
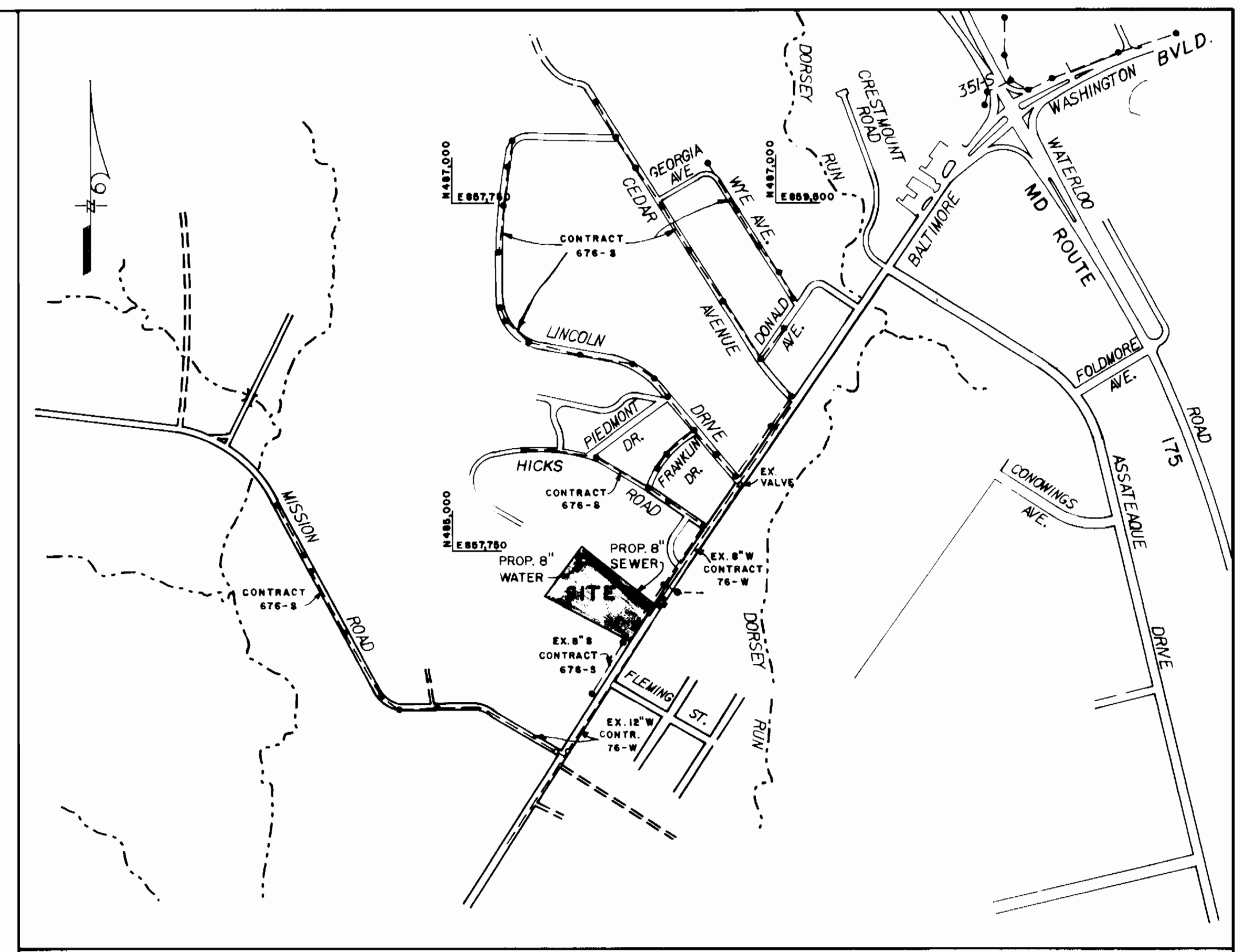


GENERAL NOTES

- 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.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY MINIMUM OF 6'.
- 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. 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 UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION	531-5539
BALTIMORE GAS & ELECTRIC CO.	CONTRACTOR SERVICE 850-4620
BALTIMORE GAS & ELECTRIC CO.	UNDERGROUND DAMAGE CONTROL 859-9004
BALTIMORE GAS & ELECTRIC CO.	TROUBLE SHOOTING 298-9040
MISS UTILITY	1-800-257-7777
COLONIAL PIPELINE CO.	795-1390
BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	313-4900
- 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 LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL WATER MAIN TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 42" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TRES SHALL BE STRAPPED TO TRES.
- 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 STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOILS AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 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 AN INSIDE METER SETTING, UNLESS OTHERWISE NOTED.
- EXTEND PIPE AS NECESSARY TO INSTALL PLUG FOR BLOCKING, WHERE WATER MAINS END WITH VALVES.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. 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.
- ALL SERVICE JAMPS ARE TO HAVE STAINLESS STEEL STRAPS.
- THE LENGTH OF OPEN TRENCH IS TO BE KEPT TO A MAXIMUM OF ONE PIPE LENGTH WHEN POSSIBLE.



VICINITY MAP
SCALE: 1" = 600'

WATER & SEWER CODE* FOR COUNTY USE WATER B02 SEWER 3240000	DRAINAGE AREA* DORSEY RUN TYPE OF BUILDINGS* RESIDENTIAL NO. OF WHC* 3 NO. OF SHC* 3
---	---

PARK ROAD

WATER & SEWER MAIN

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

CONTRACT NO. 24-3000

CAPITAL PROJECT W-8167

REVIEWED FOR HOWARD S.C.D.
AND MEETS TECHNICAL REQUIREMENTS
[Signature] 8/27/90
DATE
U.S. SOIL CONSERVATION
SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR
SOIL EROSION AND SEDIMENT CONTROL
BY THE HOWARD SOIL CONSERVATION DISTRICT
[Signature] 8/27/90
DATE
HOWARD S.C.D.

SEDIMENT CONTROL MEASURES FOR
THIS CONTRACT WILL BE IMPLEMENTED
IN ACCORDANCE WITH SECTION 219
OF THE STANDARD SPECIFICATION, AND
SITE PLANS

BEFORE BEGINNING CONSTRUCTION, CONTACT
"MISS UTILITY" AT 1-800-257-7777 AT LEAST
48 HOURS PRIOR TO CONSTRUCTION

ITEM	ESTIMATED	AS-BUILT	MATERIAL / SUPPLIER
8" WATER L.F.	143	143	GRiffin PIPE PRODUCTS
8" SEWER L.F.	432	432	J.M. MFG. CORP.
SAN SEWER MH EA.	4	4	ATLANTIC CONCRETE PROD.
FIRE HYDRANT EA.	1	1	U.S. PIPE
8" x 8" T. EA.	1	1	GRiffin PIPE PRODUCTS
8" x 6" T. EA.	1	1	"
8" - 1/4 BEND EA.	3	3	"
8" - 1/2 BEND EA.	1	1	"
8" - 1/2 BEND EA.	1	1	"
8" VALVE EA.	3	3	MUELLER CO.
SLEEVE & SPACER EA.	1	1	GRiffin PIPE PRODUCTS
8" PLUG EA.	2	2	"
3/4" WHC L.F.	47	63	HOWELL METALS
4" SHC L.F.	50	50	J.M. MFG. CORP.
AIR RELEASE EA.	1	1	BPCO
6" P.H. VALVE EA.	1	1	MUELLER CO.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 7/2/90
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 8-25-90
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 6-29-90
CHIEF, BUREAU OF UTILITIES DATE

[Signature] 6-25-90
CHIEF, UTILITY DESIGN DIVISION DATE

ENGINEERS-ARCHITECTS-PLANNERS-SCIENTISTS-SURVEYORS-PHOTOGRAMMETRISTS

GREENHORNE & O'MARA, INC.
113 WEST ROAD, SUITE 208
BALTIMORE, MD. 21204
PHONE (301) 296-4100

[Signature]

DES: KRS
DRN: KRS
CHK: DSS/RHM
DATE: APRIL 1990

BY NO. REVISIONS DATE

TITLE SHEET
PLAN FOR WATER MAIN
AND SEWER EXTENSION

600' SCALE MAP NO. 43 BLOCK NO. 14

PARK ROAD WATER & SEWER MAIN
CAPITAL PROJECT W-8167
CONTRACT NO. 24-3000
SIXTH ELECTION DISTRICT
HOWARD CO., MARYLAND

SCALE AS SHOWN
SHEET 1 OF 4

AS-BUILT 4/5/92 W.B.H. B-1143-X

BENCH MARKS

BM 'A' 208.24
R.R. SPIKE SET IN POWER POLE # 395447 ON THE EAST SIDE OF U.S. RT. 1, ACROSS THE STREET FROM PARK RD & RESTAURANT, WEST SIDE OF P.P. APPROX. 9" ABOVE GROUND

BM 'B' 223.69
R.R. SPIKE SET ON THE NORTH SIDE OF POWER POLE # 48435 ALONG PARK RD, IN THE FRONT YARD OF A TWO STORY WHITE STUCCO DWG., APPROX. 9" ABOVE GROUND

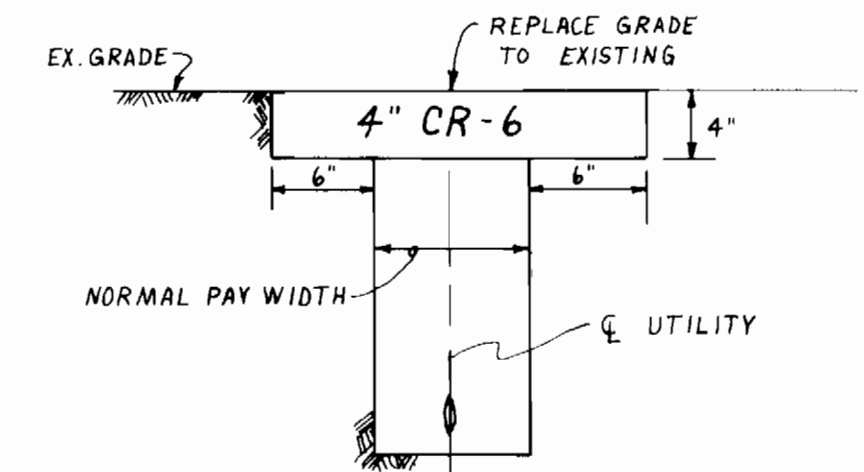
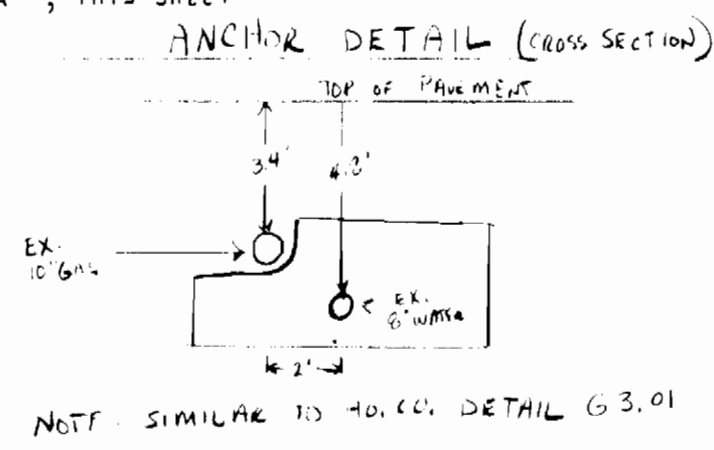
WATERLINE RESTORATION SCHEDULE

WL STATION	RESTORATION DESCRIPTION
0+00 TO 1+50	SEED & MULCH
1+50 TO 1+78	SOLID SODDING
1+78 TO 2+40	SEED & MULCH
2+40 TO 2+62	* 4" GRAVEL
2+62 TO 3+30	BIT. CONC. PAVING
3+30 TO 3+50	* 4" GRAVEL
3+50 TO 5+44	SEED & MULCH
5+44 TO 5+56	* 4" GRAVEL
5+56 TO 6+47	SEED & MULCH
6+47 TO 7+18	* 4" GRAVEL
7+18 TO 7+33	SEED & MULCH

SEWERLINE RESTORATION SCHEDULE

BL STATION	RESTORATION DESCRIPTION
9+85, 25' RT TO 4+12, 22' RT	BIT. CONC. PAVING
4+12, 22' RT TO 4+44, 20' RT	BIT. CONC. PAV., LEFT / * 4" GRAVEL, RIGHT
4+44, 20' RT TO 6+74, 33' RT	* 4" GRAVEL
6+74, 33' RT TO 7+15, 33' RT	SEED & MULCH, LEFT / * 4" GRAVEL, RIGHT
7+15, 33' RT TO 7+67, 33' RT	* 4" GRAVEL
7+67, 33' RT TO 7+93, 15' RT	SEED & MULCH
7+93, 15' RT TO 8+25, 3' LT	* 4" GRAVEL

* FOR GRAVEL REPLACEMENT SEE DETAIL 'A', THIS SHEET



* TYPICAL GRAVEL DRIVE REPLACEMENT DETAIL
NO SCALE

MANHOLE SCHEDULE

MANHOLE #	STA	OFFSET
1	3+51	10' RT
2	5+37	12' RT
3	7+81	33' RT
4	8+25	3' LT

TRAVERSE COORDINATES

POINT #	NORTHING	EASTING
900	484,990.194	859,024.620
901	484,668.077	858,830.525
902	484,795.677	858,623.241
903	484,941.053	858,493.619
904	484,824.395	858,362.670

JONES PROPERTY

WHC to S.M.H. #4	84.0'
WHC to S.M.H. #3	32.0'
WHC to D.C.F.E. #207649	25.9'
SNC to S.M.H. #4	129.9'
SNC to S.M.H. #3	77.6'
SNC to B.G.C.E. #207649	25.2'

CONTRACTOR SHALL PLUG UPSTREAM END OF DROP HOUSE CONNECTION TEE.

CONSTRUCTION NOTE: CONTRACTOR SHALL INSURE INSTALLATION OF BUTTRESSES FOR VALVE, AND BENDS AT WL STA. 0+11, 0+28, AND 0+56 AT LEAST TEN (10) DAYS BEFORE TIE-IN TO EX. 8" W WITH SLEEVE @ SPACER CONNECTION.

TEST PIT # 1
TOP 8" WATER ELEV. = 202.00
TOP 10" GAS ELEV. = 203.52

CONSTRUCTION NOTE: CONTRACTOR SHALL MAINTAIN INGRESS AND EGRESS TO THE ROBERTS AND COLEMAN PROPERTIES AT ALL TIMES BY USING STEEL PLATES OVER TRENCHES AND/OR OTHER APPROPRIATE METHODS.

LEGEND

- EXISTING SAN SEWER MAIN & MANHOLE
- EXISTING WATER MAIN
- PROP. SAN SEWER MAIN & MANHOLE
- PROP. WATER MAIN
- EX. STORM DRAIN & MANHOLE
- EX. TELEPHONE CONDUIT
- EX. PROPERTY LINE
- EX. EASEMENT
- TRAVERSE STATION
- SLOPE
- EX. TREE LINE
- EX. SWAMP
- PROP. R.O.W.
- EX. FIRE HYDRANT
- PROP. FIRE HYDRANT
- EX. POWER POLE
- WATER VALVE
- BENCH MARK
- SEPTIC TANK
- WELL
- AIR RELEASE
- SOIL BORING

CONSTRUCTION NOTE: CONTRACTOR SHALL NOT BLOCK ACCESS TO THE LOG CABIN RESTAURANT, AND SHALL MAKE EVERY EFFORT TO COMPLETE CONSTRUCTION IN THE PARKING LOT AS QUICKLY AS POSSIBLE.

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.
[Signature] 8/27/90
DATE
SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
[Signature] 8/27/90
DATE
HOWARD S.C.D.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION, AND SITE PLANS

BEFORE BEGINNING CONSTRUCTION, CONTACT 'MISS UTILITY' AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO CONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

7/6/90
DATE
DIRECTOR OF PUBLIC WORKS

6-29-90
DATE
CHIEF, BUREAU OF UTILITIES

ENGINEERS-ARCHITECTS-PLANNERS-SCIENTISTS-SURVEYORS-PHOTOGRAMMETRISTS

GREENHORNE & O'MARA, INC.
113 WEST ROAD, SUITE 208
BALTIMORE, MD. 21204
PHONE (301) 296-4100

REGISTERED PROFESSIONAL ENGINEER
[Signature]

DES:	DRN:	CHK:	DATE:	BY:	NO.:	REVISIONS:	DATE:
KRS	KRS	DSS/RHM	APRIL, 1990				

PLAN FOR WATER MAIN AND SEWER EXTENSION

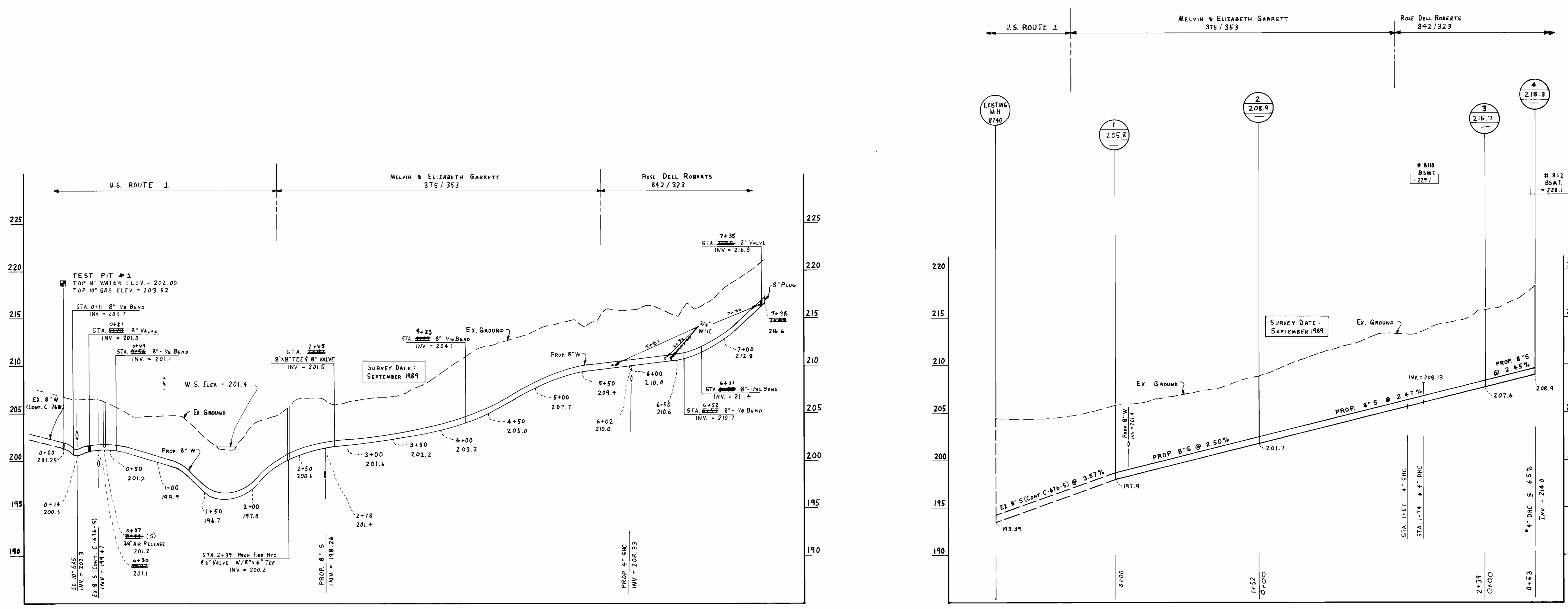
PARK ROAD WATER & SEWER MAIN
CAPITAL PROJECT W-8167
CONTRACT NO. 24-3000
SIXTH ELECTION DISTRICT
HOWARD CO., MARYLAND

SCALE
1" = 50'

SHEET
2 OF 4

AS-BUILT *[Signature]* B-1143-X

* DROP HOUSE CONNECTION, TYPE 'A'
H.C.D.P.W. STD. 52.12



PROFILE SCALE:
HORIZ. : 1" = 50'
VERT. : 1" = 5'

REVIEWED FOR HOWARD S.C.D.
AND MEETS TECHNICAL REQUIREMENTS.
James M. Nelson 8/27/90
U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR
SOIL EROSION AND SEDIMENT CONTROL
BY THE HOWARD SOIL CONSERVATION DISTRICT
Clifford W. Fisher 8/27/90
HOWARD S.C.D. DATE

SEDIMENT CONTROL MEASURES FOR
THIS CONTRACT WILL BE IMPLEMENTED
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BEFORE BEGINNING CONSTRUCTION, CONTACT
'MISS UTILITY' AT 1-800-257-7777 AT LEAST
48 HOURS PRIOR TO CONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
James M. Nelson 7/2/90
DIRECTOR OF PUBLIC WORKS DATE
Robert B. Berman 6-29-90
CHIEF, BUREAU OF UTILITIES DATE

ENGINEERS-ARCHITECTS-PLANNERS-SCIENTISTS-SURVEYORS-PHOTOGRAMMETRISTS
GREENHORNE & O'MARA, INC.
113 WEST ROAD, SUITE 208
BALTIMORE, MD. 21204
PHONE (301) 296-4100



DES: KRS			
DRN: KRS			
CHK: DSS/RHM			
DATE: APRIL 1990	BY NO.	REVISIONS	DATE

PLAN FOR WATER MAIN
AND SEWER EXTENSION

PARK ROAD WATER & SEWER MAIN
CAPITAL PROJECT W-8167
CONTRACT NO. 24-3000
SIXTH ELECTION DISTRICT
HOWARD CO., MARYLAND

SCALE AS SHOWN
SHEET 3 OF 4

