

1. PROPOSED GRADING SHOWN WITHIN EACH FILL PROGRESSION SEQUENCE REPRESENTS PROPOSED TOP OF SUBGRADE ELEVATIONS (WITHIN PROPOSED PHASES) AND PROPOSED TOP OF INTERMEDIATE COVER ELEVATIONS (WITHIN EXISTING PHASES).
2. WASTE FILL GRADING REPRESENTS TOP OF INTERMEDIATE COVER ELEVATIONS. REFER TO SHEET C303 FOR PROPOSED FINAL COVER GRADES.

**Civil & Environmental Engineering,
Landscape Architecture and Land Surveying, PLLC**
31 Bellows Road

**FILE PROGRESSION PLAN
(SHEET 2 OF 2)**

DATE:	JANUARY 2022	DRAWING NO.	C03
DWG SCALE:	AS-SHOWN	CHECKED BY:	EMW
PROJECT NO:	182-442		
APPROVED BY:	AJK		

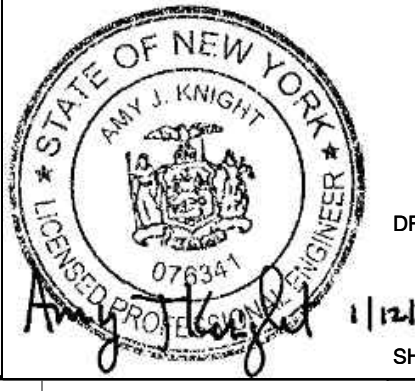
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C310

SHEET 13 OF 23

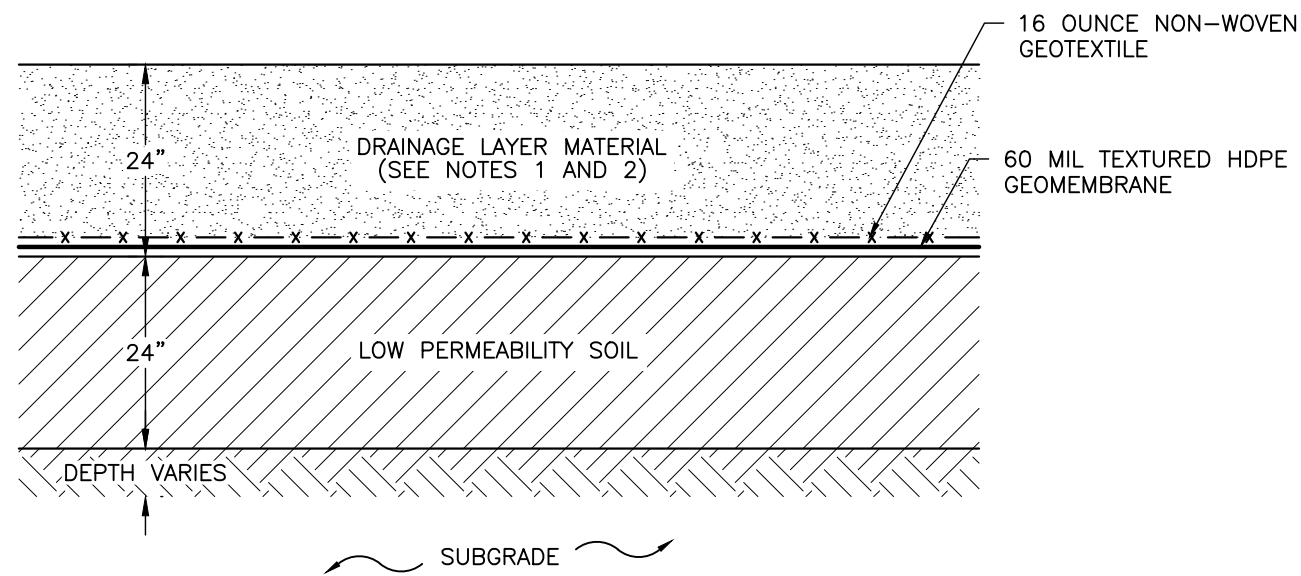
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A:\2018\182-442\182-442.dwg [see 18-permit modification drawings] 182-442-SY16-2000-Baseline Details [enq/CDO] LS(1/13/2022 - 11:45:00) - LP: 1/13/2022 12:42 PM

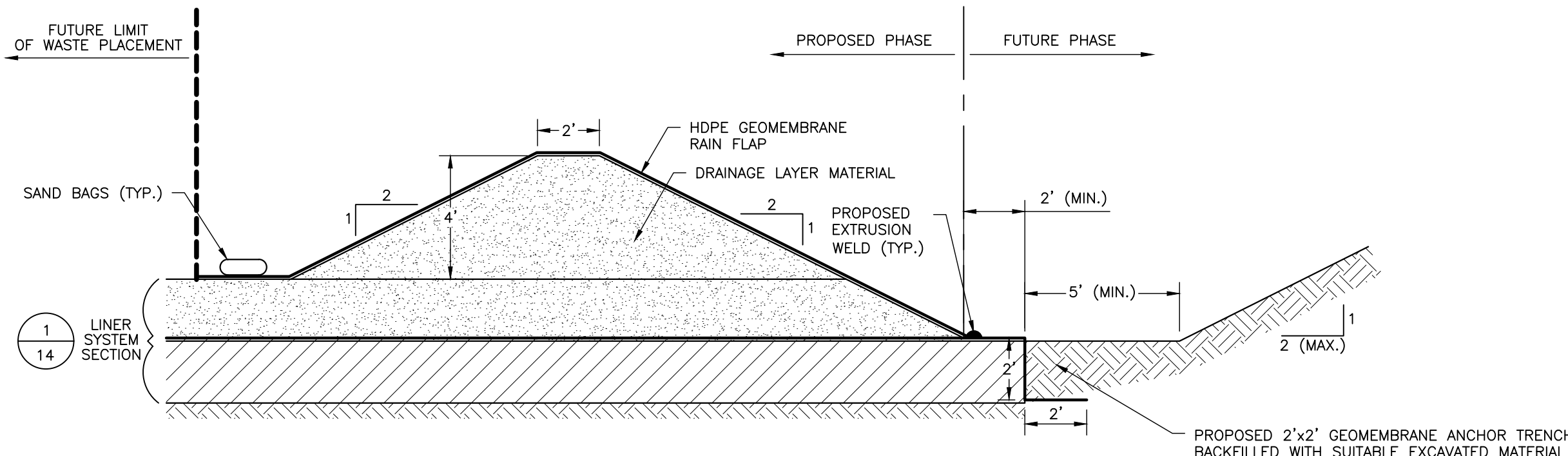
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NOTES:

- ON SLOPES LESS THAN OR EQUAL TO 10 PERCENT THE DRAINAGE MATERIAL LAYER SHALL HAVE A MINIMUM HYDRAULIC CONDUCTIVITY OF 1.0 CM/SEC. ALTERNATIVELY, THE UPPER 12 INCHES MAY HAVE A MINIMUM HYDRAULIC CONDUCTIVITY OF 0.1 CM/SEC. IF THE LOWER 12 INCHES HAS A MINIMUM HYDRAULIC CONDUCTIVITY OF 1.0 CM/SEC.
- ON SLOPES GREATER THAN 10 PERCENT THE DRAINAGE MATERIAL LAYER SHALL HAVE A MINIMUM HYDRAULIC CONDUCTIVITY OF 0.1 CM/SEC.

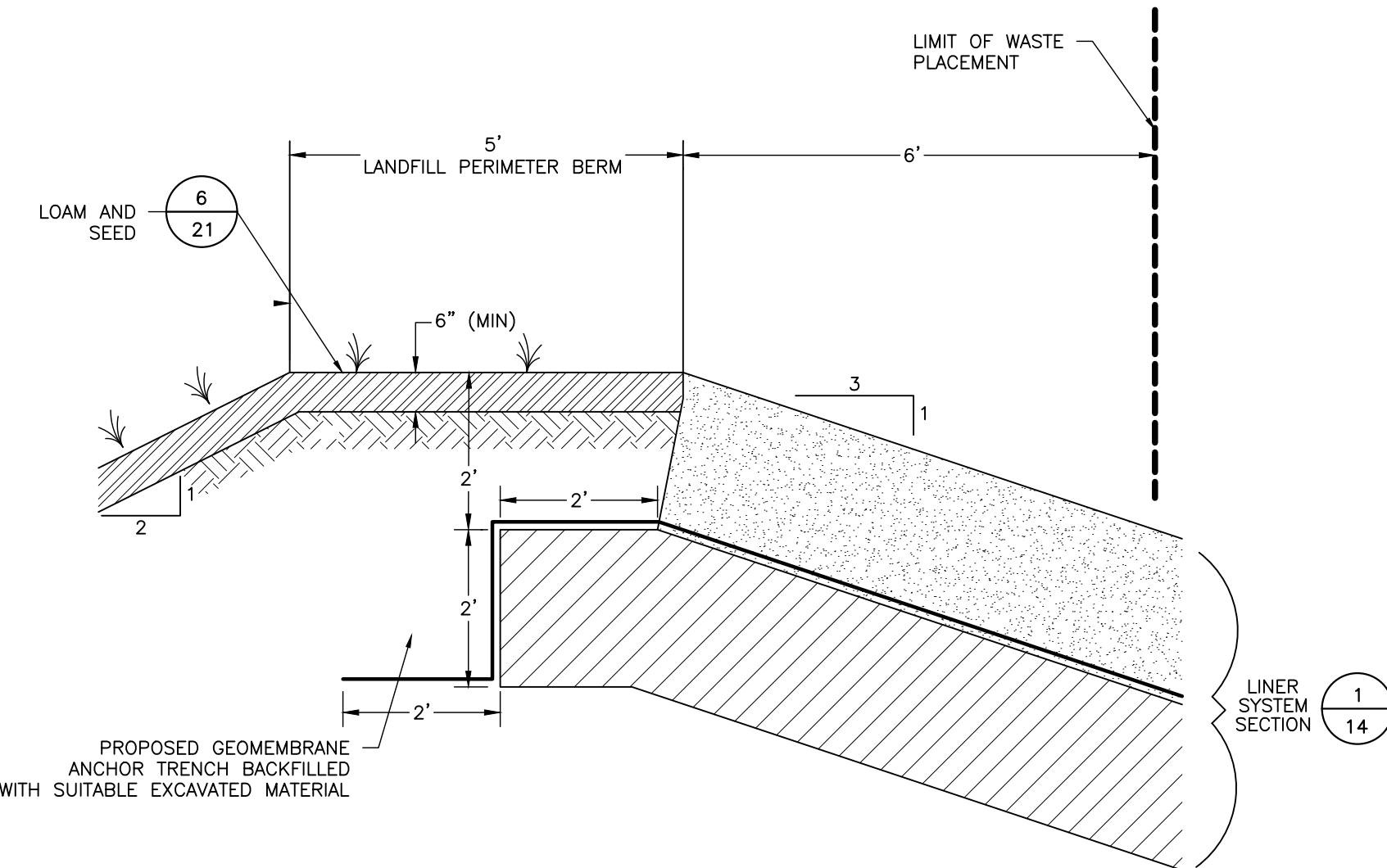
1
14
LINER SYSTEM SECTION
SCALE: 1"=2'



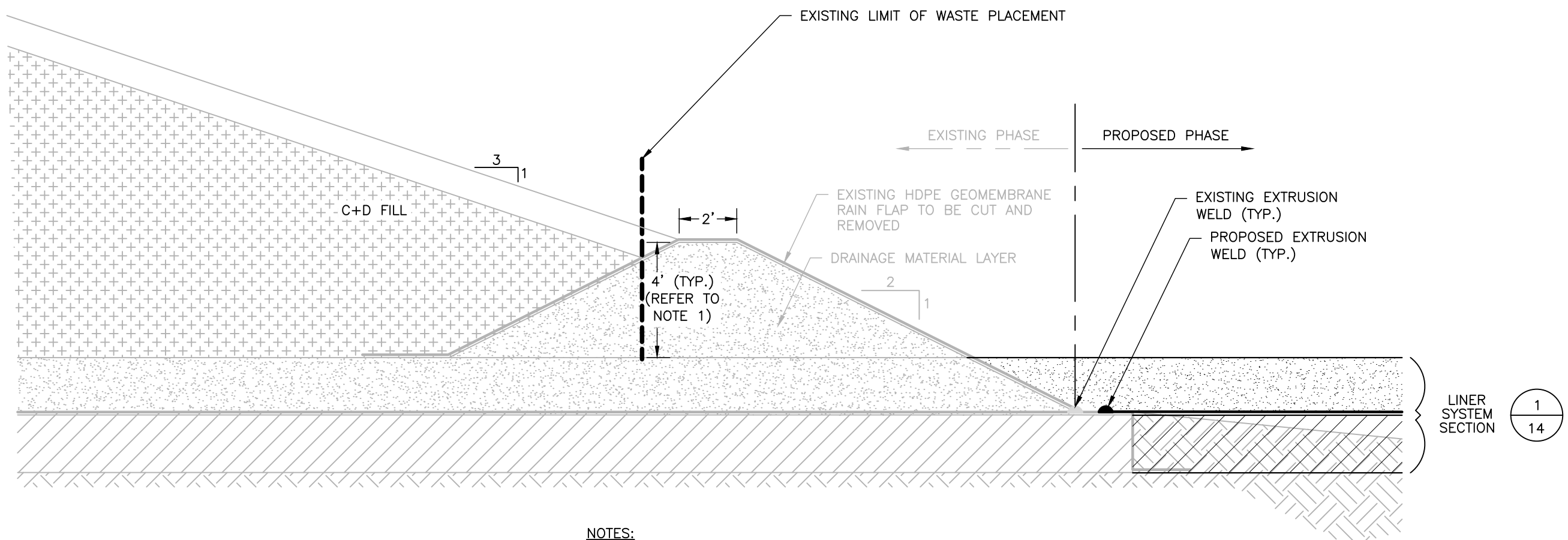
NOTE:

- SHINGLE ADJACENT SHEETS OF RAIN FLAP GEOMEMBRANE IN DIRECTION OF FLOW AND EXTRUSION WELD ALL SEAMS.

3
14
PHASE DIVISION BERM
SCALE: 1"=4'



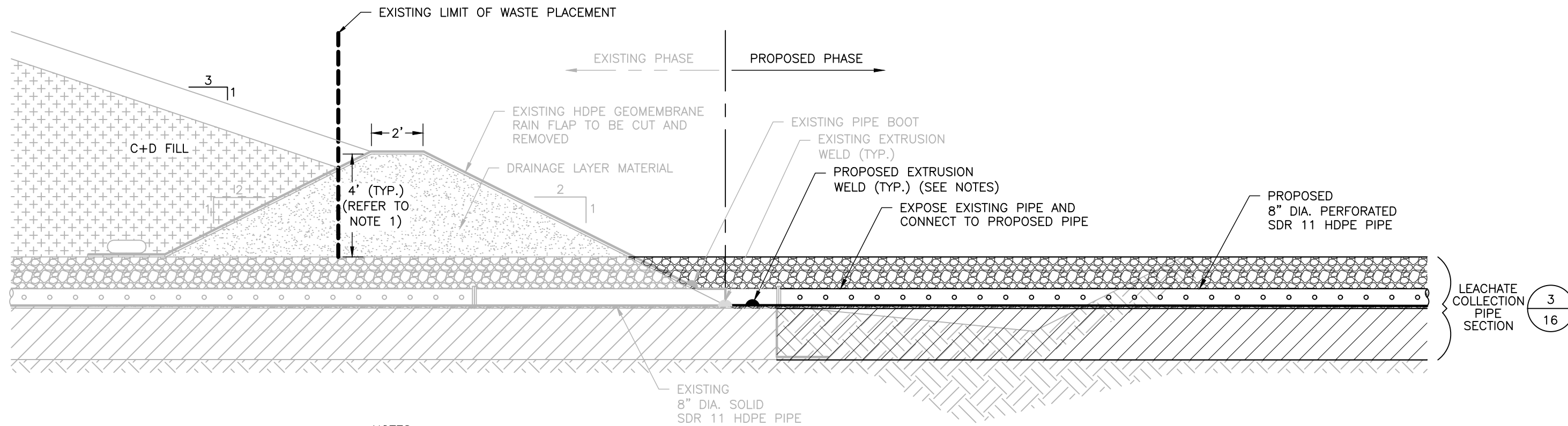
5
14
PROPOSED PERIMETER BERM ANCHOR TRENCH
SCALE: 1"=2'



NOTES:

- BERM GEOMETRY MAY VARY BASED ON LOCATION IN PHASE AND FIELD CONDITIONS AT THE TIME OF CONSTRUCTION.
- CUT AND REMOVE EXISTING EXPOSED GEOMEMBRANE RAIN FLAP.
- BACKFILL AREA WITH SUBGRADE MATERIAL TO THE TOP OF SUBGRADE ELEVATIONS SHOWN ON PLAN.
- EXCAVATE EXISTING ANCHOR TRENCH TO EXPOSE BASELINER GEOMEMBRANE AND LOW PERMEABILITY SOIL LAYER.
- INSTALL AND CONNECT PROPOSED PHASE LOW PERMEABILITY SOIL LAYER TO EXISTING LOW PERMEABILITY SOIL LAYER.
- INSTALL AND CONNECT THE PROPOSED PHASE GEOMEMBRANE TO THE EXISTING BASELINER GEOMEMBRANE.
- GEOSYNTHETIC LAYERS NOT SHOWN FOR CLARITY.
- CONNECTION DETAIL IS REPRESENTATIVE OF CONNECTION BETWEEN PHASES 6C AND 10B, 6C AND 10C, 7 AND 8, 8 AND 9, 9 AND 10B, 9 AND 10C, 10A AND 10B, AND 10B AND 10C.

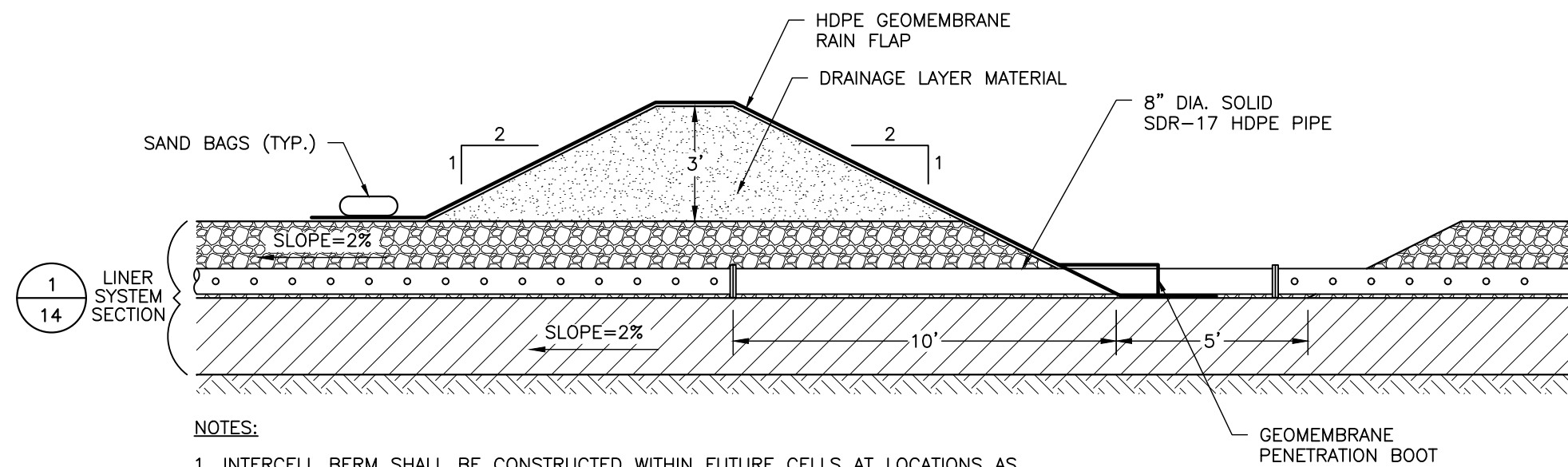
2
14
EXISTING PHASE / PROPOSED PHASE BASELINER SYSTEM CONNECTION DETAIL
SCALE: 1"=4'



NOTES:

- BERM GEOMETRY MAY VARY BASED ON LOCATION IN PHASE AND FIELD CONDITIONS AT THE TIME OF CONSTRUCTION.
- CUT AND REMOVE EXISTING GEOMEMBRANE RAIN FLAP.
- BACKFILL AREA WITH SUBGRADE MATERIAL TO THE TOP OF SUBGRADE ELEVATIONS SHOWN ON PLAN.
- EXCAVATE EXISTING ANCHOR TRENCH TO EXPOSE BASELINER GEOMEMBRANE AND LOW PERMEABILITY SOIL LAYER.
- INSTALL AND CONNECT PROPOSED PHASE LOW PERMEABILITY SOIL LAYER TO EXISTING LOW PERMEABILITY SOIL LAYER.
- INSTALL AND CONNECT THE PROPOSED PHASE GEOMEMBRANE TO THE EXISTING BASELINER GEOMEMBRANE.
- GEOSYNTHETIC LAYERS NOT SHOWN FOR CLARITY.
- CONNECTION DETAIL IS REPRESENTATIVE OF CONNECTION BETWEEN PHASES 6C AND 10B, 6C AND 10C, 7 AND 8, 8 AND 9, 9 AND 10B, 9 AND 10C, 10A AND 10B, AND 10B AND 10C.

4
14
PROPOSED LEACHATE COLLECTION PIPE CONNECTION DETAIL
SCALE: 1"=4'



NOTES:

- INTERCELL BERM SHALL BE CONSTRUCTED WITHIN FUTURE CELLS AT LOCATIONS AS DIRECTED BY OWNER TO FACILITATE OPERATIONS.

6
14
INTERCELL BERM
SCALE: 1"=4'

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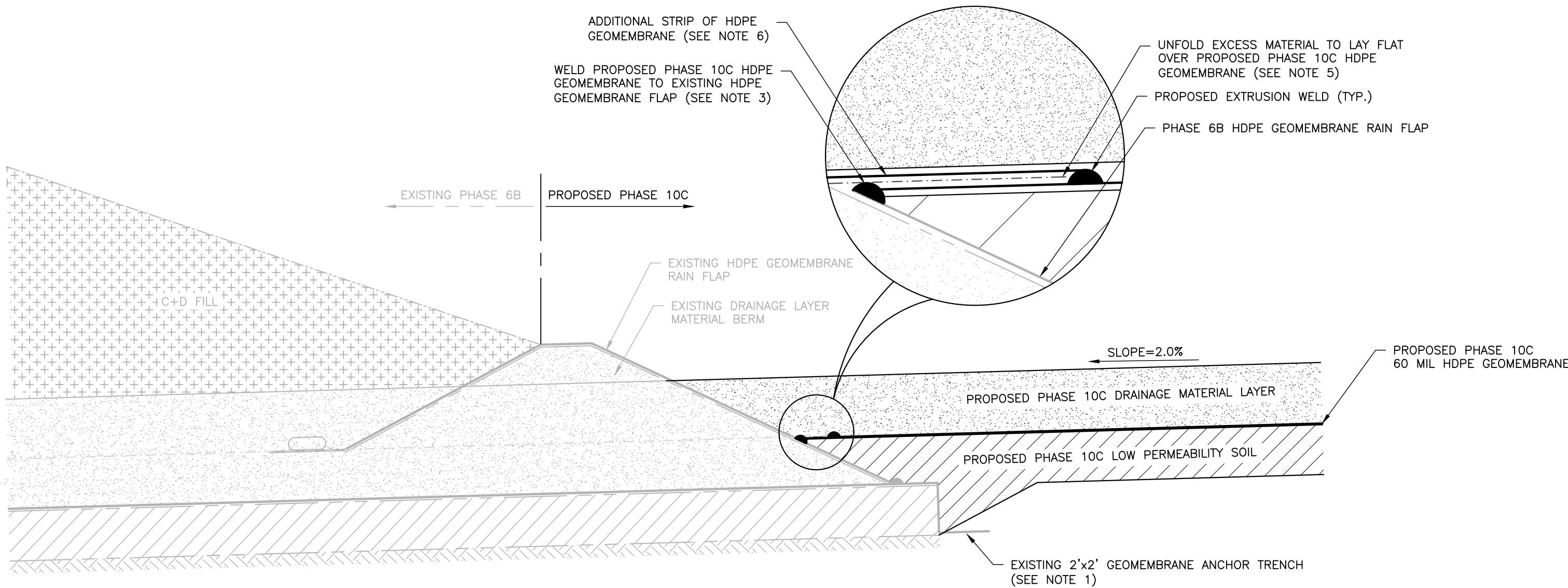
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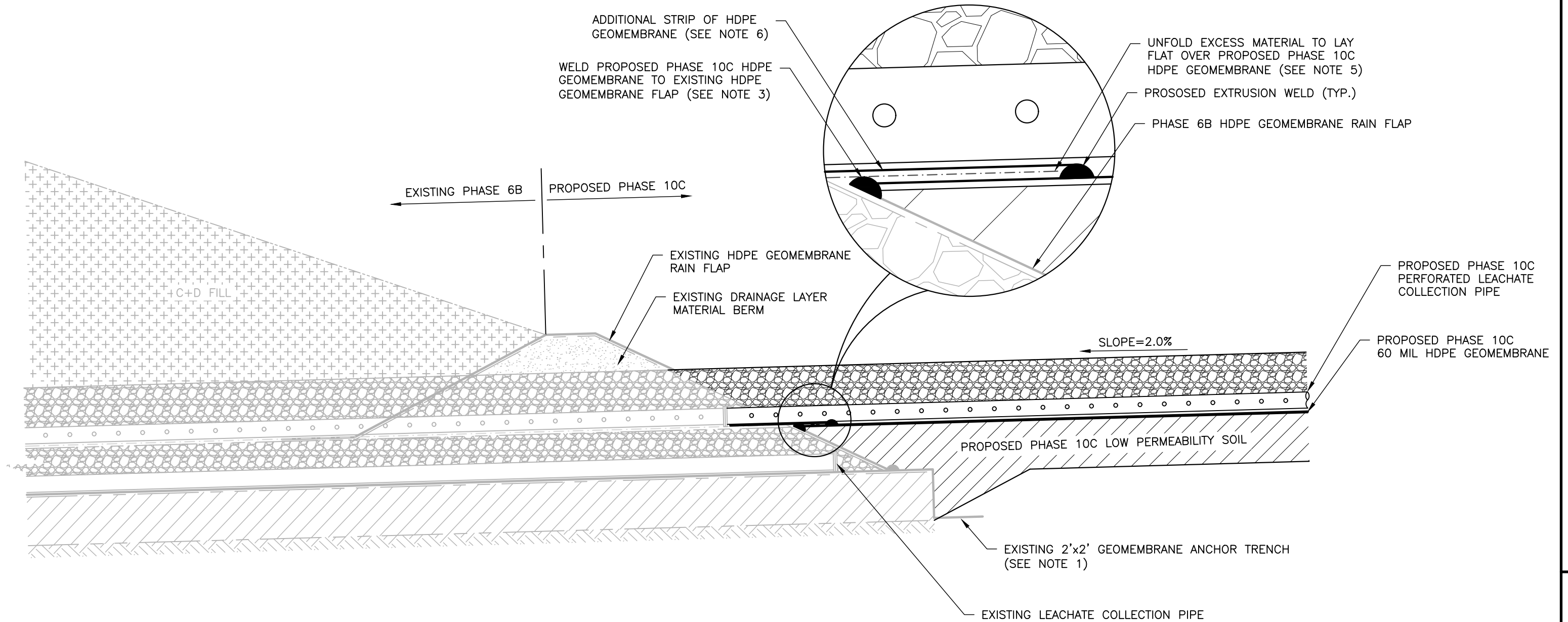
A:\2018\182-442\182-442.dwg [see 18-permit modification drawings\182-442-SY16-2801-Baselines Details [Long\0001] LS\1\13\2022 - 000000] - LP- 1/13/2022 12:42 PM



CONSTRUCTION SEQUENCE NOTES:

1. EXCAVATE AND EXPOSE PHASE 6B ANCHOR TRENCH. CUT AND REMOVE GEOMEMBRANE WITHIN ANCHOR TRENCH.
2. CONNECT PHASE 10C LOW PERMEABILITY SOIL TO PHASE 6B LOW PERMEABILITY SOIL.
3. INSTALL PHASE 10C HDPE GEOMEMBRANE AND WELD TO EXISTING PHASE 6B HDPE GEOMEMBRANE RAIN FLAP. EXISTING GEOMEMBRANE SHALL BE INSPECTED AND DAMAGED AREAS SHALL BE REPAIRED AS NECESSARY PRIOR TO PERFORMING EXTRUSION WELDING.
4. CUT AND REMOVE EXCESS GEOMEMBRANE RAIN FLAP MATERIAL AS NECESSARY TO ALLOW FOR THE INSTALLATION OF THE PHASE 10C LEACHATE COLLECTION PIPE AND DRAINAGE LAYER MATERIALS.
5. UNFOLD THE EXCESS GCL MATERIAL AND LAY FLAT OVER THE FUTURE PHASE HDPE GEOMEMBRANE.
6. INSTALL ADDITIONAL HDPE GEOMEMBRANE STRIP OVER THE GCL MATERIAL. STRIP SHALL BE EXTENDED 2' INTO THE OPERATIONAL BERM AND WELDED TO THE PHASE 10C HDPE GEOMEMBRANE.

1 EXISTING PHASE 6B/PROPOSED PHASE 10C BASELINER CONNECTION DETAIL
SCALE: 1"=4'



NOTES:

1. EXCAVATE AND EXPOSE PHASE 6B ANCHOR TRENCH. CUT AND REMOVE GEOMEMBRANE WITHIN ANCHOR TRENCH.
2. CONNECT PHASE 10C LOW PERMEABILITY SOIL TO PHASE 6B LOW PERMEABILITY SOIL.
3. INSTALL PHASE 10C HDPE GEOMEMBRANE AND WELD TO EXISTING PHASE 6B HDPE GEOMEMBRANE RAIN FLAP. EXISTING GEOMEMBRANE SHALL BE INSPECTED AND DAMAGED AREAS SHALL BE REPAIRED AS NECESSARY PRIOR TO PERFORMING EXTRUSION WELDING.
4. CUT AND REMOVE EXCESS GEOMEMBRANE RAIN FLAP MATERIAL AS NECESSARY TO ALLOW FOR THE INSTALLATION OF THE PHASE 10C LEACHATE COLLECTION PIPE, STONE, AND DRAINAGE LAYER MATERIAL.
5. UNFOLD THE EXCESS GCL MATERIAL AND LAY FLAT OVER THE PHASE 10C HDPE GEOMEMBRANE.
6. INSTALL ADDITIONAL HDPE GEOMEMBRANE STRIP OVER THE GCL MATERIAL. STRIP SHALL BE EXTENDED 2' INTO THE OPERATIONAL BERM AND WELDED TO THE PHASE 10C HDPE GEOMEMBRANE.

2 EXISTING PHASE 6B / PROPOSED PHASE 10C LEACHATE COLLECTION PIPE CONNECTION DETAIL
SCALE: 1"= 4'

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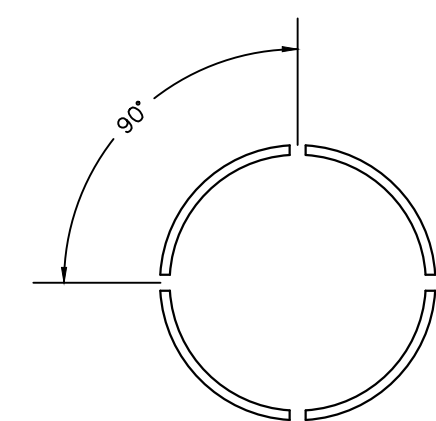


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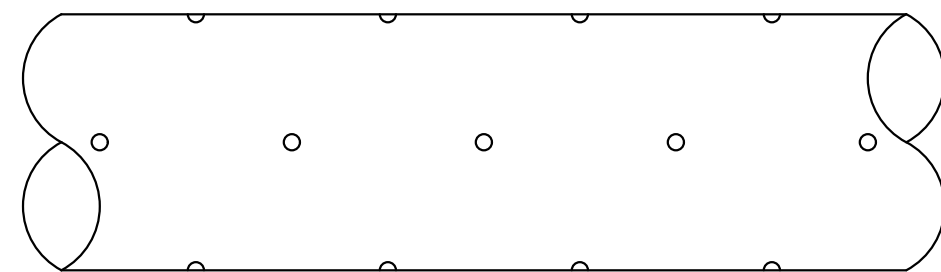
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OF



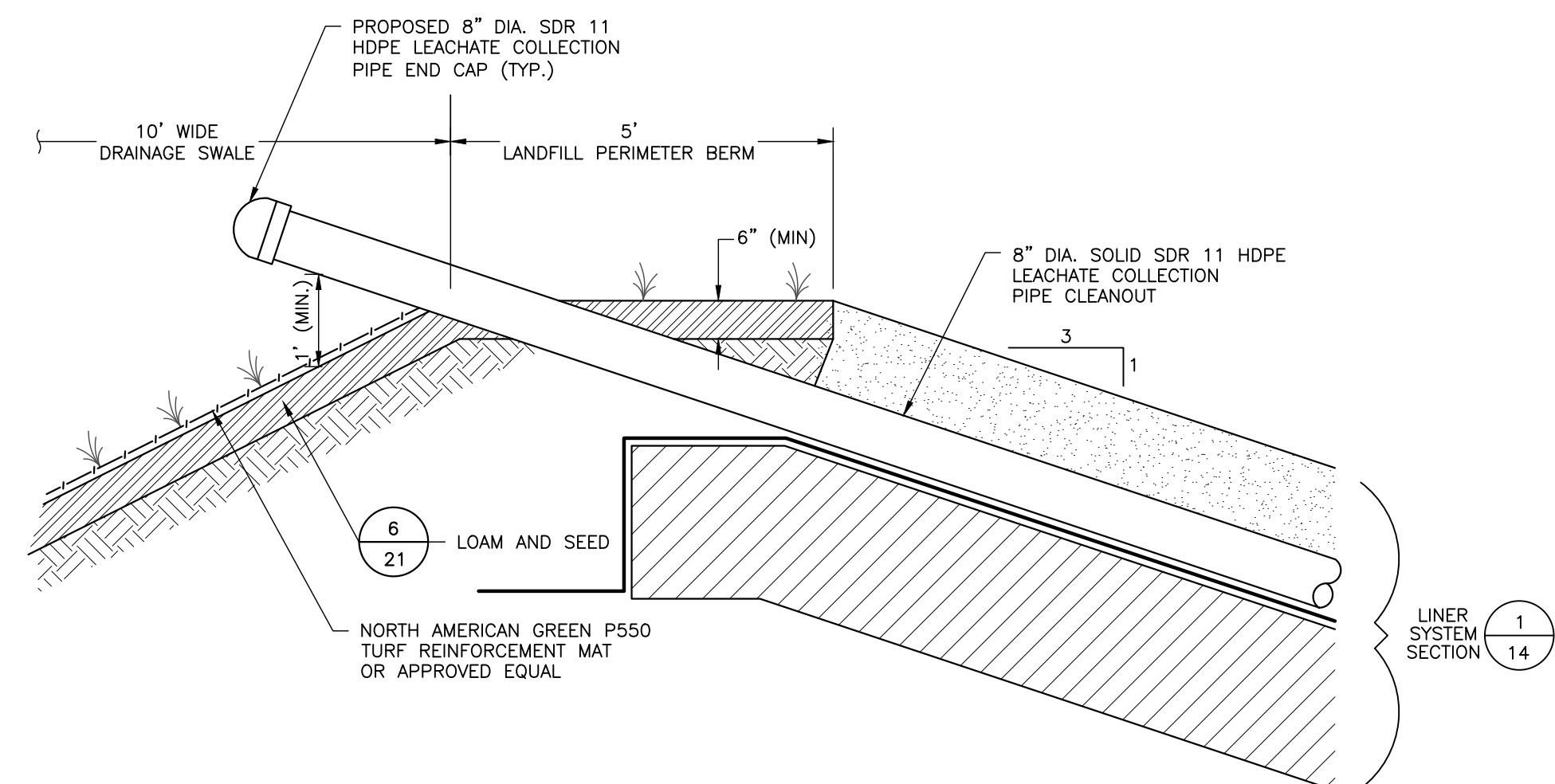
SECTION X-X

ELEVATION VIEW

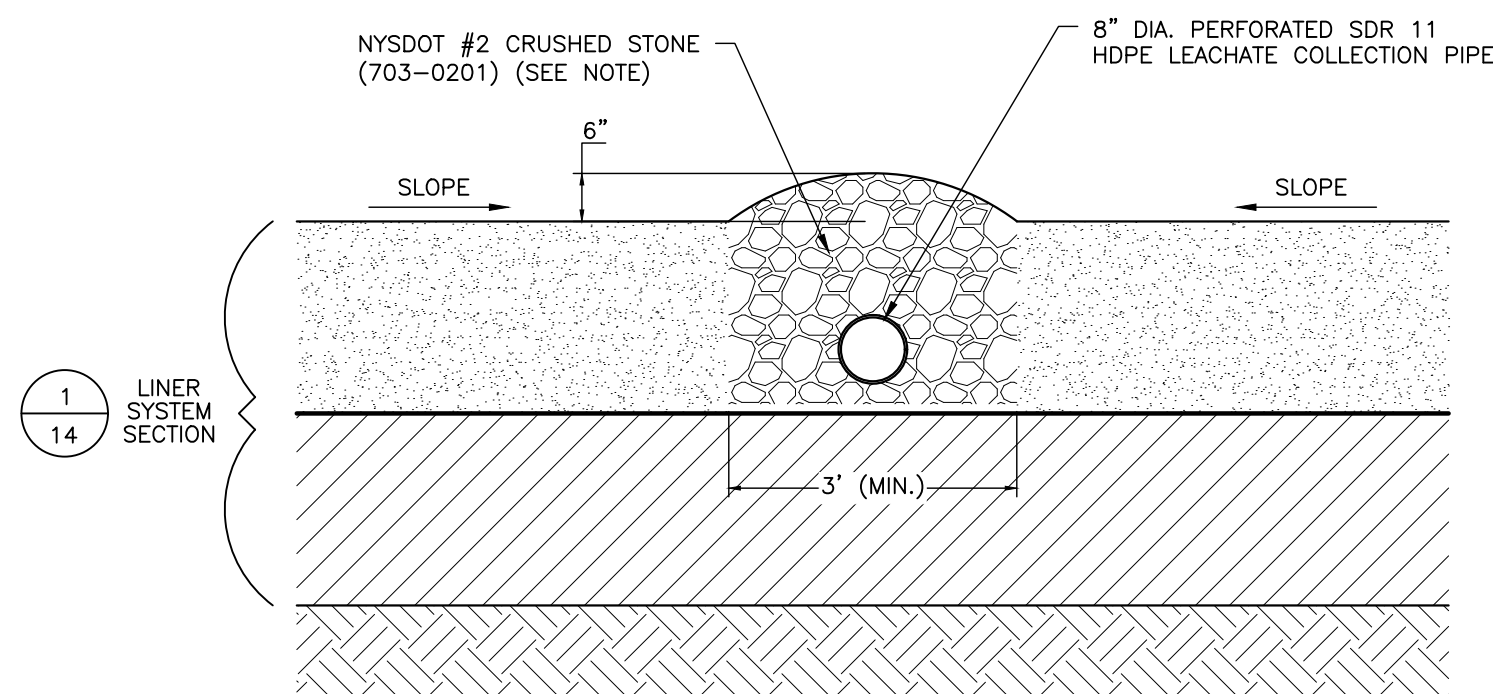
NOTES:

1. PROVIDE 8" DIA. HDPE PIPE PERFORATED WITH 1/2" DIA. HOLES SPACED 90° APART CIRCUMFERENTIALLY, AND 6 INCHES ON CENTER AXIALLY WHEN USED WITH NYSDOT #2 STONE AS SHOWN IN DETAIL 4, THIS SHEET.
2. PROVIDE 8" DIA. HDPE PIPE PERFORATED WITH 5/8" DIA. HOLES SPACED 90° APART CIRCUMFERENTIALLY, AND 6 INCHES ON CENTER AXIALLY WHEN USED WITH NYSDOT #3 STONE AS SHOWN IN DETAIL 4, THIS SHEET.

1 LEACHATE COLLECTION PIPE PERFORATION DETAIL
16 NOT TO SCALE



2 LEACHATE COLLECTION PIPE CLEANOUT SECTION
16 SCALE: 1"=2'



NOTE:

1. NYSDOT #3 STONE CAN BE USED AROUND PIPE IF PIPE PERFORATIONS ARE $\frac{5}{8}$ " DIAMETER. REFER TO DETAIL 1, THIS SHEET.
2. GRADATION OF DRAINAGE MATERIAL AND CRUSHED STONE SHALL SATISFY FILTER CRITERIA BELOW:

$$\frac{D_{15} \text{ (DRAINAGE MATERIAL)}}{D_{85} \text{ (CRUSHED STONE)}} = < 5$$

$$\frac{D_{15} \text{ (CRUSHED STONE)}}{D_{15} \text{ (DRAINAGE MATERIAL)}} = >4 \text{ AND } <20$$

$$\frac{D_{50} \text{ (DRAINAGE MATERIAL)}}{D_{50} \text{ (CRUSHED STONE)}} = < 25$$

3 LEACHATE COLLECTION PIPE SECTION
16 SCALE: 1"=2'

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1 NORTH POND DRYWELL OUTLET DETAIL
SCALE: 1"=10'

NOTE:
1. MSE WALL SHALL BE DESIGNED BY OTHERS PRIOR TO CONSTRUCTION.

3 PROPOSED DRY WELL
17

3 DRYWELL DETAIL
N.T.S.

NOTES:
1. DRY WELL SECTIONS, LIDS, AND BASES SHALL BE PRECAST CONCRETE UNITS AS MANUFACTURED BY FORT MILLER COMPANY, INC. OF GREENWICH, NEW YORK, OR EQUIVALENT.
2. GEOTEXTILE FABRIC SHALL BE "GEOTEX 861" AS MANUFACTURED BY PROPEX, OR EQUIVALENT.

5 TYPICAL CULVERT TRENCH SECTION
SCALE: 1"=1'

NOTES:
1. CULVERTS SHALL BE N-12 PIPE AS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS OR EQUIVALENT PRODUCT APPROVED BY ENGINEER.

6 POND INLET CHANNEL OUTLET PROTECTION DETAIL
SCALE: 1"=3'

2 SPILLWAY OUTLET DETAIL
SCALE: 1"=3'

4 POND INLET CHANNEL
SCALE: 1"=2'

NOTE:
1. RENO™ MATTRESSES SHALL BE 6x9x1 FEET. MATTRESSES SHALL BE FILLED WITH STONE RANGING FROM 4"-6" IN DIAMETER.

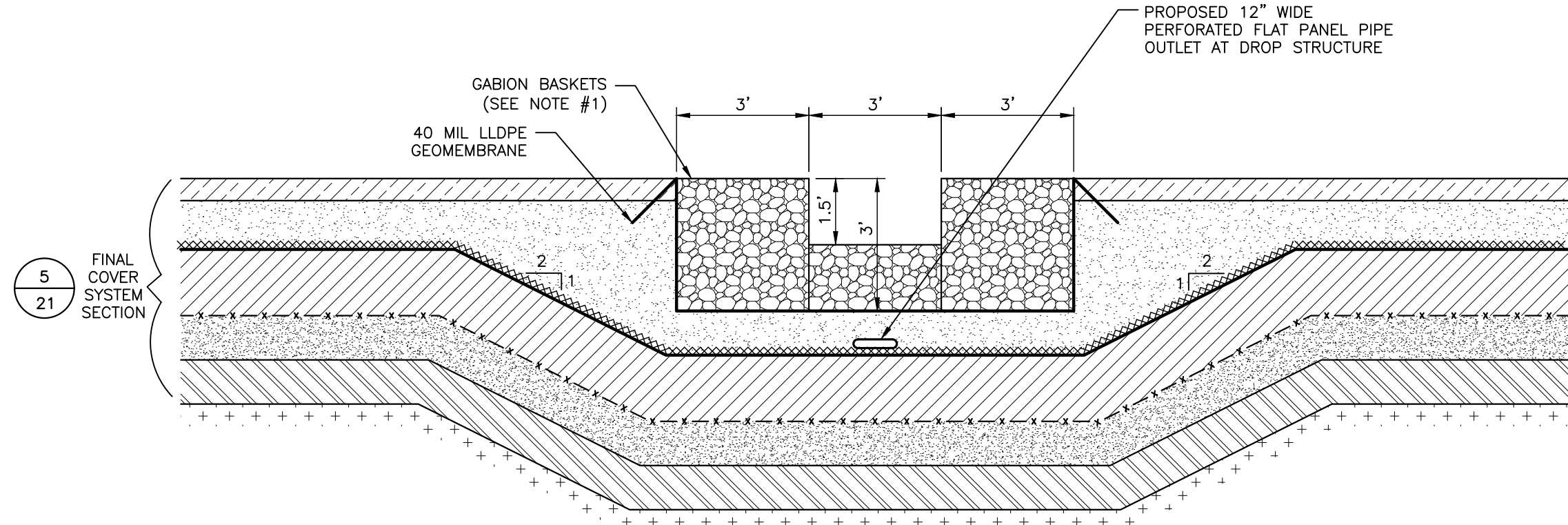
7 SCALE: 1"=1'

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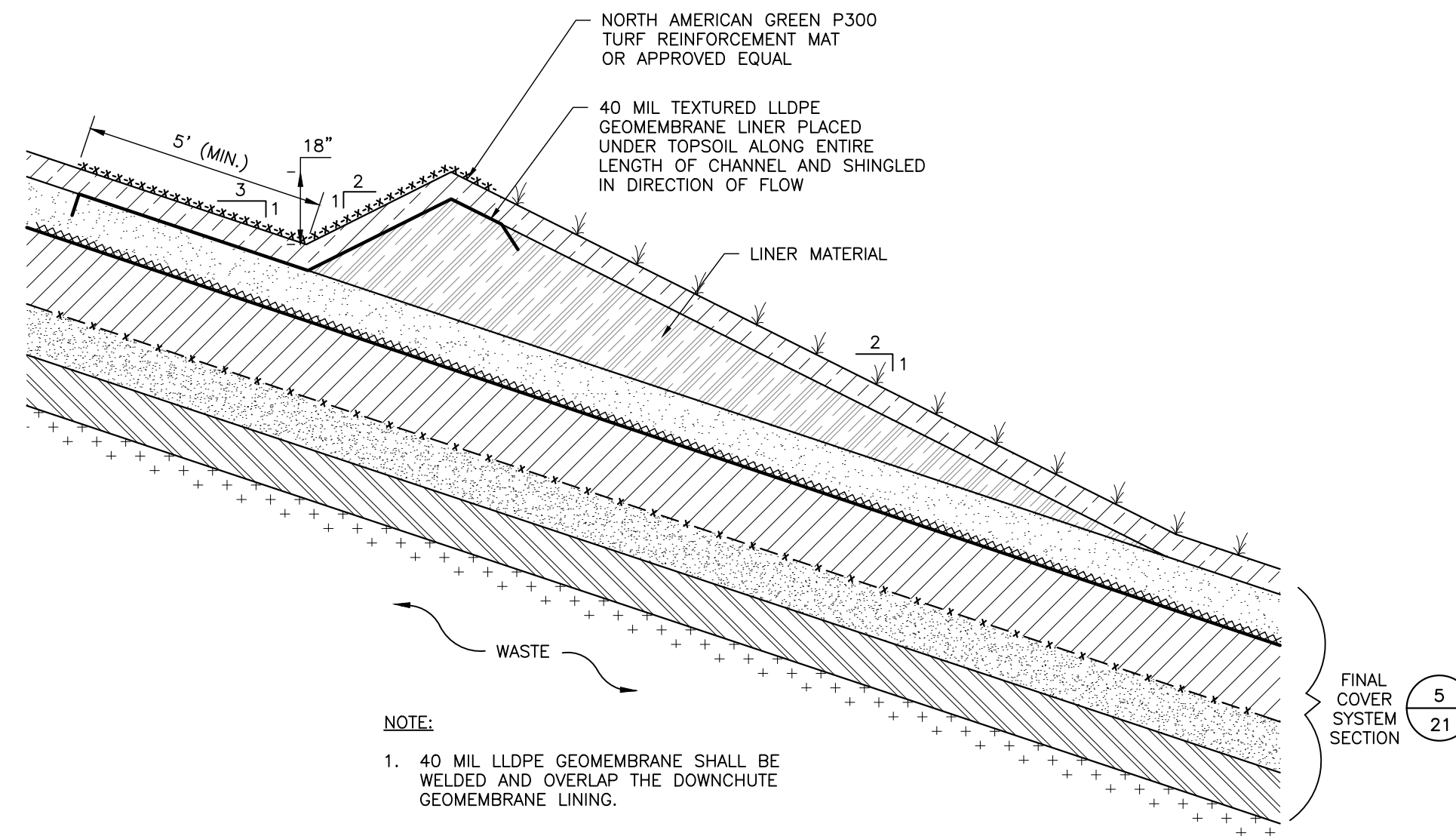
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A:\2018\182-442\182-442.dwg [see 18-perm] modification drawings 182-442-SW16-2004-Stormwater Management System Details (Long) [LS(1/13/2022 - null)] - LP: 1/13/2022 12:43 PM



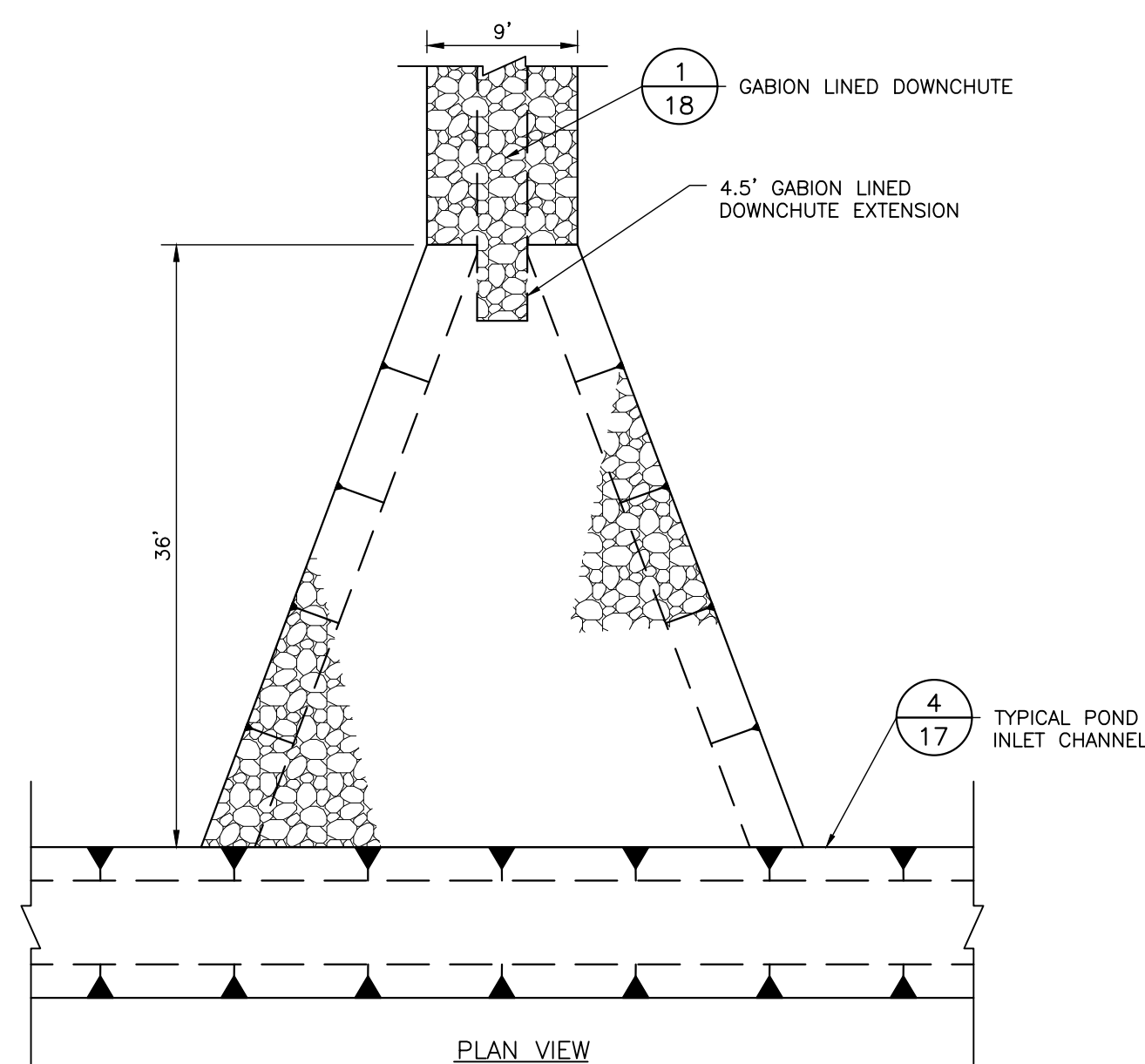
NOTE:
1. PERIMETER GABION BASKETS SHALL BE 6'x3'x3' FEET. INSIDE GABION BASKETS SHALL BE 6'x3'x1.5' FEET. ALL GABION BASKETS SHALL BE FILLED WITH STONE RANGING FROM 4"-8" IN DIAMETER.

1
18 GABION LINED DOWNCHUTE DETAIL
SCALE: 1"=2'



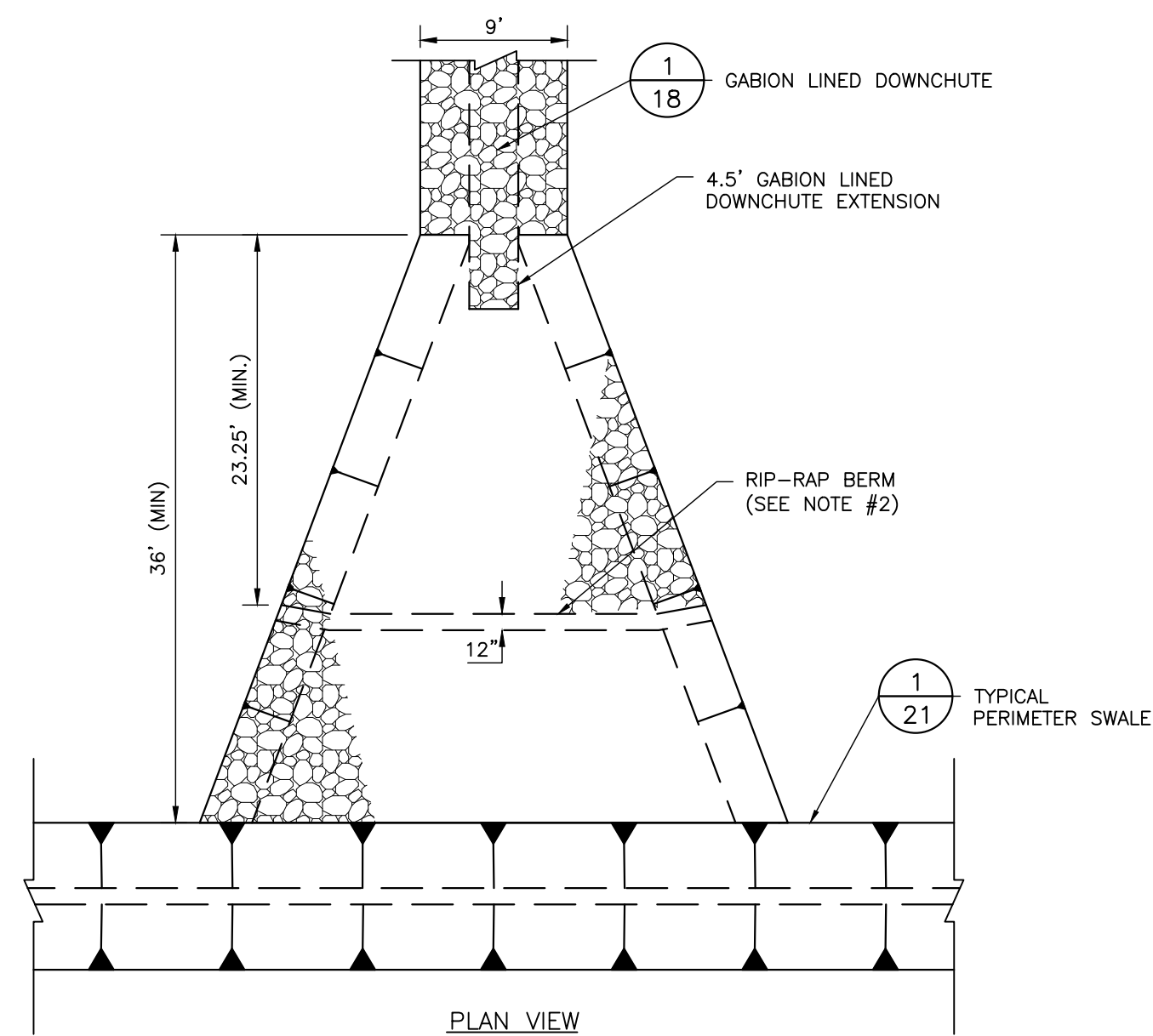
NOTE:
1. 40 MIL LLDPE GEOMEMBRANE SHALL BE WELDED AND OVERLAP THE DOWNCHUTE GEOMEMBRANE LINING.

2
18 SIDESLOPE DIVERSION BERM DETAIL
SCALE: 1"=2'



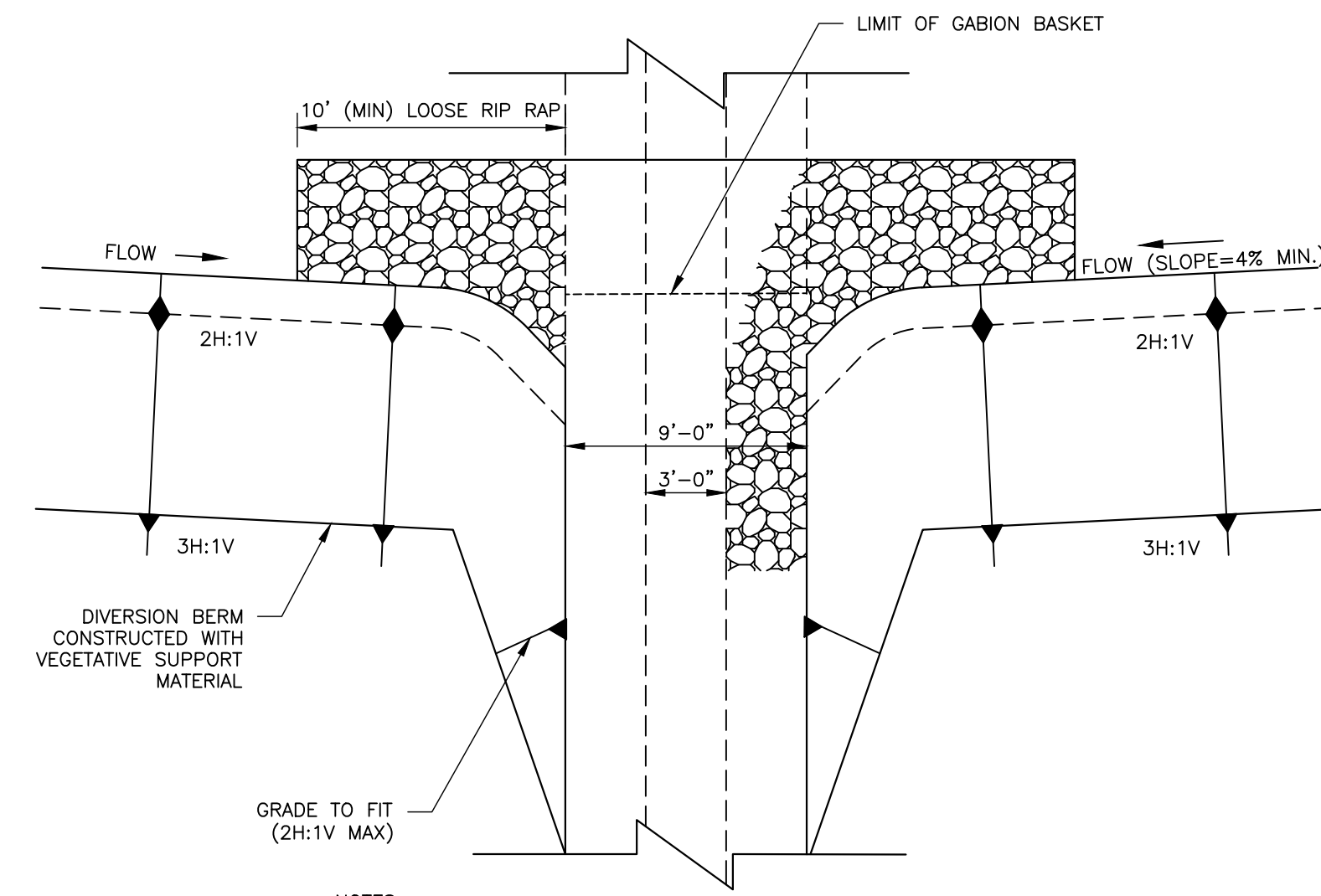
NOTES:
1. SIZE OF RIP-RAP IN ENERGY DISSIPATOR SHALL BE $D_{50} = 12"$.

4
18 DOWNCHUTE ENERGY DISSIPATOR 1
SCALE: 1"=10'



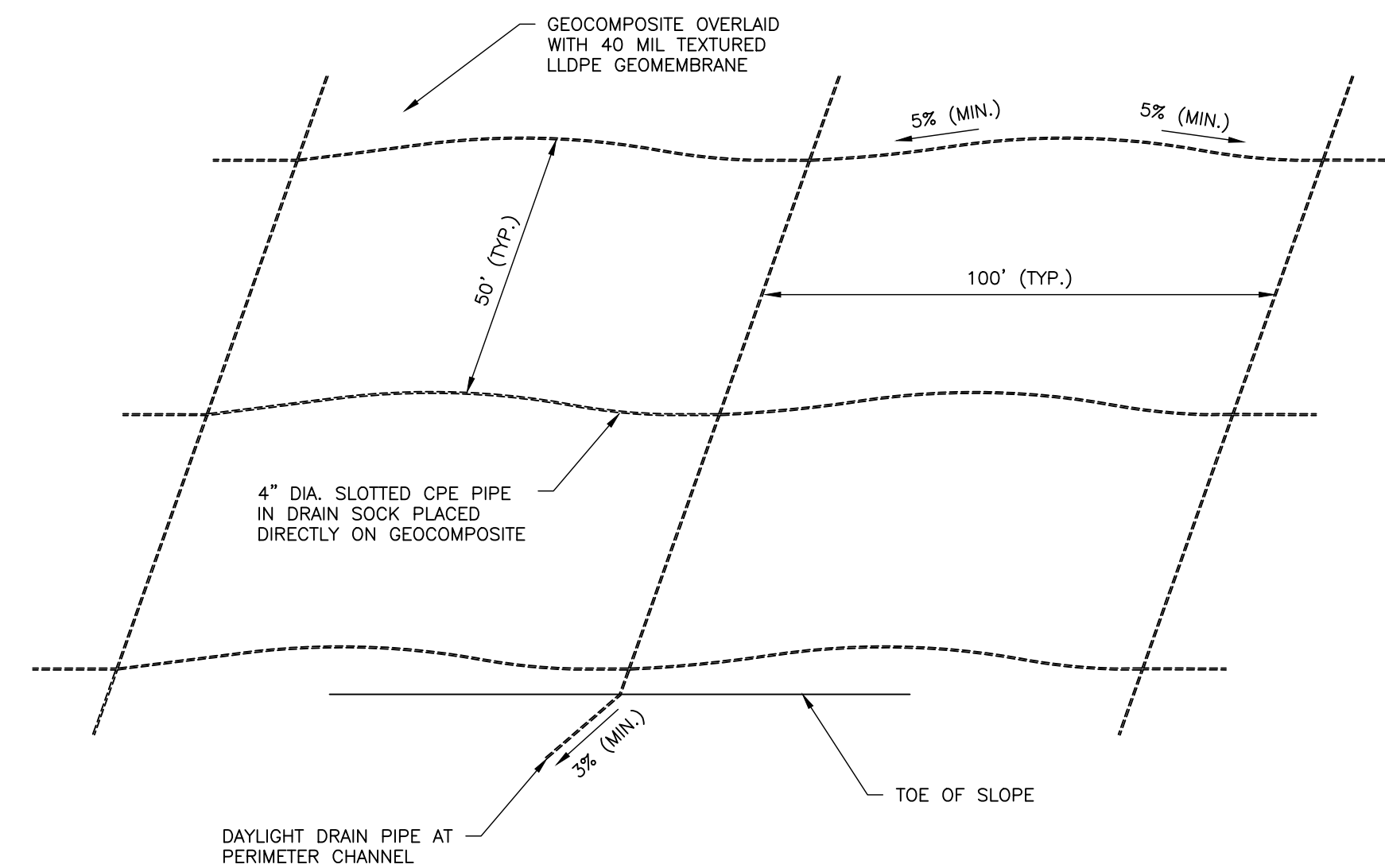
NOTES:
1. SIZE OF RIP-RAP IN ENERGY DISSIPATOR SHALL BE $D_{50} = 9"$.
2. RIP-RAP BERM SHALL BE 12" HIGH, 12" IN LENGTH, AND BUILT ACROSS WIDTH OF DISSIPATOR.

5
18 DOWNCHUTE ENERGY DISSIPATOR 2
SCALE: 1"=10'



NOTES:
1. CHANNEL SHALL BE CONSTRUCTED WITH A MINIMUM 4% SLOPE TOWARDS DOWNCHUTE.
2. 40 MIL LLDPE GEOMEMBRANE BENEATH SWALE SHALL OVERLAP THE DOWNCHUTE GEOMEMBRANE LINING.
3. SIZE OF RIP-RAP IN DOWNCHUTE SHALL BE $D_{50} = 12"$.

3
18 DOWNCHUTE / SIDESLOPE DIVERSION BERM INLET DETAIL
SCALE: 1"=6'



NOTES:
1. CONTRACTOR SHALL COORDINATE CAP DRAIN INSTALLATION LOCATIONS SUCH THAT DRAIN PIPE DOES NOT INTERFERE WITH PROPOSED LANDFILL GAS COLLECTION PIPE AND DOWNDRAIN PIPE LOCATIONS.
2. PIPE SHALL BE INSTALLED SUCH THAT 4" LATERAL PIPE IS LOCATED AT TOE OF SLOPE AND SPACED UP SLOPE ACCORDINGLY.
3. CONTRACTOR SHALL USE TAPE AT JOINTS TO SEAL THE DRAIN SOCK AROUND PIPE AND PREVENT JOINT BECOMING UNCOUPLED.

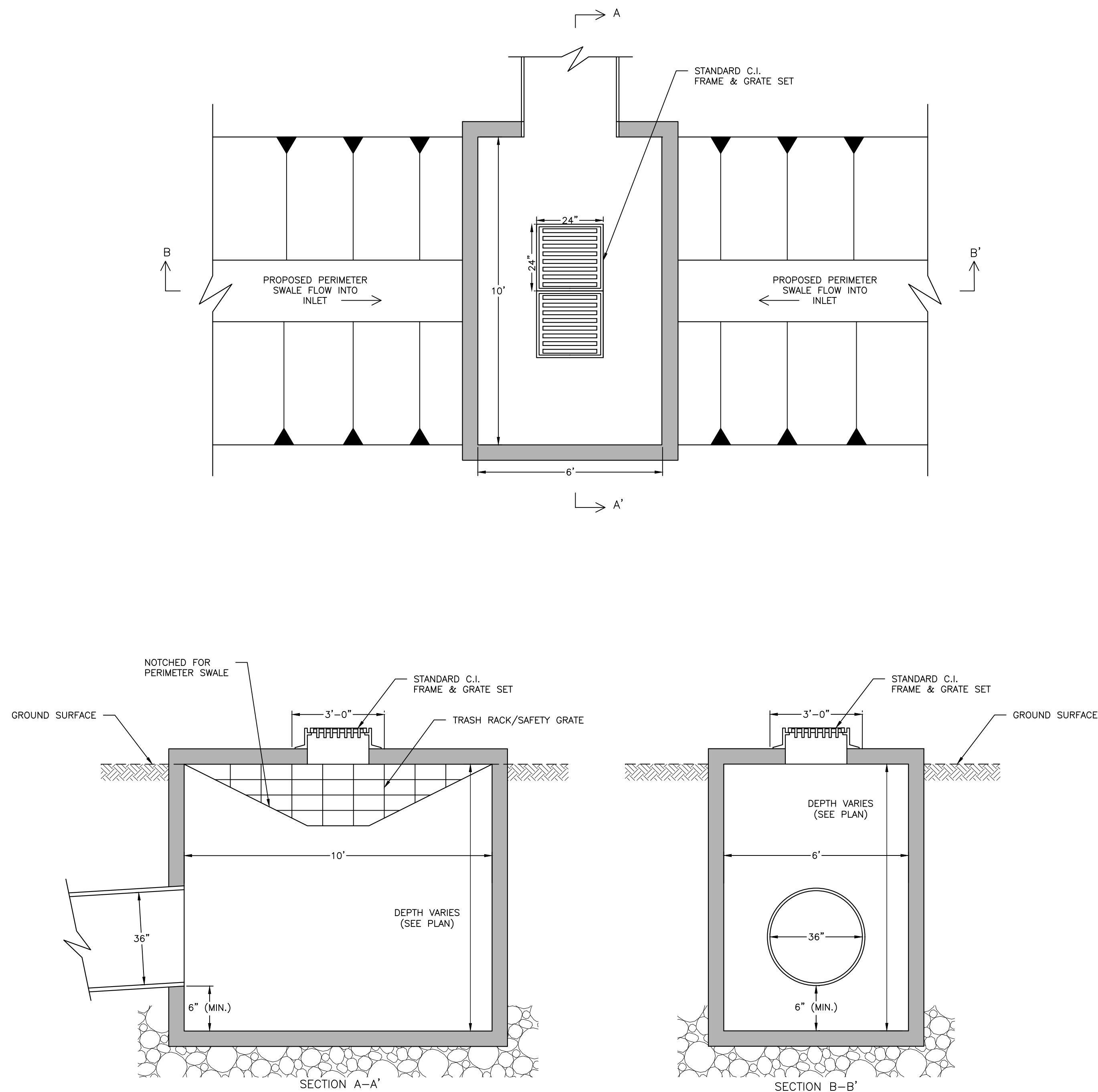
6
18 FINAL COVER DRAINAGE PIPE
SCALE: 1"=30'

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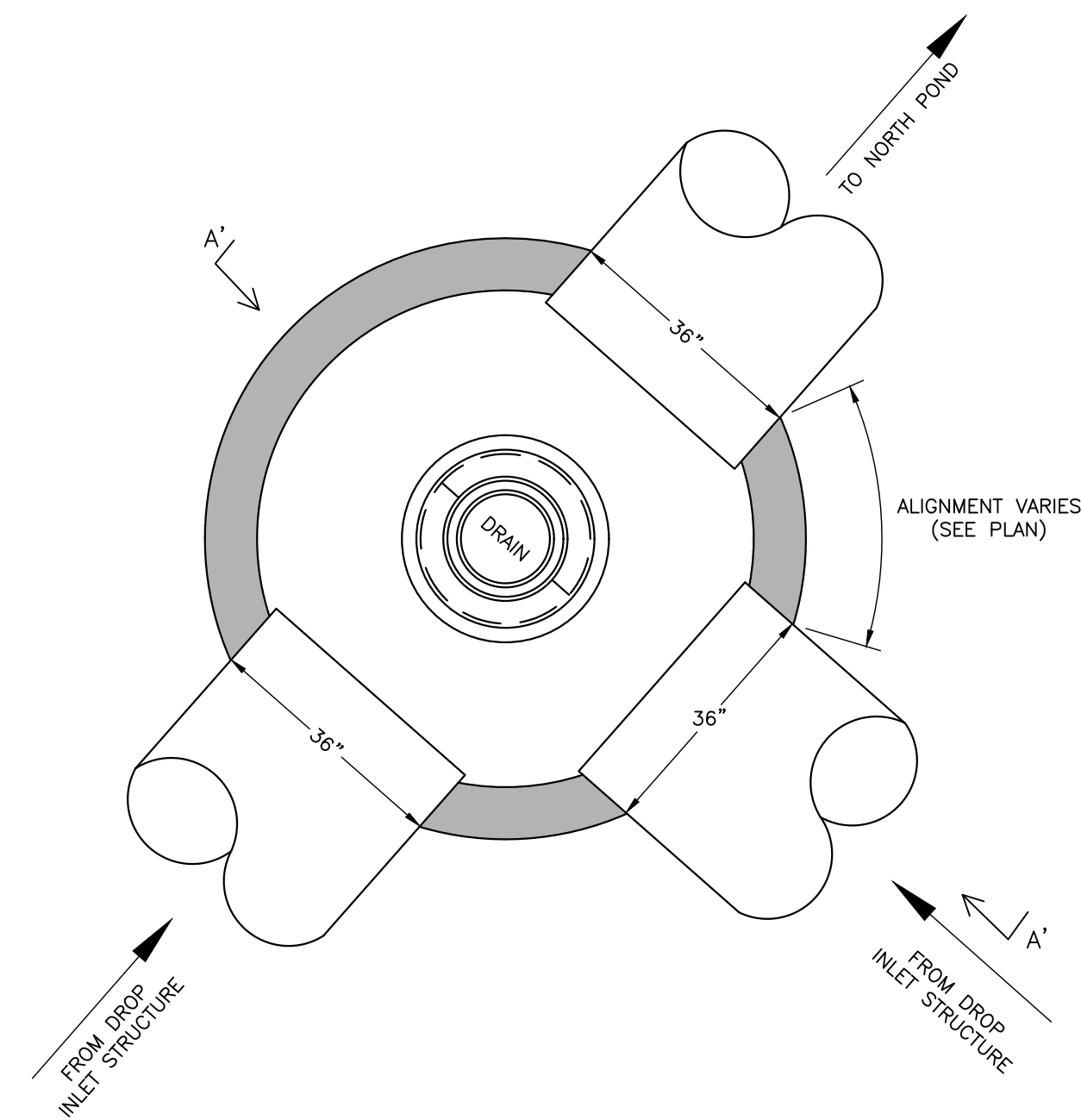
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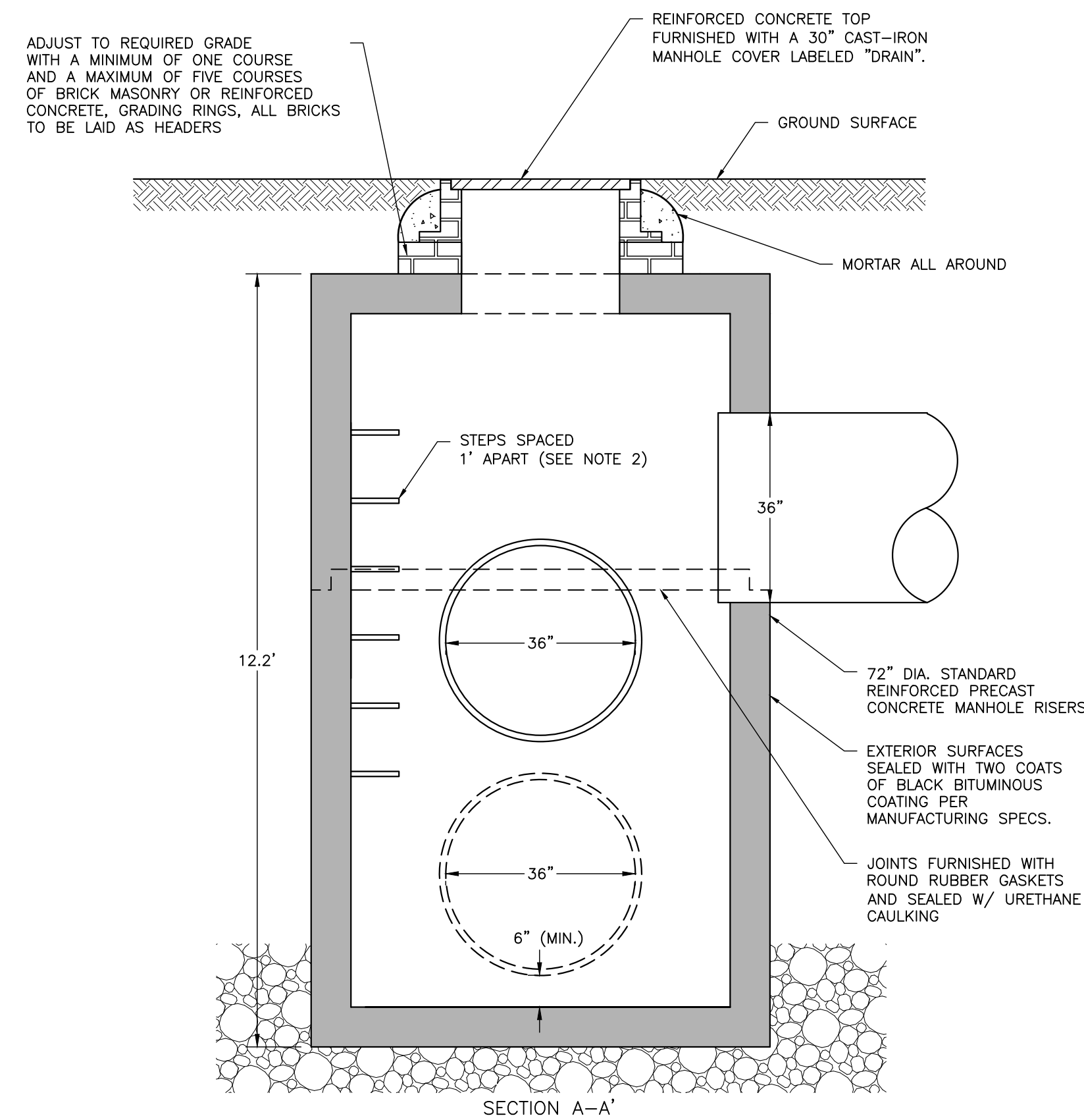
NOTES:

1. CONTRACTOR SHALL PROVIDE PLANS FOR REINFORCED CONCRETE DROP STRUCTURE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.
2. CONTRACTOR SHALL PROVIDE SCOURING PROTECTION WITHIN CONCRETE CATCH BASIN.
3. SWALE ALIGNMENT AND LOCATION INTO DROP INLET VARIES. REFER TO PLAN FOR ACTUAL NUMBER OF SWALES AND ALIGNMENT.

1 CONCRETE DROP INLET STRUCTURE
19 NOT TO SCALE



PLAN



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC STEP SHALL CONFORM TO LATEST ASTM C478 SPECIFICATIONS.

2 STORMWATER MANHOLE
19 SCALE: 1"=2'

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GENERAL NOTES:

- BEFORE UNDERTAKING ANY CONSTRUCTION ACTIVITY, ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH SITE WORK THAT INVOLVES PHYSICAL GROUND DISTURBANCE ON THE PROJECT SITE SHALL SIGN AND DATE A COPY OF THE CERTIFICATION STATEMENT, WHICH IS LOCATED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), PREPARED FOR THIS PROJECT.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL CONFORM TO THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" (A.K.A. "NYS BLUE BOOK"), MOST RECENT EDITION AND ANY ADDENDA THERETO.
- THE SEDIMENT CONTROL MEASURES DETAILED IN THESE PLANS SHALL BE IN PLACE PRIOR TO THE START OF EACH CONSTRUCTION PHASE, AT A MINIMUM THESE MEASURES CONSIST OF SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE(S), ONCE CONSTRUCTED, ALL MEASURES SHALL BE PROPERLY MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD, AND THEN REMOVED FROM THE SITE ONCE THE SITE IS STABILIZED.
- AFTER THE START OF CONSTRUCTION, SITE SWPPP INSPECTIONS SHALL BE CONDUCTED AT LEAST EVERY 7 CALENDAR DAYS.
- BASED ON THE WEEKLY SITE SWPPP INSPECTIONS, THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWPPP MAY BE REVISED AS SITE CONDITIONS WARRANT. THE CONTRACTOR SHALL IMPLEMENT THESE CHANGES AS SOON AS PRACTICABLE.
- THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR UNTIL THE FINAL SURFACE TREATMENT HAS BEEN INSTALLED AND VEGETATED AREAS HAVE ESTABLISHED 80% COVERAGE. AFTER THE VEGETATED AREAS HAVE BEEN STABILIZED WITH AT LEAST 80% VEGETATIVE COVER, THE PROPERTY OWNER SHALL ASSUME RESPONSIBILITY FOR MAINTAINING THE EROSION AND SEDIMENT CONTROL SYSTEM(S) THEREAFTER.
- CONSTRUCTION ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE CONSTRUCTION PHASING SCHEDULE SUPPLIED BY THE CONTRACTOR OR AS SHOWN ON THE PLANS.
- OUTSIDE THE GROWING SEASON, OTHER METHODS OF SOIL STABILIZATION (SUCH AS THE USE OF JUTE MESH AND EXCELSIOR MATTING) SHALL BE USED UNTIL SUCH TIME AS VEGETATIVE COVER CAN BE ESTABLISHED.
- EXISTING VEGETATION SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE. SITE WORK ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE AREA AND DURATION OF SOIL DISTURBANCE. REMOVAL OF WOODY VEGETATION SHALL BE KEPT TO THE MINIMUM EXTENT PRACTICABLE.
- TRENCH DEWATERING SHALL BE CONDUCTED USING A PORTABLE PUMP AND HOSE, AS NECESSARY. WATER SHALL BE PUMPED TO A DEWATERING STRUCTURE OR GEOTEXTILE FILTER BAG LOCATED IN A WELL VEGETATED UPLAND AREA. WHEN COMPLETED, ALL DEPOSITED SEDIMENTS SHALL BE PROPERLY MANAGED IN UPLAND AREAS OR DISPOSED OF OFF-SITE.
- INLET PROTECTION MEASURES SHALL BE INSTALLED AROUND STORM DRAIN INLETS TO PREVENT SEDIMENT LADEN WATER FROM ENTERING STORM SEWER SYSTEMS.

STABILIZED CONSTRUCTION ENTRANCE NOTES:

- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED WHERE NECESSARY TO PREVENT SEDIMENT FROM BEING TRACKED ONTO ROADWAYS.
- PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. CONSTRUCTION TRAFFIC SHALL NOT CROSS STREAMS OR DITCHES EXCEPT AT SUITABLE CROSSING FACILITIES, AND SHALL NOT OPERATE UNNECESSARILY WITHIN WATERWAYS OR DRAINAGE DITCHES.
- IF INTERNAL CONSTRUCTION ROADS ARE DETERMINED TO BE A SOURCE OF SEDIMENT-LADEN RUNOFF TO SENSITIVE AREAS, THEY SHALL BE STABILIZED AS SOON AS PRACTICABLE.

STOCKPILE NOTES:

- TOPSOIL AND FILL THAT IS ANTICIPATED TO REMAIN STOCKPILED ON-SITE FOR PERIODS GREATER THAN 30 DAYS SHALL BE STABILIZED BY SEEDING. PRIOR TO THE SEEDING OPERATION, THE STOCKPILED MATERIAL SHALL BE GRADED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. IN NO CASE SHALL ERODIBLE MATERIALS BE STOCKPILED WITHIN 25 FT OF ANY DITCH, STREAM, OR OTHER SURFACE WATERBODY.
- SILT FENCE SHALL BE CONSTRUCTED AROUND ALL STOCKPILES OF FILL, TOPSOIL AND EXCAVATED OVERBURDEN THAT ARE TO REMAIN EXPOSED FOR PERIODS LESS THAN 30 DAYS. SILT FENCE AND/OR HAY BALES SHALL BE ANCHORED AND MAINTAINED IN GOOD CONDITION UNTIL SUCH TIME AS SAID STOCKPILES ARE REMOVED AND STOCKPIILING AREAS ARE BROUGHT TO FINAL GRADE AND PERMANENTLY STABILIZED.

SILT FENCE NOTES:

- SILT FENCE SHALL BE PLACED ON THE DOWNSLOPE SIDE OF DISTURBED AREAS AND AROUND THE PERIMETER OF SOIL STOCKPILES.
- WITHIN RESIDENTIAL AREAS, SILT FENCE SHALL BE INSTALLED ALONG THE PERIMETER OF THE ENTIRE WORK AREA WHEN WORK IS CONDUCTED IN LAWNS.
- SILT FENCE SHALL BE REPAIRED OR REPLACED WHEN THE ENDS ARE FRAYED OR WORN, AND WHEN THE FENCE IS NOT ANCHORED 6" INTO THE GROUND. WHEN THE ACCUMULATED SEDIMENT REACHES 50% OF THE SILT FENCE HEIGHT OR WHEN "BULGES" DEVELOP IN THE FENCING, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROPRIATE UPLAND AREA.

TRENCHES & SLOPES NOTES:

- IN AREAS OF CONCENTRATED FLOWS, SUCH AS DRAINAGE DITCHES AND ROADSIDE DITCHES, STONE CHECK DAMS SHALL BE INSTALLED TO SLOW THE VELOCITY OF THE FLOWS. FOLLOWING THE WORK, THE DITCHES AND/OR SWALES SHALL BE RECONSTRUCTED TO PRE-CONSTRUCTION CONTOURS AND STABILIZED IN ACCORDANCE WITH THE PLAN DETAILS.
- TRENCH BREAKERS SHALL BE INSTALLED IN TRENCHES ADJACENT TO WETLANDS AND ROAD CROSSINGS, AS REQUIRED, TO PREVENT SUBSURFACE EROSION AND DEWATERING OF WETLANDS AND WATERBODIES.
- IF NECESSARY, PERMANENT SLOPE BREAKERS SHALL BE CONSTRUCTED WITH A 2-8% OUTSLOPE TO DIVERT SURFACE FLOW TO WELL VEGETATED STABLE AREAS.

MULCHING & SEEDING NOTES:

- TEMPORARY STABILIZATION MEASURES SHALL START AS SOON AS PRACTICAL ON PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT NOT MORE THAN 14 DAYS AFTER WORK HAS CEASED. ACCEPTABLE TEMPORARY STABILIZATION MEASURES INCLUDE, BUT MAY NOT BE LIMITED TO MULCH, STRAW, HAY, EROSION CONTROL FABRIC OR SOME FUNCTIONAL EQUIVALENT MEASURE. MULCH, STRAW OR HAY SHALL BE APPLIED AT A RATE SUCH THAT 90% COVERAGE OF THE PREVIOUSLY DISTURBED AREA IS ATTAINED.
- TEMPORARY EROSION CONTROL PROTECTION BY MULCHING SHALL BE CARRIED OUT WITHIN 14 DAYS OF THE FILL GRADE BEING FINALIZED TO AVOID POSSIBLE CONTAMINATION OF PONDS, STREAMS, OR OTHER WATERCOURSES. PLACEMENT OF JUTE MESH OVER THE MULCH IS RECOMMENDED TO PROVIDE POSITIVE "TACKING" OF THE MULCH AND INCREASED PROTECTION AGAINST EROSION.
- PERMANENT SEEDING AND MULCH SHALL BE APPLIED AS SOON AS THE DISTURBED AREAS HAVE ACHIEVED FINAL GRADE. IF SEEDING DATES ARE SPECIFIED IN THE LANDSCAPE NOTES AND THE FILL IS TRIMMED "OUT OF SEEDING SEASON", MULCH SHALL BE APPLIED TO THE SLOPE AS SPECIFIED IN THE SEEDING ITEM AND SEED SHALL BE APPLIED TO THE TOP OF THE MULCH IN THE NEXT SEEDING SEASON. WHEN THE FINAL GRADE CANNOT BE OBTAINED IN 14-DAYS, MULCH SHALL BE APPLIED FOR PURPOSES OF TEMPORARY EROSION CONTROL.
- EROSION CONTROL MATTING SHALL SERVE AS A TEMPORARY EROSION CONTROL MEASURE ON ALL SLOPES GREATER THAN 3H:1V AND AS INDICATED ON THE PLAN. THE MATTING MATERIAL SHALL BE THE PRODUCT DEFINED IN THE PROJECT SPECIFICATIONS OR AN APPROVED EQUIVALENT.
- UPLAND AREAS SHALL BE REVEGETATED IN ACCORDANCE WITH RECOMMENDATIONS FROM THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" (MOST RECENT EDITION), AND ANY ADDENDA THERETO.

RECOMMENDED SEED MIXTURE FOR REVEGETATION OF DISTURBED AREAS		
COMMON NAME	SEEDING RATE (LBS. / ACRE)**	SEEDING RATE (LBS. / 1,000 SQ. FOOT)
EMPIRE BIRDSFOOT TREFLOIL* OR COMMON WHITE CLOVER*	8 LBS./ACRE	0.2 LBS./SQ. FOOT
TALL FESCUE	20LBS./ACRE	0.45 LBS./SQ. FOOT
REDTOP OR PERENNIAL RYEGRASS	2 LBS./ACRE (REDTOP) 5 LBS./ACRE (RYEGRASS)	0.05 LBS./SQ. FOOT 0.10 LBS./SQ. FOOT
RECOMMENDED MULCH MIXTURE FOR SEEDED AREAS		
COMMON NAME	MULCHING RATE (TON/ACRE & LBS./ACRE)**	MULCHING RATE (LBS. / 1,000 SQ. FOOT)
STRAW (CEREAL GRAIN)***	2 TON/ACRE	0.09 LBS./SQ. FOOT
WOOD FIBER (HYDROMULCH)****	500-750 LBS./ACRE	0.01-0.02 LBS./SQ. FOOT

* ADD INOCULANT IMMEDIATELY PRIOR TO SEEDING.

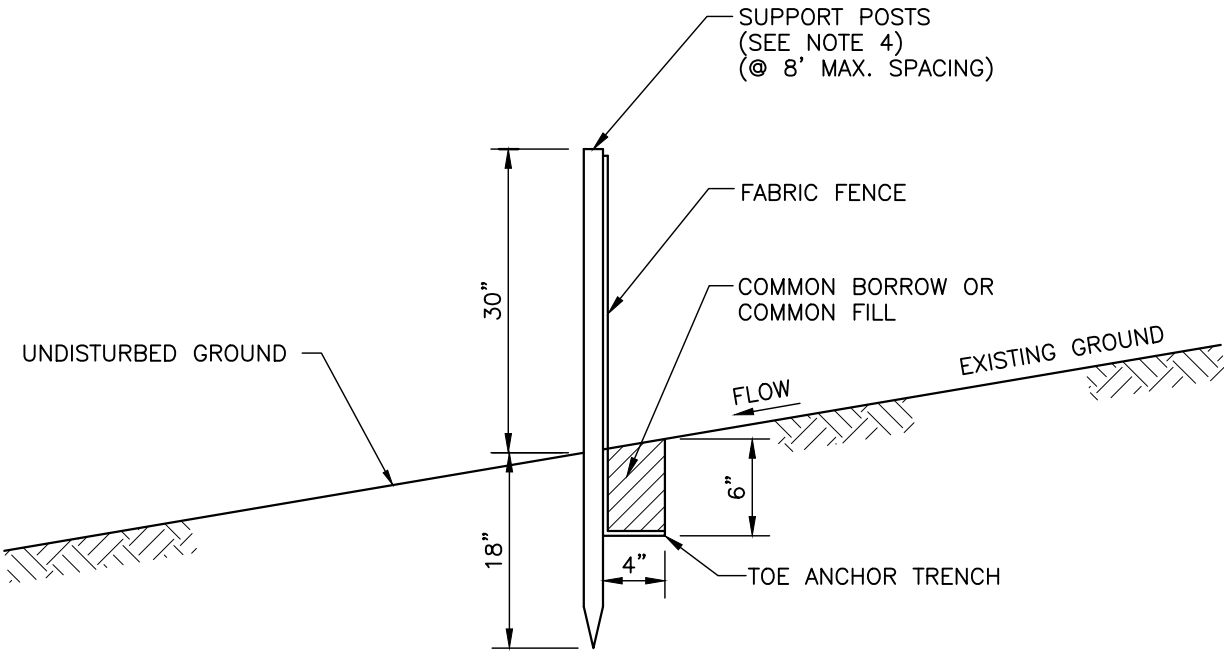
** SEEDING AND MULCHING RATES WERE OBTAINED FROM THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" (MOST RECENT EDITION).

*** ANCHOR STRAW WITH WOOD FIBER MULCH (HYDROMULCH).

**** WOOD FIBER MULCH MUST BE APPLIED THROUGH A HYDROSEEDER IMMEDIATELY AFTER MULCHING.

TEMPORARY STABILIZATION APPLICATION RATES*				
MULCH MATERIAL	QUALITY STANDARDS	MULCHING RATE (PER 1,000 SQ. FEET)	MULCHING RATE (PER ACRE)	DEPTH OF APPLICATION
WOOD CHIPS OR SHAVINGS	AIR-DRIED, FREE OF OBJECTIONABLE, COARSE MATERIAL	500-900 LBS.	10-20 TONS	2-7 INCHES
WOOD FIBER CELLULOSE	MADE FROM NATURAL WOOD	50 LBS.	2000 LBS.	2 INCHES
GRAVEL, CRUSHED STONE OR SLAG	WASHED, #2 STONE	9 CY	405 CY	3 INCHES
HAY OR STRAW	AIR-DRIED, FREE OF UNDESIRABLE SEEDS	90-100 LBS., 2-3 BALES	2 TONS, 100-120 BALES	COVER 90% OF SURFACE
COMPOST	UP TO 3 INCH PIECES, MODERATE TO HIGHLY STABLE	3-9 CY	135-405 CY	1-3 INCHES

* APPLICATION RATES WERE OBTAINED FROM THE "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" (MOST RECENT EDITION).

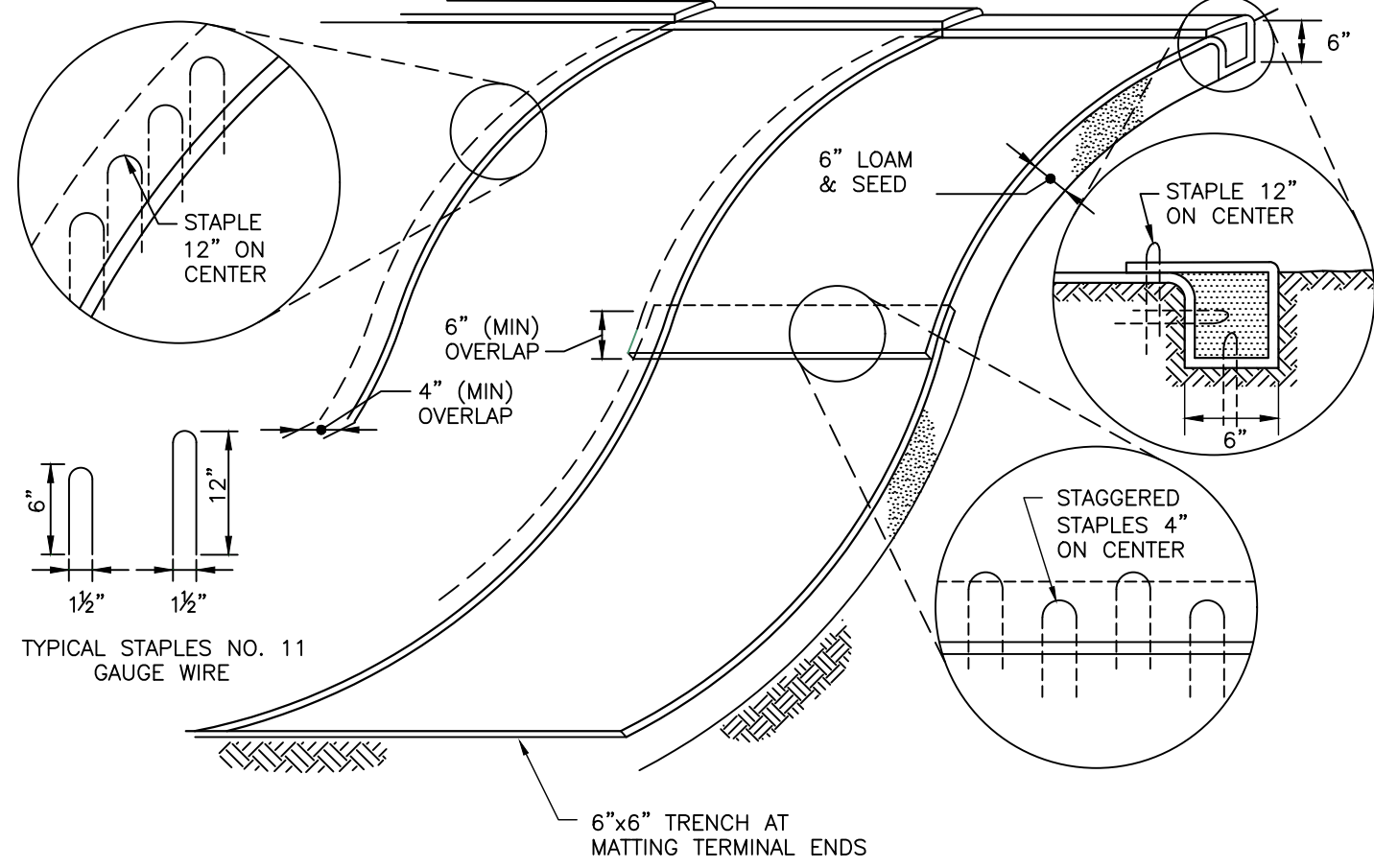


STANDARD SILT FENCE

NOTES:

- REINFORCED SILT FENCE SHALL BE INSTALLED WHEN THE SLOPE OF THE DISTURBED GROUND SURFACE UP-GRADIENT OF THE INSTALLATION LOCATION IS GREATER THAN 3H:1V.
- FILTER FABRIC FENCE MUST BE INSTALLED AT EXISTING LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION MUST BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.
- SEDIMENT MUST BE REMOVED WHERE ACCUMULATIONS REACH 50-PERCENT OF THE ABOVE GROUND HEIGHT OF THE FENCE OR WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- SUPPORT POSTS SHALL BE 2"x2" WOOD STAKES OR EQUIVALENT STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
- WIRE FENCING FOR REINFORCED SILT FENCE SHALL BE MINIMUM 14 GAUGE WITH A MAXIMUM 6 INCH MESH OPENING, OR EQUIVALENT.
- SILT FENCE SHALL BE REMOVED UPON STABILIZATION OF THE UP-GRADIENT AREA.

2 SILT FENCE DETAIL
20 NOT TO SCALE



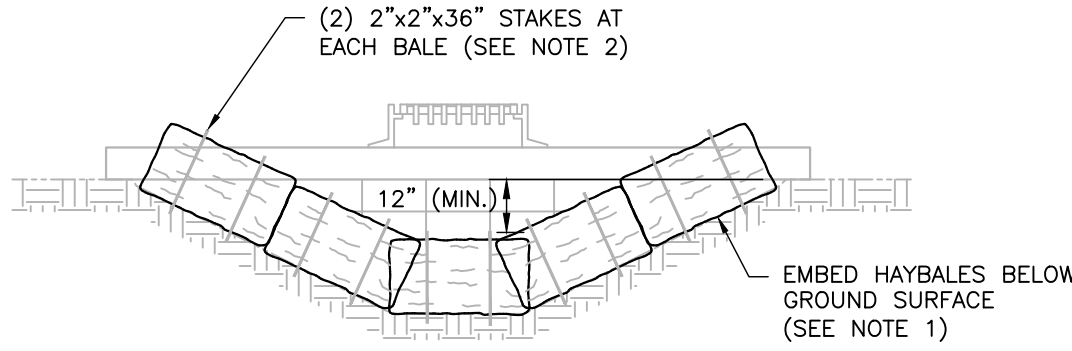
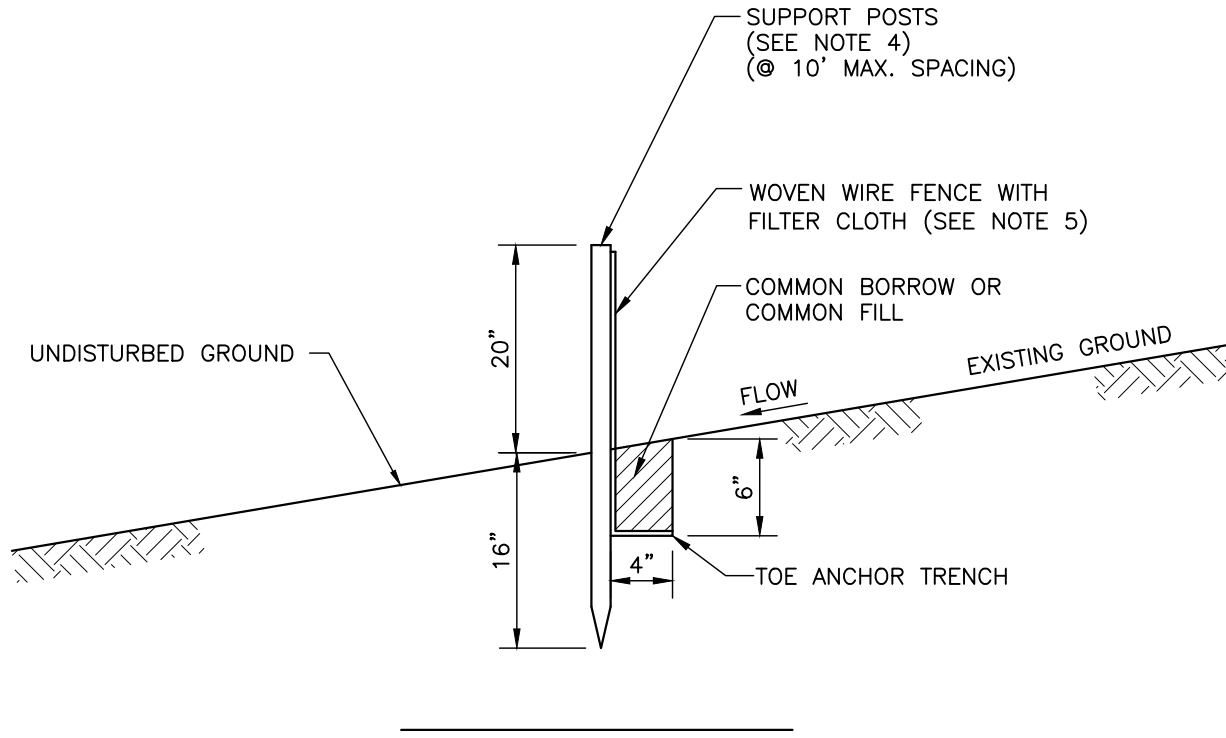
INSTALLATION NOTES:

- SOIL SUBBASE SHALL BE PREPARED PRIOR TO INSTALLATION BY SMOOTHING THE SURFACE, REMOVING DEBRIS AND LARGE STONE, AND APPLYING FERTILIZER AND SEED.
- BEGIN AT THE TOP OF MATTING INSTALLATION AREA BY ANCHORING MATTING IN A SIX (6) INCH DEEP TRENCH. BACKFILL AND COMPACT TRENCH AFTER STAPLING.
- ROLL THE MATTING DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
- THE EDGES OF MATTING MUST BE STAPLED WITH APPROXIMATELY FOUR (4) INCH OVERLAP WHERE TWO (2) OR MORE STRIP WIDTHS ARE REQUIRED.
- WHEN MATTING MUST BE SPLICED DOWN THE SWALE, PLACE UPPER MATTING END OVER LOWER END WITH SIX (6) INCH MINIMUM OVERLAP AND STAPLE BOTH TOGETHER.
- MORE FASTENERS MAY BE REQUIRED DUE TO MATTING COMPOSITION, SOIL TYPE, SURFACE UNIFORMITY AND SLOPE STEEPNESS. METHOD OF INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

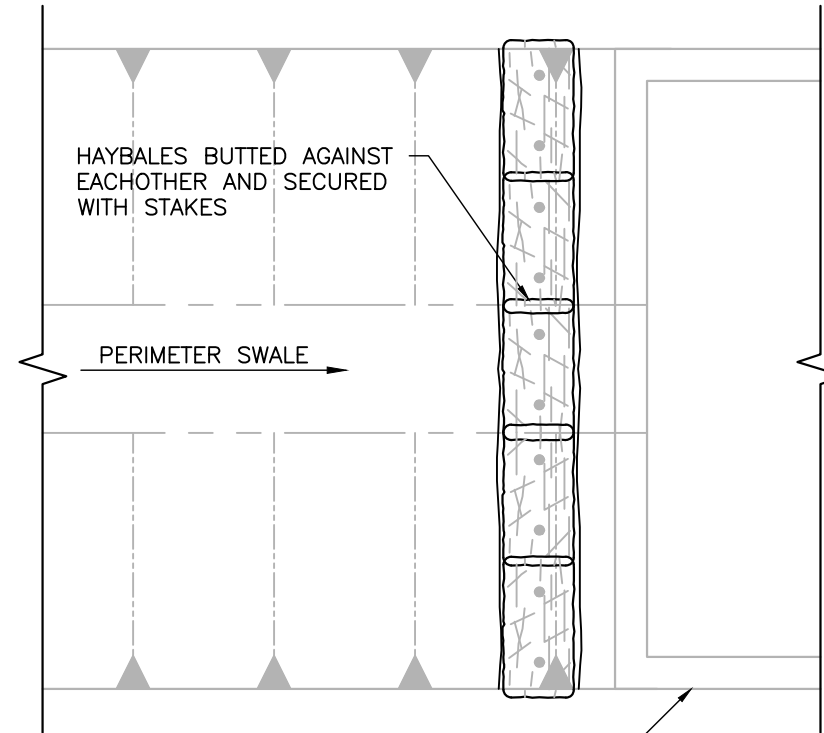
GENERAL NOTES:

- EROSION CONTROL MATTING IS TO BE PLACED ON SLOPES 3H:1V OR GREATER AND AS SHOWN ON PLANS.
- THE MATERIAL USED FOR THE EROSION CONTROL MATTING SHALL BE THE PRODUCT DEFINED IN THE PROJECT SPECIFICATIONS OR AN APPROVED EQUIVALENT.

3 EROSION CONTROL MATTING
20 NOT TO SCALE



FRONT VIEW

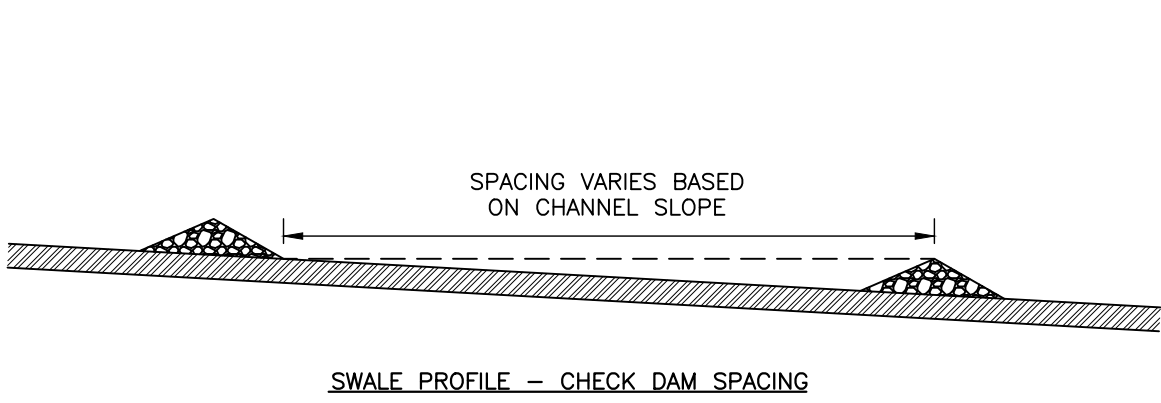


PLAN VIEW

NOTES:

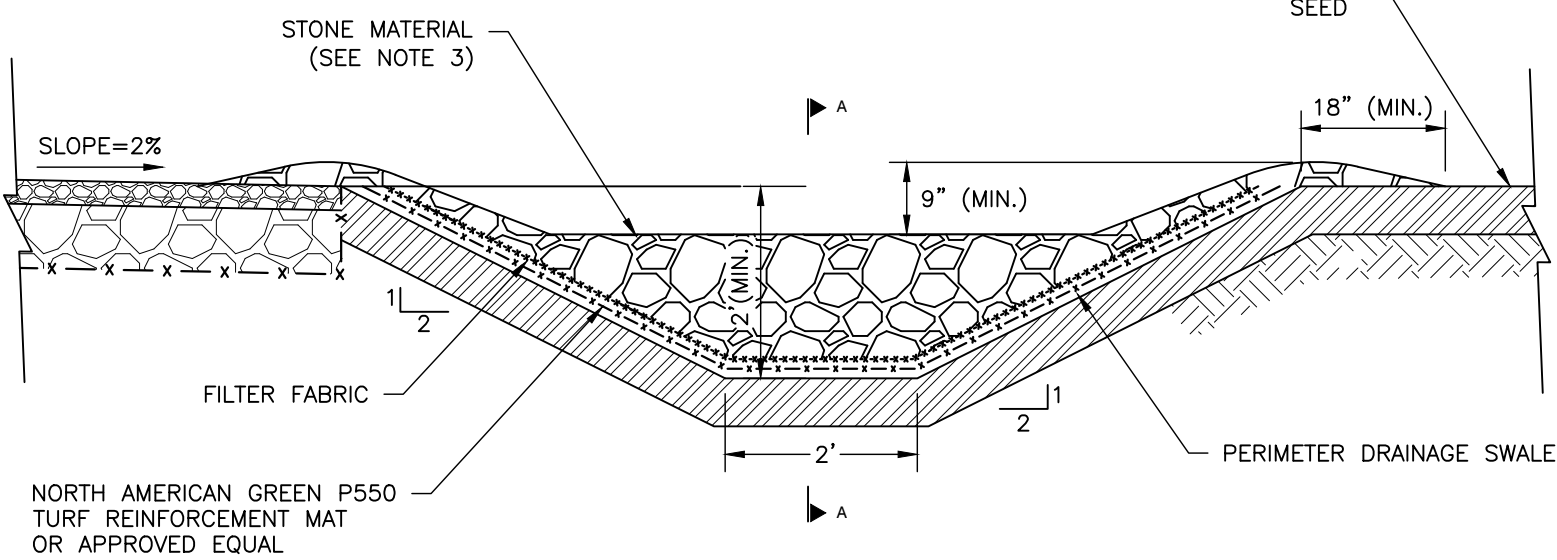
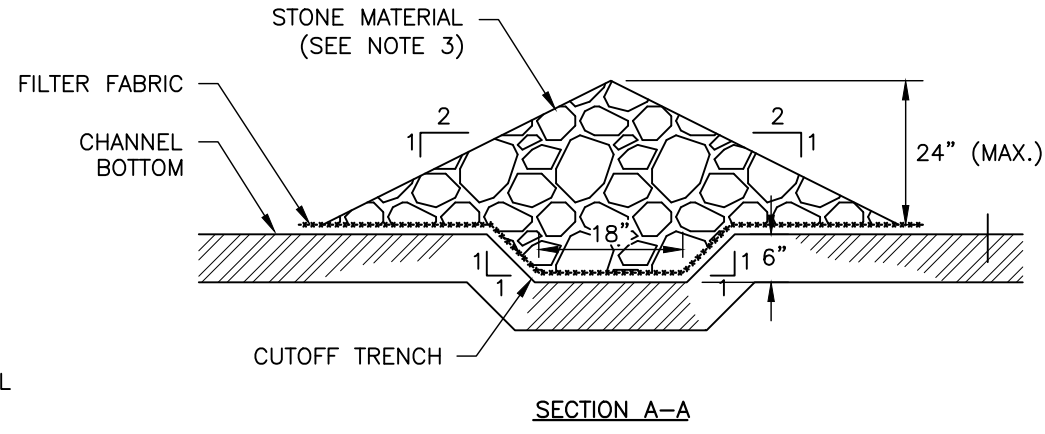
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES AND PLACED SO THE BINDINGS ARE HORIZONTAL.
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE, AT AN ANGLE, TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
- BALES SHALL BE REMOVED WHEN UP-GRADIENT AREAS REACH STABILIZATION SO AS NOT TO BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.
- SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES 1/2 THE HEIGHT OF THE ABOVE-GROUND BALE. BALES SHALL BE REPLACED AS NEEDED.

4 NOT TO SCALE



SLOPE	SPACING*
1%	150 FT.
2%	75 FT.
5%	30 FT.

*BASED ON 18" CHECK DAM HEIGHT WITHIN 2' DEEP CHANNEL



NOTES:

- STONE CHECK DAMS ARE TO BE INSTALLED WITHIN PERIMETER DRAINAGE CHANNELS FOR TEMPORARY EROSION CONTROL, AS SHOWN ON THE PLANS.
- THE MAXIMUM DRAINAGE AREA ABOVE THE CHECK DAM SHALL NOT EXCEED TWO (2) ACRES.
- STONE CHECK DAMS ARE TO BE CONSTRUCTED USING A WELL GRADED STONE MATRIX 2 TO 9 INCHES IN SIZE. STONE MATERIAL SHALL BE NYS - DOT LIGHT STONE FILL OR EQUIVALENT.

1 CHECK DAM DETAIL
20 NOT TO SCALE

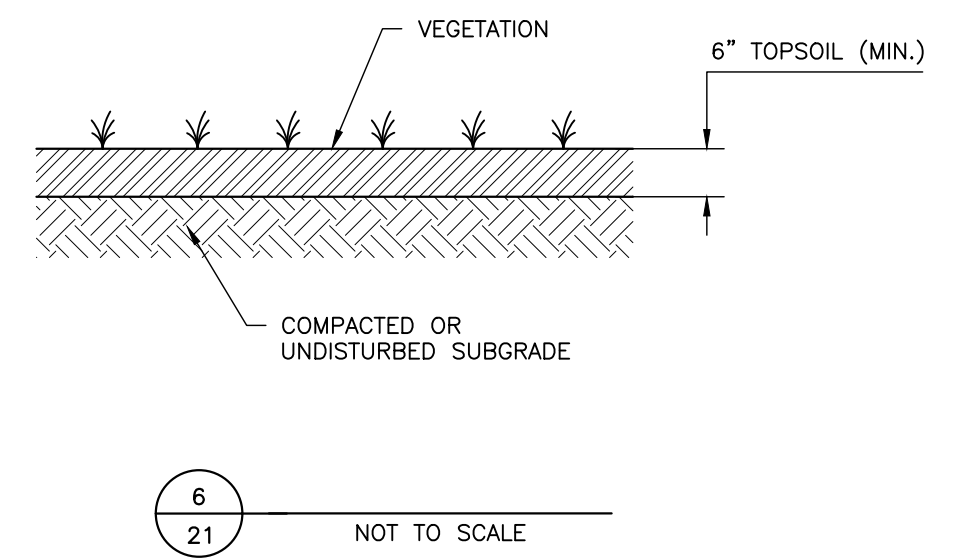
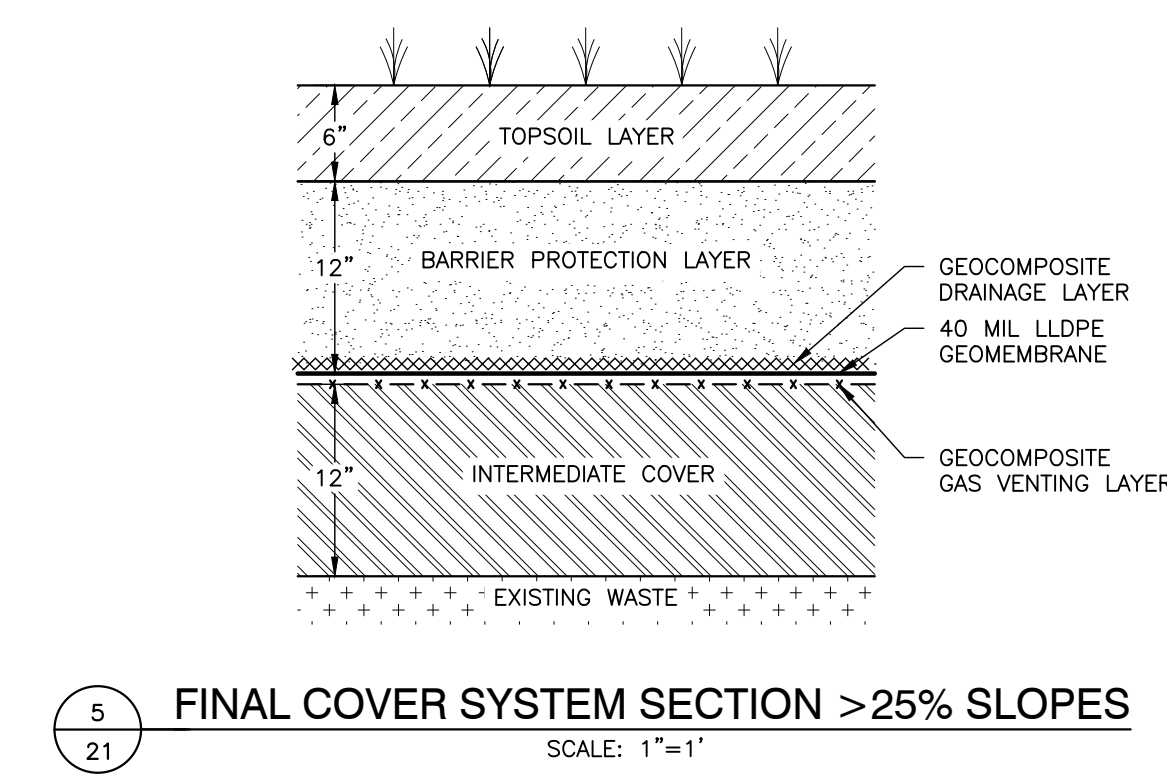
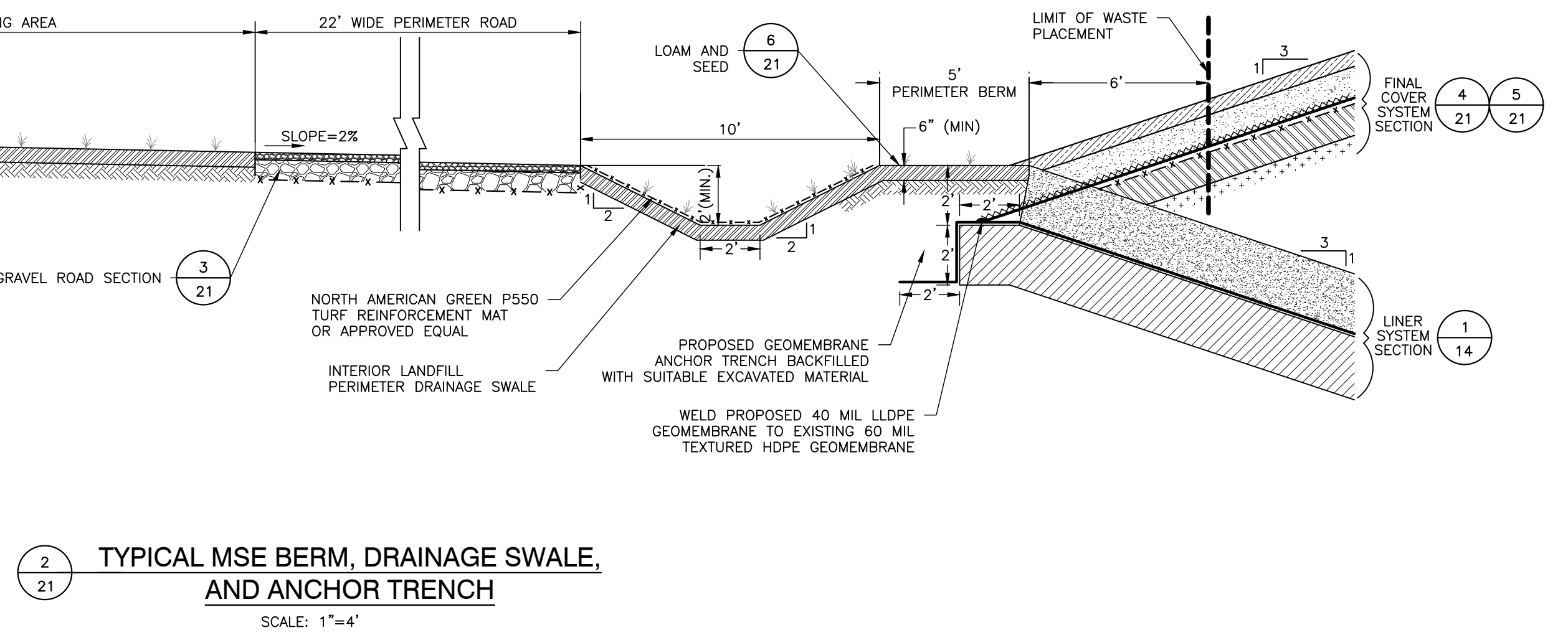
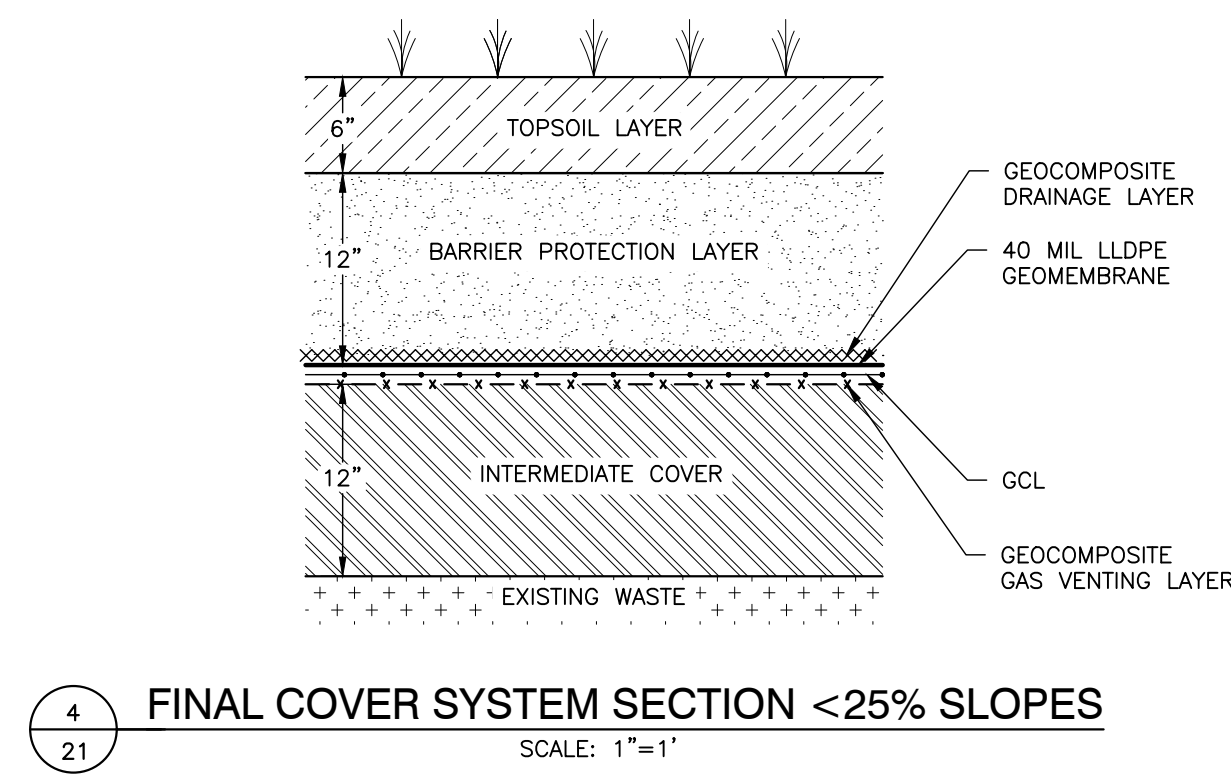
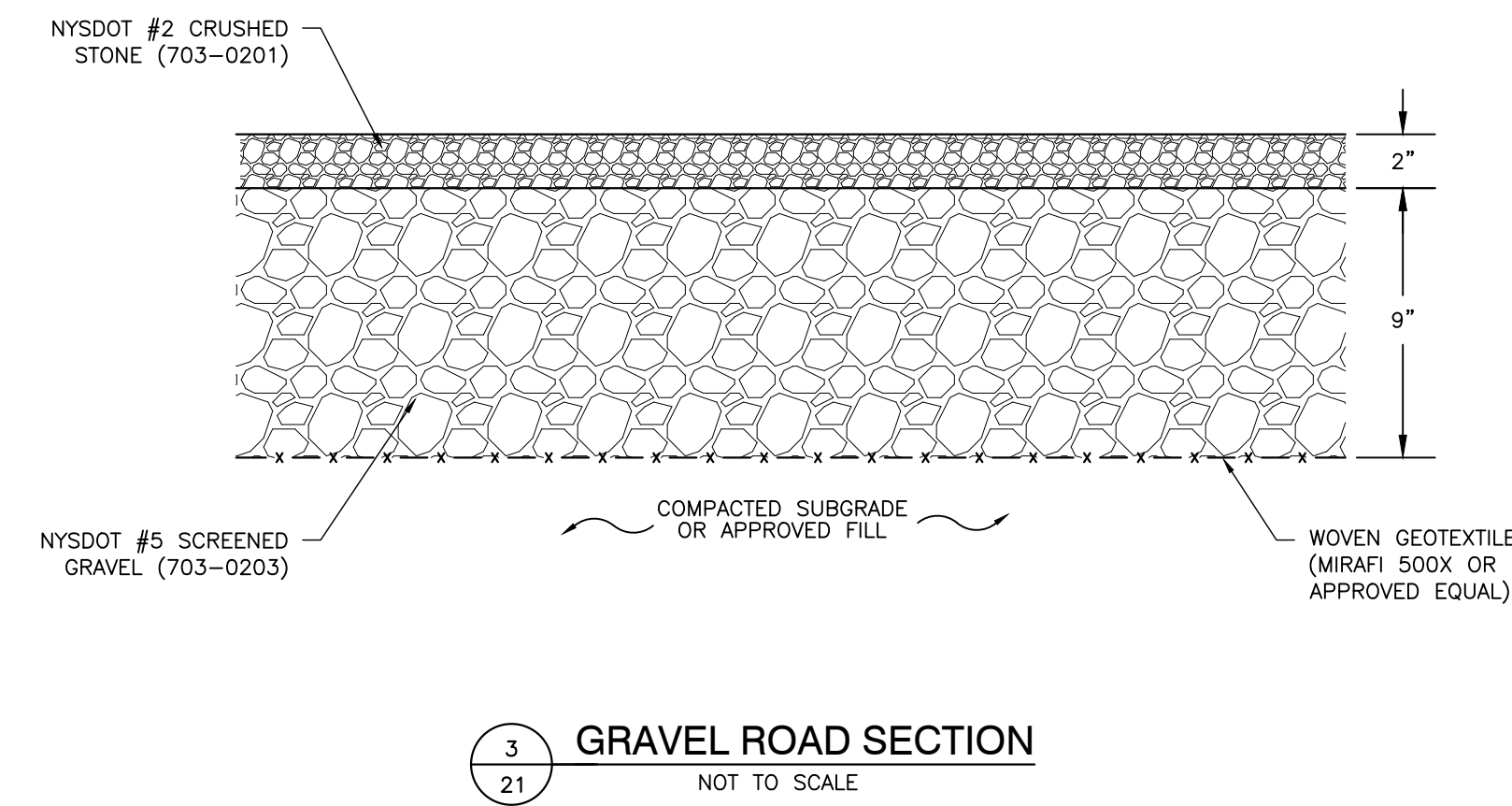
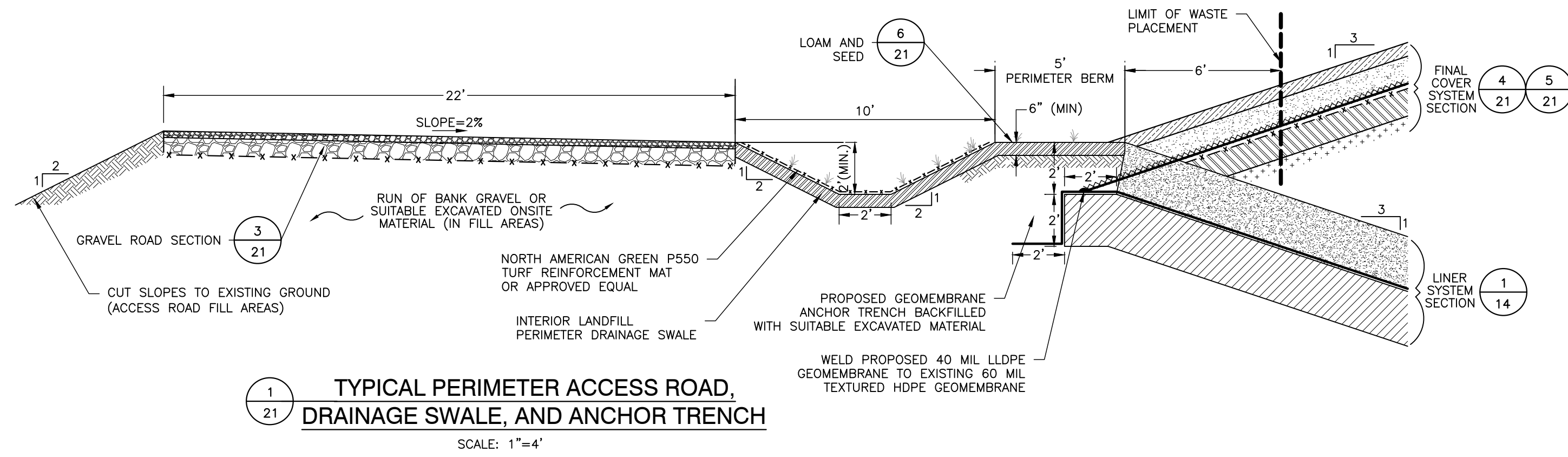
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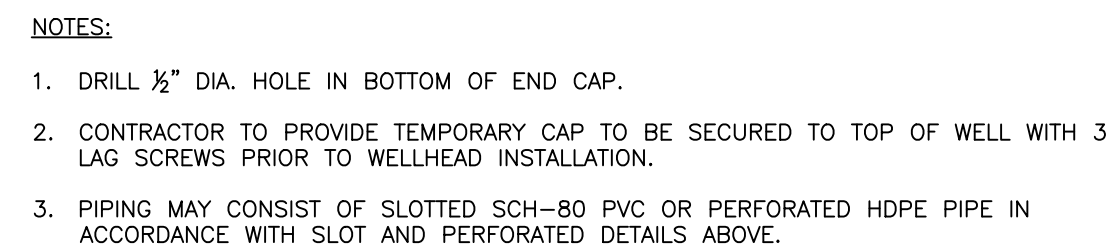
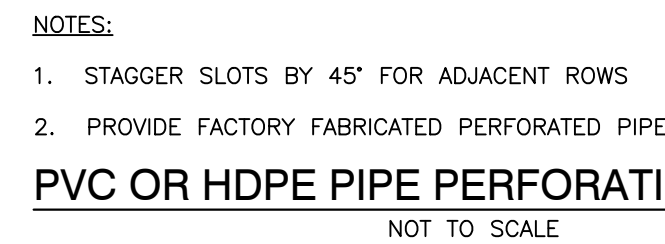
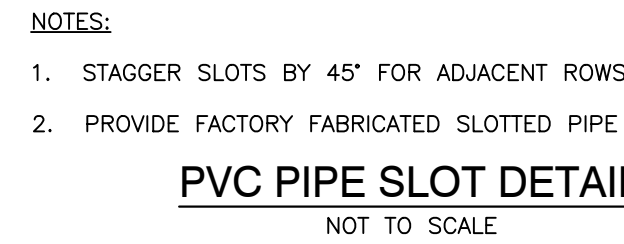


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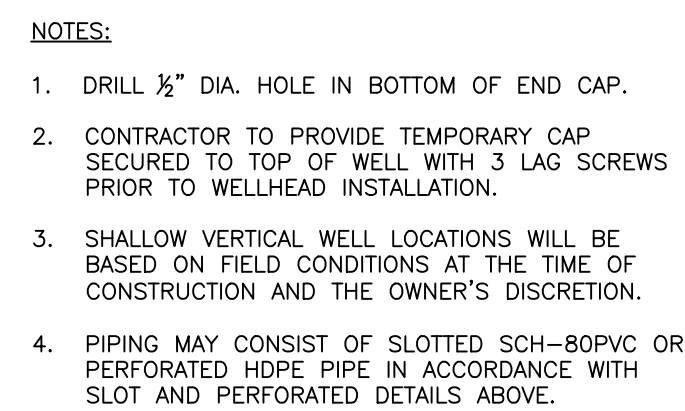
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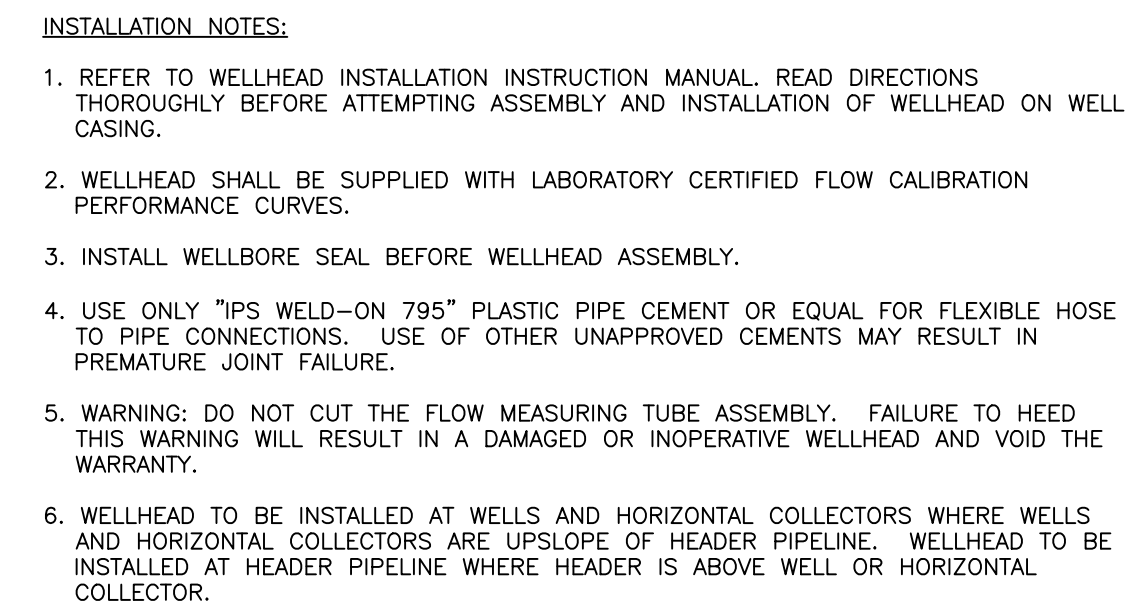
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VERTICAL GAS EXTRACTION WELL



SHALLOW VERTICAL GAS EXTRACTION WELL



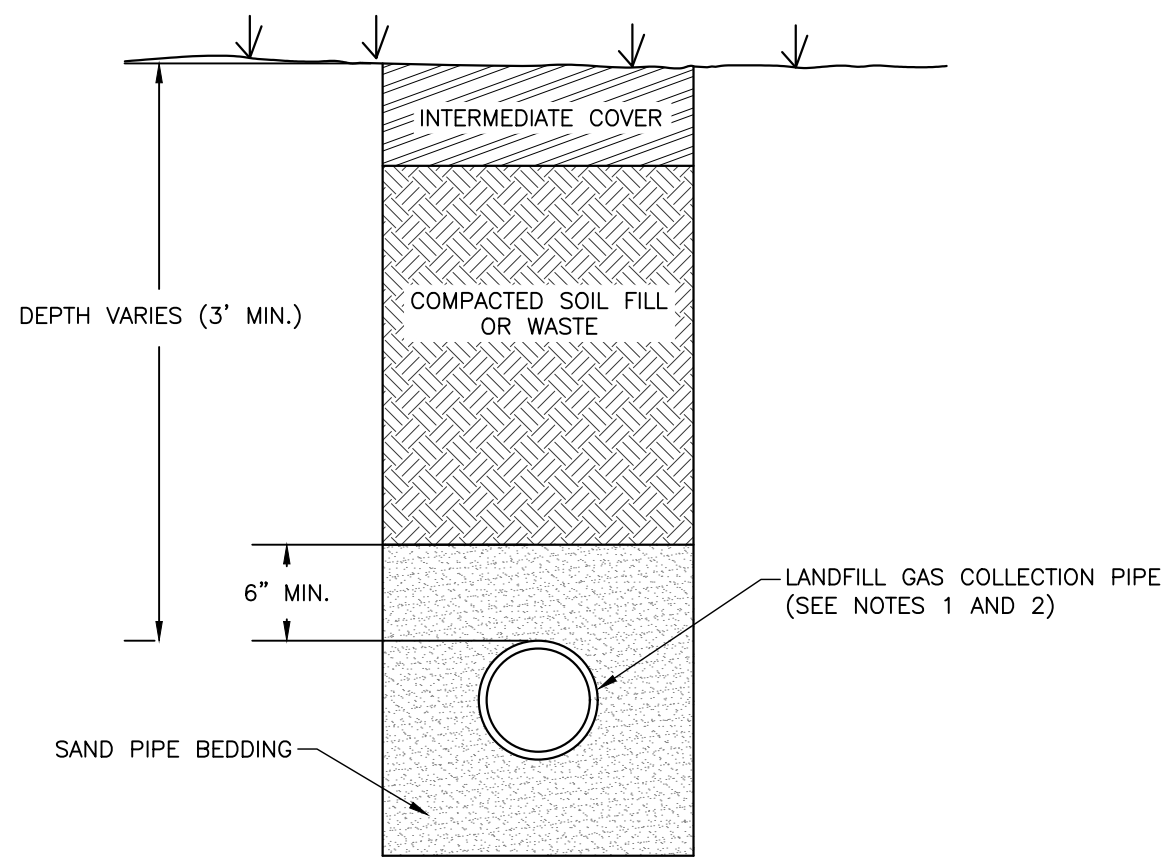
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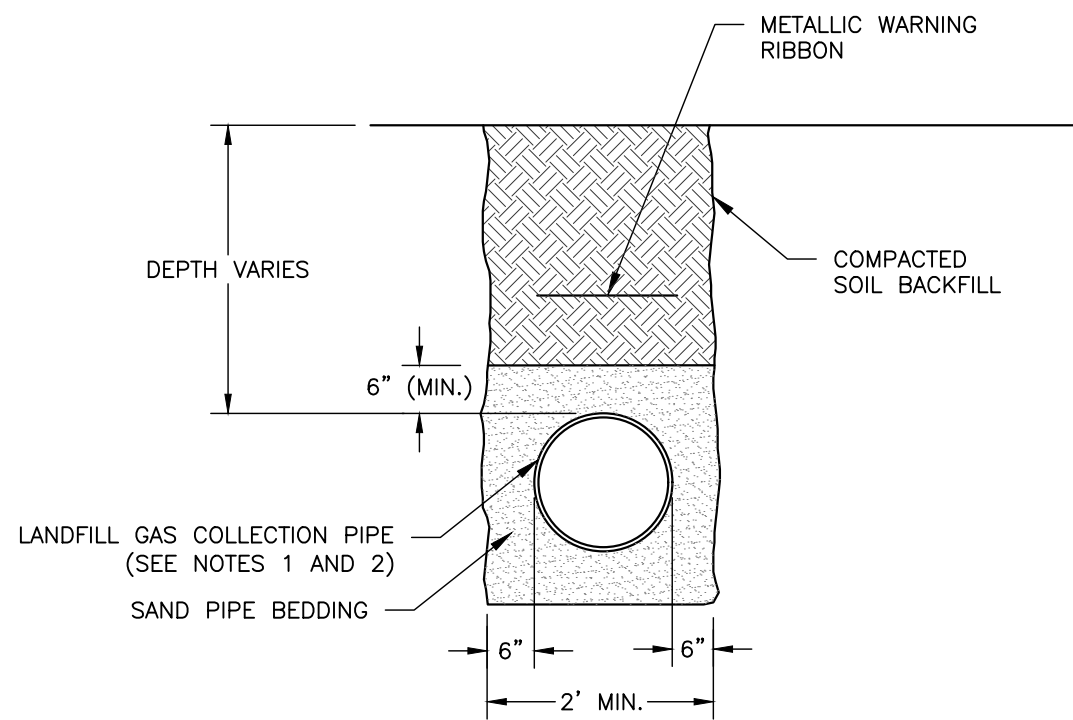
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NOTES:

1. SLOPE OF PIPE IN ALL AREAS WITHIN THE LIMIT OF WASTE SHALL BE 5% MINIMUM.
2. PIPE SIZE VARIES, REFER TO SHEET C300 FOR SIZE AND ALIGNMENT OF PIPES.
3. PROVIDE MINIMUM 6" BEDDING SAND BELOW PIPES.
4. ALL DISTURBED AREAS OUTSIDE THE LIMIT OF WASTE SHALL BE LOAMED AND SEEDED.

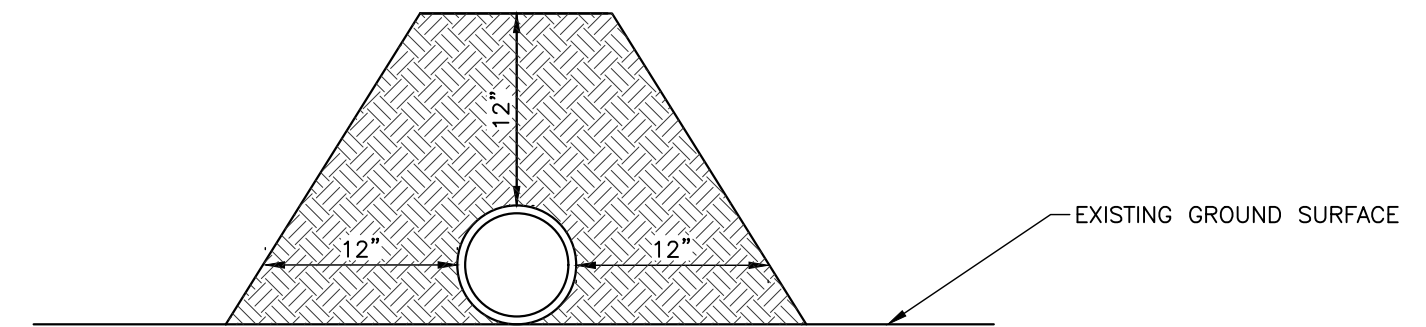
1
23 LANDFILL GAS PIPE TRENCH
(ON LANDFILL AREA)
NOT TO SCALE



NOTE:

1. SLOPE OF PIPE IN ALL OFF LANDFILL AREAS SHALL BE 2% MINIMUM.
2. PIPE SIZE VARIES, REFER TO SHEET C300 FOR SIZE AND ALIGNMENT OF PIPES.
3. PROVIDE MINIMUM 6" BEDDING SAND BELOW PIPES.
4. ALL DISTURBED AREAS OUTSIDE THE LIMIT OF WASTE SHALL BE LOAMED AND SEEDED.

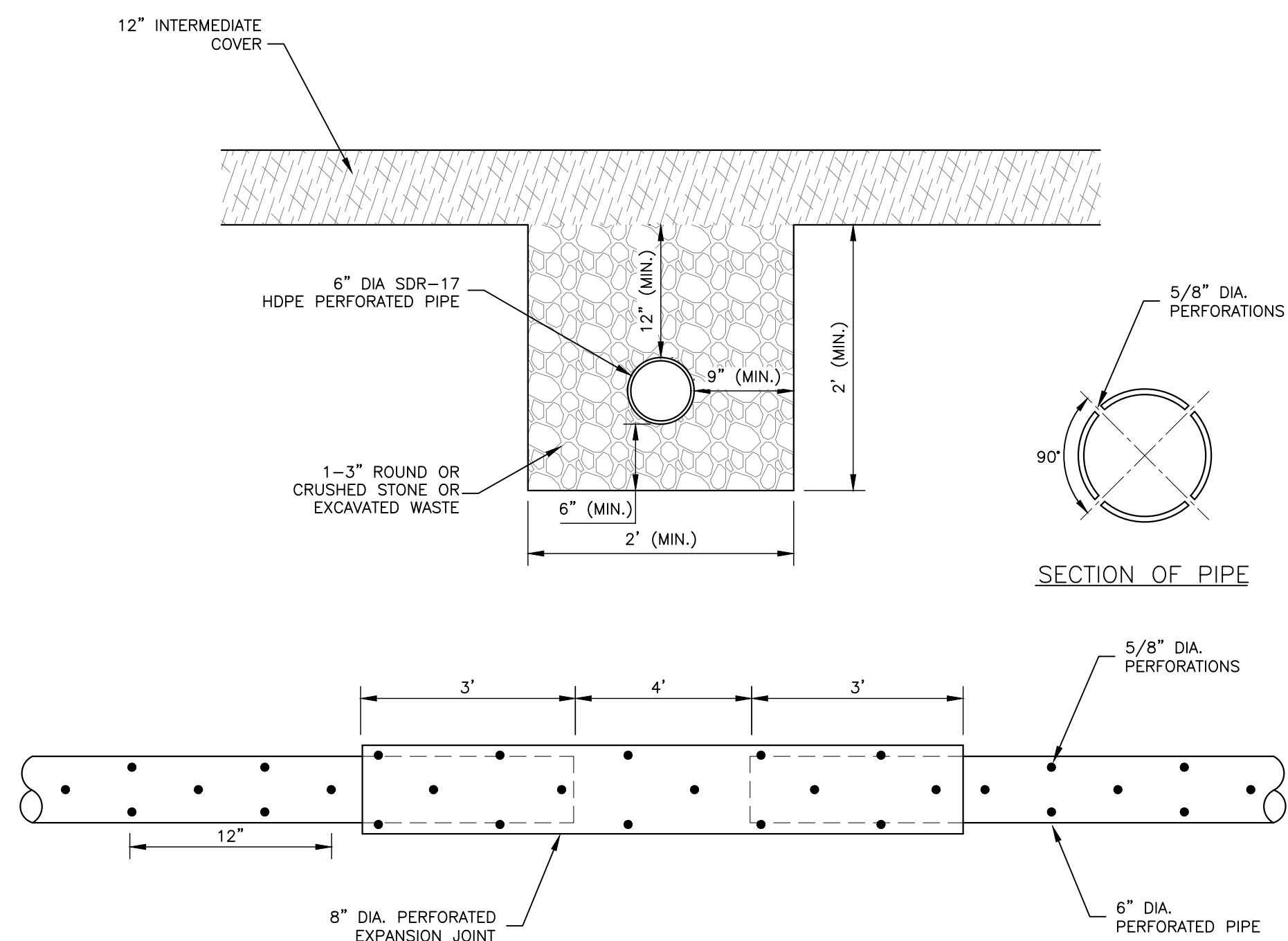
2
23 LANDFILL GAS PIPE TRENCH
(OFF LANDFILL AREA)
NOT TO SCALE



NOTES:

1. PIPE SIZE VARIES, REFER TO SHEET C300 FOR SIZE AND ALIGNMENT OF PIPES.
2. CONTRACTOR SHALL PLACE SOIL MOUND AT 50 FT INTERVALS ALONG THE PROPOSED GAS HEADER PIPE. SOIL DIMENSIONS APPROXIMATELY 12 INCHES ABOVE AND 12 INCHES ON EITHER SIDE OF THE PIPE.

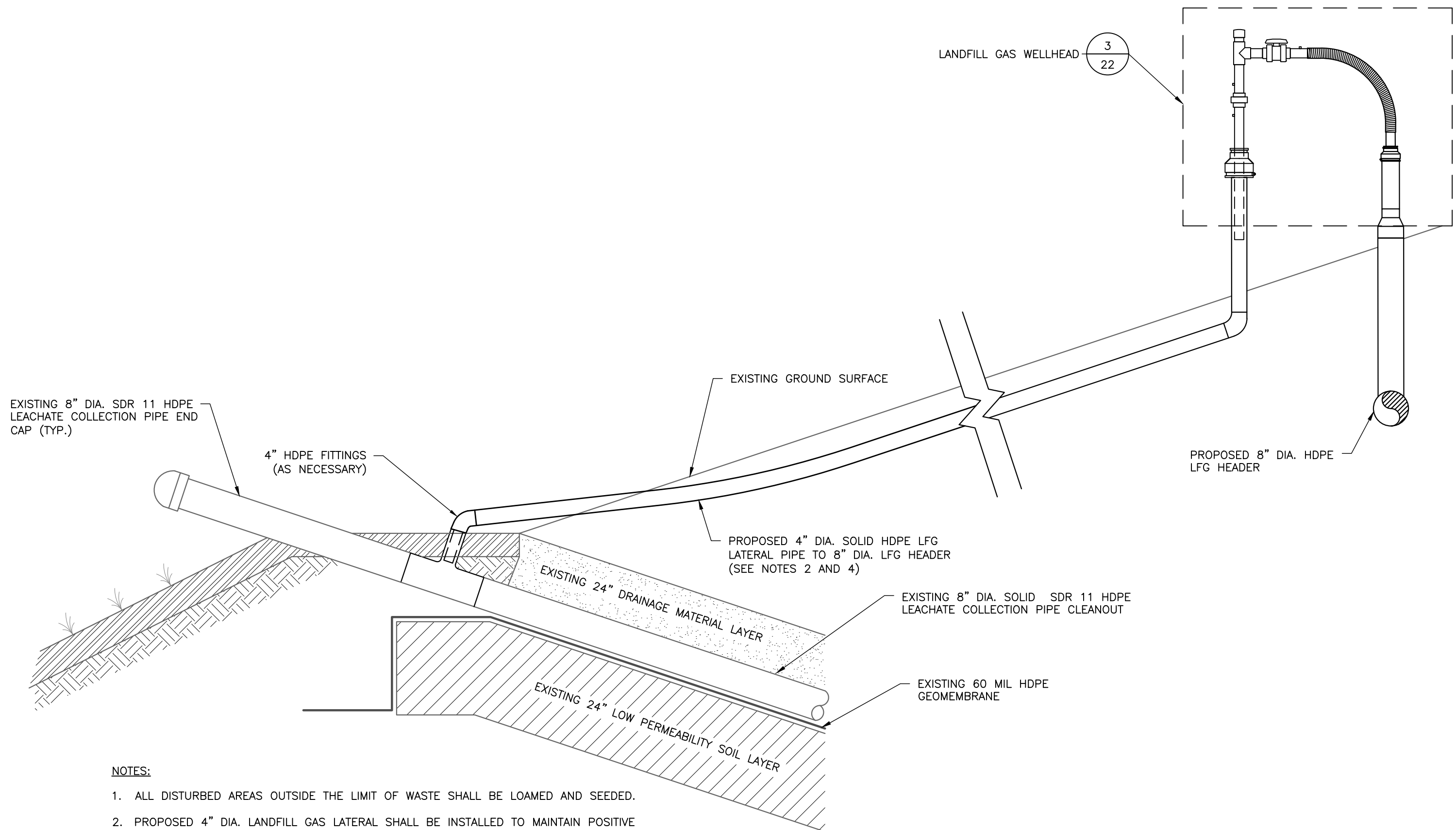
3
23 ABOVE GROUND LANDFILL GAS PIPE
NOT TO SCALE



NOTES:

1. PERFORATIONS TO BE STAGGERED AS SHOWN TO MAXIMIZE PIPE STRENGTH (12 HOLES PER FOOT OF PIPE).
2. EXPANSION JOINT TO BE PLACED APPROXIMATELY EVERY 200 FEET OF PIPE.
3. HORIZONTAL COLLECTOR LOCATIONS WILL BE BASED ON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND THE OWNER'S DISCRETION.
4. ALTERNATIVELY 6" SLOTTED ADS PIPE MAY BE USED FOR HORIZONTAL COLLECTOR.

4
23 HORIZONTAL COLLECTOR TRENCH SECTION VIEW
NOT TO SCALE



NOTES:

1. ALL DISTURBED AREAS OUTSIDE THE LIMIT OF WASTE SHALL BE LOAMED AND SEEDED.
2. PROPOSED 4" DIA. LANDFILL GAS LATERAL SHALL BE INSTALLED TO MAINTAIN POSITIVE DRAINAGE TOWARD EXISTING LEACHATE CLEANOUT.
3. PROVIDE MINIMUM 6" BEDDING SAND BELOW PIPES.
4. PIPING MAY BE INSTALLED ABOVE OR BELOW EXISTING GROUND SURFACE. REFER TO DETAILS 1,2 AND 4 ON SHEET C808.

5
23 LEACHATE COLLECTION PIPE CLEANOUT WELLHEAD MODIFICATION
SCALE: 1"=2'

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Attachment B.1

Static Slope Stability Output

Slide Analysis Information

Project Summary

Slide Modeler Version:	9.009
Compute Time:	00h:00m:06.78s

General Settings

Units of Measurement:

Time Units:

Permeability Units:

Data Output:

Failure Direction:

Imperial Units

days

feet/second

Standard

Right to Left

Analysis Options

Slices Type:	Vertical
Analysis Methods Used	
	GLE/Morgenstern-Price with interslice force function (Half Sine)
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft ³]:	62.4
Use negative pore pressure cutoff:	Yes
Maximum negative pore pressure [psf]:	0
Advanced Groundwater Method:	None

Random Numbers

Pseudo-random Seed:

10116

Random Number Generation Method:

Park and Miller v.3

Surface Options

Search Method:	Auto Refine Search
Divisions along slope:	20
Circles per division:	10
Number of iterations:	10
Divisions to use in next iteration:	50%
Number of vertices per surface:	12
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic Loading

Advanced seismic analysis:	No
Staged pseudostatic analysis:	No

Loading

1 Distributed Load present

Distributed Load 1

Distribution:	Constant
Magnitude [psf]:	250
Orientation:	Vertical

Materials

C&D Waste

Color	
Strength Type	Shear Normal function
Unit Weight [lbs/ft3]	60
Water Surface	None
Ru Value	0

Bottom Liner

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	118.5
Cohesion [psf]	67
Friction Angle [deg]	17.4
Water Surface	Water Table
Hu Value	Automatically Calculated

Subgrade

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	0
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Final Cover System

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	119.9
Cohesion [psf]	0
Friction Angle [deg]	27
Water Surface	None
Ru Value	0

New Fill

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	100
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Shear Normal Functions

Name: C&D		
	Normal (psf)	Shear (psf)
0		0
2000		1400
10000		6169

Support

Type 1

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	1900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Global Minimums

Method: gle/morgenstern-price

FS	1.592420
Axis Location:	83.082, 333.716
Left Slip Surface Endpoint:	75.213, 266.004
Right Slip Surface Endpoint:	132.530, 286.794
Resisting Moment:	2.6389e+06 lb-ft
Driving Moment:	1.65716e+06 lb-ft
Resisting Horizontal Force:	34358.5 lb
Driving Horizontal Force:	21576.2 lb
Active Support Moment:	-3066.38 lb-ft
Active Horizontal Support Force:	-48.7186 lb
Maximum Single Support Force:	49.8791 lb
Total Support Force:	49.9846 lb
Total Slice Area:	487.839 ft ²
Surface Horizontal Width:	57.3166 ft
Surface Average Height:	8.5113 ft

Global Minimum Coordinates

Method: gle/morgenstern-price

X	Y
75.2134	266.004
76.9957	264.992
79.6233	263.933
82.251	263.499
85.0226	263.385
87.7942	263.86
90.4126	264.258
93.0311	264.692
96.1451	265.373
99.2591	266.067
102.002	266.835
104.746	267.614
106.574	268.379
108.403	269.093
110.232	269.916
112.061	271.165
113.89	272.545
115.719	273.875
117.547	275.141
119.376	276.343
121.589	277.721
123.173	278.651
124.728	279.511
126.263	280.305
127.769	281.033
129.169	282.643
130.285	283.915
131.401	285.24
132.53	286.794

Global Minimum Support Data

Method: gle/morgenstern-price

Number of Supports: 2						
Type 1						
Support Type: Geosynthetic						
Start (x, y)	Length (ft)	L Inside SS (ft)	L Outside SS (ft)	Li (ft)	Lo (ft)	Force (lb)
107.77, 281	20	19.9321	0.0679296	19.9321	0.0679296	49.8791
110.357, 284	20	19.9998	0.000232673	19.9998	0.000232673	0.105508

Valid and Invalid Surfaces

Method: gle/morgenstern-price

Number of Valid Surfaces:	4291
Number of Invalid Surfaces:	14717

Error Codes

Error Code -105 reported for 2020 surfaces
Error Code -108 reported for 7 surfaces
Error Code -110 reported for 202 surfaces
Error Code -111 reported for 138 surfaces
Error Code -113 reported for 12350 surfaces

Error Code Descriptions

The following errors were encountered during the computation:

- 105 = More than two surface / slope intersections with no valid slip surface.
- 108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).
- 110 = The water table or a piezoline does not span the slip region for a given slip surface, when Water Surfaces is specified as the method of pore pressure calculation. If this error occurs, check that the water table or piezoline(s) span the appropriate soil cells.
- 111 = safety factor equation did not converge
- 113 = Surface intersects outside slope limits.

Slice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.59242

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [deg]	Base Material	Base Cohesion [psf]	Base Friction Angle [deg]	Shear Stress [psf]	Shear Strength [psf]	Base Normal Stress [psf]	Pore Pressure [psf]	Effective Normal Stress [psf]	Base Vertical Stress [psf]	Effective Vertical Stress [psf]
1	0.891152	31.9389	-29.5911	Subgrade	0	30	16.7976	26.7489	46.3304	0	46.3304	36.7915	36.7915
2	0.891152	95.8167	-29.5911	Subgrade	0	30	52.2208	83.1575	144.033	0	144.033	114.378	114.378
3	1.31383	240.698	-21.9499	Subgrade	0	30	85.2708	135.787	235.19	0	235.19	200.825	200.825
4	1.31383	373.421	-21.9499	Subgrade	0	30	138.145	219.985	381.026	0	381.026	325.352	325.352
5	1.31383	533.88	-9.38316	Subgrade	0	30	177.788	283.113	490.365	0	490.365	460.986	460.986
6	1.31383	670.907	-9.38316	Subgrade	0	30	228.823	364.383	631.13	0	631.13	593.318	593.318
7	1.38579	841.821	-2.34613	Subgrade	0	30	257.752	410.45	710.92	0	710.92	700.359	700.359
8	1.38579	965.629	-2.34613	Subgrade	0	30	300.576	478.643	829.036	0	829.036	816.721	816.721
9	1.38579	1065	9.71269	Subgrade	0	30	293.251	466.979	808.833	0	808.833	859.026	859.026
10	1.38579	1139.92	9.71269	Subgrade	0	30	314.816	501.32	868.309	0	868.309	922.193	922.193
11	1.30923	1147.72	8.65575	Subgrade	0	30	340.605	542.387	939.44	0	939.44	991.291	991.291
12	1.30923	1218.48	8.65575	Subgrade	0	30	362.51	577.268	999.857	0	999.857	1055.04	1055.04
13	1.30923	1287.87	9.40708	Subgrade	0	30	380.104	605.286	1048.38	0	1048.38	1111.36	1111.36
14	1.30923	1355.87	9.40708	Subgrade	0	30	400.352	637.529	1104.23	0	1104.23	1170.56	1170.56
15	1.038	1119.88	12.3387	Subgrade	0	30	400.78	638.21	1105.41	0	1105.41	1193.08	1193.08
16	1.038	1155.76	12.3387	Subgrade	0	30	412.764	657.294	1138.47	0	1138.47	1228.75	1228.75
17	1.038	1191.65	12.3387	Subgrade	0	30	424.531	676.031	1170.92	0	1170.92	1263.78	1263.78
18	1.038	1227.27	12.5565	Subgrade	0	30	434.639	692.128	1198.8	0	1198.8	1295.61	1295.61
19	1.038	1262.64	12.5565	Subgrade	0	30	445.675	709.702	1229.24	0	1229.24	1328.51	1328.51
20	1.038	1298.01	12.5565	Subgrade	0	30	456.453	726.865	1258.97	0	1258.97	1360.63	1360.63
21	1.37162	1762.96	15.6516	Subgrade	0	30	446.591	711.16	1231.77	0	1231.77	1356.89	1356.89
22	1.37162	1811.75	15.6516	Subgrade	0	30	455.915	726.008	1257.48	0	1257.48	1385.22	1385.22
23	1.17104	1585.11	15.845	Subgrade	0	30	462.922	737.167	1276.81	0	1276.81	1408.2	1408.2
24	1.17104	1620.07	15.845	Subgrade	0	30	470.229	748.802	1296.96	0	1296.96	1430.42	1430.42
25	0.401168	563.034	15.845	New Fill	100	30	541.407	862.147	1320.08	0	1320.08	1473.74	1473.74
26	0.914418	1291.96	22.6998	New Fill	100	30	495.622	789.238	1193.79	0	1193.79	1401.11	1401.11
27	0.914418	1303.84	22.6998	New Fill	100	30	497.505	792.237	1198.99	0	1198.99	1407.09	1407.09
28	0.914417	1328.04	21.3305	New Fill	100	30	512.668	816.382	1240.81	0	1240.81	1441.01	1441.01
29	0.914417	1346.42	21.3305	New Fill	100	30	516.763	822.904	1252.11	0	1252.11	1453.9	1453.9
30	0.914418	1361.79	24.2173	New Fill	100	30	500.768	797.433	1207.99	0	1207.99	1433.23	1433.23
31	0.914418	1439.13	24.2173	New Fill	100	30	524.486	835.202	1273.41	0	1273.41	1509.31	1509.31
32	0.914421	1585.03	34.3451	New Fill	100	30	500.2	796.529	1206.43	0	1206.43	1548.22	1548.22
33	0.914421	1717.29	34.3451	New Fill	100	30	547.702	872.172	1337.44	0	1337.44	1711.69	1711.69
34	1.82884	3358.76	37.025	New Fill	100	30	573.174	912.733	1407.69	0	1407.69	1840	1840
35	0.914421	1564.4	36.0269	New Fill	100	30	550.914	877.287	1346.3	0	1346.3	1746.95	1746.95
36	0.914421	1489.55	36.0269	New Fill	100	30	531.517	846.399	1292.8	0	1292.8	1679.35	1679.35
37	0.91442	1416.46	34.6964	New Fill	100	30	521.483	830.42	1265.13	0	1265.13	1626.17	1626.17
38	0.91442	1345.11	34.6964	New Fill	100	30	502.699	800.508	1213.32	0	1213.32	1561.36	1561.36
39	0.91442	1275.52	33.3217	New Fill	100	30	492.575	784.387	1185.39	0	1185.39	1509.22	1509.22
40	0.91442	1207.68	33.3217	New Fill	100	30	474.284	755.259	1134.94	0	1134.94	1446.75	1446.75
41	1.10634	1373.02	31.9022	New Fill	100	30	462.064	735.8	1101.24	0	1101.24	1388.87	1388.87
42	1.10634	1278.84	31.9022	New Fill	100	30	440.409	701.316	1041.51	0	1041.51	1315.66	1315.66
43	1.58372	1672.02	30.4375	New Fill	100	30	421.217	670.755	988.576	0	988.576	1236.07	1236.07
44	1.55503	1469.25	28.9275	New Fill	100	30	397.641	633.211	923.547	0	923.547	1143.31	1143.31
45	1.53528	1292.88	27.3722	New Fill	100	30	374.556	596.451	859.876	0	859.876	1053.8	1053.8
46	1.50629	1125.77	25.7719	New Fill	100	30	350.916	558.805	794.675	0	794.675	964.102	964.102
47	1.39988	845.356	48.9957	New Fill	100	30	248.811	396.212	513.054	0	513.054	799.236	799.236
48	1.11605	477.765	48.7512	New Fill	100	30	210.882	335.812	408.437	0	408.437	648.912	648.912
49	1.11605	301.023	49.8934	New Fill	100	30	172.239	274.277	301.857	0	301.857	506.349	506.349
50	1.12871	106.645	54.0019	New Fill	100	30	124.477	198.22	170.122	0	170.122	341.462	341.462

Interslice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.59242

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [deg]
1	75.2134	266.004	0	0	0
2	76.1045	265.498	38.4153	0.847897	1.26442
3	76.9957	264.992	157.842	6.9594	2.52459
4	78.3095	264.462	394.403	30.1116	4.36591
5	79.6233	263.933	777.652	84.1478	6.17581
6	80.9372	263.716	1117.7	155.926	7.94186
7	82.251	263.499	1555.35	264.54	9.65272
8	83.6368	263.442	1952.91	393.268	11.3857
9	85.0226	263.385	2416.51	559.439	13.0347
10	86.4084	263.622	2631.05	684.87	14.5905
11	87.7942	263.86	2861.36	822.921	16.0451
12	89.1034	264.059	3120.05	973.033	17.3208
13	90.4126	264.258	3395.38	1135.84	18.4964
14	91.7218	264.475	3665.62	1303	19.5685
15	93.0311	264.692	3950.26	1479.66	20.5346
16	94.0691	264.919	4115.28	1598.2	21.2241
17	95.1071	265.146	4285.23	1717.89	21.8452
18	96.1451	265.373	4460.03	1838.05	22.3973
19	97.1831	265.604	4634.03	1955.63	22.8805
20	98.2211	265.835	4812.45	2071.98	23.2941
21	99.2591	266.067	4995.18	2186.31	23.6382
22	100.631	266.451	5134.38	2284.49	23.9862
23	102.002	266.835	5276.48	2372.74	24.2126
24	103.173	267.168	5394.21	2436.69	24.3098
25	104.344	267.5	5513.81	2491.7	24.3183
26	104.746	267.614	5580.7	2519.88	24.3008
27	105.66	267.996	5577.27	2509.12	24.2222
28	106.574	268.379	5573.58	2491.96	24.0895
29	107.489	268.736	5599.31	2481.6	23.9028
30	108.403	269.093	5624.75	2464.66	23.6621
31	109.318	269.504	5585.83	2413.43	23.3674
32	110.232	269.916	5541.69	2354.44	23.0187
33	111.146	270.54	5245.27	2185.13	22.6161
34	112.061	271.165	4910.43	1999.89	22.1598
35	113.89	272.545	4016.92	1548.92	21.0866
36	114.804	273.21	3625.37	1353.33	20.4703
37	115.719	273.875	3251.66	1170.77	19.8016
38	116.633	274.508	2927.58	1012.67	19.0809
39	117.547	275.141	2619.12	866.642	18.3089
40	118.462	275.742	2356.93	742.538	17.4868
41	119.376	276.343	2108.35	629.146	16.6155
42	120.483	277.032	1861.14	516.055	15.4976
43	121.589	277.721	1631.1	416.147	14.3127
44	123.173	278.651	1378.26	305.725	12.5068
45	124.728	279.511	1202.91	225.524	10.6187
46	126.263	280.305	1094.47	166.628	8.65654
47	127.769	281.033	1093.74	127.557	6.65205
48	129.169	282.643	615.956	51.0028	4.73345
49	130.285	283.915	331.507	18.3918	3.17548
50	131.401	285.24	123.857	3.46168	1.60094
51	132.53	286.794	0	0	0

Entity Information

Water Table

X	Y
155.895	284.175
180.694	275.91
387.211	207.083

Distributed Load

X	Y
111.928	287.179
134.411	286.759

External Boundary

X	Y
143.248	286.168
140.418	284.756
138.415	284.757
135.724	286.103
134.411	286.759
111.928	287.179
109.368	282
106.63	280.43
106.051	280
83.8859	269
80.8634	267.5
80.7629	267.45
78.5343	266.344
72.2699	265.703
69.1878	266.011
55.3832	266.113
39.6389	266.039
20.6674	267.5
0	267.5
0	200
387.211	200
387.211	203.083
387.211	207.083
387.211	305.134
387.211	309.134
312.913	305.426
260.546	302.181
225.955	300.037
204.31	296.629
180.448	292.499
157.775	288
149.576	286.66
149.047	286.66
144.422	286.754

Material Boundary

X	Y
244.663	295.699
244.694	295.711

Material Boundary

X	Y
148.682	282.579
173.428	274.332
387.211	203.083

Material Boundary

X	Y
155.895	284.175
180.694	275.91
387.211	207.083

Material Boundary

X	Y
145.765	281.982
145.982	281.982
148.682	282.579
155.895	284.175
164.141	286
204.211	292.612
231.729	297.374
250.636	298.317
387.211	305.134

Material Boundary

X	Y
145.765	281.982
145.765	285.982

Material Boundary

X	Y
80.5109	265.57
89.0341	266.75
94.3815	266.427
101.894	266.956
104.526	267.047
107.788	267.13
113.663	267.281
116.659	267.5
117.909	267.591
123.92	268.031
127.297	268.278
135.426	269.186
144.588	269.691
150.755	270.65
156.308	271.514
163.814	272.652
168.855	273.338
173.428	274.332
180.694	275.91
181.831	276.157
186.389	277.148
193.556	279.072
202.952	281.64
216.413	285.317
231.672	290.925
250.636	298.317
260.546	302.181

Material Boundary

X	Y
0	267.5
72.8134	264.477
80.5109	265.57
80.7629	267.45

Material Boundary

X	Y
80.8634	267.5
116.659	267.5

Material Boundary

X	Y
145.765	285.982
146.969	286.2

Material Boundary

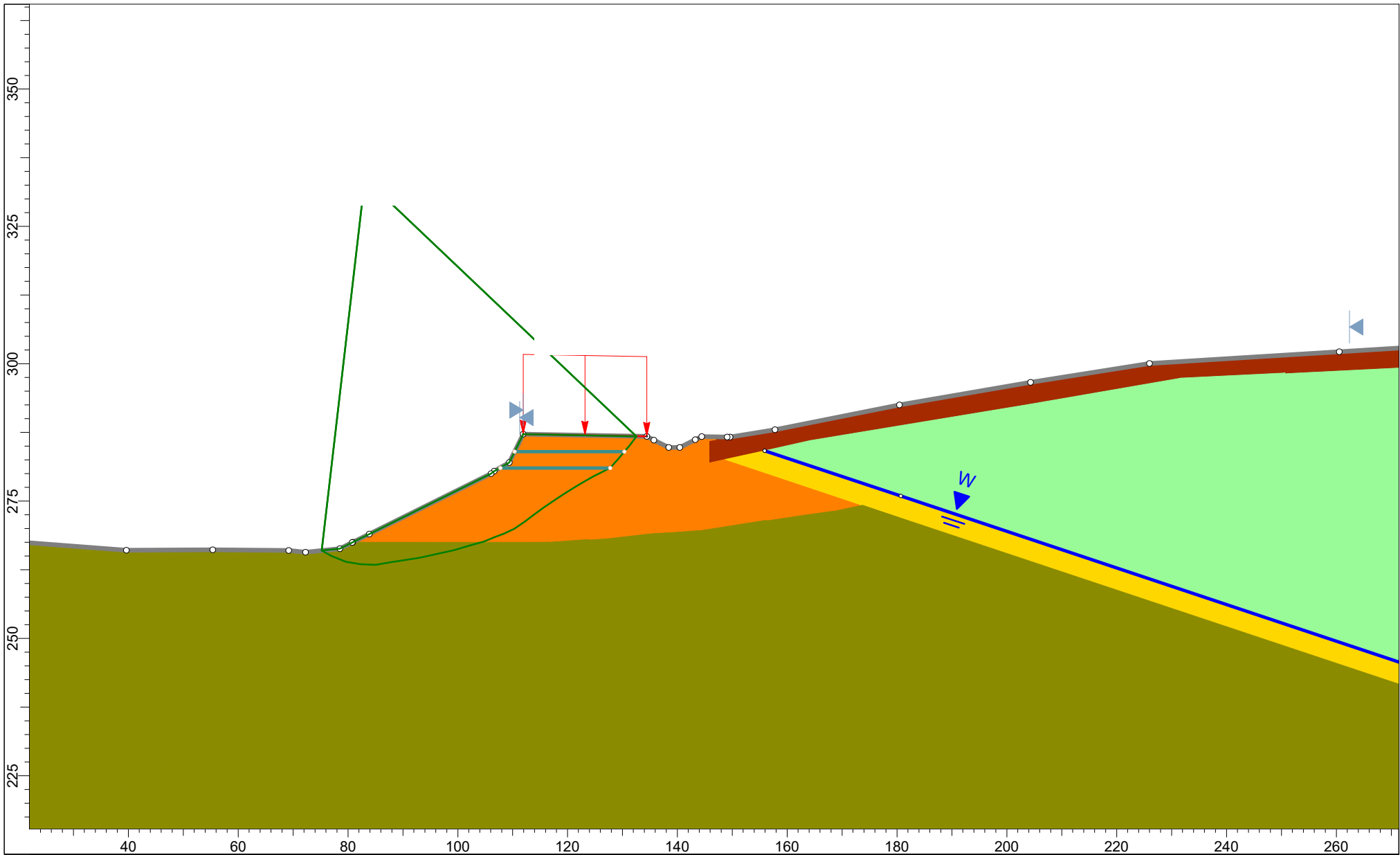
X	Y
83.8859	269
101.238	269

Material Boundary

X	Y
106.63	280.43
109.37	281.8
112.37	285.9
135.724	286.103

Material Boundary

X	Y
143.248	286.168
146.969	286.2
149.047	286.66



Dunn Mine and C&D Facility
S.A. Dunn & Company, LLC
Rensselaer, New York

Station 00+27 Static

Date: 5/17/2021

Scale: 1:290

PREPARED BY: Civil & Environmental Consultants, Inc.

File Name: Station 00+27 Static.slm

Slide Analysis Information

Project Summary

File Name:

Station 00+27 Seismic.slim

Last saved with Slide version:

9.009

General Settings

Units of Measurement:

Time Units:

Permeability Units:

Data Output:

Failure Direction:

Imperial Units

days

feet/second

Standard

Right to Left

Analysis Options

Slices Type:	Vertical
Analysis Methods Used	
	GLE/Morgenstern-Price with interslice force function (Half Sine)
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft ³]:	62.4
Use negative pore pressure cutoff:	Yes
Maximum negative pore pressure [psf]:	0
Advanced Groundwater Method:	None

Random Numbers

Pseudo-random Seed:

10116

Random Number Generation Method:

Park and Miller v.3

Surface Options

Search Method:	Auto Refine Search
Divisions along slope:	20
Circles per division:	10
Number of iterations:	10
Divisions to use in next iteration:	50%
Number of vertices per surface:	12
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic Loading

Advanced seismic analysis:	No
Staged pseudostatic analysis:	No
Seismic Load Coefficient (Horizontal):	0.075

Loading

1 Distributed Load present

Distributed Load 1

Distribution:	Constant
Magnitude [psf]:	250
Orientation:	Vertical

Materials

C&D Waste

Color	
Strength Type	Shear Normal function
Unit Weight [lbs/ft3]	60
Water Surface	None
Ru Value	0

Bottom Liner

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	118.5
Cohesion [psf]	67
Friction Angle [deg]	17.4
Water Surface	Water Table
Hu Value	Automatically Calculated

Subgrade

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	0
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Final Cover System

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	119.9
Cohesion [psf]	0
Friction Angle [deg]	27
Water Surface	None
Ru Value	0

New Fill

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	100
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Shear Normal Functions

Name: C&D		
	Normal (psf)	Shear (psf)
0		0
2000		1400
10000		6169

Support

Type 1

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	1900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Entity Information

Water Table

X	Y
155.895	284.175
180.694	275.91
387.211	207.083

Distributed Load

X	Y
111.928	287.179
134.411	286.759

Bolt

X	Y
107.77	281
127.77	281

Bolt

X	Y
110.357	284
130.357	284

External Boundary

X	Y
143.248	286.168
140.418	284.756
138.415	284.757
135.724	286.103
134.411	286.759
111.928	287.179
109.368	282
106.63	280.43
106.051	280
83.8859	269
80.8634	267.5
80.7629	267.45
78.5343	266.344
72.2699	265.703
69.1878	266.011
55.3832	266.113
39.6389	266.039
20.6674	267.5
0	267.5
0	200
387.211	200
387.211	203.083
387.211	207.083
387.211	305.134
387.211	309.134
262.404	302.905
231.729	301.374
204.31	296.629
180.448	292.499
157.775	288
149.576	286.66
149.047	286.66
144.422	286.754

Material Boundary

X	Y
244.663	295.699
244.694	295.711

Material Boundary

X	Y
148.682	282.579
173.428	274.332
387.211	203.083

Material Boundary

X	Y
155.895	284.175
180.694	275.91
387.211	207.083

Material Boundary

X	Y
145.765	281.982
145.982	281.982
148.682	282.579
155.895	284.175
164.141	286
204.211	292.612
231.729	297.374
250.636	298.317
387.211	305.134

Material Boundary

X	Y
145.765	281.982
145.765	285.982

Material Boundary

X	Y
80.5109	265.57
89.0341	266.75
94.3815	266.427
101.894	266.956
104.526	267.047
107.788	267.13
113.663	267.281
116.659	267.5
117.909	267.591
123.92	268.031
127.297	268.278
135.426	269.186
144.588	269.691
150.755	270.65
156.308	271.514
163.814	272.652
168.855	273.338
173.428	274.332
180.694	275.91
181.831	276.157
186.389	277.148
193.556	279.072
202.952	281.64
216.413	285.317
231.672	290.925
250.636	298.317
262.404	302.905

Material Boundary

X	Y
0	267.5
72.8134	264.477
80.5109	265.57
80.7629	267.45

Material Boundary

X	Y
80.8634	267.5
116.659	267.5

Material Boundary

X	Y
145.765	285.982
146.969	286.2

Material Boundary

X	Y
83.8859	269
101.238	269

Material Boundary

X	Y
106.63	280.43
109.37	281.8
112.37	285.9
135.724	286.103

Material Boundary

X	Y
143.248	286.168
146.969	286.2
149.047	286.66

Slide Analysis Information

Project Summary

Slide Modeler Version:	9.009
Compute Time:	00h:00m:08.253s

General Settings

Units of Measurement:

Time Units:

Permeability Units:

Data Output:

Failure Direction:

Imperial Units

days

feet/second

Standard

Right to Left

Analysis Options

Slices Type:	Vertical
Analysis Methods Used	
	GLE/Morgenstern-Price with interslice force function (Half Sine)
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft ³]:	62.4
Use negative pore pressure cutoff:	Yes
Maximum negative pore pressure [psf]:	0
Advanced Groundwater Method:	None

Random Numbers

Pseudo-random Seed:

10116

Random Number Generation Method:

Park and Miller v.3

Surface Options

Search Method:	Auto Refine Search
Divisions along slope:	20
Circles per division:	10
Number of iterations:	10
Divisions to use in next iteration:	50%
Number of vertices per surface:	12
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic Loading

Advanced seismic analysis:	No
Staged pseudostatic analysis:	No

Loading

1 Distributed Load present

Distributed Load 1

Distribution:	Constant
Magnitude [psf]:	250
Orientation:	Vertical

Materials

C&D Waste

Color	
Strength Type	Shear Normal function
Unit Weight [lbs/ft3]	60
Water Surface	None
Ru Value	0

Bottom Liner

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	118.5
Cohesion [psf]	67
Friction Angle [deg]	17.4
Water Surface	Water Table
Hu Value	Automatically Calculated

Subgrade

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	0
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Final Cover System

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	119.9
Cohesion [psf]	0
Friction Angle [deg]	27
Water Surface	None
Ru Value	0

New Fill

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	100
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Shear Normal Functions

Name: C&D		
	Normal (psf)	Shear (psf)
0		0
2000		1400
10000		6169

Support

Type 1

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	1900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Global Minimums

Method: gle/morgenstern-price

FS	1.528490
Axis Location:	84.446, 331.140
Left Slip Surface Endpoint:	78.221, 264.976
Right Slip Surface Endpoint:	133.642, 286.462
Resisting Moment:	2.77936e+06 lb-ft
Driving Moment:	1.81836e+06 lb-ft
Resisting Horizontal Force:	35897.1 lb
Driving Horizontal Force:	23485.3 lb
Active Support Moment:	-14.3591 lb-ft
Active Horizontal Support Force:	-0.201415 lb
Maximum Single Support Force:	0.218623 lb
Total Support Force:	0.218623 lb
Total Slice Area:	521.119 ft ²
Surface Horizontal Width:	55.4204 ft
Surface Average Height:	9.40301 ft

Global Minimum Coordinates

Method: gle/morgenstern-price

X	Y
78.2212	264.976
80.3715	263.883
83.0974	262.952
85.8232	262.529
88.3153	262.545
90.8073	262.65
93.194	262.933
95.5807	263.231
98.4042	263.698
101.228	264.221
104.053	264.852
106.879	265.477
109.705	266.547
111.118	267.233
112.531	268.062
114.415	269.43
116.299	270.734
118.183	271.972
120.067	273.146
121.951	274.288
123.805	275.451
125.201	276.279
126.565	277.092
127.914	278.478
129.161	280.047
130.281	281.654
131.401	283.265
132.521	284.864
133.642	286.462

Global Minimum Support Data

Method: gle/morgenstern-price

Number of Supports: 3						
Type 1						
Support Type: Geosynthetic						
Start (x, y)	Length (ft)	L Inside SS (ft)	L Outside SS (ft)	Li (ft)	Lo (ft)	Force (lb)
107.449, 278	20	19.9998	0.000222265	19.9998	0.000222265	0.218623
109.723, 281	20	Not Effective	Not Effective	Not Effective	Not Effective	0
111.223, 284	20	Not Effective	Not Effective	Not Effective	Not Effective	0

Valid and Invalid Surfaces

Method: gle/morgenstern-price

Number of Valid Surfaces:	4098
Number of Invalid Surfaces:	14910

Error Codes

Error Code -105 reported for 1804 surfaces
Error Code -108 reported for 10 surfaces
Error Code -110 reported for 210 surfaces
Error Code -111 reported for 202 surfaces
Error Code -113 reported for 12657 surfaces
Error Code -123 reported for 8 surfaces
Error Code -1000 reported for 19 surfaces

Error Code Descriptions

The following errors were encountered during the computation:

- 105 = More than two surface / slope intersections with no valid slip surface.
- 108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).
- 110 = The water table or a piezoline does not span the slip region for a given slip surface, when Water Surfaces is specified as the method of pore pressure calculation. If this error occurs, check that the water table or piezoline(s) span the appropriate soil cells.
- 111 = safety factor equation did not converge
- 113 = Surface intersects outside slope limits.
- 123 = Surface radius equal or less than the internal cutoff of 0.01.
- 1000 = No valid slip surface is generated

Slice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.52849

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [deg]	Base Material	Base Cohesion [psf]	Base Friction Angle [deg]	Shear Stress [psf]	Shear Strength [psf]	Base Normal Stress [psf]	Pore Pressure [psf]	Effective Normal Stress [psf]	Base Vertical Stress [psf]	Effective Vertical Stress [psf]
1	1.07515	44.9839	-26.9522	Subgrade	0	30	20.2006	30.8764	53.4795	0	53.4795	43.208	43.208
2	1.07515	134.952	-26.9522	Subgrade	0	30	63.3228	96.7882	167.642	0	167.642	135.444	135.444
3	1.36294	281.767	-18.8496	Subgrade	0	30	99.7978	152.54	264.207	0	264.207	230.137	230.137
4	1.36294	400.077	-18.8496	Subgrade	0	30	148.462	226.923	393.043	0	393.043	342.358	342.358
5	0.908621	355.281	-8.82335	Subgrade	0	30	181.365	277.215	480.15	0	480.15	451.997	451.997
6	0.908621	419.827	-8.82335	Subgrade	0	30	218.066	333.311	577.311	0	577.311	543.462	543.462
7	0.908621	484.372	-8.82335	Subgrade	0	30	256.153	391.527	678.145	0	678.145	638.383	638.383
8	1.24603	754.132	0.364204	Subgrade	0	30	265.834	406.324	703.774	0	703.774	705.463	705.463
9	1.24603	845.41	0.364204	Subgrade	0	30	301.954	461.534	799.4	0	799.4	801.319	801.319
10	1.24603	933.347	2.41696	Subgrade	0	30	328.97	502.828	870.924	0	870.924	884.81	884.81
11	1.24603	1017.94	2.41696	Subgrade	0	30	362.277	553.737	959.102	0	959.102	974.394	974.394
12	1.19333	1047.71	6.74129	Subgrade	0	30	370.67	566.566	981.324	0	981.324	1025.14	1025.14
13	1.19333	1112.32	6.74129	Subgrade	0	30	394.985	603.73	1045.69	0	1045.69	1092.38	1092.38
14	1.19333	1176.35	7.1234	Subgrade	0	30	416.666	636.87	1103.09	0	1103.09	1155.17	1155.17
15	1.19333	1239.8	7.1234	Subgrade	0	30	439.834	672.282	1164.43	0	1164.43	1219.39	1219.39
16	0.941196	1020.45	9.3891	Subgrade	0	30	444.376	679.225	1176.45	0	1176.45	1249.93	1249.93
17	0.941196	1055.63	9.3891	Subgrade	0	30	459.124	701.766	1215.49	0	1215.49	1291.41	1291.41
18	0.941196	1090.81	9.3891	Subgrade	0	30	473.565	723.839	1253.72	0	1253.72	1332.03	1332.03
19	1.41179	1699.78	10.5034	Subgrade	0	30	482.228	737.08	1276.66	0	1276.66	1366.07	1366.07
20	1.41179	1774.13	10.5034	Subgrade	0	30	500.606	765.172	1325.32	0	1325.32	1418.13	1418.13
21	0.941821	1222.87	12.592	Subgrade	0	30	498.257	761.581	1319.09	0	1319.09	1430.4	1430.4
22	0.941821	1251.91	12.592	Subgrade	0	30	507.393	775.545	1343.28	0	1343.28	1456.62	1456.62
23	0.941821	1280.96	12.592	Subgrade	0	30	516.207	789.018	1366.62	0	1366.62	1481.93	1481.93
24	1.41273	1976.2	12.4579	Subgrade	0	30	527.918	806.917	1397.62	0	1397.62	1514.25	1514.25
25	1.41273	2042.15	12.4579	Subgrade	0	30	540.083	825.512	1429.83	0	1429.83	1549.14	1549.14
26	0.941977	1395.15	20.7452	New Fill	100	30	551.563	843.059	1287.01	0	1287.01	1495.93	1495.93
27	0.941977	1462.65	20.7452	New Fill	100	30	571.737	873.894	1340.43	0	1340.43	1556.98	1556.98
28	0.941977	1554.58	20.7452	New Fill	100	30	600.419	917.734	1416.35	0	1416.35	1643.77	1643.77
29	1.41296	2625.74	25.8987	New Fill	100	30	619.302	946.597	1466.35	0	1466.35	1767.05	1767.05
30	1.41296	2979.7	30.3959	New Fill	100	30	650.883	994.868	1549.95	0	1549.95	1931.76	1931.76
31	0.942083	2087.51	35.9931	New Fill	100	30	687.036	1050.13	1645.67	0	1645.67	2144.71	2144.71
32	0.942083	2009.62	35.9931	New Fill	100	30	673.859	1029.99	1610.79	0	1610.79	2100.25	2100.25
33	0.942083	1931.93	34.676	New Fill	100	30	665.07	1016.55	1587.52	0	1587.52	2047.62	2047.62
34	0.942083	1856.08	34.676	New Fill	100	30	644.324	984.843	1532.6	0	1532.6	1978.35	1978.35
35	0.942084	1782.06	33.3156	New Fill	100	30	635.801	971.816	1510.03	0	1510.03	1927.92	1927.92
36	0.942084	1709.88	33.3156	New Fill	100	30	615.869	941.35	1457.26	0	1457.26	1862.05	1862.05
37	0.942063	1639.51	31.9115	New Fill	100	30	607.382	928.378	1434.79	0	1434.79	1813.02	1813.02
38	0.942063	1571.02	31.9115	New Fill	100	30	588.095	898.897	1383.73	0	1383.73	1749.95	1749.95
39	0.942063	1503.4	31.2237	New Fill	100	30	573.902	877.204	1346.15	0	1346.15	1694.05	1694.05
40	0.942063	1436.67	31.2237	New Fill	100	30	554.945	848.228	1295.97	0	1295.97	1632.37	1632.37
41	0.926784	1347.15	32.115	New Fill	100	30	530.397	810.706	1230.98	0	1230.98	1563.89	1563.89
42	0.926784	1280.35	32.115	New Fill	100	30	511.571	781.931	1181.14	0	1181.14	1502.23	1502.23
43	1.39639	1807.02	30.6673	New Fill	100	30	496.341	758.652	1140.82	0	1140.82	1435.14	1435.14
44	1.36332	1625.38	30.807	New Fill	100	30	467.995	715.325	1065.77	0	1065.77	1344.83	1344.83
45	1.34924	1426.1	45.7692	New Fill	100	30	367.042	561.02	798.508	0	798.508	1175.54	1175.54
46	1.24666	1092.66	51.5342	New Fill	100	30	305.201	466.496	634.79	0	634.79	1018.95	1018.95
47	1.12026	765.179	55.1092	New Fill	100	30	252.77	386.357	495.985	0	495.985	858.446	858.446
48	1.12026	545.812	55.1934	New Fill	100	30	212.752	325.189	390.039	0	390.039	696.073	696.073
49	1.12026	326.965	54.9786	New Fill	100	30	171.367	261.932	280.475	0	280.475	525.017	525.017
50	1.12026	108.987	54.9779	New Fill	100	30	126.981	194.089	162.967	0	162.967	344.166	344.166

Interslice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.52849

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [deg]
1	78.2212	264.976	0	0	0
2	79.2963	264.43	50.955	1.47095	1.65353
3	80.3715	263.883	210.684	12.1413	3.29819
4	81.7344	263.418	469.637	44.0359	5.35672
5	83.0974	262.952	854.864	110.572	7.36998
6	84.006	262.811	1087.38	165.985	8.67902
7	84.9146	262.67	1366.94	239.96	9.95656
8	85.8232	262.529	1695.33	335.638	11.1985
9	87.0692	262.537	2021	460.534	12.837
10	88.3153	262.545	2390.91	613.591	14.3935
11	89.5613	262.598	2755.01	782.742	15.8607
12	90.8073	262.65	3155.97	978.919	17.2328
13	92.0007	262.791	3459.88	1154.54	18.4535
14	93.194	262.933	3783.73	1345.8	19.5795
15	94.3873	263.082	4116.45	1547.95	20.6083
16	95.5807	263.231	4467.66	1763.3	21.5382
17	96.5219	263.386	4702.82	1919.28	22.201
18	97.463	263.542	4945.78	2079.12	22.801
19	98.4042	263.698	5196.38	2242.01	23.3381
20	99.816	263.959	5543.02	2470.84	24.0253
21	101.228	264.221	5902.88	2698.81	24.57
22	102.17	264.432	6094.63	2823.13	24.8543
23	103.111	264.642	6289.9	2943.09	25.0752
24	104.053	264.852	6488.56	3057.84	25.2329
25	105.466	265.164	6798.16	3220.87	25.3509
26	106.879	265.477	7114.9	3367.24	25.3266
27	107.821	265.833	7175.26	3381.23	25.2314
28	108.763	266.19	7235.57	3385.22	25.0729
29	109.705	266.547	7295.8	3379.05	24.8512
30	111.118	267.233	7164.85	3250.09	24.3998
31	112.531	268.062	6799.85	2999.91	23.8058
32	113.473	268.746	6320.98	2726.23	23.3305
33	114.415	269.43	5853.57	2459.64	22.7919
34	115.357	270.082	5445.47	2221.17	22.1902
35	116.299	270.734	5053.62	1993.3	21.5258
36	117.241	271.353	4717.58	1791.93	20.7988
37	118.183	271.972	4395.45	1600.68	20.01
38	119.125	272.559	4125.93	1433.59	19.1602
39	120.067	273.146	3868.19	1275.57	18.2504
40	121.009	273.717	3640.1	1132.5	17.2818
41	121.951	274.288	3422.81	998.053	16.2561
42	122.878	274.869	3198.3	868.55	15.1932
43	123.805	275.451	2985.34	748.705	14.079
44	125.201	276.279	2733.78	596.534	12.3095
45	126.565	277.092	2505.41	463.688	10.4854
46	127.914	278.478	1894.14	286.383	8.59767
47	129.161	280.047	1278.51	152.271	6.79195
48	130.281	281.654	764.927	68.6503	5.12841
49	131.401	283.265	374.736	22.4967	3.43554
50	132.521	284.864	118.338	3.55929	1.72278
51	133.642	286.462	0	0	0

Entity Information

Water Table

X	Y
155.895	284.175
180.694	275.91
387.211	207.083

Distributed Load

X	Y
112.646	286.891
135.298	286.428

External Boundary

X	Y
144.4	285.97
141.305	284.426
139.194	284.485
136.355	285.9
135.298	286.428
112.646	286.891
112.055	285.69
111.223	284
109.723	281
109.221	280
107.449	278
83.1301	265.931
82.3807	265.559
81.788	265.476
73.867	264.366
72.8134	264.477
69.8711	264.611
67.7057	264.587
64.5131	264.545
60.7151	264.494
55.8371	264.505
53.4833	264.141
40.0729	264.756
33.4287	264.519
30.4559	264.094
28.6735	263.839
27.3257	263.666
24.7768	263.352
23.3886	263.183
0	263.329
0	200
387.211	200
387.211	203.083
387.211	207.083
387.211	305.134
387.211	309.134
313.138	305.437
261.054	302.378
254.612	302
232.044	300
209.207	296.471
202.096	295.324
182.073	292
150.345	286.321
147.755	286.374
145.309	286.424

Material Boundary

X	Y
244.663	295.699
244.694	295.711

Material Boundary

X		Y	
148.682		282.579	
173.428		274.332	
387.211		203.083	

Material Boundary

X		Y	
155.895		284.175	
180.694		275.91	
387.211		207.083	

Material Boundary

X		Y	
145.765		281.982	
145.982		281.982	
148.682		282.579	
155.895		284.175	
204.211		292.177	
232.944		297.434	
250.636		298.317	
387.211		305.134	

Material Boundary

X		Y	
145.765		281.982	
145.765		285.982	

Material Boundary

X	Y
83.1301	265.931
89.0341	266.75
94.3815	266.427
101.894	266.956
104.526	267.047
107.788	267.13
113.663	267.281
117.909	267.591
122.267	267.91
127.297	268.278
135.426	269.186
144.588	269.691
150.755	270.65
156.308	271.514
163.814	272.652
168.855	273.338
173.428	274.332
180.694	275.91
181.831	276.157
186.389	277.148
193.556	279.072
202.952	281.64
216.413	285.317
231.672	290.925
250.636	298.317
261.054	302.378

Material Boundary

X	Y
81.788	265.476
106.965	265.476
120.801	265.476

Material Boundary

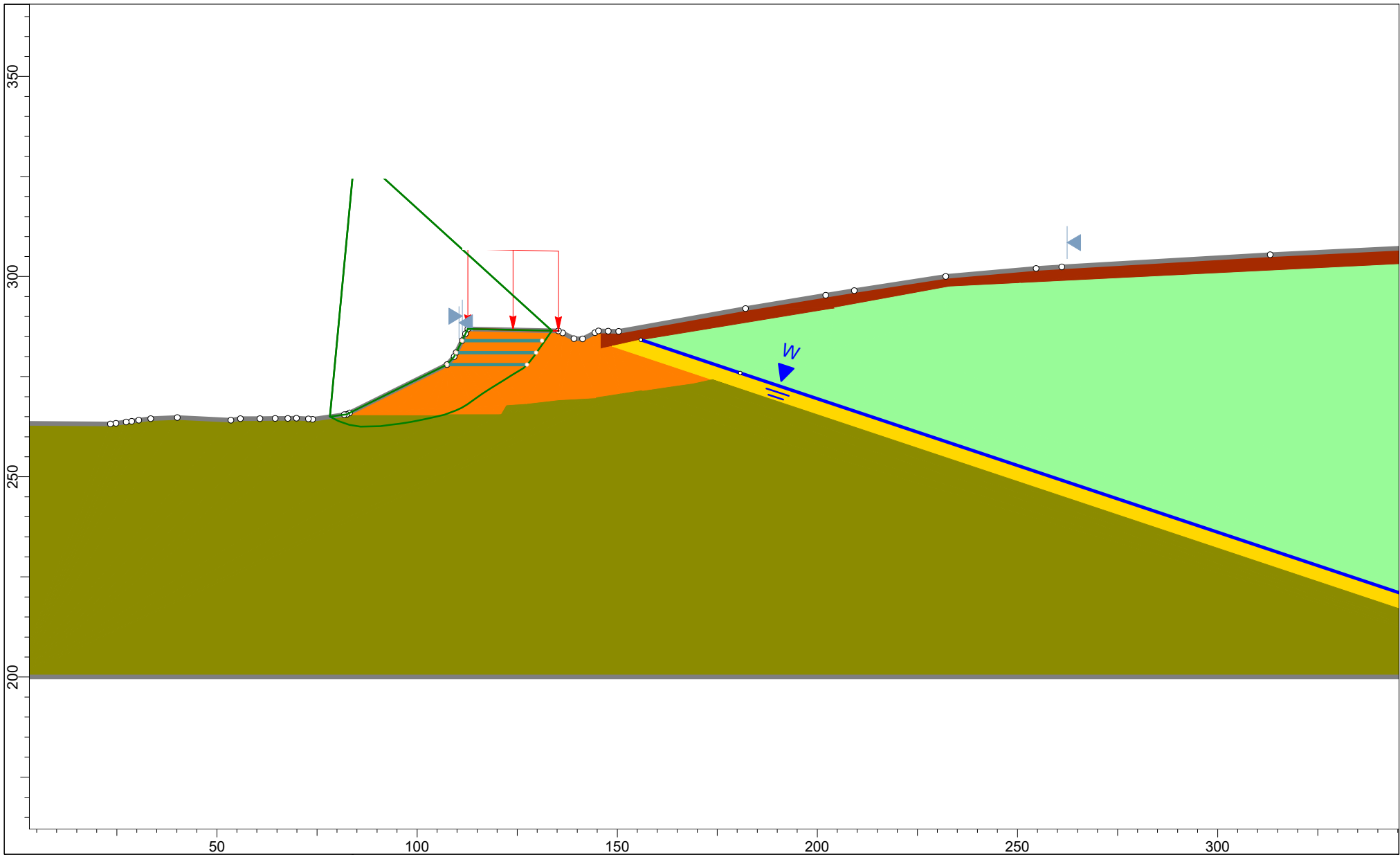
X	Y
120.801	265.476
122.267	267.91

Material Boundary

X	Y
112.055	285.69
136.355	285.9

Material Boundary

X	Y
144.4	285.97
145.765	285.982
145.982	285.982
147.755	286.374



Dunn Mine and C&D Facility
S.A. Dunn & Company, LLC
Rensselaer, New York

Station 00+60 Static

Date: 5/17/2021

Scale: 1:398

PREPARED BY: Civil & Environmental Consultants, Inc.

File Name: Station 00+60 Static.slm

Slide Analysis Information

Project Summary

File Name:

Station 00+60 Seismic.slim

Last saved with Slide version:

9.009

General Settings

Units of Measurement:

Time Units:

Permeability Units:

Data Output:

Failure Direction:

Imperial Units

days

feet/second

Standard

Right to Left

Analysis Options

Slices Type:	Vertical
Analysis Methods Used	
	GLE/Morgenstern-Price with interslice force function (Half Sine)
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft ³]:	62.4
Use negative pore pressure cutoff:	Yes
Maximum negative pore pressure [psf]:	0
Advanced Groundwater Method:	None

Random Numbers

Pseudo-random Seed:

10116

Random Number Generation Method:

Park and Miller v.3

Surface Options

Search Method:	Auto Refine Search
Divisions along slope:	20
Circles per division:	10
Number of iterations:	10
Divisions to use in next iteration:	50%
Number of vertices per surface:	12
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic Loading

Advanced seismic analysis:	No
Staged pseudostatic analysis:	No
Seismic Load Coefficient (Horizontal):	0.075

Loading

1 Distributed Load present

Distributed Load 1

Distribution:	Constant
Magnitude [psf]:	250
Orientation:	Vertical

Materials

C&D Waste

Color	
Strength Type	Shear Normal function
Unit Weight [lbs/ft3]	60
Water Surface	None
Ru Value	0

Bottom Liner

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	118.5
Cohesion [psf]	67
Friction Angle [deg]	17.4
Water Surface	Water Table
Hu Value	Automatically Calculated

Subgrade

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	0
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Final Cover System

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	119.9
Cohesion [psf]	0
Friction Angle [deg]	27
Water Surface	None
Ru Value	0

New Fill

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	100
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Shear Normal Functions

Name: C&D		
	Normal (psf)	Shear (psf)
0		0
2000		1400
10000		6169

Support

Type 1

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	1900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Entity Information

Water Table

X	Y
155.895	284.175
180.694	275.91
387.211	207.083

Distributed Load

X	Y
112.646	286.891
135.298	286.428

Bolt

X	Y
107.449	278
127.449	278

Bolt

X	Y
109.723	281
129.723	281

Bolt

X	Y
111.223	284
131.223	284

External Boundary

X	Y
144.4	285.97
141.305	284.426
139.194	284.485
136.355	285.9
135.298	286.428
112.646	286.891
112.055	285.69
111.223	284
109.723	281
109.221	280
107.449	278
83.1301	265.931
82.3807	265.559
81.788	265.476
73.867	264.366
72.8134	264.477
69.8711	264.611
67.7057	264.587
64.5131	264.545
60.7151	264.494
55.8371	264.505
53.4833	264.141
40.0729	264.756
33.4287	264.519
30.4559	264.094
28.6735	263.839
27.3257	263.666
24.7768	263.352
23.3886	263.183
0	263.329
0	200
387.211	200
387.211	203.083
387.211	207.083
387.211	305.134
387.211	309.134
262.404	302.905
232.944	301.434
150.345	286.321
147.755	286.374
145.309	286.424

Material Boundary

X	Y
244.663	295.699
244.694	295.711

Material Boundary

X	Y
148.682	282.579
173.428	274.332
387.211	203.083

Material Boundary

X	Y
155.895	284.175
180.694	275.91
387.211	207.083

Material Boundary

X	Y
145.765	281.982
145.982	281.982
148.682	282.579
155.895	284.175
204.211	292.177
232.944	297.434
250.636	298.317
387.211	305.134

Material Boundary

X	Y
145.765	281.982
145.765	285.982

Material Boundary

X	Y
83.1301	265.931
89.0341	266.75
94.3815	266.427
101.894	266.956
104.526	267.047
107.788	267.13
113.663	267.281
117.909	267.591
122.267	267.91
127.297	268.278
135.426	269.186
144.588	269.691
150.755	270.65
156.308	271.514
163.814	272.652
168.855	273.338
173.428	274.332
180.694	275.91
181.831	276.157
186.389	277.148
193.556	279.072
202.952	281.64
216.413	285.317
231.672	290.925
250.636	298.317
262.404	302.905

Material Boundary

X	Y
81.788	265.476
106.965	265.476
120.801	265.476

Material Boundary

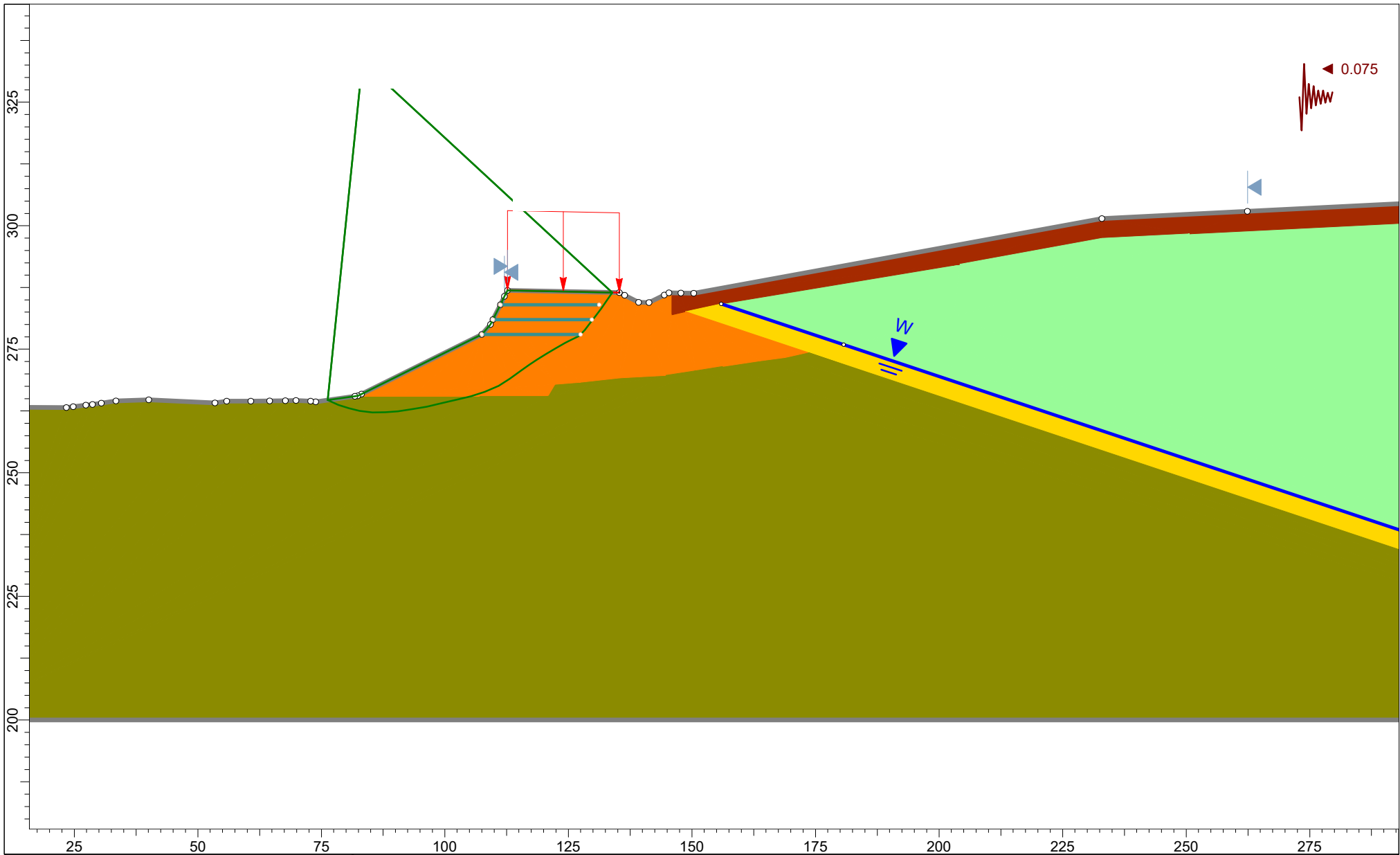
X	Y
120.801	265.476
122.267	267.91

Material Boundary

X	Y
112.055	285.69
136.355	285.9

Material Boundary

X	Y
144.4	285.97
145.765	285.982
145.982	285.982
147.755	286.374



Dunn Mine and C&D Facility
S.A. Dunn & Company, LLC
Rensselaer, New York

Station 00+60 Seismic

Date: 5/17/2021

Scale: 1:323

PREPARED BY: Civil & Environmental Consultants, Inc.

File Name: Station 00+60 Seismic.slm

Slide Analysis Information

Project Summary

Slide Modeler Version:	9.009
Compute Time:	00h:00m:07.922s

General Settings

Units of Measurement:

Time Units:

Permeability Units:

Data Output:

Failure Direction:

Imperial Units

days

feet/second

Standard

Right to Left

Analysis Options

Slices Type:	Vertical
Analysis Methods Used	
	GLE/Morgenstern-Price with interslice force function (Half Sine)
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft ³]:	62.4
Use negative pore pressure cutoff:	Yes
Maximum negative pore pressure [psf]:	0
Advanced Groundwater Method:	None

Random Numbers

Pseudo-random Seed:

10116

Random Number Generation Method:

Park and Miller v.3

Surface Options

Search Method:	Auto Refine Search
Divisions along slope:	20
Circles per division:	10
Number of iterations:	10
Divisions to use in next iteration:	50%
Number of vertices per surface:	12
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic Loading

Advanced seismic analysis:	No
Staged pseudostatic analysis:	No

Loading

1 Distributed Load present

Distributed Load 1

Distribution:	Constant
Magnitude [psf]:	250
Orientation:	Vertical

Materials

C&D Waste

Color	
Strength Type	Shear Normal function
Unit Weight [lbs/ft3]	60
Water Surface	None
Ru Value	0

Bottom Liner

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	118.5
Cohesion [psf]	67
Friction Angle [deg]	17.4
Water Surface	Water Table
Hu Value	1

Subgrade

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	0
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Final Cover System

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	132.4
Cohesion [psf]	0
Friction Angle [deg]	27
Water Surface	None
Ru Value	0

New Fill

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	100
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Shear Normal Functions

Name: C&D		
	Normal (psf)	Shear (psf)
0		0
2000		1400
10000		6169

Support

Type 1

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	1900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Type 2

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	3900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Global Minimums

Method: gle/morgenstern-price

FS	1.502760
Axis Location:	109.676, 326.072
Left Slip Surface Endpoint:	107.467, 261.402
Right Slip Surface Endpoint:	160.086, 285.503
Resisting Moment:	3.05342e+06 lb-ft
Driving Moment:	2.03187e+06 lb-ft
Resisting Horizontal Force:	38552.1 lb
Driving Horizontal Force:	25654.1 lb
Active Support Moment:	-252161 lb-ft
Active Horizontal Support Force:	-3761.48 lb
Maximum Single Support Force:	3900 lb
Total Support Force:	3900.22 lb
Total Slice Area:	586.948 ft ²
Surface Horizontal Width:	52.6195 ft
Surface Average Height:	11.1546 ft

Global Minimum Coordinates

Method: gle/morgenstern-price

X	Y
107.467	261.402
109.234	260.479
111.002	259.781
112.769	259.203
114.537	258.906
116.318	258.694
118.12	258.537
120.831	258.647
123.542	258.872
126.292	259.205
129.33	259.7
131.973	260.385
134.616	261.526
137.259	263.25
138.581	264.172
139.903	265.093
142.546	266.845
145.19	268.504
147.833	270.071
150.248	271.417
151.455	272.541
152.771	274.317
154.085	276.046
155.391	277.726
156.566	279.487
157.741	281.206
158.916	283.303
160.086	285.503

Global Minimum Support Data

Method: gle/morgenstern-price

Number of Supports: 6						
Type 2						
Support Type: Geosynthetic						
Start (x, y)	Length (ft)	L Inside SS (ft)	L Outside SS (ft)	Li (ft)	Lo (ft)	Force (lb)
126.435, 268.996	40	19.5857	20.4143	19.5857	20.4143	3900
Type 1						
Support Type: Geosynthetic						
Start (x, y)	Length (ft)	L Inside SS (ft)	L Outside SS (ft)	Li (ft)	Lo (ft)	Force (lb)
129.874, 272	21	20.9999	0.000148273	20.9999	0.000148273	0.215617
131.376, 275	21	Not Effective	Not Effective	Not Effective	Not Effective	0
132.876, 278	21	Not Effective	Not Effective	Not Effective	Not Effective	0
134.379, 281	21	Not Effective	Not Effective	Not Effective	Not Effective	0
135.883, 284.004	21	Not Effective	Not Effective	Not Effective	Not Effective	0

Valid and Invalid Surfaces

Method: gle/morgenstern-price

Number of Valid Surfaces:	4387
Number of Invalid Surfaces:	14622

Error Codes

Error Code -105 reported for 1530 surfaces
Error Code -108 reported for 8 surfaces
Error Code -110 reported for 161 surfaces
Error Code -111 reported for 203 surfaces
Error Code -113 reported for 12660 surfaces
Error Code -123 reported for 60 surfaces

Error Code Descriptions

The following errors were encountered during the computation:

- 105 = More than two surface / slope intersections with no valid slip surface.
- 108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).
- 110 = The water table or a piezoline does not span the slip region for a given slip surface, when Water Surfaces is specified as the method of pore pressure calculation. If this error occurs, check that the water table or piezoline(s) span the appropriate soil cells.
- 111 = safety factor equation did not converge
- 113 = Surface intersects outside slope limits.
- 123 = Surface radius equal or less than the internal cutoff of 0.01.

Slice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.50276

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [deg]	Base Material	Base Cohesion [psf]	Base Friction Angle [deg]	Shear Stress [psf]	Shear Strength [psf]	Base Normal Stress [psf]	Pore Pressure [psf]	Effective Normal Stress [psf]	Base Vertical Stress [psf]	Effective Vertical Stress [psf]
1	0.304344	3.63615	-27.5843	New Fill	100	30	89.5856	134.626	59.9737	0	59.9737	13.1707	13.1707
2	1.46305	118.989	-27.5843	Subgrade	0	30	42.5066	63.8772	110.638	0	110.638	88.4312	88.4312
3	0.883728	147.3	-21.5365	Subgrade	0	30	85.0741	127.846	221.435	0	221.435	187.861	187.861
4	0.883728	196.64	-21.5365	Subgrade	0	30	118.414	177.948	308.215	0	308.215	261.483	261.483
5	0.883814	242.848	-18.1212	Subgrade	0	30	145.746	219.022	379.356	0	379.356	331.659	331.659
6	0.883814	288.096	-18.1212	Subgrade	0	30	179.582	269.869	467.427	0	467.427	408.657	408.657
7	0.883814	350.818	-9.5362	Subgrade	0	30	200.725	301.641	522.458	0	522.458	488.738	488.738
8	0.883814	413.062	-9.5362	Subgrade	0	30	241.247	362.536	627.931	0	627.931	587.404	587.404
9	0.890487	476.816	-6.80301	Subgrade	0	30	271.955	408.683	707.859	0	707.859	675.416	675.416
10	0.890487	535.37	-6.80301	Subgrade	0	30	311.148	467.581	809.873	0	809.873	772.754	772.754
11	0.901314	599.911	-4.94775	Subgrade	0	30	341.489	513.176	888.846	0	888.846	859.283	859.283
12	0.901314	656.708	-4.94775	Subgrade	0	30	379.995	571.041	989.073	0	989.073	956.177	956.177
13	0.903558	709.132	2.31483	Subgrade	0	30	372.508	559.79	969.584	0	969.584	984.642	984.642
14	0.903558	753.77	2.31483	Subgrade	0	30	398.932	599.499	1038.36	0	1038.36	1054.49	1054.49
15	0.903558	798.409	2.31483	Subgrade	0	30	425.445	639.342	1107.37	0	1107.37	1124.57	1124.57
16	0.903558	840.962	4.74369	Subgrade	0	30	433.912	652.065	1129.4	0	1129.4	1165.41	1165.41
17	0.903558	881.431	4.74369	Subgrade	0	30	456.245	685.626	1187.54	0	1187.54	1225.4	1225.4
18	0.903558	921.9	4.74369	Subgrade	0	30	478.313	718.79	1244.98	0	1244.98	1284.67	1284.67
19	1.37525	1476.51	6.91025	Subgrade	0	30	486.128	730.534	1265.32	0	1265.32	1324.24	1324.24
20	1.37525	1561.58	6.91025	Subgrade	0	30	513.105	771.074	1335.54	0	1335.54	1397.72	1397.72
21	1.01252	1201.52	9.25656	Subgrade	0	30	513.306	771.375	1336.06	0	1336.06	1419.72	1419.72
22	1.01252	1242.49	9.25656	Subgrade	0	30	528.028	793.499	1374.38	0	1374.38	1460.44	1460.44
23	1.01252	1325.23	9.25656	Subgrade	0	30	558.843	839.807	1454.59	0	1454.59	1545.67	1545.67
24	1.32145	1970.6	14.523	Subgrade	0	30	574.894	863.927	1496.36	0	1496.36	1645.29	1645.29
25	1.32145	2324.54	14.523	Subgrade	0	30	669.016	1005.37	1741.36	0	1741.36	1914.67	1914.67
26	0.881058	1744.24	23.3493	Subgrade	0	30	644.445	968.446	1677.4	0	1677.4	1955.6	1955.6
27	0.881058	1890.12	23.3493	Subgrade	0	30	693.551	1042.24	1805.23	0	1805.23	2104.62	2104.62
28	0.881058	2035.99	23.3493	Subgrade	0	30	742.78	1116.22	1933.35	0	1933.35	2253.99	2253.99
29	0.0788384	189.212	33.1051	Subgrade	0	30	655.441	984.971	1706.02	0	1706.02	2133.38	2133.38
30	1.28233	3218.51	33.1051	New Fill	100	30	748.203	1124.37	1774.26	0	1774.26	2262.1	2262.1
31	1.28233	3466.35	33.1051	New Fill	100	30	818.507	1230.02	1957.25	0	1957.25	2490.93	2490.93
32	1.32175	3530.29	34.8944	New Fill	100	30	832.269	1250.7	1993.06	0	1993.06	2573.54	2573.54
33	1.32175	3379.67	34.8944	New Fill	100	30	801.771	1204.87	1913.7	0	1913.7	2472.9	2472.9
34	1.32172	3232.65	33.5262	New Fill	100	30	789.581	1186.55	1881.96	0	1881.96	2405.09	2405.09
35	1.32172	3089.36	33.5262	New Fill	100	30	761.718	1144.68	1809.43	0	1809.43	2314.11	2314.11
36	0.881148	1981.59	32.1133	New Fill	100	30	755.091	1134.72	1792.19	0	1792.19	2266.1	2266.1
37	0.881148	1921.16	32.1133	New Fill	100	30	737.629	1108.48	1746.74	0	1746.74	2209.69	2209.69
38	0.881148	1860.73	32.1133	New Fill	100	30	720.443	1082.65	1702.01	0	1702.01	2154.17	2154.17
39	1.3217	2681.4	30.6553	New Fill	100	30	821.841	1235.03	1965.93	0	1965.93	2453.04	2453.04
40	1.3217	2552.75	30.6553	New Fill	100	30	663.445	996.999	1553.65	0	1553.65	1946.87	1946.87
41	1.2072	2222.26	29.1519	New Fill	100	30	650.747	977.916	1520.59	0	1520.59	1883.57	1883.57
42	1.2072	2121.04	29.1519	New Fill	100	30	626.797	941.926	1458.26	0	1458.26	1807.88	1807.88
43	1.20742	1987.57	42.9418	New Fill	100	30	502.437	755.042	1134.57	0	1134.57	1602.14	1602.14
44	1.31624	1933.54	53.4531	New Fill	100	30	400.283	601.53	868.676	0	868.676	1408.7	1408.7
45	1.31416	1649.78	52.7621	New Fill	100	30	369.056	554.603	787.394	0	787.394	1272.94	1272.94
46	1.30585	1367.89	52.1546	New Fill	100	30	335.707	504.487	700.594	0	700.594	1132.68	1132.68
47	1.17474	984.336	56.2851	New Fill	100	30	278.424	418.405	551.496	0	551.496	968.74	968.74
48	1.17474	735.58	55.6586	New Fill	100	30	241.262	362.559	454.766	0	454.766	807.894	807.894
49	1.17486	463.207	60.7302	New Fill	100	30	178.929	268.888	292.522	0	292.522	611.765	611.765
50	1.17057	156.281	61.9899	New Fill	100	30	122.878	184.656	146.628	0	146.628	377.629	377.629

Interslice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.50276

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [deg]
1	107.467	261.402	0	0	0
2	107.771	261.243	36.8007	0.372255	0.579552
3	109.234	260.479	183.557	10.7632	3.3558
4	110.118	260.13	335.967	29.4819	5.01499
5	111.002	259.781	548.106	63.9221	6.65199
6	111.885	259.492	786.643	114.199	8.26007
7	112.769	259.203	1080.56	187.28	9.83269
8	113.653	259.054	1335.53	268.416	11.364
9	114.537	258.906	1641.98	374.509	12.8484
10	115.427	258.8	1959.35	499.143	14.2921
11	116.318	258.694	2322.46	651.902	15.6791
12	117.219	258.616	2699.6	826.477	17.0219
13	118.12	258.537	3119.26	1031.59	18.2999
14	119.024	258.574	3420.43	1212.14	19.5134
15	119.928	258.611	3742.96	1411.16	20.6573
16	120.831	258.647	4086.93	1628.87	21.73
17	121.735	258.722	4394.31	1840.93	22.7305
18	122.638	258.797	4717.51	2066.73	23.6581
19	123.542	258.872	5056.35	2305.6	24.5121
20	124.917	259.039	5514	2650.26	25.6709
21	126.292	259.205	5997.05	3010.9	26.6596
22	127.305	259.37	6296.31	3246.89	27.2793
23	128.317	259.535	6604.15	3483.12	27.8078
24	129.33	259.7	6929.95	3722.91	28.2456
25	130.651	260.043	7177.42	3926.49	28.6814
26	131.973	260.385	7465.4	4132.09	28.9645
27	132.854	260.765	7395.2	4110.84	29.0688
28	133.735	261.146	7319.66	4075.02	29.1057
29	134.616	261.526	7238.76	4024.93	29.0751
30	134.695	261.577	7202.74	4003.91	29.0691
31	135.977	262.414	6678.72	3686.15	28.8954
32	137.259	263.25	6091.85	3318.41	28.5784
33	138.581	264.172	5354.54	2859.19	28.1011
34	139.903	265.093	4650.1	2417.57	27.4698
35	141.225	265.969	4045.68	2033.28	26.6832
36	142.546	266.845	3467.94	1672.02	25.7404
37	143.427	267.398	3142.15	1466.86	25.0247
38	144.309	267.951	2826.12	1272.42	24.239
39	145.19	268.504	2519.68	1089.49	23.3833
40	146.511	269.287	5827.12	2350.69	21.9694
41	147.833	270.071	5486.91	2040.61	20.4004
42	149.04	270.744	5248.59	1790.33	18.8349
43	150.248	271.417	5023.34	1549.89	17.147
44	151.455	272.541	4355.34	1194.92	15.342
45	152.771	274.317	3339.65	786.428	13.2507
46	154.085	276.046	2463.27	480.873	11.0462
47	155.391	277.726	1724.14	265.547	8.75573
48	156.566	279.487	1080.33	125.476	6.62499
49	157.741	281.206	581.809	45.209	4.44319
50	158.916	283.303	178.852	6.95312	2.22633
51	160.086	285.503	0	0	0

Entity Information

Water Table

X	Y
187.474	283.266
227.772	269.835
327.434	236.619

Distributed Load

X	Y
136.877	285.99
160.086	285.503

External Boundary

X	Y
272.187	300
245.655	296.295
234.935	294.797
188.252	287.541
175.079	285.419
170.051	285.522
167.164	284.082
166.046	283.524
164.044	283.525
162.418	284.337
160.086	285.503
136.877	285.99
136.42	285.077
136.296	284.829
133.656	279.555
129.874	272
128.459	270
112.451	262.059
111.026	261.872
104.405	260.999
100.389	260.505
97.6543	260.428
66.92	261.104
29.0118	265.324
-1.16415e-10	266.694
0	200
327.434	200
327.434	232.619
327.434	236.619
327.434	292.184
327.434	300.376
327.434	303.571
310.859	302.5

Material Boundary

X	Y
110.463	261.577
119.167	262.702
124.03	262.659
127.434	262.659
141.217	263.437
149.221	263.835
154.279	264.378
162.441	265.253
170.48	266.684
187.204	267.066
195.833	266.671
207.068	267.599
218.016	269.087
219.104	269.235
227.772	269.835
232.742	270.179
244.597	272.857
248.558	274.049
254.401	276.602
259.524	279.071
268.069	283.189
278.873	289.039
285.459	292.512
293.959	296.85
298.846	298.895
302.446	296.562
306.008	292.872
308.463	292.195
315.155	292.146
319.507	292.276
322.276	292.423
325.501	292.274
327.434	292.184

Material Boundary

X	Y
179.982	285.763
179.982	281.763
218.016	269.087
327.434	232.619

Material Boundary

X	Y
187.474	283.266
189.835	283.794
199.685	286
234.935	294.797

Material Boundary

X	Y
187.474	283.266
227.772	269.835
327.434	236.619

Material Boundary

X	Y
179.982	281.763
187.474	283.266

Material Boundary

X	Y
110.463	261.577
136.795	261.577
141.217	263.437

Material Boundary

X	Y
136.795	261.577
144.097	261.577
149.221	263.835

Material Boundary

X	Y
144.097	261.577
151.502	261.577
154.279	264.378

Material Boundary

X	Y
104.405	260.999
105.8	260.999
107.434	261.201
110.463	261.577
111.026	261.872

Material Boundary

X	Y
136.42	285.077
148.677	285.077
162.418	284.337

Material Boundary

X	Y
167.164	284.082
170.606	283.897
171.571	283.954
179.982	285.763
188.252	287.541

Material Boundary

X	Y
245.655	296.295
282.016	298.11
327.434	300.376

Material Boundary

X	Y
188.519	283.59
189.835	283.794
234.935	290.797
280.237	297.839
282.016	298.11
310.859	302.5

Slide Analysis Information

Project Summary

Slide Modeler Version:	9.009
Compute Time:	00h:00m:10.323s

General Settings

Units of Measurement:

Time Units:

Permeability Units:

Data Output:

Failure Direction:

Imperial Units

days

feet/second

Standard

Right to Left

Analysis Options

Slices Type:	Vertical
Analysis Methods Used	
	GLE/Morgenstern-Price with interslice force function (Half Sine)
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft ³]:	62.4
Use negative pore pressure cutoff:	Yes
Maximum negative pore pressure [psf]:	0
Advanced Groundwater Method:	None

Random Numbers

Pseudo-random Seed:

10116

Random Number Generation Method:

Park and Miller v.3

Surface Options

Search Method:	Auto Refine Search
Divisions along slope:	20
Circles per division:	10
Number of iterations:	10
Divisions to use in next iteration:	50%
Number of vertices per surface:	12
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic Loading

Advanced seismic analysis:	No
Staged pseudostatic analysis:	No
Seismic Load Coefficient (Horizontal):	0.075

Loading

1 Distributed Load present

Distributed Load 1

Distribution:	Constant
Magnitude [psf]:	250
Orientation:	Vertical

Materials

C&D Waste

Color	
Strength Type	Shear Normal function
Unit Weight [lbs/ft3]	60
Water Surface	None
Ru Value	0

Bottom Liner

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	118.5
Cohesion [psf]	67
Friction Angle [deg]	17.4
Water Surface	Water Table
Hu Value	1

Subgrade

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	0
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Final Cover System

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	132.4
Cohesion [psf]	0
Friction Angle [deg]	27
Water Surface	None
Ru Value	0

New Fill

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	100
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Shear Normal Functions

Name: C&D		
	Normal (psf)	Shear (psf)
0		0
2000		1400
10000		6169

Support

Type 1

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	1900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Type 2

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	3900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Global Minimums

Method: gle/morgenstern-price

FS	1.311130
Axis Location:	106.725, 330.463
Left Slip Surface Endpoint:	102.774, 260.798
Right Slip Surface Endpoint:	160.086, 285.503
Resisting Moment:	3.37674e+06 lb-ft
Driving Moment:	2.57545e+06 lb-ft
Resisting Horizontal Force:	39792.1 lb
Driving Horizontal Force:	30349.5 lb
Active Support Moment:	-275010 lb-ft
Active Horizontal Support Force:	-3725.55 lb
Maximum Single Support Force:	3900 lb
Total Support Force:	3900 lb
Total Slice Area:	619.686 ft ²
Surface Horizontal Width:	57.312 ft
Surface Average Height:	10.8125 ft

Global Minimum Coordinates

Method: gle/morgenstern-price

X	Y
102.774	260.798
104.859	259.9
106.943	259.194
109.028	258.74
111.813	258.258
114.585	257.959
117.01	257.956
119.429	258.093
121.841	258.286
124.669	258.673
127.458	259.086
130.246	259.654
133.035	260.517
135.823	261.79
138.612	263.535
141.4	265.433
142.691	266.311
143.981	267.189
146.759	269.091
149.568	271.032
150.978	272.075
152.787	274.217
154.657	276.587
155.846	278.103
156.911	279.779
157.975	281.609
159.04	283.44
160.086	285.503

Global Minimum Support Data

Method: gle/morgenstern-price

Number of Supports: 6						
Type 2						
Support Type: Geosynthetic						
Start (x, y)	Length (ft)	L Inside SS (ft)	L Outside SS (ft)	Li (ft)	Lo (ft)	Force (lb)
126.435, 268.996	40	20.1853	19.8147	20.1853	19.8147	3900
Type 1						
Support Type: Geosynthetic						
Start (x, y)	Length (ft)	L Inside SS (ft)	L Outside SS (ft)	Li (ft)	Lo (ft)	Force (lb)
129.874, 272	21	Not Effective	Not Effective	Not Effective	Not Effective	0
131.376, 275	21	Not Effective	Not Effective	Not Effective	Not Effective	0
132.876, 278	21	Not Effective	Not Effective	Not Effective	Not Effective	0
134.379, 281	21	Not Effective	Not Effective	Not Effective	Not Effective	0
135.883, 284.004	21	Not Effective	Not Effective	Not Effective	Not Effective	0

Valid and Invalid Surfaces

Method: gle/morgenstern-price

Number of Valid Surfaces:	4431
Number of Invalid Surfaces:	14578

Error Codes

Error Code -105 reported for 1730 surfaces
Error Code -108 reported for 4 surfaces
Error Code -110 reported for 177 surfaces
Error Code -111 reported for 133 surfaces
Error Code -113 reported for 12428 surfaces
Error Code -123 reported for 106 surfaces

Error Code Descriptions

The following errors were encountered during the computation:

- 105 = More than two surface / slope intersections with no valid slip surface.
- 108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).
- 110 = The water table or a piezoline does not span the slip region for a given slip surface, when Water Surfaces is specified as the method of pore pressure calculation. If this error occurs, check that the water table or piezoline(s) span the appropriate soil cells.
- 111 = safety factor equation did not converge
- 113 = Surface intersects outside slope limits.
- 123 = Surface radius equal or less than the internal cutoff of 0.01.

Slice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.31113

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [deg]	Base Material	Base Cohesion [psf]	Base Friction Angle [deg]	Shear Stress [psf]	Shear Strength [psf]	Base Normal Stress [psf]	Pore Pressure [psf]	Effective Normal Stress [psf]	Base Vertical Stress [psf]	Effective Vertical Stress [psf]
1	1.04227	36.1076	-23.3225	Subgrade	0	30	19.6245	25.7303	44.5663	0	44.5663	36.1055	36.1055
2	1.04227	108.434	-23.3225	Subgrade	0	30	62.4056	81.8219	141.72	0	141.72	114.815	114.815
3	1.04226	175.586	-18.6929	Subgrade	0	30	100.619	131.924	228.498	0	228.498	194.455	194.455
4	1.04226	236.877	-18.6929	Subgrade	0	30	143.731	188.45	326.404	0	326.404	277.774	277.774
5	1.04225	290.312	-12.291	Subgrade	0	30	168.628	221.093	382.945	0	382.945	346.206	346.206
6	1.04225	335.898	-12.291	Subgrade	0	30	204.164	267.686	463.646	0	463.646	419.164	419.164
7	1.39276	514.815	-9.82304	Subgrade	0	30	236.635	310.259	537.385	0	537.385	496.413	496.413
8	1.39276	585.807	-9.82304	Subgrade	0	30	284.229	372.661	645.468	0	645.468	596.255	596.255
9	1.38587	658.067	-6.14627	Subgrade	0	30	313.581	411.146	712.125	0	712.125	678.357	678.357
10	1.38587	788.331	-6.14627	Subgrade	0	30	386.423	506.651	877.546	0	877.546	835.934	835.934
11	1.21234	794.343	-0.0742318	Subgrade	0	30	402.573	527.826	914.221	0	914.221	913.699	913.699
12	1.21234	882.063	-0.0742318	Subgrade	0	30	452.706	593.557	1028.07	0	1028.07	1027.49	1027.49
13	1.2099	962.669	3.23133	Subgrade	0	30	467.234	612.605	1061.07	0	1061.07	1087.44	1087.44
14	1.2099	1039.89	3.23133	Subgrade	0	30	507.513	665.415	1152.53	0	1152.53	1181.18	1181.18
15	1.20581	1111.13	4.58761	Subgrade	0	30	530.345	695.351	1204.38	0	1204.38	1246.94	1246.94
16	1.20581	1183.68	4.58761	Subgrade	0	30	565.444	741.371	1284.09	0	1284.09	1329.46	1329.46
17	0.942773	972.999	7.78192	Subgrade	0	30	553.05	725.121	1255.95	0	1255.95	1331.53	1331.53
18	0.942773	1011.33	7.78192	Subgrade	0	30	572.364	750.444	1299.8	0	1299.8	1378.02	1378.02
19	0.942773	1049.66	7.78192	Subgrade	0	30	590.964	774.83	1342.04	0	1342.04	1422.8	1422.8
20	0.929485	1071.79	8.43486	Subgrade	0	30	599.293	785.751	1360.97	0	1360.97	1449.83	1449.83
21	0.929485	1107.85	8.43486	Subgrade	0	30	614.897	806.21	1396.39	0	1396.39	1487.58	1487.58
22	0.929485	1143.9	8.43486	Subgrade	0	30	629.659	825.565	1429.92	0	1429.92	1523.29	1523.29
23	0.929503	1177.12	11.4979	Subgrade	0	30	598.514	784.73	1359.19	0	1359.19	1480.93	1480.93
24	0.929503	1247.99	11.4979	Subgrade	0	30	626.995	822.072	1423.88	0	1423.88	1551.42	1551.42
25	0.929503	1377.98	11.4979	Subgrade	0	30	683.634	896.333	1552.49	0	1552.49	1691.56	1691.56
26	1.39424	2387.01	17.2081	Subgrade	0	30	687.412	901.286	1561.08	0	1561.08	1773.97	1773.97
27	1.39424	2780.76	17.2081	Subgrade	0	30	789.693	1035.39	1793.35	0	1793.35	2037.92	2037.92
28	1.16127	2604.8	24.5364	Subgrade	0	30	757.777	993.544	1720.87	0	1720.87	2066.79	2066.79
29	1.16127	2854.2	24.5364	Subgrade	0	30	825.395	1082.2	1874.43	0	1874.43	2251.22	2251.22
30	0.465904	1215.21	24.5364	New Fill	100	30	955.901	1253.31	1997.59	0	1997.59	2433.95	2433.95
31	1.3942	3842.51	32.0426	New Fill	100	30	892.985	1170.82	1854.72	0	1854.72	2413.65	2413.65
32	1.3942	3826.14	32.0426	New Fill	100	30	947.625	1242.46	1978.8	0	1978.8	2571.92	2571.92
33	1.39419	3668.86	34.2333	New Fill	100	30	879.447	1153.07	1823.98	0	1823.98	2422.4	2422.4
34	1.39419	3505.25	34.2333	New Fill	100	30	848.939	1113.07	1754.69	0	1754.69	2332.35	2332.35
35	1.29068	3099.15	34.2333	New Fill	100	30	820.82	1076.2	1690.83	0	1690.83	2249.36	2249.36
36	1.29068	2958.93	34.2333	New Fill	100	30	794.781	1042.06	1631.7	0	1631.7	2172.51	2172.51
37	1.38879	3026.74	34.4032	New Fill	100	30	766.376	1004.82	1567.19	0	1567.19	2092	2092
38	1.38879	2863.39	34.4032	New Fill	100	30	874.841	1147.03	1813.51	0	1813.51	2412.6	2412.6
39	1.40444	2728.81	34.6418	New Fill	100	30	677.382	888.136	1365.09	0	1365.09	1833.12	1833.12
40	1.40444	2560.31	34.6418	New Fill	100	30	648.745	850.589	1300.06	0	1300.06	1748.3	1748.3
41	1.41021	2395.46	36.4874	New Fill	100	30	603.348	791.068	1196.96	0	1196.96	1643.21	1643.21
42	0.904406	1418.92	49.8192	New Fill	100	30	469.537	615.624	893.089	0	893.089	1449.09	1449.09
43	0.904406	1300.64	49.8192	New Fill	100	30	447.402	586.602	842.823	0	842.823	1372.61	1372.61
44	0.935182	1216.14	51.7231	New Fill	100	30	410.192	537.815	758.32	0	758.32	1278.14	1278.14
45	0.935182	1080.94	51.7231	New Fill	100	30	384.735	504.437	700.506	0	700.506	1188.07	1188.07
46	1.18884	1178.3	51.8912	New Fill	100	30	353.228	463.128	628.956	0	628.956	1079.3	1079.3
47	1.06448	848.183	57.5772	New Fill	100	30	286.455	375.58	477.318	0	477.318	928.302	928.302
48	1.06448	621.38	59.8201	New Fill	100	30	235.182	308.354	360.879	0	360.879	765.289	765.289
49	1.06448	384.711	59.8201	New Fill	100	30	189.751	248.788	257.708	0	257.708	583.996	583.996
50	1.0466	130.952	63.1046	New Fill	100	30	128.176	168.055	117.876	0	117.876	370.575	370.575

Interslice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.31113

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [deg]
1	102.774	260.798	0	0	0
2	103.816	260.349	37.7722	1.52381	2.31018
3	104.859	259.9	158.366	12.7568	4.60538
4	105.901	259.547	330.646	39.8429	6.87102
5	106.943	259.194	577.79	92.4778	9.09331
6	107.985	258.967	818.728	162.997	11.2596
7	109.028	258.74	1111.61	263.971	13.3584
8	110.42	258.499	1532.17	440.538	16.0413
9	111.813	258.258	2039.75	685.171	18.5677
10	113.199	258.109	2531.26	967.224	20.9124
11	114.585	257.959	3138.64	1337.41	23.0794
12	115.797	257.958	3568.56	1650.79	24.8249
13	117.01	257.956	4052.86	2014.4	26.4288
14	118.22	258.025	4473.49	2367.44	27.8885
15	119.429	258.093	4930.81	2756.67	29.2083
16	120.635	258.19	5370.45	3149.12	30.3865
17	121.841	258.286	5839.26	3568.53	31.4302
18	122.784	258.415	6125.87	3850.87	32.1545
19	123.727	258.544	6422.16	4138.71	32.7994
20	124.669	258.673	6727.68	4430.43	33.3664
21	125.599	258.811	7016.75	4706.23	33.8503
22	126.528	258.949	7312.73	4981.07	34.2608
23	127.458	259.086	7615.11	5253.04	34.5986
24	128.387	259.275	7826.16	5452.46	34.8648
25	129.317	259.465	8046.14	5646.51	35.0599
26	130.246	259.654	8284.7	5840.83	35.1844
27	131.641	260.085	8390.02	5927.16	35.2394
28	133.035	260.517	8508.11	5987.75	35.1367
29	134.196	261.047	8280.49	5783.06	34.9303
30	135.357	261.577	8031.28	5543.13	34.6132
31	135.823	261.79	7960.65	5461.91	34.4545
32	137.217	262.663	7298.98	4899.42	33.8714
33	138.612	263.535	6606.43	4310.44	33.1229
34	140.006	264.484	5827.03	3670.25	32.2054
35	141.4	265.433	5083.1	3068.13	31.1149
36	142.691	266.311	4425.12	2549.44	29.9475
37	143.981	267.189	3795.99	2071.78	28.6249
38	145.37	268.14	3142.87	1603.12	27.0253
39	146.759	269.091	6143.93	2896.41	25.2404
40	148.163	270.062	5565.98	2390.92	23.2464
41	149.568	271.032	5023.55	1934.8	21.064
42	150.978	272.075	4446.28	1503.99	18.6885
43	151.883	273.146	3808.06	1169.48	17.0721
44	152.787	274.217	3212.54	884.083	15.3868
45	153.722	275.402	2606.23	629.39	13.5767
46	154.657	276.587	2054.77	425.659	11.7037
47	155.846	278.103	1433.02	233.197	9.24279
48	156.911	279.779	874.41	106.993	6.97605
49	157.975	281.609	417.587	34.0643	4.66353
50	159.04	283.44	119.003	4.8208	2.31978
51	160.086	285.503	0	0	0

Entity Information

Water Table

X	Y
187.474	283.266
227.772	269.835
327.434	236.619

Distributed Load

X	Y
136.877	285.99
160.086	285.503

External Boundary

X	Y
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170.051	285.522
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164.044	283.525
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136.877	285.99
136.42	285.077
136.296	284.829
133.656	279.555
129.874	272
128.459	270
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111.026	261.872
104.405	260.999
100.389	260.505
97.6543	260.428
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-1.16415e-10	266.694
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327.434	200
327.434	232.619
327.434	236.619
327.434	292.184
327.434	300.376
327.434	303.571
310.859	302.5

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119.167	262.702
124.03	262.659
127.434	262.659
141.217	263.437
149.221	263.835
154.279	264.378
162.441	265.253
170.48	266.684
187.204	267.066
195.833	266.671
207.068	267.599
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219.104	269.235
227.772	269.835
232.742	270.179
244.597	272.857
248.558	274.049
254.401	276.602
259.524	279.071
268.069	283.189
278.873	289.039
285.459	292.512
293.959	296.85
298.846	298.895
302.446	296.562
306.008	292.872
308.463	292.195
315.155	292.146
319.507	292.276
322.276	292.423
325.501	292.274
327.434	292.184

Material Boundary

X	Y
179.982	285.763
179.982	281.763
218.016	269.087
327.434	232.619

Material Boundary

X	Y
187.474	283.266
189.835	283.794
199.685	286
234.935	294.797

Material Boundary

X	Y
187.474	283.266
227.772	269.835
327.434	236.619

Material Boundary

X	Y
179.982	281.763
187.474	283.266

Material Boundary

X	Y
110.463	261.577
136.795	261.577
141.217	263.437

Material Boundary

X	Y
136.795	261.577
144.097	261.577
149.221	263.835

Material Boundary

X	Y
144.097	261.577
151.502	261.577
154.279	264.378

Material Boundary

X	Y
104.405	260.999
105.8	260.999
107.434	261.201
110.463	261.577
111.026	261.872

Material Boundary

X	Y
136.42	285.077
148.677	285.077
162.418	284.337

Material Boundary

X	Y
167.164	284.082
170.606	283.897
171.571	283.954
179.982	285.763
188.252	287.541

Material Boundary

X	Y
245.655	296.295
282.016	298.11
327.434	300.376

Material Boundary

X	Y
188.519	283.59
189.835	283.794
234.935	290.797
280.237	297.839
282.016	298.11
310.859	302.5

Slide Analysis Information

Project Summary

Slide Modeler Version:	9.009
Compute Time:	00h:00m:11.600s

General Settings

Units of Measurement:

Time Units:

Permeability Units:

Data Output:

Failure Direction:

Imperial Units

days

feet/second

Standard

Right to Left

Analysis Options

Slices Type:	Vertical
Analysis Methods Used	
	GLE/Morgenstern-Price with interslice force function (Half Sine)
Number of slices:	50
Tolerance:	0.005
Maximum number of iterations:	75
Check malpha < 0.2:	Yes
Create Interslice boundaries at intersections with water tables and piezos:	Yes
Initial trial value of FS:	1
Steffensen Iteration:	Yes

Groundwater Analysis

Groundwater Method:	Water Surfaces
Pore Fluid Unit Weight [lbs/ft ³]:	62.4
Use negative pore pressure cutoff:	Yes
Maximum negative pore pressure [psf]:	0
Advanced Groundwater Method:	None

Random Numbers

Pseudo-random Seed:

10116

Random Number Generation Method:

Park and Miller v.3

Surface Options

Search Method:	Auto Refine Search
Divisions along slope:	20
Circles per division:	10
Number of iterations:	10
Divisions to use in next iteration:	50%
Number of vertices per surface:	12
Minimum Elevation:	Not Defined
Minimum Depth:	Not Defined
Minimum Area:	Not Defined
Minimum Weight:	Not Defined

Seismic Loading

Advanced seismic analysis:	No
Staged pseudostatic analysis:	No

Loading

1 Distributed Load present

Distributed Load 1

Distribution:	Constant
Magnitude [psf]:	250
Orientation:	Vertical

Materials

C&D Waste

Color	
Strength Type	Shear Normal function
Unit Weight [lbs/ft3]	60
Water Surface	None
Ru Value	0

Bottom Liner

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	118.5
Cohesion [psf]	67
Friction Angle [deg]	17.4
Water Surface	Water Table
Hu Value	Automatically Calculated

Subgrade

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	0
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Final Cover System

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	119.9
Cohesion [psf]	0
Friction Angle [deg]	27
Water Surface	None
Ru Value	0

New Fill

Color	
Strength Type	Mohr-Coulomb
Unit Weight [lbs/ft3]	120
Cohesion [psf]	100
Friction Angle [deg]	30
Water Surface	None
Ru Value	0

Shear Normal Functions

Name: C&D		
	Normal (psf)	Shear (psf)
0		0
2000		1400
10000		6169

Support

Type 1

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	1900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Type 2

Color	
Support Type	Geosynthetic
Force Application	Active
Force Orientation	Bisector of Parallel and Tangent
Anchorage	None
Shear Strength Model	Linear
Use External Loads for Strength	yes
Strip Coverage [percent]	100
Tensile Strength [lb/ft]	3900
Pullout Strength Adhesion [psf]	0
Pullout Strength Friction Angle [degrees]	21
Material Dependent	No

Global Minimums

Method: gle/morgenstern-price

FS	1.810170
Axis Location:	281.924, 370.359
Left Slip Surface Endpoint:	265.932, 252.700
Right Slip Surface Endpoint:	366.455, 286.970
Resisting Moment:	1.79393e+07 lb-ft
Driving Moment:	9.9103e+06 lb-ft
Resisting Horizontal Force:	130721 lb
Driving Horizontal Force:	72215 lb
Total Slice Area:	1996.8 ft2
Surface Horizontal Width:	100.524 ft
Surface Average Height:	19.864 ft

Global Minimum Coordinates

Method: gle/morgenstern-price

X	Y
265.932	252.7
269.171	249.301
273.016	247.125
276.861	245.2
280.684	244.142
284.506	243.084
288.585	241.999
292.688	241.594
297.112	242.131
301.497	243.473
305.896	245.352
310.295	247.231
314.694	248.959
319.093	250.688
323.491	252.329
327.89	253.921
332.296	257.68
336.702	261.388
340.124	264.149
343.546	266.891
346.992	269.542
350.463	272.199
354.162	275.744
357.86	279.251
360.009	281.256
362.158	283.186
364.307	285.078
366.455	286.97

Global Minimum Support Data

Method: gle/morgenstern-price

Number of Supports: 10						
Type 1						
Support Type: Geosynthetic						
Start (x, y)	Length (ft)	L Inside SS (ft)	L Outside SS (ft)	Li (ft)	Lo (ft)	Force (lb)
297.027, 272	20	Not Effective	Not Effective	Not Effective	Not Effective	0
298.535, 275	20	Not Effective	Not Effective	Not Effective	Not Effective	0
Type 2						
Support Type: Geosynthetic						
Start (x, y)	Length (ft)	L Inside SS (ft)	L Outside SS (ft)	Li (ft)	Lo (ft)	Force (lb)
295.519, 269	40	Not Effective	Not Effective	Not Effective	Not Effective	0
294.012, 266	40	Not Effective	Not Effective	Not Effective	Not Effective	0
292.504, 263	40	Not Effective	Not Effective	Not Effective	Not Effective	0
290.997, 260	40	Not Effective	Not Effective	Not Effective	Not Effective	0
289.489, 257	40	Not Effective	Not Effective	Not Effective	Not Effective	0
287.981, 254	40	Not Effective	Not Effective	Not Effective	Not Effective	0
Type 1						
Support Type: Geosynthetic						
Start (x, y)	Length (ft)	L Inside SS (ft)	L Outside SS (ft)	Li (ft)	Lo (ft)	Force (lb)
300.042, 278	20	Not Effective	Not Effective	Not Effective	Not Effective	0
301.55, 281	20	Not Effective	Not Effective	Not Effective	Not Effective	0

Valid and Invalid Surfaces

Method: gle/morgenstern-price

Number of Valid Surfaces:	3706
Number of Invalid Surfaces:	15311

Error Codes

Error Code -105 reported for 2544 surfaces
Error Code -108 reported for 8 surfaces
Error Code -110 reported for 190 surfaces
Error Code -111 reported for 144 surfaces
Error Code -113 reported for 12411 surfaces
Error Code -123 reported for 14 surfaces

Error Code Descriptions

The following errors were encountered during the computation:

- 105 = More than two surface / slope intersections with no valid slip surface.
- 108 = Total driving moment or total driving force < 0.1. This is to limit the calculation of extremely high safety factors if the driving force is very small (0.1 is an arbitrary number).
- 110 = The water table or a piezoline does not span the slip region for a given slip surface, when Water Surfaces is specified as the method of pore pressure calculation. If this error occurs, check that the water table or piezoline(s) span the appropriate soil cells.
- 111 = safety factor equation did not converge
- 113 = Surface intersects outside slope limits.
- 123 = Surface radius equal or less than the internal cutoff of 0.01.

Slice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.81017

Slice Number	Width [ft]	Weight [lbs]	Angle of Slice Base [deg]	Base Material	Base Cohesion [psf]	Base Friction Angle [deg]	Shear Stress [psf]	Shear Strength [psf]	Base Normal Stress [psf]	Pore Pressure [psf]	Effective Normal Stress [psf]	Base Vertical Stress [psf]	Effective Vertical Stress [psf]
1	1.61949	154.504	-46.3832	Subgrade	0	30	47.6917	86.3301	149.528	0	149.528	99.4763	99.4763
2	1.61949	487.696	-46.3832	Subgrade	0	30	159.356	288.462	499.631	0	499.631	332.389	332.389
3	1.92264	975.876	-29.5103	Subgrade	0	30	219.346	397.054	687.716	0	687.716	563.564	563.564
4	1.92264	1311.41	-29.5103	Subgrade	0	30	306.312	554.476	960.378	0	960.378	787.003	787.003
5	1.92264	1632.41	-26.588	Subgrade	0	30	382.143	691.744	1198.13	0	1198.13	1006.87	1006.87
6	1.92264	1938.88	-26.588	Subgrade	0	30	470.424	851.548	1474.92	0	1474.92	1239.48	1239.48
7	1.9112	2182.04	-15.4705	Subgrade	0	30	481.655	871.877	1510.13	0	1510.13	1376.83	1376.83
8	1.9112	2386.81	-15.4705	Subgrade	0	30	538.189	974.214	1687.39	0	1687.39	1538.43	1538.43
9	1.9112	2591.58	-15.4705	Subgrade	0	30	596.546	1079.85	1870.35	0	1870.35	1705.25	1705.25
10	1.9112	2767.07	-15.4705	Subgrade	0	30	650.315	1177.18	2038.93	0	2038.93	1858.94	1858.94
11	2.03947	3054.35	-14.8992	Subgrade	0	30	683.168	1236.65	2141.93	0	2141.93	1960.16	1960.16
12	2.03947	3153.48	-14.8992	Subgrade	0	30	720.595	1304.4	2259.29	0	2259.29	2067.56	2067.56
13	2.05145	3777.39	-5.63859	Subgrade	0	30	761.713	1378.83	2388.21	0	2388.21	2313.01	2313.01
14	2.05145	4832.17	-5.63859	Subgrade	0	30	964.07	1745.13	3022.65	0	3022.65	2927.46	2927.46
15	2.21201	6327.58	6.92594	Subgrade	0	30	1001.55	1812.98	3140.17	0	3140.17	3261.83	3261.83
16	2.21201	7424.64	6.92594	Subgrade	0	30	1164.61	2108.14	3651.41	0	3651.41	3792.87	3792.87
17	2.19237	8387.98	17.0125	Subgrade	0	30	1172.48	2122.39	3676.09	0	3676.09	4034.83	4034.83
18	2.19237	9359.23	17.0125	Subgrade	0	30	1295.87	2345.75	4062.95	0	4062.95	4459.45	4459.45
19	2.19967	10282.4	23.1254	Subgrade	0	30	1328.71	2405.2	4165.92	0	4165.92	4733.37	4733.37
20	2.19967	10320.5	23.1254	Subgrade	0	30	1372.93	2485.23	4304.56	0	4304.56	4890.88	4890.88
21	2.19967	10066.1	23.1254	Subgrade	0	30	1333.45	2413.77	4180.77	0	4180.77	4750.23	4750.23
22	2.19967	9811.66	23.1254	Subgrade	0	30	1294.59	2343.42	4058.92	0	4058.92	4611.78	4611.78
23	2.1994	9565.98	21.4542	Subgrade	0	30	1283.91	2324.09	4025.44	0	4025.44	4530	4530
24	2.1994	9331.41	21.4542	Subgrade	0	30	1248.14	2259.34	3913.28	0	3913.28	4403.79	4403.79
25	2.1994	9096.84	21.4542	Subgrade	0	30	1212.79	2195.35	3802.47	0	3802.47	4279.08	4279.08
26	2.1994	8862.28	21.4542	Subgrade	0	30	1177.87	2132.15	3693	0	3693	4155.89	4155.89
27	2.19924	8632.84	20.4659	Subgrade	0	30	1158.16	2096.46	3631.17	0	3631.17	4063.4	4063.4
28	2.19924	8409.79	20.4659	Subgrade	0	30	1124.95	2036.35	3527.06	0	3527.06	3946.9	3946.9
29	2.35743	8770.77	19.8972	Subgrade	0	30	1098.9	1989.2	3445.4	0	3445.4	3843.14	3843.14
30	2.04102	7327.1	19.8972	New Fill	100	30	1061.45	1921.4	3154.77	0	3154.77	3538.95	3538.95
31	4.40597	13911.5	40.4634	New Fill	100	30	716.043	1296.16	2071.81	0	2071.81	2682.58	2682.58
32	2.20297	6235.11	40.0884	New Fill	100	30	651.408	1179.16	1869.16	0	1869.16	2417.47	2417.47
33	2.20297	6027.41	40.0884	New Fill	100	30	634.051	1147.74	1814.73	0	1814.73	2348.43	2348.43
34	1.7111	4428.89	38.897	New Fill	100	30	613.859	1111.19	1751.44	0	1751.44	2246.71	2246.71
35	1.7111	4143.03	38.897	New Fill	100	30	579.299	1048.63	1643.07	0	1643.07	2110.46	2110.46
36	1.71109	3861.19	38.6953	New Fill	100	30	546.553	989.354	1540.4	0	1540.4	1978.2	1978.2
37	1.71109	3613.85	38.6953	New Fill	100	30	516.959	935.784	1447.62	0	1447.62	1861.72	1861.72
38	1.72298	3407.49	37.5753	New Fill	100	30	495.757	897.405	1381.15	0	1381.15	1762.59	1762.59
39	1.72298	3180.78	37.5753	New Fill	100	30	468.38	847.848	1295.31	0	1295.31	1655.69	1655.69
40	1.73556	2975.4	37.437	New Fill	100	30	441.45	799.099	1210.87	0	1210.87	1548.84	1548.84
41	1.73556	2746.66	37.437	New Fill	100	30	413.573	748.638	1123.47	0	1123.47	1440.1	1440.1
42	1.84928	2635.34	43.7866	New Fill	100	30	355.338	643.222	940.887	0	940.887	1281.48	1281.48
43	1.84928	2296.47	43.7866	New Fill	100	30	318.451	576.451	825.237	0	825.237	1130.48	1130.48
44	1.84927	1959.75	43.4712	New Fill	100	30	281.869	510.231	710.54	0	710.54	977.755	977.755
45	1.84927	1625.19	43.4712	New Fill	100	30	243.511	440.797	590.278	0	590.278	821.129	821.129
46	0.658605	498.398	43.0143	New Fill	100	30	218.026	394.665	510.376	0	510.376	713.791	713.791
47	1.49021	974.111	43.0143	Final Cover System	0	27	136.58	247.233	485.223	0	485.223	612.65	612.65
48	2.14879	1039.28	41.9323	Final Cover System	0	27	103.594	187.523	368.036	0	368.036	461.091	461.091
49	2.14879	620.615	41.3639	Final Cover System	0	27	63.2797	114.547	224.811	0	224.811	280.528	280.528
50	2.14879	206.872	41.3639	Final Cover System	0	27	21.4455	38.82	76.1885	0	76.1885	95.0713	95.0713

Interslice Data

Global Minimum Query (gle/morgenstern-price) - Safety Factor: 1.81017

Slice Number	X coordinate [ft]	Y coordinate - Bottom [ft]	Interslice Normal Force [lbs]	Interslice Shear Force [lbs]	Interslice Force Angle [deg]
1	265.932	252.7	0	0	0
2	267.551	251.001	331.379	6.59611	1.14032
3	269.171	249.301	1438.64	57.1991	2.27683
4	271.093	248.213	2608.77	164.857	3.61591
5	273.016	247.125	4242.82	366.578	4.93807
6	274.938	246.162	6130.49	670.025	6.23732
7	276.861	245.2	8454.24	1114.22	7.50798
8	278.772	244.671	10173.6	1563.56	8.73731
9	280.684	244.142	12094.7	2117	9.92821
10	282.595	243.613	14224.2	2784.49	11.076
11	284.506	243.084	16545.6	3570.24	12.1767
12	286.545	242.542	19101.2	4513.59	13.2951
13	288.585	241.999	21796.8	5576.85	14.3516
14	290.636	241.797	23843.1	6544.49	15.3486
15	292.688	241.594	26433.1	7717.87	16.2766
16	294.9	241.863	27804.8	8605.5	17.1971
17	297.112	242.131	29399.8	9570.76	18.0321
18	299.304	242.802	29504.4	10028.6	18.773
19	301.497	243.473	29620	10446.2	19.4264
20	303.696	244.412	28629.3	10415.9	19.9924
21	305.896	245.352	27605.6	10303.8	20.4681
22	308.096	246.291	26611.4	10136.8	20.8528
23	310.295	247.231	25646.2	9919.55	21.1457
24	312.495	248.095	24990.7	9766.97	21.3468
25	314.694	248.959	24353.4	9571.35	21.4558
26	316.893	249.824	23734.2	9336.02	21.4726
27	319.093	250.688	23132.9	9064.31	21.397
28	321.292	251.509	22699.6	8818.03	21.2295
29	323.491	252.329	22278.7	8538.58	20.9699
30	325.849	253.183	21929.5	8238.36	20.5899
31	327.89	253.921	21765.5	7997.86	20.1762
32	332.296	257.68	17134.1	5905.68	19.0177
33	334.499	259.534	15103.1	4996.19	18.3045
34	336.702	261.388	13134.8	4142.3	17.5036
35	338.413	262.769	11767.3	3557.75	16.8223
36	340.124	264.149	10490.2	3025.93	16.0904
37	341.835	265.52	9314.13	2549.63	15.309
38	343.546	266.891	8214.57	2121.34	14.4798
39	345.269	268.216	7237.78	1750.75	13.5981
40	346.992	269.542	6327.61	1422.69	12.6716
41	348.728	270.871	5484.87	1135.39	11.6953
42	350.463	272.199	4709.88	888.093	10.6783
43	352.312	273.972	3699.22	622.572	9.55325
44	354.162	275.744	2825.34	416.667	8.38922
45	356.011	277.498	2100.93	265.051	7.19039
46	357.86	279.251	1516.42	158.347	5.96131
47	358.519	279.865	1346.4	130.052	5.51722
48	360.009	281.256	875.311	68.914	4.50166
49	362.158	283.186	387.538	20.4176	3.01586
50	364.307	285.078	98.1689	2.59187	1.51238
51	366.455	286.97	0	0	0

Entity Information

Water Table

X	Y
365.835	281.44
409.442	267.038
684.38	176.23

Distributed Load

X	Y
303.057	284
326.395	283.741

External Boundary