

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

APPROVED: *[Signature]* 9/19/91
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN F91-133 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature] 9/19/91
 U.S. SOIL CONSERVATION SERVICE DATE

PLAN REFERENCE NUMBERS:
 P 91-15
 F 91-133

EX. FIRE HYDRANT TO BE REMOVED; CONTRACTOR SHALL INSTALL AN 8" x 6" REDUCER ON TO THE EX. 6" VALVE, AND ATTACH 8" WATER MAIN. RETURN THE FIRE HYDRANT TO BUREAU OF UTILITIES.

WATER MAIN TABULATION

ORD. STATION	APPURTENANCES	DISTANCE
0+52	8" x 6" F.I. TEE	7' RIGHT
1+52	2" CONNECTION	7' RIGHT
2+57	2" CONNECTION	7' RIGHT
3+24	1/8" H.B.	22' RIGHT
4+50	1/16" H.B.	10' RIGHT
4+92	8" x 6" F.I. TEE	7' RIGHT
6+07	8" PULL & BUTTRESS	7' RIGHT

NOTE: THE PROPOSED WATER & SEWER APPURTENANCES ARE LOCATED FROM & PROPOSED ROAD STATIONS.

MANHOLE TABULATION

MH NO.	RD. STATION	DISTANCE	SLOPE	RIM ELEV.
200	0+43	7' LEFT	-1.5%	265.02
201	1+44	7' LEFT	-1.5%	263.52
202	2+28	7' LEFT	-1.0%	262.42
203	3+78	2' RIGHT	+1.8%	263.55
204	4+81	5' LEFT	+1.8%	265.32
205	5+85	6' LEFT	+1.8%	267.16
206	1+44	184' RIGHT		265.6 *
207	2+28	103' LEFT		265.6 *

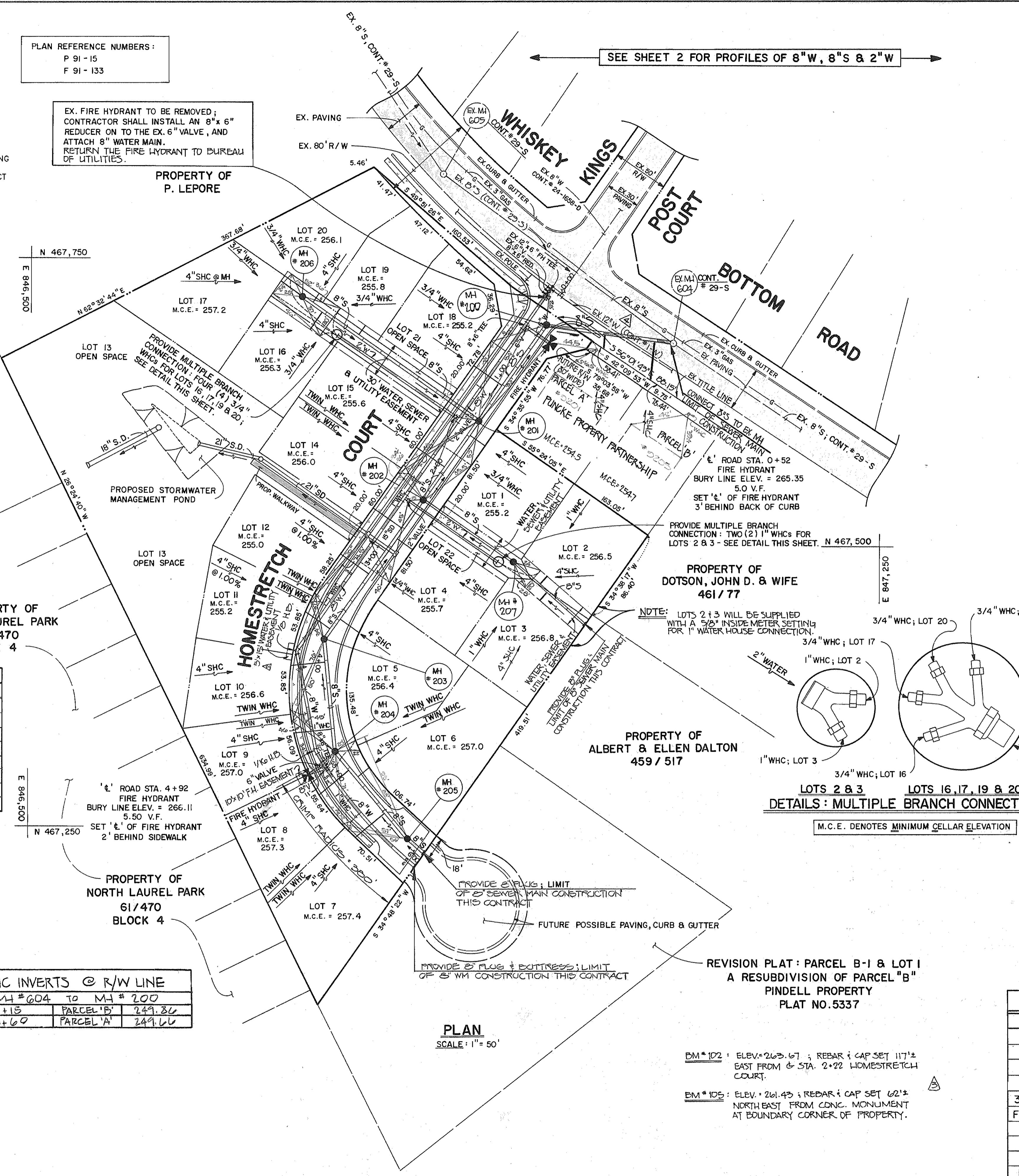
* SET RIM FLUSH W/ PROPOSED FINISHED GRADE

SHC INVERTS @ R/W LINE

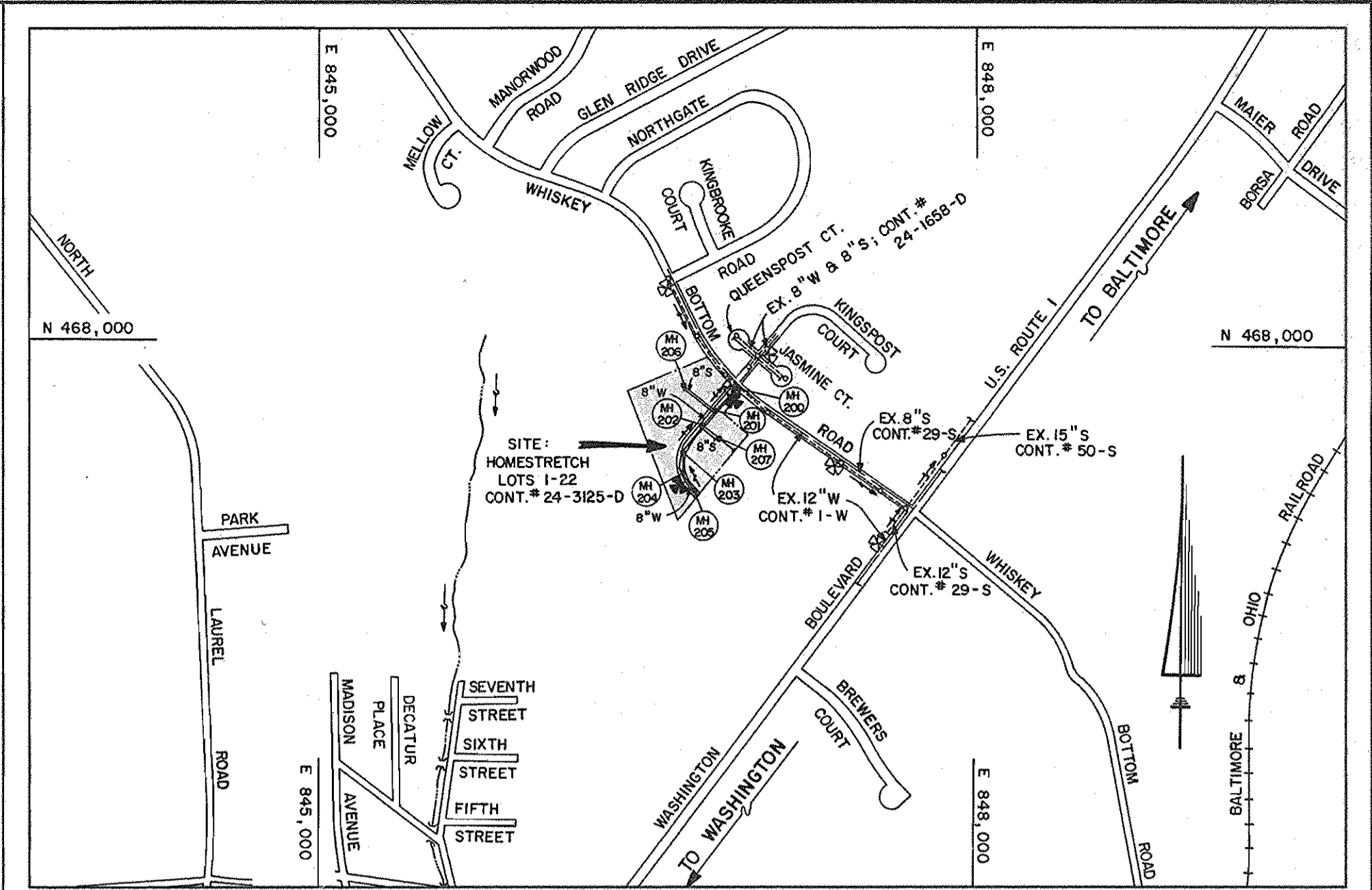
STATION	LOT	INVERT
M.H. 200 TO M.H. 201		
0+65 RT.	18	250.74
M.H. 201 TO M.H. 202		
0+15 LT.	1	250.73
0+51 RT.	15	251.19
M.H. 202 TO M.H. 203		
0+32 RT.	14	251.52
0+42 LT.	4	251.29
0+82 RT.	12 (1.00%)	251.45
1+25 LT.	5	251.81
1+42 RT.	11 (1.00%)	251.71
M.H. 203 TO M.H. 204		
0+21 RT.	10	252.19
0+51 RT.	5	252.57
M.H. 204 TO M.H. 205		
0+21 RT.	8	252.77
0+30 LT.	6	252.43
0+70 RT.	7	252.99
M.H. 201 TO M.H. 206		
1+51 RT.	19	251.43
1+69 LT.	15	251.91
1+80 RT.	20	251.79
@ MH # 206	17	252.29
MH 207 TO PLUG		
0+30 LT.	2	251.84
0+40 RT.	3	251.91

SHC INVERTS @ R/W LINE

EX. M#	TO M#	INVERT
EX. M# 604	TO M# 200	
0+15	PARCEL 'B'	249.36
0+60	PARCEL 'A'	249.60



SEE SHEET 2 FOR PROFILES OF 8"W, 8"S & 2"W

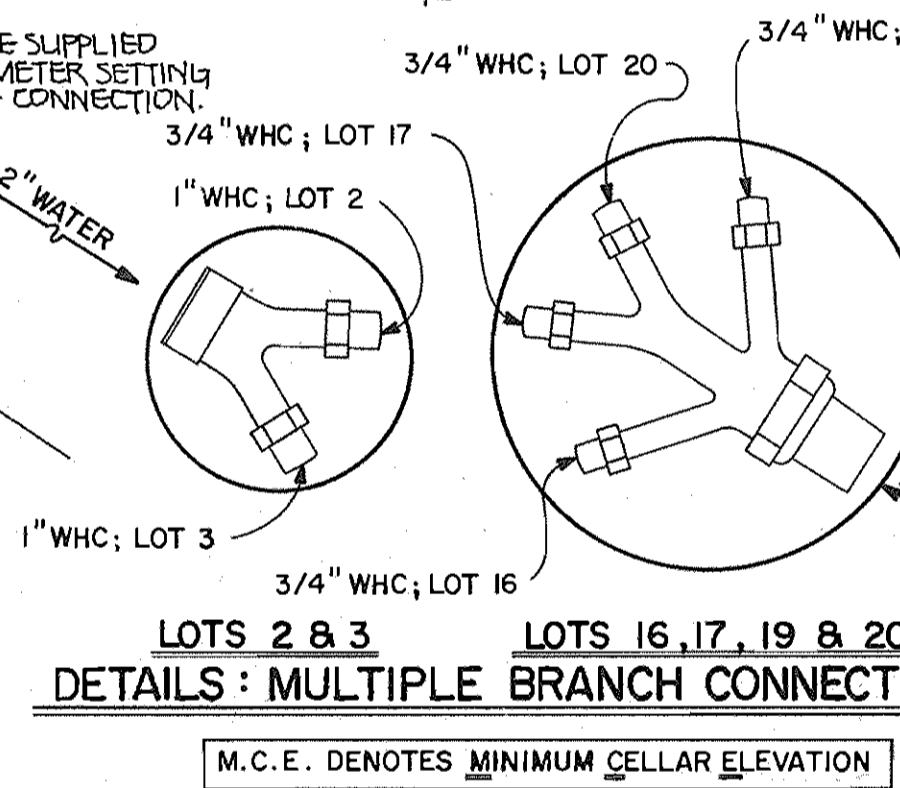


TYPE OF BUILDING: SINGLE FAMILY RESIDENTIAL
 NUMBER OF LOTS: 22 (19 BUILDABLE)
 NO. OF WATER HOUSE CONNECTIONS: 19
 NO. OF SEWER HOUSE CONNECTIONS: 27
 DRAINAGE AREA: PATUXENT

VICINITY MAP
 SCALE: 1"=600'

WATER & SEWER CODE FOR COUNTY USE ONLY
 WATER NO. C09
 SEWER NO. 7102400

- 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 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 (1989 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
 - 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:
 C. & P. TELEPHONE COMPANY - 1-800-257-7777
 STATE HIGHWAY ADMINISTRATION - 531-5533
 BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
 BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 859-9004
 BALTIMORE GAS & ELECTRIC CO. - TROUBLE SHOOTING - 298-9001
 MISS UTILITY - 1-800-559-0100
 COLONIAL PIPELINE CO. - 795-1390
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-2400
 - 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 TREE STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
 - ALL SEWER MAINS SHALL BE C.S.P., R.C.S.P., V.C.P., OR P.V.C. UNLESS OTHERWISE NOTED.
 - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
 - T.B. DENOTES TEST BORING.
 - 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 G 5.52.
 - WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1/8" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTINGS, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
 - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CAN NOT BE SERVED.
 - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN SPECIFICATIONS.
 - MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLES, FRAME AND COVERS STANDARD DETAIL G5.15.
 - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
 - WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED SO AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
 - 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 ELEVATION 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.
 - CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH ANWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.



REVISION PLAT: PARCEL B-1 & LOT 1 A RESUBDIVISION OF PARCEL "B" PINDELL PROPERTY PLAT NO. 5337

QUANTITIES

ITEM	ESTIMATED	AS-BUILT	SUPPLIER
8" WATER	616 L.F.	500 L.F.	GRiffin/BR.S.
6" WATER	50 L.F.	50 L.F.	GRiffin/BR.S.
2" WATER	240 L.F.	230 L.F.	HONELL/BR.S.
1" WATER	107 L.F.	207 L.F.	HONELL/BR.S.
3/4" WATER	364 L.F.	115 L.F.	MUELLER/BR.S.
FIRE HYDRANTS	2 EACH	2 EA.	HOPPE/BR.S.
6" VALVES	2 EACH	2 EA.	MUELLER/BR.S.
8" SEWER	1045 L.F.	1008 L.F.	J.M. MANNING
4" SEWER	413 L.F.	400 L.F.	J.M. MANNING
MANHOLES	8 EACH	8 EA.	ATLANTIC CONCRETE

CONTRACT NO. 24-3125-D
 HEATHERDOWNS
 LOTS 1-22
 WATER AND SEWER EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *[Signature]* 9/19/91
 Chief, Bureau of Utilities: *[Signature]* 9-5-91

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 SUITE 100, 9171 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21043
 (301) 461-2855
 Terrell A. Fisher

DES:	MT	MJM	ADD WM TABULATION CHART	9-19-91
DRWN:	MT / SH	MJM <td>ADD 5" x 8" WM EASEMENT</td> <td>9-21</td>	ADD 5" x 8" WM EASEMENT	9-21
CHK:	PWK	MJM <td>ADD BENCHMARK INFO</td> <td>9-21</td>	ADD BENCHMARK INFO	9-21
		MJM <td>REVISE SEWER MAIN @ WHISKEY BOTTOM RD.</td> <td>5-92</td>	REVISE SEWER MAIN @ WHISKEY BOTTOM RD.	5-92
DATE:				
BY:	NO.		REVISION	DATE

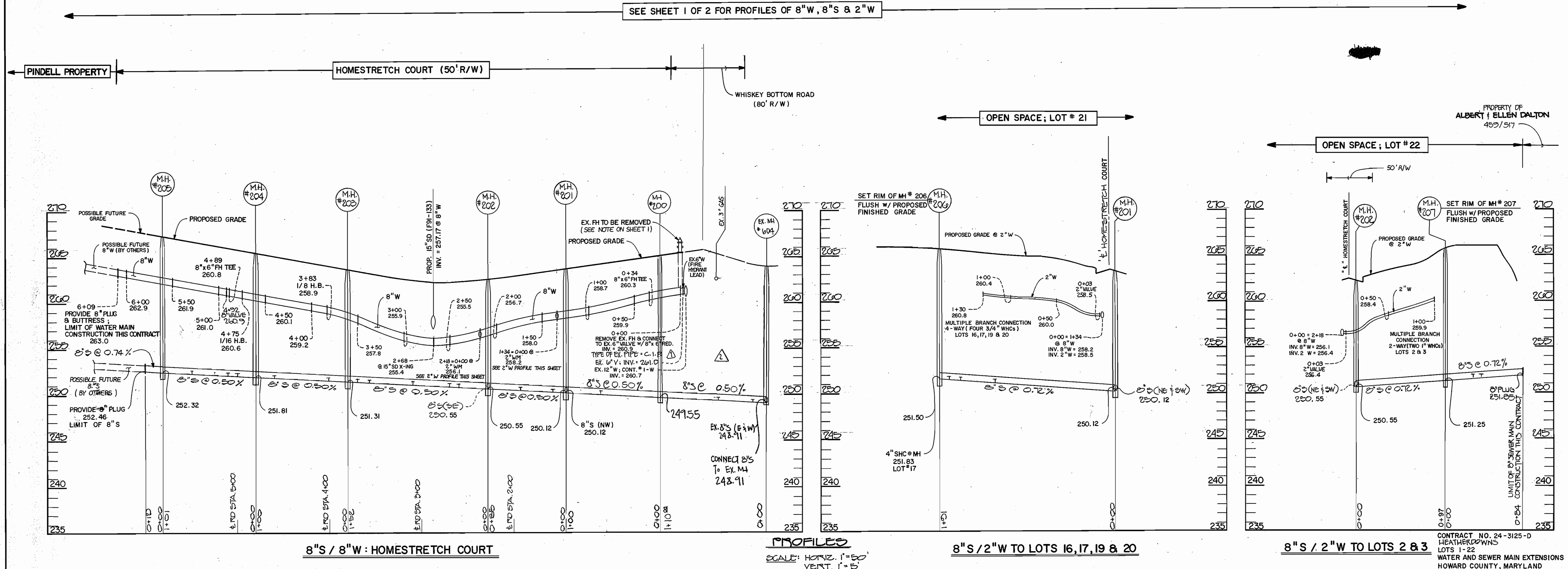
PLAN
 WATER & SEWER MAINS

HEATHERDOWNS
 LOTS 1-22
 CONTRACT NO. 24-3125-D
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY MARYLAND

SCALE AS SHOWN
 SHEET 1 OF 2

AS-BUILT 11-17-92

AS-BUILT S.H.C.			AS-BUILT SHC		
LOT	DIST.	FROM	LOT	DIST.	FROM
#205	38.5	NW CORN. HSE.	19	50	SHC LOT 20
	43.5	NE CORN. HSE.		60	MH 204
	50	FIRE HYDRANT		48	SHC LOT 16
#201	55	MH 200		14	MH 204
	25.5	MH 201		84	SHC LOT 17
	75	MH 202		80	SHC LOT 19
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Roman M. Lewis 9/12/91
DIRECTOR OF PUBLIC WORKS DATE

Robert M. Bauman 9-5-91
CHIEF, BUREAU OF UTILITIES DATE

William R. Bauman 9/18/91
CHIEF, BUREAU OF ENGINEERING DATE

John M. Bauman 9/18/91
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS, AND CARTER, INC. # 9757
CONSULTING ENGINEERS AND LAND SURVEYORS

9171 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21043

STATE OF MARYLAND
TERRELL A. FISHER
REGISTERED PROFESSIONAL ENGINEER
NO. 9157

DES: MT	MJM	ADD TYPES OF EX. PIPES	9-91
DRN: MT/SH	MJM	REVISE SEWER MAIN @ WHISKEY BOTTOM RD	5-92
CHK: PWK			
DATE:	BY:	NO.	REVISION

PROFILES
WATER & SEWER MAINS

600' SCALE MAP NO. 50 BLOCK NO.

LEATHERDOWNS
LOTS 1 - 22
CONTRACT NO. 24-3125-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 2