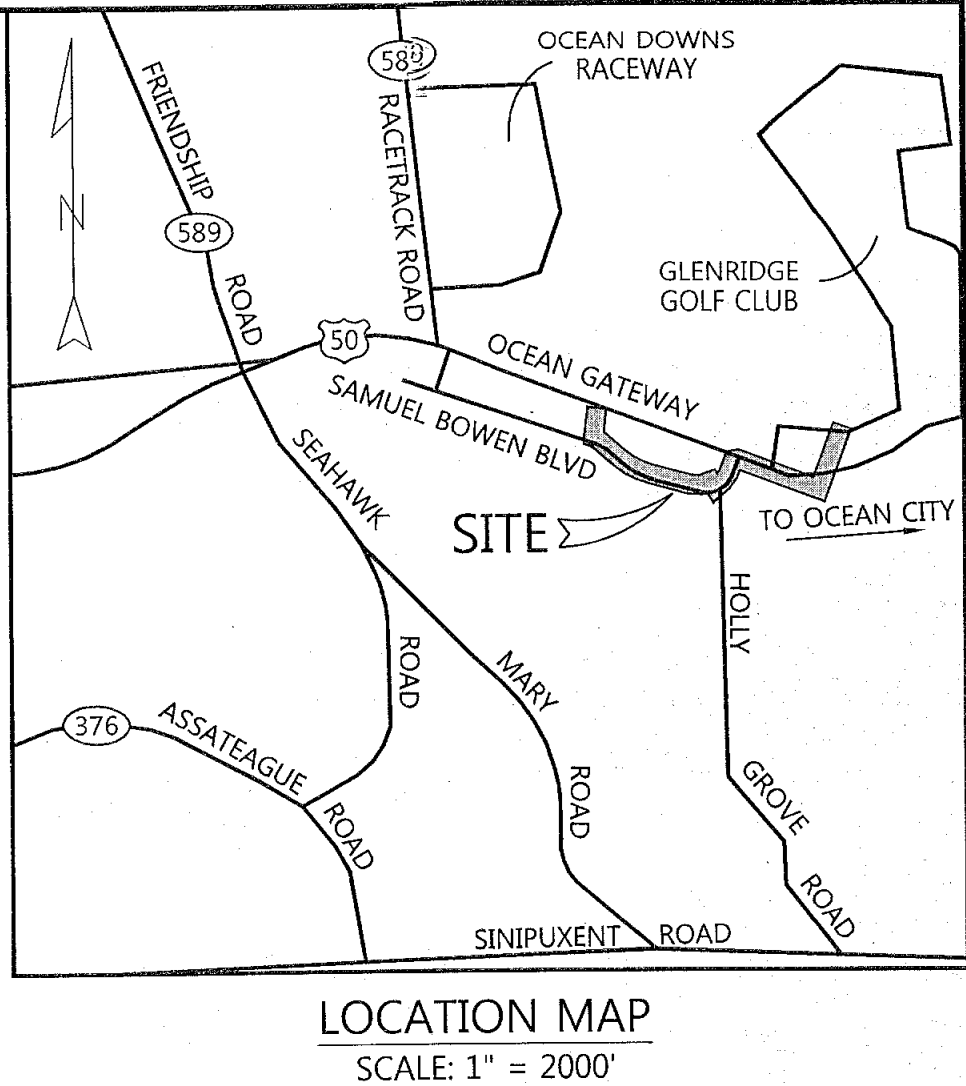
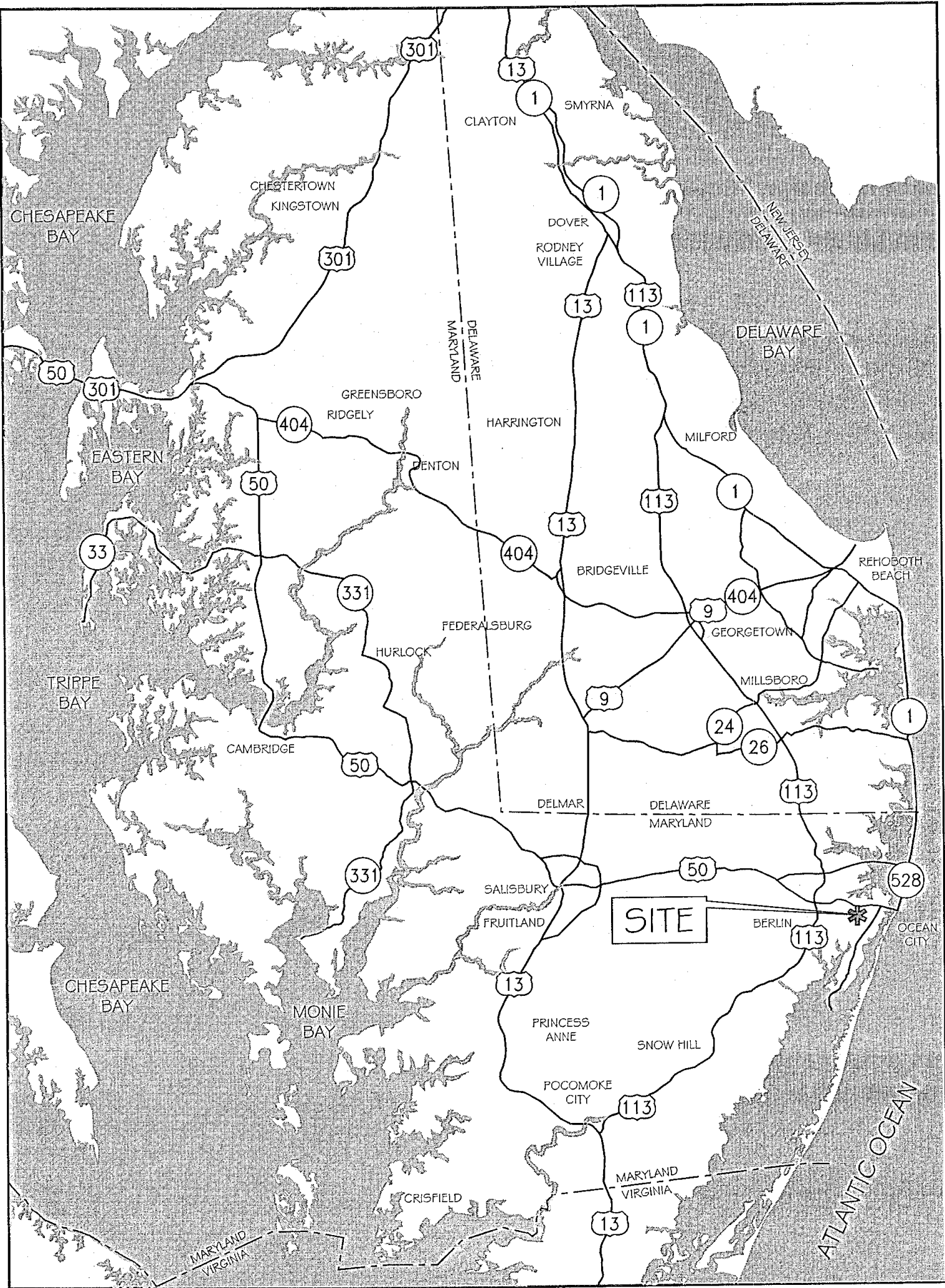


GLEN RIDDLE SERVICE AREA
DISTRICT 'B'
SANITARY SEWER & WATER MAIN EXTENSION
OCEAN GATEWAY HIGHWAY
WORCESTER COUNTY, MARYLAND



GENERAL NOTES:

- THESE DRAWINGS AND THE BASE TOPOGRAPHY DRAWINGS ARE BASED ON A COMPILED OF SURVEY PERFORMED BY COARD BOUNDS DATED OCTOBER 14, 2013; AERIAL TOPOGRAPHY PROVIDED BY WORCESTER COUNTY; AS-BUILT DRAWINGS FOR SAMUEL BOWEN BOULEVARD, PREPARED BY GEORGE WILLIAM STEPHENS, JR. & ASSOCIATES, INC., DATED APRIL 24, 2012; AND AS-BUILT DRAWINGS FOR RIDDLE FARM P.L.D., PREPARED BY VISTA DESIGN, DATED MARCH 22, 2005.
- ALL WATER AND SEWER UTILITY IMPROVEMENTS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH "WORCESTER COUNTY STANDARD SPECIFICATIONS FOR WATER MAINS AND SANITARY SEWERS".
- WATER METERS SHALL BE NEPTUNE WITH R-900 RADIO READ.
- EXISTING UTILITIES ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION.
- BEFORE ANY EXCAVATION IS PERFORMED, CONTRACTOR SHALL CALL "MISS UTILITY" (1-800-441-8355) AT LEAST 48 HOURS PRIOR TO EXCAVATION AND TO HAVE UNDERGROUND UTILITIES LOCATED AND MARKED.
- CONTRACTOR SHALL DETERMINE THE LOCATION OF RIGHT-OF-WAY LINES AND PROPERTY LINES TO HIS OWN SATISFACTION. ALL PROPOSED WORK TO BE CONSTRUCTED WITHIN THE STREET RIGHT-OF-WAY OR EASEMENT AREAS PROVIDED. ANY DISTURBED AREAS BEYOND THE RIGHT-OF-WAY OR EASEMENT LINES SHALL BE RESTORED IMMEDIATELY TO THEIR ORIGINAL CONDITION.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY STAKE OUT OF LINE AND GRADE FOR ALL WORK.
- CONTRACTOR SHALL REPAIR OR REPLACE IN KIND ANY EXISTING FEATURES DAMAGED OR DESTROYED DURING CONSTRUCTION.
- CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF ALL PERMITS SECURED, WHICH TAKE PRECEDENCE OVER SPECIFICATIONS.
- CONTRACTOR SHALL ADJUST TO FINISH GRADE AS REQUIRED ANY VALVE BOXES, MANHOLES, ETC. PRIOR TO SURFACING.
- CONTRACTOR TO VERIFY TYPE, SIZE & LOCATION OF WATER AND SEWER RECONNECTIONS TO HIS SATISFACTION. ANY DISCREPANCIES BETWEEN EXISTING AND PROPOSED INFRASTRUCTURE SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
- MAINTAIN A MINIMUM OF 3'-6" COVER OVER NEW WATER MAIN UNLESS NOTED OR SHOWN OTHERWISE.
- ALL NEW WATER METERS AND SEWER CLEANOUTS SHALL BE LOCATED OUTSIDE OF PAVED AREAS.
- MAINTAIN A MINIMUM OF 10'-0" HORIZONTAL SEPARATION BETWEEN WATER AND SEWER MAINS.
- MAINTAIN AN 18" VERTICAL SEPARATION BETWEEN OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER AT CROSSINGS. AT CROSSINGS, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. WHEN IT IS IMPOSSIBLE TO OBTAIN THE MINIMUM SPECIFIED SEPARATION DISTANCES, WORCESTER COUNTY MUST SPECIFICALLY APPROVE ANY VARIANCE FROM THE REQUIREMENTS WITH DATA SUPPORTED BY THE DESIGN ENGINEER.
- ALL SEWER LINES SHALL BE SDR-35.
- ALL WATER MAIN PIPE SHALL BE C-900 EXCEPT FOR AREAS CONSTRUCTED BY TRENCHLESS TECHNOLOGY WHICH MAY BE HDPE.
- FIRE HYDRANTS SHALL BE KENNEDY OR APPROVED EQUAL AND SHALL BE INSTALLED A MINIMUM OF 3 FEET BEHIND CURB OR EDGE OF PAVEMENT.
- CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED GEOTECHNICAL ENGINEER TO PERFORM COMPACTION TESTS AND MONITOR BACKFILL DURING CONSTRUCTION. BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST.
- CONTRACTOR SHALL EXCAVATE ONLY AS MUCH TRENCH AS CAN BE BACKFILLED AT THE END OF EACH DAY. SOIL SHALL BE STOCKPILED ON THE HIGH SIDE OF THIS TRENCH.



SHEET INDEX

- | | |
|-----|--|
| 1 | COVER SHEET |
| 2-3 | WATER & SEWER PLAN SHEETS |
| 4 | SANITARY SEWER PROFILE SHEET |
| 5-6 | WATER & SEWER DETAILS SHEETS |
| 6A | SEDIMENT & EROSION CONTROL NOTES AND DETAILS |

RECORD DRAWING

AUGUST 2017

"THIS RECORD DRAWING HAS BEEN PREPARED BY DBF, INC., IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE DESIGN PROFESSIONAL ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS RECORD DRAWING OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT OF INCORRECT INFORMATION PROVIDED TO THE DESIGN PROFESSIONAL. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY."

THE WATER AND/OR SEWER FACILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS ARE APPROVED BY THE WORCESTER COUNTY WATER AND WASTEWATER DIVISION.	
WORCESTER COUNTY, WATER AND WASTEWATER DIVISION	
THE WATER AND/OR SEWER FACILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS ARE APPROVED BY THE WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS.	
DIRECTOR WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS	

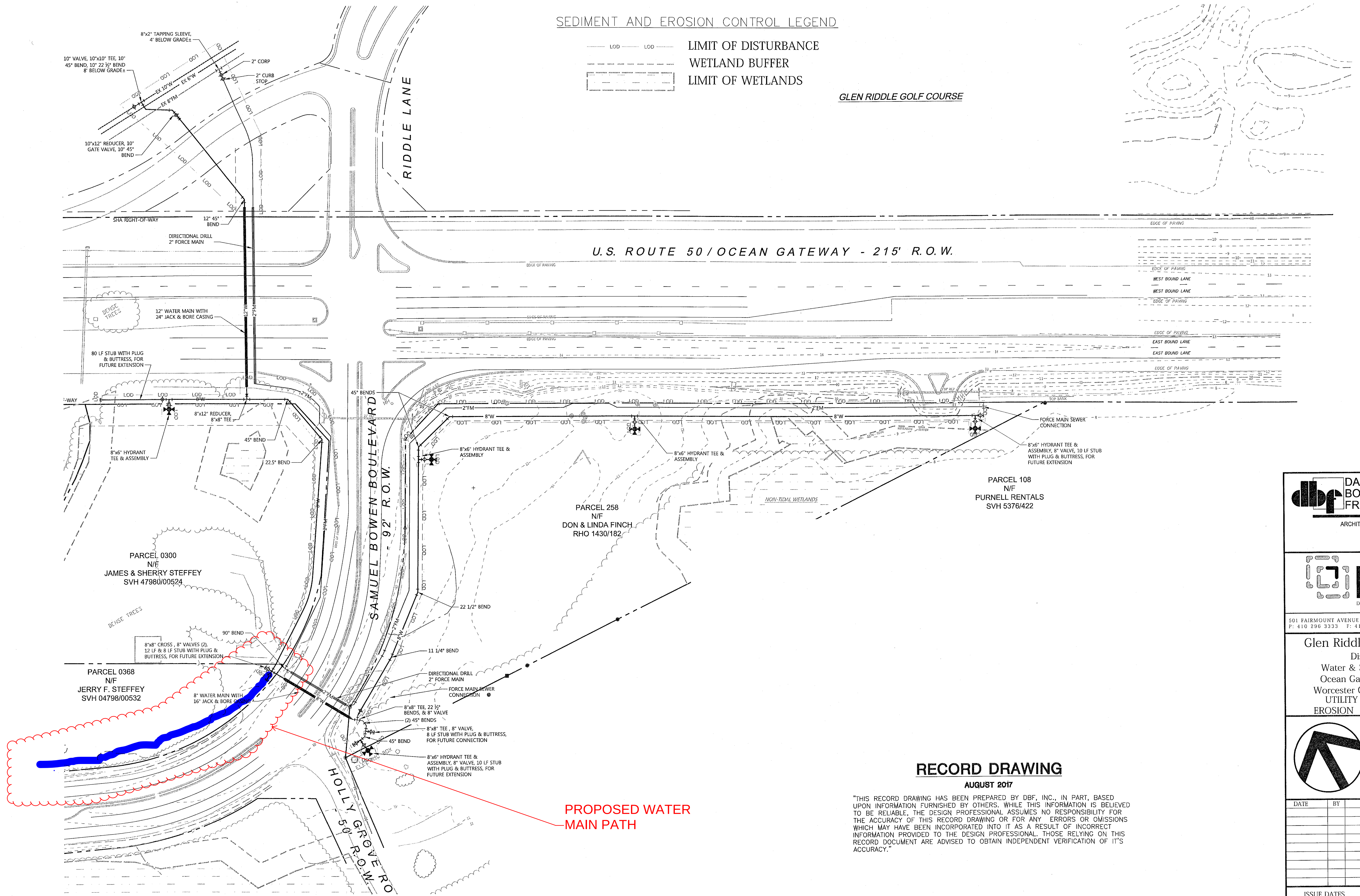
WORCESTER COUNTY DEPARTMENT OF DEVELOPMENT, REVIEW, AND PERMITTING				
APPROVED:	DEVELOPMENT, REVIEW, & PERMITTING	DATE		
APPROVED:	STORMWATER MANAGEMENT	DATE		
REVIEWED IN ACCORDANCE WITH LOCAL COUNTY REQUIREMENTS. WORCESTER COUNTY ASSUMES NO LIABILITY FOR DESIGN AND/OR CONSTRUCTION. APPROVAL IS VALID FOR TWO (2) YEARS (ONE (1) YEAR IF PUBLIC WATER AND SEWER IS INVOLVED) AFTER THE LAST DATE SHOWN ABOVE. THE PROJECT MUST BE UNDER CONSTRUCTION BEFORE SAID DATE TO BE CONSIDERED ACTIVE. OTHERWISE, RESUBMITTAL OF PLANS MUST BE MADE TO DEVELOPMENT REVIEW FOR REAPPROVAL. REVIEW FEES NECESSARY FOR REAPPROVAL SHALL ACCOMPANY THE RESUBMITTAL. FEES CANNOT BE WAIVED.				
REV. #	DATE	REVISION DESCRIPTION *FILL IN THESE BLOCKS FOR REVISIONS ONLY	ENGINEER/ CONSULTANT DATE AND INITIAL	DEV. REVIEW DATE AND INITIAL

REVIEWED FOR WORCESTER S.C.D. AND MEETS TECHNICAL REQUIREMENTS	
SIGNATURE	DATE
NATURAL RESOURCES CONSERVATION SERVICE	
SCD AND NRCS APPROVAL FOR SEDIMENT AND EROSION CONTROL IS CONTINGENT UPON ISSUANCE OF ALL APPLICABLE REGULATORY PERMITS	
ENGINEER'S DESIGN CERTIFICATION	
I HEREBY CERTIFY, TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH LOCAL ORDINANCES, COMAR 08.05.01, AND THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS ADOPTED BY THE STATE OF MARYLAND, AND THE DEPARTMENT OF WATER RESOURCES, THE INTERIM HYDRAULIC CRITERIA FOR DESIGN OF HIGHWAYS AS ADOPTED BY THE STATE OF MARYLAND, STATE HIGHWAY ADMINISTRATION (REVISED JAN. 1, 1996), AND THE GRADING, STORM DRAINAGE, SEDIMENT CONTROL AND STORMWATER MANAGEMENT REQUIREMENTS OF WORCESTER COUNTY AND THE SOIL CONSERVATION DISTRICT.	
SIGNATURE	MD Reg. No. DATE

PROFESSIONAL CERTIFICATION	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE EITHER PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 08-26-2015.	
SIGNATURE	DATE
OWNER / APPLICANT	
AS THE PROPERTY OWNER/DEVELOPER, I AM IN FULL AGREEMENT WITH THE SITE PLAN SUBMITTED HERewith, AND I AM RESPONSIBLE FOR THE COMPLETION OF THE IMPROVEMENTS SHOWN ON THE APPROVED SITE PLAN, AND I UNDERSTAND THAT I CANNOT ALLOW THE PROPERTY OR BUILDINGS TO BE OCCUPIED UNTIL THE CERTIFICATION OF USE AND OCCUPANCY HAS BEEN ISSUED BY THE DEPARTMENT OF DEVELOPMENT, REVIEW AND PERMITTING.	
SIGNATURE	DATE
PRINTED NAME	

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM		
Glen Riddle Service Area District 'B' Water & Sewer Extension Ocean Gateway Highway Worcester County, Maryland		
SEAL		
DATE	BY	REVISIONS
ISSUE DATES		BASE:
REVIEW:	9/12/17	DRAWN: VLT
BID:		DESIGNED:
PERMIT:		CHECKED BY:
CONSTRUCTION:		DATE CHECKED:
SCALE: AS SHOWN		DRAWING:
PROJECT NO.: 07096.B1		1 of 6

Q:\2390\23900001\B01\RECORD.DWG 07096.B1 PLANDWG Fri, Aug 11, 2017



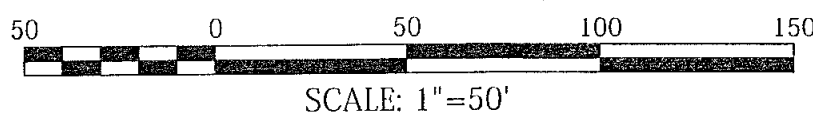
SEDIMENT AND EROSION CONTROL LEGEND

- LOD — LOD — LIMIT OF DISTURBANCE
- - - - - WETLAND BUFFER
- [] LIMIT OF WETLANDS

GLEN RIDDLE GOLF COURSE

RECORD DRAWING
AUGUST 2017

"THIS RECORD DRAWING HAS BEEN PREPARED BY DBF, INC., IN PART, BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE DESIGN PROFESSIONAL ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS RECORD DRAWING OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT OF INCORRECT INFORMATION PROVIDED TO THE DESIGN PROFESSIONAL. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF IT'S ACCURACY."



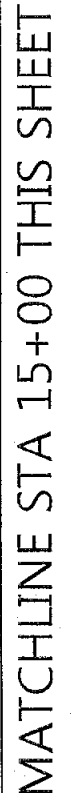
DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS ENGINEERS SURVEYORS
SALISBURY, MARYLAND (410) 543-9091
MILFORD, DELAWARE (302) 424-1441
EASTON, MARYLAND (410) 770-4744

DMW
DAFT MCCUNE WALKER INC.
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM

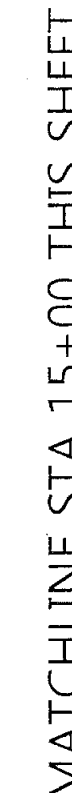
Glen Riddle Service Area
District 'B'
Water & Sewer Extension
Ocean Gateway Highway
Worcester County, Maryland
UTILITY & SEDIMENT
EROSION CONTROL PLAN

DATE	BY	REVISIONS

ISSUE DATES		BASE:
REVIEW:		DRAWN: VLT/PAB
BID:		DESIGNED:
PERMIT:		CHECKED BY:
CONSTRUCTION:		DATE CHECKED:
SCALE: 1" = 50'		DRAWING:
PROJECT NO.: 07096.B1		



1" = 5' VERTICAL



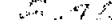
1" = 5' VERTICAL

PROFESSIONAL CERTIFICATION

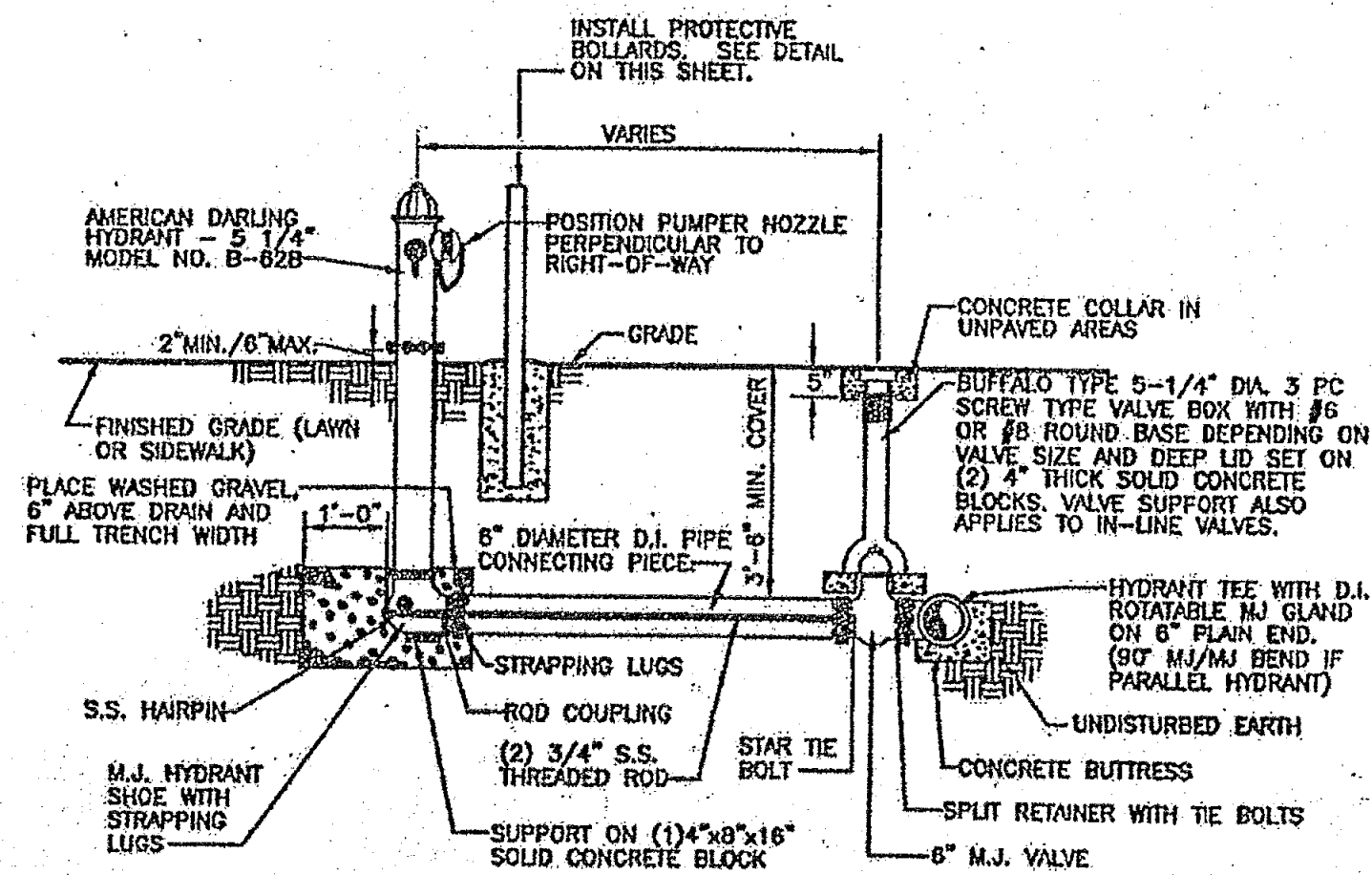
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE EITHER PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 8061, EXPIRATION DATE: 08-16-2015.



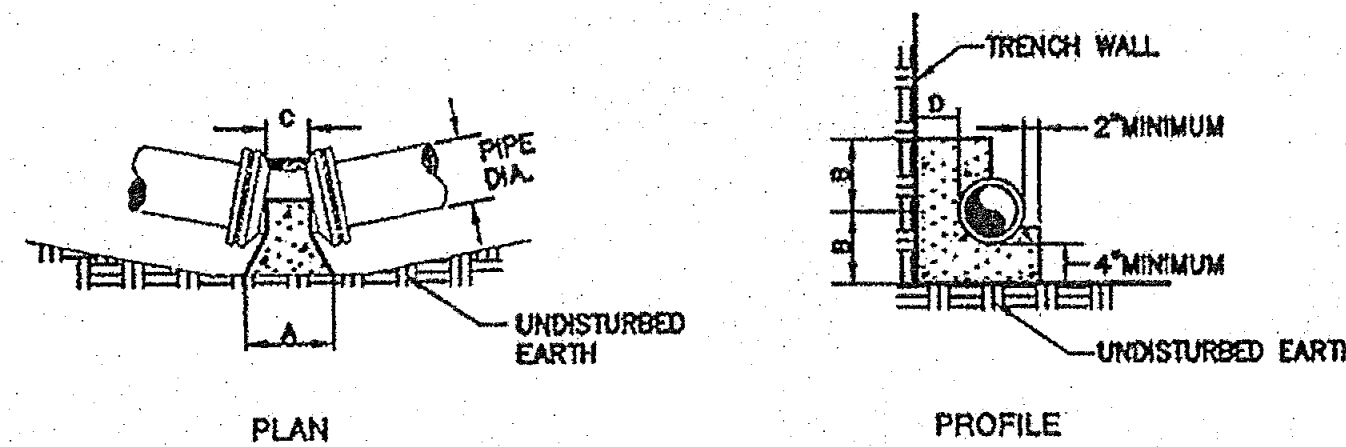
SIGNATURE



DATE

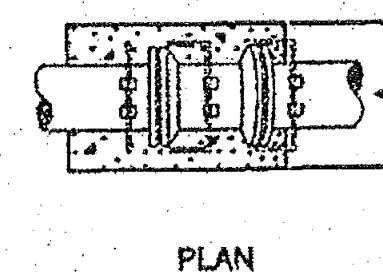


FIRE HYDRANT DETAIL



DIMENSION SCHEDULE												
BEND	PIPE DIA.	6"	8"	10"	12"	16"	22 1/2"	45"	90"	180"	270"	360"
11 1/4"	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	D	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
22 1/2"	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	D	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
45"	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	D	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"

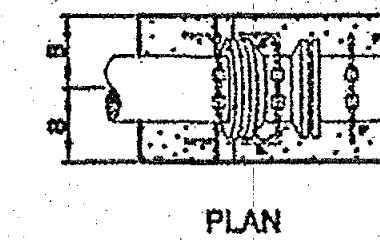
HORIZONTAL BENDS



DIMENSION SCHEDULE												
BEND	PIPE DIA.	6"	8"	10"	12"	16"	22 1/2"	45"	90"	180"	270"	360"
11 1/4"	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	D	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
22 1/2"	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	D	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
45"	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	D	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"

PROFILE

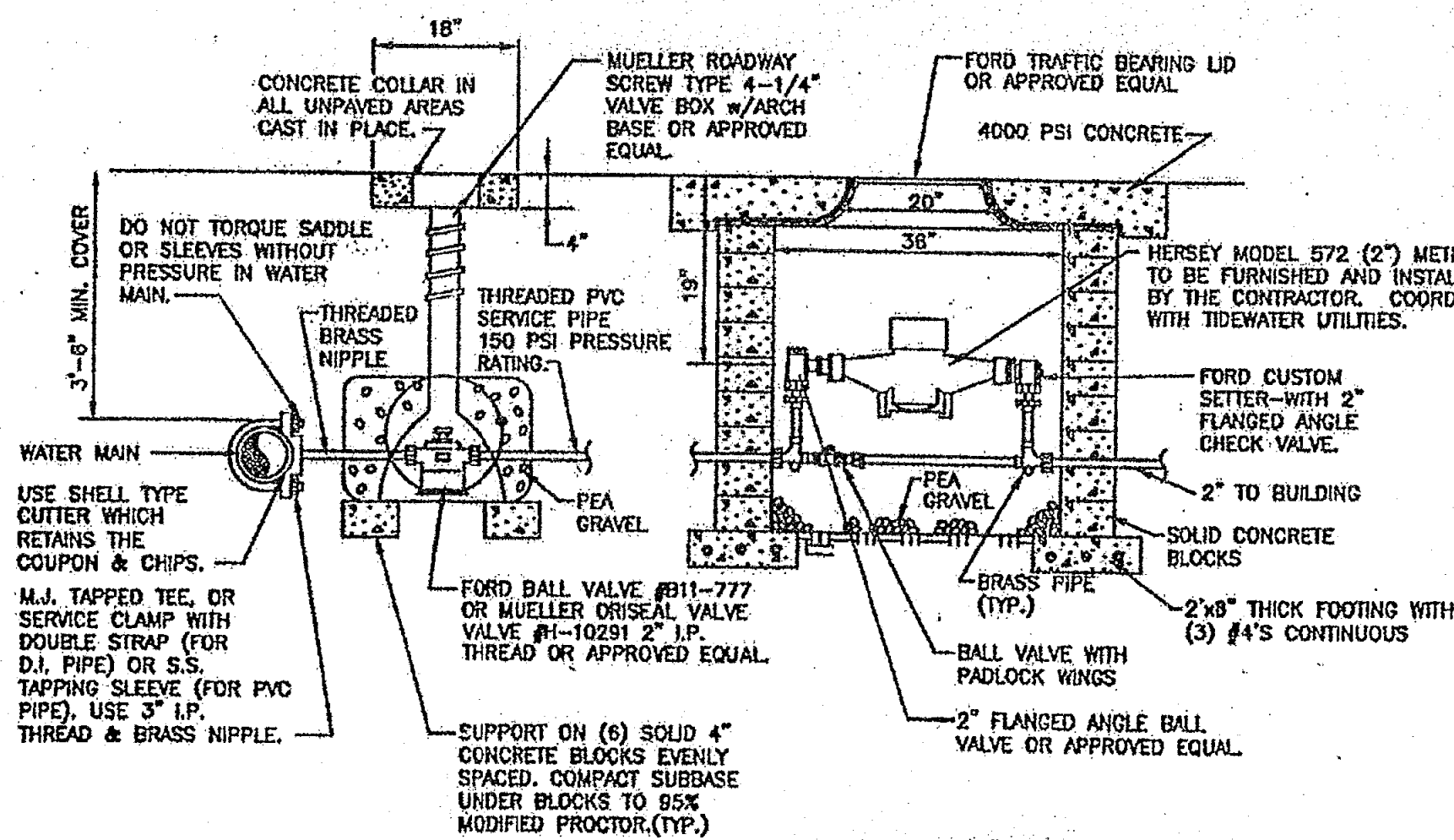
VERTICAL DOWNWARD BENDS



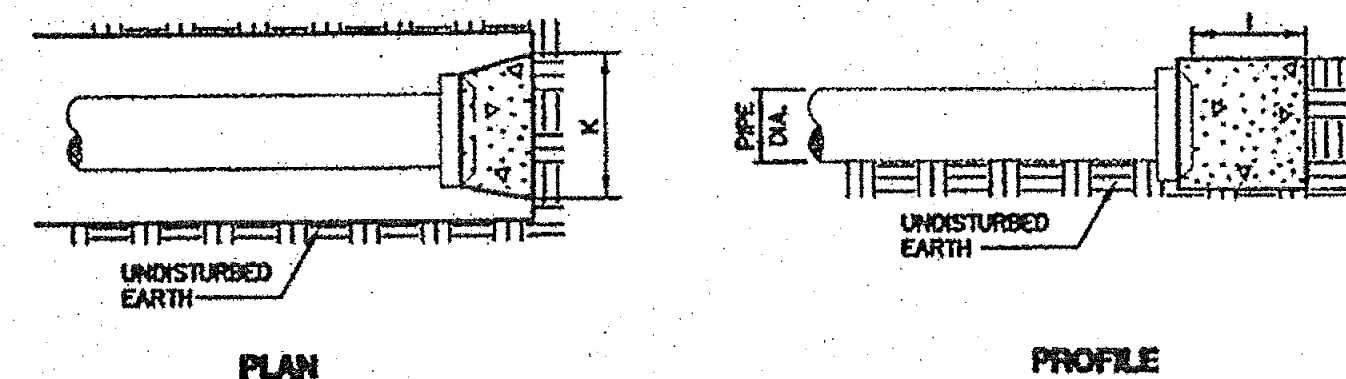
DIMENSION SCHEDULE												
BEND	PIPE DIA.	6"	8"	10"	12"	16"	22 1/2"	45"	90"	180"	270"	360"
11 1/4"	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	D	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
22 1/2"	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	D	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
45"	A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"
	D	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"

PROFILE

VERTICAL UPWARD BENDS

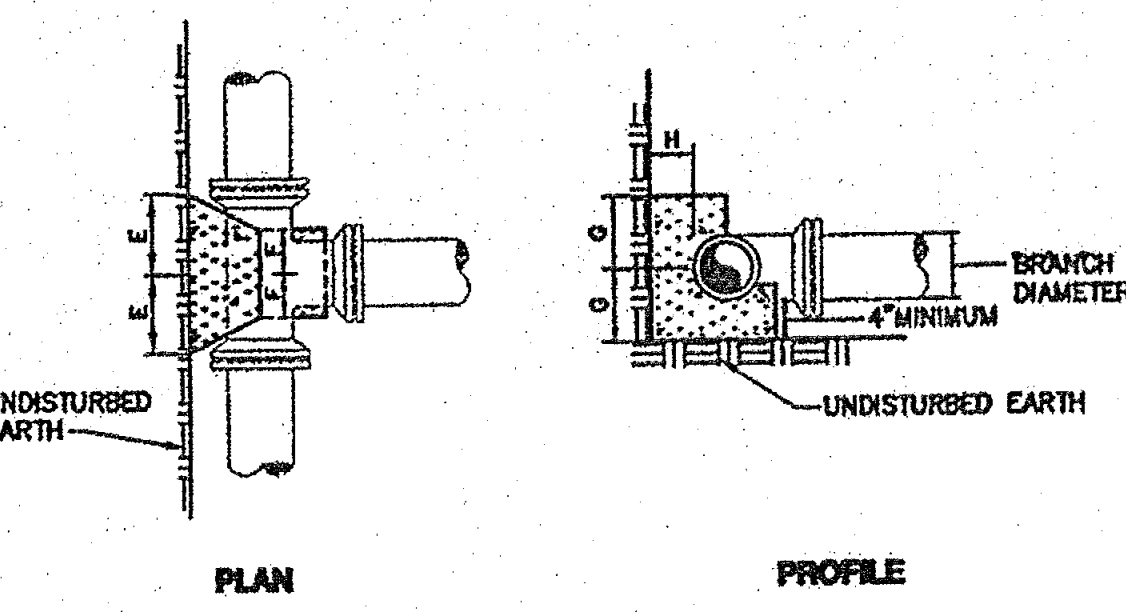


METER PIT DETAIL



DIMENSION SCHEDULE												
PIPE DIA.	6"	8"	10"	12"	16"	22 1/2"	45"	90"	180"	270"	360"	450"
I	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"
J	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"
K	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"

PLUGS

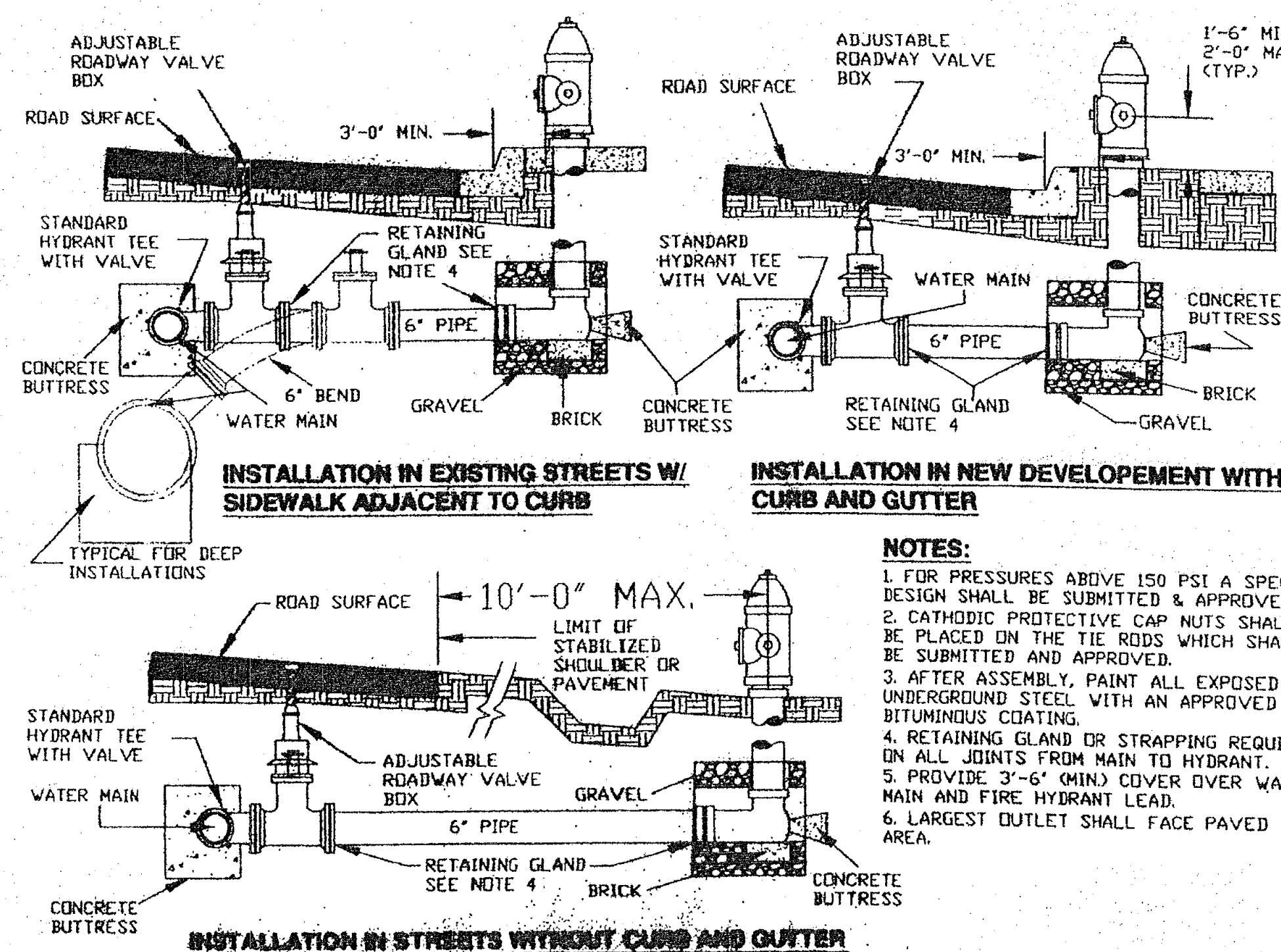


DIMENSION SCHEDULE												
BRANCH DIA.	6"	8"	10"	12"	16"	22 1/2"	45"	90"	180"	270"	360"	450"
E	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"
F	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"
G	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"
H	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"

TEES / WYES

CONCRETE BUTTRESS DETAILS

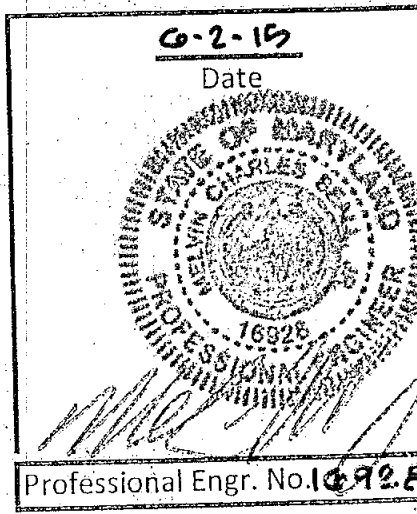
NOT TO SCALE



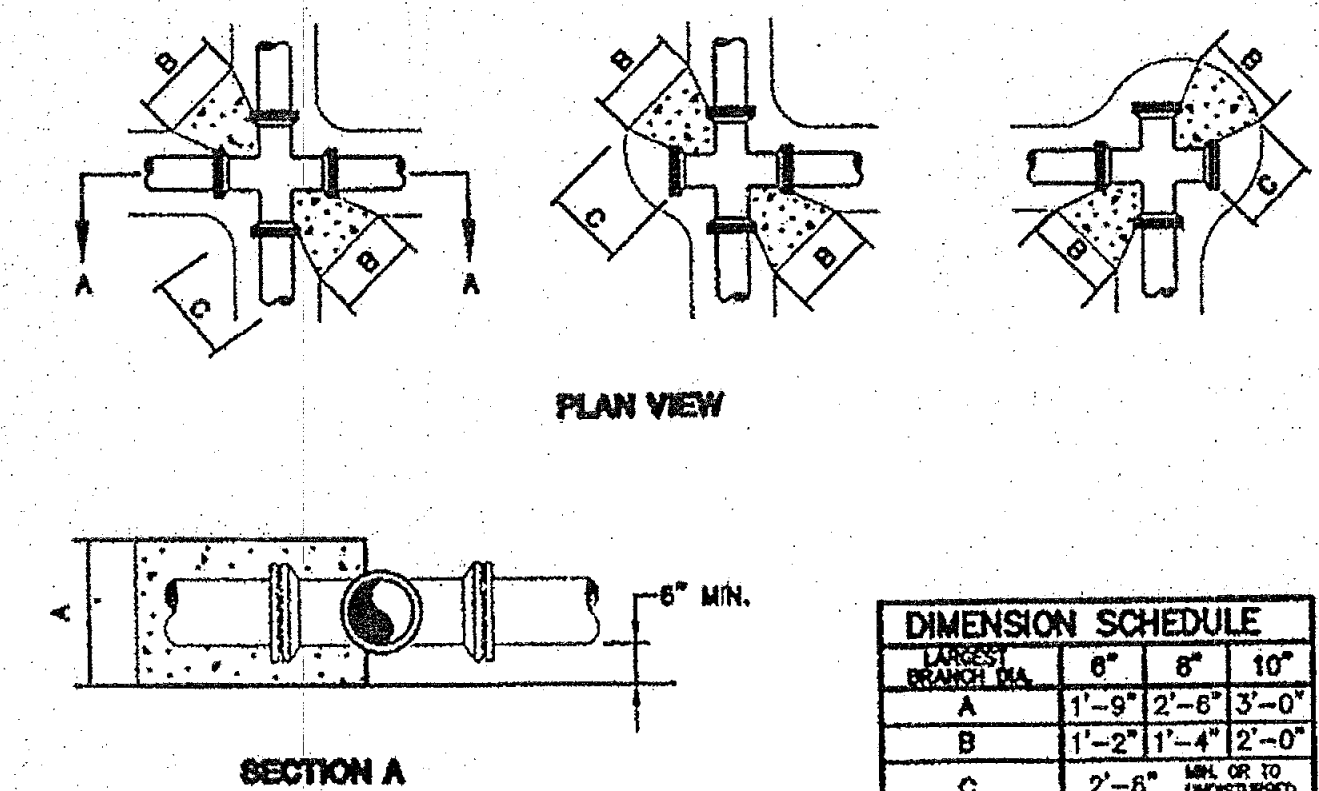
FIRE HYDRANT SETTINGS

NO SCALE

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED, OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16923 EXP. DATE 3-13-16



CROSSES



DIMENSION SCHEDULE												
BRANCH DIA.	6"	8"	10"	12"	16"	22 1/2"	45"	90"	180"	270"	360"	450"
A	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"
B	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"
C	1'-3"	1'-8"	2'-1"	2'-6"	3'-4"	2'-0"	2'-6"	3'-0"	3'-6"	5'-0"	5'-0"	5'-0"

DMW
DAFT MCCUNE WALKER INC
11200 RACETRACK ROAD, SUITE 202, BERLIN, MD 21811
P: 410 641 9980 F: 410 641 9988 WWW.DMW.COM
A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS

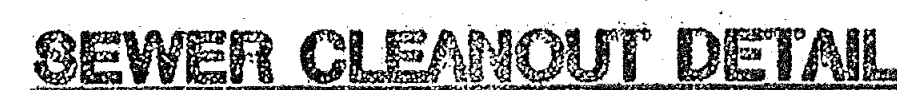
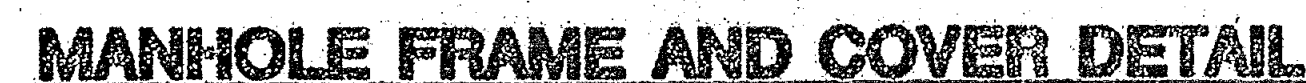
Glen Riddle Service Area
District 'B'
Water & Sewer Extension
Ocean Gateway Highway
Worcester County, Maryland

DETAILS



DATE	BY	REVISIONS

ISSUE DATES		BASE:	
REVIEW:	12/6/13	DRAWN:	VLT
BID:		DESIGNED:	
PERMIT:		CHECKED BY:	
CONSTRUCTION:		DATE CHECKED:	
SCALE:	AS SHOWN	DRAWING:	
PROJECT NO:	07096.B1		



-
- REINFORCED FOR ALL
LES.
- 48" DIA.
- 24"
- 24"
- REINFORCING AREA =
0.12 IN./VERTICAL FT.
JOINED TO BASE,
REINFORCEMENT.
- NON-SHRINK
GROUT
- STD. 45° WYE, 1/8 BEND, AND
PIPE AS REQUIRED INSTALLED
IN FIELD.
- SOLID COLLAR
- RISE PIPE
INSTALLED IN FIELD
- U- SHAPED COLLARS
IN 12", 24" OR 36"
LENGTHS
- STD. BELL FITTING
FOR 6", 8" OR 10" PIPE
- STD. LONG 1/4 BEND
AND PIPE AS REQUIRED
- NOTE 5
- 48" DIAMETER
- OUTLET
PIPE
- 24" PRECAST
DROP MANHOLE
BASE
- 8" MINIMUM
- NOTE 7
- BRICK SHALL BE ASTM
C32 GRADE SS LAID
ON EDGE.
- MIN. SLAB REINFORCING
 $A_s = 0.39 \text{ SQ. IN./FT. E.W.}$

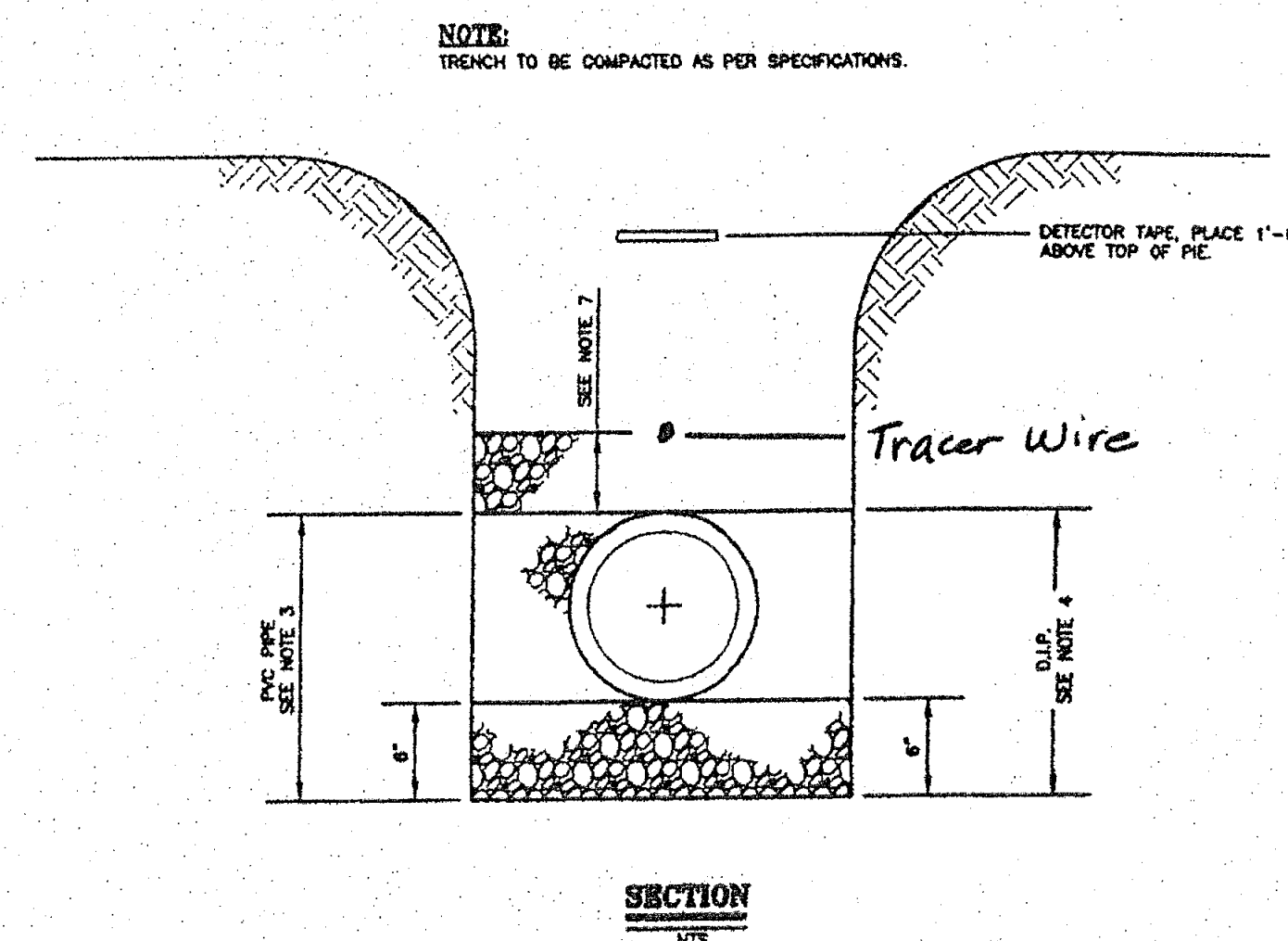
48" STANDARD PRECAST DROP MANHOLE BASE

NOT TO SCALE



BORE AND JACK DETAIL

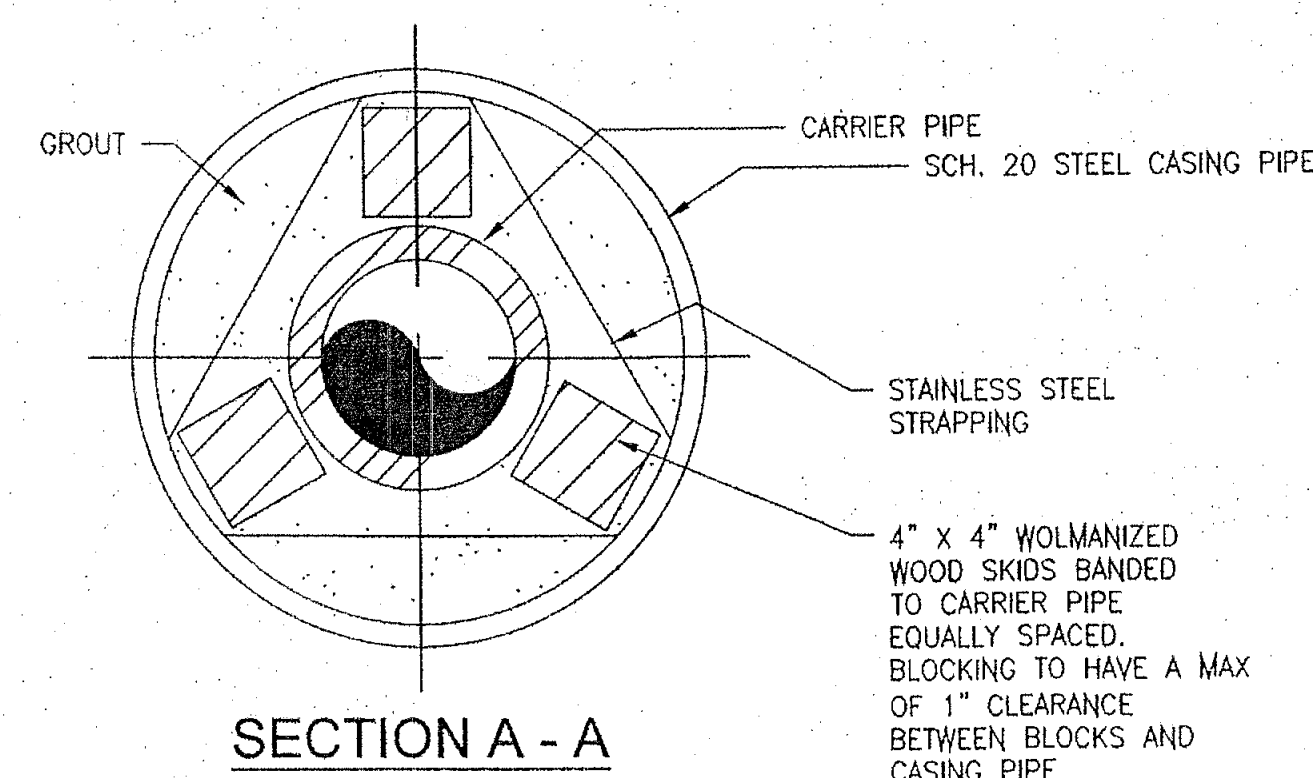
NOT TO SCALE



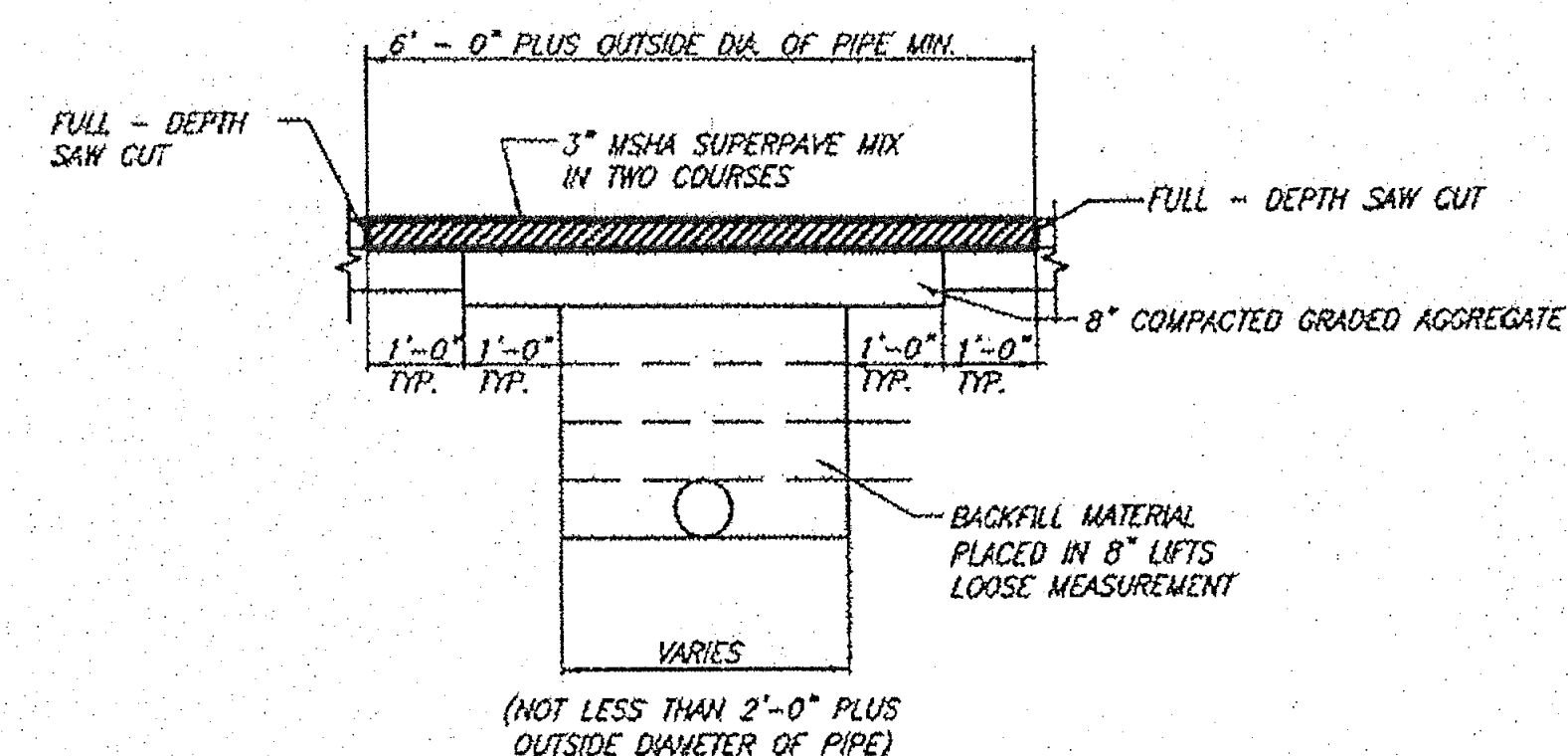
- NOTES:**
1. UNLESS NOTED OTHERWISE, ALL ROAD REPAIR SHALL BE DONE IN ACCORDANCE WITH THE LATEST REVISION OF THE WORCESTER COUNTY OR MASSACHUSETTS ROAD CODE.
 2. ALL PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PIPE MANUFACTURER AND COUNTY APPROVAL.
 3. PVC PIPE: SHALL RECEIVE ASHSTO M43.30.57 AGGREGATE.
 4. D.I. PIPE: SHALL BE INSTALLED ON 8" ASHSTO M43.30.57 AGGREGATE AND HAVE APPROVED COMPACTED BACKFILL MATERIAL CONSOLIDATED TO TOP OF PIPE.
 5. SANITARY FORCE MAINS SHALL BE INSTALLED AS PER STANDARD DETAIL, W-1.
 6. PROVIDE CONTINUOUS BEARING FOR FULL LENGTH OF PIPE.
 7. AGGREGATE SHALL CONTINUE TO 8" ABOVE TOP OF PIPE WHEN USING P.V.C. WITH DEPTH OF COVER GREATER THAN 14'.

PIPE BEDDING

NOT TO SCALE

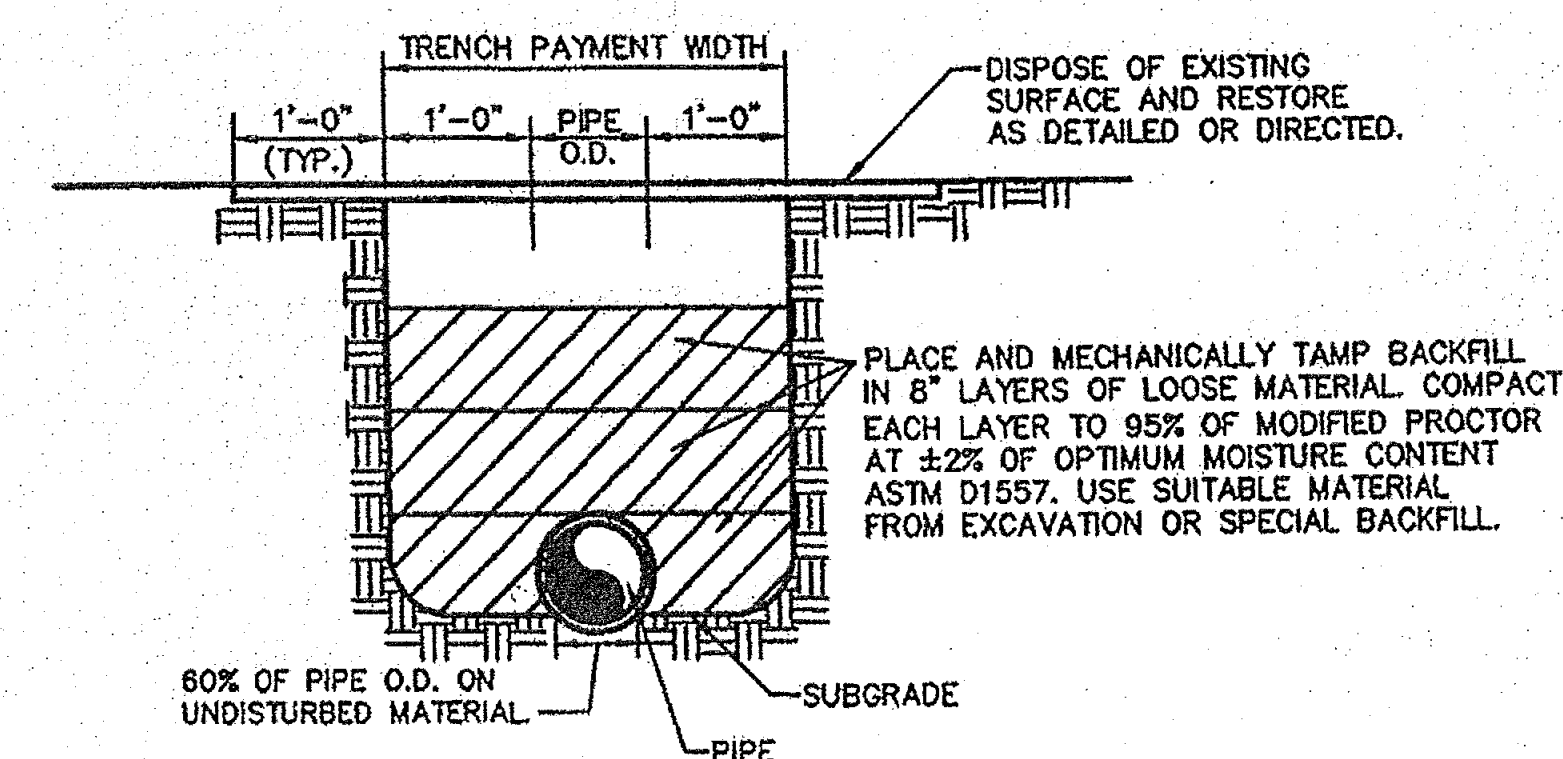


- NOTE:
1. CASING PIPES FOR ROADWAY BORES SHALL BE PROVIDED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND COUNTY TRANSPORTATION SPECIFICATIONS AND DETAILS.
 2. AFTER LINE IS TESTED CASING PIPE TO BE FILLED COMPLETELY WITH A UNIFORM MIXTURE OF 1:3 GROUT.
 3. GROUT HOLES STAGGERED MAXIMUM SPACING 3'-6".



PAVEMENT RESTORATION DETAIL

NOT TO SCALE



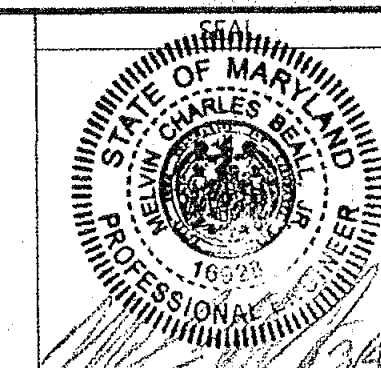
TRENCH BACKFILL

DMW

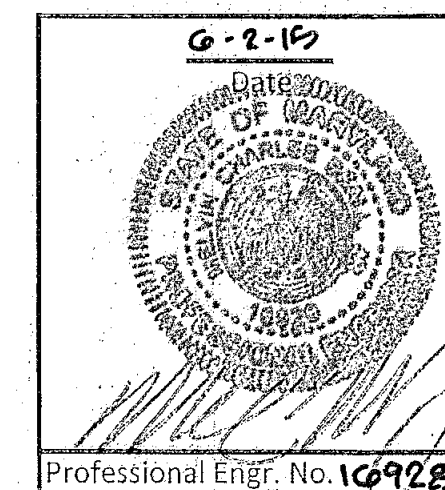
DAFT MCCUNE WALKER INC
11200 RACETRACK ROAD, SUITE 202, BERLIN, MD 2181
P: 410 641 9980 F: 410 641 9948 WWW.DMW.COM
AM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENG
SURVEYORS & ENVIRONMENTAL PROFESSIONALS

Glen Riddle Service Area
District 'B'
Water & Sewer Extension
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Worcester County, Maryland

DETAILS

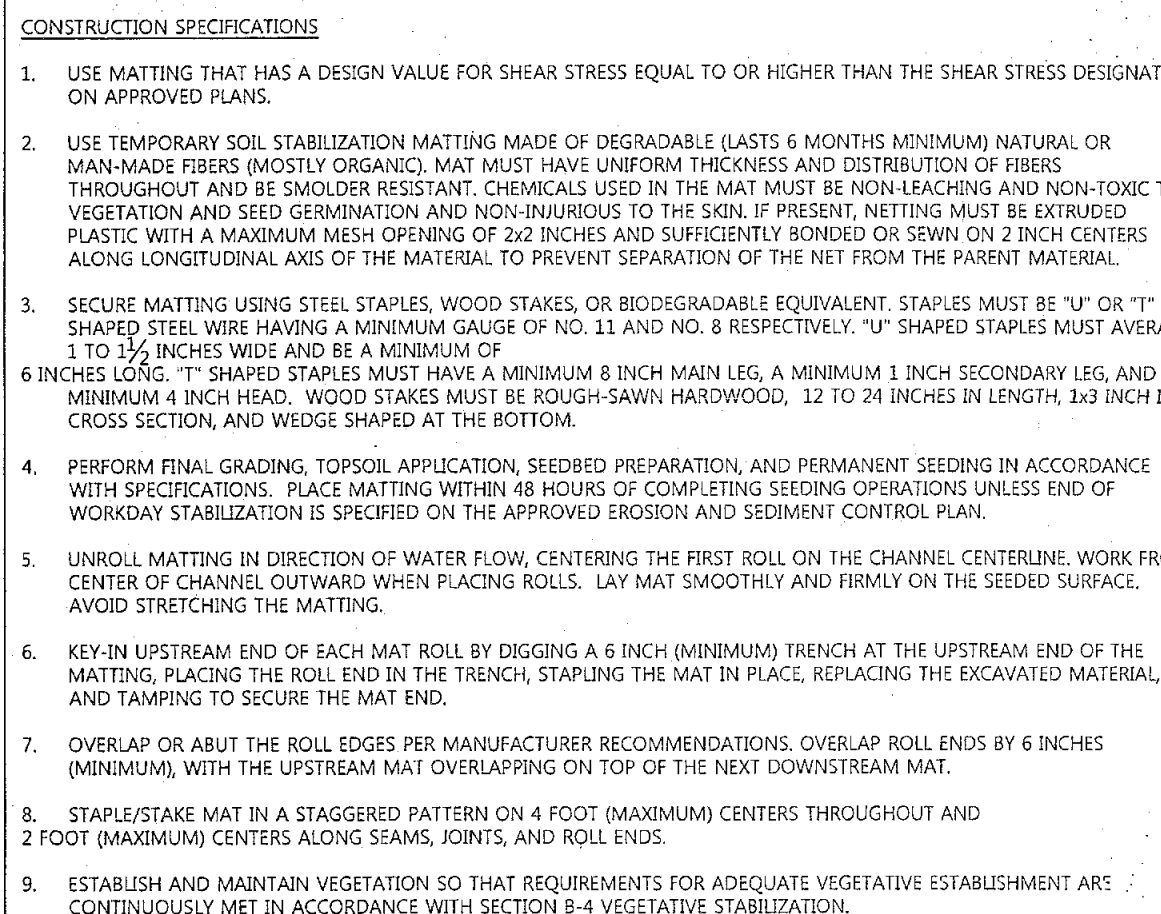
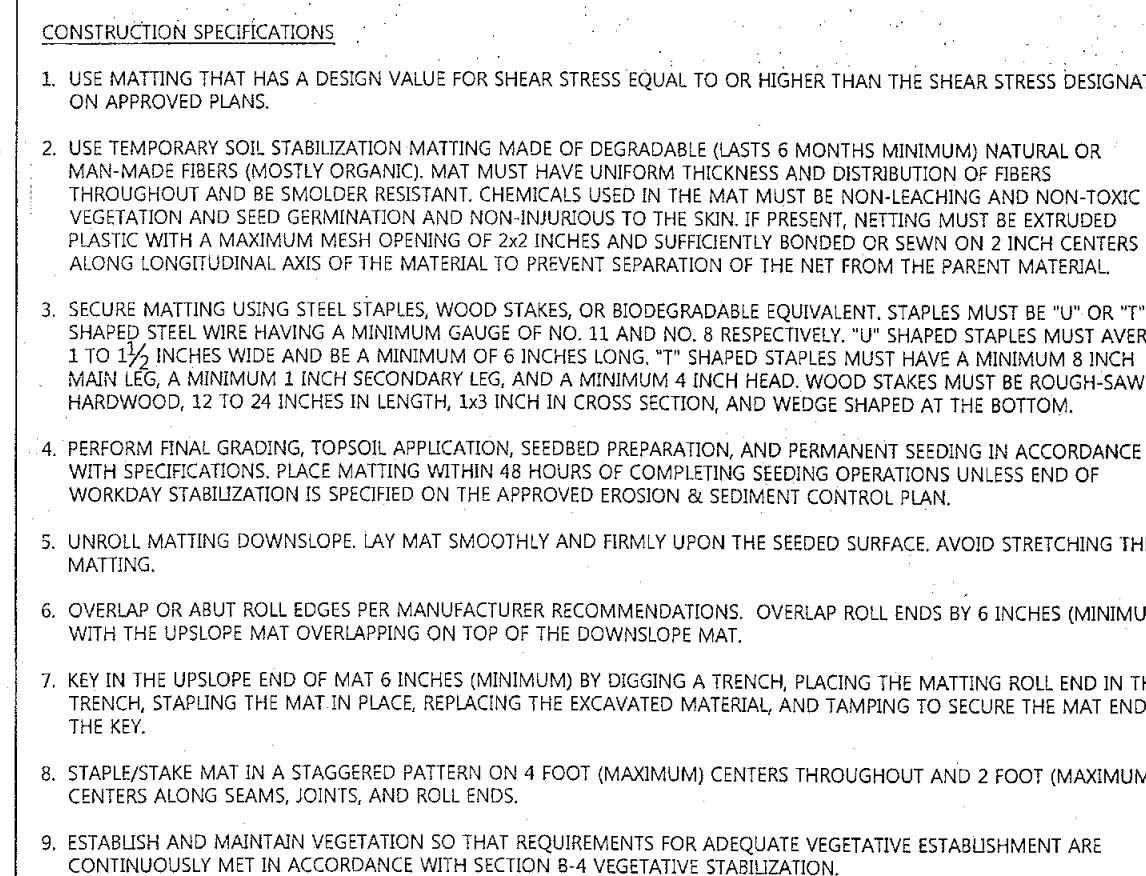
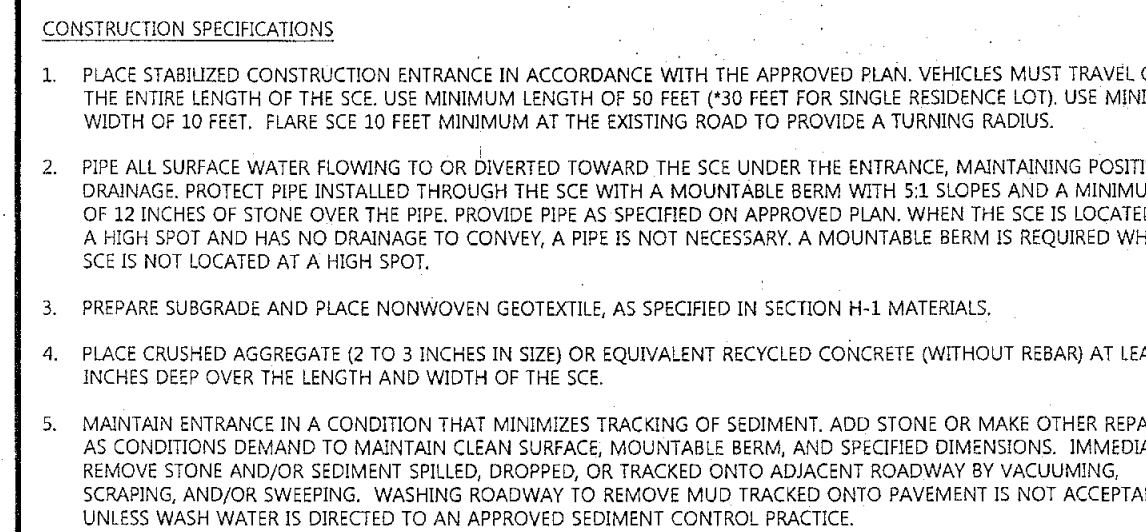


ISSUE DATES		BASE:	
REVIEW:	<u>12/6/13</u>	DRAWN:	<u>VL</u>
BID:	_____	DESIGNED:	_____
PERMIT:	_____	CHECKED BY:	_____
CONSTRUCTION:	_____	DATE CHECKED:	_____
SCALE:	<u>AS SHOWN</u>	DRAWING:	<u>6 of 6</u>
PROJECT NO.: <u>07096.81</u>			



PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED,
OR APPROVED BY ME, AND THAT I AM A DULY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND. LICENSE NO. 16928 EXP. DATE 5-13-16



1. A MARYLAND DEPARTMENT OF THE ENVIRONMENT NOTICE OF INTENT (NOI) GENERAL PERMIT FOR CONSTRUCTION ACTIVITY IS REQUIRED FOR ALL CONSTRUCTION ACTIVITY IN MARYLAND WITH A PLANNED TOTAL DISTURBANCE OF 1 ACRE OR MORE.
2. AS MANDATED BY THE NOTICE OF INTENT (NOI) GENERAL PERMIT ISSUED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, AN INSPECTION MUST BE PERFORMED ONITE OF ALL SEDIMENT CONTROLS ON A WEEKLY BASIS AND AFTER EVERY RAINFALL EVENT. ALL SELF INSPECTIONS MUST BE MAINTAINED ALONG WITH ALL APPLICABLE GOVERNING AGENCY INSPECTION REPORTS IN A LOG BOOK, TO BE KEPT ONITE AT ALL TIMES.
3. FOLLOWING INITIAL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS ON ALL PERMITTER CONTROLS, DIKES, SWALES, DITCHES PERMITTER SLOPES AND SLOPES GREATER THAN 3 TO 1, AND WITHIN SEVEN (7) DAYS ON ALL OTHER DISTURBED AREAS ON THE SITE.
4. CERTIFICATION BY OWNER OR DEVELOPER THAT (1) ANY CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT OF ALL OF THESE, WILL BE DUE TO THIS PLAN (2) THAT RESPONSIBLE PERSONNEL INVOLVED IN THE PROJECT HAVE HAD CERTIFICATION OF TRAINING AT THE DEPARTMENT APPROVED TRAINING PROGRAM I.E. GREEN CARD CERTIFICATION FOR THE CONTROL OF SEDIMENT AND EROSION, BEFORE BEGINNING THE PROJECT (CERTIFICATION MAY BE WAIVED BY THE APPROVAL AUTHORITY ON ANY PROJECT INVOLVING PO OR FEWER RESIDENTIAL UNITS AND AS APPLICABLE PER COUNTY) AND (3) THE DEVELOPER WILL PROVIDE ONE HUNDRED LINE AS BUILT DRAWING OF EACH FACILITY REQUIRING A STATE FOND PERMIT.

- a. EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH.
- b. TRENCHES FOR UTILITY INSTALLATION SHALL BE BACKFILLED, COMPACTED AND STABILIZED WITH EITHER TEMPORARY OR PERMANENT SEEDING, OR STRAW MULCH AS PER MOE SPECIFICATIONS AT THE END OF EACH WORKING DAY. NO MORE TRENCH TRENCH SHALL BE OPENED THAN CAN BE COMPLETED THE SAME DAY.
- c. TEMPORARY SILT FENCE SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED FOR MORE THAN ONE DAY.

19. ALL STREETS OUTSIDE THE IMMEDIATE WORK AREA SHALL BE SWEEPED TO REMAIN FREE OF SEDIMENT.

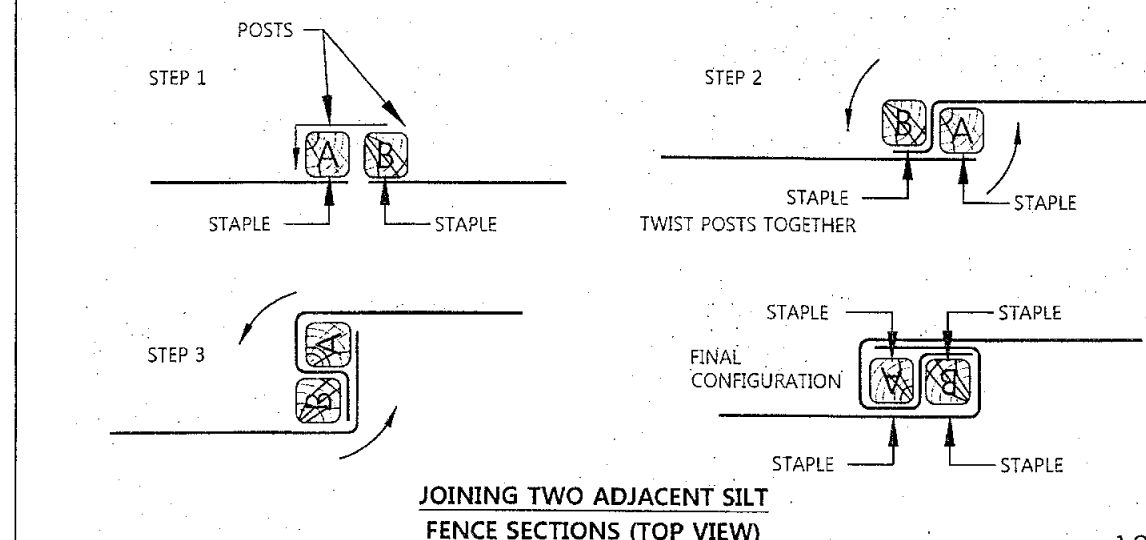
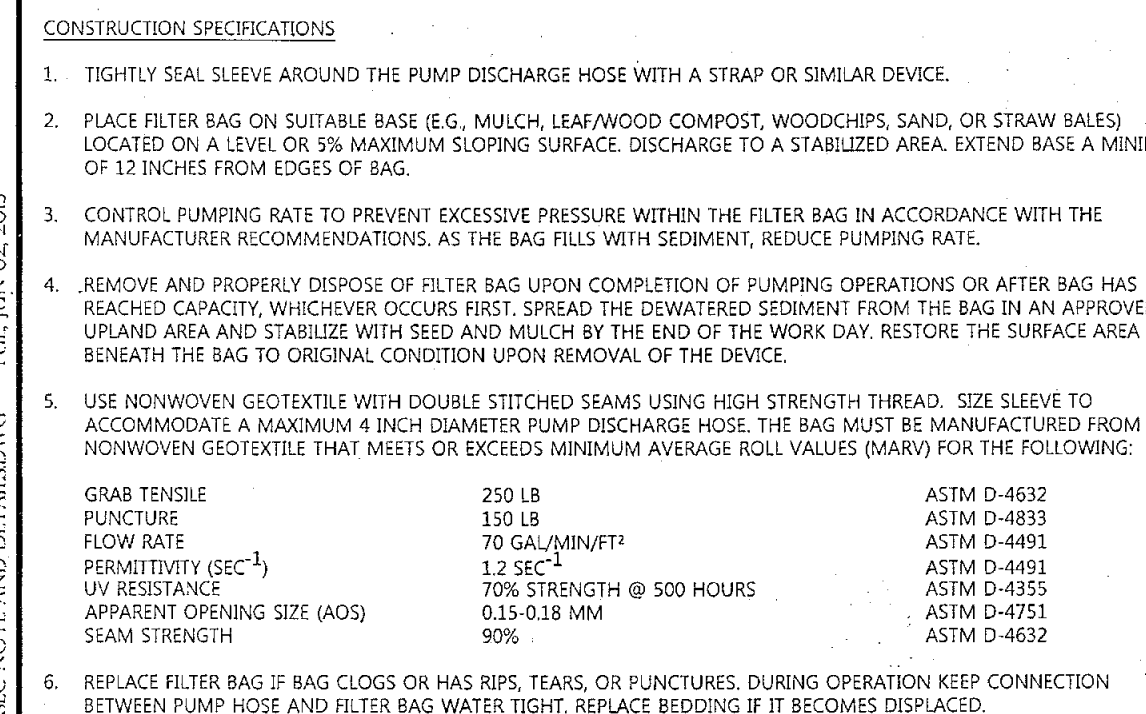
20. TEMPORARY VEGETATIVE COVER, MULCHING AND/OR SPRINKLING WATER SHALL BE THE METHODS USED AS NECESSARY TO CONTROL DUST.

21. ALL SPOIL SHALL BE DISPOSED OF AT AN OFFSITE AREA. FOR THE PURPOSES OF THIS PLAN, AN APPROVED OFFSITE AREA IS ONE HAVING A CURRENT SEDIMENT AND EROSION CONTROL PLAN.

22. ANY DITCHES, STREAMS, OR OTHER WATERWAYS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION.

23. THE MARYLAND DEPARTMENT OF THE ENVIRONMENT AND THE WORCESTER COUNTY DEPARTMENT OF DEVELOPMENT REVIEW AND PERMITTING RESERVES THE RIGHT TO REQUIRE ADDITIONAL SEDIMENT AND EROSION MEASURES DURING THE CONSTRUCTION OF THIS PROJECT.

1. CONTACT THE WORCESTER COUNTY DEPARTMENT REVIEW AND PERMITTING (410-542-1200), MDE INSPECTOR (410-901-4020), AND WORCESTER COUNTY WATER & WASTEWATER SERVICES DIVISION (410-541-5253) AT LEAST 48 HOURS PRIOR TO COMMENCING WORK, TO SCHEDULE A PRE-CONSTRUCTION MEETING. FAILURE TO DO SO MAY RESULT IN AN IMMEDIATE STOP WORK ORDER.
2. PREPARE STAGING AREA WITH REQUIRED SEDIMENT AND EROSION CONTROL MEASURES, INCLUDING SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE.
3. PERFORM DEMOLITION REQUIRED FOR PUMP STATION, FORCE MAIN, AND WATER MAIN CONSTRUCTION, RELOCATE AND/OR ADJUST MISCELLANEOUS ITEMS WITHIN AREA OF CONSTRUCTION AS SHOWN ON PLANS.
4. INSTALL SANITARY SEWER AND WATER MAIN PIPE. PROVIDE TEMPORARY TRENCH RESTORATION PER ITEM 17 IN ESC NOTES AT THE END OF EACH WORK DAY OR AS REQUIRED BY WORCESTER COUNTY OR MD-SHA. TOPSOIL WILL BE STRIPPED AND SEGREGATED (MAXIMUM DEPTH 12") PRIOR TO TRENCHING IN ALL AREAS WHERE PROPOSED MAINS ARE TO BE INSTALLED WITH UNPAVED RIGHT OF WAY. IF TOPSOIL IS NOT SEGREGATED IN THESE AREAS, RESPONSIBLE PARTY (OWNER/DEVELOPER) SHALL BE RESPONSIBLE FOR INSTALLING NEW TOPSOIL TO ACTUAL DEPTH OF EXISTING TOPSOIL (MINIMUM 6" DEPTH/MAXIMUM 12" DEPTH). INSTALL PIPES IN A LINEAR FASHION. INSTALL SOIL STABILIZATION MATERIAL IN THE AREAS NOTED IN THE PLANS.
5. UPON COMPLETION OF WORK, INSPECT ALL STORM DRAINS AND INLETS, REMOVE ACCUMULATED SEDIMENT.
6. RESTORE ALL DISTURBED AREAS PER THE EROSION AND SEDIMENT CONTROL NOTES ON THIS DRAWING. INSTALL TEMPORARY OR PERMANENT SEED MIXTURES BASED UPON RECOMMENDED PLANTING TIMES SHOWN IN ESC NOTES #9 & 11.
7. PROVIDE FINAL GRADING AND STABILIZATION.
8. AFTER FINAL STABILIZATION AND WORCESTER COUNTY INSPECTOR CONCURRENCE, REMOVE SILT FENCE AND INLET PROTECTION. STABILIZE AS NECESSARY.
9. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE ALL AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE 2011 "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL".



DETAIL E-1 SILT FENCE	STANDARD SYMBOL  — SF —
<u>CONSTRUCTION SPECIFICATIONS</u> 1. USE WOOD POSTS $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{4}$ INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD, AS AN ALTERNATE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT. 2. USE 36 INCH MINIMUM POSTS 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART. 3. USE WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION. 4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/FORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. 5. SMED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC. 6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL. 7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE. 8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. WHEN THE GEOTEXTILE ERODES IF UNSUBSIDING OCCURS, REPAIR OR REPLACE.	

SEED MIXTURE (HARDINESS ZONE 7b) FROM TABLE 26					FERTILIZER RATE (10-20-20)	LIME RATE
SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS			
ANNUAL RATE	40	2/15 - 4/30 8/15 - 11/30	1/2"		435 lb/ac (101b / 1000sf)	2 TONS /Ac (90Lb / 1000sf)
FOX TAIL MILLET	30	5/1 - 8/24	1/2"			

NOTE: FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE

12. IF TEMPORARY STABILIZATION IS REQUIRED, PERMANENT STABILIZATION SHALL BE PERFORMED DURING THE NEXT APPLICABLE PERIOD PER NOTE 10.A. ABOVE.

13. PUMPING/DEWATERING:

- a. CLEAN WATER MAY BE DIRECTED INTO THE STORM DRAIN SYSTEM, UNDER NO CIRCUMSTANCES SHALL SEDIMENT LAIDEN WATER BE DIRECTED INTO THE STORM DRAIN SYSTEM, INTO DITCHES OR SWALES, OR ANY OTHER SYSTEM THAT DRAINS INTO THE RIVER.
- b. SEDIMENT LAIDEN WATER SHOULD BE DIRECTED INTO A SEDIMENT TRAP (PORTABLE OR EXCAVATED) OR DIRECTED THROUGH AN APPROVED FILTER MEDIUM.
- c. DISCHARGE ENDS OF ALL PIPES OR HOSES SHALL HAVE AN APPROVED ENERGY DISSIPATOR INSTALLED PRIOR TO PUMPING.

15. REVIEW AND/OR APPROVAL OF THE EROSION AND SEDIMENT CONTROL PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE EROSION AND SEDIMENT CONTROL REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSION OF THE APPROVED PLAN.

16. ALL STOCKPILING OR STORAGE OF MATERIAL AND EQUIPMENT SHALL BE PROVIDED BY THE CONTRACTOR AT AN OWNER APPROVED LOCATION. SILT FENCE SHALL BE PLACED AROUND THE PERIMETER OF THE STORAGE SITE AT ALL STOCKPILED SOIL MATERIAL.

17. ALL FILL SLOPE AREAS SHOWN HEREON ARE TO BE STABILIZED IMMEDIATELY AFTER COMPLETION OF GRADING OPERATIONS FOR THESE SLOPES. ALL FILL SLOPES 3:1 OR STEEPER SHALL BE STABILIZED WITH TEMPORARY SO STABILIZATION MATTING SLOPE SLOPES (SEE DETAIL, B-4-6 SHEET 2) ANCHORED TO SURFACE OR ASPHALT PAVEMENT.

I hereby certify that these documents were prepared,
or approved, by me, and that I am a duly licensed
professional engineer under the laws of the State
of Maryland. License No. 3061 Exp. Date 8-26-15

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH EROSION AND SEDIMENT CONTROL LAWS, REGULATION, AND STANDARDS.

Paul Hudson
DESIGNER - PRINTED NAME AND TITLE

Paul Hudson
DESIGNER - SIGNATURE

6-2-15
DATE

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. ADDITIONALLY, WE SHALL CERTIFY RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY THE APPROPRIATE ENFORCEMENT AUTHORITY AND/OR MDE.

OWNER'S REPRESENTATIVE - PRINTED NAME AND TITLE

OWNER'S REPRESENTATIVE SIGNATURE
WGC BERLIN, LLC
6610 MADISON McLEAN DR
McLEAN, VA 22101
703-539-9783



DMW
DAFT. MCHINE. WALKER. INC.

01 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286

Glen Riddle Service Area
District 'B'
Water & Sewer Extension
Ocean Gateway Highway
Worcester County, Maryland

SEAL

[illegible]

ISSUE DATES		BASE: _____
REVIEW: _____	<u>6/2/15</u>	DRAWN: _____
BID: _____		DESIGNED: _____
PERMIT: _____		CHECKED BY: _____
CONSTRUCTION: _____		DATE CHECKED: _____
SCALE: _____		DRAWING: _____
PROJECT NO: _____	<u>07096.B1</u>	

6A of 6

6A of 6

THE WATER AND/OR SEWER FACILITIES TO BE CONSTRUCTION IN ACCORDANCE WITH THESE PLANS ARE APPROVED BY WORCESTER COUNTY WATER AND WASTEWATER DIVISION.

WORCESTER COUNTY, WATER & WASTEWATER DIVISION

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WORCESTER COUNTY, WATER & WASTEWATER DIVISION
DIRECTOR

AA+ BERLINGO7096.00 - GIEN RIDDERO7096.B1 - GRAVITY SEWER EXTENSION/ENR/CAD FILESSHEET/ FILESNO7096.B1_SEC NOTE AND DETAILSDWG TUE, JUN 02, 2015