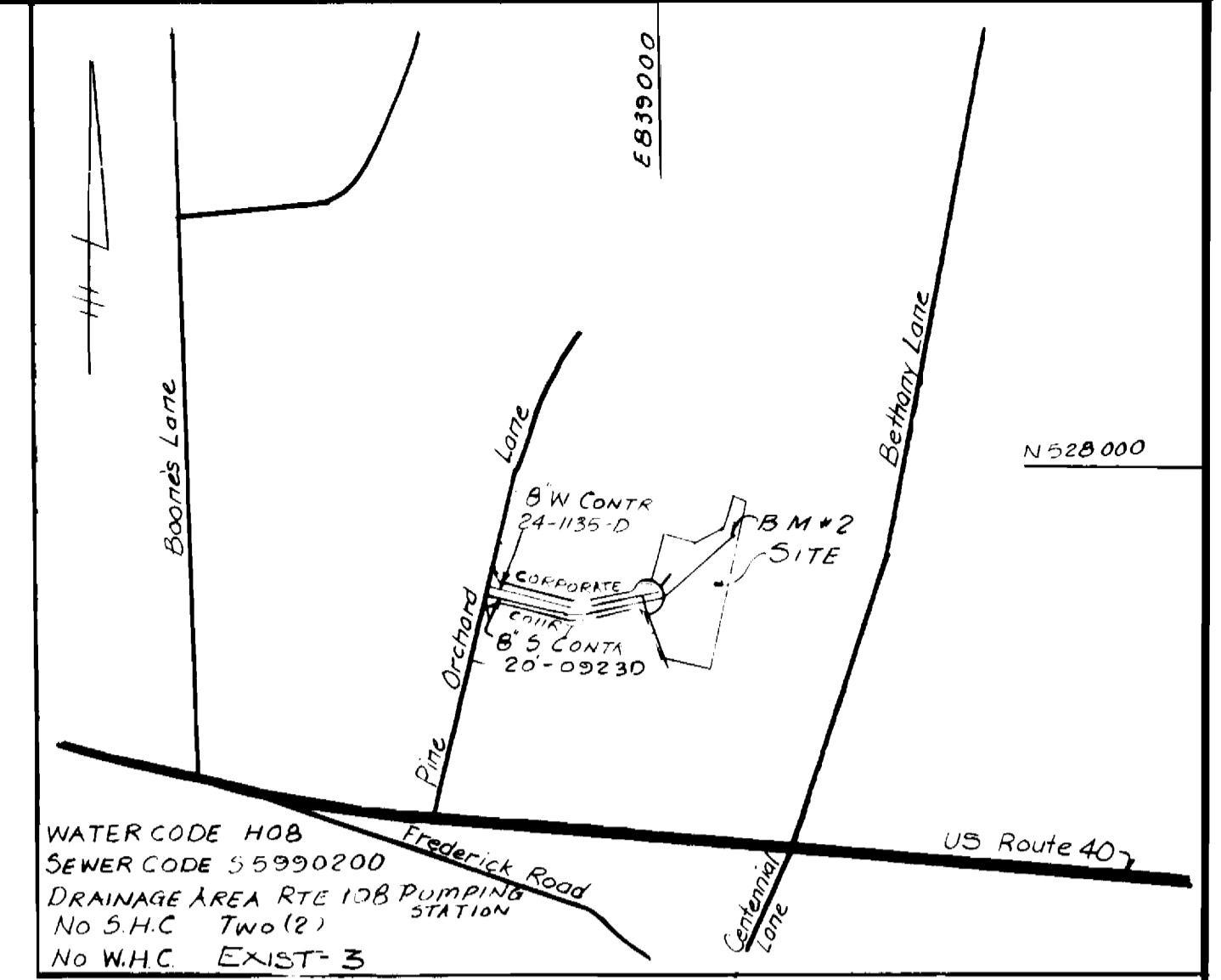
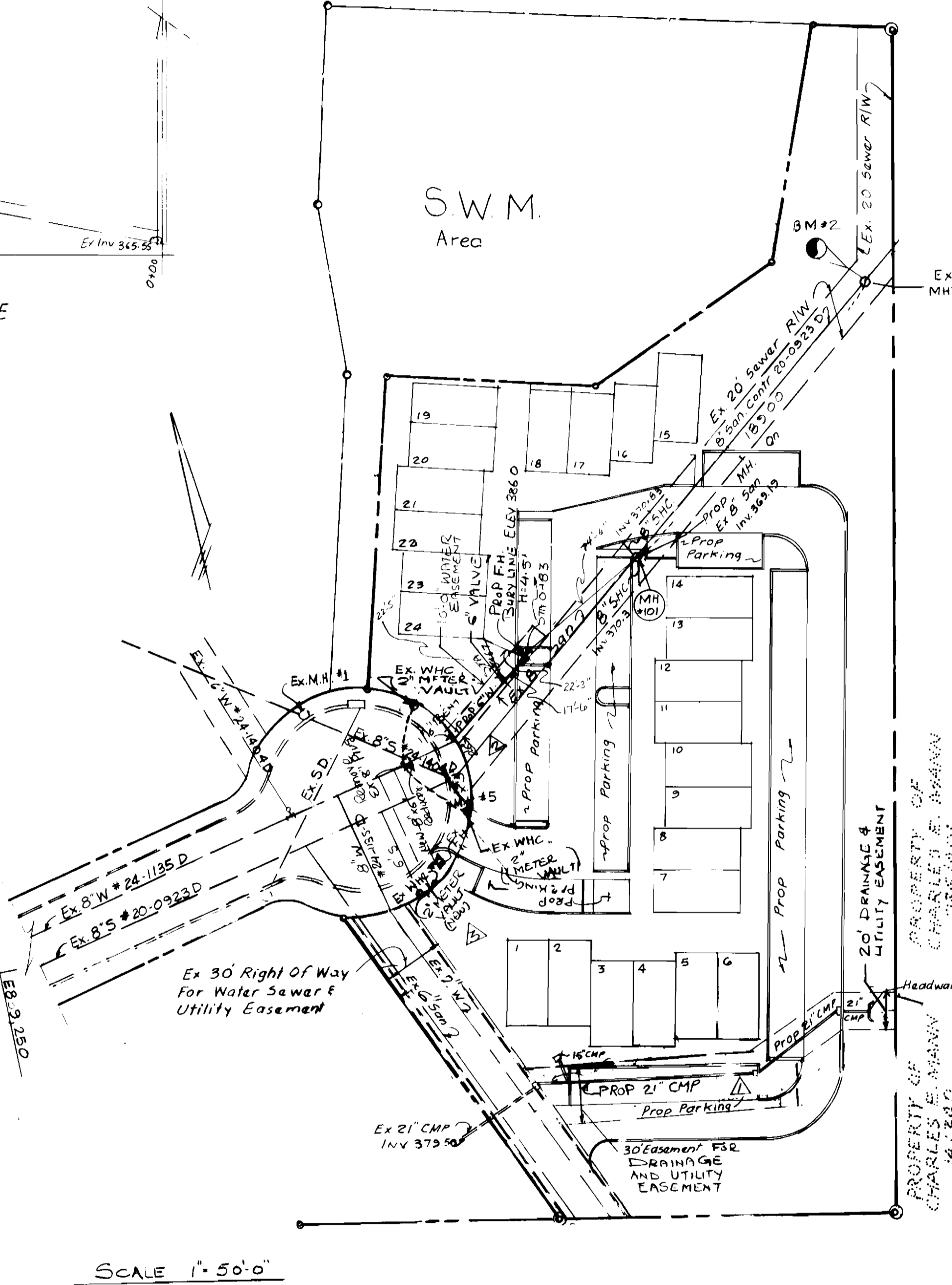
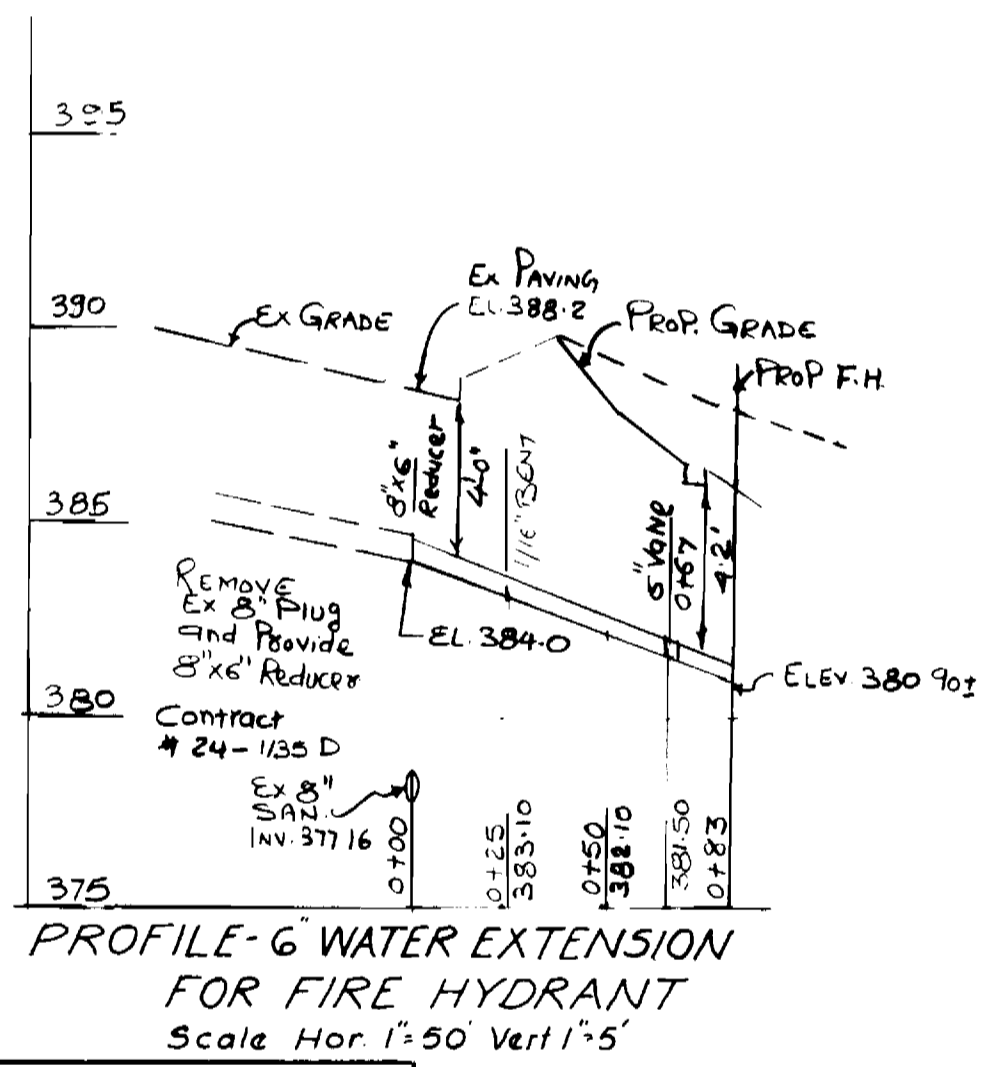
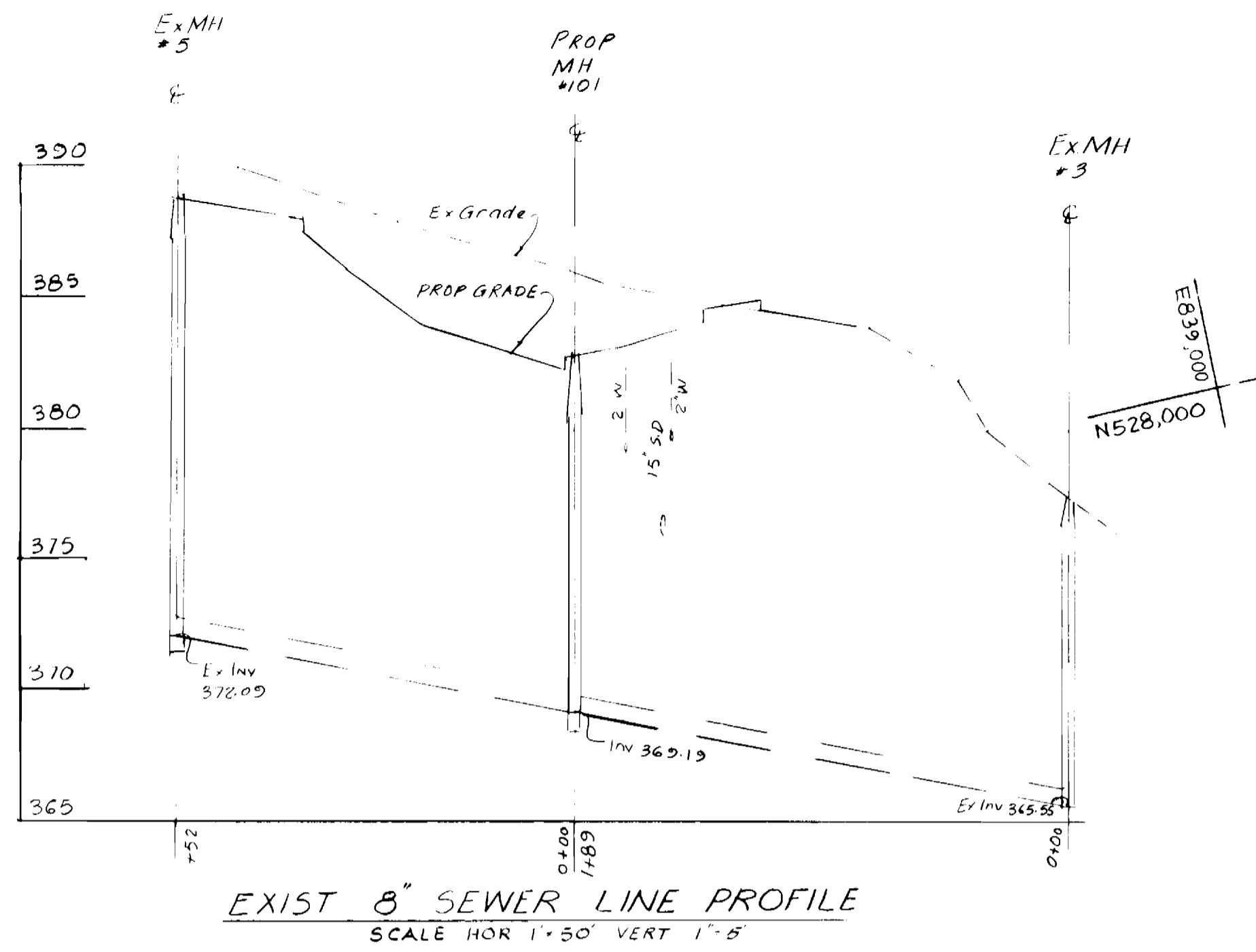


BENCH MARKS

B.M. #1 "PQ-4" ELEV. 401.59'
 Railroad spike set in existing
 paving 44' south from intersection
 of Pine Orchard Lane & Nicholas Ct.

B.M. #2
 Rim of existing sewer manhole #3
 as per Contract 24-1135-D.

QUANTITY BOX			
ITEM	EST'D	AS BUILT	SUPPLIER
6" W. Main	83'-0"	77'-0"	ATLANTIC
Fire Hydrant	1EA	1FA.	MUELLER CO
6" COUPLING	EA.	1EA.	ATLANTIC
6x8" REDUCER	1EA	1EA.	ATLANTIC
6" VALVE	1EA	1EA.	DARLING
8" S. Main	N/A	-	-
Sewer Manhole	1EA	-	-
8" S.H.C.	25'	-	-
METER VAULT	3EA	-	-



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.S.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNELS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
- FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 BALTIMORE GAS & ELECTRIC CO. - UNDERGROUND ELECTRIC DISTRIBUTION - CUSTOMER SERVICE(685-0123).
 BALTIMORE GAS & ELECTRIC CO. - UNDERGROUND GAS DISTRIBUTION - CUSTOMER SERVICE(685-0123).
 ENGINEERING "DAMAGE CONTROL" (234-5621).
 "MISS UTILITY (1-559-0100).
 CHESAPEAKE & POTOMAC (C & P) TELEPHONE COMPANY (725-9976).
 BUREAU OF UTILITIES, HOWARD COUNTY (932-2366).
- TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREE 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 AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CONSTRUCTION OF THE MAIN.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATION.
- ALL WATER MAINS TO BE C.I.P. OR D.I.P. UNLESS OTHERWISE NOTED.
- TOP OF ALL WATER MAINS HAVE A 3'-6" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- BLOCK ALL FITTINGS WITH CONCRETE.
- BURY LINE ELEVATIONS ON 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 HYDRANTS TO BE COMPACTED IN ACCORDANCE WITH SECTION 37.01 AND 37.05 OF THE STANDARD SPECIFICATIONS.
- WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING. FOR UNITS - TO -, AND FOR OUTSIDE METER SETTING FOR UNITS 1 TO 24.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- ALL SEWER MAINS SHALL BE C.S.P.X., V.C.P.X., A.C.P. CLASS 2400 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 BRICK MANHOLES ONLY.
- WATER MAIN AND WATER HOUSE CONNECTION LINE MUST BE PLACED 50 AS TO HAVE AT LEAST ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- FOR ALL COPPER WATER HOUSE CONNECTIONS, UTILIZE FLAIR TYPE FITTINGS ONLY.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

J. Helms
 U.S. SOIL CONSERVATION SERVICE DATE 11-24-86

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

Robert W. Zichow
 HOWARD SOIL CONSERVATION DISTRICT DATE 11-24-86

NOTE
 Sediment Control Measures For This Contract Will Be Implemented In Accordance With Section 219 Of The Howard County Design Manual And Standard Specifications For Soil Erosion And Sediment Control And Also As Shown On SDP 87.45

WATER AS-BUILT ONLY

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

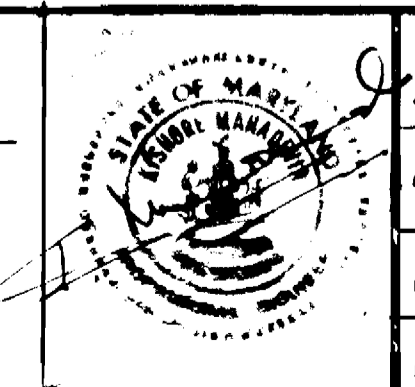
John F. ... 11-25-86
 DIRECTOR OF PUBLIC WORKS DATE

Michael ... 11-25-86
 CHIEF, BUREAU OF ENGINEERING DATE

Robert M. ... 11-25-86
 CHIEF, BUREAU OF UTILITIES DATE

Michael ... 11-25-86
 CHIEF, LAND DEVELOPMENT DIVISION DATE

INDAM ENGINEERS INC
 CONSULTING ENGINEERS
 11 JOLIE COURT
 RANDALLSTOWN MD 21133



JES: DM	KM	1	DELETE 6" W. LINE	12/10/86
	KM	1 <td>DELETE FIRE HYDRANT <td>12/10/86</td> </td>	DELETE FIRE HYDRANT <td>12/10/86</td>	12/10/86
	KM	2 <td>ADD 6" WATER # F.H <td>12/10/86</td> </td>	ADD 6" WATER # F.H <td>12/10/86</td>	12/10/86
	KM	3 <td>ADD 2" METER VAULT <td></td> </td>	ADD 2" METER VAULT <td></td>	
CHK: KM				
DATE: 10/2/86	BY	NO.	REVISION	DATE

WATER & SEWER PLAN
 AND PROFILES

PINE ORCHARD-SECTION 2
 PARCEL 0 - 1
 CONTRACT 24-1584-D

SCALE:
 As Shown

SHEET
 1 OF 1