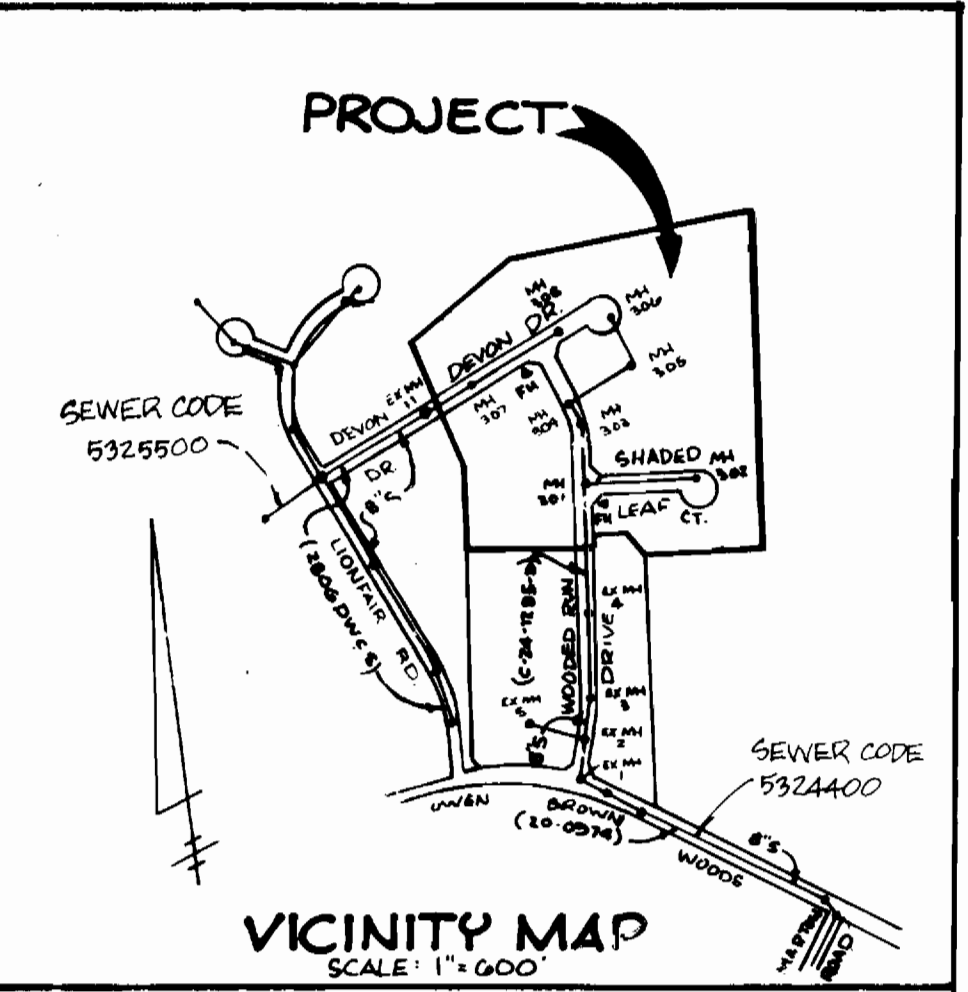


SEWER & WATER CODE FOR COUNTY USE
 WATER NO. E-28
 SEWER NO. 5324400, 5329800

NO. OF LOTS 38
 TYPE OF BUILDINGS SINGLE FAMILY RES.
 NUMBER OF WATER HOUSE CONNECTIONS 38
 NUMBER OF SEWER HOUSE CONNECTIONS 38
 DRAINAGE AREA LITTLE PATUXENT



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'. CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED.
- 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. 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 - 531-0333
 BALTIMORE GAS AND ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
 BALTIMORE GAS AND ELECTRIC CO. - UNDERGROUND DAMAGE CONTROL - 859-9004
 BALTIMORE GAS AND ELECTRIC CO. - TROUBLE SHOOTING - 298-9001
 MISS UTILITY - I - 800-257-7777
 COLONIAL PIPE CO. - 795-1590
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2564
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAX. MIN. 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.

- 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 TREES SHALL BE STRAPPED TO TREES.
- 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 DAILY 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 1003 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 SETTINGS, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- ALL W.H.C.'S SHALL BE 3/4" FOR SINGLE CONNECTIONS & 1" FOR DOUBLE CONNECTIONS.
- ALL COPPER WATER HOUSE CONNECTIONS SHALL UTILIZE FLARED FITTINGS.
- ALL SEWER MAINS SHALL BE C.S.P., R.C.S.P., V.C.P., A.C.P. CLASS 2400, D.I.P. OR P.Y.C. UNLESS OTHERWISE NOTED. SEWER MAINS FROM MH 301 TO MH 305, AND FROM MH 301 TO MH 302, SHALL BE D.I.P.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES DESIGNATED W.T. IN PLAN PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER. STANDARD DETAIL G5.52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED. SET TOP OF FRAME 1.5' ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- ALL 24" C.I.'S TO BE ENCASED SHALL BE D.I.P.
- ALL 54" C.I.'S TO BE 6" 26" M.S.E. DESIGNATES MINIMUM SEWER SERVICE

ENGINEER'S CERTIFICATE

I CERTIFY THAT THE FACILITIES WERE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS.

[Signature]
 SEDGWICK & ASSOCIATES, LTD.
 3217 CORPORATE CT.
 ELLICOTT CITY, MD. 21047
 (410) 750-9003

2-6-92 DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH THE PROVISIONS OF THESE SPECIFICATIONS AND ALSO AS SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN F-26-224. REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

[Signature]
 U.S. SOIL CONSERVATION SERVICE

5-14-87 DATE

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

[Signature]
 HOWARD SOIL CONSERVATION DISTRICT

5-14-87 DATE

QUANTITIES			
ITEM	EST	AS-BUILT	
8" SAN. 1577 LF	1577 LF	1577 LF	A&P WATER & SEWER COMPANY
8" WATER 942 LF	942 LF	942 LF	GRIFFIN PIPE PLANT CO.
6" WATER 641 LF	641 LF	641 LF	"
3/4" W.H.C. 750 LF	750 LF	750 LF	A&P WATER & SEWER COMPANY
1" W.H.C. 450 LF	450 LF	450 LF	"
FIRE HYDRANT 2 EA	2 EA	2 EA	"
6" F.H. VALVE 2 EA	2 EA	2 EA	"
SEWER MANHOLES 7 EA	7 EA	7 EA	272 PERCANT MH - STD. DETAIL G5.12
S.I.C. 830 LF	830 LF	830 LF	A&P WATER & SEWER COMPANY
3"x6" TEE 3 EA	3 EA	3 EA	"
8" 1/2" BEND 2 EA	2 EA	2 EA	"
6" VALVE 2 EA	2 EA	2 EA	A&P WATER & SEWER COMPANY
8" VALVE 2 EA	2 EA	2 EA	"
BLOW-OFF 2 EA	2 EA	2 EA	"
8" 6" REDUCER 1 EA	1 EA	1 EA	GULLION PIPE PRODUCTS
8"x8" TEE 1 EA	1 EA	1 EA	"
6" 1/2" BEND 6 EA	6 EA	6 EA	"
SEWER MANHOLE (MH 301)	1 EA	1 EA	SHALLOW BRICK WITH STD. DETAIL G5.09

BENCH MARKS
 B.M. "A": NAIL IN UTIL. POLE #407120, N. SIDE OWEN BROWN RD, 295' W. OF WOODED RUN DR. EL. 396.56
 B.M. "B": +OUT IN RIM OF SAN. MH #4, N. SIDE OWEN BROWN RD, 90' E. OF WOODED RUN DR. EL. 399.93

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MD.
 5-25-87 DATE
 DIRECTOR OF PUBLIC WORKS
 CHIEF, BUREAU OF UTILITIES

SHANABERGER & LANE
 5720 TOWN & COUNTRY BLVD.
 SUITE 203
 ELLICOTT CITY, MD. 21043
 (301) 461-9563

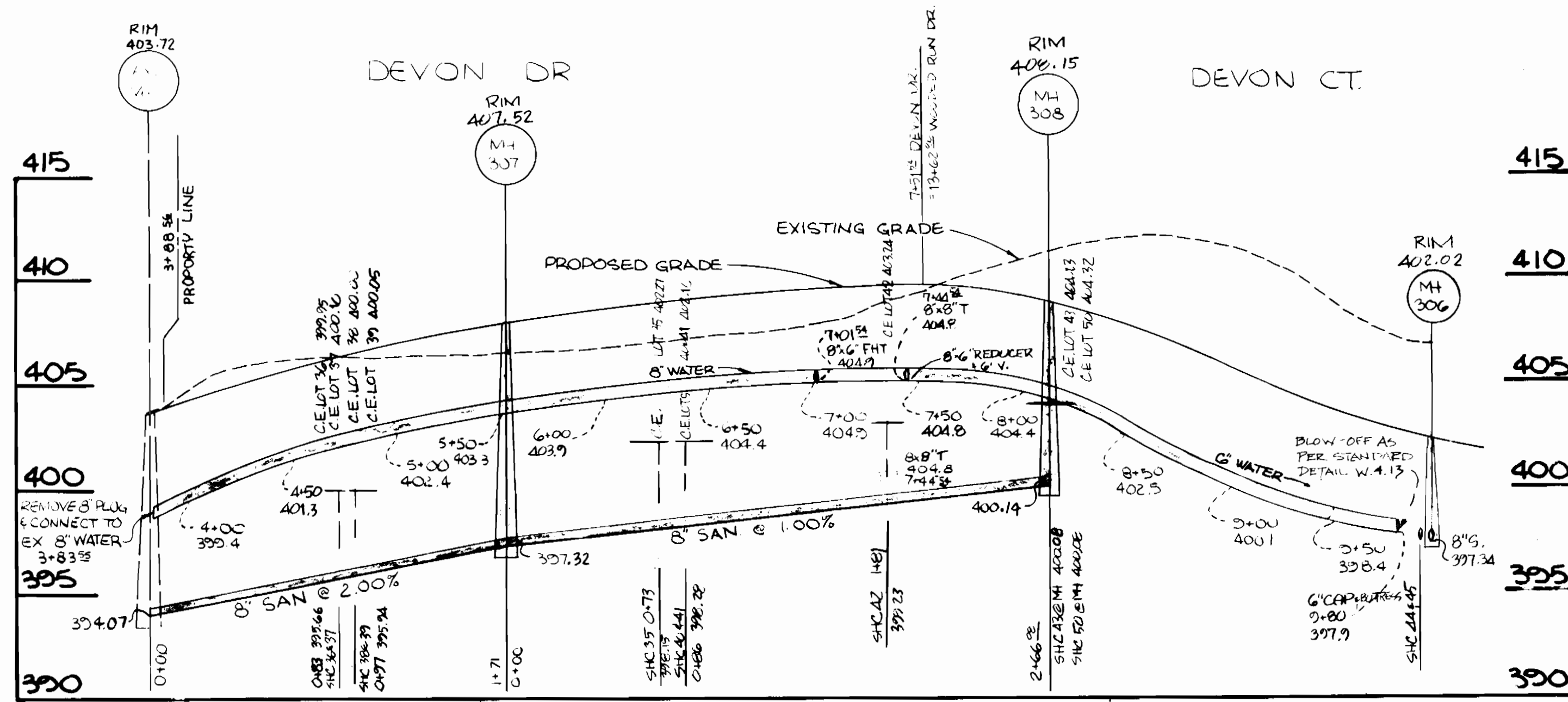
DESIGNED G.S. 7-2-87
 DRAWN G.S. 2-6-92
 CHECKED RTB
 DATE 4/11/86

BY	NO.	REVISION	DATE
G.S.	1	CONCRETE ENCASUREMENTS S.H.C.'S FOR LOTS 27 thru 31	7-2-87
G.S.	1	REVISION OF RIM ELEV. FOR S.M.H.'S	2-6-92

OWEN BROWN WOODS
 SEC. 1, AREA 2
 LOTS 27-66
 PLAN OF WATER & SEWER MAINS

CONTRACT NO.
 24-1771-D

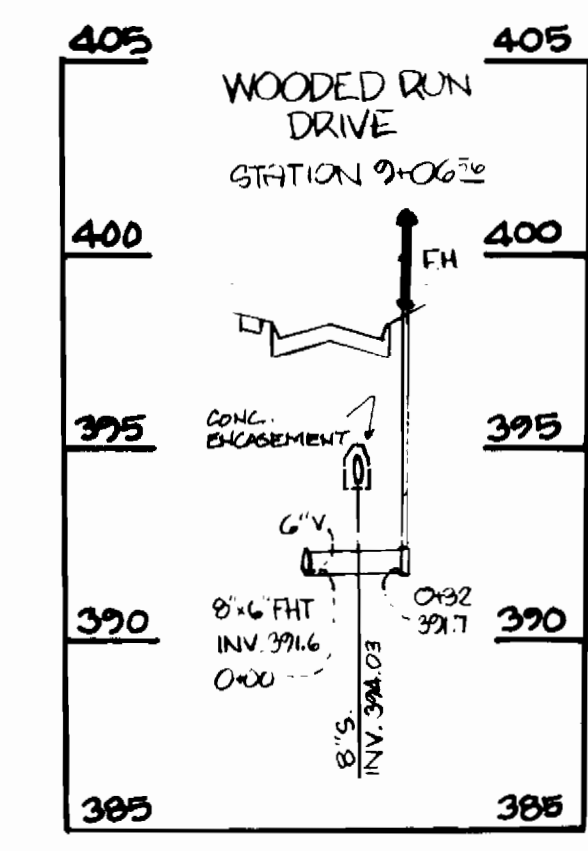
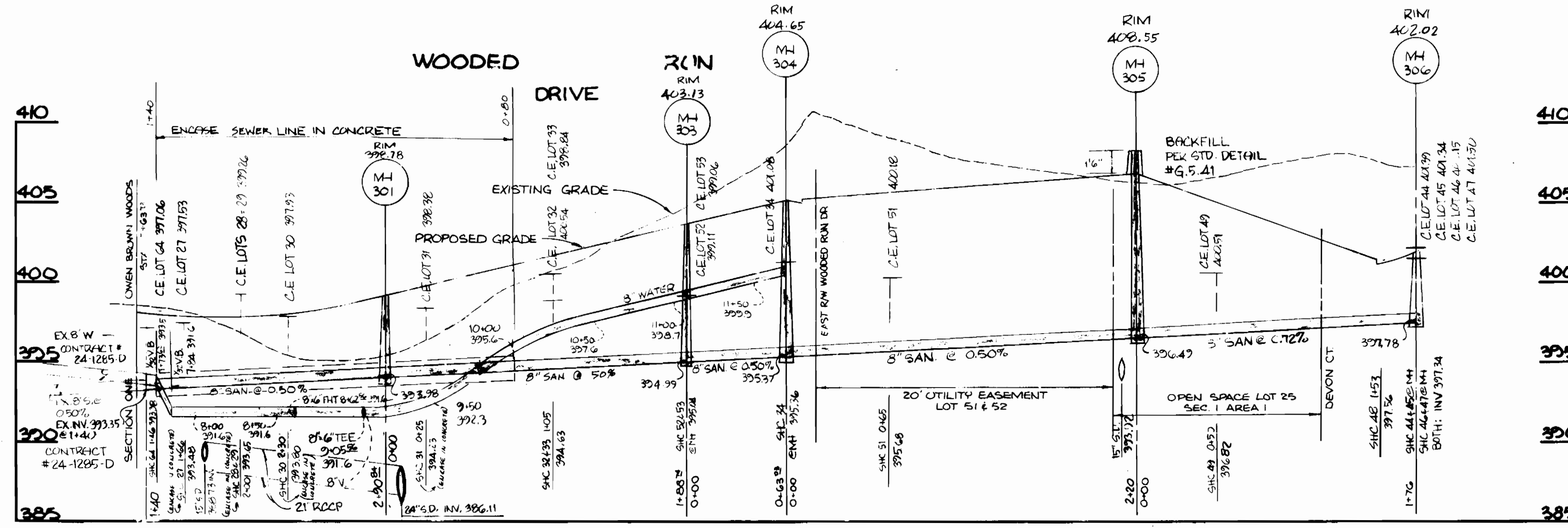
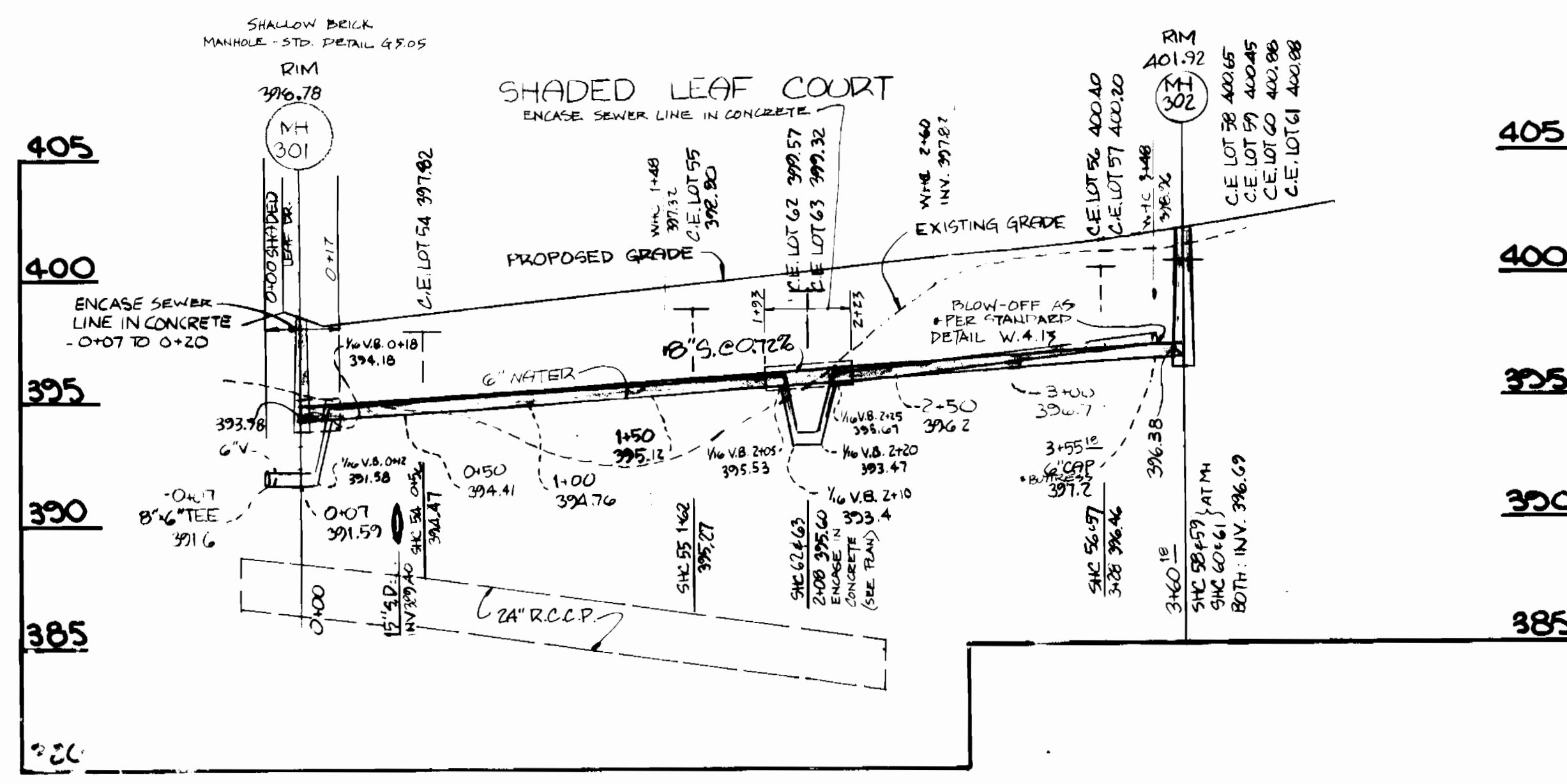
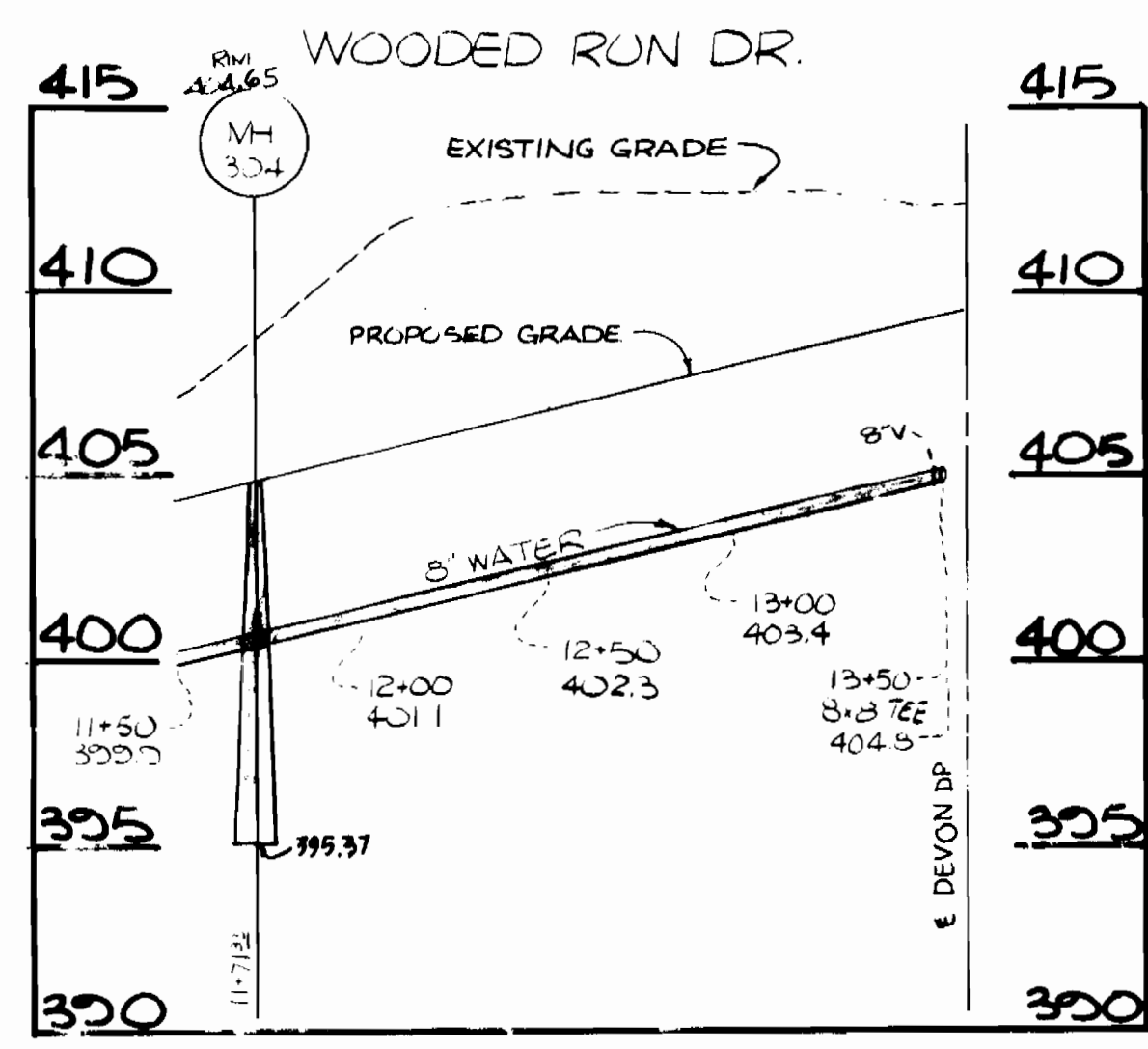
SCALE: 1"=50'
 SHEET 1
 OF 2



ENGINEER'S CERTIFICATE
 I CERTIFY THAT THE FACILITIES WERE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS.

M. O. Smith
 SEDGH & ASSOCIATES, LTD.
 3217 CORPORATE COURT
 ELLICOTT CITY, MD 21043
 (410) 750-9003

2-6-92
 DATE



CONCRETE ENCASUREMENT DETAIL
 NO SCALE

TRENCH WIDTH
 *OD + 2'A

FOR 6" PIPE, 'A' = 11"
 FOR 8" PIPE, 'A' = 10"

MIX #1 CONCRETE

NOTES:
 1) POUR CONC. TO UNDISTURBED EARTH. REMOVE SHEETING BEFORE POURING, OR LEAVE LOWER PORTION OF SHEETING IN PLACE.
 2) WHEN USING SOLID SHEETING OR TRENCH SHIELD, 'A' SHALL NOT EXCEED 30"

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MD.

Gregory F. Neuman
 DIRECTOR OF PUBLIC WORKS
 DATE: 5-25-87

William J. Wilder
 CHIEF, LAND DEVELOPMENT DIV.
 DATE: 5-25-87

Richard J. ...
 CHIEF, BUREAU OF UTILITIES
 DATE: 5-25-87

SHANABERGER & LANE
 3722 TOWN & COUNTRY BLVD
 ELLICOTT CITY, MD 21043
 (301) 461-9563

DESIGNED	DATE	BY	NO.	REVISION	DATE
S.L.M.	7-24-87			CONCRETE ENCASUREMENTS SHC'S FOR LOTS 27 thru 31	7-24-87
V.S.	2-6-92			REVISION OF RIM ELEV. FOR SMH'S	2-6-92
DRAWN					
CHECKED					
DATE					

OWEN BROWN WOODS
 SEC. 1, AREA 2
 LOTS 27-66
 PROFILES OF WATER + SEWER MAINS

CONTRACT NO.
 24-1571-D

SHEET 2
 OF 2