


GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON NOVEMBER 2009 BY KCI TECHNOLOGIES, INC.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS:
THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83/2007 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 35 GF & 35 GG. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE REBAR & CAP AND NAILS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED. IN THE EVENT THE CONTRACTOR'S WORK REQUIRED THE BRACING OF ADDITIONAL POLES AS SHOWN ON THE DRAWINGS, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES 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 AND THE LATEST EDITION OF THE SHA STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION & MATERIALS 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.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
AT&T 1-800-252-1133
BG&E (CONSTRUCTION SERVICES) 410-850-4620
BG&E (EMERGENCY) 410-685-1400
BUREAU OF UTILITIES (DPW) 410-313-4900
COLONIAL PIPELINE CO. 410-795-1390
MISS UTILITY 1-800-257-7777
STATE HIGHWAY ADMINISTRATION 410-531-5533
VERIZON 1-800-743-0033 / 410-224-9210
- 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 BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-7450 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 DPW REQUIREMENTS PER SECTION 18.114(c) OF THE HOWARD COUNTY CODE.
- THE CONTRACTOR SHALL PROVIDE SURVEY CONSTRUCTION STAKEOUT FOR ALL NECESSARY LINES, GRADES AND ELEVATION OF THE PROPOSED FACILITIES.
- THE CONTRACTOR SHALL PROVIDE STAGING/STORAGE AREA. THE WORK SHALL BE CONDUCTED UNDER STRICT ADHERENCE TO SECTION 308 - EROSION AND SEDIMENT CONTROL OF THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV.

WATER MAIN NOTES

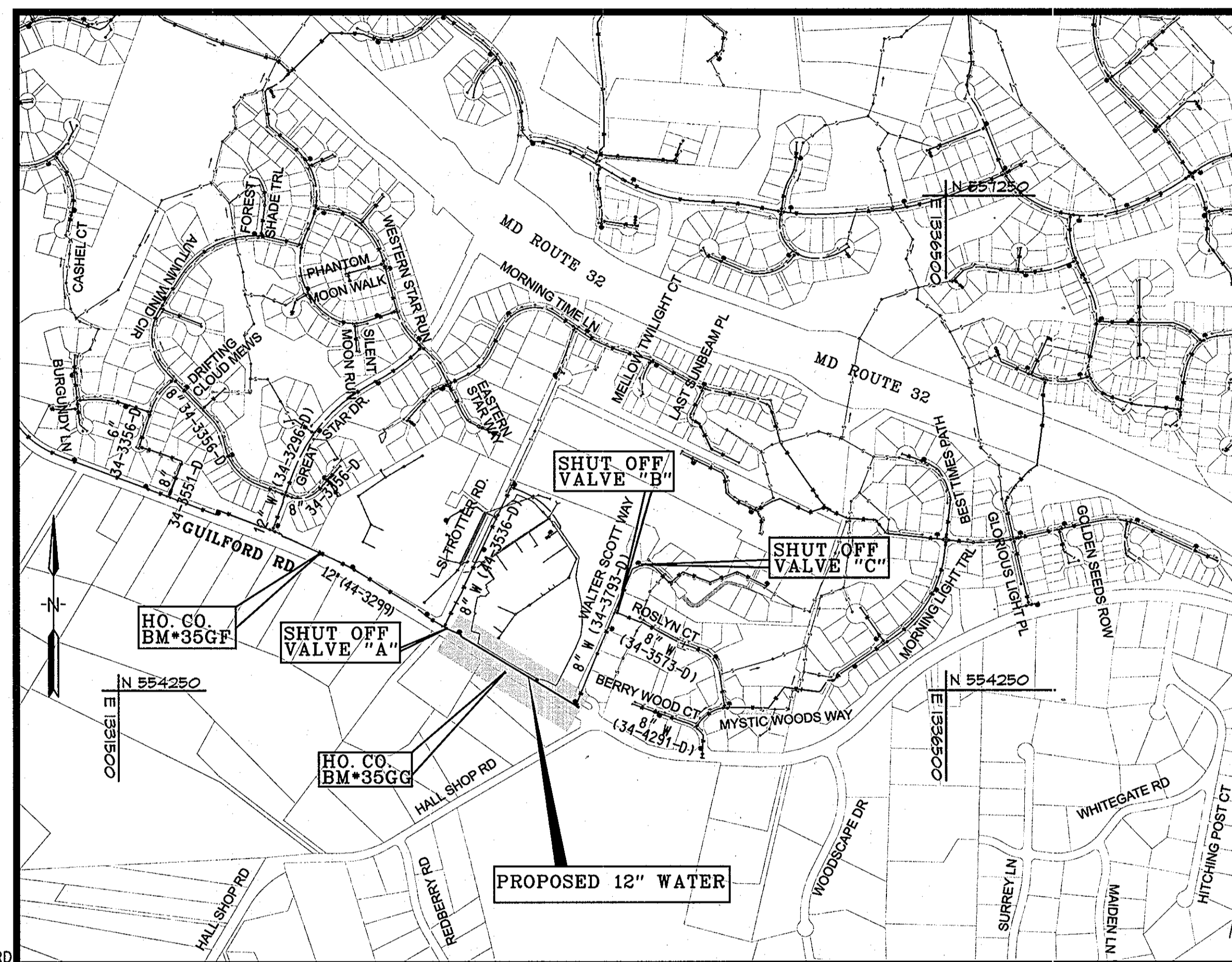
- ALL WATER MAINS SHALL BE POLYVINYLCHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA C900 DR18, PRESSURE CLASS 150 AND THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND ALL SUBSEQUENT AMENDMENTS THERETO
- TOPS OF WATER MAIN SHALL HAVE A MINIMUM OF 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 DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- THE FOLLOWING NOTE IS ADDED TO HOWARD COUNTY STANDARD DETAIL W-2.22, BUTTRESS AND ANCHORAGE FOR VERTICAL BENDS, WHEN ANCHORING PVC PIPE, THE STRAPPING IN CONTACT WITH PIPE SURFACE SHALL BE 1-INCH WIDE BY 1/4-INCH THICK STEEL. THE REMAINING PORTION OF THE STRAP SHALL BE REINFORCING BAR SIZED IN ACCORDANCE WITH THE PERTINENT CHART SHOWN ON THE DETAIL.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANT SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD DETAIL. ALL FIRE HYDRANT LEADS SHALL BE POLYVINYL CHLORIDE (PVC) PIPE MEETING THE REQUIREMENTS OF AWWA C900 DR18 AND CONSTRUCTION IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF UTILITIES HOWARD COUNTY, 15 DAYS PRIOR TO WATER MAIN SHUT DOWNS.
- THE CONNECTION AT WALTER SCOTT WAY MUST BE COMPLETED AT NIGHT WHEN THE WATER USAGE IS AT A MINIMUM. THE OWNERS OF THE AFFECTED HOMES SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 48 HOURS IN ADVANCE OF THE SHUT-OFF. SEE SHEET 2 FOR THE SCHEDULE OF AFFECTED ADDRESSES.
- CONTINUITY TEST STATION SHALL BE PLACED ADJACENT TO EACH FIRE HYDRANT OR AT THE LOCATION SHOWN ON THE DRAWINGS. CONTINUITY TEST STATIONS SHALL CONFIRM TO DETAIL PLATES W-1.15 AND G-8.21.
- WATER MAINS SHALL BE FILLED WITH WATER AND BROUGHT TO 150 PSI HYDROSTATIC TEST PRESSURE AT THE LOW POINT FOR 2 HOURS.

GUILFORD ROAD WATER MAIN LOOP HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

CAPITAL PROJECT No. W-8298

CONTRACT No. 44-4681



LOCATION MAP

SCALE: 1" = 600'

DRAINAGE AREA: MIDDLE PATUXENT
PRESSURE ZONE: 630
WATER TEST GRADIENT: 780

HOWARD COUNTY GEODETIC SURVEY CONTROL
THE HORIZONTAL AND VERTICAL DATUM BASED ON
NAD83/2007 (HORIZONTAL)
NAVD 88 (VERTICAL)
35 GF N 555080.17
E 1332716.55
ELEV.466.96
35 GG N 554358.88
E 1333834.11
ELEV.477.95

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. 31363, EXPIRATION DATE: 1/16/2012.

INDEX OF SHEETS

SHEET No.	DESCRIPTION
1	TITLE SHEET
2	12" WATER MAIN PLAN AND PROFILE
3	SEDIMENT CONTROL PLAN
4	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
5	TRAFFIC CONTROL PLAN AND PAVEMENT DETAILS

QUANTITIES

ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
12" WATER	L.F.	831'	828.5'	BELAIR ROAD SUPPLY / NATIONAL PIPE & PLASTIC
8" W	L.F.	14'	11'	BELAIR ROAD SUPPLY / NATIONAL PIPE & PLASTIC
12" V	EA.	1	1	BELAIR ROAD SUPPLY / MUELLER CO.
8" V	EA.	1	1	BELAIR ROAD SUPPLY / MUELLER CO.
6" V	EA.	1	1	BELAIR ROAD SUPPLY / MUELLER CO.
F.H.	EA.	1	1	BELAIR ROAD SUPPLY / MUELLER CO.
NAME OF UTILITY CONTRACTOR: HTI				
AS-BUILT DATE: 8/23/2011				
6" W	EA.	20'	5.5'	BELAIR ROAD SUPPLY / NATIONAL PIPE & PLASTIC

RESTORATION SCHEDULE

LOCATION	DISTANCE	TYPE
GUILFORD RD.	820	MACADAM
GUILFORD RD.	25	SEED & MULCH

LEGEND

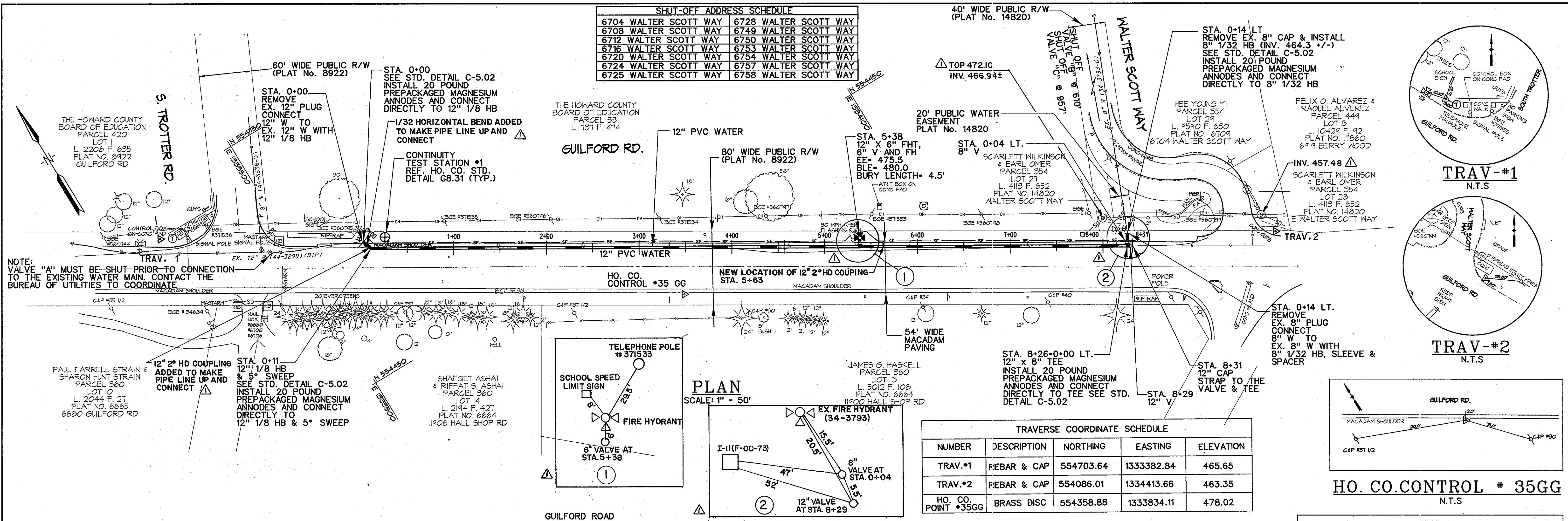
	PROPOSE		EXISTING
	TRAVERSE POINT		DECIDUOUS TREE
	WATER MAIN		CONIFEROUS TREE
	FIRE HYDRANT		EXISTING FIRE HYDRANT
	VALVE		EXISTING VALVE
	CONTINUITY TEST STATION		EXISTING WATER MAIN
	TEST STATION		EXISTING GAS MAIN
			EXISTING UNDERGROUND ELECTRIC

AS-BUILT
DATE 8/23/2011

PLOTED: 10:13:39 PM on Wednesday, September 08, 2010
By: Kevin Jackson, Division: P042 - W-WW-Solid Waste OMA Emp
FILE: M:\2007\01017178.19\Drawings\01017178-19-TITLE.dgn

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 9/13/10 Chief, Bureau of Utilities: <i>[Signature]</i> 9/10/10		ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS KCI TECHNOLOGIES 936 RIDGEBROOK ROAD SUITE 200, MARYLAND 21152 TELEPHONE: (410) 316-7800 FAX: (410) 316-7818 www.kci.com		STATE OF MARYLAND PROFESSIONAL ENGINEER No. 31363 EXPIRATION DATE: 1/16/2012		DES: GW DRN: CK CHK: TW DATE: MAY 2010		LFN AS BUILT BY NO. REVISION		8-23-11 DATE 600' SCALE MAP NO. 35 BLOCK NO. 19 & 20		TITLE SHEET		GUILFORD ROAD WATER MAIN LOOP CAPITAL PROJECT No. W-8298 CONTRACT No. 44-4681 ELECTION DISTRICT NO. 5TH HOWARD COUNTY, MD		SCALE AS SHOWN SHEET 1 OF 5	
---	--	--	--	---	--	---	--	----------------------------------	--	---	--	-------------	--	--	--	--------------------------------	--

SHUT-OFF ADDRESS SCHEDULE	
6704 WALTER SCOTT WAY	6728 WALTER SCOTT WAY
6708 WALTER SCOTT WAY	6749 WALTER SCOTT WAY
6712 WALTER SCOTT WAY	6750 WALTER SCOTT WAY
6716 WALTER SCOTT WAY	6753 WALTER SCOTT WAY
6720 WALTER SCOTT WAY	6754 WALTER SCOTT WAY
6724 WALTER SCOTT WAY	6757 WALTER SCOTT WAY
6725 WALTER SCOTT WAY	6758 WALTER SCOTT WAY



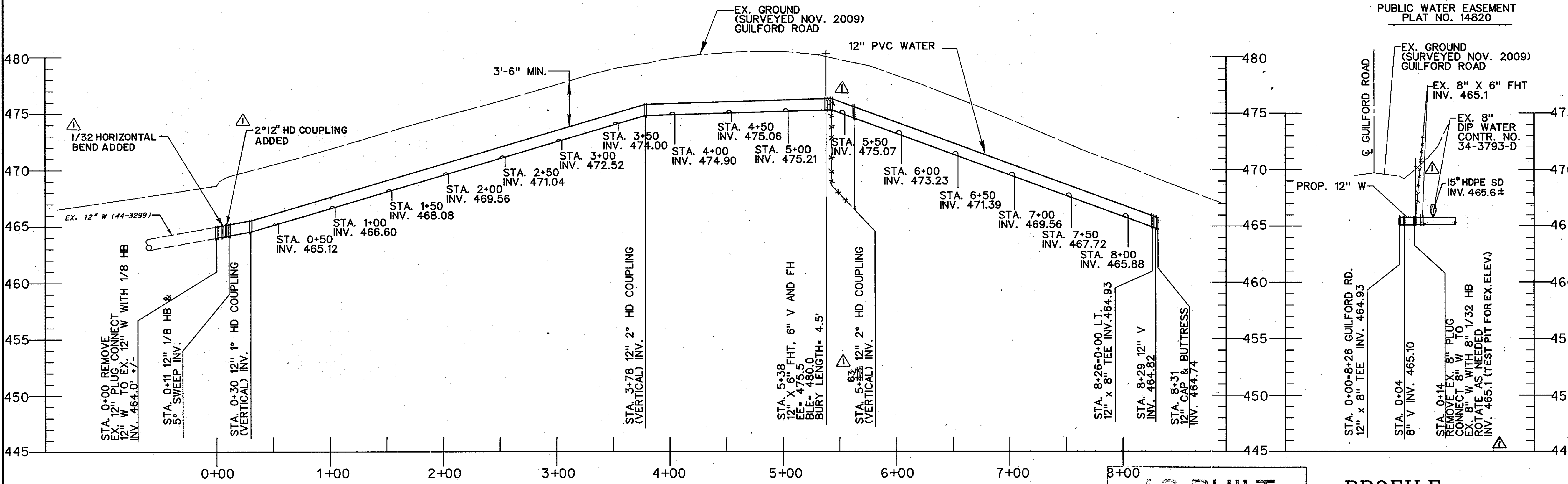
NOTE: VALVE "A" MUST BE SHUT PRIOR TO CONNECTION TO THE EXISTING WATER MAIN. CONTACT THE BUREAU OF UTILITIES TO COORDINATE

PLAN
SCALE: 1" = 50'

TRAVERSE COORDINATE SCHEDULE				
NUMBER	DESCRIPTION	NORTHING	EASTING	ELEVATION
TRAV.*1	REBAR & CAP	554703.64	1333382.84	465.65
TRAV.*2	REBAR & CAP	554086.01	1334413.66	463.35
HO. CO. POINT #35GG	BRASS DISC	554358.88	1333834.11	478.02

HO. CO. CONTROL # 35GG
N.T.S.

WATER STAKEOUT COORDINATES SCHEDULE				
STA.	FITTING	NORTHING	EASTING	
0+00	12" 1/8 HB	554587.52	1333567.95	
0+11	12" 1/8 HB & 5" SWEEP	554577.21	1333571.38	
0+30	12" 1" HD COUPLING (VERT.)	554567.31	1333587.72	
3+78	12" 2" HD COUPLING (VERT.)	554387.28	1333885.54	
5+38	12" X 6" FH TEE	554304.54	1334022.47	
5+43	12" 2" HD COUPLING (VERT.)	554301.94	1334026.75	
8+26-0+00 LT	12" X 8" TEE	554155.47	1334269.22	
8+29	12" V	554154.01	1334271.53	
8+31	12" CAP	554152.61	1334273.67	
0+04 LT.	8" V	554159.04	1334271.38	
0+14 LT.	8" 1/32 HB	554166.94	1334276.21	

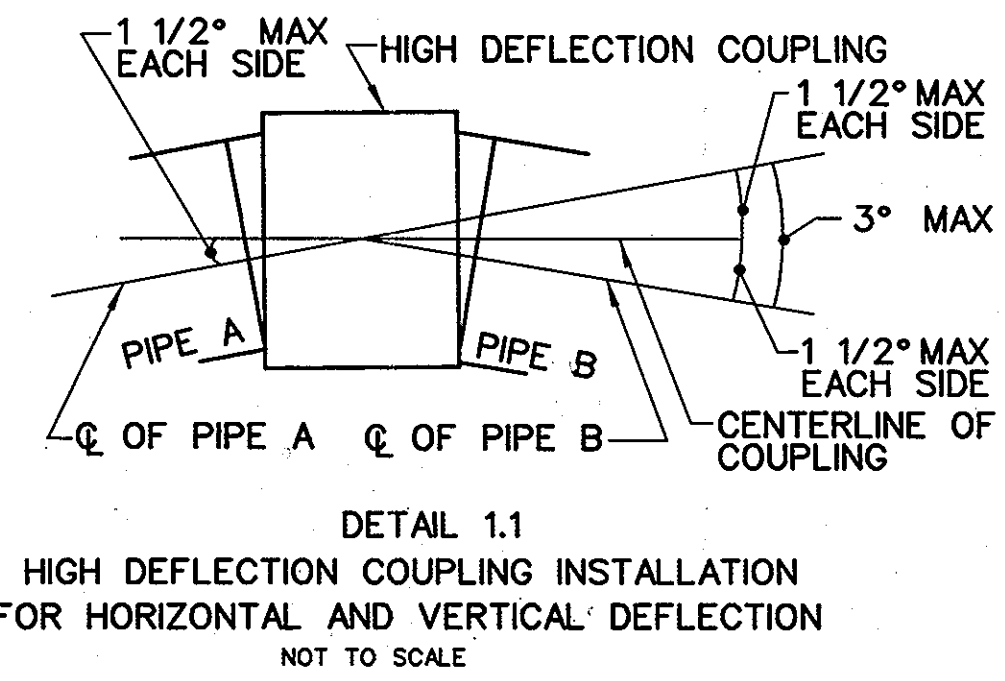


PROFILE
SCALE: HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

AS-BUILT
DATE: 8/23/2011

PROFILE
SCALE: HORIZONTAL 1" = 50'
VERTICAL 1" = 5'

NOTE: THE MAXIMUM ALLOWED DEFLECTION AT THE HIGH DEFLECTION COUPLING IS 3" WITH 1.5" ON EACH SIDE



PLOTTED: 10:50 PM on Tuesday, July 20, 2010
 BY: Chubino Wang, Division P042, W-W-Solid Waste, GMA, Emp. #1210
 FILE: M:\2007\0071578\Drawings\07157819-pen c-01.dgn

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John A. Alsho
DIRECTOR OF PUBLIC WORKS
DATE: 9/10/10

Paul R. Pappas
CHIEF, BUREAU OF ENGINEERING
DATE: 9/10/10

Paul R. Pappas
CHIEF, UTILITY DESIGN DIVISION
DATE: 9/10/10

KCI TECHNOLOGIES
936 RIDGEBROOK ROAD
SPRING, MARYLAND 21152
TELEPHONE: (410) 316-7800
FAX: (410) 316-7818
WWW.KCI.COM

STATE OF MARYLAND
PROFESSIONAL ENGINEER
NO. 31383
EXPIRATION DATE: 1/16/2012

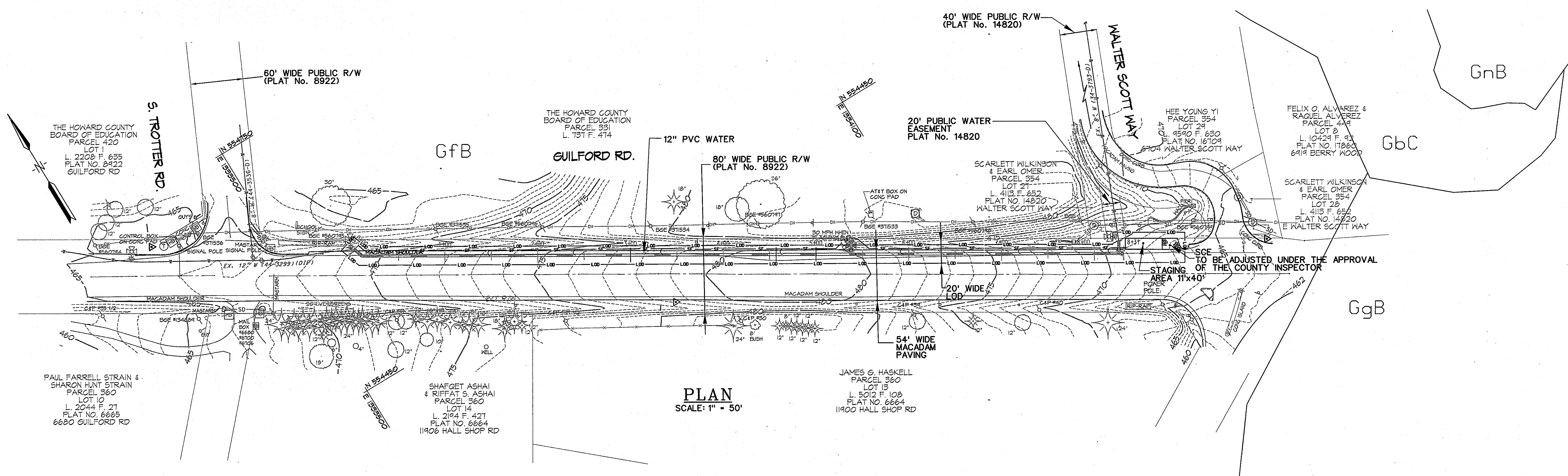
DES: GW	DRN: CK	CHK: TW	DATE: MAY 2010
BY: LFN	NO: AS BUILT	REVISION: 8-23-11	DATE: 8-23-11

12" WATER MAIN
PLAN AND PROFILE

600' SCALE MAP NO. 35 BLOCK NO. 19 & 20

GUILFORD ROAD WATER MAIN LOOP
CAPITAL PROJECT No. W-8298
CONTRACT No. 44-4681
ELECTION DISTRICT NO. 5TH HOWARD COUNTY, MD

SCALE AS SHOWN
SHEET 2 OF 5



PLAN
SCALE: 1" = 50'

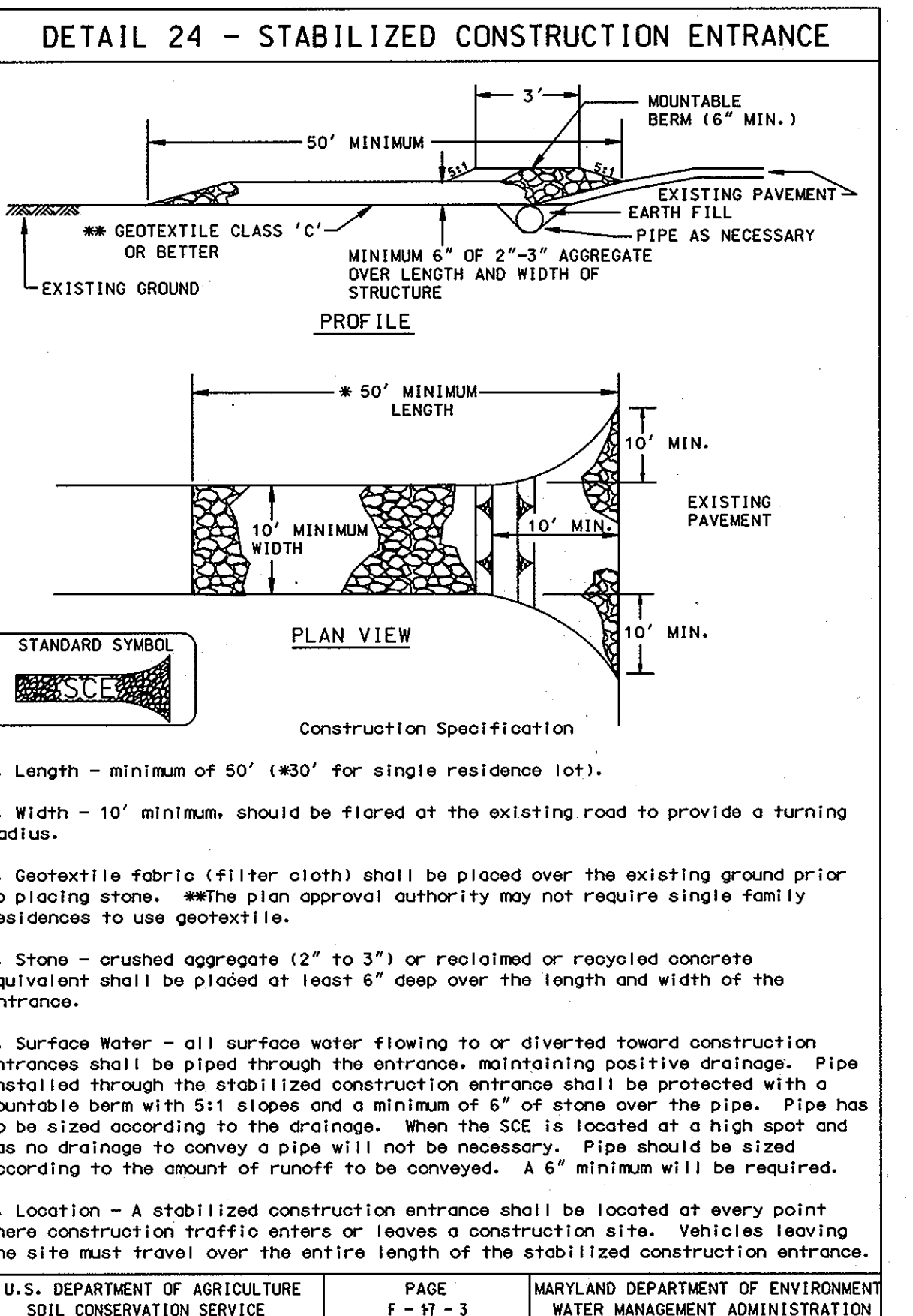
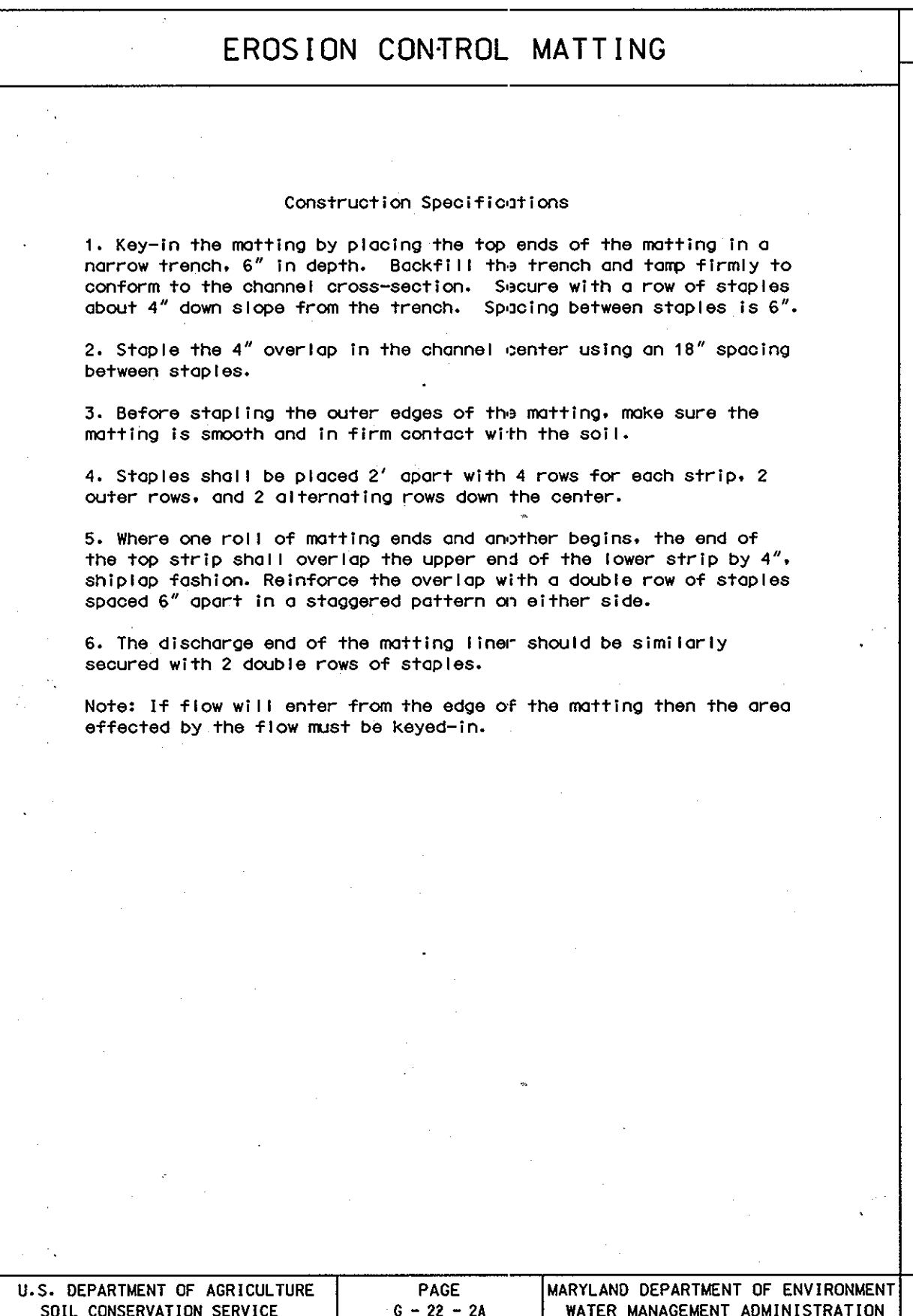
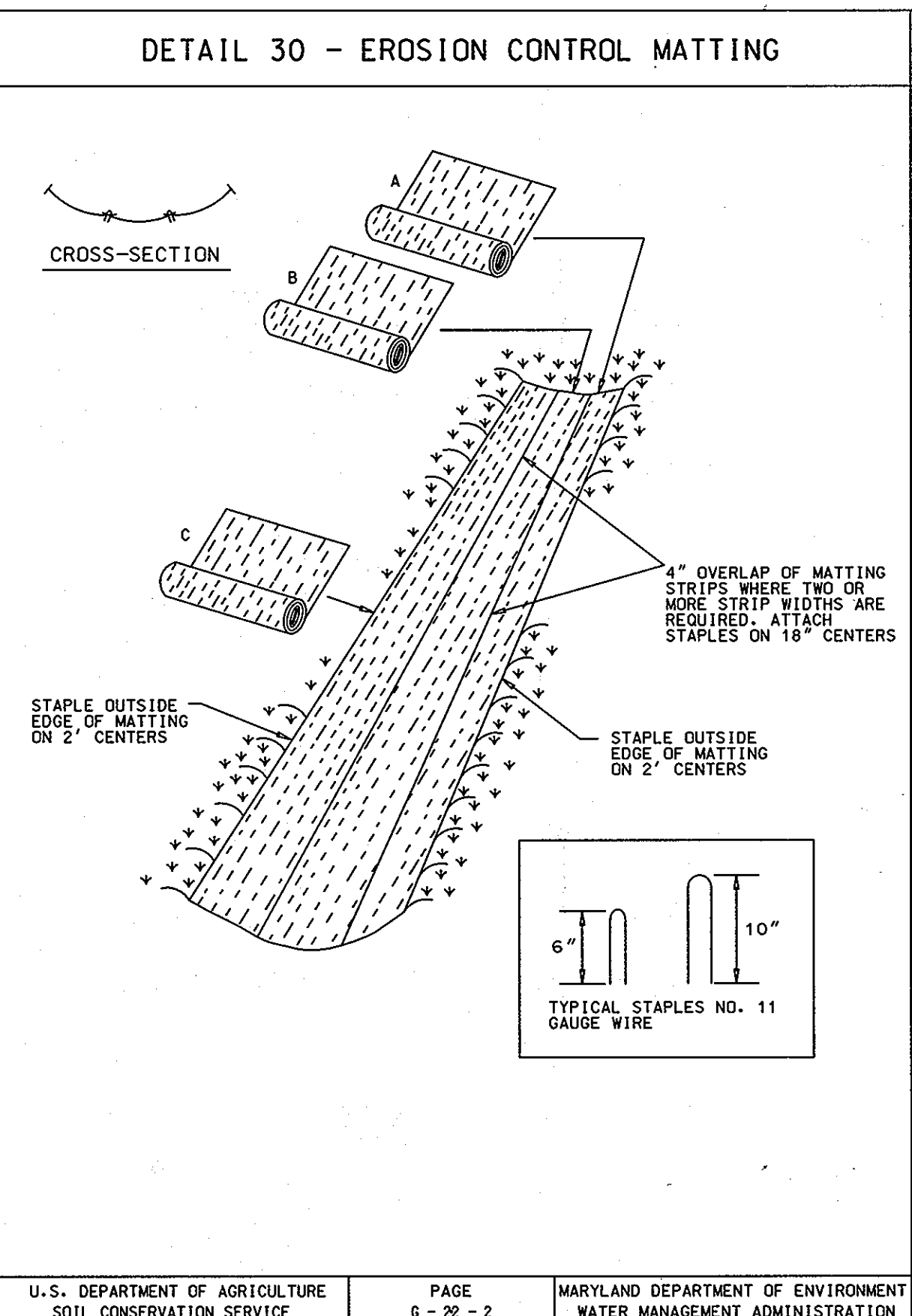
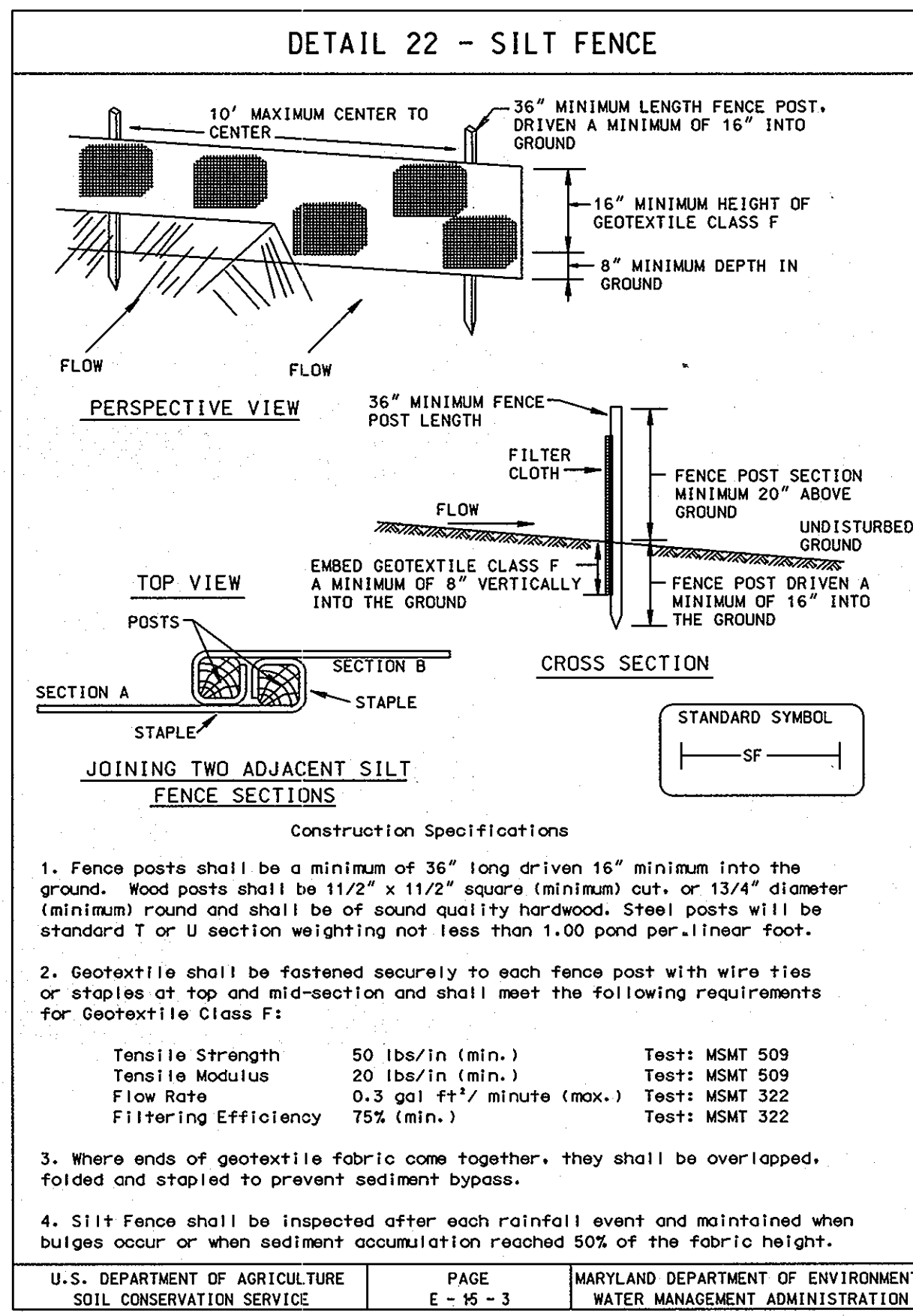
- NOTE: 1. SOIL INFORMATION IS BASED ON HOWARD COUNTY GIS SOIL MAP
 GbC: GLADSTONE -LOAM, 8 TO 15 PERCENT SLOPES
 GfB: GLADSTONE - URBAN LAND COMLEX, 0 TO 8 PERCENT SLOPES
 GgB: GLENELG LOAM, 3 TO 8 PERCENT SLOPES
 GnB: GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES
2. TOPSOIL SHALL BE PROVIDED IN ACCORDANCE WITH THE LATEST EDITION OF THE SHA STANDARD SPECIFICATION OF CONSTRUCTION AND MATERIALS, SECTION 920 - LANDSCAPING MATERIALS.

AS-BUILT
DATE: 8/23/2011

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. 15528 EXPIRATION DATE: 9/12/2011

PLOTTED: 02:29 PM on Tuesday, July 20, 2010
 BY: Chuhua Wang, Division P042, W-W-Solid Waste, GMA Emp
 FILE: M:\2007\00717578\Drawings\00717578-Sub 5-02A.dgn

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 9/13/10 Chief, Bureau of Utilities: <i>[Signature]</i> 9/13/10	 ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS 936 RIDGEBROOK ROAD SUITE 200, MARYLAND 21152 Telephone: (410) 316-7800 Fax: (410) 316-7818 www.kci.com	 CHUHUAWANG PROFESSIONAL ENGINEER	DES: GW DRN: CK CHK: TW DATE: MAY 2010	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>BY</th> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	BY	NO.	REVISION	DATE					SEDIMENT CONTROL PLAN 600' SCALE MAP NO. 35 BLOCK NO. 19 & 20	GUILFORD ROAD WATER MAIN LOOP CAPITAL PROJECT No. W-8298 CONTRACT No. 44-4681 ELECTION DISTRICT NO. 5TH HOWARD COUNTY, MD	SCALE AS SHOWN SHEET 3 OF 5
BY	NO.	REVISION	DATE												



SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- LAYOUT ALIGNMENT AT SITE. (10 DAYS)
- INSTALL SEDIMENT CONTROL DEVICES AS SHOWN ON PLAN.
- EXCAVATE DITCH TO THE GRADE SPECIFIED ON THE PROFILE. INSTALL WATER MAIN AND BACK FILL TRENCH AND STABILIZE IN KIND (30 DAYS) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 25' OF PIPE LENGTH OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- CLEAN UP CONSTRUCTION SITE. (1 DAY)
- REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR. (1 DAY)

PERMANENT SEEDING NOTES

LIME SOIL AMENDMENTS

A. GROUND AGRICULTURAL LIMESTONE (100 POUNDS OF GROUND LIMESTONE IS EQUIVALENT TO 75 POUNDS OF HYDRATED LIME OR 50 POUNDS OF BURNED LIME). THE CONTRACTOR WILL SPECIFY WHAT MATERIAL HE IS USING. LIME SHALL CONTAIN NOT LESS THAN 85% OF TOTAL CARBONATES, 50% PASS 100 MESH, 90% PASS 20 MESH.

B. LIME SHALL BE APPLIED SEPARATELY AND PRIOR TO THE APPLICATION OF ANY FERTILIZER OR SEED AND ONLY ON SEEDBEDS THAT HAVE PREVIOUSLY BEEN PREPARED AS PER THE SPECIFICATIONS. LIME SHALL BE INCORPORATED WITHIN 24 HRS FOLLOWING ITS APPLICATION. LIME SHALL BE WORKED INTO A DEPTH OF SIX (6) INCHES AFTER WHICH THE SEEDBED SHALL AGAIN BE PROPERLY GRADED AND DRESSED TO A SMOOTH FINISH.

LIMING PROCEDURES:

A. LIME SHALL BE SPREAD AT A RATE OF 1.5 TONS PER ACRE AND INCORPORATED IN A MANNER THAT ACHIEVES UNIFORM DISTRIBUTION.

FERTILIZATION:

MUST USE A BLENDED FERTILIZER WITH A N-P-K RATIO ON THE ORDER OF 1-3-2 SUCH AS 5-25-10 BLEND. A MINIMUM OF 50% OF THE NITROGEN MUST BE A SLOW RELEASE SOURCE OF NITROGEN.

SEED SELECTION & RATES

SEED MIXTURE FOR SPRING OR FALL SEEDING SHALL BE AS FOLLOWS:

%	BOTANICAL NAME	COMMON NAME	TYPE	IND.
10%	AGROSTIS ALBA	REEDTOP	N/A	FACV
10%	ANDROPOGON GERARDII	BIG BLUESTEM	WARM SEASON FAC	
10%	ELYMUS RIPARIUS	RIVERBANK WILD RYE	COOL SEASON FACV	
10%	ELYMUS VIRGINICUS	VIRGINIA WILD RYE	COOL SEASON FACV	
45%	LOLIUM MULTIFLORUM	ANNUAL RYEGRASS	N/A	NI
10%	PANICUM VIRGATUM	SWITCHGRASS	WARM SEASON FAC	
5%	CHAMAECRISTA FASCICULATE	PARTRIDGE PEA	LEGUME	

COMPLETE SEED MIX APPLIED AT A RATE OF 50 LBS/AC

SEED MIX FOR SUMMER SEEDING SHALL BE AS FOLLOWS:

50%	LOLIUM MULTIFLORUM	ANNUAL RYEGRASS
50%	SETARIA ITALICA	FOXTAIL MILLET

SEED AT 4.0 LBS. PER 1,000 SQ. FT.

SCHEDULE

SEED SHALL BE SOWN BETWEEN MARCH 15 TO MAY 15 OR AUGUST 15 TO OCTOBER 30.

TEMPORARY SEEDING NOTES

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

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

SOIL AMENDMENTS: - APPLY 600 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 KEEPING LOVEGRASS (.87 LBS/1000 SQ FT.). FOR THE PERIOD NOVEMBER 15 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS

HOWARD SOIL CONSERVATION DISTRICT CERTIFICATION:

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

John R. Rouse 9/15/10
HOWARD SOIL CONSERVATION DISTRICT DATE

DEVELOPER'S 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 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."

John R. Rouse 9/15/10
BUREAU OF ENGINEERING AND DEPARTMENT OF PUBLIC WORKS DATE

ENGINEER'S CERTIFICATION

"I/WE 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."

Guthua Wang 9/8/2010
GUTHUA WANG
KCI TECHNOLOGIES
936 RIDGEBROOK RD.
SPARKS, MARYLAND 21152 DATE

STANDARD SEDIMENT CONTROL NOTES

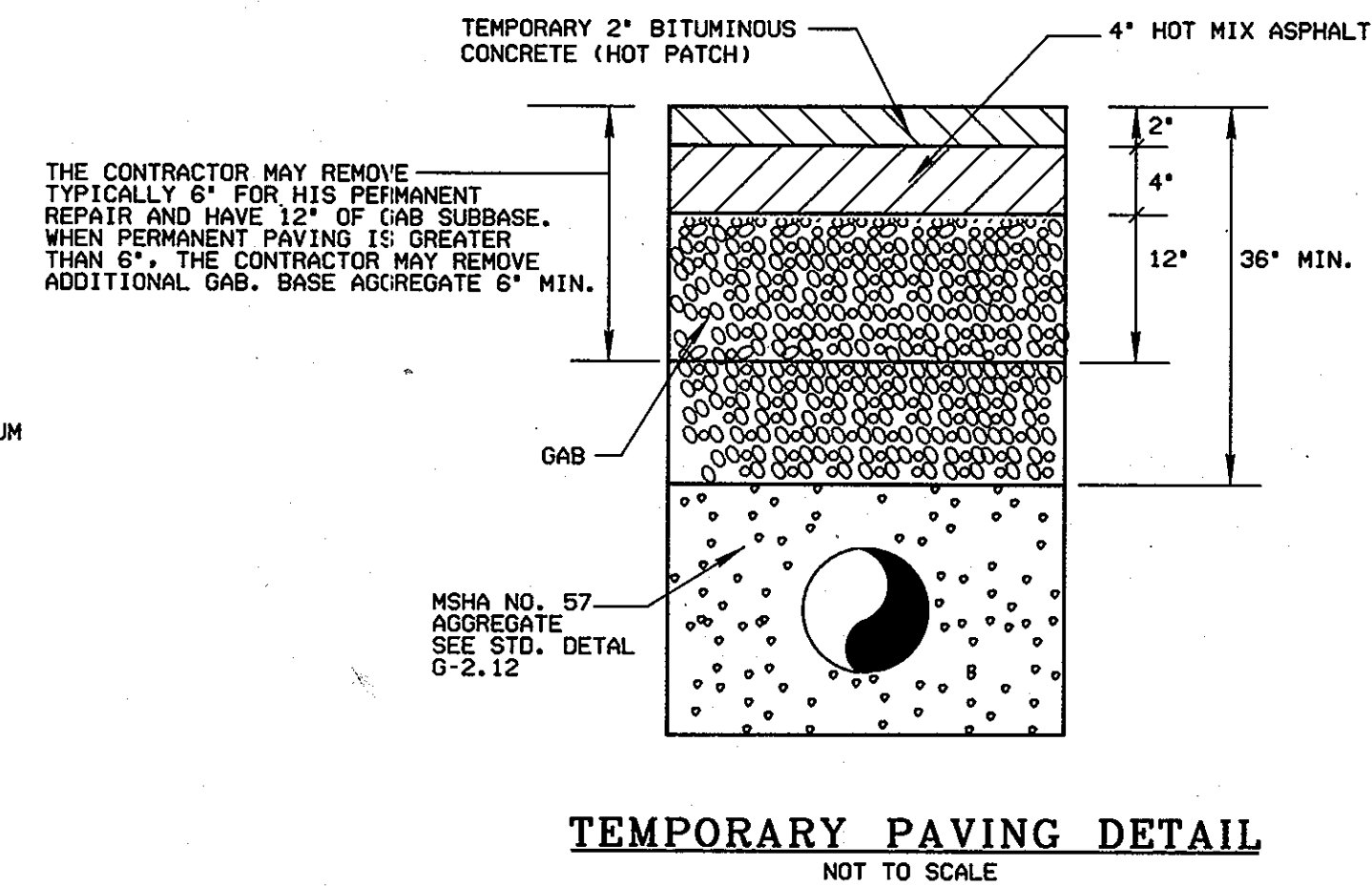
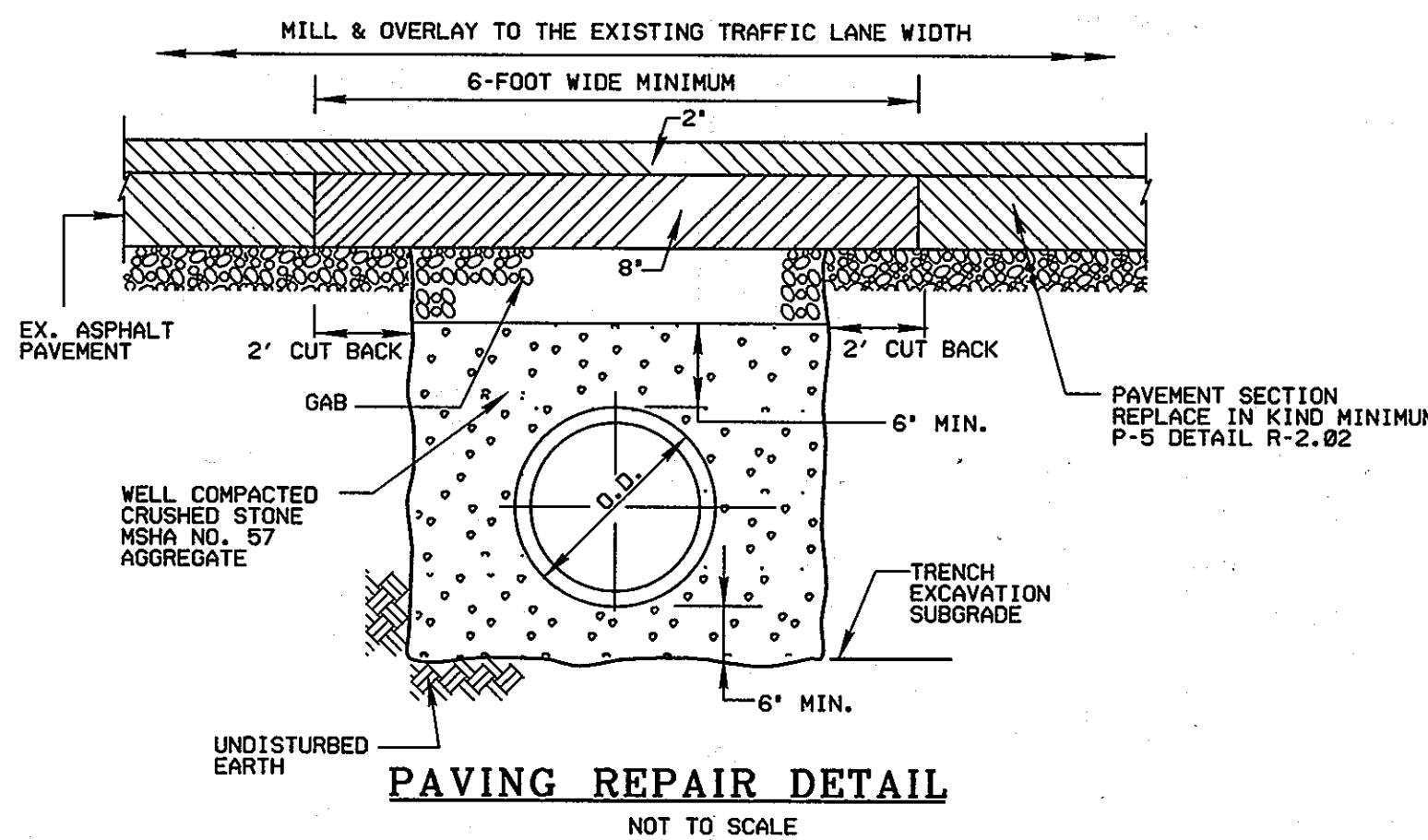
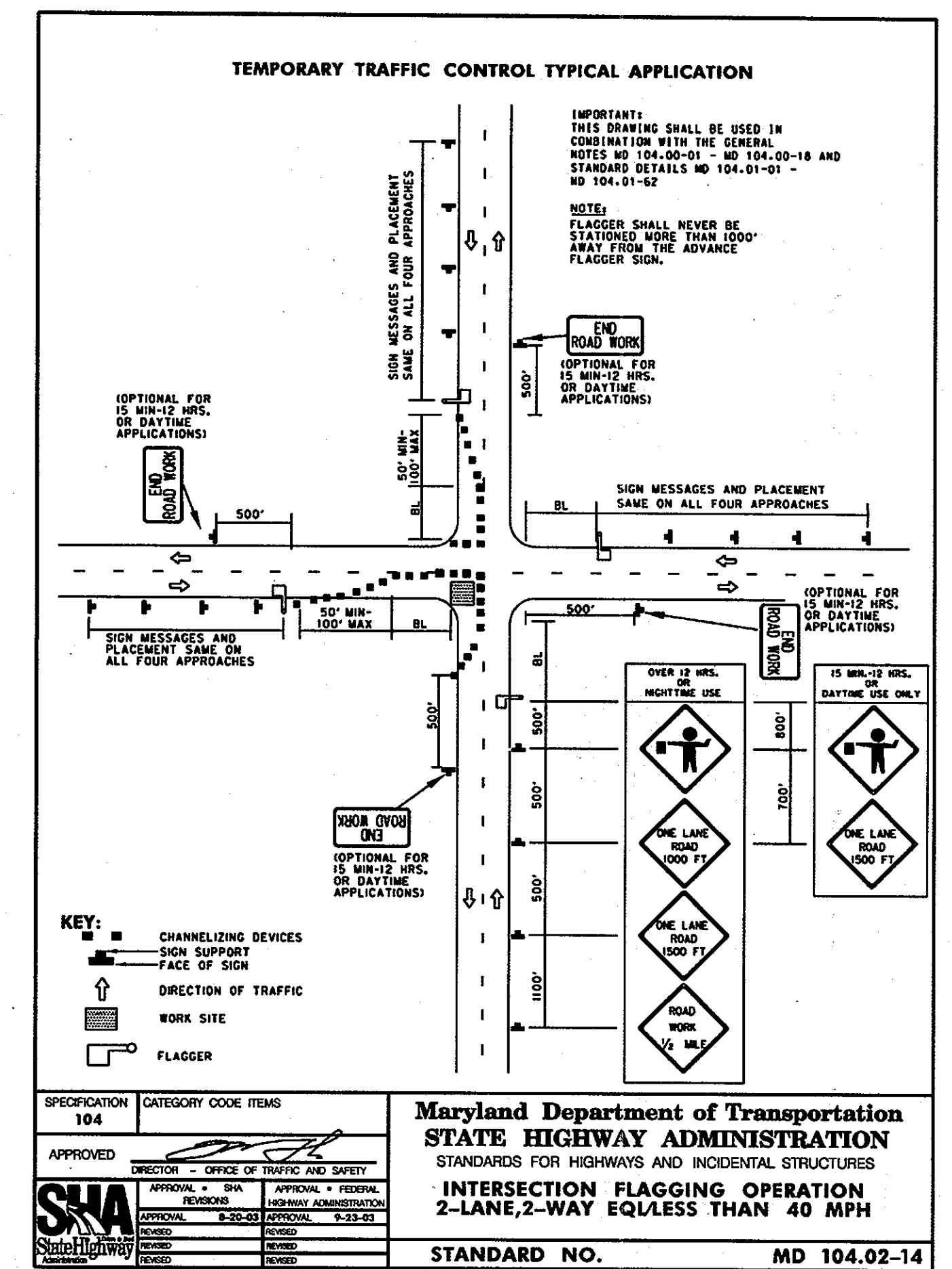
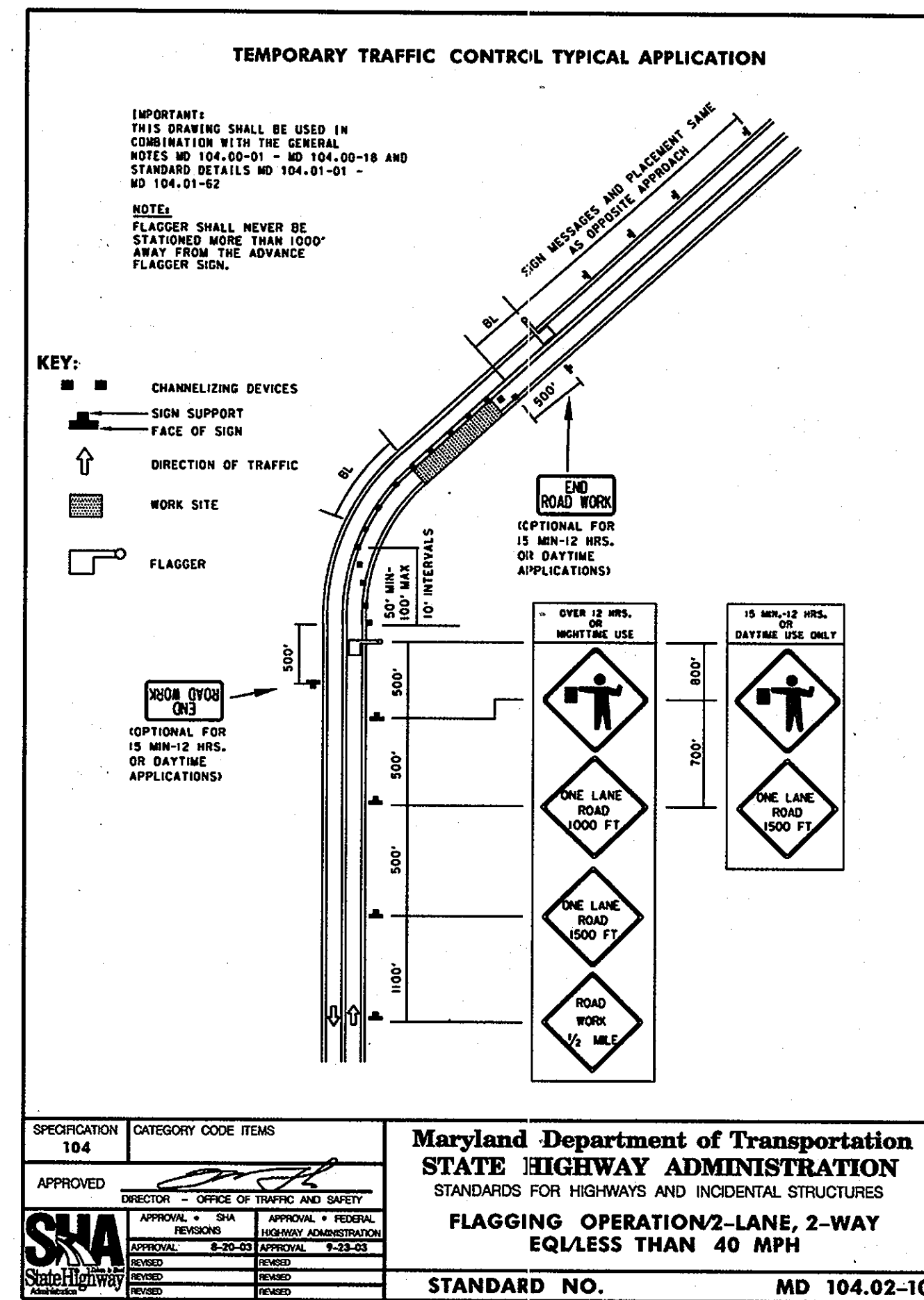
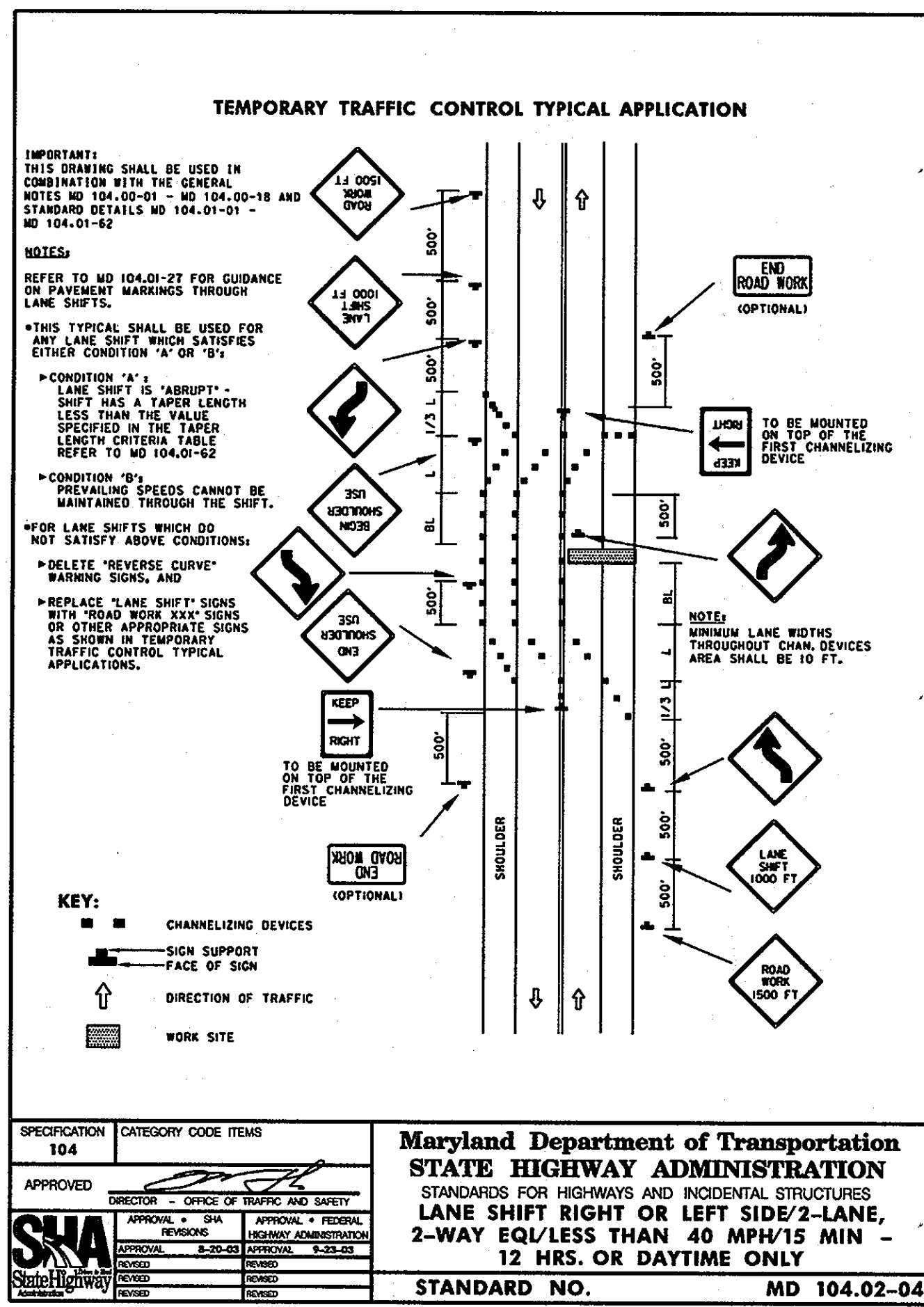
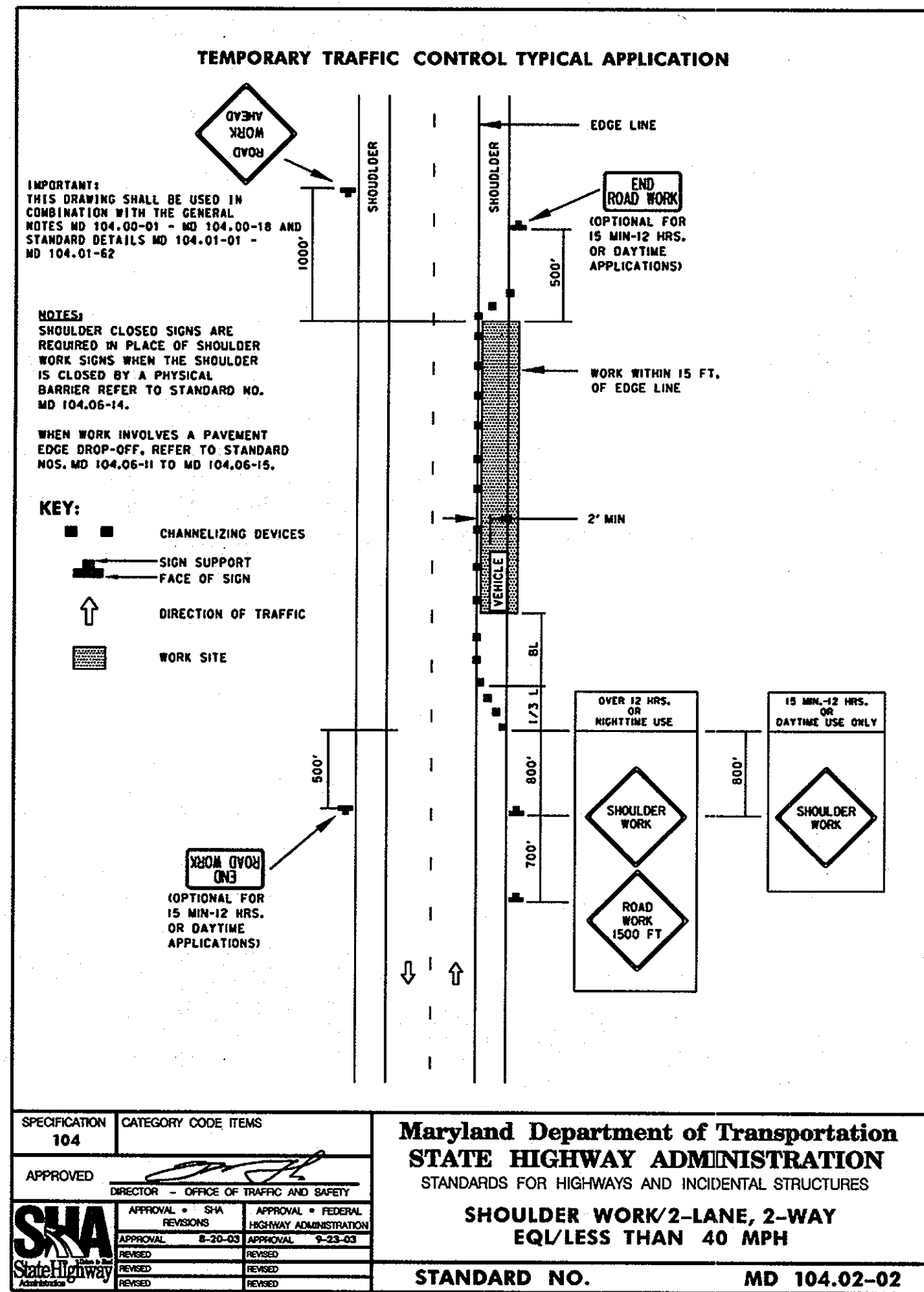
- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (410-313-1855).
- ALL VEGETIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 - 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 (SEC. G20.0) 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 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	N/A	ACRES
AREA DISTURBED	0.045	ACRES
AREA TO BE ROOFED OR PAVED WITHIN	0.044	ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.001	ACRES
TOTAL CUT	N/A	CU. YDS.
TOTAL FILL	N/A	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 THE DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY 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.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- CONTRACTOR SHALL PLACE EXCAVATED MATERIALS ON UPHILL SIDE OF TRENCH AND PLACE SILT FENCE ON DOWNHILL SIDE OF TRENCH.

AS-BUILT
DATE 8/23/2011

PLOTTED: 10:37 PM on Wednesday, September 08, 2010
BY: Kevin Jackson, Division: P042, W-WW-Solid Waste OMA, Emp
FILE: M:\2007\0107178\19\Drawings\0107178-19-See c-02.dwg

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>John R. Rouse</i> 9/15/10 DIRECTOR OF PUBLIC WORKS DATE		ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS 936 RIDGEBROOK ROAD SPARKS, MARYLAND 21152 TELEPHONE: (410) 316-7800 FAX: (410) 316-7818 www.kci.com		DES: GW DRN: CK CHK: TW DATE: MAY 2010		EROSION AND SEDIMENT CONTROL NOTES AND DETAILS 600' SCALE MAP NO. 35 BLOCK NO. 19 & 20		GUILFORD ROAD WATER MAIN LOOP CAPITAL PROJECT No. W-8298 CONTRACT No. 44-4681 ELECTION DISTRICT NO. 5TH HOWARD COUNTY, MD		SCALE AS SHOWN SHEET 4 OF 5
--	--	--	--	---	--	---	--	--	--	--------------------------------------



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. 31363. EXPIRATION DATE: 1/16/2012.

AS-BUILT
DATE 8/23/2011

PLOTTED: 10:33 PM on Wednesday, September 08, 2010
FILE: M:\2007\07\19\18\18.dwg
PLOT: M:\2007\07\19\18\18.dwg

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 9/16/10
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 9/16/10
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 9/16/10
CHIEF, BUREAU OF UTILITIES DATE

[Signature] 9/16/10
CHIEF, UTILITY DESIGN DIVISION DATE

KCI TECHNOLOGIES
ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

936 RIDGEBROOK ROAD
SPARKS, MARYLAND 21152
TELEPHONE: (410) 316-7800
FAX: (410) 316-7818
www.kci.com

STATE OF MARYLAND
GUILFORD ROAD WATER MAIN LOOP
PROFESSIONAL ENGINEER
LICENSE NO. 31363

DES: GW				
DRN: CK				
CHK: TW				
DATE: MAY 2010	BY	NO.	REVISION	DATE

TRAFFIC CONTROL PLAN
AND PAVEMENT DETAILS

600' SCALE MAP NO. 35 BLOCK NO. 19 & 20

GUILFORD ROAD WATER MAIN LOOP
CAPITAL PROJECT No. W-8298
CONTRACT No. 44-4681

ELECTION DISTRICT NO. 5TH HOWARD COUNTY, MD

SCALE AS SHOWN
SHEET 5 OF 5