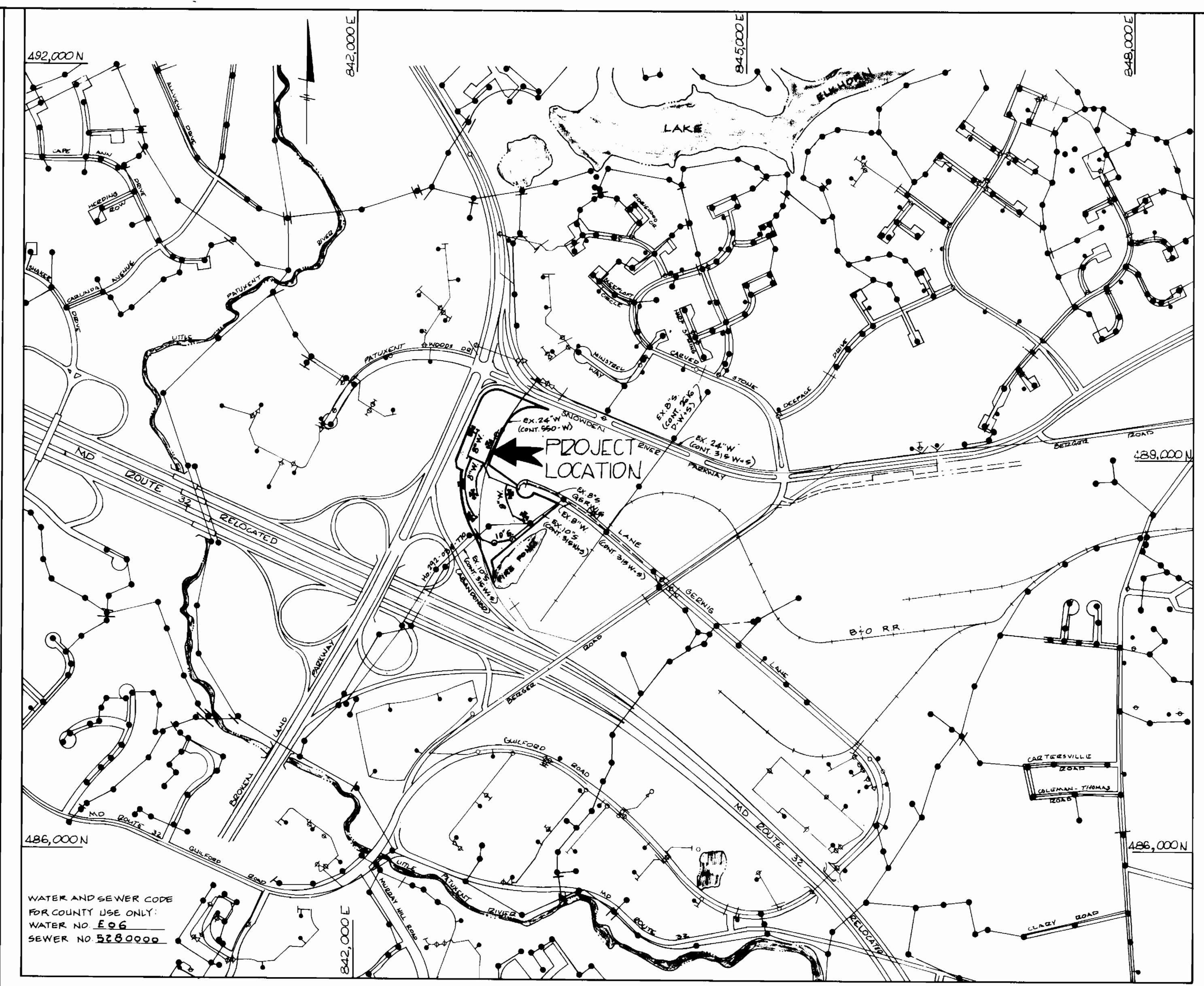


QUANTITIES			
ITEM	EST'D	AS BUILT	SUPPLIER
8" WATER	2200 L.F.	1286 L.F.	UNION
6" WATER	115 L.F.	11 L.F.	UNION
3/4" W.H.C.			
6" W.H.C.	50 L.F.	39 L.F.	UNION
FIRE HYDRANTS	7 EA.	1 EA.	SEA. RISE FIRE
12" S. REDUCER	1 EA.	1 EA.	SEA. RISE FIRE
10" SEWER	433 L.F.	441 L.F.	SEA. RISE
8" SEWER (D.I.P.)			
MANHOLES	3 EA.	5 EA.	TEAR & REPAIR
6" SEWER	30 L.F.	30 L.F.	UNION
8" VALVES	8 EA.	8 EA.	UNION
6" VALVES (EXCLUDING FH'S)	5 EA.	4 EA.	UNION
6" F.H. VALVES	7 EA.	11 EA.	UNION



- 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. THE OWNER HAS CONTACTED THE UTILITIES COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM THE MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.
 - BALTIMORE GAS & ELECTRIC COMPANY - CONTRACTOR SERVICES: 561 2385
 - BALTIMORE GAS & ELECTRIC COMPANY - UNDER GROUND DAMAGE CONTROL: 234 5621
 - BALTIMORE GAS & ELECTRIC COMPANY - TROUBLE SHOOTING: 298 9013
 - "MISS UTILITY": 1-559-0100
 - CHESAPEAKE & POTOMAC TELEPHONE COMPANY: 725-9976
 - BUREAU OF UTILITIES - HOWARD COUNTY: 992-2366
 - 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.
 - 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.
 - 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 OPERATIONS.
 - ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., P.V.C., V.C.P.X., OR ACP CLASS 2400 UNLESS OTHERWISE NOTED.
 - CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2' 0" OF EXTERIOR MANHOLE WALLS.
 - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
 - MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
 - ALL WATER MAINS TO BE D.I.P. UNLESS OTHERWISE NOTED.
 - TOP OF WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
 - 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 HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 1003 AND 1008 OF THE STANDARD SPECIFICATIONS.
 - ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
 - 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 LOCATED WITHIN PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAME AND COVER, STANDARD DETAIL G5.51.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - 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 LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - W.T. DESIGNATES WATERTIGHT MANHOLES.

TYPE OF BUILDING OFFICE/WAREHOUSE
 NUMBER OF LOTS 1 PARCEL (5 BUILDINGS)
 NO OF WATER HOUSE CONNECTIONS 5
 NO OF SEWER HOUSE CONNECTIONS 5
 DRAINAGE AREA LITTLE PATUXENT

LOCATION MAP
 SCALE: 1" = 600'

CONTRACT NO. 24-1654-D
E.G.U. SUBDIVISION
SECTION 2 AREA 4
PARCEL C-2
BROKEN LAND BUSINESS CENTER
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECT 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL IN DEVELOPING AREAS & ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN (SDP - 87-102)

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James M. Helms 6/16/87
 U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT
 APPROVED: *Stephen R. Puh* 6/16/87
 HOWARD SOIL CONSERVATION DISTRICT DATE

STABILIZATION NOTES
 FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 1-17 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, SWAILS, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3:1. 2-14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

CONTRACT NO. 24-1654-D
 E.G.U. SUBDIVISION
 SECTION 2 AREA 4
 PARCEL C-2
 BROKEN LAND BUSINESS CENTER
 WATER AND SEWER EXTENSION
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Walter F. Neamy 6-18-87
 DIRECTOR OF PUBLIC WORKS DATE
James M. Helms 6-17-87
 CHIEF, BUREAU OF UTILITIES DATE
James M. Helms 6-17-87
 CHIEF, LAND DEVELOPMENT DIVISION DATE

DEWBERRY & DAVIS
 ARCHITECTS ENGINEERS PLANNERS SURVEYORS
 3300 N. RIDGE ROAD (301) 461-7470 BALTO.
 SUITE 100 (301) 621-4970 WASH.
 BELMONT CITY, MARYLAND
 21043



DES: B.P.B.			
DRN: J.A.U.			
CHK: B.P.B.	J.A.U.	ENCASE BK 24" WATER MAIN, RELOCATE 8" 6" TR. BLDG. #3 AND #4	9/30/87
DATE: 6-16-87	J.A.U.	PER STATE HEALTH DEPT. COMMENTS	1/21/97
	BY NO	REVISION	DATE

TITLE SHEET
 600' SCALE MAP NO. 42 BLOCK NO. 319

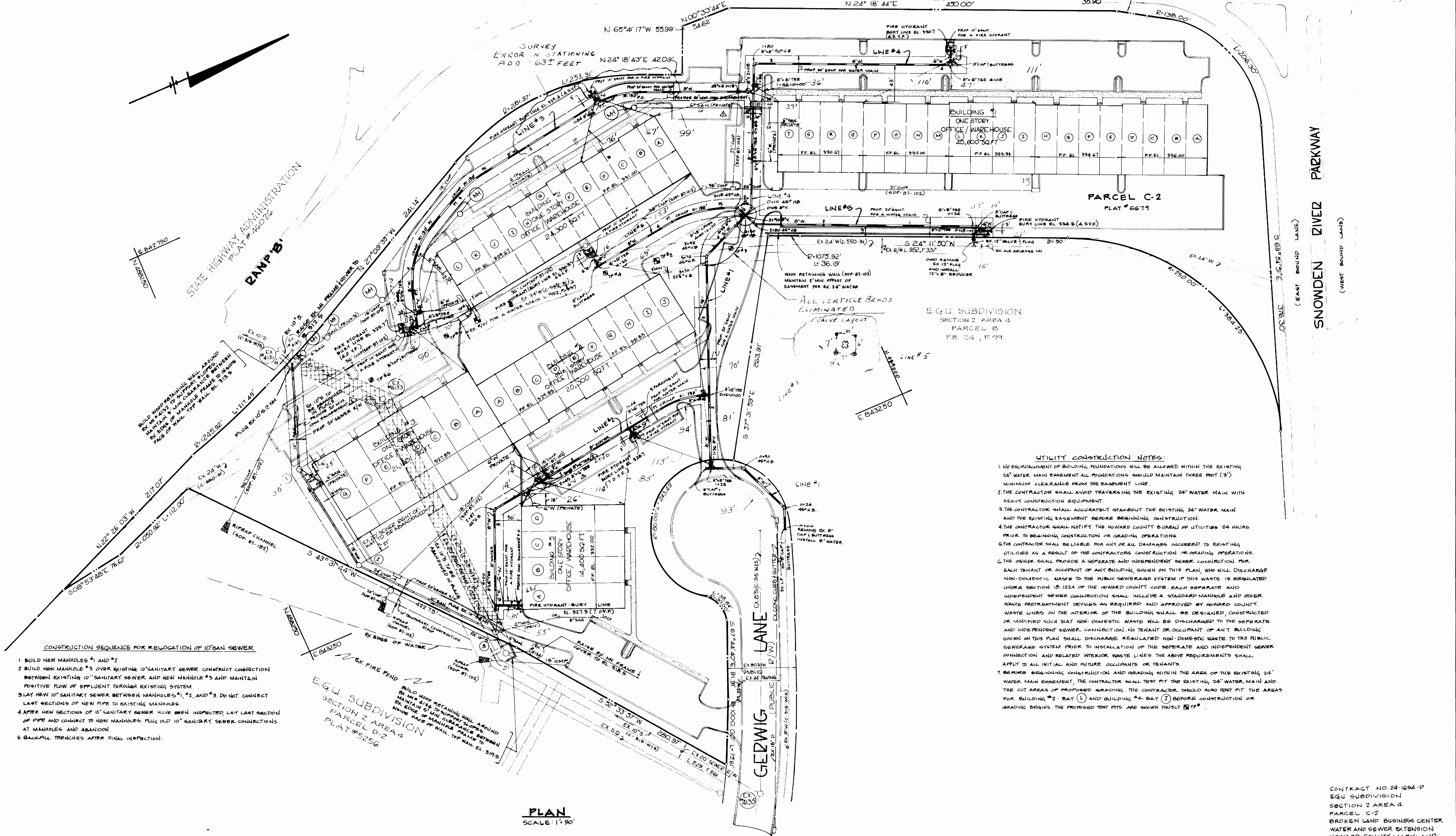
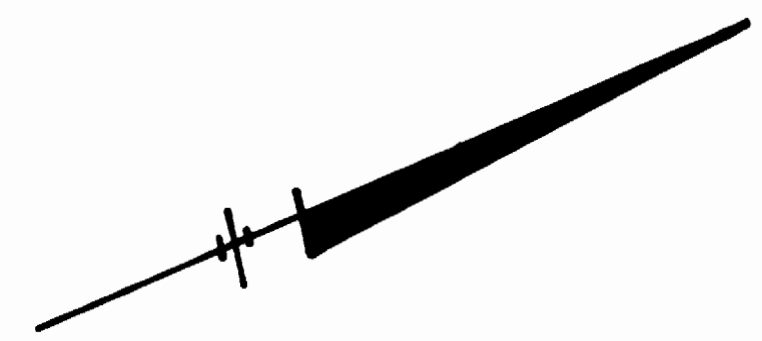
COLUMBIA
 E. G. U. SUBDIVISION
 BROKEN LAND BUSINESS CENTER
 SECTION 2 AREA 4
 PARCEL C-2
 CONTRACT NO. 24-1654-D
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET 1 OF 4

BRUNING 44 132 65150

AS BUILT 11-16-87

BROKEN LAND PARKWAY
(VARIABLE WIDTH PUBLIC R/W)
PLAT # 6065

NORTH BOUND LANE



- UTILITY CONSTRUCTION NOTES:**
1. NO ENCROACHMENT OF BUILDING FOUNDATIONS WILL BE ALLOWED WITHIN THE EXISTING 24" WATER MAIN EASEMENT. ALL FOUNDATIONS SHOULD MAINTAIN THREE FOOT (3') MINIMUM CLEARANCE FROM THE EASEMENT LINE.
 2. THE CONTRACTOR SHALL AVOID TRAVELING THE EXISTING 24" WATER MAIN WITH HEAVY CONSTRUCTION EQUIPMENT.
 3. THE CONTRACTOR SHALL ACCURATELY STAKEOUT THE EXISTING 24" WATER MAIN AND THE EXISTING EASEMENT BEFORE BEGINNING CONSTRUCTION.
 4. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY BUREAU OF UTILITIES 24 HOURS PRIOR TO BEGINNING CONSTRUCTION OR GRADING OPERATIONS.
 5. THE CONTRACTOR SHALL BE LIABLE FOR ANY OR ALL DAMAGES INCURRED TO EXISTING UTILITIES AS A RESULT OF THE CONTRACTORS CONSTRUCTION OR GRADING OPERATIONS.
 6. THE OWNER SHALL PROVIDE A SEPARATE AND INDEPENDENT SEWER CONNECTION FOR EACH TENANT OR OCCUPANT OF ANY BUILDING, SHOWN ON THIS PLAN, WHO WILL DISCHARGE NON-DOMESTIC WASTE TO THE PUBLIC SEWERAGE SYSTEM IF THIS WASTE IS REGULATED UNDER SECTION 15.122A OF THE HOWARD COUNTY CODE. EACH SEPARATE AND INDEPENDENT SEWER CONNECTION SHALL INCLUDE A STANDARD MANHOLE AND OTHER WASTE PRETREATMENT DEVICES AS REQUIRED AND APPROVED BY HOWARD COUNTY. WASTE LINES ON THE INTERIOR OF THE BUILDING SHALL BE DESIGNED, CONSTRUCTED OR MODIFIED SUCH THAT NON-DOMESTIC WASTE WILL BE DISCHARGED TO THE SEPARATE AND INDEPENDENT SEWER CONNECTION. NO TENANT OR OCCUPANT OF ANY BUILDING SHOWN ON THIS PLAN SHALL DISCHARGE REGULATED NON-DOMESTIC WASTE TO THE PUBLIC SEWERAGE SYSTEM PRIOR TO INSTALLATION OF THE SEPARATE AND INDEPENDENT SEWER CONNECTION AND RELATED INTERIOR WASTE LINES. THE ABOVE REQUIREMENTS SHALL APPLY TO ALL INITIAL AND FUTURE OCCUPANTS OR TENANTS.
 7. BEFORE BEGINNING CONSTRUCTION AND GRADING WITHIN THE AREA OF THE EXISTING 24" WATER MAIN EASEMENT, THE CONTRACTOR SHALL TEST FIT THE EXISTING 24" WATER MAIN AND THE CUT AREAS OF PROPOSED GRADING. THE CONTRACTOR SHOULD ALSO TEST FIT THE AREAS FOR BUILDING #2 - BAY (1) AND BUILDING #4 - BAY (1) BEFORE CONSTRUCTION OR GRADING BEGINS. THE PROPOSED TEST FITS ARE SHOWN THUSLY \square IF \square .

- CONSTRUCTION SEQUENCE FOR RELOCATION OF 10" SAN SEWER**
1. BUILD NEW MANHOLES #1 AND #2.
 2. BUILD NEW MANHOLE #3 OVER EXISTING 10" SANITARY SEWER. CONSTRUCT CONNECTION BETWEEN EXISTING 10" SANITARY SEWER AND NEW MANHOLE #3 AND MAINTAIN POSITIVE FLOW OF EFFLUENT THROUGH EXISTING SYSTEM.
 3. LAY NEW 10" SANITARY SEWER BETWEEN MANHOLES #1, #2, AND #3. DO NOT CONNECT LAST SECTIONS OF NEW PIPE TO EXISTING MANHOLES.
 4. AFTER NEW SECTIONS OF 10" SANITARY SEWER HAVE BEEN INSPECTED LAY LAST SECTION OF PIPE AND CONNECT TO NEW MANHOLES. PLUG OLD 10" SANITARY SEWER CONNECTIONS AT MANHOLES AND ABANDON.
 5. BACKFILL TRENCHES AFTER FINAL INSPECTION.

PLAN
SCALE: 1" = 50'

CONTRACT NO. 24-1654-D
EQU SUBDIVISION
SECTION 2 AREA 4
PARCEL C-2
BROKEN LAND BUSINESS CENTER
WATER AND SEWER EXTENSION
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

David N. Neumaier
DIRECTOR OF PUBLIC WORKS
DATE: 6-18-87

James M. Lewis
CHIEF, BUREAU OF UTILITIES
DATE: 6-17-87

DEWBERRY & DAVIS
ARCHITECTS ENGINEERS PLANNERS SURVEYORS
3900 N. RIDGE ROAD (301) 461-1478 BALD
SUITE 100 (301) 621-4970 WASH.
21043

James M. Lewis
CHIEF LAND DEVELOPMENT DIVISION
DATE: 6-17-87



DES: B.P.B.	DRN: W.G./J.A.U.	CHK: B.P.B.	J.A.I.	ENGAGE EX. 24" WATER MAIN, RELOCATE 8" WATER TO BLDG. #3 AND #4	9/30/87
DATE: 6/19/87	BY: NO	REVISION	J.A.U.	PER STATE HEALTH DEPT. COMMENT	7/27/87

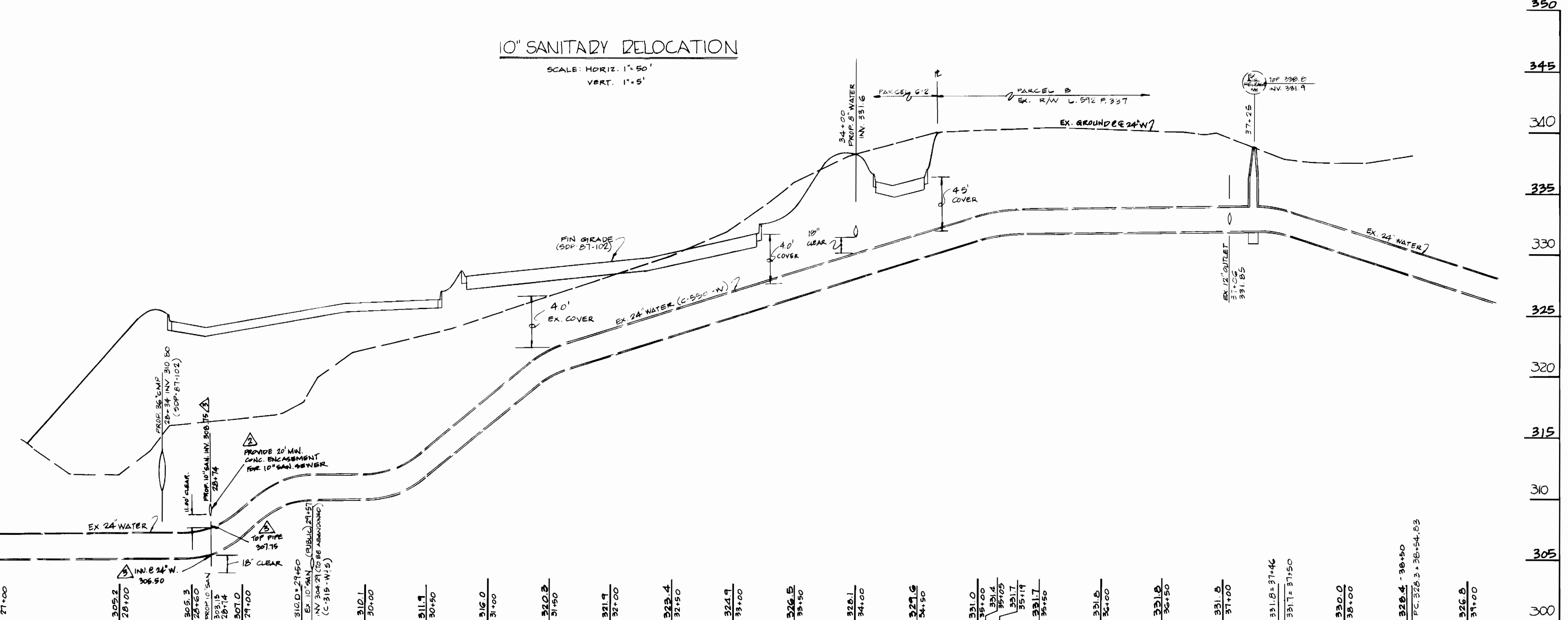
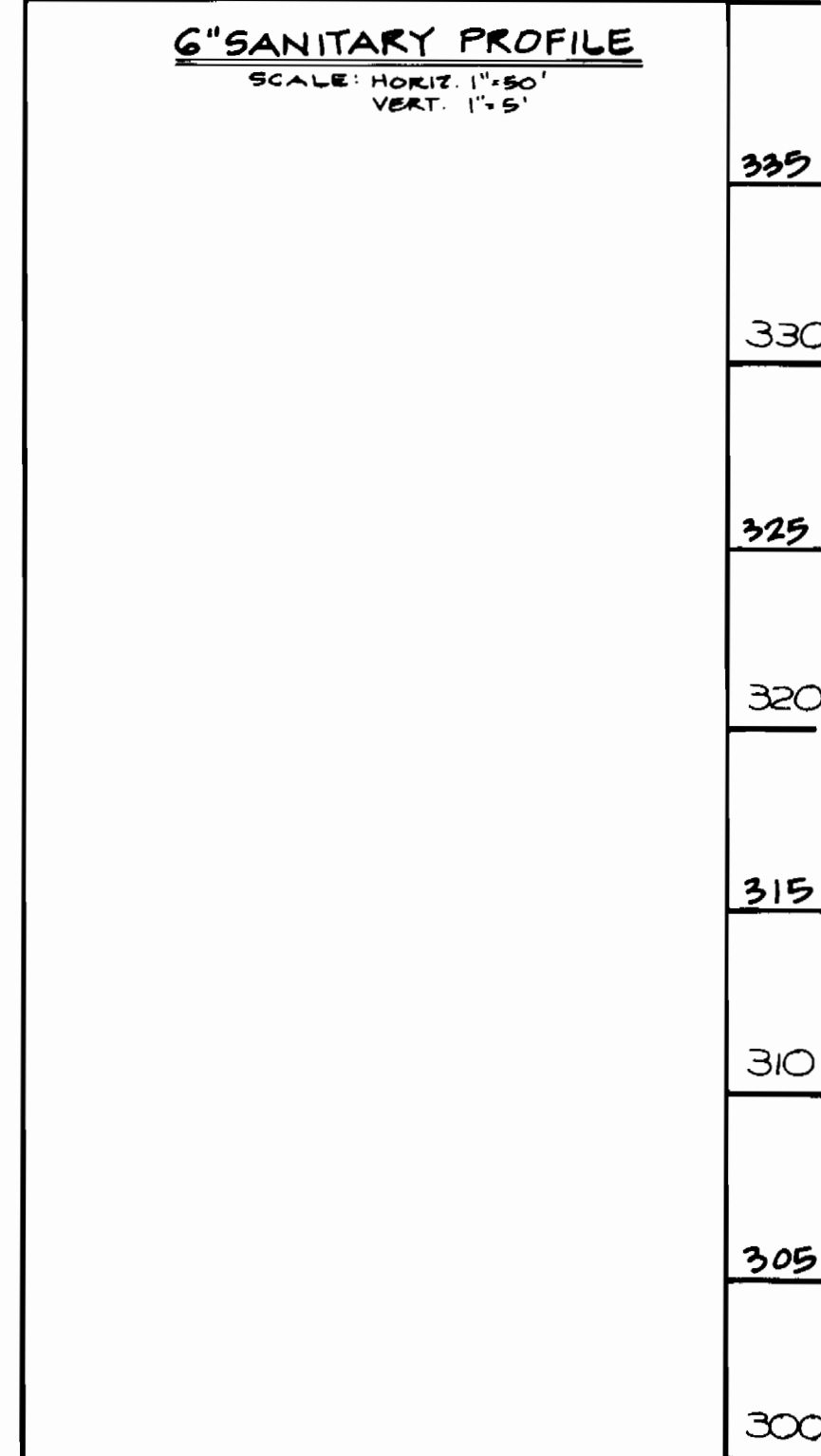
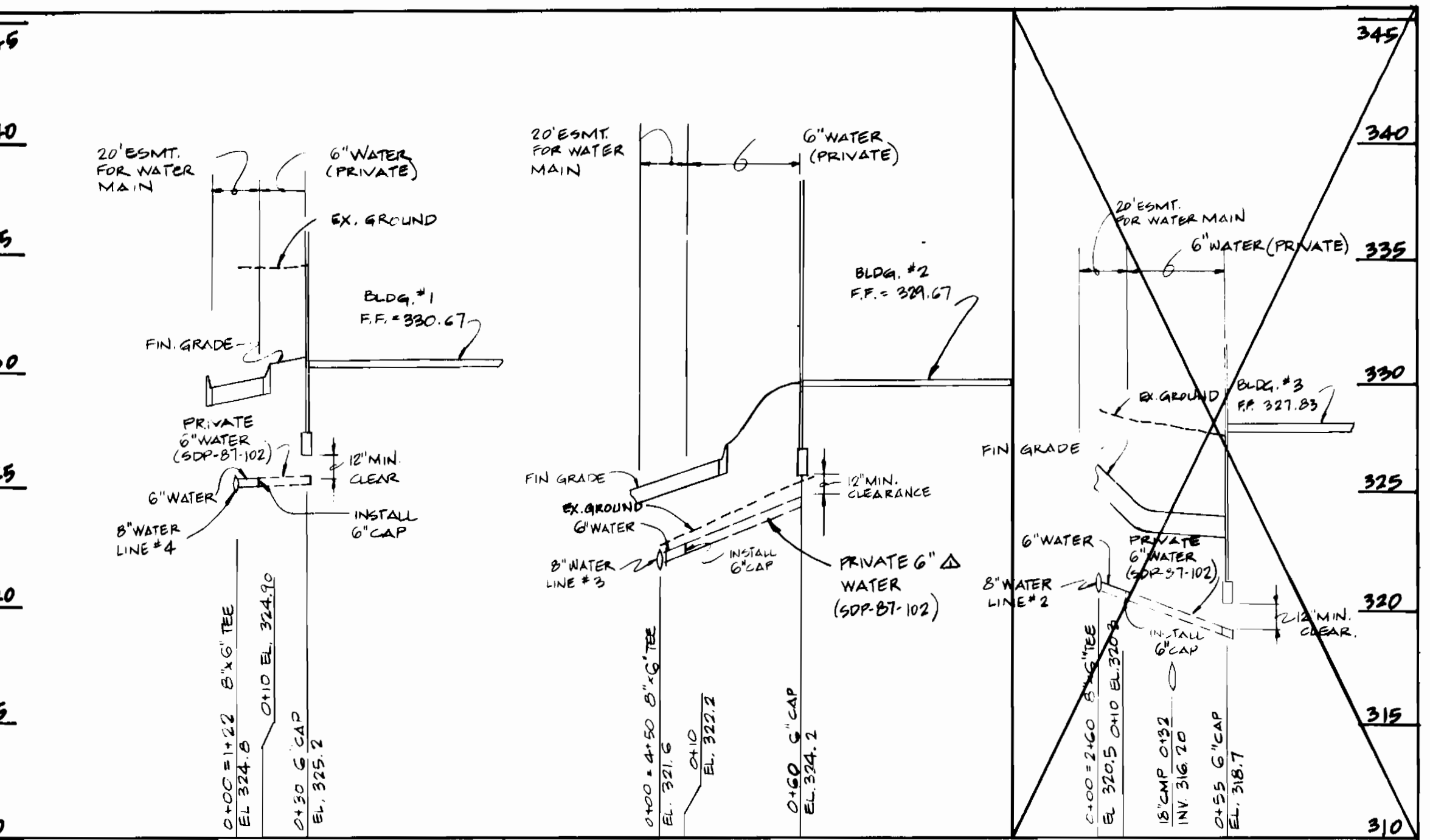
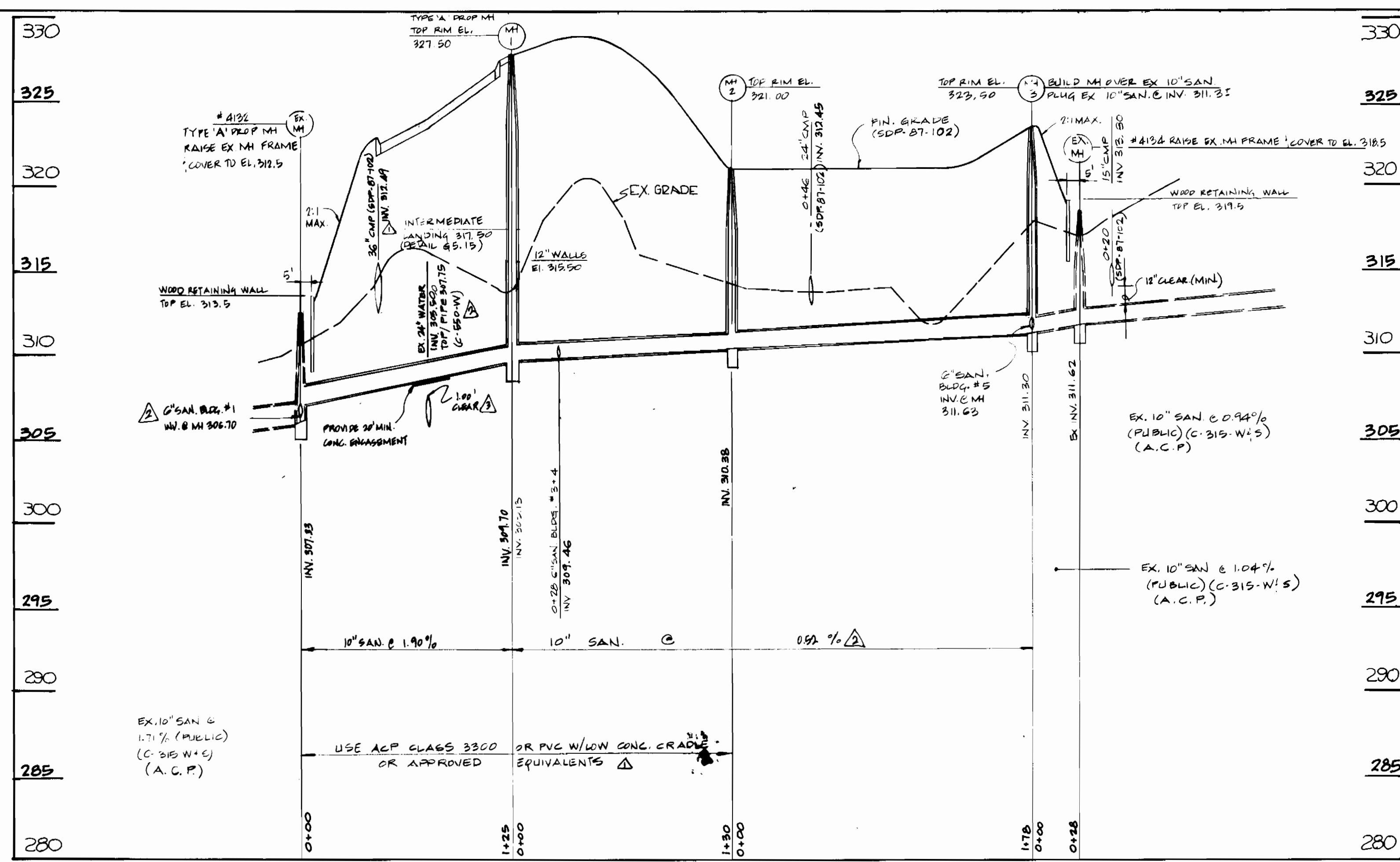
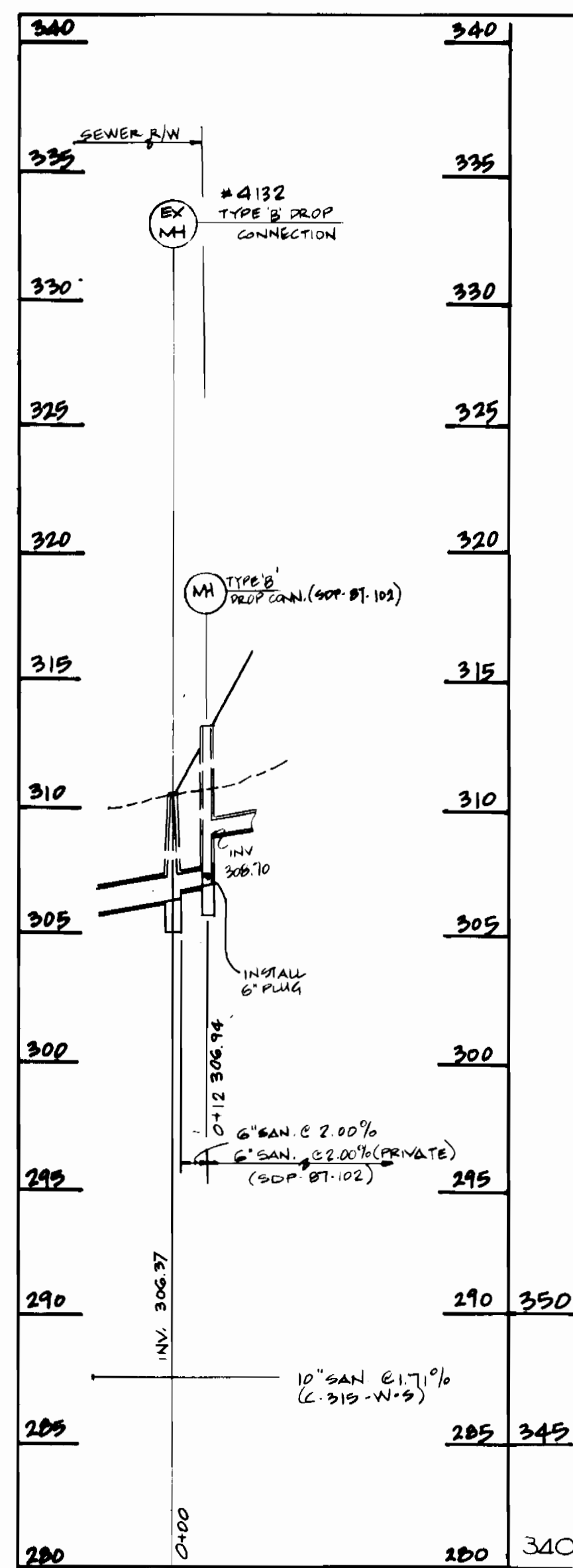
PLAN
WATER & SEWER MAINS

600' SCALE MAP NO. 42 BLOCK NO. 319

COLUMBIA

E.G.U. SUBDIVISION
BROKEN LAND BUSINESS CENTER
SECTION 2 AREA 4
PARCEL C-2
CONTRACT NO. 24-1654-D
8TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 2 OF 4



CONTRACT NO. 24-1654-P
 E.G.U. SUBDIVISION
 SECTION 2 AREA 4
 PARCEL C-2
 BROKEN LAND BUSINESS CENTER
 WATER AND SEWER EXTENSION
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS
 DATE 6-17-87
 CHIEF BUREAU OF UTILITIES

DEWBERRY & DAVIS
 ARCHITECTS ENGINEERS PLANNERS SURVEYORS
 3900 N. RIDGE ROAD (301) 461-7475 BALTO.
 SUITE 100 (301) 621-4970 WASH.
 ELLICOTT CITY, MARYLAND
 21043



DES: D.P.B.			
DRN: W.B.A./A.U.			
CHK: D.P.B.	JAU	REVISE CLEARANCE OVER 24" WATER	10/25/87
	JAU	REVISE VERTICAL ALIGNMENT 10" SAN. ENCASE EX. 24" WATER	11/30/87
	JAU	PER STATE HEALTH DEPT. COMMENTS	7/27/87
DATE: 6-15-87	BY: NO.	REVISION	DATE

PROFILES
 WATER & SEWER MAINS
 600' SCALE MAP NO. 42 BLOCK NO. 319

COLUMBIA
 E. G. U. SUBDIVISION
 BROKEN LAND BUSINESS CENTER
 SECTION 2 AREA 4
 PARCEL C-2
 CONTRACT NO. 24-1654-P
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 4

