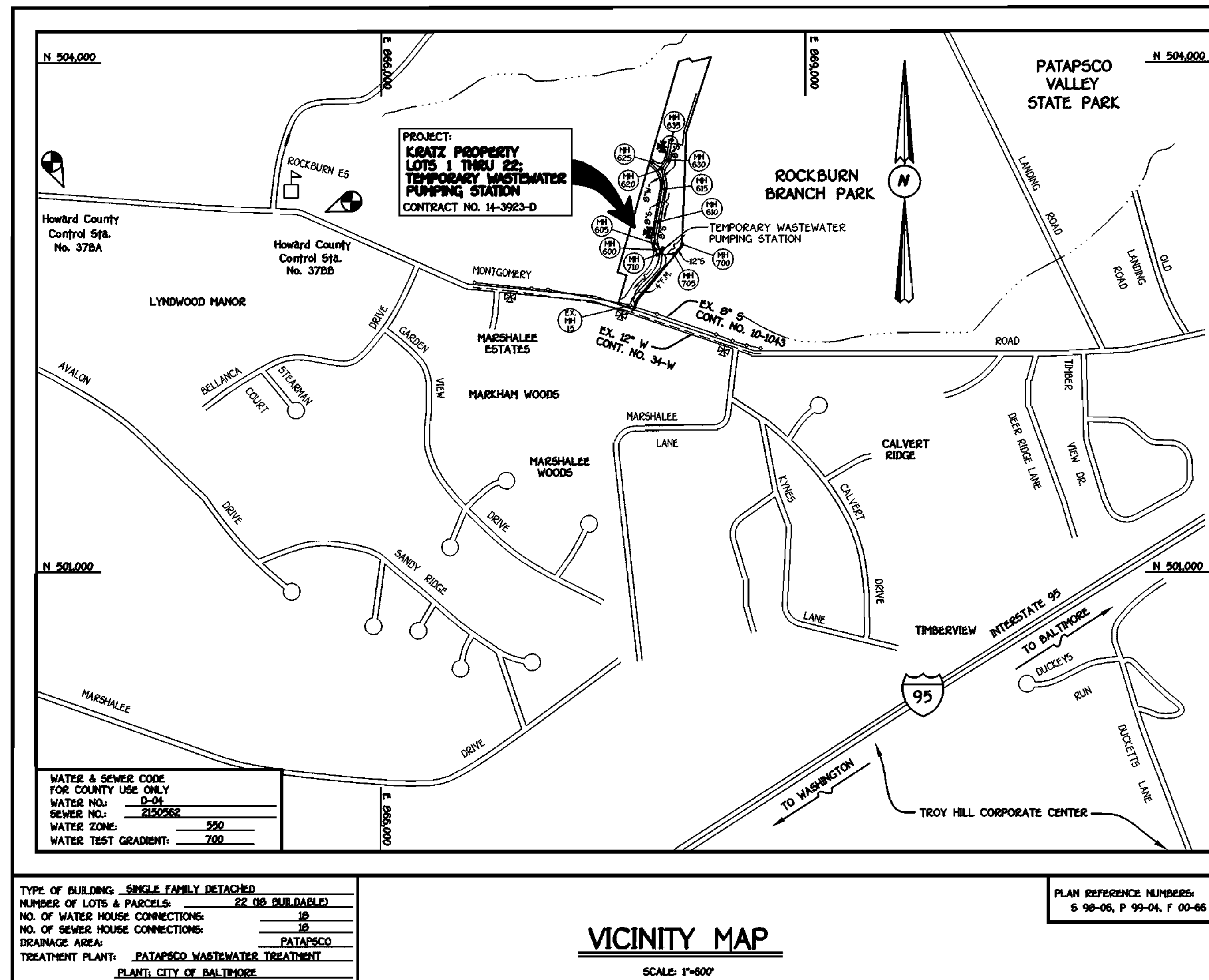


QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
			TYPE	
8" WATER	1,502.00 L.F.			
6" WATER	55.00 L.F.			
4" WATER	535.00 L.F.			
FIRE HYDRANTS	2 EACH			
1-1/2" WATER	99 L.F.			
1" WATER	319 L.F.			
12" SEWER	150.19 L.F.			
12" SEWER, D.I.P.	142.56 L.F.			
8" SEWER	382.68 L.F.			
8" SEWER, D.I.P.	723.91 L.F.			
6" SEWER	102.00 L.F.			
4" SEWER	285.00 L.F.			
SEWER MANHOLES	11 EACH			
TEMPORARY PUMPING STATION	1 EACH			
4" FORCE MAIN	523.36 L.F.			
12" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 8" TEE	1 EACH			
8" X 6" TEE	2 EACH			
8" X 4" TEE	1 EACH			
6" VALVE	2 EACH			
8" PLUG & BUTTRESS	2 EACH			
8"-1/8" H.B.	1 EACH			
8"-1/16" H.B.	6 EACH			
8"-1/32" H.B.	1 EACH			
6" VALVE	1 EACH			
4" X 4" TEE	1 EACH			
4" VALVE	1 EACH			
4"-1/8" H.B.	2 EACH			
4"-1/32" H.B.	1 EACH			
4" PLUG & BUTTRESS	2 EACH			
NAME OF UTILITY CONTRACTOR:				
SURVEY & DRAFTING DIVISION AS-BUILT DATE:				



### GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. 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, MAD 83.
- ALL VERTICAL CONTROLS ARE BASED ON MVD 29.
- ALL PIPE ELEVATIONS ARE PIPE ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (99) AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL  $\text{III}$  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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO THE EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - AT&T . . . . . 1-800-526-2000
  - BGE (CONTRACTOR SERVICES) . . . . . 410-850-4620
  - BGE (UNDERGROUND DAMAGE CONTROL) . . . . . 410-787-9096
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS . . . . . 410-313-4900
  - BELL ATLANTIC MARYLAND, INC. . . . . 1-800-621-9900
  - COLONIAL PIPELINE CO. . . . . 410-795-1390
  - MISSISSIPPI UTILITY . . . . . 1-800-257-7777
  - STATE HIGHWAY ADMINISTRATION . . . . . 410-531-5533
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STOP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- T.B. DENOTES TEST BORING.
- MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G3.52.
- WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-0" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIFICATIONS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G3.51.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (WJL AND WJ3). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER MAIN SYSTEM.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH THE AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
- CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, @ (410) 313-2450 AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 15.10(A) OF THE HOWARD COUNTY CODE.

**DEVELOPER'S CERTIFICATION**  
 I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.  
 Paul W. Keibel FOR: 09-18-01  
 C.M. PARTNERSHIP DATE  
 SIGNATURE OF DEVELOPER

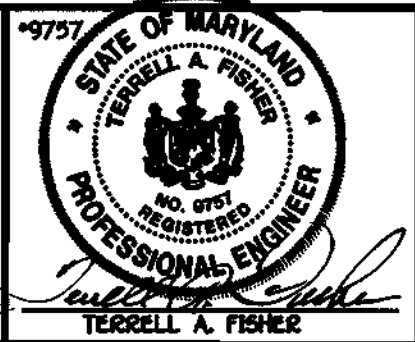
**ENGINEER'S CERTIFICATION**  
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
 Paul W. Keibel 09/18/01  
 SIGNATURE OF ENGINEER DATE

MDE PERMIT NO. : 98-NT-0670/199960792  
 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
 Jim Morris 9/26/01  
 U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE  
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.  
 APPROVED: John Chabot 9/26/01  
 HOWARD SOIL CONSERVATION DISTRICT DATE  
 SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON 100-66.  
 Paul W. Keibel FOR: 09-18-01  
 C.M. PARTNERSHIP DATE  
 SIGNATURE OF DEVELOPER

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Robert M. Beisinger 9-20-01  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
 H. J. [Signature] 10/1/01  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRONAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL Pk.  
 ELICOTT CITY, MARYLAND 21117  
 (410) 481-2555



DESIGNED BY:	P.W.K.
DRAWN BY:	H.D.T.
CHECKED BY:	P.W.K.
DATE:	SEPTEMBER, 2001
BY NO.	
REVISION	
DATE	

WATER AND SEWER MAINS  
 TEMPORARY WW PUMP STATION  
 TITLE SHEET  
 600' SCALE MAP NO. 37 BLOCK NO. 5  
 F.C.C. WORK ORDER NO. 30532  
 FILE NAME: 30532 TITLE SHEET SH1

KRATZ PROPERTY  
 LOTS 1 THRU 22  
 CONTRACT NO. 14-3923-D  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE AS SHOWN  
 SHEET 1 OF 7

# CONTRACT No. 14-3923-D

# KRATZ PROPERTY

## LOTS 1 THRU 22

## WATER AND SEWER MAIN EXTENSIONS

## TEMPORARY WASTEWATER PUMPING STATION

## HOWARD COUNTY, MARYLAND

**BENCHMARK INFORMATION**

HOWARD COUNTY CONTROL STATION NO. 378A
N 563,779.909
E 1,376,329.279
HOWARD COUNTY CONTROL STATION NO. 378B
N 563,657.706
E 1,379,026.624

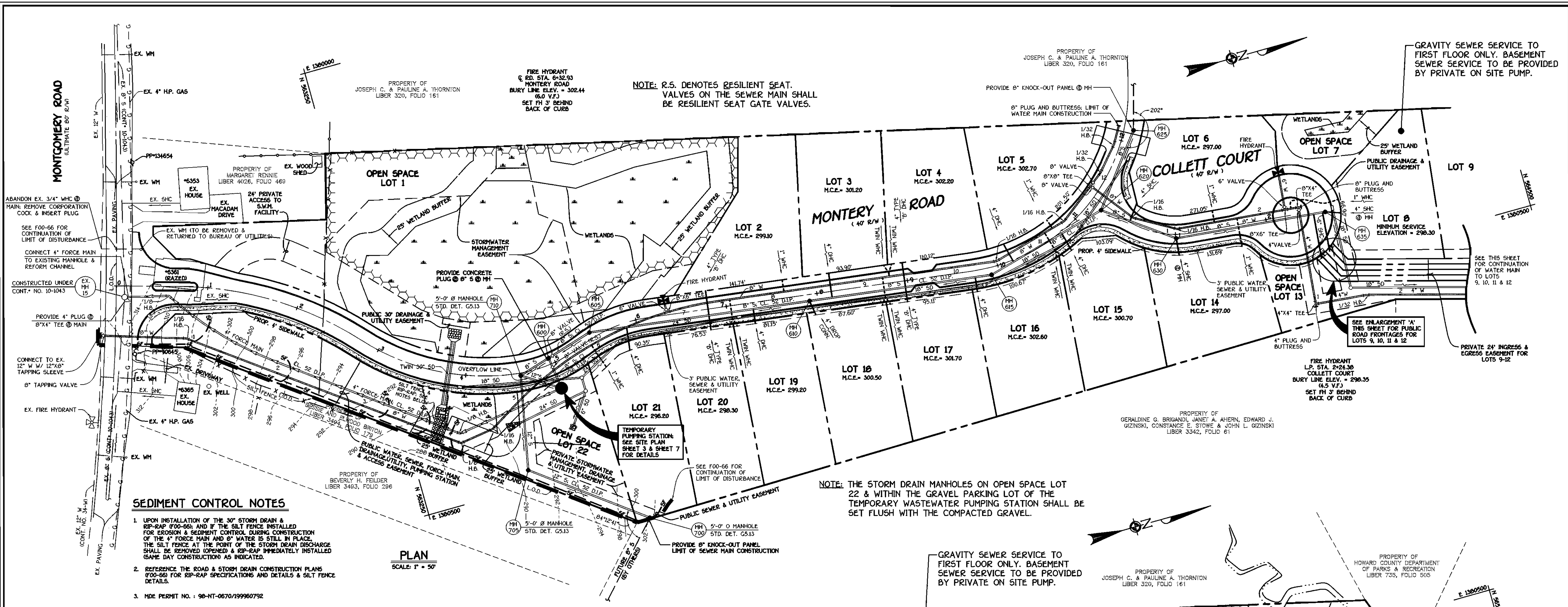
PLAN REFERENCE NUMBERS:  
 S 98-05, P 99-04, F 00-66

VICINITY MAP  
 SCALE 1"=600'

TYPE OF BUILDING: SINGLE FAMILY DETACHED  
 NUMBER OF LOTS & PARCELS: 22 (82 BUILDABLE)  
 NO. OF WATER HOUSE CONNECTIONS: 16  
 NO. OF SEWER HOUSE CONNECTIONS: 16  
 DRAINAGE AREA: PATAPSCO  
 TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT PLANT, CITY OF BALTIMORE

WATER & SEWER CODE  
 FOR COUNTY USE ONLY  
 WATER NO.: D-24  
 SEWER NO.: 2150682  
 WATER ZONE: 550  
 WATER TEST GRADIENT: 700

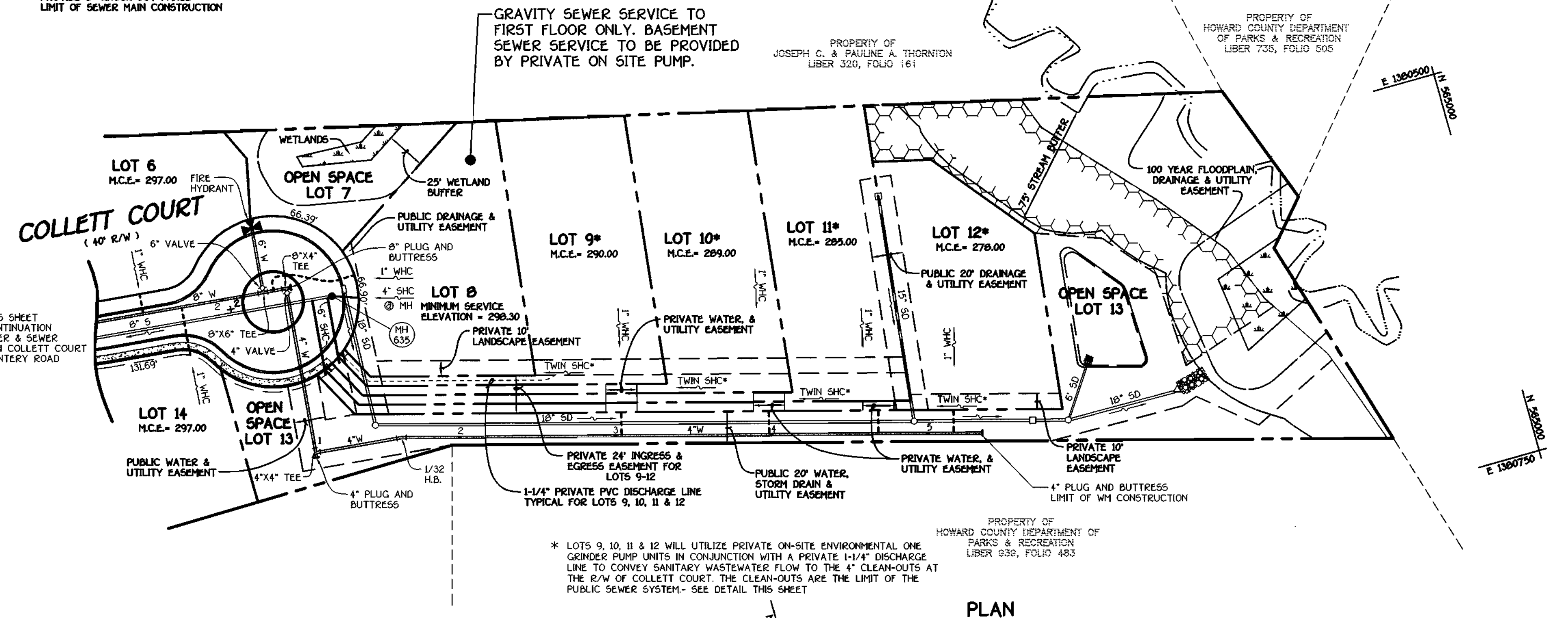
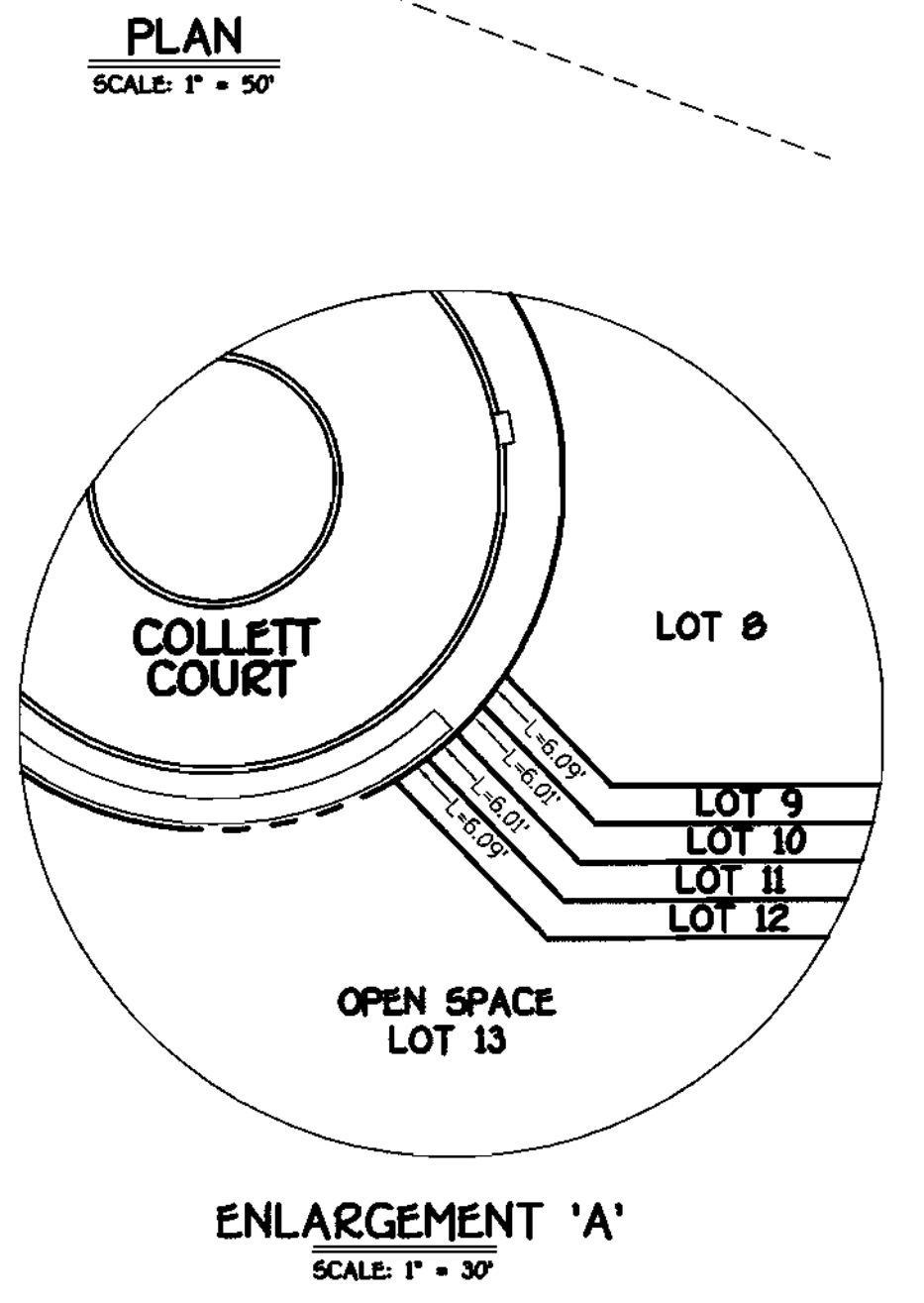
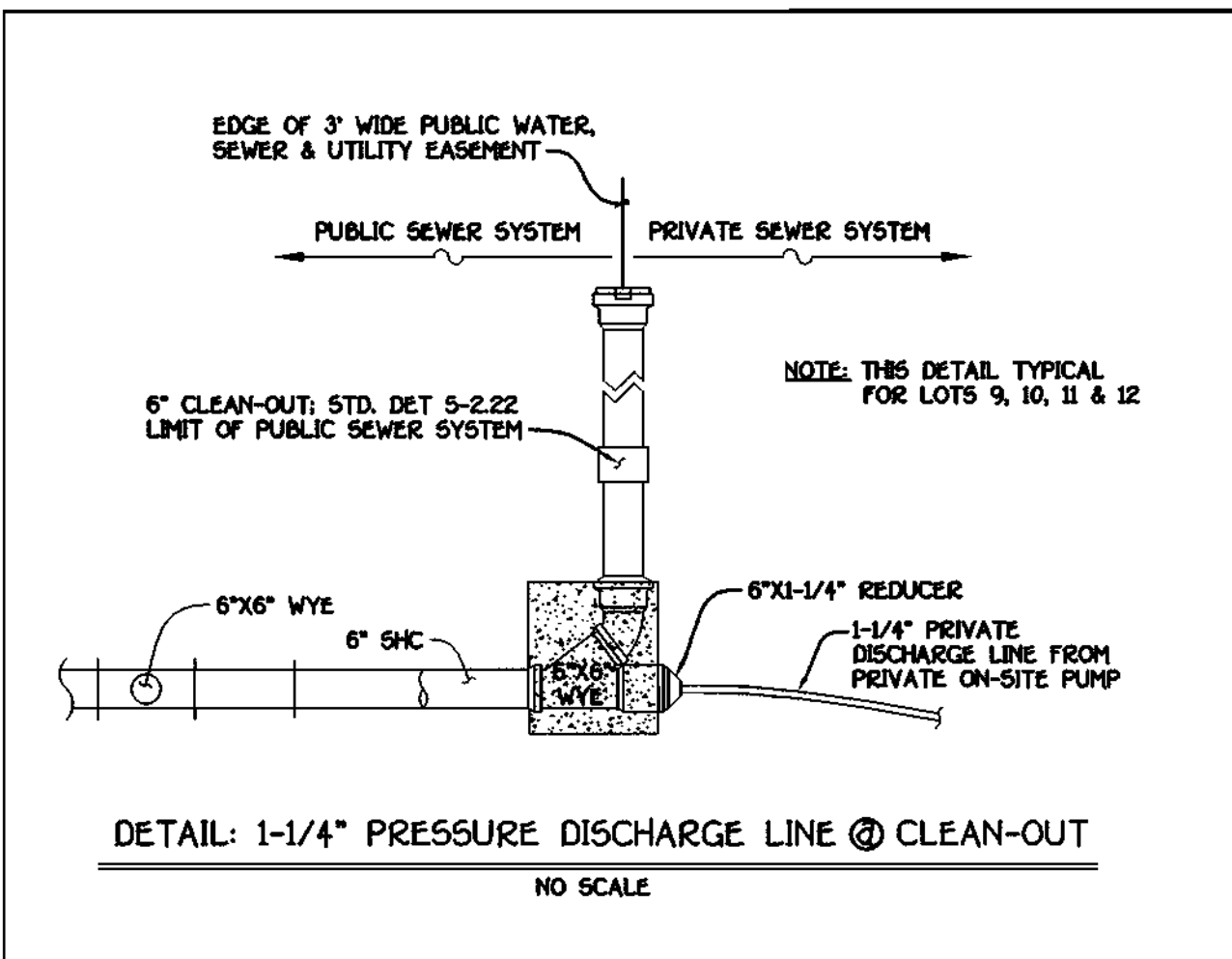




**SEDIMENT CONTROL NOTES**

- UPON INSTALLATION OF THE 30" STORM DRAIN & RIP-RAP (F00-56) AND IF THE SILT FENCE INSTALLED FOR EROSION & SEDIMENT CONTROL DURING CONSTRUCTION OF THE 4" FORCE MAIN AND 6" WATER IS STILL IN PLACE, THE SILT FENCE AT THE POINT OF THE STORM DRAIN DISCHARGE SHALL BE REMOVED (OPENED) & RIP-RAP IMMEDIATELY INSTALLED (SAME DAY CONSTRUCTION) AS INDICATED.
- REFERENCE THE ROAD & STORM DRAIN CONSTRUCTION PLANS (F00-56) FOR RIP-RAP SPECIFICATIONS AND DETAILS & SILT FENCE DETAILS.
- MODE PERMIT NO. : 98-NH-0670/199960792

SEE SHEET 5 FOR WATER MAIN TABULATION CHART  
 SEE SHEET 5 FOR MANHOLE TABULATION CHART  
 SEE SHEET 5 FOR SHC @ PROPERTY LINE CHART



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Utilities  
 9-20-01  
 DATE

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
 Chief, Development Engineering Division  
 10/1/01  
 DATE

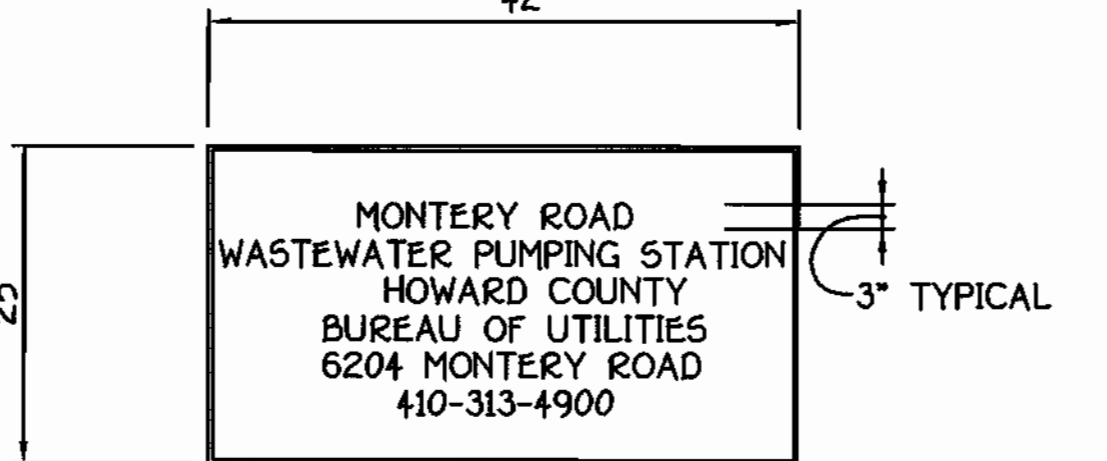
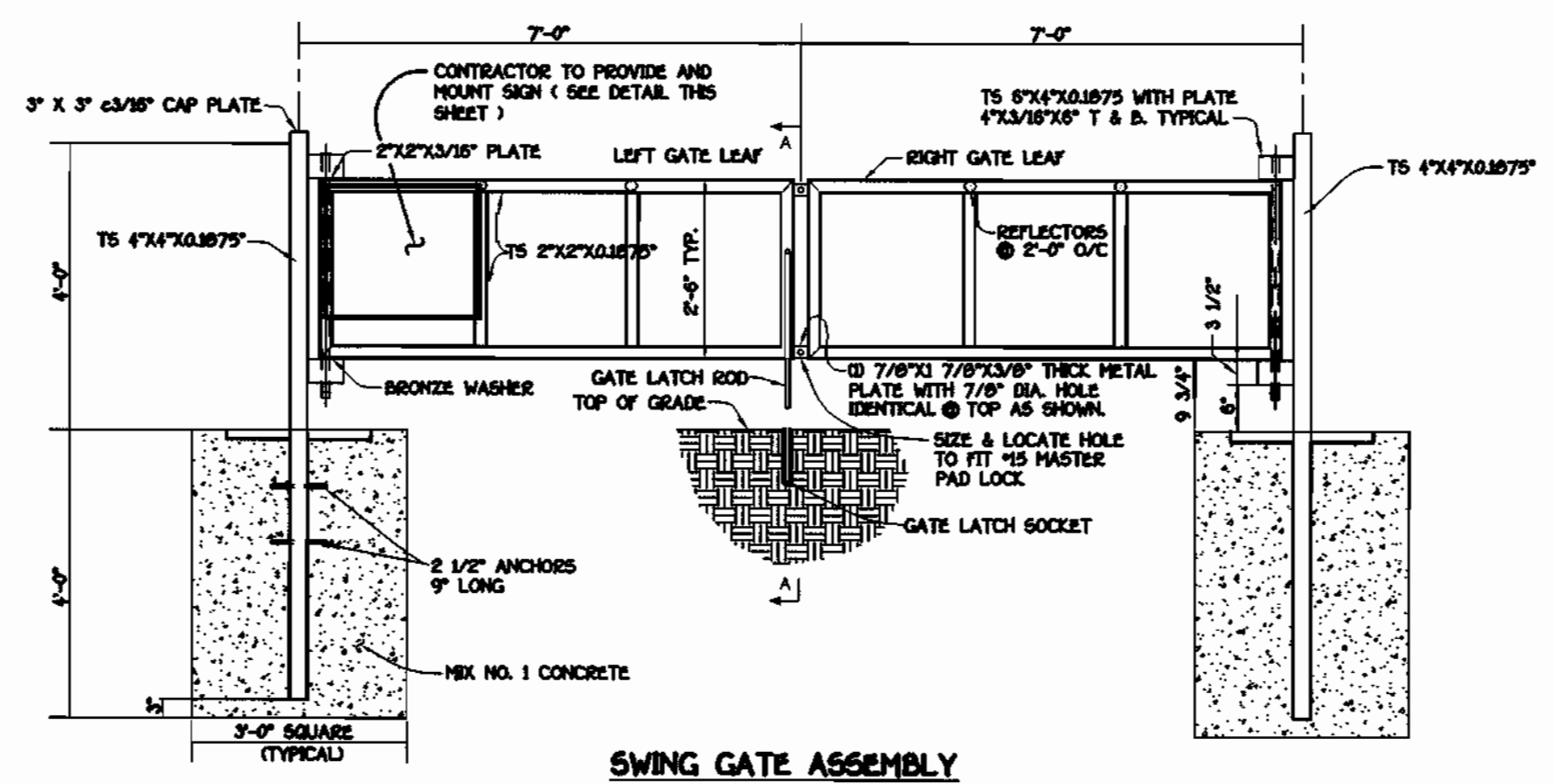
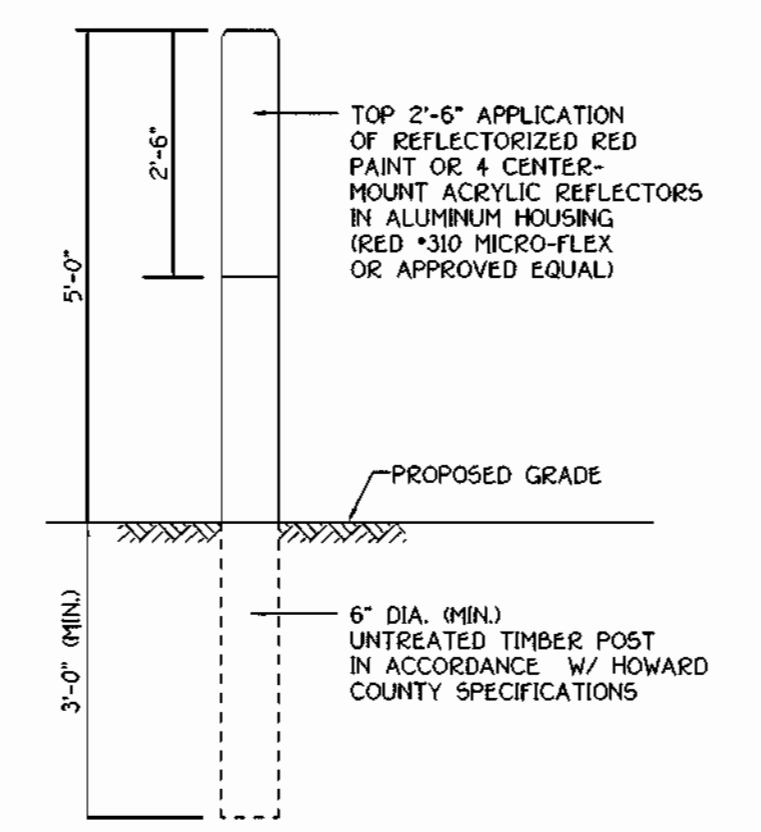
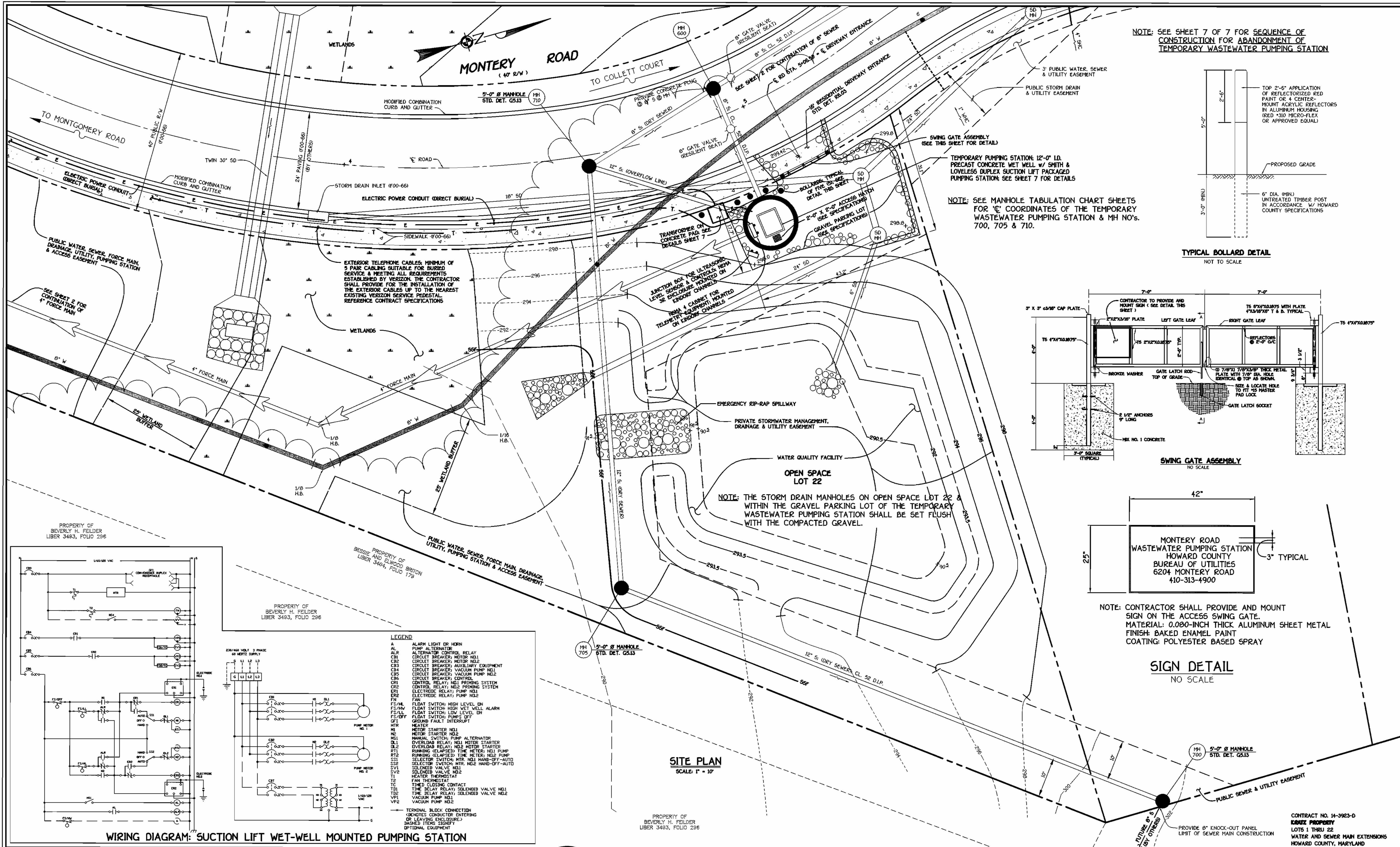
FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 COLLETT CITY, MARYLAND 21042  
 410-991-2995

DESIGNED BY : P.W.L.  
 DRAWN BY : M.D.T.  
 CHECKED BY : P.W.L.  
 DATE : SEPTEMBER, 2001

WATER AND SEWER MAINS  
 PLAN VIEW  
 600' SCALE MAP NO. 37 BLOCK NO. 5  
 F.C.C. WORK ORDER NO. 30332  
 FILE NAME : 30332 W & S PLAN SH12

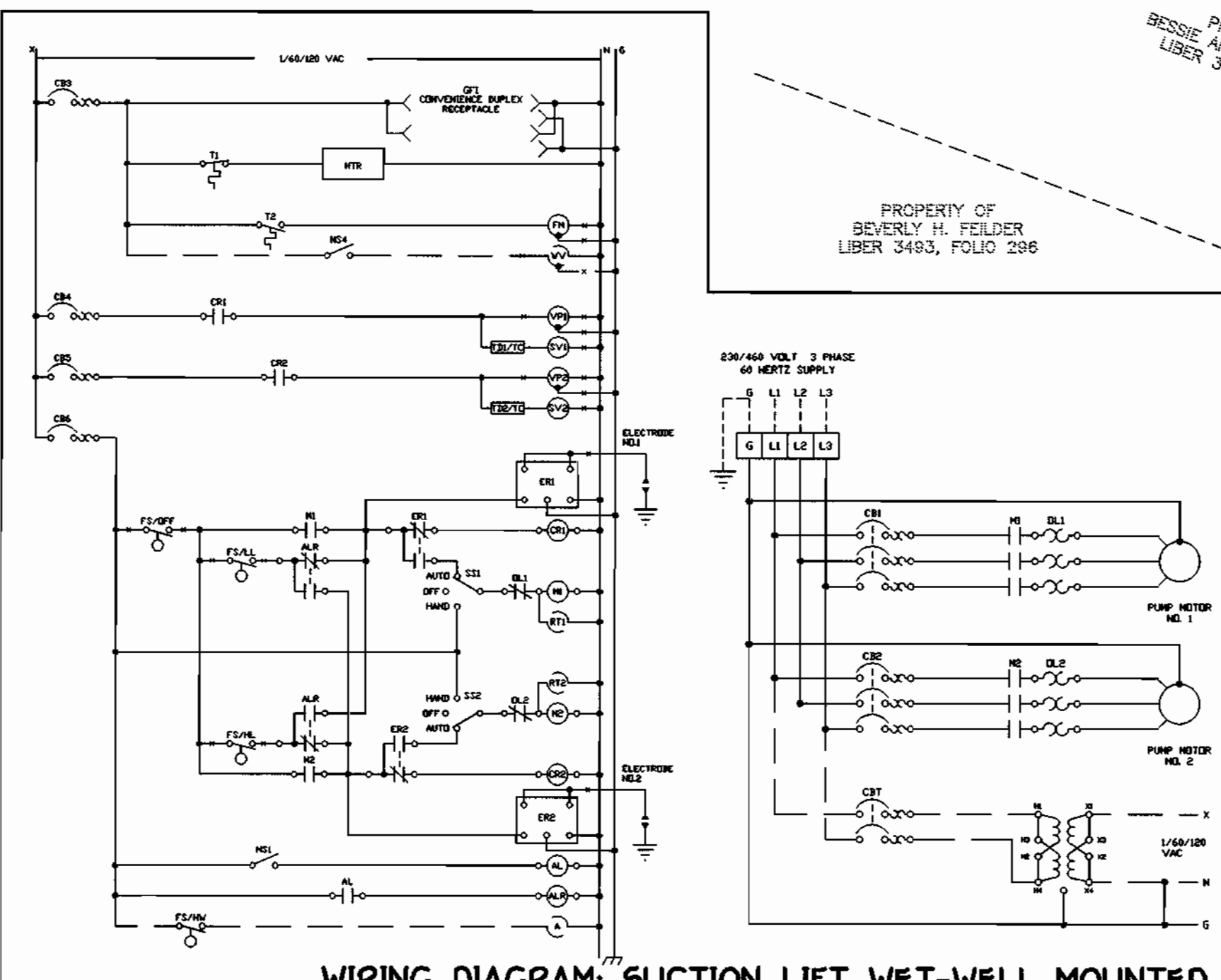
KRATZ PROPERTY  
 LOTS 1 THRU 22  
 CONTRACT NO. 14-3923-D  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE AS SHOWN  
 SHEET 2 OF 7



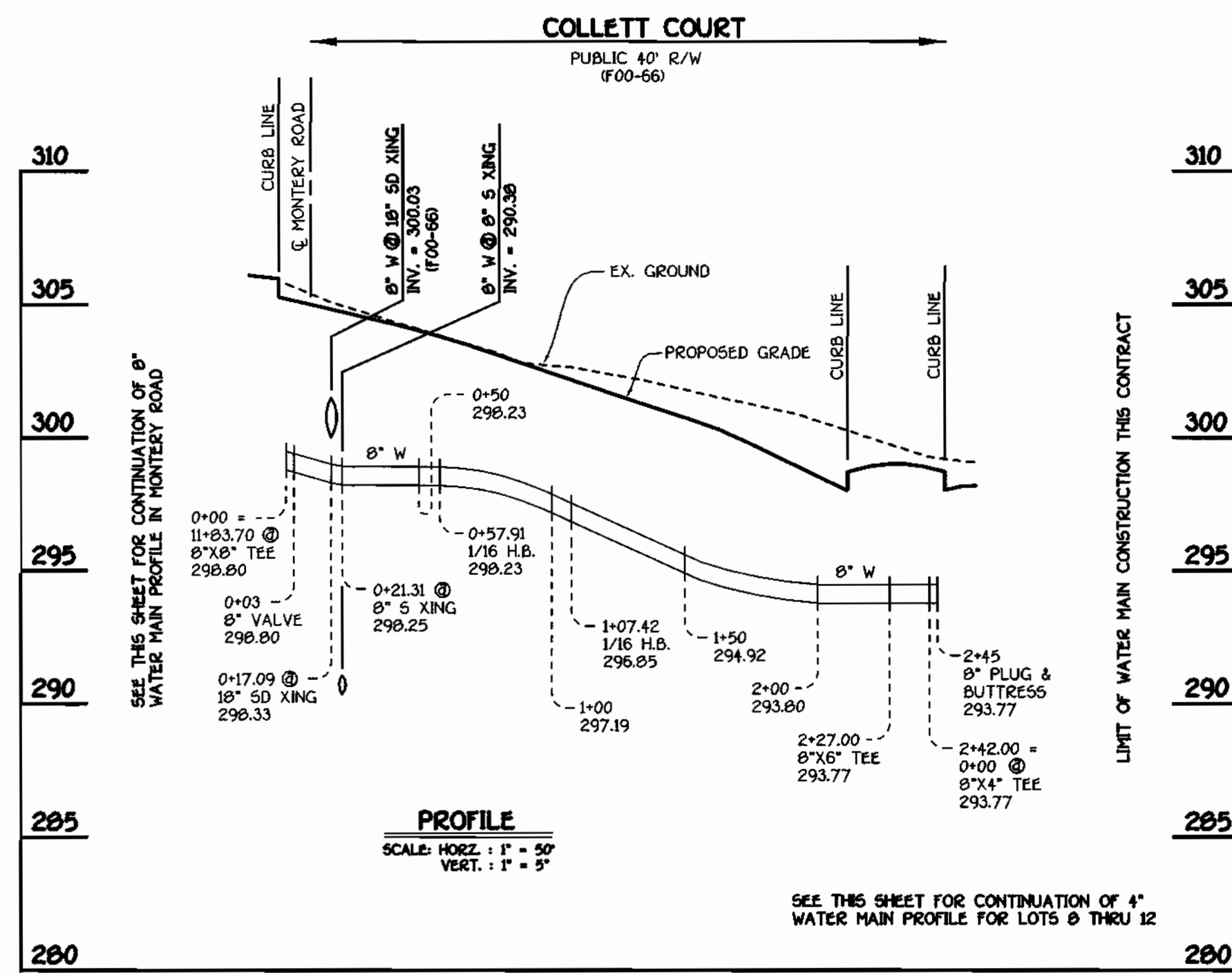


**NOTE: CONTRACTOR SHALL PROVIDE AND MOUNT SIGN ON THE ACCESS SWING GATE. MATERIAL: 0.080-INCH THICK ALUMINUM SHEET METAL FINISH: BAKED ENAMEL PAINT COATING: POLYESTER BASED SPRAY**

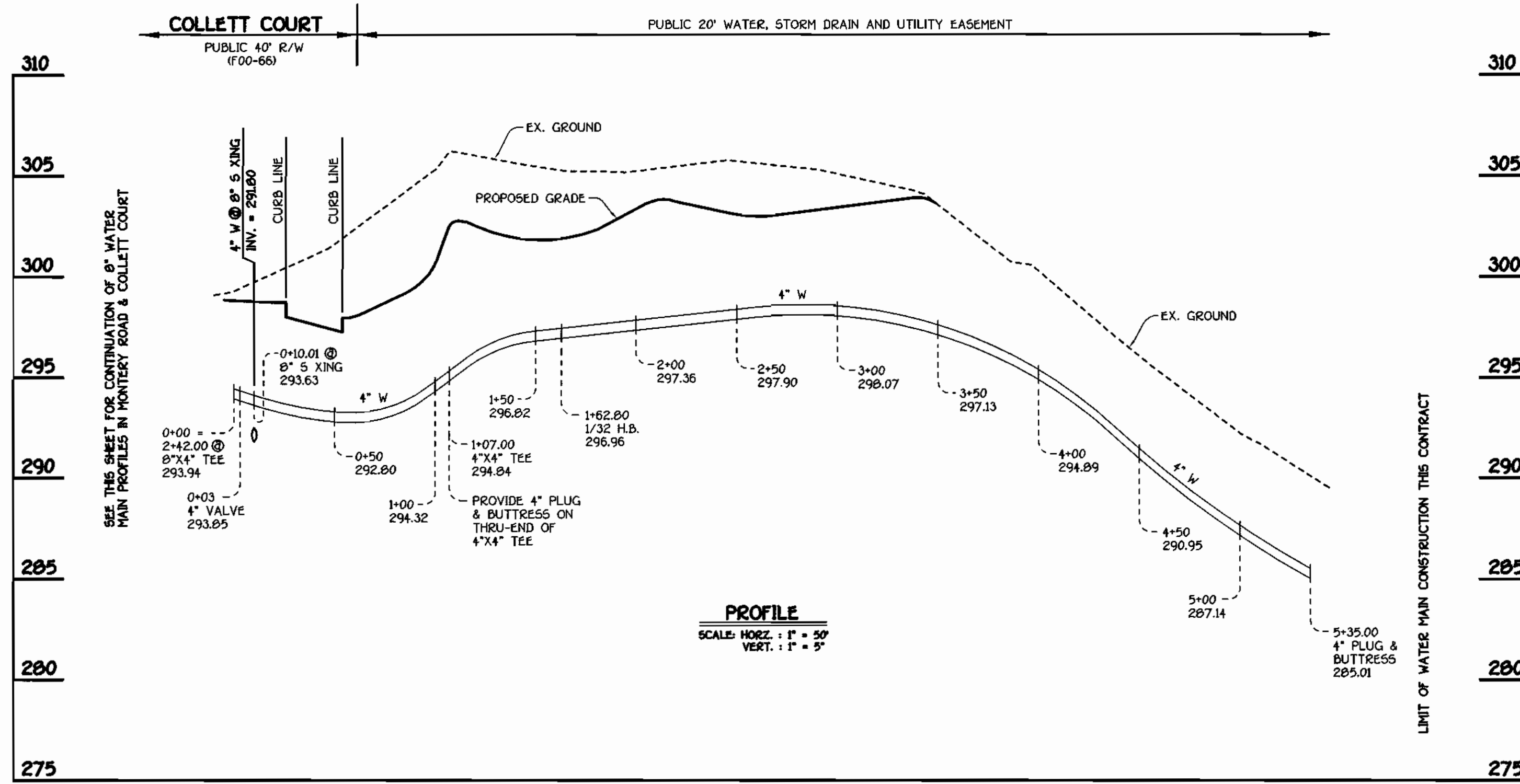
- LEGEND**
- A ALARM LIGHT OR HORN
  - ALR ALTERNATOR CONTROL RELAY
  - CB1 CIRCUIT BREAKER, MOTOR N#1
  - CB2 CIRCUIT BREAKER, MOTOR N#2
  - CB3 CIRCUIT BREAKER, AUXILIARY EQUIPMENT
  - CB4 CIRCUIT BREAKER, VACUUM PUMP N#1
  - CB5 CIRCUIT BREAKER, VACUUM PUMP N#2
  - CB6 CIRCUIT BREAKER, CONTROL
  - CR1 CONTROL RELAY, N#1 PRIMING SYSTEM
  - CR2 CONTROL RELAY, N#2 PRIMING SYSTEM
  - ER1 ELECTRODE RELAY, PUMP N#1
  - ER2 ELECTRODE RELAY, PUMP N#2
  - FN FAN
  - FS/HM FLOAT SWITCH, HIGH LEVEL, ON
  - FS/LM FLOAT SWITCH, HIGH WET WELL, ALARM
  - FS/LL FLOAT SWITCH, LOW LEVEL, ON
  - FS/OFF FLOAT SWITCH, PUMPS OFF
  - GF GROUND FAULT INTERRUPT
  - HTR HEATER
  - MS MOTOR STARTER N#1
  - MS2 MOTOR STARTER N#2
  - MS1 MANUAL SWITCH, PUMP ALTERNATOR
  - DL1 OVERLOAD RELAY, N#1 MOTOR STARTER
  - DL2 OVERLOAD RELAY, N#2 MOTOR STARTER
  - RT1 RUNNING (ELAPSED) TIME METER, N#1 PUMP
  - S31 SELECTOR SWITCH, MTR, N#1 HAND-OFF-AUTO
  - S32 SELECTOR SWITCH, MTR, N#2 HAND-OFF-AUTO
  - SV1 SOLENOID VALVE, N#1
  - SV2 SOLENOID VALVE, N#2
  - VT HEATER THERMOSTAT
  - TC TIME CLOSING CONTACT
  - TR1 TIME RELAY RELAY, SOLENOID VALVE N#1
  - TR2 TIME RELAY RELAY, SOLENOID VALVE N#2
  - VP1 VACUUM PUMP N#1
  - VP2 VACUUM PUMP N#2
- TERMINAL BLOCK CONNECTION (DOTTED LINE CONDUCTOR ENTERING OR LEAVING ENCLOSURE)  
DASHED ITEMS SIGNIFY OPTIONAL EQUIPMENT



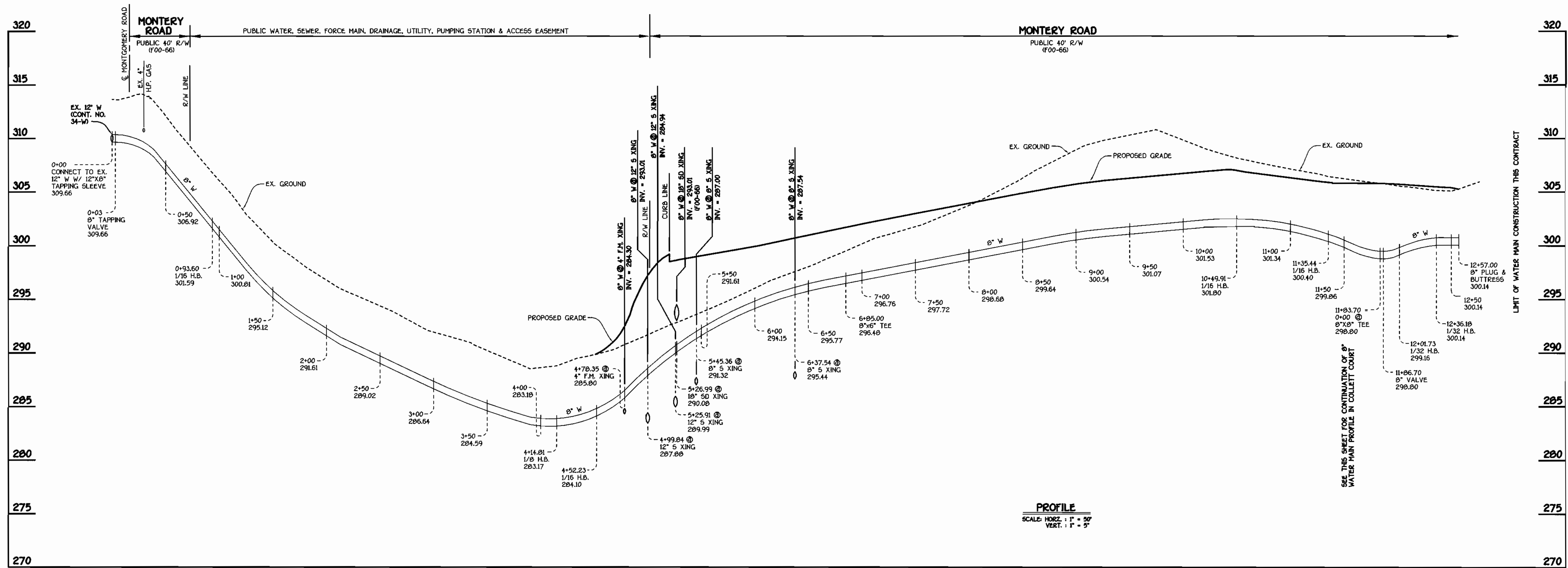




**COLLETT COURT: 8" WATER MAIN**



**LOTS 8 THRU 12: 4" WATER MAIN**



**MONTEREY ROAD: 8" WATER MAIN**

CONTRACT NO. 14-3923-D  
 KRATZ PROPERTY  
 LOTS 1 THRU 22  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Utilities  
 9-20-01  
 DATE

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
 Chief, Development Engineering Division  
 10/6/01  
 DATE

FISHER, COLLINS & CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLETTTS CITY, MARYLAND 2092  
 (410) 461-2999



DESIGNED BY:	P.W.L.
DRAWN BY:	H.D.T.
CHECKED BY:	P.W.L.
DATE:	SEPTEMBER, 2001
BY:	NO.
REVISION:	

WATER MAINS PROFILES	
600' SCALE MAP NO.	37
BLOCK NO.	5
F.C.C. WORK ORDER NO.	30632
FILE NAME:	30632 WATER MAIN PROFILES SH10

**KRATZ PROPERTY**  
 LOTS 1 THRU 22  
 CONTRACT NO. 14-3923-D  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE  
 AS  
 SHOWN  
 SHEET  
 4 OF 7

MANHOLE TABULATION CHART				
NO.	± ROAD STATION	DISTANCE	SLOPE	RIM ELEVATION
710	4+59.77 MONTEREY ROAD	2.70' RT.	+1.06%	298.42
600	4+95.00 MONTEREY ROAD	7.00' LT.	+1.06%	299.36
605	5+48.88 MONTEREY ROAD	6.90' LT.	+1.06%	300.36
610	7+90.91 MONTEREY ROAD	7.00' LT.	+1.06%	304.42
615	9+91.11 MONTEREY ROAD	8.11' LT.	-0.16%	307.12
620	11+24.78 MONTEREY ROAD	14.98' LT.	-2.32%	304.73
625	12+43.84 MONTEREY ROAD	10.30' LT.	+1.04%	304.52
630	1+00.94 COLLETT COURT	4.41' LT.	-3.00%	302.25
635	L.P. STA. 1+44.99 (COLLETT COURT)	7.10' LT.		296.76
700	OUTFALL SEWER MAIN*	563481.48	1380566.21	302.00
705	OUTFALL SEWER MAIN*	563367.65	1380482.38	290.40
TEMP. WMP5	OUTFALL SEWER MAIN*	563426.92	1380406.09	298.00

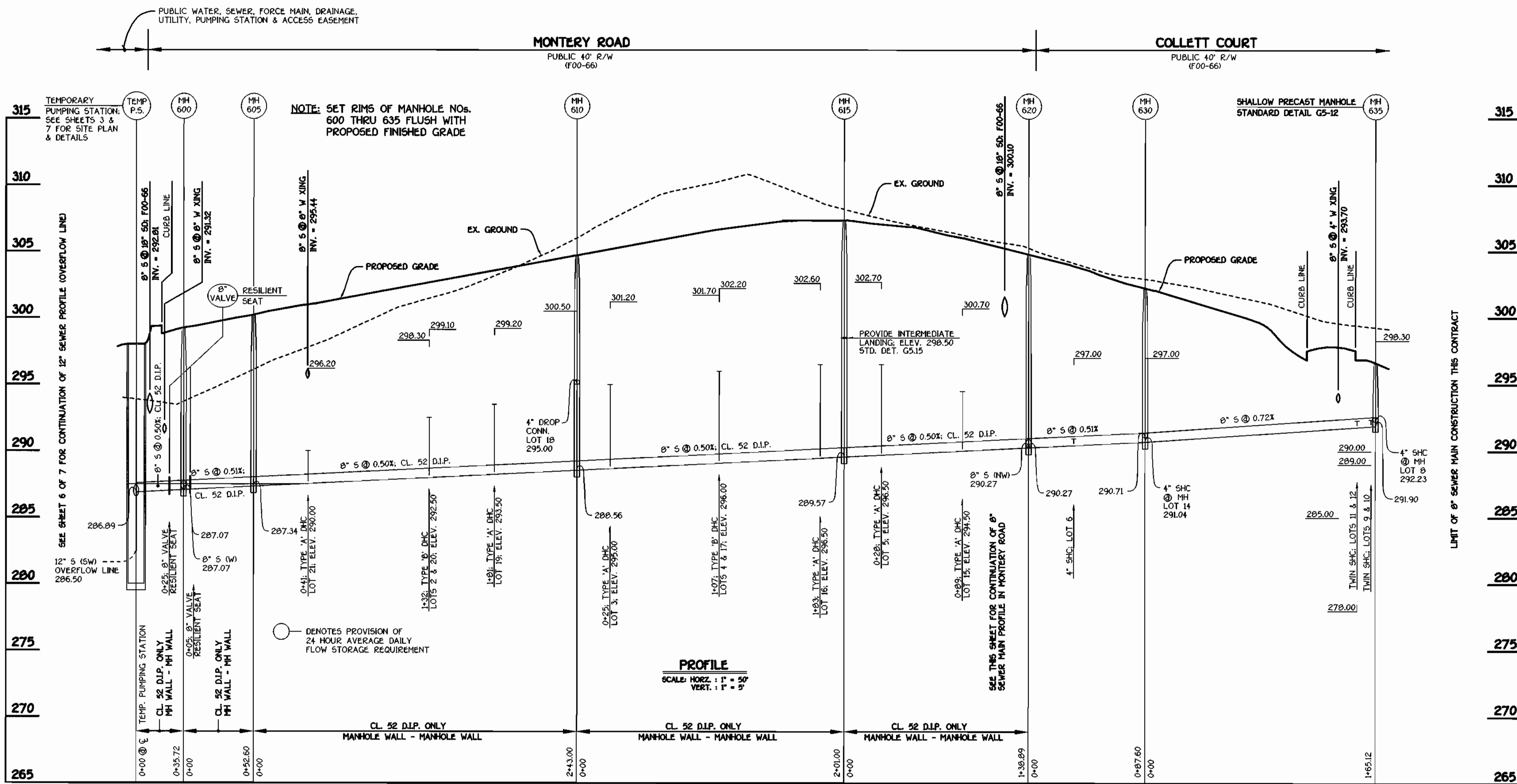
\* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE OR EXISTING GROUND AS APPLICABLE

WATER MAIN TABULATION CHART			
WM STATION	APPURTENANCE	NORTHING	EASTING
MONTEREY ROAD			
0+00	12" X 8" TAPPING SLEEVE	562957.71	1380214.98
0+03	8" VALVE	562960.57	1380215.88
0+93.00	1/16 H.B.	563046.99	1380243.12
4+14.81	1/16 H.B.	563305.07	1380434.33
4+52.23	1/16 H.B.	563342.09	1380428.83
4+85.72	P.C. (CRIMP RADIUS = 380')	563370.80	1380411.59
COLLETT COURT			
6+95.00	8" X 6" TEE	6+34.88	2.88' LT.
7+41.01	P.T. (CRIMP RADIUS = 380')	6+90.89	7.00' LT.
10+49.91	1/16 H.B.	10+00.44	4.82' LT.
11+35.44	1/16 H.B.	10+89.18	6.67' LT.
11+83.70	8" X 8" TEE	11+29.25	9.88' LT.
12+01.73	1/32 H.B.	11+58.31	7.94' LT.
12+36.18	1/32 H.B.	11+94.04	6.32' LT.
12+57.00	8" PLUG & BUTTRESS	12+15.56	6.45' LT.

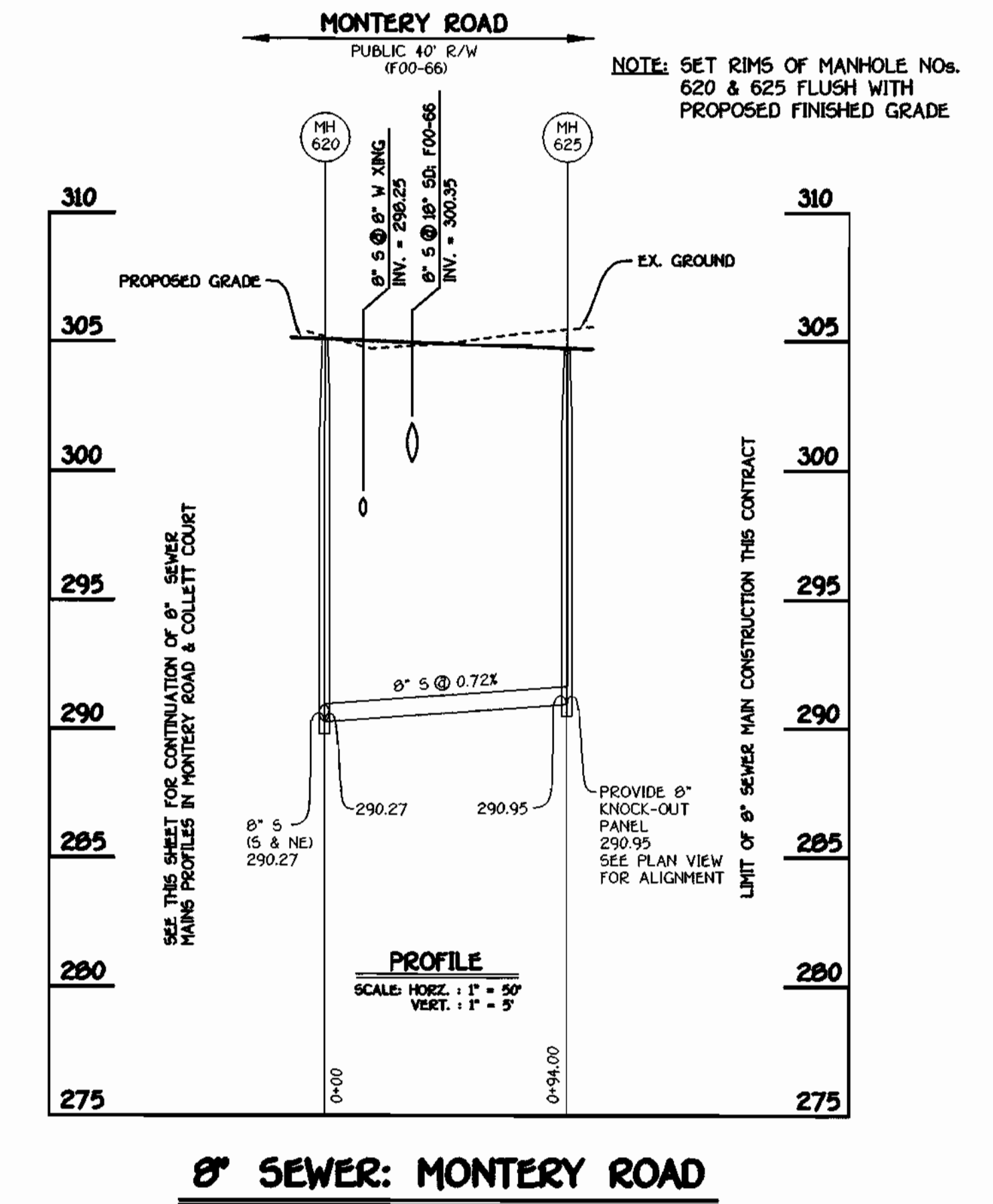
4" WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	± RD. STA.	DISTANCE
4" WATER MAIN FOR LOTS 8-12			
0+00	8" X 4" TEE	2+37.45 (COLLETT CT.)	7.00' LT.
0+03	4" VALVE	2+37.45 (COLLETT CT.)	10.00' LT.
NORTHING EASTING			
1+07.00	4" X 4" TEE	564244.93	1380539.99
1+10.00	4" PLUG & BUTTRESS	564244.64	1380542.98
1+62.80	1/32 H.B.	564300.47	1380545.41
5+35.00	4" PLUG & BUTTRESS	564859.82	1380643.10

4" FORCE MAIN TABULATION CHART			
F.M. STA.	APPURTENANCE	NORTHING	EASTING
TEMPORARY PUMPING STATION TO EX. MH 15			
0+00	± TEMP. PUMPING STATION	563426.92	1380406.09
1+21.47	1/8 H.B.	563306.78	1380423.97
3+38.79	P.C. (CRIMP RADIUS = 380')	563333.25	1380293.14
4+73.63	P.T. (CRIMP RADIUS = 380')	563042.07	1380194.75
4+75.14	1/8 H.B.	563041.26	1380193.48
5+23.36	CONNECT TO EX. MH 15	562994.49	1380181.75

SHC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 605 TO MH 610		
0+41 RT.	21 (DHC)	290.30
1+32 RT.	20 (TYPE 'B' DHC)	292.76
1+32 LT.	2 (TYPE 'B' DHC)	293.04
1+81 RT.	19 (DHC)	293.76
± MH 610 RT.	18 (DROP CONN @ MH)	295.24
MH 610 TO MH 615		
0+25 LT.	3 (DHC)	295.54
1+07 LT.	4 (TYPE 'B' DHC)	296.54
1+07 RT.	17 (TYPE 'B' DHC)	296.26
1+83 RT.	16 (DHC)	296.76
MH 615 TO MH 620		
0+28 LT.	5 (DHC)	296.94
0+89 RT.	15 (DHC)	294.88
MH 620 TO MH 630		
0+33 LT.	6	291.01
± MH 630 RT.	14	291.40
MH 630 TO MH 635		
1+52 RT.	11 & 12 (TWIN SHC)	292.84
1+82 RT.	9 & 10 (TWIN SHC)	292.80
± MH 635 CT.	8 (SHC @ MH)	292.59



8" SEWER: COLLETT COURT AND MONTEREY ROAD



8" SEWER: MONTEREY ROAD

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
9-20-01  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
10/1/01  
DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE  
CLARKE CITY, MARYLAND 21742  
(410) 461-2055



DESIGNED BY: P.M.C.  
DRAWN BY: M.D.T.  
CHECKED BY: P.M.C.  
DATE: SEPTEMBER, 2001

SEWER MAINS PROFILES  
600' SCALE MAP NO. 16 BLOCK NO. 2  
F.C.C. WORK ORDER NO. 30531  
FILE NAME: 30531WATERMAINVIEW

KRATZ PROPERTY  
LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE AS SHOWN  
SHEET 5 of 7

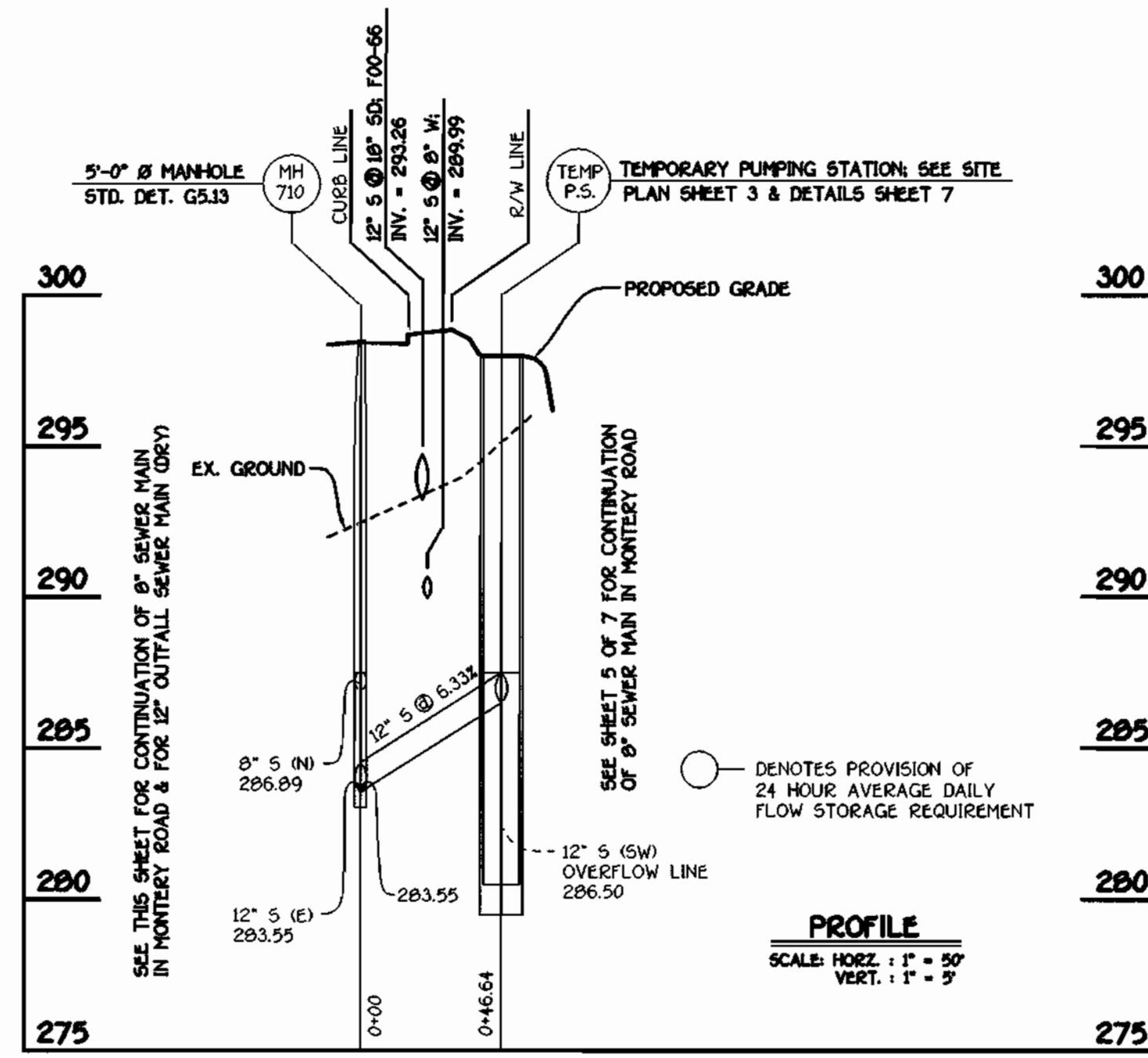
CONTRACT NO. 14-3923-D  
KRATZ PROPERTY  
LOTS 1 THRU 22  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND



**SEQUENCE OF CONSTRUCTION**

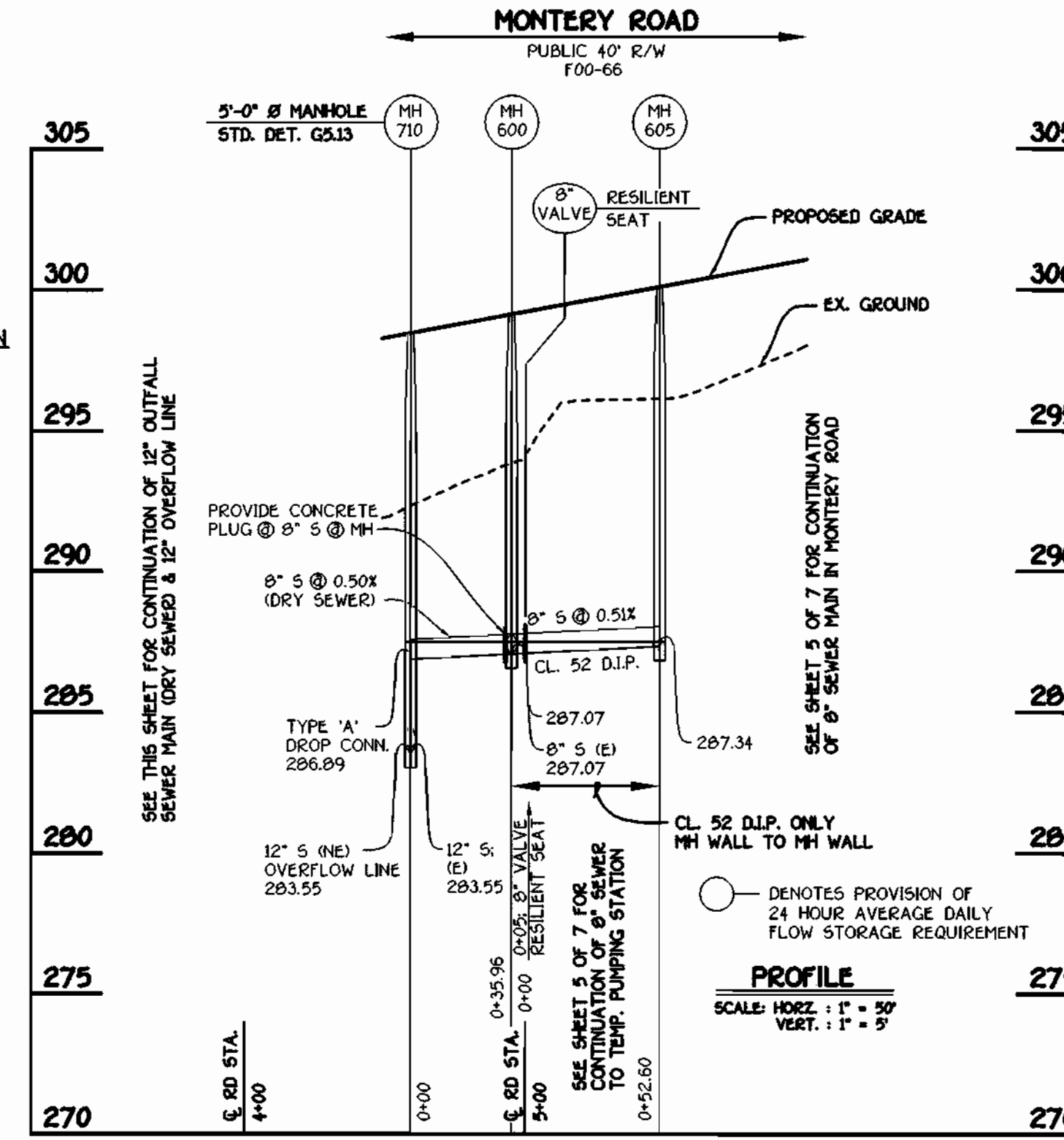
**FOR ABANDONMENT OF TEMPORARY WASTEWATER PUMPING STATION**

1. CLOSE 8" VALVE NORTH OF MH #600.
2. REMOVE CONCRETE PLUG FROM END OF DRY SEWER (TOWARDS MH #700) @ MH #600.
3. REFORM CHANNEL @ MH #600 TO DIRECT WASTEWATER FLOW TOWARDS MH #710.
4. PROVIDE CONCRETE PLUG @ MH #710 TO ISOLATE THE 12" OVERFLOW LINE FROM THE TEMPORARY WASTEWATER PUMPING STATION; REFORM CHANNEL @ MH #710.
5. PROVIDE CONCRETE PLUG AT 8" S (TOWARDS TEMPORARY WASTEWATER PUMPING STATION) @ MH #600.
6. CLOSE 8" GATE VALVE EAST OF MH # 600.
7. OPEN 8" GATE VALVE NORTH OF MH # 600.
8. REMOVE TEMPORARY WASTEWATER PUMPING STATION & ASSOCIATED APPURTENANCES IN THEIR ENTIRETY, INCLUDING SMITH & LOVELESS SUCTION LIFT PACKAGED PUMPING STATION & 12'-0" WET WELL.
9. BACKFILL VOID.
10. REMOVE SWING GATE.
11. EXCAVATE & REMOVE GRAVEL FROM PARKING LOT.
12. SEED AND MULCH ALL DISTURBED AREAS.



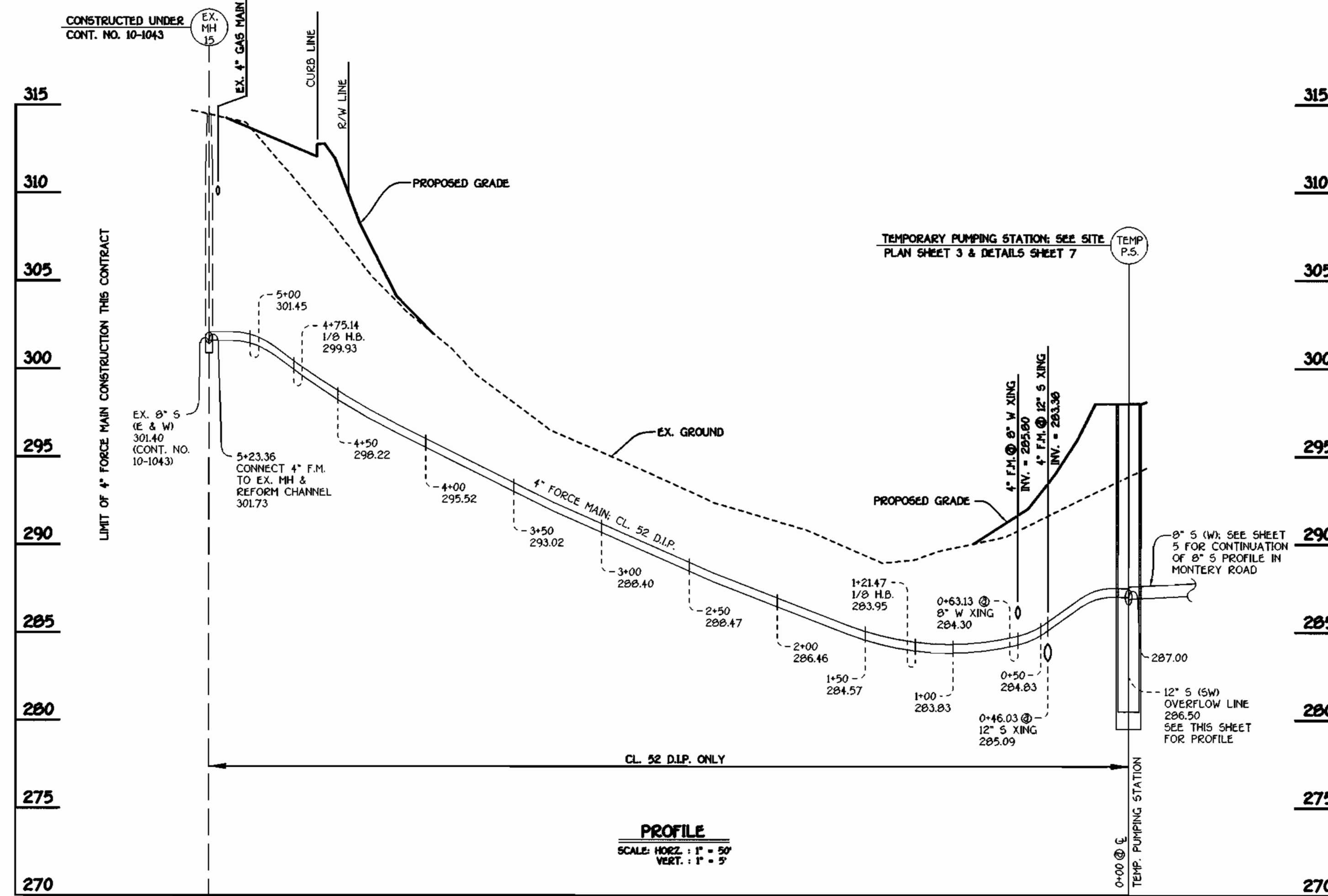
**12" S: OVERFLOW LINE**

NOTE: SEE SHEET 7 OF 7 FOR SEQUENCE OF CONSTRUCTION FOR ABANDONMENT OF TEMPORARY WASTEWATER PUMPING STATION



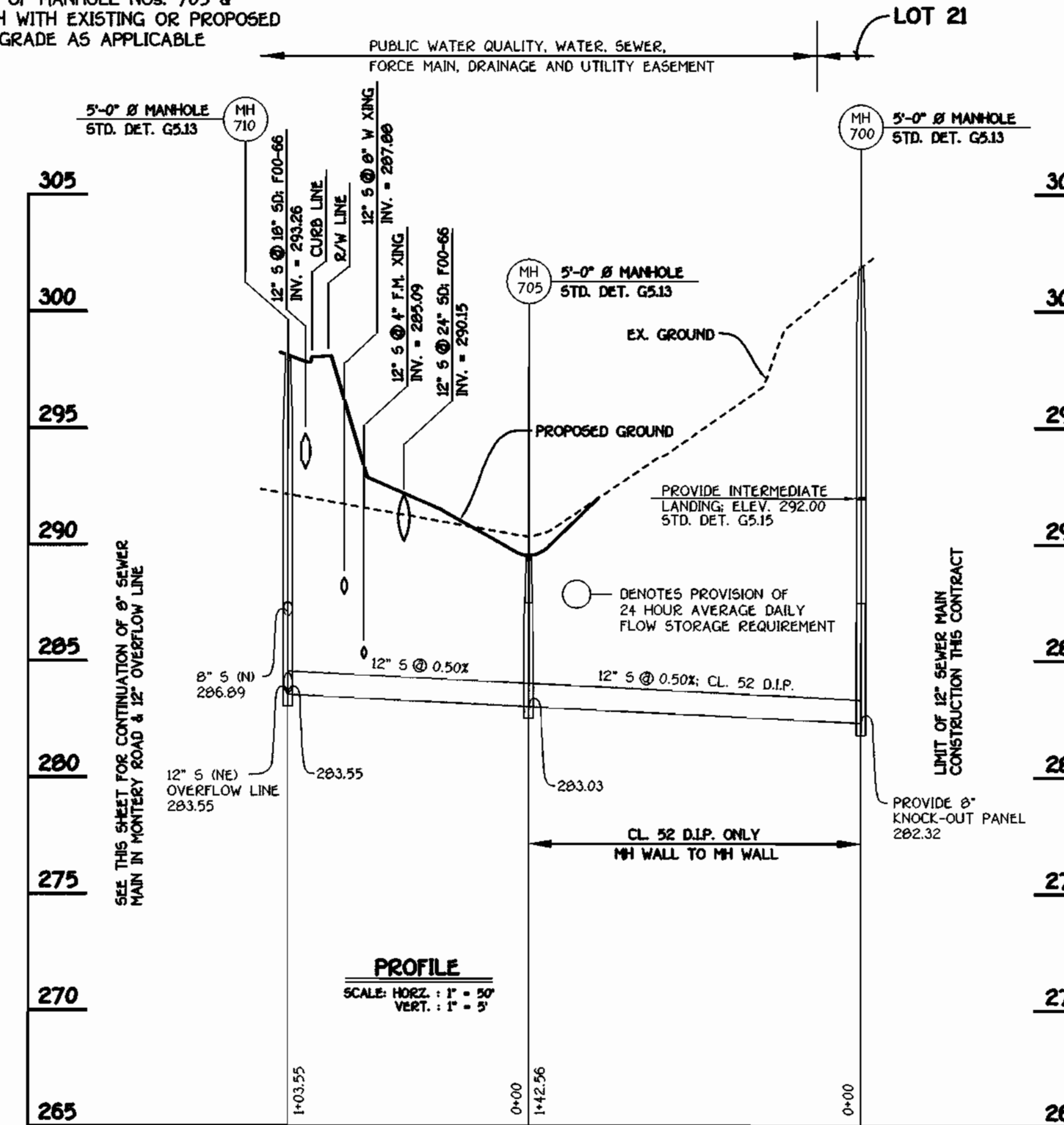
**8" OUTFALL SEWER MAIN**

MONTEREY ROAD  
PUBLIC 40' R/W (F00-66)  
PUBLIC WATER, SEWER, FORCE MAIN, DRAINAGE, UTILITY, PUMPING STATION & ACCESS EASEMENT



**4" FORCE MAIN**

NOTE: SET RIMS OF MANHOLE NOS. 705 & 710 FLUSH WITH EXISTING OR PROPOSED FINISHED GRADE AS APPLICABLE



**12" OUTFALL SEWER MAIN (DRY SEWER)**

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CONTONAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLSKOTT CITY, MARYLAND 21042  
(410) 461-2055



DESIGNED BY:	P.W.L.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.L.
DATE:	SEPTEMBER, 2001
BY NO.	
REVISION	

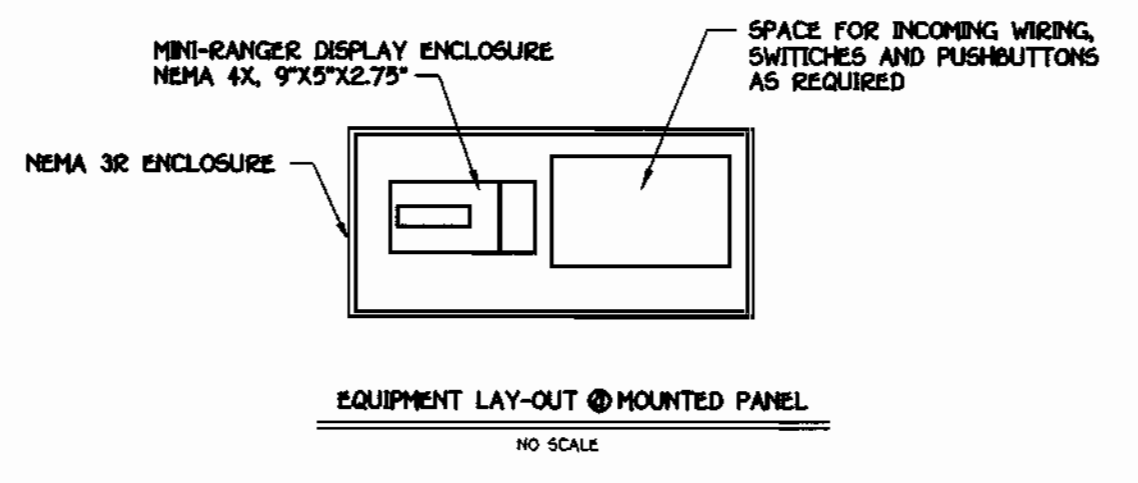
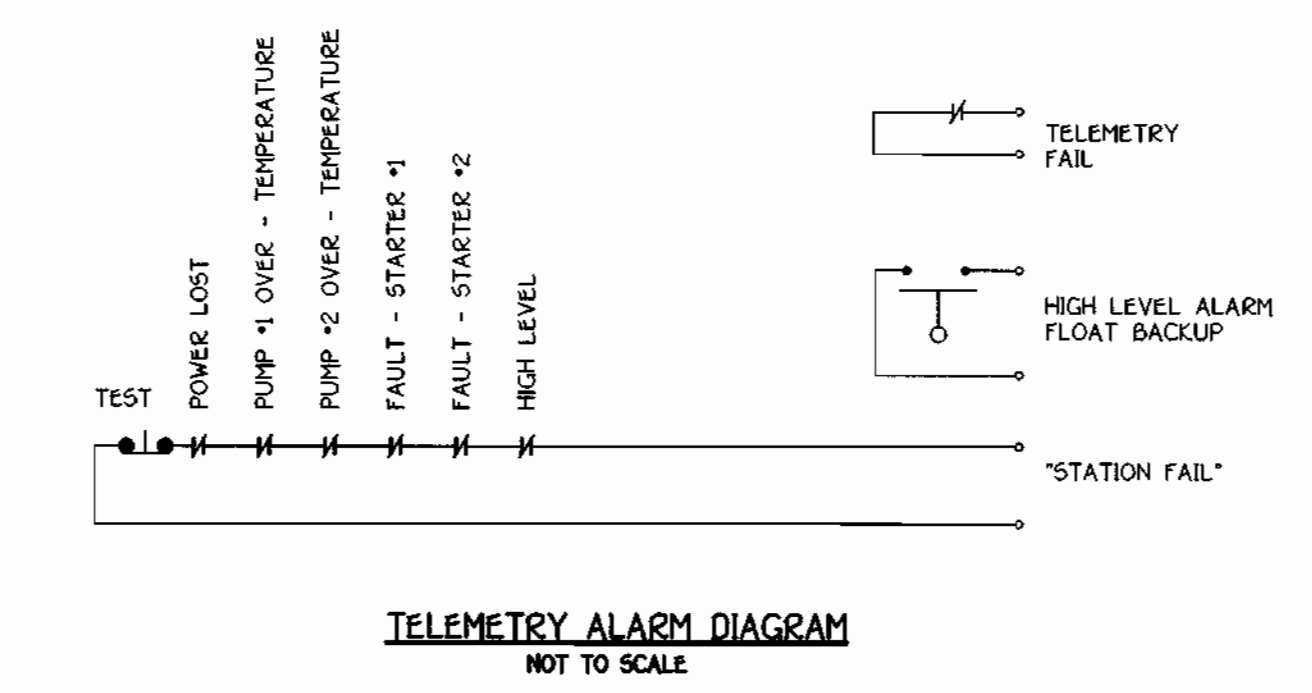
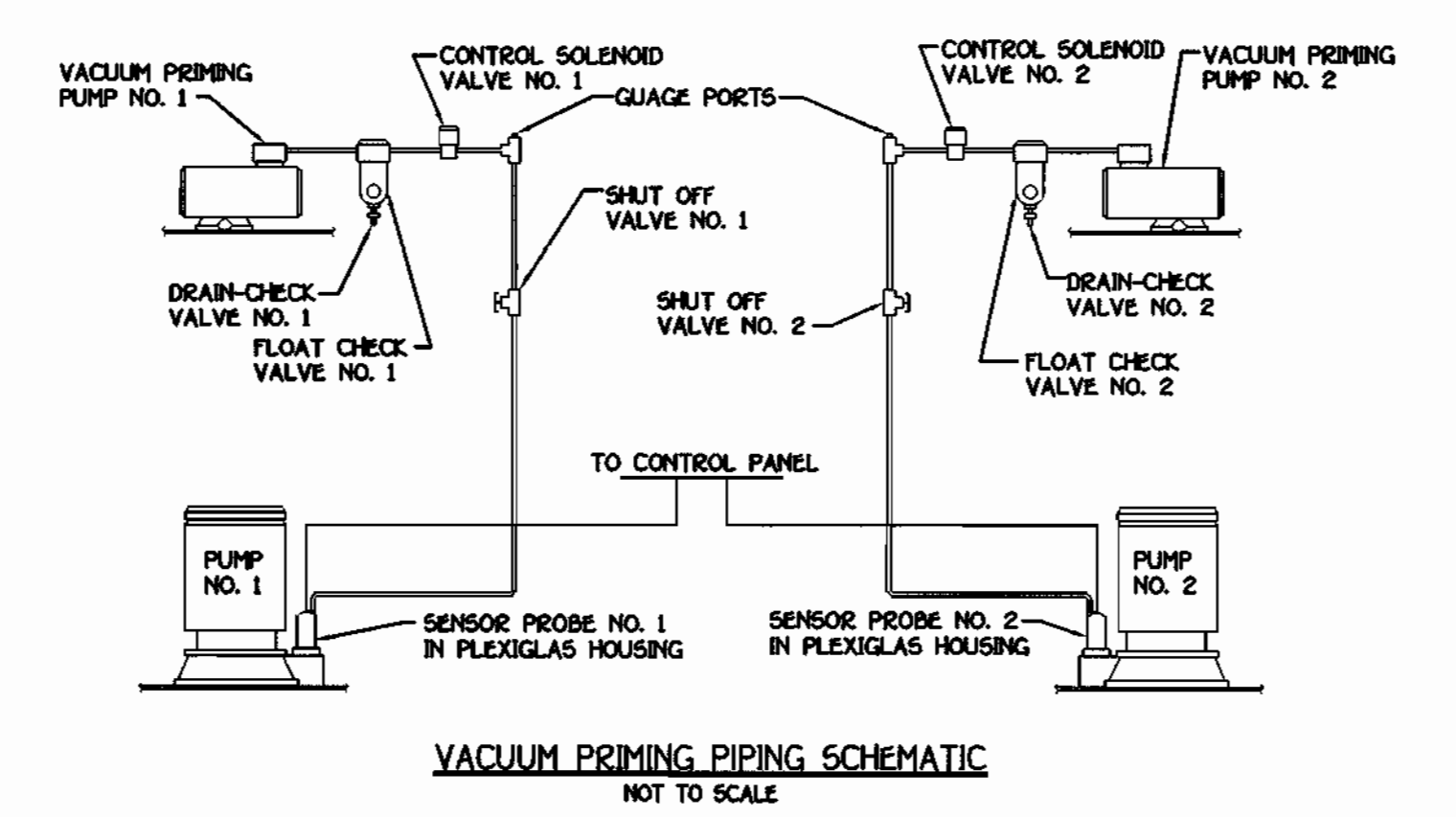
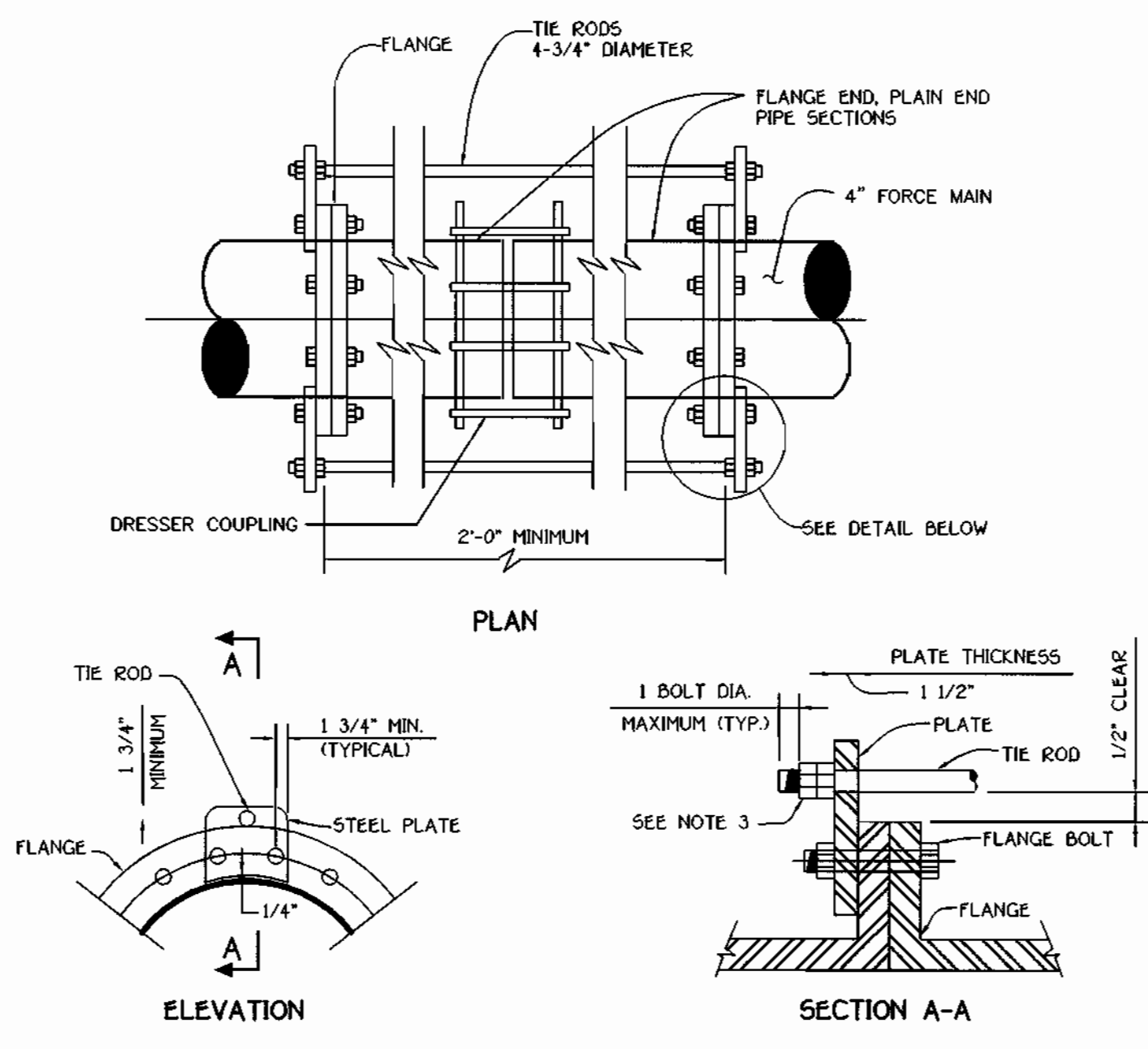
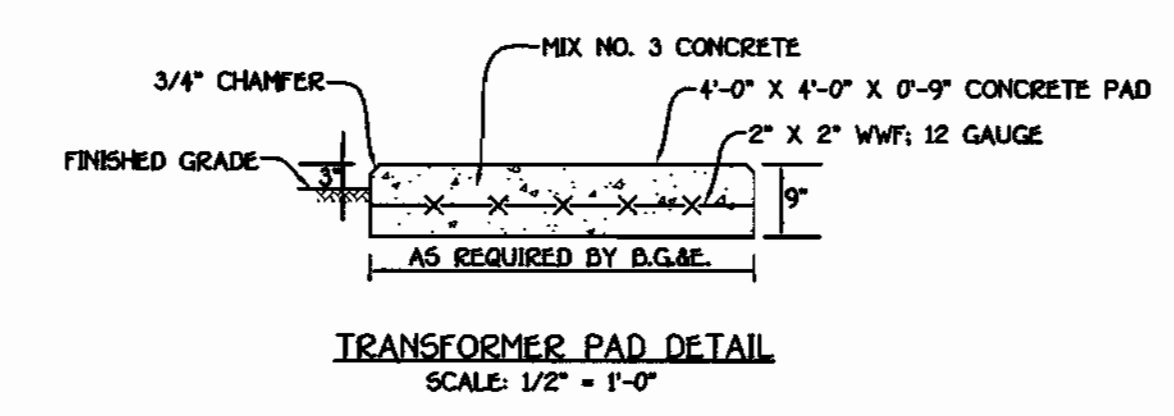
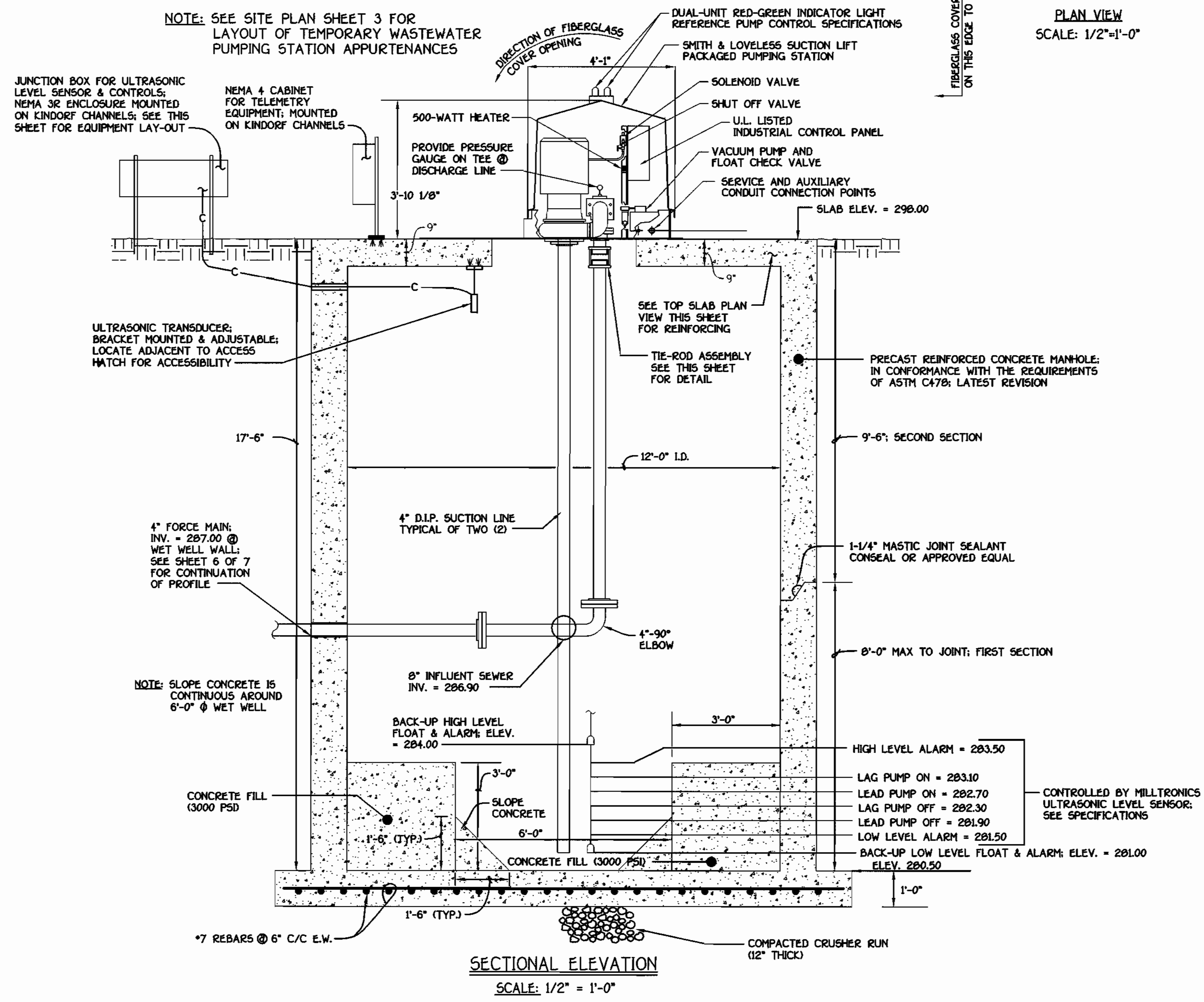
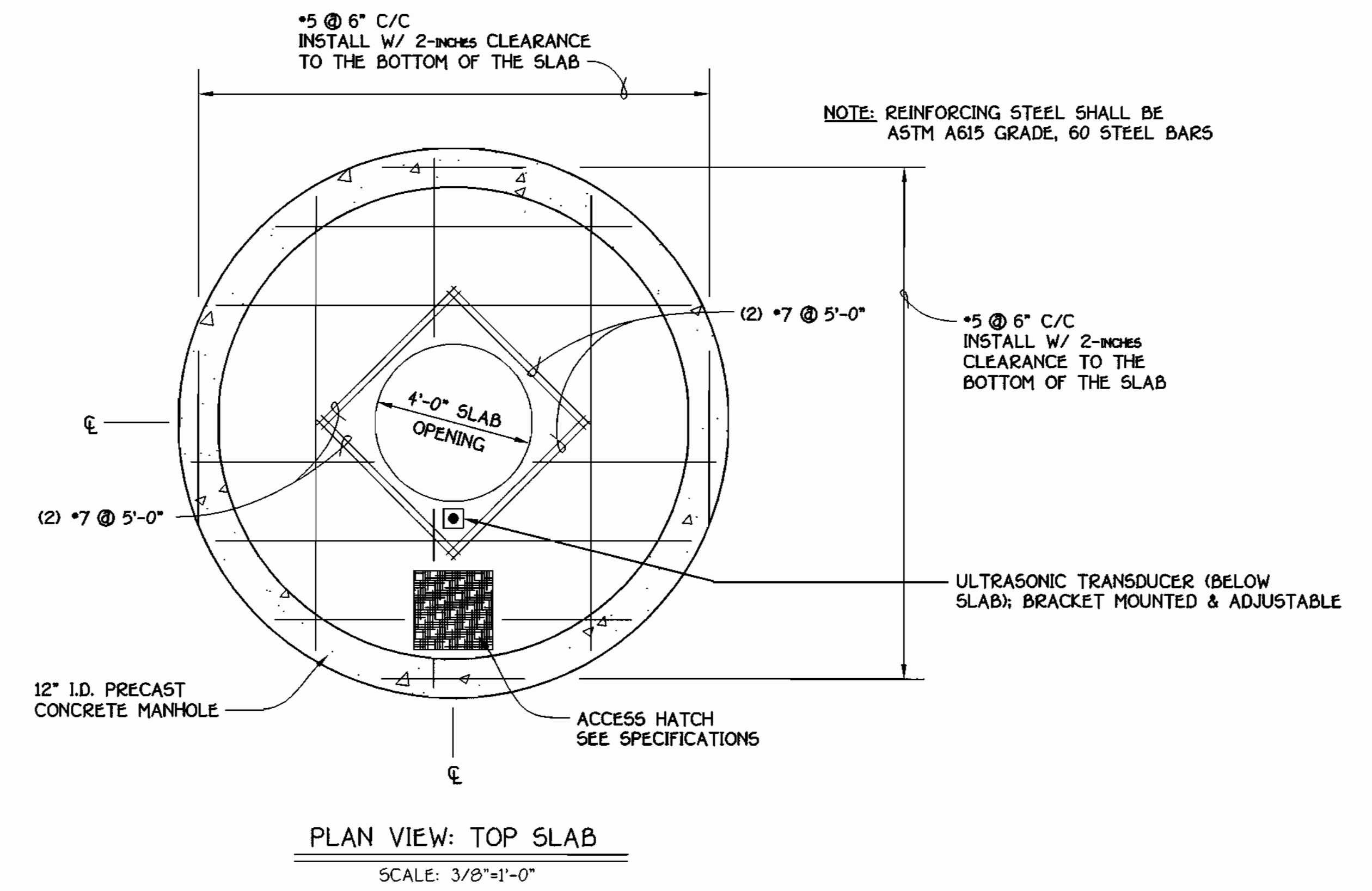
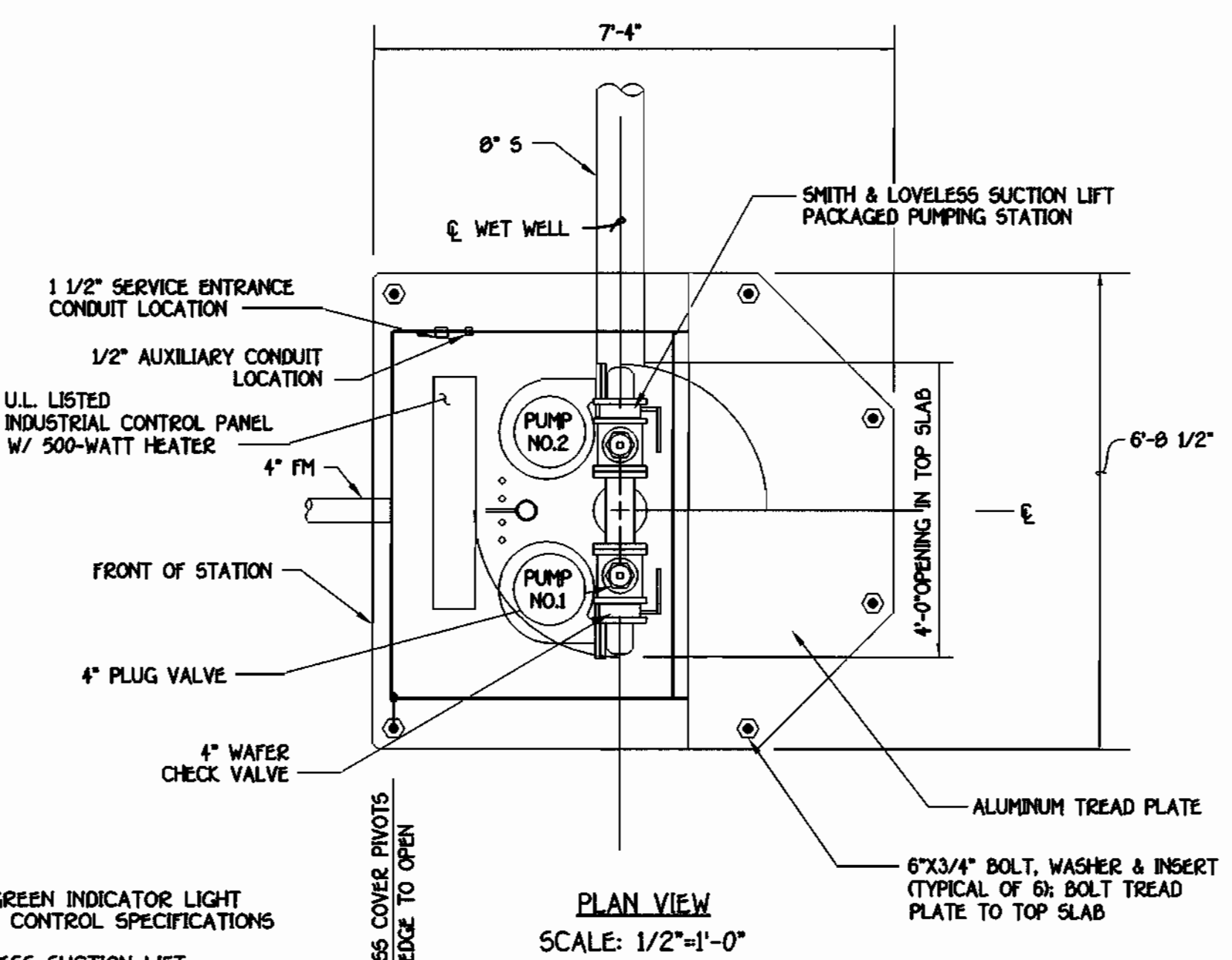
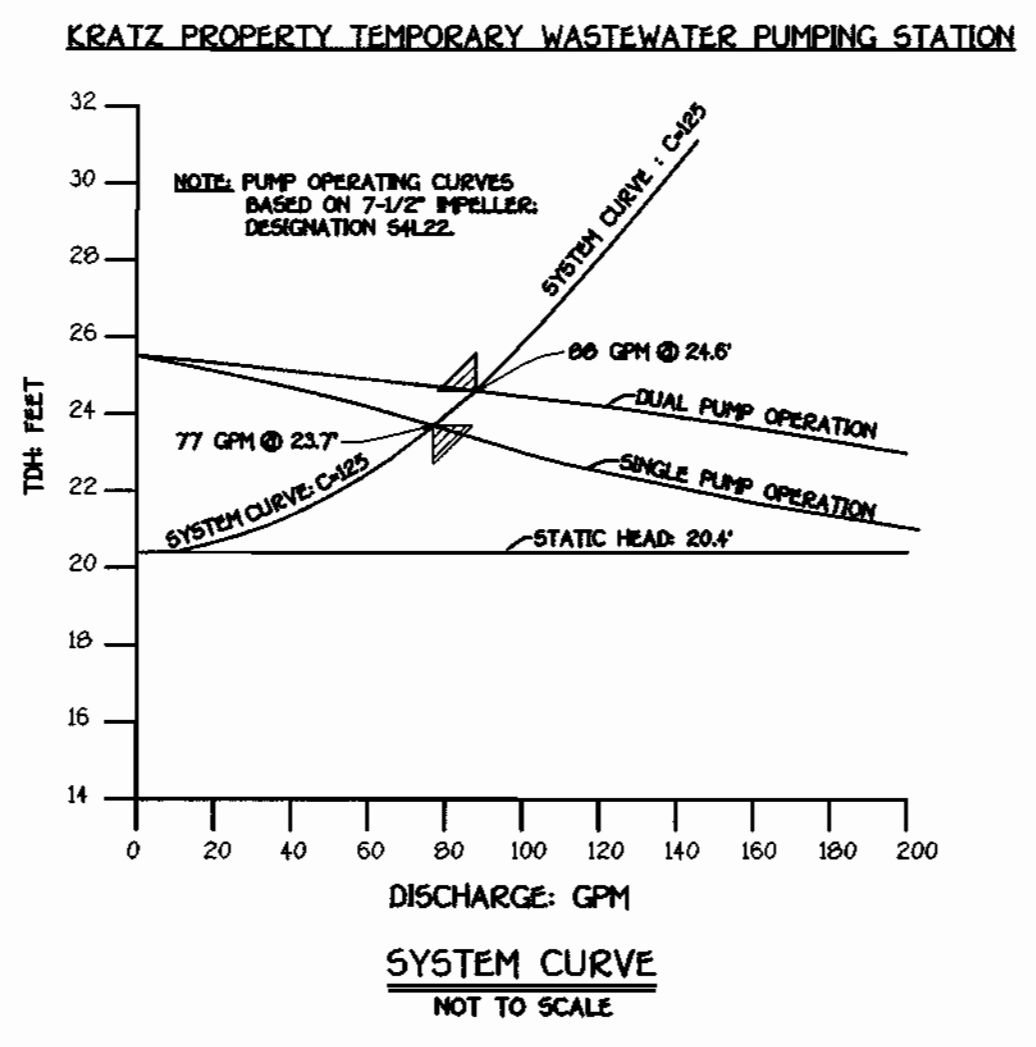
**FORCE MAIN & SEWER MAIN PROFILES**

600' SCALE MAP NO. 37 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30632  
FILE NAME: 30632 F.M. AND SEWER PROFILES SH13

**KRATZ PROPERTY**  
LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 6 OF 7

CONTRACT NO. 14-3923-D  
KRATZ PROPERTY  
LOTS 1 THRU 22  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

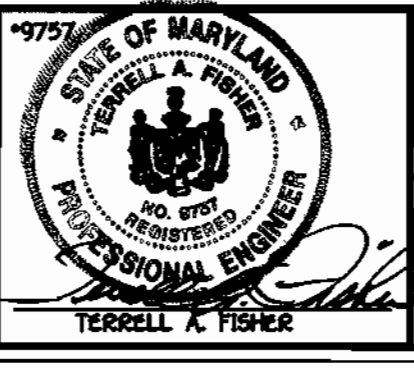
9-20-01  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

10/1/01  
DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

10/1/01  
DATE



DESIGNED BY: P.W.L.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.L.  
DATE: SEPTEMBER, 2001

TEMPORARY WASTEWATER PUMPING STATION

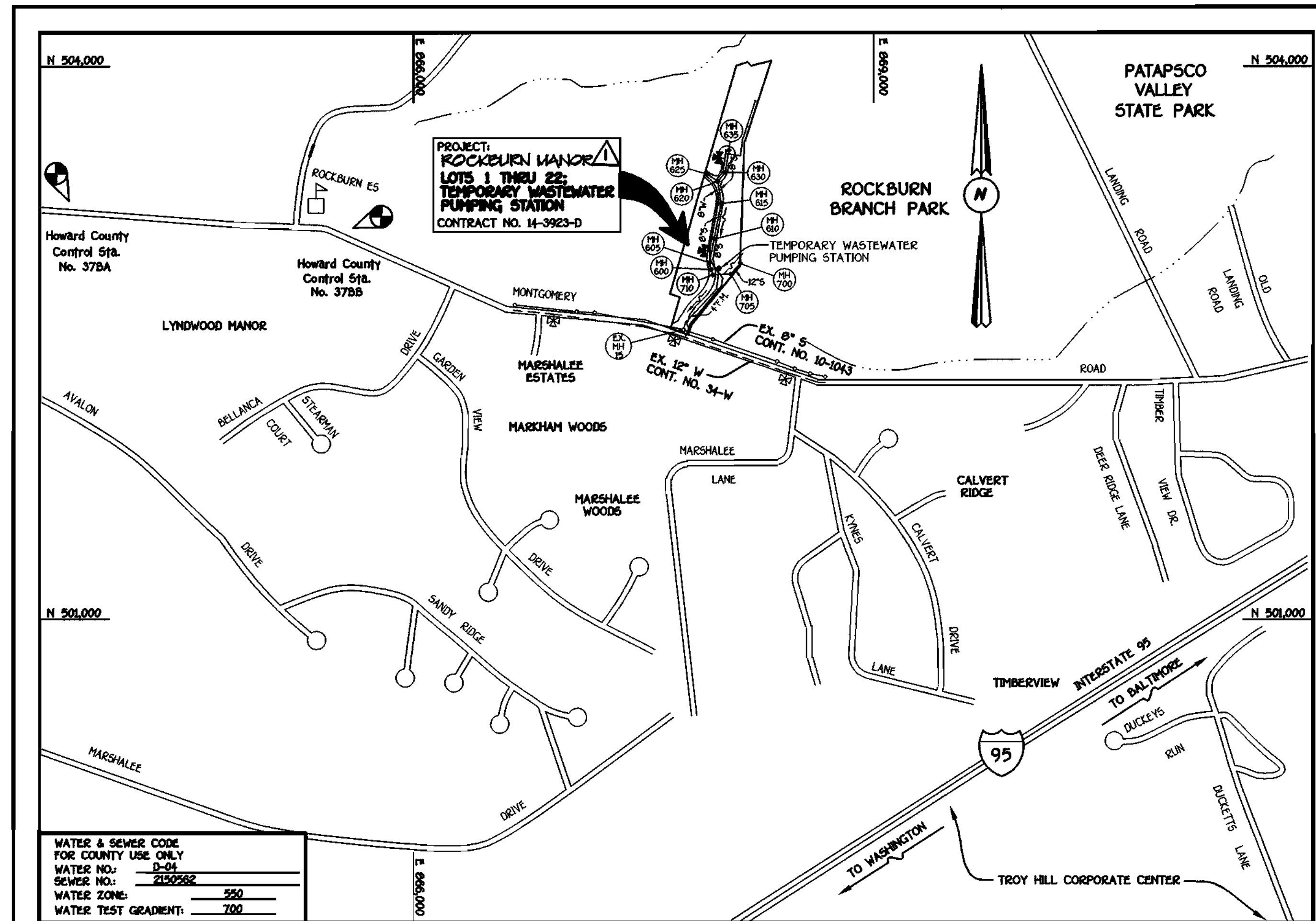
600' SCALE MAP NO. 37 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30632  
FILE NAME: 30632 PUMPING STATION DETAILS SHIT7

KRATZ PROPERTY  
LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 7 OF 7



QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	1,502.00 L.F.			
6" WATER	95.00 L.F.			
4" WATER	535.00 L.F.			
FIRE HYDRANTS	2 EACH			
1-1/2" WATER	59 L.F.			
1" WATER	319 L.F.			
12" SEWER	150.19 L.F.			
12" SEWER D.I.P.	142.56 L.F.			
8" SEWER	302.66 L.F.			
8" SEWER D.I.P.	723.01 L.F.			
6" SEWER	102.00 L.F.			
4" SEWER	265.00 L.F.			
SEWER MANHOLES	11 EACH			
TEMPORARY PUMPING STATION	1 EACH			
4" FORCE MAIN	523.36 L.F.			
12" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 8" TEE	1 EACH			
8" X 6" TEE	2 EACH			
8" X 4" TEE	1 EACH			
8" VALVE	2 EACH			
8" PLUG & BUTTRESSES	2 EACH			
8"-1/8" H.B.	1 EACH			
8"-1/16" H.B.	6 EACH			
8"-1/32" H.B.	1 EACH			
6" VALVE	1 EACH			
4" X 4" TEE	1 EACH			
4" VALVE	1 EACH			
4"-1/8" H.B.	2 EACH			
4"-1/32" H.B.	1 EACH			
4" PLUG & BUTTRESSES	2 EACH			
NAME OF UTILITY CONTRACTOR:				
SURVEY & DRAFTING DIVISION AS-BUILT DATE:				



WATER & SEWER CODE FOR COUNTY USE ONLY	
WATER NO.:	D-04
SEWER NO.:	2502582
WATER ZONE:	590
WATER TEST GRADIENT:	700

TYPE OF BUILDING:	SINGLE FAMILY DETACHED
NUMBER OF LOTS & PARCELS:	22 OR BULDBLAD
NO. OF WATER HOUSE CONNECTIONS:	12
NO. OF SEWER HOUSE CONNECTIONS:	12
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	PATAPSCO WASTEWATER TREATMENT PLANT, CITY OF BALTIMORE

VICINITY MAP

SCALE: 1"=600'

PLAN REFERENCE NUMBERS:  
S 98-06, P 99-04, F 00-66

GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. 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, MAD 83.
- ALL VERTICAL CONTROLS ARE BASED ON NAVD 29.
- ALL PIPE ELEVATIONS ARE PIPE ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (099) AMENDMENTS. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- 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 VISITED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO THE EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - AT&T . . . . . 1-800-526-2000
  - BCE (CONTRACTOR SERVICES) . . . . . 410-850-4820
  - BCE (UNDERGROUND DAMAGE CONTROL) . . . . . 410-787-9096
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS . . . . . 410-313-4900
  - BELL ATLANTIC MARYLAND, INC. . . . . 1-800-621-9900
  - COLONIAL PIPELINE CO. . . . . 410-795-1390
  - MESS UTILITY . . . . . 1-800-257-7777
  - STATE HIGHWAY ADMINISTRATION . . . . . 410-531-5533
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO 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 THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 1'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- T.B. DENOTES TEST BORING.
- 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 C5.52.
- WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIFICATIONS.
- HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL C5.51.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (W11 AND W213). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER MAIN SYSTEM.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH THE AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY @ (410) 313-2450 AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 1B.14(d) OF THE HOWARD COUNTY CODE.

DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Paul W. Keubel FOR:  
C.M. PARTNERSHIP 09-18-01  
SIGNATURE OF DEVELOPER DATE

ENGINEER'S CERTIFICATION

I HEREBY 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 SOIL CONSERVATION DISTRICT.

Paul W. Keubel 09/18/01  
SIGNATURE OF ENGINEER DATE

MDE PERMIT NO. : 98-NT-0670/199960792

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

Jim Meyer 9/26/01  
USDA NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John Roberts 9/26/01  
APPROVED: HOWARD SOIL CONSERVATION DISTRICT DATE

SEDDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON F00-66.

Paul W. Keubel FOR:  
C.M. PARTNERSHIP 09-18-01  
SIGNATURE OF DEVELOPER DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

Robert M. Beinger 9-20-01  
CHIEF, BUREAU OF UTILITIES DATE

Chief, DEVELOPMENT ENGINEERING DIVISION 10/1/01 DATE



DESIGNED BY:	P.W.K.	
DRAWN BY:	M.D.T.	
CHECKED BY:	P.W.K.	
DATE:	SEPTEMBER, 2001	
BY NO.	B.P. Δ	REVISE PROJECT TITLE NAME
REVISION		

WATER AND SEWER MAINS  
TEMPORARY WW PUMP STATION  
TITLE SHEET

600' SCALE MAP NO. 37 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30532  
FILE NAME: 30532 TITLE SHEET SH1

ROCKBURN MANOR Δ  
LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

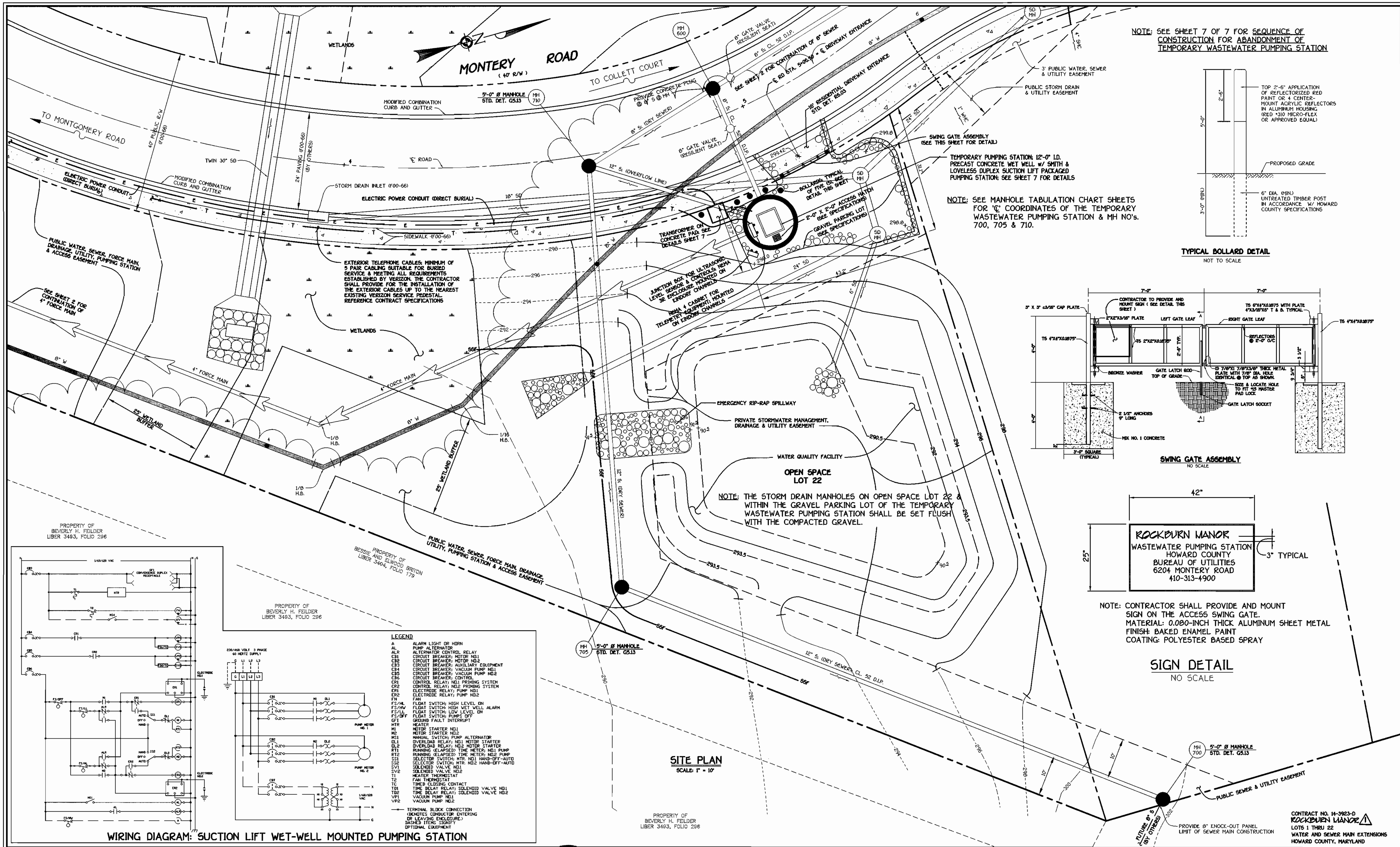
SCALE AS SHOWN  
SHEET 1 of 7

CONTRACT NO. 14-3923-D  
ROCKBURN MANOR Δ  
LOTS 1 THRU 22  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

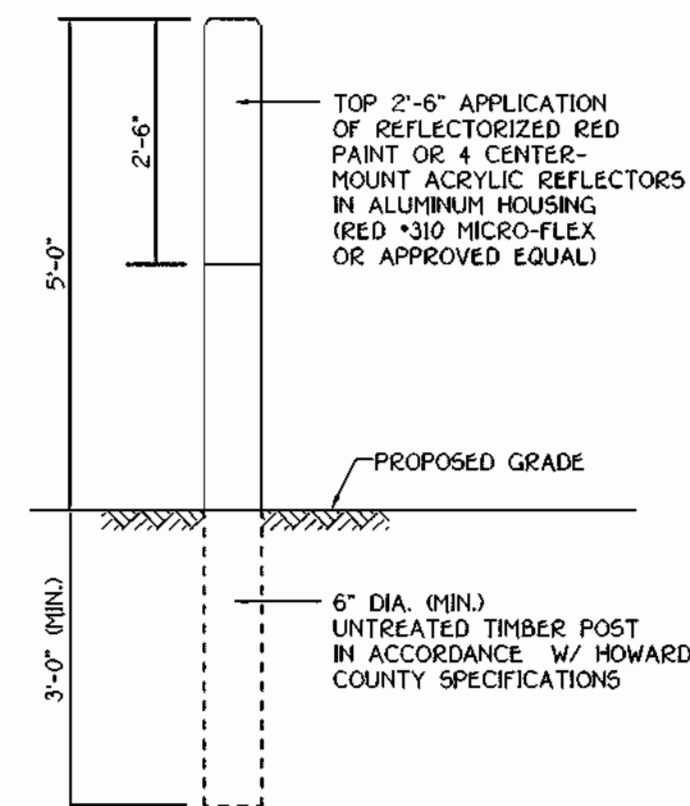




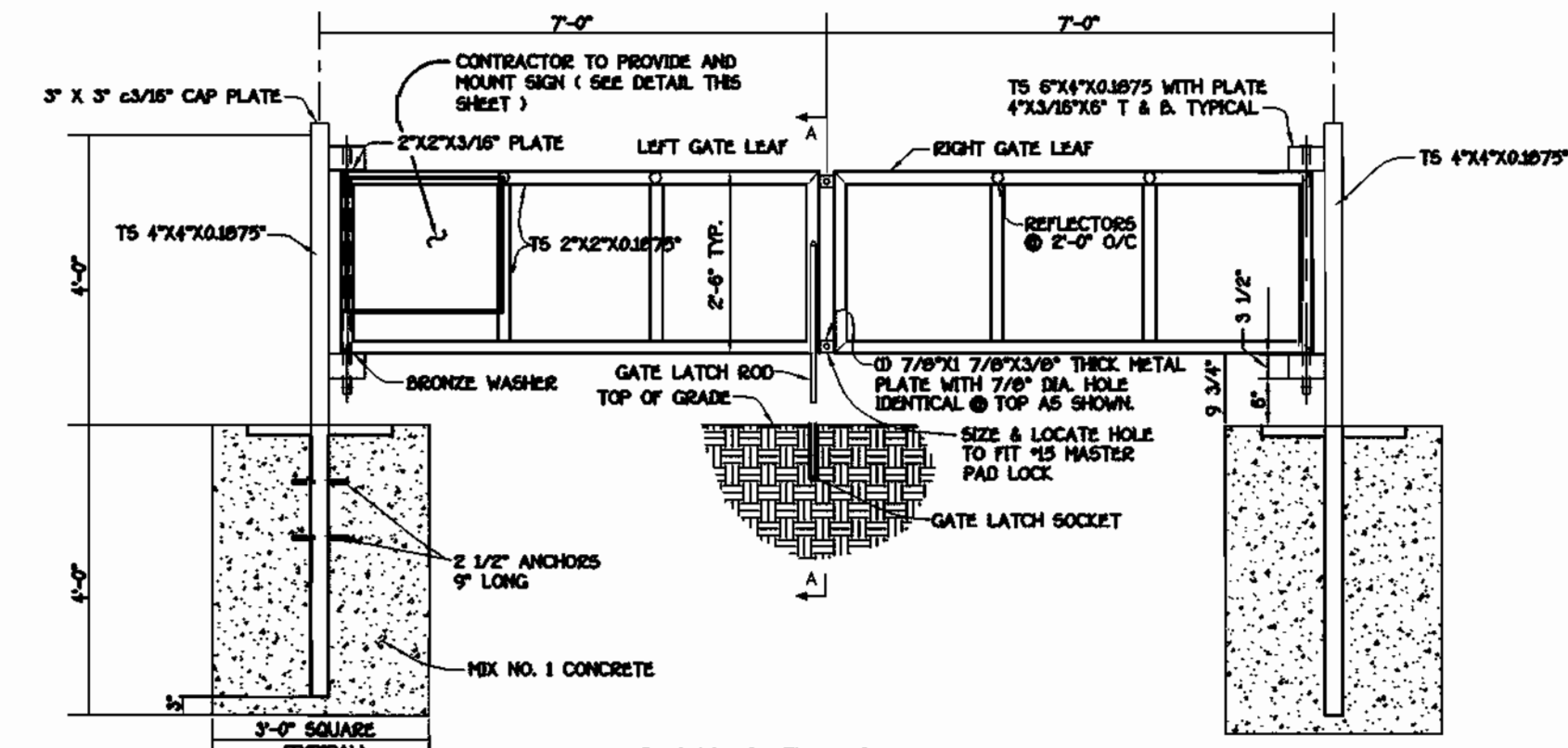




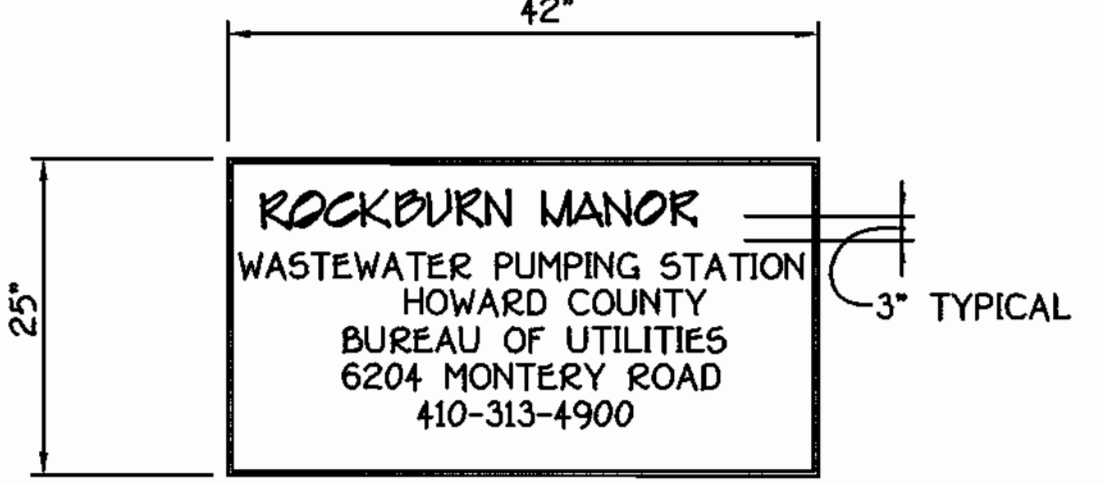
NOTE: SEE SHEET 7 OF 7 FOR SEQUENCE OF CONSTRUCTION FOR ABANDONMENT OF TEMPORARY WASTEWATER PUMPING STATION



TYPICAL BOLLARD DETAIL  
NOT TO SCALE



SWING GATE ASSEMBLY  
NO SCALE

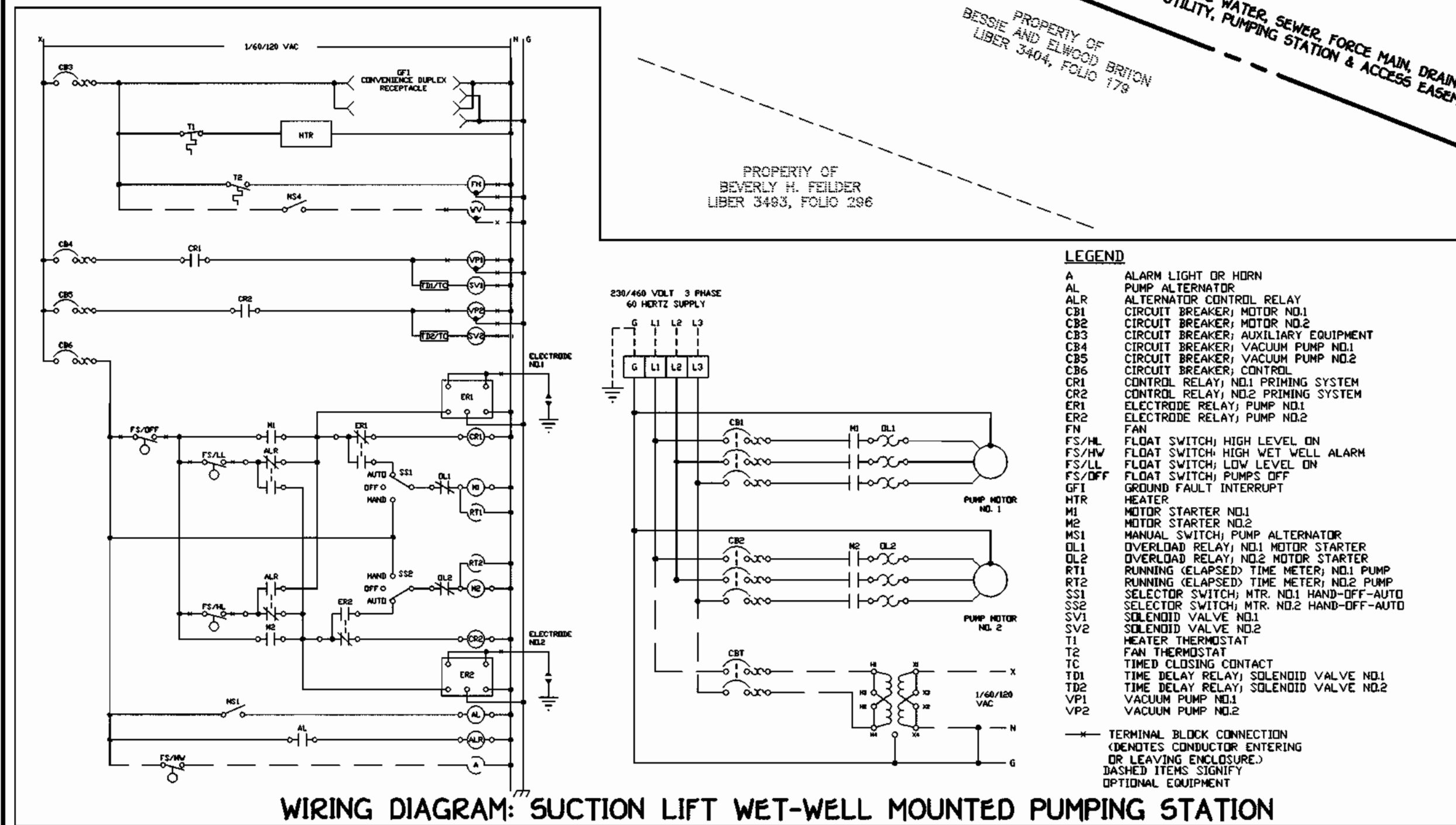


NOTE: CONTRACTOR SHALL PROVIDE AND MOUNT SIGN ON THE ACCESS SWING GATE.  
MATERIAL: 0.080-INCH THICK ALUMINUM SHEET METAL  
FINISH: BAKED ENAMEL PAINT  
COATING: POLYESTER BASED SPRAY

SIGN DETAIL  
NO SCALE

NOTE: THE STORM DRAIN MANHOLES ON OPEN SPACE LOT 22 & WITHIN THE GRAVEL PARKING LOT OF THE TEMPORARY WASTEWATER PUMPING STATION SHALL BE SET FLUSH WITH THE COMPACTED GRAVEL.

SITE PLAN  
SCALE 1" = 10'



WIRING DIAGRAM: SUCTION LIFT WET-WELL MOUNTED PUMPING STATION

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
9-20-01  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
10/1/01  
DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
10772 BALTIMORE NATIONAL PKWY  
ELICOTT CITY, MARYLAND 21042  
410-481-2995

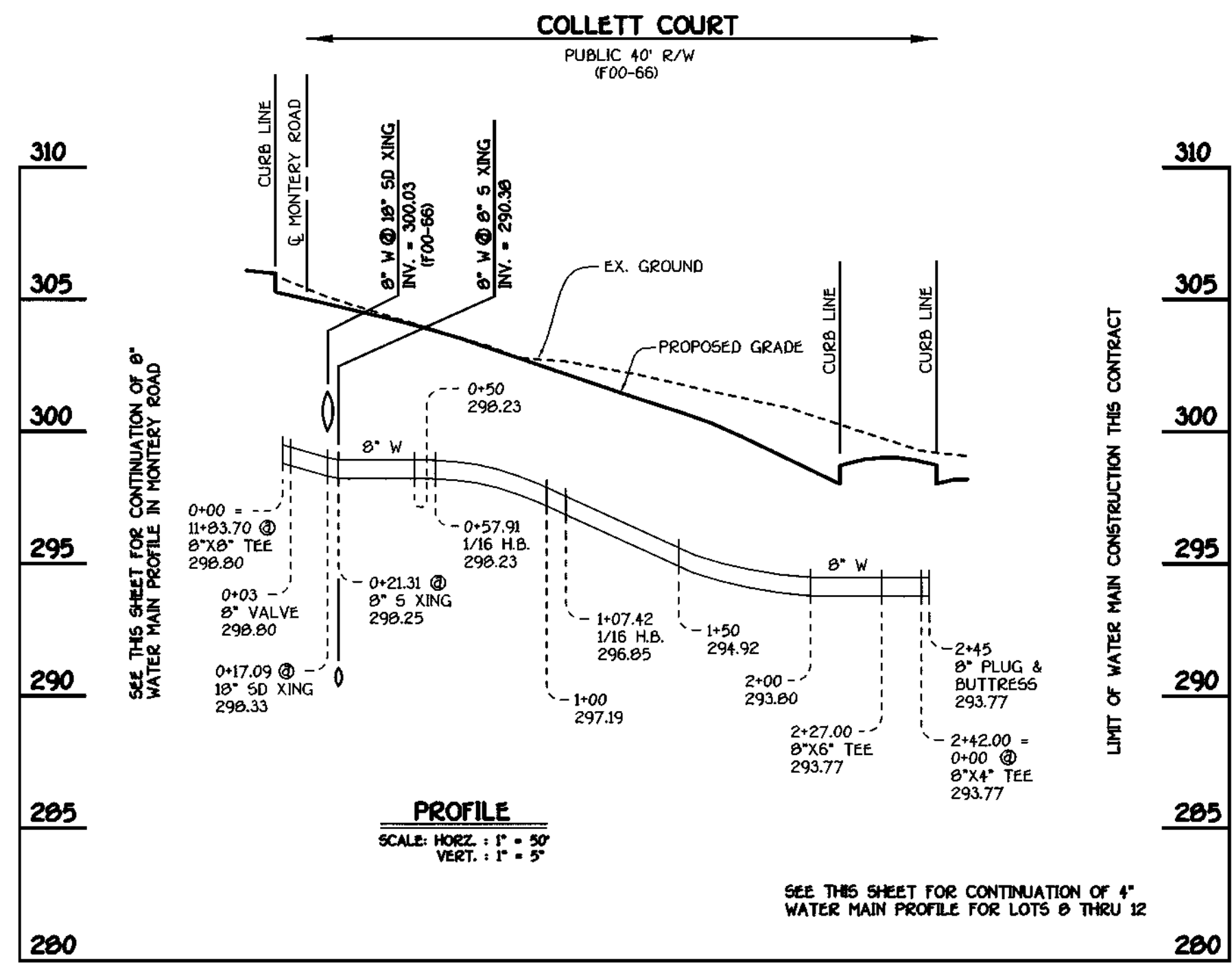
STATE OF MARYLAND  
TERRELL A. FISHER  
PROFESSIONAL ENGINEER

DESIGNED BY: P.W.L.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.L.  
DATE: SEPTEMBER, 2001  
BY: B.P. REVISE PROJECT TITLE NAME  
DATE: 7-08-04

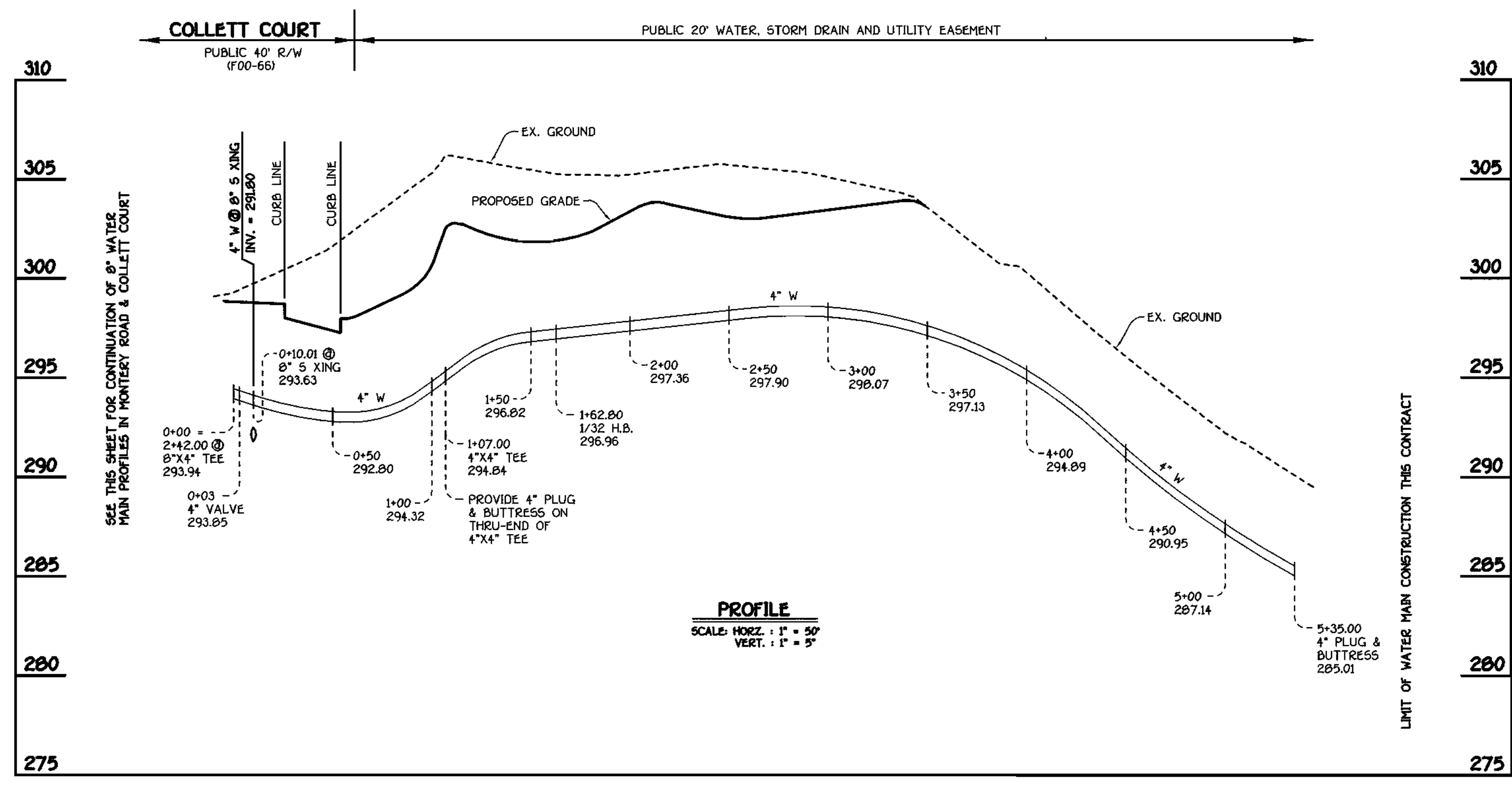
TEMPORARY PUMPING STATION  
SITE PLAN  
AND ELECTRICAL WIRING DIAGRAM  
600' SCALE MAP NO. 37 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30632  
FILE NAME: 30632 W & S SITE DEVELOPMENT PLAN SH13

ROCKBURN MANOR  
LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE AS SHOWN  
SHEET 3 OF 7

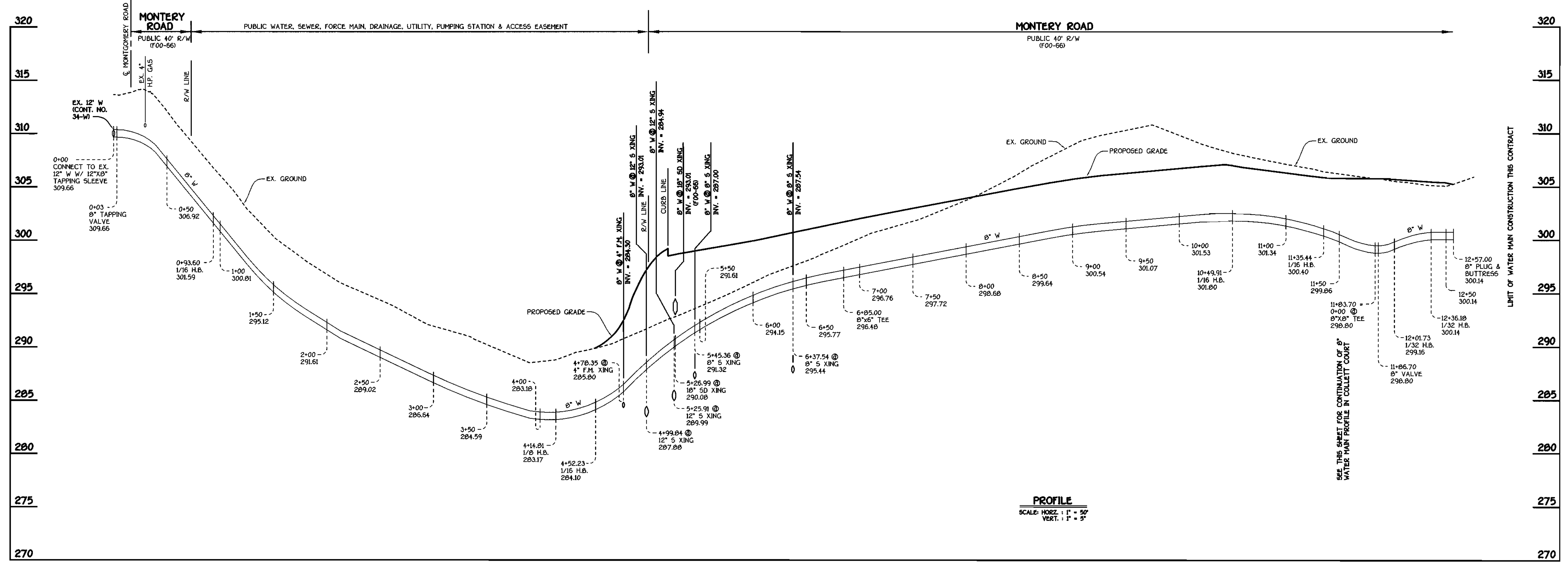




**COLLETT COURT: 8" WATER MAIN**



**LOTS 8 THRU 12: 4" WATER MAIN**



**MONTEREY ROAD: 8" WATER MAIN**

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert B. ...*  
CHIEF, BUREAU OF UTILITIES

9-20-01  
DATE

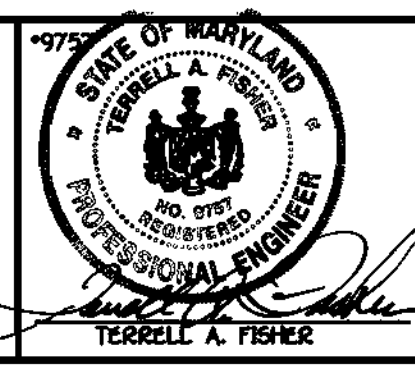
DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Michael ...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

10/1/01  
DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

10777 BALTIMORE NATIONAL PKWY.  
BELLGATE CITY, MARYLAND 20842  
(301) 481-2255



DESIGNED BY:	P.W.K.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	SEPTEMBER, 2001
B.P. NO.:	12-03-01
REVISION:	REVISE PROJECT TITLE NAME

WATER MAINS PROFILES	
600' SCALE MAP NO. 37	BLOCK NO. 5
F.C.C. WORK ORDER NO. 30532	
FILE NAME: 30532 WATER MAIN PROFILES SH13	

**ROCKBURN MANOR**

LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 4 OF 7

CONTRACT NO. 14-3923-D  
ROCKBURN MANOR  
LOTS 1 THRU 22  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

MANHOLE TABULATION CHART				
NO.	℄ ROAD STATION	DISTANCE	SLOPE	RM ELEVATION
710	4+59.77 MONTERY ROAD	2.70' RT.	+1.86%	298.42
600	4+95.00 MONTERY ROAD	7.00' LT.	+1.86%	299.36
605	5+48.88 MONTERY ROAD	6.98' LT.	+1.86%	300.36
610	7+90.91 MONTERY ROAD	7.00' LT.	+1.86%	304.42
615	9+91.11 MONTERY ROAD	8.11' LT.	-1.16%	307.12
620	11+24.78 MONTERY ROAD	14.98' LT.	-2.32%	304.73
625	12+13.84 MONTERY ROAD	10.30' LT.	+1.04%	304.52
630	1+00.94 COLLETT COURT	4.41' LT.	-3.00%	302.25
635	L.P. STA. 1+44.99 (COLLETT COURT)	7.10' LT.	---	296.76
NORTHING EASTING				
700	OUTFALL SEWER MAIN*	563481.48	1380568.21	302.00
705	OUTFALL SEWER MAIN*	563367.65	1380482.38	290.00
TEMP. WWPS	OUTFALL SEWER MAIN*	563426.92	1380406.09	298.00

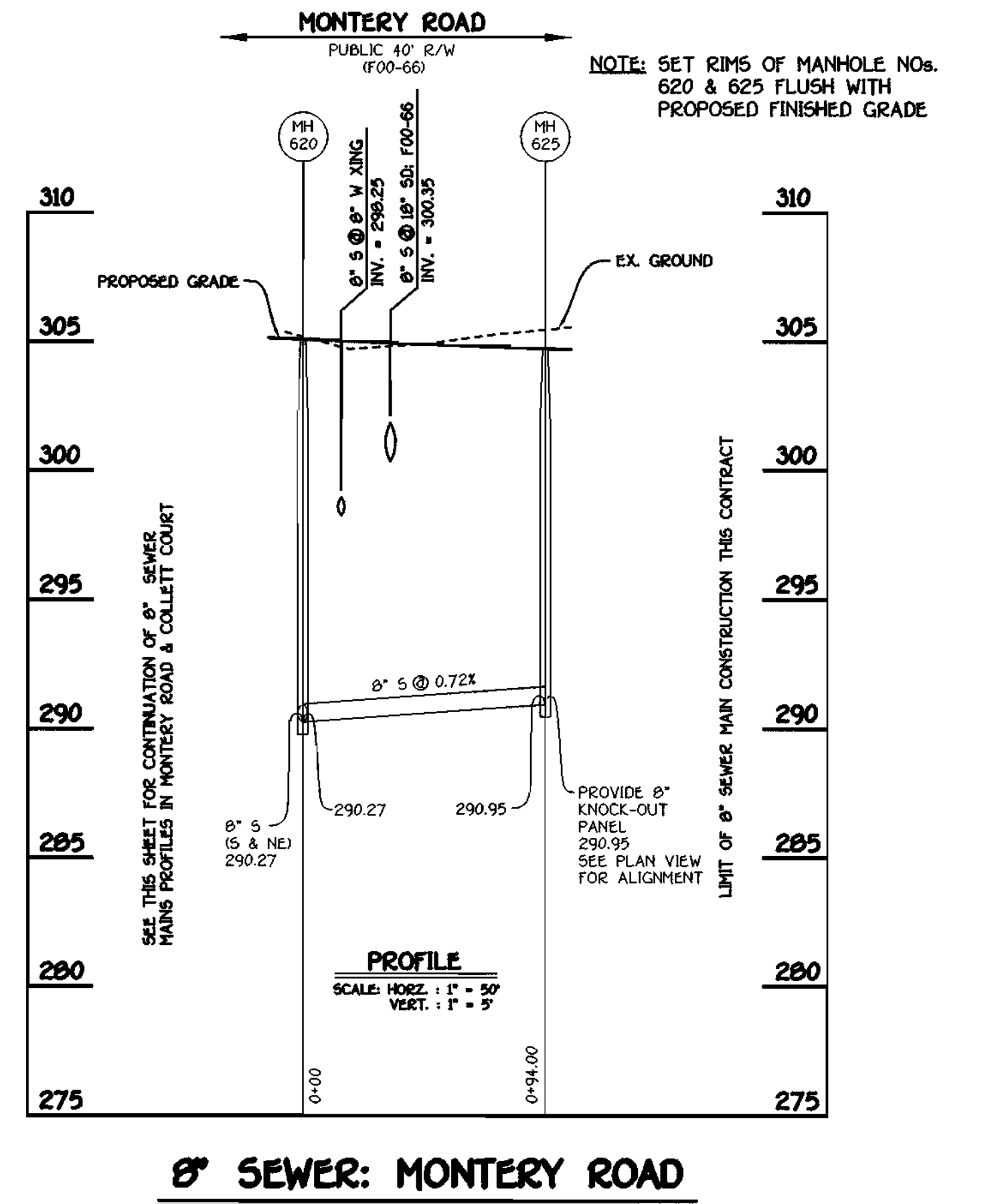
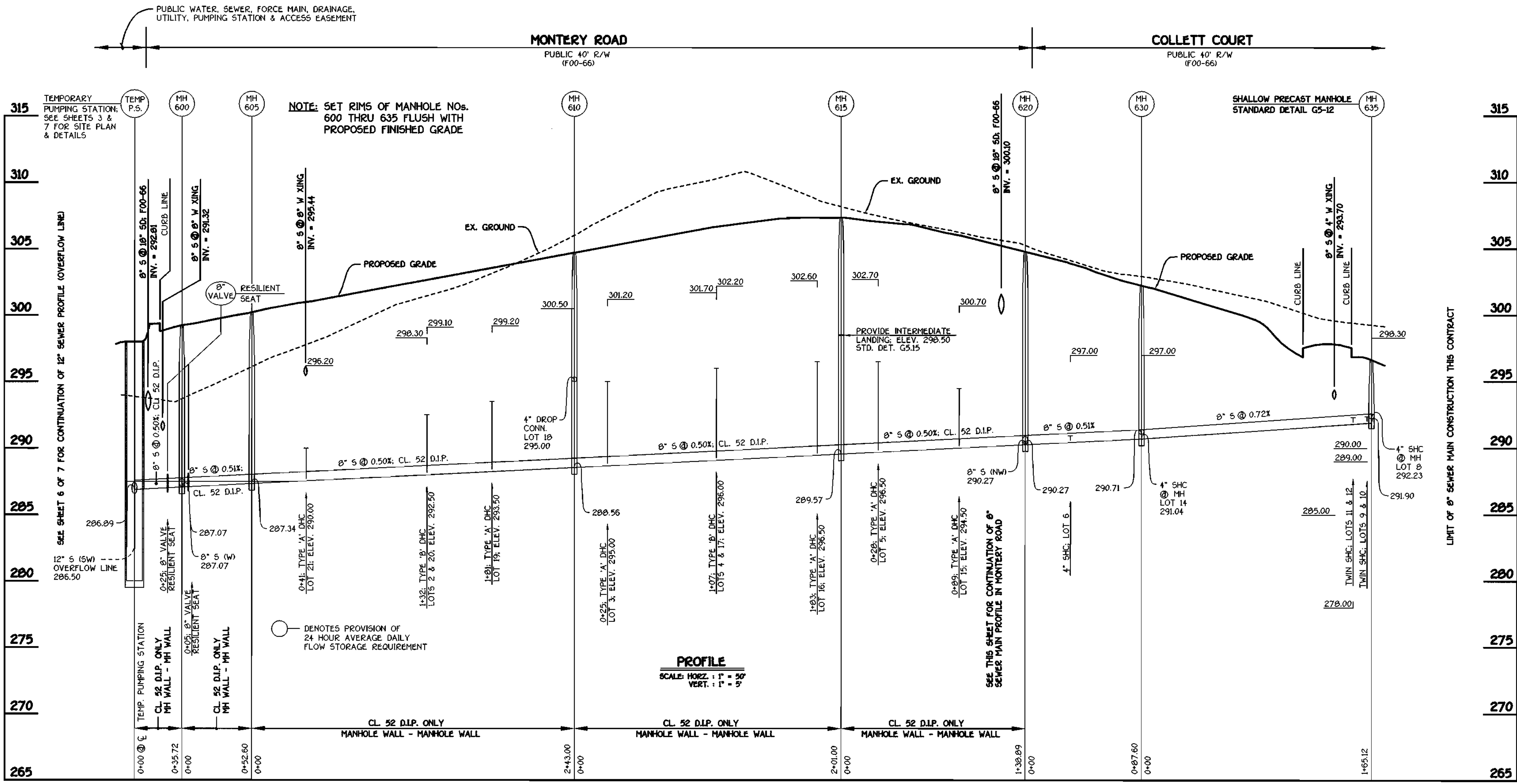
\* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE OR EXISTING GROUND AS APPLICABLE

WATER MAIN TABULATION CHART				
WM STATION	APPURTENANCE	NORTHING	EASTING	
MONTERY ROAD				
0+00	12" X 8" TAPPING SLEEVE	562957.71	1380214.98	
0+03	8" VALVE	562960.57	1380215.88	
0+93.60	1/16 H.B.	563046.99	1380243.12	
4+14.81	1/8 H.B.	563305.07	1380434.33	
4+52.23	1/16 H.B.	563342.09	1380428.83	
4+85.72	P.C. (CRMP RADIUS = 380')	563370.80	1380411.59	
℄ RD. STA. DISTANCE				
6+89.00	8" X 6" TEE	6+34.88	2.88' LT.	
7+41.01	P.T. (CRMP RADIUS = 380')	6+90.69	7.00' LT.	
10+49.91	1/16 H.B.	10+00.44	4.82' LT.	
11+35.44	1/16 H.B.	10+59.18	6.67' LT.	
11+83.70	8" X 8" TEE	11+39.55	9.88' LT.	
12+01.73	1/32 H.B.	11+58.31	7.94' LT.	
12+36.18	1/32 H.B.	11+94.04	6.32' LT.	
12+57.00	8" PLUG & BUTTRESS	12+15.56	6.45' LT.	
COLLETT COURT				
℄ RD. STA. DISTANCE				
0+00	8" X 8" TEE	-0+10.17	7+89' LT.	
0+03	8" VALVE	-0+07.03	7.79' LT.	
0+57.91	1/16 H.B.	0+48.60	6.18' LT.	
1+07.42	1/16 H.B.	1+01.90	5.88' LT.	
2+27.00	8" X 6" TEE	2+22.45	7.80' LT.	
2+42.00	8" X 4" TEE	2+37.45	7.00' LT.	
2+45.00	8" PLUG & BUTTRESS	2+40.45	7.00' LT.	

4" WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	℄ RD. STA.	DISTANCE
4" WATER MAIN FOR LOTS 8-12			
0+00	8" X 4" TEE	2+37.45 (COLLETT CT.)	7.00' LT.
0+03	4" VALVE	2+37.45 (COLLETT CT.)	10.00' LT.
NORTHING EASTING			
1+07.00	4" X 4" TEE	564244.93	1380539.99
1+10.00	4" PLUG & BUTTRESS	564244.64	1380542.98
1+62.80	1/32 H.B.	564300.47	1380545.41
5+35.00	4" PLUG & BUTTRESS	564659.62	1380643.10

4" FORCE MAIN TABULATION CHART			
F.M. STA.	APPURTENANCE	NORTHING	EASTING
TEMPORARY PUMPING STATION TO EX. MH 15			
0+00	℄ TEMP. PUMPING STATION	563426.92	1380406.09
1+21.47	1/8 H.B.	563306.78	1380423.97
3+38.79	P.C. (CRMP RADIUS = 380')	563333.25	1380293.14
4+73.63	P.T. (CRMP RADIUS = 380')	563042.07	1380194.75
4+75.14	1/8 H.B.	563041.26	1380193.48
5+23.36	CONNECT TO EX. MH 15	562994.49	1380181.75

5HC INVERT @ PROPERTY LINE CHART		
STATION	LOT	ELEVATION
MH 605 TO MH 610		
0+41 RT.	21 (DHC)	290.30
1+32 RT.	20 (TYPE 'B' DHC)	292.76
1+32 LT.	2 (TYPE 'B' DHC)	293.04
1+81 RT.	19 (DHC)	293.76
⊙ MH 610 RT.	18 (DROP CONN. @ MH)	295.24
MH 610 TO MH 615		
0+25 LT.	3 (DHC)	295.54
1+07 LT.	4 (TYPE 'B' DHC)	296.54
1+07 RT.	17 (TYPE 'B' DHC)	296.26
1+83 RT.	16 (DHC)	296.76
MH 615 TO MH 620		
0+28 LT.	5 (DHC)	296.94
0+89 RT.	15 (DHC)	294.88
MH 620 TO MH 630		
0+33 LT.	6	291.01
⊙ MH 630 RT.	14	291.40
MH 630 TO MH 635		
1+52 RT.	11 & 12 (TWIN 5HC)	292.84
1+62 RT.	9 & 10 (TWIN 5HC)	292.80
⊙ MH 635 CT.	8 (5HC @ MH)	292.59



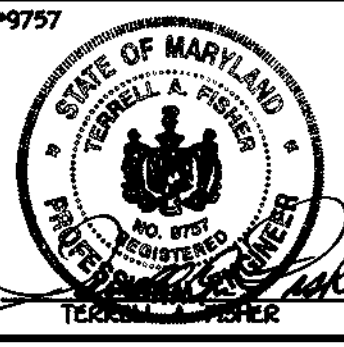
8" SEWER: COLLETT COURT AND MONTERY ROAD

8" SEWER: MONTERY ROAD

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
9-20-01  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
10/1/01  
DATE

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
1800 W. 2955



DESIGNED BY: P.M.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.M.K.  
DATE: SEPTEMBER, 2001  
REVISE PROJECT TITLE NAME

SEWER MAINS  
PROFILES

600' SCALE MAP NO. 16 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30691  
FILE NAME: 30691WATSEMPPLANVIEW

ROCKBURN MANOR  
LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 5 OF 7

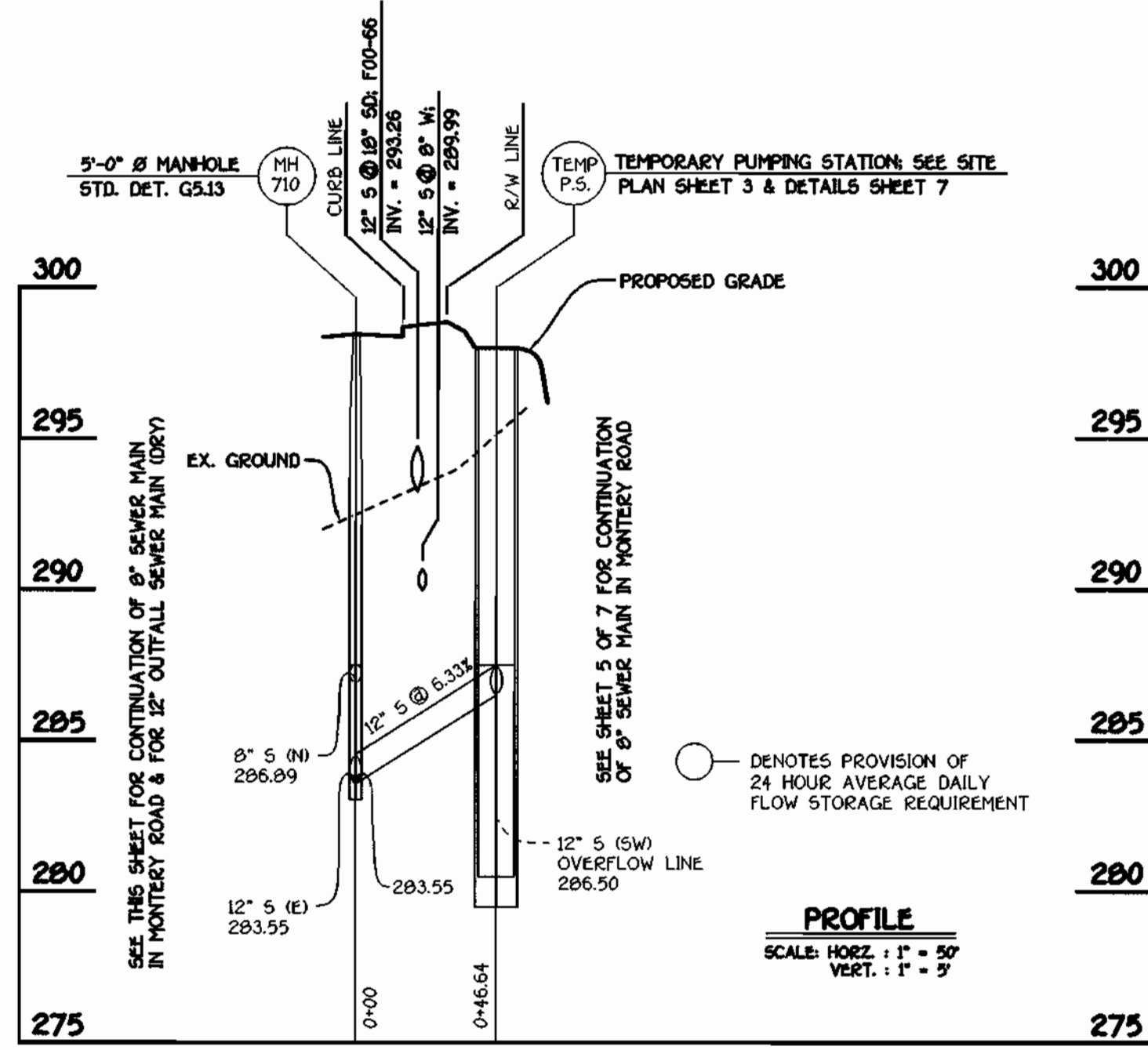
CONTRACT NO. 14-3923-D  
ROCKBURN MANOR  
LOTS 1 THRU 22  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND



**SEQUENCE OF CONSTRUCTION**

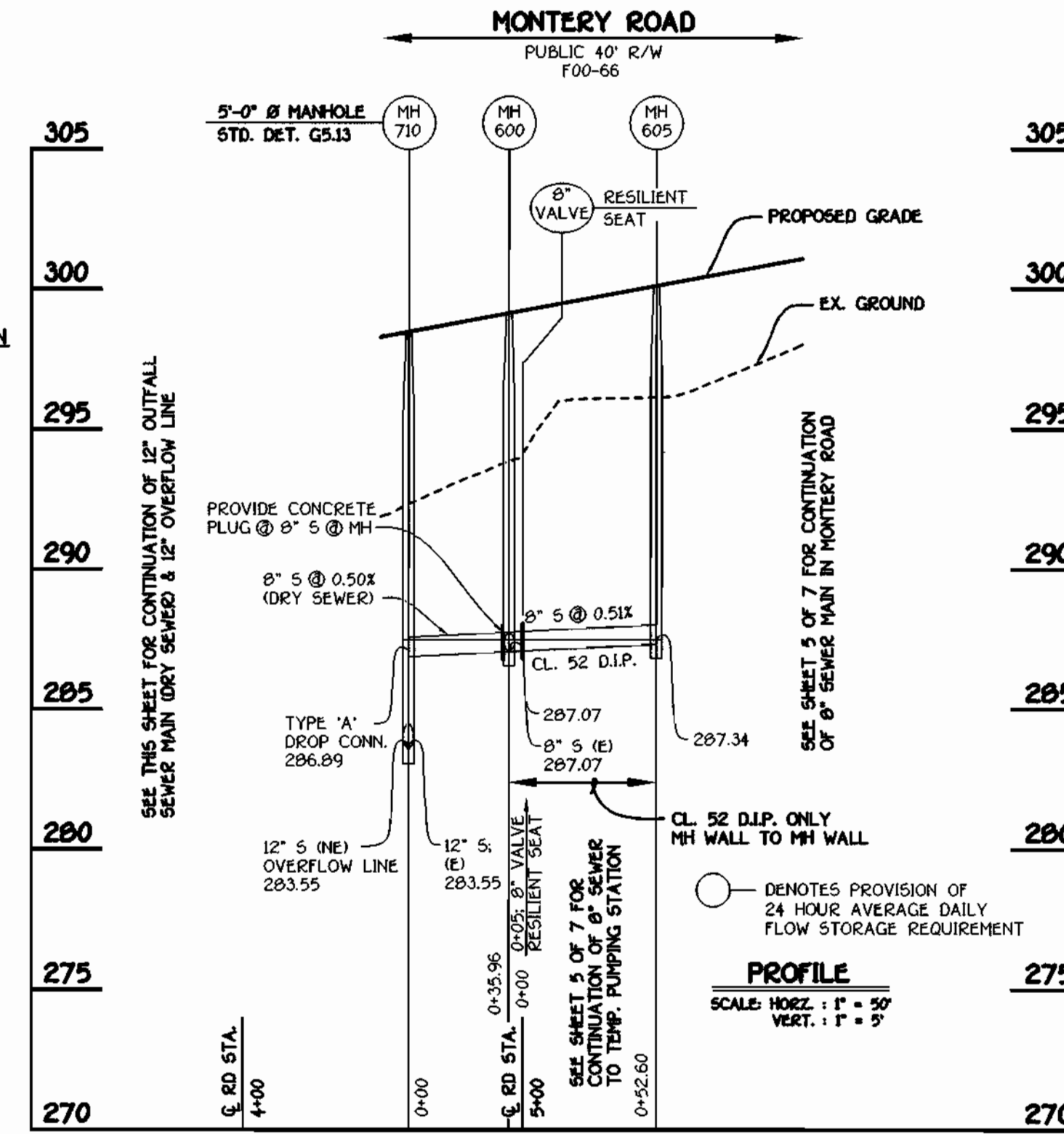
**FOR ABANDONMENT OF TEMPORARY WASTEWATER PUMPING STATION**

1. CLOSE 8" VALVE NORTH OF MH \*600.
2. REMOVE CONCRETE PLUG FROM END OF DRY SEWER (TOWARDS MH \*700) @ MH \*600.
3. REFORM CHANNEL @ MH \*600 TO DIRECT WASTEWATER FLOW TOWARDS MH \*710.
4. PROVIDE CONCRETE PLUG @ MH \*710 TO ISOLATE THE 12" OVERFLOW LINE FROM THE TEMPORARY WASTEWATER PUMPING STATION. REFORM CHANNEL @ MH \*710.
5. PROVIDE CONCRETE PLUG AT 8" S (TOWARDS TEMPORARY WASTEWATER PUMPING STATION) @ MH \*600.
6. CLOSE 8" GATE VALVE EAST OF MH \* 600.
7. OPEN 8" GATE VALVE NORTH OF MH \* 600.
8. REMOVE TEMPORARY WASTEWATER PUMPING STATION & ASSOCIATED APPURTENANCES IN THEIR ENTIRETY, INCLUDING SMITH & LOVELESS SUCTION LIFT PACKAGED PUMPING STATION & 12"-0" WET WELL.
9. BACKFILL VOID.
10. REMOVE SWING GATE.
11. EXCAVATE & REMOVE GRAVEL FROM PARKING LOT.
12. SEED AND MULCH ALL DISTURBED AREAS.



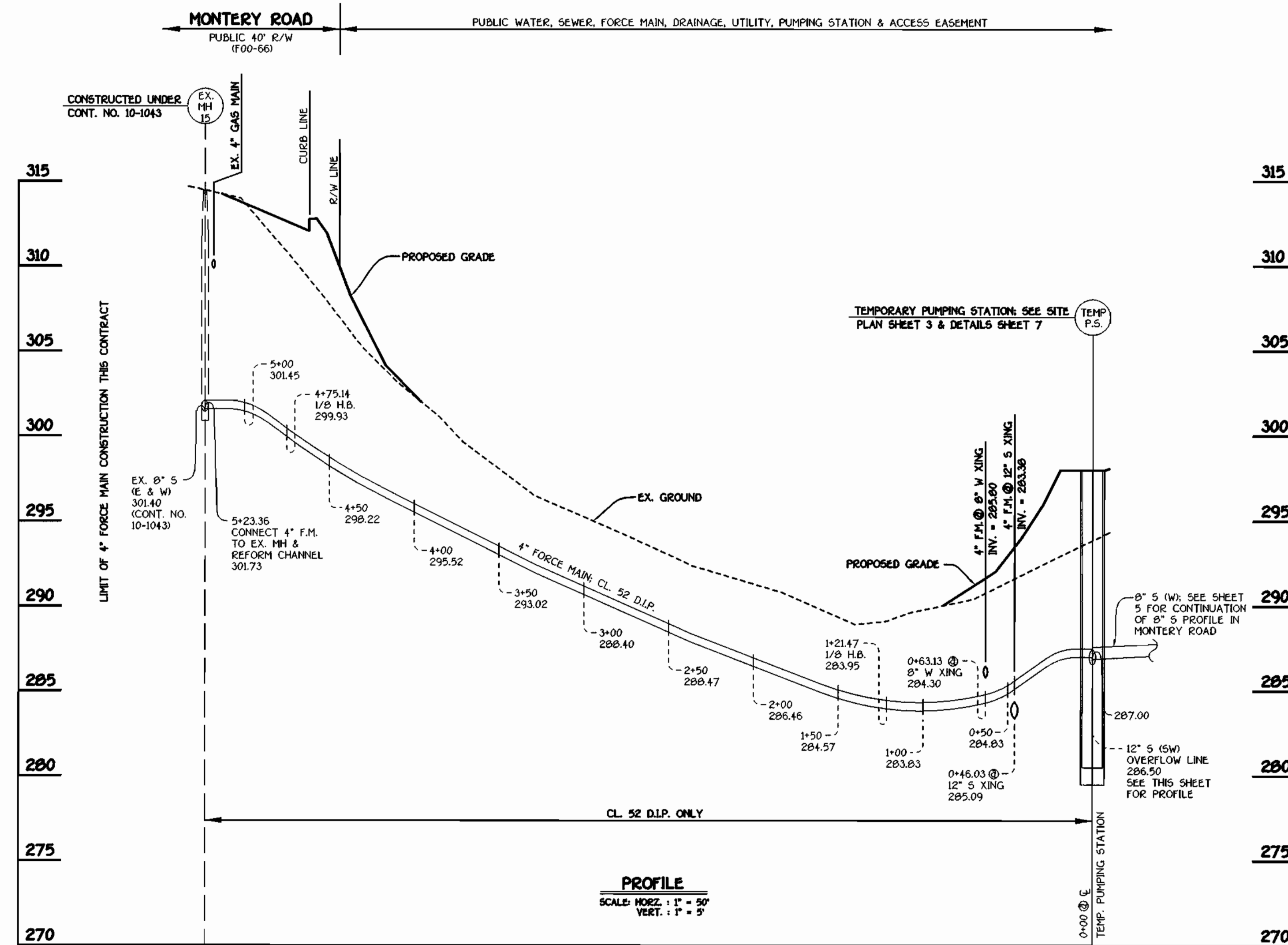
**12" 5: OVERFLOW LINE**

NOTE: SEE SHEET 7 OF 7 FOR SEQUENCE OF CONSTRUCTION FOR ABANDONMENT OF TEMPORARY WASTEWATER PUMPING STATION

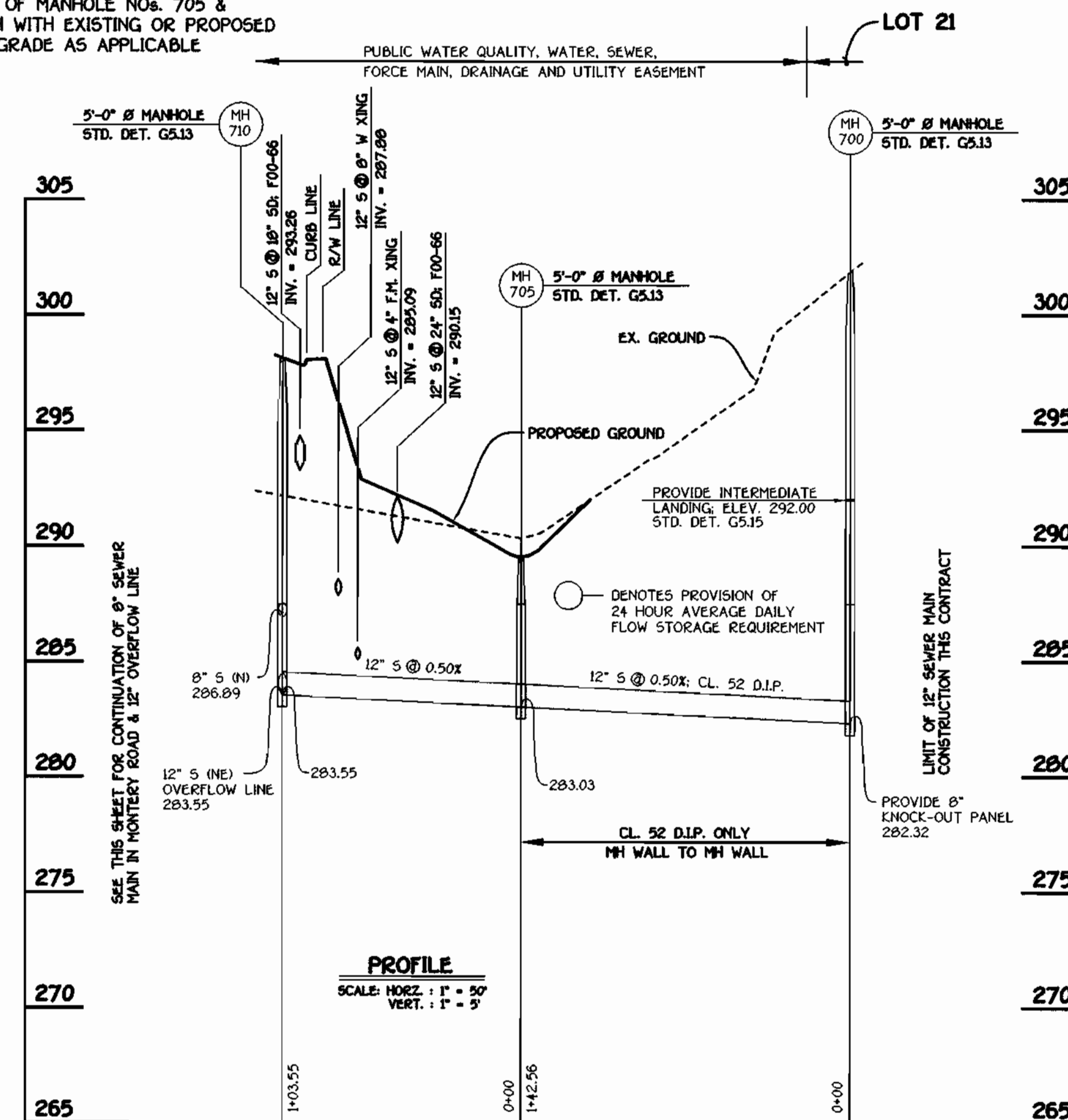


**8" OUTFALL SEWER MAIN**

NOTE: SET RIMS OF MANHOLE NOS. 705 & 710 FLUSH WITH EXISTING OR PROPOSED FINISHED GRADE AS APPLICABLE



**4" FORCE MAIN**



**12" OUTFALL SEWER MAIN (DRY SEWER)**

CONTRACT NO. 14-3923-D  
**ROCKBURN MANOR**  
LOTS 1 THRU 22  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PKWY  
GALLOP CITY, MARYLAND 21042  
(410) 461-2255



DESIGNED BY:	P.M.K.
DRAWN BY:	M.D.T.
CHECKED BY:	P.M.K.
DATE:	SEPTEMBER, 2001
BY:	B.P. REVISE PROJECT TITLE NAME
NO.:	
REVISION:	
DATE:	12-01-01

**FORCE MAIN & SEWER MAIN PROFILES**

600' SCALE MAP NO. 37 BLOCK NO. 5  
F.C.C. WORK ORDER NO. 30632  
FILE NAME: 30632 F.M. AND SEWER PROFILES SHTS

**ROCKBURN MANOR**  
LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 6 OF 7

9-20-01  
DATE

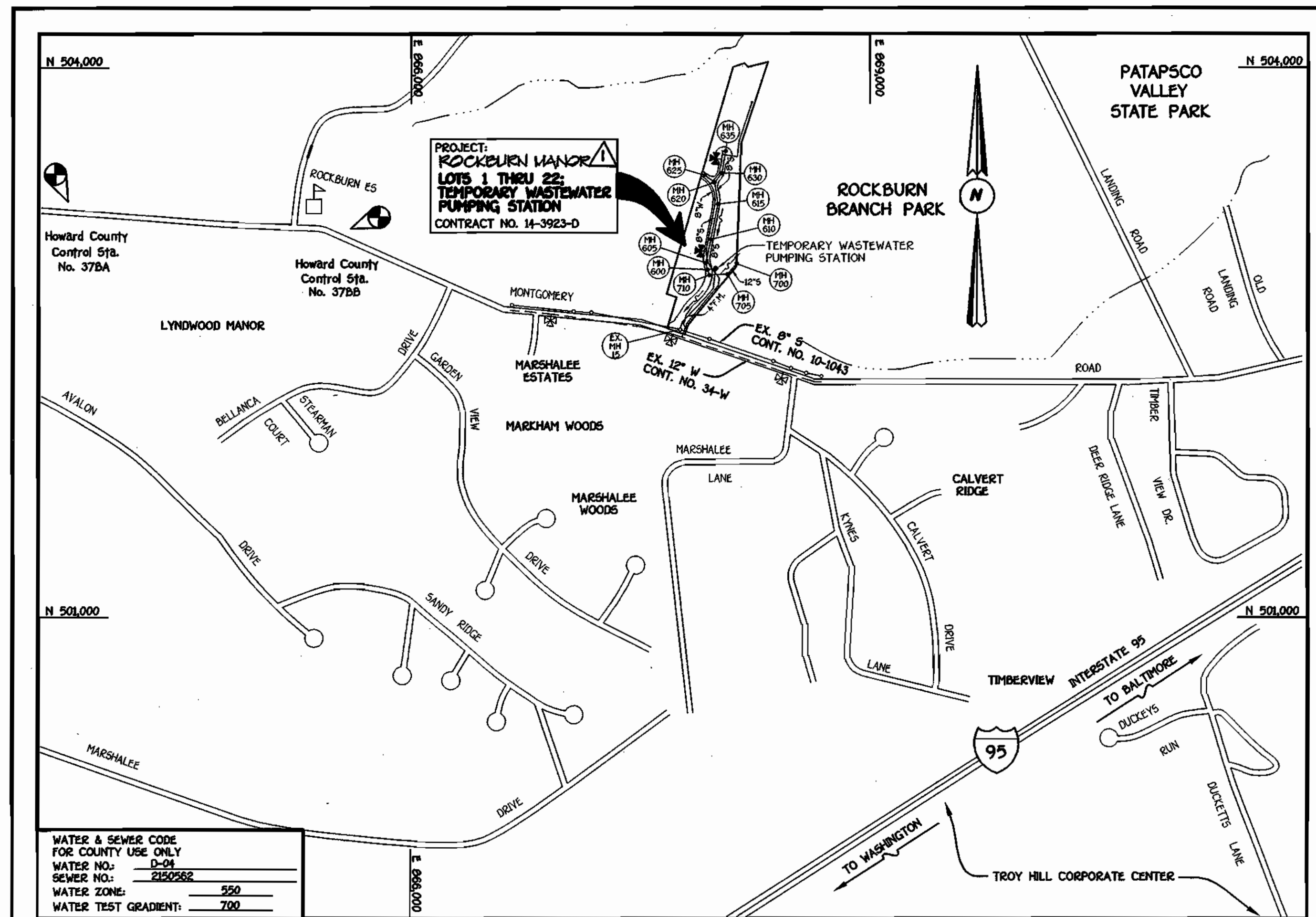
10/1/01  
DATE





QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
6" WATER	1,502.00 LF.	1,500.41 LF.	DIP	GRIFFIN
6" WATER	55.00 LF.	50.80 LF.	DIP	GRIFFIN
4" WATER	535.00 LF.	535.0 LF.	DIP	GRIFFIN
FIRE HYDRANTS	2 EACH	2.0 EA		BELAIR RD SHOP
1-1/2" WATER	59 LF.	NOT USED		
1" WATER	319 LF.	440.0 LF.	COPPER	BELAIR RD SHOP
12" SEWER	15019 LF.	142.96 LF.	P.V.C.	BELAIR RD SHOP
12" SEWER D.I.P.	42.56 LF.	142.96 LF.	DIP	GRIFFIN
6" SEWER	392.66 LF.	266.0 LF.	P.V.C.	BELAIR RD SF
6" SEWER D.I.P.	723.81 LF.	626.0 LF.	DIP	GRIFFIN
6" SEWER	102.00 LF.	111.0	P.V.C.	BELAIR RD SF
4" SEWER	265.00 LF.	281.01/7000*	DIP/PVC	GRIFFIN/BRS
SEWER MANHOLES	11 EACH	11 EA	PRE-CAST	ATLANTIC
TEMPORARY PUMPING STATION	1 EACH	1.0 EA.	PRECAST	SMITH & LOVELESS INC.
4" FORCE MAIN	523.36 LF.	524 LF.	DIP	GRIFFIN
12" X 8" TAPPING SLEEVE & VALVE	1 EACH	1.0 EA		BELAIR RD SUP.
6" X 6" TEE	1 EACH	1.0 EA		BELAIR RD SUP.
6" X 6" TEE	2 EACH	2.0 EA		" " "
6" X 4" TEE	1 EACH	1.0 EA		" " "
6" VALVE	2 EACH	2.0 EA		" " "
6" PLUG & BUTTRESS	2 EACH	2.0 EA		BELAIR RD SUP.
6"-1/8" H.B.	1 EACH	1.0 EA		" " "
6"-1/8" H.B.	6 EACH	6.0 EA		" " "
6"-1/32" H.B.	1 EACH	1.0 EA		" " "
6" VALVE	1 EACH	1.0 EA		" " "
4" X 4" TEE	1 EACH	1.0 EA		BELAIR RD SUP.
4" VALVE	1 EACH	1.0 EA		" " "
4"-1/8" H.B.	2 EACH	2.0 EA		" " "
4"-1/32" H.B.	1 EACH	1.0 EA		" " "
4" PLUG & BUTTRESS	2 EACH	2.0 EA		" " "

NAME OF UTILITY CONTRACTOR: C.C.S.  
SURVEY & DRAFTING DIVISION AS-BUILT DATE:



TYPE OF BUILDING: SINGLE FAMILY DETACHED	NUMBER OF LOTS & PARCELS: 22 (20 BUILDABLE)
NO. OF WATER HOUSE CONNECTIONS: 19	NO. OF SEWER HOUSE CONNECTIONS: 19
DRAINAGE AREA: PATAPSCO	TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT PLANT, CITY OF BALTIMORE

VICINITY MAP

SCALE: 1"=600'

GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. 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.
- ALL VERTICAL CONTROLS ARE BASED ON NAVD 29.
- ALL PIPE ELEVATIONS ARE PIPE ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (99) AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL 'B' 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO THE EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - AT&T . . . . . 1-800-525-2000
  - BGE (CONTRACTOR SERVICES) . . . . . 410-950-4620
  - BGE (UNDERGROUND DAMAGE CONTROL) . . . . . 410-787-9096
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS . . . . . 410-313-1900
  - BELL ATLANTIC MARYLAND, INC. . . . . 1-800-623-9900
  - COLONIAL PIPELINE CO. . . . . 410-795-1990
  - MS&E UTILITY . . . . . 1-800-257-7777
  - STATE HIGHWAY ADMINISTRATION . . . . . 410-531-5533
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO 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 THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- T.B. DENOTES TEST BORING.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL G5.52.
- WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIFICATIONS.
- HOUSES WITH THE SYMBOL "C.M.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- ALL WATER MAINS SHALL BE D.I.P., CLASS 92 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (W11 AND W21). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER MAIN SYSTEM.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH THE AWWA SPECIFICATIONS-C-153. RESTRAINED AND BUTTRESSED FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, THOSE STATES WITHIN THE DISTRICT OF COLUMBIA, AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/UNDERGROUND OPERATIONS ARE BEGUN FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.14(d) OF THE HOWARD COUNTY CODE.

LOT #	FROM	TO	DISTANCE	REMARKS
2	MH-610	"	371	
2	I-2	"	66.1	
3	MH-610	"	81.4	
3	M-3	"	120.5	
4	MH-615	"	86.5	
4	MH-610	"	123.2	
5	MH-620	"	60.6	
5	MH-615	"	85.4	
6	MH-630	"	52.1	
6	F.H.	"	82.3	
8	MH-635	"	28.0	
8	F.H.	"	73.0	
9	M-6	"	180.3	
9	M-7	"	157.4	
10	M-6	"	84.2	
10	I-6	"	155.7	
11	M-6	"	24.8	
11	I-6	"	135.3	
12	M-6	"	27.1	
12	M-5	"	74.1	
14	MH-620	"	78.6	
14	F.H.	"	90.0	
15	MH-620	"	53.5	
15	MH-615	"	154.4	
16	MH-615	"	62.6	
16	MH-620	"	84.5	
17	MH-610	"	98.1	
17	M-3	"	95.3	
18	MH-610	"	71.4	
18	M-3	"	122.6	
19	MH-610	"	75.6	
19	I-2	"	14.2	
20	MH-610	"	29.8	
20	I-2	"	19.1	
21	MH-605	"	43.1	
21	M-1	"	28.8	

**DEVELOPER'S CERTIFICATION**  
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 OR THEIR AUTHORIZED AGENTS, AS ARE REQUIRED NECESSARY.

Paul W. Kriebel FOR: C.M. PARTNERSHIP  
SIGNATURE OF DEVELOPER  
09-18-01  
DATE

**ENGINEER'S CERTIFICATION**  
I HEREBY 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 SOIL CONSERVATION DISTRICT.

Paul W. Kriebel  
SIGNATURE OF ENGINEER  
09/18/01  
DATE

MDE PERMIT NO. : 98-NT-0670/199960792  
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 9/26/01  
U.S. NATURAL RESOURCES CONSERVATION SERVICE  
DATE

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

APPROVED: John Chelator 9/26/01  
HOWARD SOIL CONSERVATION DISTRICT  
DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON F100-66.

Paul W. Kriebel FOR: C.M. PARTNERSHIP  
SIGNATURE OF DEVELOPER  
09-18-01  
DATE

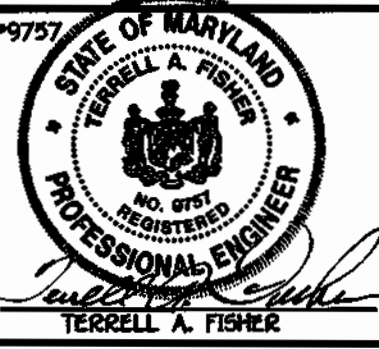
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Robert M. Beinger 9-20-01  
DATE  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

10/1/01  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

FISHER, COLLINS & CARTEE, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CONFIDENTIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL FREE COLLEGE CITY, MARYLAND 21042  
(410) 461-2955



DESIGNED BY: P.W.K.	
DRAWN BY: M.D.T.	
CHECKED BY: P.W.K.	KCI 2 AS-BUILT DATA
DATE: SEPTEMBER, 2001	10/25/01
BY NO.	B.P. REVISE PROJECT TITLE NAME
REVISION	12-03-01

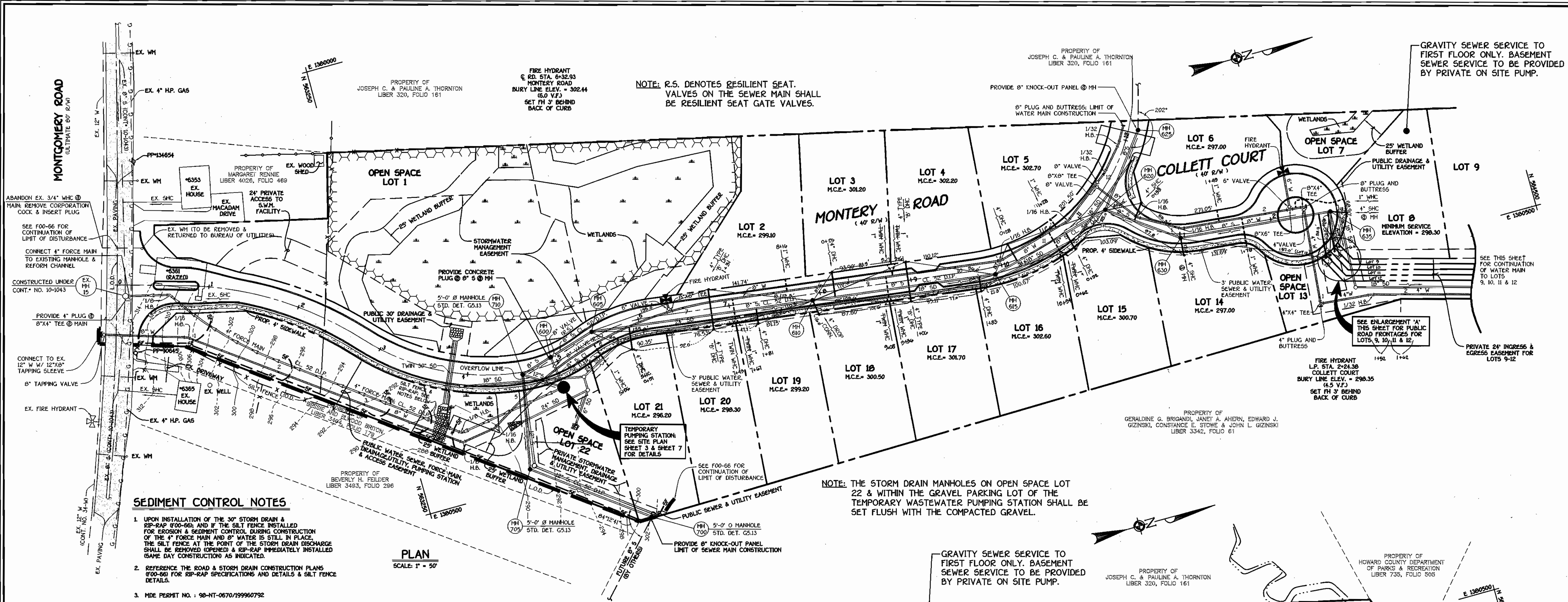
WATER AND SEWER MAINS TEMPORARY WW PUMP STATION TITLE SHEET	
600' SCALE MAP NO. 37	BLOCK NO. 5
F.C.C. WORK ORDER NO. 30632	
FILE NAME: 30632 TITLE SHEET SH1	

ROCKBURN MANOR  
LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 of 7

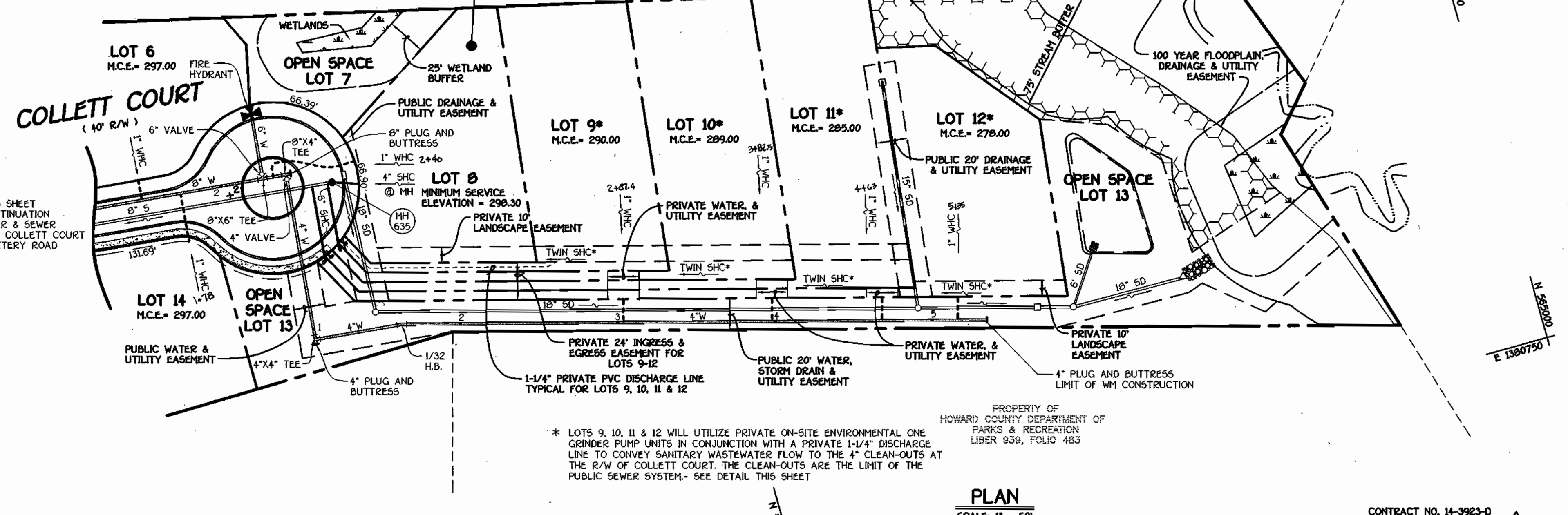
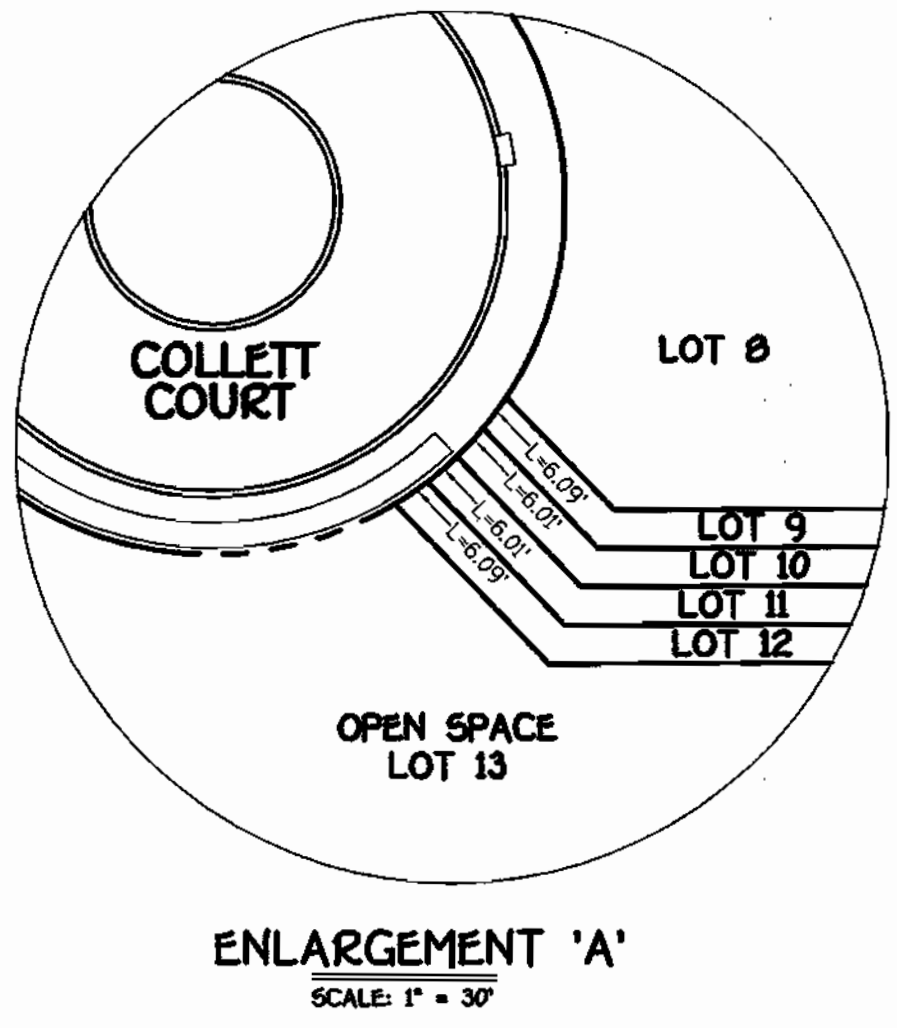
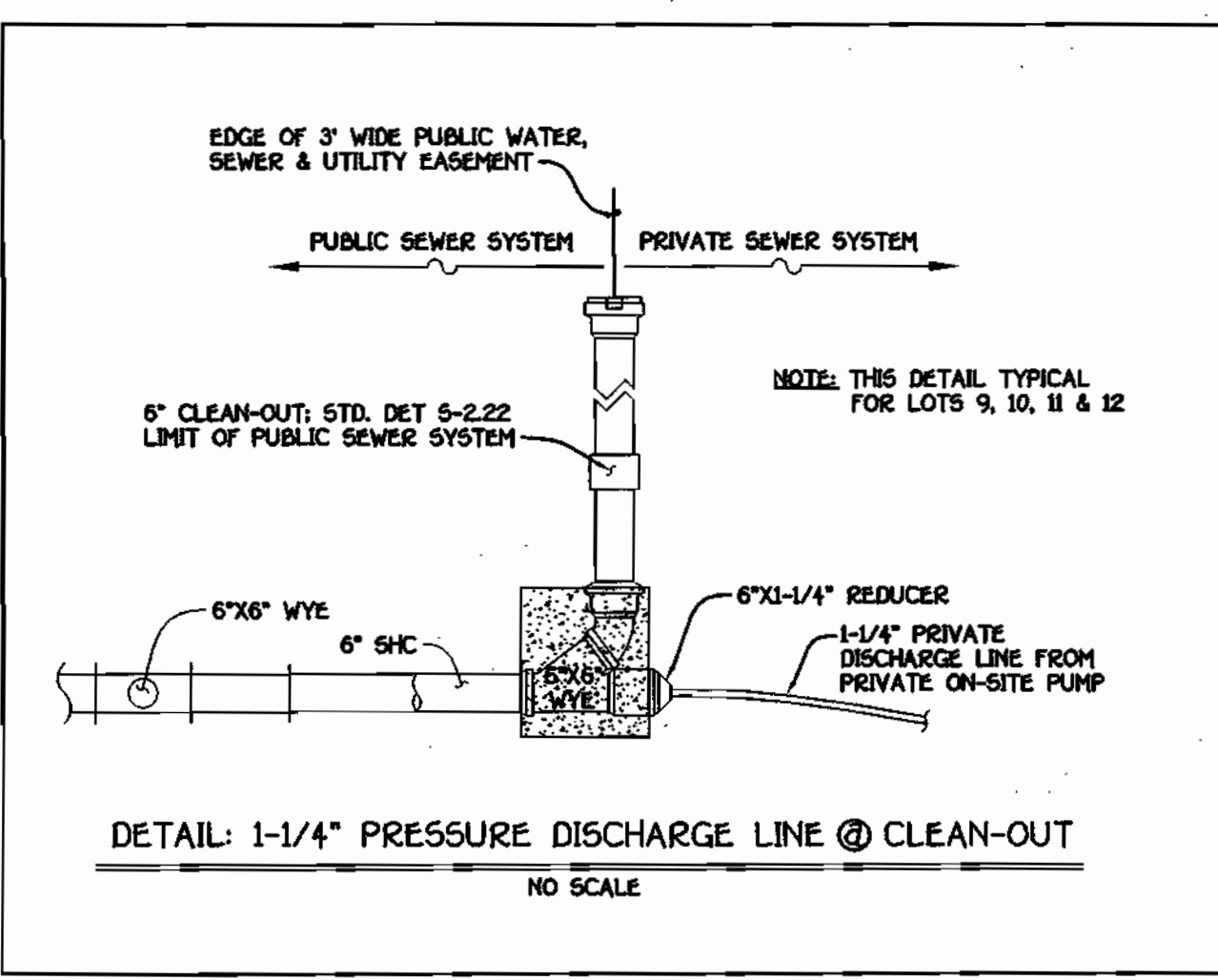
CONTRACT NO. 14-3923-D  
ROCKBURN MANOR  
LOTS 1 THRU 22  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND





- SEDIMENT CONTROL NOTES**
- UPON INSTALLATION OF THE 30" STORM DRAIN & RIP-RAP (F00-56) AND IF THE SILT FENCE INSTALLED FOR EROSION & SEDIMENT CONTROL DURING CONSTRUCTION OF THE 4" FORCE MAIN AND 6" WATER IS STILL IN PLACE, THE SILT FENCE AT THE POINT OF THE STORM DRAIN DISCHARGE SHALL BE REMOVED (OPENED) & RIP-RAP IMMEDIATELY INSTALLED (SAME DAY CONSTRUCTION) AS INDICATED.
  - REFERENCE THE ROAD & STORM DRAIN CONSTRUCTION PLANS (F00-56) FOR RIP-RAP SPECIFICATIONS AND DETAILS & SILT FENCE DETAILS.
  - MDE PERMIT NO. : 98-NT-0670/199960792

SEE SHEET 5 FOR WATER MAIN TABULATION CHART  
SEE SHEET 5 FOR MANHOLE TABULATION CHART  
SEE SHEET 5 FOR SHC @ PROPERTY LINE CHART



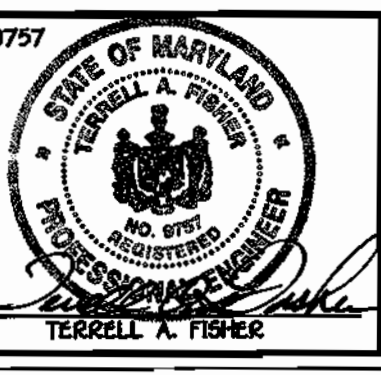
**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND

*Robert M. Beisinger*  
9-20-01  
DATE

**DEPARTMENT OF PLANNING AND ZONING**  
HOWARD COUNTY, MARYLAND

*Michael J. ...*  
10/1/01  
DATE

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SERVICE OFFICE PARK • 10222 BALTIMORE NATIONAL FREE  
ELLCOTT CITY, MARYLAND 21042  
4100 401 - 2955



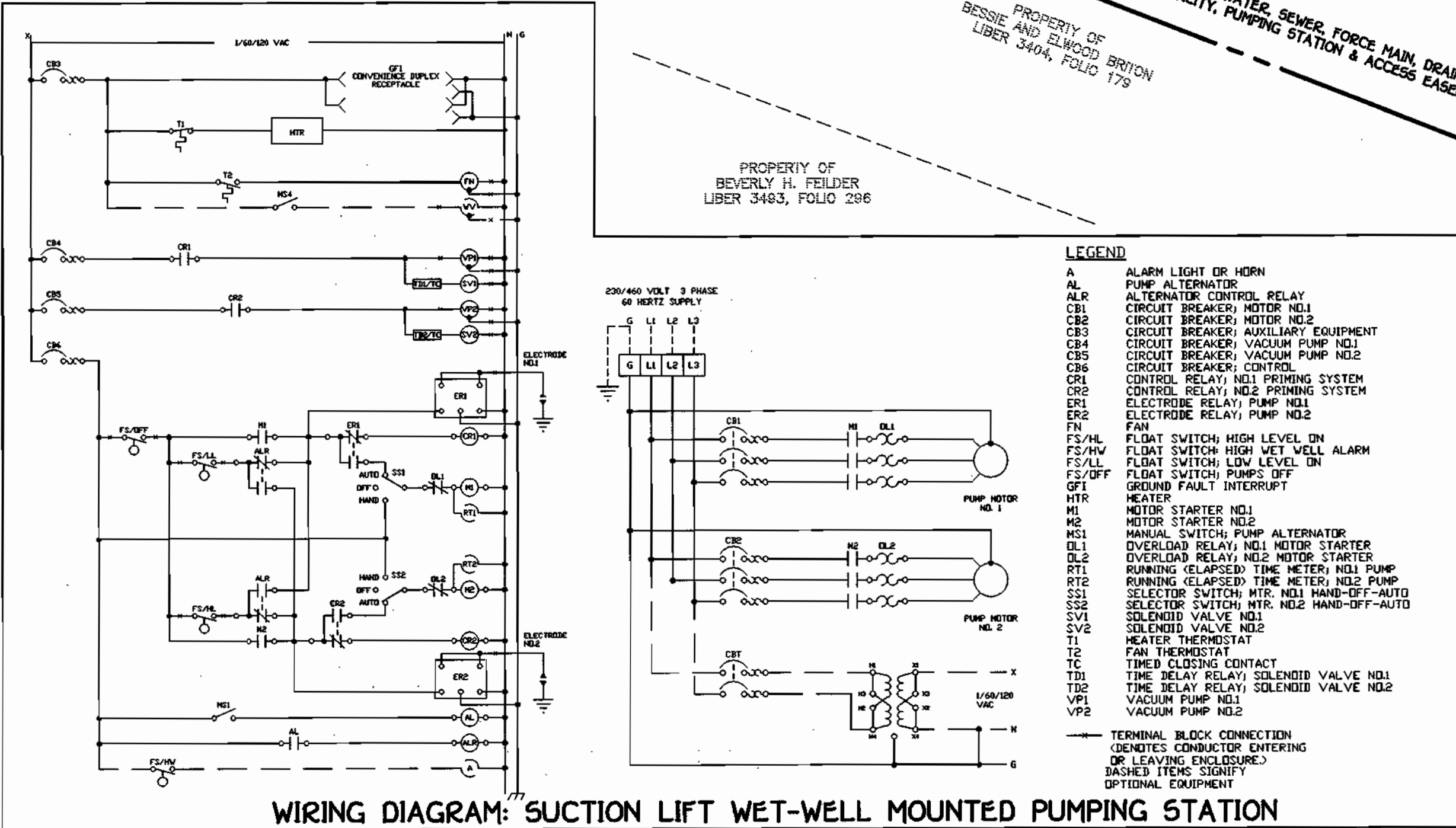
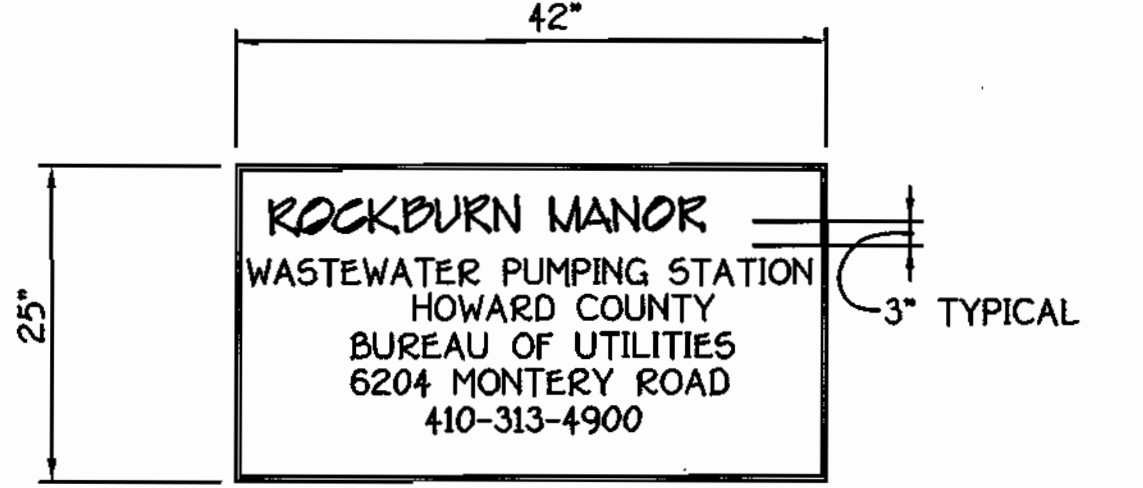
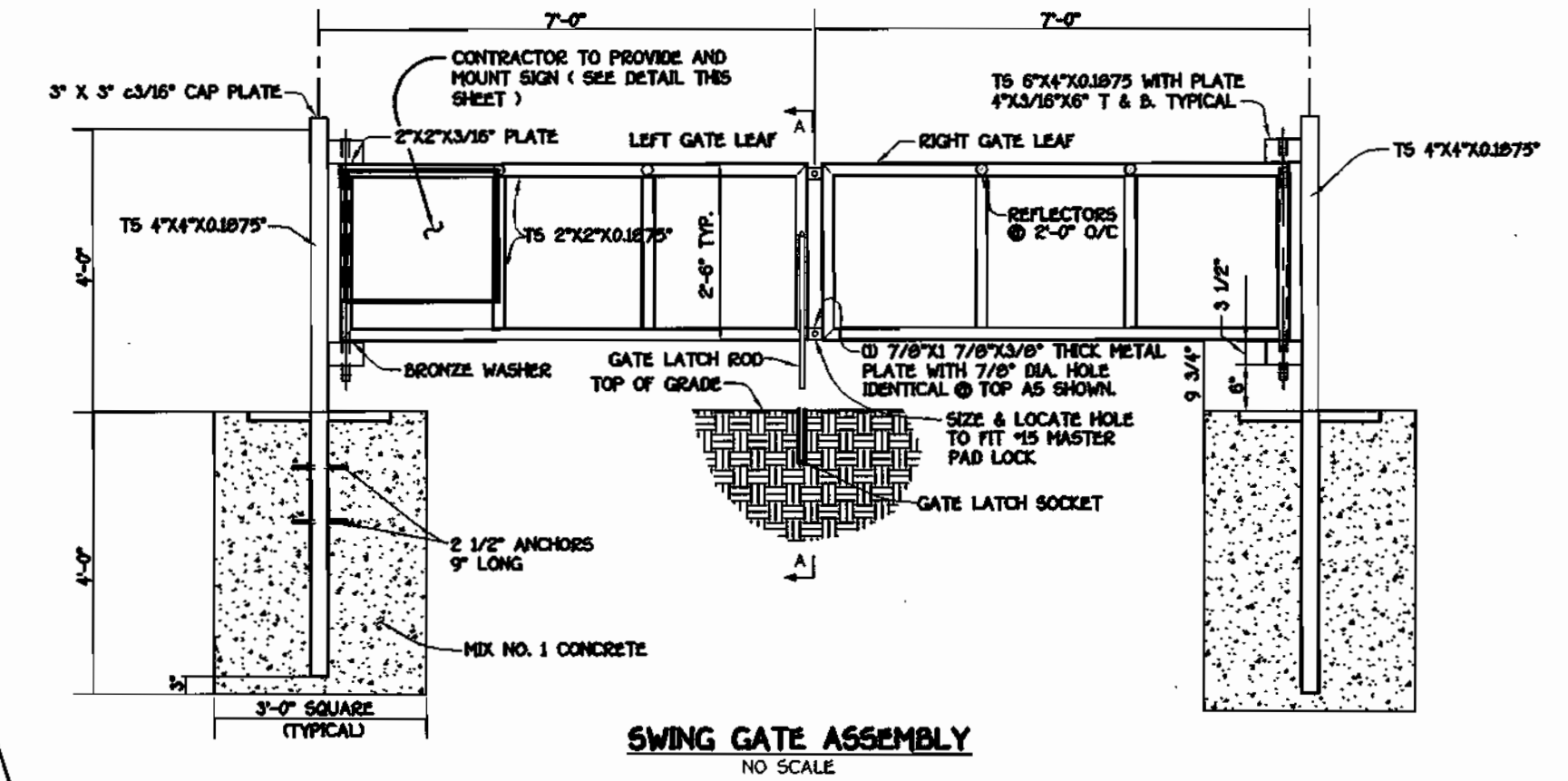
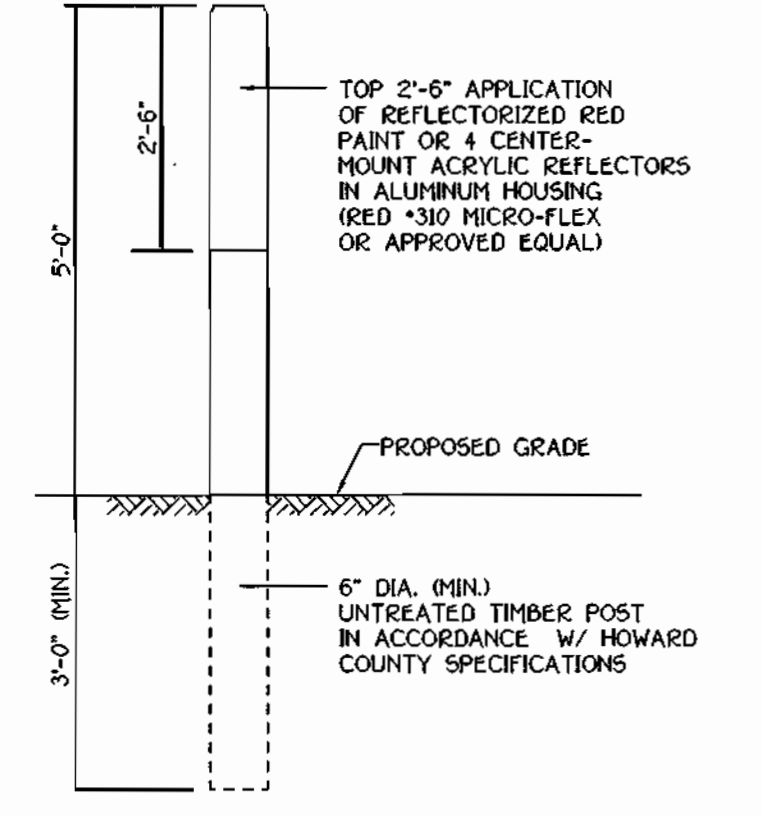
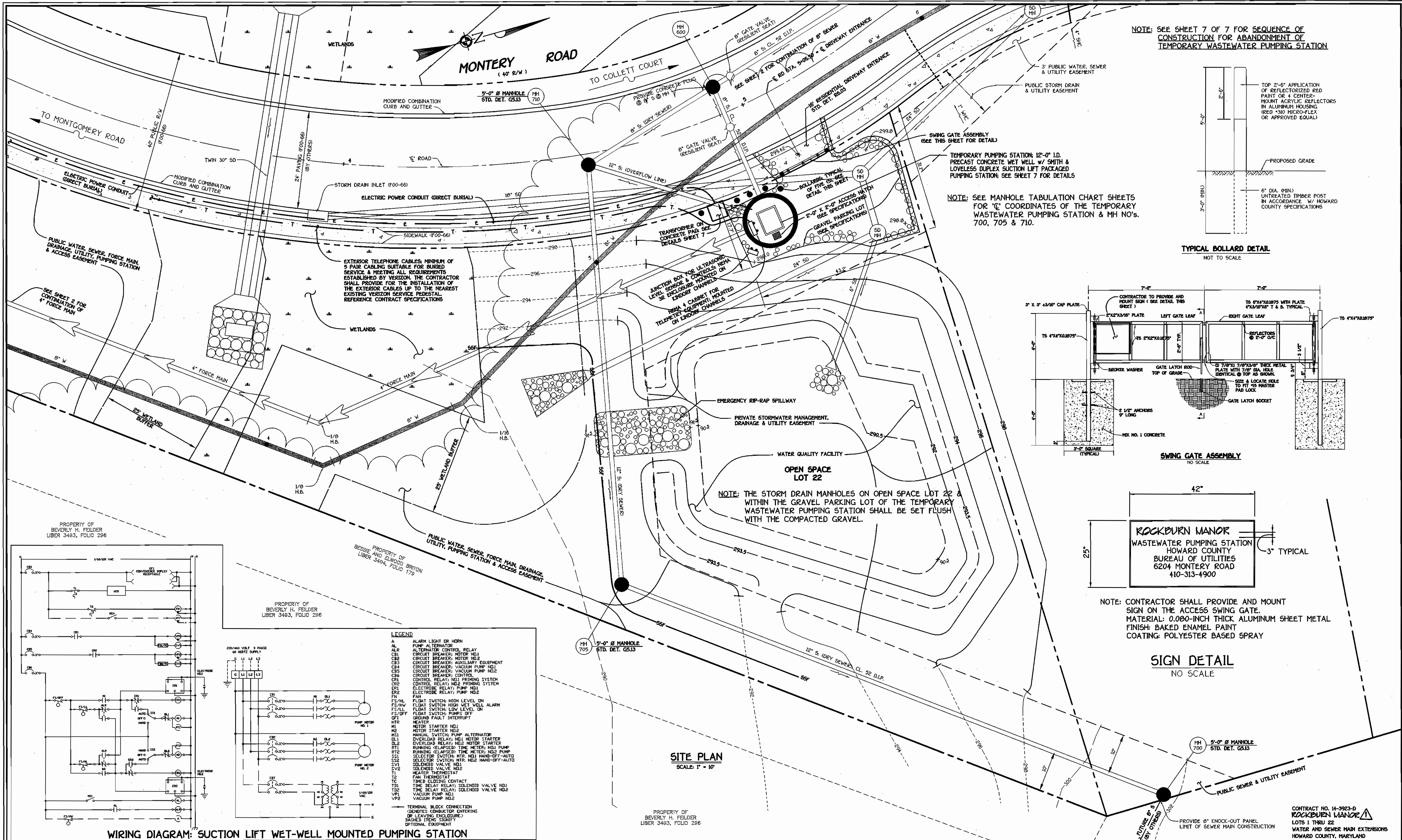
DESIGNED BY:	P.W.K.
DRAWN BY:	M.D.T.
CHECKED BY:	K.C.I. 2. ABBUJIT DAT
DATE:	12-03-01
REVISION:	REVISE PROJECT TITLE NAME

<b>WATER AND SEWER MAINS PLAN VIEW</b>	
800' SCALE MAP NO. 37	BLOCK NO. 5
F.C.C. WORK ORDER NO. 30632	
FILE NAME:	30632 W & S PLAN SHZ

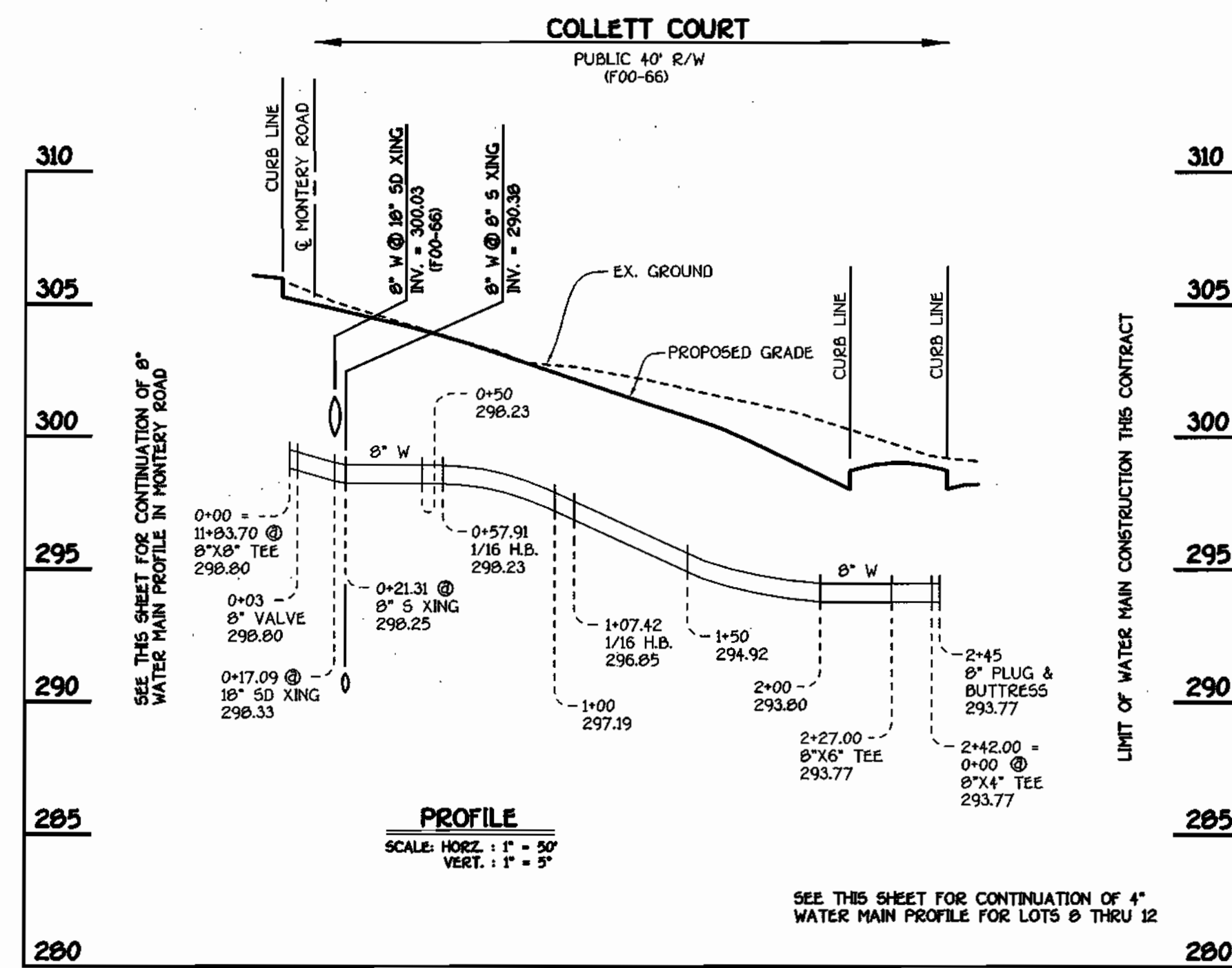
**ROCKBURN MANOR**  
LOTS 1 THRU 22  
CONTRACT NO. 14-3923-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 7

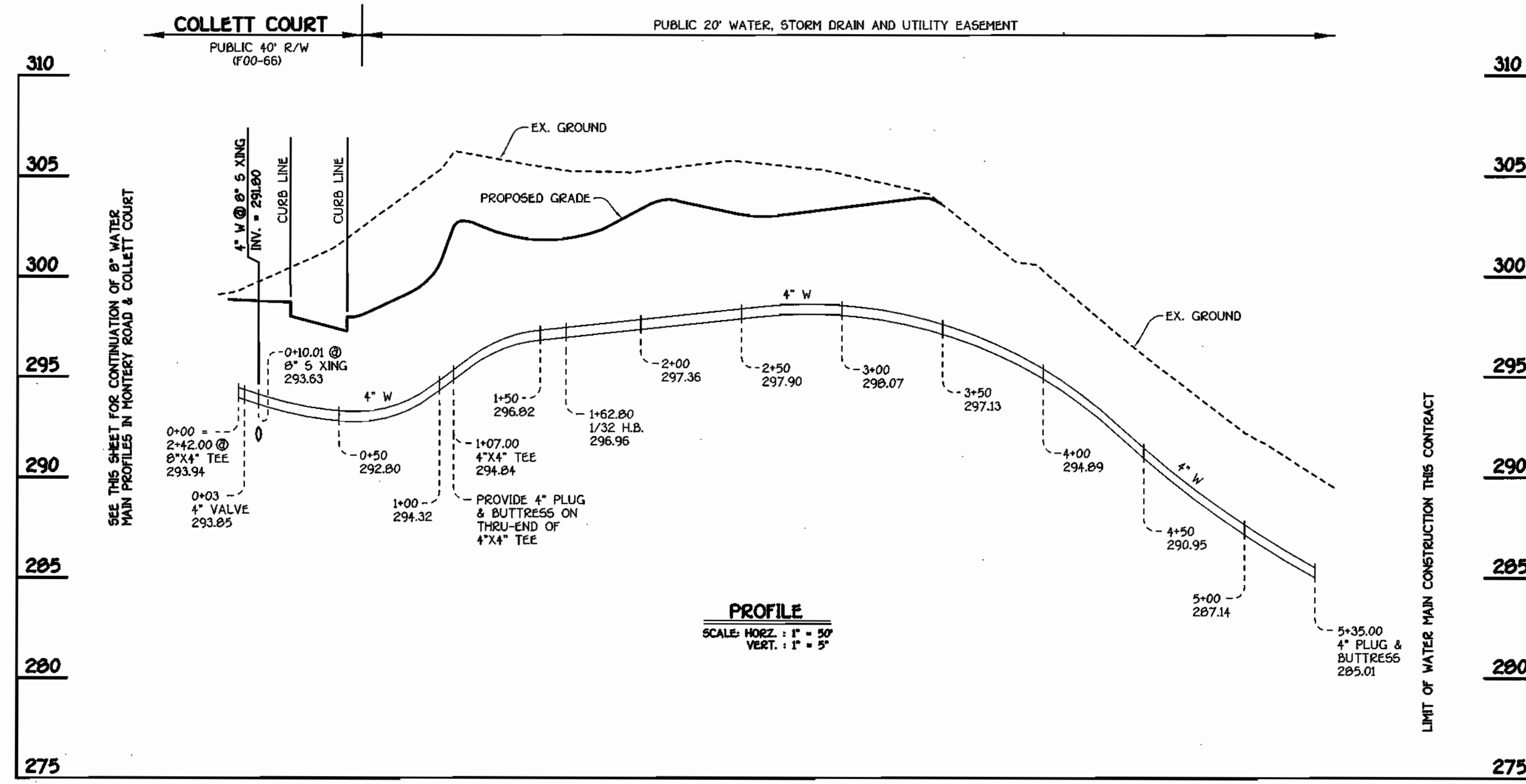




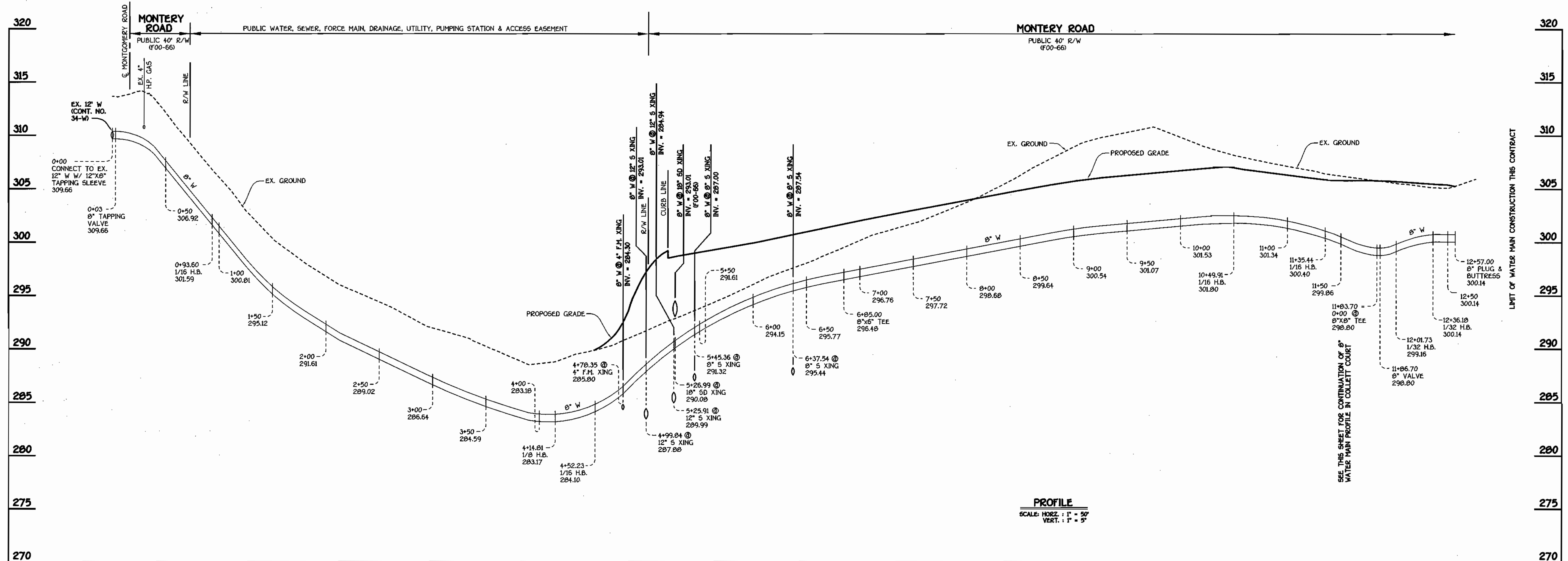




**COLLETT COURT: 8" WATER MAIN**



**LOTS 8 THRU 12: 4" WATER MAIN**



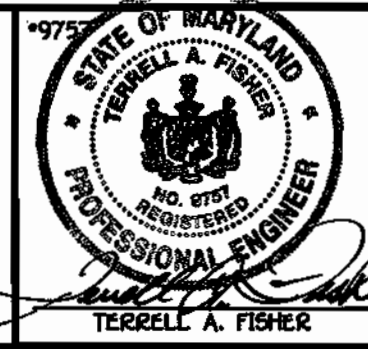
**MONTEREY ROAD: 8" WATER MAIN**

CONTRACT NO. 14-3923-D  
**ROCKBURN MANOR**  
 LOTS 1 THRU 22  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DATE: 9-20-01

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
 DATE: 10/1/01

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MARYLAND 21114  
 (410) 461-2995



DESIGNED BY: P.W.K.  
 DRAWN BY: H.D.T.  
 CHECKED BY: P.W.K.  
 DATE: SEPTEMBER, 2001

**WATER MAINS PROFILES**  
 600' SCALE MAP NO. 37 BLOCK NO. 5  
 F.C.C. WORK ORDER NO. 30632  
 FILE NAME: 30632 WATER MAIN PROFILES SHTS

**ROCKBURN MANOR**  
 LOTS 1 THRU 22  
 CONTRACT NO. 14-3923-D  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 4 OF 7

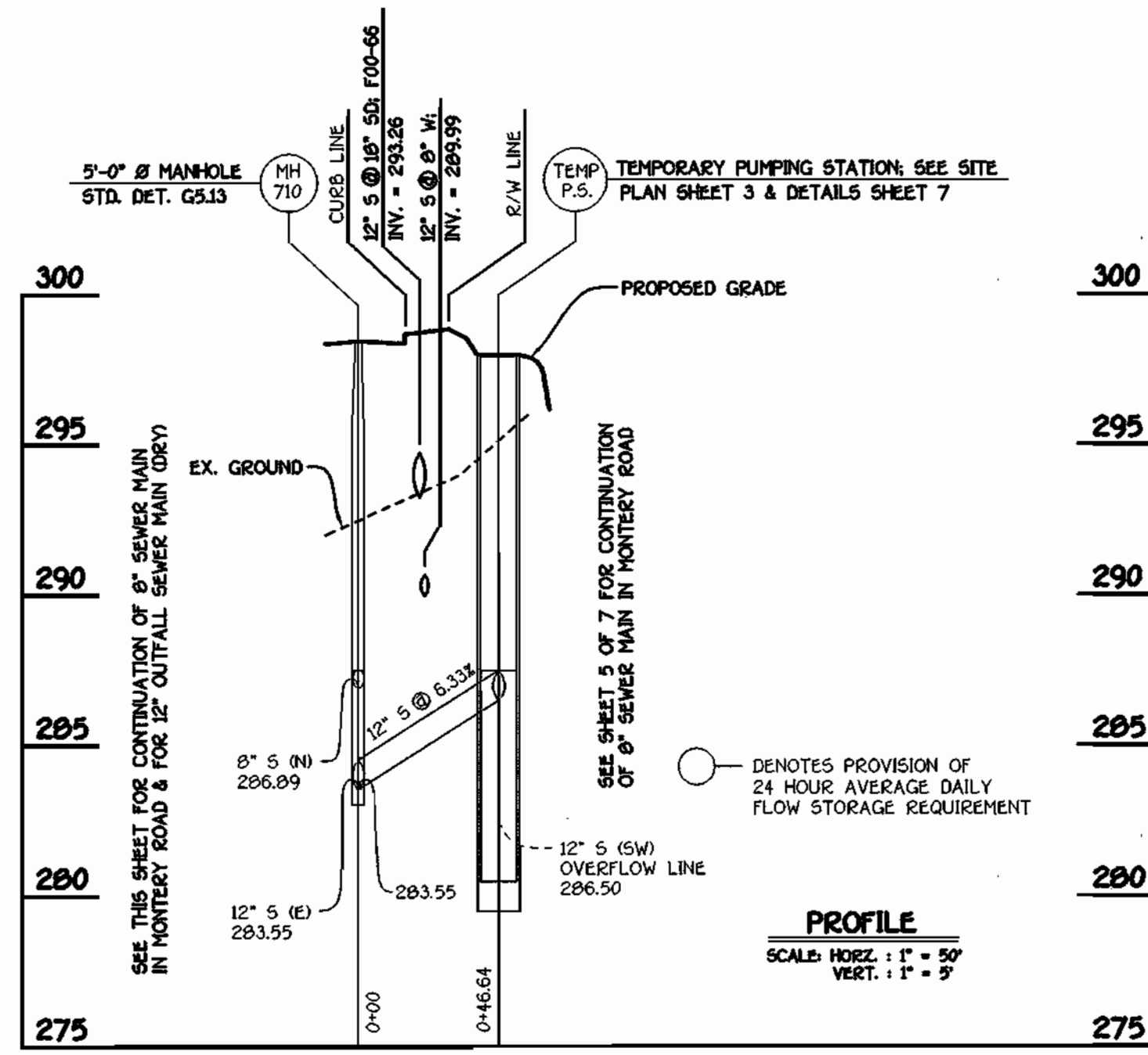




**SEQUENCE OF CONSTRUCTION**

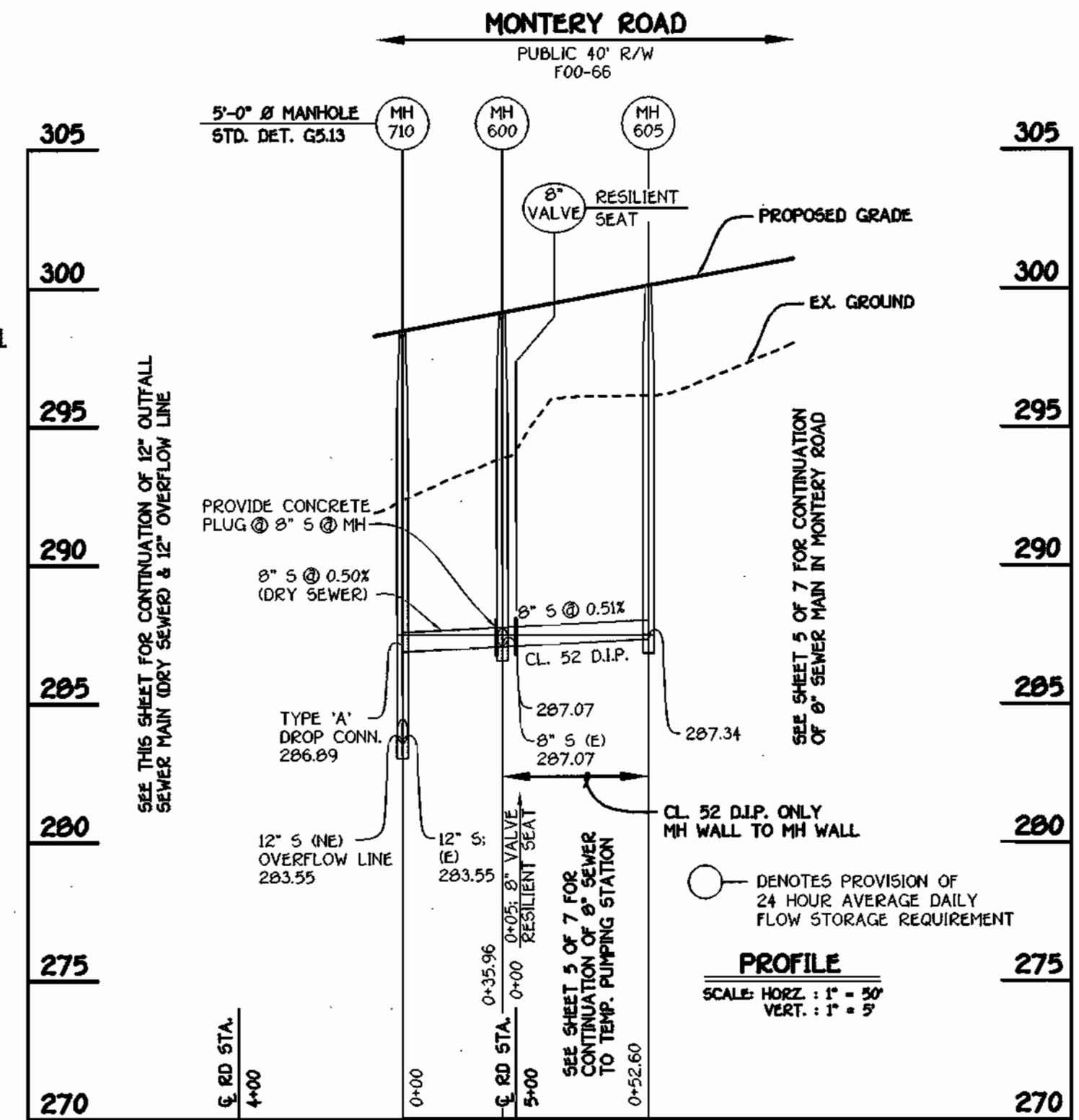
**FOR ABANDONMENT OF TEMPORARY WASTEWATER PUMPING STATION**

1. CLOSE 8" VALVE NORTH OF MH #600.
2. REMOVE CONCRETE PLUG FROM END OF DRY SEWER (TOWARDS MH #700) @ MH #600.
3. REFORM CHANNEL @ MH #600 TO DIRECT WASTEWATER FLOW TOWARDS MH #710.
4. PROVIDE CONCRETE PLUG @ MH #710 TO ISOLATE THE 12" OVERFLOW LINE FROM THE TEMPORARY WASTEWATER PUMPING STATION. REFORM CHANNEL @ MH #710.
5. PROVIDE CONCRETE PLUG AT 8" S TOWARDS TEMPORARY WASTEWATER PUMPING STATION @ MH #600.
6. CLOSE 8" GATE VALVE EAST OF MH # 600.
7. OPEN 8" GATE VALVE NORTH OF MH # 600
8. REMOVE TEMPORARY WASTEWATER PUMPING STATION & ASSOCIATED APPURTENANCES IN THEIR ENTIRETY, INCLUDING SMITH & LOVELESS SUCTION LIFT PACKAGED PUMPING STATION & 12'-0" WET WELL.
9. BACKFILL VOID.
10. REMOVE SWING GATE.
11. EXCAVATE & REMOVE GRAVEL FROM PARKING LOT.
12. SEED AND MULCH ALL DISTURBED AREAS.

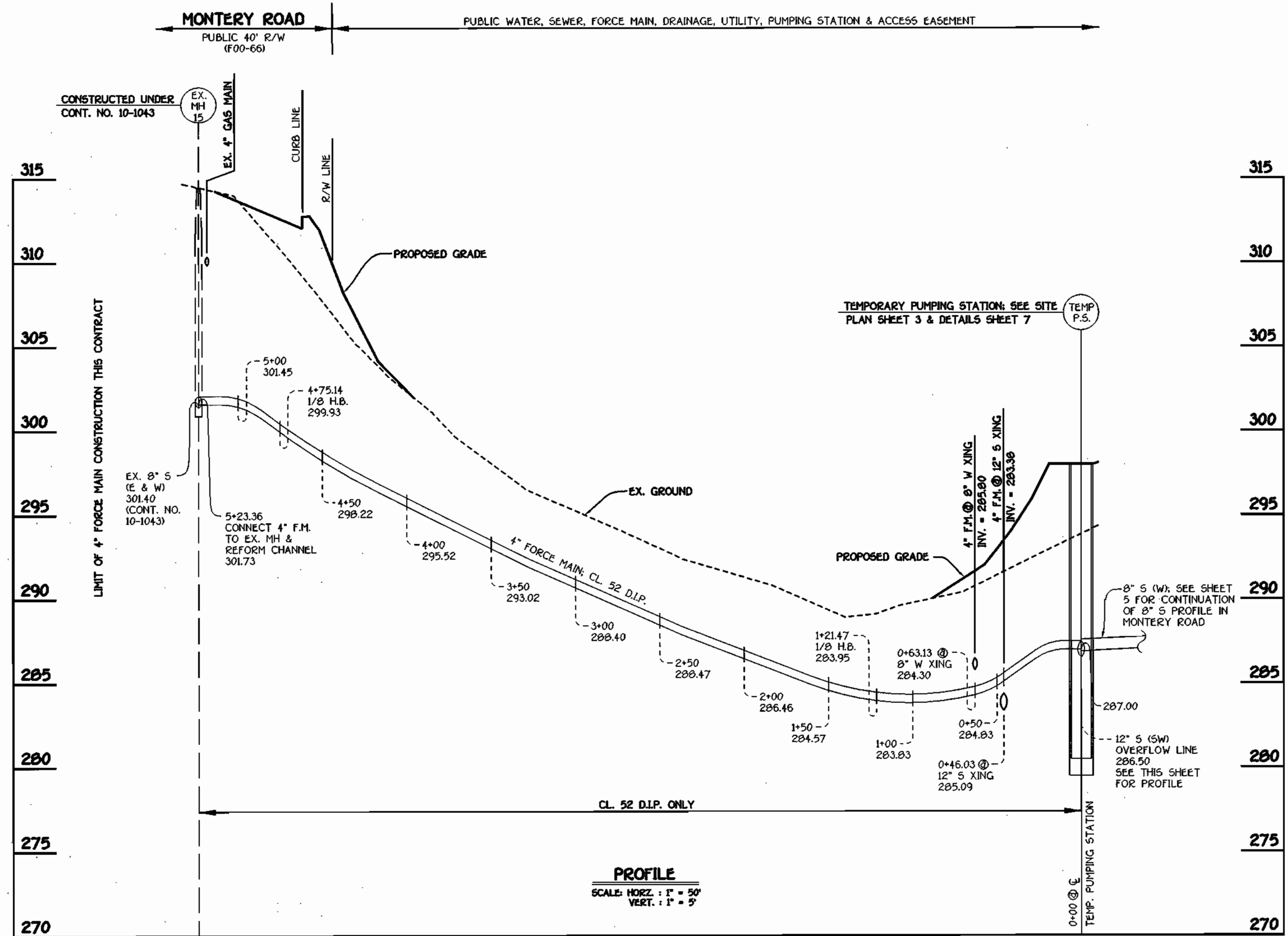


**12" S: OVERFLOW LINE**

NOTE: SEE SHEET 7 OF 7 FOR SEQUENCE OF CONSTRUCTION FOR ABANDONMENT OF TEMPORARY WASTEWATER PUMPING STATION

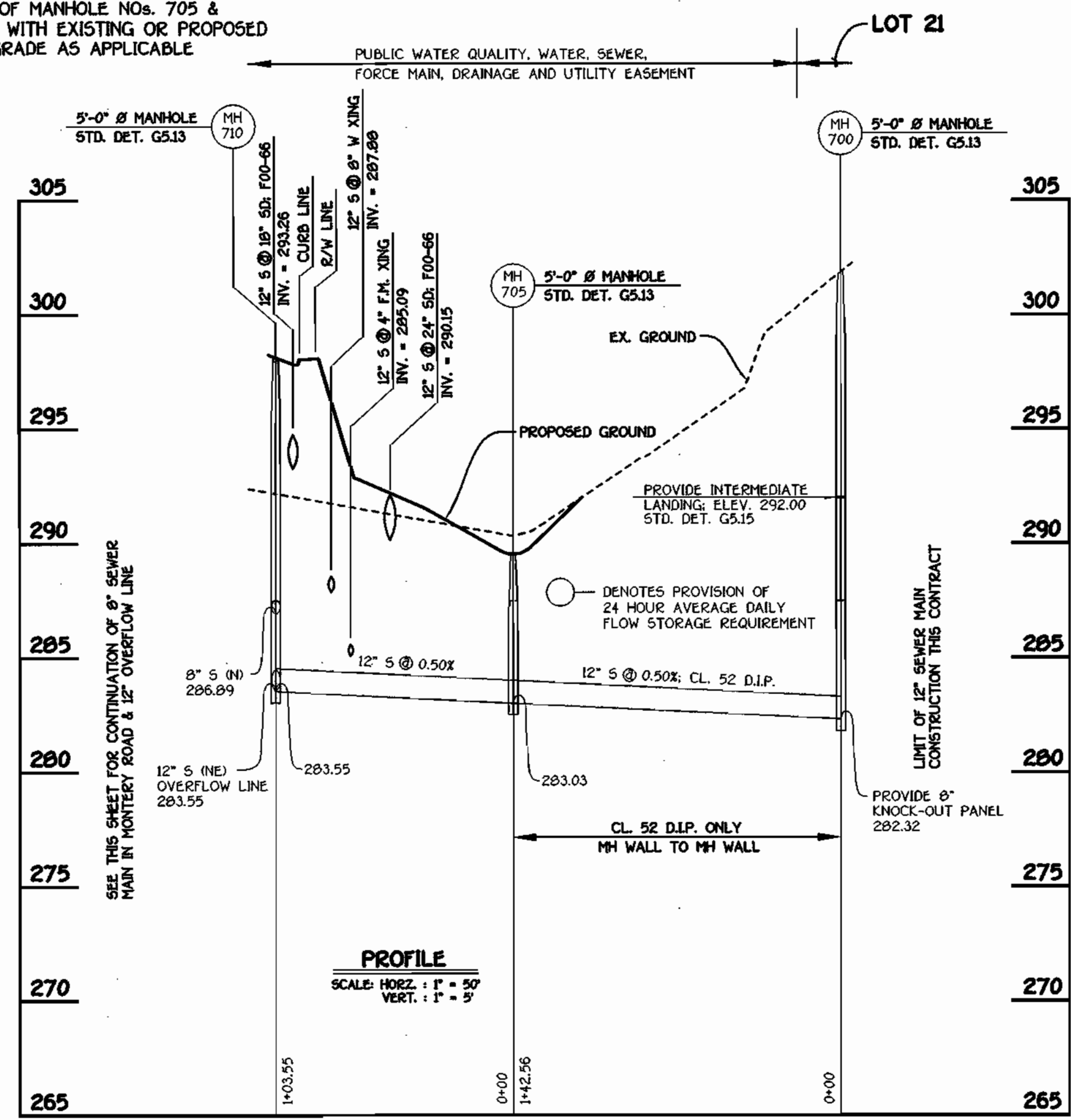


**8" OUTFALL SEWER MAIN**



**4" FORCE MAIN**

NOTE: SET RIMS OF MANHOLE NOS. 705 & 710 FLUSH WITH EXISTING OR PROPOSED FINISHED GRADE AS APPLICABLE



**12" OUTFALL SEWER MAIN (DRY SEWER)**

CONTRACT NO. 14-3923-D  
**ROCKBURN MANOR**  
 LOTS 1 THRU 22  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 9-20-01 DATE		DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND 10/1/01 DATE		FISHER, COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL FREE ELICOTT CITY, MARYLAND 21042 (410) 461-2055		STATE OF MARYLAND TERRILL A. FISHER PROFESSIONAL ENGINEER		DESIGNED BY: P.W.J. DRAWN BY: M.D.T. CHECKED BY: P.W.J. DATE: SEPTEMBER, 2001		B.P.  REVISE PROJECT TITLE NAME DATE: 12/09/01		FORCE MAIN & SEWER MAIN PROFILES 600' SCALE MAP NO. 37 BLOCK NO. 5 F.C.C. WORK ORDER NO. 30532 FILE NAME: 30532 F.M. AND SEWER PROFILES SHTS		SCALE AS SHOWN SHEET 6 of 7	
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**KRAZ PROPERTY TEMPORARY WASTEWATER PUMPING STATION**

