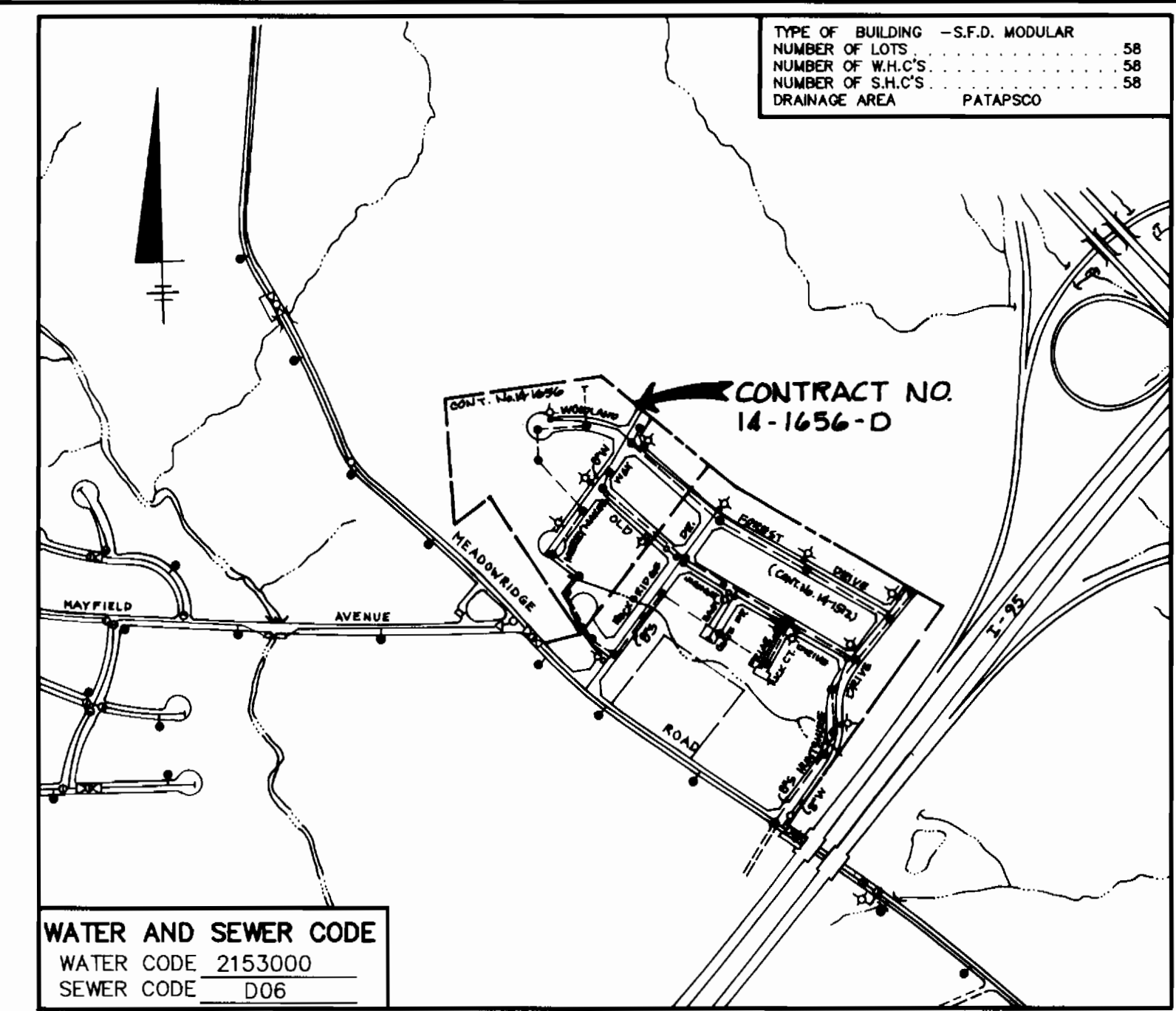
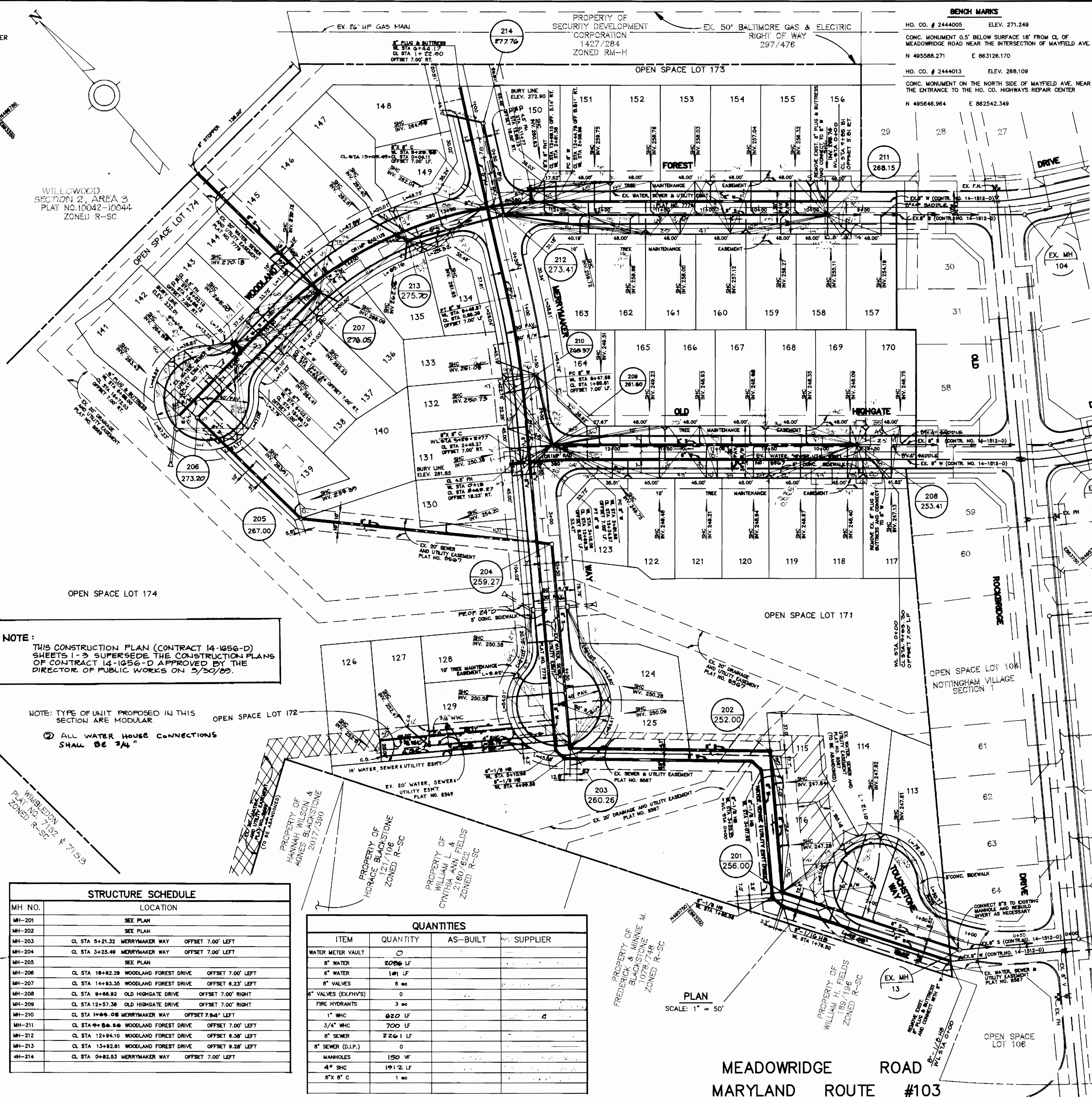


### SEWER HOUSE CONNECTIONS INVERT ELEVATIONS AT PROPERTY LINE

STATION	LOT NO.	INV. @ PL	MIN. CELLER ELEV.
EX MH - 13	INV. OUT 245.54 @ 0.6%		
0-78	113	247.61	251.81
1-20	114	247.82	251.52
MH - 201	INV. OUT 246.81 @ 0.6%		
0-45	116	247.28	250.58
1-05	115	247.64	251.24
MH - 202	INV. OUT 247.82 @ 0.6%		
MH - 203	INV. OUT 247.17 @ 0.6%		
0-07	126	252.81	257.09
0-12	127	252.47	256.47
0-20	128	252.09	255.89
0-46	129	250.56	248.47
0-50	124	250.28	253.98
0-97	128	250.38	254.72
MH - 204	INV. OUT 250.54 @ 2.96%		
1-03	130	254.20	258.00
MH - 205	INV. OUT 250.91 @ 2.40%		
0-11	140	259.39	264.82
MH - 206	INV. OUT 262.59 @ 1.84%		
0-26	141	263.43	267.13
0-37	139	263.91	267.85
0-40	142	263.39	268.25
0-90	138	264.80	268.41
0-99	143	265.00	269.05
1-35	137	265.43	269.43
MH - 207	INV. OUT 264.23 @ 1.07%		
0-43	145	266.20	270.19
0-47	144	270.12	275.20
0-47	144	270.15	275.20
8" STOPPER			
EX MH - 102	INV. OUT 242.82 @ 2.48%		
1-44	170	246.75	250.85
1-42	177	247.13	251.33
MH - 208	INV. OUT 247.70 @ 0.6%		
0-05	119	248.09	252.19
0-09	118	248.40	252.60
0-48	168	248.35	252.45
0-53	119	248.67	252.87
0-99	120	248.94	253.14
1-03	167	248.60	253.41
1-44	121	249.81	253.78
1-50	166	248.93	253.03
1-89	122	249.48	253.69
1-99	165	249.23	253.30
2-34	123	249.75	253.95
2-47	164	249.51	253.61
MH - 209	INV. OUT 249.64 @ 0.72%		
0-58	131	250.38	254.48
0-58	132	250.75	254.86
MH - 210	INV. OUT 250.33		
MH - 210	INV. OUT 251.35 @ 1.80%		
EX MH - 104	INV. OUT 251.35 @ 1.80%		
1-38	157	254.19	258.29
MH - 211	INV. OUT 255.1 @ 1.80%		
0-21	155	255.74	259.94
MH - 211	158	255.39	259.49
0-32	155	256.32	260.52
0-45	159	256.27	260.37
0-72	154	257.04	261.24
0-92	160	257.12	261.22
1-27	153	258.03	262.23
1-41	161	258.00	262.10
1-68	152	258.76	262.96
1-89	151	259.75	263.95
2-23	163	259.72	263.82
2-37	150	260.63	264.83
2-72	150	260.63	264.83
MH - 212	INV. OUT 260.88 @ 0.72%		
0-40	149	262.04	265.64
0-48	134	261.65	265.95
0-87	147	262.40	267.10
MH - 213	INV. OUT 261.76		
MH - 213	135	262.06	266.03
MH - 213	146	262.61	267.11
MH - 212	INV. OUT 260.71 @ 3.54%		
MH - 214	INV. OUT 264.29		
MH - 214	148	264.99	269.23



**WATER AND SEWER CODE**  
 WATER CODE 2153000  
 SEWER CODE D06

**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.C. 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 THE 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. 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 MADE 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:

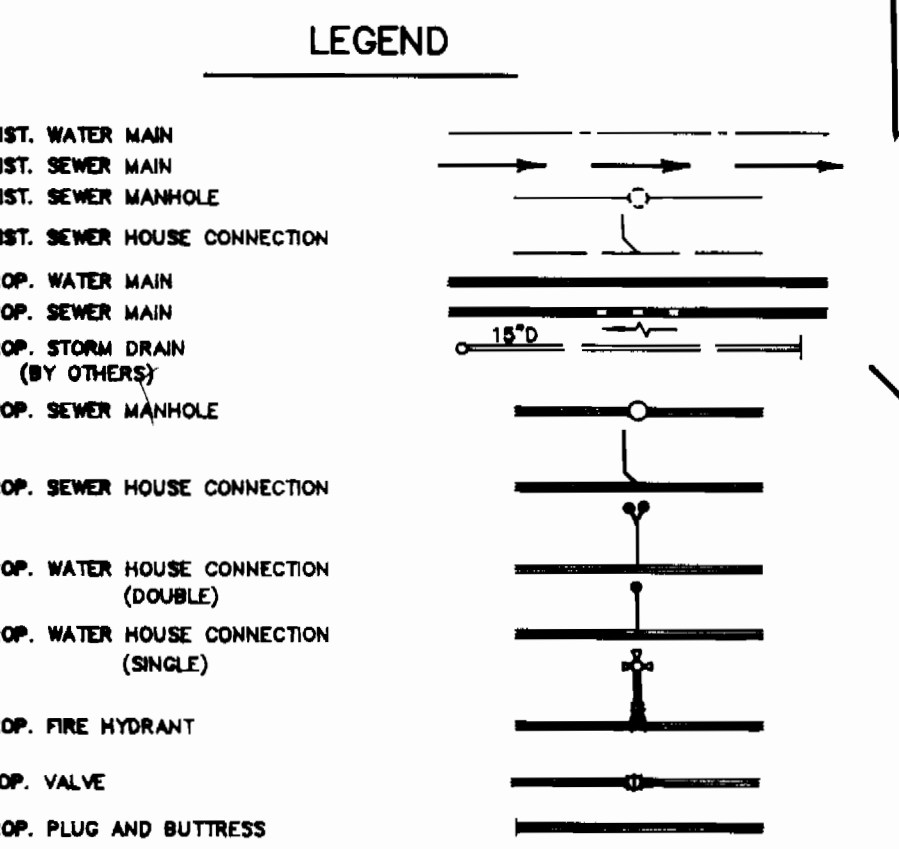
- STATE HIGHWAY ADMINISTRATION.....531-5533
  - BALTIMORE GAS & ELECTRIC CO.....850-4620
  - BALTIMORE GAS & ELECTRIC CO.....787-9068
  - UNDERGROUND DAMAGE CONTROL.....787-9068
  - MISS UTILITY.....1-800-257-7777
  - COLONIAL PIPELINE CO.....785-1390
  - BUREAU OF UTILITIES
  - HOWARD CO. DEPT. OF PUBLIC WORKS.....313-4800
- TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR. CONTRACTOR SHALL REMOVE THE TRUNKS AND ROOTS WITHIN THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
  - PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
  - ALL WATER MAINS TO BE D.I.P. UNLESS OTHERWISE NOTED.
  - TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.

- 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 STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH 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, RCP, VCPX, CSPX, RSPD AND 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.
  - 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 WATER-TIGHT FRAME AND COVERS. STANDARD FRAME SHALL BE 05.52. WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1' - 0" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

**NOTE:**  
 THIS CONSTRUCTION PLAN (CONTRACT 14-1656-D) SHEETS 1-3 SUPERSEDE THE CONSTRUCTION PLANS OF CONTRACT 14-1656-D APPROVED BY THE DIRECTOR OF PUBLIC WORKS ON 3/25/89.

**NOTE:** TYPE OF UNIT PROPOSED IN THIS SECTION ARE MODULAR  
 ALL WATER HOUSE CONNECTIONS SHALL BE 3/4"



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

*James M. Helms/JMH* 7/14/92  
 U.S. SOIL CONSERVATION SERVICE DATE

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

*John R. Robertson* 7/14/92  
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS F-92-35

**STRUCTURE SCHEDULE**

MH NO.	LOCATION
MH-201	SEE PLAN
MH-202	SEE PLAN
MH-203	CL STA 5+21.32 MERRYMAKER WAY OFFSET 7.00' LEFT
MH-204	CL STA 3+25.49 MERRYMAKER WAY OFFSET 7.00' LEFT
MH-205	SEE PLAN
MH-206	CL STA 18+82.28 WOODLAND FOREST DRIVE OFFSET 7.00' LEFT
MH-207	CL STA 14+83.35 WOODLAND FOREST DRIVE OFFSET 6.23' LEFT
MH-208	CL STA 9+86.82 OLD HIGHGATE DRIVE OFFSET 7.00' RIGHT
MH-209	CL STA 12+57.38 OLD HIGHGATE DRIVE OFFSET 7.00' RIGHT
MH-210	CL STA 1+89.08 MERRYMAKER WAY OFFSET 7.94' LEFT
MH-211	CL STA 9+86.82 WOODLAND FOREST DRIVE OFFSET 7.00' LEFT
MH-212	CL STA 12+84.10 WOODLAND FOREST DRIVE OFFSET 6.38' LEFT
MH-213	CL STA 13+82.61 WOODLAND FOREST DRIVE OFFSET 9.28' LEFT
MH-214	CL STA 0+82.53 MERRYMAKER WAY OFFSET 7.00' LEFT

**QUANTITIES**

ITEM	QUANTITY	AS-BUILT	SUPPLIER
WATER METER VAULT	0		
8" WATER	2026 LF		
8" WATER	1 MH LF		
8" VALVES	6 00		
6" VALVES (EXPHYS)	0		
FIRE HYDRANTS	3		
1" MHC	620 LF		
3/4" MHC	700 LF		
8" SEWER	2261 LF		
8" SEWER (D.I.P.)	0		
MANHOLES	150 WF		
4" S/C	1912 LF		
8" X 8" C	1 00		

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*James M. Helms* 8/26/92  
 DIRECTOR OF PUBLIC WORKS DATE

*John R. Robertson* 7-9-92  
 CHIEF, BUREAU OF UTILITIES DATE

*John R. Robertson* 8/26/92  
 CHIEF, BUREAU OF ENGINEERING DATE

*John R. Robertson* 8/26/92  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

T.S.A. GROUP INC.  
 planning • engineering • surveying  
 8480 Baltimore National Pike • Suite 418  
 Ellicott City, Maryland 21043

DES: DAM/JH  
 DRN: JH  
 CHK: DAM  
 DATE: 0-2-92

PLAN OF  
 WATER & SEWER MAINS

600 SCALE MAP NO. 37  
 BLOCK NO. 15 & 16

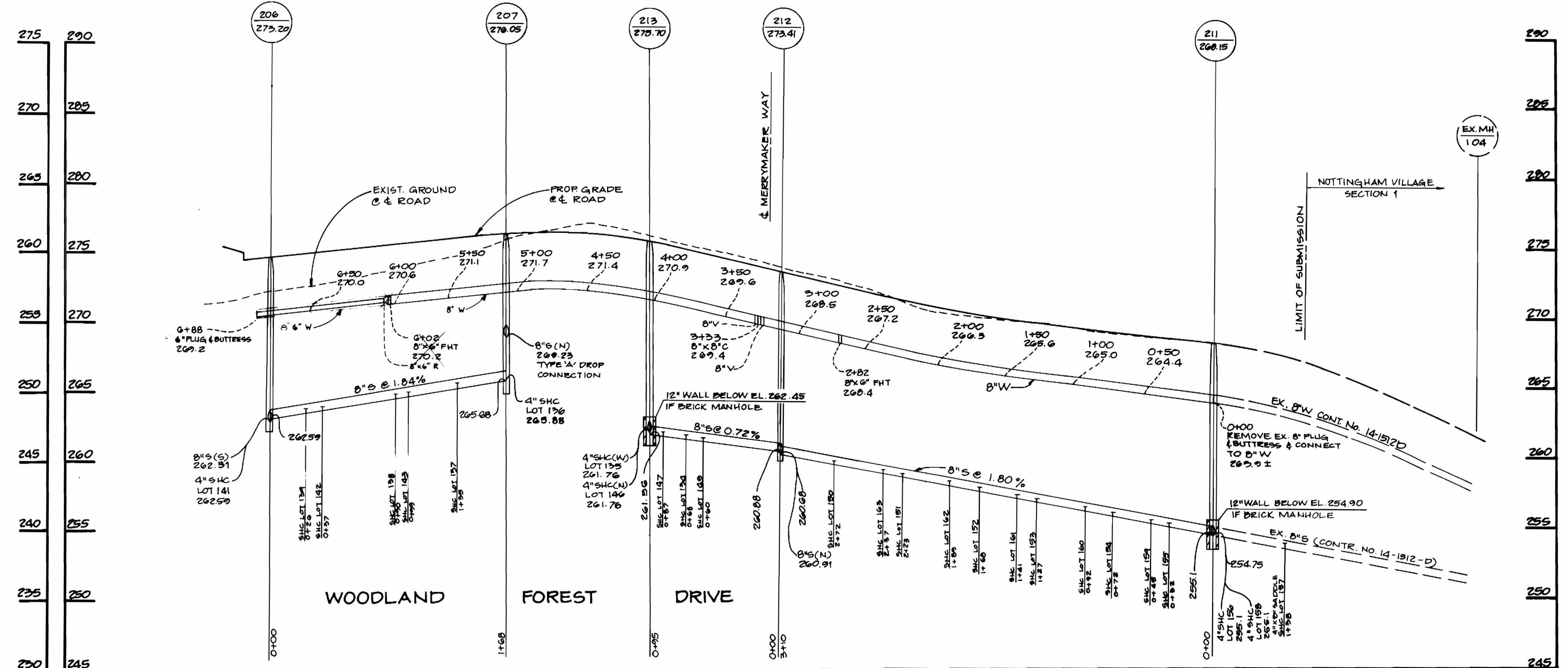
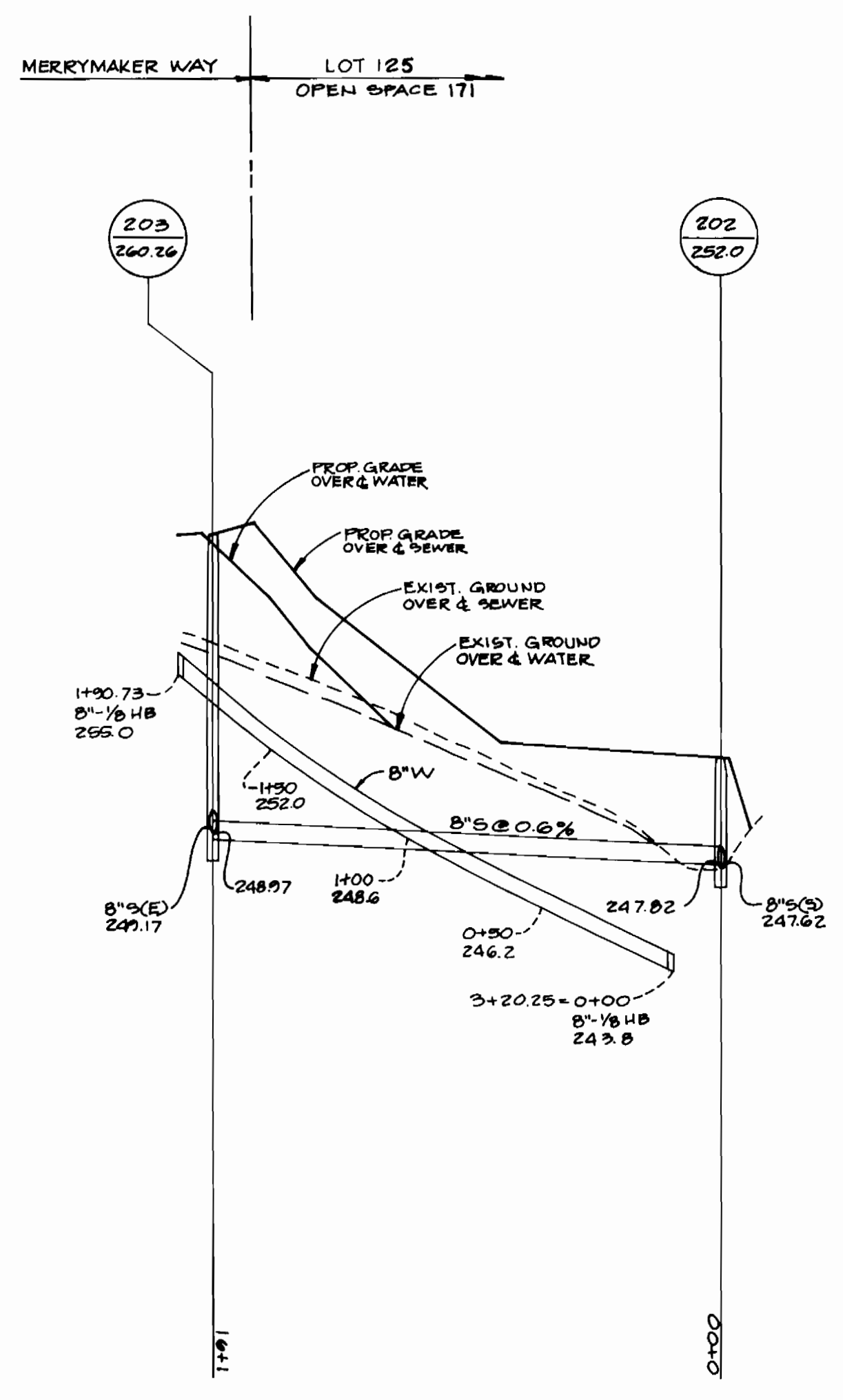
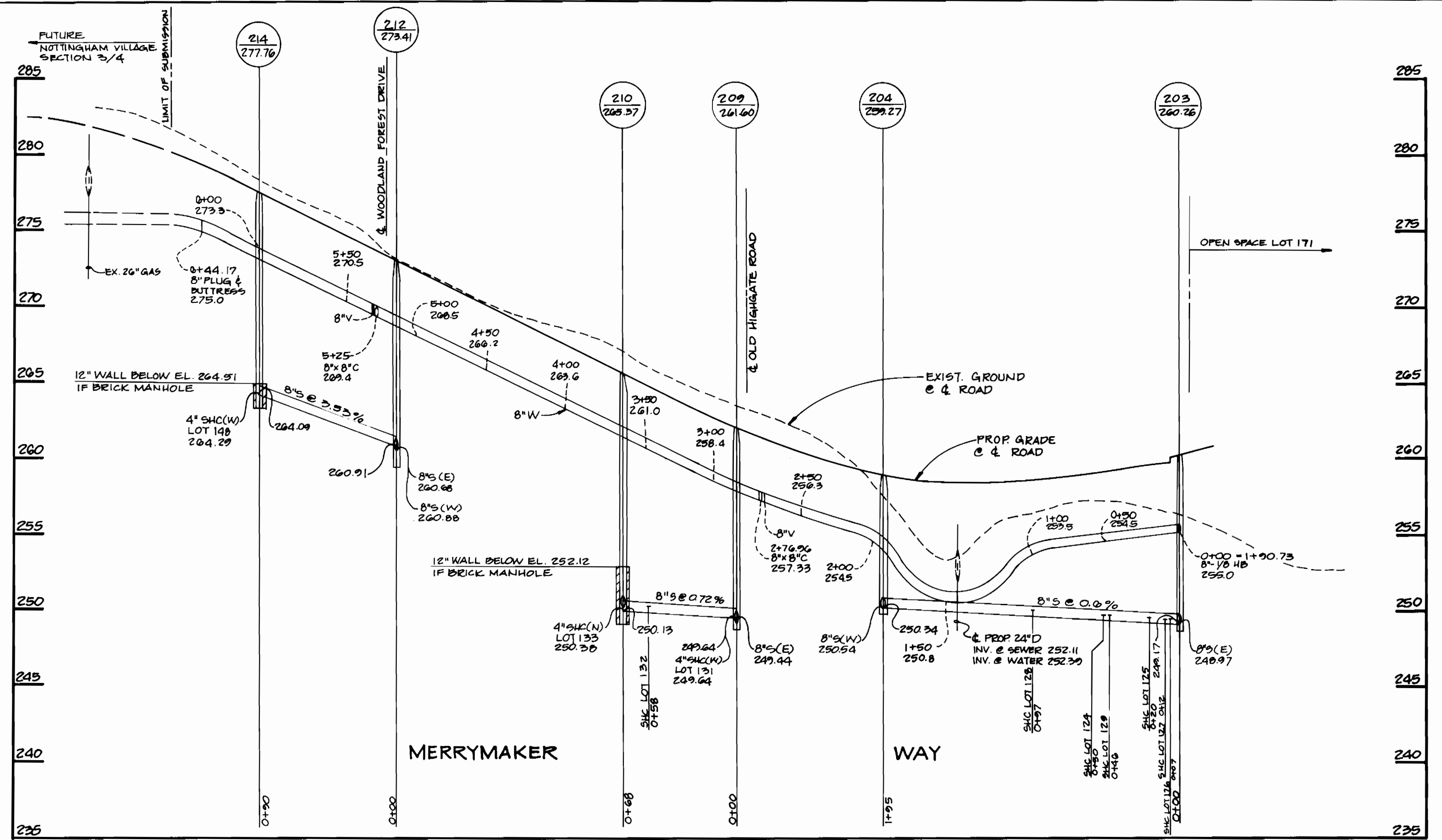
NOTTINGHAM VILLAGE  
 SECTION 2  
 LOTS 113 THRU 174

ELECTION DISTRICT NO. 1  
 CONTRACT NO. 14-1656-D

SCALE AS SHOWN  
 SHEET 1 OF 3



AS-BUILT



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. Brown* 8/26/92  
DIRECTOR OF PUBLIC WORKS DATE

*William J. Reidy* 8-26-92  
CHIEF, BUREAU OF ENGINEERING DATE

*Michael J. Sullivan* 8-29-92  
CHIEF, BUREAU OF UTILITIES DATE

*John J. ...* 8/26/92  
CHIEF, LAND DEVELOPMENT DIVISION DATE

T.S.A. GROUP INC.  
planning • engineering • surveying  
8480 Baltimore National Pike • Suite 418  
Ellicott City, Maryland 21043



DES: DAM/JH	
DRN: JH/JWQ	
CHK: DAM	
DATE: 8-2-92	
BY NO.	
REVISIONS	

PROFILES OF  
WATER & SEWER MAINS

600 SCALE MAP NO. 37  
BLOCK NO. 15 & 12

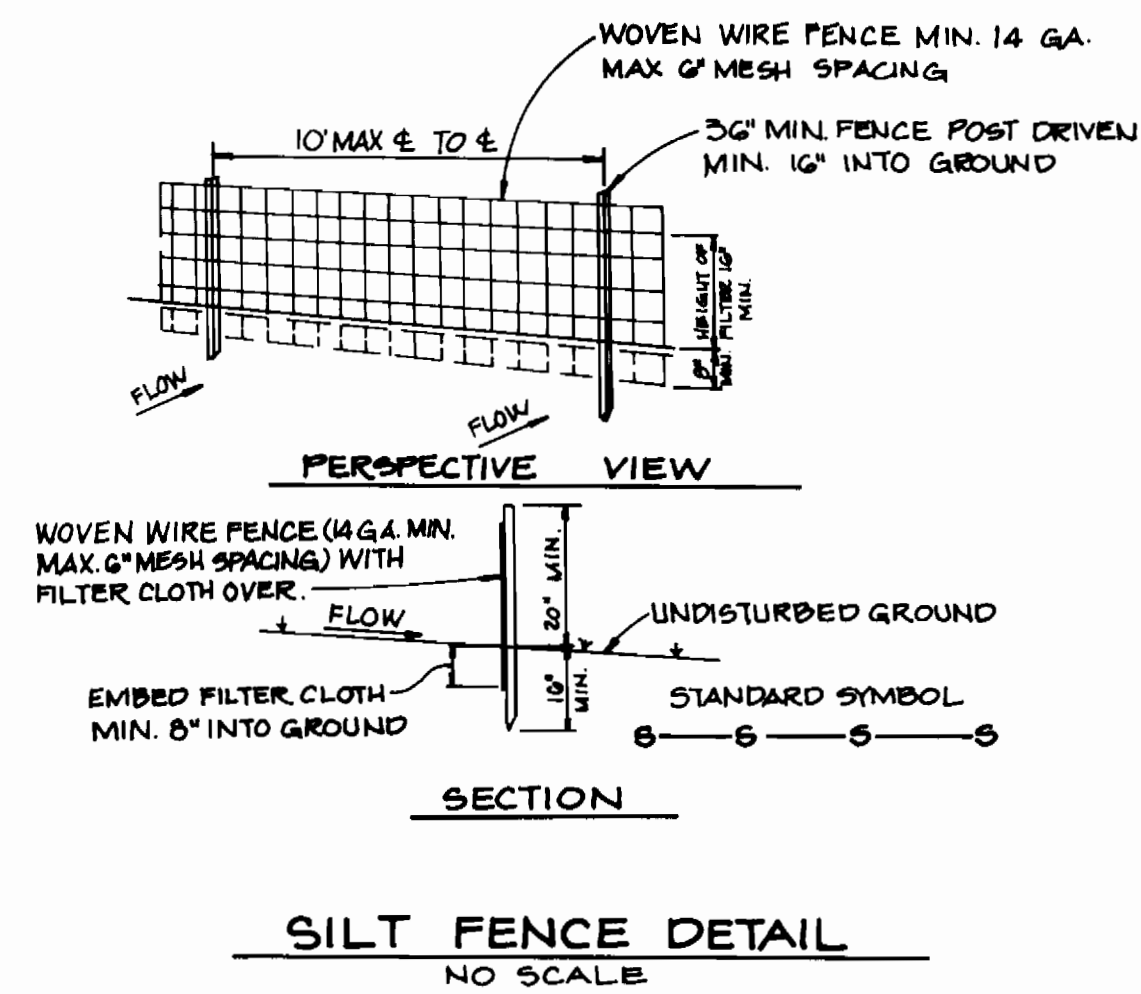
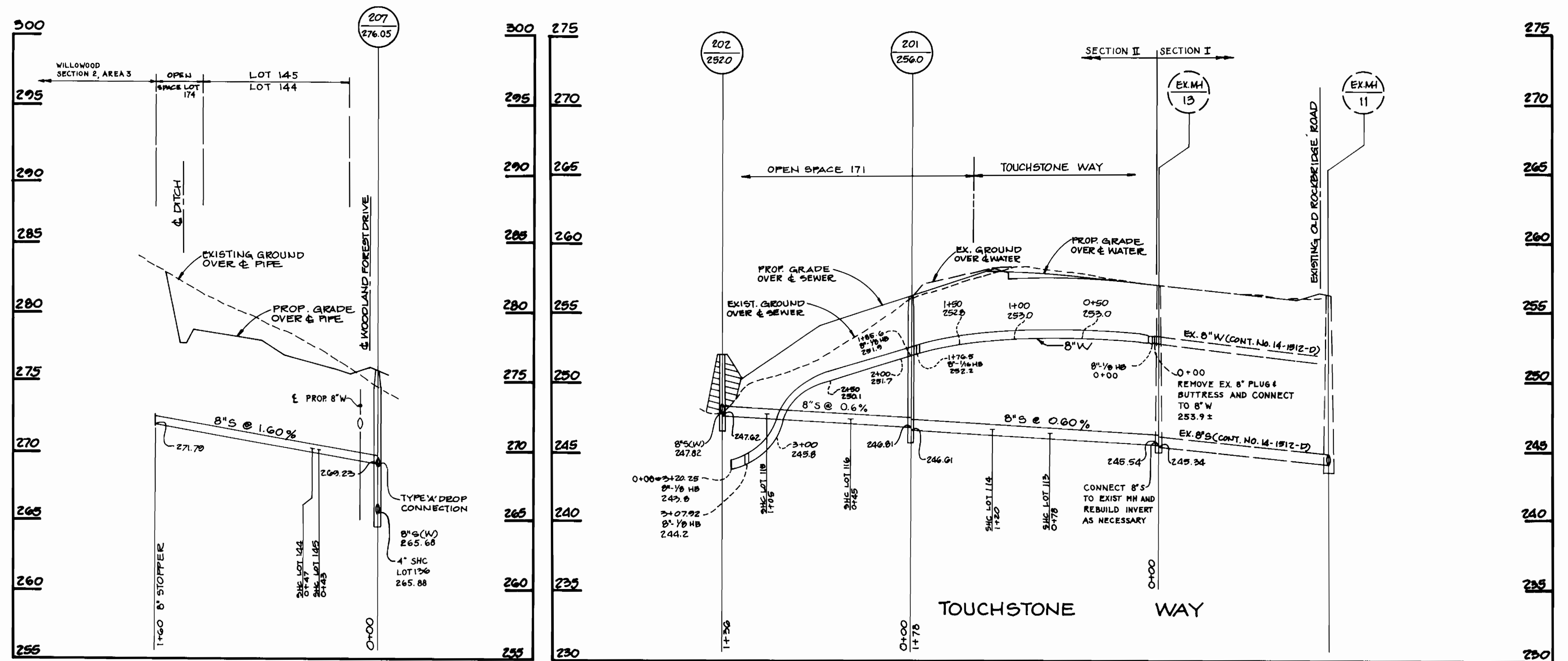
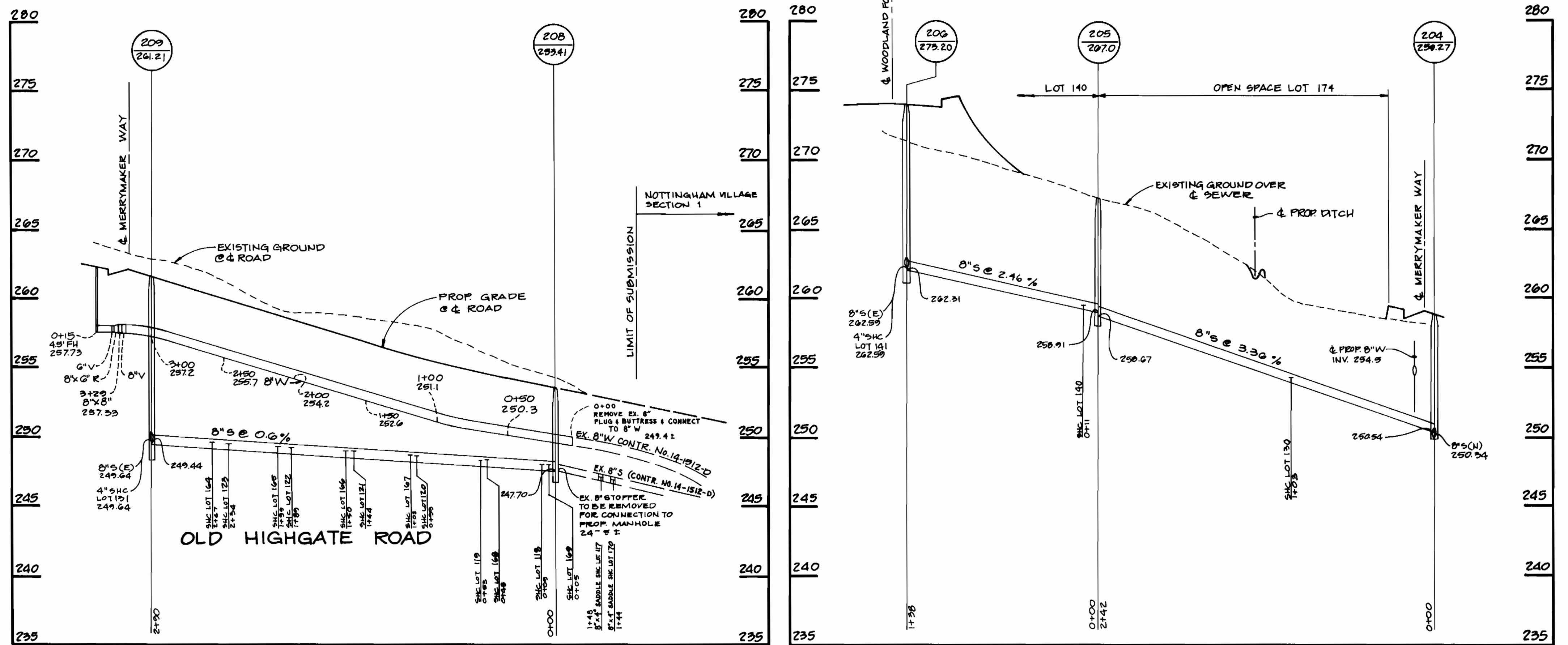
NOTTINGHAM VILLAGE  
SECTION 2  
LOTS 113 THRU 174

ELECTION DISTRICT NO. 1  
CONTRACT NO. 14-1656-D

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

SHEET  
2 OF 3

AS-BUILT 3-5-93



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* Date: 8-26-92  
 Chief, Bureau of Engineering: *[Signature]* Date: 8-26-92  
 Chief, Bureau of Utilities: *[Signature]* Date: 7-9-92  
 Chief, Land Development Division: *[Signature]* Date: *[Signature]*

T.S.A. GROUP INC.

planning • engineering • surveying  
8480 Baltimore National Pike • Suite 418  
Ellicott City, Maryland 21043



DES: DAM/JH	
DRN: JH/JWG	
CHK: DAM	
DATE: 8-2-92	
BY NO.	
REVISIONS	
DATE	

PROFILES OF  
WATER & SEWER MAINS

600 SCALE MAP NO. 37 BLOCK NO. 15 & 16

NOTTINGHAM VILLAGE  
SECTION 2  
LOTS 113 THRU 174

ELECTION DISTRICT NO. 1  
CONTRACT NO. 14-1656-D

SCALE  
HORIZ 1"=50'  
VERT 1"=5'  
SHEET  
3 OF 3