

SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

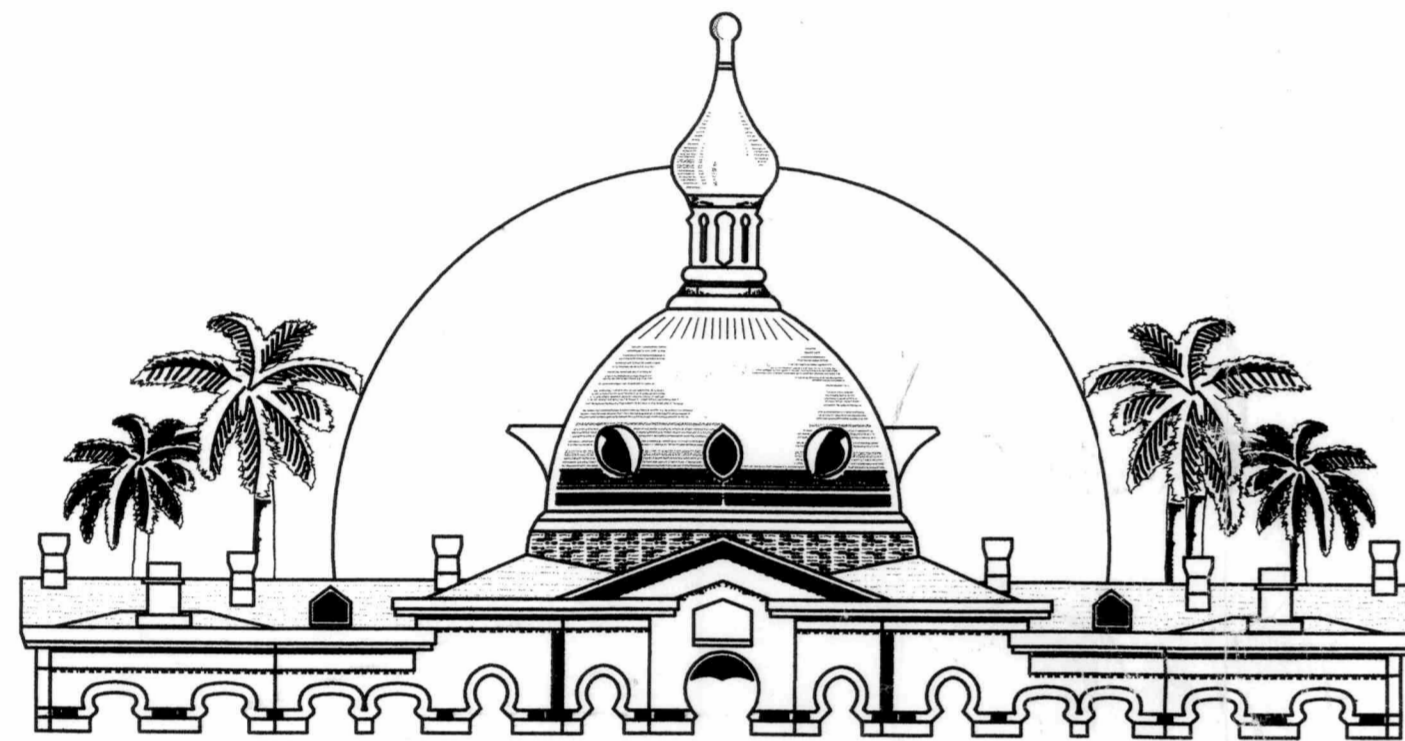
COUNTY OF HILLSBOROUGH, FLORIDA

SOLID WASTE MANAGEMENT DEPARTMENT

1565537
①

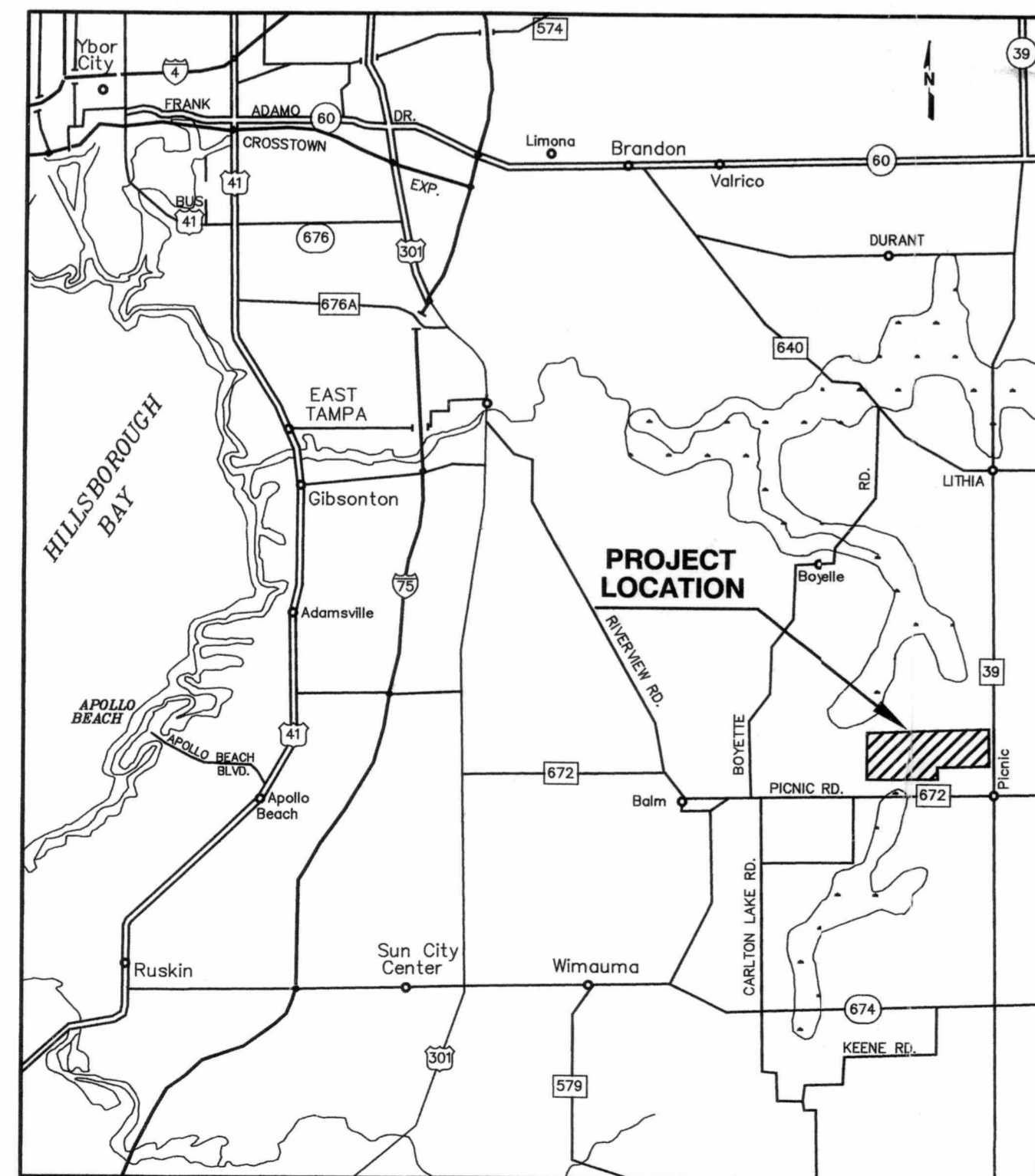
TAMPA, FLORIDA

ORIGINAL SUBMITTAL-MARCH 16, 2000, REVISED-MAY 17, 2000 AND JULY 14, 2000
CONSTRUCTION SET SUBMITTAL -APRIL 27, 2001



BOARD OF COUNTY COMMISSIONERS

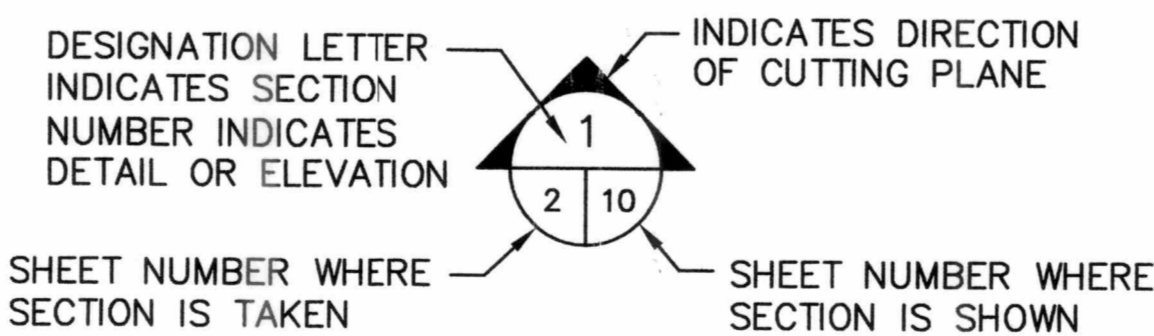
- PAT FRANK, Chair
- CHRIS HART, Vice-Chair
- BEN WACKSMAN, Commissioner
- JIM NORMAN, Commissioner
- THOMAS SCOTT, Commissioner
- RONDA STORMS, Commissioner
- JAN PLATT, Commissioner



LOCATION MAP

DRAWING INDEX

DRAWING NO.	DRAWING TITLE
1	COVER SHEET
2	FACILITY SITE PLAN AND EXISTING TOPOGRAPHY
3	CONCEPTUAL GRADING PLAN - FULL DEVELOPMENT
4	CONCEPTUAL SEQUENCE PLAN - FULL DEVELOPMENT
5	CONCEPTUAL LEACHATE COLLECTION AND REMOVAL SYSTEM - FULL DEVELOPMENT
6	EXCAVATION PLAN - SECTION 4 ⁷
7	BACKFILL PLAN - SECTION 4 ⁷
8	LCRS - SECTION 4 ⁷ (TOP OF CLAY SUBBASE)
8A	FINAL GRADING PLAN (TOP OF DRAINAGE SAND LAYER)
8B	CROSS SECTIONS
9	SEQUENCE PLANS - SECTION 4 ⁷
10	CONCEPTUAL SEQUENCE PLAN STAGES 1 THRU 4 SECTIONS 7-10
11	CONCEPTUAL SEQUENCE PLAN STAGES 5 THRU 8 SECTIONS 11-14
12	CONCEPTUAL SEQUENCE PLAN STAGE 9 AND FINAL BUILDOUT SECTIONS 15-16
13	CLOSURE PLAN - SECTION 4 ⁷
14	EXCAVATION AND BACKFILL SECTIONS
15	LCRS DETAILS
16	CLOSURE SECTIONS
17	DETAILS - 1
18	DETAILS - 2
18A	STORMWATER SEPARATION BERM DETAILS
19	DETAILS 3
20	DETAILS 4
21	SUMP DETAILS - 1
22	SUMP DETAILS - 2
1 OF 1	EXCAVATION SURVEY
1 OF 1	TOP OF FILL SURVEY
1 OF 1	TOP OF CLAY SURVEY
1 OF 1	TOP OF SAND FILL SURVEY

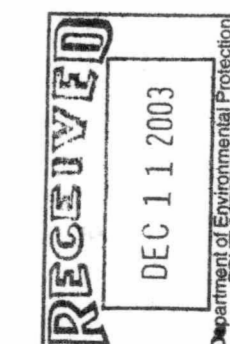


SECTION AND DETAIL DESIGNATION

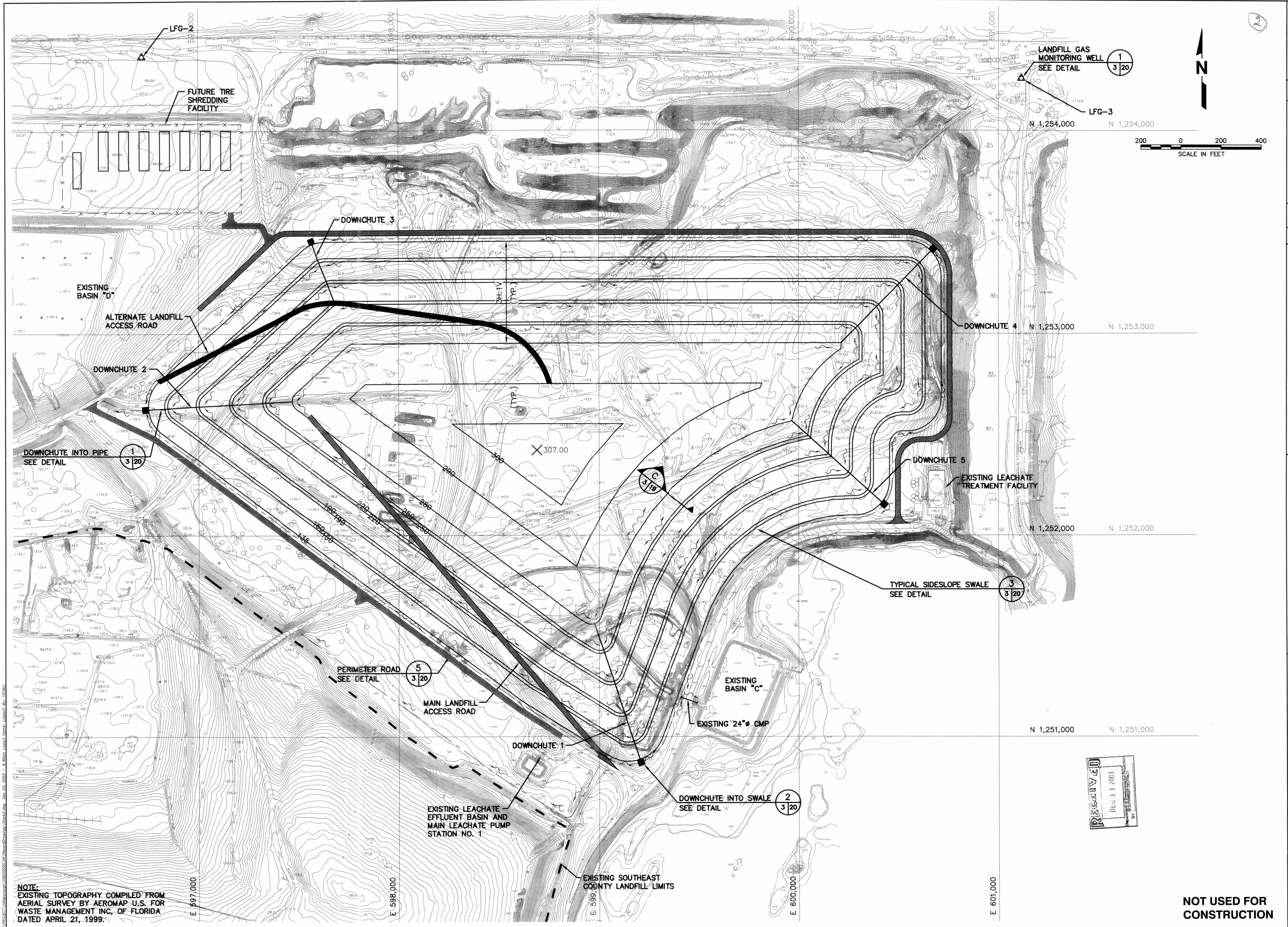
SCS ENGINEERS
ENVIRONMENTAL CONSULTANTS
3012 U.S. 301 N. SUITE 700
TAMPA, FLORIDA 33619
(813) 621-0080
WWW.SCSENG.COM

LEGEND AND ABBREVIATIONS

- SHEET FLOW DRAINAGE DIRECTION
- CONCENTRATED DRAINAGE FLOW DIRECTION
- FILL PROGRESSION
- DAILY PROGRESSION
- ZONE/PHASE BOUNDARY
- CENTERLINE OF SWALE
- CENTERLINE OF TEMPORARY SWALE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROJECTED EXISTING CONTOUR
- DOWNCHUTE
- LIMITS OF EXCAVATION OF ORGANIC MATERIAL
- PROPERTY LINE
- FENCELINE
- LFG-1 LANDFILL GAS MONITORING WELL
- PP EXISTING POWER POLE
- MW-6A EXISTING GROUNDWATER MONITORING WELL
- PMW-10 PROPOSED GROUNDWATER MONITORING WELL
- SB-1 SOIL BORING
- VEGETATION
- APPROX. APPROXIMATE
- CTRD CENTERED
- ERCP ELLIPTICAL REINFORCED CONCRETE PIPE
- ELEV. ELEVATION
- I.E. INVERT ELEVATION
- LF LINEAR FEET
- EXIST. EXISTING
- SCH. SCHEDULE
- TYP. TYPICAL
- Ø DIAMETER
- CONC. CONCRETE
- W/ WITH
- CMP CORRUGATED METAL PIPE
- MIN. MINIMUM
- MAX. MAXIMUM
- HDPE HIGH DENSITY POLYETHYLENE
- FDOT FLORIDA DEPARTMENT OF TRANSPORTATION
- NO. NUMBER



RECORD DRAWINGS
BASED ON INFORMATION
RECEIVED FROM HANDEX
CONSTRUCTION SERVICES, INC.
DATED AUGUST 5, 2003

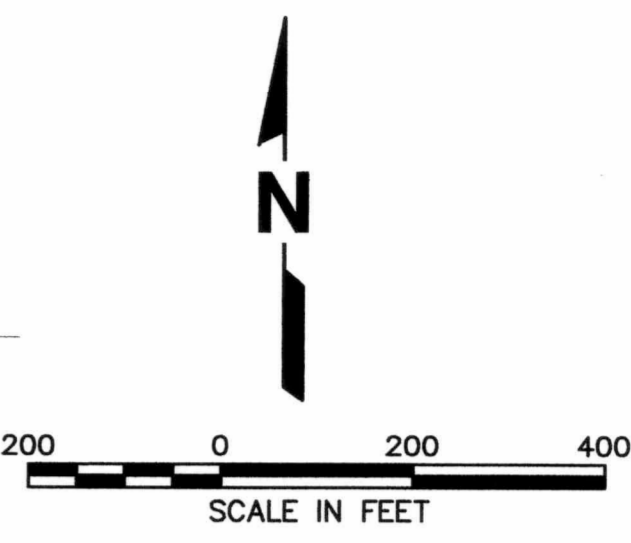
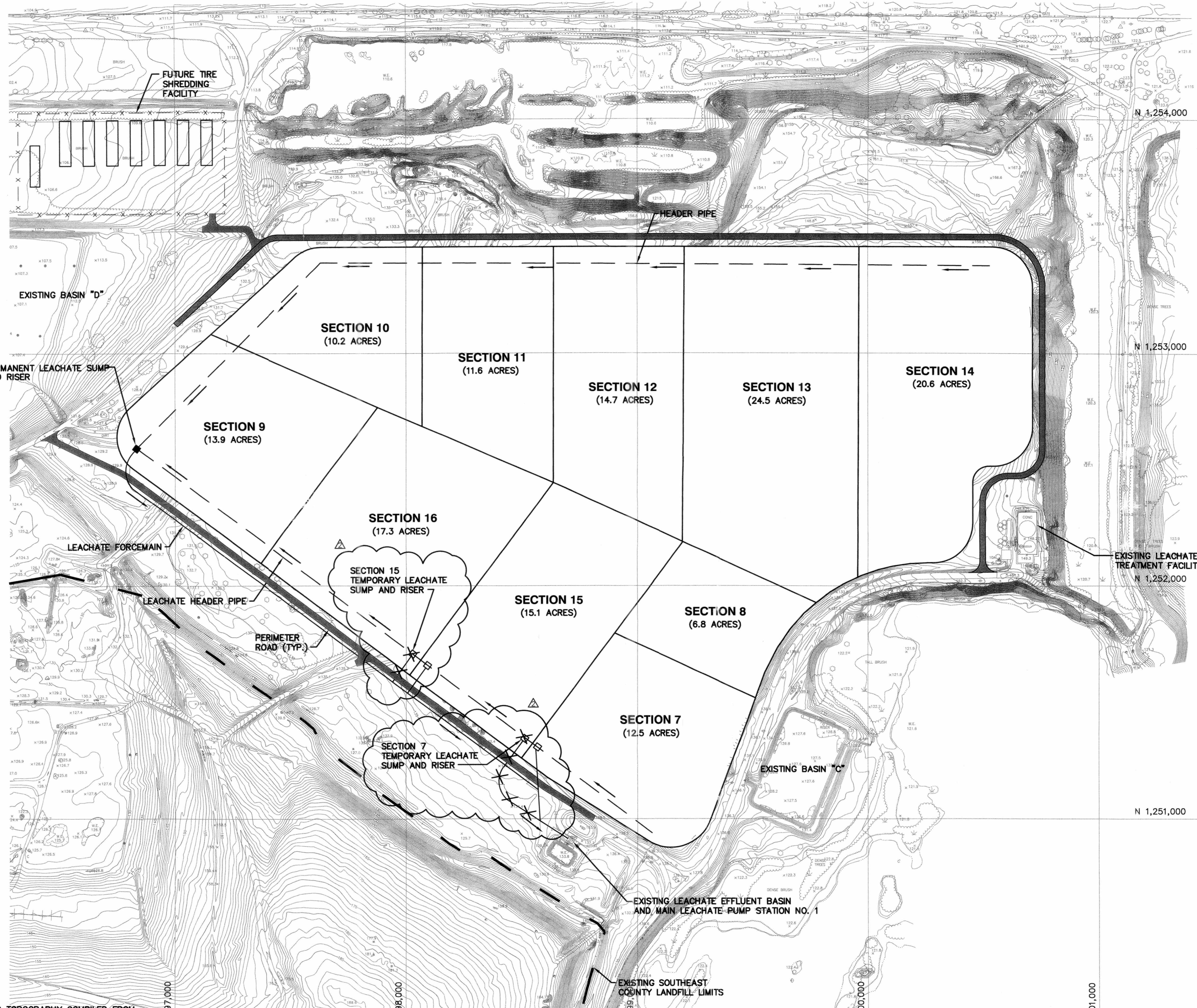
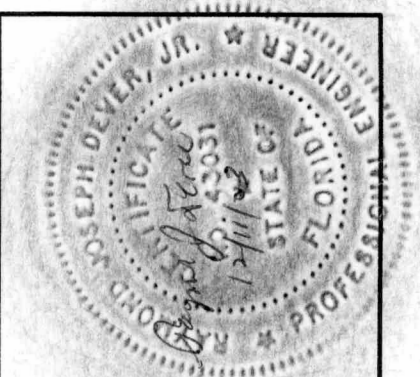


NOTE:
 EXISTING TOPOGRAPHY COMPILED FROM
 AERIAL SURVEY BY AEROMAP U.S. FOR
 WASTE MANAGEMENT INC., OF FLORIDA
 DATED APRIL 21, 1999.

NOT USED FOR
 CONSTRUCTION

CK. BY:	
DESCRIPTION	
REV. DATE	
DRAWING TITLE	CONCEPTUAL GRADING PLAN - FULL DEVELOPMENT
PROJECT TITLE	SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION
CLIENT	HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT TAMPA, FLORIDA
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619 PH (813) 821-0880 FAX NO. (813) 823-8757	O/A REV. BY: RBG APP. BY: RBG DWN. BY: BLJ CHK. BY: LER LER/KAS
CADD FILE:	SITEFULL
DATE:	MAY 12, 2000
SCALE:	AS SHOWN
DRAWING NO.	3 of 22

10



REV.	DATE	DESCRIPTION	CHK. BY
1	12/03	CHANGED SECTION NUMBERS	LER
2	12/03	CHANGED SUMP LOCATIONS	LER
3			
4			

DRAWING TITLE
CONCEPTUAL SEQUENCE PLAN - FULL DEVELOPMENT

PROJECT TITLE
SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

CLIENT
HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 821-0080 FAX NO. (813) 823-8757

DATE: 09/25/2003 3:35
DRAWN BY: XRH
CHECKED BY: LER
APP. BY: RBG

CADD FILE: SEQFULL

DATE: MAY 12, 2000

SCALE: AS SHOWN

DRAWING NO. **4** of 22

SECTION 10
(10.2 ACRES)

SECTION 11
(11.6 ACRES)

SECTION 12
(14.7 ACRES)

SECTION 13
(24.5 ACRES)

SECTION 14
(20.6 ACRES)

SECTION 9
(13.9 ACRES)

SECTION 16
(17.3 ACRES)

SECTION 15
TEMPORARY LEACHATE
SUMP AND RISER

SECTION 15
(15.1 ACRES)

SECTION 8
(6.8 ACRES)

SECTION 7
(12.5 ACRES)

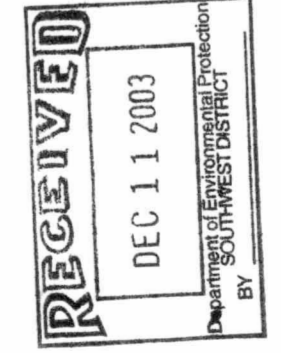
SECTION 7
TEMPORARY LEACHATE
SUMP AND RISER

EXISTING BASIN "C"

EXISTING LEACHATE EFFLUENT BASIN
AND MAIN LEACHATE PUMP STATION NO. 1

EXISTING SOUTHEAST
COUNTY LANDFILL LIMITS

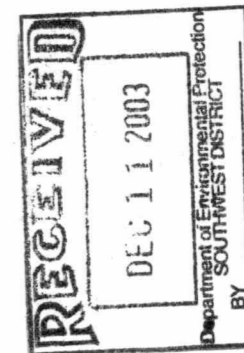
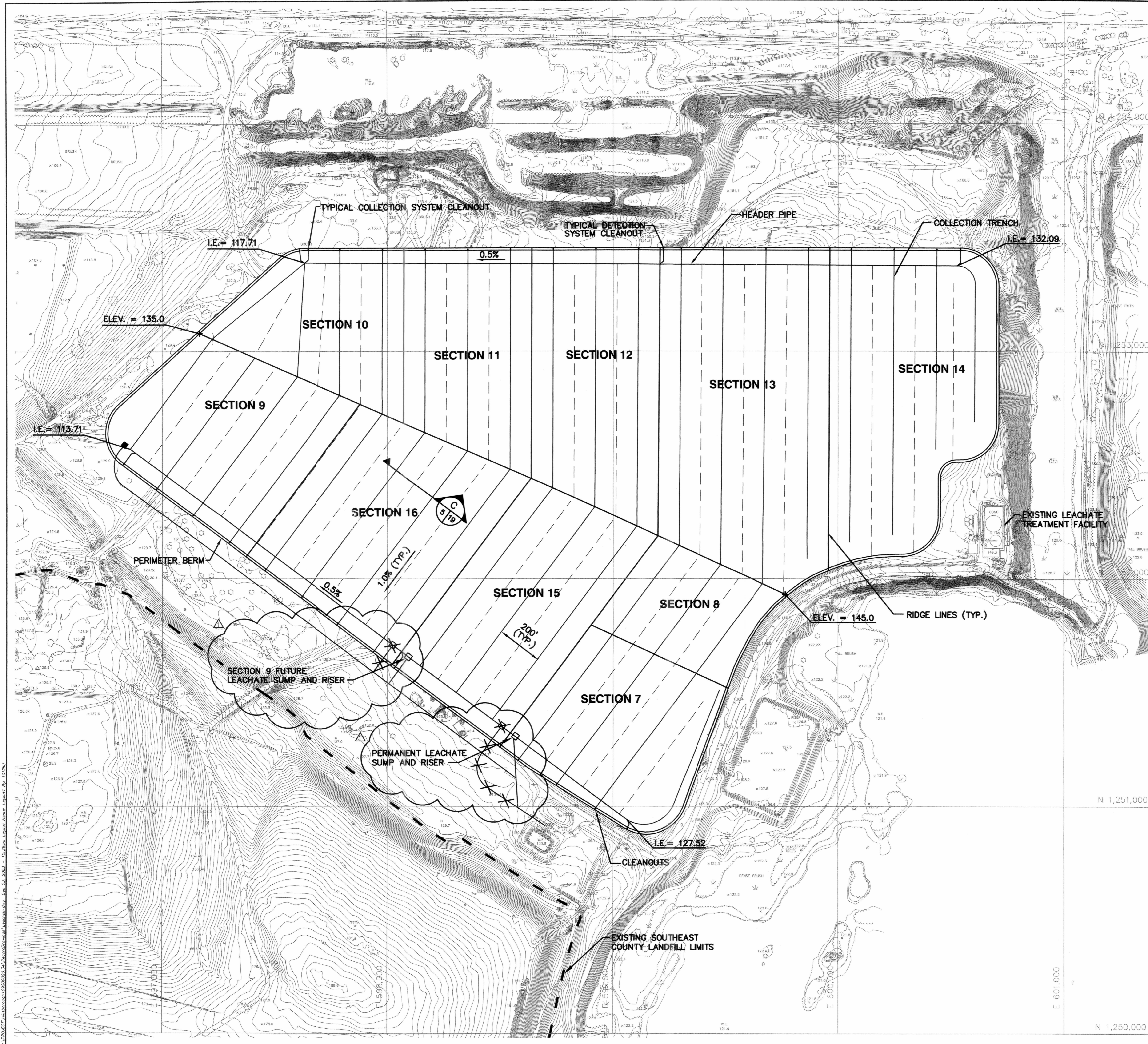
SECTION	AREA (ACRES)
7	12.5
8	6.8
9	13.9
10	10.2
11	11.6
12	14.7
13	24.5
14	20.6
15	15.1
16	17.3
TOTAL	= 147.2 ACRES



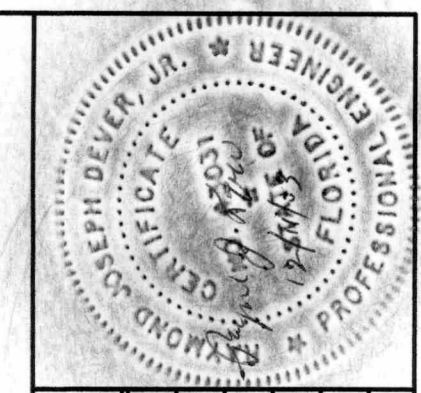
RECORD DRAWINGS
BASED ON INFORMATION
RECEIVED FROM HANDEX
CONSTRUCTION SERVICES, INC.
DATED AUGUST 5, 2003

NOTE:
EXISTING TOPOGRAPHY COMPILED FROM
AERIAL SURVEY BY AEROMAP U.S. FOR
WASTE MANAGEMENT INC. OF FLORIDA
DATED APRIL 21, 1999.

C:\PROG1\Unibrow\10202020\14\14reg\14reg.dwg - 3:03pm - 12/03/03 - 12/03/03 - 12/03/03 - 12/03/03



RECORD DRAWINGS
 BASED ON INFORMATION
 RECEIVED FROM HANDEX
 CONSTRUCTION SERVICES, INC.
 DATED AUGUST 5, 2003



REV. DATE	DESCRIPTION	CK. BY
12/03	RELOCATED SUMPS	LER

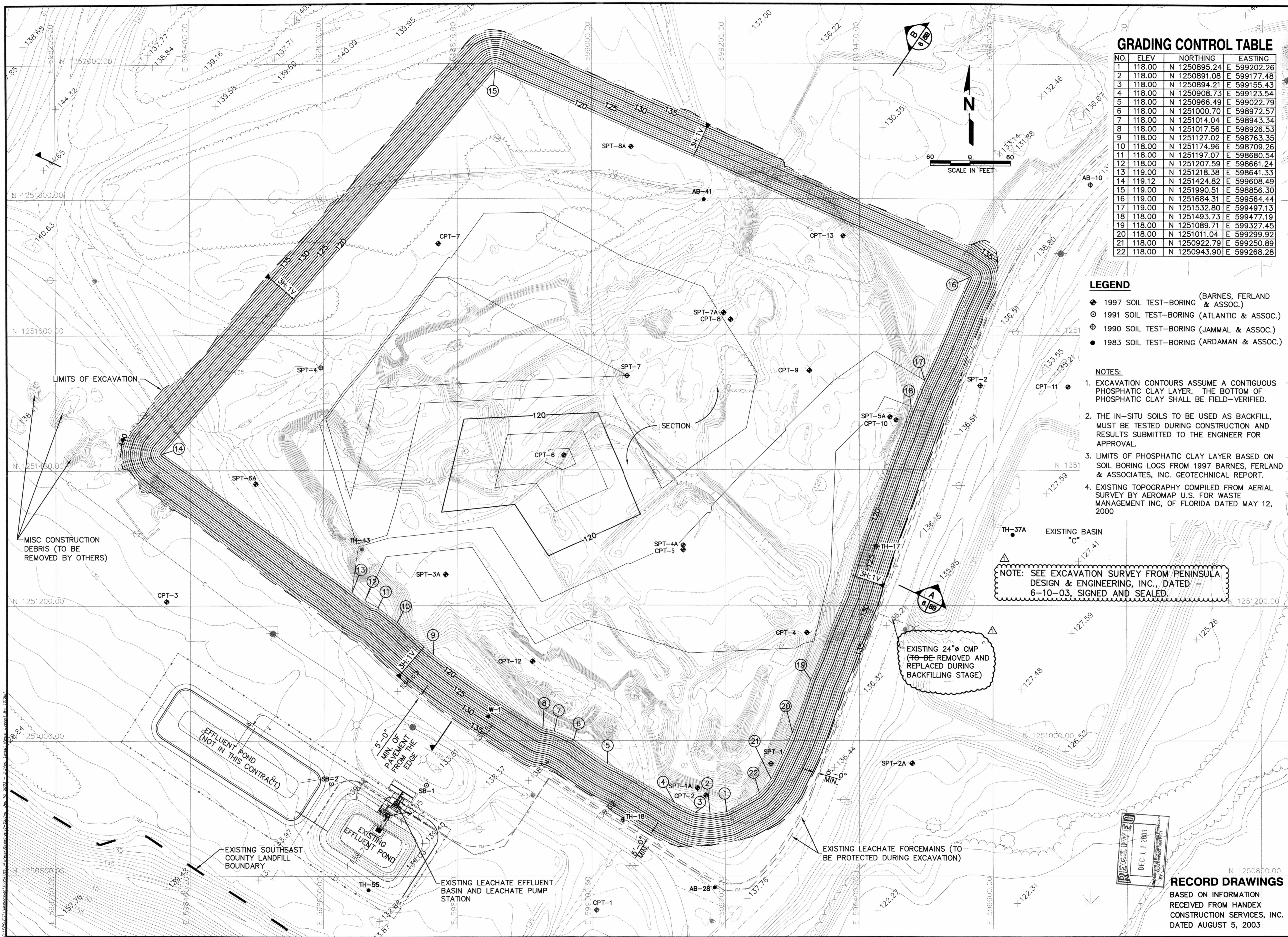
DRAWING TITLE: **CONCEPTUAL LEACHATE COLLECTION AND REMOVAL SYSTEM-FULL DEVELOPMENT**
 PROJECT TITLE: **SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION**

CLIENT: **HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT TAMPA, FLORIDA**

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS
 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
 PH (813) 821-0880 FAX NO. (813) 823-8787

PROJ. NO. 0995029.35
 DES. BY: KASVBJ
 CHK. BY: LER
 DATE: 12/16/03
 S/A: RWB
 REG. APP. BY: RBG

CADD FILE: LEACHPLN
 DATE: MARCH 16, 2000
 SCALE: AS SHOWN
 DRAWING NO. **5** of **22**



GRADING CONTROL TABLE

NO.	ELEV	NORTHING	EASTING
1	118.00	N 1250895.24	E 599202.26
2	118.00	N 1250891.08	E 599177.48
3	118.00	N 1250894.21	E 599155.43
4	118.00	N 1250908.73	E 599123.54
5	118.00	N 1250966.49	E 599022.79
6	118.00	N 1251000.70	E 598972.57
7	118.00	N 1251014.04	E 598943.34
8	118.00	N 1251017.56	E 598926.53
9	118.00	N 1251127.02	E 598763.35
10	118.00	N 1251174.96	E 598709.26
11	118.00	N 1251197.07	E 598680.54
12	118.00	N 1251207.59	E 598661.24
13	119.00	N 1251218.38	E 598641.33
14	119.12	N 1251424.82	E 599608.49
15	119.00	N 1251990.51	E 598856.30
16	119.00	N 1251684.31	E 599564.44
17	119.00	N 1251532.80	E 599497.13
18	118.00	N 1251493.73	E 599477.19
19	118.00	N 1251089.71	E 599327.45
20	118.00	N 1251011.04	E 599299.92
21	118.00	N 1250922.79	E 599250.89
22	118.00	N 1250943.90	E 599268.28

LEGEND

- ◆ 1997 SOIL TEST-BORING (BARNES, FERLAND & ASSOC.)
- ⊙ 1991 SOIL TEST-BORING (ATLANTIC & ASSOC.)
- ⊕ 1990 SOIL TEST-BORING (JAMMAL & ASSOC.)
- 1983 SOIL TEST-BORING (ARDAMAN & ASSOC.)

NOTES:

1. EXCAVATION CONTOURS ASSUME A CONTIGUOUS PHOSPHATIC CLAY LAYER. THE BOTTOM OF PHOSPHATIC CLAY SHALL BE FIELD-VERIFIED.
2. THE IN-SITU SOILS TO BE USED AS BACKFILL, MUST BE TESTED DURING CONSTRUCTION AND RESULTS SUBMITTED TO THE ENGINEER FOR APPROVAL.
3. LIMITS OF PHOSPHATIC CLAY LAYER BASED ON SOIL BORING LOGS FROM 1997 BARNES, FERLAND & ASSOCIATES, INC. GEOTECHNICAL REPORT.
4. EXISTING TOPOGRAPHY COMPILED FROM AEROMAP U.S. FOR WASTE MANAGEMENT INC, OF FLORIDA DATED MAY 12, 2000

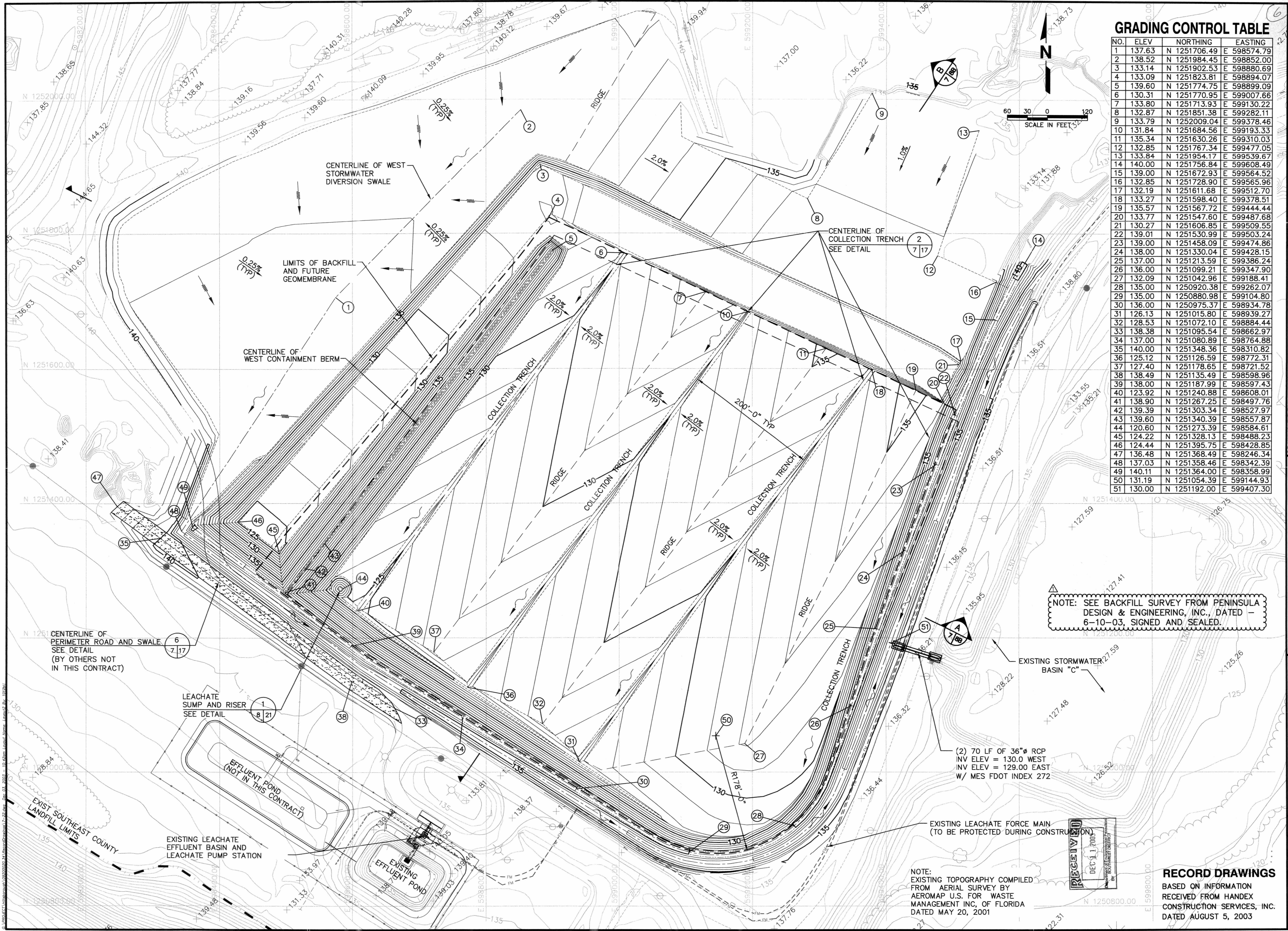
NOTE: SEE EXCAVATION SURVEY FROM PENINSULA DESIGN & ENGINEERING, INC., DATED 6-10-03, SIGNED AND SEALED.

EXISTING 24" Ø CMP (TO BE REMOVED AND REPLACED DURING BACKFILLING STAGE)

CK. BY: JHC MPR:	DESCRIPTION: RECORD DRAWINGS
REV:	DATE: 08/08/03
EXCAVATION PLAN - SECTION 7 SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION	
HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT	
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619 PH (813) 921-0880 FAX NO. (813) 622-6757 REG. NO. 09200020.31 ISS. BY: JHO/GRD DRAWN BY: GRD CHECK BY: LER APP. BY: JHC INSG BY: RBG	
CADD FILE: SEC1CON\SEC1EXC	
DATE: APRIL 27, 2001	
SCALE: 1"=60'	
DRAWING NO. 6 of 22	



RECORD DRAWINGS
 BASED ON INFORMATION RECEIVED FROM HANDEX CONSTRUCTION SERVICES, INC. DATED AUGUST 5, 2003



GRADING CONTROL TABLE

NO.	ELEV	NORTHING	EASTING
1	137.63	N 1251706.49	E 598574.79
2	138.52	N 1251984.45	E 598852.00
3	133.14	N 1251902.53	E 598880.69
4	133.09	N 1251823.81	E 598894.07
5	139.60	N 1251774.75	E 598899.09
6	130.31	N 1251770.95	E 599007.66
7	133.80	N 1251713.93	E 599130.22
8	132.87	N 1251851.38	E 599282.11
9	133.79	N 1252009.04	E 599378.46
10	131.84	N 1251684.56	E 599193.33
11	135.34	N 1251630.26	E 599310.03
12	132.85	N 1251767.34	E 599477.05
13	133.84	N 1251954.17	E 599539.67
14	140.00	N 1251756.84	E 599608.49
15	139.00	N 1251672.93	E 599564.52
16	132.85	N 1251728.90	E 599565.96
17	132.19	N 1251611.68	E 599512.70
18	133.27	N 1251598.40	E 599378.51
19	135.57	N 1251567.72	E 599444.44
20	133.77	N 1251547.60	E 599487.68
21	130.27	N 1251606.85	E 599509.55
22	139.01	N 1251530.99	E 599503.24
23	139.00	N 1251458.09	E 599474.86
24	138.00	N 1251330.04	E 599428.15
25	137.00	N 1251213.59	E 599386.24
26	136.00	N 1251099.21	E 599347.90
27	132.09	N 1251042.96	E 599188.41
28	135.00	N 1250920.38	E 599262.07
29	135.00	N 1250880.98	E 599104.80
30	136.00	N 1250975.37	E 598934.78
31	126.13	N 1251015.80	E 598939.27
32	128.53	N 1251072.10	E 598884.44
33	138.38	N 1251095.54	E 598662.97
34	137.00	N 1251080.89	E 598764.88
35	140.00	N 1251348.36	E 598310.82
36	125.12	N 1251126.59	E 598772.31
37	127.40	N 1251178.65	E 598721.52
38	138.49	N 1251135.49	E 598598.96
39	138.00	N 1251187.99	E 598597.43
40	123.92	N 1251240.88	E 598608.01
41	138.90	N 1251267.25	E 598497.76
42	139.39	N 1251303.34	E 598527.97
43	139.60	N 1251340.39	E 598557.87
44	120.60	N 1251273.39	E 598584.61
45	124.22	N 1251328.13	E 598488.23
46	124.44	N 1251395.75	E 598428.85
47	136.48	N 1251368.49	E 598246.34
48	137.03	N 1251358.46	E 598342.39
49	140.11	N 1251364.00	E 598358.99
50	131.19	N 1251054.39	E 599144.93
51	130.00	N 1251192.00	E 599407.30

NOTE: SEE BACKFILL SURVEY FROM PENINSULA DESIGN & ENGINEERING, INC., DATED - 6-10-03, SIGNED AND SEALED.

(2) 70 LF OF 36" RCP
 INV ELEV = 130.0 WEST
 INV ELEV = 129.00 EAST
 W/ MES FDOT INDEX 272

NOTE:
 EXISTING TOPOGRAPHY COMPILED FROM AERIAL SURVEY BY AEROMAP U.S. FOR WASTE MANAGEMENT INC. OF FLORIDA DATED MAY 20, 2001



RECORD DRAWINGS
 BASED ON INFORMATION RECEIVED FROM HANDEX CONSTRUCTION SERVICES, INC. DATED AUGUST 5, 2003

CHK. BY:	DESCRIPTION:	DATE:	REV.:	DATE:	REV.:	DATE:	REV.:

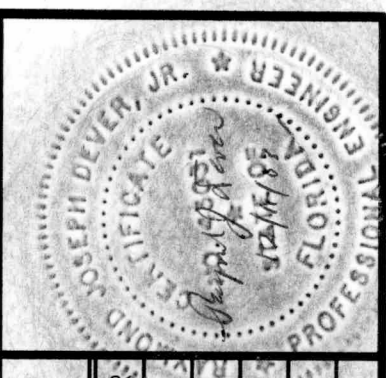
DRAWING TITLE: BACKFILL PLAN - SECTION 7

PROJECT TITLE: SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS
 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
 PH (813) 821-0080 FAX NO. (813) 823-9757

CADD FILE: SEC1BIFIL
 DATE: APRIL 27, 2001
 SCALE: 1" = 60'
 DRAWING NO. **7** of 22



CK. BY	MPR
DESCRIPTION	RECORD DRAWINGS
REV.	DATE
1	08/08/03

DRAWING TITLE: **FINAL GRADING PLAN
TOP OF DRAINAGE LAYER**

PROJECT TITLE: **SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION**

CLIENT: **HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT
DEPARTMENT**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 821-0080 FAX NO. (813) 824-8757

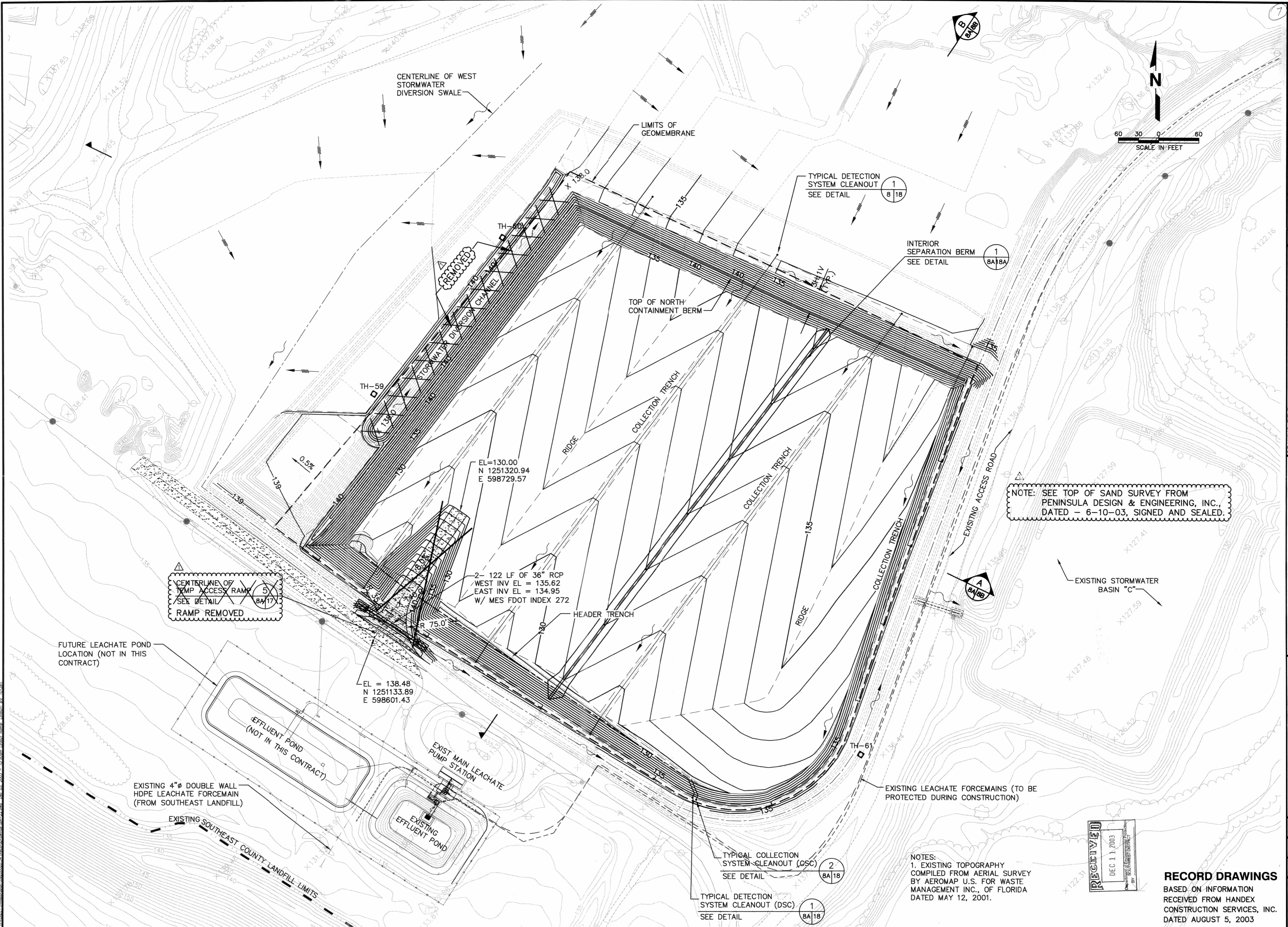
DATE: 08/20/00
DWN. BY: GRD
CHK. BY: LER/JHO
APP. BY: RBG

CADD FILE: TOPOFSAND

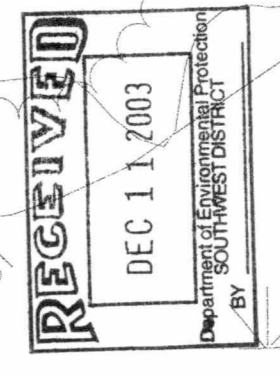
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SCALE: 1" = 60'

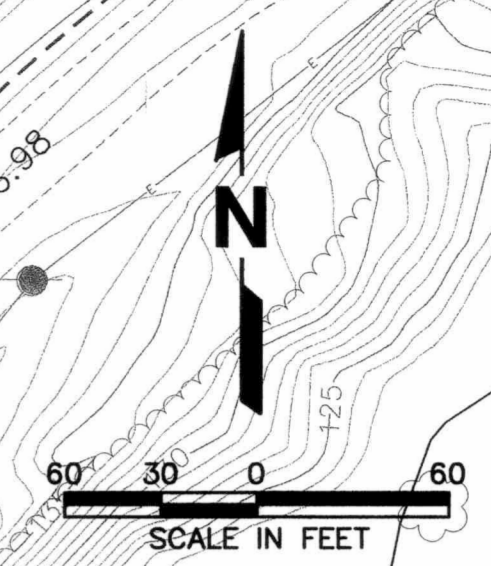
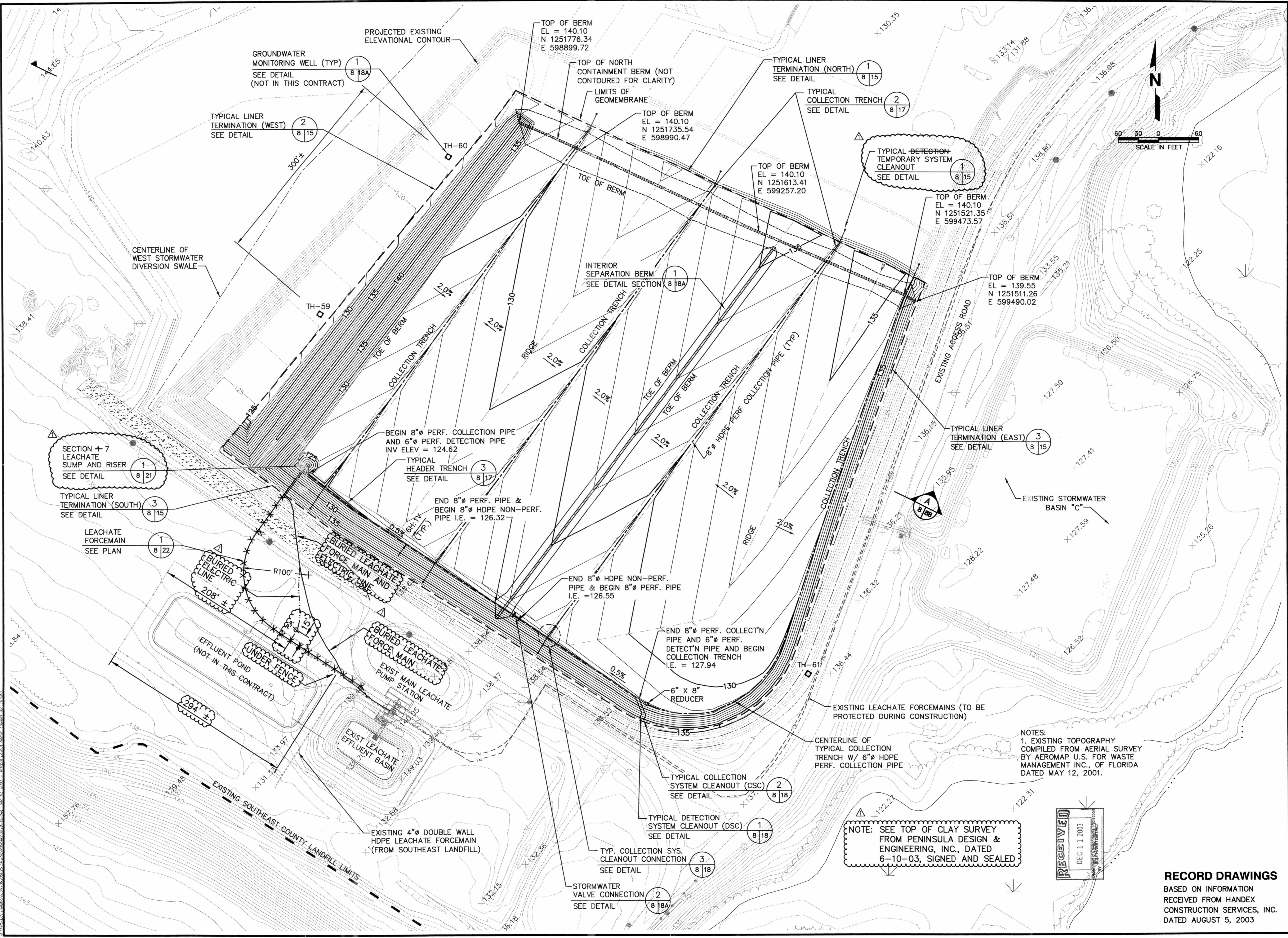
DRAWING NO. **8A** of 22



NOTE: SEE TOP OF SAND SURVEY FROM PENINSULA DESIGN & ENGINEERING, INC., DATED - 6-10-03, SIGNED AND SEALED.



RECORD DRAWINGS
BASED ON INFORMATION RECEIVED FROM HANDEX CONSTRUCTION SERVICES, INC. DATED AUGUST 5, 2003



SECTION + 7
LEACHATE
SUMP AND RISER
SEE DETAIL
8 | 21

TYPICAL LINER
TERMINATION (SOUTH)
SEE DETAIL
8 | 15

LEACHATE
FORCEMAIN
SEE PLAN
8 | 22

BEGIN 8" Ø PERF. COLLECTION PIPE
AND 6" Ø PERF. DETECTION PIPE
INV ELEV = 124.62
TYPICAL HEADER TRENCH
SEE DETAIL
8 | 17

END 8" Ø PERF. PIPE &
BEGIN 8" Ø HDPE NON-PERF.
PIPE I.E. = 126.32

END 8" Ø HDPE NON-PERF.
PIPE & BEGIN 8" Ø PERF. PIPE
I.E. = 126.55

END 8" Ø PERF. COLLECT'N
PIPE AND 6" Ø PERF.
DETECT'N PIPE AND BEGIN
COLLECTION TRENCH
I.E. = 127.94

TYPICAL COLLECTION
SYSTEM CLEANOUT (CSC)
SEE DETAIL
8 | 18

TYPICAL DETECTION
SYSTEM CLEANOUT (DSC)
SEE DETAIL
8 | 18

TYP. COLLECTION SYS.
CLEANOUT CONNECTION
SEE DETAIL
8 | 18

STORMWATER
VALVE CONNECTION
SEE DETAIL
8 | 18A

TYPICAL LINER
TERMINATION (NORTH)
SEE DETAIL
8 | 15

TYPICAL COLLECTION TRENCH
SEE DETAIL
8 | 17

TYPICAL DETECTION
TEMPORARY SYSTEM
CLEANOUT
SEE DETAIL
8 | 15

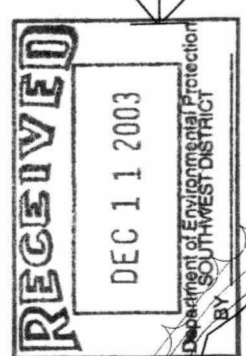
TOP OF BERM
EL = 140.10
N 1251521.35
E 599473.57

TOP OF BERM
EL = 139.55
N 1251511.26
E 599490.02

TYPICAL LINER
TERMINATION (EAST)
SEE DETAIL
8 | 15

NOTES:
1. EXISTING TOPOGRAPHY
COMPILED FROM AERIAL SURVEY
BY AEROMAP U.S. FOR WASTE
MANAGEMENT INC., OF FLORIDA
DATED MAY 12, 2001.

NOTE: SEE TOP OF CLAY SURVEY
FROM PENINSULA DESIGN &
ENGINEERING, INC., DATED
6-10-03, SIGNED AND SEALED



CK. BY	DESCRIPTION
MPR	RECORD DRAWINGS
DATE	
REV.	

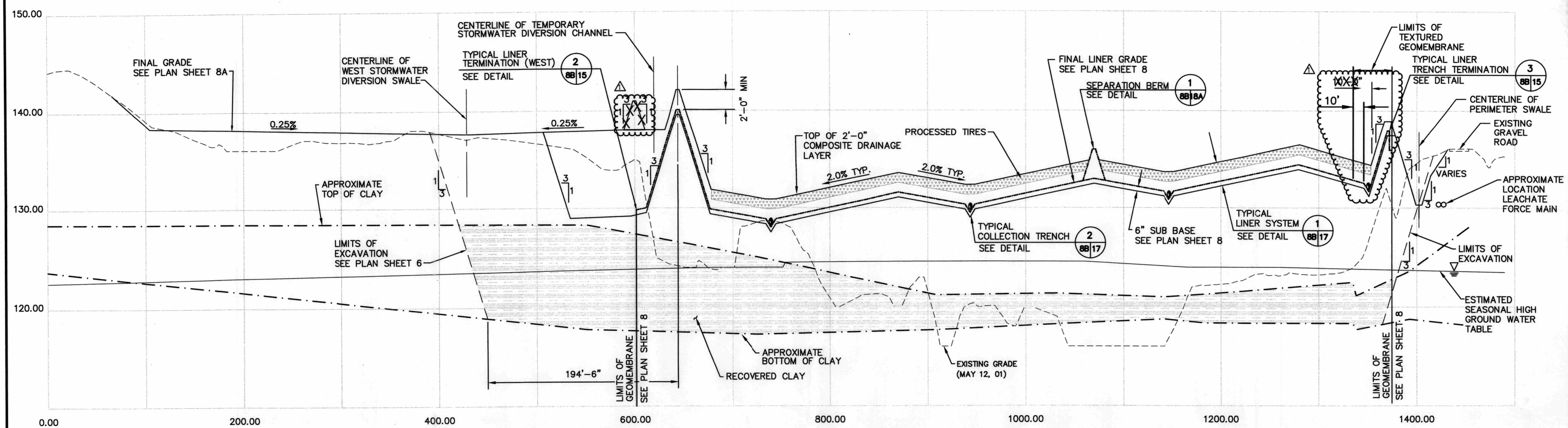
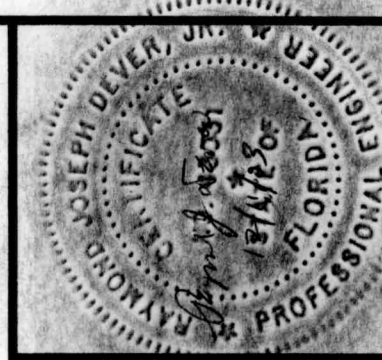
DRAWING TITLE	LCRS (TOP OF CLAY SUBBASE) SECTION 7
PROJECT TITLE	SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

CLIENT	HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT
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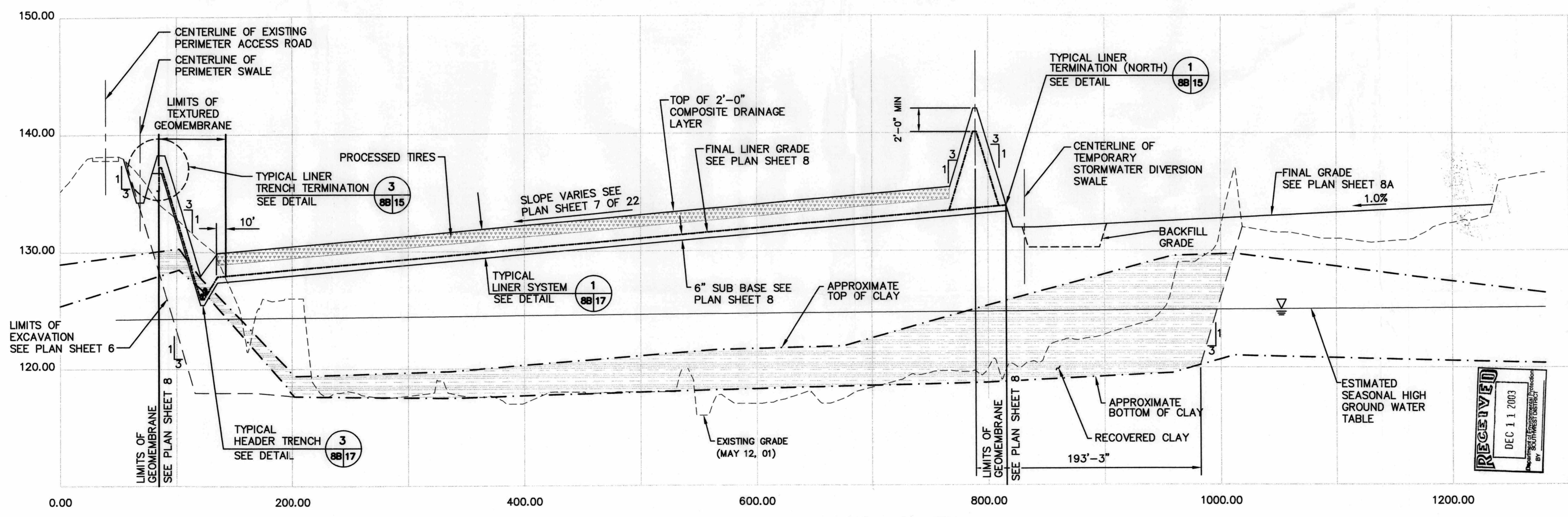
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS 3013 U.S. HWY. 90 NORTH, SUITE 200, TAMPA, FL 33619 PH (813) 821-2088 FAX NO. (813) 824-9757	DWN. BY: GRD CHK. BY: LER APP. BY: JHO/RBC
---	--

CADD FILE:	SEC1LCRS
DATE:	APRIL 27, 2001
SCALE:	1" = 60'
DRAWING NO.	8 of 22

RECORD DRAWINGS
BASED ON INFORMATION
RECEIVED FROM HANDEX
CONSTRUCTION SERVICES, INC.
DATED AUGUST 5, 2003



WEST - EAST CROSS SECTION A
 SCALE 1" = 50' HORIZ.
 1" = 5' VERT.
 6,7,8,8A



SOUTH - NORTH CROSS SECTION B
 SCALE 1" = 50' HORIZ.
 1" = 5' VERT.
 6,7,8,8A

REV.	DATE	DESCRIPTION
1	08/05/03	RECORD DRAWINGS

CROSS SECTIONS
 HILLSBOROUGH COUNTY
 SOLID WASTE MANAGEMENT
 DEPARTMENT
 PROJECT TITLE
 SOUTHEAST COUNTY LANDFILL
 CAPACITY EXPANSION

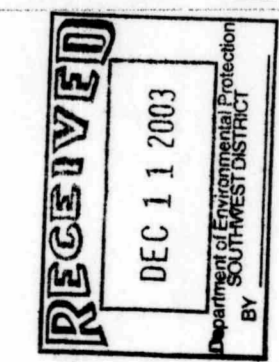
CLIENT
 HILLSBOROUGH COUNTY
 SOLID WASTE MANAGEMENT
 DEPARTMENT

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS
 3012 U.S. HWY. 301 NORTH SUITE 700, TAMPA, FL 33619
 PH (813) 821-0000 FAX NO. (813) 822-8757
 PROJ. NO. 09200020.31
 TOWN: JHO / GRD
 DRAWN BY: JHO
 CHECK BY: JHO
 G/A BY: LER
 APP. BY: RBG

CADD FILE:
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 DATE:
 APRIL 27, 2001
 SCALE:
 AS SHOWN

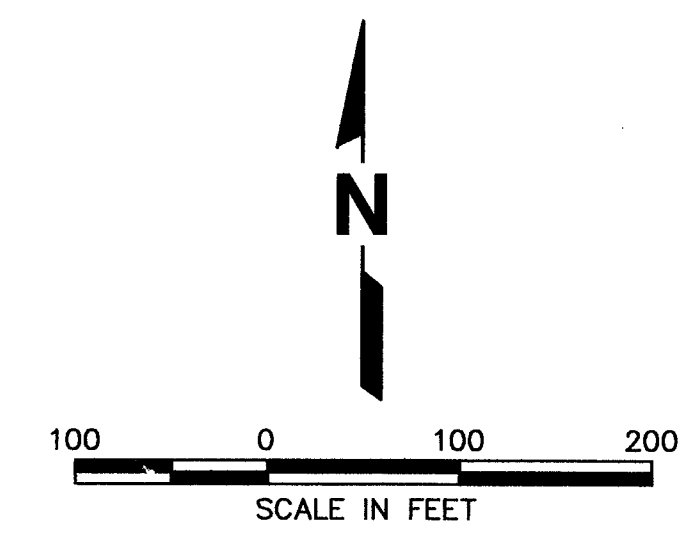
DRAWING NO.
8B of 22

RECORD DRAWINGS
 BASED ON INFORMATION
 RECEIVED FROM HANDEX
 CONSTRUCTION SERVICES, INC.
 DATED AUGUST 5, 2003

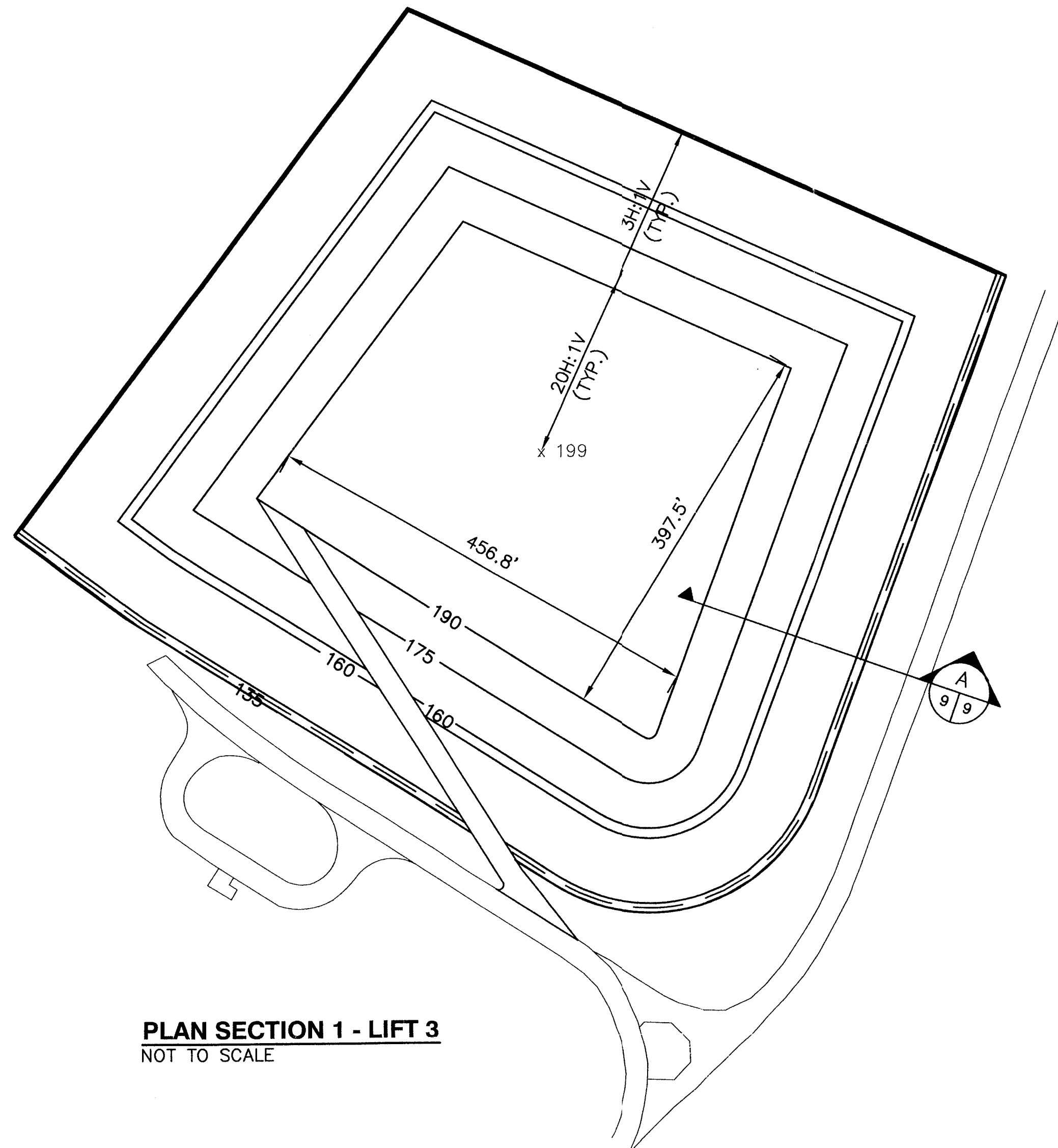


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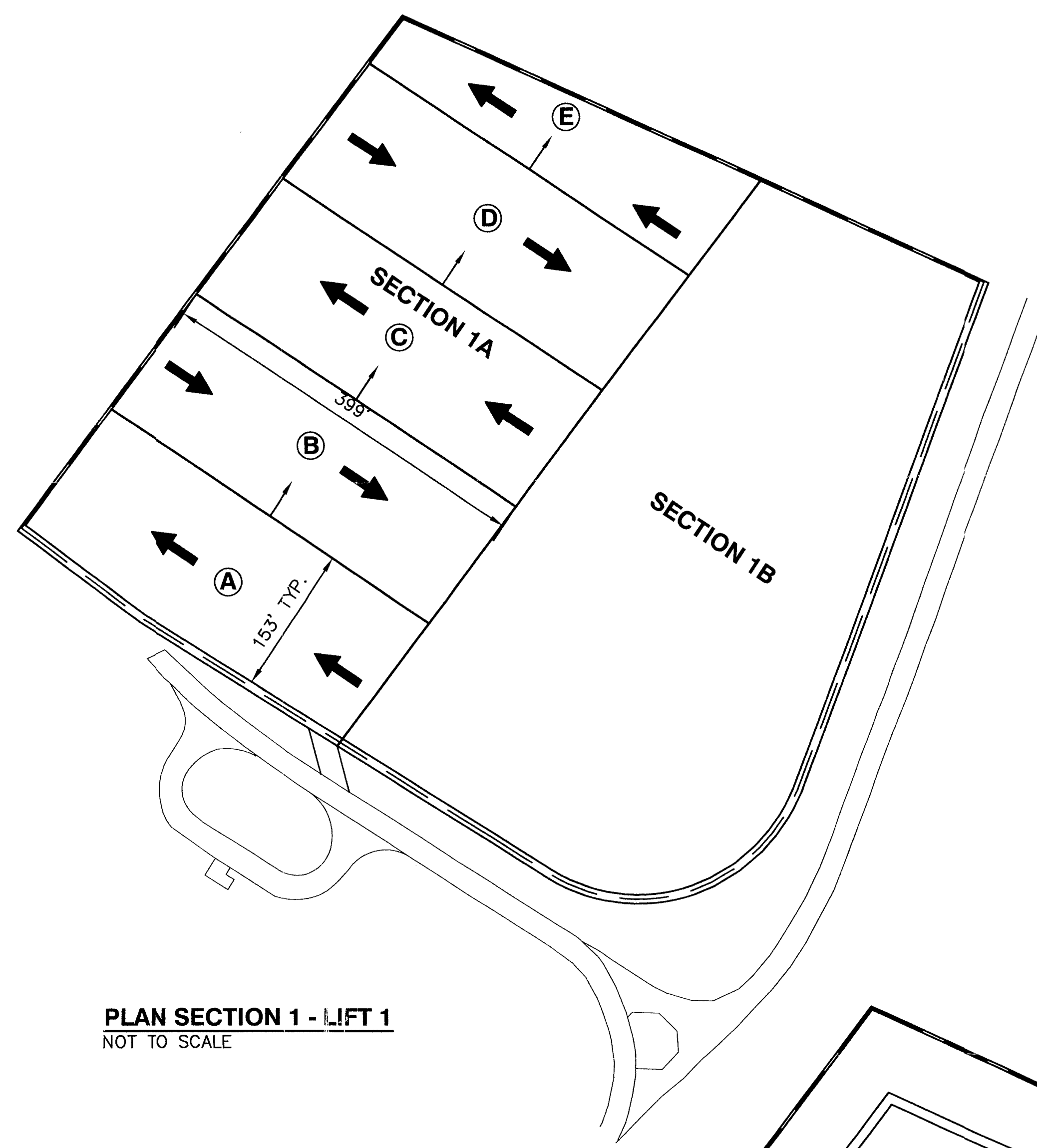
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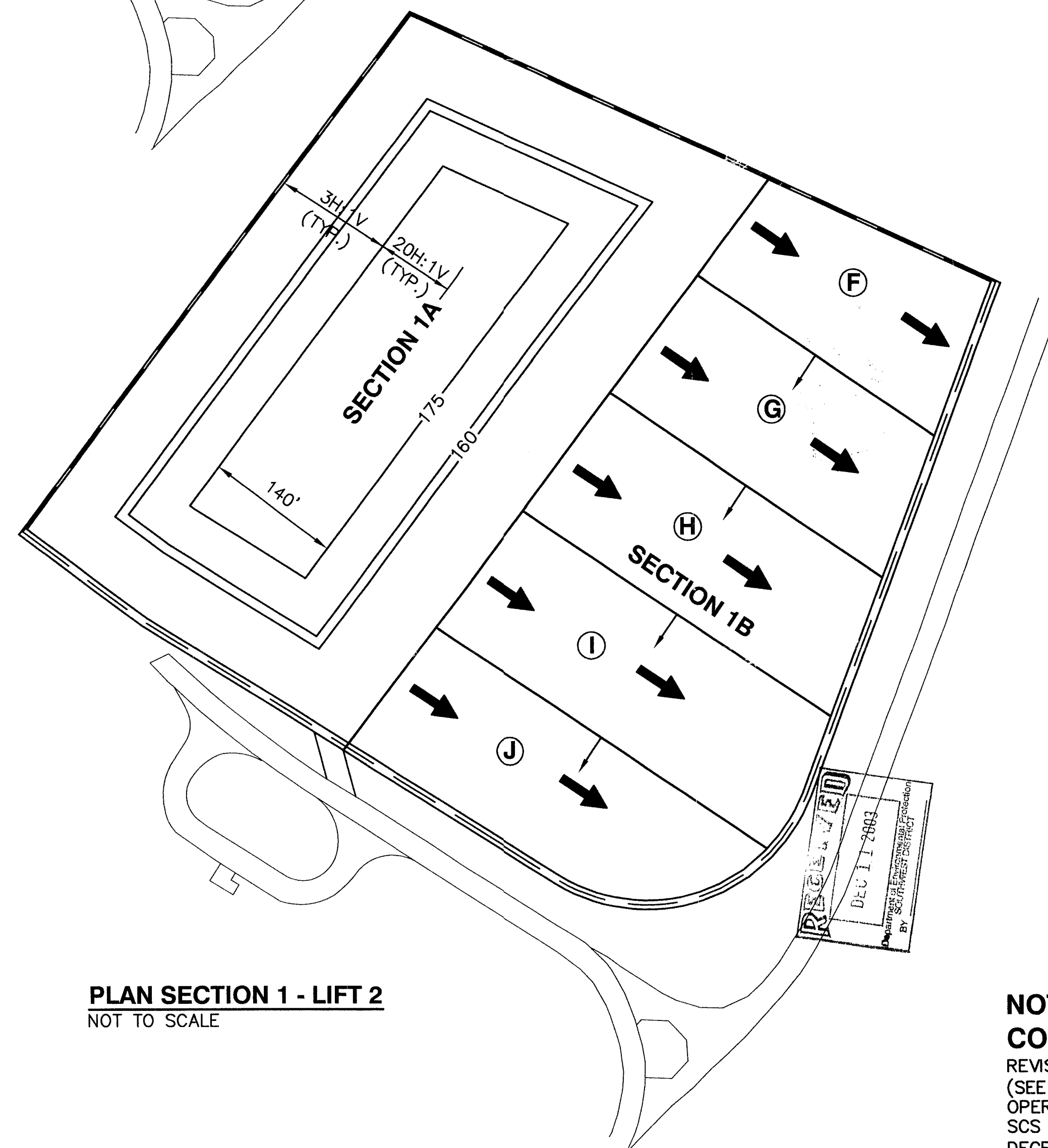
➔ = REFUSE PLACEMENT DIRECTION



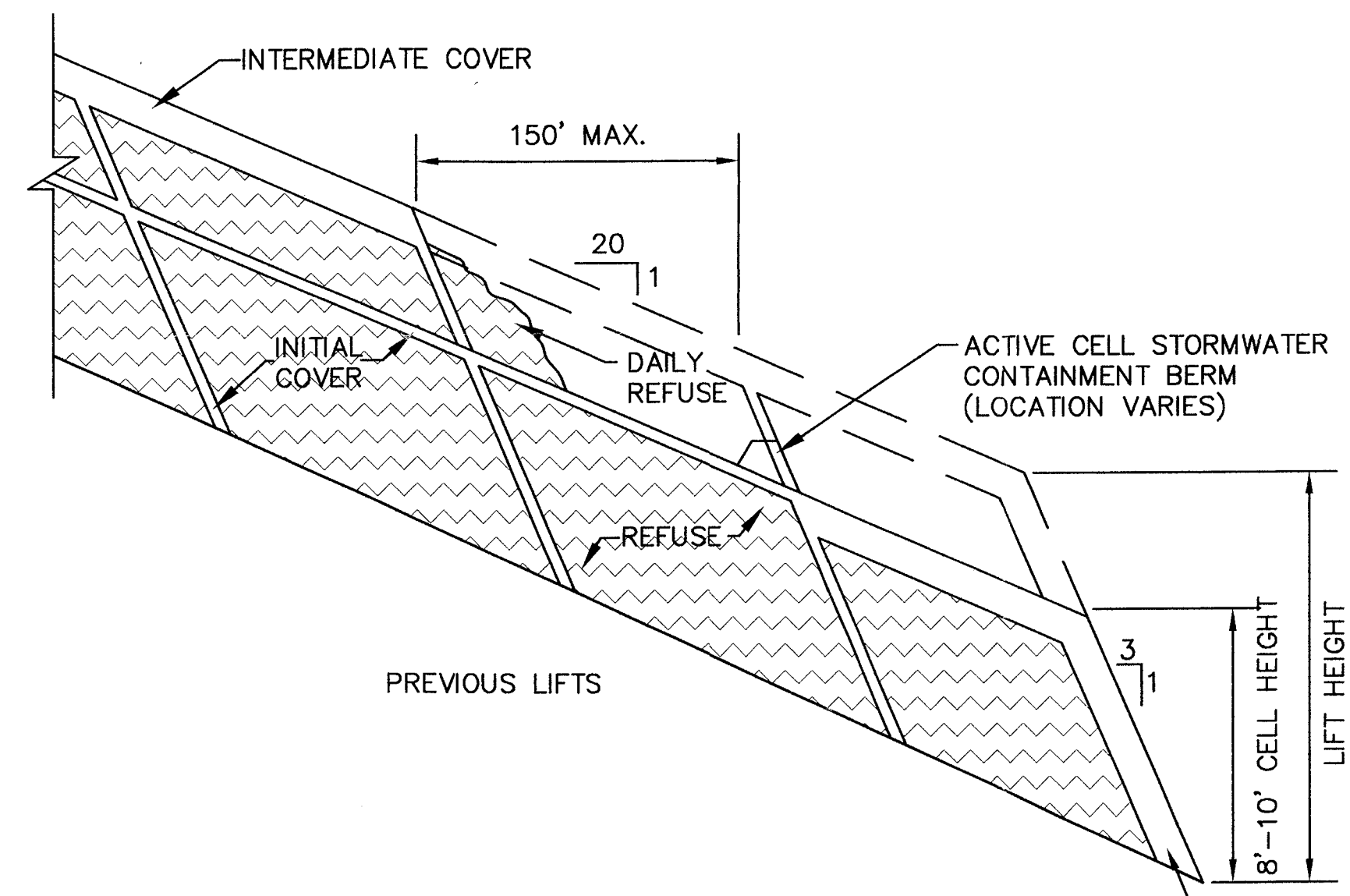
PLAN SECTION 1 - LIFT 3
NOT TO SCALE



PLAN SECTION 1 - LIFT 1
NOT TO SCALE



PLAN SECTION 1 - LIFT 2
NOT TO SCALE



TYPICAL CELL CONSTRUCTION
NOT TO SCALE

TEMPORARY CLAY FINAL COVER
ON EXTERIOR SIDESLOPES TO BECOME
GEOMEMBRANE UPON FINAL CLOSURE

REV.	DATE	DESCRIPTION	CK. BY
1			
2			
3			
4			
5			

DRAWING TITLE: **SEQUENCE PLANS - SECTION 7**
 PROJECT TITLE: **SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION**

CLIENT: **HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT TAMPA, FLORIDA**

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS
 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33618
 PH (813) 821-0088 FAX NO. (813) 822-6757
 PROJECT NO. 0209.35
 DWN. BY: XRH
 G/A BY: RBG
 CHK. BY: LER
 APP. BY: RBG

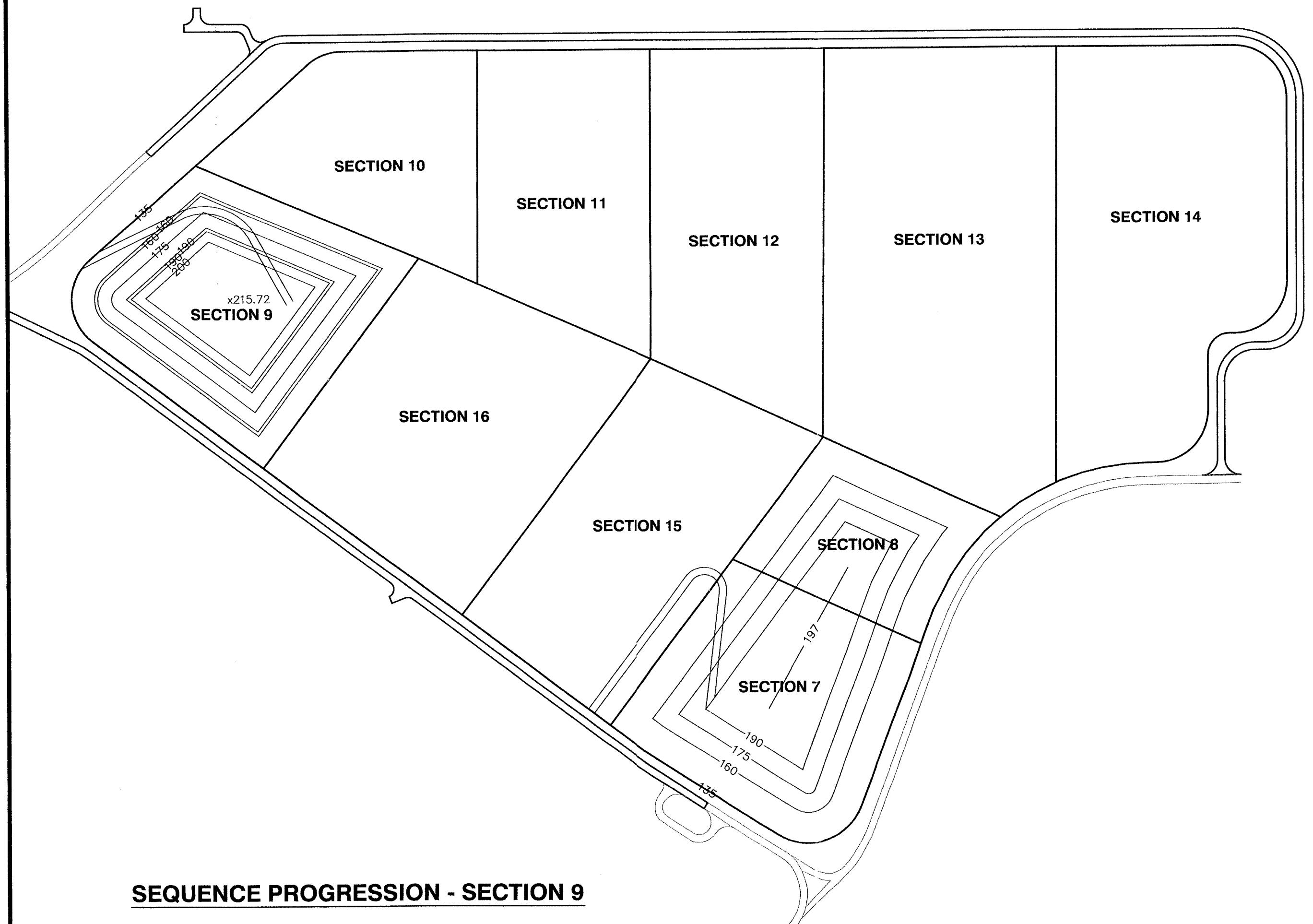
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 DATE: MARCH 16, 2000
 SCALE: AS SHOWN

DRAWING NO. **9** of 22

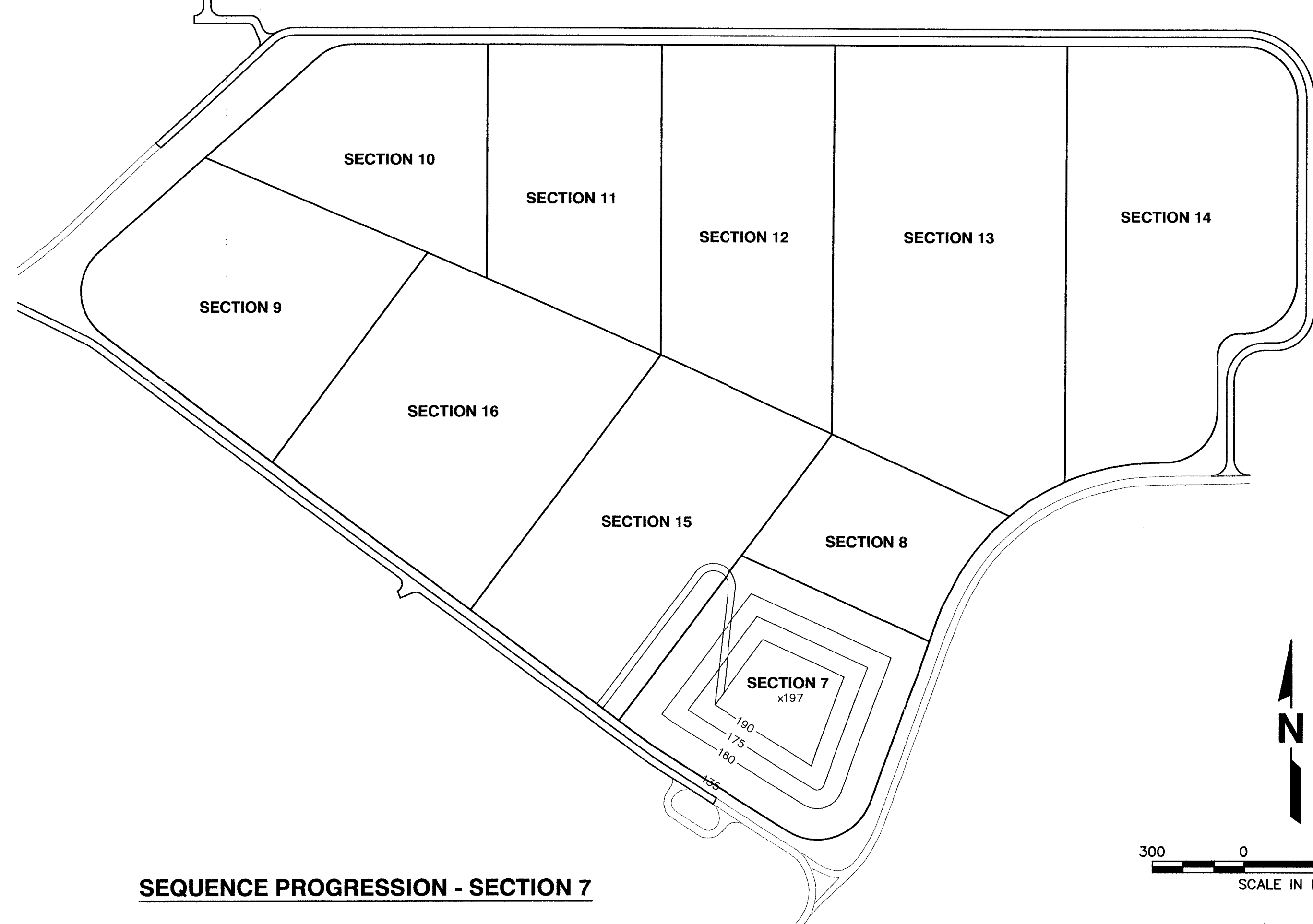
NOT USED FOR CONSTRUCTION
 REVISED-NOT VALID
 (SEE SECTION 7 OPERATING SEQUENCE BY SCS ENGINEERS DATED DECEMBER 10, 2002)

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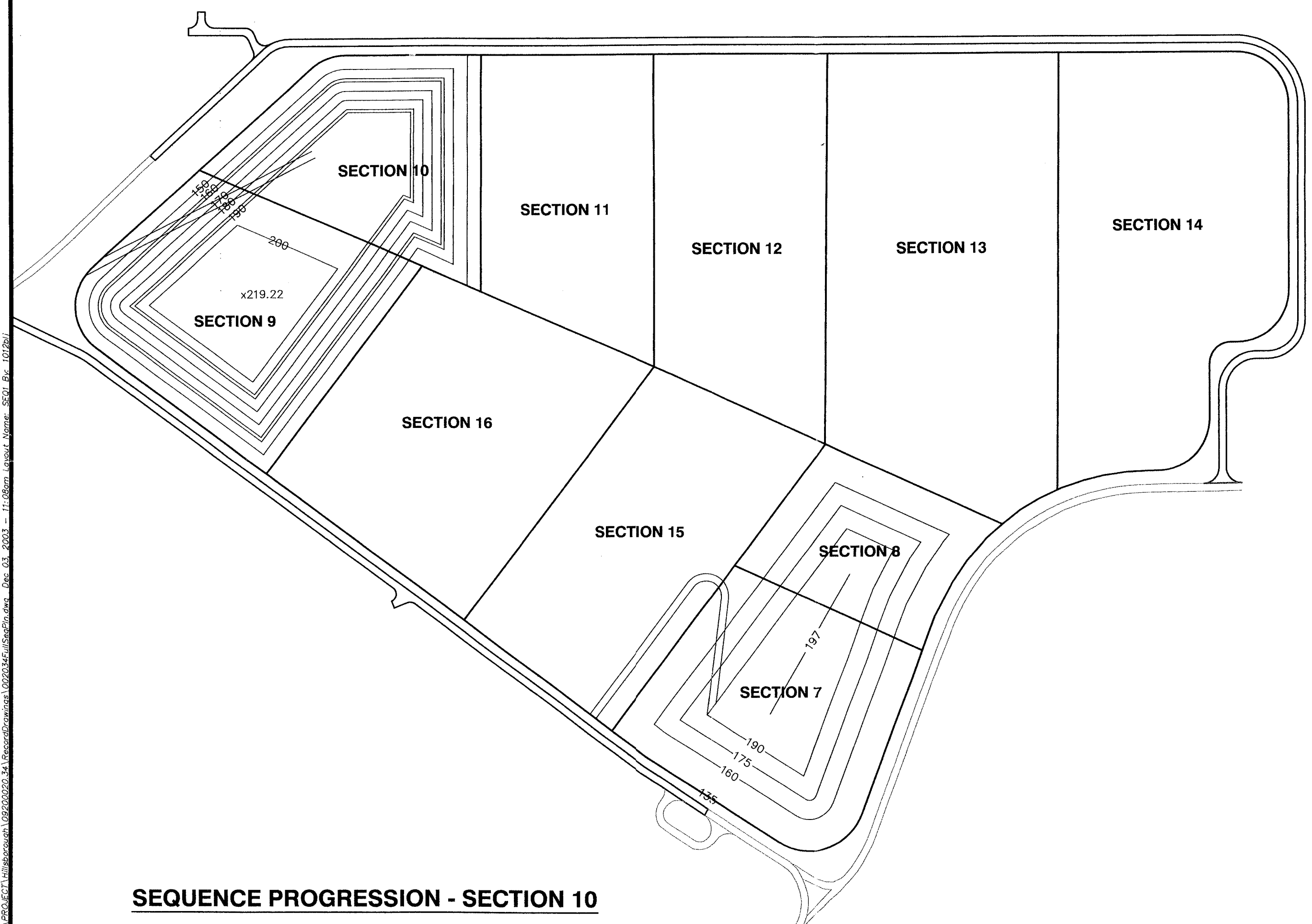
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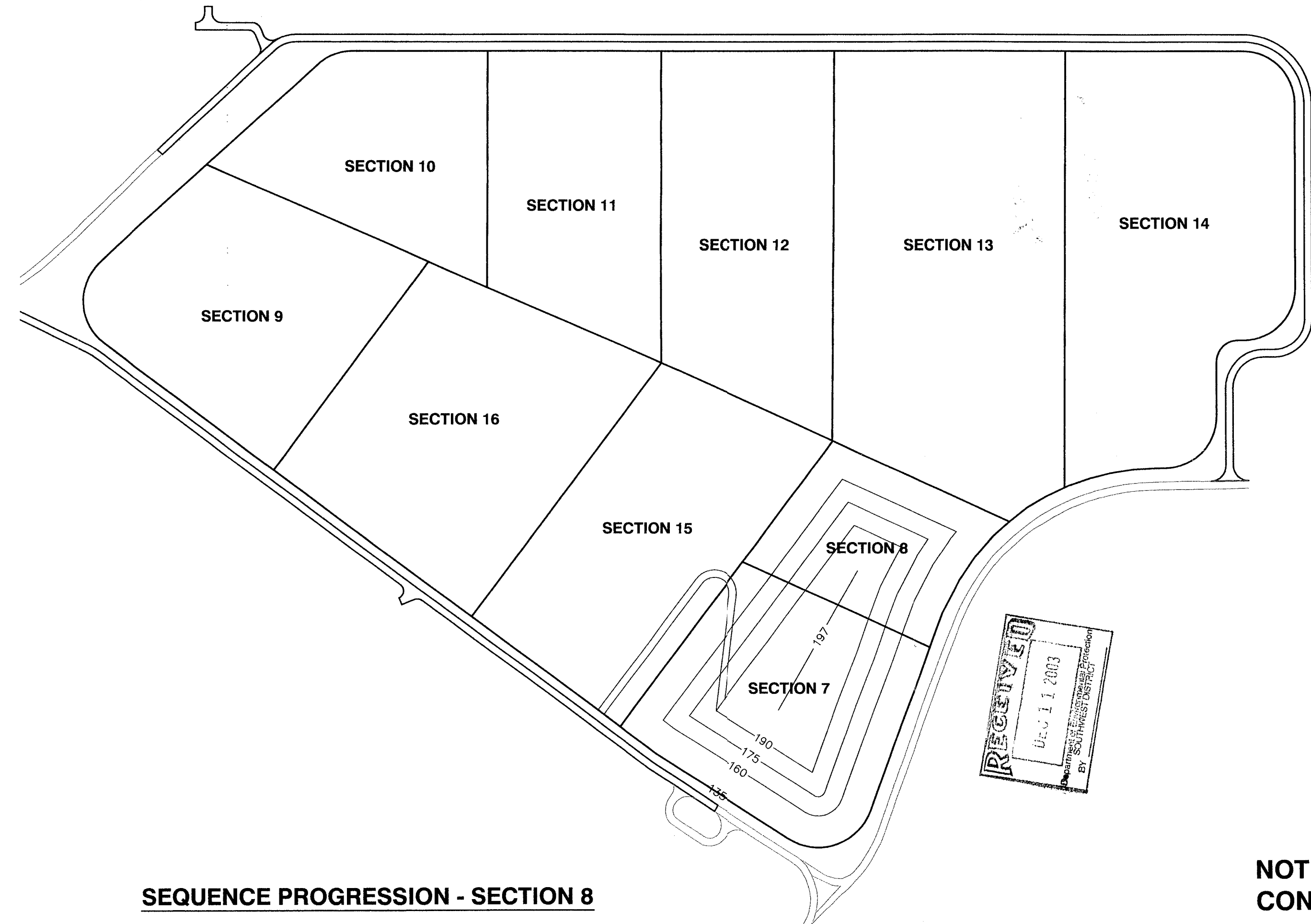
SEQUENCE PROGRESSION - SECTION 9



SEQUENCE PROGRESSION - SECTION 7

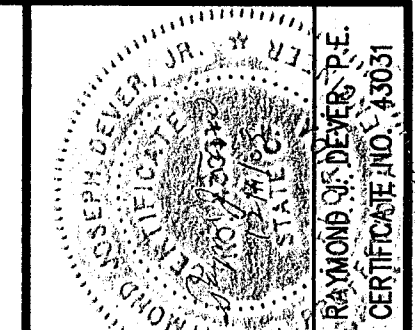


SEQUENCE PROGRESSION - SECTION 10



SEQUENCE PROGRESSION - SECTION 8

NOT USED FOR CONSTRUCTION



REV	DATE	DESCRIPTION	BY
1	12/03	CHANGED SECTION NUMBERS	LER
2			
3			
4			
5			

DRAWING TITLE
CONCEPTUAL SEQUENCE PLAN SECTION 7-10

PROJECT TITLE
SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

CLIENT
HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301, NORTH SUITE 700, TAMPA, FL 33619
PH (813) 661-0880 FAX (813) 663-6969
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 0006882
PROJECT NO. 09200020.34
DATE: 03/11/2003
DRAWN BY: BLJ
CHECKED BY: LER
APP. BY: RUD
RUD

CADD FILE:
002034FullSeqPin

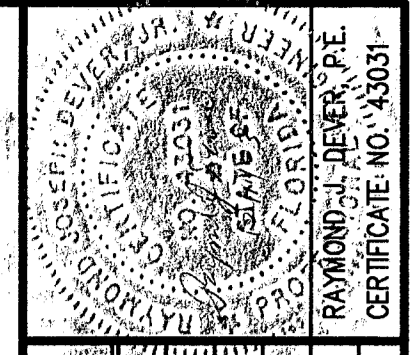
DATE:
MARCH 16, 2000

SCALE:
AS SHOWN

DRAWING NO.
10 of 22

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12



REV	DATE	DESCRIPTION	BY
1	12/03	CHANGED SECTION NUMBERS	LER
2			
3			
4			

DRAWING TITLE
**CONCEPTUAL SEQUENCE PLAN
SECTION 11-14**

PROJECT TITLE
**SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION**

CLIENT
**HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT
DEPARTMENT
TAMPA, FLORIDA**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3072 S.W. HWY. 301, NORTH, SUITE 100, TAMPA, FL 33619
PH (813) 831-4888 FAX (813) 831-9799
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 0004882
PROJECT NO. 002034
DATE: 09/20/00
DWN. BY: B.L.J. APP. BY: R.U.D.
CHK. BY: LER

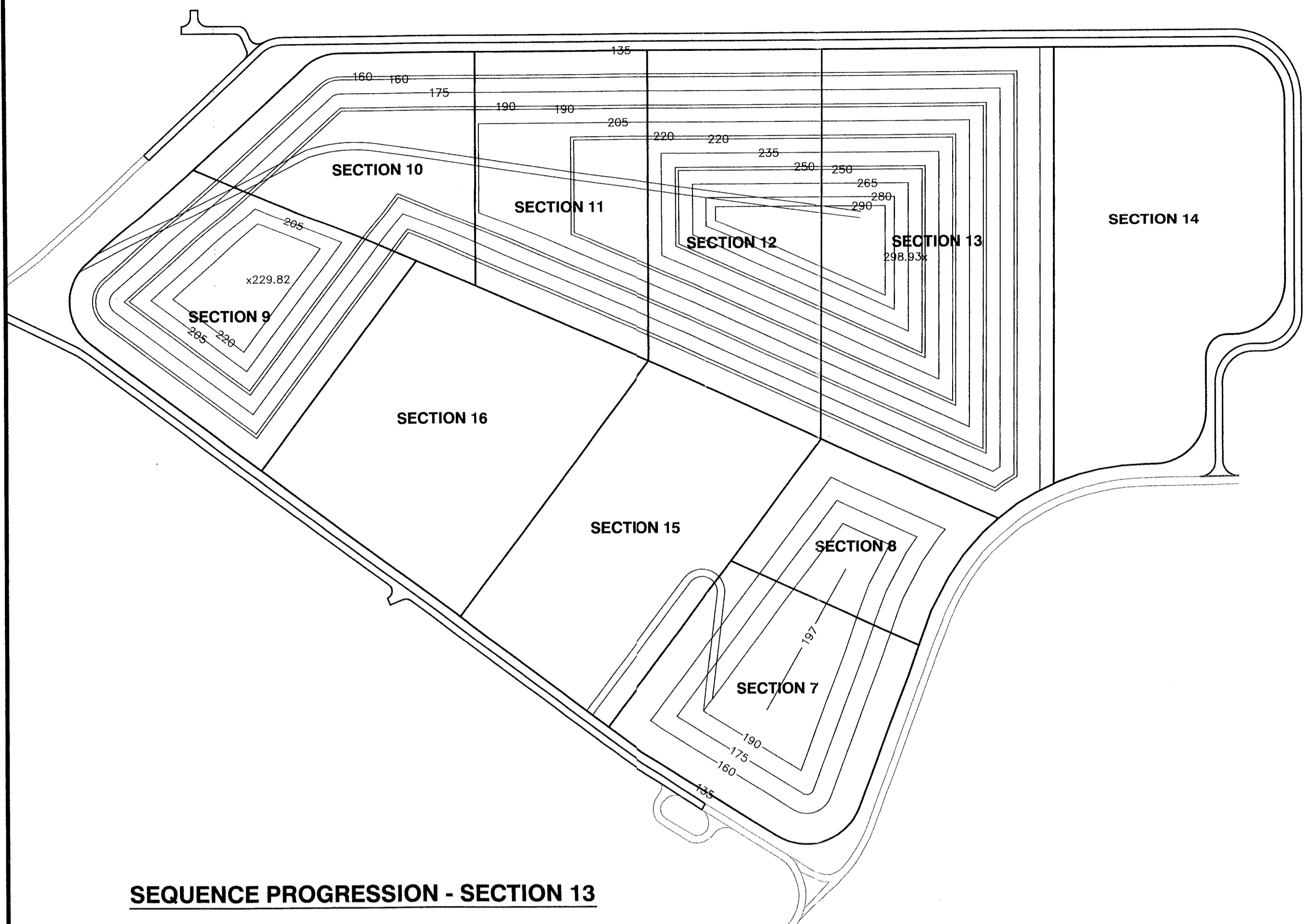
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DATE:
MARCH 16, 2000

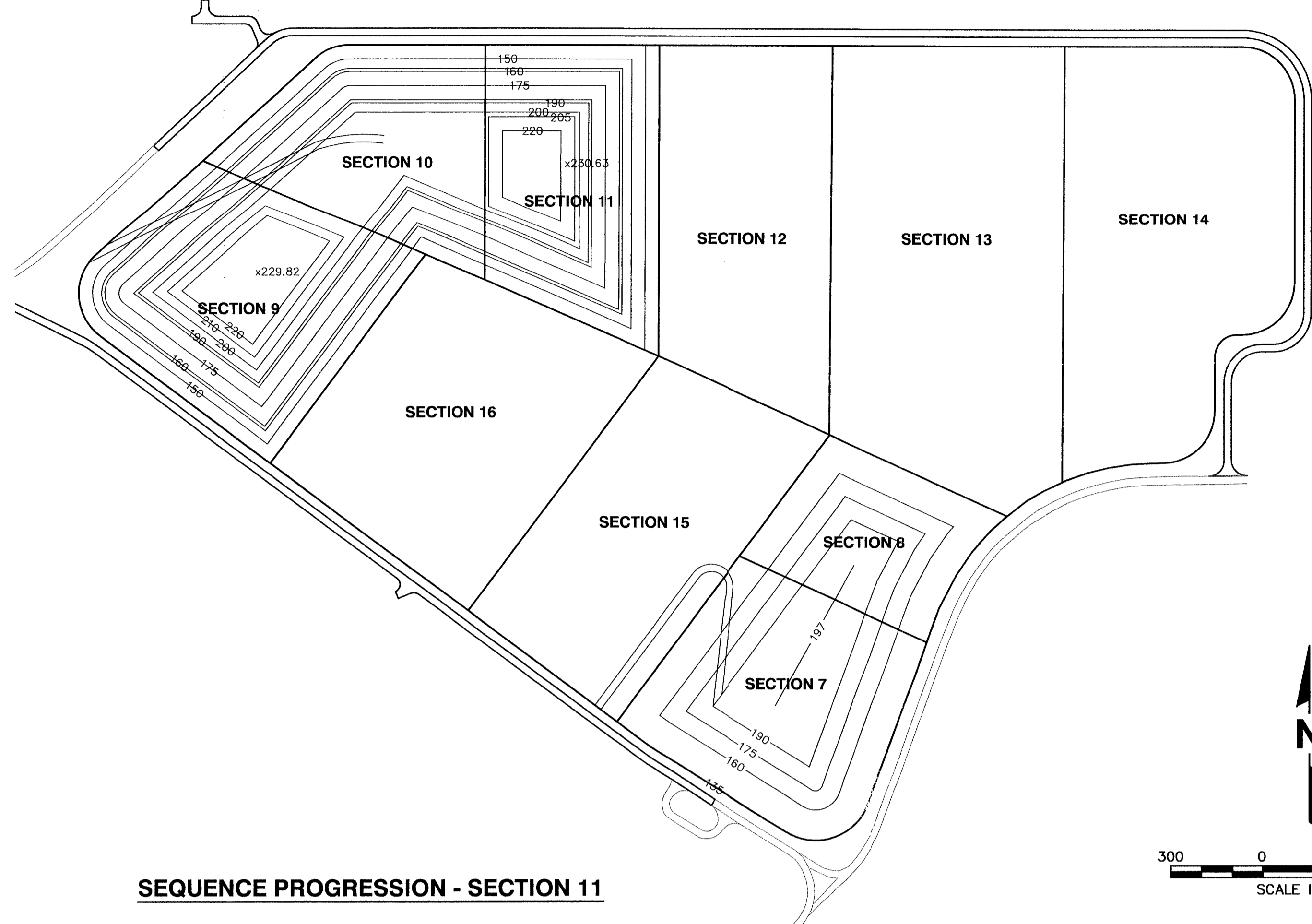
SCALE:
AS SHOWN

DRAWING NO.

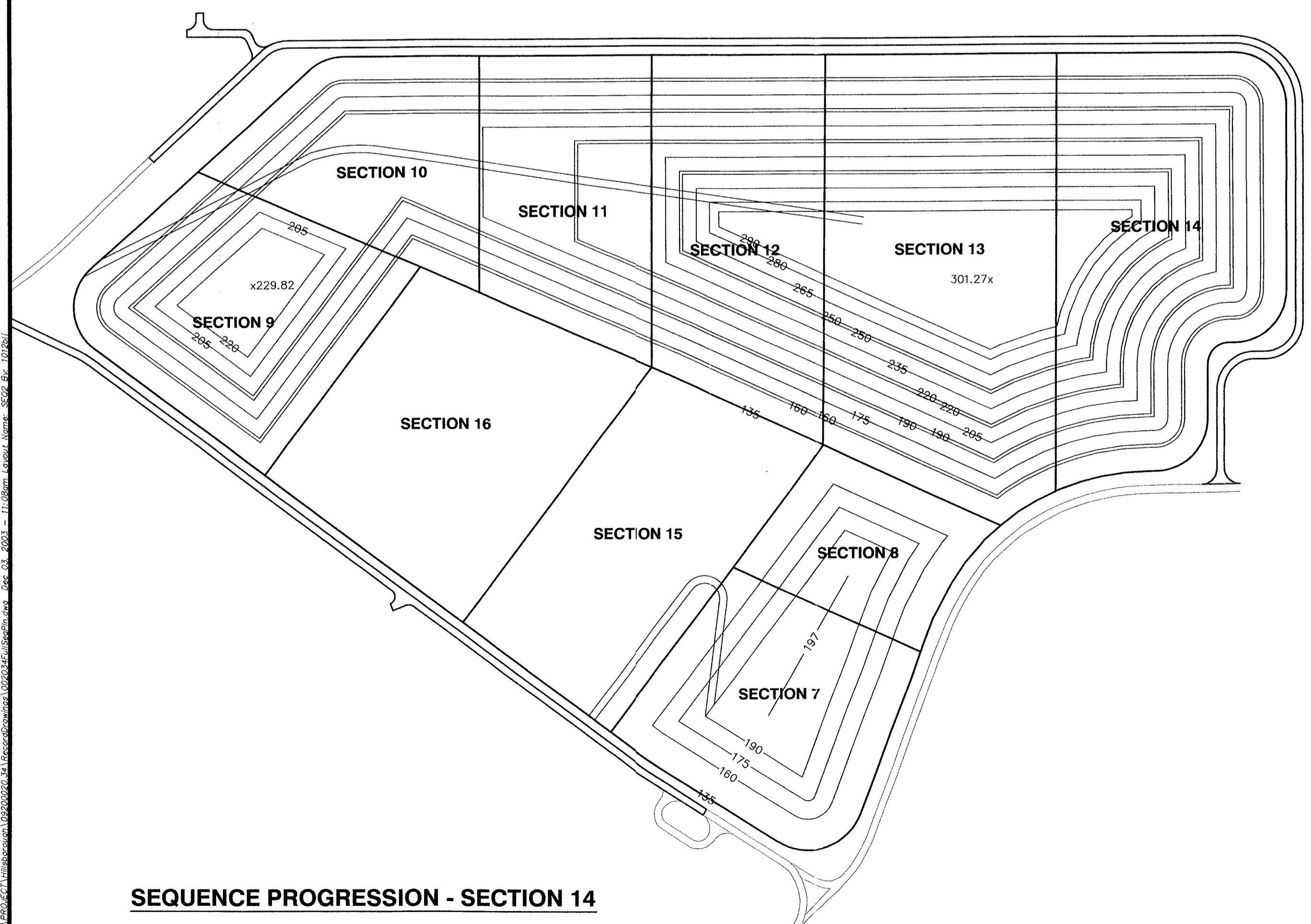
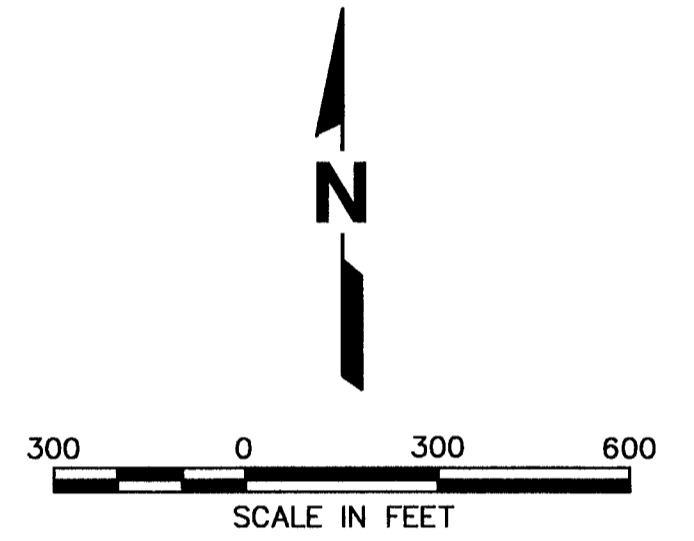
11 of 22



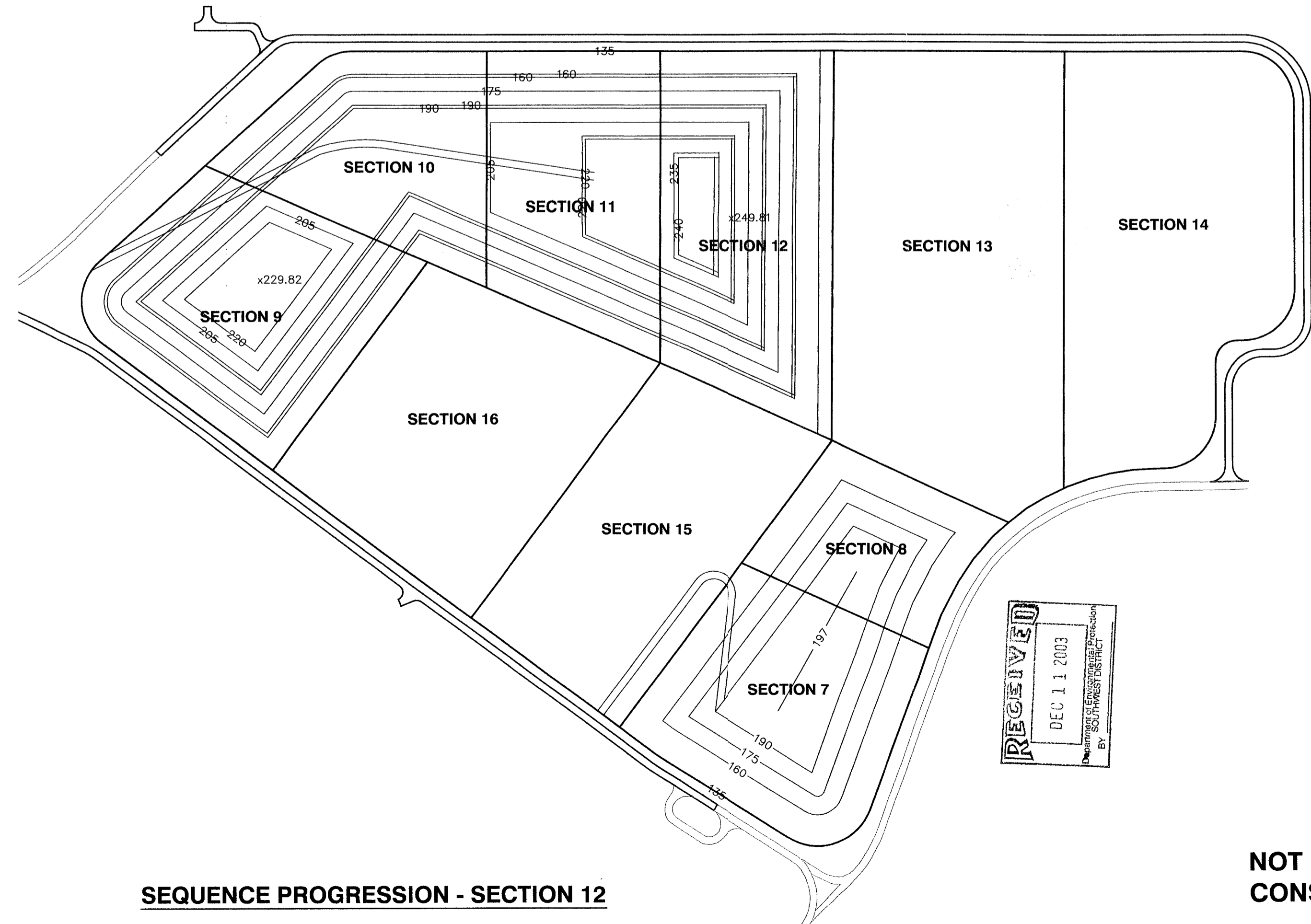
SEQUENCE PROGRESSION - SECTION 13



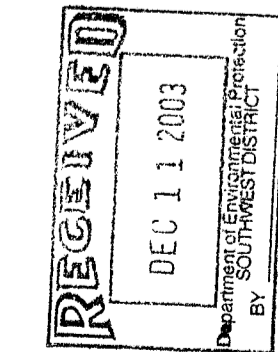
SEQUENCE PROGRESSION - SECTION 11



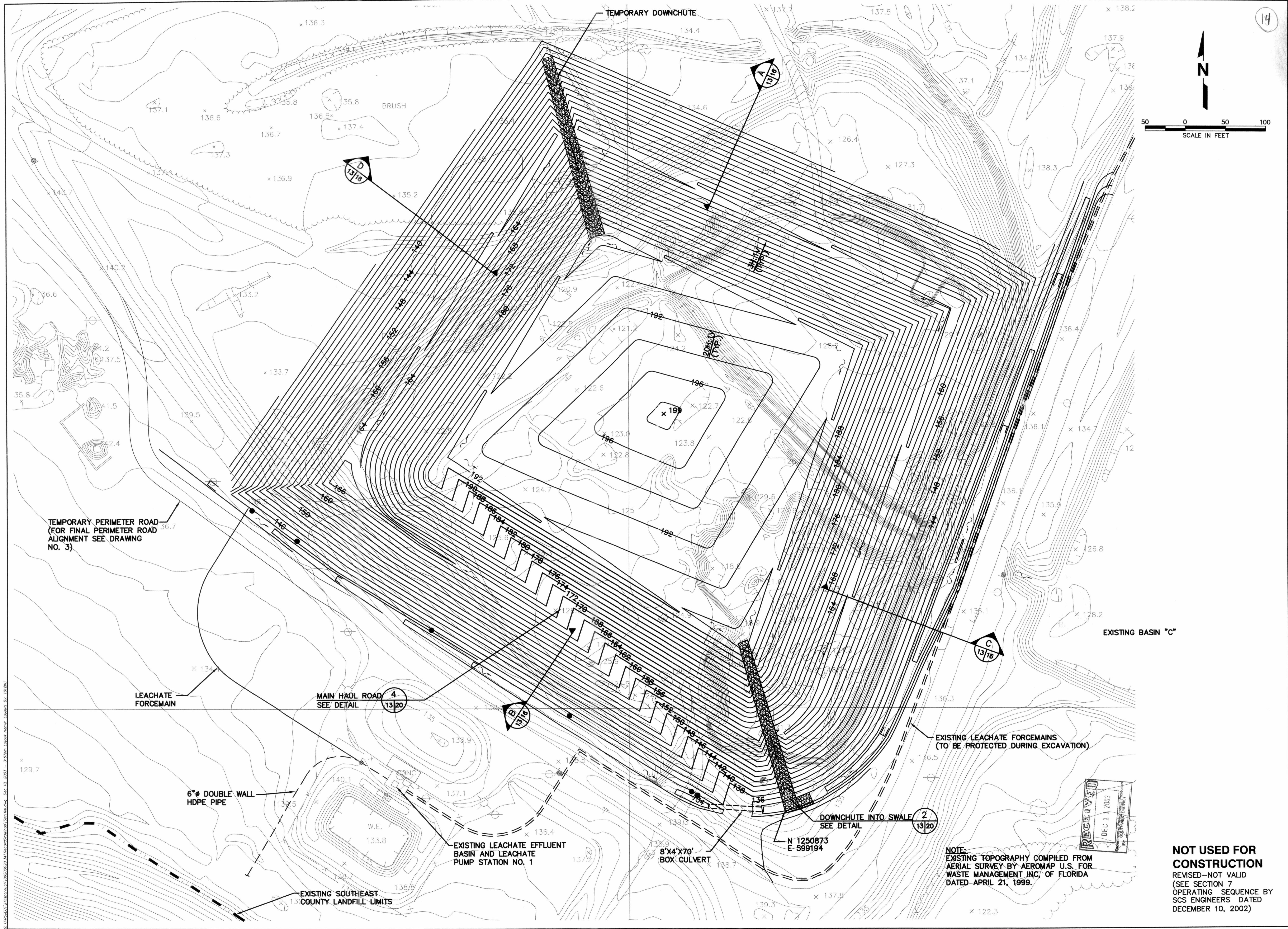
SEQUENCE PROGRESSION - SECTION 14



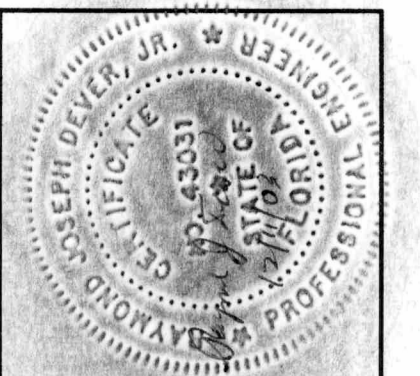
SEQUENCE PROGRESSION - SECTION 12



**NOT USED FOR
CONSTRUCTION**



14



REV.	DATE	DESCRIPTION

DRAWING TITLE
CLOSURE PLAN - SECTION 7

PROJECT TITLE
SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

CLIENT
HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
301 U.S. HIGHWAY, SUITE 200, TAMPA, FL 33619
PH (813) 821-0000 FAX (813) 822-8727

DWN. BY: XRH
CHK. BY: LER
APP. BY: RBG

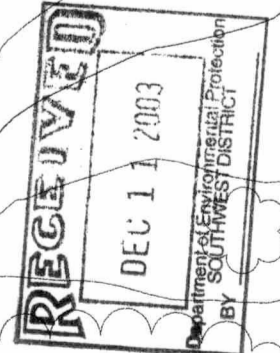
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DATE:
MARCH 16, 2000

SCALE:
AS SHOWN

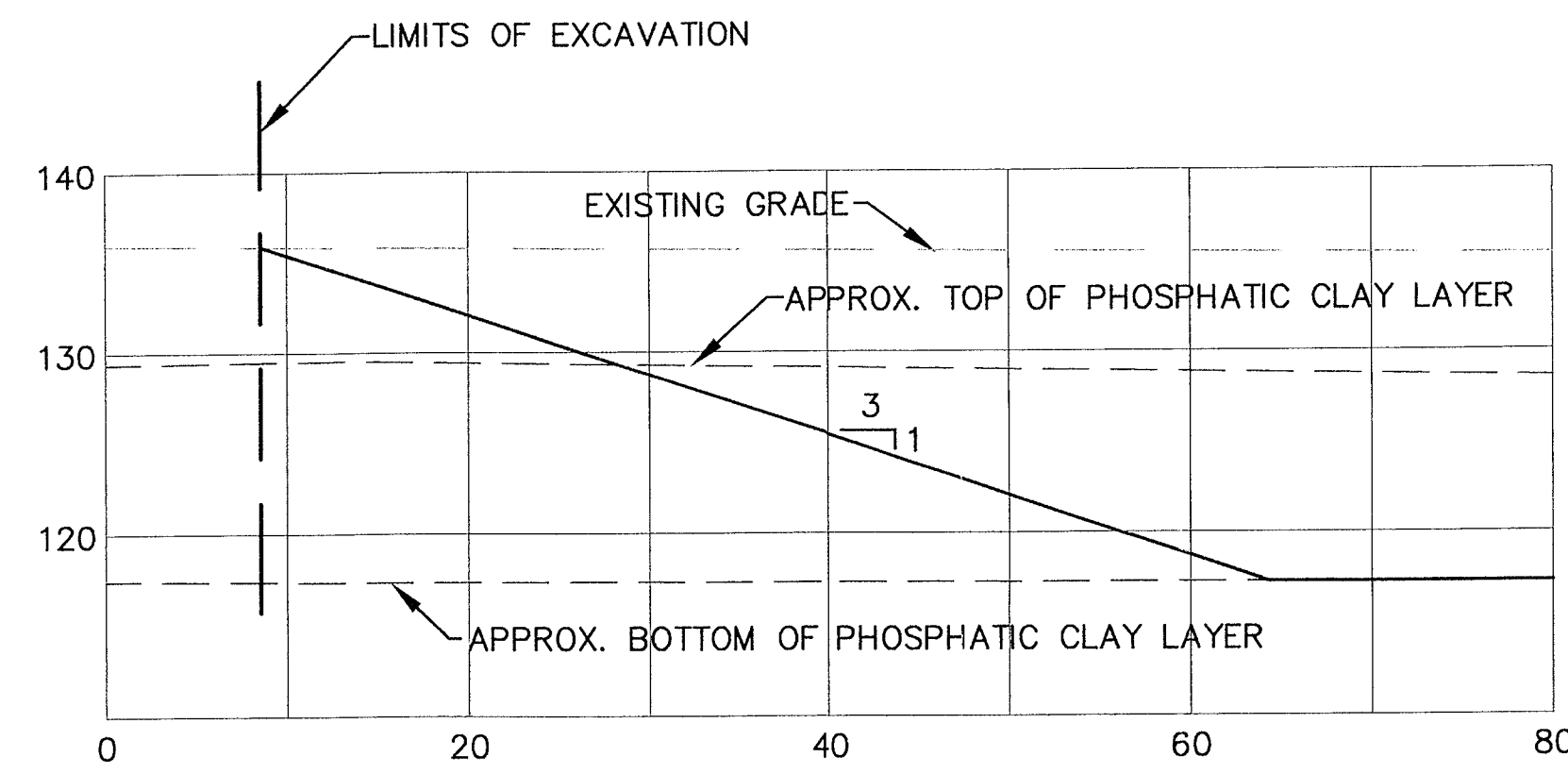
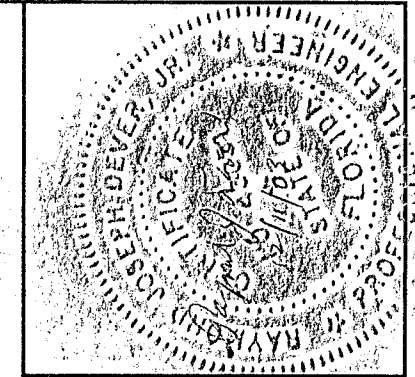
DRAWING NO.
13 of 22

NOT USED FOR CONSTRUCTION
REVISED—NOT VALID
(SEE SECTION 7 OPERATING SEQUENCE BY SCS ENGINEERS DATED DECEMBER 10, 2002)

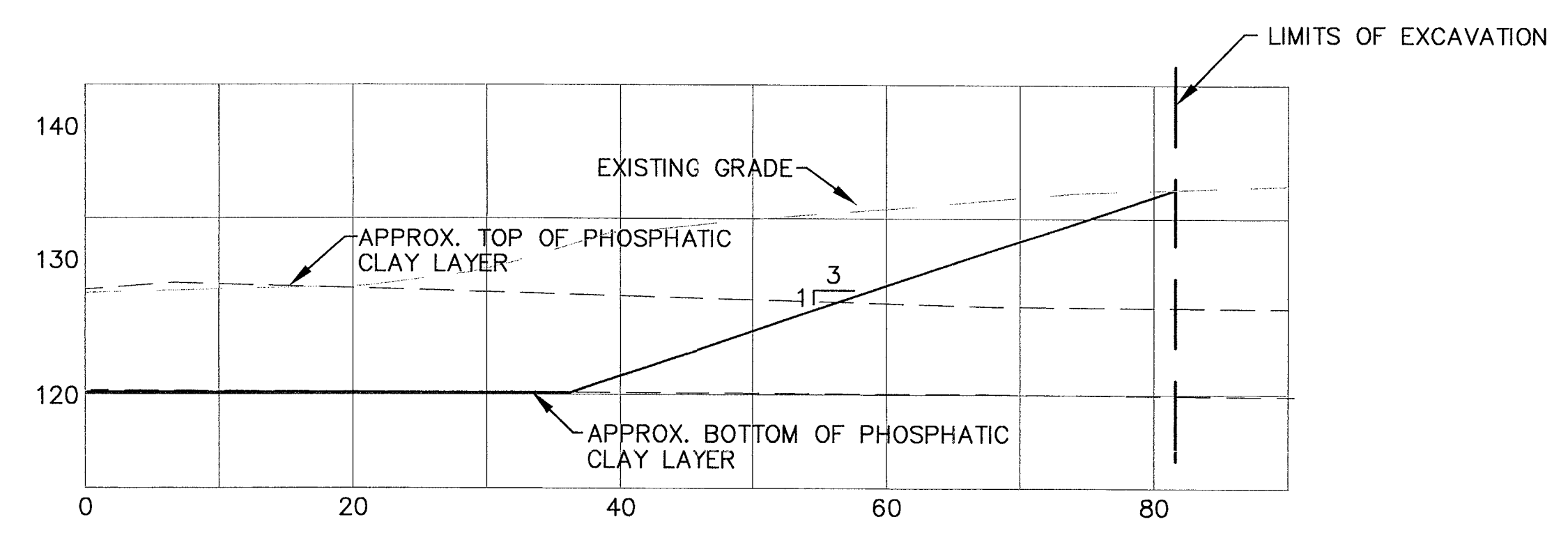


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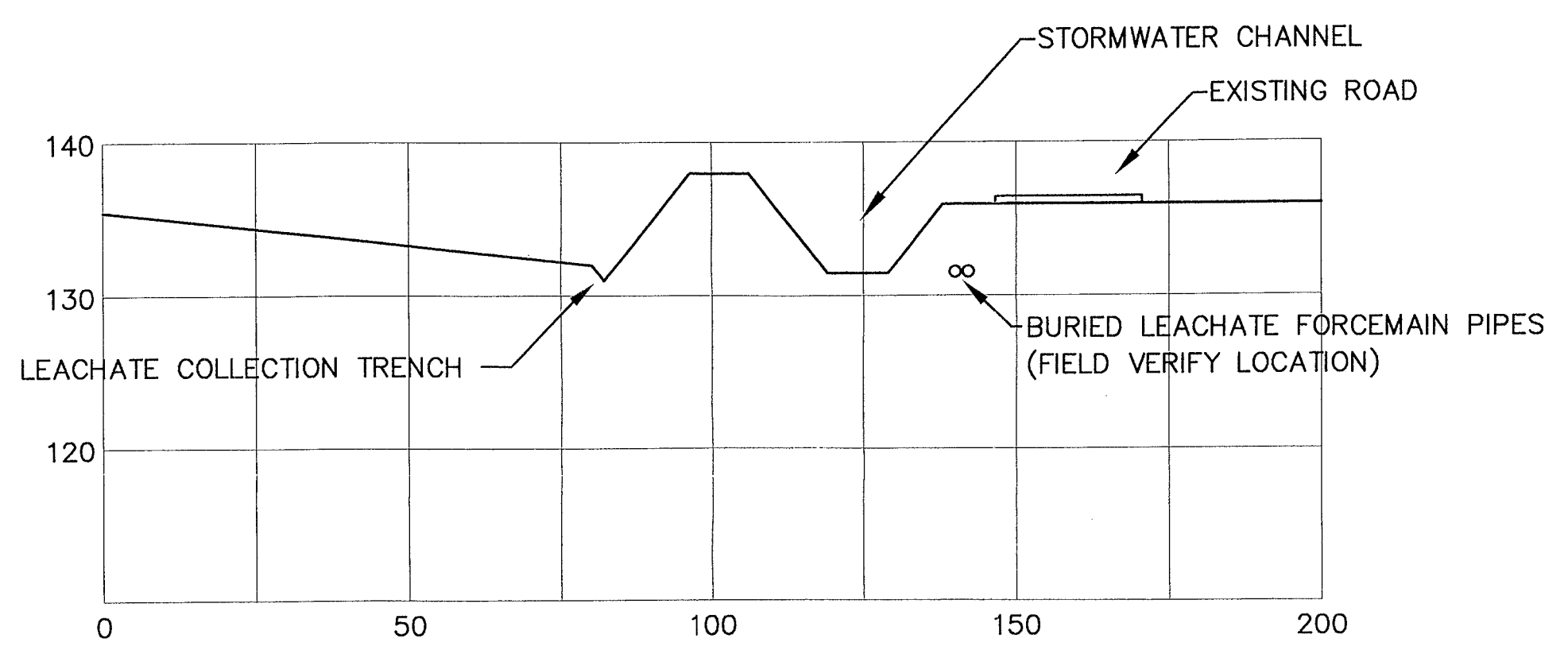
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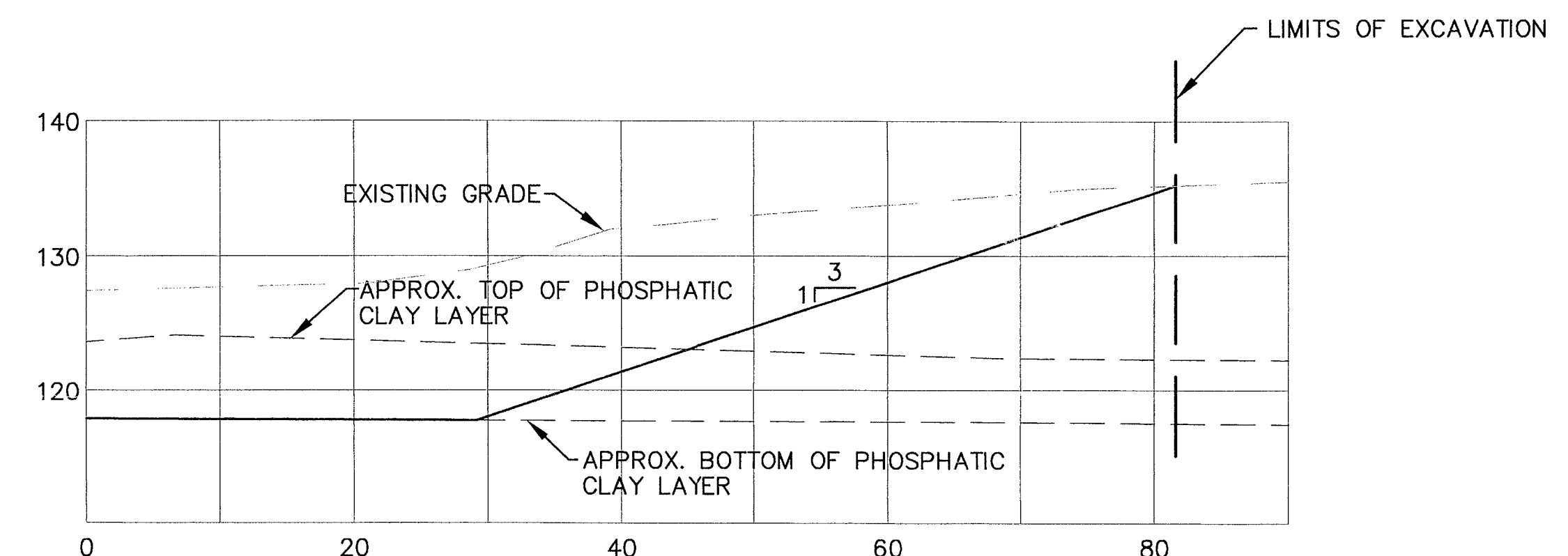
SECTION D
NOT TO SCALE 6/14



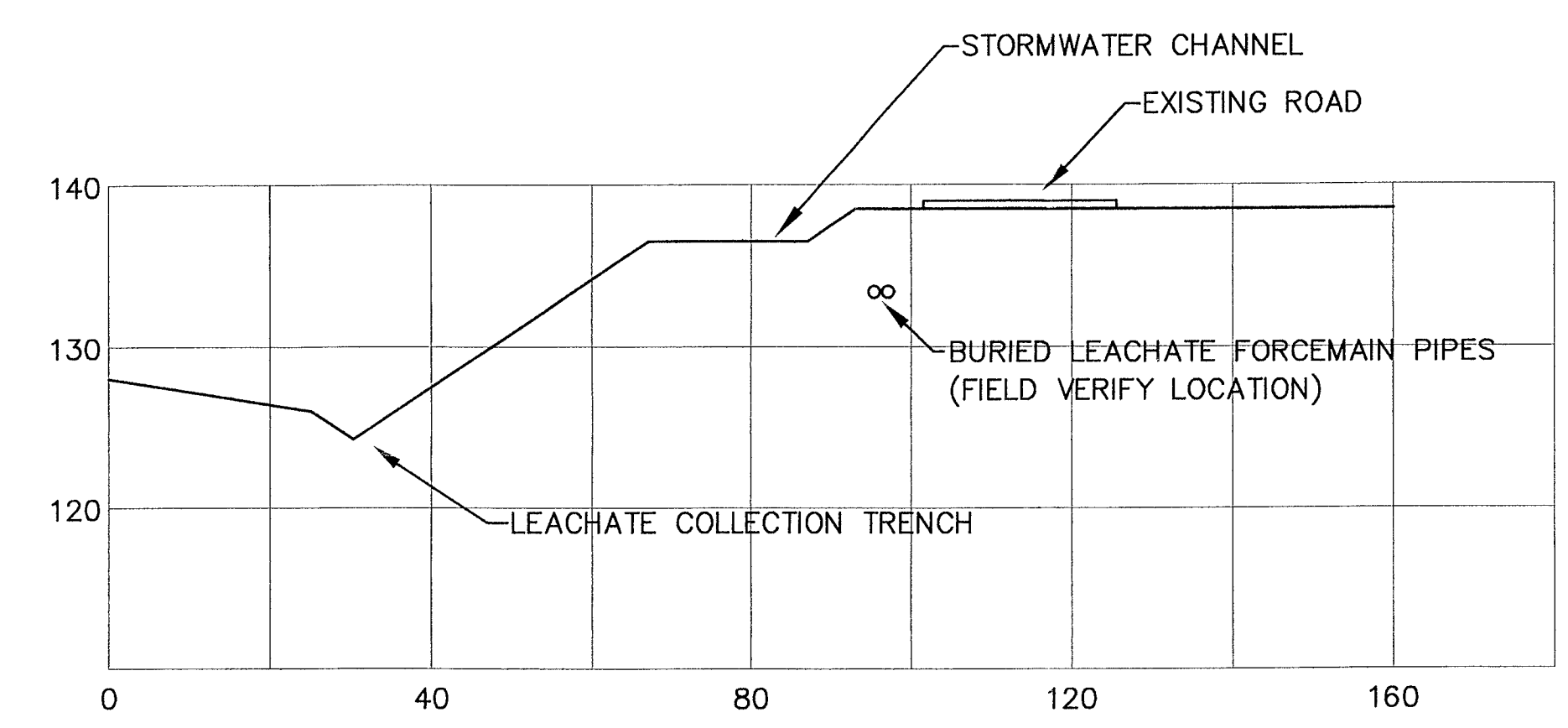
SECTION A
NOT TO SCALE 6/14



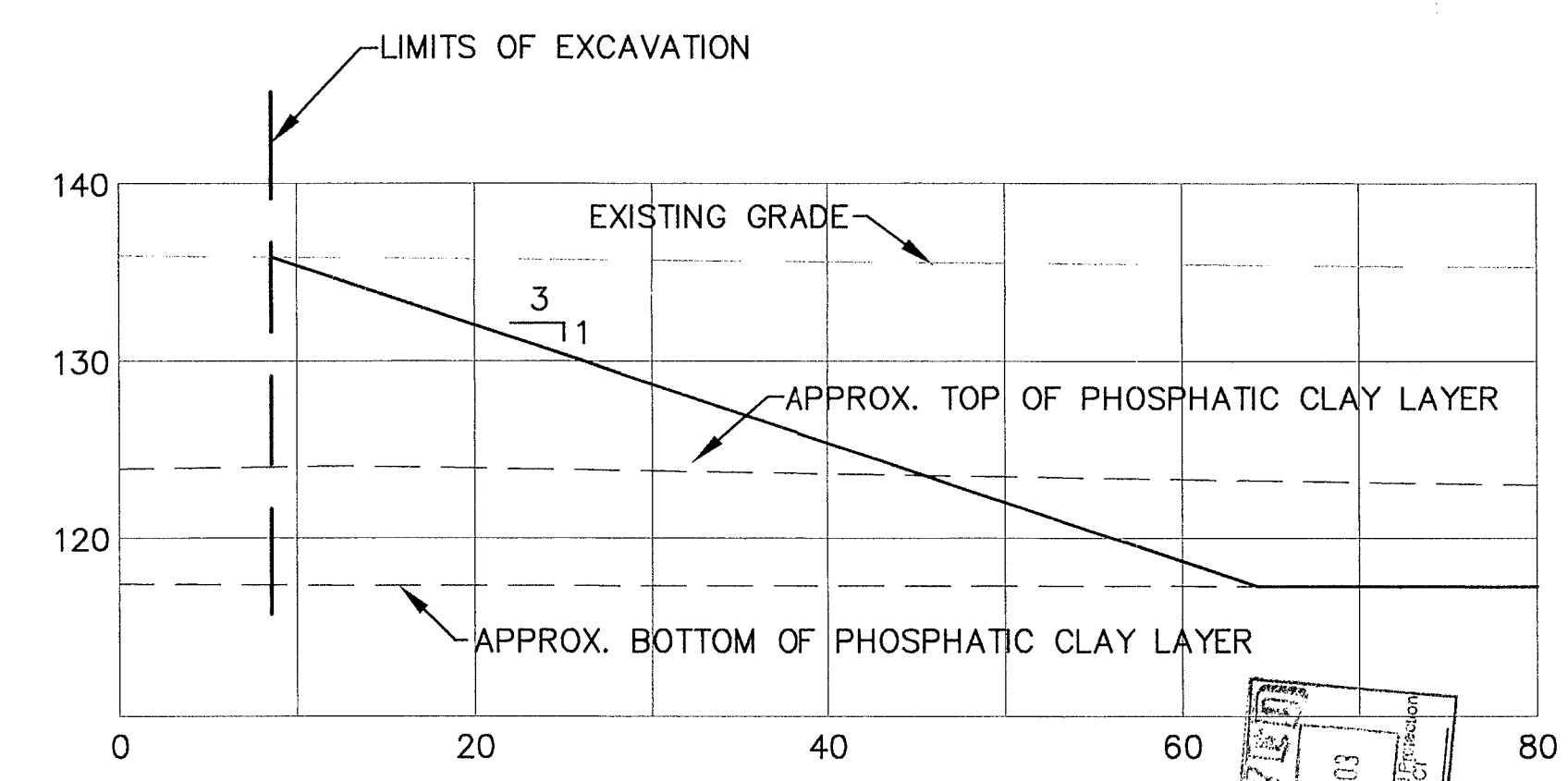
SECTION E
NOT TO SCALE 7/14



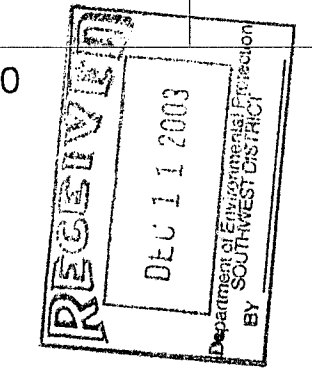
SECTION B
NOT TO SCALE 6/14



SECTION F
NOT TO SCALE 7/14



SECTION C
NOT TO SCALE 6/14



REV.	DATE	DESCRIPTION	CK. BY
1			
2			
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4			
5			

DRAWING TITLE: EXCAVATION AND BACKFILL SECTIONS
 PROJECT TITLE: SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

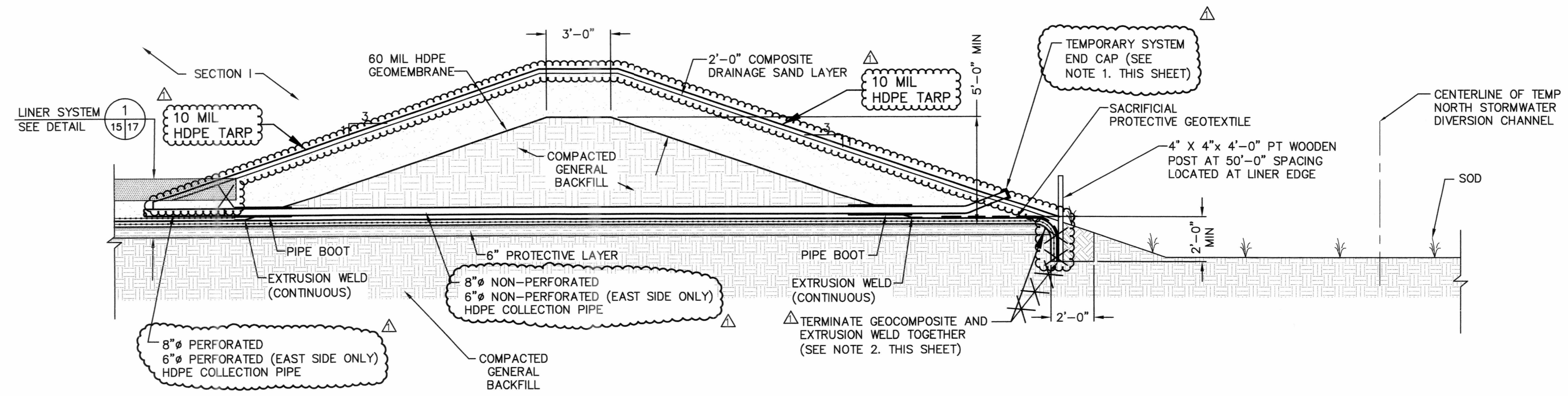
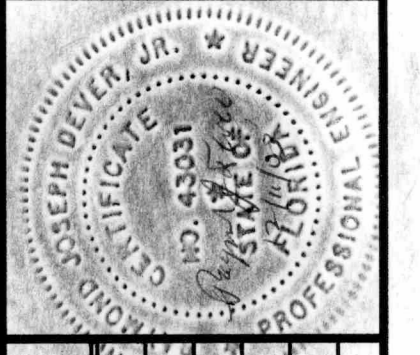
CLIENT: HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT
 TAMPA, FLORIDA

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS
 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
 PH (813) 821-0089 FAX NO. (813) 822-6757
 PROJECT NO. 0495029.35
 DRAWN BY: XRH
 CHECKED BY: LER
 DATE: 12/11/03
 BY: SCHEIDT

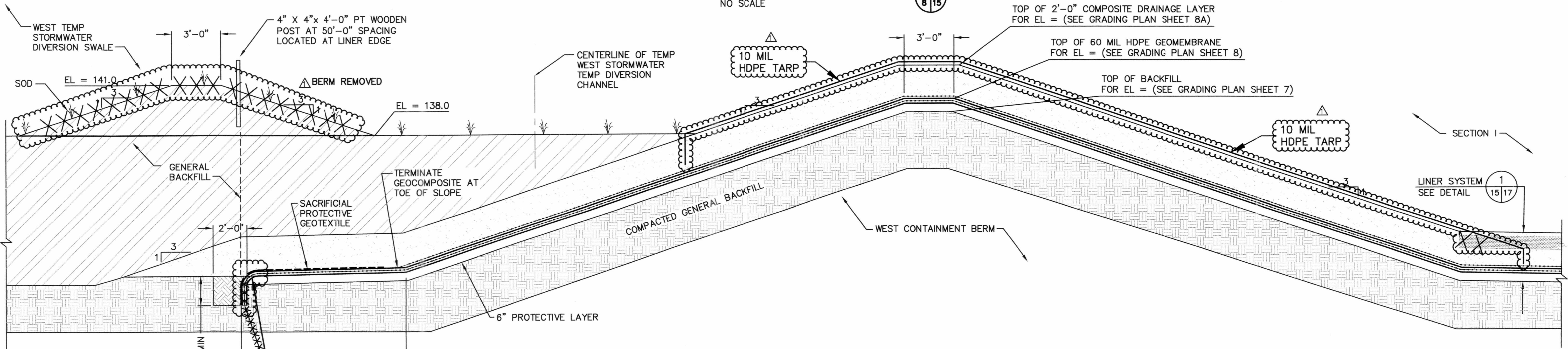
CADD FILE: SECTIONS
 DATE: MAY 12, 2000
 SCALE: AS SHOWN
 DRAWING NO.

NOT USED FOR CONSTRUCTION

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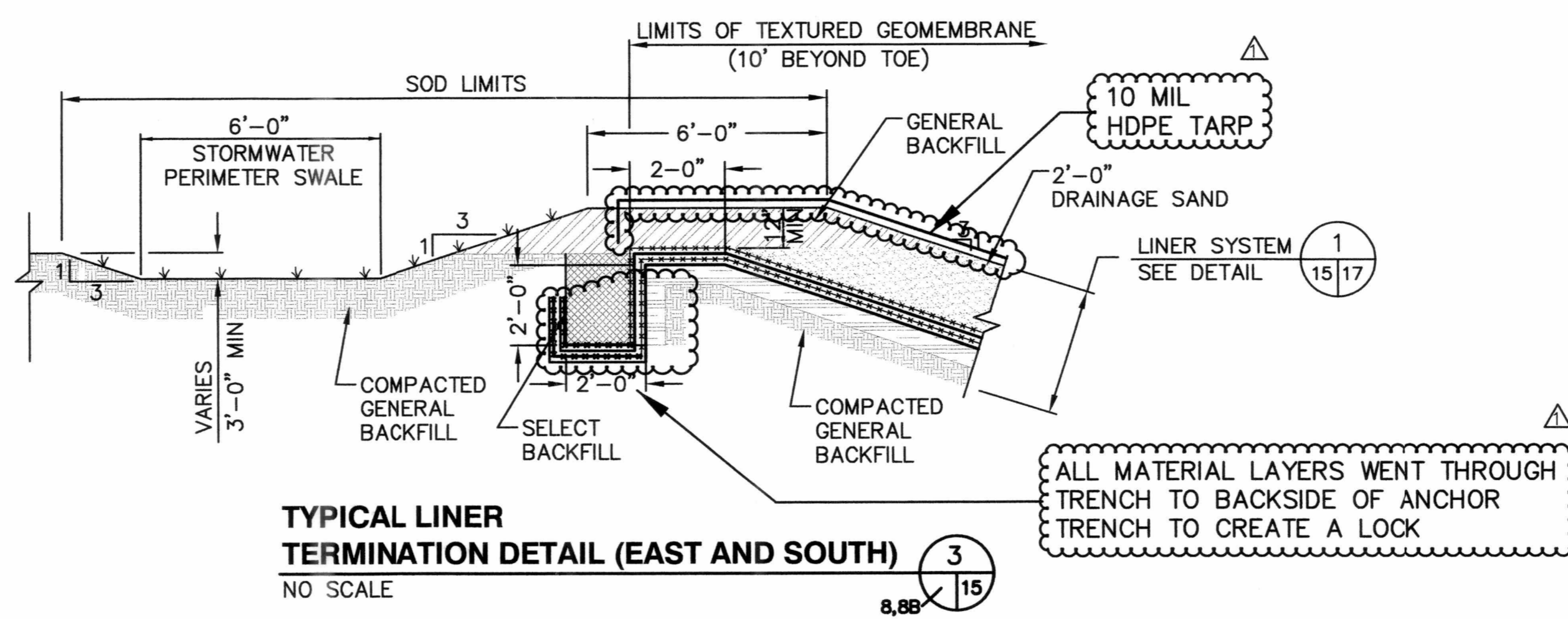


TYPICAL LINER TERMINATION DETAIL (NORTH)
NO SCALE



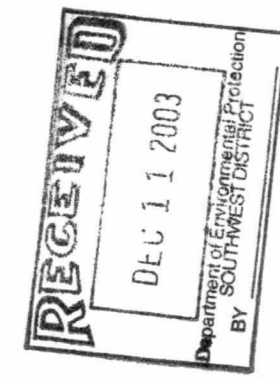
TYPICAL LINER TERMINATION DETAIL (WEST)
NO SCALE

UNABLE TO WELD AT BOTTOM OF ANCHOR TRENCH



TYPICAL LINER TERMINATION DETAIL (EAST AND SOUTH)
NO SCALE

- NOTES:
1. EXTEND PIPE TO SURFACE TO PROVIDE ACCESS FOR CLEANOUT, PIPES TO BE CLEANED DURING CONSTRUCTION OF SECTION 2.
 2. TERMINATE GEOCOMPOSITE AND SACRIFICIAL PROTECTIVE GEOTEXTILE IN TEMPORARY ANCHOR TRENCH AND INSTALL PT WOODEN POST AT EDGE OF LINER AS SHOWN.



REV.	DATE	DESCRIPTION
08/06/03		RECORD DRAWINGS

DRAWING TITLE
LCRS DETAILS

PROJECT TITLE
SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

CLIENT
HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
7075 US HWY 301 NORTH, TAMPA, FL 33619
PH (813) 941-6688 FAX (813) 941-6245

PROJ. NO. 092200020.3T
DRAWN BY: GRD
CHECKED BY: JHO
DATE: 09/22/03
APP. BY: REG

CADD FILE:
SEC1CON\LCrssect

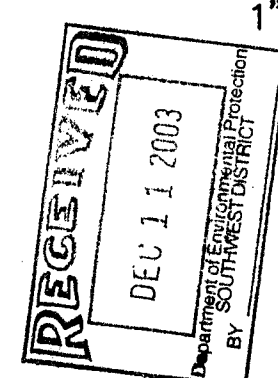
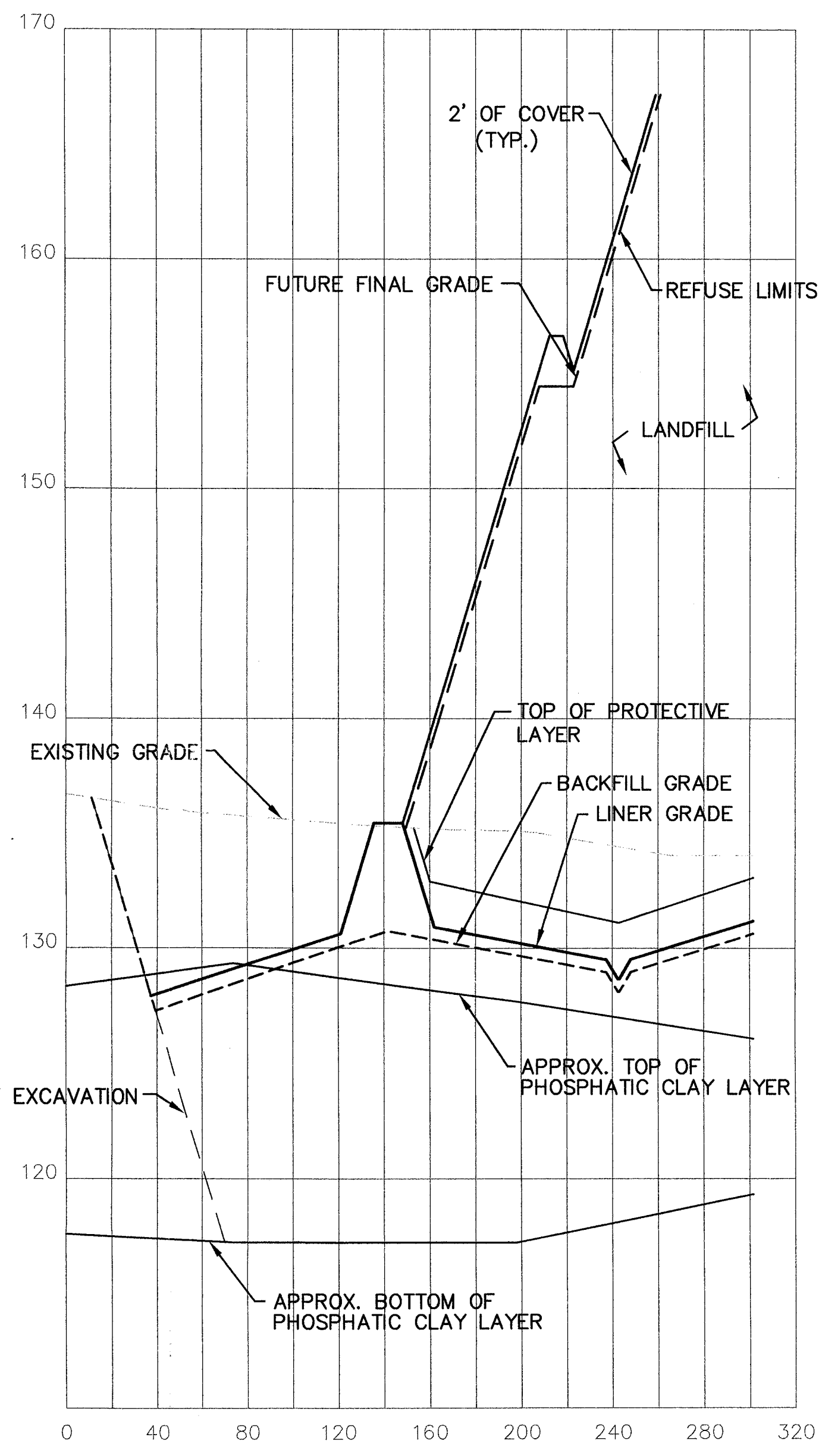
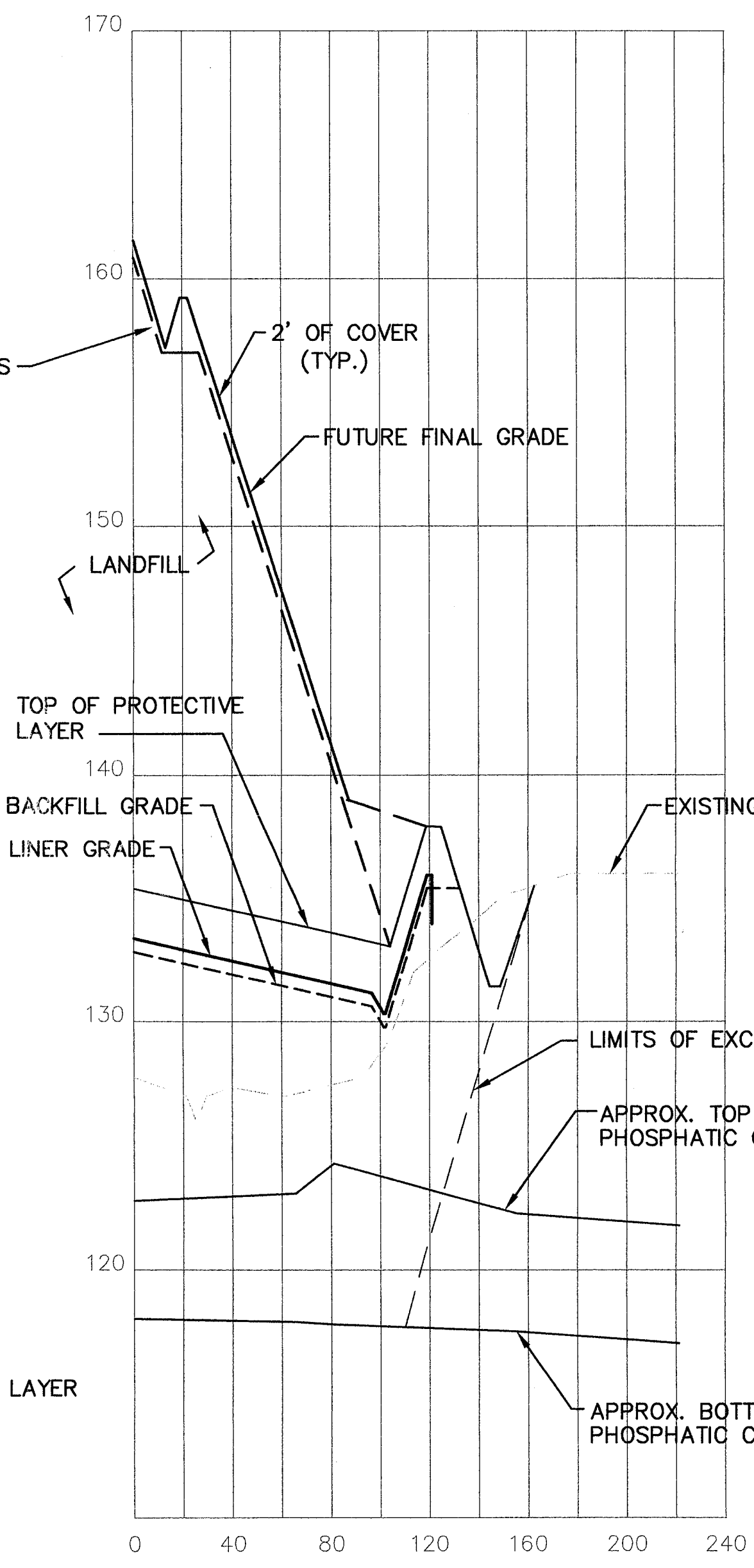
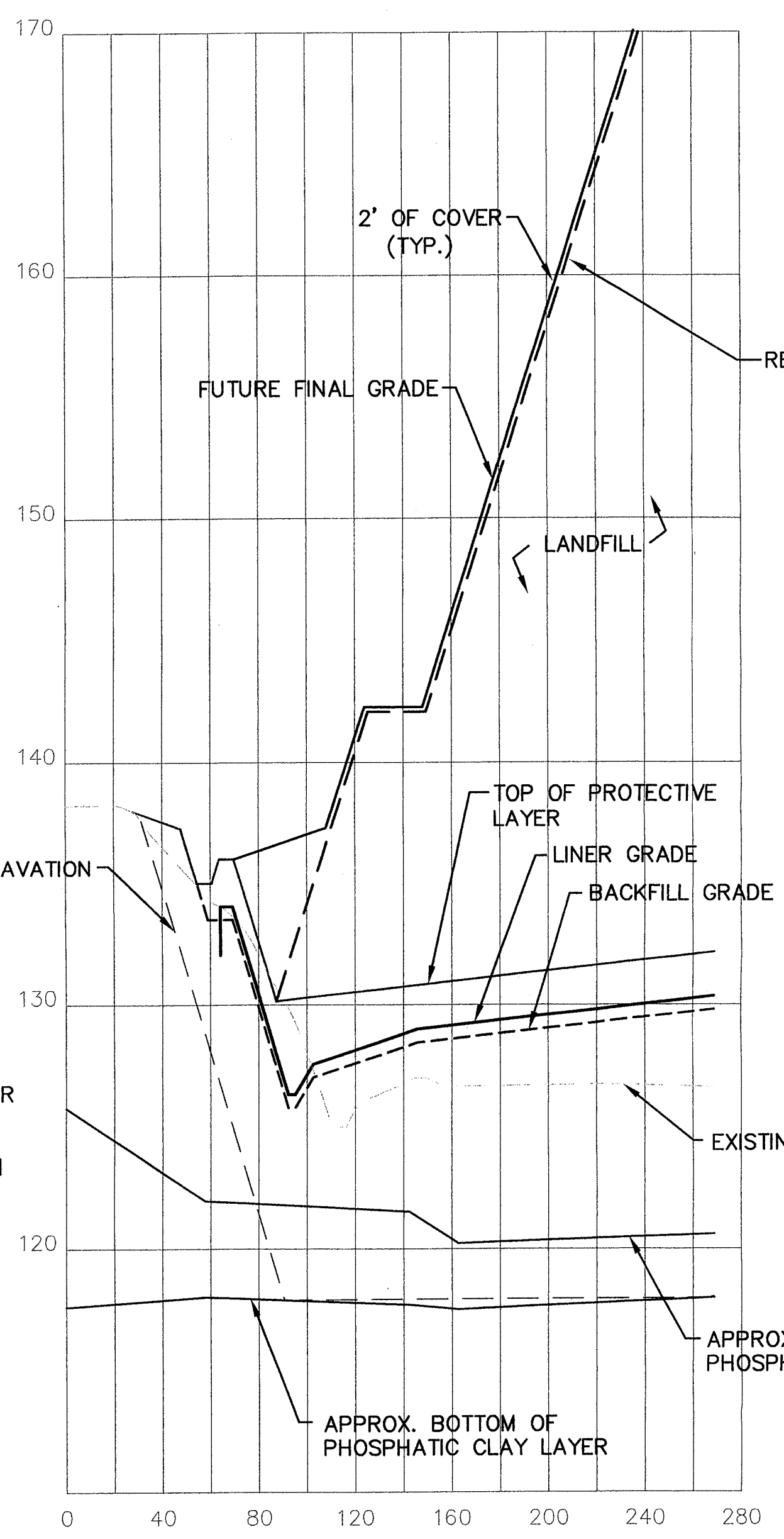
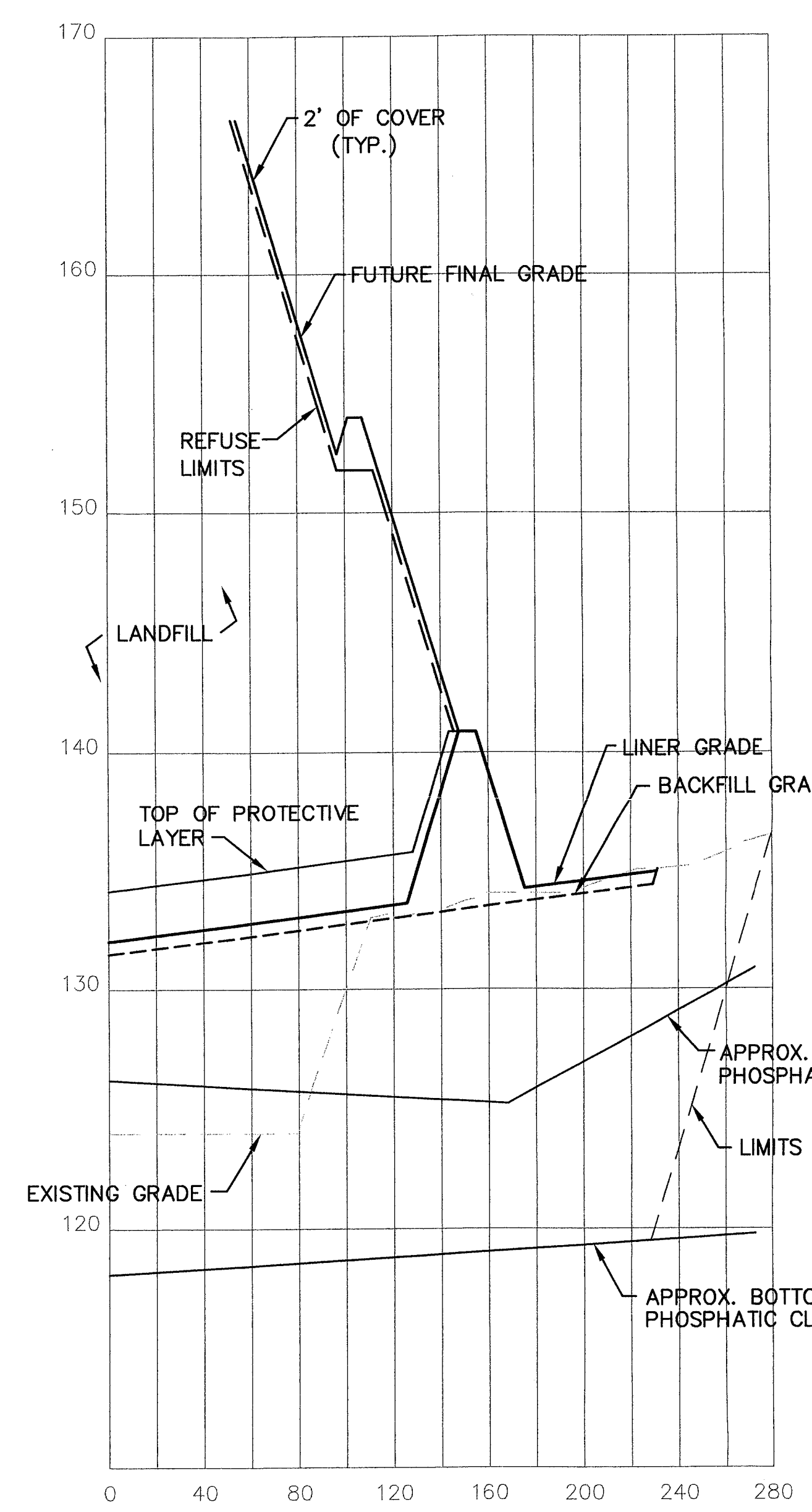
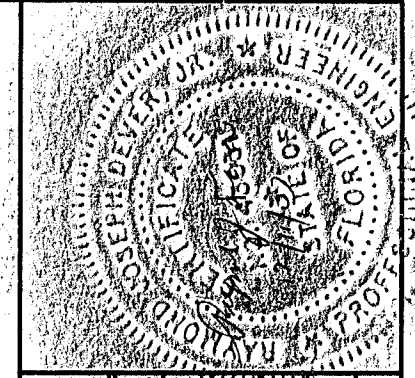
DATE:
APRIL 27, 2001

SCALE:
AS SHOWN

DRAWING NO.
15 of 22

RECORD DRAWINGS
BASED ON INFORMATION RECEIVED FROM HANDEX CONSTRUCTION SERVICES, INC. DATED AUGUST 5, 2003

17



NOT USED FOR CONSTRUCTION (SEE DRAWING NO. 8B OF 22)

REV.	DATE	DESCRIPTION
1		
2		
3		
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5		

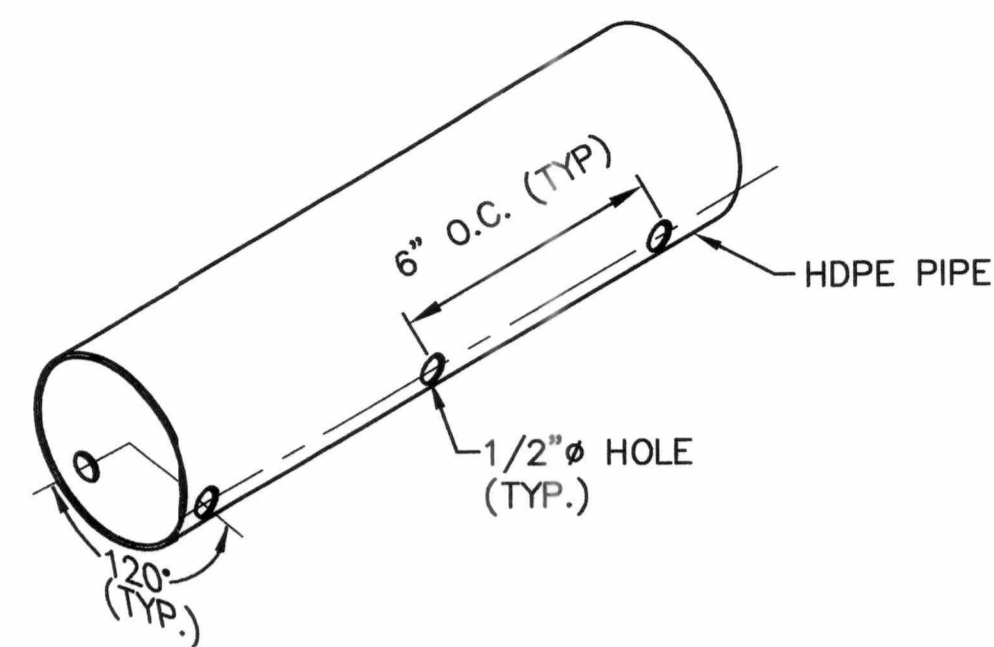
DRAWING TITLE: CLOSURE SECTIONS
PROJECT TITLE: SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

CLIENT: HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT
TAMPA, FLORIDA

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 821-0080 FAX NO. (813) 823-8757

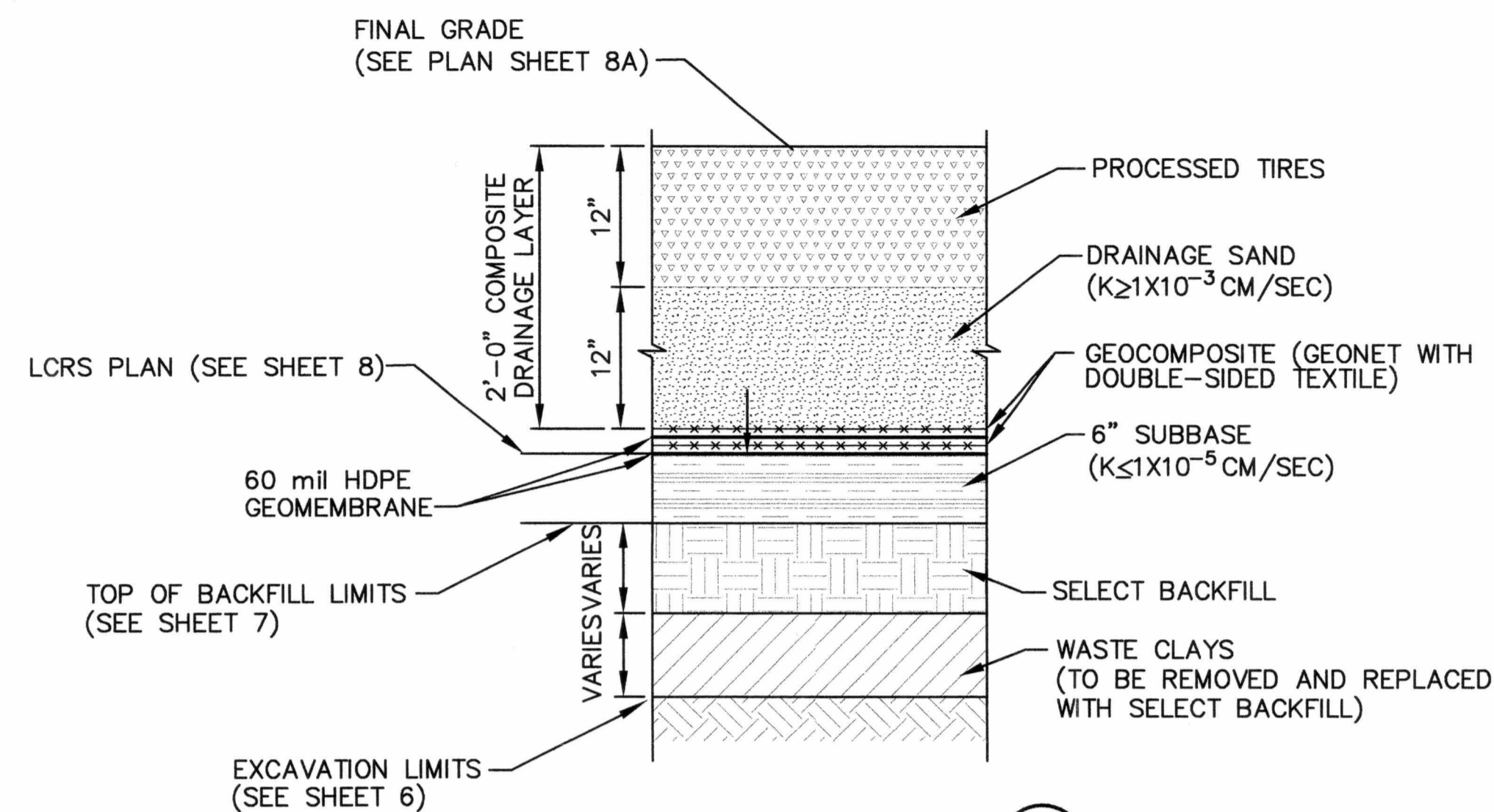
PROJ. NO. 0995029.35
DATE: 09/11/03
CHK. BY: LER/KAS
APP. BY: LER
REV. BY: RJD
REV. BY: REG

CADD FILE: LFSECT
DATE: MAY 12, 2000
SCALE: AS SHOWN
DRAWING NO. 16 of 22

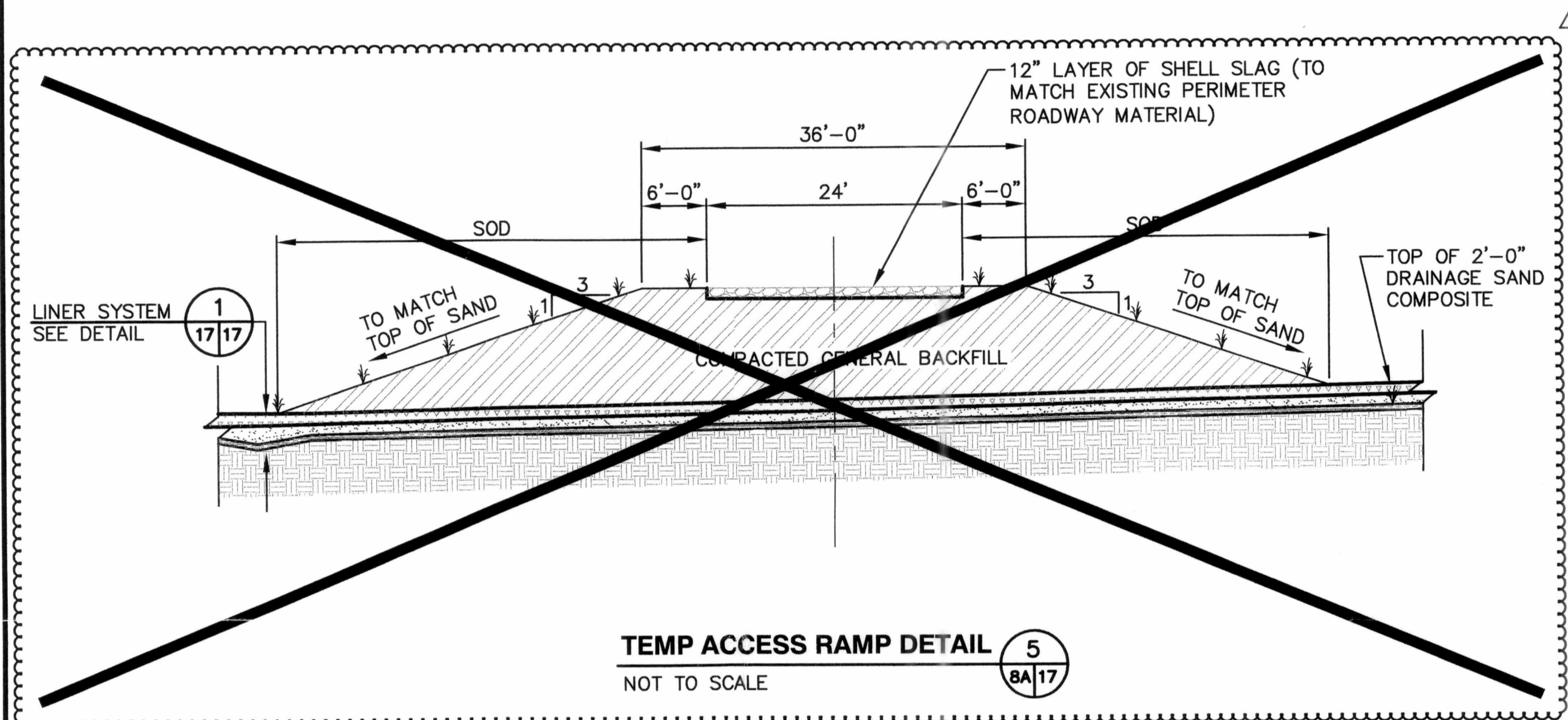


NOTE: APPLIES TO 6" AND 8" PERFORATED PIPE.
CONTRACTOR SHALL PLACE PERFORATED PIPE AS SHOWN
WITH A CENTERLINE OF PERFORATIONS AT TOP CENTER.

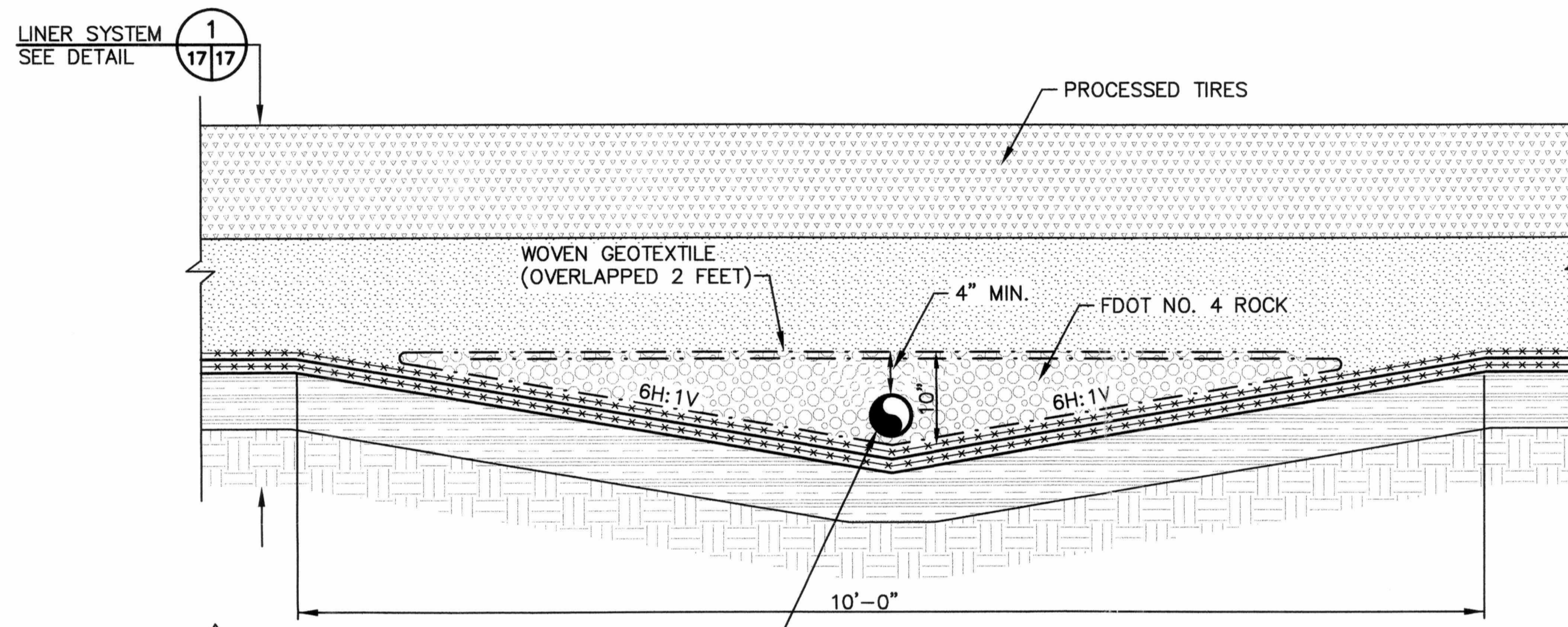
PIPE PERFORATION DETAIL 4
NOT TO SCALE 17/17



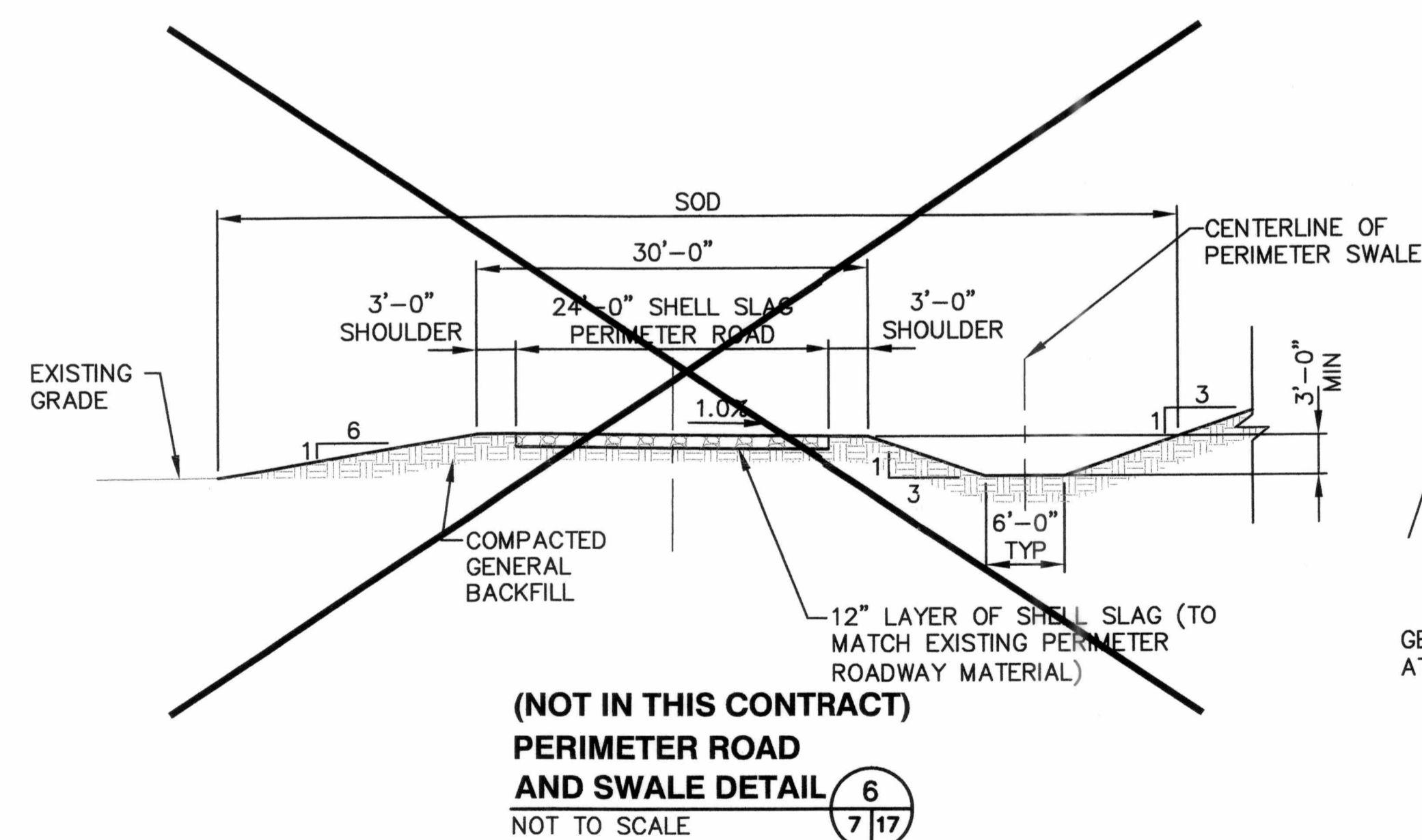
LINER SYSTEM DETAIL 1
NOT TO SCALE 15,17,18,18A 17/17



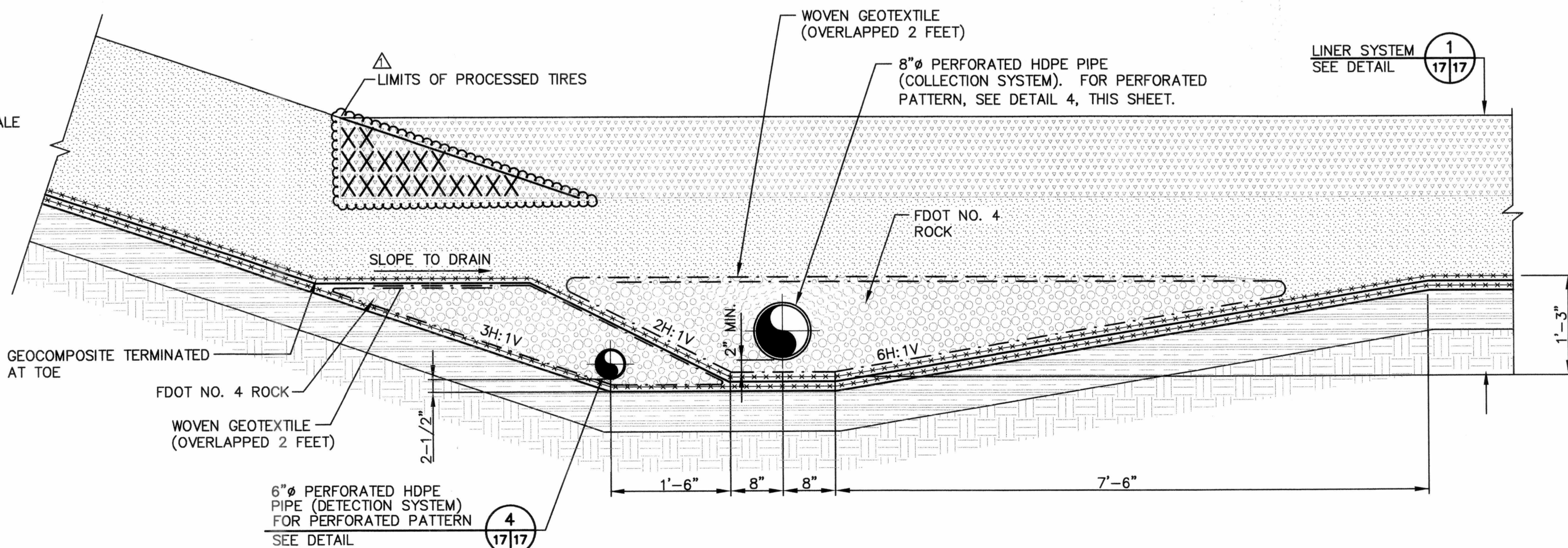
TEMP ACCESS RAMP DETAIL 5
NOT TO SCALE 8A/17



TYPICAL COLLECTION TRENCH DETAIL 2
NOT TO SCALE 7,8,8B 17/17



**(NOT IN THIS CONTRACT)
PERIMETER ROAD
AND SWALE DETAIL** 6
NOT TO SCALE 7/17



TYPICAL HEADER TRENCH DETAIL 3
NOT TO SCALE 8,8A,17,21 17/17



REV.	DATE	DESCRIPTION
1	08/08/03	RECORD DRAWINGS
2		
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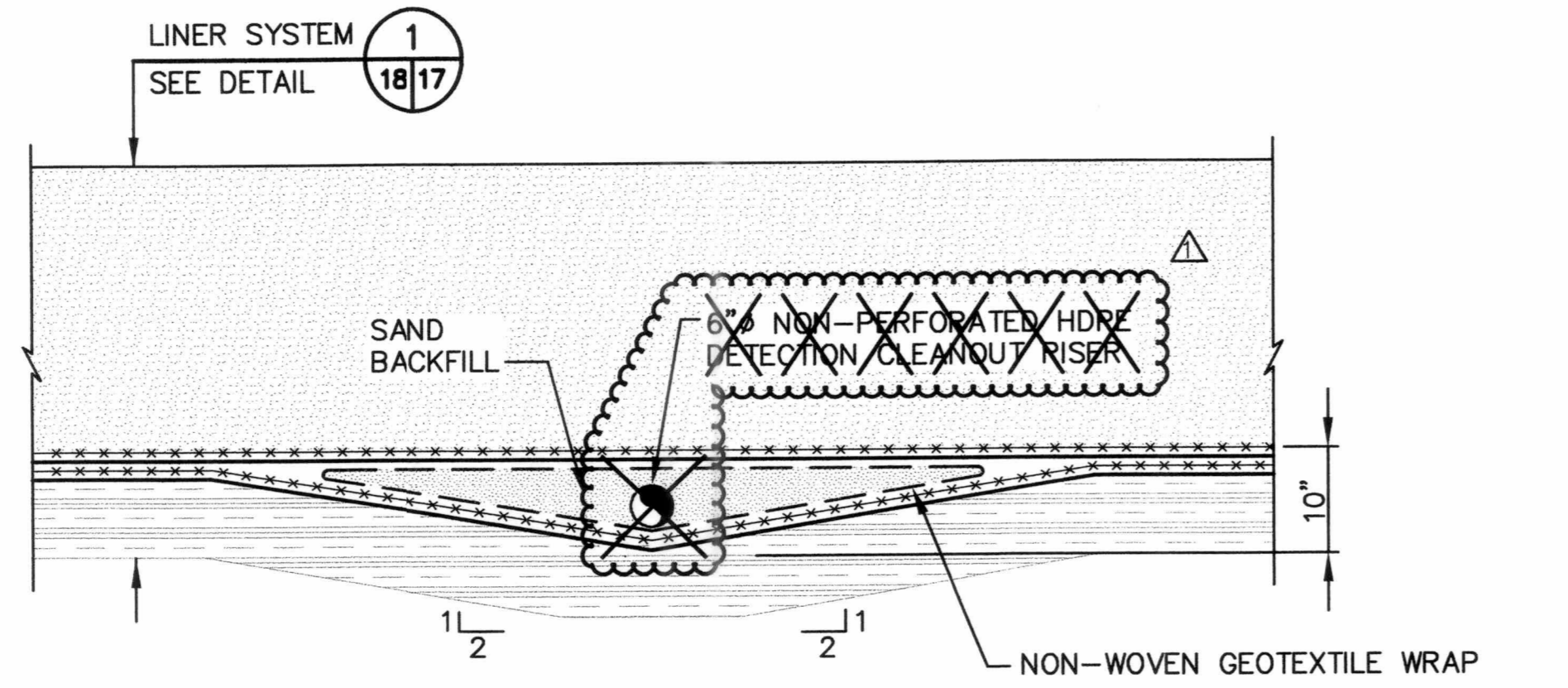
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PROJECT TITLE: **SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION**

CLIENT: **HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
172 U.S. HIGHWAY 90, TAMPA, FL 33619
PH (813) 821-0088 FAX (813) 821-9757
PROJ. NO. 09200020-31
DATE: 08/08/03
APP. BY: RBG
CHK. BY: JHO
DES. BY: GRD

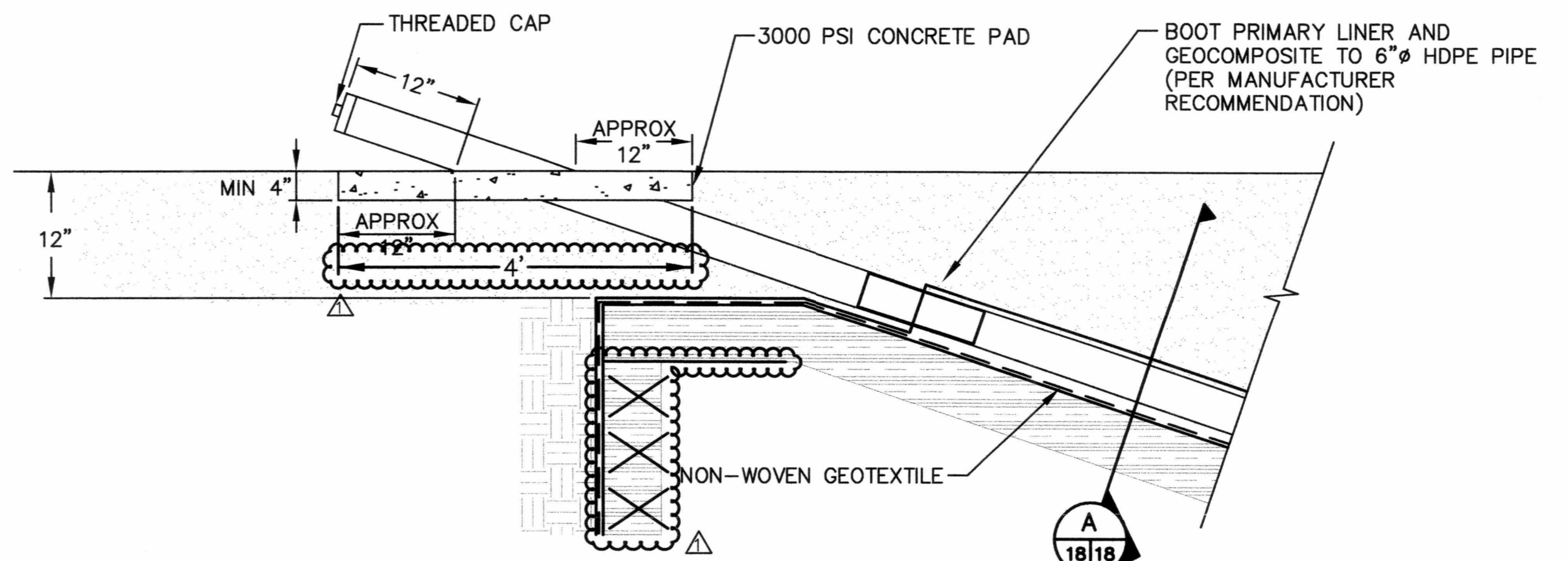
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DATE: **APRIL 27, 2001**
SCALE: **AS SHOWN**
DRAWING NO. **17** of 22

RECORD DRAWINGS
BASED ON INFORMATION
RECEIVED FROM HANDEX
CONSTRUCTION SERVICES, INC.
DATED AUGUST 5, 2003

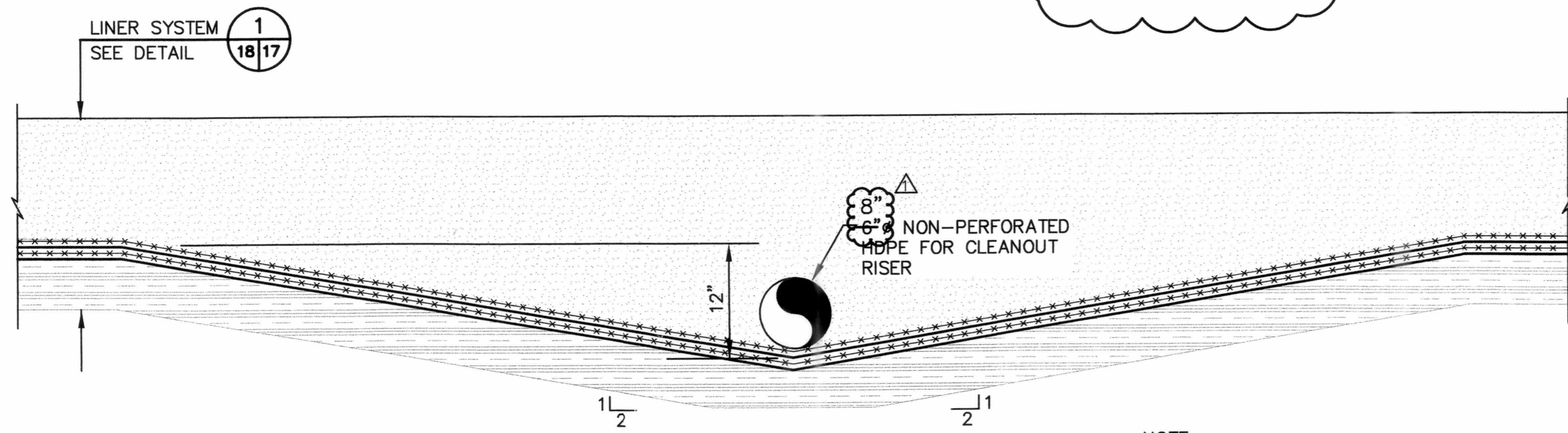


SECTION A
NOT TO SCALE
18/18

NOTE:
CLEANOUT INSTALLED OVER
SIDESLOPES WITHOUT
TRENCHING

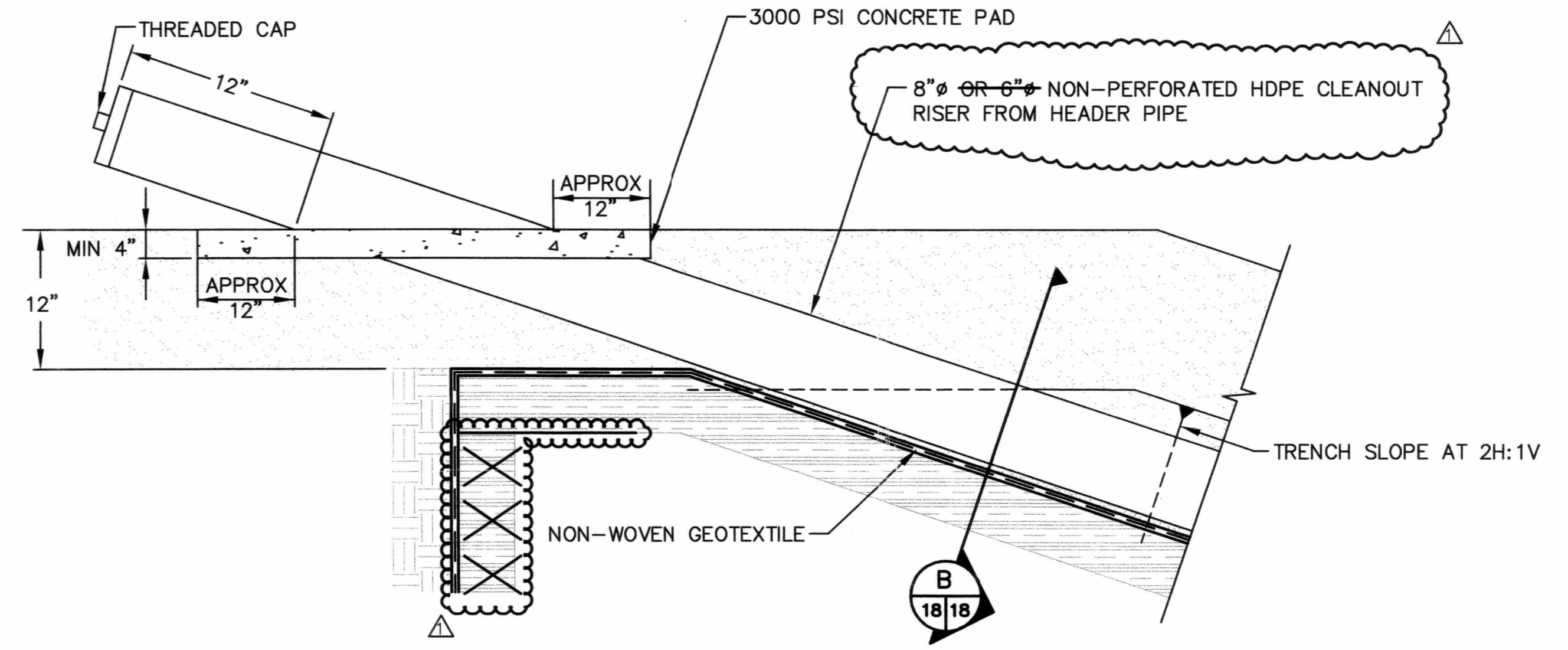


TYPICAL DETECTION SYSTEM CLEANOUT DETAIL 1
NOT TO SCALE
18/18

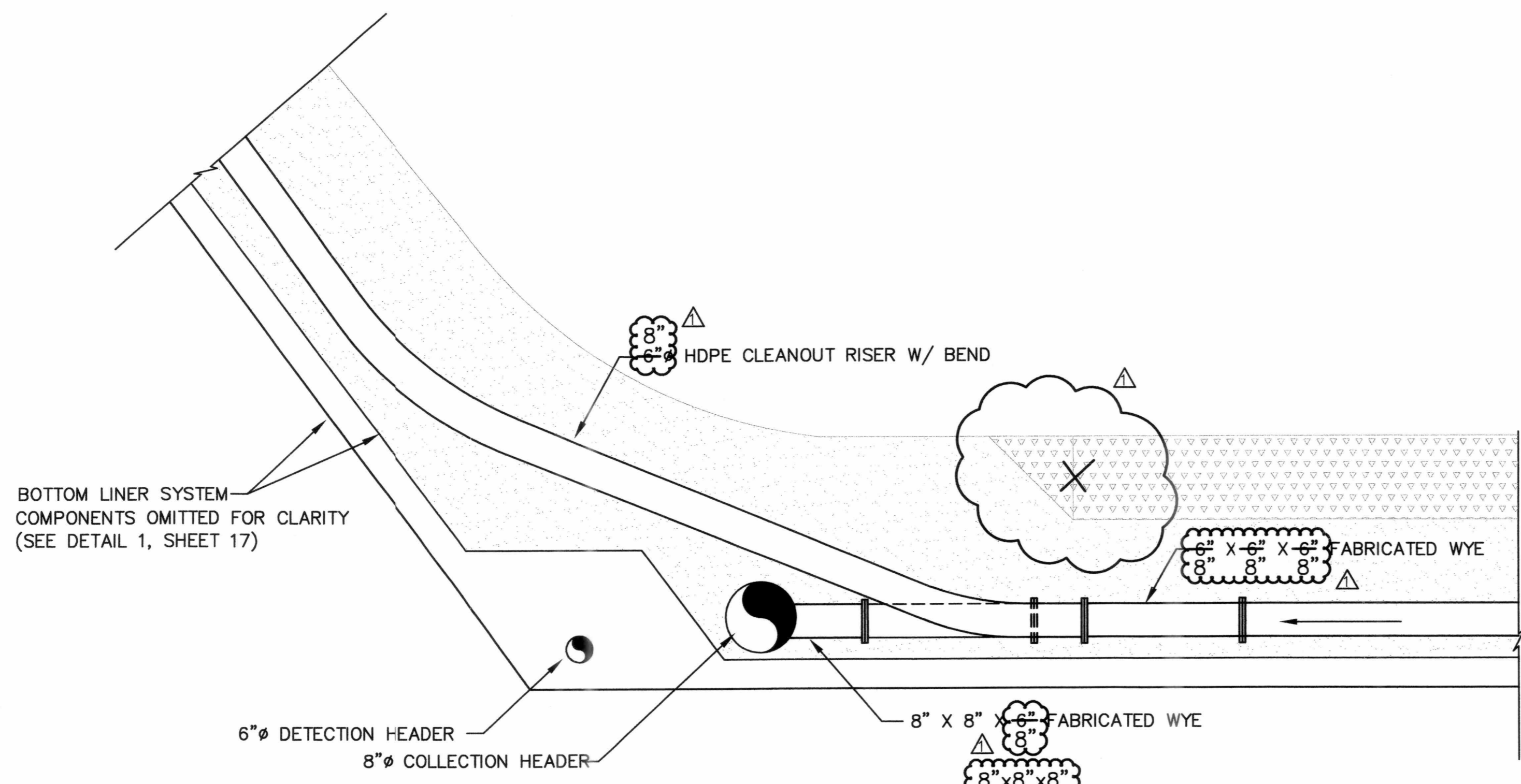


SECTION B
NOT TO SCALE
18/18

NOTE:
PIPE SEAT CONTOURING NOT
SHOWN ON GRADING PLAN FOR
CLARITY.

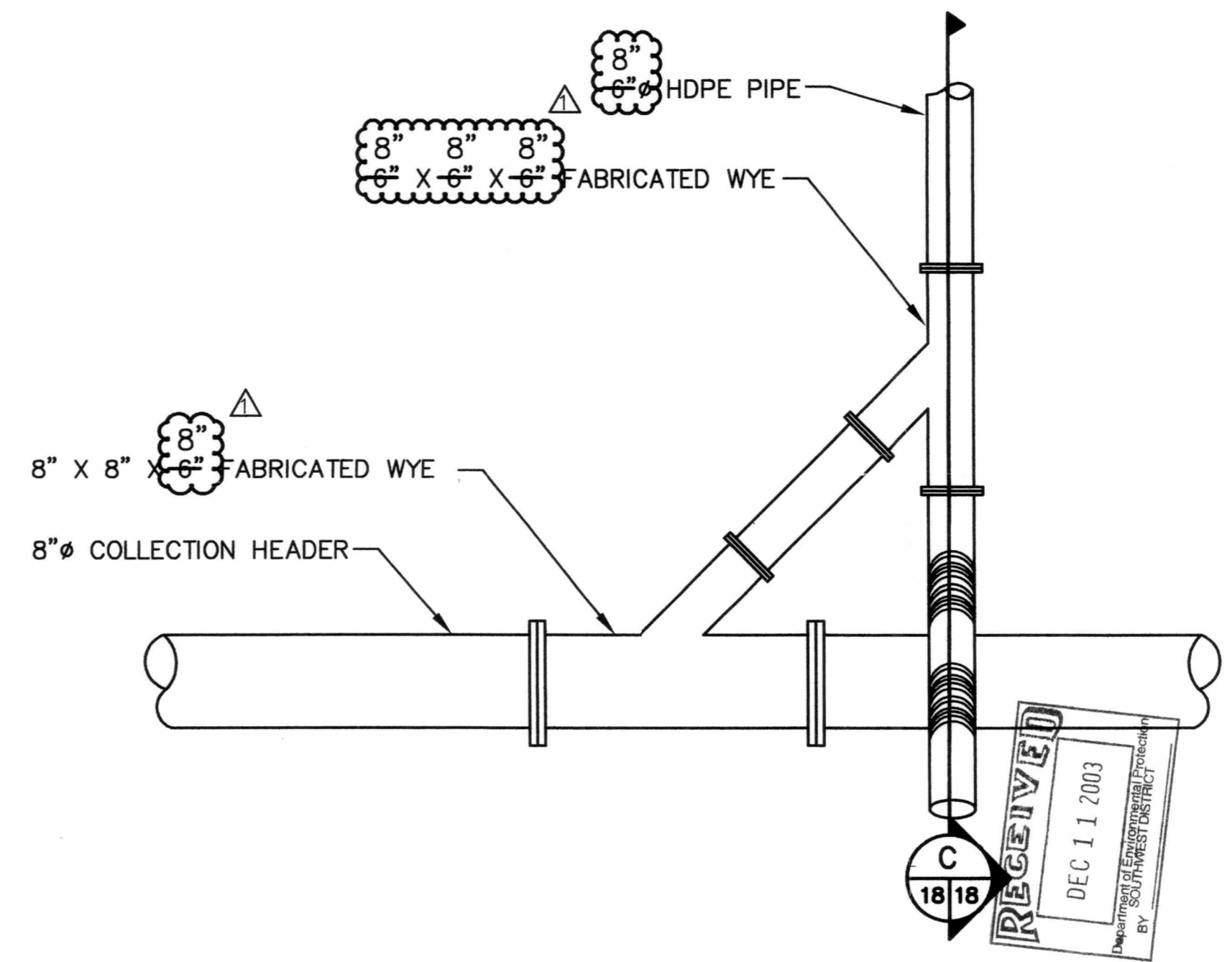


TYPICAL COLLECTION SYSTEM CLEANOUT DETAIL 2
NOT TO SCALE
18/18



SECTION C
NOT TO SCALE
18/18

NOTE:
8" X 8" X 6" WYE CONNECTION TO BE ROTATED
A MINIMUM 5° OFF HORIZONTAL TO ALLOW FOR
ALIGNMENT OF TEE CONNECTION TO HEADER



TYPICAL COLLECTION SYSTEM CLEANOUT CONNECTION DETAIL 3
NOT TO SCALE
18/18



CK. BY	MPR
DESCRIPTION	RECORD DRAWINGS
DATE	08/05/03
REV.	1

DETAILS - 2
PROJECT TITLE
**SOUTHEAST COUNTY LANDFILL
CAPACITY EXPANSION**

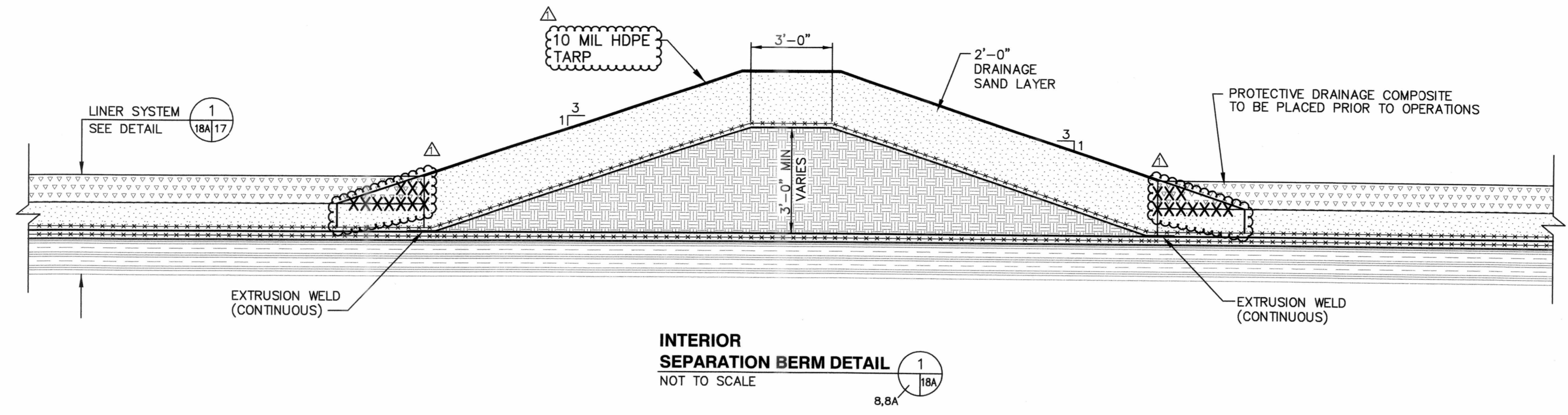
CLIENT
**HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT
DEPARTMENT**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3015 S. HWY. 301, SUITE 700 TAMPA, FL 33619
PH (813) 821-0000 FAX (813) 823-6727
PROJ. NO. 02/00020.31
DATE: 08/05/03
DRAWN BY: JHO
CHECKED BY: JHO
APP. BY: RBG

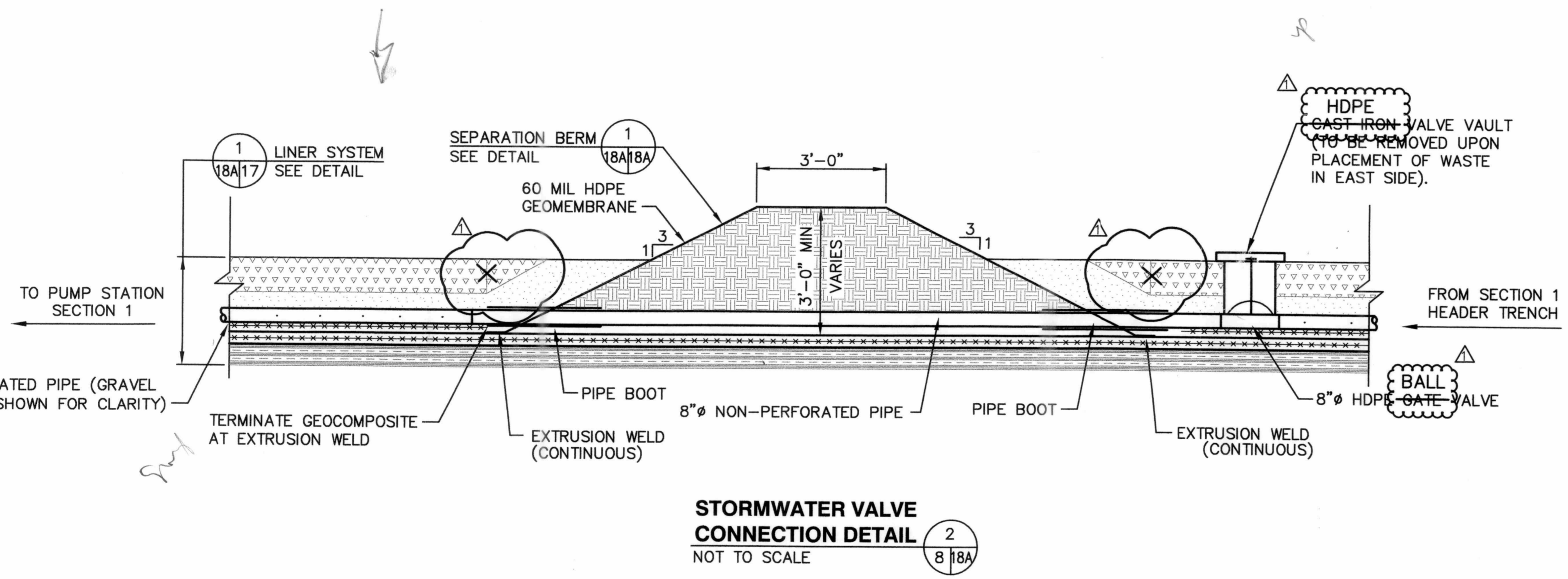
CADD FILE:
sec1con\Det2
DATE:
APRIL 27, 2001
SCALE:
AS SHOWN
DRAWING NO.
18 of 22

RECORD DRAWINGS
BASED ON INFORMATION
RECEIVED FROM HANDEX
CONSTRUCTION SERVICES, INC.
DATED AUGUST 5, 2003

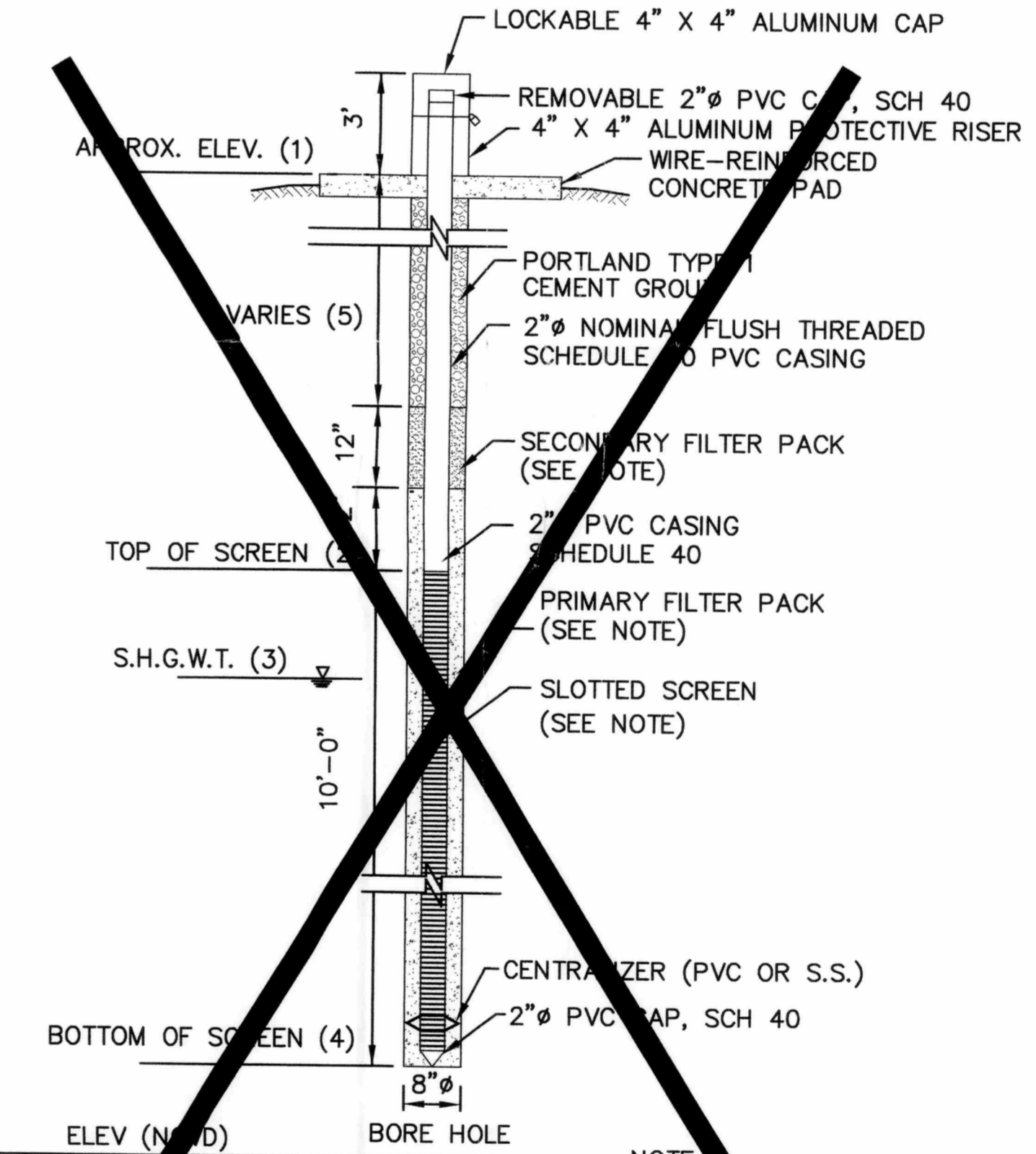




INTERIOR SEPARATION BERM DETAIL
NOT TO SCALE



STORMWATER VALVE CONNECTION DETAIL
NOT TO SCALE



	ELEV. (NAD)		BORE HOLE		
	GRADE (1)	TOP (2)	S.H.G.W.T. (3)	BOTTOM (4)	GROUT (5)
TH-59	138	126	124	116	10'
TH-60	137	126	124	116	9'
TH-61	135	126	124	116	7'

NOTE: REPRESENTATIVE SIEVE ANALYSIS OF SOILS WITHIN THE LENGTH OF SCREEN PIPE TO BE ANALYZED BY DRILLER FOR APPROPRIATE DETERMINATION OF FILTER PACK SAND GRADATION AND SCREEN SLOT SIZE SELECTION.

(NOT IN THIS CONTRACT)
GROUNDWATER MONITORING WELL
NOT TO SCALE

REV.	DATE	DESCRIPTION
1	08/08/03	RECORD DRAWINGS

STORMWATER SEPARATION BERM DETAILS
SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION

HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT

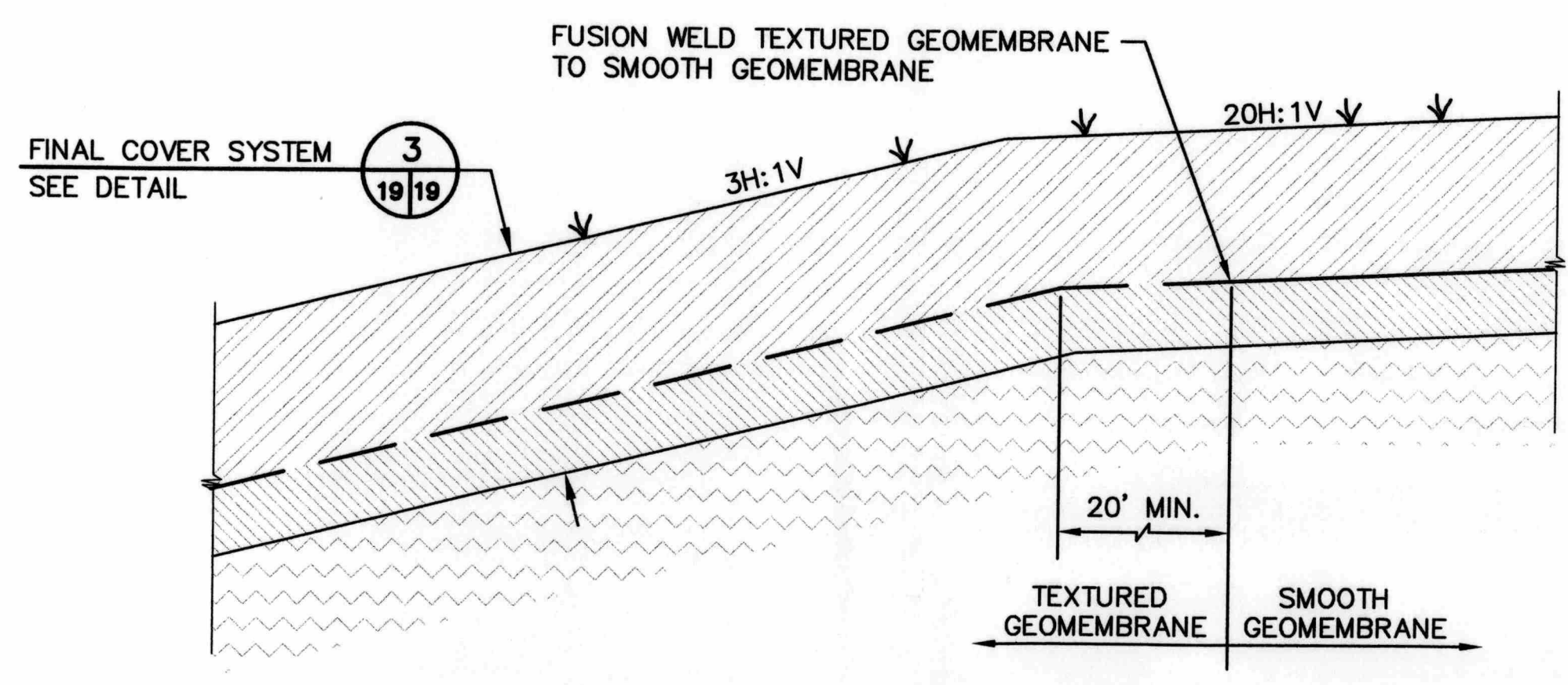
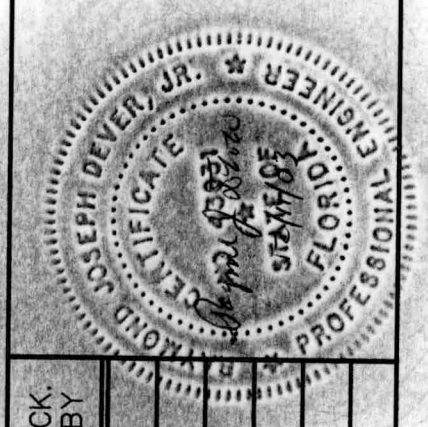
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33618
PH (813) 857-0080 FAX NO. (813) 823-8787

CADD FILE: sec1con\Det2REV
DATE: APRIL 27, 2001
SCALE: AS SHOWN
DRAWING NO.

18A f 22

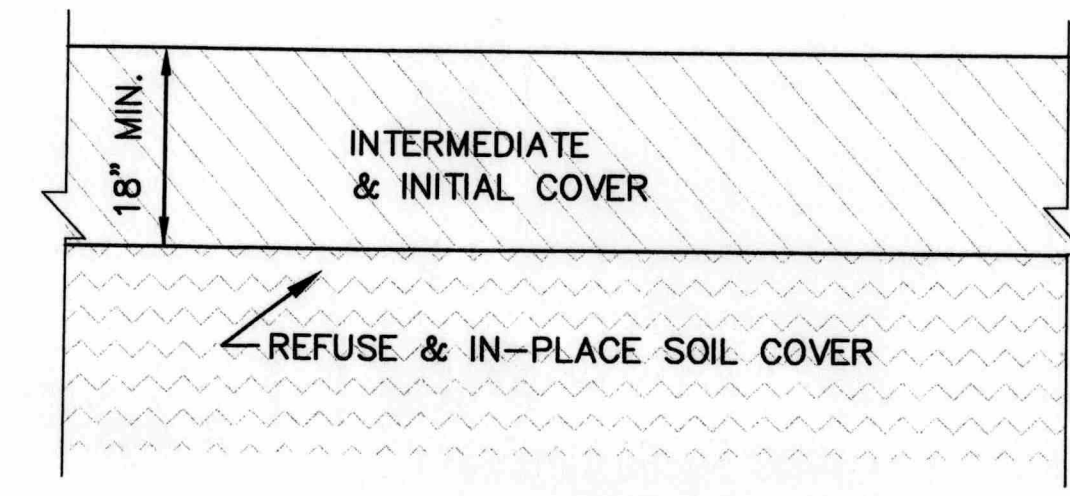
RECORD DRAWINGS
BASED ON INFORMATION RECEIVED FROM HANDEX CONSTRUCTION SERVICES, INC. DATED AUGUST 5, 2003

12

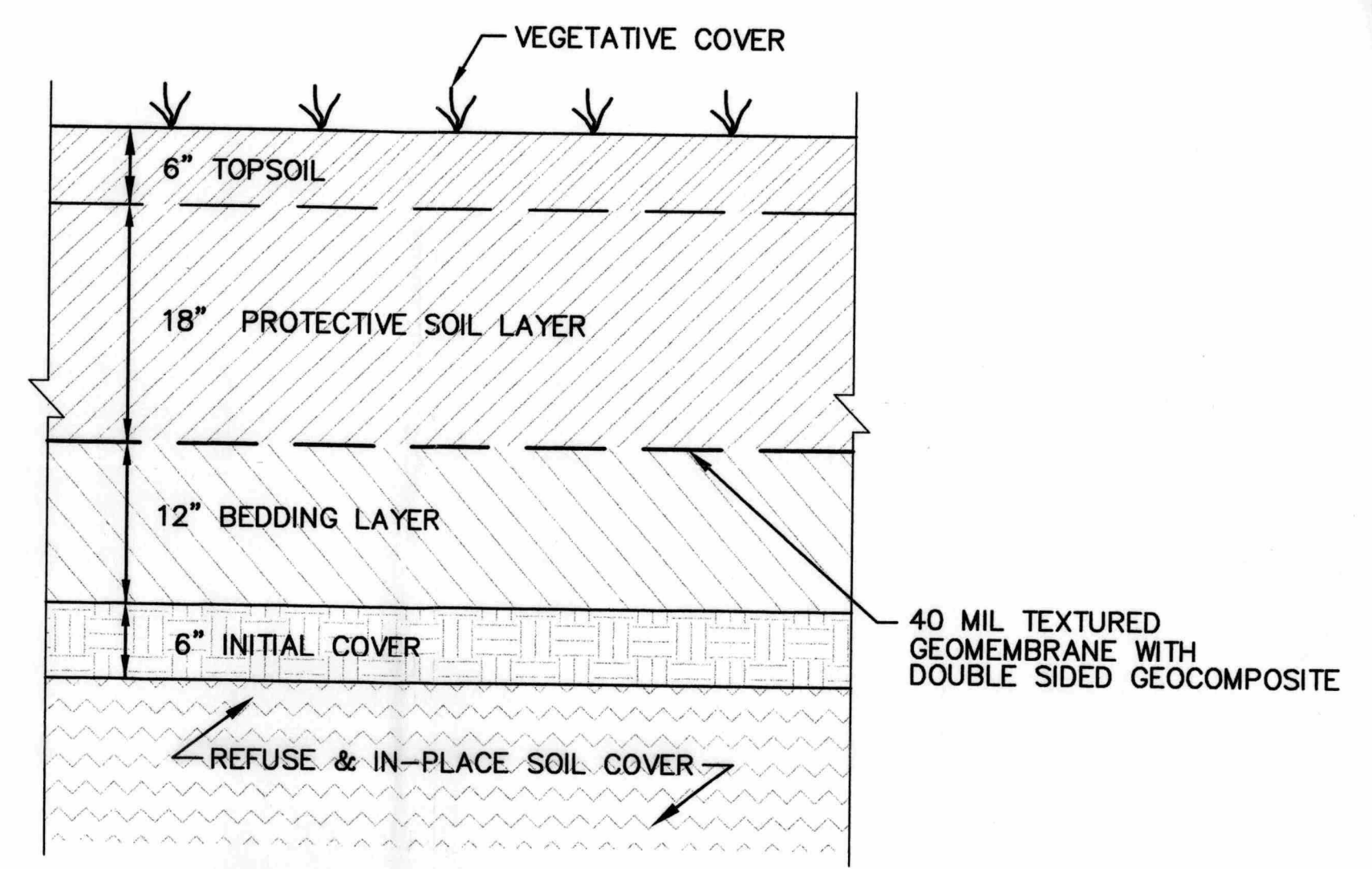


NOTE: TEXTURED GEOMEMBRANE TO BE INSTALLED ON SLOPES EXCEEDING 20H:1V AND SMOOTH GEOMEMBRANE TO BE INSTALLED ON SLOPES LESS THAN OR EQUAL TO 20H:1V

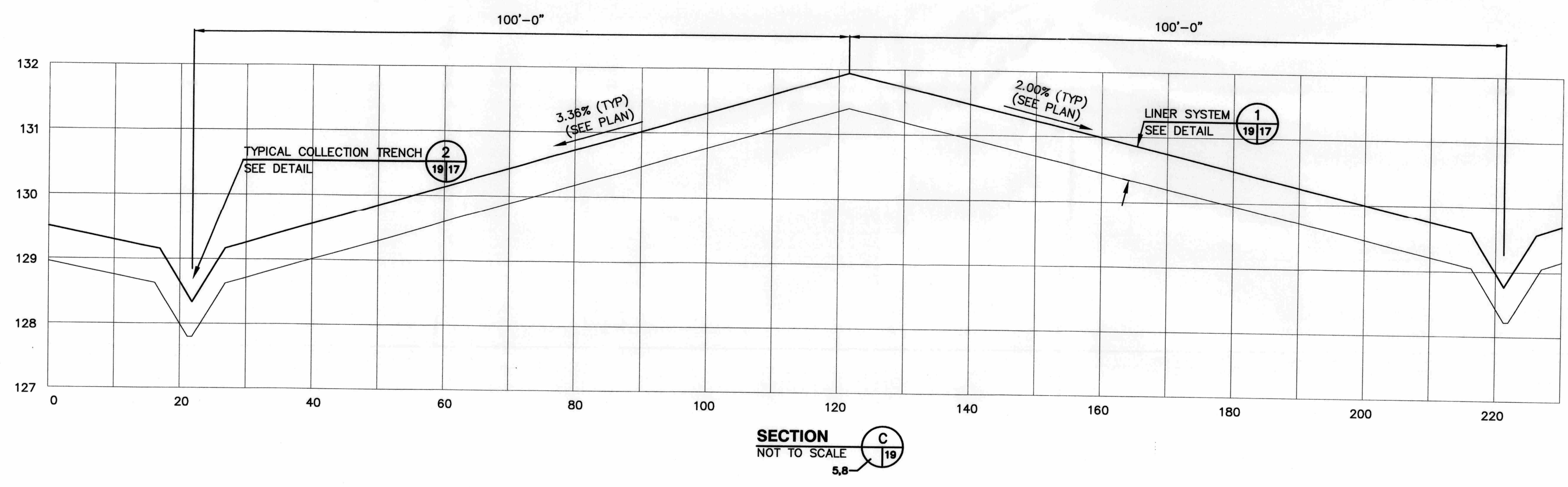
TYPICAL GEOMEMBRANE INTERFACE
NOT TO SCALE



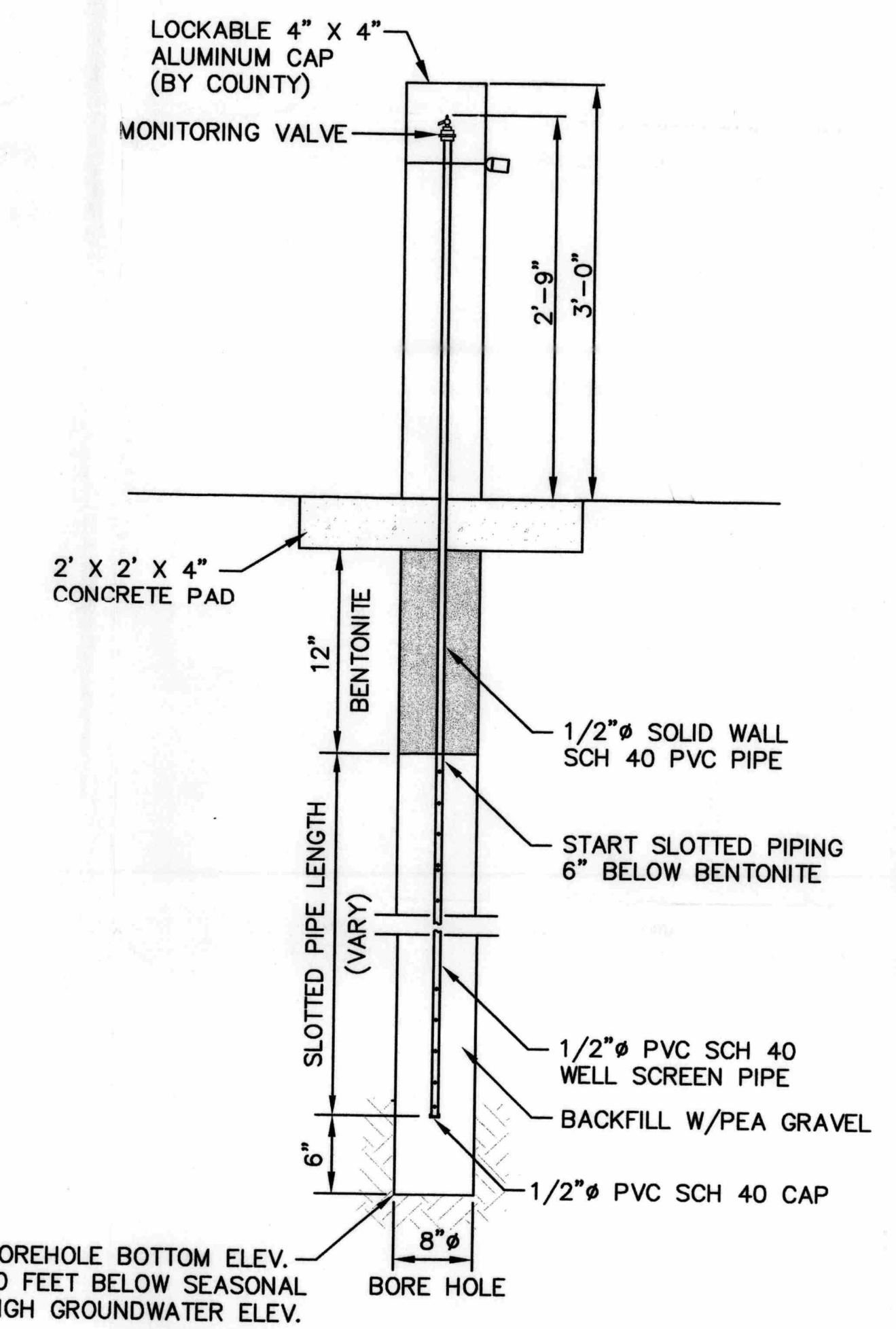
TEMPORARY COVER SYSTEM
NOT TO SCALE



FINAL COVER SYSTEM
NOT TO SCALE



SECTION
NOT TO SCALE



LANDFILL GAS MONITORING WELL
NOT TO SCALE

REV.	DATE	DESCRIPTION	OK BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

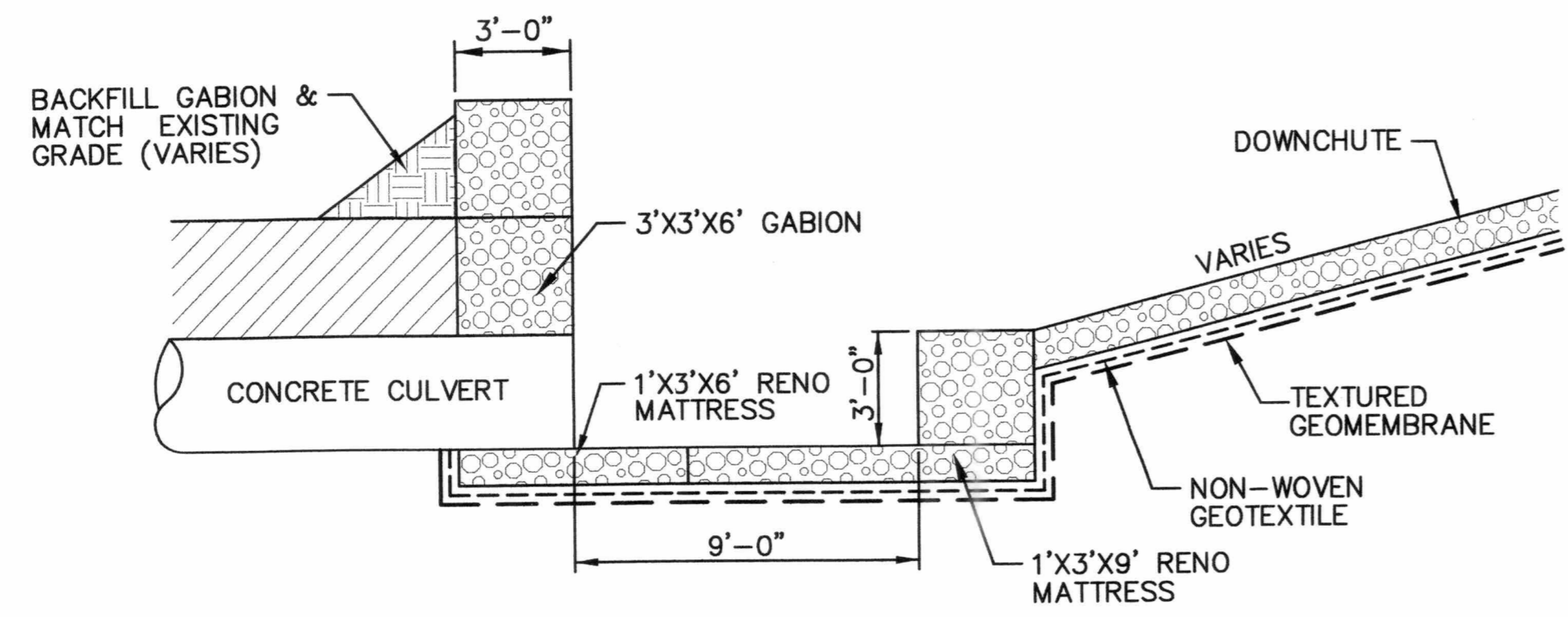
DETAILS 3
SOUTH COUNTY LANDFILL
CAPACITY EXPANSION

**HILLSBOROUGH COUNTY
SOLID WASTE MANAGEMENT
DEPARTMENT
TAMPA, FLORIDA**

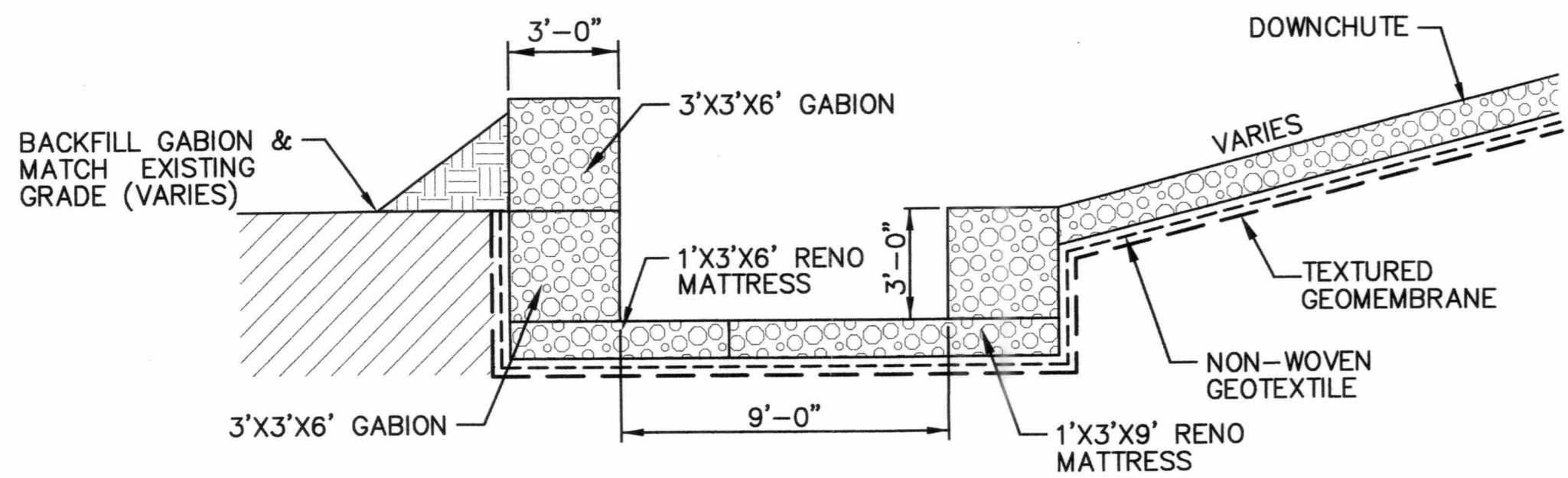
SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
10700 W. SUITE 1700, TAMPA, FL 33619
PH: (813) 621-4000 FAX: (813) 621-4027

CADD FILE: DET3
DATE: MARCH 16, 2000
SCALE: AS SHOWN
DRAWING NO.

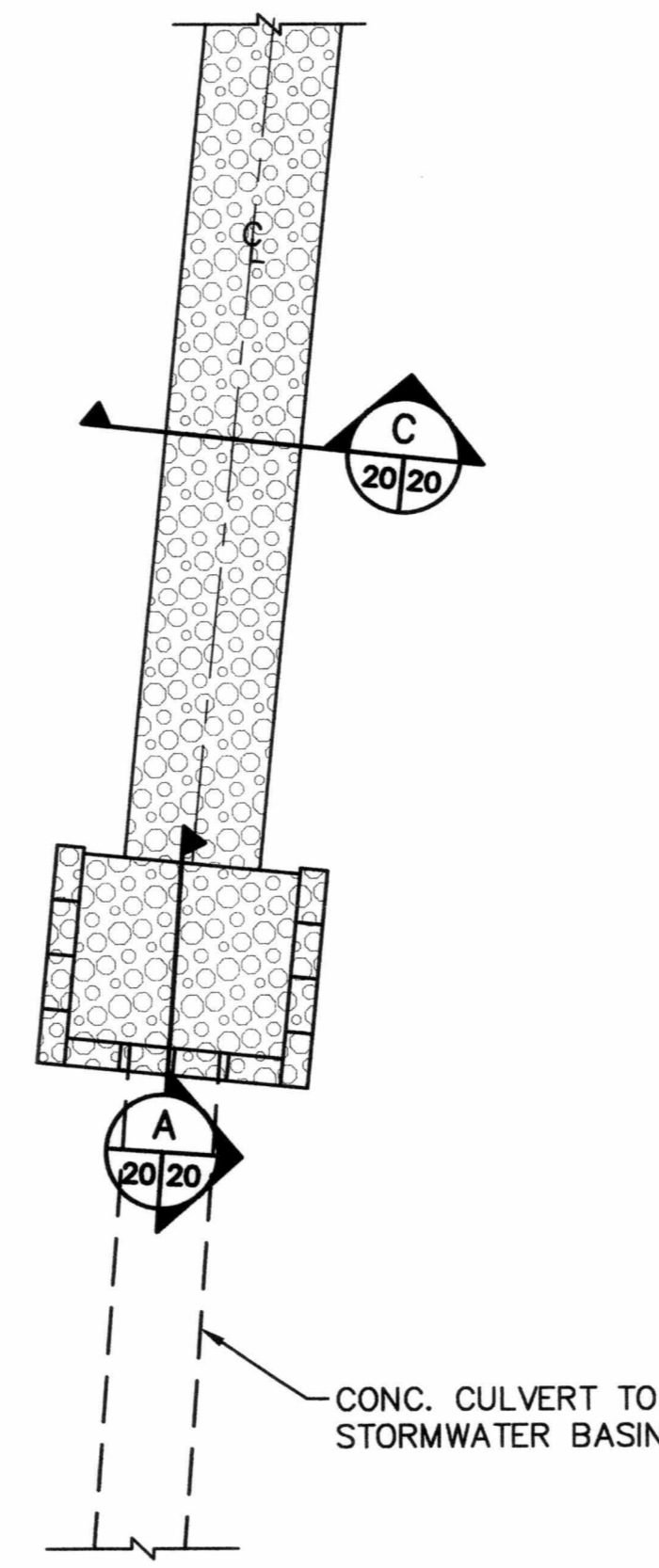
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SECTION A
NOT TO SCALE
20/20

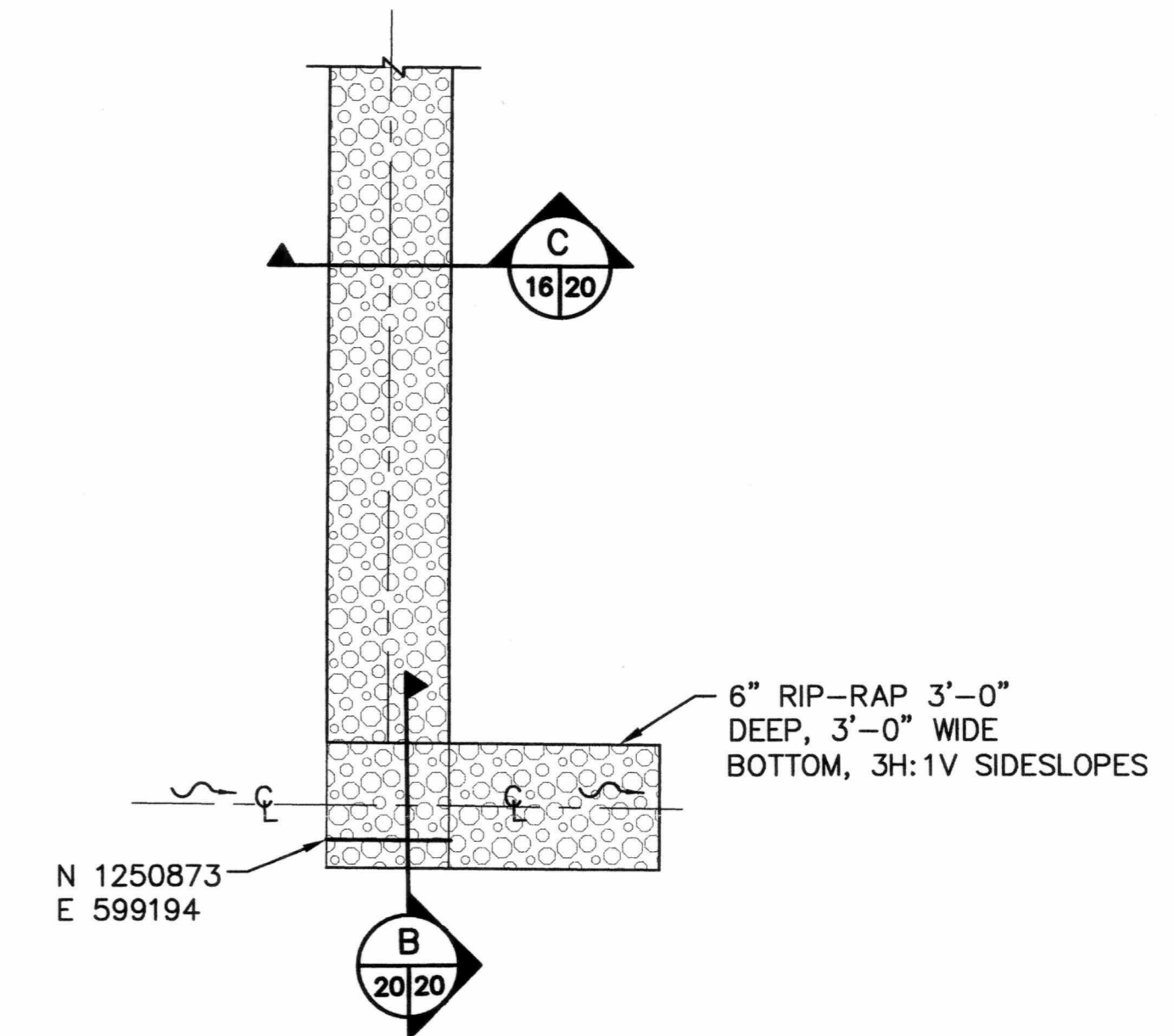


SECTION B
NOT TO SCALE
20/20



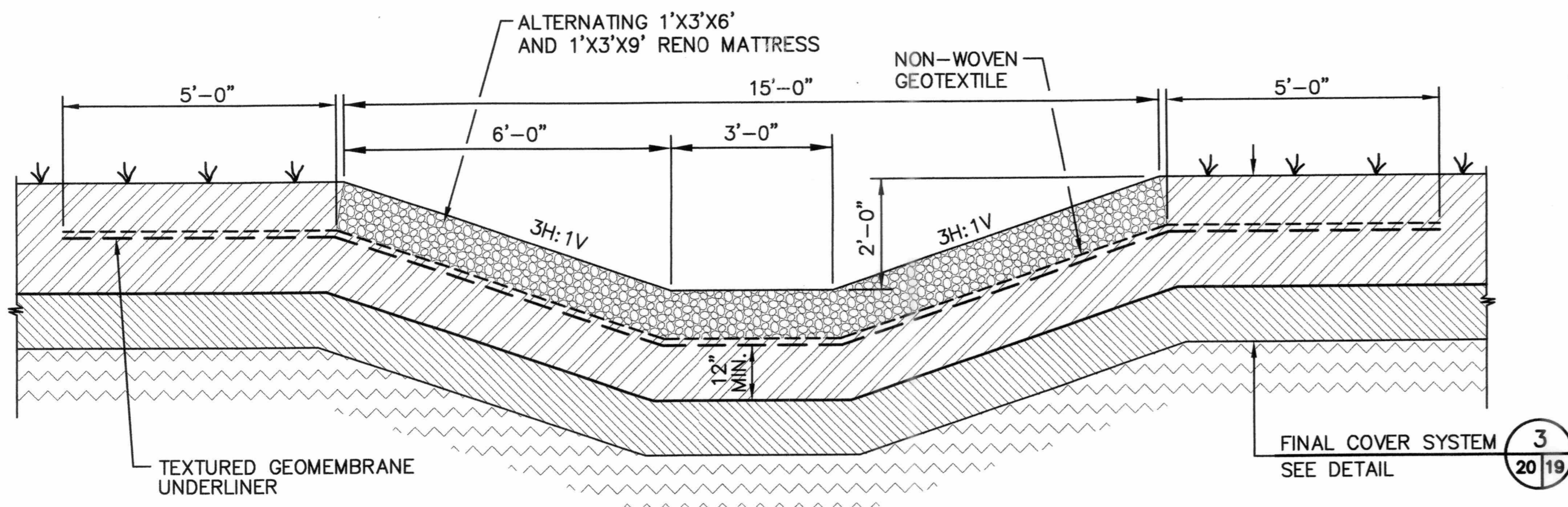
NOTE: APPLIES TO DOWNCHUTES 2 & 4

DOWNCHUTE INTO PIPE
NOT TO SCALE
1
3/20

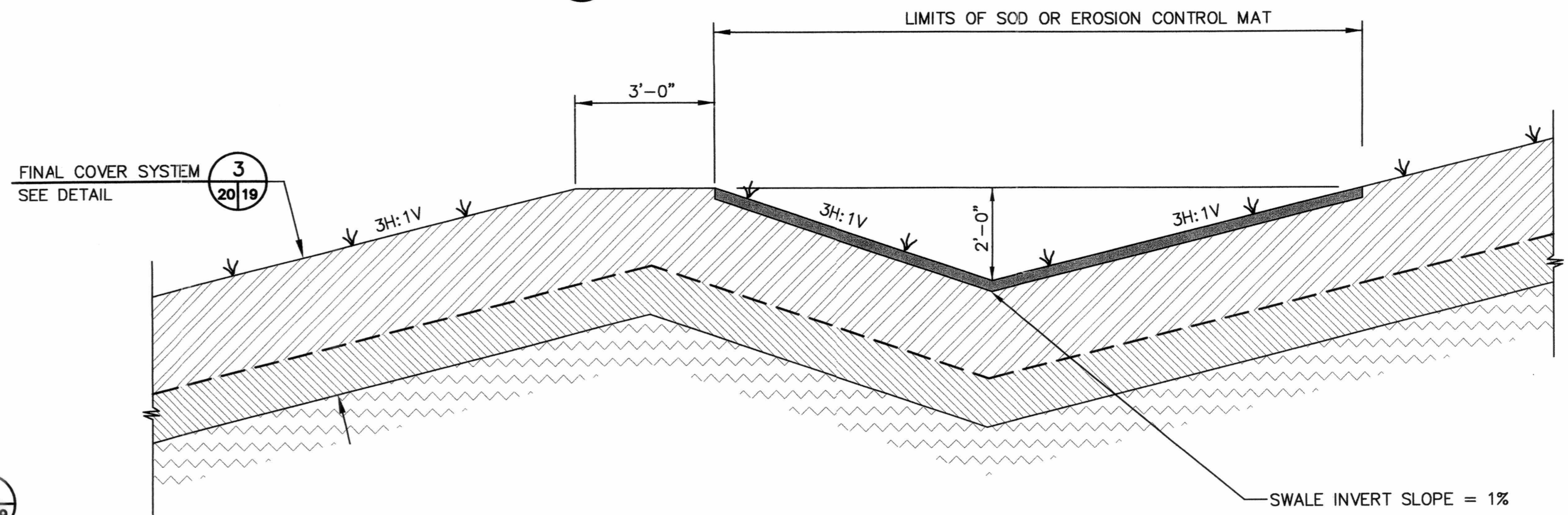


NOTE: APPLIES TO DOWNCHUTES 1, 3 & 5

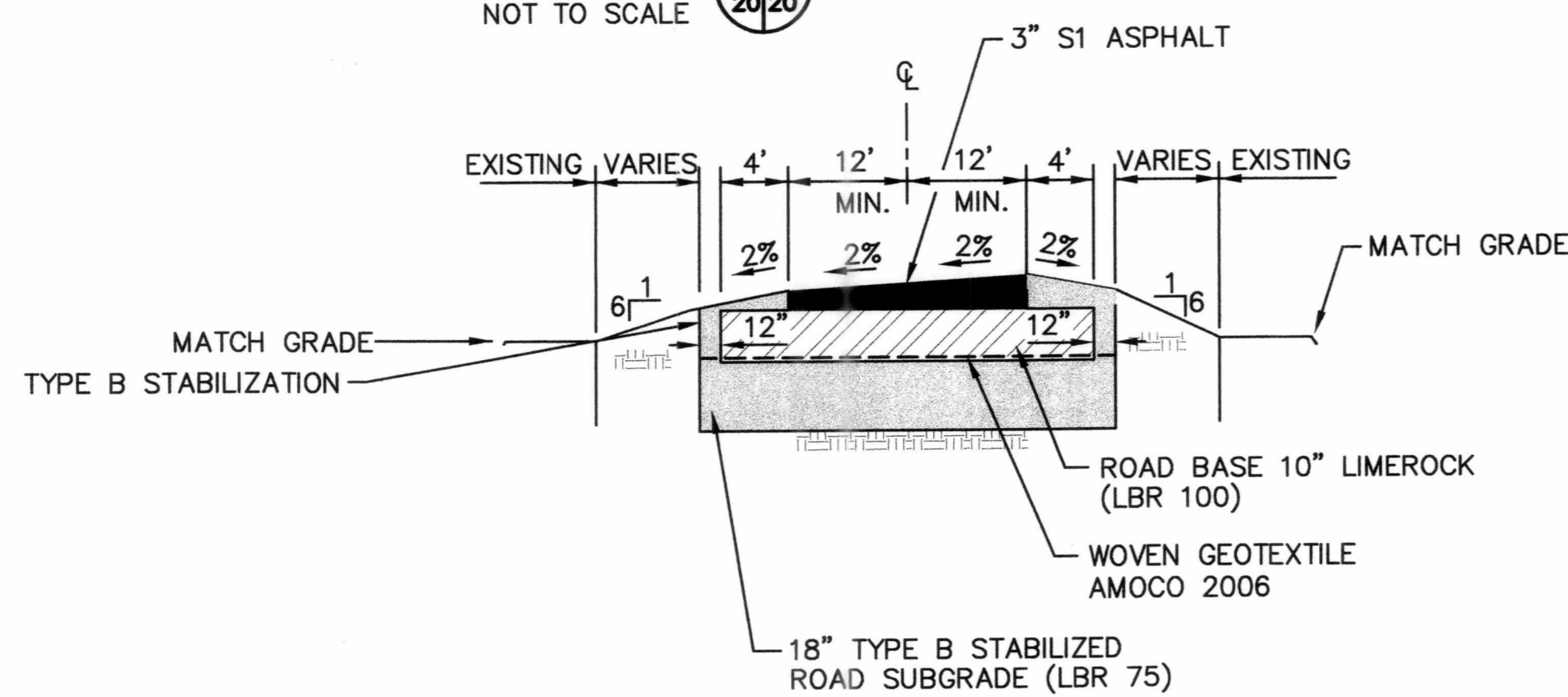
DOWNCHUTE INTO SWALE
NOT TO SCALE
2
13/20



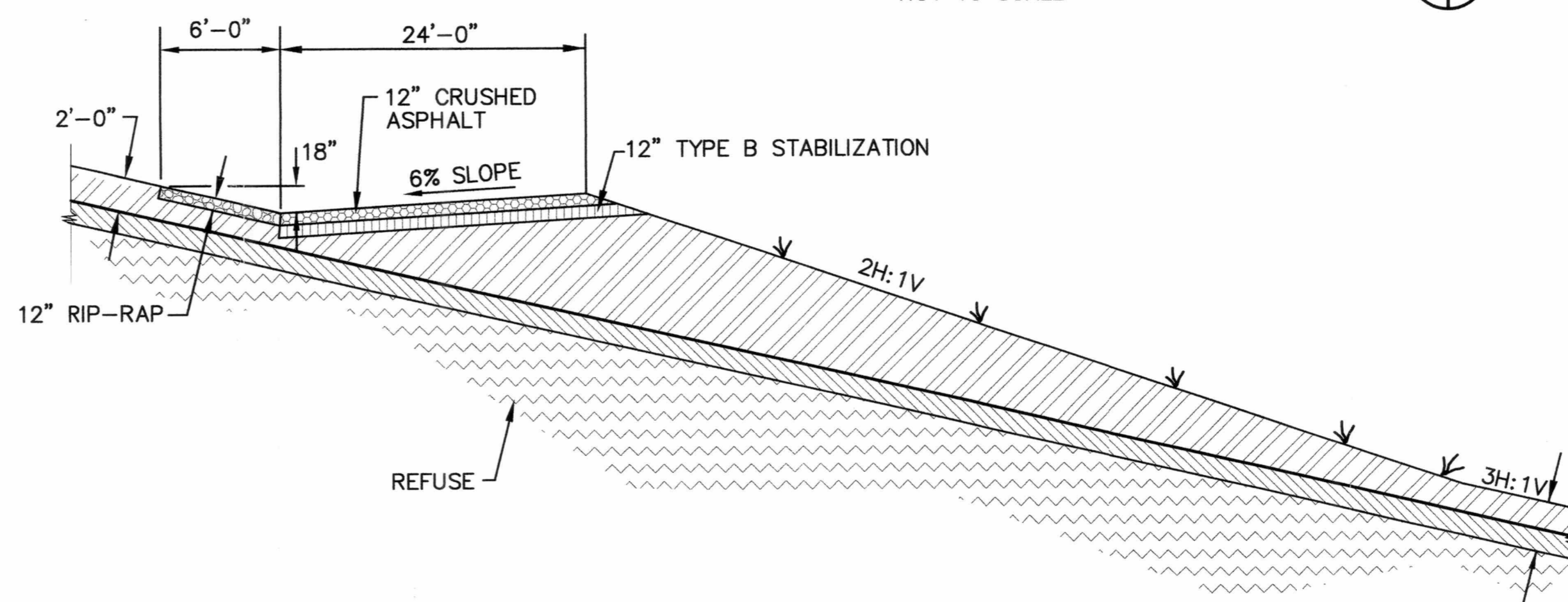
SECTION C
NOT TO SCALE
20/20



TYPICAL SIDESLOPE SWALE
NOT TO SCALE
3
3/20



TYPICAL PERIMETER ROAD PAVEMENT DETAIL
NOT TO SCALE
5
3/20



MAIN HAUL ROAD SECTION
NOT TO SCALE
4
13/20

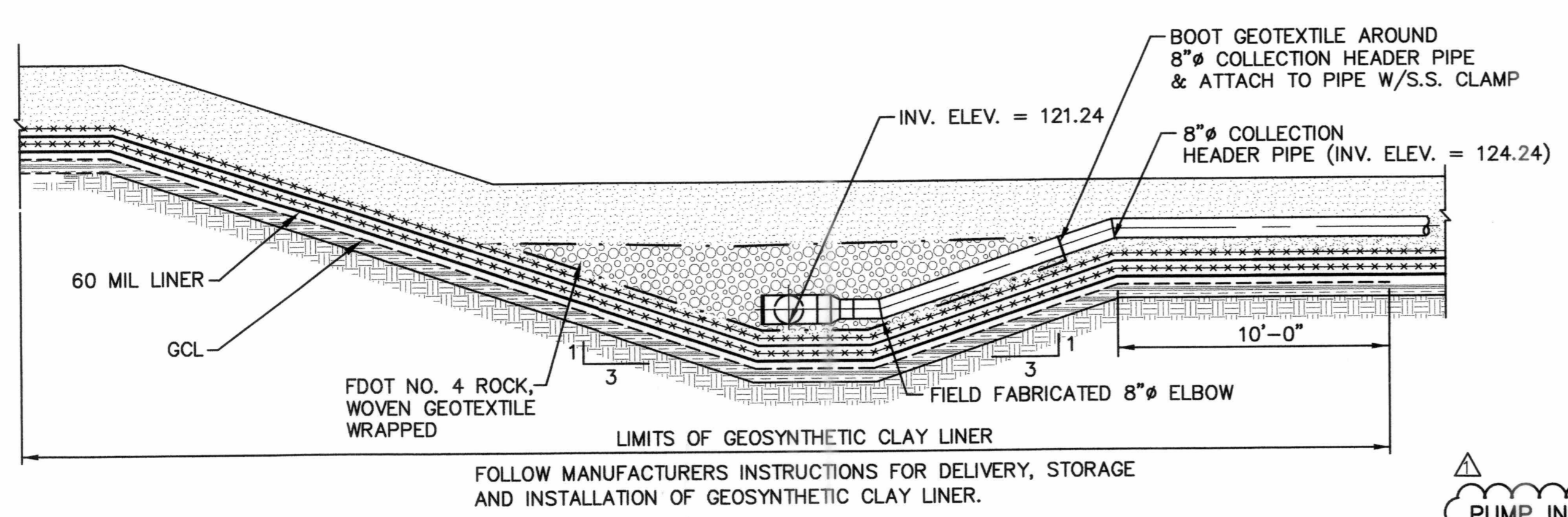
FINAL COVER SYSTEM
SEE DETAIL
3
20/19

NOT USED FOR CONSTRUCTION
REVISED-NOT VALID
(SEE SECTION 7
OPERATING SEQUENCE BY
SCS ENGINEERS DATED
DECEMBER 10, 2002)

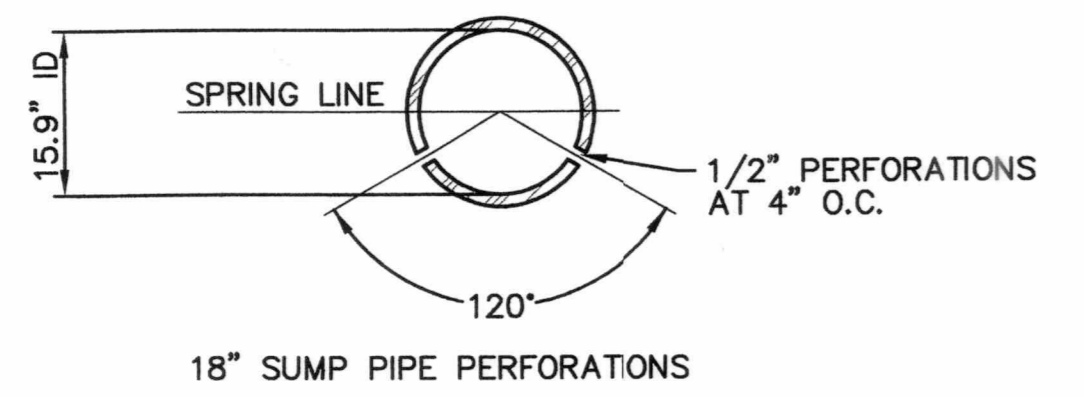
		CK:								
		BY:								
DRAWING TITLE	DESCRIPTION	REV.	DATE							
	PROJECT TITLE									
DRAWING TITLE	DETAILS 4 SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION									
CLIENT	HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT TAMPA, FLORIDA									
PROJ. NO.	0995029.35	DRAWN BY:	XRH	CHECK BY:	LER	DATE:		SCALE:	AS SHOWN	DRAWING NO.
DATE:	MARCH 16, 2000	C/O R/W BY:	REG	APP. BY:	REG					
CADD FILE:	DET4									
SCALE:	AS SHOWN									
DRAWING NO.	20 of 22									



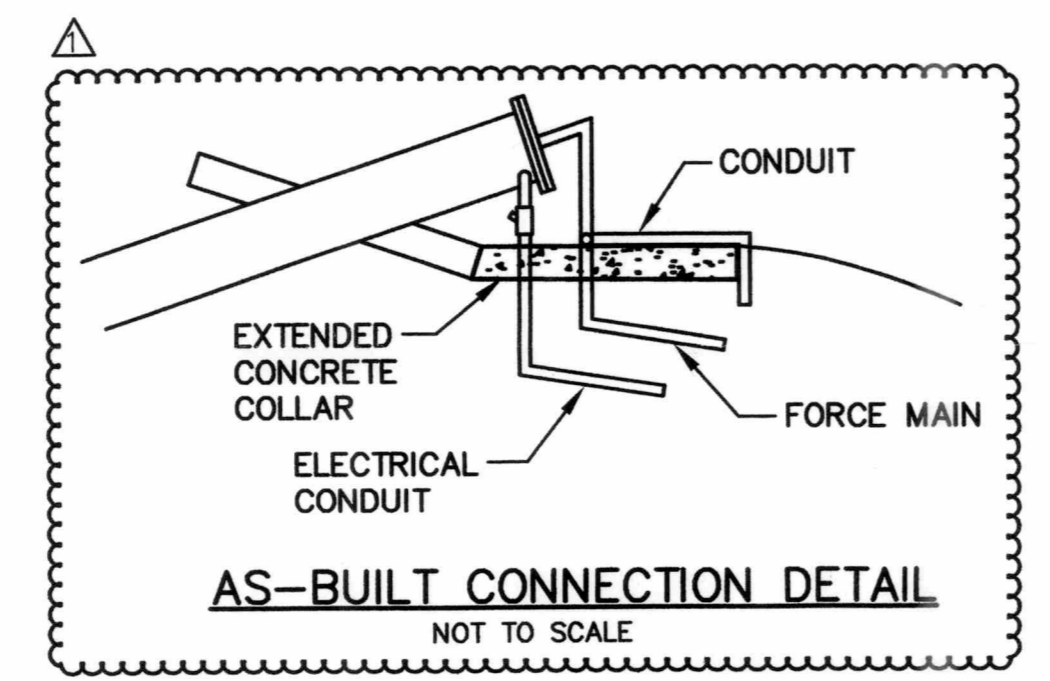
NORTHING	EASTING	ELEVATION
① N 1251264.82	E 598522.12	121.10
② N 1251261.79	E 598526.39	121.10
③ N 1251261.82	E 598519.47	121.10
④ N 1251258.78	E 598523.46	121.10



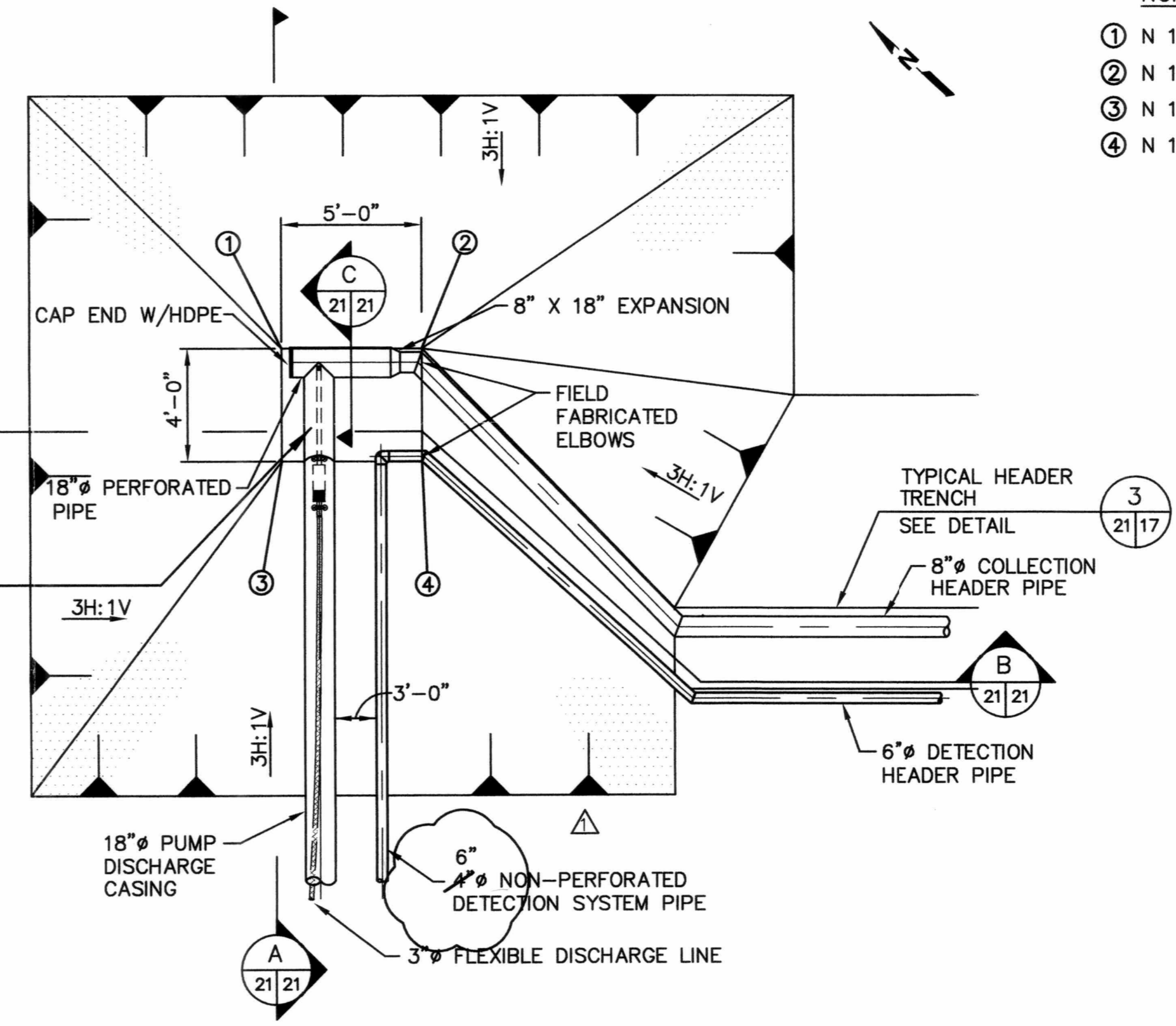
SECTION B
NOT TO SCALE



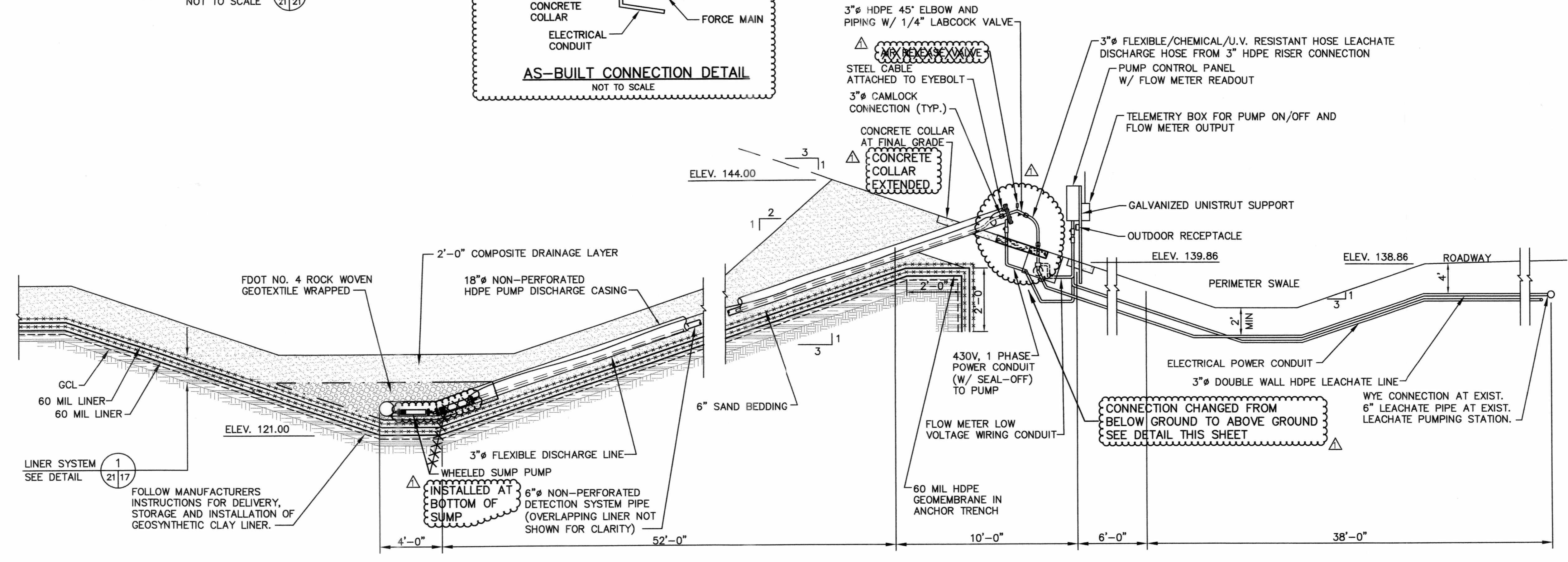
SECTION C
NOT TO SCALE



PUMP INSTALLED AT BOTTOM OF SUMP



SECTION 1
LEACHATE SUMP AND RISER
NOT TO SCALE



LEACHATE PUMPING SYSTEM PROFILE
NOT TO SCALE

OK. BY	DESCRIPTION
MPR	RECORD DRAWINGS

REV.	DATE	DESCRIPTION
1	03/08/03	RECORD DRAWINGS

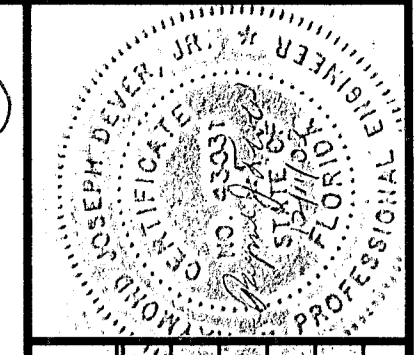
DRAWING TITLE: **SUMP DETAILS - 1**
PROJECT TITLE: **SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION**
CLIENT: **HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT**

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
3002 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
PH (813) 821-0880 FAX (813) 823-9737
PROJ. NO. 0200020.31
DWG. BY: GRD
CHK. BY: JHO
APP. BY: RBG

CADD FILE: SEC1CON\Sumpdet1
DATE: APRIL 27, 2001
SCALE: AS SHOWN
DRAWING NO.

RECORD DRAWINGS
BASED ON INFORMATION RECEIVED FROM HANDEX CONSTRUCTION SERVICES, INC. DATED AUGUST 5, 2003

24



REV.	DATE	DESCRIPTION
1	08/08/03	RECORD DRAWINGS

DRAWING TITLE: **SUMP DETAILS - 2**

PROJECT TITLE: **SOUTHEAST COUNTY LANDFILL CAPACITY EXPANSION**

CLIENT: **HILLSBOROUGH COUNTY SOLID WASTE MANAGEMENT DEPARTMENT**

SCS ENGINEERS
 STEARNS, CONRAD AND SCHMIDT
 CONSULTING ENGINEERS
 3012 U.S. HWY. 301 NORTH, SUITE 700, TAMPA, FL 33619
 PH (813) 651-0900 FAX NO. (813) 623-6757

PROJ. NO. 2002020.31
 DWG. BY: GRD
 CHK. BY: JHO
 DATE: 08/08/03
 APPR. BY: RBG

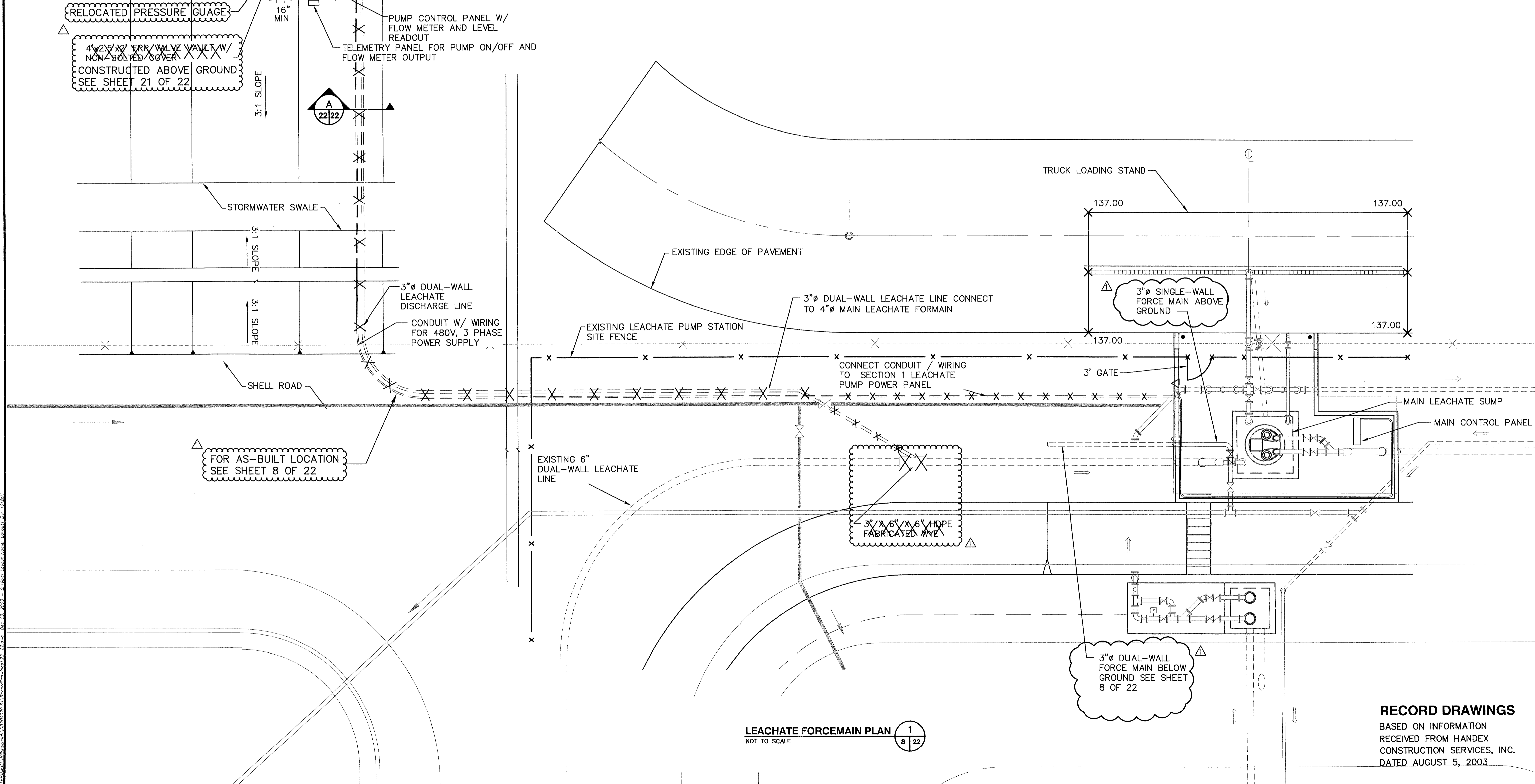
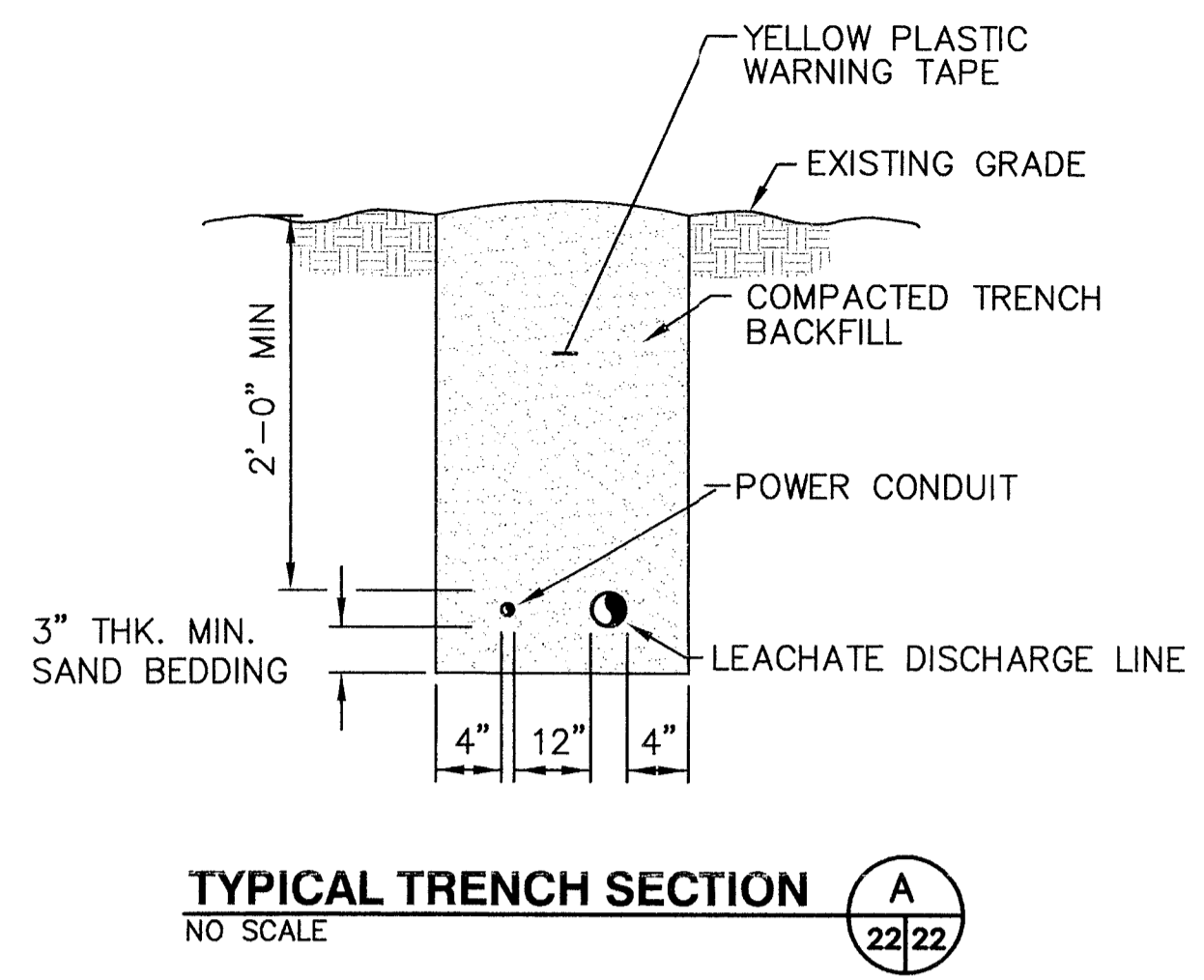
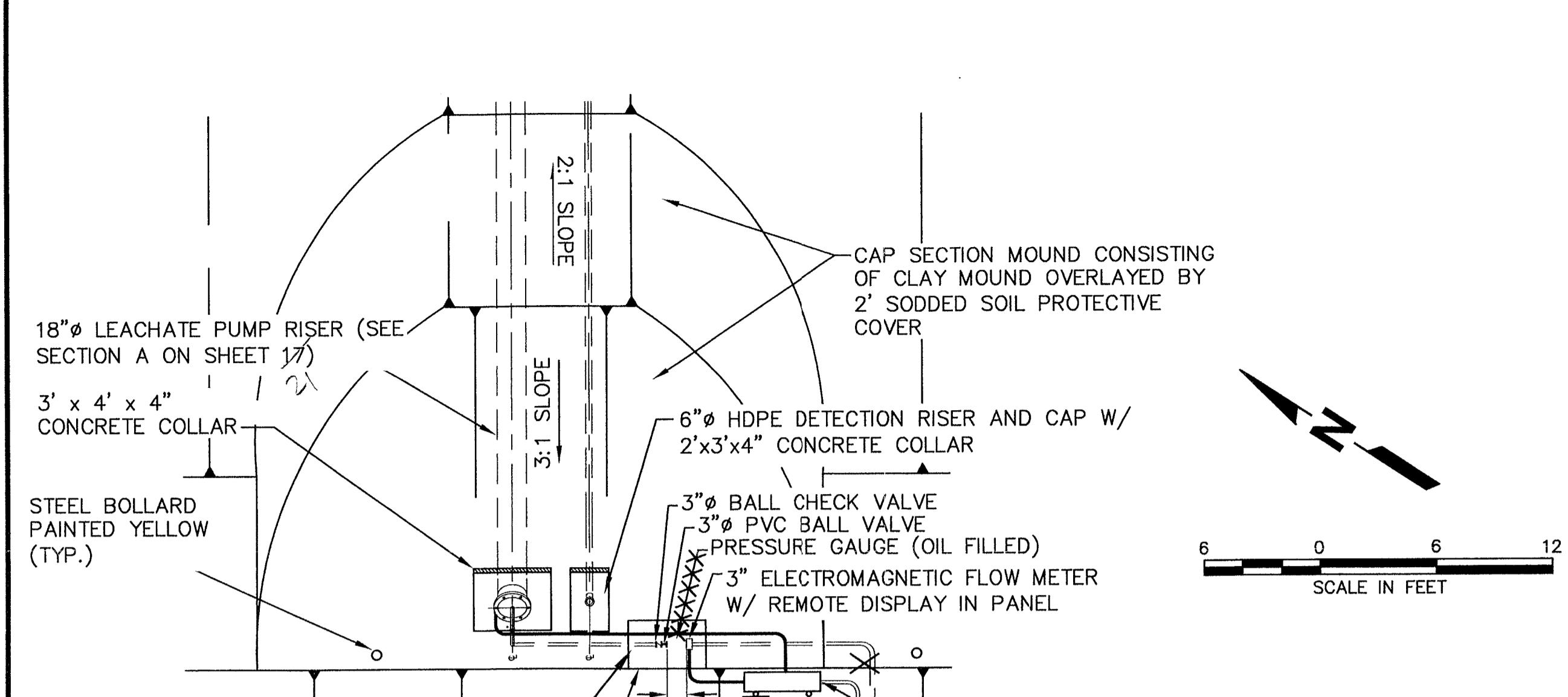
CADD FILE: sec1con\leachdet

DATE: APRIL 27, 2001

SCALE: AS SHOWN

DRAWING NO.

22 of 22



RECORD DRAWINGS
 BASED ON INFORMATION RECEIVED FROM HANDEX CONSTRUCTION SERVICES, INC. DATED AUGUST 5, 2003

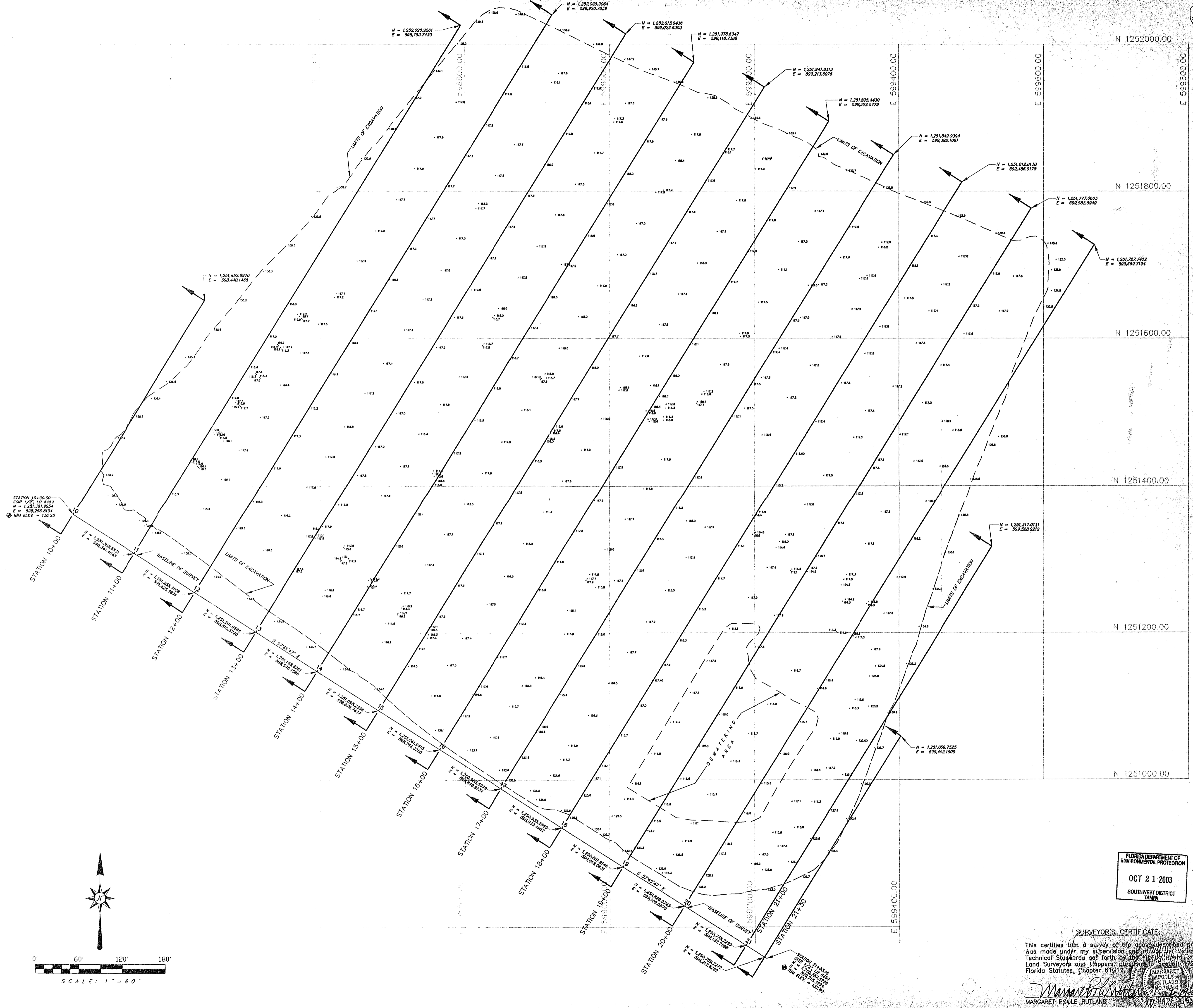
LEGEND:

- A Arc Length
- A/C Air Conditioner
- Asph Asphalt
- Ave Avenue
- Bl Block
- Blk Block
- Blvd Boulevard
- BM Bench Mark
- Bndy Boundary
- C/B Concrete Block
- CD Chord Distance
- C-L Chord Bearing
- CL Centerline
- CMP Corrugated Metal Pipe
- Conc Concrete
- Cor Corner
- Cov Covered
- CoR County Road
- Court Court
- (C) Calculated
- (D) Deed Data
- D.B. Dead Book
- Di Diameter
- Elev Elevation
- Encl Enclosed
- Em'nt Easement
- FDOT Florida Department of Transportation
- FCM Found Concrete Monument
- FPE Finished Floor Elevation
- FB Field Book
- FIP Found Iron Pipe
- FIR Found Iron Rod
- Grd Ground
- Gov't Government
- GW Guy Wire
- Horiz Horizontal
- HWL High Water Line
- Inv Invert
- LS Land Surveyor Business
- LP Light Pole
- Meas Measured
- (M) Measured
- MOL More or Less
- MSL Mean Sea Level
- N&D Nail & Disk
- NGVD National Geodetic Vertical Datum
- ORD Official Record Book
- (P) Plat Data
- P.B. Plat Book
- PC Point of Curvature
- PCC Point of Compound Curve
- PCP Permanent Control Point
- Pg Page
- PLS Professional Land Surveyor
- POB Point-Of-Beginning
- PRC Point of Reverse Curve
- POC Point-Of-Commencement
- PT Point of Tangency
- (R) Radial Line
- R Radius
- RCP Reinforced Concrete Pipe
- RRS Railroad Spike
- Rng Range
- R/W Right-Of-Way
- SCM Set Concrete Monument
- Sec Section
- SCIR Set Capped Iron Rod
- S.R. State Road
- St Street
- Sty Station
- Story
- TOB Top of Bank
- TOE Toe of Slope
- TBM Temporary Bench Mark
- Twp Township
- Ugd Underground

• 117.80 Represents elevation shot

SURVEYOR'S NOTES:

- 1.) Except as specifically stated or shown on this plan, this survey does not purport to reflect any of the following which may affect the title: easements, building setbacks, restrictions, covenants, subdivision restrictions, zoning or other laws, use regulations, and any other facts that an accurate and current title search may disclose.
- 2.) Not valid without the signature and the original raised seal of a Florida Licensed Surveyor and Mapper. Improvements shown hereon are based upon the location of above ground structures and/or utility lines as shown on the plat.
- 3.) Elevations shown hereon refer to the datum of the National Geodetic Vertical Datum of 1929 (NGVD).
- 4.) This document must be compared to the certified hard copy issued with the original signature, imprints or embossed seal. No reliance should be made on a document printed on a computer or other electronic means unless first compared to the original sealed document issued at the time of the survey.
- 5.) This is not a boundary survey, but an As-Built Survey of excavated material.
- 6.) Bearings and coordinate values shown hereon are based on the construction plans prepared by SCS Engineers, project # 09200020.31, dated 4-27-2001.



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 OCT 21 2003
 SOUTHWEST DISTRICT TAMPA

SURVEYOR'S CERTIFICATE:
 This certifies that a survey of the above described property was made under my supervision and in accordance with the Technical Standards set forth by the Florida Board of Land Surveyors and Mappers, pursuant to Special Florida Statutes, Chapter 610.17.
 MARGARET E. RUTLAND
 REGISTERED PROFESSIONAL LAND SURVEYOR AND MAPPER
 No. 17114
 Exp. 12/31/07

PENINSULA DESIGN & ENGINEERING, INC.
 217 HOBBS STREET, SUITE 101
 TAMPA, FLORIDA 33610
 T. 813. 494.659
 F. 813. 655.5001
 F. 813. 655.5002

ORIGINAL 12-2001
 1-1-09-01 Add. Excavation Limits
 2-1-10-02 Add. additional topo. sheets
 3-1-10-02 Add. additional topo. sheets
 4-2-10-02 Add. additional topo. sheets
 5-3-01-02 Add. additional topo. sheets
 6-2-08-02 Add. sections

SOUTHEAST HILLSBOROUGH COUNTY LANDFILL SITE AS-BUILT EXCAVATION SURVEY

HANDEX CONSTRUCTION

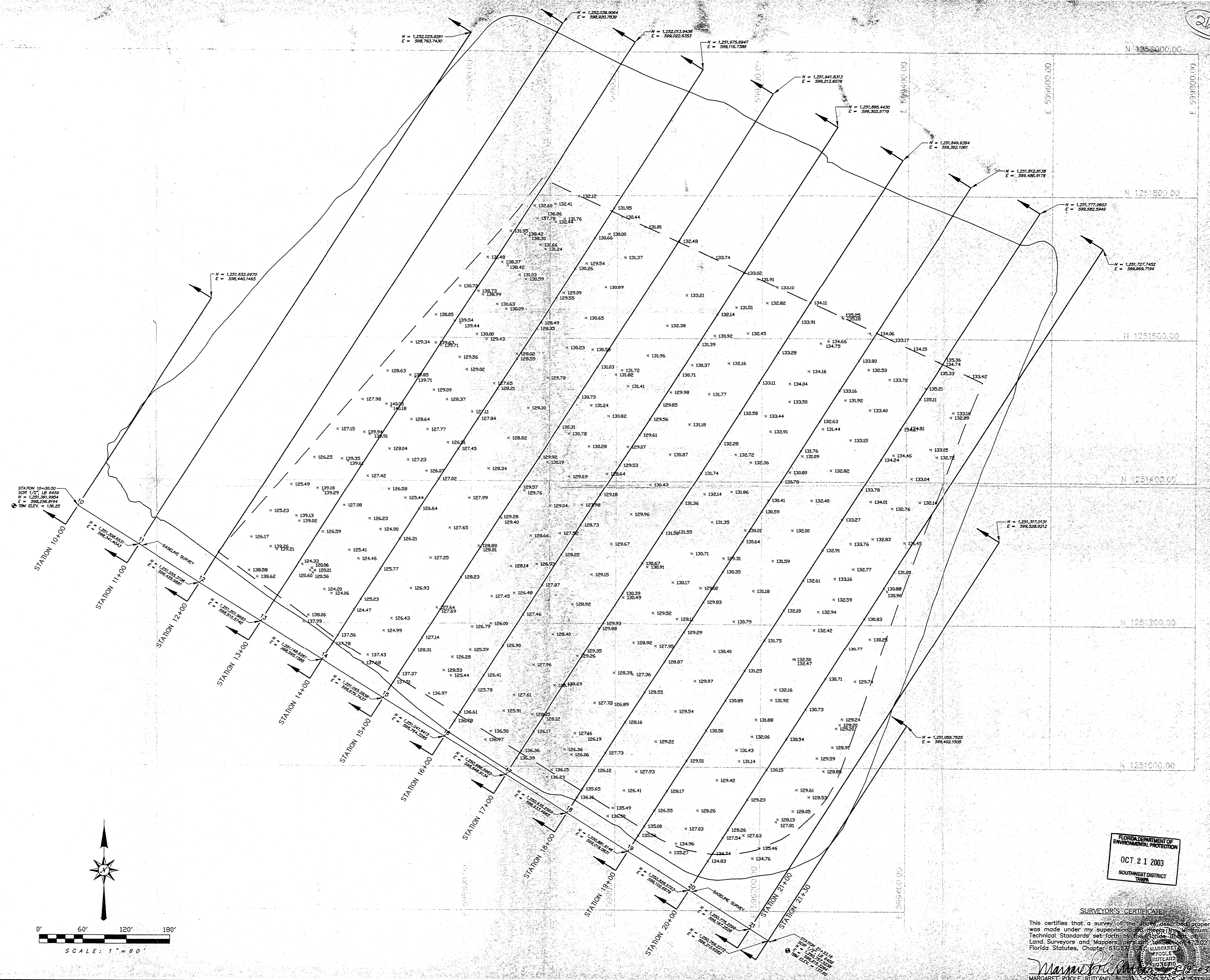
JOB NO. 01636
 DRAWN JAG
 DESIGNED
 CHECKED MPR
 QC MPR
 SHEET 1 of 1

LEGEND:

- A Arc Length
- A/C Air Conditioner
- Asph Asphalt
- Ave Avenue
- BL Base Line
- Block Block
- Blvd Boulevard
- BM Bench Mark
- Bndy Boundary
- C/B Concrete Block
- CD Chord Distance
- C-L Chord Bearing
- CL Centerline
- CMP Corrugated Metal Pipe
- Conc Concrete
- Cor Corner
- Cov Covered
- C.R. County Road
- Ct Court
- (C) Calculated
- (D) Deed Data
- D.B. Deed Book
- Di Diameter
- Elev Elevation
- Encl Enclosed
- Emnt Easement
- FDOT Florida Department of Transportation
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- FIP Found Iron Pipe
- FIR Found Iron Rod
- Grd Ground
- Gov't Government
- GW Guy Wire
- Horiz Horizontal
- HWL High Water Line
- Invt Invert
- LB Land Survey Line Business
- LP Light Pole
- Meas Measured
- (M) More or Less
- MSL Mean Sea Level
- N&D Nail & Disk
- NVD National Geodetic Vertical Datum
- ORD Official Record Book
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- P.B. Point of Curvature
- PC Point of Compound Curve
- PCP Permanent Control Point
- Pg Page
- PLS Professional Land Surveyor
- POB Point-Of-Beginning
- PRC Point of Reverse Curve
- POB Point-Of-Beginning
- PT Point of Tangency
- RL Radial Line
- R or Rad Radius
- RCP Reinforced Concrete Pipe
- RSS Range
- R/W or ROW Right-Of-Way
- SCM Set Concrete Monument
- Sec Section
- SCIR Set Capped Iron Rod
- S.R. State Road
- St Street
- Sta Station
- Story Story
- TOB Top of Bank
- TOE Top of Slope
- TM Temporary Bench Mark
- Twp Township
- Ugd Underground
- 117.80 Represents spot elevation shot

SURVEYOR'S NOTES:

- 1.) Except as specifically stated or shown on this plot, this survey does not purport to reflect any of the following which affect property interests, other than those furnished, building setback lines, restrictive covenants, subdivision restrictions, zoning or other facts that an accurate and current title search may disclose.
- 2.) Not valid without the signature and the original raised seal of a Florida Licensed Surveyor and Mapper.
- 3.) No underground utilities and/or structures have been made by this survey, any underground improvements shown hereon refer to Hillborough County Benchmark No. LWB, elevation 133.52, NVD datum 1929.
- 4.) Elevation shown hereon refer to the certified hard copy issued with the original signature, imprinted embossed seal and date to insure the accuracy of the information and to further insure that no changes, alterations or modification first compared to the original sealed document issued at the time of the survey.
- 5.) This is not a boundary survey, but a Re-As-Built Survey of top of fill survey.
- 6.) The date of last field work, July 31, 2002.
- 7.) The date of this report, August 1, 2002.
- 8.) Engineers, Project # 092002031, dated 4-27-2001.



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OCT 21 2003
SOUTHWEST DISTRICT TAMPA

SURVEYOR'S CERTIFICATE

This certifies that a survey of the above described property was made under my supervision and in accordance with the Technical Standards set forth by the Florida Board of Land Surveyors and Mappers, per Statute 472.02, Florida Statutes, Chapter 472, F.S. I, MARGARET POOLE RUTLAND, a duly Licensed Professional Land Surveyor, No. 12008, do hereby certify that the above is a true and correct copy of the original survey.

Margaret Poole Rutland
MARGARET POOLE RUTLAND

(26)

PENINSULA DESIGN & ENGINEERING, INC.

117 HOBBS STREET, SUITE 101
TAMPA, FLORIDA 33610
P.O. BOX 149
TAMPA, FLORIDA 33610
TEL: (813) 855-5401
FAX: (813) 855-5402

REVISIONS: ORIGINAL 4-2002
1-25-02 Add sections
2-7-02 Add data taken 6/21/02
3-7-02 Re-certify As-Built

SOUTHEAST HILLSBOROUGH COUNTY LANDFILL SITE
AS-BUILT
TOP OF FILL SURVEY

HANDEX CONSTRUCTION

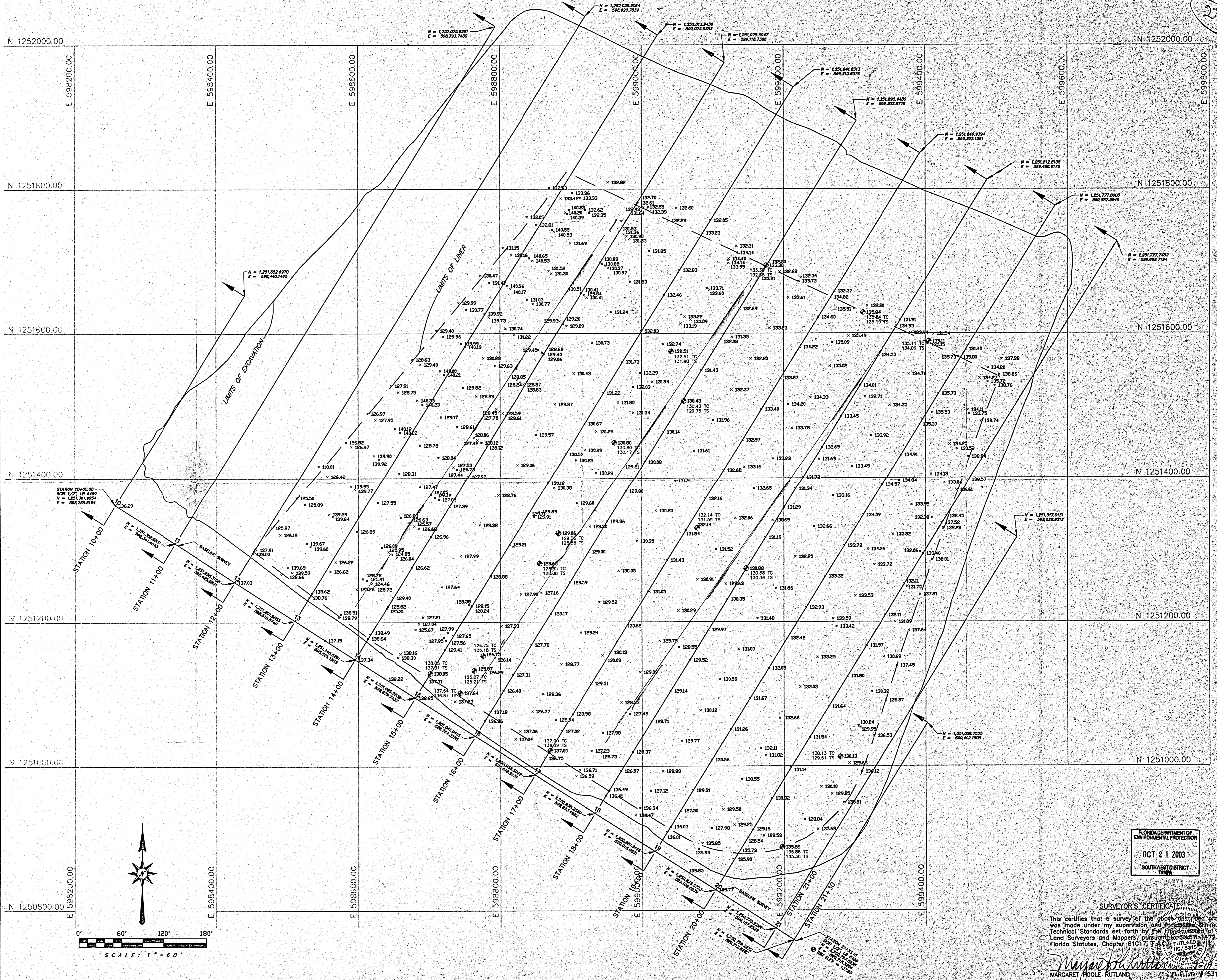
JOB NO. 01636
DRAWN MPR
DESIGNED JAG
CHECKED JAG
QC JAG
SHEET 1 OF 1

LEGEND:

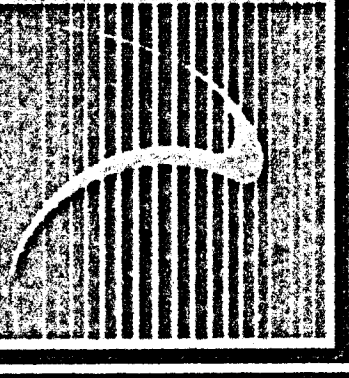
- A/C Arc Length
- Asph Asphalt
- Ave Avenue
- BL Base Line
- Blk Block
- Bvd Boulevard
- BM Bench Mark
- Bndy Boundary
- C/B Concrete Block
- CD Chord Distance
- C-L Chord Bearing
- CL Centerline
- CMP Corrugated Metal Pipe
- Conc Concrete
- Cor Corner
- Cov Covered
- C.R County Road
- Ct Court
- CO Calculated
- OD Dead Data
- D.B Dead Book
- Dia Diameter
- Elev Elevation
- Encl Enclosed
- Eas'm't Easement
- FDOT Florida Department of Transportation
- FCM Found Concrete Monument
- FFE Finished Floor Elevation
- FB Field Book
- FB Found Iron Pipe
- FR Found Iron Rod
- Grd Ground
- Gov't Government
- GW Guy Wire
- Horiz Horizontal
- HWL High Water Line
- Inv Invert
- LB Land Surveyor Business
- LP Light Pole
- M Meas Measured
- (M) More or Less
- MOL Mean Sea Level
- N&D Nail & Disk
- NGVD National Geodetic Vertical Datum
- ORD Official Record Book
- (P) Plat Data
- Plat Book
- PC Point of Curvature
- PCC Point of Compound Curve
- PCP Permanent Control Point
- P Page
- PLS Professional Land Surveyor
- POB Point-Of-Beginning
- PRC Point of Reverse Curve
- POB Point-Of-Commencement
- PT Point of Tangency
- (R) Radial Line
- R or Rod Radius
- RCP Reinforced Concrete Pipe
- RIS Railroad Spike
- Rng Range
- R/W or ROW Right-Of-Way
- SCM Set Concrete Monument
- S Section
- SCR Set Capped Iron Rod
- S.R State Road
- St Street
- Sta Station
- TOB Top of Bank
- TOE Toe of Slope
- TBM Temporary Bench Mark
- Twp Township
- Ud Underground
- 117.60 Represents elevation shot
- 117.60 TC Represents Top of Clay Elevation Shot
- 117.60 TS Represents Top of Sand Elevation Shot
- ⊕ Represents Hand Auger Location for Depth Check

SURVEYOR'S NOTES:

- 1) Elevation points, stakes, or shown on this plot, which are not shown on the original survey, are shown for information only and do not constitute a part of the original survey.
- 2) No warranty is made by the Licensed Surveyor and Mapper for the accuracy of the original survey or the accuracy of the original survey data.
- 3) Elevation points shown hereon refer to the location of above ground structures and/or record drawings furnished to the surveyor.
- 4) Elevation points shown hereon refer to the certified hard copy issued with the original signature, imprinted embossed seal, and the original sealed document transmitted by computer or other electronic means unless otherwise noted.
- 5) This document must be compared to the certified hard copy issued with the original signature, imprinted embossed seal, and the original sealed document transmitted by computer or other electronic means unless otherwise noted.
- 6) This is not a boundary survey, but an As-Built Survey of clay fill material.
- 7) Bearings and coordinate values shown hereon refer to the construction plans prepared by SCS Engineers, project # 09200020.31, dated 4-27-2001.



PENINSULA DESIGN & ENGINEERING, INC.
 217 HOBBS STREET, SUITE 101
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 L.B. #4659
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REVISIONS:

1	8-2002	Original 8-2002
2	9-2002	Add remaining clay as-built shots
3	12-2002	Add depth check shots
4		
5		
6		

HANDEX CONSTRUCTION
SOUTHEAST HILLSBOROUGH COUNTY LANDFILL SITE
AS-BUILT
TOP OF CLAY SURVEY

JOB NO. 01636
 DRAWN: JAG
 DESIGNED: MPR
 CHECKED: MPR
 QC: MPR
 SHEET 1 of 1

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 OCT 21 2003
 SOUTHWEST DISTRICT TAMPA

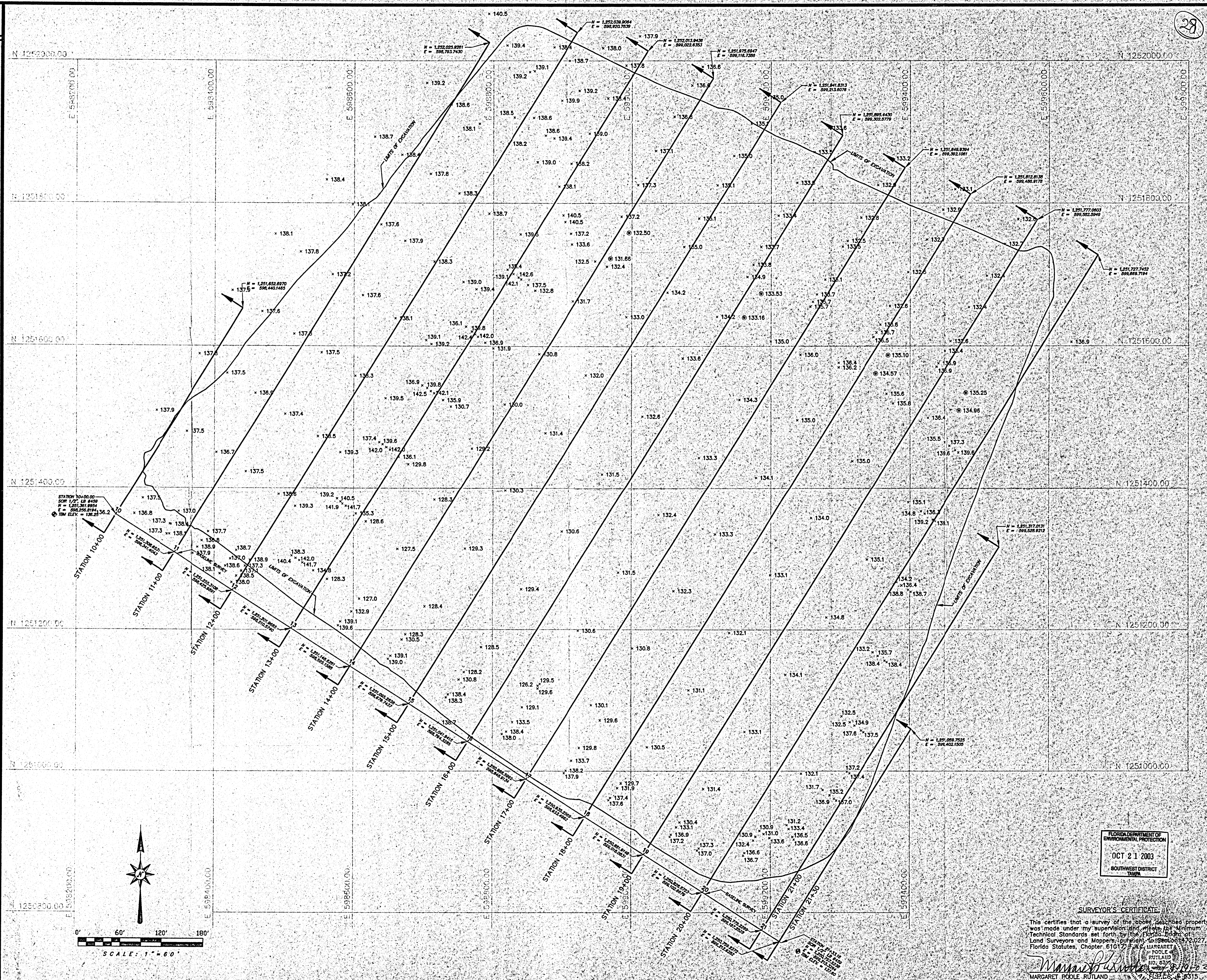
SURVEYOR'S CERTIFICATE
 This certifies that a survey of the good and valid property was made under my supervision, in accordance with the Technical Standards set forth by the Florida Board of Land Surveyors and Mappers, pursuant to Section 472.027, Florida Statutes, Chapter 61G17, F.A.C. 12G15-1.01
 MARGARET POOLE RUTLAND
 5315

LEGEND:

- A Arc Length
- A/C Air Conditioner
- Asph Asphalt
- Av Avenue
- Blk Block
- Blvd Boulevard
- BM Bench Mark
- Bdy Boundary
- C/B Concrete Block
- CD Chord Distance
- C-L Chord Bearing
- Cl Centerline
- CMP Compacted Metal Pipe
- Conc Concrete
- Cor Corner
- Cov Covered
- C.R. County Road
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- (R) Radial Line
- R or Rad Radius
- RCP Reinforced Concrete Pipe
- RRS Railroad Spike
- Rng Range
- R/W or ROW Right-Of-Way
- SCM Set Concrete Monument
- Sec Section
- SCIR Set Capped Iron Rod
- S.I.R. Street
- St Station
- Sty Story
- TS Top of Bank
- TOE Toe of Slope
- TBM Temporary Bench Mark
- Twp Township
- Ugd Underground
- *17.80 Represents elevation shot
- ⊙ Represents boot tie-in point

SURVEYOR'S NOTES:

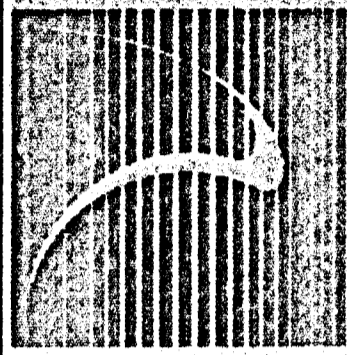
1. Any stationing or shown on this plan, this survey, does not purport to reflect any of the following which may be applicable to the project: zoning, subdivision restrictions, zoning or other land use regulations, and any other facts that an accurate and current title search may disclose.
2. No locations shown on this plan were measured or mapped by the Surveyor. Improvements shown hereon are based upon the location of above ground structures and/or record drawings furnished to the Surveyor.
3. Elevation data shown hereon refer to Hillsborough County benchmark No. LWB, elevation 133.52, NGVD datum 1929.
4. All measurements must be compared to the certified hard copy issued with the original signature, imprinted or embossed on the original sealed document. No reliance should be made on a document transmitted by computer or other electronic means unless first compared to the original sealed document issued at the time of the survey.
5. This is not a boundary survey, but an As-Built Survey of the sand fill layer.
6. Bearings and coordinate values shown hereon refer to the construction plans prepared by SCS Engineers, project # 0920020-31, dated 4-27-2001.



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REVISIONS	ORIGINAL	2	3	4	5	6

**SOUTHEAST HILLSBOROUGH
COUNTY LANDFILL SITE
AS-BUILT
TOP OF SAND FILL SURVEY**

**HANDEX
CONSTRUCTION**

JOB NO. 01636
DRAWN: MPR
DESIGNED:
CHECKED: JAG
GC: JAG
SHEET 1 of 1

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
OCT 21 2003
SOUTHWEST DISTRICT
TAMPA

SURVEYOR'S CERTIFICATE

This certifies that a survey of the above described property was made under my supervision and in accordance with the minimum Technical Standards set forth by the Florida Board of Professional Land Surveyors and Mappers, pursuant to Section 472.027, Florida Statutes, Chapter 61G17-3.03.

MARGARET POOLE RUTLAND
NO. 6372
DATE: 10/20/03
FLS # 6315