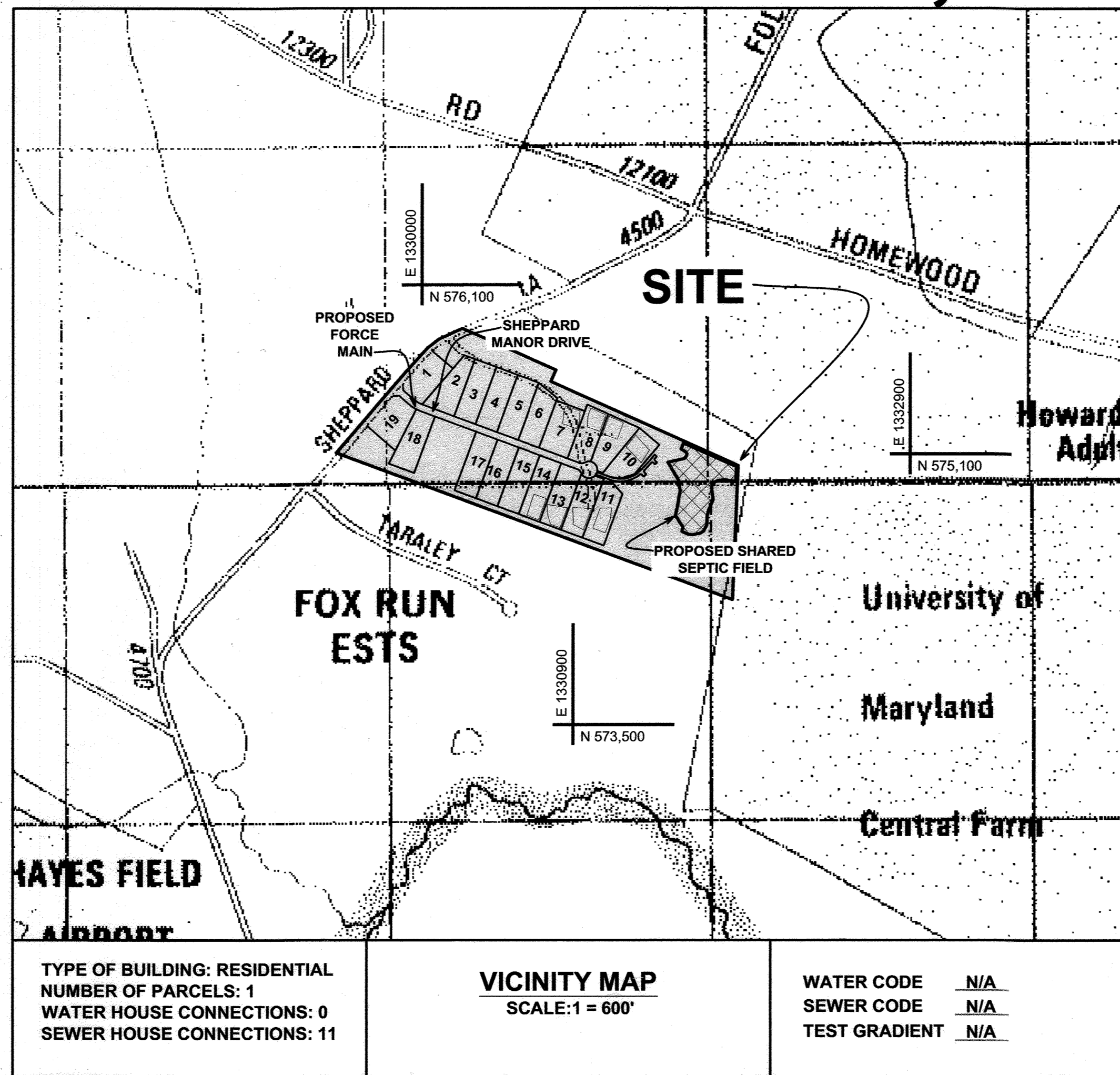


SHEPPARD MANOR

PEDDICORD SHARED SEPTIC SYSTEM HOWARD COUNTY, MARYLAND

SHEET NO.	DESCRIPTION	SHEET NO.	DESCRIPTION
1	TITLE SHEET	E-0	COVER SHEET
2	GENERAL SITE PLAN 1:100	E-1	SITE PLAN ELECTRICAL SERVICE
3	SEWER PLAN VIEW 1:50	E-2	CONTROL BUILDING LIGHT AND POWER
4	SEWER PLAN VIEW 1:50	E-3	CROMAGLASS & SLUDGE TANK ELECTRICAL
4A	DRAINFIELDS	E-4	DOSING PUMP STATION
5	LOW PRESSURE PROFILE	E-5	DOSING PUMP CONTROL PANEL & MISSION 800 - RTU
6	LOW PRESSURE PROFILE	E-6	PANEL SCHEDULE, SINGLE LINE AND WALL PANEL LAYOUT
7	GRAVITY PROFILES		
8	DRAINFIELD PROFILES		
9	DRAINFIELD PROFILES		
10	SEDIMENT CONTROL / DESIGN NOTES		
11	HYDRAULIC PROFILE / DESIGN NOTES CONT'D		
12	PUMP STATION AND DETAILS		
13	DETAILS		
14	CROMAGLASS TREATMENT UNIT		
15	CROMAGLASS TREATMENT UNIT AND DETAILS		
16	E-ONE GRINDER PUMPS DETAILS		
17	DETAILS		
18	DETAILS		



GENERAL NOTES

- PART I**
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES, NAD 83/91.
 - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
 - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL [] AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
- AT&T.....1-800-252-1133
BGE (CONTRACTOR SERVICES).....410-850-4620
BGE (UNDERGROUND DAMAGE CONTROL).....410-787-9068
BUREAU OF UTILITIES.....410-313-4900
COLONIAL PIPELINE CO.....410-795-1390
MISS UTILITY.....1-800-257-7777
STATE HIGHWAY ADMINISTRATION.....410-531-5533
VERIZON.....1-800-743-0033 / 410-224-9210
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
 - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.11(A) OF THE HOWARD COUNTY CODE.

DEVELOPER'S CERTIFICATION

"I / WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

V.D. Williamsburg Group LLC 1-10-07 DATE
SIGNATURE OF DEVELOPER: BOB CORBETT

ENGINEER'S CERTIFICATION

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

McCrone, Inc. 12/28/06 DATE
20 RIDGELY AVENUE
ANNAPOLIS, MARYLAND
21401 (410) 267-8621

REVIEWED FOR HOWARD COUNTY S.C.D. MEETS TECHNICAL REQUIREMENTS
U.S. SOIL CONSERVATION SERVICE DATE
THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.
APPROVED HOWARD S.C.D. DATE

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		MANUF./SUPPLIER
		QUANTITIES	TYPE	
DUPLX GRINDER PUMPS	4 E.A.	2 PUMPS	MODEL 2014-93	ENVIRONMENTAL ONE
SIMPLEX GRINDER PUMPS	3 E.A.	1 PUMP	MODEL 2014-129	ENVIRONMENTAL ONE
1 1/2" HOUSE CONNECTION	428 L.F.	430 L.F.	IPS SDR 11 PIPE	FLYING "W" PLASTICS, INC.
2" FORCE MAIN	1,217 L.F.	1,159 L.F.	PRESSURE RATED PVC PIPE IPS SDR 11 CL200 SDR21	FLYING "W" PLASTICS, INC.
TERMINAL FLUSHING CONNECTION	1 E.A.	1 E.A.		
TRANSITION MH	1 E.A.	1 E.A.	6 - 5.11	ATLANTIC CONCRETE
2" PVC DRAINFIELD LATERAL	3,480 L.F.		SDR CL 200 PIPE	NORTH AMERICAN PIPE CO.
8" PVC SCH 40 GRAVITY PIPE	152 L.F.	142 L.F.	SDR 26 HW SEWER PIPE	NORTH AMERICAN PIPE CO.
6" FORCE MAIN	1,158 L.F.	1,171 L.F.	PRESSURE RATED PVC PIPE IPS CLASS 200 SDR 21	NORTH AMERICAN PIPE CO.
FLOWMETER VAULT	1 E.A.	1 E.A.		
VALVE VAULT	1 E.A.	1 E.A.		ATLANTIC CONCRETE PRODUCTS
TREATMENT UNIT	1 E.A.	1 E.A.		CROMAGLASS CORP.
SLUDGE PROCESSING TANK	1 E.A.	1 E.A.		CROMAGLASS CORP.
DOSING PUMPING STATION	1 E.A.	1 E.A.	RE. MYERS PUMP 4VH	STH, INC.
MANHOLE	1 E.A.	1 E.A.	6 - 5.11	ATLANTIC CONCRETE PRODUCTS
EMERGENCY OVERFLOW TANK	1 E.A.	1 E.A.		
8" DI GRAVITY PIPE	120 L.F.	120 L.F.	SDR 35 D.I. PIPE	NORTH AMERICAN PIPE CO.
BAR SCREEN	1 E.A.	1 E.A.		EAST JORDAN IRON WORKS
CONTROL BUILDING / LAB	1 E.A.	1 E.A.		
CHECK VALVE VAULT	4 E.A.	4 E.A.		ATLANTIC CONCRETE PRODUCTS
BLOW-OFF VAULT	3 E.A.	3 E.A.	RESILIENT WEDGE M.S. VAULT	
WET WELL VAULT 12'	1 E.A.	1 E.A.		

- PART II - WATER - NOT USED**
- PART III - SEWER**
- ALL SEWER MAINS SHALL BE HDPE SDR 11, D.I.P. OR P.V.C. AS SHOWN ON CONTRACT DRAWINGS UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
 - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
 - PVC FORCE MAINS SHALL MEET THE REQUIREMENTS OF ASTM D-2241, SDR-21. HIGH DENSITY POLYETHYLENE (HDPE) FORCE MAIN AND FITTINGS FOR LOW PRESSURE SEWER SYSTEMS SHALL MEET ASTM D-1248 REQUIREMENTS FOR TYPE III, CLASS C, CATEGORY 5, GRADE P54 MATERIAL AND MEET ASTM D-3350 CELL CLASSIFICATION OF 345434C.
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL 65.52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1"-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVICED BY GRAVITY.
- TRENCH REQUIREMENTS:**
THE FOLLOWING 11 LOTS ARE TO BE SERVED BY THE SHARED SYSTEM: LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
*USE 5 BEDROOM PER HOUSE.
750 GPD PER HOUSE
750 GPD/HOUSE x 11 HOUSES = 8,250 GPD
8,250 GPD / 1.2 GPD/SQ.FT. = 6,875 SQ. FT. EFFECTIVE AREA
SEE SHEET 11 OF 18 FOR REQUIRED AND PROVIDED TRENCH LENGTH IN DRAINFIELD SUMMARY

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Weber 1/19/07 DATE
HOWARD COUNTY HEALTH OFFICER

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Myer 2/6/07 DATE
USDA NATURAL RESOURCES CONSERVATION SERVICE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Roberts 2/6/07 DATE
HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-08-04

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert J. Weber 1-25-07 DATE
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John R. Roberts 2/6/07 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION

McCRONE
Engineering • Environmental Sciences
Construction Services • Land Planning & Surveying
ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY

30 RIDGELY AVENUE
ANNAPOLIS, MARYLAND 21401
PHONE (410) 267-8621 / FAX (410) 267-8622
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DES: B.T.D., N.V.S.
DRN: B.T.D., N.V.S.
CHK: R.J.R.
DATE: DEC., 2006

NO. 1 SUBVISION NAME CHANGE 4/10/07

REVISION

TITLE SHEET

OWNER: DAVID C. PEDDICORD
4485 SHEPARD LANE
ELLCOTT CITY, MD 21042

DEVELOPER: WILLIAMSBURG GROUP, LLC
5485 HARPERS FARM ROAD, SUITE 200
COLUMBIA, MD 21044
410-997-8800
SHEPPARD MANOR

PEDDICORD SHARED SEPTIC SYSTEM

SCALE AS SHOWN

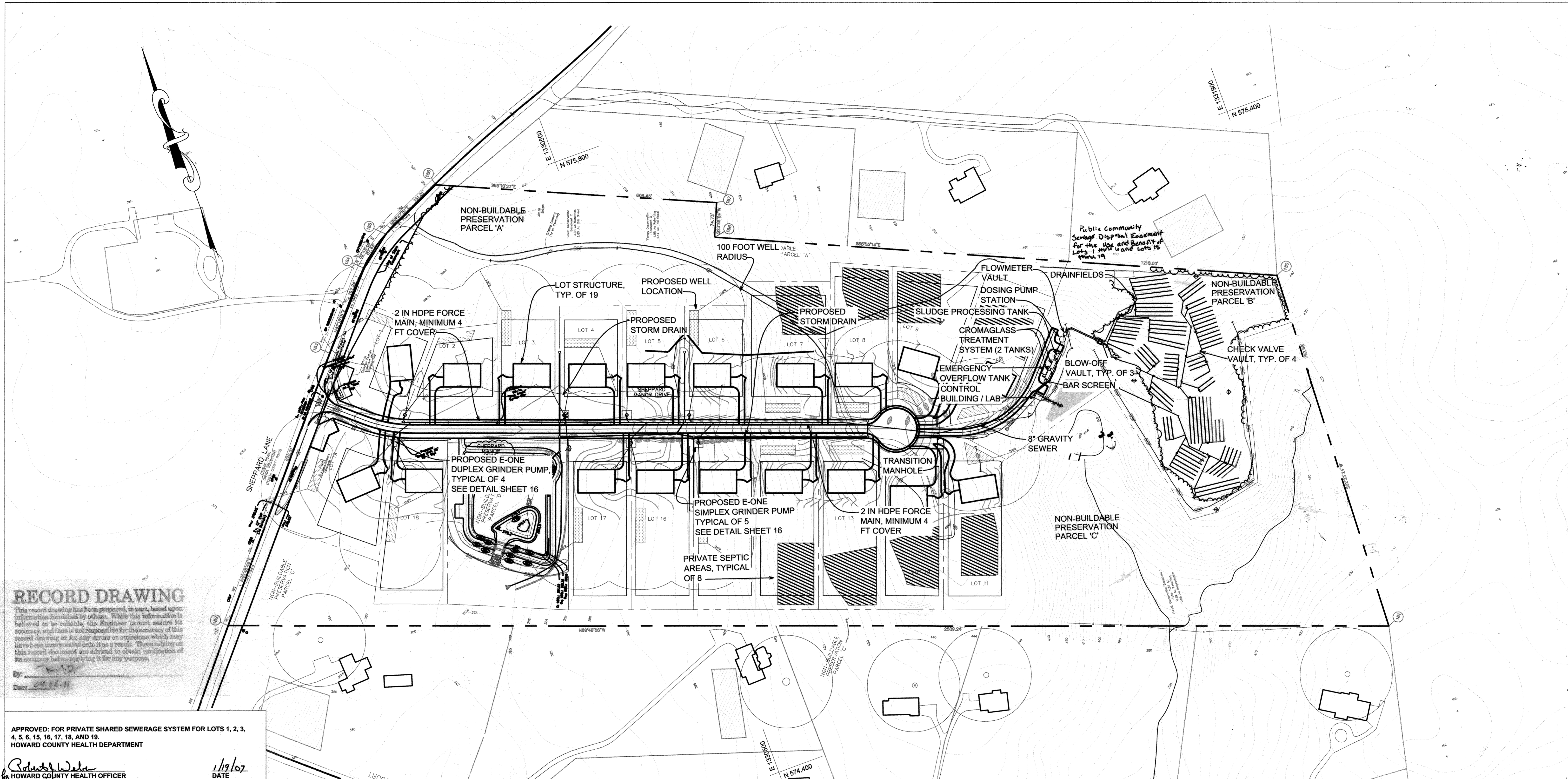
SHEET 1 OF 18

CONTRACT # 50-4357D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

JOB No. C1040062

PLOTTED: Dec 28, 2006 - 9:42am

CADD FILE: G:\040062 - Peddicord Property Drawings\SHARED SEPTIC DESIGN\TITLE SHEET_REV02.dwg Tab: Layout1



RECORD DRAWING

This record drawing has been prepared, in part, based upon information furnished by others. While this information is believed to be reliable, the Engineer cannot assume its accuracy, and thus is not responsible for the accuracy of this record drawing or for any errors or omissions which may have been incorporated into it as a result. Those relying on this record drawing are advised to obtain verification of its accuracy before applying it for any purpose.

By: *[Signature]*
Date: 09.16.11

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

[Signature]
HOWARD COUNTY HEALTH OFFICER
DATE: 1/19/07

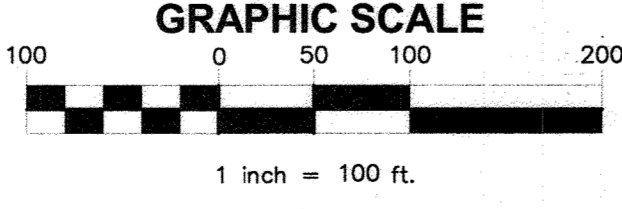
HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature]
USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE: 2/6/07

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
HOWARD SOIL CONSERVATION DISTRICT
DATE: 2/6/07

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.



- GENERAL NOTES:**
- 1) TEST STATIONS FOR LOW PRESSURE FORCE MAIN TO BE PLACED AT 200' INTERVALS. SEE DETAIL SHEET 15.
 - 2) TRACER WIRE CONNECTIONS OFF OF THE MAIN MUST BE OVERLAPPING, INSULATED #6, FIRMLY CONNECTED AND ENCAPSULATED.
 - 3) 5 FT CLEARANCE MUST BE PROVIDED AROUND ELECTRICAL PANELS AND BGE METERS.
 - 4) CONTRACTOR TO INSTALL 6-INCH SERVICE GRAVITY PIPE FROM LOTS 4 AND 19 AT 1% SLOPE. CONTRACTOR TO INSTALL REDUCER ON 6-INCH PIPE TO CONNECT TO GRINDER PUMPS.
 - 5) CONTRACTOR TO INSTALL MANIFOLDS AND ISOLATION VALVES FOR PROPOSED AND FUTURE FIELDS.
 - 6) CONTRACTOR TO INSTALL 200% OF DRAINFIELDS INITIALLY. ONLY 150% OF INSTALLED 200% SHALL BE OPERATED INITIALLY. 100% OF DRAINFIELDS SHALL BE INSTALLED WHEN REQUIRED.

LEGEND

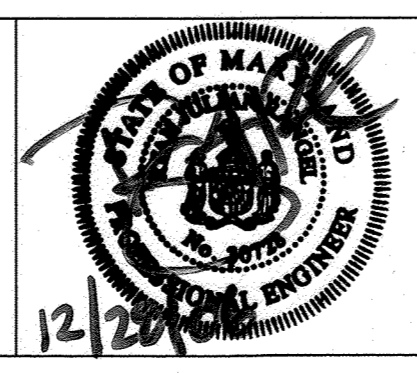
Existing Woods		Existing 15-25% Slopes		Proposed Water	
Existing Utility Pole		Existing 25% & Greater Slopes		Proposed Fence	
Existing Pavement		Proposed Silt Fence		Proposed Pavement	
Existing Centerline of Road		Proposed Super Silt Fence		Proposed Gravel	
Existing 10 Foot Contour		Proposed Stabilized Construction Entrance		Proposed 10 Foot Contour	
Existing 2 Foot Contour		Proposed Building		Proposed 2 Foot Contour	
Existing Soil Boundary		Proposed Sewer by Others		Proposed Treeline	
Proposed Sewer by Others		Proposed Sewer		Proposed Limit of Disturbance	

PLOTTED: Dec 28, 2006 9:49am

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, BUREAU OF UTILITIES
DATE: 1-25-07

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/1/07

McCRONE
Engineering • Environmental Sciences
Construction Services • Land Planning & Surveying
ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY
20 RIDGELY AVENUE
ANNAPOLIS, MARYLAND 21401
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DES: B.T.D., N.V.S.			
DRN: B.T.D., N.V.S.			
CHK: R.J.R.			
DATE: DEC, 2006	BY: SA 1	No. SUBDIVISION NAME	DATE: 4/10/07
		REVISION	

GENERAL SITE LAYOUT
JOB No. C1040062

SHEPPARD MANOR
PEDDIGORD SHARED SEPTIC SYSTEM
LOTS 1 - 19
CONTRACT # 58-4557
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 18

CADD FILE: G:\1040062 - Peddigord Property\Drawings\SHARED SEPTIC DESIGN\SITE PLAN v4.dwg Tab.....GENERAL SITE LAYOUT 100 scale

LEGEND

- Existing Woods
- Existing Utility Pole
- Existing Pavement
- Existing Centerline of Road
- Existing 10 Foot Contour
- Existing 2 Foot Contour
- Existing Soil Boundary
- Existing 15-25% Slopes
- Existing 25% & Greater Slopes
- Proposed Silt Fence
- Proposed Super Silt Fence
- Proposed Stabilized Construction Entrance
- Proposed Building
- Proposed Sewer
- Proposed Sewer by Others
- Proposed Water
- Proposed Fence
- Proposed Pavement
- Proposed Gravel
- Proposed 10 Foot Contour
- Proposed 2 Foot Contour
- Proposed Treeline
- Proposed Limit of Disturbance

GENERAL NOTES:

- 1) TEST STATIONS FOR LOW PRESSURE FORCE MAIN TO BE PLACED AT 200' INTERVALS. SEE DETAIL SHEET 13.
- 2) TRACER WIRE CONNECTIONS OFF OF THE MAIN MUST BE OVERLAPPING, INSULATED #6, FIRMLY CONNECTED AND ENCAPSULATED
- 3) 5 FT CLEARANCE MUST BE PROVIDED AROUND ELECTRICAL PANELS AND BGE METERS.
- 4) CONTRACTOR TO INSTALL 6-INCH SERVICE GRAVITY PIPE FROM LOTS 4 AND 19 AT 1% SLOPE. CONTRACTOR TO INSTALL REDUCER ON 6-INCH PIPE TO CONNECT TO GRINDER PUMPS.
- 5) CONTRACTOR TO INSTALL MANIFOLDS AND ISOLATION VALVES FOR PROPOSED AND FUTURE FIELDS.
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RECORD DRAWING

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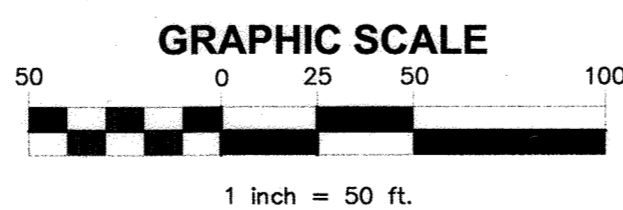
APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
 HOWARD COUNTY HEALTH DEPARTMENT
Robert W. Wain 11/9/07
 HOWARD COUNTY HEALTH OFFICER DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
Jim Martin 2/6/07
 USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John P. Martin 2/6/07
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-19.

NAME	TOP ELEVATION	INVERT ELEVATION	MODEL	COORDINATES
GRINDER PUMP - 1	391	386.00	2014-93	N 575401.63 E 1330007.54
GRINDER PUMP - 2	388	379.92	2014-129	N 575357.29 E 1329962.53
GRINDER PUMP - 3	386.5	378.92	2014-129	N 575282.29 E 1330330.27
GRINDER PUMP - 4	388	383.42	2010-93	N 575235.60 E 1330456.94
GRINDER PUMP - 5	388	383.00	2014-93	N 575175.92 E 1330445.37
GRINDER PUMP - 6	398	395.00	2010-74	N 575188.91 E 1330583.61
GRINDER PUMP - 7	400	392.83	2010-124	N 575125.77 E 1330581.42

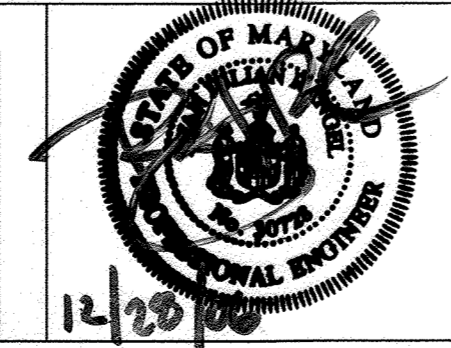


PLOTTED: Dec 28, 2006 - 9:55am

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Robert W. Wain 1-25-07
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
John P. Martin 1/17/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MICRONE
 Engineering Environmental Sciences
 Construction Services Land Planning & Surveying
 ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY
 23 RIDGELY AVENUE
 ANNAPOLIS, MARYLAND 21401
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DES: B.T.D., N.V.S.			
DRN: B.T.D., N.V.S.			
CHK: R.J.R.			
DATE: DEC., 2006	BY: SA 1	NO. SUBDIVISION NAME	DATE: 11/9/07
		REVISION	

SEWER PLAN VIEW
 JOB No. C1040062

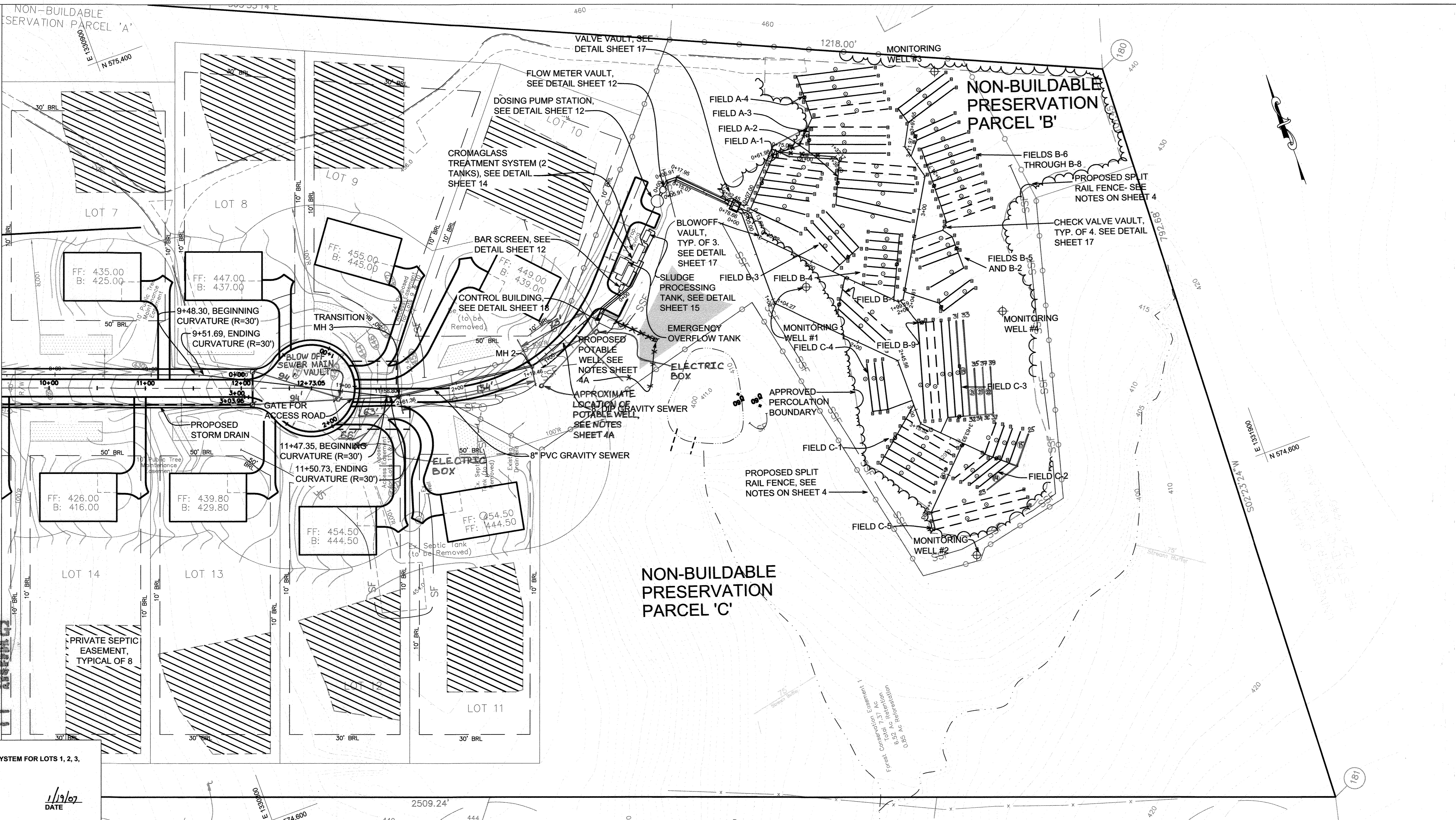
SHEPPARD MANOR
—PEDDIGORD-SHARED SEPTIC SYSTEM
 LOTS 1 - 19
 CONTRACT # 50-455710
 TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
 ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 3 OF 18

CADD FILE: G:\1040062 - Peddigord Property Drawings\SHARED SEPTIC DESIGN\SITE PLAN v4.dwg Tab.....SEWER LAYOUT 50 scale

MATCHLINE, SEE SHEET 4

- SPLIT RAIL FENCE NOTES:**
1. FENCE SHALL BE 3-RAIL TYPE.
 2. SPLIT RAIL FENCE SHALL BE 4' IN HEIGHT ABOVE GROUND.
 3. POSTS SHALL BE 3" x 6" AND PLACED EVERY 8 FEET. POSTS SHALL BE BURIED A MINIMUM OF 2 FEET INTO THE GROUND WITH A MINIMUM 18" x 18" x 24" CONCRETE BLOCK AROUND THE POST.
 4. SPLIT RAIL FENCE SHALL BE CONSTRUCTED OF PRESSURE TREATED LUMBER.

MATCHLINE, SEE SHEET 3



RECORD DRAWING

Information furnished by the contractor is to be used for the purpose of recording this drawing. It is the responsibility of the contractor to provide accurate information. The engineer is not responsible for the accuracy of the information provided by the contractor. The engineer is not responsible for the accuracy of the information provided by the contractor.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
 HOWARD COUNTY HEALTH DEPARTMENT

Ruth R. ...
 HOWARD COUNTY HEALTH OFFICER

1/19/07
 DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim M...
 USDA NATURAL RESOURCES CONSERVATION SERVICE

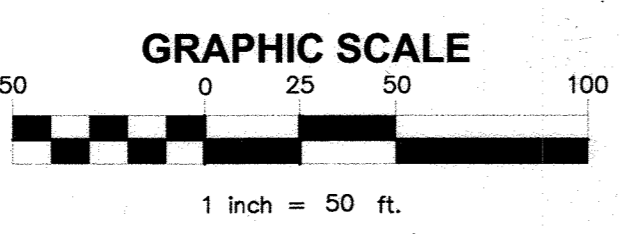
2/6/07
 DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Jim L. ...
 HOWARD SOIL CONSERVATION DISTRICT

2/6/07
 DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.



- GENERAL NOTES:**
- 1) TEST STATIONS FOR LOW PRESSURE FORCE MAIN TO BE PLACED AT 200' INTERVALS. SEE DETAIL SHEET 13.
 - 2) TRACER WIRE CONNECTIONS OFF OF THE MAIN MUST BE OVERLAPPING, INSULATED #6, FIRMLY CONNECTED AND ENCAPSULATED.
 - 3) 5 FT CLEARANCE MUST BE PROVIDED AROUND ELECTRICAL PANELS AND BOE METERS.
 - 4) CONTRACTOR TO INSTALL 6-INCH SERVICE GRAVITY PIPE FROM LOTS 4 AND 19 AT 1% SLOPE. CONTRACTOR TO INSTALL REDUCER ON 6-INCH PIPE TO CONNECT TO GRINDER PUMPS.
 - 5) CONTRACTOR TO INSTALL MANIFOLDS AND ISOLATION VALVES FOR PROPOSED AND FUTURE FIELDS.
 - 6) CONTRACTOR TO INSTALL 200% OF DRAINFIELDS INITIALLY. ONLY 150% OF INSTALLED 200% SHALL BE OPERATED INITIALLY. 100% OF DRAINFIELDS SHALL BE INSTALLED WHEN REQUIRED.

LEGEND

Existing Woods		Existing 15-25% Slopes		Proposed Water	
Existing Utility Pole		Existing 25% & Greater Slopes		Proposed Fence	
Existing Pavement		Proposed Silt Fence		Proposed Pavement	
Existing Centerline of Road		Proposed Super Silt Fence		Proposed Gravel	
Existing 10 Foot Contour		Proposed Stabilized Construction Entrance		Proposed 10 Foot Contour	
Existing 2 Foot Contour		Proposed Building		Proposed 2 Foot Contour	
Existing Soil Boundary		Proposed Sewer by Others		Proposed Treeline	
Proposed Sewer				Proposed Limit of Disturbance	

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Ruth R. ...
 CHIEF, BUREAU OF UTILITIES

1-25-07
 DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Jim L. ...
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

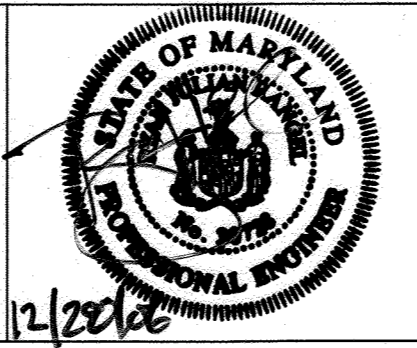
2/6/07
 DATE

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DES: B.T.D., N.V.S.					
DRN: B.T.D., N.V.S.					
CHK: R.J.R.					
DATE: DEC. 2006	BY: SA	No. 1	SUBDIVISION NAME	DATE: 4/16/07	

SEWER PLAN VIEW

JOB No. C1040062

-PEDDIGORD-SHARED SEPTIC SYSTEM

LOTS 1 - 19
 CONTRACT # 50-4857 D
 TAX MAP NO. 29 - GRID NO. 1 - PARCEL 288
 ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 4 OF 18

PLOTTED: Dec 28, 2006 - 10:00am

CADD FILE: G:\1040062 - Peddicord Property Drawings\SHARED SEPTIC DESIGN\SITE PLAN v4.dwg Tab.....SEWER LAYOUT 2 50 scale

POTABLE WELL NOTES:

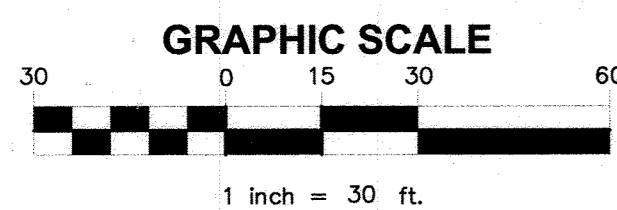
1. CONTRACTOR SHALL PROVIDE ALL MATERIALS, TOOLS, AND LABOR TO CONSTRUCT A RESIDENTIAL TYPE POTABLE WATER WELL MEETING ALL LOCAL AND STATE REQUIREMENTS.
2. THE WELL SHALL BE CAPABLE OF PRODUCING 5 GALLONS PER MINUTE.
3. THE WELL SHALL BE 4 INCHES IN DIAMETER.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL CONSTRUCTION RELATED PERMITS.
5. WELL SHALL BE DISINFECTED PER LOCAL AND STATE REQUIREMENTS. SAMPLES SHALL BE SAMPLED AND ANALYZED BY A STATE CERTIFIED LAB. WELL SHALL BE BACTERIA FREE PER STATE AND LOCAL REQUIREMENTS PRIOR TO PLACEMENT INTO SERVICE.
6. CASING MATERIAL SHALL BE STEEL.
7. CONTRACTOR SHALL PROVIDE A 2-INCH PVC WATER SUPPLY PIPE FROM THE WELL TO THE CONTROL BUILDING AS SHOWN ON THIS SHEET.
8. CONTRACTOR SHALL PROVIDE A PITLESS ADAPTER FOR THE WELL.
9. WELL PUMP SHALL BE A GOULDS SUBMERSIBLE TURBINE PUMP OR SIMILAR.
10. LOCATION OF THE WELL IS APPROXIMATE. CONTRACTOR SHALL LOCATE THE WELL WITHIN THE SHADED AREA PROVIDED OR SEEK APPROVAL FROM THE ENGINEER AND LOCAL HEALTH DEPARTMENT FOR AN ALTERNATE LOCATION.
11. UNSUCCESSFUL PILOT HOLES SHALL BE ABANDONED PER COMAR REQUIREMENTS.

RECORD DRAWING

When used as a record drawing, this drawing is to be used to show the location of the well and the location of the trench. It is not to be used for construction purposes. The contractor is responsible for the accuracy of this record drawing. The contractor shall verify the location of the well and the location of the trench before construction. This record drawing is not to be used for any other purpose.

DRAINFIELDS TRENCHES LEGEND

- ISOLATION VALVE
- ⊖ BLOWOFF VALVE VAULT
- ⊙ TRENCH NUMBER
- ⊠ TRENCH END NUMBER
- FUTURE TRENCH (100%)
- - - INITIALLY INSTALLED TRENCH (200%)
- ⊞ CHECK VALVE VAULT



APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Randy White
HOWARD COUNTY HEALTH OFFICER
DATE: 1/19/07

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer
USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE: 2/16/07

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

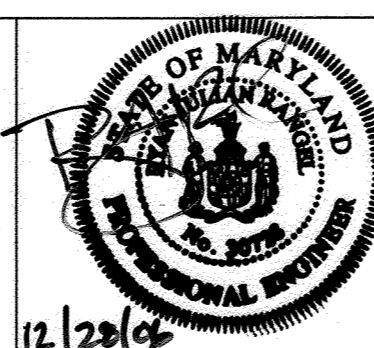
John K. ...
HOWARD SOIL CONSERVATION DISTRICT
DATE: 2/16/07

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

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DRN: B.T.D., N.V.S.			
CHK: R.J.R.			
DATE: DEC., 2006	BY: SD 1	REVISION: SUBMISSION NAME	DATE: 1/19/07

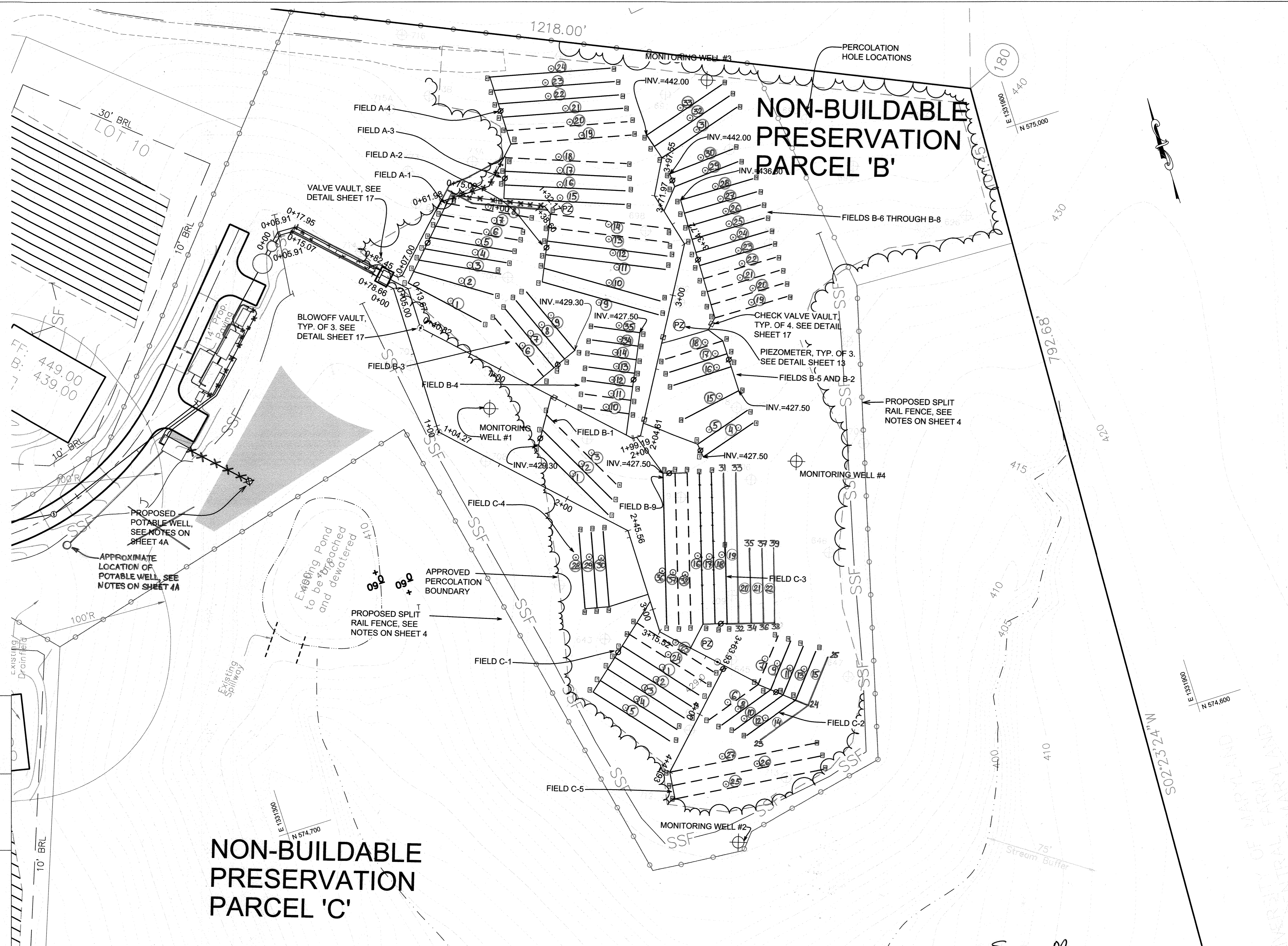
DRAINFIELDS

JOB No. C1040062

**SHEPPARD MANOR
PEDDIGORD SHARED SEPTIC SYSTEM**

LOTS 1 - 19
CONTRACT # 50-4877 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

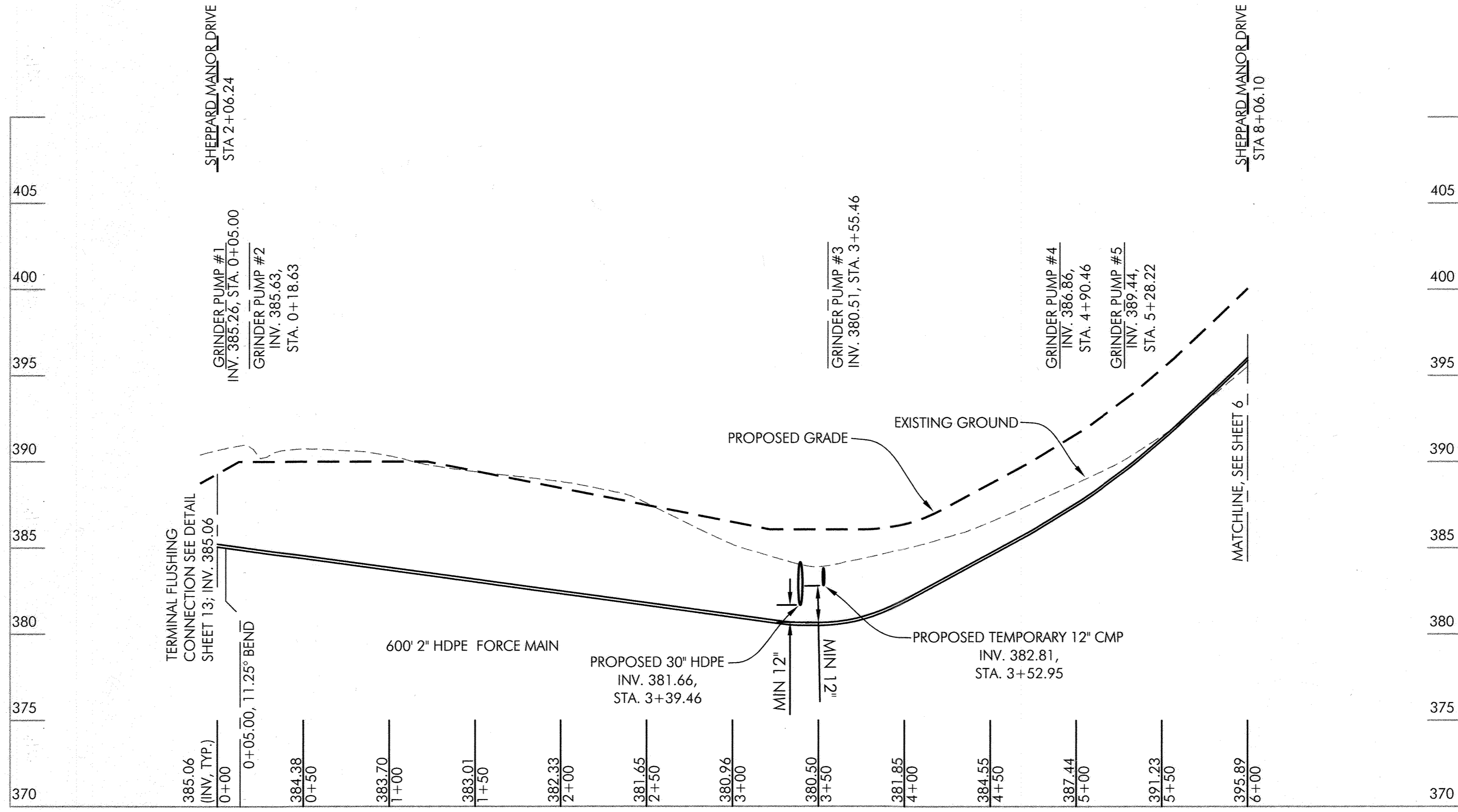
SCALE AS SHOWN
SHEET 4A OF 18



RECORD DRAWING

When used for any purpose other than that for which it was prepared, the user assumes all liability for any errors or omissions. The user agrees to hold the engineer harmless for any and all claims, damages, losses, and expenses, including reasonable attorney's fees, that may be incurred by the user as a result of such use. This record drawing is not to be used for any purpose other than that for which it was prepared. The user agrees to hold the engineer harmless for any and all claims, damages, losses, and expenses, including reasonable attorney's fees, that may be incurred by the user as a result of such use.

DATE: 1/13/07



**2" FM PROFILE FROM
TERMINAL FLUSHING
CONNECTION**

SCALE
1" = 50' HORIZONTAL;
1" = 5' VERTICAL

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Walker
HOWARD COUNTY HEALTH OFFICER

1/13/07
DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim M... ..
USDA NATURAL RESOURCE CONSERVATION SERVICE

2/6/07
DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John V.
HOWARD SOIL CONSERVATION DISTRICT

2/6/07
DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert
CHIEF, BUREAU OF UTILITIES

1-25-07
DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

...
CHIEF, DEVELOPMENT ENGINEERING DIVISION

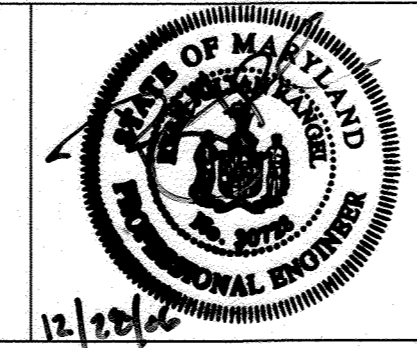
2/6/07
DATE

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DRN: B.T.D., N.V.S.					
CHK: R.J.R.					
DATE: DEC., 2006	BY: SD	No. 1	SUBDIVISION NAME	4/10/07	DATE

LOW PRESSURE PROFILES

JOB No. C1040062

SHEPPARD MANOR
PEDDIGORD SHARED SEPTIC SYSTEM

LOTS 1-19
CONTRACT # 50-4357 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 5 OF 18

PLOTTED: Dec 28, 2006 - 10:29am

CADD FILE: G:\1040062 - Peddigord Property Drawings\SHARED SEPTIC DESIGN\FM PROFILE.dwg Tab Layout

RECORD DRAWING

It is the responsibility of the engineer to provide the necessary information to the contractor to ensure that the work is done in accordance with the plans and specifications. The contractor is responsible for the proper installation and maintenance of the system. The engineer is not responsible for the performance of the system after construction.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert W. ...
HOWARD COUNTY HEALTH OFFICER

1/19/07
DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT
DATE

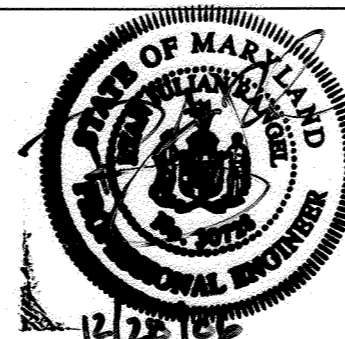
SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. ...
CHIEF, BUREAU OF UTILITIES
1-25-07
DATE

Robert W. ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE



DES: B.T.D., N.V.S.

DRN: B.T.D., N.V.S.

CHK: R.J.R.

DATE: DEC., 2006

BY	No.	REVISION	DATE
SD 1		SUBDIVISION NAME	4/10/07

LOW PRESSURE PROFILES

JOB No. C1040062

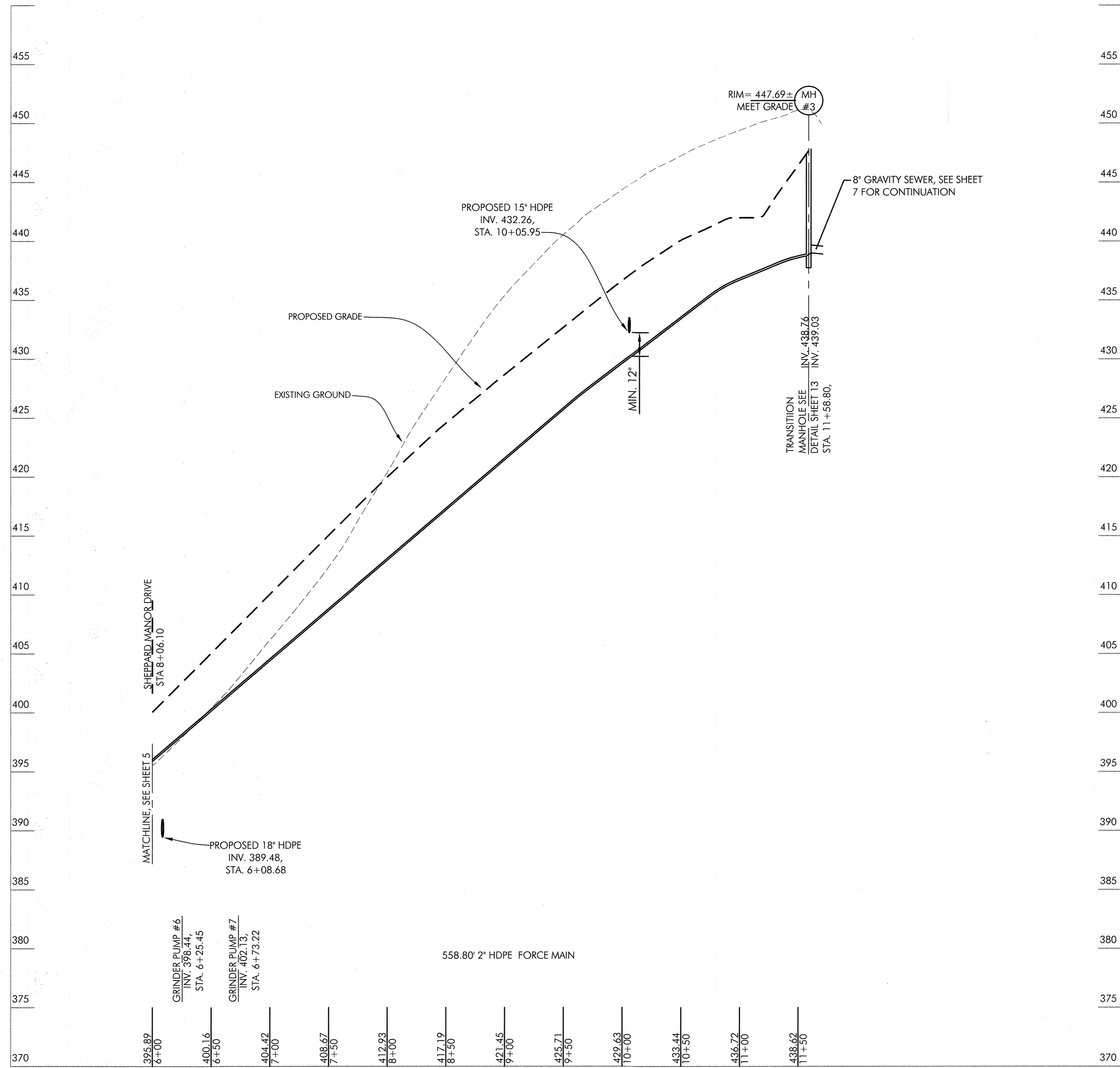
SHEPPARD MANOR

PEDDIGORD SHARED SEPTIC SYSTEM

LOTS 1 - 19
CONTRACT # 44-0076 50-4351 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 6 OF 18



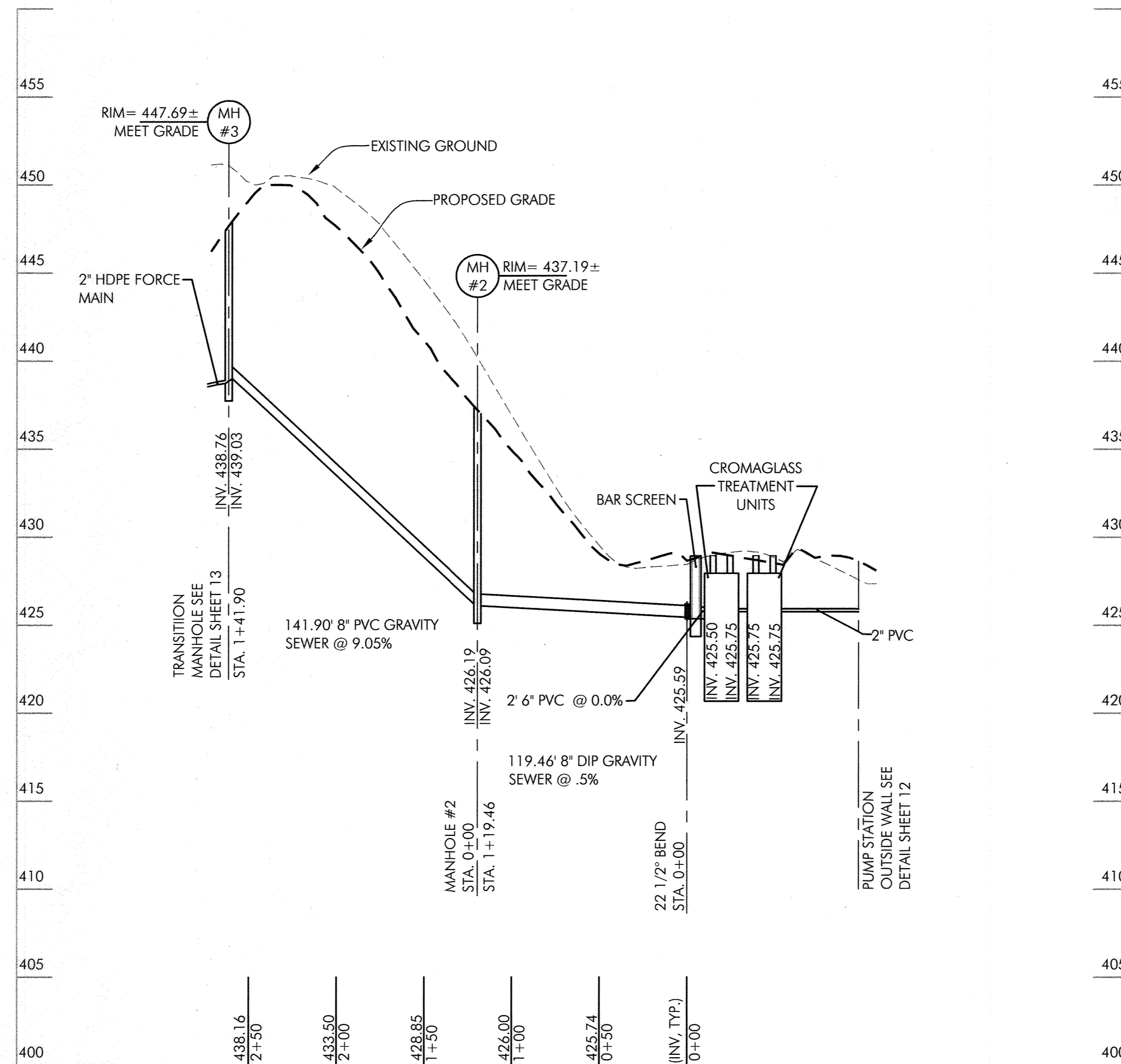
2" FM PROFILE TO TRANSITION MH

SCALE
1" = 50' HORIZONTAL;
1" = 5' VERTICAL

PLOTTED: Dec 28, 2006 - 10:29am

CADD FILE: G:\1040062 - Peddigord Property Drawings\SHARED SEPTIC DESIGN\FM PROFILE.dwg Tab.....layout2

RECORD DRAWING



**8" GRAVITY PROFILE FROM
TRANSITION MH TO PUMP
STATION**

SCALE
1" = 50' HORIZONTAL;
1" = 5' VERTICAL

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3,
4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert Weber
for HOWARD COUNTY HEALTH OFFICER DATE 1/19/07

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND
MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY
THE HOWARD SOIL CONSERVATION DISTRICT.

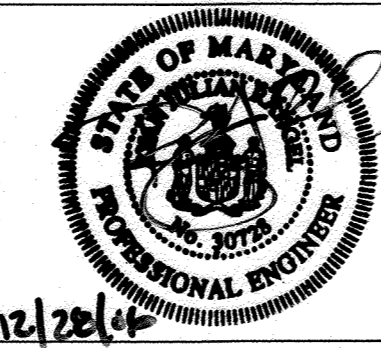
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD
COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD
CONSTRUCTION PLANS PER F-06-99.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert Weber
CHIEF, BUREAU OF UTILITIES DATE 1-25-07

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 1/19/07

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DRN: B.T.D., N.V.S.					
CHK: R.J.R.					
DATE: DEC., 2006	BY: SB	No. 1	SUBDIVISION NAME	REVISION	DATE: 1/19/07

GRAVITY PROFILES	
JOB No. C1040062	

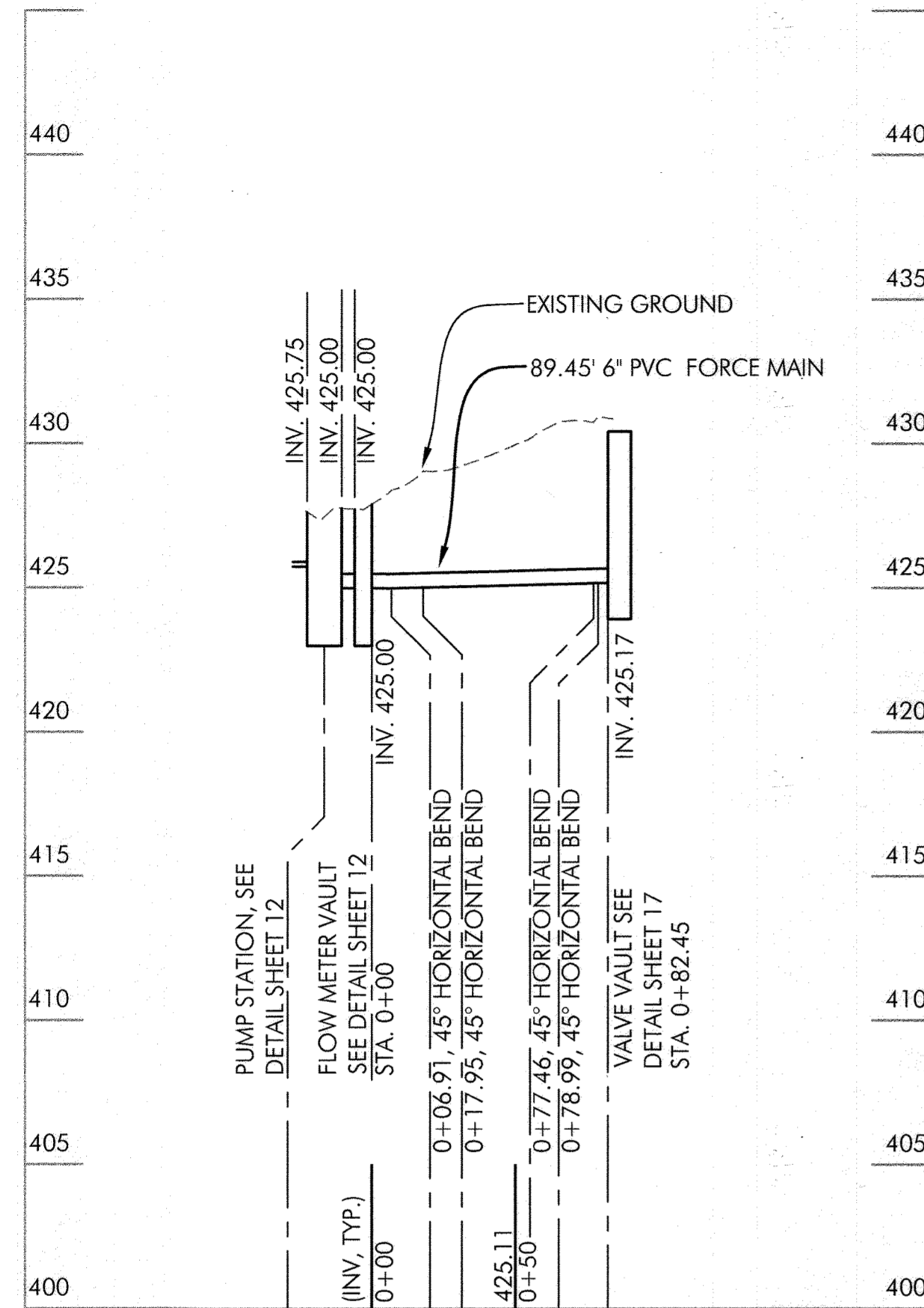
SHEPPARD MANOR
**PEDDIGORD SHARED
SEPTIC SYSTEM**

LOTS 1-19
CONTRACT #40-0276-50-4357D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 7 OF 18

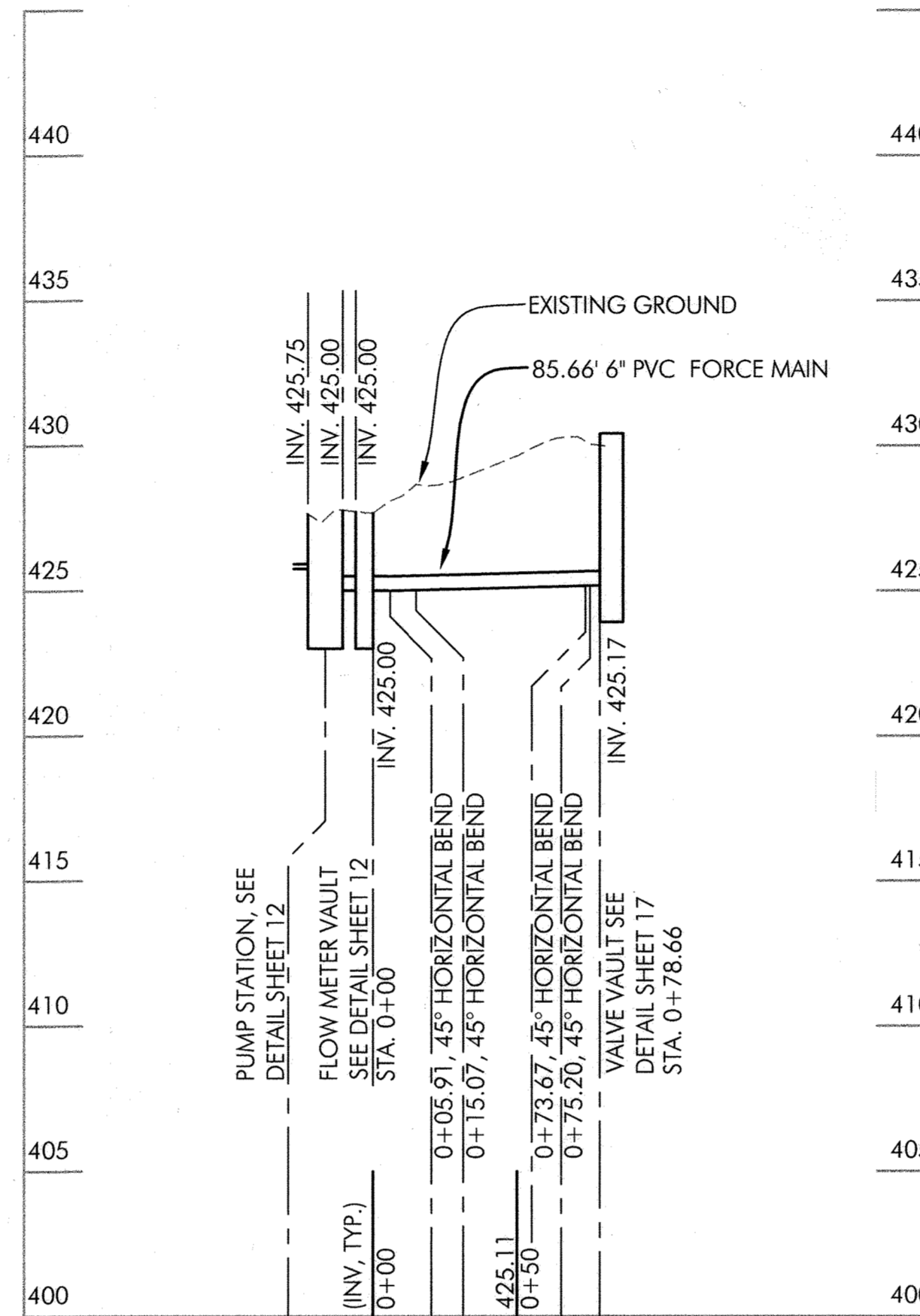
PLOTTED: Dec 28, 2006 - 10:30am

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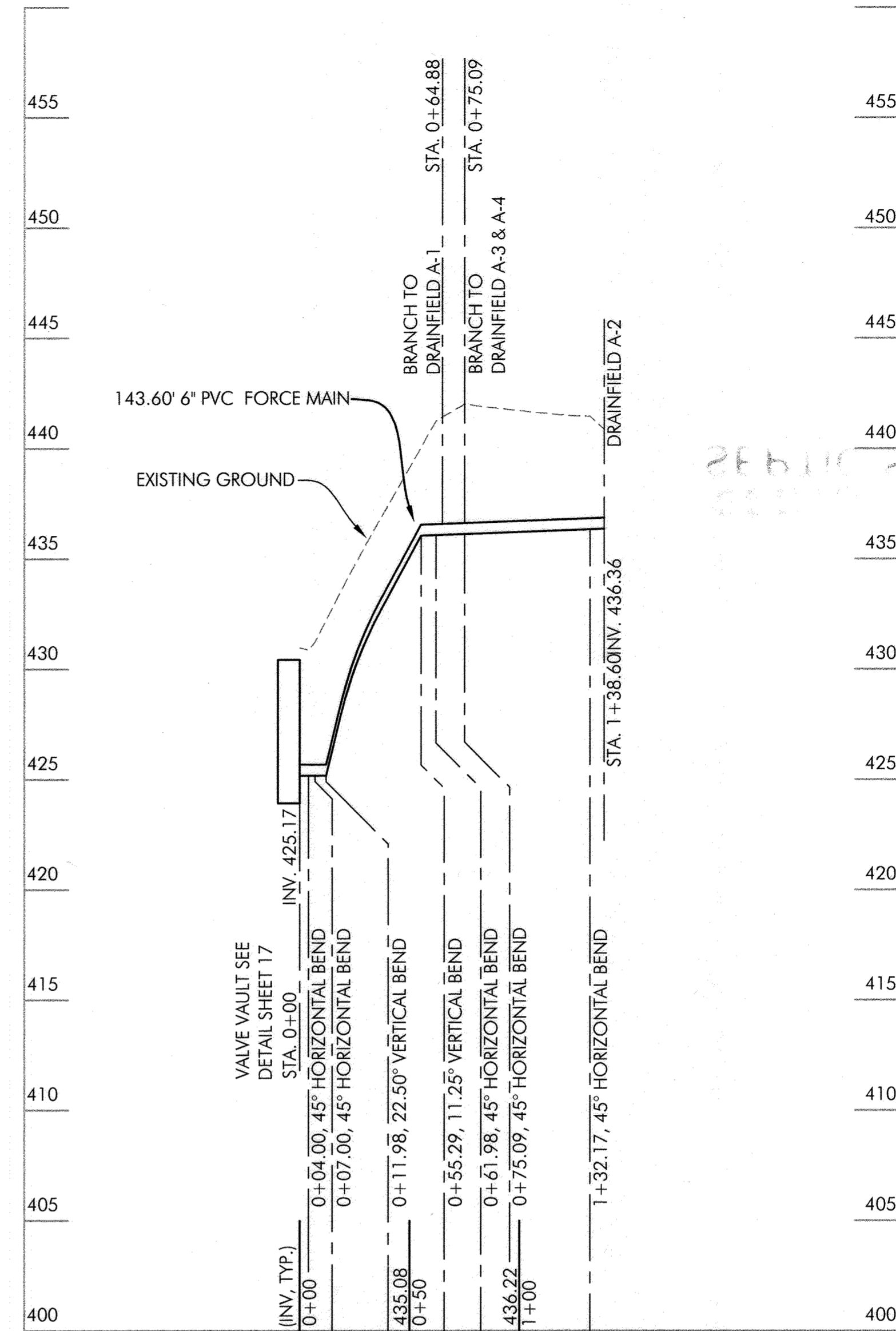
**6" FM PROFILE FROM FLOW
METER TO VALVE VAULT
FIELDS A & B**

SCALE
1" = 50' HORIZONTAL;
1" = 5' VERTICAL



**6" FM PROFILE FROM FLOW
METER TO VALVE VAULT
FIELDS B & C**

SCALE
1" = 50' HORIZONTAL;
1" = 5' VERTICAL



**6" FM PROFILE FROM
VALVE VAULT TO
DRAINFIELD A**

SCALE
1" = 50' HORIZONTAL;
1" = 5' VERTICAL

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. Wald
HOWARD COUNTY HEALTH OFFICER
DATE: 11/16/07

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE: _____

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

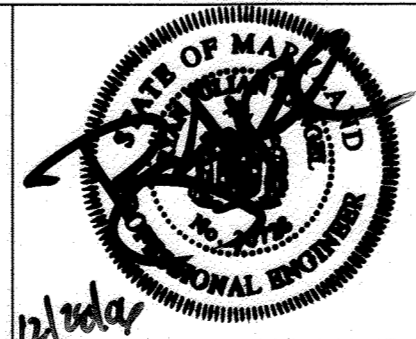
HOWARD SOIL CONSERVATION DISTRICT
DATE: _____

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

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● Construction Services ● Land Planning & Surveying
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ANNAPOLIS, MARYLAND 21401
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DRN: B.T.D., N.V.S.	
CHK: R.J.R.	
DATE: DEC., 2006	
BY: No.	SD 1 SUBDIVISION NAME
REVISION	
DATE: 11/16/07	

DRAINFIELD PROFILES

JOB No. C1040062

SHEPPARD MANOR
-PEDDIGORD SHARED SEPTIC SYSTEM

LOTS 1 - 19
CONTRACT # 4-3276 G0 - 4367 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 288
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

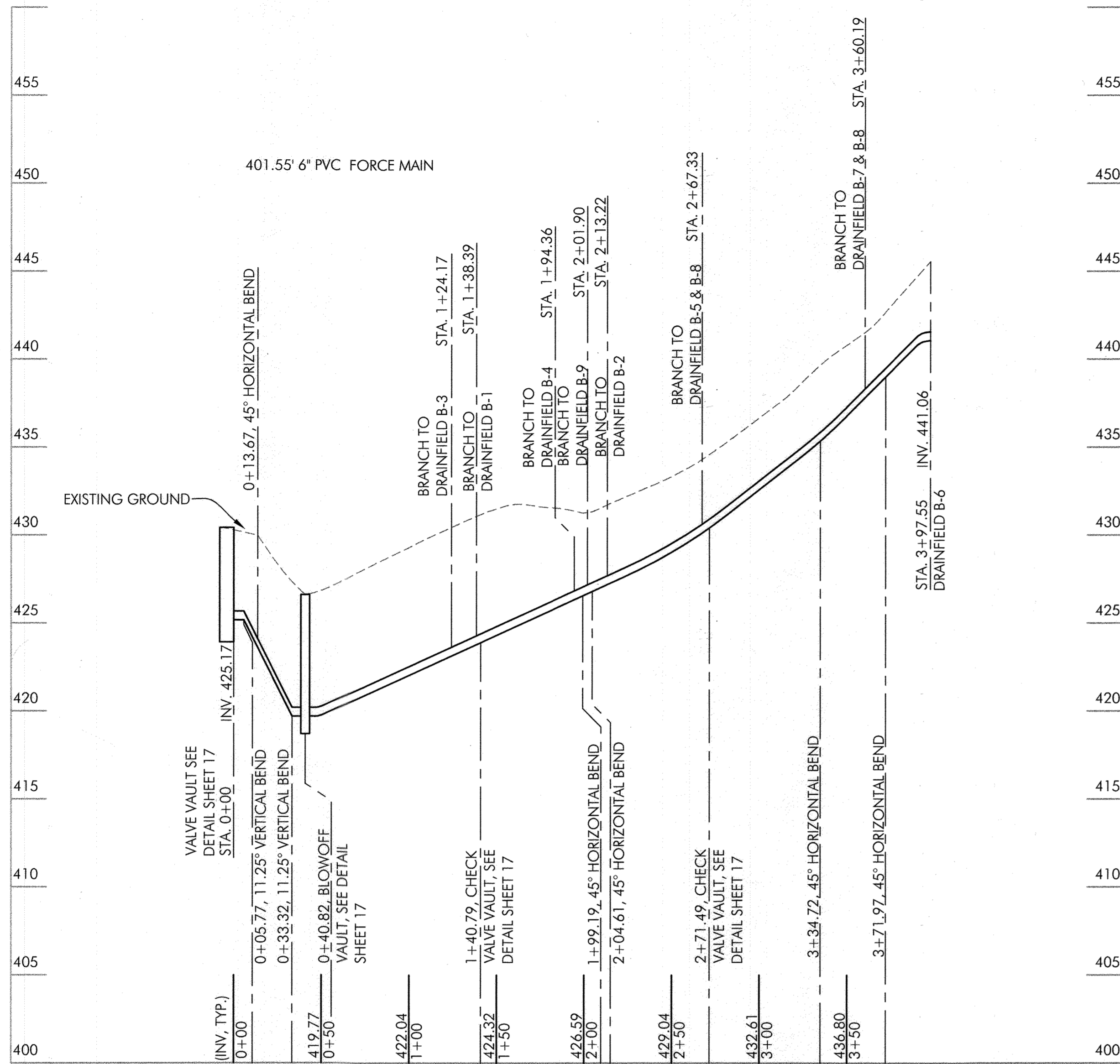
SCALE AS SHOWN

SHEET 8 OF 18

RECORD DRAWING
This drawing is to be used only for the project and site identified above. It is not to be used for any other project or site. The user of this drawing is responsible for obtaining the necessary permits and approvals for its use. The user of this drawing is also responsible for ensuring that it is used in accordance with the applicable laws and regulations. The user of this drawing is also responsible for ensuring that it is used in accordance with the applicable standards and specifications. The user of this drawing is also responsible for ensuring that it is used in accordance with the applicable codes and regulations.

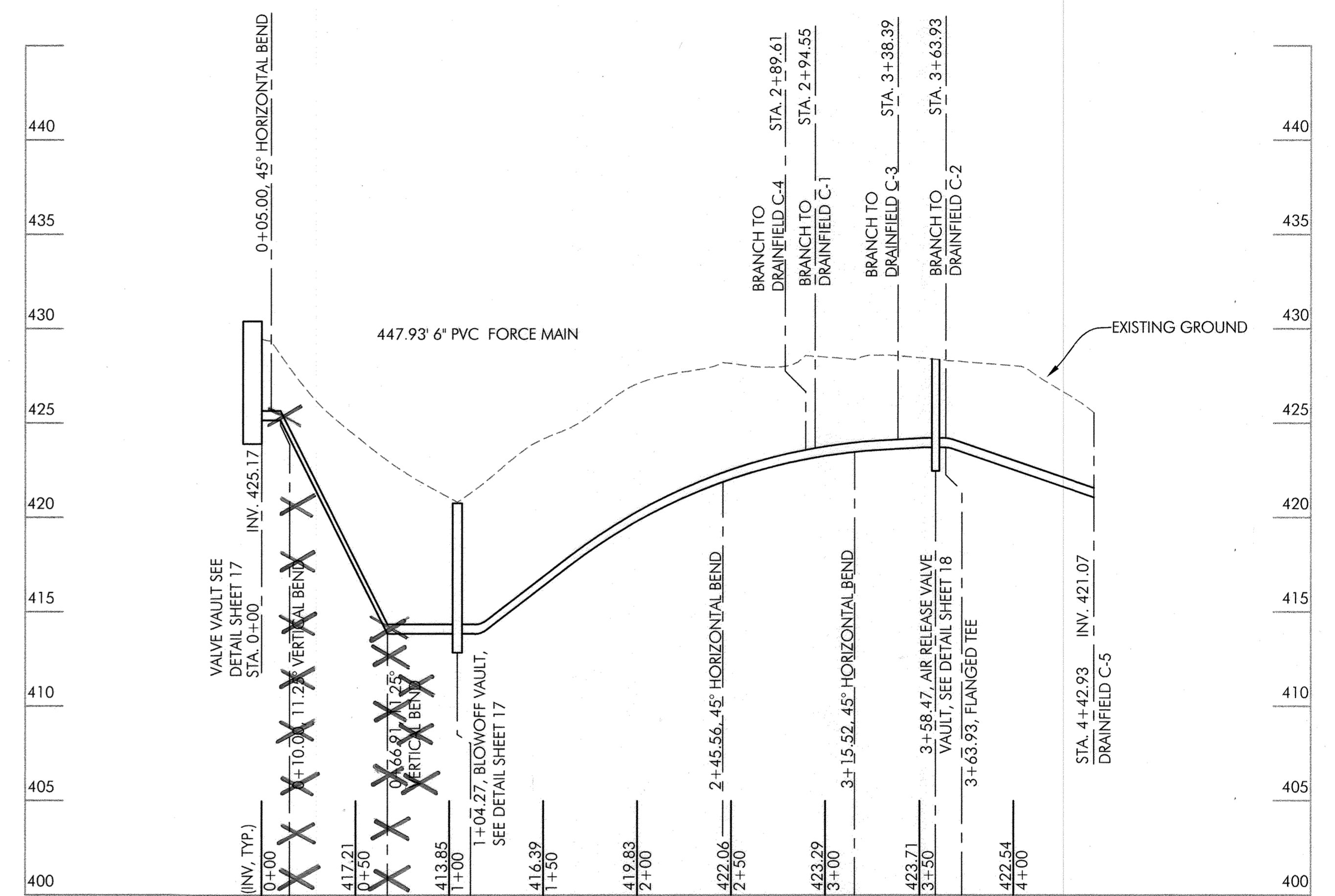
PLOTTED: Dec 28, 2006 - 10:31 am

CADD FILE: G:\1040062 - Peddigord Property Drawings\Drawings\SHARED SEPTIC DESIGN\Drainfield Profiles_rev01.dwg Tab: Layout1



6" FM PROFILE FROM VALVE VAULT TO DRAINFIELD B

SCALE
 1" = 50' HORIZONTAL;
 1" = 5' VERTICAL



6" FM PROFILE FROM VALVE VAULT TO DRAINFIELD C

SCALE
 1" = 50' HORIZONTAL;
 1" = 5' VERTICAL

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
 HOWARD COUNTY HEALTH DEPARTMENT
Robert W. ...
 HOWARD COUNTY HEALTH OFFICER
 1/19/07
 DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
 DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DATE

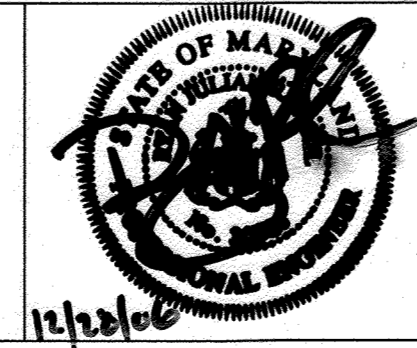
HOWARD SOIL CONSERVATION DISTRICT
 DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-98.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Robert B. ...
 CHIEF, BUREAU OF UTILITIES
 1-25-07
 DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
...
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 2/10/07
 DATE

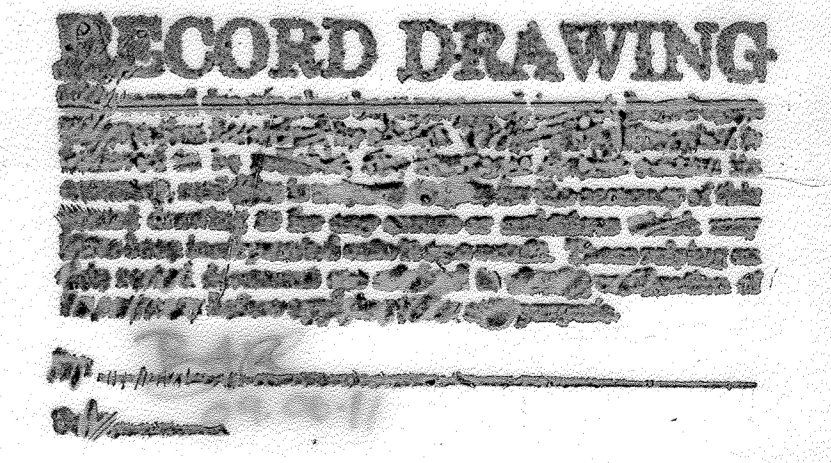
MCCRONE
 Engineering Environmental Sciences
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DES: B.T.D., N.V.S.	
DRN: B.T.D., N.V.S.	
CHK: R.J.R.	
DATE: DEC., 2006	BY No.
SD 1	SUBDIVISION NAME
REVISION	DATE

DRAINFIELD PROFILES
 JOB No. C1040062

SHEPPARD MANOR
PEDDIGORD SHARED SEPTIC SYSTEM
 LOTS 1-19
 CONTRACT # 03976- 60-4357D
 TAX MAP NO. 28 - GRID NO. 1 - PARCEL 268
 ELECTION DISTRICT No. 5
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 9 OF 18



PLOTTED: Dec 28, 2006 - 10:31am

G:\1040062 - Peddigord Property Drawings\SHARED SEPTIC DESIGN\Drainfield Profiles_rev01.dwg Tab Layout2

OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION AREAS (F6)

- Annual maintenance of plant material, mulch layer and soil is required. Maintenance of mulch and soil is limited to correcting areas of erosion or wash out. Any mulch replacement shall be done in the spring. Plant material shall be checked for disease and insect infestation and maintenance will address dead material and pruning.
- Schedule of plant inspection will be twice a year in spring and fall. This inspection will include removal of dead and diseased vegetation considered beyond treatment, treatment of all diseased trees and shrubs and replacement of all deficient stakes and wires.
- Mulch shall be inspected each spring. Remove previous mulch layer before applying new layer once every 2 to 3 events.
- Soil erosion to be addressed on an as needed basis, with a minimum of once per month and after heavy storm events.

TEMPORARY SEEDING NOTES

Seedbed preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

Soil amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs./1000 sq.ft.)

Seeding: For periods march 1 through April 30 and from august 15 through November 15, seed with 2 1/2 bushel per acre of annual rye (3.2 lbs./1000 sq.ft.) for the period may 1 through august 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs./1000 sq.ft.). For the period November 1 through February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring. Refer to the 1994 Maryland standards and specifications for soil erosion and sediment control for rate and methods not covered.

21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose

To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH materials toxic to plants, and/or unacceptable soil gradation.

Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
 - the texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.

ii. For the purpose of these standards and specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

UTILITY STORAGE BUILDING SPECIFICATIONS

Contractor to provide 15'-2" x 11' (I.D.) vinyl sided storage building, high wall barn style with 6 foot side walls and no windows, one double door on end of building. Contractor to meet the following specifications:

- No windows
- 10' ridge vent
- 4' x 4' pressure treated skids
- 2' x 4' floor joist 16" on center
- 5/8" plywood floor sheathing
- 2' x 4' studs 16" on center
- All walls to be plated at bottom and double plated at the top
- 1/2" roof sheathing
- 240 pound asphalt 20 years shingles
- Doors and frame to be reinforced
- Door hangers must be "I" type or strap type, three hinges per door side. Piano hinges are not acceptable
- Locks are to be keyed alike with bauer ch 751 lock
- Vinyl siding and trim color - almond, shingle color - brown

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

Soil amendments: In lieu of soil test recommendations, use one of the following schedules:

- Preferred-apply 2 tons per acre dolomite limestone (92 lbs/ 100 sq.ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs./ 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. at the time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq.ft.)
- Acceptable-apply 2 tons per acre dolomite limestone (92 lbs/ 1000 sq.ft.) and apply 1000 lbs. per acre 10-10-10- fertilizer (23 lbs./1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

Seeding: for the periods march 1 through April 30, and august 1 through October 15, seed with 60 lbs. per acre (1.4 lbs./1000 sq.ft.) of kentucky 31 tall fescue. For the period may 1 through July 31, seed with 60 lbs. kentucky 31 tall fescue per acre and 2 lbs. per acre (.05 lbs./1000 sq.ft.) of weeping lovegrass. During the period of October 16 through February 28, protect site by: Option (1) 2 tons per acre well anchored straw mulch and seed as soon as possible in the spring. option (2) use sod. option (3) seed with 60 lbs/acre kentucky 31 tall fescue and mulch with 2 tons/acre well anchored

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs./1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq.ft.) of emulsified asphalt on flat areas, on slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq.ft.) for anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedsings.

SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (313-1855).

2. All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. and revisions thereto.

3. Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall be done when recommended seeding dates do not allow for proper germination and establishment of grasses.

6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.

- Site Analysis:
 - Area Disturbed
 - Area to be roofed or paved
 - Area to be vegetatively stabilized
 - Offsite waste/borrow area location

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

9. Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.

10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection

TUBE GATE SPECIFICATIONS CONSTRUCTION AND MATERIAL SPECIFICATIONS

- Contractor to provide one double leaf gate, see detail sheet 13 a. 16 gauge steel construction b. Painted red by manufacture if option is available c. Mounting hardware is typically included with gate
- Each tube gate will be 8 foot in length
- Gates are to be mounted to 6" x 6" pressure treated posts
- Posts are to be capped
- Posts are to be buried a minimum of 36 inches below grade
- Gates are to be secured to pressure treated posts with either screw hooks or bolt hooks
- Fastening hardware will not be permitted to extrude beyond the outside of the post
- Screw or bolt hooks are to face each other; this will prevent the gates from being lifted off of the hooks by trespassers
- The bottom tube of the gate shall be mounted to provide a minimum of 4" clearance above the access roadway
- Gates are to be secured by 3/8-inch shackle padlock, which will be supplied by Howard County Bureau of Utilities. The contractor will supply a suitable length of chain (approximately 1 foot) or short choker cable to complete securing the gates in the closed position.
- Contractor to provide reflectors on posts and reflective tape on crossbars

i. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the soil survey published by USDA in cooperation with Maryland agricultural experimental station.

ii. Topsoil specifications - soil to be used meet the following:

- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 and 1/2" in diameter.

ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

iii. For sites having disturbed areas under 5 acres:

- Place topsoil (if required) and apply soil amendments as specified in 20.0 vegetative stabilization - elapsed (14 days min.) to permit dissipation of Section 1 - vegetative stabilization methods and materials. Phyto-toxic materials.

- For sites having disturbed areas over 5 acres:
 - On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 3, place topsoil (if required) and apply soil amendments 6.0, sufficient lime shall be prescribed to raise specified in 20.0 vegetative stabilization-section 1-Vegetative the pH to 6.5 or higher. Stabilization methods and materials.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil soil which sediment control practices such as diversions, grade has been treated with soil sterilants or chemicals stabilization structures, earth dikes, slope silt fence and used for weed control until sufficient time has sediment traps and basins.

Note: Topsoil substitutes or amendments, as recommended results dictating fertilizer and lime amendments required by a qualified agronomist or soil scientist and approved by to bring the soil into compliance with the following: the appropriate approval authority, may be used in lieu of natural topsoil.

- Topsoil application
 - When topsoiling, maintain needed erosion and
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be place while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert W. ... 1/19/07
HOWARD COUNTY HEALTH OFFICER DATE

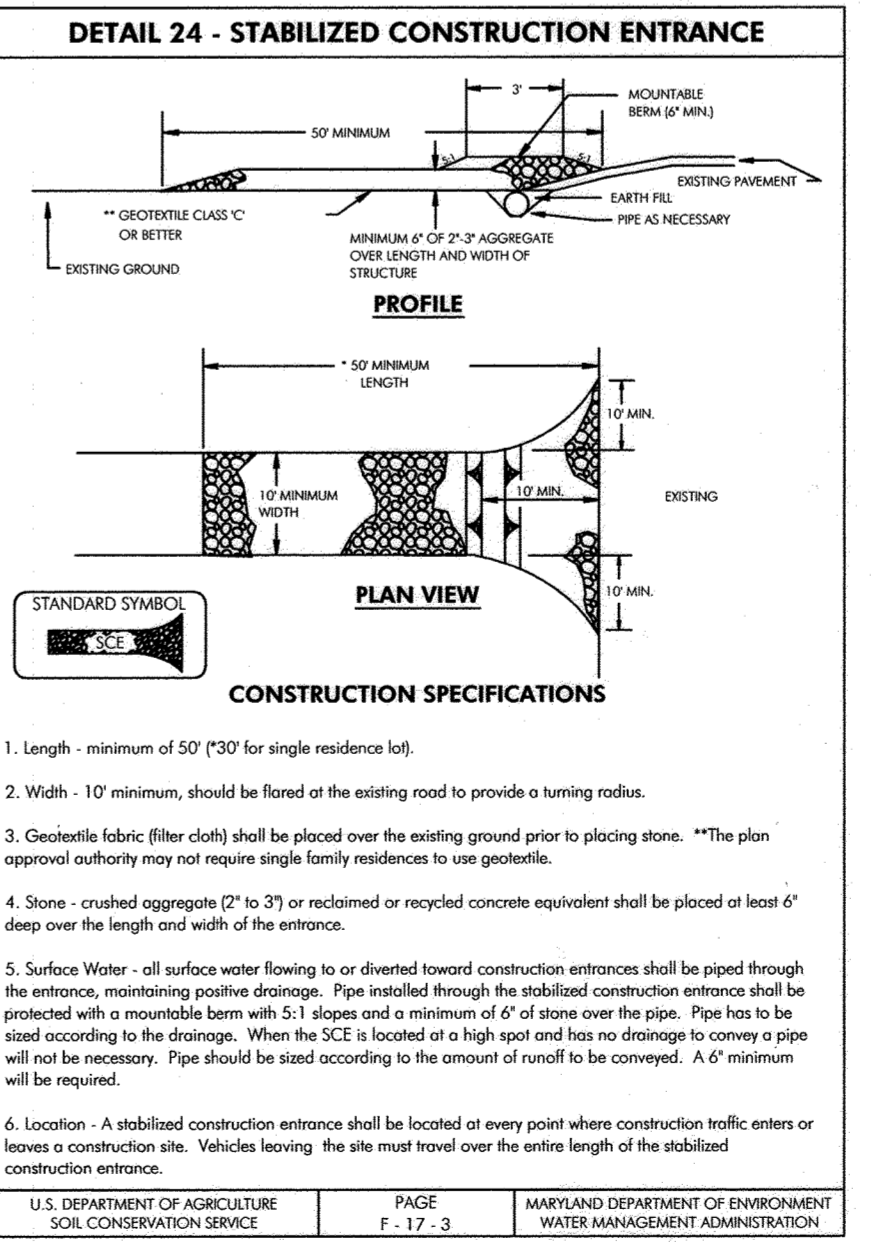
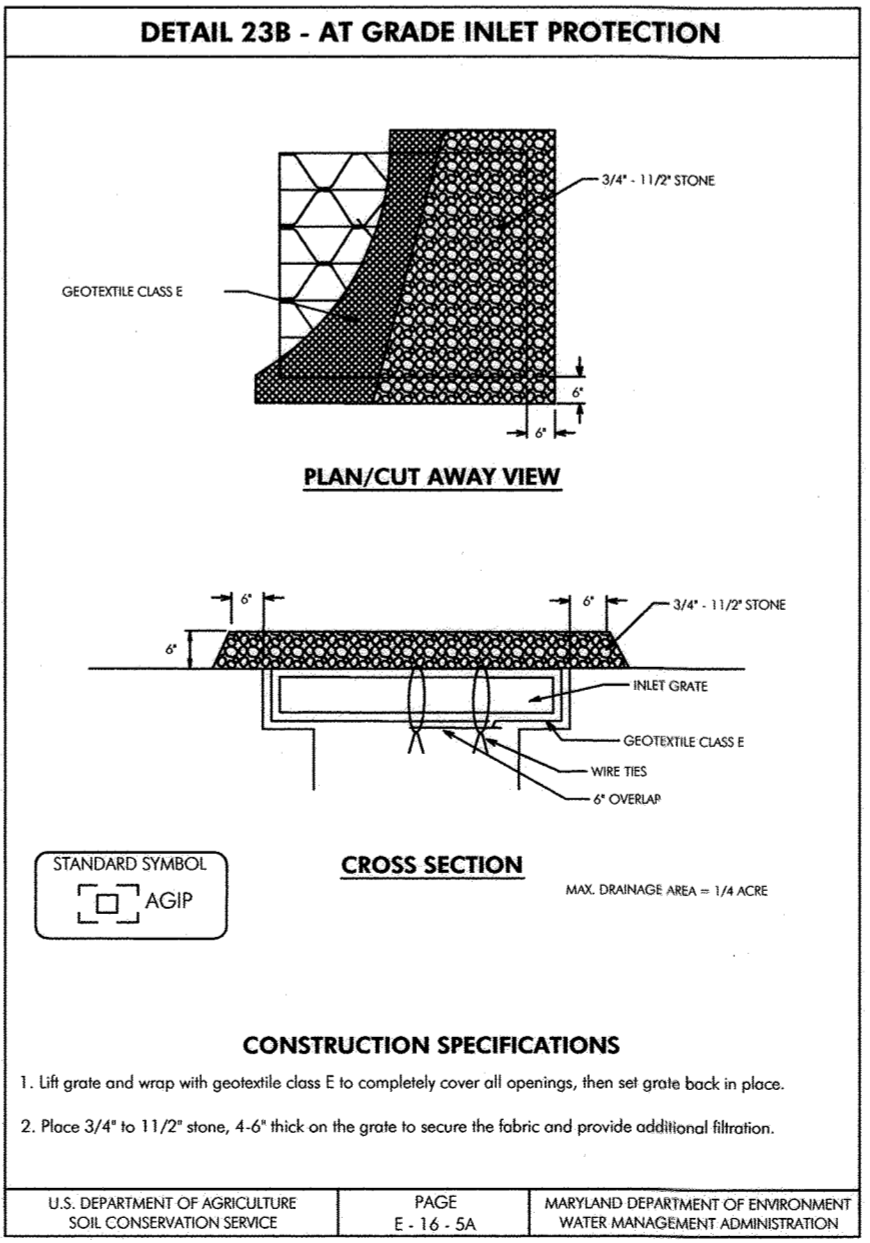
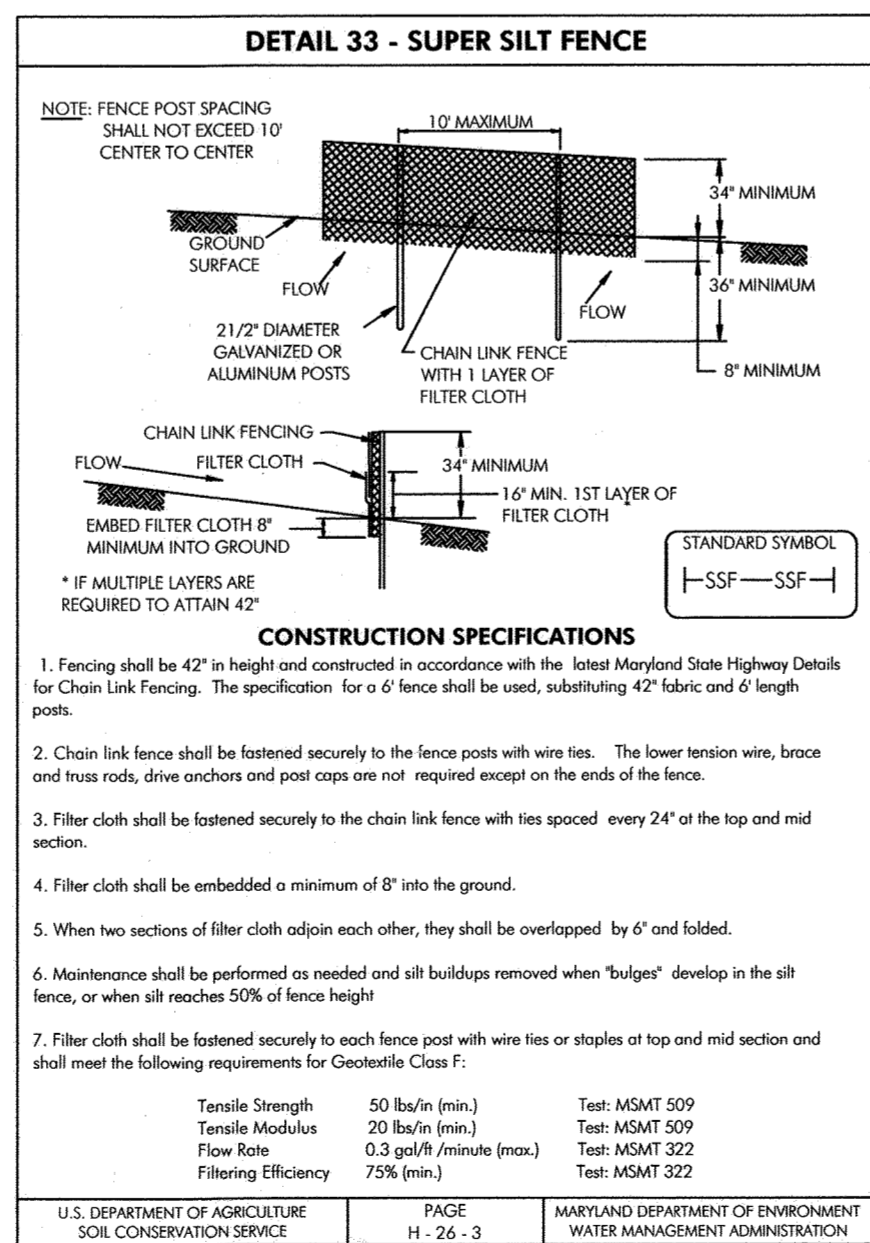
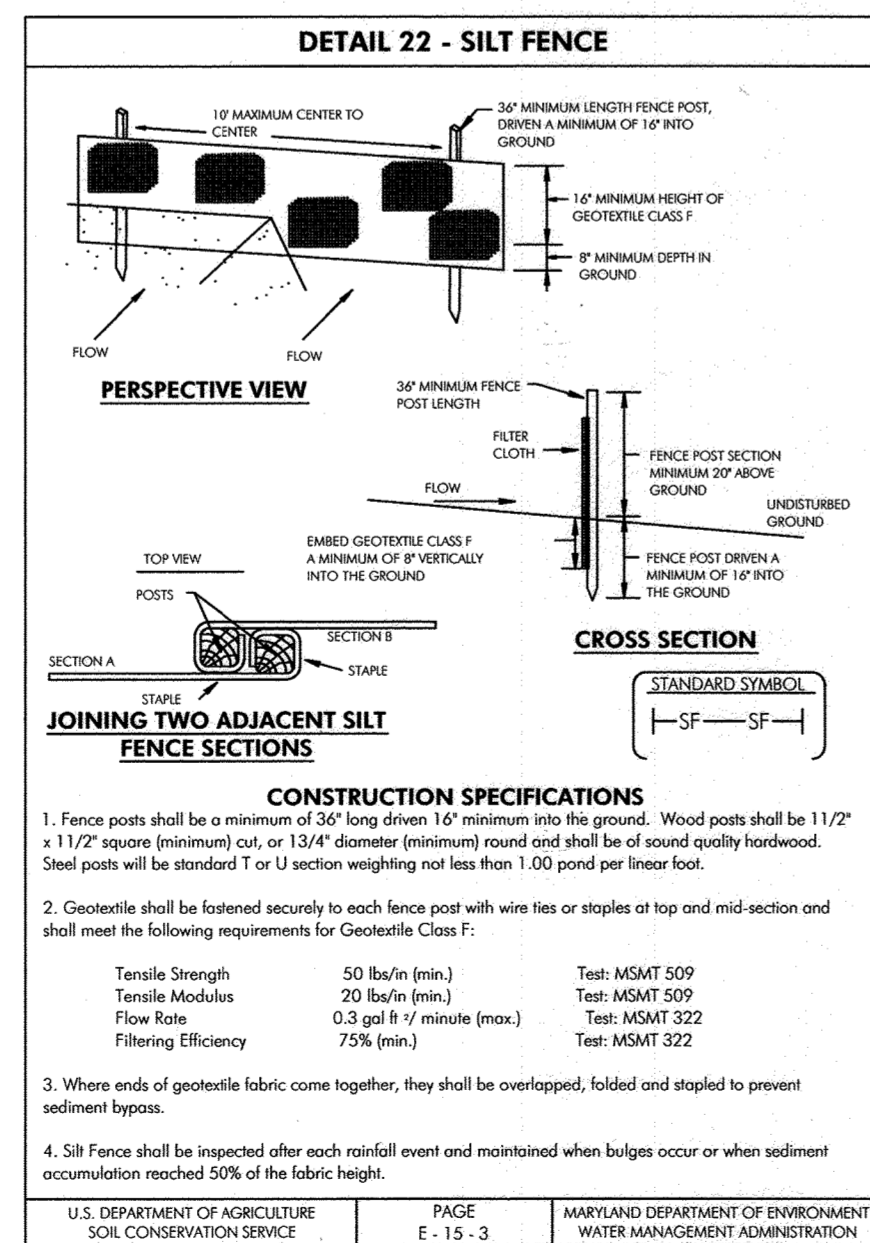
HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 2/6/07
USDA NATURAL RESOURCE CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John K. ... 2/6/07
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. ... 1-25-07
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

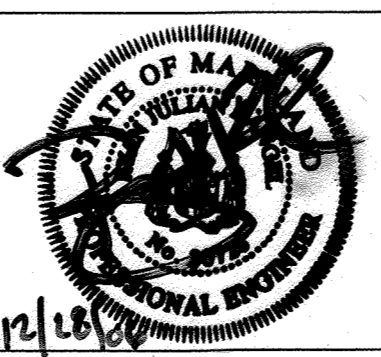
John K. ... 2/6/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

McCRONE

Engineering Environmental Sciences
Construction Services Land Planning & Surveying

ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY

30 RIDGELY AVENUE
ANNAPOLIS, MARYLAND 21401
PHONE: (410) 301-9821 • FAX: (410) 301-9822
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DES: B.T.D., N.V.S.

DRN: B.T.D., N.V.S.

CHK: R.J.R.

DATE: DEC., 2006

BY: No.

REVISION: SD 1 SUBDIVISION NAME

DATE: 4/9/07

SEDIMENT CONTROL /DESIGN NOTES

JOB No. C1040062

SHEPPARD MANOR

-PEDDIGORD SHARED SEPTIC SYSTEM

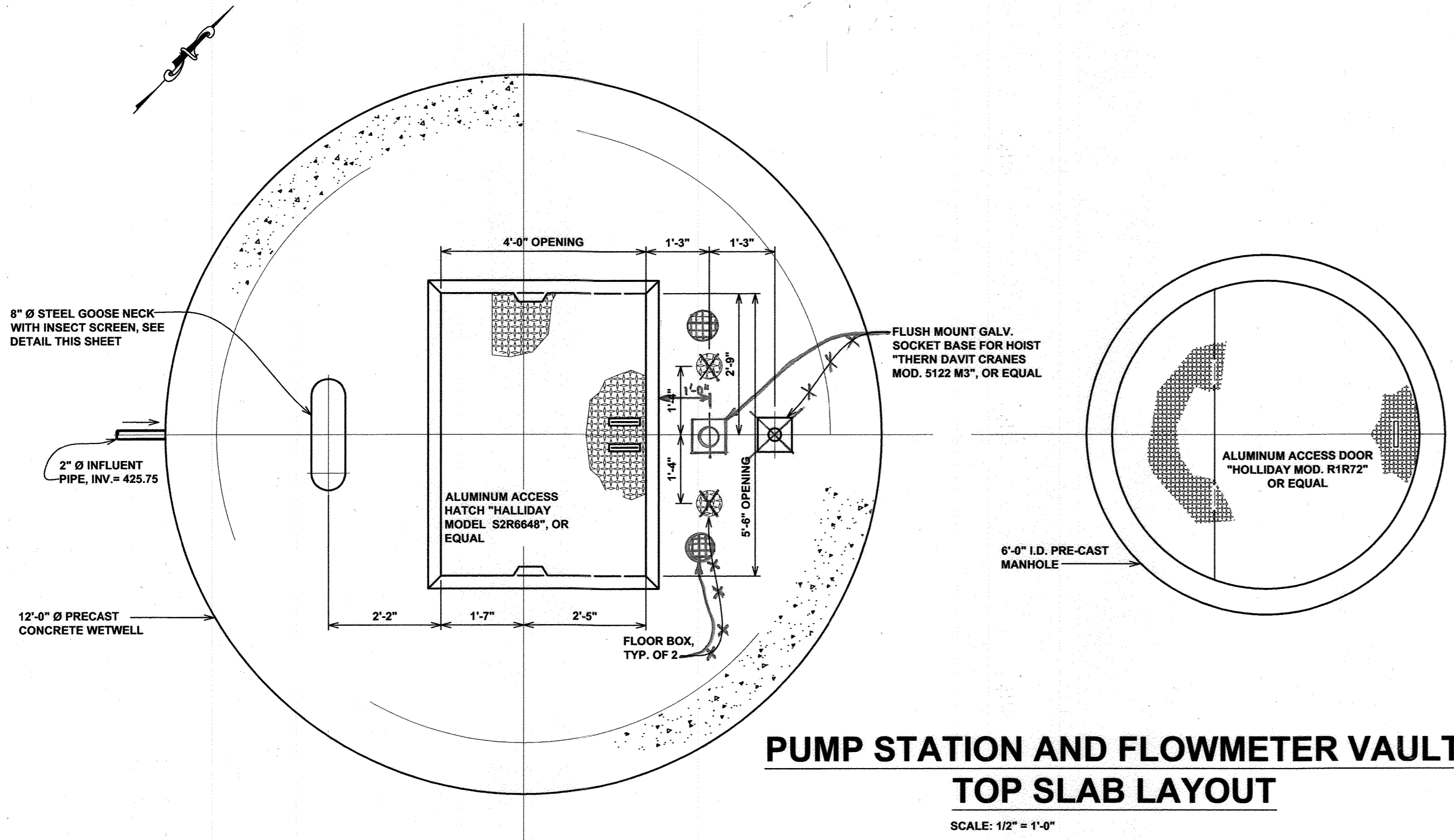
LOTS 1 - 19
CONTRACT #49-9376 50-4357D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

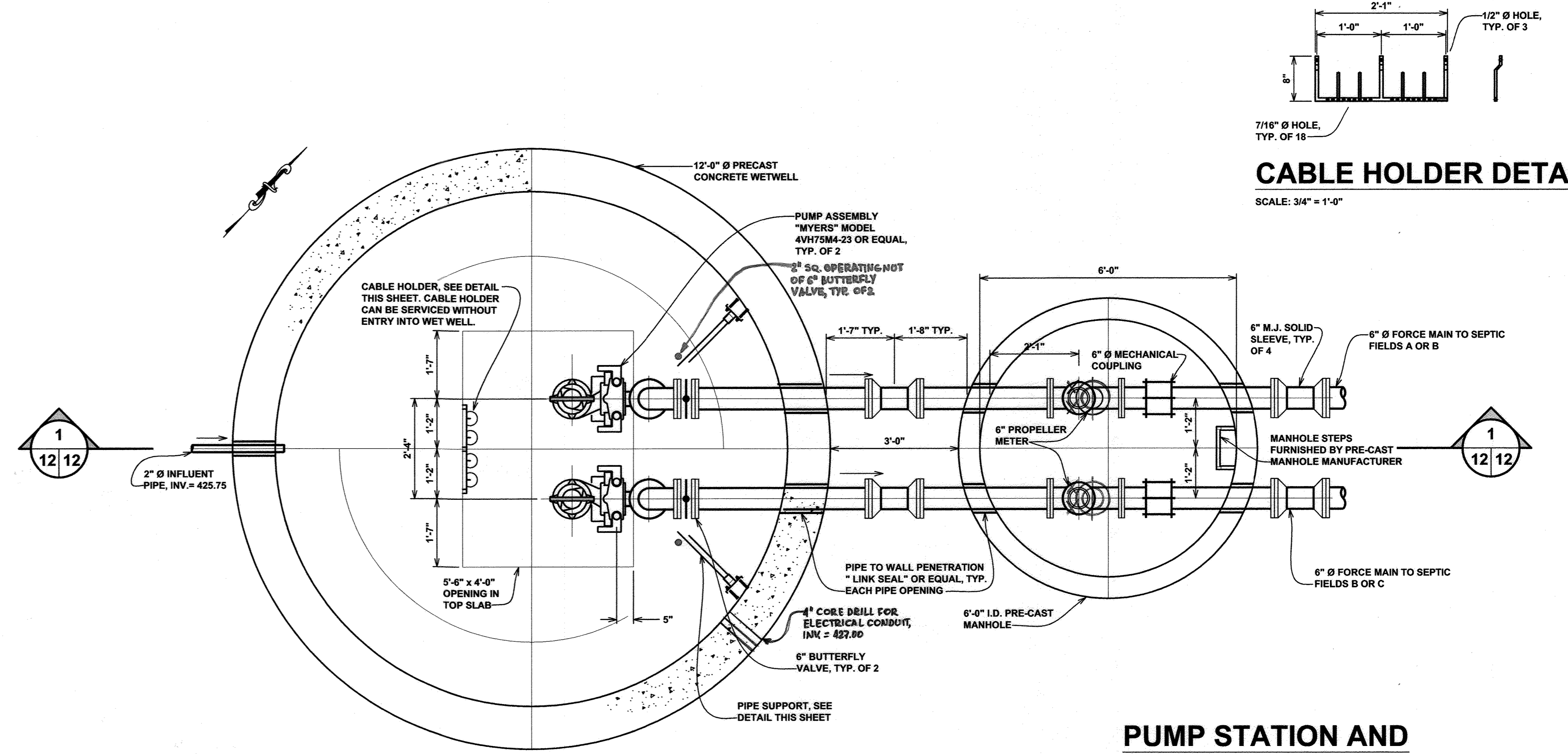
SHEET 10 OF 18

PLOTTED: Dec 28, 2006 - 10:41 am

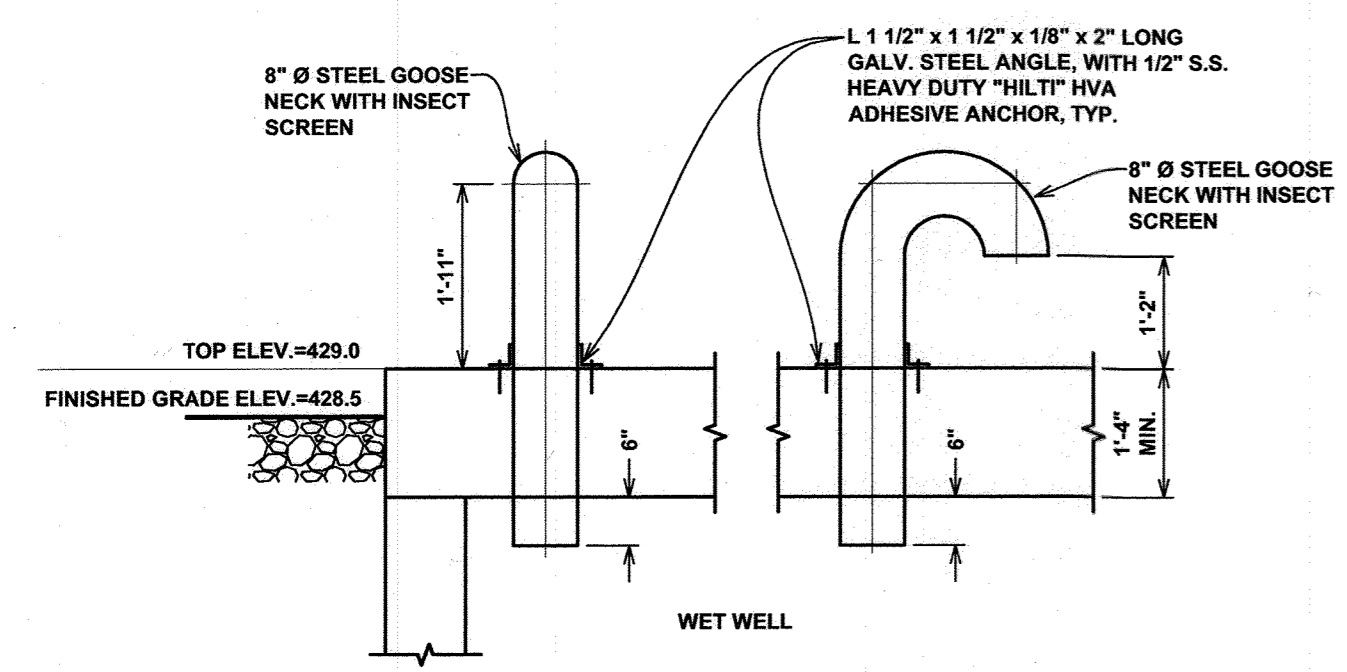
CADD FILE: G:\1040062 - Peddigord Shared Septic Design Details_REV03.dwg Tab: 10 OF 18



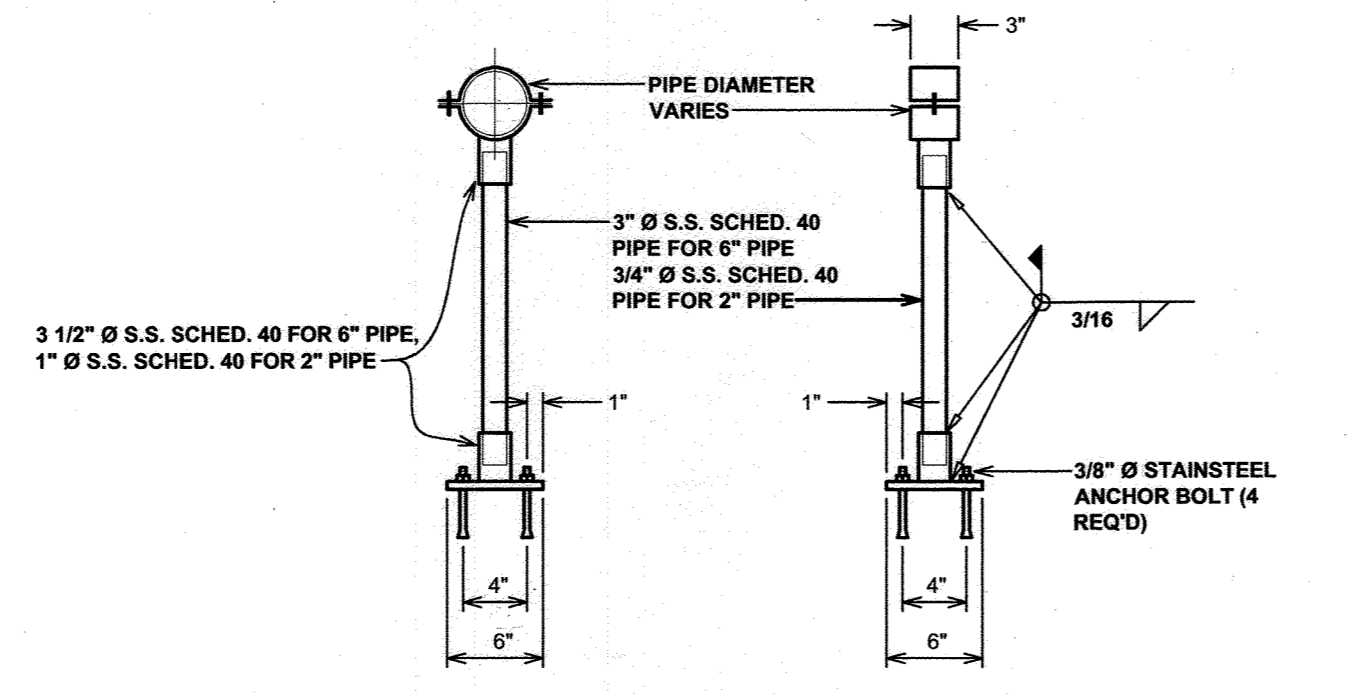
PUMP STATION AND FLOWMETER VAULT TOP SLAB LAYOUT
SCALE: 1/2" = 1'-0"



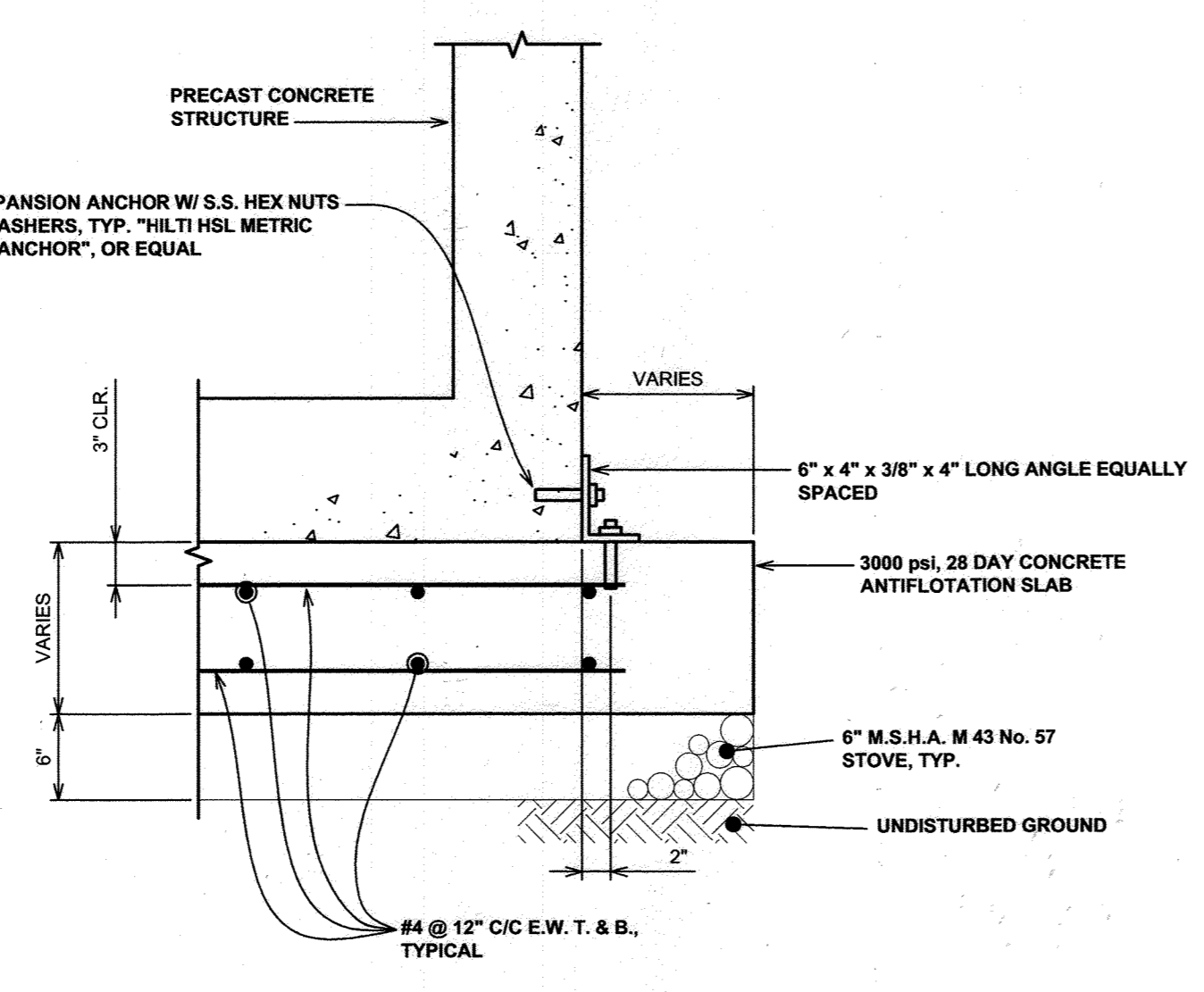
PUMP STATION AND FLOWMETER VAULT PLAN
SCALE: 1/2" = 1'-0"



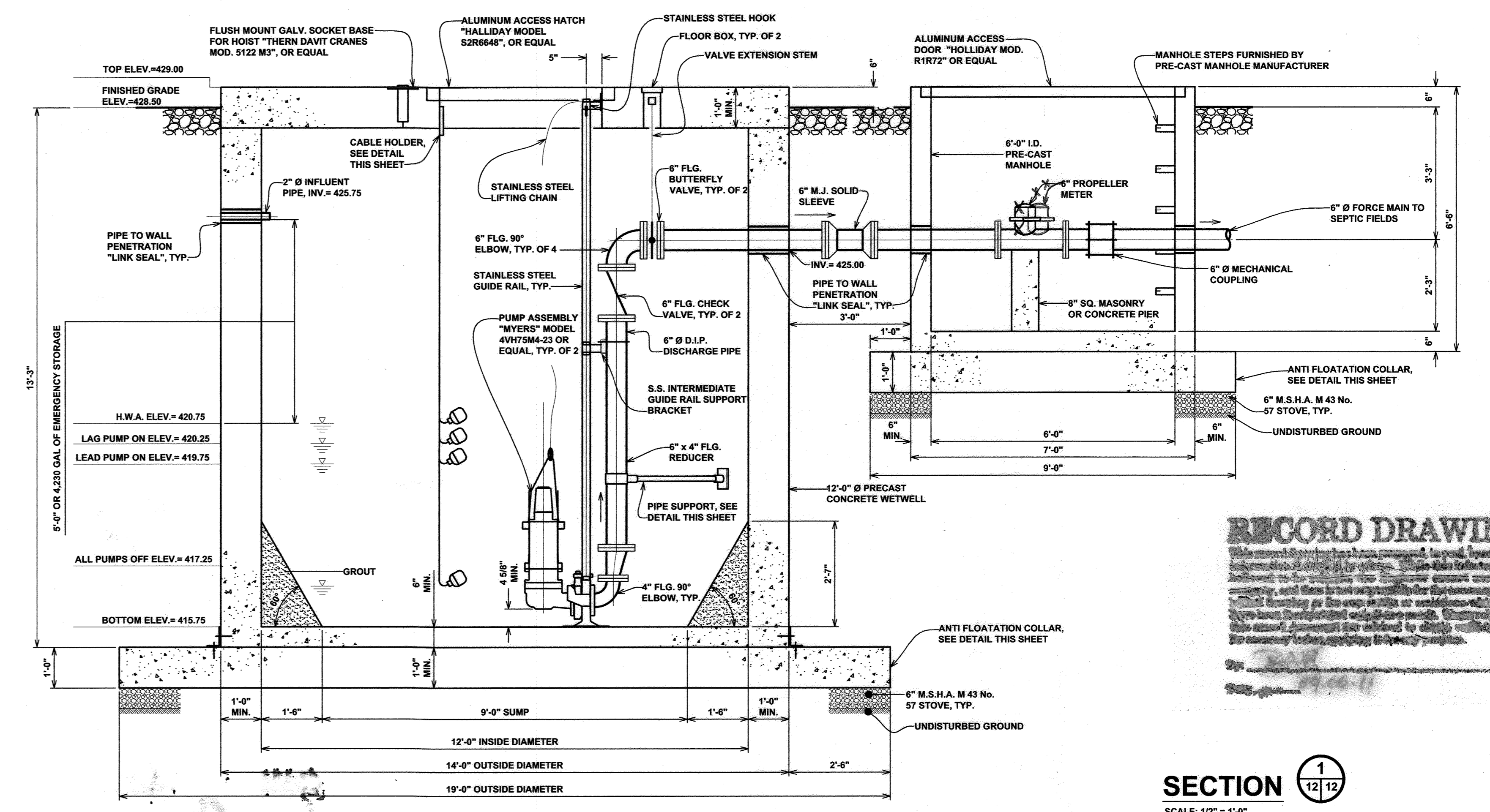
AIR INTAKE DETAIL
NOT TO SCALE



PIPE SUPPORT DETAIL
SCALE: 1" = 1'-0"



ANTIFLOATATION COLLAR DETAIL
SCALE: 1" = 1'-0"



SECTION 1
SCALE: 1/2" = 1'-0"

RECORD DRAWING
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APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT
Rodney W. Williams
HOWARD COUNTY HEALTH OFFICER
DATE: 1/19/07

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE:

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
DATE:

HOWARD SOIL CONSERVATION DISTRICT
DATE:

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

McCRONE
Engineering Environmental Sciences
Construction Services Land Planning & Surveying
ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY
20 RIDGELY AVENUE
ANNAPOLIS, MARYLAND 21401
PHONE: (410) 327-4211 FAX: (410) 327-9332
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City of Maryland

DES: B.T.D., N.V.S.
DRN: B.T.D., N.V.S.
CHK: R.J.R.
DATE: DEC., 2006

SD 1 SUBDIVISION NAME
BY No. REVISION DATE

DATE: DEC., 2006

DATE: 1/19/07

DATE: 1-25-07
CHIEF, BUREAU OF UTILITIES

DATE: 1/19/07
CHIEF, DEVELOPMENT ENGINEERING DIVISION

PUMP STATION AND DETAILS

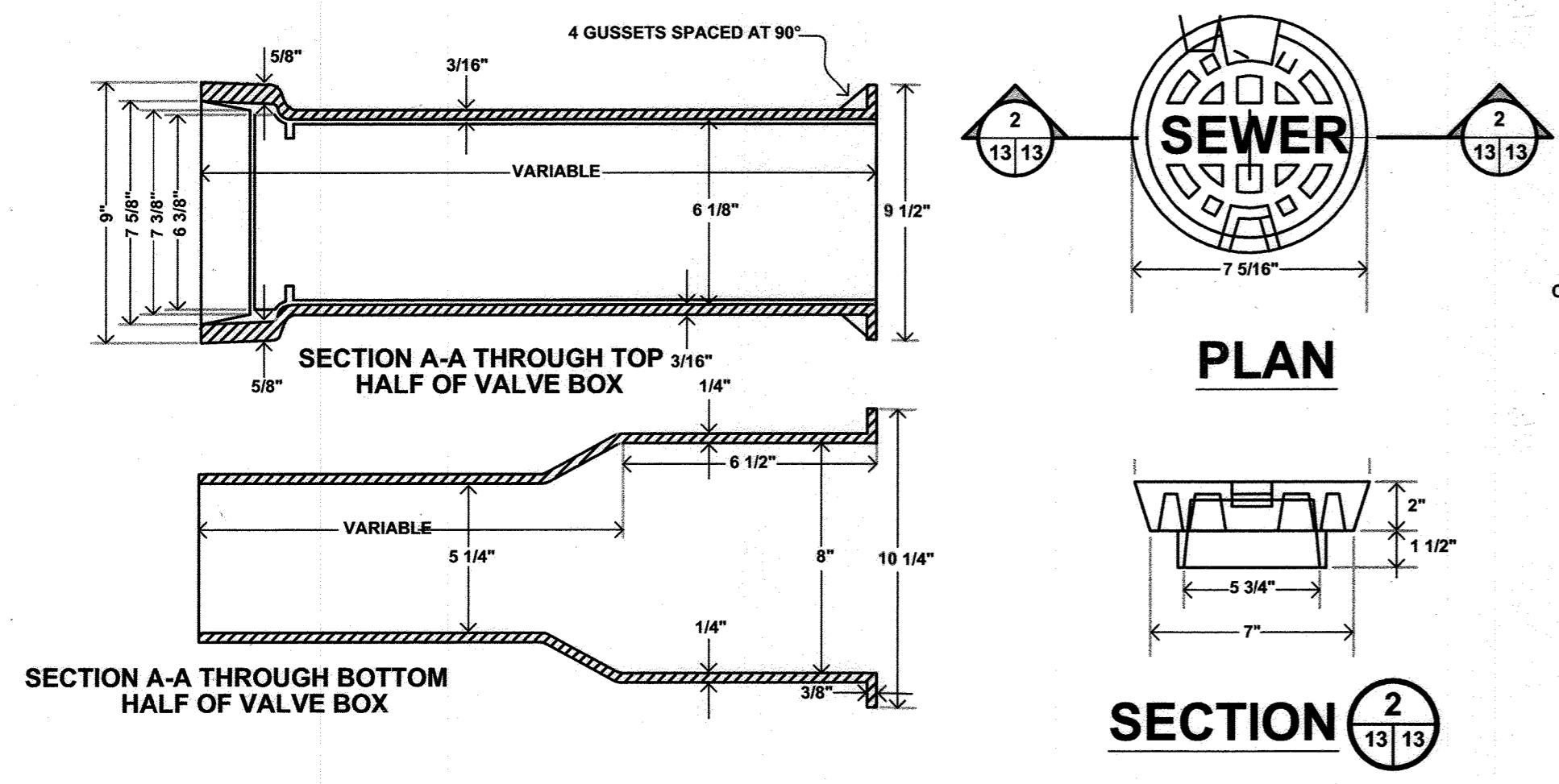
SHEPPARD MANNO
PEDDIGORD SHARED SEPTIC SYSTEM
LOTS 1 - 19
CONTRACT # SD-4367D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 12 OF 18

PLOTTED: Dec 28, 2006 10:36am

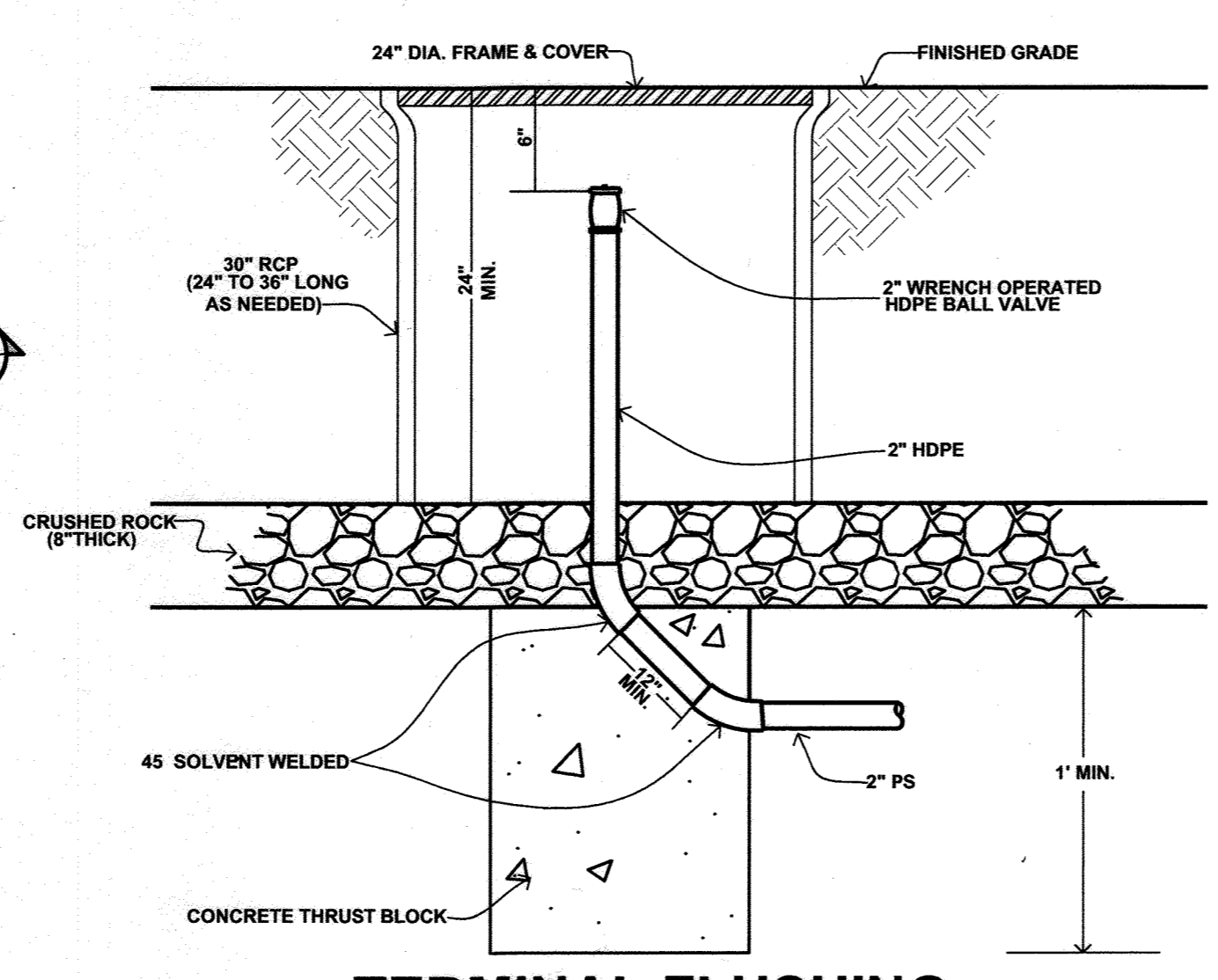
CADD FILE: G:\1040062 - Peddicord Property Drawings\SHARED SEPTIC DESIGN\DETAILS_REV03.dwg Tab.....12 of 18

- SPECIFICATIONS:**
1. CAST IRON-SLIDING TYPE MIN. T.S. 30,000 PSI
 2. TOP SECTION- 16" BOTTOM SECTION 18"
 3. BOXES ADJUSTABLE 34" TO 48"
 4. TOP SECTION- 16" BOTTOM SECTION 30" MIN. WT. PER BOX- 100 LBS



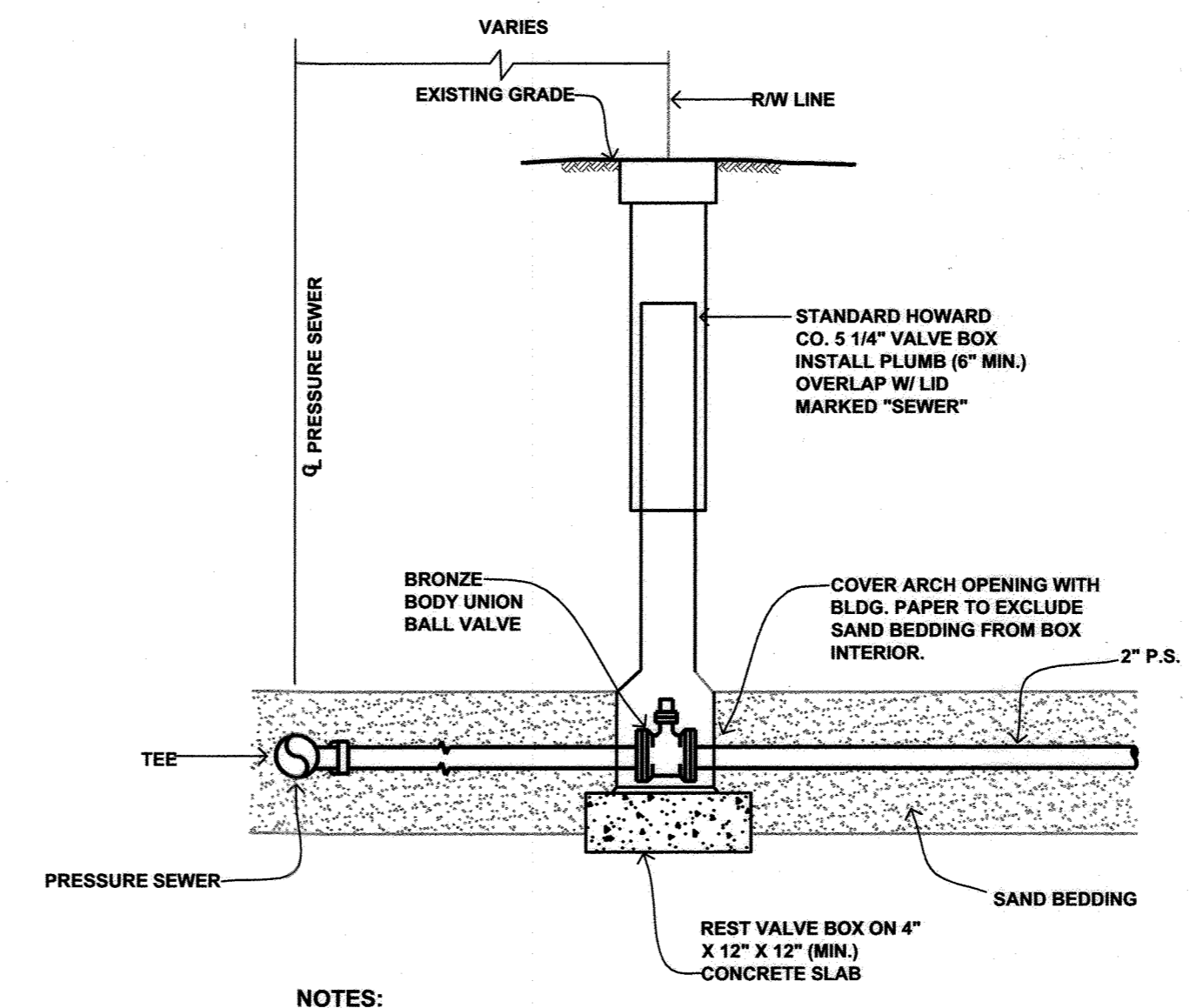
**ADJUSTABLE VALVE BOX
ROUND HEAD SLIDING TYPE**

NOT TO SCALE



TERMINAL FLUSHING CONNECTION

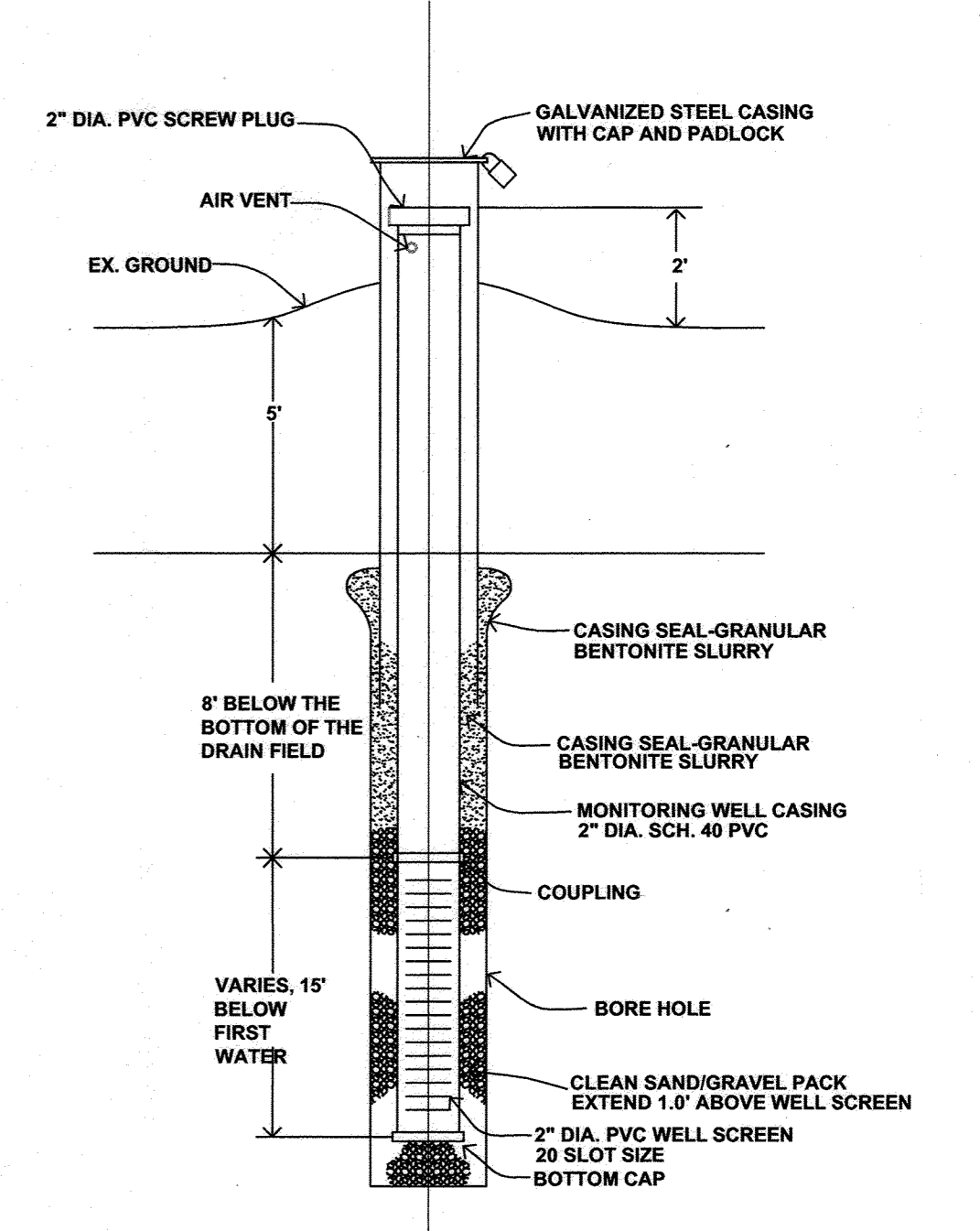
NOT TO SCALE



UNION BALL VALVE ASSEMBLY

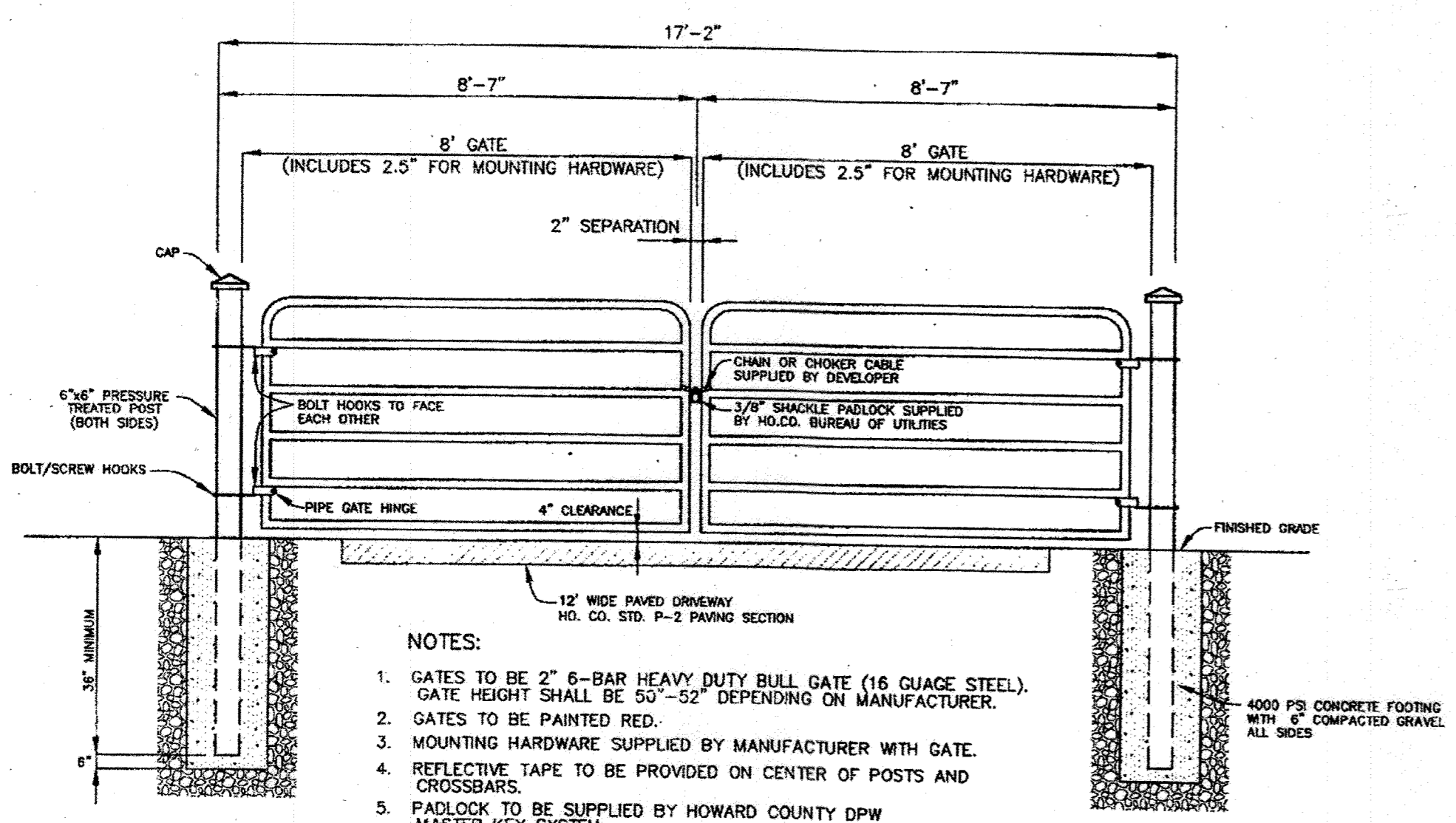
NOT TO SCALE

- NOTES:**
1. MAINTAIN 4" MIN. COVER OVER PRESSURE SEWER.
 2. CONCRETE SLAB ON UNDISTURBED EARTH OR FIRM SUBGRADE.



PIEZOMETER DETAIL

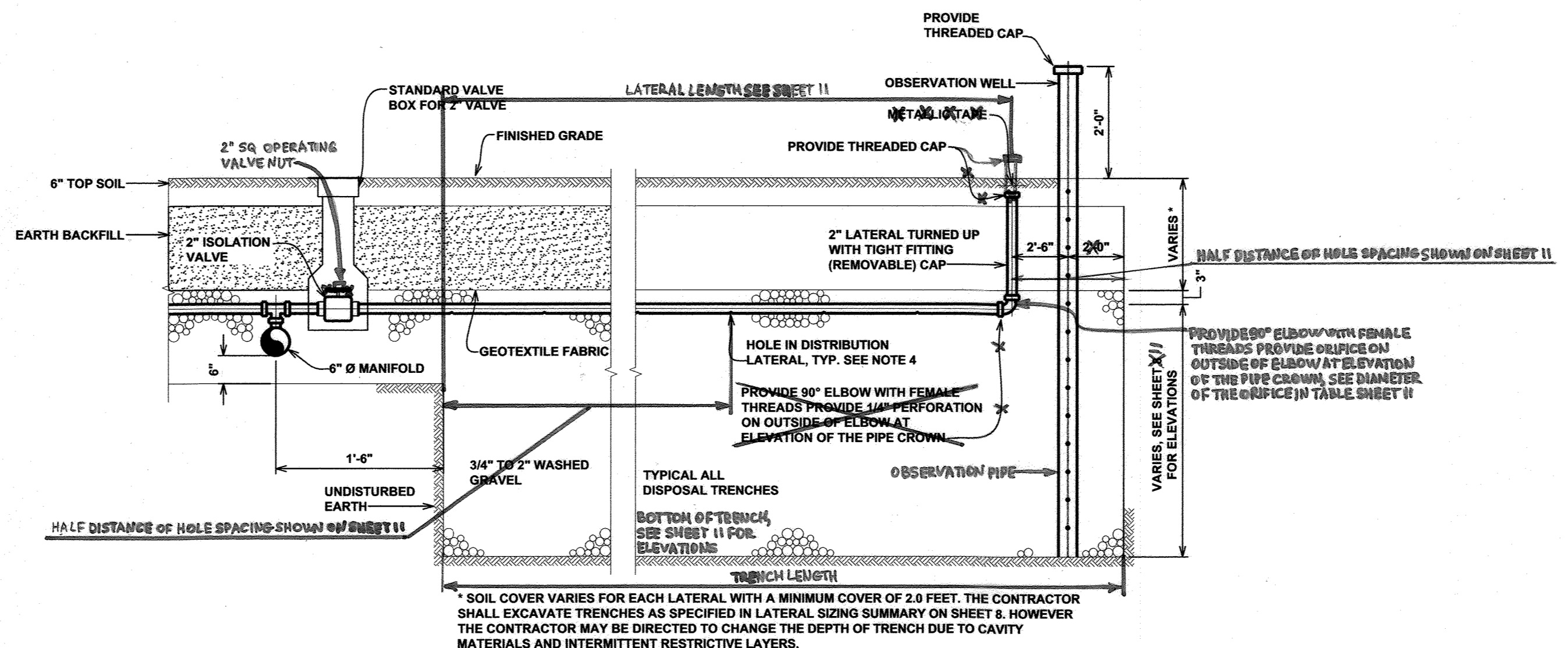
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GATE DETAIL

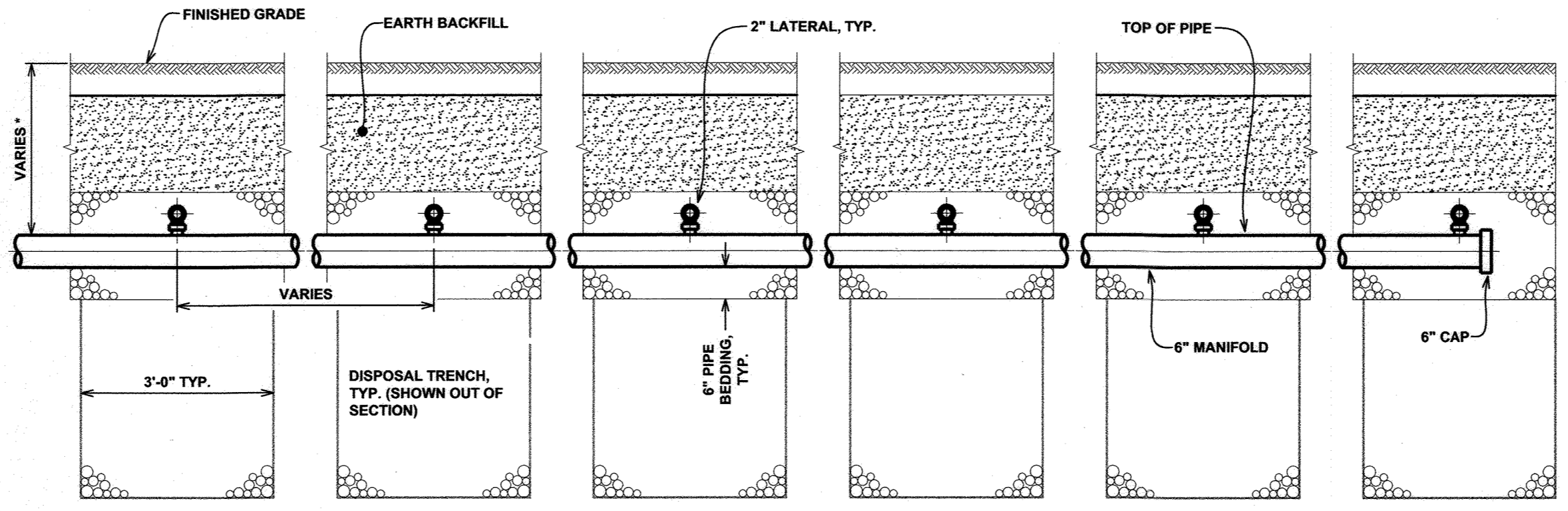
NOT TO SCALE

- NOTES:**
1. GATES TO BE 2" 6-BAR HEAVY DUTY BULL GATE (16 GAUGE STEEL). GATE HEIGHT SHALL BE 50"-52" DEPENDING ON MANUFACTURER.
 2. GATES TO BE PAINTED RED.
 3. MOUNTING HARDWARE SUPPLIED BY MANUFACTURER WITH GATE.
 4. REFLECTIVE TAPE TO BE PROVIDED ON CENTER OF POSTS AND CROSSBARS.
 5. PADLOCK TO BE SUPPLIED BY HOWARD COUNTY DPW MASTER KEY SYSTEM.



TYPICAL LATERAL SECTION

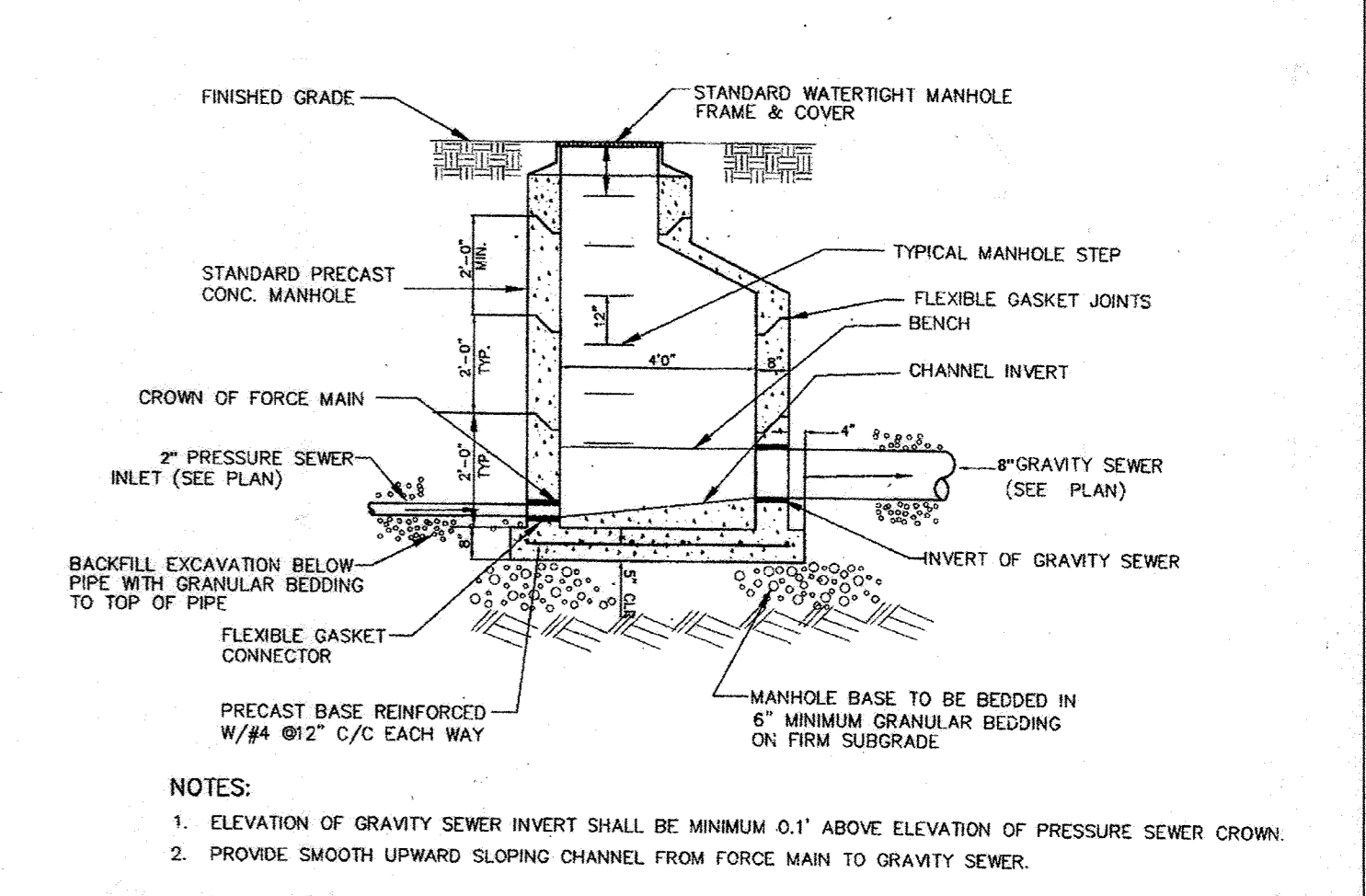
SCALE: 1/2" = 1'



TYPICAL MANIFOLD SECTION

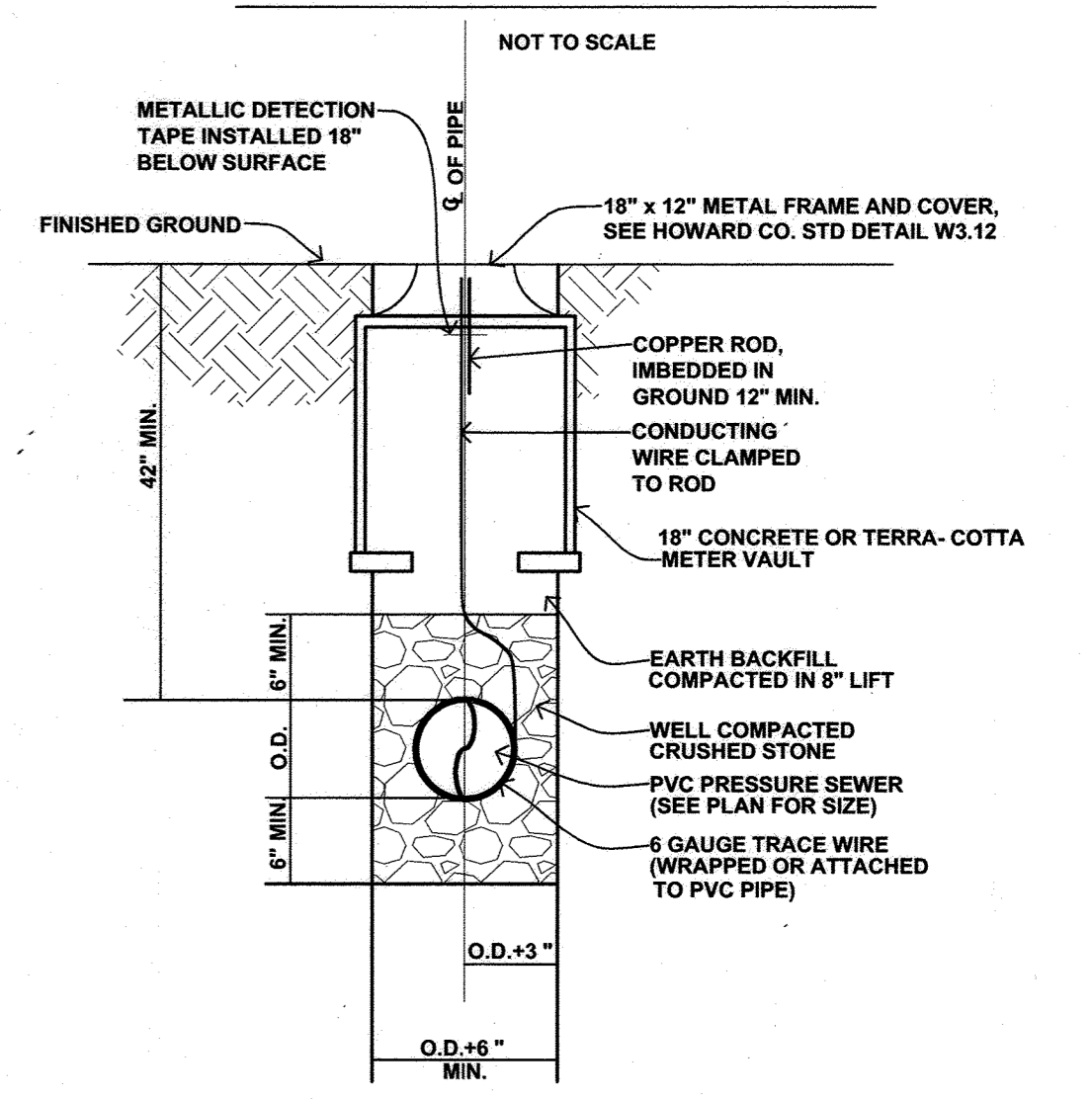
SCALE: 1/2" = 1'

- NOTES:**
1. PROVIDE 2" THREADED CAPS AT ENDS OF ALL DISTRIBUTION LATERALS.
 2. MANIFOLD PIPE AND DISTRIBUTION LATERALS TO BE INSTALLED ON LEVEL GRADE. ELEVATIONS PER LATERAL SIZING SUMMARY ON SHEET 11.
 3. BOTTOM OF TRENCH TO BE EXCAVATED ON LEVEL GRADE.
 4. CONTRACTOR TO DRILL HOLES IN DISTRIBUTION LATERALS DOWNWARD AS SPECIFIED IN LATERAL SIZING SUMMARY ON SHEET 11. LENGTH FOR LAST HOLE AS NOTED ON TYPICAL LATERAL SECTION.
 5. FOR TESTING THE CONTRACTOR TO PROVIDE FOUR THREADED CAP FITTINGS WITH A PRESSURE GAGE WHICH READS BETWEEN 0 AND 60 FEET.
 6. THE CONTRACTOR TO INSTALL ISOLATION VALVE ON EACH LATERAL.



TRANSITION MANHOLE: PRESSURE SEWER TO GRAVITY SEWER

- NOTES:**
1. ELEVATION OF GRAVITY SEWER INVERT SHALL BE MINIMUM 0.1' ABOVE ELEVATION OF PRESSURE SEWER CROWN.
 2. PROVIDE SMOOTH UPWARD SLOPING CHANNEL FROM FORCE MAIN TO GRAVITY SEWER.



PRESSURE SEWER TRENCH, BEDDING & CONDUCTING ROD CABLE BOX LOCATION DETAIL

NOT TO SCALE

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

[Signature] 1/19/07
HOWARD COUNTY HEALTH OFFICER DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 1-25-09
CHIEF, BUREAU OF UTILITIES DATE

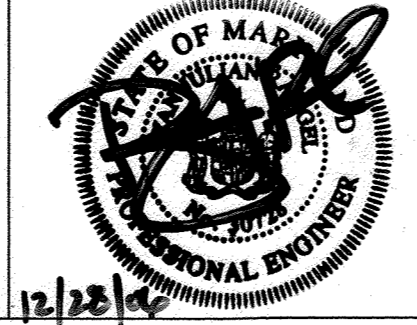
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 2/12/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

McCRONE

• Engineering • Environmental Sciences
• Construction Services • Land Planning & Surveying
ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY

20 RIDGELY AVENUE
ANNAPOLIS, MARYLAND 21401
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DES: B.T.D., N.V.S.					
DRN: B.T.D., N.V.S.					
CHK: R.J.R.					
DATE: DEC., 2006	BY: SA	No. 1	SUBMISSION NAME	DATE: 1/19/07	

DETAILS	
DATE: DEC., 2006	DATE: 1/19/07
BY: SA	NO. 1
SUBMISSION NAME	
DATE: DEC., 2006	DATE: 1/19/07
JOB No. C1040062	

PEDDIGORD SHARED SEPTIC SYSTEM

LOTS 1 - 19
CONTRACT # 160-07-0057 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

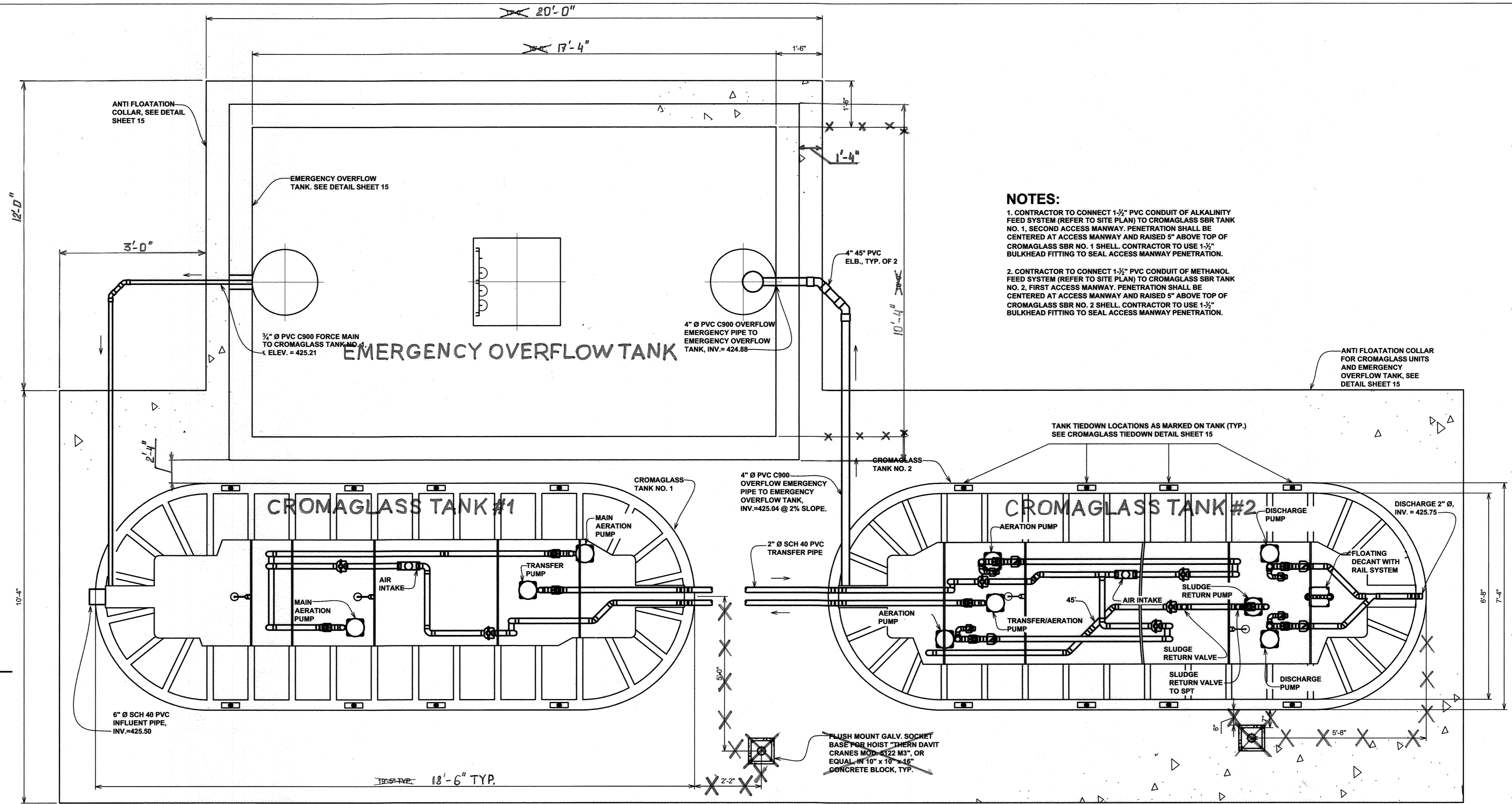
SCALE AS SHOWN

SHEET 13 OF 18

PLOTTED: Dec 28, 2006 - 11:12:00am

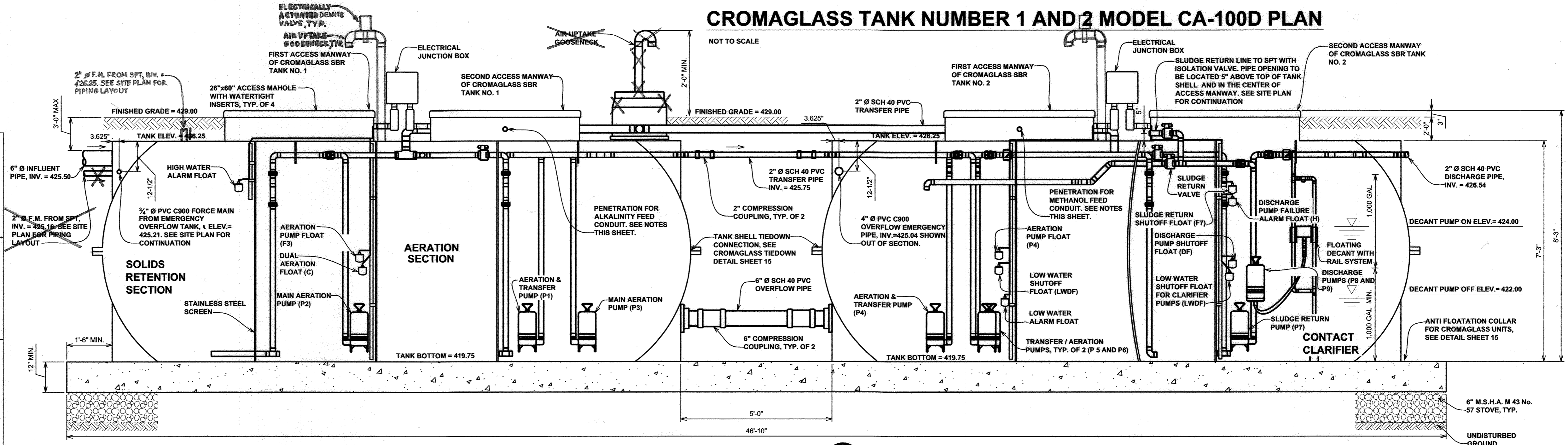
CADD FILE: G:\1040062 - Peddigord Property Drawings\SHARED SEPTIC DESIGN\DETAILS_REV03.dwg Tab:.....13 of 18

NOTES:
 SOLIDS RETENTION COMPARTMENT:
 LENGTH = 4'-8"
 WIDTH = 6'-8"
 AERATION COMPARTMENT:
 LENGTH = 23'-9"
 WIDTH = 6'-8"
 CLARIFIER COMPARTMENT:
 LENGTH = 8'-11"
 WIDTH = 6'-8"
 TOTAL VOLUME IN SOLIDS RETENTION AND AERATION COMPARTMENTS = 7,000 GALLONS
 VOLUME IN CLARIFIER COMPARTMENT = 2,186 GALLONS
 AVERAGE FLOW = 4,125 GPD
 SOLIDS RETENTION AND AERATION COMPARTMENTS
 DETENTION TIME:
 = 7,000 GALLONS X 24 HRS / 4,125 GPD = 40.7 HRS
 CLARIFIER COMPARTMENT DETENTION TIME:
 = 2,186 GALLONS X 24 HRS / 4,125 GPD = 12.7 HRS



NOTES:
 1. CONTRACTOR TO CONNECT 1-1/2" PVC CONDUIT OF ALKALINITY FEED SYSTEM (REFER TO SITE PLAN) TO CROMAGLASS SBR TANK NO. 1. SECOND ACCESS MANWAY. PENETRATION SHALL BE CENTERED AT ACCESS MANWAY AND RAISED 5" ABOVE TOP OF CROMAGLASS SBR NO. 1 SHELL. CONTRACTOR TO USE 1-1/2" BULKHEAD FITTING TO SEAL ACCESS MANWAY PENETRATION.
 2. CONTRACTOR TO CONNECT 1-1/2" PVC CONDUIT OF METHANOL FEED SYSTEM (REFER TO SITE PLAN) TO CROMAGLASS SBR TANK NO. 2. FIRST ACCESS MANWAY. PENETRATION SHALL BE CENTERED AT ACCESS MANWAY AND RAISED 5" ABOVE TOP OF CROMAGLASS SBR NO. 2 SHELL. CONTRACTOR TO USE 1-1/2" BULKHEAD FITTING TO SEAL ACCESS MANWAY PENETRATION.

CROMAGLASS TANK NUMBER 1 AND 2 MODEL CA-100D PLAN



RECORD DRAWING

THIS DRAWING IS A RECORD DRAWING. IT IS NOT TO BE USED FOR CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AN ACCURATE RECORD OF THE AS-BUILT CONDITIONS. ANY CHANGES TO THE ORIGINAL DESIGN SHALL BE INDICATED BY A REVISION OR A FIELD NOTE. THIS DRAWING IS THE PROPERTY OF THE ENGINEER AND SHALL BE RETURNED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
 HOWARD COUNTY HEALTH DEPARTMENT
Ruth W. ...
 HOWARD COUNTY HEALTH OFFICER
 DATE: 11/9/07

HOWARD SOIL CONSERVATIONS DISTRICT:
 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
 DATE: _____

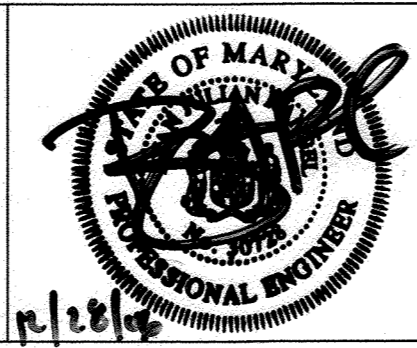
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 HOWARD SOIL CONSERVATION DISTRICT
 DATE: _____

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Ruth W. ...
 CHIEF, BUREAU OF UTILITIES
 DATE: 1-25-09

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Ruth W. ...
 CHIEF, DEVELOPMENT ENGINEERING
 DATE: 2/17/09

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DES: B.T.D., N.V.S.					
DRN: B.T.D., N.V.S.					
CHK: R.J.R.					
DATE: DEC. 2006	BY: No.	REVISION: SD 1 SUBDIVISION NAME	DATE: 1/10/07		

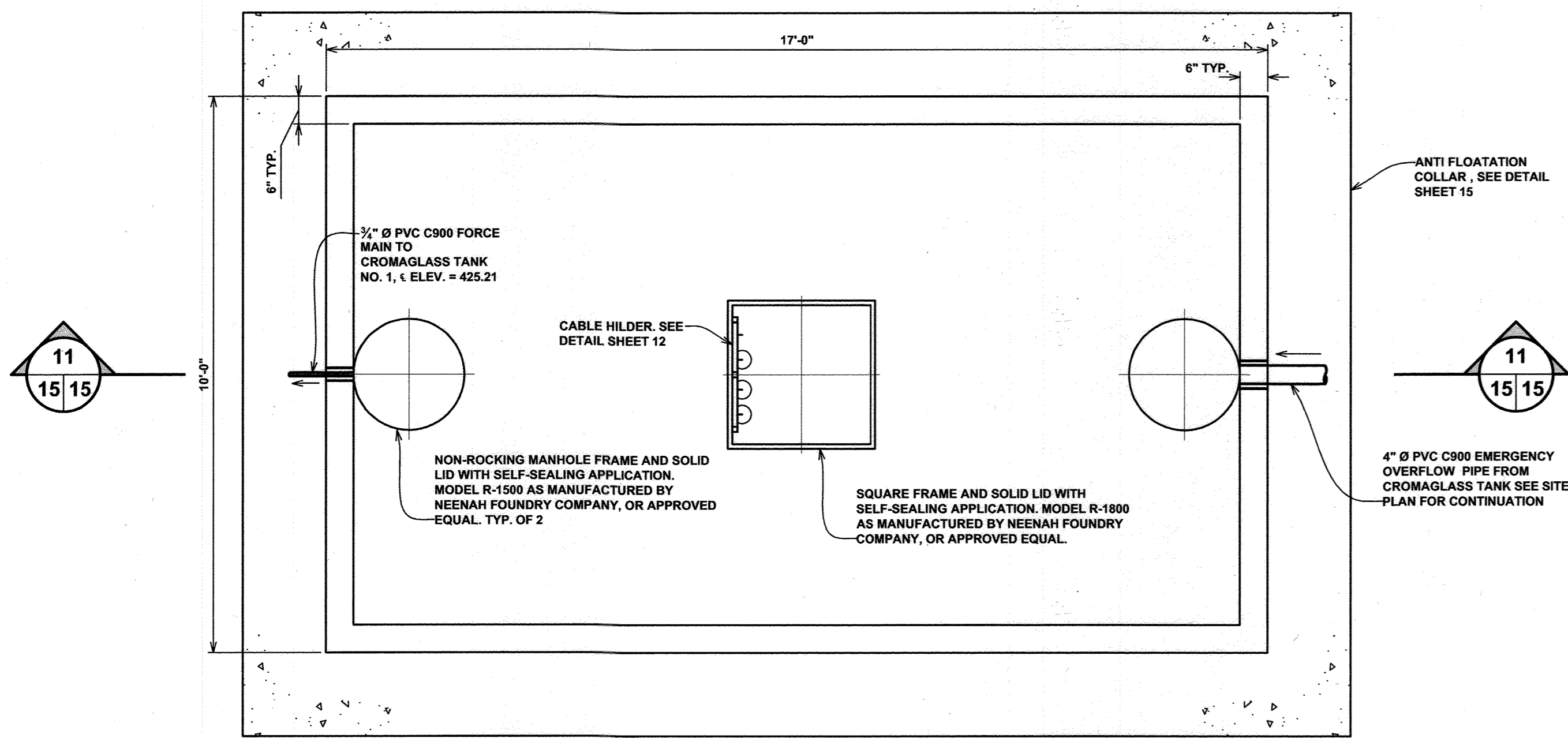
CROMAGLASS TREATMENT UNIT
 JOB No. C1040062

PEDDIGORD SHARED SEPTIC SYSTEM
 CONTRACT # 450-4357 D
 TAX MAP NO. 29 - GRID NO. 1 - PARCEL 288
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

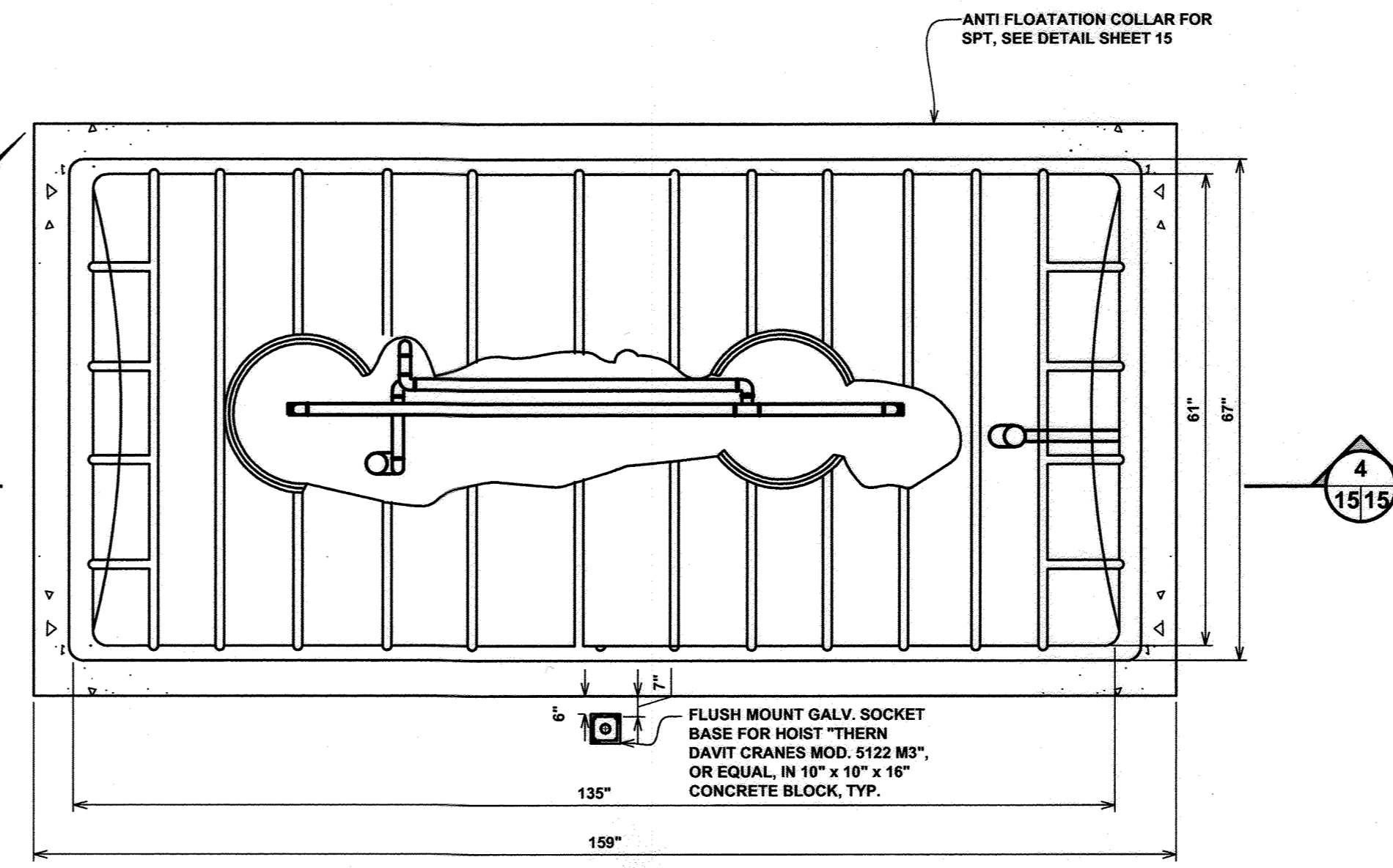
SCALE AS SHOWN
 SHEET 14 OF 18

PLOTTED: Dec 28, 2006 11:14am

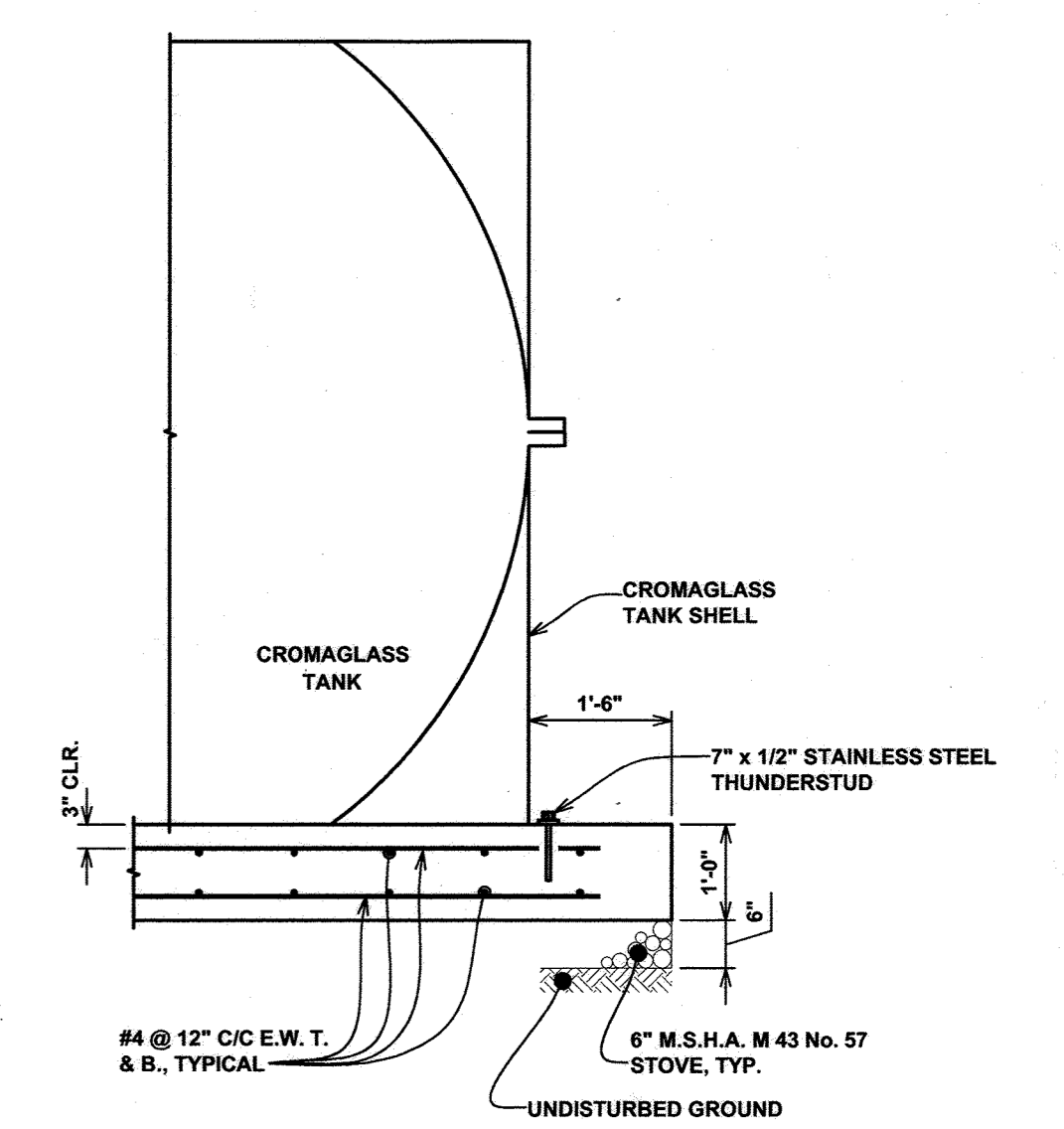
CADD FILE: G:\1040062 - Peddigord Property Drawings\SHARED SEPTIC DESIGN\DETAILS_REV03.dwg



EMERGENCY OVERFLOW TANK (EOT) PLAN
SCALE: 1/2" = 1'-0"

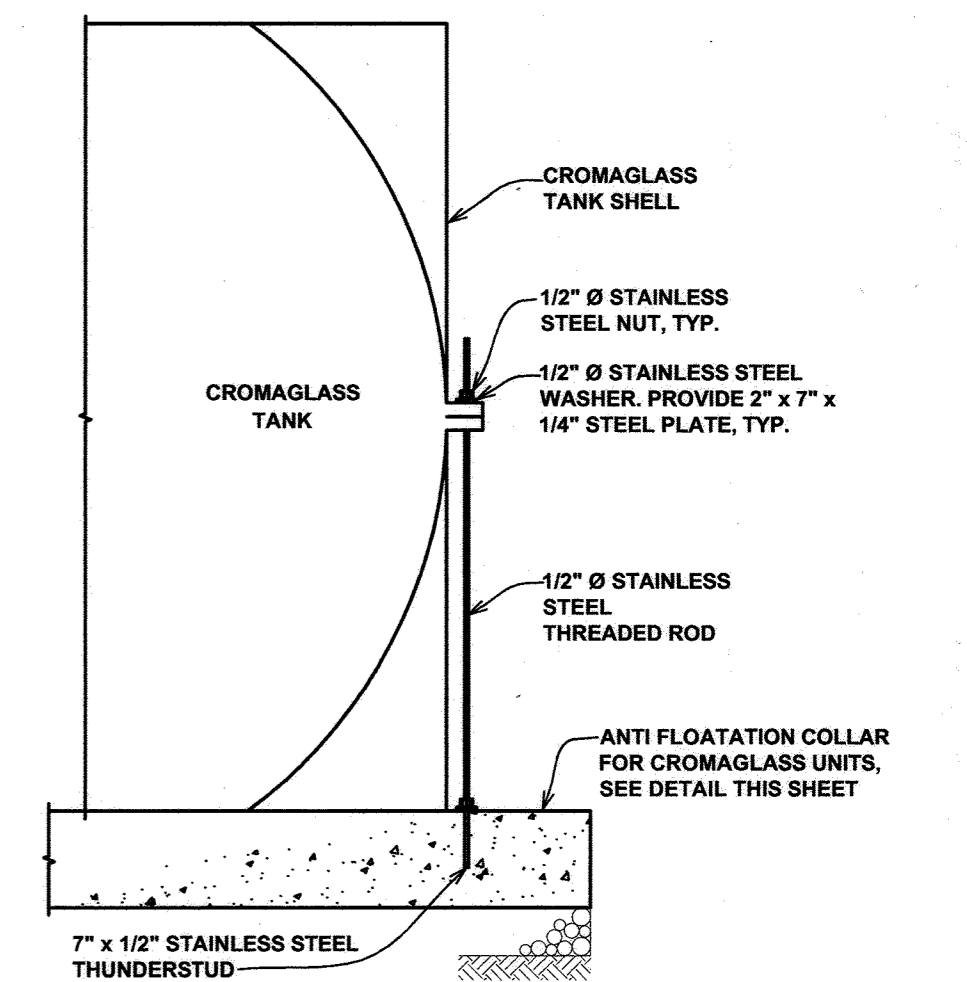


1,300 GALLON SLUDGE PROCESSING TANK PLAN
NOT TO SCALE

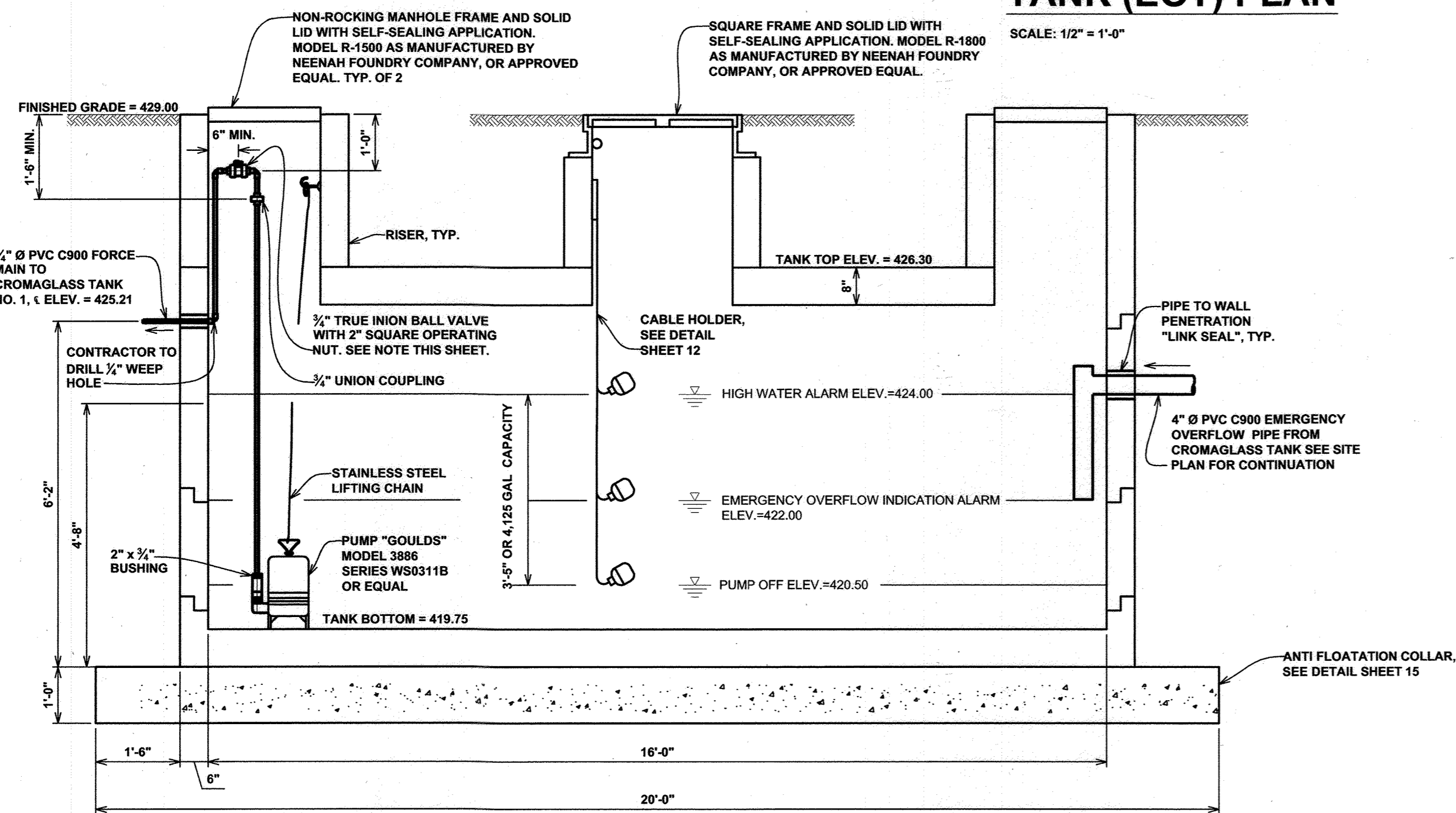


- NOTE:
1. SLAB SHALL BE LEVEL TO WITHIN ±1/4" FROM SIDE AND END TO END;
 2. SLAB SHALL BE FINISHED WITH BULLFLOAT HAVING NO SIGNIFICANT RIDGES OR DEPRESSIONS;
 3. SLAB SHALL BE CONSTRUCTED OF MINIMUM 3,000 PSI TEST CONCRETE;
 4. CURE TIME SHALL BE MINIMUM 7 DAYS PRIOR TO INSTALLATION OF THE CROMAGLASS TANKS;
 5. SLAB SHALL BE SEWPT CLEAN OF ALL DEBRIS IMMEDIATELY PRIOR TO TANK PLACEMENT.

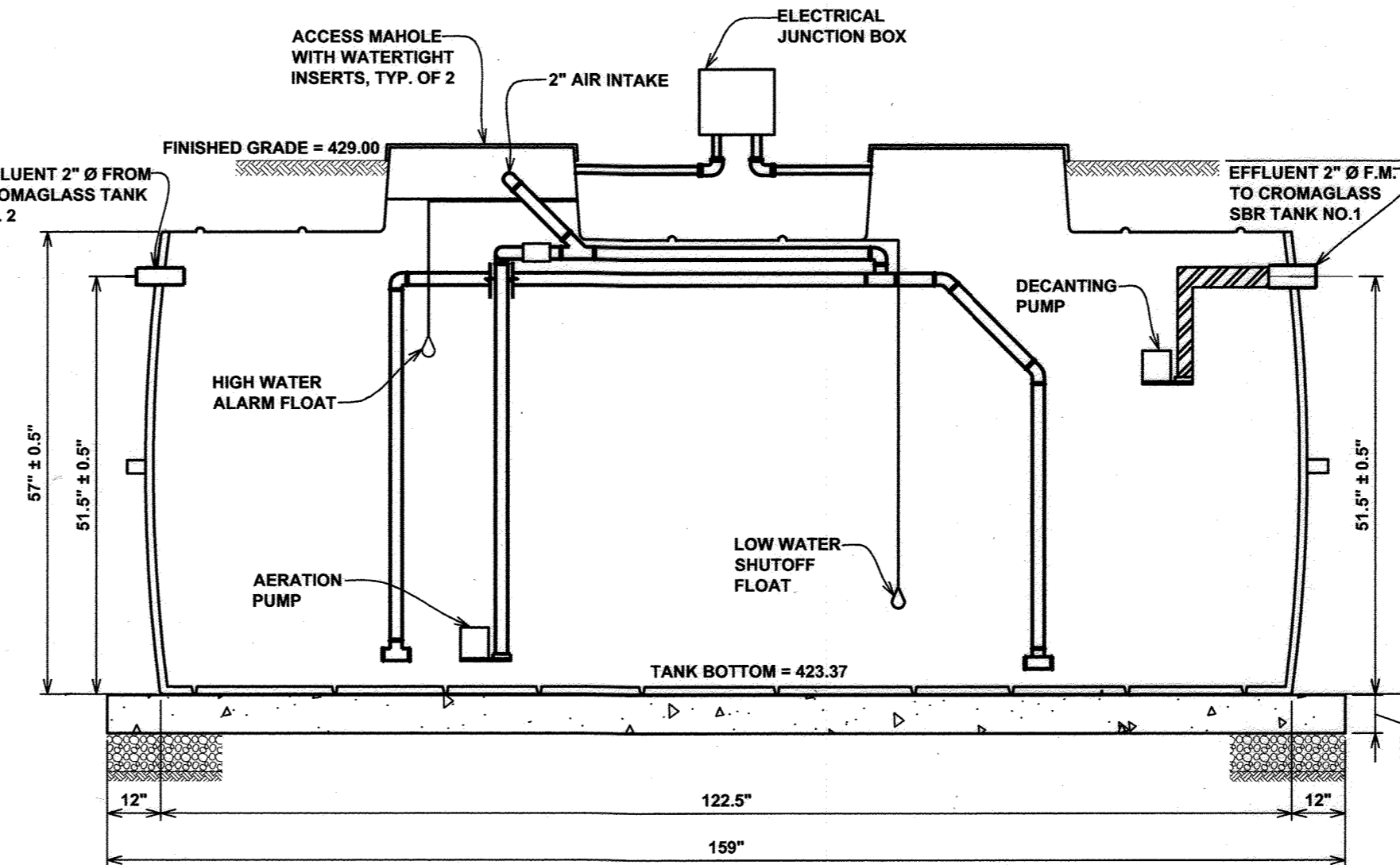
CROMAGLASS ANTI-FLOATATION COLLAR
NOT TO SCALE



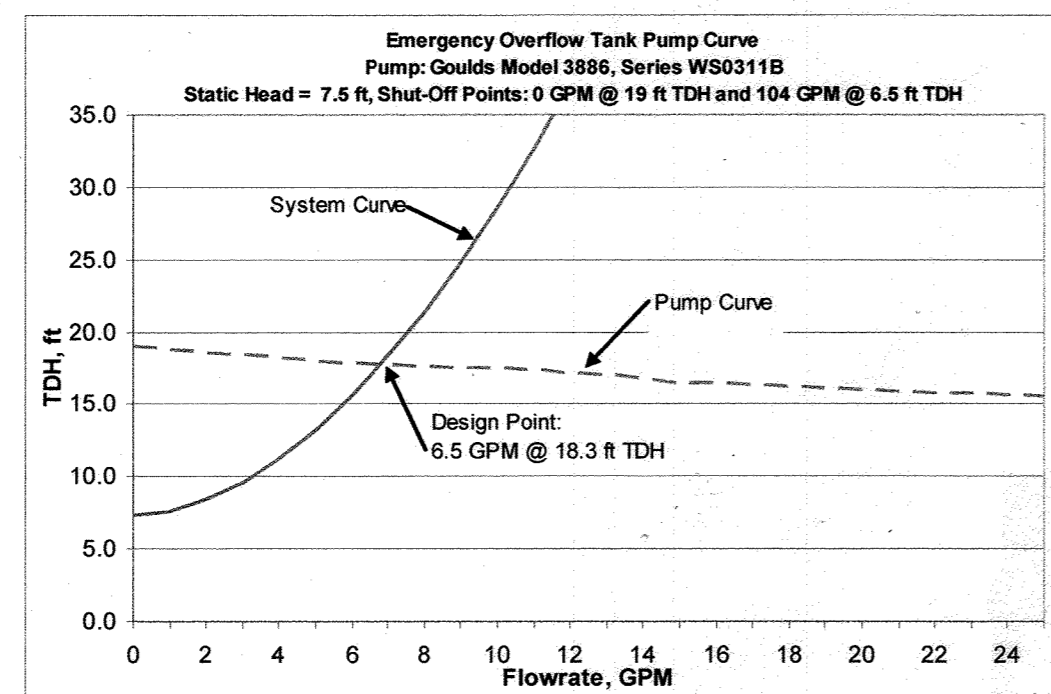
CROMAGLASS TIEDOWN DETAIL
NOT TO SCALE



SECTION 11
SCALE: 1/2" = 1'-0"



SECTION 4
NOT TO SCALE



EOT PUMP CURVE, C=130

RECORD DRAWING

This record drawing has been prepared by the contractor for the use of the engineer as a reference only. It is not to be used for any other purpose. The contractor is responsible for the accuracy of the information shown on this drawing. The engineer is not responsible for the accuracy of the information shown on this drawing. The contractor is responsible for the accuracy of the information shown on this drawing.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert W. Baker
HOWARD COUNTY HEALTH OFFICER

1/19/07
DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-98.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. Baker
CHIEF, BUREAU OF UTILITIES

1-25-07
DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. Baker
CHIEF, DEVELOPMENT ENGINEERING DIVISION

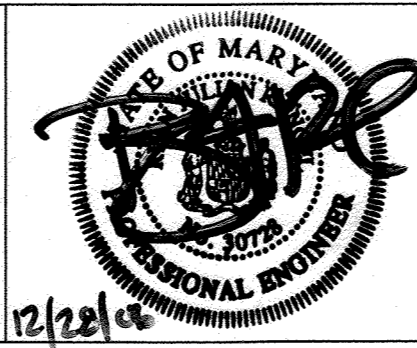
1/25/07
DATE

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DES: B.T.D., N.V.S.
DRN: B.T.D., N.V.S.
CHK: R.J.R.
DATE: DEC., 2006

BY: SD 1
SUBDIVISION NAME: SHEPPARD MANOR
DATE: 4/10/07

REVISION

CROMAGLASS TREATMENT UNIT AND DETAILS

JOB No. C1040062

SHEPPARD MANOR

PEDDIGORD SHARED SEPTIC SYSTEM

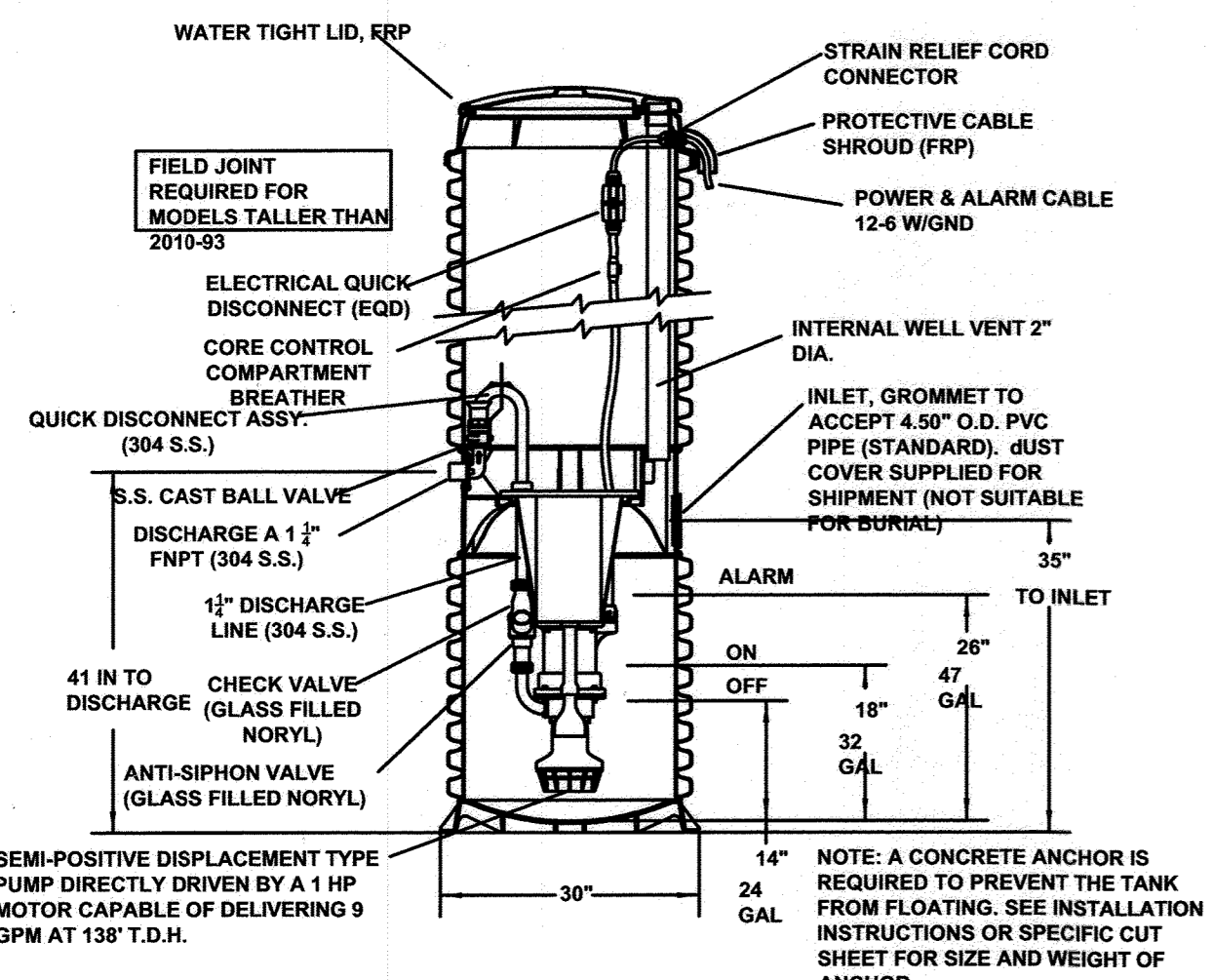
LOTS 1 - 19
CONTRACT # 150-4367D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

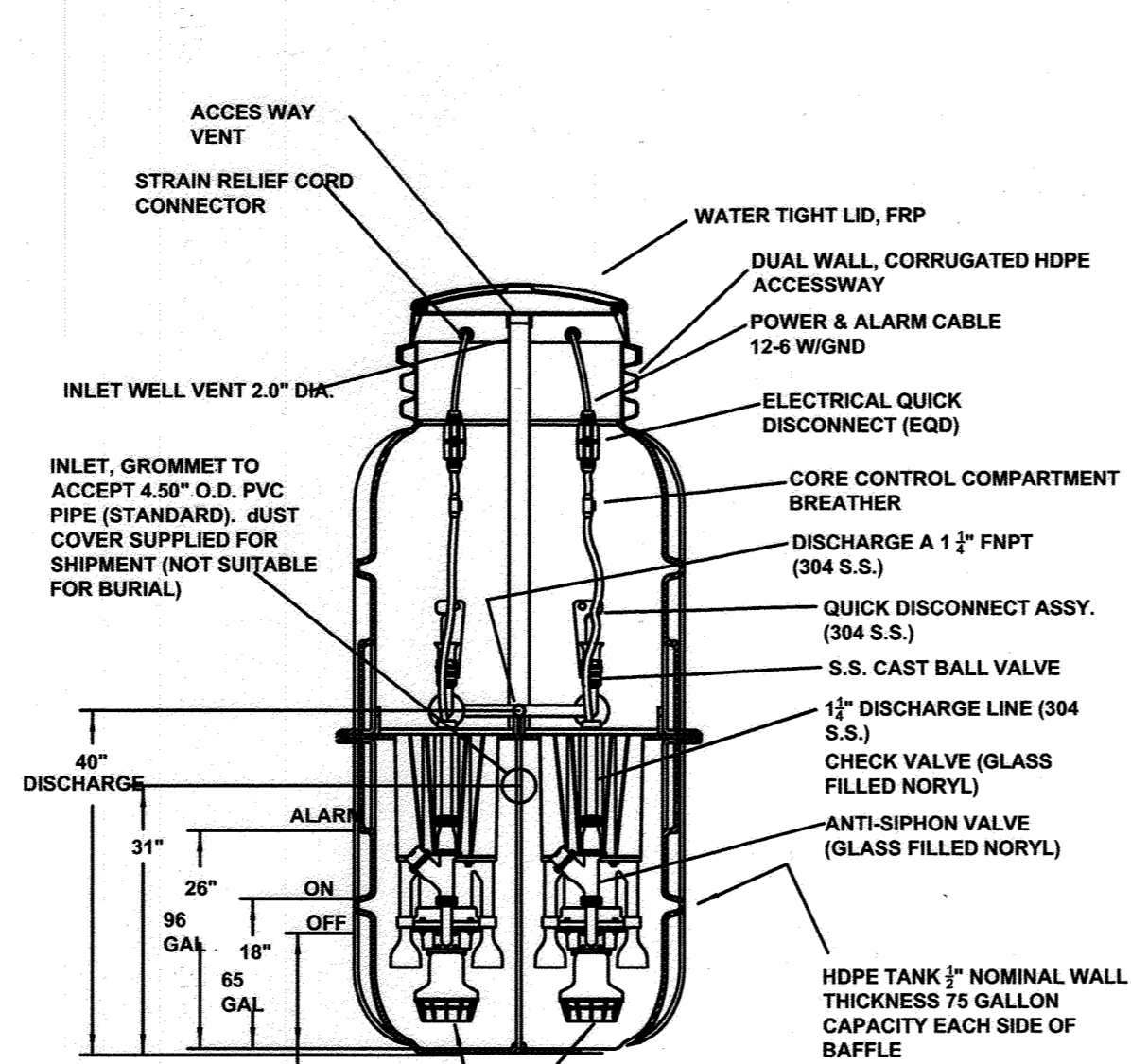
SHEET 15 OF 18

PLOTTED: Dec 28, 2006 - 11:34am

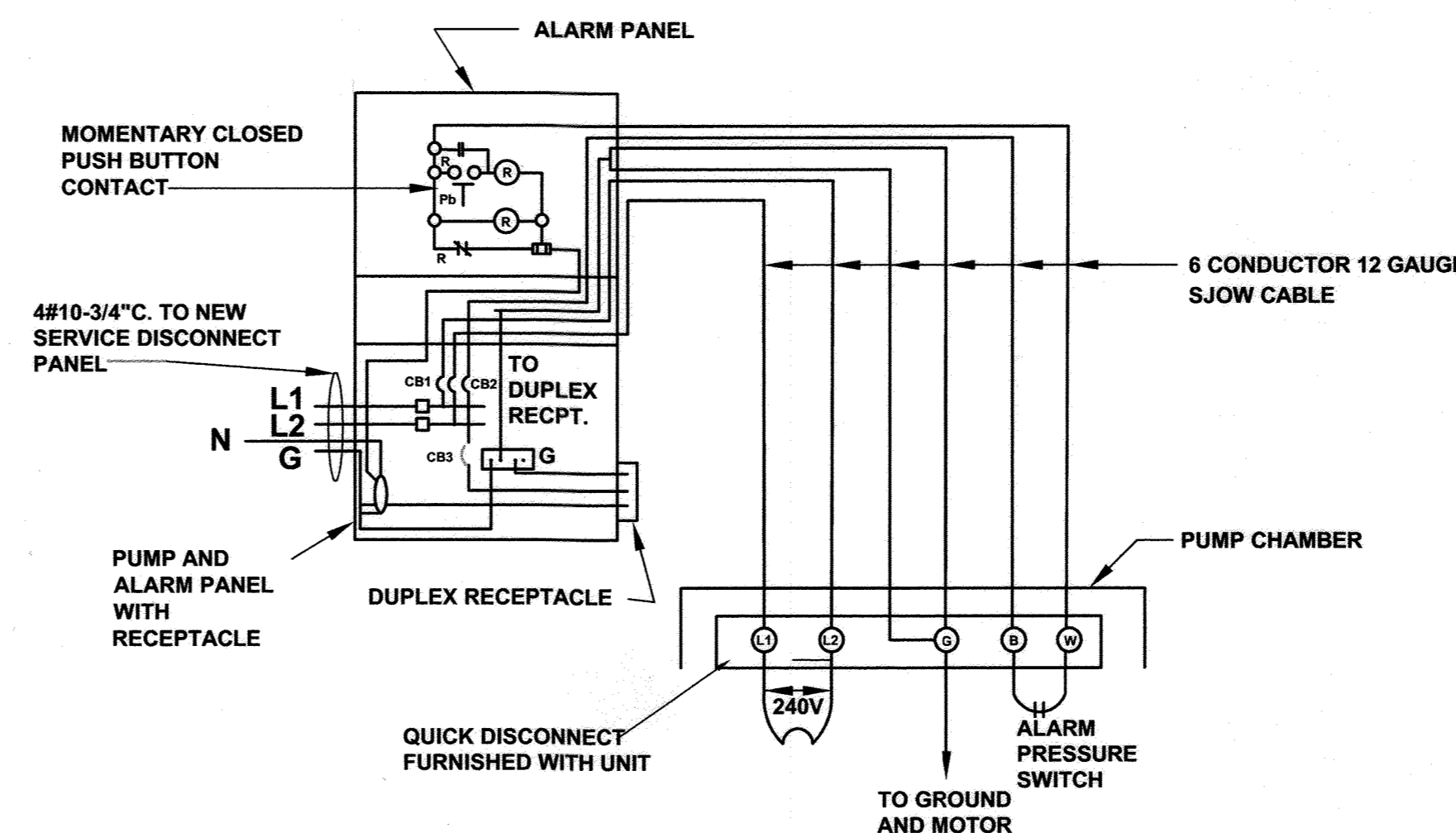
CADD FILE: G:\1040062 - Peddicord Property\Drawings\SHARED SEPTIC DESIGN\DETAILS_REV03.dwg Tab.....15 of 18



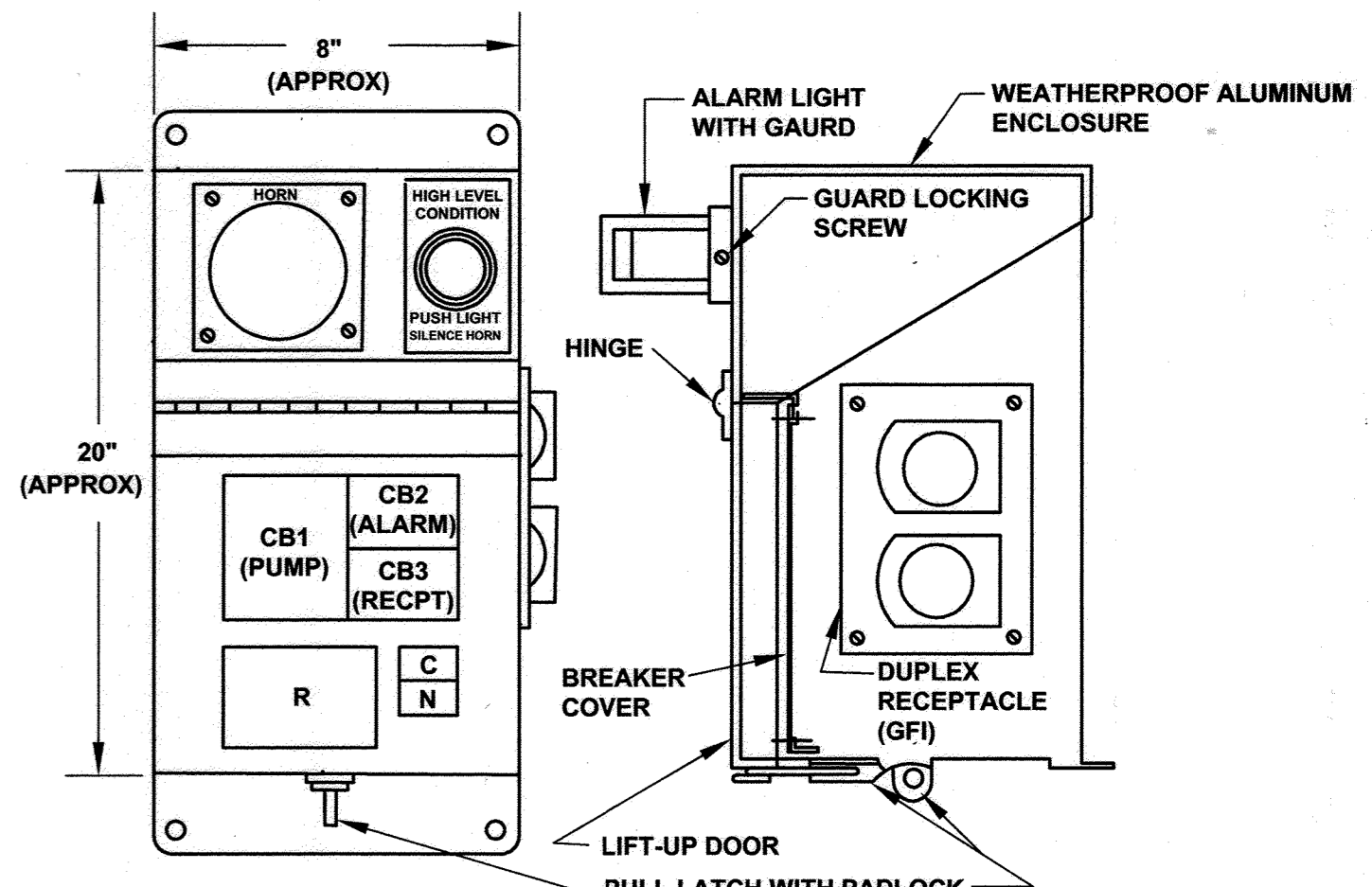
SIMPLEX ENVIRONMENT ONE GRINDER PUMP
NOT TO SCALE



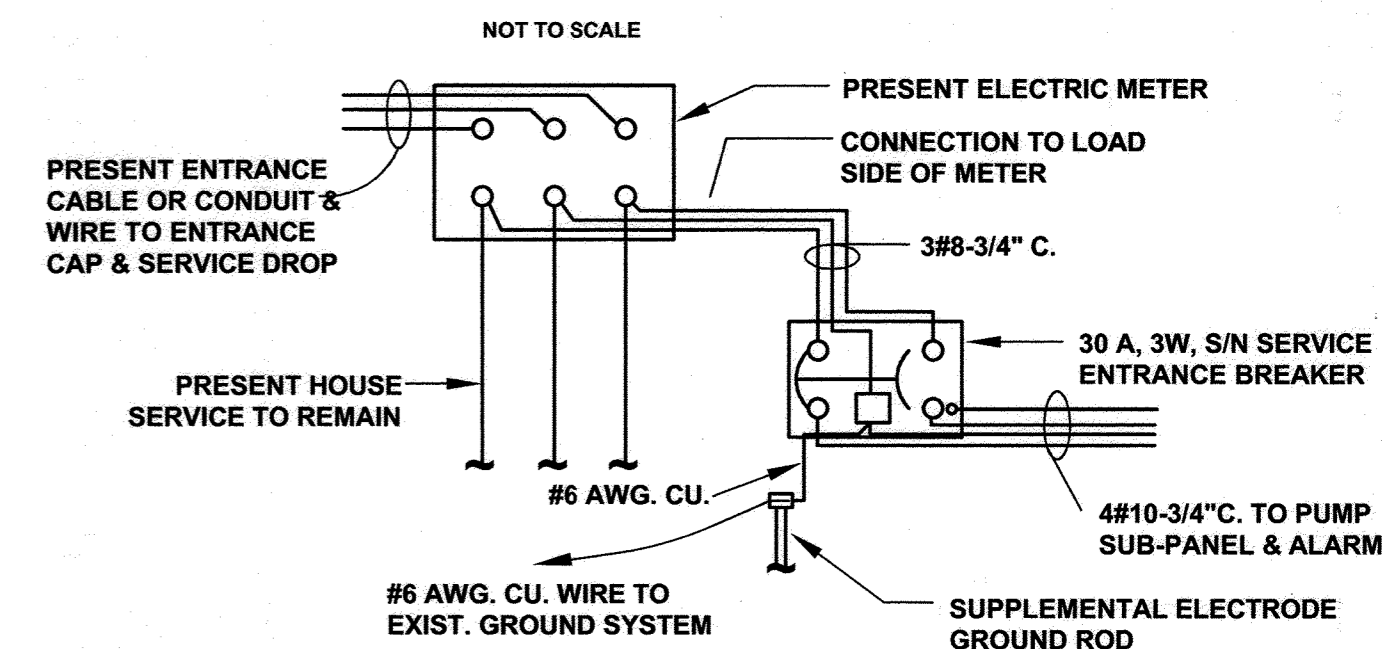
DUPLEX ENVIRONMENT ONE GRINDER PUMP
NOT TO SCALE



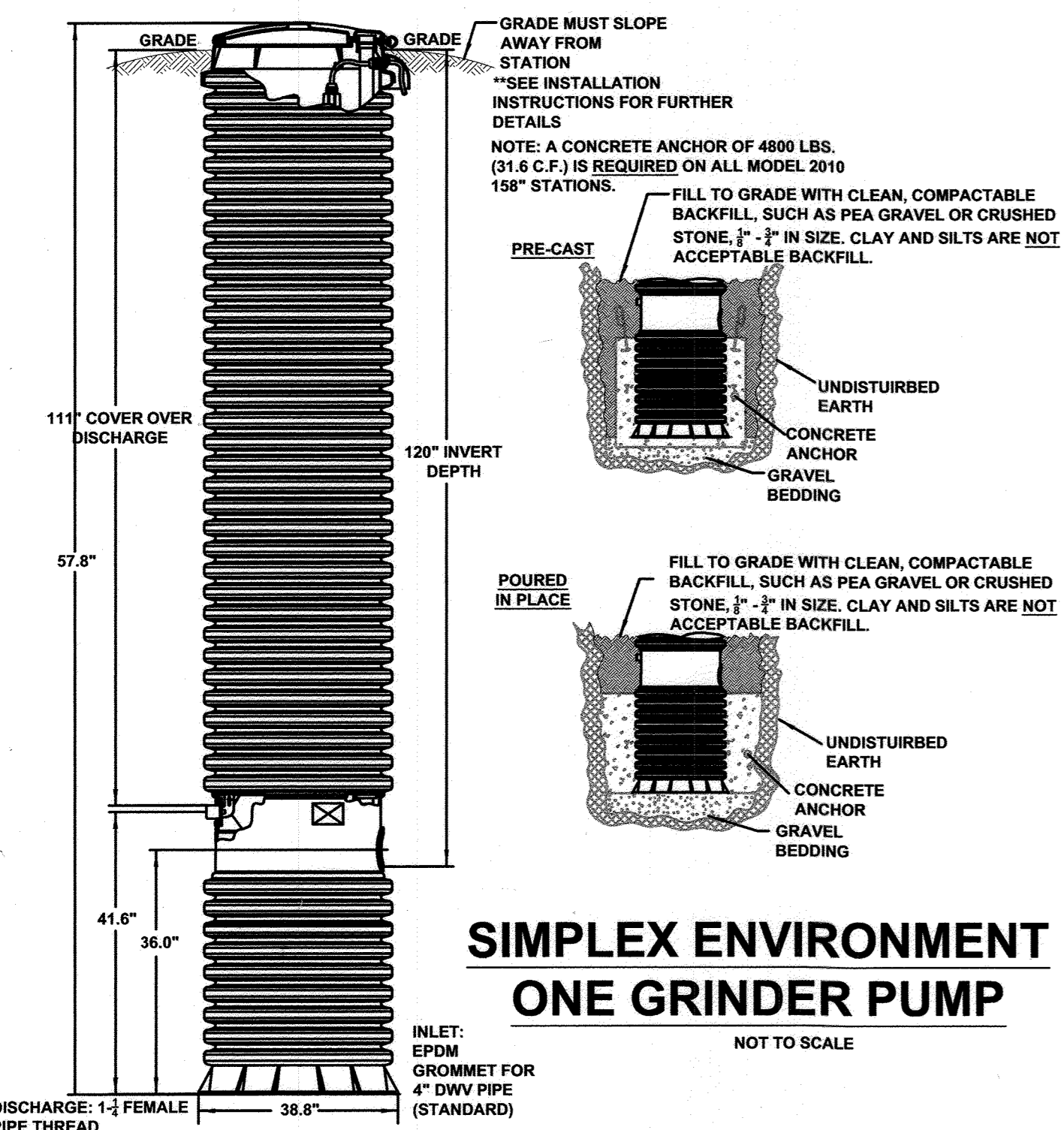
SEWAGE GRINDER PUMP WIRING DIAGRAM (240 v) TYPICAL EACH PUMP UNIT
NOT TO SCALE



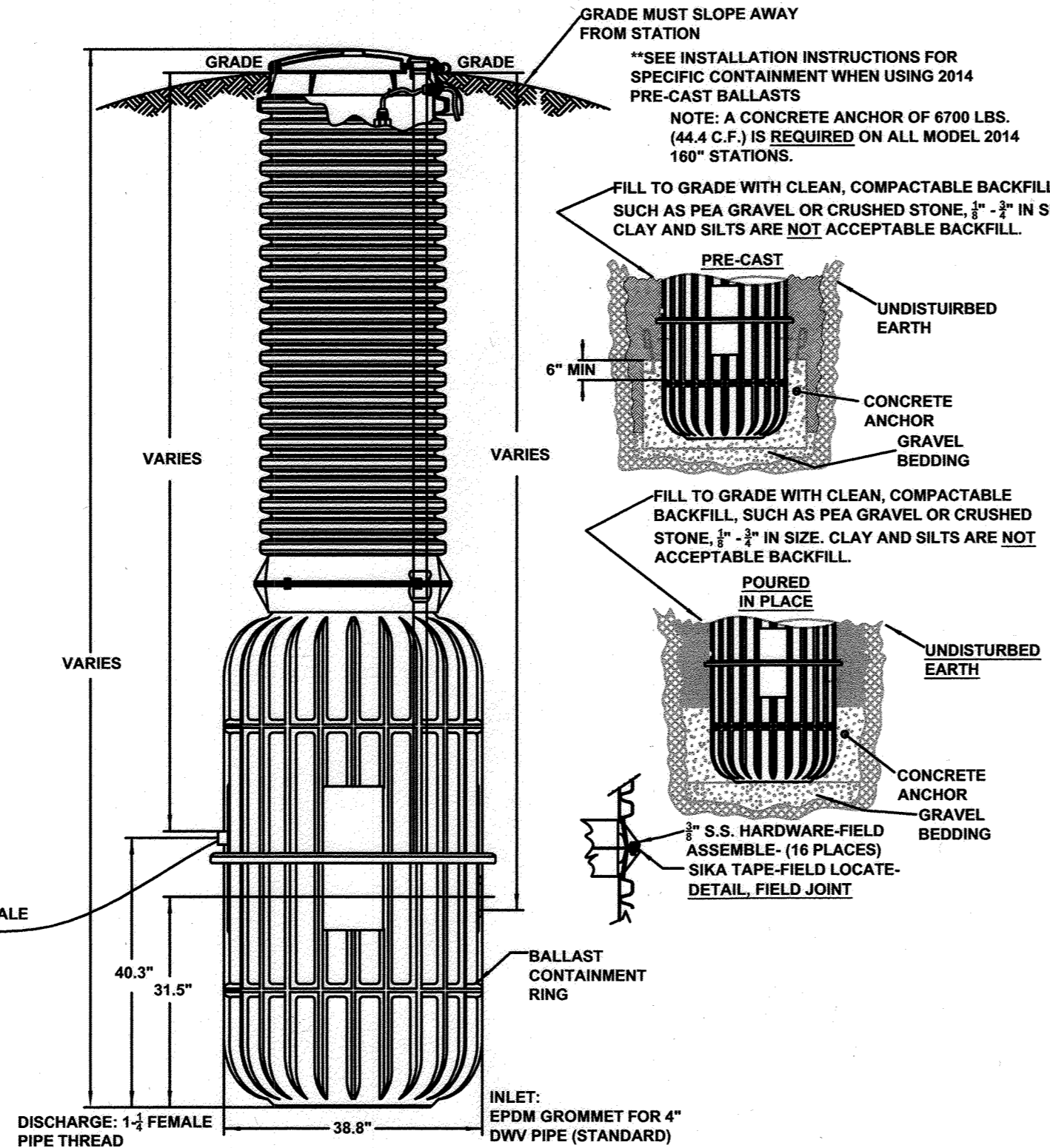
GRINDER PUMP CONTROL & ALARM PANEL
NOT TO SCALE



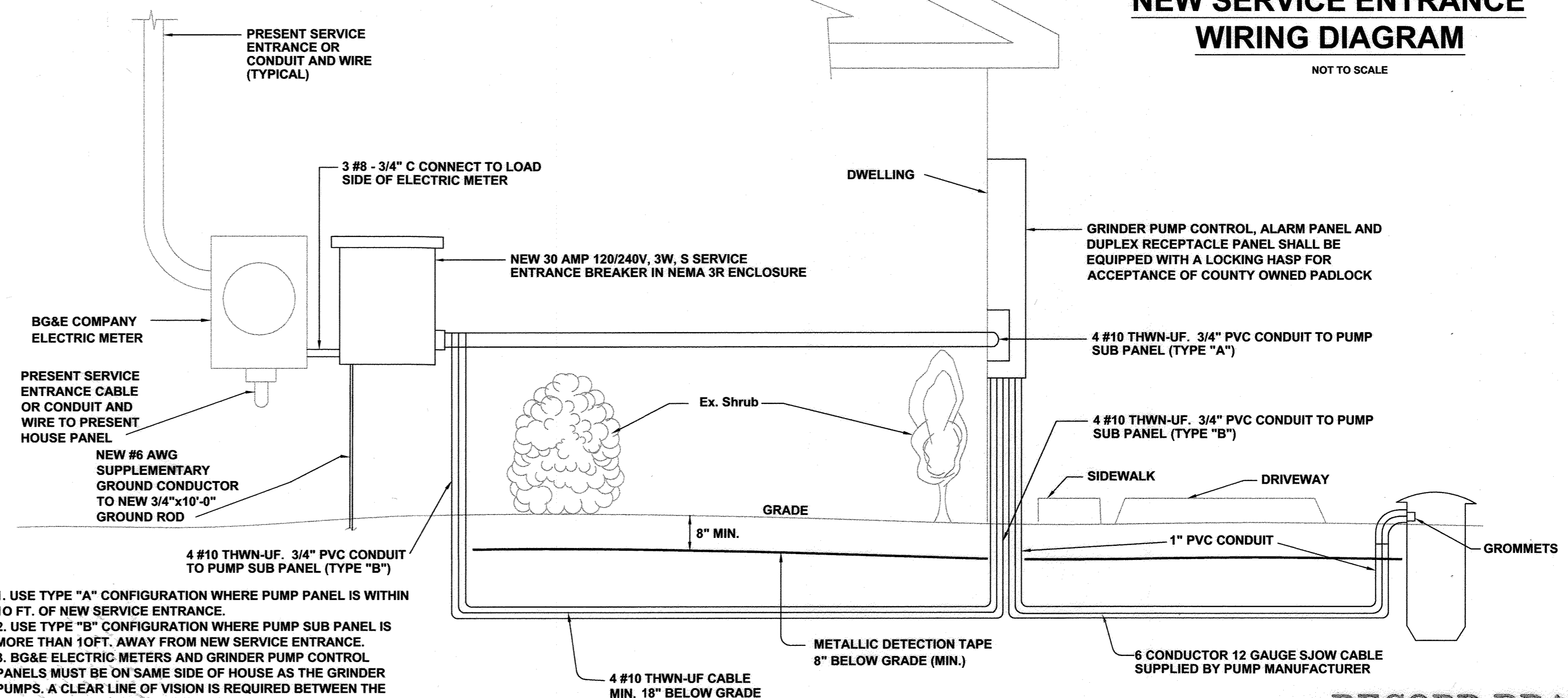
NEW SERVICE ENTRANCE WIRING DIAGRAM
NOT TO SCALE



SIMPLEX ENVIRONMENT ONE GRINDER PUMP
NOT TO SCALE



DUPLEX ENVIRONMENT ONE GRINDER PUMP
NOT TO SCALE



TYPICAL GRINDER PUMP ELECTRIC POWER
NOT TO SCALE

1. USE TYPE "A" CONFIGURATION WHERE PUMP PANEL IS WITHIN 10 FT. OF NEW SERVICE ENTRANCE.
2. USE TYPE "B" CONFIGURATION WHERE PUMP SUB PANEL IS MORE THAN 10FT. AWAY FROM NEW SERVICE ENTRANCE.
3. BG&E ELECTRIC METERS AND GRINDER PUMP CONTROL PANELS MUST BE ON SAME SIDE OF HOUSE AS THE GRINDER PUMPS. A CLEAR LINE OF VISION IS REQUIRED BETWEEN THE CONTROL PANEL AND THE PUMP.
4. INCLUDE A DISCONNECT NEXT TO THE ELECTRIC METER, BETWEEN THE METER AND CONTROL PANEL.
5. CONNECTIONS TO ELECTRIC METER SHALL BE COORDINATED WITH POWER COMPANY.
6. PROVIDE LOCKING HASP ON SERVICE BREAKER FOR ACCEPTANCE OF COUNTY OWNED LOCK.
7. CONTROL PANEL MUST BE DIRECT WIRED FROM ELECTRICAL SERVICE BOX (BG&E).
8. PROVIDE SEALING BOX 6" BELOW CONTROL PANEL ON HOUSE IN LINE WITH CONDUIT; SEAL WITH CHICO WATERTIGHT SEALANT TO CREATE VAPOR LOCK.

RECORD DRAWING

This record drawing is to be used for record purposes only. It is not to be used for construction. The Engineer is not responsible for the accuracy of this record drawing or for the consequences of its use. The Engineer is not responsible for the accuracy of this record drawing or for the consequences of its use. The Engineer is not responsible for the accuracy of this record drawing or for the consequences of its use.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT
Robert W. [Signature]
HOWARD COUNTY HEALTH OFFICER
DATE: 1/19/07

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE: _____

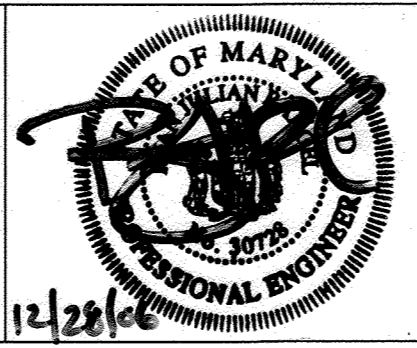
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
HOWARD SOIL CONSERVATION DISTRICT
DATE: _____

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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert W. [Signature]
CHIEF, BUREAU OF UTILITIES
DATE: 1-25-07

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 1/25/07

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DES: B.T.D., N.V.S.			
DRN: B.T.D., N.V.S.			
CHK: R.J.R.			
DATE: DEC., 2006	BY: SD 1	No. SUBDIVISION NAME	DATE: 1/19/07

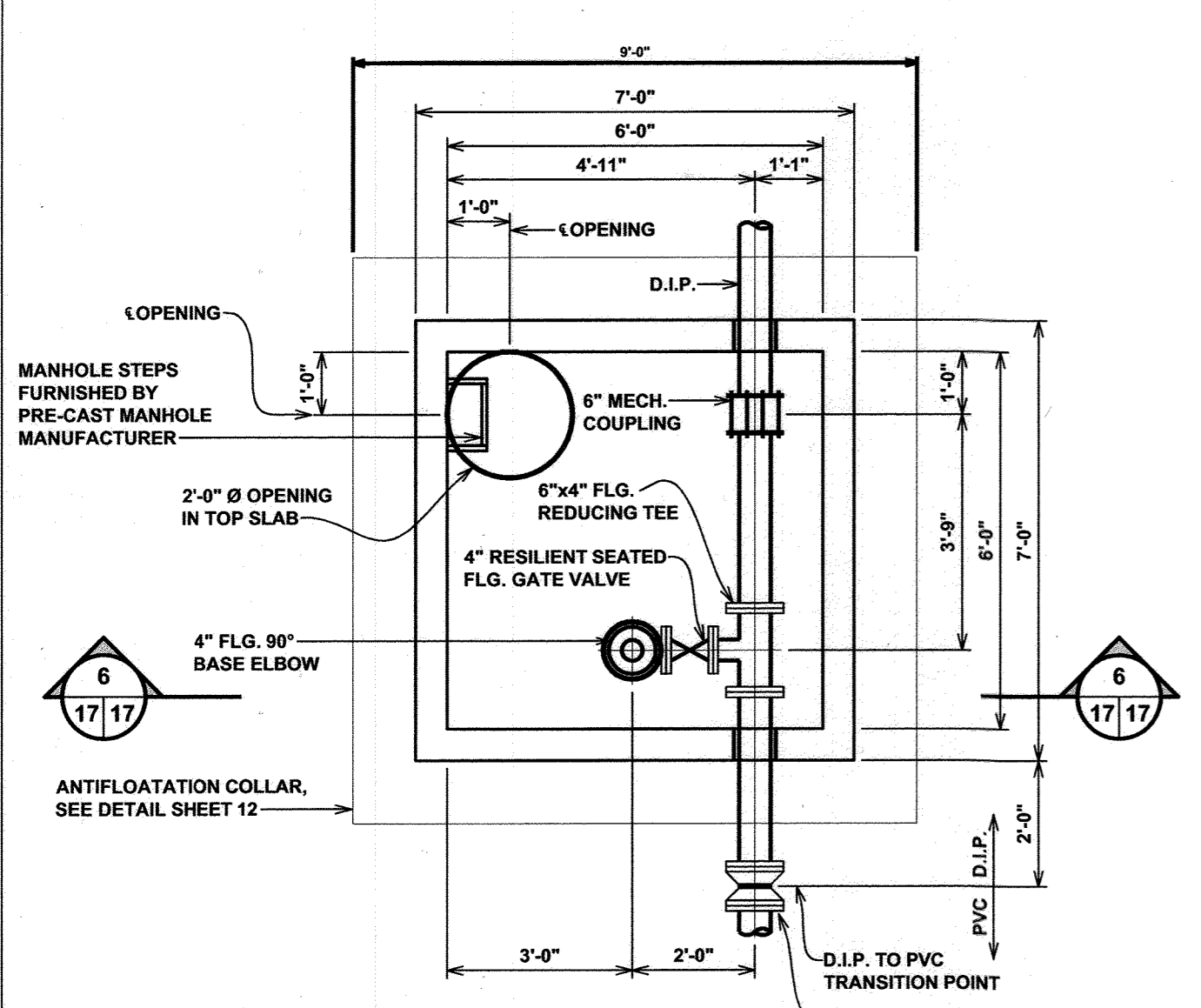
E-ONE GRINDER PUMPS DETAIL
JOB No. C1040062

PEDDIGORD-SHARED SEPTIC SYSTEM
LOTS 1 - 19
CONTRACT # 55-4367D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 288
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

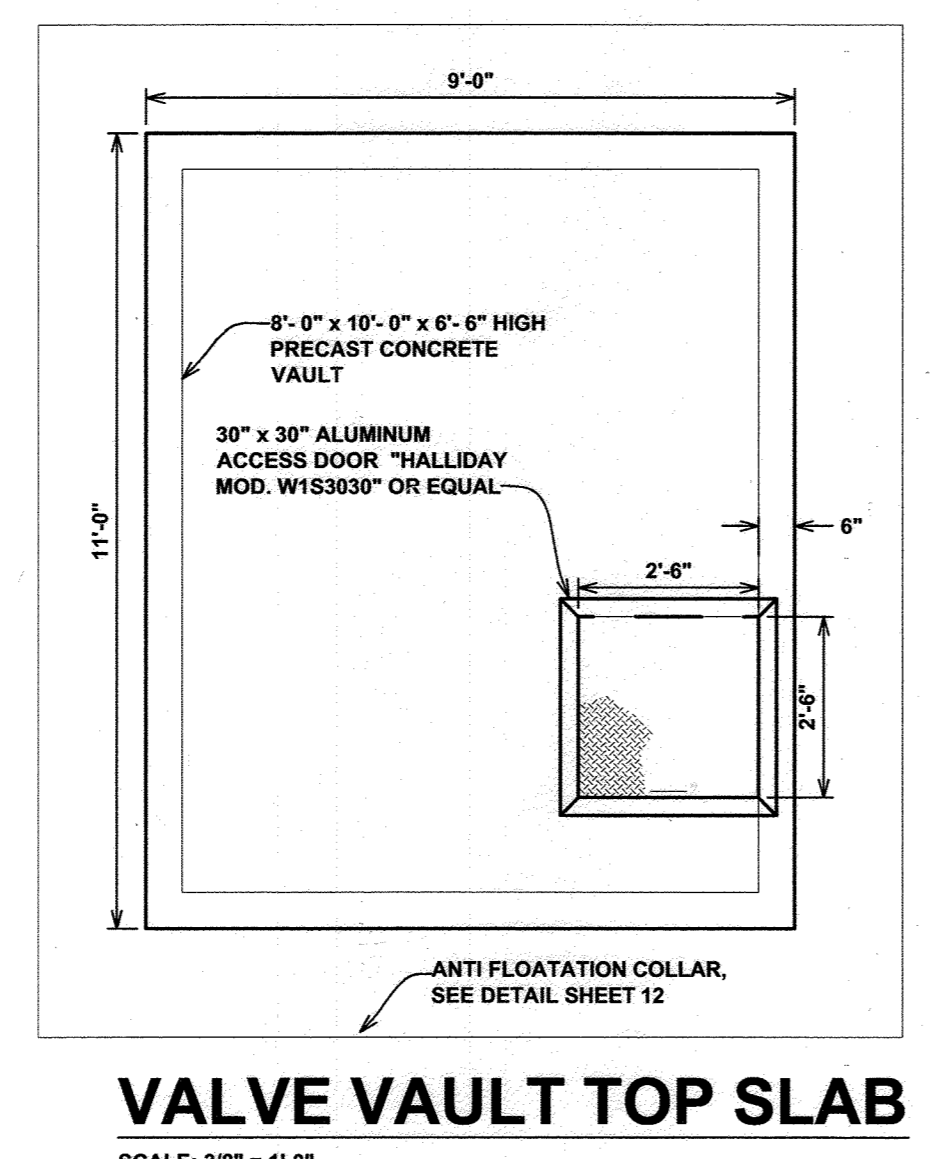
SCALE AS SHOWN
SHEET 16 OF 18

PLOTTED: Dec 28, 2006 - 11:23am

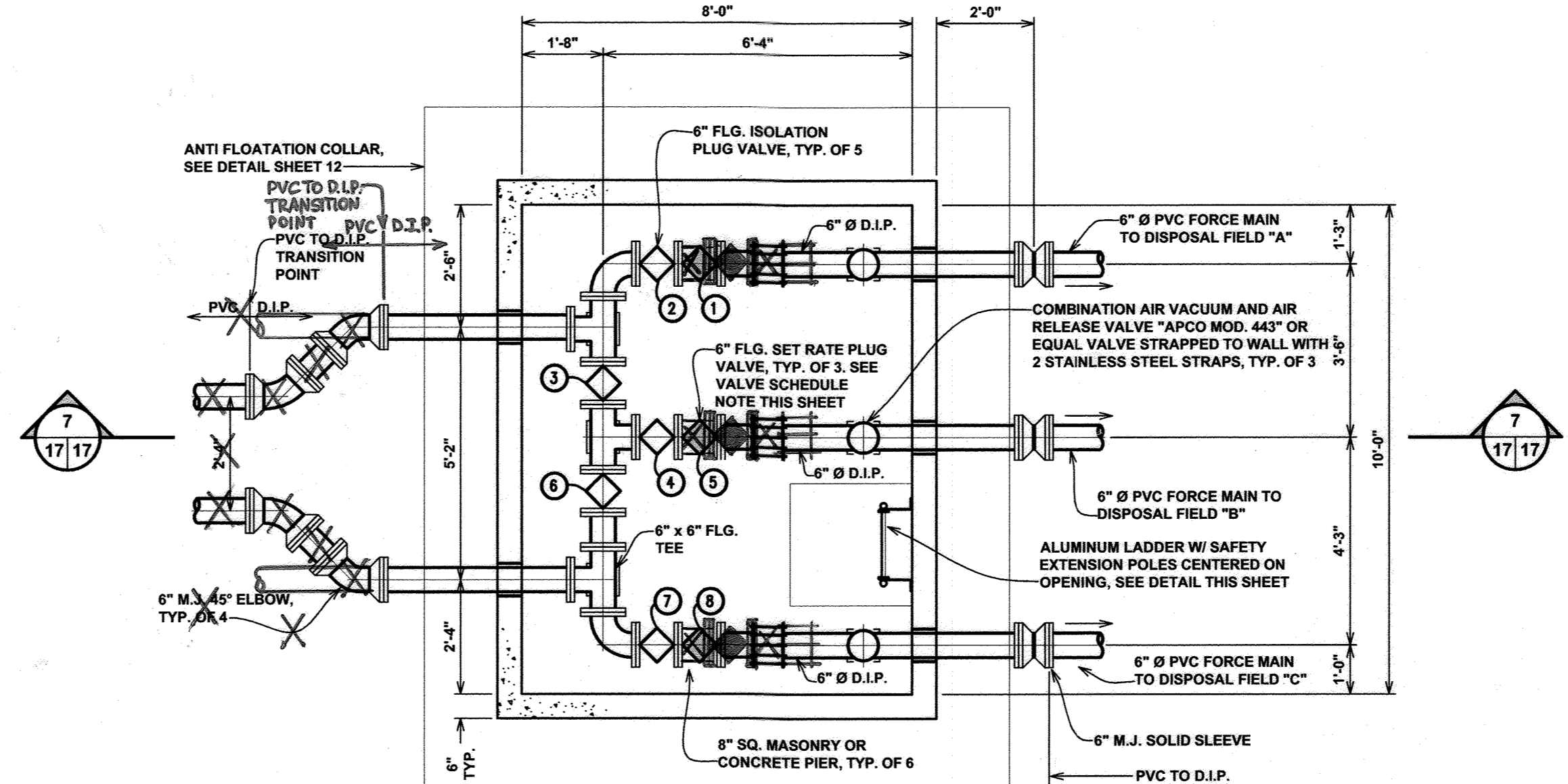
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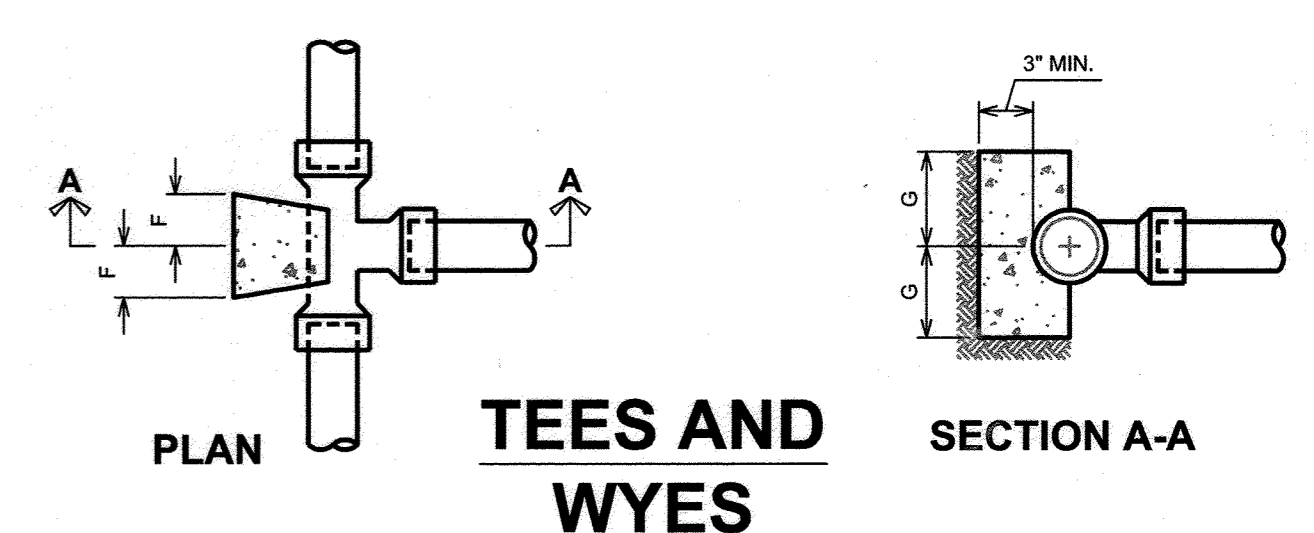
PLAN
SCALE: 3/8" = 1'-0"



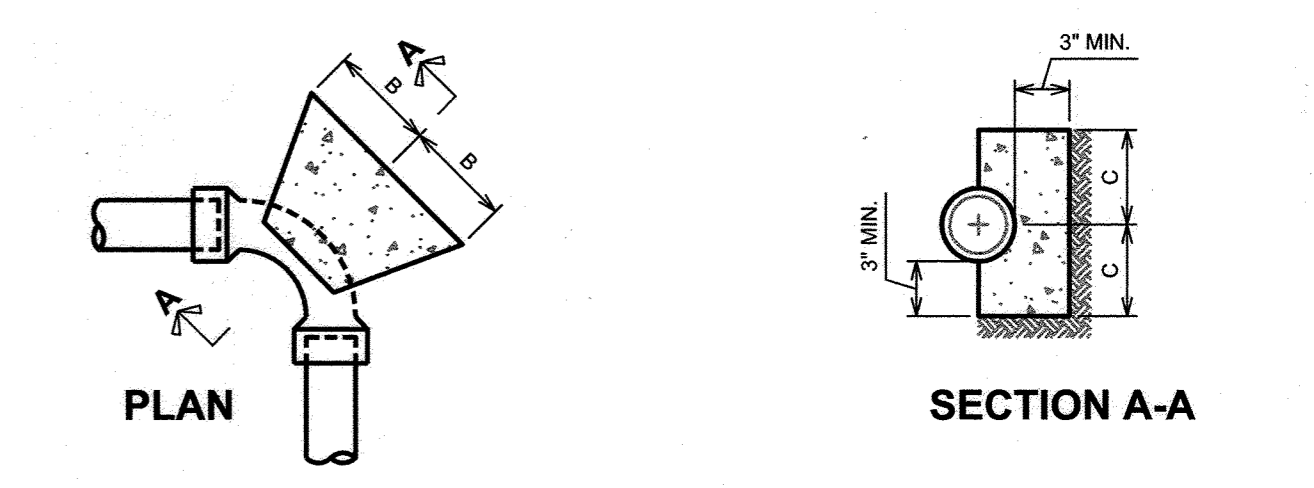
VALVE VAULT TOP SLAB
SCALE: 3/8" = 1'-0"



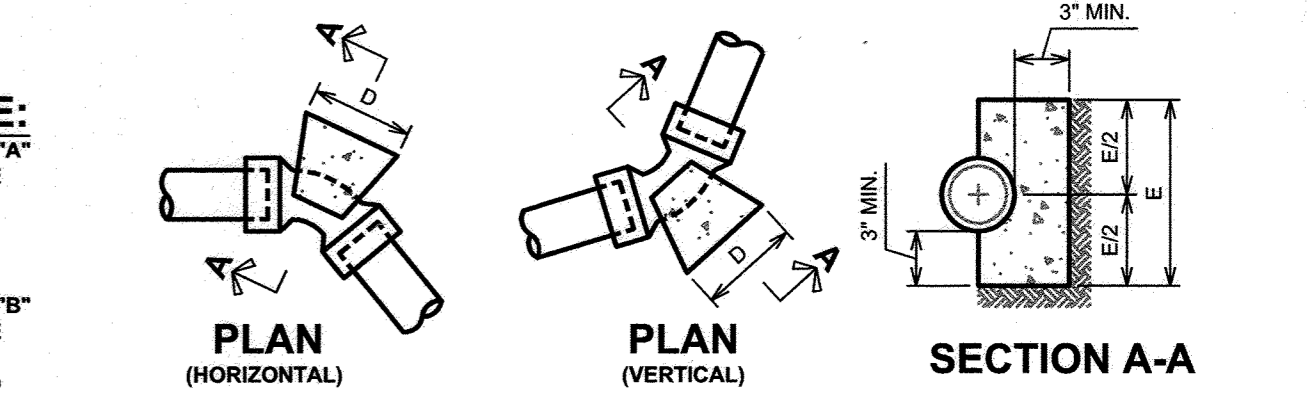
PLAN
SCALE: 3/8" = 1'-0"



TEES AND WYES



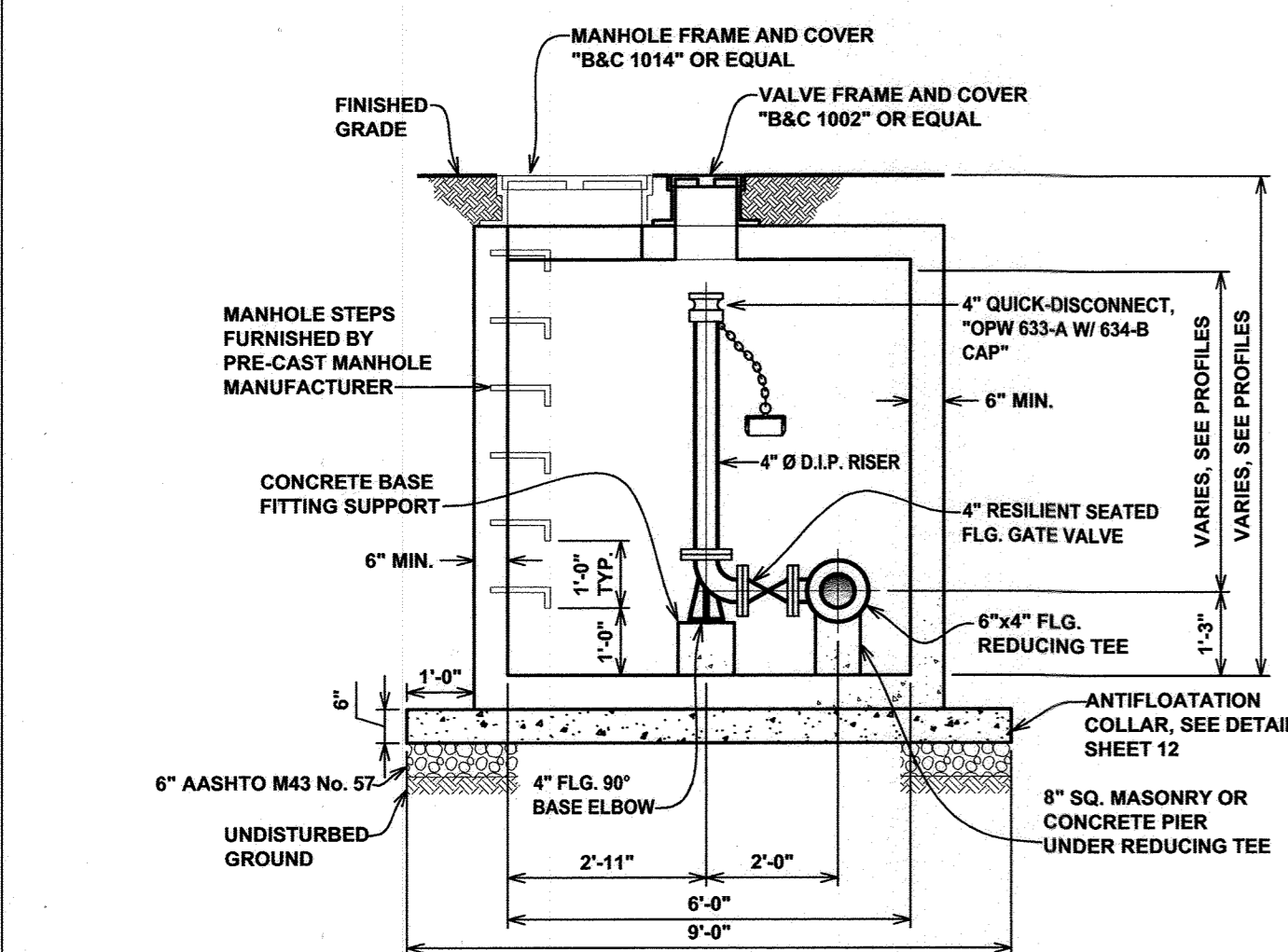
90° HORIZONTAL BENDS



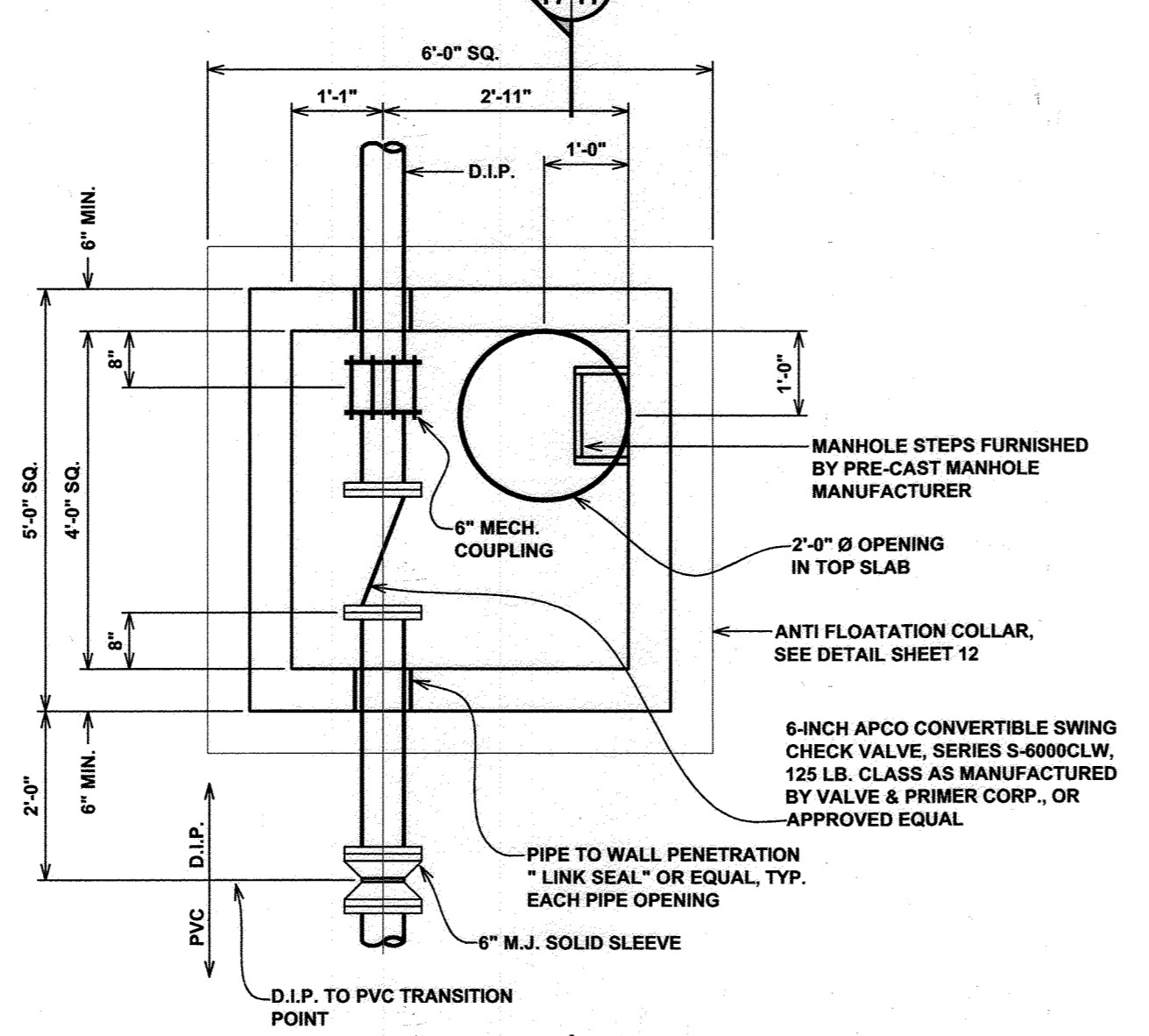
90° HORIZONTAL BENDS

PIPE SIZE	BUTTRESS DIMENSIONS					
	B	C	D	E	F	G
1 1/2" OR 2"	4 1/2"	4 1/2"	5"	9"	4 1/2"	4"
2"	5"	5"	7"	7"	5"	5"
2 1/2"	5"	5"	7"	7"	5"	5"
3"	6"	6"	9"	9"	6"	6"

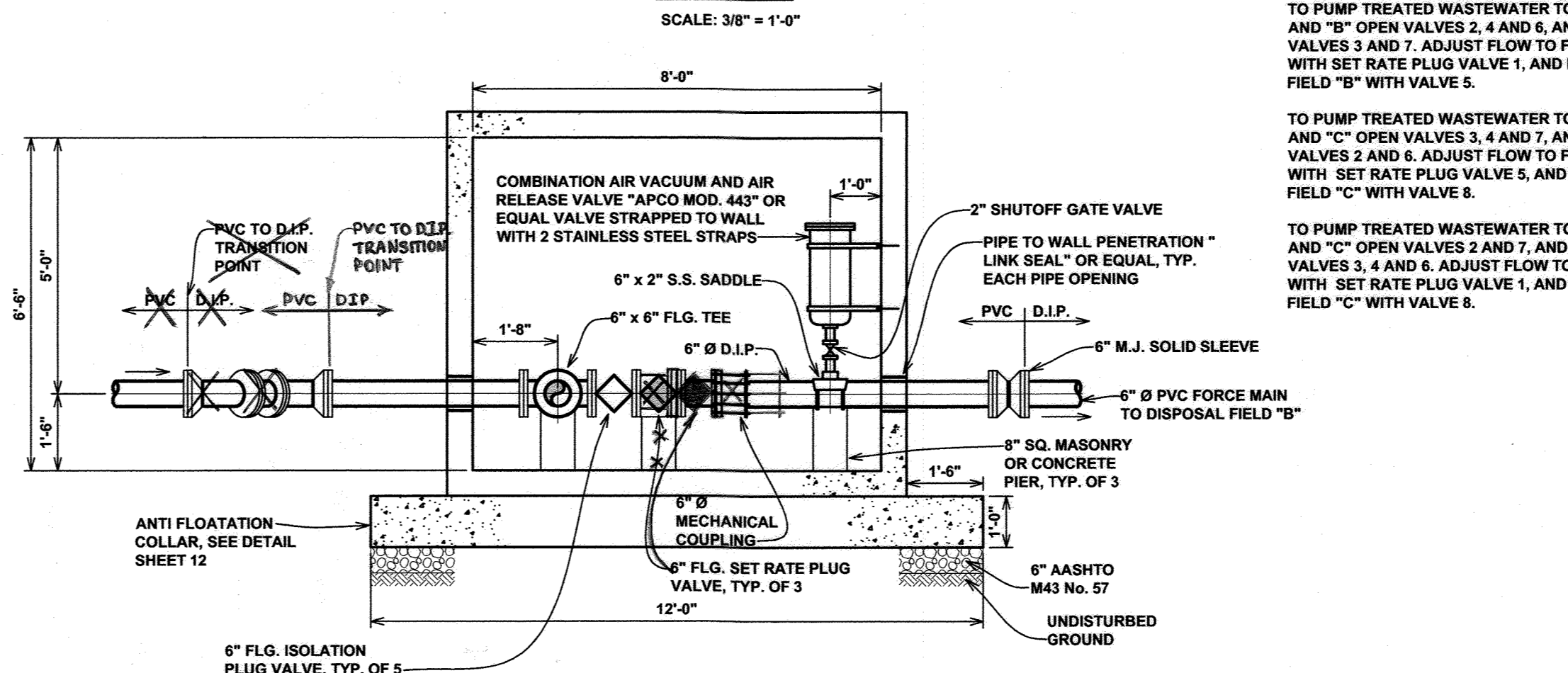
NOTES:
1. FC-3000 P.S.I. @ 28 DAYS
2. CARRY ALL BEARING SURFACES TO UNDISTURBED GROUND OR FIRM SUBGRADE.
3. BUTTRESS SIZED FOR 160 P.S.I. AND SOIL WITH C = 2000 P.S.I.



BLOW-OFF VAULT SECTION
SCALE: 3/8" = 1'-0"



CHECK VALVE VAULT PLAN
SCALE: 1/2" = 1'-0"



VALVE VAULT SECTION
SCALE: 3/8" = 1'-0"

VALVE SCHEDULE NOTE:
TO PUMP TREATED WASTEWATER TO FIELDS "A" AND "B" OPEN VALVES 2, 4 AND 6, AND CLOSE VALVES 3 AND 7. ADJUST FLOW TO FIELD "A" WITH SET RATE PLUG VALVE 1, AND FLOW TO FIELD "B" WITH VALVE 5.
TO PUMP TREATED WASTEWATER TO FIELDS "B" AND "C" OPEN VALVES 3, 4 AND 7, AND CLOSE VALVES 2 AND 6. ADJUST FLOW TO FIELD "B" WITH SET RATE PLUG VALVE 5, AND FLOW TO FIELD "C" WITH VALVE 8.
TO PUMP TREATED WASTEWATER TO FIELDS "A" AND "C" OPEN VALVES 2 AND 7, AND CLOSE VALVES 3, 4 AND 6. ADJUST FLOW TO FIELD "A" WITH SET RATE PLUG VALVE 1, AND FLOW TO FIELD "C" WITH VALVE 8.

NOTES:
1. THE CONTRACTOR TO INSTALL TOPS OF DISTRIBUTION BOX, VALVE BOX AND TURF BOX ALL AT GRADE TO MINIMIZE PROTRUSIONS ABOVE GRADE.
2. THE CONTRACTOR TO FRAME AND GRAVEL THE AREA IMMEDIATELY SURROUNDING THE DISTRIBUTION BOX; ENCOMPASS THE CLEANOUT STANDPIPES TO ASSIST WITH GROUNDS MAINTENANCE.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

R. J. R. 1/19/07
HOWARD COUNTY HEALTH OFFICER DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

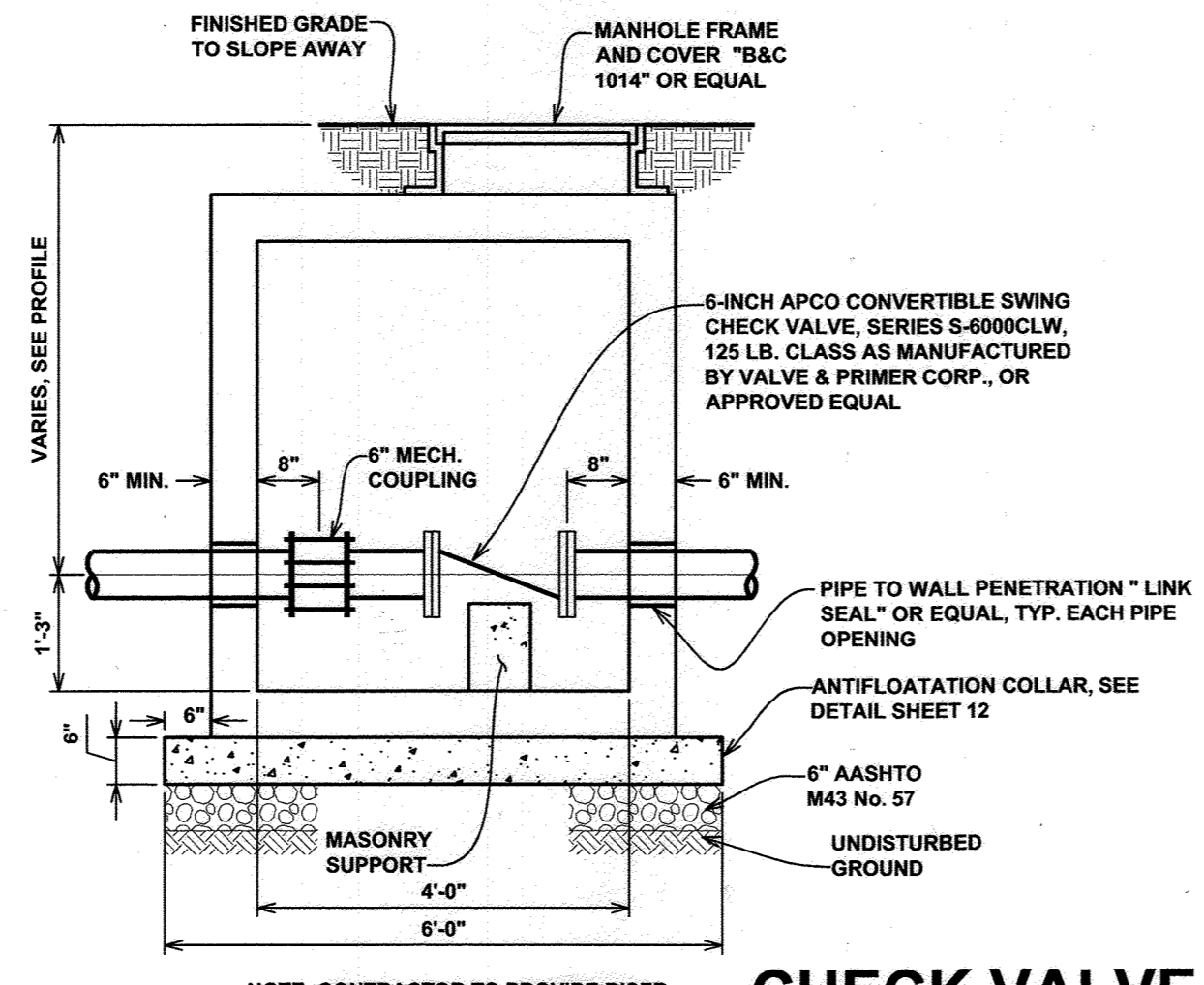
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

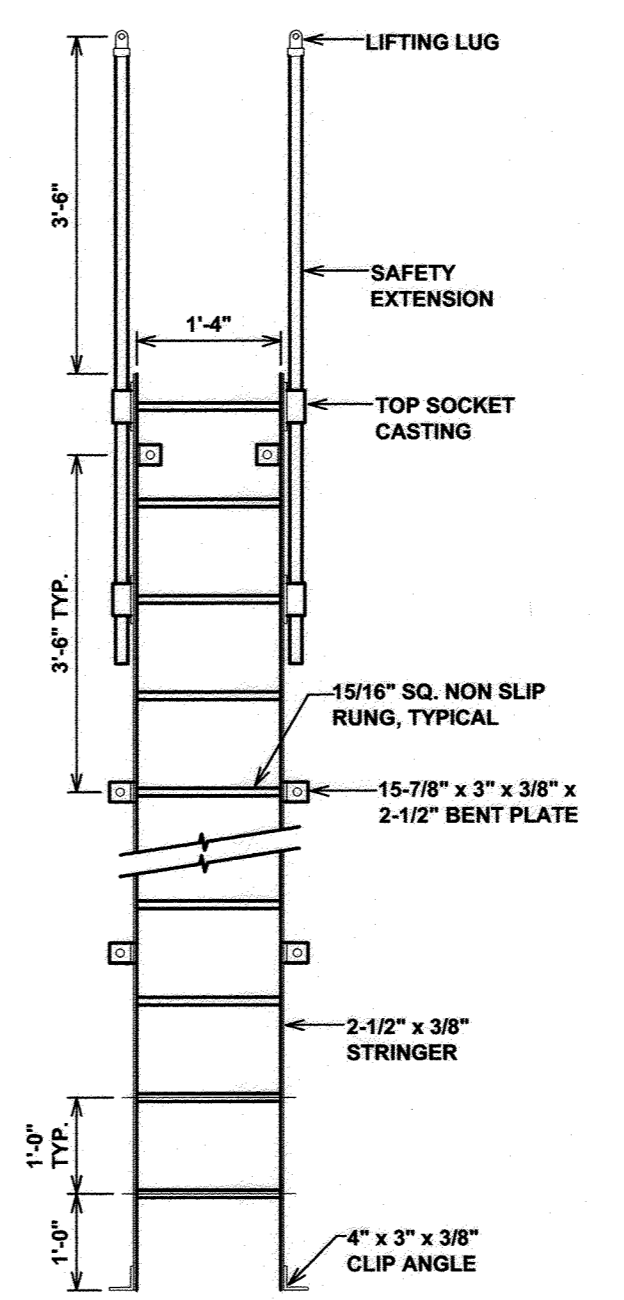
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

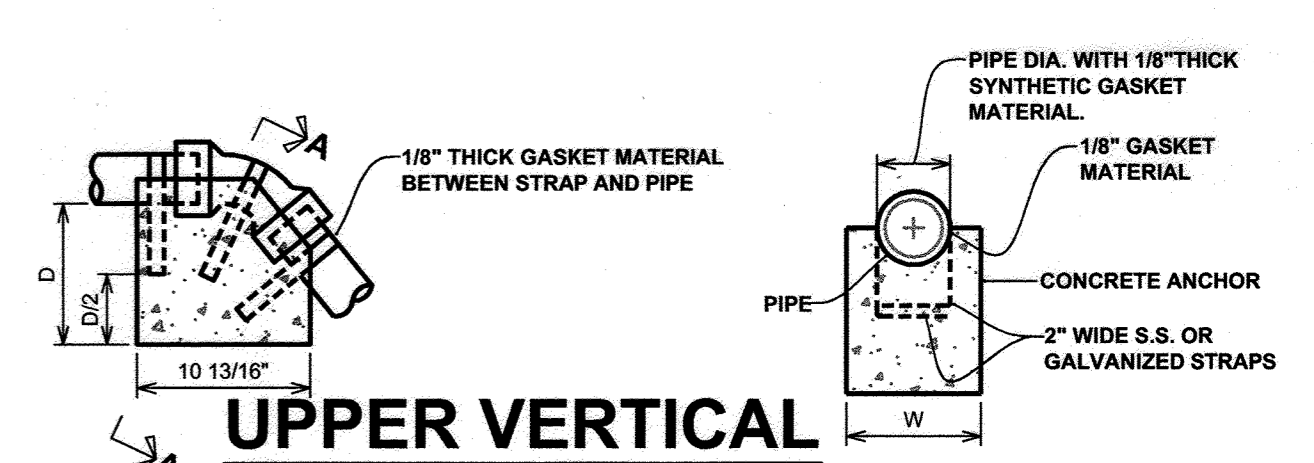


CHECK VALVE VAULT SECTION
SCALE: 1/2" = 1'-0"

RECORD DRAWING
This record drawing has been prepared by the contractor and is intended to be used for record purposes only. It is not to be used for construction purposes. The contractor is responsible for the accuracy of this record drawing and for any errors or omissions which may have been incorporated into it as a result of this record drawing. The contractor is not responsible for the accuracy of this record drawing before applying it for any purpose.



LADDER DETAIL
NOT TO SCALE



UPPER VERTICAL BENDS
NOT TO SCALE

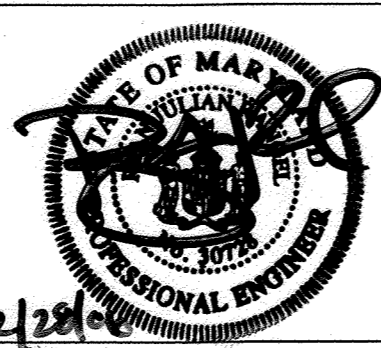
BEND	SIZE IN INCHES		
	1 1/4", 1 1/2"	2", 2-1/2"	3"
11 1/4"	L	12	15
	W	10	12
	D	10	15
22 1/2"	L	15	20
	W	15	20
	D	12	18
45°	L	20	24
	W	20	24
	D	12	20

PLOTTED: Dec 28, 2006 - 11:25am

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND
R. J. R. 1-25-07
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND
R. J. R. 1-25-07
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

McCRONE
Engineering Environmental Sciences
Construction Services Land Planning & Surveying
ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY
20 RIDGELY AVENUE ANNAPOLIS, MARYLAND 21401
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DES: B.T.D., N.V.S.
DRN: B.T.D., N.V.S.
CHK: R.J.R.
DATE: DEC., 2006
BY No. REVISION DATE

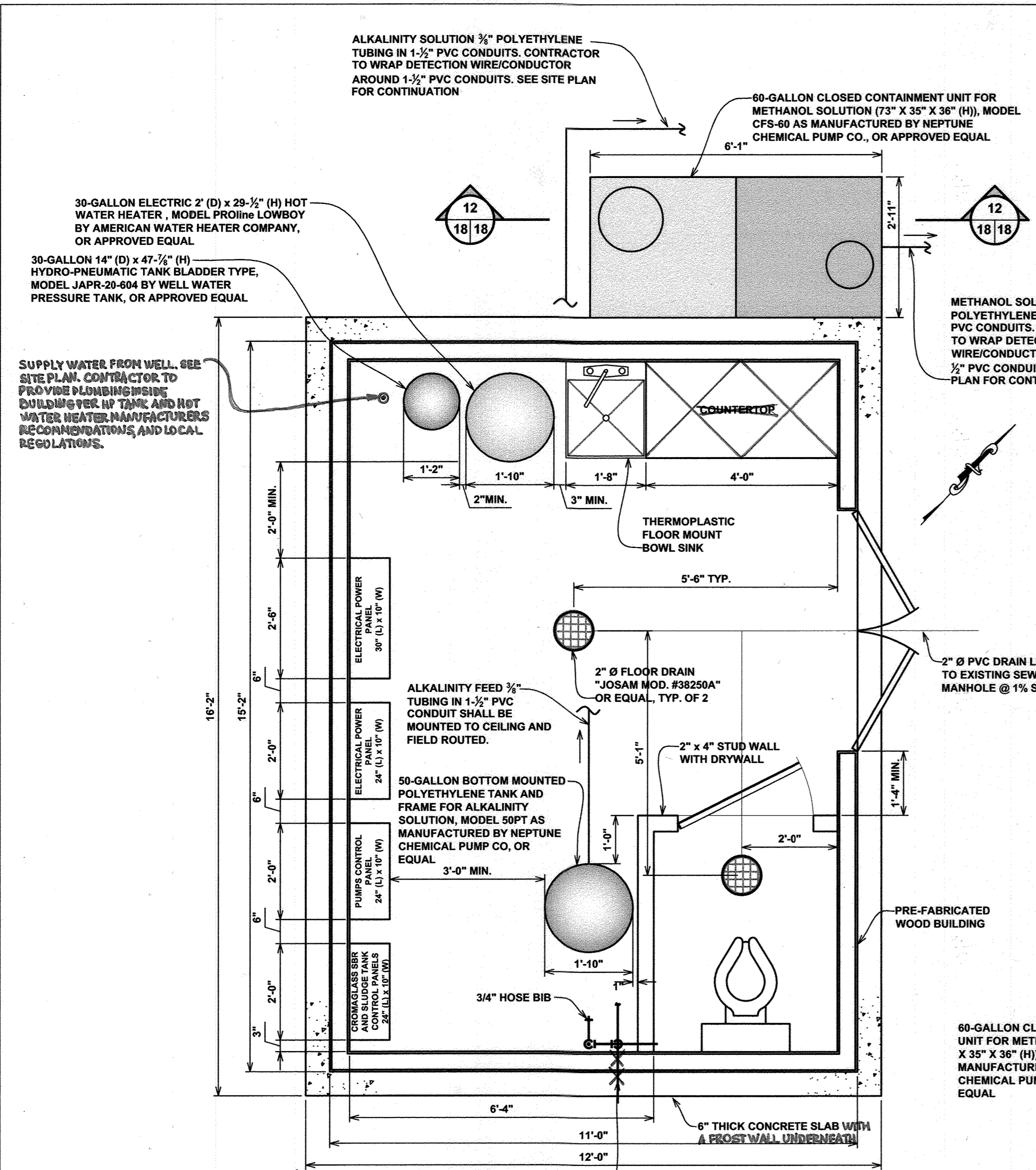
DETAILS

JOB No. C1040062

SHEPPARD MAJOR
PEDDIGORD-SHARED SEPTIC SYSTEM
LOTS 1 - 19
CONTRACT # 50-4357D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 17 OF 18

C:\1040062 - Peddigord Property Drawings\SHARED SEPTIC DESIGN\DETAILS_REV03.dwg Tab.....17 of 18

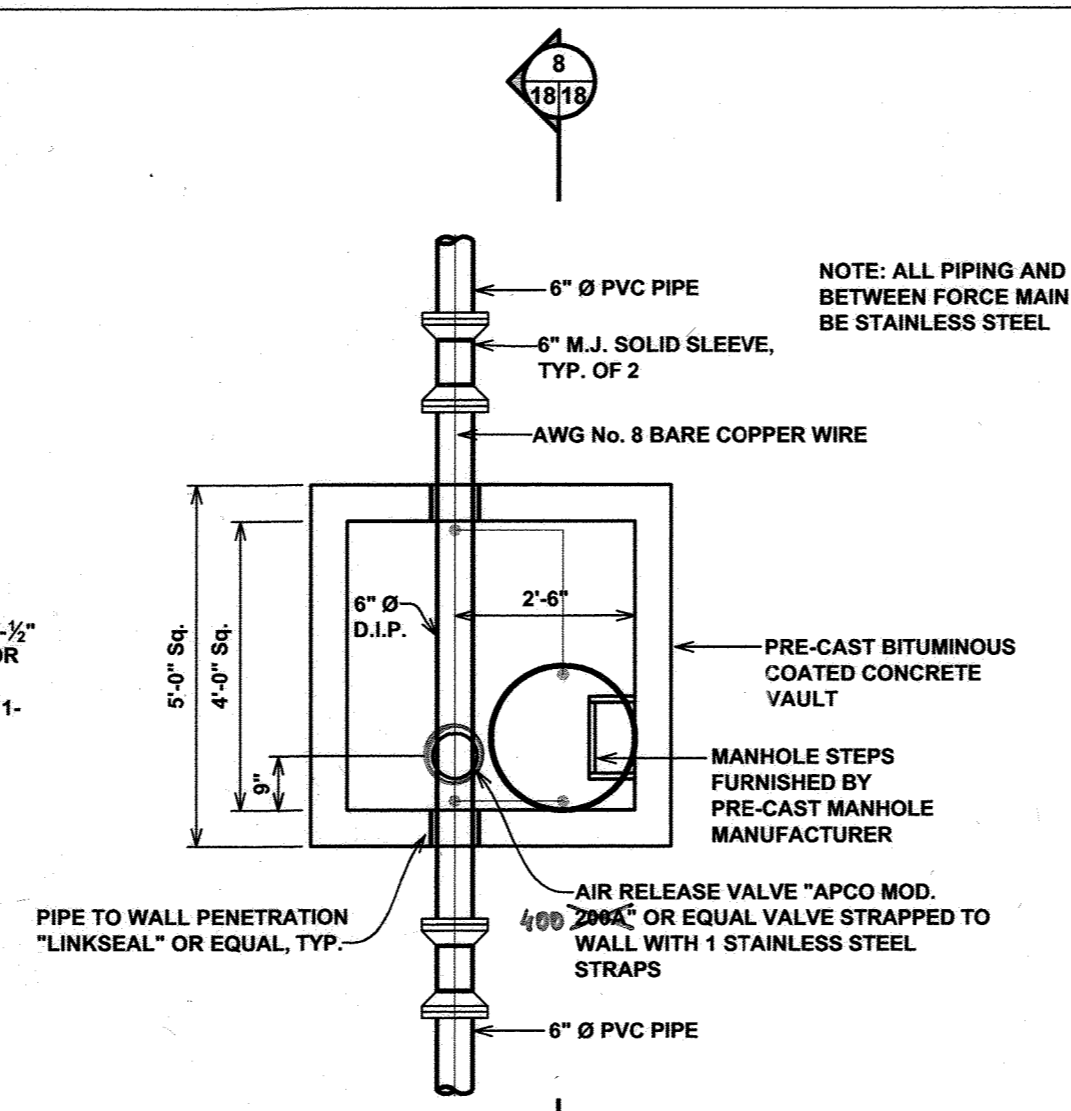


CONTROL BUILDING LAYOUT PLAN
SCALE: 1/2" = 1'-0"

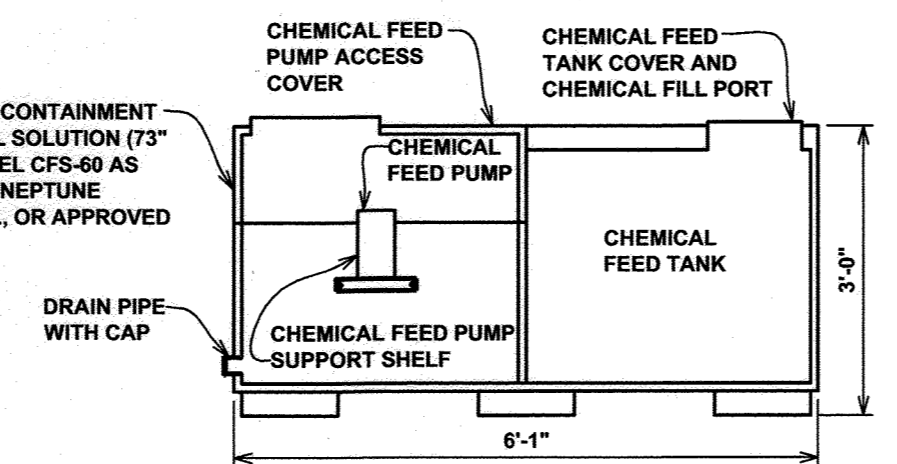
RECOMMENDED CHEMICAL FEED RATE AND TIME

ALKALINITY		METHANOL	
Chemical Feed Rate, ml/min	Recommended Chemical Feed Time, min	Chemical Feed Rate, ml/min	Recommended Chemical Feed Time, min
1.17	270	0.82	90
2	158	2	37
3	105	3	25
4	79	4	19
5	63	5	15
6	53	6	12
7	45	7	11
8	40	8	9
9	35	9	8
10	32	10	7
11	29	11	7
12	26	12	6
13	24	13	6
14	23	14	5
15	21	15	5
16	20	16	5
17	19	17	4
18	18	18	4
19	17	19	4
20	16	20	4
21	15	21	4
22	14	22	3
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24	13	24	3
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26	12	26	3
27	12	27	3
28	11	28	3

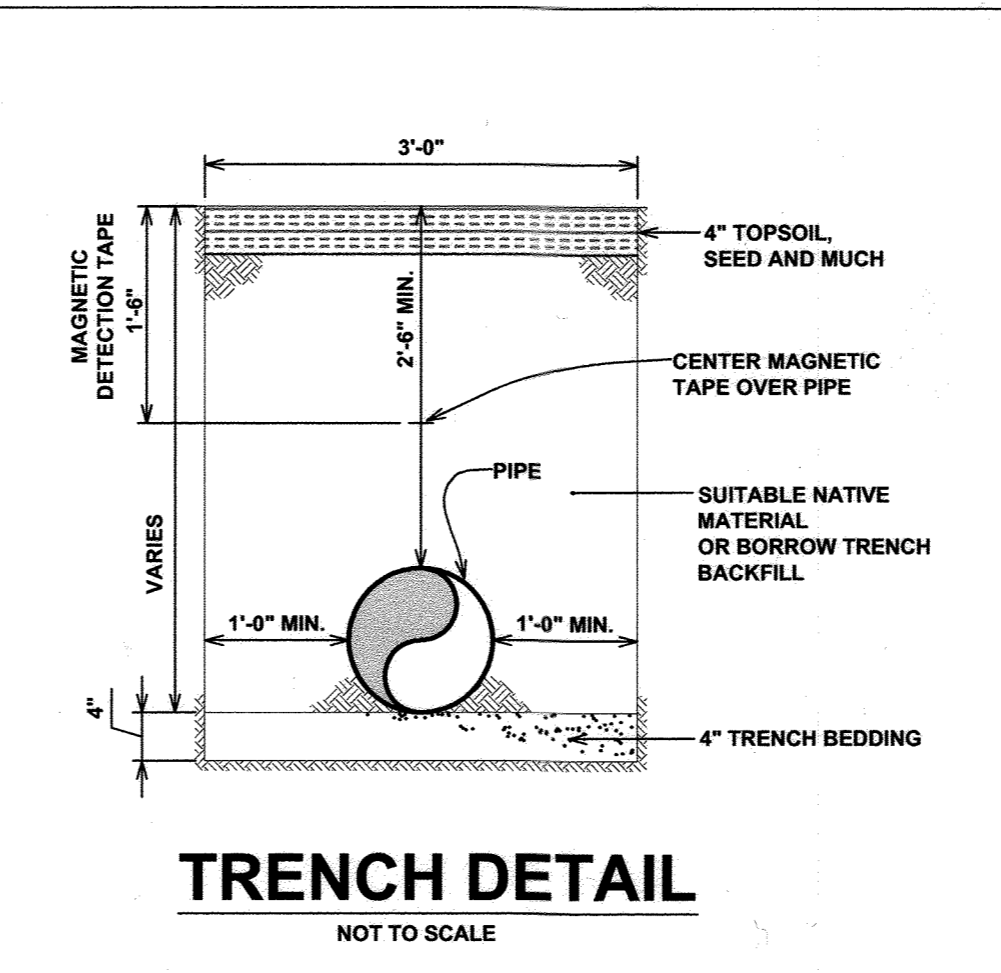
NOTE:
1) METHANOL ADDITION IS RECOMMENDED DURING ANOXIC PHASE OF TREATMENT CYCLE (REFER TO SHEET 11 OF 18);
2) ALKALINITY SOLUTION ADDITION IS RECOMMENDED DURING AEROBIC PHASE OF TREATMENT CYCLE (REFER TO SHEET 11 OF 18);
3) MAXIMUM RECOMMENDED FEED TIME OF ALKALINITY SOLUTION IS 270 MIN AT RECOMMENDED FEED RATE (270 MIN EQUAL TO ANOXIC PHASE PERIOD PER CROMAGLASS TREATMENT CYCLE DIAGRAM, REFER TO SHEET 11 OF 18);
4) MAXIMUM RECOMMENDED FEED TIME FOR METHANOL IS 90 MIN AT RECOMMENDED FEED RATE (90 MIN EQUAL TO AEROBIC PHASE PERIOD PER CROMAGLASS TREATMENT CYCLE DIAGRAM, REFER TO SHEET 11 OF 18).



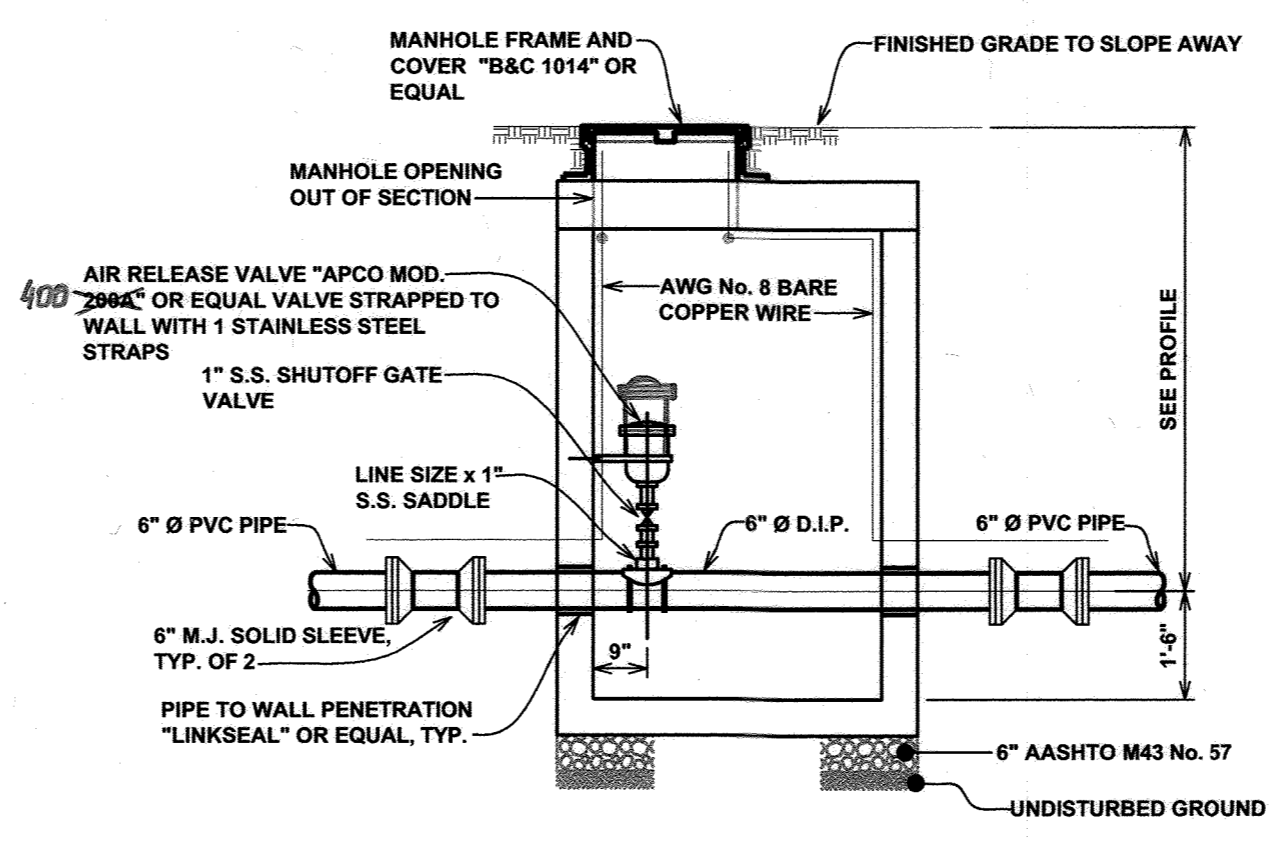
AIR RELEASE VALVE VAULT PLAN
SCALE: 3/8" = 1'-0"



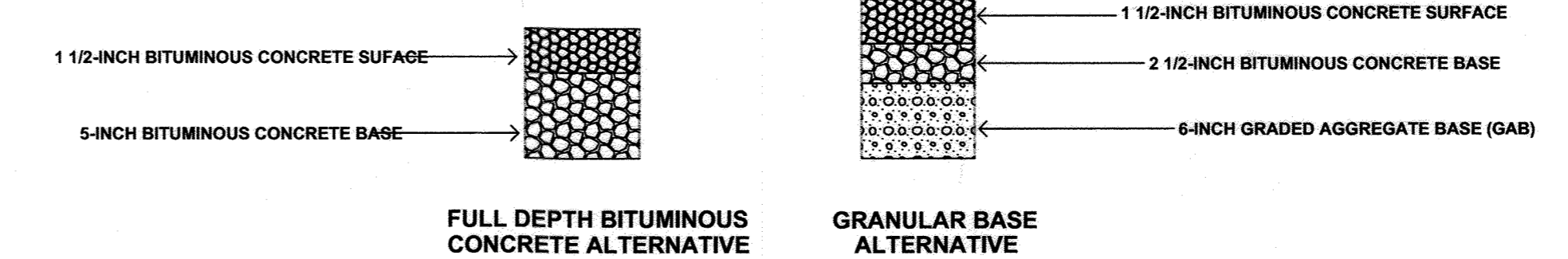
SECTION 12
NOT TO SCALE



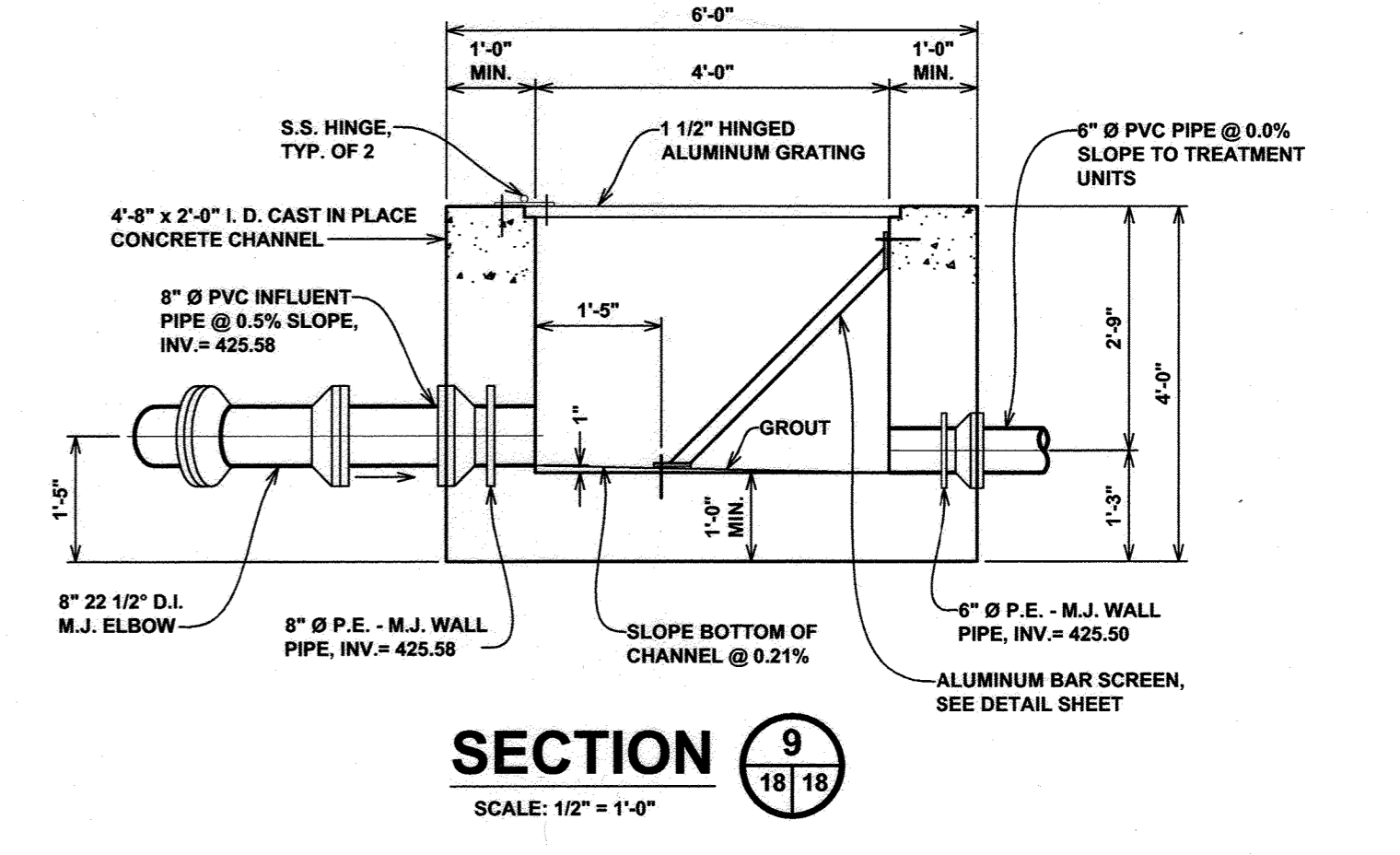
TRENCH DETAIL
NOT TO SCALE



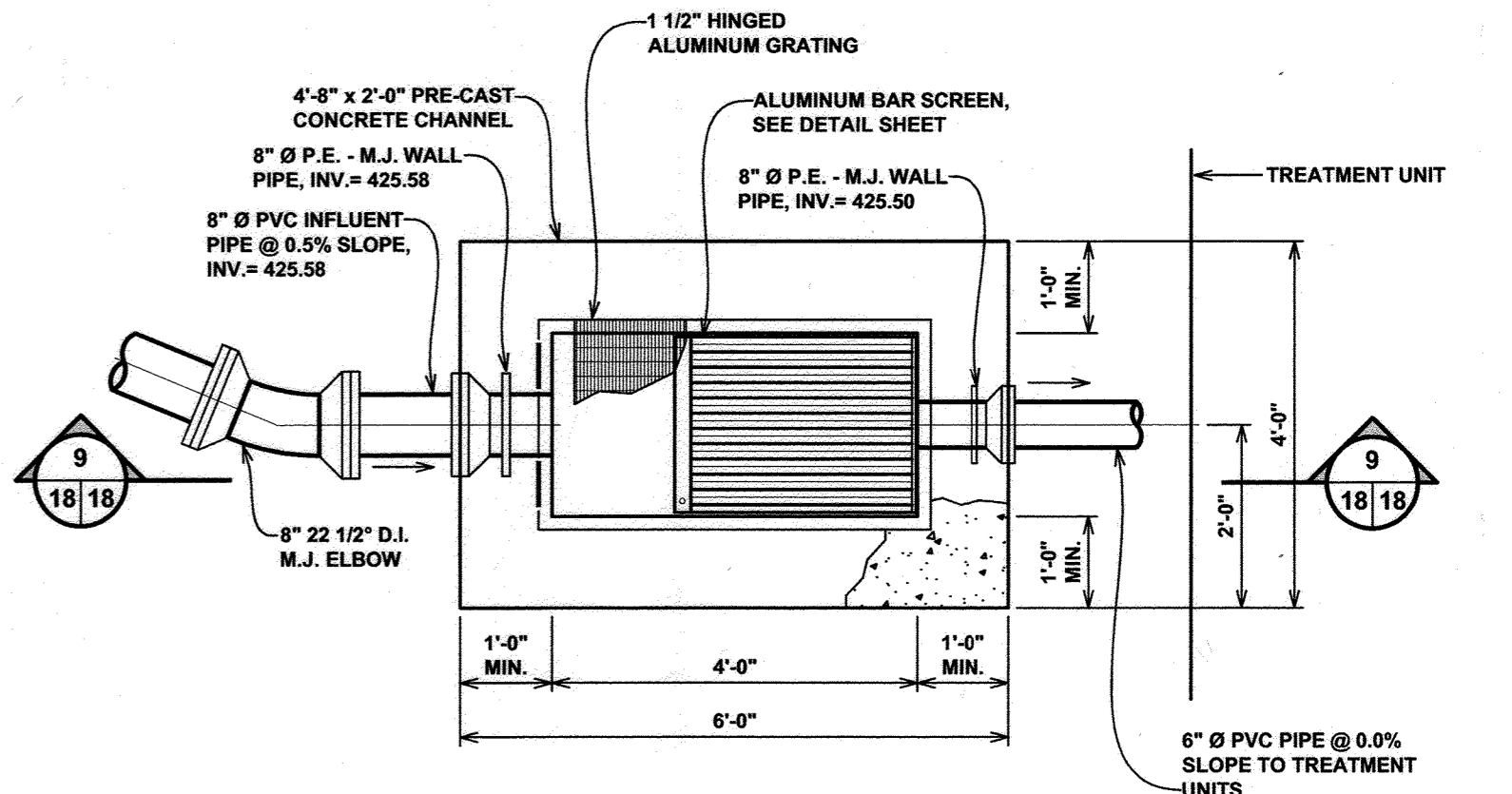
SECTION 8
SCALE: 3/8" = 1'-0"



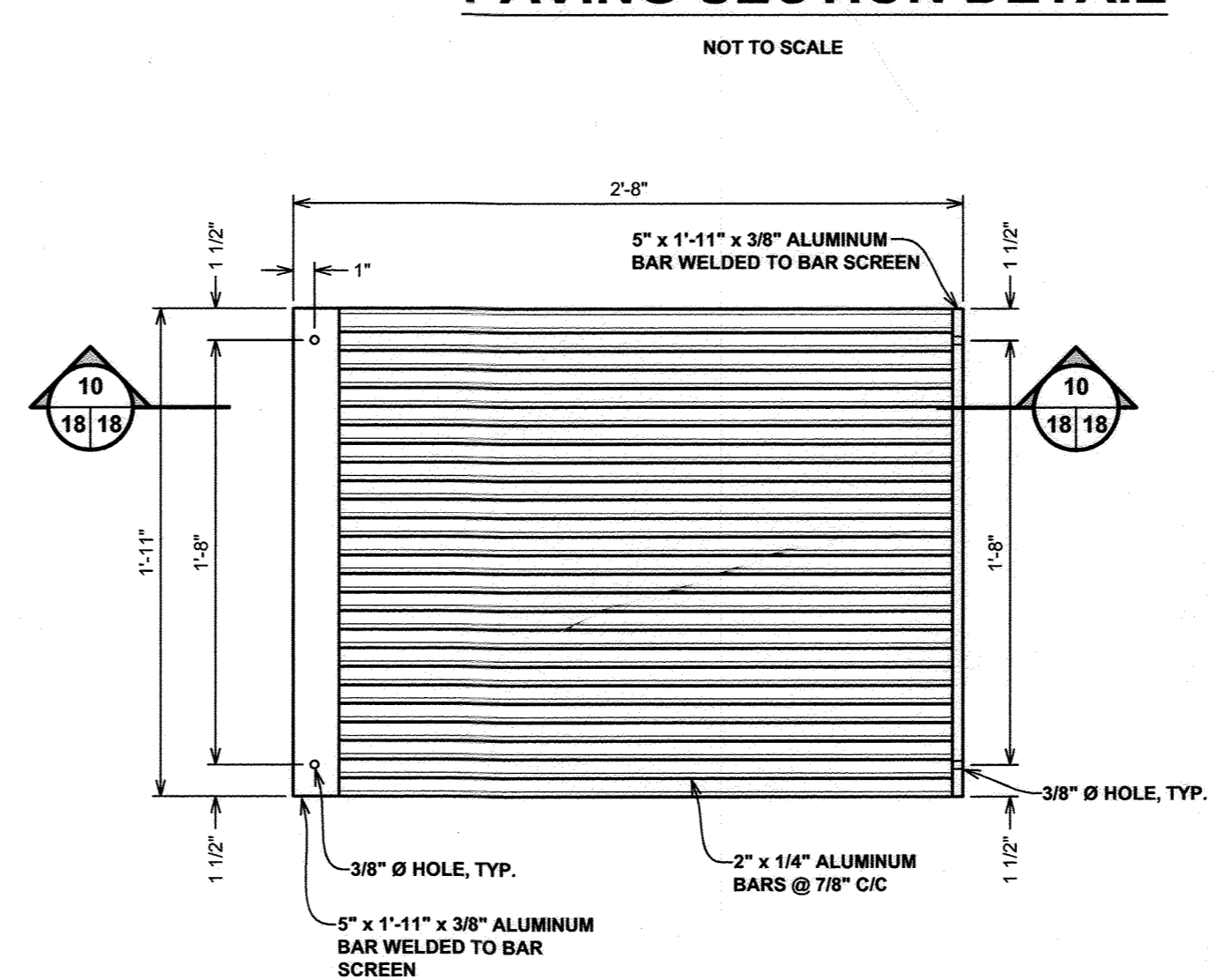
PAVING SECTION DETAIL
NOT TO SCALE



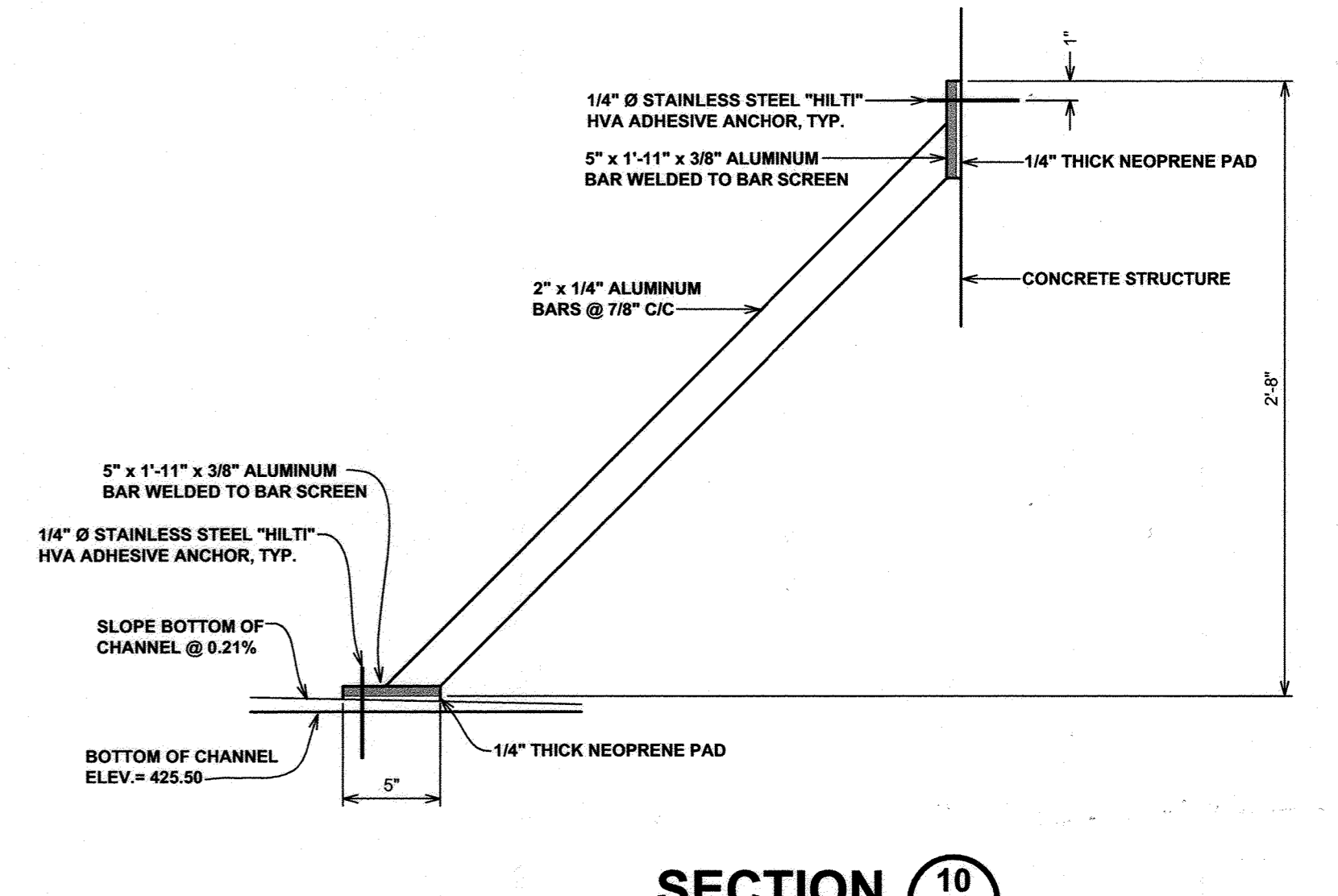
SECTION 9
SCALE: 1/2" = 1'-0"



PLAN BAR SCREEN CHANNEL DETAIL
SCALE: 1/2" = 1'-0"



PLAN



SECTION 10
SCALE: 3/8" = 1'-0"

BAR SCREEN DETAIL
SCALE: 1/2" = 1'-0"

RECORD DRAWING
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APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT
Robert W. Wade 1/19/07
HOWARD COUNTY HEALTH OFFICER DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

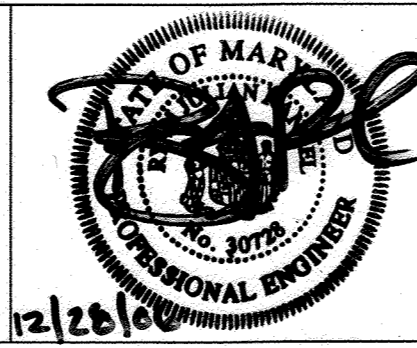
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-09.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Rita B... 1-25-09
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
... 2/2/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

McCRONE
Engineering Environmental Sciences
Construction Services Land Planning & Surveying
ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY
28 RIDGELY AVENUE
ANNAPOLIS, MARYLAND 21401
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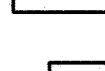




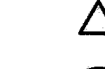






DES: B.T.D., N.V.S.					
DRN: B.T.D., N.V.S.					
CHK: R.J.R.					
DATE: DEC., 2006	BY: <i>SB</i>	No. <i>1</i>	SUBDIVISION NAME	DATE: <i>1/19/07</i>	
			REVISION		

DETAILS
JOB No. C1040062

SHEPPARD MANOR
PEDDIGORD SHARED SEPTIC SYSTEM
LOTS 1 - 19
CONTRACT # 39-0-4367 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

LEGEND

-  125V, 20a GROUNDING TYPE DUPLEX RECEPTACLE - NEMA 5-20R
-  125V, 20A GROUND FAULT CIRCUIT INTERRUPTER OUTLET
-  SWITCH 20A 1 POLE COMMERCIAL GRADE
-  PANEL (TYPE CALLED OUT ON PANEL)
-  MOTOR DISCONNECT SEE DRAWINGS FOR DETAIL
-  MOTORIZED EQUIPMENT I.E. EXHAUST FAN, WATER PUMP.
-  CIRCUIT WIRING
-  HOMERUN CIRCUIT DESIGNATION TO CB CALLED OUT
-  LIGHT FIXTURES TYPE AS INDICATED ON LIGHTING SCHEDULE
-  PHONE JACK - RJ45 PROVIDE TWO JACKS AT LOCATION
-  PRESSURE SWITCH
-  THERMOSTAT CONTROL
-  METER FOR ELECTRIC SERVICE

SHEET SCHEDULE




- E-0 COVER SHEET
- E-1 SITE PLAN ELECTRICAL SERVICE
- E-2 CONTROL BUILDING LIGHT AND POWER
- E-3 CROMAGLASS & SLUDGE TANK ELECTRICAL
- E-4 DOSING PUMP STATION
- E-5 DOSING PUMP CONTROL PANEL & MISSION 800 RTU
- E-6 PANEL SCHEDULE, SINGLE LINE AND WALL PANEL LAYOUT

ABBREVIATIONS

- A AMPERES
- A.C.T. ABOVE COUNTER TOP
- A.F.F. ABOVE FINISHED FLOOR
- CLG CEILING
- DISC DISCONNECT
- DWG DRAWING
- E.C. EMPTY CONDUIT
- FLUOR FLUORESCENT
- GFCI GROUND FAULT CIRCUIT INTERRUPTER
- HP HORSE POWER
- KVA KILOVOLTAMPERES
- KW KILOWATTS
- NF NON FUSED
- MTD MOUNTED
- MV MERCURY VAPOR
- N.I.C. NOT IN CONTRACT
- N.T.S. NOT TO SCALE
- PNL PANEL
- PWR POWER
- RS RIGID STEEL
- TYP TYPICAL
- U.L. UNDERWRITERS LABORATORY
- WP WEATHER PROOF
- XFMR TRANSFORMER

NOTES

1. COORDINATE LOCATIONS OF ELECTRICAL EQUIPMENT WITH ALL OTHER TRADES
2. UNLESS NOTED ON DRAWINGS OR CONDUIT SCHEDULE, WIRE SHOWN SHALL BE THHN/THWN 75 DEG. CENTIGRADE, 600 VOLT INSULATION, COPPER UNLESS NOTED.
3. UNLESS NOTED ON DRAWINGS THE PUMP CONTROL PANELS AND STARTERS SHALL BE OBTAINED FROM THE TANK AND PUMP MANUFACTURES. PROVIDE ALL WIRING, RACEWAY AND TERMINATIONS TO AND FROM THE EQUIPMENT MENTIONED WITH THE EXCEPTION OF MANUFACTURES PRE-WIRED CIRCUITS. LABEL ALL SIGNAL AND PUMP WIRE THAT SHARES CONDUIT WITH OTHER CIRCUITS. LABEL ALL SIGNAL AND PUMP WIRE THAT SHARES CONDUIT WITH OTHER CIRCUITS AS SHOWN ON TERMINAL BLOCKS. BRADY LABELS ARE ACCEPTABLE.
4. SERVICE AND PANELS SHALL BE INSTALLED AS SHOWN UNLESS LOCAL AUTHORITY HAVING JURISDICTION INDICATES OTHERWISE.
5. INSTALL ELECTRICAL SERVICE TO SITE. THIS IS TO INCLUDE XFMR PAD PURCHASE BGE PAD OR POUR IN PLACE PAD THAT IS ACCEPTABLE TO BG&E, PRIMARY 25KV UNDERGROUND CABLE ENCLOSED IN 4 INCH PVC IF REQUIRED AND SECONDARY FEED FROM A BG&E SUPPLIED 45 KVA 3 PHASE 208V TRANSFORMER. METER SOCKET AND A SQ'D #QO342MQ200 42 CB PANEL ARE TO BE PROVIDED AND THE PANEL SUPPLIED WITH CBs AS SHOWN ON E-6. PROVIDE TVS SQ'R D MODEL #SDSA 3650 AS SHOWN.
6. INSTALL LIGHTING AND POWER TO EQUIPMENT AS SHOWN.
7. INSTALL BASE BOARD HEATERS WHERE SHOWN, OF MAKE QMARK, MODELS #2542-6NW (2) AND #2544NW (1) AND CONTROL WITH A SINGLE THERMOSTAT, MODEL #MD26
8. WIRE IN WATER HEATER, PRESSURE SWITCH AND WATER PUMP.
9. WIRE PANELS AND ALSO RUN THE WIRE AND CONDUIT OUT TO THE PUMP LOCATIONS, FURNISH TWO 60 A NF DISCONNECTS. WIRE / CONNECT UP ALL PUMPS AND TERMINAL / JUNCTION BOXES.
10. WIRE IN THE CROMAGLASS SBR, SLUDGE TANK, AND OVERFLOW TANK CONTROL PANELS. PROVIDE THE WIRE AND CONDUIT TO THE JUNCTION BOXES LOCATED ON THESE TANKS AS WELL.
11. FABRICATE/INSTALL PUMPS & CONTROLS FOR DOSING STATION. USE MYERS CGNC-75-23DW PUMP CONTROL PANEL
12. INSTALL CONTROLS & EQUIPMENTS FOR OVERFLOW TANK TO CONSIST OF 12 HR TIMER IN SERIES WITH PUMP OFF FLOAT TO POWER PUMP. 12 HOUR TIMER TO BE AN INTERMATIC FF12H
13. INSTALL AND CONFIGURE A MISSION MONITOR MODEL M-800 SERIES SYSTEM WITH THE PULSE OPTION FOR FLOW MONITORING. SYSTEM SHALL OPERATE / TRANSMIT OVER A WIRELESS NETWORK SUCH AS NEXTEL OR CINGULAR .
14. INSTALL POWER TO PULSE METER & PROVIDE CONDUIT & CABLE TO PULSE METERS IN JB6 (USE CAROL BRAND #C1352 OR EQUAL)
15. INSTALL CONTROL WIRE AND CONDUIT BETWEEN CHEMICAL FEED SYSTEMS AND CROMAGLASS UNIT. INSTALL POWER WIRE AND CONDUIT BETWEEN CHEMICAL FEED SYSTEMS AND POWER PANEL.

LIGHTING FIXTURE SCHEDULE			
FIXTURE	LAMP TYPE	MANUFACTURER & #	DESCRIPTION
	32 W CFL 4100K	LUMA PRO #3RB20	JELLY JAR TYPE FIXTURE
	FC12T9CW 4100K	LUMA PRO #2U268	INTERIOR ROUND FLOURESCENT
	175 W MV	LITHONIA # TDD175MV120PERLPIM2	OUTDOOR LIGHT POLE FIXTURE W/PHOTOCELL & BULB SUPPLIED

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Randy White
HOWARD COUNTY HEALTH OFFICER 1/19/07
DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

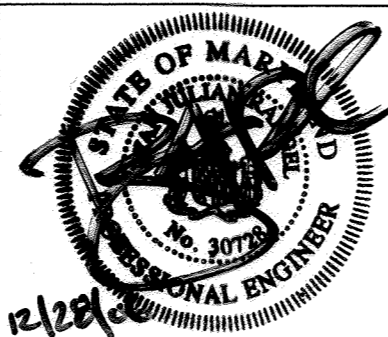
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-00-99.

ROSS ENGINEERING
Address: 471 KNIGHT ISLAND RD.
EARLEVILLE, MD 21919
Email: rosseng@wildblue.net
Phone: 410-920-2800,
Fax: 410-275-1315

MICRONE
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ANAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY
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DES: R.R.				
DRN: AD				
CHK: R.J.R.				
DATE: DEC., 2006	BY	No.	REVISION	DATE
	SD	1	SUBDIVISION NAME	1/10/07

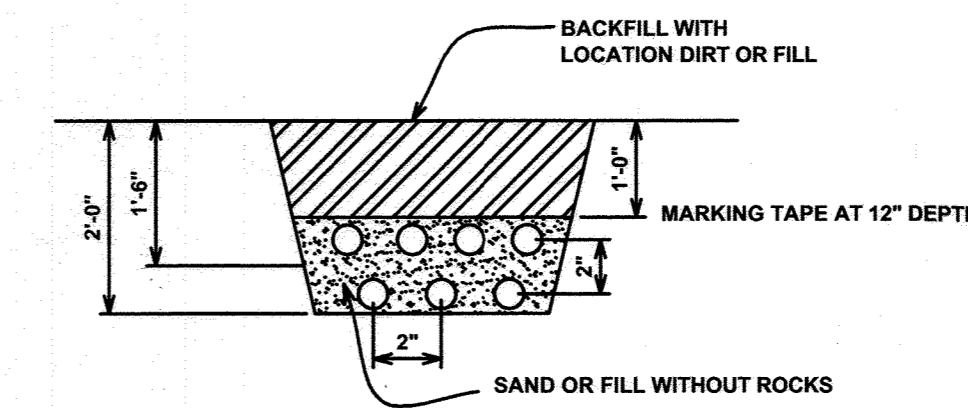
COVER SHEET

JOB No. C1040062

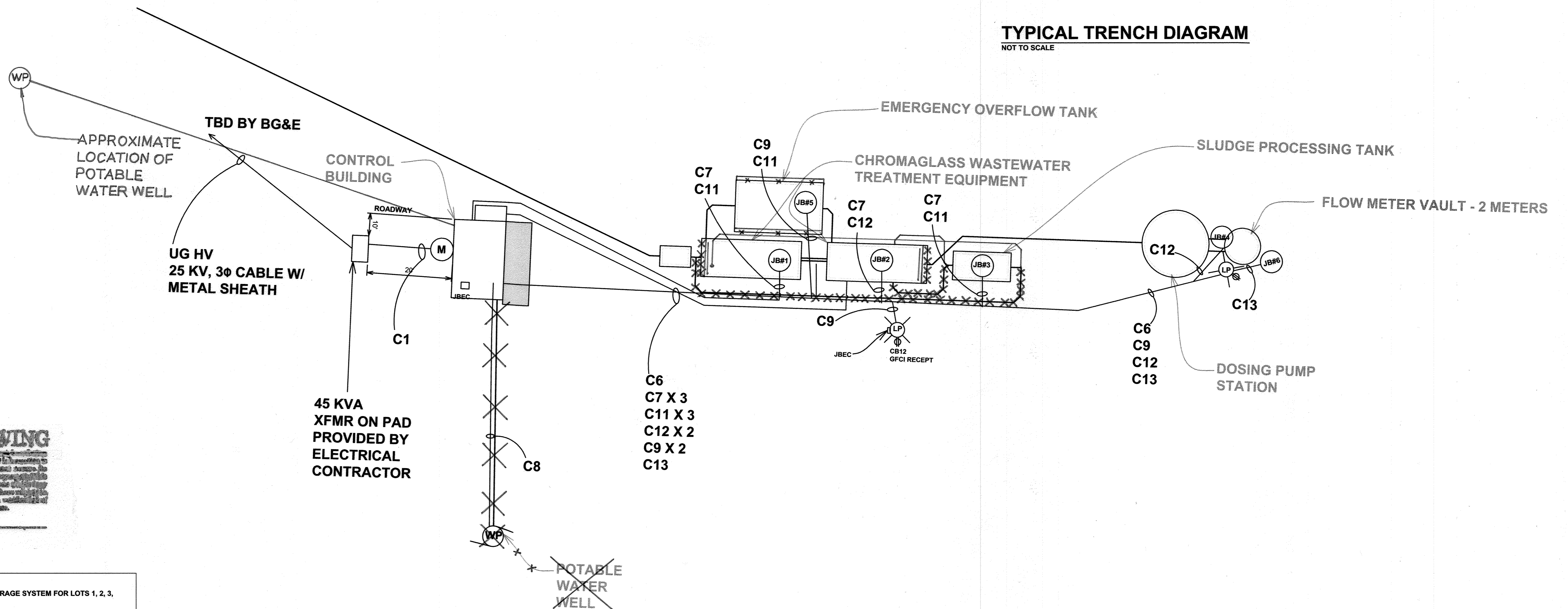
RECORD DRAWING
This record drawing has been prepared by the undersigned in accordance with the provisions of the Maryland Professional Engineers and Architects Act of 1967, and the undersigned hereby certifies that he is a duly licensed Professional Engineer in the State of Maryland, and that he is the author of the design shown hereon, and that he is not aware of any circumstances which may have been overlooked or omitted in the design, and that he is not aware of any circumstances which may have been overlooked or omitted in the design, and that he is not aware of any circumstances which may have been overlooked or omitted in the design.

SHEPPARD MANOR
—PEDDIGORD SHARED SEPTIC SYSTEM
LOTS 1 - 19
CONTRACT # 50-4857D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET E-0



TYPICAL TRENCH DIAGRAM
NOT TO SCALE



SITE LAYOUT
SCALE: 1" = 10'

NOTES:

INSTALL MULTIPLE CONDUITS IN TRENCH WITH 2 INCH SPACING AT A DEPTH OF 18-24 INCHES DEEP AND OF A WIDTH TO ACCOMMODATE 2 INCH SPACING BETWEEN CONDUITS. BACK FILL & COMPACT WITH SAND OR FILL WITH NO ROCKS TO A DEPTH OF 12 INCHES. USE MARKING TAPE DIRECTLY ABOVE EACH CONDUIT LOCATION, AND THEN BACK FILL WITH LOCATION DIRT OR FILL. JB EC IS AN EXTRA 1 INCH EMPTY PVC CONDUIT AND TWO 8X8 JUNCTION BOXES, NEMA 3R WIEGMANN # RSC080804 OR EQUALS, ONE BOX ON CONTROL BUILDING, THE OTHER ON THE FIRST LIGHT POLE. JBEC TO BE MOUNTED 6" ABOVE GRADE AT LOCATION SHOWN

RECORD DRAWING

It is the responsibility of the designer to ensure that the information provided is accurate and complete. The user of this drawing is responsible for verifying the accuracy and completeness of the information provided. The user of this drawing is responsible for verifying the accuracy and completeness of the information provided.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert J. White
HOWARD COUNTY HEALTH OFFICER

11/9/07
DATE

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT
DATE

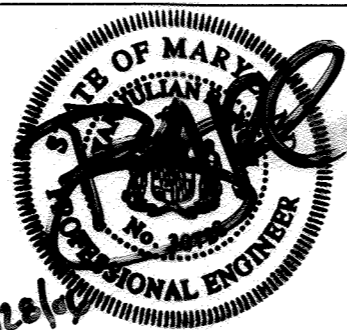
SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-09.

ROSS ENGINEERING

Address: 471 KNIGHT ISLAND RD.
EARLEVILLE, MD 21919
Email: rosseng@wildblue.net
Phone: 410-920-2800
Fax: 410-275-1315

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DRN: AD					
CHK: R.J.R.					
DATE: DEC. 2006	BY	No.	REVISION	DATE	
	SD 1		SUBDIVISION NAME	4/10/07	

SITE PLAN ELECTRICAL SERVICE

JOB No. C1040062

SHEPPARD MANOR

PEDDIGORD SHARED SEPTIC SYSTEM

LOTS 1 - 19
CONTRACT # 100-4357 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET E-1

R. J. White
CHIEF, BUREAU OF UTILITIES
1-25-07
DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
2/6/07
DATE

RECORD DRAWING

This record drawing has been prepared in accordance with the provisions of the Professional Engineers and Architects Code of Ethics and the provisions of the Professional Engineers and Architects Code of Ethics and the provisions of the Professional Engineers and Architects Code of Ethics.

By: _____
Date: _____

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert W. Dale
HOWARD COUNTY HEALTH OFFICER
DATE: 1/19/07

SCALE: 3/4" = 1'

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE: _____

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT
DATE: _____

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-09.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

ROSS ENGINEERING
Address: 471 KNIGHT ISLAND RD.
EARLEVILLE, MD 21919
Email: rosseng@wildblue.net
Phone: 410-920-2800
Fax: 410-275-1315

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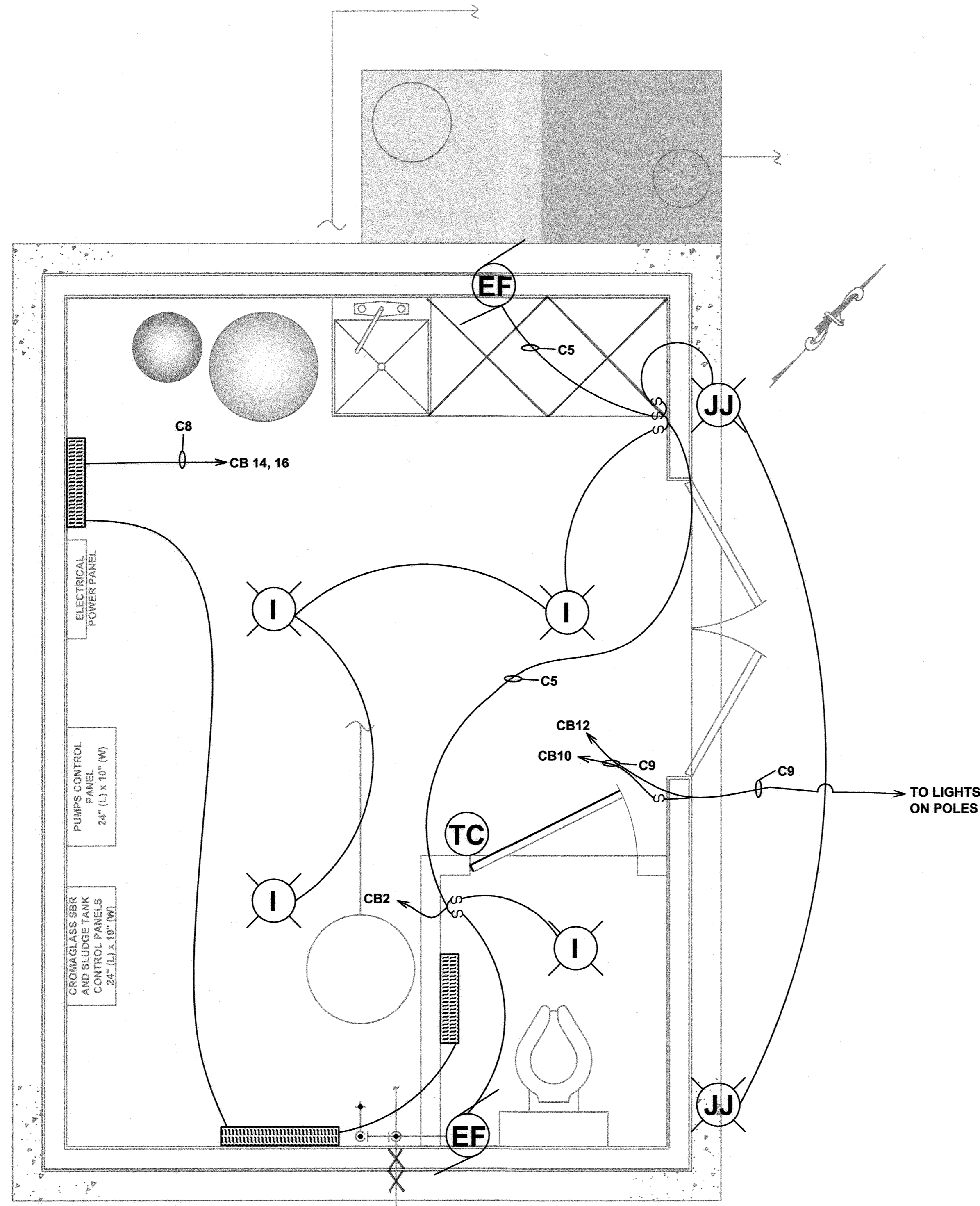
DES: R.R.					
DRN: AD					
CHK: R.J.R.					
DATE: DEC., 2006	BY: SB	No. 1	SUBDIVISION NAME	DATE: 4/10/07	
	REVISION				

CONTROL BUILDING LIGHT AND POWER

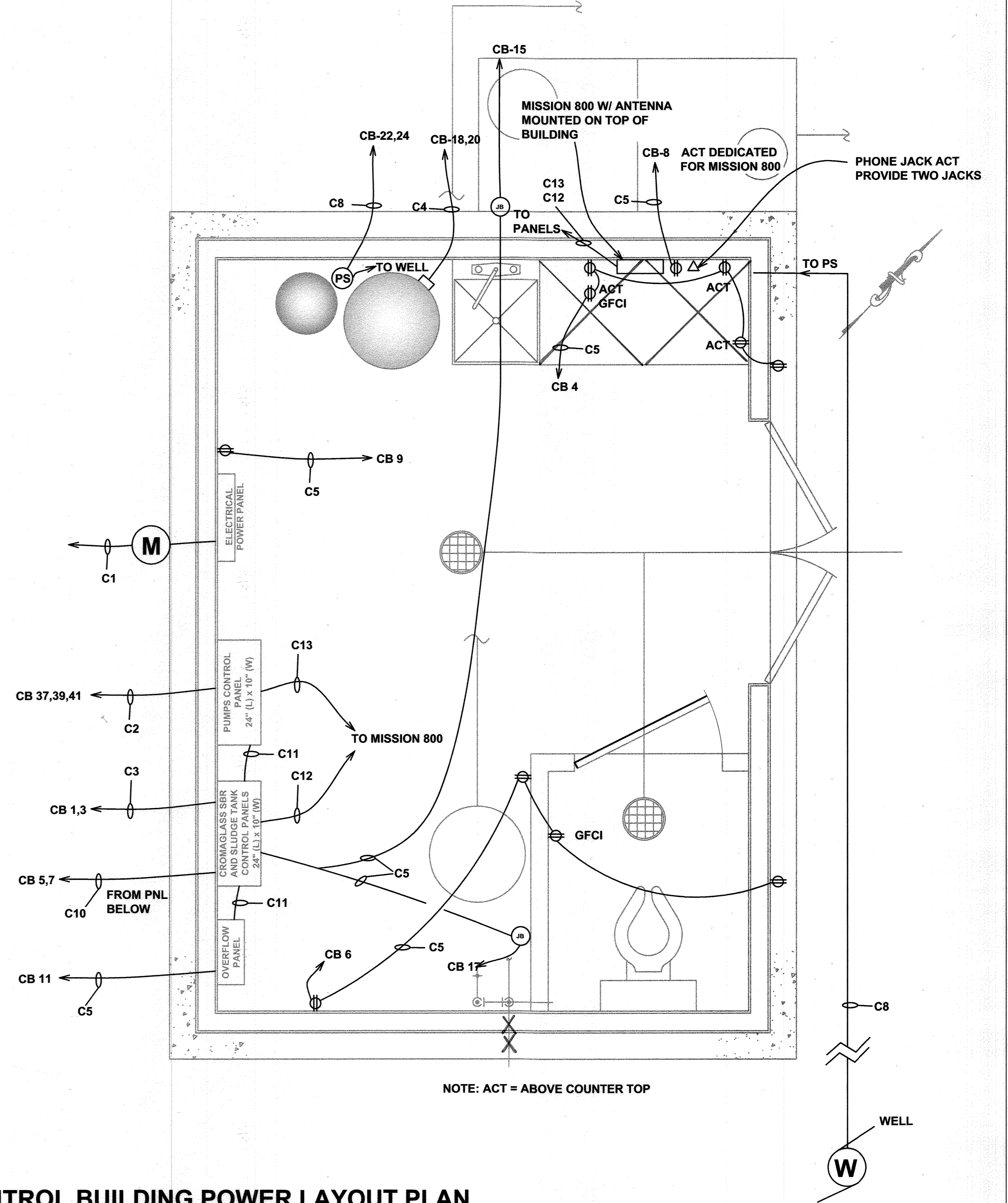
JOB No. C1040062

SHEPPARD MANOR
PEDDIGORD SHARED SEPTIC SYSTEM
LOTS 1 - 19
CONTRACT # 30-4457 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET E-2
CADD FILE: G:\1040062 - Peddicord Property\Drawings\SHARED SEPTIC DESIGN\Elect Drawings V2.dwg Tab.....E2

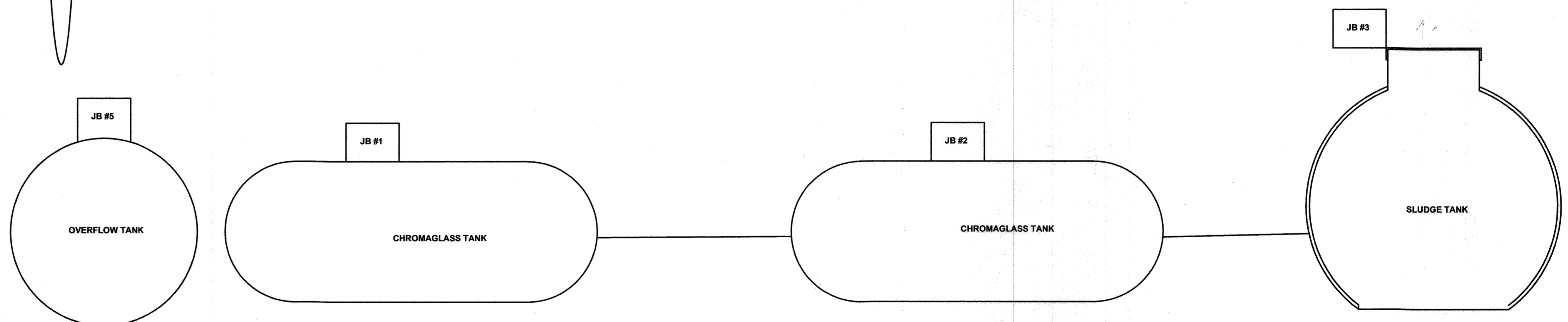
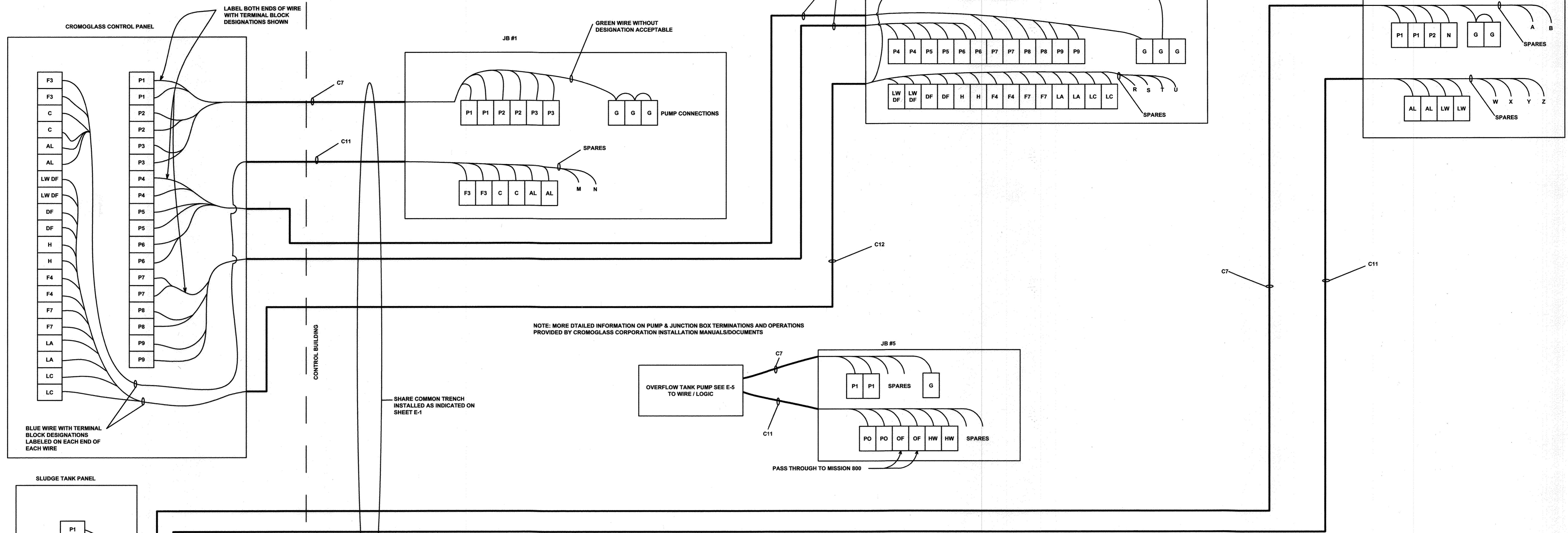


CONTROL BUILDING LIGHTING/HEATING LAYOUT PLAN



CONTROL BUILDING POWER LAYOUT PLAN

SCALE: 3/4" = 1'



CROMAGLASS SBR & SLUDGE TANK SYSTEM
SCALE: 3/4" = 1'

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT
Robert Walker
HOWARD COUNTY HEALTH OFFICER
DATE: 1/19/07

~~HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.~~

~~USDA NATURAL RESOURCES CONSERVATION SERVICE~~

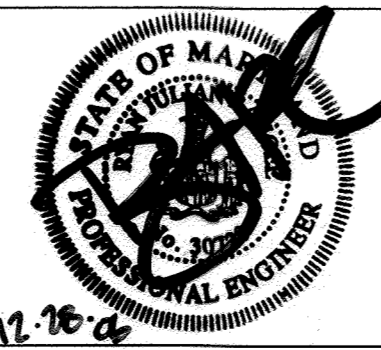
~~THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.~~

~~HOWARD SOIL CONSERVATION DISTRICT~~

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-09.

ROSS ENGINEERING
Address: 471 KNIGHT ISLAND RD.
EARLEVILLE, MD 21919
Email: rosseng@wildblue.net
Phone: 410-920-2800,
Fax: 410-275-1315

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DES: R.R.			
DRN: AD			
CHK: R.J.R.			
DATE: DEC., 2006	BY: No.	REVISION: SB 1 SUBDIVISION NAME	DATE: 4/10/07

CROMAGLASS & SLUDGE TANK ELECTRICAL
JOB No. C1040062

SHEPPARD MANOR
PEDDICORD SHARED SEPTIC SYSTEM
LOTS 1 - 19
CONTRACT # 06-1-4357 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

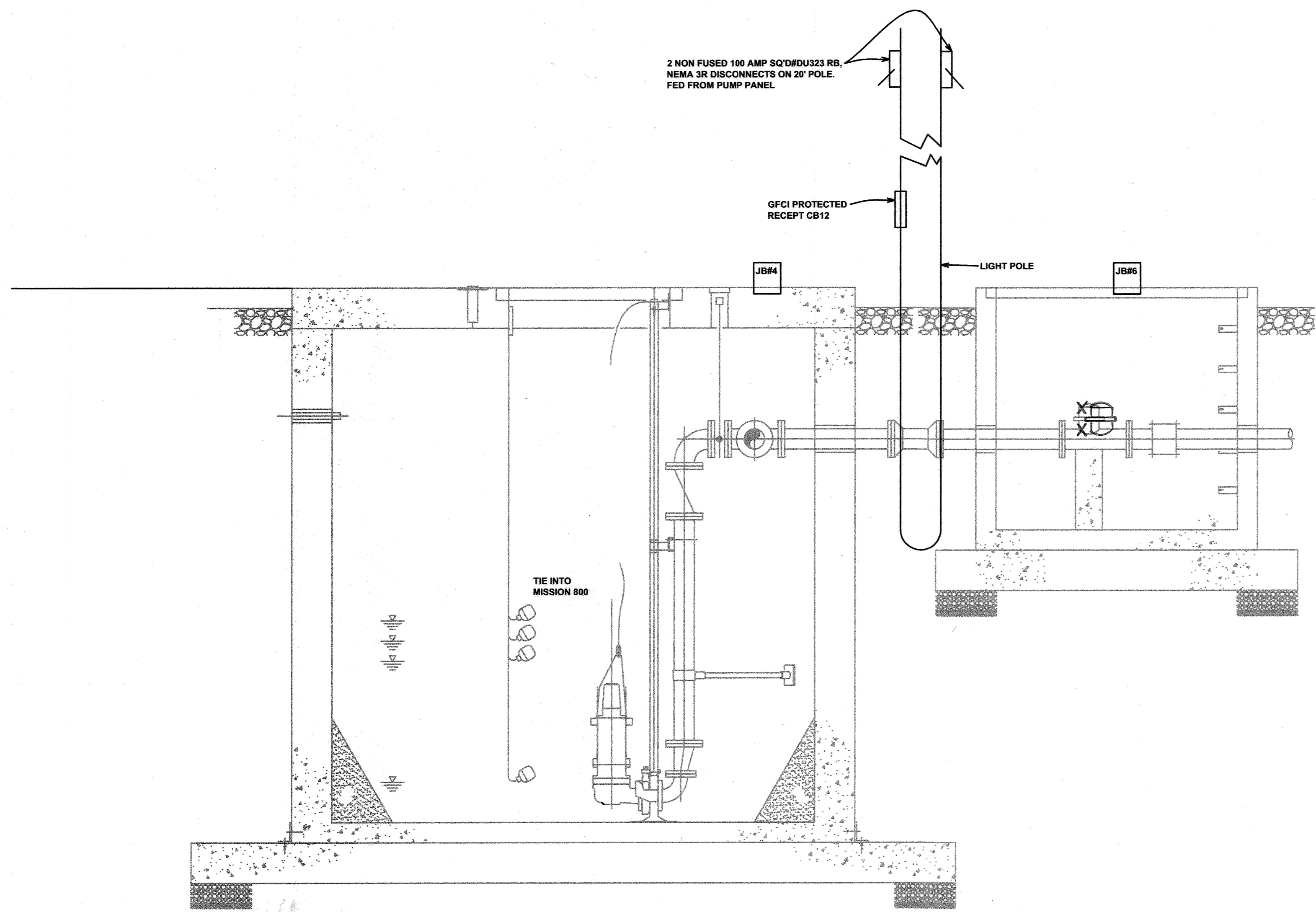
SCALE AS SHOWN
SHEET E-3
CADD FILE: G:\040062 - Peddicord Property Drawings\SHARED SEPTIC DESIGN\Elect Drawings V2.dwg Tab.....E3

RECORD DRAWING
This record drawing is to be used for the construction of the system. It is not to be used for any other purpose. The contractor is responsible for the accuracy of the information shown on this drawing. The engineer is not responsible for the accuracy of the information shown on this drawing. The contractor is responsible for the accuracy of the information shown on this drawing. The engineer is not responsible for the accuracy of the information shown on this drawing.

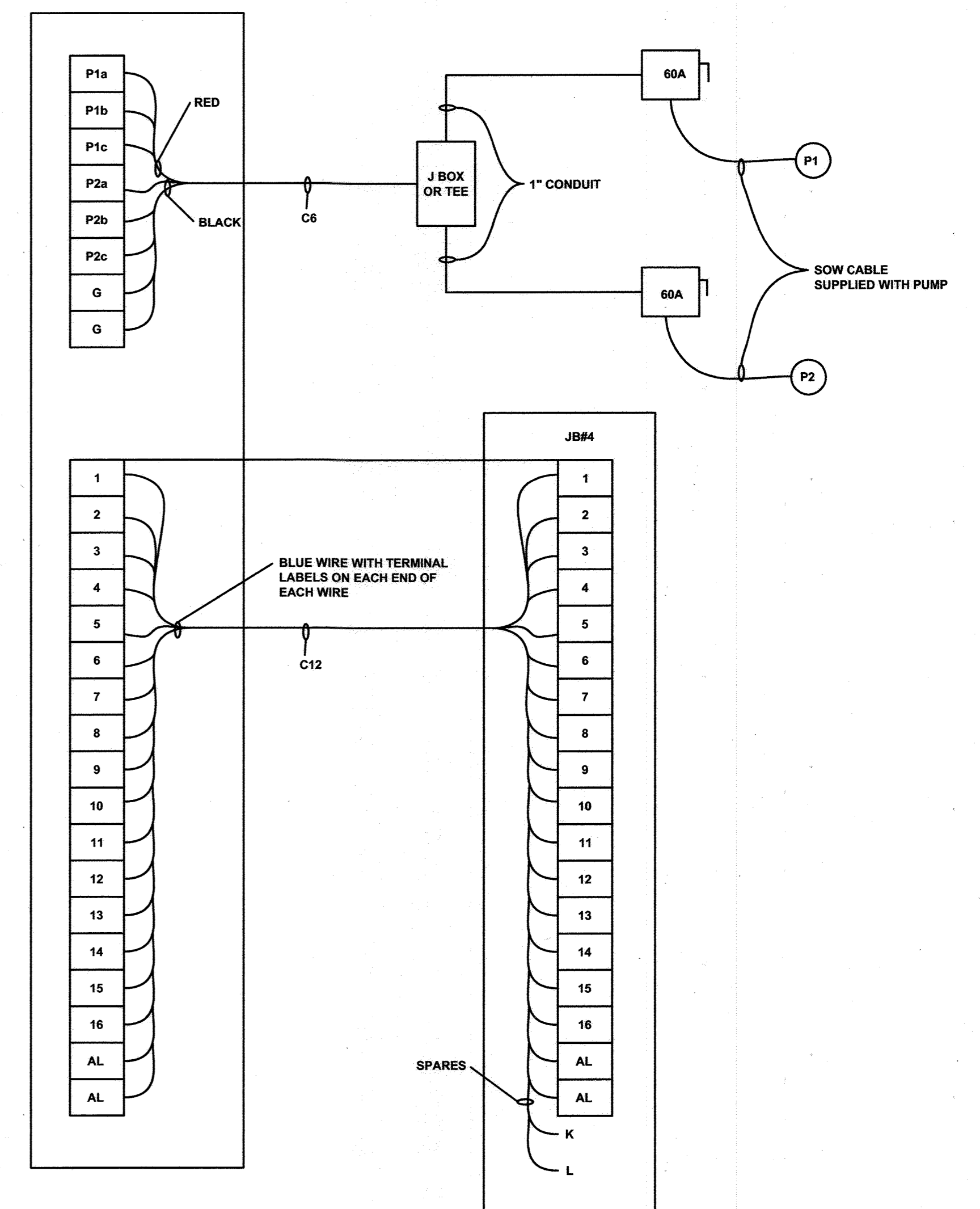
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ruth Beaman
CHIEF, BUREAU OF UTILITIES
DATE: 1-25-07

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/19/07



PUMP STATION POWER SECTION A-A
SCALE: 1/2" = 1'



PUMP PANEL WIRE DIAGRAM
NOT TO SCALE

RECORD DRAWING
This record drawing has been prepared by the Designer in accordance with the provisions of the Professional Engineers and Surveyors Act of 1968. It is the responsibility of the Designer to ensure that the information furnished is true and correct. The Designer is not responsible for any errors or omissions in this drawing or for any consequences arising therefrom. This record drawing is not to be used for any other purpose without the written consent of the Designer.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert White
HOWARD COUNTY HEALTH OFFICER
DATE: 1/19/07

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

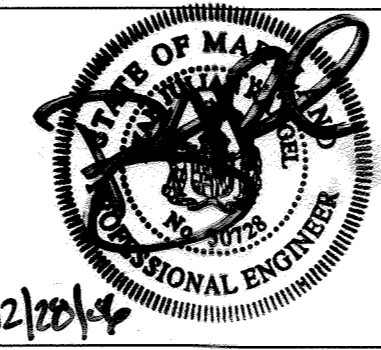
USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

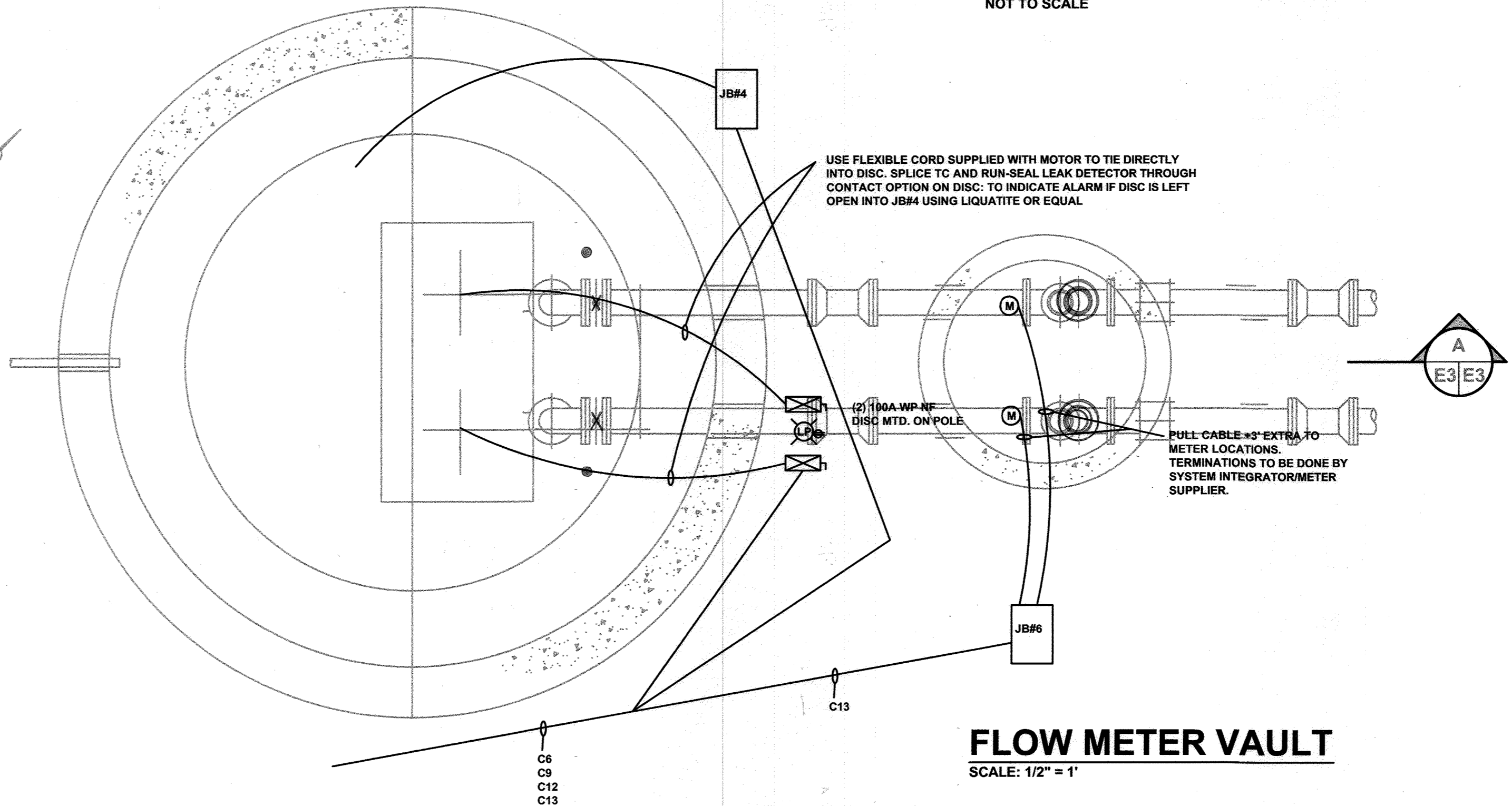
HOWARD SOIL CONSERVATION DISTRICT
DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

ROSS ENGINEERING
Address: 471 KNIGHT ISLAND RD.
EARLEVILLE, MD 21919
Email: rosseng@wildblue.net
Phone: 410-920-2800
Fax: 410-275-1315



DES: R.R.			
DRN: AD			
CHK: R.J.R.			
DATE: DEC., 2006	BY: SD	No. 1	REVISION: SUBDIVISION NAME
			DATE: 4/10/07



PUMP STATION POWER PLAN
SCALE: 1/2" = 1'

FLOW METER VAULT
SCALE: 1/2" = 1'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ruth B...
CHIEF, BUREAU OF UTILITIES
DATE: 1-25-07

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/1/07

DOSING PUMP STATION

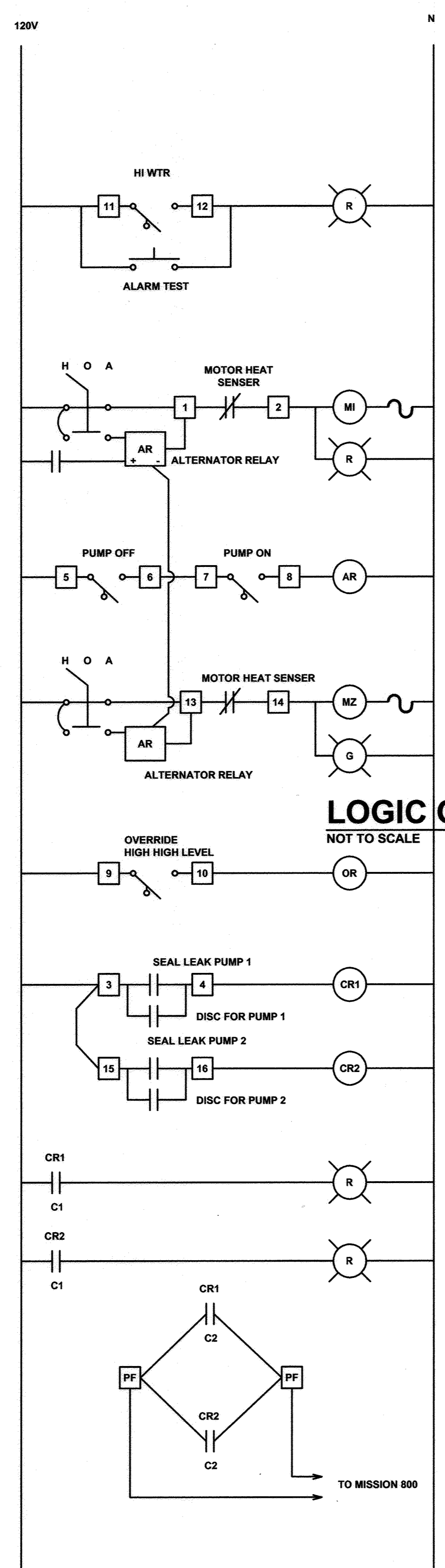
SHEPPARD MANOR
PEDDIGORD SHARED SEPTIC SYSTEM
LOTS 1-19
CONTRACT # 50-4157D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET E-4

PLOTTED: Dec 28, 2006 - 2:20pm

CADD FILE: G:\1040062 - Peddigord Property Drawings\SHARED SEPTIC DESIGN\Elect Drawings V2.dwg Tab:E4

ENCLOSE IN AN 8"X8"6" PANEL OR EQUAL



LOGIC OF OVERFLOW TANK PUMP
NOT TO SCALE

TIES INTO ALTERNATE RELAY TO RUN BOTH PUMPS

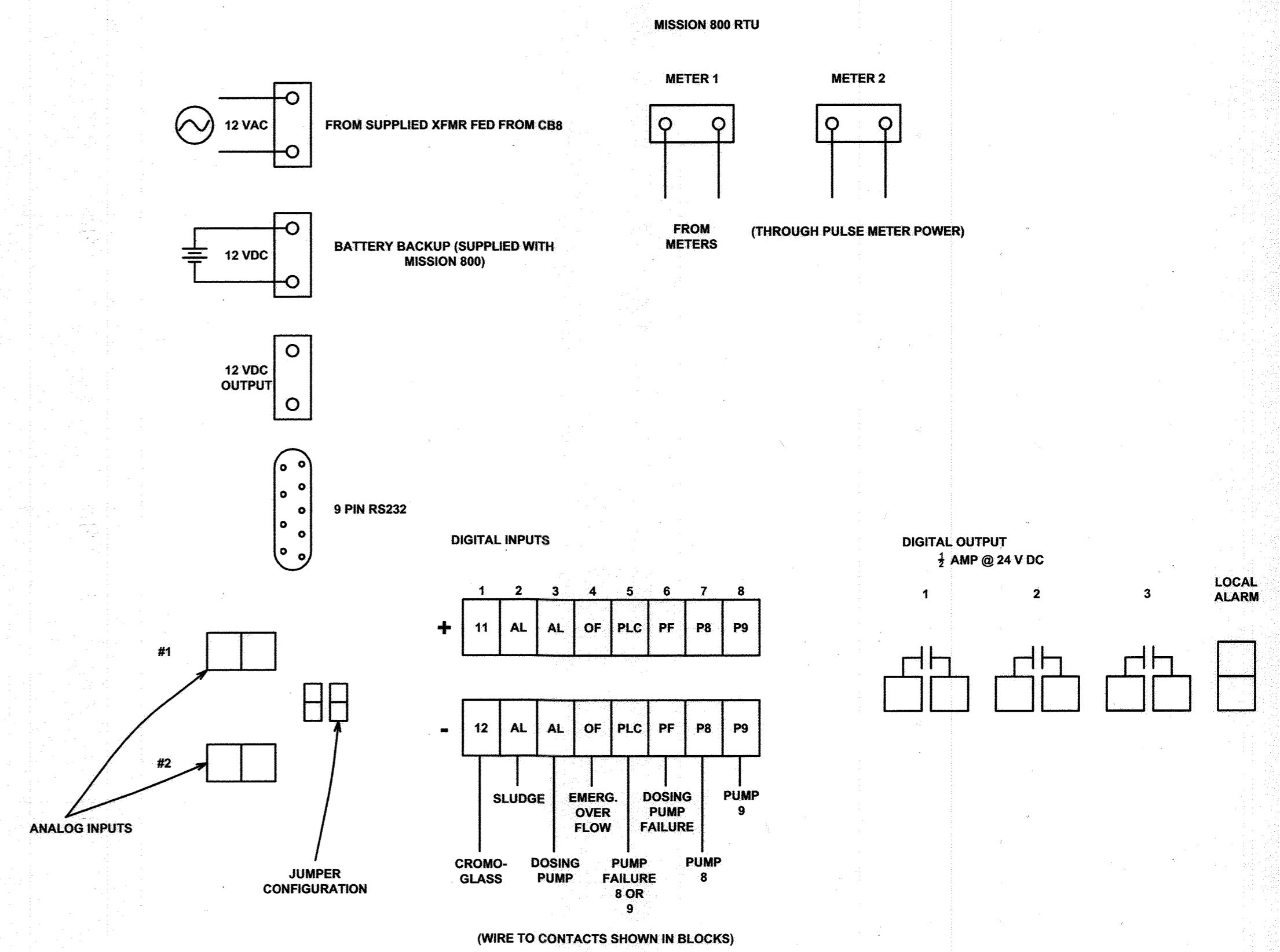
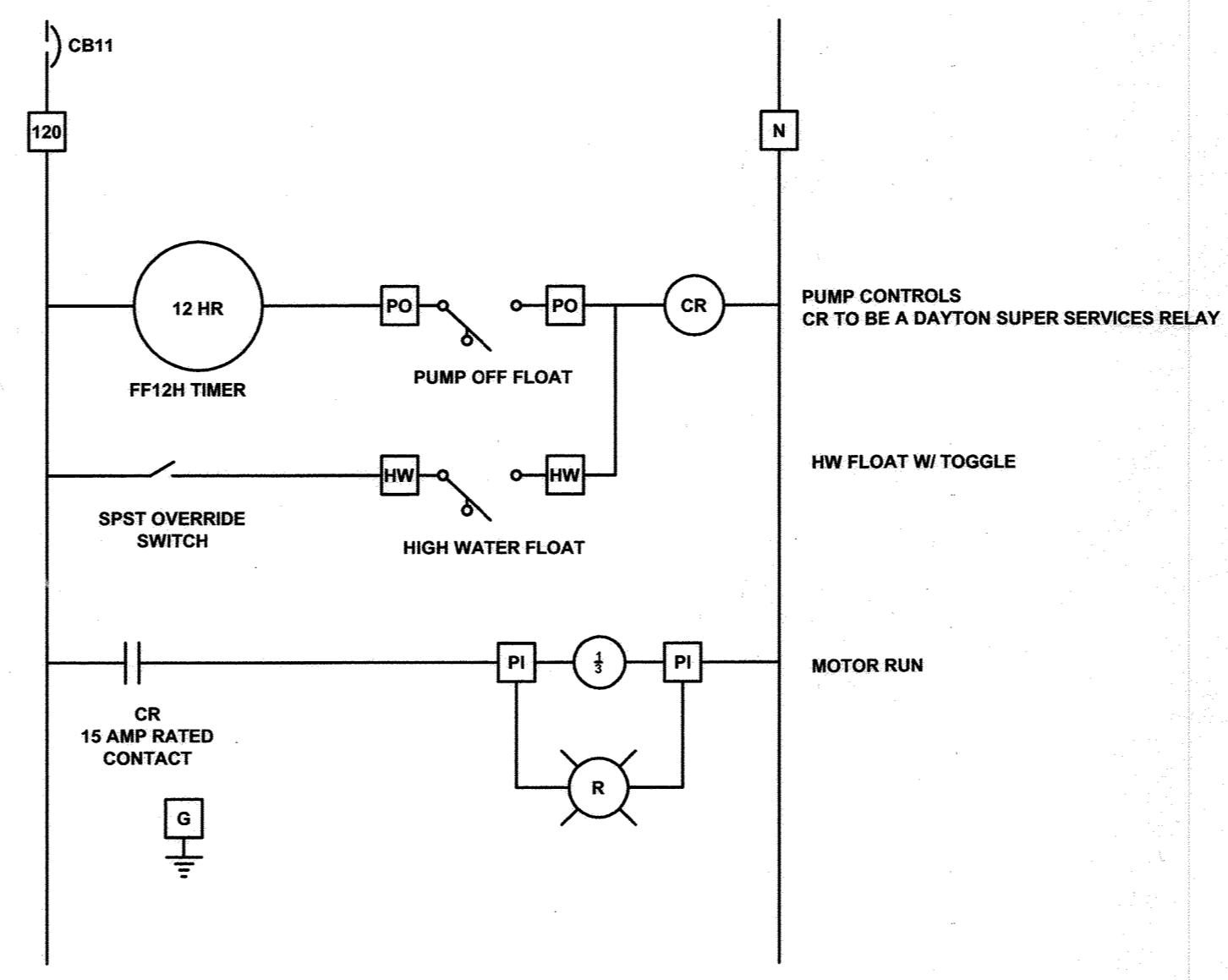
CONTROL RELAYS TO BE 8 PIN WITH 2 CONTACTS EACH

SEAL LEAK OR OPEN DISCONNECT ON PUMP 1

SEAL LEAK OR OPEN DISCONNECT ON PUMP 2

PUMP SEAL FAILURE OR OPEN DISCONNECT ON DOSING PUMPS MONITORED BY CHANNEL INPUT #6 ON MISSION 800

LOGIC OF DOSING PUMP PANEL
NOT TO SCALE



MISSION 800 RTU
NOT TO SCALE

RECORD DRAWING

This record drawing has been prepared, in part, based upon information furnished by others. While every effort has been made to ensure its accuracy, the Engineer assumes no responsibility for its accuracy, and thus is not responsible for the accuracy of this record drawing or for any errors or omissions which may have been made in its preparation. This record drawing is intended to be used as a guide only and should not be used for any other purpose without the written consent of the Engineer.

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Richard W. Walker
HOWARD COUNTY HEALTH OFFICER
DATE: 1/19/07

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE: _____

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT
DATE: _____

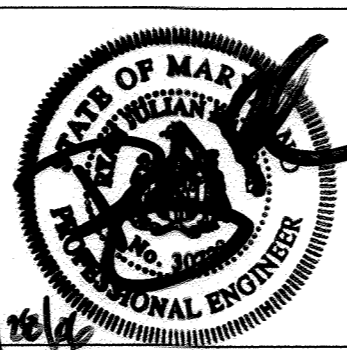
SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS PER F-06-99.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ruth B...
CHIEF, BUREAU OF UTILITIES
DATE: 1-25-07

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
...
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/3/07

ROSS ENGINEERING
Address: 471 KNIGHT ISLAND RD.
EARLEVILLE, MD 21919
Email: rosseng@wildblue.net
Phone: 410-920-2800
Fax: 410-275-1315

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• Engineering • Environmental Sciences
• Construction Services • Land Planning & Surveying
ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY
28 RIDGELY AVENUE
ANNAPOLIS, MARYLAND 21401
PHONE (410) 267-8821 • FAX (410) 267-9932
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DES: R.R.					
DRN: AD					
CHK: R.J.R.					
DATE: DEC., 2006	BY: SD	No. 1	SUBDIVISION NAME	DATE: 4/10/07	

DOSING PUMP CONTROL PANEL & MISSION 800 RTU
JOB No. C1040062

SHEPPARD MANOR
PEDDICORD SHARED SEPTIC SYSTEM
LOTS 1-16
CONTRACT # 60-4352 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

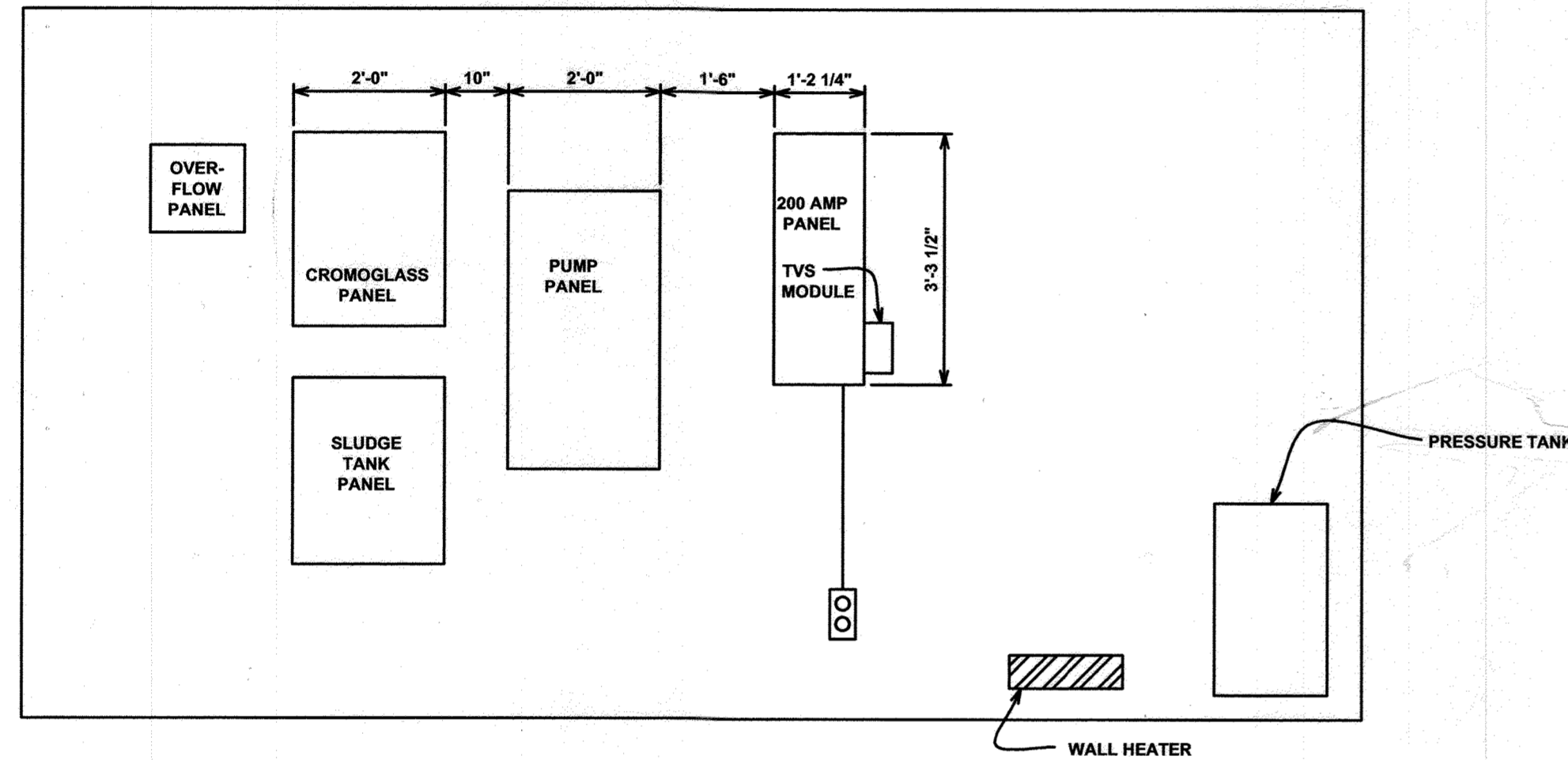
SCALE AS SHOWN
SHEET E-5

PLOTTED: Dec 28, 2006, 2:20pm

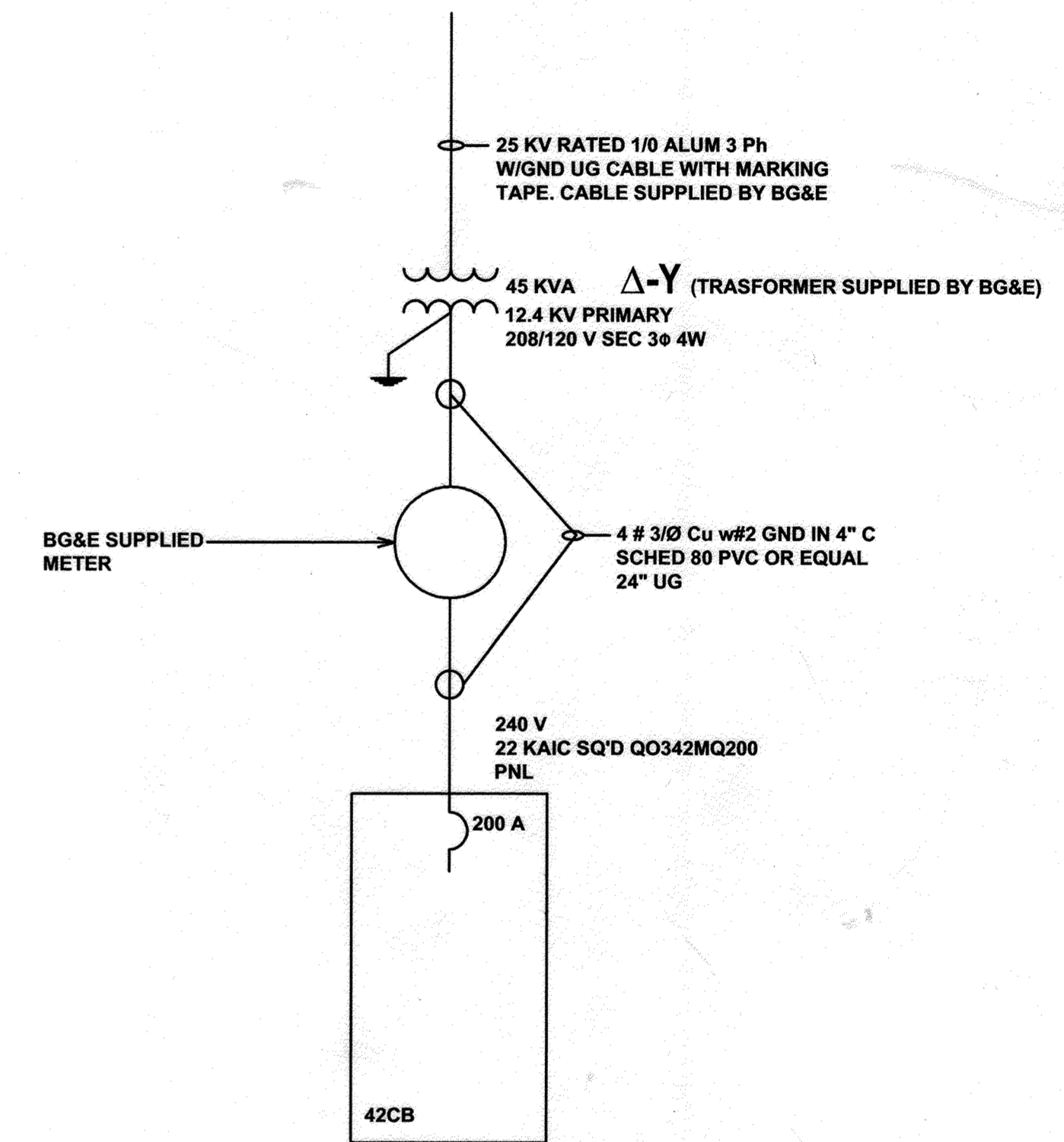
CADD FILE: G:\1040062 - Peddicord Property Drawings\SHARED SEPTIC DESIGN\Elect Drawings V2.dwg Tab.....E5

PANEL: MAIN			LOCATION: Control Building			
BUS: 225 A			208 V, 3Ø 4W			
MAIN: 200 A						
CB#	DESCRIPTION	CB SIZE	Φ	CB SIZE	DESCRIPTION	CB#
1	CROMOGLASS TANK PANEL	100	↑	20	LIGHTS IN CONTROL BLDG	2
3			→	20	RECEPT ON NORTH SIDE	4
5	SLUDGE TANK PANEL	40	→	20	RECEPT ON SOUTH SIDE	6
7			→	20	M-800 MONITOR	8
9	RECPT UNDER PANEL	20	→	20	OUTSIDE LIGHTS	10
11	OVERFLOW TANK	20	→	20	OUTSIDE RECPT ON POLES	12
13	PULSE METER POWER MOD.	20	→	20	208V HEATERS ON BLD	14
15	METHANOL PUMP	20	→		"	16
17	ALKALINE PUMP	20	→	30	WATER HEATER	18
19	SPARE	20	→		"	20
21	SPARE	20	→	20	15 WATER PUMP	22
23	SPARE	20	→		"	24
25						26
27						28
29						30
31						32
33						34
35						36
37	PUMP CONTROL PNL	125	→	30	TVS SUPPRESSOR	38
39						40
41						42

* BALANCE PHASE TO PHASE LOAD AS BEST AS POSSIBLE



WALL DIAGRAM
NOT TO SCALE



SINGLE LINE DIAGRAM
NOT TO SCALE

Conduit Designation	Phase	Number of Conductors	Size	Neutrals	Size	Ground	Size	Description
C1	3	3	4/0	1	4/0	#2	4"	Main Service feed Plus Spare 4"
C2	3	3	1	1	1	#4	1 1/2"	Main Pump Panel
C3	X 3	X 3	#2	1	#2	#8	1"	Cromoglass Panel
C4	1	2	#10	1	#10	#12	1/2"	Or MC cable to Hot water heater
C5	1	1	#12	1	#12	#12	1/2"	Individual Circuits as shown, can be MC cable
C6	3	6	#8	-	-	(2) #8	1 1/2"	(2) 7-1/2 Hp Pump feeds
C7	1	3	#12	3	#12	#10	1"	Shared fractional Hp pump feeds for tanks
C8	1	2	#12	1	#12	#12	1/2"	Individual Circuits as shown, can be MC cable
C9	1	2	#12	2	#12	#12	1/2"	Pole light and power/Emerg. Overflow
C10	X 3	X 3	#8	1	#8	#10	3/4"	Sludge tank panel
C11	na	8	#14	-	-	#12	3/4"	Use Blue stranded wire
C12	na	20	#14	-	-	#12	3/4"	Use Blue stranded wire
C13	na	3	na	na	na	na	3"	Multipair Shielded Cable (3)
EC							1"	Empty Conduit for future use

*Note:
#10 AWG or smaller can use metal clad cable w/gnd for wiring inside of control building

RECORD DRAWING

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By: _____
Date: _____

APPROVED: FOR PRIVATE SHARED SEWERAGE SYSTEM FOR LOTS 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, AND 19.
HOWARD COUNTY HEALTH DEPARTMENT

Robert W. Dale
HOWARD COUNTY HEALTH OFFICER
DATE: 11/9/07

HOWARD SOIL CONSERVATIONS DISTRICT:
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCES CONSERVATION SERVICE
DATE: _____

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT
DATE: _____

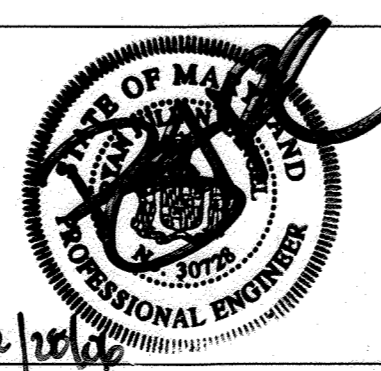
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Ruth B...
CHIEF, BUREAU OF UTILITIES
DATE: 1-25-07

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 2/6/07

ROSS ENGINEERING
Address: 471 KNIGHT ISLAND RD.
EARLEVILLE, MD 21919
Email: rosseng@wildblue.net
Phone: 410-920-2800,
Fax: 410-275-1315

MICRONE
• Engineering • Environmental Sciences
• Construction Services • Land Planning & Surveying
ANNAPOLIS • CENTREVILLE • DOVER • ELKTON • SALISBURY
30 RIDGELY AVENUE
ANNAPOLIS, MARYLAND 21401
PHONE (410) 342-4651 FAX (410) 342-4652
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DES: R.R.				
DRN: AD				
CHK: R.J.R.				
DATE: DEC, 2006	BY: SA	No. 1	SUBDIVISION NAME	DATE: 4/10/07
			REVISION	

PANEL SCHEDULE, SINGLE LINE AND WALL PANEL LAYOUT
JOB No. C1040062

SHEPPARD MANOR
-PEDDIGORD SHARED SEPTIC SYSTEM
LOTS 1 - 19
CONTRACT # 30-43 57 D
TAX MAP NO. 29 - GRID NO. 1 - PARCEL 268
ELECTION DISTRICT No. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET E-6

PLOTTED: Dec 28, 2006 - 2:20pm

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