

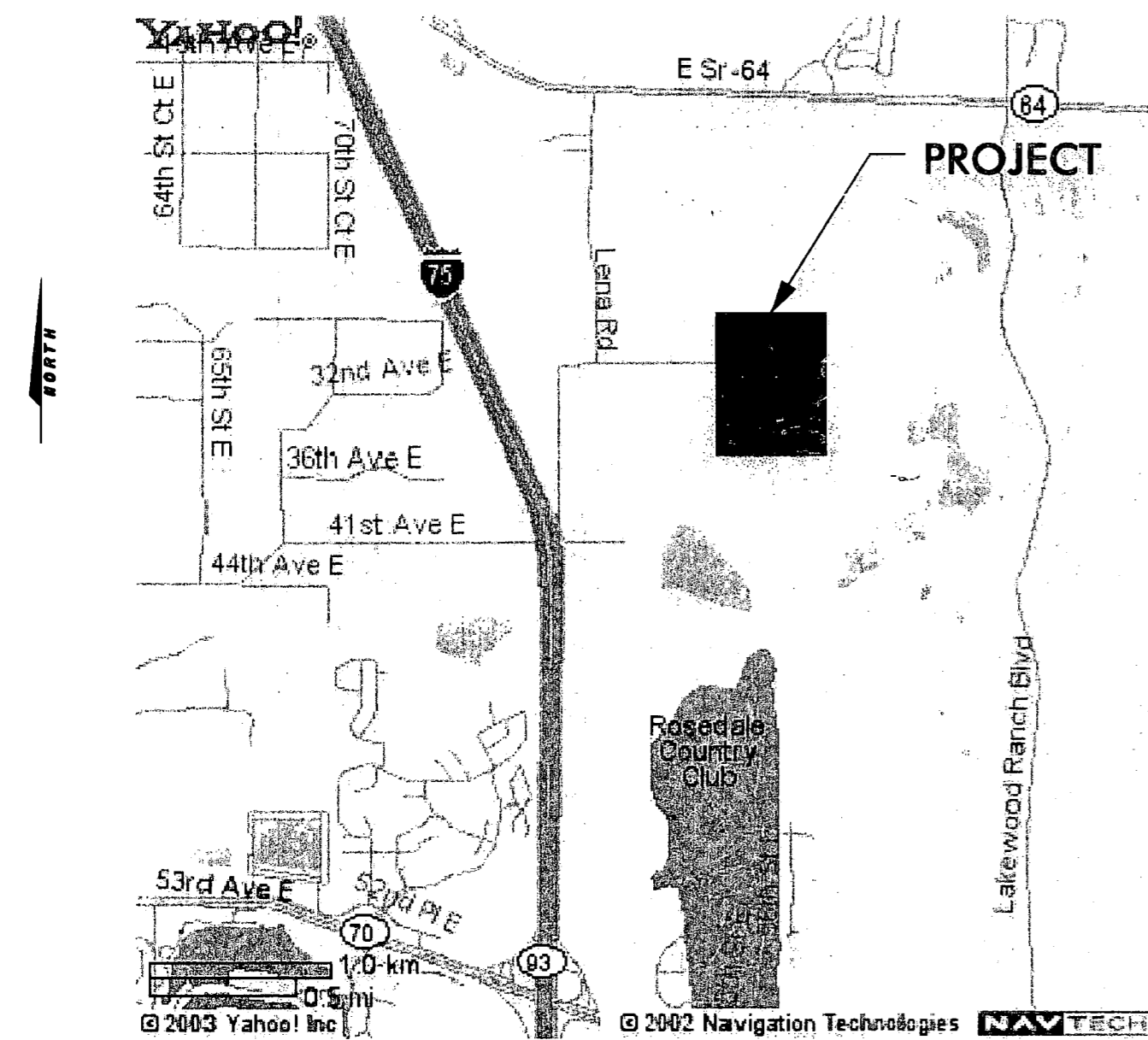
15656108

CONSTRUCTION DRAWINGS FOR LENA ROAD LANDFILL STAGE I LANDFILL PARTIAL CLOSURE #2

IFB# _____

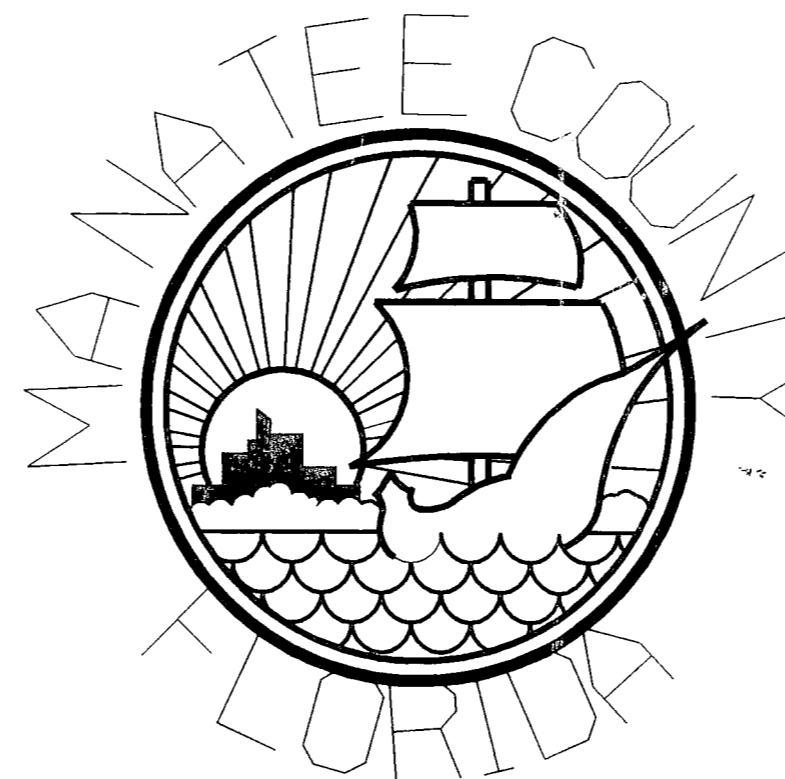
LIST OF DRAWINGS

- C-1 COVER
- C-2 GENERAL SITE PLAN
- C-3 LANDFILL GAS COLLECTION SYSTEM – PLAN (SOUTH)
- C-4 LANDFILL GAS COLLECTION SYSTEM – PLAN (NORTH)
- C-5 LANDFILL GAS WELLS – TYPICAL SECTION AND SCHEDULE
- C-6 LANDFILL GAS COLLECTION SYSTEM – TYPICAL SECTIONS AND DETAILS
- C-7 LANDFILL GAS COLLECTION SYSTEM – TYPICAL SECTIONS AND DETAILS
- C-8 LANDFILL CAP – PLAN
- C-9 LANDFILL DRAINAGE PLAN (SOUTH)
- C-10 LANDFILL DRAINAGE PLAN (NORTH)
- C-11 LANDFILL CAP AND DRAINAGE – TYPICAL SECTIONS AND DETAILS
- C-12 LANDFILL CAP AND DRAINAGE – TYPICAL SECTIONS AND DETAILS
- C-13 LANDFILL CAP AND DRAINAGE – TYPICAL SECTIONS AND DETAILS
- C-14 TYPICAL CROSS SECTIONS



LENA ROAD LANDFILL
3333 LENA ROAD
BRADENTON, FLORIDA 34202

MANATEE COUNTY



MANATEE COUNTY
UTILITY OPERATIONS DEPARTMENT
SOLID WASTE DIVISION

4410 66th STREET WEST
BRADENTON, FLORIDA 34210

JULY 2005

ENGINEER'S PROJECT NO. 120498.21

Dept. of Environmental
Protection

APR 07 2006

Southwest District



An Employee - Owned Company

Consulting Engineers and Planners
432 South Keller Road
Orlando, Florida 32810

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FBPR Certificate of Authorization No. 24

Name: JOSEPH L. MILLER

Florida P.E. No. 13877

Signature: [Handwritten Signature]

No. 38177

STATE OF FLORIDA

PROFESSIONAL ENGINEER

APR 07 2006

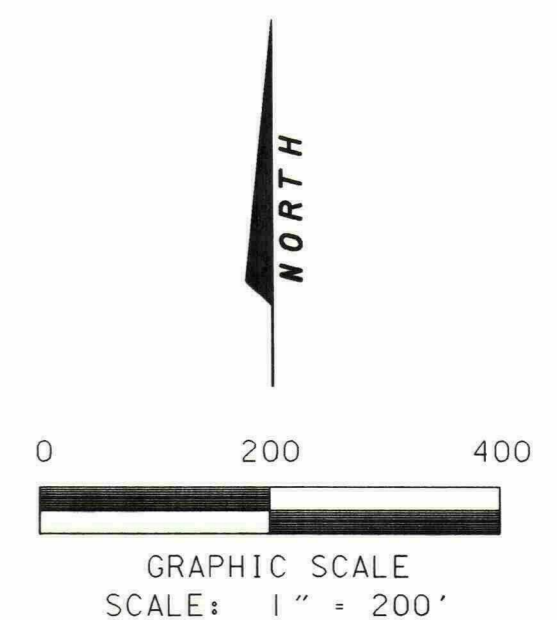
SOUTHWEST DISTRICT

TAMPA

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
APR - 7 2006
SOUTHWEST DISTRICT
TAMPA

MANATEE COUNTY - LENA ROAD STAGE I LANDFILL - PARTIAL CLOSURE #2 (JULY 2005)

FILE



- LEGEND:
- LIMITS OF PARTIAL CLOSURE #1
 - - - - - LIMITS OF PARTIAL CLOSURE #2 EXPANSION OF LANDFILL GAS COLLECTION SYSTEM
 - LIMITS OF PARTIAL CLOSURE #2 LANDFILL CAP

AERIAL PHOTOGRAPH PROVIDED BY:
 I.F. ROOKS & ASSOCIATES, INC.
 106 N.W. DRANE ST.
 PLANT CITY, FL 33566
 (813) 752-2113
 DATE: 07/26/05

C-2



482 South Keller Road
 Orlando, FL 32810-6101
 Tel. (407) 617-7275
 Fax. (407) 617-0624
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 dba PBS&J
 2001 N.W. 107th Ave, Miami, FL 33172-3607
 FWP's Certificate of Authorization No. 24

CLIENT	MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS
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PROJECT	LENA ROAD STAGE I LANDFILL PARTIAL CLOSURE #2
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TASK	GENERAL SITE PLAN
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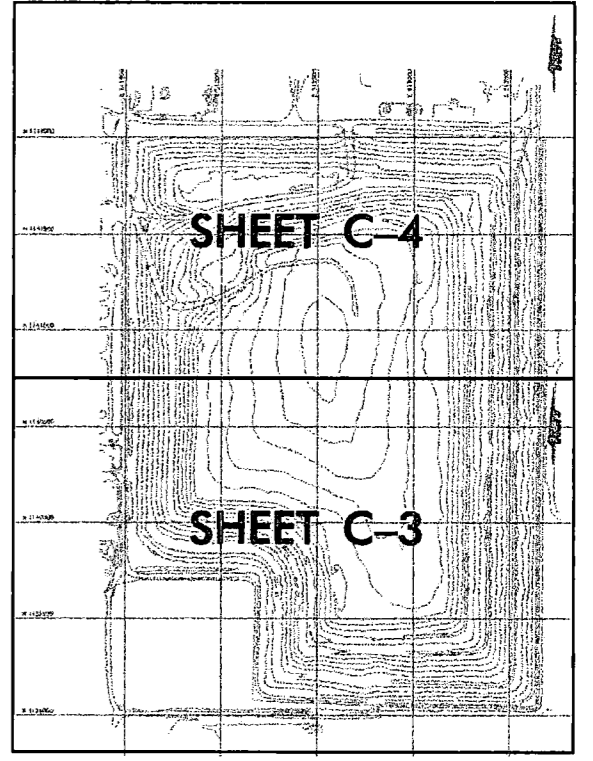
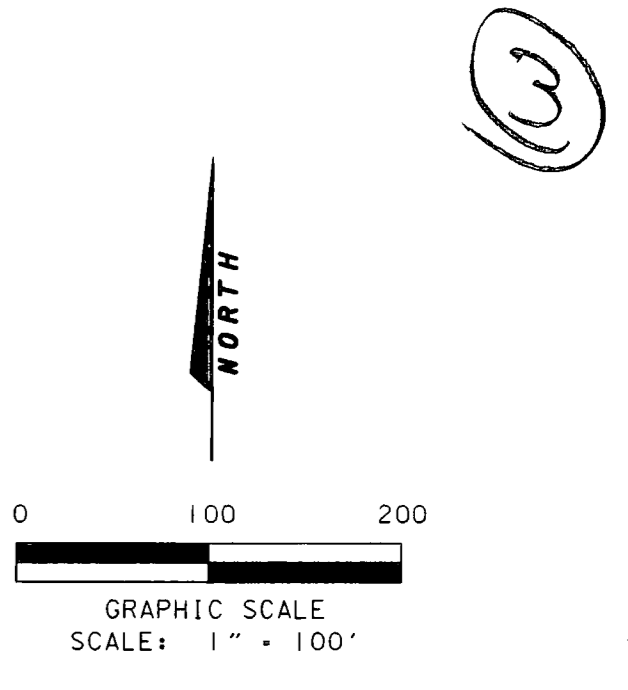
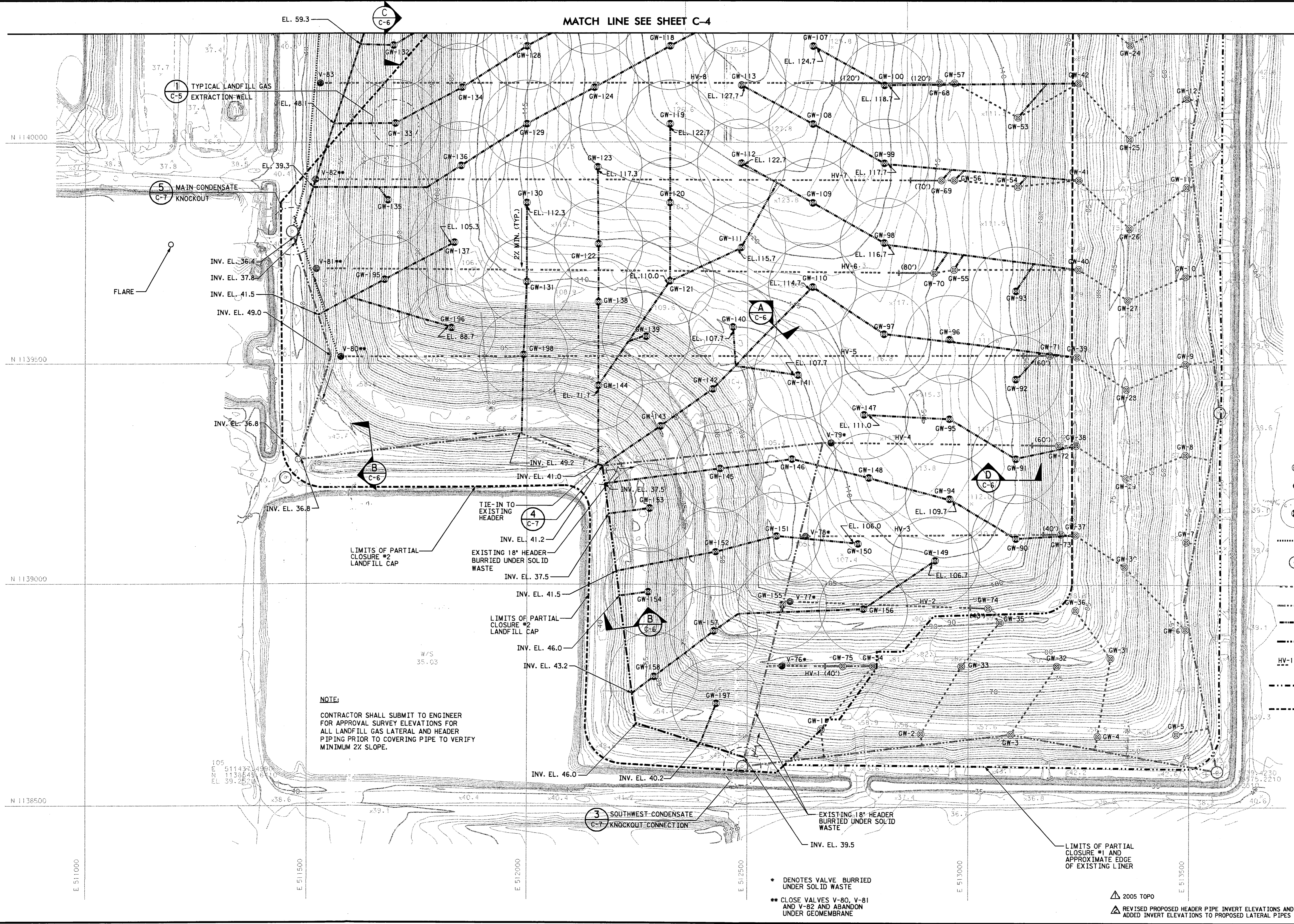
ORIGINAL	JULY 2005
REVISIONS:	1. 2005 TOPO (3/06)
	2. _____
	3. _____
	4. _____
	5. _____

Name: JOSEPH L. MILLER
 Florida P.E. No.: 98127
 Address: 482 S. Keller Road
 Orlando, FL 32816-6101
 Signature: [Signature] Date: 3/23/06

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 APR - 7 2006
 SOUTHWEST DISTRICT TAMPA

JOB NO.	120498.21
DRAWN	RGC
DESIGN	JLM/RCC
CHECKED	JLM
Q.C.	DED
SHEET 2 / 4	

SOURCE: U.S. GEOLOGICAL SURVEY/ARIZONA STATE UNIVERSITY/ENVIRONMENTAL ENGINEERING, INC. 2-SITE PLAN.DWG



KEY MAP

- LEGEND:
- ⊙ EXISTING WELL HEAD (GW-1 TO GW-75)
 - EXISTING VALVES (V-76 TO V-89)
 - ⊙ PROPOSED WELL HEAD (GW-90 TO GW-198) AND RADIUS OF INFLUENCE
 - ⋯ EXISTING GAS MANIFOLD (10')
 - EXISTING CONDENSATE KNOCKOUT
 - ⋯ EXISTING LATERAL (8" DIA.)
 - ⋯ EXISTING 18" HEADER
 - ⋯ PROPOSED 8" LATERAL
 - ⋯ PROPOSED 18" HEADER
 - ⋯ HV-1 (40') EXISTING HORIZONTAL GAS COLLECTION TRENCH (4" LENGTH OF SOLID PIPE)
 - ⋯ LIMITS OF PARTIAL CLOSURE #1 AND APPROXIMATE EDGE OF EXISTING LINER
 - ⋯ LIMITS OF PARTIAL CLOSURE #2 LANDFILL CAP

NOTE:
 CONTRACTOR SHALL SUBMIT TO ENGINEER FOR APPROVAL SURVEY ELEVATIONS FOR ALL LANDFILL GAS LATERAL AND HEADER PIPING PRIOR TO COVERING PIPE TO VERIFY MINIMUM 2% SLOPE.

- * DENOTES VALVE BURIED UNDER SOLID WASTE
- ** CLOSE VALVES V-80, V-81 AND V-82 AND ABANDON UNDER GEOMEMBRANE
- ▲ 2005 TOPO
- ▲ REVISED PROPOSED HEADER PIPE INVERT ELEVATIONS AND ADDED INVERT ELEVATIONS TO PROPOSED LATERAL PIPES

Dept. of Environmental Protection
 JUN 19 2006
 Southwest District

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 JUN 19 2006
 SOUTHWEST DISTRICT TAMPA

AERIAL SURVEY PROVIDED BY:
 I.F. ROOKS & ASSOCIATES, INC.
 106 N.W. DRANE ST.
 PLANT CITY, FL 33566
 (813) 752-2113
 DATE: JULY 26, 2005

C-3

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CLIENT	PROJECT	TASK
MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS	LENA ROAD STAGE I LANDFILL PARTIAL CLOSURE #2	LANDFILL GAS COLLECTION SYSTEM PLAN (SOUTH)

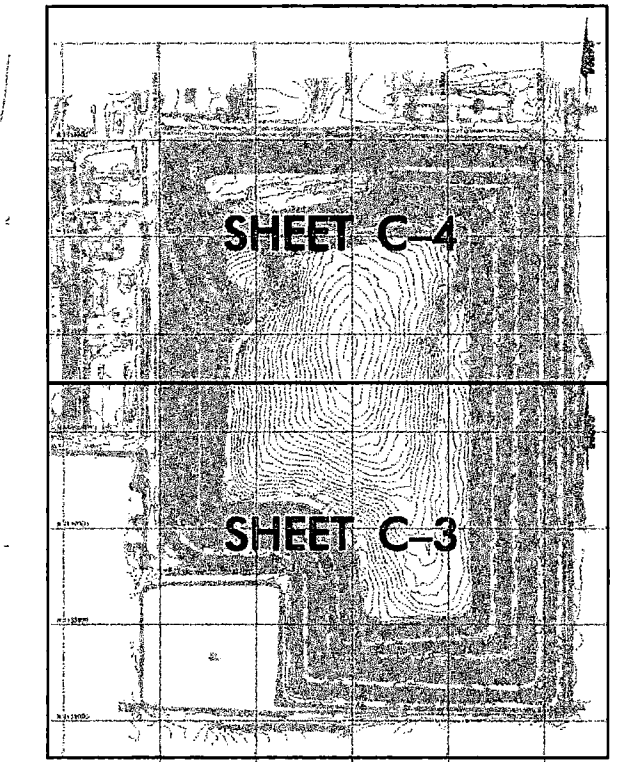
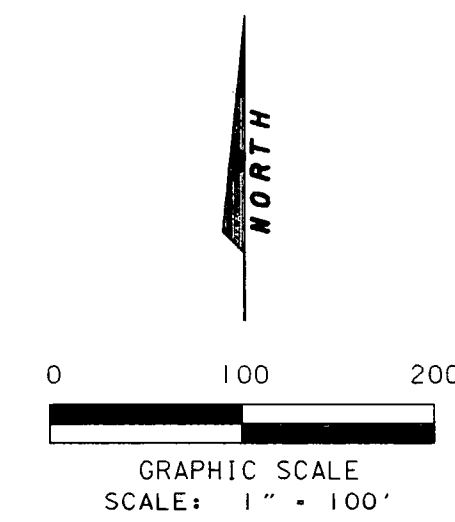
ORIGINAL JULY 2005	
REVISIONS:	
▲ MARCH 2006	
▲ MAY 2006	
3.	

JOB NO. 120498.21
DRAWN RGC
DESIGN JLM/RCC
CHECKED JLM
Q.C. DED
SHEET 3/4

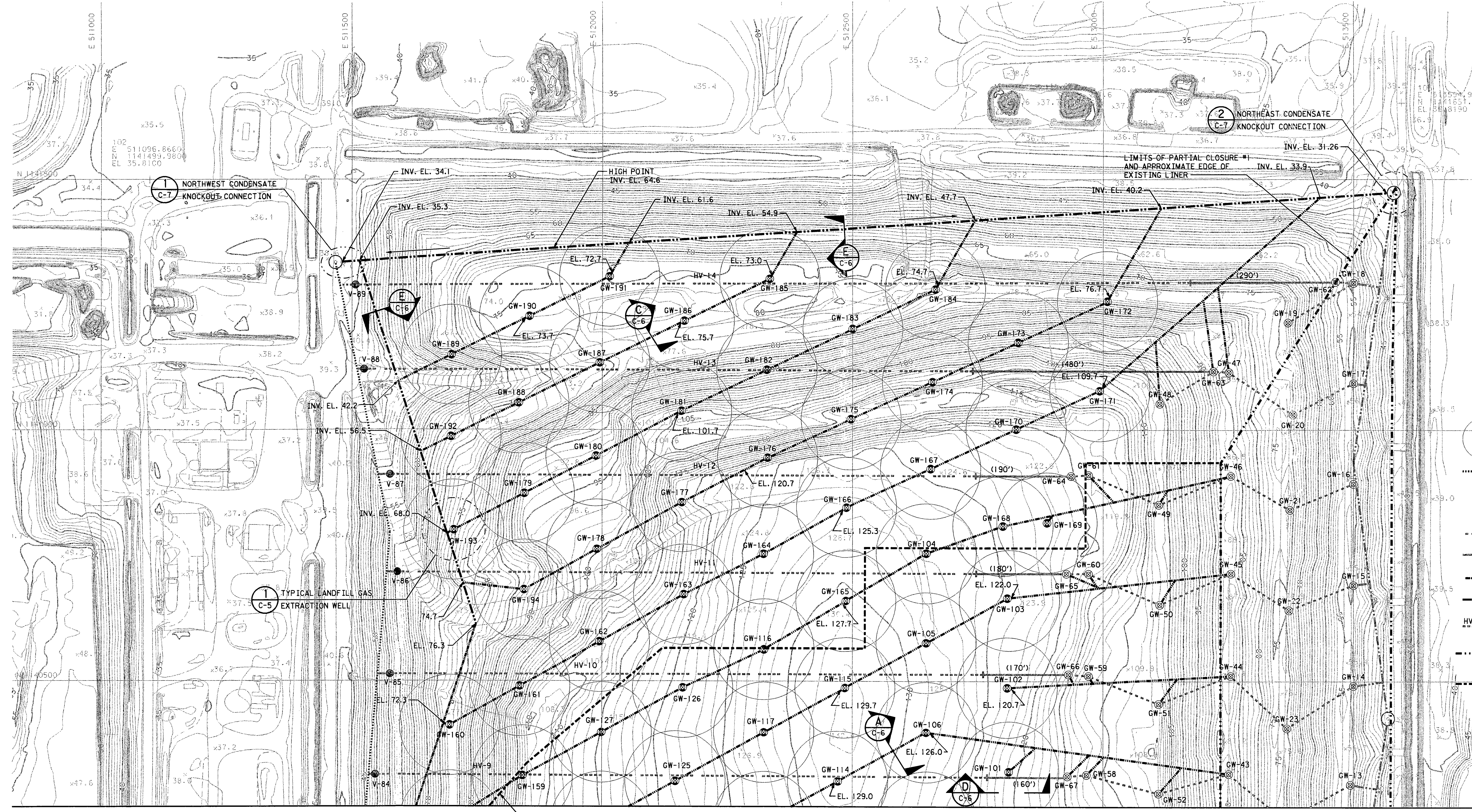
4

NOTE:

CONTRACTOR SHALL SUBMIT TO ENGINEER FOR APPROVAL SURVEY ELEVATIONS FOR ALL LANDFILL GAS LATERAL AND HEADER PIPING PRIOR TO COVERING PIPE TO VERIFY MINIMUM 2% SLOPE.



KEY MAP



- LEGEND:
- ⊙ EXISTING WELL HEAD (GW-1 TO GW-75)
 - EXISTING VALVES (V-76 TO V-89)
 - ⊙ PROPOSED WELL HEAD (GW-90 TO GW-198) AND RADIUS OF INFLUENCE
 - EXISTING GAS MANIFOLD (10")
 - EXISTING CONDENSATE KNOCKOUT
 - EXISTING LATERAL (8" DIA.)
 - EXISTING 18" HEADER
 - PROPOSED 8" LATERAL
 - PROPOSED 18" HEADER
 - HV-1 (40') HORIZONTAL GAS COLLECTION TRENCH (4") (LENGTH OF SOLID PIPE)
 - LIMITS OF PARTIAL CLOSURE #1 AND APPROXIMATE EDGE OF EXISTING LINER
 - LIMITS OF PARTIAL CLOSURE #2 LANDFILL CAP

AERIAL SURVEY PROVIDED BY:
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 (813) 752-2113
 JUN 19 2006
 SOUTH WEST DISTRICT
 TAMPA

▲ 2005 TOPO
 ▲ REVISED PROPOSED HEADER PIPE INVERT ELEVATIONS AND ADDED INVERT ELEVATIONS TO PROPOSED LATERAL PIPES

C-4

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CLIENT	PROJECT
MANATEE COUNTY	LENA ROAD STAGE I LANDFILL
BOARD OF COUNTY COMMISSIONERS	PARTIAL CLOSURE #2

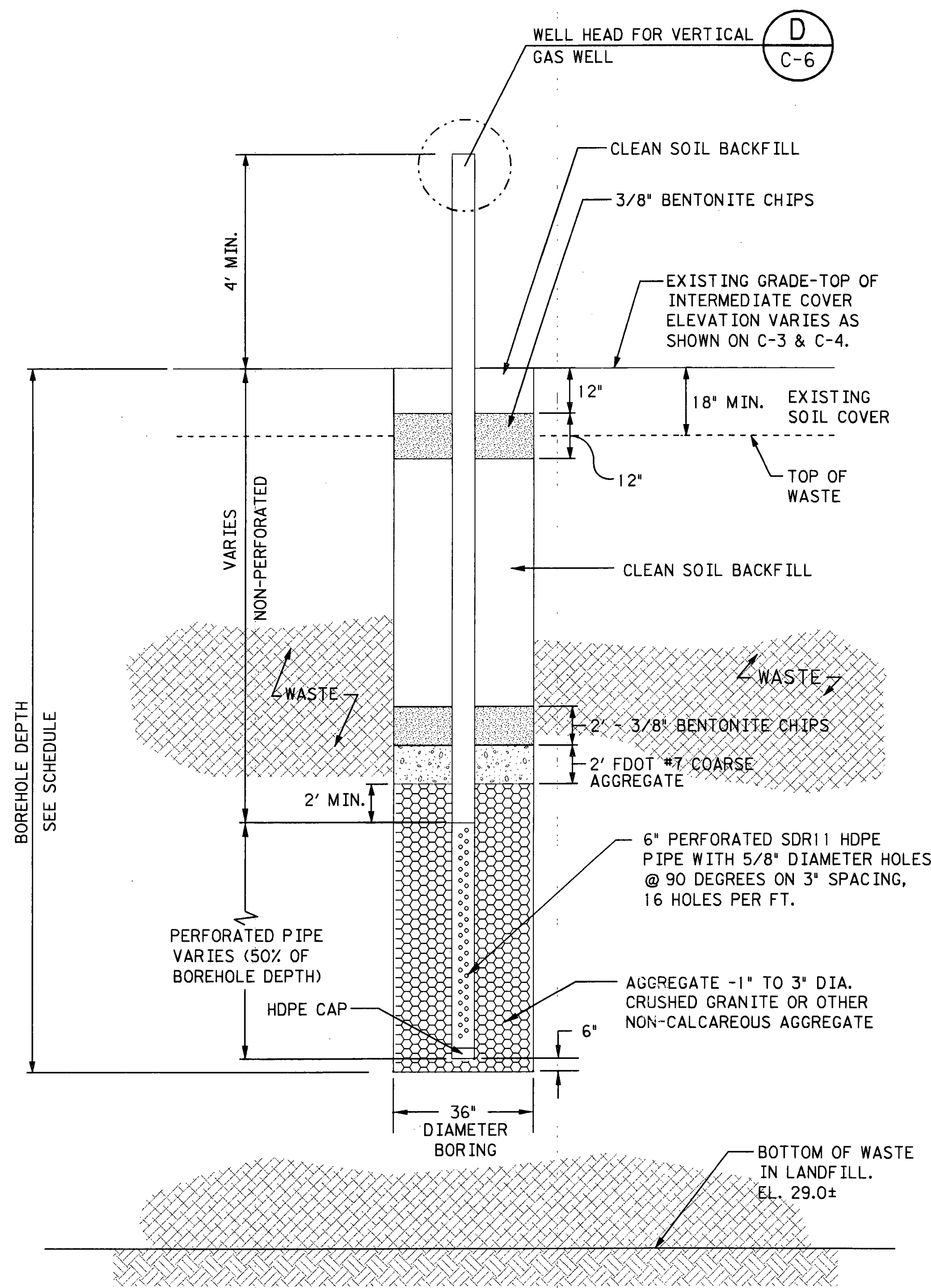
TASK
LANDFILL GAS COLLECTION SYSTEM
PLAN
(NORTH)

ORIGINAL JULY 2005
REVISIONS:
▲ MARCH 2006
▲ MAY 2006
3.
4.
5.

Professional Engineer Seal for I.F. Rooks, No. 39177, State of Florida. The seal includes the name, number, and expiration date (6/30/06), along with the Florida Department of Environmental Protection logo.

JOB NO. 120498.21
DRAWN RGC
DESIGN JLM/RCC
CHECKED JLM
Q.C. DED
SHEET 4/14

5



TYPICAL LANDFILL GAS EXTRACTION WELL

NTS

NOTE:

THE CONTRACTOR SHALL HAUL THE WASTE FROM THE DRILLING OF THE LANDFILL GAS EXTRACTION WELLS TO THE STAGE III LANDFILL WORKING FACE FOR DISPOSAL.

LENA ROAD LANDFILL GAS EXTRACTION WELL SCHEDULE			
WELL	NORTHING	EASTING	BOREHOLE DEPTH (FT)
GW-90	1,139,106	513,107	60
GW-91	1,139,286	513,107	60
GW-92	1,139,466	513,107	60
GW-93	1,139,666	513,107	60
GW-94	1,139,196	512,957	65
GW-95	1,139,376	512,957	65
GW-96	1,139,556	512,957	65
GW-97	1,139,568	512,809	70
GW-98	1,139,775	512,809	70
GW-99	1,139,953	512,809	70
GW-100	1,140,131	512,809	70
GW-101	1,140,320	512,812	70
GW-102	1,140,487	512,809	70
GW-103	1,140,665	512,809	70
GW-104	1,140,754	512,647	70
GW-105	1,140,576	512,647	75
GW-106	1,140,398	512,647	75
GW-107	1,140,220	512,647	75
GW-108	1,140,042	512,647	75
GW-109	1,139,864	512,647	70
GW-110	1,139,675	512,647	65
GW-111	1,139,764	512,485	65
GW-112	1,139,953	512,485	70
GW-113	1,140,131	512,485	75
GW-114	1,140,301	512,470	75
GW-115	1,140,487	512,485	75
GW-116	1,140,563	512,323	75
GW-117	1,140,398	512,323	75
GW-118	1,140,220	512,323	75
GW-119	1,140,042	512,323	70
GW-120	1,139,864	512,323	65
GW-121	1,139,688	512,323	60
GW-122	1,139,772	512,161	60
GW-123	1,139,944	512,159	70
GW-124	1,140,126	512,151	70
GW-125	1,140,301	512,146	70
GW-126	1,140,487	512,161	70
GW-127	1,140,398	511,999	65
GW-128	1,140,220	511,999	65
GW-129	1,140,042	511,999	65
GW-130	1,139,864	511,999	65
GW-131	1,139,686	511,999	60

SUB-TOTAL 2,870 FT

LENA ROAD LANDFILL GAS EXTRACTION WELL SCHEDULE			
WELL	EASTING	NORTHING	BOREHOLE DEPTH (FT)
GW-132	1,140,222	511,697	35
GW-133	1,140,043	511,701	35
GW-134	1,140,126	511,852	60
GW-135	1,139,891	511,693	35
GW-136	1,139,947	511,850	60
GW-137	1,139,775	511,835	60
GW-138	1,139,640	512,161	60
GW-139	1,139,562	512,269	50
GW-140	1,139,584	512,466	60
GW-141	1,139,475	512,614	60
GW-142	1,139,444	512,421	50
GW-143	1,139,359	512,303	35
GW-144	1,139,451	512,161	35
GW-145	1,139,264	512,437	45
GW-146	1,139,286	512,600	60
GW-147	1,139,386	512,764	65
GW-148	1,139,244	512,775	65
GW-149	1,139,056	512,924	60
GW-150	1,139,094	512,750	60
GW-151	1,139,111	512,565	60
GW-152	1,139,075	512,427	40
GW-153	1,139,174	512,278	20
GW-154	1,138,983	512,274	20
GW-155	1,139,004	512,576	50
GW-156	1,138,946	512,762	50
GW-157	1,138,896	512,423	40
GW-158	1,138,793	512,288	20
GW-159	1,140,312	511,842	60
GW-160	1,140,412	511,697	35
GW-161	1,140,490	511,836	55
GW-162	1,140,579	511,995	60
GW-163	1,140,672	512,163	70
GW-164	1,140,753	512,322	75
GW-165	1,140,659	512,487	75
GW-166	1,140,846	512,488	75
GW-167	1,140,923	512,656	70
GW-168	1,140,809	512,800	70
GW-169	1,140,816	512,888	70
GW-170	1,141,002	512,827	70
GW-171	1,141,078	512,993	65
GW-172	1,141,257	513,008	40
GW-173	1,141,174	512,831	55
GW-174	1,141,096	512,659	60

SUB-TOTAL 2,295 FT

LENA ROAD LANDFILL GAS EXTRACTION WELL SCHEDULE			
WELL	NORTHING	EASTING	BOREHOLE DEPTH (FT)
GW-175	1,141,021	512,497	65
GW-176	1,140,945	512,330	70
GW-177	1,140,856	512,159	70
GW-178	1,140,762	511,989	55
GW-179	1,140,874	511,845	50
GW-180	1,140,949	511,988	50
GW-181	1,141,037	512,158	60
GW-182	1,141,119	512,328	45
GW-183	1,141,202	512,500	40
GW-184	1,141,281	512,665	40
GW-185	1,141,301	512,334	35
GW-186	1,141,217	512,163	35
GW-187	1,141,133	511,995	35
GW-188	1,141,054	511,834	30
GW-189	1,141,149	511,699	30
GW-190	1,141,226	511,854	35
GW-191	1,141,306	512,014	35
GW-192	1,140,987	511,698	30
GW-193	1,140,801	511,704	35
GW-194	1,140,681	511,844	45
GW-195	1,139,691	511,677	35
GW-196	1,139,581	511,829	50
GW-197	1,138,733	512,429	20
GW-198	1,139,521	511,992	40

* BOREHOLE DEPTH AS MEASURED FROM TOP OF EXISTING INTERMEDIATE COVER. CONTRACTOR SHALL VERIFY DEPTH AND ELEVATIONS PRIOR TO DRILLING.

SUB-TOTAL 1,035 FT
GRAND-TOTAL 6,200 FT*

NOTES:

- LANDFILL GAS VERTICAL AND HORIZONTAL WELLS 1 THROUGH 89 ARE CURRENTLY INSTALLED.
- PROPOSED WELLS SHALL BE LABELED AS SHOWN IN THE TABLE WITH A WATER-PROOF MATERIAL.
- REPLACE HOSE AND EXISTING COUPLINGS ON WELLS 1 THROUGH 75 WITH 48" OF 2" DIA. FLEXHOSE AND COUPLINGS PER SECTION "A" ON DRAWING C-6.
- EXISTING WELLS 47 THROUGH 73 (EXCEPT 62) MUST BE CONNECTED TO NEW LATERALS INSTALLED ABOVE PROPOSED GEOMEMBRANE.

- GENERAL REVISION
- CHANGE PEAGRAVEL TO FDOT #7 COARSE AGGREGATE IN GAS EXTRACTION WELL

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUN 19 2006
SOUTHWEST DISTRICT
TAMPA

C-5



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CLIENT:
MANATEE COUNTY
BOARD OF COUNTY COMMISSIONERS

PROJECT:
LENA ROAD STAGE I LANDFILL
PARTIAL CLOSURE #2

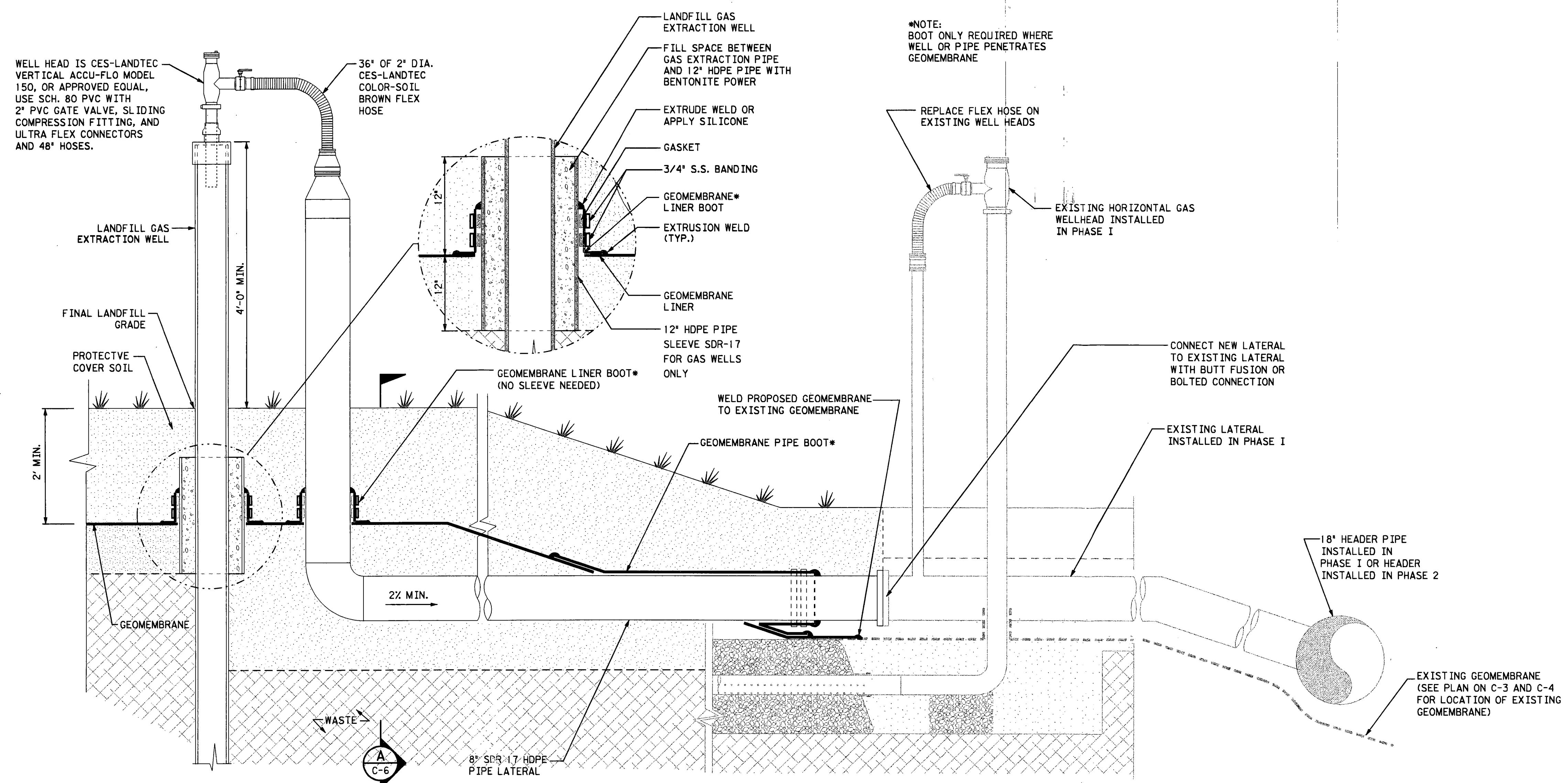
TASK:
LANDFILL GAS WELLS
TYPICAL SECTION AND SCHEDULE

ORIGINAL JULY 2005
REVISIONS:
MARCH 2006
APRIL 2006
MAY 2006

Signature: JOSEPH L. MILLER
Title: ENGINEER
No. 39177
Address: 382 S. Keller Road
Orlando, FL 32801-8107
Date: _____

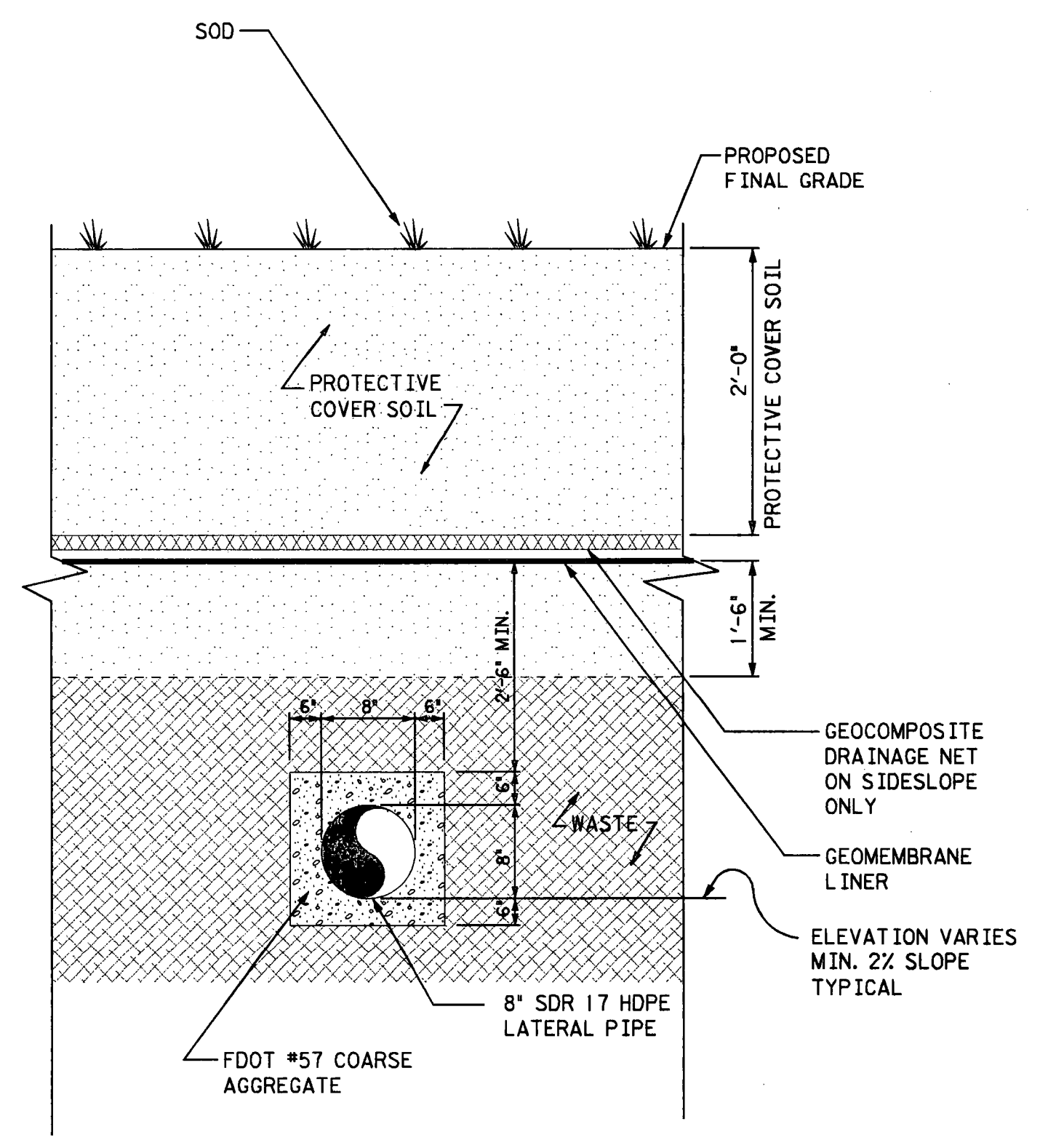
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DESIGN: JLM/RCC
CHECKED: JLM
Q.C.: DED
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6

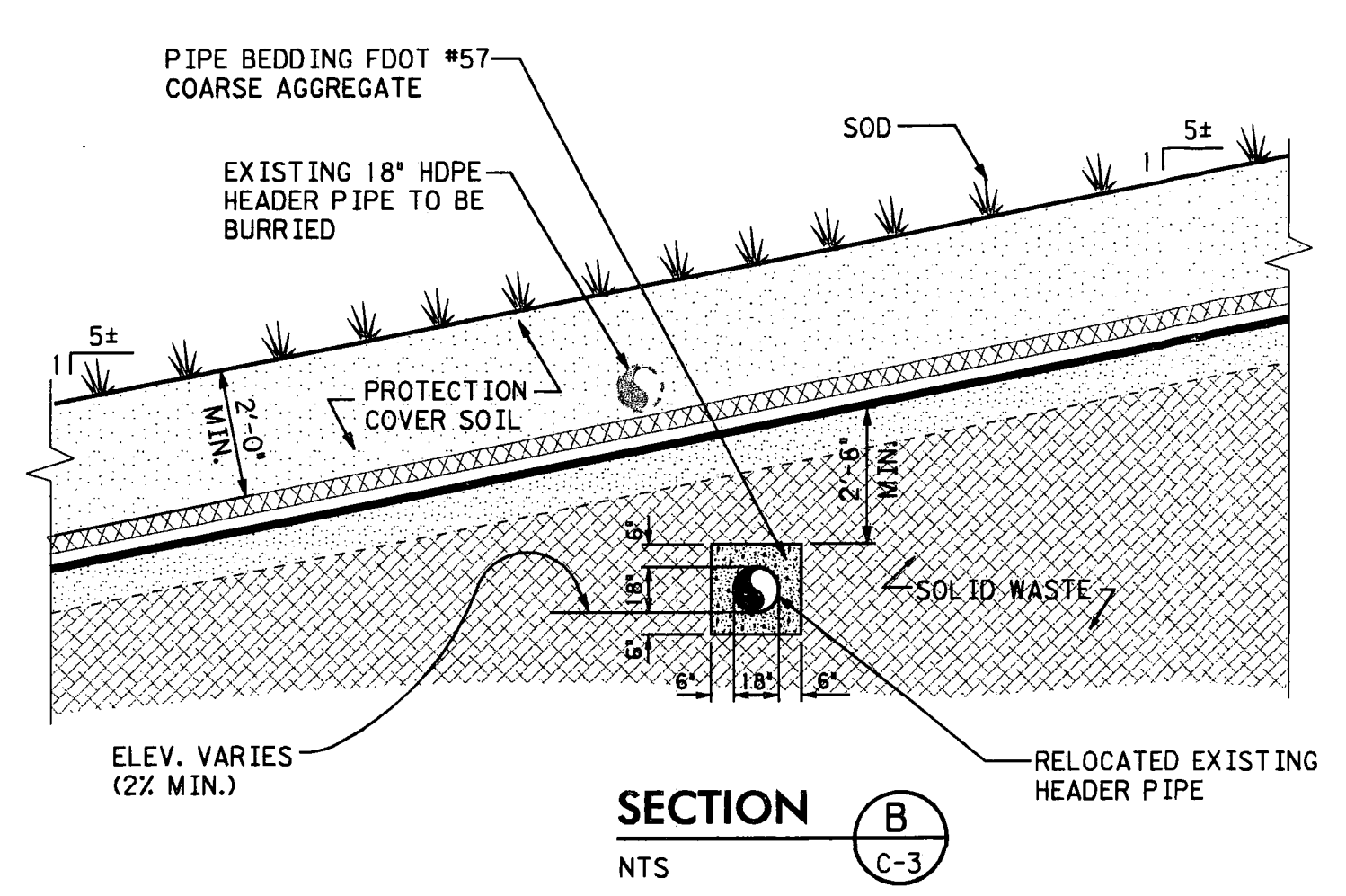


TYPICAL WELLHEAD FOR VERTICAL GAS WELL AND GEOMEMBRANE BOOTS
NTS

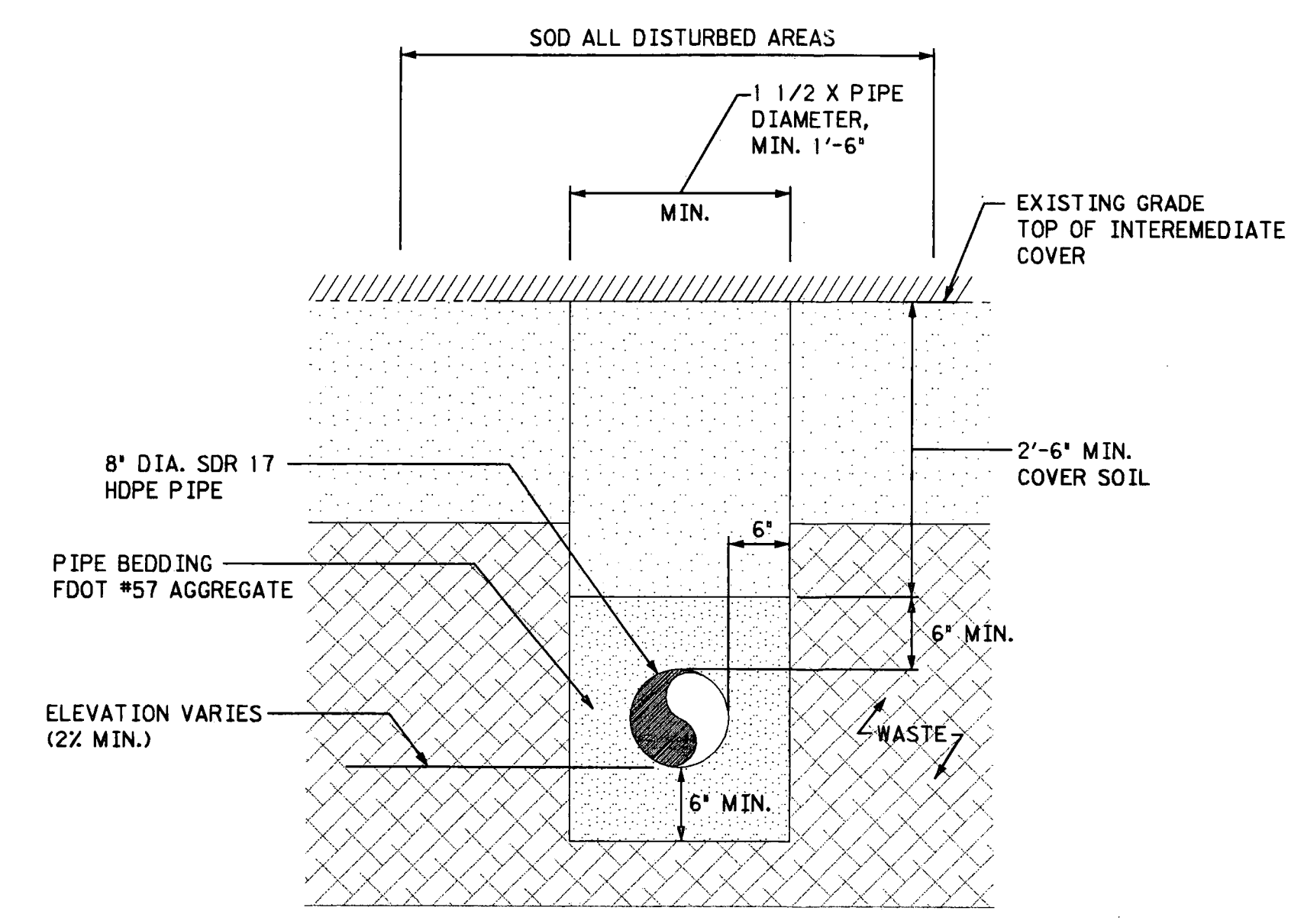
NOTE:
SEE PLAN ON C-3 AND C-4 FOR LIMITS OF GEOMEMBRANE AND 2' LANDFILL CAP



TYPICAL PIPE SECTION UNDER GEOMEMBRANE
NTS

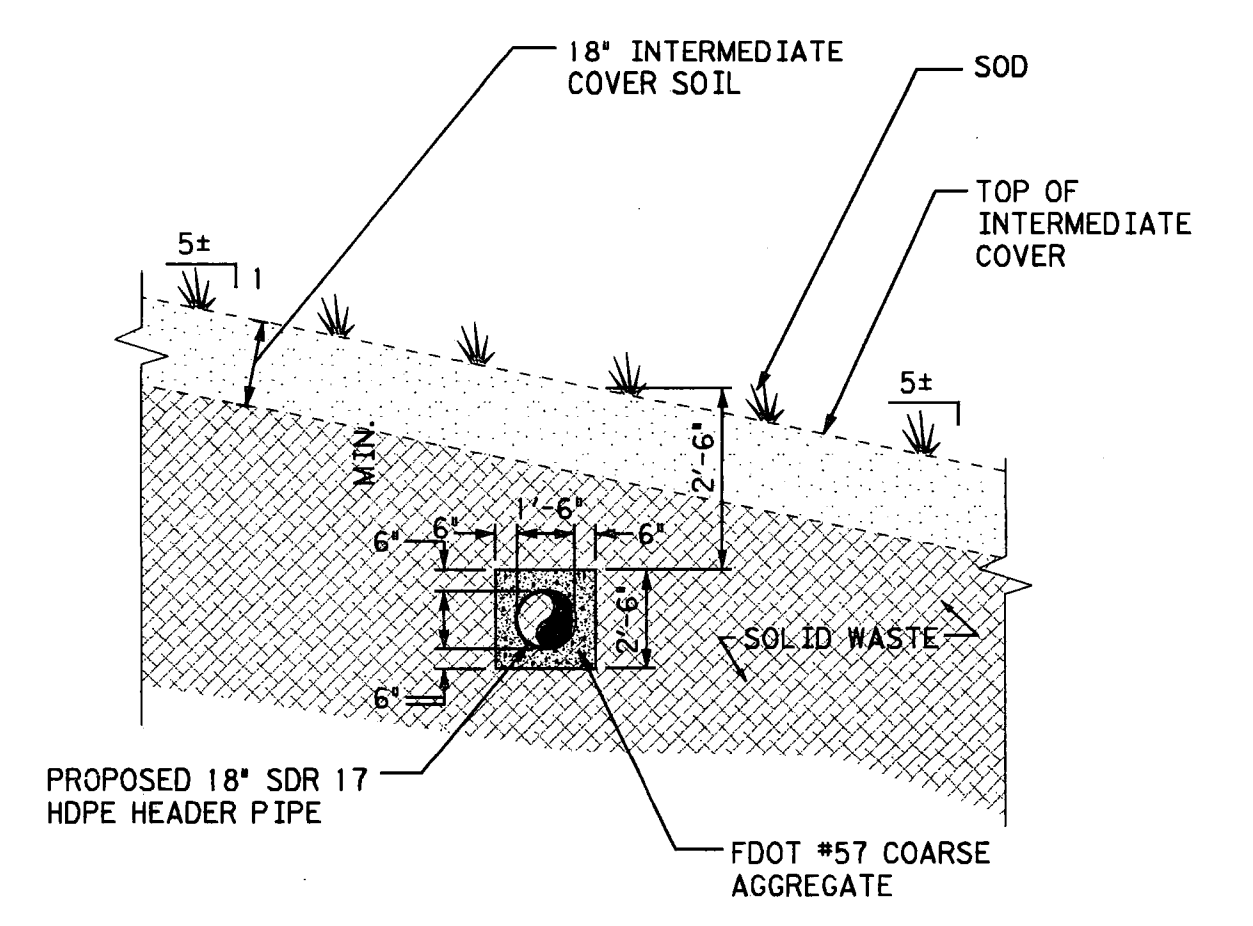


SECTION B
NTS



TYPICAL PIPE SECTION WHERE NO GEOMEMBRANE IS PROPOSED
NTS

NOTE:
THE CONTRACTOR SHALL HAUL WASTE FROM THE EXCAVATION OF TRENCHES TO THE STAGE III LANDFILL WORKING FACE FOR DISPOSAL.



SECTION E
NTS

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUN 19 2006
SOUTHWEST DISTRICT TAMPA

C-6



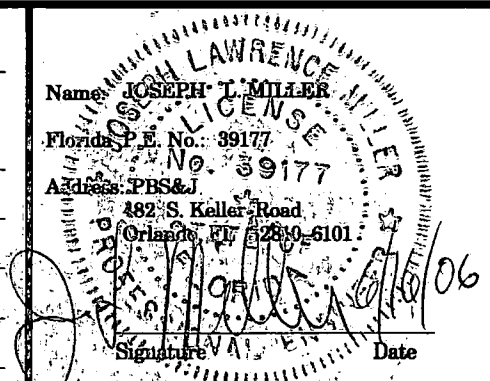
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BOARD OF COUNTY COMMISSIONERS

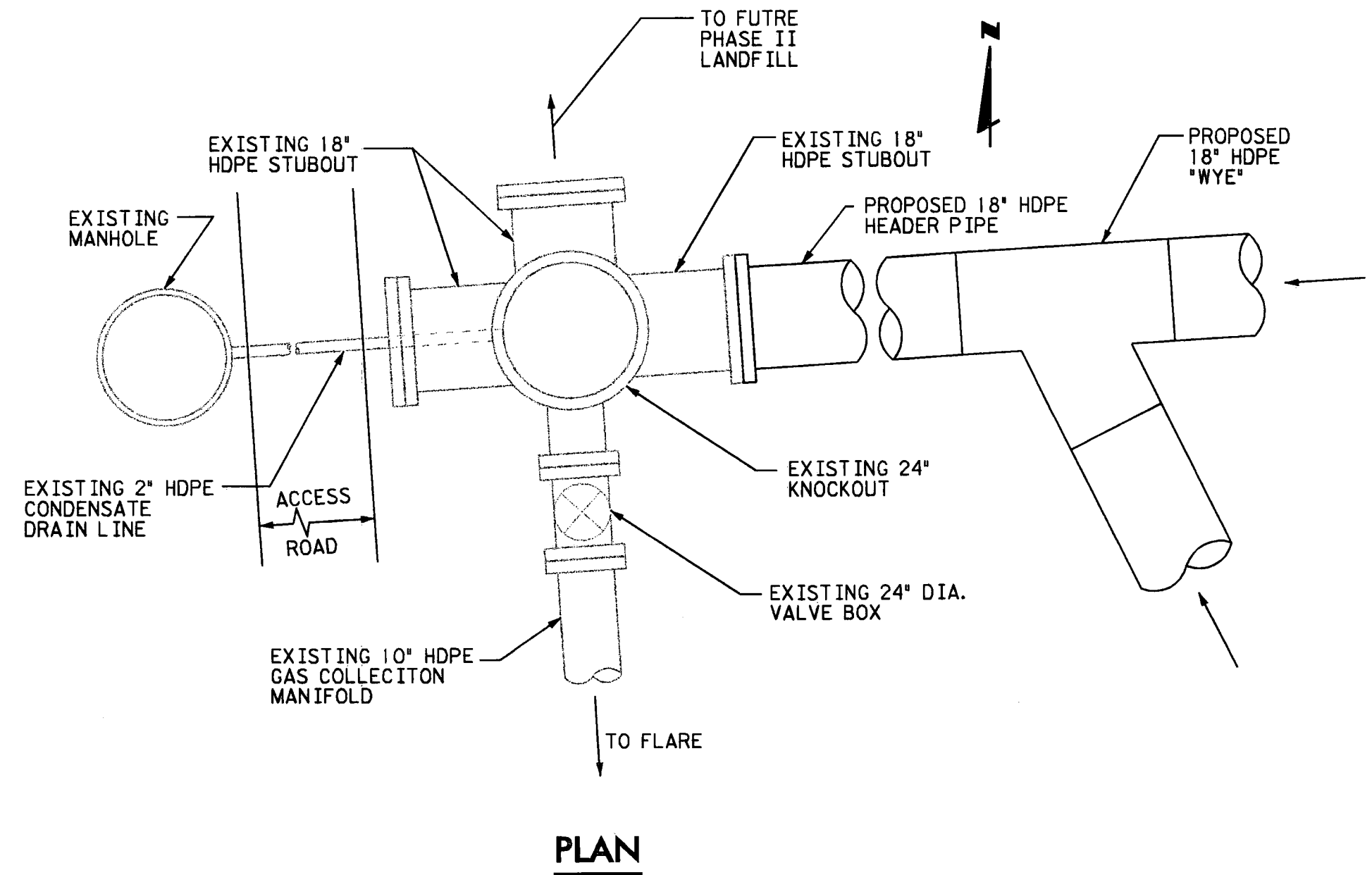
PROJECT
LENA ROAD STAGE I LANDFILL
PARTIAL CLOSURE #2

TASK
LANDFILL GAS COLLECTION SYSTEM
TYPICAL SECTIONS AND DETAILS

ORIGINAL JULY 2005
REVISIONS:
1. MAY 2006
2.
3.
4.
5.

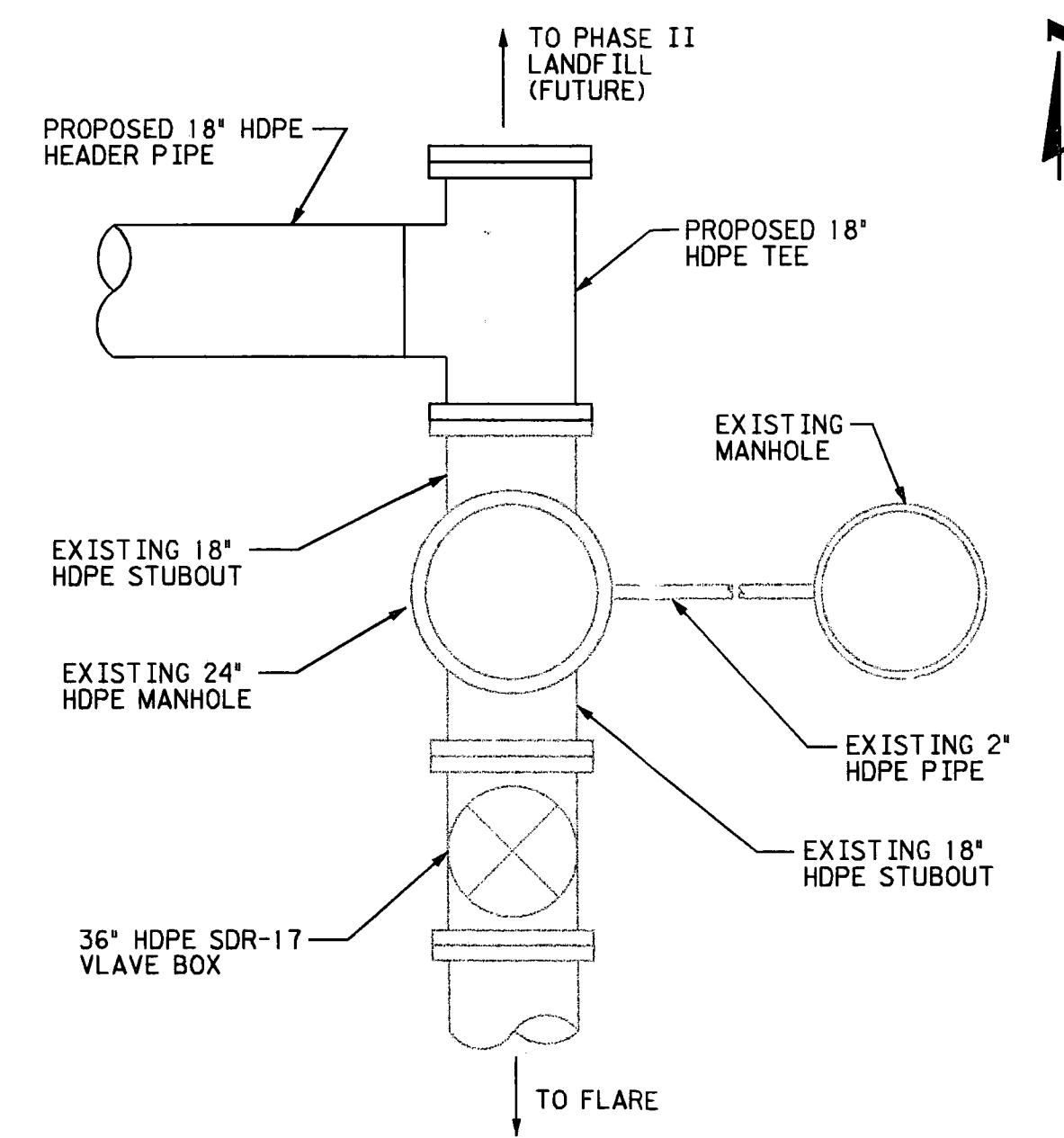


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DESIGN JLM/RGC
CHECKED JLM
Q.C. DED
SHEET 6/14



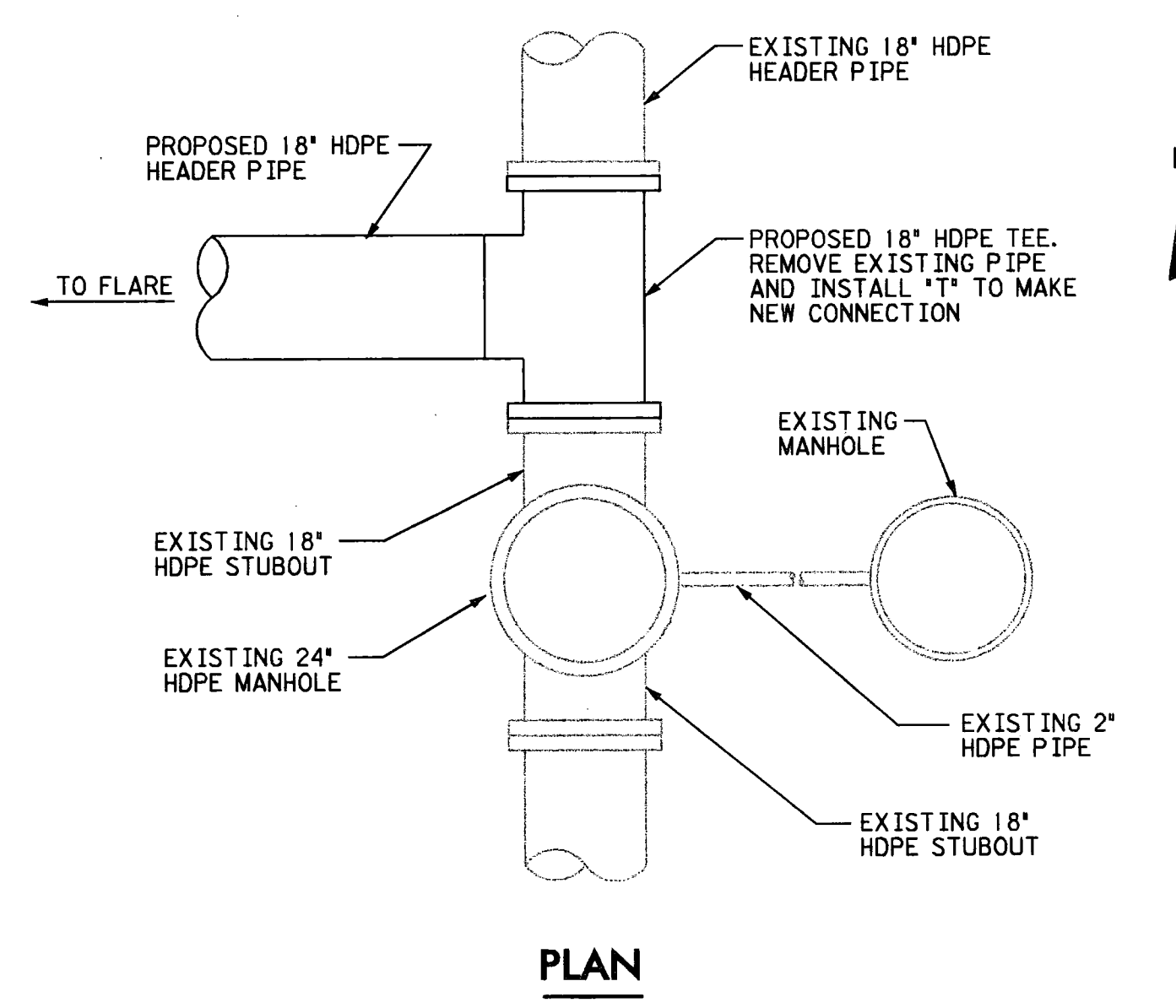
PLAN

NORTHWEST CONDENSATE KNOCKOUT CONNECTION 1
NTS C-4



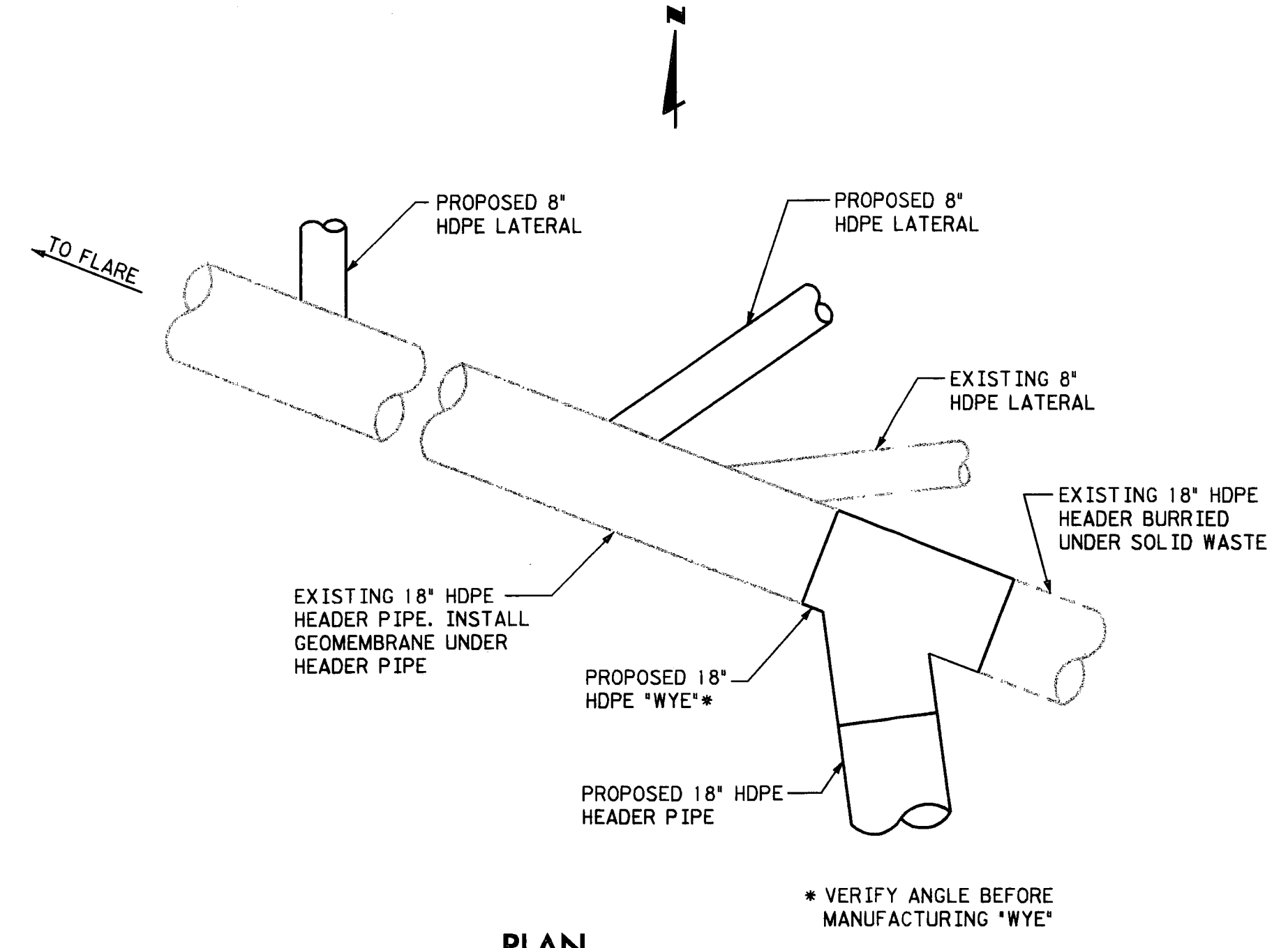
PLAN

NORTHEAST CONDENSATE KNOCKOUT CONNECTION 2
NTS C-4



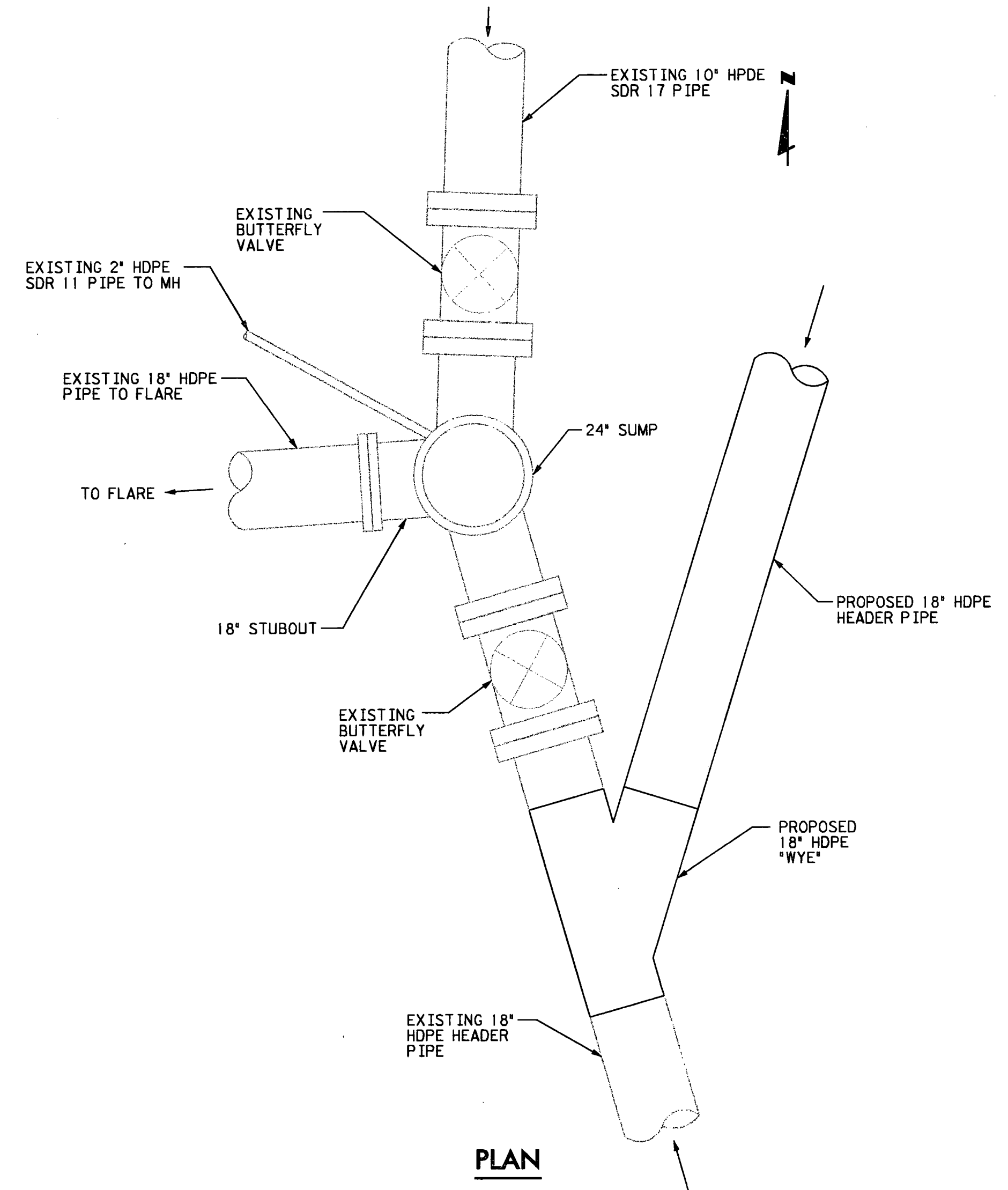
PLAN

SOUTHWEST CONDENSATE KNOCKOUT CONNECTION 3
NTS C-3



PLAN

DETAIL 4
NTS C-3



PLAN

MAIN CONDENSATE KNOCKOUT DETAIL 5
NTS C-3

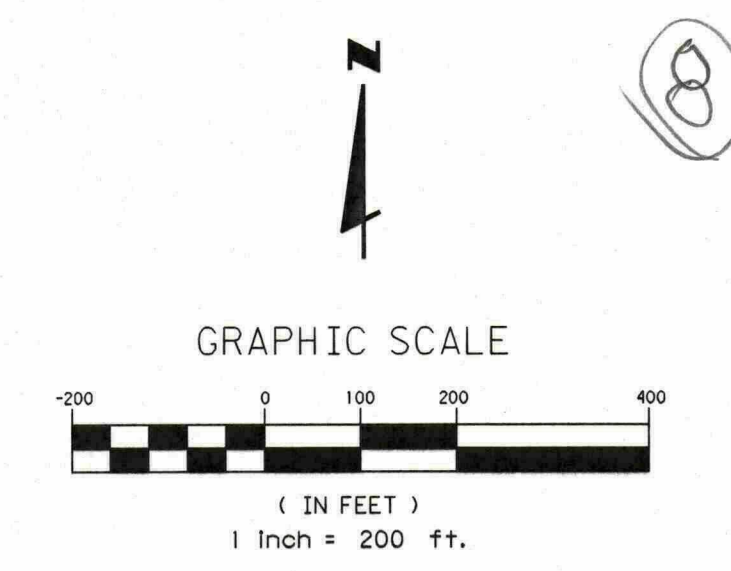
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 POST BUCKLEY, SCHUH & JERNIGAN, Inc.
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 3001 N.W. 107th Ave., Miami, FL 33172-2607
 FBPE Certificate of Authorization No. 24

CLIENT	PROJECT	TASK
MANATEE COUNTY	LENA ROAD STAGE I LANDFILL	LANDFILL GAS COLLECTION SYSTEM
BOARD OF COUNTY COMMISSIONERS	PARTIAL CLOSURE #2	TYPICAL SECTIONS AND DETAILS

ORIGINAL JULY 2005	Name: JOSEPH A. WILKES Florida P.E. No. 36977 Address: 2605 S. Highway Road Orlando, FL 32809-4107 Signature: [Signature] State of FLORIDA PROFESSIONAL ENGINEER
REVISIONS:	
1. _____	
2. _____	
3. _____	

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION	JOB NO. 120498.21
APR - 7 2006	DRAWN RGC
SOUTHWEST DISTRICT TAMPA	DESIGN JLM/RGC
	CHECKED JLM
	Q.C. DED

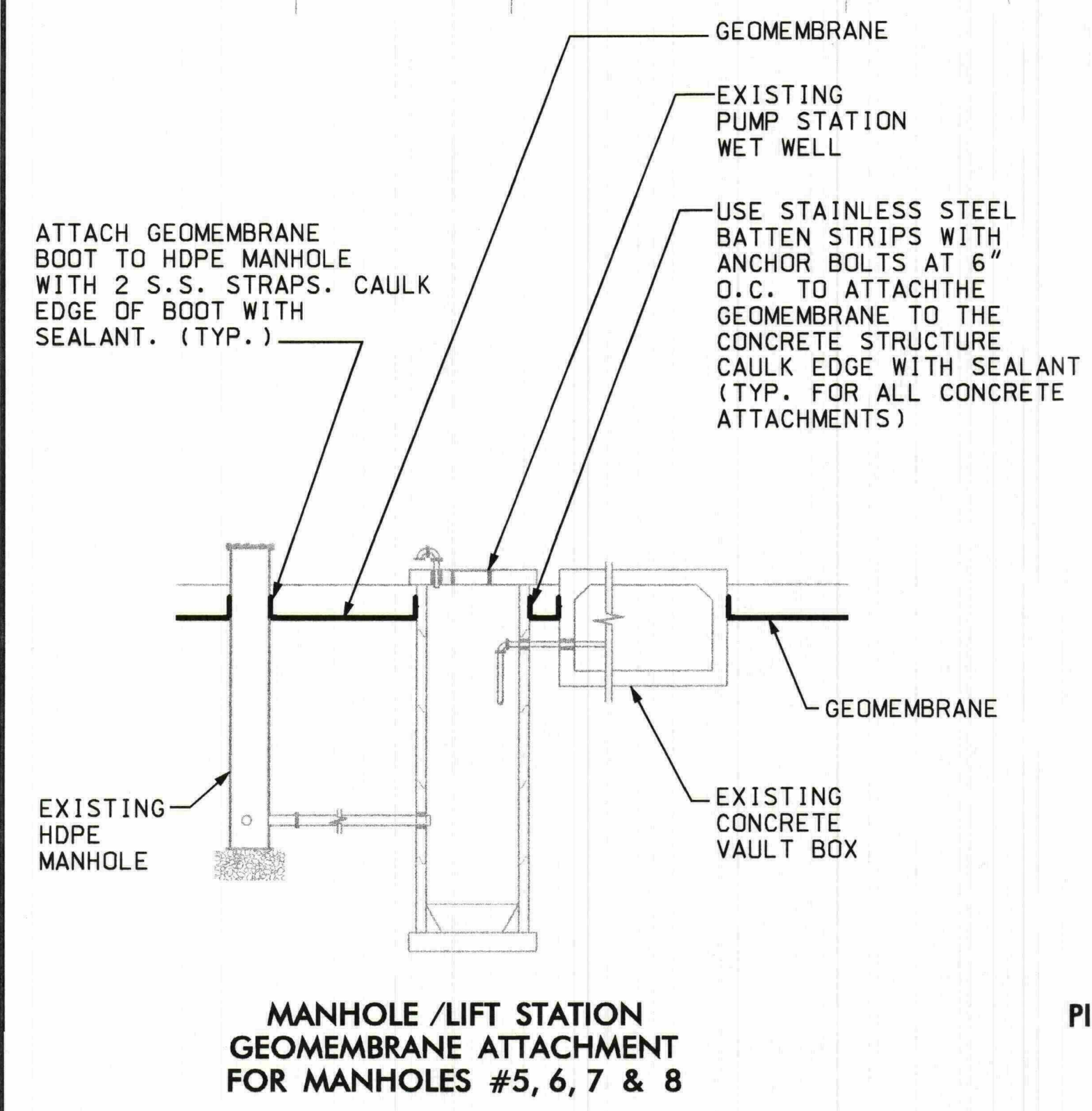
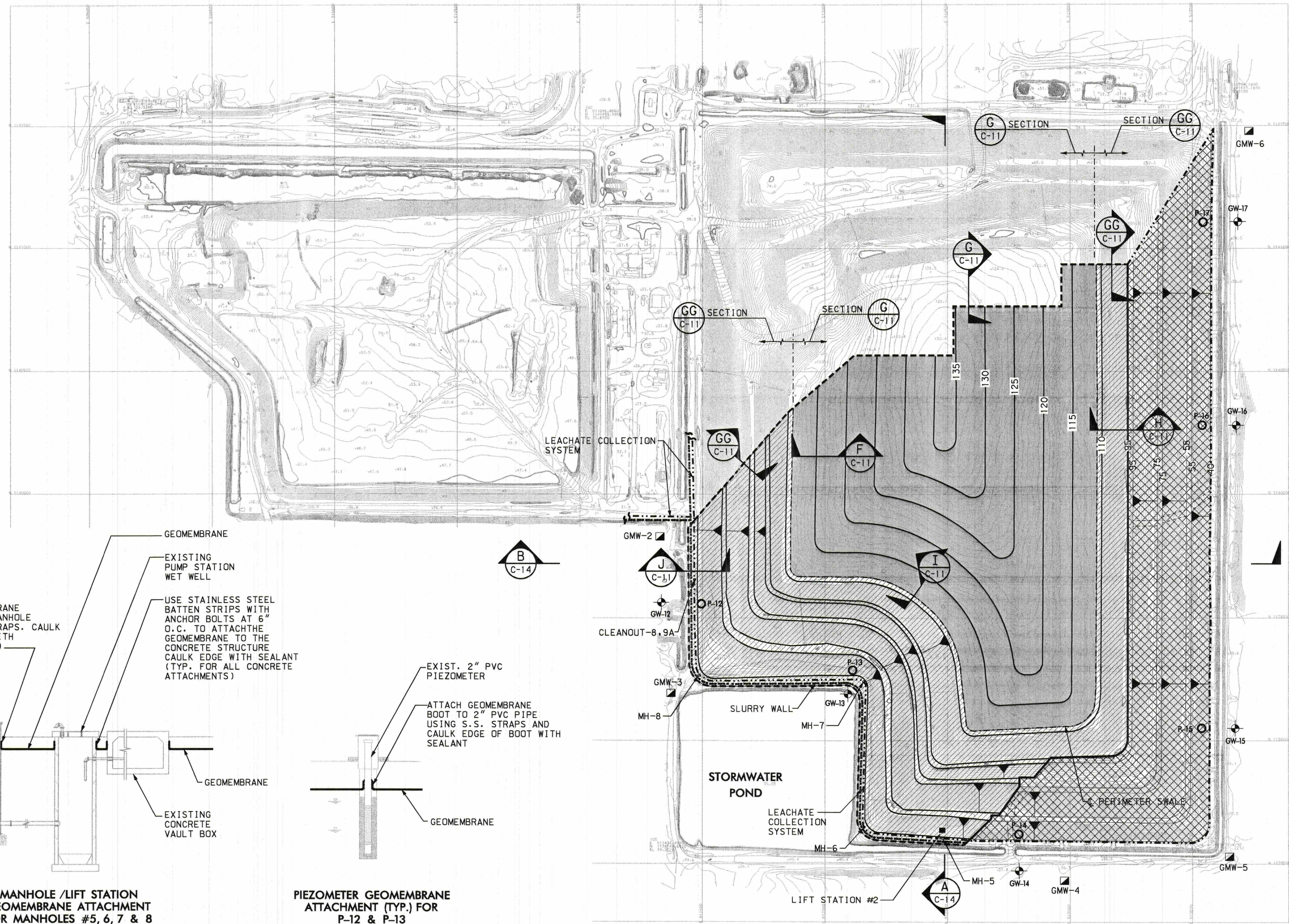
24-MAR-2006 09:15	EMP. NO. 9327
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POINT	NORTHING	EASTING
A	1,139,880	511,455
B	1,140,335	511,850
C	1,140,565	512,120
D	1,140,565	512,525
E	1,140,765	512,525
F	1,140,765	512,965
G	1,140,935	512,965
H	1,140,935	513,235

NOTE:
 STAGE I LANDFILL
 PARTIAL CLOSURE
 NO. 2 TOTAL CAP
 AREA = 65.2 ACRES ±

- LEGEND:
- PROPOSED FINAL CONTOURS
 - EXISTING CONTOURS
 - STORMWATER DROP INLET
 - STORMWATER DRAIN PIPE
 - ▽ SLOPE BREAK
 - ~ SURFACE WATER FLOW
 - - - - - LIMITS OF EXISTING PARTIAL CLOSURE #1
 - LIMITS OF PARTIAL CLOSURE #2 AREA OF CAP = 65.2 ACRES
 - GMW-5 ■ GAS MONITORING WELL
 - GW-16 ⊕ GROUNDWATER MONITORING WELL
 - P-17 ○ PIEZOMETER
 - SLURRY WALL
 - ▨ EXISTING GEOMEMBRANE
 - ▨ PROPOSED TEXTURED GEOMEMBRANE WITH GEOCOMPOSITE
 - SMOOTH GEOMEMBRANE



16-JUN-2006 15:28 EMP, NO1 9327

C-8



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 Tel. (407) 647-7275
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 dba PBS&J
 2901 N.W. 107th Ave., Miami, FL 33179-2507
 PEPB Certificate of Authorization No. 24

CLIENT
MANATEE COUNTY
BOARD OF COUNTY COMMISSIONERS

PROJECT
LENA ROAD STAGE I LANDFILL
PARTIAL CLOSURE #2

TASK
LANDFILL CAP
PLAN

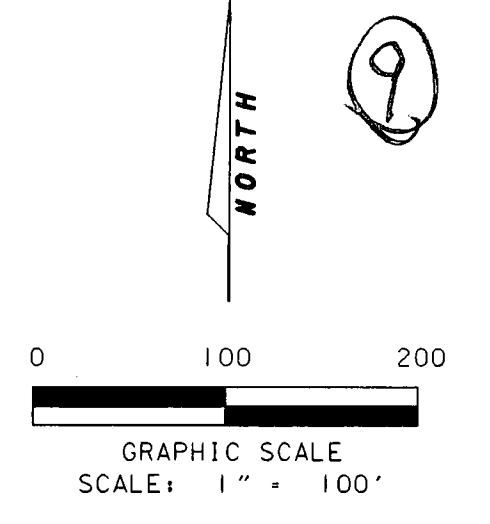
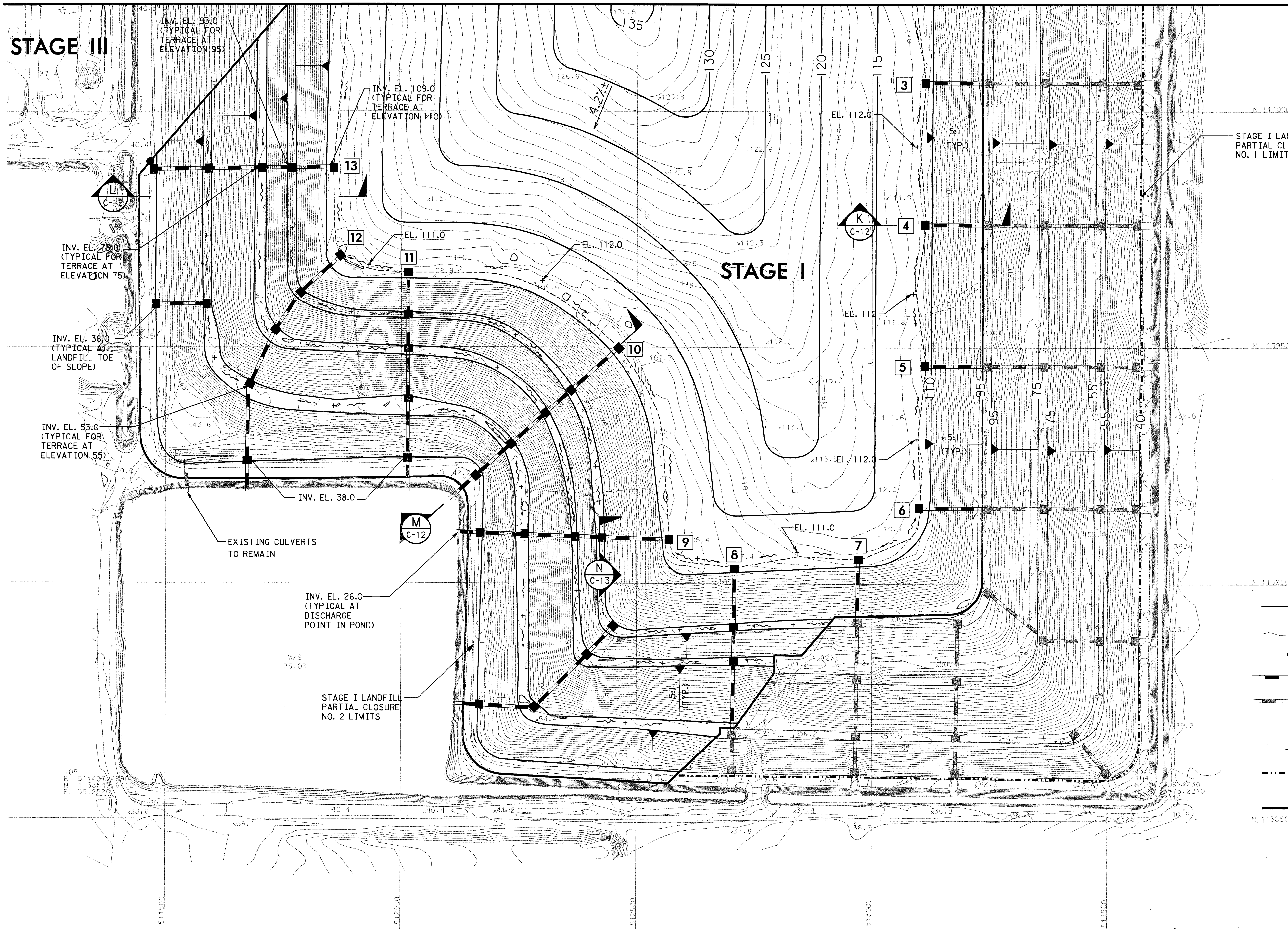
ORIGINAL JULY 2005
 REVISIONS:
 ▲ MARCH 2006
 ▲ MAY 2006
 3.
 4.
 5.

Name: JOSEPH L. MILLER
 Florida P.E. No. 38177
 Address: PHS&J, 33177
 482 S. Keller Road
 Orlando, FL 32810-6101
 Date: 6/19/06

JOB NO. 120498.21
 DRAWN RGC
 DESIGN JLM/RCC
 CHECKED JLM
 Q.C. DED
SHEET 8/14

FLORIDA DEPARTMENT OF
 ENVIRONMENTAL PROTECTION
 JUN 19 2006
 SOUTHWEST DISTRICT
 TAMPA

MATCH LINE SEE SHEET C-10



COORDINATE POINTS FOR DOWNCOMERS

DOWNCOMER	NORTHING	EASTING	ELEVATION	
1	TOP	1,140,660	513,155	109.0
	BOTTOM	1,140,660	513,250	38.0
2	TOP	1,140,062	513,153	109.0
	BOTTOM	1,139,061	513,248	38.0
3	TOP	1,139,761	513,152	109.0
	BOTTOM	1,139,761	513,247	38.0
4	TOP	1,139,466	513,150	109.0
	BOTTOM	1,139,460	513,246	38.0
5	TOP	1,139,161	513,150	109.0
	BOTTOM	1,139,161	513,245	38.0
6	TOP	1,139,059	513,150	109.0
	BOTTOM	1,138,983	513,246	38.0
7	TOP	1,139,014	512,970	109.0
	BOTTOM	1,138,919	512,969	38.0
8	TOP	1,139,018	512,708	107.0
	BOTTOM	1,138,683	512,704	38.0
9	TOP	1,138,838	512,383	105.0
	BOTTOM	1,138,646	512,185	38.0
10	TOP	1,139,229	512,592	109.0
	BOTTOM	1,139,046	512,183	38.0
11	TOP	1,139,525	512,455	109.0
	BOTTOM	1,139,268	512,093	38.0
12	TOP	1,139,676	512,152	107.0
	BOTTOM	1,139,274	511,667	38.0
13	TOP	1,139,792	511,921	109.0
	BOTTOM	1,139,530	511,507	38.0

- LEGEND:
- PROPOSED FINAL CONTOURS
 - EXISTING CONTOURS
 - STORMWATER DROP INLET
 - PROPOSED STORMWATER DRAIN PIPE
 - EXISTING STORMWATER DRAIN PIPE
 - ▼ SLOPE BREAK
 - ~ SURFACE WATER FLOW
 - - - - - LIMITS OF EXISTING PARTIAL CLOSURE #1
 - LIMITS OF PARTIAL CLOSURE #2
- AREA OF CAP = 65.2 ACRES

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUN 19 2006
SOUTHWEST DISTRICT
TAMPA

▲ ADDED HIGH POINT ELEVATION ON PERIMETER SWALE AT TOP TERRACE

C-9

PBS&J
482 South Keller Road
Orlando, FL 32810-6101
Tel. (407) 647-7275
Fax. (407) 647-0624
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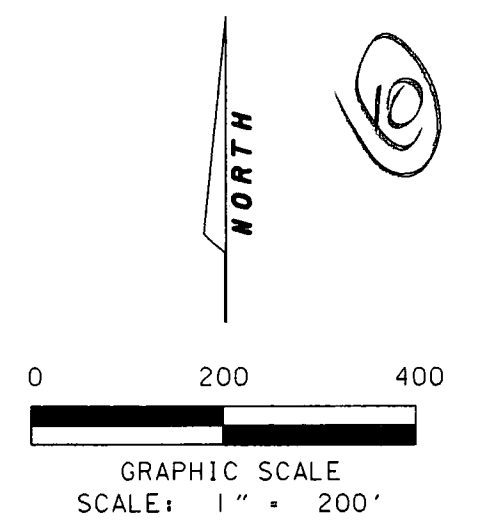
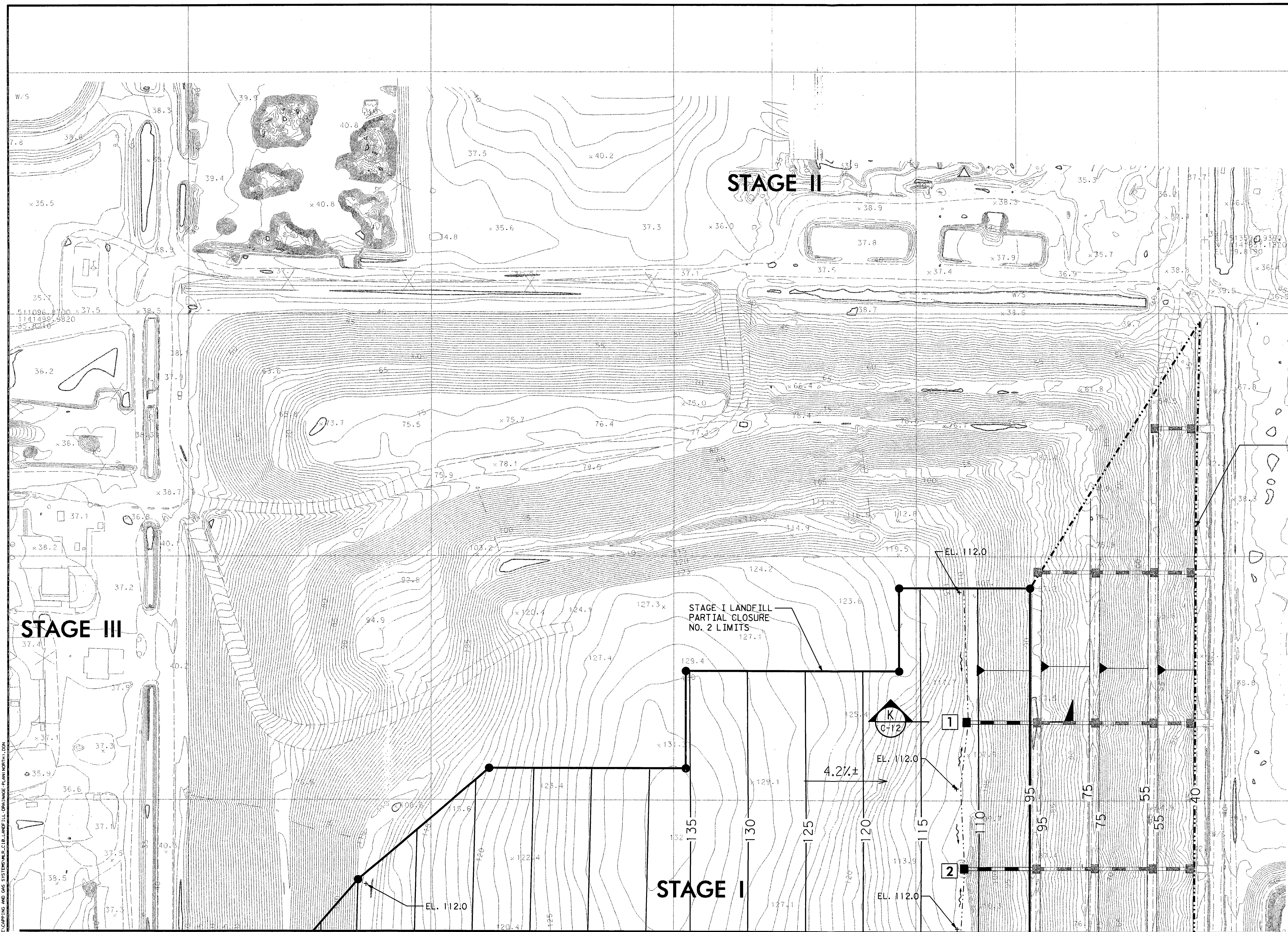
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6th Floor
2001 N.W. 107th Ave., Miami, FL 33172-9507
FBPR Certificate of Authorization No. 24

CLIENT	PROJECT	TASK
MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS	LENA ROAD STAGE I LANDFILL PARTIAL CLOSURE #2	LANDFILL DRAINAGE PLAN (SOUTH)

ORIGINAL JULY 2005	
REVISIONS:	
▲ MARCH 2006	
▲ MAY 2006	
3. _____	

JOB NO. 120498.21
DRAWN RGC
DESIGN JLM/RGC
CHECKED JLM
Q.C. DED
SHEET 914

16 JUN 2006 15:28 EMP. NO. 9327
 105
 ELEV: 511457, 4590,
 1138648, 610
 EL. 39.2528
 W/S 35.03
 511500
 512000
 512500
 513000
 513500



COORDINATE POINTS FOR DOWNCOMERS

DOWNCOMER	NORTHING	EASTING	ELEVATION	
1	TOP	1,140,660	513,155	109.0
	BOTTOM	1,140,660	513,250	38.0
2	TOP	1,140,062	513,153	109.0
	BOTTOM	1,139,061	513,248	38.0
3	TOP	1,139,761	513,152	109.0
	BOTTOM	1,139,761	513,247	38.0
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	BOTTOM	1,138,919	512,969	38.0
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9	TOP	1,138,838	512,383	105.0
	BOTTOM	1,138,646	512,185	38.0
10	TOP	1,139,229	512,592	109.0
	BOTTOM	1,139,046	512,183	38.0
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	BOTTOM	1,139,274	511,667	38.0
13	TOP	1,139,792	511,921	109.0
	BOTTOM	1,139,530	511,507	38.0

- LEGEND:**
- PROPOSED FINAL CONTOURS
 - ~ EXISTING CONTOURS
 - STORMWATER DROP INLET
 - PROPOSED STORMWATER DRAIN PIPE
 - EXISTING STORMWATER DRAIN PIPE
 - ▼ SLOPE BREAK
 - ~ SURFACE WATER FLOW
 - - - - - LIMITS OF EXISTING PARTIAL CLOSURE #1
 - LIMITS OF PARTIAL CLOSURE #2
AREA OF CAP = 65.2 ACRES

MATCH LINE SEE SHEET C-9

▲ ADDED HIGH POINT ELEVATION ON PERIMETER SWALE AT TOP TERRACE

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUN 19 2006
SOUTHWEST DISTRICT
TAMPA

C-10



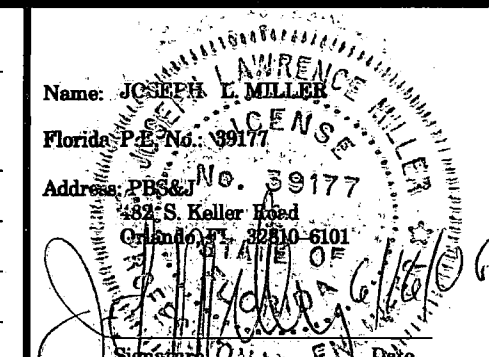
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CLIENT
MANATEE COUNTY
BOARD OF COUNTY COMMISSIONERS

PROJECT
LENA ROAD STAGE I LANDFILL
PARTIAL CLOSURE #2

TASK
LANDFILL DRAINAGE PLAN
(NORTH)

ORIGINAL JULY 2005
REVISIONS:
▲ MAY 2006



JOB NO. 120498.21
DRAWN RGC
DESIGN JLM/RCC
CHECKED JLM
Q.C. DED
SHEET 10/14

DATE: 05/19/06 15:28 EMP: 015327

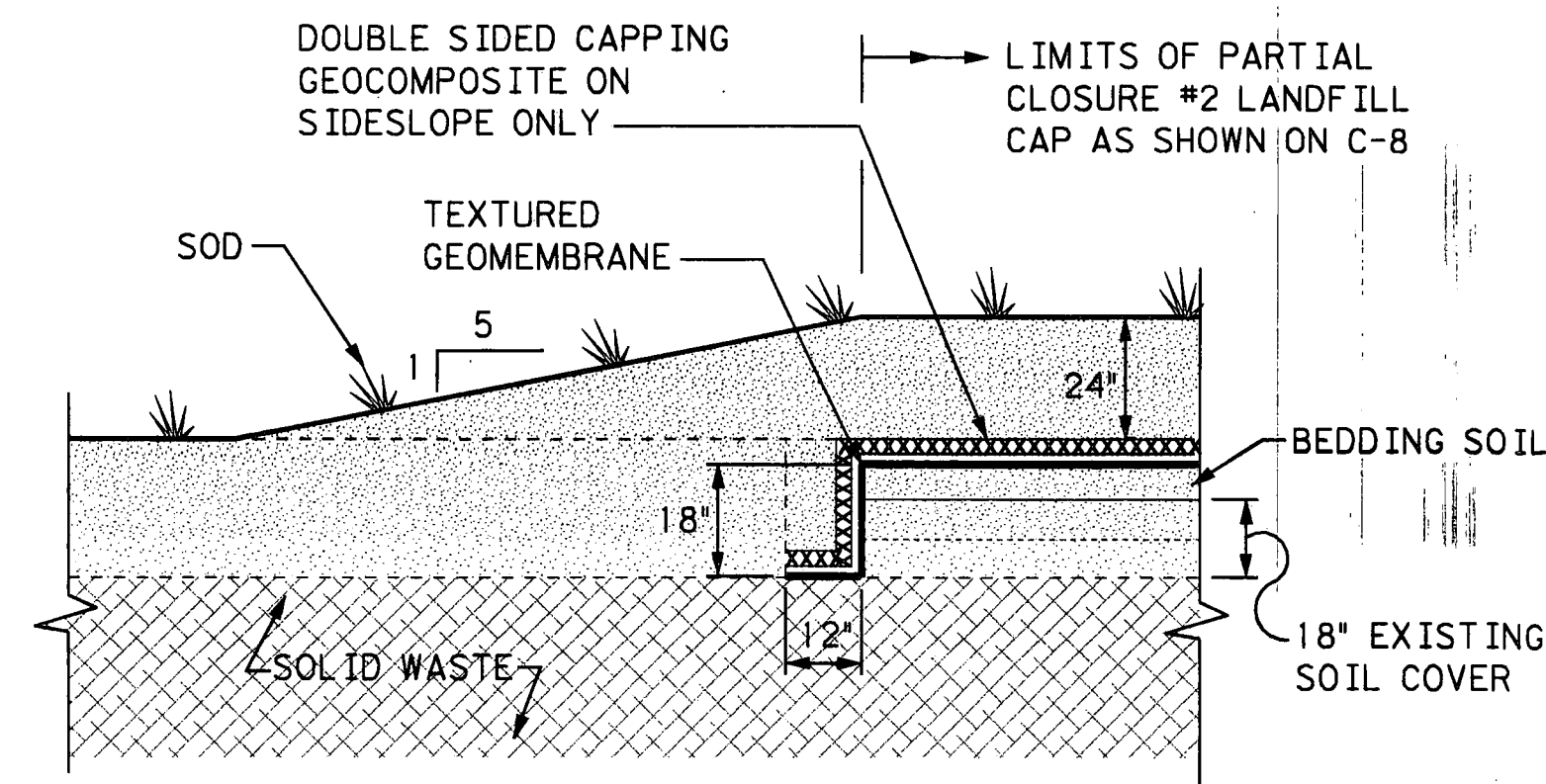
*** NOTE:**

PROTECTIVE COVER SOIL AND BEDDING SOIL SHALL BE 100% PASSING 1/2" SIEVE.

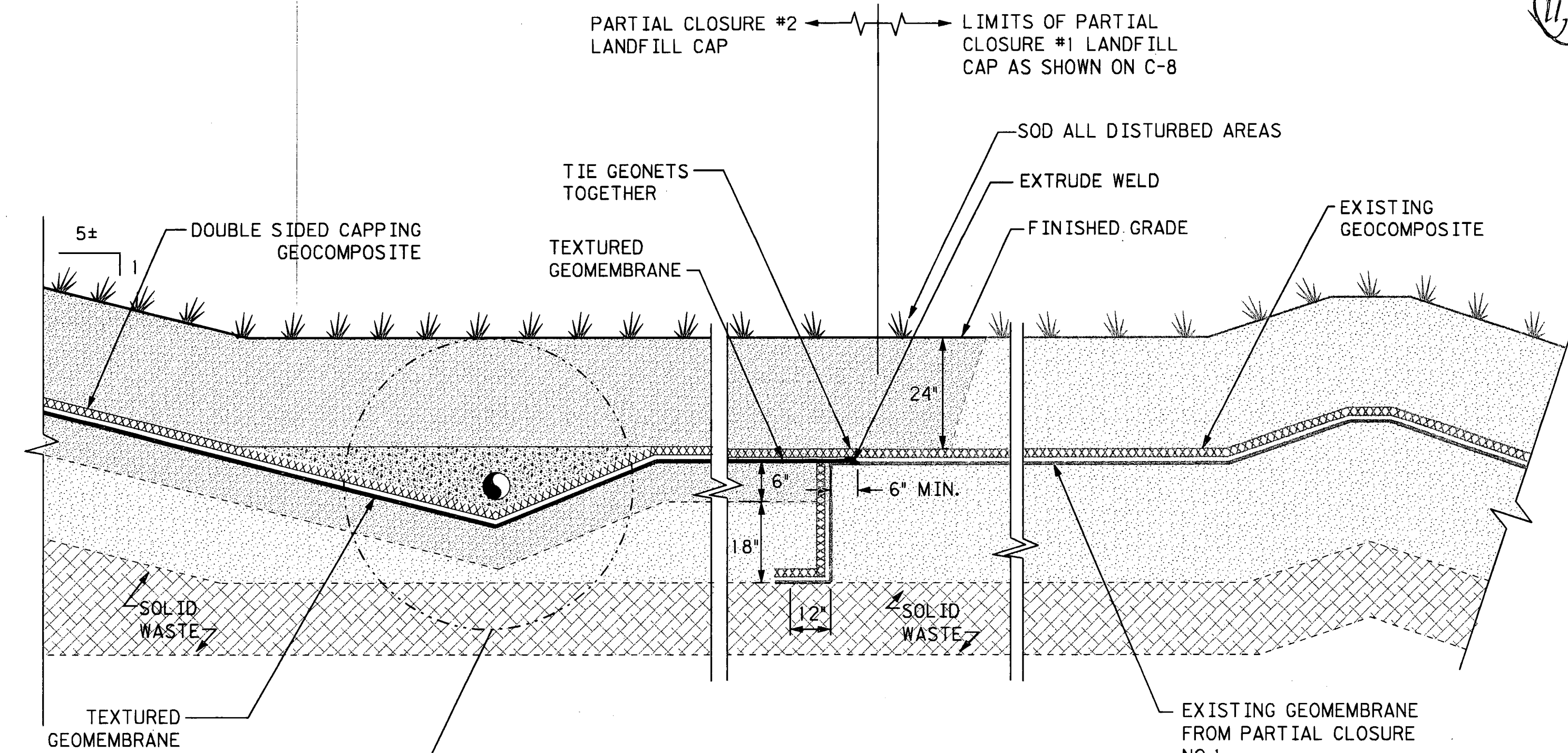
INTERMEDIATE COVER SOIL MAY BE USED AS BEDDING SOIL IF 100% PASSING 1/2" SIEVE.

SURFACE PREPARATION:

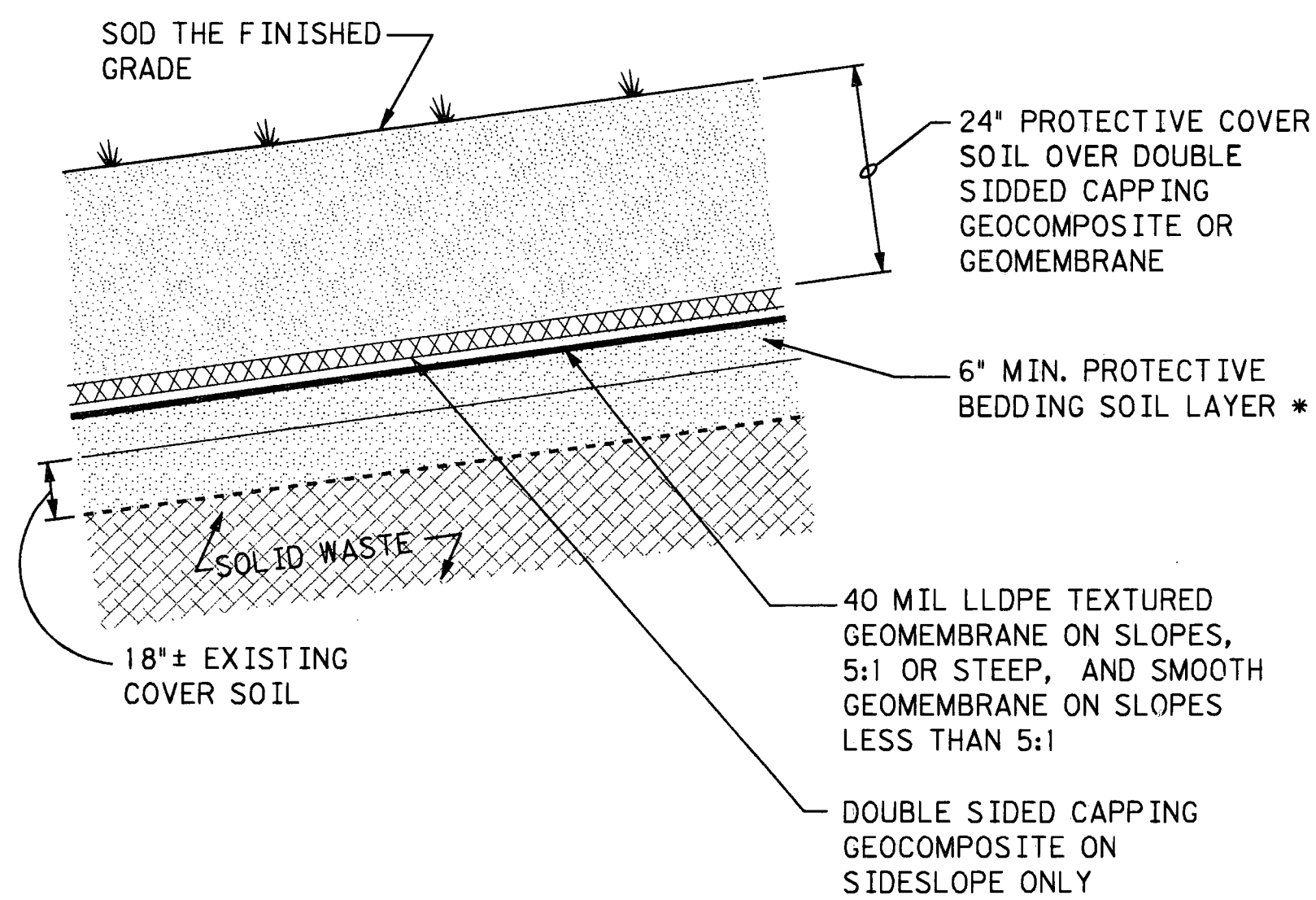
1. REMOVE ALL VEGETATION FROM SURFACE OF INTERMEDIATE COVER PRIOR TO PLACING GEOMEMBRANE.
2. GRADE THE SURFACE TO DRAIN TO STORMWATER INLETS.
3. ROLL THE SURFACE SMOOTH WITH A MINIMUM OF 3 PASSES.
4. REMOVE ALL ROCKS, STICKS TRASH, ETC GREATER THAN 1/2", OR ANY OTHER OBJECT THAT COULD PUNCTURE THE GEOMEMBRANE. THE CONTRACTOR SHALL SUPPLY LABOR TO WALK THE SURFACE AND HAND PICK ANY OBJECTS.
5. ENGINEER COA MONITOR SHALL INSPECT AND APPROVE FINAL SURFACE PRIOR PLACING GEOMEMBRANE.



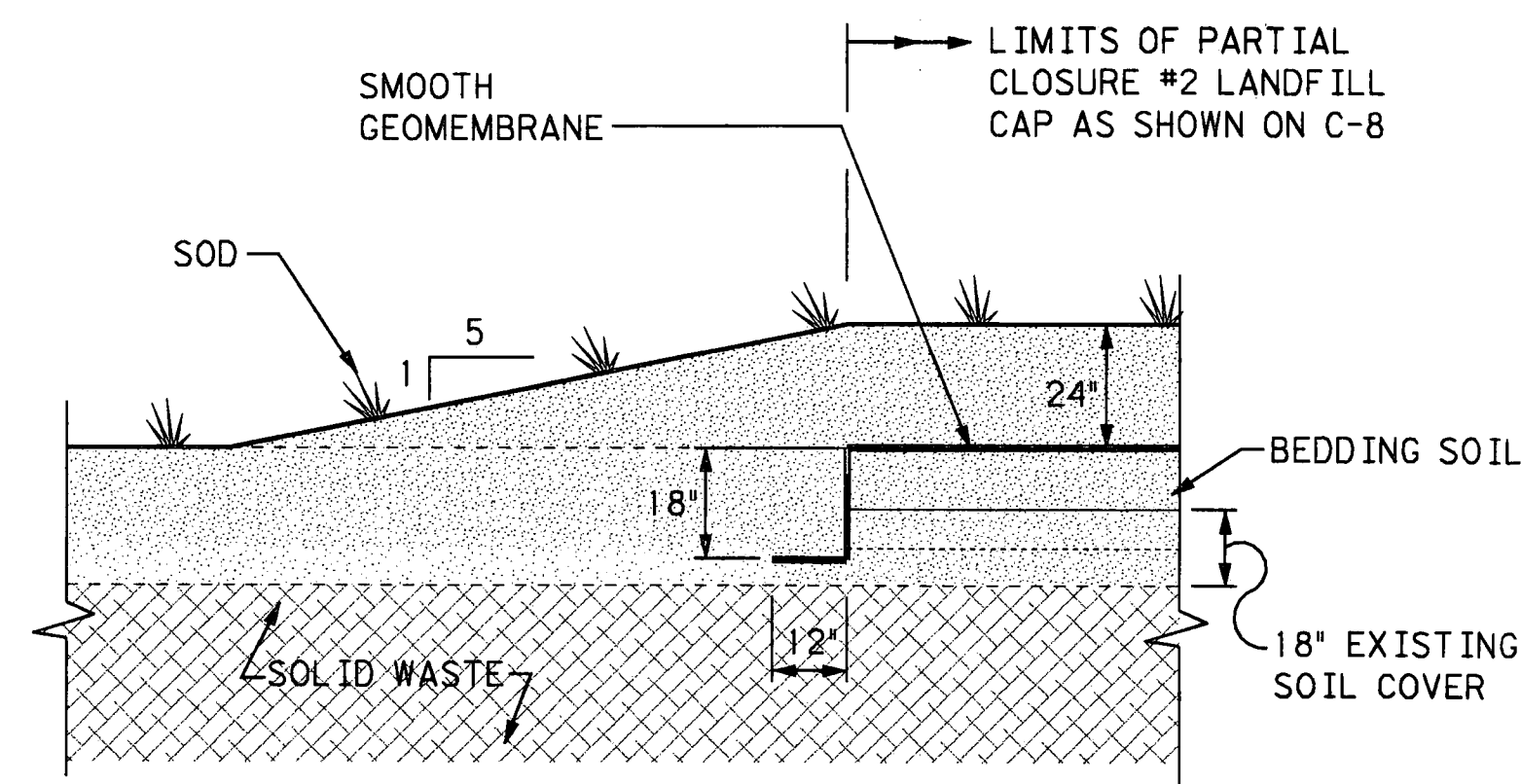
WASTE AREA GEOMEMBRANE KEY GG
NTS C-8



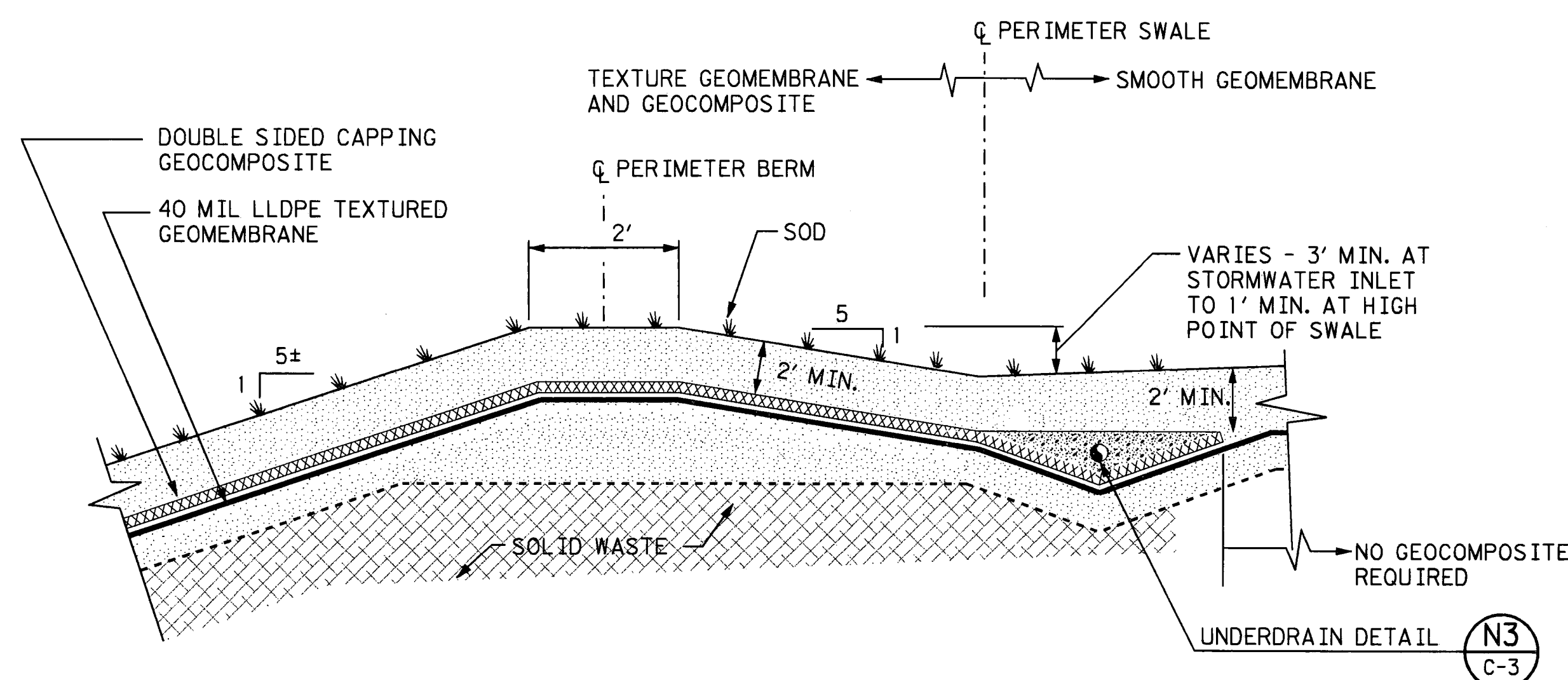
PROPOSED GEOMEMBRANE CONNECTION FOR PARTIAL CLOSURE NO.2 TO PARTIAL CLOSURE NO.1
NTS C-8



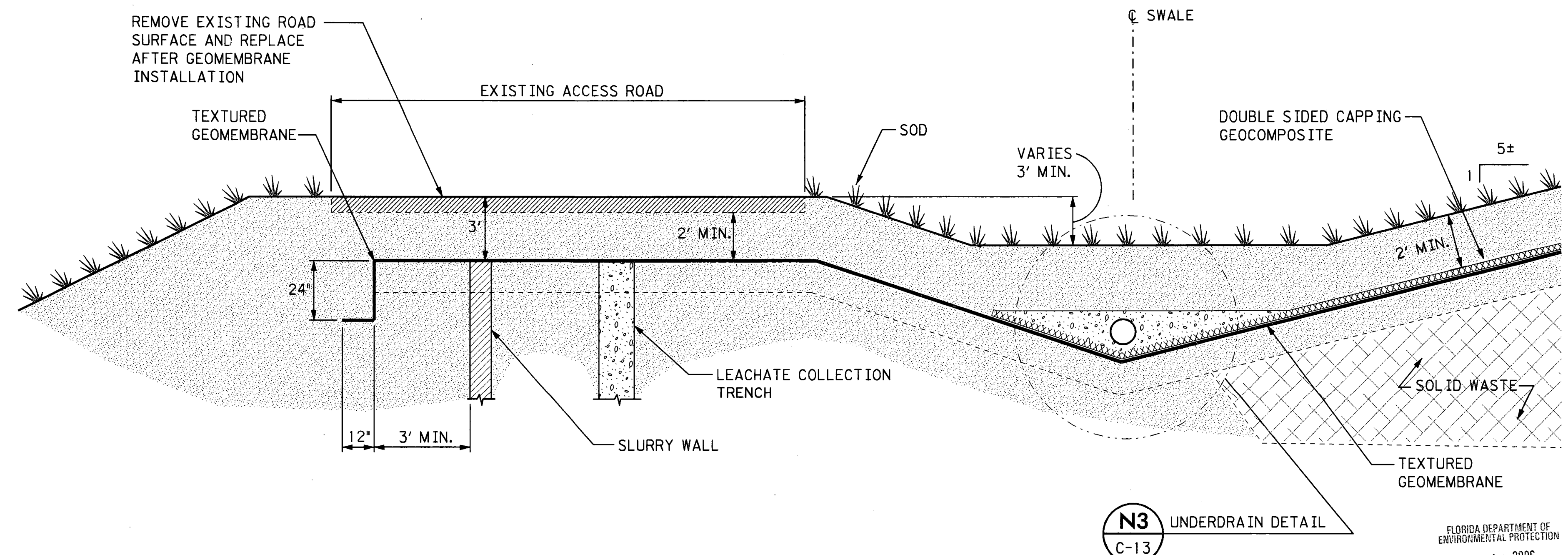
TYPICAL FINAL CAP SECTION F
NTS C-8



WASTE AREA GEOMEMBRANE KEY G
NTS C-8



TYPICAL LANDFILL CREST DETAIL I
NTS C-8



SLURRY WALL AREA GEOMEMBRANE KEY J
NTS C-8

ADDED DETAIL "GG", REVISED DETAILS "G", "H" & "I" UNDERDRAIN PIPE

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUN 19 2006
SOUTHWEST DISTRICT TAMPA



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4th Floor
2901 N.W. 107th Ave., Miami, FL 33179-2507
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CLIENT
MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS

PROJECT
LENA ROAD STAGE I LANDFILL PARTIAL CLOSURE #2

TASK
LANDFILL CAP AND DRAINAGE TYPICAL SECTIONS AND DETAILS

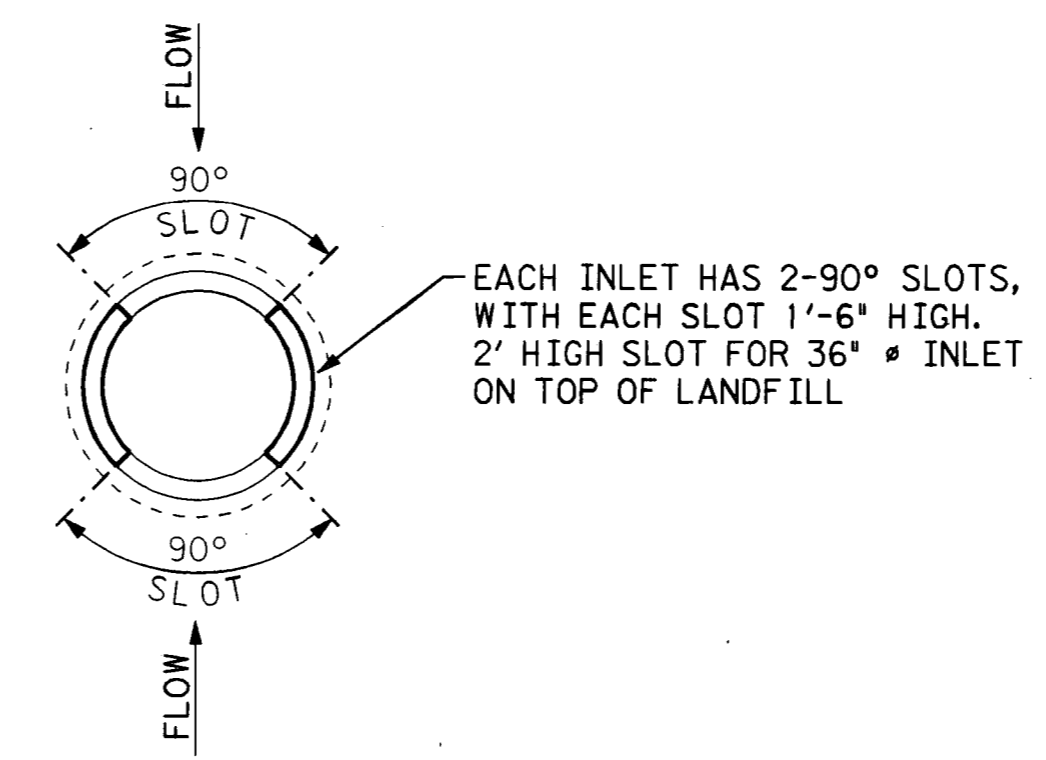
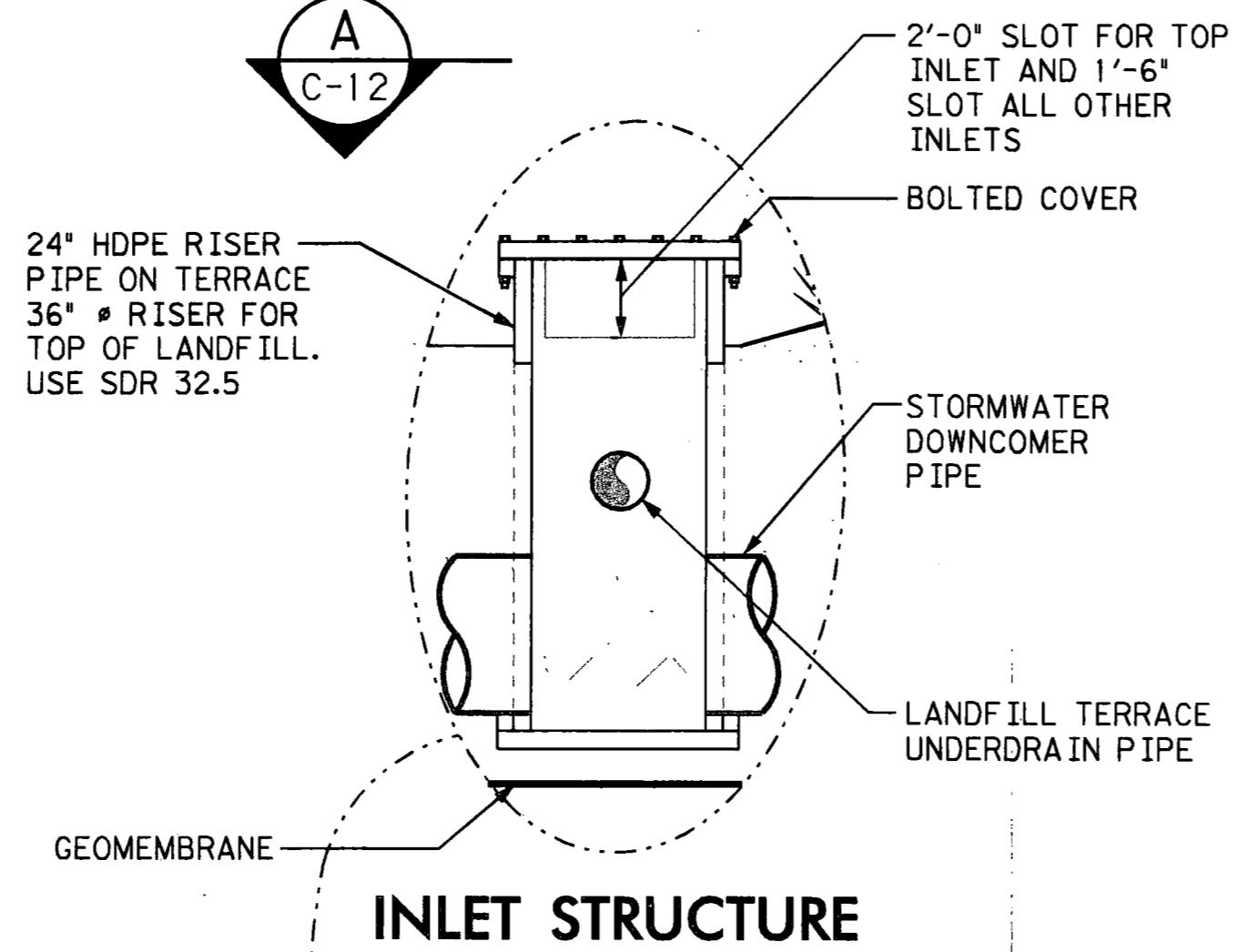
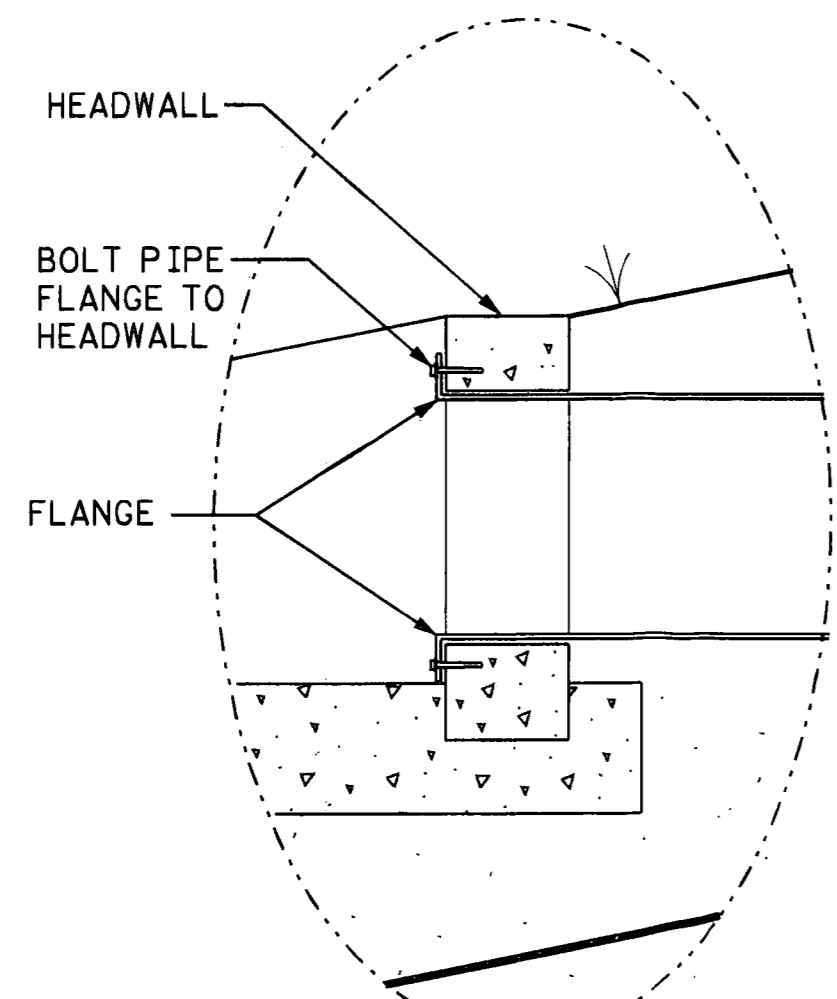
ORIGINAL JULY 2005
REVISIONS:
1. MARCH 2006
2. MAY 2006
3.
4.
5.

Stamp: W. Joseph L. Schuch, P.E., License No. 38177, State of Florida, Professional Engineer, dated 11/10/06.

JOB NO. 120498.21
DRAWN RGC
DESIGN JLM/RCC
CHECKED JLM
Q.C. DED
SHEET 11/14

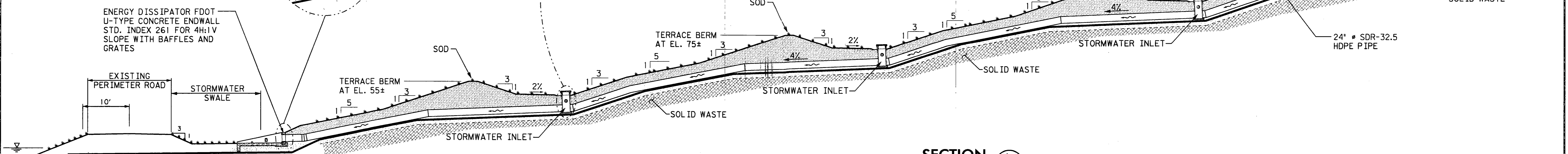
16-JUN-2006 15:28 EMP. NO. 9327

A
C-12

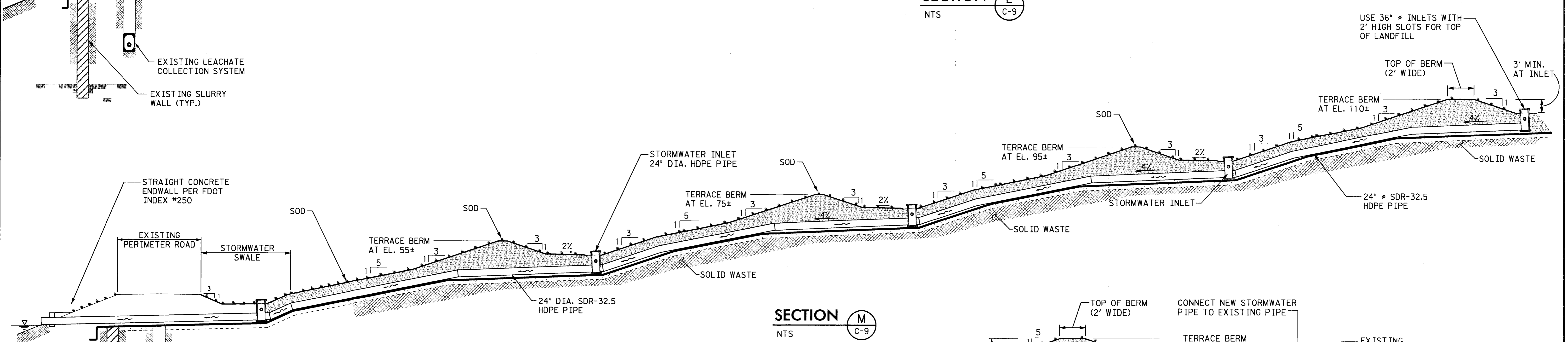


PLAN VIEW A
NTS C-12

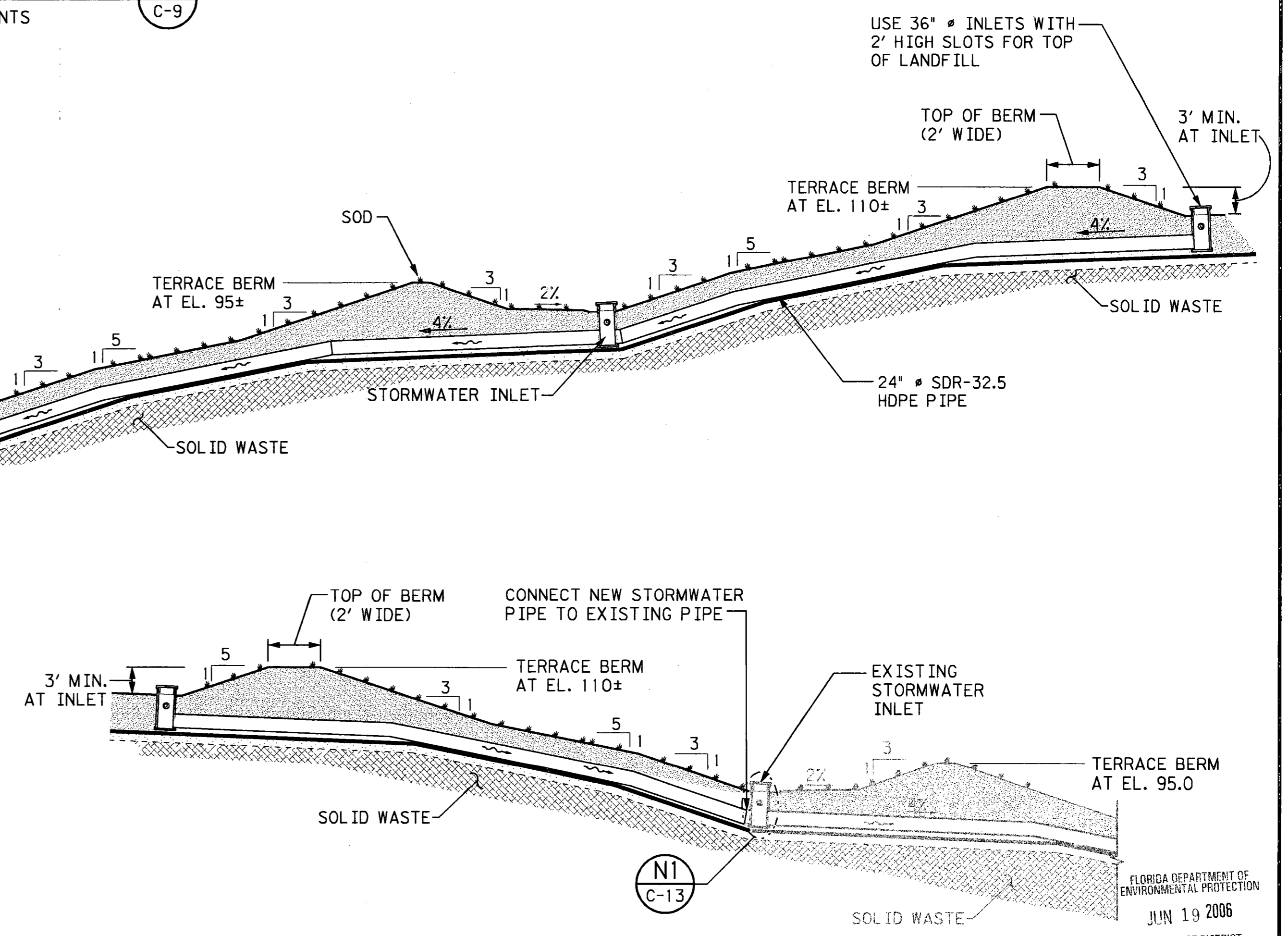
INLET STRUCTURE
NTS



SECTION L
NTS C-9



SECTION M
NTS C-9



SECTION K
NTS C-9 C-10

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
JUN 19 2006
SOUTHWEST DISTRICT TAMPA

C-12

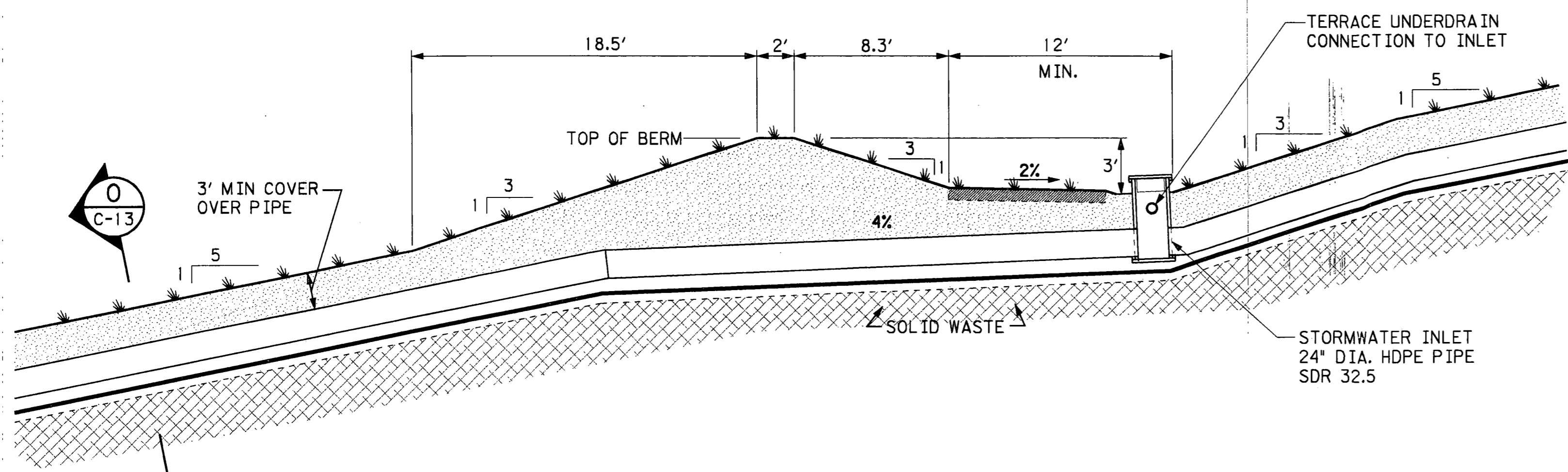
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Fax. (407) 647-0624
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FBPR Certificate of Authorization No. 34

CLIENT	PROJECT	TASK
MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS	LENA ROAD STAGE I LANDFILL PARTIAL CLOSURE #2	LANDFILL CAP AND DRAINAGE TYPICAL SECTIONS AND DETAILS

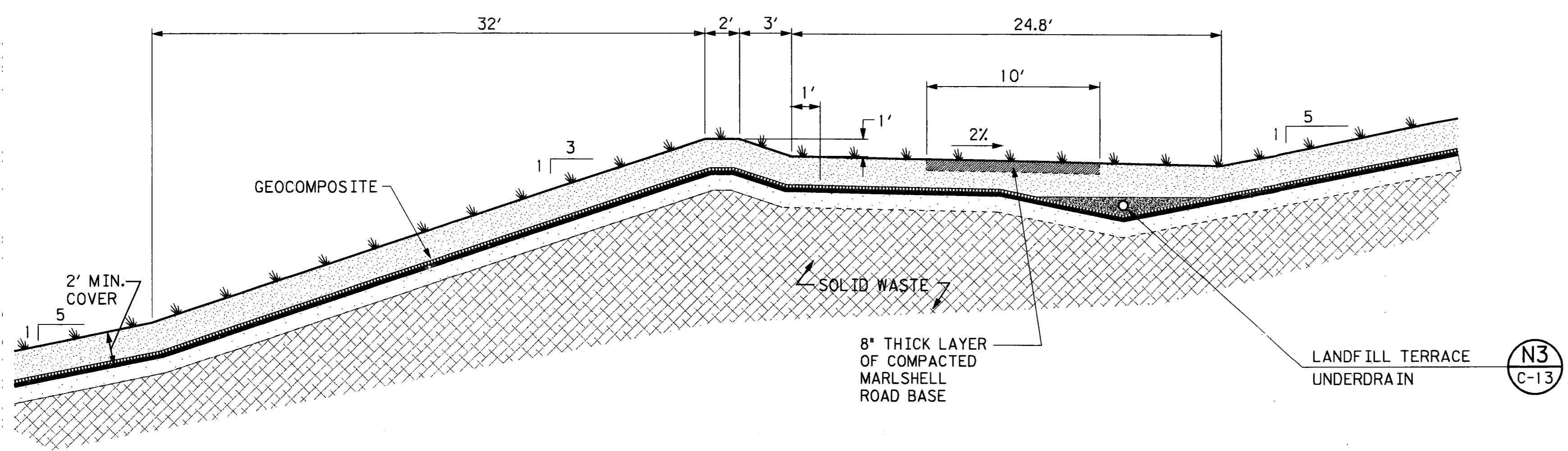
ORIGINAL JULY 2005	
REVISIONS:	
1. MAY 2006	
2.	
3.	

JOB NO. 120498.21
DRAWN RGC
DESIGN JLM/RGC
CHECKED JLM
O.C. DED
SHEET 12 / 14

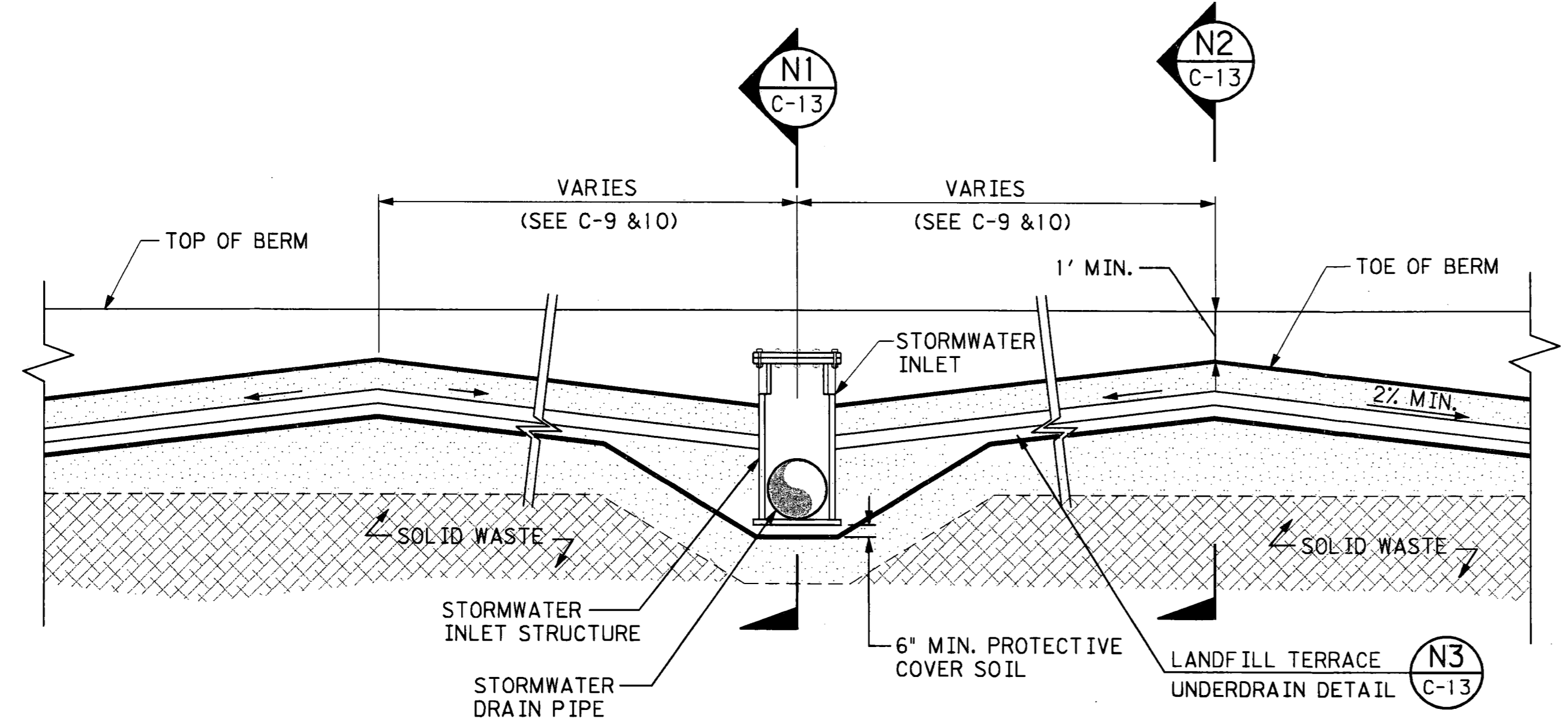
16 JUN 2006 15:28 EMP. NO. 9327



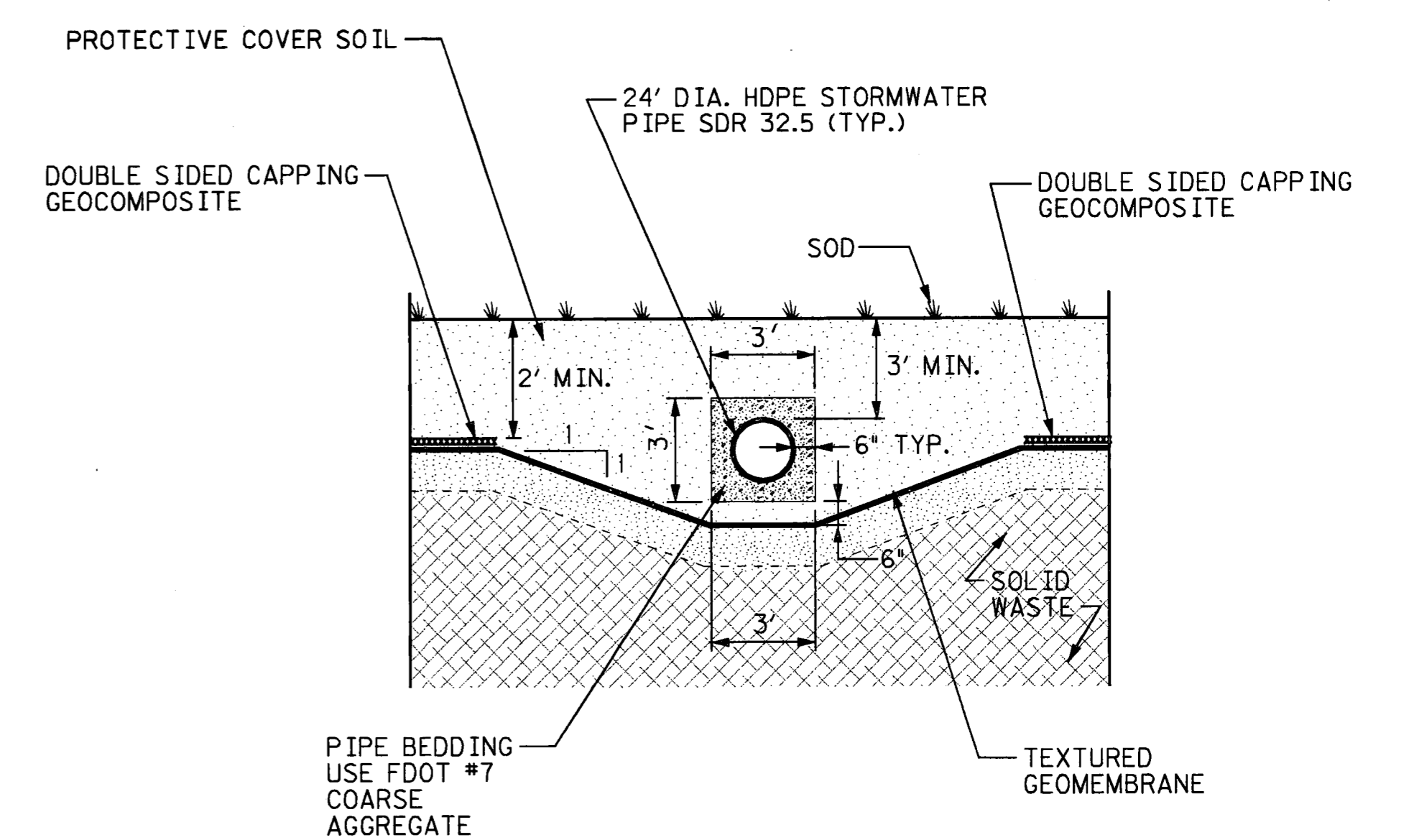
TYPICAL TERRACE SECTION AT LOW POINT (N1 C-12) (N1 C-13)
NTS



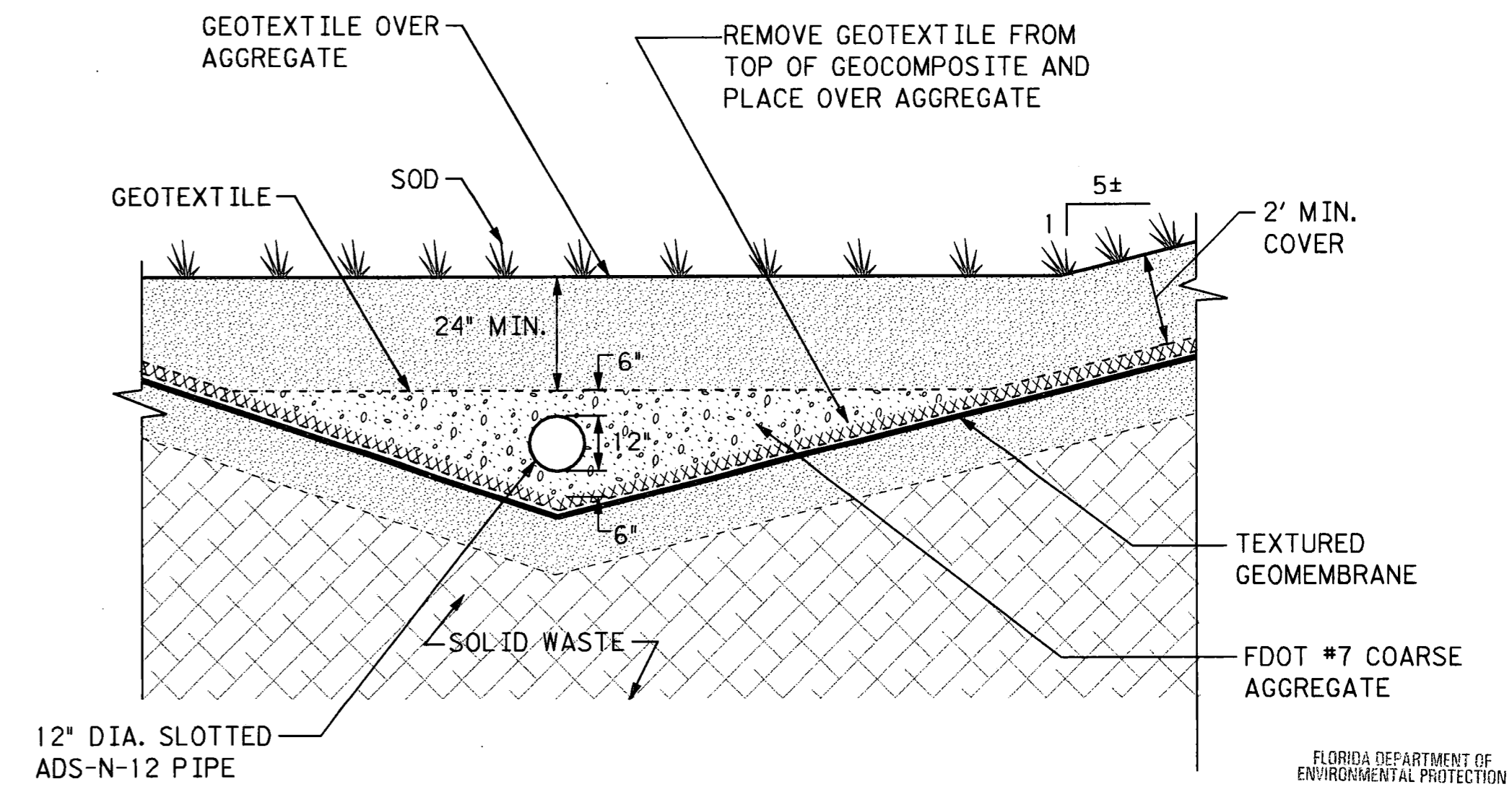
TYPICAL TERRACE SECTION AT HIGH POINT (N2 C-13)
NTS



TYPICAL TERRACE PROFILE (N C-9)
NTS



TYPICAL STORMWATER PIPE SECTION (O C-13)
NTS



LANDFILL TERRACE UNDERDRAIN DETAIL (N3 C-11) (N3 C-12) (N3 C-13)
NTS

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
MAY 19 2006
SOUTHWEST DISTRICT TAMPA

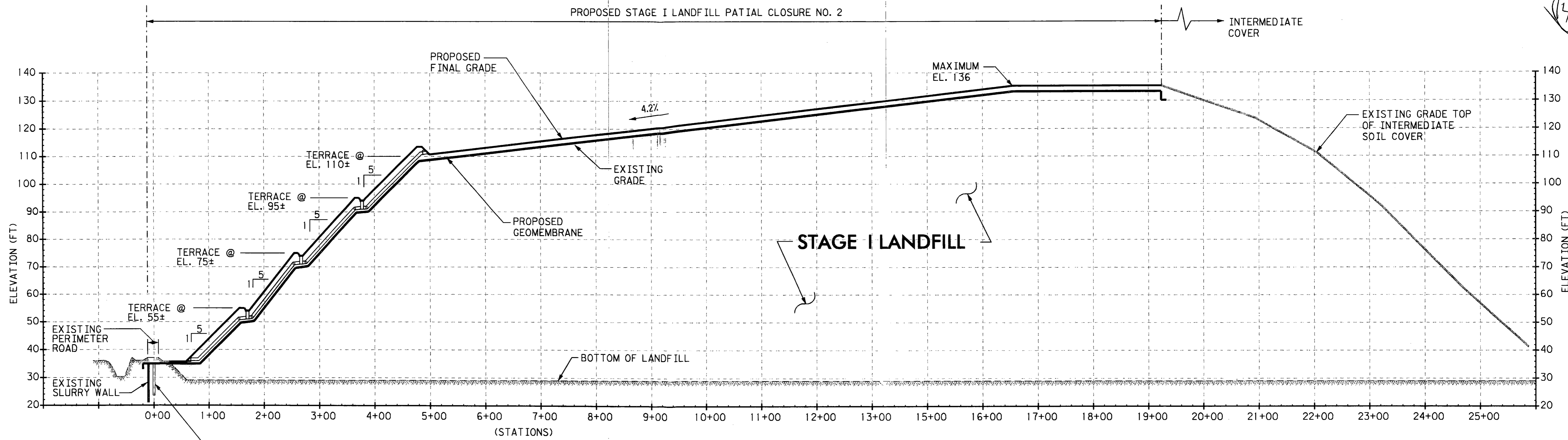
COMPLETION DATE: 12/15/05. DRAWING NO.: 120498.21. SHEET NO.: 13 OF 14. PROJECT: LENA ROAD STAGE I LANDFILL. CLIENT: MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS. DESIGNER: PBS&J. CHECKER: JLM/RCC. DATE: 12/15/05.

PBS&J
482 South Keller Road
Orlando, FL 32810-6101
Tel. (407) 647-7275
Fax. (407) 647-0624
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3001 N.W. 107th Ave., Miami, FL 33173-2507
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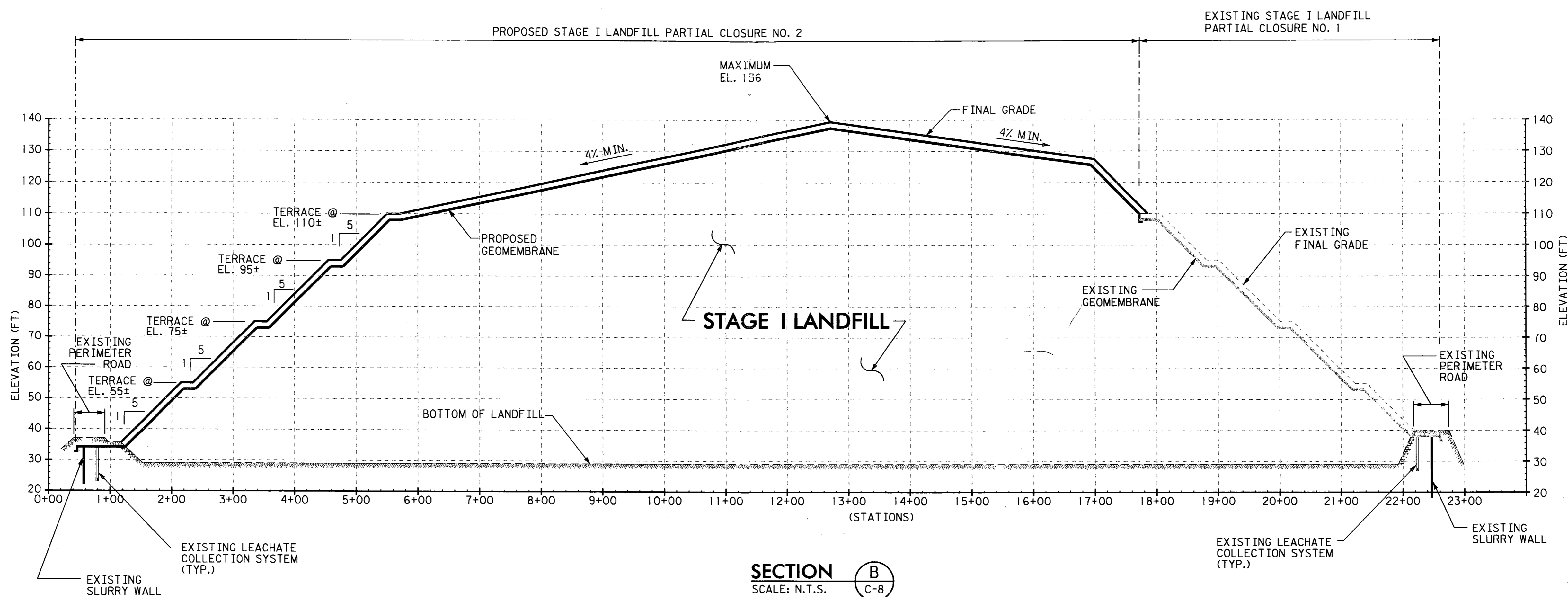
CLIENT	PROJECT	TASK
MANATEE COUNTY BOARD OF COUNTY COMMISSIONERS	LENA ROAD STAGE I LANDFILL PARTIAL CLOSURE #2	LANDFILL CAP AND DRAINAGE TYPICAL SECTIONS AND DETAILS

ORIGINAL JULY 2005	
REVISIONS:	
▲ MARCH 2006	
▲ MAY 2006	
3. _____	

JOB NO. 120498.21
DRAWN RGC
DESIGN JLM/RCC
CHECKED JLM
Q.C. DED
SHEET 13/14



SECTION A
SCALE: N.T.S. C-8



SECTION B
SCALE: N.T.S. C-8

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
APR - 7 2005
SOUTHWEST DISTRICT
TAMPA

C-14



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Orlando, FL 32810-6101
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Fax. (407) 647-0624
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CLIENT
MANATEE COUNTY
BOARD OF COUNTY COMMISSIONERS

PROJECT
LENA ROAD STAGE I LANDFILL
PARTIAL CLOSURE #2

TASK
TYPICAL
CROSS SECTIONS

ORIGINAL JULY 2005
REVISIONS:
1. _____
2. _____
3. _____
4. _____
5. _____

Name: JOSEPH J. WILSON, P.E.
Florida License No. 10077
Address: 5800 S. Keller Road
Orlando, FL 32819-7001
Signature: [Signature]
Professional Engineer
FLORIDA

JOB NO. 120498.21
DRAWN: RGC
DESIGN: JLM/RGC
CHECKED: JLM
Q.C.: DED
SHEET 14/14



Department of Environmental Protection

Jeb Bush
Governor

Southwest District
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926
Telephone: 813-632-7600

Colleen M. Castille
Secretary

Mr. Daniel Gray, Director
Manatee County Utility Operations
4410 66th Street West
Bradenton, Fl. 34210

March 7, 2006

RE: Lena Road Landfill, Manatee County
Pending Modification No.: 39884-013-SO/MM, Sequence of Filling
to Operation Permit No. 39884-010-SO/01

Dear Mr. Gray:

This is to acknowledge receipt of your permit modification application, prepared by Post, Buckley, Schuh & Jernigan (PBSJ), to modify the sequence of filling at the existing Class I landfill referred to as the Lena Road Class I Landfill, located at 3333 Lena Road, Bradenton, Manatee County, Florida.

This letter constitutes notice that a permit will be required for your project pursuant to Chapter(s) 403, Florida Statutes. Your application for a permit modification is incomplete. This is the Department's first request for information. Please provide the information listed below promptly. Evaluation of your proposed project will be delayed until all requested information has been received. The following information is needed in support of the solid waste application [Chapter 62-701, Florida Administrative Code (F.A.C.)]:

GENERAL:

1. Please submit 4 copies of all requested information. Please specify if revised information is intended to supplement or replace previously submitted information. Please submit all revised plans and reports as a complete package. For revisions to the narrative reports, deletions may be struckthrough (~~struckthrough~~) and additions may be shaded shaded or similar notation method. This format will expedite the review process. Please include revision date on all revised pages.
2. Please provide a summary of all revisions to drawings, and indicate the revision on each of the applicable plan sheets. Please use a consistent numbering system for drawings. If new sheets must be added to the original plan set, please use the same numbering system with a prefix or suffix to indicate the sheet was an addition, e.g. Sheet 1A, 1B, P1-A, etc.
3. Please be advised that although some comments do not explicitly request additional information, the intent of all comments shall be to request revised calculations, narrative, technical specifications, QA documentation, plan sheets, clarification to the item, and/or other information as appropriate. **Please be reminded that all calculations must be signed and sealed by the registered professional engineer (or geologist as appropriate) who prepared them.**

"More Protection, Less Process"

Printed on recycled paper.

The following information is needed in support of the solid waste permit application [Chapter 62-701, Florida Administrative Code (F.A.C.)].

1. **Operations Plan, Rule 62-701.500, F.A.C.** Please provide revised reduced size (11 x 17) sheets for Attachment L-1, "Landfill Sequence Plan" referenced in the current Operations Permit.
2. Plan sheets titled, **Lena Road Landfill Fill Sequence Plan, Stage III Landfill from 2004 to 2013** (Rules 62-701.320(5)(b), 62-701.320(7)(f), F.A.C.) Please be advised that the drawings will be reviewed in their entirety after responses to this item are received.
 - a. Sheet C-4. Please provide a revised sheet that notes the changes made in January 2006 (Section E appears to have been formerly referenced as "Temporary Berm, Detail E/C-10").
 - b. Sheet C-5. It appears that the berm near the top of slope has been deleted from the plan views, but is still shown in Section E (Sheet C-13). Notes #1 and #4 indicates that filling will proceed northward at a slope of 5H:1V. However, it appears that the north slope shown on this sheet is 4H:1V. Please clarify or provide revised notes/sheet as appropriate.
 - c. Sheets C-5 through C-10. Please provide the invert elevations of all stormwater structures, inlets, downcomer pipes, discharge elevations, and ditch/terrace high and low point elevations.

Please respond **within 30 days** after you received this letter, responding to all of the information requests and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 30 days to develop, you should develop a specific time table for the submission of the requested information for Department review and consideration. Pursuant to the provisions of Rule 62-4.055(1), F.A.C., if the Department does not receive a timely, complete response to this request for information the Department may issue a final order denying your application. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant may reapply as soon as the requested information is available.

You are requested to submit your responses to this letter together, as one complete package. Please contact me at (813)632-7600 ext. 386 if you have any questions.

Sincerely,



Susan J. Pelz, P.E.
Solid Waste Manager
Southwest District

sjp
cc:

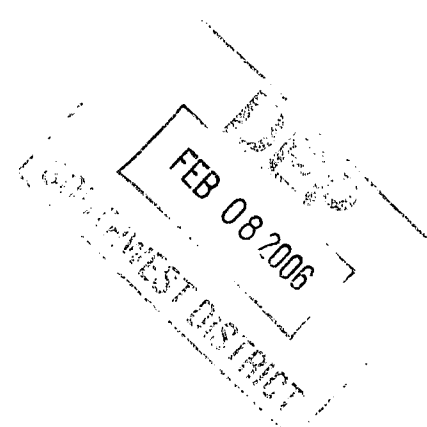
Gus DiFonzo, Manatee County, 4410 66th Street West, Bradenton, Fl. 34210
Joseph Miller, P.E., PBSJ, 482 S. Keller Road, Orlando, Fl. 32810-6101
John Morris, P.G., FDEP Tampa
David Zell, FDEP Tampa- Air Section



An employee-owned company

February 2, 2006

Mr. Steve G. Morgan
Florida Department of Environmental Protection
Southwest District Office - Solid Waste Section
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926



**Re: Manatee County Lena Road Class I Landfill
FDEP Operation Permit 39884-010-SO/01
Minor Permit Modification
Landfill Phasing Plan**

*Mod # 013
Sequence
2/8/06*

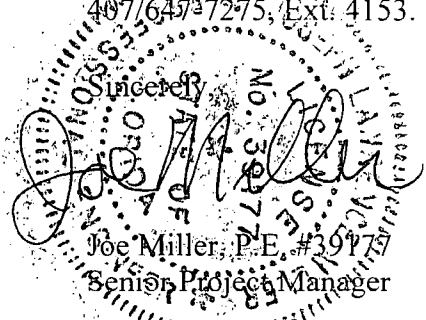
Dear Mr. Morgan:

On behalf of Manatee County, PBS&J is submitting an application for a minor permit modification to update the landfill phasing plan per Landfill Operation Permit Specific Condition B.1.b(3).

Please find enclosed four copies of application on pages 1 through 8 and page 40 of FDEP Form 62-701.900(1), and four sets of the revised landfill phasing plan dated September 2005 Revised January 2006. Also enclose is a check for \$250 as the permit application fee.

The phasing plan was revised to show the below grade excavation work remaining in the Stage III disposal area, and the expected completion of each phase.

If you should have any questions concerning this report, please contact me in our Orlando office at 407/647-7275, Ext. 4153.

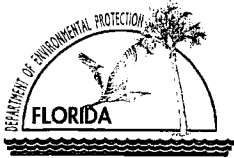


Sincerely,
Joe Miller
Joe Miller, P.E. #39177
Senior Project Manager

Attachments

cc: Daniel T. Gray, Director, Utility Operations Department
Gus DiFonzo, Solid Waste Manager
Mike Gore/Jeanne Detweiler, Manatee County Landfill Division
File -- 120498.94 0100, December 2005

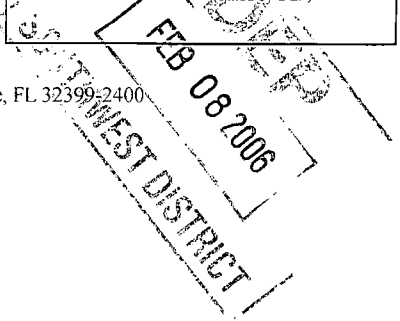
U:\OIG\WASTEMAN\Manatee County\Permit Mod for Phasing Plan\Feb. 2, 2006 transmittal.doc



Florida Department of Environmental Protection

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, FL 32399-2400

DEP Form # 62-701.900(1)
Form Title Solid Waste Management Facility Permit
Effective Date 05-27-01
DEP Application No. _____
(Filled by DEP)



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

APPLICATION FOR A PERMIT TO CONSTRUCT,
OPERATE, MODIFY OR CLOSE
A SOLID WASTE MANAGEMENT FACILITY

APPLICATION INSTRUCTIONS AND FORMS

Manatee County Solid Waste Management Facility
Lena Road Class I Landfill
WACS ID No: SWD-41-44795

Minor Permit Modification

February 2, 2006

U:\OldG\WASTEMAN\Manatee County\Permit Mod for Phasing Plan\62-701.900.1.DOC

Northwest District
160 Governmental Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-448-4300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
3804 Coconut Palm Dr.
Tampa, FL 33619
813-744-6100

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
941-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

FILE

DEP
FEB 08 2006
SOUTHWEST DISTRICT

INSTRUCTIONS TO APPLY FOR A SOLID WASTE MANAGEMENT FACILITY PERMIT

I. General

Solid Waste Management Facilities shall be permitted pursuant to Section 403.707, Florida Statutes, (FS) and in accordance with Florida Administrative Code (FAC) Chapter 62-701. A minimum of four copies of the application shall be submitted to the Department's District Office having jurisdiction over the facility. The appropriate fee in accordance with Rule 62-701.315, FAC, shall be submitted with the application by check made payable to the Department of Environmental Protection (DEP).

Complete appropriate sections for the type of facility for which application is made. Entries shall be typed or printed in ink. All blanks shall be filled in or marked "not applicable" or "no substantial change". Information provided in support of the application shall be marked "submitted" and the location of this information in the application package indicated. The application shall include all information, drawings, and reports necessary to evaluate the facility. Information required to complete the application is listed on the attached pages of this form.

II. Application Parts Required for Construction and Operation Permits

- A. Landfills and Ash Monofills - Submit parts A,B, D through T
- B. Asbestos Monofills - Submit parts A,B,D,E,F,G,J,L,N, P through S, and T
- C. Industrial Solid Waste Facilities - Submit parts A,B, D through T
- D. Non-Disposal Facilities - Submit parts A,C,D,E,J,N,S and T

NOTE: Portions of some parts may not be applicable.

NOTE: For facilities that have been satisfactorily constructed in accordance with their construction permit, the information required for A,B,C and D type facilities does not have to be resubmitted for an operation permit if the information has not substantially changed during the construction period. The appropriate portion of the form should be marked "no substantial change".

III. Application Parts Required for Closure Permits

- A. Landfills and Ash Monofills - Submit parts A,B,M, O through T
- B. Asbestos Monofills - Submit parts A,B,N, P through T
- C. Industrial Solid Waste Facilities - Submit parts A,B, M through T
- D. Non-Disposal Facilities - Submit parts A,C,N,S and T

NOTE: Portions of some parts may not be applicable.

IV. Permit Renewals

The above information shall be submitted at time of permit renewal in support of the new permit. However, facility information that was submitted to the Department to support the expiring permit, and which is still valid, does not need to be re-submitted for permit renewal. Portions of the application not re-submitted shall be marked "no substantial change" on the application form.

V. **Application Codes**

S - Submitted
LOCATION - Physical location of information in application
N/A - Not Applicable
N/C - No Substantial Change

VI. **LISTING OF APPLICATION PARTS**

PART A: GENERAL INFORMATION - **Submitted**
PART B: DISPOSAL FACILITY GENERAL INFORMATION - **Submitted**
PART C: NON-DISPOSAL FACILITY GENERAL INFORMATION - **Not Applicable**
PART D: PROHIBITIONS - **Not Applicable**
PART E: SOLID WASTE MANAGEMENT FACILITY PERMIT REQUIREMENTS, GENERAL - **Not Applicable**
PART F: LANDFILL PERMIT REQUIREMENTS - **Not Applicable**
PART G: GENERAL CRITERIA FOR LANDFILLS - **Not Applicable**
PART H: LANDFILL CONSTRUCTION REQUIREMENTS - **Not Applicable**
PART I: HYDROGEOLOGICAL INVESTIGATION REQUIREMENTS - **Not Applicable**
PART J: GEOTECHNICAL INVESTIGATION REQUIREMENTS - **Not Applicable**
PART K: VERTICAL EXPANSION OF LANDFILLS - **Not Applicable**
PART L: LANDFILL OPERATION REQUIREMENTS - **Not Applicable**
PART M: WATER QUALITY AND LEACHATE MONITORING REQUIREMENTS - **Not Applicable**
PART N: SPECIAL WASTE HANDLING REQUIREMENTS - **Not Applicable**
PART O: GAS MANAGEMENT SYSTEM REQUIREMENTS - **Not Applicable**
PART P: LANDFILL CLOSURE REQUIREMENTS - **Not Applicable**
PART Q: CLOSURE PROCEDURES - **Not Applicable**
PART R: LONG TERM CARE REQUIREMENTS - **Not Applicable**
PART S: FINANCIAL RESPONSIBILITY REQUIREMENTS - **Not Applicable**
PART T: CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER - **Submitted**

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
APPLICATION FOR A PERMIT TO CONSTRUCT, OPERATE, MODIFY OR CLOSE
A SOLID WASTE MANAGEMENT FACILITY

Please Type or Print

A. GENERAL INFORMATION

1. Type of facility (check all that apply):

Disposal

Class I Landfill

Ash Monofill

Class II Landfill

Asbestos Monofill

Class III Landfill

Industrial Solid Waste

Other Describe: _____

Non-Disposal

Incinerator For Non-biomedical Waste

Waste to Energy Without Power Plant Certification

Other Describe: _____

NOTE: Waste Processing Facilities should apply on Form 62-701.900(4), FAC;
Land Clearing Disposal Facilities should notify on Form 62-701.900(3), FAC;
Compost Facilities should apply on Form 62-701.900(10), FAC; and
C&D Disposal Facilities should apply on Form 62-701.900(6), FAC

2. Type of application:

Construction

Operation

Construction/Operation

Closure

3. Classification of application:

New

Substantial Modification

Renewal

Intermediate Modification

Minor Modification

4. Facility name: Lena Road Class I Landfill

5. DEP ID number: SWD-41-44795

County: Manatee

6. Facility location (main entrance): 3333 Lena Road, Bradenton, FL 34202

7. Location coordinates:

Section: 1 Township: 35S Range: 18E and Section: 31 Township: 34S Range: 19E

Section: 6 & 7 Township: 35S Range: 19E

Latitude: 27 ° 28 ' 10 " Longitude: 82 ° 26 ' 35 "

8. Applicant name (operating authority): Manatee County Government
Mailing address: 4410 66th Street West Bradenton, FL 34210
Street or P.O. Box City State Zip
Contact person: Daniel T. Gray Telephone: (941) 792-8811
Title: Utility Operations Director
E-Mail address (if available): dan.gray@co.manatee.fl.us

9. Authorized agent/Consultant: PBS&J
Mailing address: 482 South Keller Road Orlando, Florida 32810-6101
Street or P.O. Box City State Zip
Contact person: Joseph L. Miller, P.E. Telephone: (407) 647-7275
Title: Project Manager
E-Mail address (if available): jlmiller@pbsj.com

10. Landowner (if different than applicant): N/A
Mailing address: _____
Street or P.O. Box City State Zip
Contact person: _____ Telephone: (____) _____
E-Mail address (if available): _____

11. Cities, towns and areas to be served: All of Manatee County, both incorporated and unincorporated, Long Boat Key and small portions of neighboring counties.

12. Population to be served:
Current: 292,000 Five-Year Projection: 328,000

13. Date site will be ready to be inspected for completion: N/A

14. Expected life of the facility: Landfill Stages I, II and III - 65 years

15. Estimated costs:
Total Construction: \$ N/A Closing Costs: \$ N/A

16. Anticipated construction starting and completion dates:
From: N/A To: N/A

17. Expected volume or weight of waste to be received:
N/A yds³/day Received 1280 tons/day N/A gallons/day
Landfilled 1100 tons/day

B. DISPOSAL FACILITY GENERAL INFORMATION

1. Provide brief description of disposal facility design and operations planned under this application:

This application is for a minor modification to the Operation Permit to update the landfill phasing plan per Landfill Operation Permit Specific Condition B.1.b(3). The phasing plan was revised to show the below grade excavation work remaining in the Stage III disposal area, and the expected completion of each phase.

2. Facility site supervisor: Mike Gore

Title: Superintendent - Landfill Division Telephone: (941) 708-8562

mike.gore@co.manatee.fl.us

E-Mail address (if available)

3. Disposal area: Total 316 acres; Used 206 acres; Available 110 acres.

4. Weighing scales used: Yes No

5. Security to prevent unauthorized use: Yes No

6. Charge for waste received: N/A \$/yds³ 28 \$/ton

7. Surrounding land use, zoning:

<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Industrial
<input checked="" type="checkbox"/> Agricultural	<input type="checkbox"/> None
<input type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Other Describe: <u>Transportation & Utilities</u>

8. Types of waste received:

<input checked="" type="checkbox"/> Residential	<input checked="" type="checkbox"/> C & D debris
<input checked="" type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Shredded/cut tires
<input type="checkbox"/> Incinerator/WTE ash	<input checked="" type="checkbox"/> Yard trash
<input type="checkbox"/> Treated biomedical	<input type="checkbox"/> Septic tank
<input checked="" type="checkbox"/> Water treatment sludge	<input type="checkbox"/> Industrial
<input type="checkbox"/> Air treatment sludge	<input type="checkbox"/> Industrial sludge
<input checked="" type="checkbox"/> Agricultural	<input checked="" type="checkbox"/> Domestic sludge
<input checked="" type="checkbox"/> Asbestos	
<input type="checkbox"/> Other Describe: _____	

9. Salvaging permitted: Yes No

10. Attendant: Yes No Trained operator: Yes No

11. Spotters: Yes No Number of spotters used: 16

12. Site located in: Floodplain Wetlands Other Uplands

13. Property recorded as a Disposal Site in County Land Records: Yes No
14. Days of operation: Monday through Saturday
15. Hours of operation: 8:00 a.m. to 5:00 p.m.
16. Days Working Face covered: Monday through Saturday
17. Elevation of water table: 29 Ft. (NGVD 1929)
18. Number of monitoring wells: 18
19. Number of surface monitoring points: 2
20. Gas controls used: Yes No Type controls: Active Passive
 Gas flaring: Yes No Gas recovery: Yes No
21. Landfill unit liner type:
- | | |
|---|--|
| <input checked="" type="checkbox"/> Natural soils | <input type="checkbox"/> Double geomembrane |
| <input type="checkbox"/> Single clay liner | <input type="checkbox"/> Geomembrane & composite |
| <input type="checkbox"/> Single geomembrane | <input type="checkbox"/> Double composite |
| <input type="checkbox"/> Single composite | <input type="checkbox"/> None |
| <input checked="" type="checkbox"/> Slurry wall | |
| <input type="checkbox"/> Other Describe: _____ | |
22. Leachate collection method:
- | | |
|--|---|
| <input checked="" type="checkbox"/> Collection pipes | <input type="checkbox"/> Sand layer |
| <input type="checkbox"/> Geonets | <input type="checkbox"/> Gravel layer |
| <input type="checkbox"/> Well points | <input type="checkbox"/> Interceptor trench |
| <input type="checkbox"/> Perimeter ditch | <input type="checkbox"/> None |
| <input type="checkbox"/> Other Describe: _____ | |
23. Leachate storage method:
- Tanks
 Surface impoundments
 Other Describe: None
24. Leachate treatment method:
- | | |
|--|---|
| <input type="checkbox"/> Oxidation | <input type="checkbox"/> Chemical treatment |
| <input type="checkbox"/> Secondary | <input type="checkbox"/> Settling |
| <input type="checkbox"/> Advanced | |
| <input checked="" type="checkbox"/> None | |
| <input type="checkbox"/> Other _____ | |

25. Leachate disposal method:

- | | |
|--|--|
| <input type="checkbox"/> Recirculated | <input checked="" type="checkbox"/> Pumped to WWTP |
| <input type="checkbox"/> Transported to WWTP | <input type="checkbox"/> Discharged to surface water |
| <input type="checkbox"/> Injection well | <input type="checkbox"/> Percolation ponds |
| <input type="checkbox"/> Evaporation | |
| <input type="checkbox"/> Other _____ | |

26. For leachate discharged to surface waters:

Name and Class of receiving water: N/A

27. Storm Water:

Collected: Yes No

Type of treatment: Sand filter

Name and Class of receiving water: Cypress Strand, Gates Creek via on-site wetlands Class III.

28. Environmental Resources Permit (ERP) number or status: MSSW Permit #403143.01

T. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

The undersigned applicant or authorized representative of Manatee County Government Utility Operations Department is aware that statements made in this form and attached information are an application for a minor modification Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Daniel T. Gray
Signature of Applicant or Agent
Daniel T. Gray
Utility Operations Director
Name and Title (please type)
dan.gray@co.manatee.fl.us
E-Mail address (if available)

4410 66th Street West
Mailing Address
Bradenton, FL 34210
City, State, Zip Code
(941) 792-8811
Telephone Number

Date: 2/7/06

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, Florida Statutes):

This is to certify that the engineering features of this solid waste management facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

Joseph L. Miller
Signature
Joseph L. Miller, P.E. Project Manager
Name and Title (please type)
39177
Florida Registration Number
(please affix seal)

482 South Keller Road
Mailing Address
Orlando, Florida 32810-6101
City, State, Zip Code
jlmiller@pbsj.com
E-Mail address (if available)
(407) 647-7275, Ext. 4153
Telephone Number
Date: February 2, 2006

Southwest District
Permitting Application

New Site

Site Name:
Site ID:
County:
Type/Subcode:
Fee submitted: () correct () incorrect
Total Fee Required \$ _____ Need \$ _____ Refund \$ _____

Existing Site

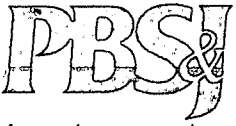
Site ID:	39884-013
Project Name:	LEVA ROAD CLASS I LF PASSIVE MODIFICATION
Type/Subcode:	SO/MM
Fee submitted:	\$250 ⁰⁰ (X) correct () incorrect
Total Fee Required \$ _____ Need \$ _____ Refund \$ _____	

Applicant Information

Name:	DANIEL T GRAY	
Role:	APPLICANT	
Company:	MANATEE COUNTY	
Address:	4410 66th STREET WEST	
City:	BRAEDENTON	Zip Code: 34210
Phone:	841 792-8811	

Fee verified by: S. MURBAN

Application Assigned To: S. MURBAN Date: 2/10/06



482 South Keller Road
Orlando, Florida 32810

An employee-owned company.

Bank of America, N.A.
Atlanta, Georgia
64-1278/611

0735706

CHECK DATE
January 19, 2006

PAY

Two Hundred Fifty and 00/100 Dollars

AMOUNT \$250.00

TO

FLORIDA DEPT OF ENVIRONMENTAL
PROTECTION

PBS&I

OPERATIONAL ACCOUNT

[Handwritten Signature]

AUTHORIZED SIGNATURE

Security Check features
included.
Details on back.

11



482 South Keller Road Orlando, Florida 32810

EMILY BUSINESS FORMS 800.392.6018 ADVANTAGE

0735706

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
PERMIT FEE	1/18/06	0697639	250.00			250.00
FLORIDA DEPT OF ENVIR PR 099		Totals	250.00			250.00

50
2/8