

**Part III
Attachment III-D
Appendix III-D.3**

LANDFILL DESIGN AND DETAILS

**Pescadito Environmental Resource Center
MSW No. 2374
Webb County, Texas**

PESCADITO
ENVIRONMENTAL RESOURCE CENTER

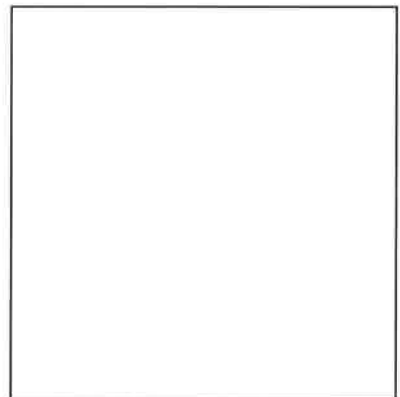
**Initial Submittal March 2015
Revised September 2015
Revised August 2016**

**Prepared for:
Rancho Viejo Waste Management, LLC
1116 Calle del Norte
Laredo, TX 78041**

**Prepared by:
CB&I Environmental and
Infrastructure, Inc.**



**12005 Ford Rd, Suite 600
Dallas, TX 75234**



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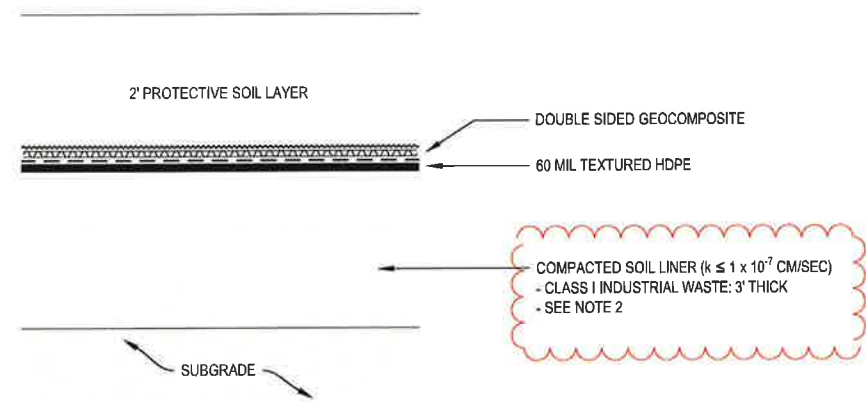
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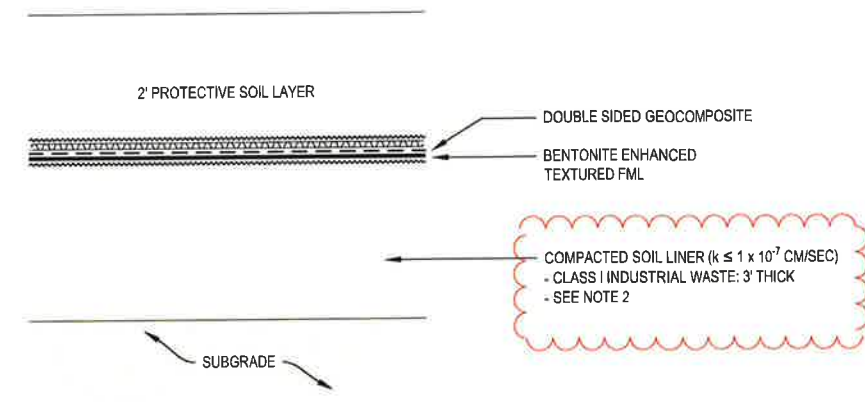
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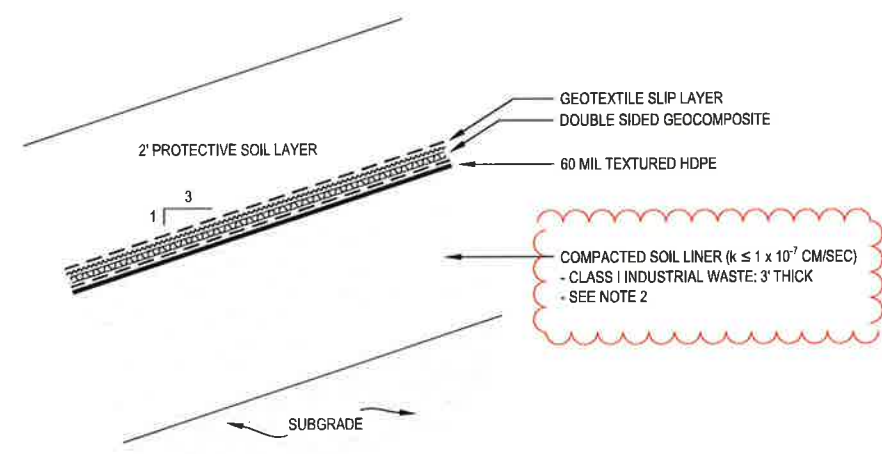
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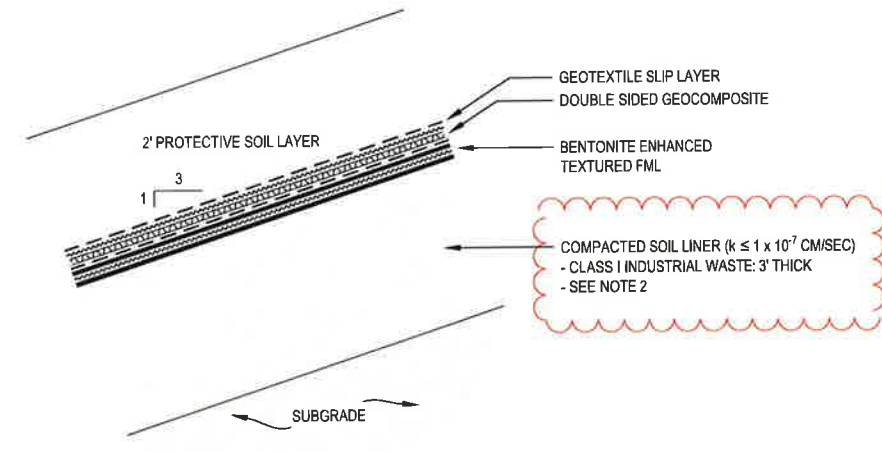
1
D.3-2
BOTTOM LINER DETAIL OPTION 2
SCALE: 1"=3'



2
D.3-2
BOTTOM LINER DETAIL OPTION 1
SCALE: 1"=3'



3
D.3-2
SIDEWALL DETAIL OPTION 2
SCALE: 1"=3'



4
D.3-2
SIDEWALL DETAIL OPTION 1
SCALE: 1"=3'

- NOTES:**
1. GEOSYNTHETIC MATERIALS SHOWN WITH EXAGGERATED THICKNESS FOR CLARITY.
 2. IF PERMIT IS MODIFIED TO SPECIFY CELLS TO NOT RECEIVE CLASS I INDUSTRIAL WASTE, THE COMPACTED SOIL LINER THICKNESS WILL BE 2-FEET.

LINE AND SHADING LEGEND

GEOTEXTILE (WOVEN)		DOUBLE SIDED GEOCOMPOSITE	
GEONET			
GEOTEXTILE (NON-WOVEN)			
	GEOMEMBRANE		PLYWOOD
	GEOSYNTHETIC CLAY LINER		BENTONITE ENHANCED FML
	TOPSOIL		NATIVE SOIL
	GENERAL FILL		CONCRETE
	SELECT GRANULAR FILL		RIPRAP
	SOIL BARRIER LAYER FILL		BITUMINOUS PAVING
	SELECT AGGREGATE FILL		GRAVEL
	COMPACTED SOIL		AGGREGATE BASE COURSE

REV. NO.	DATE	DESCRIPTION
1	8/2016	REVISED LINER DETAILS; ADDED NOTE 2

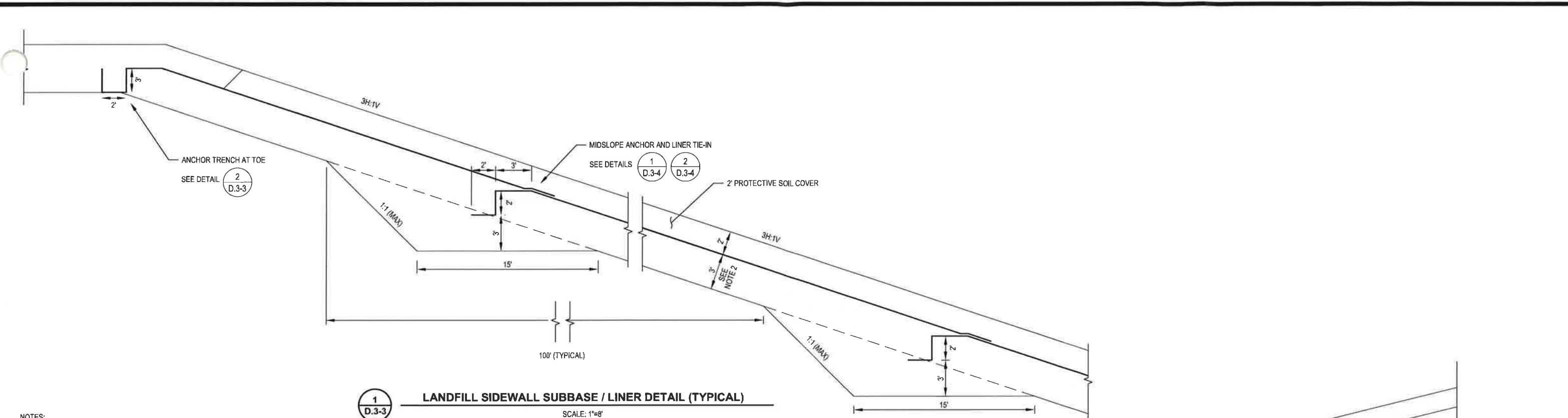
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WEBB COUNTY, TEXAS
MSW 2374**

LINER DETAILS

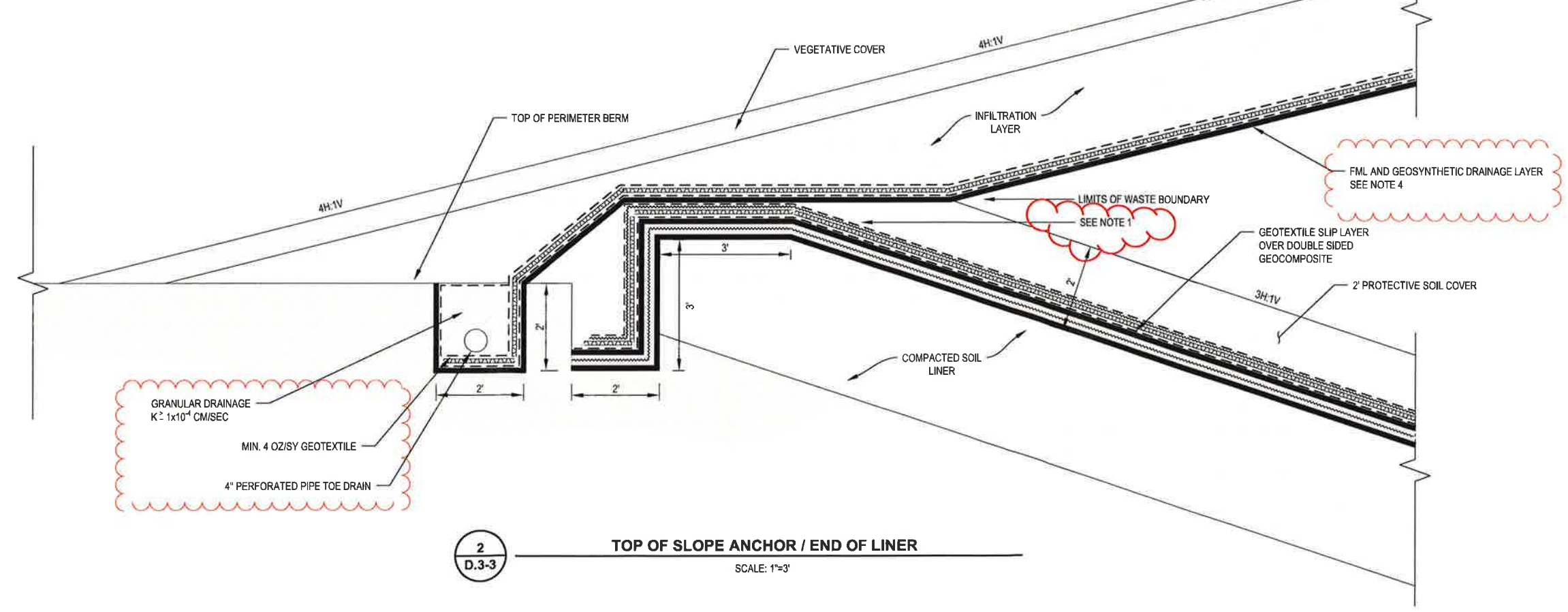
PROJ. NO.: 148866	DATE: APRIL 2015
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CHECKED BY: RDS	2 OF 11 SHEETS
APPROVED BY: MWO	



- NOTES:**
1. GEOSYNTHETIC MATERIALS SHOWN WITH EXAGGERATED THICKNESS FOR CLARITY.
 2. 3' THICK COMPACTED SOIL LINER SHOWN FOR CELLS TO RECEIVE CLASS I INDUSTRIAL WASTES. CELLS TO RECEIVE MUNICIPAL SOLID WASTE ONLY MAY HAVE 2' THICK COMPACTED SOIL LINER.
 3. LINER AND PROTECTIVE COVER THICKNESS MEASURED PERPENDICULAR TO SLOPE.
 4. FINAL COVER SYSTEM IS DESCRIBED IN APPENDIX III-D.8. IF CLASS I INDUSTRIAL WASTE IS PLACED IN THE CELL, A FML AND DRAINAGE LAYER WILL BE INCLUDED IN THE FINAL COVER SYSTEM OVER THE CELL.

LINE AND SHADING LEGEND

GEOTEXTILE (WOVEN)	DOUBLE SIDED GEOCOMPOSITE
GEONET	
GEOTEXTILE (NON-WOVEN)	
GEOTEXTILE (NON-WOVEN)	FINAL COVER
GEONET	DOUBLE SIDED GEOCOMPOSITE
GEOTEXTILE (NON-WOVEN)	
GEOMEMBRANE	PLYWOOD
GEOSYNTHETIC CLAY LINER	BENTONITE ENHANCED FML
TOPSOIL	NATIVE SOIL
GENERAL FILL	CONCRETE
SELECT GRANULAR FILL	RIPRAP
SOIL BARRIER LAYER FILL	BITUMINOUS PAVING
SELECT AGGREGATE FILL	GRAVEL
COMPACTED SOIL	AGGREGATE BASE COURSE



REV. NO.	DATE	DESCRIPTION
1	8/2016	ADDED TOE DRAIN; NOTE 4

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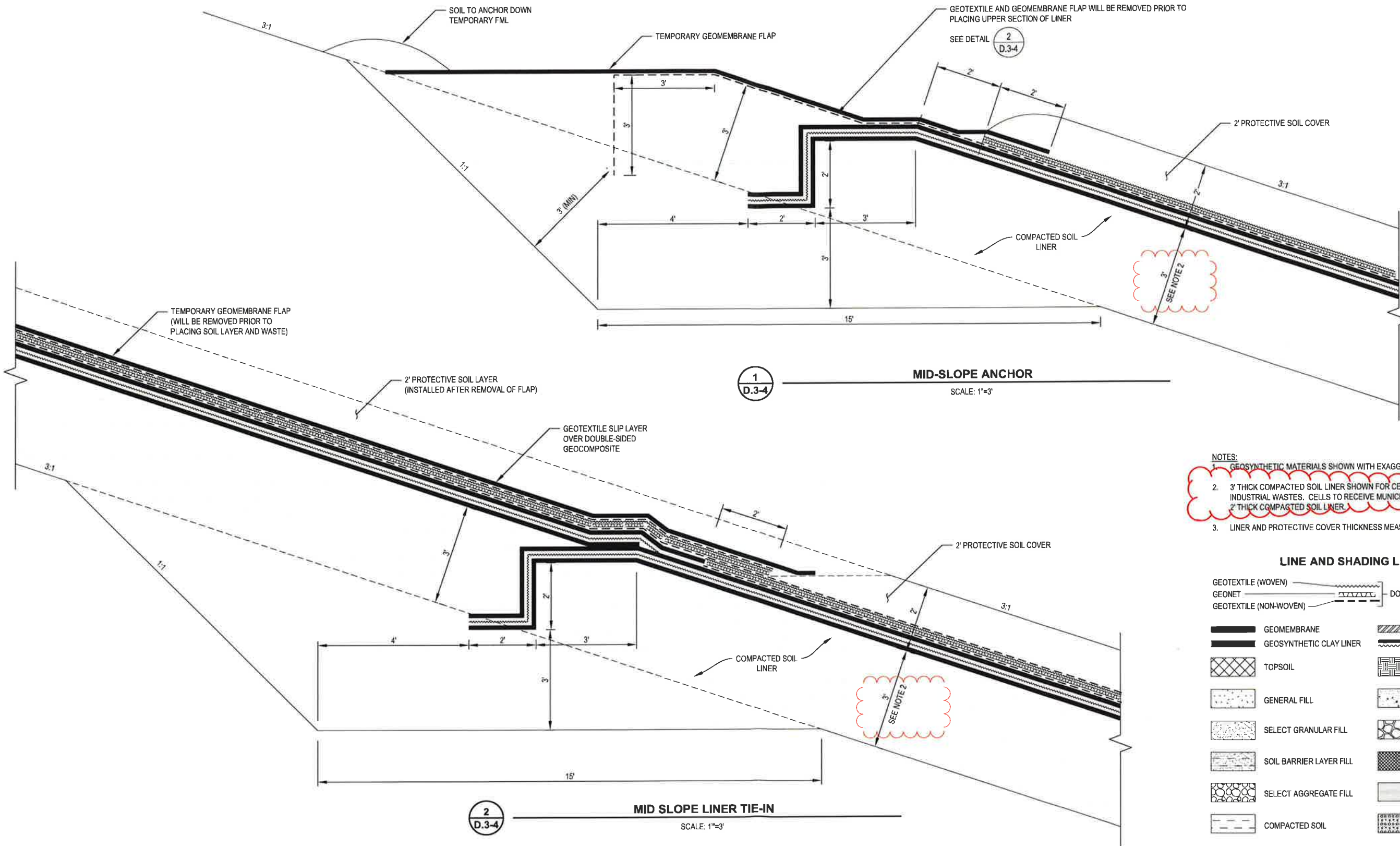
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LINER AND FINAL COVER DETAILS

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1
D.3-4

MID-SLOPE ANCHOR

SCALE: 1"=3'

2
D.3-4

MID SLOPE LINER TIE-IN

SCALE: 1"=3'

- NOTES:
1. GEOSYNTHETIC MATERIALS SHOWN WITH EXAGGERATED THICKNESS FOR CLARITY.
 2. 3' THICK COMPACTED SOIL LINER SHOWN FOR CELLS TO RECEIVE CLASS I INDUSTRIAL WASTES. CELLS TO RECEIVE MUNICIPAL SOLID WASTE ONLY MAY HAVE 2' THICK COMPACTED SOIL LINER.
 3. LINER AND PROTECTIVE COVER THICKNESS MEASURED PERPENDICULAR TO SLOPE.

LINE AND SHADING LEGEND

GEOTEXTILE (WOVEN)		DOUBLE SIDED GEOCOMPOSITE	
GEONET			
GEOTEXTILE (NON-WOVEN)			
	GEOMEMBRANE		PLYWOOD
	GEOSYNTHETIC CLAY LINER		BENTONITE ENHANCED FML
	TOPSOIL		NATIVE SOIL
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	SELECT GRANULAR FILL		RIPRAP
	SOIL BARRIER LAYER FILL		BITUMINOUS PAVING
	SELECT AGGREGATE FILL		GRAVEL
	COMPACTED SOIL		AGGREGATE BASE COURSE

REV. NO.	DATE	DESCRIPTION
1	8/2016	ADDED NOTE CALLOUT

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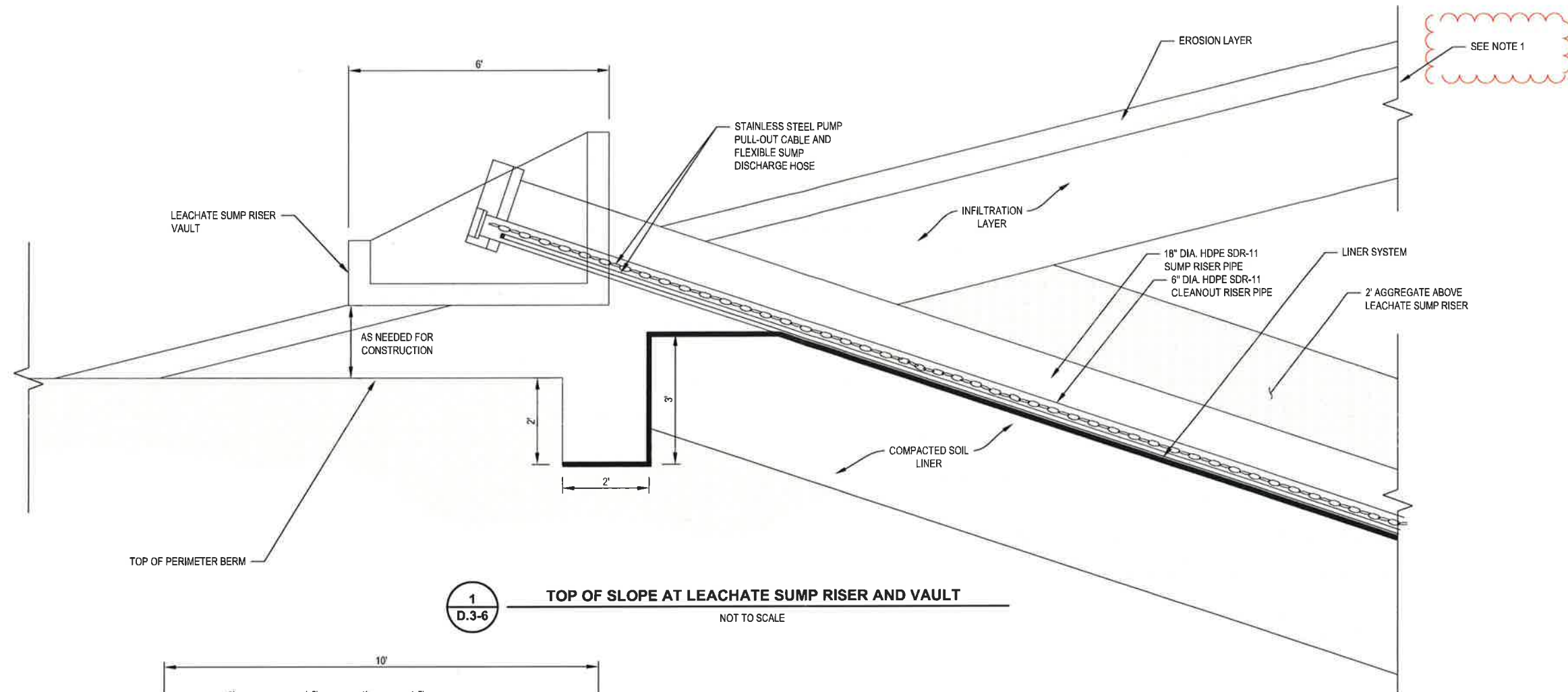


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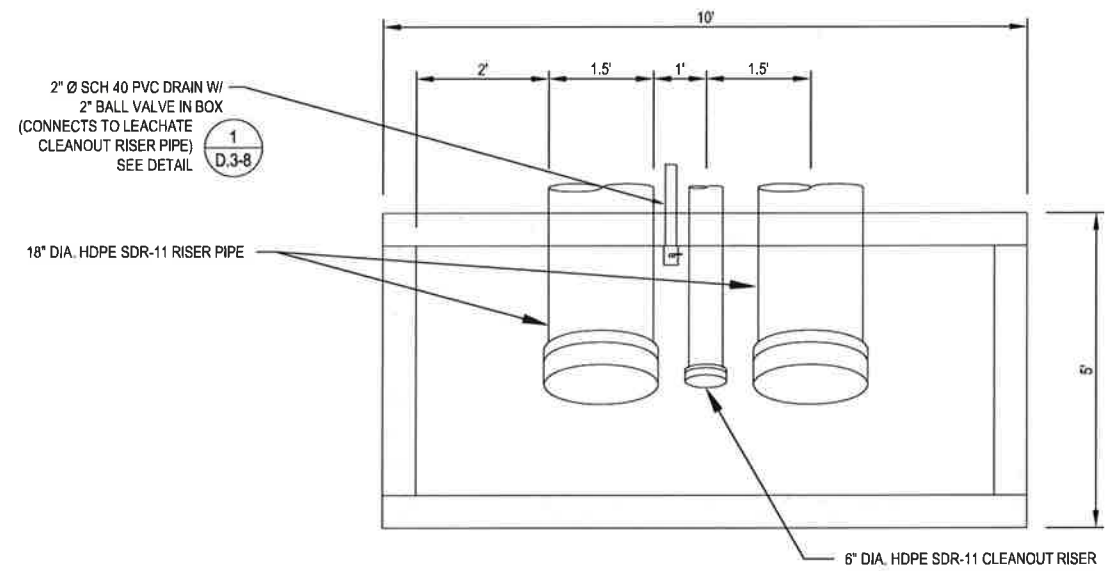
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LINER DETAILS

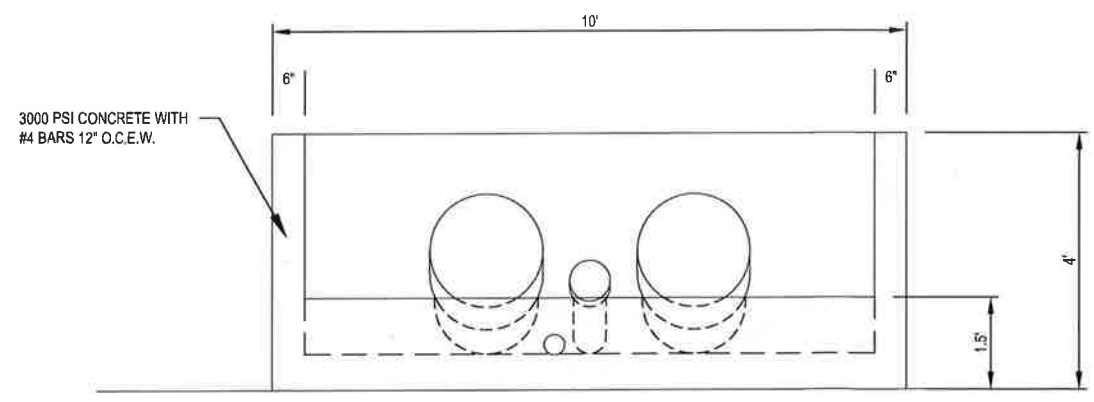
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1
D.3-6
TOP OF SLOPE AT LEACHATE SUMP RISER AND VAULT
NOT TO SCALE



2
D.3-6
RISER VAULT PLAN
NOT TO SCALE



3
D.3-6
RISER VAULT SECTION
NOT TO SCALE

NOTES:
1. FINAL COVER SYSTEM IS DESCRIBED IN APPENDIX III-D & IF CLASS I INDUSTRIAL WASTE IS PLACED IN THE CELL, A FML AND DRAINAGE LAYER WILL BE INCLUDED IN THE FINAL COVER SYSTEM OVER THE CELL.

REV. NO.	DATE	DESCRIPTION
1	8/2016	ADDED NOTE 1

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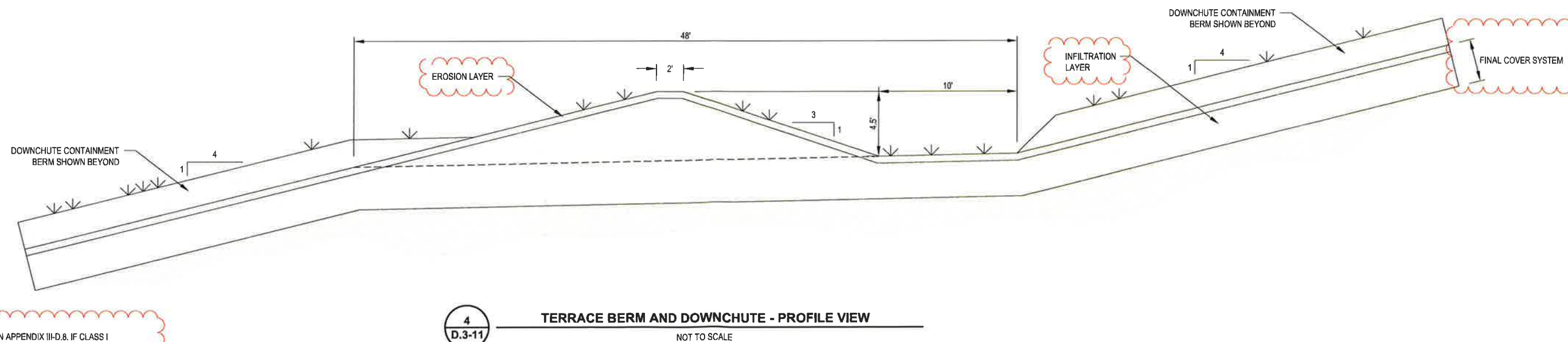
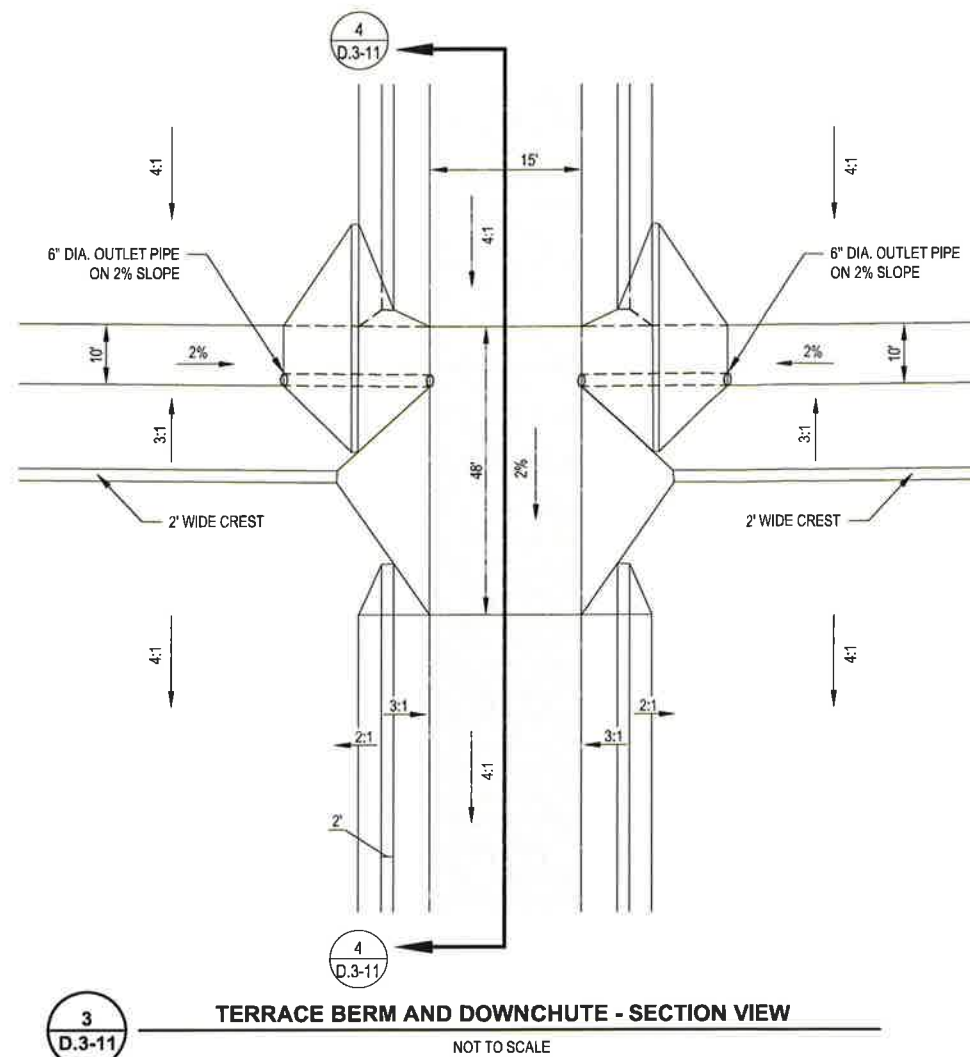
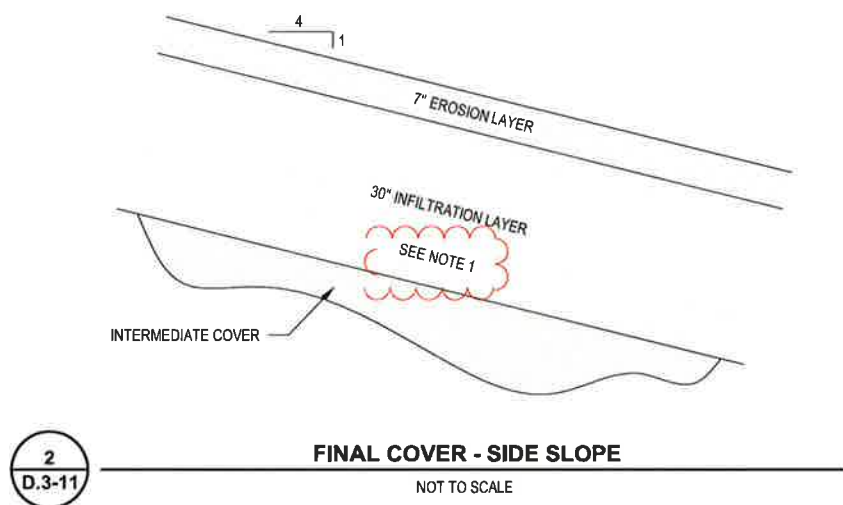
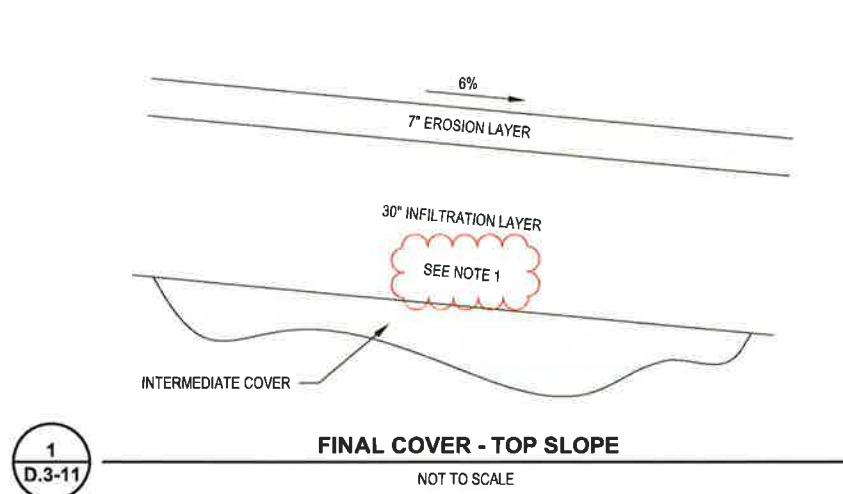
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LEACHATE COLLECTION DETAILS

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NOTES:
1. FINAL COVER SYSTEM IS DESCRIBED IN APPENDIX III-D.8. IF CLASS I INDUSTRIAL WASTE IS PLACED IN THE CELL, A FML AND DRAINAGE LAYER WILL BE INCLUDED IN THE FINAL COVER SYSTEM OVER THE CELL.

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1	8/2016	REVISED CALL OUTS; ADDED NOTE 1

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FINAL COVER DETAILS

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