

11/25/2014 4:42:45 PM G:\PROJECTS\03517.00 IDELDOT AGMT 1223 DOT5 SR1,LITTLE HEAVEN FINAL DESIGN\DN Files\Sign_Detail01h.dgn

PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE		COLOR		BORDER		ARROW	SHIELD	REMARKS
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH			
C-1 C-2	531 547	2		23.75	114"	30"	W	G	2"	6"		FONT: 16" HIGHWAY GOTHIC ARROW: 18.2" X 29.2" @ 45 DEGREES
BM-1	519	1		23.75	114"	30"	W	G	2"	6"		FONT: 16" HIGHWAY GOTHIC
R-1	519	1		23.75	114"	30"	W	G	2"	6"		FONT: 16" HIGHWAY GOTHIC 36" X 36" SHIELD
C-3	523	1		23.75	114"	30"	W	G	2"	6"		FONT: 16" HIGHWAY GOTHIC 36" X 36" SHIELD

PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE		COLOR		BORDER		ARROW	SHIELD	REMARKS
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH			
GM-2 GM-12	521 549	2		23.75	114"	30"	W	G	2"	6"		FONT: 16" HIGHWAY GOTHIC
GM-3	522	1		44	132"	48"	W	G	2"	6"		FONT: 8" HIGHWAY GOTHIC
GM-4	523	1		25.5	102"	36"	W	G	2"	6"		FONT: 8" HIGHWAY GOTHIC
GM-5	524	1		87.5	150"	84"	W	Br	2"	9"		24" X 24" SHIELD FONT: 8" HIGHWAY GOTHIC • DELDOT TO SUPPLY PLACARD (24" X 24")

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PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE		COLOR		BORDER		ARROW	SHIELD	REMARKS
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH			
GM-6 GM-11	524 549	2		23.75	114"	30"	W	G	2"	6"		FONT: 16" HIGHWAY GOTHIC
GM-7	527	1		23.75	114"	30"	W	G	2"	6"		FONT: 16" HIGHWAY GOTHIC
GM-8	527	1		23.75	114"	30"	W	G	2"	6"		36" X 36" SHIELD FONT: 16" HIGHWAY GOTHIC
GM-9 GM-10	531 547	2		30	72"	60"	W	G	2"	6"	I	FONT: 16" HIGHWAY GOTHIC ARROW: 18.2" X 29.2" @ 60 DEGREES

PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE		COLOR		BORDER		ARROW	SHIELD	REMARKS
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH			
GM-13	549	1		25.5	102"	36"	W	G	2"	6"		FONT: 8" HIGHWAY GOTHIC
GM-1	521	1		38.25	102"	54"	W	G	2"	6"	3	FONT: 8" HIGHWAY GOTHIC
GG-1	527	1		22.75	78"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC
GG-2	534	1		24.5	84"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC

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PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE			COLOR		BORDER		SHIELD	REMARKS
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH	RADIUS		
GG-3	534	2		28	84"	48"	W	G	2"	6"	2	FONT: 6" HIGHWAY GOTHIC
GG-4	535	1		24.5	84"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC
GG-5	535	1		12.5	60"	30"	W	G	2"	6"	2	FONT: 6" HIGHWAY GOTHIC
GG-6	535	1		24.5	84"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC

PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE			COLOR		BORDER		SHIELD	REMARKS
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH	RADIUS		
GG-7	535	1		24.5	84"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC
GG-8	535	1		16.25	78"	30"	W	G	2"	6"	2	FONT: 6" HIGHWAY GOTHIC
GG-9	535	1		28	84"	48"	W	G	2"	6"	2	FONT: 6" HIGHWAY GOTHIC - TO BE PLACED ON MAST ARM
GG-10	536	1		19.25	66"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC

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PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE		COLOR		BORDER		ARROW	SHIELD	REMARKS
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH			
GG-II	536	1		9.75	78"	18"	W	G	2"	6"		FONT: 6" HIGHWAY GOTHIC
GG-12	547	1		22.75	78"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC
GG-13	551	1		12.5	60"	30"	W	G	2"	6"	2	FONT: 6" HIGHWAY GOTHIC
GG-14	552	1		22.75	78"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC

PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE		COLOR		BORDER		ARROW	SHIELD	REMARKS
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH			
GG-15	552	1		8.25	66"	18"	W	G	1"	3"	1	FONT: 6" HIGHWAY GOTHIC ARROW: 6" X 9.7" @ 90 DEGREES
GG-16	553	1		8.25	66"	18"	W	G	1"	3"		FONT: 6" HIGHWAY GOTHIC
GG-17	555	1		24.5	84"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC
GG-18	559	1		22.75	78"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC

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PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE		COLOR		BORDER		SHIELD	REMARKS	
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH			RADIUS
GG-19	561	1		22.75	78"	42"	W	G	2"	6"	3	FONT: 6" HIGHWAY GOTHIC
GG-20	519	1		22.75"	78"	42"	W	BR	2"	6"	3	FONT: 6" HIGHWAY GOTHIC
GG-21	522	1		22.75"	78"	42"	W	BR	2"	6"	3	FONT: 6" HIGHWAY GOTHIC
GM-14	525											EXISTING SIGN TO BE RELOCATED

PANEL DESIGNATION	SHEET NO.	QUANTITY	LEGEND	SIZE		COLOR		BORDER		SHIELD	REMARKS
				AREA (S.F.)	WIDTH	HEIGHT	LEGEND	BCKGRND	WIDTH		

POST SELECTION TABLE - TWO POSTS

W (FT)	L _B (FT)	HEIGHT "H" (FT)												
		4	5	6	7	8	9	10	11	12	13	14	15	
6	6	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x12	
	8	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	
	10	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	
	12	W6x9	W6x9	W6x12	W6x12	W6x12	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W6x15	
	14	W6x9	W6x12	W6x12	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W6x15	W6x15	W8x18	
	16	W6x12	W6x12	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	
8	6	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x12	W6x15	W6x15	
	8	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	
	10	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W6x15	W8x18	
	12	W6x9	W6x9	W6x12	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	
	14	W6x12	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W6x15	W6x15	W8x21	W8x21	W8x21	
	16	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W6x15	W6x15	W6x15	W8x21	W8x21	W8x21	
10	6	W6x9	W6x9	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x12	W6x15	W6x15	W6x15	
	8	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x18	
	10	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x18	
	12	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W8x21	
	14	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W8x21	W8x21	W10x26	
	16	W6x12	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W8x21	W10x26	W10x26	W10x26	W10x26	
12	6	W6x9	W6x9	W6x9	W6x9	W6x12	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	
	8	W6x9	W6x9	W6x12	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x18	W10x22	
	10	W6x9	W6x9	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x21	W8x21	W8x21	W10x26	
	12	W6x9	W6x12	W6x15	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W8x21	W10x26	W10x26	
	14	W6x12	W6x15	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W10x26	
	16	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	
14	6	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W8x18	W8x18	W10x22	
	8	W6x9	W6x12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W10x22	W10x22	W12x26	W12x26	
	10	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W12x26	W12x26	
	12	W6x12	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	
	14	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
	16	W6x15	W6x15	W8x21	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
16	6	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W8x18	W8x18	W12x26	W14x30	
	8	W6x9	W6x12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W10x22	W10x22	W12x26	W14x30	
	10	W6x9	W6x12	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	
	12	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	
	14	W6x12	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	
	16	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
18	6	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W10x22	W10x22	W12x26	
	8	W6x9	W6x12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W10x22	W10x22	W12x26	W14x30	
	10	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	
	12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	W14x30	
	14	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
	16	W6x15	W6x15	W8x21	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
20	6	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x21	W10x22	W12x26	W14x30	
	8	W6x9	W6x12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W10x22	W10x22	W12x26	W14x30	
	10	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	
	12	W6x12	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
	14	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
	16	W6x15	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	W14x30	W14x30	

POST SELECTION TABLE - THREE POSTS

W (FT)	L _B (FT)	HEIGHT "H" (FT)												
		4	5	6	7	8	9	10	11	12	13	14	15	
22	6	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W6x15	W8x18	W8x18	W10x22	
	8	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x21	W10x26	W10x26	
	10	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x21	W10x26	W10x26	W12x26	
	12	W6x12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W8x21	W8x21	W10x26	W10x26	W12x26	
	14	W6x12	W6x15	W6x15	W6x15	W8x21	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	
	16	W6x15	W6x15	W6x15	W8x21	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	
24	6	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W10x22	W10x26	
	8	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x21	W10x26	W10x26	
	10	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x21	W10x26	W10x26	W12x26	
	12	W6x12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W8x21	W8x21	W10x26	W10x26	W12x26	
	14	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	
	16	W6x15	W6x15	W8x21	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
26	6	W6x9	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W10x22	W10x26	
	8	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x21	W10x26	W10x26	
	10	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x21	W10x26	W10x26	W12x26	
	12	W6x12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W8x21	W8x21	W10x26	W10x26	W12x26	
	14	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	
	16	W6x15	W6x15	W8x21	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
28	6	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x18	W10x22	W12x26	
	8	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x18	W8x18	W10x22	W14x30	
	10	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	
	12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	
	14	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
	16	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	W14x30	
30	6	W6x9	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x18	W10x22	W12x26	
	8	W6x9	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x18	W8x18	W10x22	W10x22	W12x26	
	10	W6x12	W6x12	W6x15	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	
	12	W6x12	W6x15	W6x15	W8x18	W8x18	W8x21	W8x21	W8x21	W10x26	W10x26	W12x26	W14x30	
	14	W6x15	W6x15	W8x18	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	
	16	W6x15	W8x21	W8x21	W10x26	W10x26	W10x26	W12x26	W14x30	W14x30	W14x30	W14x30	W14x30	

GENERAL NOTES FOR SELECTION OF SIGN SUPPORT POSTS

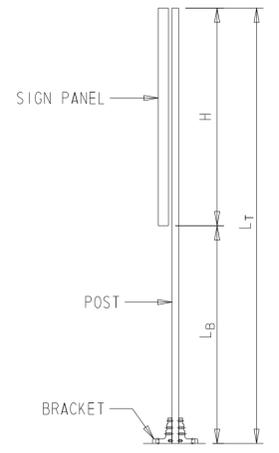
1. DETERMINE VALUES OF "W", "H", AND "L_B" AS INDICATED IN SKETCHES "A" OR "B".
W = MAXIMUM WIDTH OF SIGN PANEL.
H = MAXIMUM HEIGHT OF SIGN PANEL.
L_B = MAXIMUM DISTANCE BETWEEN TOP OF FOOTING AND BOTTOM OF SIGN PANEL.
2. FOR SELECTION OF POSTS, ENTER TABLES WITH VALUES OF "W", "H" AND "L_B".
3. FOR A SIZE BETWEEN THOSE VALUES OF "W", "H" AND "L_B" IN THE TABLE, ROUND UP TO NEXT HIGHEST FT.
4. ALL POSTS ARE ASTM A992, GRADE 50 STEEL.
5. USE THE LONGEST POST TO SELECT ALL THE POST SIZES.
6. NO MORE THAN 2 POSTS MAY BE ERECTED WITHIN ANY 7-FT PATH. THE TOTAL COMBINED WEIGHT OF ALL POSTS WITHIN A 7-FT PATH SHALL NOT EXCEED 45 LBS/FT. THE TOTAL COMBINED WEIGHT OF ALL POSTS WITHIN A 7-FT PATH SHALL NOT EXCEED 600 LBS. BELOW THE POST HINGE. THE "PATH" SHALL BE MEASURED AS THE CLEAR DISTANCE BETWEEN POST FLANGES.
7. ALL L_B DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR. INCIDENTAL TO ALL GROUND MOUNT ITEMS.
8. ALL SIGN POSTS SHALL BE BREAKWAY REGARDLESS OF TRAFFIC BARRIER PROTECTION PRESENCE.
9. DESIGN CRITERIA, 2009 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
DESIGN WIND SPEED: 100 MPH
DESIGN ICE LOAD: 3 PSF
DESIGN LIFE: 10 YEARS

POST SELECTION EXAMPLE

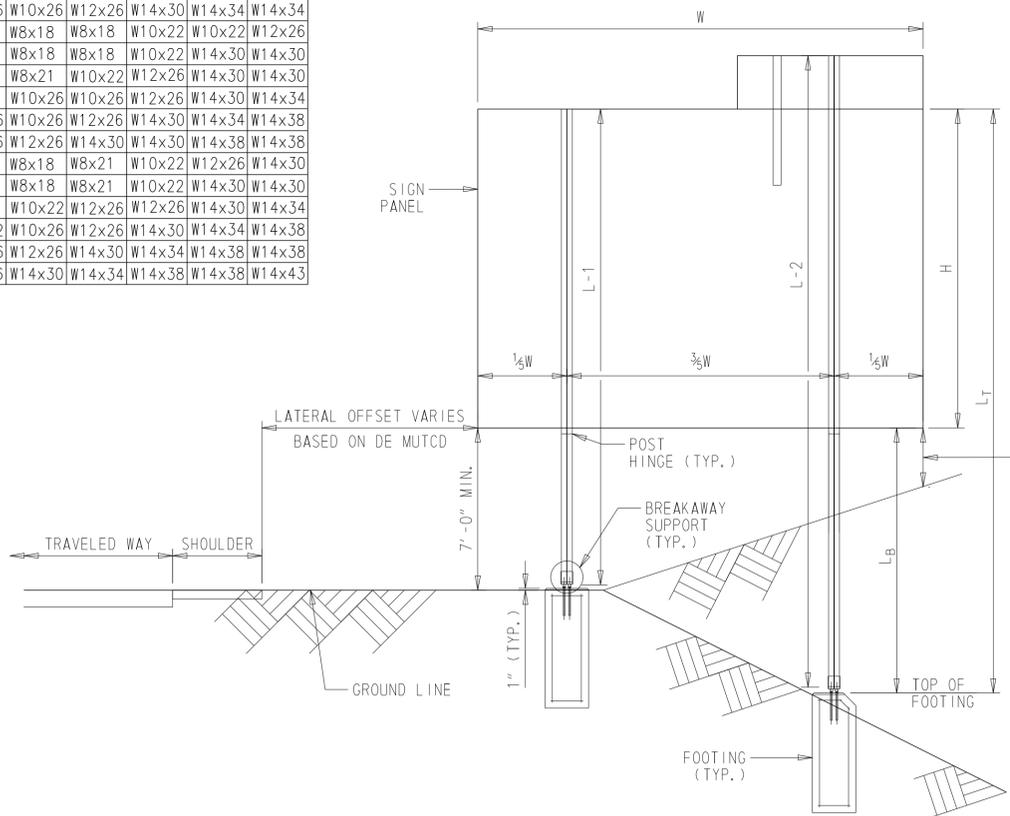
FOR A SIGN WHERE:
W = 14'-0"
H = 10'-0"
L_B = 8'-0"

TWO W6x15, ASTM GRADE 50 STEEL POSTS ARE REQUIRED.

NOTE: ONE-POST SYSTEMS ARE ALLOWED BUT ARE NOT INCLUDED IN THE DESIGN OF THIS STANDARD. CONTACT PROJECT ENGINEER TO OBTAIN GUIDANCE. ONE-POST SYSTEMS DO NOT REQUIRE A POST HINGE.

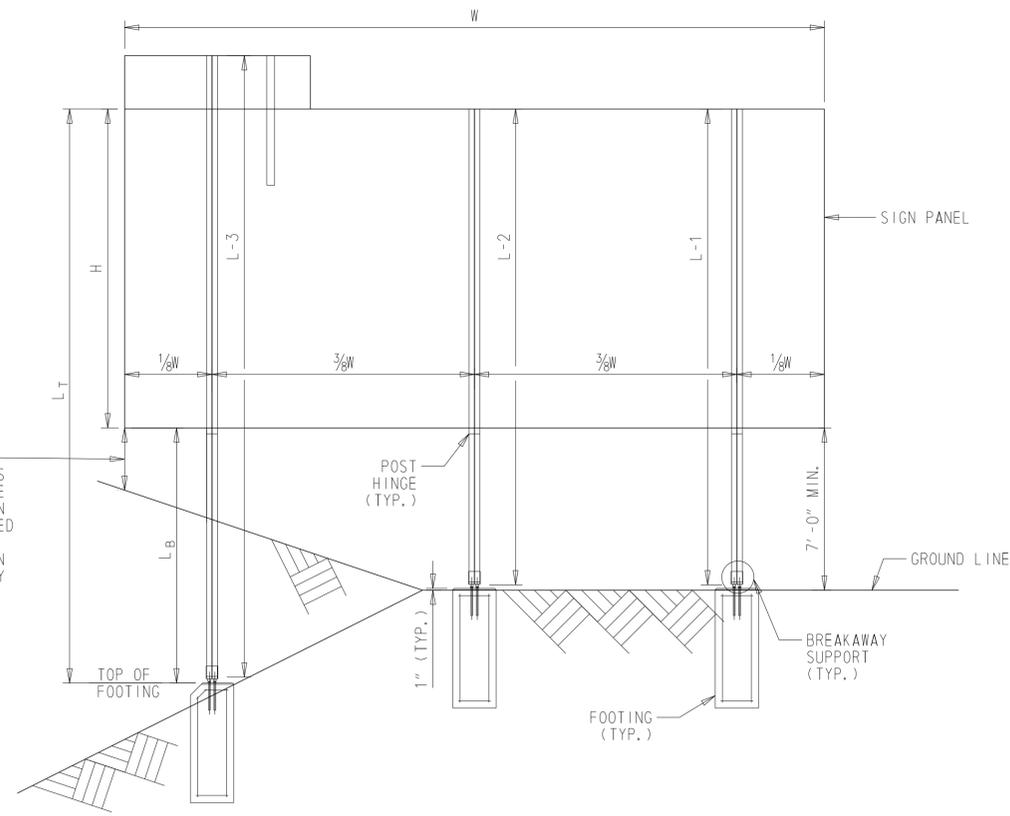


SIGN ELEVATION
N. T. S.

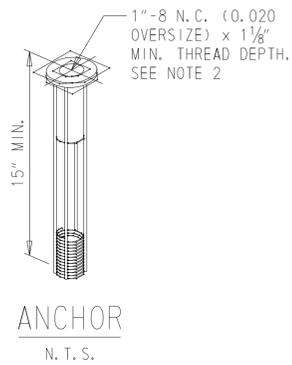


SIGN ON TWO POSTS TYPICAL SECTION
SKETCH A
N. T. S.

3'-0" MIN. EXCEPT 1'-0" MIN. AT LOCATIONS WHERE NO PART OF THE SIGN FACE WILL BE OBTAINED BY VEGETATION AND WHERE THE SIGN IS PROTECTED BY GUARDRAIL OR LOCATED WHERE IT IS UNLIKELY TO BE HIT BY AN ERRANT VEHICLE, E.G. ON A VERY STEEP BANK.



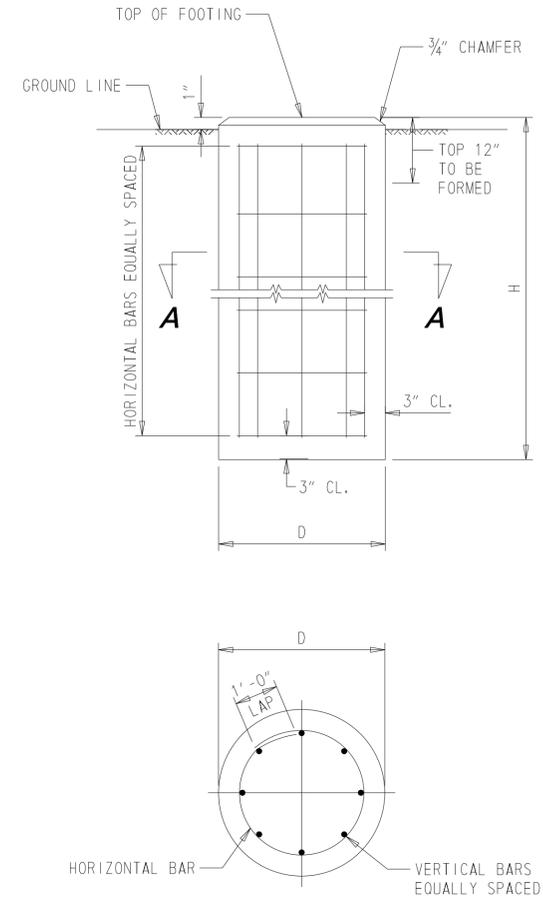
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ANCHOR
N. T. S.

NOTES:

1. ENTER FOUNDATION DATA TABLE WITH REQUIRED POST SIZE AND FIND REQUIRED FOOTING VALUES AS SHOWN IN DETAILS.
2. ANCHOR SHALL BE ASTM F1554 STAINLESS STEEL WITH AISI 1045 STEEL ROD AND AISI 1008 COIL.
3. FORM THE TOP ONE FOOT OF THE FOOTING.
4. USE CLASS B CONCRETE FOR ALL FOOTINGS.
5. EXACT DIMENSIONS OF ANCHOR SPACING SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. APPROXIMATE DIMENSIONS OF ANCHOR SPACING ARE AS FOLLOWS:
 "A" (LATERAL SPACING OF ANCHORS):
 3" FOR B-525 USED ON W6 AND W8 POSTS
 4" FOR B-650 USED ON W10, W12 AND W14 POSTS
 "B" (LONGITUDINAL SPACING OF ANCHORS):
 BRACKET #1 - DEPTH OF POST SELECTION PLUS 7⁵/₁₆"
 BRACKET #2 - DEPTH OF POST SELECTION PLUS 8⁷/₁₆"
 BRACKET #3 - DEPTH OF POST SELECTION PLUS 8¹/₁₆"
 "A" AND "B" CAN BE FOUND ON SHEET 3.
6. TO INSURE PROPER SPACING AND ALIGNMENT OF ANCHORS, ALL ANCHORS SHALL BE HELD IN PLACE BY A RIGID MACHINED TEMPLATE WHILE THE CONCRETE IS PLACED AND CURED.
7. ALL SIGN POSTS SHALL BE BREAKAWAY REGARDLESS OF TRAFFIC BARRIER PROTECTION PRESENCE.



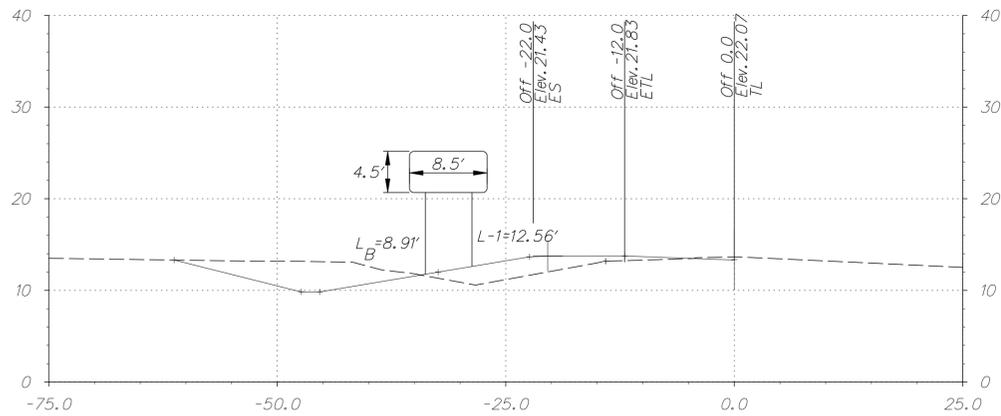
POST SIZE	D	H	VERT. BARS	HORIZ. BARS	QUANTITIES	
					CLASS B CONC.	REINFORCING STEEL
W6x9	30"	6'-0"	8-#7	7-#4	1.09 C. Y.	124 LBS.
W6x12	30"	7'-6"	8-#9	8-#4	1.36 C. Y.	232 LBS.
W6x15	30"	7'-6"	8-#9	8-#4	1.36 C. Y.	232 LBS.
W8x18	30"	7'-6"	8-#9	8-#4	1.36 C. Y.	232 LBS.
W8x21	30"	8'-0"	8-#9	9-#4	1.45 C. Y.	250 LBS.
W8x31	30"	10'-0"	8-#9	11-#4	1.82 C. Y.	311 LBS.
W10x22	36"	8'-6"	8-#10	9-#4	2.23 C. Y.	294 LBS.
W10x26	36"	9'-0"	8-#10	10-#4	2.36 C. Y.	355 LBS.
W12x26	36"	10'-0"	8-#10	11-#4	2.62 C. Y.	395 LBS.
W14x30	36"	11'-0"	8-#10	12-#4	2.88 C. Y.	435 LBS.
W14x34	36"	12'-6"	8-#10	13-#4	3.27 C. Y.	489 LBS.
W14x38	36"	14'-0"	8-#10	15-#4	3.67 C. Y.	552 LBS.

GROUND MOUNTED SIGN FOUNDATION
N. T. S.

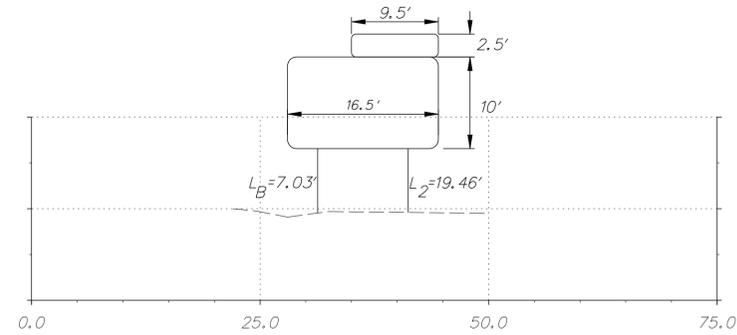
GROUND MOUNT SIGN REQUIREMENTS

G.M. SIGN NO.	SHEET NO.	SUPPORT TYPE	BW OR NBW	SUPPORT L-1	SUPPORT L-2	SUPPORT L-3	LATERAL CLEARANCE CODE	POST SPACING	L _B	SIGN PANEL	
										WIDTH	HEIGHT
GM-1	521	W6X9	BW	12'-6"	13'-5"	N/A	3	5'-1"	8'-11"	8'-6"	4'-6"
GM-2	521	W6X15	BW	17'-1"	19'-6"	N/A	3	9'-11"	7'-1"	16'-6"	10'-0"

CLEARANCE CODE
 1. - 4' BEHIND FACE OF GUARDRAIL
 2. - CENTERED AT TIP OF SOIL GORE, LOCATED BETWEEN ROADWAY AND EXIT RAMP
 3. - 6' FROM EDGE OF SHOULDER



GM-1, PROPOSED OLD BEACH ROAD STA. 510+00



GM-2, SR 1 NB EXISTING CENTERLINE STA. 2523+37

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ADDENDUMS / REVISIONS

**SR1, LITTLE HEAVEN
GRADE SEPARATED INTERSECTION**

CONTRACT	BRIDGE NO.	-
T200412202	DESIGNED BY:	SFP
COUNTY	CHECKED BY:	WFC
KENT		

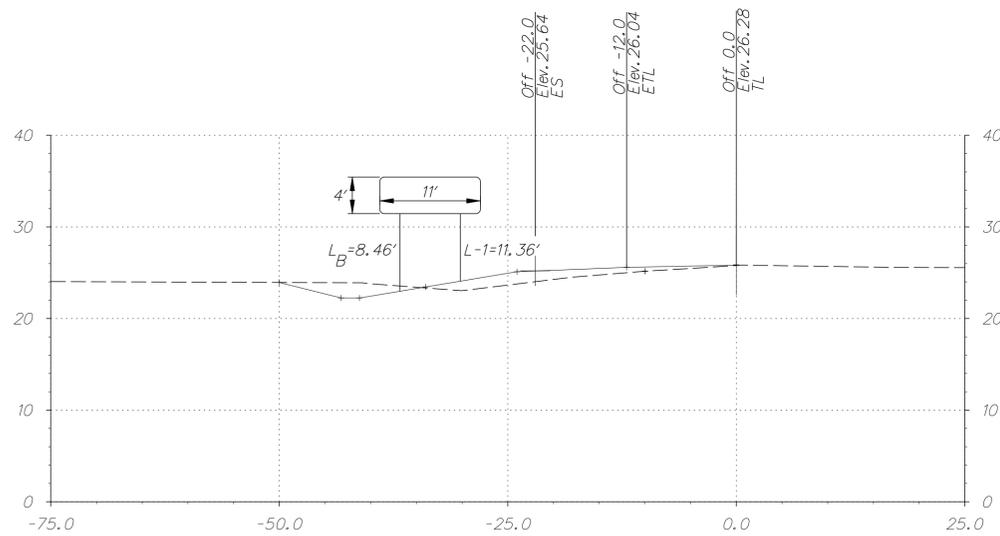
GROUND MOUNT DETAILS

SHEET NO.	575
TOTAL SHTS.	641

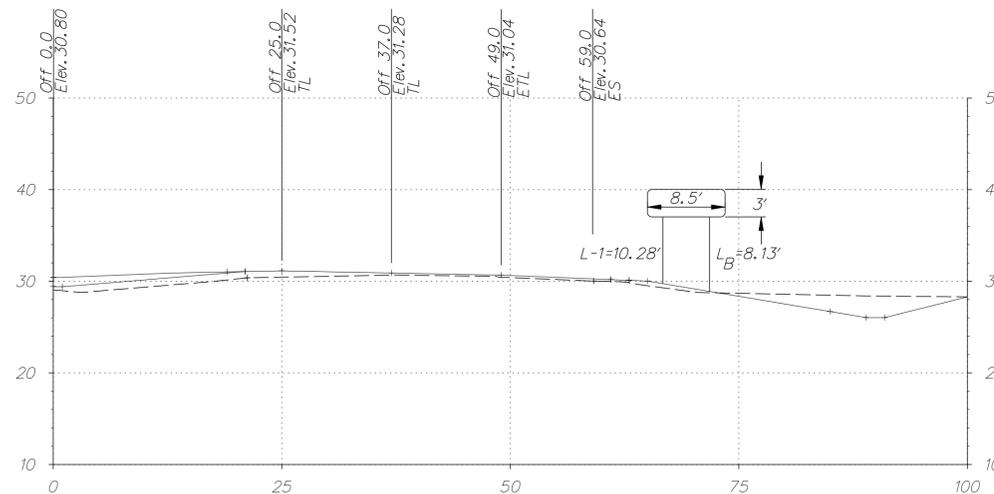
GROUND MOUNT SIGN REQUIREMENTS

G.M. SIGN NO.	SHEET NO.	SUPPORT TYPE	BW OR NBW	SUPPORT L-1	SUPPORT L-2	SUPPORT L-3	LATERAL CLEARANCE CODE	POST SPACING	L _B	SIGN PANEL	
										WIDTH	HEIGHT
GM-3	522	W6X9	BW	11'-4"	12'-5"	N/A	3	6'-7"	8'-5"	11'-0"	4'-0"
GM-4	523	W6X9	BW	10'-3"	11'-1"	N/A	3	5'-1"	8'-1"	8'-6"	3'-0"

CLEARANCE CODE
 1. - 4' BEHIND FACE OF GUARDRAIL
 2. - CENTERED AT TIP OF SOIL GORE, LOCATED BETWEEN ROADWAY AND EXIT RAMP
 3. - 6' FROM EDGE OF SHOULDER



GM-3, PROPOSED OLD BEACH ROAD STA. 518+99



GM-4, PROPOSED SR 1 CENTERLINE STA. 107+08

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ADDENDUMS / REVISIONS

**SR1, LITTLE HEAVEN
GRADE SEPARATED INTERSECTION**

CONTRACT	BRIDGE NO.	-
T200412202	DESIGNED BY:	SFP
COUNTY	CHECKED BY:	WFC
KENT		

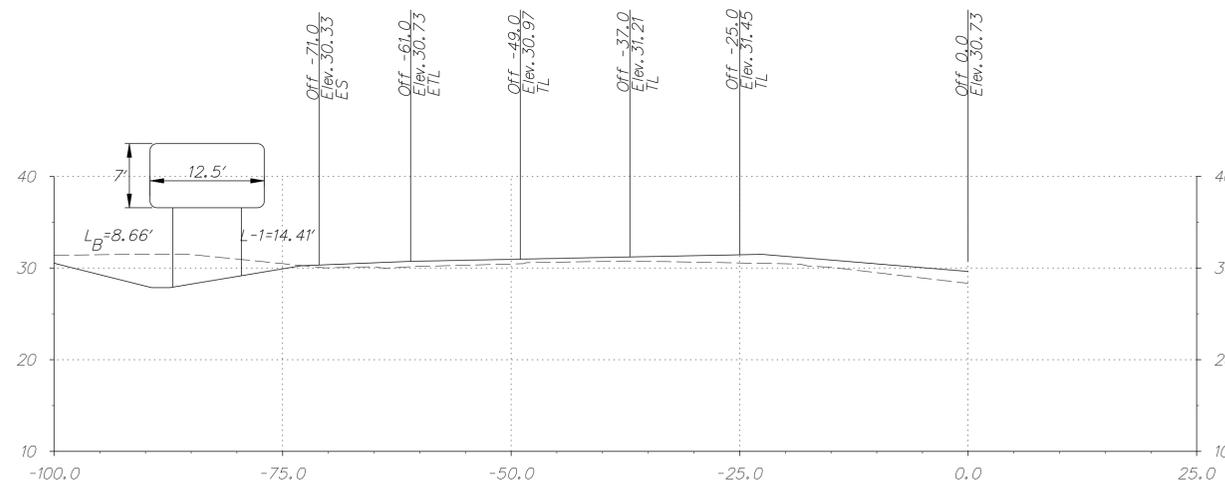
GROUND MOUNT DETAILS

SHEET NO.	576
TOTAL SHTS.	641

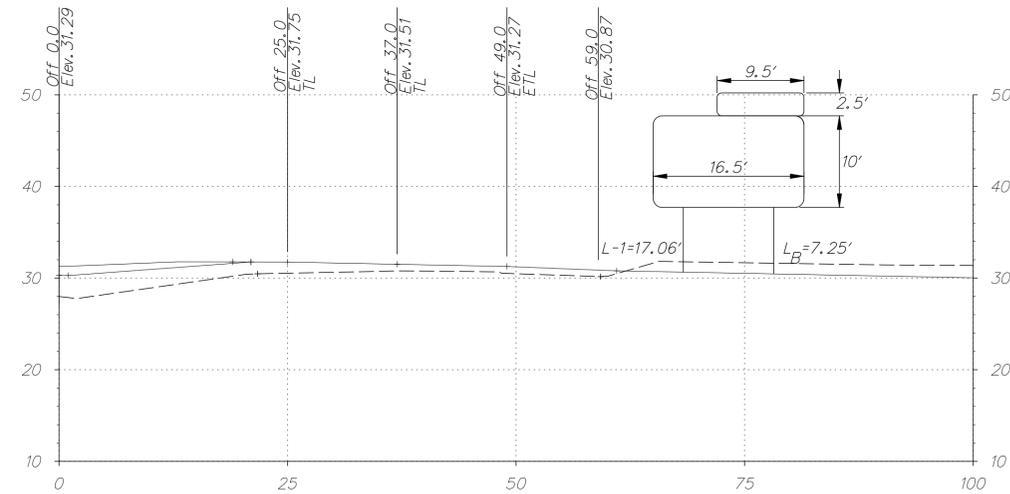
GROUND MOUNT SIGN REQUIREMENTS

G.M. SIGN NO.	SHEET NO.	SUPPORT TYPE	BW OR NBW	SUPPORT L-1	SUPPORT L-2	SUPPORT L-3	LATERAL CLEARANCE CODE	POST SPACING	L _B	SIGN PANEL	
										WIDTH	HEIGHT
GM-5	524	W6X12	BW	14'-5"	15'-8"	N/A	3	7'-6"	8'-8"	12'-6"	7'-0"
GM-6	524	W6X15	BW	17'-1"	19'-9"	N/A	3	9'-11"	7'-3"	16'-6"	10'-0"

CLEARANCE CODE
 1. - 4' BEHIND FACE OF GUARDRAIL
 2. - CENTERED AT TIP OF SOIL GORE, LOCATED BETWEEN ROADWAY AND EXIT RAMP
 3. - 6' FROM EDGE OF SHOULDER



GM-5, PROPOSED SR 1 CENTERLINE STA. 108+94



GM-6, PROPOSED SR 1 CENTERLINE STA. 110+54

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ADDENDUMS / REVISIONS

**SR1, LITTLE HEAVEN
GRADE SEPARATED INTERSECTION**

CONTRACT	BRIDGE NO.	-
T200412202	DESIGNED BY:	SFP
COUNTY	CHECKED BY:	WFC
KENT		

GROUND MOUNT DETAILS

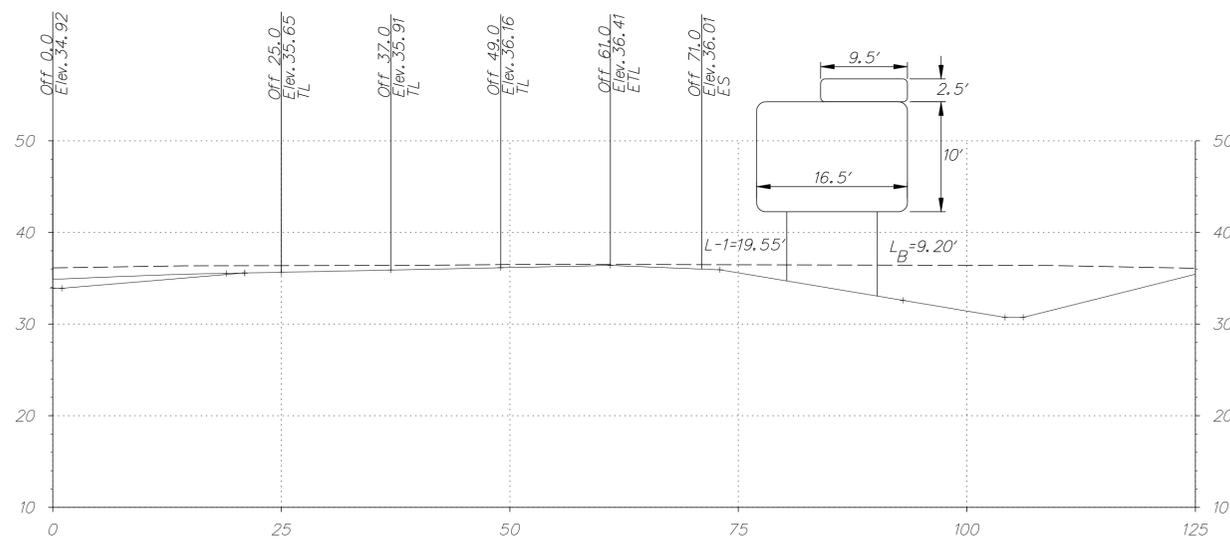
SHEET NO.	577
TOTAL SHTS.	641

GROUND MOUNT SIGN REQUIREMENTS

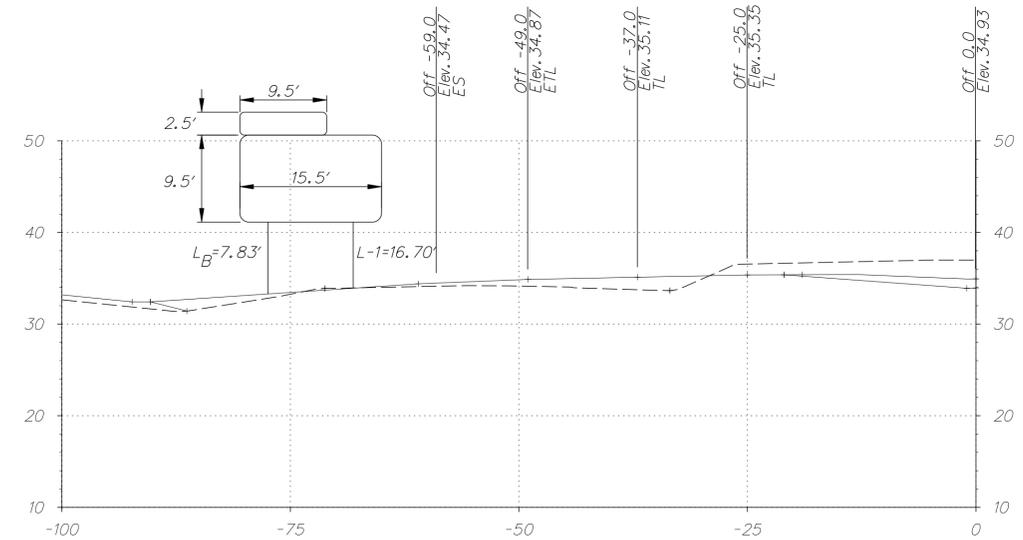
G.M. SIGN NO.	SHEET NO.	SUPPORT TYPE	BW OR NBW	SUPPORT L-1	SUPPORT L-2	SUPPORT L-3	LATERAL CLEARANCE CODE	POST SPACING	L _B	SIGN PANEL	
										WIDTH	HEIGHT
GM-7	527	W8X21	BW	19'-7"	21'-2"	N/A	3	9'-11"	9'-2"	16'-6"	10'-0"
GM-8	527	W6X15	BW	16'-8"	19'-10"	N/A	3	9'-4"	7'-10"	15'-6"	9'-6"

CLEARANCE CODE

1. - 4' BEHIND FACE OF GUARDRAIL
2. - CENTERED AT TIP OF SOIL GORE, LOCATED BETWEEN ROADWAY AND EXIT RAMP
3. - 6' FROM EDGE OF SHOULDER



GM-7, PROPOSED SR 1 CENTERLINE STA. 124+51



GM-8, PROPOSED SR 1 CENTERLINE STA. 125+39

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ADDENDUMS / REVISIONS

**SR1, LITTLE HEAVEN
GRADE SEPARATED INTERSECTION**

CONTRACT	BRIDGE NO.	-
T200412202	DESIGNED BY:	SFP
COUNTY	CHECKED BY:	WFC
KENT		

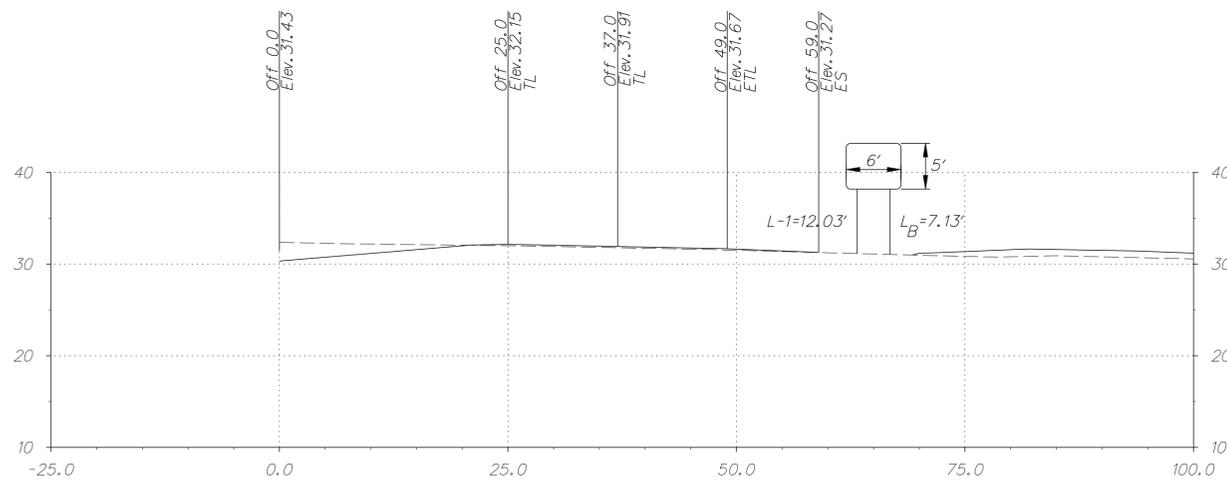
GROUND MOUNT DETAILS

SHEET NO.	578
TOTAL SHTS.	641

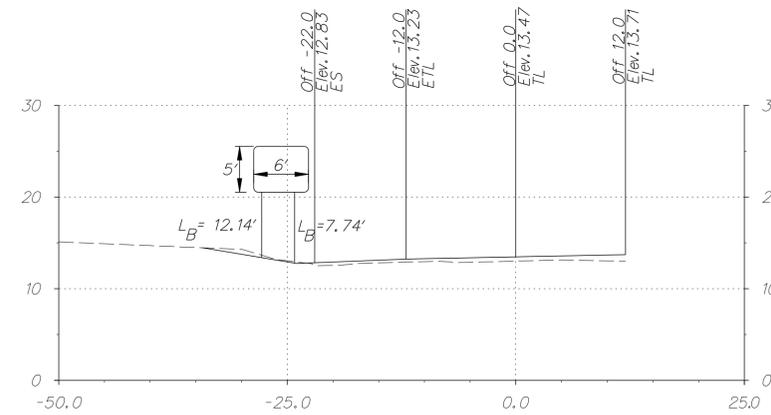
GROUND MOUNT SIGN REQUIREMENTS

G.M. SIGN NO.	SHEET NO.	SUPPORT TYPE	BW OR NBW	SUPPORT L-1	SUPPORT L-2	SUPPORT L-3	LATERAL CLEARANCE CODE	POST SPACING	L _B	SIGN PANEL	
										WIDTH	HEIGHT
GM-9	531	W6X9	BW	12'-1"	12'-2"	N/A	2	3'-7"	7'-2"	6'-0"	5'-0"
GM-10	547	W6X9	BW	12'-9"	12'-2"	N/A	2	3'-7"	7'-9"	6'-0"	5'-0"

- CLEARANCE CODE**
 1. - 4' BEHIND FACE OF GUARDRAIL
 2. - CENTERED AT TIP OF SOIL GORE, LOCATED BETWEEN ROADWAY AND EXIT RAMP
 3. - 6' FROM EDGE OF SHOULDER



GM-9, PROPOSED SR 1 CENTERLINE STA. 140+50



GM-10, PROPOSED SR 1 SB CENTERLINE STA. 323+19

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ADDENDUMS / REVISIONS

**SR1, LITTLE HEAVEN
 GRADE SEPARATED INTERSECTION**

CONTRACT	BRIDGE NO.	-
T200412202	DESIGNED BY:	SFP
COUNTY	CHECKED BY:	WFC
KENT		

GROUND MOUNT DETAILS

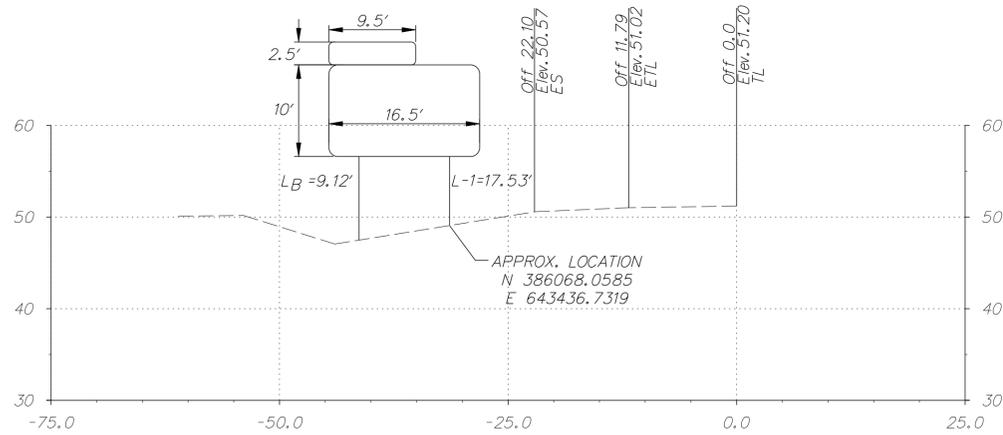
SHEET NO.	579
TOTAL SHTS.	641

GROUND MOUNT SIGN REQUIREMENTS

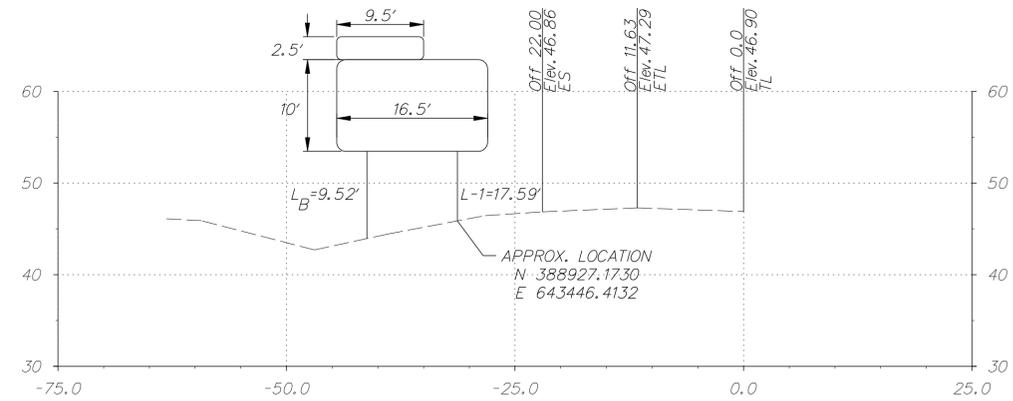
G.M. SIGN NO.	SHEET NO.	SUPPORT TYPE	BW OR NBW	SUPPORT L-1	SUPPORT L-2	SUPPORT L-3	LATERAL CLEARANCE CODE	POST SPACING	L _B	SIGN PANEL	
										WIDTH	HEIGHT
GM-11	549	W8X21	BW	17'-6"	21'-7"	N/A	3	9'-11"	9'-1"	16'-6"	10'-0"
GM-12	549	W8X21	BW	17'-7"	22'-0"	N/A	3	9'-11"	9'-6"	16'-6"	10'-0"

CLEARANCE CODE

1. - 4' BEHIND FACE OF GUARDRAIL
2. - CENTERED AT TIP OF SOIL GORE, LOCATED BETWEEN ROADWAY AND EXIT RAMP
3. - 6' FROM EDGE OF SHOULDER



GM-11, PROPOSED SR 1 CENTERLINE STA. 350+90



GM-12, PROPOSED SR 1 CENTERLINE STA. 377+30

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ADDENDUMS / REVISIONS

**SR1, LITTLE HEAVEN
GRADE SEPARATED INTERSECTION**

CONTRACT	BRIDGE NO.	-
T200412202	DESIGNED BY:	SFP
COUNTY	CHECKED BY:	WFC
KENT		

GROUND MOUNT DETAILS

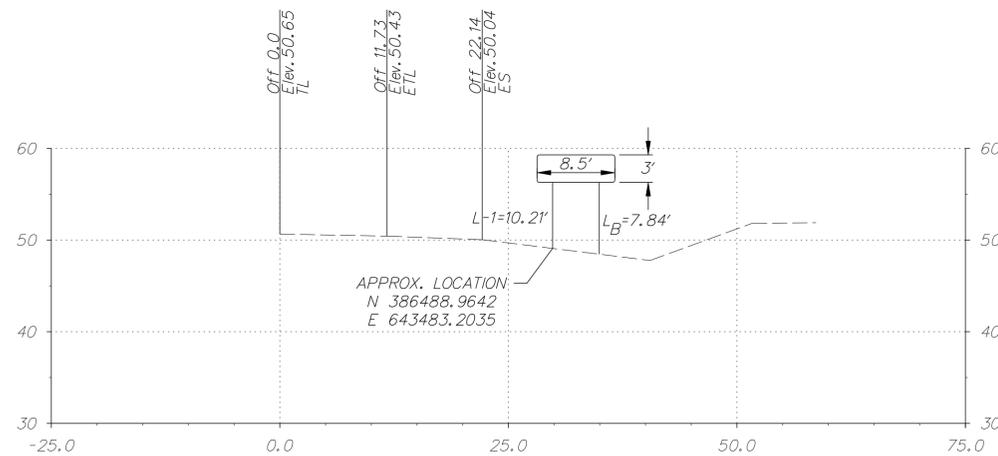
SHEET NO.	580
TOTAL SHTS.	641

GROUND MOUNT SIGN REQUIREMENTS

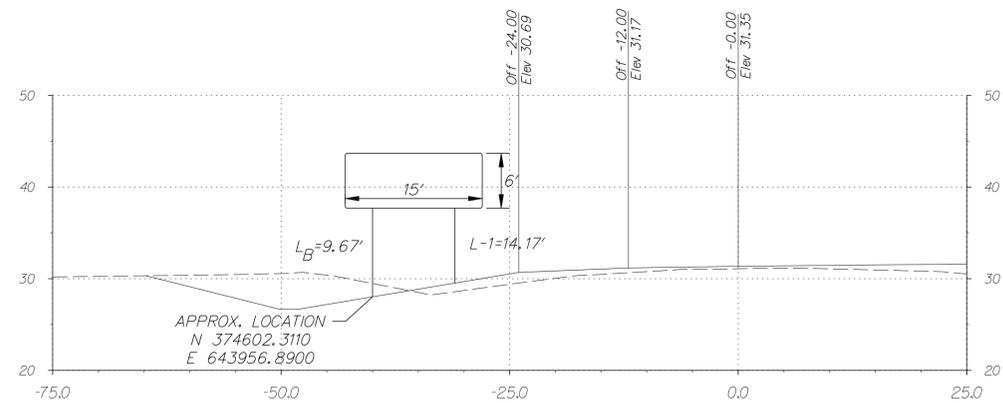
G.M. SIGN NO.	SHEET NO.	SUPPORT TYPE	BW OR NBW	SUPPORT L-1	SUPPORT L-2	SUPPORT L-3	LATERAL CLEARANCE CODE	POST SPACING	L _B	SIGN PANEL	
										WIDTH	HEIGHT
GM-13	549	W6X9	BW	10'-3"	10'-10"	N/A	3	5'-1"	7'-10"	8'-6"	3'-0"
GM-14	525	W6X12	BW	14'-2"	15'-8"	N/A	3	9'-0"	9'-8"	15'-0"	6'-0"

CLEARANCE CODE

1. - 4' BEHIND FACE OF GUARDRAIL
2. - CENTERED AT TIP OF SOIL GORE, LOCATED BETWEEN ROADWAY AND EXIT RAMP
3. - 6' FROM EDGE OF SHOULDER



GM-13, EXISTING SR 1 NB CENTERLINE STA. 2050+50



GM-14, EXISTING SR 1 SB CENTERLINE STA. 539+50

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ADDENDUMS / REVISIONS

**SR1, LITTLE HEAVEN
GRADE SEPARATED INTERSECTION**

CONTRACT	BRIDGE NO.	-
T200412202	DESIGNED BY:	SFP
COUNTY	CHECKED BY:	WFC
KENT		

GROUND MOUNT DETAILS

SHEET NO.	581
TOTAL SHTS.	641

A. DESIGN CRITERIA

DESIGN SPECIFICATIONS

2007 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION WITH 2008 & 2009 INTERIM REVISIONS.

2009 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS.

DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AUGUST 2001, INCLUDING ALL SUPPLEMENTS.

DESIGN LOADS

DESIGN WIND VELOCITY..... 100 MPH
 DESIGN ICE LOAD..... 3 PSF
 FLAT PANEL SIGN AREAS WERE INCREASED 15% FOR ANALYSIS. ACTUAL AREAS OF VMS BOARDS WERE USED.

FATIGUE LOADS

ALL STRUCTURAL DETAILS HAVE BEEN DESIGNED FOR FATIGUE CATEGORY I IMPORTANCE FACTOR VALUE OF 1.0 AS DESIGNATED IN THE ABOVE AASHTO SPECIFICATIONS.
 SIGN STRUCTURES WERE DESIGNED FOR THE FOLLOWING FATIGUE DESIGN LOADS:
 GALLOPING (CANTILEVER STRUCTURES ONLY), TRUCK INDUCED GUST, AND NATURAL WIND GUST.

CONCRETE DESIGN STRESS

SPECIFIED COMPRESSIVE STRENGTH (f'c)(CLASS B).... 3,000 PSI
 EXTREME FIBER COMPRESSIVE STRESS (f'c)..... 1,200 PSI
 MIX REQUIREMENTS SHALL CONFORM TO SECTION 812 OF THE SPECIFICATIONS.
 ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UTILIZE ANY APPROVED CONCRETE ADDITIVES OR HEATING TECHNIQUES TO MAINTAIN THE PROPER TEMPERATURE FOR ANY CONCRETE POURED DURING COLD WEATHER.
 PAYMENT SHALL BE INCIDENTAL TO THE RESPECTIVE CONCRETE BID ITEM.

BAR REINFORCEMENT

REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60. ALL REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2", UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL REINFORCING STEEL SHALL BE PROTECTED WITH FUSION BONDED EPOXY. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO AASHTO M284 (ASTM D3963), AND IS DENOTED WITH A SUFFIX 'E' IN THE BAR MARKS.

FOUNDATIONS

FOUNDATIONS SHALL BE DRILLED SHAFTS IN SOIL AND/OR ROCK. CANTILEVERED SIGN STRUCTURES SHALL HAVE A 4'-6" DIAMETER. OVERHEAD SIGN STRUCTURES SHALL HAVE A 4'-0" DIAMETER.

CAMBER

PERMANENT CAMBER EQUAL TO L/1000 HAS BEEN PROVIDED IN ADDITION TO THE DEAD LOAD CAMBER. CAMBER NOT APPLIED TO BUTTERFLY CANTILEVERED STRUCTURES.

B. MATERIALS

I. STEEL

STEEL PIPE SHALL BE CERTIFIED BY MILL TEST REPORT TO MEET ASTM SPECIFICATION A53, TYPE S, GRADE B OR A500 GRADE B WITH THE EXCEPTION THAT AP15L, GRADE B MAY BE USED WHEN THE SPECIFIED WALL THICKNESS IS GREATER THAN 1/2". ONLY ELECTRICAL RESISTANCE WELDED (ERW) MANUFACTURED SINGLE SHAM PIPE IS PERMITTED. HOWEVER, WHEN THE REQUIRED PIPE SIZE IS GREATER THAN 24", DOUBLE SEAM PIPE MAY BE USED. A MILL TEST REPORT MUST BE PROVIDED, CERTIFIED AND SIGNED BY THE PIPE MANUFACTURER, CONTAINING PHYSICAL AND CHEMICAL PROPERTIES AND THE MANUFACTURING PROCESS USED TO PRODUCE THE PIPE.

ALL OTHER STEEL SHALL CONFORM TO ASTM SPECIFICATION A709 (AASHTO M270) GRADE 36 OR BETTER. ALL SPECIFIED STEEL PLATES SHALL MEET SUPPLEMENTARY REQUIREMENTS FOR NOTCH TOUGHNESS (CHARPY TESTING, ZONE #2).

UPON COMPLETION OF FABRICATION, THE FABRICATOR SHALL PROVIDE A NOTARIZED CERTIFICATION OF COMPLIANCE AS PER SPECIFICATIONS, INCLUDING A LEGIBLE COPY OF ALL MILL TEST REPORTS FOR MATERIALS INCORPORATED INTO THE WORK.

STEEL ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM SPECIFICATION F1554, GRADE 55. THE ANCHOR BOLTS SHALL BE HOT DIP GALVANIZED AS PER ASTM SPECIFICATION A153 (AASHTO M232), CLASS C.

CHORD SPLICE ASSEMBLY FASTENERS SHALL BE HIGH STRENGTH STEEL CONFORMING TO ASTM SPECIFICATION A325 AND SHALL BE HOT DIPPED GALVANIZED AS PER ASTM SPECIFICATION A153, CLASS C. ALL OTHER FASTENERS SHALL BE STAINLESS STEEL CONFORMING TO ASTM SPECIFICATION A320, GRADE B8, CLASS 1.

CAPS FOR THE ENDS OF CHORDS AND TOPS OF POSTS SHALL BE STEEL CONFORMING TO ASTM SPECIFICATION A709 (AASHTO M270) GRADE 36 OR BETTER AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM SPECIFICATION A123.

WELDING OF STEEL SHALL BE AS SPECIFIED IN THE CONSTRUCTION SPECIFICATIONS.

AFTER COMPLETE FABRICATION, EACH STEEL SECTION SHALL BE HOT DIP GALVANIZED ACCORDING TO THE REQUIREMENTS OF ASTM A123. A SINGLE DIP GALVANIZING PROCESS IS PREFERRED IF SIZE PERMITS.

REFER TO THE DELDOT STANDARD SPECIFICATIONS FOR CRITERIA ON FURNISHING MATERIALS OTHER THAN SPECIFIED ABOVE.

II. ALUMINUM

ALUMINUM SHALL CONFORM TO THE ASTM SPECIFICATIONS AND ALLOYS LISTED BELOW:

APPLICATION	ASTM SPECIFICATION	ASTM ALLOY
ROLLED OR EXTRUDED SHAPES	B308	6061-T6
PLATES	B209	6061-T6
DRAWN SEAMLESS TUBES	B210	6061-T6
EXTRUDED TUBES	B221	6061-T6

WELDING OF ALUMINUM SHALL BE AS SPECIFIED IN AWS D1.2, CURRENT EDITION AND SPECIFICATIONS

THE SIGN PANEL SHALL BE INSTALLED LEVEL AND VERTICALLY CENTERED BETWEEN CHORDS. THE CONTRACTOR MAY FIELD DRILL THE SIGN SUPPORTS AS REQUIRED TO ACHIEVE THIS.

III. SIGN PANEL SUPPORTS

SIGN HANGERS SHALL BE STEEL OR ALUMINUM. THE STEEL SHALL CONFORM TO ASTM A709 GRADE 36 OR BETTER AND SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM SPECIFICATION A123. STEEL SURFACES SHALL BE PREVENTED FROM COMING INTO CONTACT WITH ALUMINUM SURFACES BY MEANS OF APPROVED PADS PLACED BETWEEN DISSIMILAR METALS. CONNECTING U BOLTS SHALL BE STAINLESS STEEL CONFORMING TO THE SPECIFICATIONS. SIGN HANGERS SHALL BE PAID UNDER ITEM 605664.

IV. MISCELLANEOUS MATERIALS

ALL COST OF MISCELLANEOUS MATERIALS USED OTHER THAN NOTED SHALL BE INCLUDED IN THE PRICE FOR THE APPROPRIATE SIGN STRUCTURE ITEM AT NO ADDITIONAL COST TO THE DEPARTMENT.

C. MISCELLANEOUS

WORKING DRAWINGS FOR FOUNDATIONS, STRUCTURAL STEEL AND SIGN ATTACHMENTS SHALL BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 105.02 OF THE STANDARD SPECIFICATIONS.

SIGN STRUCTURES SHALL BE SHOP-ASSEMBLED TO ENSURE PROPER FIT OF SPLICE BOLTS IN THE FIELD.

ALL WELDING SHALL BE SUBJECTED TO NON-DESTRUCTIVE TESTING IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND THE ANSI/AASHTO/AWS D1.5-08 BRIDGE WELDING CODE. WELDS IN MAIN MEMBERS SHALL BE ULTRASONICALLY INSPECTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

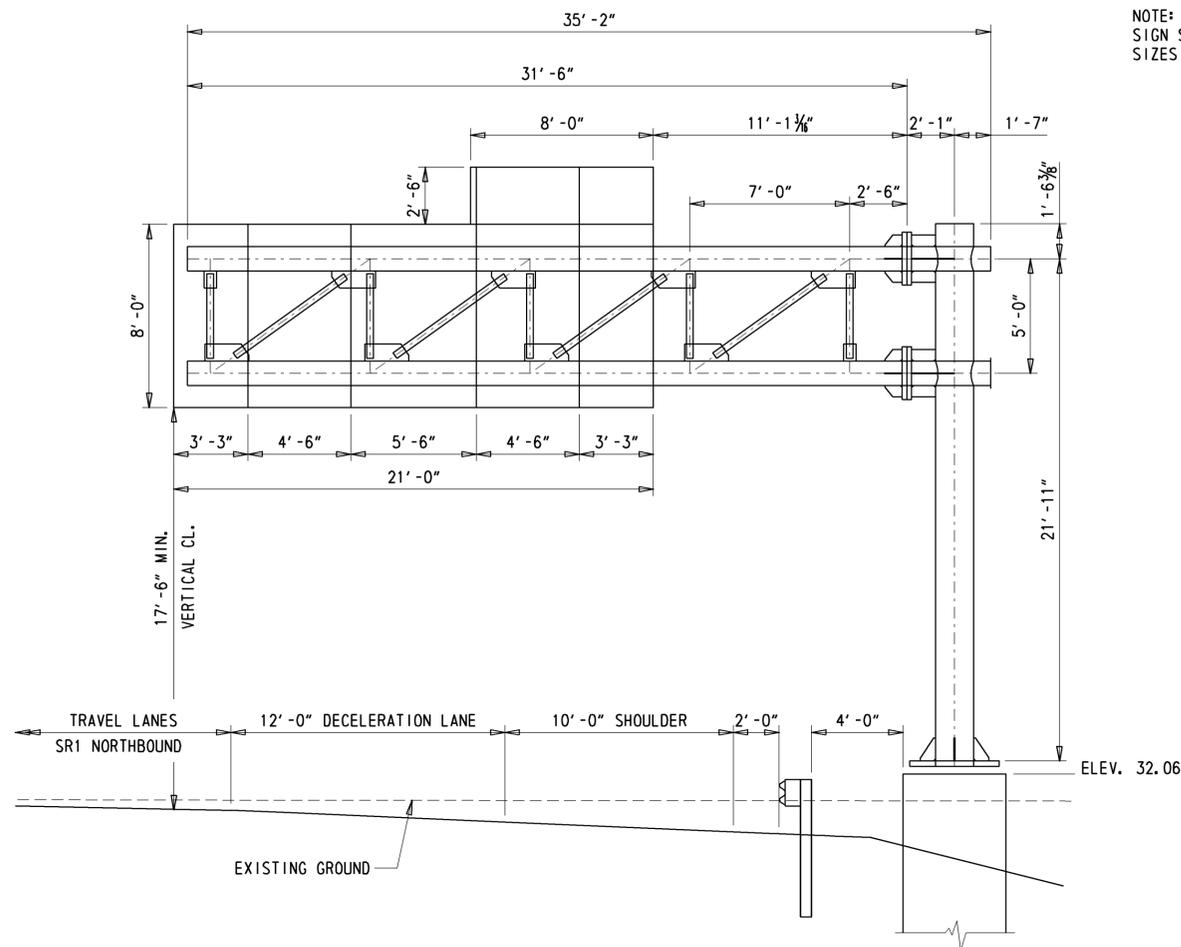
AFTER THE SIGN STRUCTURE HAS BEEN ERECTED AND FULLY LOADED INCLUDING SIGN PANELS, THE FOUNDATION ANCHORAGE NUTS SHALL BE RETIGHTENED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTION 605 OF THE STANDARD SPECIFICATIONS.

INDEX OF SIGN STRUCTURE SHEETS	
SHEET NO	TABLE OF CONTENTS
582	SIGN STRUCTURE NOTES
583	SC 2004 & SC 2005 PLAN & ELEVATION
584	SC 2013 PLAN & ELEVATION
585	SC 2006 & SC 2007 PLAN & ELEVATION
586	SB 2020 PLAN & ELEVATION
587	FOUNDATION DETAILS
588	CANTILEVERED SIGN STRUCTURE DETAILS, SHEET 1 OF 2
589	CANTILEVERED SIGN STRUCTURE DETAILS, SHEET 2 OF 2
590	VMS SIGN STRUCTURE DETAILS
591	BRIDGE MOUNTED SIGN STRUCTURE DETAILS
592	SOIL BORING LOG #1
593	SOIL BORING LOG #2
TOTAL SIGN STRUCTURE SHEETS: 12	

SIGN STRUCTURE SCHEDULE					
STRUCTURE NUMBER	ELEMENT	DIAMETER (IN)	THICKNESS (IN)	LENGTH (FT)	CAMBER (IN)
SC 2004/ SC 2005	POST	20	3/4	23.45	2.38
	CHORD	12.75	1/2	35.17	
	STRUT	3.5	3/16	VARIES	
	GUSSET PLATE	N. A.	1/2	VARIES	
SC 2013	POST	20	3/8	24.21	2.45
	CHORD	12.75	1/2	34.50	
	STRUT	3.5	3/16	VARIES	
	GUSSET PLATE	N. A.	1/2	VARIES	
SC 2006/ SC 2007	POST	18	3/8	22.00	-
	CHORD	11.25	1/2	9.63	

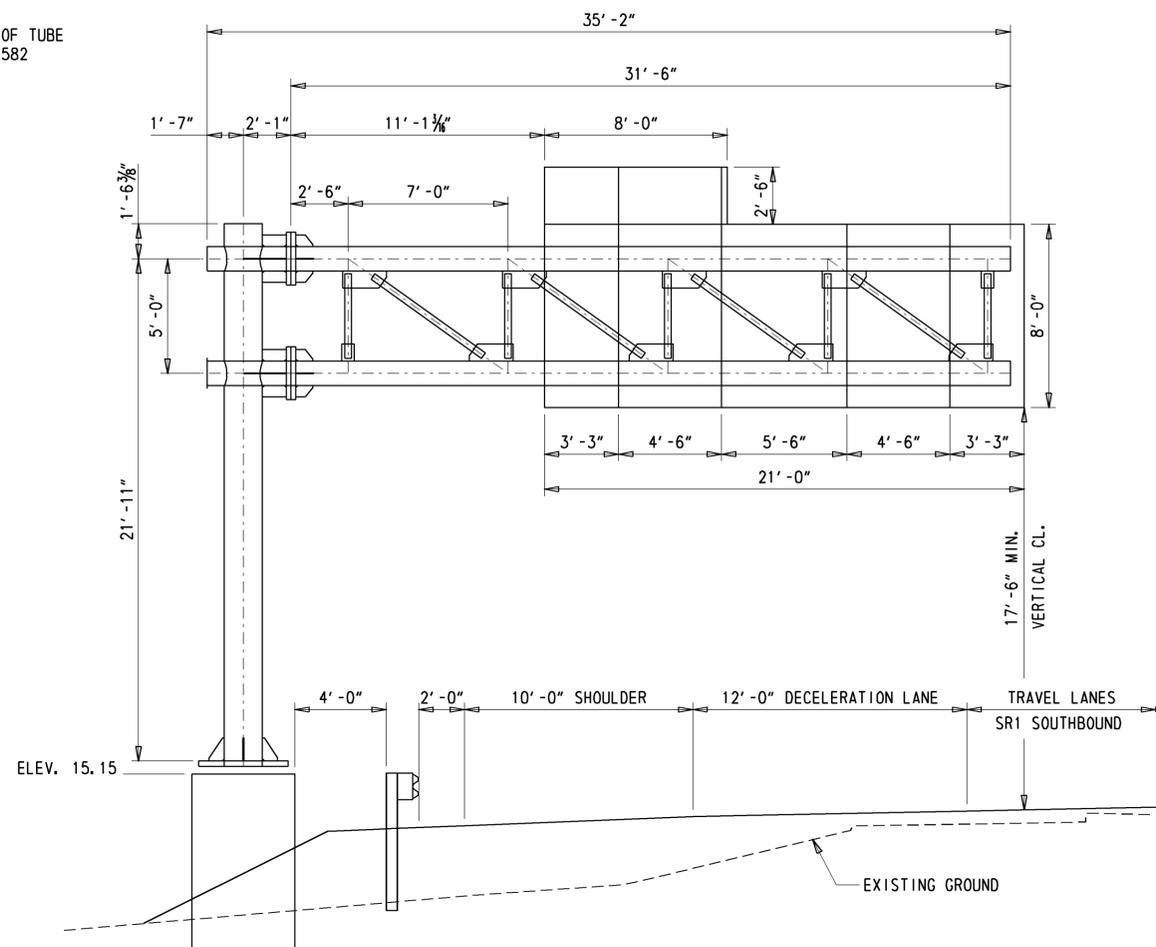
LAST REVISED: 5/5/2009
 Y:\KENT\008\BRIDGE\2412202\PLANS\SIGN STRUCTURES\PN.DGN

 DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS		SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION	CONTRACT	STRUCTURE NO.	SIGN STRUCTURE NOTES	SHEET NO.
				T200412202	DESIGNED BY: E.M.		582
				KENT	CHECKED BY:		TOTAL SHTS.
							641

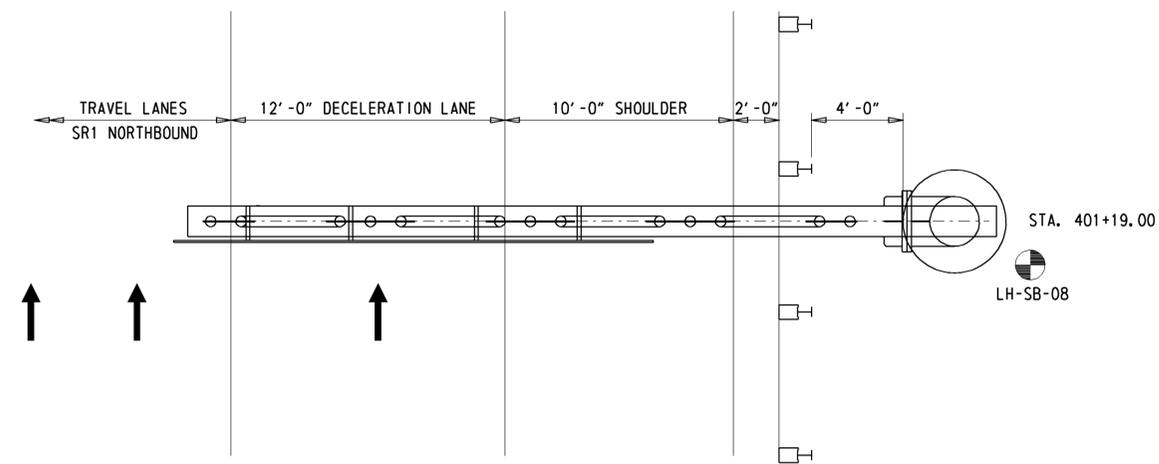


SC 2004 ELEVATION
1/4" = 1'-0"

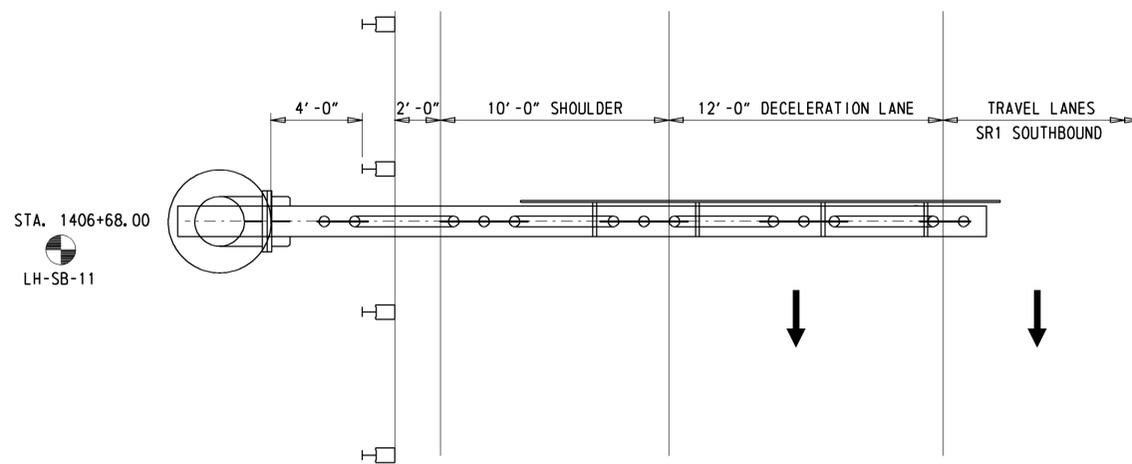
NOTE:
SIGN STRUCTURE SCHEDULE OF TUBE
SIZES PROVIDED ON SHEET 582



SC 2005 ELEVATION
1/4" = 1'-0"



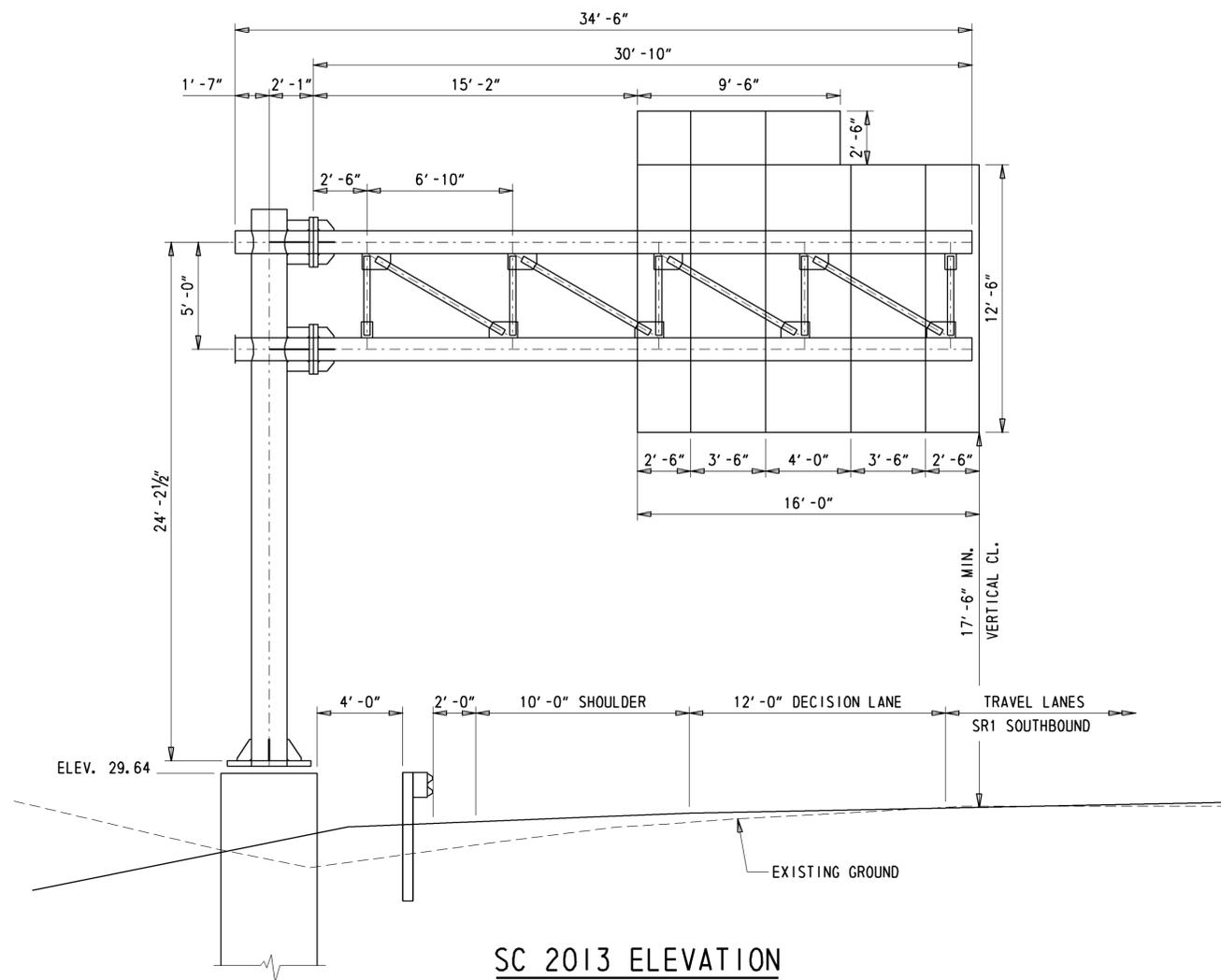
SC 2004 PLAN
1/4" = 1'-0"



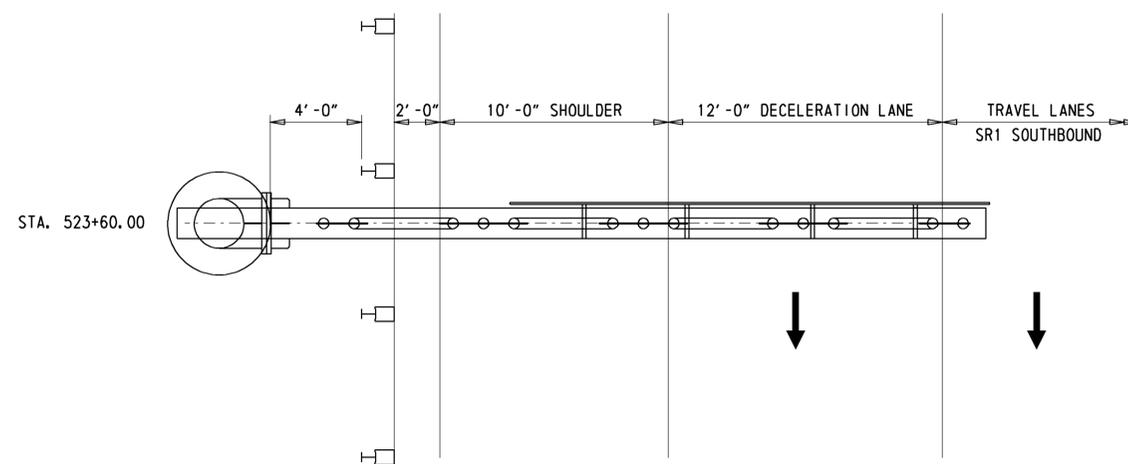
SC 2005 PLAN
1/4" = 1'-0"

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NOTE:
SIGN STRUCTURE SCHEDULE OF TUBE
SIZES PROVIDED ON SHEET 582



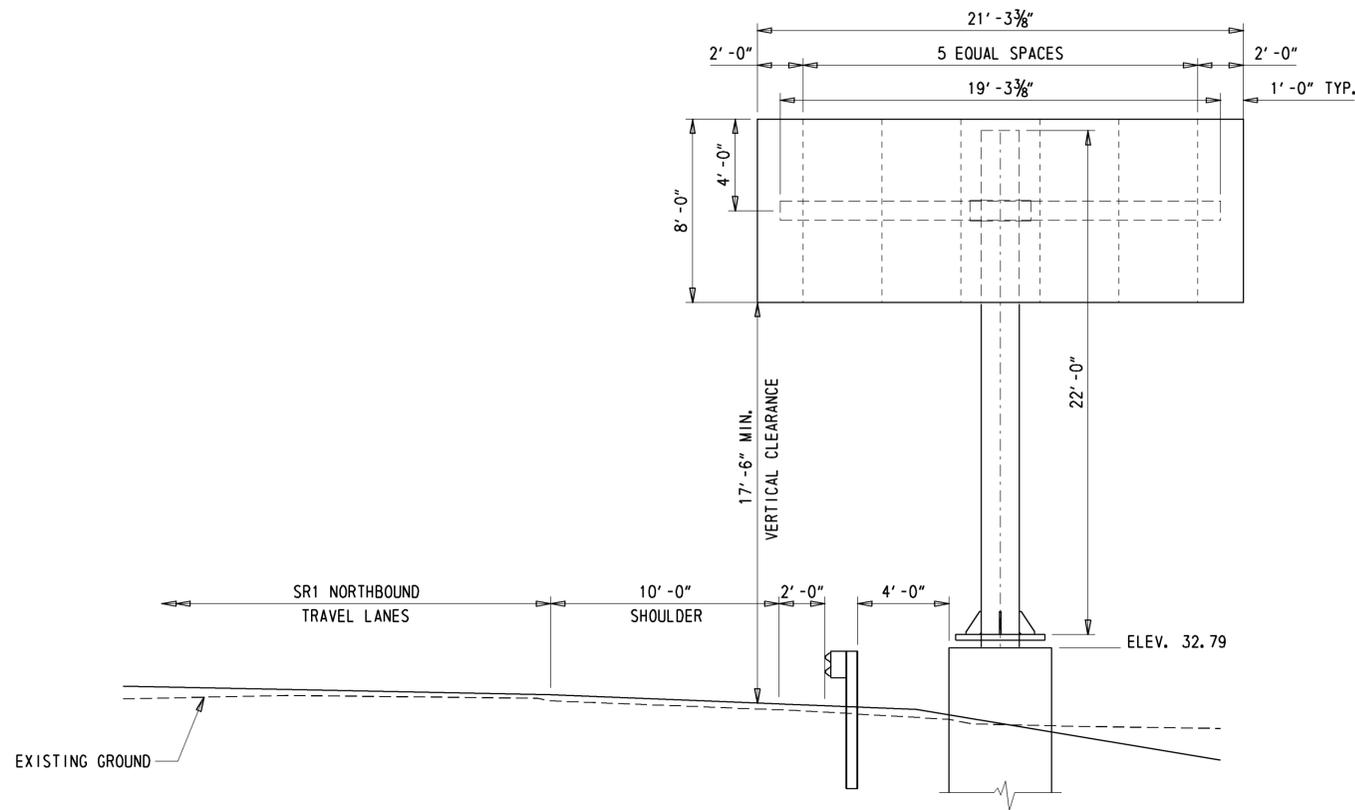
SC 2013 ELEVATION
1/4" = 1'-0"



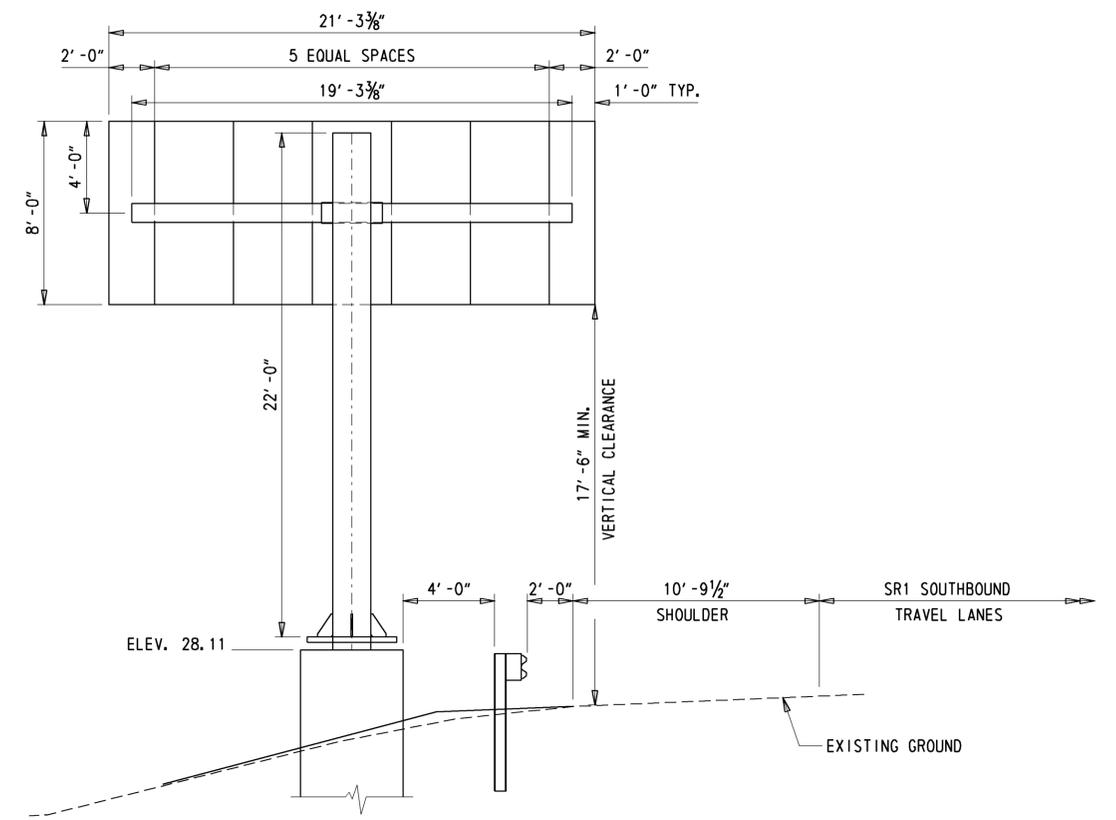
SC 2013 PLAN
1/4" = 1'-0"

ADDENDUMS / REVISIONS

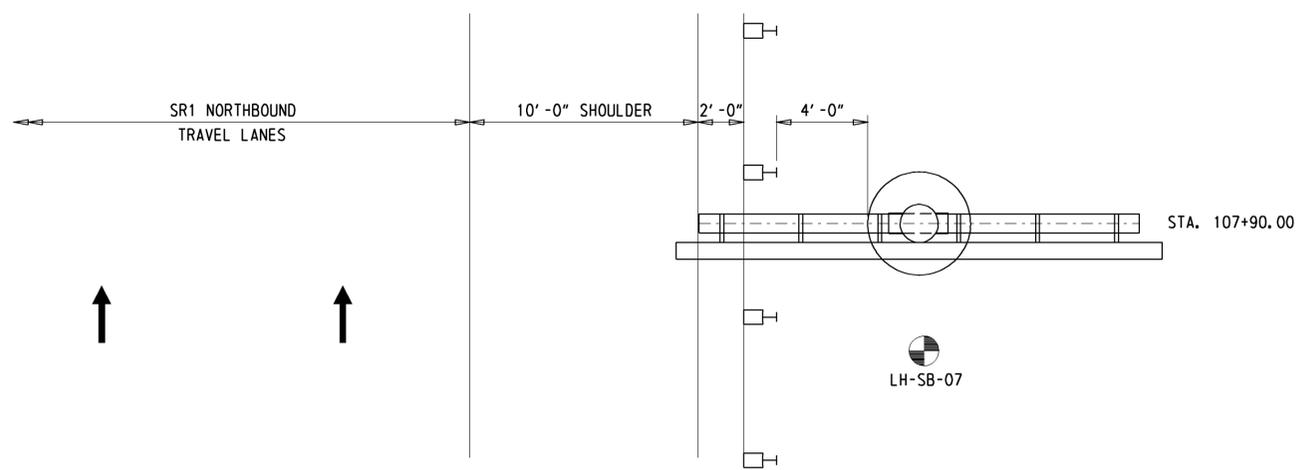
NOTE:
SIGN STRUCTURE SCHEDULE OF TUBE
SIZES PROVIDED ON SHEET 582



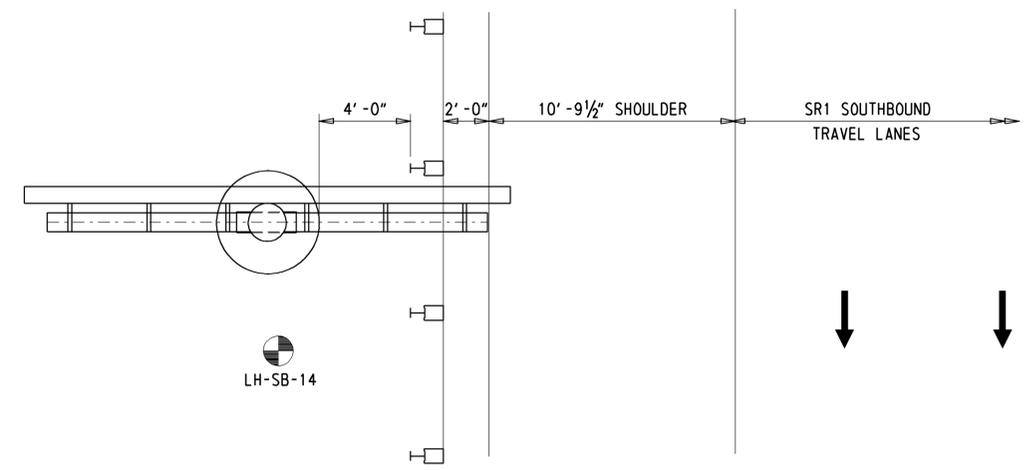
SC 2006 ELEVATION
1/4" = 1'-0"



SC 2007 ELEVATION
1/4" = 1'-0"

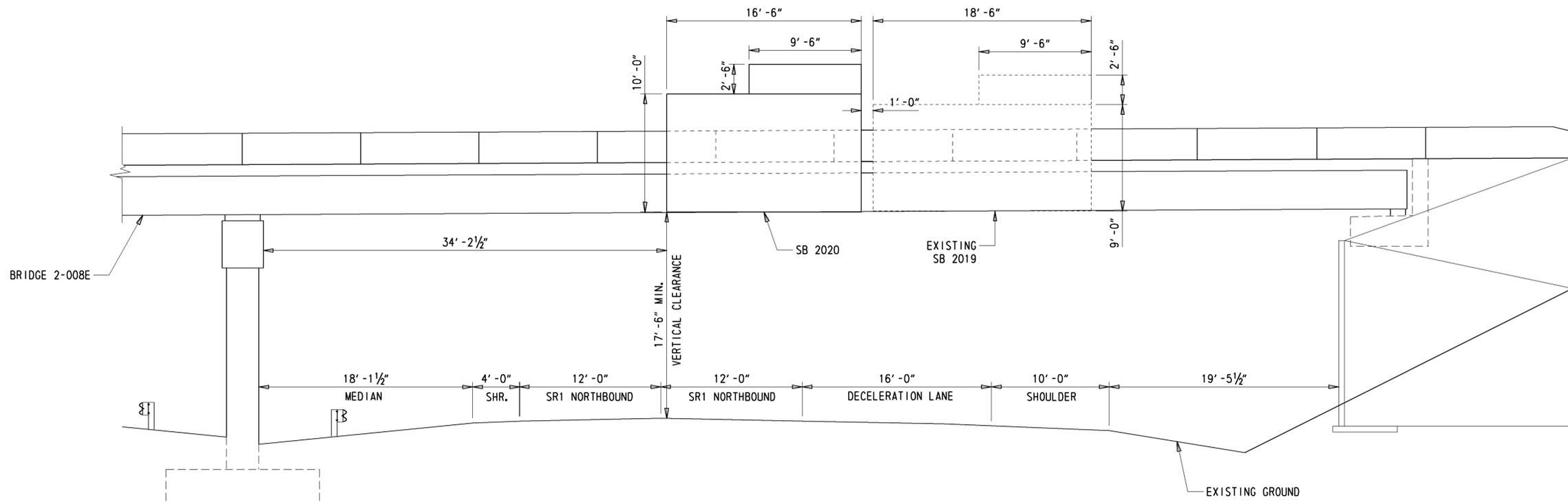


SC 2006 PLAN
1/4" = 1'-0"



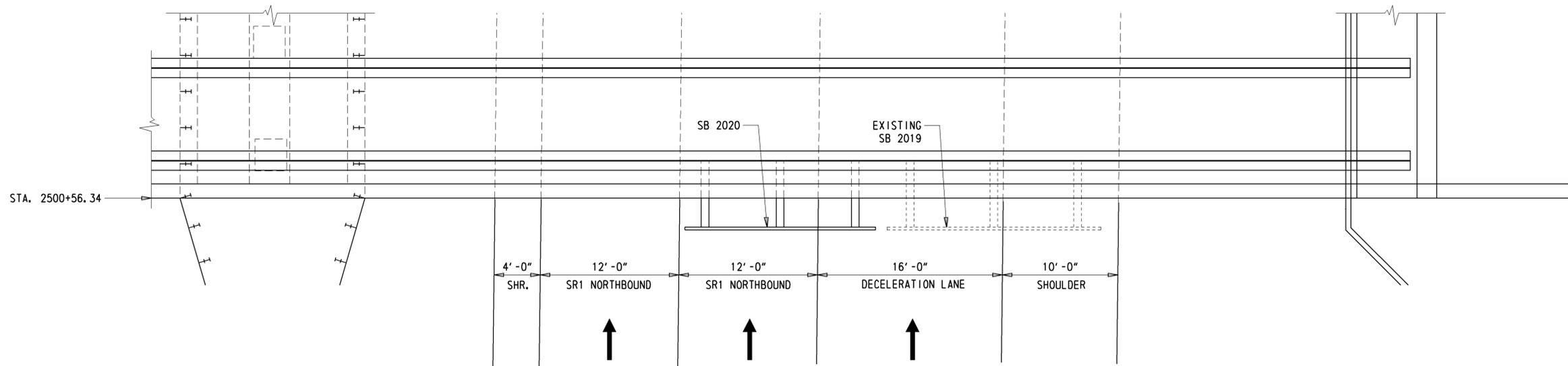
SC 2007 PLAN
1/4" = 1'-0"

ADDENDUMS / REVISIONS



SB 2020 ELEVATION

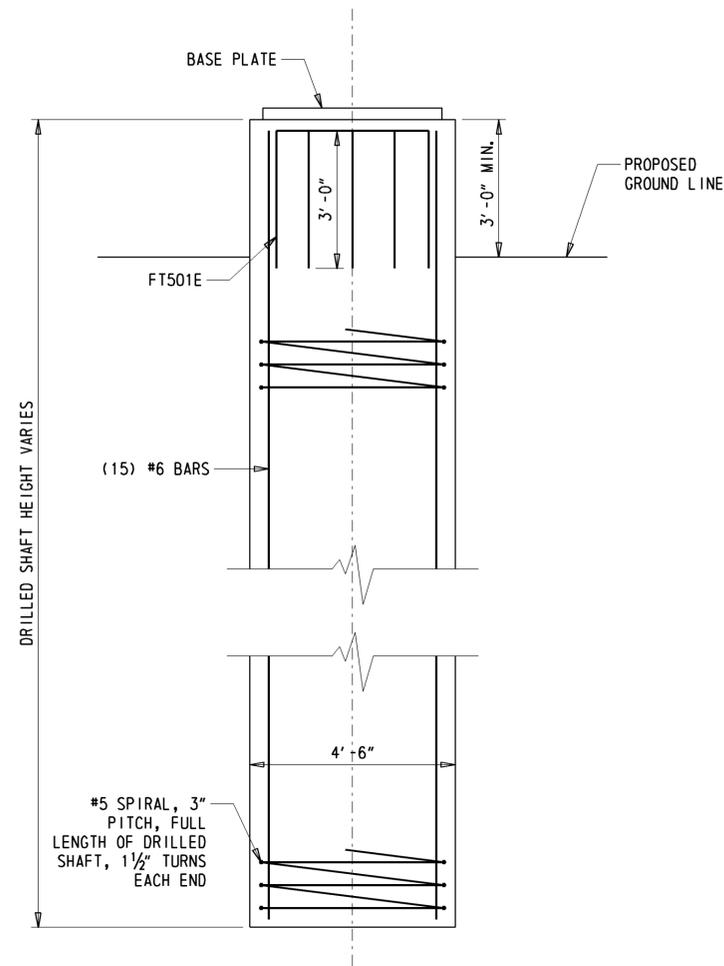
3/16" = 1' - 0"



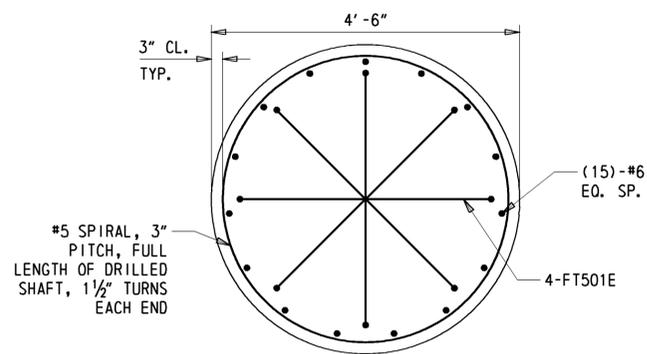
SB 2020 PLAN

3/16" = 1' - 0"

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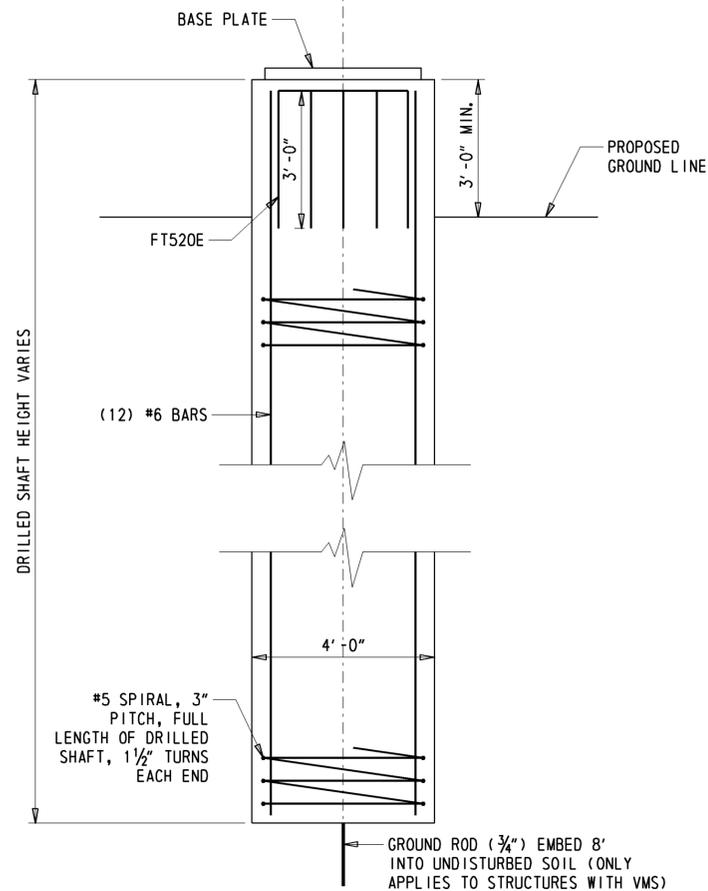


ELEVATION
1/2" = 1'-0"

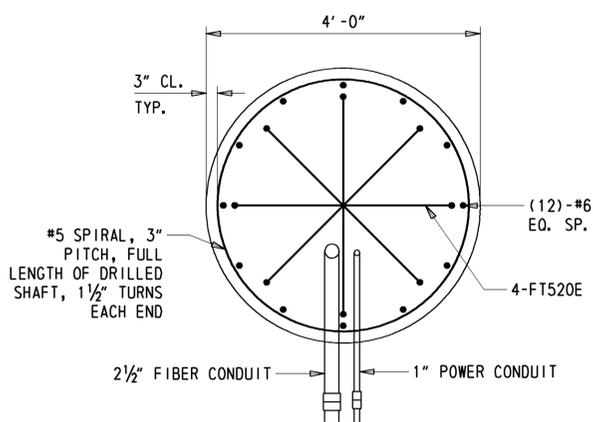


PLAN
3/4" = 1'-0"

CANTILEVER DRILLED SHAFT DETAILS



ELEVATION
1/2" = 1'-0"



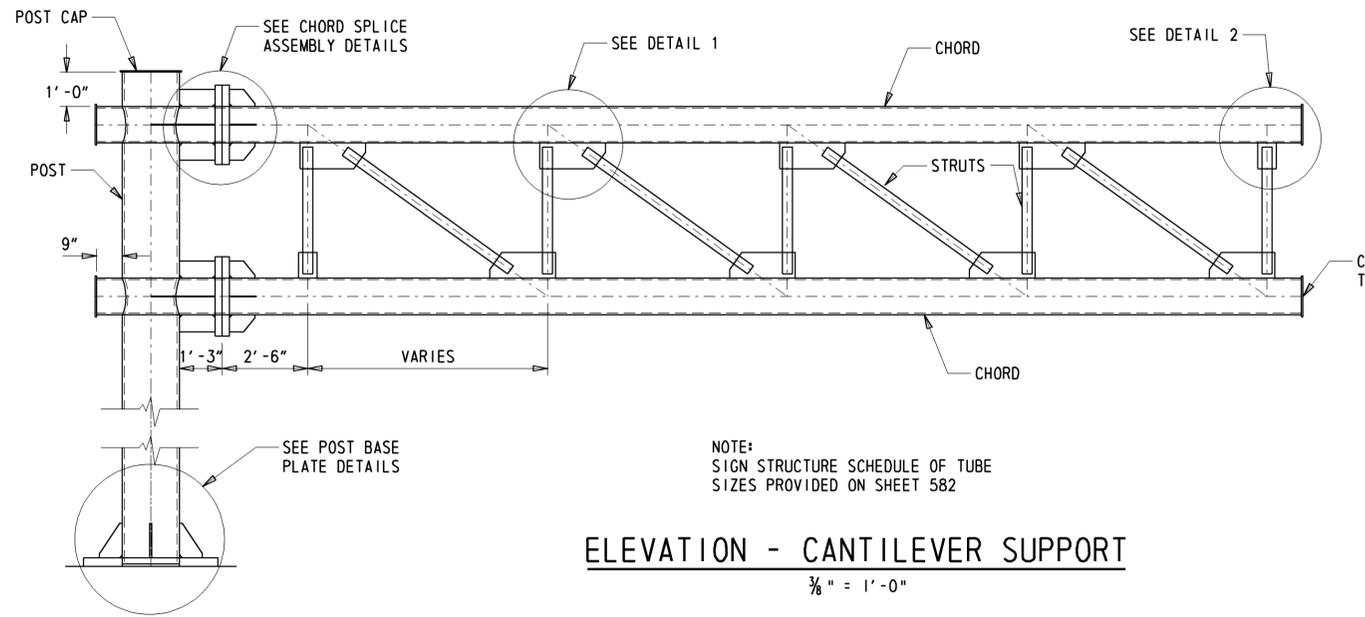
PLAN
3/4" = 1'-0"

**OVERHEAD AND BUTTERFLY CANTILEVERED
DRILLED SHAFT DETAILS**

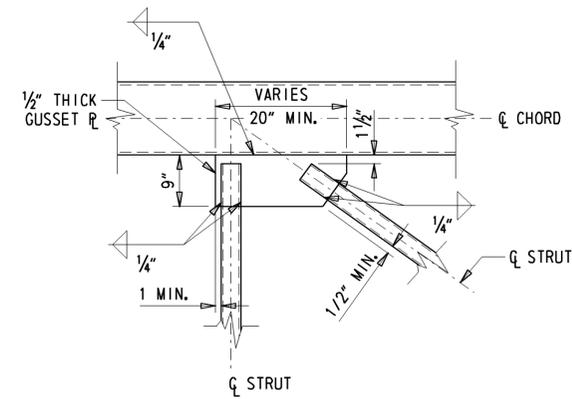
DRILLED SHAFT SCHEDULE				
STRUCTURE NUMBER	SHAFT HEIGHT	DIAMETER (FT)	REINFORCING LENGTH	
			VERTICAL	SPIRAL
SC 2004	30	4.5	29.5	29.5
SC 2005	25	4.5	24.5	24.5
SC 2006	22	4.0	21.5	21.5
SC 2007	25	4.0	24.5	24.5
SB 2013	25	4.5	24.5	24.5
SB 2020	-	-	-	-

- NOTES:**
- ALL ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO FABRICATION AND CONSTRUCTION.
 - APPROVED METAL SPACERS SHALL BE ATTACHED TO THE TOP AND BOTTOM SPIRALS TO ENSURE THAT THE REQUIRED CLEAR DISTANCE TO THE CASING IS MAINTAINED.
 - COST OF REINFORCING STEEL AND CONCRETE IN DRILLED SHAFT SHALL BE INCLUDED IN THE PRICE FOR THE APPROPRIATE SIGN STRUCTURE ITEM AT NO ADDITIONAL COST TO THE DEPARTMENT.
 - IT IS THE RESPONSIBILITY OF THE PROSPECTIVE CONTRACTORS AND SUBCONTRACTORS TO INSPECT THE SITES IN THE FIELD WHERE DRILLED SHAFTS WILL BE BUILT PRIOR TO SUBMITTING THEIR PROPOSALS, TO DETERMINE THE ACCESSIBILITY TO THE VARIOUS LOCATIONS, ASCERTAIN THE CONDITIONS UNDER WHICH THE WORK WILL BE CONDUCTED, AND ESTABLISH THE EQUIPMENT THAT WILL BE REQUIRED TO EXPEDITIOUSLY PERFORM THE WORK, INCLUDING WORK IN ANY AREAS WITH LOW OVERHEAD AND/OR NEAR HIGH TENSION POWER LINES OR ADJACENT TO ACTIVE TRAFFIC.
 - DRILLED SHAFT INSTALLATIONS SHALL BE PERFORMED BY A SPECIALTY CONTRACTOR EXPERIENCED IN DRILLED FOUNDATION CONSTRUCTION WITH SUITABLE EQUIPMENT AND COMPETENT PERSONNEL. THE SPECIALTY CONTRACTOR SHALL BE SUBJECT TO ENGINEER APPROVAL.
 - SOILS BENEATH EXISTING GROUND SURFACE MAY CONTAIN OBSTRUCTIONS, SUCH AS COBBLES AND BOULDERS. ENGINEER SHALL VERIFY THE PRESENCE OF ANY OBSTRUCTIONS.
 - CONSTRUCTION OF DRILLED SHAFT FOUNDATIONS MAY REQUIRE THE USE OF TEMPORARY CASING. THE LENGTH OF DRILLED SHAFT SHALL BE ADJUSTED IN THE FIELD AS REQUIRED. HOWEVER, PAYMENT WILL BE BASED ON CONTRACT QUANTITIES SHOWN AND ANY ADJUSTMENTS SHOWN BY THE SPECIFICATIONS.
 - IF DRILLED SHAFT EXCAVATION IS UNSHORED (TEMPORARY CASING) CONCRETE SHALL BE PLACED IN THE SAME WORKING DAY AS EXCAVATION TAKES PLACE.

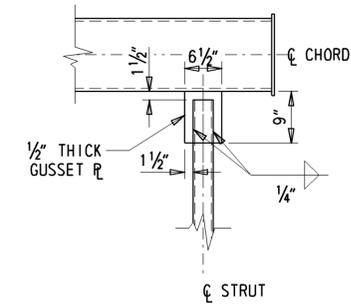
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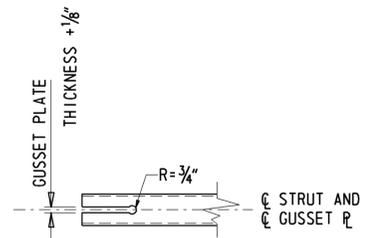
ELEVATION - CANTILEVER SUPPORT
3/8" = 1'-0"



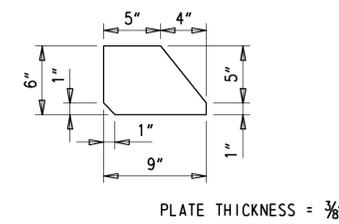
DETAIL 1
3/4" = 1'-0"



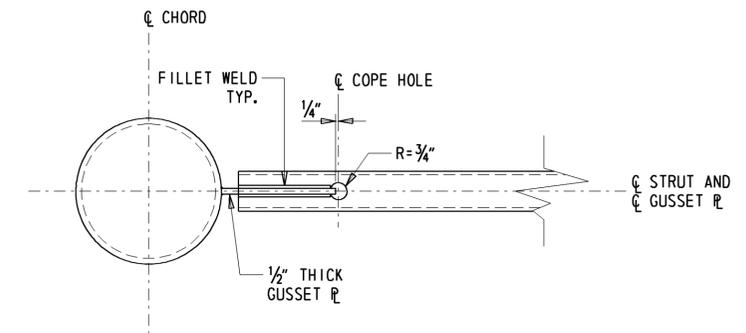
DETAIL 2
3/4" = 1'-0"



DETAIL A
3/4" = 1'-0"

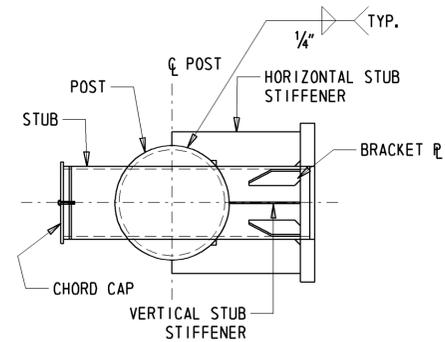


BRACKET PLATE DETAIL
1 1/2" = 1'-0"

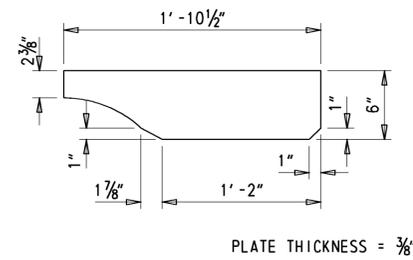
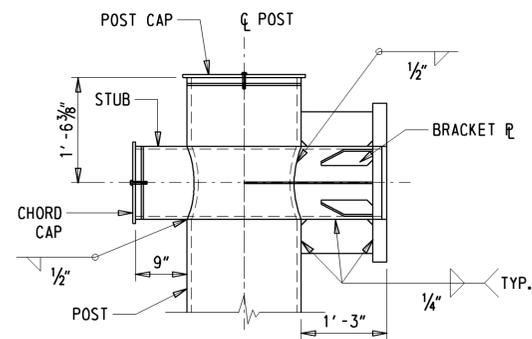


NOTE: COPE HOLES TO BE PROVIDED AT BOTH ENDS AND BOTH FACES OF ALL STRUTS.

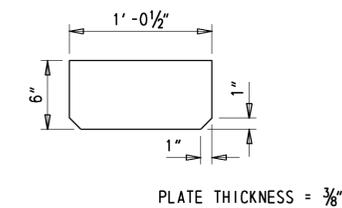
COPE HOLE DETAIL
1 1/2" = 1'-0"



POST-STUB CONNECTION DETAILS
3/4" = 1'-0"

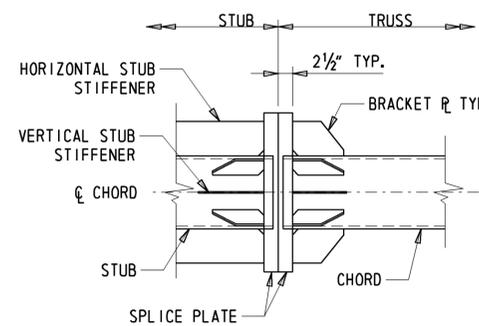
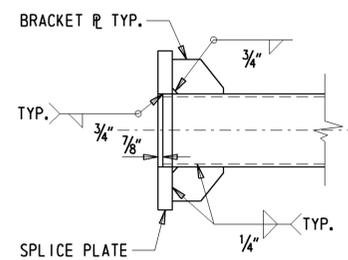


HORIZONTAL STUB STIFFENER DETAIL
1 1/2" = 1'-0"

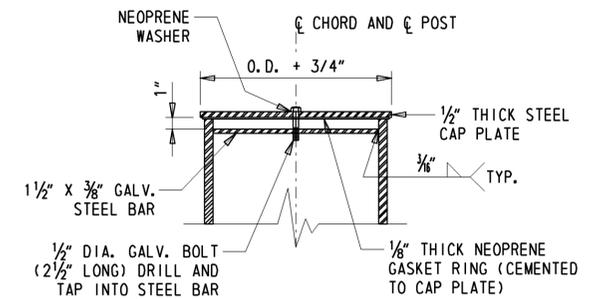
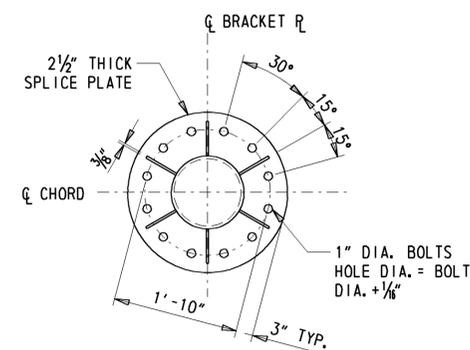


VERTICAL STUB STIFFENER DETAIL
1 1/2" = 1'-0"

- NOTES:
- HORIZONTAL AND VERTICAL STUB STIFFENER PLATE DIMENSIONS MAY BE VARIED TO ACCOUNT FOR CAMBER.
 - CHORD INTERMEDIATE SPLICING SHALL NOT BE PERMITTED.
 - THE THREADED PORTION OF THE SPLICE BOLTS SHALL BE EXCLUDED FROM THE SHEAR PLANE OF THE SPLICE.
 - ASTM A325 SPLICE BOLTS SHALL BE HEAVY HEXAGON TYPE AND SHALL BE FURNISHED WITH HEAVY HEXAGON NUTS AND WASHERS.
 - REFER TO SECTION 605 OF THE STANDARD SPECIFICATIONS FOR THE SPLICE BOLT TIGHTENING PROCEDURES.

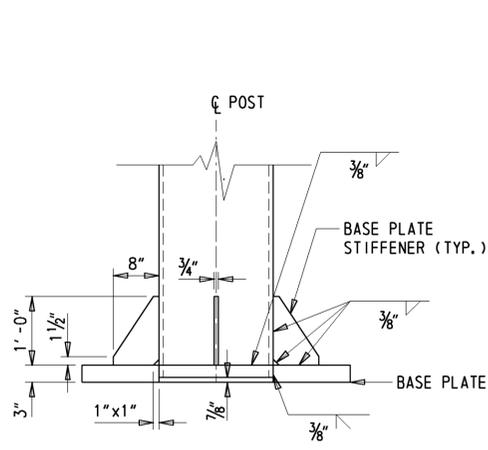


CHORD SPLICE ASSEMBLY DETAILS
3/4" = 1'-0"

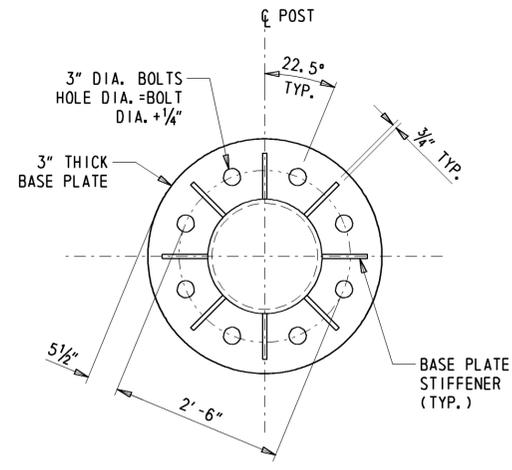


POST OR CHORD CAP DETAIL
1 1/2" = 1'-0"

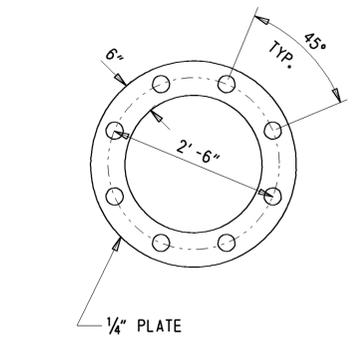
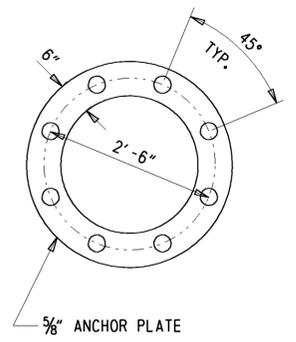
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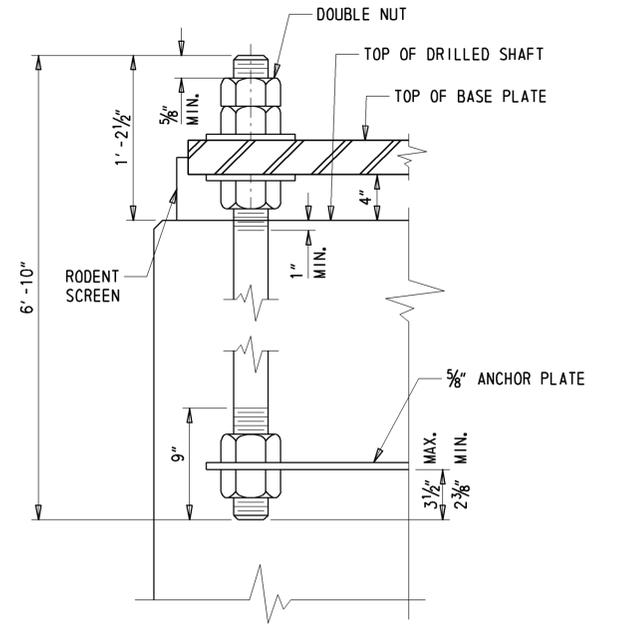
POST BASE PLATE DETAILS
3/4" = 1'-0"



ANCHOR PLATE DETAIL
3/4" = 1'-0"



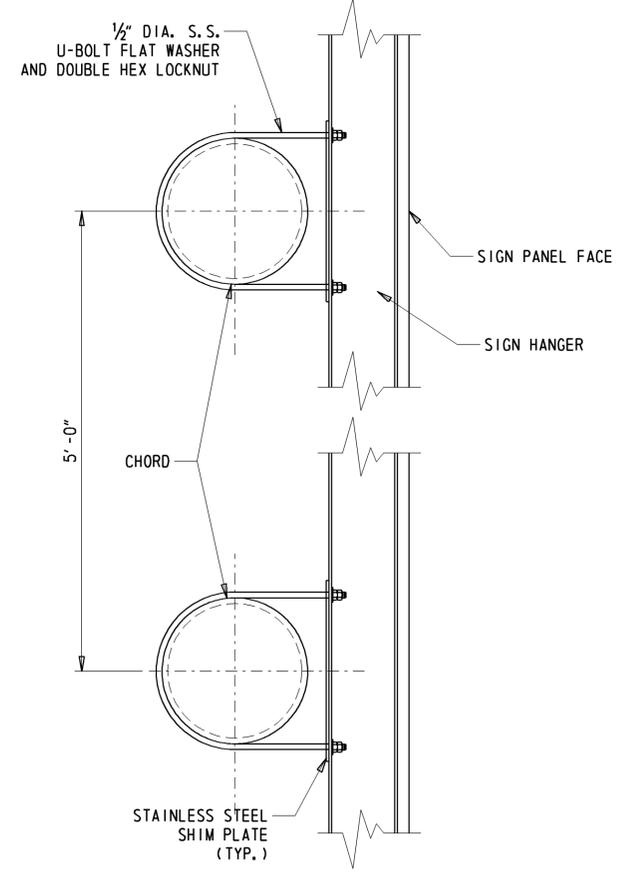
TEMPLATE PLATE DETAIL
3/4" = 1'-0"



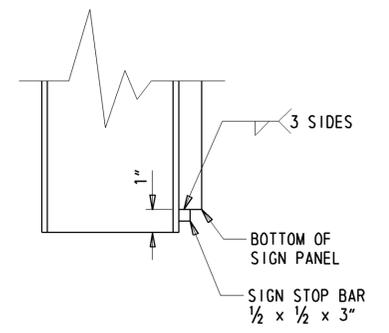
ANCHOR BOLT DETAIL
1/2" = 1'-0"

POST BASE NOTES:

1. TEMPLATE PLATE WITH NUTS ON BOTH SIDES SHALL BE USED TO MAINTAIN THE SPACING AND ALIGNMENT OF ANCHOR BOLTS. TEMPLATE SHALL NOT BE REMOVED UNTIL CONCRETE HAS ACHIEVED FULL DESIGN STRENGTH.
2. ANCHOR BOLTS SHALL BE PROVIDED WITH FIVE HEAVY HEXAGON NUTS AND TWO WASHERS AS SHOWN ON THE ANCHOR BOLT DETAIL.
3. ANCHOR BOLTS SHALL BE GALVANIZED AFTER THREADING.
4. REFER TO SPECIFICATIONS FOR ANCHOR BOLTS TIGHTENING PROCEDURES.
5. APPROVED METAL SPACERS SHALL BE ATTACHED TO THE TOP AND BOTTOM SPIRALS TO ENSURE THE REQUIRED CLEAR DISTANCE TO THE CASING IS MAINTAINED.
6. RODENT SCREEN TO BE PLACED AROUND CIRCUMFERENCE OF BASEPLATE.



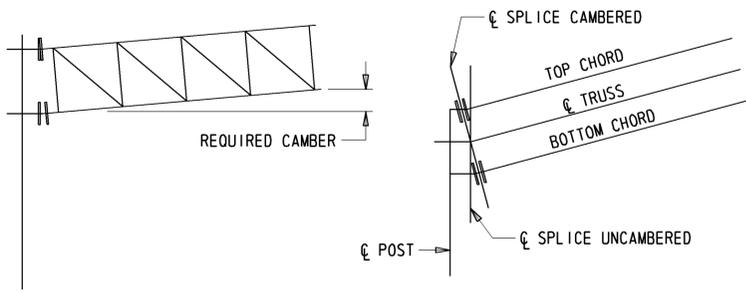
TYPICAL SIGN HANGER DETAIL
1/2" = 1'-0"



SIGN STOP DETAIL
3" = 1'-0"

SIGN HANGER NOTES:

1. LENGTH OF SIGN HANGERS SHALL BE EQUAL TO THE SIGN PANEL HEIGHT PLUS 1" AT BOTTOM FOR STOP BAR.
2. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT SIGN PANEL TO SIGN HANGER CONNECTION DETAILS FOR ENGINEER APPROVAL.
3. ALL SHIM PLATES, BOLTS, WASHERS AND NUTS SHALL BE STAINLESS STEEL CONFORMING TO ASTM SPECIFICATION A320 GRADE B8, CLASS 1.
4. ALUMINUM I-BEAMS (DEPTH = 4", WEB AND FLANGE THICKNESS = 1/4", FLANGE WIDTH = 3 1/2").
5. MODIFICATIONS TO ANY TRUSSING-CHORD GUSSET PLATE CONNECTION IN ORDER TO ACCOMMODATE SIGN PANEL SUPPORTS SHALL NOT BE PERMITTED.



CAMBER DIAGRAM
N. T. S.

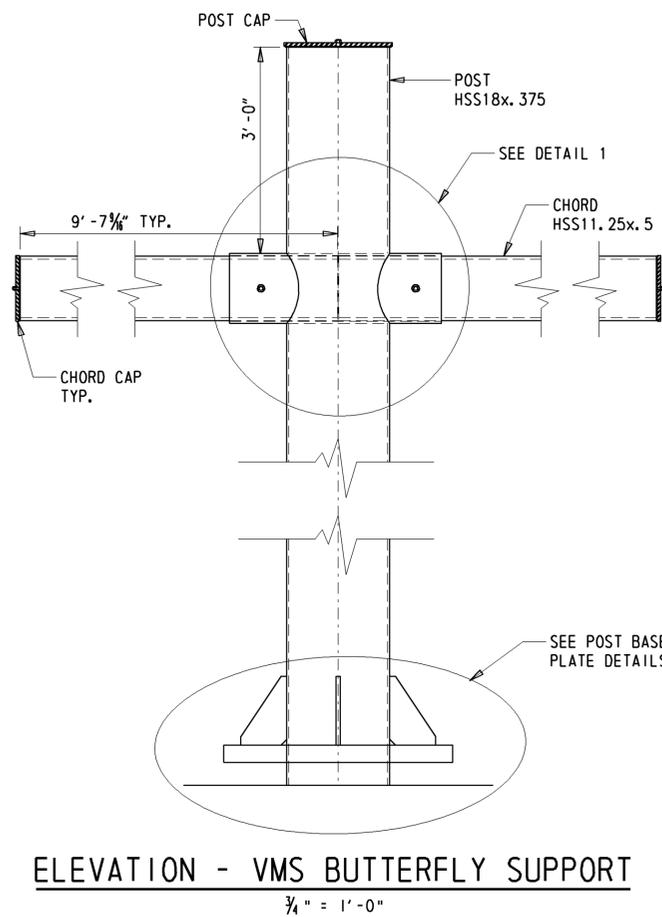
CAMBER DETAIL
N. T. S.

CAMBER NOTE:

CAMBER SHALL BE OBTAINED BY SHORTENING THE TOP CHORD STUB LENGTH AND LENGTHENING THE BOTTOM CHORD STUB LENGTH. CHORD SPLYCE PLATES SHALL BE SKEWED ACCORDINGLY BEFORE WELDING TO CHORDS. NO FORCE SHALL BE APPLIED IN PROVIDING CAMBER. AN ALTERNATE METHOD OF OBTAINING CAMBER MAY BE USED AS APPROVED BY THE ENGINEER. FOR REQUIRED CAMBER SEE SCHEDULE OF STRUCTURES.

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	ADDENDUMS / REVISIONS		SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION	CONTRACT	STRUCTURE NO.	CANTILEVERED SIGN STRUCTURE DETAILS SHEET 2 OF 2	SHEET NO.
				T200412202	DESIGNED BY: E.M.		589
				COUNTY	CHECKED BY:		TOTAL SHTS.
				KENT			641

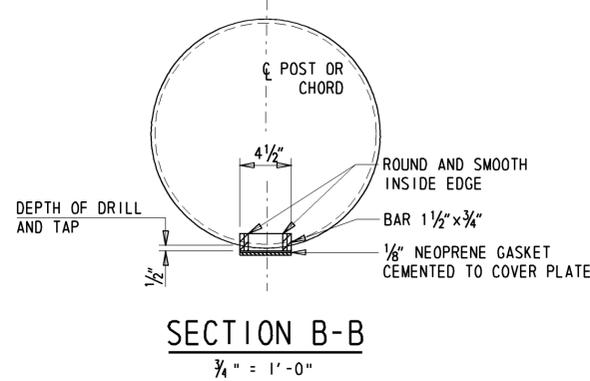


ELEVATION - VMS BUTTERFLY SUPPORT

3/4" = 1'-0"

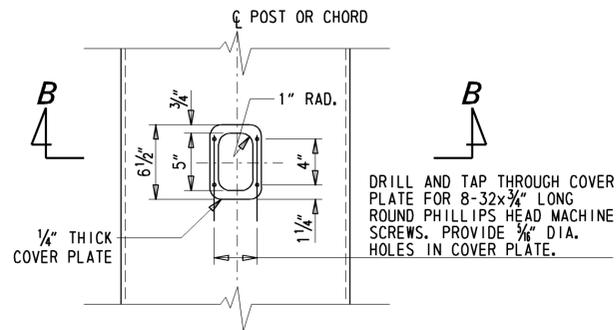
NOTES:

1. LENGTH OF SIGN HANGERS SHALL BE EQUAL TO THE SIGN PANEL HEIGHT PLUS 1" AT THE BOTTOM FOR STOP BAR.
2. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT SIGN PANEL AND SIGN HANGER CONNECTION DETAILS TO ENGINEER FOR APPROVAL. SIGN HANGERS SHALL BE INCIDENTAL TO ITEM #749503.
3. ALL SHIM PLATES, BOLTS, WASHERS AND NUTS SHALL BE STAINLESS STEEL CONFORMING TO ASTM SPECIFICATION A320 GRADE B8, CLASS 1.
4. MODIFICATIONS TO CHORD IN ORDER TO ACCOMMODATE SIGN PANEL SUPPORTS SHALL NOT BE PERMITTED.
5. INTERMEDIATE CHORD SPlicing SHALL NOT BE PERMITTED.



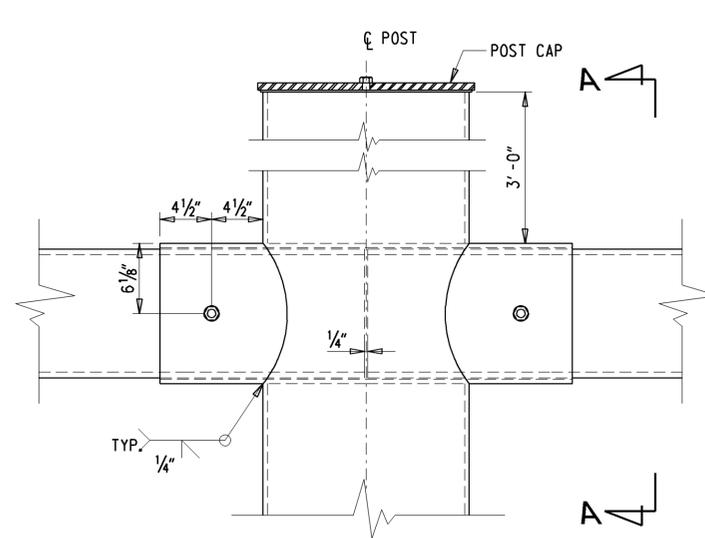
SECTION B-B

3/4" = 1'-0"



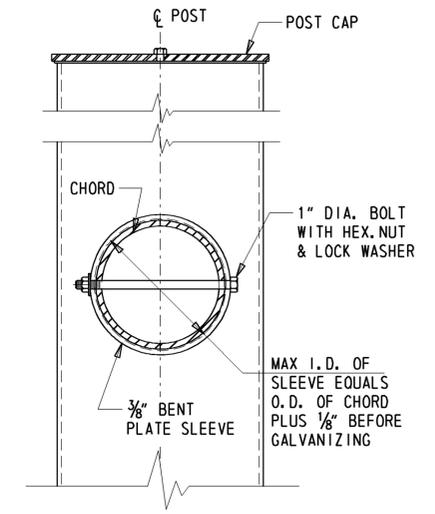
HAND HOLE DETAILS

1/2" = 1'-0"



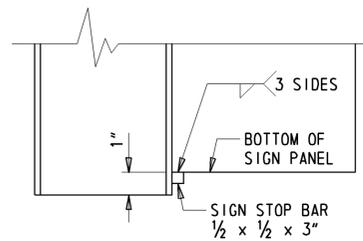
DETAIL 1

1/2" = 1'-0"



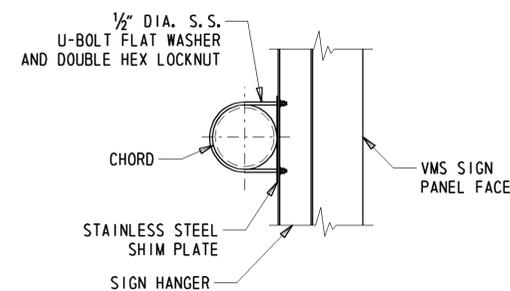
SECTION A-A

1/2" = 1'-0"



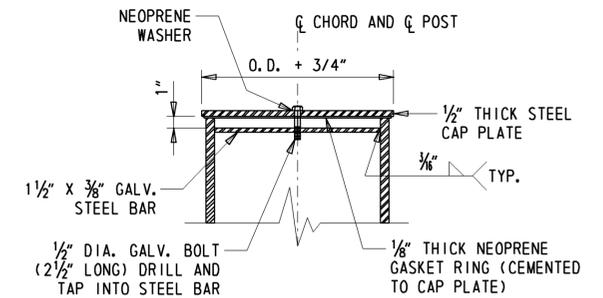
SIGN STOP DETAIL

3" = 1'-0"



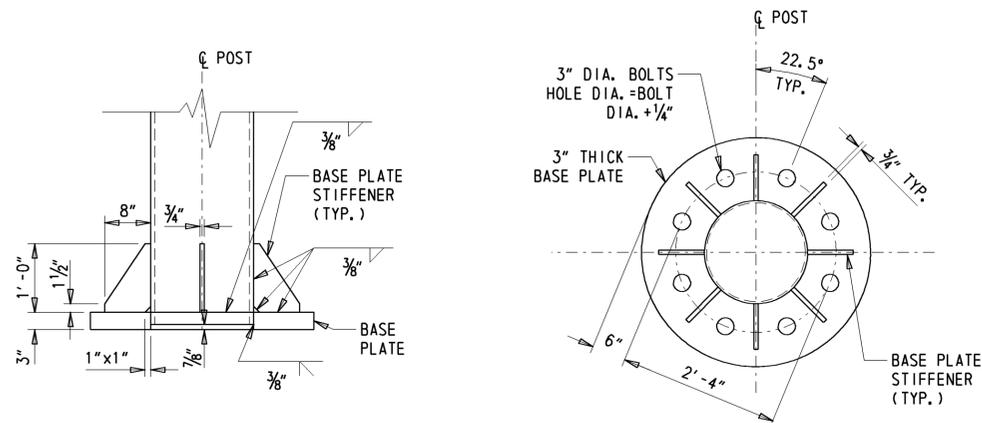
TYPICAL SIGN HANGER DETAIL

3/4" = 1'-0"



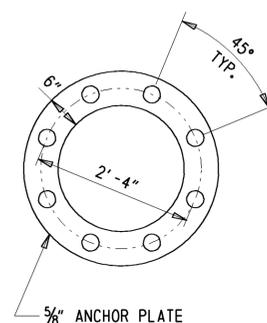
POST OR CHORD CAP DETAIL

1/2" = 1'-0"



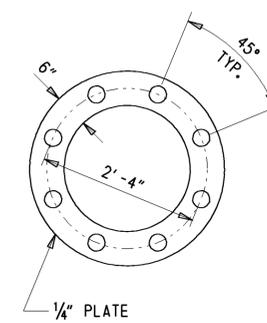
POST BASE PLATE DETAILS

3/4" = 1'-0"



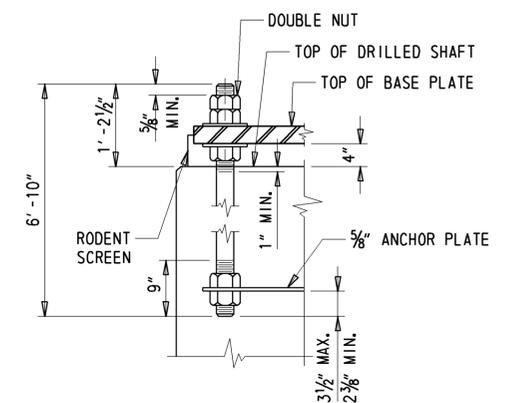
ANCHOR PLATE DETAIL

3/4" = 1'-0"



TEMPLATE PLATE DETAIL

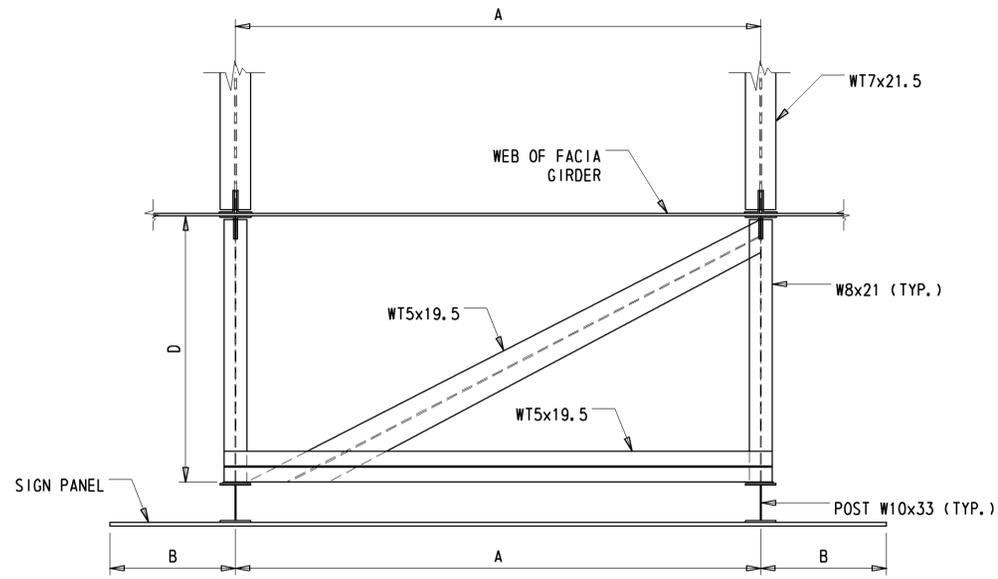
3/4" = 1'-0"



ANCHOR BOLT DETAIL

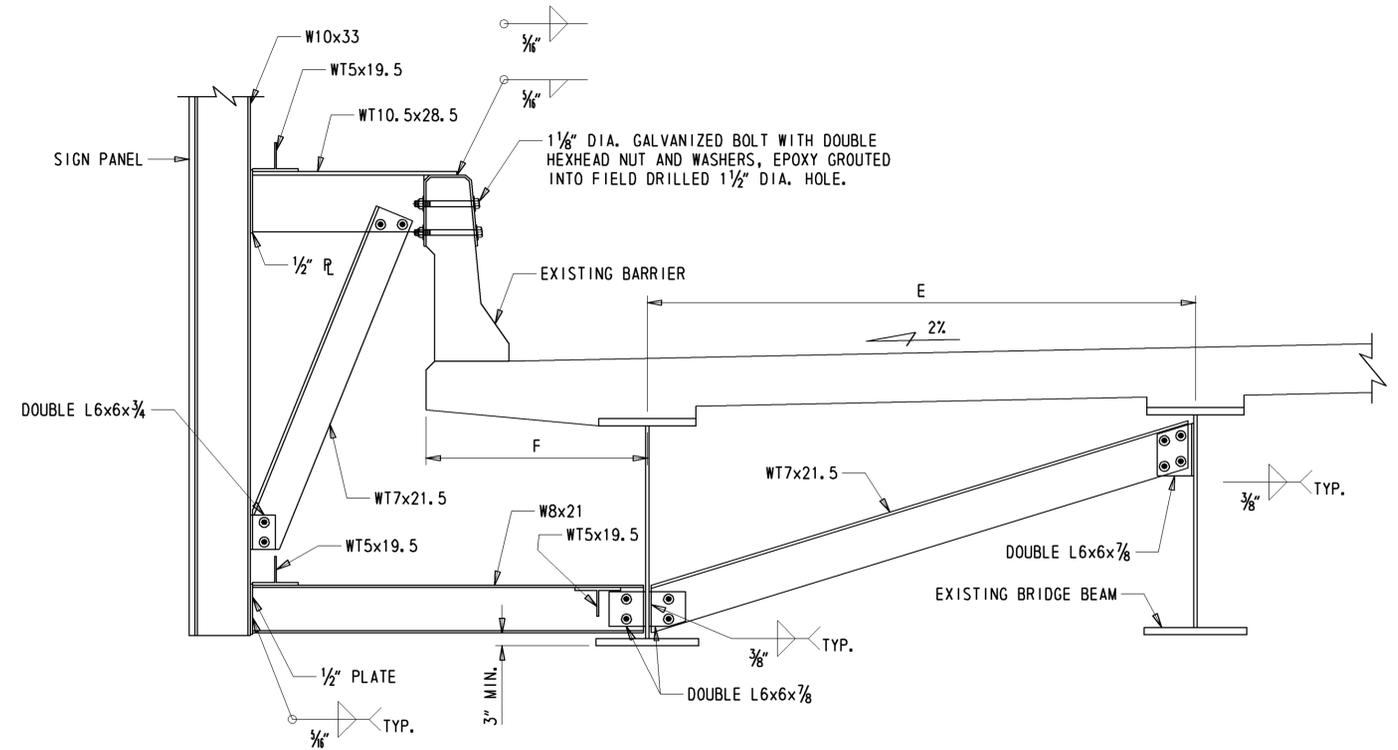
3/4" = 1'-0"

ADDENDUMS / REVISIONS



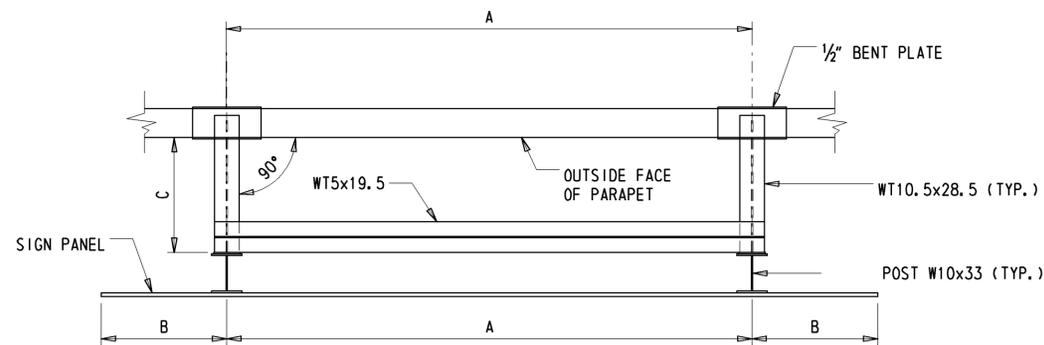
PLAN OF BOTTOM BRACING

1/2" = 1'-0"



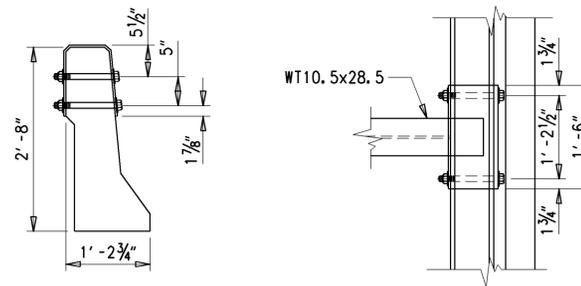
TYPICAL SECTION

3/4" = 1'-0"



PLAN OF TOP BRACING

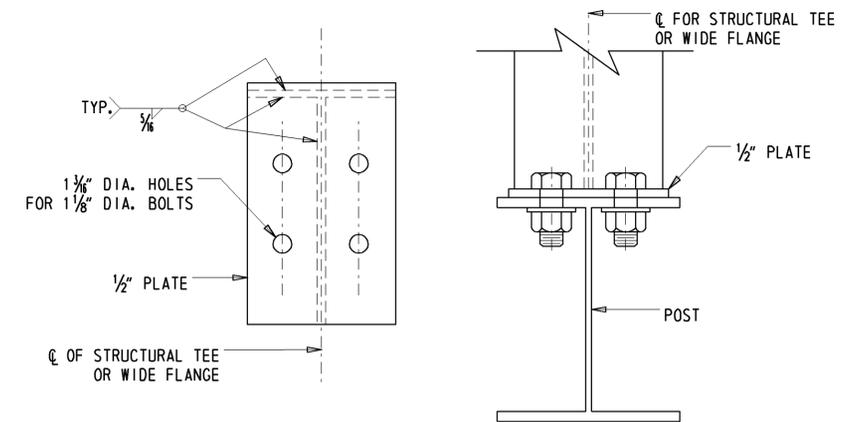
1/2" = 1'-0"



NOTE: SEE BRIDGE SHEETS FOR MORE PARAPET INFORMATION.

EXISTING PARAPET DETAILS

3/4" = 1'-0"



ELEVATION

PLAN

FRAME CONNECTION TO W POSTS

3" = 1'-0"

NOTES:

- STRUCTURAL STEEL FOR BRIDGE MOUNTED SIGN SUPPORTS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123. ALL FASTENERS SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695.
- ALL DIMENSIONS AFFECTED BY THE GEOMETRICS OF THE EXISTING STRUCTURE ARE TO BE CHECKED IN THE FIELD BY THE CONTRACTOR BEFORE ANY CONSTRUCTION IS DONE AND BEFORE ANY STRUCTURAL STEEL IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. PAYMENT SHALL BE INCIDENTAL TO ITEM.
- SHIFT SIGN SUPPORTS TO AVOID EXISTING CROSS BRACING.

DIMENSIONS						
SIGN NUMBER	A	B	C	D	E	F
SB 2020	11'-6"	2'-6"	2'-6"	5'-9 1/8"	8'-0"	3'-2 3/4"

ADDENDUMS / REVISIONS

BORING: VCR # 1	DATE DRILLED: 12/9/2010	BORING: VCR # 2	DATE DRILLED: 12/9/2010
STATION: OFFSET:	ELEVATION: NORTHING: 423897.52 EASTING: 594742.10	STATION: OFFSET:	ELEVATION: NORTHING: 423862.40 EASTING: 594788.62
COMMENTS:		COMMENTS:	

DEPTH (FT.)	NO.	SAMPLE DEPTH	Blows/6'	SAMPLE DESCRIPTION	CLASS. /G. I.	REMARKS	DEPTH (FT.)	NO.	SAMPLE DEPTH	Blows/6'	SAMPLE DESCRIPTION	CLASS. /G. I.	REMARKS
	1	0.0'		No Sampling		Asphalt - 10'. Crushed Stone.		1	0.0'		No Sampling		Asphalt - 9'. Crushed Stone - 8'.
	2	2.0'	2	0' RECOVERY	A-2-4(0)			2	2.0'	6	0' RECOVERY	A-2-4(0)	
	3	4.0'	6	Moist medium dense gray silty fine to coarse sand w/trace of fine gravel.	A-4(0)			3	4.0'	3	Wet loose gray silty fine to coarse sand w/trace of fine gravel.	A-2-4(0)	
	4	4.0'	6	16' RECOVERY	A-2-4(0)			4	4.0'	4	18' RECOVERY	A-3	
10	5	6.0'	1	Saturated soft dark brown fine sandy silt w/trace of coarse sand.	A-1-b	Attented Shelby Tube - No Recovery.	10	5	6.0'	1	Wet very loose black organic silty fine to coarse sand w/trace of fine gravel.	A-1-b	
	6	6.0'	1	18' RECOVERY	A-2-4(0)	Mud Rotary @ 10.0'.		6	6.0'	2	13' RECOVERY	A-1-b	
	7	8.0'	1	Saturated loose dark brown organic silt	A-2-4(0)			7	8.0'	4	17' RECOVERY	A-1-b	
	8	10.0'	1	Fine sand w/trace of coarse sand.	A-1-b			8	8.0'	7	Wet medium dense gray fine to coarse sand w/trace of silt.	A-1-b	
	9	10.0'	1	16' RECOVERY	A-1-b			9	10.0'	10	17' RECOVERY	A-1-b	
20	10	12.0'	W/H	Saturated very loose tan fine gravelly coarse to fine sand w/trace of silt.	A-1-b		20	10	12.0'	9	Wet medium dense gray fine gravelly coarse sand w/some fine sand, trace of silt.	A-1-b	Mud Rotary @ 18.0'.
		14.0'	W/H	18' RECOVERY					14.0'	13	12' RECOVERY		
		16.0'	W/H	Saturated loose light gray fine sand w/some silt, trace of coarse sand.	A-1-b				16.0'	10	Wet loose gray fine gravel and coarse to fine sand w/trace of silt.	A-1-b	
	11	16.0'	1	9' RECOVERY				11	16.0'	10	14' RECOVERY		
30	12	18.0'	1	Saturated loose tan fine to coarse sand w/some fine gravel and silt.	A-1-b		30	12	18.0'	12	Wet medium dense gray coarse to fine sand w/trace of fine gravel and silt.	A-1-b	
		20.0'	1	5' RECOVERY					20.0'	10	15' RECOVERY		
	13	23.0'	4	Saturated medium dense tan fine to coarse sand and fine gravel w/trace of silt.	A-3			13	23.0'	8	Wet loose tan coarse to fine sand w/trace of fine gravel and silt.	A-1-b	
		25.0'	4	8' RECOVERY					25.0'	9	15' RECOVERY		
40	14	28.0'	7	Saturated loose brown coarse sand w/some fine gravel and fine sand, trace of silt.	A-3		40	14	28.0'	14	Wet medium dense tan fine gravelly coarse sand w/some fine sand, trace of silt.	A-3	
		30.0'	8	12' RECOVERY					30.0'	4	15' RECOVERY		
	15	33.0'	6	Saturated loose tan fine gravel and coarse to fine sand w/trace of silt.	A-4(0)			15	33.0'	8	Wet medium dense tannish orange coarse sandy fine gravel w/some fine sand, trace of silt.	A-4(0)	
		35.0'	6	12' RECOVERY					35.0'	8	14' RECOVERY		
50	16	38.0'	6	Saturated medium dense tan coarse to fine sand w/some fine gravel, trace of silt.				16	38.0'	10	Wet medium dense tannish orange coarse to fine sand w/trace of fine gravel and silt.		
		40.0'	6	12' RECOVERY					40.0'	14	14' RECOVERY		
60		43.0'	6	Saturated medium dense brown fine to coarse sand w/trace of fine gravel and silt.			60		43.0'	16	Wet very dense orangish brown organic fine gravel and fine to coarse sand w/trace of silt.		
		45.0'	6	14' RECOVERY					45.0'	16	14' RECOVERY		
		48.0'	6	Saturated medium dense brown fine sand w/trace of coarse sand and silt.					48.0'	10	16' RECOVERY		
		50.0'	6	12' RECOVERY					50.0'	10	Saturated medium dense brownish gray silty coarse to fine sand.		
70			10	Saturated dense brown fine sand w/trace of coarse sand and silt.			70			12	20' RECOVERY		
			11	16' RECOVERY						12	Saturated dense gray fine sand w/trace of coarse sand, fine gravel and silt.		
			13	Saturated very stiff dark brown organic fine sandy silt w/trace of coarse sand.			80			14	22' RECOVERY		
			14	20' RECOVERY						14	Saturated medium dense gray fine sand w/trace of coarse sand, fine gravel and silt.		
80			6	Saturated stiff dark brown organic fine sandy clay w/some silt and coarse sand.						11	19' RECOVERY		
			10	20' RECOVERY						7	Saturated stiff gray organic fine sandy silt w/trace of coarse sand.		
			11	End of Boring			90			7	22' RECOVERY		
											End of Boring		
90													
100													
110													
120													
130													
140													
150													

ADDENDUMS / REVISIONS



**SR1, LITTLE HEAVEN
GRADE SEPARATED INTERSECTION**

CONTRACT	BRIDGE NO.	-
T200412202	DESIGNED BY:	
COUNTY	CHECKED BY:	
KENT		

SOIL BORING LOG #1

SHEET NO.	592
TOTAL SHTS.	641

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BORING: LH-SB # 14 DATE DRILLED:
 STATION: OFFSET: ELEVATION: NORTHING: EASTING:
 COMMENTS:

DEPTH (FT.)	NO.	SAMPLE DEPTH	Blows/6'	SAMPLE DESCRIPTION	CLASS. /G. I.	REMARKS
	1	0.0'	4	Moist medium dense brown coarse to fine sand w/some silt, trace fine gravel.	A-2-4(0)	Topsoil - 2'
			5			
			7			
		2.0'	6	14' RECOVERY		
2.53	2	2.0'	2	Moist loose brown silty fine to coarse sand.	A-2-4(0)	
			3			
			3			
		4.0'	3	18' RECOVERY		
5.06	3	4.0'	3	Moist loose orange silty fine to coarse sand.	A-2-4(0)	
			4			
			4			
		6.0'	4	16' RECOVERY		
	4	6.0'	4	Moist loose orange fine to coarse sand w/some silt.	A-2-4(0)	
			2			
7.59			3			
		8.0'	6	20' RECOVERY		
	5	8.0'	4	Moist medium dense orangish gray silty coarse to fine sand w/some fine gravel and clay.	A-2-4(0)	
			8			
			10			
10.12		10.0'	7	14' RECOVERY		
	6	10.0'	8	Wet medium dense tan coarse to fine sand w/some silt, trace fine gravel.	A-1-b	
			7			
			6			
		12.0'	5	18' RECOVERY		
12.65	7	12.0'	4	Saturated soft tan fine sandy silt w/ some coarse sand, trace fine gravel.	A-4(0)	
			1			
			1			
		14.0'	1	17' RECOVERY		
15.18	8	14.0'	3	Saturated loose orange coarse to fine sand w/some fine gravel and silt.	A-1-b	
			3			
		16.0'	5	14' RECOVERY		
17.71	9	16.0'	5	Saturated medium dense orange fine gravelly coarse sand w/trace fine sand and silt.	A-1-b	
			6			
			6			
		18.0'	4	16' RECOVERY		
20.24	10	18.0'	2	Saturated medium dense orange coarse sand w/some fine sand and silt, trace fine gravel.	A-1-b	
			4			
			7			
		20.0'	8	10' RECOVERY		
	11	20.0'	8	Saturated medium dense orange coarse sand w/trace fine sand, silt and fine gravel.	A-1-b	
			7			
			7			
		22.0'	10	6' RECOVERY		
22.77	12	22.0'	2	Saturated loose orange coarse sand w/ trace fine sand, silt and fine gravel.	A-1-b	
			2			
			3			
		24.0'	6	14' RECOVERY		
25.3	13	24.0'	4	Saturated medium dense orange coarse sand w/some fine gravel, trace fine sand and silt.	A-1-b	
			5			
			6			
		26.0'	8	14' RECOVERY		
27.83	14	26.0'	5	Saturated medium dense orange coarse sand w/some fine sand, trace silt and fine gravel.	A-1-b	
			6			
			6			
		28.0'	9	16' RECOVERY		
	15	28.0'	5	Saturated medium dense orange coarse to fine sand w/trace silt.	A-1-b	
			6			
			6			
30.36		30.0'	6	14' RECOVERY		
				End of Boring		
32.89						
35.42						
37.95						

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 DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS		SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO.	-	SOIL BORING LOG #2	SHEET NO.	593	
				T200412202	DESIGNED BY:				TOTAL SHTS.	641
				COUNTY	CHECKED BY:					
				KENT						

UNDERGROUND ONLY

SIGNAL PHASING

SIGNAL HEAD DIAGRAM

LEGEND

(AB)	ABANDON	(OH)	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
(CA)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	(OH)	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
(CA)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	(PB)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO)	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	(PB)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO)	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	(PL)	EXISTING POLE IDENTIFIER (# OF POLE)
(JW)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(PL)	PROPOSED POLE IDENTIFIER (# OF POLE)
(JW)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(RM)	REMOVE BY CONTRACTOR
(MA)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM)	REMOVE BY OTHERS
(MA)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM)	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	□	□
LUMINAIRE	○	○
MAST ARM	▶	▶
MICROWAVE DETECTION	▶	▶
OPTICOM RECEIVER	○	○
OVERHEAD SIGNING	┆	┆
PEDESTRIAN POLE/BASE	○	○
PEDESTRIAN PUSHBUTTON	┆	┆
PEDESTRIAN SIGNAL HEAD	┆	┆
RIGHT-OF-WAY	---	---
SERVICE PEDESTAL	P	P
SIGNAL CABINET	■	■
SIGNAL HEAD	▶	▶
SIGNAL POLE/BASE	○	○
SPAN INSULATOR	◇	◇
SPAN WIRE	-XX-	-XX-
UTILITY POLE	⊗	⊗
CAMERA (CCTV)	┆	┆

GENERAL SIGNAL NOTES

- ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
- POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
- PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
- ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

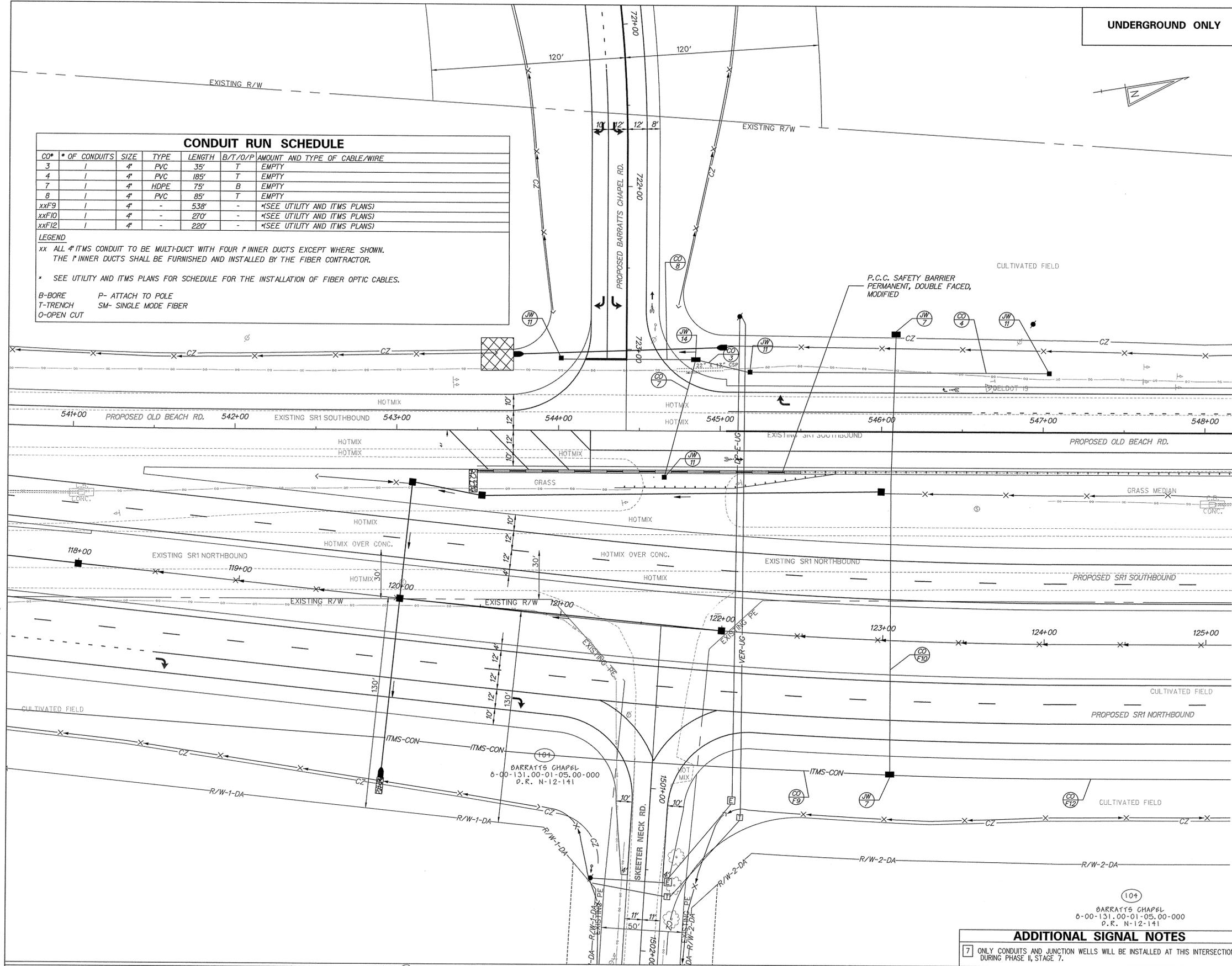
ADDITIONAL SIGNAL NOTES

- ONLY CONDUITS AND JUNCTION WELLS WILL BE INSTALLED AT THIS INTERSECTION DURING PHASE II, STAGE 7.

CONDUIT RUN SCHEDULE

CO*	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
3	1	4"	PVC	35'	T	EMPTY
4	1	4"	PVC	185'	T	EMPTY
7	1	4"	HDPE	75'	B	EMPTY
8	1	4"	PVC	85'	T	EMPTY
xxF9	1	4"	-	538'	-	*(SEE UTILITY AND ITMS PLANS)
xxF10	1	4"	-	270'	-	*(SEE UTILITY AND ITMS PLANS)
xxF12	1	4"	-	220'	-	*(SEE UTILITY AND ITMS PLANS)

LEGEND
 xx ALL 4" ITMS CONDUIT TO BE MULTI-DUCT WITH FOUR 1" INNER DUCTS EXCEPT WHERE SHOWN. THE 1" INNER DUCTS SHALL BE FURNISHED AND INSTALLED BY THE FIBER CONTRACTOR.
 * SEE UTILITY AND ITMS PLANS FOR SCHEDULE FOR THE INSTALLATION OF FIBER OPTIC CABLES.
 B-BORE P- ATTACH TO POLE
 T-TRENCH SM- SINGLE MODE FIBER
 O-OPEN CUT

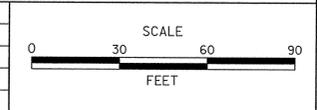


12/2/2014 9:38:07 PM \\S:\3517\16 SR1, LITTLE HEAVEN FINAL DESIGN\DOT Files\signal_barratts_underground.dgn

RECOMMENDED _____ DATE: _____ RECOMMENDED *M. J. S. S. S. S.* DATE: 10/5/14 RECOMMENDED *B. S. S. S.* DATE: 12/2/14 APPROVED TRAFFIC ENGINEER *[Signature]* DATE: 12/5/14 APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER *[Signature]* DATE: 12/9/14

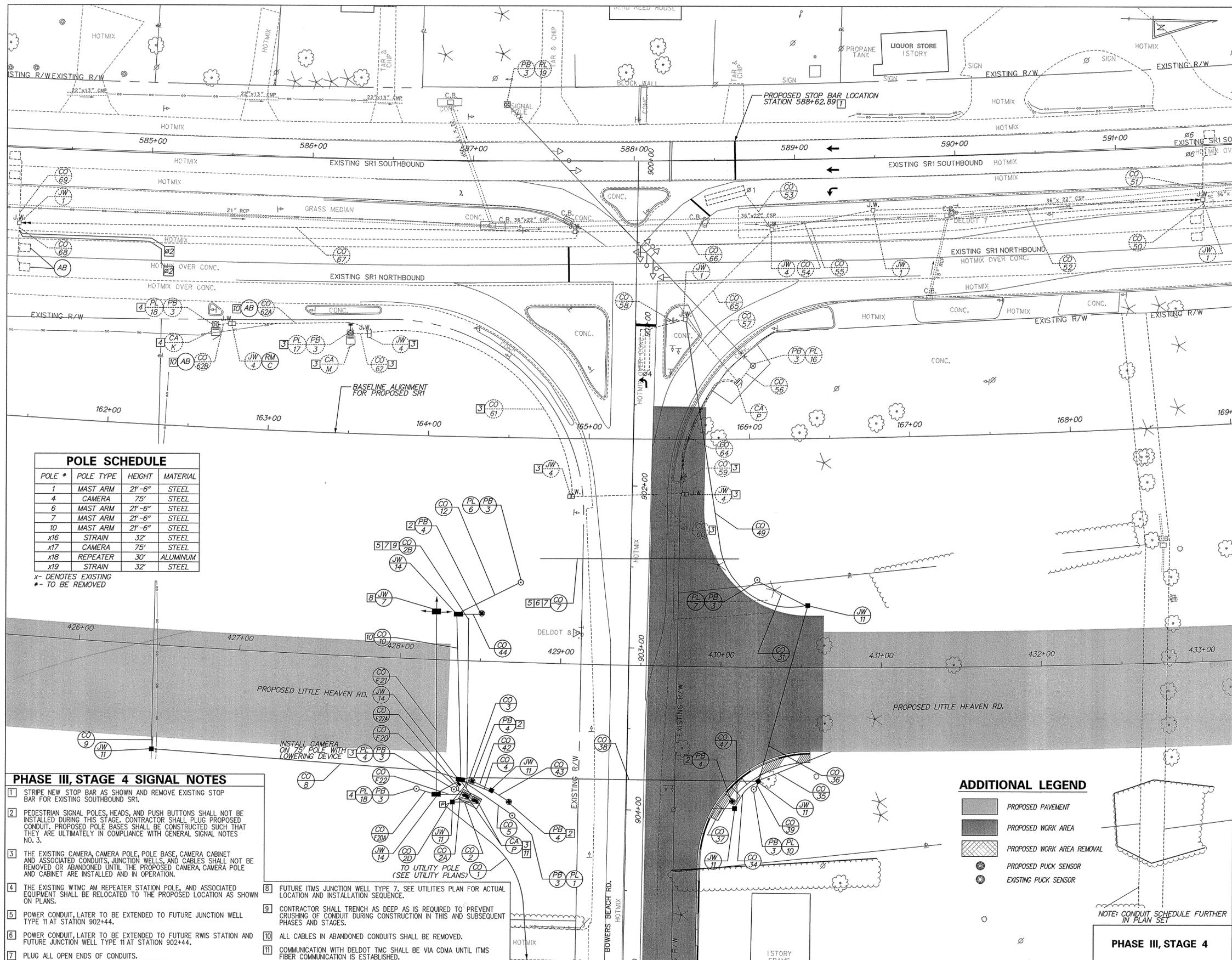
DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS



SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K-297	SIGNAL PLAN	SHEET NO.
T200412202	DESIGNED BY:	MSK	PROPOSED CLAPHAM RD @ BARRATTS CHAPEL RD	594
COUNTY	CHECKED BY:	BAM		TOTAL SHTS.
KENT				641



POLE SCHEDULE

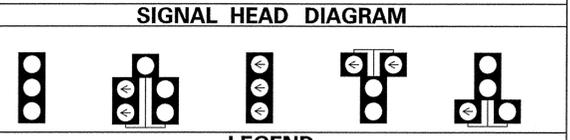
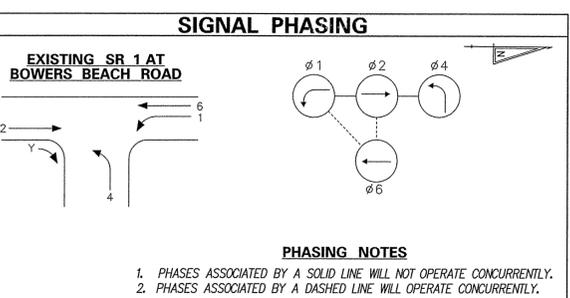
POLE #	POLE TYPE	HEIGHT	MATERIAL
1	MAST ARM	21'-6"	STEEL
4	CAMERA	75'	STEEL
6	MAST ARM	21'-6"	STEEL
7	MAST ARM	21'-6"	STEEL
10	MAST ARM	21'-6"	STEEL
x16	STRAIN	32'	STEEL
x17	CAMERA	75'	STEEL
x18	REPEATER	30'	ALUMINUM
x19	STRAIN	32'	STEEL

x- DENOTES EXISTING
*- TO BE REMOVED

- PHASE III, STAGE 4 SIGNAL NOTES**
- 1 STRIPE NEW STOP BAR AS SHOWN AND REMOVE EXISTING STOP BAR FOR EXISTING SOUTHBOUND SR1.
 - 2 PEDESTRIAN SIGNAL POLES, HEADS, AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG PROPOSED CONDUIT. PROPOSED POLE BASES SHALL BE CONSTRUCTED SUCH THAT THEY ARE ULTIMATELY IN COMPLIANCE WITH GENERAL SIGNAL NOTES NO. 3.
 - 3 THE EXISTING CAMERA, CAMERA POLE, POLE BASE, CAMERA CABINET AND ASSOCIATED CONDUITS, JUNCTION WELLS, AND CABLES SHALL NOT BE REMOVED OR ABANDONED UNTIL THE PROPOSED CAMERA, CAMERA POLE AND CABINET ARE INSTALLED AND IN OPERATION.
 - 4 THE EXISTING WTRC AM REPEATER STATION POLE, AND ASSOCIATED EQUIPMENT SHALL BE RELOCATED TO THE PROPOSED LOCATION AS SHOWN ON PLANS.
 - 5 POWER CONDUIT, LATER TO BE EXTENDED TO FUTURE JUNCTION WELL TYPE 11 AT STATION 902+44.
 - 6 POWER CONDUIT, LATER TO BE EXTENDED TO FUTURE RWIS STATION AND FUTURE JUNCTION WELL TYPE 11 AT STATION 902+44.
 - 7 PLUG ALL OPEN ENDS OF CONDUITS.
 - 8 FUTURE ITMS JUNCTION WELL TYPE 7. SEE UTILITIES PLAN FOR ACTUAL LOCATION AND INSTALLATION SEQUENCE.
 - 9 CONTRACTOR SHALL TRENCH AS DEEP AS IS REQUIRED TO PREVENT CRUSHING OF CONDUIT DURING CONSTRUCTION IN THIS AND SUBSEQUENT PHASES AND STAGES.
 - 10 ALL CABLES IN ABANDONED CONDUITS SHALL BE REMOVED.
 - 11 COMMUNICATION WITH DELDOT TMC SHALL BE VIA CDMA UNTIL ITMS FIBER COMMUNICATION IS ESTABLISHED.

ADDITIONAL LEGEND

	PROPOSED PAVEMENT
	PROPOSED WORK AREA
	PROPOSED WORK AREA REMOVAL
	PROPOSED PUCK SENSOR
	EXISTING PUCK SENSOR



LEGEND

	ABANDON		EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)		PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)		EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)		PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)		EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)		PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)		REMOVE BY CONTRACTOR
	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)		REMOVE BY OTHERS
	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)		REMOVE BY TRAFFIC CONTRACTOR

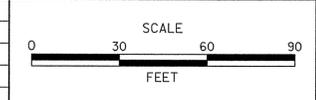
	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL		
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE		
UTILITY POLE		
CAMERA (CCTV)		

- GENERAL SIGNAL NOTES**
1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
 2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
 3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50H-FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJACENT LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
 4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
 5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
 6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____ RECOMMENDED *John Sawicki* DATE: 12/5/14 RECOMMENDED *Richard* DATE: 12/2/14 APPROVED TRAFFIC ENGINEER *John C. He* DATE: 12/5/14 APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER *John* DATE: 12/9/14



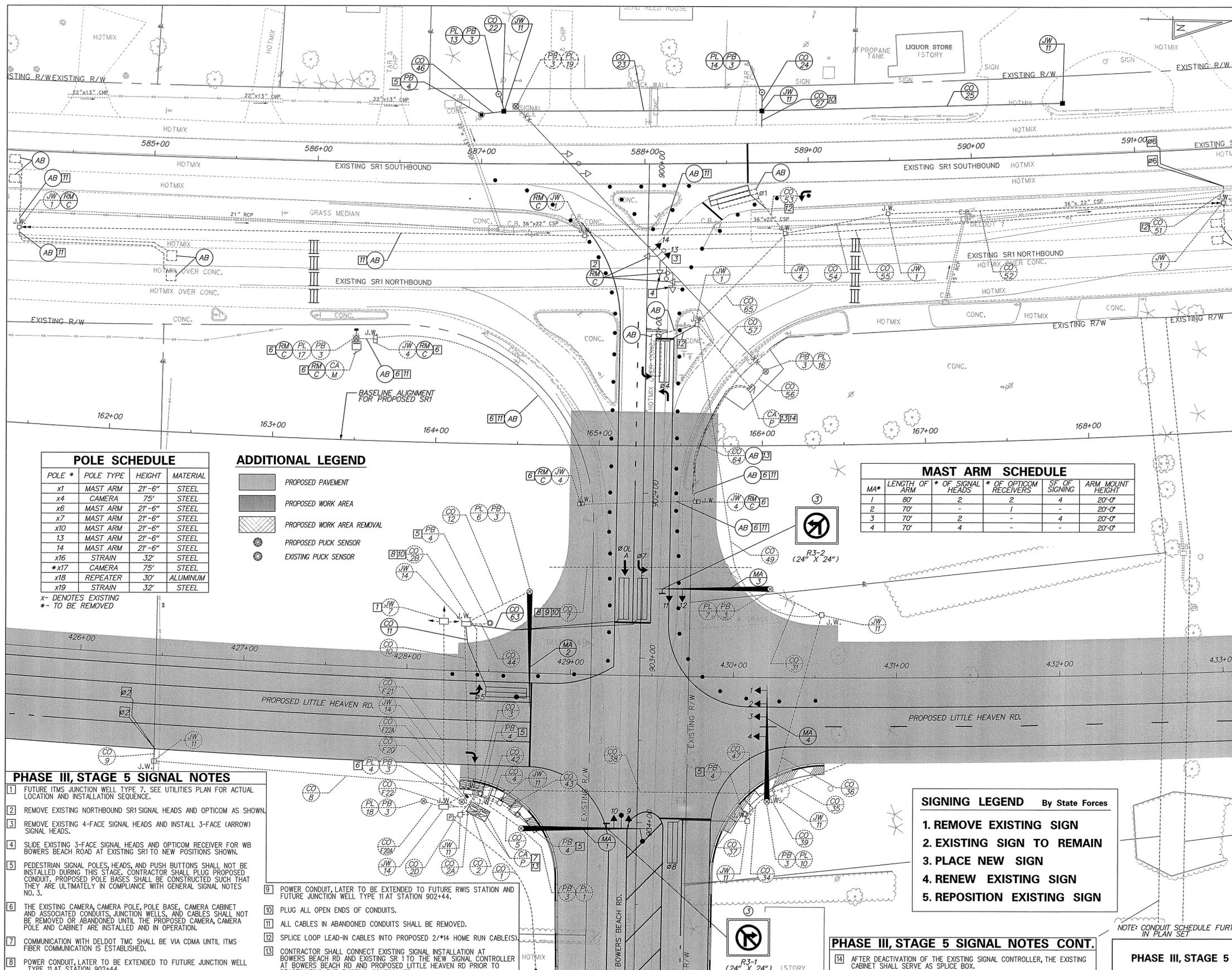
ADDENDUM / REVISIONS



SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN	SHEET NO. 595
T200412202	DESIGNED BY: MSK			
COUNTY	CHECKED BY: BAM	SR1 @ BOWERS BEACH RD		TOTAL SHTS. 641
KENT				

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POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x4	CAMERA	75'	STEEL
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x10	MAST ARM	21'-6"	STEEL
13	MAST ARM	21'-6"	STEEL
14	MAST ARM	21'-6"	STEEL
x16	STRAIN	32'	STEEL
*x17	CAMERA	75'	STEEL
x18	REPEATER	30'	ALUMINUM
x19	STRAIN	32'	STEEL

ADDITIONAL LEGEND	
	PROPOSED PAVEMENT
	PROPOSED WORK AREA
	PROPOSED WORK AREA REMOVAL
	PROPOSED PUCK SENSOR
	EXISTING PUCK SENSOR

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	80'	2	2	4	20'-0"
2	70'	-	1	-	20'-0"
3	70'	2	-	4	20'-0"
4	70'	4	-	-	20'-0"

PHASE III, STAGE 5 SIGNAL NOTES

- FUTURE ITMS JUNCTION WELL TYPE 7. SEE UTILITIES PLAN FOR ACTUAL LOCATION AND INSTALLATION SEQUENCE.
- REMOVE EXISTING NORTHBOUND SR1 SIGNAL HEADS AND OPTICOM AS SHOWN.
- REMOVE EXISTING 4-FACE SIGNAL HEADS AND INSTALL 3-FACE (ARROW) SIGNAL HEADS.
- SLIDE EXISTING 3-FACE SIGNAL HEADS AND OPTICOM RECEIVER FOR WB BOWERS BEACH ROAD AT EXISTING SR1 TO NEW POSITIONS SHOWN.
- PEDESTRIAN SIGNAL POLES, HEADS, AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG PROPOSED CONDUIT. PROPOSED POLE BASES SHALL BE CONSTRUCTED SUCH THAT THEY ARE ULTIMATELY IN COMPLIANCE WITH GENERAL SIGNAL NOTES NO. 3.
- THE EXISTING CAMERA, CAMERA POLE, POLE BASE, CAMERA CABINET AND ASSOCIATED CONDUITS, JUNCTION WELLS, AND CABLES SHALL NOT BE REMOVED OR ABANDONED UNTIL THE PROPOSED CAMERA, CAMERA POLE AND CABINET ARE INSTALLED AND IN OPERATION.
- COMMUNICATION WITH DELDOT TMC SHALL BE VIA CDMA UNTIL ITMS FIBER COMMUNICATION IS ESTABLISHED.
- POWER CONDUIT, LATER TO BE EXTENDED TO FUTURE JUNCTION WELL TYPE 11 AT STATION 902+44.

- POWER CONDUIT, LATER TO BE EXTENDED TO FUTURE RWIS STATION AND FUTURE JUNCTION WELL TYPE 11 AT STATION 902+44.
- PLUG ALL OPEN ENDS OF CONDUITS.
- ALL CABLES IN ABANDONED CONDUITS SHALL BE REMOVED.
- SPLICE LOOP LEAD-IN CABLES INTO PROPOSED 2" #14 HOME RUN CABLE(S).
- CONTRACTOR SHALL CONNECT EXISTING SIGNAL INSTALLATION AT BOWERS BEACH RD AND EXISTING SR 1 TO THE NEW SIGNAL CONTROLLER AT BOWERS BEACH RD AND PROPOSED LITTLE HEAVEN RD PRIOR TO DEACTIVATING THE EXISTING CONTROLLER.

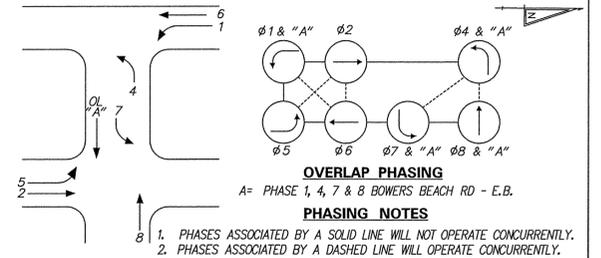
SIGNING LEGEND By State Forces

- REMOVE EXISTING SIGN
- EXISTING SIGN TO REMAIN
- PLACE NEW SIGN
- RENEW EXISTING SIGN
- REPOSITION EXISTING SIGN

PHASE III, STAGE 5 SIGNAL NOTES CONT.

- AFTER DEACTIVATION OF THE EXISTING SIGNAL CONTROLLER, THE EXISTING CABINET SHALL SERVE AS SPLICE BOX.

SIGNAL PHASING



SIGNAL HEAD DIAGRAM



LEGEND

	ABANDON		EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)		PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)		EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)		PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)		EXISTING POLE IDENTIFIER (* OF POLE)
	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)		PROPOSED POLE IDENTIFIER (* OF POLE)
	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)		REMOVE BY CONTRACTOR
	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)		REMOVE BY OTHERS
	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)		REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		
SERVICE PEDESTAL		
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE		
UTILITY POLE		
CAMERA (CCTV)		

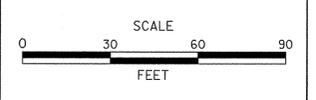
GENERAL SIGNAL NOTES

- ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
- POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
- PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTED) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
- ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS, SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE ONLY MARKETS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED DATE: 12/15/14 RECOMMENDED DATE: 12/15/14 RECOMMENDED DATE: 12/12/14 APPROVED TRAFFIC ENGINEER DATE: 12/15/14 APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER DATE: 12/19/14



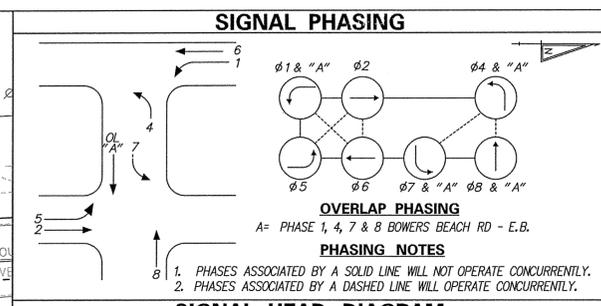
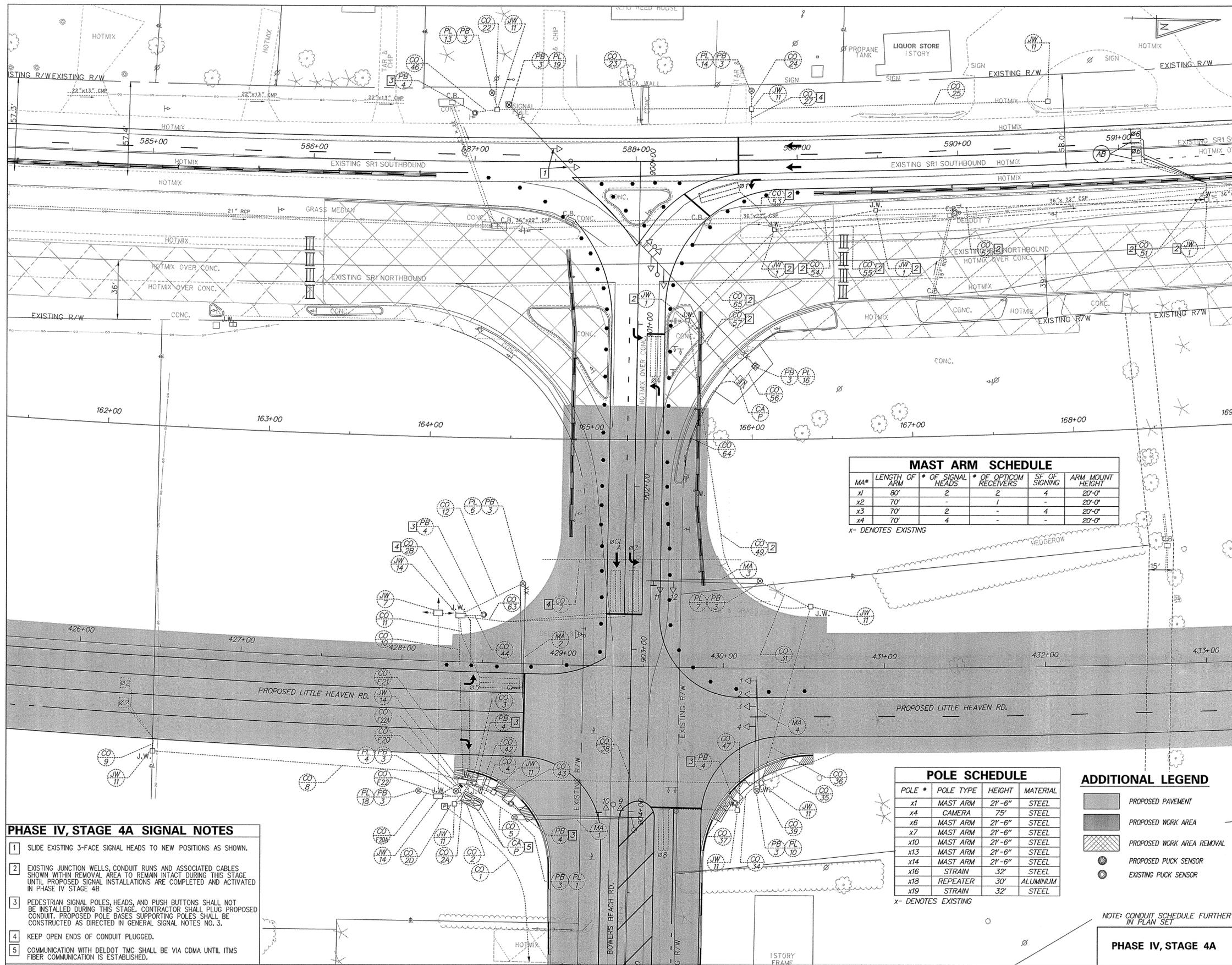
ADDENDUM / REVISIONS	



SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN	SHEET NO. 596
T200412202	DESIGNED BY:	MSK		
COUNTY	CHECKED BY:	BAM	SR1 @ BOWERS BEACH RD	TOTAL SHTS. 641

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LEGEND

(AB)	ABANDON	(OH)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
(CA)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	(OH)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
(CA)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	(PB)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	(PB)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	(PL)	EXISTING POLE IDENTIFIER (* OF POLE)
(JW)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(PL)	PROPOSED POLE IDENTIFIER (* OF POLE)
(JW)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(RM)	REMOVE BY CONTRACTOR
(MA)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM)	REMOVE BY OTHERS
(MA)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM)	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	□	□
LUMINAIRE	◇	◇
MAST ARM	▶	▶
MICROWAVE DETECTION	◀	◀
OPTICOM RECEIVER	○	○
OVERHEAD SIGNING	⊥	⊥
PEDESTRIAN POLE/BASE	⊙	⊙
PEDESTRIAN PUSHBUTTON	→	→
PEDESTRIAN SIGNAL HEAD	⊥	⊥
RIGHT-OF-WAY	---	---
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▭	▭
SIGNAL HEAD	▶	▶
SIGNAL POLE/BASE	⊙	⊙
SPAN INSULATOR	◇	◇
SPAN WIRE	—XX—	—XX—
UTILITY POLE	⊙	⊙
CAMERA (CCTV)	⊥	⊥

MAST ARM SCHEDULE

MA*	LENGTH OF ARM	* OF SIGNAL HEADS	* OF OPTICOM RECEIVERS	SF. OF SIGNING	ARM MOUNT HEIGHT
x1	80'	2	2	4	20'-0"
x2	70'	-	1	-	20'-0"
x3	70'	2	-	4	20'-0"
x4	70'	4	-	-	20'-0"

x- DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x4	CAMERA	75'	STEEL
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x10	MAST ARM	21'-6"	STEEL
x13	MAST ARM	21'-6"	STEEL
x14	MAST ARM	21'-6"	STEEL
x16	STRAIN	32'	STEEL
x18	REPEATER	30'	ALUMINUM
x19	STRAIN	32'	STEEL

x- DENOTES EXISTING

ADDITIONAL LEGEND

▭	PROPOSED PAVEMENT
▭	PROPOSED WORK AREA
▭	PROPOSED WORK AREA REMOVAL
⊙	PROPOSED PUCK SENSOR
⊙	EXISTING PUCK SENSOR

NOTE: CONDUIT SCHEDULE FURTHER IN PLAN SET

PHASE IV, STAGE 4A SIGNAL NOTES

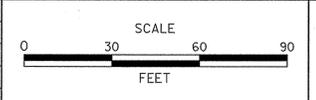
- SLIDE EXISTING 3-FACE SIGNAL HEADS TO NEW POSITIONS AS SHOWN.
- EXISTING JUNCTION WELLS, CONDUIT RUNS AND ASSOCIATED CABLES SHOWN WITHIN REMOVAL AREA TO REMAIN INTACT DURING THIS STAGE UNTIL PROPOSED SIGNAL INSTALLATIONS ARE COMPLETED AND ACTIVATED IN PHASE IV STAGE 4B.
- PEDESTRIAN SIGNAL POLES, HEADS, AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG PROPOSED CONDUIT. PROPOSED POLE BASES SUPPORTING POLES SHALL BE CONSTRUCTED AS DIRECTED IN GENERAL SIGNAL NOTES NO. 3.
- KEEP OPEN ENDS OF CONDUIT PLUGGED.
- COMMUNICATION WITH DELDOT TMC SHALL BE VIA CDMA UNTIL ITMS FIBER COMMUNICATION IS ESTABLISHED.

RECOMMENDED _____ DATE: _____ RECOMMENDED *Max SAINTIL* DATE: 12/5/14 RECOMMENDED *Edwards* DATE: 12/2/14 APPROVED TRAFFIC ENGINEER *Manuel C. H...* DATE: 12/9/14 APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER *W...* DATE: 12/9/14



ADDENDUM / REVISIONS

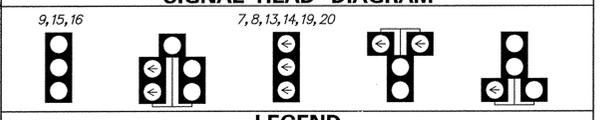
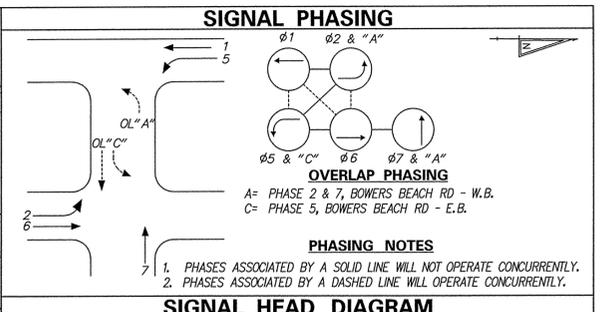
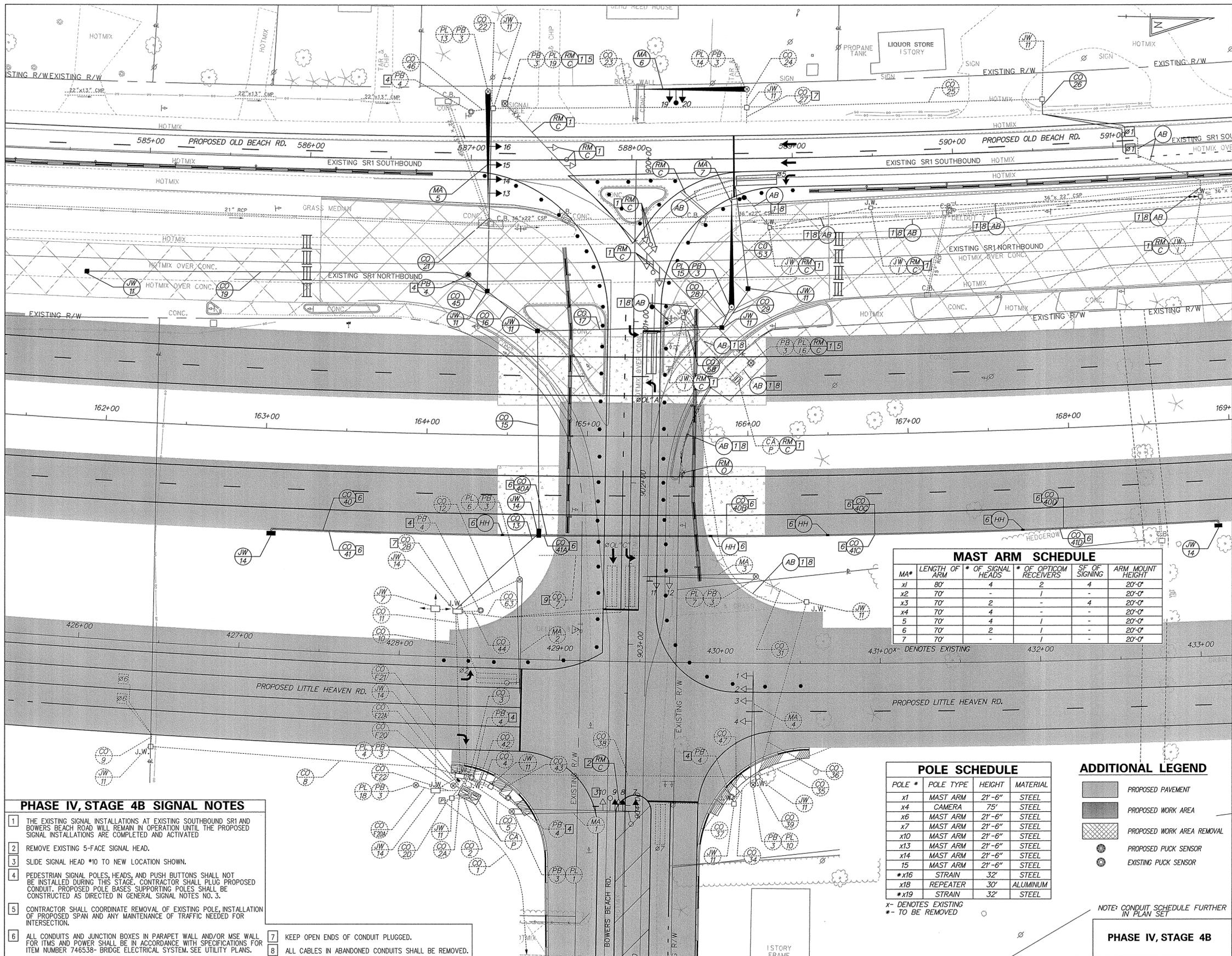
NO.	DESCRIPTION	DATE



SRI, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN	SHEET NO. 597	
T200412202	DESIGNED BY:	MSK			TOTAL SHTS. 641
COUNTY	CHECKED BY:	BAM			
KENT			SRI @ BOWERS BEACH RD		

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LEGEND

(AB)	ABANDON	(OH)	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
(CA)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	(OH)	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
(CA)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	(PB)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO)	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	(PB)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO)	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	(PL)	EXISTING POLE IDENTIFIER (# OF POLE)
(JW)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(PL)	PROPOSED POLE IDENTIFIER (# OF POLE)
(JW)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(RM)	REMOVE BY CONTRACTOR
(MA)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM)	REMOVE BY OTHERS
(MA)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM)	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	□	□
LUMINAIRE	◇	◇
MAST ARM	▶	▶
MICROWAVE DETECTION	◀	◀
OPTICOM RECEIVER	○	○
OVERHEAD SIGNING	+	+
PEDESTRIAN POLE/BASE	⊙	⊙
PEDESTRIAN PUSHBUTTON	—D	—D
PEDESTRIAN SIGNAL HEAD	⊔	⊔
RIGHT-OF-WAY	---	---
SERVICE PEDESTAL	⊔	⊔
SIGNAL CABINET	⊔	⊔
SIGNAL HEAD	▷	▷
SIGNAL POLE/BASE	⊙	⊙
SPAN INSULATOR	◇	◇
SPAN WIRE	—XX—	—XX—
UTILITY POLE	⊔	⊔
CAMERA (CCTV)	—	—

GENERAL SIGNAL NOTES

- ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELOIT TRAFFIC-DOVER, DELAWARE.
- POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
- PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJOINING LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
- ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELOIT IMMEDIATELY BEFORE CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

MAST ARM SCHEDULE

MA*	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	ST. OF SIGNING	ARM MOUNT HEIGHT
x1	80'	4	2	4	20'-0"
x2	70'	1	1	4	20'-0"
x3	70'	2	4	4	20'-0"
x4	70'	4	1	4	20'-0"
x5	70'	4	1	4	20'-0"
x6	70'	2	1	4	20'-0"
x7	70'	-	1	-	20'-0"

* - DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x4	CAMERA	75'	STEEL
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x10	MAST ARM	21'-6"	STEEL
x13	MAST ARM	21'-6"	STEEL
x14	MAST ARM	21'-6"	STEEL
x15	MAST ARM	21'-6"	STEEL
*x16	STRAIN	32'	STEEL
x18	REPEATER	30'	ALUMINUM
*x19	STRAIN	32'	STEEL

x - DENOTES EXISTING
 * - TO BE REMOVED

ADDITIONAL LEGEND

▨	PROPOSED PAVEMENT
▨	PROPOSED WORK AREA
▨	PROPOSED WORK AREA REMOVAL
⊙	PROPOSED PUCK SENSOR
⊙	EXISTING PUCK SENSOR

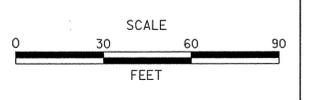
PHASE IV, STAGE 4B SIGNAL NOTES

- THE EXISTING SIGNAL INSTALLATIONS AT EXISTING SOUTHBOUND SR1 AND BOWERS BEACH ROAD WILL REMAIN IN OPERATION UNTIL THE PROPOSED SIGNAL INSTALLATIONS ARE COMPLETED AND ACTIVATED.
- REMOVE EXISTING 5-FACE SIGNAL HEAD.
- SLIDE SIGNAL HEAD #10 TO NEW LOCATION SHOWN.
- PEDESTRIAN SIGNAL POLES, HEADS, AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG PROPOSED CONDUIT. PROPOSED POLE BASES SUPPORTING POLES SHALL BE CONSTRUCTED AS DIRECTED IN GENERAL SIGNAL NOTES NO. 3.
- CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING POLE, INSTALLATION OF PROPOSED SPAN AND ANY MAINTENANCE OF TRAFFIC NEEDED FOR INTERSECTION.
- ALL CONDUITS AND JUNCTION BOXES IN PARAPET WALL AND/OR MSE WALL FOR ITMS AND POWER SHALL BE IN ACCORDANCE WITH SPECIFICATIONS FOR ITEM NUMBER 746538- BRIDGE ELECTRICAL SYSTEM. SEE UTILITY PLANS.
- KEEP OPEN ENDS OF CONDUIT PLUGGED.
- ALL CABLES IN ABANDONED CONDUITS SHALL BE REMOVED.

RECOMMENDED _____ DATE: _____
 RECOMMENDED *Open SAH 12/14* DATE: 12/15/14
 RECOMMENDED *B. S. D. 12/14* DATE: 12/12/14
 APPROVED TRAFFIC ENGINEER *Mona C. H. 12/14* DATE: 12/15/14
 APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER *W. L. 12/14* DATE: 12/19/14



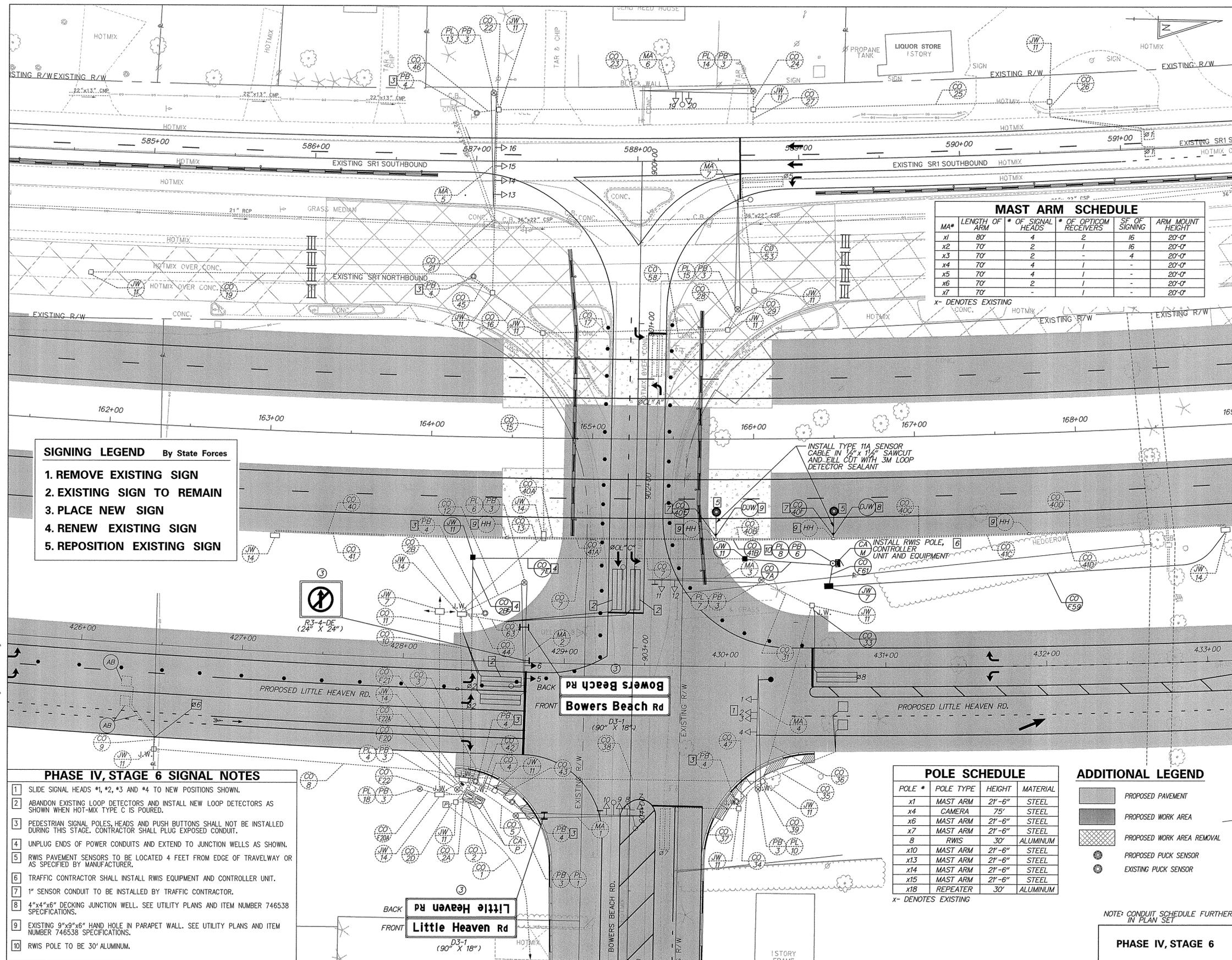
ADDENDUM / REVISIONS



SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN	SHEET NO.
T200412202	DESIGNED BY:	MSK	SR1 @ BOWERS BEACH RD	598
COUNTY	CHECKED BY:	BAM		TOTAL SHTS.
KENT				641

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SIGNING LEGEND By State Forces

1. REMOVE EXISTING SIGN
2. EXISTING SIGN TO REMAIN
3. PLACE NEW SIGN
4. RENEW EXISTING SIGN
5. REPOSITION EXISTING SIGN

PHASE IV, STAGE 6 SIGNAL NOTES

1. SLIDE SIGNAL HEADS #1, #2, #3 AND #4 TO NEW POSITIONS SHOWN.
2. ABANDON EXISTING LOOP DETECTORS AND INSTALL NEW LOOP DETECTORS AS SHOWN WHEN HOT-MIX TYPE C IS POURED.
3. PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG EXPOSED CONDUIT.
4. UNPLUG ENDS OF POWER CONDUITS AND EXTEND TO JUNCTION WELLS AS SHOWN.
5. RWIS PAVEMENT SENSORS TO BE LOCATED 4 FEET FROM EDGE OF TRAVELWAY OR AS SPECIFIED BY MANUFACTURER.
6. TRAFFIC CONTRACTOR SHALL INSTALL RWIS EQUIPMENT AND CONTROLLER UNIT.
7. 1" SENSOR CONDUIT TO BE INSTALLED BY TRAFFIC CONTRACTOR.
8. 4"x4"x6" DECKING JUNCTION WELL. SEE UTILITY PLANS AND ITEM NUMBER 746538 SPECIFICATIONS.
9. EXISTING 9"x9"x6" HAND HOLE IN PARAPET WALL. SEE UTILITY PLANS AND ITEM NUMBER 746538 SPECIFICATIONS.
10. RWIS POLE TO BE 30' ALUMINUM.

MAST ARM SCHEDULE

MA#	LENGTH OF ARM	# OF SIGNAL HEADS	# OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
x1	80'	4	2	16	20'-0"
x2	70'	2	1	16	20'-0"
x3	70'	2	-	4	20'-0"
x4	70'	4	1	-	20'-0"
x5	70'	4	1	-	20'-0"
x6	70'	2	1	-	20'-0"
x7	70'	-	1	-	20'-0"

X- DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x4	CAMERA	75'	STEEL
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
8	RWIS	30'	ALUMINUM
x10	MAST ARM	21'-6"	STEEL
x13	MAST ARM	21'-6"	STEEL
x14	MAST ARM	21'-6"	STEEL
x15	MAST ARM	21'-6"	STEEL
x18	REPEATER	30'	ALUMINUM

X- DENOTES EXISTING

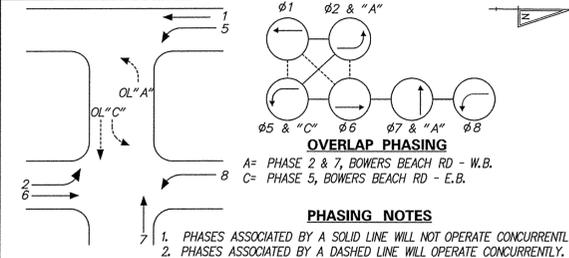
ADDITIONAL LEGEND

- PROPOSED PAVEMENT
- PROPOSED WORK AREA
- PROPOSED WORK AREA REMOVAL
- PROPOSED PUCK SENSOR
- EXISTING PUCK SENSOR

NOTE: CONDUIT SCHEDULE FURTHER IN PLAN SET

PHASE IV, STAGE 6

SIGNAL PHASING



SIGNAL HEAD DIAGRAM



LEGEND

- AB ABANDON
- EXISTING CABINET IDENTIFIER (TYPE OF CABINET)
- PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)
- EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
- PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)
- EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)
- EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)
- PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)
- EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
- PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
- EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
- EXISTING POLE IDENTIFIER (* OF POLE)
- PROPOSED POLE IDENTIFIER (* OF POLE)
- REMOVE BY CONTRACTOR
- REMOVE BY OTHERS
- REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	□	□
LUMINAIRE	◇	◇
MAST ARM	▶	▶
MICROWAVE DETECTION	◀	◀
OPTICOM RECEIVER	○	○
OVERHEAD SIGNING	⊥	⊥
PEDESTRIAN POLE/BASE	⊙	⊙
PEDESTRIAN PUSHBUTTON	⊙	⊙
PEDESTRIAN SIGNAL HEAD	⊙	⊙
RIGHT-OF-WAY	---	---
SERVICE PEDESTAL	⊞	⊞
SIGNAL CABINET	⊞	⊞
SIGNAL HEAD	▶	▶
SIGNAL POLE/BASE	⊙	⊙
SPAN INSULATOR	◇	◇
SPAN WIRE	—XX—	—XX—
UTILITY POLE	⊙	⊙
CAMERA (CCTV)	⊙	⊙

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
2. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
3. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50" FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJACENT LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 18 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
5. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MESS UTILITY AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
6. CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

RECOMMENDED _____ DATE: _____

RECOMMENDED *DP* DATE: 12/5/14

RECOMMENDED *Edwards* DATE: 12/2/14

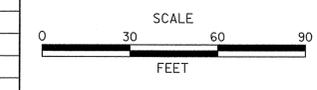
APPROVED TRAFFIC ENGINEER *M. L. Hill* DATE: 12/5/14

APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER *W. L. Jones* DATE: 12/9/14



ADDENDUM / REVISIONS

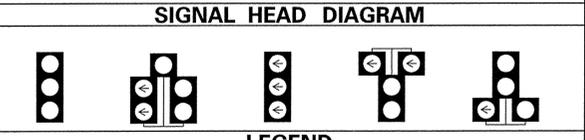
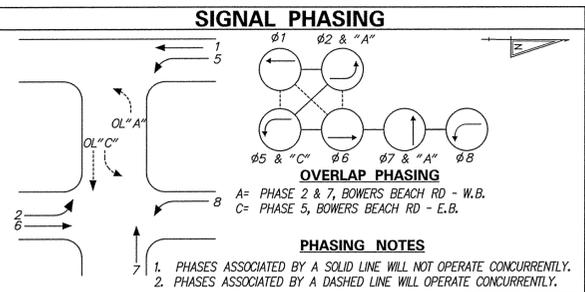
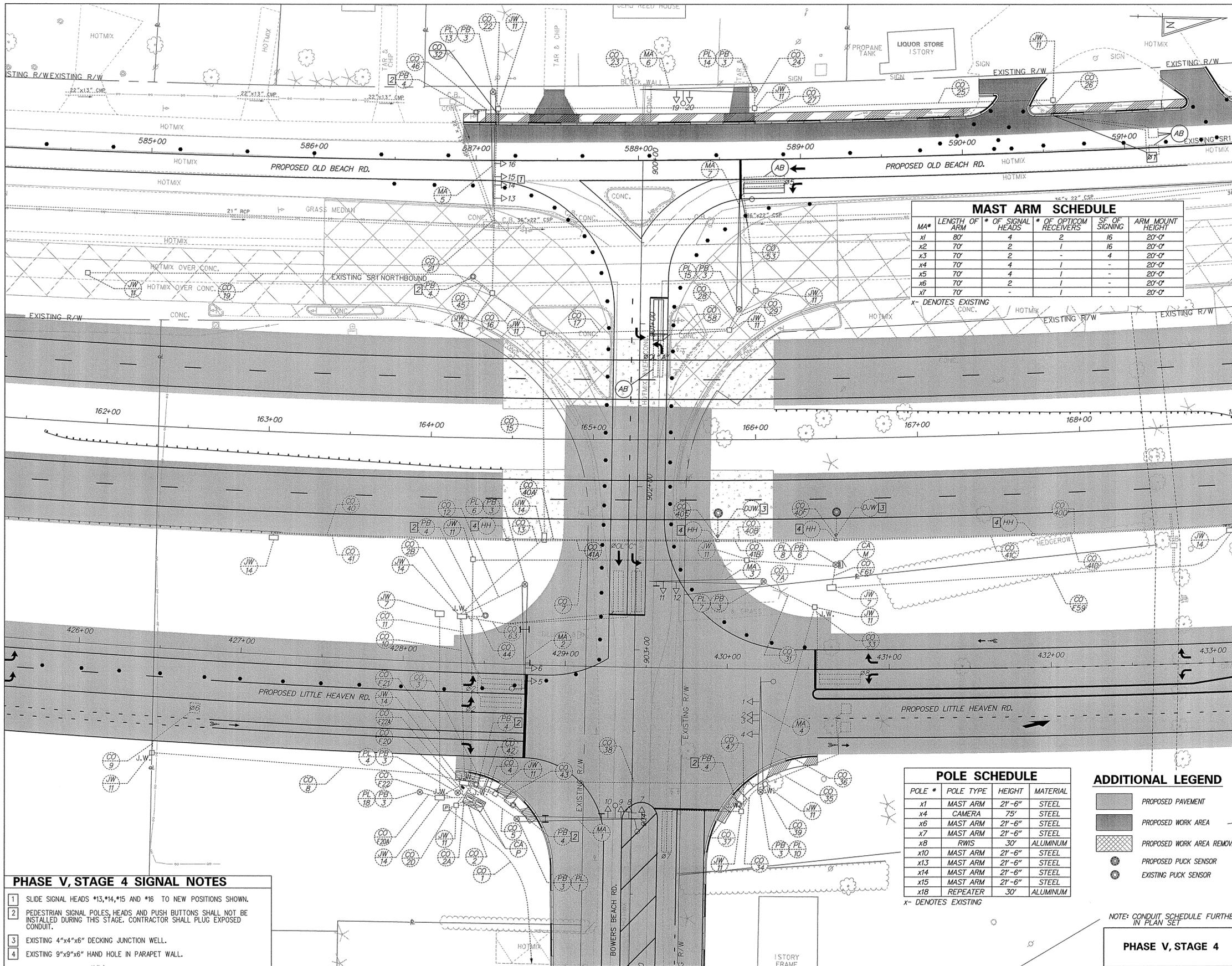
NO.	DESCRIPTION



SRI, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN	SHEET NO. 599
T200412202	DESIGNED BY:	MSK		
COUNTY	CHECKED BY:	BAM		
KENT			SRI @ BOWERS BEACH RD	TOTAL SHTS. 641

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LEGEND

(AB)	ABANDON	(OH)	EXISTING OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
(CA)	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	(OH)	PROPOSED OVERHEAD RUN IDENTIFIER (* OF OVERHEAD RUN)
(CA)	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	(PB)	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO)	EXISTING CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	(PB)	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
(CO)	PROPOSED CONDUIT RUN IDENTIFIER (* OF CONDUIT RUN)	(PL)	EXISTING POLE IDENTIFIER (* OF POLE)
(JW)	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(PL)	PROPOSED POLE IDENTIFIER (* OF POLE)
(JW)	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	(RM)	REMOVE BY CONTRACTOR
(MA)	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM)	REMOVE BY OTHERS
(MA)	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	(RM)	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	□	□
LUMINAIRE	⬅	➡
MAST ARM	➤	➤
MICROWAVE DETECTION	➤	➤
OPTICOM RECEIVER	○	○
OVERHEAD SIGNING	⊥	⊥
PEDESTRIAN POLE/BASE	⊙	⊙
PEDESTRIAN PUSHBUTTON	⊥	⊥
PEDESTRIAN SIGNAL HEAD	⊥	⊥
RIGHT-OF-WAY	---	---
SERVICE PEDESTAL	P	P
SIGNAL CABINET	▭	▭
SIGNAL HEAD	➤	➤
SIGNAL POLE/BASE	⊙	⊙
SPAN INSULATOR	◇	◇
SPAN WIRE	XX	XX
UTILITY POLE	⊙	⊙
CAMERA (CCTV)	⊥	⊥

GENERAL SIGNAL NOTES

- ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC-DOVER, DELAWARE.
- POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS ARE TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
- PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHALL BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 FLATTER) LANDING AREA OF THE CURB RAMP OR SIDEWALK IN ACCORDANCE WITH CURRENT ADA BEST PRACTICES. THESE POLE BASES SHALL BE FLUSH WITH THE ADJACENT LANDING AREA. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 42 TO 48 INCHES ABOVE THE LANDING AREA/SIDEWALK AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE IS 10 INCHES FROM THE LANDING AREA TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE SIDEWALK LEVEL.
- ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET, BOLTED AND COMPRESSION FITTINGS ARE NOT ACCEPTABLE.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY ENTITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT IMMEDIATELY BEFORE CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE WITH TRAFFIC SIGNAL MAINTENANCE FOR THE IDENTIFICATION AND REMOVAL OF ALL UNUSED AND REDUNDANT COPPER CABLE.

MAST ARM SCHEDULE

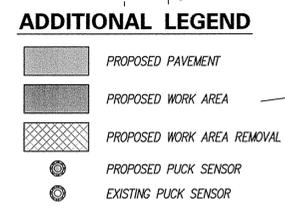
MA#	LENGTH OF ARM	* OF SIGNAL HEADS	* OF OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
x1	80'	4	2	16	20'-0"
x2	70'	2	1	16	20'-0"
x3	70'	2	1	4	20'-0"
x4	70'	4	1	-	20'-0"
x5	70'	4	1	-	20'-0"
x6	70'	2	1	-	20'-0"
x7	70'	-	1	-	20'-0"

x- DENOTES EXISTING

POLE SCHEDULE

POLE #	POLE TYPE	HEIGHT	MATERIAL
x1	MAST ARM	21'-6"	STEEL
x4	CAMERA	75'	STEEL
x6	MAST ARM	21'-6"	STEEL
x7	MAST ARM	21'-6"	STEEL
x8	RWIS	30'	ALUMINUM
x10	MAST ARM	21'-6"	STEEL
x13	MAST ARM	21'-6"	STEEL
x14	MAST ARM	21'-6"	STEEL
x15	MAST ARM	21'-6"	STEEL
x18	REPEATER	30'	ALUMINUM

x- DENOTES EXISTING



PHASE V, STAGE 4 SIGNAL NOTES

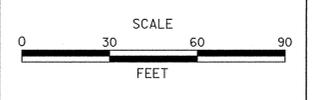
- SLIDE SIGNAL HEADS #13, #14, #15 AND #16 TO NEW POSITIONS SHOWN.
- PEDESTRIAN SIGNAL POLES, HEADS AND PUSH BUTTONS SHALL NOT BE INSTALLED DURING THIS STAGE. CONTRACTOR SHALL PLUG EXPOSED CONDUIT.
- EXISTING 4"x4"x6" DECKING JUNCTION WELL.
- EXISTING 9"x9"x6" HAND HOLE IN PARAPET WALL.

RECOMMENDED _____ DATE: _____ RECOMMENDED *Max SAINTL* DATE: 12/5/14 RECOMMENDED *Edell* DATE: 12/2/14 APPROVED TRAFFIC ENGINEER *W. L. H.* DATE: 12/5/14 APPROVED FOR INSTALLATION CHIEF TRAFFIC ENGINEER *W. L. H.* DATE: 12/9/14



ADDENDUM / REVISIONS

NO.	DATE	DESCRIPTION



SR1, LITTLE HEAVEN GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	K145	SIGNAL PLAN	SHEET NO.
T200412202	DESIGNED BY:	MSK	SR1 @ BOWERS BEACH RD	600
COUNTY	CHECKED BY:	BAM		TOTAL SHTS.
KENT				641

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