTCHINS DRIVE AND IS IDENTIFIED ON THE CITY OF PORTLAND TAX ASSESSOR'S MAP 240, BLOCK A, LOT 4, AND IS 2.16 ACRES IN AREA WITH 235' OF STREET FRONTAGE ON HUTCHINS DRIVE.
2. THE PROPOSED BUILDING (APPROXIMATELY 7,000 SF FOOTPRINT) SHALL BE A MAINTENANCE FACILITY FOR PHOENIX MANAGEMENT. THE MAIN BUILDING WILL BE USED FOR STORING AND SERVICING EQUIPMENT (PLOW TRUCKS, BACK HOE LOADERS, BOBCATS, TRACTORS, MOWERS, ETC.) FOR THE MAJORITY OF THE YEAR HOURS SHALL BE FROM 5AM TO 9PM. DURING THE WINTER MONTHS THE FACILITY SHALL BE USED TO STORE AND SELL SALT TO LOCAL CUSTOMERS, HOURS OF OPERATION DURING SNOW EVENTS SHALL BE 24 HOURS.
3. THE PARCEL IS LOCATED IN THE INDUSTRIAL-MODERATE IMPACT (IM) DISTRICT. DISTRICT REQUIREMENT ARE AS FOLLOWS:  
MIN LOT SIZE = N/A  
MIN STREET FRONTAGE = 60'  
FRONT YARD (BUILDING HEIGHT) = 20'  
MIN REAR AND SIDE YARD = 25'  
MAX BUILDING HEIGHT = 75'
4. MAXIMUM IMPERVIOUS SURFACE RATIO ALLOWED IS 75% IN THE INDUSTRIAL-MODERATE IMPACT DISTRICT. COVERAGE CALCULATIONS ARE AS FOLLOWS:  
29,158 SF / 94,090 SF = 31.0%
5. BOUNDARY, TOPOGRAPHIC AND WETLAND INFORMATION WAS TAKEN FROM REFERENCE 1 AND FIELD OBSERVATIONS TAKEN BY ATTAR ENGINEERING IN MAY OF 2011.
6. REQUIRED PARKING IS CALCULATED AS FOLLOWS:  
7000 S.F. INDUSTRIAL SPACE:  
(1/1000 S.F.) = 7 SPACES  
TOTAL = 7 SPACES  
14 SPACES ARE PROVIDED, OF WHICH 1 SPACE IS ADA ACCESSIBLE.
7. WATER AND SEWER SERVICE SHALL BE PROVIDED TO THE SITE BY THE PORTLAND WATER DISTRICT. WATER AND SEWER IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH RESPECTIVE DISTRICT REQUIREMENTS.
8. THE CONTRACTOR MUST CONTACT DIG SAFE AND ALL LOCAL UTILITIES PRIOR TO THE START OF CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING SUBSURFACE UTILITIES AND CONDITIONS. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. PROPOSED SIGN SHALL BE SUBJECT TO APPROVAL PURSUANT TO SECTION 14-526 (d) 8.a. (IV) OF THE LAND USE CODE.
10. REPLACEMENT TREES MUST BE LISTED ON THE CITY OF PORTLAND APPROVED NATIVE SPECIES LIST. SEE EXISTING CONDITIONS PLAN FOR TREE SURVEY INFORMATION. STREET TREES MUST MEET ALL STANDARDS SET FORTH IN THE CITY OF PORTLAND TECHNICAL MANUAL SECTION 4.7. THE PLANTING OF ADDITIONAL TREES AND SHRUBS, IF NECESSARY, TO BE DETERMINED BY THE CITY ARBORIST AND PROJECT TEAM AT THE COMPLETION OF THE PROJECT.
11. SEE BUILDING FLOOR PLAN FOR BICYCLE PARKING AREA.

REFERENCES

1. "CONCEPTUAL PLAN - LOT 13" PREPARED CBRE/ THE BOULOS COMPANY BY TITCOMB ASSOCIATES. DATED 1/05/2011.
2. "STROUDWATER ESTATES" PREPARED BY H. I. & E. C. JORDAN - SURVEYORS. DATED 10 SEPTEMBER 1984. RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 144, PAGE 73.

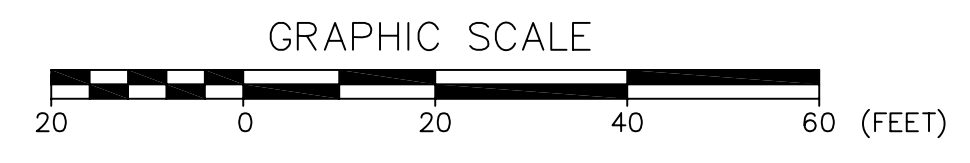
APPLICANT: PHOENIX MANAGEMENT OWNER OF RECORD: MAINE ALPHA FLOOR SANDING  
 PO BOX 579 23 RABBIT RUN  
 SACO, ME 04072-5118 PORTLAND, ME 04102-2275

SITE PLAN  
 144 HUTCHINS DRIVE  
 HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES  
 PO BOX 759  
 SACO, ME 04072-5118  
**ATTAR ENGINEERING, INC.**  
 CIVIL • STRUCTURAL • MARINE  
 1284 STATE ROAD - ELIOT, MAINE 03903  
 PHONE: (207)439-6023 FAX: (207)439-2128



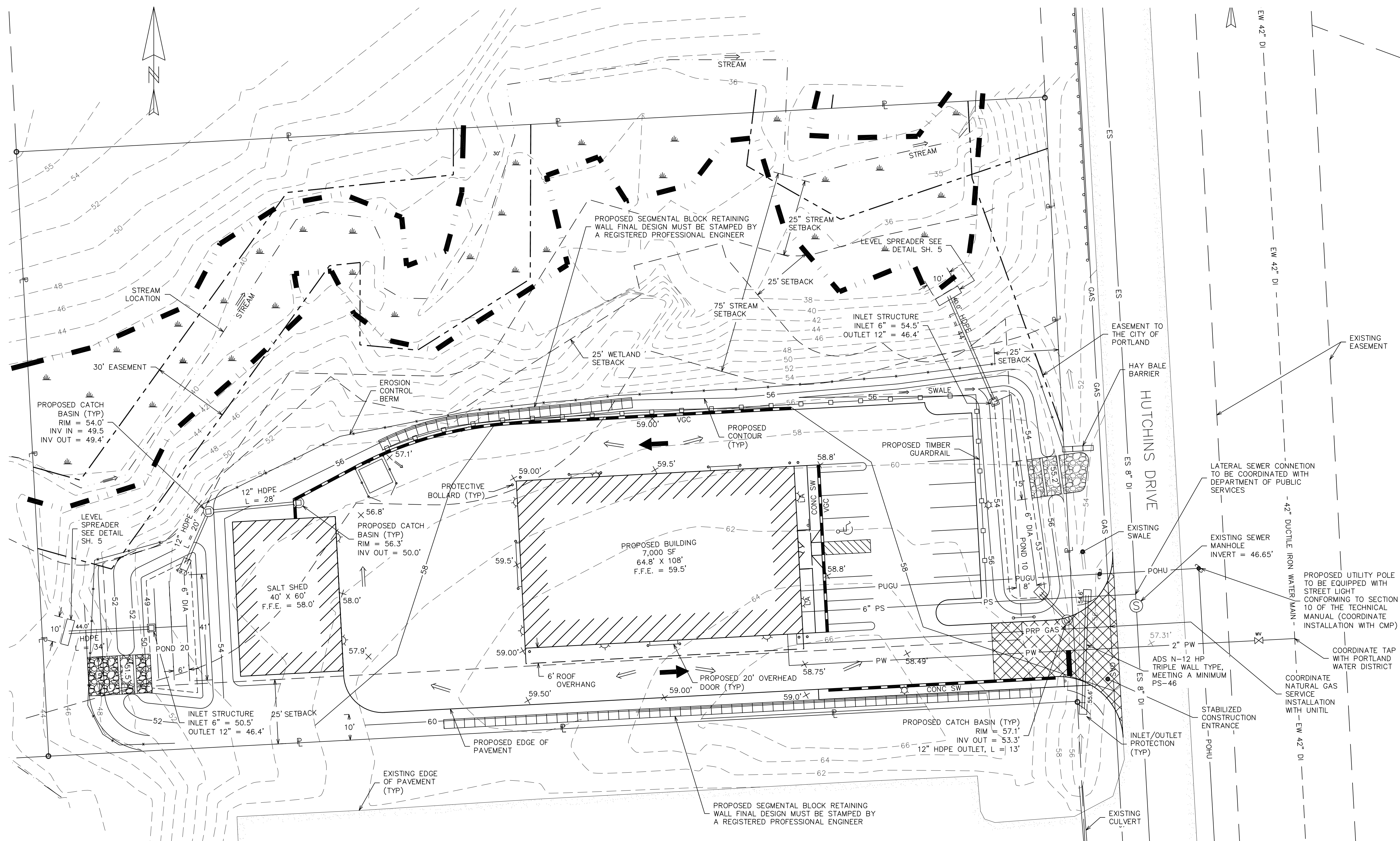
NO.	DESCRIPTION	DATE
C.	REVIEW COMMENTS	10/17/11
B.	REVIEW COMMENTS	09/16/11
A.	REVIEW COMMENTS	08/03/11
NO.	REVISIONS	



STATE OF MAINE  
 CUMBERLAND COUNTY ss. REGISTRY OF DEEDS  
 RECEIVED \_\_\_\_\_ 20\_\_\_\_  
 AT \_\_\_\_\_ h. \_\_\_\_\_ m. \_\_\_\_\_ AND RECORDED IN  
 PLAN BOOK \_\_\_\_\_ PAGE \_\_\_\_\_  
 ATTEST \_\_\_\_\_ REGISTER

SCALE: 1" = 20'	APPROVED BY:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE C : 10/17/11
JOB NO: C010-11	CAD FILE: HUTCHINS SITE	SHEET 1 OF 7





LEGEND	
EXISTING CONTOUR	--- XXX ---
FINAL CONTOUR	--- XXX ---
WETLAND BOUNDARY	WETLAND UPLAND
UTILITY POLE	EXT.  PRP.
EXT. WATER	--- EW ---
EXT. SEWER	--- ES ---
EXT. OVERHEAD UTIL.	--- EOHU ---
EXT. UNDERGROUND UTIL.	--- EUE ---
EXISTING EASEMENT	---
PRP. WATER	--- PW ---
PRP. SEWER	--- PS ---
PRP. UTILITY	--- PUE/T/C ---
PRP. GAS	--- PG ---
WATER VALVE	
WATER SHUTOFF	
SEWER MANHOLE	
LIGHT POLE	EXT.  PRP.
EROSION CONTROL BERM	
PROPOSED FENCE	
EXISTING FENCE	
ASPHALT CURB	--- AC ---
SLOPED GRANITE CURB	--- SGC ---
VERTICAL GRANITE CURB	--- VGC ---
EXISTING CURB	---
FIRE HYDRANT	EXT.  PRP.
LANDSCAPED AREA	LA
SPOT GRADE	EXT. $\times 57.31'$ PRP. $\times 57.31'$

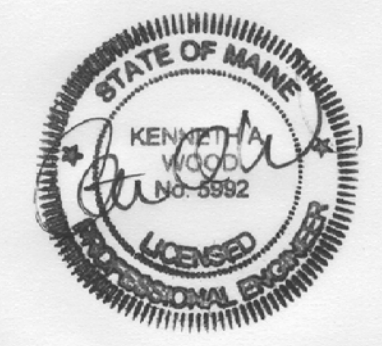
**GENERAL NOTES**

- EXISTING TOPOGRAPHY WAS TAKEN FROM REFERENCE 1.
- ALL SEWER LINES TO BE 6" PVC (SDR 35).
- ALL STORM DRAINS SHALL BE ADS N-12 (HDPE) OR APPROVED EQUAL. PROPER TRENCHING AND BACKFILLING ARE VITAL TO THE LONG TERM PERFORMANCE AND DURABILITY OF HDPE CULVERT INSTALLATIONS. SEE HDPE CULVERT TRENCH DETAIL.
- CATCH BASINS AND DRAINAGE STRUCTURES SHALL BE CLEANED BY CONTRACTOR AFTER CONSTRUCTION.
- ALL WATER SERVICES SHALL BE (TYPE K) COPPER WITHIN THE RIGHT OF WAY AND EITHER COPPER OR A MATERIAL SUITABLE TO THE PORTLAND WATER DISTRICT ON THE PROPERTY. ALL OTHER VALVES, FITTINGS AND CONNECTIONS SHALL MEET CURRENT PORTLAND WATER DISTRICT STANDARDS.
- A MINIMUM OF 5.0' OF COVER SHALL BE MAINTAINED OVER ALL WATER LINES.
- PROPOSED UTILITIES ARE APPROXIMATELY LOCATED. CENTRAL MAINE POWER WILL PREPARE THE ELECTRICAL PLAN FOR CONSTRUCTION.

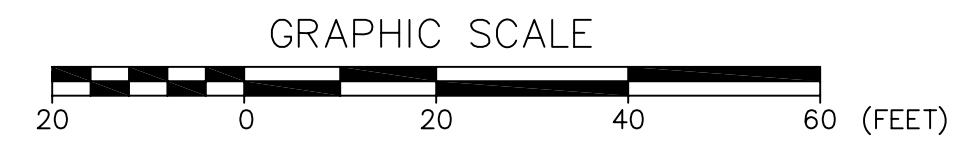
**GRADING AND UTILITY PLAN  
144 HUTCHINS DRIVE  
HUTCHINS DRIVE PORTLAND, MAINE**

FOR: PHOENIX PROPERTY SERVICES  
PO BOX 759  
SACO, ME 04072-5118

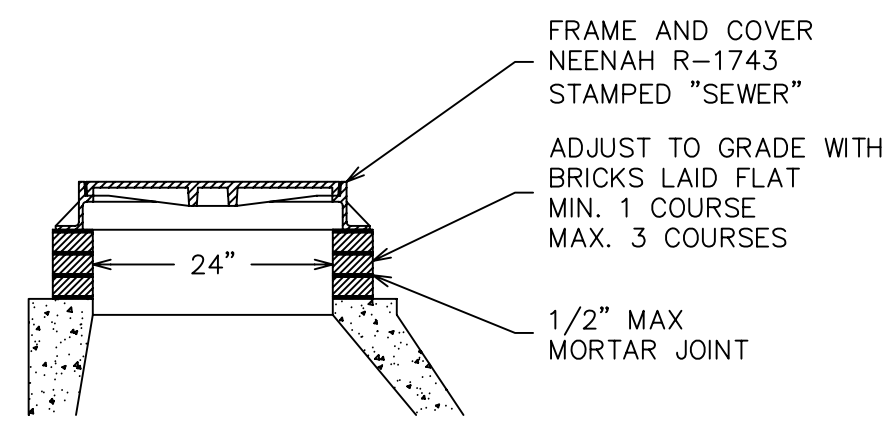
**ATTAR ENGINEERING, INC.**  
CIVIL • STRUCTURAL • MARINE  
1284 STATE ROAD - ELIOT, MAINE 03903  
PHONE: (207)439-6023 FAX: (207)439-2128



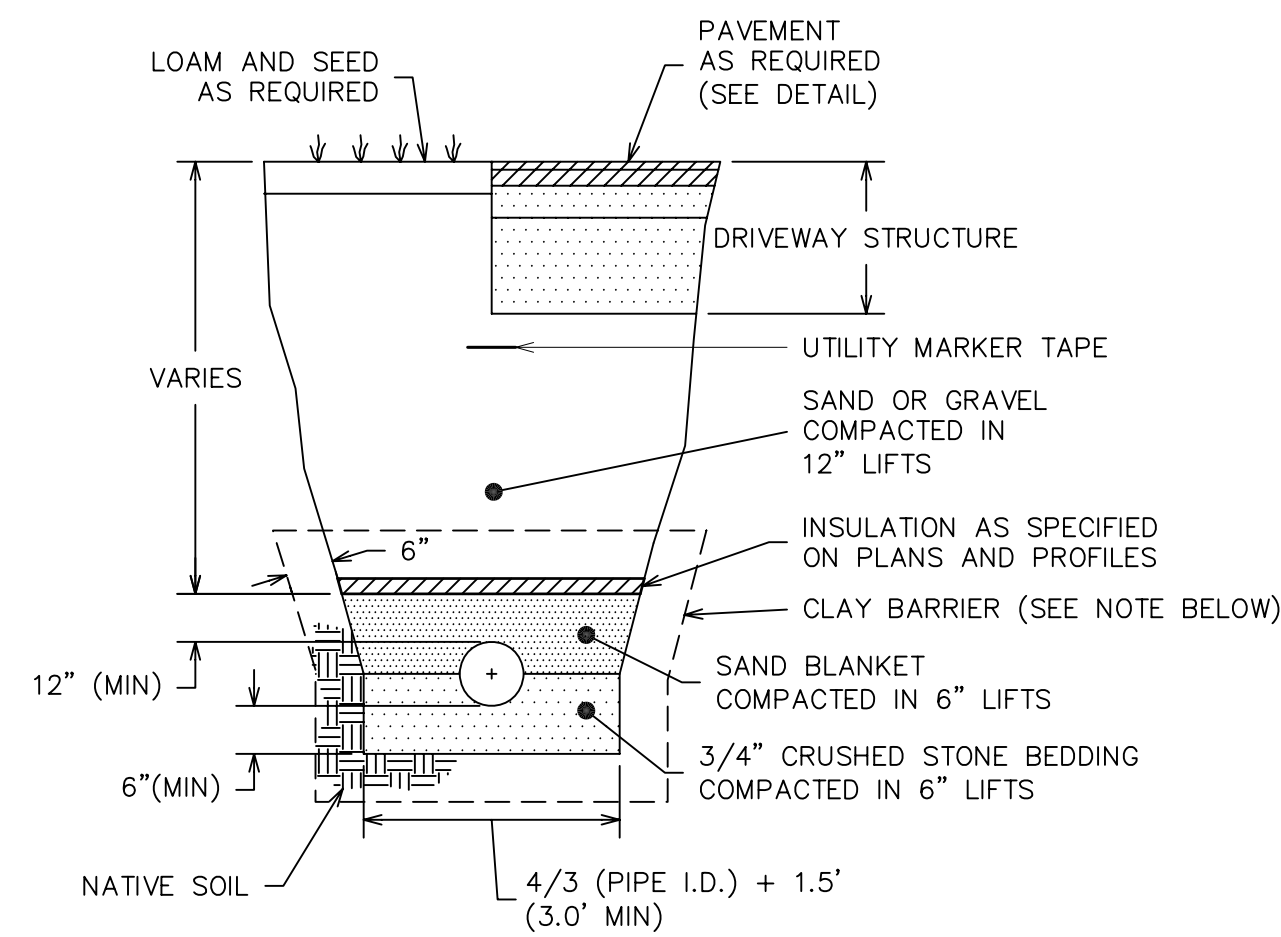
SCALE: 1" = 20'	APPROVED BY:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE B : 09/16/11
JOB NO: C010-11	CAD FILE: HUTCHINS GRAD	SHEET 2 OF 7



NO.	REVISIONS	DESCRIPTION	DATE
B.	REVIEW COMMENTS		09/16/11
A.	REVIEW COMMENTS		08/03/11

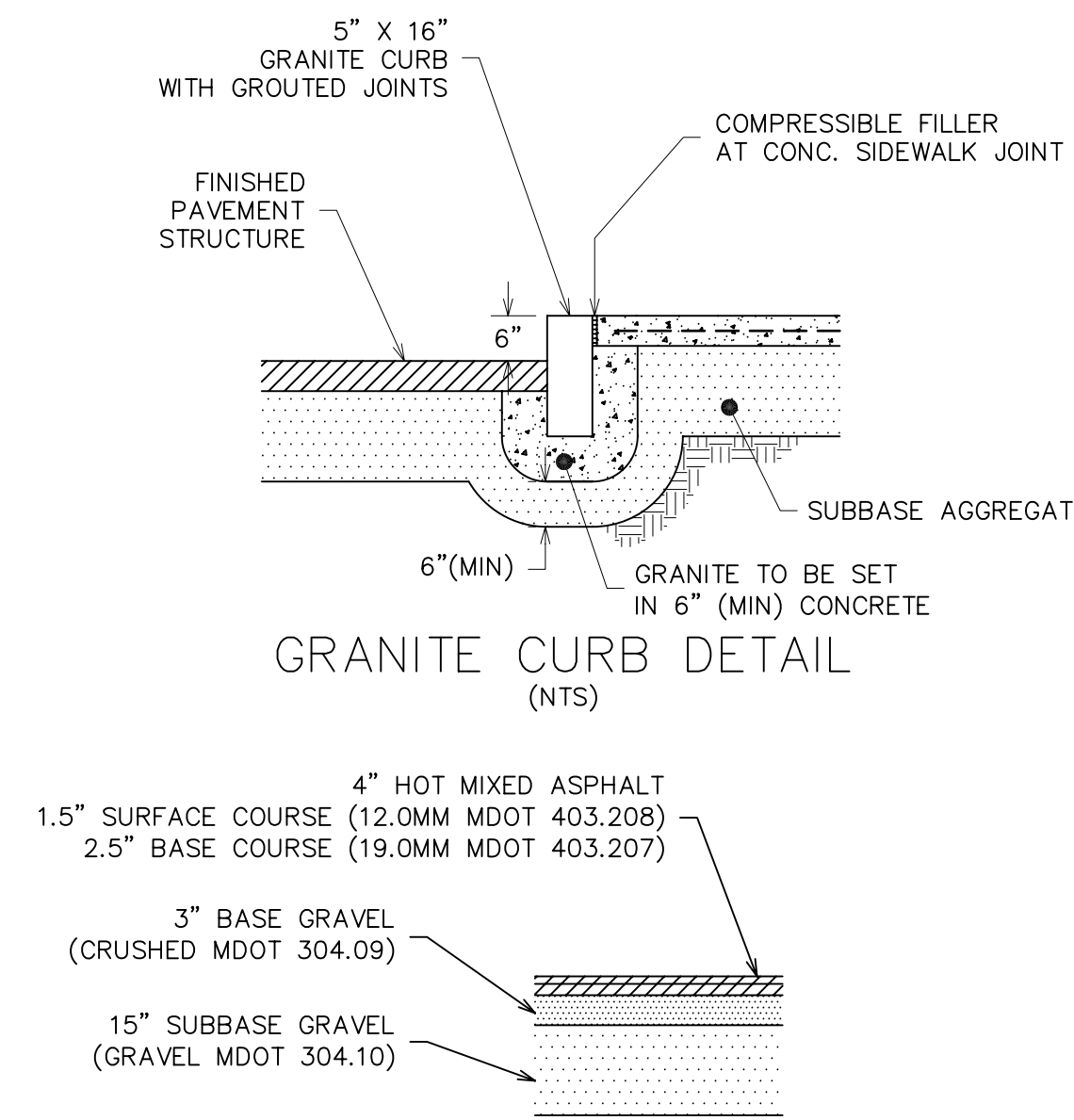


**STANDARD COVER AND FRAME**  
SCALE: NTS

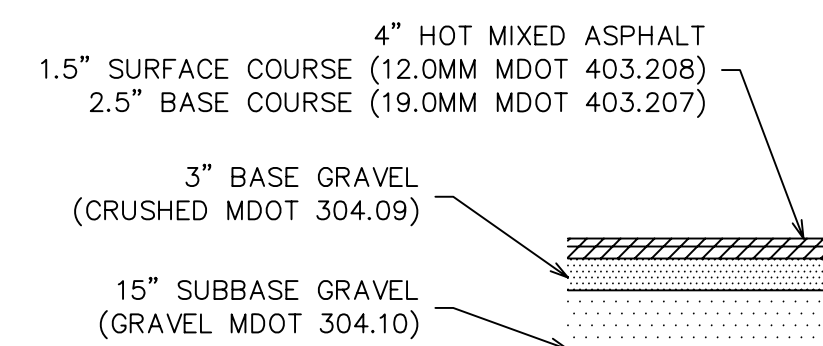


**SEWER PIPE TRENCH DETAIL**  
SCALE: NTS

TRENCH TO BE SUPPORTED BY SLOPING BACK AT 2:1 OR OTHER ACCEPTABLE METHOD.  
CLAY BARRIERS (12" THICK, APPROX. 100' INTERVALS) ALONG THE PIPE BEDDING SHALL BE INSTALLED IN AREAS OF HIGH GROUNDWATER OR AS DIRECTED BY THE INSPECTING ENGINEER.

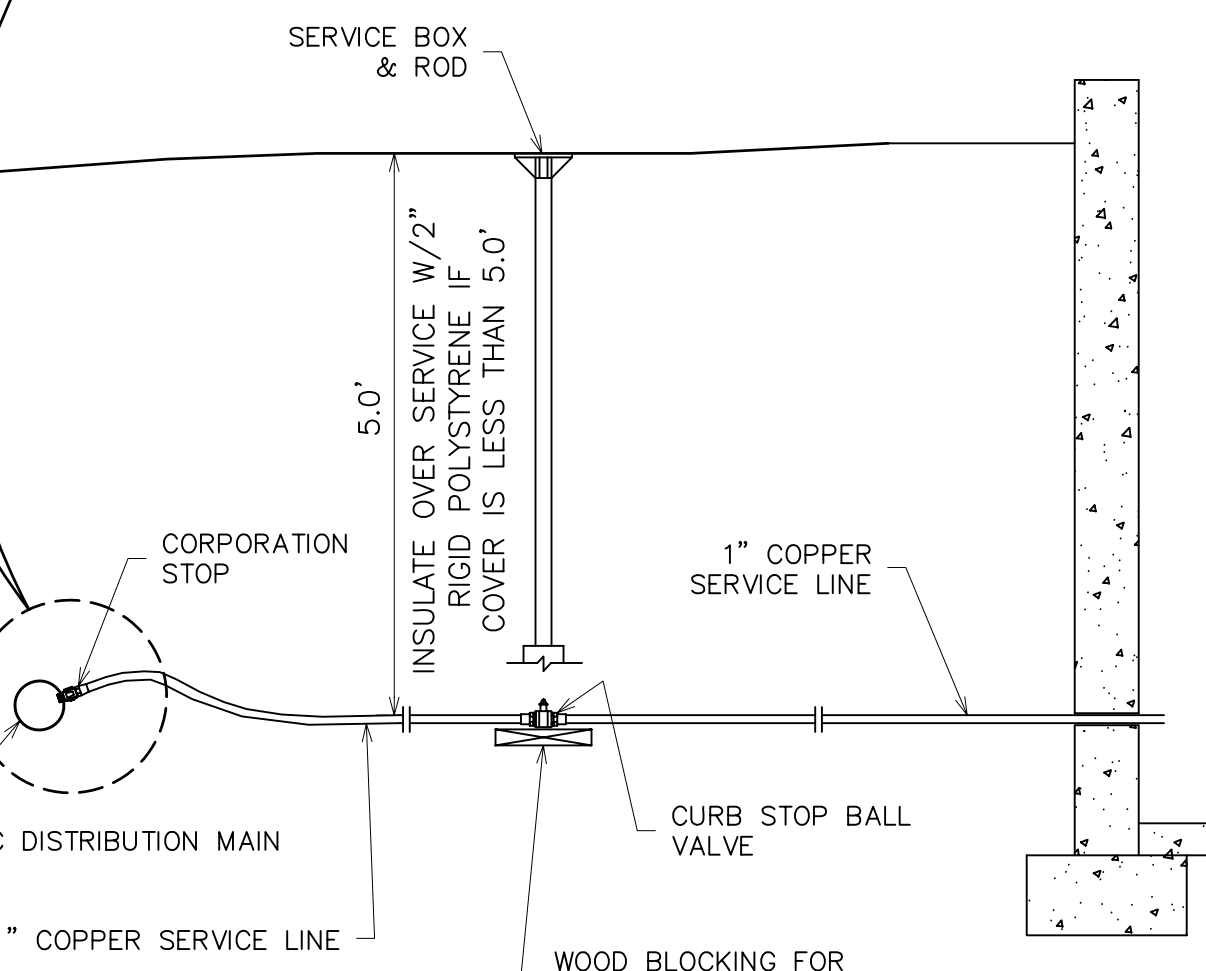
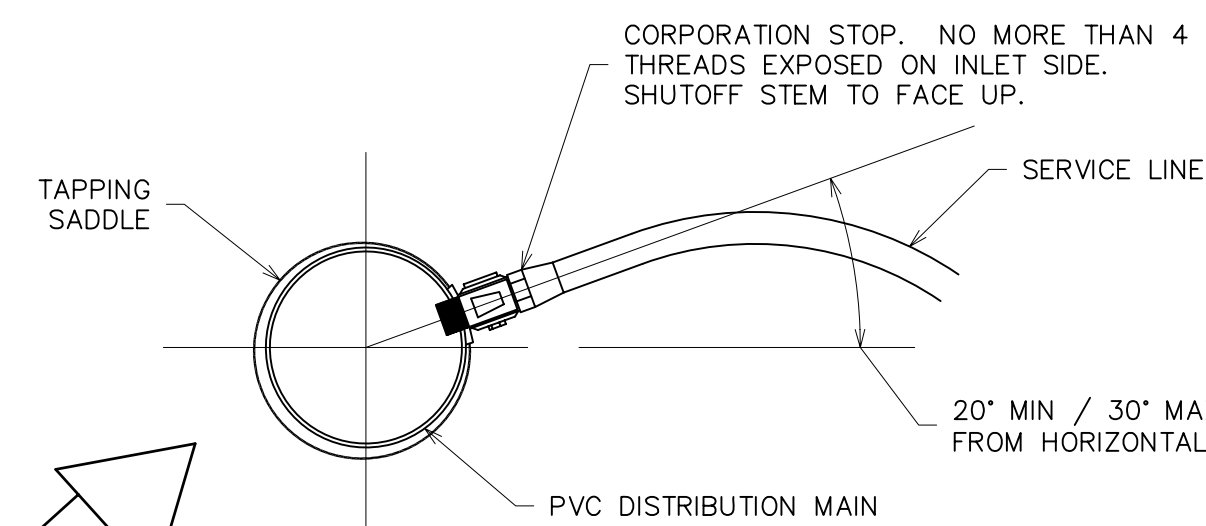


**GRANITE CURB DETAIL**  
(NTS)



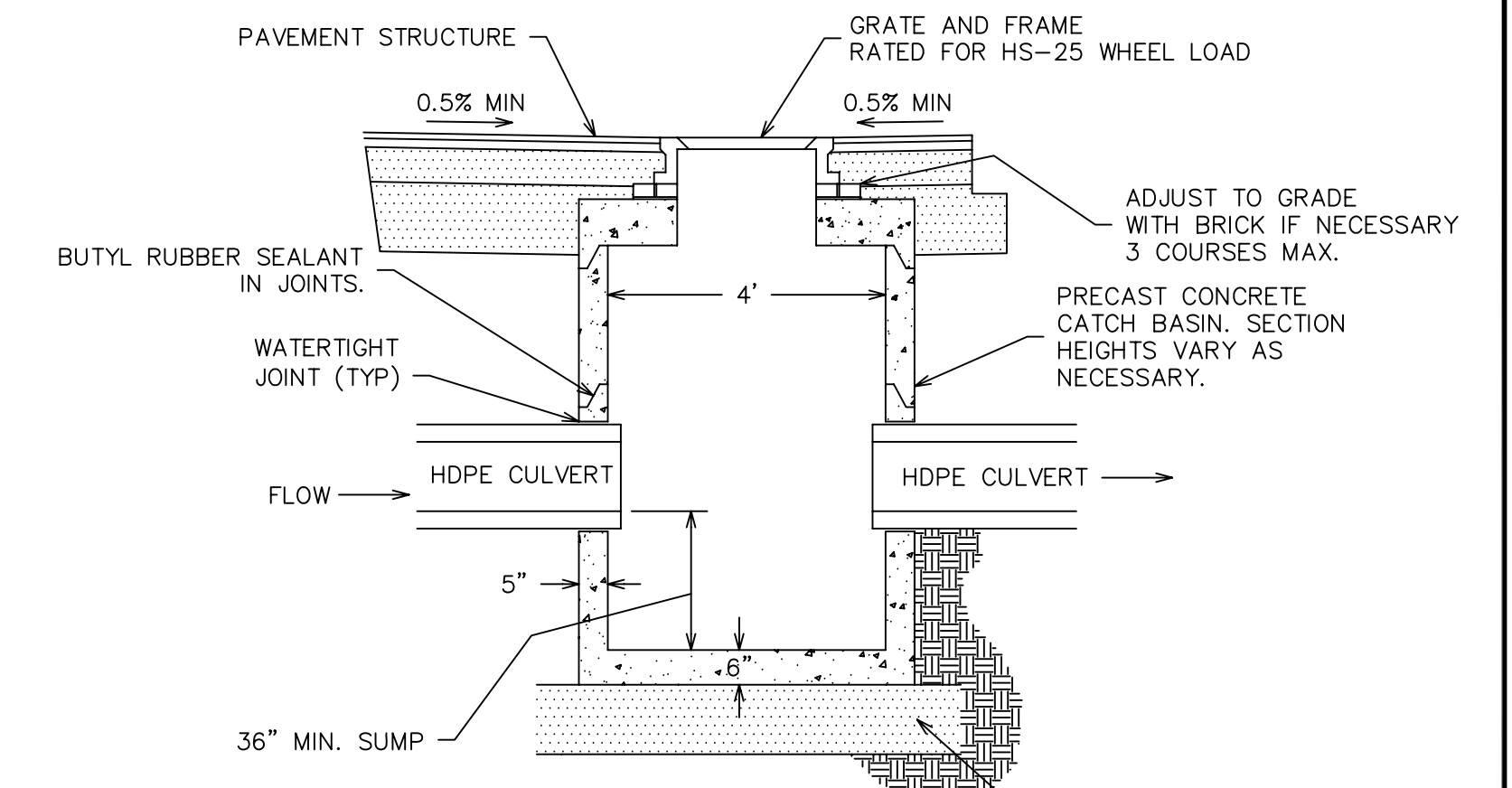
**PAVEMENT CROSS-SECTION ROADS AND DRIVEWAYS**  
(NTS)

GRAVEL FILL TO BE COMPACTED TO 95% MODIFIED PROCTOR



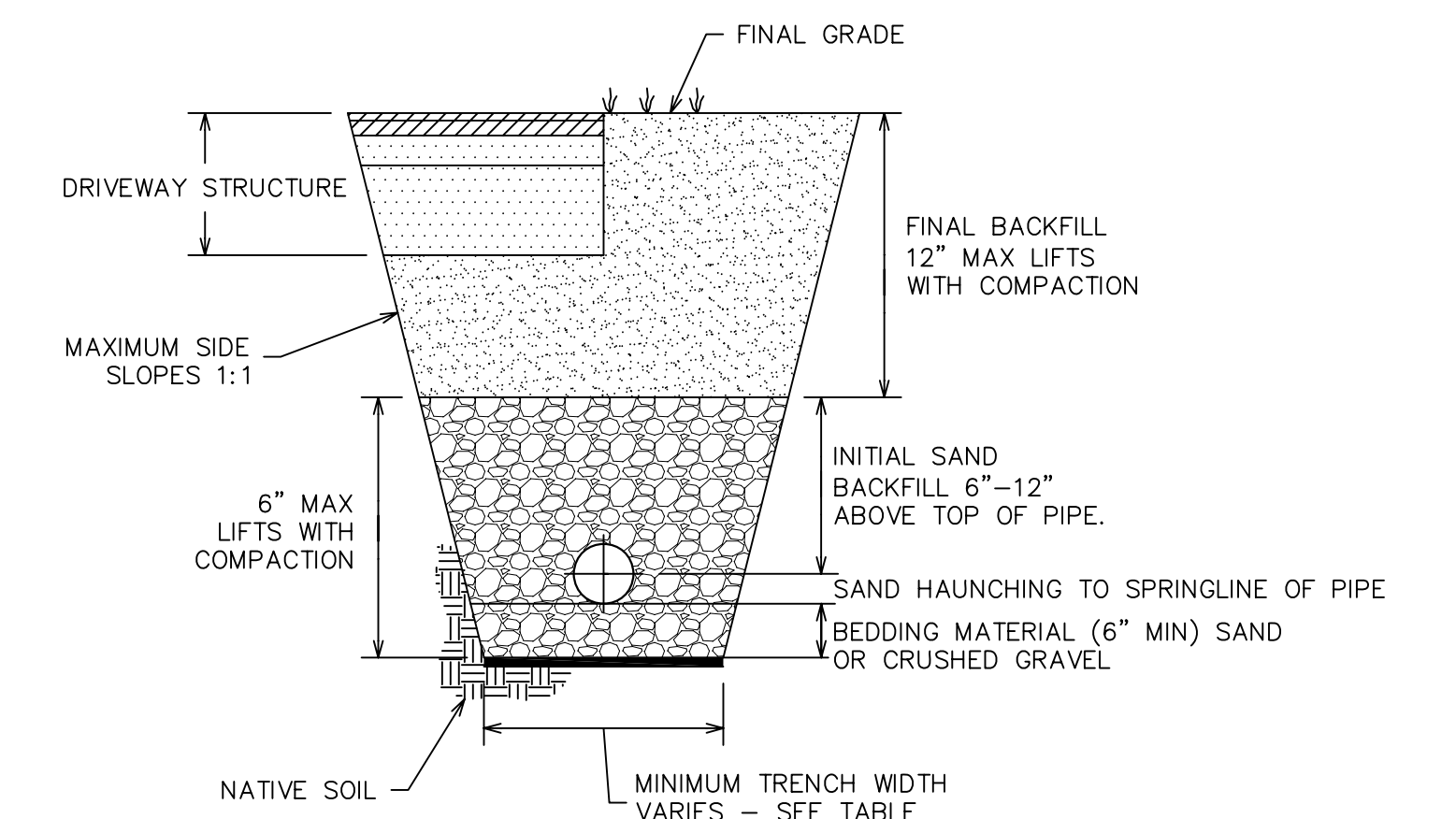
**WATER SERVICE DETAIL**  
(NTS)

CONTRACTOR TO COORDINATE WITH WATER DISTRICT ON LOCATION OF CURB STOPS



**TYPICAL CATCH BASIN**  
(NTS)

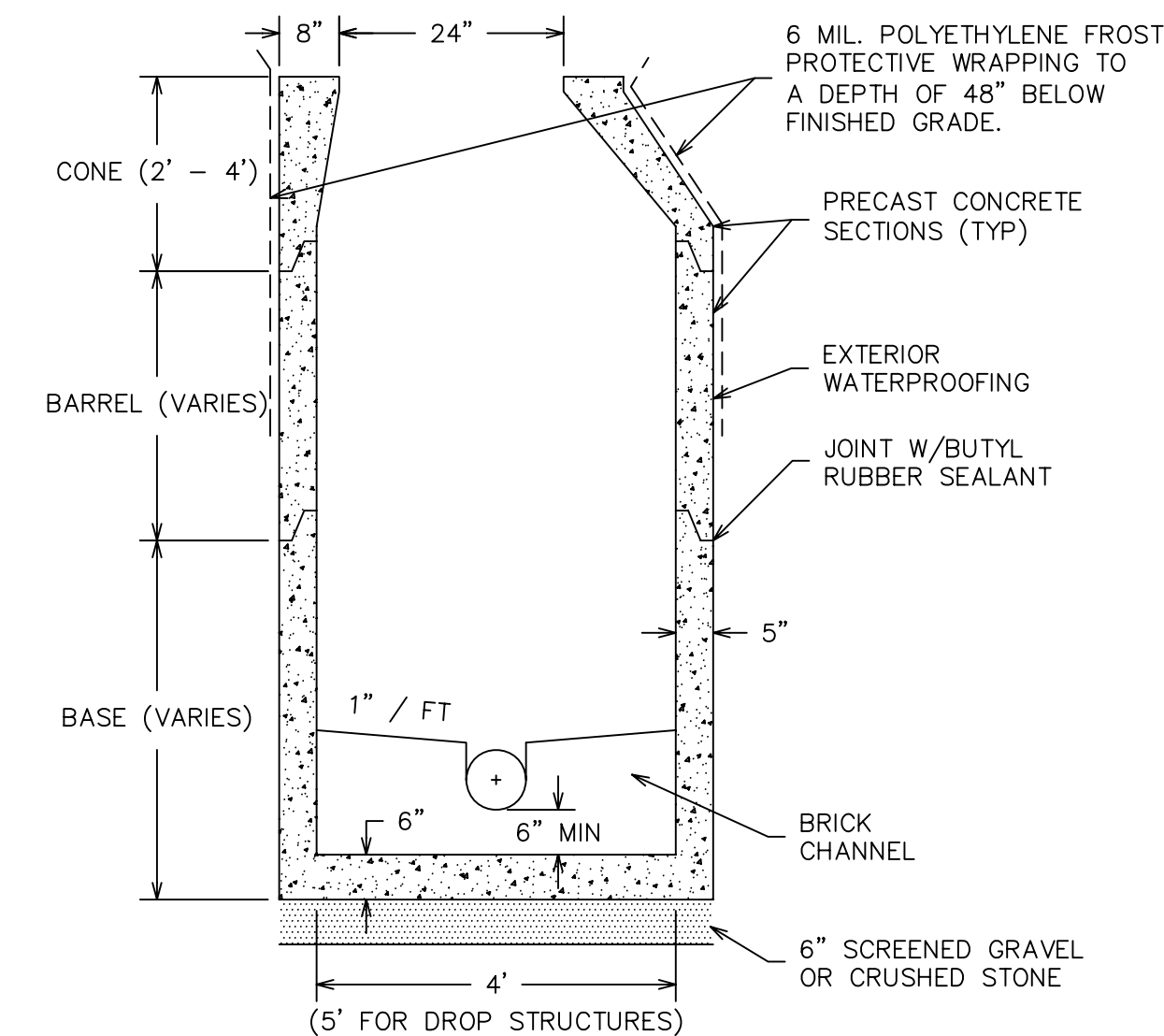
CATCH BASINS ARE TO BE PRECAST CONCRETE CONSTRUCTION MEETING THE REQUIREMENTS OF ASTM DESIGNATION C478 OR PRECAST CONCRETE MANHOLE BLOCK CONSTRUCTION MEETING THE REQUIREMENTS OF ASTM C139. RADIAL TYPE. METAL FRAMES AND TRAPS MUST BE SET IN A FULL MORTAR BED WITH TOPS TO CONFORM TO THE AASHTO REQUIREMENTS.



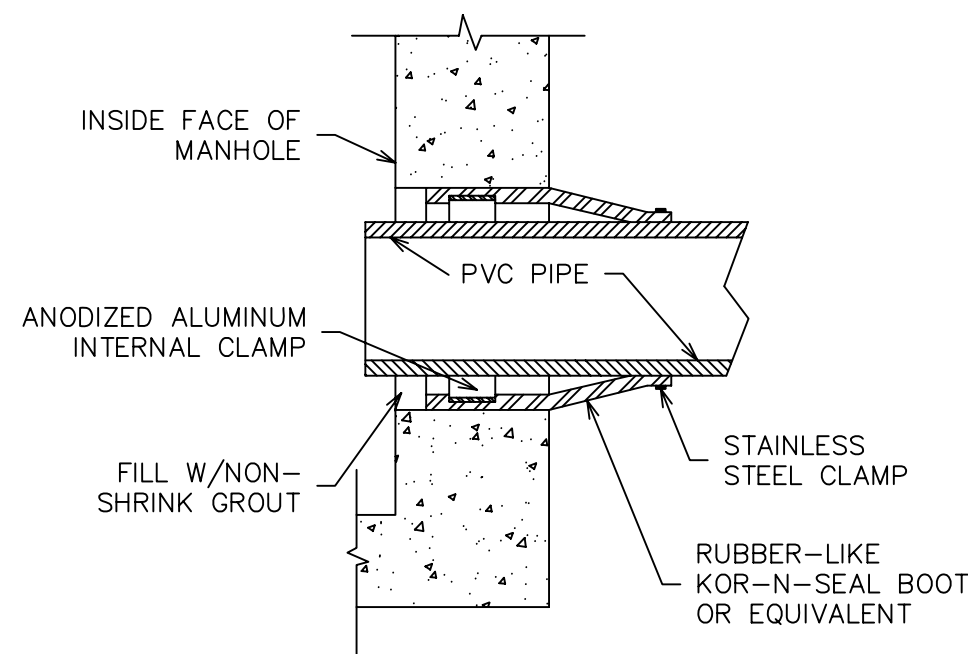
**HDPE CULVERT TRENCH DETAIL**  
(NTS)

TRENCH TO BE SUPPORTED BY SLOPING BACK AT 2:1 OR OTHER ACCEPTABLE METHOD.

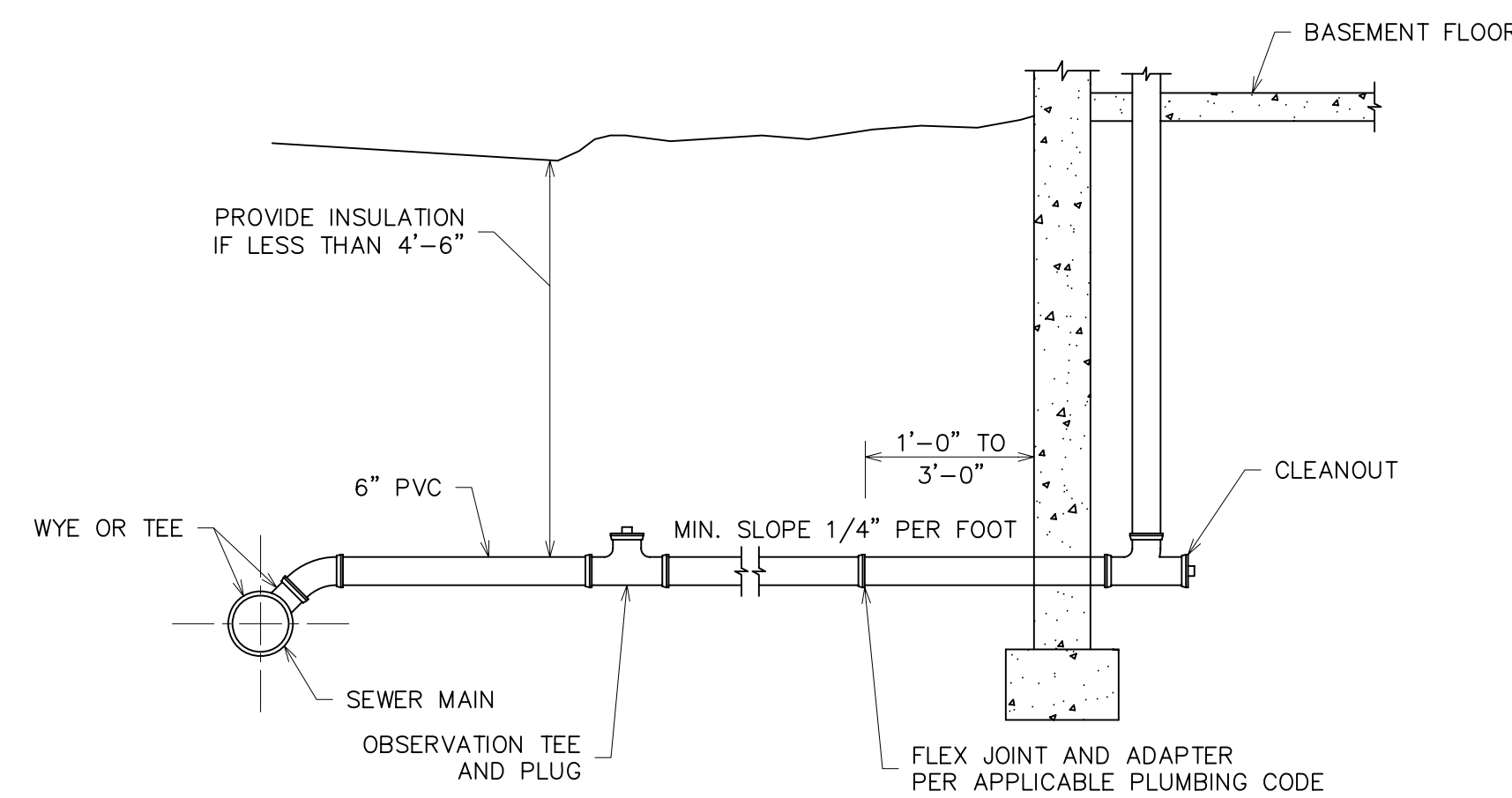
NOMINAL DIAMETER (IN)	MIN. TRENCH WIDTH (IN)
4	21
6	23
8	25
10	28
12	31
15	34
18	39
24	48
30	66
36	78
42	83
48	89
60	102



**TYPICAL SANITARY MANHOLE**  
SCALE: NTS

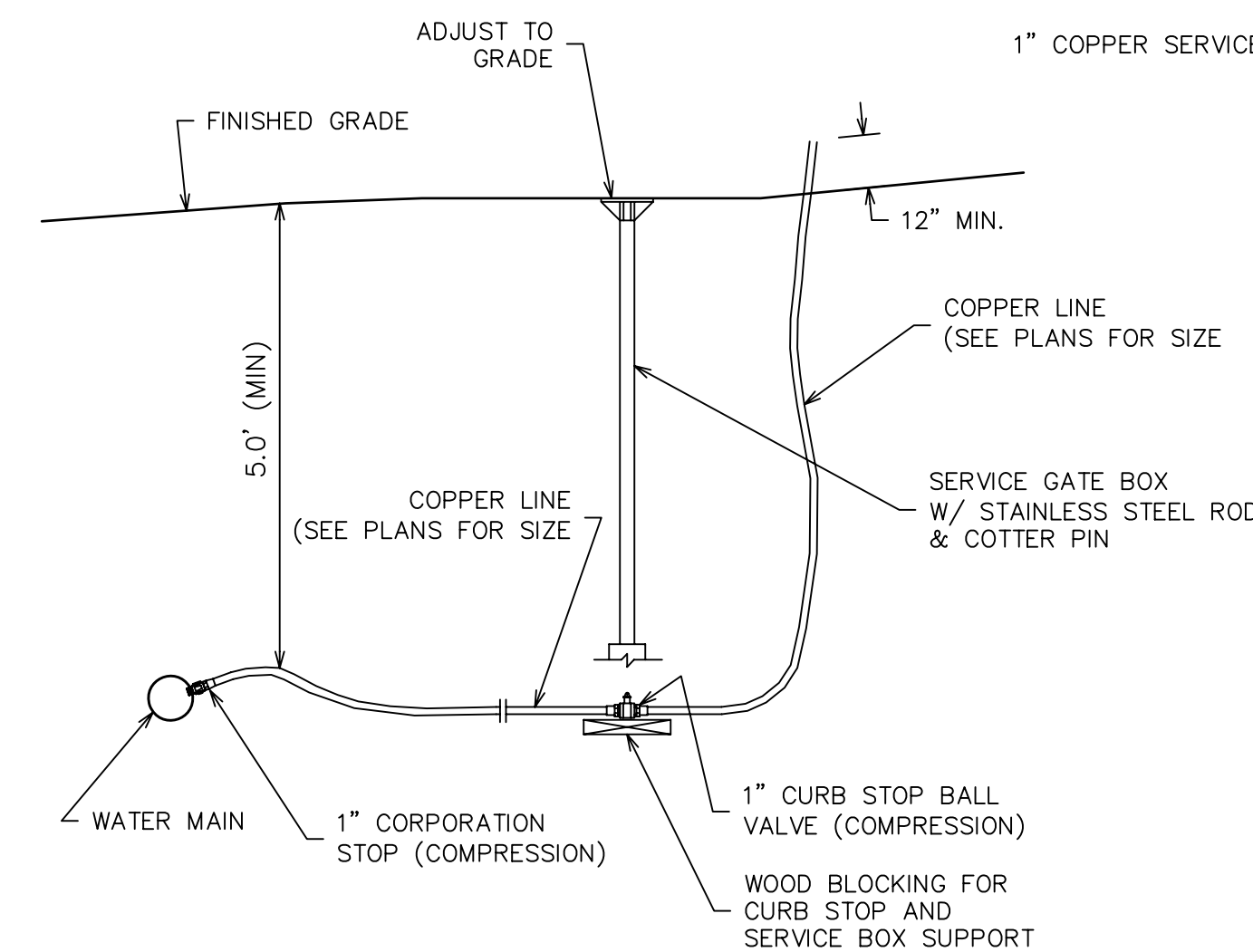


**TYPICAL BOOT GASKET**  
SCALE: NTS

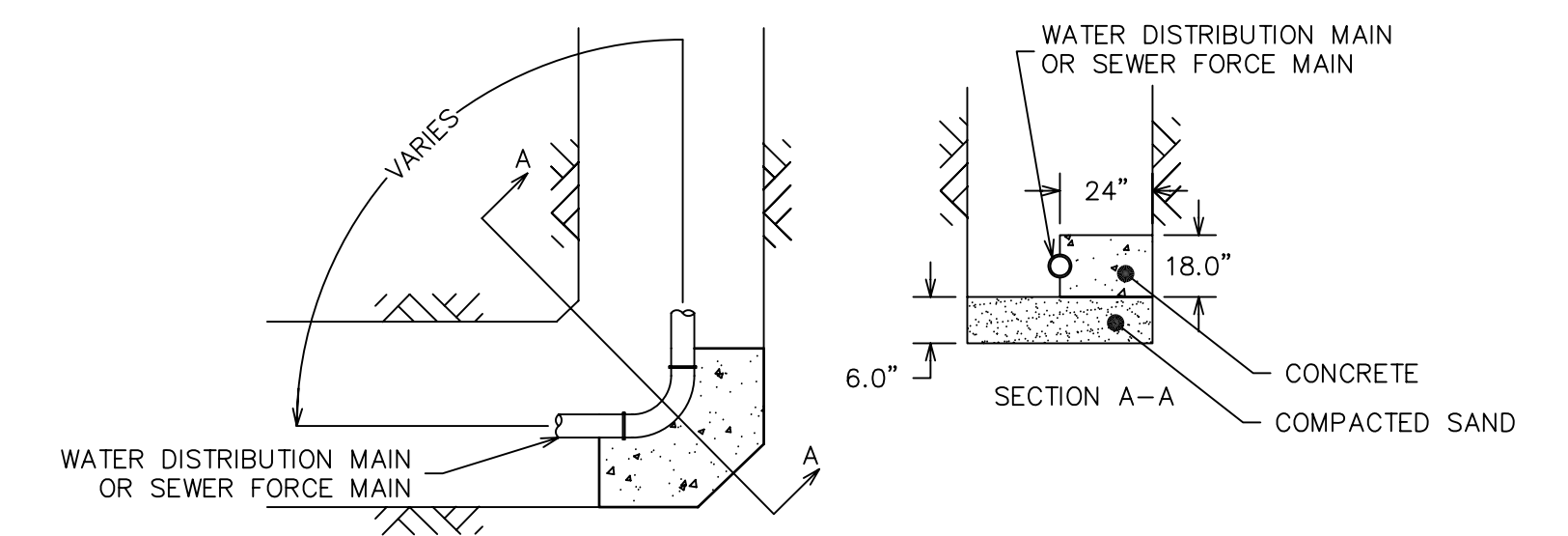


**TYPICAL SERVICE CONNECTION AND LATERAL DETAIL**  
SCALE: NTS

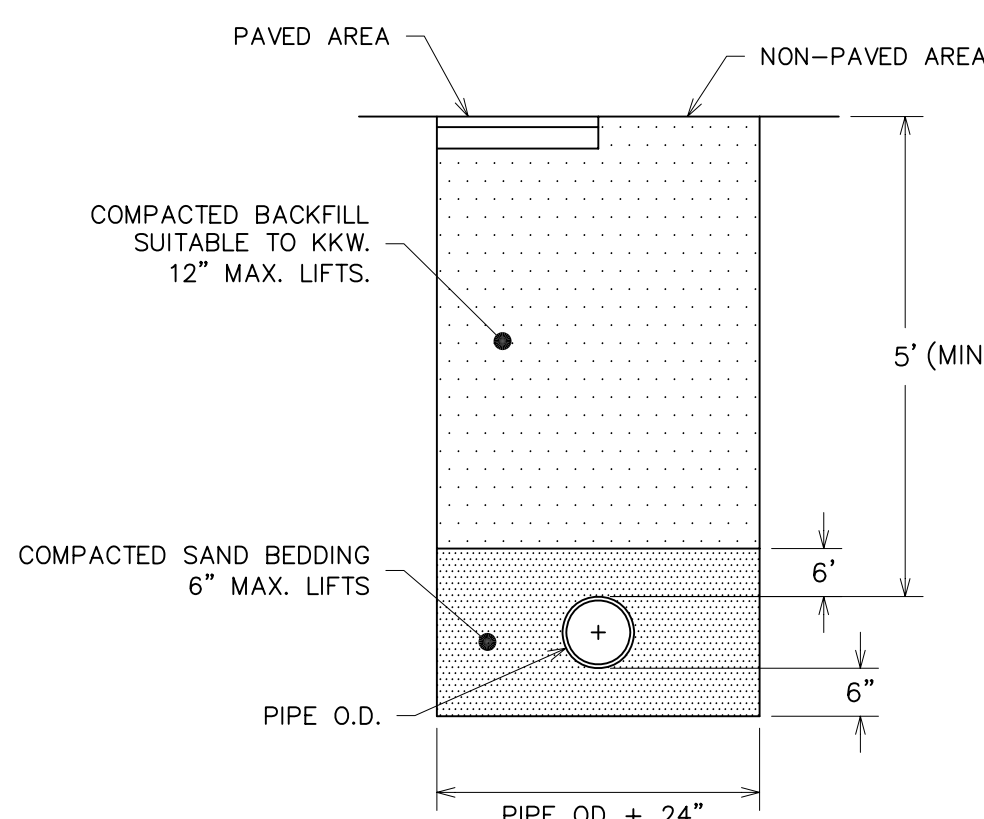
NOTE: SEWER MAY BE LOCATED BENEATH BASEMENT FLOOR



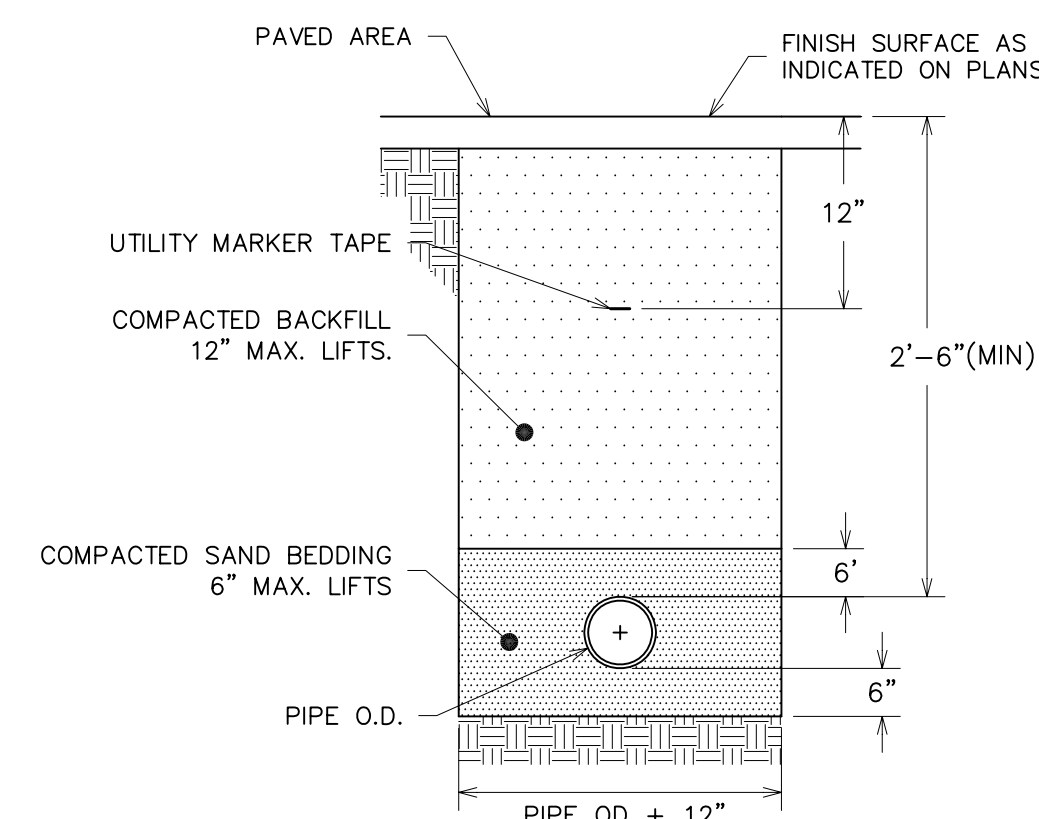
**WATER BLOWOFF ASSEMBLY DETAIL**  
(NTS)



**THRUST BLOCK DETAIL**  
(NTS)



**WATER LINE TRENCH DETAIL**  
(NTS)



**UTILITY CONDUIT TRENCH DETAIL**  
(NTS)

**SITE DETAILS**  
144 HUTCHINS DRIVE  
HUTCHINS DRIVE PORTLAND, MAINE

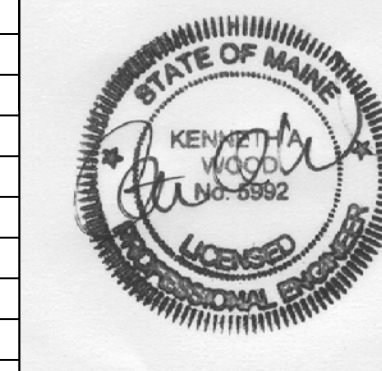
FOR: PHOENIX PROPERTY SERVICES  
PO BOX 759  
SACO, ME 04072-5118

**ATTAR ENGINEERING, INC.**  
CIVIL • STRUCTURAL • MARINE  
128 STATE ROAD - ELIOT, MAINE 03903  
PHONE: (207)439-6023 FAX: (207)439-2128

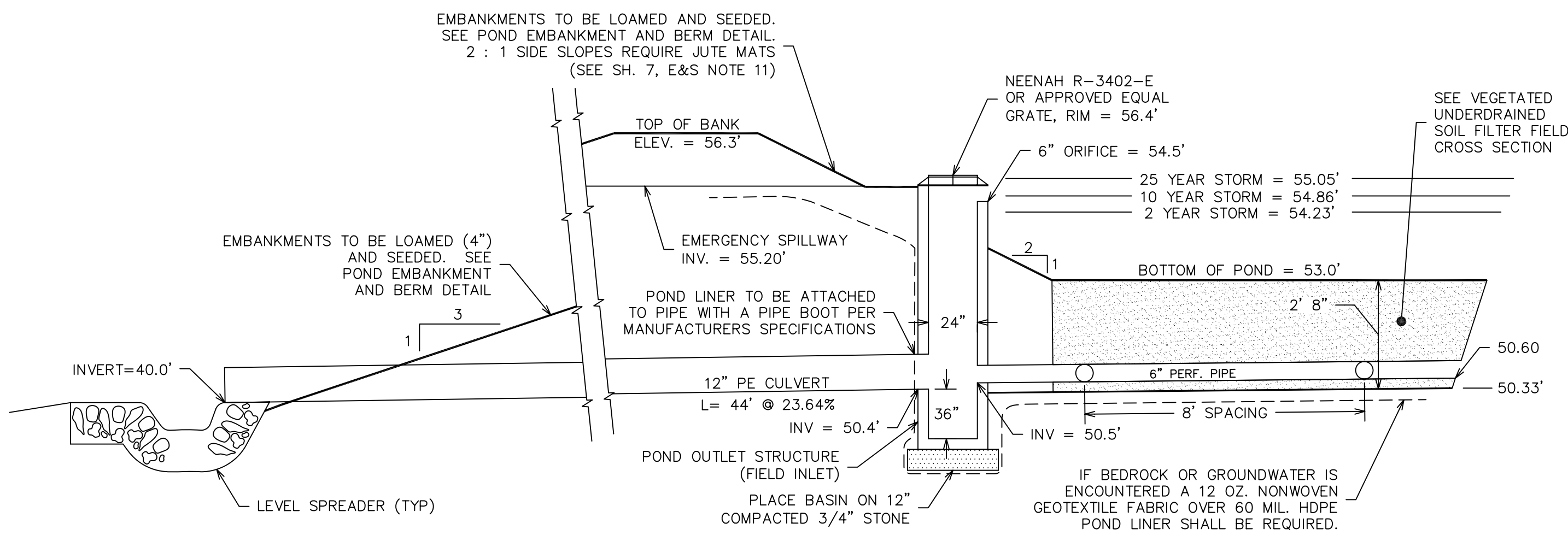
SCALE: AS NOTED  
DATE: 06/17/11  
JOB NO: C010-11

APPROVED BY: [Signature]  
DRAWN BY: CLS  
REVISION: DATE  
B : 09/16/11  
CAD FILE: HUTCHINS DET  
SHEET 3 OF

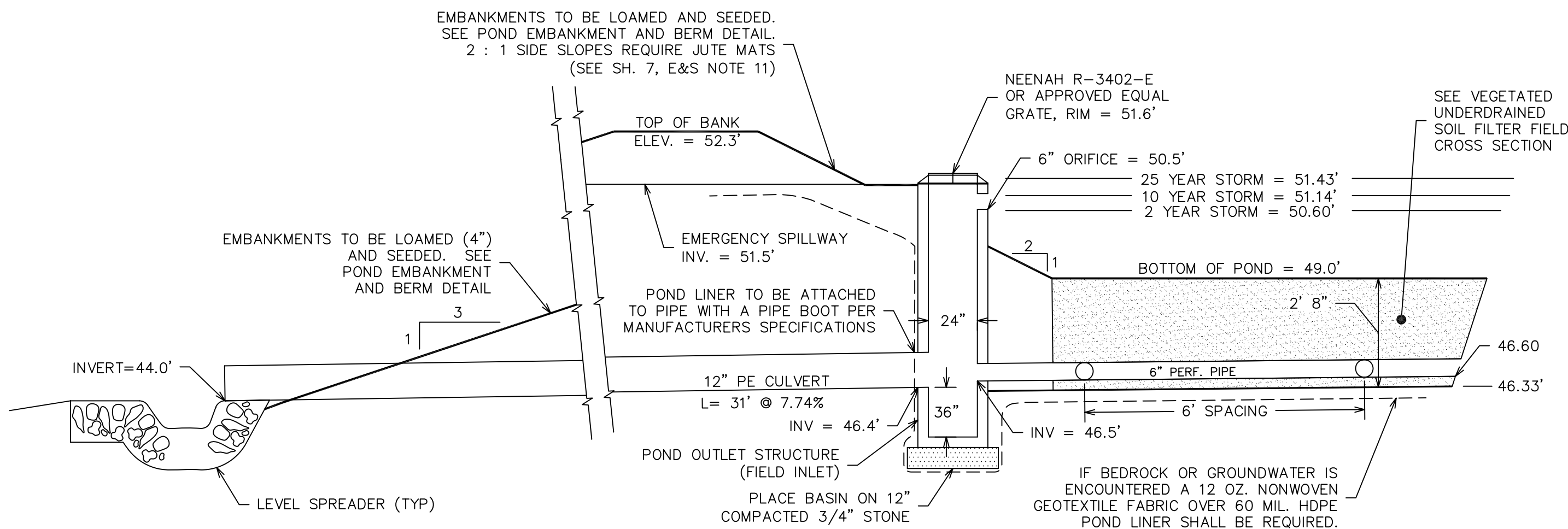
NO.	REVISIONS	DESCRIPTION	DATE
B.	REVIEW COMMENTS		09/16/11
A.	REVIEW COMMENTS		08/03/11



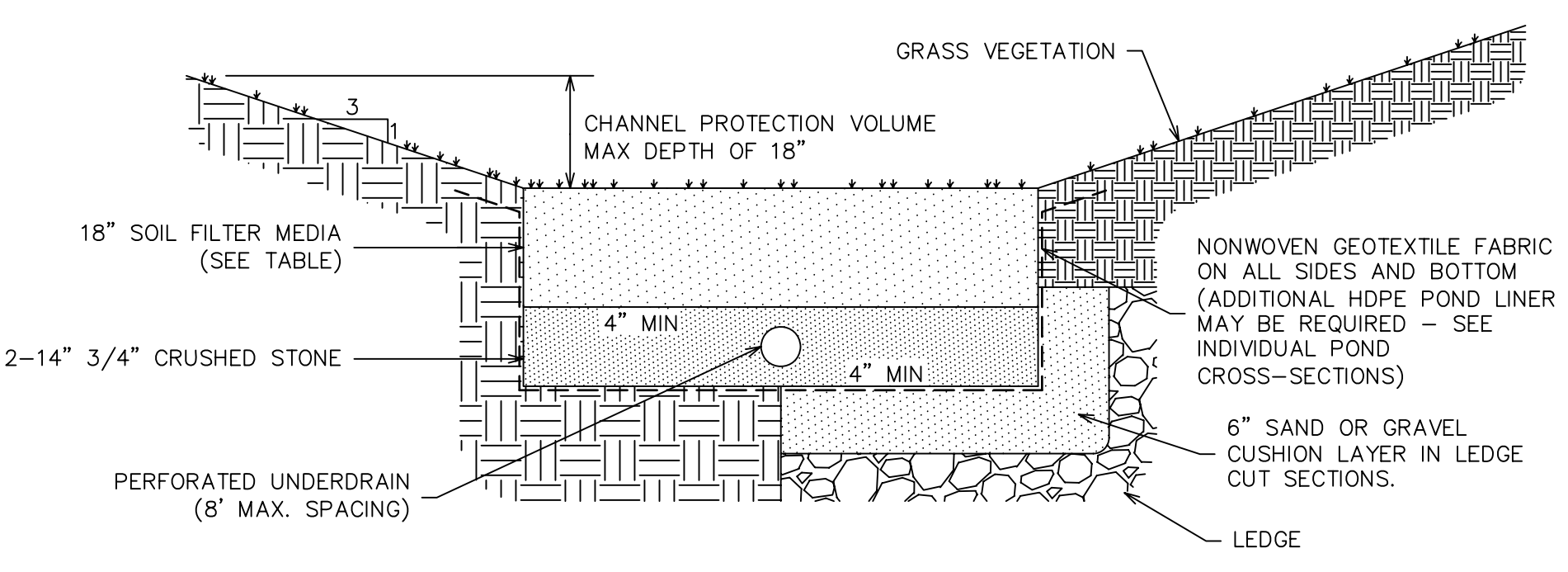




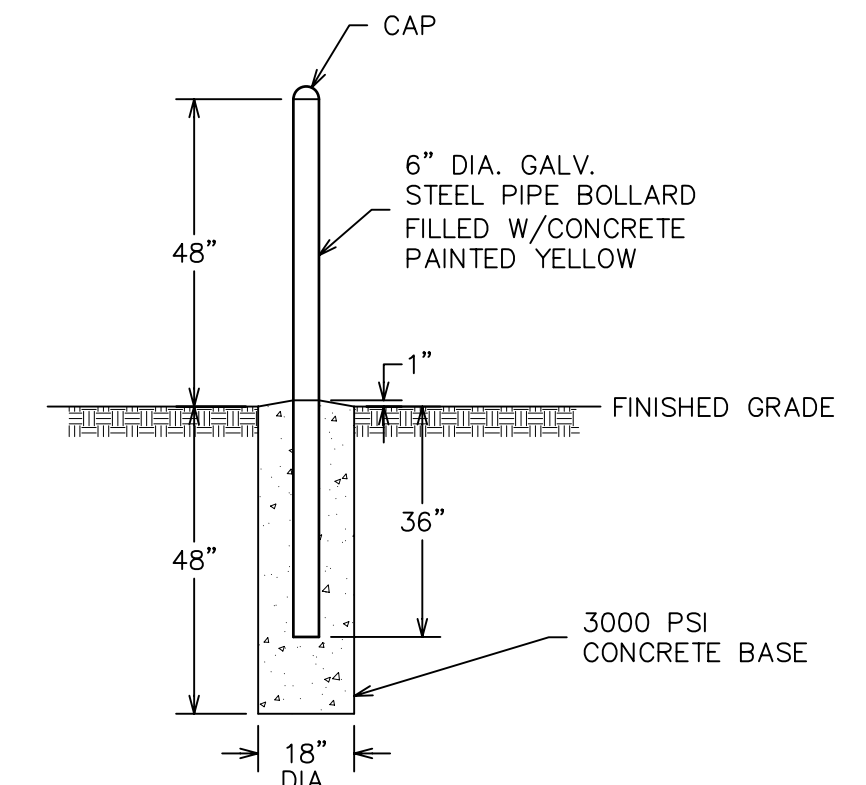
CROSS-SECTION 10 (UNDERDRAIN SOIL FILTER POND) (SEE SH. 2 FOR PLAN VIEW) (NTS)



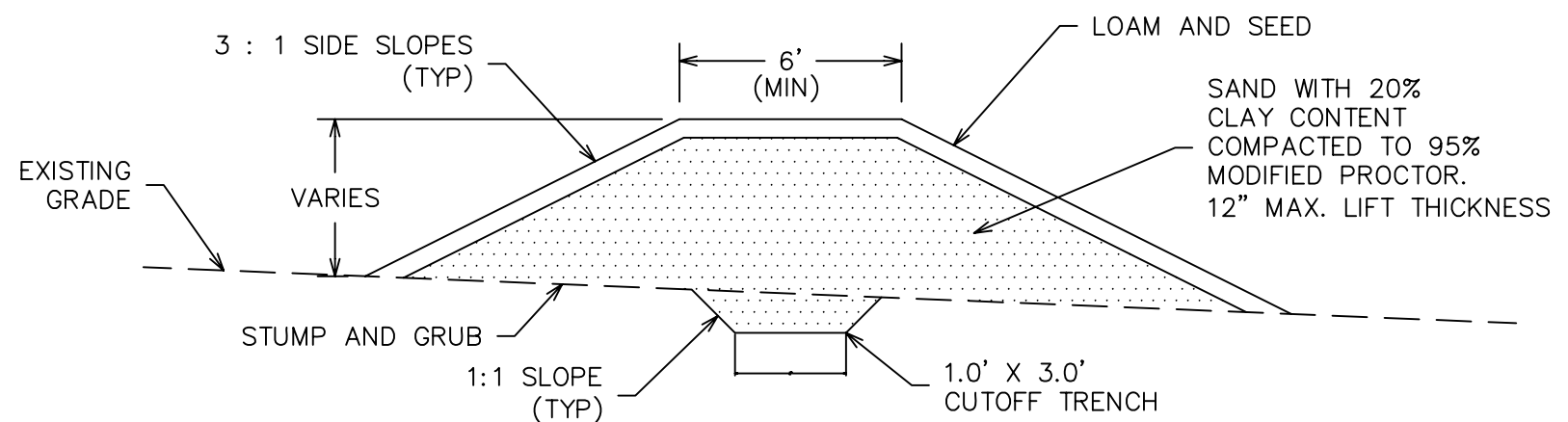
CROSS-SECTION 20 (UNDERDRAIN SOIL FILTER POND) (SEE SH. 2 FOR PLAN VIEW) (NTS)



**SOIL FILTER MEDIA NOTE:**  
 THE SOIL FILTER MEDIA SHALL CONSIST OF A SILTY SAND OR SOIL MIXTURE COMBINED WITH 20% - 25% FINE SHREDDED BARK OR WOOD FIBER MULCH. THE MIXTURE MUST HAVE NO LESS THAN 8% AND NO MORE THAN 10% PASSING THE 200 SIEVE. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST CHECK WITH THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR UPDATED SOIL FILTER MEDIA SPECIFICATIONS.



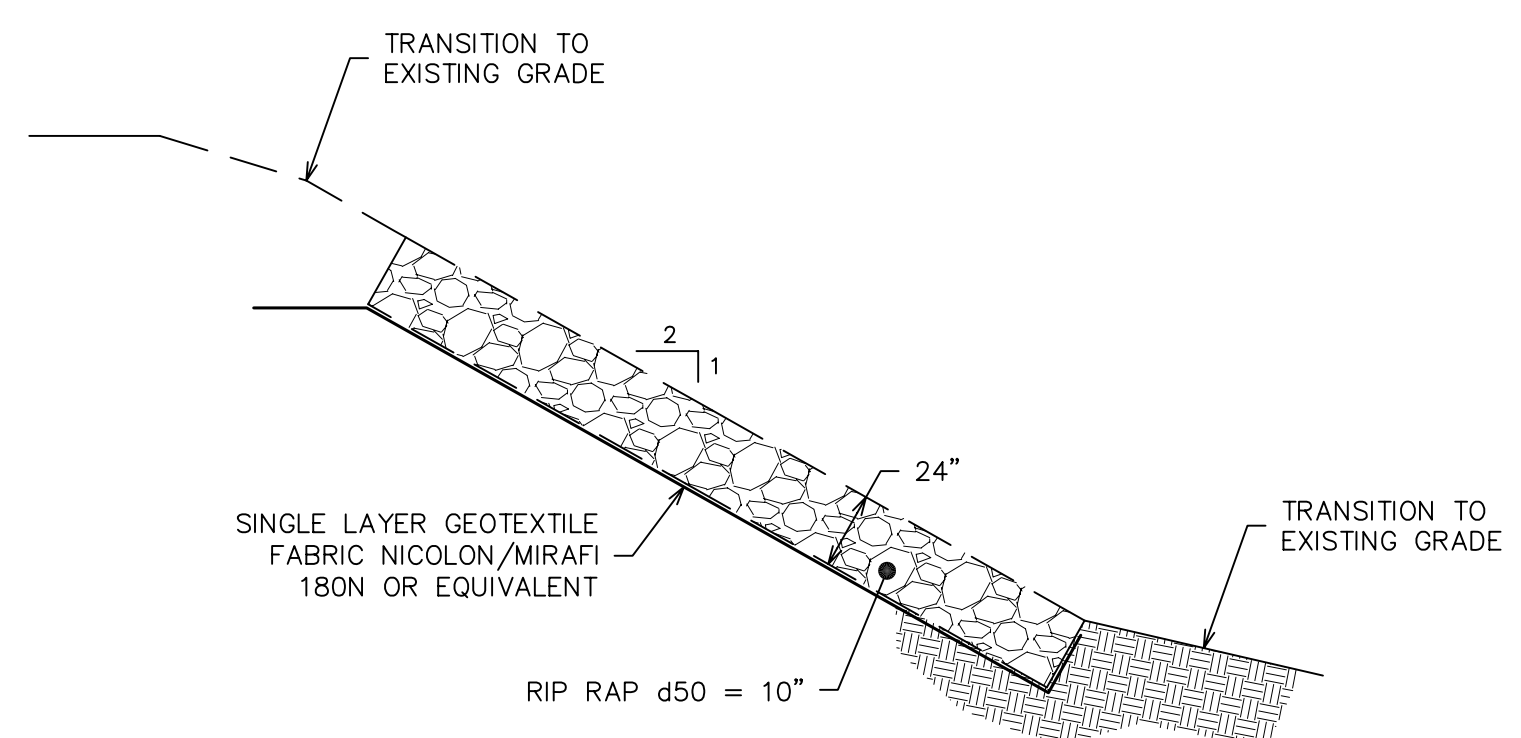
PROTECTIVE BOLLARD DETAIL (NTS)



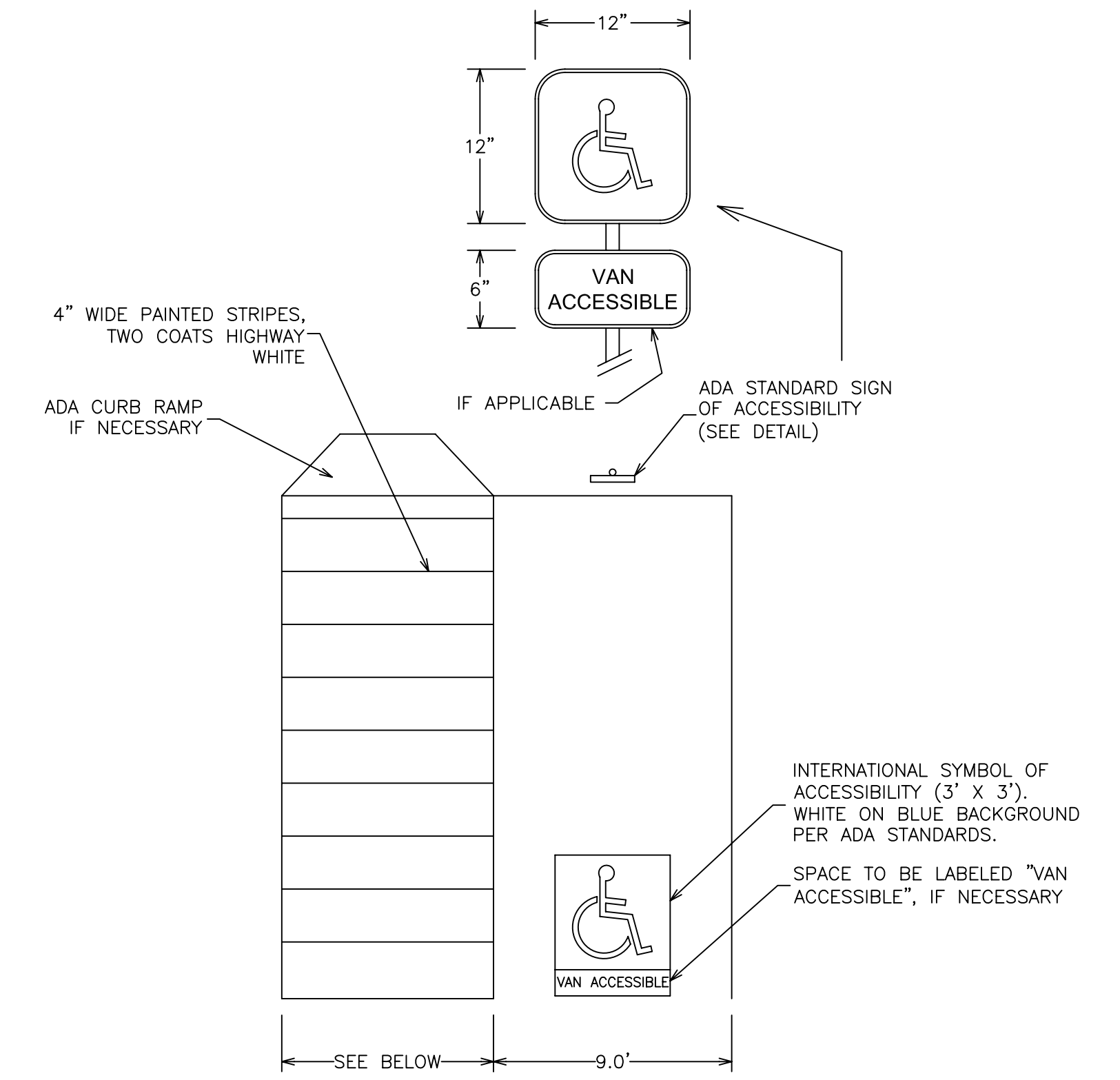
POND EMBANKMENT AND BERM DETAIL SCALE: 1" = 5'

**EMBANKMENT CONSTRUCTION NOTES**

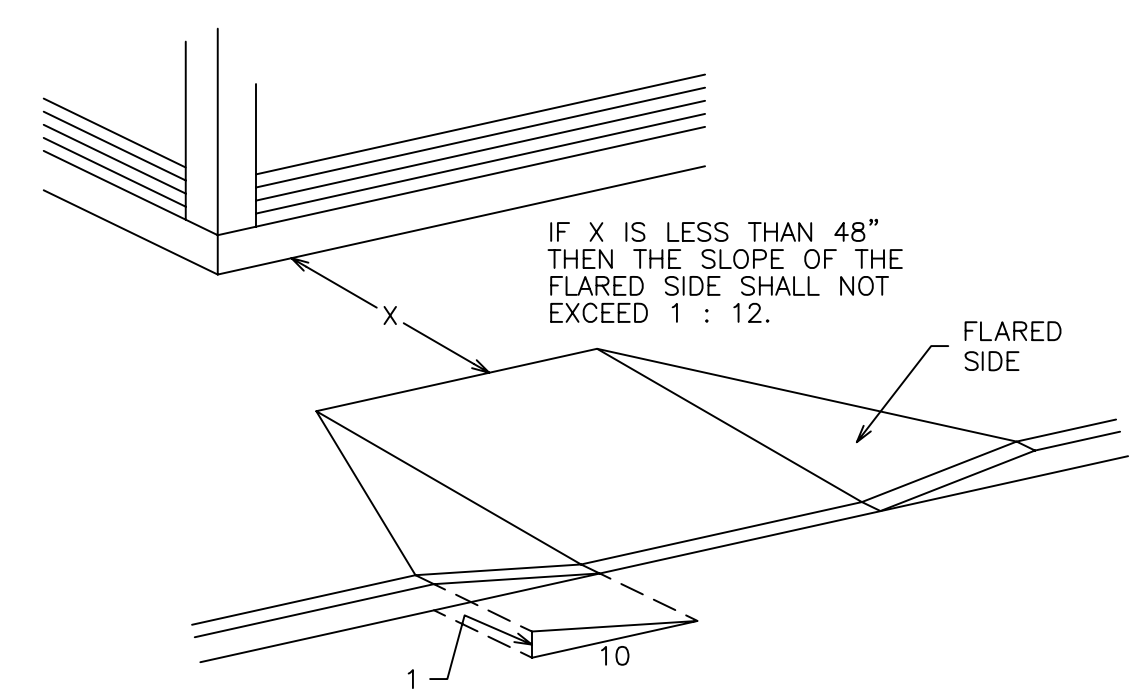
1. ALL ORGANIC MATERIAL, STUMPS, ROCKS AND BOULDERS SHALL BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW SUBGRADE OF THE BASIN EMBANKMENT. ALL EXCAVATIONS BELOW THE BASIN EMBANKMENT SHALL HAVE A MINIMUM SLOPE OF 1H : 1V.
2. ALL BASIN EMBANKMENT FILL MATERIAL SHALL BE SAND WITH 20% CLAY CONTENT. EMBANKMENT FILL SHALL BE PLACED IN 12" (MAX.) LIFTS AND BE COMPACTED TO 95% MODIFIED PROCTOR. A CUTOFF TRENCH SHALL BE EXCAVATED AS SHOWN PRIOR TO CONSTRUCTION OF EMBANKMENT.
3. DETENTION BASIN AND ALL EXCAVATIONS SHALL BE KEPT FREE OF WATER DURING CONSTRUCTION.
4. EMBANKMENT SIDE SLOPES AND BOTTOM OF DETENTION BASIN SHALL BE LOAMED, SEEDED AND MULCHED IN ACCORDANCE WITH THE EROSION AND SEDIMENTATION CONTROL NOTES.



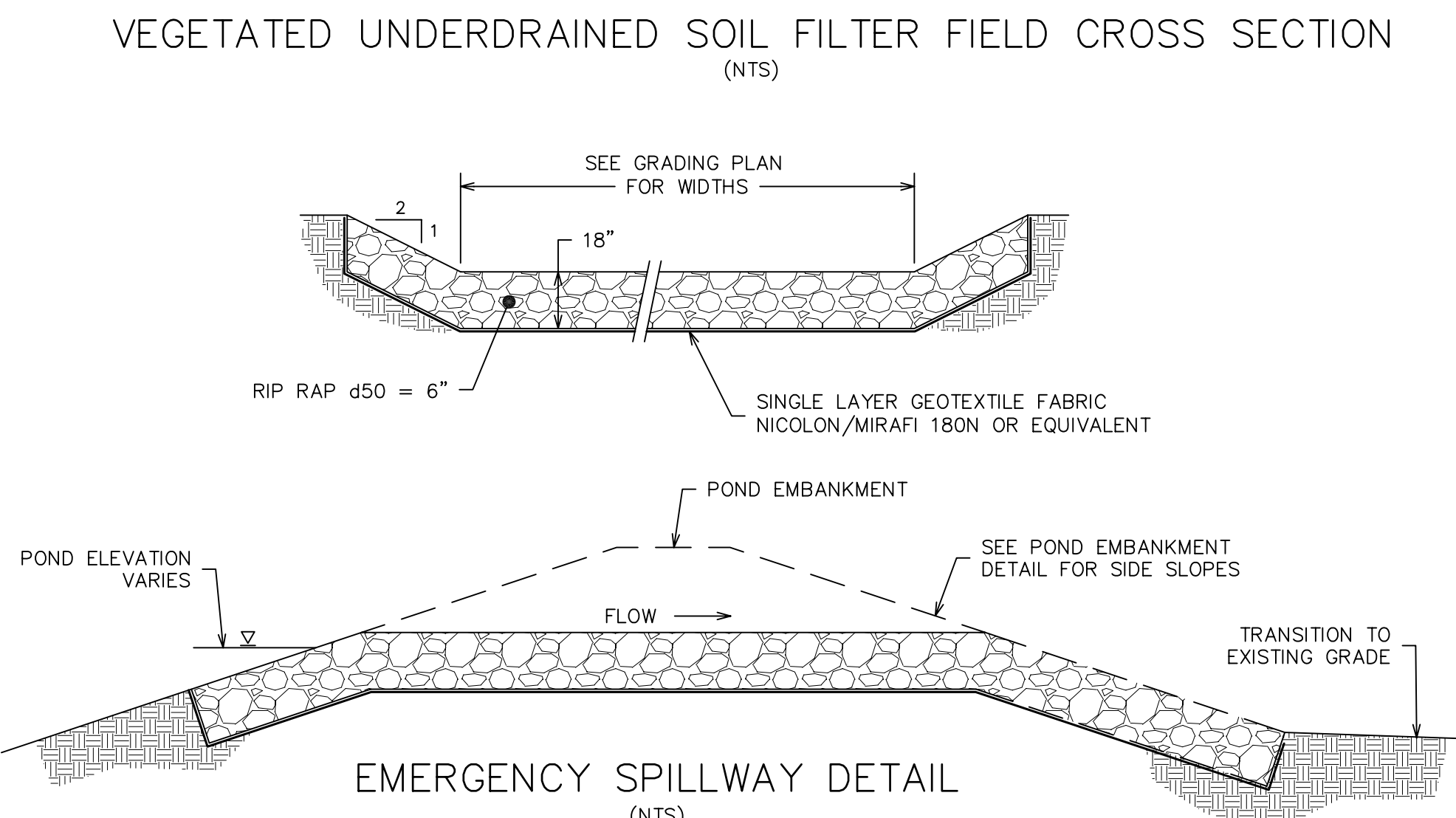
RIP RAP SLOPE DETAIL (NTS)



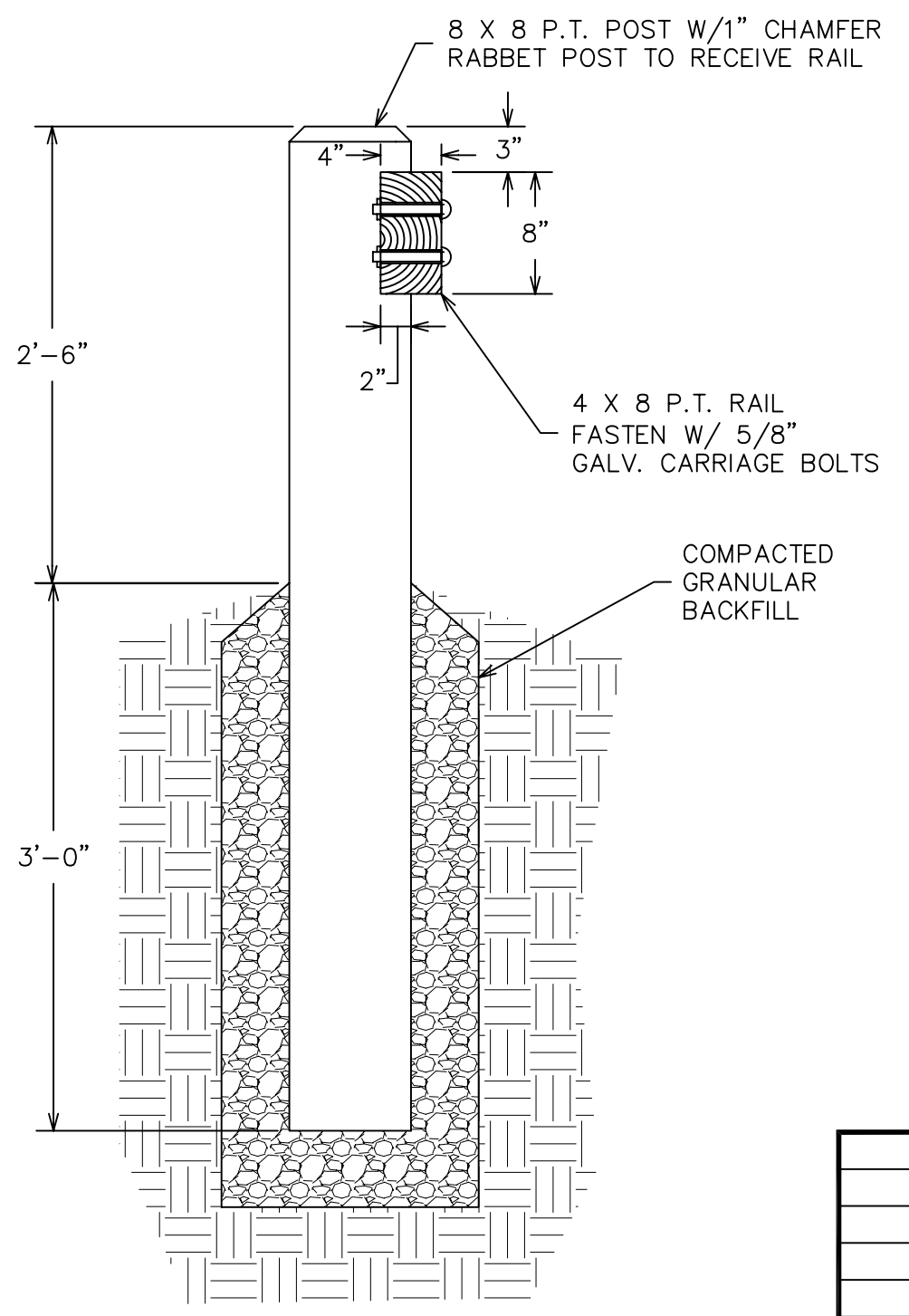
ACCESSIBLE PARKING SPACE DETAIL AISLE SHALL BE 5' WIDE FOR AUTOMOBILES OR 8' WIDE FOR VANS (NTS)



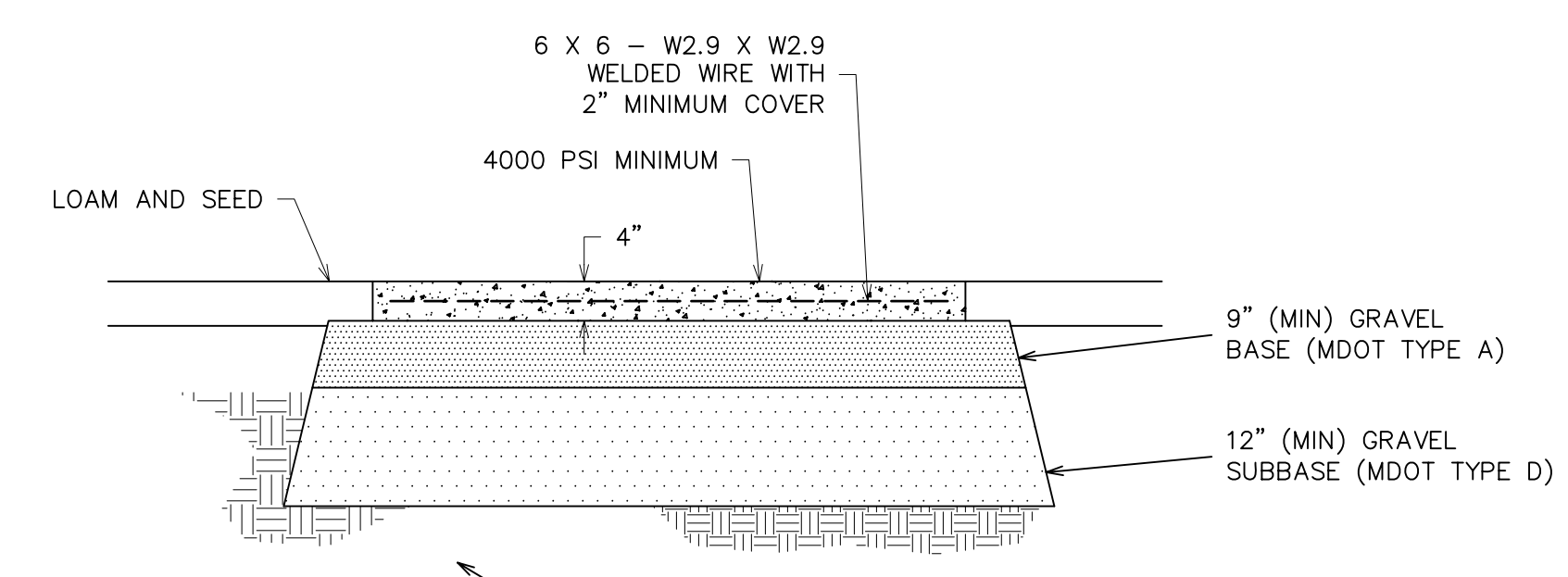
ADA CURB RAMP WITH FLARED SIDES (NTS)



EMERGENCY SPILLWAY DETAIL (NTS)



TIMBER GUARDRAIL DETAIL (NTS) MAXIMUM POST SPACING SHALL BE 6'.



CONCRETE SIDEWALK DETAIL PROVIDE CRACK CONTROL JOINTS AT 6' INTERVALS (MAX) SURFACE WITH MEDIUM BROOM FINISH (NTS)

NO.	REVISIONS	DATE
B.	REVIEW COMMENTS	09/16/11
A.	REVIEW COMMENTS	08/03/11

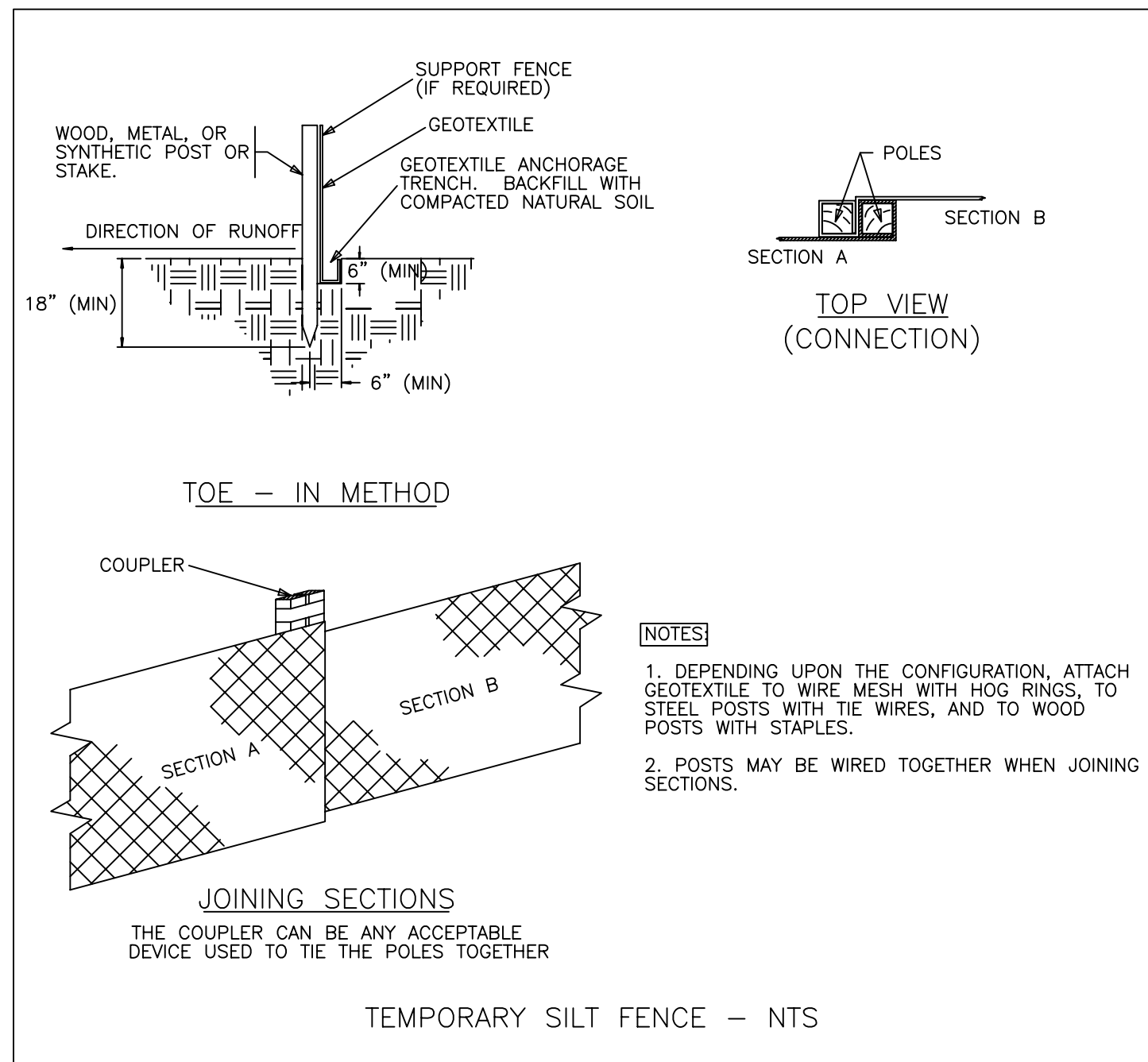


**SITE DETAILS**  
 144 HUTCHINS DRIVE  
 HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES  
 PO BOX 759  
 SACO, ME 04072-5118

**ATTAR ENGINEERING, INC.**  
 CIVIL • STRUCTURAL • MARINE  
 128 STATE ROAD - ELIOT, MAINE 03903  
 PHONE: (207)439-6023 FAX: (207)439-2128

SCALE: AS NOTED	APPROVED BY:	DRAWN BY: CLS
DATE: 06/17/11		REVISION : DATE B : 09/16/11
JOB NO: C010-11	CAD FILE: HUTCHINS DET	SHEET 4 OF 7



### EROSION & SEDIMENTATION CONTROL NOTES

1. SILTATION FENCE OR HAY BALE BARRIERS WILL BE INSTALLED DOWNSLOPE OF ALL STRIPPING OR CONSTRUCTION OPERATIONS. A DOUBLE SILT FENCE BARRIER SHALL BE INSTALLED DOWNSLOPE OF ANY SOIL MATERIAL STOCKPILES. SILT FENCES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND DAILY DURING PROLONGED RAIN. SILT AND SOIL PARTICLES ACCUMULATING BEHIND THE FENCE SHALL BE REMOVED AFTER EACH SIGNIFICANT RAIN EVENT AND IN NO INSTANCE SHOULD ACCUMULATION EXCEED 1/2 THE HEIGHT OF THE FENCE. TORN OR DAMAGED AREAS SHALL BE REPAIRED.
2. TEMPORARY AND PERMANENT VEGETATION AND MULCHING IS AN INTEGRAL COMPONENT OF THE EROSION AND SEDIMENTATION CONTROL PLAN. ALL AREAS SHALL BE INSPECTED AND MAINTAINED UNTIL THE DESIRED VEGETATIVE COVER IS ESTABLISHED. THESE CONTROL MEASURES ARE ESSENTIAL TO EROSION PREVENTION AND ALSO REDUCE COSTLY REWORK OF GRADED AND SHAPED AREAS.
3. SEEDING, FERTILIZER AND LIME RATES AND TIME OF APPLICATION WILL BE DEPENDENT ON SOIL REQUIREMENTS. TEMPORARY VEGETATION SHALL BE MAINTAINED IN THESE AREAS UNTIL PERMANENT SEEDING IS APPLIED. ADDITIONALLY, EROSION AND SEDIMENTATION MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
4. ALL LAWN AREA SHALL BE PERMANENTLY SEEDED WITH THE FOLLOWING MIXTURE: 20 LB/ACRE KENTUCKY BLUEGRASS, 20 LB/ACRE CREEPING RED FESCUE AND 5 LB/ACRE PERENNIAL RYE GRASS FOR A TOTAL OF 45 LB/ACRE. FERTILIZER AND LIME RATES SHALL BE DEPENDENT ON SOIL TESTING. IN THE ABSENCE OF SOIL TESTS, FERTILIZE WITH 10-20-20 (N-P205-K201) AT 800 LB/ACRE AND LIME AT 3 TONS/ACRE. MULCH WITH HAY AT 70-90 LB/1000 S.F. 4" OF LOAM SHALL BE APPLIED PRIOR TO SEEDING.
5. ALL DRAINAGE SWALES, POND EMBANKMENTS AND CROSSING EMBANKMENTS SHALL BE SEEDED WITH A MIXTURE OF CREEPING RED FESCUE, REDTOP AND TALL FESCUE. THE MIXTURE SHALL CONTAIN 20 LB/ACRE CREEPING RED FESCUE, 2 LB/ACRE REDTOP AND 20 LB/ACRE TALL FESCUE. SEE THE ABOVE NOTE FOR FERTILIZER, LIME AND MULCHING RATES.
6. TEMPORARY VEGETATION OF ALL DISTURBED AREAS, MATERIAL STOCKPILES AND OTHER SUCH AREAS SHALL BE ESTABLISHED BY SEEDING WITH EITHER WINTER RYE AT A RATE OF 112 LB/ACRE OR ANNUAL RYEGRASS AT A RATE OF 40 LB/ACRE. WINTER RYE SHALL BE USED FOR FALL SEEDING AND ANNUAL RYEGRASS FOR SHORT DURATION SEEDING. SEEDING SHALL BE ACCOMPLISHED BEFORE OCTOBER 1.
7. TEMPORARY SEEDING OF DISTURBED AREAS SHALL BE ACCOMPLISHED BEFORE OCTOBER 1. PERMANENT SEEDING SHALL BE ACCOMPLISHED BEFORE SEPTEMBER 15.
8. ALL SEEDED AREAS SHALL BE MULCHED WITH HAY AT A RATE OF 2 BALES (70-90 LB) PER 1000 S.F. OF SEEDED AREA.
9. ALL DISTURBED AREAS ON THE SITE SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE.
10. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT ALL ACCESSES TO PUBLIC ROADS (SEE PLAN). TEMPORARY CULVERTS SHALL BE PROVIDED AS REQUIRED.
11. SLOPES 2:1 OR STEEPER SHALL BE TREATED WITH POLYUITE OPEN WEAVE GEOTEXTILE (OR EQUIVALENT) AFTER SEEDING. JUTE MATS SHALL BE ANCHORED PER MANUFACTURER'S SPECIFICATIONS.
12. EXCESSIVE DUST CAUSED BY CONSTRUCTION OPERATIONS SHALL BE CONTROLLED BY APPLICATION OF WATER OR CALCIUM CHLORIDE.
13. THE CONTRACTOR MAY OPT TO USE EROSION CONTROL MIX BERM AS A SEDIMENT BARRIER IN LIEU OF SILTATION FENCE OR HAY BALE BARRIERS WITH APPROVAL FROM THE INSPECTING ENGINEER.

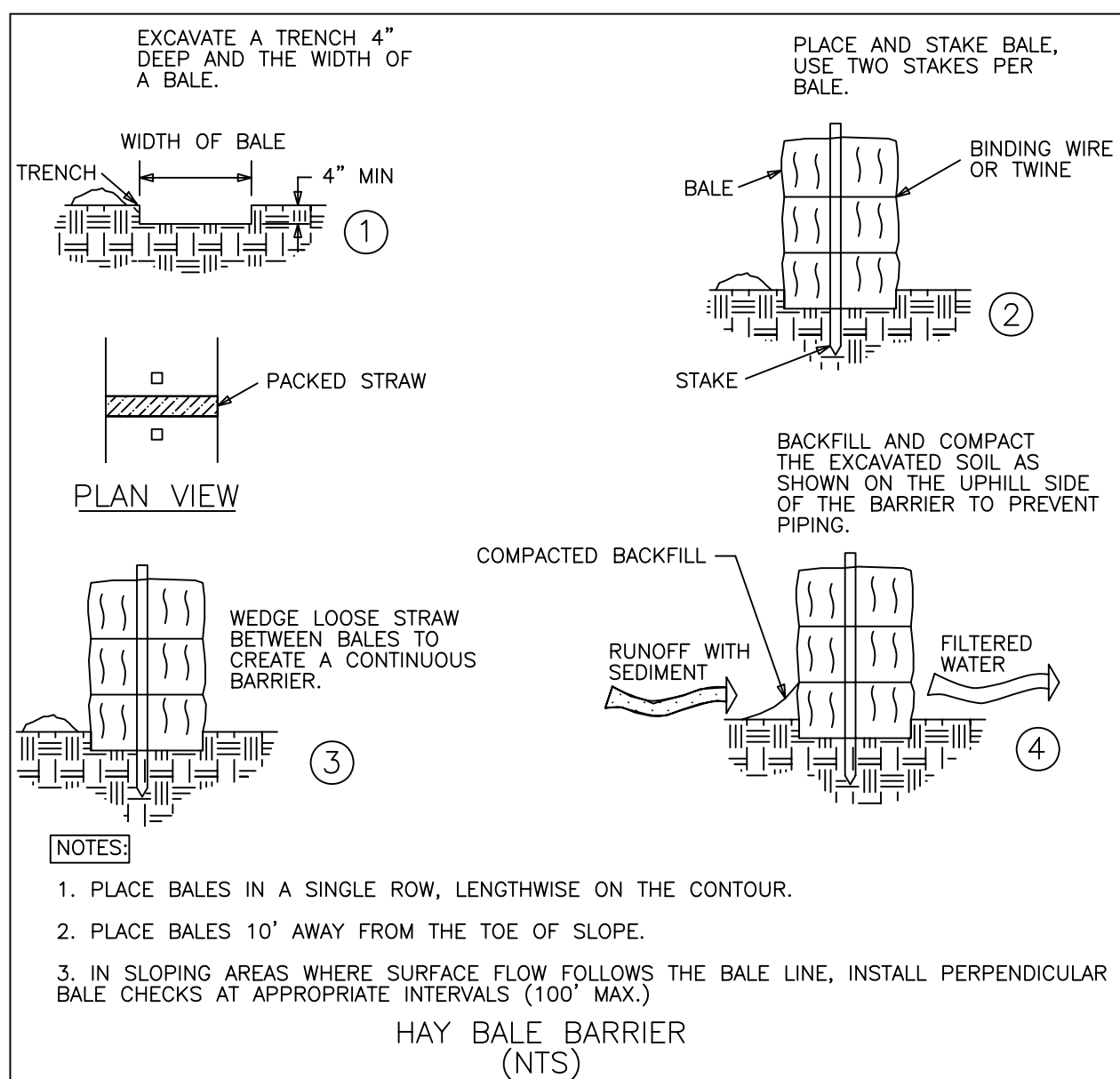
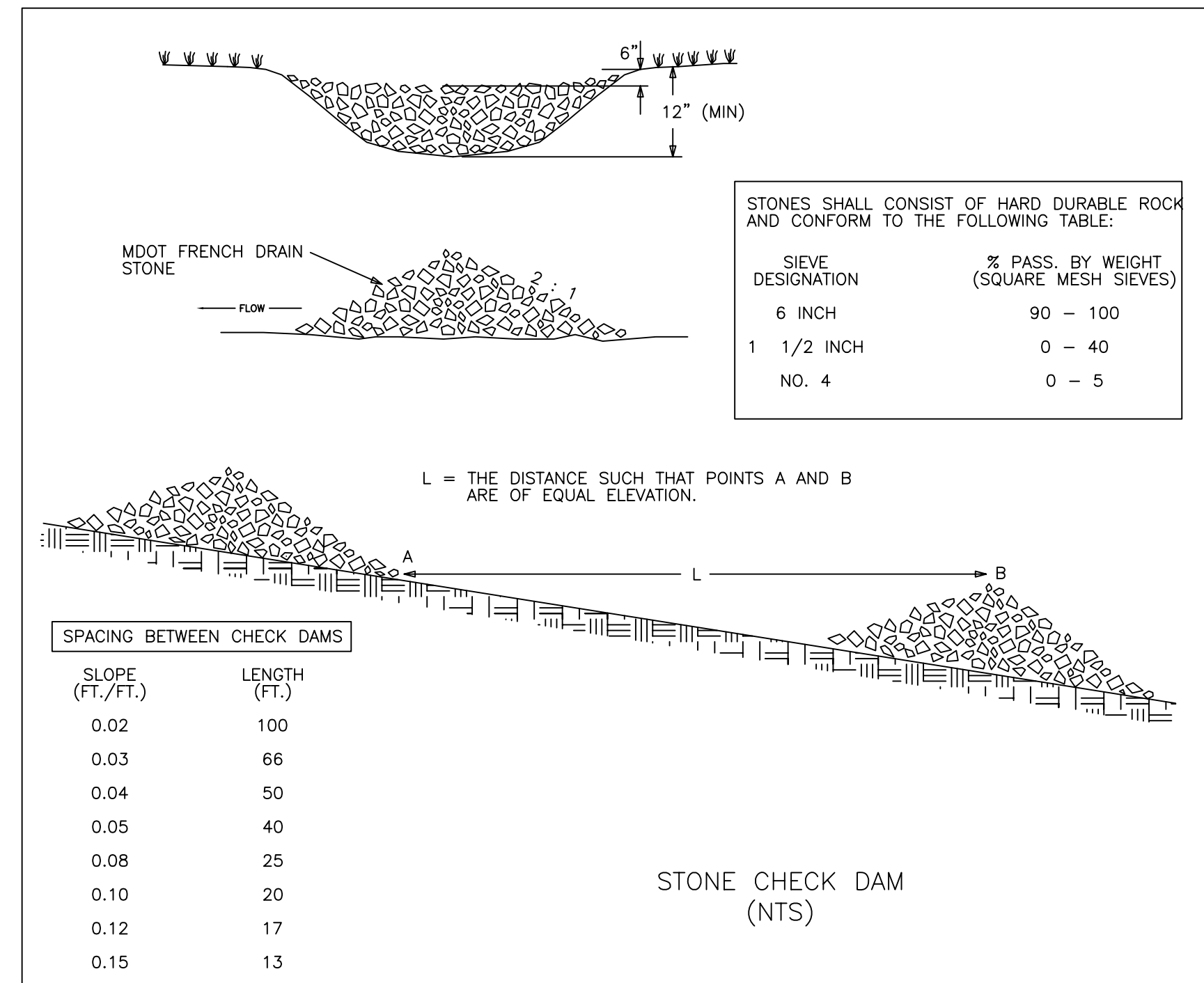
### DRIVEWAY CONSTRUCTION NOTES

1. DRIVEWAYS TO BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE CROSS SECTION DETAIL. GRAVEL FILL TO BE COMPACTED TO 95% MODIFIED PROCTOR IN ACCORDANCE WITH ASTM D 1557. LIFT THICKNESSES TO BE A MAXIMUM OF 6".
2. ALL STUMPS, ORGANIC MATERIAL, ROCKS AND BOULDERS TO BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW SUBBASE.
3. ALL STUMPS, LEDGE AND LARGE BOULDERS TO BE REMOVED FROM THE CONSTRUCTION AREA. THE CONSTRUCTION AREA SHALL BE CLEARED AND ROUGH GRADED.
4. ALL CULVERTS TO BE ADS N-12 (HDPE) OR APPROVED EQUAL. CULVERT INLETS AND OUTLETS TO BE PROTECTED IN ACCORDANCE WITH THE CULVERT INLET/OUTLET PROTECTION DETAIL.
5. THE CONTRACTOR MUST CONTACT DIG SAFE AND ALL LOCAL UTILITIES PRIOR TO THE START OF CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING SUBSURFACE UTILITIES AND CONDITIONS. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

### WINTER CONSTRUCTION NOTES

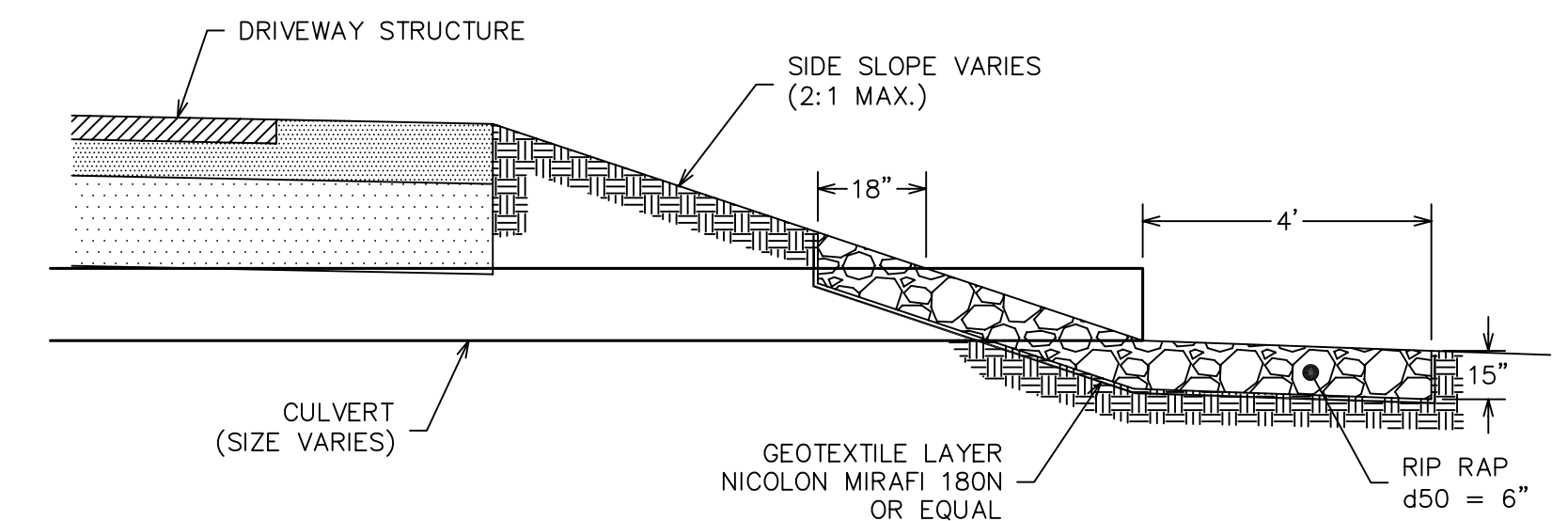
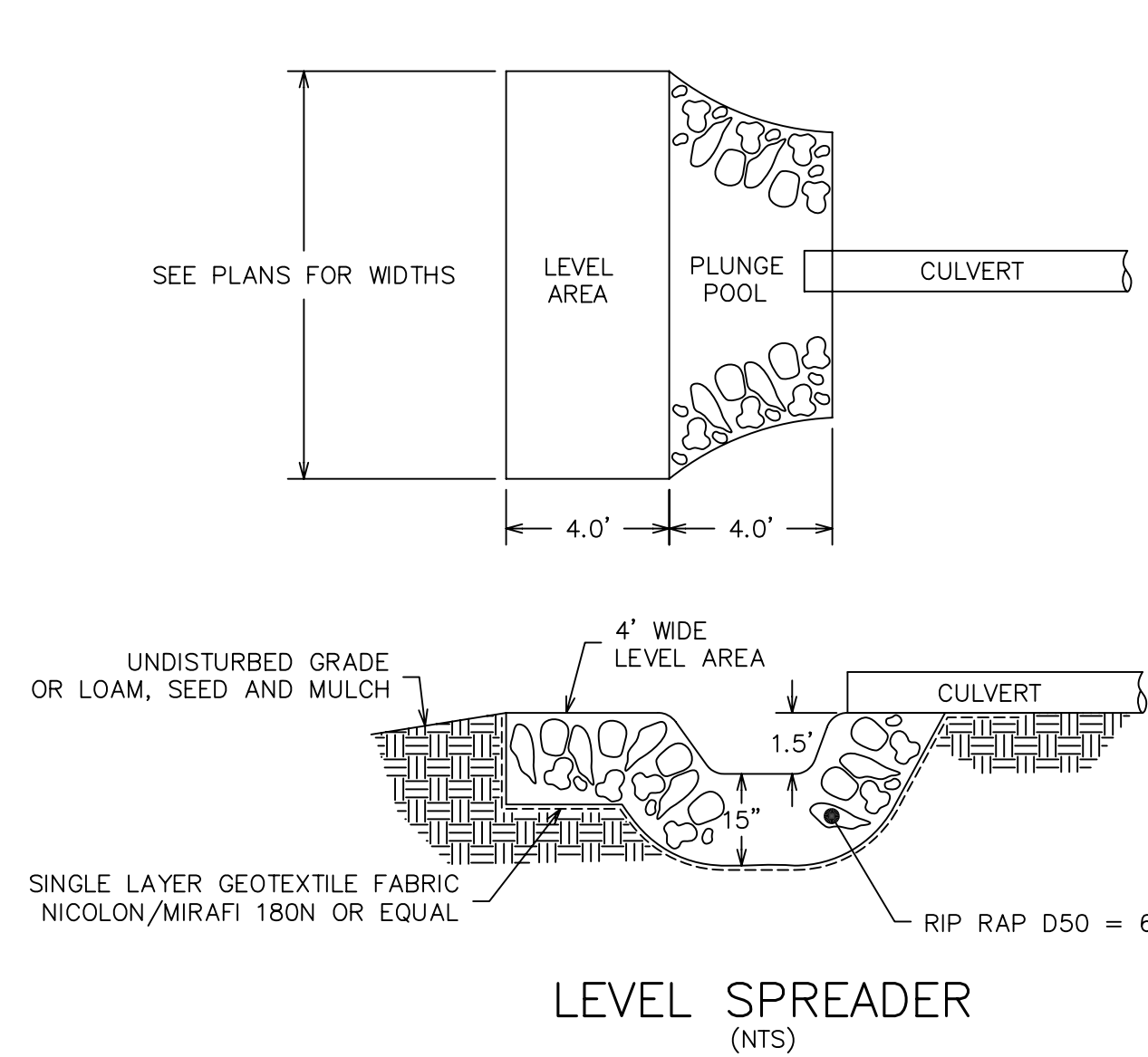
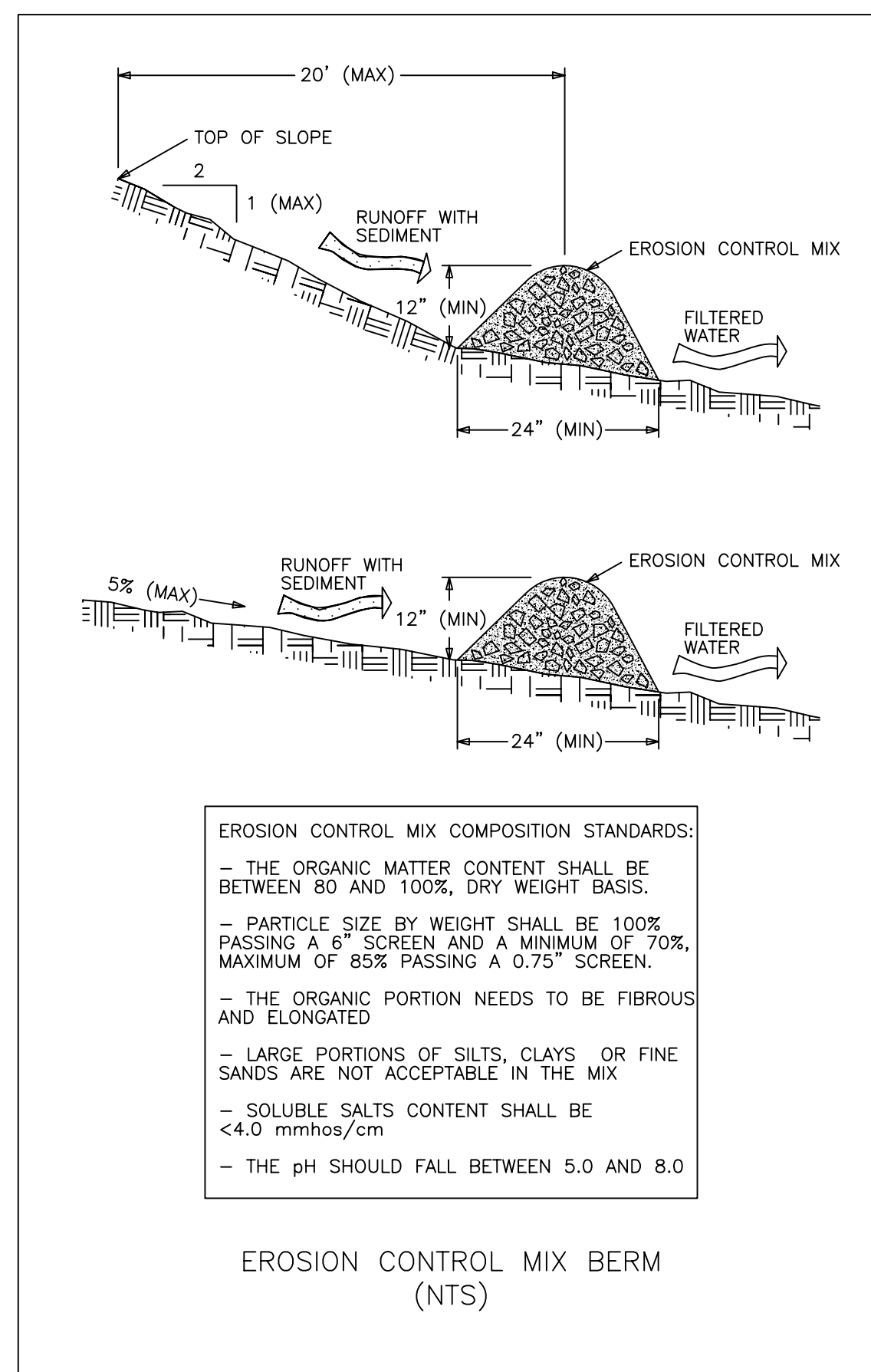
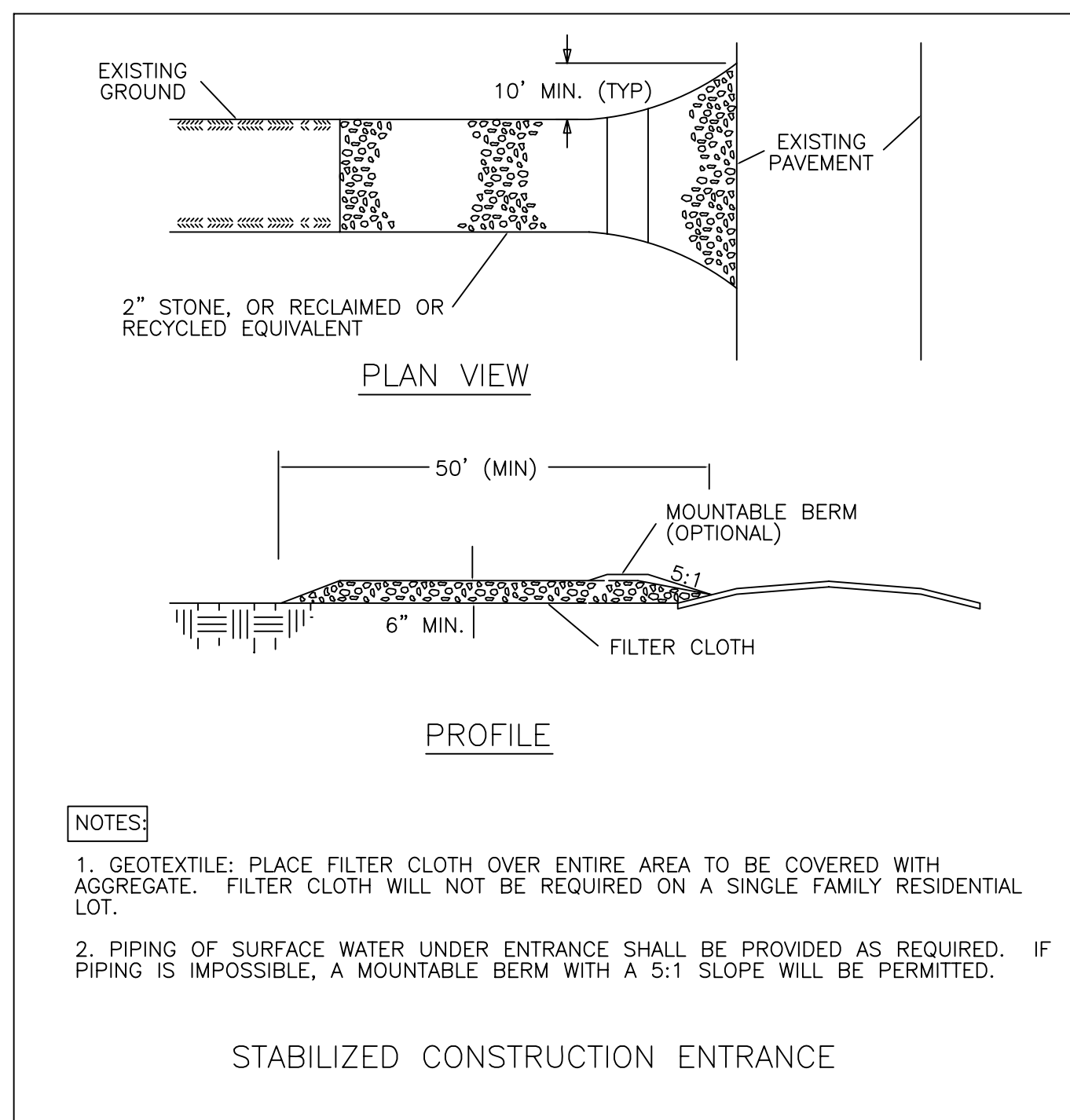
NOVEMBER 1 - APRIL 15

1. EXPOSED AREAS SHOULD BE LIMITED TO AN AREA THAT CAN BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT.
2. AN AREA SHALL BE CONSIDERED STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH HAY AT A RATE OF 100 LB/1000 S.F. OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE. IN ALL CASES, MULCH SHALL BE APPLIED SO THAT THE SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH.
3. FROM OCTOBER 15 TO APRIL 1, LOAM AND SEED WILL NOT BE REQUIRED. DURING PERIODS OF TEMPERATURES ABOVE FREEZING, DISTURBED AREAS SHALL BE FINE GRADED AND PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL PERMANENT SEEDING CAN BE APPLIED. AFTER NOVEMBER 1, DISTURBED AREAS MAY BE LOAMED, FINE GRADED AND DORMANT SEEDED AT A RATE 200-300% HIGHER THAN THE SPECIFIED PERMANENT SEEDING RATE. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, DISTURBED AREAS SHALL BE GRADED BEFORE FREEZING AND TEMPORARILY STABILIZED WITH MULCH. DISTURBED AREAS SHALL NOT BE LEFT OVER THE WINTER OR FOR ANY OTHER EXTENDED PERIOD OF TIME UNLESS STABILIZED WITH MULCH.
4. FROM NOVEMBER 1 TO APRIL 15 ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACK OR WOOD CELLULOSE FIBER. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 3%. SLOPES EXPOSED TO DIRECT WINDS AND FOR SLOPES GREATER THAN 8% MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1, THE SAME APPLIES TO ALL SLOPES GREATER THAN 8%.
5. DURING WINTER CONSTRUCTION, DORMANT SEEDING OR MULCH AND ANCHORING SHALL BE APPLIED TO ALL DISTURBED AREAS AT THE END OF EACH WORKING DAY.
6. SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

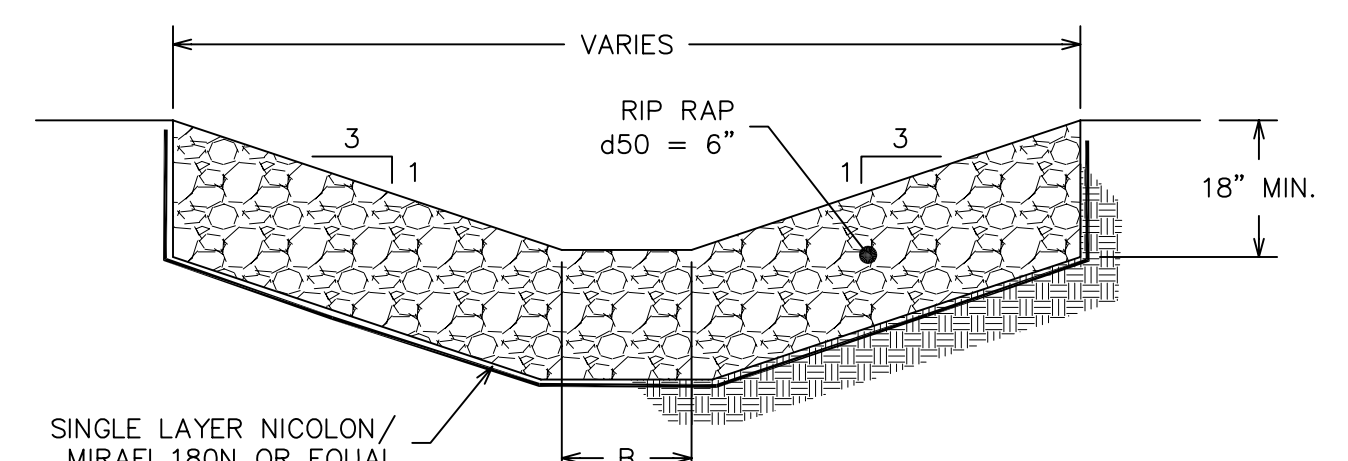


### HOUSEKEEPING (STORMWATER - CHAPTER 500 APPENDIX C, MAINE DEP)

1. SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS ON SITE, INCLUDING STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER, AND APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
2. GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS.
3. FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL.
4. DEBRIS AND OTHER MATERIALS. LITTER, CONSTRUCTION DEBRIS, AND CHEMICALS EXPOSED TO STORMWATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.
5. TRENCH OR FOUNDATION DE-WATERING. TRENCH DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE COLLECTED WATER MUST BE REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, AND MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. EQUIVALENT MEASURES MAY BE TAKEN IF APPROVED BY THE DEPARTMENT.
6. NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

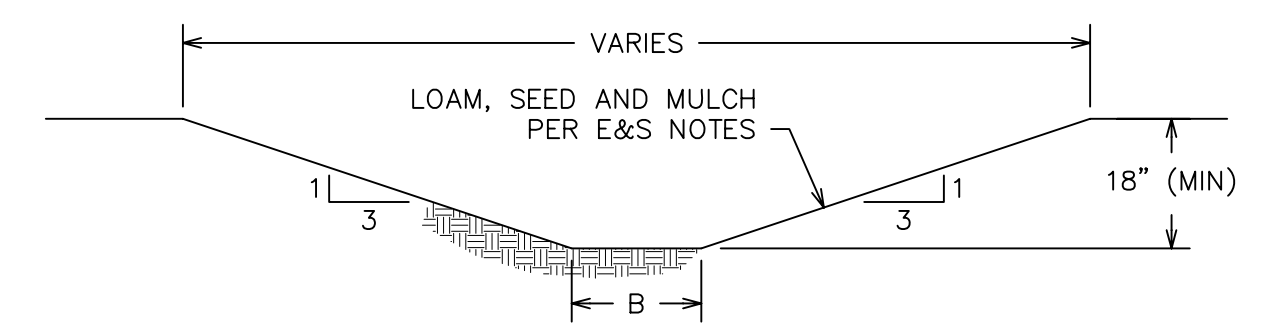


### CULVERT INLET/OUTLET PROTECTION DETAIL (NTS)



### RIP RAP SWALE DETAIL (NTS)

B (BOTTOM WIDTH) SHALL BE 2' FOR TYPE 1 SWALES AND 5' FOR TYPE 2 SWALES.



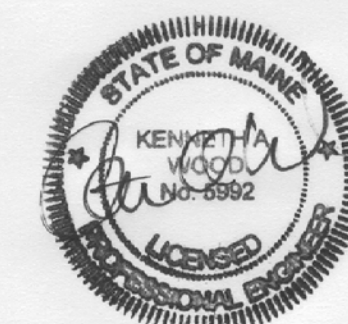
### VEGETATED SWALE DETAIL (NTS)

B (BOTTOM WIDTH) SHALL BE 2' FOR TYPE 1 SWALES AND 5' FOR TYPE 2 SWALES.

**SITE DETAILS**  
144 HUTCHINS DRIVE  
HUTCHINS DRIVE PORTLAND, MAINE

FOR: PHOENIX PROPERTY SERVICES  
PO BOX 759  
SACO, ME 04072-5118

**ATTAR ENGINEERING, INC.**  
CIVIL • STRUCTURAL • MARINE  
128 STATE ROAD - ELIOT, MAINE 03903  
PHONE: (207)439-6023 FAX: (207)439-2128



SCALE: AS NOTED  
DATE: 6/17/11  
JOB NO: C010-11

APPROVED BY: [Signature]

DRAWN BY: CLS  
REVISION : DATE  
A : 8/3/11

CAD FILE: HUTCHINS DET  
SHEET 5 OF 7

NO.	REVISIONS	DATE
A.	REVIEW COMMENTS	8/3/11
NO.	DESCRIPTION	DATE