W.H.C. CHART (AS-BUILTS)

| LOCATION | DISTANCE | DISTANCE | LOCATION | DISTANCE | DISTANCE |
|---|---|---|---|---|---|
| | FROM EX. AIR RELEASE MH | FROM MH 234 | | MH-750 | MH-751 |
| LOT 128 | 51.4' | 11' | LOT 180 | 52.2' | 38.6' |
| LOT 129 | 119.8' | 22.2' | LOT 179 | 56.6' | 36.2' |
| LOT 130 | 124.7' | 23.5' | LOT 164 | 58.8' | 27.2' |
| LOT 236 | 127.0' | | LOT 165 | 102.4' | 24.2' |
| LOT 235 | 131.7' | | | MH-751 | MH-752 |
| LOT 234 | FROM F.H. = 33.0' | FROM I-5 = 44.5' | LOT 178 | 113.6' | 103.2' |
| 6" F.H. VALVE | FROM F.H. = 11.8' | FROM MH 722 = 42.4' | LOT 166 | 45.0' | 160.3' |
| | | | | MH-752 | MH-753 |
| 8" VALVE | FROM F.H. = 28.6' | FROM MH 722 = 21.2' | LOT 167 | 70.1' | 119.2' |
| 12" VALVE | FROM F.H. = 32.4' | FROM MH 722 = 17.2' | LOT 168 | 67.2' | 120.0' |
| | MH-722 | (S.E.) INLET I-4 | LOT 177 | 51.0' | 44.1' |
| LOT 131 | 75.0' | 58.2' | LOT 176 | 51.8' | 23.3' |
| LOT 132 | 83.7' | 62.0' | LOT 175 | 52.0' | 19.7' |
| | MH-722 | (N.W.) INLET I-3 | LOT 174 | 83.1' | 15.0' |
| LOT 185 | 75.7' | 64.6' | LOT 173 | 67.7' | 28.0' |
| LOT 184 | 80.1' | 68.8' | LOT 172 | 51.5' | 54.1' |
| | MH-721 | S.D. MH-10 | LOT 171 | 48.5' | 58.7' |
| LOT 133 | 43.5' | 55.0' | LOT 170 | 25.6' | 88.3' |
| | MH-721 | (N.E.) INLET I-5 | LOT 169 | 25.1' | 52.8' |
| LOT 183 | 45.7' | 47.4' | 8" VALVE | FROM S.MH-753 = 25.0' | FROM S.MH-752 = 68.1' |
| LOT 182 | 42.7' | 43.0' | | MH-761 | MH-760 |
| | MH-721 | MH-750 | LOT 136 | 55.4' | 70.4' |
| LOT 134 | 28.2' | 102.5' | LOT 161 | 55.1' | 88.2' |
| LOT 181 | 35.0' | 100.7' | LOT 160 | 63.0' | 84.5' |
| 12" VALVE | FROM F.H. = 63.6' | FROM MH-750 = 20.5' | 12" VALVE | FROM MH-760 = 15.5' | FROM MH-719 = 104.5' |
| 6" F.H. VALVE | FROM F.H. = 26.3' | FROM MH-750 = 40.8' | | MH-760 | MH-719 |
| | FROM F.H. TO MH-750 = 36.2' | | LOT 159 | 54.8' | 66.5' |
| | FIRE HYDRANT | MH-761 | LOT 158 | 86.3' | 62.4' |
| LOT 135 | 40.1' | 41.5' | 6" F.H. VALVE | FROM MH-719 = 23.0' | FROM F.H. = 26.8' |
| LOT 162 | 60.1' | 51.5' | 6" MAIN VALVE | FROM MH-719 = 18.5' | FROM 8" MAIN VALVE = 3.2' |
| LOT 163 | 51.0' | 60.5' | 8" MAIN VALVE | FROM MH-719 = 17.5' | FROM 6" MAIN VALVE = 3.2' |

QUANTITIES

| ITEM | ESTIMATED | AS-BUILT QUANTITIES | AS-BUILT TYPE | AS-BUILT SUPPLIER |
|---|---|---|---|---|
| 12" WATER | 1075 L.F. | 1,085' | CL. 52 | ATLANTIC STATES - DI PIPE |
| 8" WATER | 1954 L.F. | 1,950' | CL. 52 | " " - " " |
| 6" WATER | 1211 L.F. | 1,206' | CL. 52 | " " - " " |
| 4" WATER | 10 L.F. | 14' | CL. 52 | " " - " " |
| 1" WHC | 1327 L.F. | 1476' | TYPE K | HOWELL METALS - BRS. |
| 3/4" WHC | 1530 L.F. | 1560' | TYPE K | " " - " |
| FIRE HYDRANTS | 6 EACH | 6 EA. | — | 3-MUELLER CO. 3-U.S. PIPE - BRS. |
| 12" VALVE | 4 EACH | 3 EA. | — | MUELLAR - " |
| 8" VALVE | 6 EACH | 6 EA. | — | " - " |
| 6" VALVE | 6 EACH | 6 EA. | — | " - " |
| 6" VALVE (W/O F.H.) | 4 EACH | 4 EA. | — | " - " |
| 4" VALVE | 2 EACH | 2 EA. | — | " - " |
| 8" SEWER | 3535 L.F. | 3534' | SDR 35 | J-M MFG. CO. - BRS. |
| 8" D.I.P. SEWER | 875 L.F. | 873' | CL. 52 | ATLANTIC STATES - AI PIPE |
| 4" SEWER | 3487 L.F. | 3655' | SDR 35 | J-M MFG. CO. - BRS. |
| MANHOLES | 28 EACH | 28 EA. | PRECAST | ATLANTIC CONCRETE |
| NAME OF UTILITY CONTRACTOR: GAINES AND COMPANY, INC. | | | | |
| SURVEY & DRAFTING DIVISION AS-BUILT DATE: | | | | |
| ITEM | ESTIMATED | QUANTITIES | TYPE | SUPPLIER |
| BLOW-OFF ASSEMBLY | 2 EACH | 2 EA. | 3 INCH | KUPFERLE - BRS. |
| 4" D.I.P. SEWER | — | 47' | CL. 52 | ATLANTIC STATES - AI PIPE |

W.H.C. CHART (AS-BUILTS)

| LOCATION | DISTANCE | DISTANCE | LOCATION | DISTANCE | DISTANCE |
|---|---|---|---|---|---|
| | F.H. TO MH-719 = 23.5' | | | MH-724 | S.D. MH-8 |
| | MH-720 | INLET - I-2 | LOT 198 | 42.0' | 85.1' |
| LOT 137 | 70.6' | 100.5' | LOT 199 | 31.3' | 51.1' |
| LOT 138 | 70.6' | 111.3' | | MH-725 | S.D. MH-9 |
| LOT 139 | 55.1' | 54.0' | FUTURE LOT MHC | 35.2' | 13.7' |
| LOT 140 | 59.7' | 51.6' | 8" WATER VALVE (N.W.) | FROM MH-726 = 20.0' | FROM F.H. = 45.0' |
| LOT 141 | 54.0' | 66.5' | 8" WATER VALVE (S.E.) | FROM MH-726 = 24.2' | FROM F.H. = 43.6' |
| LOT 142 | 53.4' | 62.6' | 6" F.H. VALVE | FROM MH-726 = 51.6' | FROM F.H. = 26.5' |
| LOT 143 | 50.5' | 23.1' | 8" PLUG & BUTTRESS | FROM MH-726 = 171.4' | FROM F.H. = 72.5' |
| LOT 144 | 57.3' | 34.7' | FUTURE LOT WHC | FROM F.H. = 18.4' | FROM F.H. = 75.3' |
| LOT 145 | 57.7' | 38.4' | | FIRE HYDRANT | MH-726 |
| | MH-719 | FIRE HYDRANT | LOT 222 | 44.7' | 66.2' |
| LOT 157 | 48.3' | 41.5' | | MH-726 | MH-727 |
| | W.H.C. LOT 157 | MH-718 | LOT 221 | 38.6' | 81.5' |
| LOT 156 | 76.2' | 123.3' | LOT 200 | 65.6' | 48.3' |
| LOT 155 | 80.6' | 110.5' | LOT 201 | 65.5' | 44.4' |
| | FIRE HYDRANT | MH-718 | | MH 727 | MH-728 |
| LOT 146 | 74.6' | 137.5' | LOT 202 | 86.3' | 48.5' |
| | MH-718 | INLET - I-1 | LOT 203 | 51.3' | 44.7' |
| LOT 147 | 81.3' | 80.7' | LOT 220 | 74.2' | 63.2' |
| LOT 148 | 80.6' | 43.0' | LOT 219 | 75.3' | 64.7' |
| LOT 149 | 44.5' | 25.0' | | FIRE HYDRANT | MH-728 |
| LOT 150 | 73.7' | 25.7' | LOT 204 | 62.3' | 75.2' |
| | MH-718 | MH-717 | LOT 205 | 58.0' | 75.3' |
| LOT 151 | 31.6' | 46.6' | LOT 218 | 62.0' | 56.1' |
| LOT 152 | 40.0' | 41.6' | LOT 217 | 38.3' | 101.6' |
| LOT 153 | 32.5' | 23.8' | 6" F.H. VALVE | FROM F.H. = 23.7' | FROM WHC LOT 217 = 43.8' |
| LOT 154 | 33.2' | 28.2' | | FIRE HYDRANT | MH-729 |
| 4" VALVE | FROM MH-718 = 33.7' | FROM 3" BLOW-OFF = 6.6' | LOT 206 | 45.2' | 120.7' |
| 3" BLOW-OFF | FROM MH-718 = 38.5' | FROM 4" VALVE = 6.6' | LOT 216 | 51.0' | 54.8' |
| 6" F.H. VALVE | FROM F.H. = 5.0' | FROM MH-723 = 38.8' | LOT 215 | 55.8' | 85.6' |
| 6" WATER VALVE (S.E.) | FROM F.H. = 30.4' | FROM MH-723 = 20.5' | 6" WATER VALVE | FROM F.H. = 13.8' | FROM MH-729 = 55.7' |
| 6" WATER VALVE (N.E.) | FROM F.H. = 45.0' | FROM MH-723 = 24.0' | 8" WATER VALVE | FROM F.H. = 65.2' | FROM MH-729 = 103.3' |
| | INLET I-12 | MH-732 | | MH-729 | MH-730 |
| LOT 197 | 80.5' | 55.0' | LOT 207 | 55.2' | 45.8' |
| LOT 196 | 85.0' | 52.5' | LOT 208 | 55.2' | 45.8' |
| | INLET I-13 | MH-731 | LOT 209 | 57.6' | 44.0' |
| LOT 186 | 72.6' | 55.6' | LOT 210 | 55.6' | 44.5' |
| LOT 187 | 76.6' | 55.3' | LOT 211 | 36.4' | 65.0' |
| | MH-732 | MH-731 | LOT 212 | 34.0' | 68.6' |
| LOT 188 | 85.5' | 45.7' | LOT 213 | FROM MH-729 = 23.8' | FROM WHC LOT 212 = 34.0' |
| LOT 189 | 83.5' | 45.5' | | | |
| LOT 190 | 55.5' | 20.0' | | | |
| LOT 191 | 53.1' | 16.5' | | | |
| LOT 192 | 16.1' | 41.1' | | | |
| LOT 193 | 14.0' | 44.3' | | | |
| LOT 194 | 32.1' | 72.0' | | | |
| LOT 195 | 35.8' | 74.3' | | | |

FOR W.H.C. TO LOTS 223 THRU 233 SEE DWG. FOR AS-BUILT

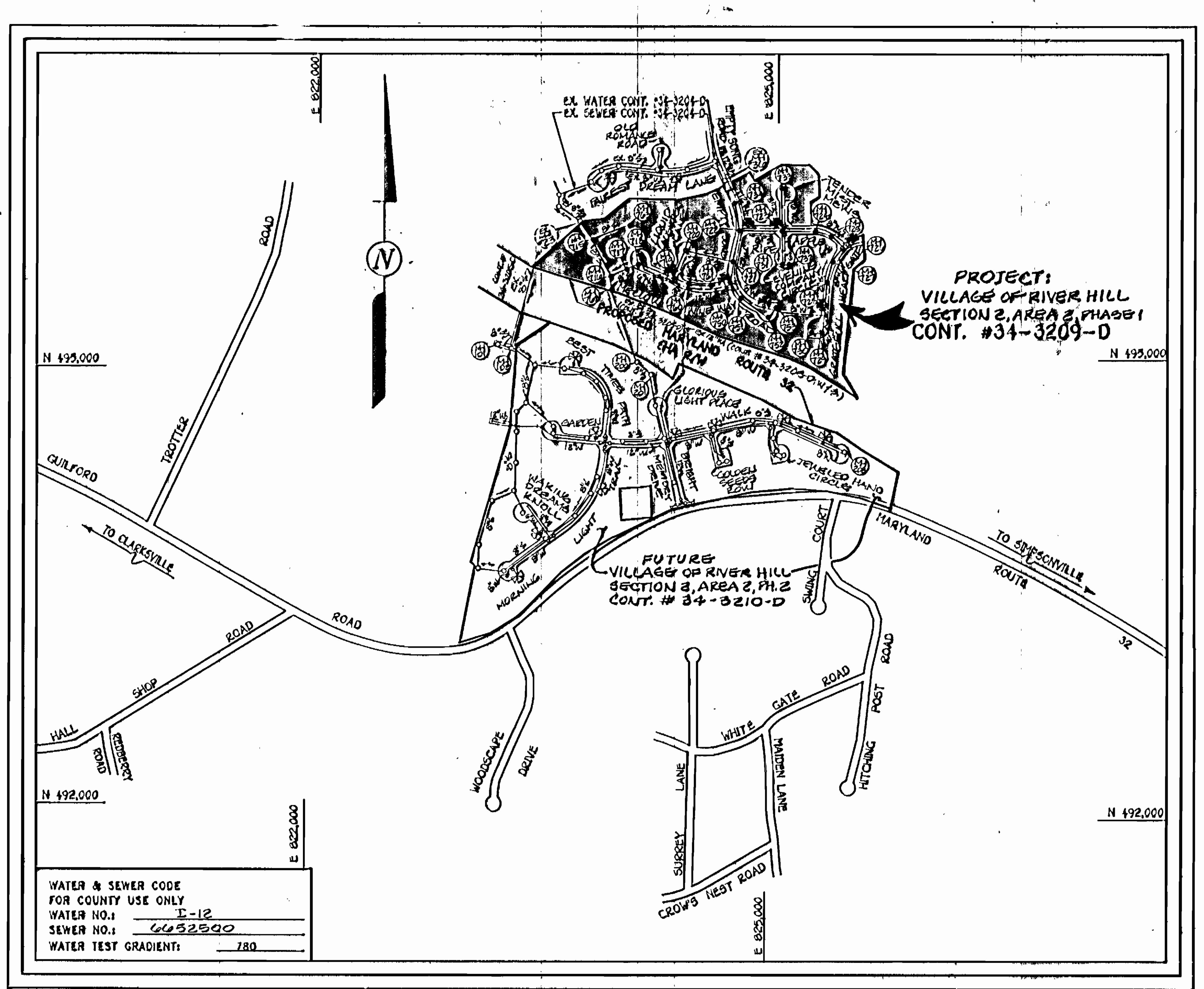
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:

John R. Robertson 7/6/93
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 F-93-80 REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

7/6/93
U.S. SOIL CONSERVATION SERVICE DATE




TYPE OF BUILDING: RESIDENTIAL
NUMBER OF LOTS: 111 (BUILDABLE: 109)
NO. OF WATER HOUSE CONNECTIONS: 109
NO. OF SEWER HOUSE CONNECTIONS: 110
DRAINAGE AREA: MIDDLE PATUXENT
TREATMENT PLANT: LITTLE PATUXENT WATER QUALITY MANAGEMENT CENTER

**VICINITY MAP**
SCALE: 1"=600'

## GENERAL NOTES:

1. 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.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED.
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 (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
7. 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.
8. 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. - UNDER GROUND DAMAGE CONTROL - 787-9068
   MISS UTILITY - 1-800-257-7777
   COLONIAL PIPELINE CO. - 795-1390
   BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
9. 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
10. CONTRACTOR SHALL REMOVE TREES, 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.
11. ALL SEWER MAINS SHALL BE D.I.P., R.C.P., C.S.P.X., R.C.C.P., V.C.P.X. OR P.V.C. UNLESS OTHERWISE NOTED.
12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
13. T.B. DENOTES TEST BORING.
14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52.
16. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'- 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
17. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
19. MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
20. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
21. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
22. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
23. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
24. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
25. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
26. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
27. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
28. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
29. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, @ (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(a) OF THE HOWARD COUNTY CODE.

# CONTRACT No. 34-3209-D
# VILLAGE OF RIVER HILL
## SECTION 2 AREA 2
## PHASE 1
## WATER AND SEWER MAIN EXTENSIONS
## HOWARD COUNTY, MARYLAND
## DEPARTMENT OF PUBLIC WORKS

PLAN REFERENCE NUMBERS:
P 92-15
F 93-80

CONTRACT NO. 34-3209-D
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

7.8.93
DIRECTOR OF PUBLIC WORKS DATE

7/8/93
CHIEF, BUREAU OF ENGINEERING DATE

6-25-93
CHIEF, BUREAU OF UTILITIES RMB DATE

7/8/93
CHIEF, LAND DEVELOPMENT DIVISION DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
SUITE 100, 9171 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

#9757
STATE OF MARYLAND TERRELL A. FISHER NO. 9757 REGISTERED PROFESSIONAL ENGINEER
TERRELL A. FISHER

DES: P.W.K./M.J.M.
DRWN: D.A.N.
CHK: P.W.K.
DATE: 2-5-93

| BY | NO. | REVISION | DATE |
|---|---|---|---|

TITLE SHEET

600' SCALE MAP NO. 35 BLOCK NO. 15

VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
LOTS 128 - 236, 240 & 241
CONTRACT NO. 34-3209-D
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 7

30396WST.DWG

| MANHOLE TABLE | | | | |
|---|---|---|---|---|
| No. | ℄ RD STA. | DISTANCE | RIM ELEV. | SLOPE |
| 734 | 5+16 | 8' RT. | 423.56 | |
| 722 | 6+86 | 3' RT. | 419.33 | |
| 721 | 8+80 | 7' RT. | 422.11 | |
| 750 | 10+00 | 15' RT. | 420.78 | |
| 751 | 11+05 | 7' RT. | 436.37 | |
| 752 | IN CUL-DE-SAC | ----- | 451.58 | |
| 753 | IN CUL-DE-SAC | ----- | 451.60 | |
| 761 | 1+39 | 5' RT. | 433.09 | |
| 760 | 2+66 | 7' RT. | 431.12 | |
| 720 | IN CUL-DE-SAC | ----- | 421.90 | ----- |
| 719 | 3+67 | 7' RT. | 420.34 | |
| 718 | IN CUL-DE-SAC | ----- | 411.58 | ----- |
| 717 | IN CUL-DE-SAC | ----- | 411.48 | ----- |
| 716 | ----- | ----- | 377.5 | ----- |
| 715 | ----- | ----- | 372.0 | ----- |
| 762 | ----- | ----- | 381.5 | ----- |
| 763 | ----- | ----- | 385.8 | ----- |

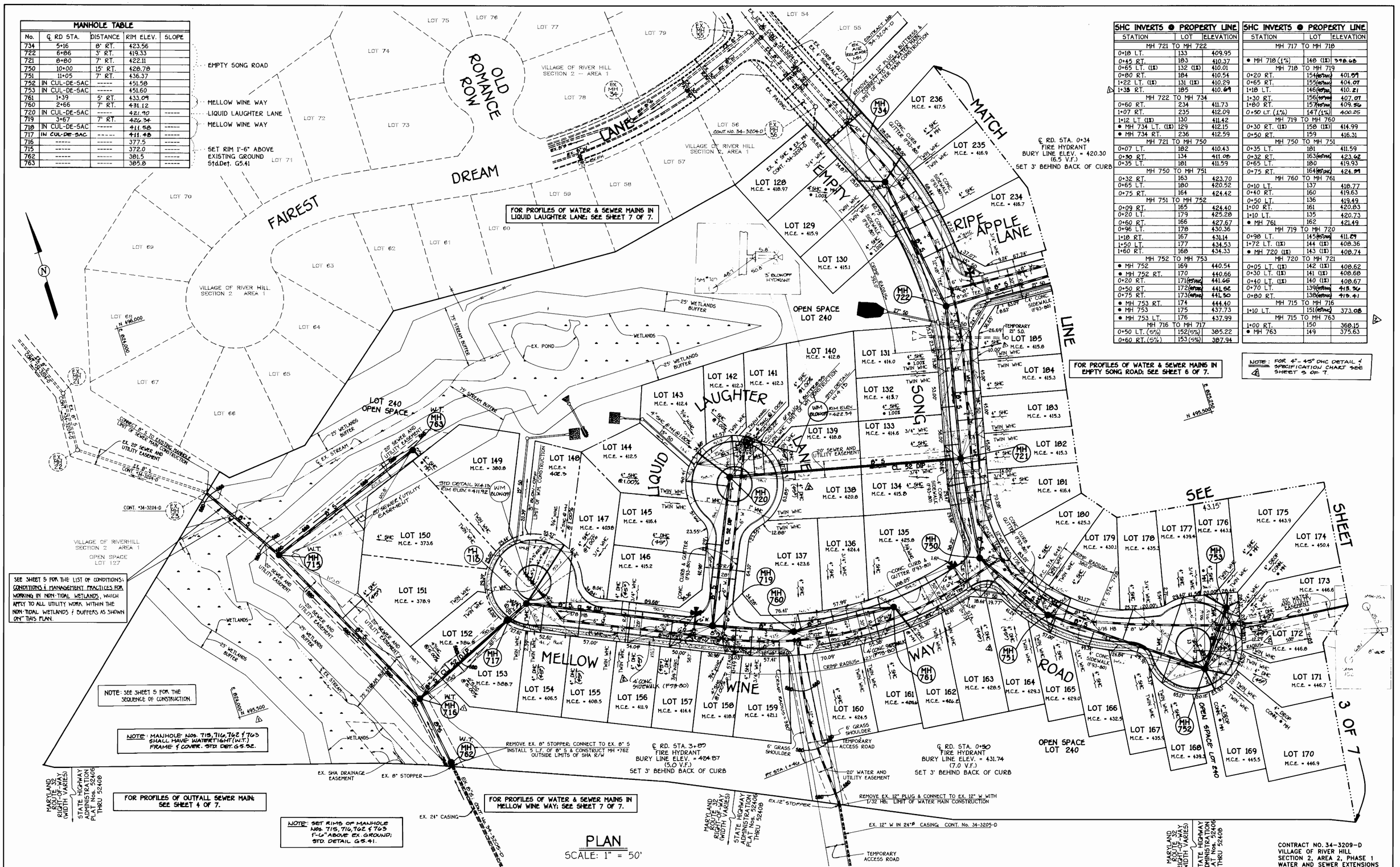
EMPTY SONG ROAD

MELLOW WINE WAY

LIQUID LAUGHTER LANE

MELLOW WINE WAY

SET RIM 1'-6" ABOVE EXISTING GROUND Std.Det. G5.41




| 5HC INVERTS @ PROPERTY LINE | | |
|---|---|---|
| STATION | LOT | ELEVATION |
| MH 721 TO MH 722 | | |
| 0+18 LT. | 133 | 409.95 |
| 0+45 RT. | 183 | 410.37 |
| 0+65 LT. (1%) | 132 (1%) | 410.01 |
| 0+80 RT. | 184 | 410.54 |
| 1+22 LT. (1%) | 131 (1%) | 410.29 |
| 1+38 RT. | 185 | 410.69 |
| MH 722 TO MH 734 | | |
| 0+60 RT. | 234 | 411.73 |
| 1+07 RT. | 235 | 412.09 |
| 1+12 LT. (1%) | 130 | 411.42 |
| • MH 734 LT. (1%) | 129 | 412.15 |
| • MH 734 RT. | 236 | 412.59 |
| MH 721 TO MH 750 | | |
| 0+07 LT. | 182 | 410.43 |
| 0+30 RT. | 134 | 411.08 |
| 0+35 LT. | 181 | 411.59 |
| MH 750 TO MH 751 | | |
| 0+32 RT. | 163 | 423.70 |
| 0+65 LT. | 180 | 420.52 |
| 0+75 RT. | 164 | 424.42 |
| MH 751 TO MH 752 | | |
| 0+09 RT. | 165 | 424.40 |
| 0+20 LT. | 179 | 425.28 |
| 0+60 RT. | 166 | 427.67 |
| 0+96 LT. | 178 | 430.36 |
| 1+18 RT. | 167 | 431.14 |
| 1+50 LT. | 177 | 434.53 |
| 1+60 RT. | 168 | 434.33 |
| MH 752 TO MH 753 | | |
| • MH 752 | 169 | 440.54 |
| • MH 752 RT. | 170 | 440.66 |
| 0+20 RT. | 171 (45°DHC) | 441.66 |
| 0+50 RT. | 172 (45°DHC) | 441.82 |
| 0+75 RT. | 173 (45°DHC) | 441.50 |
| • MH 753 RT. | 174 | 444.40 |
| • MH 753 | 175 | 437.73 |
| • MH 753 LT. | 176 | 437.99 |
| MH 716 TO MH 717 | | |
| 0+50 LT. (5%) | 152 (5%) | 385.22 |
| 0+60 RT. (5%) | 153 (5%) | 387.94 |

| 5HC INVERTS @ PROPERTY LINE | | |
|---|---|---|
| STATION | LOT | ELEVATION |
| MH 717 TO MH 718 | | |
| • MH 718 (1%) | 148 (1%) | 398.68 |
| MH 718 TO MH 719 | | |
| 0+20 RT. | 154 (45°DHC) | 401.89 |
| 0+65 RT. | 155 (45°DHC) | 404.07 |
| 1+18 LT. | 146 (45°DHC) | 410.21 |
| 1+30 RT. | 156 (45°DHC) | 407.07 |
| 1+80 RT. | 157 (45°DHC) | 409.86 |
| 0+50 LT. (1%) | 147 (1%) | 400.25 |
| MH 719 TO MH 760 | | |
| 0+30 RT. (1%) | 158 (1%) | 414.99 |
| 0+50 RT. | 159 | 416.31 |
| MH 750 TO MH 751 | | |
| 0+35 LT. | 181 | 411.59 |
| 0+32 RT. | 163 (45°DHC) | 423.62 |
| 0+65 LT. | 180 | 419.93 |
| 0+75 RT. | 164 (45°DHC) | 424.89 |
| MH 760 TO MH 761 | | |
| 0+10 LT. | 137 | 418.77 |
| 0+40 RT. | 160 | 419.63 |
| 0+50 LT. | 136 | 419.49 |
| 1+00 RT. | 161 | 420.83 |
| 1+10 LT. | 135 | 420.73 |
| • MH 761 | 162 | 421.49 |
| MH 719 TO MH 720 | | |
| 0+98 LT. | 145 (45°DHC) | 411.89 |
| 1+72 LT. (1%) | 144 (1%) | 408.36 |
| • MH 720 (1%) | 143 (1%) | 408.74 |
| MH 720 TO MH 721 | | |
| 0+05 LT. (1%) | 142 (1%) | 408.62 |
| 0+30 LT. (1%) | 141 (1%) | 408.68 |
| 0+40 LT. (1%) | 140 (1%) | 408.67 |
| 0+70 LT. | 139 (45°DHC) | 413.30 |
| 0+80 RT. | 138 (45°DHC) | 413.41 |
| MH 715 TO MH 716 | | |
| 1+10 LT. | 151 (45°DHC) | 373.08 |
| MH 715 TO MH 763 | | |
| 1+00 RT. | 150 | 368.15 |
| • MH 763 | 149 | 375.63 |

NOTE: FOR 4"-45° DHC DETAIL & SPECIFICATION CHART SEE SHEET 3 OF 7.

## PLAN
SCALE: 1" = 50'

CONTRACT NO. 34-3209-D
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE
CHIEF, BUREAU OF ENGINEERING — DATE 7/8/93
CHIEF, BUREAU OF UTILITIES — DATE 6-25-93
CHIEF, LAND DEVELOPMENT DIVISION — DATE 7/6/93

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
SUITE 100, 9171 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

#9757
TERRELL A. FISHER

| DES: P.W.K./M.J.M. | F.C.&C. | 1 | M.H. #716 TO BE WATER-TIGHT & RELOCATED 3HC TO LOT #186 | 8/93 |
|---|---|---|---|---|
| | F.C.&C. | 2 | ADJUST 45° DHC'S - ADDED CHART & DETAIL | 7/93 |
| DRWN: D.A.N. | | | | |
| CHK: P.W.K. | | | | |
| DATE: 2-5-93 | BY | NO. | REVISION | DATE |

PLAN
WATER & SEWER MAINS

600' SCALE MAP NO. 35 BLOCK NO. 15

VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
LOTS 128 - 236, 240 & 241

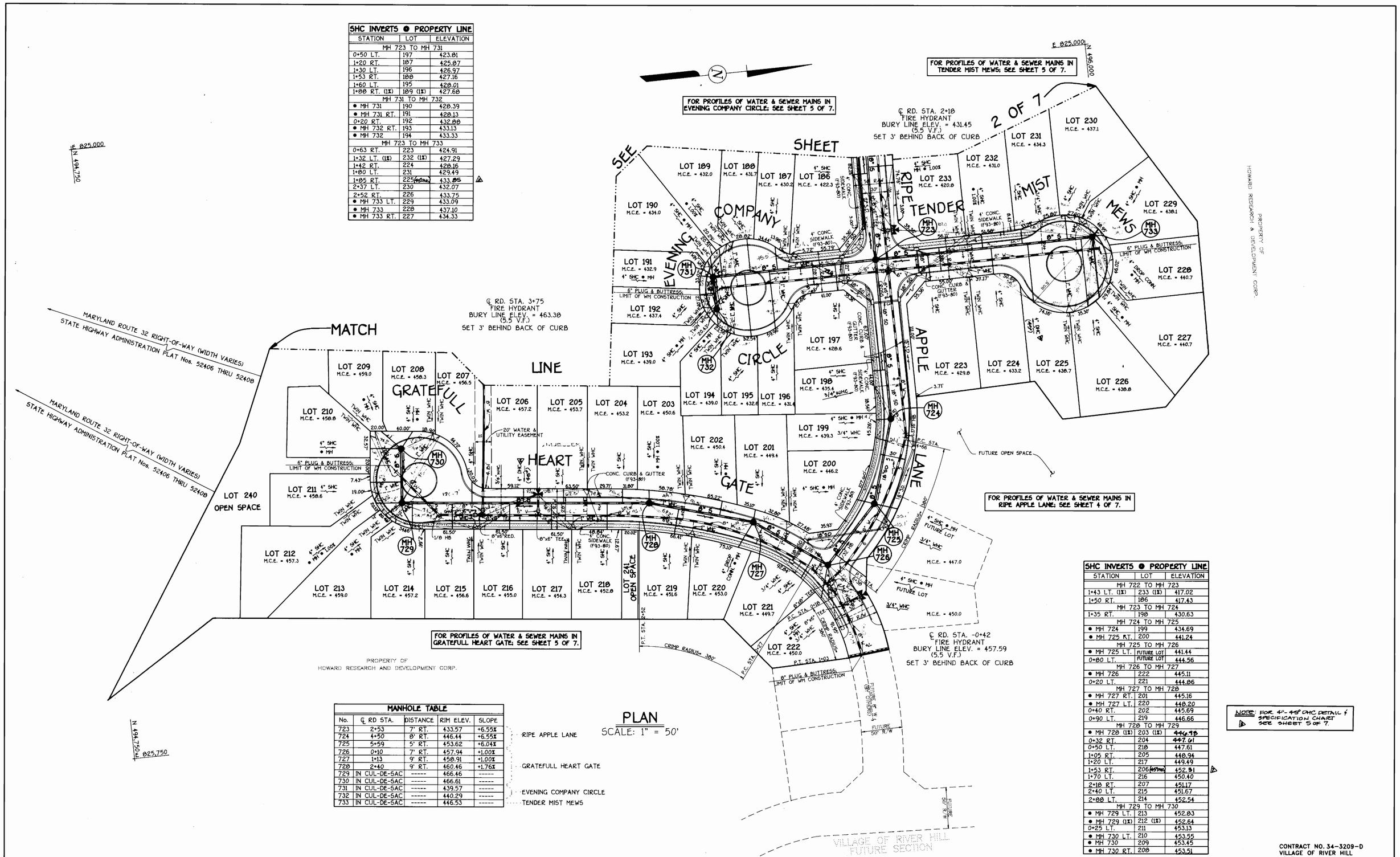
CONTRACT NO. 34-3209-D
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 2 OF 7

30396WS2.DWG

| SHC INVERTS @ PROPERTY LINE | | |
|---|---|---|
| STATION | LOT | ELEVATION |
| MH 723 TO MH 731 | | |
| 0+50 LT. | 197 | 423.81 |
| 1+20 RT. | 187 | 425.87 |
| 1+30 LT. | 196 | 426.97 |
| 1+53 RT. | 188 | 427.16 |
| 1+60 LT. | 195 | 428.01 |
| 1+88 RT. (1%) | 189 (1%) | 427.68 |
| MH 731 TO MH 732 | | |
| • MH 731 | 190 | 428.39 |
| • MH 731 RT. | 191 | 428.13 |
| 0+20 RT. | 192 | 432.88 |
| • MH 732 RT. | 193 | 433.13 |
| • MH 732 | 194 | 433.33 |
| MH 723 TO MH 733 | | |
| 0+63 RT. | 223 | 424.91 |
| 1+32 LT. (1%) | 232 (1%) | 427.29 |
| 1+42 RT. | 224 | 428.16 |
| 1+80 LT. | 231 | 429.49 |
| 1+85 RT. | 225 ~~(1%)~~ | 433.~~85~~ |
| 2+37 LT. | 230 | 432.07 |
| 2+52 RT. | 226 | 433.75 |
| • MH 733 LT. | 229 | 433.09 |
| • MH 733 | 228 | 437.10 |
| • MH 733 RT. | 227 | 434.33 |




| MANHOLE TABLE | | | | | |
|---|---|---|---|---|---|
| No. | ℄ RD STA. | DISTANCE | RIM ELEV. | SLOPE | |
| 723 | 2+53 | 7' RT. | 433.57 | +6.55% | RIPE APPLE LANE |
| 724 | 4+50 | 8' RT. | 446.44 | +6.55% | |
| 725 | 5+59 | 5' RT. | 453.62 | +6.04% | |
| 726 | 0+10 | 7' RT. | 457.94 | +1.00% | |
| 727 | 1+13 | 9' RT. | 458.91 | +1.00% | |
| 728 | 2+40 | 9' RT. | 460.46 | +1.76% | |
| 729 | IN CUL-DE-SAC | ----- | 466.46 | ----- | GRATEFULL HEART GATE |
| 730 | IN CUL-DE-SAC | ----- | 466.61 | ----- | |
| 731 | IN CUL-DE-SAC | ----- | 439.57 | ----- | EVENING COMPANY CIRCLE |
| 732 | IN CUL-DE-SAC | ----- | 440.29 | ----- | |
| 733 | IN CUL-DE-SAC | ----- | 446.53 | ----- | TENDER MIST MEWS |

PLAN
SCALE: 1" = 50'

| SHC INVERTS @ PROPERTY LINE | | |
|---|---|---|
| STATION | LOT | ELEVATION |
| MH 722 TO MH 723 | | |
| 1+43 LT. (1%) | 233 (1%) | 417.02 |
| 1+50 RT. | 186 | 417.43 |
| MH 723 TO MH 724 | | |
| 1+35 RT. | 198 | 430.63 |
| MH 724 TO MH 725 | | |
| • MH 724 | 199 | 434.69 |
| • MH 725 RT. | 200 | 441.24 |
| MH 725 TO MH 726 | | |
| • MH 725 LT. | FUTURE LOT | 441.44 |
| 0+80 LT. | FUTURE LOT | 444.56 |
| MH 726 TO MH 727 | | |
| • MH 726 | 222 | 445.11 |
| 0+20 LT. | 221 | 444.86 |
| MH 727 TO MH 728 | | |
| • MH 727 RT. | 201 | 445.16 |
| • MH 727 LT. | 220 | 448.20 |
| 0+40 RT. | 202 | 445.69 |
| 0+90 LT. | 219 | 446.66 |
| MH 728 TO MH 729 | | |
| • MH 728 (1%) | 203 (1%) | ~~446.98~~ |
| 0+32 RT. | 204 | ~~447.61~~ |
| 0+50 LT. | 218 | 447.61 |
| 1+05 RT. | 205 | 448.94 |
| 1+20 LT. | 217 | 449.49 |
| 1+53 RT. | 206 ~~(1%)~~ | 452.~~31~~ |
| 1+70 LT. | 216 | 450.40 |
| 2+18 RT. | 207 | 451.17 |
| 2+40 LT. | 215 | 451.67 |
| 2+88 LT. | 214 | 452.54 |
| MH 729 TO MH 730 | | |
| • MH 729 LT. | 213 | 452.83 |
| • MH 729 (1%) | 212 (1%) | 452.64 |
| 0+25 LT. | 211 | 453.13 |
| • MH 730 LT. | 210 | 453.55 |
| • MH 730 | 209 | 453.45 |
| • MH 730 RT. | 208 | 453.51 |

NOTE: FOR 4'-45° DHC DETAIL & SPECIFICATION CHART SEE SHEET 5 OF 7.

CONTRACT NO. 34-3209-D
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE
CHIEF, BUREAU OF ENGINEERING — 7/8/93
CHIEF, BUREAU OF UTILITIES — 6-25-93 — DATE
CHIEF, LAND DEVELOPMENT DIVISION — DATE

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
SUITE 100, 8171 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

#9757
TERRELL A. FISHER

DES: P.W.K./M.J.M.
DRWN: D.A.N.
CHK: P.W.K.
DATE: 2-5-93

| BY | NO. | REVISION | DATE |
|---|---|---|---|
| F.C.C. | 2 | ADJUST 45° DHC'S - ADDED CHART & DETAIL | 9/93 |

PLAN
WATER & SEWER MAINS

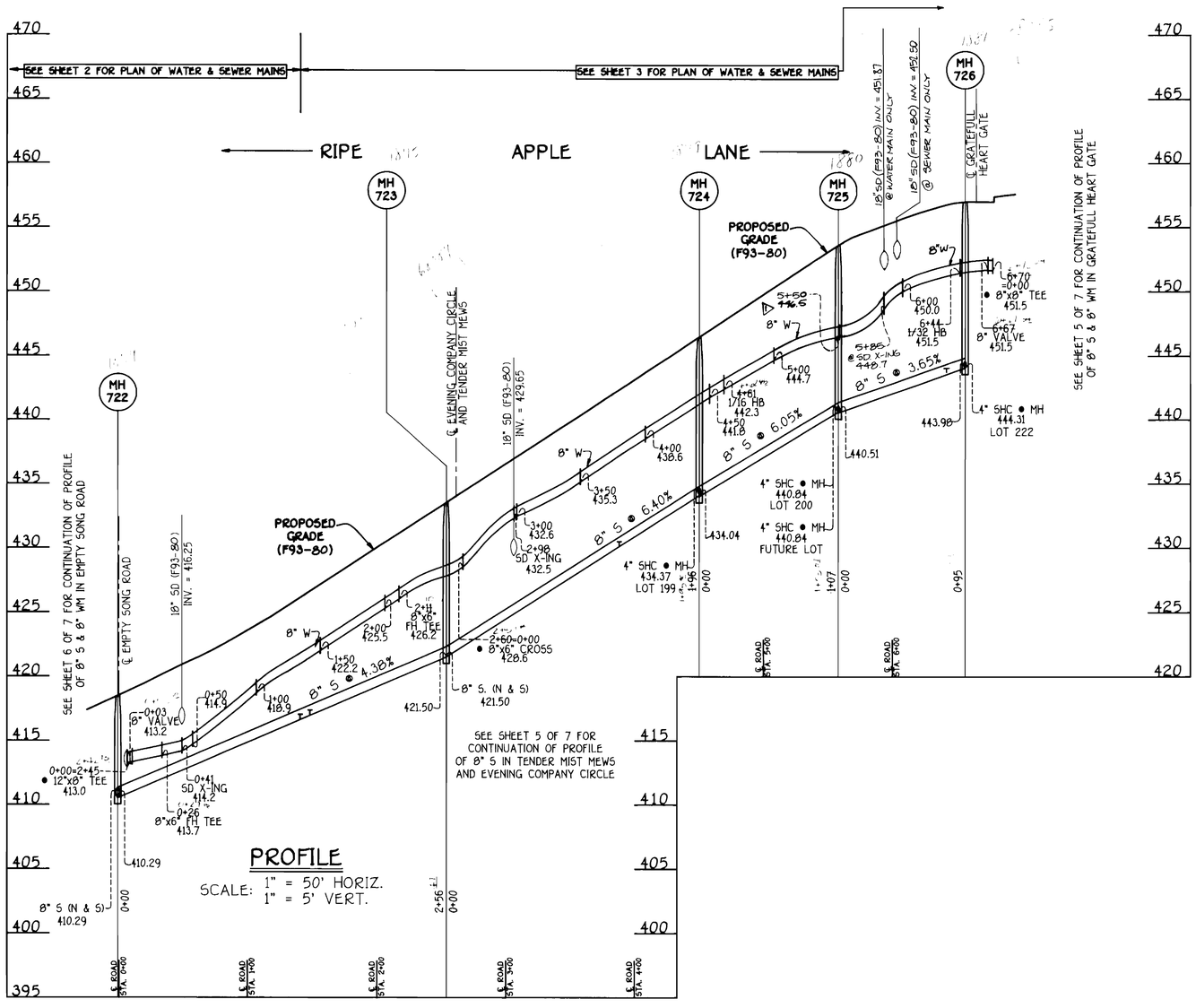
600' SCALE MAP NO. 35 BLOCK NO. 15

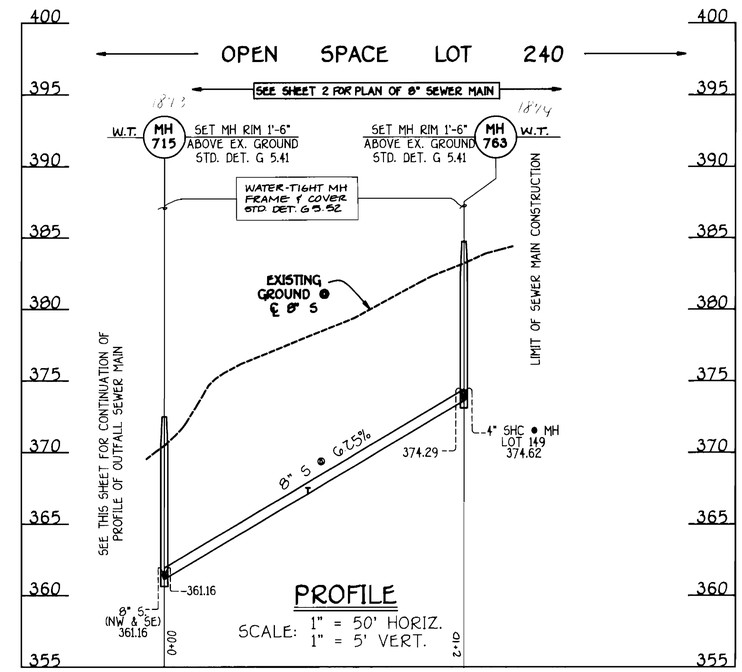
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
LOTS 128 - 236, 240 & 241
CONTRACT NO. 34-3209-D
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

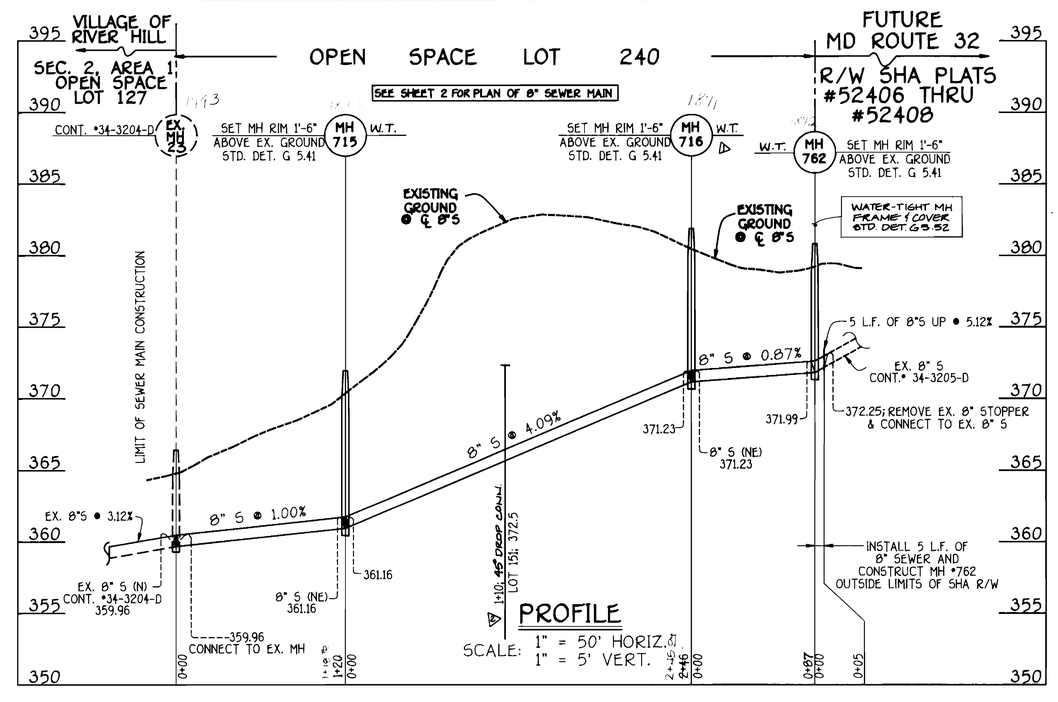
SCALE AS SHOWN

SHEET 3 OF 7

30396WS3.DWG




CONTRACT NO. 34-3209-D
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE 7.8.93
CHIEF, BUREAU OF ENGINEERING — DATE 7/8/93
CHIEF, BUREAU OF UTILITIES — DATE 6-25-93
CHIEF, LAND DEVELOPMENT DIVISION — DATE 7/8/93

**FISHER, COLLINS & CARTER, INC.**
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ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

#9757
TERRELL A. FISHER

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DRWN: D.A.N.
CHK: P.W.K.
DATE: 2-5-93

| BY | NO. | REVISION | DATE |
|---|---|---|---|
| F.C.&C. | 1 | ELIMINATED SD CROSS. MH# 716 TO BE WATER-TIGHT | 8/93 |
| F.C.&C. | 2 | ADJUST 45° BMC'S - ADDED CHART & DETAIL | 9/93 |

PROFILES
WATER & SEWER MAINS

600' SCALE MAP NO. 35 BLOCK NO. 15

VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
LOTS 128 - 236, 240 & 241
CONTRACT NO. 34-3209-D
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

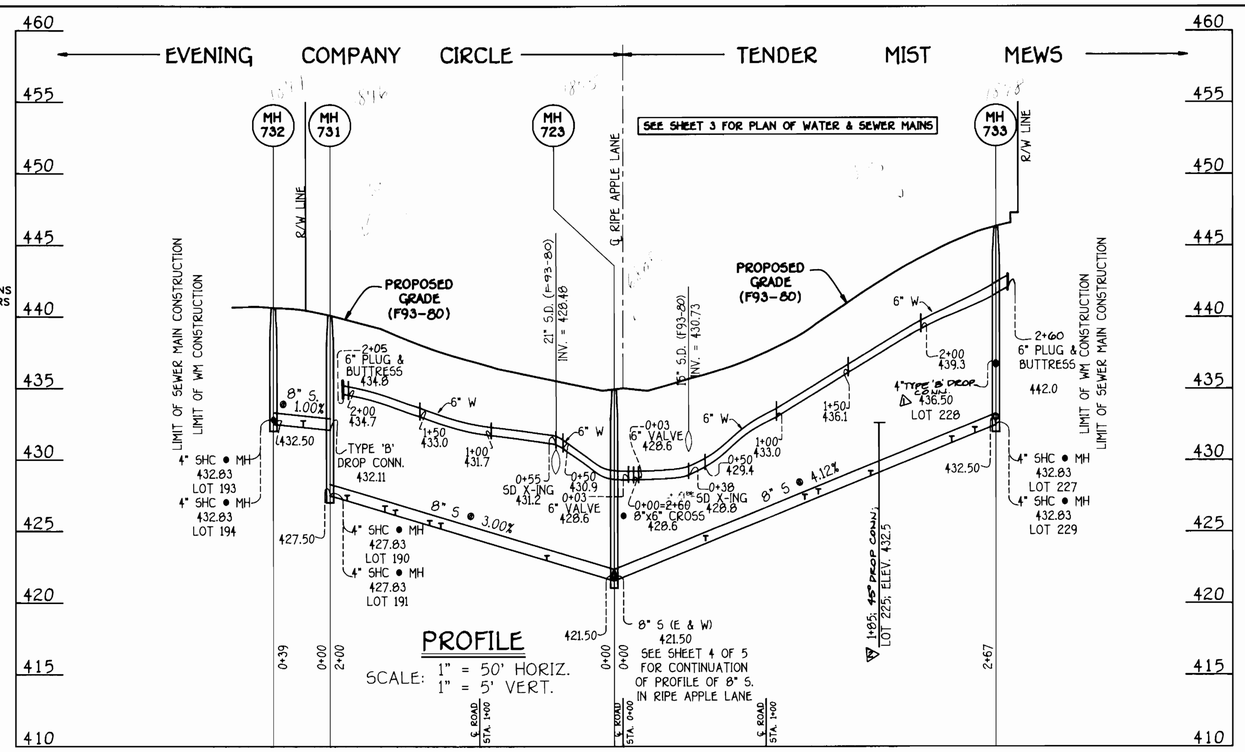
SCALE AS SHOWN

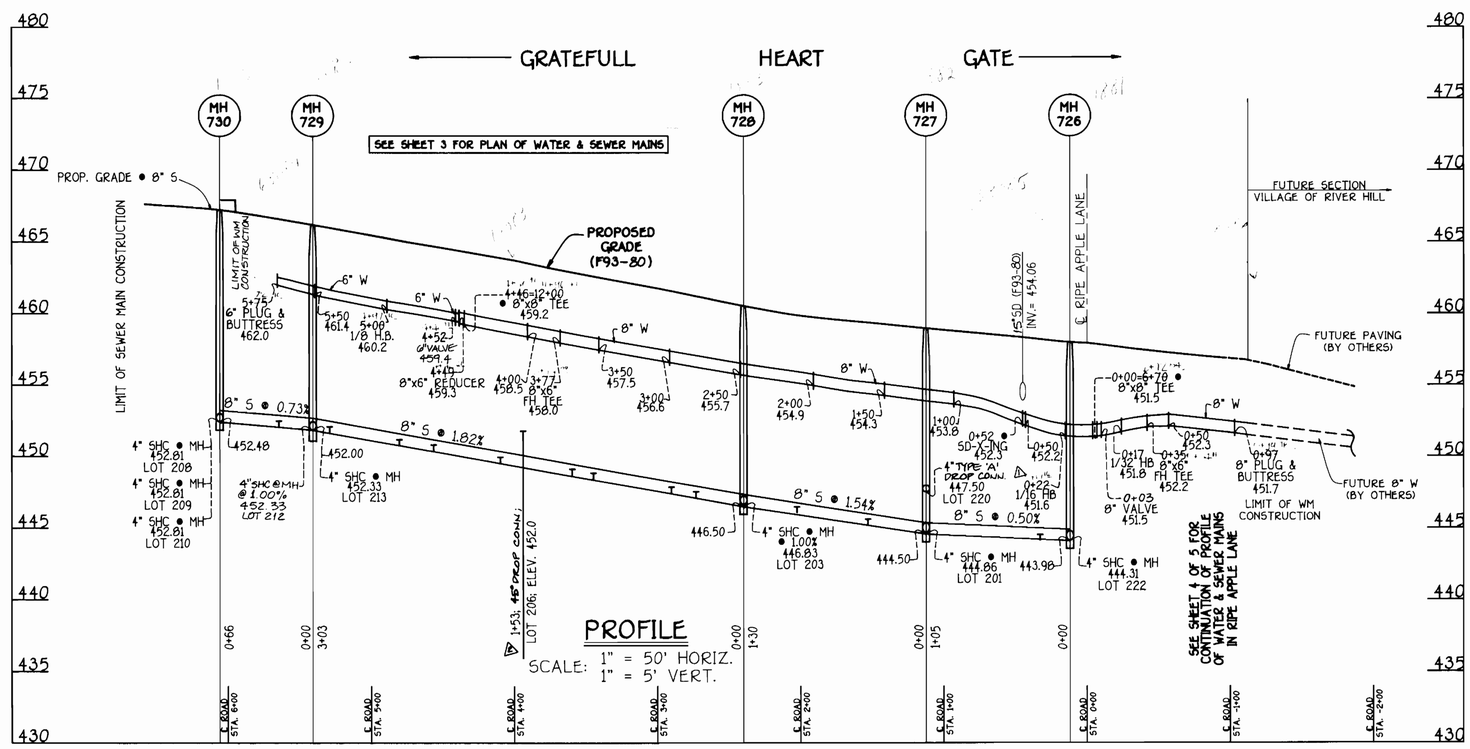
SHEET 4 OF 7

30396WS4.DWG

## SEQUENCE OF CONSTRUCTION

1. OBTAIN THE REQUIRED GRADING PERMIT.
2. INSTALL THE REQUIRED SEDIMENT AN EROSION CONTROL DEVICES: AS INDICATED ON SHEET 2.
3. CLEAR AND GRUB AS NECESSARY; ONLY AS REQUIRED FOR EXCAVATION AND INSTALLATION OF THE WATER & SEWER MAINS; ONLY WITHIN THE DESIGNATED WATER, SEWER & UTILITY EASEMENTS.
4. NOTE: THE LENGTH OF OPEN WATER & SEWER MAIN TRENCH SHALL BE LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH WILL BE BACKFILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
5. CONSTRUCT ALL UTILITIES (SEWER MAINS, WATER MAINS, SHC'S, WHC'S). THE CONTRACTOR SHALL REFERENCE THIS SHEET FOR A LIST OF CONDITIONS; CONDITIONS AND MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS. THESE CONDITIONS APPLY TO ALL UTILITY WORK CONDUCTED WITHIN THE NONTIDAL WETLANDS AND BUFFERS AS SHOWN ON THE PLANS.
6. AFTER PERMISSION HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL EROSION & SEDIMENT CONTROL DEVICES.




## CONDITIONS & MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS OR BUFFERS

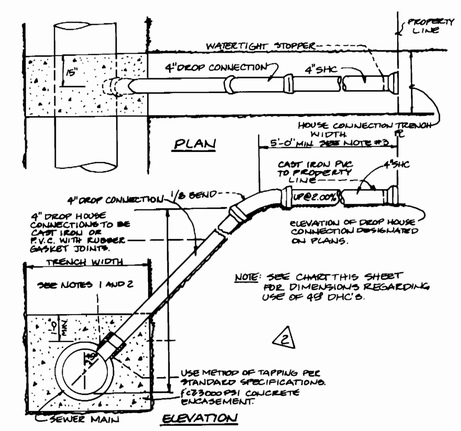
1. STRIP, STOCKPILE AND MAINTAIN THE TOP 6 INCHES OF SOIL MATERIAL; TO BE REPLACED AS THE TOP LAYER OF THE BACKFILLED MATERIAL.
2. REMOVE EXECSS FILL OR CONSTRUCTION MATERIAL OR DEBRIS TO AN UPLAND DISPOSAL AREA, OUTSIDE OF ANY WETLAND, BUFFER, OR FLOODPLAIN.
3. PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF THE NONTIDAL WETLAND.
4. USE PREVIOUSLY EXCAVATED MATERIAL AS UTILITY LINE BACKFILL, UNLESS IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR ANY OTHER DELETERIOUS SUBSTANCE. USE CLEAN BORROW MATERIAL WHEN EXCAVATED MATERIAL IS NOT SUITABLE FOR USE AS BACKFILL.
5. RECTIFY ANY NONTIDAL WETLANDS AND BUFFERS TEMPORARILY IMPACTED BY ANY PROPOSED REPAIR AND MAINTENANCE ACTIVITY OR INSTALLATION OF THE UTILITY LINE. ALL STABILIZATION IN THE WETLAND BUFFER SHALL BE OF THE FOLLOWING RECOMMENDED SPECIES: ANNUAL RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), OATS (UNIOLA SP.), AND/OR RYE (SECALE CEREALE). OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS DIVISION. KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN THE WETLAND OR BUFFER. ALL TEMPORARY FILLS SHALL BE REMOVED IN THEIR ENTIRETY ON OR BEFORE THE COMPLETION OF CONSTRUCTION.
6. AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS OF NONTIDAL WETLANDS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS.

TO PROTECT IMPORTANT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM AS FOLLOWS:

I) CLASS I WATERS. IN-STREAM WORK MAY NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.

NOTE: SEE THIS SHEET FOR SEQUENCE OF CONSTRUCTION.

NOTE: SEE SHEET 2 FOR THE DELINEATION OF WETLANDS AND WETLAND BUFFERS.




**4 INCH - 45° DROP HOUSE CONNECTION**
NOT TO SCALE

**4" - 45° DROP HOUSE CONNECTION CHART**

| LOT NO. | INV. @ 8" SEWER | INV. @ 1/8 BEND | DISTANCE @ 8" MAIN TO 1/8 BEND | DISTANCE @ 2% 1/8 BEND TO ℄ |
|---|---|---|---|---|
| 138 | 408.31 | 413.31 | 5.0' | 5.0' |
| 139 | 408.26 | 413.26 | 5.0' | 6.0' |
| 145 | 407.47 | 411.00 | 3.53' | 14.47' |
| 146 | 402.36 | 410.00 | 7.64' | 10.36' |
| 151 | 365.66 | 372.50 | 6.84' | 29.16' |
| 154 | 398.32 | 401.00 | 2.68' | 29.32' |
| 155 | 400.18 | 403.50 | 3.32' | 28.68' |
| 156 | 402.86 | 406.50 | 3.64' | 28.36' |
| 157 | 404.92 | 409.00 | 4.08' | 27.92' |
| 163 | 417.24 | 423.00 | 5.76' | 31.24' |
| 164 | 420.56 | 424.00 | 3.44' | 19.56' |
| 171 | 430.56 | 441.00 | 4.44' | 32.56' |
| 172 | 436.78 | 441.00 | 4.22' | 23.78' |
| 173 | 436.96 | 441.00 | 4.04' | 14.96' |
| 206 | 449.28 | 452.00 | 2.72' | 15.28' |
| 225 | 429.12 | 432.50 | 3.38' | 67.68' |

NOTE: FOR 4"-45° DHC SPECS, SEE DETAIL ABOVE THIS SHEET.

CONTRACT NO. 34-3209-D
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE 7/8/93
CHIEF, BUREAU OF ENGINEERING — DATE 7/8/93
CHIEF, BUREAU OF UTILITIES — DATE 6-25-93
CHIEF, LAND DEVELOPMENT DIVISION — DATE 7/6/93

FISHER, COLLINS & CARTER, INC.
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(410) 461 - 2855

#9757
TERRELL A. FISHER

DES: P.W.K./M.J.M.
DRWN: D.A.N.
CHK: P.W.K.
DATE: 2-5-93

| BY | NO. | REVISION | DATE |
|---|---|---|---|
| FCFC | 1 | ADDED TYPE 'A' OR 'B' DROP CONNECTIONS | 8/93 |
| FCFC | 2 | ADJUST 45° DHC'S - ADDED CHART & DETAIL | 9/93 |

PROFILES
WATER & SEWER MAINS

600' SCALE MAP NO. 35 BLOCK NO. 15

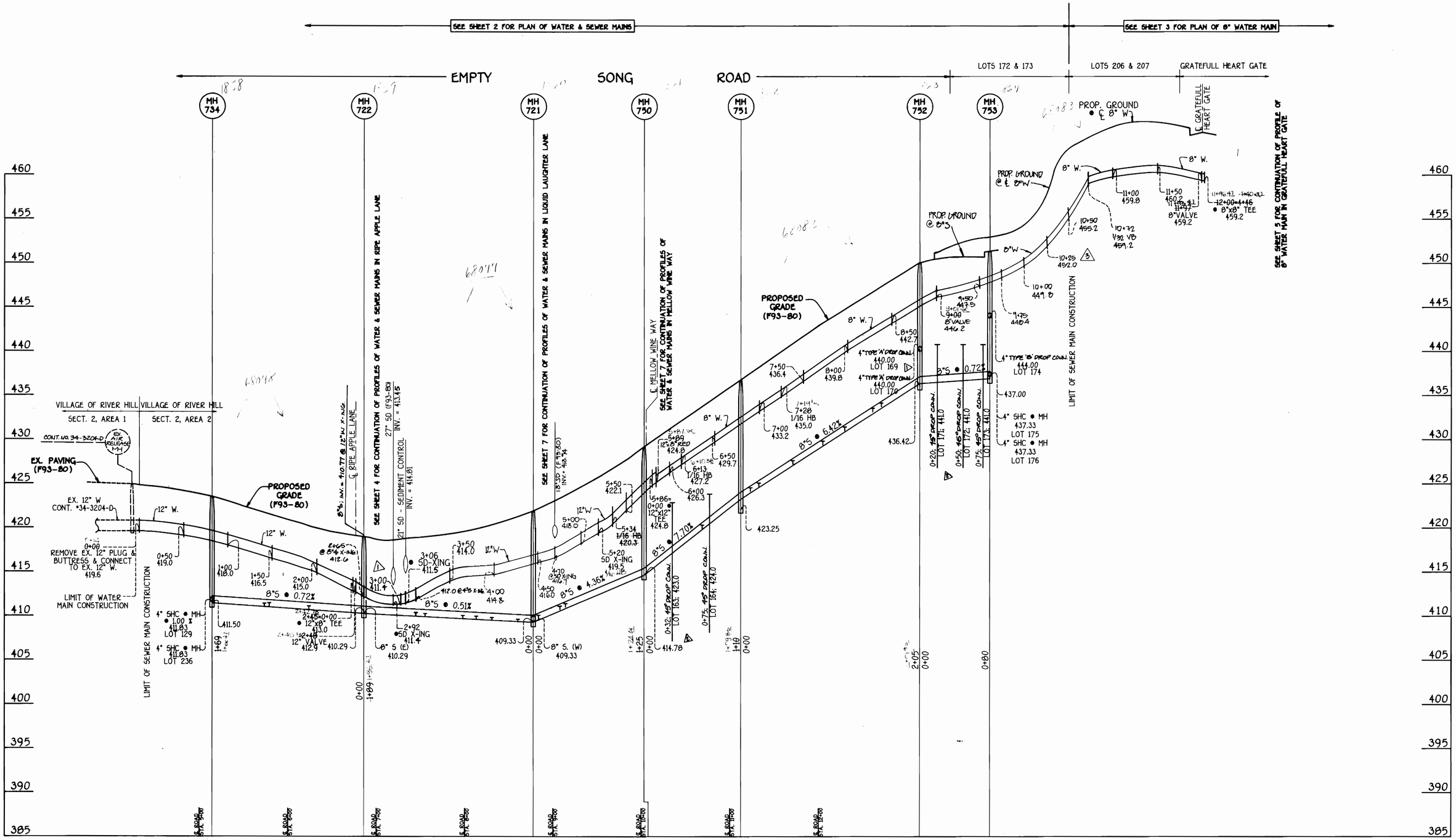
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
LOTS 128 - 236, 240 & 241

CONTRACT NO. 34-3209-D
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 5 OF 7

30396WS5.DWG




## PROFILE

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

CONTRACT NO. 34-3209-D
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE 7/8/93
CHIEF, BUREAU OF ENGINEERING — DATE 7/8/93
CHIEF, BUREAU OF UTILITIES — DATE 6-25-93
CHIEF, LAND DEVELOPMENT DIVISION — DATE 7/8/93

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DES: P.W.K./M.J.M.
DRWN: D.A.N.
CHK: P.W.K.
DATE: 2-5-93

| BY | NO. | REVISION | DATE |
|---|---|---|---|
| F.C.&C. | 1 | ADDED SEWER CROSSING & TYPE 'A' OR 'B' DROP CONN. | 8/93 |
| F.C.&C. | 2 | ADJUST 45° BNC'S - ADDED CHART & DETAIL | 9/93 |
| F.C.&C. | 3 | REVISE WM PROFILE BETWEEN EMPTY SONG RD. & GRATEFULL HEART GATE | 4/94 |

PROFILES
WATER & SEWER MAINS

600' SCALE MAP NO. 35 BLOCK NO. 15

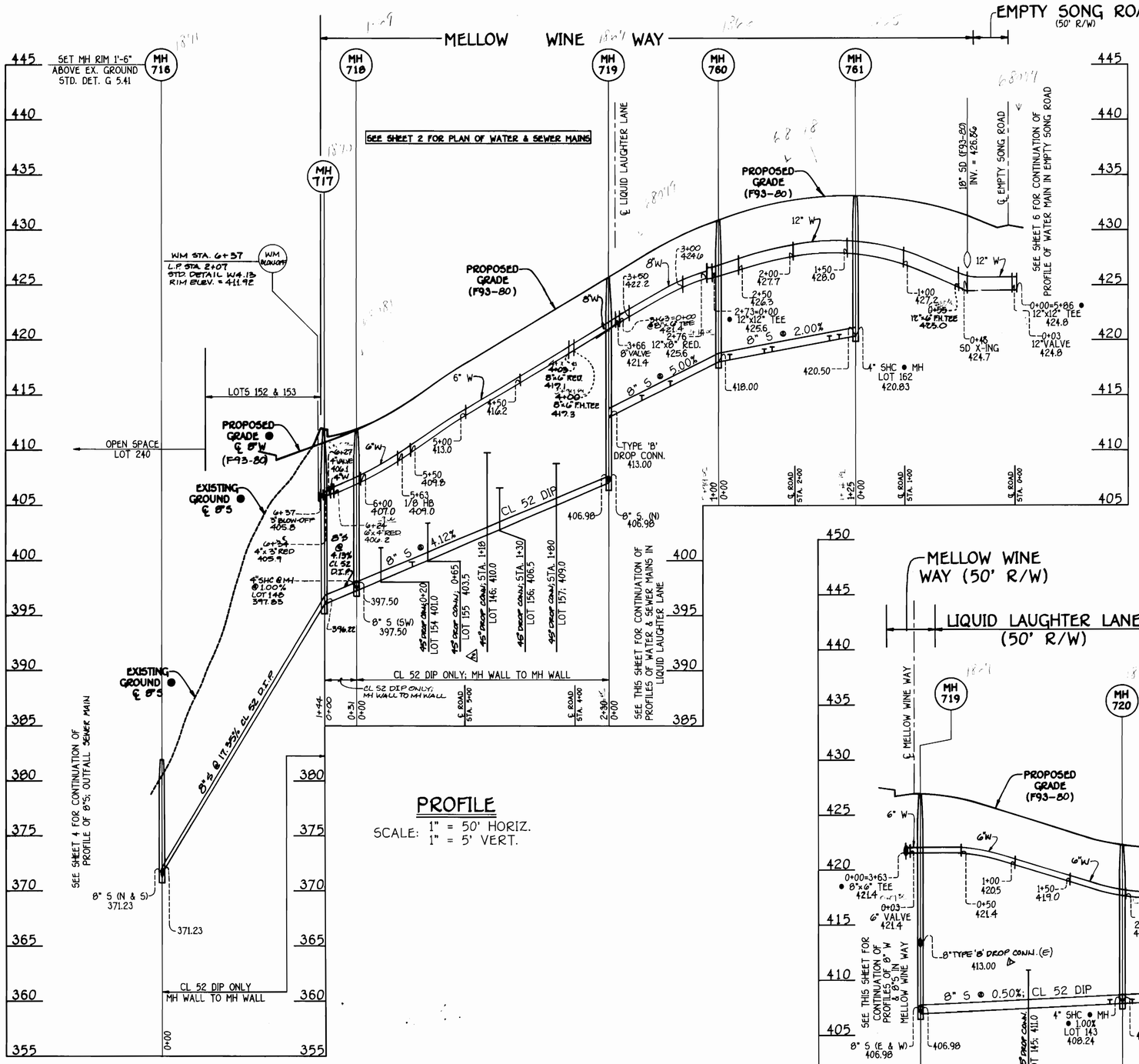
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
LOTS 128 - 236, 240 & 241

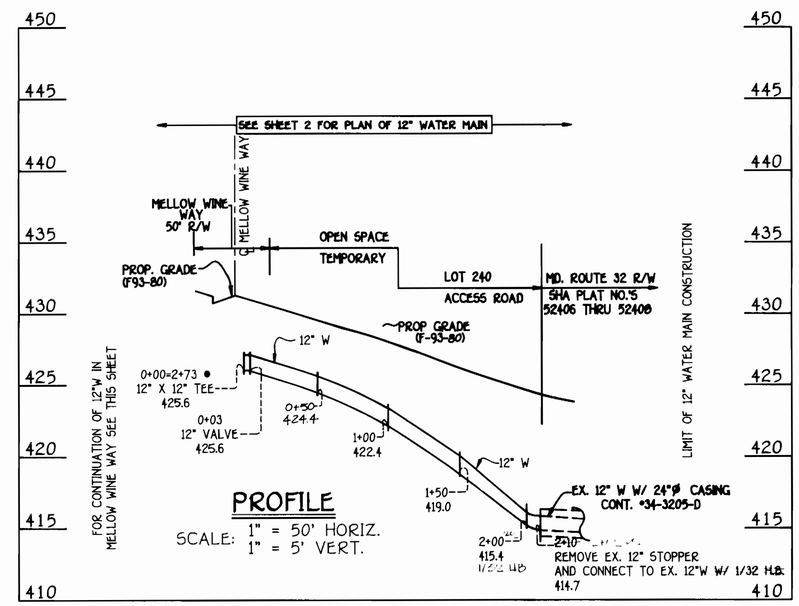
CONTRACT NO. 34-3209-D
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

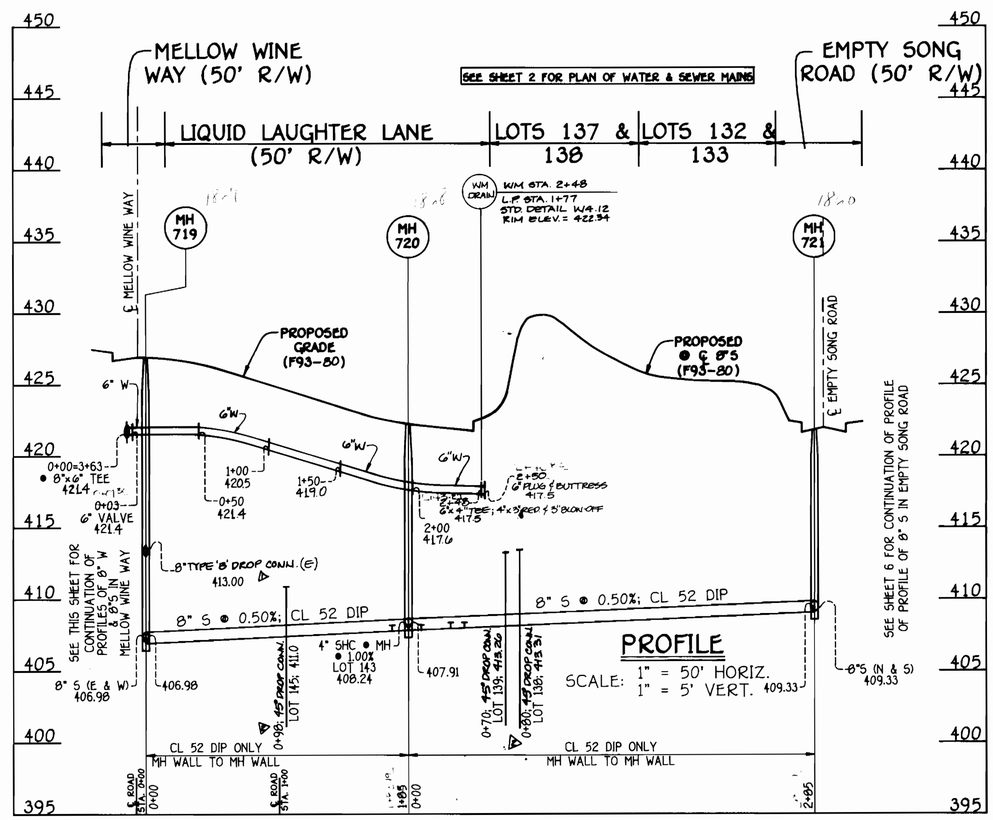
SCALE AS SHOWN

SHEET 6 OF 7

30396WS6.DWG




CONTRACT NO. 34-3209-D
VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
WATER AND SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE 7/8/93
CHIEF, BUREAU OF ENGINEERING — DATE 7/8/93
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CHIEF, LAND DEVELOPMENT DIVISION — DATE 7/8/93

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| BY | NO. | REVISION | DATE |
|---|---|---|---|
| FC/C | 1 | ADDED TYPE 'A' OR 'B' DROP CONNECTIONS. | 8/93 |
| FC/C | 2 | ADJUST 45° DHC'S - ADDED CHART & DETAIL | 9/93 |

PROFILES
WATER & SEWER MAINS

600' SCALE MAP NO. 35 BLOCK NO. 15

VILLAGE OF RIVER HILL
SECTION 2, AREA 2, PHASE 1
LOTS 128 - 236, 240 & 241
CONTRACT NO. 34-3209-D
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 7 OF 7

30396WS7.DWG

W/S 3209 Pos SHT #1

W/S 3209 Pos SHT #1

HOWARD COUNTY
DEPARTMENT OF PUBLIC WORK
BUREAU OF ENGINEERING
SURVEY & DRAFTING DIVISION

Scale : 1" = 50'

Map No. _