

OAKLAND MILLS COMPLETE STREETS PROJECT

CAPITAL PROJECT CONTRACT NO. K5066 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

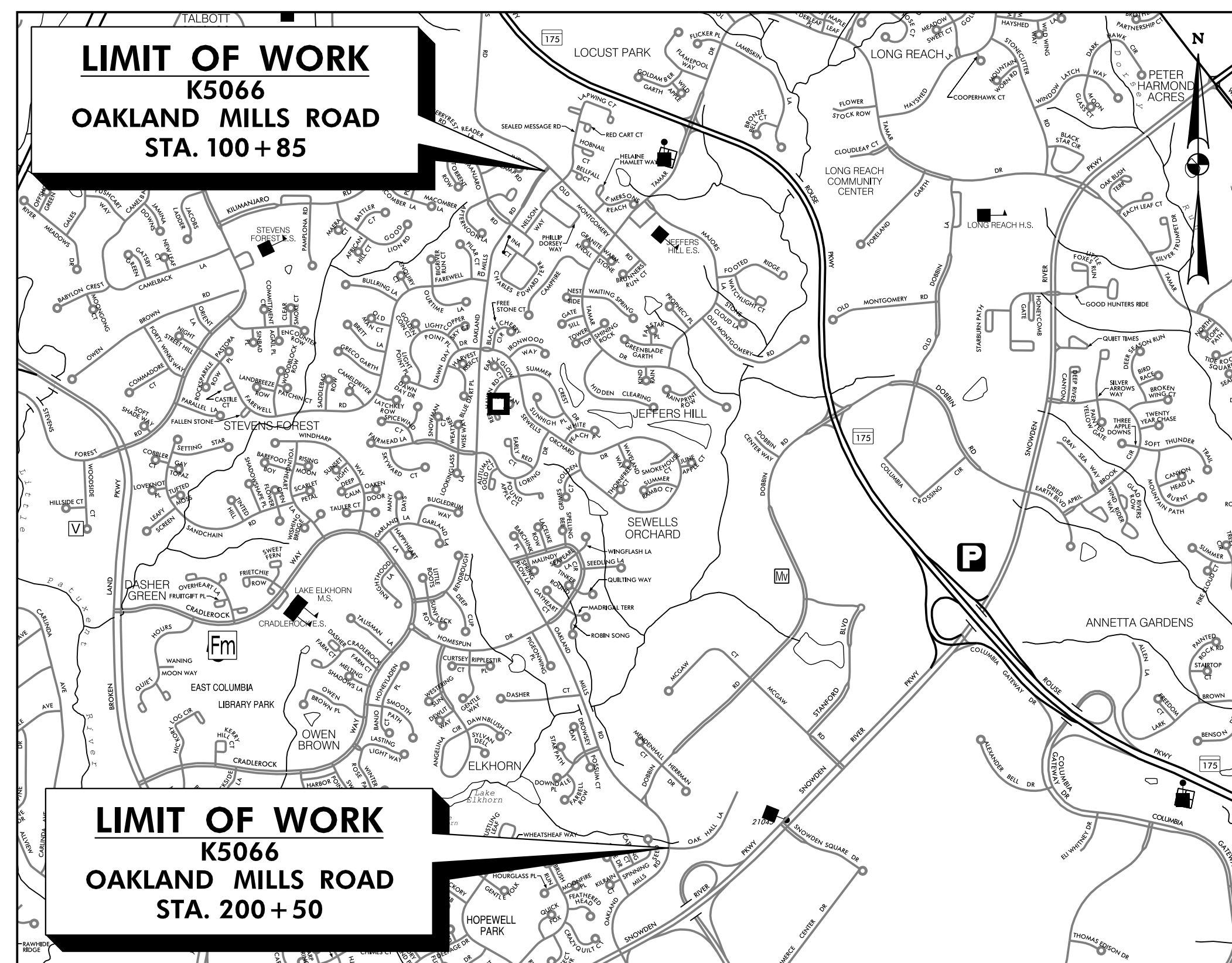
GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION (MDOT-SHA) STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST THREE (3) DAYS PRIOR TO ANY EXCAVATION WORK BEING DONE. THE CONTRACTOR SHALL CONTACT THE FOLLOWING UTILITIES AT LEAST 5 DAYS PRIOR TO BEGINNING ANY WORK UNDER THIS CONTRACT. FOR ADDITIONAL INFORMATION AND REQUIREMENTS WITH RESPECT TO UTILITIES, SEE SPECIAL PROVISIONS.

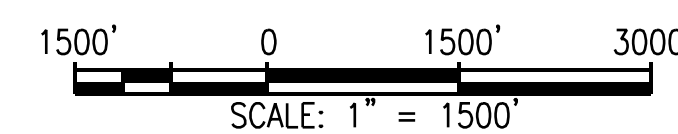
BUREAU OF UTILITIES, HOWARD COUNTY, 410-313-4900
 BGE GAS DIVISION (410) 291-5834
 BGE ELECTRIC DIVISION (410) 470-4494
 VERIZON (410) 224-9980
 COMCAST, 410-931-4600
 COMCAST FIBER, 410-427-9600

- TRAFFIC CONTROL DEVICES:
 - THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES.
 - ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MdMUTCD).
 - ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH"), SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- THE EXISTING UTILITIES SHOWN HEREON ARE LOCATED FROM THE BEST INFORMATION AVAILABLE, BUT NO GUARANTEE IS MADE TO THEIR ACCURACY. THE APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION AND CONVENIENCE. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES TO HIS OWN SATISFACTION AND WELL IN ADVANCE OF ANY CONSTRUCTION ACTIVITIES. ADDITIONALLY, THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE.
- NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.
- THE CONTRACTOR SHALL TAKE EXTREME CAUTION NOT TO DISTURB THE EXISTING VEGETATION OUTSIDE THE LIMITS OF CONSTRUCTION. SOIL STABILIZATION SHALL CONFORM TO "MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL," DATED 2011, PUBLISHED JOINTLY BY MDE WATER MANAGEMENT ADMINISTRATION, NATURAL RESOURCES SOIL CONSERVATION SERVICE, AND MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS.
- ALL FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED AND VERIFIED IN ACCORDANCE WITH AASHTO T-180.
- ANY DAMAGE CAUSED BY THE CONTRACTOR TO THE EXISTING PUBLIC RIGHT-OF-WAY, EXISTING PAVING, EXISTING CURB AND GUTTER, EXISTING UTILITIES, ETC. SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.
- THE CONTRACTOR SHALL MAINTAIN AS BUILT SET OF PLANS REFLECTING ALL FIELD CHANGES AND SHALL FURNISH THIS SET TO THE COUNTY UPON COMPLETION OF THE PROJECT.

SHEET INDEX		
SHEET	DRAWING	DESCRIPTION
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16-27	MT-01 TO MT-12	MAINTENANCE OF TRAFFIC - STAGE 2A AND 2B
28	SN-1	SIGNING AND MARKING GENERAL NOTES AND PROPOSALS
29-40	SN-2.01 TO SN-2.12	SIGNING AND MARKING PLAN
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42-44	SG-01 TO SG-03	TRAFFIC SIGNAL PLAN - OAKLAND MILLS ROAD AT DOBBIN ROAD
45-47	SG-04 TO SG-06	TRAFFIC SIGNAL PLAN - OAKLAND MILLS ROAD AT HOMESPUN DRIVE AND MALINDY CIRCLE
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VICINITY MAP



OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS 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 ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

OWNER'S/DEVELOPER'S SIGNATURE _____ DATE _____

PRINTED NAME & TITLE _____

"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. 24797, EXPIRATION DATE: 03-01-2024."

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND.			
DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF HIGHWAYS	DATE
CHIEF, BUREAU OF ENGINEERING	DATE	CHIEF, TRAFFIC ENGINEERING DIVISION	DATE

PREPARED BY :



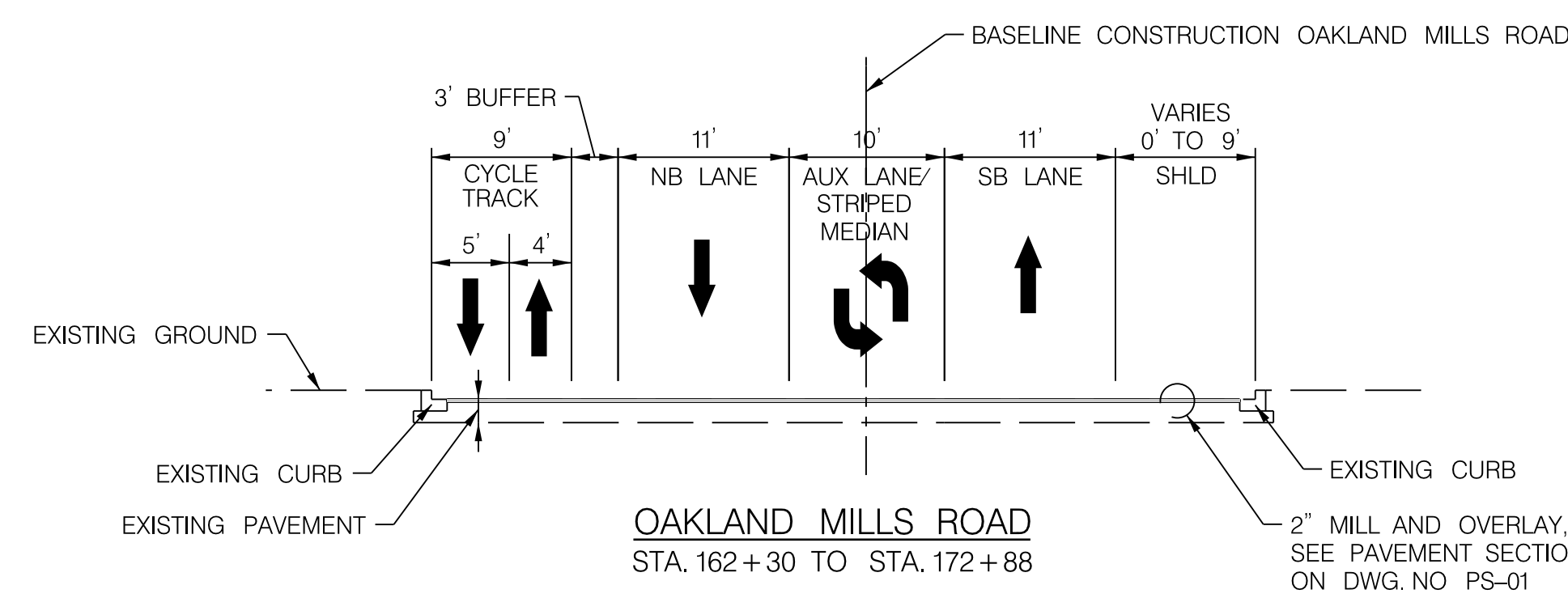
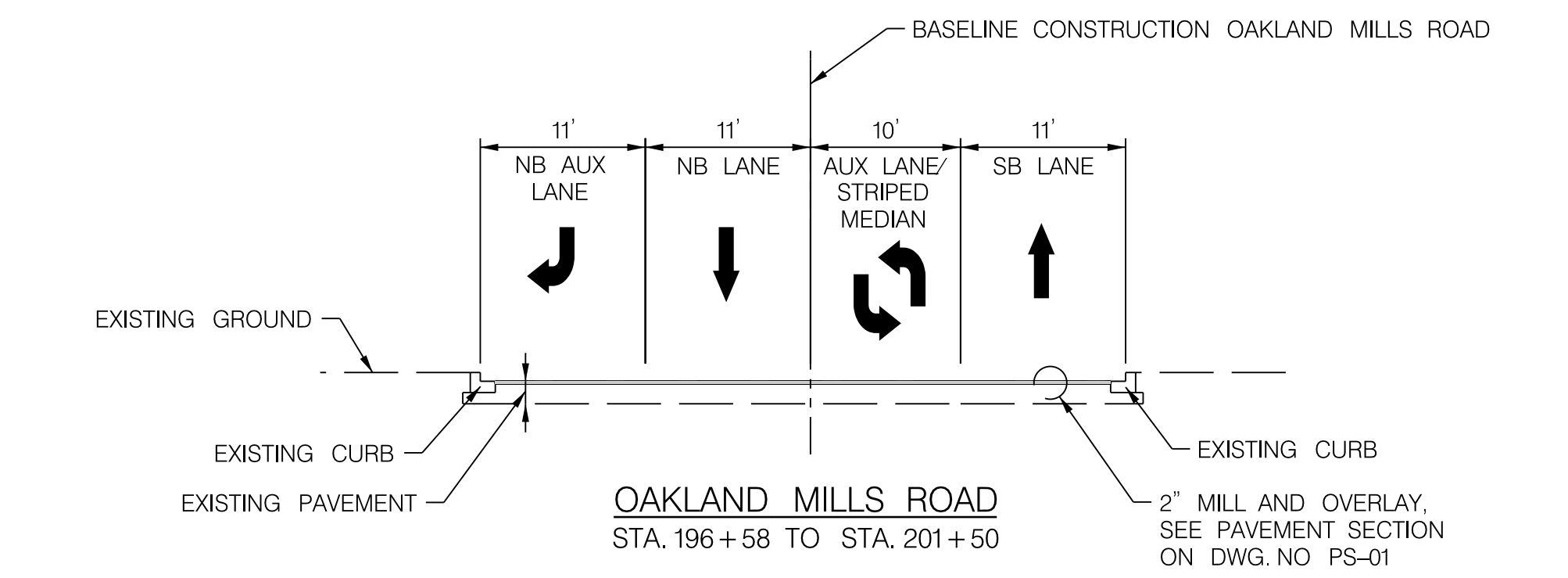
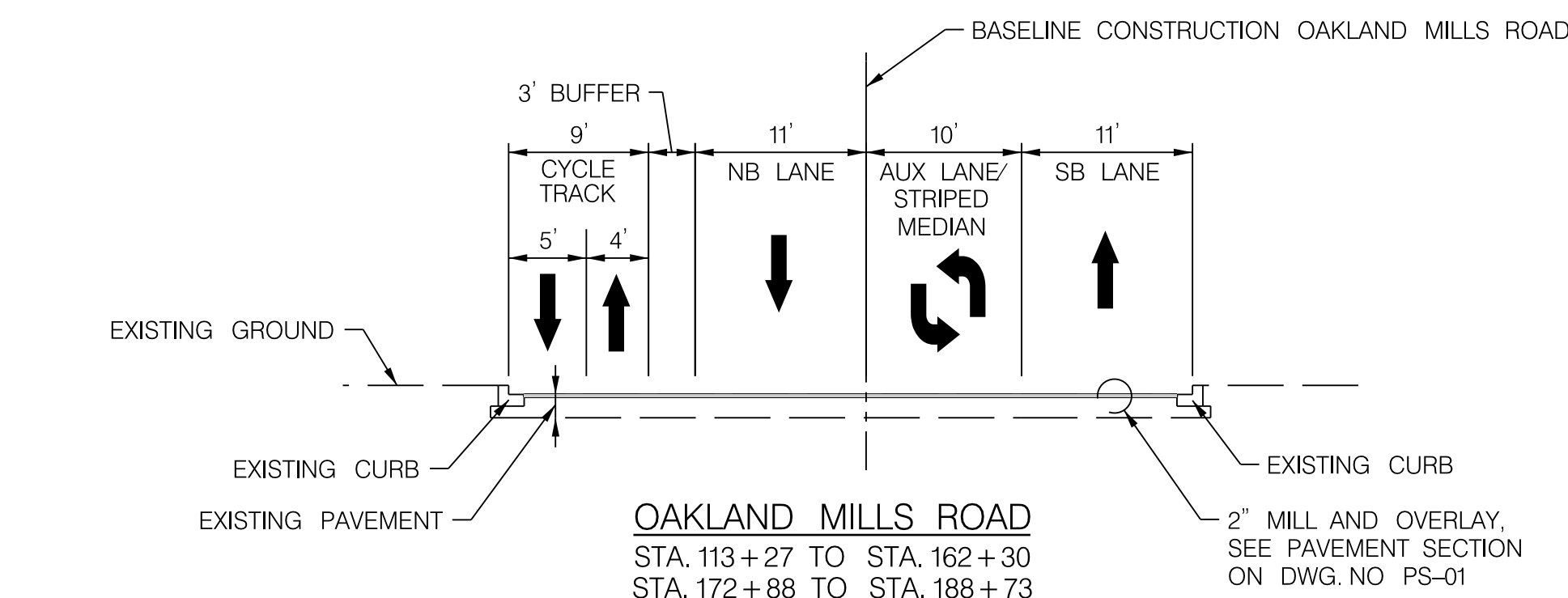
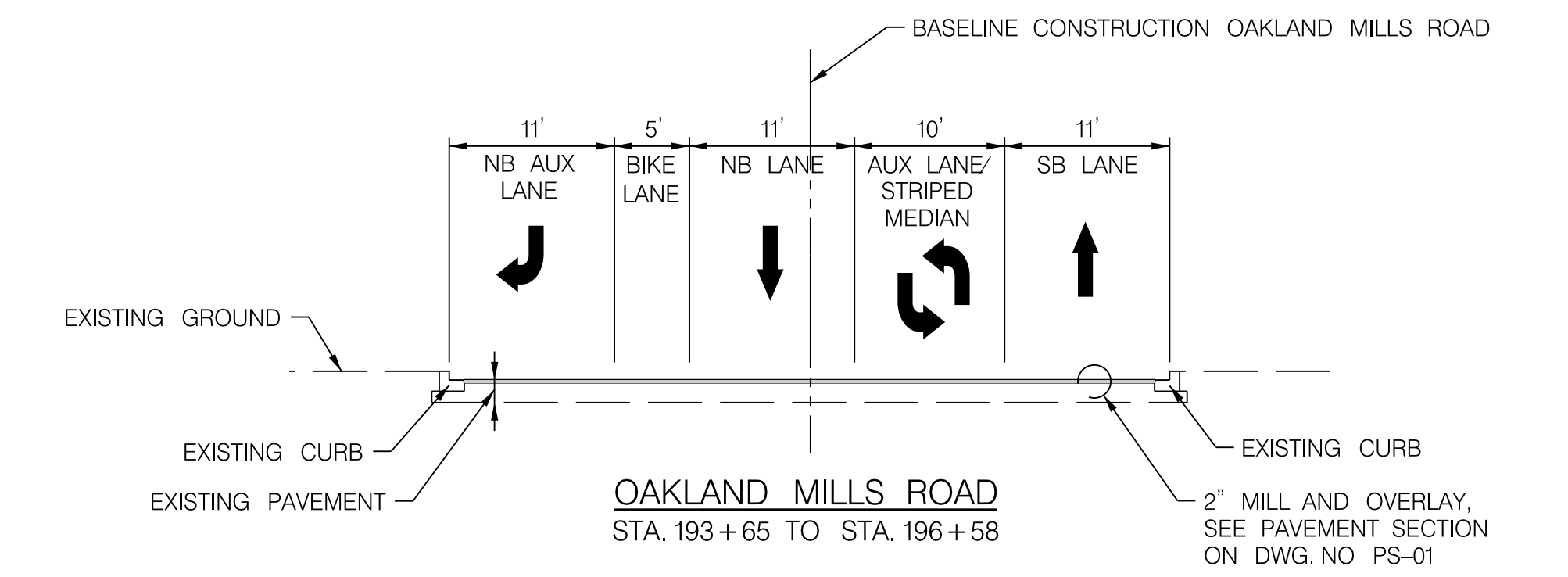
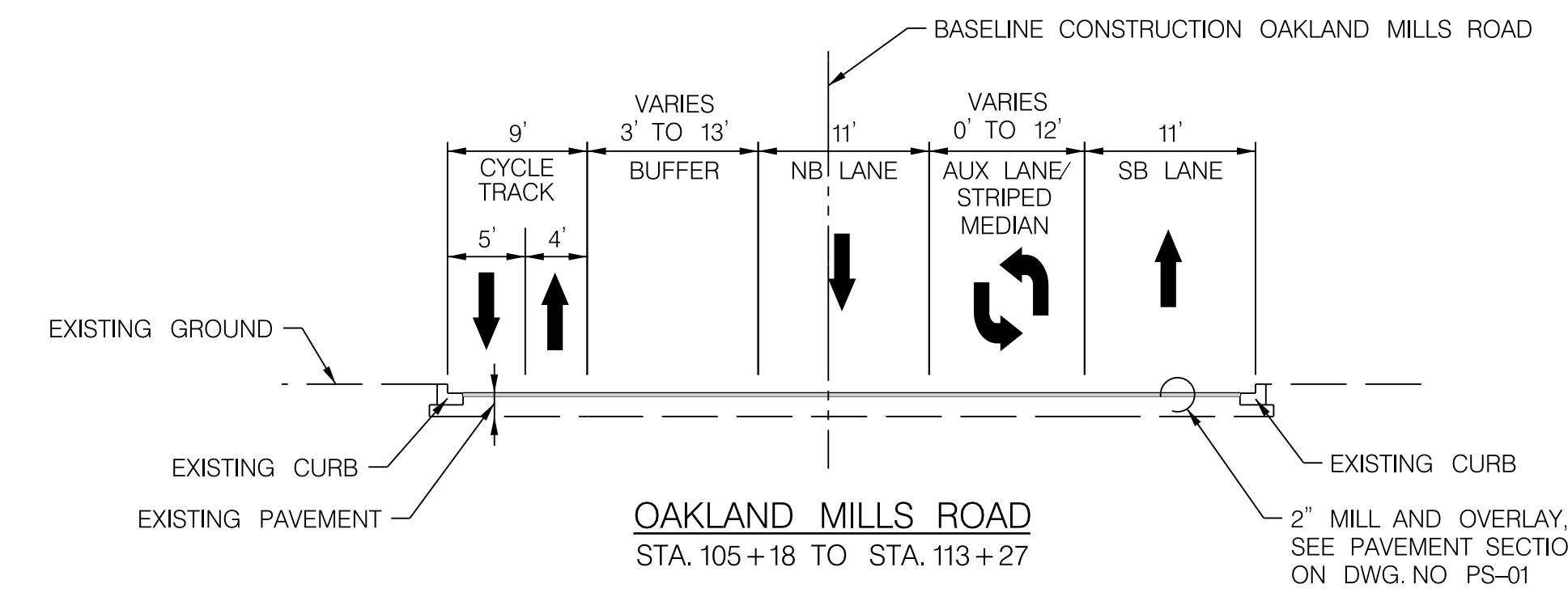
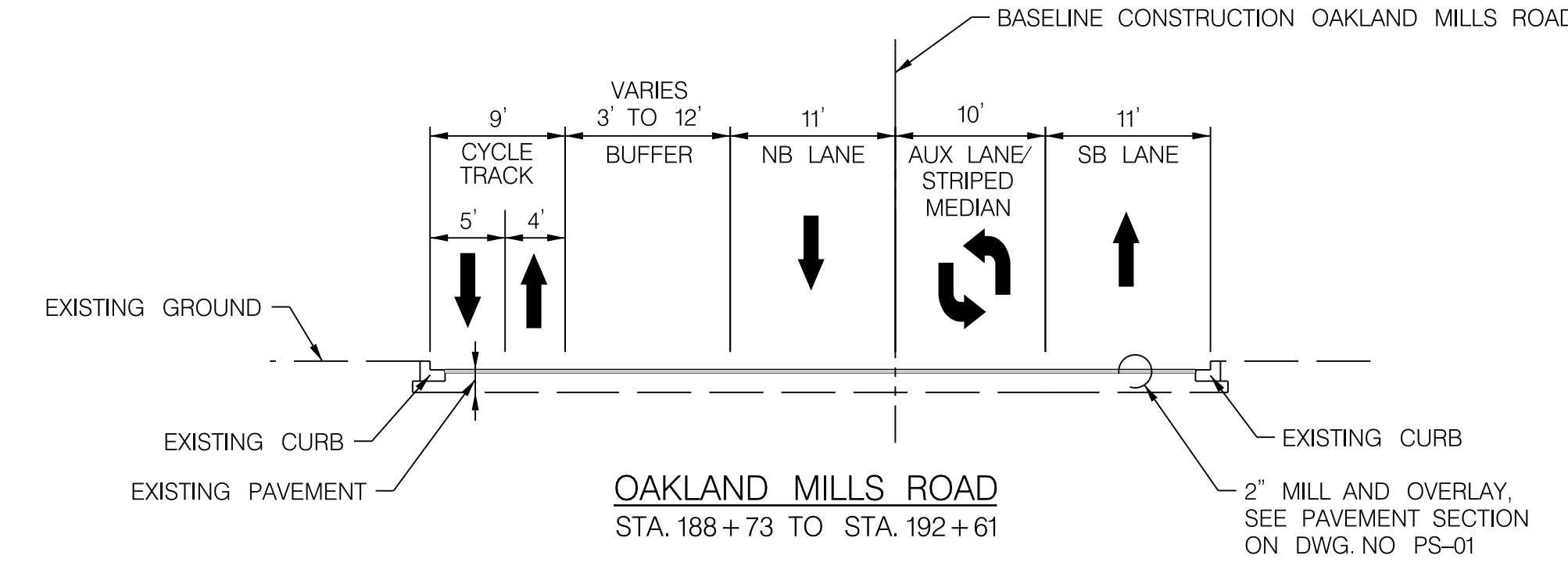
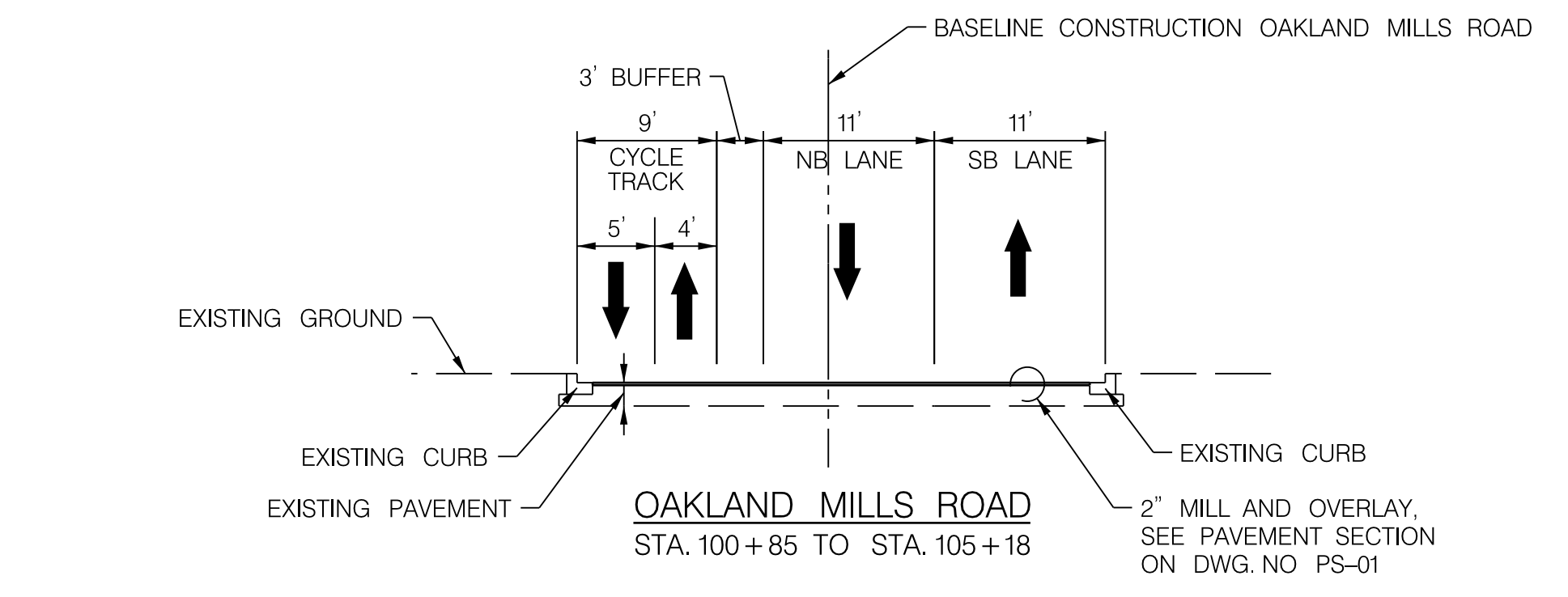
Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: NSP			
CHK: MTR			
DATE: 05/22	BY	NO.	REVISION

TITLE SHEET	
600' SCALE MAP NO. _____	BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066 OAKLAND MILLS COMPLETE STREETS PROJECT	
ELECTION DISTRICT 6	HOWARD COUNTY, MARYLAND

DWG.	TI 01
SCALE	NONE
SHEET	1 OF 50



- NOTES**
1. THE BASELINE IS FOR ILLUSTRATIVE PURPOSES ONLY.
 2. FOR LIMITS OF LANE AND BUFFER WIDTH TAPERS REFER TO THE SIGNING AND MARKING PLANS.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :



Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 04/22	BY	NO.	REVISION

TYPICAL SECTIONS

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. TS-01

SCALE 1" = 10'

SHEET 2 OF 50

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

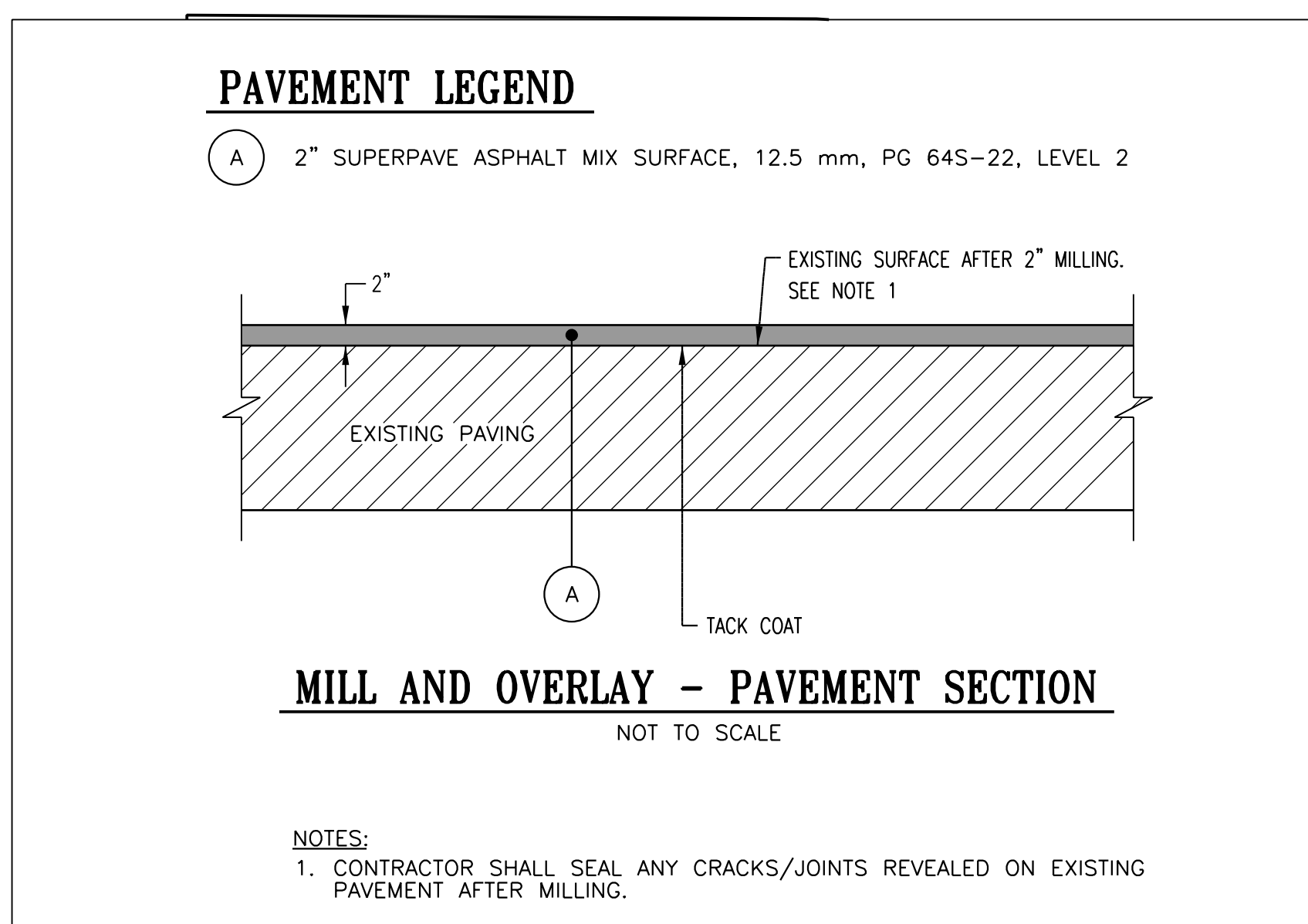
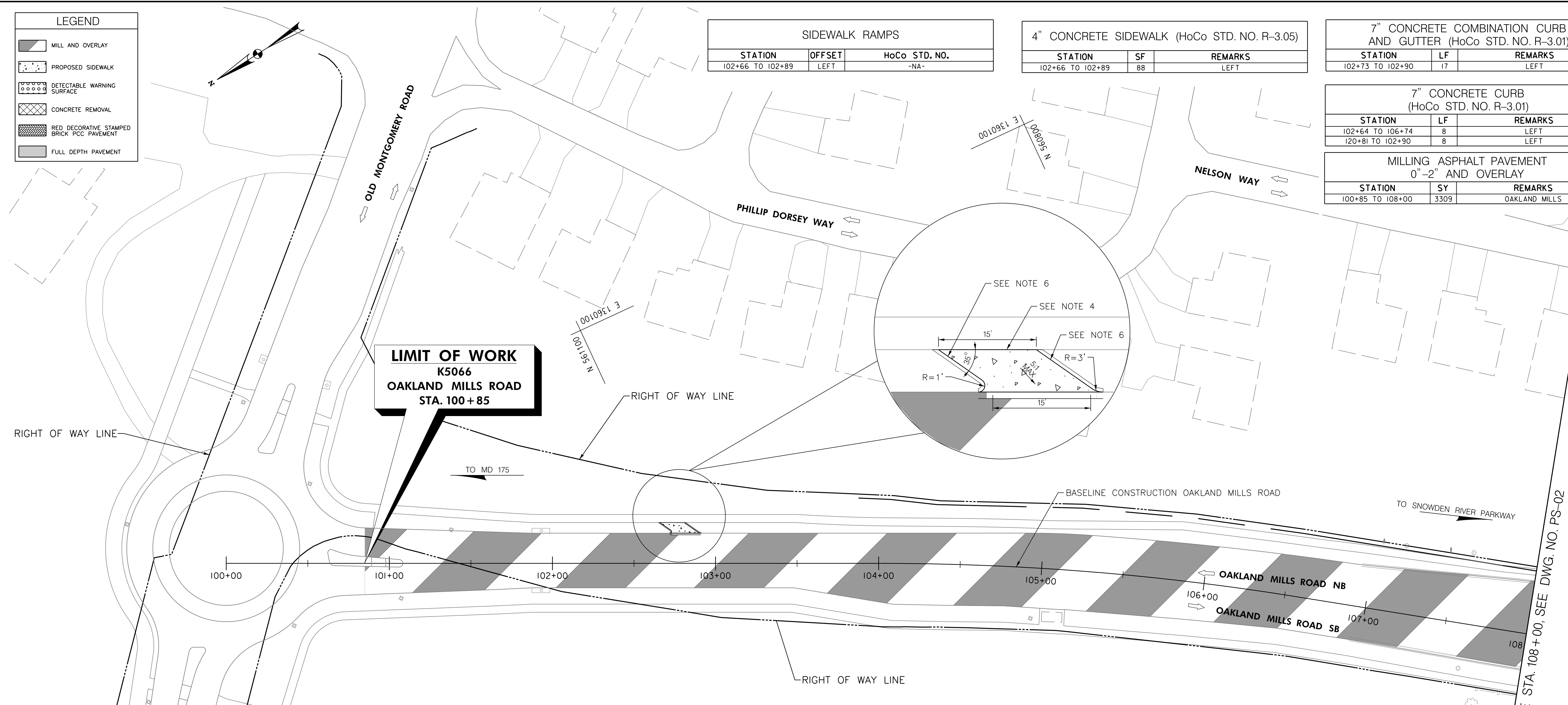
SIDEWALK RAMPS		
STATION	OFFSET	HoCo STD. NO.
102+66 TO 102+89	LEFT	-NA-

4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
102+66 TO 102+89	88	LEFT

7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
102+73 TO 102+90	17	LEFT

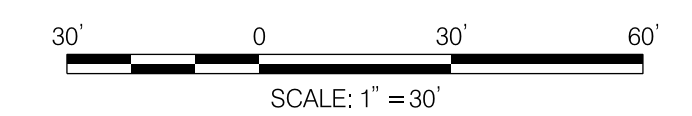
7" CONCRETE CURB (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
102+64 TO 106+74	8	LEFT
120+81 TO 102+90	8	LEFT

MILLING ASPHALT PAVEMENT 0" -2" AND OVERLAY		
STATION	SY	REMARKS
100+85 TO 108+00	3309	OAKLAND MILLS



- NOTES**
1. THE BASELINE IS FOR ILLUSTRATIVE PURPOSES ONLY.
 2. LENGTH OF RUNNING SLOPES FOR 12:1 RAMP SECTIONS ARE NOT DIMENSIONED BUT SHALL BE FIELD ADJUSTED SO THAT PROPOSED RAMP GRADES WILL MEET EXISTING GRADES WHILE MAINTAINING 12:1 MAX RUNNING SLOPE. PROPOSED CURB SHALL MATCH EXISTING.
 3. WARP PANEL BETWEEN PROPOSED 5' PANEL AND EXISTING PANEL.
 4. MATCH EXISTING WIDTH, ELEVATION, AND CROSS SLOPE.
 5. NO TRAVERSABLE SLOPE OF THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
 6. TRANSITION CURB FROM FULL HEIGHT AT EDGE OF ROADWAY TO 0" AT EDGE OF SIDEWALK

NOTES:
1. CONTRACTOR SHALL SEAL ANY CRACKS/JOINTS REVEALED ON EXISTING PAVEMENT AFTER MILLING.



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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF HIGHWAYS	DATE
CHIEF, BUREAU OF ENGINEERING	DATE	CHIEF, TRAFFIC ENGINEERING DIVISION	DATE

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY	NO.	REVISION

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-01

SCALE 1" = 30'

SHEET 3 OF 50

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

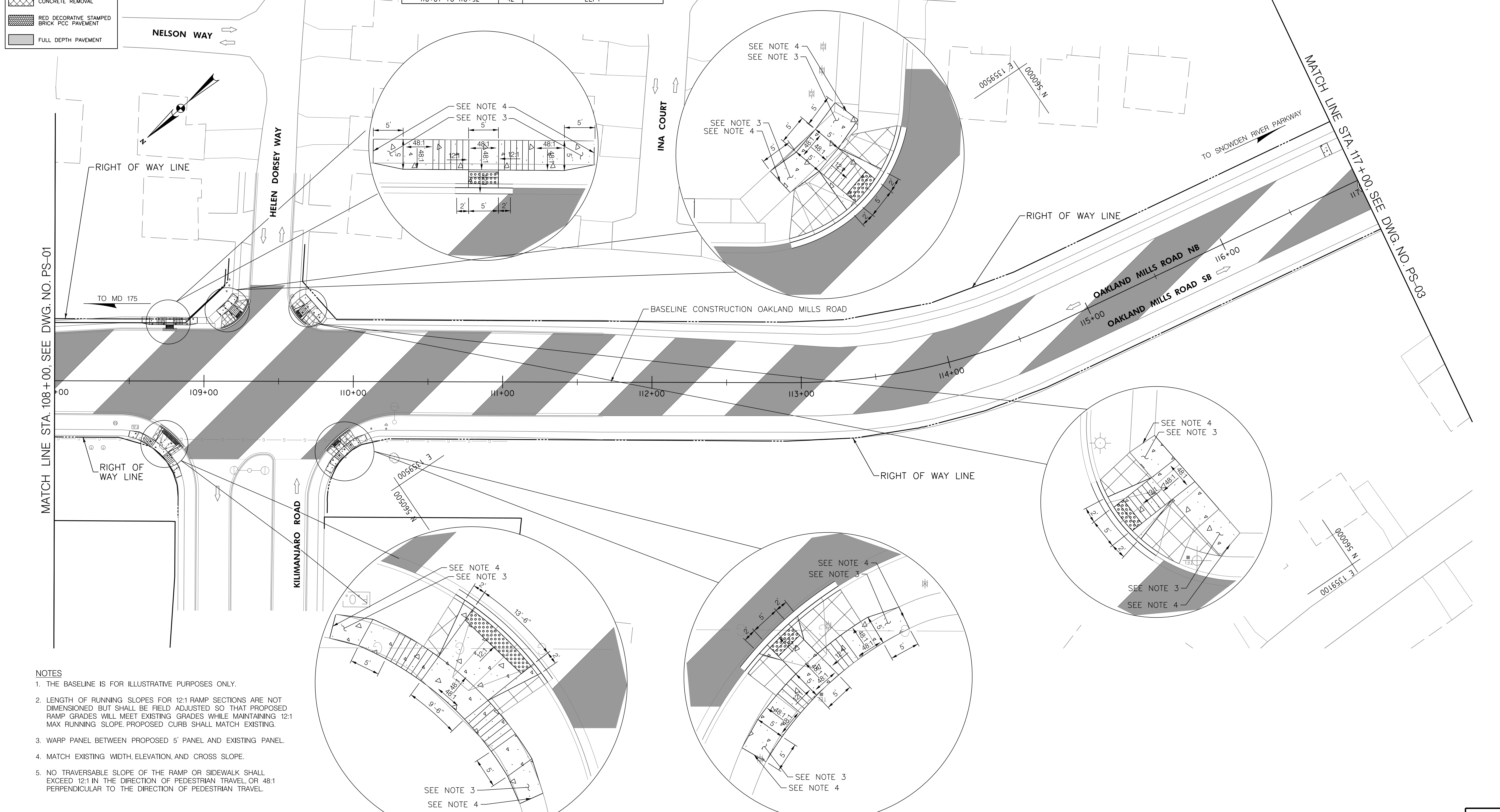
MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
108+00 TO 117+00	5523	OAKLAND MILLS

4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
108+58 TO 108+95	192	LEFT
108+61 TO 108+84	328	RIGHT
109+08 TO 109+27	137	LEFT
109+60 TO 109+82	170	LEFT
109+82 TO 110+09	206	RIGHT
116+87 TO 116+92	42	LEFT

SIDEWALK RAMPS		
STATION	OFFSET	REMARKS
108+68 TO 108+85	LEFT	R-4.06 MOD
108+68 TO 108+84	RIGHT	R-4.03
109+16 TO 109+27	LEFT	R-4.03
109+60 TO 109+71	LEFT	R-4.03
109+88 TO 110+01	RIGHT	R-4.04 MOD

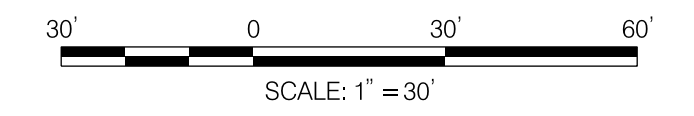
7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
108+72 TO 108+81	9	LEFT
108+71 TO 108+86	21	RIGHT
109+12 TO 109+30	28	LEFT
109+58 TO 109+68	16	LEFT
109+82 TO 109+98	21	RIGHT

DETECTABLE WARNING SURFACE (HoCo STD. NO. R-4.07)		
STATION	SF	REMARKS
108+72 TO 108+83	31	RIGHT
108+74 TO 108+79	10	LEFT
109+21 TO 109+26	10	LEFT
109+61 TO 109+66	10	LEFT
109+85 TO 109+92	11	RIGHT



- NOTES**
1. THE BASELINE IS FOR ILLUSTRATIVE PURPOSES ONLY.
 2. LENGTH OF RUNNING SLOPES FOR 12:1 RAMP SECTIONS ARE NOT DIMENSIONED BUT SHALL BE FIELD ADJUSTED SO THAT PROPOSED RAMP GRADES WILL MEET EXISTING GRADES WHILE MAINTAINING 12:1 MAX RUNNING SLOPE. PROPOSED CURB SHALL MATCH EXISTING.
 3. WARP PANEL BETWEEN PROPOSED 5' PANEL AND EXISTING PANEL.
 4. MATCH EXISTING WIDTH, ELEVATION, AND CROSS SLOPE.
 5. NO TRAVERSABLE SLOPE OF THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL, OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF HIGHWAYS	DATE
CHIEF, BUREAU OF ENGINEERING	DATE	CHIEF, TRAFFIC ENGINEERING DIVISION	DATE

PREPARED BY:

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY	NO.	REVISION

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-02

SCALE 1" = 30'

SHEET 4 OF 50

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
117+00 TO 117+36	84	MEDIAN
117+13 TO 117+59	54	RIGHT
117+68 TO 118+18	50	LEFT
117+87 TO 118+64	82	RIGHT
119+04 TO 119+52	48	LEFT

MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
117+00 TO 126+00	4554	OAKLAND MILLS

4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
117+15 TO 117+25	44	MEDIAN
117+10 TO 117+53	392	RIGHT
117+15 TO 117+30	129	LEFT
117+71 TO 118+18	171	LEFT
118+02 TO 118+31	247	RIGHT
118+82 TO 118+87	72	RIGHT
118+97 TO 119+65	229	LEFT

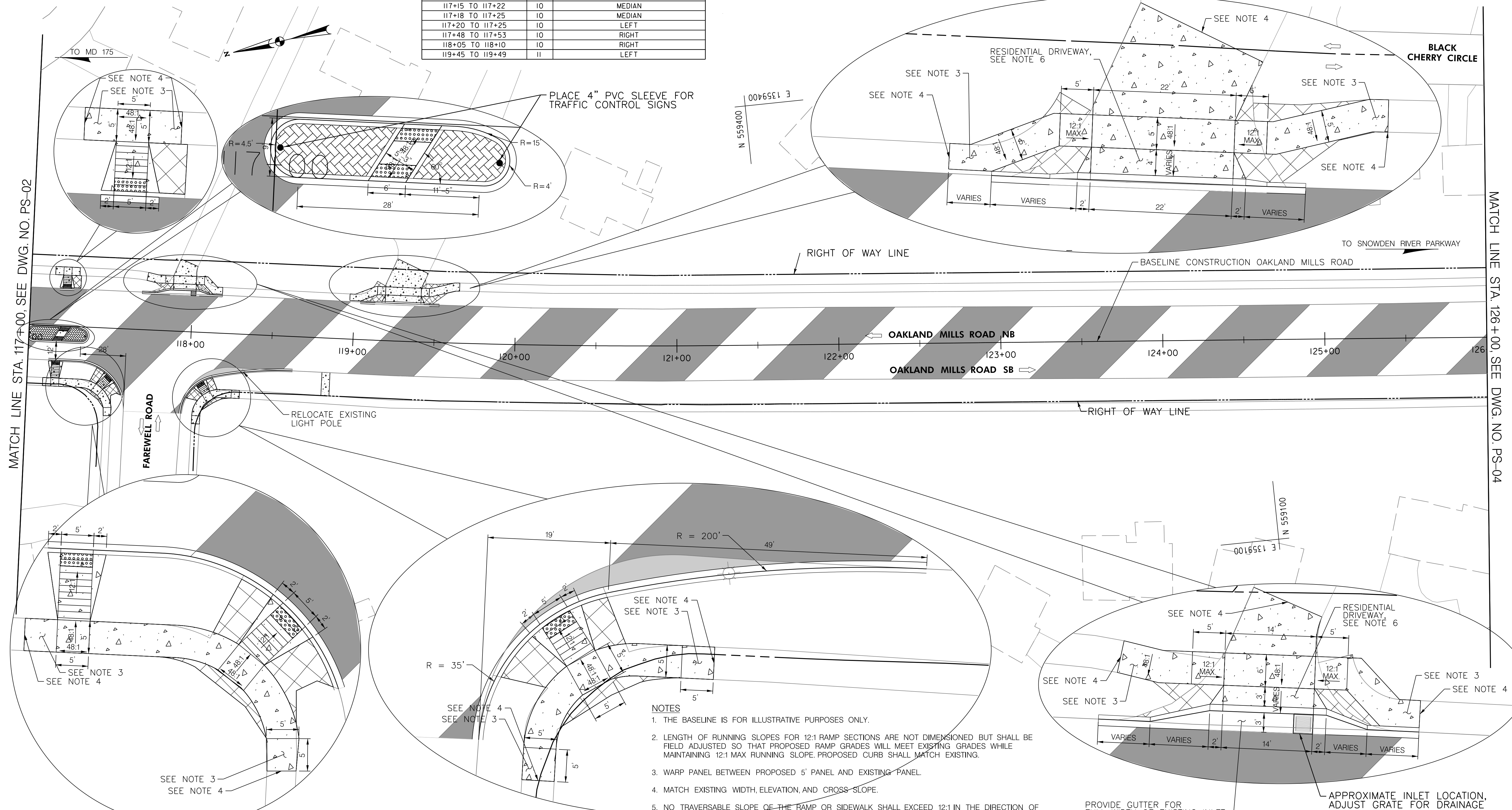
DETECTABLE WARNING SURFACE (HoCo STD. NO. R-4.07)		
STATION	SF	REMARKS
117+15 TO 117+20	10	RIGHT
117+15 TO 117+22	10	MEDIAN
117+18 TO 117+25	10	MEDIAN
117+20 TO 117+25	10	LEFT
117+48 TO 117+53	10	RIGHT
118+05 TO 118+10	10	RIGHT
119+45 TO 119+49	11	LEFT

SIDEWALK RAMPS		
STATION	OFFSET	REMARKS
117+13 TO 117+22	RIGHT	R-4.05
117+18 TO 117+27	LEFT	R-4.05
117+47 TO 117+54	RIGHT	R-4.03
118+03 TO 118+13	RIGHT	R-4.03
119+43 TO 119+53	LEFT	R-4.03

FULL DEPTH PAVEMENT (HoCo STD. NO. R-2.01) (SECTION P-4 CBR 3 TO >5)		
STATION	SY	REMARKS
117+99 TO 118+44	88	OAKLAND MILLS

RED DECORATIVE STAMPED BRICK PCC PAVEMENT MIX #7		
STATION	SF	REMARKS
117+00 TO 117+18	120	MEDIAN
117+21 TO 117+35	82	MEDIAN

RESIDENTIAL DRIVEWAY ENTRANCE 7" REINFORCED CONCRETE (HoCo STD. NO. R-6.02)		
STATION	SY	REMARKS
117+86 TO 118+04	25	LEFT
119+17 TO 119+43	57	LEFT



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 3. WARP PANEL BETWEEN PROPOSED 5' PANEL AND EXISTING PANEL.
 4. MATCH EXISTING WIDTH, ELEVATION, AND CROSS-SLOPE.
 5. NO TRAVERSABLE SLOPE OF THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL, OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
 6. CONSTRUCT IN ACCORDANCE WITH H.C. STANDARD DETAIL R-6.03 RESIDENTIAL DRIVEWAY ENTRANCE.

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*TIE-IN DISTANCE AT CLOSEST SIDEWALK JOINT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY: NO.	REVISION	DATE

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-03
SCALE 1" = 30'
SHEET 5 OF 50

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
126+46 TO 126+67	30	LEFT
126+46 TO 126+71	32	RIGHT
127+06 TO 127+72	79	RIGHT
127+12 TO 127+27	23	LEFT

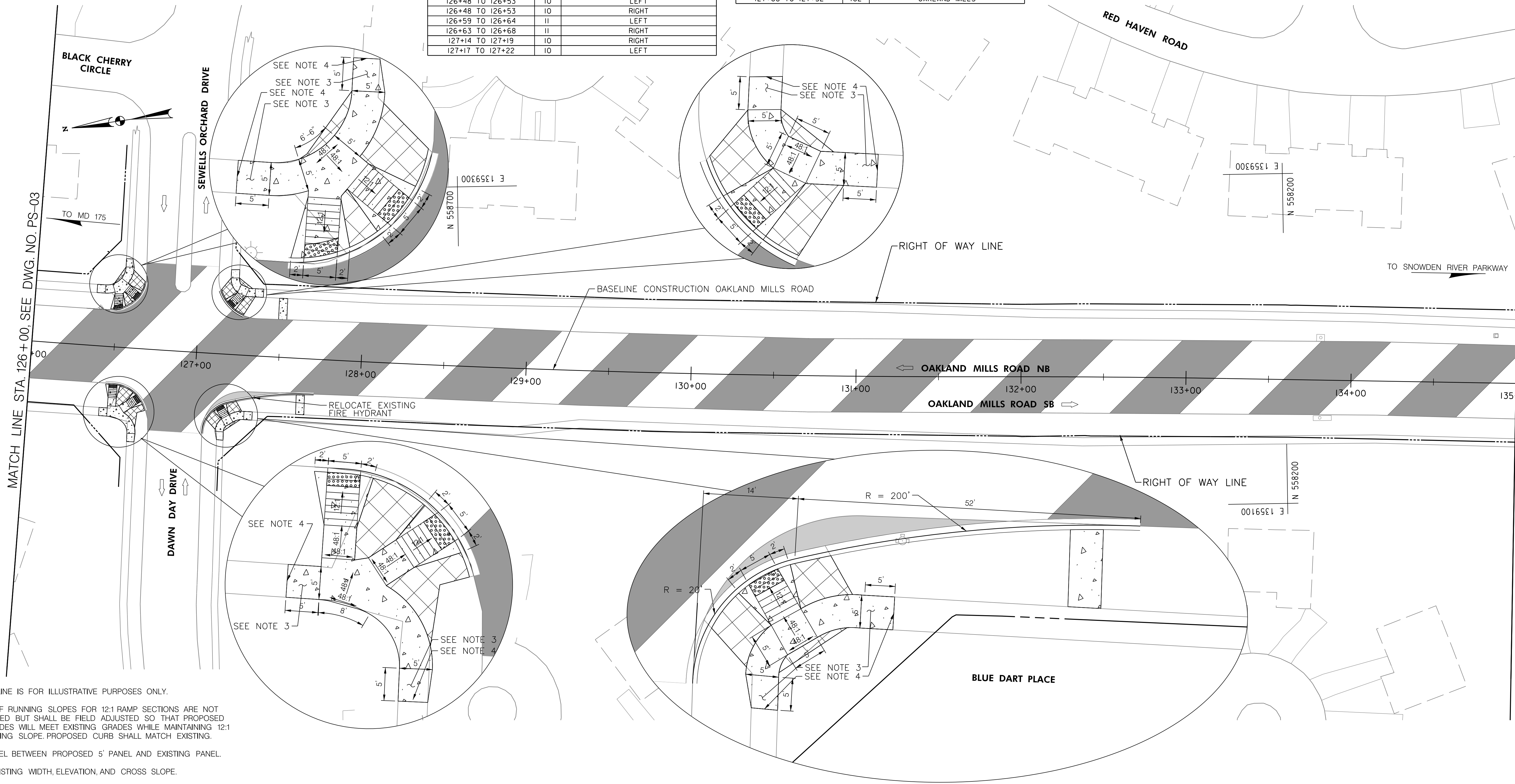
4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
126+37 TO 126+64	296	LEFT
126+45 TO 126+69	330	RIGHT
127+14 TO 127+36	195	RIGHT
127+16 TO 127+39	201	LEFT
127+49 TO 127+54	62	LEFT
127+62 TO 127+67	63	RIGHT

SIDEWALK RAMPS		
STATION	OFFSET	REMARKS
126+46 TO 126+55	LEFT	R-4.02
126+46 TO 126+55	RIGHT	R-4.02
126+59 TO 126+64	LEFT	R-4.02
126+63 TO 126+69	RIGHT	R-4.02
127+13 TO 127+20	RIGHT	R-4.02
127+16 TO 127+22	LEFT	R-4.02

MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
126+00 TO 135+00	4720	OAKLAND MILLS

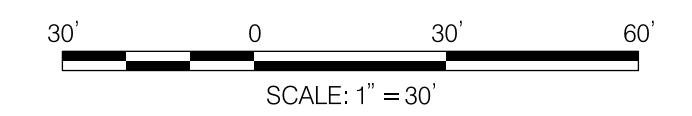
DETECTABLE WARNING SURFACE (HoCo STD. NO. R-4.07)		
STATION	SF	REMARKS
126+48 TO 126+53	10	LEFT
126+48 TO 126+53	10	RIGHT
126+59 TO 126+64	11	LEFT
126+63 TO 126+68	11	RIGHT
127+14 TO 127+19	10	RIGHT
127+17 TO 127+22	10	LEFT

FULL DEPTH PAVEMENT (HoCo STD. NO. R-2.01) (SECTION P-4 CBR 3 TO >5)		
STATION	SY	REMARKS
127+08 TO 127+52	102	OAKLAND MILLS



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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:

Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY: NO.	REVISION	DATE

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-04
SCALE 1" = 30'
SHEET 6 OF 50

BY: rmaria
PLOTTED: June 08, 2022
FILE: N:\32189-000\CADD\p04-P004_32189000.dgn

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

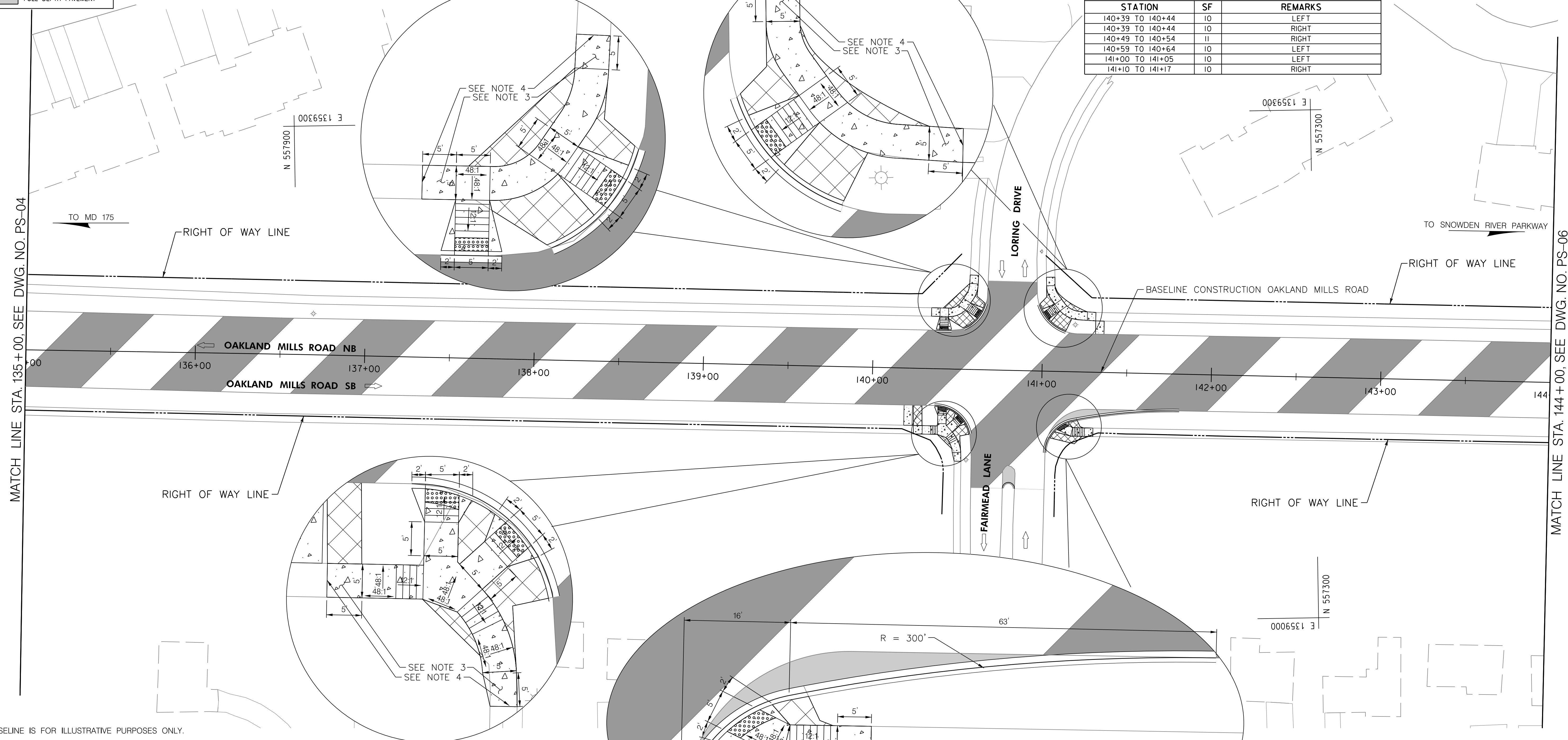
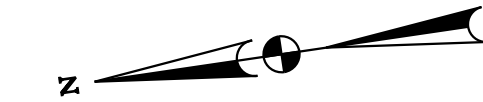
7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
140+37 TO 146+46	9	LEFT
140+37 TO 140+58	29	RIGHT
140+53 TO 140+66	20	LEFT
140+98 TO 141+14	23	LEFT
141+04 TO 141+81	90	RIGHT

4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
140+19 TO 140+24	60	RIGHT
140+25 TO 140+55	313	RIGHT
140+35 TO 140+64	308	LEFT
140+99 TO 141+31	266	LEFT
141+08 TO 141+31	111	RIGHT
141+31 TO 141+36	39	LEFT

MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
135+00 TO 144+00	4811	OAKLAND MILLS

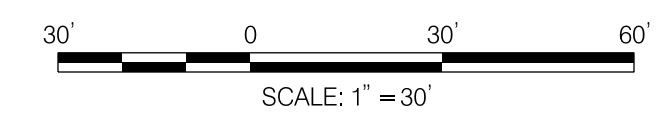
SIDEWALK RAMPS		
STATION	OFFSET	REMARKS
140+37 TO 140+46	LEFT	R-4.05
140+37 TO 140+46	RIGHT	R-4.02 MOD
140+49 TO 140+55	RIGHT	R-4.02 MOD
140+54 TO 140+64	LEFT	R-4.02
140+99 TO 141+10	LEFT	R-4.02
141+09 TO 141+26	RIGHT	R-4.02

DETECTABLE WARNING SURFACE (HoCo STD. NO. R-4.07)		
STATION	SF	REMARKS
140+39 TO 140+44	10	LEFT
140+39 TO 140+44	10	RIGHT
140+49 TO 140+54	11	RIGHT
140+59 TO 140+64	10	LEFT
141+00 TO 141+05	10	LEFT
141+10 TO 141+17	10	RIGHT



- NOTES**
1. THE BASELINE IS FOR ILLUSTRATIVE PURPOSES ONLY.
 2. LENGTH OF RUNNING SLOPES FOR 12:1 RAMP SECTIONS ARE NOT DIMENSIONED BUT SHALL BE FIELD ADJUSTED SO THAT PROPOSED RAMP GRADES WILL MEET EXISTING GRADES WHILE MAINTAINING 12:1 MAX RUNNING SLOPE. PROPOSED CURB SHALL MATCH EXISTING.
 3. WARP PANEL BETWEEN PROPOSED 5' PANEL AND EXISTING PANEL.
 4. MATCH EXISTING WIDTH, ELEVATION, AND CROSS SLOPE.
 5. NO TRAVERSABLE SLOPE OF THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

FULL DEPTH PAVEMENT (HoCo STD. NO. R-2.01) (SECTION P-4 CBR 3 TO >5)		
STATION	SY	REMARKS
140+78 TO 140+85	70	OAKLAND MILLS
141+05 TO 141+57	120	OAKLAND MILLS



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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP					
DRN: AMU					
CHK: MTR					
DATE: 05/22	BY: NO.	REVISION	DATE	600' SCALE MAP NO.	BLOCK NO.

ROADWAY PLAN

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

DWG.
PS-05

SCALE
1" = 30'

SHEET
7 OF **50**

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

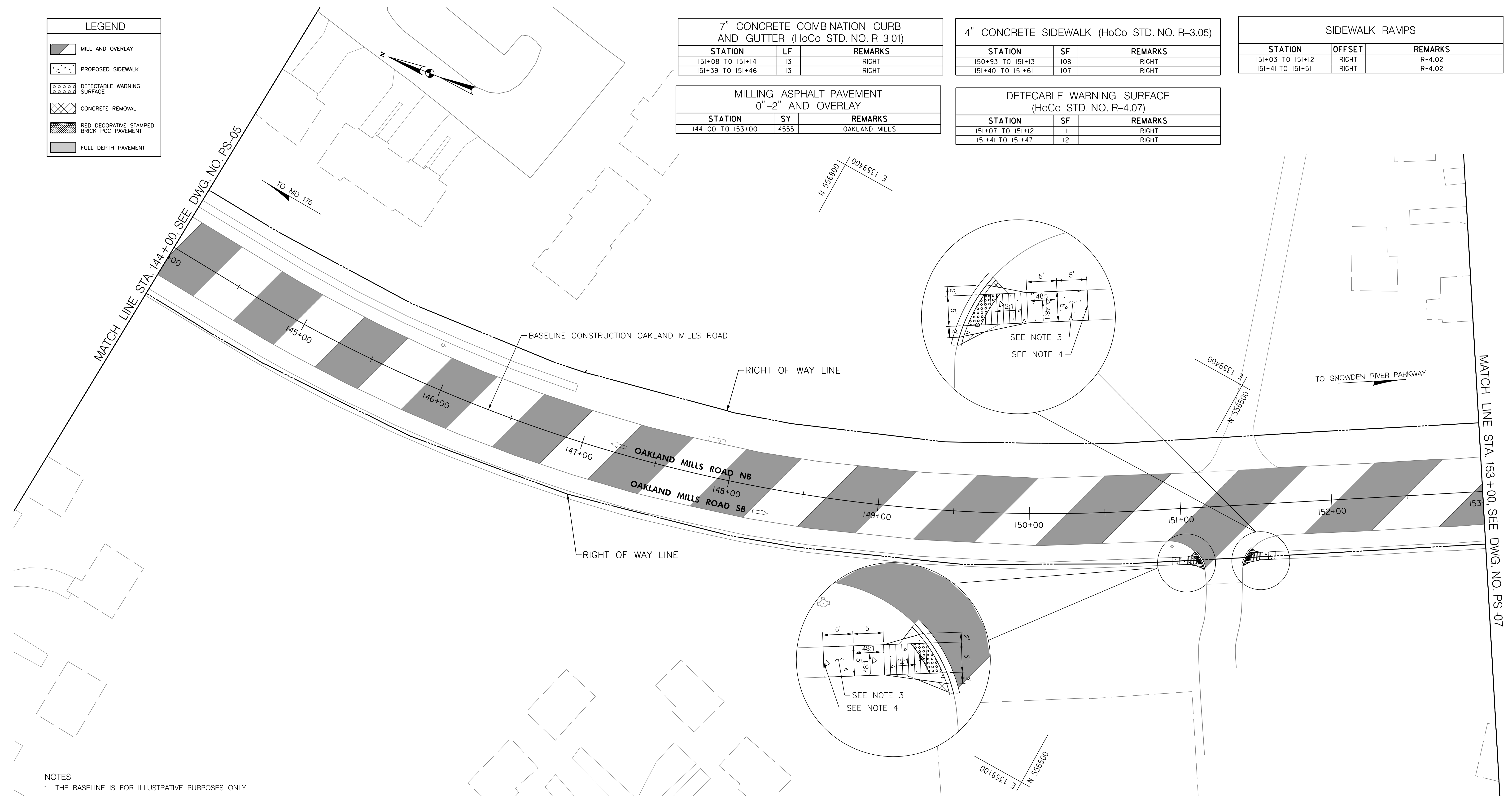
7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
151+08 TO 151+14	13	RIGHT
151+39 TO 151+46	13	RIGHT

4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
150+93 TO 151+13	108	RIGHT
151+40 TO 151+61	107	RIGHT

SIDEWALK RAMPS		
STATION	OFFSET	REMARKS
151+03 TO 151+12	RIGHT	R-4.02
151+41 TO 151+51	RIGHT	R-4.02

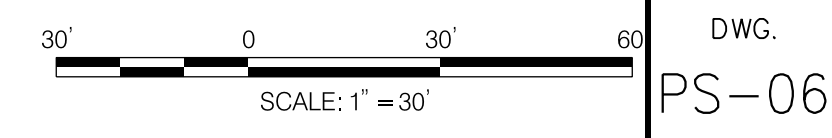
MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
144+00 TO 153+00	4555	OAKLAND MILLS

DETECABLE WARNING SURFACE (HoCo STD. NO. R-4.07)		
STATION	SF	REMARKS
151+07 TO 151+12	11	RIGHT
151+41 TO 151+47	12	RIGHT



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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP					
DRN: AMU					
CHK: MTR					
DATE: 05/22					
BY	NO.	REVISION	DATE	600' SCALE MAP NO.	BLOCK NO.

ROADWAY PLAN

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

DWG. PS-06

SCALE 1" = 30'

SHEET 8 OF 50

BY: rmaria
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\p04-P096_32189009.dgn

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)			
STATION	LF	REMARKS	
156+16 TO 156+35	24	LEFT	
156+19 TO 156+24	5	RIGHT	
156+86 TO 156+97	20	LEFT	
157+18 TO 157+58	95	MEDIAN	
157+27 TO 157+36	9	RIGHT	
157+33 TO 157+42	9	LEFT	

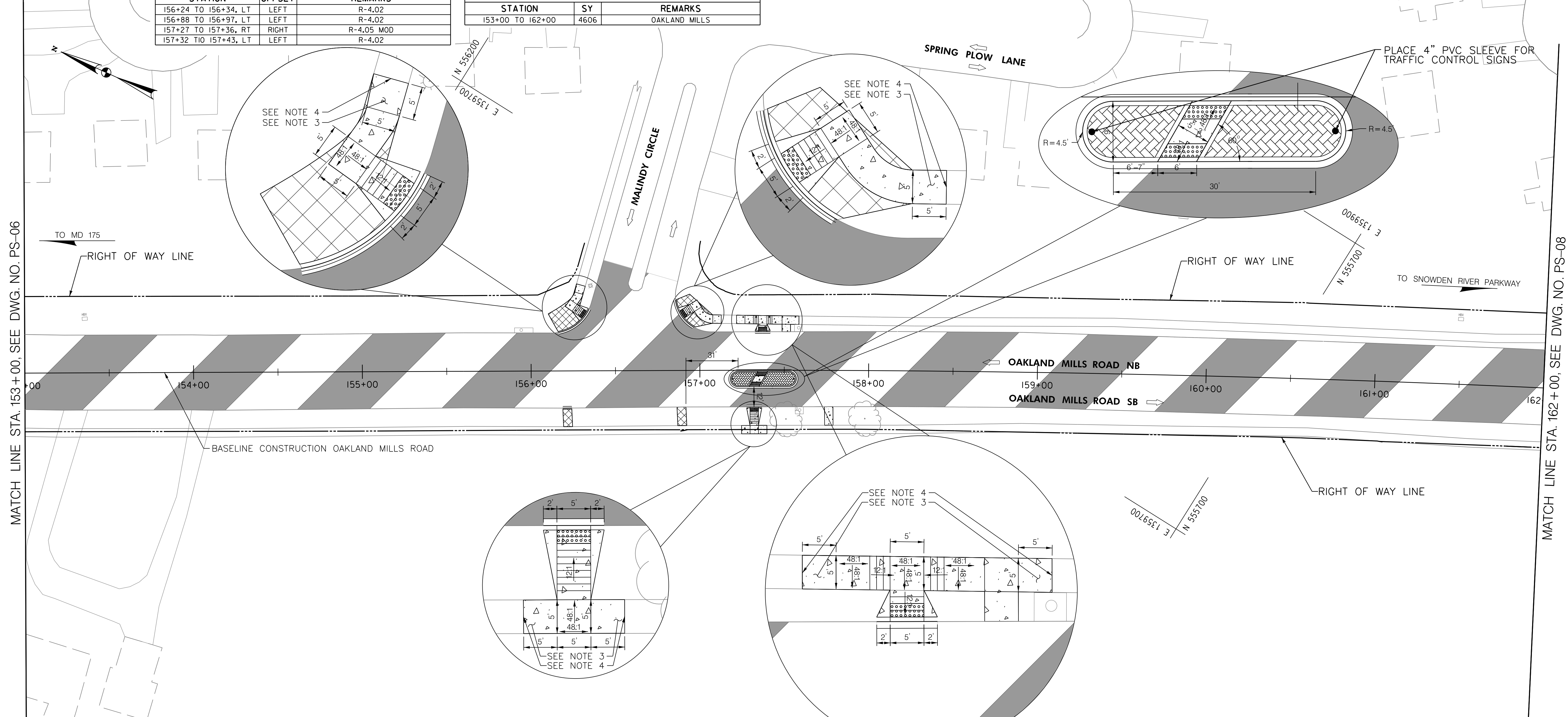
4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)			
STATION	SF	REMARKS	
156+20 TO 156+34	131	LEFT	
156+88 TO 157+13	148	LEFT	
157+30 TO 157+40	44	MEDIAN	
157+22 TO 157+59	255	LEFT	
157+24 TO 157+40	147	RIGHT	
157+74 TO 157+79	55	RIGHT	

DETECTABLE WARNING SURFACE (HoCo STD. NO. R-4.07)			
STATION	SF	REMARKS	
156+28 TO 156+33	10	LEFT	
156+88 TO 156+93	10	LEFT	
157+29 TO 157+34	10	MEDIAN	
157+30 TO 157+36	12	RIGHT	
157+30 TO 157+40	12	MEDIAN	
157+35 TO 157+40	10	LEFT	

RED DECORATIVE STAMPED BRICK PCC PAVEMENT MIX #7			
STATION	SF	REMARKS	
157+18 TO 157+33	88	MEDIAN	
157+36 TO 157+57	132	MEDIAN	

SIDEWALK RAMPS			
STATION	OFFSET	REMARKS	
156+24 TO 156+34, LT	LEFT	R-4.02	
156+88 TO 156+97, LT	LEFT	R-4.02	
157+27 TO 157+36, RT	RIGHT	R-4.05 MOD	
157+32 TO 157+43, LT	LEFT	R-4.02	

MILLING ASPHALT PAVEMENT 0" - 2" AND OVERLAY			
STATION	SY	REMARKS	
153+00 TO 162+00	4606	OAKLAND MILLS	

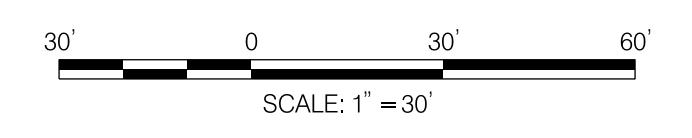


MATCH LINE STA. 153+00, SEE DWG. NO. PS-06

MATCH LINE STA. 162+00, SEE DWG. NO. PS-08

- NOTES**
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:

Whitman, Reardon & Associates, LLP
801 South Carolina Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22			
BY	NO.	REVISION	DATE

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-07

SCALE 1" = 30'

SHEET 9 OF 50

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
165+50 TO 165+89	47	LEFT
165+65 TO 165+84	27	RIGHT
166+29 TO 166+42	17	RIGHT
166+33 TO 166+63	36	LEFT

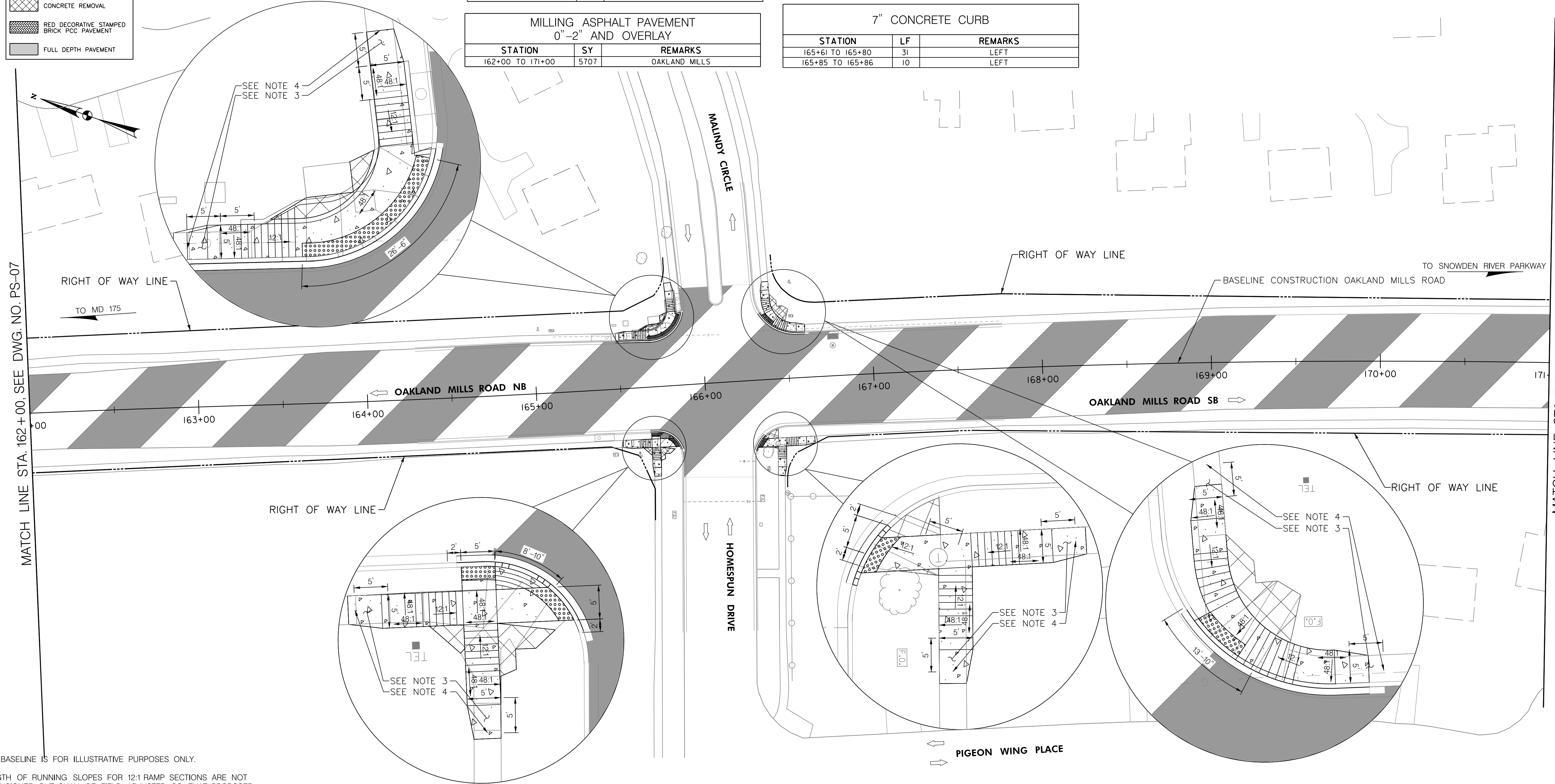
DETECTABLE WARNING SURFACE (HoCo STD. NO. R-4.07)		
STATION	SF	REMARKS
165+68 TO 165+87	49	LEFT
165+67 TO 165+72	10	RIGHT
165+76 TO 165+83	13	RIGHT
166+31 TO 166+37	11	RIGHT
166+35 TO 166+45	26	LEFT

SIDEWALK RAMPS		
STATION	OFFSET	REMARKS
165+61 TO 165+83	RIGHT	R-4.01 MOD
165+61 TO 165+88	LEFT	R-4.01
166+29 TO 166+52	RIGHT	R-4.01 MOD
166+34 TO 166+52	LEFT	R-4.02 MOD

4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
165+51 TO 165+83	279	RIGHT
165+51 TO 165+89	307	LEFT
166+29 TO 166+63	257	LEFT
166+34 TO 166+62	234	RIGHT

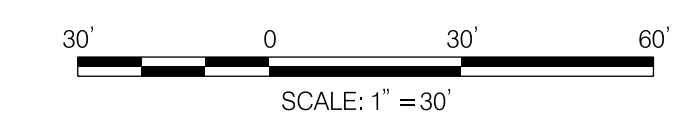
MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
162+00 TO 171+00	5707	OAKLAND MILLS

7" CONCRETE CURB		
STATION	LF	REMARKS
165+61 TO 165+80	31	LEFT
165+85 TO 165+86	10	LEFT



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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF HIGHWAYS	DATE
CHIEF, BUREAU OF ENGINEERING	DATE	CHIEF, TRAFFIC ENGINEERING DIVISION	DATE

PREPARED BY:

Whitman, Reardon & Associates, LLP
801 South Carolina Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY: NO.	REVISION	DATE

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-08
SCALE 1" = 30'
SHEET 10 OF 50

BY: reard
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\p04-P098_32189009.dgn

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
173+08 TO 173+35	30	LEFT
173+11 TO 173+34	23	RIGHT
173+75 TO 173+93	22	LEFT
174+10 TO 174+50	91	MEDIAN
174+19 TO 174+28	9	RIGHT
174+19 TO 174+35	16	LEFT
176+26 TO 176+31	13	RIGHT
176+58 TO 176+64	13	RIGHT

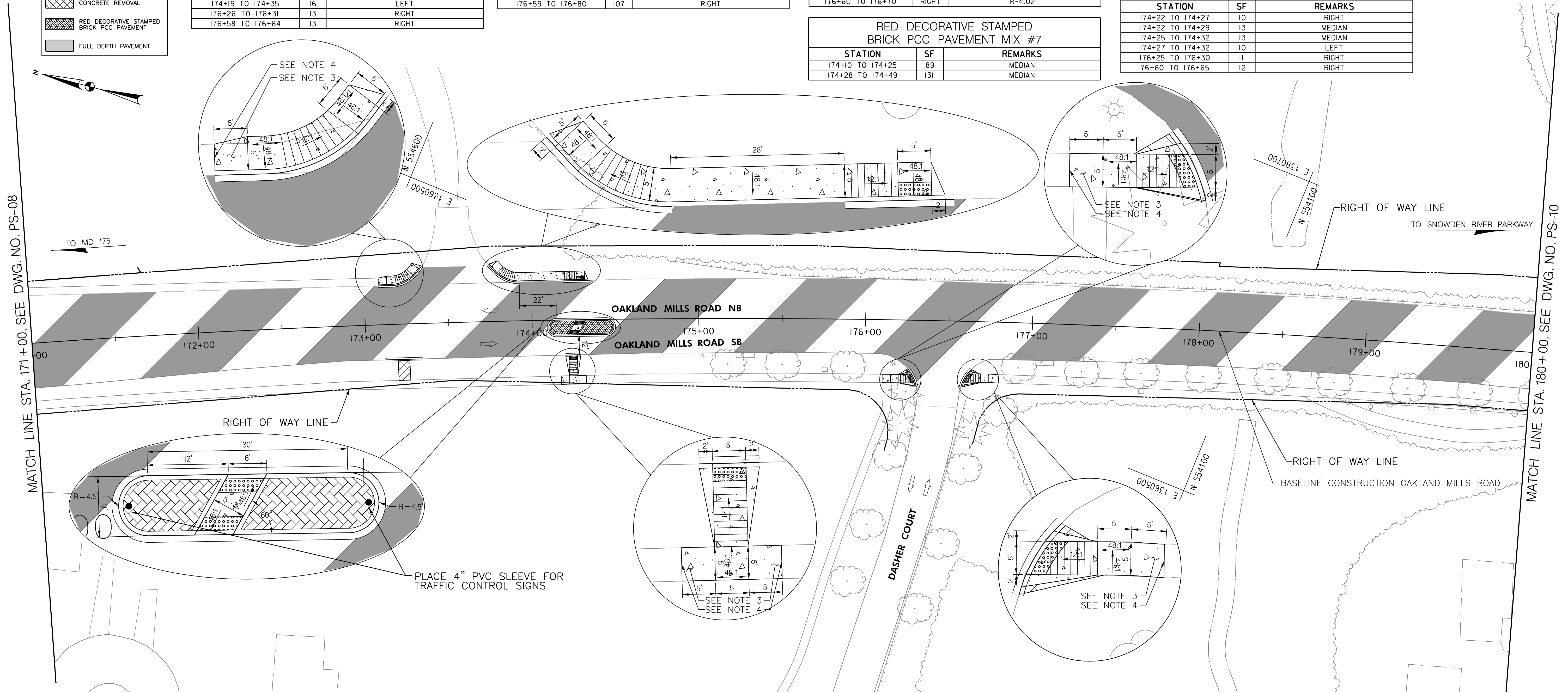
4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
173+09 TO 173+34	129	LEFT
173+75 TO 174+34	293	LEFT
174+21 TO 174+31	44	MEDIAN
174+17 TO 174+32	158	RIGHT
176+10 TO 176+30	105	RIGHT
176+59 TO 176+80	107	RIGHT

SIDEWALK RAMPS		
STATION	OFFSET	REMARKS
173+19 TO 173+34	LEFT	R-4.04
173+75 TO 173+89	LEFT	R-4.04
174+19 TO 174+28	LEFT	R-4.04
174+19 TO 174+35	RIGHT	R-4.05
176+20 TO 176+30	RIGHT	R-4.02
176+60 TO 176+70	RIGHT	R-4.02

MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
171+00 TO 180+00	4680	OAKLAND MILLS

DETECABLE WARNING SURFACE (HoCo STD. NO. R-4.07)		
STATION	SF	REMARKS
174+22 TO 174+27	10	RIGHT
174+22 TO 174+29	13	MEDIAN
174+25 TO 174+32	13	MEDIAN
174+27 TO 174+32	10	LEFT
176+25 TO 176+30	11	RIGHT
176+60 TO 176+65	12	RIGHT

RED DECORATIVE STAMPED BRICK PCC PAVEMENT MIX #7		
STATION	SF	REMARKS
174+10 TO 174+25	89	MEDIAN
174+28 TO 174+49	131	MEDIAN



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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :

Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22			
BY	NO.	REVISION	DATE

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-09

SCALE 1" = 30'

SHEET 11 OF 50

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
183+66 TO 183+81	25	RIGHT
184+25 TO 184+38	21	RIGHT

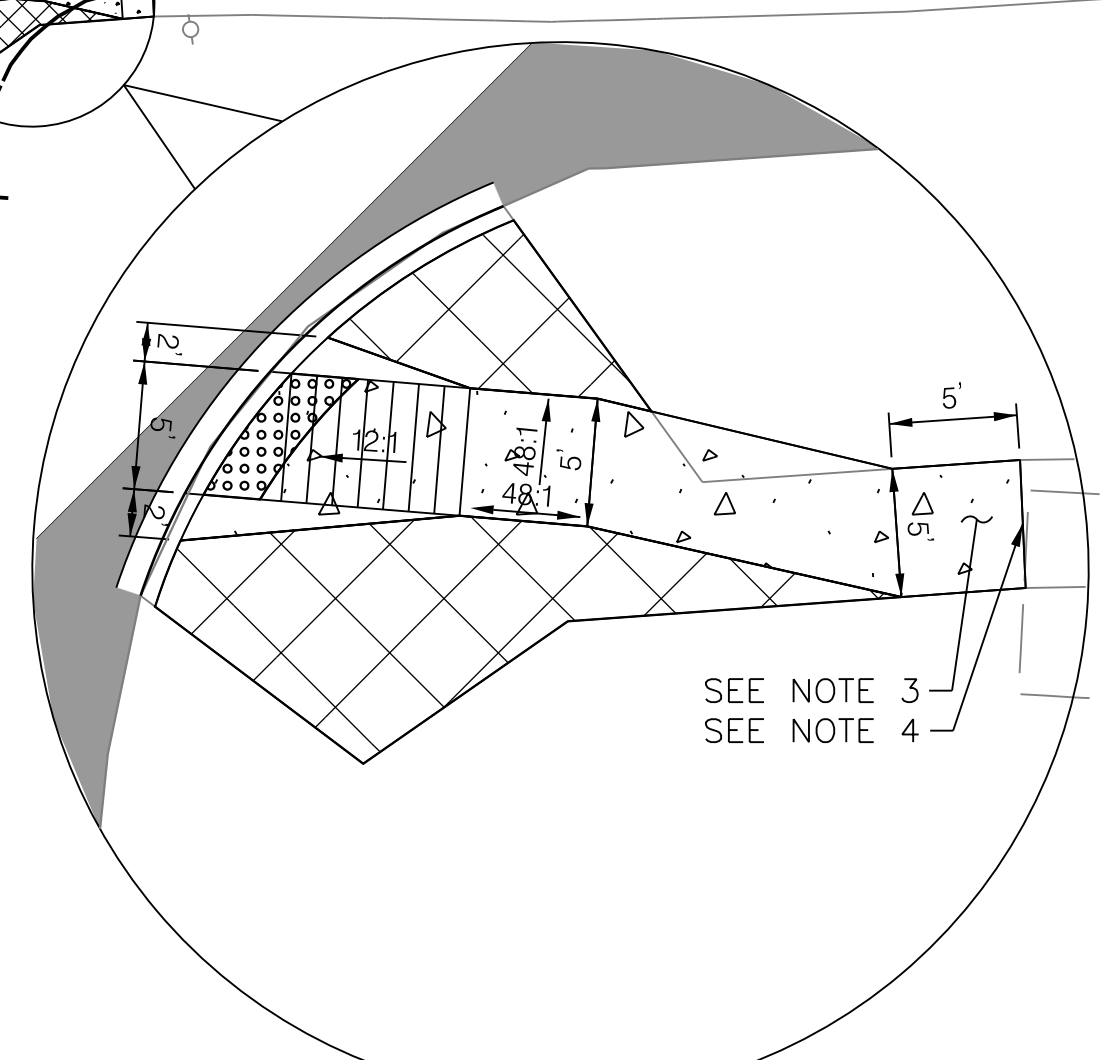
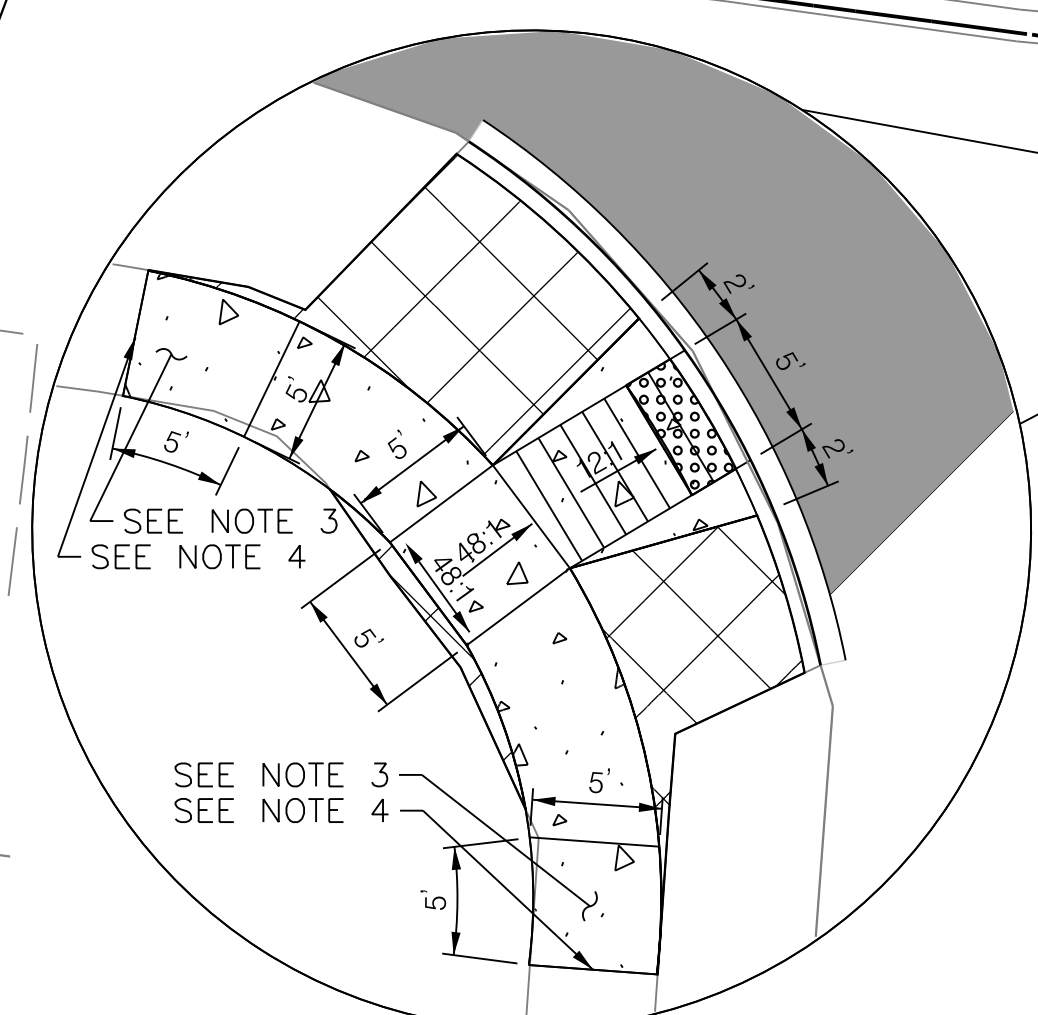
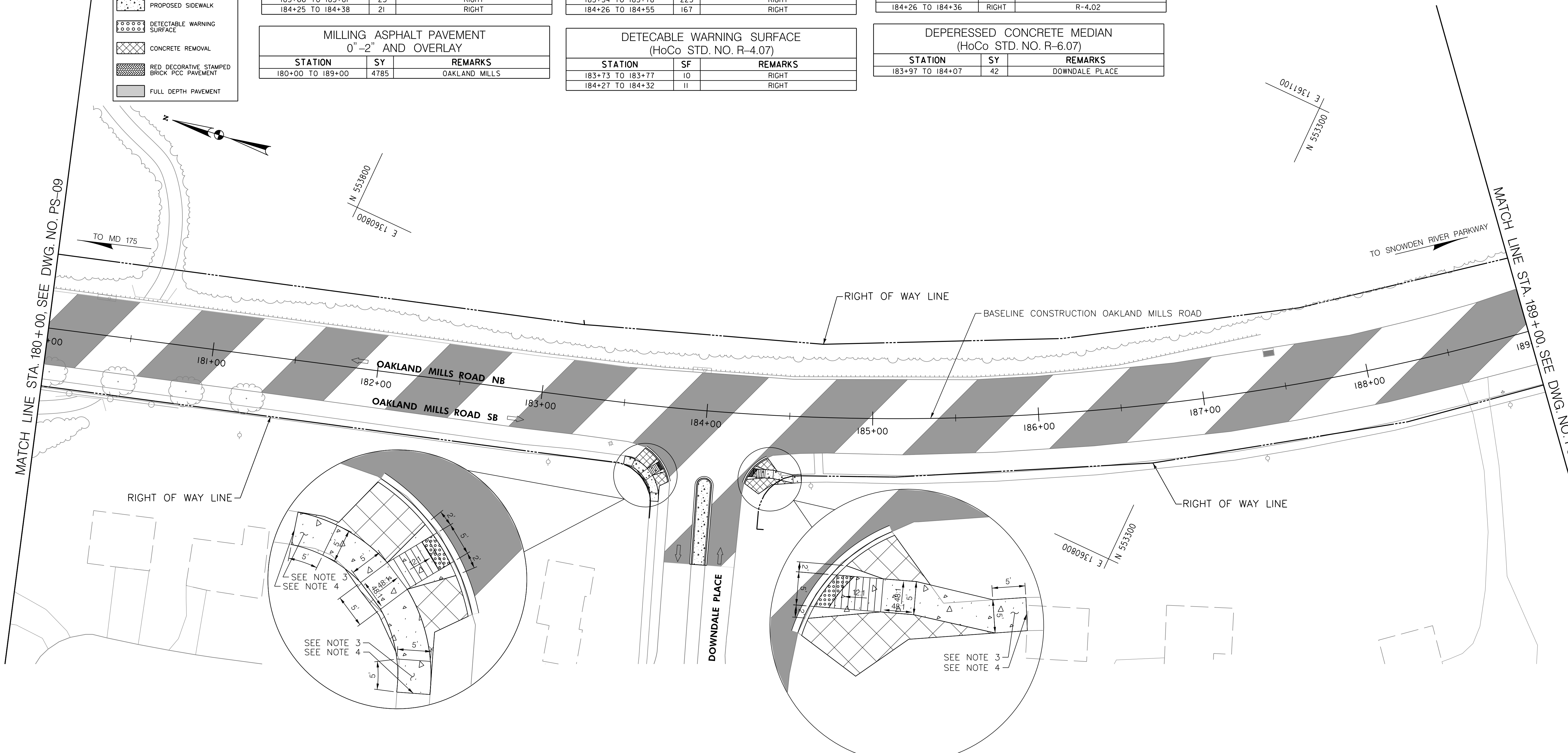
4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
183+54 TO 183+78	223	RIGHT
184+26 TO 184+55	167	RIGHT

SIDEWALK RAMPS		
STATION	OFFSET	REMARKS
183+68 TO 183+78	RIGHT	R-4.02
184+26 TO 184+36	RIGHT	R-4.02

MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
180+00 TO 189+00	4785	OAKLAND MILLS

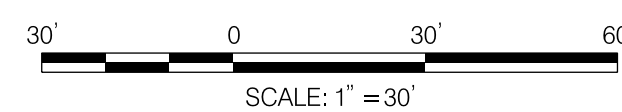
DETECTABLE WARNING SURFACE (HoCo STD. NO. R-4.07)		
STATION	SF	REMARKS
183+73 TO 183+77	10	RIGHT
184+27 TO 184+32	11	RIGHT

DEPRESSED CONCRETE MEDIAN (HoCo STD. NO. R-6.07)		
STATION	SY	REMARKS
183+97 TO 184+07	42	DOWDALE PLACE



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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY: NO.	REVISION	DATE

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

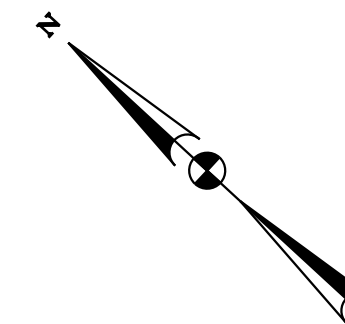
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-10

SCALE 1" = 30'

SHEET 12 OF 50



LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

DETECTABLE WARNING SURFACE (HoCo STD. NO. R-4.07)		
STATION	SF	REMARKS
190+38 TO 190+43	11	RIGHT
190+75 TO 190+83	15	RIGHT
192+67 TO 192+77	22	LEFT
192+75 TO 192+84	16	RIGHT
193+34 TO 193+41	14	RIGHT
193+44 TO 193+46	20	LEFT
193+48 TO 193+58	20	LEFT
193+49 TO 193+57	16	RIGHT
193+53 TO 193+64	22	LEFT
193+68 TO 193+78	24	LEFT

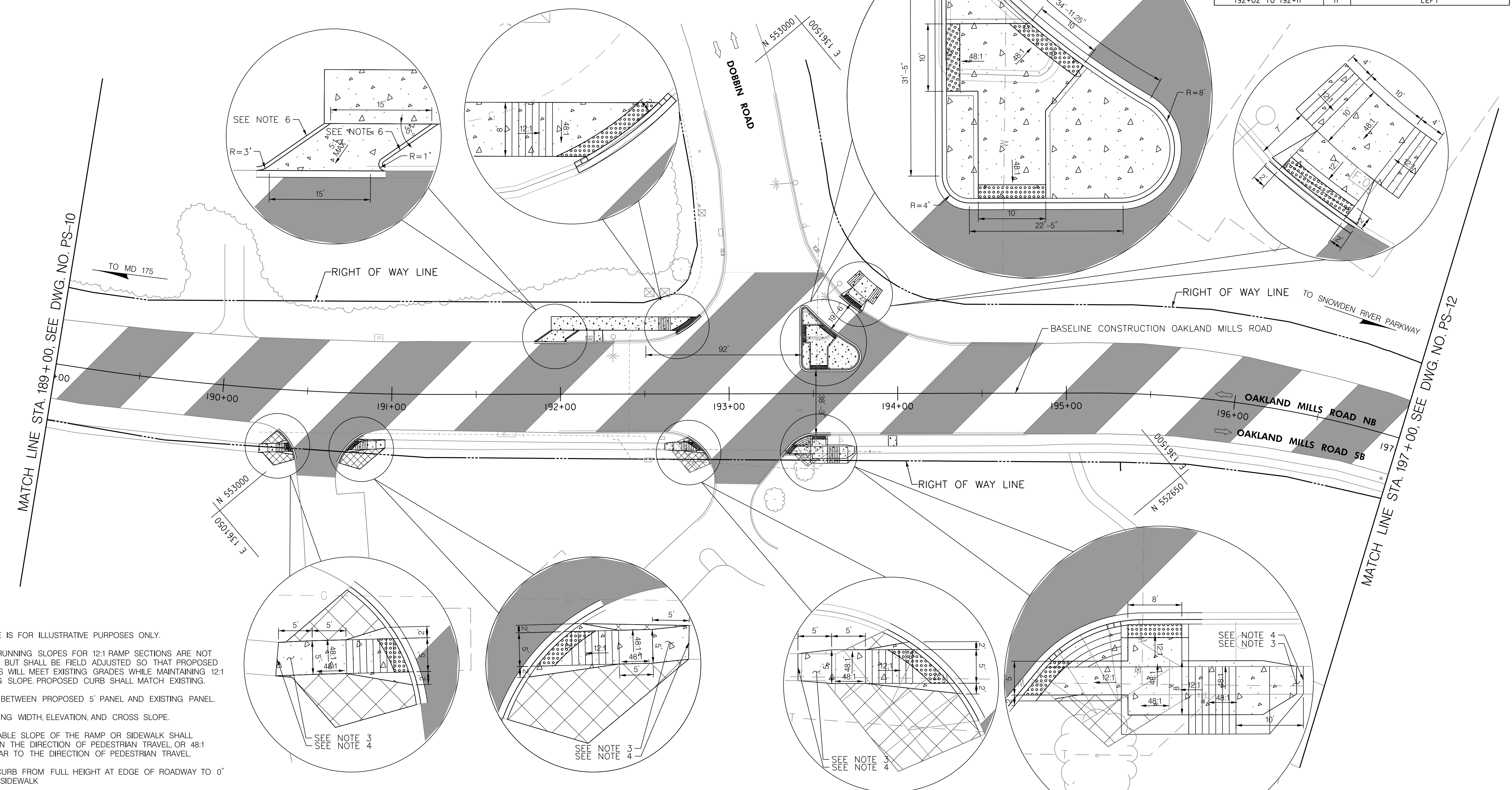
4" CONCRETE SIDEWALK (HoCo STD. NO. R-3.05)		
STATION	SF	REMARKS
190+24 TO 190+43	107	RIGHT
190+74 TO 190+96	114	RIGHT
191+86 TO 192+81	718	LEFT
192+62 TO 192+85	110	RIGHT
193+43 TO 193+78	752	LEFT
193+32 TO 193+75	308	RIGHT
193+94 TO 193+99	32	RIGHT
193+70 TO 193+91	280	LEFT

MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
189+00 TO 197+00	5215	OAKLAND MILLS

SIDEWALK RAMPS		
STATION	SF	REMARKS
190+33 TO 190+43	RIGHT	R-4.02
190+74 TO 190+86	RIGHT	R-4.02
191+86 TO 192+02	LEFT	-NA-
192+58 TO 192+77	LEFT	R-4.02
192+72 TO 192+85	RIGHT	R-4.02
193+32 TO 193+59	RIGHT	R-4.02 MOD
193+70 TO 193+91	LEFT	R-4.02

7" CONCRETE COMBINATION CURB AND GUTTER (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
190+34 TO 190+45	21	RIGHT
190+70 TO 190+84	23	RIGHT
191+85 TO 192+02	17	LEFT
192+69 TO 192+83	18	LEFT
192+75 TO 192+88	19	RIGHT
193+32 TO 193+58	31	RIGHT
193+43 TO 193+78	120	LEFT
193+66 TO 193+79	16	LEFT

7" CONCRETE COMBINATION CURB (HoCo STD. NO. R-3.01)		
STATION	LF	REMARKS
191+85 TO 191+95	11	LEFT
192+02 TO 192+11	11	LEFT



- NOTES**
1. THE BASELINE IS FOR ILLUSTRATIVE PURPOSES ONLY.
 2. LENGTH OF RUNNING SLOPES FOR 12:1 RAMP SECTIONS ARE NOT DIMENSIONED BUT SHALL BE FIELD ADJUSTED SO THAT PROPOSED RAMP GRADES WILL MEET EXISTING GRADES WHILE MAINTAINING 12:1 MAX RUNNING SLOPE. PROPOSED CURB SHALL MATCH EXISTING.
 3. WARP PANEL BETWEEN PROPOSED 5' PANEL AND EXISTING PANEL.
 4. MATCH EXISTING WIDTH, ELEVATION, AND CROSS SLOPE.
 5. NO TRAVERSABLE SLOPE OF THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
 6. TRANSITION CURB FROM FULL HEIGHT AT EDGE OF ROADWAY TO 0" AT EDGE OF SIDEWALK

"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. 24797, EXPIRATION DATE: 03-01-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :

Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

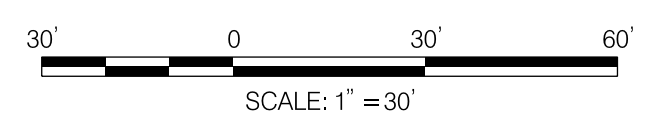
DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY: NO.	REVISION	DATE

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

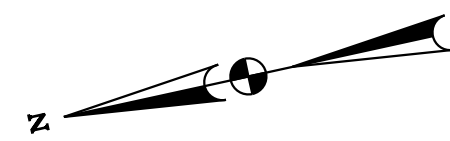


DWG. PS-11

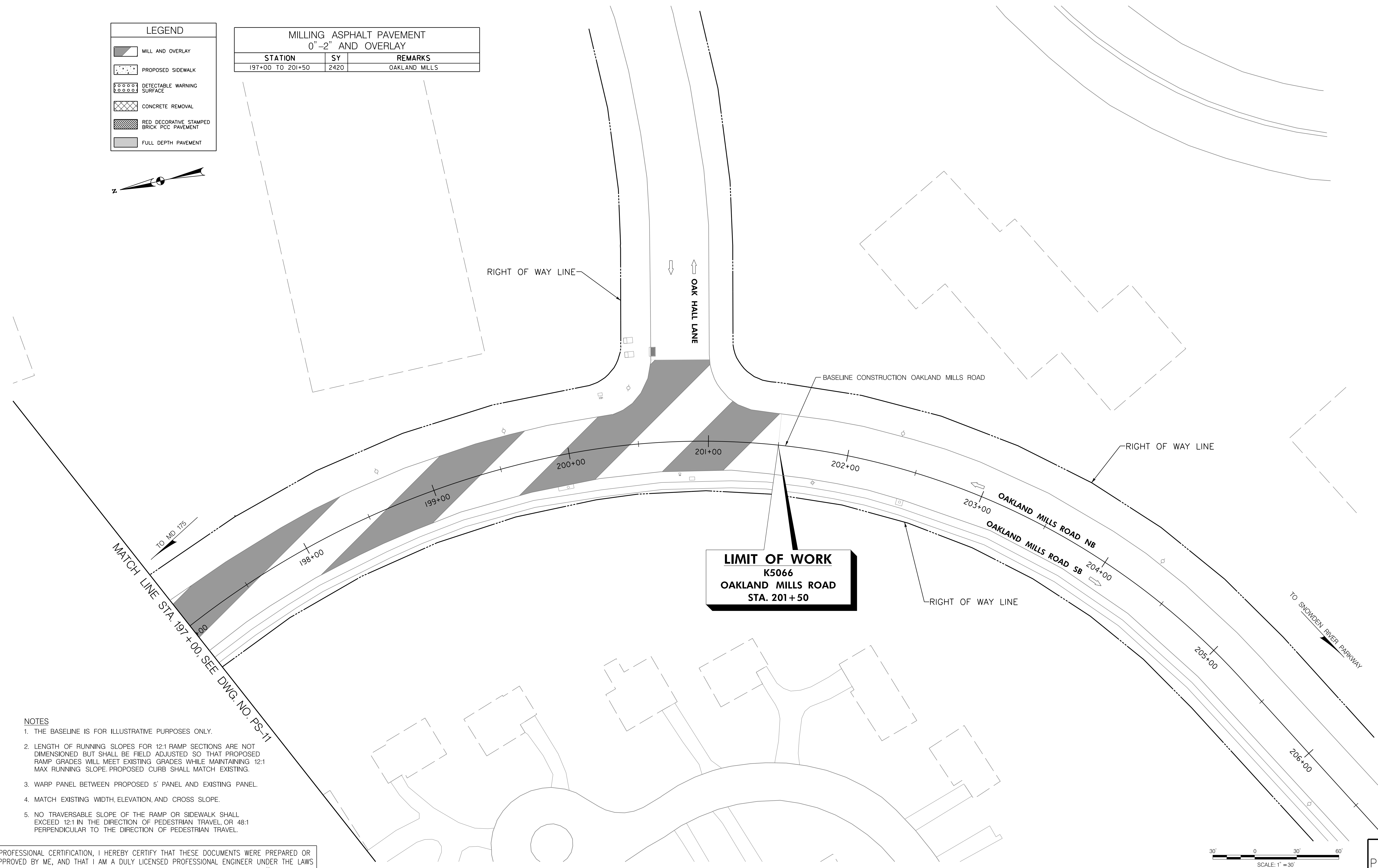
SCALE 1" = 30'

SHEET 13 OF 50

LEGEND	
	MILL AND OVERLAY
	PROPOSED SIDEWALK
	DETECTABLE WARNING SURFACE
	CONCRETE REMOVAL
	RED DECORATIVE STAMPED BRICK PCC PAVEMENT
	FULL DEPTH PAVEMENT

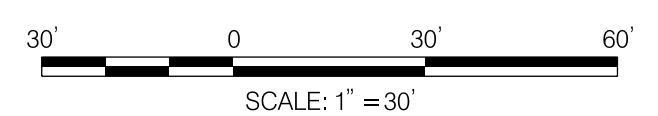


MILLING ASPHALT PAVEMENT 0"-2" AND OVERLAY		
STATION	SY	REMARKS
197+00 TO 201+50	2420	OAKLAND MILLS



- NOTES**
1. THE BASELINE IS FOR ILLUSTRATIVE PURPOSES ONLY.
 2. LENGTH OF RUNNING SLOPES FOR 12:1 RAMP SECTIONS ARE NOT DIMENSIONED BUT SHALL BE FIELD ADJUSTED SO THAT PROPOSED RAMP GRADES WILL MEET EXISTING GRADES WHILE MAINTAINING 12:1 MAX RUNNING SLOPE. PROPOSED CURB SHALL MATCH EXISTING.
 3. WARP PANEL BETWEEN PROPOSED 5' PANEL AND EXISTING PANEL.
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF HIGHWAYS	DATE
CHIEF, BUREAU OF ENGINEERING	DATE	CHIEF, TRAFFIC ENGINEERING DIVISION	DATE

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	NSP				
DRN:	AMU				
CHK:	MTR				
DATE:	05/22	BY	NO.	REVISION	DATE

ROADWAY PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-12

SCALE 1" = 30'

SHEET 14 OF 50

BY: rmaid
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\p01-2012_32189009.dgn

WORK ZONE TRAFFIC CONTROL PLAN GENERAL NOTES /WORK RESTRICTIONS

- ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH THE LATEST VERSION OF THE MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION'S (MDOT SHA) BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES AND MSHA'S MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MOMUTCD).
- EXISTING TRAFFIC SIGNS IN CONFLICT WITH THE WORK ZONE TRAFFIC CONTROL PLANS SHALL BE COVERED. TEMPORARY TRAFFIC SIGNS SHALL BE INSTALLED ONLY AS NECESSARY FOR EACH INDIVIDUAL PHASE OF CONSTRUCTION, WITH SIGNS RELOCATED AS APPLICABLE BETWEEN SEPARATE STAGES.
- ALL EXISTING PAVEMENT MARKINGS IN CONFLICT WITH THE CURRENT TRAFFIC CONTROL PHASE SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIAL FROM THE TRAVELED PORTION OF THE ROADWAY. ALSO, EQUIPMENT AND MATERIALS SHOULD NOT BE STORED IN SUCH A MANNER AS TO OBSTRUCT SIGHT DISTANCE AT ANY INTERSECTING ROAD.
- DURING LANE CLOSURES, REFERENCE MD 104.02-04, MD STD.104.03-04, MD STD.104.03-06, AND MD STD.104.03-08.
- DURING FLAGGING OPERATIONS, REFERENCE MD STD.104.02-10 AND MD STD.104.02-14.
- WHEN HOWARD COUNTY PUBLIC SCHOOLS ARE IN SESSION, WORK SHALL ONLY BE PERMITTED DURING THE HOURS OF 9:00 AM TO 3:00 PM. WHEN SCHOOLS ARE NOT IN SESSION, WORK IS PERMITTED FROM 8:00 AM TO 4:00 PM.
- FOR TEMPORARY IMPACTS TO BUS ROUTES, BUS STOPS AND RELOCATION OF EXISTING RTA BUS STOP SIGNS, CONTACT ANDREW JOHNSON (ASSISTANT GENERAL MANAGER OF OPERATIONS) AT 301-300-9006.
- ACCESS TO ALL PROPERTIES MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. WORK SHALL BE SEQUENCED TO MINIMIZE DISRUPTION TO PROPERTY OWNERS.
- THE CONTRACTOR IS ALERTED TO THE COUNTY'S REQUIREMENTS TO MAINTAIN PEDESTRIAN TRAFFIC THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL FOLLOW MDOT SHA'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SECTION 104.31 ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AN ACCESSIBLE PEDESTRIAN ROUTE, TO THE "MAXIMUM EXTENT FEASIBLE", THROUGHOUT THE PROJECT'S LIMITS. WHEN AN EXISTING PEDESTRIAN ACCESS ROUTE WITHIN THE PUBLIC RIGHT OF WAY IS BLOCKED BY CONSTRUCTION, AN ALTERNATE ACCESSIBLE PEDESTRIAN ROUTE SHALL BE PROVIDED, AND/OR PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AS PER MDOT SHA STD. NOS. MD 104.06-09A THRU MD 104.06-09D, AS DIRECTED BY THE COUNTY PROJECT ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN THE EXISTING SCHOOL CROSSINGS OF OAKLAND MILLS ROAD AT KILIMANJARO ROAD/HELEN DORSEY WAY AND AT DAWN DAY DRIVE/SEWELLS ORCHARD DRIVE AT ALL TIMES. THE CONTRACTOR SHALL DETOUR PEDESTRIANS INTO THE SIDE STREET PAVEMENT AT THE ADJACENT INTERSECTIONS IN ORDER TO UTILIZE EXISTING SIDEWALK CURB RAMPS FOR ADA ACCESSIBILITY, AS PER MDOT SHA STD. NO. MD 104.06-09A, OR AS DIRECTED BY THE COUNTY PROJECT ENGINEER.
- UPON COMPLETION OF THE WORK, BUT PRIOR TO DEMOBILIZATION, THE CONTRACTOR SHALL REMOVE ALL REMNANT OF CONSTRUCTION MATERIALS FROM THE SITE. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE PRE-CONSTRUCTION CONDITIONS.
- ANY DAMAGE CAUSED BY THE CONTRACTOR TO EXISTING PUBLIC RIGHT-OF-WAY, EXISTING PAVING, EXISTING CURB AND GUTTER, EXISTING UTILITIES ETC. SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.
- WORK AREAS SHALL BE PERMANENTLY STABILIZED DAILY BEFORE LEAVING THE WORK SITE.

MAINTENANCE OF TRAFFIC ACTIVITIES

STAGE 1

- MAINTAIN EXISTING TRAFFIC PATTERN.

- DURING OFF PEAK HOURS, CLOSE THE RIGHT LANE ALONG OAKLAND MILLS ROAD TO PROVIDE A WORK AREA, SEE GENERAL NOTE 5. TO PROVIDE A WORK AREA ON SIDE STREETS REFERENCE MD STD.104.02-02.

STAGE 2A

- INSTALL A PVMS SEVEN DAYS IN ADVANCE AT EACH END OF THE CORRIDOR INDICATING "NEW TRAFFIC PATTERN" AS DIRECTED BY THE ENGINEER.

- USING TEMPORARY LANE CLOSURES ALONG OAKLAND MILLS ROAD, REMOVE EXISTING PAVEMENT MARKINGS AND INSTALL TEMPORARY PAVEMENT MARKINGS AS SHOWN ON THE PLANS.

STAGE 2B

- DURING OFF PEAK HOURS, CLOSE LANES FOR MILLING AND OVERLAY OPERATIONS, SEE GENERAL NOTES 5 AND 6.

CONSTRUCTION ACTIVITIES

STAGE 1

- CONSTRUCT SIDEWALK, CURB, AND SIDEWALK RAMPS ALONG OAKLAND MILLS ROAD.

- CONSTRUCT TRAFFIC SIGNALS.

STAGE 2

- CONSTRUCT PEDESTRIAN ISLANDS AND DOBBIN ROAD CHANNELIZING ISLAND.
- MILL AND OVERLAY PAVEMENT AS SHOWN ON THE PLANS.
- INSTALL PERMANENT SIGNING AND MARKINGS.

"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. 21048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY :



DES:	NSP				
DRN:	AMU				
CHK:	MTR				
DATE:	05/22	BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC
NOTES AND STANDARDS

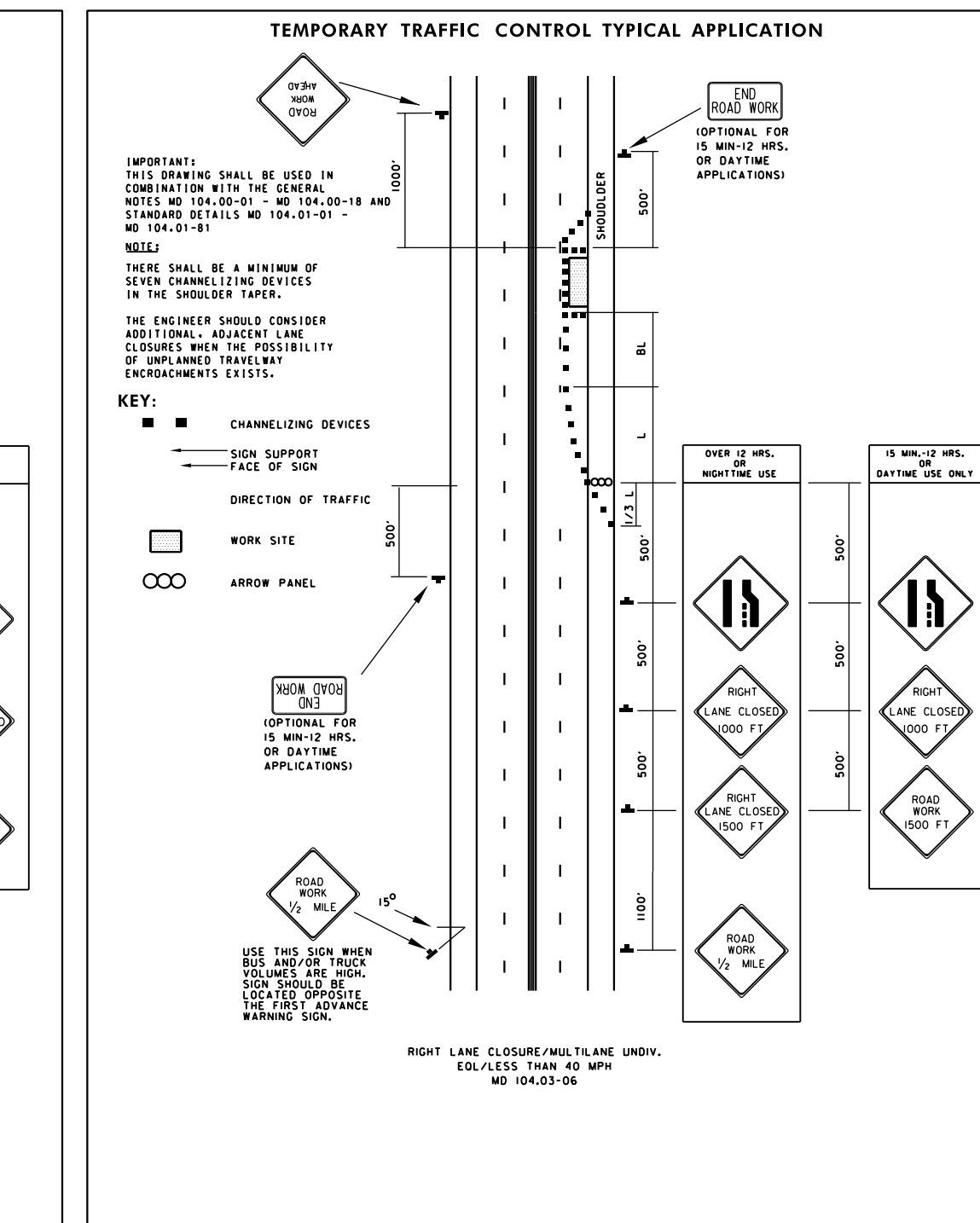
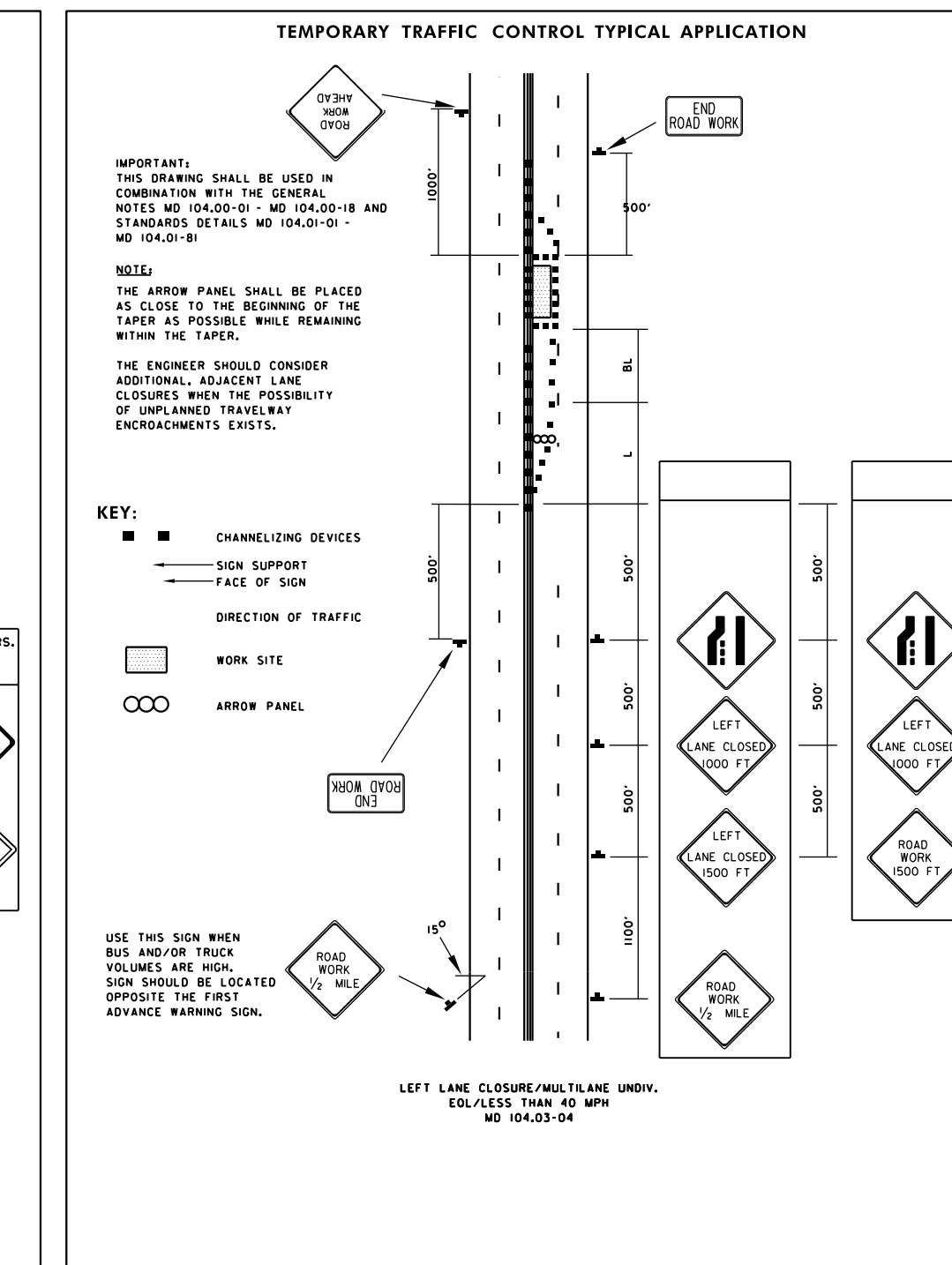
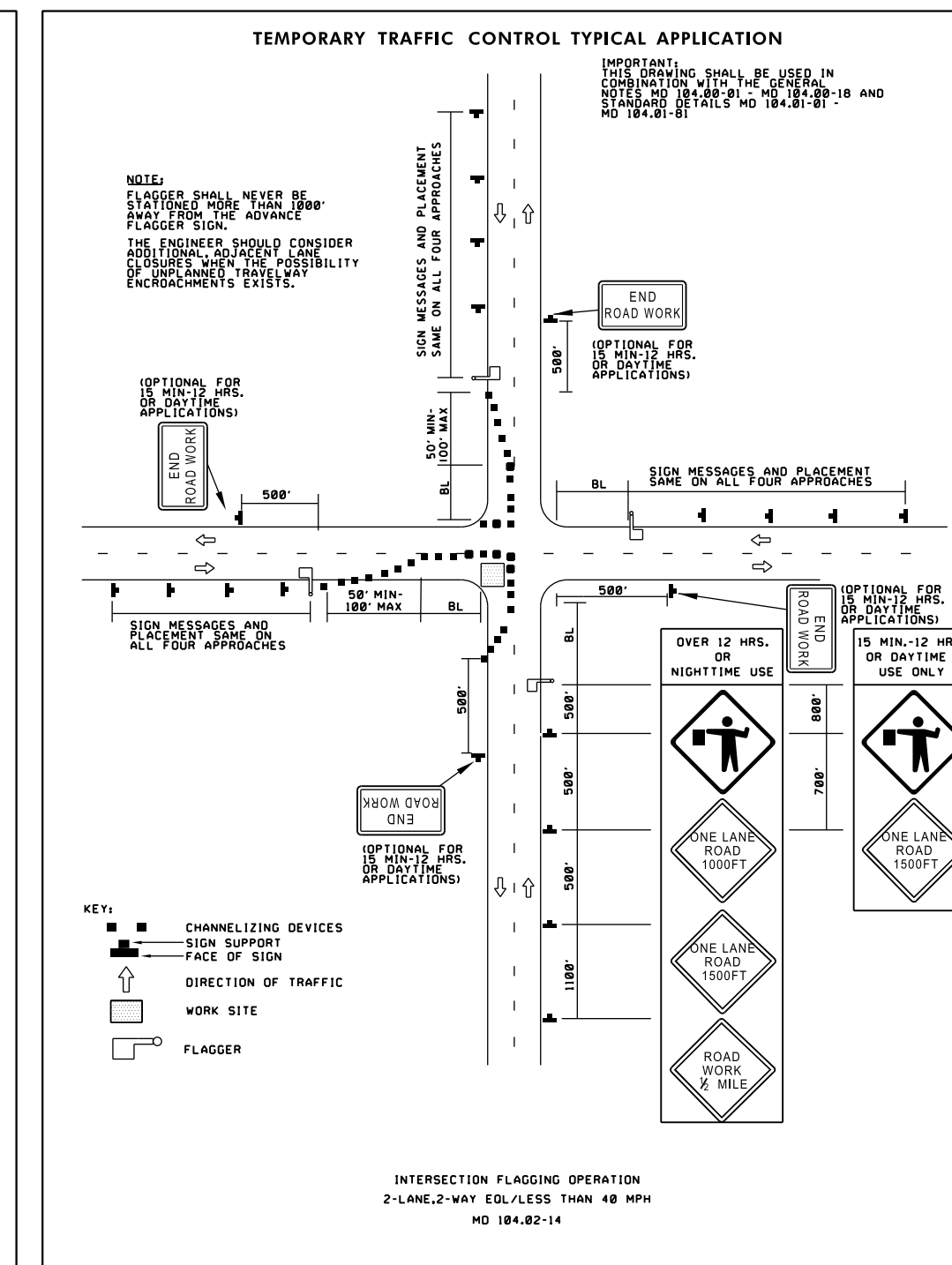
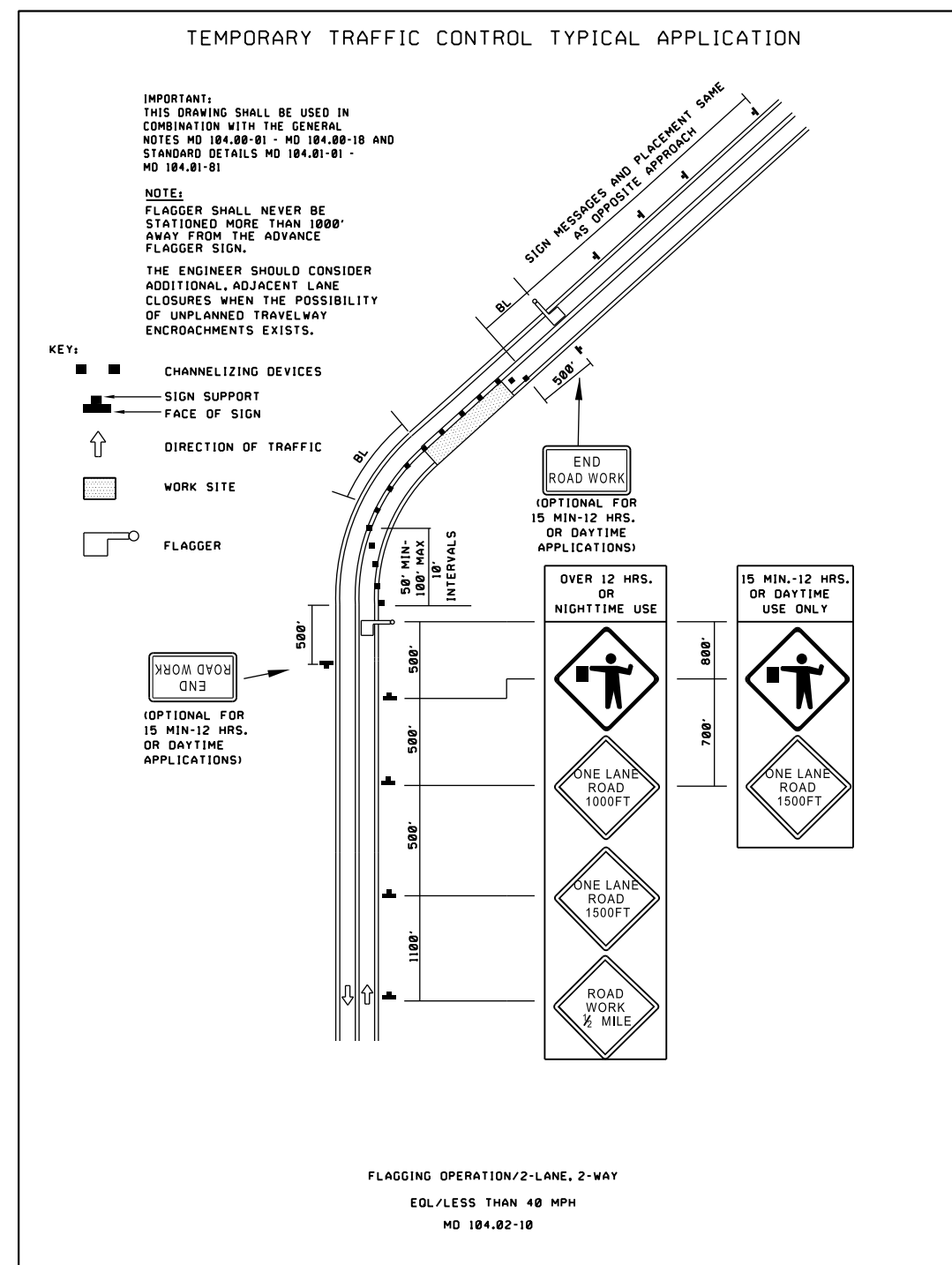
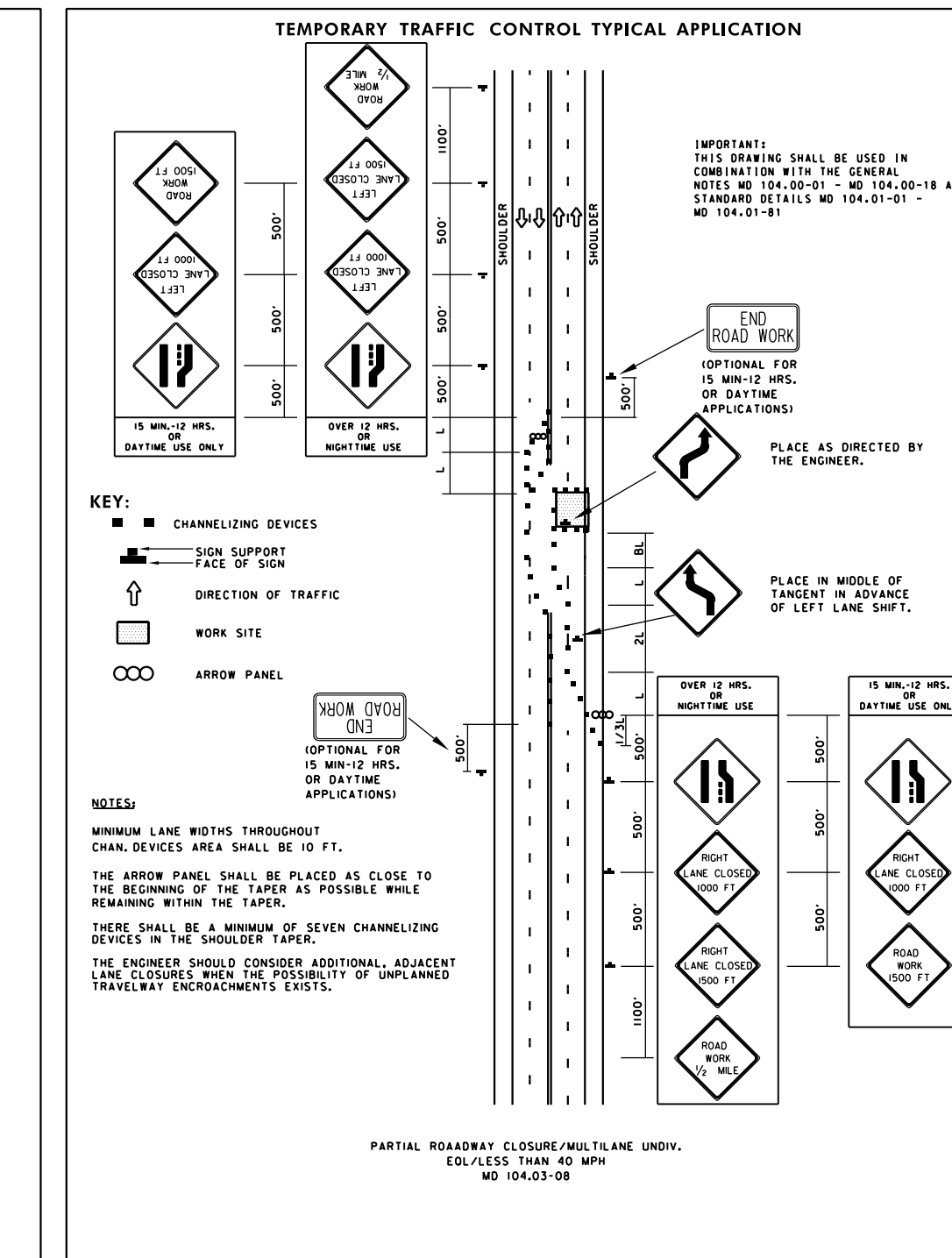
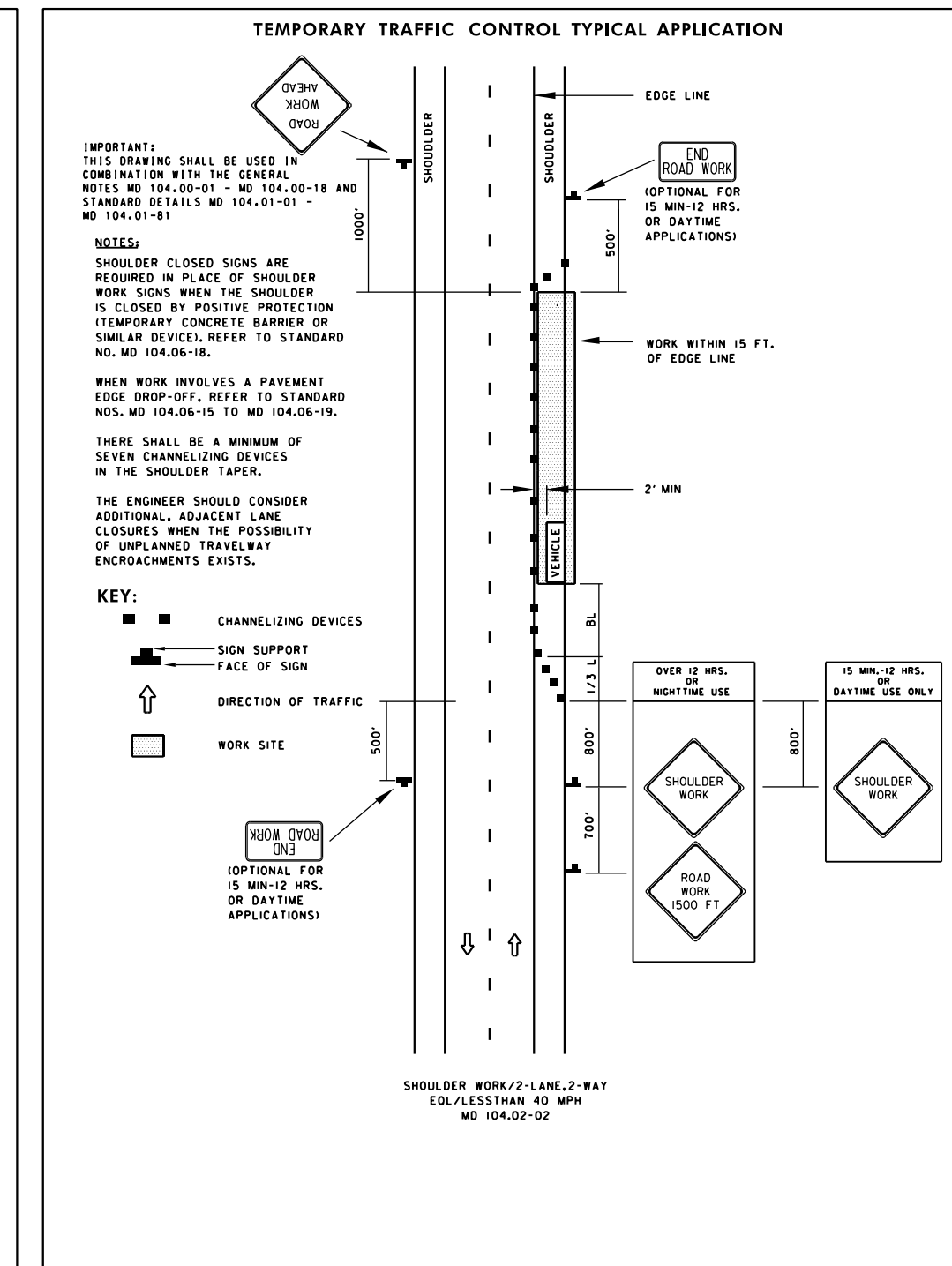
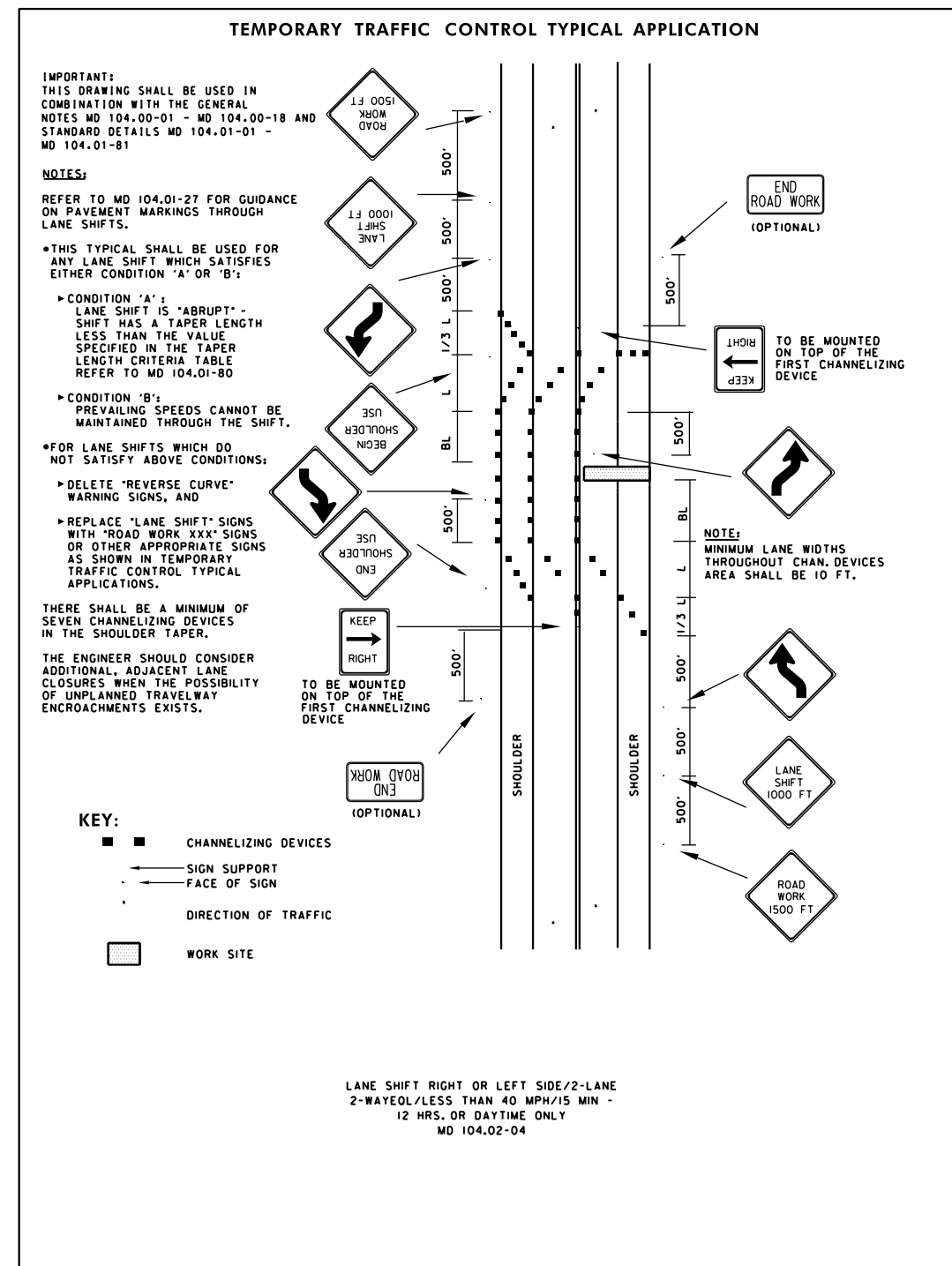
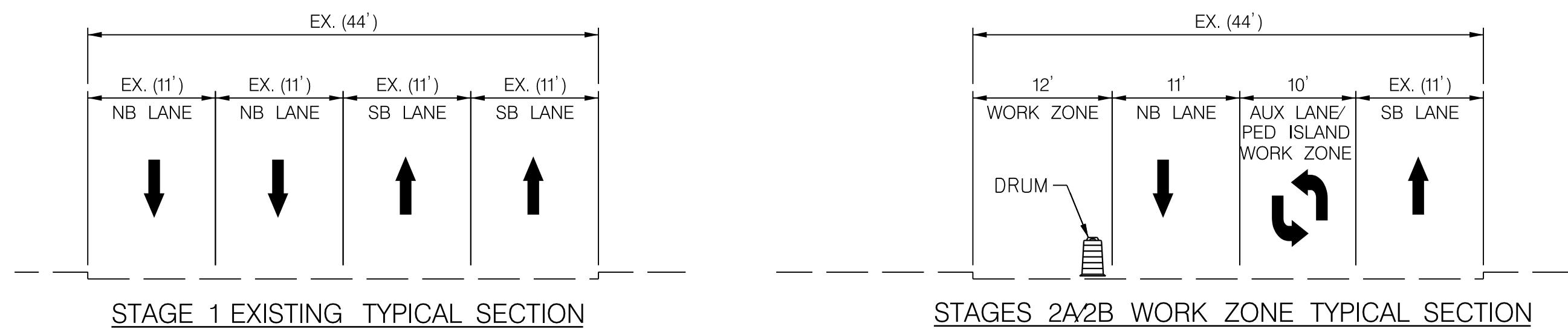
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

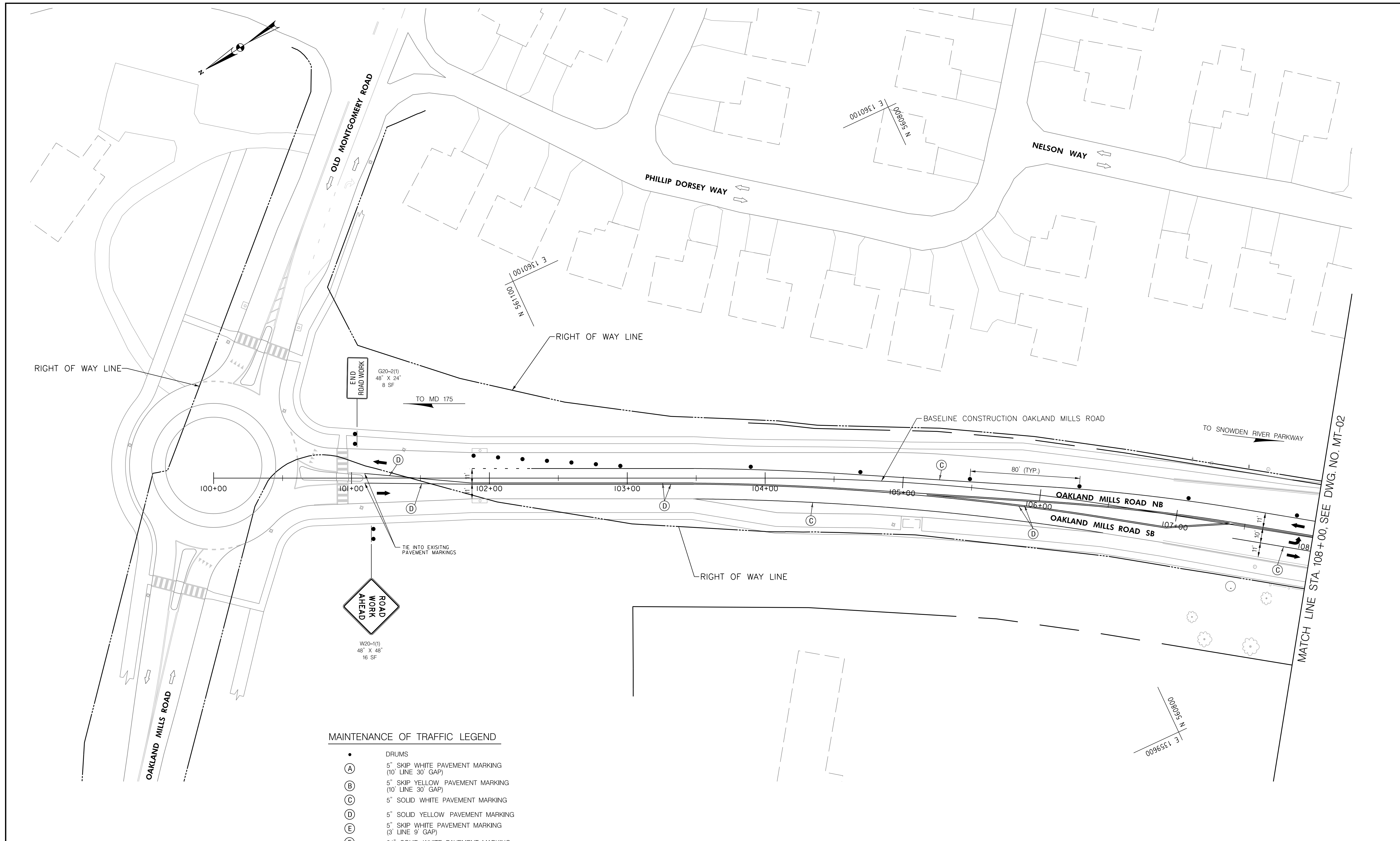
ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG.
MOT-01

SCALE
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SHEET
15 of 50

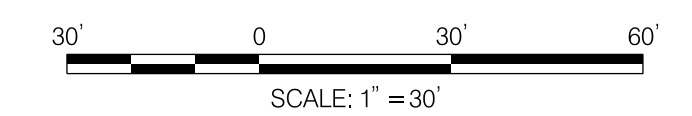




MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30' GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30' GAP)
- (C) 5" SOLID WHITE PAVEMENT MARKING
- (D) 5" SOLID YELLOW PAVEMENT MARKING
- (E) 5" SKIP WHITE PAVEMENT MARKING (3' LINE 9' GAP)
- (F) 24" SOLID WHITE PAVEMENT MARKING
- ↔ EXISTING DIRECTION OF TRAFFIC
- ➔ PROPOSED DIRECTION OF TRAFFIC

"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. 27048, EXPIRATION DATE: 01-28-2024."



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :



Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY	NO.	REVISION

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

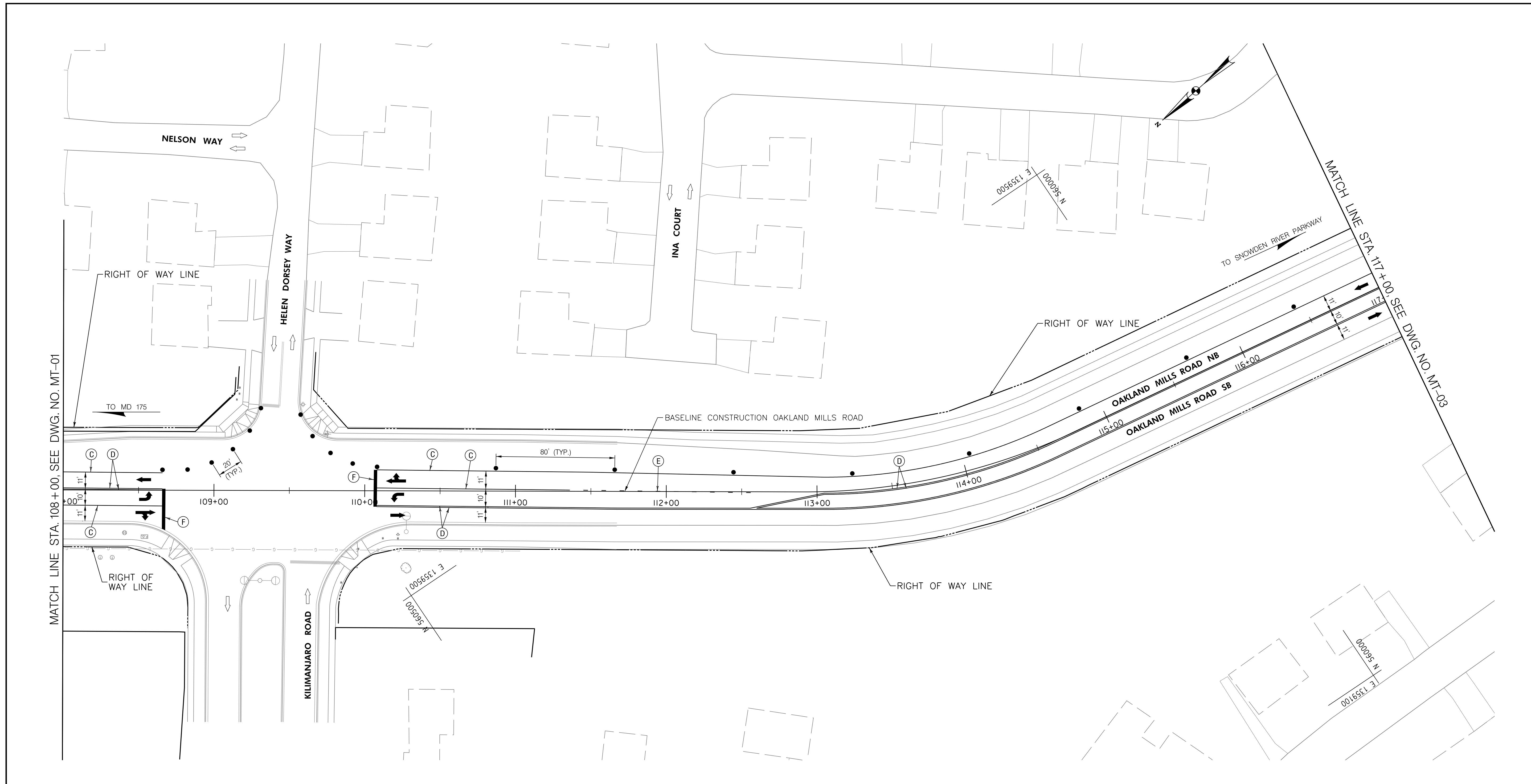
600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. MT-01
SCALE 1" = 30'
SHEET 16 OF 50

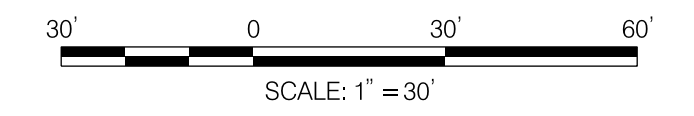
BY: rmaria
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\pMT-P001_32189009.dgn



MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30' GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30' GAP)
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- (E) 5" SKIP WHITE PAVEMENT MARKING (3' LINE 9' GAP)
- (F) 24" SOLID WHITE PAVEMENT MARKING
- ⇌ EXISTING DIRECTION OF TRAFFIC
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DWG. PS-02

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:



Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	NSP				
DRN:	AMU				
CHK:	MTR				
DATE:	05/22	BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

600' SCALE MAP NO. _____ BLOCK NO. _____

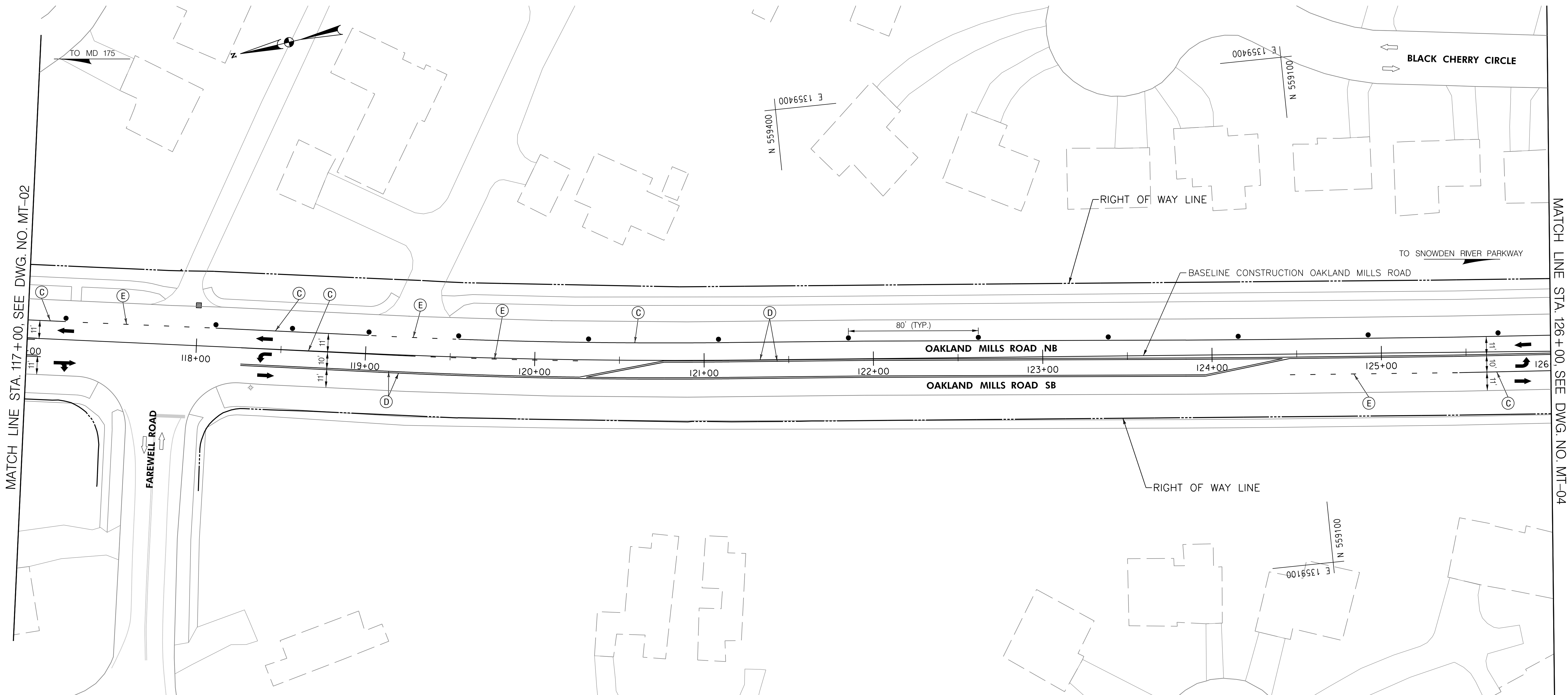
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

SCALE 1" = 30'

SHEET 17 OF 50

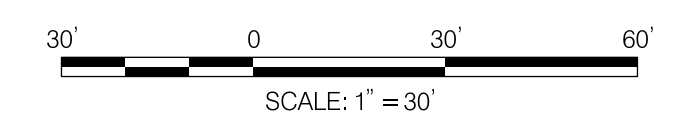
BY: rmasd
PLOTTED: June 08, 2022
FILE: N:\32188-009\CADD\pMT-P002_32188009.dgn



MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30' GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30' GAP)
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:



Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	NSP				
DRN:	AMU				
CHK:	MTR				
DATE:	05/22	BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

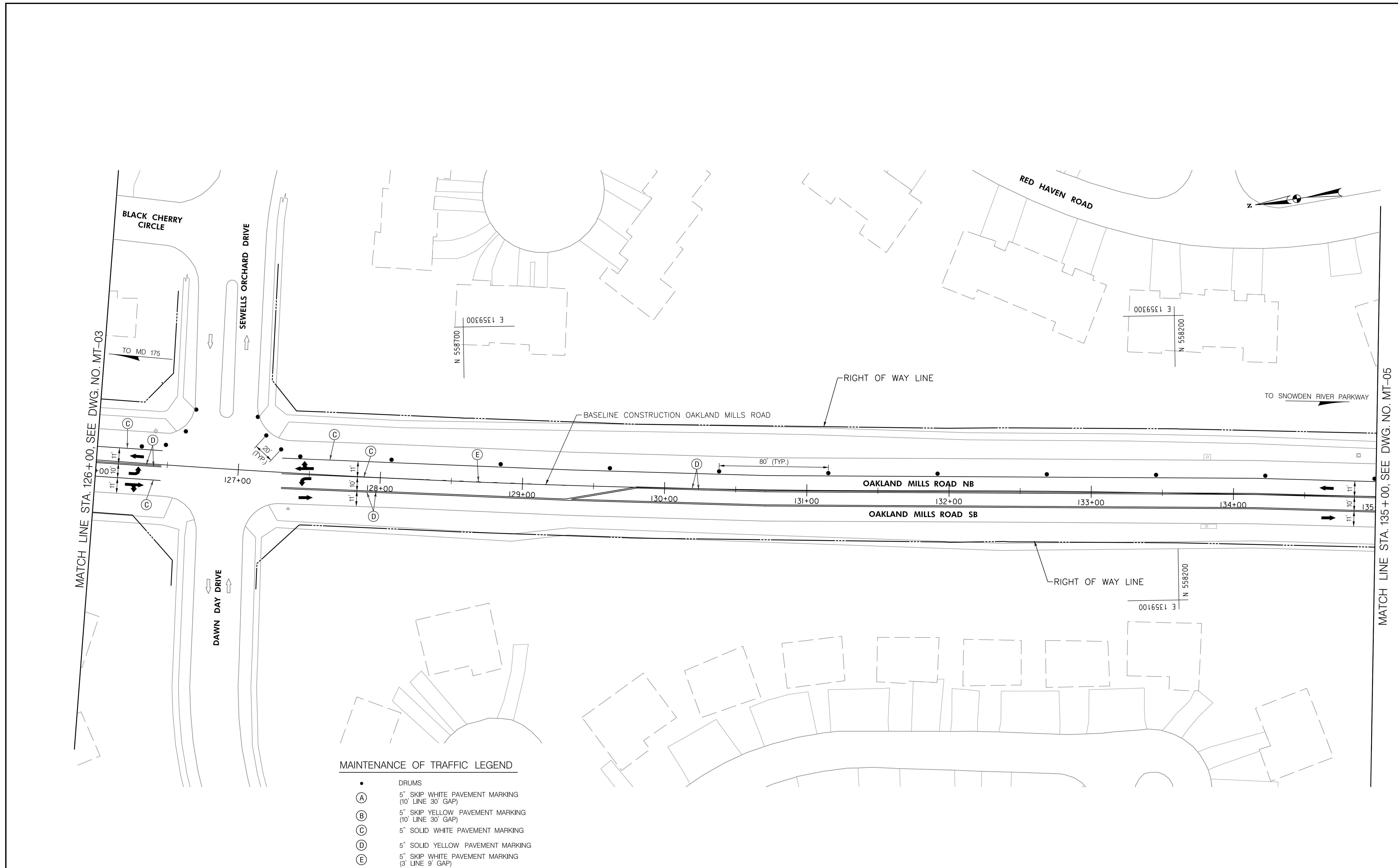
ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-03

SCALE 1" = 30'

SHEET 18 OF 50

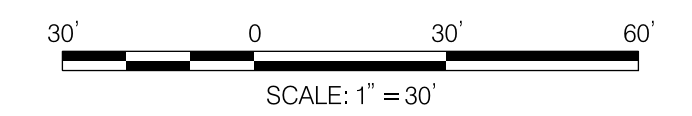
BY: rmarl
PLOTTED: June 08, 2022
FILE: N:\32188-009\CADD\pMT-P003_32188009.dgn



MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
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- (C) 5" SOLID WHITE PAVEMENT MARKING
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- ⇌ EXISTING DIRECTION OF TRAFFIC
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY	NO.	REVISION

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

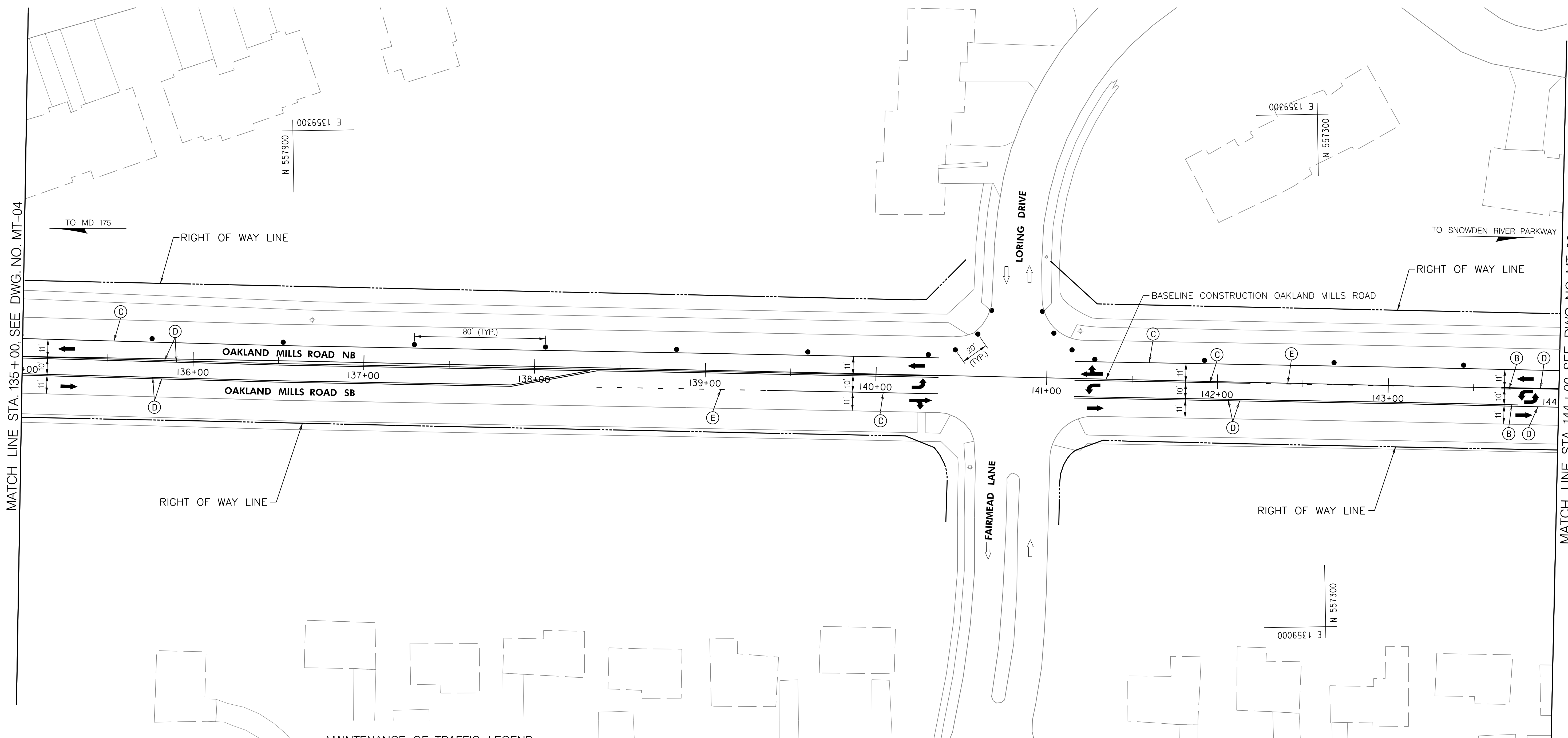
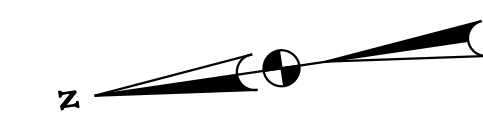
600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-04
SCALE 1" = 30'
SHEET 19 OF 50

BY: rmasd
PLOTTED: June 08, 2022
FILE: N:\32188-009\CADD\pMT-P004_32188009.dgn



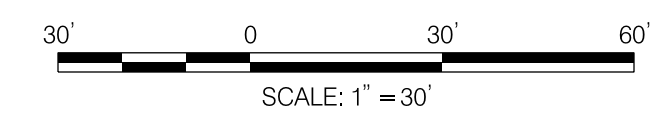
MATCH LINE STA. 135+00, SEE DWG. NO. MT-04

MATCH LINE STA. 144+00, SEE DWG. NO. MT-06

MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30" GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30" GAP)
- (C) 5" SOLID WHITE PAVEMENT MARKING
- (D) 5" SOLID YELLOW PAVEMENT MARKING
- (E) 5" SKIP WHITE PAVEMENT MARKING (3' LINE 9" GAP)
- (F) 24" SOLID WHITE PAVEMENT MARKING
- ⇌ EXISTING DIRECTION OF TRAFFIC
- ⇐ PROPOSED DIRECTION OF TRAFFIC

"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. 27048, EXPIRATION DATE: 01-28-2024."



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :



Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP				
DRN: AMU				
CHK: MTR				
DATE: 05/22	BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

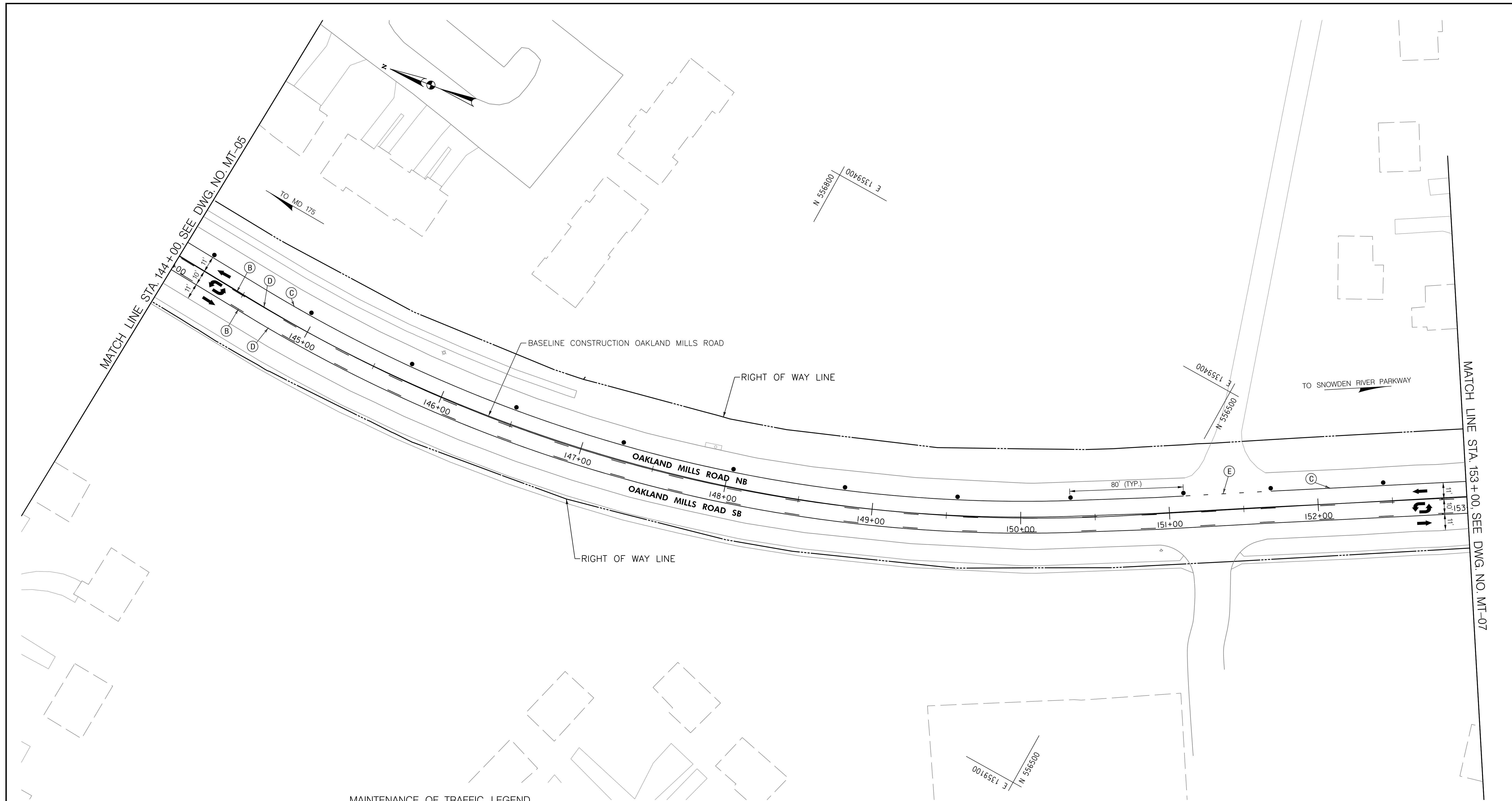
ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-05

SCALE 1" = 30'

SHEET 20 OF 50

BY: rquard
PLOTTED: June 08, 2022
FILE: N:\32188-009\CADD\pMT-P005_32188009.dgn



MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30" GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30" GAP)
- (C) 5" SOLID WHITE PAVEMENT MARKING
- (D) 5" SOLID YELLOW PAVEMENT MARKING
- (E) 5" SKIP WHITE PAVEMENT MARKING (3' LINE 9" GAP)
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- ⇨ EXISTING DIRECTION OF TRAFFIC
- ⇨ PROPOSED DIRECTION OF TRAFFIC

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SCALE: 1" = 30'
DWC. PS-06

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :



Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY	NO.	REVISION

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

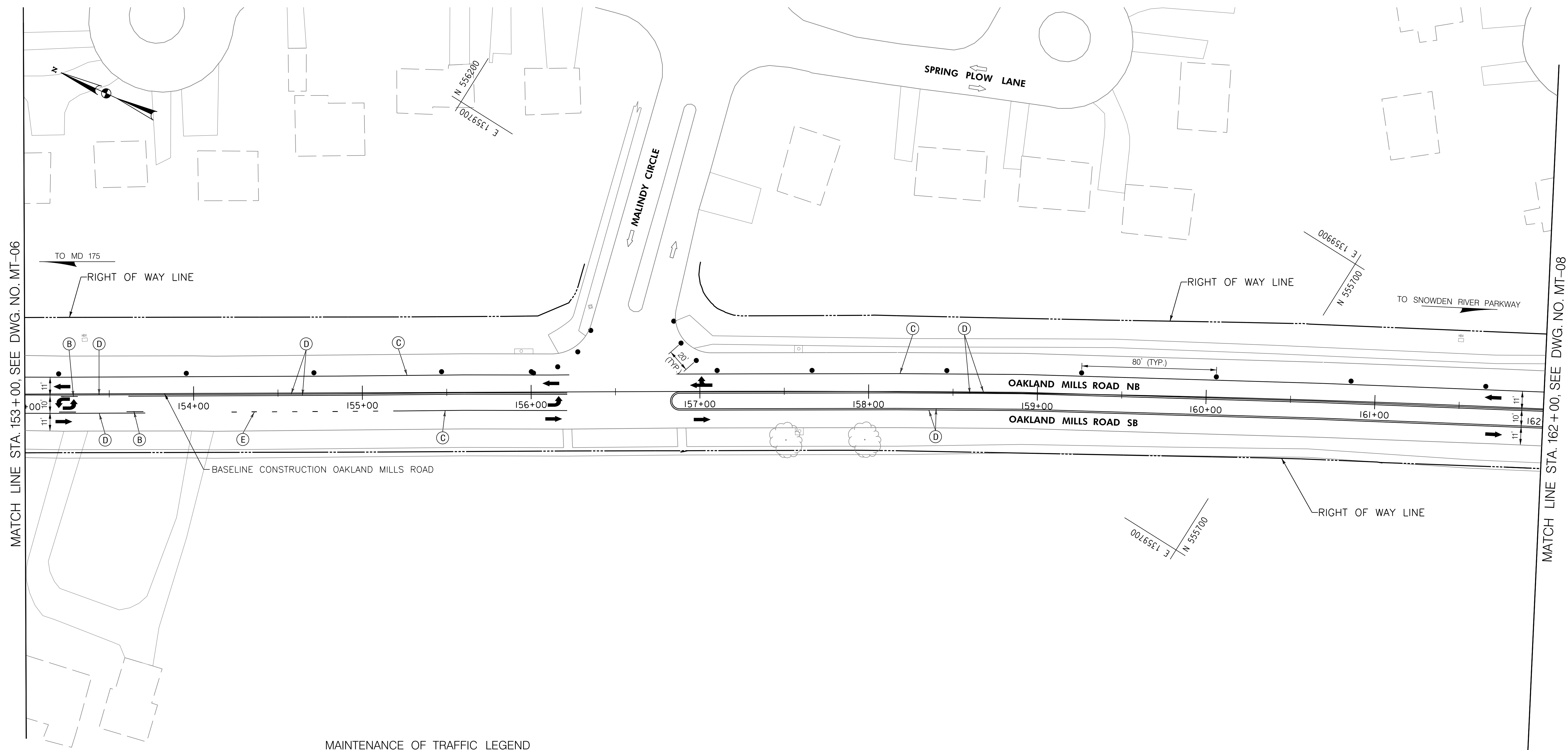
600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

SHEET 21 OF 50

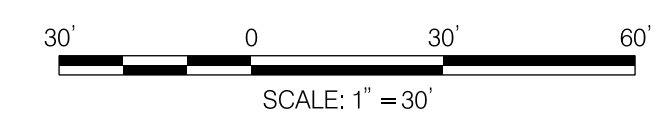
BY: reard
PLOTTED: June 08, 2022
FILE: N:\32188-009\CADD\pMT-P006_32188009.dgn



MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30" GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30" GAP)
- (C) 5" SOLID WHITE PAVEMENT MARKING
- (D) 5" SOLID YELLOW PAVEMENT MARKING
- (E) 5" SKIP WHITE PAVEMENT MARKING (3' LINE 9" GAP)
- (F) 24" SOLID WHITE PAVEMENT MARKING
- ⇐ EXISTING DIRECTION OF TRAFFIC
- ➔ PROPOSED DIRECTION OF TRAFFIC

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DWG. PS-07

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP				
DRN: AMU				
CHK: MTR				
DATE: 05/22	BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

600' SCALE MAP NO. _____ BLOCK NO. _____

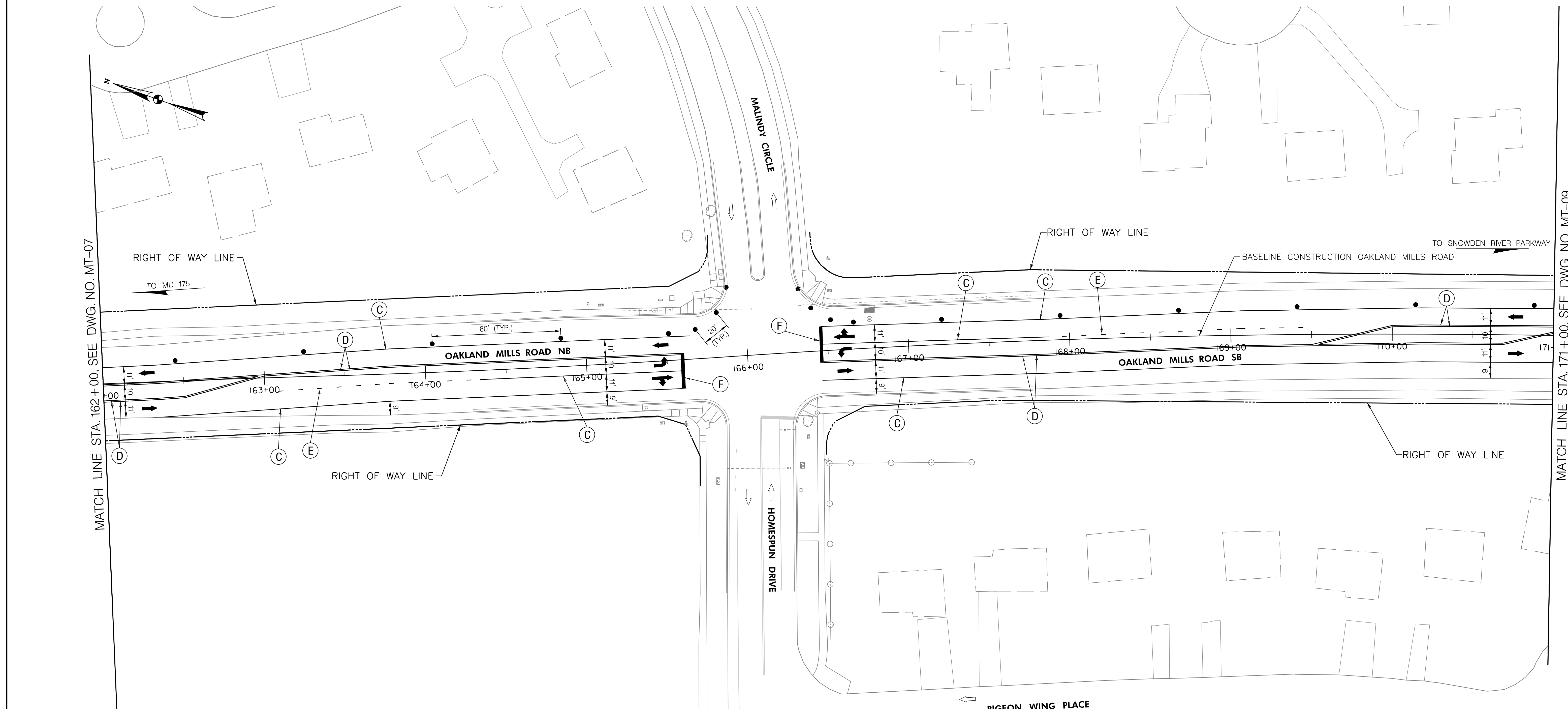
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

SCALE 1" = 30'

SHEET 22 OF 50

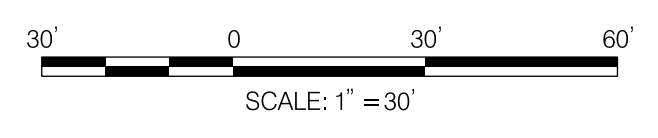
BY: rquard
PLOTTED: June 08, 2022
FILE: N:\32188-009\CADD\pMT-P007_32188009.dgn



MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30' GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30' GAP)
- (C) 5" SOLID WHITE PAVEMENT MARKING
- (D) 5" SOLID YELLOW PAVEMENT MARKING
- (E) 5" SKIP WHITE PAVEMENT MARKING (3' LINE 9' GAP)
- (F) 24" SOLID WHITE PAVEMENT MARKING
- ⇨ EXISTING DIRECTION OF TRAFFIC
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY	NO.	REVISION

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

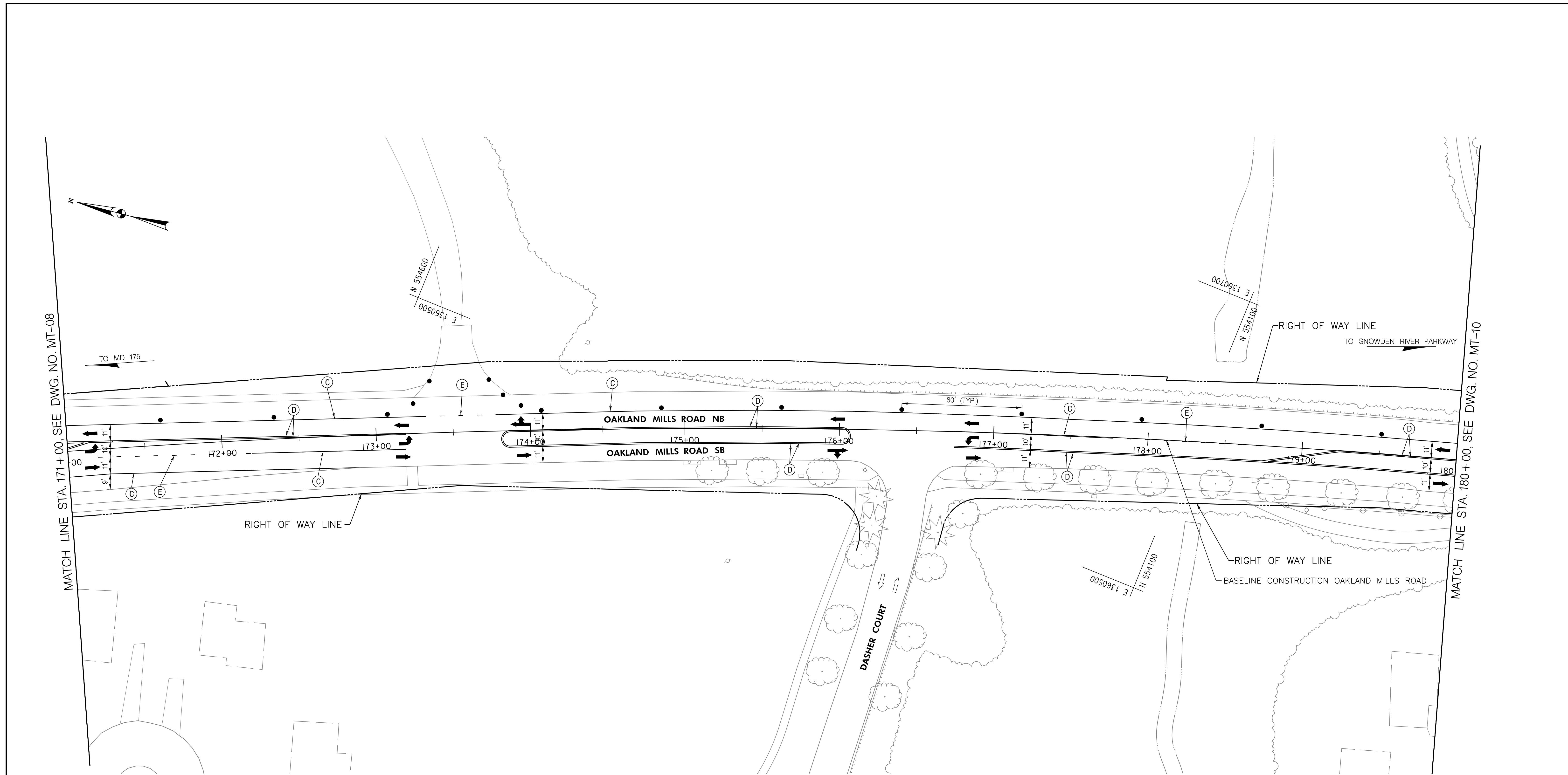
600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-08
SCALE 1" = 30'
SHEET 23 OF 50

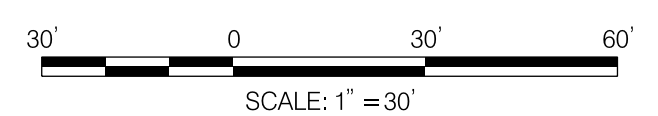
BY: rmaria
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\pMT-P008_32189009.dgn



MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30" GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30" GAP)
- (C) 5" SOLID WHITE PAVEMENT MARKING
- (D) 5" SOLID YELLOW PAVEMENT MARKING
- (E) 5" SKIP WHITE PAVEMENT MARKING (3' LINE 9" GAP)
- (F) 24" SOLID WHITE PAVEMENT MARKING
- ⇌ EXISTING DIRECTION OF TRAFFIC
- ➔ PROPOSED DIRECTION OF TRAFFIC

"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. 27048, EXPIRATION DATE: 01-28-2024."



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY	NO.	REVISION

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

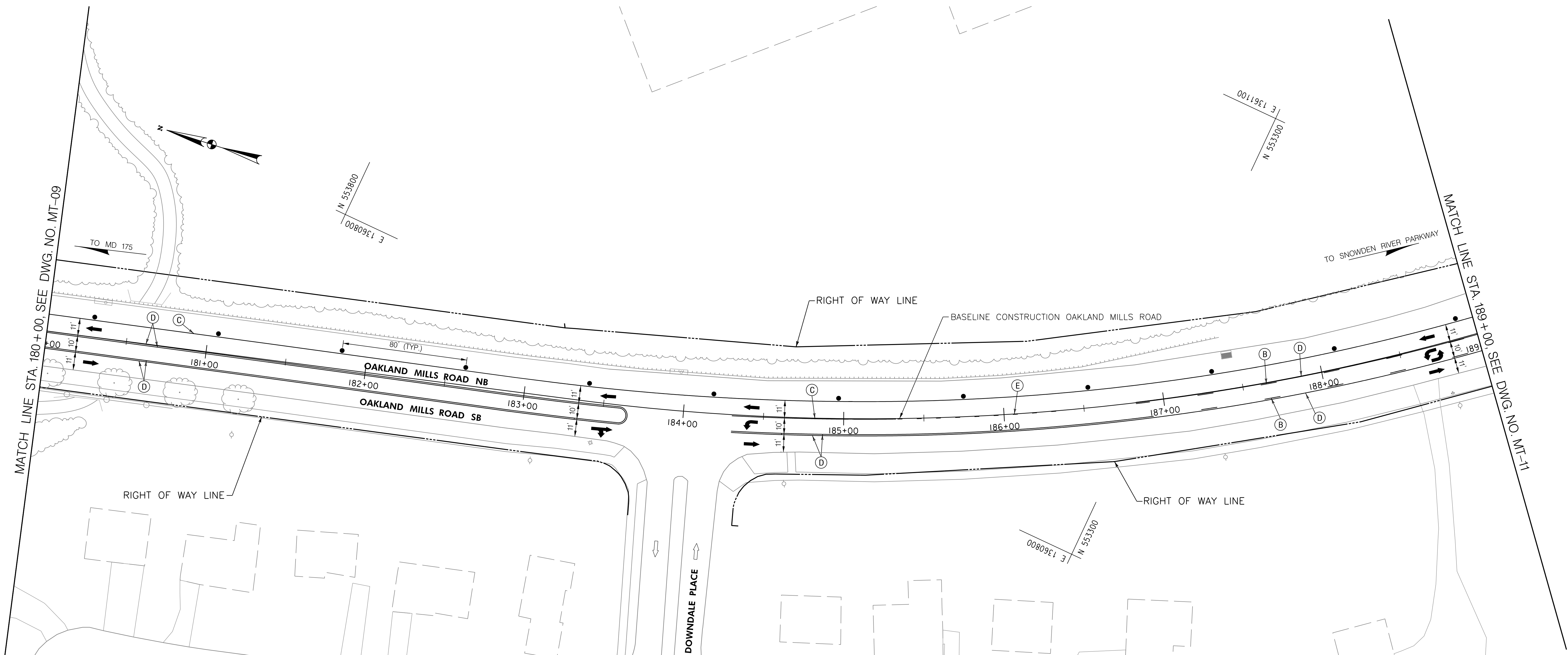
600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-09
SCALE 1" = 30'
SHEET 24 OF 50

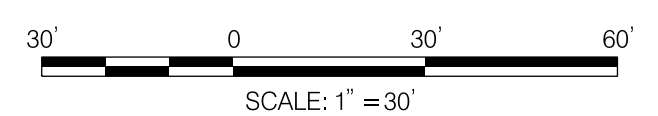
BY: rmaah
PLOTTED: June 08, 2022
FILE: N:\32188-009\CADD\pMT-P009_32188009.dgn



MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING
(10' LINE 30" GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING
(10' LINE 30" GAP)
- (C) 5" SOLID WHITE PAVEMENT MARKING
- (D) 5" SOLID YELLOW PAVEMENT MARKING
- (E) 5" SKIP WHITE PAVEMENT MARKING
(3' LINE 9" GAP)
- (F) 24" SOLID WHITE PAVEMENT MARKING
- ⇄ EXISTING DIRECTION OF TRAFFIC
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :



Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22	BY	NO.	REVISION

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

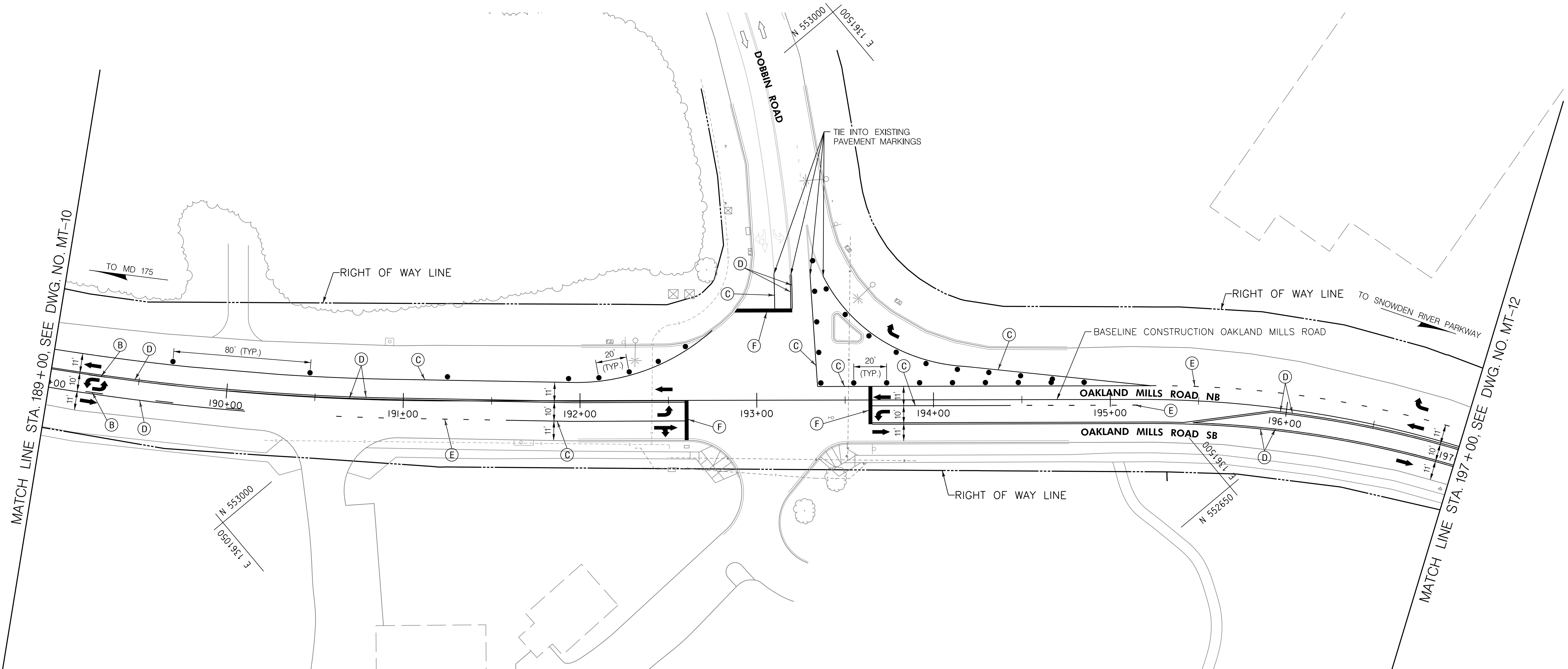
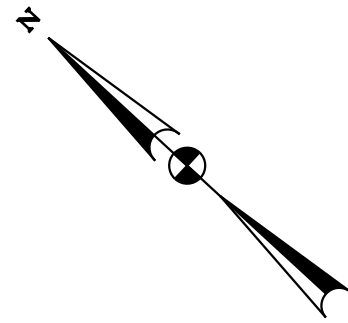
600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. PS-10
SCALE 1" = 30'
SHEET 25 OF 50

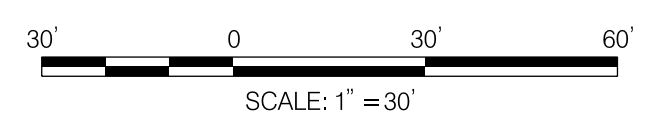
BY: rmaria
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\pMT-P010_32189009.dgn



MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30' GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30' GAP)
- (C) 5" SOLID WHITE PAVEMENT MARKING
- (D) 5" SOLID YELLOW PAVEMENT MARKING
- (E) 5" SKIP WHITE PAVEMENT MARKING (3' LINE 9' GAP)
- (F) 24" SOLID WHITE PAVEMENT MARKING
- ⇌ EXISTING DIRECTION OF TRAFFIC
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :



Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP			
DRN: AMU			
CHK: MTR			
DATE: 05/22			
BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

DWG. PS-11

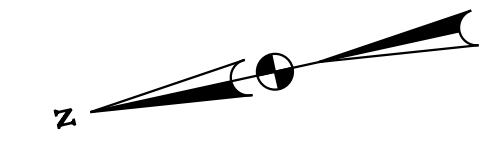
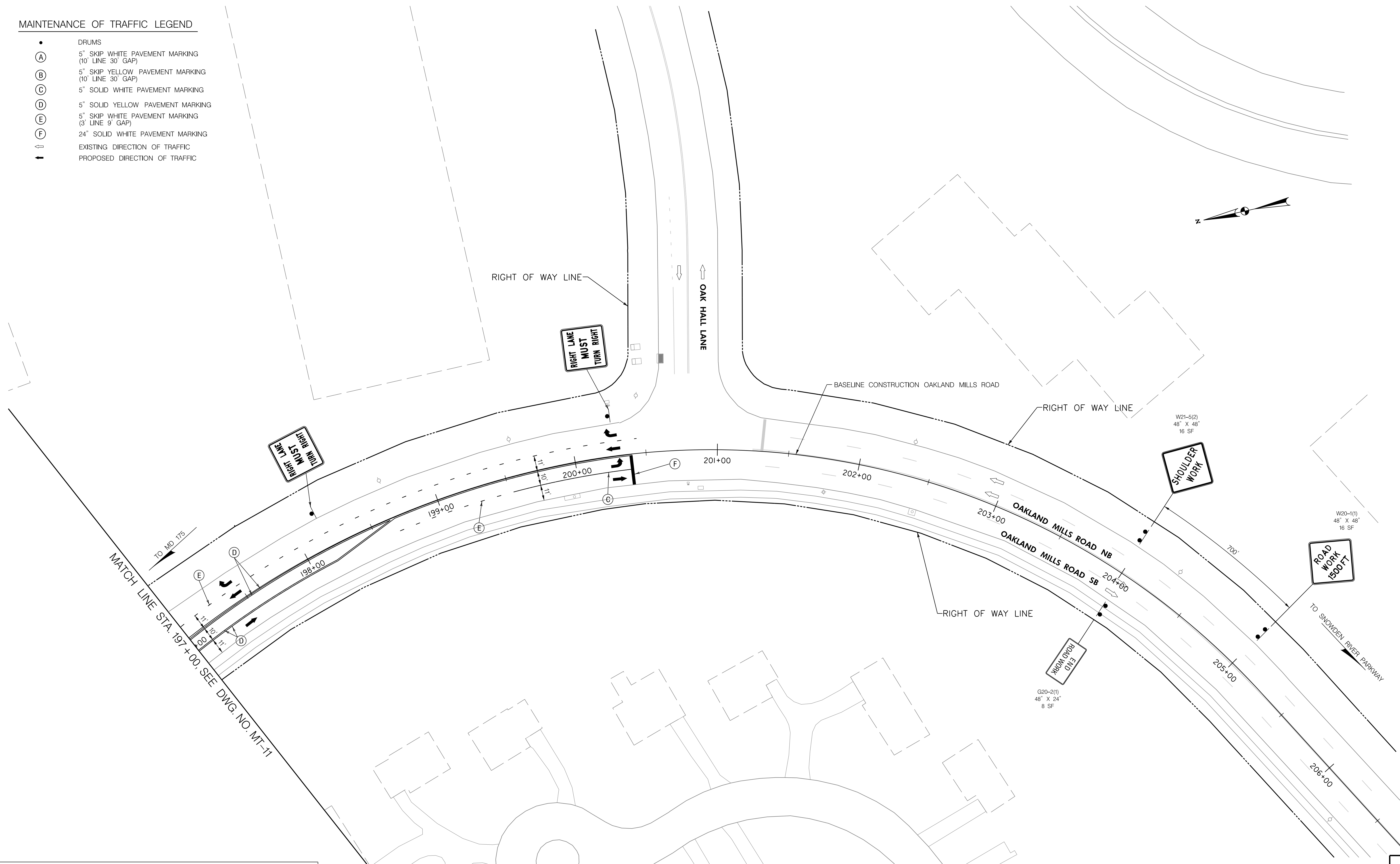
SCALE 1" = 30'

SHEET 26 OF 50

BY: rmaria
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\pMT-P011_32189009.dgn

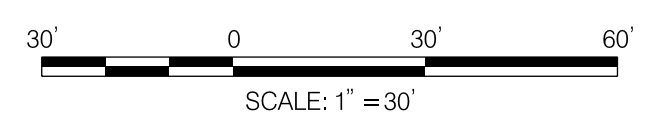
MAINTENANCE OF TRAFFIC LEGEND

- DRUMS
- (A) 5" SKIP WHITE PAVEMENT MARKING (10' LINE 30' GAP)
- (B) 5" SKIP YELLOW PAVEMENT MARKING (10' LINE 30' GAP)
- (C) 5" SOLID WHITE PAVEMENT MARKING
- (D) 5" SOLID YELLOW PAVEMENT MARKING
- (E) 5" SKIP WHITE PAVEMENT MARKING (3' LINE 9' GAP)
- (F) 24" SOLID WHITE PAVEMENT MARKING
- ⇌ EXISTING DIRECTION OF TRAFFIC
- ➔ PROPOSED DIRECTION OF TRAFFIC



MATCH LINE STA. 197+00. SEE DWG. NO. MT-11

"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. 27048, EXPIRATION DATE: 01-28-2024."



DWG. PS-12

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
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CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :



Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: NSP				
DRN: AMU				
CHK: MTR				
DATE: 05/22	BY	NO.	REVISION	DATE

MAINTENANCE OF TRAFFIC
STAGE 2A AND 2B

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

SCALE 1" = 30'

SHEET 27 OF 50

BY: rquard
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\pMT-P012_32189009.dgn

CRITERIA

THE CONTRACTOR SHALL BE GOVERNED BY THE STANDARDS AND REQUIREMENTS OF THE FOLLOWING PUBLICATIONS, EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS OF THIS CONTRACT:

DESIGN

MDOT SHA - "MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2011 EDITION AND SUBSEQUENT REVISIONS. (MDMUTCD)

A A S H T O - "HIGHWAY SAFETY DESIGN AND OPERATIONS GUIDE" -1997

A A S H T O - "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES AND TRAFFIC SIGNALS", 2001 EDITION (CATEGORY II FOR ALL OVERHEAD AND CANTILEVER SIGN STRUCTURES).

MATERIALS AND CONSTRUCTION

MDOT SHA - "STANDARD SPECIFICATIONS FOR CONSTRUCTION & MATERIALS", MOST CURRENT EDITION AND SUBSEQUENT REVISIONS AND SUPPLEMENTS.

MDOT SHA - "BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES", MOST CURRENT EDITION AND SUBSEQUENT REVISIONS AND SUPPLEMENTS.

DESIGN WIND

- 100 MPH - WOOD SUPPORTS
10 YEAR RECURRENCE INTERVAL
 - 100 MPH - GROUND MOUNT SIGN STEEL SUPPORTS
10 YEAR RECURRENCE INTERVAL
 - 100 MPH - OVERHEAD AND CANTILEVER STRUCTURES
50 YEAR RECURRENCE INTERVAL
- } ALL DISTRICTS

DESIGN STRESS

SOIL BEARING PRESSURE - S = 3,000 P.S.F. (ASSUMED)
SEE MATERIAL & CONSTRUCTION ABOVE AND SPECIAL PROVISIONS FOR DESIGN STRESSES FOR STRUCTURAL STEEL, ALUMINUM, REINFORCING STEEL AND CONCRETE.

CHAMFER

ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" X 3/4" CHAMFER.

CLASSIFICATION OF SIGNS

- SIGNS ARE DIVIDED INTO TWO (2) GENERAL CATEGORIES.
- 1. GUIDE SIGNS
 - A) STRUCTURAL TYPES
 - OH - OVERHEAD
 - C - CANTILEVER
 - GM - GROUND MOUNT, BREAKAWAY OR NON-BREAKAWAY
 - BM - BRIDGE MOUNTED
 - B) PANELS
 - MATERIAL - EXTRUDED ALUMINUM COPY - DIRECT APPLIED
 - I) HIGH INTENSITY (NEW SIGNS AND REVISIONS TO EXISTING SIGNS)
 - 2. STANDARD SIGNS (REGULATORY, WARNING, ETC.)
 - A) STRUCTURAL TYPES
 - WOOD SUPPORTS
 - SQUARE TUBE
 - B) PANELS
 - MATERIAL - SHEET ALUMINUM COPY - DIRECT APPLIED

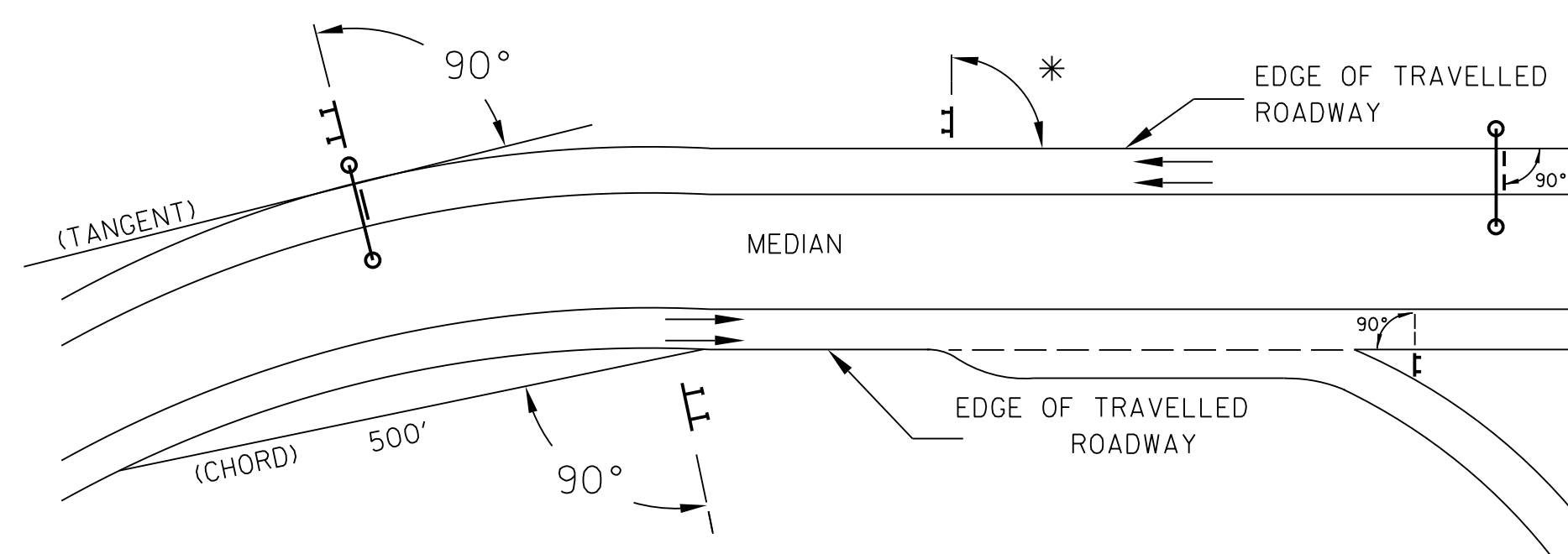
IDENTIFICATION OF SIGNS AND PANELS

- GUIDE SIGNS**
EACH GUIDE SIGN IS IDENTIFIED BY A SIGN NUMBER ON THE PLANS AND IN THE TABULATIONS. (GM-1, GM-2, GM-3, etc)
SIGNS ON STRUCTURES ARE IDENTIFIED WITH A NUMBER AND WHERE VARIATIONS OCCUR, A LOWER CASE LETTER. (OH-1a, OH-1b, OH-1c)
- STANDARD SIGNS**
STANDARD SIGNS ARE IDENTIFIED BY PANEL NUMBERS AND ARE CLASSIFIED AS FOLLOWS
R - REGULATORY
W - WARNING
M - ROUTE MARKERS AND ACCESSORIES
D - DESTINATION AND MILEAGE PANELS
S - SCHOOL
PANELS SHALL BE DESIGNATED TO AGREE WITH MARYLAND STANDARD SIGN BOOK. EACH STANDARD SIGN IS IDENTIFIED FIRST BY THE SHEET NUMBER, THEN BY THE NUMERICAL ORDER OF THE SIGN AS IT APPEARS ON THE PLAN.
FOR EXAMPLE SHEET SN 2.1-101,102,103, ETC. SHEET SN 2.2-201,202,203,ETC.

PANEL LAYOUT AND ALPHABETS

1. GUIDE SIGN PANEL LAYOUTS ARE BASED ON THE A.A.S.H.T.O. MANUALS NOTED ABOVE.
2. STANDARD SIGN PANEL LAYOUTS ARE BASED ON THE MDMUTCD WITH SPECIFICATIONS DETAILED IN THE MARYLAND STATE HIGHWAY ADMINISTRATION PUBLICATION, "STANDARD SIGN BOOK", AVAILABLE ONLINE AT http://apps.roads.maryland.gov/businesswithsha/bizsfdspspecs/desmanualstdpub/publicationsonline/oofs/internet_signbook.asp

ORIENTATION OF SIGN FACES



* UNDER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - 93° AWAY FROM THE ROAD TO AVOID SPECULAR REFLECTION AS INDICATED IN 813.03 OF THE MARYLAND STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.

OVER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - 90°

REFLECTORIZATION

BACKGROUNDS, BORDERS, TEXTS AND ALL OTHER ELEMENTS OF SIGN PANELS SHALL BE REFLECTORIZED EXCEPT WHERE NOTED. REFER TO PROJECT REQUIREMENTS FOR MORE DETAIL.

SIGN LOCATIONS

1. GUIDE SIGNS ARE LOCATED ON THE PLANS BY DIMENSION TO SURVEY STATIONS, OR WHEN NECESSARY, TO IDENTIFIABLE PHYSICAL FEATURES.
2. ALL CHANGES IN THE LOCATIONS OF SIGNS AS SHOWN ON THE PLAN SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

EXISTING UTILITIES

THE ENGINEER DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF UTILITY INFORMATION SHOWN ON THE PLAN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING FACILITIES WHICH MIGHT BE AFFECTED BY THIS WORK OR HIS OPERATION.

ROADSIDE SIGNS

1. VERTICAL ALIGNMENT
POSITION PANEL SO FACE IS PLUMB.
2. HORIZONTAL ALIGNMENT (SEE DIAGRAM ABOVE)
 - A) ON STRAIGHT ROADWAY SECTIONS, ANGLE OF SIGN FACE TO ROADWAY VARIES WITH DISTANCE FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - SEE DIAGRAM.
 - B) ON THE INSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL MAKES AN ANGLE OF 90° WITH A CHORD BETWEEN A POINT ON NEAR EDGE OF PAVEMENT AT SIGN LOCATION AND A POINT ON EDGE OF PAVEMENT 500' IN ADVANCE OF SIGN.
 - C) ON THE OUTSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT THE SIGN LOCATION.
 - D) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.

OVERHEAD SIGNS

1. VERTICAL ALIGNMENT
POSITION PANELS FOR ALL OVERHEAD STRUCTURES SO THAT PANEL FACE IS PLUMB.
2. OVERHEAD SIGN STRUCTURES SHALL NOT BE ERECTED WITHOUT ATTACHING LUMINAIRES, SUPPORTS, AND/OR SIGNS.
3. HORIZONTAL ALIGNMENT
 - A) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE NORMAL EDGE OF ROADWAY, IF ON A STRAIGHT ROADWAY SECTION.
 - B) POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT SIGN LOCATION, IF ON A HORIZONTAL CURVE.
 - C) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.
4. VERTICAL CLEARANCE
 - A) OVERHEAD SIGNS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17'-9" FROM ROADWAY TO THE BOTTOM OF LIGHT FIXTURES. ALL LIGHT FIXTURES ARE TO BE AT THE SAME ELEVATION.
 - B) IF THE CONTRACTOR CANNOT OBTAIN 17'-9" (SEE 3A) CLEARANCE, HE IS TO CEASE WORK AND CONTACT THE PROJECT ENGINEER FOR FURTHER INSTRUCTIONS. THE PROJECT ENGINEER MAY CONTACT THE TRAFFIC ENGINEERING DESIGN DIVISION FOR ASSISTANCE.
 - C) ON ALL OVERHEAD SIGNS, THE MINIMUM CLEARANCE TO BOTTOM OF DESIGN SIGN: 20'-9".

PROJECT REQUIREMENTS

ALL NEW SIGNS ON THIS PROJECT SHALL BE FABRICATED FROM SHEETING WHICH MEETS ALL OF THE FOLLOWING REQUIREMENTS, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER:

1. SHEETING SHALL MEET THE REQUIREMENTS OF SECTIONS 813 AND 950.03 OF MDOT SHA'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS 2017 EDITION AND SUBSEQUENT REVISIONS AND SUPPLEMENTS.
2. LISTED ON MDOT SHA OFFICE OF TRAFFIC AND SAFETY'S QUALIFIED PRODUCTS LIST (OPL).

PROJECT REQUIREMENTS CONT'D

3. THE FOLLOWING TYPES OF SHEETING SHALL BE USED FOR THE SPECIFIED SIGN CLASSIFICATIONS:

GENERAL NOTE: ALL COLORS SHALL BE RETROREFLECTIVE EXCEPT BLACK. BLACK TEXT, BORDERS, SYMBOLS OR ANY BLACK ELEMENTS OF ANY SIGN SHALL BE NON-REFLECTIVE. THIS APPLIES TO ALL MDOT SHA SIGNS AS SHOWN BELOW.

A) GUIDE, EXIT GORE, GENERAL INFORMATION, AND SERVICE SIGNS - FALL INTO TWO SUB CATEGORIES:

- (i). GROUND MOUNTED:
ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9).
- (ii). OVERHEAD STRUCTURE SIGNS AND OVERHEAD CANTILEVER SIGNS:
ALL RETROREFLECTIVE SHEETING ELEMENTS OF ALL OVERHEAD SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE XI (11). (THIS SECTION DOES NOT APPLY TO OVERHEAD SIGNALIZED INTERSECTION SIGNING; MAST ARM OR SPAN WIRE. FOLLOW THE REQUIREMENTS FOR THE RESPECTIVE SIGN CLASSIFICATION FOR SIGNAL SIGNING.)

B) WARNING SIGNS - RETROREFLECTIVE SHEETING FOR WARNING SIGNS (FLUORESCENT YELLOW AND FLUORESCENT ORANGE) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9). REGULATORY MESSAGES WITHIN WARNING SIGNS SHALL FOLLOW THE REQUIREMENTS FOR REGULATORY SIGNS.

C) SCHOOL SIGNS - RETROREFLECTIVE SHEETING FOR SCHOOL SIGNS (FLUORESCENT YELLOW AND FLUORESCENT YELLOW-GREEN) SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9). REGULATORY MESSAGES WITHIN SCHOOL SIGNS SHALL FOLLOW THE REQUIREMENTS FOR REGULATORY SIGNS.

D) REGULATORY SIGNS - FALL INTO THREE SUBCATEGORIES:

- (i). "RED" REGULATORY SIGNS; (SPECIFICALLY - STOP, YIELD, DO NOT ENTER AND WRONG WAY). ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9).
- (ii). ALL R7 AND R8 SERIES PARKING RELATED SIGNS AND THEIR SUPPLEMENTAL PANELS, NO TRESPASSING SIGNS, AND SIGNS DIRECTED AT PEDESTRIANS AND BICYCLISTS ONLY. ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET THE REQUIREMENTS FOR ASTM TYPE IV (4).
- (iii). ALL OTHER REGULATORY SIGNS - ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET ASTM TYPE IV (4) INCLUDING RED ELEMENTS. WARNING MESSAGES WITHIN REGULATORY SIGNS SHALL FOLLOW THE REQUIREMENTS FOR WARNING SIGNS.

E) ROUTE MARKERS (INDEPENDENT USE AND GUIDE SIGN USE)

INDEPENDENT USE: ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET BUT NOT TO EXCEED THE REQUIREMENTS FOR ASTM TYPE IV (4).

GUIDE SIGN USE: WHEN INCORPORATED IN THE BODY OF A GUIDE SIGN, ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET THE SHEETING REQUIREMENTS OF THE GUIDE SIGNS FOR WHICH THEY ARE TO BE APPLIED; GROUND MOUNT ASTM TYPE IX (9) OR OVERHEAD ASTM TYPE XI (11).

F) LOGOS AND / OR GRAPHICS - WITHIN SIGNS SHALL FOLLOW THE REQUIREMENTS FOR THE RESPECTIVE SIGN CLASSIFICATION UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, OR AS DIRECTED BY THE ENGINEER.

G) SPECIFIC SERVICE (LOGO) SIGNING - ALL COPY, DIVIDER BORDERS, LOGOS AND ARROWS SHALL BE DEMOUNTABLE ALUMINUM OVERLAYS, .032 MINIMUM TO .063 MAXIMUM. ALL RETROREFLECTIVE SHEETING ELEMENTS OF THESE SIGNS SHALL MEET OR EXCEED THE REQUIREMENTS FOR ASTM TYPE IX (9). DISTANCES ON DIRECTIONAL ARROWS WHEN SPECIFIED SHALL BE BLACK. THE OVERLAYS ARE TO BE APPLIED WITH .125 ALUMINUM POP RIVETS TO THE BODY OF THE MAIN SIGN.

H) CIVIL DEFENSE SIGNS AND OTHER SIGNS - NOT SPECIFICALLY FALLING INTO ONE OF THE CATEGORIES ABOVE, SHALL FOLLOW THE GUIDELINES FOR THE SIGN CLASSIFICATION THAT MOST CLOSELY MATCHES THE COLOR(S) OF THE PROPOSED SIGN.

4. THE FOLLOWING MINIMUM THICKNESS SHALL BE USED FOR THE APPROPRIATE WIDTH OF SHEET ALUMINUM BLANKS:

LONGEST DIMENSION	MINIMUM THICKNESS
UP TO 12"	0.040"
GREATER THAN 12" TO 24"	0.063"
GREATER THAN 24" TO 36"	0.080"
GREATER THAN 36" TO 48"	0.100"
OVER 48"	0.125"

HOWARD COUNTY SPECIAL NOTES:

- 1) ALL HOWARD COUNTY OWNED TRAFFIC CONTROL DEVICE LOCATIONS AND PAVEMENT MARKINGS SHOWN ON THE HOWARD COUNTY PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED BY HOWARD COUNTY TRAFFIC DIVISION (410)313-5752 PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS.
- 2) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH" TYPE), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- 3) ALL WARNING SIGNS ON THE HOWARD COUNTY PLANS SHALL BE BLACK ON YELLOW, UNLESS OTHERWISE NOTED. PEDESTRIAN SIGNS SHALL BE BLACK ON FLUORESCENT YELLOW-GREEN AS NOTED.
- 4) ALL SIGNS ON HOWARD COUNTY PLANS SHALL BE FABRICATED OF ASTM TYPE IV RETROREFLECTIVE SHEETING LEGENDS AND BACKGROUNDS, EXCEPT WHERE FLUORESCENT YELLOW-GREEN IS SPECIFIED, WHICH SHALL BE ASTM TYPE IX/XI. ALL BLACK LEGEND SHALL BE NON-REFLECTIVE BLACK.
- 5) ALL STREET NAME SIGNS SHALL BE FABRICATED BY THE HOWARD COUNTY SIGN SHOP. CONTACT HOWARD COUNTY TRAFFIC AT 410-313-5752 FOR INFO & DETAILS REGARDING INSTALLTION.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE

CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR				
DRN:	JHR				
CHK:	JMM				
DATE:	05/22	BY	NO.	REVISION	DATE

SIGNING AND MARKING
GENERAL NOTES AND PROPOSALS

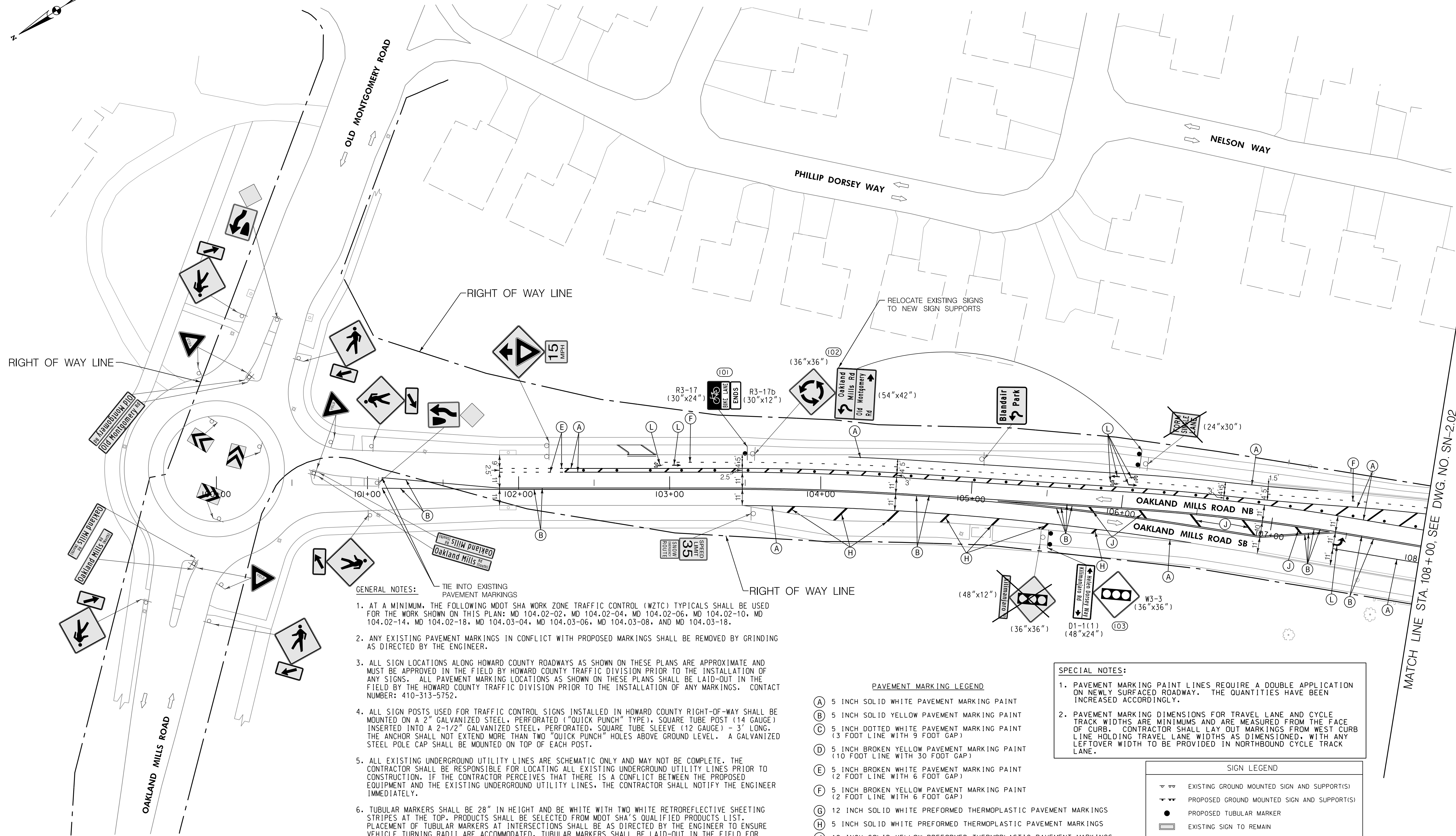
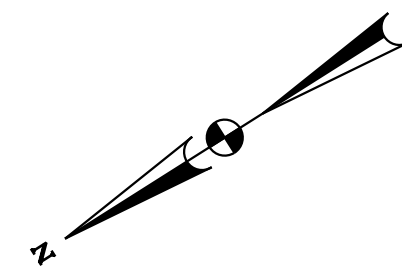
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG.
SN-01

SCALE
NTS

SHEET
28 of 50



GENERAL NOTES:

- 1. AT A MINIMUM, THE FOLLOWING MDT SHA WORK ZONE TRAFFIC CONTROL (WZTC) TYPICALS SHALL BE USED FOR THE WORK SHOWN ON THIS PLAN: MD 104.02-02, MD 104.02-04, MD 104.02-06, MD 104.02-10, MD 104.02-14, MD 104.02-18, MD 104.03-04, MD 104.03-06, MD 104.03-08, AND MD 104.03-18.
- 2. ANY EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS SHALL BE REMOVED BY GRINDING AS DIRECTED BY THE ENGINEER.
- 3. ALL SIGN LOCATIONS ALONG HOWARD COUNTY ROADWAYS AS SHOWN ON THESE PLANS ARE APPROXIMATE AND MUST BE APPROVED IN THE FIELD BY HOWARD COUNTY TRAFFIC DIVISION PRIOR TO THE INSTALLATION OF ANY SIGNS. ALL PAVEMENT MARKING LOCATIONS AS SHOWN ON THESE PLANS SHALL BE LAID-OUT IN THE FIELD BY THE HOWARD COUNTY TRAFFIC DIVISION PRIOR TO THE INSTALLATION OF ANY MARKINGS. CONTACT NUMBER: 410-313-5752.
- 4. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN HOWARD COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH" TYPE), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- 5. ALL EXISTING UNDERGROUND UTILITY LINES ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT THERE IS A CONFLICT BETWEEN THE PROPOSED EQUIPMENT AND THE EXISTING UNDERGROUND UTILITY LINES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- 6. TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.
- 7. SEE DWG. SN-2.02 FOR 'CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER' DETAIL.
- 8. CONTRACTOR SHALL MEET WITH HOWARD COUNTY DPW TRAFFIC ENGINEERING AND OFFICE OF TRANSPORTATION AT LEAST ONE WEEK PRIOR TO STARTING PAVEMENT MARKING TO CONFIRM DETAILS.

PAVEMENT MARKING LEGEND

- (A) 5 INCH SOLID WHITE PAVEMENT MARKING PAINT
- (B) 5 INCH SOLID YELLOW PAVEMENT MARKING PAINT
- (C) 5 INCH DOTTED WHITE PAVEMENT MARKING PAINT (3 FOOT LINE WITH 9 FOOT GAP)
- (D) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (10 FOOT LINE WITH 30 FOOT GAP)
- (E) 5 INCH BROKEN WHITE PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
- (F) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
- (G) 12 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (H) 5 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (J) 12 INCH SOLID YELLOW PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (K) 24 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (L) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (M) GREEN COLORIZED ANTI-SKID PREFORMED THERMOPLASTIC PAVEMENT MARKING

SPECIAL NOTES:

- 1. PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
- 2. PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.

SIGN LEGEND

- EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED TUBULAR MARKER
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN
- TRAFFIC FLOW ARROWS
- PAVEMENT MARKING ARROW
- SIGN NO.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :



Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR			
DRN:	JHR			
CHK:	JMM			
DATE:	05/22			
BY:	NO.	REVISION	DATE	

SIGNING AND MARKING PLAN

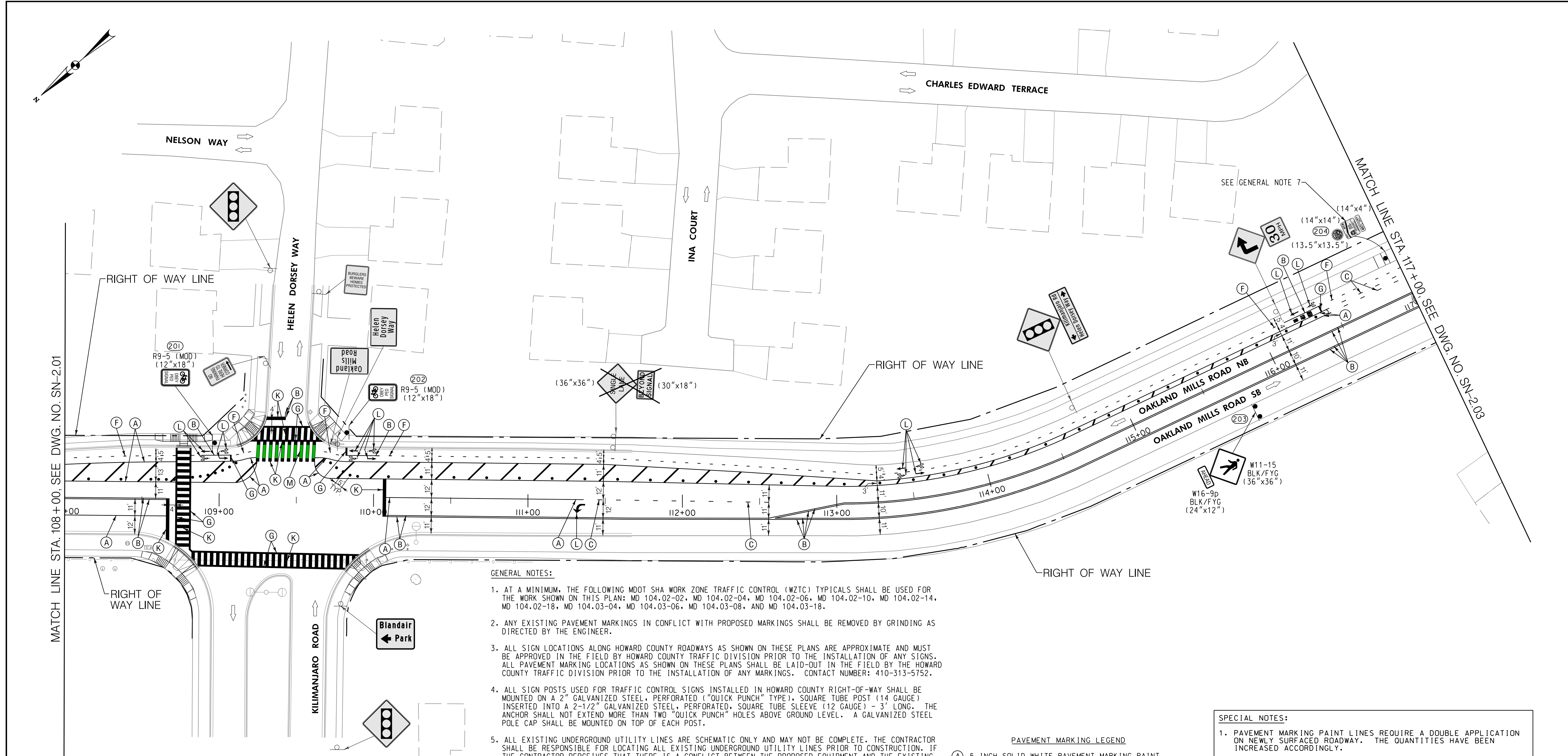
600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SN-2.01
SCALE 1" = 30'
SHEET 29 OF 50

BY: rmaria
PLOTTED: June 08, 2022
FILE: N:\32189-001\CADD\pSN-P001_32189009.dgn



GENERAL NOTES:

1. AT A MINIMUM, THE FOLLOWING MDOT SHA WORK ZONE TRAFFIC CONTROL (WZTC) TYPICALS SHALL BE USED FOR THE WORK SHOWN ON THIS PLAN: MD 104.02-02, MD 104.02-04, MD 104.02-06, MD 104.02-10, MD 104.02-14, MD 104.02-18, MD 104.03-04, MD 104.03-06, MD 104.03-08, AND MD 104.03-18.
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6. TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDOT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.
7. RELOCATED EXISTING "BUS STOP" SIGNS FROM STATION 117+24 LEFT, SHOWN ON DWG. SN-2.03.
8. SEE DWG. SN-2.03 FOR CONTINENTAL STRIPING CROSSWALK PAVEMENT MARKING DETAIL.

PAVEMENT MARKING LEGEND

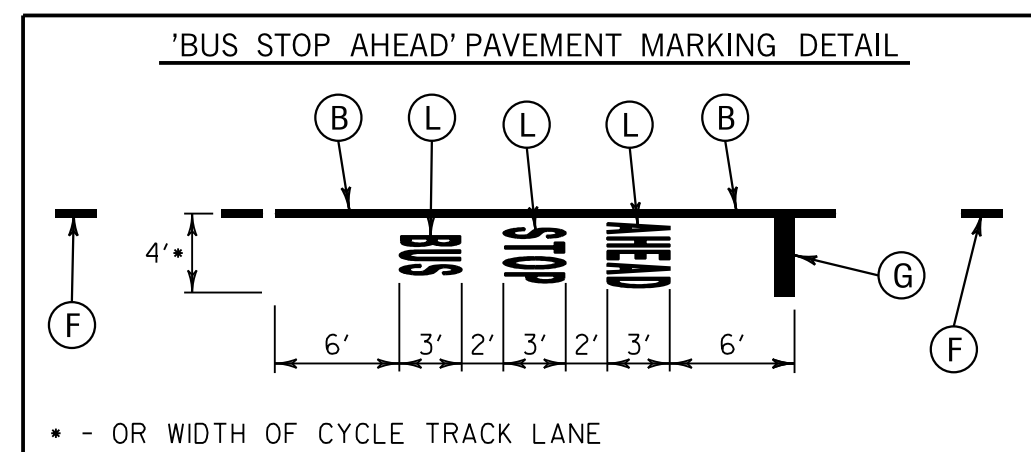
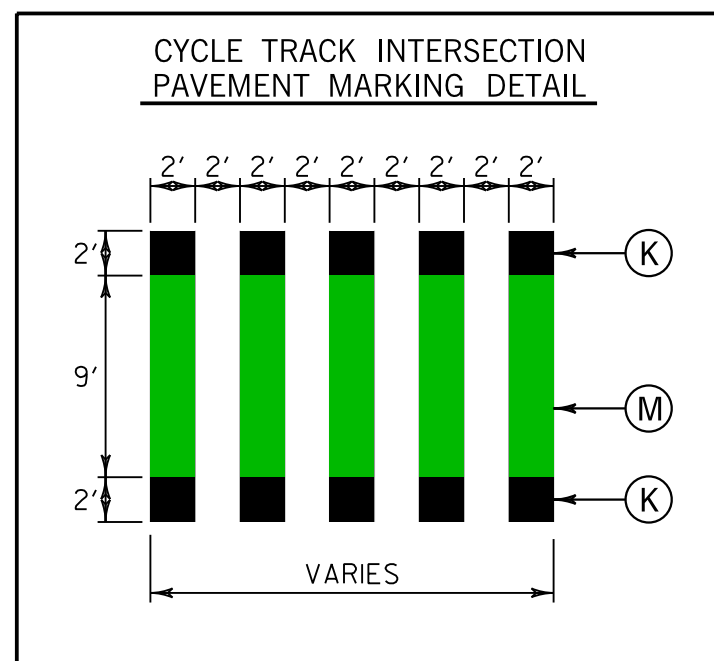
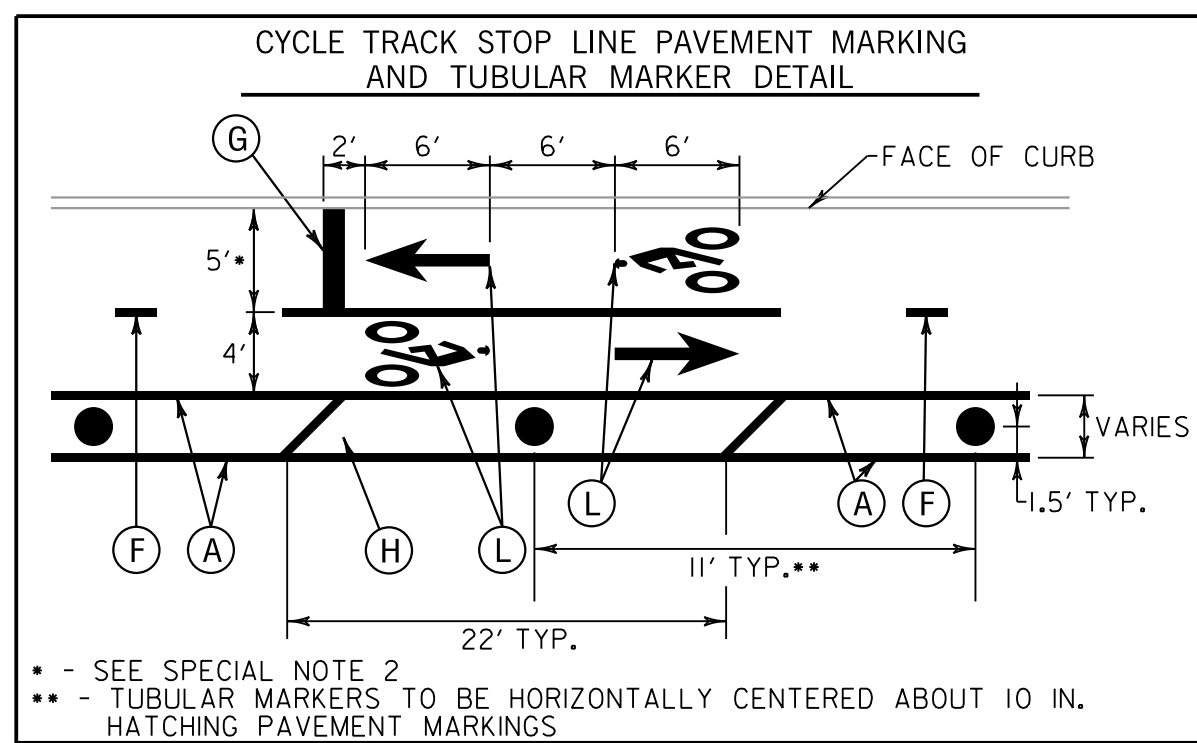
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SPECIAL NOTES:

1. PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
2. PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.

SIGN LEGEND

- (Symbol) EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
- (Symbol) PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
- (Symbol) PROPOSED TUBULAR MARKER
- (Symbol) EXISTING SIGN TO REMAIN
- (Symbol) EXISTING SIGN TO BE REMOVED
- (Symbol) PROPOSED SIGN
- (Symbol) TRAFFIC FLOW ARROWS
- (Symbol) PAVEMENT MARKING ARROW
- (Symbol) SIGN NO.



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. 27048, EXPIRATION DATE: 01-28-2024.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY:
WRA
Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: JHR			
DRN: JHR			
CHK: JMM			
DATE: 05/22	BY: NO.	REVISION	DATE

SIGNING AND MARKING PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

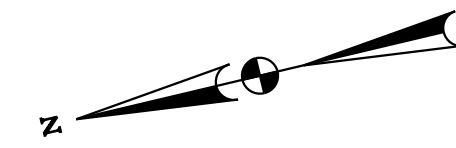
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SN-2.02
SCALE 1" = 30'
SHEET 30 OF 50

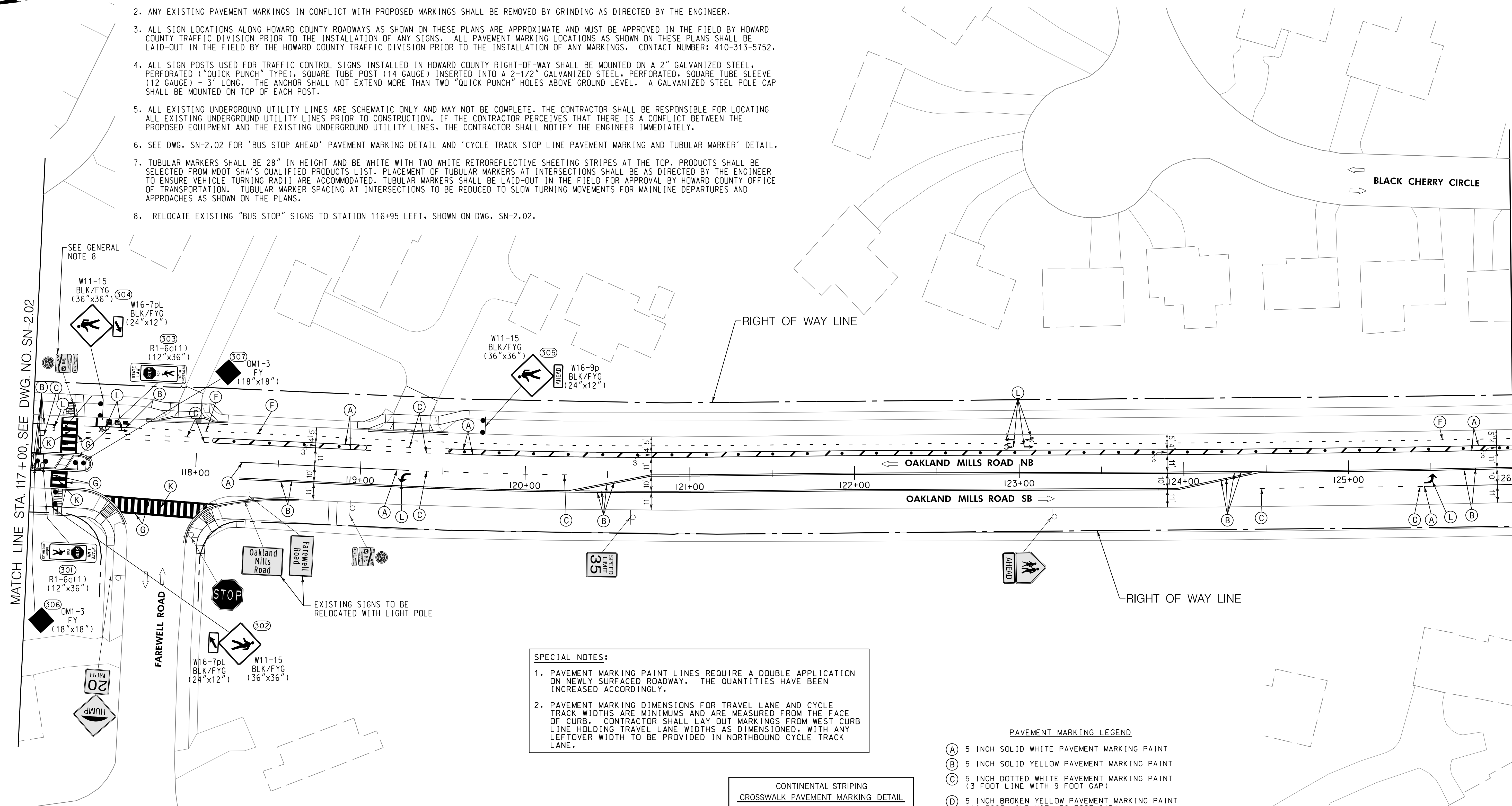
GENERAL NOTES:

1. AT A MINIMUM, THE FOLLOWING MDOT SHA WORK ZONE TRAFFIC CONTROL (WZTC) TYPICALS SHALL BE USED FOR THE WORK SHOWN ON THIS PLAN: MD 104.02-02, MD 104.02-04, MD 104.02-06, MD 104.02-10, MD 104.02-14, MD 104.02-18, MD 104.03-04, MD 104.03-06, MD 104.03-08, AND MD 104.03-18.
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4. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN HOWARD COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH" TYPE), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
5. ALL EXISTING UNDERGROUND UTILITY LINES ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT THERE IS A CONFLICT BETWEEN THE PROPOSED EQUIPMENT AND THE EXISTING UNDERGROUND UTILITY LINES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
6. SEE DWG. SN-2.02 FOR 'BUS STOP AHEAD' PAVEMENT MARKING DETAIL AND 'CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER' DETAIL.
7. TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDOT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.
8. RELOCATE EXISTING "BUS STOP" SIGNS TO STATION 116+95 LEFT, SHOWN ON DWG. SN-2.02.



MATCH LINE STA. 117+00. SEE DWG. NO. SN-2.02

MATCH LINE STA. 126+00. SEE DWG. NO. SN-2.04

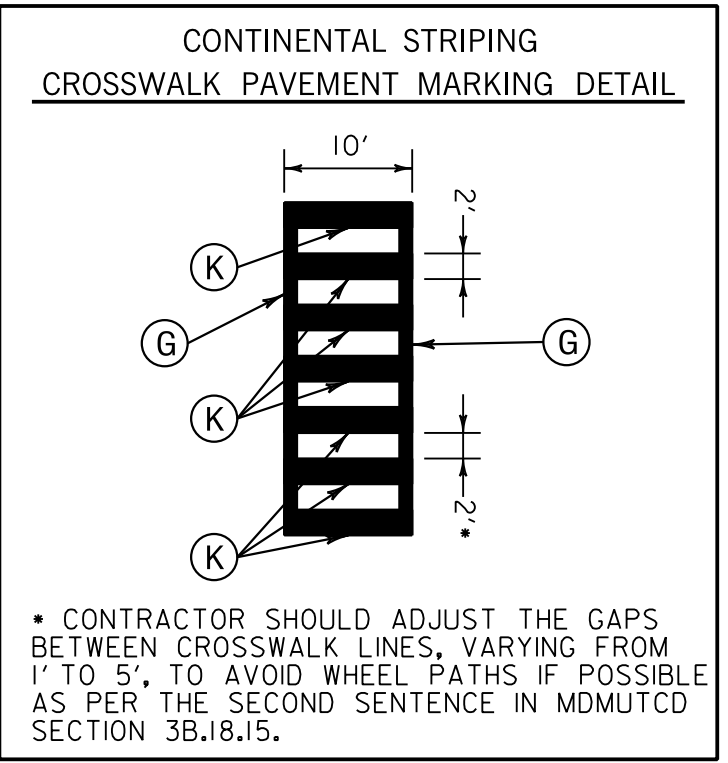
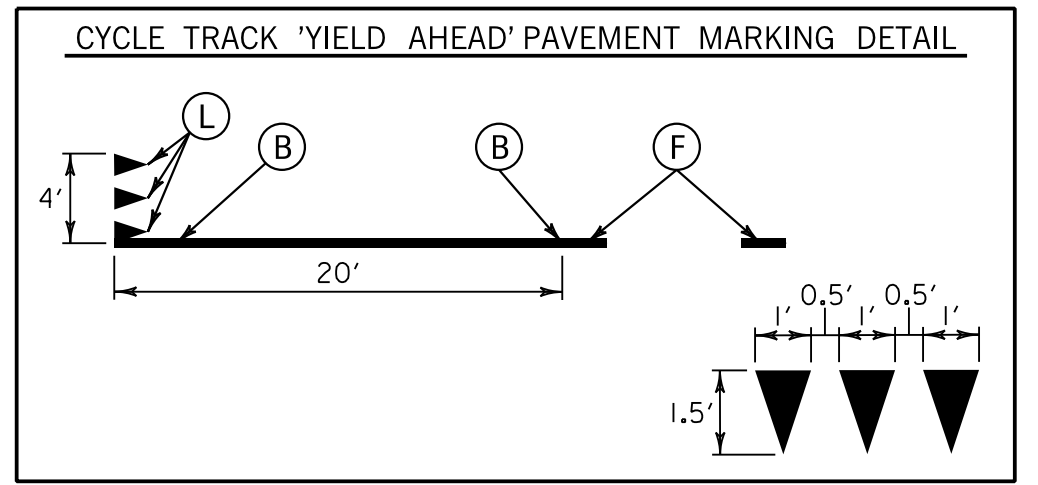


SPECIAL NOTES:

1. PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
2. PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.

- PAVEMENT MARKING LEGEND**
- (A) 5 INCH SOLID WHITE PAVEMENT MARKING PAINT
 - (B) 5 INCH SOLID YELLOW PAVEMENT MARKING PAINT
 - (C) 5 INCH DOTTED WHITE PAVEMENT MARKING PAINT (3 FOOT LINE WITH 9 FOOT GAP)
 - (D) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (10 FOOT LINE WITH 30 FOOT GAP)
 - (E) 5 INCH BROKEN WHITE PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
 - (F) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
 - (G) 12 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
 - (H) 5 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
 - (J) 12 INCH SOLID YELLOW PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
 - (K) 24 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
 - (L) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
 - (M) GREEN COLORIZED ANTI-SKID PREFORMED THERMOPLASTIC PAVEMENT MARKING

- SIGN LEGEND**
- (A) EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
 - (B) PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
 - (C) PROPOSED TUBULAR MARKER
 - (D) EXISTING SIGN TO REMAIN
 - (E) EXISTING SIGN TO BE REMOVED
 - (F) PROPOSED SIGN
 - (G) TRAFFIC FLOW ARROWS
 - (H) PAVEMENT MARKING ARROW
 - (I) SIGN NO.



"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:

Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR				
DRN:	JHR				
CHK:	JMM				
DATE:	05/22	BY:	NO.	REVISION	DATE

SIGNING AND MARKING PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

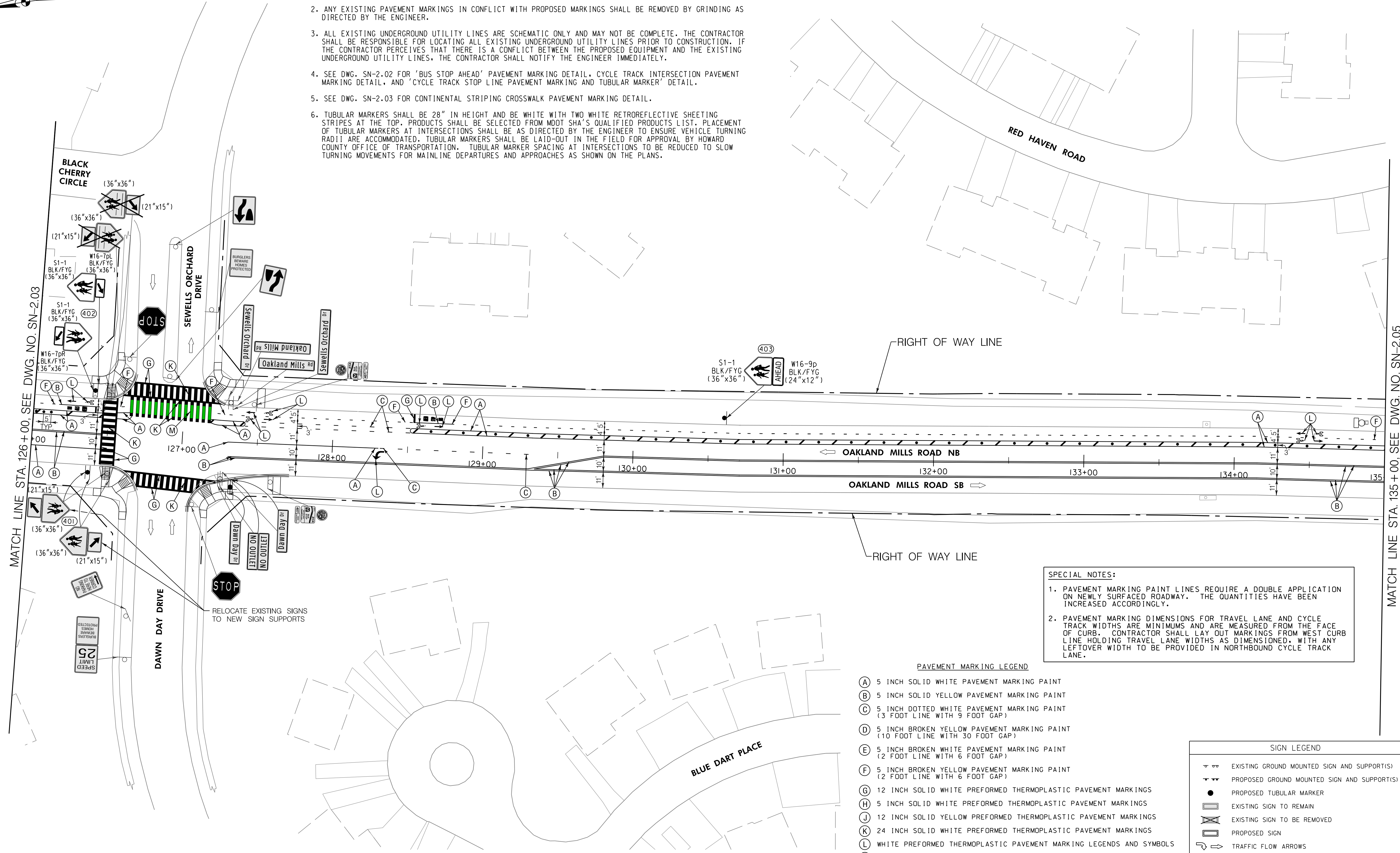
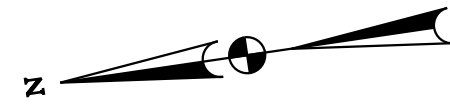
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SN-2.03
SCALE 1" = 30'
SHEET 31 OF 50

GENERAL NOTES:

1. AT A MINIMUM, THE FOLLOWING MDOT SHA WORK ZONE TRAFFIC CONTROL (WZTC) TYPICALS SHALL BE USED FOR THE WORK SHOWN ON THIS PLAN: MD 104.02-02, MD 104.02-04, MD 104.02-06, MD 104.02-10, MD 104.02-14, MD 104.02-18, MD 104.03-04, MD 104.03-06, MD 104.03-08, AND MD 104.03-18.
2. ANY EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS SHALL BE REMOVED BY GRINDING AS DIRECTED BY THE ENGINEER.
3. ALL EXISTING UNDERGROUND UTILITY LINES ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT THERE IS A CONFLICT BETWEEN THE PROPOSED EQUIPMENT AND THE EXISTING UNDERGROUND UTILITY LINES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
4. SEE DWG. SN-2.02 FOR 'BUS STOP AHEAD' PAVEMENT MARKING DETAIL, CYCLE TRACK INTERSECTION PAVEMENT MARKING DETAIL, AND 'CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER' DETAIL.
5. SEE DWG. SN-2.03 FOR CONTINENTAL STRIPING CROSSWALK PAVEMENT MARKING DETAIL.
6. TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDOT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.



SPECIAL NOTES:

1. PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
2. PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.

- PAVEMENT MARKING LEGEND**
- (A) 5 INCH SOLID WHITE PAVEMENT MARKING PAINT
 - (B) 5 INCH SOLID YELLOW PAVEMENT MARKING PAINT
 - (C) 5 INCH DOTTED WHITE PAVEMENT MARKING PAINT (3 FOOT LINE WITH 9 FOOT GAP)
 - (D) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (10 FOOT LINE WITH 30 FOOT GAP)
 - (E) 5 INCH BROKEN WHITE PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
 - (F) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
 - (G) 12 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
 - (H) 5 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
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 - (K) 24 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
 - (L) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
 - (M) GREEN COLORIZED ANTI-SKID PREFORMED THERMOPLASTIC PAVEMENT MARKING

- SIGN LEGEND**
- (S) EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
 - (P) PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
 - (T) PROPOSED TUBULAR MARKER
 - (R) EXISTING SIGN TO REMAIN
 - (X) EXISTING SIGN TO BE REMOVED
 - (O) PROPOSED SIGN
 - (A) TRAFFIC FLOW ARROWS
 - (P) PAVEMENT MARKING ARROW
 - (#) SIGN NO.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY:

WRA
Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR			
DRN:	JHR			
CHK:	JMM			
DATE:	05/22	BY	NO.	
		REVISION		DATE

SIGNING AND MARKING PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SN-2.04
SCALE 1" = 30'
SHEET 32 OF 50

BY: mrad
PLOTTED: June 08, 2022
FILE: N:\32189-000\CADD\pSN-P004_32189009.dgn

PAVEMENT MARKING LEGEND

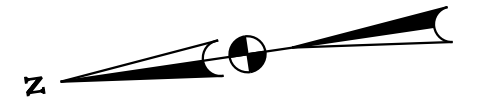
- (A) 5 INCH SOLID WHITE PAVEMENT MARKING PAINT
- (B) 5 INCH SOLID YELLOW PAVEMENT MARKING PAINT
- (C) 5 INCH DOTTED WHITE PAVEMENT MARKING PAINT (3 FOOT LINE WITH 9 FOOT GAP)
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- (K) 24 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (L) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (M) GREEN COLORIZED ANTI-SKID PREFORMED THERMOPLASTIC PAVEMENT MARKING

SIGN LEGEND

- ▽▽ EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
- ▽▽ PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED TUBULAR MARKER
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN
- ↔ TRAFFIC FLOW ARROWS
- ↔ PAVEMENT MARKING ARROW
- # # SIGN NO.

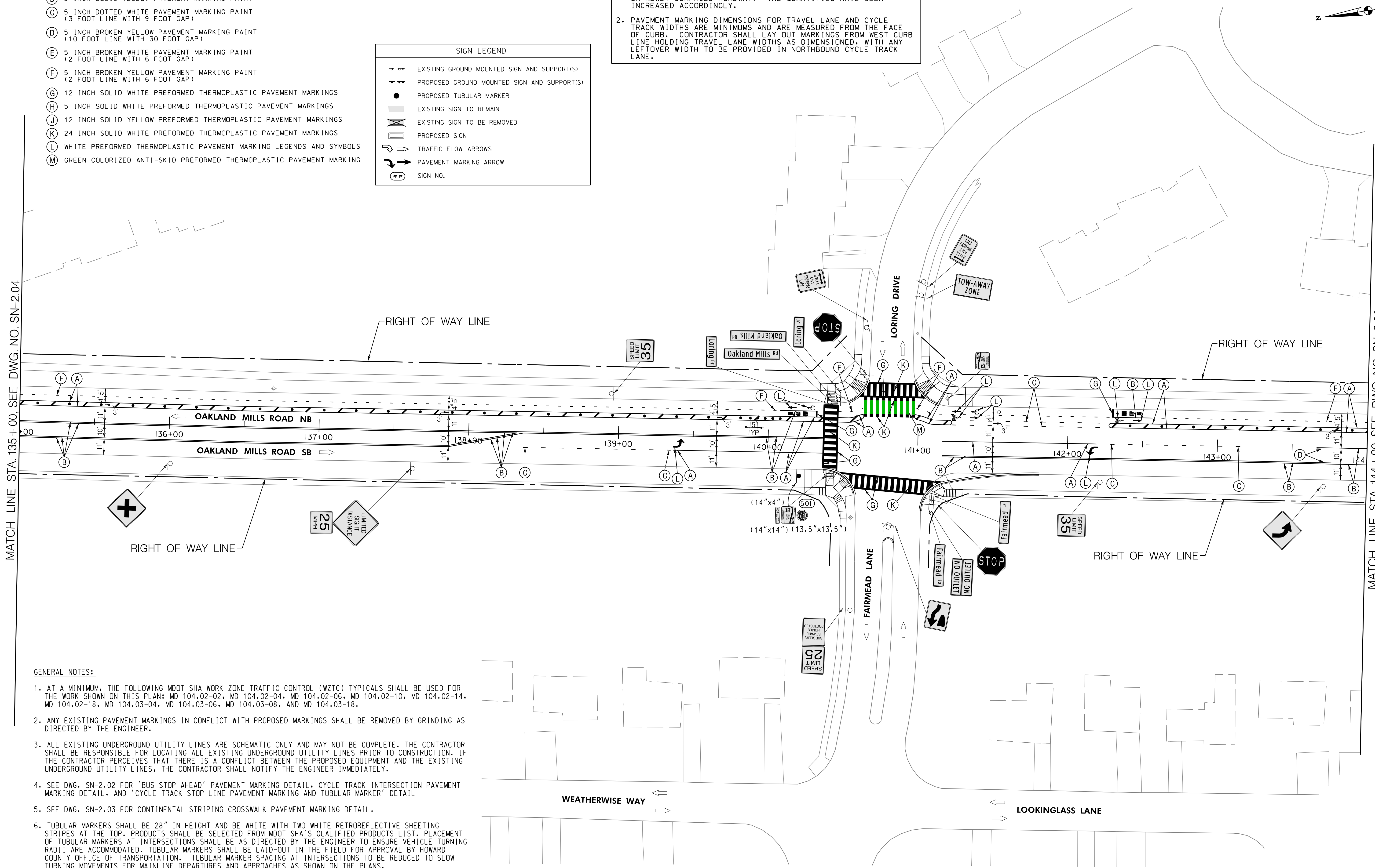
SPECIAL NOTES:

1. PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
2. PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.



MATCH LINE STA. 135+00, SEE DWG. NO. SN-2.04

MATCH LINE STA. 144+00, SEE DWG. NO. SN-2.06



GENERAL NOTES:

1. AT A MINIMUM, THE FOLLOWING MDOT SHA WORK ZONE TRAFFIC CONTROL (WZTC) TYPICALS SHALL BE USED FOR THE WORK SHOWN ON THIS PLAN: MD 104.02-02, MD 104.02-04, MD 104.02-06, MD 104.02-10, MD 104.02-14, MD 104.02-18, MD 104.03-04, MD 104.03-06, MD 104.03-08, AND MD 104.03-18.
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4. SEE DWG. SN-2.02 FOR 'BUS STOP AHEAD' PAVEMENT MARKING DETAIL, CYCLE TRACK INTERSECTION PAVEMENT MARKING DETAIL, AND 'CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER' DETAIL
5. SEE DWG. SN-2.03 FOR CONTINENTAL STRIPING CROSSWALK PAVEMENT MARKING DETAIL.
6. TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDOT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :



Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR				
DRN:	JHR				
CHK:	JMM				
DATE:	05/22				
BY:	NO.				
REVISION:					
DATE:					

SIGNING AND MARKING PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

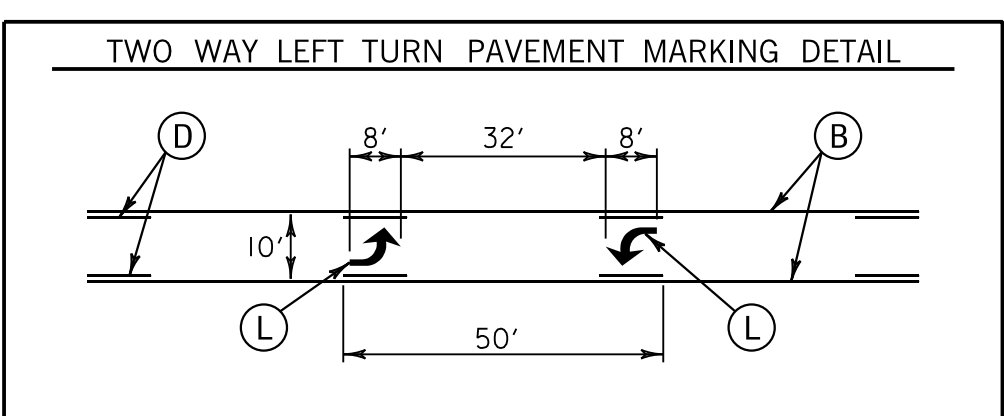
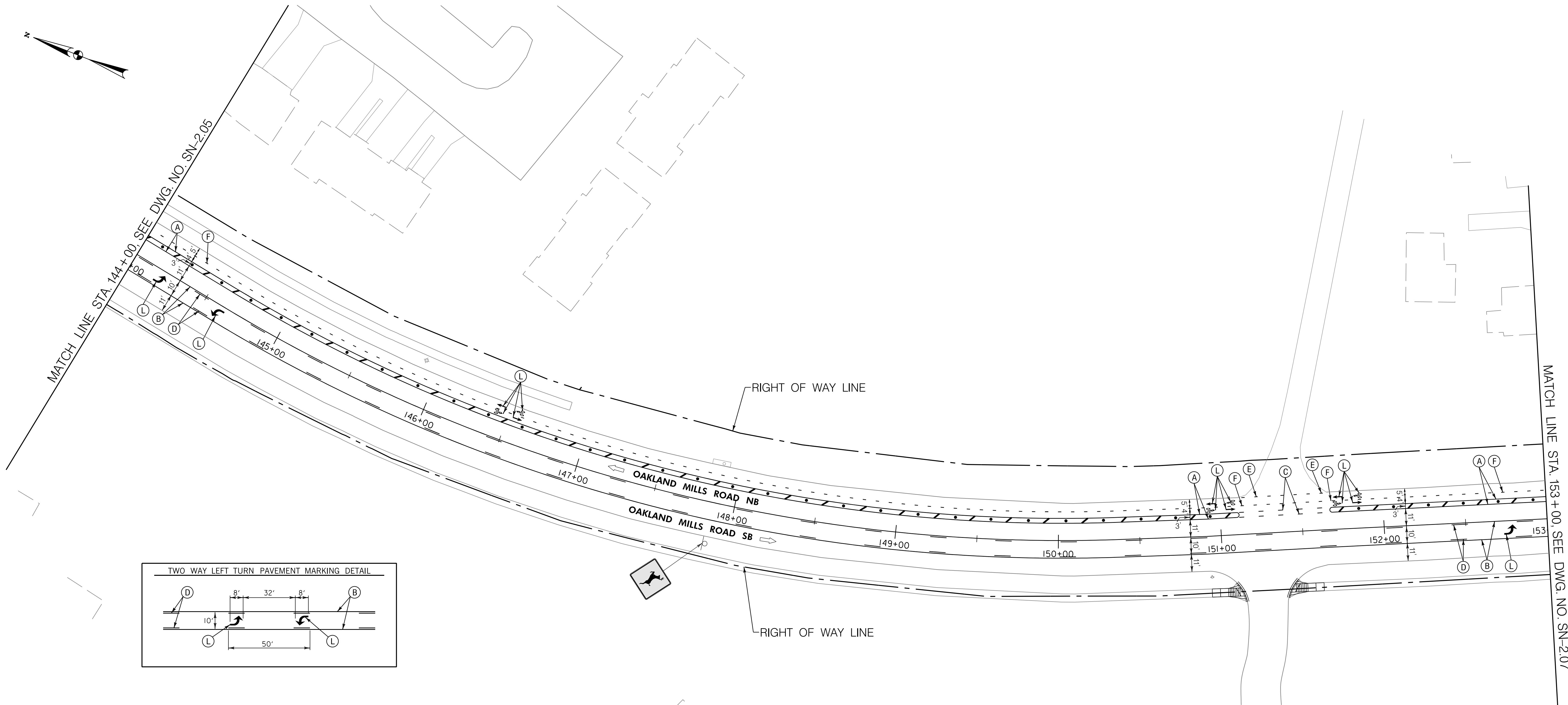
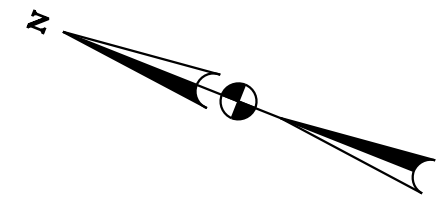
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

DWG.
SN-2.05

SCALE
1" = 30'

SHEET
33 OF 50



GENERAL NOTES:

- AT A MINIMUM, THE FOLLOWING MDT SHA WORK ZONE TRAFFIC CONTROL (WZTC) TYPICALS SHALL BE USED FOR THE WORK SHOWN ON THIS PLAN: MD 104.02-02, MD 104.02-04, MD 104.02-06, MD 104.02-10, MD 104.02-14, MD 104.02-18, MD 104.03-04, MD 104.03-06, MD 104.03-08, AND MD 104.03-18.
- ANY EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS SHALL BE REMOVED BY GRINDING AS DIRECTED BY THE ENGINEER.
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- SEE DWG. SN-2.02 FOR 'BUS STOP AHEAD' PAVEMENT MARKING DETAIL, CYCLE TRACK INTERSECTION PAVEMENT MARKING DETAIL, AND 'CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER' DETAIL.
- SEE DWG. SN-2.03 FOR CROSSWALK PAVEMENT MARKING DETAIL.
- TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.

SPECIAL NOTES:

- PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
- PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.

PAVEMENT MARKING LEGEND

- (A) 5 INCH SOLID WHITE PAVEMENT MARKING PAINT
- (B) 5 INCH SOLID YELLOW PAVEMENT MARKING PAINT
- (C) 5 INCH DOTTED WHITE PAVEMENT MARKING PAINT (3 FOOT LINE WITH 9 FOOT GAP)
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- (G) 12 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (H) 5 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
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- (K) 24 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (L) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (M) GREEN COLORIZED ANTI-SKID PREFORMED THERMOPLASTIC PAVEMENT MARKING

SIGN LEGEND

- EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED TUBULAR MARKER
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN
- TRAFFIC FLOW ARROWS
- PAVEMENT MARKING ARROW
- SIGN NO.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND.			
DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF HIGHWAYS	DATE
CHIEF, BUREAU OF ENGINEERING	DATE	CHIEF, TRAFFIC ENGINEERING DIVISION	DATE

PREPARED BY:

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR			
DRN:	JHR			
CHK:	JMM			
DATE:	05/22	BY	NO.	

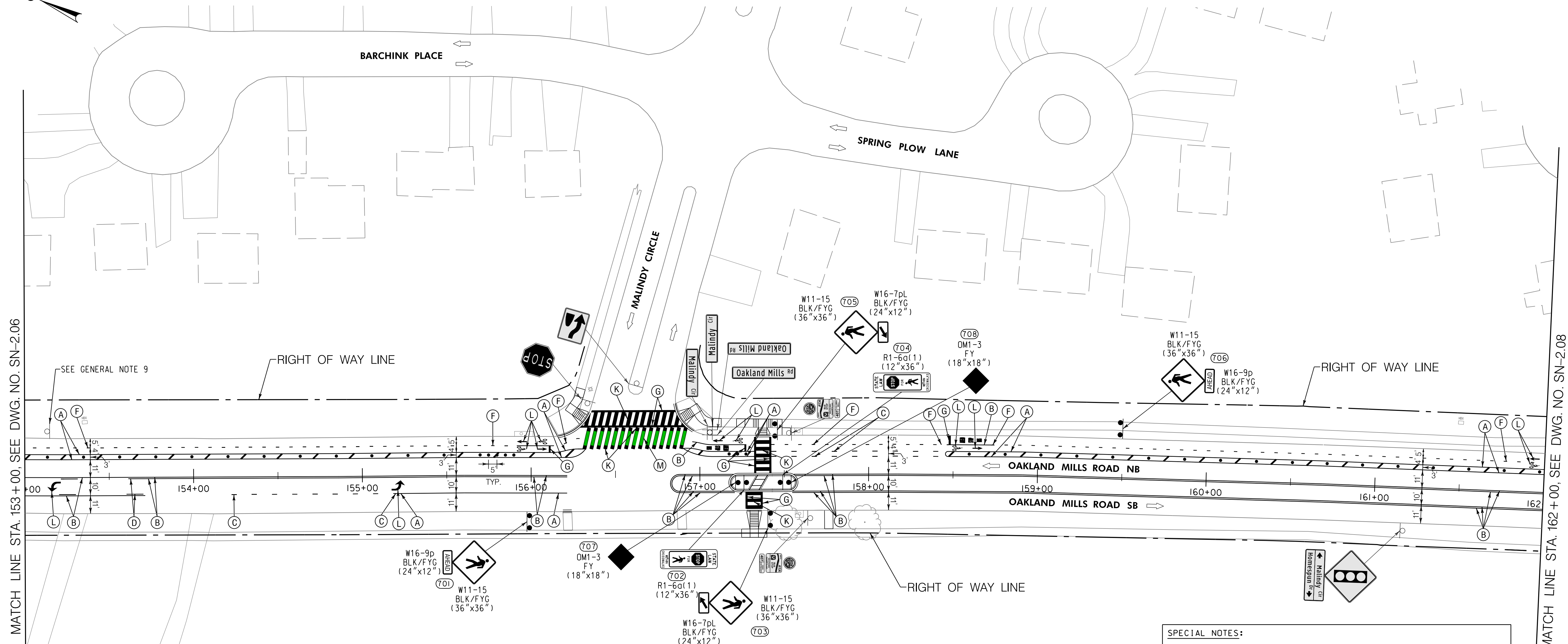
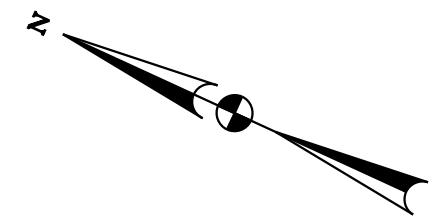
SIGNING AND MARKING PLAN	
600' SCALE MAP NO.	BLOCK NO.

CAPITAL PROJECT CONTRACT NO. K5066 OAKLAND MILLS COMPLETE STREETS PROJECT	
ELECTION DISTRICT	6
HOWARD COUNTY, MARYLAND	

DWG.
SN-2.06

SCALE
1" = 30'

SHEET
34 OF 50



MATCH LINE STA. 153+00, SEE DWG. NO. SN-2.06

MATCH LINE STA. 162+00, SEE DWG. NO. SN-2.08

GENERAL NOTES:

- AT A MINIMUM, THE FOLLOWING MDT SHA WORK ZONE TRAFFIC CONTROL (WZTC) TYPICALS SHALL BE USED FOR THE WORK SHOWN ON THIS PLAN: MD 104.02-02, MD 104.02-04, MD 104.02-06, MD 104.02-10, MD 104.02-14, MD 104.02-18, MD 104.03-04, MD 104.03-06, MD 104.03-08, AND MD 104.03-18.
- ANY EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS SHALL BE REMOVED BY GRINDING AS DIRECTED BY THE ENGINEER.
- ALL SIGN LOCATIONS ALONG HOWARD COUNTY ROADWAYS AS SHOWN ON THESE PLANS ARE APPROXIMATE AND MUST BE APPROVED IN THE FIELD BY HOWARD COUNTY TRAFFIC DIVISION PRIOR TO THE INSTALLATION OF ANY SIGNS. ALL PAVEMENT MARKING LOCATIONS AS SHOWN ON THESE PLANS SHALL BE LAID-OUT IN THE FIELD BY THE HOWARD COUNTY TRAFFIC DIVISION PRIOR TO THE INSTALLATION OF ANY MARKINGS. CONTACT NUMBER: 410-313-5752.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN HOWARD COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH" TYPE), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- ALL EXISTING UNDERGROUND UTILITY LINES ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT THERE IS A CONFLICT BETWEEN THE PROPOSED EQUIPMENT AND THE EXISTING UNDERGROUND UTILITY LINES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- SEE DWG. SN-2.02 FOR CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER' DETAIL, 'BUS STOP AHEAD' PAVEMENT MARKING DETAIL, AND CYCLE TRACK INTERSECTION PAVEMENT MARKING DETAIL.
- SEE DWG. SN-2.03 FOR CONTINENTAL STRIPING CROSSWALK PAVEMENT MARKING DETAIL.
- TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADII ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.
- NO EXISTING SIGN, REMOVE EXISTING SIGN SUPPORT.

SPECIAL NOTES:

- PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
- PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.

PAVEMENT MARKING LEGEND

- (A) 5 INCH SOLID WHITE PAVEMENT MARKING PAINT
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- (C) 5 INCH DOTTED WHITE PAVEMENT MARKING PAINT (3 FOOT LINE WITH 9 FOOT GAP)
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- (G) 12 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
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- (K) 24 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (L) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (M) GREEN COLORIZED ANTI-SKID PREFORMED THERMOPLASTIC PAVEMENT MARKING

SIGN LEGEND

- EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED TUBULAR MARKER
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"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE

CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY:

Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

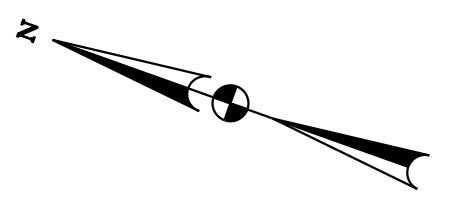
DES:	JHR				
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CHK:	JMM				
DATE:	05/22	BY:	NO.	REVISION	DATE

SIGNING AND MARKING PLAN

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT
ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SN-2.07
SCALE 1" = 30'
SHEET 35 OF 50

BY: mrad
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\pSN-P007_32189009.dgn

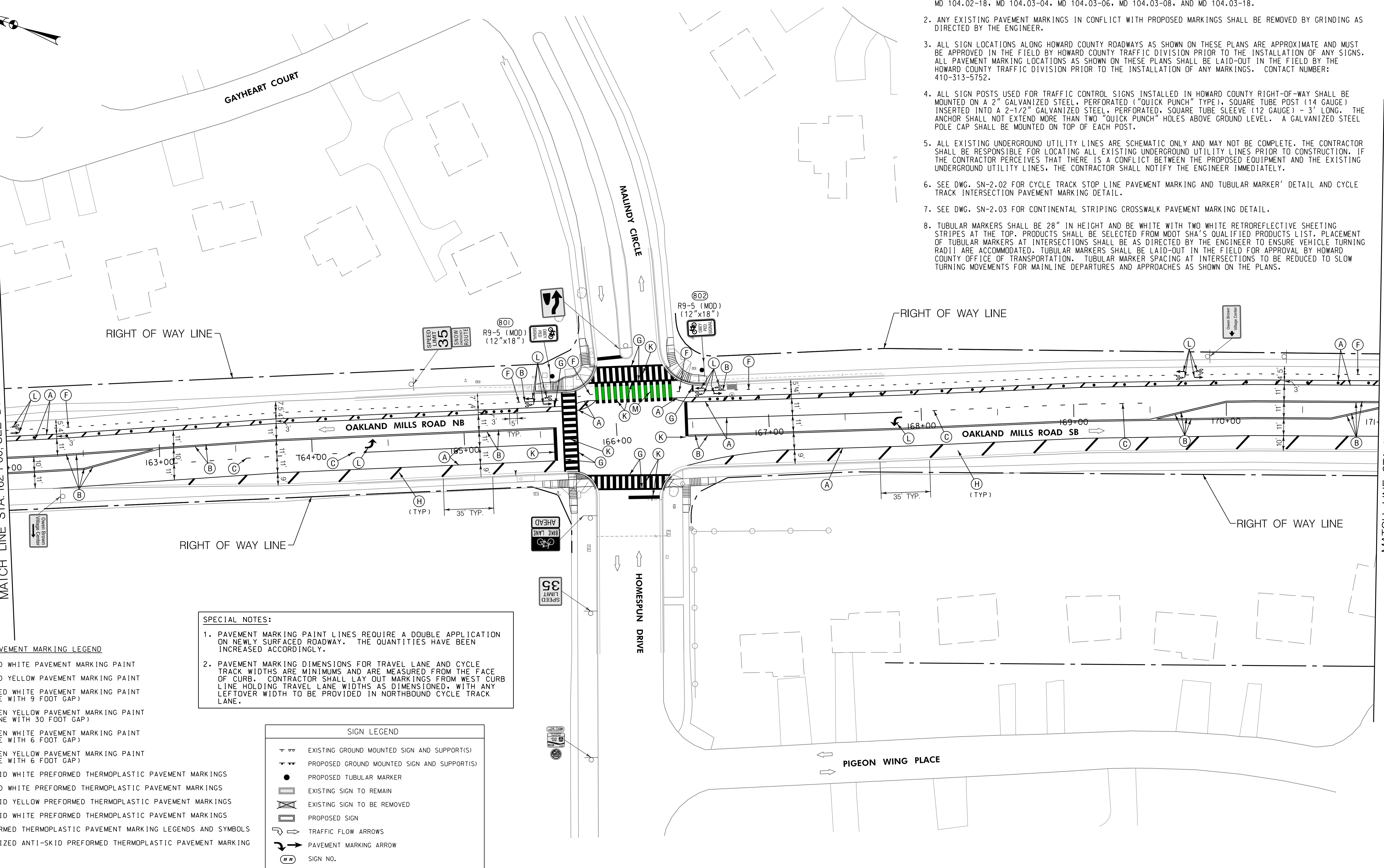


GENERAL NOTES:

1. AT A MINIMUM, THE FOLLOWING MDOT SHA WORK ZONE TRAFFIC CONTROL (WZTC) TYPICALS SHALL BE USED FOR THE WORK SHOWN ON THIS PLAN: MD 104.02-02, MD 104.02-04, MD 104.02-06, MD 104.02-10, MD 104.02-14, MD 104.02-18, MD 104.03-04, MD 104.03-06, MD 104.03-08, AND MD 104.03-18.
2. ANY EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS SHALL BE REMOVED BY GRINDING AS DIRECTED BY THE ENGINEER.
3. ALL SIGN LOCATIONS ALONG HOWARD COUNTY ROADWAYS AS SHOWN ON THESE PLANS ARE APPROXIMATE AND MUST BE APPROVED IN THE FIELD BY HOWARD COUNTY TRAFFIC DIVISION PRIOR TO THE INSTALLATION OF ANY SIGNS. ALL PAVEMENT MARKING LOCATIONS AS SHOWN ON THESE PLANS SHALL BE LAID-OUT IN THE FIELD BY THE HOWARD COUNTY TRAFFIC DIVISION PRIOR TO THE INSTALLATION OF ANY MARKINGS. CONTACT NUMBER: 410-313-5752.
4. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN HOWARD COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH" TYPE), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
5. ALL EXISTING UNDERGROUND UTILITY LINES ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT THERE IS A CONFLICT BETWEEN THE PROPOSED EQUIPMENT AND THE EXISTING UNDERGROUND UTILITY LINES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
6. SEE DWG. SN-2.02 FOR CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER' DETAIL AND CYCLE TRACK INTERSECTION PAVEMENT MARKING DETAIL.
7. SEE DWG. SN-2.03 FOR CONTINENTAL STRIPING CROSSWALK PAVEMENT MARKING DETAIL.
8. TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDOT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.

MATCH LINE STA. 162+00, SEE DWG. NO. SN-2.07

MATCH LINE STA. 171+00, SEE DWG. NO. SN-2.09



SPECIAL NOTES:

1. PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
2. PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.

- PAVEMENT MARKING LEGEND**
- (A) 5 INCH SOLID WHITE PAVEMENT MARKING PAINT
 - (B) 5 INCH SOLID YELLOW PAVEMENT MARKING PAINT
 - (C) 5 INCH DOTTED WHITE PAVEMENT MARKING PAINT (3 FOOT LINE WITH 9 FOOT GAP)
 - (D) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (10 FOOT LINE WITH 30 FOOT GAP)
 - (E) 5 INCH BROKEN WHITE PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
 - (F) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
 - (G) 12 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
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 - (K) 24 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
 - (L) WHITE COLORIZED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
 - (M) GREEN COLORIZED ANTI-SKID PREFORMED THERMOPLASTIC PAVEMENT MARKING

- SIGN LEGEND**
- ⊙ EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
 - ⊙ PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
 - PROPOSED TUBULAR MARKER
 - EXISTING SIGN TO REMAIN
 - ⊗ EXISTING SIGN TO BE REMOVED
 - PROPOSED SIGN
 - ↔ TRAFFIC FLOW ARROWS
 - ➔ PAVEMENT MARKING ARROW
 - # SIGN NO.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____ CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____ CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR			
DRN:	JHR			
CHK:	JMM			
DATE:	05/22			
BY:	NO.	REVISION	DATE	

SIGNING AND MARKING PLAN

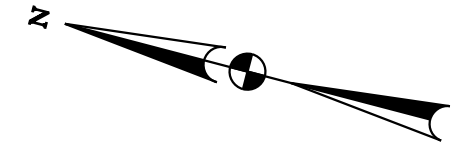
600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SN-2.08
SCALE 1" = 30'
SHEET 36 OF 50

BY: mrad
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\pSN-P008_32189009.dgn

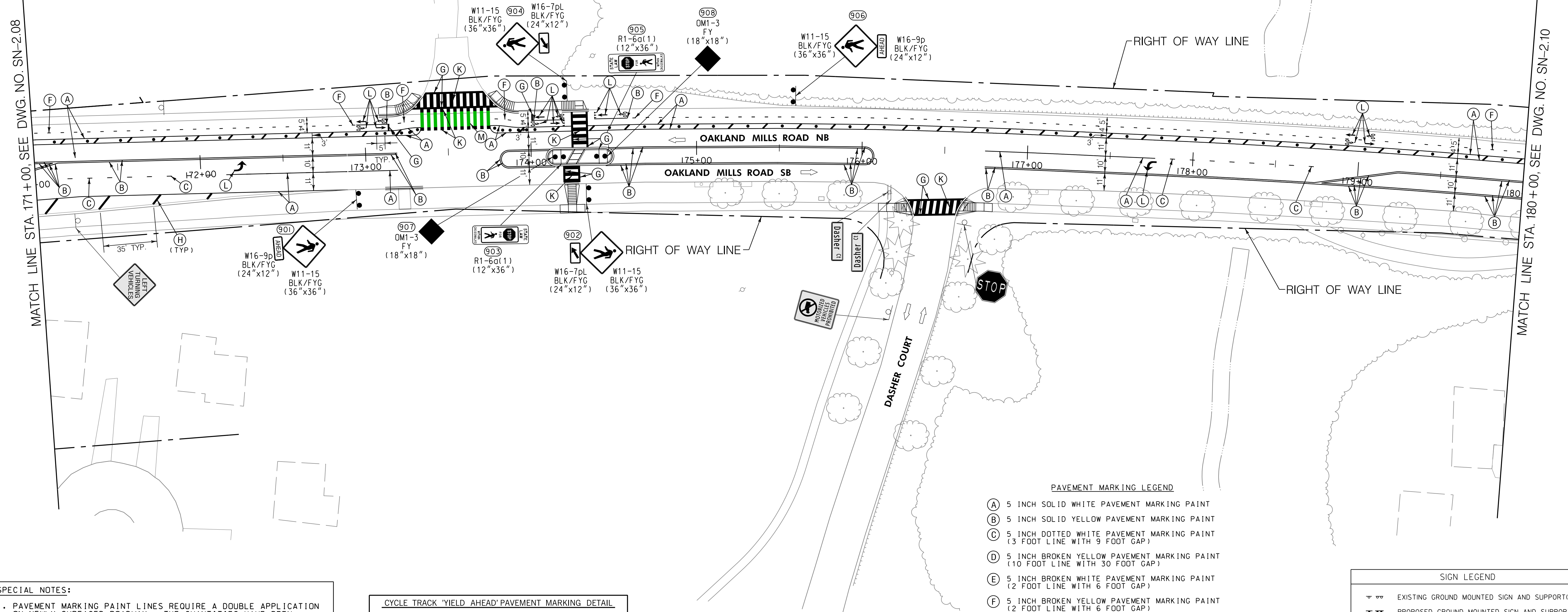


GENERAL NOTES:

1. AT A MINIMUM, THE FOLLOWING MDOT SHA WORK ZONE TRAFFIC CONTROL (WZTC) TYPICALS SHALL BE USED FOR THE WORK SHOWN ON THIS PLAN: MD 104.02-02, MD 104.02-04, MD 104.02-06, MD 104.02-10, MD 104.02-14, MD 104.02-18, MD 104.03-04, MD 104.03-06, MD 104.03-08, AND MD 104.03-18.
2. ANY EXISTING PAVEMENT MARKINGS IN CONFLICT WITH PROPOSED MARKINGS SHALL BE REMOVED BY GRINDING AS DIRECTED BY THE ENGINEER.
3. ALL SIGN LOCATIONS ALONG HOWARD COUNTY ROADWAYS AS SHOWN ON THESE PLANS ARE APPROXIMATE AND MUST BE APPROVED IN THE FIELD BY HOWARD COUNTY TRAFFIC DIVISION PRIOR TO THE INSTALLATION OF ANY SIGNS. ALL PAVEMENT MARKING LOCATIONS AS SHOWN ON THESE PLANS SHALL BE LAID-OUT IN THE FIELD BY THE HOWARD COUNTY TRAFFIC DIVISION PRIOR TO THE INSTALLATION OF ANY MARKINGS. CONTACT NUMBER: 410-313-5752.
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5. ALL EXISTING UNDERGROUND UTILITY LINES ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR PERCEIVES THAT THERE IS A CONFLICT BETWEEN THE PROPOSED EQUIPMENT AND THE EXISTING UNDERGROUND UTILITY LINES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
6. SEE DWG. SN-2.03 FOR CONTINENTAL STRIPING CROSSWALK PAVEMENT MARKING DETAIL AND CYCLE TRACK "YIELD AHEAD" PAVEMENT MARKING DETAIL.
7. TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDOT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.
8. SEE DWG. SN-2.02 FOR CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER DETAIL.

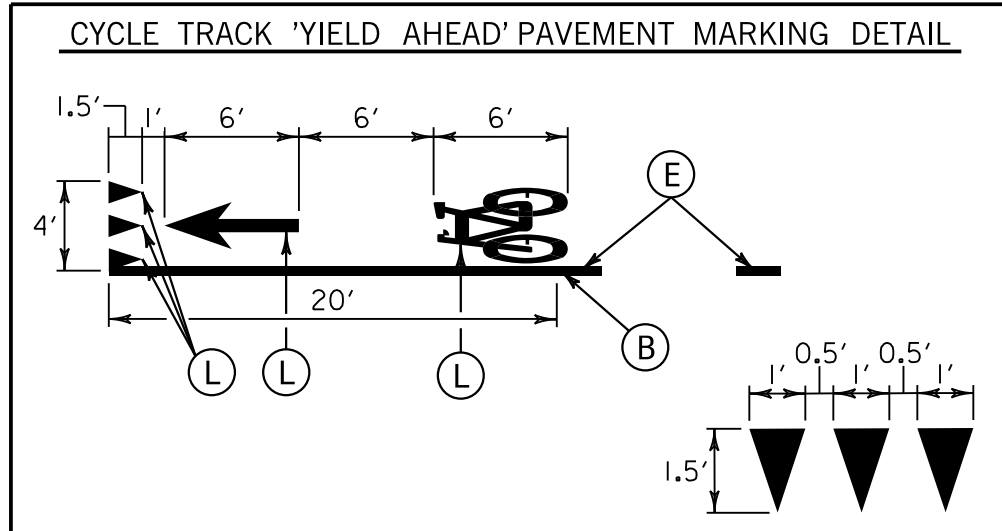
MATCH LINE STA. 171+00, SEE DWG. NO. SN-2.08

MATCH LINE STA. 180+00, SEE DWG. NO. SN-2.10



SPECIAL NOTES:

1. PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
2. PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.



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 - EXISTING SIGN TO REMAIN
 - EXISTING SIGN TO BE REMOVED
 - PROPOSED SIGN
 - TRAFFIC FLOW ARROWS
 - PAVEMENT MARKING ARROW
 - SIGN NO.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE

CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR				
DRN:	JHR				
CHK:	JMM				
DATE:	05/22	BY	NO.	REVISION	DATE

SIGNING AND MARKING PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SN-2.09

SCALE 1" = 30'

SHEET 37 OF 50

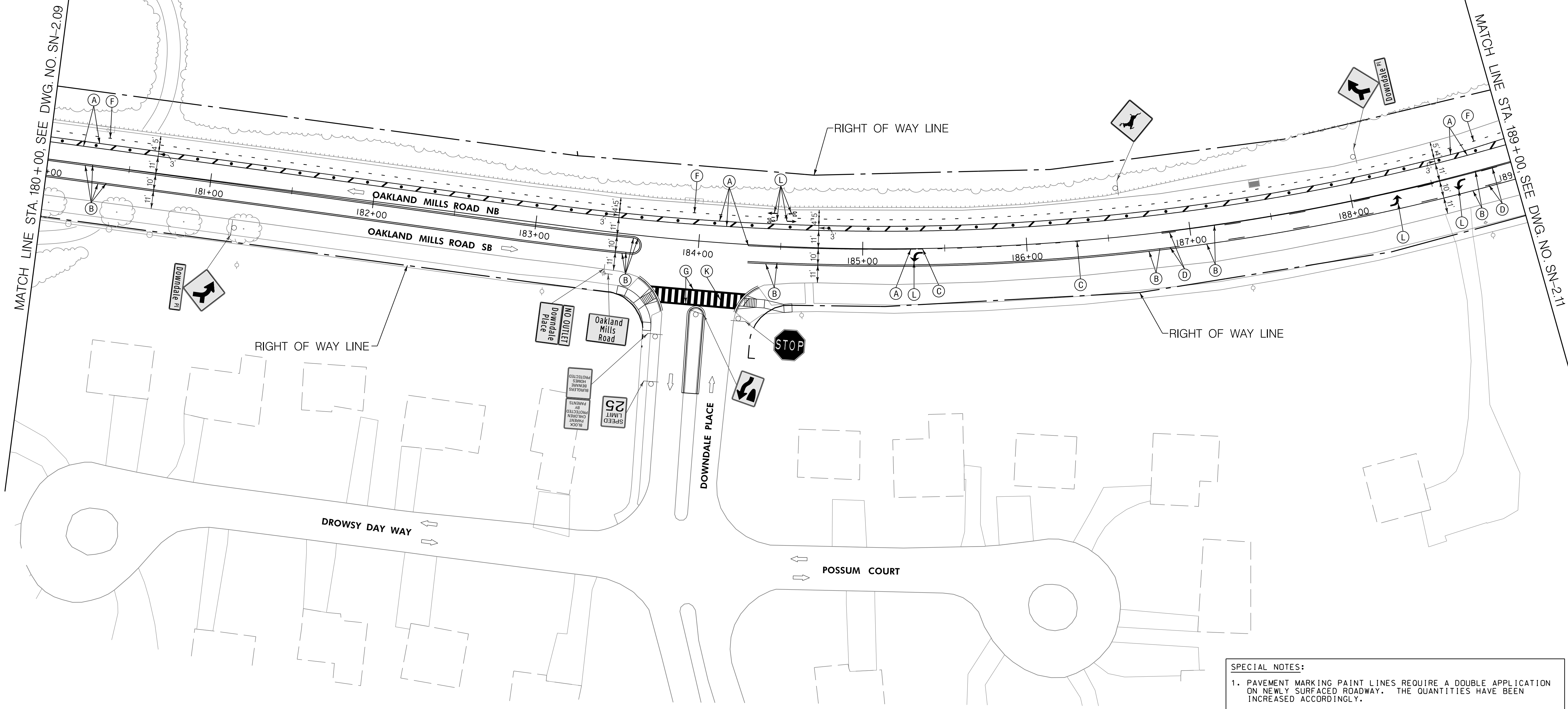
PAVEMENT MARKING LEGEND

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SIGN LEGEND	
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	PAVEMENT MARKING ARROW
	SIGN NO.

GENERAL NOTES:

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- SEE DWG. SN-2.03 FOR CONTINENTAL STRIPING CROSSWALK PAVEMENT MARKING DETAIL.
- TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDOT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.
- SEE DWG. SN-2.02 FOR CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER' DETAIL.
- SEE DWG. SN-2.06 FOR TWO WAY LEFT TURN PAVEMENT MARKING DETAIL.



SPECIAL NOTES:

- PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
- PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.

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DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND.			
DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF HIGHWAYS	DATE
CHIEF, BUREAU OF ENGINEERING	DATE	CHIEF, TRAFFIC ENGINEERING DIVISION	DATE

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR				
DRN:	JHR				
CHK:	JMM				
DATE:	05/22	BY:	NO.	REVISION	DATE

SIGNING AND MARKING PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG.
SN-2.10

SCALE
1" = 30'

SHEET
38 OF 50

GENERAL NOTES:

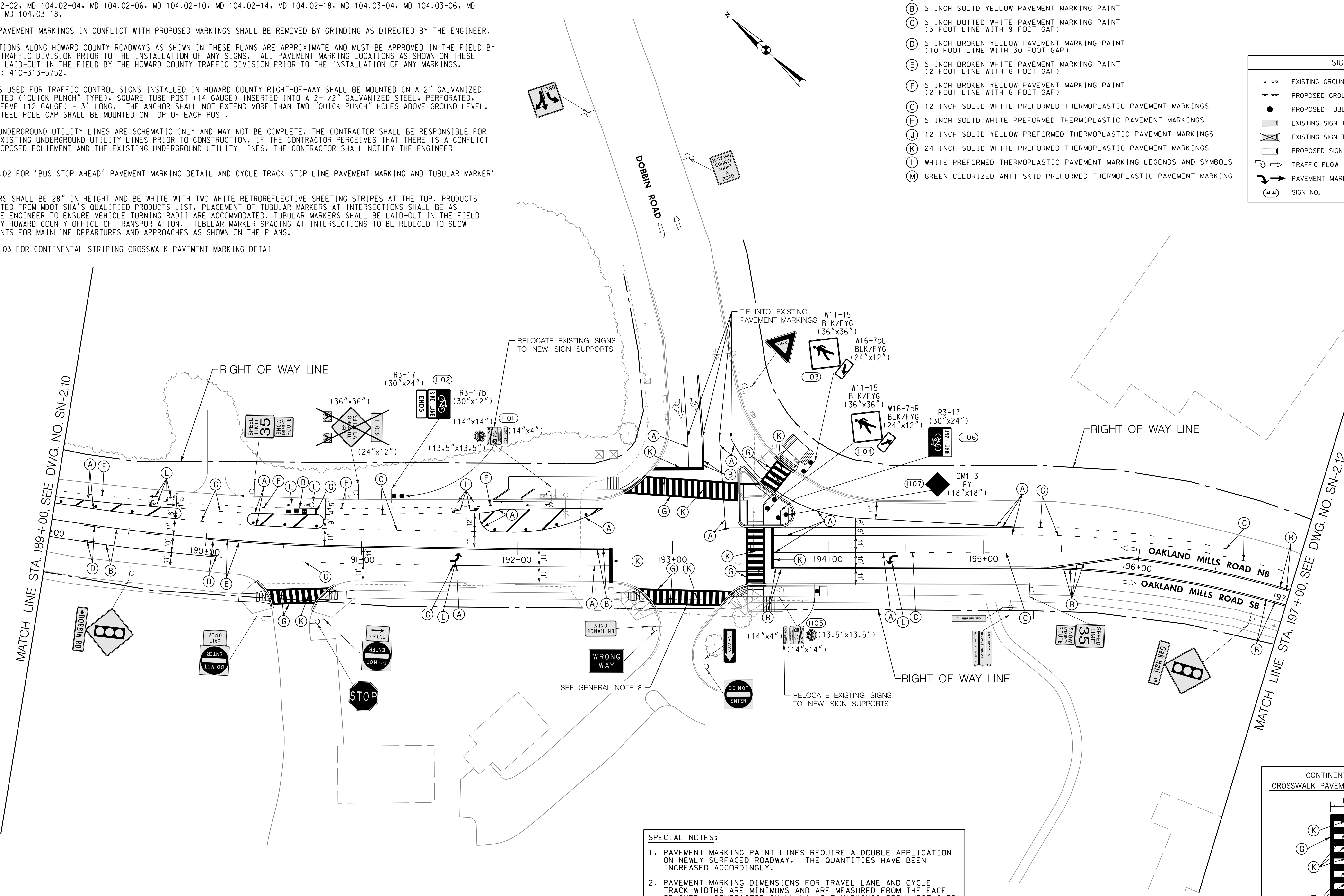
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6. SEE DWG. SN-2.02 FOR 'BUS STOP AHEAD' PAVEMENT MARKING DETAIL AND CYCLE TRACK STOP LINE PAVEMENT MARKING AND TUBULAR MARKER' DETAIL.
7. TUBULAR MARKERS SHALL BE 28" IN HEIGHT AND BE WHITE WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES AT THE TOP. PRODUCTS SHALL BE SELECTED FROM MDOT SHA'S QUALIFIED PRODUCTS LIST. PLACEMENT OF TUBULAR MARKERS AT INTERSECTIONS SHALL BE AS DIRECTED BY THE ENGINEER TO ENSURE VEHICLE TURNING RADIUS ARE ACCOMMODATED. TUBULAR MARKERS SHALL BE LAID-OUT IN THE FIELD FOR APPROVAL BY HOWARD COUNTY OFFICE OF TRANSPORTATION. TUBULAR MARKER SPACING AT INTERSECTIONS TO BE REDUCED TO SLOW TURNING MOVEMENTS FOR MAINLINE DEPARTURES AND APPROACHES AS SHOWN ON THE PLANS.
8. SEE DWG. SN-2.03 FOR CONTINENTAL STRIPING CROSSWALK PAVEMENT MARKING DETAIL

PAVEMENT MARKING LEGEND

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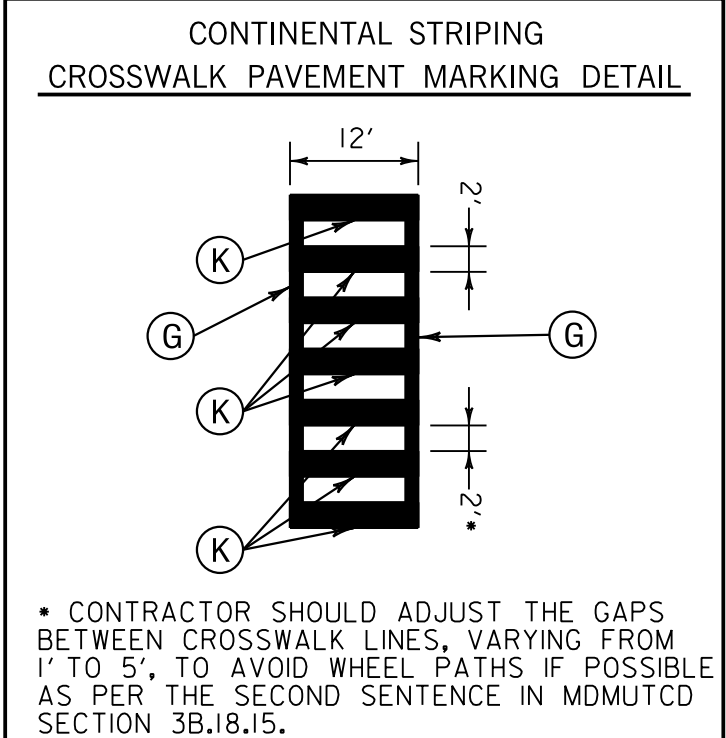
SIGN LEGEND

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- PROPOSED SIGN
- TRAFFIC FLOW ARROWS
- PAVEMENT MARKING ARROW
- SIGN NO.



SPECIAL NOTES:

1. PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF HIGHWAYS _____ DATE _____

CHIEF, BUREAU OF ENGINEERING _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY:

Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

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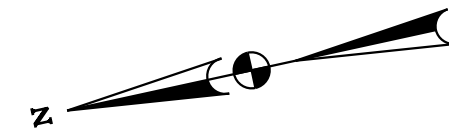
SIGNING AND MARKING PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SN-2.11
SCALE 1" = 30'
SHEET 39 OF 50



GENERAL NOTES:

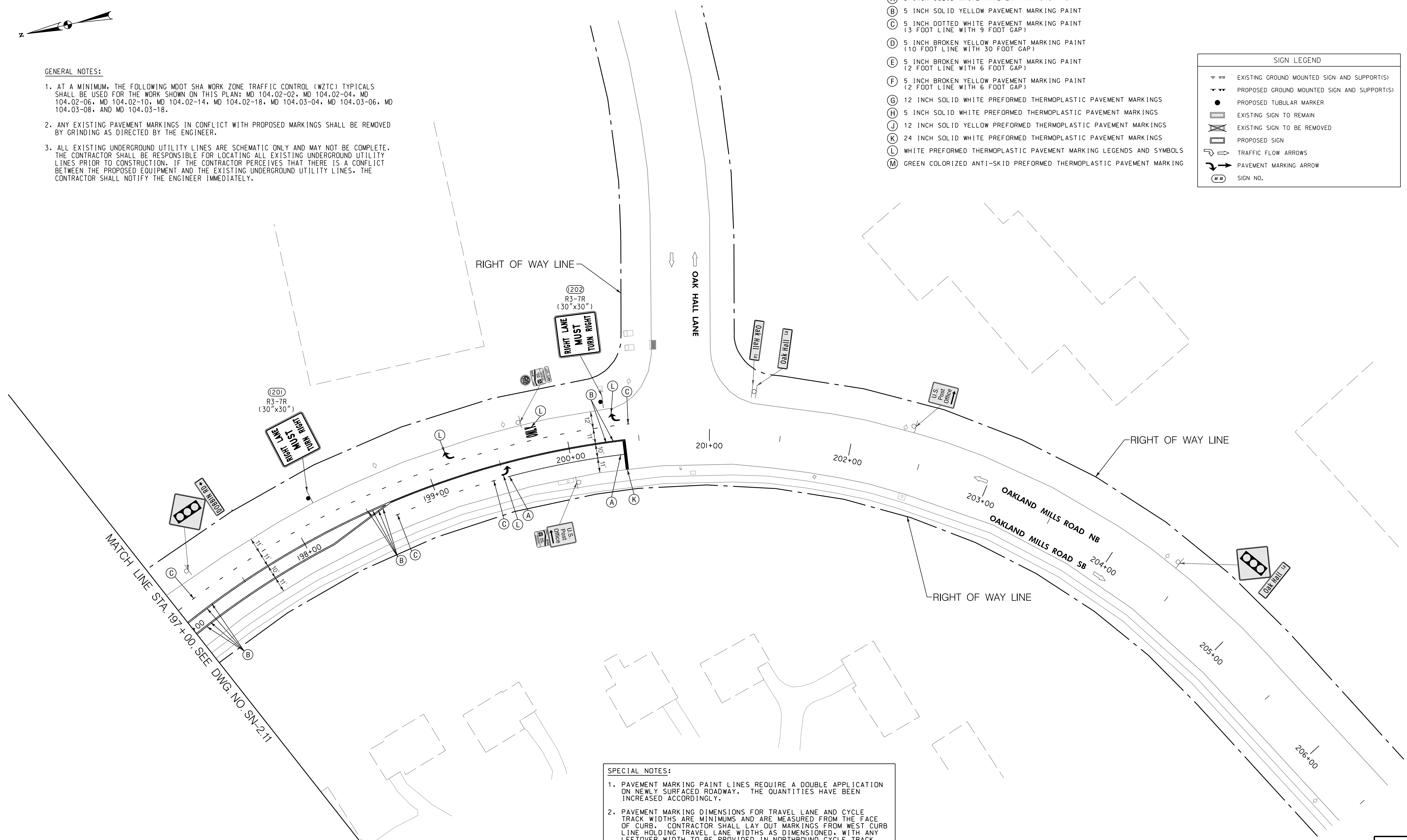
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PAVEMENT MARKING LEGEND

- (A) 5 INCH SOLID WHITE PAVEMENT MARKING PAINT
- (B) 5 INCH SOLID YELLOW PAVEMENT MARKING PAINT
- (C) 5 INCH DOTTED WHITE PAVEMENT MARKING PAINT (3 FOOT LINE WITH 9 FOOT GAP)
- (D) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (10 FOOT LINE WITH 30 FOOT GAP)
- (E) 5 INCH BROKEN WHITE PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
- (F) 5 INCH BROKEN YELLOW PAVEMENT MARKING PAINT (2 FOOT LINE WITH 6 FOOT GAP)
- (G) 12 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (H) 5 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (J) 12 INCH SOLID YELLOW PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (K) 24 INCH SOLID WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
- (L) WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
- (M) GREEN COLORIZED ANTI-SKID PREFORMED THERMOPLASTIC PAVEMENT MARKING

SIGN LEGEND

- EXISTING GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED GROUND MOUNTED SIGN AND SUPPORT(S)
- PROPOSED TUBULAR MARKER
- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN
- TRAFFIC FLOW ARROWS
- PAVEMENT MARKING ARROW
- SIGN NO.



- SPECIAL NOTES:**
1. PAVEMENT MARKING PAINT LINES REQUIRE A DOUBLE APPLICATION ON NEWLY SURFACED ROADWAY. THE QUANTITIES HAVE BEEN INCREASED ACCORDINGLY.
 2. PAVEMENT MARKING DIMENSIONS FOR TRAVEL LANE AND CYCLE TRACK WIDTHS ARE MINIMUMS AND ARE MEASURED FROM THE FACE OF CURB. CONTRACTOR SHALL LAY OUT MARKINGS FROM WEST CURB LINE HOLDING TRAVEL LANE WIDTHS AS DIMENSIONED, WITH ANY LEFTOVER WIDTH TO BE PROVIDED IN NORTHBOUND CYCLE TRACK LANE.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND.			
DIRECTOR OF PUBLIC WORKS	DATE	CHIEF, BUREAU OF HIGHWAYS	DATE
CHIEF, BUREAU OF ENGINEERING	DATE	CHIEF, TRAFFIC ENGINEERING DIVISION	DATE

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	JHR			
DRN:	JHR			
CHK:	JMM			
DATE:	05/22			
BY	NO.	REVISION	DATE	

SIGNING AND MARKING PLAN

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG.
SN-2.12

SCALE
1" = 30'

SHEET
40 OF 50

SHEET NO.	SIGN NO.	REMARKS	CODE NUMBERS *																			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SN-2.01	101	R3-17 (30"x24") & R3-17b (30"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	7.5	1																	
	102	RELOCATE EX. "ROUNDAABOUT" (36"x36") & "ADVANCE ROADS" (54"x42")	2 - WOOD SIGN SUPPORTS 4" x 6"			42	24.75															
	103	W3-3 (36"x36") & D1-1(1) (48"x24")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	17	2																	
		CODE NO. 5						18														
SN-2.02	201	R9-5 (12"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	1.5	1																	
	202	R9-5 (12"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	1.5	1																	
	203	W11-15 BLK/FYG (36"x36") & W16-9p BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	204	RELOCATE EX. "BUS STOP" SIGNS (13.5"x13.5"), (14"x14"), & (14"x4")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE		1		3															
		CODE NO. 5						12.75														
SN-2.03	301	R1-6a(1) (12"x36")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	3	1																	
	302	W11-15 BLK/FYG (36"x36") & W16-7pL BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	303	R1-6a(1) (12"x36")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	3	1																	
	304	W11-15 BLK/FYG (36"x36") & W16-7pL BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	305	W11-15 BLK/FYG (36"x36") & W16-9p BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	306	DM1-3 FY (18"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	2.25	1																	
	307	DM1-3 FY (18"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	2.25	1																	
SN-2.04	401	RELOCATE EX. "SCHOOL" SIGNS (2) (36"x36") & (2) (21"x15")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE		1		22.4															
	402	(2) S1-1 BLK/FYG (36"x36"), W16-7pL BLK/FYG (24"x12"), W16-7pR BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	22	1																	
	403	S1-1 BLK/FYG (36"x36") & W16-9p BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	1																	
		CODE NO. 5						11.2														
SN-2.05	501	RELOCATE EX. "BUS STOP" SIGNS (13.5"x13.5"), (14"x14"), & (14"x4")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE		1		3															
SN-2.07	701	W11-15 BLK/FYG (36"x36") & W16-9p BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	702	R1-6a(1) (12"x36")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	3	1																	
	703	W11-15 BLK/FYG (36"x36") & W16-7pL BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	704	R1-6a(1) (12"x36")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	3	1																	
	705	W11-15 BLK/FYG (36"x36") & W16-7pL BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	706	W11-15 BLK/FYG (36"x36") & W16-9p BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	707	DM1-3 FY (18"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	2.25	1																	
	708	DM1-3 FY (18"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	2.25	1																	
SN-2.08	801	R9-5 (12"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	1.5	1																	
	802	R9-5 (12"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	1.5	1																	
SN-2.09	901	W11-15 BLK/FYG (36"x36") & W16-9p BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	902	W11-15 BLK/FYG (36"x36") & W16-7pL BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	903	R1-6a(1) (12"x36")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	3	1																	
	904	W11-15 BLK/FYG (36"x36") & W16-7pL BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	905	R1-6a(1) (12"x36")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	3	1																	
	906	W11-15 BLK/FYG (36"x36") & W16-9p BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	907	DM1-3 FY (18"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	2.25	1																	
	908	DM1-3 FY (18"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	2.25	1																	
SN-2.11	1101	RELOCATE EX. "BUS STOP" (13.5"x13.5"), (14"x14"), & (14"x4")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE		1		3															
	1102	R3-17 (30"x24") & R3-17b (30"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	7.5	1																	
	1103	W11-15 BLK/FYG (36"x36") & W16-7pL BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	1104	W11-15 BLK/FYG (36"x36") & W16-7pR BLK/FYG (24"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	11	2																	
	1105	RELOCATE EX. "BUS STOP" (13.5"x13.5"), (14"x14"), & (14"x4")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE		1		3															
	1106	R3-17 (30"x24") & R9-3b (18"x12")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	6.5	1																	
	1107	DM1-3 FY (18"x18")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	2.25	1																	
		CODE NO. 5						11														
SN-2.12	1201	R3-7R (30"x30")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	6.25	1																	
	1202	R3-7R (30"x30")	SQUARE PERFORATED TUBULAR STEEL SIGN POST & ANCHOR BASE	6.25	1																	
PAVEMENT MARKINGS																						
SN-2.01								3668	3906	138	53	41		48.5		27						
SN-2.02								3714	5428	811				510	111.8	265	49					
SN-2.03								3556	5332	323				158	88	130	35					
SN-2.04								3384	6042	470				349	109.1	468	41					
SN-2.05								3642	5170	462				312	113.6	375	43					
SN-2.06								3444	4980	168					112.5		37					
SN-2.07								3278	5760	339				231	124.6	502	43					
SN-2.08								4088	4760	858				436	108	233	50					
SN-2.09								3922	4800	449				251	109.5	198	49					
SN-2.10								3842	5524	284				105	68.5		40					
SN-2.11								2756	3758	550				555	105.3	86	12					
SN-2.12								390	2010					21	46.5							
TOTAL QUANTITIES				277.75	61	42	59.15	52.95	39684	57470	4852	53	41	2928	1145.9	2257	426					
PROPOSED QUANTITIES				295	65	45	65	55	43650	63225	5350	60	45	3230	1260	2490	470					

NOTES:

- SQUARE PERFORATED TUBULAR STEEL SIGN SUPPORTS SHALL BE 2" GALVANIZED STEEL, PERFORATED ("QUICK PUNCH" TYPE), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO "QUICK PUNCH" HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
- SIGNING AND PAVEMENT MARKING REMARKS ABBREVIATIONS FOR OWNERSHIP AND ITEM DESCRIPTIONS: HOWARD COUNTY (HC) AND MDOT SHA (SHA).

* CODE NUMBER DESCRIPTION & UNIT				
CODE NUMBERS	DESCRIPTION	UNIT	DESCRIPTION	
1	SHEET ALUMINUM SIGNS	SF	9	15' WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
2	SQUARE PERFORATED TUBULAR STEEL SIGN SUPPORTS (SEE NOTE 1)	LF	10	15' YELLOW PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
3	WOOD SIGN SUPPORTS 4" x 6"	LF	11	24' WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
4	RELOCATE EXISTING GROUND MOUNTED SIGNS	SF	12	WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS & SYMBOLS
5	REMOVE EXISTING GROUND MOUNTED SIGNS & SUPPORTS	SF	13	GREEN COLORIZED ANTI-SKID AREA PAVEMENT MARKING
6	5' WHITE PAVEMENT MARKING PAINT	LF	14	28' TUBULAR MARKERS WITH TWO WHITE RETROREFLECTIVE SHEETING STRIPES
7	5' YELLOW PAVEMENT MARKING PAINT	LF	15	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
8	12' WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF		

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF HIGHWAYS DATE
CHIEF, BUREAU OF ENGINEERING DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY:



Whitman, Reardon & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: JHR

DRN: JHR

CHK: JMM

DATE: 05/22

SIGNING AND MARKING
INDEX OF QUANTITIES

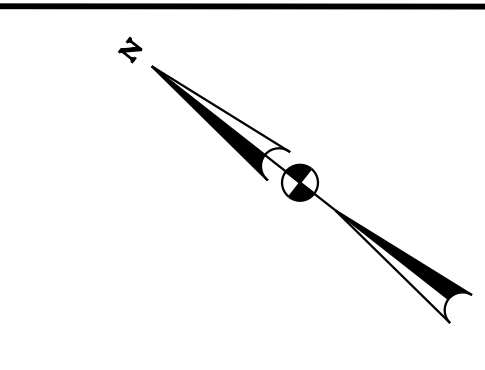
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG.
SN-11.01

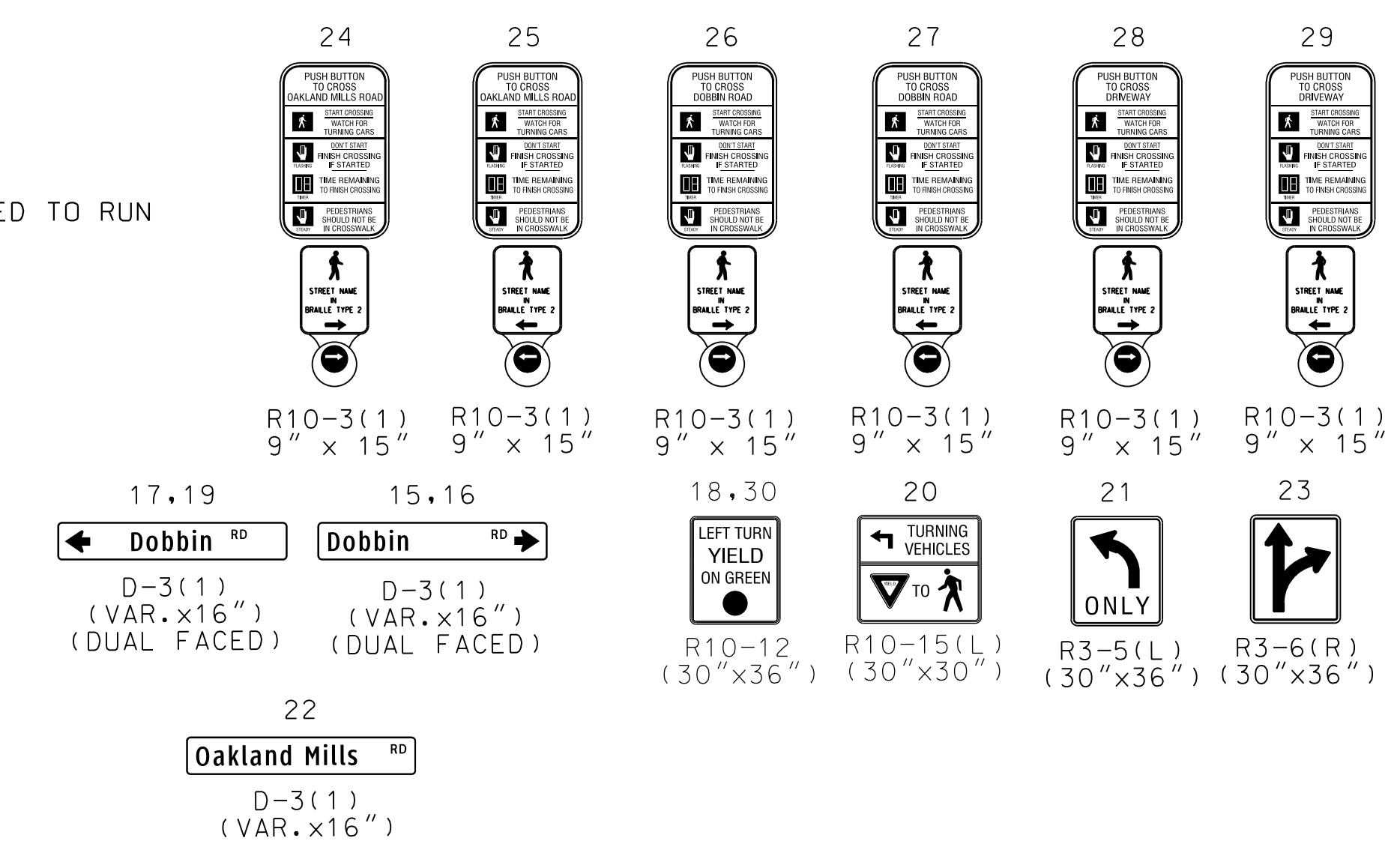
SCALE
NTS

SHEET
41 of 50

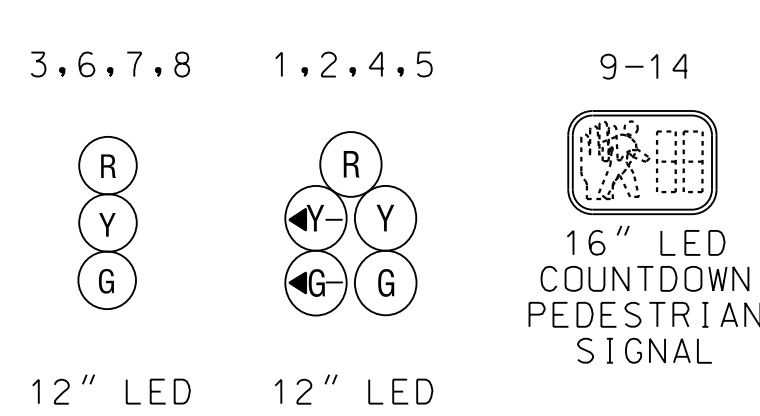


OAKLAND MILLS ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

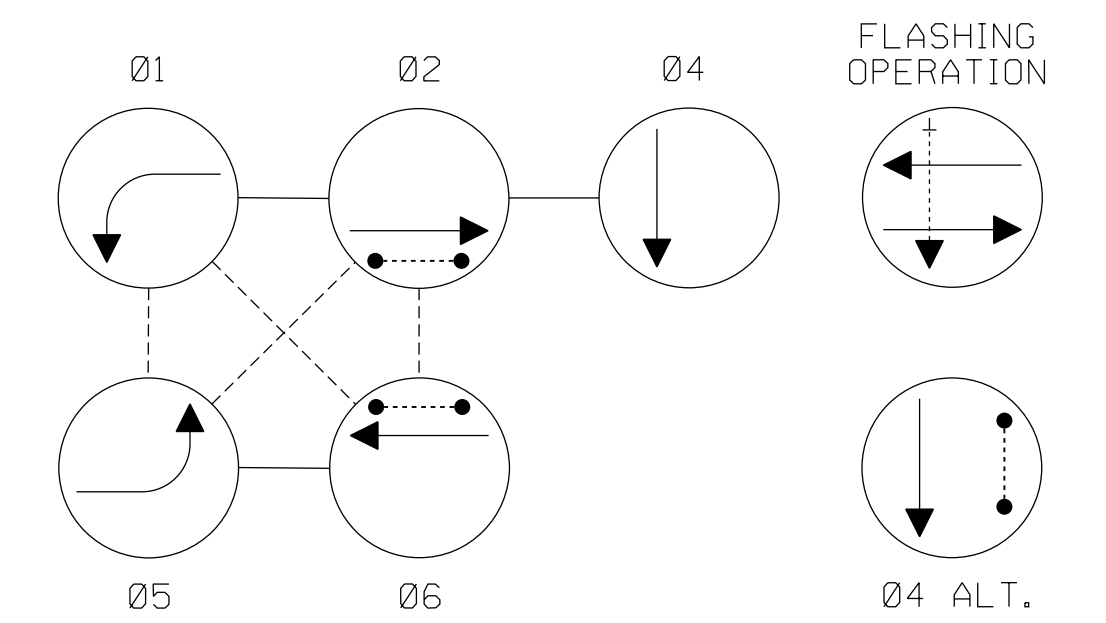
PROPOSED SIGNS



PROPOSED SIGNALS

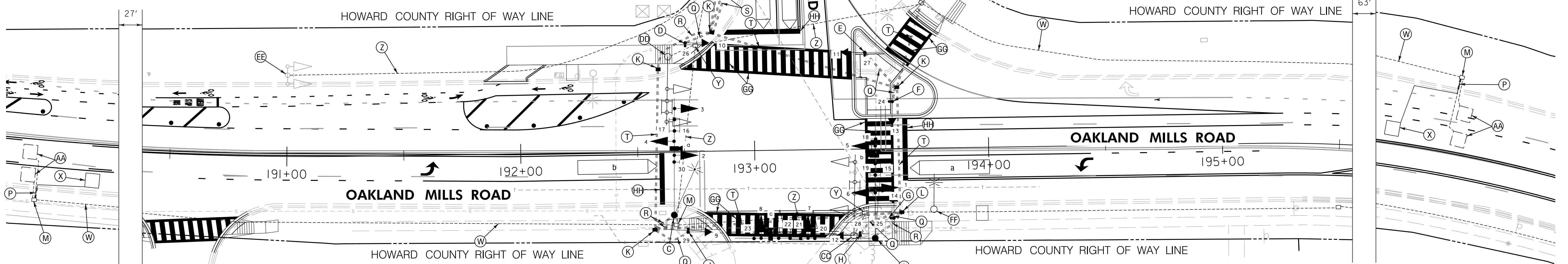


NEMA PHASING



NOTE: PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

TO HOMESPUN DR / MALINDY CIRCLE



CONSTRUCTION DETAILS

- A. INSTALL NEMA SIZE 6 BASE MOUNTED CABINET AND CONTROLLER, WITH UNINTERRUPTABLE POWER SUPPLY ON CONCRETE PAD. (INSTALL 2-4 IN. AND 2-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN CABINET BASE.)
B. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH TWIN 50 FT./50 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERAS, SIGNS, AND 20 FT. STREET LIGHTING ARM WITH AN LED LUMINAIRE
C. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 50 FT. MAST ARM, TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERA, SIGNS AND 20 FT. STREET LIGHTING ARM WITH AN LED LUMINAIRE. (INSTALL 2-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE)
D. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS DOBBIN ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE)
E. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS DOBBIN ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE)
F. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS OAKLAND MILLS ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE)
G. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS OAKLAND MILLS ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE)
H. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS DRIVEWAY"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE)
I. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS DRIVEWAY"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE)

CONSTRUCTION DETAILS

- K. INSTALL ELECTRICAL HANDBOX. (SEE GENERAL NOTE 19).
L. LOCATE EXISTING 3 IN. CONDUIT WITH INTERCONNECT CABLE AND INSTALL HANDBOX ON TOP OF CONDUIT. CUT AND REMOVE APPROXIMATELY 3 FT. LENGTH OF EXISTING CONDUIT AND INSTALL HANDBOX. INSTALL AND COUPLE 1 FT. +/- SECTION OF 3 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT TO EXISTING CONDUIT LEADING SOUTH TO BASE MOUNTED SIGNAL CABINET LEAVING 6 IN. PROTRUDING INSIDE HANDHOLE. CAP AND ABANDON EXISTING SECTION OF CONDUIT HEADING NORTH TO EXISTING HANDBOX.
M. USE EXISTING HANDBOX. ADJUST TO FINAL GRADE AND REPLACE FRAME AND COVER. (SEE GENERAL NOTE 19).
N. INSTALL EMBEDDED METEDED SERVICE PEDESTAL WITH 3-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS IN PEDESTAL BASE.
O. LOCATE EXISTING CONDUIT WITH POWER FEED. CUT EXISTING CONDUIT AND CONNECT TO PROPOSED METEDED SERVICE PEDESTAL WITH PROPOSED CONDUIT. NOTE: CONTRACTOR SHALL CONTACT BGE TO SET UP WORK WITH TO DE-ENERGIZE ELECTRICAL SERVICE BEFORE CUTTING CONDUIT TO COMPLETE THE ELECTRICAL CONNECTION TO PROPOSED METEDED PEDESTAL.
P. INSTALL 1 IN. GALVANIZED ELECTRICAL CONDUIT. (FOR DETECTOR WIRE SLEEVE)
Q. INSTALL 2 IN. ELECTRICAL CONDUIT. PVC SCHEDULE 80, TRENCHED.
R. INSTALL 3 IN. ELECTRICAL CONDUIT. PVC SCHEDULE 80, TRENCHED.
S. INSTALL 4 IN. ELECTRICAL CONDUIT. PVC SCHEDULE 80, TRENCHED.
T. INSTALL 4 IN. ELECTRICAL CONDUIT. PVC SCHEDULE 80, PUSHED.
U. INSTALL 4 IN. ELECTRICAL CONDUIT. PVC SCHEDULE 80, TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE - TRENCHED, CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT ELECTRICAL TRANSFORMER FOR USE BY OTHERS.
V. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
W. USE EXISTING CONDUIT.
X. INSTALL 6 FT. x 6 FT. (4-TURNS) LOOP DETECTOR WIRE ENCASED IN 1/4 IN. FLEXIBLE TUBING.
Y. REMOVE EXISTING HANDBOX.
Z. CAP AND ABANDON EXISTING CONDUIT.
AA. ABANDON EXISTING LOOP DETECTOR, DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDBOXES, SIGNAL STRUCTURES AND CONTROLLER.
BB. REMOVE EXISTING BASE MOUNTED CABINET AND CONTROLLER. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. SIGNAL SHOP SHALL BE NOTIFIED TO REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CABINET.
CC. REMOVE EXISTING STEEL POLE, MAST ARMS, ALL ASSOCIATED EQUIPMENT AND FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
DD. REMOVE EXISTING STEEL POLE, MAST ARM, ALL ASSOCIATED EQUIPMENT AND FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
EE. REMOVE EXISTING PEDESTAL POLE, SIGNS, POLE MOUNTED CABINET, AND ALL ASSOCIATED EQUIPMENT AND FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
FF. STREET LIGHT TO BE REMOVED BY OTHERS.
GG. 24 INCH PAVEMENT MARKINGS FOR CROSSWALK. (TO BE INSTALLED BY OTHERS).
HH. 24 INCH PAVEMENT MARKINGS FOR STOPLINE. (TO BE INSTALLED BY OTHERS).

GENERAL NOTE

SEE GENERAL NOTES ON DWG. SG-03.

SPECIAL NOTE:

CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR THE INSTALLATION OF PAVEMENT MARKINGS WHICH MAY BE PHASED BY OTHERS DEPENDING ON TIMING OF FINAL INSTALLATION.

Table with two legends: GEOMETRIC LEGEND and UTILITY LEGEND. The geometric legend shows symbols for existing and proposed lines. The utility legend shows symbols for storm drain, gas main, water main, sewer main, electric cables, aerial cables, telephone cables, and fiber-optic.

"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. 27048, EXPIRATION DATE: 01-28-2024"

Form for Department of Public Works, Howard County, Maryland, including fields for Director of Public Works, Chief, Bureau of Engineering, Chief, Bureau of Highways, and Chief, Traffic Engineering Division.

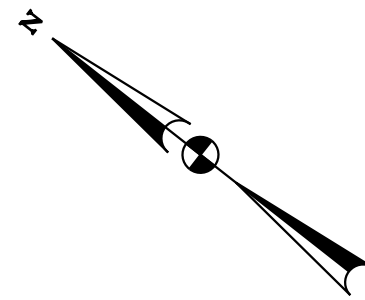
Logo for Whitman, Requardt & Associates, LLP, 261 South Caroline Street, Baltimore, Maryland 21231.

Table for design and revision information, including fields for DES, DRN, CHK, DATE, BY, NO., REVISION, and DATE.

TRAFFIC SIGNAL PLAN
OAKLAND MILLS ROAD AT
DOBBIN ROAD

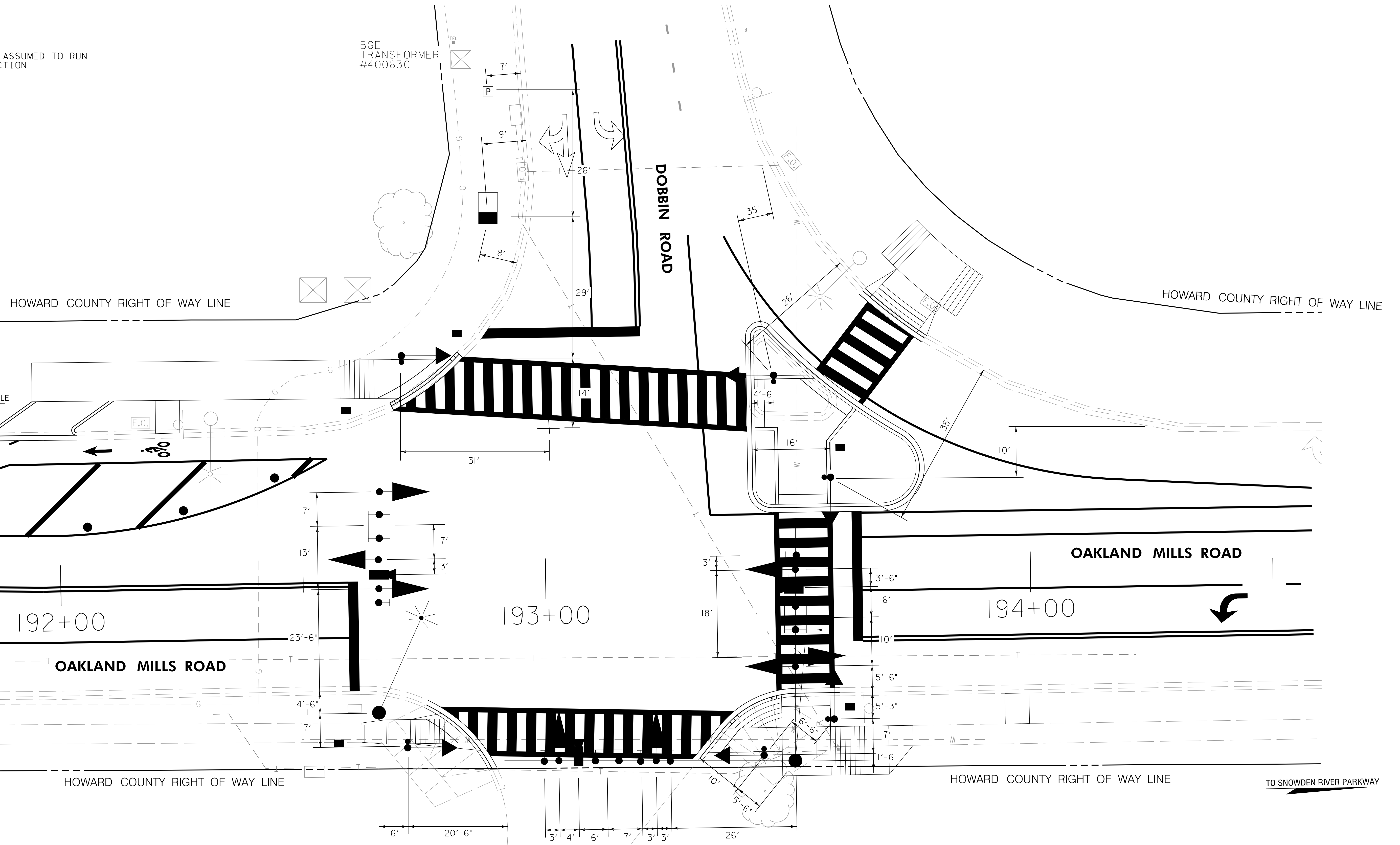
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT
ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

DWG. SG-01
SCALE 1" = 20'
SHEET 42 OF 50



OAKLAND MILLS ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

BGE TRANSFORMER #40063C



"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. 27048, EXPIRATION DATE: 01-28-2024"

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE
CHIEF, BUREAU OF HIGHWAYS DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY :



DES: BRD
DRN: BRD
CHK: JMM
DATE: 5/22

BY NO. REVISION DATE

TRAFFIC SIGNAL DETAIL SHEET
OAKLAND MILLS ROAD AT
DOBBIN ROAD

600' SCALE MAP NO. BLOCK NO.

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6

HOWARD COUNTY, MARYLAND

DWG. SG-02

SCALE 1" = 10'

SHEET 43 OF 50

BY: P00104
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\pSG-N001_32189009_DETAIL.dgn

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AND INSTALLATION OF APS (ACCESSIBLE PEDESTRIAN SIGNALS) AND CPS (COUNTDOWN PEDESTRIAN SIGNALS) AT THE INTERSECTION OF OAKLAND MILLS ROAD AND DOBBIN ROAD IN HOWARD COUNTY, MARYLAND. OAKLAND MILLS ROAD IS ASSUMED TO RUN IN AN NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT TURNS ON THE NORTHBOUND AND SOUTHBOUND OAKLAND MILLS APPROACHES WITH CONCURRENT PEDESTRIAN MOVEMENTS ON THE EAST AND WEST LEGS OF THE INTERSECTION. THE DOBBIN ROAD APPROACH WILL OPERATE ALONE WITH PERMISSIVE MOVEMENT AND ACTUATED PEDESTRIAN MOVEMENT ACROSS THE SOUTH LEG OF THE INTERSECTION. INSTALL AN EIGHT PHASE, FULL TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH INTERSECTION MONITOR, HARNESS AND BATTERY BACK-UP HOUSED IN A SEPARATE ATTACHED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

- STANDARD NO. MD-104.03-02 (SHOULDER WORK/ MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.02-14 (INTERSECTION FLAGGING OPERATION 2-LANE, 2-WAY EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-04 (LEFT LANE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-06 (RIGHT LANE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-10 (INTER. FAR-LEFT LANE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-12 (INTER. FAR-RIGHT LANE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-14 (INTER. FAR-SIDE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.06-10 (MOBILE SERVICE WORK/ INTERSECTION EQUAL/LESS THAN 40 MPH 0-15 MIN.)

GENERAL NOTES

- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE HOWARD COUNTY TRAFFIC ENGINEERING DIVISION FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
- VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE HOWARD COUNTY TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
- ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" x 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10" SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.08 AND 4E.10 AND FIG. 4E-3 AND 4E-4 OF THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- FOR FINAL PAVEMENT MARKINGS REFER TO THE PAVEMENT MARKING PLANS, OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MDT MSHA STANDARDS.
- INSTALL CONDUIT AND LOOP DETECTORS PRIOR TO THE INSTALLATION OF PAVEMENT MARKINGS. REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR ADDITIONAL DETAILS.
- VERIFY PROPOSED GEOMETRICS PRIOR TO INSTALLING SIGNAL EQUIPMENT.
- ALL HANDHOLES SHALL BE INSTALLED AT FINAL GRADE.
- REFER TO ROADWAY PLANS FOR SIDEWALK RAMP DETAILS.
- THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
- THE SIGNAL CONTRACTOR SHALL DETERMINE IF ANY WORK BY OTHER CONTRACTORS CAN NOT BE COMPLETED UNTIL INSTALLATION OF SIGNAL EQUIPMENT IS COMPLETE. THE SIGNAL CONTRACTOR SHALL NOTIFY OTHER CONTRACTORS OF THIS WORK.
- ALL ELECTRICAL HANDHOLES SHALL HAVE CONCRETE COLLARS EXCEPT WHEN INSTALLED WITHIN SIDEWALK OR AS DIRECTED BY THE ENGINEER.

APS MESSAGES

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

OAKLAND MILLS ROAD AND DOBBIN ROAD - SOUTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS OAKLAND MILLS AT DOBBIN. WAIT." *
WALK: RAPID TICK

OAKLAND MILLS AND DRIVEWAY - WEST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS DRIVEWAY AT OAKLAND MILLS. WAIT." *
WALK: RAPID TICK

DOBBIN ROAD AND OAKLAND MILLS ROAD - EAST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS DOBBIN AT OAKLAND MILLS. CROSSWALK ANGLES RIGHT. WAIT." **
WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'
** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY HOWARD COUNTY TRAFFIC ENGINEERING DIVISION.

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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE
CHIEF, BUREAU OF HIGHWAYS DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY :



DES: BRD				
DRN: BRD				
CHK: JMM				
DATE: 5/22				
BY	NO.	REVISION	DATE	

GENERAL INFORMATION PLAN
OAKLAND MILLS ROAD AT
DOBBIN ROAD

600' SCALE MAP NO. BLOCK NO.

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SG-03

SCALE NTS

SHEET 44 OF 50

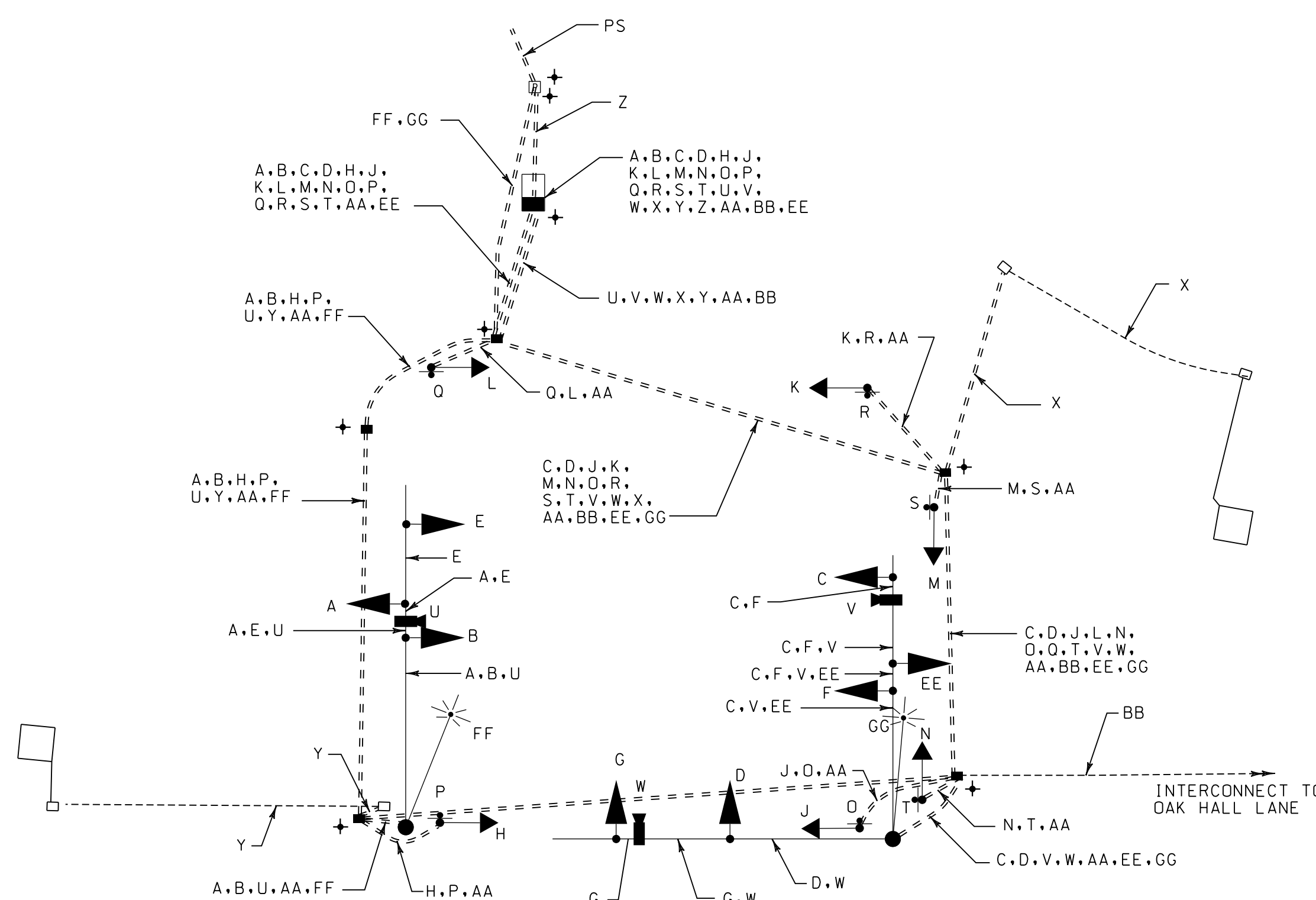
PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	G	G	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 1 AND 5	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 AND 5 CHANGE	G	G	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW
PHASE 1 + 6	G	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 + 6 CHANGE	G	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 + 5	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
2 + 5 CHANGE	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	R	R	WK	WK	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	G	G	R	R	FLDW	FLDW	FLDW	FLDW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 ALT	R	R	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	R	R	R	DW	DW	DW	DW	FLDW	FLDW
4 ALT CHANGE	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLR	FLR	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM

WIRING KEY:

- A, B, C, D, E } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E, K, F, L, G, M, H, N } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- FF, GG } 3-CONDUCTOR ELECTRICAL CABLE TC (NO. 12 A.W.G.)
- O, P, Q, R, S } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- U, V, W } VIDEO CAMERA DETECTION LEAD-IN CABLE (AS PER MANUFACTURER SPECS)
- X, Y } 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) (NO. 14 A.W.G.)
- Z } 1-CONDUCTOR (NO. 8 A.W.G.) (3 PIECES) FOR TRAFFIC SIGNAL ELECTRICAL SERVICE
- AA } (NO. 6 A.W.G.) BARE COPPER GROUND WIRE
- BB } EXISTING HOWARD COUNTY (INTERCONNECT)
- PS } PROPOSED UNDERGROUND ELECTRICAL SERVICE BY BGE
- + } PROPOSED 3/4 IN. X 10 FT. GROUNDING ROD IN ALL CABINET, POWER PEDESTAL AND POLE BASES ONLY. USE BARE STRANDED COPPER WIRE #6 A.W.G.



EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY COUNTY

QUANTITY	UNIT	ITEM DESCRIPTION
1000	LF	VIDEO DETECTION CAMERA CABLE
3	EA	VIDEO DETECTION CAMERA (THERMAL SENSOR)
1	EA	VIDEO DETECTION PROCESSOR
8	EA	OVERHEAD SIGN, 5 TO <25 SQUARE FEET.
4	EA	12 INCH, THREE SECTION LED (R,Y,G) SINGLE FACE TRAFFIC SIGNAL HEAD WITH MAST ARM MOUNTING HARDWARE AND TUNNEL VISORS
4	EA	12 INCH, FIVE SECTION SECTION LED (R,Y,G, YA, GA) SINGLE FACE TRAFFIC SIGNAL HEAD WITH MAST ARM MOUNTING HARDWARE AND TUNNEL VISORS
6	EA	16 INCH PEDESTRIAN SIGNAL HEAD
6	EA	PEDESTRIAN PUSHBUTTON STATION AND SIGN
6	EA	R10-3(1) SIGN
1	EA	CONTROL CABINET, BASE MOUNTED
1	EA	UPS CABINET, BASE MOUNTED
1	EA	CENTRAL CONTROL UNIT
1	EA	CELLULAR MODEM
2	EA	250W LED COBRAHEAD LUMINAIRE

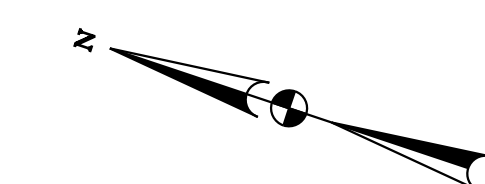
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	UNIT	ITEM DESCRIPTION
2001	6	CY	TEST PIT EXCAVATION
* 5001	450	LF	PERMANENT PREFORMED THERMOPLASTIC PAVEMENT LINE, 24 INCH WIDE, WHITE
* 5002	350	LF	PERMANENT PREFORMED THERMOPLASTIC PAVEMENT LINE, 12 INCH WIDE, WHITE
8001	1.2	CY	CONCRETE FOUNDATION FOR CABINET
8003	75	LF	1 INCH ELECTRICAL CONDUIT, GALVANIZED OR FLEXIBLE LIQUID TIGHT CONDUIT, DETECTOR WIRE SLEEVE
8010	165	LF	2 INCH ELECTRICAL CONDUIT, PVC SCHEDULE 80, TRENCHED
8008	90	LF	3 INCH ELECTRICAL CONDUIT, PVC SCHEDULE 80, TRENCHED
8012	65	LF	4 INCH ELECTRICAL CONDUIT, PVC SCHEDULE 80, TRENCHED
8014	315	LF	4 INCH ELECTRICAL CONDUIT, PVC SCHEDULE 80, PUSHED
8016	1	EA	EMBEDDED METERED SERVICE PEDESTAL
8018	8	EA	GROUND ROD, 3/4 INCH DIAMETER X 10 FOOT LENGTH WITH CLAMP
8024	260	LF	LOOP WIRE, 14 AWG THWN IN 1/4 INCH FLEXIBLE TUBING
8025	845	LF	INSTALL VIDEO DETECTION CAMERA CABLE
8026	980	LF	ELECTRICAL CABLE, 2 CONDUCTOR, 14 AWG, ALUMINUM SHIELDED, LOOP LEAD IN WIRE
8027	875	LF	ELECTRICAL CABLE, 2 CONDUCTOR, 14 AWG IMSA 19-1
8029	1230	LF	ELECTRICAL CABLE, 5 CONDUCTOR, 14 AWG IMSA 19-1
8030	1200	LF	ELECTRICAL CABLE, 7 CONDUCTOR, 14 AWG IMSA 19-1
8031	480	LF	ELECTRICAL CABLE, 3 CONDUCTOR, 12 AWG, COPPER TYPE TC
8032	750	LF	ELECTRICAL CABLE, 1 CONDUCTOR, 6 AWG, STRANDED BARE COPPER
8035	125	LF	ELECTRICAL CABLE, 1 CONDUCTOR, NO. 8 AWG THN/THWN
8039	8	EA	INSTALL OVERHEAD SIGN, 5 TO <25 SQUARE FEET.
8042	2	EA	UP TO 20 FOOT LIGHTING ARM, STRAIN POLE, OR MAST ARM POLE
8044	2	EA	INSTALL COBRAHEAD LUMINAIRE
8049	1	EA	FURNISH AND INSTALL 27 FOOT POLE AND 50 FOOT SINGLE MAST ARM
8053	1	EA	FURNISH AND INSTALL 27 FOOT POLE AND 50/50 FOOT TWIN MAST ARMS
8067	6	EA	FURNISH AND INSTALL PEDESTAL POLE, ANY SIZE, WITH BREAKAWAY COUPLING BASE
8078	32	EA	INSTALL SIGNAL HEAD
8080	6	EA	INSTALL PEDESTRIAN SIGNAL HEAD
8081	6	EA	INSTALL PEDESTRIAN PUSHBUTTON AND SIGN
8082	3	EA	INSTALL MAST ARM MOUNTED VIDEO CAMERA DETECTOR WITH COUNTY SUPPLIED ASTRO BRACKET CLAMPS
8086	1	EA	INSTALL CONTROL CABINET, BASE OR POLE MOUNTED
8087	2	EA	ADJUST ELEVATION OF EXISTING HANDBOX, REPLACE FRAME AND COVER
8088	5	EA	TRAFFIC SIGNAL HANDBOX (PULLBOX)
8089	1	EA	TRAFFIC SIGNAL HANDBOX OVER EXISTING CONDUITS AND CABLE
8090	180	LF	DISCONNECT, PULL BACK, AND REROUTE CABLES
8091	75	LF	SAW CUT 4 1/2 INCH DEPTH FOR LOOP DETECTOR
8104	2	CY	REMOVE FOUNDATION 12 INCHES BELOW GRADE
8103	2	EA	REMOVE AND SALVAGE TRAFFIC SIGNAL MAST ARM POLE
8108	1	EA	REMOVE AND SALVAGE CABINET
8109	2	EA	REMOVE SIGNAL HANDBOX
8111	21	EA	REMOVE AND SALVAGE ANY SIGNAL HEAD
8114	1	EA	REMOVE AND SALVAGE VIDEO DETECTION CAMERA

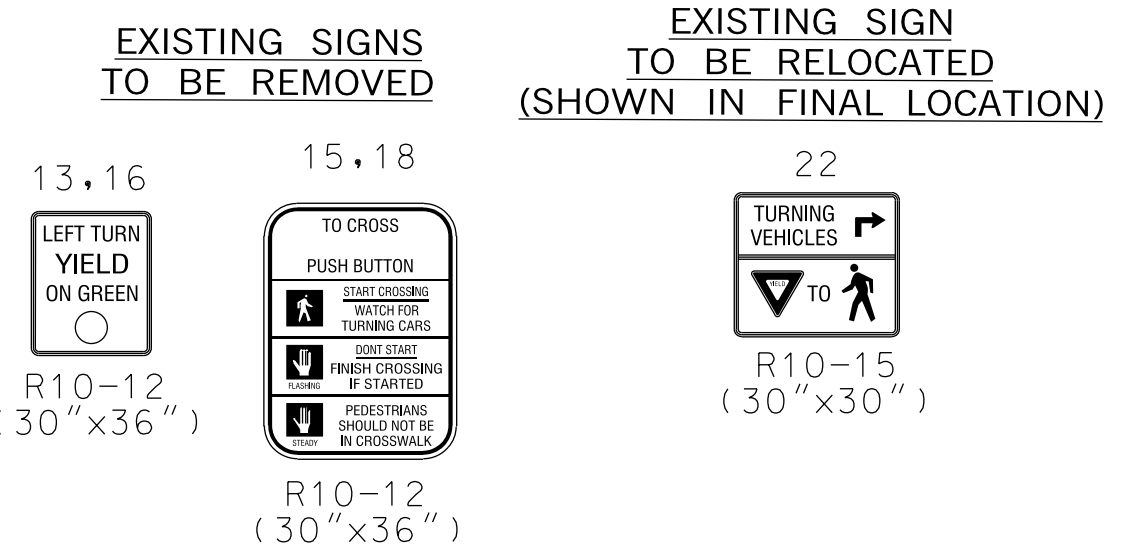
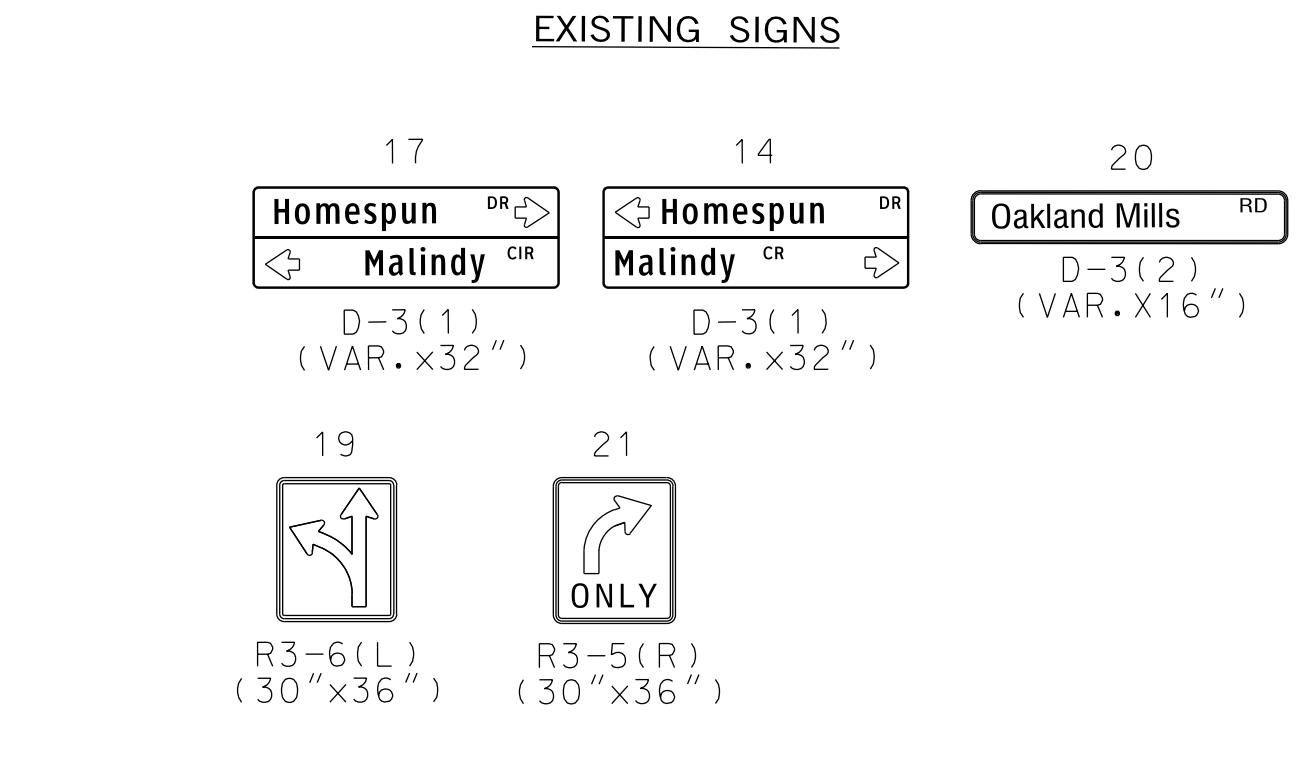
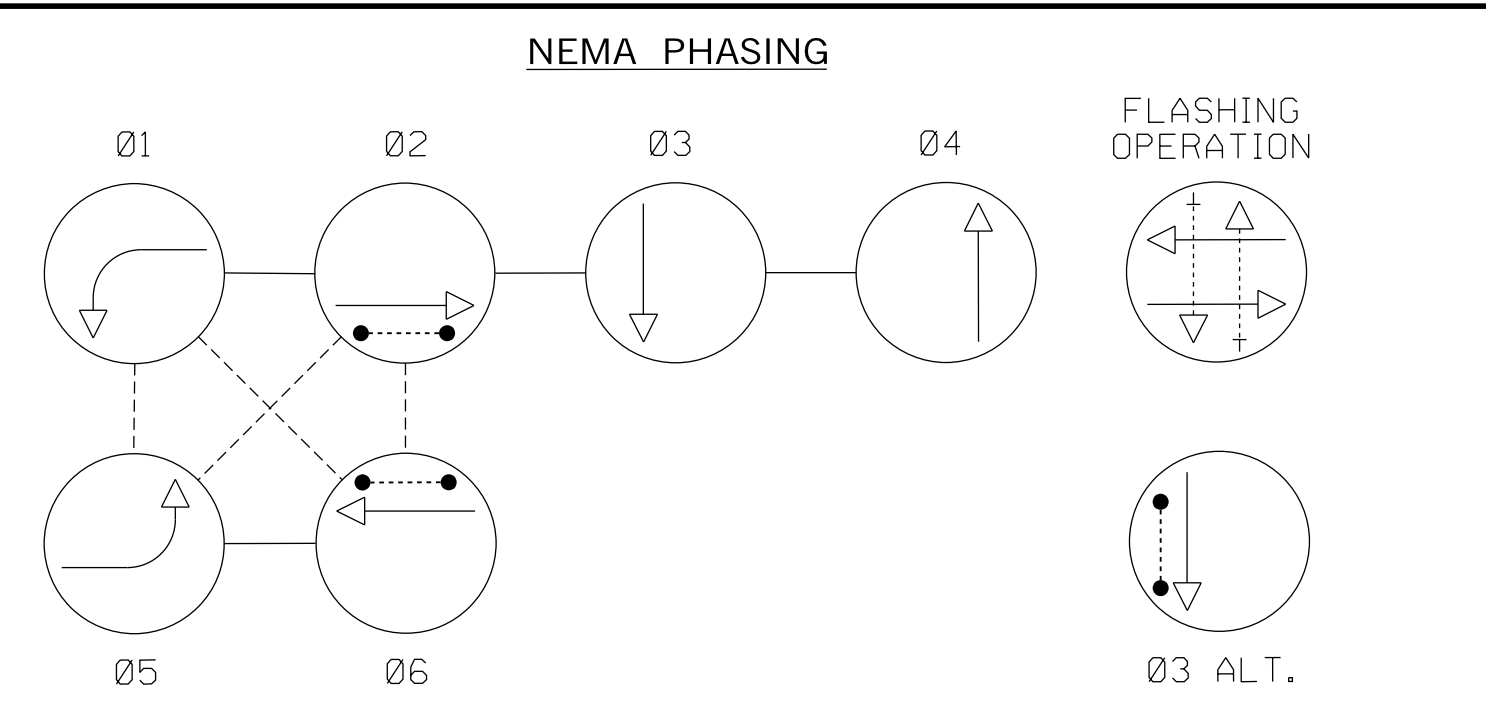
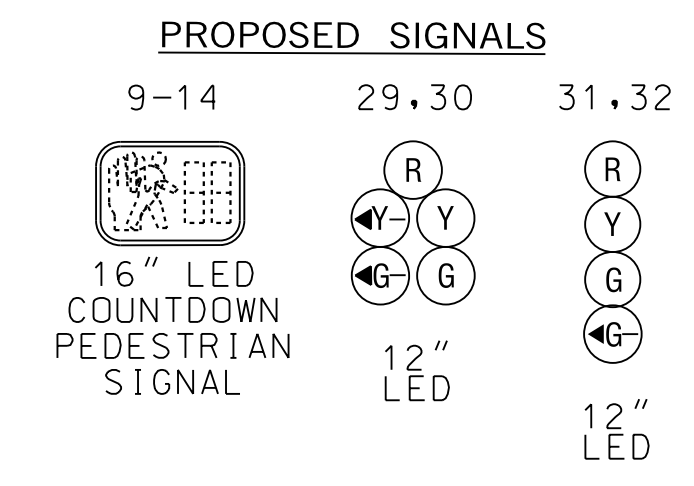
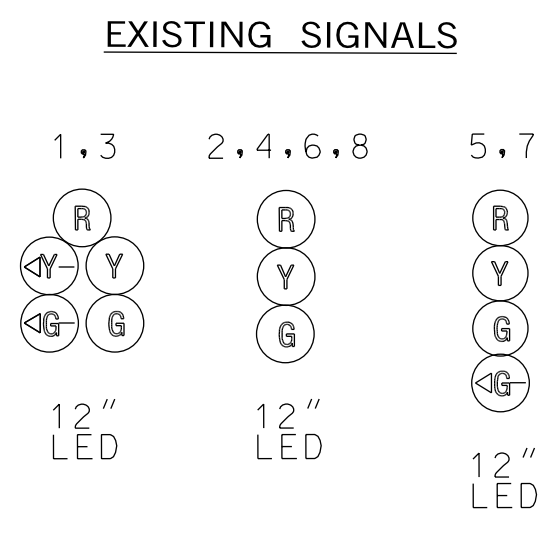
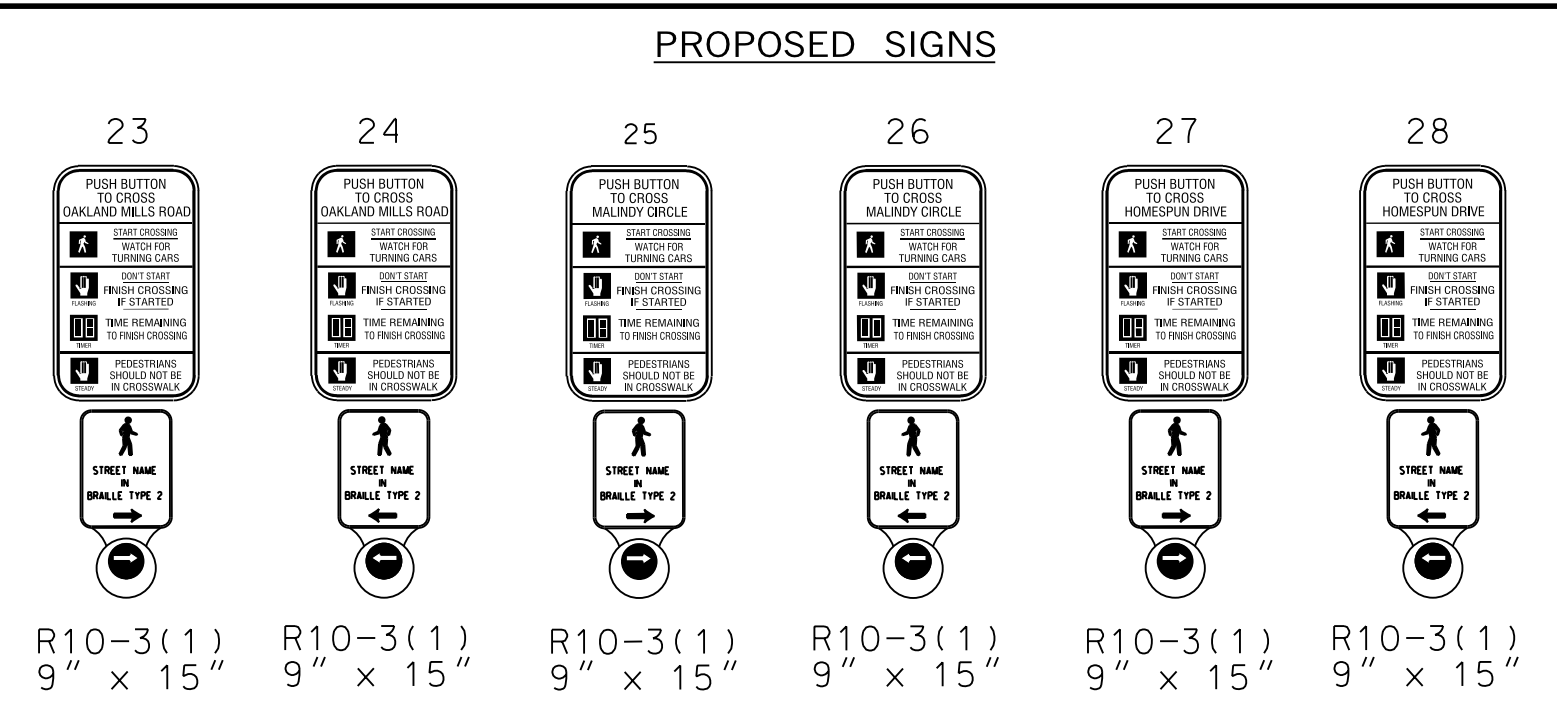
* PAVEMENT MARKING INCLUDED FOR TEMPORARY APPLICATION OR AS DIRECTED BY THE ENGINEER

C. EQUIPMENT TO BE RETURNED TO HOWARD COUNTY TRAFFIC

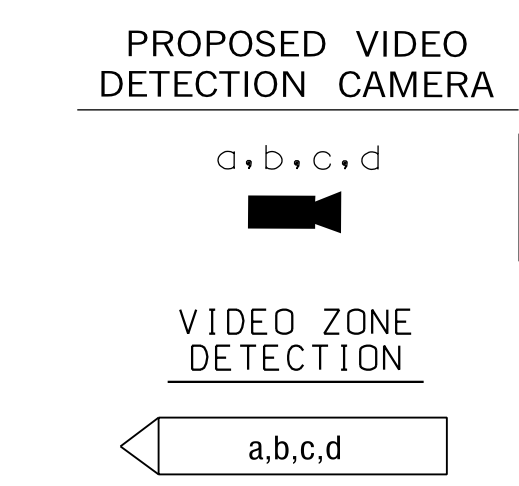
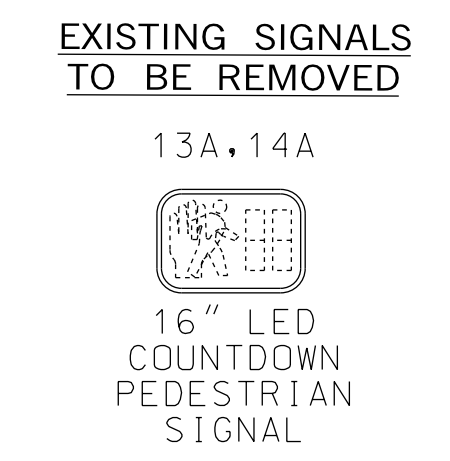
CONTRACTOR TO RETURN VIDEO DETECTION CAMERAS TO COUNTY



OAKLAND MILLS ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION



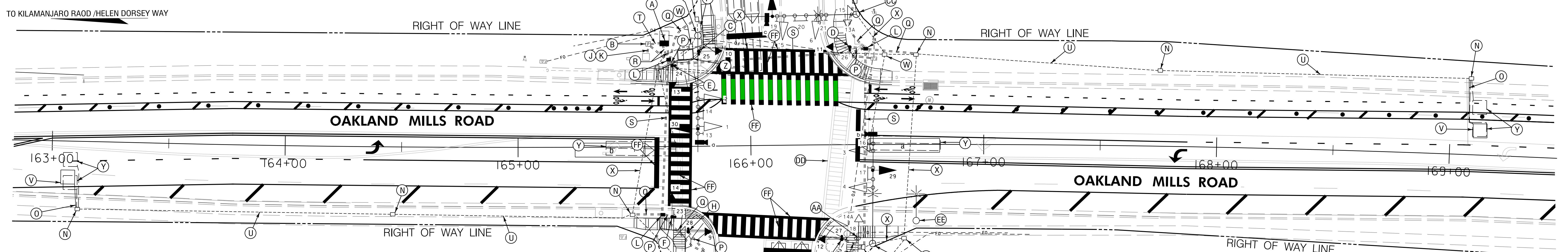
EXISTING SIGN TO BE RELOCATED (SHOWN IN FINAL LOCATION)



NOTE: PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

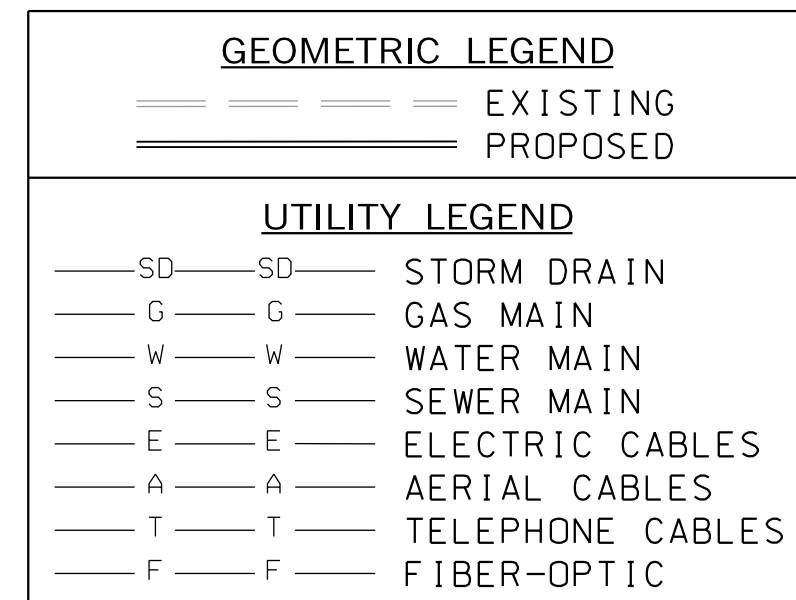
GENERAL NOTE
SEE GENERAL NOTES ON DWG. SG-06.

SPECIAL NOTE:
CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR THE INSTALLATION OF PAVEMENT MARKINGS WHICH MAY BE PHASED BY OTHERS DEPENDING ON TIMING OF FINAL INSTALLATION.



- CONSTRUCTION DETAILS**
- A. INSTALL NEMA SIZE 6 BASE MOUNTED CABINET AND CONTROLLER WITH UNINTERRUPTABLE POWER SUPPLY ON CONCRETE PAD. (INSTALL 2-4 IN. AND 2-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN CABINET BASE.)
 - B. INSTALL EMBEDDED METERED SERVICE PEDESTAL WITH 3-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS IN PEDESTAL BASE.
 - C. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS MALINDY CIRCLE"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE.)
 - D. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS MALINDY CIRCLE"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE.)
 - E. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS OAKLAND MILLS ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE.)
 - F. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS OAKLAND MILLS ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE.)
 - G. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS HOMESPUN DRIVE"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE.)
 - H. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS HOMESPUN DRIVE"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE.)

- CONSTRUCTION DETAILS CONT.**
- J. LOCATE EXISTING CONDUIT WITH POWER FEED. CUT EXISTING CONDUIT AND CONNECT TO PROPOSED METERED SERVICE PEDESTAL WITH PROPOSED CONDUIT. NOTE: CONTRACTOR SHALL CONTACT BGE TO SET UP WORK WITH TO DE-ENERGIZE ELECTRICAL SERVICE BEFORE CUTTING CONDUIT TO COMPLETE THE ELECTRICAL CONNECTION TO PROPOSED METERED PEDESTAL.
 - K. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE - TRENCHED. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT TRANSFORMER FOR USE BY OTHERS.
 - L. INSTALL ELECTRICAL HANDBOX. (SEE GENERAL NOTE 19).
 - M. USE EXISTING HANDBOX.
 - N. USE EXISTING HANDBOX. ADJUST TO FINAL GRADE AND REPLACE FRAME AND COVER. (SEE GENERAL NOTE 19).
 - O. INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE CONDUIT. (FOR DETECTOR WIRE SLEEVE)
 - P. INSTALL 2 IN. ELECTRICAL CONDUIT, PVC SCHEDULE 80, TRENCHED.
 - Q. INSTALL 3 IN. ELECTRICAL CONDUIT, PVC SCHEDULE 80 TRENCHED.
 - R. INSTALL 4 IN. ELECTRICAL CONDUIT, PVC SCHEDULE 80 TRENCHED.
 - S. INSTALL 4 IN. ELECTRICAL CONDUIT, PVC SCHEDULE 80 PUSHED.
 - T. INSTALL 2 IN. ELECTRICAL CONDUIT, PVC SCHEDULE 80 TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
 - U. USE EXISTING CONDUIT.
 - V. INSTALL 6 FT. x 6 FT. (4-TURNS) LOOP DETECTOR ENCASED IN 1/4 IN. FLEXIBLE TUBING.
 - W. REMOVE EXISTING HANDBOX.
 - X. CAP AND ABANDON EXISTING CONDUIT.
 - Y. ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDBOXES, SIGNAL STRUCTURES AND CONTROLLER.
 - Z. REMOVE EXISTING BASE MOUNTED CABINET AND CONTROLLER. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. SIGNAL SHOP SHALL BE NOTIFIED TO REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CABINET.
 - AA. REMOVE EXISTING PEDESTAL POLE AND ALL ASSOCIATED EQUIPMENT AND FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
 - BB. USE EXISTING MAST ARM POLE. INSTALL VEHICULAR TRAFFIC SIGNAL HEAD AND VIDEO DETECTION CAMERA ON MAST ARM AS SHOWN.
 - CC. USE EXISTING MAST ARM POLE. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD AND PUSHBUTTON STATION AND SIGN. INSTALL VEHICULAR TRAFFIC SIGNAL HEAD AND VIDEO DETECTION CAMERA ON MAST ARM AS SHOWN.
 - DD. PAVEMENT MARKINGS REMOVED BY OTHERS.
 - EE. STREET LIGHT TO BE REMOVED BY OTHERS.
 - FF. PAVEMENT MARKINGS INSTALLED BY OTHERS.



"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE

CHIEF, BUREAU OF HIGHWAYS DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY:

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: BRD					
DRN: BRD					
CHK: JMM					
DATE: 5/22	BY	NO.	REVISION	DATE	

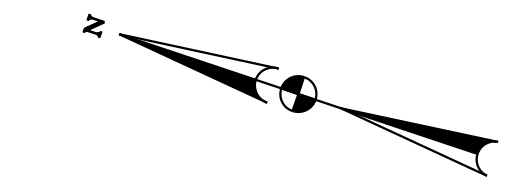
TRAFFIC SIGNAL PLAN
OAKLAND MILLS ROAD AT
HOMESPUN DRIVE AND MALINDY CIRCLE

600' SCALE MAP NO. _____ BLOCK NO. _____

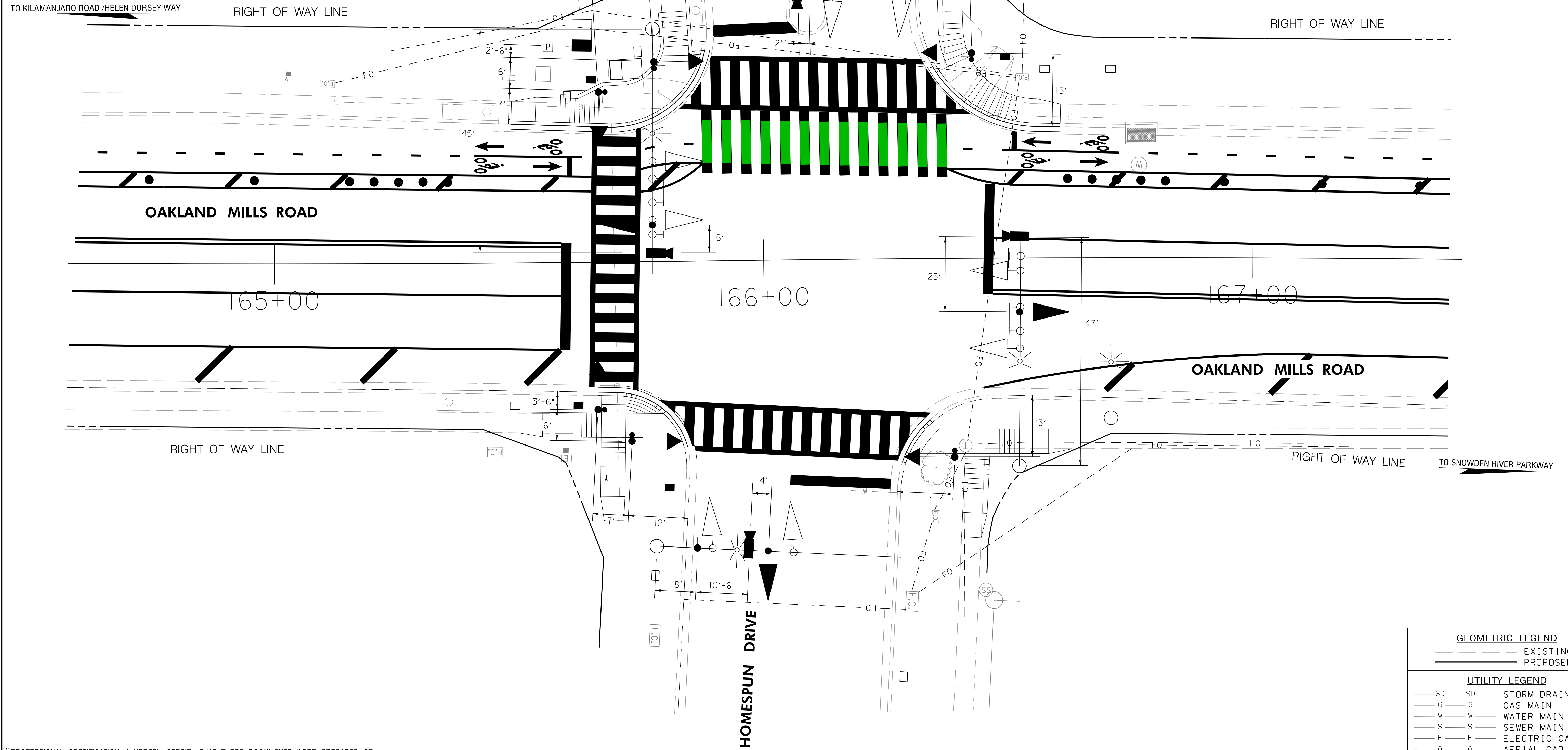
CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SG-04
SCALE 1" = 20'
SHEET 45 OF 50



OAKLAND MILLS ROAD IS ASSUMED TO RUN
IN A NORTH-SOUTH DIRECTION



GEOMETRIC LEGEND	
	EXISTING
	PROPOSED
UTILITY LEGEND	
	SD STORM DRAIN
	G GAS MAIN
	W WATER MAIN
	S SEWER MAIN
	E ELECTRIC CABLES
	A AERIAL CABLES
	T TELEPHONE CABLES
	F FIBER-OPTIC

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF ENGINEERING _____ DATE _____

CHIEF, BUREAU OF HIGHWAYS _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES: BRD					
DRN: BRD					
CHK: JMM					
DATE: 5/22	BY	NO.	REVISION	DATE	

TRAFFIC SIGNAL DETAIL SHEET
OAKLAND MILLS ROAD AT
HOMESPUN DR AND MALINDY CIRCLE

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SG-05
SCALE 1" = 10'
SHEET 46 OF 50

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AND INSTALLATION OF APS (ACCESSIBLE PEDESTRIAN SIGNALS) AND CPS (COUNTDOWN PEDESTRIAN SIGNALS) AT THE INTERSECTION OF OAKLAND MILLS ROAD AND HOMESPUN DRIVE/MALINDY CRICLE IN HOWARD COUNTY, MARYLAND. THE CONTROLLER CABINET WILL ALSO BE REPLACED. OAKLAND MILLS IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULLY-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT TURNS ON THE NORTHBOUND AND SOUTHBOUND OAKLAND MILLS ROAD APPROACHES. THE HOMESPUN DRIVE AND MALINDY CRICLE APPROACHES WILL OPERATE SPLIT PHASE.

ACTUATED PEDESTRIAN MOVEMENTS WILL BE PROVIDED ACROSS THE WEST, NORTH, AND EAST LEGS OF THE INTERSECTION. INSTALL AN EIGHT PHASE, FULL TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH INTERSECTION MONITOR, HARNESS AND BATTERY BACK-UP HOUSED IN A BASE MOUNTED CABINET.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

- STANDARD NO. MD-104.03-02 (SHOULDER WORK/ MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.02-14 (INTERSECTION FLAGGING OPERATION 2-LANE, 2-WAY EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-04 (LEFT LANE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-06 (RIGHT LANE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-10 (INTER. FAR-LEFT LANE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-12 (INTER. FAR-RIGHT LANE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.03-14 (INTER. FAR-SIDE CLOSURE/MULTILANE UNDIV. EQUAL/LESS THAN 40 MPH)
- STANDARD NO. MD-104.06-10 (MOBILE SERVICE WORK/ INTERSECTION EQUAL/LESS THAN 40 MPH 0-15 MIN.)

GENERAL NOTES

- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SPACES. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- THE CONTRACTOR SHALL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
- VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE HOWARD COUNTY TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
- ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" x 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCO SEC. 4E-08 AND 4E-10 AND FIG. 4E-3 AND 4E-4 OF THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- FOR FINAL PAVEMENT MARKINGS REFER TO THE PAVEMENT MARKING PLANS, OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MDOT MSHA STANDARDS.
- INSTALL CONDUIT AND LOOP DETECTORS PRIOR TO THE INSTALLATION OF PAVEMENT MARKINGS. REFER TO SIGNING AND PAVEMENT MARKING PLANS FOR ADDITIONAL DETAILS.
- VERIFY PROPOSED GEOMETRICS PRIOR TO INSTALLING SIGNAL EQUIPMENT.
- ALL HANDHOLES SHALL BE INSTALLED AT FINAL GRADE.
- REFER TO ROADWAY PLANS FOR SIDEWALK RAMPS DETAILS.
- THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
- THE SIGNAL CONTRACTOR SHALL DETERMINE IF ANY WORK BY OTHER CONTRACTORS CAN NOT BE COMPLETED UNTIL INSTALLATION OF SIGNAL EQUIPMENT IS COMPLETE. THE SIGNAL CONTRACTOR SHALL NOTIFY OTHER CONTRACTORS OF THIS WORK.
- ALL ELECTRICAL HANDHOLES SHALL HAVE CONCRETE COLLARS EXCEPT WHEN INSTALLED WITHIN SIDEWALK OR AS DIRECTED BY THE ENGINEER.

HOWARD COUNTY TRAFFIC ENGINEERING DIVISION
410-313-2430

PROJECT CONTACTS

APS MESSAGES

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

OAKLAND MILLS ROAD AND MALINDY CIRCLE - EAST LEG
STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS MALINDY AT OAKLAND MILLS. WAIT." *
WALK: RAPID TICK

OAKLAND MILLS AND MALINDY CIRCLE/HOMESPUN DRIVE - NORTH LEG
STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS OAKLAND MILLS AT MALINDY AND HOMESPUN. WAIT." *
WALK: RAPID TICK

OAKLAND MILLS ROAD AND HOMESPUN DRIVE - WEST LEG
STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS HOMESPUN AT OAKLAND MILLS. WAIT." *
WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY HOWARD COUNTY TRAFFIC ENGINEERING DIVISION.

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE
CHIEF, BUREAU OF HIGHWAYS DATE CHIEF, TRAFFIC ENGINEERING DIVISION DATE

PREPARED BY :



DES: BRD			
DRN: BRD			
CHK: JMM			
DATE: 5/22			
BY	NO.	REVISION	DATE

GENERAL INFORMATION PLAN
OAKLAND MILLS ROAD AT
HOMESPUN DR AND MALINDY CIRCLE

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

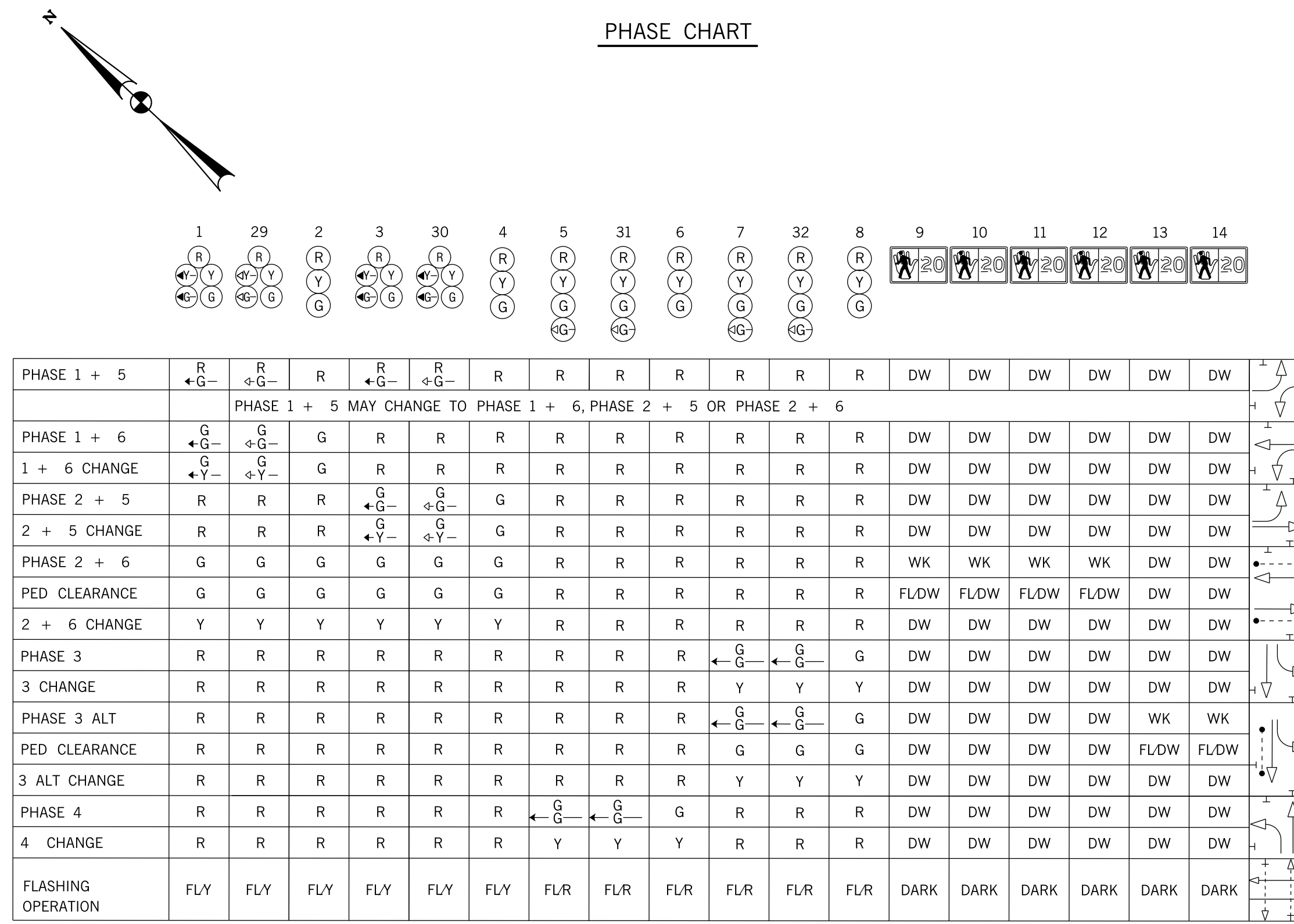
600' SCALE MAP NO. BLOCK NO. ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG.
SG-06

SCALE
NTS

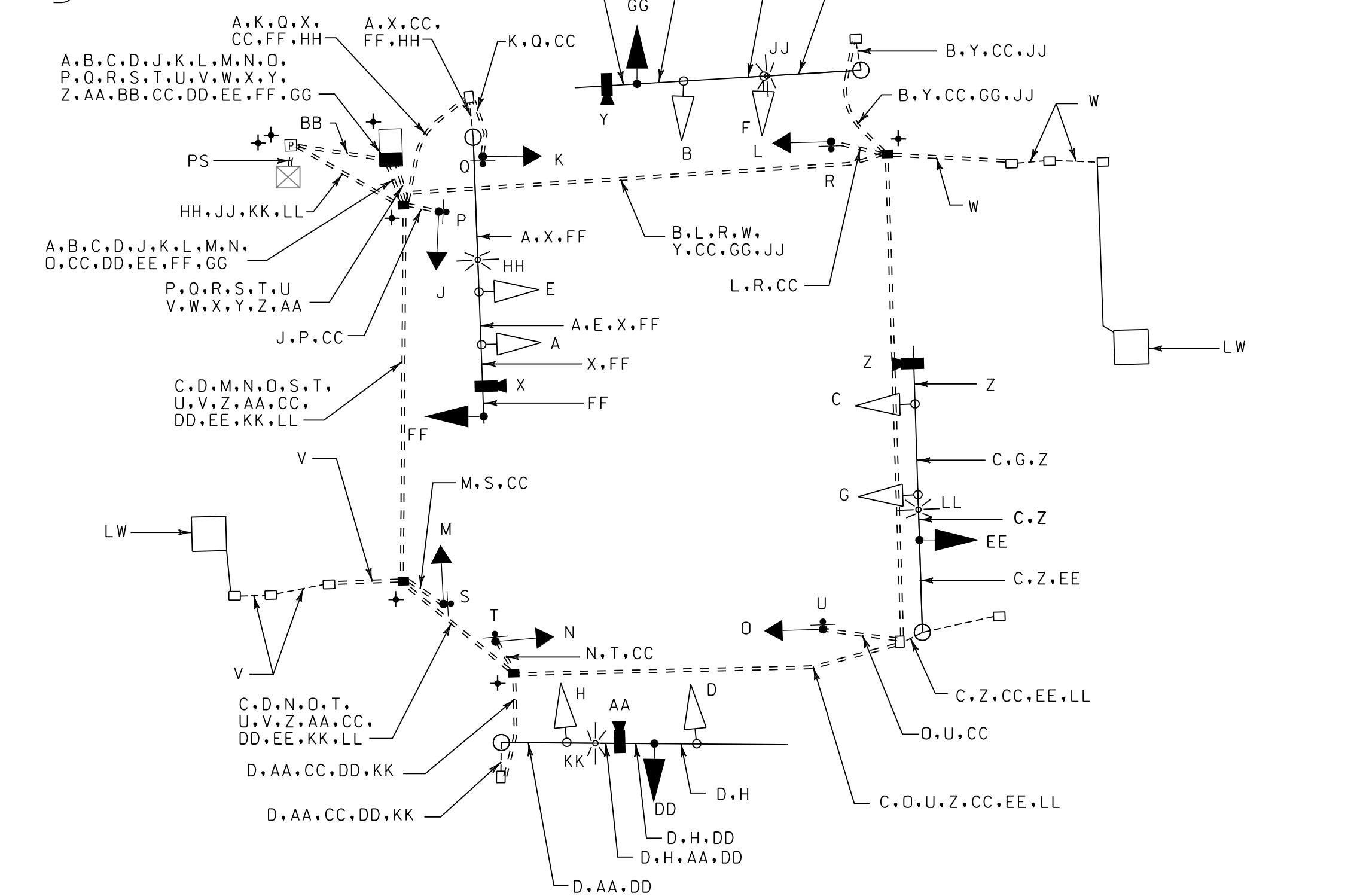
SHEET
47 OF 50

PHASE CHART



WIRING KEY:

- A DD: 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B EE: VIDEO CAMERA DETECTION LEAD-IN CABLE (AS PER MANUFACTURER SPECS)
- C FF: 1-CONDUCTOR (NO. 8 A.W.G.) (3 PIECES) FOR TRAFFIC SIGNAL ELECTRICAL SERVICE
- D GG: 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E KK: 3-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- F LL: (NO. 6 A.W.G.) BARE COPPER GROUND WIRE
- G MM: 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- H NN: 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) (NO. 14 A.W.G.)
- I OO: PROPOSED UNDERGROUND ELECTRICAL SERVICE BY BGE
- J PP: PROPOSED 3/4 IN. X 10 FT. GROUNDING ROD IN ALL CABINET, POWER PEDESTAL AND POLE BASES ONLY. USE BARE STRANDED COPPER WIRE #6 A.W.G.
- K QQ: LOOP DETECTOR WIRE (ENCASED)



EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY COUNTY		QUANTITY	UNIT	ITEM DESCRIPTION
1000	LF			VIDEO DETECTION CAMERA CABLE
4	EA			VIDEO DETECTION CAMERA (THERMAL SENSOR)
1	EA			VIDEO DETECTION PROCESSOR
6	EA			R10-3(1) SIGNS
2	EA			12 INCH, THREE SECTION LED (R,Y,G) SINGLE FACE TRAFFIC SIGNAL HEAD WITH MAST ARM MOUNTING HARDWARE AND TUNNEL VISORS
6	EA			12 INCH, FIVE SECTION SECTION LED (R,Y,G, YA, GA) SINGLE FACE TRAFFIC SIGNAL HEAD WITH MAST ARM MOUNTING HARDWARE AND TUNNEL VISORS
6	EA			16 INCH PEDESTRIAN SIGNAL HEAD
6	EA			PEDESTRIAN PUSHBUTTON STATION AND SIGN
1	EA			CONTROL CABINET, BASE OR POLE MOUNTED
1	EA			UPS CABINET, BASE MOUNTED
1	EA			CENTRAL CONTROL UNIT
1	EA			CELLULAR MODEM

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY CONTRACTOR		ITEM NO.	QUANTITY	UNIT	ITEM DESCRIPTION
		2001	2	CY	TEST PIT EXCAVATION
*		5001	388	LF	PERMANENT PREFORMED THERMOPLASTIC PAVEMENT LINE, 24 INCH WIDE, WHITE
*		5002	307	LF	PERMANENT PREFORMED THERMOPLASTIC PAVEMENT LINE, 12 INCH WIDE, WHITE
		8001	2.4	CY	CONCRETE FOUNDATION FOR CABINET
		8003	15	LF	1 INCH ELECTRICAL CONDUIT, GALVANIZED OR FLEXIBLE LIQUID TIGHT CONDUIT, DETECTOR WIRE SLEEVE
		8007	57	LF	2 INCH ELECTRICAL CONDUIT, PVC SCHEDULE 80, TRENCHED
		8010	91	LF	3 INCH ELECTRICAL CONDUIT, PVC SCHEDULE 80, TRENCHED
		8012	20	LF	4 INCH ELECTRICAL CONDUIT, PVC SCHEDULE 80, TRENCHED
		8014	305	LF	4 INCH ELECTRICAL CONDUIT, PVC SCHEDULE 80, PUSHED
		8016	1	EA	EMBEDDED METERED SERVICE PEDESTAL
		8018	7	EA	GROUND ROD, 3/4 INCH DIAMETER X 10 FOOT LENGTH WITH CLAMP
		8024	264	LF	LOOP WIRE, 14 AWG THWN IN 1/4 INCH FLEXIBLE TUBING
		8025	785	LF	INSTALL VIDEO DETECTION CAMERA CABLE
		8026	750	LF	ELECTRICAL CABLE, 2 CONDUCTOR, 14 AWG, ALUMINUM SHIELDED, LOOP LEAD IN WIRE
		8027	670	LF	ELECTRICAL CABLE, 2 CONDUCTOR, 14 AWG IMSA 19-1
		8029	758	LF	ELECTRICAL CABLE, 5 CONDUCTOR, 14 AWG IMSA 19-1
		8030	1525	LF	ELECTRICAL CABLE, 7 CONDUCTOR, 14 AWG IMSA 19-1
		8031	350	LF	ELECTRICAL CABLE, 3 CONDUCTOR, 12 AWG, COPPER TYPE TC
		8032	475	LF	ELECTRICAL CABLE, 1 CONDUCTOR, 6 AWG, STRANDED BARE COPPER
		8035	60	LF	ELECTRICAL CABLE, 1 CONDUCTOR, NO. 8 AWG THWN/THWN
		8039	1	EA	INSTALL OVERHEAD SIGN, 5 TO <25 SQUARE FEET.
		8067	6	EA	FURNISH AND INSTALL PEDESTAL POLE, ANY SIZE, WITH BREAKAWAY COUPLING BASE
		8078	16	EA	INSTALL SIGNAL HEAD
		8080	6	EA	INSTALL PEDESTRIAN SIGNAL HEAD
		8081	6	EA	INSTALL PEDESTRIAN PUSHBUTTON AND SIGN
		8082	4	EA	INSTALL MAST ARM MOUNTED VIDEO CAMERA DETECTOR WITH COUNTY SUPPLIED ASTRO BRACKET CLAMPS
		8086	1	EA	INSTALL CONTROL CABINET, BASE OR POLE MOUNTED
		8087	6	EA	ADJUST ELEVATION OF EXISTING HANDBOX, REPLACE FRAME AND COVER
		8088	4	EA	TRAFFIC SIGNAL HANDBOX (PULLBOX)
		8091	86	LF	SAW CUT 4 1/2 INCH DEPTH FOR LOOP DETECTOR
		8096	3	EA	REMOVE AND SALVAGE OF SIGNS LESS THAN 50 SQUARE FEET
		8104	1	CY	REMOVE FOUNDATION 12 INCHES BELOW GRADE
		8107	1	EA	REMOVE AND SALVAGE PEDESTAL POLE AND BREAKAWAY BASE
		8108	1	EA	REMOVE AND SALVAGE CABINET
		8109	3	EA	REMOVE SIGNAL HANDBOX
		8111	2	EA	REMOVE AND SALVAGE ANY SIGNAL HEAD

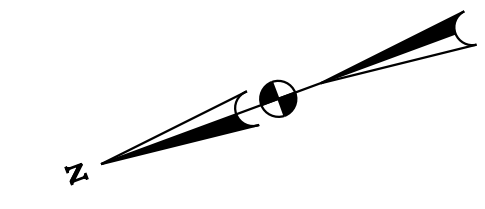
* PAVEMENT MARKING INCLUDED FOR TEMPORARY APPLICATION OR AS DIRECTED BY THE ENGINEER

C. EQUIPMENT TO BE RETURNED TO HOWARD COUNTY TRAFFIC

CONTRACTOR TO RETURN VIDEO DETECTION CAMERAS TO COUNTY

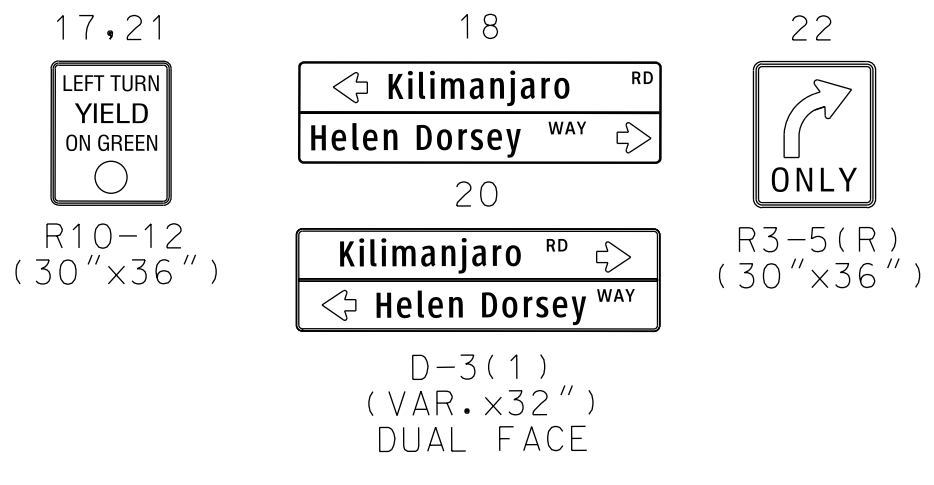
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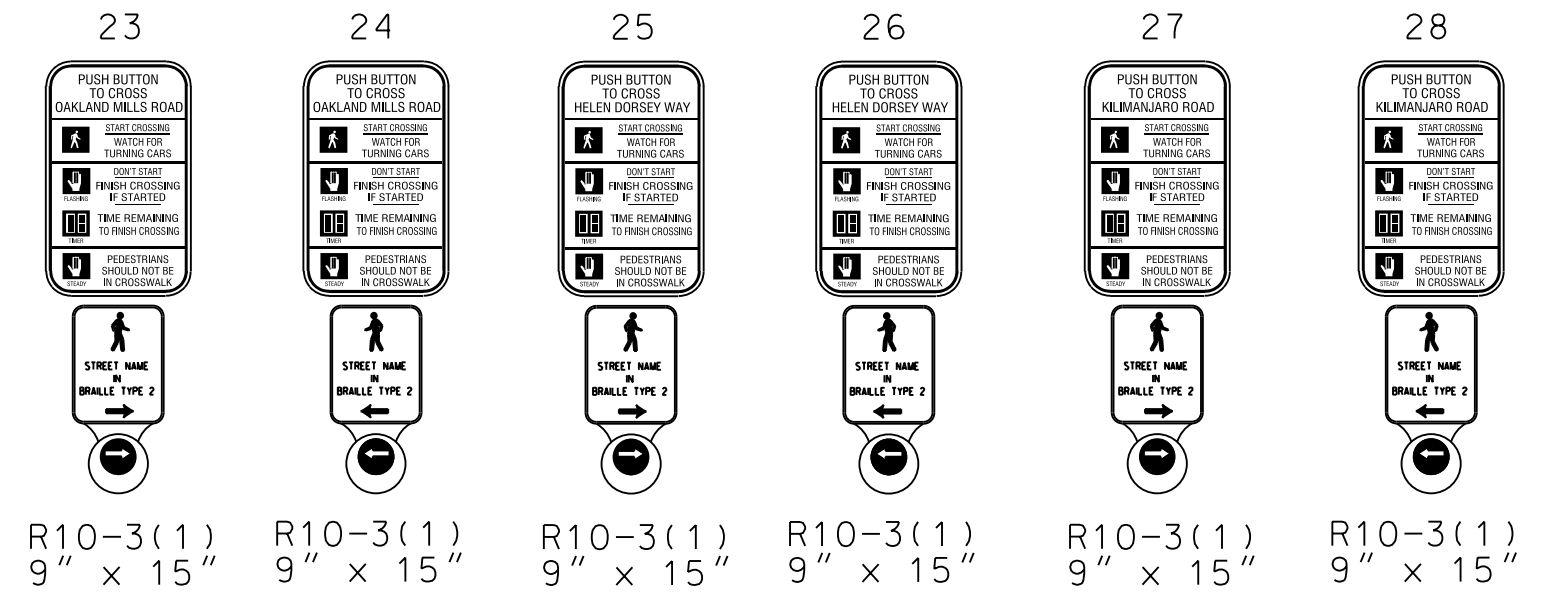


OAKLAND MILLS ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

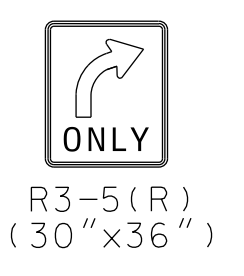
EXISTING SIGNS TO REMAIN



PROPOSED SIGNS



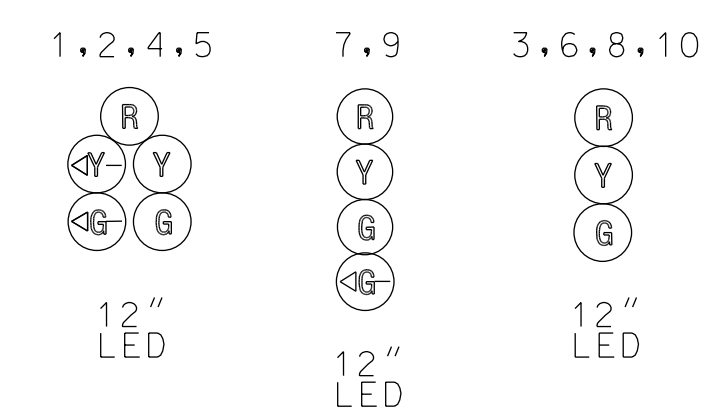
EXISTING SIGNS TO BE REMOVED



EXISTING SIGNS AND PUSHBUTTONS TO BE REMOVED



EXISTING SIGNALS



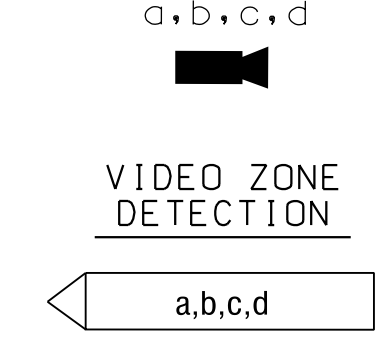
EXISTING SIGNALS TO BE REMOVED



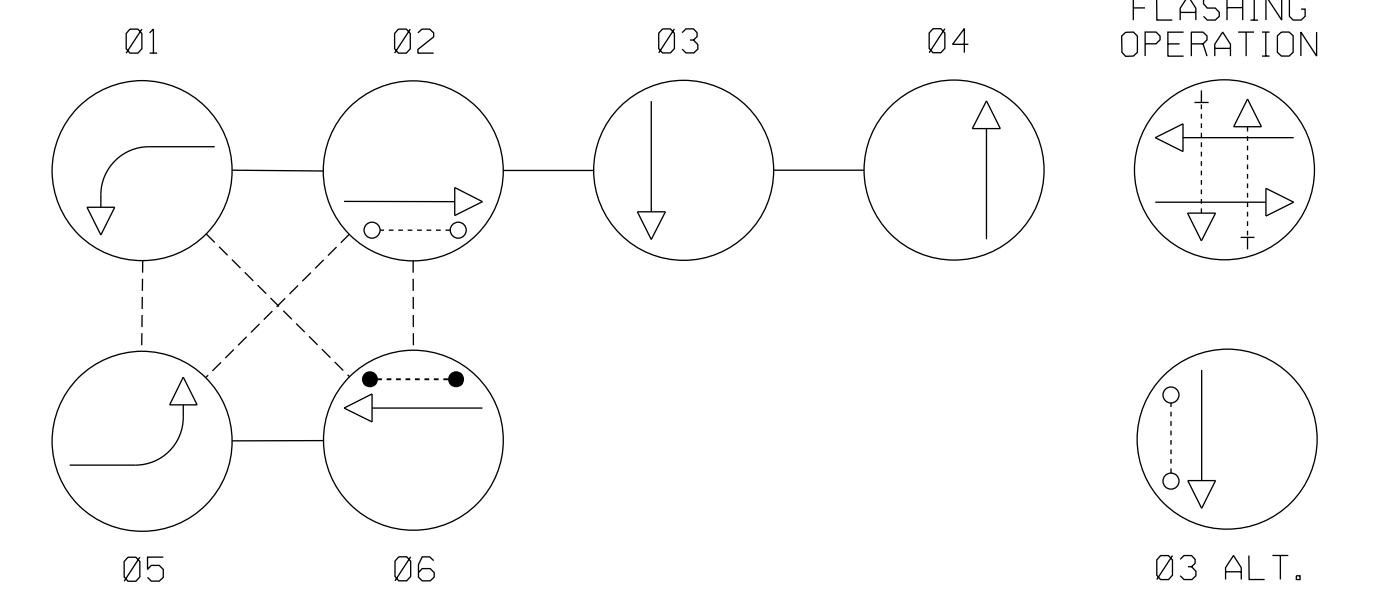
PROPOSED SIGNALS



PROPOSED VIDEO DETECTION CAMERA

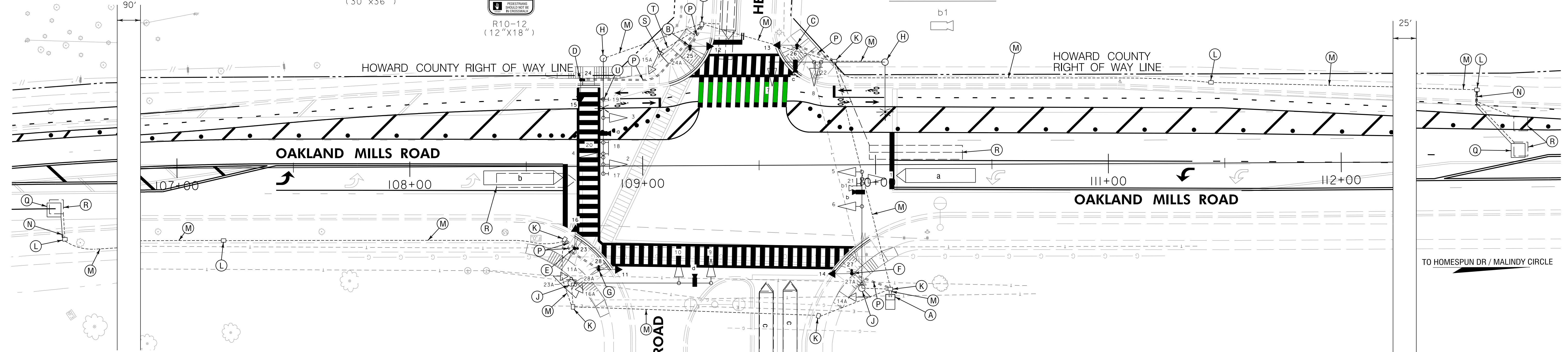


NEMA PHASING



NOTE: PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

TO OLD MONTGOMERY RD



CONSTRUCTION DETAILS

- A. USE EXISTING BASE MOUNTED CABINET AND CONTROLLER. INSTALL CENTRAL CONTROL UNIT.
B. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING...
C. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING...
D. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING...
E. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING...
F. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING...
G. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH BREAKAWAY COUPLING...

GENERAL NOTE

SEE GENERAL NOTES ON DWG. SG-09.

SPECIAL NOTE:

CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR THE INSTALLATION OF PAVEMENT MARKINGS WHICH MAY BE PHASED BY OTHERS DEPENDING ON TIMING OF FINAL INSTALLATION.

CONSTRUCTION DETAILS CONT.

- H. USE EXISTING MAST ARM POLE. INSTALL VIDEO DETECTION CAMERA MOUNTED ON MAST ARM AS SHOWN. REMOVE EXISTING LUMINAIRE AND REPLACE WITH 250 W. LED LUMINAIRE.
J. USE EXISTING MAST ARM POLE. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD AND PUSHBUTTON STATION AND SIGN. INSTALL VIDEO DETECTION CAMERA ON MAST ARM AS SHOWN.
K. USE EXISTING HANDBOX. (SEE GENERAL NOTE 19).
L. USE EXISTING HANDBOX. ADJUST TO FINAL GRADE AND REPLACE FRAME AND COVER. (SEE GENERAL NOTE 19).
M. USE EXISTING CONDUIT.
N. INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE CONDUIT. (FOR DETECTOR WIRE SLEEVE)
P. INSTALL 2 IN. ELECTRICAL CONDUIT, PVC SCHEDULE 80 CONDUIT, TRENCHED.
Q. INSTALL 6 FT. x 6 FT. (4-TURNS) LOOP DETECTOR ENCASED IN 1/4 IN. FLEXIBLE TUBING.
R. ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDBOXES, SIGNAL STRUCTURES AND CONTROLLER.
S. REMOVE EXISTING PEDESTAL POLE AND ALL ASSOCIATED EQUIPMENT AND FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
T. CAP AND ABANDON EXISTING CONDUIT.
U. REMOVE EXISTING OVERHEAD SIGN.

Table with two legends: GEOMETRIC LEGEND (EXISTING, PROPOSED) and UTILITY LEGEND (SD, G, W, S, E, A, T, F).

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. 27048, EXPIRATION DATE: 01-28-2024.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS, CHIEF, BUREAU OF ENGINEERING, CHIEF, BUREAU OF HIGHWAYS, CHIEF, TRAFFIC ENGINEERING DIVISION

WRA logo and contact information for Whitman, Reardon & Associates, LLP.

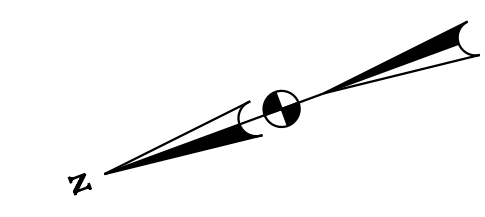
Table with columns: DES, DRN, CHK, DATE, BY, NO., REVISION, DATE.

TRAFFIC SIGNAL PLAN OAKLAND MILLS ROAD AT KILIMANJARO ROAD/HELEN DORSEY WAY

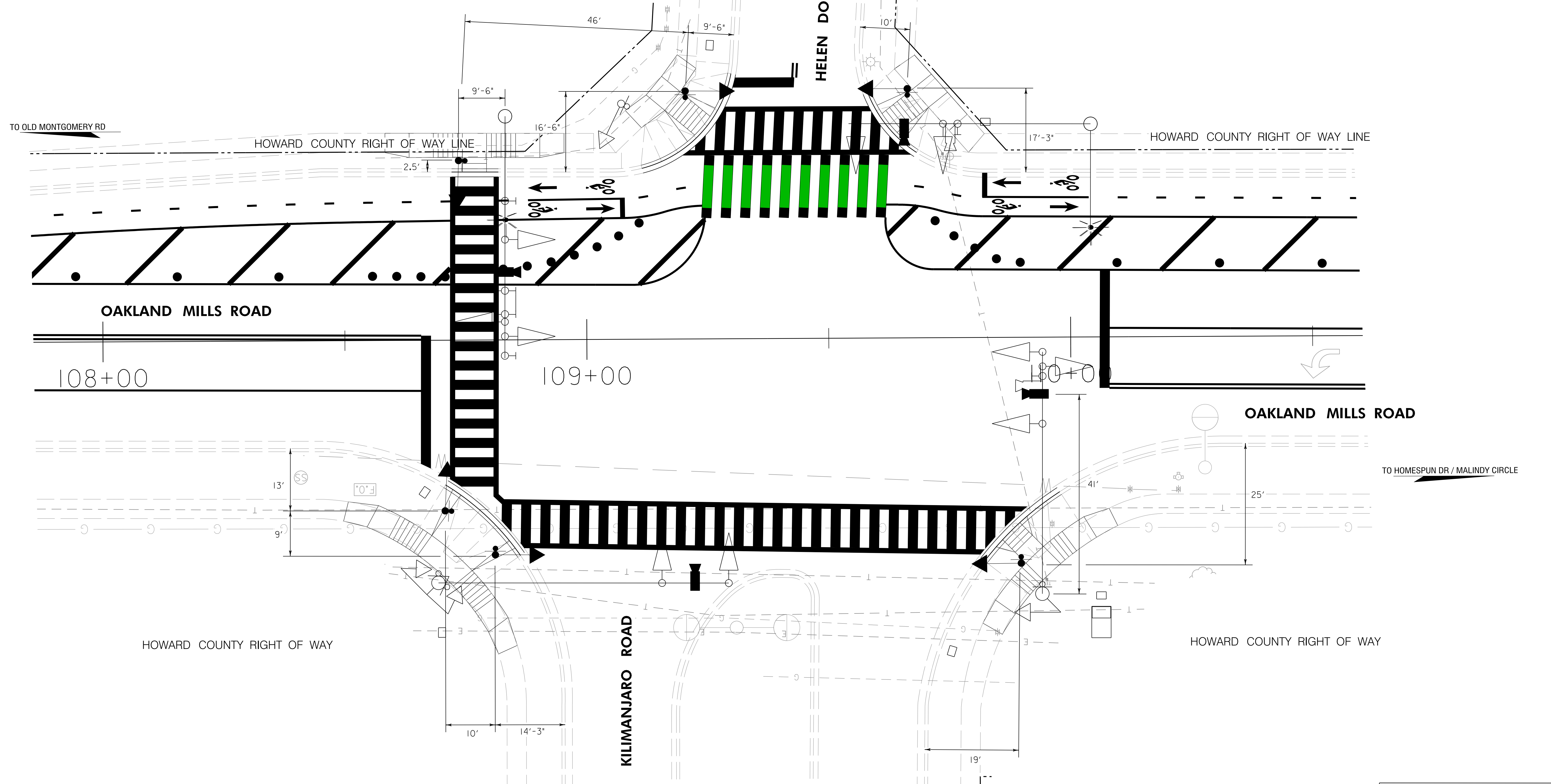
CAPITAL PROJECT CONTRACT NO. K5066 OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND

DWG. SG-07, SCALE 1" = 20', SHEET 48 OF 50



OAKLAND MILLS ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION



GEOMETRIC LEGEND	
	EXISTING
	PROPOSED
UTILITY LEGEND	
	SD STORM DRAIN
	G GAS MAIN
	W WATER MAIN
	S SEWER MAIN
	E ELECTRIC CABLES
	A AERIAL CABLES
	T TELEPHONE CABLES
	F FIBER-OPTIC

"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. 27048, EXPIRATION DATE: 01-28-2024."

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND.

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF ENGINEERING _____ DATE _____

CHIEF, BUREAU OF HIGHWAYS _____ DATE _____
CHIEF, TRAFFIC ENGINEERING DIVISION _____ DATE _____

PREPARED BY :

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231

DES:	BRD				
DRN:	BRD				
CHK:	JMM				
DATE:	5/22	BY	NO.	REVISION	DATE

TRAFFIC SIGNAL DETAIL PLAN
OAKLAND MILLS ROAD AT
KILIMANJARO ROAD/HELEN DORSEY WAY

600' SCALE MAP NO. _____ BLOCK NO. _____

CAPITAL PROJECT CONTRACT NO. K5066
OAKLAND MILLS COMPLETE STREETS PROJECT

ELECTION DISTRICT 6
HOWARD COUNTY, MARYLAND

DWG. SG-08
SCALE 1" = 10'
SHEET 49 OF 50

BY: rmasd
PLOTTED: June 08, 2022
FILE: N:\32189-009\CADD\pSG-N003_32189009_DETAIL.dgn

