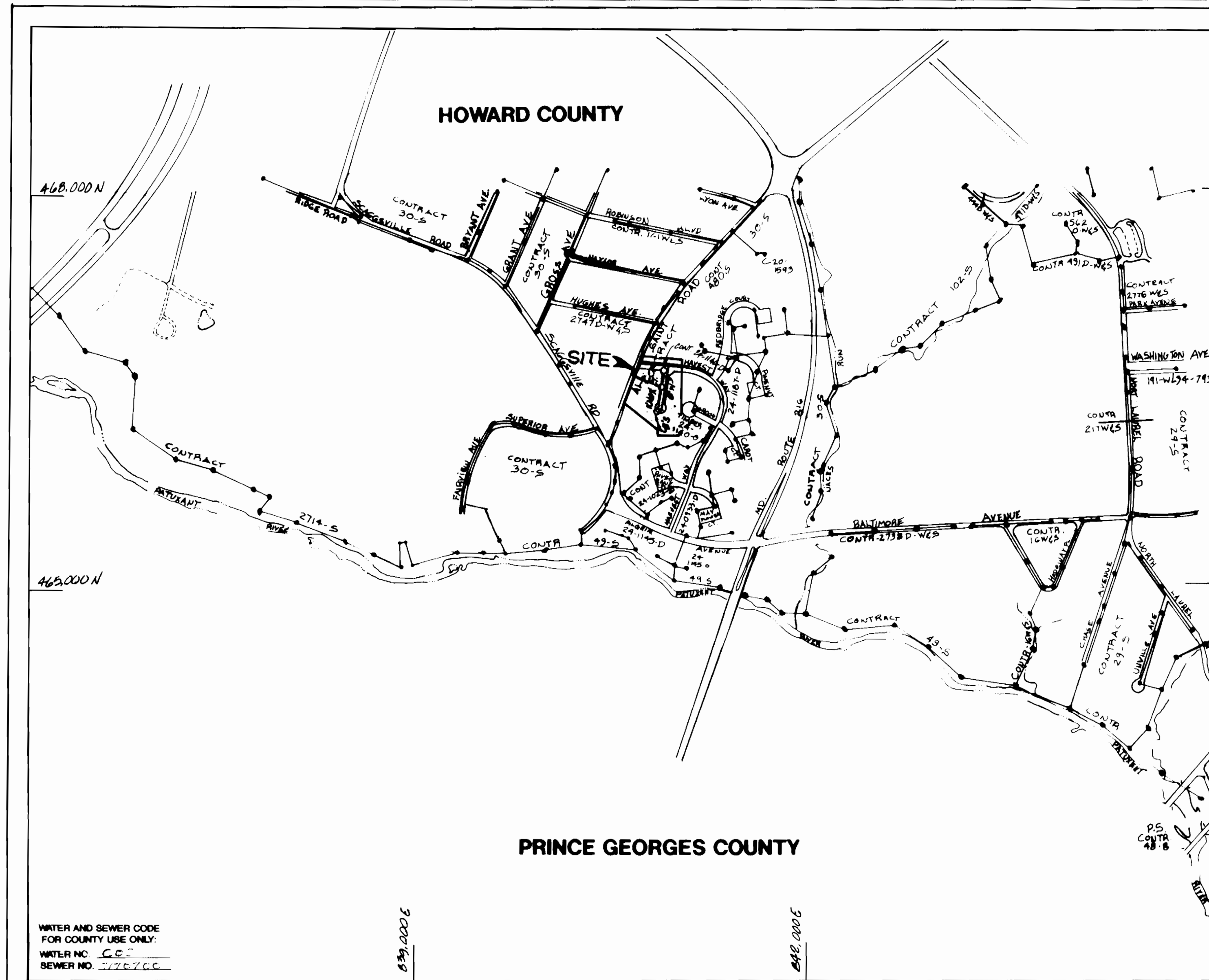


| QUANTITIES     |          |          |          |
|----------------|----------|----------|----------|
| ITEM           | EST'D    | AS BUILT | SUPPLIER |
| 8" WATER       | 256 L.F. |          |          |
| 3/4" W.H.C     | 440 L.F. |          |          |
| 6" WATER       | 59 L.F.  |          |          |
| FIRE HYDRANT   | 1 EA.    |          |          |
| 8"x8" T.S & V. | 1 EA.    |          |          |
| 6" FH VALVES   | 1 EA.    |          |          |
| 8" SEWER       | 562 L.F. |          |          |
| 4" S.H.C.      | 411 L.F. |          |          |
| MANHOLES       | 4 EA.    |          |          |
|                |          |          |          |
|                |          |          |          |



WATER AND SEWER CODE FOR COUNTY USE ONLY:  
 WATER NO. CC-  
 SEWER NO. 176700

TYPE OF BUILDING SINGLE FAMILY RESIDENTIAL  
 NUMBER OF LOTS 12 TO 15 BUILDINGS  
 NO. OF WATER HOUSE CONNECTIONS 14  
 NO. OF SEWER HOUSE CONNECTIONS 15  
 DRAINAGE AREA 12.14 SQ. FT.

LOCATION MAP  
 SCALE: 1"=600'

# CONTRACT NO. 24-3135-D KNOX LANDING WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

**BENCHMARKS:**

- Ⓐ 1841001 3/4" REBAR SET 0.04' BELOW THE SURFACE & 0.8' OFF OF THE EDGE OF CONCRETE WALK ELEVATION: 228.138
- Ⓑ 1841002 CONCRETE MONUMENT 1' EAST OF CONCRETE CURB, 0.6' BELOW THE SURFACE ELEVATION: 256.929

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 08 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 7-9-94

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

APPROVED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
*James M. Helms* 7/17/91  
 CHIEF, BUREAU OF UTILITIES

APPROVED:  
*John R. Hunter* 7/17/91  
 CHIEF, LAND DEVELOPMENT DIVISION

PREVIOUS SUBMITTALS:  
 S-89-95, P. 90-92  
 F-91-54, W.P. 91-46

CONTRACT NO. 24-3135-D  
 KNOX LANDING

WATER & SEWER MAIN EXTENSIONS

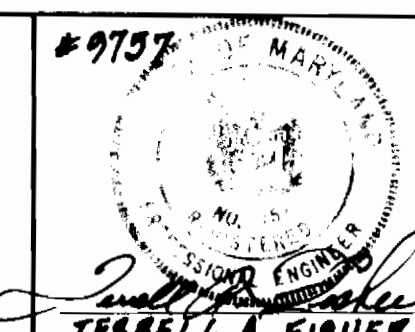
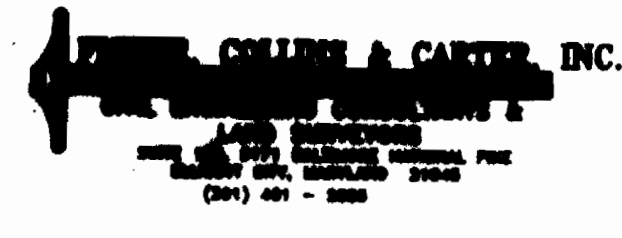
DRAWING 44-132 69150

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*Drayville W. Wehland* 7/19/91  
 DIRECTOR OF PUBLIC WORKS

*John M. Pagan* 7/12/91  
 CHIEF, BUREAU OF ENGINEERING

*John M. Pagan* 7/12/91  
 CHIEF, LAND DEVELOPMENT DIVISION



|             |  |          |      |
|-------------|--|----------|------|
| DES: KAC    |  |          |      |
| DRN: WLD    |  |          |      |
| CHK: PAK    |  |          |      |
| DATE: 10/90 |  |          |      |
| BY NO.      |  | REVISION | DATE |

TITLE SHEET

600' SCALE MAP NO. 44-132-69150 BLOCK NO. 1

KNOX LANDING  
 TAX MAP: 50; PARCEL: 74; BLOCK: 2  
 SIXTH ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

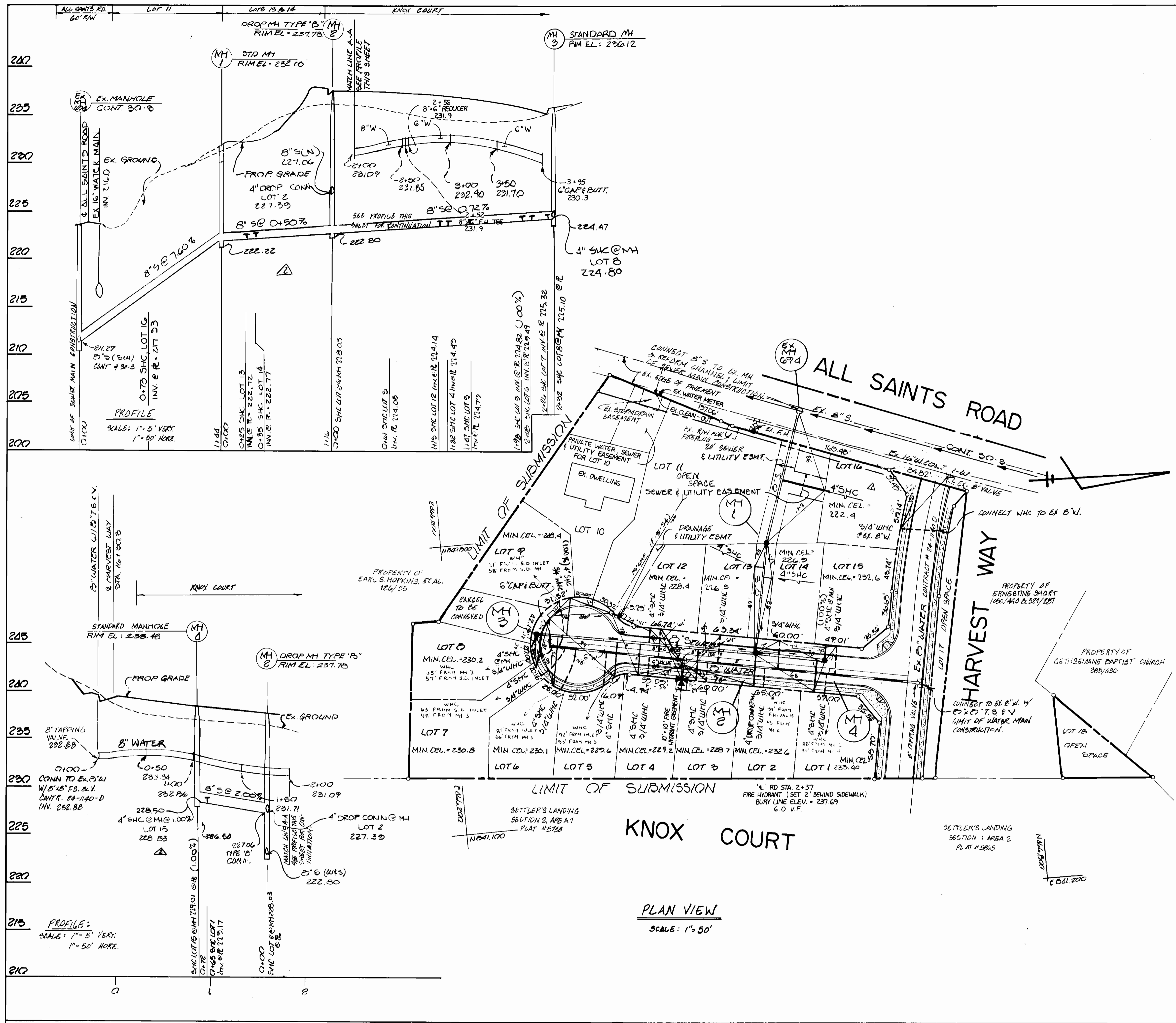
SCALE AS SHOWN  
 SHEET 1 OF 2

**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 SHOWN ARE INVERT ELEVATIONS
- 5 CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN
- 6 FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS
- 7 FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- 8 CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE
- 9 CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.  
 STATE HIGHWAY ADMINISTRATION 531-5833  
 BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION CUSTOMER SERVICE 685-0123  
 BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND GAS DISTRIBUTION CUSTOMER SERVICE 685-0123  
 ENGINEERING - "DAMAGE CONTROL" 234-5611  
 "MISS UTILITY" 1-559-0100  
 CHESAPEAKE & POTOMAC (C&P) TELEPHONE COMPANY 725-9976  
 AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION 393-3533  
 COLONIAL PIPELINE COMPANY 795-1390  
 BUREAU OF UTILITIES HOWARD COUNTY 343-4900
- 10 TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR
- 11 CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN
- 12 PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE
- 13 ALL WATER MAINS TO BE D.I.P. CLASS 52 ONLY.
- 14 TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- 15 VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 16 BLOCK ALL FITTINGS WITH CONCRETE.
- 17 BURYLINE ELEVATIONS ON ALL FIRE HYDRANTS SHALL BE SET TO THE 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 TO BE COMPACTED IN ACCORDANCE WITH SECTIONS 10.00 AND 10.05 OF THE STANDARD SPECIFICATIONS
- 18 ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING
- 19 THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM
- 20 ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., OR P.V.C. UNLESS OTHERWISE NOTED.
- 21 THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'0" OF EXTERIOR MANHOLE WALL.
- 22 ALL MANHOLES SHALL BE 4'0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED
- 23 FORCE MAINS SHALL BE D.I.P. ONLY.
- 24 MANHOLES SHOWN WITH 12" & 16" WALLS ARE BRICK MANHOLES ONLY
- 25 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 A TOP OF FRAME 1'-6" ABOVE FINISHED GRADE, STANDARD DETAIL G.5.41
- 26 HOUSE(S) WITH THE SYMBOL "C.N.S" INDICATES THAT CELLAR CANNOT BE SERVED
- 27 ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153 DUCTILE IRON COMPACT FITTINGS, 3"-12" WATER AND OTHER LIQUIDS

AS-BUILT





| LOT NO.                | LOCATION                | ELEVATION |
|------------------------|-------------------------|-----------|
| MANHOLE 4 - MANHOLE 2  |                         |           |
| 1                      | 0+65 LEFT               | 229.17    |
| 15                     | (1.00%) MANHOLE 4 RIGHT | 229.01    |
| 2                      | MANHOLE 2 LEFT          | 228.05    |
| MANHOLE 2 - MANHOLE 3  |                         |           |
| 3                      | 0+61 LEFT               | 224.05    |
| 12                     | 1+13 RIGHT              | 224.14    |
| 4                      | 1+22 LEFT               | 224.49    |
| 5                      | 1+47 LEFT               | 224.79    |
| 6                      | 2+08 LEFT               | 225.49    |
| 7                      | 2+86 LEFT               | 225.32    |
| 9                      | (1.00%) 1+38 RIGHT      | 224.62    |
| MANHOLE 3              |                         |           |
| 8                      | MANHOLE 3 LEFT          | 225.10    |
| MANHOLE 1 - MANHOLE 2  |                         |           |
| 13                     | 0+25 RIGHT              | 222.72    |
| 14                     | 0+35 LEFT               | 222.77    |
| EX. MH * 604 TO MH * 1 |                         |           |
| 16                     | 0+73 LEFT               | 217.93    |

| MH NO | LOCATION        | INV. IN | INV. OUT | RIM EL | TYPE     | REM.  |
|-------|-----------------|---------|----------|--------|----------|-------|
| EX694 | SEE PLAN        | 211.27  | 211.27   | -      | STANDARD | EX.   |
| 1     | SEE PLAN        | 222.22  | 222.22   | 232.00 | STANDARD | GS.11 |
| 2     | 0+89 KNOX COURT | 222.80  | 222.80   | 207.78 | STANDARD | GS.11 |
| 3     | SEE PLAN        | -       | 224.47   | 206.12 | TERMINAL | SI.31 |
| 4     | 3+52 KNOX COURT | -       | 228.50   | 220.48 | TERMINAL | SI.31 |

PREVIOUS SUBMISSIONS  
S-89-73; P-90-32  
F-91-54; WP-91-46

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
7-12-91  
Robert Benner, Chief, Bureau of Utilities  
7-12-91

FISHER COLLINS & CARTER, INC.  
CIVIL ENGINEERS CONSULTANTS & LAND SURVEYORS  
1000 WASHINGTON NATIONAL PIKE  
BLIANTZ CITY, MARYLAND 21033  
(410) 491-2805

DES: KMC  
DRN: WLO  
CHK: PFK  
DATE: 10/90

WATER AND SEWER MAINS  
PLAN  
AND PROFILES  
CONTRACT NO: 24-2135-D  
600 SCALE MAP NO. 112350 BLOCK NO. 2

KNOX LANDING  
TAX MAP NO. FARCEL: 74; BLOCK: 2  
SIXTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
SCALE AS SHOWN  
SHEET 2 OF 2

AS-BUILT