

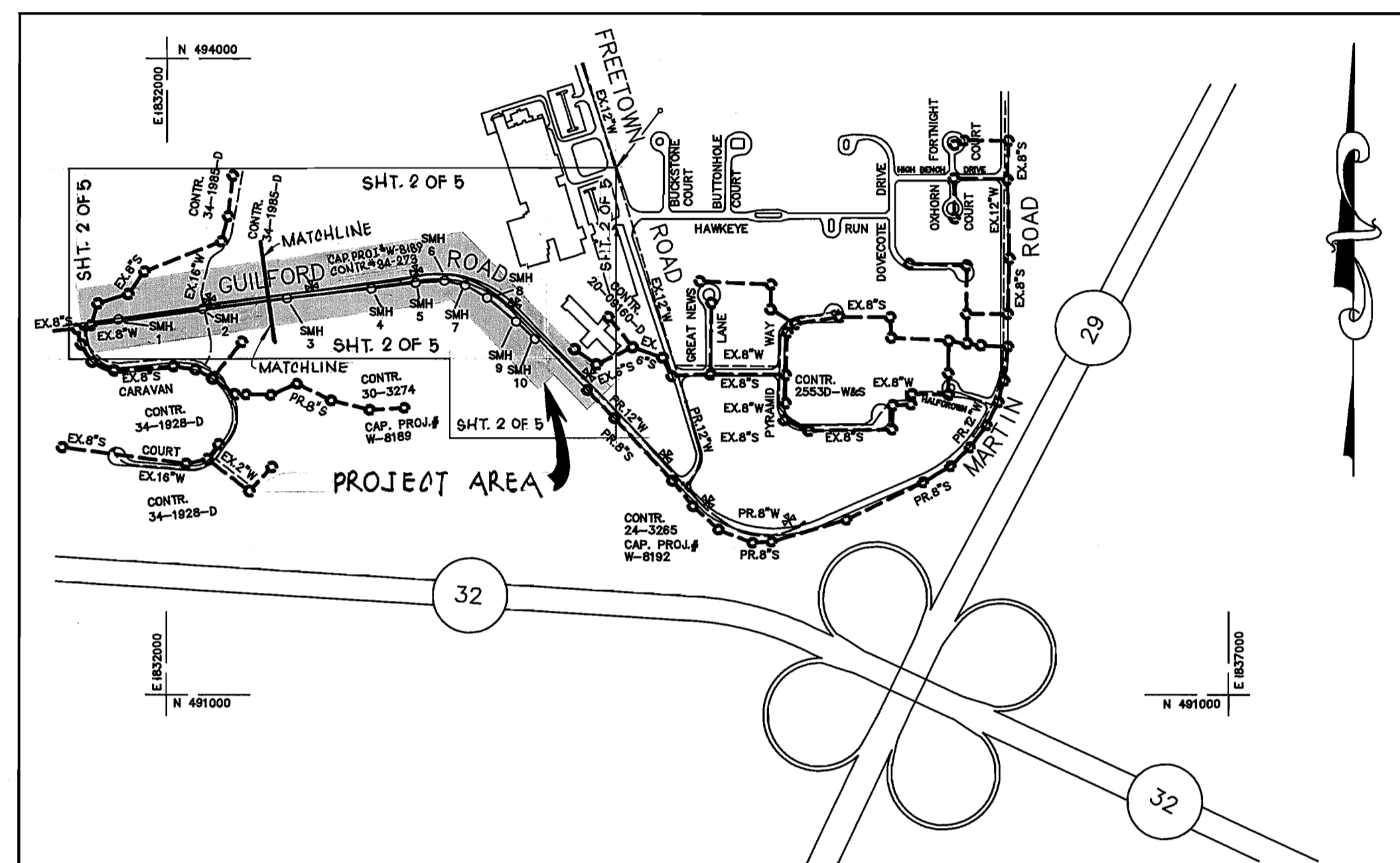
3273 Ws/1 Guilford Rd. w/sect. C.P. # W-8189 AS-BUILT 1/4/96

GUILFORD ROAD CAP. PROJ. # W-8189, CONT. # 34-3273 WATER & SEWER EXTENSION HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

ITEM	UNIT	QUANTITIES		TYPE MATERIAL	SUPPLIER
		ESTIM.	AS BUILT		
12" WATER	L.F.	1933	1732.33'	D.I.P.	ATLANTIC STATES
6" WATER FOR F.H.	L.F.	28	30.6'	D.I.P.	ATLANTIC STATES
12" VALVE (R.S.G.V.)	EACH	3	3	D.I.P.	MUELLER Co.
12" X 6" TEE	EACH	4	4	D.I.P.	GRIFFIN PIPE
6" VALVE	EACH	4	4	D.I.P.	MUELLER Co.
2" AIR RELEASE VALVE & M.H.	EACH	1	1	COPPER	CRISPIN VALVE
3/4" WATER HOUSE CONNECTION	L.F.	425	516'	COPPER	HOWELL METALS
1 1/2" WATER HOUSE CONNECTION AND METER VAULT	L.F.	50	64'	COPPER	HOWELL METALS
PRECAST MANHOLE	EACH	8	8'	CONCRETE	ATLANTIC CONCRETE
DROP "A" MANHOLE	EACH	1	1	CONCRETE	ATLANTIC CONCRETE
DROP "B" MANHOLE	EACH	1	1	CONCRETE	ATLANTIC CONCRETE
4" SEWER HOUSE CONNECTION	L.F.	304	483'	P.V.C.	J.M. MANUFACTURING Co.
8" SANITARY SEWER	L.F.	2304	2272.64'	P.V.C.	J.M. MANUFACTURING Co.
FIRE HYDRANT	EACH	0 4	4	D.I.P.	MUELLER Co.

NAME OF UTILITY CONTRACTOR: "GAINES" AS-BUILTS: KATHY WILSON E.D.A.

CHECKBOX	
AS BUILT DATE	
SURVEY AND DRAFTING DIVISION	



TYPE OF BUILDING: RESIDENTIAL NUMBER OF PARCELS: 25 WATER HOUSE CONNECTION: 25 SEWER HOUSE CONNECTIONS: 22 DRAINAGE AREA: MIDDLE PATUXENT	VICINITY MAP SCALE: 1" = 600'	WATER CODE FOR COUNTY USE ONLY: WATER NO. E 29 TEST GRADIENT 700 WATER ZONE 550
		SEWER CODE FOR COUNTY USE ONLY: SEWER NO. 6580000

- GENERAL NOTES:
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS & SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS BASED ON MARYLAND STATE COORDINATES.
 - ALL VERTICAL CONTROLS BASED ON U.S.G.S. DATA.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY 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 MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - 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 (LATEST EDITION). 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.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORK DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION - 531-5533
BALTO. GAS & ELECTRIC CO. - CONTRACTOR SERVICES - 850-4620
BALTO. GAS & ELECTRIC CO. - UNDERGROUND DAMAGE CONTROL - 787-9068
AT&T 865-3803
MISS UTILITY - 1-800-257-7777
BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
CHESAPEAKE AND POTOMAC TELEPHONE CO. - 597-8585
COLONIAL PIPELINE CO. - 795-1390
 - 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 THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH D.P.W. REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

- ALL WATER MAINS SHALL BE DUCTILE IRON PIPE CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" 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 THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTIONS 1000 AND 1005 OF THE STANDARD SPECIFICATIONS. FIRE HYDRANTS WILL BE INSTALLED BY OTHERS. CAP AND BLOCK END OF 6" INCH MAIN.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- MANHOLES DESIGNATED "W. T." IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL GS-52, WHERE WATERTIGHT MANHOLE FRAME AND COVER, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

NOTE:
"SEDIMENT CONTROL TO BE IMPLEMENTED IN ACCORDANCE WITH VOLUME 4, SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND THESE PLANS."

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET & INDEX OF DRAWINGS
2	WATER & SEWER PLAN
3	WATER PROFILES
4	SEWER PROFILES
5	SEDIMENT CONTROL MEASURES & TRAVERSE INFORMATION

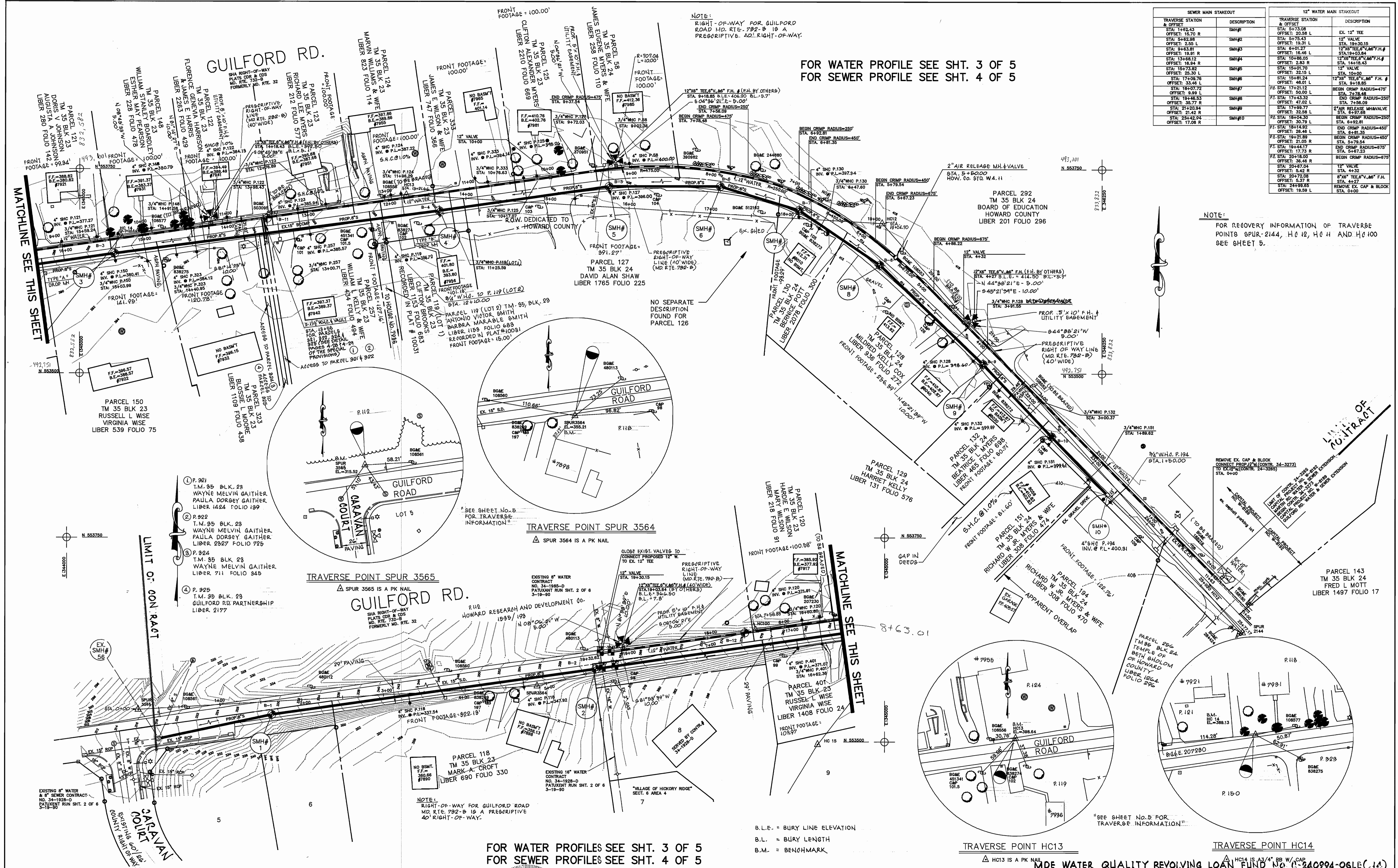
SEWER HOUSE CONNECTIONS INVERT ELEVATIONS AT PROPERTY LINE		
STATION	LOT	ELEVATIONS
1+26 MH 9 TO MH 10	151	397.61
0+50 MH 9 TO MH 10	132	399.89
1+05 MH 8 TO MH 9	128	398.40
0+45 MH 7 TO MH 8	130	397.45
AT MANHOLE # 5	58	400.00
1+03 MH #4 TO MH 5	128	394.67
0+69 MH #4 TO MH 5	127	394.33
0+20 MH 4 TO MH 5	333	393.84
3+73 MH 3 TO MH 4	119	386.71
3+68 MH 3 TO MH 4	124	386.63
2+77 MH 3 TO MH 4	123	385.75
2+50 MH 3 TO MH 4	257	384.98
1+10 MH 3 TO MH 4	122	384.13
0+75 MH 3 TO MH 4	323	384.12
AT MANHOLE # 3	148	380.50
3+40 MH #2 TO MH 3	150	378.14
3+37 MH #2 TO MH 3	121	377.27
1+67 MH #1 TO MH 2	118	369.40
2+40 MH #1 TO MH 2	115	347.92
2+95 MH 2 TO MH 3	120	371.07
2+47 MH 2 TO MH 3	401	376.58

<p>DEVELOPER'S CERTIFICATION</p> <p>"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 CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."</p> <p><i>Renald G. Lapsen</i> Renald G. Lapsen SIGNATURE OF DEVELOPER DATE 6/15/94</p>	
<p>ENGINEER'S CERTIFICATE</p> <p>"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 COUNTY SOIL CONSERVATION DISTRICT."</p> <p><i>Patricia Engler</i> Patricia Engler U.S. SOIL CONSERVATION SERVICE DATE 7/15/94</p>	<p>REVIEWED FOR HOWARD COUNTY S.C.D. MEETS TECHNICAL REQUIREMENTS</p> <p>THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT.</p> <p><i>Michael A. Ananillo</i> Michael A. Ananillo APPROVED HOWARD S.C.D. DATE 7/15/94</p>

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Renald G. Lapsen</i> 7/10/94 DIRECTOR OF PUBLIC WORKS ACTING DATE</p> <p><i>Michael A. Ananillo</i> 7-6-94 CHIEF, BUREAU OF UTILITIES DATE</p>	<p>dfi CONSULTING ENGINEERS, SURVEYORS AND LAND PLANNERS</p> <p>504 BALTIMORE/ANNAPOLIS BLVD. SEVERNA PARK, MD 21146 847-2727</p>	<p>DES: D.D.S.</p> <p>DRN: D.D.S.</p> <p>CHK: M.a.M.</p> <p>DATE: 1/93</p>	<p>CADD DWG: GUILCV</p> <p style="text-align: center;">TITLE SHEET INDEX OF DRAWINGS GENERAL NOTES</p> <p>600' SCALE MAP NO. 35 BLOCK NO. 23&24</p>	<p>GUILFORD ROAD WATER & SEWER EXTENSION</p> <p>CAPITAL PROJECT W-8189</p> <p>ELECTION DISTRICT NO. 5</p> <p>HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET 1 OF 5</p>
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AS-BUILT 1/4/96

3273 ws/2 Guilford Rd. w/s ext. C.P. # W-8189
 AS-BUILT 1/4/96



SEWER MAIN STAKEOUT		12" WATER MAIN STAKEOUT	
TRAVERSE STATION & OFFSET	DESCRIPTION	TRAVERSE STATION & OFFSET	DESCRIPTION
STA: 1492.43	SMH#1	STA: 5475.38	EX. 12" TEE
STA: 5482.98	SMH#2	STA: 5475.43	12" VALVE
OFFSET: 2.55 L		OFFSET: 18.31 L	STA: 19-3015
STA: 5483.81	SMH#3	STA: 6401.27	12" VALVE
OFFSET: 18.91 R		OFFSET: 16.48 L	STA: 19-3015
STA: 1494.52	SMH#4	STA: 10486.05	12" VALVE
OFFSET: 18.94 R		OFFSET: 2.83 R	STA: 14418.43
STA: 1495.32	SMH#5	STA: 10486.05	12" VALVE
OFFSET: 25.30 L		OFFSET: 32.15 L	STA: 10486.05
STA: 1496.76	SMH#6	STA: 15481.24	12" VALVE
OFFSET: 25.30 L		OFFSET: 48.0 L	STA: 10486.05
STA: 1497.72	SMH#7	STA: 15481.24	12" VALVE
OFFSET: 8.99 L		OFFSET: 47.02 L	STA: 10486.05
STA: 1498.94	SMH#8	STA: 17409.77	2" AIR RELEASE MH & VALVE
OFFSET: 21.42 R		OFFSET: 30.79 L	STA: 6492.81
STA: 21420.94	SMH#9	STA: 17409.77	2" AIR RELEASE MH & VALVE
OFFSET: 17.08 R		OFFSET: 30.79 L	STA: 6492.81
		STA: 18404.30	BEGIN CRIMP RADIUS=230"
		OFFSET: 21.05 R	STA: 6492.81
		STA: 18414.32	BEGIN CRIMP RADIUS=450"
		OFFSET: 21.05 R	STA: 6492.81
		STA: 18414.32	BEGIN CRIMP RADIUS=450"
		OFFSET: 21.05 R	STA: 6492.81
		STA: 18414.32	BEGIN CRIMP RADIUS=450"
		OFFSET: 21.05 R	STA: 6492.81
		STA: 18414.32	BEGIN CRIMP RADIUS=450"
		OFFSET: 21.05 R	STA: 6492.81

NOTE:
FOR RECOVERY INFORMATION OF TRAVERSE POINTS SPUR-2144, H.C.12, H.C.11 AND H.C.10 SEE SHEET 5.

MATCHLINE SEE THIS SHEET

MATCHLINE SEE THIS SHEET

- 1. P. 921 T.M. 35 BLK. 23 WAYNE MELVIN GAITHER PAULA DORSEY GAITHER LIBER 1424 FOLIO 199
- 2. P. 922 T.M. 35 BLK. 23 WAYNE MELVIN GAITHER PAULA DORSEY GAITHER LIBER 1424 FOLIO 199
- 3. P. 924 T.M. 35 BLK. 23 WAYNE MELVIN GAITHER LIBER 711 FOLIO 945
- 4. P. 925 T.M. 35 BLK. 23 GUILFORD RD. PARTNERSHIP LIBER 2177

EXISTING 8" WATER & 8" SEWER CONTRACT NO. 34-1928-D PATENT RUN SHT. 2 OF 6 3-19-90

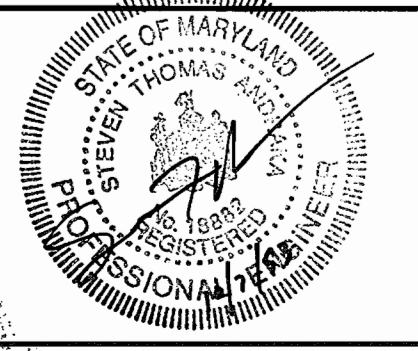
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Richard E. Sporn 7/18/94 *Richard E. Sporn* 6/15/94
DIRECTOR OF PUBLIC WORKS ACTING DATE CHIEF, BUREAU OF ENGINEERING DATE

Michael A. Williams 7-6-94 *Michael A. Williams* 6-15-94
CHIEF, BUREAU OF UTILITIES DATE CHIEF, WATER & SEWER DESIGN DIVISION DATE

df CONSULTING ENGINEERS, SURVEYORS AND LAND PLANNERS

504 BALTIMORE/ANNAPOLIS BLVD.
SEVERNA PARK, MD 21146 647-2727



DES: D.D.S.					
DRN: D.D.S.					
CHK: M.a.M.					
DATE: 1/93					
BY	NO.	REVISION			

CADD DWG: GUL2

WATER & SEWER PLAN

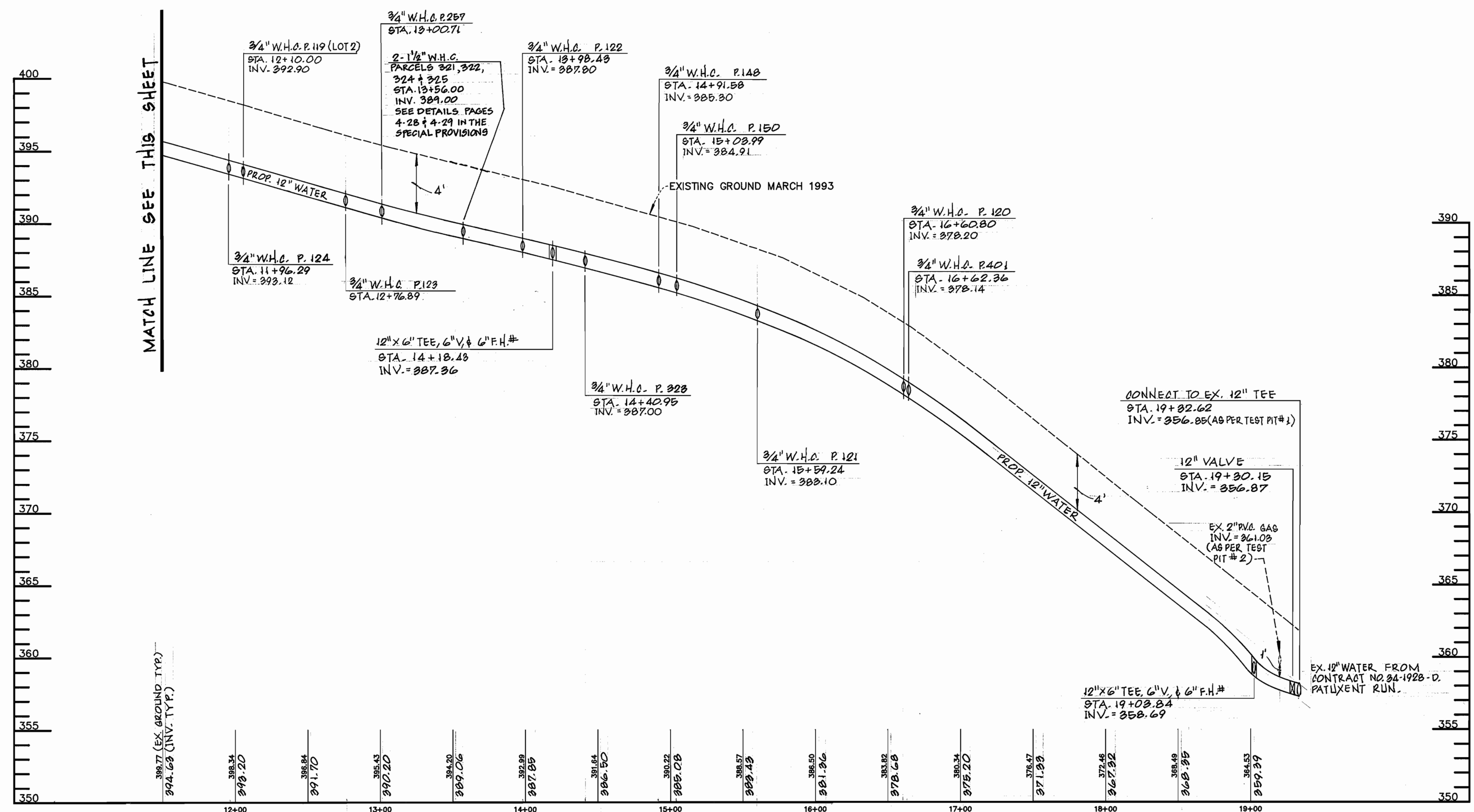
600' SCALE MAP NO. 35 BLOCK NO. 23&24

GUILFORD ROAD WATER & SEWER EXTENSION

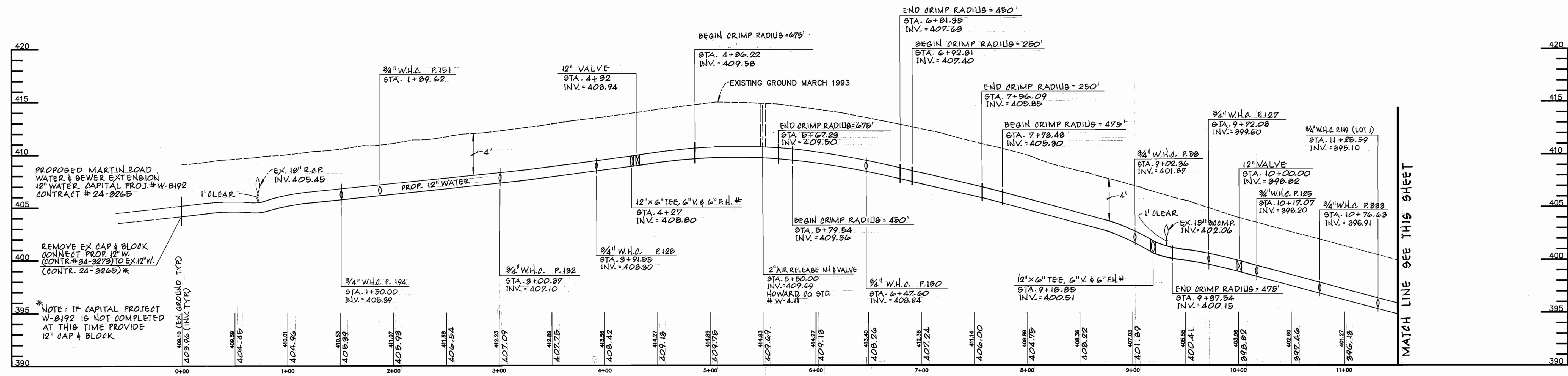
CAPITAL PROJECT W-8189
CONTRACT NO. 34-3273
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 5 OF 5

3273 ws/3 Guilford Rd. w/s ext. C.P.# W-8189 AS-BUILT 1/4/96



FOR PLAN SEE SHEET 2 OF 5
PROFILE PROPOSED 12" WATER GUILFORD RD.
 SCALE: HOR: 1"=50' VERT: 1"=5'

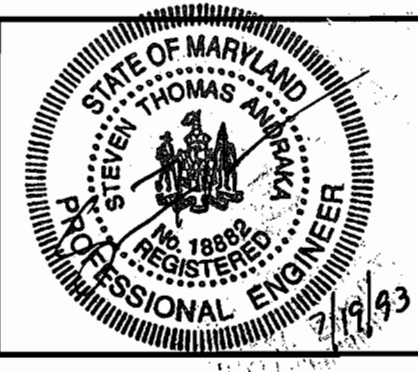


FOR PLAN SEE SHEET 2 OF 5
PROFILE PROPOSED 12" WATER GUILFORD RD.
 SCALE: HOR: 1"=50' VERT: 1"=5'

MDE WATER QUALITY REVOLVING LOAN FUND No. C-240994-06LE(14)

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 7/18/94 DATE
 6/15/94 DATE
 CHIEF, BUREAU OF UTILITIES DATE
 CHIEF, WATER & SEWER DESIGN DIVISION DATE

dfi
 CONSULTING ENGINEERS, SURVEYORS
 AND LAND PLANNERS
 504 BALTIMORE/ANNAPOLIS BLVD.
 SEVERNA PARK, MD 21146 647-2727



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	REVISION

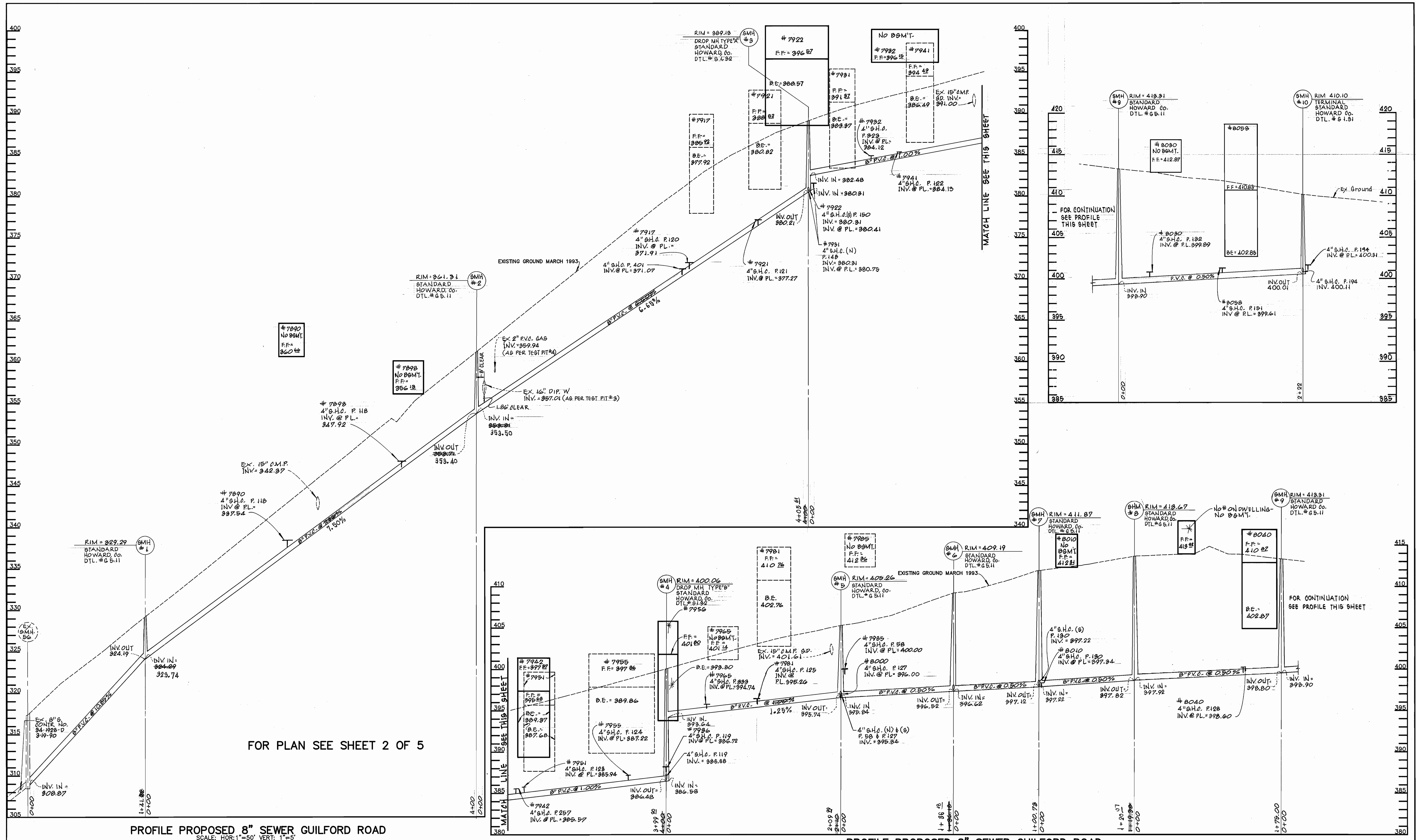
WATER PROFILES
 600' SCALE MAP NO. 35 BLOCK NO. 23&24

GUILFORD ROAD WATER & SEWER EXTENSION
 CAPITAL PROJECT W-8189
 CONTRACT NO. 34-3273
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 3 OF 5

AS-BUILT 1/4/96

3273 ws/4 Guilford Rd w/s ext. C.P.# W-8189 AS-BUILT 1/4/96



PROFILE PROPOSED 8" SEWER GUILFORD ROAD
SCALE: HOR: 1"=50' VERT: 1"=5'

PROFILE PROPOSED 8" SEWER GUILFORD ROAD
SCALE: HOR: 1"=50' VERT: 1"=5'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *[Signature]* 7/18/94
 Chief, Bureau of Engineering: *[Signature]* 6/15/94
 Chief, Bureau of Utilities: *[Signature]* 7-6-94
 Chief, Water & Sewer Design Division: *[Signature]* 6-13-94

dfi
 CONSULTING ENGINEERS, SURVEYORS
 AND LAND PLANNERS
 504 BALTIMORE/ANNAPOLIS BLVD.
 SEVERNA PARK, MD 21146 647-2277



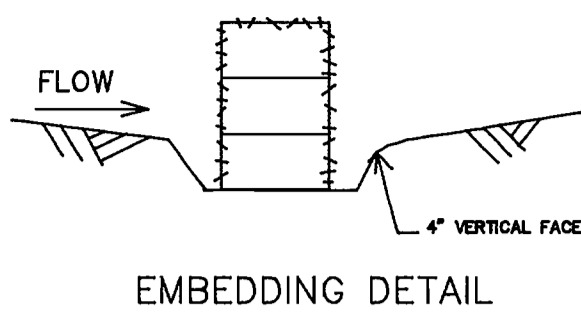
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DRN: D.D.S.			
CHK: M.a.M.			
DATE: 1/93			
BY	NO.	REVISION	

600' SCALE MAP NO. 35 BLOCK NO. 23&24
SEWER PROFILES

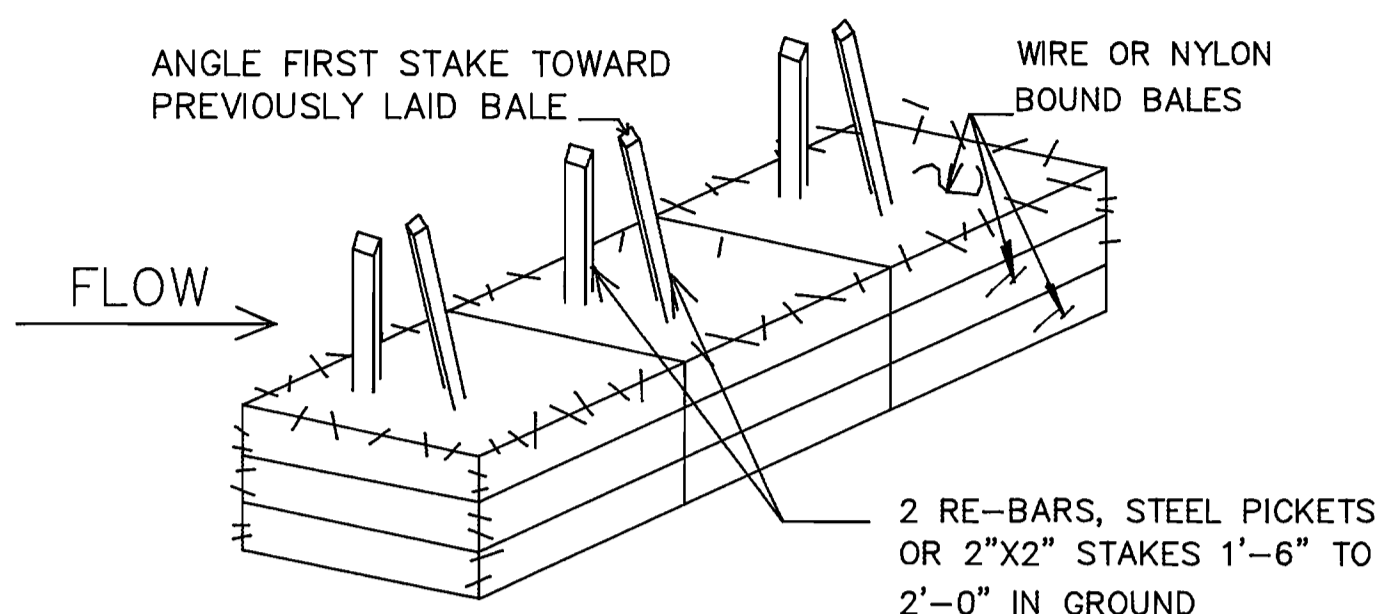
GUILFORD ROAD WATER & SEWER EXTENSION
 CAPITAL PROJECT W-8189
 CONTRACT NO. 34-3273
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN
 SHEET OF 5

AS-BUILT 1/4/96

AS-BUILT 1/4/96
 C.P. # W-8189
 ws/s Guilford Rd. w/s ext.
 3273



EMBEDDING DETAIL



ANCHORING DETAIL

CONSTRUCTION SPECIFICATIONS

- BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THRU THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
- INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STANDARD SYMBOL _____ S.B.D. _____

STRAW BALE DIKE DETAIL

NOT TO SCALE

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- LAYOUT ALIGNMENT AT SITE.
- INSTALL SEDIMENT CONTROL DEVICE (STRAW BALES) PERPENDICULAR TO THE CURB ON THE DOWN-SLOPE SIDE OF CONSTRUCTION.
- EXCAVATE TRENCH TO THE GRADE SPECIFIED ON THE PROFILE. LENGTH OF TRENCH SHALL BE LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED IN ONE WORKDAY, WHICHEVER IS SHORTER.
- INSTALL WATER MAIN AND SEWER MAIN.
- BACKFILL TRENCH AND RESURFACE WITH TEMPORARY BITUMINOUS PAVING WHERE NEEDED.
- CLEAN UP CONSTRUCTION SITE.
- REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR.

TRAVERSE DESCRIPTION				
POINT NO.	NORTH	EAST	BEARING	DISTANCE
SPUR 3565	553,530.374	1,344,093.920	N 85°31'10"E	482.76'
SPUR 3564	553,568.087	1,344,575.203	N 75°33'33"E	276.07'
HC100	553,636.933	1,344,842.550	N 81°32'00"E	210.61'
HC14	553,667.942	1,345,050.865	N 81°45'12"E	352.22'
HC13	553,718.463	1,345,399.440	S 86°36'32"E	583.04'
HC12	553,683.976	1,345,981.462	S 41°21'24"E	666.87'
SPUR 2144	553,183.418	1,346,422.090		

NOTE: SEE RECOVERY DATA OF SHEET 2.

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, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

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

- PREFERRED - APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK 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 DISK 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 AND 2 LBS PER ACRE (0.05 LBS/1000 SQ.FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, 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 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE: INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION - LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS - APPLY 60 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.)

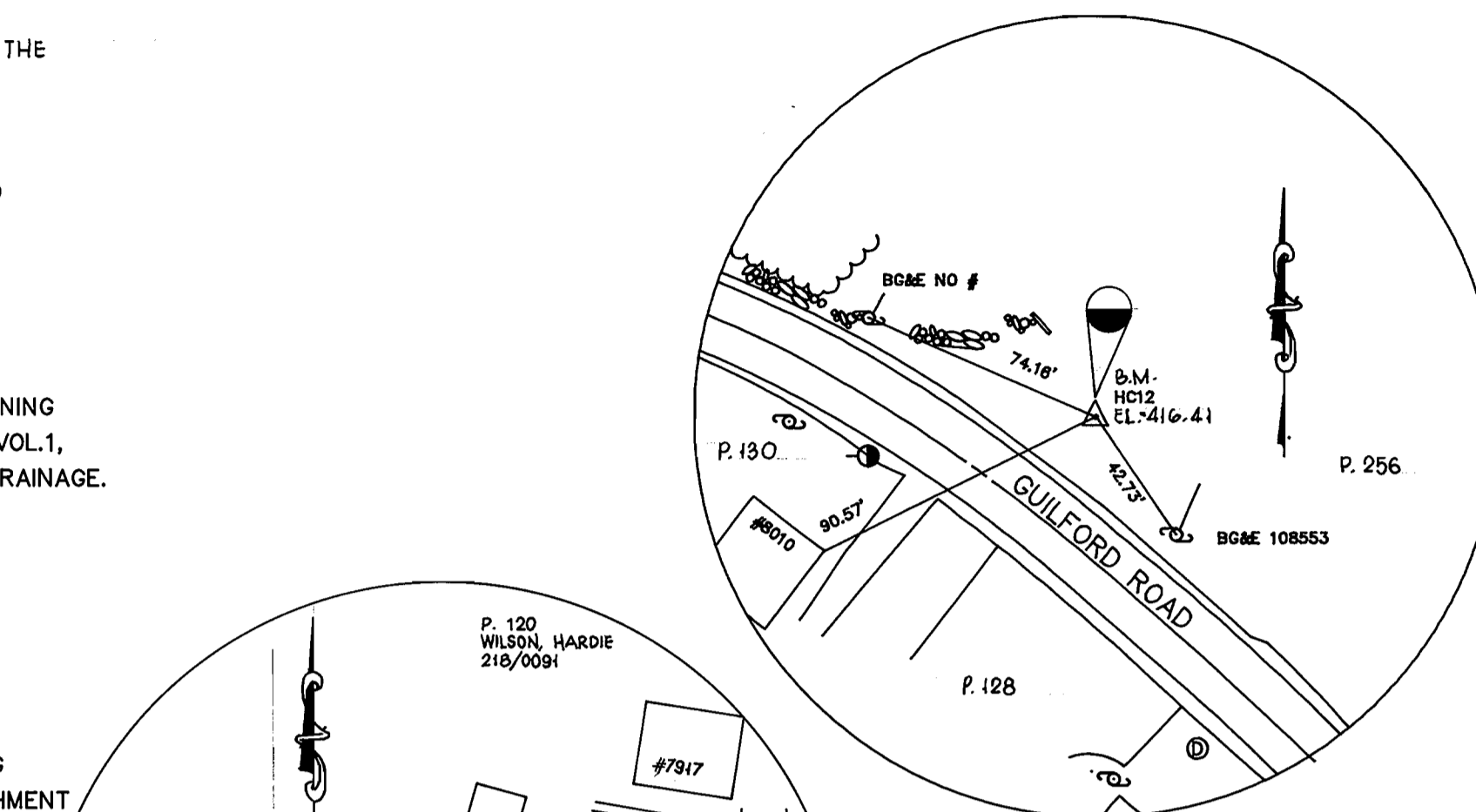
SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ.FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (0.07 LBS/1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

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 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE "1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR RATE AND METHODS NOT COVERED.

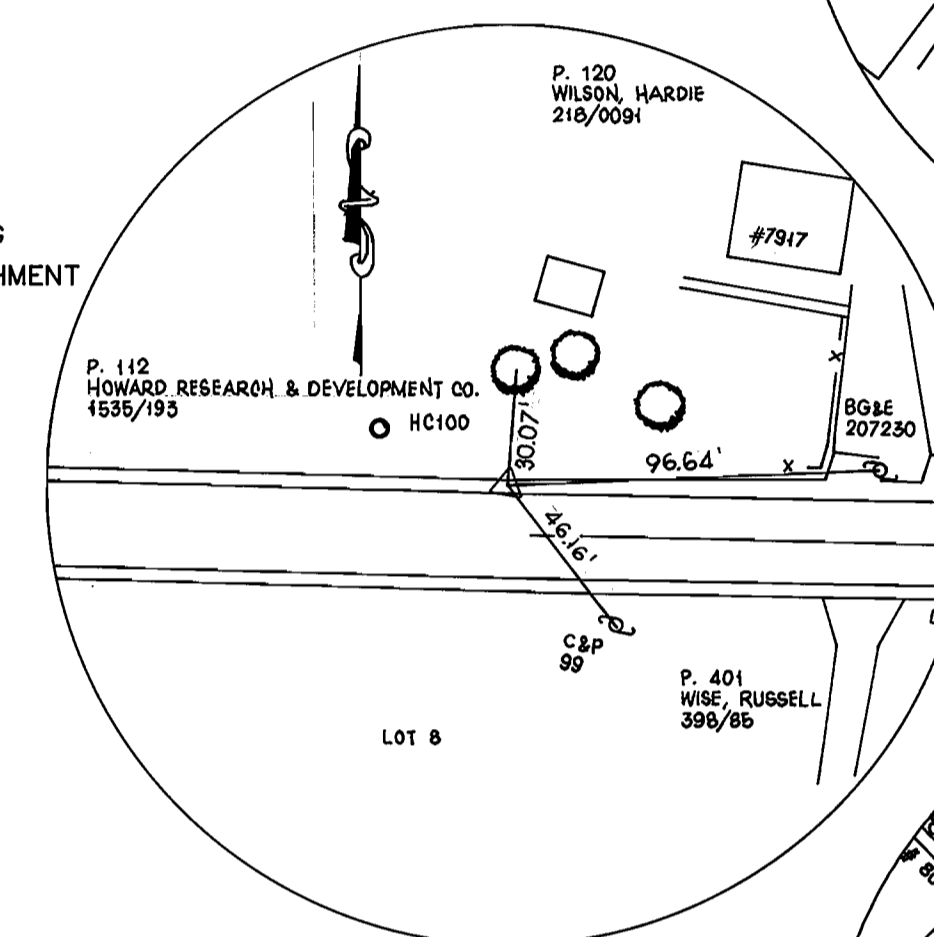
SEDIMENT CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (880-3450)
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH SEC. 219 OF VOL. III OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
- 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 "1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDINGS (SEC.51) SOD (SEC.54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC.52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND 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 1.90 ACRES
 AREA DISTURBED 1.90 ACRES
 AREA TO BE ROOFED OR PAVED 1.00 ACRES
 AREA TO BE VEGETATIVELY STABILIZED 0.10 ACRES
 TOTAL CUT 11,698 CU.YDS.
 TOTAL FILL 11,698 CU.YDS.
 OFFSITE WASTE/BORROW AREA LOCATION
- 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 DEEMED NECESSARY BY THE HOWARD COUNTY DPW 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.
- ALL TRENCH MATERIAL SHOULD BE PLACED ON THE HIGHER SIDE OF THE TRENCH, ABOVE THE TOP-OF-CURB.



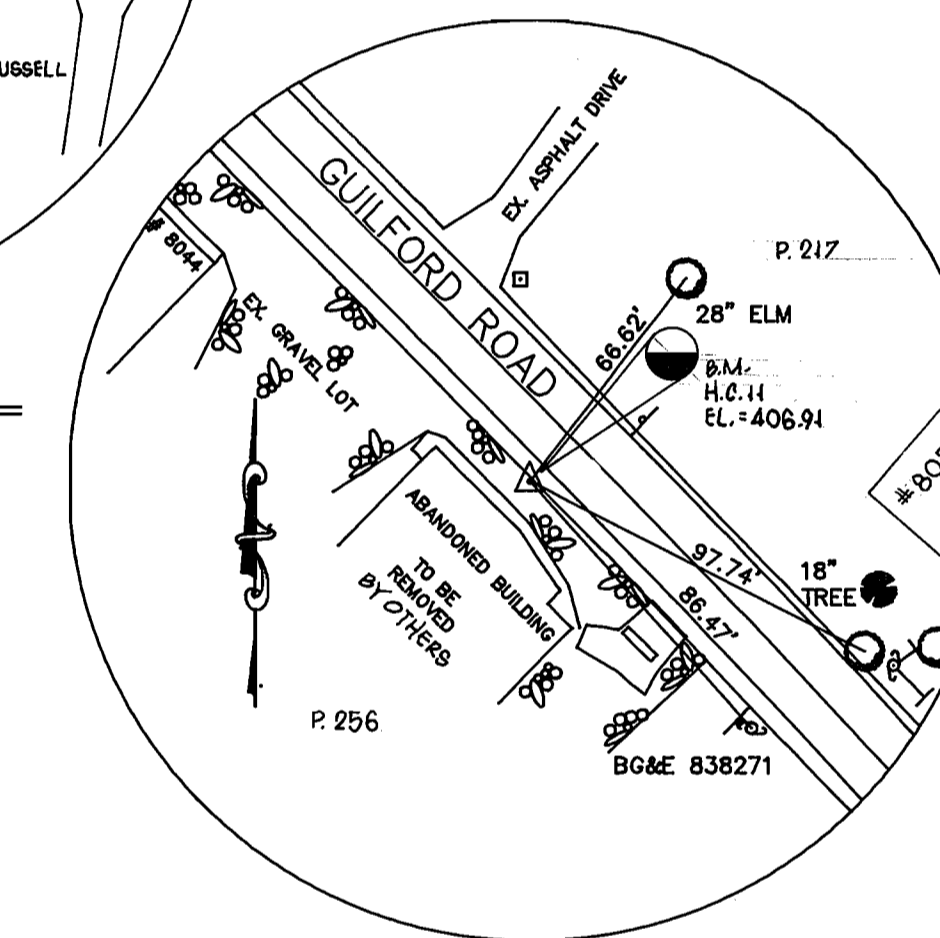
TRAVERSE POINT HC12

HC12 IS A PK NAIL



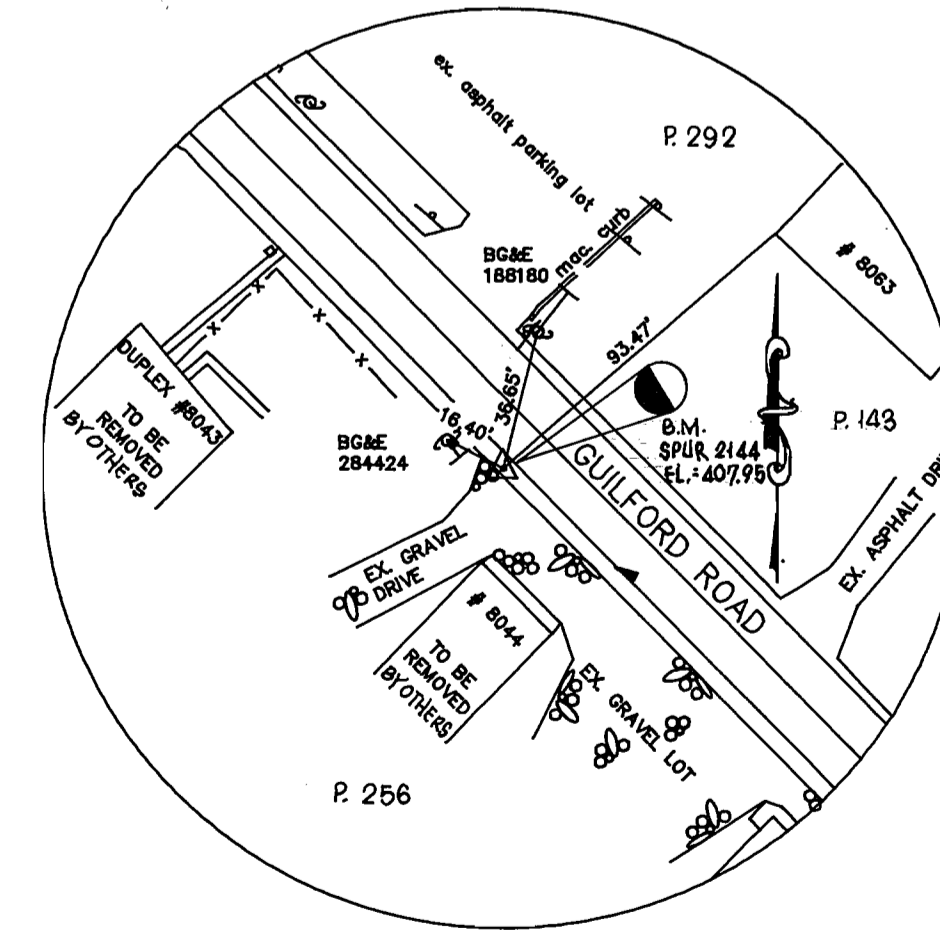
TRAVERSE POINT HC100

HC100 IS A PK NAIL



TRAVERSE POINT HC11

HC11 IS A 3/4" RB W/CAP



SPUR 2144

SPUR 2144 IS A PK NAIL

RESTORATION SCHEDULE		
LOCATION	LENGTH	MATERIAL
WATER		
12" WATER STA. 0+00 TO STA. 19+32.62 GUILFORD RD.	1932'	PAVEMENT TO BE RESTORED AS PER STANDARD DETAILS
SEWER		
EX.56 STA.0+00.00 TO MH1 STA.1+62.43	141.22'	PAVEMENT TO BE RESTORED AS PER STANDARD DETAILS
MH1 STA.1+62.43 TO MH2 STA.5+62.98	400.00'	PAVEMENT TO BE RESTORED AS PER STANDARD DETAILS
MH2 STA.5+62.98 TO MH3 STA.9+63.81	400.00'	PAVEMENT -
MH3 STA.9+63.81 TO MH4 STA.13+68.12	400.00'	PAVEMENT -
MH4 STA.13+68.12 TO MH5 STA.15+73.82	210.00'	PAVEMENT -
MH5 STA.15+73.82 TO MH6 STA.17+09.76	136.18'	PAVEMENT -
MH6 STA.17+09.76 TO MH7 STA.18+07.72	100.73'	PAVEMENT -
MH7 STA.18+07.72 TO MH8 STA.19+46.53	119.38'	PAVEMENT -
MH8 STA.19+46.53 TO MH9 STA.21+20.94	175.00'	PAVEMENT -
MH9 STA.21+20.94 TO MH10 STA.23+42.94	222.00'	PAVEMENT -

MDE WATER QUALITY REVOLVING LOAN FUND No. C-240994-06LE(.14)

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: [Signature] DATE: 6/15/94
 Chief, Bureau of Engineering: [Signature] DATE: 6/15/94
 Chief, Bureau of Utilities: [Signature] DATE: 6/15/94
 Chief, Water and Sewer Design Division: [Signature] DATE: 6/15/94

CONSULTING ENGINEERS, SURVEYORS AND LAND PLANNERS
 dfi
 504 BALTIMORE/ANNAPOLIS BLVD.
 SEVERNA PARK, MD 21146 647-2727

STATE OF MARYLAND
 STEVEN THOMAS
 PROFESSIONAL SURVEYOR
 No. 12345

DES: D.D.S.				
DRN: D.D.S.				
CHK: M.a.M.				
DATE: 1/93				
BY	NO.	REVISION		

CADD DWG: GUILSED
 SEDIMENT CONTROL MEASURES
 & TRAVERSE INFORMATION
 600'S SCALE MAP NO. 35 BLOCK NO. 23 & 24

GUILFORD ROAD WATER & SEWER EXTENSION
 CAPITAL PROJECT W-8189
 CONTRACT NO. 34-3273
 ELECTION DISTRICT NO. 5
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 5 OF 5

AS-BUILT 1/4/96