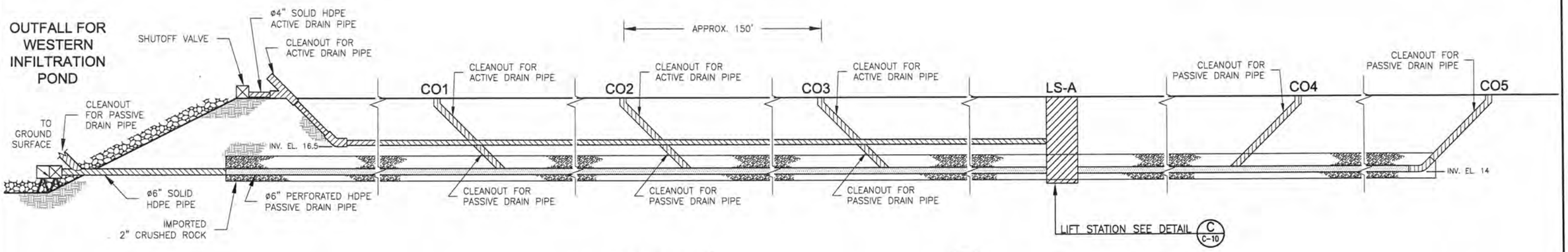
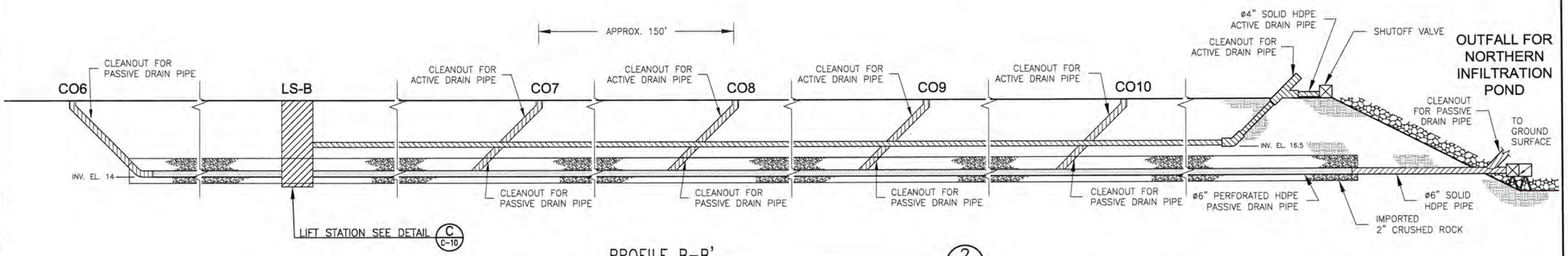


PROFILE A-A'
NOT TO SCALE
1 C-6



PROFILE B-B'
NOT TO SCALE
2 C-6

NOTES:

1. EXCAVATE PIPING TRENCHES TO THE PLANNED DEPTH. DEWATER AS NEEDED AND TRANSFER TO THE NORTH INFILTRATION POND.
2. SLOPE THE EXCAVATION AS NEEDED FOR SAFE ENTRY. SLOPE SHALL NOT BE STEEPER THAN 1H:1V.
3. INSTALL GRAVITY DRAIN PIPE AT ELEVATION 14 WITH CLEANOUTS APPROXIMATELY EVERY 150 FT AS SHOWN. EMBED PIPE IN 2 FT OF 2-INCH DIAMETER CRUSHED ROCK (BALLAST), WRAPPED IN GEOTEXTILE. GEOTEXTILE SHALL BE 8 OZ/SY, NONWOVEN, WITH AOS 100.
4. PASSIVE DRAIN PIPE SHALL BE 6-INCH DIAMETER, SMOOTH, HDPE, SDR 9, AND PERFORATED WHERE SHOWN. PERFORATIONS SHALL BE ½ INCH DIAMETER, 10 PER LF ALL THE WAY AROUND.
5. PASSIVE DRAIN PIPE SHALL BE SOLID (NON-PERFORATED) WITHIN 20 FT OF THE DISCHARGE POINT IN THE OUTFALL.
6. ACTIVE DRAIN PIPE SHALL BE INSTALLED IN THE SAME TRENCH AS PASSIVE DRAIN PIPE (OFFSET ALIGNMENT) AT ELEVATION 16.5 WITH CLEANOUTS APPROXIMATELY EVERY 150 FT, AS SHOWN.
7. ACTIVE DRAIN PIPE SHALL BE 4-INCH DIAMETER, SMOOTH, HDPE, SDR 7 SOLID PIPE, PRESSURE TESTED TO 100 PSI.
8. BACKFILL TRENCH WITH EXCAVATED SOIL IN 8-INCH LIFTS AND COMPACT TO A FIRM, NON-YIELDING SURFACE.
9. CLEANOUTS FROM BOTH PIPES SHALL DAYLIGHT ON THE GROUND SURFACE AT THE SAME LOCATION AND BE HOUSED INSIDE ONE VAULT. THE SURFACE PROTECTIVE VAULT SHALL HAVE A MINIMUM OF 6 INCHES OF CLEARANCE AROUND THE PIPES AT THE OPENING AND SHALL BE RATED FOR TRUCK TRAFFIC.
10. CLEANOUTS SHALL BE CAPPED WITH TREADED CAPS. ACTIVE DRAIN PIPE CLEANOUT CAPS MUST WITHSTAND A PRESSURE OF 100 PSI.
11. ALL VALVES, FITTINGS, COUPLINGS, ETC., MUST BE COMPATIBLE WITH PIPE MATERIAL AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

REFERENCES:
PLANS

DATUM
HORIZONTAL: WASP-NAD83-S FEET
VERTICAL: NAVD88 FEET

NO.	REVISION	DATE	APRVD
1	ISSUED FOR AGENCY REVIEW	6/16/09	
2	ISSUED FOR CONSTRUCTION	6/29/09	KT

DRAWN AS
DESIGNED MZ
CHECKED KT
REVIEWED LM

FLOYD | SNIDER
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MODRUS TAHGHIGHI STATE OF WASHINGTON 40240 REGISTERED PROFESSIONAL ENGINEER
EXPIRES JAN 10, 2010

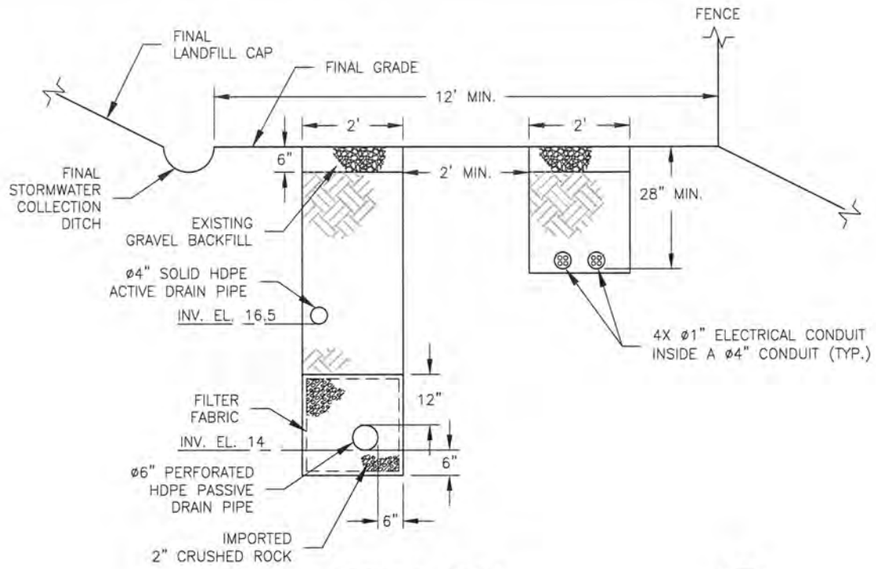
INTERCEPTOR TRENCH PROFILES
ADDENDUM 1

B&L WOODWASTE SITE
PIERCE COUNTY, WASHINGTON

DATE: 07/02/09
PROJECT NO.: 13488

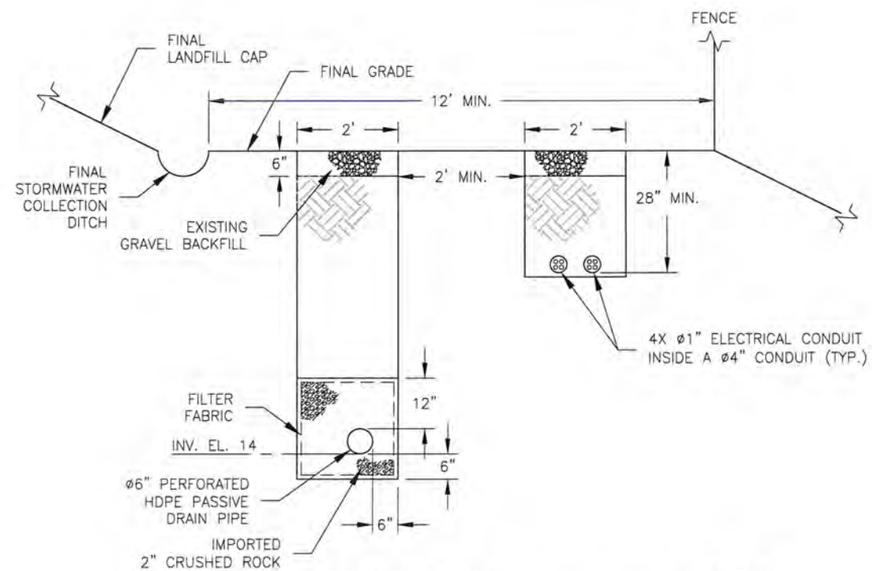
DRAWING C-9

Plot Date: 07/02/09 - 3:47pm, Plotted by: adam.stenberg
Drawing Path: S:\13488\005_EDR Report\FinalConstruction\, Drawing Name: DRAWING C-6-8-9-10-11-P1-E1_B-L_061709.dwg



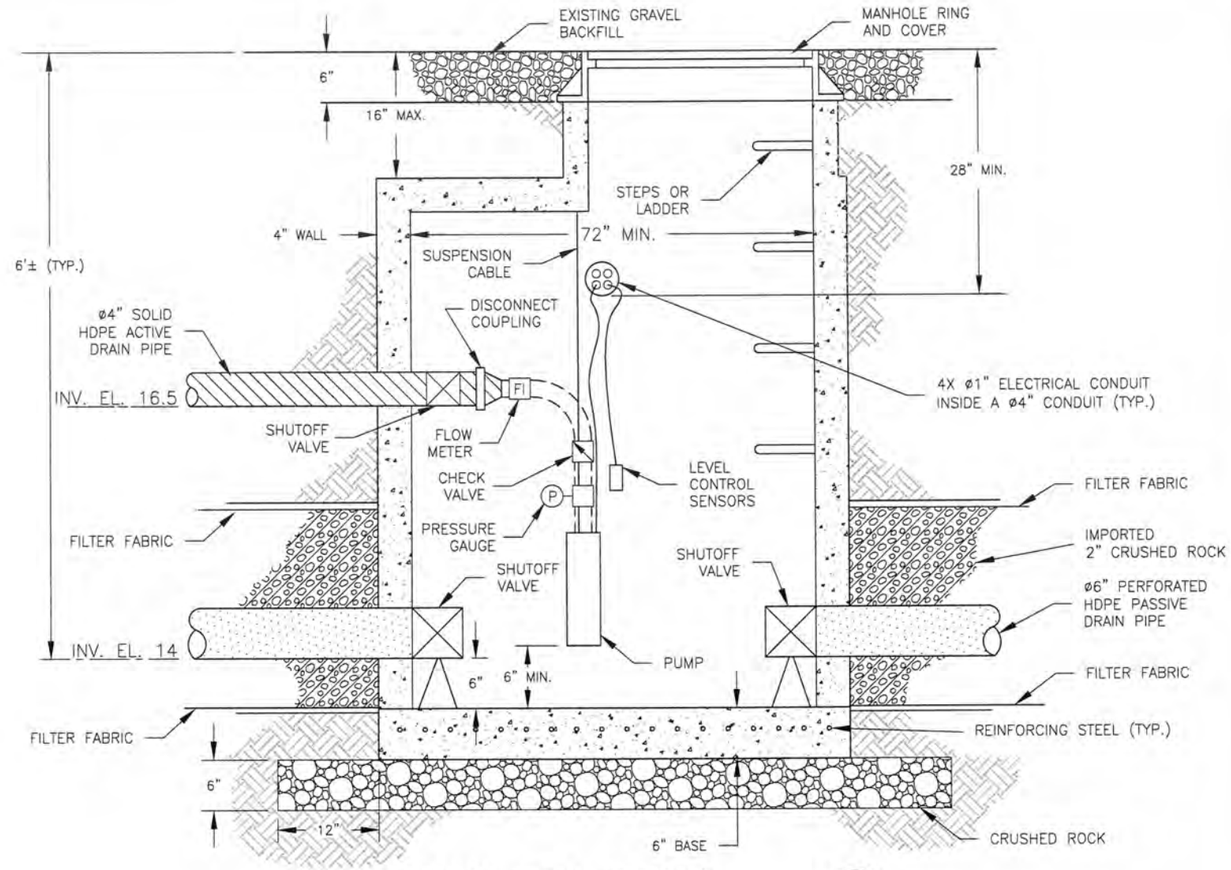
TRENCH (TYP.) — A / C-6

NOT TO SCALE — SIDE VIEW



TRENCH (TYP.) — B / C-6

NOT TO SCALE — SIDE VIEW



LIFT STATION DETAIL (TYPICAL) — C / C-6

NOT TO SCALE — SIDE VIEW

NOTES:

1. INSTALL ELECTRICAL CONDUITS AT A MINIMUM DEPTH OF 2 FT (PER ELECTRICAL CODES). ELECTRICAL CONDUITS SHALL INCLUDE SETS OF 4 INDIVIDUAL CONDUITS INSIDE A 4-INCH DIAMETER CONDUIT FOR FUTURE USE.
2. NUMBER AND LOCATIONS OF JUNCTION BOXES SHALL BE SPECIFIED BY ELECTRICIAN. JUNCTION BOXES MUST BE RATED FOR TRUCK TRAFFIC. TERMINATE THE CONDUITS INSIDE A VAULT AT THE INFILTRATION PONDS FOR FUTURE ACCESS.
3. ELECTRICAL WIRING MUST MEET THE ELECTRICAL LOAD RATING FOR THE PUMPS AND SENSORS.
4. LIFT STATIONS SHALL BE PRECAST CONCRETE WITH MINIMUM INSIDE DIMENSIONS OF 4×6 FT. IT SHALL BE EQUIPPED WITH A LADDER INSIDE AND A SWING TYPE STEEL PLATE. LIFT STATION AND LID SHALL BE RATED FOR TRUCK TRAFFIC.
5. PUMPS SHALL BE SUBMERSIBLE WITH A MINIMUM HEAD OF 20 FT AND DISCHARGE CAPACITY OF 30 GPM.
6. WATER LEVEL SENSORS SHALL BE SUBMERSIBLE WITH A MINIMUM ACCURACY OF 0.1 FT.
7. PRESSURE GAUGE SHALL HAVE A MINIMUM RANGE OF 0 TO 20 PSI AND ACCURACY OF 0.5 PSI.
8. FLOW METER SHALL HAVE A MINIMUM ACCURACY OF 0.1 GALLON.
9. ALL CONNECTIONS INSTRUMENTS AND CONNECTIONS SHALL BE RATED TO WITHSTAND 100 PSI OF PRESSURE.
10. PUMP DISCHARGE PIPE CONNECTION TO THE ACTIVE DRAIN PIPE SHALL ALLOW DISCONNECTION FOR CLEANING.
11. BACKFILL ELECTRICAL TRENCH WITH EXCAVATED SOIL IN 8-INCH LIFTS AND COMPACT TO A FIRM, NON-YIELDING SURFACE.

REFERENCES:
PLANS

DATUM
HORIZONTAL: WASP-NAD83-S FEET
VERTICAL: NAVD88 FEET

NO.	REVISION	DATE	APRVD
1	ISSUED FOR AGENCY REVIEW	6/16/09	
2	ISSUED FOR CONSTRUCTION	6/29/09	KT

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EXPIRES JAN 10, 2010

LIFT STATION AND TRENCH DETAILS
ADDENDUM 1

B&L WOODWASTE SITE
PIERCE COUNTY, WASHINGTON

DATE: 07/02/09
PROJECT NO.: 13488

DRAWING C-10

Plot Date: 07/02/09 - 3:48pm, Plotted by: adam.stenberg
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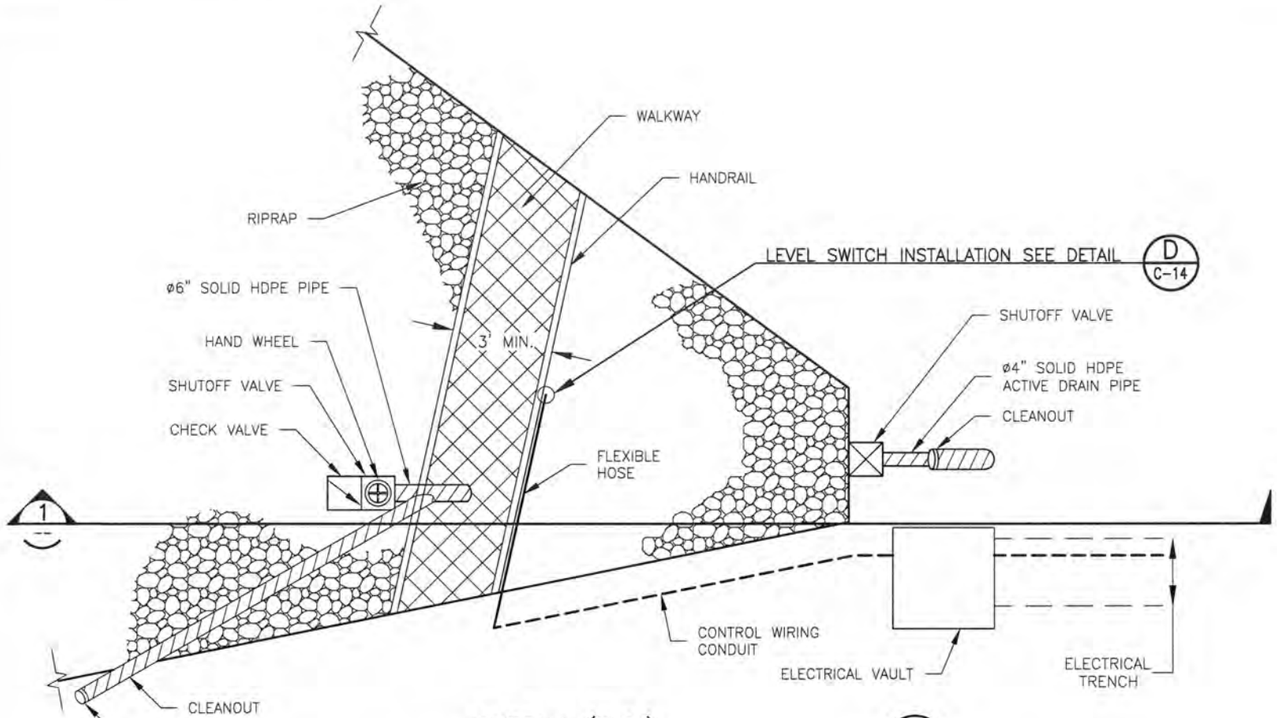
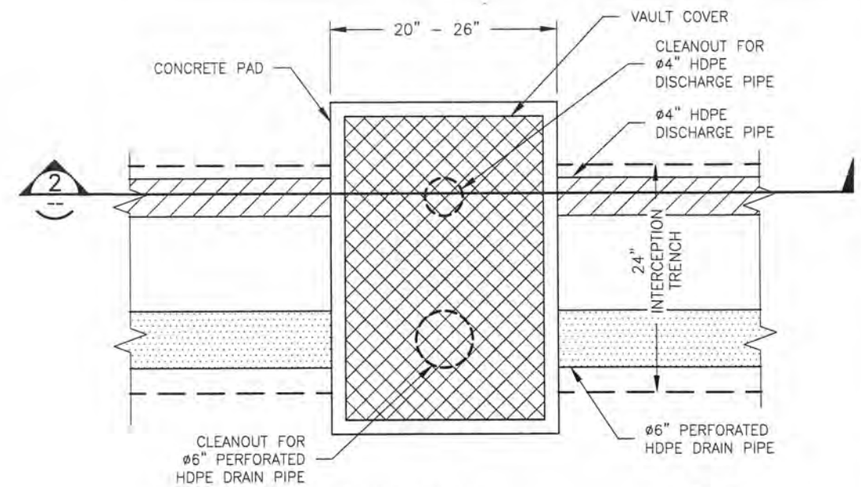
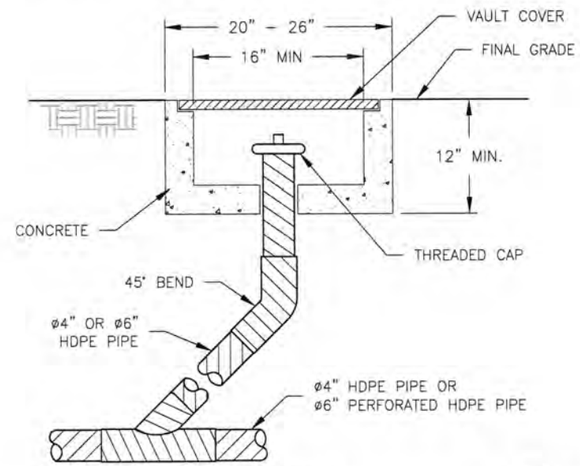


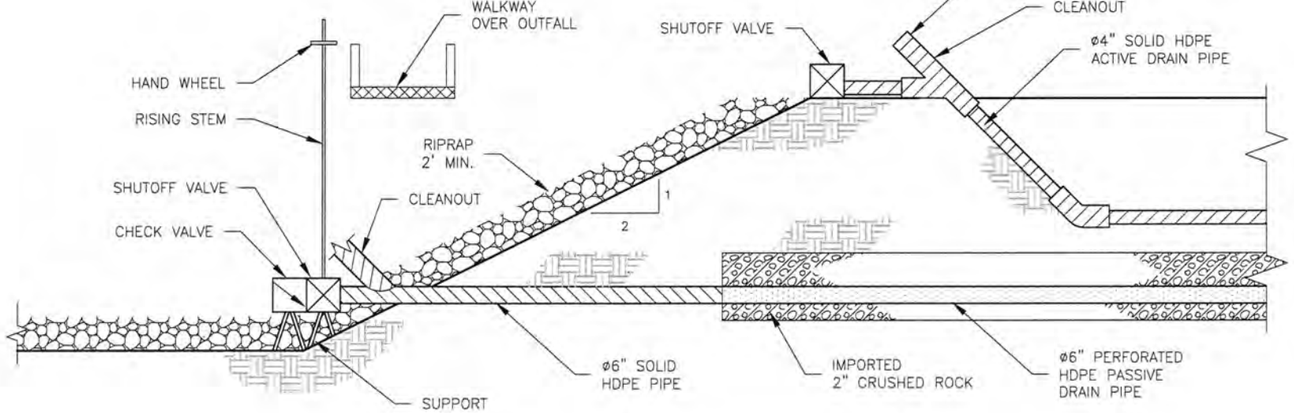
OUTFALL (TYP.) — D C-6
NOT TO SCALE PLAN VIEW



CLEANOUT VAULT (TYP.) — E C-6
NOT TO SCALE PLAN VIEW



CLEANOUT DETAILS (TYP.) — 2 --
NOT TO SCALE SECTION VIEW



OUTFALL (TYP.) — 1 --
NOT TO SCALE SIDE VIEW

NOTES:

1. PLACE 2 FT THICK LAYER OF RIPRAP (4 TO 8 INCH DIAMETER ROCK) FROM THE PIPE DISCHARGE POINT TO 10 FT BEYOND TOE OF THE SLOPE.
2. DAYLIGHT ACTIVE DRAIN PIPE AS SHOWN AND SECURE TO GROUND SURFACE WITH TIE DOWN STRAPS WITH EARTH ANCHORS.
3. INSTALL PREFAB ALUMINUM WALKWAY WITH MINIMUM WIDTH OF 3 FT AND HANDRAIL HEIGHT OF 3 FT, RATED TO SUPPORT A MINIMUM, NET LOAD OF 600 LBS.
4. SHUTOFF VALVES SHALL BE OF THE DOUBLE DISK, TAPER SEAT TYPE, WITH RISING STEM, UNION BONNET AND HAND WHEEL OR SUITABLE CROSS WHEEL FOR STANDARD KEY OPERATION.
5. THE RISING STEM SHALL BE TALL ENOUGH FOR OPERATION FROM THE OVERLYING WALKWAY.
6. INSTALL A 3×3×3 FT ELECTRICAL VAULT TO TERMINATE ELECTRICAL CONDUITS NEAR THE OUTFALLS. VAULT SHALL BE RATED FOR TRUCK TRAFFIC.

REFERENCES:
PLANS

DATUM
HORIZONTAL: WASP-NAD83-S FEET
VERTICAL: NAVD88 FEET

NO.	REVISION	DATE	APRVD
1	ISSUED FOR AGENCY REVIEW	6/16/09	
2	ISSUED FOR CONSTRUCTION	6/29/09	KT

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DESIGNED MZ
CHECKED KT
REVIEWED LM

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AMEC Geomatrix

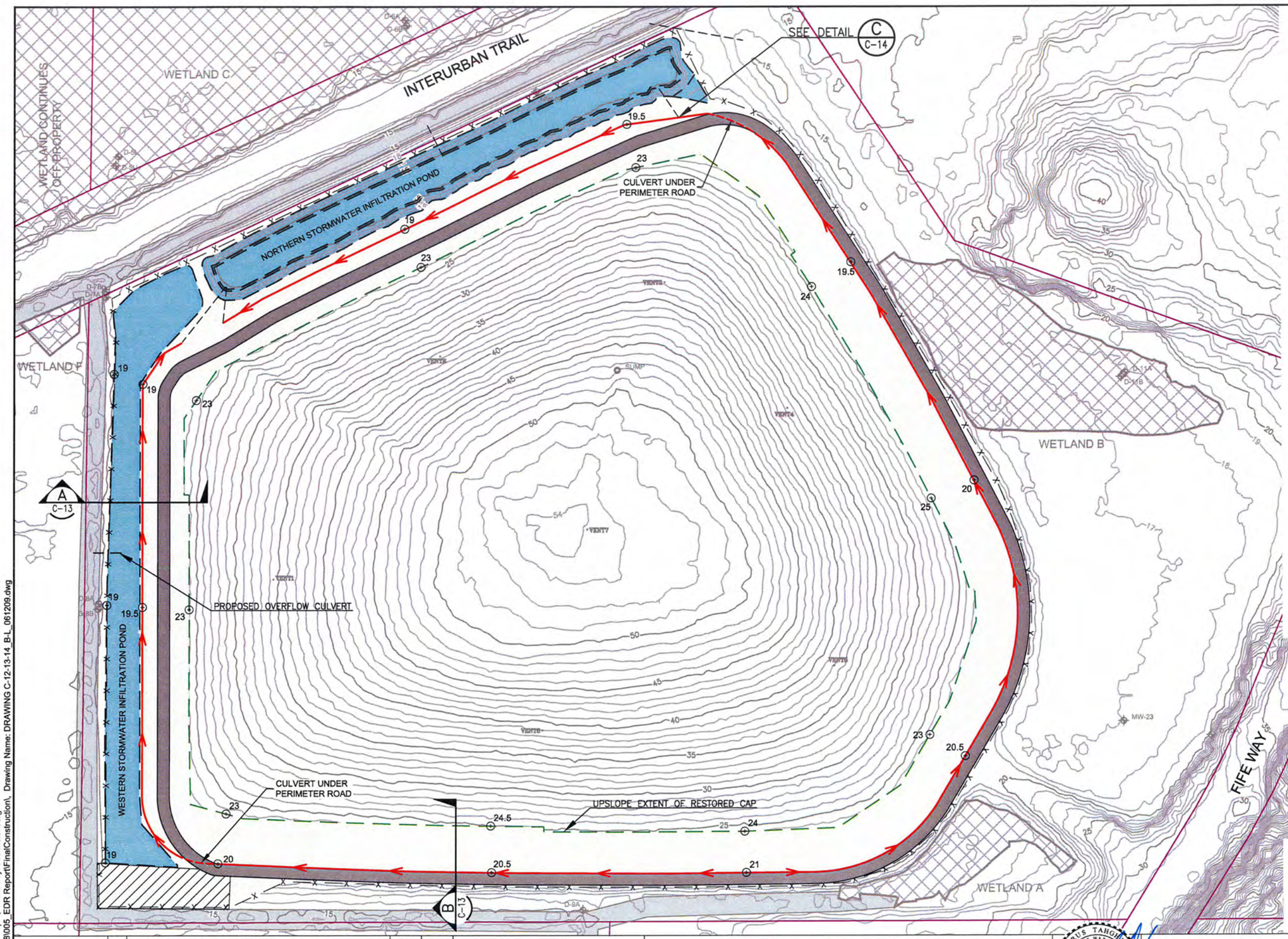
LOOKUS TAHOLAH, STATE OF WASHINGTON, 35240, REGISTERED PROFESSIONAL ENGINEER
EXPIRES JAN 10, 2010

OUTFALL AND CLEANOUT DETAILS
ADDENDUM 1

B&L WOODWASTE SITE
PIERCE COUNTY, WASHINGTON

DATE: 07/02/09
PROJECT NO.: 13488
DRAWING C-11

Plot Date: 07/02/09 - 3:49pm, Plotted by: adam.stenberg
Drawing Path: S:\13488\005_EDR Report\FinalConstruction\, Drawing Name: DRAWING C-6-8-9-10-11-P1-E1_B-L_061709.dwg



EXPLANATION

- TAX PARCEL LINE
- FENCE LINE
- 12" DIAMETER CULVERT
- MW-13 MONITORING WELL LOCATION
- VENT3 VENT LOCATION
- AGRICULTURAL DITCH
- WETLAND
- FINAL STORMWATER COLLECTION DITCH
- 18" DIAMETER CULVERT
- STORMWATER FLOW DIRECTION
- INFILTRATION POND
- APPROXIMATE LOCATION OF COMPACTED STOCKPILE AREA
- FINAL PERIMETER ROAD
- 19.5 APPROXIMATE FINISHED ELEVATION (FT)

NOTES:

1. INCORPORATE AS MUCH OF EXCESS MATERIAL AS POSSIBLE INTO THE LANDFILL. GRADE AND COMPACT EXPOSED SUBGRADE.
2. CAP RESTORATION SHALL MEET THE EXISTING CAP AND EXTEND BEYOND THE BARRIER WALL. REUSE SALVAGED GEOSYNTHETICS MATERIAL TO THE EXTENT POSSIBLE, AND SALVAGED SOIL FROM SITE EARTHWORK TO COMPLETE THE CAP.
3. FINISH GRADE ON THE LANDFILL CAP SHALL BE A SMOOTH GRADE WITHOUT SUDDEN OR STEP CHANGES, EXCEPT NEAR THE ACCESS ROAD ON THE LANDFILL.
4. FINAL STORMWATER COLLECTION DITCH SHALL FOLLOW THE GRADE OF PERIMETER BERM AND BE CONNECTED TO THE THREE EXISTING CULVERTS TO THE NORTHERN INFILTRATION POND.
5. REMOVE GEOTEXTILE FROM THE PERIMETER FENCE AND DISPOSE OFFSITE.
6. INSTALL CHAIN LINK FENCE ALONG THE WEST BERM OF THE WEST INFILTRATION POND AND CONNECT WITH EXISTING PERIMETER FENCE.
7. REMOVE ALL EXCESS MATERIAL AND REMAINING DEBRIS FROM THE WORK AREA AND DISPOSE IN A SOLID WASTE LANDFILL IN ACCORDANCE WITH APPLICABLE REGULATIONS AND STANDARDS.
8. ALL DISTURBED AREAS SHALL BE HYDROSEEDED OR FINISHED AS APPROPRIATE UPON COMPLETION OF CONSTRUCTION ACTIVITIES. FILL USED IN THE CONTRACTOR STAGING AREA SHALL REMAIN.

N

0 50 100
APPROXIMATE SCALE IN FEET

REFERENCES:
PLANS

DATUM
HORIZONTAL: WASP-NAD83-S FEET
VERTICAL: NAVD88 FEET

NO.	REVISION	DATE	APRVD
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2	ISSUED FOR CONSTRUCTION	6/29/09	KT

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KOONUS TAHGHIAN STATE OF WASHINGTON 15224 PROFESSIONAL ENGINEER
EXPIRES JAN 10, 2010

LANDFILL CAP RESTORATION PLAN
ADDENDUM 1

B&L WOODWASTE SITE
PIERCE COUNTY, WASHINGTON

DATE: 07/02/09
PROJECT NO.: 13488

DRAWING
C-12

Plot Date: 07/02/09 - 3:55pm, Plotted by: adam.stenberg
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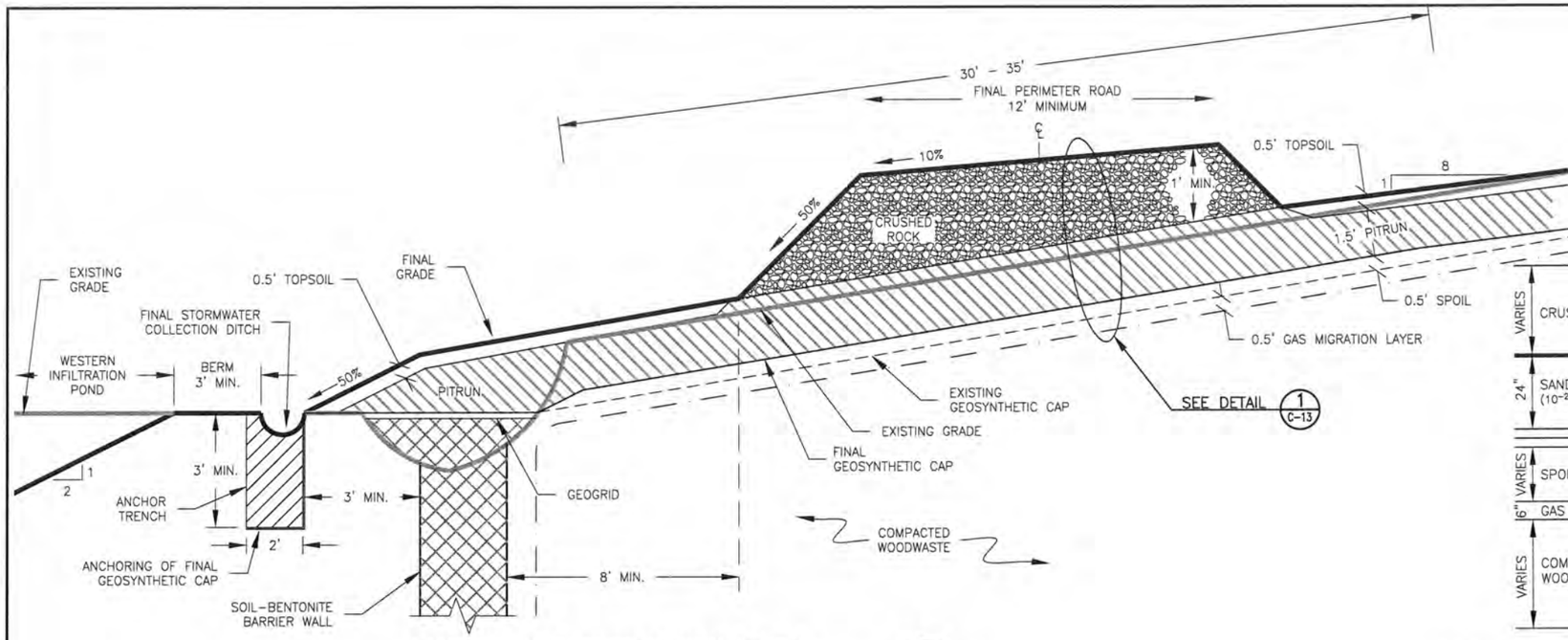
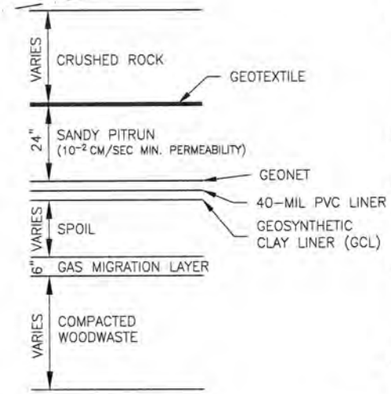


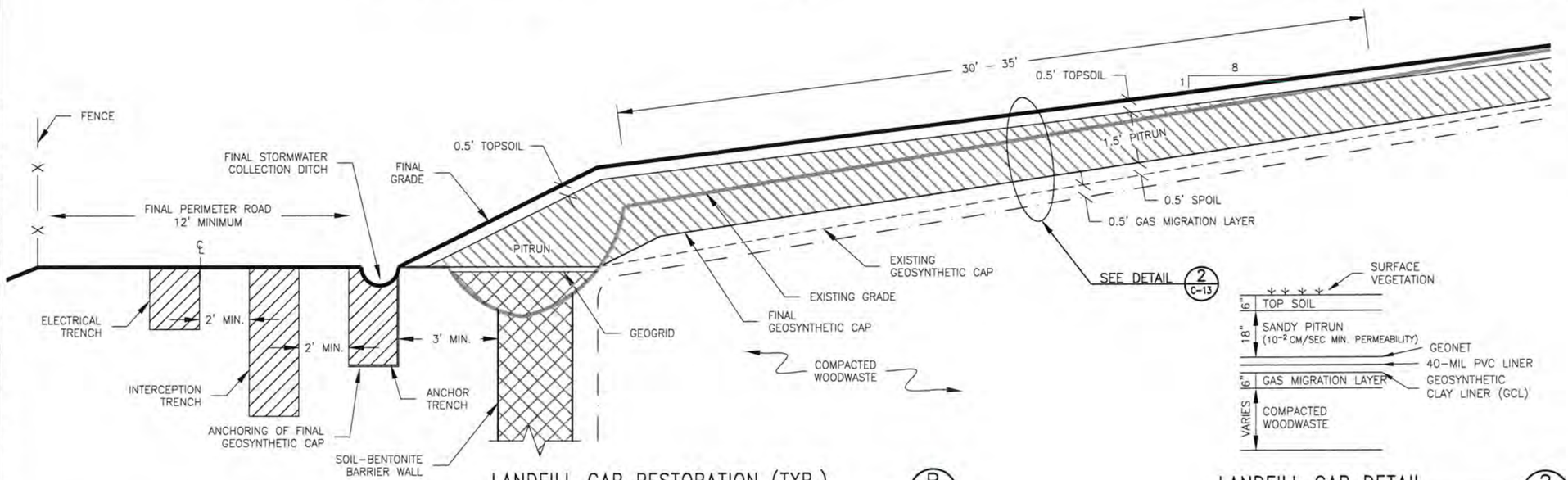
LANDFILL CAP RESTORATION (TYP.) A C-12
NOT TO SCALE SIDE VIEW



LANDFILL CAP DETAIL 1 C-13
NOT TO SCALE SIDE VIEW

NOTES:

1. RESTORE LANDFILL CAP IN LAYERS FROM BOTTOM UP TO MATCH THE EXISTING CAP. USE MANUFACTURER-APPROVED EQUIPMENT AND TECHNIQUES TO INSTALL GEOSYNTHETIC MATERIAL (GCL, GEOMEMBRANE, AND GEONET).
2. SUBGARDE SURFACE MUST BE FREE OF ROCKS OR OTHER SHARP OBJECTS TO PREVENT DAMAGE TO GEOSYNTHETIC MATERIAL.
3. ANY NEW GCL SHALL BE CLAYMAX 200R OR APPROVED EQUIVALENT. GCL SECTIONS MUST OVERLAP A MINIMUM DISTANCE OF 1 FOOT AND BE SHINGLED TOWARD THE TOE OF THE LANDFILL. REMOVE HYDRATED GCL AND REPLACED WITH DRY GCL. REPAIRS TO THE GCL SHALL BE MADE WITH DRY GCL WITH 1 FOOT MINIMUM OVERLAP.
4. ANY NEW GEOMEMBRANE SHALL BE 40 MIL PVC AND GLUE-BONDED PER MANUFACTURER'S RECOMMENDATION. OVERLAPS SHALL BE A MINIMUM OF 2 FT AND BE SHINGLED TOWARD THE TOE OF THE LANDFILL. TEST 100% OF THE BONDS/WELDS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION; REMOVE LEAKY OR DAMAGED SECTIONS AND BOND/WELD PATCHES WITH 2 FOOT MINIMUM OVERLAP.
5. PVC GEOMEMBRANE SHALL BE INSTALLED IN A RELAXED CONDITION, FREE FROM STRESS, TENSION, AND WRINKLES.
6. ANY NEW GEONET SHALL BE GSE HYPERNET HF OR APPROVED EQUIVALENT, WITH A BONDED LAYER OF FILTER GEOTEXTILE FACING UP. SECTIONS SHALL OVERLAP A MINIMUM OF 1 FOOT AND BE SHINGLED TOWARD THE TOE OF THE LANDFILL.
7. TERMINATE THE GCL AT THE NEW STORMWATER COLLECTION DITCH. TERMINATE THE GEOMEMBRANE INSIDE A 3-FT DEEP ANCHOR TRENCH. GEOMEMBRANE SHALL COVER THE BOTTOM OF ANCHOR TRENCH. TERMINATE THE GEONET AT THE STORMWATER COLLECTION DITCH SO THAT GEONET DRAINS INTO THE DITCH.
8. BACKFILL ANCHOR TRENCH WITH EXCAVATED SOIL IN 8-INCH LIFTS AND COMPACT TO A FIRM, NON-YIELDING SURFACE.
9. THE FINAL STORMWATER COLLECTION DITCH SHALL BE 18-INCH DIAMETER CORRUGATED HDPE, SDR 17 HALFPIPE. CONNECTIONS SHALL BE WELDED OR EQUAL TO MAINTAIN CONTINUITY. PIPING SHALL BE A CULVERT WHERE ACCESS ROAD CROSSES OVER.
10. PLACE COVER SOIL IN ONE 18-INCH LIFT OVER THE GEONET USING LOW CONTACT PRESSURE EQUIPMENT. CONSTRUCTION EQUIPMENT SHALL NOT OPERATE ON OR ABOVE THE GEOSYNTHETICS UNTIL AT LEAST 15 INCHES OF MATERIAL IS PLACED.
11. TOPSOIL SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES AND SHALL BE TRACK-WALKED WITH LOW PRESSURE TRACKED EQUIPMENT TO ACHIEVE IN FINAL GRADES WITHIN 0.1 FOOT OF THE GRADES SHOWN ON THE PLANS.
12. CONSTRUCT PERIMETER ROAD ON THE LANDFILLBY PLACING 2-INCH DIAMETER CRUDHED ROCK (BALLAST) OVER GEOTEXTILE IN 2 LIFTS AND TRACK-COMPACTING.
13. SALVAGED CRUSHED ROCK FROM THE EXISTING DITCH USED IN CONSTRUCTION OF CONTAINMENT BERMS SHALL BE USED FOR TRANSITION FROM PERIMETER ROAD TO ACCESS ROAD ON LANDFILL. ENGINEER WILL DETERMINE ADDITIONAL USEAGE IN THE FIELD.



LANDFILL CAP RESTORATION (TYP.) B C-12
NOT TO SCALE SIDE VIEW

LANDFILL CAP DETAIL 2 C-13
NOT TO SCALE SIDE VIEW

REFERENCES:	NO.	REVISION	DATE	APRVD
PLANS	1	ISSUED FOR AGENCY REVIEW	6/16/09	
DATUM HORIZONTAL: WASP-NAD83-S FEET VERTICAL: NAVD88 FEET	2	ISSUED FOR CONSTRUCTION	6/29/09	KT

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REVIEWED LM

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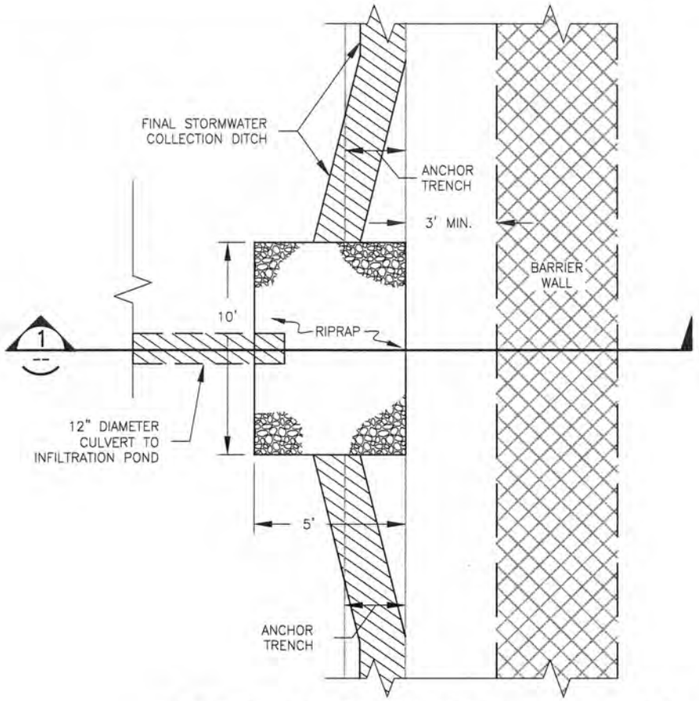
EXPIRES JAN 10, 2010

LANDFILL CAP RESTORATION DETAILS
ADDENDUM 1

B&L WOODWASTE SITE
PIERCE COUNTY, WASHINGTON

DATE: 07/02/09
PROJECT NO.: 13488
DRAWING C-13

Plot Date: 07/02/09 - 3:57pm, Plotted by: adam.stenberg
Drawing Path: S:\13488\005_EDR Report\FinalConstruction\, Drawing Name: DRAWING C-12-13-14_B-L_061209.dwg



CULVERT CONNECTION (TYP.) — C / C-12

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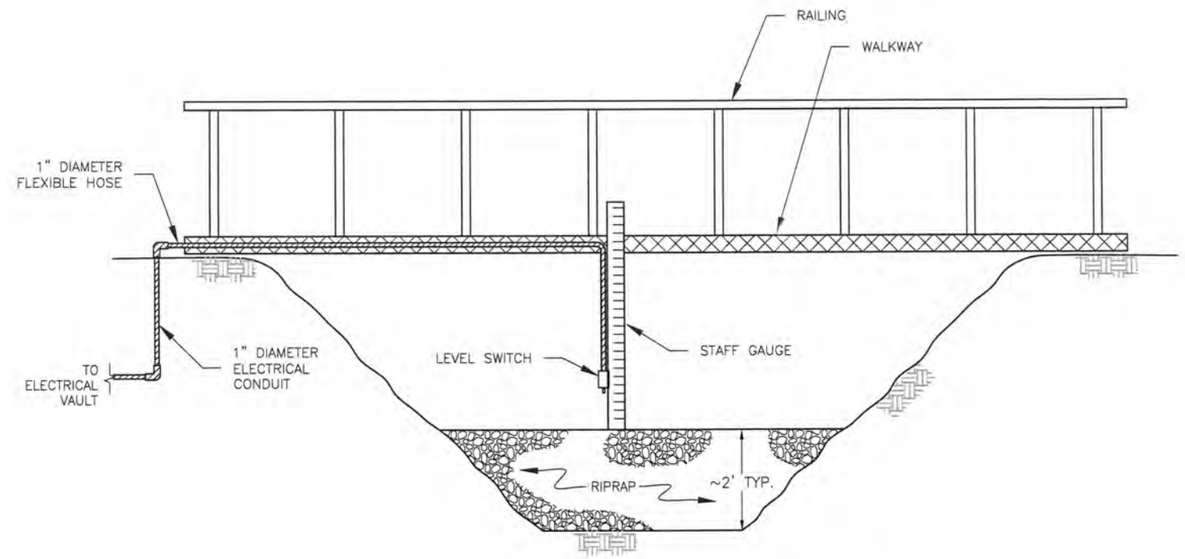
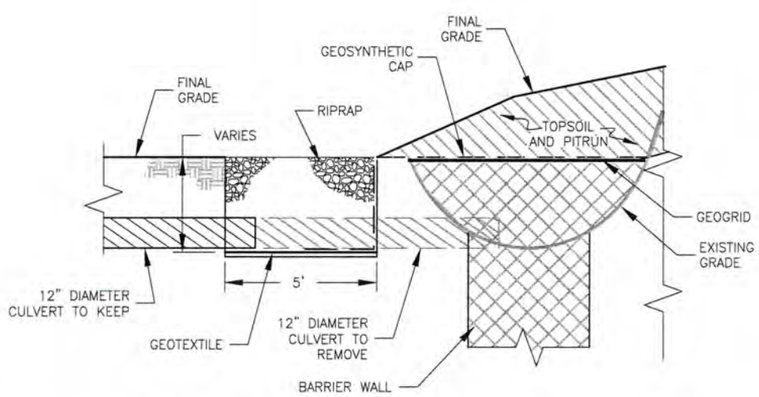


INFILTRATION POND HIGH LEVEL SWITCH INSTALLATION (TYP.) — D / C-11

NOT TO SCALE — SIDE VIEW



CULVERT CONNECTION (TYP.) — 1 / --

NOT TO SCALE — SIDE VIEW

NOTES:

1. TERMINATE FINAL STORMWATER COLLECTION HALFPIPE INTO RIPRAP WHERE IT DRAINS TO EXISTING CULVERTS. CUT AND REMOVE EXCESS LENGTH OF EXISTING CULVERT TO MATCH THE FINAL DITCH ALIGNMENT.
2. BOTTOM OF RIPRAP ZONE SHALL BE AT THE DEPTH OF CULVERT INVERT. PLACE A LAYER OF 8 OZ/SY, NONWOVEN GEOTEXTILE OVER SUBGRADE PRIOR TO PLACING RIPRAP.
3. EXTEND HIGH LEVEL SENSOR CONDUIT TO GROUND SURFACE AND ALONG WALKWAY TO HANG SENSOR. ALTERNATE INSTALLATION MAY BE REQUIRED BY ELECTRICAL CODES.
4. STAFF GAUGE TO BE 6" SCH. 4 PVC PIPE PLACED AT LEAST 1 FT. INTO RIPRAP AND SECURED TO WALKWAY. GRADUATIONS TO BE CUT INTO PIPE AND PAINTED. GRADUATIONS TO BE IN INTERVALS OF 0.1 FT WITH 1 FT. GRADUATIONS NUMBERED FROM TOP OF PIPE.

REFERENCES:
PLANS

DATUM
HORIZONTAL: WASP-NAD83-S FEET
VERTICAL: NAVD88 FEET

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EXPIRES JAN 10, 2010

DETAILS
ADDENDUM 1

B&L WOODWASTE SITE
PIERCE COUNTY, WASHINGTON

DATE: 07/02/09
PROJECT NO.: 13488

DRAWING C-14

Plot Date: 07/02/09 - 4:03pm, Plotted by: adam.stenberg
Drawing Path: S:\13488\005_EDR Report\Final\Construction\, Drawing Name: DRAWING C-12-13-14_B-L_061209.dwg