

MARTIN ROAD CAP. PROJ. # W-8192 CONT. # 24-3265 WATER & SEWER EXTENSION HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS




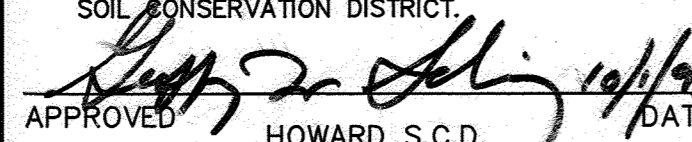
3265 WS/1 MARTIN RD. C.P. # W-8192

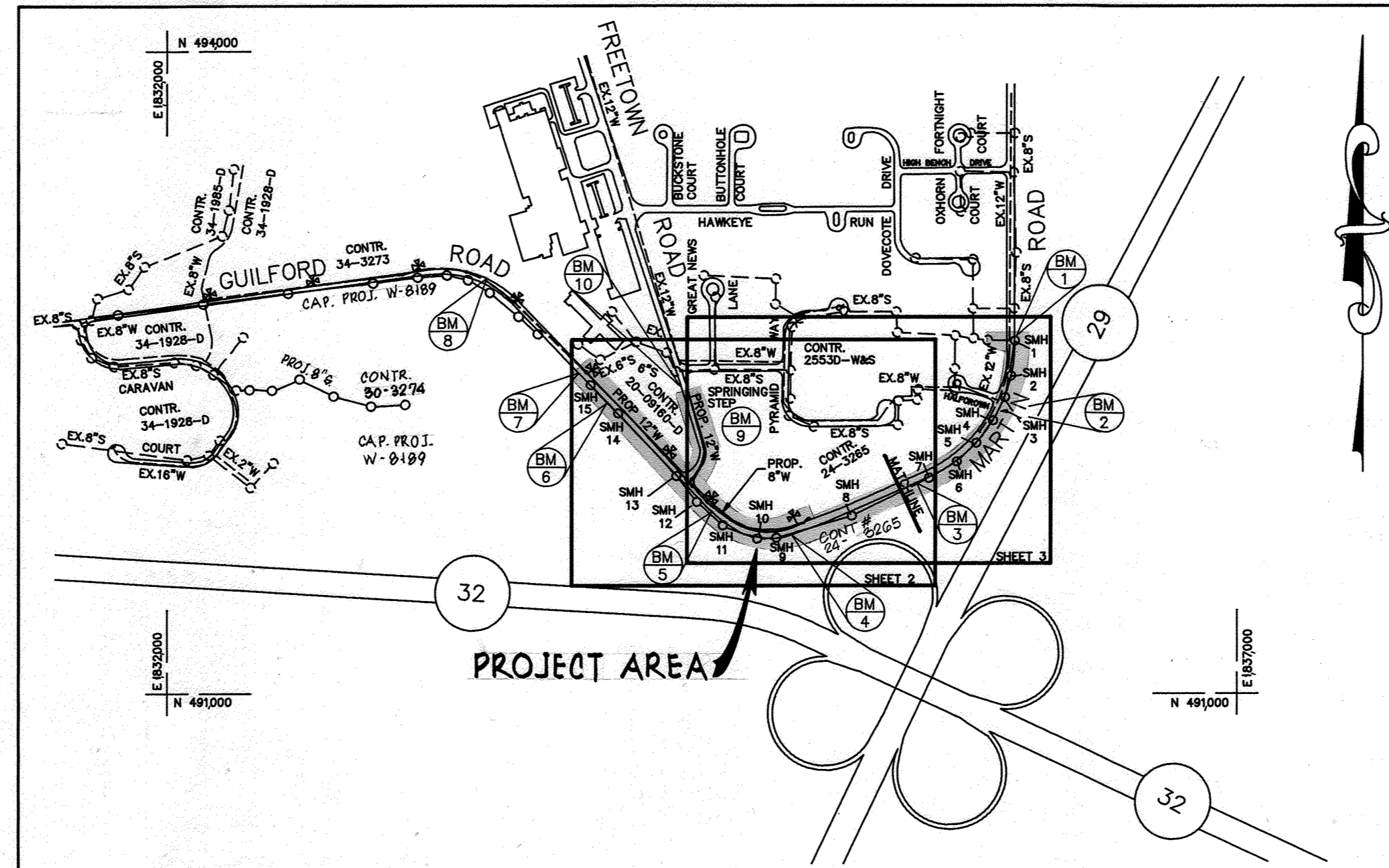
AS-BUILT 8/28/96

ITEM	UNIT	QUANTITIES		TYPE MATERIAL	SUPPLIER
		ESTIM.	AS BUILT		
8" WATER	L.F.	730	D.I.P.	730 L.F.	ATLANTIC STATES
12" WATER	L.F.	1163	D.I.P.	1163 L.F.	ATLANTIC STATES
6" WATER FOR F.H.	L.F.	40	D.I.P.	40 L.F.	ATLANTIC STATES
8" VALVE (R.S.G.V.)	EACH	2	2 EA.	D. IRON	MUELLER CO.
12" VALVE (R.S.G.V.)	EACH	3	3 EA.	D. IRON	MUELLER CO.
12"X 12" TEE	EACH	1	1 EA.	D. IRON	TYLER PIPE
12"X 6" TEE	EACH	2	2 EA.	D. IRON	TYLER PIPE
12"X 8" REDUCER	EACH	1	1 EA.	D. IRON	TYLER PIPE
8"X 6" TEE	EACH	2	2 EA.	D. IRON	TYLER PIPE
12" CAP & BUTTRESS	EACH	1	1 EA.	D. IRON	TYLER PIPE
8" CAP & BUTTRESS	EACH	1	1 EA.	D. IRON	TYLER PIPE
6" VALVE	EACH	4	4 EA.	D. IRON	BINGHAM (BOX) TAYLOR/MUELLER CO. (VALVE)
3/4" WATER HOUSE CONNECTION	L.F.	173	COPPER	211 L.F.	HALSTEAD CO.
2" WATER HOUSE CONNECTION AND METER VAULT	L.F.	30	COPPER	LUMP SUM	HALSTEAD CO. (COPPER) MAYER BROS. (VAULT)
6" WATER HOUSE CONNECTION	L.F.	30	LUMP SUM	D.I.P.	ATLANTIC STATES
8"-45 BEND	EACH	2	2 EA.	D. IRON	TYLER PIPE
FIRE HYDRANT	EACH	4	4 EA.	D. IRON	MUELLER CO.
12"- 22-1/2 BEND	EACH	1	1 EA.	D. IRON	TYLER PIPE
STANDARD PRECAST MANHOLE	EACH	13	13	CONCRETE	AMERICAST
PRECAST MH W/DROP "B" CONN.	EACH	1	1	CONCRETE	AMERICAST
4" SEWER HOUSE CONNECTION	L.F.	325	46440	P.V.C.	CERTAINTED CORP.
8" SANITARY SEWER	L.F.	2687	2633.11	P.V.C.	CERTAINTED CORP.
8" SANITARY SEWER	L.F.	116	112.56	D.I.P.	ATLANTIC STATES
SHALLOW PRECAST MANHOLE	EACH	1	1	CONCRETE	AMERICAST

NAME OF UTILITY CONTRACTOR: RICHARD F. KLINE, INC. FREDERICK, MARYLAND	
CHECKBOX	
AS BUILT DATE	
SURVEY AND DRAFTING DIVISION	

NOTE:
"SEDIMENT CONTROL TO BE IMPLEMENTED IN ACCORDANCE WITH VOLUME 4, ARTICLE 15 OF THE HOWARD COUNTY DESIGN MANUAL AND THESE PLANS."

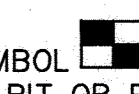
<p align="center">DEVELOPER'S CERTIFICATION</p> <p>"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING 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 align="right">  SIGNATURE OF DEVELOPER PRINT NAME BELOW SIGNATURE DATE 10/12/93 </p>	
<p align="center">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 THE PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."</p> <p align="right">  DATE 9/17/93 1800 WEST WASHINGTON BLVD. PROFESSIONAL ENGINEER, MARYLAND SEVERNA PARK, MD 21146 (410)647-2727 </p>	<p align="center">REVIEWED FOR HOWARD COUNTY S.C.D. MEETS TECHNICAL REQUIREMENTS</p> <p align="right">  DATE 10/1/93 U.S. SOIL CONSERVATION SERVICE </p> <p align="center">THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.</p> <p align="right">  APPROVED HOWARD S.C.D. DATE 10/17/93 </p>

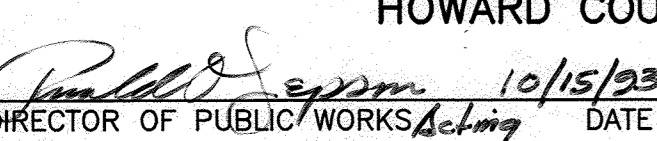
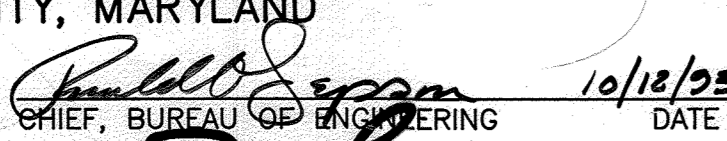




TYPE OF BUILDING: 4 RESIDENTIAL CHURCHES NUMBER OF PARCELS: 12 WATER HOUSE CONNECTIONS: 9 SEWER HOUSE CONNECTIONS: 10 DRAINAGE AREA: LITTLE PATUXENT WATER PRESSURE ZONE: 550 TEST GRADIENT 700	VICINITY MAP SCALE: 1" = 600	WATER CODE FOR COUNTY USE ONLY: WATER NO. E 29 SEWER CODE FOR COUNTY USE ONLY: SEWER NO. 5322500
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INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
2	WATER & SEWER PLAN
3	SEWER PLAN & WATER PROFILES
4	SEWER PROFILES
5	SEDIMENT CONTROL MEASURES & TRAVERSE INFORMATION

SEWER HOUSE CONNECTIONS INVERT ELEVATIONS AT PROPERTY LINE		
STATION	LOT	ELEVATIONS

- 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 - 859-9004
 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
 AT&T - 865-3803
 - 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 SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
 - 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.
 - FORCE MAINS SHALL BE DUCTILE IRON PIPE ONLY.
 - MANHOLES SHOWN WITH 12" & 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLE DESIGNATED W. T. IN PLANE AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL GS.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, 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.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	
 DIRECTOR OF PUBLIC WORKS DATE 10/15/93	 CHIEF, BUREAU OF ENGINEERING DATE 10/12/93
 CHIEF, BUREAU OF UTILITIES DATE 10-14-93	 CHIEF, WATER & SEWER DESIGN DIVISION DATE 10-12-93

 CONSULTING ENGINEERS, SURVEYORS AND LAND PLANNERS 504 BALTIMORE/ANNAPOLIS BLVD. SEVERNA PARK, MD 21146 647-2727	 STATE OF MARYLAND STEVEN THOMAS AND ASSOCIATES PROFESSIONAL ENGINEER DATE 9/17/93
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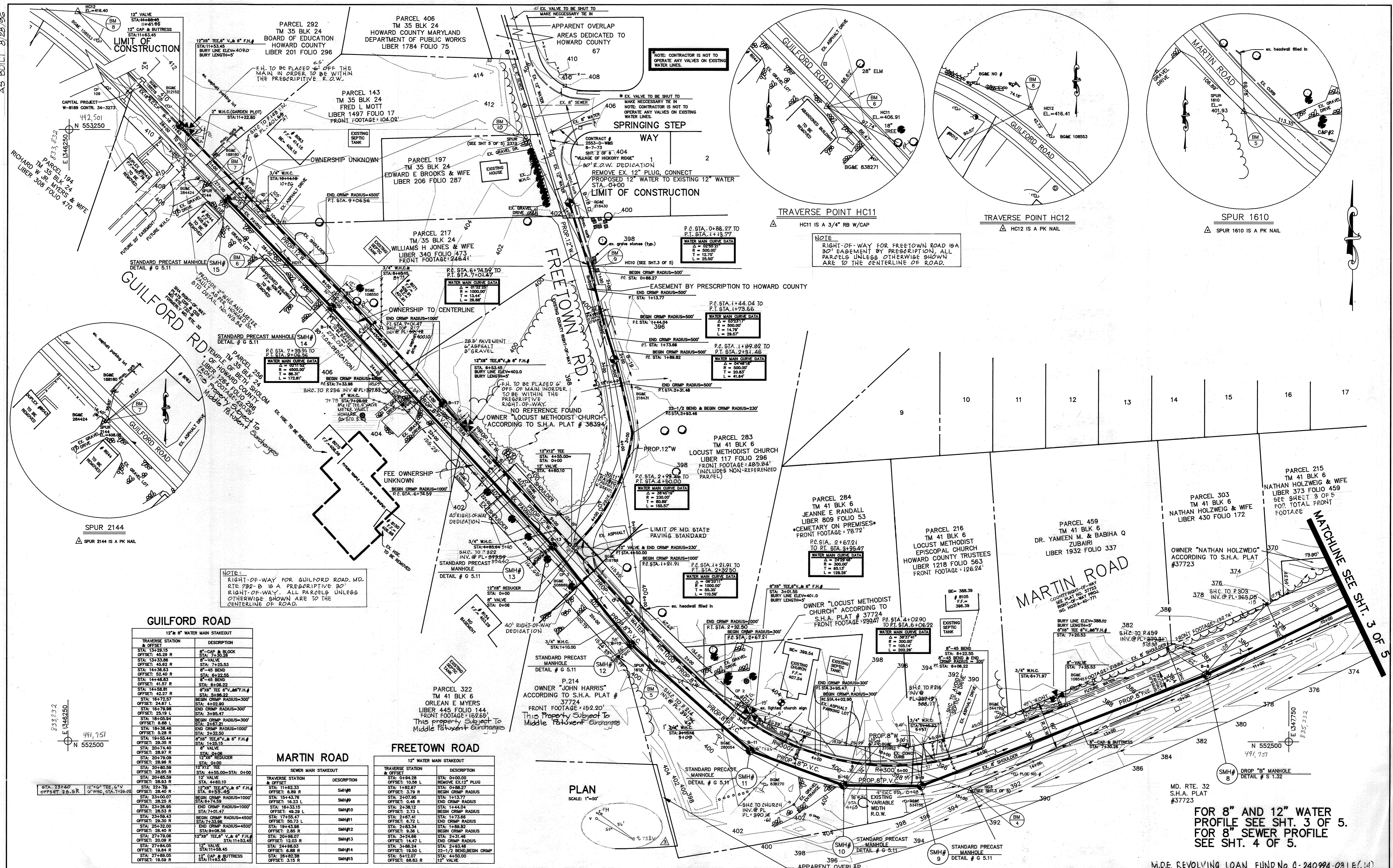
DES: D.D.S.	DDG.	1	LOWER SEWER FROM SMH 18 TO SMH 14 AND FRONT SMH 12 TO SMH 18.	12/93
DRN: D.D.S.	MM.	2	REVISED BILL OF MATERIALS	4/94
CHK: M.G.M.				
DATE: 9/93	BY	NO.	REVISION	DATE

TITLE SHEET INDEX OF DRAWINGS GENERAL NOTES	600' SCALE MAP NO. 35&41 BLOCK NO. 24&6
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M.D.E. REVOLVING LOAN FUND No. C-240994-03 LE(14) MARTIN ROAD WATER & SEWER EXTENSION CAPITAL PROJECT W-8192 CONTRACT NO. 24-3265 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET OF 5
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AS-BUILT 8/28/96

3265 WS/2 MARTIN RD. C.P. # W-8107



GUILFORD ROAD

TRaverse STATION & OFFSET	DESCRIPTION
STA: 13+28.15	8" CAP & BUTTRESS
STA: 13+33.86	8" VALVE
STA: 14+35.83	8" VALVE
STA: 14+48.83	8" VALVE
STA: 14+58.81	8" VALVE
STA: 16+72.57	8" VALVE
STA: 16+79.96	8" VALVE
STA: 18+05.94	8" VALVE
STA: 18+38.46	8" VALVE
STA: 19+55.44	8" VALVE
STA: 20+74.40	8" VALVE
STA: 20+79.08	8" VALVE
STA: 20+80.56	8" VALVE
STA: 20+83.50	8" VALVE
STA: 22+78	8" VALVE
STA: 23+29.06	8" VALVE
STA: 23+30.07	8" VALVE
STA: 23+58.83	8" VALVE
STA: 25+30.00	8" VALVE
STA: 25+32.00	8" VALVE
STA: 25+40.00	8" VALVE
STA: 27+74.06	8" VALVE
STA: 27+84.05	8" VALVE
STA: 27+85.05	8" VALVE

MARTIN ROAD

TRaverse STATION & OFFSET	DESCRIPTION
STA: 11+42.33	SMH#8
STA: 14+33.15	SMH#9
STA: 14+37.78	SMH#10
STA: 14+33.15	SMH#11
STA: 14+33.15	SMH#12
STA: 17+35.47	SMH#13
STA: 19+43.88	SMH#14
STA: 24+88.03	SMH#15
STA: 27+85.05	SMH#16

FREETOWN ROAD

TRaverse STATION & OFFSET	DESCRIPTION
STA: 0+00.00	REMOVE EX. 12" PLUG
STA: 0+88.27	BEGIN CRIMP RADIUS
STA: 1+33.15	END CRIMP RADIUS
STA: 2+07.95	BEGIN CRIMP RADIUS
STA: 2+36.12	END CRIMP RADIUS
STA: 2+73.21	BEGIN CRIMP RADIUS
STA: 3+67.41	END CRIMP RADIUS
STA: 4+72.14	BEGIN CRIMP RADIUS
STA: 5+83.34	END CRIMP RADIUS
STA: 6+88.82	BEGIN CRIMP RADIUS
STA: 8+34.74	END CRIMP RADIUS
STA: 10+50.00	BEGIN CRIMP RADIUS
STA: 12+00.00	END CRIMP RADIUS

PLAN

SCALE: 1"=50'

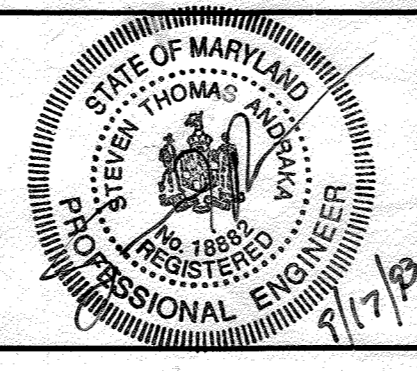
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Paul D. Sporn 10/15/93 *Paul D. Sporn* 10/12/93
DIRECTOR OF PUBLIC WORKS Acting CHIEF, BUREAU OF ENGINEERING DATE

Robert J. D'Amico 10-14-97 *Robert J. D'Amico* 10-18-93
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



DES: D.D.S.	1	LOWER SEWER FROM SMH 10 TO SMH 11 AND FROM SMH 11 TO SMH 12	12/98
DRN: D.D.S.	2	ADDED 6" 12" TEE, VALVE, REMOVED 2" METER	4/94
CHK: M.A.M.	3	ADO AS-BUILD	11/23
DATE: 9/93			
BY NO.		REVISION	DATE

CADD DWG: MAR2

WATER & SEWER PLAN

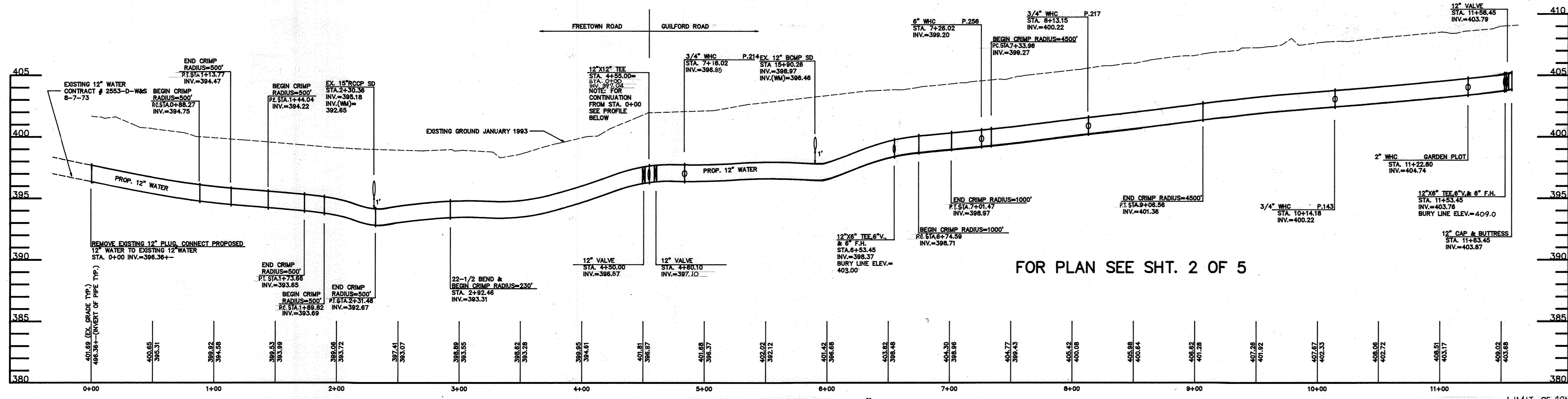
600' SCALE MAP NO. 35&41 BLOCK NO. 24&6

MARTIN ROAD WATER & SEWER EXTENSION

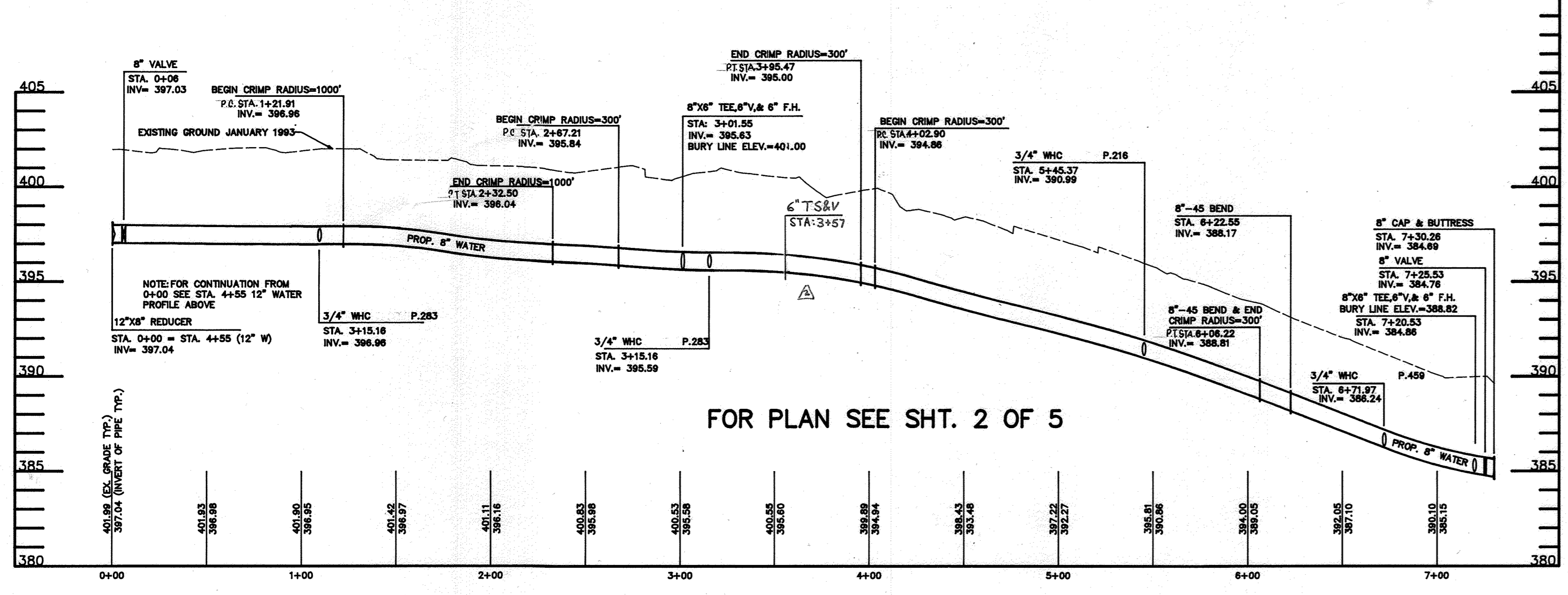
CAPITAL PROJECT W-8192
CONTRACT NO. 24-3265
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET OF 5

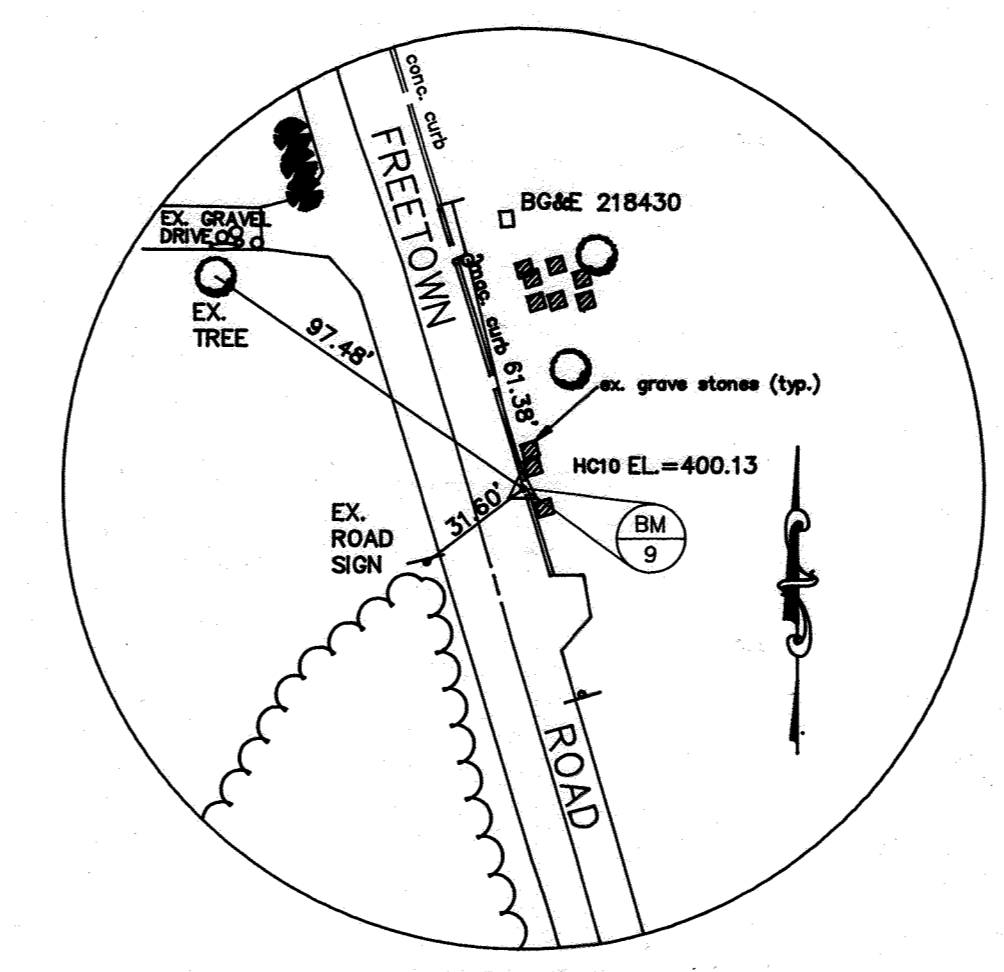
3265 WS/B MARTIN RD. C.P. # W-8192 AS BUILT 8/28/93



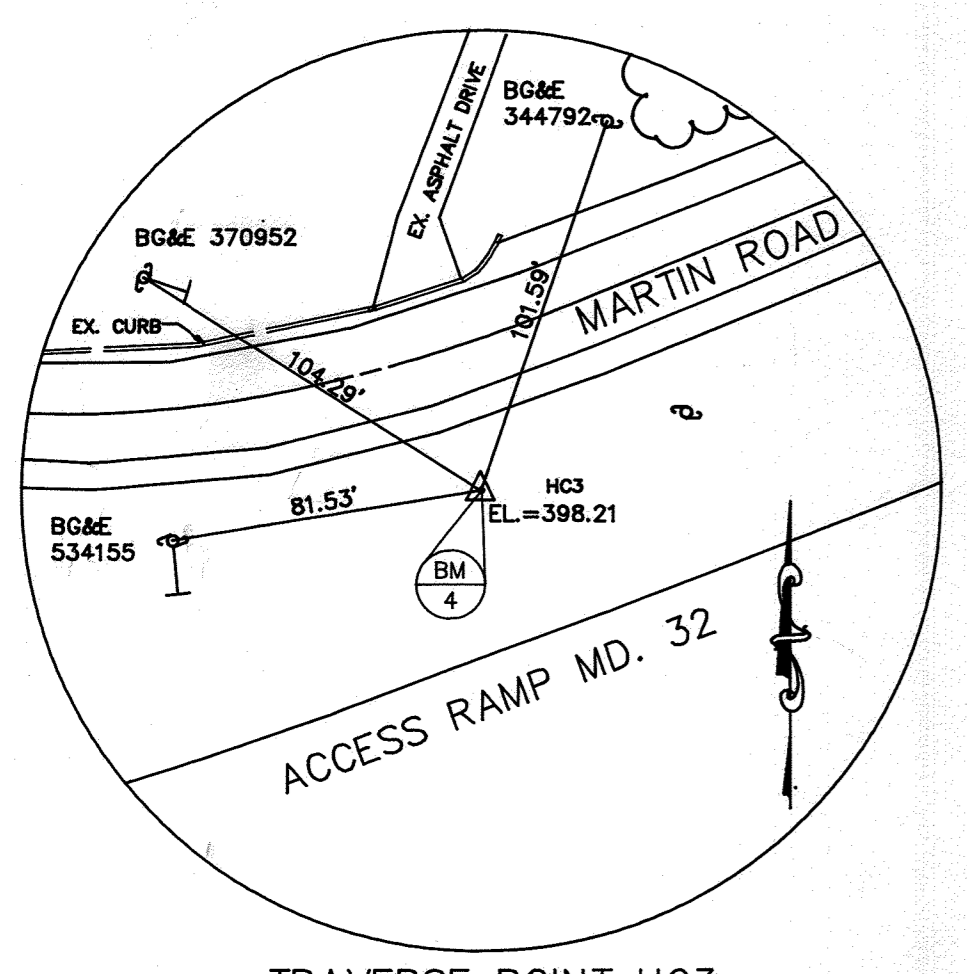
PROFILE PROPOSED 12" WATER
SCALE: HOR: 1"=50' VERT: 1"=5'



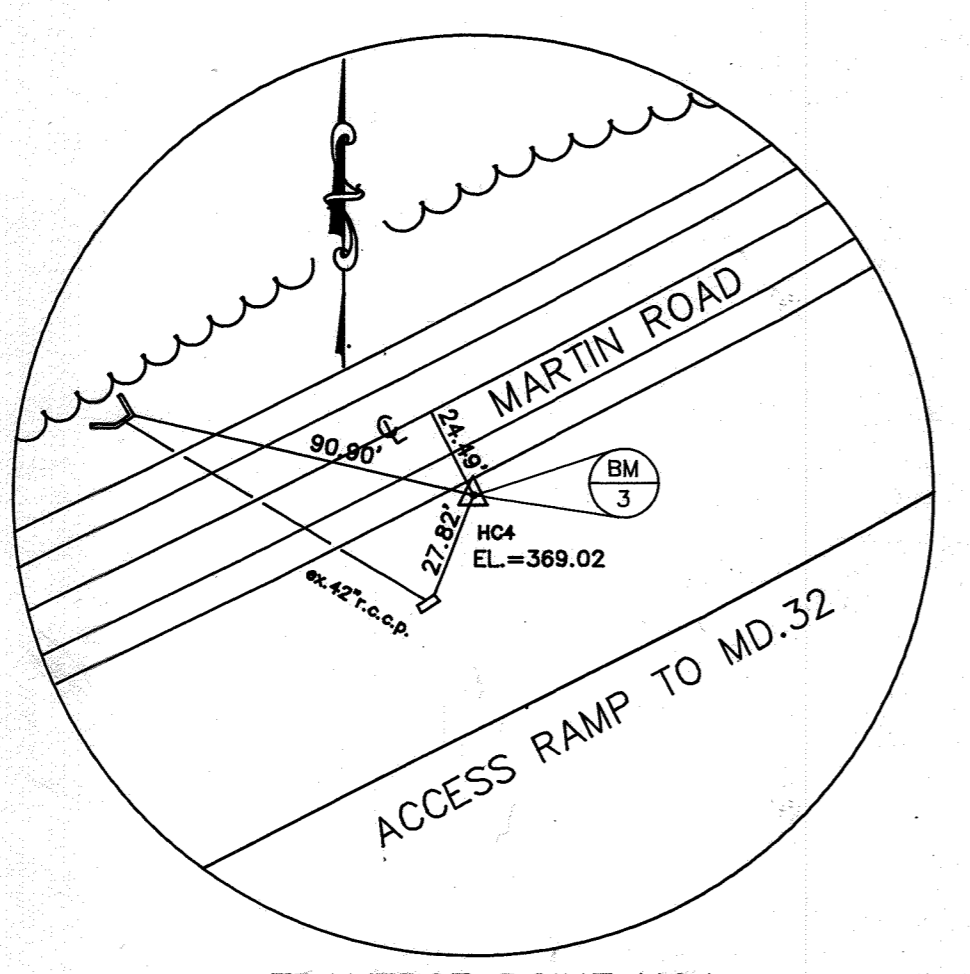
PROFILE PROPOSED 8" WATER
SCALE: HOR: 1"=50' VERT: 1"=5'



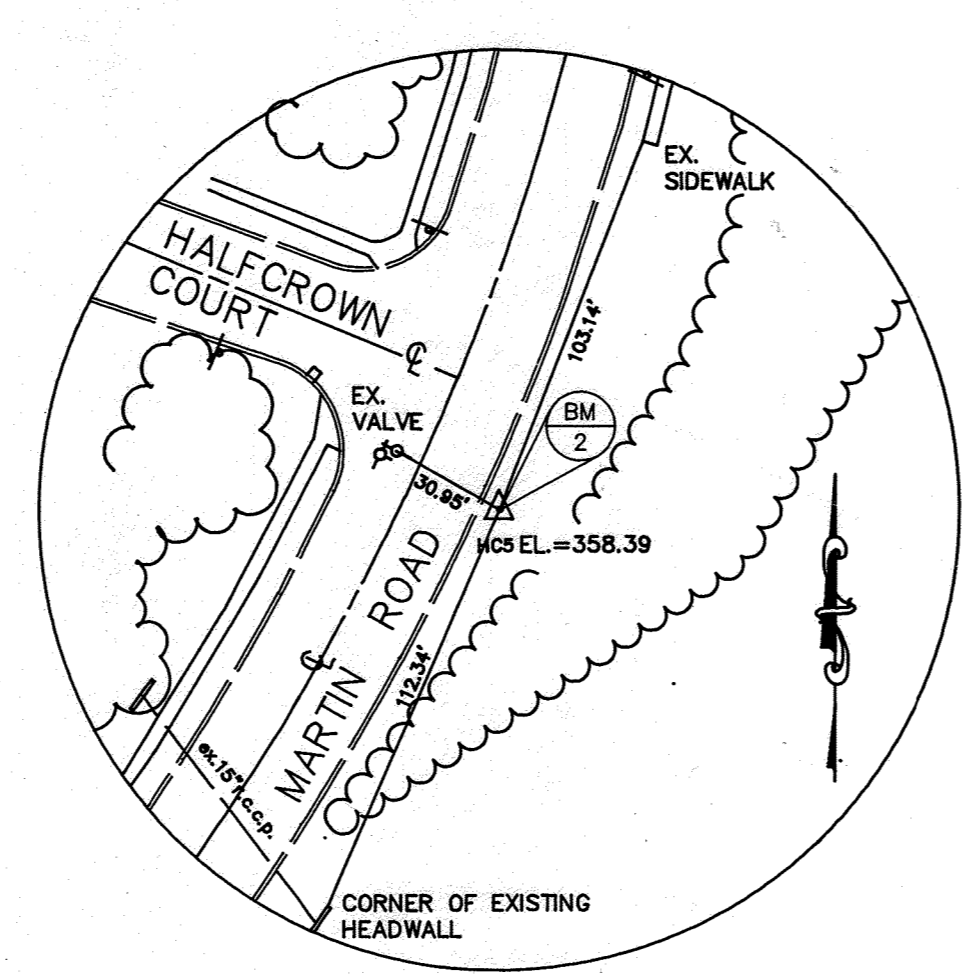
TRAVERSE POINT HC10
HC10 IS A 3/4" RB W/CAP



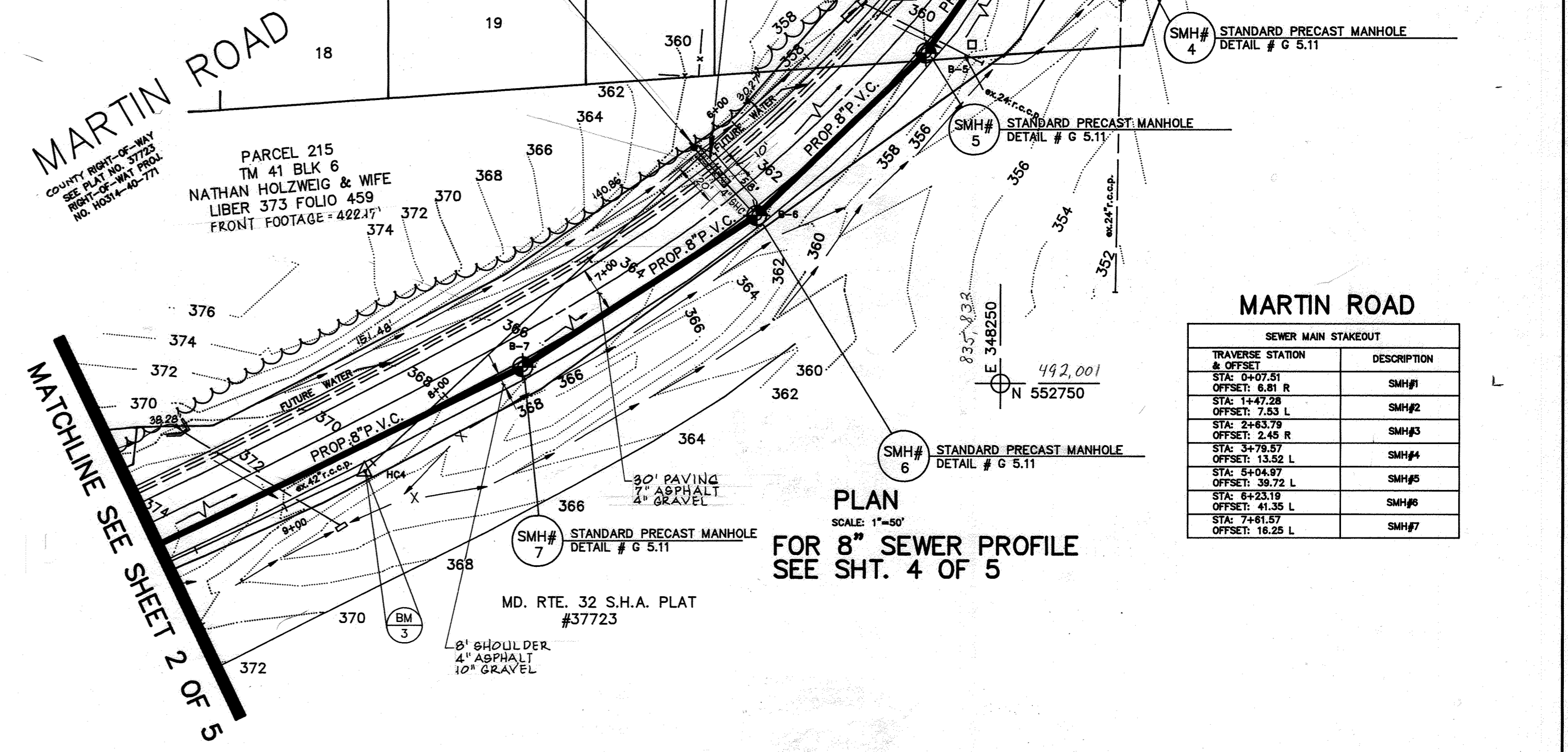
TRAVERSE POINT HC3
HC3 IS A 3/4" RB W/CAP



TRAVERSE POINT HC4
HC4 IS A 3/4" RB W/CAP



TRAVERSE POINT HC5
HC5 IS A 3/4" RB W/CAP



PLAN
SCALE: 1"=50'
FOR 8" SEWER PROFILE
SEE SHT. 4 OF 5

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Richard Eason 10/15/93
DIRECTOR OF PUBLIC WORKS DATE

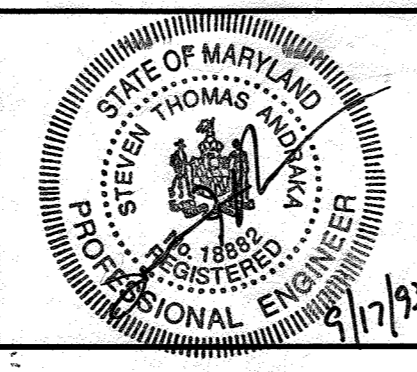
Richard Eason 10/15/93
CHIEF, BUREAU OF ENGINEERING DATE

Richard Eason 10-14-93
CHIEF, BUREAU OF UTILITIES DATE

Richard Eason 10-12-93
CHIEF, WATER & SEWER DESIGN DIVISION DATE

dfi CONSULTING ENGINEERS, SURVEYORS
AND LAND PLANNERS

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



DES: D.D.S.	D.D.B.	1	LOWER SEWER FROM SMH#10 TO SMH#14 AND FROM SMH#14 TO SMH#10	12/99
DRN: D.D.S.	WRA	2	ADD AS-BUILT	11/23
CHK: M.a.M.				
DATE: 9/93				
BY	NO.		REVISION	DATE

CADD DWG: MAR3

**SEWER PLAN
& WATER PROFILES**

600' SCALE MAP NO. 35&41 BLOCK NO. 24&6

M.D.E. REVOLVING LOAN FUND No. C-240994-03LE(14)

MARTIN ROAD WATER & SEWER EXTENSION
CAPITAL PROJECT W-8192
CONTRACT NO. 24-3265
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

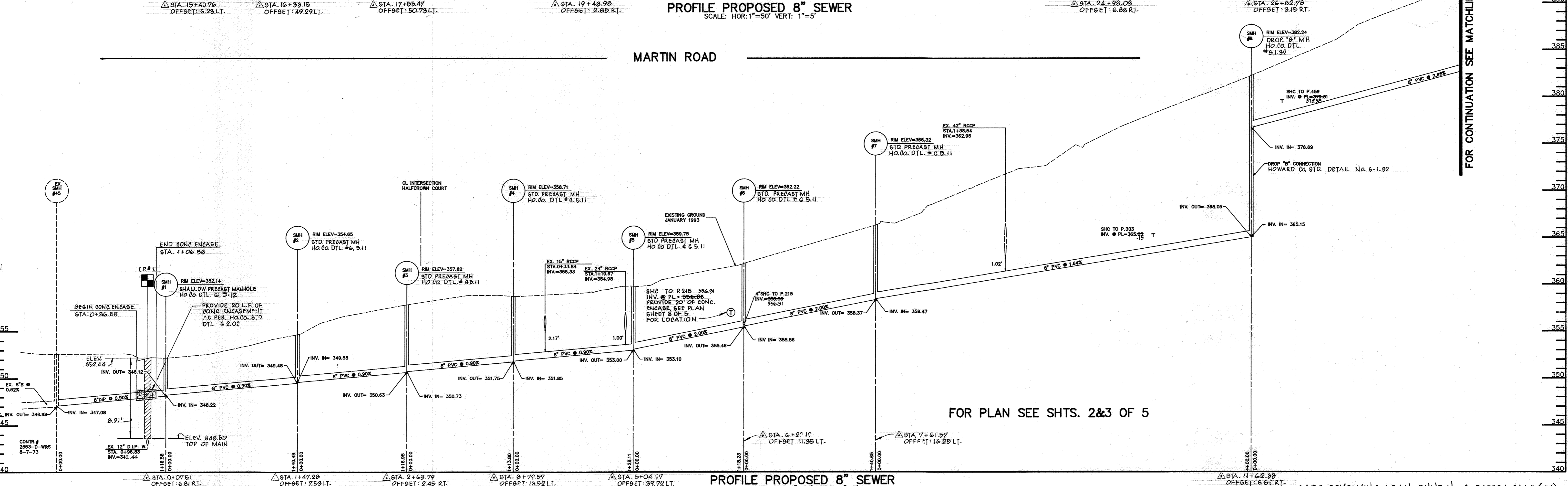
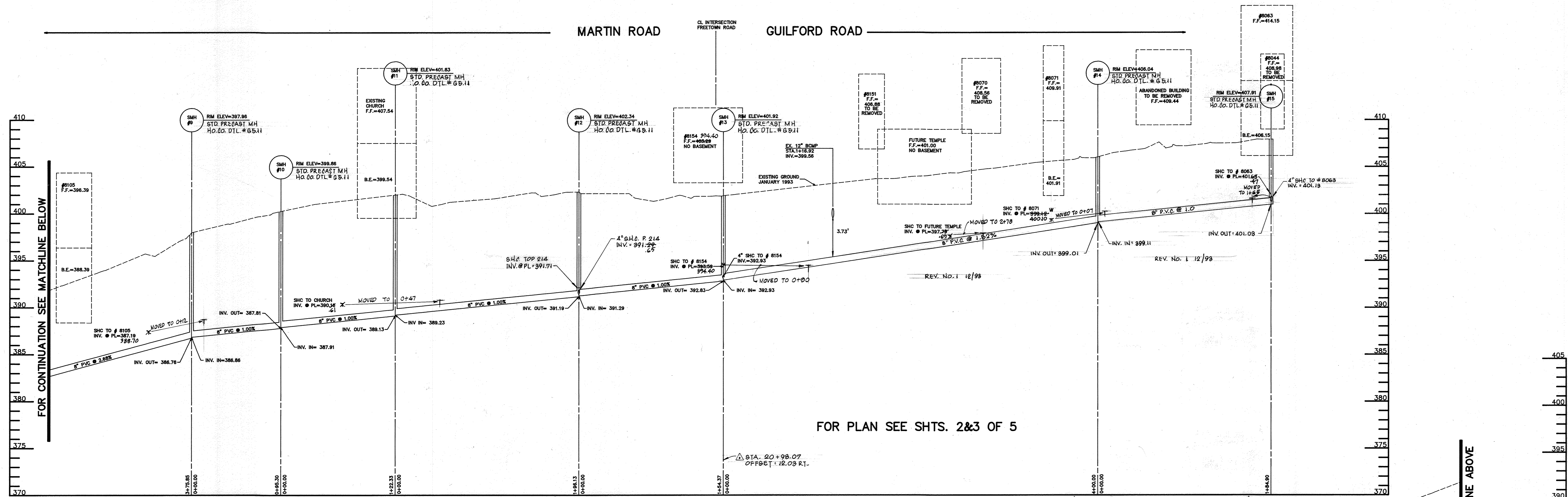
SCALE AS SHOWN

SHEET 3 OF 5

AS BUILT 8/28/93

3265 WS/4 MARTIN RD. C.P. # W-819Z

AS BUILT 8/28/96



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Ronald D. Reppon 10/15/93
DIRECTOR OF PUBLIC WORKS DATE

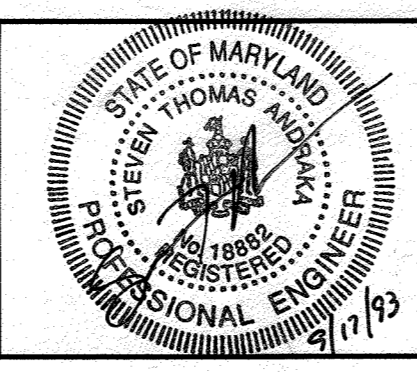
Ronald D. Reppon 10/10/93
CHIEF, BUREAU OF ENGINEERING DATE

Ruth A. Berman 10-14-93
CHIEF, BUREAU OF UTILITIES DATE

By Dan Kim 10-12-93
CHIEF, WATER & SEWER DESIGN DIVISION DATE

dfi CONSULTING ENGINEERS, SURVEYORS
AND LAND PLANNERS

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



DES: D.D.S.	D.D.S.	1	LOWER SEWER FROM SMH 13 TO SMH 14 AND FROM SMH 14 TO SMH 15.	12/93	CADD DWG: MAR-4
DRN: D.D.S.					
CHK: M.a.M.					
DATE: 9/93	BY	NO.	REVISION	DATE	600' SCALE MAP NO. 35&41 BLOCK NO. 24&6

SEWER PROFILES

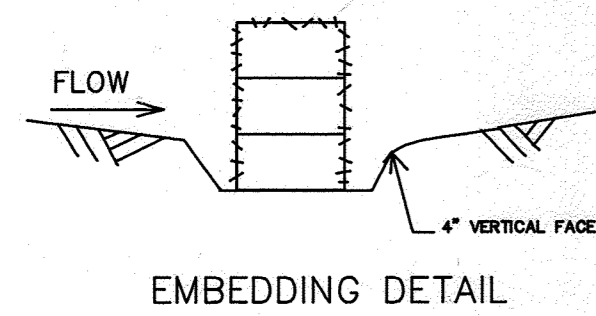
MARTIN ROAD WATER & SEWER EXTENSION

CAPITAL PROJECT W-8192
CONTRACT NO. 24-3265
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

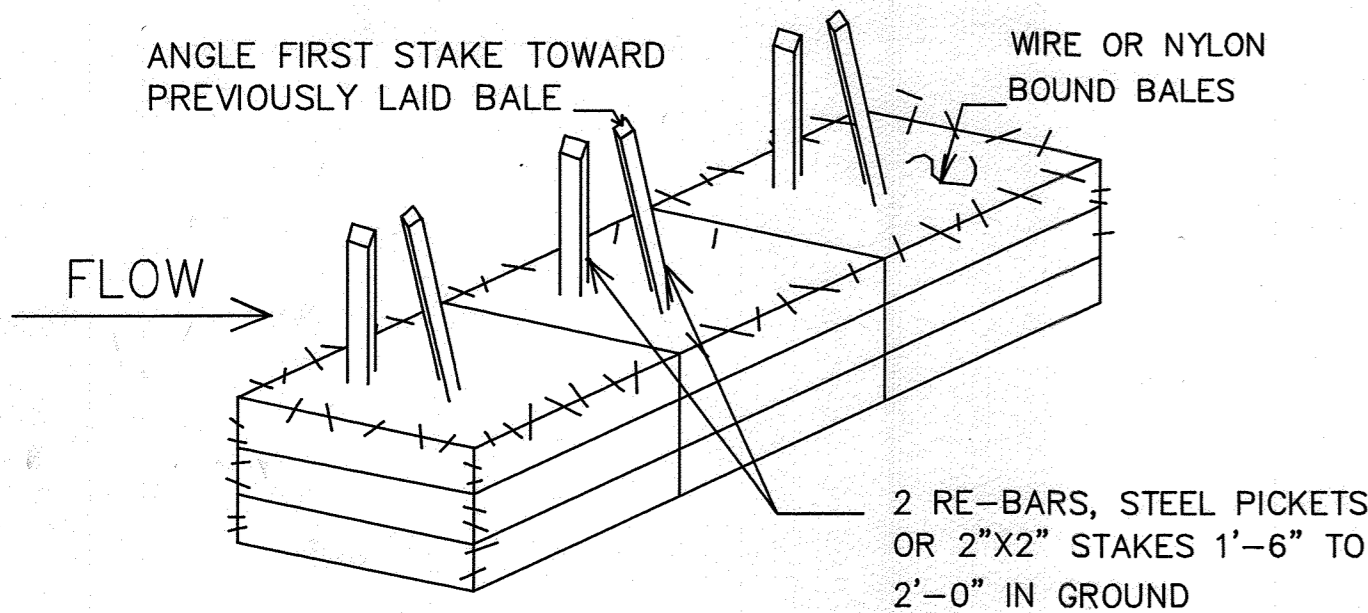
SCALE AS SHOWN
SHEET 4 OF 5

AS BUILT 8/28/96

3265 WS/5 MARTIN RD. C.P.# W-819Z



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 DITCH TO THE GRADE SPECIFIED ON THE PROFILE.
- 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.

NOTE: TRENCH LENGTH IS LIMITED TO THREE (3) PIPE LENGTHS, OR THAT WHICH WOULD BE BACKFILLED AND STABILIZED IN ONE WORKING DAY.

TRAVERSE DESCRIPTION				
POINT NO.	NORTH	EAST	BEARING	DISTANCE
SPUR 2513			S 11 20 37 W	306.94'
HC5	553,081.174	1,348,329.506	S 46 51 47 W	548.89'
HC4	552,705.870	1,347,928.967	S 64 54 50 W	628.64'
HC3	552,439.503	1,347,359.626	N 69 11 46 W	422.39'
SPUR 1610	552,589.358	1,346,964.770	N 42 09 45 W	667.17'
HC11	553,083.891	1,346,516.946	N 43 37 24 W	137.49'
SPUR 2144	553,183.418	1,346,422.090	N 41 21 24 W	666.87'
HC12	553,683.976	1,345,981.462	S 27 42 30 E	176.68'
SPUR 2373	553,239.239	1,346,811.463	S 08 12 20 E	498.57'
HC10	553,082.777	1,346,893.652		
SPUR 1610	552,589.358	1,346,964.770		

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.

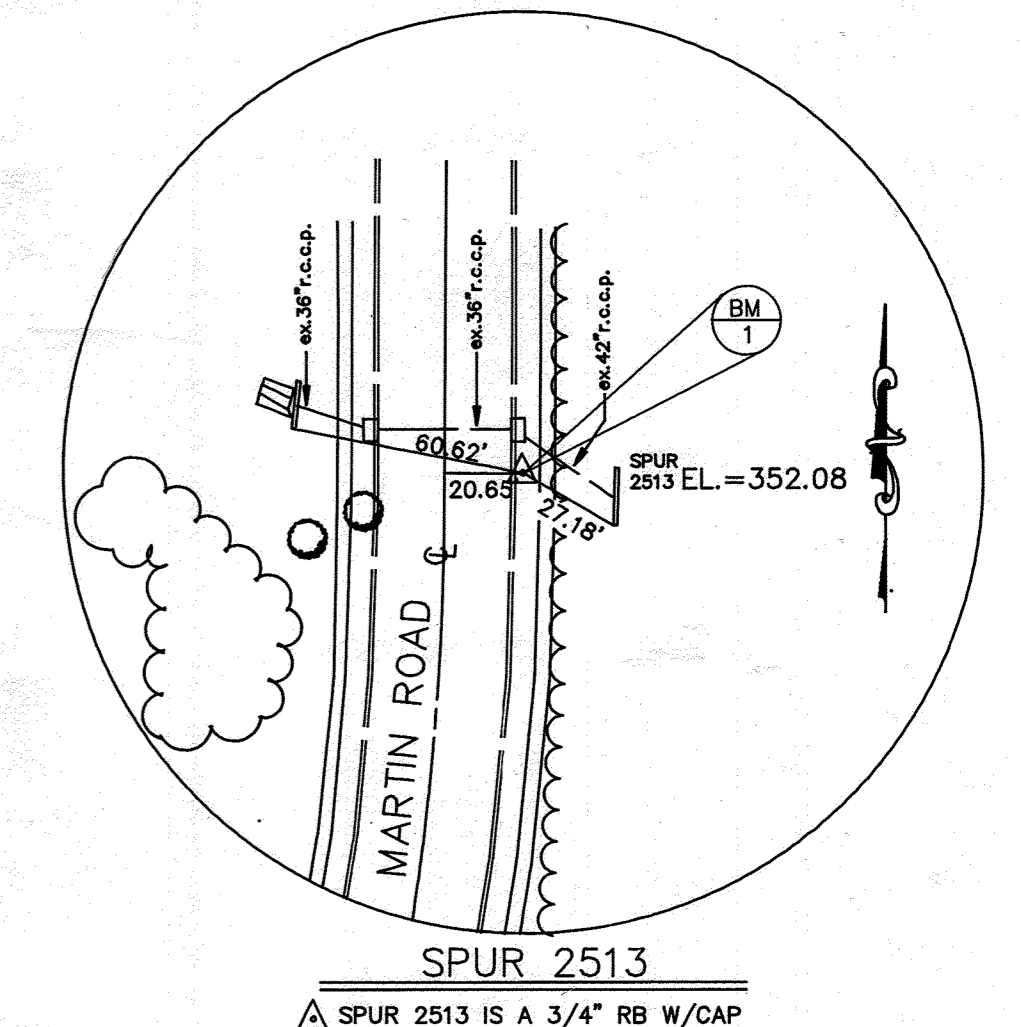
MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 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.

* SEE PLAN SHEET 10.2
NOTE: STA. 20+42 TO 20+98.07 USE SHA PAV'T RESTORATION

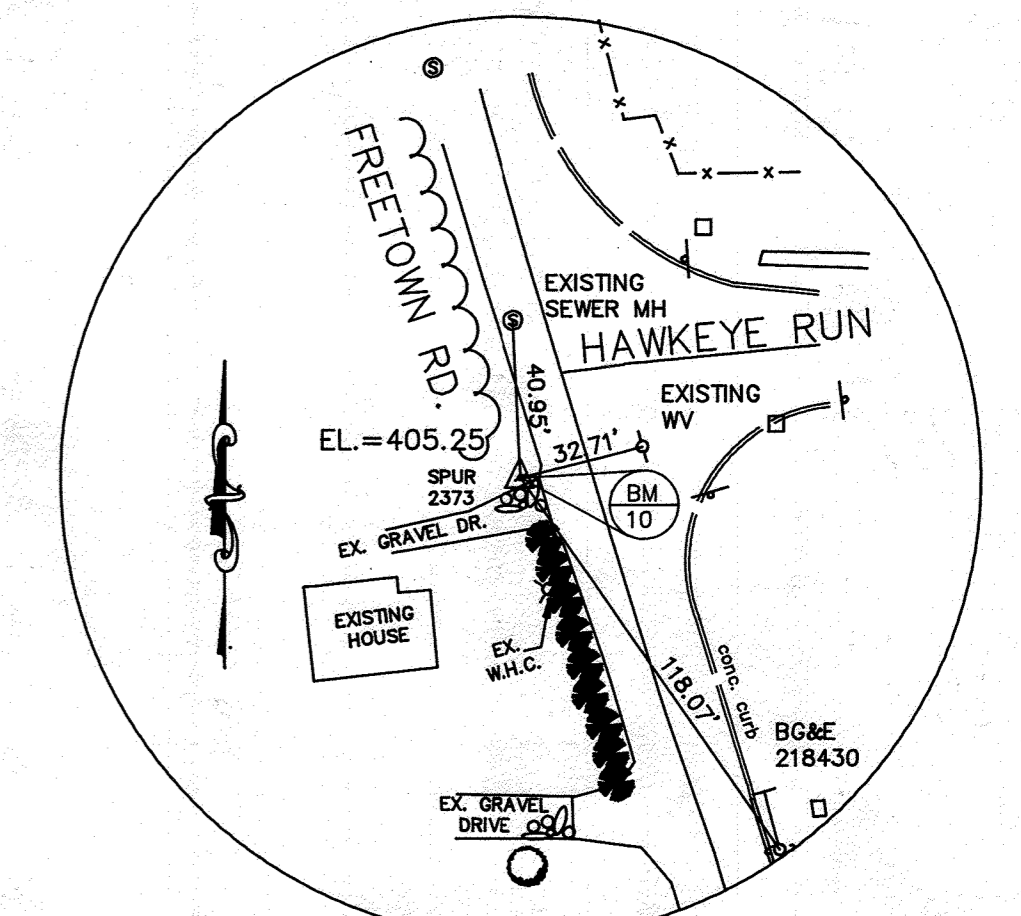
SEDIMENT CONTROL NOTES

- 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. (313-1855)
- 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 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 ACRES
AREA DISTURBED 1 ACRES
AREA TO BE ROOFED OR PAVED 0.95 ACRES
AREA TO BE VEGETATIVELY STABILIZED 0.05 ACRES
TOTAL CUT 16,133 CU.YDS.
TOTAL FILL 16,133 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.



SPUR 2513

SPUR 2513 IS A 3/4" RB W/CAP



SPUR 2373

SPUR 2373 IS A 3/4" RB W/CAP

RESTORATION SCHEDULE

LOCATION	LENGTH	MATERIAL
WATER		
12" WATER STA. 0+00 TO STA. 4+55.00 (FREETOWN RD.)	455'	PAVEMENT (TO BE RESTORED AS PER PAVING SECTION P-3 HO. CO. DETAIL # R-2.01 GRANULAR BASE)
12" WATER STA. 4+55.00 TO STA. 11+63.45 (GUILFORD RD.)	708.45'	PAVEMENT (TO BE RESTORED AS PER STANDARD NUMBER MD-578.01 SHA STANDARD DETAILS)
8" WATER STA. 0+00 TO STA. 7+30.26 (MARTIN RD.)	730.26'	PAVEMENT (TO BE RESTORED AS PER PAVING SECTION P-3 HO. CO. DETAIL # R-2.01 GRANULAR BASE)
SEWER		
EX. MH 45 TO MH 1 STA. 0+07.51	116.96'	4" TOPSOIL, SEED AND MULCH
MH1 STA. 0+07.51 TO MH2 STA. 1+47.28	140.49'	PAVEMENT (TO BE RESTORED AS PER STANDARD NUMBER MD-578.01 SHA STANDARD DETAILS)
MH2 STA. 1+47.28 TO MH3 STA. 2+63.97	116.95'	PAVEMENT -
MH3 STA. 2+63.97 TO MH4 STA. 3+79.57	113.80'	PAVEMENT -
MH4 STA. 3+79.57 TO MH5 STA. 5+04.97	128.11'	PAVEMENT -
MH5 STA. 5+04.97 TO MH6 STA. 6+23.19	118.23'	PAVEMENT -
MH6 STA. 6+23.19 TO MH7 STA. 7+61.57	140.65'	PAVEMENT -
MH7 STA. 7+61.57 TO MH8 STA. 11+62.33	400.00'	PAVEMENT -
MH8 STA. 11+62.33 TO MH9 STA. 15+43.76	375.85'	PAVEMENT -
MH9 STA. 15+43.76 TO MH10 STA. 16+33.15	95.30'	PAVEMENT -
MH10 STA. 16+33.15 TO MH11 STA. 17+55.47	122.33'	PAVEMENT -
MH11 STA. 17+55.47 TO MH12 STA. 19+43.98	196.13'	PAVEMENT -
MH12 STA. 19+43.98 TO MH13 STA. 20+98.07	154.37'	PAVEMENT -
MH13 STA. 20+98.07 TO MH14 STA. 24+98.03	400.00'	PAVEMENT (TO BE RESTORED AS PER STANDARD NUMBER MD-578.01 SHA STANDARD DETAILS)
MH14 STA. 24+98.03 TO MH15 STA. 26+82.38	184.90'	PAVEMENT -

M.D.E. REVOLVING LOAN FUND No. 0-240994-03 LE (14)

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works DATE 10/15/93
Chief, Bureau of Engineering DATE 10/12/93
Chief, Bureau of Utilities DATE 10-14-93
Chief, Water and Sewer Design Division DATE 10-12-93

CONSULTING ENGINEERS, SURVEYORS AND LAND PLANNERS

dfi

504 BALTIMORE/ANNAPOLIS BLVD.
SEVERNA PARK, MD 21146 847-2727

STATE OF MARYLAND
THOMAS M. BAKER
PROFESSIONAL ENGINEER

DES: D.D.S.	D.D.S.	1	LOWER SEWER FROM BMH 13 TO BMH 14 AND FROM BMH 14 TO BMH 15.	12/93
DRN: D.D.S.	M.M.	2	REVISED RESTORATION SCHEDULE	4/94
CHK: M.a.M.				
DATE: 9/93	BY	NO.	REVISION	DATE

CADD DWG: MARSED

SEDIMENT CONTROL MEASURES & TRAVERSE INFORMATION

600' SCALE MAP NO. 35&41 BLOCK NO. 24&6

MARTIN ROAD WATER & SEWER EXTENSION
CAPITAL PROJECT W-8192
CONTRACT NO. 24-3265
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 5 OF 5