

GENERAL NOTES

- PART I - GENERAL
- 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 U.S.G.S. 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 that 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 Details for Construction (Latest Edition). The contractor shall have a copy of Volume IV on the job.
 - Where test pits have been made on existing utilities, they are noted by the symbol at the location of the test pit. A note or notes containing the results of the test pit or pits is included on the drawings. Existing utilities in the vicinity of the proposed work for which test pits have not been dug shall be located by the contractor two weeks in advance of construction operations at his own expense.
 - Contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:

State Highway Administration	531-5533
BG&E Co. Contractor Services	850-4620
BG&E Co. Under Ground Damage Control	787-9068
Miss Utility	1-800-257-7777
Colonial Pipeline Co.	795-1390
Howard County Department of Public Works Bureau of Utilities	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.
 - The contractor shall notify the Bureau of Highways, Howard County, at (410) 313-2450 at least five 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(c) of the Howard County Code.

- PART II - WATER
- All water mains to 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 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 Standard Details. Soil around the fire hydrant shall be compacted in accordance with Sections 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.
 - For sprinkler system for all townhomes or multi-family dwelling units shall have a minimum of 1' connection with a 3/4" meter.
 - All water house connections shall have individual pressure reducing valves.

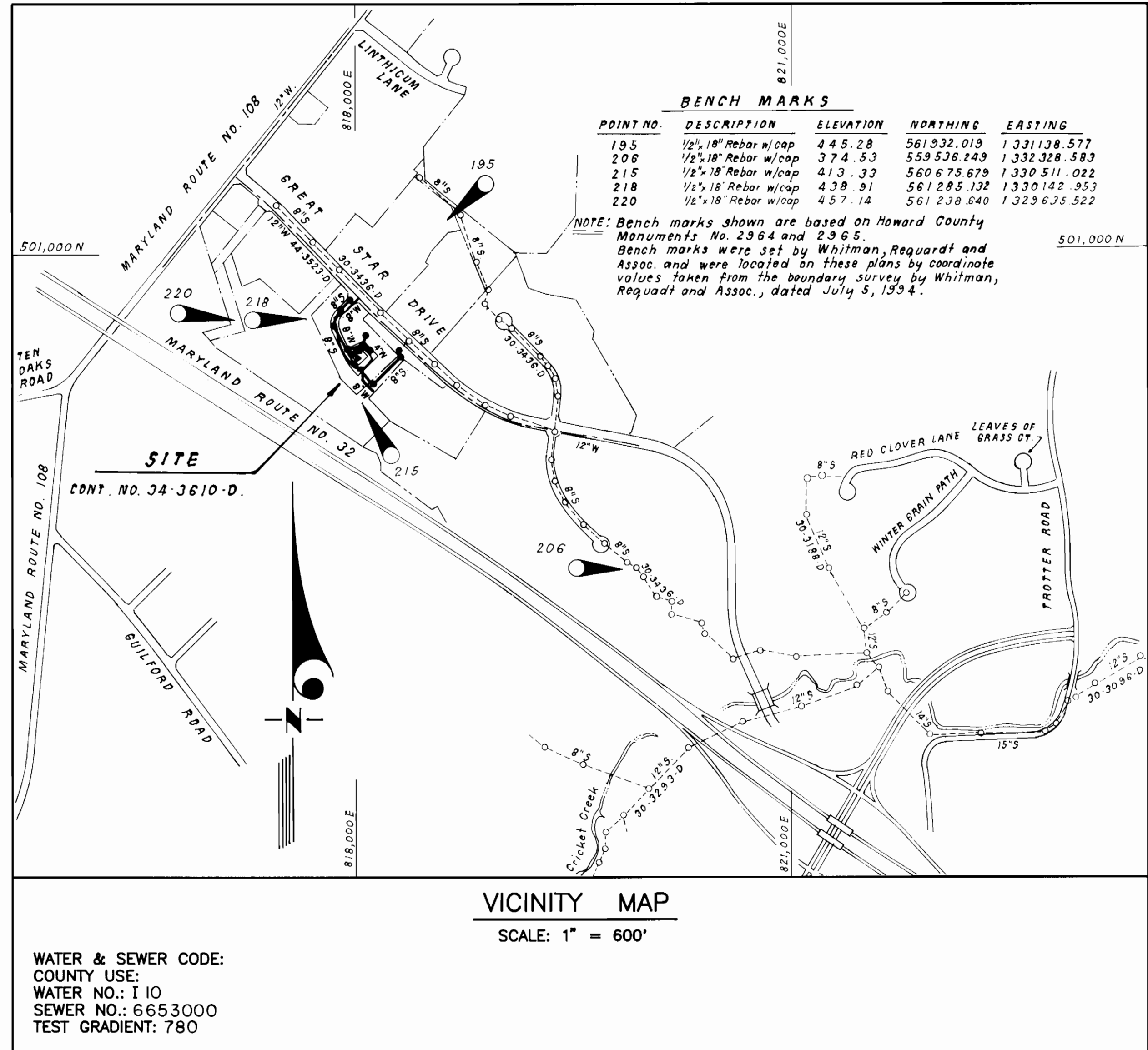
- PART III - SEWER
- All sewer mains shall be DIP or P.V.C. unless otherwise noted.
 - All manholes shall be 4'-0" inside diameter unless otherwise noted.
 - Force mains shall be D.I.P. only.
 - Manholes shown with 12" and 18" walls are for brick manholes only.
 - Manholes designated W.T. in plan and profile shall have watertight frame and covers, Standard Detail G5.52. Where watertight manhole frame and cover is used, set top of frame 1" - 6" above finished grade unless otherwise noted on the drawings.
 - House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

SEWER HOUSE CONNECTION TABLE

LOT NO.	INV. C.O.	MINIMUM CELLAR	LOT NO.	INV. C.O.	MINIMUM CELLAR	LOT NO.	INV. C.O.	MINIMUM CELLAR
B-4	444.7	448.1	B-22	425.9	429.3	B-40	418.3	421.7
B-5	443.7	447.1	B-23	424.5	427.9	B-41	418.2	421.6
B-6	442.9	446.3	B-24	422.4	425.8	B-42	426.7	432.2
B-7	441.2	444.6	B-25	420.7	424.2	B-43	428.4	431.9
B-8	440.9	444.3	B-26	420.3	423.7	B-44	428.3	431.8
B-9	439.7	443.3	B-27	420.4	423.8	B-45	428.2	431.7
B-10	438.9	442.8	B-28	420.3	423.7	B-46	430.3	433.7
B-11	438.4	442.3	B-29	420.1	423.5	B-47	429.8	433.2
B-12	437.7	441.7	B-30	420.0	423.2	B-48	428.2	431.6
B-13	436.8	440.4	B-31	419.9	423.2	B-49	427.6	431.1
B-14	435.7	439.2	B-32	419.4	422.8	B-50	427.6	431.0
B-15	435.2	438.6	B-33	419.3	422.7	B-51	427.4	430.8
B-16	434.1	437.5	B-34	419.1	422.5	B-52	438.4	441.8
B-17	432.9	436.3	B-35	419.0	422.4	B-53	440.1	443.5
B-18	431.2	434.6	B-36	418.9	422.3	B-54	440.8	444.3
B-19	429.5	432.9	B-37	418.8	422.2	B-55	442.9	446.4
B-20	428.3	431.7	B-38	418.6	422.0	B-56	443.8	447.3
B-21	427.3	430.7	B-39	418.5	421.9	B-57	445.0	448.5

WATER AND SEWER STAKEOUT TABLE

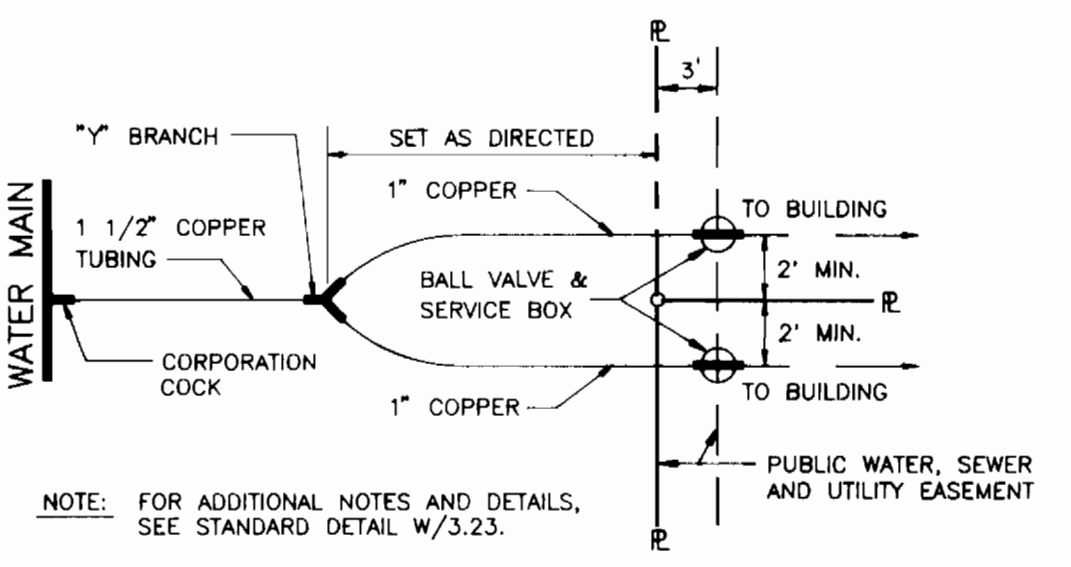
STA.	OFFSET	W. STATION	IDENTIFICATION
0+40	14' LT.	0+00	CONNECT TO EX. 8" W, PC/R=290'
0+80	11' LT.	0+40	8" W PRC/R=290'
0+88	8' RT.		MH NO. 8
1+20	8' LT.	0+80	8" W PT
1+69	8' RT.		MH NO. 7
2+35	10' RT.	1+96	8" 1/8 HB
2+62	5' RT.	2+25	8" 1/16 HB
3+01	9' RT.		MH NO. 6
3+79	6' LT.	3+43	8" W 15" SD CROSSING
4+76	7' RT.		MH NO. 5
4+88	6' LT.	4+51 = 9+04	8" X 8" T
5+10	6' LT.	4+74	8" W PC/R=290'
5+88	11' RT.		MH NO. 4
5+94	7' LT.	5+54	8" W 21" SD CROSSING
6+11	1' LT.	5+70	8" 1/8 HB
6+24	CL	5+82 = 0+00	8" X 8" T
6+38	6' RT.	5+98	4" 1/8 HB
6+60	5' RT.	6+21	4" W 18" SD CROSSING
7+31	6' RT.	6+93	4" 1/8 HB
7+54	1' LT.	7+15	4" 1/8 HB
7+76	10' RT.		MH NO. 10
8+13	6' LT.	7+73	4" 1/16 HB
8+45	13' RT.		MH NO. 9
8+54	5' LT.	8+06	4" 1/8 HB
9+23	5' LT.	8+73	8" X 6" FHT
9+23	17.7' LT.	8+73	CL FIRE HYDRANT
9+30	5' LT.	8+80	8" W 15" SD CROSSING



BENCH MARKS

POINT NO.	DESCRIPTION	ELEVATION	NORTHING	EASTING
195	1/2" 18" Rebar w/cap	445.28	561,932.019	1,331,138.577
206	1/2" 18" Rebar w/cap	374.53	559,536.449	1,332,328.583
215	1/2" 18" Rebar w/cap	413.33	560,675.679	1,330,511.022
218	1/2" 18" Rebar w/cap	438.91	561,285.132	1,330,142.953
220	1/2" 18" Rebar w/cap	457.14	561,238.640	1,329,635.522

NOTE: Bench marks shown are based on Howard County Monuments No. 2964 and 2965. Bench marks were set by Whitman, Regardt and Assoc. and were located on these plans by coordinate values taken from the boundary survey by Whitman, Regardt and Assoc., dated July 5, 1994.



TYPE OF BUILDING	RESIDENTIAL TOWNHOUSES
NO. OF NON-BUILDABLE LOTS	10
NO. OF BUILDABLE LOTS	54
NO. OF WATER HOUSE CONNECTIONS	54
NO. OF SEWER HOUSE CONNECTIONS	54
DRAINAGE AREA	MIDDLE PATUXENT
TREATMENT PLANT	LITTLE PATUXENT W. R. P., SAVAGE

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH ROAD CONSTRUCTION PLAN F-97-168. DRAWINGS 5 8 6, SEDIMENT AND EROSION CONTROL.

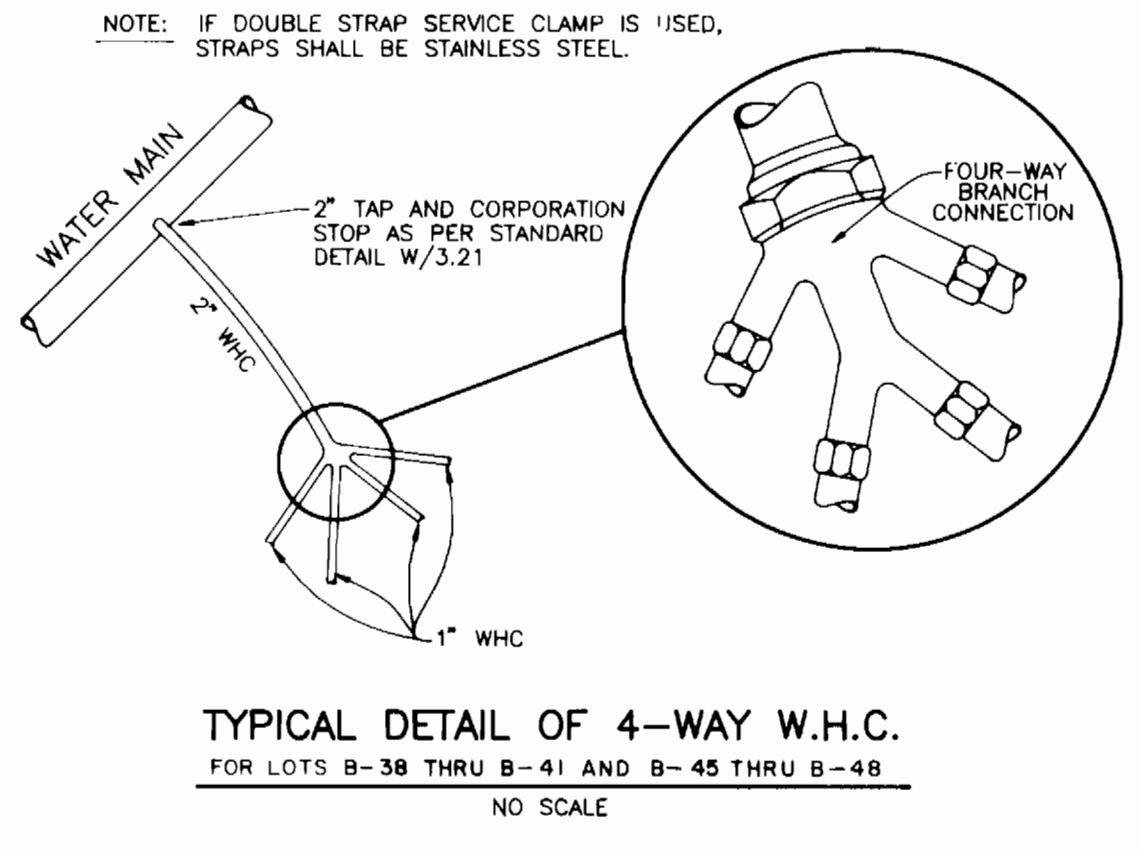
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature]
SIGNATURE DATE 7/10/97

NATURAL RESOURCE U. S. SOIL CONSERVATION SERVICE

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

APPROVED: *[Signature]* DATE 7/16/97
HOWARD S. C. D.



CONTRACT No. 34-3610-D
COLUMBIA, VILLAGE OF RIVER HILL
SECTION 4 AREA 1 PHASE 1
LOTS B-4 THRU B-67
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

QUANTITIES

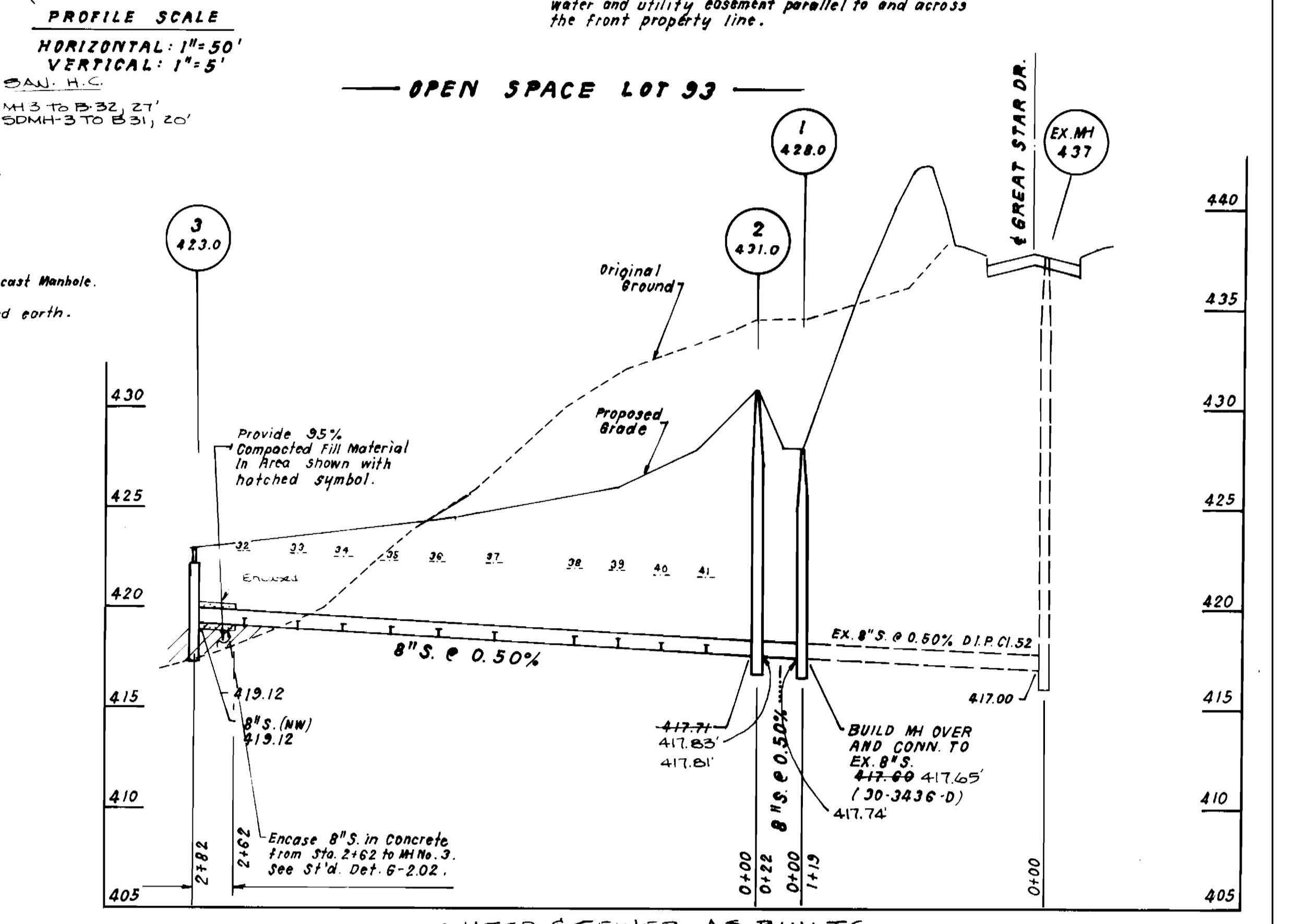
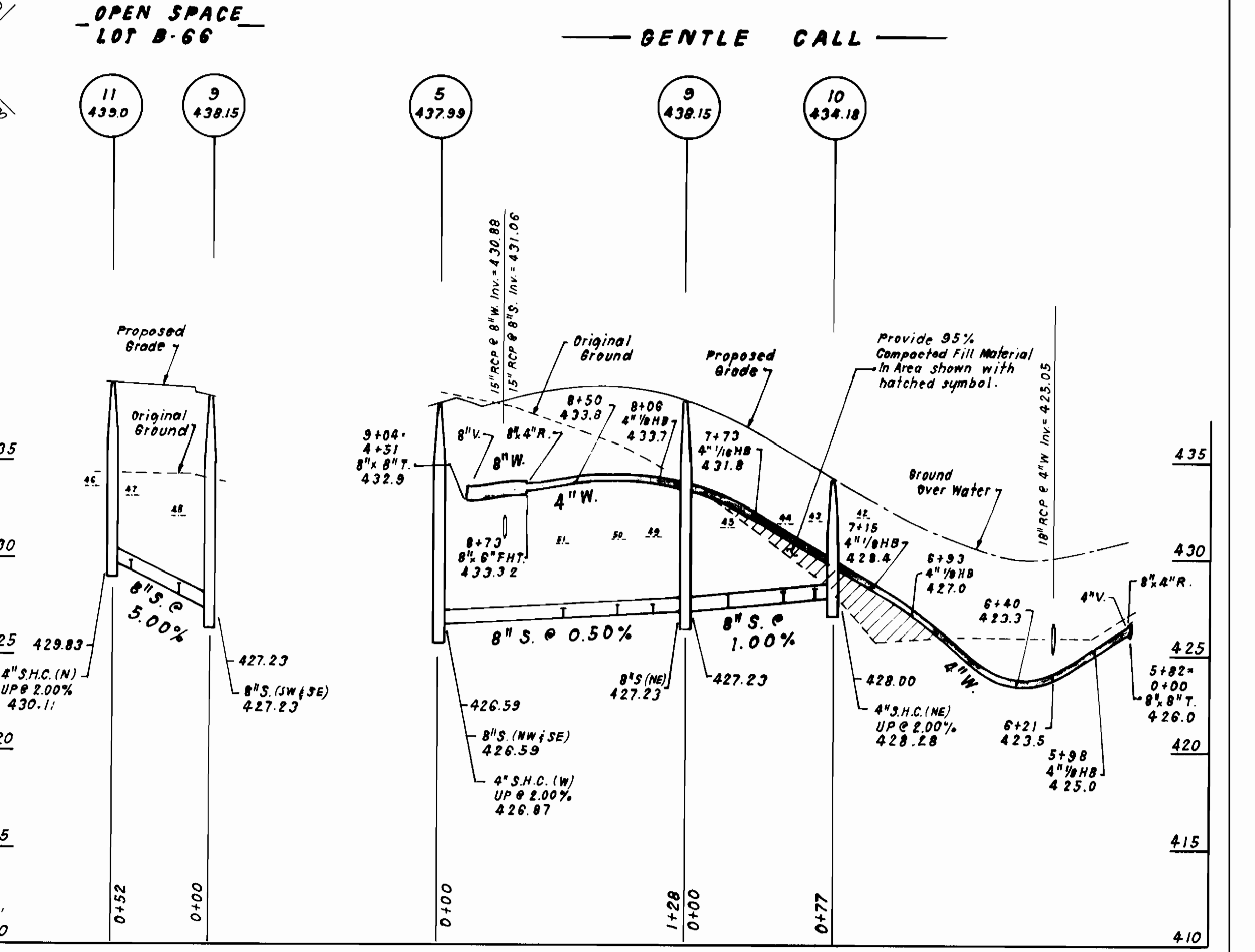
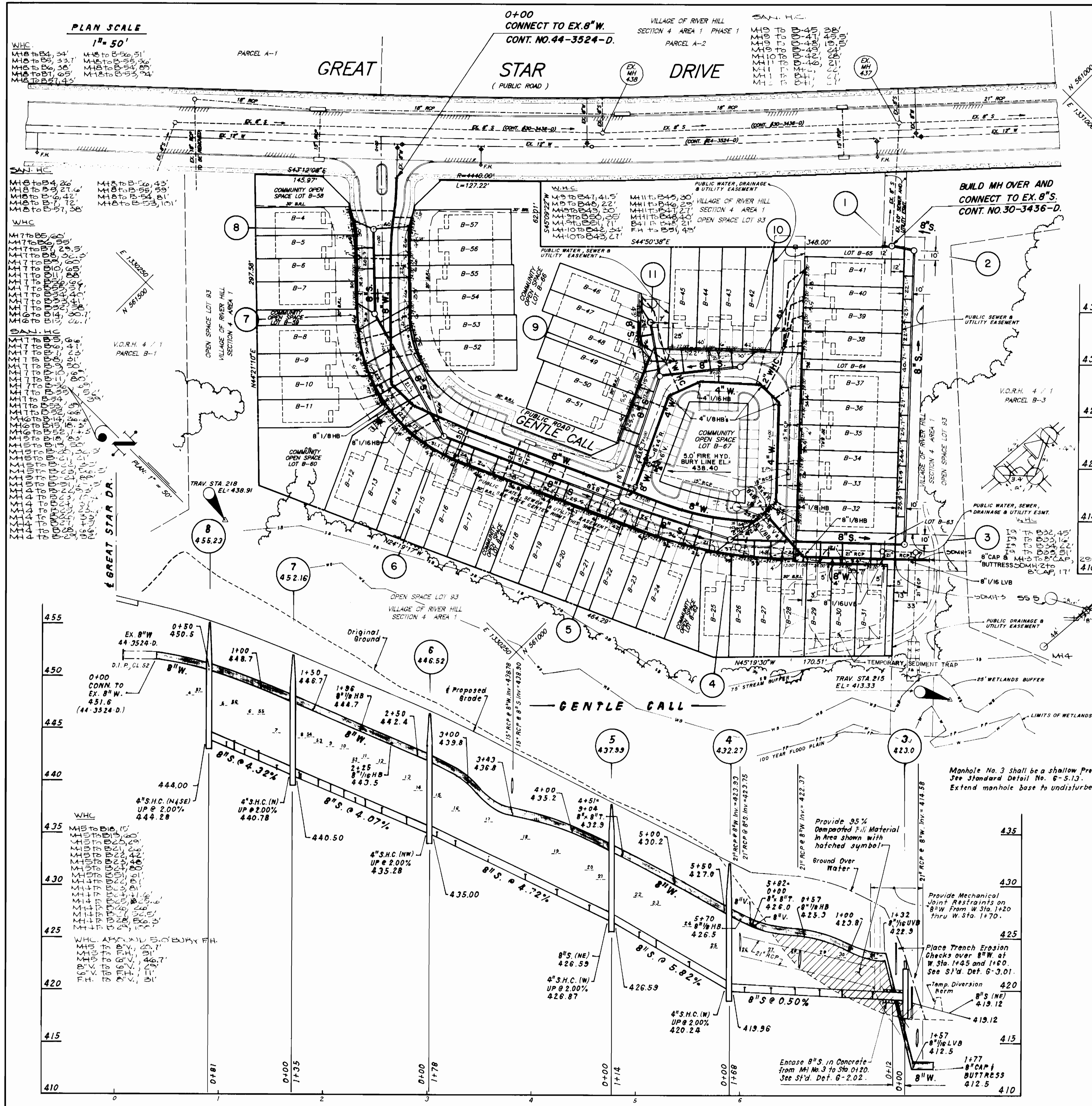
ITEMS	QUANTITIES ESTIMATED	AS-BUILT	
		QUANTITIES	MANUFACTURER/SUPPLIER
8" S	1,237 LF	1,247.41'	SDR 35 PVC J.M. MANUFACTURING
4" SHC	1,120 LF	1,111.3'	SDR 35 PVC "
4" DIA. MH	10 EA.	10	PRECAST ATLANTIC CONCRETE PRODUCTS
SHALLOW MH	1 EA.	1	PRECAST ATLANTIC CONCRETE PRODUCTS
4" W	291 LF	289'	CL 52 DIP ATLANTIC STATES
8" W	790 LF	787'	CL 52 DIP ATLANTIC STATES
2" WHC	75 LF	65	K-COPPER READING TUBES
1 1/2" WHC	265 LF	315.5'	K-COPPER READING TUBES
1" WHC	970 LF	1,049.5'	K-COPPER READING TUBES
F.H. & F.H.V.	1 EA.	1 EA.	KENTURON F.H. MUELLER CO.
8" V	3 EA.	3 EA.	RESURGE GATE MUELLER CO.
4" V	1 EA.	1 EA.	RESURGE GATE MUELLER CO.

NAME OF UTILITY CONTRACTOR: UTILITIES UNLIMITED
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: 4/10/98

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>[Signature]</i> 7-15-97 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>[Signature]</i> 7/21/97 CHIEF, DEVELOPMENT ENGINEERING DIVISION	CLARK · FINEFROCK & SACKETT, INC. ENGINEERS · PLANNERS · SURVEYORS 7135 MINSTREL WAY COLUMBIA, MD 21045 (410) 381-7500 BALT. (301) 621-8100 WASH.	DES: CCM/JTR DRN: LAI/JTR CHK: CCM DATE: APRIL 1997	BY NO. REVISION DATE	600' SCALE MAP NO. 34 & 35 BLOCK NO. 6 & 12/1 & 7	TITLE SHEET	SCALE: AS SHOWN SHEET 1 OF 2
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WATER & SEWER, AS BUILT
COLUMBIA, VILLAGE OF RIVER HILL
SECTION 4 AREA 1 PHASE 1
LOTS B-4 THRU B-67
5TH ELECTION DISTRICT
CONTRACT No. 34-3610-D

CFS 96-191



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

CLARK · FINEPROCK & SACKETT, INC.
ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY SUITE 201 COLUMBIA, MD 21045
(410) 381-7500 BALT. (301) 621-8100 WASH.



DES: CCM & JTR					
DRN: LAI & JTR					
CHK: CCM					
DATE: APRIL 1997	BY NO.	REVISION	DATE	600' SCALE MAP NO. 34 & 35	BLOCK NO. 6.812/18.7

PLAN & PROFILE

COLUMBIA, VILLAGE OF RIVER HILL
SECTION 4 AREA 1 PHASE 1
LOTS B-4 THRU B-67
5TH ELECTION DISTRICT
CONTRACT No. 34-3610-D

SCALE:
AS SHOWN
SHEET
2 OF 2