





EROSION AND SEDIMENTATION CONTROL NOTES:

INTRODUCTION

THE FOLLOWING PLAN FOR CONTROLLING SEDIMENTATION AND EROSION IN THIS PROJECT IS BASED ON CONSERVATION PRACTICES FOUND IN THE MAINE EROSION & SEDIMENT CONTROL BMP'S, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, MARCH 2016, OR LATEST EDITION. THE CONTRACTOR WHO IMPLEMENTS THIS PLAN SHALL BE FAMILIAR WITH THIS PUBLICATION AND ADHERE TO IT AND THE PRACTICES PRESENTED HEREIN.

REFERENCE IS MADE TO THE SITE PLAN (C1.0) WITHIN THE PLAN SET, SHOWING THE LOCATIONS AND TYPES OF PROPOSED MEASURES TO BE IMPLEMENTED.

GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES

THE FOLLOWING IS A LIST OF GENERAL EROSION CONTROL PRACTICES THAT WILL BE USED TO PREVENT EROSION AND SEDIMENTATION BEFORE, DURING AND AFTER THE CONSTRUCTION OF THIS PROJECT. IN ADDITION, SPECIAL CARE SHALL BE USED AT ALL TIMES TO:

- 1) LIMIT DISTURBANCE AND, HENCE, EROSION
- 2) CORRECT ANY EROSION PROBLEMS IMMEDIATELY
- 3) REGULARLY MONITOR THE IMPLEMENTED PRACTICES, ESPECIALLY AFTER EVERY RAINFALL
- 4) REVEGETATE DISTURBED AREAS AS SOON AS POSSIBLE AFTER CONSTRUCTION
- 5) CONFORM TO ALL REQUIREMENTS/STANDARDS OF THE MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS.

SILT FENCE AND/OR SILT/SOXX SEDIMENT BARRIERS

SILT FENCE AND/OR SILT/SOXX SEDIMENT BARRIERS WILL BE INSTALLED ALONG THE DOWNGRAIENT SIDE OF THE PROPOSED GROUND DISTURBANCE AREAS AND STOCKPILE AREAS PRIOR TO ANY CONSTRUCTION ACTIVITIES.

CATCH BASIN PROTECTION

CATCH BASIN PROTECTION WILL BE INSTALLED AT THE FIRST DOWNGRAIENT CATCH BASIN IN STREET ADJACENT TO ANY CONSTRUCTION ACTIVITIES.

CONSTRUCTION PHASE

THE FOLLOWING GENERAL PRACTICES WILL BE IMPLEMENTED TO PREVENT EROSION DURING CONSTRUCTION ON THIS PROJECT:

1. ONLY THOSE AREAS UNDER ACTIVE CONSTRUCTION WILL BE CLEARED AND LEFT IN AN UNTREATED OR UNVEGETATED CONDITION. ONCE CONSTRUCTION OF AN AREA IS COMPLETE, FINAL GRADING, LOAMING AND SEEDING SHALL OCCUR IMMEDIATELY (REFER TO "POST CONSTRUCTION REVEGETATION" SECTION). IF DURING FINAL GRADING, LOAMING AND SEEDING CAN NOT OCCUR IMMEDIATELY, IT SHALL BE DONE PRIOR TO ANY STORM EVENT AND WITHIN 14 DAYS OF COMPLETING CONSTRUCTION IN THE AREA. IF FINAL GRADING, LOAMING AND SEEDING CANNOT OCCUR WITHIN 7 DAYS, OR IF THE AREA IS NOT UNDER ACTIVE CONSTRUCTION FOR A PERIOD LONGER THAN 7 DAYS, SEE ITEM NO. 4 BELOW.

2. PRIOR TO THE START OF CONSTRUCTION IN A SPECIFIC AREA, SILT FENCING SHALL BE INSTALLED ON DOWNGRAIENT PORTIONS OF THE SITE AS LOCATED ON THE PLANS TO PROTECT AGAINST ANY CONSTRUCTION RELATED EROSION.

3. TOPSOIL WILL BE STOCKPILED WHEN NECESSARY IN AREAS WHICH HAVE MINIMUM POTENTIAL FOR EROSION AND WILL BE KEPT AS FAR AS POSSIBLE FROM EXISTING DRAINAGE AREAS AND WETLANDS. ALL STOCKPILES EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL BE :

A. TREATED WITH ANCHORED MULCH (WITHIN 5 DAYS OF THE LAST DEPOSIT OF STOCKPILED SOIL).

B. SEEDED WITH CONSERVATION MIX AND MULCHED IMMEDIATELY.

STOCKPILES SHALL BE EITHER PLACED UPHILL OF AN EXISTING SEDIMENT BARRIER ON THE SITE OR ENCIRCLED BY A HAY BALE OR SILT FENCE BARRIER THE FIRST DAY THAT STOCKPIILING COMMENCES.

4. ALL DISTURBED AREAS EXPECTED TO REMAIN LONGER THAN 7 DAYS SHALL BE:

A. TREATED WITH STRAW AT A RATE OF 70-90 LBS. PER 1000 SQUARE FEET FROM 4/16 TO 1/4", OR AT A RATE OF 150-200 LBS. PER 1000 SQUARE FEET FROM 1/4" TO 4/15.

B. SEEDED WITH CONSERVATION MIX OF PERENNIAL RYE GRASS (1.0 LBS/1000 SQ.FT.) AND MULCHED IMMEDIATELY. FROM 1/4" TO 4/15, FOLLOW THE SEEDING RATES AS OUTLINED BELOW IN SECTION 5 OF THE "POST CONSTRUCTION REVEGETATION" SECTION.

C. MONITORED EVERY TWO WEEKS UNTIL SEEDING CAN OCCUR AND REMULCHED AS NEEDED TO PROTECT SLOPES.

5. ALL GRADING WILL BE HELD TO A MAXIMUM 3:1 SLOPE WHERE PRACTICAL. GREATER SLOPES MAY BE USED WHERE THE BANKS ARE PROTECTED WITH SOFT ARMOUR MATTING, EROSION CONTROL MATTING, OR RIPRAP. ALL SLOPES WILL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY AFTER FINAL GRADING IS COMPLETE. (IT IS UNDERSTOOD THAT IMMEDIATELY MEANS WITHIN 5 DAYS OF THE COMPLETION OF WORK. SEE POST-CONSTRUCTION REVEGETATION FOR SEEDING SPECIFICATION.)

6. CONSTRUCTION TRAFFIC WILL BE DIRECTED OVER THE EXISTING SITE ENTRANCE. THE ROAD SHALL BE SWEEPED DAILY SHOULD SEDIMENT BE TRACKED ONTO IT.

DEWATERING

ALL DEWATERING DISCHARGE LOCATIONS SHALL BE LOCATED ON RELATIVELY FLAT GROUND AT LEAST 100' FROM STREAMS AND WETLANDS. THE CONTRACTOR SHALL UTILIZE DIRTBAGS, EROSION CONTROL MIX BERMS, OR SIMILAR METHODS FOR FILTRATION OF DEWATERING. THE FLOW FROM DEWATERING PUMPS SHALL BE DISCHARGED TO A SEDIMENTATION BASIN.

POST CONSTRUCTION REVEGETATION

THE FOLLOWING GENERAL PRACTICES WILL BE IMPLEMENTED TO PREVENT EROSION AS SOON AS AN AREA IS READY TO UNDERGO FINAL GRADING:

1. A MINIMUM OF 6" OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND NATURAL APPEARANCE.

2. LAWN AREAS: REFER TO SEED MIXTURES FOR PERMANENT COVER, DRY CONDITIONS MIX, NEW HAMPSHIRE EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION, OR APPROVED EQUAL.

3. MULCH SHALL BE HAY OR STRAW MULCHES THAT ARE DRY AND FREE FROM UNDESIRABLE SEEDS AND COARSE MATERIALS.

A. APPLICATION RATE MUST BE 2 BALES (70-90 LBS.) PER 1,000 SQUARE FEET OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75 TO 90% OF THE GROUND SURFACE.

B. DRIVE OVER WITH TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS.

C. BLANKET WITH TACKED PHOTODEGRADABLE/BIODEGRADABLE NETTING ON GRADES GREATER THAN 5%.

4. HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF ASPHALT, WOOD FIBRE OR PAPER FIBRE AND WATER, WHICH IS SPRAYED OVER A SEEDED AREA. HYDRO-MULCH SHALL NOT BE USED BETWEEN 1/4" AND 4/15.

5. CONSTRUCTION SHALL BE PLANNED TO ELIMINATE THE NEED FOR SEEDING BETWEEN OCTOBER 1ST AND APRIL 15TH. SHOULD SEEDING BE NECESSARY BETWEEN THESE DATES, THE FOLLOWING PROCEDURE SHALL BE FOLLOWED:

A. ONLY UNFROZEN LOAM SHALL BE USED.

B. LOAMING, SEEDING AND MULCHING WILL NOT BE DONE OVER SNOW OR ICE COVER. IF SNOW EXISTS, IT MUST BE REMOVED PRIOR TO PLACEMENT OF SEED.

C. WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1000 S.F.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.

D. WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.5 LBS/1000 S.F.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.

E. FERTILIZING, SEEDING AND MULCHING SHALL BE DONE ON LOAM THE DAY THE LOAM IS SPREAD.

F. HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE NETTING. TRACKING BY MACHINERY ALONE WILL NOT SUFFICE. WINTER MULCHING RATES, AS SPECIFIED ABOVE IN SUBSECTION 5.A. OF THE "CONSTRUCTION PHASE" SECTION, SHOULD BE APPLIED DURING THIS PERIOD.

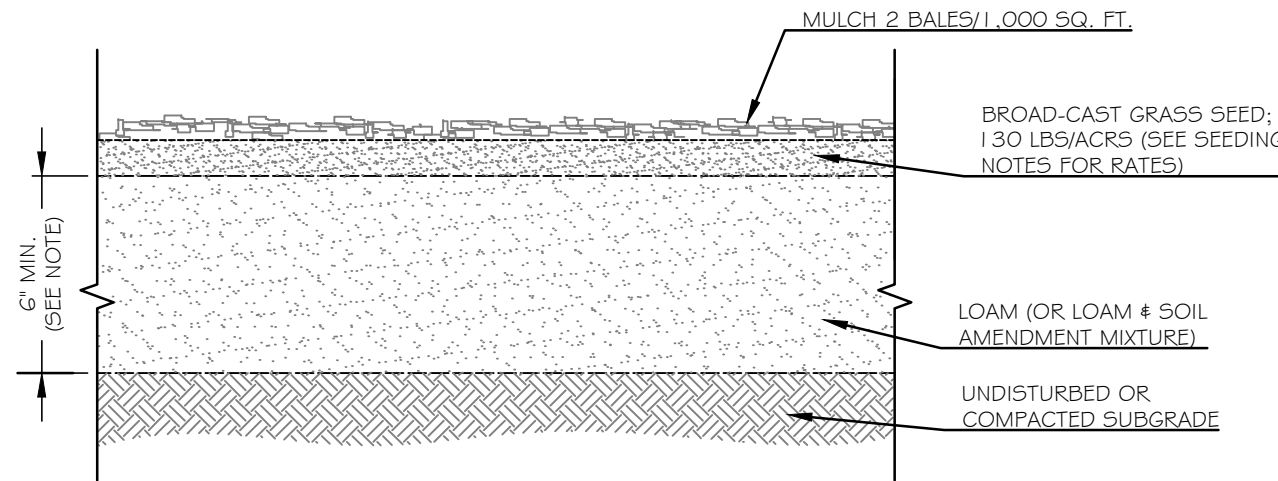
6. FOLLOWING FINAL SEEDING, THE SITE WILL BE INSPECTED EVERY 30 DAYS UNTIL 80% COVER HAS BEEN ESTABLISHED. RESEEDING WILL BE CARRIED OUT BY THE CONTRACTOR WITHIN 10 DAYS OF NOTIFICATION BY THE DESIGN PROFESSIONAL THAT THE EXISTING CATCH IS INADEQUATE.

MONITORING SCHEDULE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING, MONITORING, MAINTAINING, REPAIRING, REPLACING AND REMOVING ALL OF THE EROSION AND SEDIMENTATION CONTROLS OR APPOINTING A QUALIFIED SUBCONTRACTOR TO DO SO.

MAINTENANCE MEASURES WILL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL (0.5" OR GREATER), AND AT LEAST ONCE A WEEK, A VISUAL INSPECTION WILL BE MADE OF ALL EROSION AND SEDIMENTATION CONTROLS AS FOLLOWS:

1. SILT FENCE SHALL BE INSPECTED AND REPAIRED. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REDISTRIBUTED TO AREAS UNDERGOING FINAL GRADING.



1 LOAM AND SEED DETAIL  
C2.0 NOT TO SCALE

STANDARDS FOR STABILIZING SITES FOR THE WINTER

THE FOLLOWING STANDARDS AND METHODOLOGIES SHALL BE USED FOR STABILIZING THE SITE DURING THE WINTER CONSTRUCTION PERIOD

1. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES (ANY AREA HAVING A GRADE GREATER THAN 25%) - THE CONTRACTOR WILL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 15TH. IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15TH, THEN THE CONTRACTOR WILL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1ST THE CONTRACTOR WILL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A RATE OF 3 POUNDS PER 1000 SQUARE FEET AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED HAY MULCH OVER THE SEEDING. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS.

B. STABILIZE THE SLOPE WITH WOOD-WASTE COMPOST - THE CONTRACTOR WILL PLACE A SIX-INCH LAYER OF WOOD-WASTE COMPOST ON THE SLOPE BY NOVEMBER 15TH. THE CONTRACTOR WILL NOT USE WOOD-WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

C. STABILIZE THE SLOPE WITH STONE RIPRAP - THE CONTRACTOR WILL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. THE DEVELOPER'S OWNER WILL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

2. STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOILS - BY SEPTEMBER 15TH THE CONTRACTOR WILL SEED AND MULCH ALL DISTURBED SOILS ON THE SITE. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR WILL TAKE ON OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

A. STABILIZE THE SOIL WITH TEMPORARY VEGETATION - BY OCTOBER 1ST THE CONTRACTOR WILL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET, LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE CONTRACTOR WILL MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER, 1, THEN THE CONTRACTOR WILL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM III OF THIS STANDARD.

B. STABILIZE THE SOIL WITH SOD - THE CONTRACTOR WILL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

C. STABILIZE THE SOIL WITH MULCH - BY NOVEMBER 15TH THE CONTRACTOR WILL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, THE CONTRACTOR WILL ANCHOR THE MULCH WITH NETTING OR OTHER METHOD TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

3. INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH UNDER FROZEN CONDITIONS.

EROSION CONTROL REMOVAL

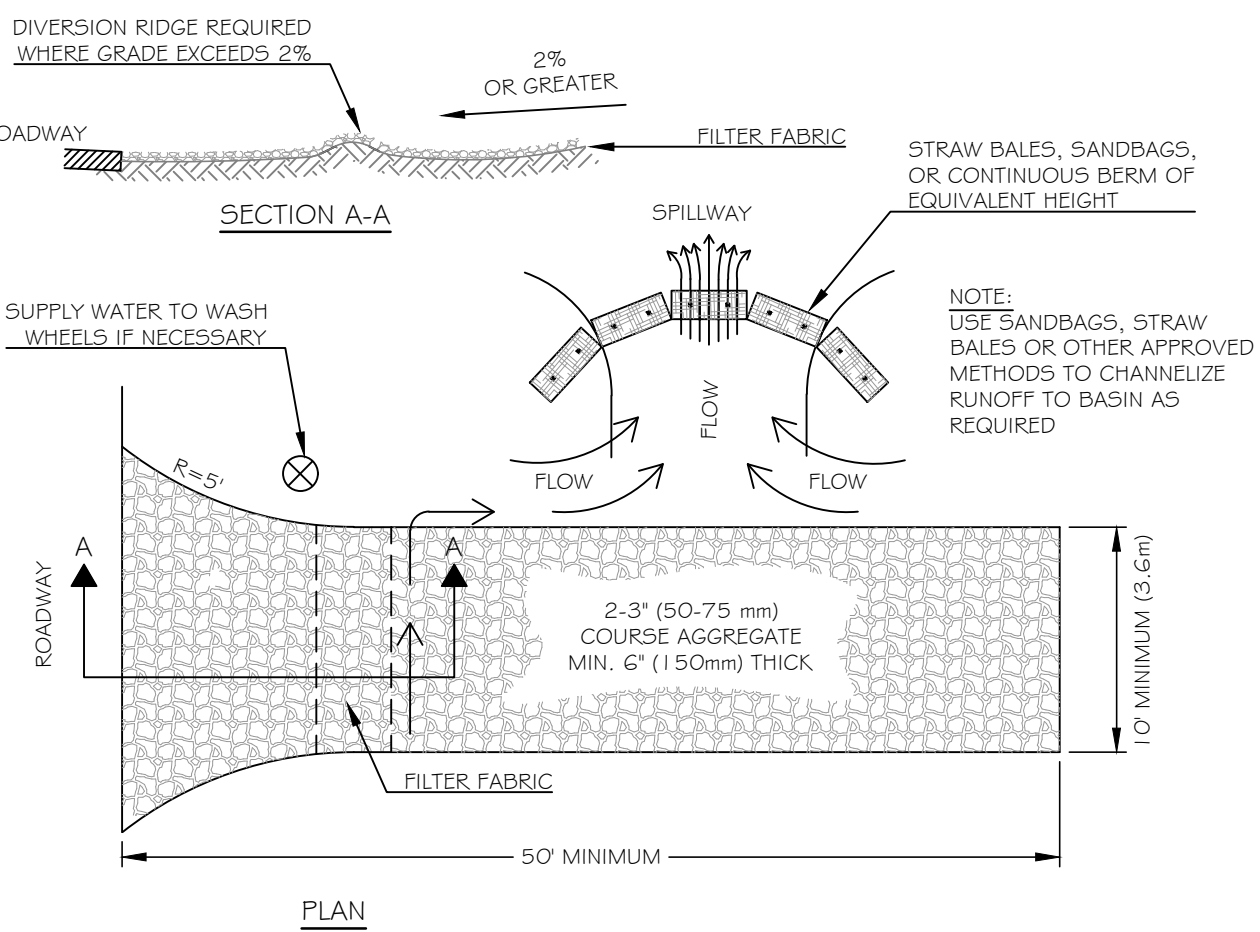
AN AREA IS CONSIDERED STABLE IF IT IS PAVED OR IF 80% GROWTH OF PLANTED SEEDS IS ESTABLISHED. ONCE AN AREA IS CONSIDERED STABLE, THE EROSION CONTROL MEASURES CAN BE REMOVED AS FOLLOWS:

1. SILT FENCE/BERM  
SILT FENCE SHALL BE DISPOSED OF LEGALLY AND PROPERLY OFF-SITE. ALL SEDIMENT TRAPPED BEHIND THESE CONTROLS SHALL BE DISTRIBUTED TO AN AREA UNDERGOING FINAL GRADING OR REMOVED AND RELOCATED OFF-SITE.

2. CATCH BASIN PROTECTION  
CATCH BASIN INLET PROTECTION SHALL BE REMOVED FOLLOWING PERMANENT STABILIZATION OF UPGRADIENT AREAS. SEDIMENT SHALL BE REMOVED FROM THE SACK AND LEGALLY DISPOSED. SEDIMENT SHALL NOT BE WASHED INTO THE CATCH BASIN.

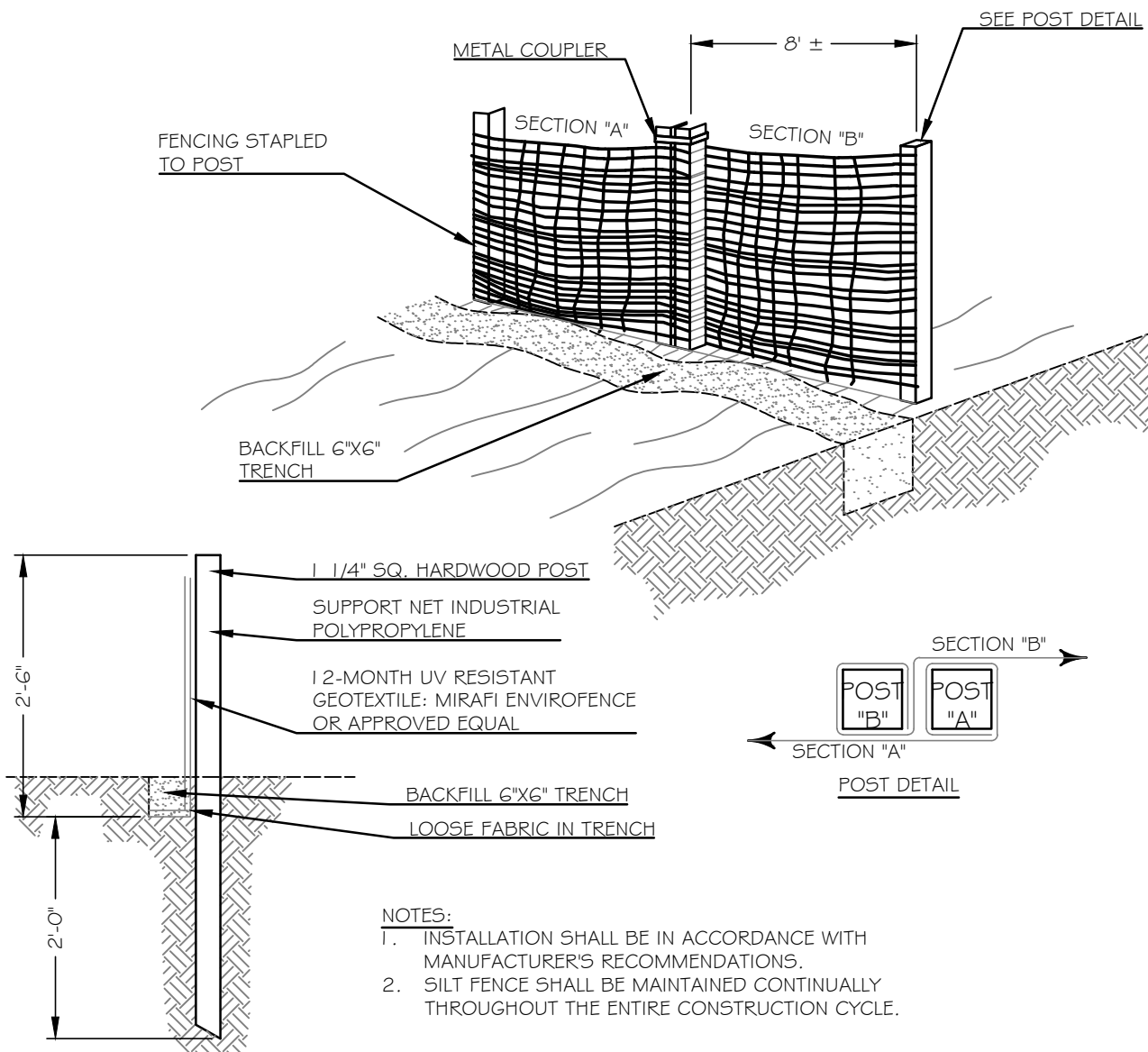
3. MISCELLANEOUS  
ONCE ALL THE TRAPPED SEDIMENTS HAVE BEEN REMOVED FROM THE TEMPORARY SEDIMENTATION DEVICES THE DISTURBED AREAS MUST BE REGRADED IN AN AESTHETIC MANNER TO CONFORM TO THE SURROUNDING TOPOGRAPHY. ONCE GRADED THESE DISTURBED AREAS MUST BE LOAMED (IF NECESSARY), FERTILIZED, SEEDED AND MULCHED IN ACCORDANCE WITH THE RATES PREVIOUSLY STATED.

THE ABOVE EROSION CONTROLS MUST BE REMOVED WITHIN 30 DAYS OF FINAL STABILIZATION OF THE SITE. CONFORMANCE WITH THIS PLAN AND FOLLOWING THESE PRACTICES WILL RESULT IN A PROJECT THAT COMPLIES WITH THE STATE REGULATIONS, AND WILL PROTECT WATER QUALITY IN AREAS DOWNSTREAM FROM THE PROJECT.

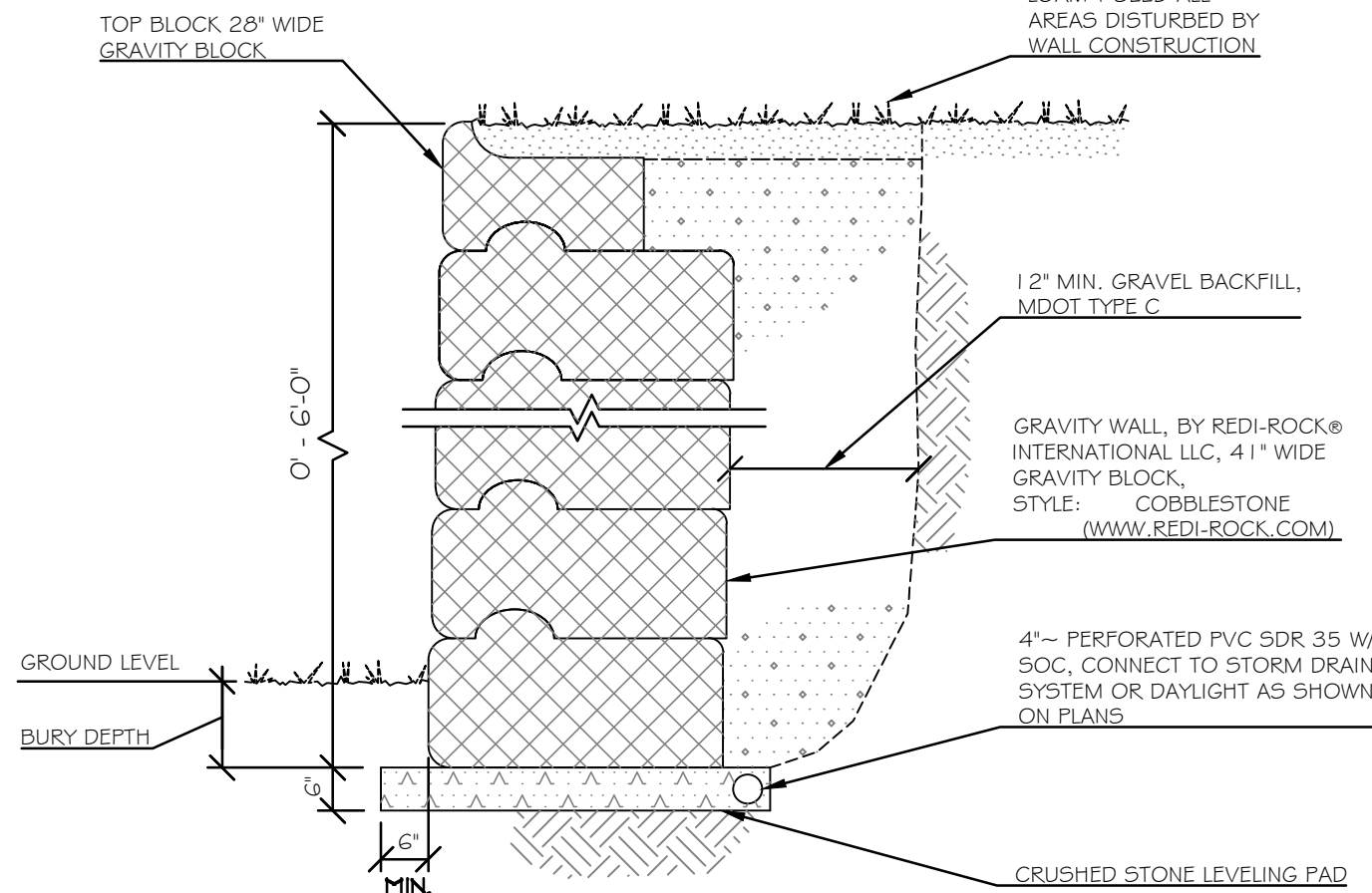


- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
  3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS ONTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

2 STABILIZED CONSTRUCTION ENTRANCE  
C2.0 NOT TO SCALE



3 PREFABRICATED SILT FENCE  
C2.0 NOT TO SCALE

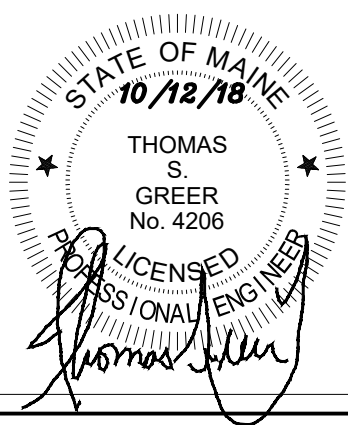


4 MODULAR BLOCK WALL  
C2.0 NOT TO SCALE

**WALSH**  
ENGINEERING ASSOCIATES, INC.

One Karen Dr., Suite 2A | Westbrook, Maine 04092  
ph: 207.553.9898 | www.walsh-eng.com

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Lumber Warehouse

989 Roosevelt Trail  
Windham, Maine 04092

989 Roosevelt Trail LLC

61 Cato Lane  
Nantucket, MA 02554

Rev.	Date	Description	Drawn	Check
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2	10/10/18	TOWN REVIEW COMMENTS	JWG	TSG

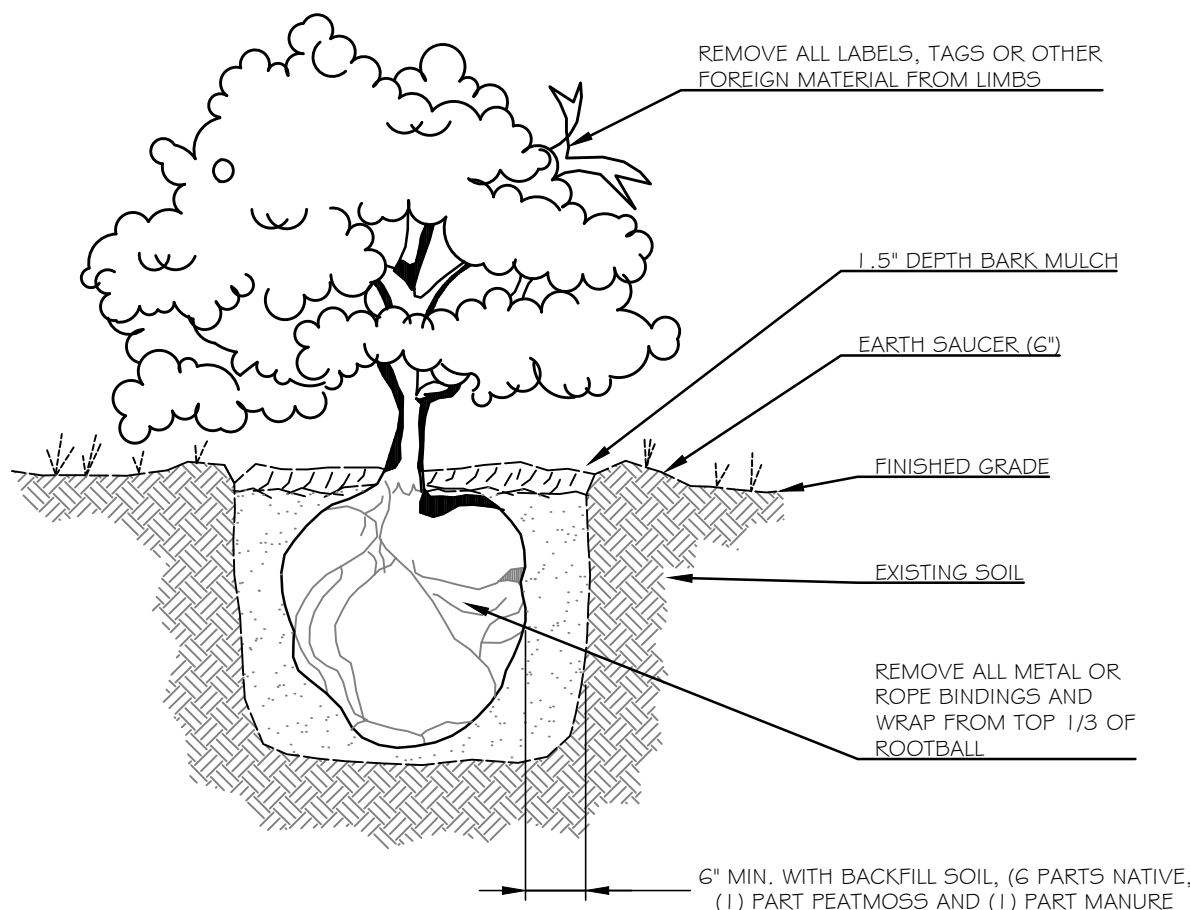
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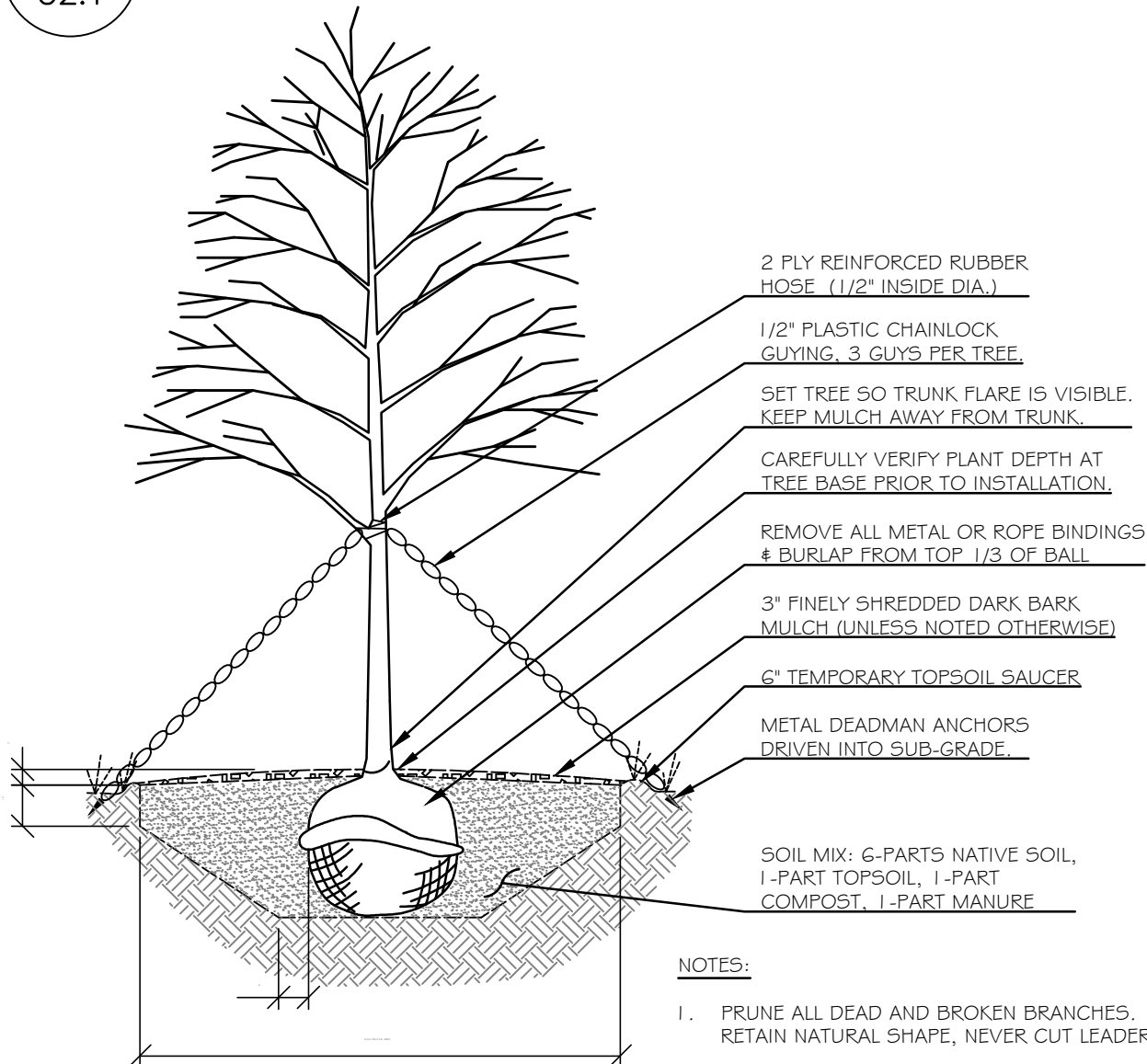
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C2.0

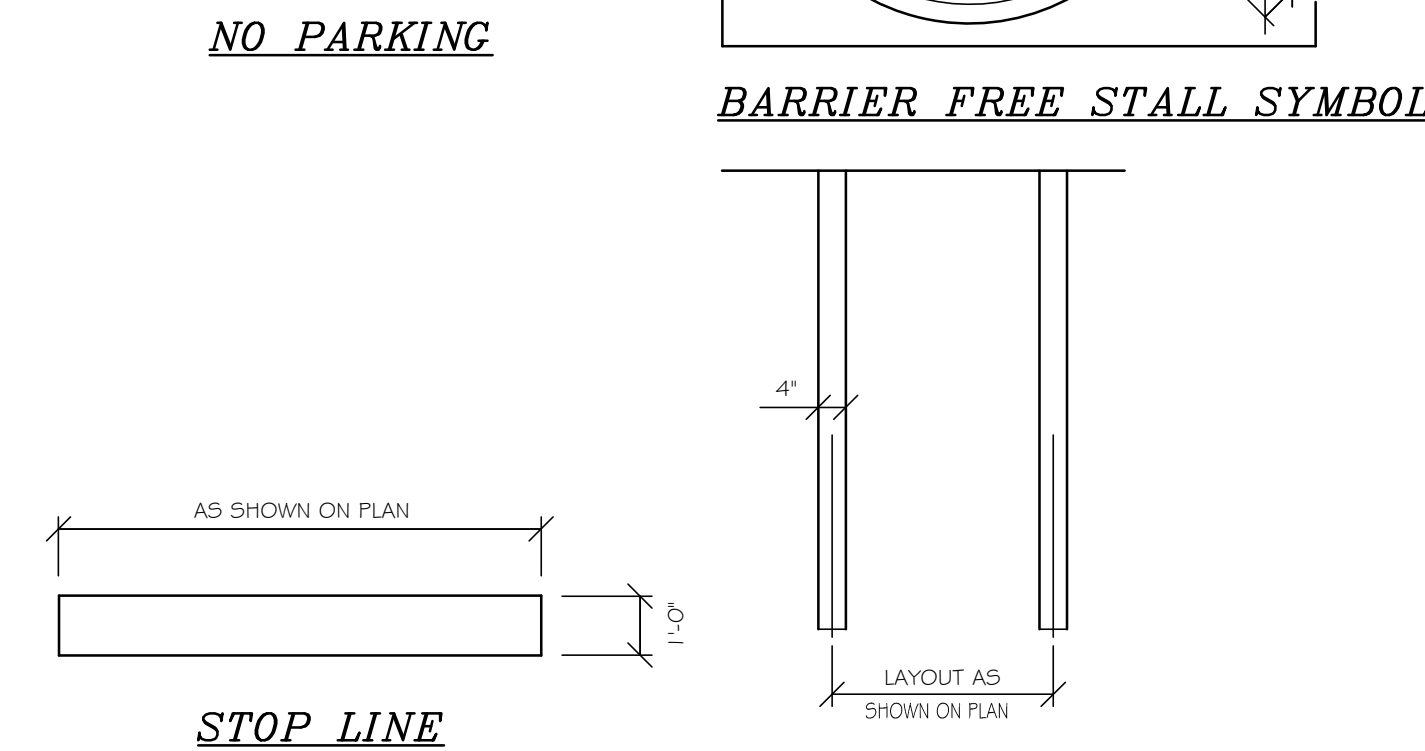
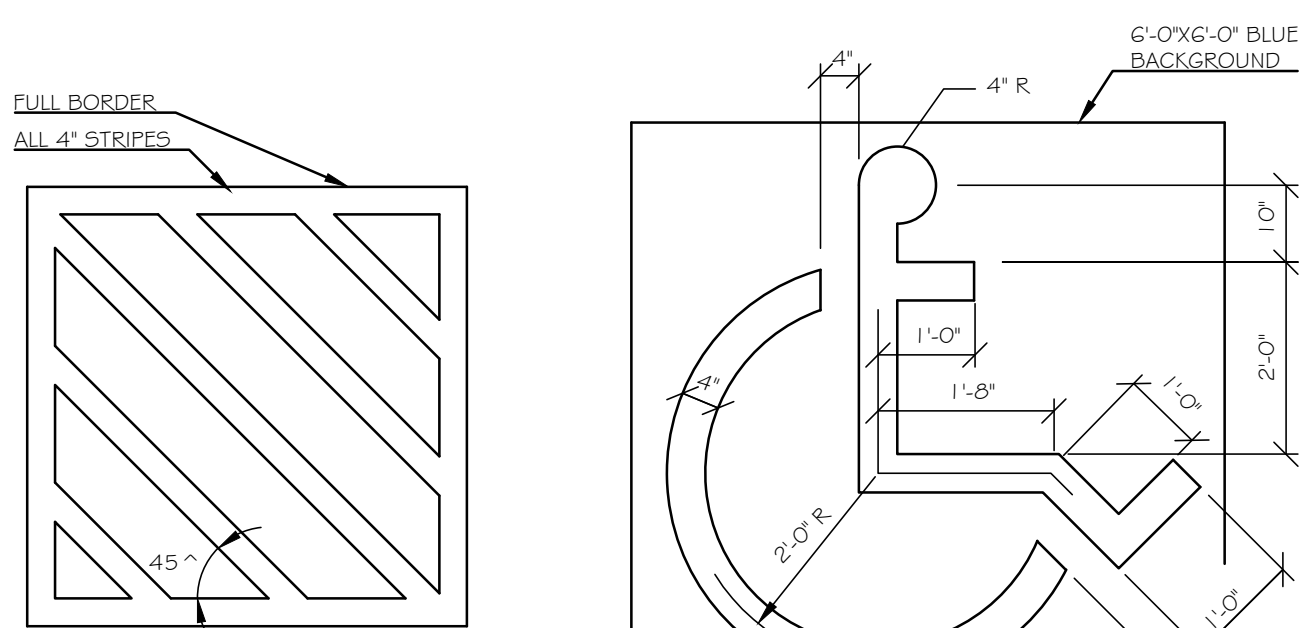




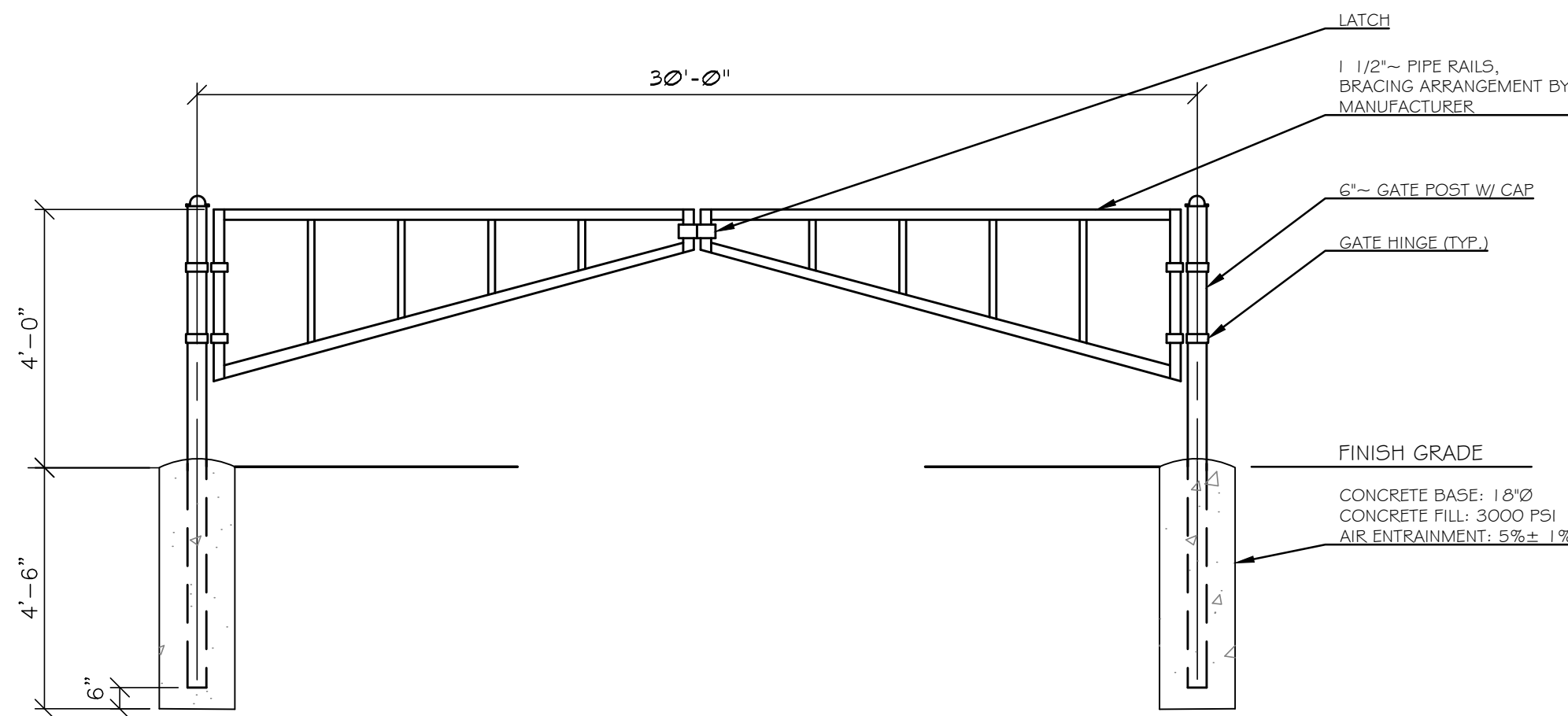
2 SHRUB PLANTING INSTALLATION  
C2.1 NOT TO SCALE



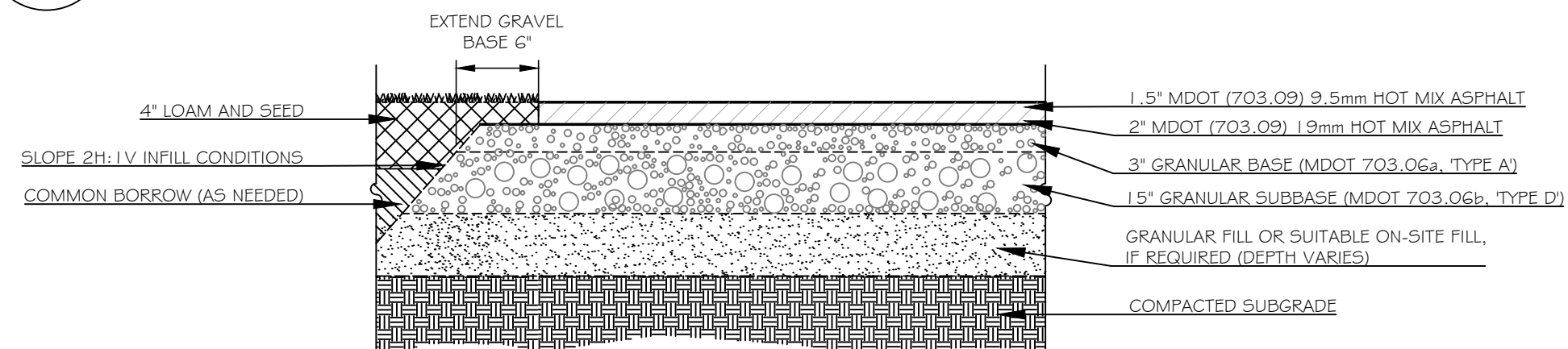
3 DECIDUOUS TREE PLANTING INSTALLATION  
C2.1 NOT TO SCALE



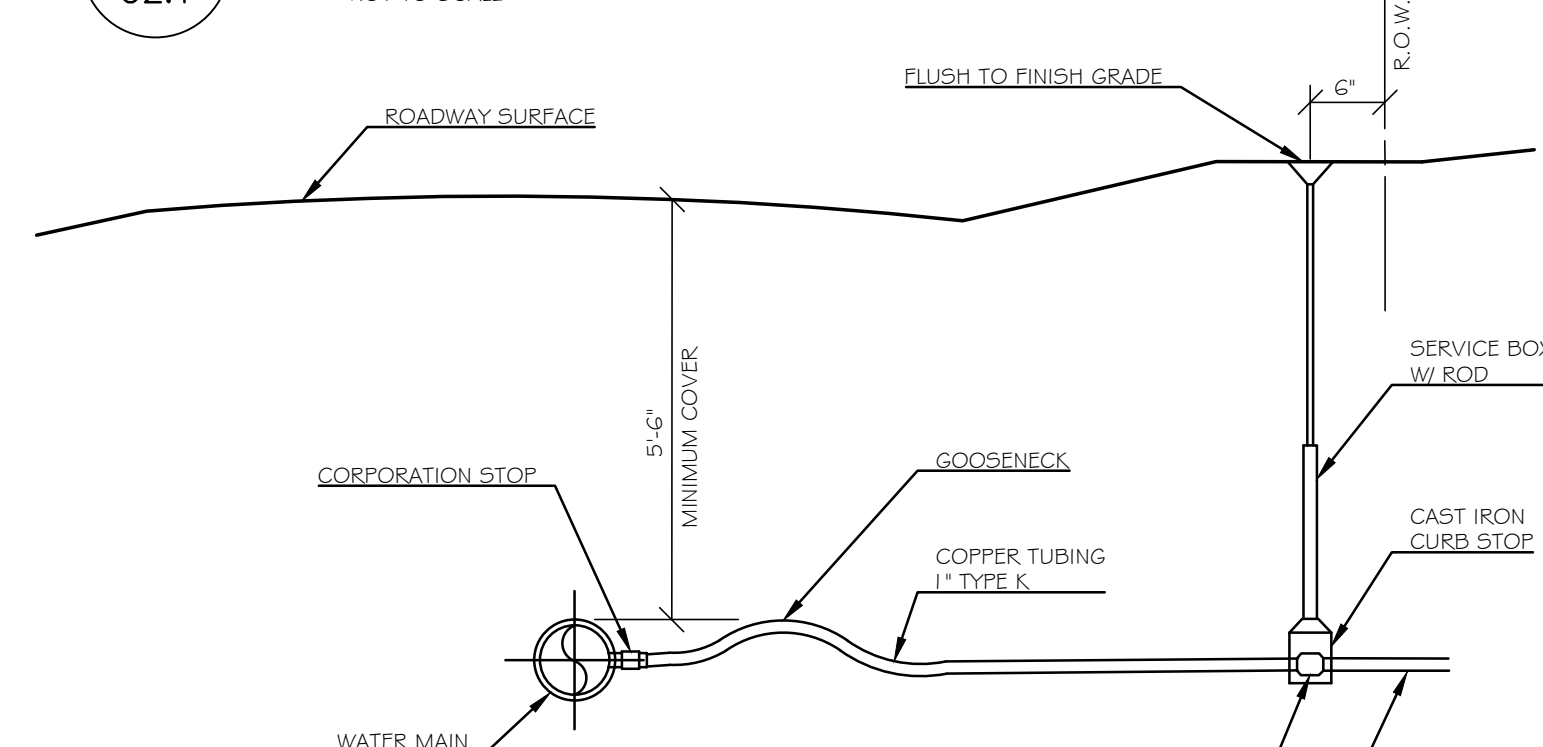
7 STRIPING DETAILS  
C2.1 NOT TO SCALE



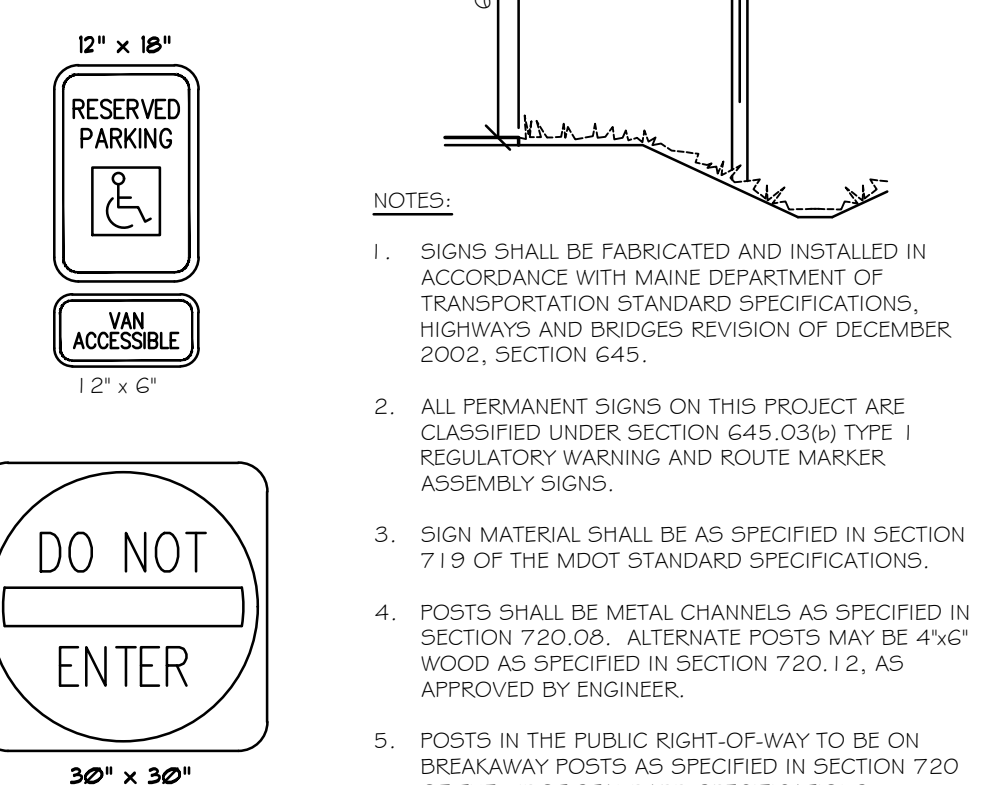
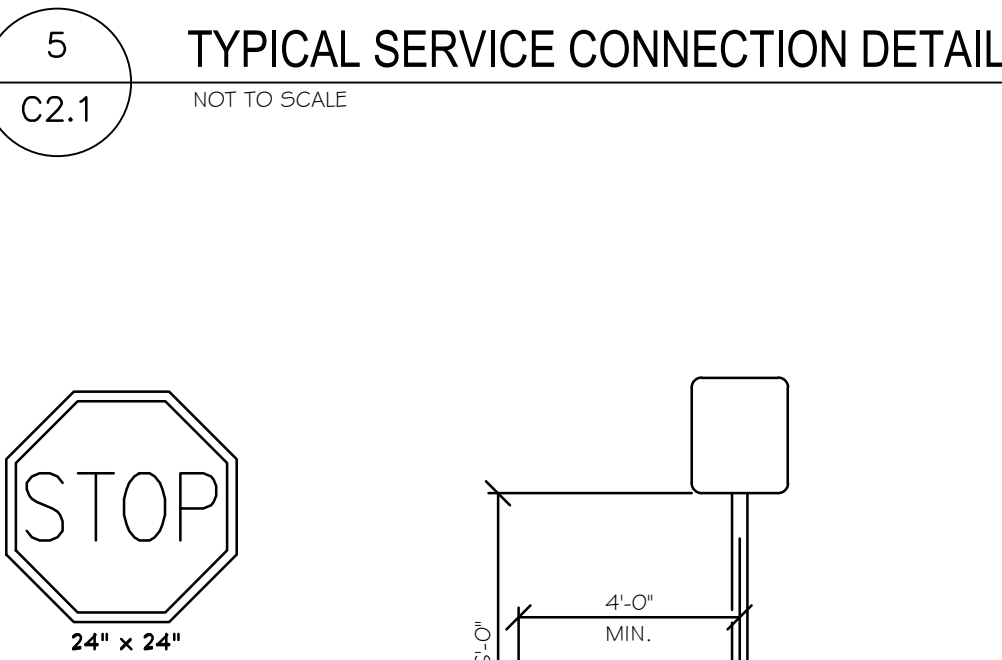
1 BAR GATE DETAIL  
C2.1 NOT TO SCALE



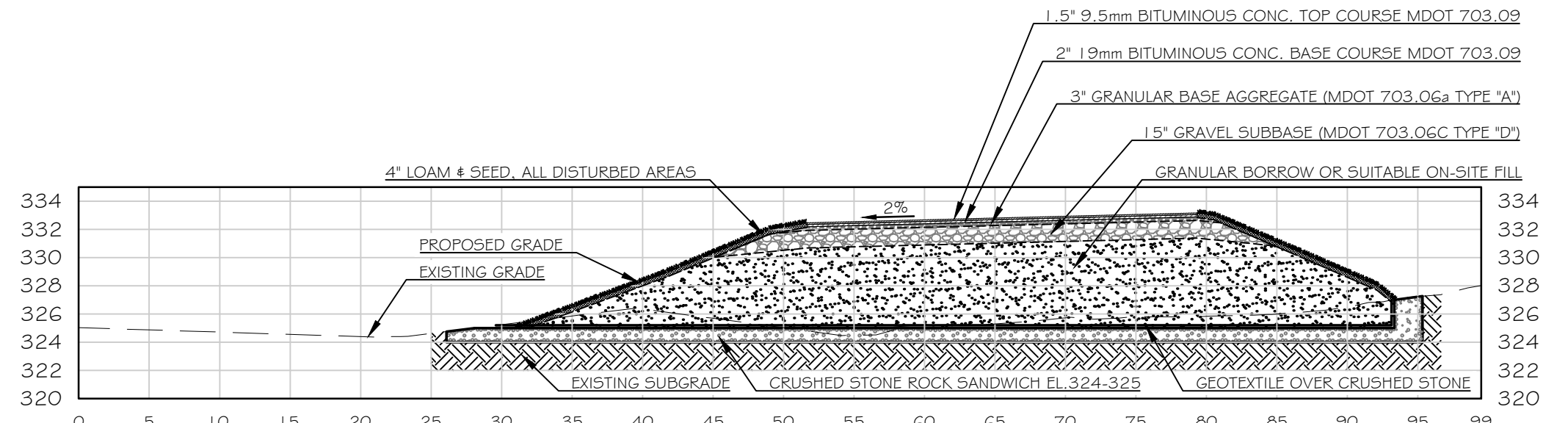
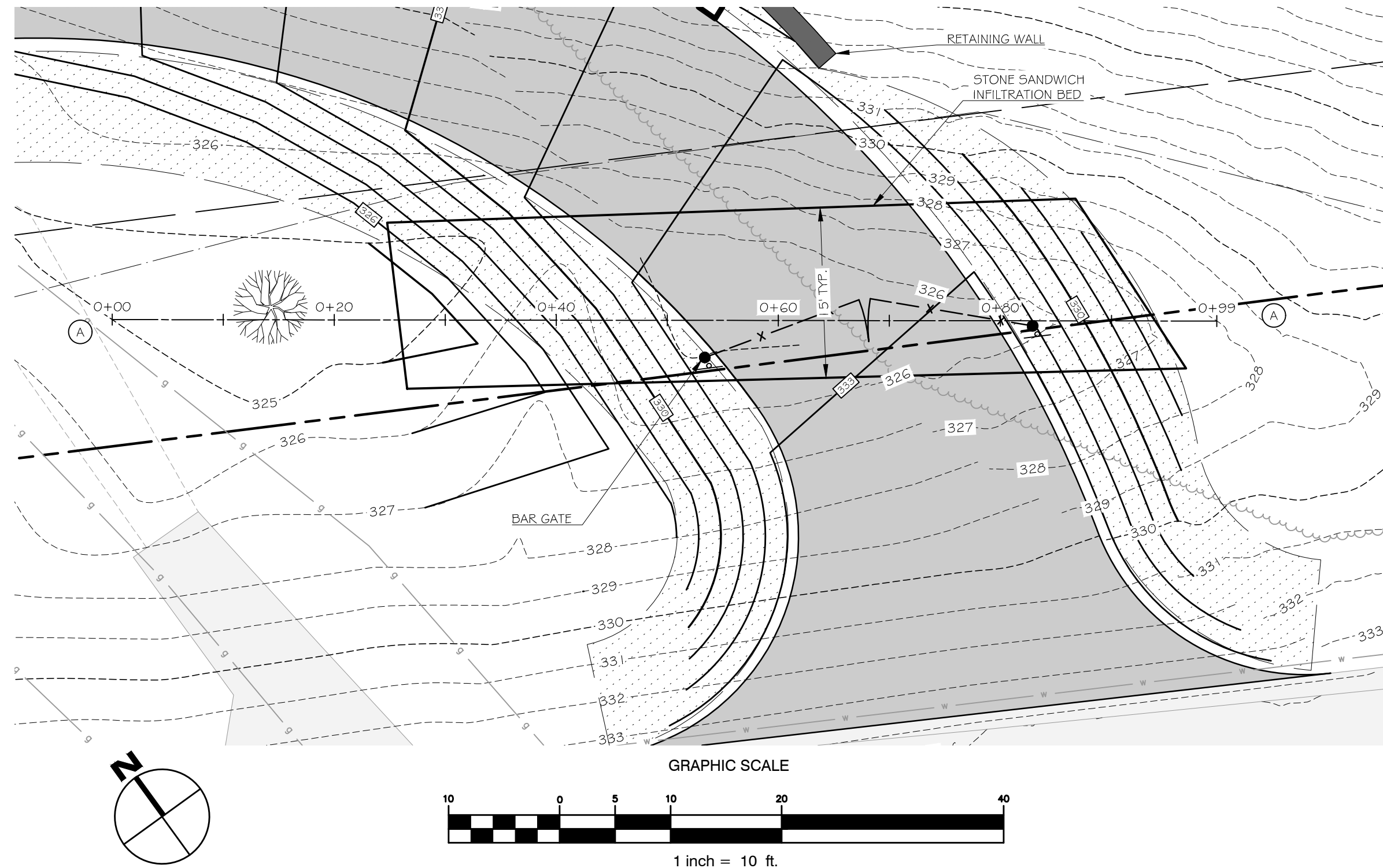
4 DRIVEWAY PAVEMENT SECTION  
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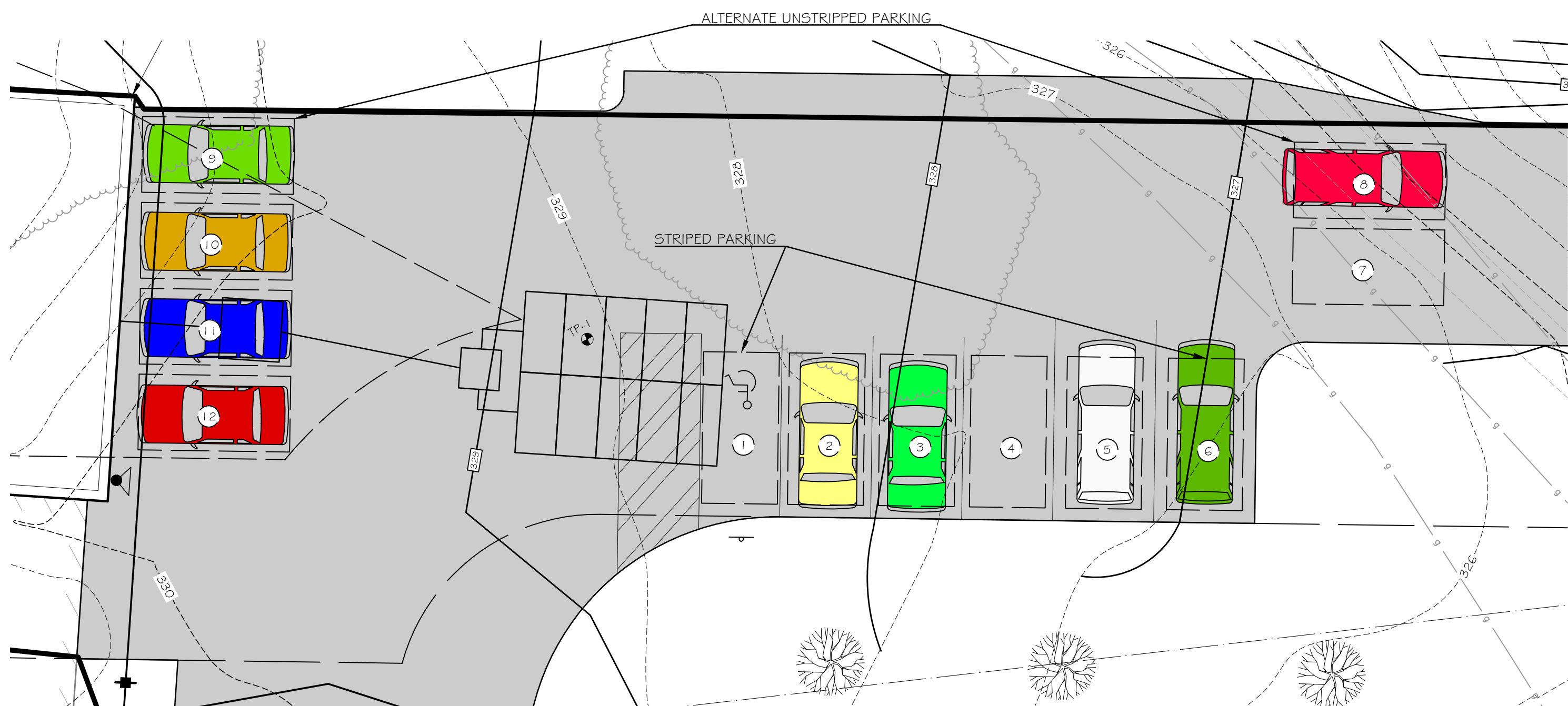
5 TYPICAL SERVICE CONNECTION DETAIL  
C2.1 NOT TO SCALE



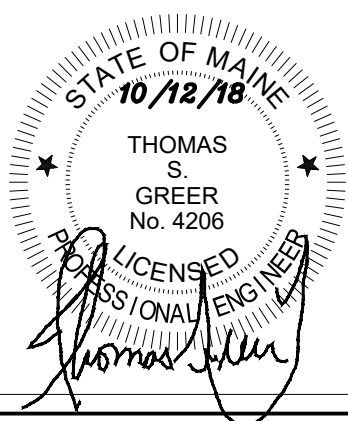
6 SIGN LEGEND  
C2.1 NOT TO SCALE



8 SECTION A-A - ROCK SANDWICH  
C2.1 SCALE: 1" = 10'



9 PARKING LAYOUT  
C2.1 SCALE: 1" = 10'



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2	10/10/18	TOWN REVIEW COMMENTS	JWG	TSG

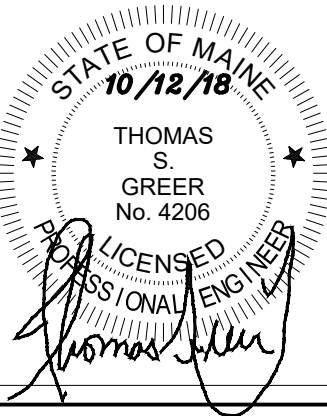
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Sheet Title:  
**Drainage Analysis  
Developed  
Conditions**

Job No.:	419	Sheet No.:	
Date:	9/10/18		
Scale:	1"=20'		
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DRAINAGE LEGEND - POST DEVELOPMENT

