

NOTES

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- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- THE EXISTING VERTICAL DATA IS TAKEN FROM FIELD SURVEY PREPARED DESIGN TECH DATED MARCH 1999. THE VERTICAL DATA WAS BASED ON HOWARD COUNTY CONTROL.
- THE COORDINATES SHOWN HEREON ARE BASED UPON MARYLAND GRID COORDINATE SYSTEM. BENCHMARKS ARE PROVIDED HEREON.
- EXISTING WATER ON KIT KAT ROAD IS PUBLIC, CONTRACT NO. 36W&S.
- EXISTING SEWER ADJACENT TO DEEP RUN IS PUBLIC, CONTRACT NO. 292-S & 579-S.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. OWNER & ENGINEER ASSUME NO RESPONSIBILITY FOR ITS ACCURACY. CONTRACTOR SHALL TO HIS OWN SATISFACTION VERIFY THE TYPE, SIZE AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- THE BOUNDARY FOR THIS PROJECT IS BASED ON A BOUNDARY SURVEY PROVIDED BY M&H DEVELOPMENT ENGINEERS, INC. DATED DECEMBER 1998.
- SUBJECT PROPERTY IS ZONED M-2, PER COMPREHENSIVE ZONING PLAN.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- ALL ELEVATIONS AND COORDINATES FOR THIS PROJECT ARE BASED ON HOWARD CO. CONTROL STATION COORDINATE N. 490,906.0 E. 865,758.6 AND ELEVATION 209.59 AND #371 HAVING COORDINATE N. 492,566.2 E. 867,563.8 AND ELEVATION 195.75.

WATER MAIN QUANTITIES	
ITEM	QUANTITY
8" DUCTILE IRON PIPE	646
6" DUCTILE IRON PIPE	74
8" TAPPING SLEEVE AND VALVE	1
8" X 6" TEE	4
6" GATE VALVES	4
8" GATE VALVES	2
6" FIRE HYDRANTS	3
8" - 1/4 BENDS	2
8" - 1/8 BENDS	1
WATER HOUSE CONNECTIONS	2
SANITARY SEWER QUANTITIES	
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8" SDR-35 PVC PIPE	60
TYPE 'A' DROP MANHOLE	1
TYPE 'B' DROP MANHOLE	1
MANHOLE VERTICAL LINEAR FEET	29
WATER TIGHT FRAME AND COVER	1
STD FRAME AND COVER	1
SEWER HOUSE CONNECTIONS	2

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

Cheyl Simmons 4-14-00
SIGNATURE DATE

U.S.D.A NATURAL RESOURCES CONSERVATION SERVICE

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

APPROVED:
John R. Robertson 4-14-00
HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Beisinger 4-12-00
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Adrian Dammann 4/18/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH THE FINAL SITE DEVELOPMENT PLAN (SDP 99-130) DRAWINGS FOR SOIL EROSION AND SEDIMENT CONTROL.

WATER AND SANITARY SEWER PLAN CONTRACT NUMBER 14-3817-D HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GENERAL NOTES

- Part I (Water and Sewer)
- 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. [North American Datum of 1983 (NAD '83)]
 - All vertical controls are based on Howard County control data.
 - All pipe elevations shown are invert elevations.
 - Clear all utilities by a minimum of 6". Clear all poles by 2' - 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 bracing of additional poles or damages shall be deducted from money owed 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 Detail 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 (5) working days before starting work shown on these plans:

State Highway Administration	410-531-5533
BGE Contractor Services	410-850-4620
BGE Under Ground Damage Control	410-291-4607
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	410-549-4120
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Bell Atlantic	1-800-446-5266

- Trees and scrubs are to be protected from damage to maximum extent. Trees and scrubs 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.
- General Notes (see attached)
- The contractor shall notify the Bureau of Highways, Howard County, at (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 18.114(a) of the Howard County Code.

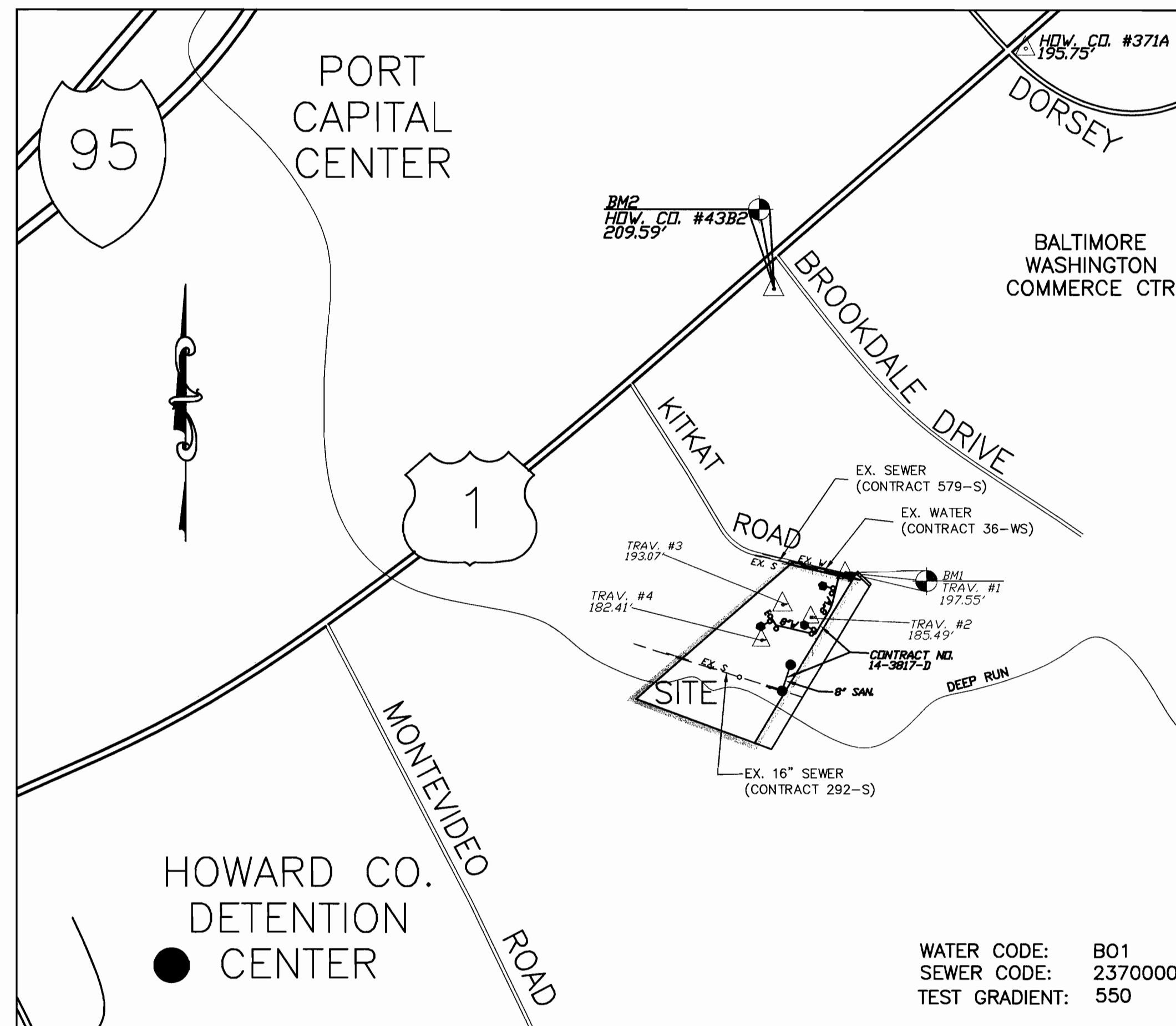
PART II - WATER

- All water mains to be D.I.P. Class 52 unless otherwise noted.
- Top of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.
- Valves adjacent to tees shall be strapped to tees.
- 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 elevations shown on the drawings. All fire hydrants shall be restrained and buttressed with concrete in accordance with the Standard Details. 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 system.
- All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.

PART III - SEWER

- All sewer mains shall be DIP or P.V.C. unless otherwise noted.
- All manholes shall be 4' - 0" inside diameter unless otherwise noted.
- Force mains shall be D.I.P. only.
- 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 G5.52. Where watertight frame and cover is used, set top of frame 1" - 6" above finished grade unless otherwise noted on the drawings.

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	WATER AND SANITARY SEWER PLAN
3	WATER AND SANITARY SEWER PROFILES



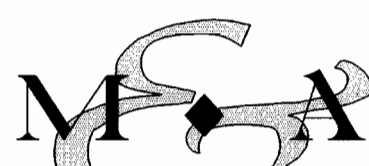
VICINITY MAP

SCALE: 1" = 600'

SITE DATA

TYPE OF BUILDINGS:	FLEX OFFICE/WAREHOUSE
NO. OF LOTS/PARCELS:	1
NO. OF WATER HOUSE CONNECTIONS:	2
NO. OF SEWER HOUSE CONNECTIONS:	3
DRAINAGE AREA:	PATAPSCO
TREATMENT PLANT:	PATAPSCO
WATER CODE:	B01
SEWER CODE:	2370000
TEST GRADIENT:	550

MESSICK & ASSOCIATES*



CONSULTING ENGINEERS
31 OLD SOLOMONS ISLAND RD., SUITE 201
ANNAPOLIS, MARYLAND 21401
(410) 266-3212



OWNER:

POTOMAC ABATEMENT, L.L.C.
9550 BERGER ROAD
COLUMBIA, MARYLAND 21046

DEVELOPER:

POTOMAC ABATEMENT
9550 BERGER ROAD
COLUMBIA, MARYLAND 21046

POTOMAC ABATEMENT

TITLE SHEET
WATER AND SANITARY SEWER EXTENSIONS
(HOWARD COUNTY CONTRACT NO. 14-3817-D)

TAX MAP: 43 BLOCK: 10 PARCEL: 46
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER 1999 SHEET 1 OF 3

REVISION	DESCRIPTION	BY	DATE

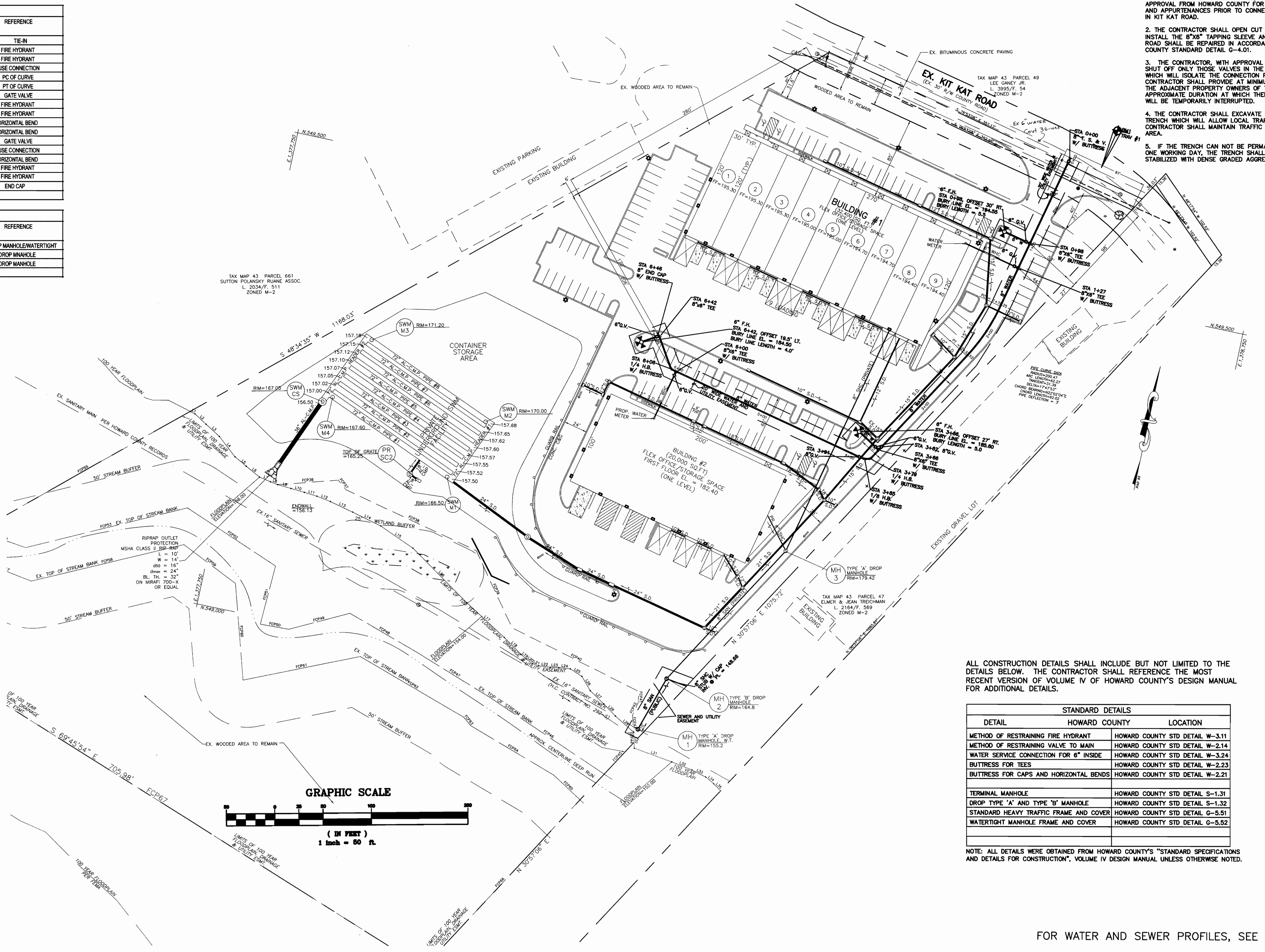
* MESSICK GROUP, INC. / MESSICK AND ASSOCIATES

WATER MAIN COORDINATES				
STRUCTURE ID	PIPE STA	LOCATION (COORDINATES)		REFERENCE
		NORTHING	EASTING	
8" T.S. BV.	0+00	549642	1378537	TE-N
8" X 6" TEE W/ 6" G.V.	0+98	549546	1378515	FIRE HYDRANT
6" FIRE HYDRANT		549552	1378487	FIRE HYDRANT
8" X 6" TEE W/ 6" G.V.	1+27	549518	1378509	HOUSE CONNECTION
PIPE (PC)	1+70.25	549476	1378498	PC OF CURVE
PIPE (PT)	2+32.52	549419	1378475	PT OF CURVE
6" G.V.	3+62	549307	1378409	GATE VALVE
8" X 6" TEE W/ 6" G.V.	3+66	549304	1378407	FIRE HYDRANT
6" FIRE HYDRANT		549318	1378383	FIRE HYDRANT
6" - 1/4 H.B.	3+79	549293	1378400	HORIZONTAL BEND
6" - 1/8 H.B.	3+85	549291	1378394	HORIZONTAL BEND
6" G.V.	3+91	549292	1378389	GATE VALVE
8" X 6" TEE W/ 6" G.V.	6+00	549340	1378185	HOUSE CONNECTION
6" - 1/4 H.B.	6+06	549341	1378179	HORIZONTAL BEND
8" X 6" TEE W/ 6" G.V.	6+42	549372	1378160	FIRE HYDRANT
6" FIRE HYDRANT		549362	1378143	FIRE HYDRANT
6" END CAP	6+46	549375	1378158	END CAP

SANITARY SEWER STRUCTURE SCHEDULE				
STRUCTURE ID	PIPE STA	LOCATION (COORDINATES)		REFERENCE
		NORTHING	EASTING	
MH 1	TYPE 'A' DROP	549968	1378223	DROP MANHOLE/WATERTIGHT
MH 2	TYPE 'B' DROP	549026	1378242	DROP MANHOLE
MH 3	TYPE 'A' DROP	549181	1378334	DROP MANHOLE

TRAVERSE POINT (SURVEY)			
POINT NO.	POINT ELEVATION	LOCATION (COORDINATES)	
		NORTHING	EASTING
TRAV. #1 (BM1)	197.55	549638	1378571
TRAV. #2	185.49	549386	1378377
TRAV. #3	193.07	549457	1378219
TRAV. #4	182.41	549255	1378099

- WATER NOTES:**
- ALL ON-SITE FIRE HYDRANTS SHOWN HEREON ARE PUBLIC OWNED.
 - THE PROPOSED WATER MAIN WILL BE CONSTRUCTED UNDER CONTRACT NUMBER 14-3817-D.
 - ALL WATER SERVICE CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SITE DEVELOPMENT PLAN (SDP 99-130).
 - ALL WATER METERS SHALL BE INSIDE WATER METER SETTINGS. THE METER SETTINGS AS SHOWN ARE CONCEPTUAL. ACTUAL SETTINGS WILL BE PLACED INSIDE THE BUILDINGS IN ACCORDANCE WITH THE ARCHITECTURAL PLANS.
 - ALL WATER MAIN PIPES SHALL BE DUCTILE IRON PIPE (DIP).
- SEWER NOTES:**
- THE PROPOSED SANITARY SEWER MAIN WILL BE CONSTRUCTED UNDER CONTRACT NUMBER 14-3817-D.
 - ALL SANITARY SEWER HOUSE CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SITE DEVELOPMENT PLAN (SDP 99-130).
 - ALL SANITARY SEWER MAIN SHALL BE SDR-35 POLYVINYL CHLORIDE (PVC) PIPE.
- SEDIMENT CONTROL NOTE:**
- ALL WORK REGARDING THE INSTALLATION OF BOTH THE WATER AND SANITARY SEWER WILL BE DONE CONCURRENTLY WITH SITE IMPROVEMENTS AS DESIGNED UNDER THE PROPOSED SITE DEVELOPMENT PLAN (SDP 99-130). ALL EROSION CONTROL MEASURES REQUIRED FOR THE INSTALLATION OF BOTH THE WATER AND SEWER MAINS ARE SHOWN AND DESCRIBED ON THE SITE DEVELOPMENT PLAN.



- CONSTRUCTION NOTES:**
- THE CONTRACTOR SHALL INSTALL, DISINFECT, AND OBTAIN APPROVAL FROM HOWARD COUNTY FOR ALL ON-SITE PIPING AND APPURTENANCES PRIOR TO CONNECTING INTO THE MAIN IN KIT KAT ROAD.
 - THE CONTRACTOR SHALL OPEN CUT KIT KAT ROAD TO INSTALL THE 8" X 6" TAPPING SLEEVE AND VALVE. KIT KAT ROAD SHALL BE REPAIRED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL G-4.01.
 - THE CONTRACTOR, WITH APPROVAL OF HOWARD COUNTY, SHUT OFF ONLY THOSE VALVES IN THE IMMEDIATE AREA WHICH WILL ISOLATE THE CONNECTION POINT. THE CONTRACTOR SHALL PROVIDE AT MINIMUM WRITTEN NOTICE TO THE ADJACENT PROPERTY OWNERS OF THE TIME, DATE, AND APPROXIMATE DURATION AT WHICH THERE WATER SERVICE WILL BE TEMPORARILY INTERRUPTED.
 - THE CONTRACTOR SHALL EXCAVATE ONLY THAT LENGTH OF TRENCH WHICH WILL ALLOW LOCAL TRAFFIC TO PASS. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AROUND THE WORK AREA.
 - IF THE TRENCH CAN NOT BE PERMANENTLY STABILIZED IN ONE WORKING DAY, THE TRENCH SHALL BE TEMPORARILY STABILIZED WITH DENSE GRADED AGGREGATE.

ALL CONSTRUCTION DETAILS SHALL INCLUDE BUT NOT LIMITED TO THE DETAILS BELOW. THE CONTRACTOR SHALL REFERENCE THE MOST RECENT VERSION OF VOLUME IV OF HOWARD COUNTY'S DESIGN MANUAL FOR ADDITIONAL DETAILS.

STANDARD DETAILS		
DETAIL	HOWARD COUNTY	LOCATION
METHOD OF RESTRAINING FIRE HYDRANT	HOWARD COUNTY STD DETAIL W-3.11	
METHOD OF RESTRAINING VALVE TO MAIN	HOWARD COUNTY STD DETAIL W-2.14	
WATER SERVICE CONNECTION FOR 6" INSIDE	HOWARD COUNTY STD DETAIL W-3.24	
BUTTRISS FOR TEES	HOWARD COUNTY STD DETAIL W-2.23	
BUTTRISS FOR CAPS AND HORIZONTAL BENDS	HOWARD COUNTY STD DETAIL W-2.21	
TERMINAL MANHOLE	HOWARD COUNTY STD DETAIL S-1.31	
DROP TYPE 'A' AND TYPE 'B' MANHOLE	HOWARD COUNTY STD DETAIL S-1.32	
STANDARD HEAVY TRAFFIC FRAME AND COVER	HOWARD COUNTY STD DETAIL G-5.51	
WATERTIGHT MANHOLE FRAME AND COVER	HOWARD COUNTY STD DETAIL G-5.52	

NOTE: ALL DETAILS WERE OBTAINED FROM HOWARD COUNTY'S "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION", VOLUME IV DESIGN MANUAL UNLESS OTHERWISE NOTED.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Bevinger 4-12-00
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

John Dammann 4/10/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MESSICK & ASSOCIATES*
CONSULTING ENGINEERS

31 OLD SOLOMONS ISLAND RD., SUITE 201
ANNAPOLIS, MARYLAND 21401
(410) 266-3212

Daniel J. Messick 4-1-2000

OWNER:
POTOMAC ABATEMENT, L.L.C.
9550 BERGER ROAD
COLUMBIA, MARYLAND 21046

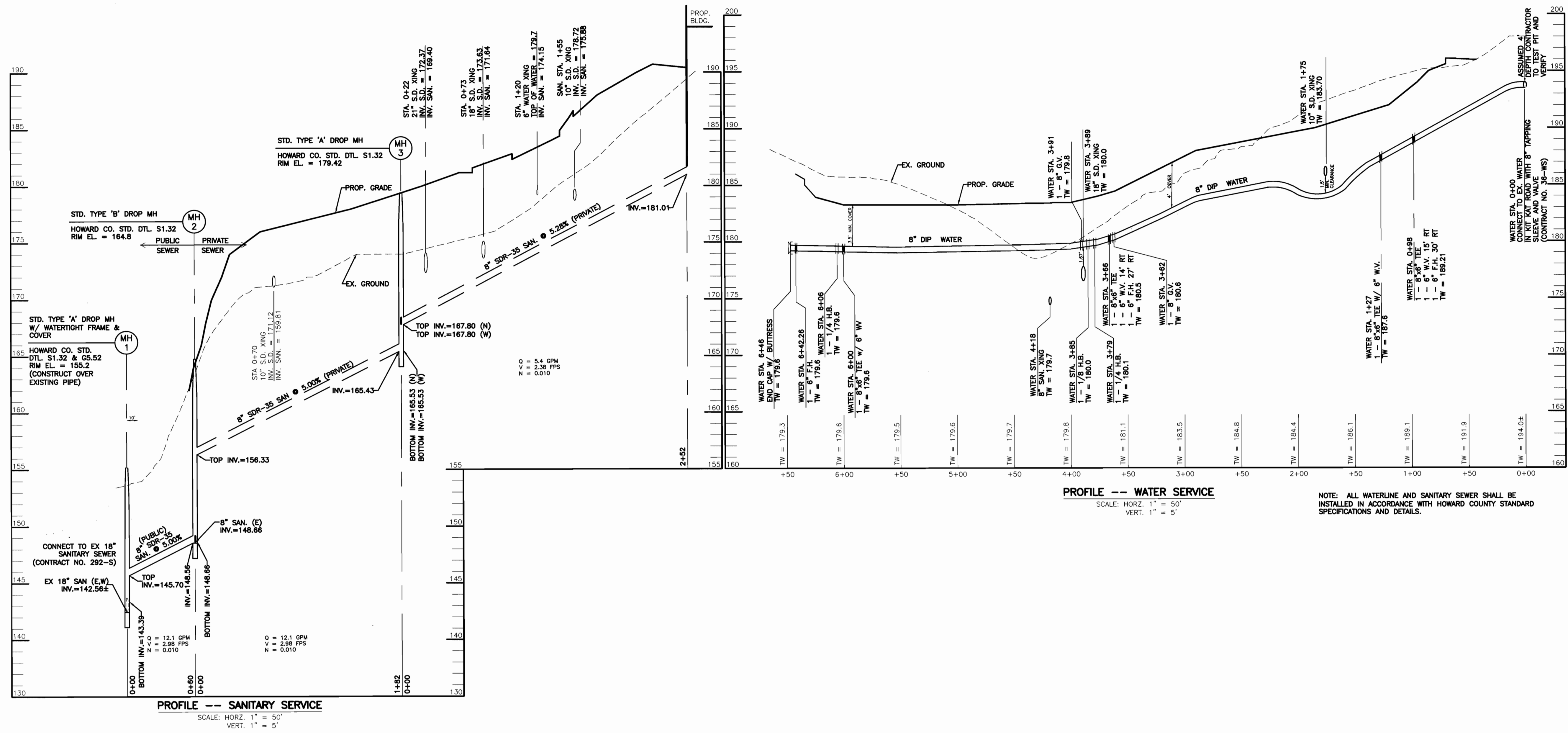
DEVELOPER:
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POTOMAC ABATEMENT
WATER AND SANITARY SEWER PLAN
WATER AND SANITARY SEWER EXTENSIONS
(HOWARD COUNTY CONTRACT NO. 14-3817-D)

TAX MAP: 43 BLOCK: 10 PARCEL: 46
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER 1999 SHEET 2 OF 3

REVISION	DESCRIPTION	BY	DATE

* MESSICK GROUP INC. 1/4 MESSICK AND ASSOCIATES



DEPARTMENT OF
PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Beisinger 4-12-00
CHIEF, BUREAU OF UTILITIES DATE

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PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

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REVISION	DESCRIPTION	BY	DATE

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DEVELOPER:

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FOR WATER AND SEWER PLAN VIEW, SEE SHEET 2.

POTOMAC ABATEMENT

WATER AND SANITARY SEWER PROFILES
WATER AND SANITARY SEWER EXTENSIONS
(HOWARD COUNTY CONTRACT NO. 14-3817-D)

TAX MAP: 43 BLOCK: 10 PARCEL: 46
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
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WATER TIGHT FRAME AND COVER	1
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REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

Signature: Cheryl Simmons
DATE: 4-14-00

U.S.D.A NATURAL RESOURCES CONSERVATION SERVICE

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APPROVED: John R. Roberts
HOWARD S.C.D. DATE: 4-14-00

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

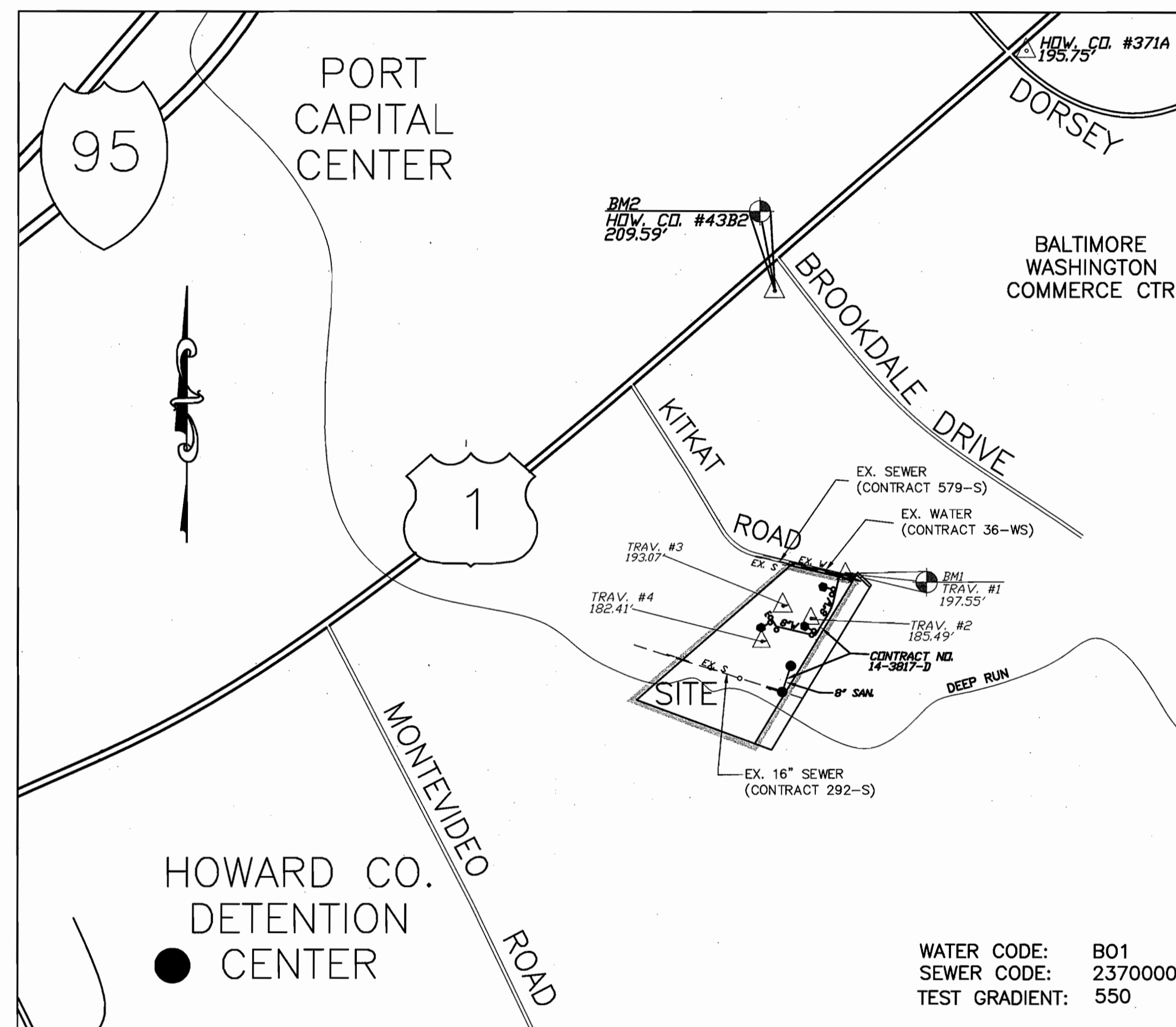
Signature: Robert M. Bainger
CHIEF, BUREAU OF UTILITIES DATE: 4-12-00

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Signature: [Name]
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 4/18/00

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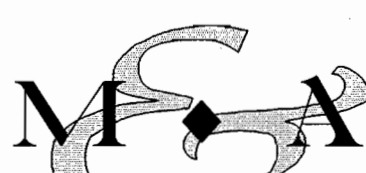
VICINITY MAP

SCALE: 1" = 600'

SITE DATA

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NO. OF LOTS/PARCELS:	1
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SEWER CODE:	2370000
TEST GRADIENT:	550

MESSICK & ASSOCIATES*



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GENERAL NOTES

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10. 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.
11. General Notes (see attached)
12. The contractor shall notify the Bureau of Highways, Howard County, at (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 18.114(a) of the Howard County Code.

PART II - WATER

1. All water mains to be D.I.P. Class 52 unless otherwise noted.
2. Tops of all water mains to have a minimum of 3'-1/2' cover unless otherwise noted.
3. Valves adjacent to tees shall be strapped to tees.
4. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
5. Fire hydrants shall be set to the bury line elevations shown on the drawings. All fire hydrants shall be restrained and buttressed with concrete in accordance with the Standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
6. The contractor shall not operate any water main valves on the existing water system.
7. All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.

PART III - SEWER

1. All sewer mains shall be DIP or P.V.C. unless otherwise noted.
2. All manholes shall be 4' - 0" inside diameter unless otherwise noted.
3. Force mains shall be D.I.P. only.
4. Manholes shown with 12" and 16" walls are for brick manholes only.
5. Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight frame and cover is used, set top of frame 1" - 6" above finished grade unless otherwise noted on the drawings.

SHEET INDEX

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER AND SANITARY SEWER PLAN
3	WATER AND SANITARY SEWER PROFILES

REVISION	DESCRIPTION	BY	DATE
ADD	ASBUILT DATA TO PLAN	K.C.I	12/14/02

MESSICK & ASSOCIATES*

CONSULTING ENGINEERS
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ANNAPOLIS, MARYLAND 21401
(410) 266-3212

* MESSICK GROUP INC. 1/4 MESSICK AND ASSOCIATES

OWNER:

POTOMAC ABATEMENT, L.L.C.
9550 BERGER ROAD
COLUMBIA, MARYLAND 21046

DEVELOPER:

POTOMAC ABATEMENT
9550 BERGER ROAD
COLUMBIA, MARYLAND 21046

POTOMAC ABATEMENT

TITLE SHEET
WATER AND SANITARY SEWER EXTENSIONS
(HOWARD COUNTY CONTRACT NO. 14-3817-D)

TAX MAP: 43 BLOCK: 10 PARCEL: 46
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER 1999 SHEET 1 OF 3

WATER MAIN COORDINATES				
STRUCTURE ID	PIPE STA	NORTHING	EASTING	REFERENCE
8" T.S.&V.	0+00	549642	1378537	TIE-IN
8" X 6" TEE W/ 6" G.V.	0+96	549546	1378515	FIRE HYDRANT
8" FIRE HYDRANT		549502	1378487	FIRE HYDRANT
8" X 6" TEE W/ 6" G.V.	1+27	549518	1378509	HOUSE CONNECTION
PIPE (PC)	1+70.25	549476	1378498	PC OF CURVE
PIPE (PT)	2+32.52	549419	1378475	PT OF CURVE
8" G.V.	3+62	549307	1378409	GATE VALVE
8" X 6" TEE W/ 6" G.V.	3+66	549304	1378407	FIRE HYDRANT
8" FIRE HYDRANT		549318	1378383	FIRE HYDRANT
8" - 1/4" H.B.	3+79	549293	1378400	HORIZONTAL BEND
8" - 1/8" H.B.	3+85	549291	1378394	HORIZONTAL BEND
8" G.V.	3+91	549292	1378389	GATE VALVE
8" X 6" TEE W/ 6" G.V.	6+00	549340	1378185	HOUSE CONNECTION
8" - 1/4" H.B.	6+06	549341	1378179	HORIZONTAL BEND
8" X 6" TEE W/ 6" G.V.	6+42	549372	1378160	FIRE HYDRANT
8" FIRE HYDRANT		549362	1378143	FIRE HYDRANT
8" END CAP	6+46	549375	1378158	END CAP

SANITARY SEWER STRUCTURE SCHEDULE				
STRUCTURE ID	PIPE TYPE	LOCATION (COORDINATES)	REFERENCE	
MH1	TYPE 'A' DROP	549668 1378223	DROP MANHOLE/WATERTIGHT	
MH2	TYPE 'B' DROP	549026 1378242	DROP MANHOLE	
MH3	TYPE 'A' DROP	549181 1378334	DROP MANHOLE	

TRAVERSE POINT (SURVEY)				
POINT NO.	POINT ELEVATION	NORTHING	EASTING	
TRAV. #1 (BM)	197.55	549638	1378571	
TRAV. #2	185.49	549386	1378377	
TRAV. #3	193.07	549457	1378219	
TRAV. #4	182.41	549255	1378099	

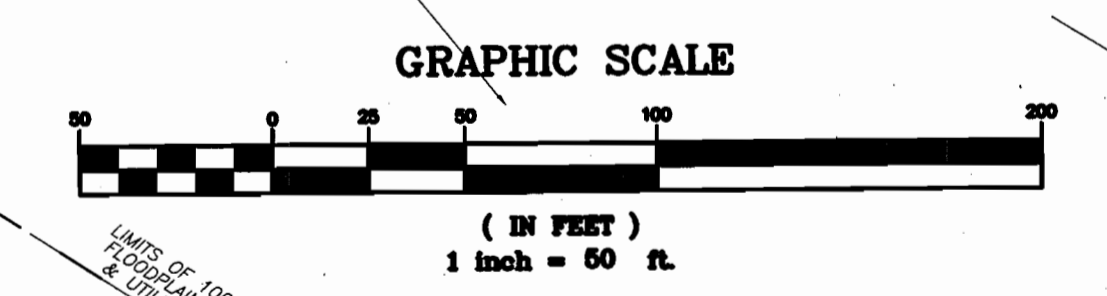
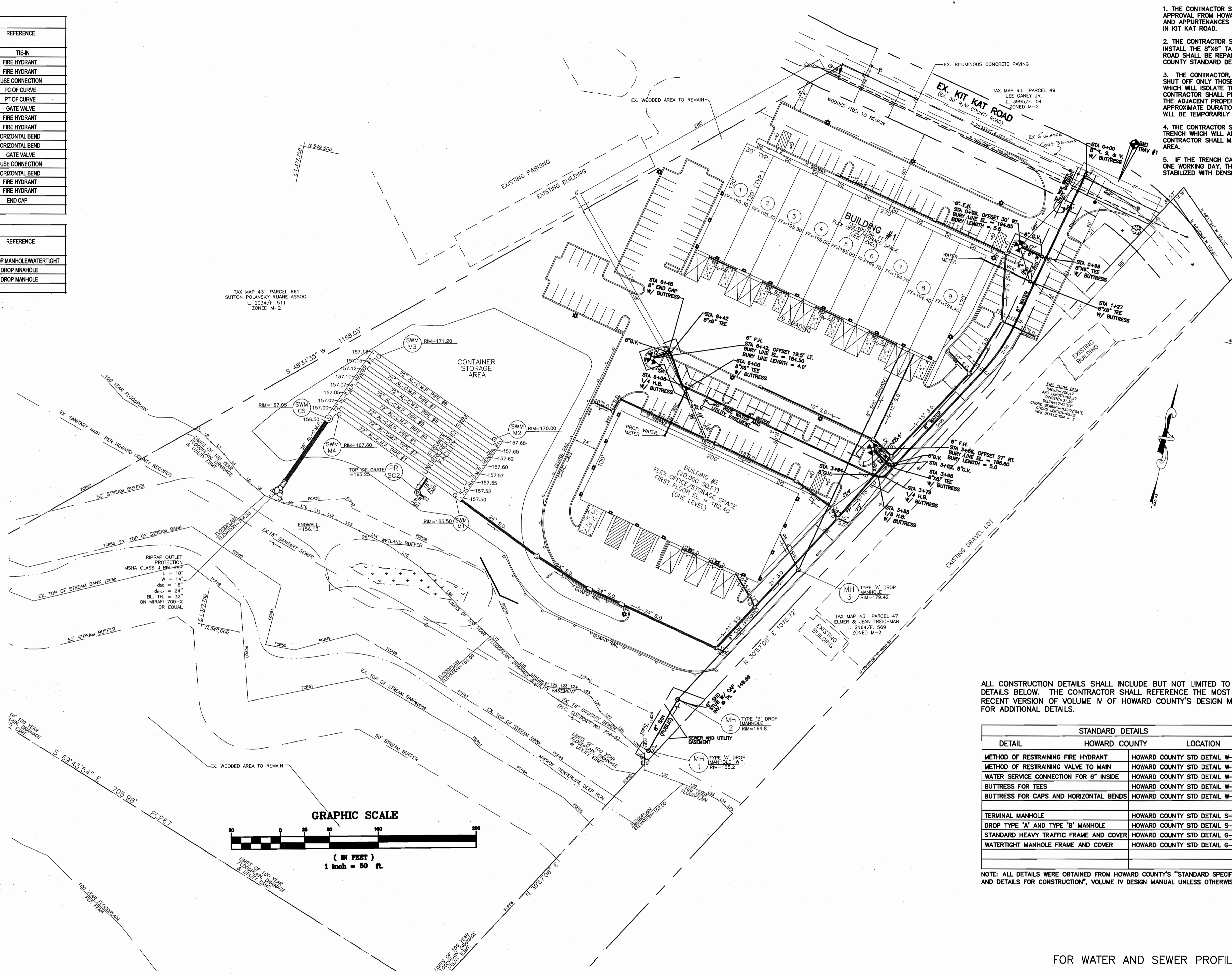
- WATER NOTES:**
- ALL ON-SITE FIRE HYDRANTS SHOWN HEREON ARE PUBLIC OWNED.
 - THE PROPOSED WATER MAIN WILL BE CONSTRUCTED UNDER CONTRACT NUMBER 14-3817-D.
 - ALL WATER SERVICE CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SITE DEVELOPMENT PLAN (SDP 99-130).
 - ALL WATER METERS SHALL BE INSIDE WATER METER SETTINGS. THE METER SETTINGS AS SHOWN ARE CONCEPTUAL. ACTUAL SETTINGS WILL BE PLACED INSIDE THE BUILDINGS IN ACCORDANCE WITH THE ARCHITECTURAL PLANS.
 - ALL WATER MAIN PIPES SHALL BE DUCTILE IRON PIPE (DIP).

- SEWER NOTES:**
- THE PROPOSED SANITARY SEWER MAIN WILL BE CONSTRUCTED UNDER CONTRACT NUMBER 14-3817-D.
 - ALL SANITARY SEWER HOUSE CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SITE DEVELOPMENT PLAN (SDP 99-130).
 - ALL SANITARY SEWER MAIN SHALL BE SDR-35 POLYVINYL CHLORIDE (PVC) PIPE.

SEDIMENT CONTROL NOTE:

ALL WORK REGARDING THE INSTALLATION OF BOTH THE WATER AND SANITARY SEWER WILL BE DONE CONCURRENTLY WITH SITE IMPROVEMENTS AS DESIGNED UNDER THE PROPOSED SITE DEVELOPMENT PLAN (SDP 99-130). ALL EROSION CONTROL MEASURES REQUIRED FOR THE INSTALLATION OF BOTH THE WATER AND SEWER MAINS ARE SHOWN AND DESCRIBED ON THE SITE DEVELOPMENT PLAN.

- CONSTRUCTION NOTES:**
- THE CONTRACTOR SHALL INSTALL, DISINFECT, AND OBTAIN APPROVAL FROM HOWARD COUNTY FOR ALL ON-SITE PIPING AND APPURTENANCES PRIOR TO CONNECTING INTO THE MAIN IN KIT KAT ROAD.
 - THE CONTRACTOR SHALL OPEN CUT KIT KAT ROAD TO INSTALL THE 8" X 6" TAPPING SLEEVE AND VALVE. KIT KAT ROAD SHALL BE REPAIRED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAIL G-4.01.
 - THE CONTRACTOR, WITH APPROVAL OF HOWARD COUNTY, SHUT OFF ONLY THOSE VALVES IN THE IMMEDIATE AREA WHICH WILL ISOLATE THE CONNECTION POINT. THE CONTRACTOR SHALL PROVIDE AT MINIMUM WRITTEN NOTICE TO THE ADJACENT PROPERTY OWNERS OF THE TIME, DATE, AND APPROXIMATE DURATION AT WHICH THERE WATER SERVICE WILL BE TEMPORARILY INTERRUPTED.
 - THE CONTRACTOR SHALL EXCAVATE ONLY THAT LENGTH OF TRENCH WHICH WILL ALLOW LOCAL TRAFFIC TO PASS. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AROUND THE WORK AREA.
 - IF THE TRENCH CAN NOT BE PERMANENTLY STABILIZED IN ONE WORKING DAY, THE TRENCH SHALL BE TEMPORARILY STABILIZED WITH DENSE GRADED AGGREGATE.



ALL CONSTRUCTION DETAILS SHALL INCLUDE BUT NOT LIMITED TO THE DETAILS BELOW. THE CONTRACTOR SHALL REFERENCE THE MOST RECENT VERSION OF VOLUME IV OF HOWARD COUNTY'S DESIGN MANUAL FOR ADDITIONAL DETAILS.

STANDARD DETAILS		
DETAIL	HOWARD COUNTY	LOCATION
METHOD OF RESTRAINING FIRE HYDRANT	HOWARD COUNTY STD DETAIL W-3.11	
METHOD OF RESTRAINING VALVE TO MAIN	HOWARD COUNTY STD DETAIL W-2.14	
WATER SERVICE CONNECTION FOR 6" INSIDE	HOWARD COUNTY STD DETAIL W-3.24	
BUTTRESS FOR TEES	HOWARD COUNTY STD DETAIL W-2.23	
BUTTRESS FOR CAPS AND HORIZONTAL BENDS	HOWARD COUNTY STD DETAIL W-2.21	
TERMINAL MANHOLE	HOWARD COUNTY STD DETAIL S-1.31	
DROP TYPE 'A' AND TYPE 'B' MANHOLE	HOWARD COUNTY STD DETAIL S-1.32	
STANDARD HEAVY TRAFFIC FRAME AND COVER	HOWARD COUNTY STD DETAIL G-5.51	
WATERTIGHT MANHOLE FRAME AND COVER	HOWARD COUNTY STD DETAIL G-5.52	

NOTE: ALL DETAILS WERE OBTAINED FROM HOWARD COUNTY'S "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION", VOLUME IV DESIGN MANUAL UNLESS OTHERWISE NOTED.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert M. Beringer 4-12-00
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

John P. Danvers 4/18/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

REVISION	DESCRIPTION	BY	DATE
	ADJUST DATA ADDED TO PLAN	K.C.I.	12/16/02

MESSICK & ASSOCIATES*
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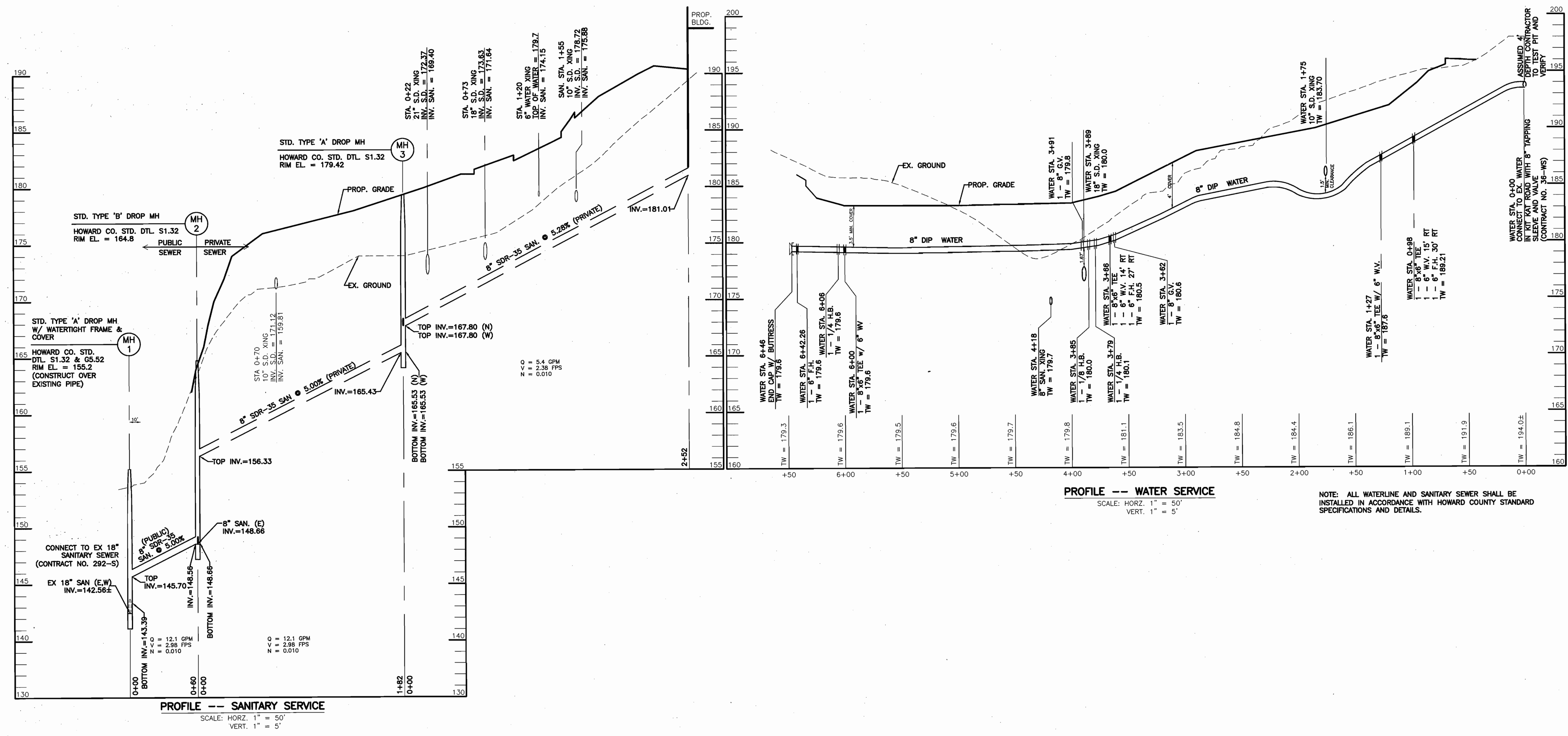
David M. Messick 4-7-2000

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POTOMAC ABATEMENT
WATER AND SANITARY SEWER PLANS
WATER AND SANITARY SEWER EXTENSIONS
(HOWARD COUNTY CONTRACT NO. 14-3817-D)

TAX MAP: 43 BLOCK: 10 PARCEL: 46
1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: DECEMBER 1999 SHEET 2 OF 3



PROFILE -- SANITARY SERVICE
 SCALE: HORZ. 1" = 50'
 VERT. 1" = 5'

PROFILE -- WATER SERVICE
 SCALE: HORZ. 1" = 50'
 VERT. 1" = 5'

NOTE: ALL WATERLINE AND SANITARY SEWER SHALL BE INSTALLED IN ACCORDANCE WITH HOWARD COUNTY STANDARD SPECIFICATIONS AND DETAILS.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

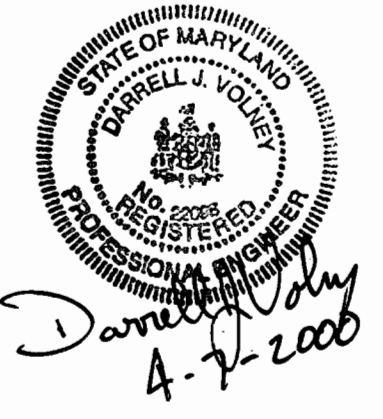
Robert M. Beinger 4-12-00
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND

[Signature] 4/10/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

REVISION	DESCRIPTION	BY	DATE

MESSICK & ASSOCIATES*
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FOR WATER AND SEWER PLAN VIEW, SEE SHEET 2.

POTOMAC ABATEMENT
 WATER AND SANITARY SEWER PROFILES
 WATER AND SANITARY SEWER EXTENSIONS
 (HOWARD COUNTY CONTRACT NO. 14-3817-D)

TAX MAP: 43 BLOCK: 10 PARCEL: 46
 1ST ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: AS SHOWN DATE: DECEMBER 1999 SHEET 3 OF 3