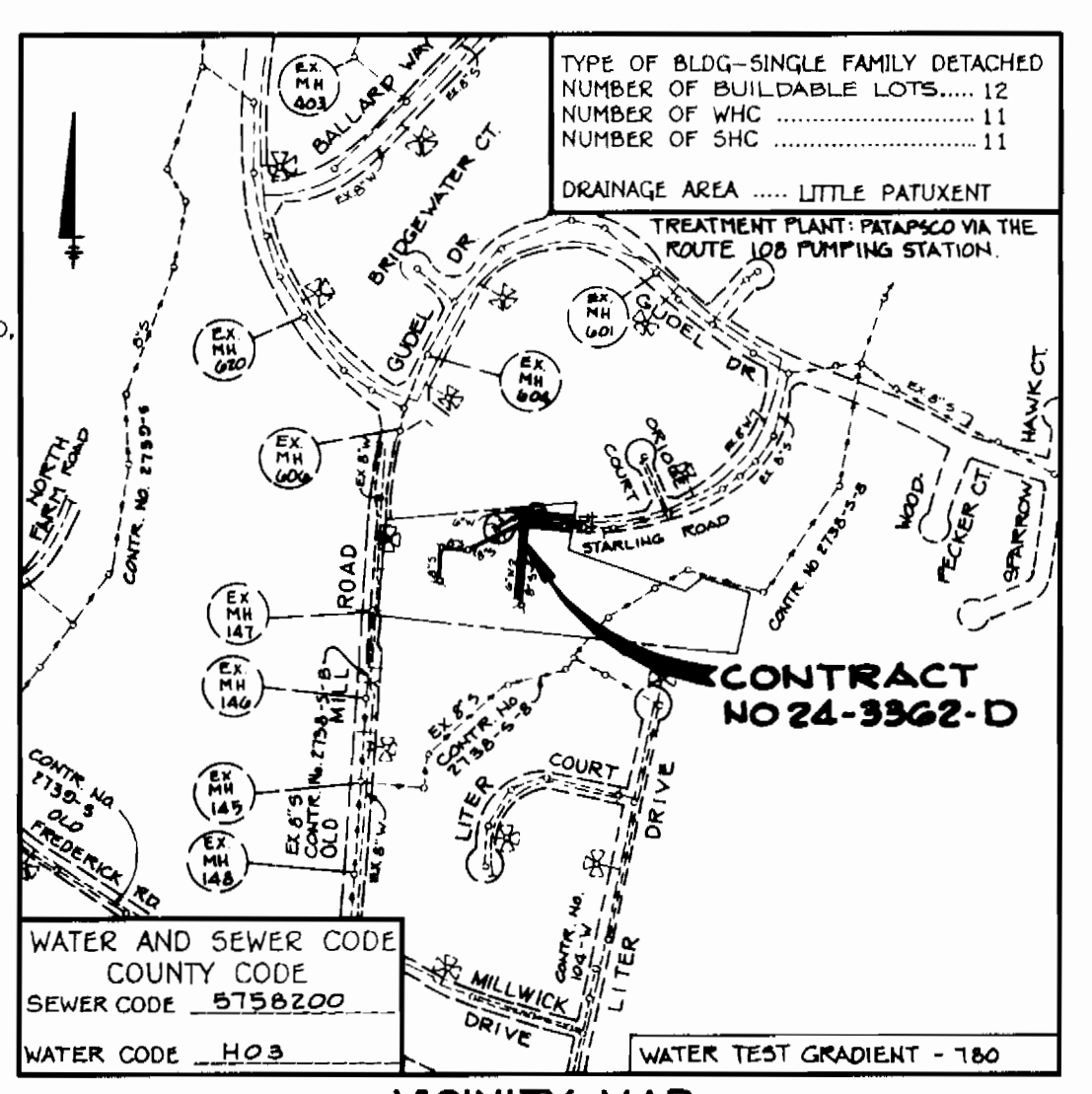


3362 ws/1 Winter Oaks, (lots 1-16)

**BENCH MARKS (NAD 83)**  
 HO.CO. #176A  
 CONC. MONUMENT IN GRASS ISLAND  
 IN FRONT OF MT. HEBRON HIGH SCHOOL  
 33.7' SOUTH OF FLAG POLE  
 N 594357.726361(FT) E 1357519.37415(FT)  
 N 181160.5975(M) E 413772.7332(M)

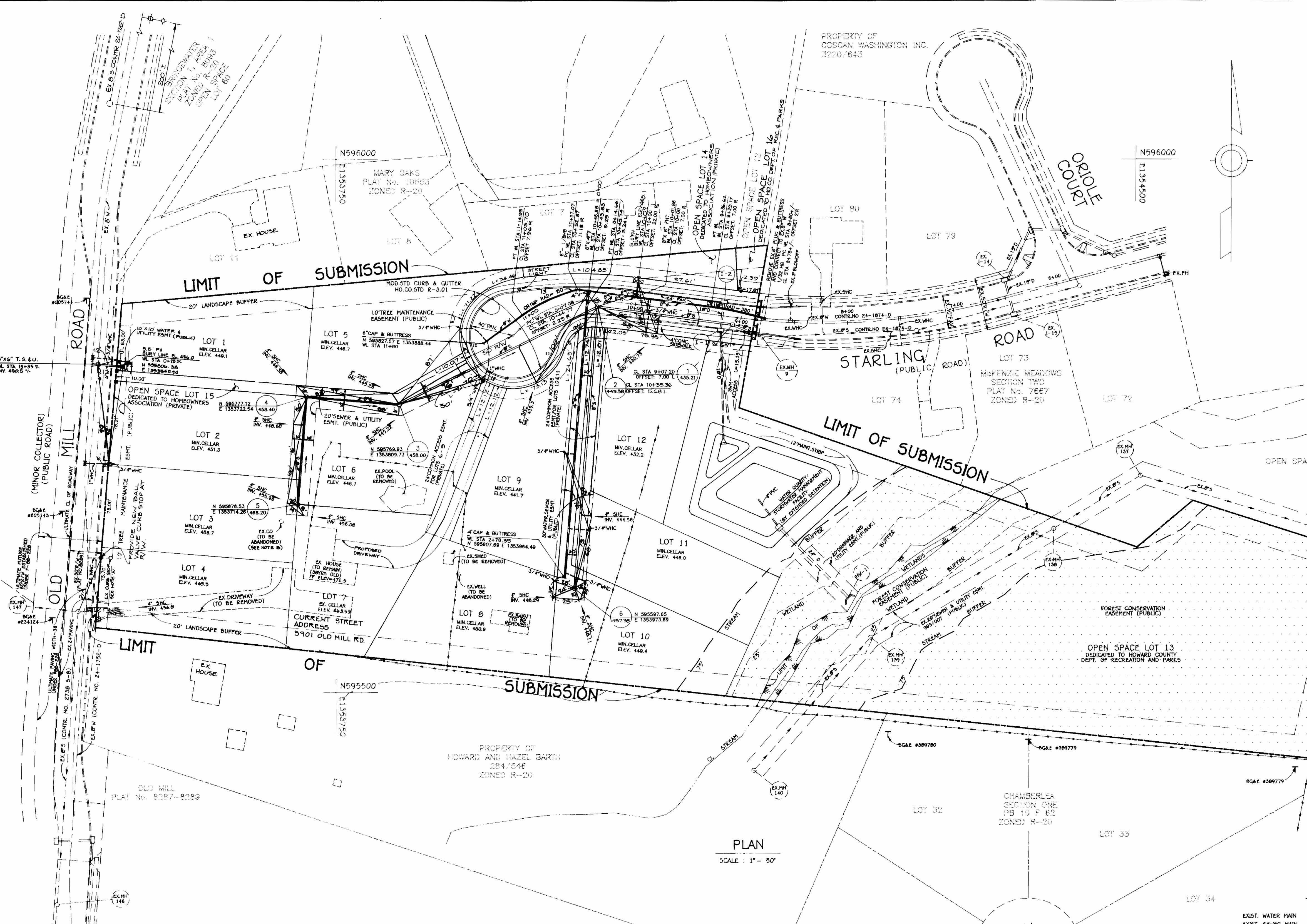
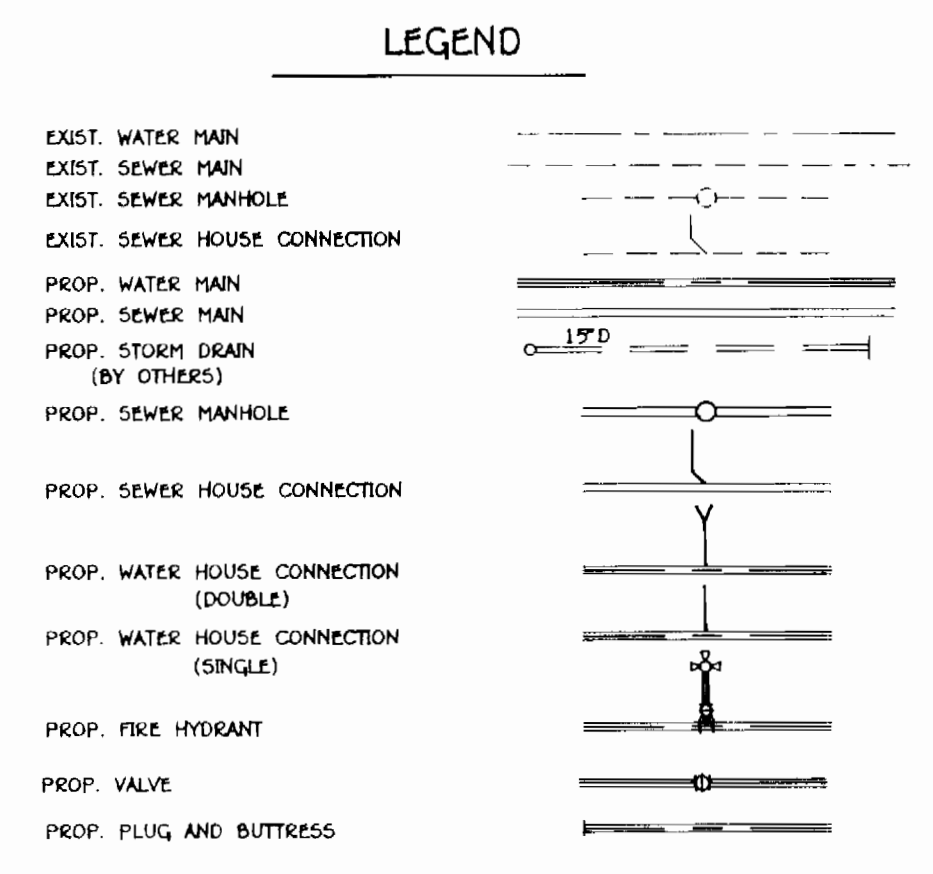
HO.CO. #176B  
 CONC. MONUMENT, 0.1' BELOW SURFACE ON THE  
 SOUTH SIDE OLD FREDERICK ROAD, 19' FROM CL OF ROAD,  
 224' WEST CL DRIVE BETHANY LANE FIRE STATION  
 N 593814.005336(FT) E 1355731.88459(FT)  
 N 180994.8710(M) E 413227.9053(M)



**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.G. 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 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 DETAIL FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING MAINS 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
  - BALTIMORE GAS & ELECTRIC CO.....850-4620
  - BALTIMORE GAS & ELECTRIC CO.....787-9068
  - UNDERGROUND DAMAGE CONTROL.....795-1390
  - MISS UTILITY.....1-800-257-7777
  - COLONIAL PIPELINE CO.....795-1390
  - BUREAU OF UTILITIES
  - HOWARD CO. DEPT. OF PUBLIC WORKS.....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.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
- 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 CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) 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 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, RCP AND 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 WATER TIGHT FRAME AND COVERS, STANDARD DETAIL G5.52, WHERE WATER TIGHT 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.
  - ALL S.I.C.'S SHALL BE SET AT 2% TO THE PROPERTY LINE UNLESS OTHERWISE NOTED.



| QUANTITIES    |                      | AS BUILT   |                  | MANUFACTURER/SUPPLIER      |                      |
|---------------|----------------------|------------|------------------|----------------------------|----------------------|
| ITEM          | QUANTITIES ESTIMATED | QUANTITIES | TYPE             |                            |                      |
| 8" WATER      | 120 LF               | 132 LF     | CL52/DIP         | GRIFFIN PIPE               | SAMIE                |
| 6" WATER      | 100 LF               | 216.5 LF   | "                | "                          | "                    |
| 4" WATER      | 270 LF               | 270 LF     | "                | "                          | "                    |
| FIRE HYDRANTS | 2                    | 2 EA.      |                  | U.S. PIPE & FOUNDRY / BRS. |                      |
| 3/4" WHC      | 155 LF               | 175 LF     | K-TYPE BOT       | HOWELL METALS / BKSING     |                      |
| 1" WHC        | 83 LF                | 48 LF      | "                | "                          | "                    |
| 8" SEWER      | 603 LF               | 794 LF     | SDR 35           | J.M. MANUFACTURING /       | ATLANTIC CONC. PROD. |
| MANHOLES      | 6                    | 6 EA.      | PRECAST CONCRETE |                            |                      |
| 4" S.I.C.     | 170 LF               | 291.5 LF   | SDR 35           | J.M. MANUFAC / BRSING      |                      |
| 4" VALVES     | 1                    | 1 EA.      | ROSV             | MUELLER CO / BRS.          |                      |
| 6" VALVES     | 2                    | 2 EA.      | "                | MUELLER CO / BRS.          |                      |

NAME OF UTILITY CONTRACTOR: UTILITIES UNLIMITED  
 SURVEY AND DRAFTING DIVISION ASBUILT DATE:

NOTE:  
 A) THE EXISTING WATER HOUSE CONNECTION TO THE EXISTING HOUSE SHALL BE ABANDONED TO THE PUBLIC RIGHT OF WAY. THIS EXISTING WATER HOUSE CONNECTION SHALL BE UTILIZED FOR PROPOSED LOT 4. SERVICE FOR THE EXISTING HOUSE (PROPOSED LOT 7) SHALL BE PROVIDED AS SHOWN ON THESE CONSTRUCTION DRAWINGS.  
 B) THE SEPTIC SYSTEM TO THE EXISTING HOUSE SHALL BE ABANDONED ACCORDING TO HOWARD COUNTY HEALTH DEPARTMENT STANDARDS.

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND

*Sam Z. Selva* 3/10/96  
 DIRECTOR OF PUBLIC WORKS DATE

*Paul D. Brown* 3/10/25  
 CHIEF, BUREAU OF ENGINEERING DATE

*John R. Brown* 3/10/95  
 CHIEF, BUREAU OF UTILITIES DATE

*John R. Brown* 3/10/95  
 CHIEF, LAND DEVELOPMENT DIVISION DATE

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

*John G. Jones*

DES: JH  
 DRN: JH/CAB  
 CHK: DAM  
 DATE: 6/13/94

REVISIONS  
 1. REVISE FH LENGTH

600 SCALE MAP NO. 17 BLOCK NO. 8

**PLAN OF WATER & SEWER MAINS**

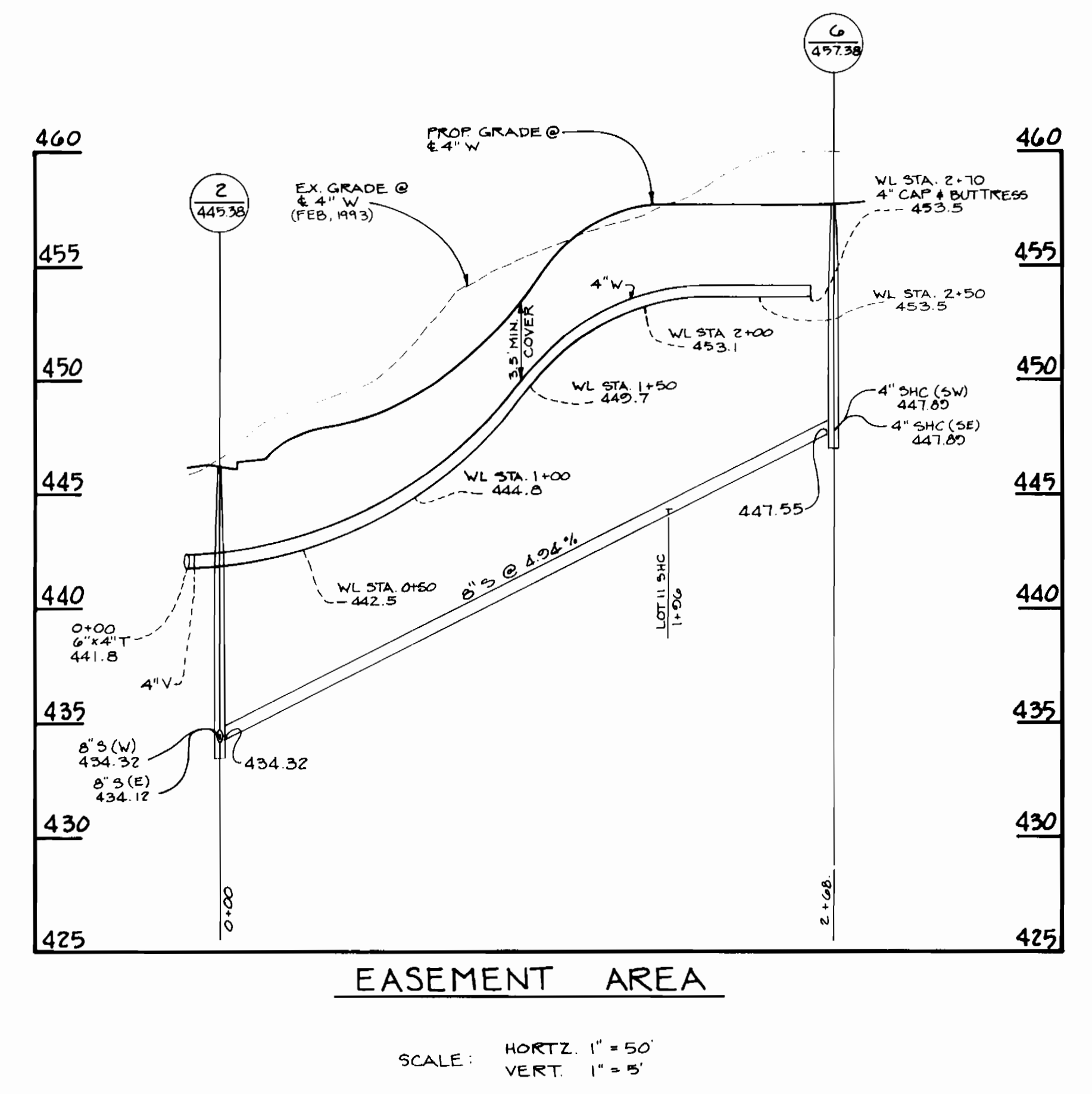
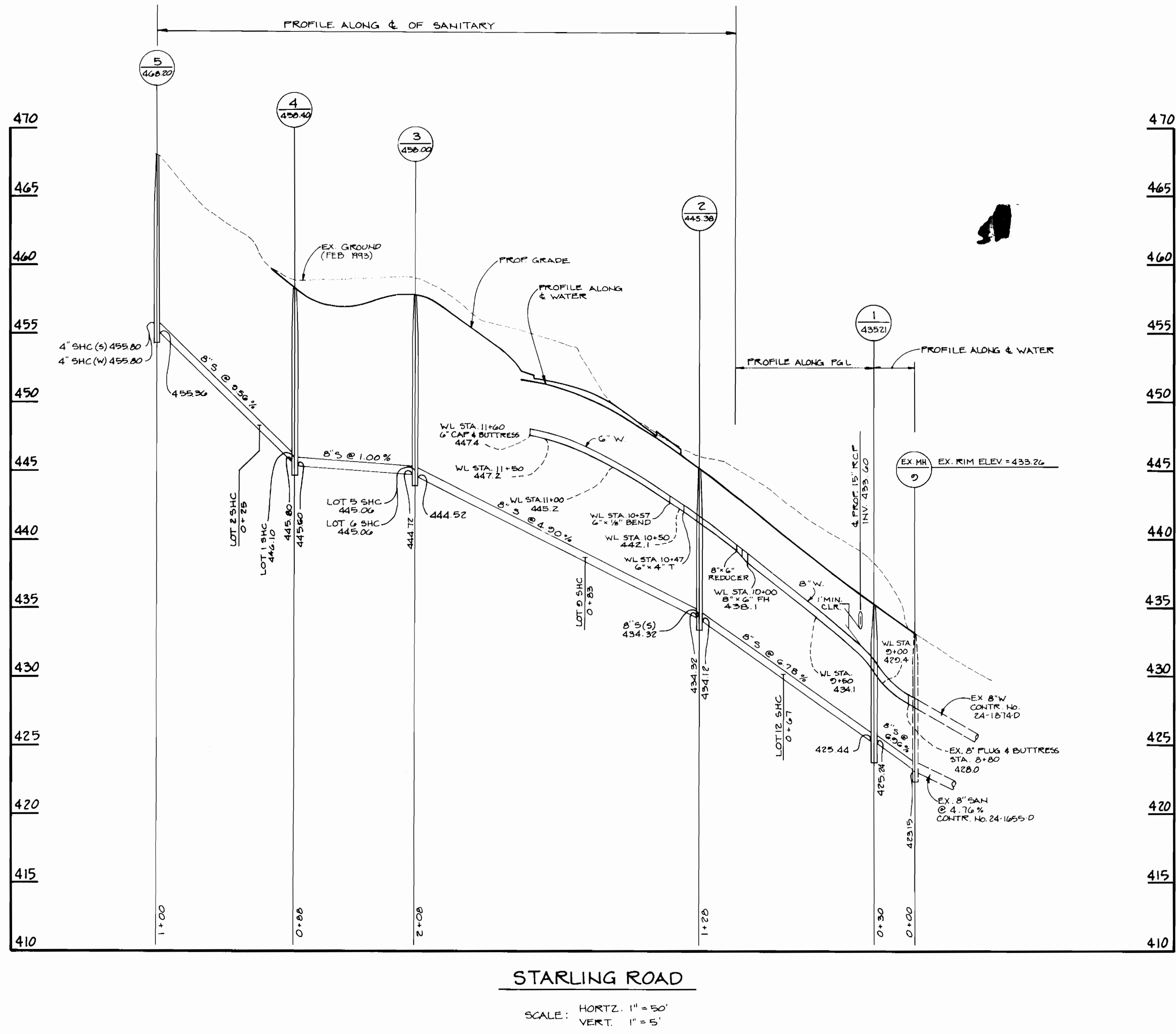
**WINTER OAKS**  
 LOTS 1 - 16

ELECTION DISTRICT NO. 2  
**CONTRACT NO. 24-3362-D**

SCALE: 1" = 50'  
 SHEET 1 OF 2



3362 ws/2 Winter Oaks, (lots 1-16)



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James J. Shaw* 3/10/95  
DIRECTOR OF PUBLIC WORKS DATE

*Robert J. ...* 2/6/95  
CHIEF, BUREAU OF UTILITIES DATE

*...* 3/10/95  
CHIEF, BUREAU OF ENGINEERING DATE

*...* 2/6/95  
CHIEF, LAND DEVELOPMENT DIVISION DATE

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*John ...*

|               |         |           |      |
|---------------|---------|-----------|------|
| DES: GWF      |         |           |      |
| DRN: CAB      |         |           |      |
| CHK: DAM      |         |           |      |
| DATE: 6/13/94 | BY: NO. | REVISIONS | DATE |

PROFILE OF  
WATER & SEWER MAINS

600 SCALE MAP NO. 17 BLOCK NO. 8

WINTER OAKS  
LOTS 1 - 16

ELECTION DISTRICT NO. 2  
CONTRACT NO. 24-3362-D

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

SHEET  
2 OF 2