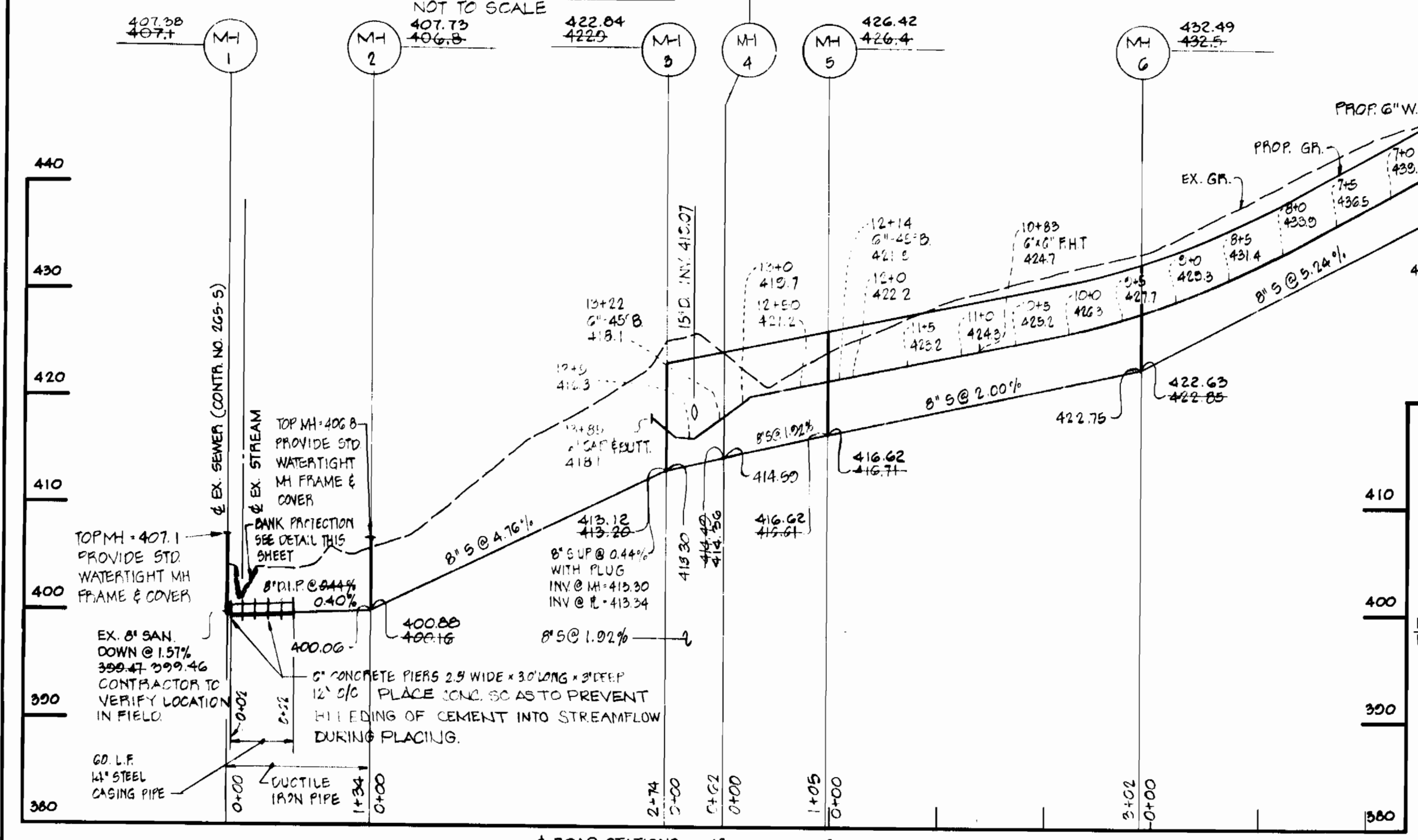


NOTES:  
 1. RIP RAP SHALL BE PLACED 6" MIN EACH SIDE OF SEWER AS SHOWN. COST OF RIP RAP AND EROSION CONTROL CLOTH IS TO BE INCLUDED IN THE UNIT PRICE BID FOR RUSHING AND LAYING OF SEWER MAIN.  
 2. RIP RAP TO CONSIST OF DENSE ROCKS OF RANDOM SHAPES AND SIZES, RESISTANT TO THE ACTION OF AIR AND WATER AND SUITABLE FOR BANK PROTECTION. ALL ROCKS SHALL WEIGH A MIN. OF 150 LBS.

ITEM	SIZE	QUANTITY	AS BUILT	MATERIAL/SUPPLIER
SEWER	8"	1584 LF	1553	JOHN'S MANVILLE
WATER	6"	1416 LF	1416	D.I.P. GAFFIN
MANHOLES		8 EA	8	CONCRETE PRODUCTS OF AMERICA
6" VALVES		1 EA	1 EA	M.H.
PIPE W/VALVE		3 EA	3	DRESDNER/M.H.
STEEL CASING	12"	60 LF	60 LF	CLASS 2400 J.M.

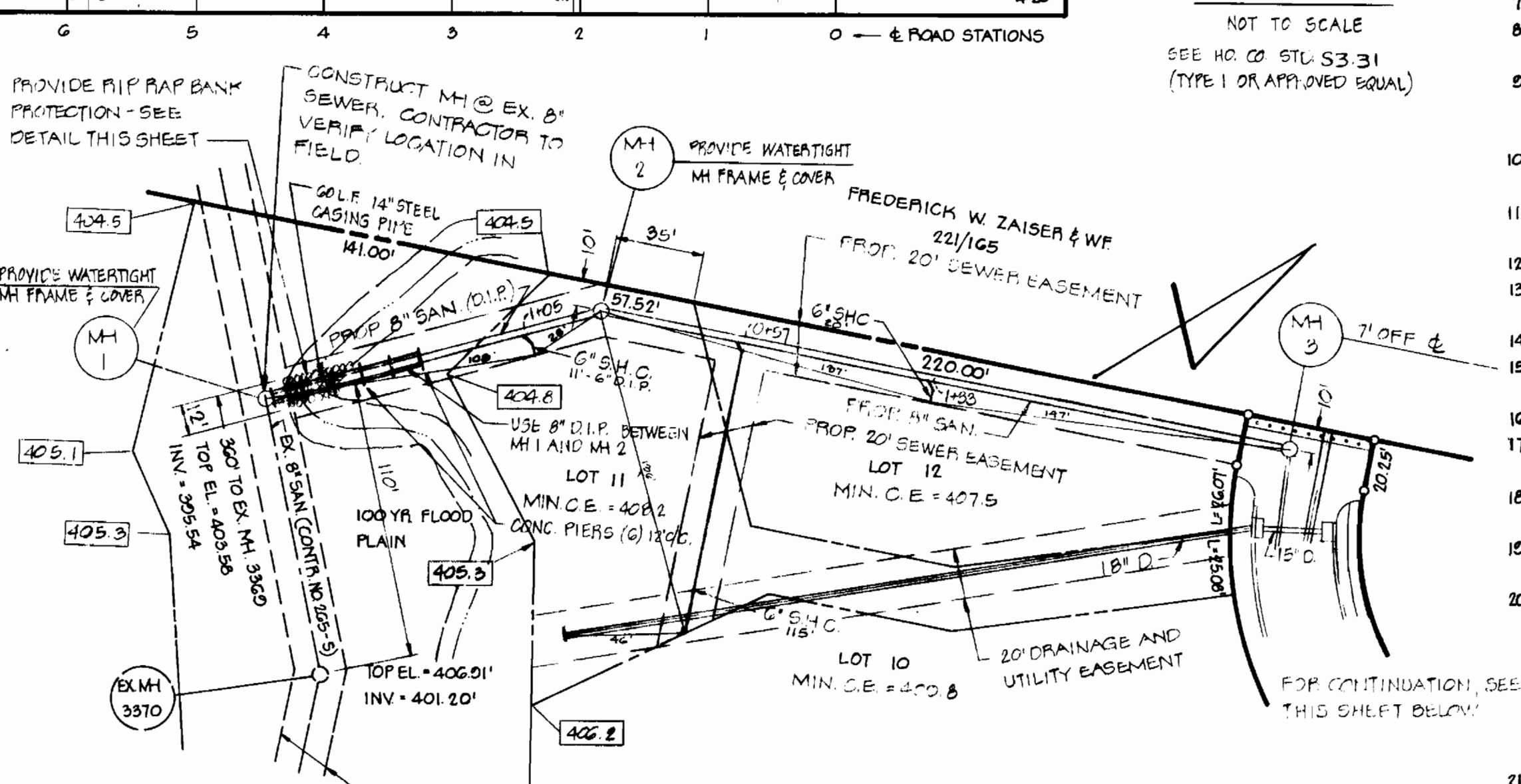
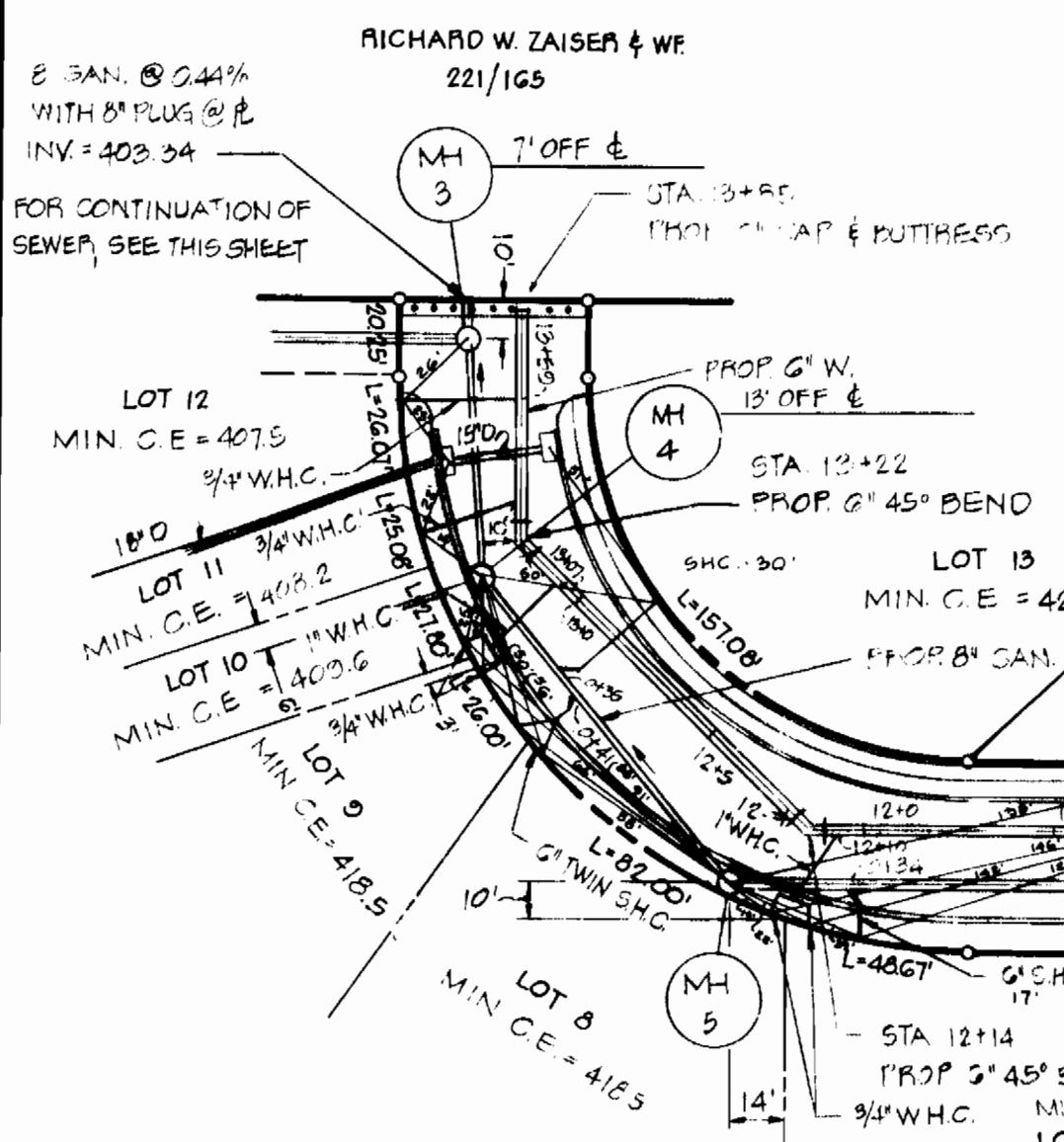
EXCLUDES F.H. VALVES

**UNGROUTED RIP RAP DETAIL FOR BANK PROTECTION**  
 NOT TO SCALE



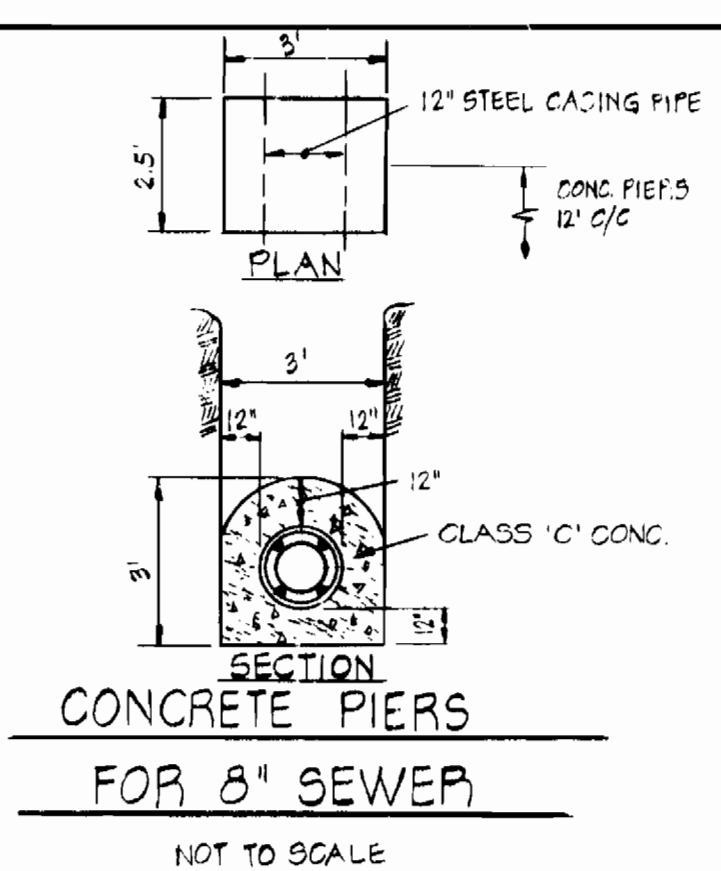
**PROFILE**  
 SCALE: HORIZ. 1"=100'  
 VERT. 1"=10'

TYPE OF BUILDING - SINGLE FAMILY DWELLING	NUMBER OF LOTS	NUMBER OF WATER HOUSE CONNECTIONS	NUMBER OF SEWER HOUSE CONNECTIONS	DRAINAGE AREA - SAVAGE
	21	21	21	

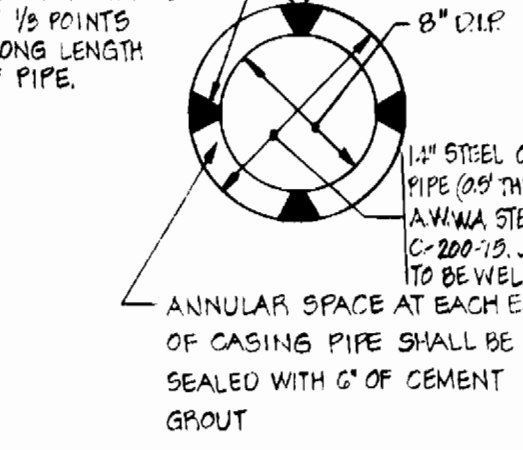


**PLAN**  
 SCALE: 1"=50'

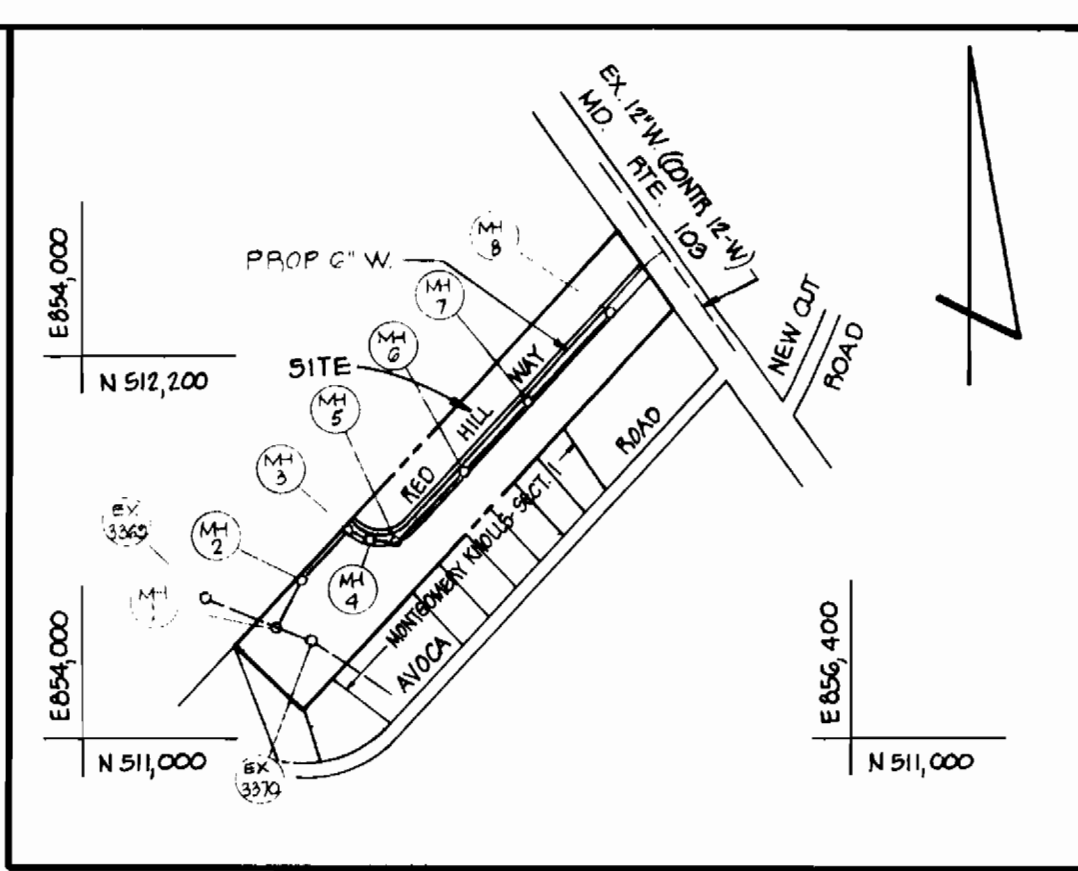
SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THE STANDARD SPECIFICATIONS & ROAD CONSTRUCTION PLAN F-81-90



**CONCRETE PIERS FOR 8" SEWER**  
 NOT TO SCALE



**SECTION THRU STEEL CASING PIPE**  
 NOT TO SCALE



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

**GENERAL NOTES**

- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN VICINITY OF UTILITIES.
- FOR ALL STANDARD DETAILS, SEE STANDARDS BOUND IN SPECIFICATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6", CLEAR ALL POLES BY A MINIMUM OF 2'-0" OR TUNNEL AS REQUIRED.
- ALL WATER MAINS SHALL BE C.I.P., D.I.P. UNLESS OTHERWISE NOTED AND HAVE A MINIMUM OF 3.5' COVER.
- BLOCK ALL FITTINGS WITH CONCRETE, SEE STANDARDS BOUND IN SPECIFICATIONS.
- BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO ELEVATION SHOWN ON DRAWINGS.
- ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANTS SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 5-15 OF THE STANDARD SPECIFICATIONS.
- ALL VALVES SHALL BE STRAPPED TO TEES WHERE APPLICABLE IN ACCORDANCE WITH THE STANDARDS BOUND IN SPECIFICATIONS.
- NOTIFY THE BUREAU OF UTILITIES, HOWARD COUNTY, AT 992-2366, PRIOR TO MAKING ANY TIE ON THE EXISTING WATER AND SEWER SYSTEM.
- WATER SERVICES SHALL BE FOR INSIDE METEER SETTING.
- ALL SEWER MAINS SHALL BE V.C.P. OR ASBESTOS CEMENT CLASS 2400 UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- MANHOLES SHOWN WITH 12" WALLS ARE FOR BRICK MANHOLES ONLY.
- MINIMUM CELLAR ELEVATIONS SHOWN ARE THE MINIMUM ELEVATIONS WHICH CAN BE SERVED BY SEWER MAINS.
- ELEVATIONS ARE BASED UPON MARYLAND STATE DATUM. COORDINATE VALUES SHOWN ON DRAWINGS ARE IN THE MARYLAND STATE GRID SYSTEM.
- TWIN W.H.C. SHALL BE COMPOSED OF 1" COPPER FROM THE CORPORATION TO THE Y BRANCH AND 5/8" COPPER TO EACH CURB SERVICE BOX. SEE STANDARD W-50 BOUND IN SPECIFICATIONS. CURB STOP TO BE SET 5' OFF OF PROPERTY LINE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - BALTIMORE GAS AND ELECTRIC COMPANY CUSTOMER SERVICE 685-0125
  - C&P TELEPHONE COMPANY 727-2576
  - MISS UTILITY 303-3648
- WATER HOUSE CONNECTIONS SHALL PASS AT LEAST ONE FOOT (1') OVER SEWER MAINS. SEWER HOUSE CONNECTIONS SHALL PASS AT LEAST ONE FOOT (1') UNDER WATER MAINS, AND PROPER THREE AND ONE-HALF (3 1/2) FOOT COVER SHALL BE MAINTAINED AT ALL TIMES.

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Director of Public Works: *John F. Nunn* 5-20-81  
 Chief, Bureau of Engineering: *Robert S. Kirby* 5/20/81  
 Chief, Bureau of Utilities: *Robert M. Beiner* 5-20-81  
 Chief, Land Development: *William H. ...*

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.  
 U.S. SOIL CONSERVATION SERVICE: *...* 5-13-81  
 BOENDER ASSOCIATES, INC.  
 ENGINEERS, PLANNERS, SURVEYORS  
 BALTIMORE, MD. SALISBURY, MD.  
 465-7777 749-1286

THIS DEVELOPMENT IS APPROVED SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 HOWARD SOIL CONSERVATION DISTRICT: *William J. ...* 5-18-81  
 CONTRACT NO. 24-0968-D

STATE HEALTH DEPT. REVISIONS (NOTES): 7-2-81  
 ADDED DIMENSIONS & NOTES: 7-1-81  
 REVISIONS: 1/2/81

For additional 'As Built' Info. (Length of WHC & SHC) see Field Folder.

PLAN AND PROFILE WATER AND SEWER MAINS  
 BROOKVIEW ESTATES ELECTION DISTRICT NO. 2  
 DRAWING NO. 1 OF 1  
 SCALE AS SHOWN