

WASTE

2'

3 1

LINER PROTECTIVE LAYER

6" PREPARED SUBBASE

PRIMARY GEOCOMPOSITE DRAINAGE LAYER

PRIMARY 60-mil HDPE TEXTURED GEOMEMBRANE

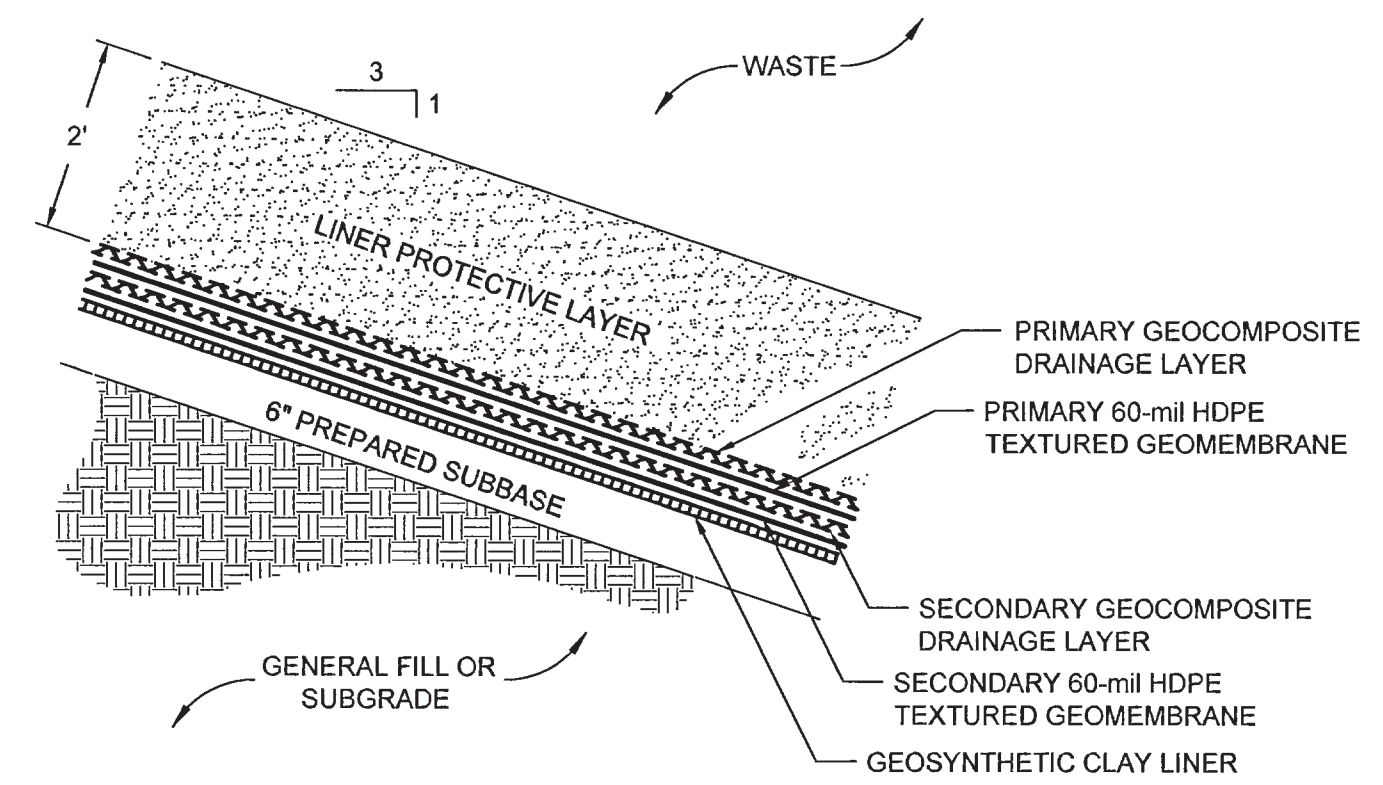
SUBGRADE OR GENERAL FILL

SECONDARY GEOCOMPOSITE DRAINAGE LAYER

SECONDARY 60-mil HDPE TEXTURED GEOMEMBRANE

GEOSYNTHETIC CLAY LINER

1
11 DETAIL (TYPICAL)
LINER SYSTEM AT BASE
SCALE: 1" = 2'
XREF: FL1962.02P160



WASTE

2'

3 1

LINER PROTECTIVE LAYER

6" PREPARED SUBBASE

PRIMARY GEOCOMPOSITE DRAINAGE LAYER

PRIMARY 60-mil HDPE TEXTURED GEOMEMBRANE

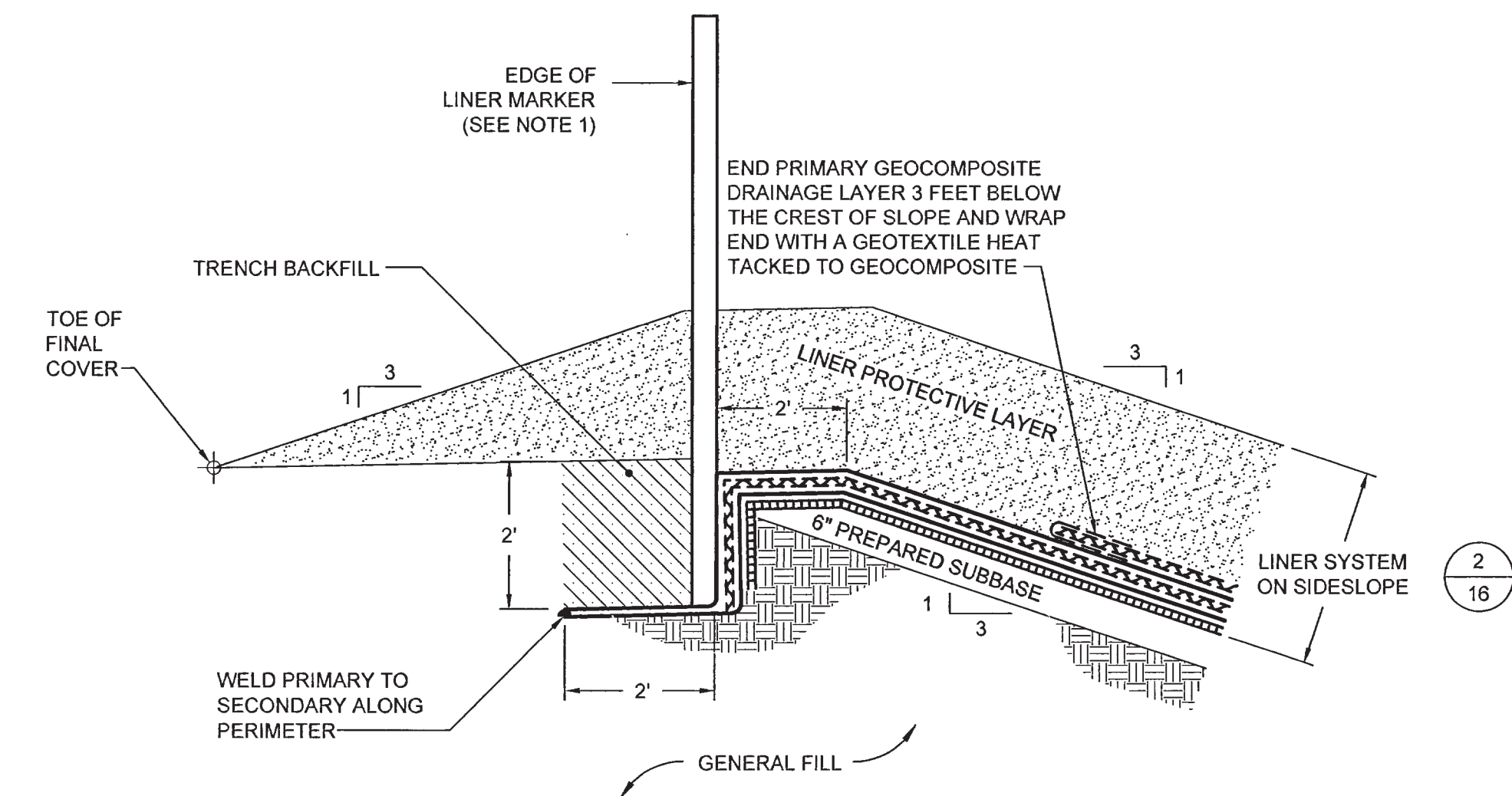
GENERAL FILL OR SUBGRADE

SECONDARY GEOCOMPOSITE DRAINAGE LAYER

SECONDARY 60-mil HDPE TEXTURED GEOMEMBRANE

GEOSYNTHETIC CLAY LINER

2
11 DETAIL (TYPICAL)
LINER SYSTEM ON SIDESLOPE
SCALE: 1" = 2'
XREF: FL1962.02P160



EDGE OF LINER MARKER (SEE NOTE 1)

END PRIMARY GEOCOMPOSITE DRAINAGE LAYER 3 FEET BELOW THE CREST OF SLOPE AND WRAP END WITH A GEOTEXTILE HEAT TACKED TO GEOCOMPOSITE

3 1

LINER PROTECTIVE LAYER

6" PREPARED SUBBASE

1 3

2

1 3

LINER SYSTEM ON SIDESLOPE

2

1 3

2

1 3

GENERAL FILL

WELD PRIMARY TO SECONDARY ALONG PERIMETER

TOE OF FINAL COVER

TRENCH BACKFILL

3
11 DETAIL (TYPICAL)
ANCHOR TRENCH AT CREST OF PERIMETER BERM
SCALE: 1" = 2'
XREF: FL1962.02P160

- NOTES:
1. THE EDGE OF LINER SHALL BE MARKED AT 200' (MINIMUM) INTERVALS AS SHOWN ON SHEET 4. THE MARKERS SHALL BE 4"x4"x8' PRESSURE-TREATED TIMBER POST AND SHALL BE PAINTED YELLOW.
 2. LINER SYSTEM ANCHOR TRENCH SHALL HAVE ROUNDED CORNERS.

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- NOTES:
1. DETAILS ARE SHOWN TO SCALE AS NOTED EXCEPT FOR THE GEOSYNTHETICS WHICH ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.

REV	DATE	DESCRIPTION	JWO	VMD
0	NOV 2011	ISSUED FOR FDEP APPROVAL	JWO	VMD

Geosyntec
consultants

13101 TELECOM DRIVE, SUITE 120
TEMPLE TERRACE, FLORIDA 33637 USA
PH: 813.558.0990 - FX: 813.558.9726
AUTHORIZATION NUMBER: 4321

WSI
Waste Services, Inc.

1501 OMNI WAY
ST. CLOUD, FLORIDA 34773
TEL: 407-891-3720 FAX: 407-891-3730

TITLE: LINER SYSTEM DETAILS II - CELLS 8 THROUGH 13

PROJECT: SOLID WASTE RENEWAL PERMIT

SITE: E.D. SOLID WASTE MANAGEMENT FACILITY

VICTOR M. DAMASCENO
No. 72968
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DESIGN BY: VMD/JDQ DATE: NOVEMBER 2011

DRAWN BY: JWO/CMV PROJECT NO.: FL1962.02

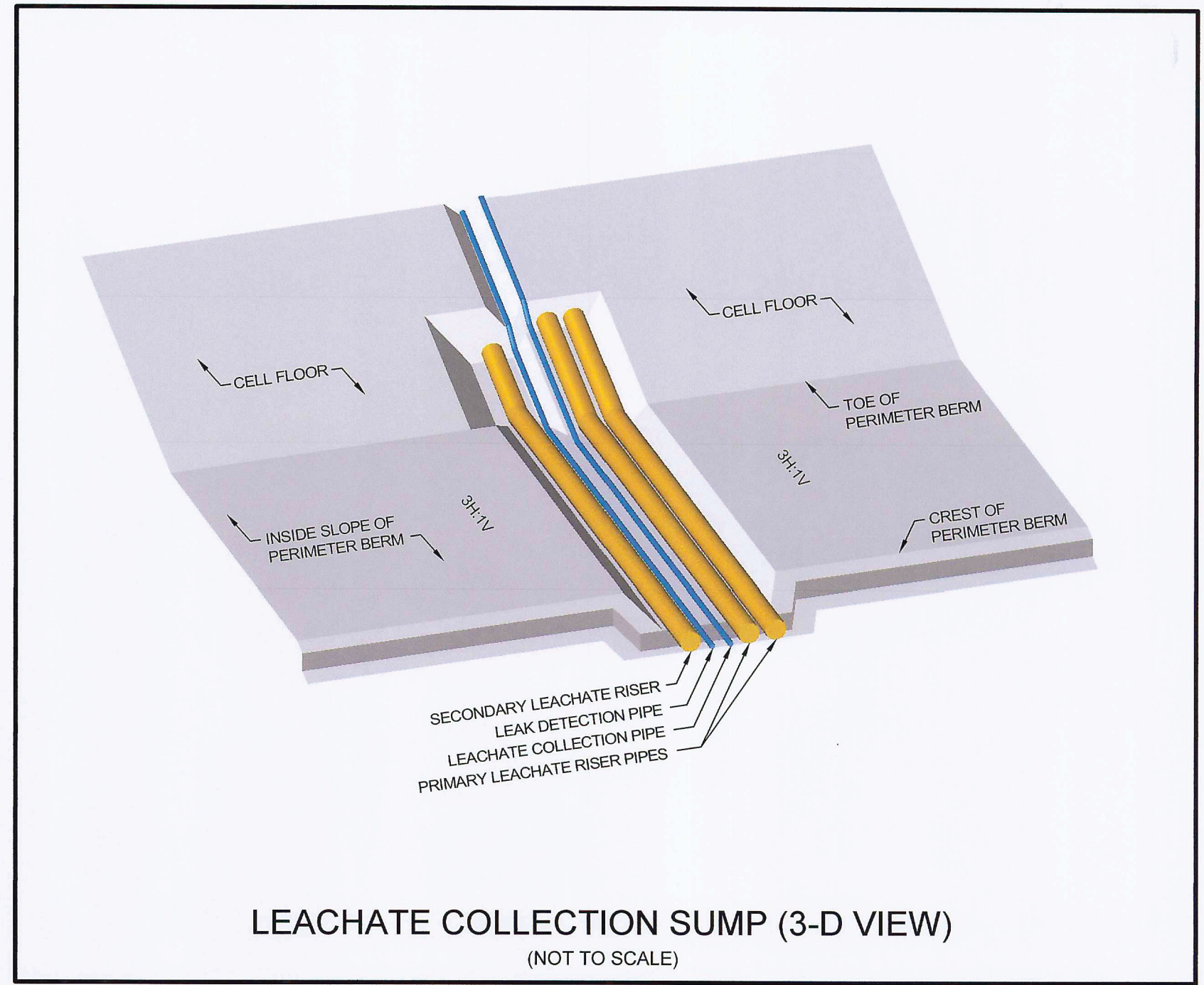
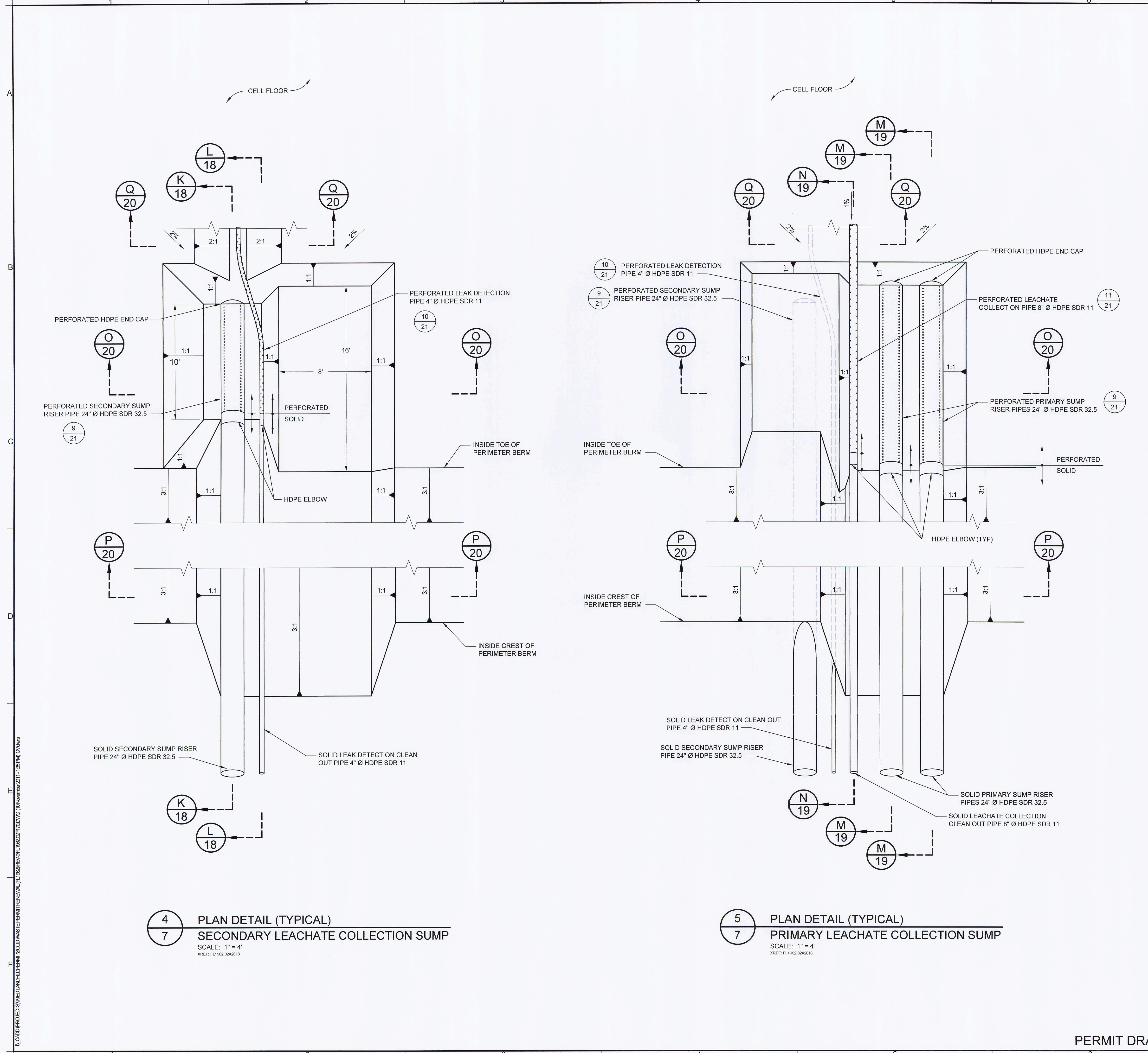
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REVIEWED BY: JDQ DRAWING NO.:

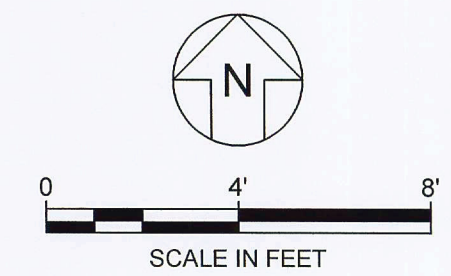
APPROVED BY: VMD 16 OF 45

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LEACHATE COLLECTION SUMP (3-D VIEW)
(NOT TO SCALE)



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NOTES:

1. ALL SUMP RISERS SHALL BE PROVIDED WITH SEALABLE BLIND FLANGES AS APPROVED BY THE ENGINEER. ALL FLANGES FOR ALL PIPE SIZES SHALL HAVE RED RUBBER GASKETS. THE NUTS, BOLTS, AND WASHERS USED TO SECURE THE BLIND FLANGES SHALL BE ZINC PLATED.
2. ALL PIPE PENETRATIONS THROUGH LINER SYSTEM SHALL BE DOUBLE BANDED WITH NON-ADJUSTABLE STAINLESS STEEL CLAMPS (SEE SHEET 21 FOR DETAIL).

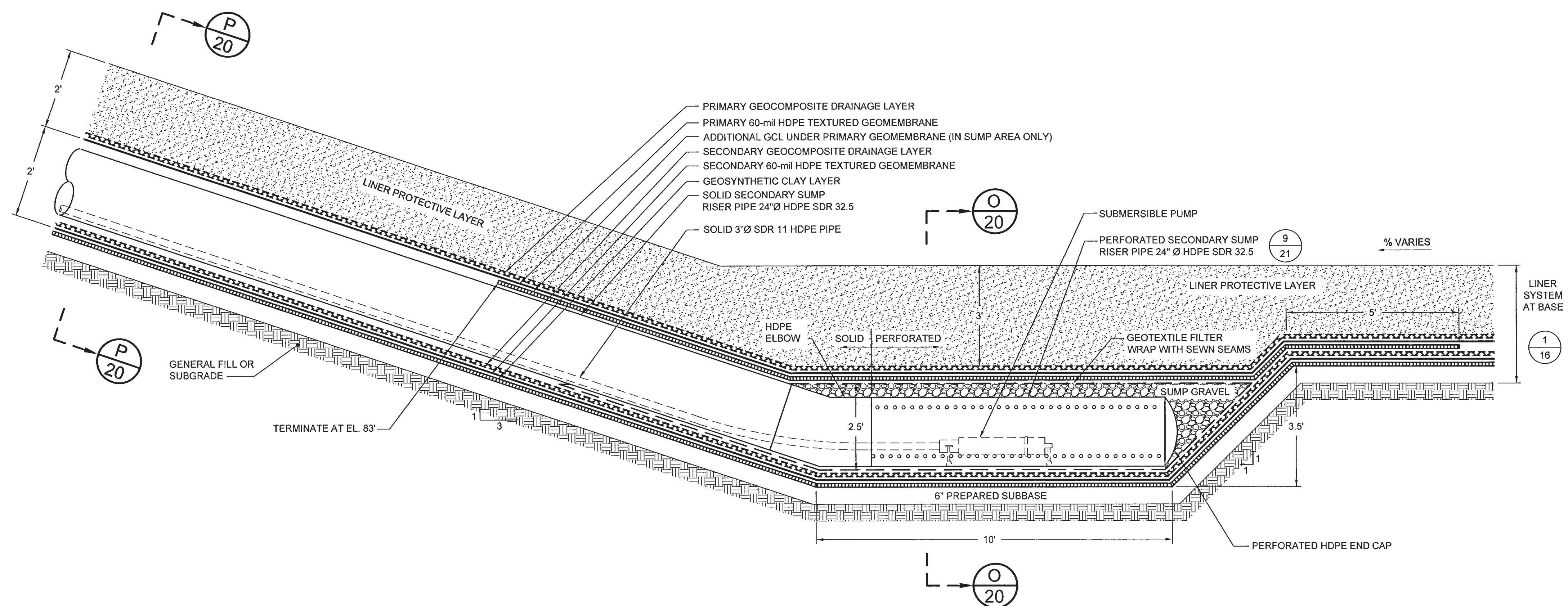
4
7 PLAN DETAIL (TYPICAL)
SECONDARY LEACHATE COLLECTION SUMP
SCALE: 1" = 4'
XREF: FL1962.02X2010

5
7 PLAN DETAIL (TYPICAL)
PRIMARY LEACHATE COLLECTION SUMP
SCALE: 1" = 4'
XREF: FL1962.02X2010

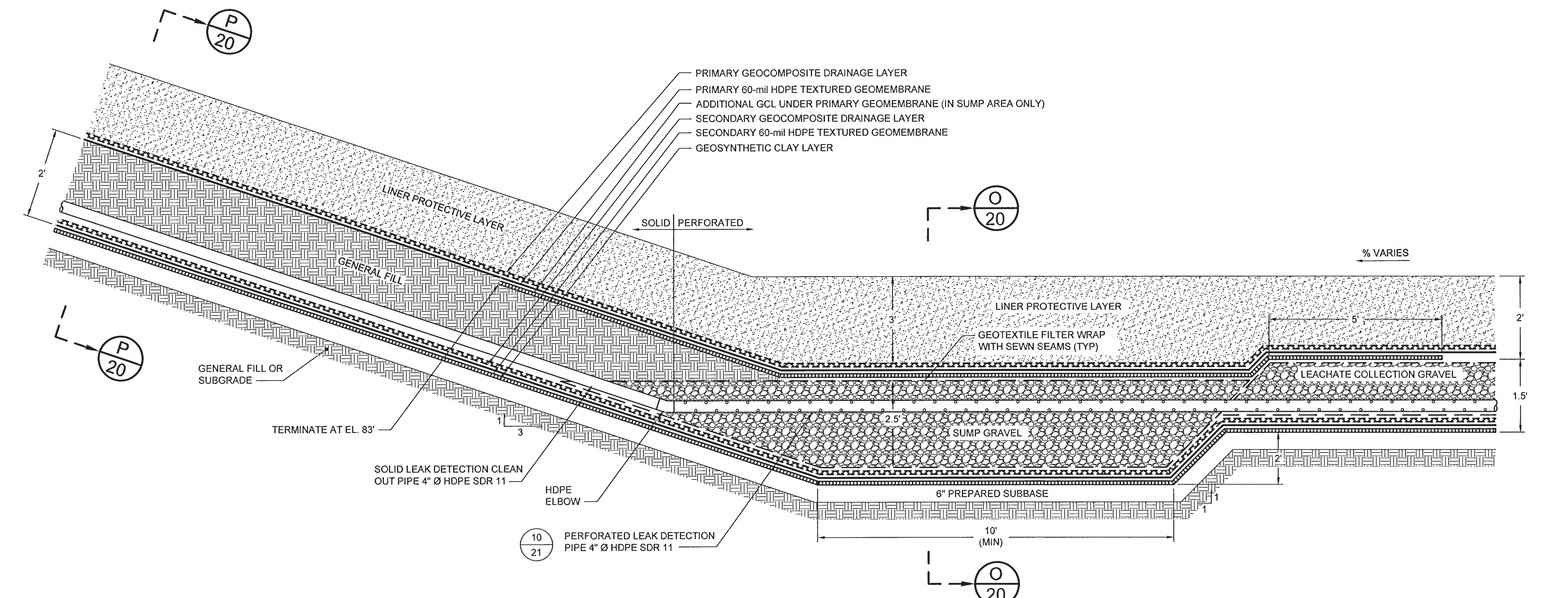
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0	NOV 2011	ISSUED FOR FDEP APPROVAL	JWO	VMD
REV	DATE	DESCRIPTION	DRN	APP
Geosyntec consultants 13101 TELECOM DRIVE, SUITE 120 TEMPLE TERRACE, FLORIDA 33637 USA PH: 813.558.0990 - FX: 813.558.8726 AUTHORIZATION NUMBER: 4321		WSI Waste Services, Inc. 1501 OMNI WAY ST. CLOUD, FLORIDA 34773 TEL: 407-891-3720 FAX: 407-891-3730		
TITLE: LEACHATE SUMP PLAN - CELLS 8 THROUGH 13				
PROJECT: SOLID WASTE RENEWAL PERMIT				
SITE: SOLID WASTE MANAGEMENT FACILITY				
		DESIGN BY: VMD/JDQ DRAWN BY: JWO/CMV CHECKED BY: VMD REVIEWED BY: JDQ APPROVED BY: VMD	DATE: NOVEMBER 2011 PROJECT NO.: FL1962.02 FILE: FL1962.02P170 DRAWING NO.: 17 OF 45	RECEIVED NOV 14 2011 DEP Central Dist

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K
17 SECTION
SECONDARY RISER PIPE AT SUMP
SCALE: NOT TO SCALE
XREF: FL1962.02X203



L
17 SECTION
LEAK DETECTION PIPE AT SUMP
SCALE: NOT TO SCALE
XREF: FL1962.02X204

NOTES:
1. DETAILS ARE SHOWN TO SCALE AS NOTED EXCEPT FOR THE GEOSYNTHETICS WHICH ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.

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0	NOV 2011	ISSUED FOR FDEP APPROVAL	JWO	VMD
			DRN	APP

Geosyntec
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WSI
Waste Services, Inc.

1501 OMNI WAY
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TEL: 407-891-3720 FAX: 407-891-3730

TITLE: **SECONDARY SUMP CROSS SECTIONS - CELLS 8 THROUGH 13**

PROJECT: **SOLID WASTE RENEWAL PERMIT**

SITE: **W.D. SOLID WASTE MANAGEMENT FACILITY**

VICTOR M. DAMASCENO
No 72966
FLORIDA
PROFESSIONAL ENGINEER

DESIGN BY: VMD/JDQ DATE: NOVEMBER 2011

DRAWN BY: JWO/CMV PROJECT NO.: FL1962.02

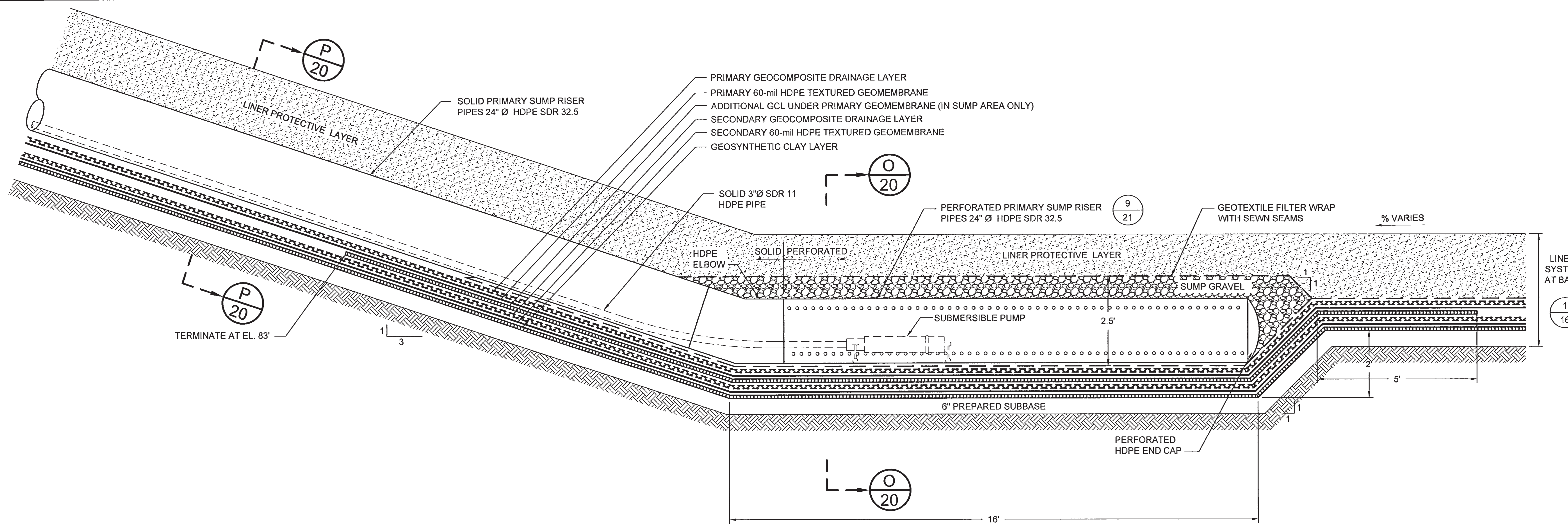
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REVIEWED BY: JDQ DRAWING NO.: 18 OF 45

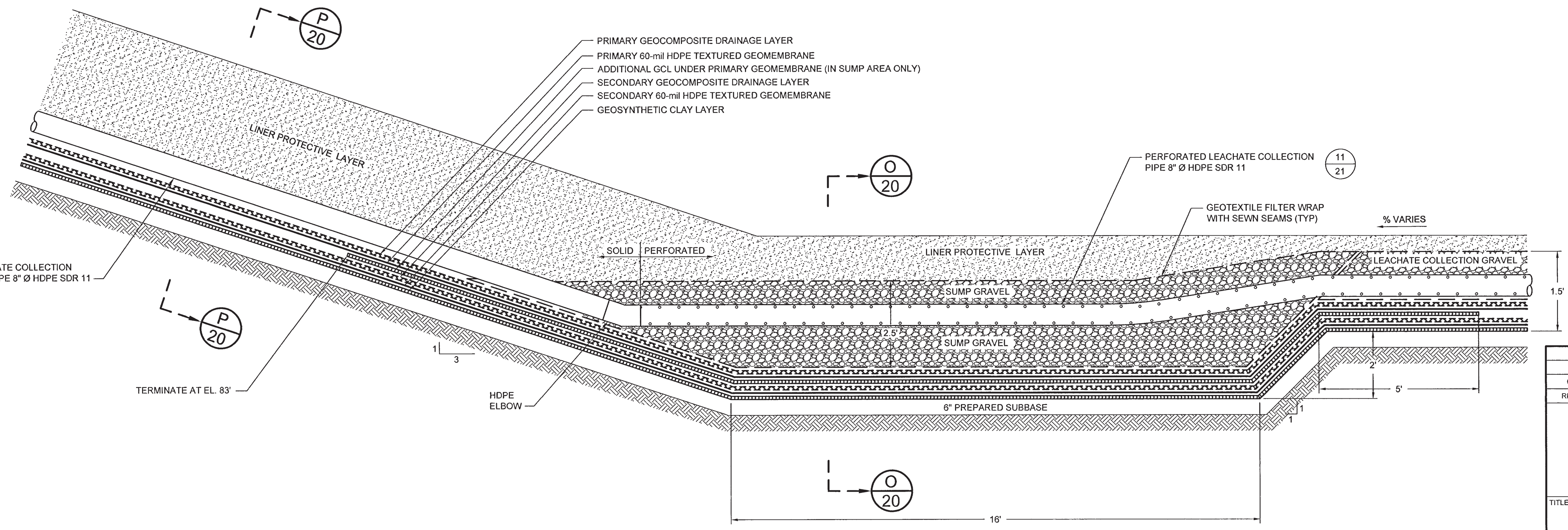
APPROVED BY: VMD

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DEP Central Dist.



M
17 SECTION
PRIMARY SUMP RISER
SCALE: NOT TO SCALE
XREF: FL1962.02X017



N
17 SECTION
LEACHATE COLLECTION PIPE AT SUMP
SCALE: NOT TO SCALE
XREF: FL1962.02X018

NOTES:
1. DETAILS ARE SHOWN TO SCALE AS NOTED EXCEPT FOR THE GEOSYNTHETICS WHICH ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.

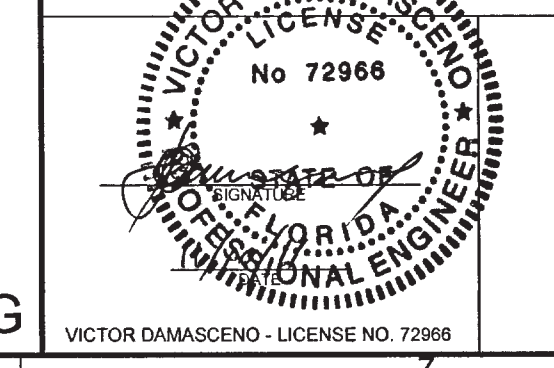
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TEMPLE TERRACE, FLORIDA 33637 USA
PH: 813.558.0990 - FX: 813.558.8728
AUTHORIZATION NUMBER: 4321

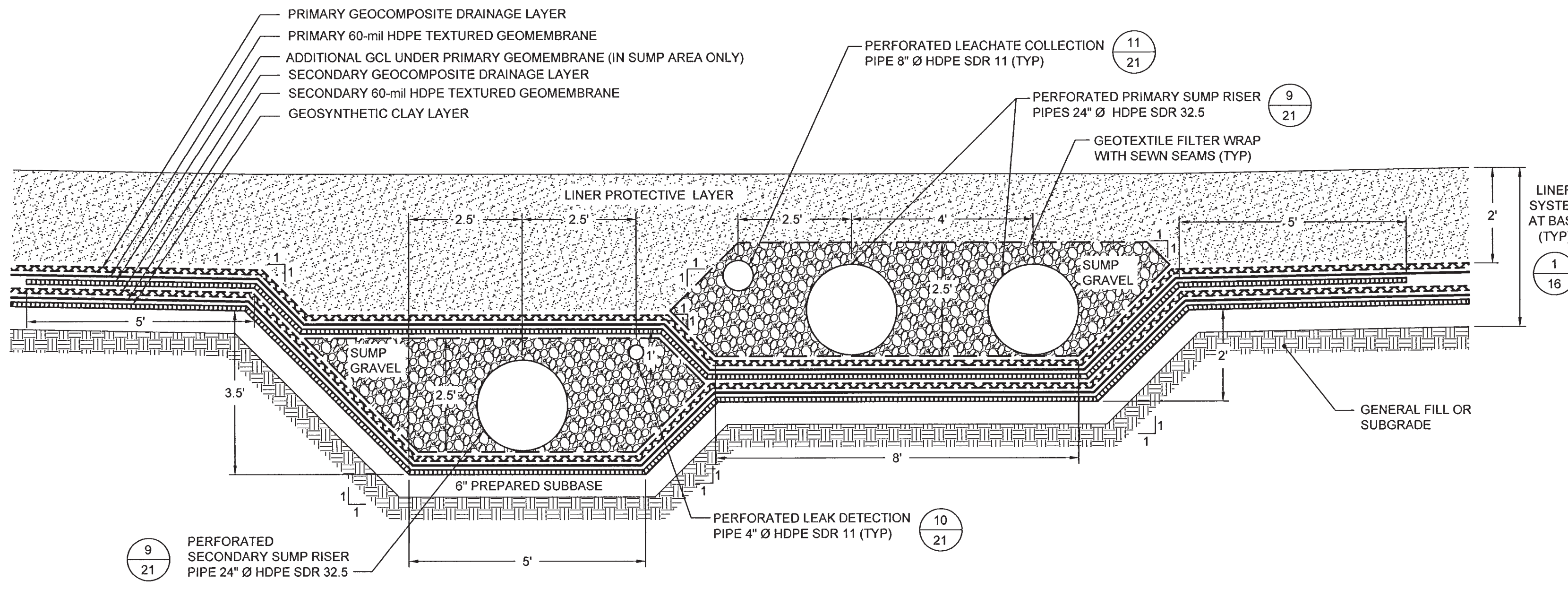
WSI Waste Services, Inc.
1501 OMNI WAY
ST. CLOUD, FLORIDA 34773
TEL: 407-891-3720 FAX: 407-891-3730

TITLE: PRIMARY SUMP CROSS SECTIONS - CELLS 8 THROUGH 13
PROJECT: SOLID WASTE RENEWAL PERMIT
SITE: E.D. SOLID WASTE MANAGEMENT FACILITY



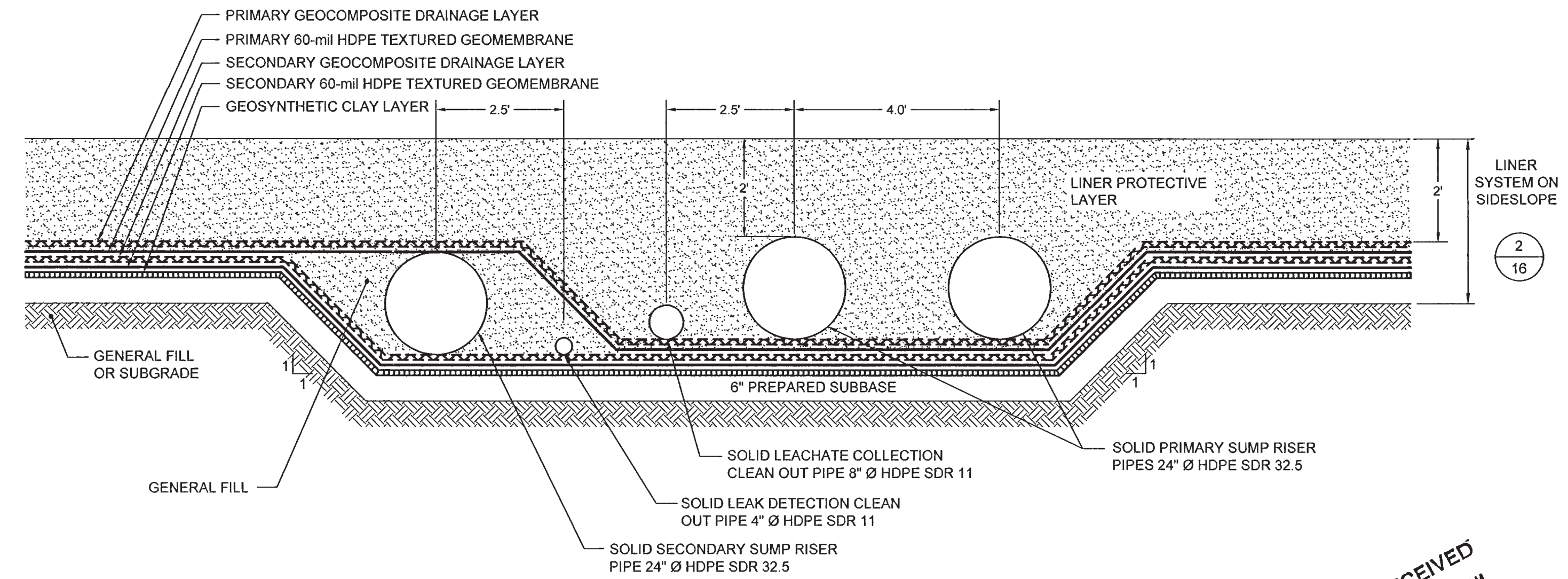
DESIGN BY:	VMD/JDQ	DATE:	NOVEMBER 2011
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O
17 SECTION
LEACHATE COLLECTION SUMP

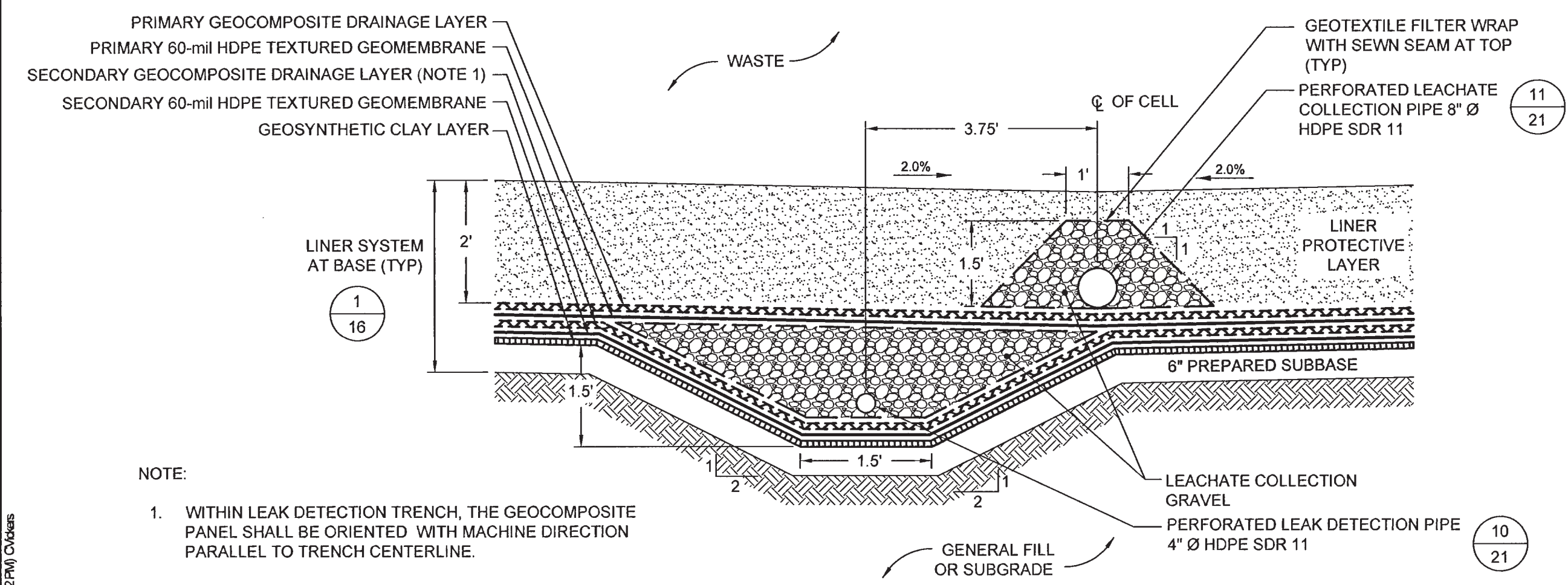
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XREF: FL1962.02P019



P
17 SECTION
RISER TRENCH ON SIDE SLOPE

SCALE: NOT TO SCALE
XREF: FL1962.02P020

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Q
7 SECTION
LEACHATE COLLECTION AND LEAK
DETECTION SYSTEMS

SCALE: NOT TO SCALE
XREF: FL1962.02P018

NOTE:
1. WITHIN LEAK DETECTION TRENCH, THE GEOSYNTHETIC PANEL SHALL BE ORIENTED WITH MACHINE DIRECTION PARALLEL TO TRENCH CENTERLINE.

NOTES:
1. DETAILS ARE SHOWN TO SCALE AS NOTED EXCEPT FOR THE GEOSYNTHETICS WHICH ARE SHOWN AT AN EXAGGERATED SCALE FOR CLARITY.

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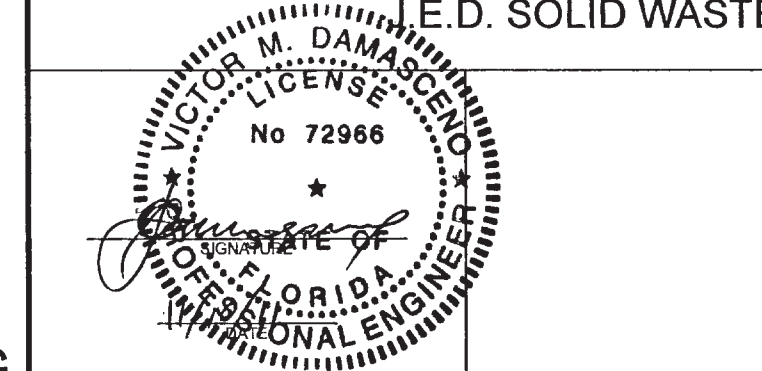
Geosyntec
consultants
13101 TELECOM DRIVE, SUITE 120
TEMPLE TERRACE, FLORIDA 33637 USA
PH: 813 558 0990 - FX: 813 558 9726
AUTHORIZATION NUMBER: 4321

WSI
WASTE SERVICES, INC.
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ST. CLOUD, FLORIDA 34773
TEL: 407-891-3720 FAX: 407-891-3730

TITLE: **LEACHATE SUMP CROSS SECTIONS - CELLS 8 THROUGH 13**

PROJECT: **SOLID WASTE RENEWAL PERMIT**

SITE: **E.D. SOLID WASTE MANAGEMENT FACILITY**

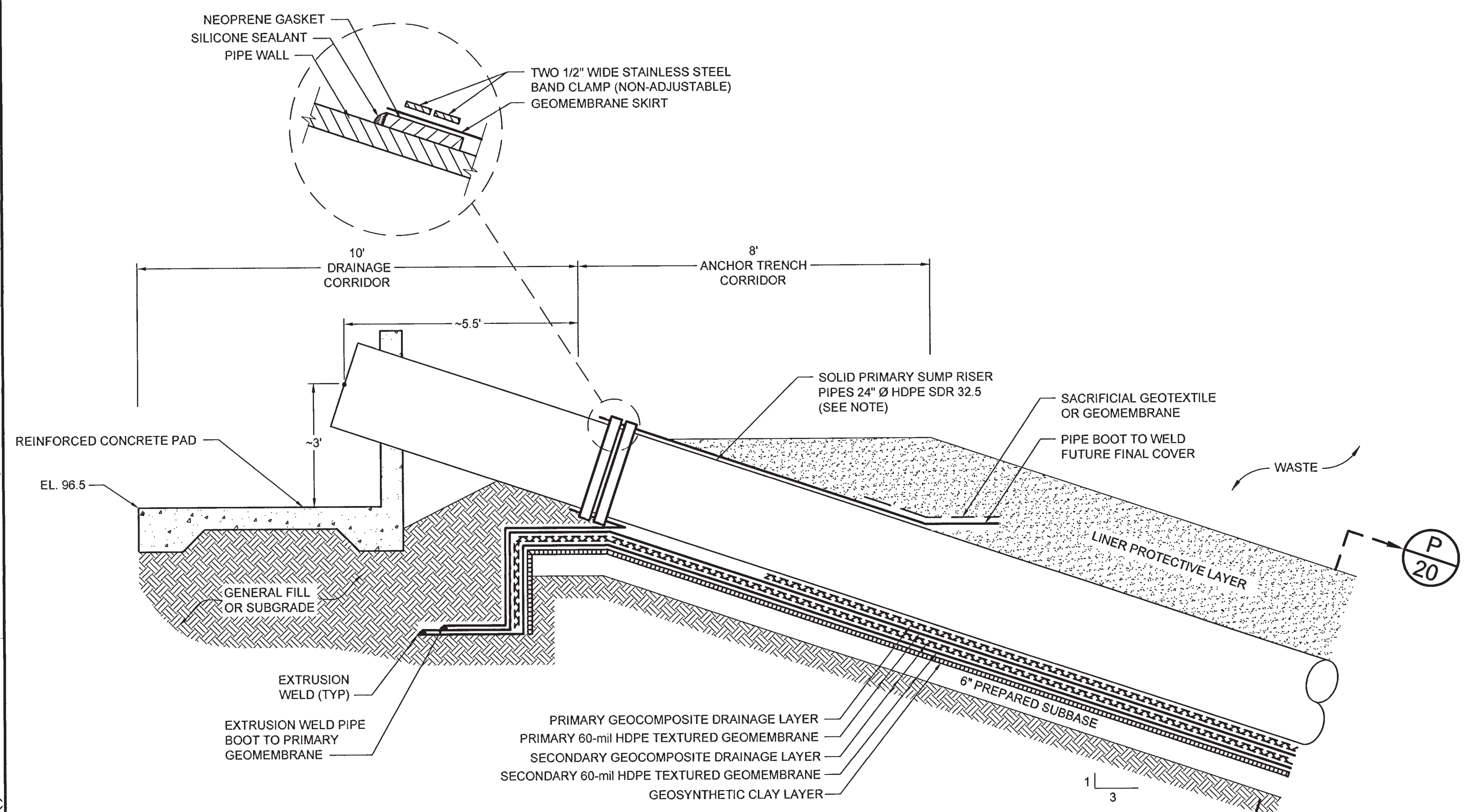


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APPROVED BY:	VMD		

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VICTOR DAMASCENO - LICENSE NO. 72966

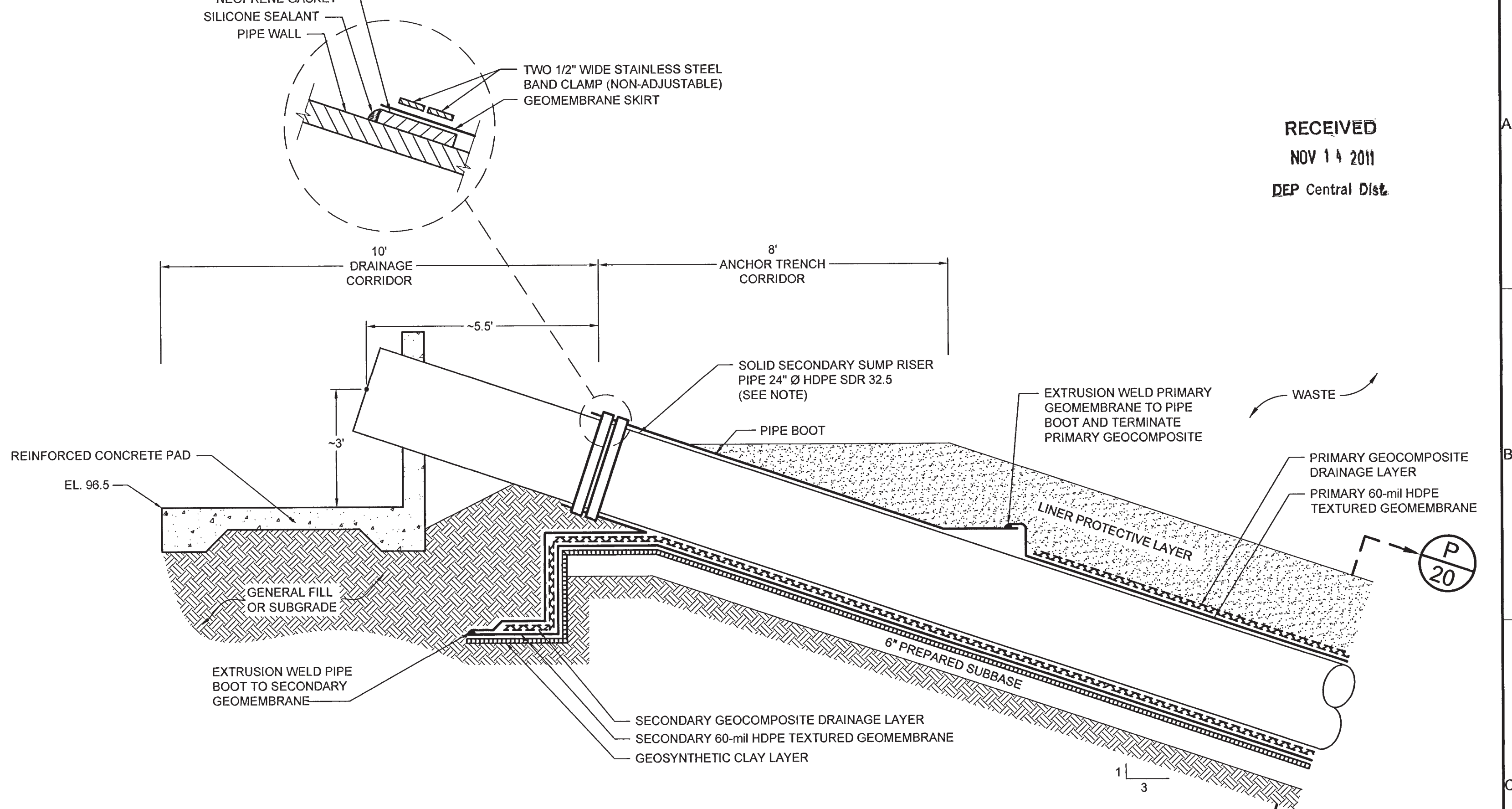
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6 DETAIL
PRIMARY SUMP RISER PIPE AT ANCHOR TRENCH

SCALE: 1" = 2'
XREF: FL1962.02X2025

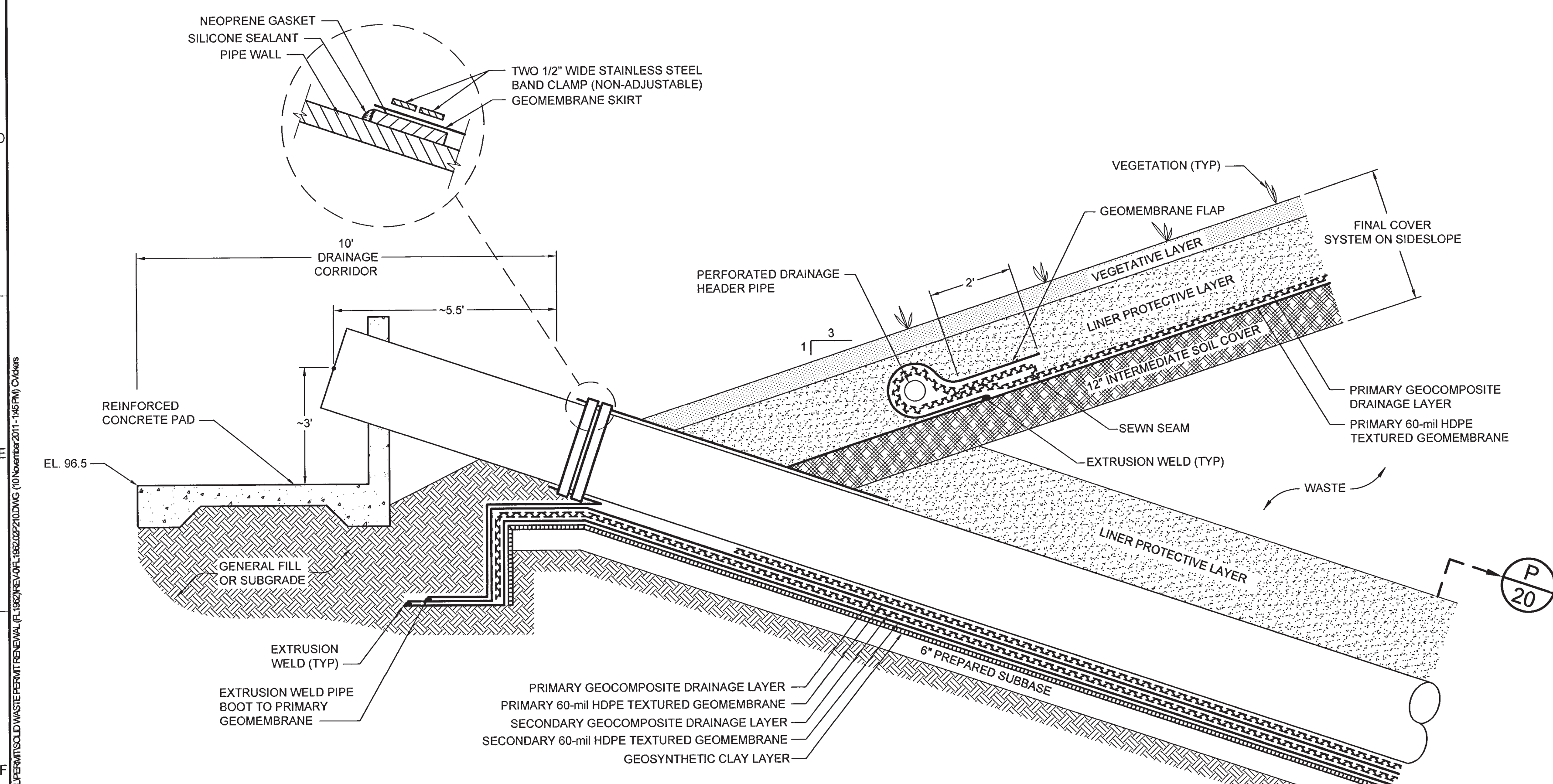
NOTE: 8-INCH DIAMETER LEACHATE COLLECTION CLEANOUT PIPES SHALL ALSO BE BOOTED AS INDICATED IN THIS FIGURE.



7 DETAIL
SECONDARY SUMP RISER PIPE AT ANCHOR TRENCH

SCALE: 1" = 2'
XREF: FL1962.02X2022

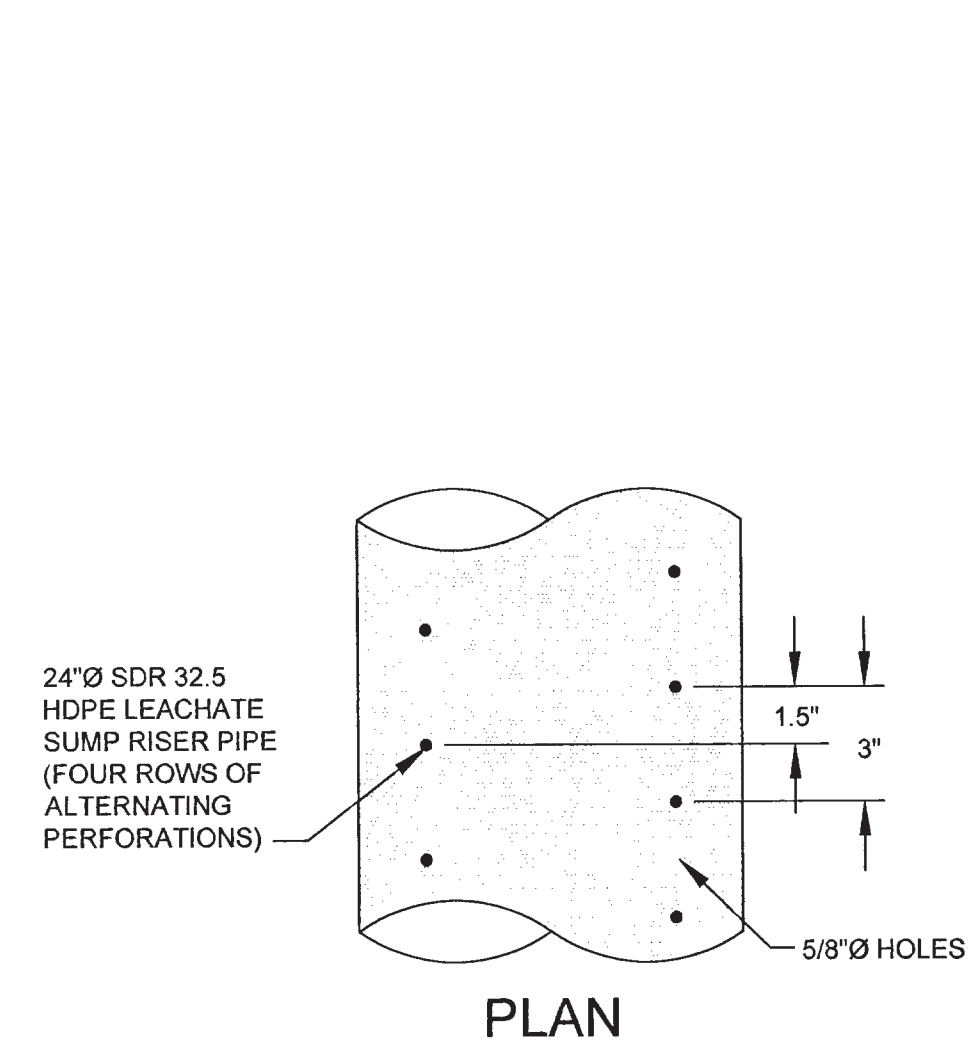
NOTE: 4-INCH DIAMETER LEAK DETECTION CLEANOUT PIPES SHALL ALSO BE BOOTED AS INDICATED IN THIS FIGURE.



8 DETAIL
FINAL COVER SYSTEM ON PRIMARY SUMP RISER PIPE AT ANCHOR TRENCH

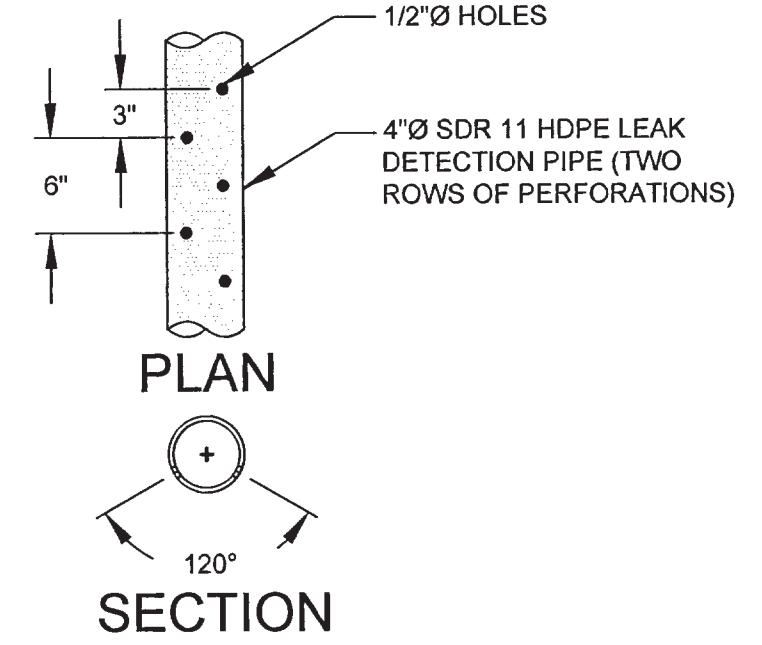
SCALE: 1" = 2'
XREF: FL1962.02X2025

NOTE: 8-INCH DIAMETER LEACHATE COLLECTION CLEANOUT PIPES SHALL ALSO BE BOOTED AS INDICATED IN THIS FIGURE.



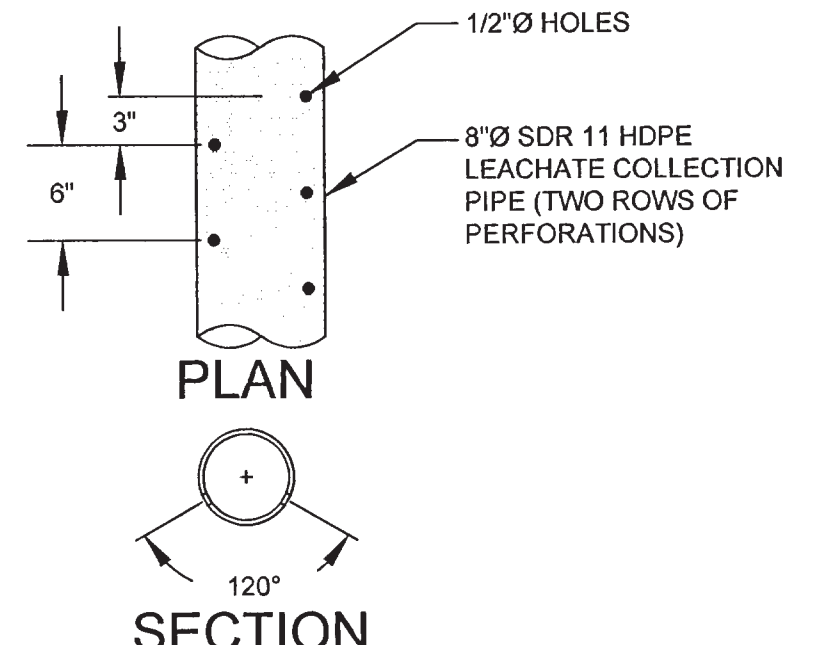
9 DETAIL (TYPICAL)
PERFORATIONS FOR LEACHATE SUMP RISER PIPES

SCALE: NTS
XREF: FL1962.02X2013



10 DETAIL (TYPICAL)
PERFORATIONS FOR LEAK DETECTION PIPE

SCALE: NTS
XREF: FL1962.02X2014



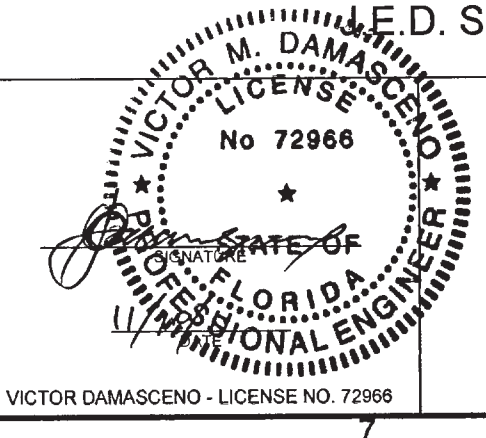
11 DETAIL (TYPICAL)
PERFORATIONS FOR LEACHATE COLLECTION PIPE

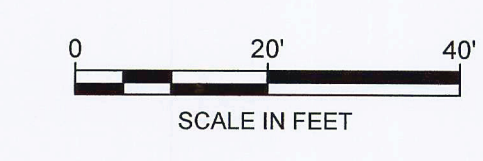
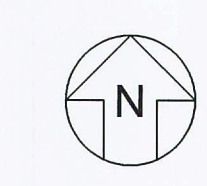
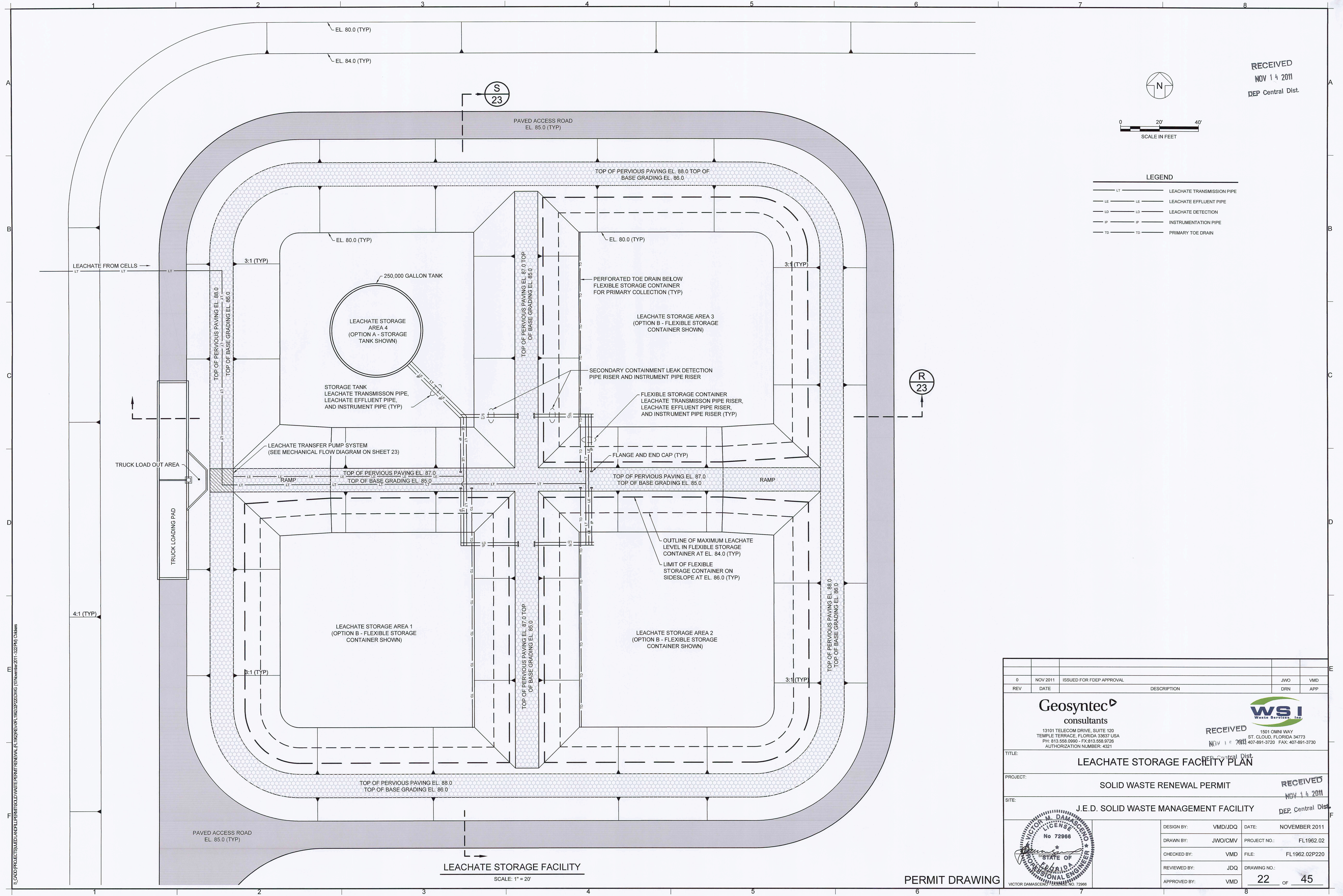
SCALE: NTS
XREF: FL1962.02X2015

NOTES:
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<p>Geosyntec consultants</p> <p>13101 TELECOM DRIVE, SUITE 120 TEMPLE TERRACE, FLORIDA 33637 USA PH: 813.558.0900 - FX: 813.558.9726 AUTHORIZATION NUMBER: 4321</p>				
<p>RECEIVED NOV 14 2011 DEP Central Dist.</p> <p>1501 OMNI WAY ST. CLOUD, FLORIDA 34773 TEL: 407-891-3720 FAX: 407-891-3730</p>				
TITLE: LEACHATE COLLECTION SYSTEM DETAILS - CELLS 8 THROUGH 13				
PROJECT: SOLID WASTE RENEWAL PERMIT				
SITE: J.E.D. SOLID WASTE MANAGEMENT FACILITY				
DESIGN BY:	VMD/JDQ	DATE:	NOVEMBER 2011	
DRAWN BY:	JVO/CMV	PROJECT NO.:	FL1962.02	
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REVIEWED BY:	JDQ	DRAWING NO.:	21 OF 45	
APPROVED BY:	VMD			

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LEGEND

- LT — LEACHATE TRANSMISSION PIPE
- LE — LEACHATE EFFLUENT PIPE
- LD — LEACHATE DETECTION
- IP — INSTRUMENTATION PIPE
- TD — PRIMARY TOE DRAIN

0	NOV 2011	ISSUED FOR FDEP APPROVAL	JWO	VMD
REV	DATE	DESCRIPTION	DRN	APP
		Geosyntec consultants	WSI Waste Services, Inc.	
		13101 TELECOM DRIVE, SUITE 120 TEMPLE TERRACE, FLORIDA 33637 USA PH: 813.558.0990 - FX: 813.558.9728 AUTHORIZATION NUMBER: 4321	RECEIVED NOV 14 2011 1501 OMNI WAY ST. CLOUD, FLORIDA 34773 407-891-3720 FAX: 407-891-3730	
TITLE: LEACHATE STORAGE FACILITY PLAN				
PROJECT: SOLID WASTE RENEWAL PERMIT				
SITE: J.E.D. SOLID WASTE MANAGEMENT FACILITY				
		DESIGN BY: VMD/JDQ	DATE: NOVEMBER 2011	
		DRAWN BY: JWO/CMV	PROJECT NO.: FL1962.02	
		CHECKED BY: VMD	FILE: FL1962.02P220	
		REVIEWED BY: JDQ	DRAWING NO.: 22	OF 45
		APPROVED BY: VMD		

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