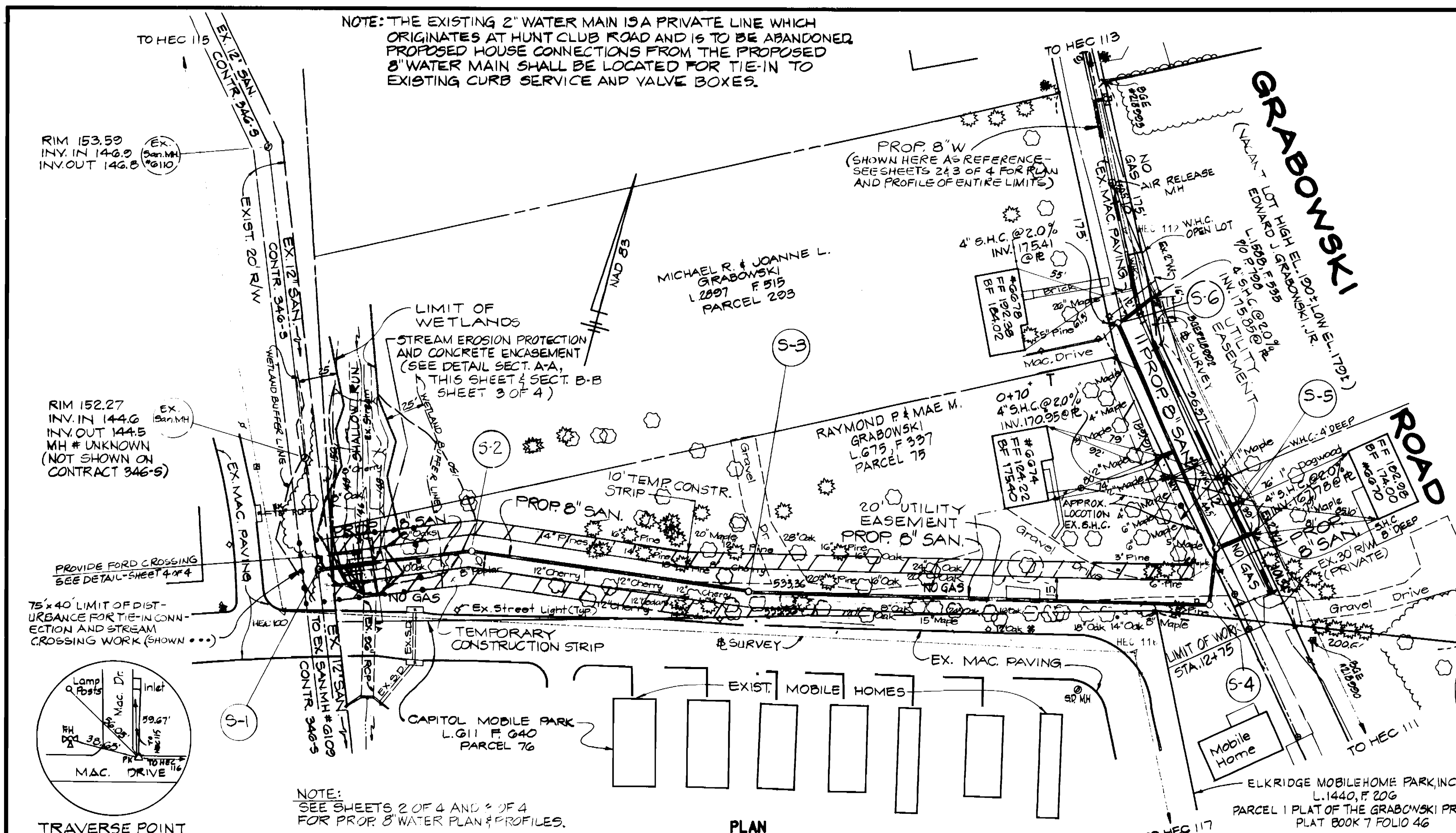
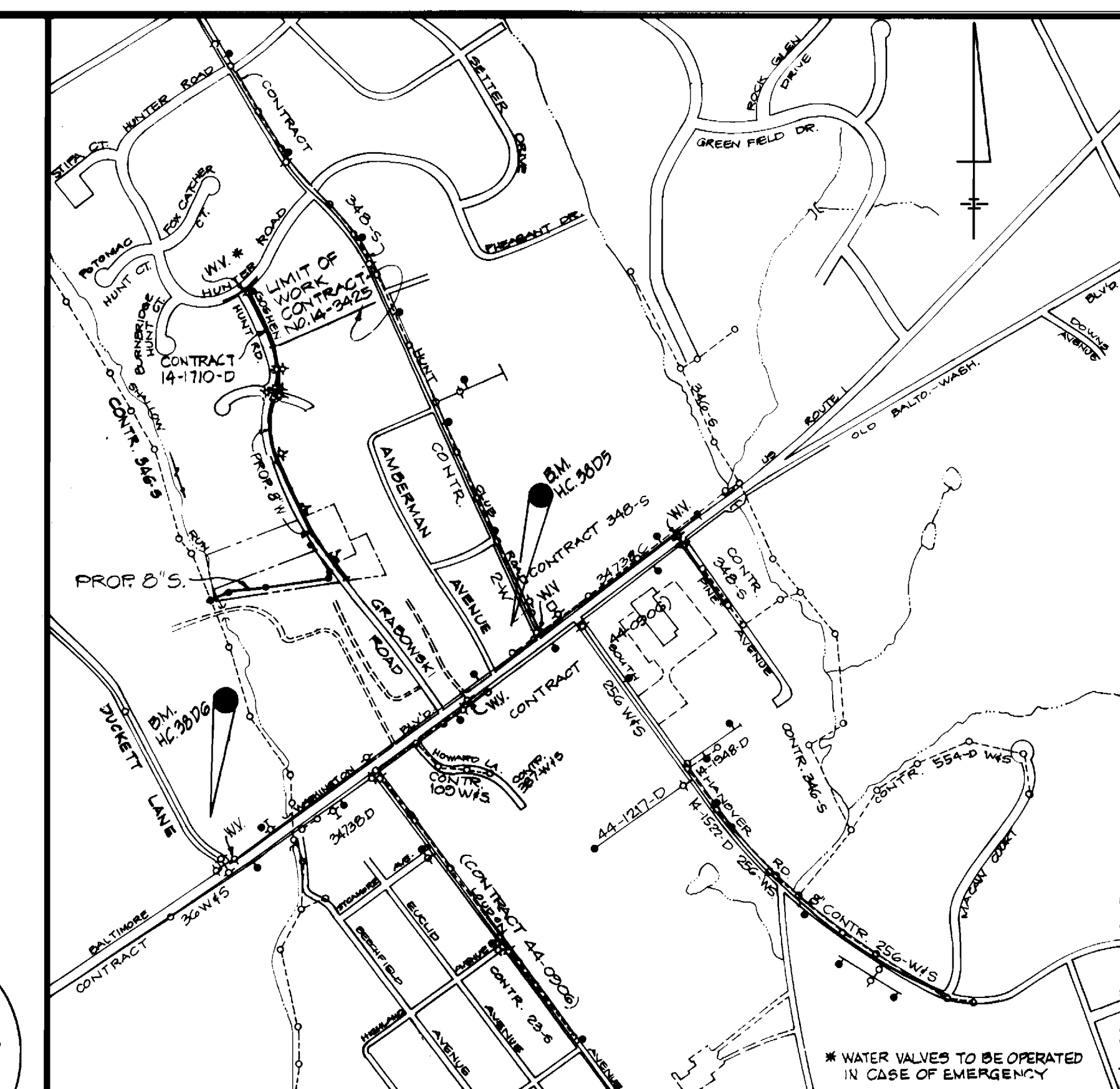


3425 Ws/1 U.S. Rte 1 Water & Sewer Mains I.C.P.# W-8202 AS BUILT 7/8/06



QUANTITIES				
ITEM	UNIT	ESTIMATE	AS-BUILT	SUPPLIER
8" SAN (DIP CL52)	L.F.	96		
8" SANITARY	L.F.	661		
STD 4 MANHOLE	EA.	4		
4" SAN HSE. CONN	L.F.	70		
TYPE A DROP MH	EA.	1		
DOGHOUSE MH	EA.	1		
8" WATER MAIN	L.F.	1,278		
8" x 4" TEE	EA.	1		
8" VALVE	EA.	3		
8" 1/2 HOR. BEND	EA.	2		
8" CAP	EA.	3		
8" x 6" TEE	EA.	4		
6" VALVE	EA.	4		
6" FH (5' BURY)	EA.	3		
6" WATER MAIN	L.F.	30		
1/2" WATER H.C.	L.F.	150		
AIR RELEASE MH	EA.	2		
4" CAP	EA.	1		
6" CAP	EA.	1		
4" WATER MAIN	L.F.	10		
4" VALVE	EA.	1		
8" 1/4 VERT. BEND	EA.	1		
1 1/2" DRAIN	EA.	1		

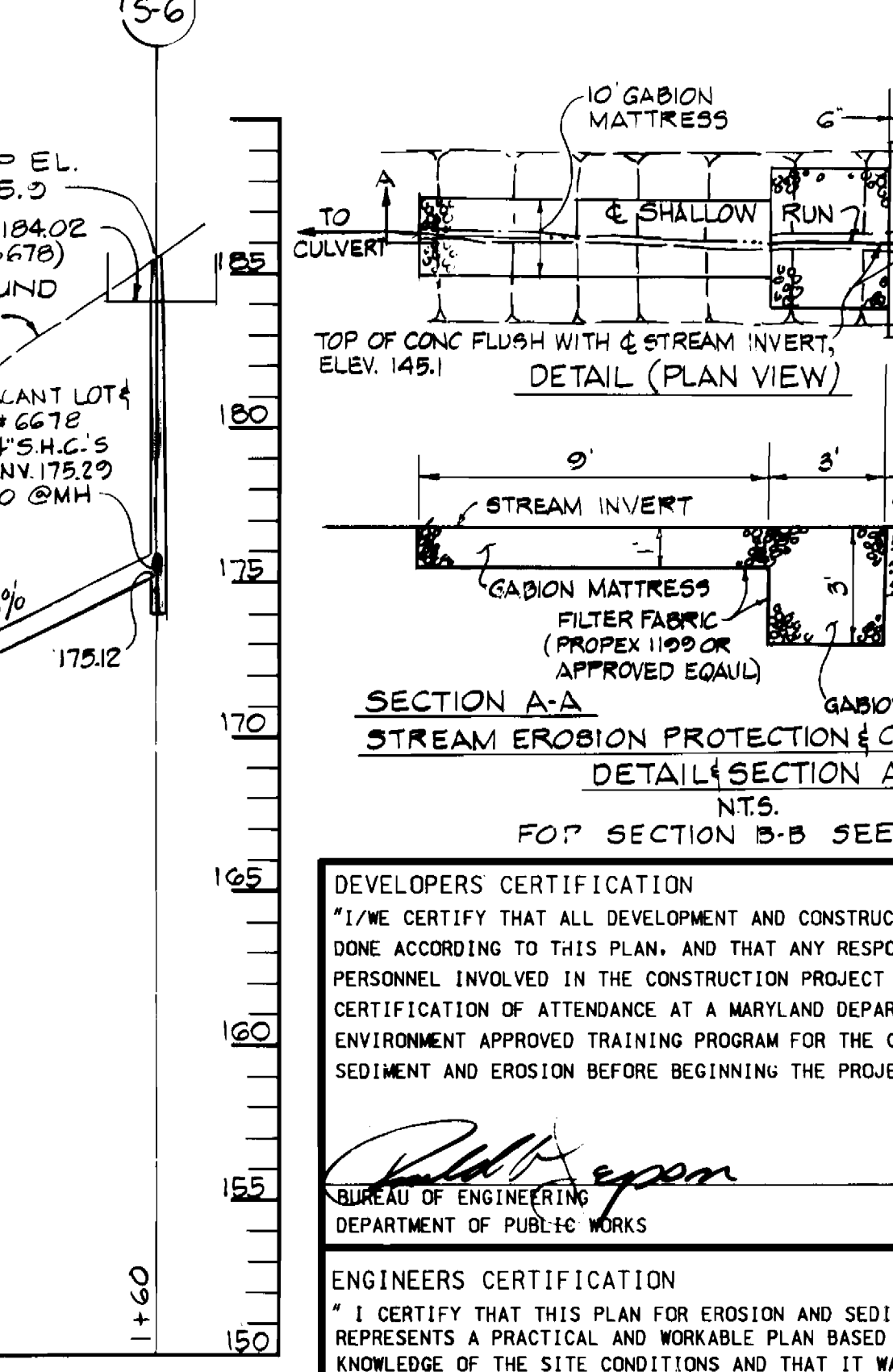
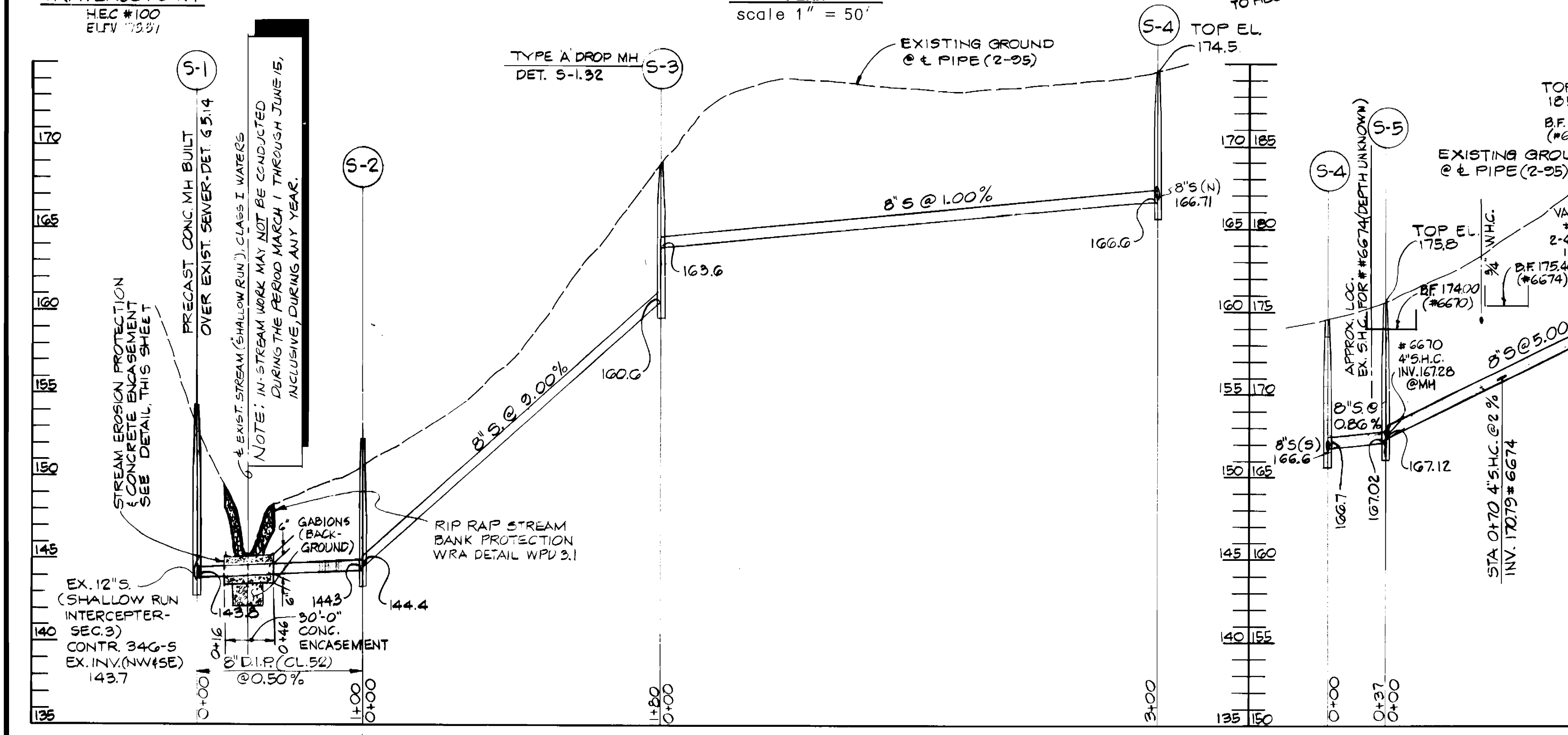


TYPE OF BUILDINGS: RESIDENTIAL  
 NO OF SAN. HOUSE CONNECTIONS - 4  
 NO OF WATER HOUSE CONNECTIONS - 0  
 DRAINAGE AREA - PATAPESCO RIVER

**VICINITY MAP**  
 scale 1" = 600'

SEWER CODE: 2152219  
 WATER CODE: D08

**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 SHOWN 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 SPECIFICATION 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 [Symbol] AT LOCATION OF 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 TESTS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS PRIOR TO STARTING WORK SHOWN ON THIS PLAN:  
 BELL ATLANTIC-ND.....597-8585  
 STATE HIGHWAY ADMINISTRATION.....331-5533  
 BALTIMORE GAS ELECTRIC CO. CONTRACTOR SERVICES.....850-4620  
 BALTIMORE GAS ELECTRIC CO. UNDERGROUND DAMAGE CONTROL.....187-9068  
 BALTIMORE GAS ELECTRIC CO. TROUBLE SHOOTING.....298-9001  
 MISS UTILITY.....1-800-257-7777  
 COLONIAL PIPELINE.....795-1390  
 BUREAU OF UTILITIES, HOWARD CO. DEPT. OF PUBLIC WORKS.....313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE 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 FOR CONSTRUCTION OF THE MAIN AND SERVICE CONNECTIONS.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- TRENCH REPAIRS TO BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS.
- EXC. WORK WILL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL SECTION 219.
- LENGTH OF OPEN TRENCH WILL BE LIMITED TO THAT WHICH MUST BE FILLED AND STABILIZED WITHIN ONE WORKING DAY.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
- TOP OF WATER MAIN PIPE TO HAVE A MINIMUM OF 3.5' OF 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 STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR IN THE DRAWING.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL HOWARD COUNTY UTILITIES SHALL BE COORDINATED WITH THE TIE-IN TO THE EXISTING WATER AT LEAST FIVE WORKING DAYS PRIOR TO SCHEDULING.

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

APPROVED: HOWARD COUNTY S.C.D. DATE: 12/15/95

REVIEWED FOR HOWARD COUNTY S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE: 12/15/95

**PROFILE**  
 SCALE: HORIZ. 1"=50'  
 VERT. 1"=5'

DEVELOPERS CERTIFICATION  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT A MARYLAND DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

ENGINEERS CERTIFICATION  
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

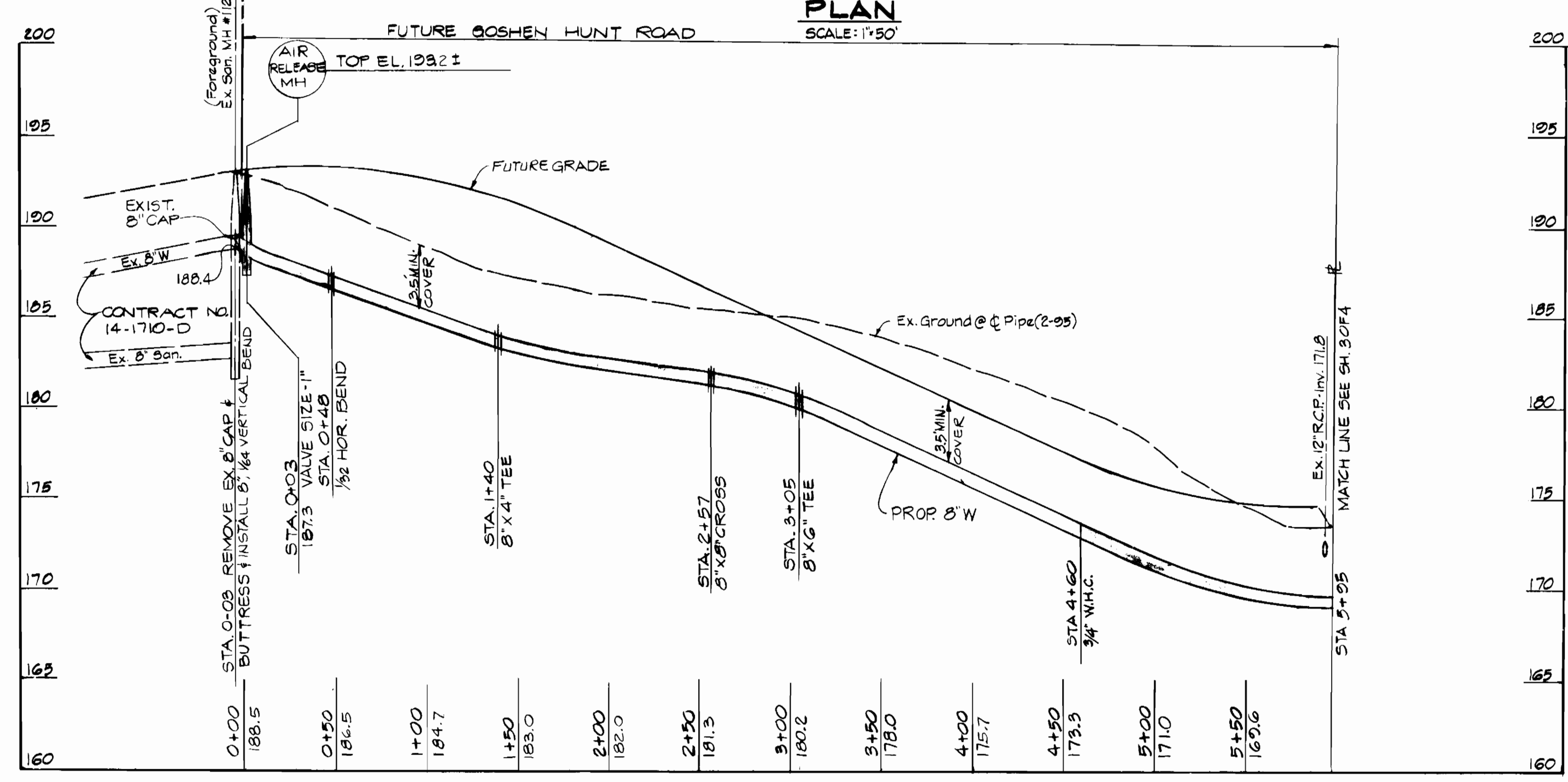
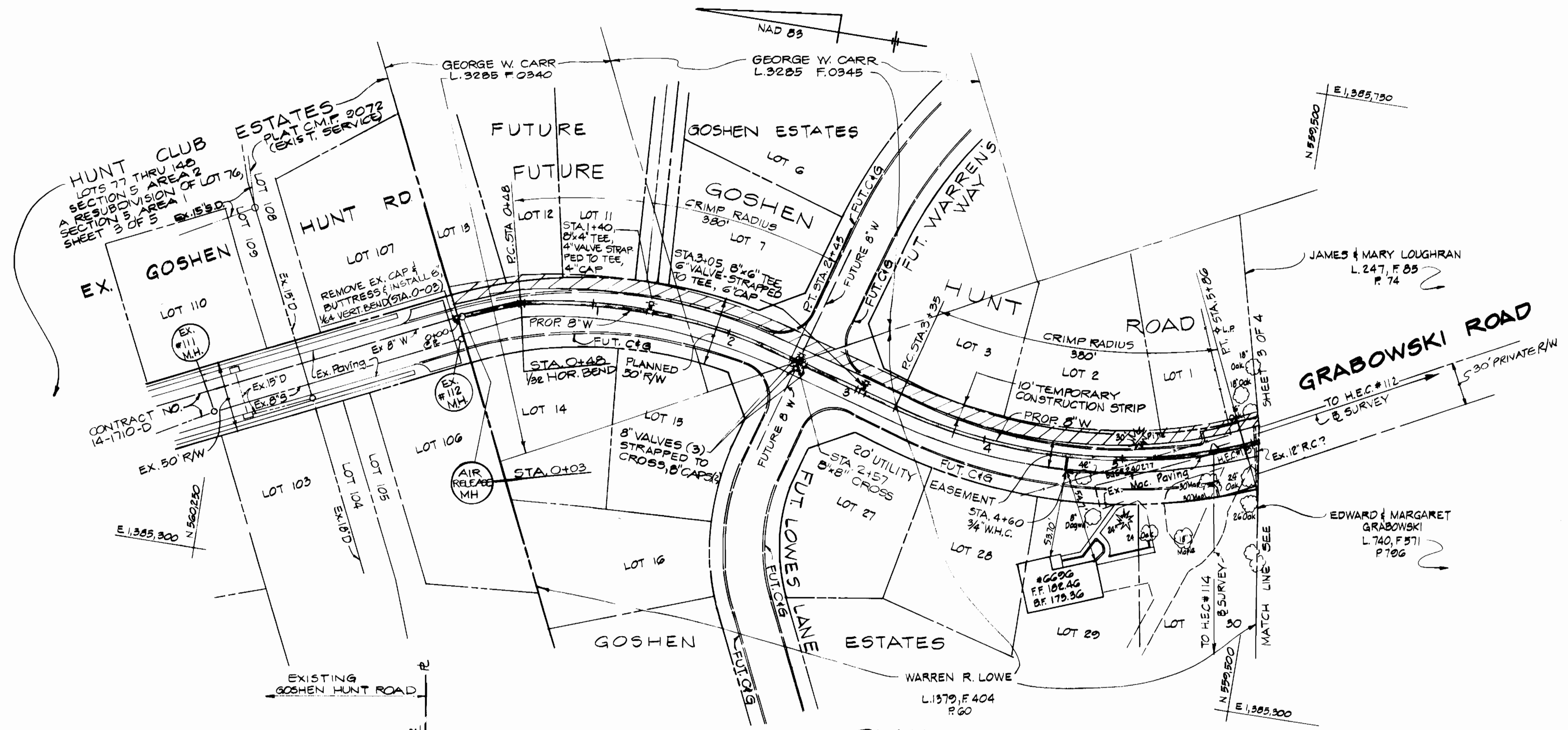
1/10/95  
 HICKS ENGINEERING COMPANY, INC.  
 ENGINEERS-SURVEYORS-PLANNERS  
 200 EAST JOPPA ROAD-SUITE 402  
 TOWSON, MARYLAND 21286

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

11/20/95  
 BUREAU OF ENGINEERING  
 DEPARTMENT OF PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS DATE: 11-21-95 CHIEF, BUREAU OF UTILITIES	HICKS ENGINEERING CO., INC. ENGINEERS, SURVEYORS & PLANNERS 200 EAST JOPPA ROAD - SUITE 402 TOWSON, MARYLAND 21286 DATE: 11/20/95 CHIEF, WATER & SEWER DIVISION	DES: JKW DRN: FW/MAB CHK: DEH DATE: 3/10/95	WATER QUALITY CERTIFICATION (88-GWQC-001) NATIONWIDE PERMIT #12 UTILITY LINE BACKFILL AND BEDDING 600' SCALE MAP NO. W-38,S-38, BLOCK NO. 7.13	U.S. ROUTE 1 WATER AND SEWER MAINS FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND CAPITAL PROJECT W8202 C-240203-05-LE	SCALE AS SHOWN SHEET 1 OF 4
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3425 WS/2 U.S. Rte 1 Water & Sewer Mains, C.P.# W-8202 AS BUILT 7/8/96



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

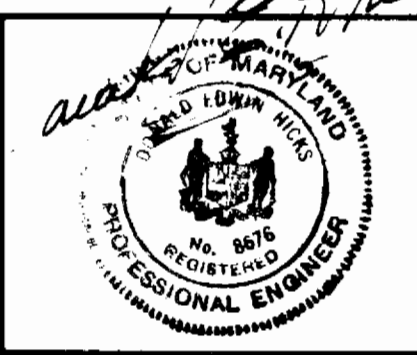
*[Signature]* 11-22-95  
DIRECTOR OF PUBLIC WORKS DATE

*[Signature]* 11-21-95  
CHIEF, BUREAU OF UTILITIES DATE

**H** HICKS ENGINEERING CO., INC.  
ENGINEERS, SURVEYORS & PLANNERS  
200 EAST JOPPA ROAD - SUITE 402  
TOWSON, MARYLAND 21286

*[Signature]* 11/20/95  
CHIEF, BUREAU OF ENGINEERING DATE

*[Signature]* 11-20-95  
CHIEF, WATER & SEWER DIVISION DATE



DES: JKW					
DRN: FW					
CHK: D.E.H					
DATE: 11/95	BY NO.	REVISION	DATE	600' SCALE MAP NO. W-38, S-38	BLOCK NO. NO. 7, 13

WATER QUALITY CERTIFICATION  
(88-GWQC-001)  
NATIONWIDE PERMIT #12  
UTILITY LINE BACKFILL AND BEDDING

CONTRACT NO. 14-3425

U. S. ROUTE 1 WATER AND SEWER MAINS  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT W8202  
C-240993-05-LE

SCALE AS SHOWN

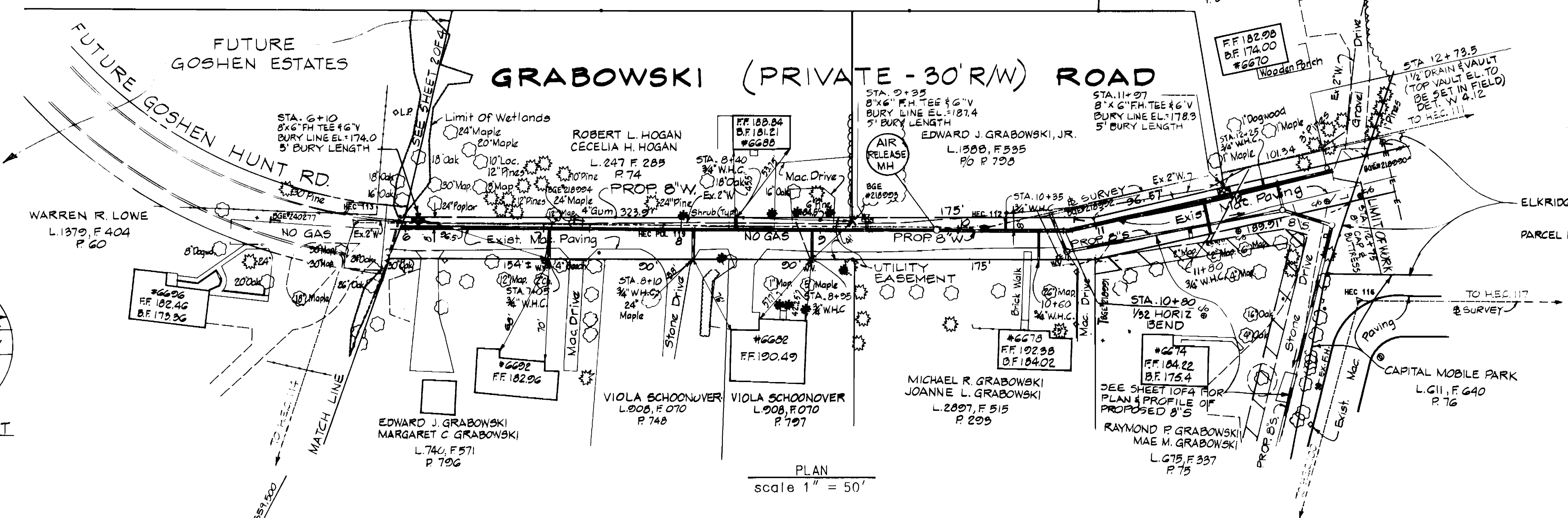
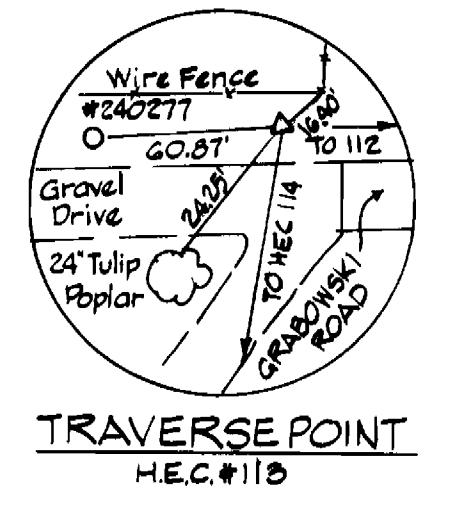
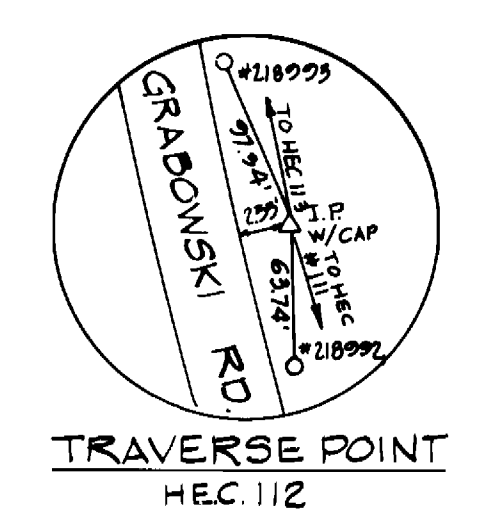
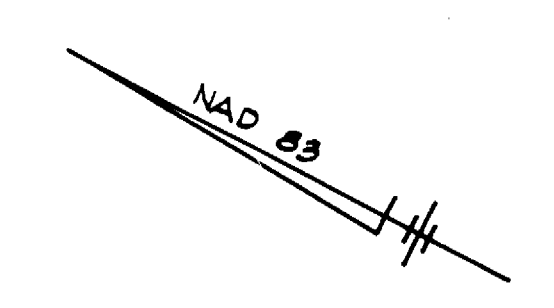
SHEET 2 OF 4

AS BUILT 7/8/96

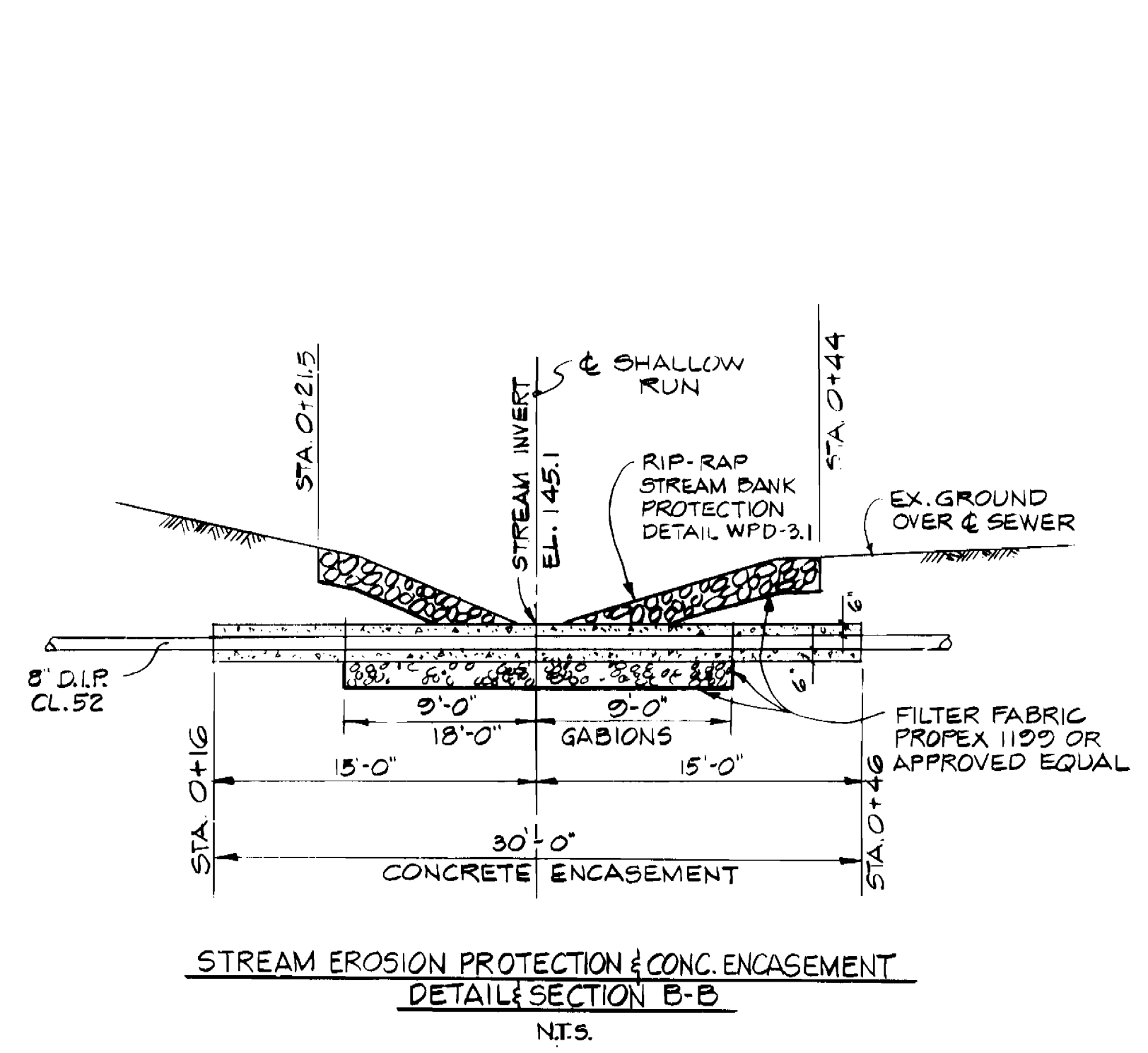
ws/3 U.S. Rte 1 Water & Sewer Mains, C.P.# W-8202

3425

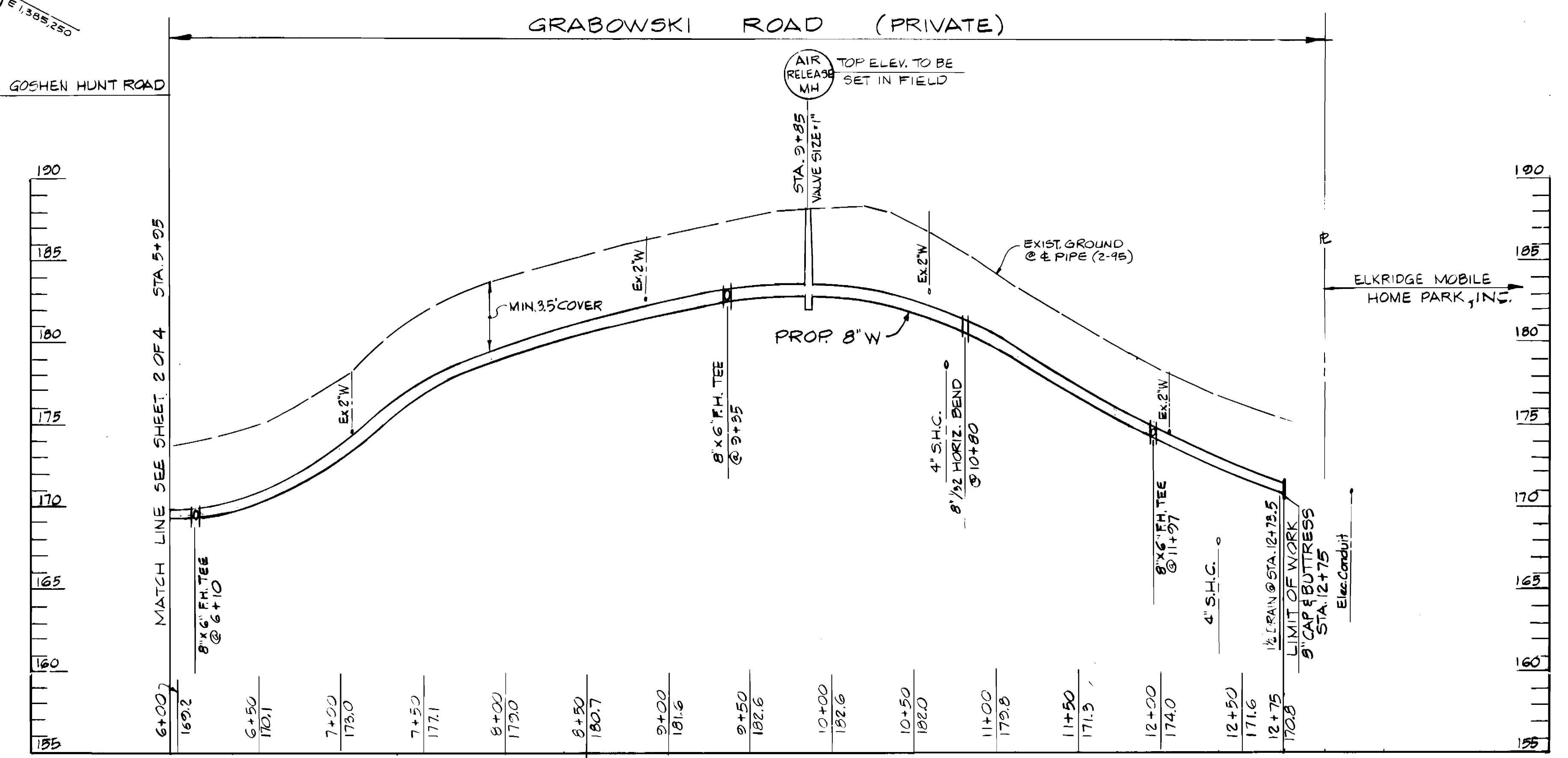
NOTE: THE EXIST. 2" WATER MAIN IS A PRIVATE LINE WHICH ORIGINATES AT HUNT CLUB ROAD AND IS TO BE ABANDONED. PROPOSED HOUSE CONNECTIONS FROM THE PROPOSED 8" WATER MAIN SHALL BE LOCATED FOR TIE-IN TO EXIST. CURB SERVICE & AND VALVE BOXES, WHERE FEASIBLE.



PLAN  
scale 1" = 50'



STREAM EROSION PROTECTION & CONC. ENCASUREMENT  
DETAIL SECTION B-B  
N.T.S.



PROFILE  
SCALE: HOR. 1" = 50'  
VERT. 1" = 5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works: 11-22-95  
Chief, Bureau of Engineering: 11/20/95  
Chief, Bureau of Utilities: 11-21-95  
Chief, Water & Sewer Division: 11-20-95

HICKS ENGINEERING CO., INC.  
ENGINEERS, SURVEYORS & PLANNERS  
200 EAST JOPPA ROAD - SUITE 402  
TOWSON, MARYLAND 21286



DES: JKW  
DRN: FW/MAB  
CHK: DEH  
DATE: 3/10/95

BY	NO.	REVISION	DATE

WATER QUALITY CERTIFICATION  
(57-GW(2-00))  
NATIONWIDE PERMIT #12  
UTILITY LINE BACKFILL AND BEDDING  
600' SCALE MAP NO. W-38, S-38, BLOCK NO. 7.13

CONTRACT NO. 14-3425  
U.S. ROUTE 1 WATER AND SEWER MAINS  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT W8202  
C-240993-05-LE

SCALE AS SHOWN  
SHEET 3 OF 4

AS BUILT 7/8/96

AS-BUILT  
3425 WS/4 U.S. Rte 1 Water & Sewer Mains, C.P. #W-8202

### DETAIL 22 - SILT FENCE

**Construction Specifications**

- Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 1/2" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pound per linear foot.
- Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:  
Tensile Strength 50 lbs/in (min.) Test: MGMT 509  
Tensile Modulus 20 lbs/in (min.) Test: MGMT 509  
Flow Rate 0.3 gal +/-/minute (max.) Test: MGMT 322  
Filtering Efficiency 75% (min.) Test: MGMT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE E-15-a MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

### UTILITY CROSSING

**Construction Specifications**

- All erosion and sediment control devices shall be installed as the first order of work.
- The contractor shall insure that a continuous perimeter control barrier is in place so as to minimize pollutants entering the water.
- Excavated topsoil and subsoil shall be kept separate and replaced in their natural order.
- All excavated materials shall be placed on the up-drift side of the excavation.
- All construction shall take place during stream low flows. The length of construction time shall be limited to a maximum of 5 days for each crossing.
- All utility crossings shall be placed at least three feet beneath the stream bed unless an alternative section is specifically approved by the Administration.
- Sediment control devices are to remain in place until all disturbed areas are stabilized in accordance with an approved sediment and erosion control plan and the inspection authority approves their removal.

Approved On 11/21/95  
Chief, Waterway Permits

### RIPRAP

**Construction Specifications**

- The contractor shall install all sediment and erosion control devices as a first order of business.
- Provisions shall be made to anchor the riprap at the stream bed so as to provide protection against undermining. If this cannot be accomplished by extending the toe trench as indicated in Cross Section, an alternative method of protection must be provided prior to written approval of the Administration.
- Excavation for riprap shall be made in reasonably close conformity with the existing stream size and bed.
- A filter bedding is required under all riprap. Bedding material shall consist of either a bank run gravel or a geotextile filter fabric meeting the specifications of 11B above.
- The placement of riprap shall begin with the toe. The larger stones shall be placed in the toe and along the outside edges of the limits of the slope and channel protection. The riprap shall be placed with suitable equipment in such a manner as to produce a reasonably graded mass of stones with zero drop height. The placing of stones that cause extensive segregation is not allowed.
- Any excavation voids existing along the edges of the completed slope and channel protection shall be backfilled.
- All disturbed areas shall be permanently stabilized in accordance with an approved sediment and erosion control plan.

Approved On 11/21/95  
Chief, Waterway Permits

### DEWATERING BASINS

**Construction Specifications**

- The contractor shall install all sediment and erosion control devices as the first order of business.
- Excavated materials shall be stored such that sediments are prevented from entering the waterway; i.e., sediment perimeter control devices shall be installed.
- Excavated subsoil and topsoil shall be kept separate and replaced in their natural order.
- Any dewatering of the construction area shall be filtered through a dewatering basin prior to entering the waterway.
- The dewatering basin shall be excavated to a minimum depth of 3 feet.
- Once the dewatering basin becomes filled to 1/2 of the excavated depth, accumulated sediment shall be removed and disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the WRA.
- Once the dewatering basin becomes filled to 1/2 of the excavated depth, accumulated sediment shall be removed and disposed of in a SCD approved disposal area outside the 100-year floodplain unless otherwise approved on the plans by the WRA.
- Sediment control devices are to remain in place until all disturbed areas are stabilized and the inspection authority approves their removal. All ground contours shall be returned to their original condition unless specifically approved otherwise by the Administration.

Approved On 11/21/95  
Chief, Waterway Permits

### UTILITY NOTES

- OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

### SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE PRIOR TO THE START OF ANY CONSTRUCTION.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDING AND MULCHING. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:  
TOTAL AREA OF SITE 1.5 ACRES ±  
AREA TO BE ROOFED OR PAVED 1.5 ACRES ± (MAXIMUM)  
AREA TO BE VEGETATIVELY STABILIZED 1.4 ACRES ±  
TOTAL CUT 0 CU.YDS.  
TOTAL FILL 0 CU.YDS.  
OFFSITE WASTE/BORROW AREA LOCATION N/A
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DETERMINED NECESSARY BY THE HOWARD COUNTY DEP SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

### STAKEOUT TABLE

MANHOLE	DISTANCE	OFFSET
S-1	HEC T.P. 100 to HEC T.P. 116,0+21.19	29.04' LT.
S-2	HEC T.P. 100 to HEC T.P. 116,1+19.85	45.32' LT.
S-3	HEC T.P. 100 to HEC T.P. 116,3+01.58	27.77' LT.
S-4	HEC T.P. 112 to HEC T.P. 111,2+44.02	55.11' RT.
S-5	HEC T.P. 112 to HEC T.P. 111,2+12.86	39.18' RT.
S-6	HEC T.P. 112 to HEC T.P. 111,0+47.93	29.94' RT.

WATER	DISTANCE	OFFSET
12"x8" Tapping Sleeve & 8" Valve & Vault	HO. CO. BM 3805 to HEC T.P. 110,1+76	13' ± LT.
8"-1/32 Horiz. Bend	HO. CO. BM 3805 to HEC T.P. 110,1+76	7' RT.
8"-1/32 Horiz. Bend	HEC T.P. 110 to HEC T.P. 111,0+45	34' RT.
8"x6" Tee	HEC T.P. 111 to HEC T.P. 112,5+13	16' LT.
8" Valve & Vault	HEC T.P. 111 to HEC T.P. 112,5+25	16' LT.
8"-1/32 Horiz. Bend	HEC T.P. 111 to HEC T.P. 112,6+10	16' LT.
8"x6" Tee	HEC T.P. 112 to HEC T.P. 113,0+96	1' RT.
8"x6" Tee	HEC T.P. 112 to HEC T.P. 113,4+12	0
8" CAP	HEC T.P. 112 to HEC T.P. 113,4+22	0

### TRAVERSE DATA

NO. CO. BM	3805	N 558,378.592	E 1,386,524.190
HEC TRAV. PT. 110	S 53°33'22" W	207.33'	
HEC TRAV. PT. 111	N 31°35'13" W	417.26'	
HEC TRAV. PT. 112	N 40°29'11" W	686.49'	
HEC TRAV. PT. 113	N 26°57'38" W	457.04'	
HEC TRAV. PT. 114	S 80°49'48" W	519.59'	
HEC TRAV. PT. 115	S 14°41'52" E	384.97'	
HEC TRAV. PT. 116	S 25°19'59" E	370.67'	
HEC TRAV. PT. 117	N 77°36'02" E	553.66'	
HEC TRAV. PT. 118	S 26°57'14" E	520.85'	
HEC TRAV. PT. 119	S 51°01'16" W	1,473.90'	
HO. CO. BM 3806	S 51°23'43" E	1,960.32'	
HO. CO. BM 3805		N 558,378.592	E 1,386,524.190

### RESTORATION SCHEDULE

LOCATION	DISTANCE	TYPE	TYPE
S-1 to S-2	100'	---	100' Seed
S-2 to S-3	180'	100' Paving	80' Seed
S-3 to S-4	300'	220' Paving	80' Seed
S-4 to S-5	37'	20' "	17' Seed
S-5 to S-6	160'	100' "	60' Seed
4" SHC #6674	8'	---	8' Seed
4" SHC #6678	5'	---	5' Seed
4" SHC #6670	2.5'	14' Paving	11' Seed
4" SHC (Vacant P.D. #798)	27'	22' Paving	5' Seed
STA. 0-3 to 12+75	1278'	510' Paving	1278' Seed
STA. 6+10 F.H.	5'	---	5' Seed
STA. 9+35 F.H.	5'	---	5' Seed
STA. 11+97 F.H.	5'	---	5' Seed
STA. 7+05 (WNC)	22'	14' Paving	8' Seed
STA. 8+10 (WNC)	22'	22' Paving	---
STA. 8+40 (WNC)	8'	4' Paving	4' Seed
STA. 8+95 (WNC)	22'	17' Paving	5' Seed
STA. 10+35 (WNC)	8'	---	8' Seed
STA. 10+60 (WNC)	22'	14' Paving	8' Seed
STA. 11+80 (WNC)	2.5'	15' Paving	10' Seed
STA. 12+25 (WNC)	5'	---	5' Seed
STA. 4+60 (WNC)	10'	---	10' Seed

FROM 5+95 to 11+05, BOTH PAVE AND SEED.

### PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

**SEEDBED PREPARATION:** LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

**SOIL AMENDMENTS:** IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQUARE FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL.

**SEEDING -** FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE (.05 LBS/1000 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

**MULCHING -** APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2 1/2 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 3/8 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.

**MAINTENANCE -** INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS. REPLACEMENTS AND RESEEDINGS.

\* SEE CONDITION 'a' (CONDITIONS AND MANAGEMENT PRACTICES FOR WORKING IN NON-TIDAL WETLANDS) FOR SEEDING WITHIN THE WETLANDS & BUFFER AREAS.

### CONDITIONS AND MANAGEMENT PRACTICES FOR WORKING IN NON-TIDAL WETLANDS

- For utility line installation, strip, stockpile and maintain separately the top 6" of soil material from the nontidal wetlands and buffer; to be replaced as the top layer of the backfilled material.
- Remove excess fill or construction material or debris to an upland disposal area, outside of any floodplain, waterway, wetland or buffer.
- Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of the nontidal wetland.
- Use previously excavated material as utility line backfill, unless it contains waste metal products, unharmed debris, toxic material or any other deleterious substance. Use clean borrow material when excavated material is not suitable for use as backfill.
- Rectify any nontidal wetlands and buffers temporarily impacted by any proposed repair and maintenance activity or installation of the utility line. All rehabilitation of the wetland and buffer shall be of the following recommended species: Annual Ryegrass (Lolium multiflorum), Miller (Setaria italica), Oats (Avena sp.), and/or Rye (Secale cereale). Other non-permanent vegetation may be acceptable, but must be approved by the Nontidal Wetlands Division. Kentucky 31 fescue shall not be utilized in the wetland or buffer. All temporary fills shall be removed in their entirety on or before the completion of construction.
- After installation has been completed, make post construction grades and elevations of nontidal wetlands the same as the original grades and elevations.
- To protect important aquatic species, in-stream work is prohibited as determined by the classification of the stream as follows:  
1) Class I Waters. In-stream work may not be conducted during the period March 1 through June 15, inclusive, during any year.
- No removal of vegetation, grading, filling, draining or other alteration of the nontidal wetland or buffer outside the limits of disturbance shall occur, either during construction or after completion, without written authorization from the Water Resources Administration.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works DATE 11/21/95  
Chief, Bureau of Utilities DATE 11/21/95

HICKS ENGINEERING CO., INC.  
ENGINEERS, SURVEYORS & PLANNERS  
200 EAST JOPPA ROAD - SUITE 402  
TOWSON, MARYLAND 21286

Approved On 11/21/95  
Chief, Waterway Permits

DES: JKW  
DRN: FW/MAB  
CHK: DEH  
DATE: 3/10/95

BY NO. REVISION DATE

WATER QUALITY CERTIFICATION  
(88 GWQC-001R)  
NATIONWIDE PERMIT #12  
UTILITY LINE BACKFILL AND BEDDING

600' SCALE MAP NO. W-38-S-38 BLOCK NO. 7-13

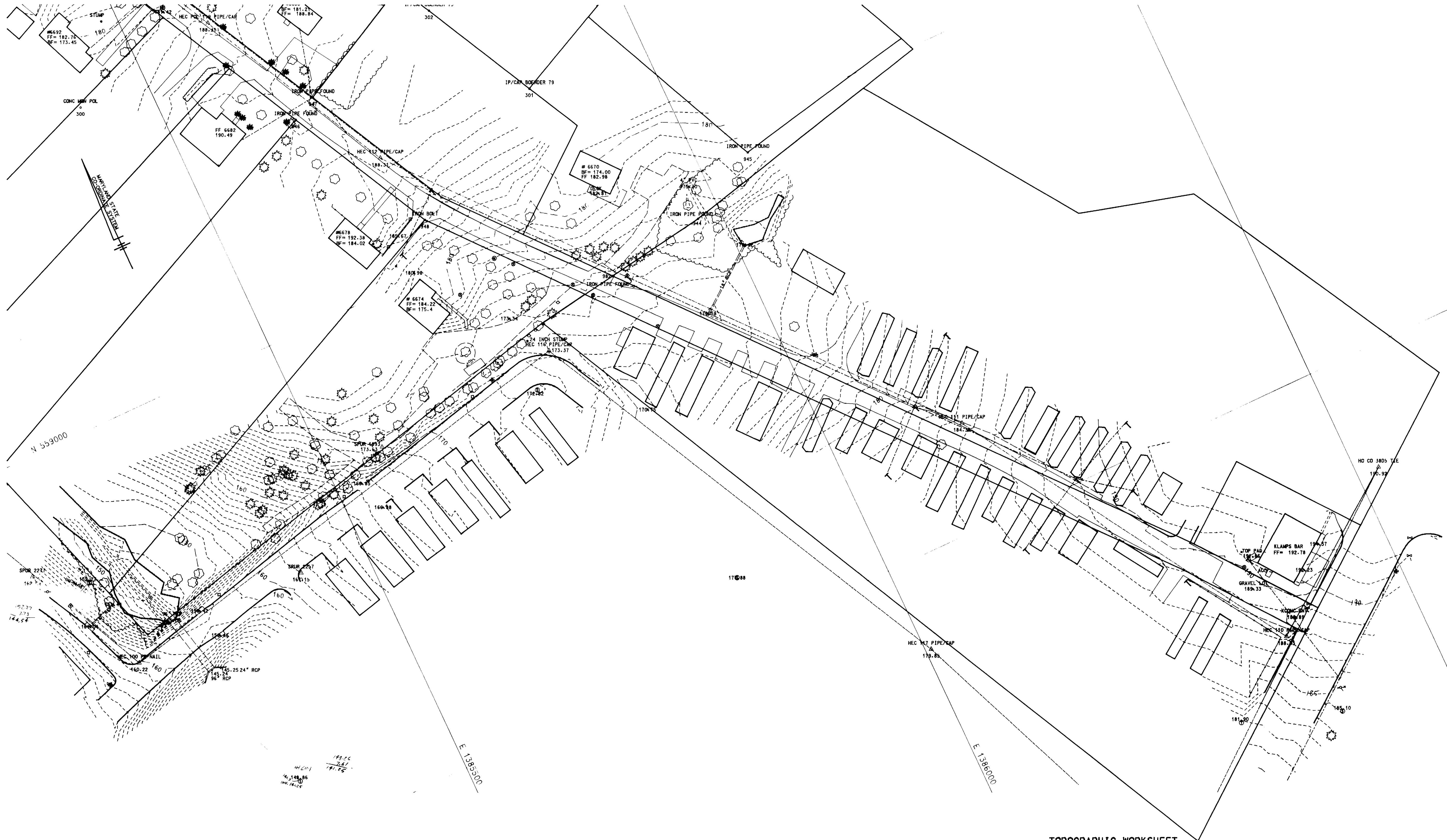
CONTRACT NO. 14-3425

U.S. ROUTE I WATER AND SEWER MAINS  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT W8202  
C24023-05-LE

SCALE AS SHOWN  
SHEET 4 OF 4

AS-BUILT

3425 / C.P. # W-8202 topo/Pos. sht. # 1



1995.09  
6.25  
144.54

185.16  
241  
181.62

**H** HICKS ENGINEERING CO., INC.  
ENGINEERS, SURVEYORS & PLANNERS  
217 EAST JOPPA ROAD - SUITE 407  
TOWSON, MARYLAND 21286

TOPOGRAPHIC WORKSHEET  
ROUTE 1 SEWER  
3/07/95 1" = 50'  
SHEET 1 OF 2

3425 /c.p.# W-8202 topo/pos. sht. # 2



**H** HICKS ENGINEERING CO., INC.  
ENGINEERS, SURVEYORS & PLANNERS  
211 EAST COPPA ROAD - SUITE 412  
TOWSON, MARYLAND 21286

TOPOGRAPHIC WORKSHEET  
ROUTE 1 SEWER  
3/07/95 1" = 50'  
SHEET 2 OF 2

U.S. RTE 1  
94188