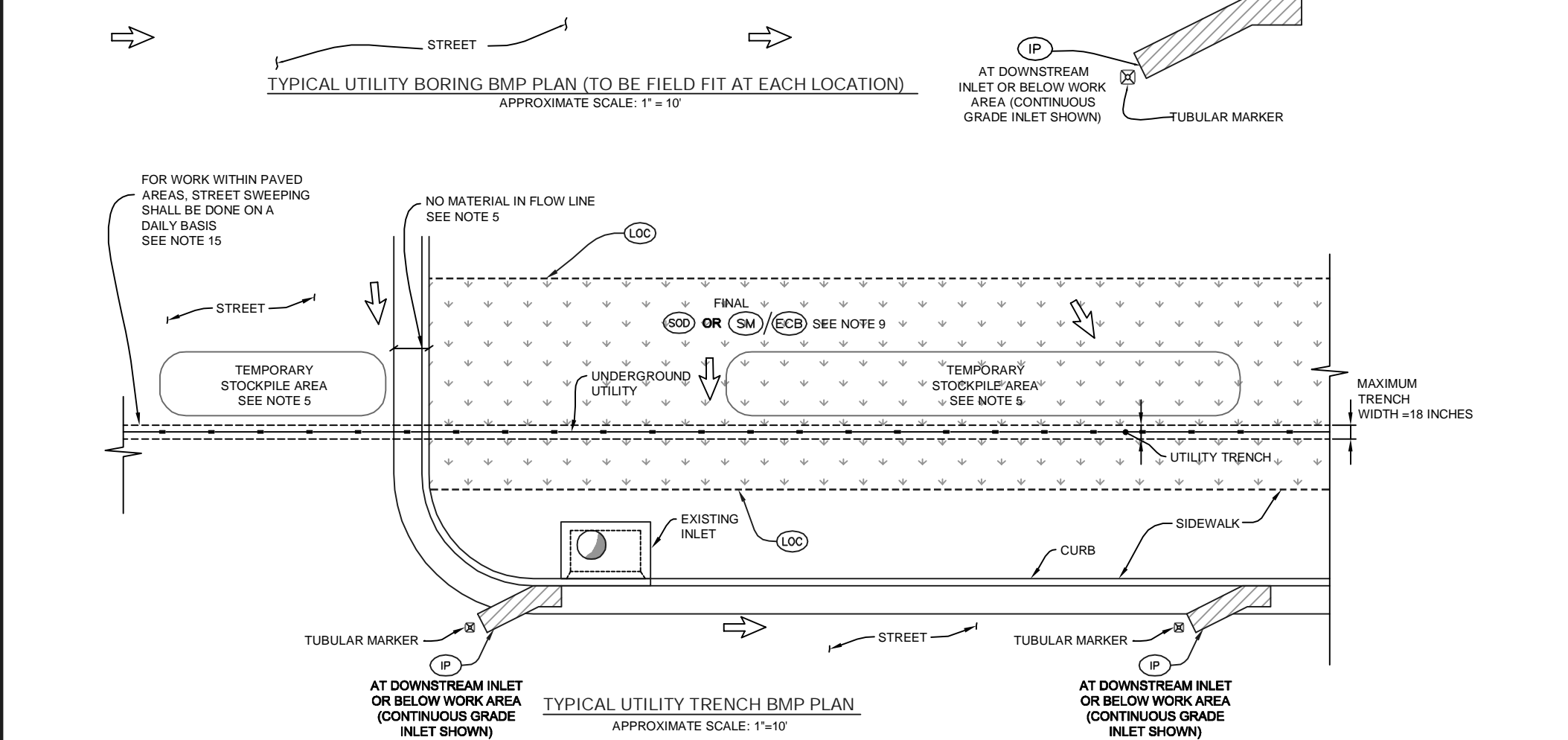


TYPICAL UTILITY BORING BMP PLAN (TO BE FIELD FIT AT EACH LOCATION)
APPROXIMATE SCALE: 1" = 10'



TYPICAL UTILITY TRENCH BMP PLAN
APPROXIMATE SCALE: 1" = 10'

TYPICAL DETAIL NOTES:

- THIS DRAWING HAS BEEN PREPARED FOR USE WITH A GESC PERMIT FOR DIRECTIONAL BORING AND/OR TRENCHING OPERATIONS ASSOCIATED WITH DRY UTILITY INSTALLATION OR REPLACEMENT OPERATIONS.
- DIMENSIONS SHOWN AND ARRANGEMENT OF SITE ARE APPROXIMATE AND MAY BE VARIED BASED ON WORK REQUIREMENTS AND/OR SITE CHARACTERISTICS.
- PERIMETER CONTROL BMP'S (AS REQUIRED IN DETAILS) MUST BE INSTALLED AND FUNCTIONAL BEFORE ANY EARTH DISTURBANCE ACTIVITIES BEGIN. BMP'S SHALL BE PLACED ALONG THE DOWN SLOPE SIDE OF SITE AND SHALL BE TIGHTLY ABUTTED WITH NO GAPS OR SHALL BE OVERLAPPED. BMP'S SHALL REMAIN IN PLACE UNTIL FULL RESTORATION OF LANDSCAPE OR ACCEPTABLE VEGETATION LEVELS HAVE BEEN REACHED.
- SEDIMENT CONTROL LOGS (SCL) SHALL NOT BE USED IN PAVED OR IMPERVIOUS AREAS.
- MATERIAL GENERATED FROM VAULT EXCAVATIONS OR TRENCHING SHALL BE HAULED AWAY IMMEDIATELY OR STOCKPILED ON THE UPHILL SIDE OF EXCAVATIONS OR TRENCHES. PERIMETER CONTROL REQUIREMENTS PERTAIN TO ALL STOCKPILES NOT ABLE TO BE BACKFILLED BY END OF DAY OR BEFORE STORM EVENTS. EXCAVATED MATERIAL SHALL NOT BE PLACED IN THE CURB, GUTTER, OR FLOWLINE.
- THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED CONCRETE WASH OUT LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED AND DISPOSED AT AN APPROPRIATE LOCATION. CWA TO BE EXCLUDED IF NO CONCRETE RESTORATION WORK IS REQUIRED.
- UTILITY BORE AND BORE PITS SHALL MAINTAIN A MINIMUM OF 18" CLEARANCE FROM ALL STORMWATER STRUCTURES INCLUDING, BUT NOT LIMITED TO, INLETS, MANHOLES, STORM SEWERS, AND OTHER INFRASTRUCTURE. PLEASE CONTACT SEMSWA FOR STORM SEWER LOCATES WITHIN THE PUBLIC RIGHT OF WAY.
- PERMITTEE IS RESPONSIBLE FOR REPAIR OF ANY DAMAGE TO EXISTING FACILITIES RESULTING FROM WORK COMPLETED UNDER THIS PERMIT. EXISTING FEATURES DISTURBED DURING CONSTRUCTION, INCLUDING SILT FENCE, EROSION CONTROL BLANKET, OR OTHER CONSTRUCTION BMP'S, SHALL BE RESTORED UPON COMPLETION OF UTILITY WORK.
- FINAL SITE STABILIZATION SHALL BE BASED ON PREVIOUS CONDITIONS: SEED AND MULCH IN NATIVE AREAS, SOD IN LANDSCAPED AREAS, CONCRETE OR ASPHALT IN IMPROVED AREAS, ETC. FINAL SITE CONDITION SHALL BE EQUAL OR EXCEED THE CONDITION OF THE SITE PRIOR TO THE WORK. IF THE SITE CANNOT BE PROPERLY SEEDED AND MULCHED (INCLUDING CRIMPING), EROSION CONTROL BLANKET SHALL BE INSTALLED OVER SEED.
- ALL DISTURBANCE ACTIVITIES SHALL BE LOCATED OUTSIDE OF THE 100-YEAR FLOODPLAIN. IF WORK WITHIN THE FLOODPLAIN IS UNAVOIDABLE, CONTACT MUST BE MADE TO THE SEMSWA FLOODPLAIN DEPARTMENT PRIOR TO DISTURBANCE WITHIN THE FLOODPLAIN.
- USE OF THIS GESC PERMIT DOES NOT RELIEVE THE PERMITTEE AND/OR CONTRACTOR FROM MEETING THE FULL INTENT OF THE GESC MANUAL CRITERIA. DIFFERING SITE CONDITIONS MAY REQUIRE ADDITIONAL GESC MEASURES NOT SHOWN.
- ADDITIONAL BMP'S SHALL BE INSTALLED AS NECESSARY OR AS REQUIRED BY THE SEMSWA GESC INSPECTOR. THE USE OF ALTERNATIVE BMP'S MUST BE COORDINATED AND APPROVED WITH THE GESC INSPECTOR PRIOR TO INSTALLATION AND THE CONTRACTOR ASSUMES ALL LIABILITY IF THERE IS AN ALTERNATIVE BMP FAILURE (INCLUDING COMPLIANCE ENFORCEMENT).
- A SELECTION OF THE SEMSWA GESC STANDARD NOTES AND DETAILS HAVE BEEN INCLUDED IN THIS PLAN. THE FULL SET OF NOTES AND DETAILS CAN BE FOUND ON THE SEMSWA WEBSITE, WWW.SEMSWA.ORG.
- ALL BORE MACHINES, EXCAVATION AND TRENCHING EQUIPMENT, AND SUPPORT EQUIPMENT INCLUDING BUT NOT LIMITED TO, POTHOLING MACHINES, VAC TRUCKS, WATER TRUCKS, OR OTHER STORAGE VEHICLES, SHALL BE IN GOOD WORKING ORDER. ANY LEAKING EQUIPMENT AT A MINIMUM SHALL HAVE CONTAINMENT ON THE DOWN SLOPE SIDE. FAILURE TO CONTAIN OR REMEDY ISSUE MAY RESULT IN ENFORCEMENT.
- THE GESC MANAGER IS RESPONSIBLE FOR CLEANUP OF SEDIMENT OR CONSTRUCTION DEBRIS TRACKED ONTO ADJACENT PAVED AREAS. PAVED AREAS INCLUDING STREETS ARE TO BE KEPT CLEAN THROUGHOUT BUILD-OUT AND SHALL BE CLEANED, WITH A STREET SWEEPER OR SIMILAR DEVICE, AT FIRST NOTICE OF ACCIDENTAL TRACKING OR AT THE DISCRETION OF THE SEMSWA INSPECTOR. STREET WASHING IS NOT ALLOWED. SEMSWA RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE KEPT FREE OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.
- ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS THAT MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULLIES OR STORM SEWER LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE CDPHE PER CRS 25-8-601, AND SEMSWA. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AS WELL AS THE CDPHE. CONTACT INFORMATION FOR CDPHE AND THE NATIONAL RESPONSE CENTER CAN BE FOUND IN APPENDIX A OF THE GESC MANUAL. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER.
- THE USE OF HOSES AND WATER TO FLUSH OR WASH ANY MATERIAL INTO A STORM SEWER IS PROHIBITED. THE MATERIAL MUST BE RECOVERED USING DRY RECOVERY METHODS. ANY MATERIAL RESULTING FROM SAW CUTTING OR POTHOLING MUST BE DRY RECOVERED USING DRY RECOVERY TECHNIQUES (NOT FLUSHING). VACUUMING WHILE SAW CUTTING IS RECOMMENDED.

DATE: FEB 24, 2010, TIME: 6:00 PM
NAME: P:\09-002 01 SEMSWA Misc Task Orders\101 GESC Permit for Xcel\CA000002 01 BORE PT GESC PLAN.dwg

REFERENCE:	SCALE:	Standard Plan Revision	
		No.	Date
		1	1/2012
		2	6/2012
		Description	
		REVISED/UPDATED	
		REVISED/UPDATED	

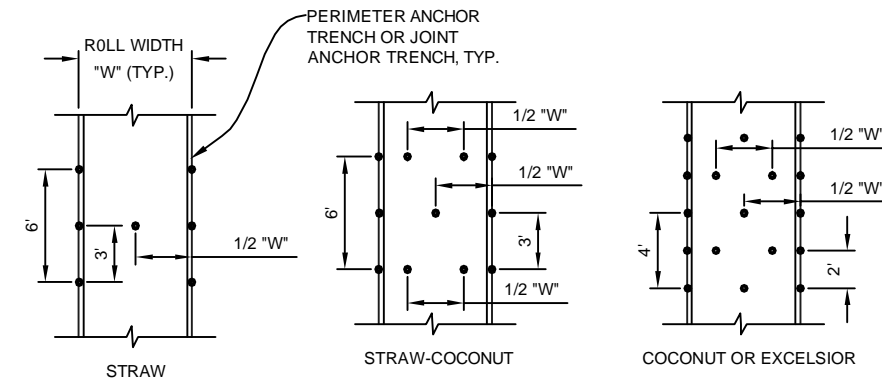
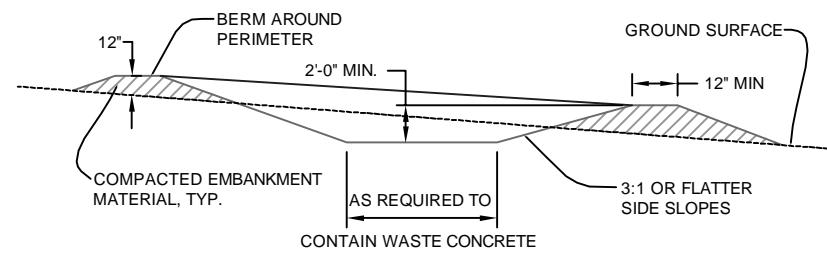


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TYPICAL DETAIL FOR DRY UTILITY BORING AND UTILITY TRENCH

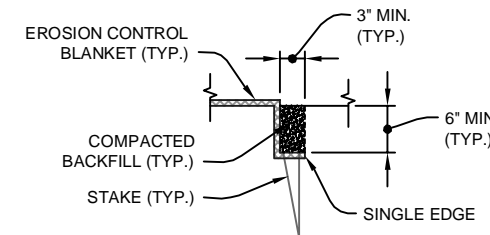
CONCRETE WASHOUT AREA NOTES:

1. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
2. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE RESTORED TO PREVIOUS CONDITION.
3. COMMERCIAL CONTAINMENT UNITS (E.G. ECO-PANS, ROLL-OFFS, ETC.) MAY BE USED IN LIEU OF THE DETAIL SHOWN.

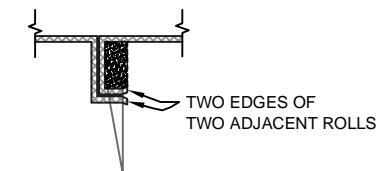


STAKING PATTERNS
SCALE: 1" = 10'-0"

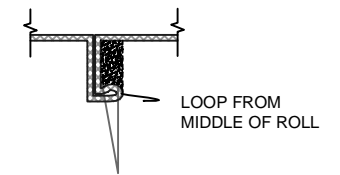
SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION. IF NO MANUFACTURER'S SPECIFICATION IS AVAILABLE USE THE ACCEPTABLE STAKING PATTERN (AS SHOWN ABOVE).



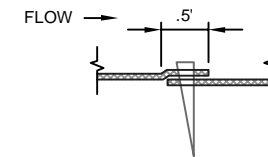
PERIMETER ANCHOR TRENCH
SCALE: 1" = 2'-0"



JOINT ANCHOR TRENCH
SCALE: 1" = 2'-0"



INTERMEDIATE ANCHOR TRENCH
SCALE: 1" = 2'-0"



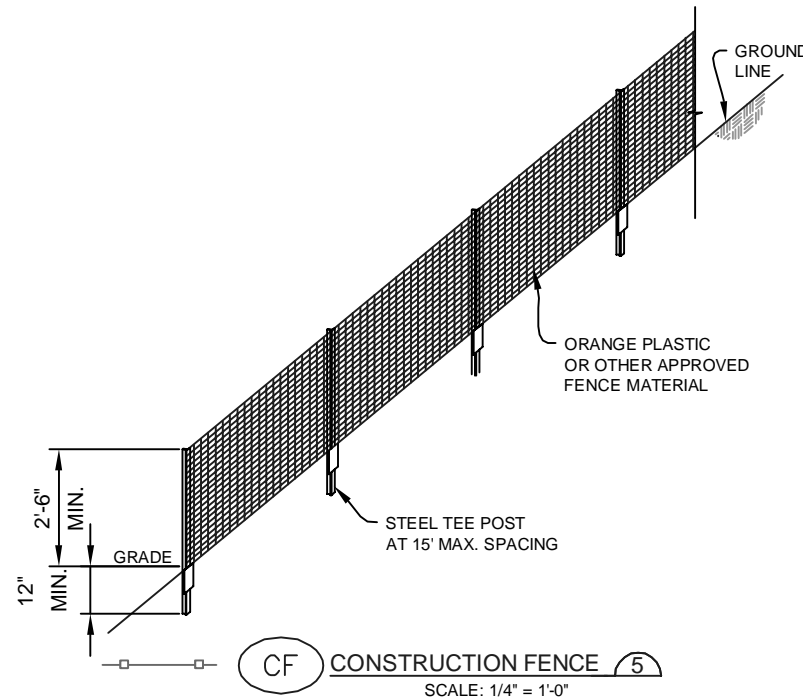
OVERLAPPING JOINT
SCALE: 1" = 2'-0"

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	NETTING MIN.
STRAW*	-	100%	-	DOUBLE/NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	-	DOUBLE/NATURAL
COCONUT	100%	-	-	DOUBLE/NATURAL
EXCELSIOR	-	-	100%	DOUBLE/NATURAL

* FOR OUTSIDE OF STREAMS AND DRAINAGE CHANNELS

EROSION CONTROL BLANKET INSTALLATION NOTES:

1. ALL EROSION CONTROL BLANKETS AND NETTING SHALL BE MADE OF 100% NATURAL AND BIODEGRADABLE MATERIAL; NO PLASTIC OR OTHER SYNTHETIC MATERIAL, EVEN IF PHOTO DEGRADABLE, SHALL BE ALLOWED.
2. IN AREAS WHERE EROSION CONTROL BLANKET IS TO BE INSTALLED, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING BELOW THE BLANKET IN ACCORDANCE WITH THE REQUIREMENTS OF DETAIL 17, SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO BLANKET INSTALLATION AND THE BLANKET SHALL BE IN FULL CONTACT WITH SUBGRADE, NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
3. PERIMETER ANCHOR TRENCH SHALL BE USED AT OUTSIDE PERIMETER OF ALL BLANKET AREAS.
4. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL BLANKETS EXCEPT STRAW, WHICH MAY USE AN OVERLAPPING JOINT.
5. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF THE ROLL LENGTH FOR COCONUT AND EXCELSIOR BLANKETS.
6. THE OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER FOR BLANKETS ON SLOPES.
7. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKET SHALL CONFORM TO TABLE 7.1.
8. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKET SHALL BE RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 17.
9. ALL STAKES USED TO SECURE EROSION CONTROL BLANKETS SHALL BE MADE OF WOOD OR A BIODEGRADABLE MATERIAL. NO METAL STAKES SHALL BE ALLOWED.



CF CONSTRUCTION FENCE 5
SCALE: 1/4" = 1'-0"

- BMP LEGEND**
- CWA CONCRETE WASHOUT AREA**
 - ECB EROSION CONTROL BLANKET**
 - IP INLET PROTECTION**
 - RRB REINFORCED ROCK BERM**
 - SCL SEDIMENT CONTROL LOG**
 - SM SEEDING AND MULCHING**
 - SF SILT FENCE**
 - LOC LIMITS OF CONSTRUCTION**
 - SOD BLUEGRASS TURF SOD**
 - FLOW DIRECTION**

NAME: P:\09\002\01\SEMSWA\Misc\Task Orders\101\GESC Permit for Xcel\CA000002\14\BDRF.PLT\GESC-PLAN.dwg DATE: FEB 24, 2019, TIME: 6:10 PM

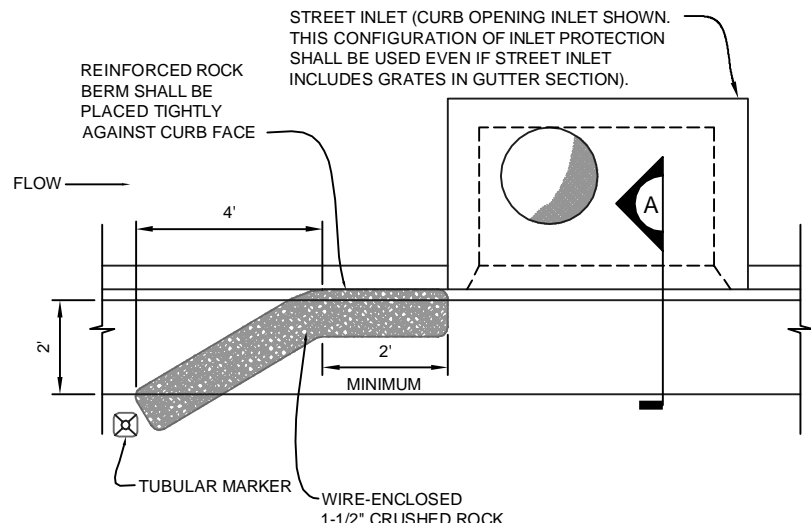
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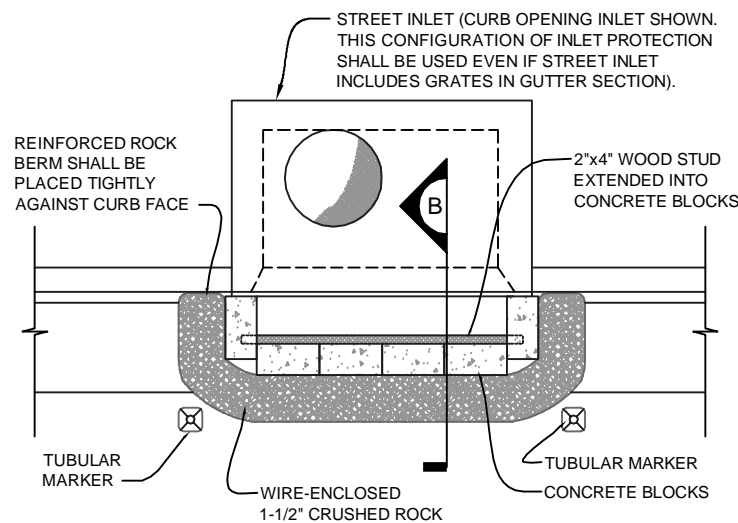
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TYPICAL DETAIL FOR DRY UTILITY BORING AND UTILITY TRENCH

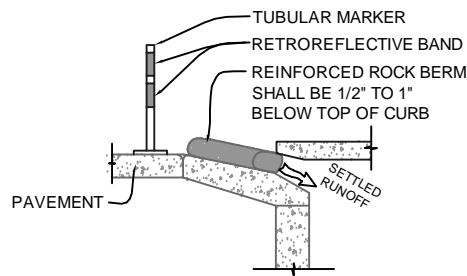
SHEET 2 OF 4



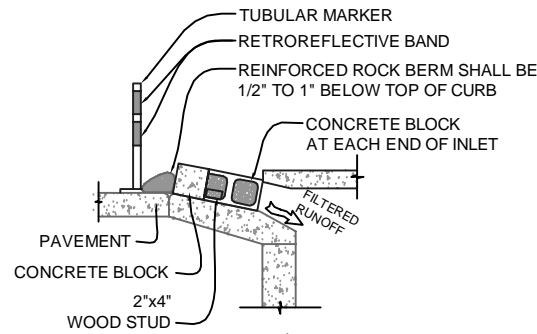
STREET INLET ON CONTINUOUS GRADE (AFTER PAVING) - PLAN
SCALE: 1/4" = 1'-0"



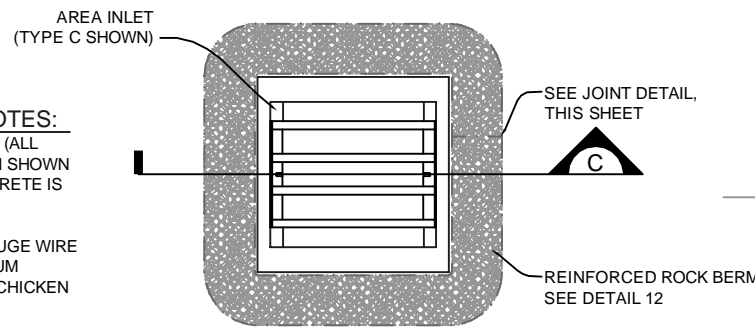
STREET INLET IN SUMP (AFTER PAVING) - PLAN
SCALE: 1/4" = 1'-0"



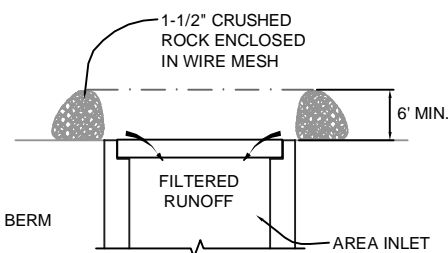
SECTION A
SCALE: 1/4" = 1'-0"



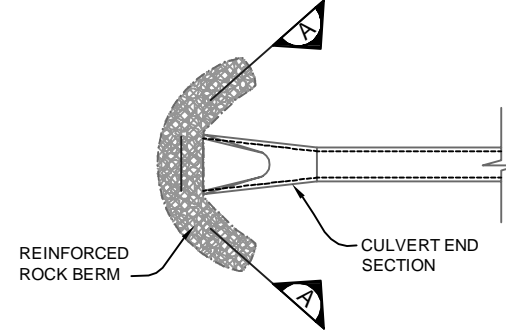
SECTION B
SCALE: 1/4" = 1'-0"



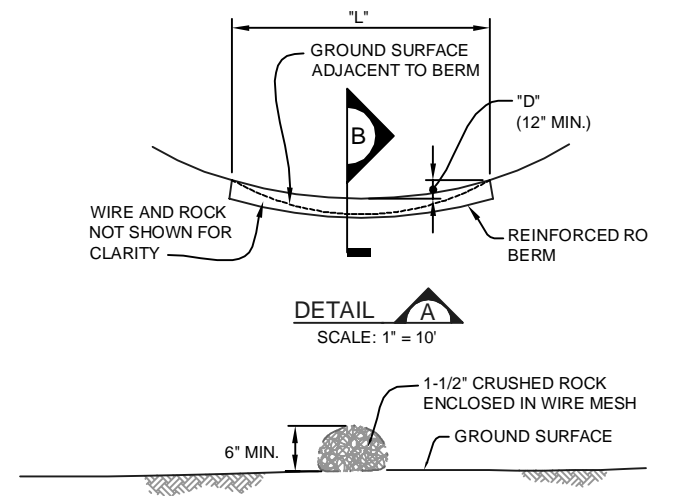
AREA INLET - PLAN
SCALE: 1/4" = 1'-0"



SECTION C
SCALE: 1/4" = 1'-0"



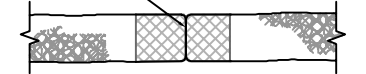
PLAN (AT CULVERT)
SCALE: 1" = 10'



DETAIL A
SCALE: 1" = 10'

SECTION B
SCALE: 1/4" = 1'-0"

ENDS SHALL BE TIGHTLY ABUTTED WITH NO GAPS OR OVERLAPPED



JOINT DETAIL
SCALE: 1/4" = 1'-0"

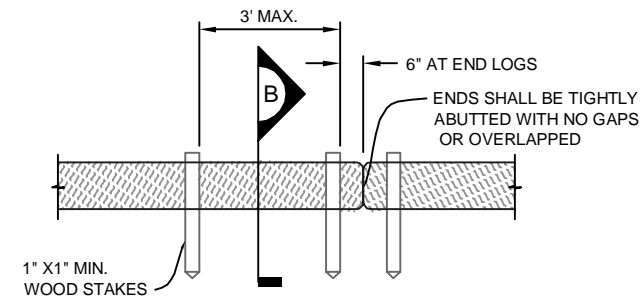
REINFORCED ROCK BERM INSTALLATION NOTES:

1. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON SHEET 4 (1-1/2" MINUS). RECYCLED CONCRETE IS NOT ACCEPTABLE.
2. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE (MIN.) TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"). ROLL WIDTH SHALL BE 48-INCHES.
3. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
4. FOR CONCENTRATED FLOW AREAS THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.
5. APPROVED FABRIC OR GEOTEXTILE MATERIAL MAY BE SUBSTITUTED FOR WIRE MESH. SHREDDED RUBBER MAY BE SUBSTITUTED FOR CRUSHED ROCK.

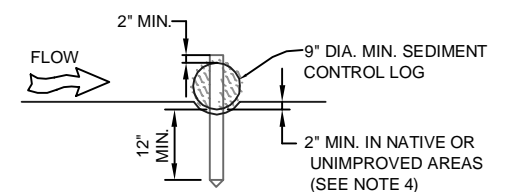


INLET PROTECTION INSTALLATION NOTES:

1. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON SHEET 4 (1-1/2" MINUS). RECYCLED CONCRETE IS NOT ACCEPTABLE.
2. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE (MIN.). TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"). ROLL WIDTH SHALL BE 48-INCHES.
3. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
4. REINFORCED ROCK BERM SHALL BE CONSTRUCTED IN ONE PIECE OR SHALL BE CONSTRUCTED USING JOINT DETAIL.
5. TUBULAR MARKERS SHALL MEET REQUIREMENTS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED.
6. THE TOP OF REINFORCED ROCK BERM SHALL BE 1/2"=1" BELOW TOP OF CURB.
7. APPROVED FABRIC OR GEOTEXTILE MATERIAL MAY BE SUBSTITUTED FOR WIRE MESH. SHREDDED RUBBER MAY BE SUBSTITUTED FOR CRUSHED ROCK.



DETAIL A
SCALE: 1/4" = 1'-0"



SECTION B
SCALE: 1/4" = 1'-0"

SEDIMENT CONTROL LOG INSTALLATION NOTES:

1. SEDIMENT CONTROL LOGS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
2. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
3. NOT FOR USE IN CONCENTRATED FLOW AREAS.
4. THE SEDIMENT CONTROL LOG SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 2" IN NATIVE OR UNIMPROVED AREAS. NO TRENCHING REQUIRED IN LANDSCAPED AREAS BUT NO GAPS SHALL EXIST BETWEEN THE SEDIMENT CONTROL LOG AND THE LANDSCAPED SURFACE.



DATE: FEB 24, 2010, TIME: 6:10 PM
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TYPICAL DETAIL FOR DRY UTILITY BORING AND UTILITY TRENCH

SHEET 3 OF 4

SEMSWA PERMANENT DRILL SEEDING MIX

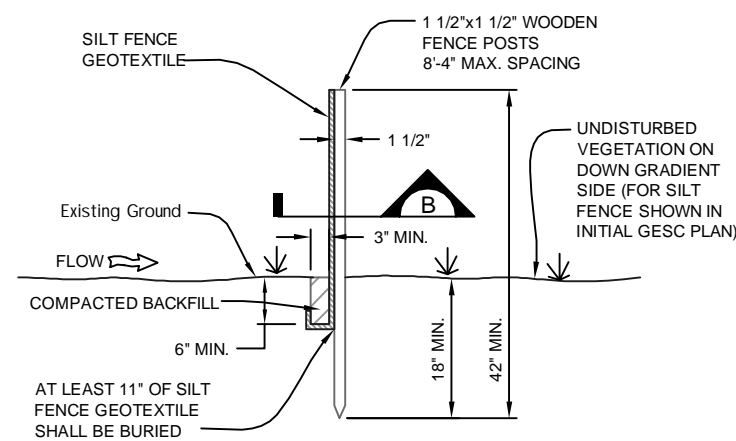
SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BIG BLUESTEM	KAW	PNWS	10	1.1
YELLOW INDIANGRASS	CHEYENNE	PNWS	10	1
SWITCHGRASS	BLACKWELL	PNWS	10	0.4
SIDEOATS GRAMA	VAUGHN	PNWB	10	0.9
WESTERN WHEATGRASS	ARRIBA	PNCS	10	1.6
BLUE GRAMA	HACHITA	PNWB	10	0.3
THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
PRAIRIE SANDREED	GOSHEN	PNWS	10	0.7
GREEN NEEDLEGRASS	LODORM	PNCB	10	1
SLENDER WHEATGRASS	PRYOR	PNCB	5	0.6
STREAMBANK WHEATGRASS	SODAR	PNCS	5	0.6
TOTAL				9.2

NOTES:
 P=PERENNIAL W=WARM SEASON
 A=ANNUAL C=COOL SEASON
 N=NATIVE S=SOD FORMER
 I=INTRODUCED B=BUNCHGRASS

SEEDING AND MULCHING INSTALLATION NOTES:

- ALL BRANDS FURNISHED SHALL BE FREE FROM SUCH NOXIOUS SEEDS AS RUSSIAN OR CANADIAN THISTLE, COARSE FESCUE, EUROPEAN BINDWEED, JOHNSON GRASS, KNAF WEED AND LEAFY SPURGE.
- THE SEEDER SHALL FURNISH TO THE CONTRACTOR A SIGNED STATEMENT CERTIFYING THAT THE SEED FURNISHED IS FROM A LOT THAT HAS BEEN TESTED BY A RECOGNIZED LABORATORY. SEED WHICH HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED IN TRANSIT OR IN STORAGE WILL NOT BE ACCEPTABLE. SEED TICKETS SHALL BE PROVIDED TO SEMSWA UPON REQUEST.
- DRILL SEEDING MIX SHALL CONFORM TO THE TABLE ABOVE: UNLESS OTHERWISE APPROVED BY SEMSWA.
- IF THE SEED AVAILABLE ON THE MARKET DOES NOT MEET THE MINIMUM PURITY AND GERMINATION PERCENTAGES SPECIFIED, THE SUBCONTRACTOR MUST COMPENSATE FOR A LESSER PERCENTAGE OF PURITY OR GERMINATION BY FURNISHING SUFFICIENT ADDITIONAL SEED TO EQUAL THE SPECIFIED PRODUCT. THE TAGS FROM THE SEED MIXES MUST BE SUPPLIED TO CONTRACTOR AND FORWARDED TO THE SEMSWA GESC INSPECTOR.
- THE FORMULA USED FOR DETERMINING THE QUANTITY OF PURE LIVE SEED (PLS) SHALL BE (POUNDS OF SEED) X (PURITY) X (GERMINATION) = POUNDS OF PURE LIVE SEED (PLS).
- PERMANENT SEED MIX SHALL BE USED UNLESS OTHERWISE APPROVED BY SEMSWA.
- ALL AREAS TO BE SEEDED AND MULCHED SHALL HAVE NATIVE TOPSOIL OR APPROVED SOIL AMENDMENTS SPREAD TO A DEPTH OF AT LEAST 6 INCHES (LOOSE DEPTH). HAUL ROADS AND OTHER COMPACTED AREAS SHALL BE LOOSENED TO A DEPTH OF 6 INCHES PRIOR TO SPREADING TOPSOIL.
- SOIL IS TO BE THOROUGHLY LOOSENED (TILLED) TO A DEPTH OF AT LEAST 6 INCHES PRIOR TO SEEDING. THE TOP 6 INCHES OF THE SEED BED SHALL BE FREE OF ROCKS GREATER THAN 4 INCHES AND SOIL CLODS GREATER THAN 2 INCHES. SEEDING OVER ANY COMPACTED AREAS THAT HAVENT BEEN THOROUGHLY LOOSENED SHALL BE REJECTED.
- SEED IS TO BE APPLIED USING A MECHANICAL DRILL TO A DEPTH OF 1/4 INCH. ROW SPACING SHALL BE NO MORE THAN 6 INCHES. MATERIAL USED FOR MULCH SHALL CONSIST OF LONG-STEMMED STRAW. AT LEAST 50 PERCENT OF THE MULCH, BY WEIGHT, SHALL BE 10 INCHES OR MORE IN LENGTH. MULCH SHALL BE APPLIED AND MECHANICALLY ANCHORED TO A DEPTH OF AT LEAST 2 INCHES. MULCH SHALL BE APPLIED AT A RATE OF 4000 LB. OF STRAW PER ACRE.
- IF THE PERMITTEE DEMONSTRATES TO SEMSWA THAT IT IS NOT POSSIBLE TO DRILL SEED, SEED IS TO BE UNIFORMLY BROADCAST AT TWO TIMES THE DRILLED RATE, THEN LIGHTLY HARROWED TO PROVIDE A SEED DEPTH OF APPROXIMATELY 1/4 INCH, THEN ROLLED TO COMPACT, THEN MULCHED AS SPECIFIED ABOVE.
- MULCH SHALL BE APPLIED WITHIN 24-HOURS OF SEEDING.
- TACKIFIER SHOULD BE UTILIZED TO HELP WITH STRAW DISPLACEMENT.

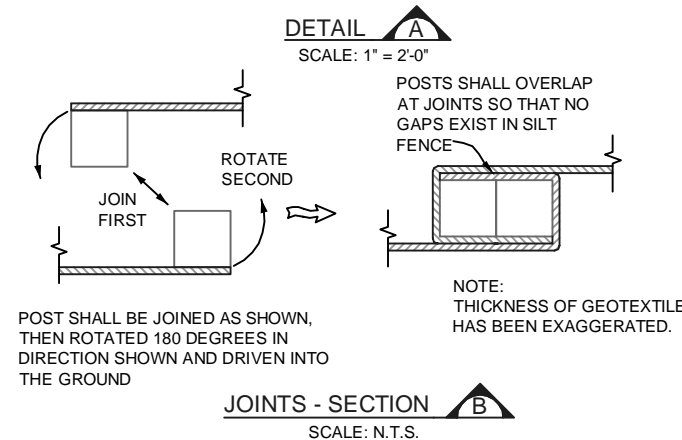
SEEDING AND MULCHING 17



1 1/2" CRUSHED ROCK GRADATION

SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1 1/2"	90 - 100
1"	20 - 55
3/4"	0 - 15
3/8"	0 - 5

MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.



SILT FENCE INSTALLATION NOTES:

- ANCHOR TRENCH SHALL BE EXCAVATED WITH TRENCHER, OR WITH SILT FENCE INSTALLATION MACHINE; NO ROAD GRADERS, BACKHOES, ETC. SHALL BE USED. TRENCH SHALL BE COMPACTED BY HAND, WITH "JUMPING JACK", OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
- SILT FENCE GEOTEXTILE SHALL MEET THE FOLLOWING REQUIREMENTS:
 - 6-TO 12-GALLONS PER MINUTE PER SQUARE FOOT FLOW CAPACITY.
 - 90 LB. TENSILE STRENGTH PER ASTM D4622.
 - UV DESIGN AT 500 HRS MIN. 70% STRENGTH RETAINED PER ASTM D 4355.

SILT FENCE 18

NAME: P:\09-002-01-SEMSWA-Misc-Task-Orders\01-GESC-Permit-for-Xcel\CAD\09002-01-BORE-PT-GESC-PLAN.dwg DATE: FEB 24, 2010 TIME: 6:11 PM

REFERENCE:	SCALE:	Standard Plan Revision		
		No.	Date	Description
		1	1/2012	REVISED/UPDATED
		2	6/2012	REVISED/UPDATED



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TYPICAL DETAIL FOR DRY UTILITY BORING AND UTILITY TRENCH

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