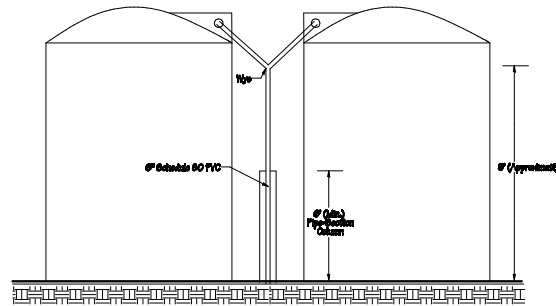
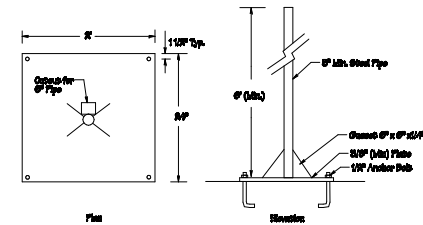


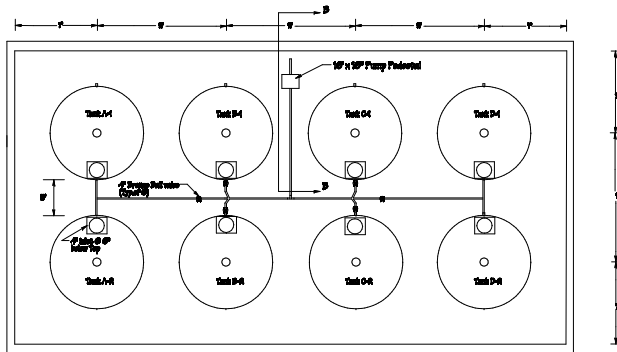
Tank Fill Piping



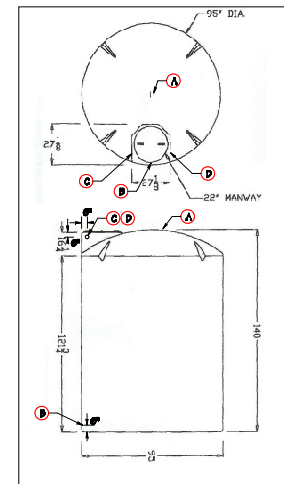
Section A-A



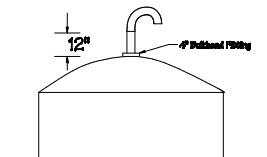
1 Pipe Support Column



Discharge Piping - all 4" Schedule 80 PVC Pipe

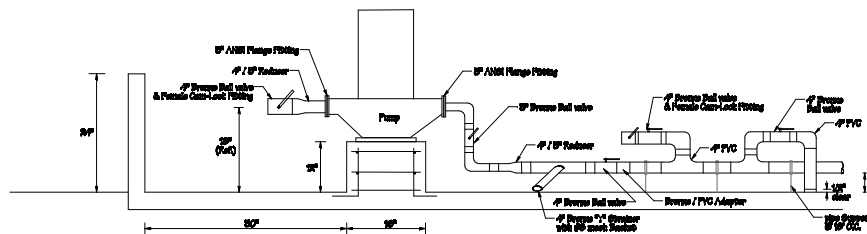


Tank Fittings



Detail Air Vent Fitting (Typ)

Tank	A	B	C	D
A-H	X	X	X	X
A-H	X	X	X	X
B-H	X	X	X	X
C-H	X	X	X	X
D-H	X	X	X	X
D-H	X	X	X	X



Section B-B

A-Mehr, Inc.
www.a-mehr.com
 Central Mud Landfill
 Phase IV-A Modifications
 Leachate Storage and Transfer Piping

PLAN/REV	1
Issued for	PK/DR
DATE	02/04
DESIGNED	WEEB
DATE	02/04
WEEB	

ELECTRICAL SCOPE OF WORK

General

1. Contractor shall supply materials and labor to meet the functional requirements listed below. Materials and construction methods shall meet all applicable building and electrical code requirements.
2. Contractor is responsible for detailed design. Prior to construction contractor shall submit for Owner's review drawings, schematics material lists and other information as needed to demonstrate how Contractor's proposed design meets Owner's functional requirements.

Leachate Sump Pump and Controls

1. Contractor shall supply and install a variable-speed drive system for one of two existing leachate sump pumps. Existing pump is a Flygt Pump Model CP3126.280, Type MT, powered by a 11 horsepower, 3-phase, 460 volt motor with rated speed 1725 rpm. Detailed information on the pump may be supplied by Berkley Engineering, (808) 845-9377. Variable speed drive shall control frequency between 30 and 60 Hertz.
2. Contractor shall relocate four (4) existing float switches in the sump and shall modify existing controls as needed to provide the functions described on Sheet 6.
3. Contractor shall supply and install all necessary modifications to the existing motor control center to accommodate the variable speed drive and pump control functions as described above. Contractor shall also provide the following additional functions related to the operation of the sump pumps installed in the leachate manhole. The following features shall be installed at the existing main pump control panel.
 - a. Elapsed run-time meter for the lead pump.
 - b. Elapsed run-time meter for the lag pump
 - c. Strobe warning light to operate when the lag pump is operating or when float switch F1 (See Sheet 6) is activated.
 - d. Audible alarm (siren or claxon) to operate when lag pump is operating or when float switch F1 (See Sheet 6) is activated.

- e. Audible alarm "silence" push button override.
- f. Clearly understood, durable, labels for each control and indicator on the panel.

Leachate Storage Tank Transfer System

1. Contractor shall supply and install float switches in Storage Tanks A-1, B-1, C-1 and D-1. Each float switch shall have two normally open contacts to indicate whether the tank is full (liquid elevation 10 ft or higher) or empty (liquid elevation less than 8 inches). Immersed switch component shall be of stainless steel or other corrosion-resistant material.
2. Contractor shall supply and install the leachate transfer pump as shown on Sheet 8. The transfer pump shall be the following or equivalent: Grundfos single-stage centrifugal pump, Series L, Model 3.0LM5, 1750 rpm, 230/460 volt, 3-phase, 1.5 hp. Installation complete with all new breakers, starting circuit, etc.
3. Contractor shall supply and install a new control panel in a NEMA 4X enclosure, 24" x 18" x 6", at the leachate storage tank containment. The panel shall be conveniently located near the transfer pump outlet connection and shall have the following indicators and controls:
 - a. Main disconnect for the leachate transfer pump.
 - b. On-off switch for the leachate transfer pump.
 - c. Annunciator light (green) indicating when the leachate transfer pump is operating.
 - d. Two annunciator lights indicating when the sump pumps in the leachate manhole are operating: Yellow for lead pump on; Red for lag pump on.
 - e. Eight (8) annunciator lights indicating the condition of each float switch installed in the leachate storage tanks. Red lights shall indicate tanks "Full", Green lights indicate "Empty". Each pair of lights shall be clearly labeled as Tank A, B, C or D.

A-Mehr, Inc.	PLANNING DESIGN CONSTRUCTION
<small>www.amehr.com</small>	PROJECT NO.
Central Maui Landfill	SHEET
Phase IV-A Modifications	DATE
Electrical Scope of Work	01/2014
	PAGE
	9

COUNTY OF MAUI

CENTRAL MAUI SANITARY LANDFILL

PHASE IV-A EXPANSION



9-17-98

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.
PROJECT MANAGER
PARAMETRIX, Inc.

APPROVED BY: _____ DATE: _____
DIRECTOR
DEPARTMENT OF PUBLIC WORKS
COUNTY OF MAUI

APPROVED BY: _____ DATE: _____
CHIEF
ENVIRONMENTAL MANAGEMENT DIVISION
HAWAII DEPARTMENT OF HEALTH

LIST OF ABBREVIATIONS:

#	NUMBER
BOT	BOTTOM
CLR	CLEAR
C	CENTERLINE
CC	CENTER TO CENTER
CQA	CONSTRUCTION QUALITY ASSURANCE
CY	CUBIC YARDS
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
E	EASTING
EA	EACH
EL	ELEVATION
EST	ESTIMATE
EW	EASTING
EW	EACH WAY
FAB	FABRICATE
FML	FLEXIBLE MEMBRANE LINER
FT	FEET
GAL	GALLON
GALV	GALVANIZED
GCL	GEOSYNTHETIC CLAY LINER
GP	GAS PROBE
H-V	HORIZONTAL TO VERTICAL
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HORIZ	HORIZONTAL
HP	HIGH POINT
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
L	LENGTH
LCP	LEACHATE COLLECTION PIPE
LF	LINEAR FEET
LP	LOW POINT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MSL	MEAN SEA LEVEL
N	NORTHING
NO	NUMBER
OC	ON CENTER
OD	OUTSIDE DIAMETER
PERF	PERFORATED PIPE
PMX	PARAMETRIX, INC.
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
SCH	SCHEDULE
SDR	STANDARD DIMENSION RATIO
SQ	SQUARE
SF	SQUARE FOOT
SHT	SHEET
STA	STATION
STD	STANDARD
SST	STAINLESS STEEL
SW	SURFACE WATER
TS	STRUCTURAL TUBING
TYP	TYPICAL
VERT	VERTICAL

LEGEND:

	KEY NOTE NUMBER REFERENCE
	CULVERT
	LEACHATE COLLECTION PIPE
	LEACHATE LATERAL PIPE
	PERFORATED SINGLE LINE PIPE
	CENTRAL AREA DITCH
	RIPRAP LINED DITCH
	EXISTING GRADE (CROSS SECTION)
	BOUNDARY LINE
	EXISTING ROAD
	EXISTING CONTOURS
	PROPOSED CONTOURS
	LIMITS OF FML
	GEOSYNTHETIC CLAY LINER (CROSS SECTION)
	GEOMEMBRANE (CROSS SECTION)
	TEXTURED GEOMEMBRANE
	GEOTEXTILE (CROSS SECTION)
	GEOCOMPOSITE DRAIN (CROSS SECTION)
	DRAINAGE NET (CROSS SECTION)
	VEGETATION (TURF)
	ROAD SURFACING
	EXISTING COVER SOIL OR NATIVE SOIL
	FINISHED SUBGRADE
	EMBANKMENT
	CONCRETE
	STRUCTURAL FILL
	CONCRETE FLOWABLE BACKFILL
	RIPRAP
	CUSHION LAYER
	LCRS GRANULAR DRAINAGE MATERIAL
	OPERATIONS LAYER

x17.2 EXISTING SPOT ELEVATION
o17.2 PROPOSED SPOT ELEVATION

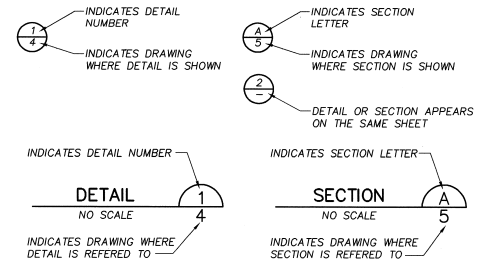
DRAWING INDEX:

SHEET No.	TITLE
1	COVER SHEET
2	GRADING AND SURFACE WATER PLAN
3	LEACHATE SYSTEM PLAN
4	CROSS SECTIONS
5	LINER DETAILS AND SECTIONS
6	LINER DETAILS AND ROAD SECTIONS
7	LINER DETAILS AND ROAD SECTIONS
8	MISCELLANEOUS DETAILS - STORM WATER SYSTEM DETAILS
9	STORM WATER MANHOLE DETAILS
10	TROUGH FILL PAD AND DETAILS
11	MISCELLANEOUS DETAILS
12	LEACHATE PUMP STATION AND LEAK DETECTION MANHOLE
13	TROUGH FILL AND TROUGH DRAIN AND DETAILS - MANHOLE DETAILS
14	REVISED LEACHATE SYSTEM PLAN
15	MISCELLANEOUS DETAILS
16	REVISED SUBGRADE PLAN
17	PROJECT LOCATION PLAN
18	ELECTRICAL PLAN AND DETAILS
19	ELECTRICAL DETAILS
20	ELECTRICAL DIAGRAMS, MATERIAL LIST, AND DETAIL

NOTE:

SCREENED ITEMS INDICATE EXISTING FEATURES AT THE LANDFILL.

DETAIL AND SECTION DESIGNATION

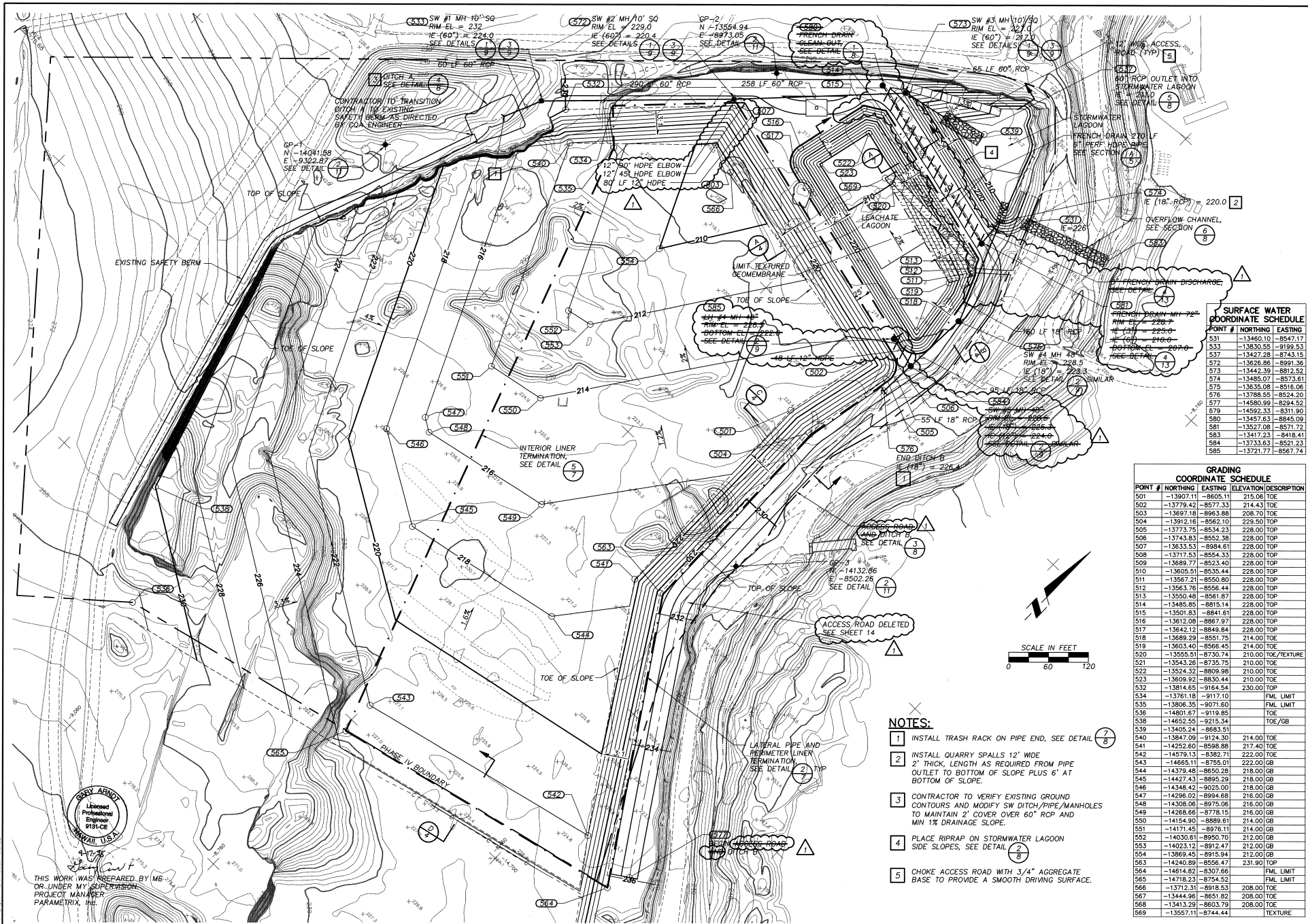


PARAMETRIX, INC. "Quality Service Through Employee Ownership"
 1231 Fryer Avenue • 25081 Lu, Washington Blvd. NE
 Everett, WA 98203 • 10540 Redmond Ave., #200
 Redmond, WA 97053 • 1500 S. Milpitas Blvd., #100
 Milpitas, CA 95035 • 10000 S. Sepulveda Blvd., #100
 Van Nuys, CA 91411 • 10000 S. Sepulveda Blvd., #100
 Van Nuys, CA 91411 • 10000 S. Sepulveda Blvd., #100
 Van Nuys, CA 91411

DESIGN	EP	7/19/98	PER CHANGE ORDER #0
DR	BB	1	
CHK	AFD		
DATE			
NO.			
REVISION			

COUNTY OF MAUI, HAWAII
 DEPT. OF PUBLIC WORKS & WASTE MANAGEMENT
 CENTRAL MAUI SANITARY LANDFILL
 PHASE IV-A EXPANSION
COVER SHEET

SHEET: 1 OF: 20
 DATE: JUNE 98
 FILE NO.: 19880811



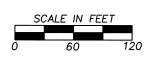
SURFACE WATER COORDINATE SCHEDULE

POINT #	NORTHING	EASTING
531	-13402.10	-85471.17
533	-13830.55	-9199.53
537	-13427.28	-8743.15
572	-13626.86	-8991.36
577	-14580.99	-9294.52
574	-13485.07	-8573.61
575	-13635.08	-8516.06
576	-13788.55	-8524.20
577	-14580.99	-9294.52
679	-14582.33	-8311.90
580	-13457.83	-8845.09
581	-13527.08	-8571.72
583	-13471.23	-8418.41
584	-13733.63	-8521.23
585	-13721.77	-8567.74

GRADING COORDINATE SCHEDULE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
501	-13907.11	-8605.11	215.06	TOE
502	-13779.42	-8577.33	214.43	TOE
503	-13897.18	-8983.88	206.70	TOE
504	-13912.16	-8562.10	229.50	TOP
505	-13773.75	-8534.23	228.00	TOP
506	-13743.83	-8552.38	228.00	TOP
507	-13633.53	-8984.61	228.00	TOP
508	-13717.53	-8554.31	228.00	TOP
509	-13689.77	-8523.40	228.00	TOP
510	-13605.51	-8535.44	228.00	TOP
511	-13567.21	-8550.80	228.00	TOP
512	-13563.76	-8556.44	228.00	TOP
513	-13550.48	-8561.87	228.00	TOP
514	-13485.85	-8815.14	228.00	TOP
515	-13501.83	-8841.61	228.00	TOP
516	-13612.08	-8867.97	228.00	TOP
517	-13642.12	-8849.84	228.00	TOP
518	-13689.29	-8551.75	214.00	TOE
519	-13603.40	-8566.45	214.00	TOE
520	-13555.51	-8730.74	210.00	TOE/TEXTURE
521	-13543.56	-8735.75	210.00	TOE
522	-13524.32	-8809.98	210.00	TOE
523	-13609.92	-8830.44	210.00	TOE
524	-13814.65	-9164.54	230.00	TOE
534	-13761.18	-9117.10		FML LIMIT
535	-13806.35	-9071.60		FML LIMIT
536	-14801.67	-9119.85		TOE
538	-14852.55	-9215.34		TOE/GB
539	-13463.74	-8683.51		TOE
540	-13847.09	-9124.30	214.00	TOE
541	-14262.60	-8598.88	217.40	TOE
542	-14579.13	-8382.71	222.00	TOE
543	-14865.61	-8755.63	228.00	TOE
544	-14379.48	-8650.28	218.00	GB
545	-14427.43	-8895.29	218.00	GB
546	-14348.42	-9025.00	218.00	GB
547	-14296.02	-8934.68	218.00	GB
548	-14308.06	-8975.06	216.00	GB
549	-14268.66	-8778.15	216.00	GB
550	-14154.90	-8889.61	214.00	GB
551	-14171.63	-8976.11	214.00	GB
552	-14030.61	-8950.70	212.00	GB
553	-14023.12	-8912.47	212.00	GB
554	-13869.45	-8915.94	212.00	GB
555	-14240.89	-8556.47	231.90	TOP
564	-14914.62	-8307.66		FML LIMIT
565	-14718.23	-8754.52		FML LIMIT
566	-13712.31	-8918.53	208.00	TOE
567	-13444.96	-8651.82	208.00	TOE
568	-13413.29	-8603.79	208.00	TOE
569	-13557.11	-8744.44		TEXTURE

- NOTES:**
1. INSTALL TRASH RACK ON PIPE END, SEE DETAIL 7/8
 2. INSTALL QUARRY SPALLS 12" WIDE 2" THICK, LENGTH AS REQUIRED FROM PIPE OUTLET TO BOTTOM OF SLOPE PLUS 6" AT BOTTOM OF SLOPE.
 3. CONTRACTOR TO VERIFY EXISTING GROUND CONTOURS AND MODIFY SW DITCH/PIPE/MANHOLES TO MAINTAIN 2" COVER OVER 60" RCP AND MIN 1% DRAINAGE SLOPE.
 4. PLACE RIPRAP ON STORMWATER LAAGOON SIDE SLOPES, SEE DETAIL 2/8
 5. CHOKO ACCESS ROAD WITH 3/4" AGGREGATE BASE TO PROVIDE A SMOOTH DRIVING SURFACE.

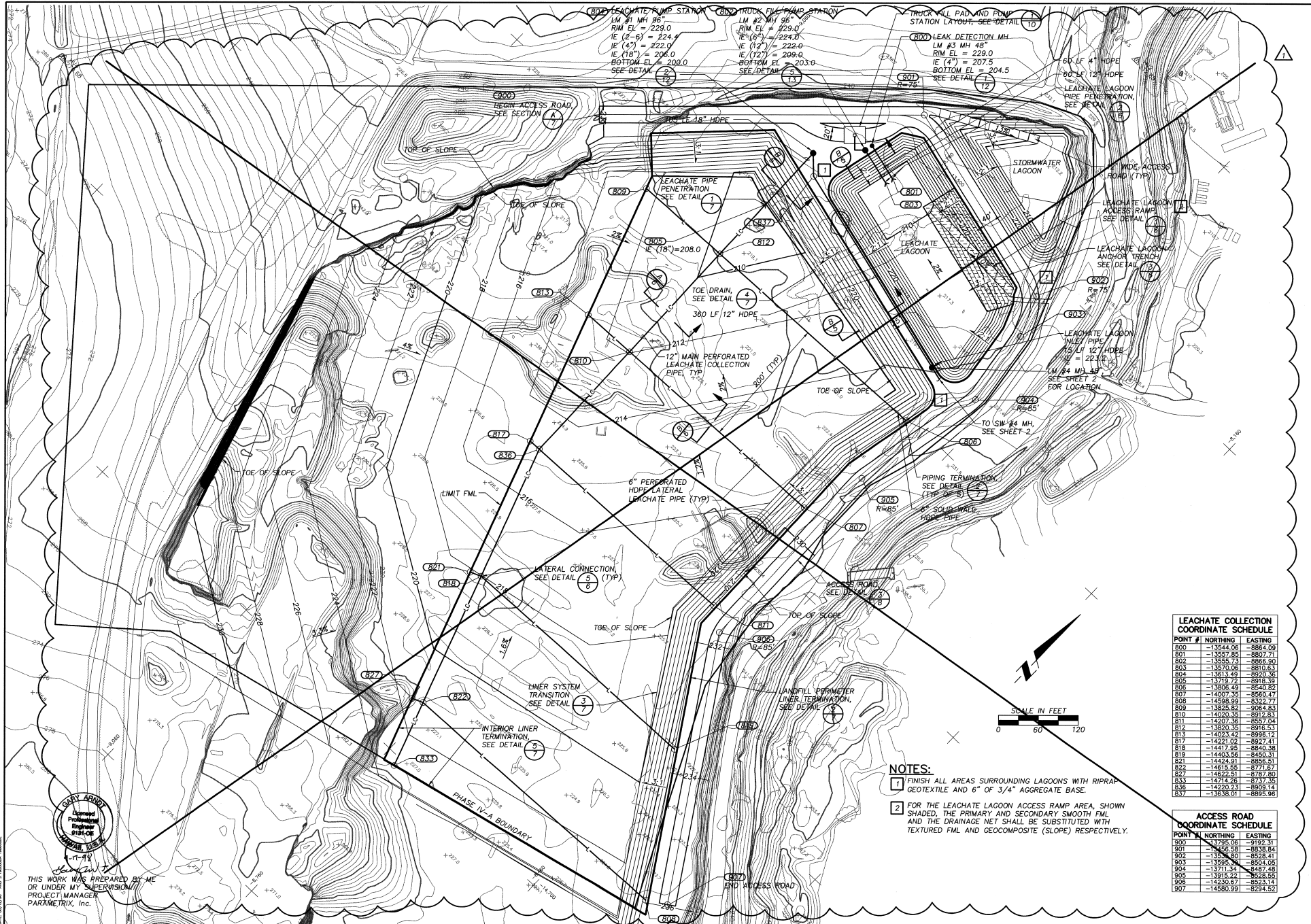


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 PROJECT MANAGER
 PARAMETRIX, INC.

Parametrix, Inc. "Quality Service Through Employee Ownership"

1231 First Avenue, Seattle, WA 98101
 Phone: (206) 465-1200
 Fax: (206) 465-1200
 2000 1st Avenue, Seattle, WA 98101
 Phone: (206) 465-1200
 Fax: (206) 465-1200

DATE: JUNE 98
 SHEET: 2 OF: 20
 FILE NO: 19880805



8002 LEACHATE PUMP STATION
 LM #1 MH 96
 RIM EL = 229.0
 IE (2'-6") = 224.4
 IE (4") = 222.0
 IE (18") = 206.0
 BOTTOM EL = 200.0
 SEE DETAIL 12

8003 TRUCK FILL PUMP STATION
 LM #2 MH 96
 RIM EL = 229.0
 IE (6") = 224.0
 IE (12") = 209.0
 BOTTOM EL = 203.0
 SEE DETAIL 13

TRUCK MILL PAD AND PUMP STATION LAYOUT. SEE DETAIL 10

8000 LEAK DETECTION MH
 LM #3 MH 48"
 RIM EL = 229.0
 IE (4") = 207.5
 BOTTOM EL = 204.5
 SEE DETAIL 17

LEACHATE COLLECTION COORDINATE SCHEDULE

POINT #	NORTHING	EASTING
800	-13544.06	-8864.09
801	-13557.85	-8807.71
802	-13570.73	-8866.90
803	-13570.73	-8910.63
804	-13513.49	-8920.36
805	-13719.72	-8918.39
806	-13606.49	-8840.82
807	-14007.35	-8860.47
808	-14568.99	-8927.77
809	-13825.82	-9084.83
810	-14000.38	-8973.83
811	-14207.36	-8857.04
812	-13820.35	-8916.53
813	-14003.42	-8968.12
817	-14211.02	-8927.41
818	-14407.95	-8840.38
819	-14403.86	-8840.31
821	-14424.81	-8856.51
822	-14615.53	-8971.67
827	-14622.51	-8787.80
833	-14714.26	-8737.35
836	-14203.53	-8909.14
837	-13638.01	-8895.96

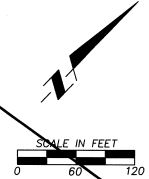
ACCESS ROAD COORDINATE SCHEDULE

POINT #	NORTHING	EASTING
900	-13725.06	-8912.31
901	-13756.58	-8838.84
902	-13756.58	-8928.41
903	-13506.58	-8844.05
904	-13711.34	-8487.48
905	-13615.22	-8828.21
906	-14230.67	-8523.14
907	-14560.99	-8294.52

NOTES:

1 FINISH ALL AREAS SURROUNDING LAGOONS WITH RIPRAP GEOTEXTILE AND 6" OF 3/4" AGGREGATE BASE.

2 FOR THE LEACHATE LAGOON ACCESS RAMP AREA, SHOWN SHADED, THE PRIMARY AND SECONDARY SMOOTH FML AND THE DRAINAGE NET SHALL BE SUBSTITUTED WITH TEXTURED FML AND GEOCOMPOSITE (SLOPE) RESPECTIVELY.



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 PARAMETRIX, Inc.

VERIFY SCALES
 DRAWN BY: []
 CHECKED BY: []
 DATE: []

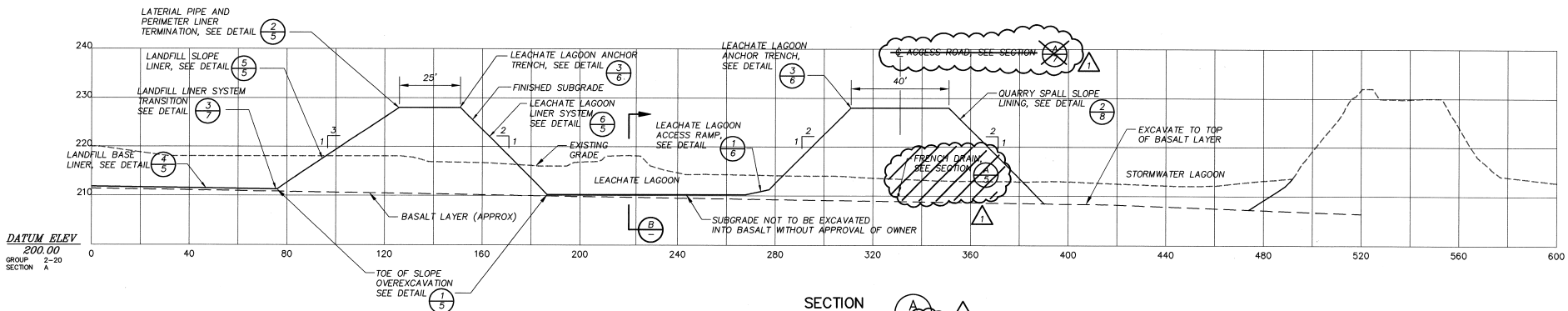
PER CHANGE ORDER #5, REPLACE THIS SHEET WITH SHEET 14

COUNTY OF MAUI, HAWAII
 DEPT. OF PUBLIC WORKS
 CENTRAL MAUI SANITARY LANDFILL
 PHASE IV-A DESIGN CONSTRUCTION

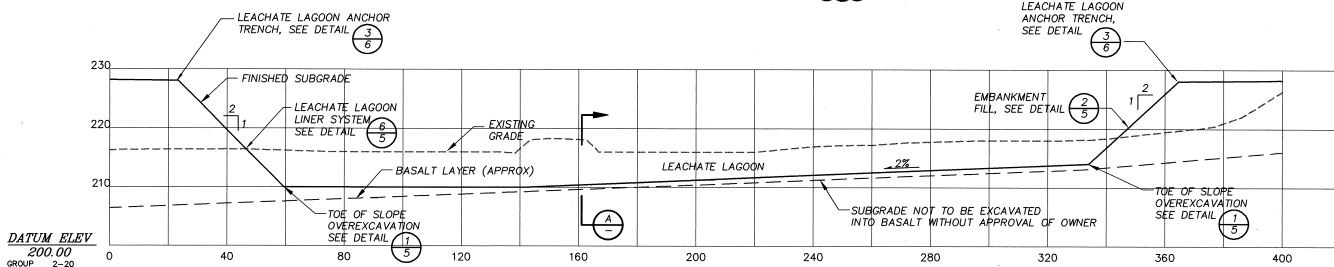
LEACHATE COLLECTION SYSTEM AND ROAD PLAN

SHEET: 3 OF: 20
 DATE: JUNE 98
 FILE NO.: 19880822

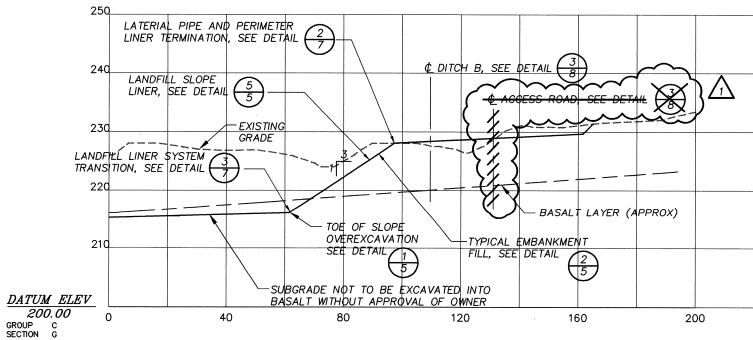
Parametrix, Inc. "Quality Service Through Employee Ownership"
 1201 PINE AVENUE
 SUITE 200
 WAHAIKOLA, HI 96795
 (808) 935-1000
 1985 KULIHI ROAD, SUITE 100
 WAHAIKOLA, HI 96795
 (808) 935-1000
 4200 KULIHI ROAD, SUITE 200
 WAHAIKOLA, HI 96795
 (808) 935-1000



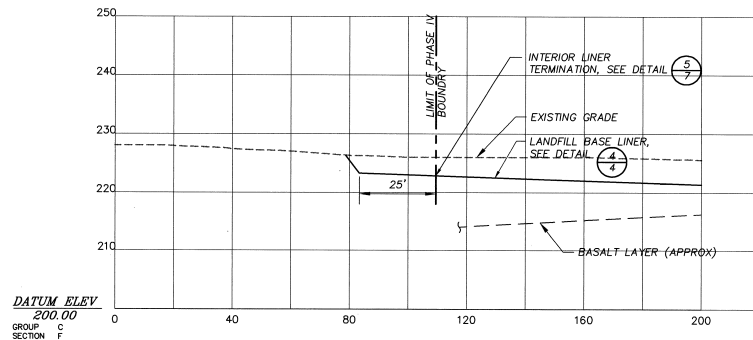
SECTION
 HORZ: 1"=20'
 VERT: 1"=10'



SECTION
 HORZ: 1"=20'
 VERT: 1"=10'



SECTION
 HORZ: 1"=20'
 VERT: 1"=10'



SECTION
 HORZ: 1"=20'
 VERT: 1"=10'

DATUM ELEV
 200.00
 GROUP 2-20
 SECTION A

DATUM ELEV
 200.00
 GROUP 2-20
 SECTION B

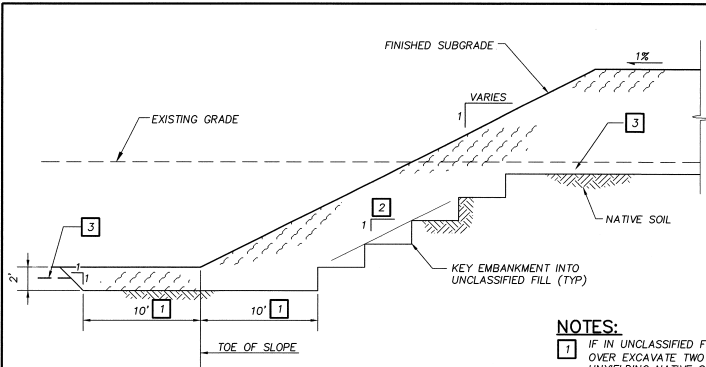
DATUM ELEV
 200.00
 GROUP C
 SECTION C

DATUM ELEV
 200.00
 GROUP C
 SECTION D



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 PARAMETRIX, Inc.

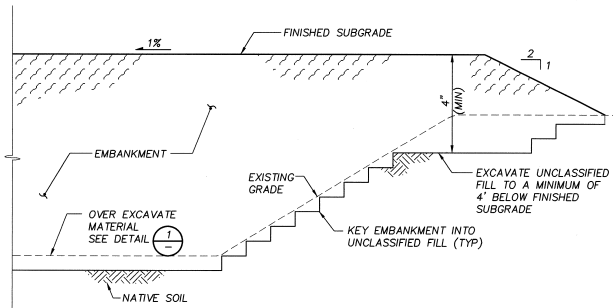
VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING SCALE: AS SHOWN DATE: 7/9/98 PROJECT NO. 19880809	
PER CHANGE ORDER #5 7/9/98 NO. 1	REVISION BY
USGN SE DR R/R CHK CA AP'VD	DATE NO.
COUNTY OF MAUI, HAWAII DEPT. OF PUBLIC WORKS CENTRAL MAUI SANITARY LANDFILL PHASE IV-A EXPANSION CROSS SECTIONS	
SHEET 4 OF 20 DATE: JUNE 98 FILE NO. 19880809	



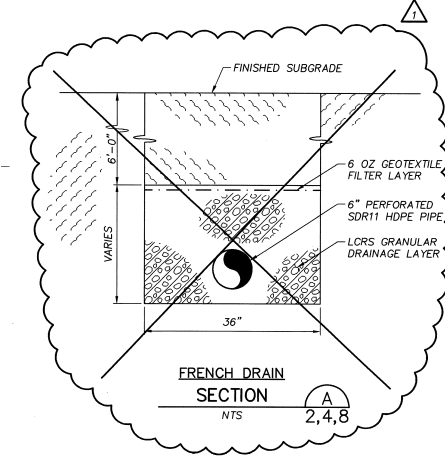
TYPICAL TOE OF SLOPE OVEREXCAVATION
DETAIL
NTS

NOTES:

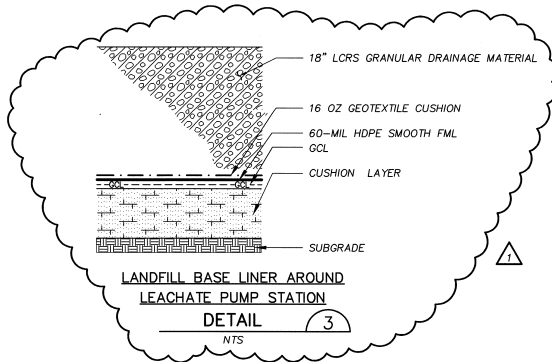
- 1 IF IN UNCLASSIFIED FILL AT TOE OF SLOPE, OVER EXCAVATE TWO (2) FEET OR TO FIRM UNYIELDING NATIVE SOIL OR BASALT. REBUILD EXCAVATION WITH EMBANKMENT.
- 2 SLOPE ANGLE SHALL MATCH FINISHED SUBGRADE SLOPE ANGLE.
- 3 CONTRACTOR SHALL SCARIFY, MOISTURE CONDITION, AND COMPACT TOP ONE (1) FOOT OF EXISTING UNCLASSIFIED FILL MATERIAL.



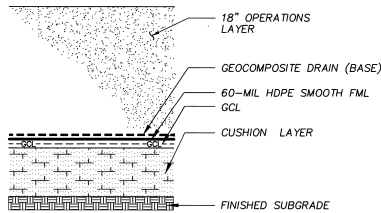
TYPICAL EMBANKMENT FILL
DETAIL
NTS



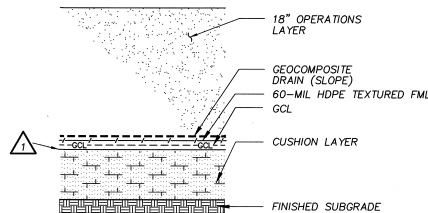
FRENCH DRAIN
SECTION
NTS



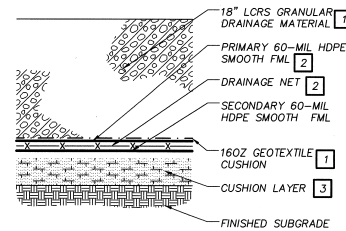
LANDFILL BASE LINER AROUND LEACHATE PUMP STATION
DETAIL
NTS



LANDFILL BASE LINER
DETAIL
NTS



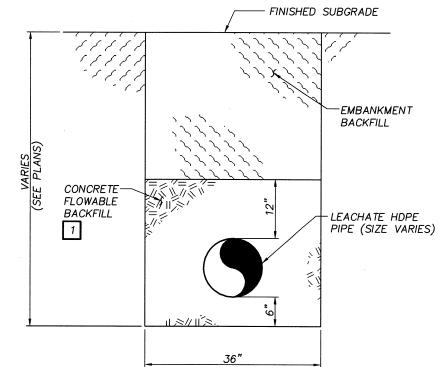
LANDFILL SLOPE LINER
DETAIL
NTS



NOTES:

- 1 LORS GRANULAR DRAINAGE MATERIAL AND GEOTEXTILE CUSHION LAYER SHALL BE PLACED ONLY ON THE BOTTOM OF THE LAAGOON EXCEPT FOR ACCESS RAMP, SEE DETAIL.
- 2 BENEATH THE ACCESS RAMP, INSTALL TEXTURED FML FOR THE PRIMARY AND SECONDARY LAYER AND SUBSTITUTE DRAINAGE NET WITH GEOCOMPOSITE (SLOPE), SEE SHEET 4.
- 3 CUSHION LAYER THICKNESS AS NECESSARY TO MEET SECTION 02232 OF THE SPECIFICATIONS.

LEACHATE LAAGOON LINER SYSTEM
DETAIL
NTS



NOTES:

- 1 CONCRETE FLOWABLE BACKFILL TO BE USED FOR ALL LEACHATE PIPING.

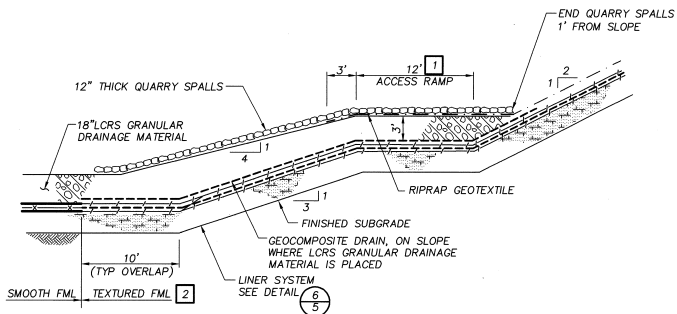
BURIED LEACHATE PIPE
SECTION
NTS



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. PROJECT MANAGER
PARAMETRIX, Inc.

VERIFY SCALES DRAWN BY: [Signature] CHECKED BY: [Signature] DATE: 6/17/98		PER CHANGE ORDER #5 7/9/98	NO. [] DATE []
COUNTY OF MAUI, HAWAII DEPT. OF PUBLIC WORKS CENTRAL MAUI SANITARY LANDFILL PHASE IV-A EXPANSION	DISN SE [] DR # [] CHK. CA [] AP'D []	1.	NO. [] DATE []
PARAMETRIX, Inc. "Quality Service Through Employee Ownership" 1531 Pine Avenue Honolulu, HI 96813 (808) 531-1100 FAX (808) 531-1101		1988 U.S. Environmental Inc. NE 1640 Preston Rd. #200 Houston, TX 77058 (713) 865-1100 (713) 865-1101 (713) 865-1102 (713) 865-1103	SHEET: 5 OF: 20 DATE: JUNE 98 FILE NO: 19880807

LINER DETAILS AND SECTIONS

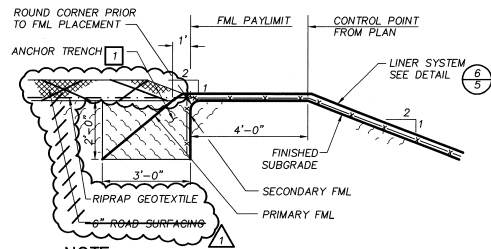


NOTE:

- 1 CONTRACTOR SHALL CHOKE QUARRY SPALLS WITHIN ACCESS RAMP WITH 3/4" AGGREGATE BASE MATERIAL.
- 2 TEXTURED FML SHALL BE INSTALLED FROM ANCHOR TRENCH TO 10 FEET BEYOND TOE OF SLOPE WITHIN ACCESS RAMP.

**LEACHATE LAGOON
ACCESS RAMP
DETAIL**
NTS

1, 2, 3, 4, 5, 14

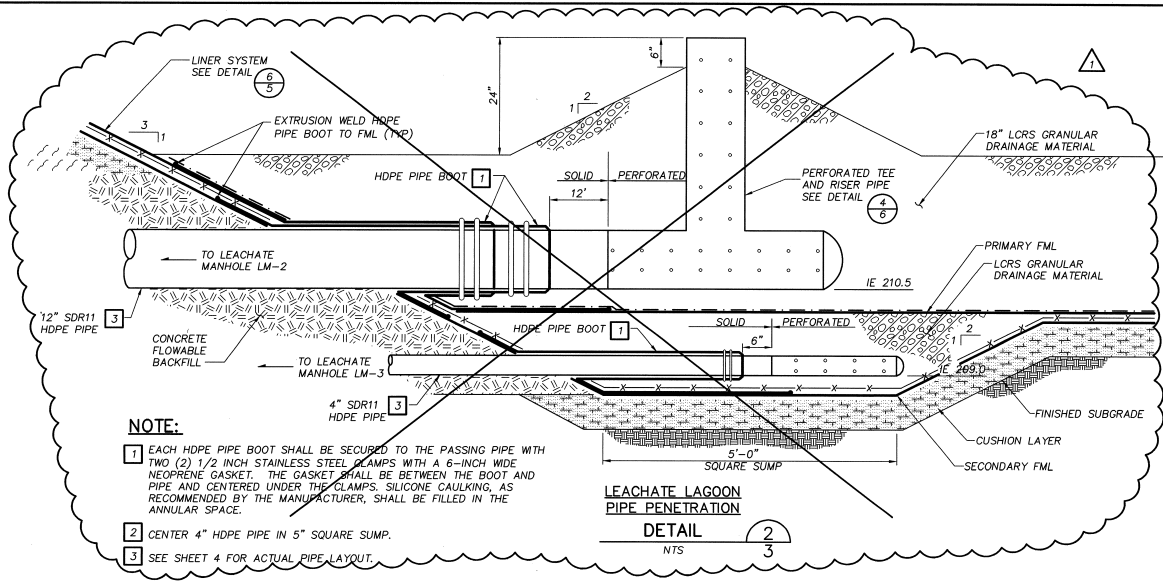


NOTE:

- 1 CONTRACTOR SHALL NOT BACKFILL ANCHOR TRENCH UNTIL THE FML HAS HAD TIME TO EXPAND AND CONTRACT INTO ITS FINAL POSITION.

**LEACHATE LAGOON
ANCHOR TRENCH
DETAIL**
NTS

3, 4, 14

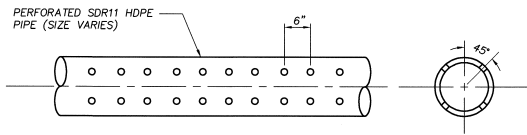


NOTE:

- 1 EACH HDPE PIPE BOOT SHALL BE SECURED TO THE PASSING PIPE WITH TWO (2) 1/2 INCH STAINLESS STEEL CLAMPS WITH A 6-INCH WIDE NEOPRENE GASKET. THE GASKET SHALL BE BETWEEN THE BOOT AND PIPE AND CENTERED UNDER THE CLAMPS. SILICONE CAULKING, AS RECOMMENDED BY THE MANUFACTURER, SHALL BE FILLED IN THE ANNULAR SPACE.
- 2 CENTER 4" HDPE PIPE IN 5" SQUARE SUMP.
- 3 SEE SHEET 4 FOR ACTUAL PIPE LAYOUT.

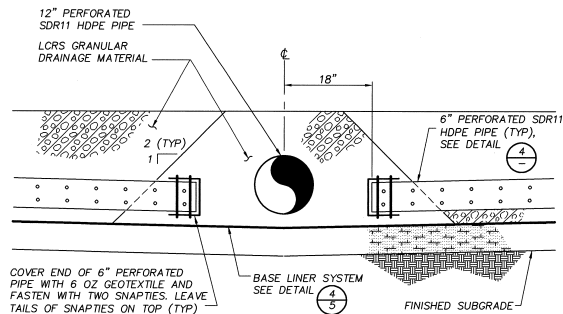
**LEACHATE LAGOON
PIPE PENETRATION
DETAIL**
NTS

2, 3



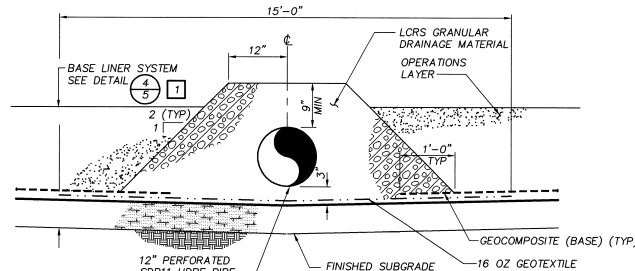
**PERFORATED PIPE
DETAIL**
NTS

4 TYP



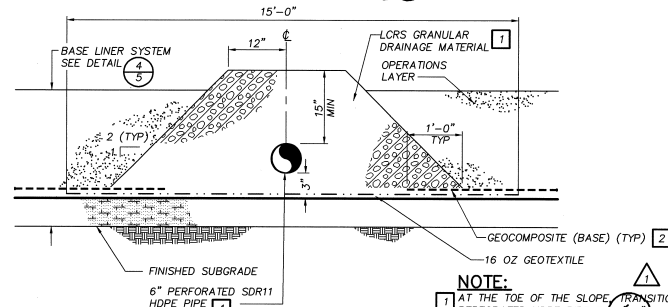
**LATERAL CONNECTION
DETAIL**
NTS

5, 8, 14



**MAIN HEADER
LEACHATE COLLECTION PIPE
SECTION**
NTS

3, 14, 14



**LATERALS
LEACHATE COLLECTION PIPE
SECTION**
NTS

8, 14

- 1 TERMINATE GEOCOMPOSITE (BASE) 1 FOOT EACH SIDE WITHIN LORS GRANULAR DRAINAGE MATERIAL AND ADD A LAYER OF 16 OUNCE GEOTEXTILE CENTERED BENEATH PIPE.

- 1 AT THE TOE OF THE SLOPE (TRANSITION FROM 6" PERFORATED HDPE PIPE TO 6" SOLID WALL HDPE PIPE, AND SUBSTITUTE LORS GRANULAR DRAINAGE MATERIAL WITH OPERATIONS LAYER FOR THE SIDE SLOPES.
- 2 TERMINATE GEOCOMPOSITE (BASE) 1 FOOT EACH SIDE WITHIN LORS GRANULAR DRAINAGE MATERIAL AND ADD A LAYER OF 16 OUNCE GEOTEXTILE CENTERED BENEATH PIPE.

GARY BRINDT
Licensed Professional Engineer
9191-CE
HAWAII, U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
PROJECT MANAGER
PARAMETRIX, INC.

VERIFY SCALES
DATE: 06/27/98
SCALE: AS SHOWN
DRAWN BY: [Signature]
CHECKED BY: [Signature]
DESIGNED BY: [Signature]
PROJECT: [Signature]
DATE: [Signature]

PARAMETRIX, Inc. "Quality Service Through Employee Ownership"
15311 Pine Avenue
Suite 200
Houston, TX 77058
Tel: (281) 416-8600
Fax: (281) 416-8601

PER CHANGE ORDER #5

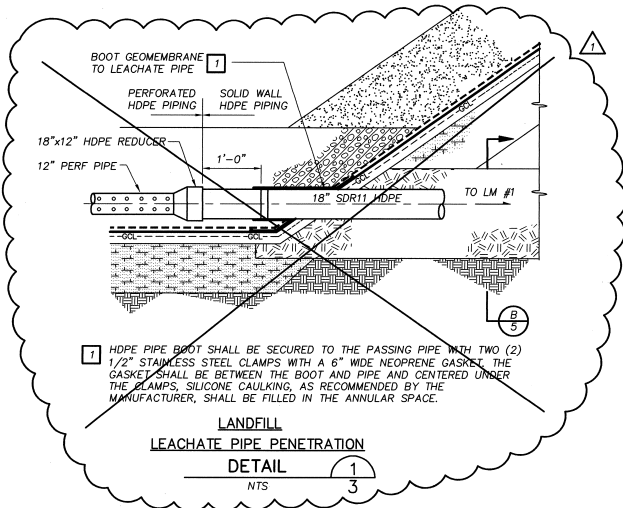
NO.	DATE	REVISION
1.	7/9/98	

OSDN SE
DR #8
CHK CA
APD

COUNTY OF MAUI, HAWAII
DEPT. OF CENTRAL MAUI SANITARY LANDFILL
PHASE IV-A EXPANSION

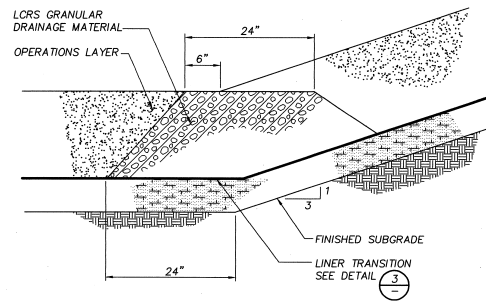
LINER DETAILS AND SECTIONS

SHEET: 6 OF: 20
DATE: JUNE 98
FILE NO: 19880808

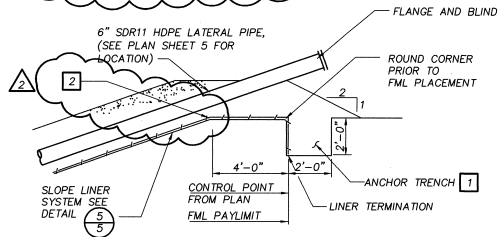


**LANDFILL
LEACHATE PIPE PENETRATION
DETAIL**
NTS 1/3

1 HDPE PIPE BOOT SHALL BE SECURED TO THE PASSING PIPE WITH TWO (2) 1/2" STAINLESS STEEL CLAMPS WITH A 6" WIDE NEOPRENE GASKET. THE GASKET SHALL BE BETWEEN THE BOOT AND PIPE AND CENTERED UNDER THE CLAMPS. SILICONE CAULKING, AS RECOMMENDED BY THE MANUFACTURER, SHALL BE FILLED IN THE ANNULAR SPACE.



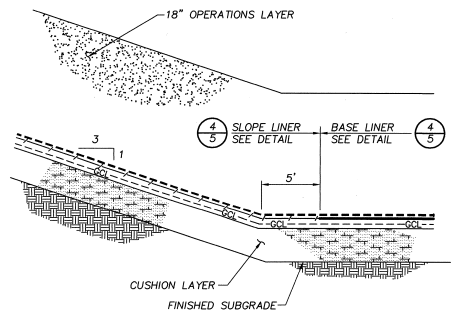
**TOE DRAIN
DETAIL**
NTS 4/3,4



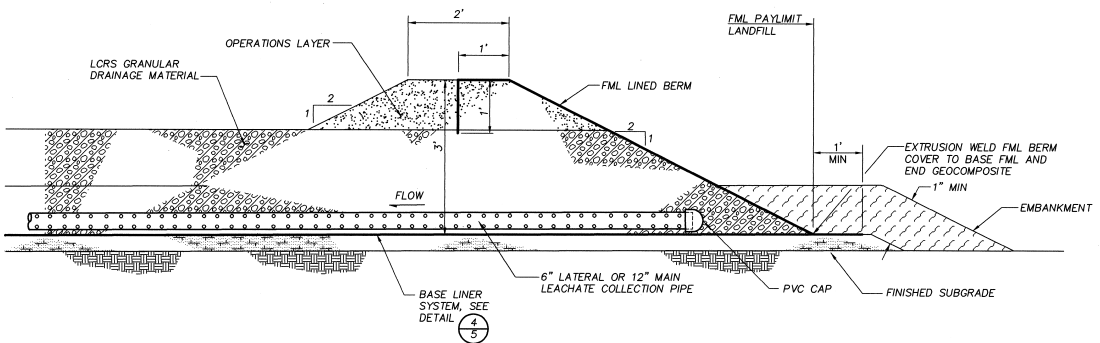
**LATERAL PIPE AND PERIMETER LINER TERMINATION
DETAIL**
NTS 2/2,4,8

NOTES:

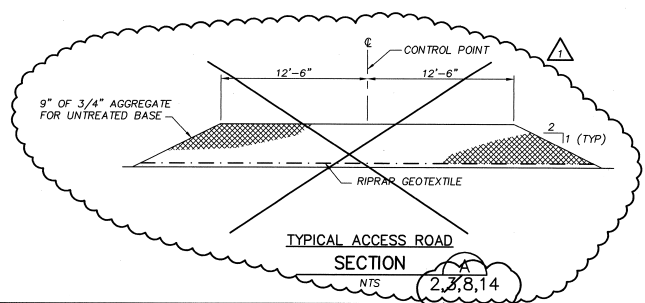
- 1 CONTRACTOR SHALL NOT BACKFILL ANCHOR TRENCH UNTIL THE FML HAS HAD TIME TO EXPAND AND CONTRACT INTO ITS FINAL POSITION.
- 2 TERMINATE GEOCOMPOSITE DRAINAGE LAYER AT TOP OF SLOPE.



**LANDFILL LINER
SYSTEM TRANSITION
DETAIL**
NTS 3/3,4,14



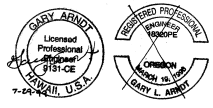
**INTERIOR
LINER TERMINATION
DETAIL**
NTS 5/2,3,4,14



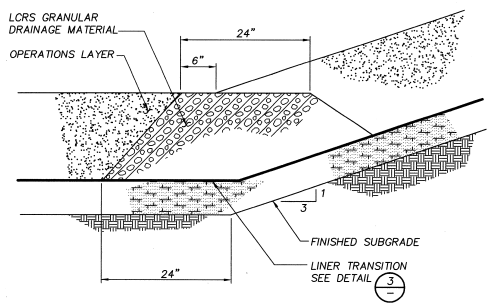
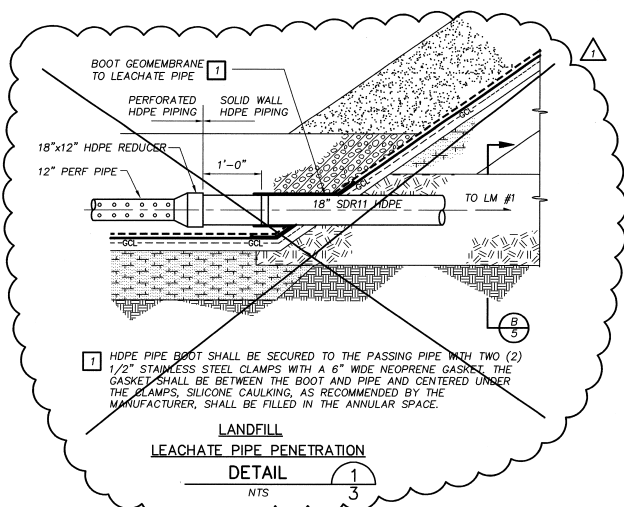
**TYPICAL ACCESS ROAD
SECTION**
NTS 2/3,8,14

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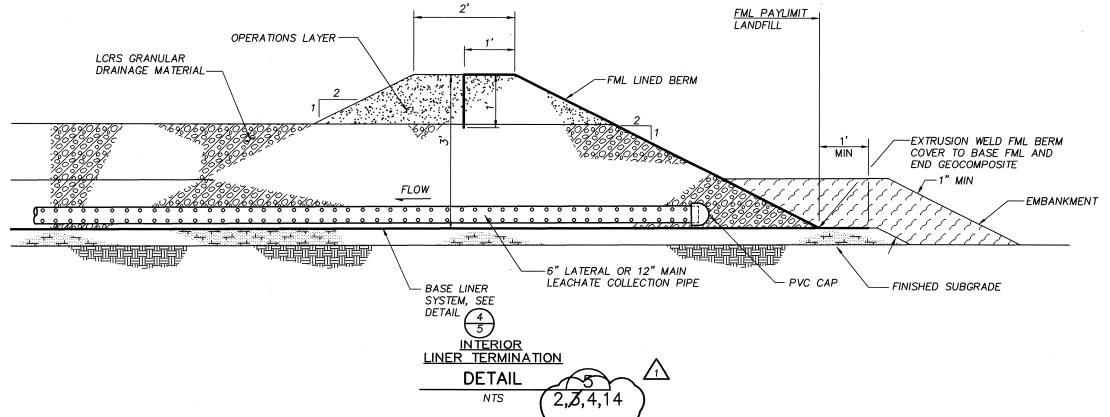
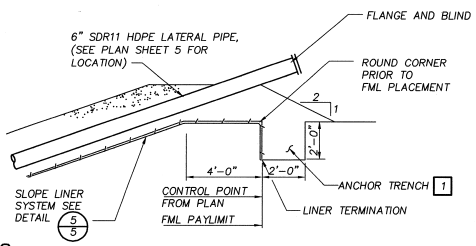
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COUNTY OF MAUI, HAWAII DEPT. OF PUBLIC WORKS & WASTE MANAGEMENT PHASE IV-A EXPANSION LINER DETAILS AND ROAD SECTIONS		GEOCOMPOSITE TERMINATION NO. 1, 2	DATE: [Blank]
DSSN: [Blank]	SE: [Blank]	REVISED: [Blank]	NO. [Blank]
DR: [Blank]	KB: [Blank]	GA: [Blank]	DATE: [Blank]
CHK: [Blank]	GA: [Blank]	AP/D: [Blank]	NO. [Blank]
SHEET: 7 OF: 20		DATE: JUNE 98	
FILE NO.: 19880820		DATE: [Blank]	



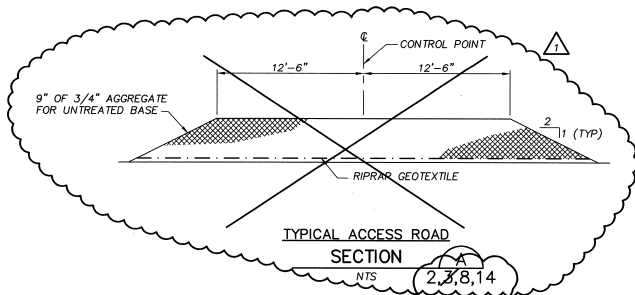
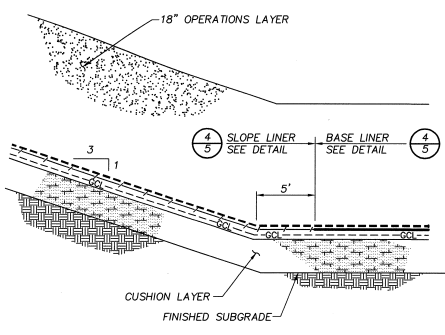
7-29-98



NOTES:
CONTRACTOR SHALL NOT BACKFILL ANCHOR TRENCH UNTIL THE FML HAS HAD TIME TO EXPAND AND CONTRACT INTO ITS FINAL POSITION.

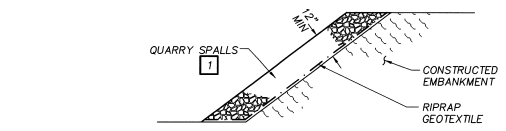
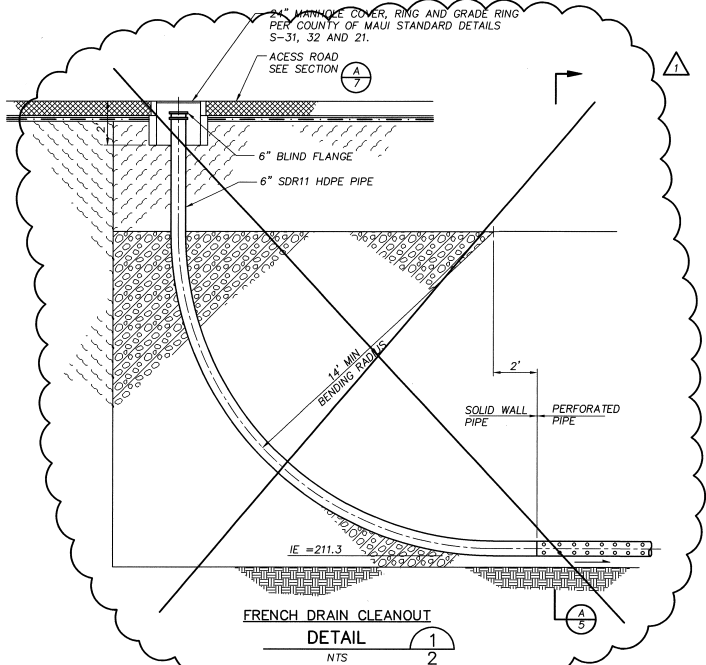


LATERAL PIPE AND PERIMETER LINER TERMINATION DETAIL
NTS

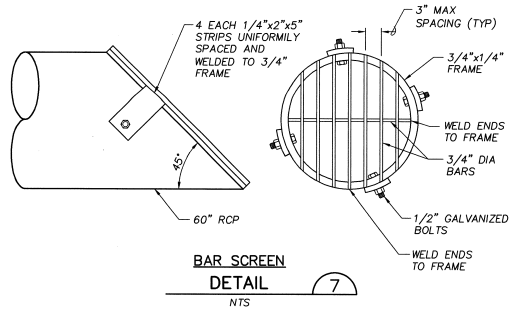
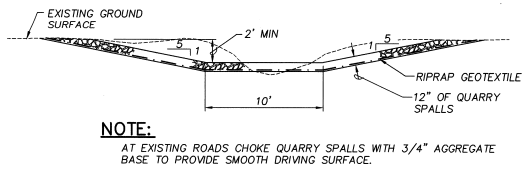
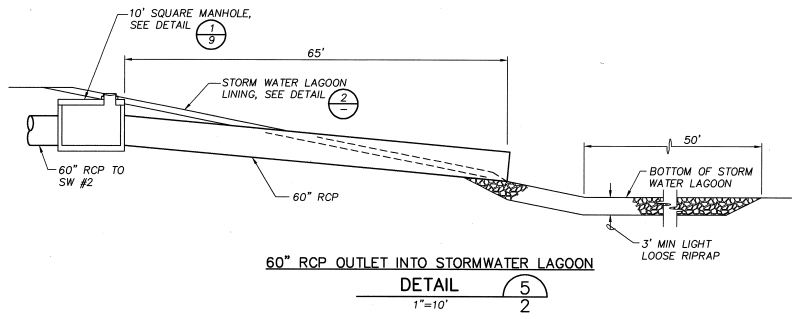
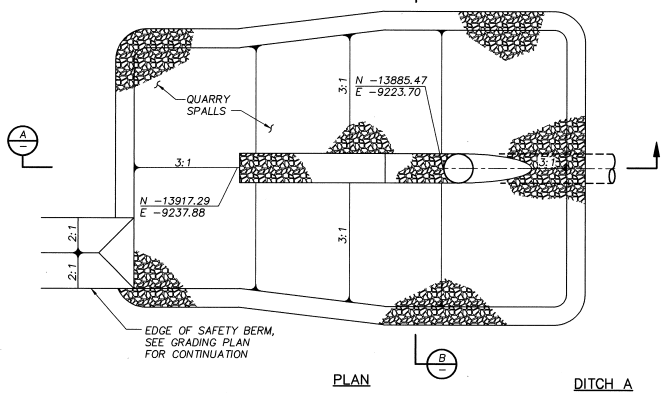
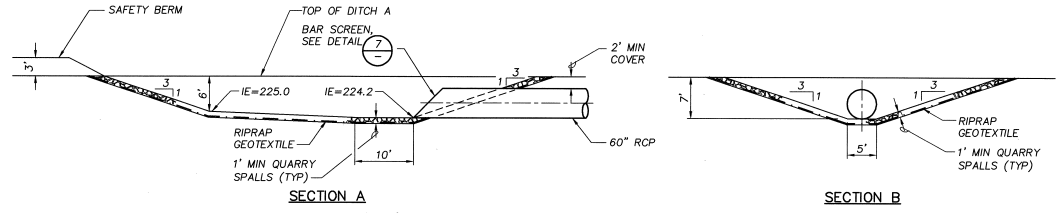
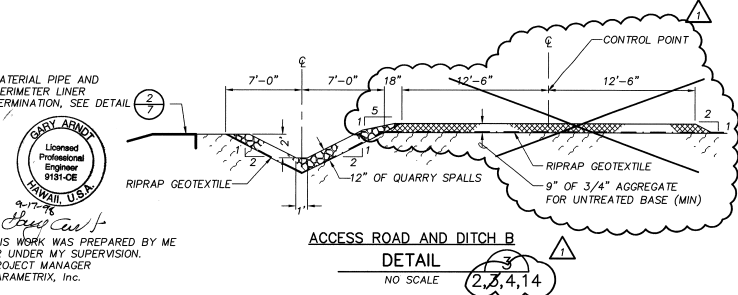


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VERIFY DIMENSIONS		DATE		NO.	REVISION	BY	
1.	7/29/98	PER CHANGE ORDER #5					
ISSR	SE	BR	KB	CHK	GA	AP'VD	
COUNTY OF MAUI, HAWAII DEPT. OF PUBLIC WORKS AND SANITARY LANDFILL CENTRAL MAUI SANITARY LANDFILL LANDFILL OPERATIONS DEPARTMENT		LANDFILL OPERATIONS ROAD DETAILS AND ROAD SECTIONS					
SHEET:	7 OF: 20						
DATE:	JUNE 98						
FILE NO:	19880820						



- NOTES:**
- RIPRAP SHALL BE 8" MINUS. IF QUARRY SPALLS ARE LARGER THAN 8", THE THICKNESS OF THE RIPRAP LAYER SHALL BE INCREASED SO THE MINIMUM RIPRAP LAYER THICKNESS IS 1.5 TIMES THE MAXIMUM ROCK SIZE.
 - POND LINING SHALL ONLY BE APPLIED TO CONSTRUCTED EMBANKMENTS.



DATE: 06/23/98

GARY ARNDT
 Licensed Professional Engineer
 9151-016
 HAWAII, U.S.A.
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. PROJECT MANAGER
 PARAMETRIX, Inc.

PER CHANGE ORDER #5 DATE: 7/9/98 NO. 1 REVISION BY:	ESRN SE ER RR CRK CA JG/10	"Quality Service Through Employee Ownership" Parametrix, Inc. 11381 Pine Avenue Honolulu, HI 96823 808-948-8888 808-948-8889 808-948-8890 808-948-8891 808-948-8892 808-948-8893 808-948-8894 808-948-8895 808-948-8896 808-948-8897 808-948-8898 808-948-8899 808-948-8900
	COUNTY OF MAUI, HAWAII DEPT. OF PUBLIC SAFETY CENTRAL MAUI SANITARY LANDFILL 1000 W. MAUI AVENUE MAUI, HAWAII 96703 PHONE: 935-3444 FAX: 935-3444 TOLL FREE: 1-800-451-4444	
SHEET: 8 OF 20 DATE: JUNE 98 FILE NO. 19880802	MISCELLANEOUS DETAILS STORM WATER SYSTEM DETAILS	