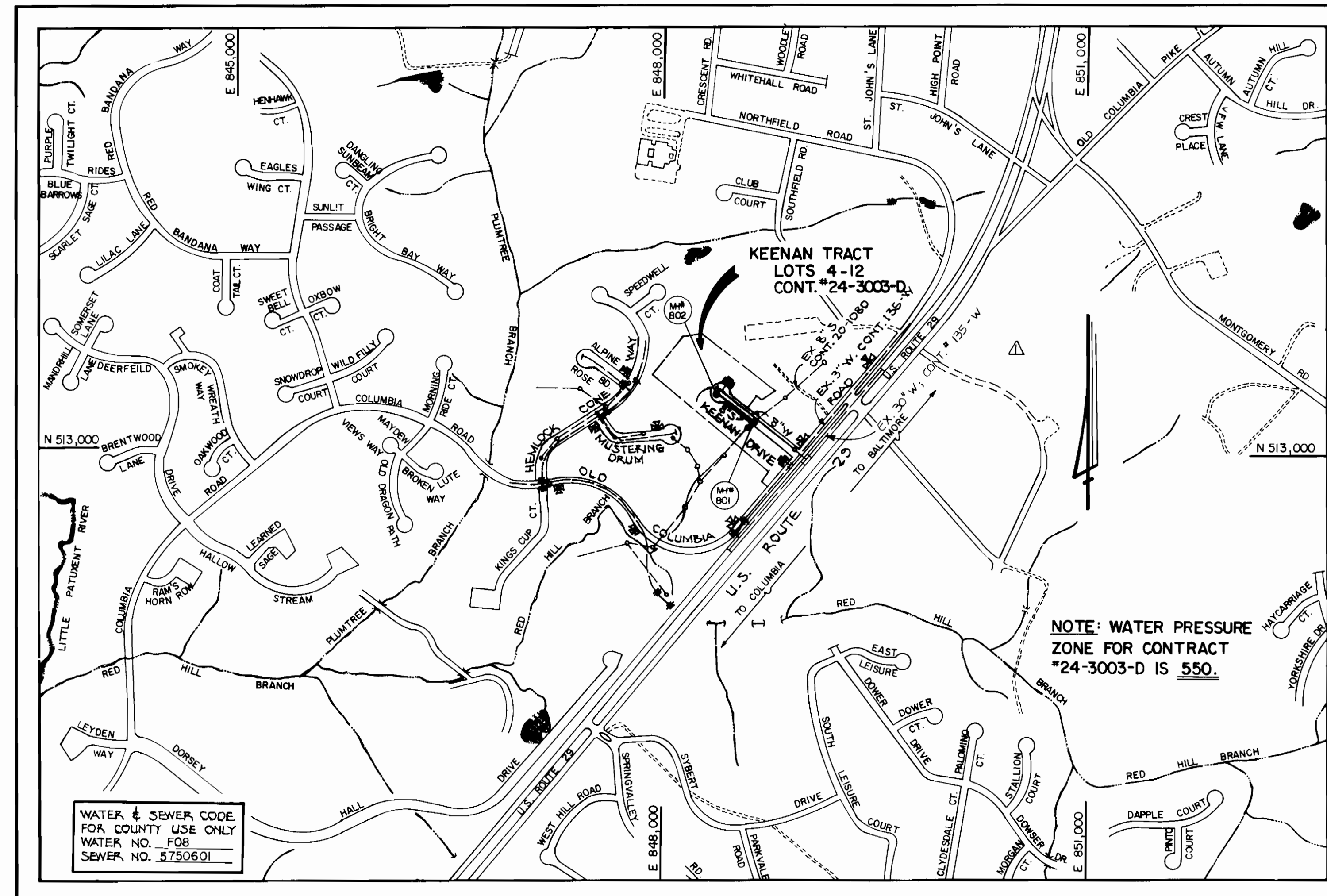


GENERAL NOTES

- 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, AMENDED 1989. 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 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 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 65.52 WHERE WATER-TIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., 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 65.51.

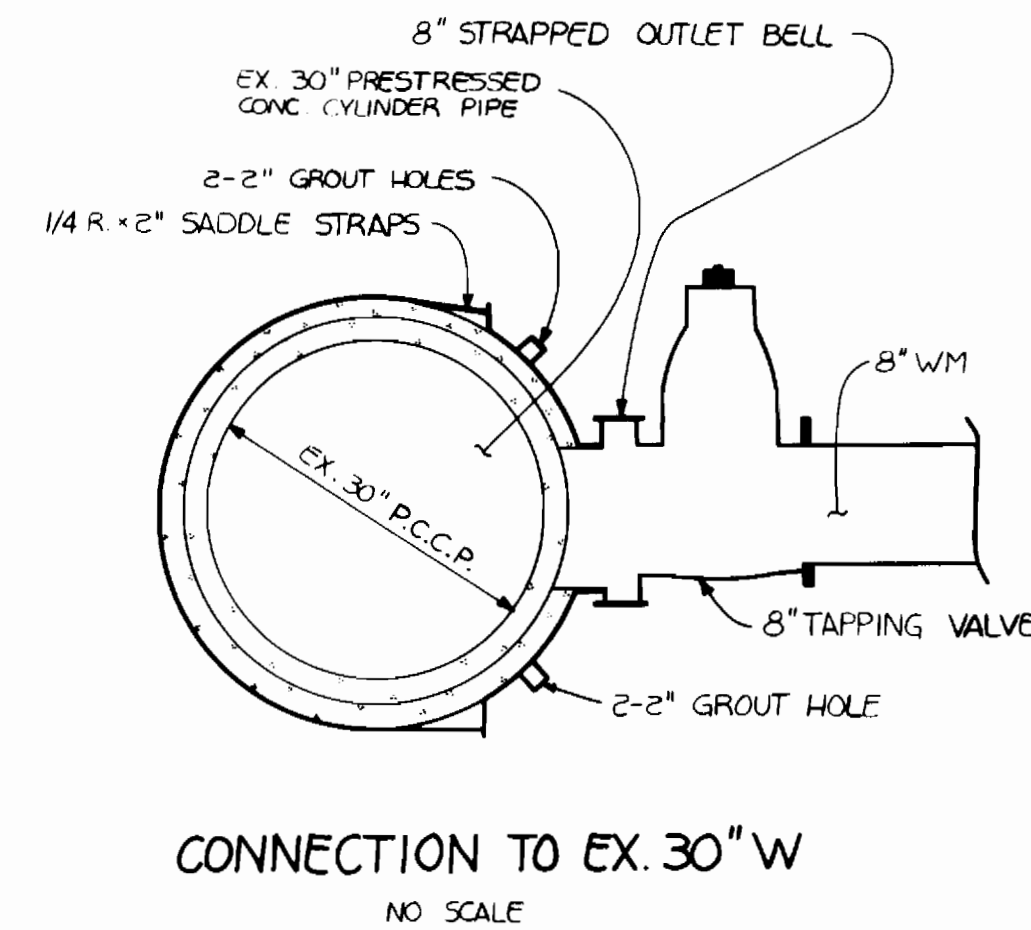


TYPE OF BUILDING	RESIDENTIAL
NUMBER OF LOTS (8 BUILDABLE)	5
NO. OF WATER HOUSE CONNECTIONS	5
NO. OF SEWER HOUSE CONNECTIONS	5
DRAINAGE AREA	LITTLE PATUXENT

VICINITY MAP
SCALE: 1"=600'

TREATMENT PLANT: PATAPSCO WASTEWATER TREATMENT PLANT VIA THE ROUTE 108 PUMPING STATION.

CONTRACT NO. 24-3003-D KEENAN TRACT LOTS 4 THRU 12 WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS



QUANTITIES			
ITEM	EST'D	AS-BUILT	SUPPLIER
8" SEWER	310 LF	312' L.F.	2nd MANUL Corp
MANHOLE	2 EACH	2 EACH	ATLANTIC
8" WATER	707 LF	707' L.F.	Griffin Pipe Prod
6" WATER	88 LF	100' L.F.	" "
FIRE HYDRANT	2 EACH	2 EACH	MULLER Comp
8" x 6" REDUCER	1 EACH	1 EACH	Griffin Pipe Prod
3/4" WHC	174 LF	200' L.F.	HOWARD METALS
4" SHC	163 LF	119' L.F.	2nd MANUL Corp
30" x 8" CONNECTION & 8" VALVE	1 EACH	1 EACH	MULLER Comp
8-INCH VALVE	1 EACH	1 EACH	" "
4-INCH VALVE	2 EACH	2 EACH	" "
8" x 4" CROSS	1 EACH	1 EACH	Griffin Pipe Prod
4" x 3" REDUCER	2 EACH	2 EACH	" "

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

APPROVED:

John H. Roberts 12/15/89
HOWARD SOIL CONSERVATION DISTRICT DATE

James M. Hagan 12/15/89
U.S. SOIL CONSERVATION SERVICE DATE

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 F 90-03.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

PLAN REFERENCE NOS.
P 88-77
F 90-03

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Hagan 12/15/89
DIRECTOR OF PUBLIC WORKS DATE

Robert B. ... 12/15/89
CHIEF BUREAU OF UTILITIES DATE

James M. Hagan 12/15/89
CHIEF, BUREAU OF ENGINEERING DATE

Robert B. ... 12/15/89
CHIEF, LAND DEVELOPMENT DIVISION DATE

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

**5757

Terrell A. Fisher
TERRELL A. FISHER

DES: DB			
DRN: DB/SH			
CHK: PWK			
DATE: 10/14/89	BY: NO	REVISION: REVISE VICINITY MAP, QUANTITIES, AND ADD DETAIL	DATE: 10/31/89

TITLE SHEET	600' SCALE MAP NO. 24	BLOCK NO.
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AS-BUILT

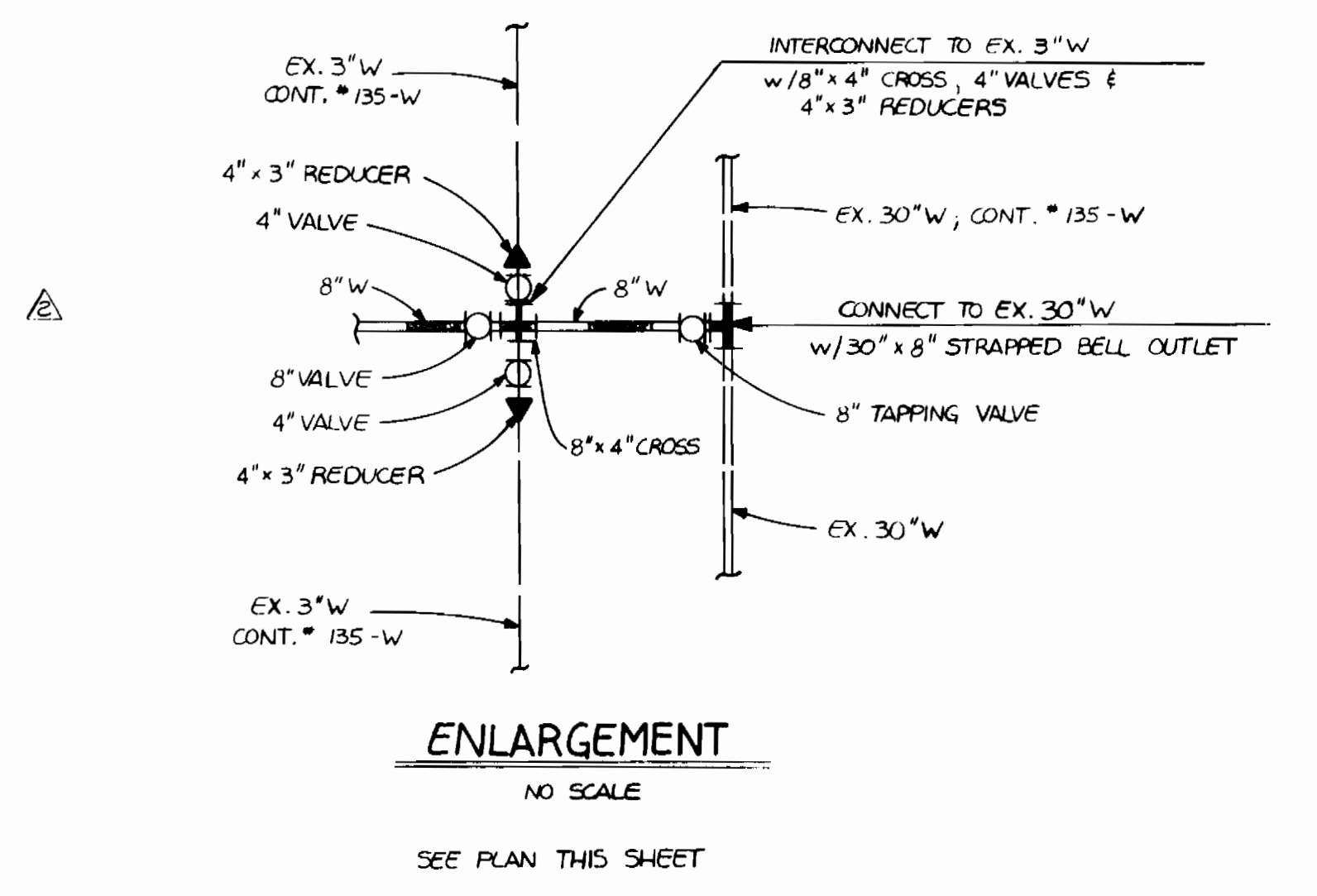
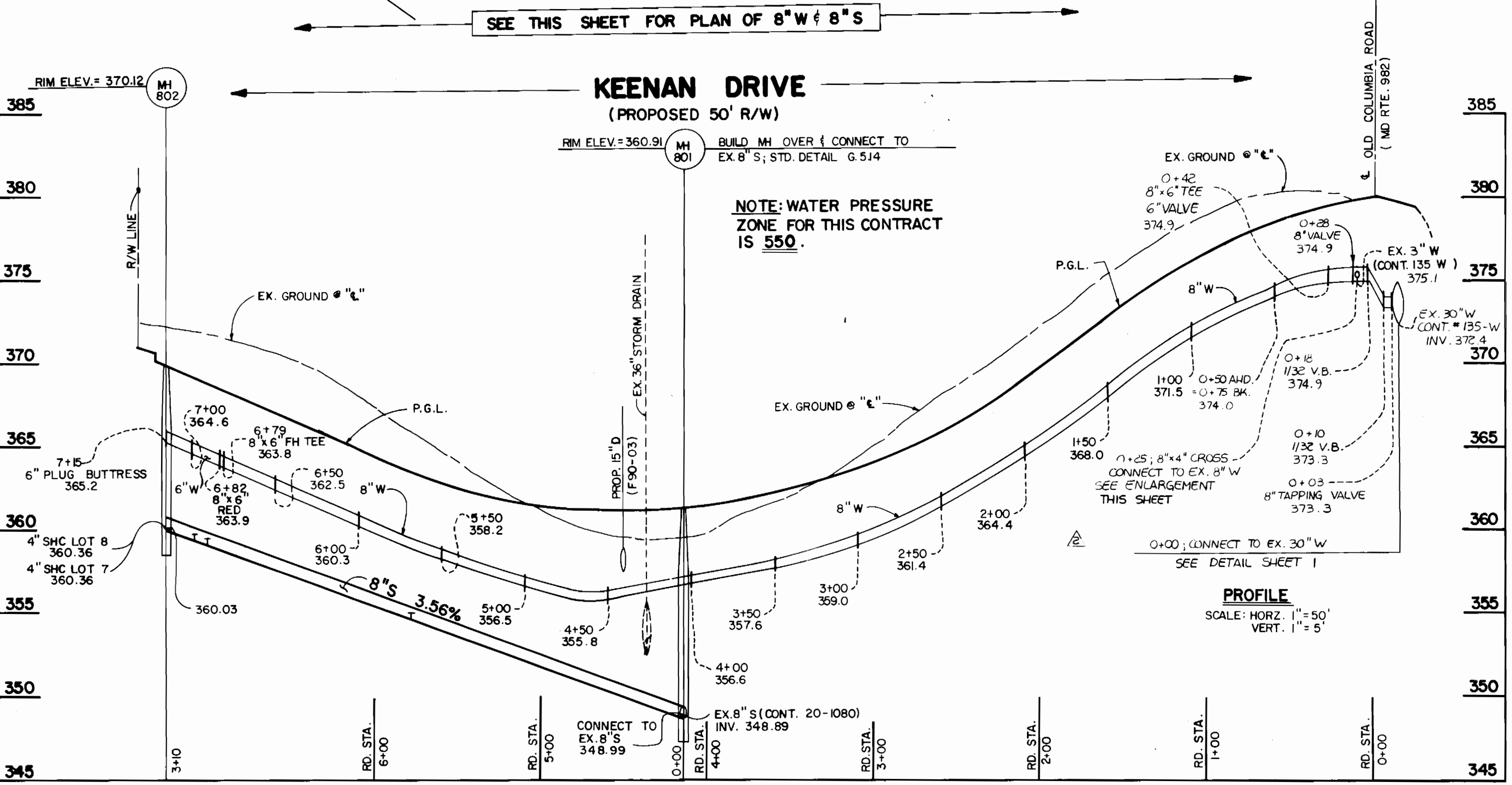
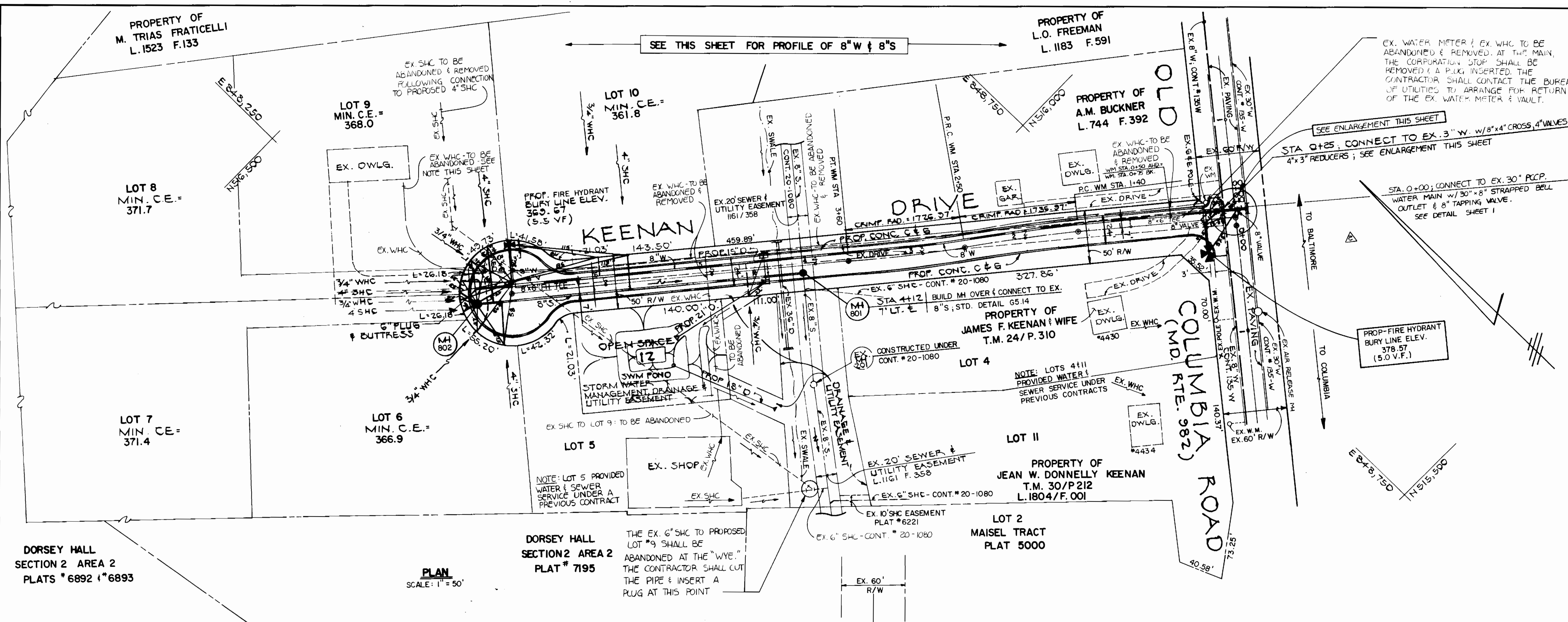
CONTRACT NUMBER: 24-3003-D
KEENAN TRACT
LOTS 4 THRU 12
WATER & SEWER EXTENSIONS
HOWARD COUNTY, MARYLAND

KEENAN TRACT
LOTS 4-12
CONTRACT NO. 24-3003-D
SECOND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 2

SEWER HOUSE CONNECTION INVERT ELEVATIONS AT "R"		
STATION	LOT	ELEVATION
NH # 801	TO	NH # 802
1+64	LOT 10	355.64
2+87	LOT 6	360.22
2+94	LOT 9	360.71
PH# 801 LT.	LOT 7	360.66
PH# 802 RT.	LOT 8	360.78



CONTRACT NO. 24-3003-D
 KEENAN TRACT
 LOTS 4 THRU 12
 WATER AND SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *James P. ...* 12/10/89
 Chief, Bureau of Engineering: *William B. ...* 12-12-89
 Chief, Bureau of Utilities: *Robert ...* 12-11-89
 Chief, Land Development Division: *...* 12/16/89

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

DES: DB			
DRN: DB			
CHK: TF	SFH	REVISE PLAN, PROFILE AND ADD DETAIL	10/4/89
DATE: 10/16/89	SH	REVISE PLAN	2/16/89
BY: NO.		REVISION	

PLAN AND PROFILE
 WATER & SEWER
 MAINS
 600' SCALE MAP NO. 24 BLOCK NO.

AS-BUILT
KEENAN TRACT
 LOTS 4 THRU 12
 CONTRACT NO. 24-3003-D
 SECOND ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 2 OF 2