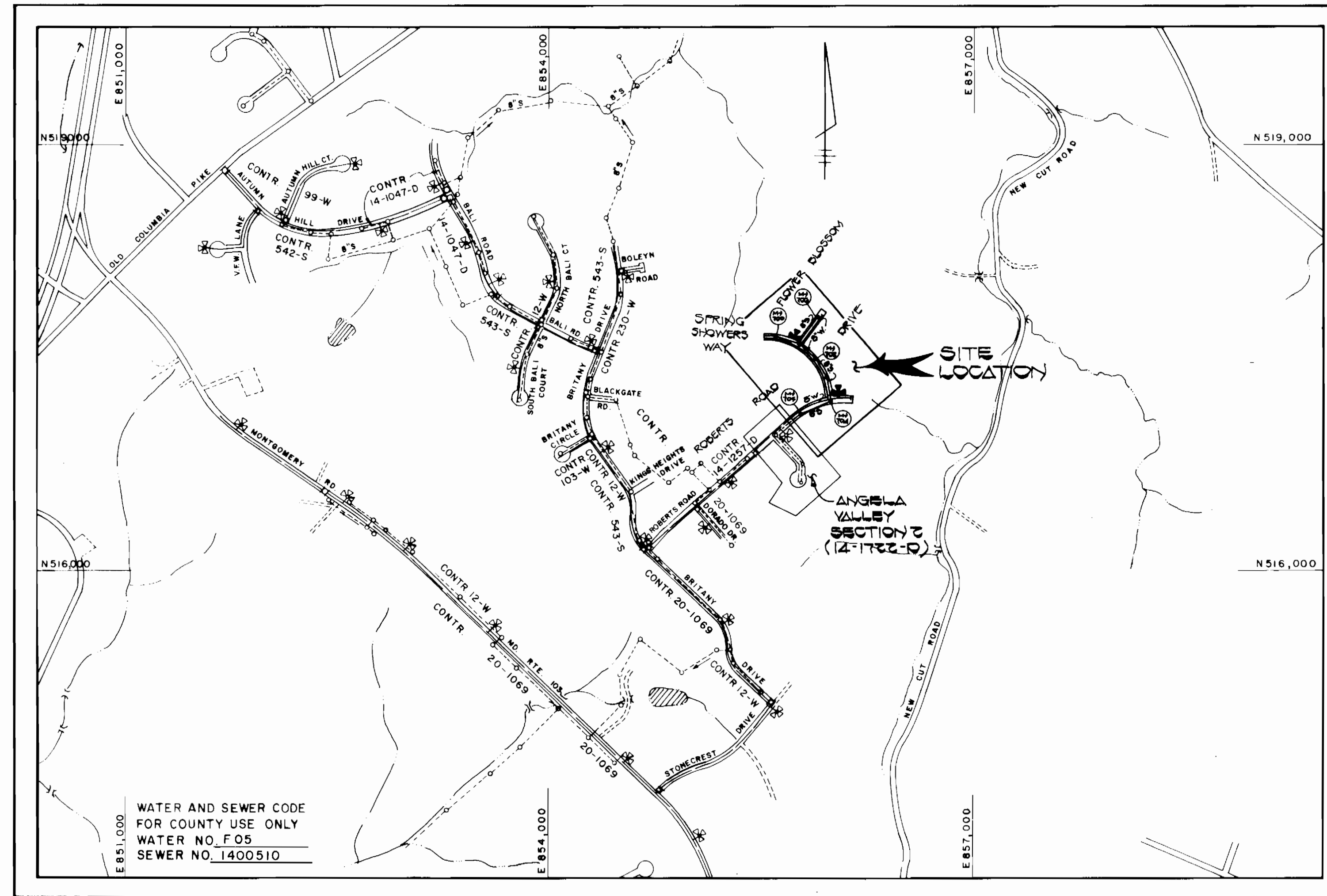


**GENERAL NOTES**

- 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. DATUM.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO 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:
  - STATE HIGHWAY ADMINISTRATION : 531-5533
  - BALTIMORE GAS & ELECTRIC CO. -CONTRACTOR SERVICES: 850-4620
  - BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL: 859-9004
  - BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING: 298-9001
  - MISS UTILITY: 1-559-0100
  - COLONIAL PIPELINE COMPANY: 795-1390
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 992-2366
  - C&P TELEPHONE COMPANY: 1-800-257-7777
- 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 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 1003 AND 1008 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 THE PLANS OR IN THE SPECIFICATIONS. (STD. DETAIL W.3.21).
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT 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.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., A.C.P. CLASS 2400 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.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL G5.51.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153: DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER & OTHER LIQUIDS.
- THIS WATER AND SEWER CONTRACT WILL NOT BE CONSTRUCTED AND PLACED IN SERVICE UNTIL AUTUMN MANOR, SECTION 1, AREA 2, CONTRACT NO. 14-1692-D IS CONSTRUCTED AND PLACED IN SERVICE.



QUANTITIES			
ITEM	EST. Q.	AS-BUILT	SUPPLIER
8" SEWER	1233 L.F.	1224 L.F.	MANUFACTURING CORP.
6" SEWER	745 L.F.	724 L.F.	ATLANTIC CONCRETE PRODUCTS, INC.
MANHOLES	7 EA.	7 EA.	ATLANTIC CONCRETE PRODUCTS, INC.
5" WATER	1462 L.F.	1454 L.F.	ATLANTIC CONCRETE PRODUCTS, INC.
6" WATER	40 L.F.	40 L.F.	"
FLSE HYD.	2 EA.	2 EA.	MUELLER COMPANY
3/4" WTC	310 L.F.	395 L.F.	HONELL METALS
1" WTC	215 L.F.	237 L.F.	"

TYPE OF BUILDING	RESIDENTIAL
NUMBER OF LOTS	29 (27 BUILDABLE)
NO OF WATER HOUSE CONNECTIONS	27
NO OF SEWER HOUSE CONNECTIONS	27
DRAINAGE AREA	PATAPSCO

SCALE: 1" = 600'

**CONTRACT NO. 14-1686-D**  
**AUTUMN MANOR**  
**SECTION TWO (LOTS 155 - 183)**  
**WATER AND SEWER MAIN EXTENSIONS**  
**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**

WATER & SEWER AS-BUILT

CONTRACT NO. 14-1686-D  
 AUTUMN MANOR  
 SECTION TWO (LOTS 155-183)  
 WATER AND SEWER EXTENSIONS  
 HOWARD COUNTY, MARYLAND

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F88-140

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

US SOIL CONSERVATION SERVICE DATE: 3/12/88

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

PLAN REFERENCE NUMBERS:  
 P 87-69 F 88-140

APPROVED:  
 [Signature] 3/12/88  
 HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 [Signature] 3/12/88  
 DIRECTOR OF PUBLIC WORKS DATE  
 [Signature] 3-14-88  
 CHIEF, BUREAU OF UTILITIES DATE

FISHER, COLLINS, AND CARTER, INC.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 8388 COURT AVENUE  
 ELLKOTT CITY, MARYLAND 21043

#9757  
 [Signature] 4/16/87  
 TERRELL A. FISHER DATE

DES. D.B.S.	
DRN. D.B.S.	
CHK:	
DATE: 11/19/87	

TITLE SHEET	
600 SCALE MAP NO. 41	BLOCK NO.

**AUTUMN MANOR**  
**SECTION TWO (LOTS 155-183)**  
**CONTRACT NO. 14-1686-D**  
**SECOND ELECTION DISTRICT**  
**HOWARD COUNTY, MARYLAND**

SCALE AS SHOWN  
 SHEET 1 OF 3

AS-BUILT August 30, 1989

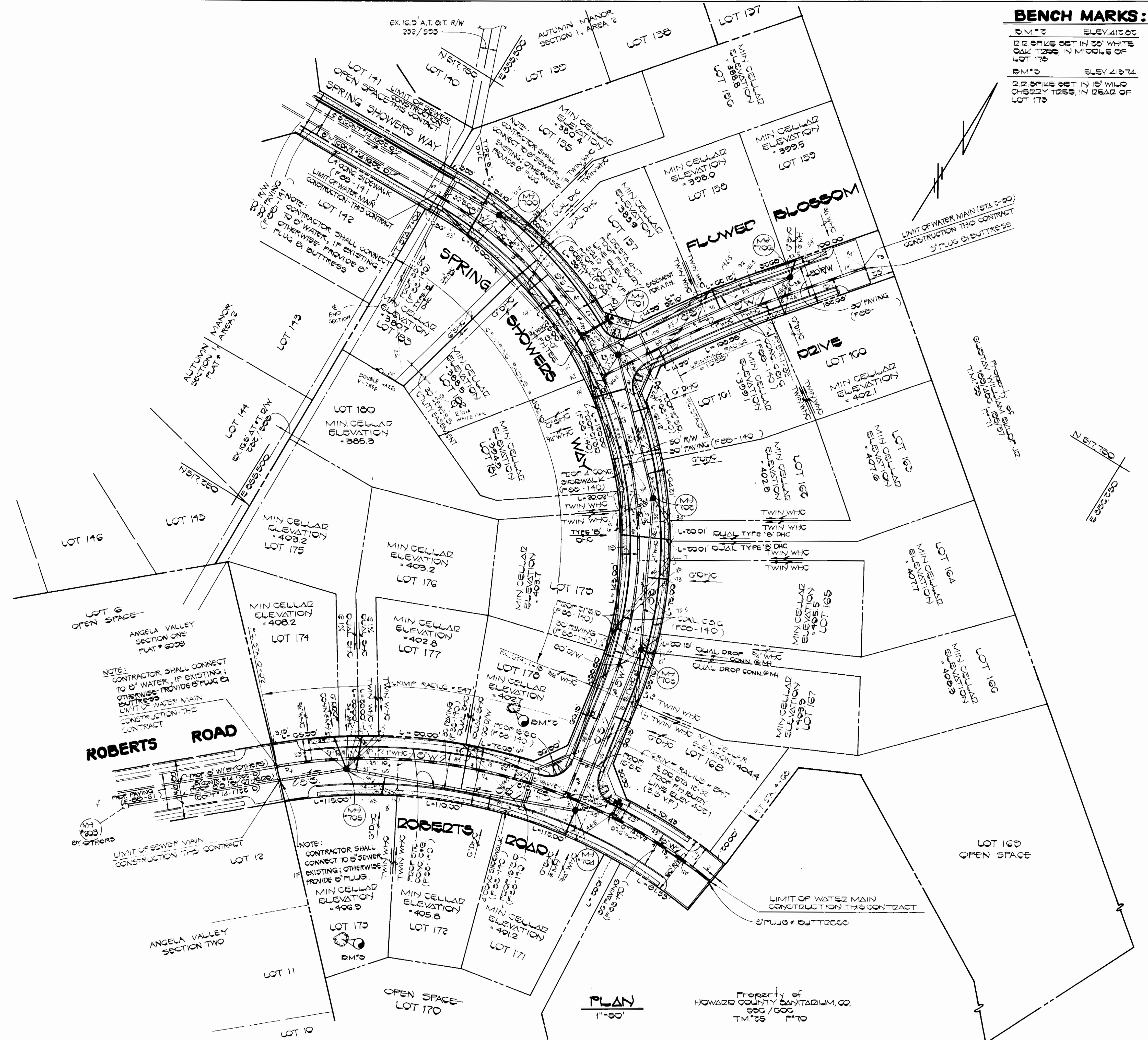


**BENCH MARKS:**

BM # 2 ELEV 418.00  
 2" X 4" OAK SET IN 20' WHITE  
 OAK TREE IN MIDDLE OF  
 LOT 178  
 BM # 3 ELEV 419.74  
 2" X 4" OAK SET IN 15' WILD  
 CHERRY TREE IN REAR OF  
 LOT 178

SEWER HOUSE CONNECTION INVERT ELEVATIONS AT PROPERTY LINE		
STATION	LOT	ELEVATION
M# 700 TO M# 701		
0+50 RT (DHC)	LOT 153	375.70
0+50 LT	LOT 155	375.90
M# 701 TO M# 702		
0+50 LT (DHC)	LOTS 156 + 157	380.40
0+60 RT	LOT 150	380.20
0+70 RT (DHC)	LOT 152	383.10
M# 702 TO M# 703		
0+27 RT	LOT 151	389.02
0+63 LT (DHC)	LOT 161	393.40
1+27 LT (DHC)	LOT 162	397.40
M# 703 TO M# 704		
0+41 RT (DHC)	LOT 175	398.10
0+41 LT (DHC)	LOTS 163 + 164	397.96
0+52 LT (DHC)	LOT 165	400.48
M# 703 LT (DHC)	LOTS 166 - 167	398.86
M# 704 TO M# 705		
M# 704 LT (DHC)	LOTS 168 + 167	398.86
0+74 LT (DHC)	LOT 160	399.36
M# 704	LOT 171	395.73
M# 705 TO M# 706		
M# 705 LT (DHC)	LOT 172	395.73
1+10 LT	LOTS 177 + 170	400.32
1+27 LT (DHC)	LOT 175	397.25
2+27 RT @ 1%	LOTS 172 + 176	401.42
M# 705 RT (DHC)	LOT 174	397.81
M# 706 TO M# 707		
1+14 LT	LOT 169	392.54
1+72 RT (DHC)	LOT 160	396.60
M# 706 LT	LOT 150	393.93

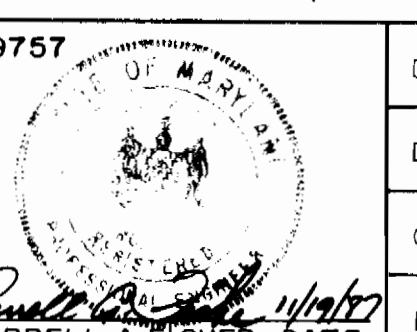
MANHOLE TABULATION				
NO	ELEVATION	DIST	DIM	SLOPE
700	2+65	12' LT	304.70	(+) 5.1%
701	4+51	17' LT	396.90	(+) 6.5%
702	5+27	10' LT	404.99	(+) 5.1%
704	11+20	3' RT	404.04	(-) 6.2%
705	3+50	3' RT	412.64	(-) 1.5%
706	2+00	3' LT	403.91	(-) 1.0%
707	7+40	10' LT	402.69	(-) 0.2%



PLAN  
 1" = 30'  
 PROPERTY OF HOWARD COUNTY SANITARIUM, CO.  
 500 / 600  
 T.M.'65 P.'70

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

FISHER, COLLINS AND CARTER, INC.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 9388 COURT AVENUE  
 ELLICOTT CITY, MARYLAND 21043



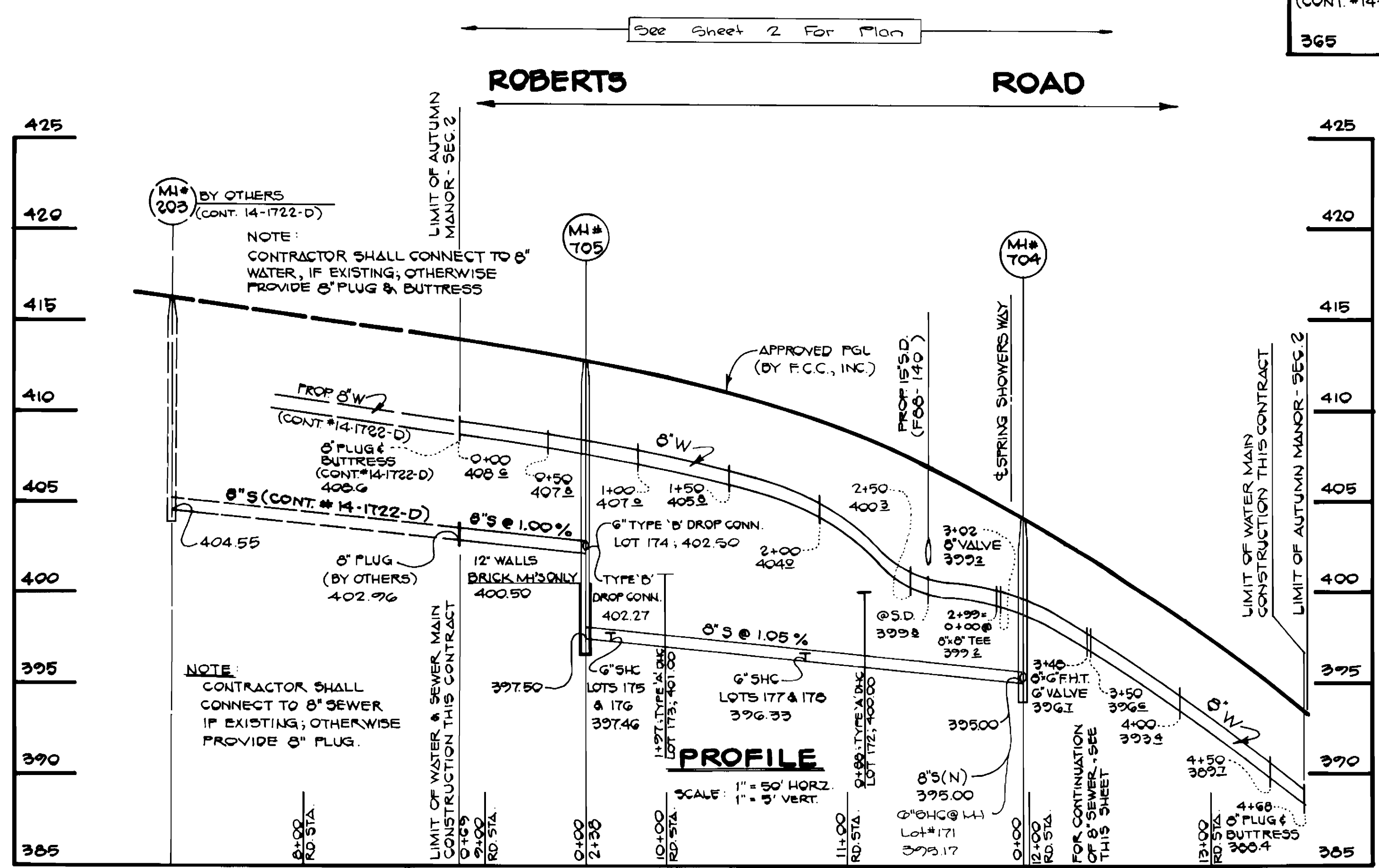
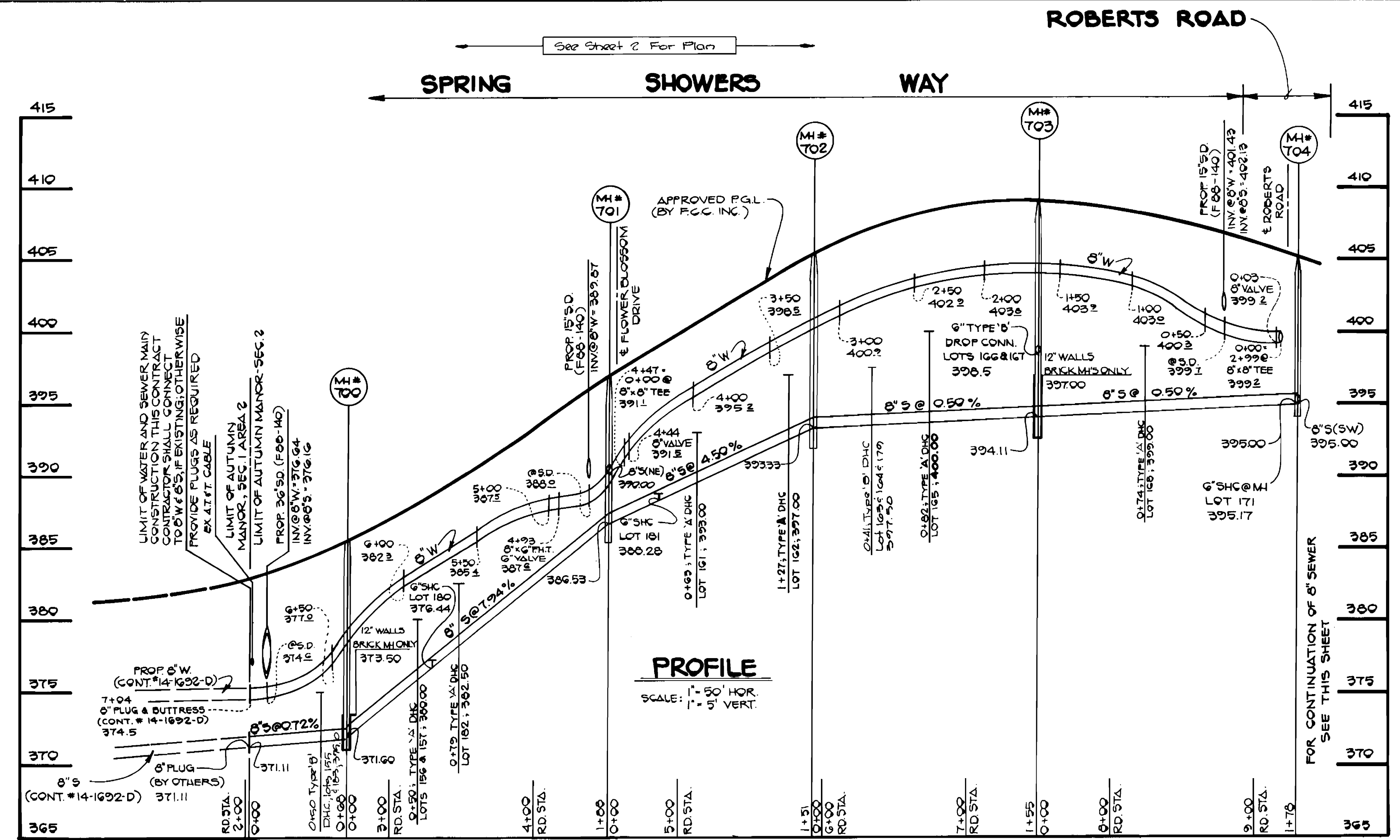
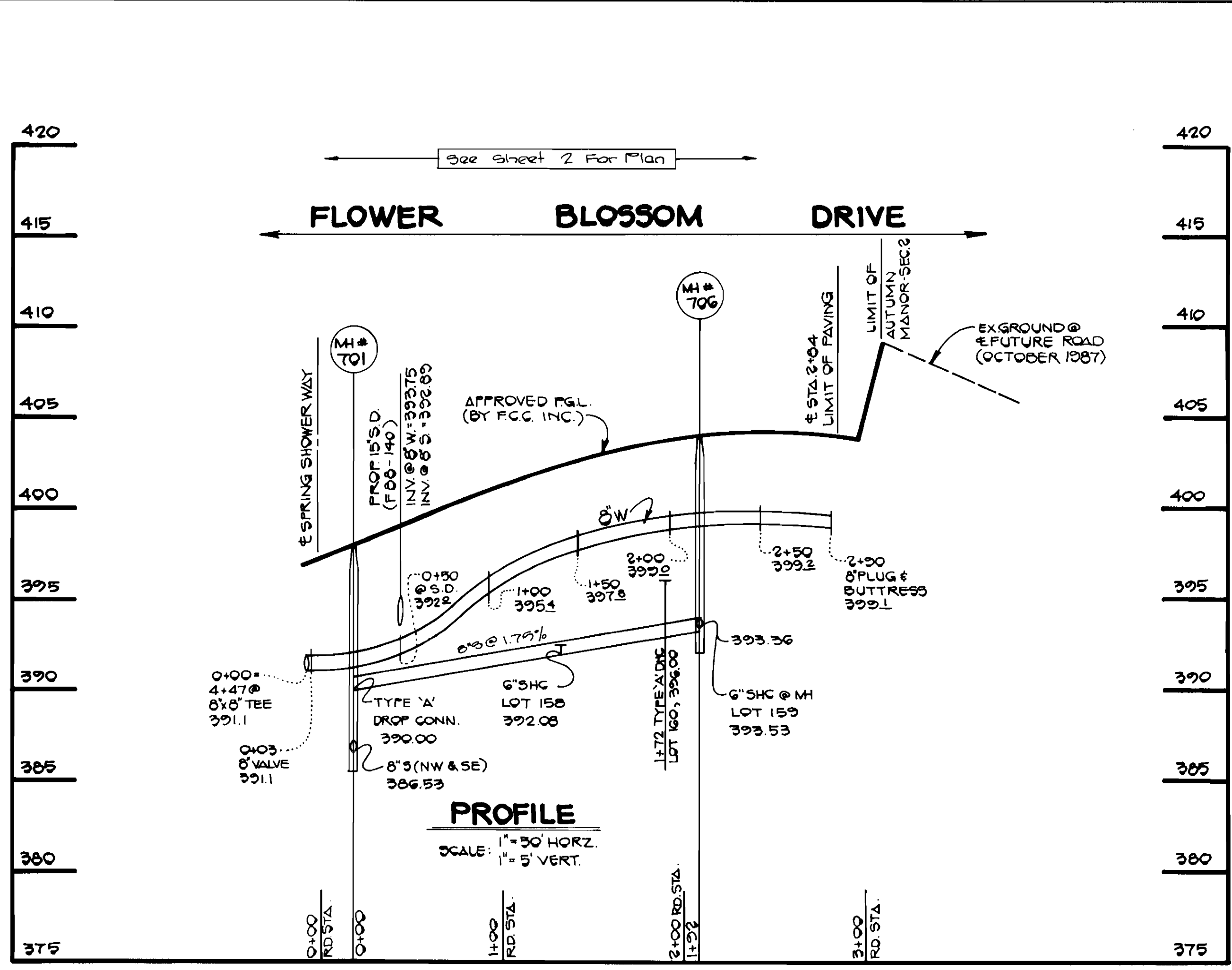
DES: T.A.F.	
DRN: J.O.	
CHK: T.A.F.	
DATE: 11/9/77	
S4	Revise SUC chart
G.W.	Revise SUC chart & Min. Cellar Elevations
BY NO.	REVISION

PLAN  
 WATER AND SEWER MAINS  
 600' SCALE MAP NO. 25 BLOCK NO.

AUTUMN MANOR  
 SECTION TWO (LOTS 155-183)  
 CONTRACT NO. 14-1686-D  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 2 OF 3





REVISED CONSTRUCTION DRAWINGS  
SUPERCEDE ORIGINALS SIGNED ON  
3/17/88 BY DIRECTOR

Revised Profiles

CONTRACT NO. 14-1686-D  
AUTUMN MANOR  
SECTION TWO (LOTS 155-183)  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James P. ...* 1-20-89  
DIRECTOR OF PUBLIC WORKS DATE

*Robert M. ...* 1-20-89  
CHIEF, BUREAU OF UTILITIES DATE

*...* 1/20/89  
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS, AND CARTER, INC.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
8388 COURT AVENUE  
ELLICOTT CITY, MARYLAND 21043

TERREL A. FISHER

DES: G. W.					
DRN: G. W.					
CHK: P. W. K.					
DATE:	BY	NO.	REVISION	DATE	

**PROFILES**  
WATER AND SEWER MAINS

600' SCALE MAP NO. BLOCK NO.

**AUTUMN MANOR**  
SECTION TWO (LOTS 155-183)  
CONTRACT NO. 14-1686-D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 3