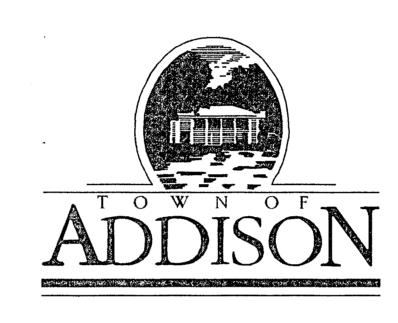
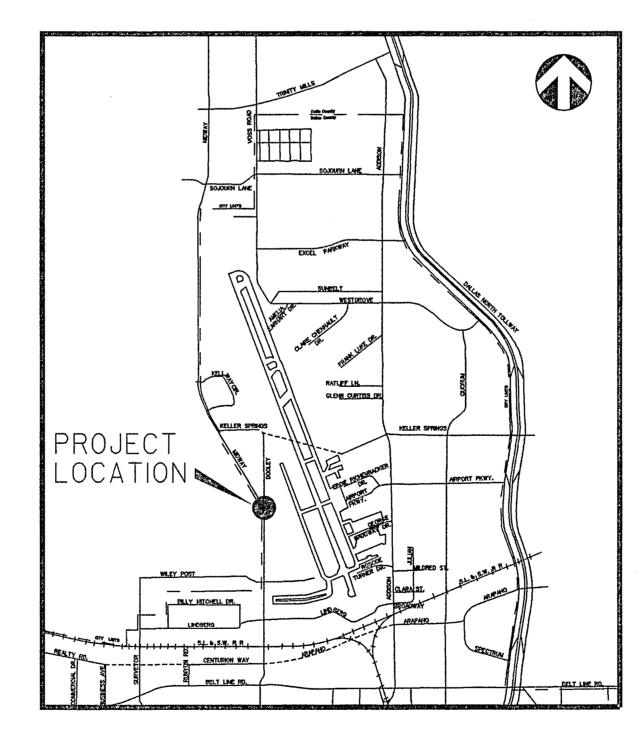
SIGNAL DESIGN PLANS FOR MIDWAY ROAD AT DOOLEY ROAD

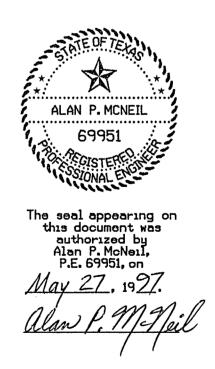


INDEX OF DRAWINGS

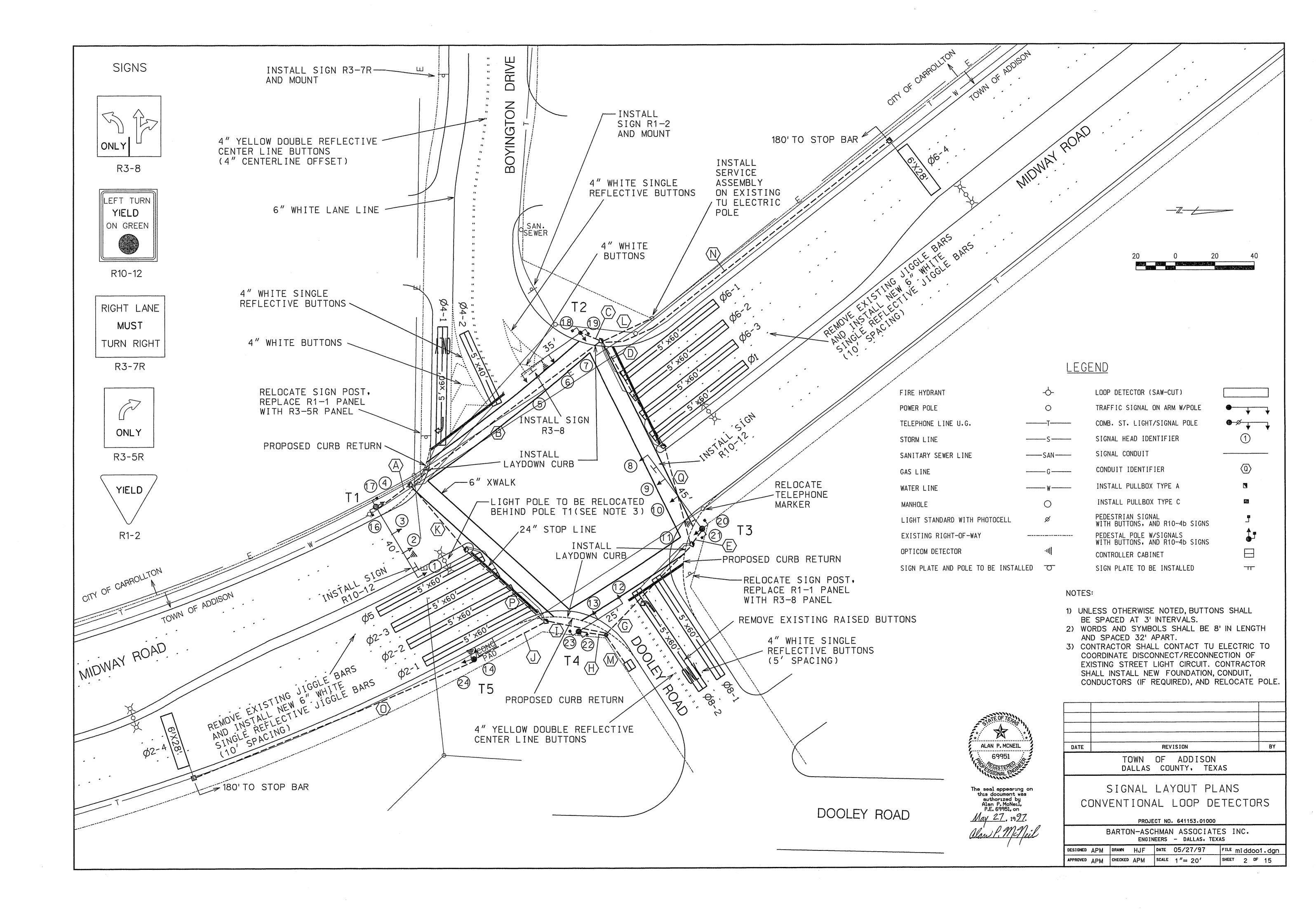
SHEET DESCRIPTION	PAGE #
TITLE SIGNAL LAYOUT PLANS - CONVENTIONAL LOOP DETECTORS SIGNAL LAYOUT TABLES - CONVENTIONAL LOOP DETECTORS SIGNAL LAYOUT PLANS - VIDEO DETECTION SIGNAL LAYOUT TABLES - VIDEO DETECTION	1 2 3 4 5
PAVING PLANS PAVING DETAILS	6 7
LOOP INSTALLATION DETAILS TRAFFIC SIGNAL HEAD DETAILS	8 9
TRAFFIC SIGNAL POLE FOUNDATIONS CONTROLLER FOUNDATION / GROUND BOX INSTALLATION	10 11
TRANSFORMER BASE DETAILS SERVICE POLE AND GROUNDING DETAILS	12 13
TRAFFIC CONTROL PLAN DETAILS	14-15



LOCATION MAP



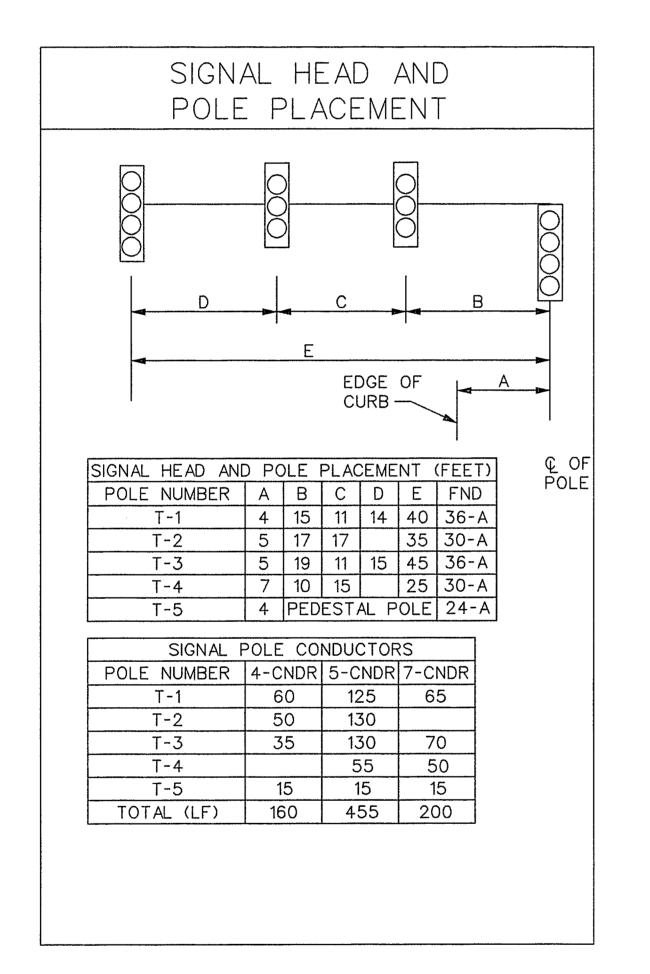




					(COND	JIT F	RUNS						
RUN NO.	QUANTITY	SIZE	TYPE	METHOD	*6 XHHW	#6 BARE	#18 SH. PR.	4 CNDR OPTICOM	7 CNDR	12 CNDR	19 CNDR	CONDUIT LENGTH	CABLE LENGTH	RUN NO.
Α	1	3''	PVC	Trench		1		1			1	23	28	А
В	1	3"	PVC	Bored								124	134	В
С	1	3"	PVC	Trench		1		1			1	15	20	С
D	1	3''	PVC	Bored	2	1	3	1			1	65	75	D
E	1	3''	PVC	Trench		1		1			1	13	18	E
F														F
G	1	3''	PVC	Bored	2	1	7	2			2	66	76	G
Н	1	3''	PVC	Trench		1				1		17	22	Н
l	1	3''	PVC	Trench		1	7	2		1	1	24	29	1
J	1	3''	PVC	Trench		1	1	1		1		45	55	J
K	1	3''	PVC	Bored		1	2	1			1	46	56	K
L	1	2"	PVC	Trench	2	1						31	36	L
М	3	3''	PVC	Trench	2	1	14	4		2	3	25	30	М
N	1	2"	PVC	Trench			1					183	193	N
0	1	2"	PVC	Trench			1					158	168	0
Р	1	3"	PVC	Bored		1	4	1			1	54	64	Р
Q	1	3"	PVC	Bored	2	1	5	1			1	57	67	Q
OTAL (LF)					568	576	2499	713		166	599			

			CAE	BLE TEF	RMINAT	ION CH	ART			
CABLE	T-1 (19	ONDR)	T-2 (19 CNDR)	T-3 (19 CNDR)	T-4 (12 CNDR)	T-5 (12 CNDR)
CONDUCTOR	S.H. NO.	INDICATION								
BLACK	1	< Y			8	← Y	SPARE		14	Y ->
WHITE		COMMON								
RED	1-4	R	5-7	R	8-11	R	12-13	R	14	R
* GREEN	1-4	G	5-7	G	8-11	G	12-13	G	14	G
ORANGE	1-4	Y	5-7	Y	8-11	Y	12-13	Y	14	Y
BLUE	1	←G			8	←G	PB 22	Ø2	14	G →
WHT/BLK	SPARE		SPARE		SPARE			PB COM	SPARE	
RED/BLK	16	DW	18	DW	20	DW	22	DW	24	R
GRN/BLK	16	W	18	W	20	W	22	W	24	G
ORN/BLK	SPARE		SPARE		SPARE		23	DW	24	Y
BLUE/BLK	SPARE		SPARE		SPARE		23	W	SPARE	
BLK/WHT	PB 16	Ø4	PB 18	Ø6	PB 20	Ø8	PB 23	Ø4	SPARE	
RED/WHT	17	DW	19	DW	21	DW				
GRN/WHT		PB COM		PB COM		PB COM				
BLUE/WHT	17	W	19	W	21	W				
BLK/RED	SPARE		SPARE		SPARE					
WHT/RED	PB 17	Ø6	PB 19	Ø8	PB 21	Ø2				
ORN/RED	SPARE		SPARE		SPARE				. /	\wedge
BLUE/RED	SPARE		SPARE		SPARE					
									/	

* ALSO FOR ←G ON SIGNAL HEADS 5 AND 12



		SIGNA	AL HI	EADS		
NO	TYPE	PHASE	BACK	PLATE	12" VEH	PED SIG
NO	1176	PHASE	3 SEC	4 SEC	SEC	SEC
1	V4LT*	Ø1+Ø6		1	4	
2	٧3	Ø6	1		3	
3	٧3	Ø6	1		3 3 3	
4	V3	Ø6	1		3	
5	V4LT	Ø8		1	4	
6	V3	Ø8	1		3	
7	V3	Ø8	1		3	
8	V4LT*	Ø2+Ø5		1	4	
9	٧3	Ø2	1		3	
10	V3	Ø2	1		3 3 3	
11	V3	Ø2	1			
12	V4LT	Ø4		1	4	
13	V3	Ø4	1		3	
14	V4RT∗	Ø4+0L A		1	4	
16,23	PED	Ø4				2
17,18	PED	Ø6				2
19,20	PED	Ø8				2
21,22	PED	Ø2				2
24 △	V3	Ø2			3	
TOTALS			9	5	50	8

×	-Use	green/yellow	fiber	optic	turn	arrow.	
Δ	NO	BACKPLATE F	REQUIR	ED			

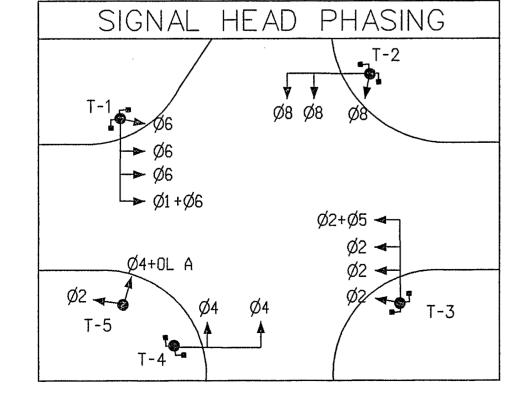
	SIGN SI	JMMARY	
LOCATION	SIGN NO.	TYPE OF SIGN	SIZE
POLE T-1	R10-12	LEFT TURN YIELD	30"x36"
POLE T-3	R10-12	LEFT TURN YIELD	30"x36"
S.W. CORNER	R3-5R	RIGHT ONLY	30"x30"
200' WEST OF INTERSECTION	R3-7R	RIGHT LANE MUST TURN RIGHT	30"×30"
475' S. OF INTERSECTION NORTHBOUND	W3-3	SIGNAL AHEAD	36"x36"
POLE T-2	R3-8	LANE ASSIGNMENT	30"x36"
N.E. CORNER	R3-8	LANE ASSIGNMENT	30"x36"
N.W. CORNER	R1-2	YIELD	36''x36''x36

LAYDOWN	CURB	SUMMARY	
LOCATION		FT.	
S.W. CORNE	S.W. CORNER		
N.W. CORN	ER	12.0	
S.E. CORNE	S.E. CORNER		
N.E. CORNE	12.0		
TOTAL		48.0	

	DE	TECTO	R DETA	AILS		
LOOP	DIMENSION	TYPE	TURNS	COLOR	SAW CUT	1" PVC
Ø1	5'x60'	QUAD	2-4-2	GREEN	193	4
Ø2-1	5'x60'	QUAD	2-4-2	WHITE	194	4
Ø2-2	5'x60'	QUAD	2-4-2	BLACK	210	4
Ø2-3	5'x60'	QUAD	2-4-2	ORANGE	206	4
Ø2-4	6'x28'	STND	3	WHITE	70	6
Ø8-1	5'x60'	QUAD	2-4-2	WHITE	210	4
Ø8-2	5'x60'	QUAD	2-4-2	BLACK	222	4
Ø4-1	5'x60'	QUAD	2-4-2	WHITE	212	4
Ø4-2	5'x40'	QUAD	2-4-2	BLACK	187	4
Ø5	5'x60'	QUAD	2-4-2	GREEN	194	4
Ø6-1	5'x60'	QUAD	2-4-2	WHITE	203	4
Ø6-2	5'x60'	QUAD	2-4-2	BLACK	215	4
Ø6-3	5'x60'	QUAD	2-4-2	ORANGE	205	4
Ø6-4	6'x28'	STND	3	WHITE	70	6
				TOTAL (LF)	2591	60

GROUND BOX					
SUMN	/ARY				
TYPE	EA				
Α	8				
C	1				
	SUMN				

(CONDUIT						
S	SUMMA	RY					
SIZE	TYPE	LENGTH (LF					
1" PVC	Trench	60					
2" PVC	Trench	372					
3" PVC	Trench	187					
3" PVC	Bore	412					



NEMA	NEMA PHASE DIAGRAM								
1	2	3 NOT USED	4 0						
5	6 0+++0	7 NOT USED	8						
	BAR	 RIER	BARRIER						

NOTES: 1) Phases 1 + 5 are protected/permissive left turn phases.
2) Phases 4 + 8 are split phases.
3) Overlap A = Phase 5

PAVEMENT MARKINGS							
TYPE	QUANTITY	UNIT					
6" SOLID WHITE ALKYD THERMOPLASTIC	850	FT					
24" SOLID WHITE ALKYD THERMOPLASTIC	185	FT					
SOLID WHITE ALKYD THERMO. RIGHT ARROW	2	EA					
SOLID WHITE ALKYD THERMO. "ONLY"	2	EA					
4" YELLOW BIDIRECTIONAL RETROFLECTIVE RAISED BUTTON	164	EA					
4" WHITE UNIDIRECTIONAL RETROFLECTIVE RAISED BUTTON	72	EA					
4" WHITE RAISED BUTTON	26	EA					
6" x 6" WHITE UNIDIRECTIONAL RETROFLECTIVE JIGGLE BAR	24	EA					
REMOVE RAISED BUTTON / JIGGLE BAR	30	EA					

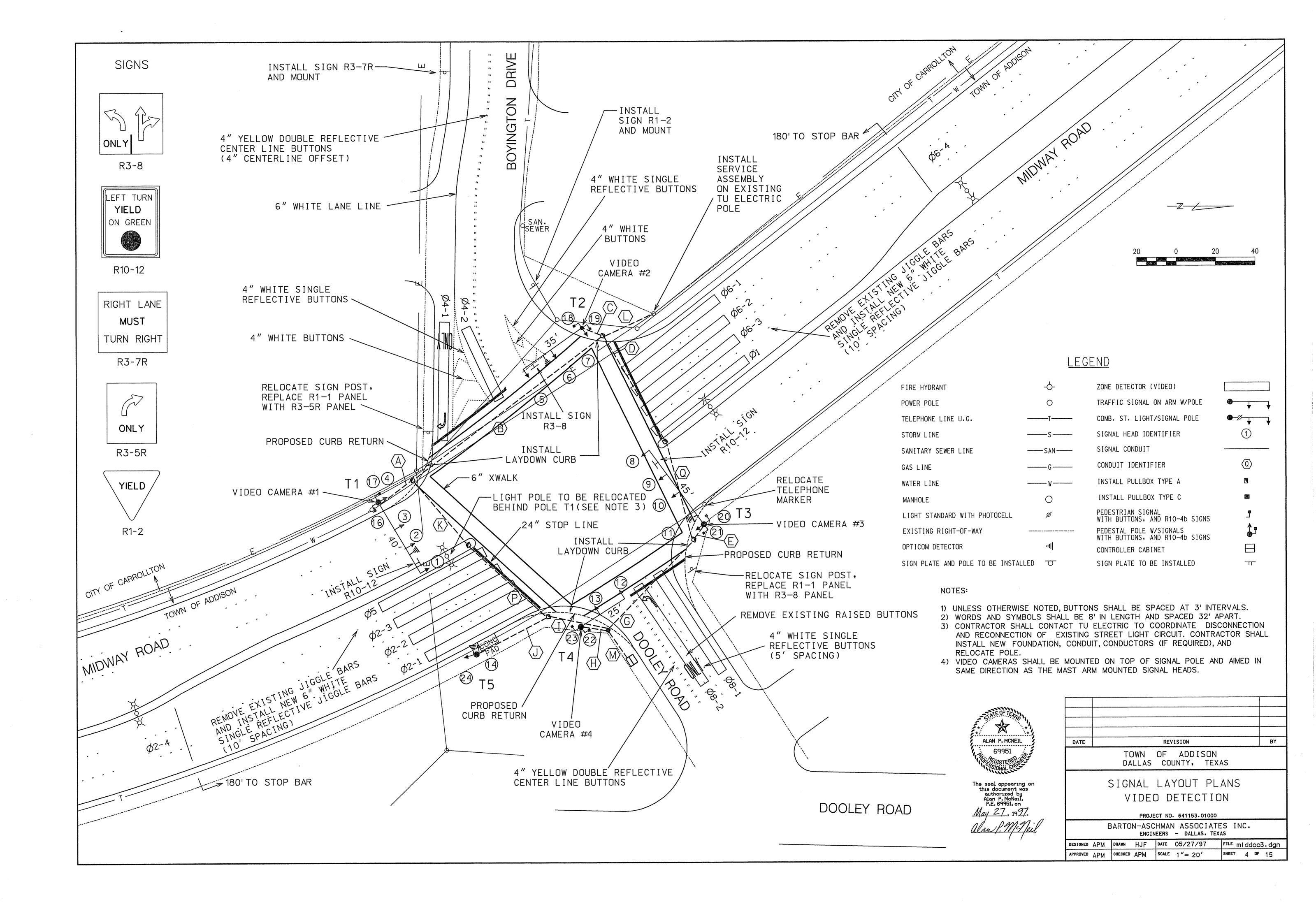


The seal appearing on this document was authorized by Alan P. McNeil, P.E. 69951, on May 27, 1997.

DATE	REVISION	BY
	TOWN OF ADDISON DALLAS COUNTY, TEXAS	

SIGNAL LAYOUT TABLES CONVENTIONAL LOOP DETECTORS

			PROJE	CT NO	. 641153.01000					
	Е	ARTO			N ASSOCIATE - DALLAS, TEX		۷C.			
DESIGNED	APM	DRAWN	HJF	DATE	05/27/97	FILE N	ni do	1002	2.dgn	
APPROVED	APM	CHECKED	APM	SCALE	1"= 20'	SHEET	3	OF	15	



					(COND	JIT F	RUNS						
RUN NO.	QUANTITY	SIZE	TYPE	METHOD	#6 XHHW	#6 BARE	COAX	4 CNDR OPTICOM	3 CNDR (VIDEO)	12 CNDR	19 CNDR	CONDUIT LENGTH	CABLE LENGTH	RUN NO
Α	1	3''	PVC	Trench		1	1	1	1		1	23	28	А
В	1	3''	PVC	Bored								124	134	В
С	1	3''	PVC	Trench		1	1	1	1		1	15	20	С
D	1	3''	PVC	Bored	2	1	1	1	1		1	65	75	D
E	1	3''	PVC	Trench		1	1	1	1		1	13	18	E
F														F
G	1	3''	PVC	Bored	2	1	2	2	2		2	66	76	G
Н	1	3''	PVC	Trench		1	1		1	1		17	22	Н
ı	1	3''	PVC	Trench		1	1	2	1	1	1	24	29	
J	1	3''	PVC	Trench		1		1		1		45	55	J
K	1	3"	PVC	Bored		1	1	1	1		1	46	56	K
L	1	2"	PVC	Trench	2	1						31	36	L
М	3	3''	PVC	Trench	2	1	4	4	4	2	3	25	30	М
N														N
0														0
Р	1	3''	PVC	Bored		1	1	1	1		1	54	64	Р
Q	1	3"	PVC	Bored	2	1	1	1	1		1	57	67	Q
OTAL (LF)					568	576	651	713	651	166	599			

			HE LA					
							6	VIDE
					Q			
				(
<u> </u>								3
D		-	С	>			B (
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			EDO	GE	OF		A	
ı			CUF	RB -				
						i		
[1	=	r OF
SIGNAL HEAD AN	1		PLACE		T	(FEE	'	© OF POLE
POLE NUMBER	Α	В	С	D	E	FN	D	
POLE NUMBER T-1	A 4	B 15	C 11		E 40	FN 36-	D A	
POLE NUMBER T-1 T-2	A 4 5	B 15 17	C 11 17	D 14	E 40 35	FN 36- 30-	D A A	
POLE NUMBER T-1 T-2 T-3	A 4 5 5 5	B 15 17 19	C 11 17 11	D	E 40 35 45	FN 36- 30- 36-	D A A	
POLE NUMBER T-1 T-2 T-3 T-4	A 4 5 5 7	B 15 17 19 10	C 11 17 11 15	D 14 15	E 40 35 45 25	FN 36- 30- 36- 30-	D A A A	
POLE NUMBER T-1 T-2 T-3	A 4 5 5 5	B 15 17 19 10	C 11 17 11	D 14 15	E 40 35 45 25	FN 36- 30- 36- 30-	D A A A	
POLE NUMBER T-1 T-2 T-3 T-4 T-5	A 4 5 5 7 4	B 15 17 19 10 PED	C 11 17 11 15	D 14 15 _ P	E 40 35 45 25 OLE	FN 36- 30- 36- 30- 24-	D A A A A	
POLE NUMBER T-1 T-2 T-3 T-4 T-5	A 4 5 5 7 4 SIGN	B 15 17 19 10 PED	C 11 17 11 15 ESTAL	D 14 15 _ P	E 40 35 45 25 OLE	FN 36- 30- 36- 30- 24-	D A A A A	
POLE NUMBER T-1 T-2 T-3 T-4 T-5	A 4 5 5 7 4 SIGN 4-0	B 15 17 19 10 PED	C 11 17 11 15 ESTAL	D 14 15 P CON	E 40 35 45 25 OLE NDUC 7-C	FN 36- 30- 36- 30- 24-	D A A A A A	POLE
POLE NUMBER T-1 T-2 T-3 T-4 T-5 POLE NUMBER	A 4 5 5 7 4 SIGN 4-0	B 15 17 19 10 PED AL P	C 11 17 11 15 ESTAL OLE (5-CN	D 14 15 _ P CON IDR 5	E 40 35 45 25 OLE NDUC 7-C	FN 36- 30- 36- 30- 24- TOR:	D A A A A A A S	POLE 3-CNDR
POLE NUMBER T-1 T-2 T-3 T-4 T-5 POLE NUMBER T-1	A 4 5 5 7 4 SIGN 4-0 6 5	B 15 17 19 10 PED AL P CNDR	C 11 17 11 15 ESTAL OLE (5-CN 125	D 14 15 _ P CON IDR 5	E 40 35 45 25 OLE 7-C 6	FN 36- 30- 36- 30- 24- TOR:	D A A A A A A A A A A A A A A A A A A A	J-CNDR
POLE NUMBER T-1 T-2 T-3 T-4 T-5 POLE NUMBER T-1 T-2	A 4 5 5 7 4 SIGN 4-0 6 5	B 15 17 19 10 PED AL P CNDR 50	C 11 17 11 15 ESTAL OLE (5-CN 125 130	D 14 15 CON IDR 5 O	E 40 35 45 25 OLE 7-C 6	FN 36- 30- 36- 30- 24- CTORS NDR 55	D A A A A A A A A A A A A A A A A A A A	3-CNDR 35 35
POLE NUMBER T-1 T-2 T-3 T-4 T-5 POLE NUMBER T-1 T-2 T-3	A 4 5 5 7 4 SIGN 4-0 6 5 3	B 15 17 19 10 PED AL P CNDR 50	C 11 17 11 15 ESTAL OLE (5-CN 125 13(13(D 14 15 CON IDR 5 O	E 40 35 45 25 OLE 7-C 6	FN 36-30-36-30-24-CTORS	D A A A A A A A A A A A A A A A A A A A	3-CNDR 35 35 35

	TVD5	DUAGE	BACK	PLATE	12"	PED	
NO	TYPE	PHASE	3 SEC	4 SEC	VEH SEC	SIG SEC	
1	V4LT*	Ø1 +Ø6		1	4		
2	٧3	Ø6	1		3		
3	V3	Ø6	1		3		
4	٧3	Ø6	1		3		
5	V4LT	Ø8		1	4 .		
6	V3	Ø8	1		3		
7	٧3	Ø8	1		3		
8	V4LT*	Ø2+Ø5		1	4		
9	٧3	Ø2	1		3		
10	٧3	Ø2	1		3		
11	V3	Ø2 Ø4		1		3	
12	V4LT					1	4
13	٧3	Ø4	1		3		
14	V4RT*	Ø4+0L A		1	4		
16,23	PED	Ø4				2	
17,18	PED	Ø6				2	
19,20	PED	Ø8				2	
21,22	PED	Ø2				2	
24 △	V3	Ø2			3		
TOTALS			9	5	50	8	

-Use green/yellow fiber optic turn arrow.

△ NO BACKPLATE REQUIRED

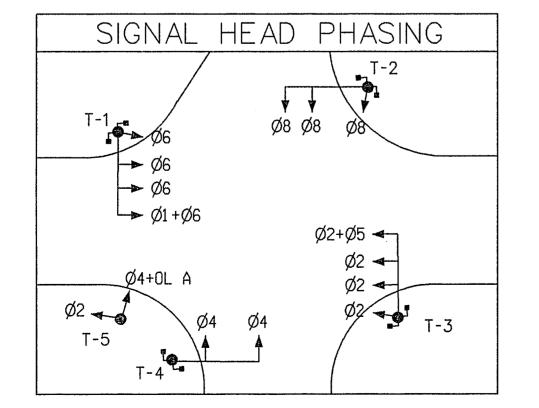
			CAE	BLE TEF	RMINAT	ION CH	ART			
CABLE	T-1 (19	CNDR)	T-2 (19 CNDR)	T-3 (19 CNDR)	T-4 (12 CNDR)	T-5 (12 CNDR)
CONDUCTOR	S.H. NO.	INDICATION								
BLACK	1	<- Y			8	<- Y	SPARE		14	Y ->
WHITE		COMMON								
RED	1-4	R	5-7	R	8-11	R	12-13	R	14	R
* GREEN	1-4	G	5-7	G	8-11	G	12-13	G	14	G
ORANGE	1-4	Y	5-7	Y	8-11	Y	12-13	Y	14	Y
BLUE	1	←G			8	←G	PB 22	Ø2	14	G →
WHT/BLK	SPARE		SPARE		SPARE			PB COM	SPARE	
RED/BLK	16	DW	18	DW	20	DW	22	DW	24	R
GRN/BLK	16	W	18	W	20	W	22	W	24	G
ORN/BLK	SPARE		SPARE		SPARE		23	DW	24	Y
BLUE/BLK	SPARE		SPARE		SPARE		23	W	SPARE	
BLK/WHT	PB 16	Ø4	PB 18	Ø6	PB 20	Ø8	PB 23	Ø4	SPARE	
RED/WHT	17	DW	19	DW	21	DW				
GRN/WHT		PB COM		PB COM		PB COM				
BLUE/WHT	17	W	19	W	21	W				
BLK/RED	SPARE		SPARE		SPARE					
WHT/RED	PB 17	Ø6	PB 19	Ø8	PB 21	Ø2				
ORN/RED	SPARE		SPARE		SPARE					
BLUE/RED	SPARE		SPARE		SPARE					

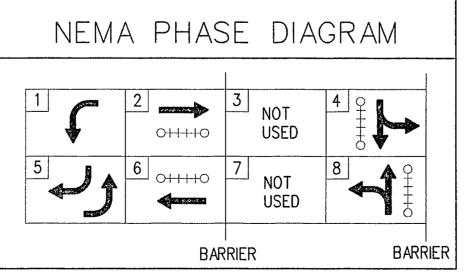
	SIGN SU	JMMARY	
LOCATION	SIGN NO.	TYPE OF SIGN	SIZE
POLE T-1	R10-12	LEFT TURN YIELD	30"x36"
POLE T-3	R10-12	LEFT TURN YIELD	30"x36"
S.W. CORNER	R3-5R	RIGHT ONLY	30"x30"
200' WEST OF INTERSECTION	H 4- /H	RIGHT LANE MUST TURN RIGHT	30"x30"
475' S. OF NTERSECTION NORTHBOUND	W3-3	SIGNAL AHEAD	36"x36"
POLE T-2	R3-8	LANE ASSIGNMENT	30"x36"
N.E. CORNER	R3-8	LANE ASSIGNMENT	30"x36"
N.W. CORNER	R1-2	YIELD	36"x36"x36

GROUN	D BOX
SUMN	1ARY
TYPE	EA
Α	6
С	1

CONDUIT										
SUMMARY										
SIZE	TYPE	LENGTH (LF)								
2" PVC	Trench	31								
3" PVC	Trench	187								
3" PVC	Bore	412								

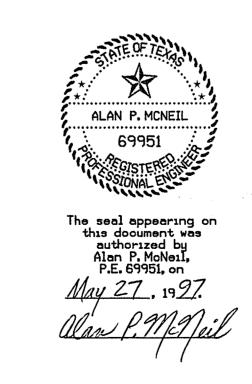
LAYDOWN CURB	SUMMARY
LOCATION	FT.
S.W. CORNER	12.0
N.W. CORNER	12.0
S.E. CORNER	12.0
N.E. CORNER	12.0
TOTAL	48.0



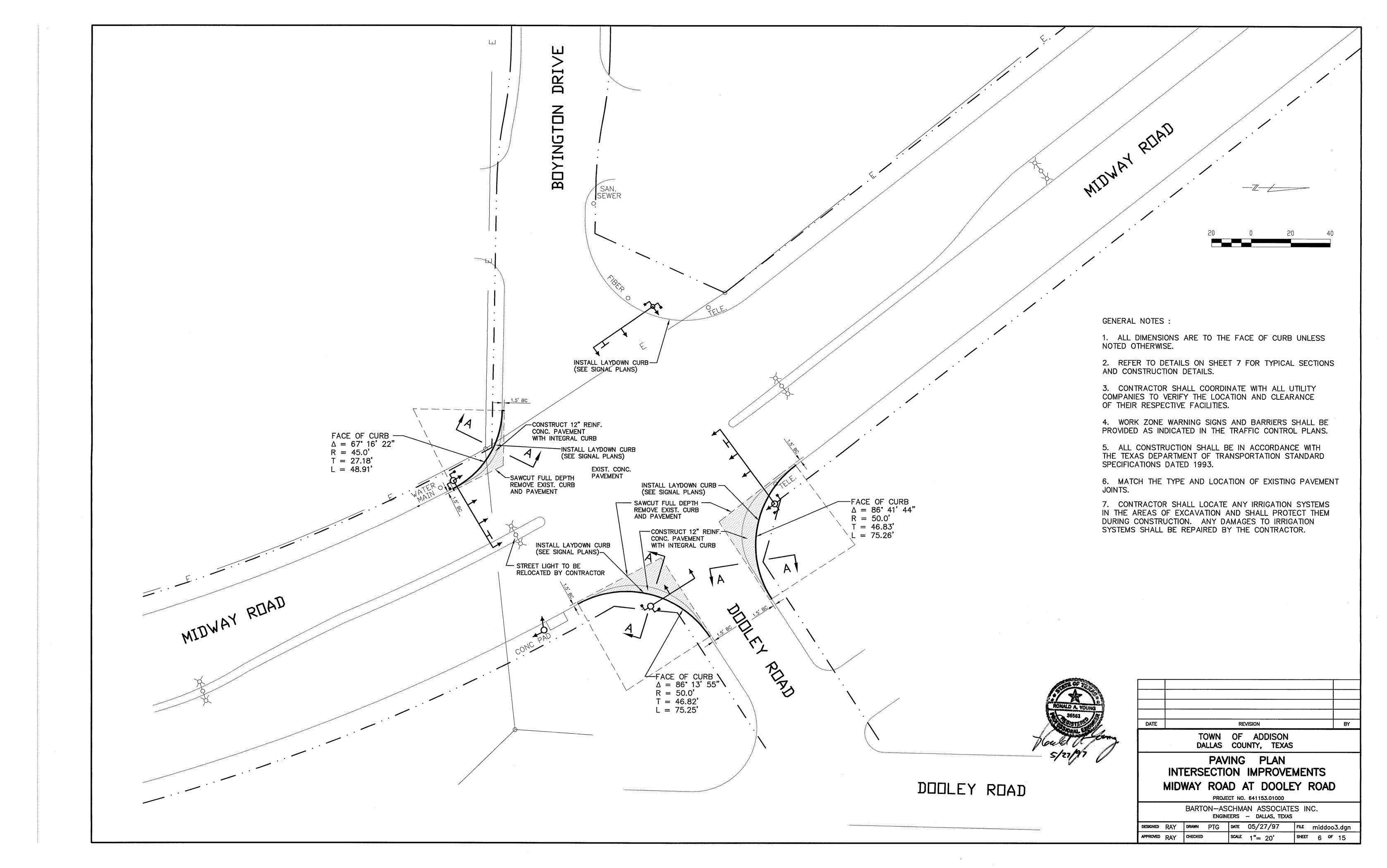


NOTES: 1) Phases 1 + 5 are protected/permissive left turn phases. 2) Phases 4 + 8 are split phases. 3) Overlap A = Phase 5

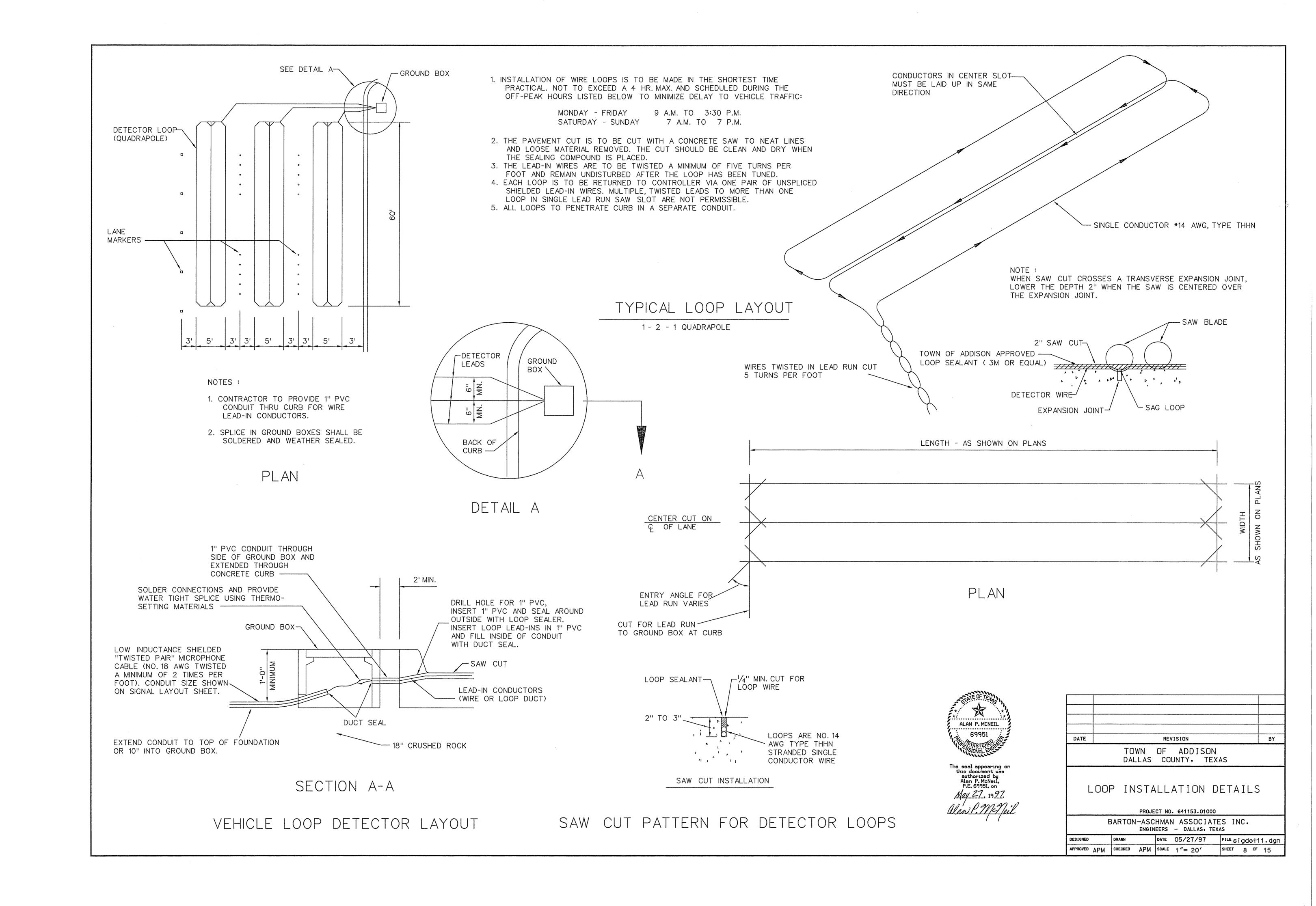
TYPE	QUANTITY	UNIT
6" SOLID WHITE ALKYD THERMOPLASTIC	850	FT
24" SOLID WHITE ALKYD THERMOPLASTIC	185	FT
SOLID WHITE ALKYD THERMO. RIGHT ARROW	2	EA
SOLID WHITE ALKYD THERMO. "ONLY"	2	EA
4" YELLOW BIDIRECTIONAL RETROFLECTIVE RAISED BUTTON	164	EA
4" WHITE UNIDIRECTIONAL RETROFLECTIVE RAISED BUTTON	72	EA
4" WHITE RAISED BUTTON	26	EA
6" x 6" WHITE UNIDIRECTIONAL RETROFLECTIVE JIGGLE BAR	24	EA
REMOVE RAISED BUTTON / JIGGLE BAR	30	EA

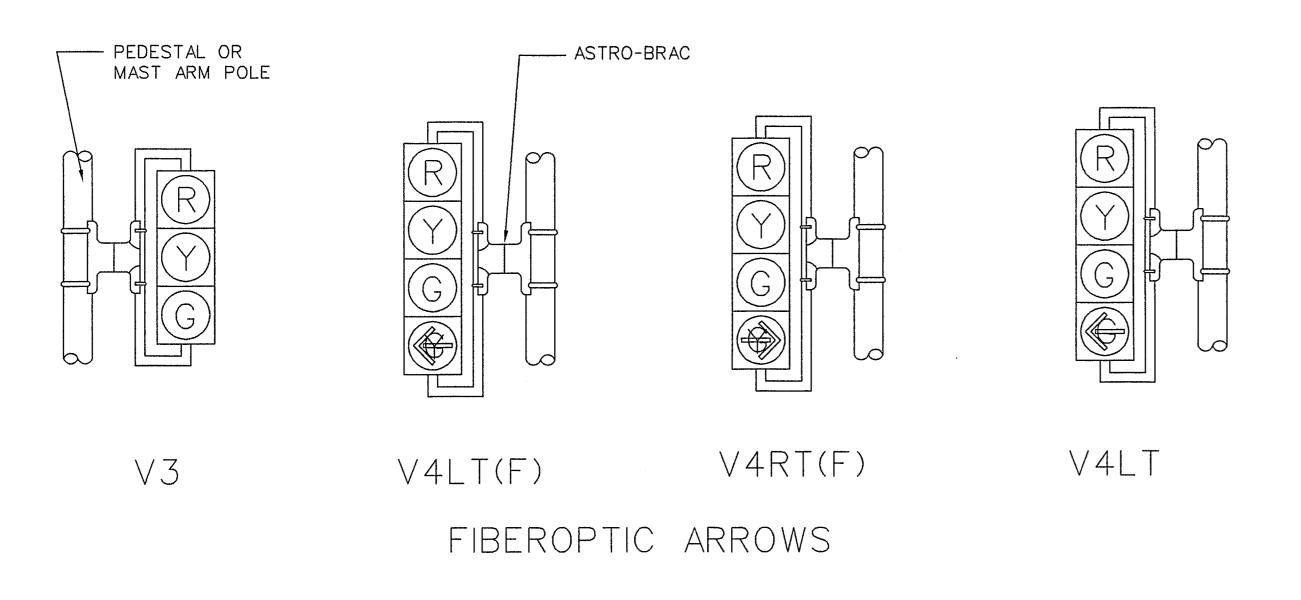


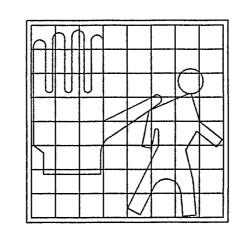
										
DATE				REV	ISION					BY
					ADDI UNTY,		4S			
	S	IGN	AL l	_ A Y	OUT	TAB	BLES	 S		
		V	IDEC	D D	ETEC	TIO	N			
			PROJE	CT NO	. 641153.	01000				
	В	ARTO	V-ASC ENGIN		N ASSO	CIATE		۱C.		
DESIGNED	APM	DRAWN	HJF	DATE	05/27/	97	FILE IT	ni da	004	. dgn
APPROVED	АРМ	CHECKED	APM	SCALE	1"= 20	,	SHEET	5	OF	15



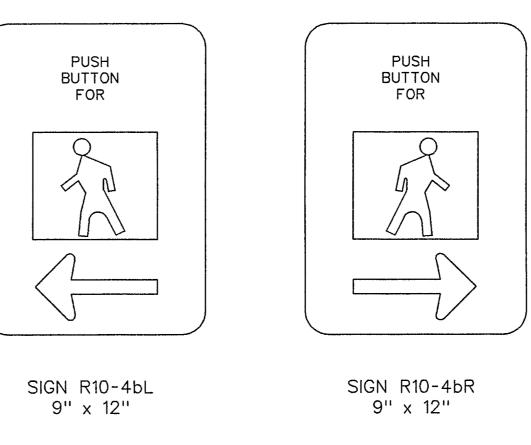
PROPOSED 12" CONC. PAVE. SAWCUT LINE ___ (FULL DEPTH) CONC. PAVE. 12" CONC. PAVEMENT -----EXISTING STEEL : ____ 6" INTEGRAL CURB #3 BARS ON 18" CENTERS EACH WAY #4 x 2'-6" DOWELS PLACED ON 18" CENTERS NOT TO SCALE THE CONTRACTOR SHALL DRILL A 5/8" DIA. HOLE, BLOW INSIDE CLEAN AND COAT DOWEL WITH AN APPROVED EPOXY RESIN BEFORE INSERTION INTO HOLE DOWEL CONNECTION NOT TO SCALE CAUTION !! IRRIGATION SYSTEMS MAY EXIST -IN THE AREA OF EXCAVATION. CONTRACTOR SHALL LOCATE IRRIGATION SYSTEMS AND REPAIR **VARIES** ANY DAMAGES THAT MAY OCCUR. NOTES: REGRADE AND PLACE SOD ON ----1. ALL CONCRETE SHALL BE CLASS A CONCRETE PER TXDOT EXPOSED GROUND. (MATCH SPECIFICATIONS. **VARIES** THE TYPE OF EXISTING GRASS) 1.5' MIN. 2. SEE SHEET 6 FOR PAVING PLAN. REMOVE EXISTING - 6" INTEGRAL CURB CURB AND PAVEMENT SAWCUT LINE (FULL DEPTH) __EXIST. 8" CONC. PAVE. — EXISTING STEEL : #3 BARS ON 24" CENTERS EACH WAY EXISTING 6" LIME PROPOSED 12" ----— #4 BARS @ 18" CENTERS EACH WAY TREATED SUBGRADE CONC. PAVEMENT #4 DOWEL BAR COMPACTED SUBGRADE ----TIE STEEL TO DOWEL BARS DATE TOWN OF ADDISON DALLAS COUNTY, TEXAS SECTION A - A PAVING DETAILS PROPOSED CONCRETE PAVEMENT INTERSECTION IMPROVEMENTS PLACED ADJACENT TO EXIST. CONC. PAVEMENT MIDWAY ROAD AT DOOLEY ROAD NOT TO SCALE PROJECT NO. 641153.01000 BARTON-ASCHMAN ASSOCIATES INC. ENGINEERS - DALLAS, TEXAS DESIGNED RAY DRAWN PTG DATE 05/27/97 FILE middoo.dgn SCALE 1"= 20' SHEET 7 OF 15 APPROVED RAY



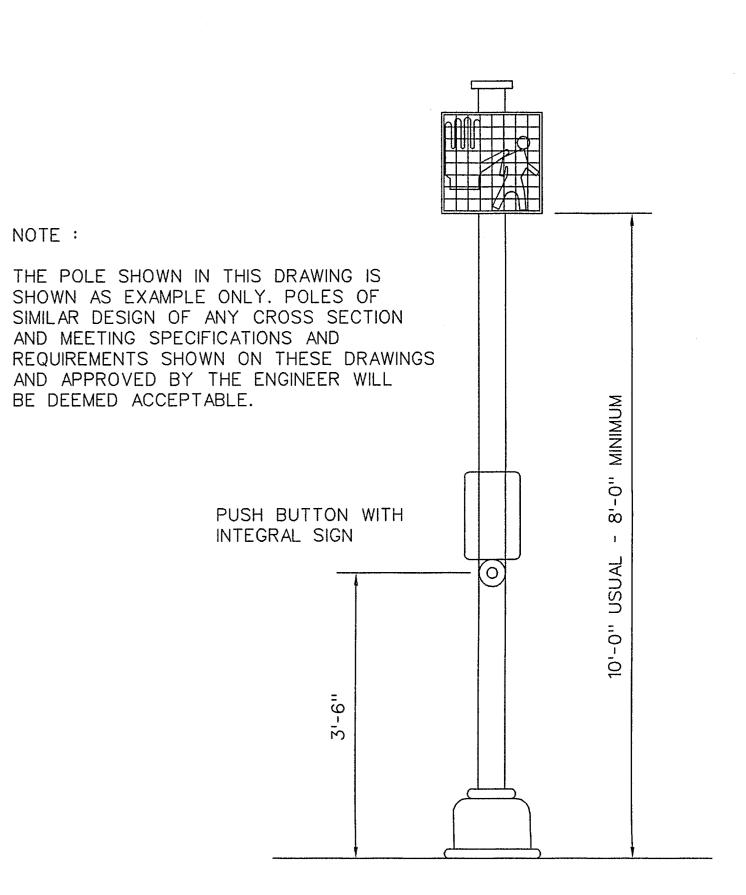




PEDESTRIAN SIGNAL HEAD



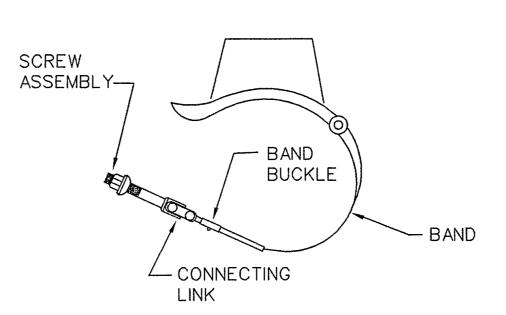
PEDESTRIAN PUSH BUTTON SIGN DETAILS



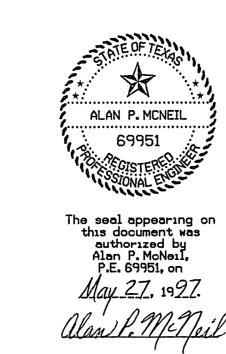
POST DETAIL

NOTES :

- 1. ALL SIGNAL HEAD LENSES SHALL BE 12" IN DIAMETER.
- 2. VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH "ASTRO BRACS" AND APPROPRIATE TUBING, PAINTED BLACK. ALL SIGNALS TO BE BLACK, ALL LENSES TO BE GLASS.
- 3. ALL VISORS SHALL BE TUNNEL VISORS.
- 4. ALL POLE MOUNTED VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL BE INSTALLED ON THE AWAY-FROM-TRAFFIC SIDE OF THE PEDESTAL OR MAST ARM POLE.
- 5. ALL SIGNAL HEADS WILL BE PROVIDED WITH BLACK 5" POLYCARBONATE VACUUM FORMED BACKPLATES.
- 6. ALL WIRING FOR VEHICLE AND PEDESTRIAN SIGNALS SHALL BE TOTALLY ENCLOSED WITHIN THE SIGNAL MOUNTING HARDWARE.
- 7. ALL MAST ARM AND POLE MOUNTED SIGNS SHALL BE MOUNTED WITH ASTRO SIGN-BRAC OR SIGNFIX ALUMINUM CHANNEL OR APPROVED EQUAL.
- 8. ALL PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON SIGNS SHALL DISPLAY THE SYMBOLIZED MESSAGES SHOWN ON THIS SHEET (A.D.A. APPROVED).
- 9. SYMBOLIZED MESSAGE HEIGHT SHALL BE 10 INCHES MINIMUM.
- 10. PROVIDE DURO TEST 135 WATT SAVER LAMPS IN VEHICLE SIGNALS.
- 11. PROVIDE DURO TEST 60 WATT SAVER LAMPS IN PEDESTRIAN SIGNALS.



ASTRO BRAC



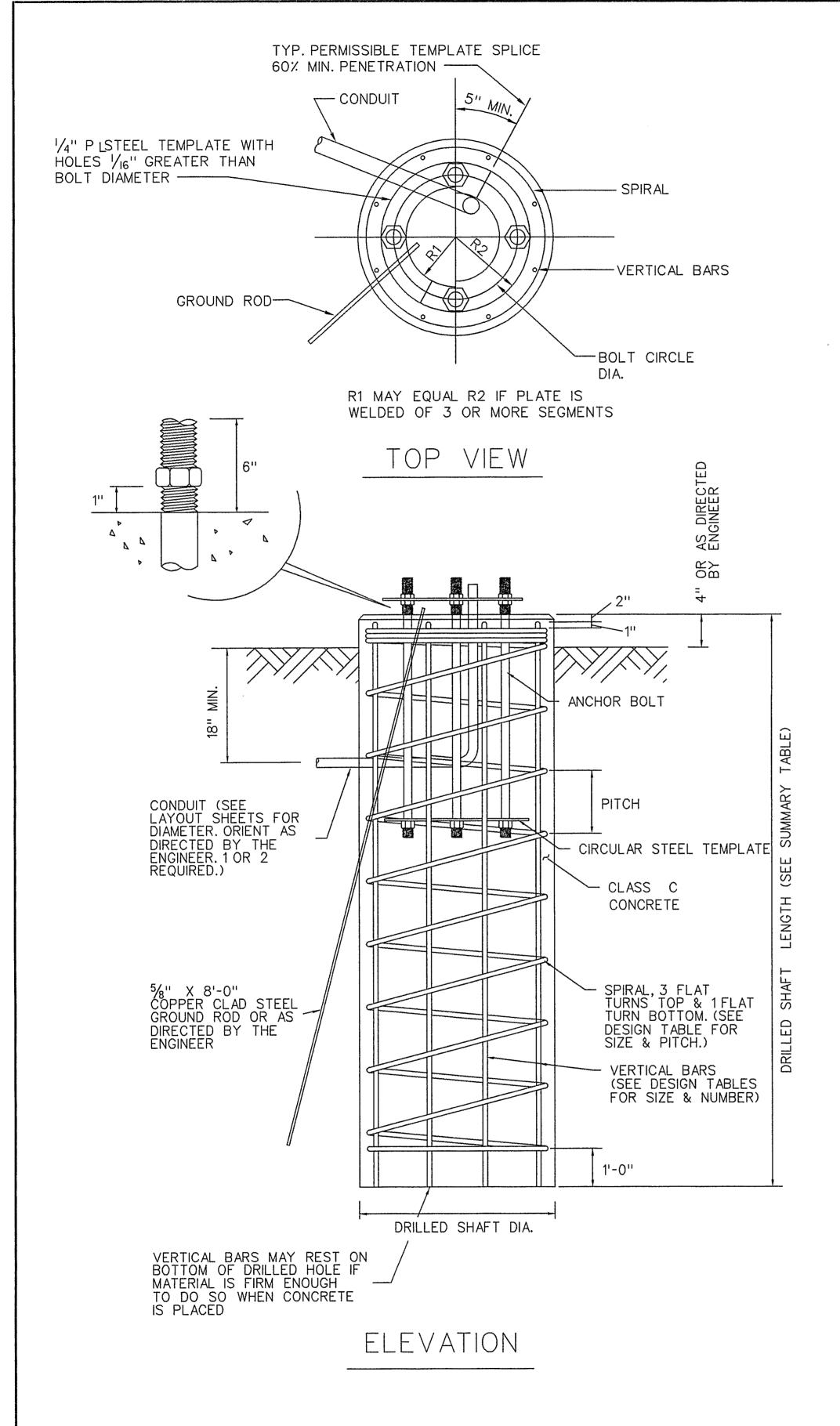
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DALLAS COUNTY, TEXAS

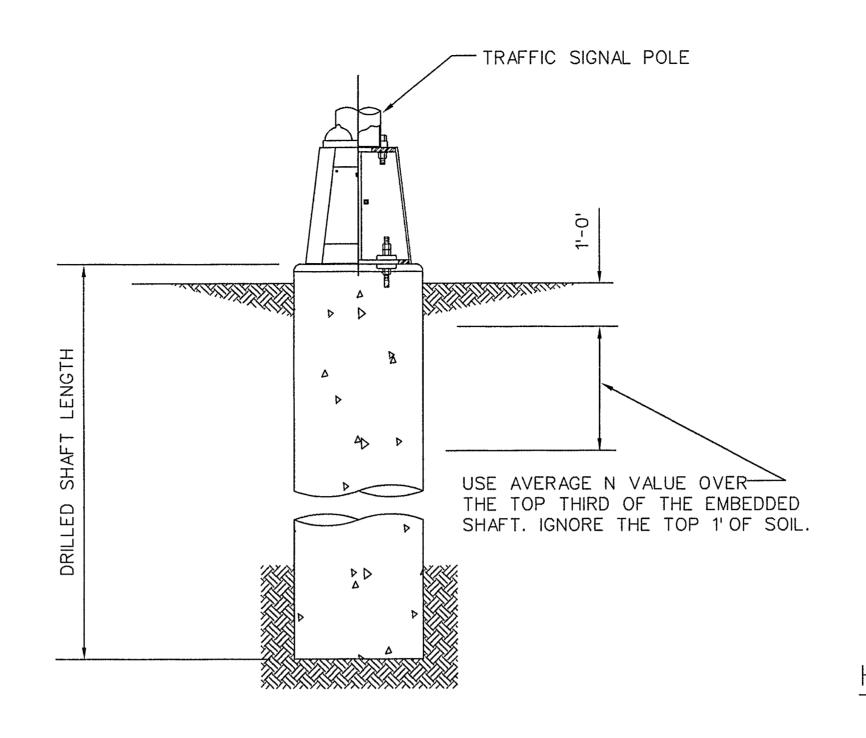
TRAFFIC SIGNAL HEAD DETAILS

PROJECT NO. 641153.01000 BARTON-ASCHMAN ASSOCIATES INC. ENGINEERS - DALLAS. TEXAS

DATE 05/27/97 FILE sigdet66.dgn APPROVED APM CHECKED APM SCALE 1"= 20" SHEET 9 OF 15

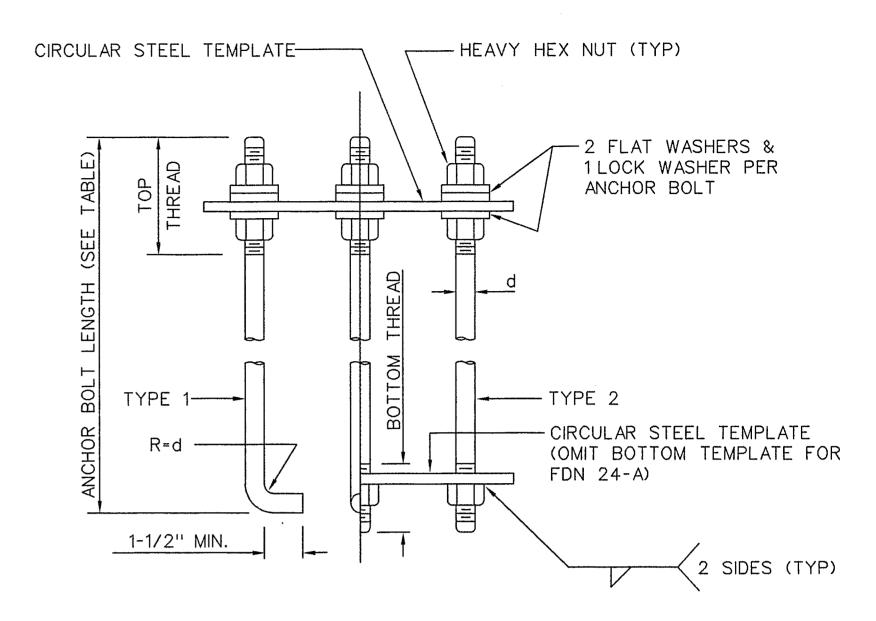


FOUNDATION DETAILS



AN	ANCHOR BOLT & TEMPLATE SIZES								
BOLT DIAMETER	*BOLT LENGTH		BOTTOM THREAD	BOLT CIRCLE	R2	R1			
3/4"	1'-6''	3"	-	12-3/4"	7-1/8''	5-5/8"			
1-1/2"	3'-4"	6"	2"	17''	10''	7''			
1-3/4"	3'-10"	7''	2-1/4'	19''	11-1/4"	7-3/4"			
2"	4'-3"	8"	2-1/2"	21''	12-1/2"	8-1/2"			

* MINIMUM DIMENSIONS GIVEN, LONGER BOLTS ARE ACCEPTABLE



HOOKED ANCHOR (TYPE 1) NUT ANCHOR (TYPE 2)

ANCHOR BOLT ASSEMBLY

INSTALLATION PROCEDURE :

THREADS OF ANCHOR BOLTS SHALL BE COATED WITH PIPE JOINT COMPOUND PRIOR TO INSTALLATION OF UPPER NUTS WHEN ERECTING POLE. AFTER POLE IS PLUMBED AND IN PERMANENT ALIGNMENT, THE EXPOSED THREADS OF PAINTED BOLTS SHALL BE CLEANED AND AN ADDITIONAL COATING OF ZINC-RICH PAINT APPLIED TO SEAL THE BOLT THREAD-NUT JOINT.

	FOUNDATION DESIGN TABLE											
FDN	DRILLED	1	REINFORCING STEEL		DRILLED SHAFT LENGTH-ft (3), (4), (5)		ANCHOR BOLT DESIGN (1)			IGN	FOUNDATION DESIGN	
TYPE	SHAFT	VERT BARS	SPIRAL & PITCH		ONE PENT blows/ft 15	ROMETER 40	ANCHOR BOLT DIA	Fy (ksi)	1 1 15	ANCHOR TYPE	LOAD MOMENT K-ft	(2) SHEAR Kips
24-A	24"	4-#5	#2 at 12''	5.7	5.3	4.5	3/4"	36	12 3/4"	1	10	1
30-A	30''	8-#9	#3 at 6"	11.3	10.3	8.0	1 1/2"	55	17''	2	87	3
36-A	36''	10-#9	#3 at 6"	13.2	12.0	9.4	1 3/4"	55	19''	2	131	5
36-B	36"	12-#9	#3 at 6"	15.2	13.6	10.4	2 ''	55	21''	2	190	7

NOTES :

- (1) ANCHOR BOLT DESIGN DEVELOPS THE FOUNDATION CAPACITY GIVEN UNDER FOUNDATION DESIGN LOADS.
- (2) FOUNDATION DESIGN LOADS ARE THE ALLOWABLE MOMENTS AND SHEARS AT THE BASE OF THE STRUCTURE.
- (3) FIELD PENETROMETER READINGS AT A DEPTH OF APPROXIMATELY 3 TO 5 FEET MAY BE USED TO ADJUST SHAFT LENGTHS.
- (4) IF ROCK IS ENCOUNTERED, THE DRILL SHAFT SHALL EXTEND
- A MINIMUM OF TWO DIAMETERS INTO SOLID ROCK.
- (5) DECIMAL LENGTHS IN DESIGN TABLE ARE TO ALLOW INTERPOLATION FOR OTHER PENETROMETER VALUES.

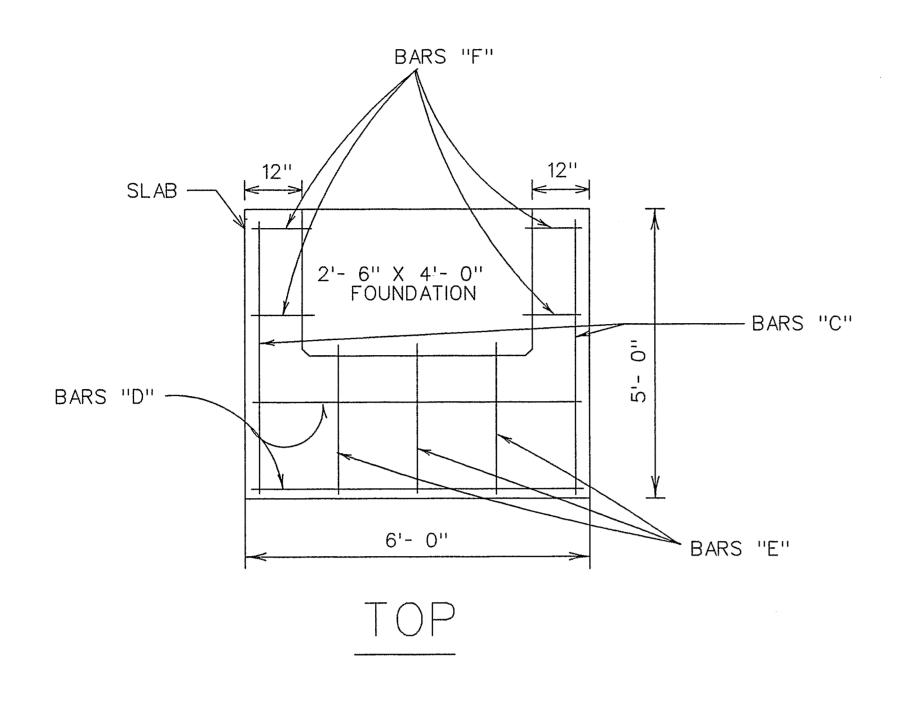


The seal appearing on this document was authorized by Alan P. McNeil, P.E. 69951, on May 27, 1997.

DATE	REVISION BY
	TOWN OF ADDISON DALLAS COUNTY, TEXAS
	TRAFFIC SIGNAL
	POLE FOUNDATIONS
	PROJECT NO. 641153.01000
	BARTON-ASCHMAN ASSOCIATES INC. ENGINEERS - DALLAS, TEXAS
DESIGNED	DRAWN DATE 05/27/97 FILE Sigde+44.dgn

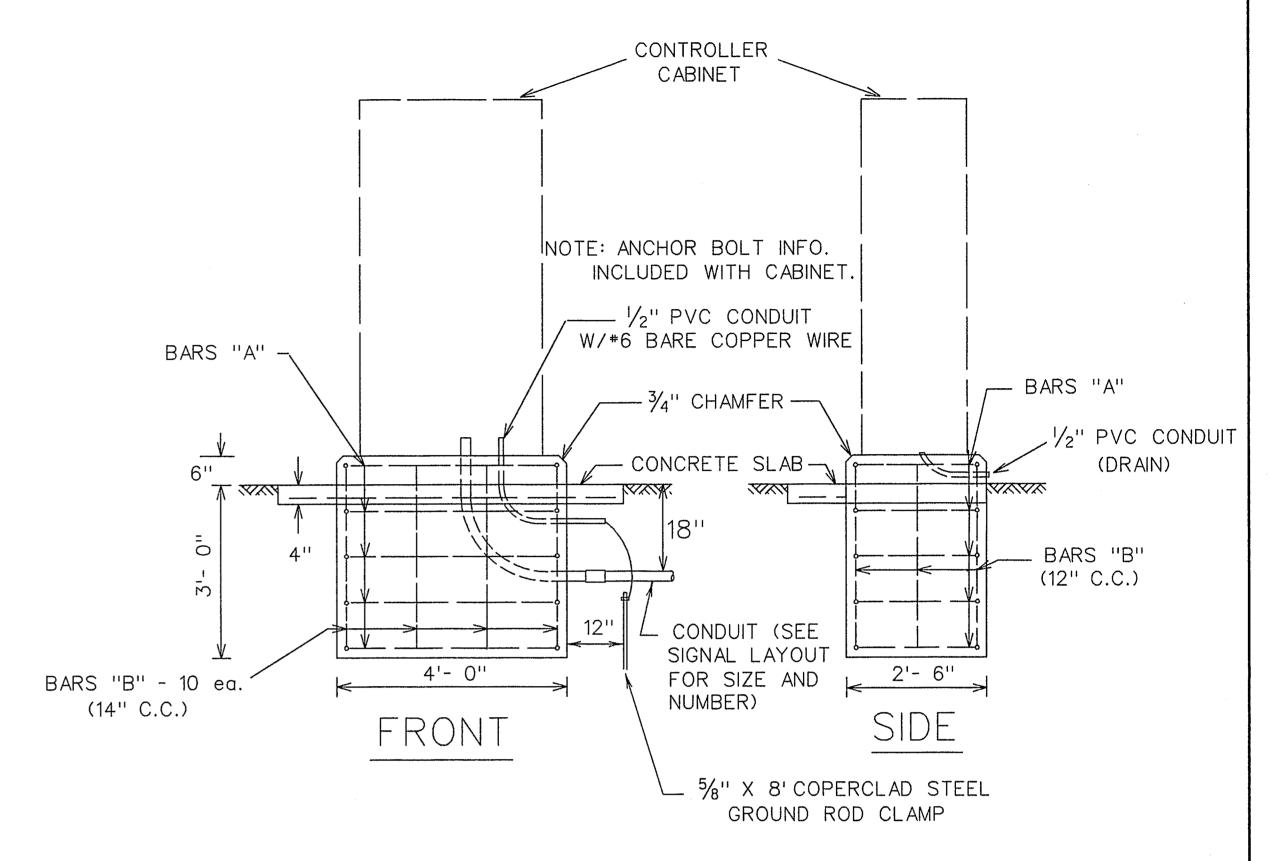
SHEET 10 OF 15

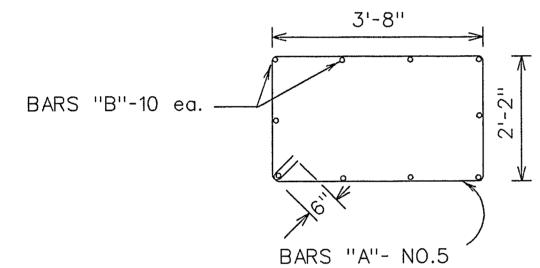
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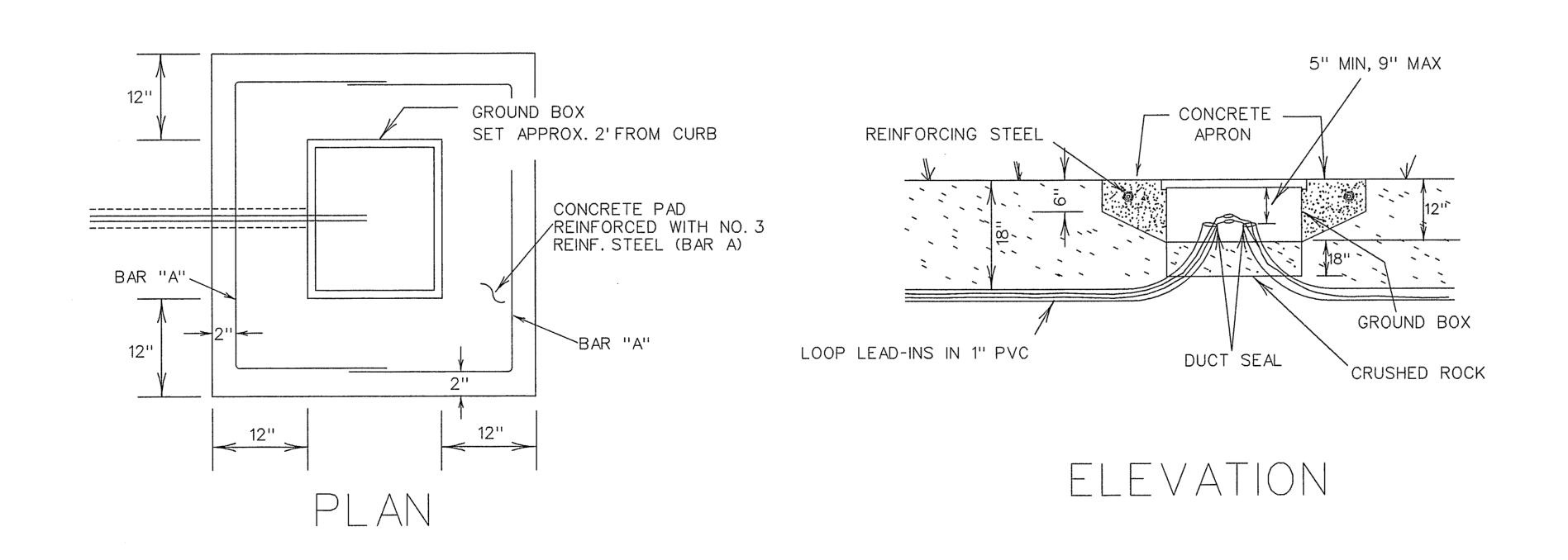
BAR	NO. BARS	SIZE	LENGTH	SPACING
Α	6	5	12'-8''	9.5" C.C.
В	10	5	3'-2"	VAR.
С	2	3	4'-8''	16.5" C.C.
D	2	3	5'-8''	18" C.C.
E	3	3	2'-8"	16.5" C.C.
F	4	3	1'-2''	18" C.C.

PROVIDE 2" MIN. COVER FOR TOP AND SIDES

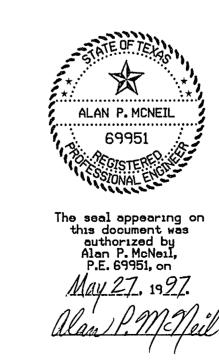




CONTROLLER FOUNDATION DETAILS



GROUND BOX INSTALLATION DETAILS



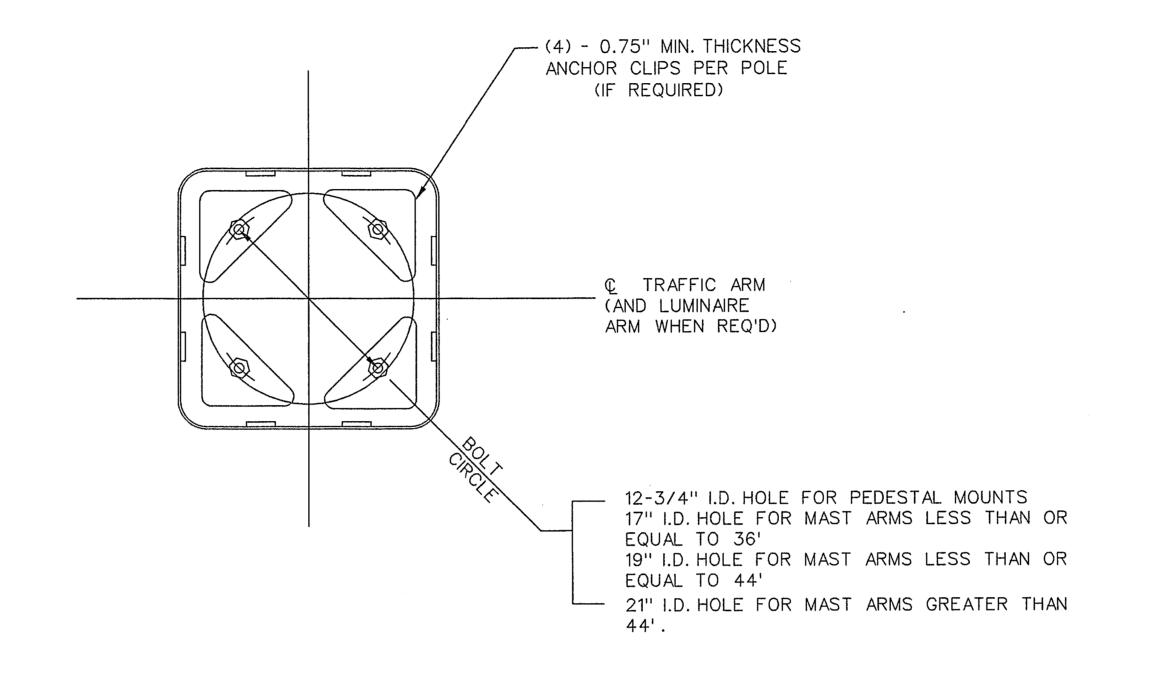
DATE	REVISION	ВҮ
	TOWN OF ADDISON DALLAS COUNTY, TEXAS	

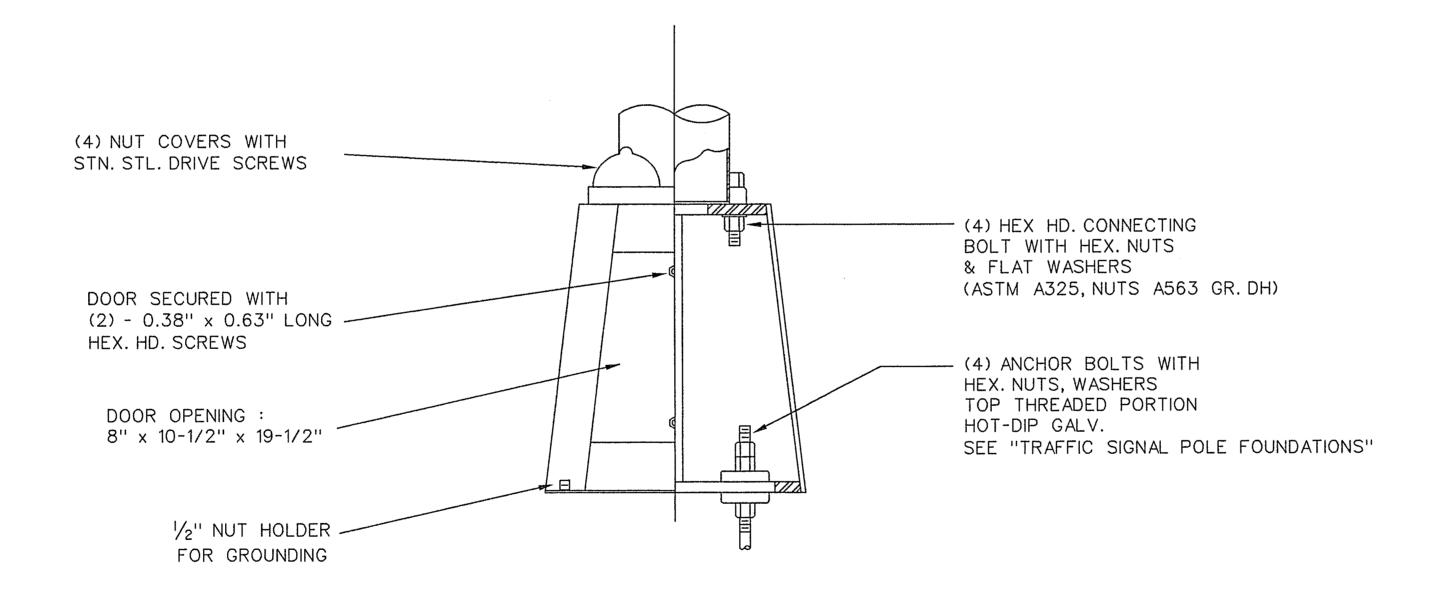
CONTROLLER FOUNDATION AND GROUND BOX INSTALLATION DETAILS

PROJECT NO. 641153.01000

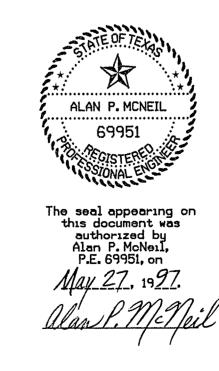
BARTON-ASCHMAN ASSOCIATES INC.
ENGINEERS - DALLAS, TEXAS

DESIGNED DRAWN DATE 05/27/97 FILE sigde+55.dgn
APPROVED APM CHECKED APM SCALE 1"= 20' SHEET 11 OF 15

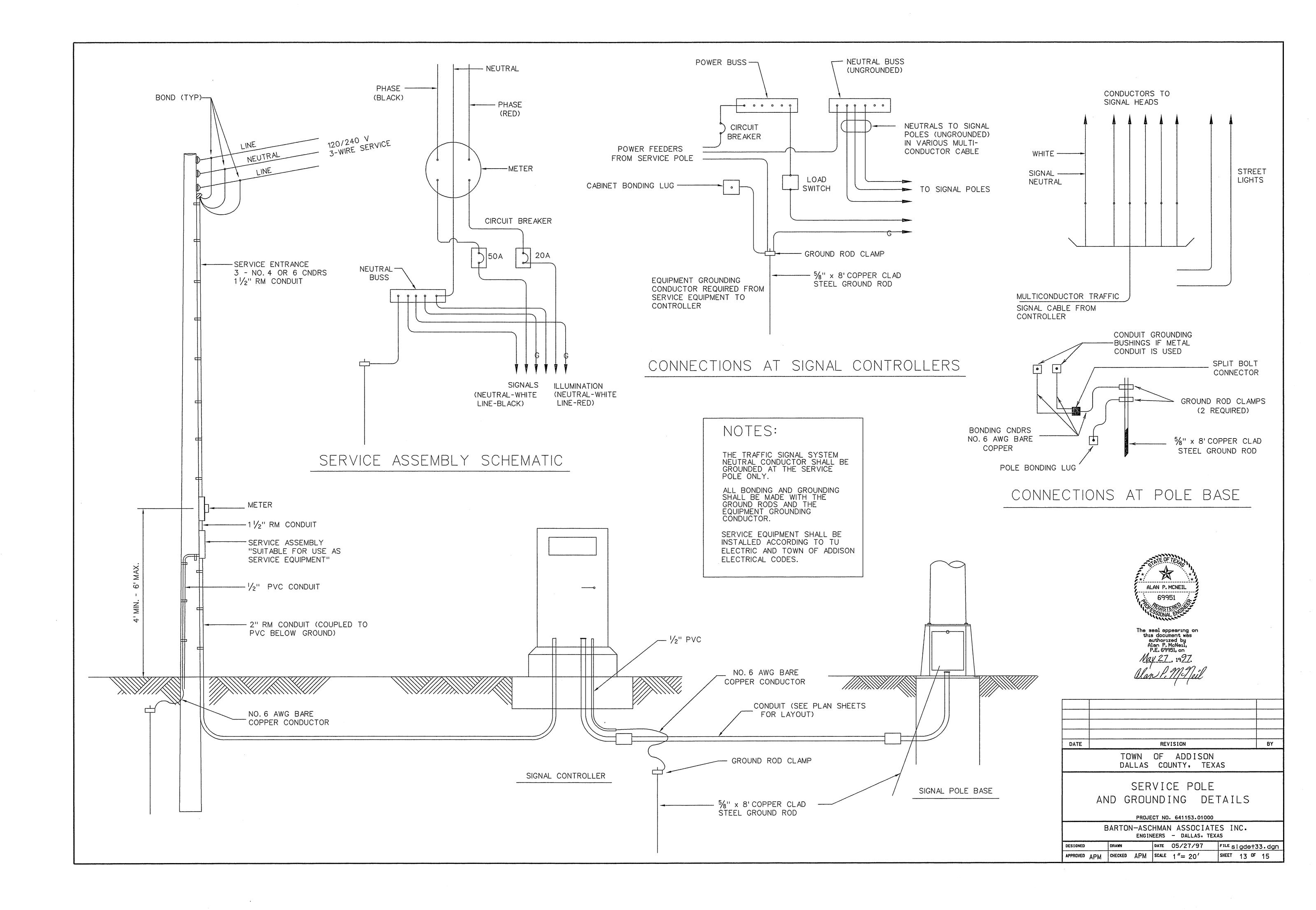


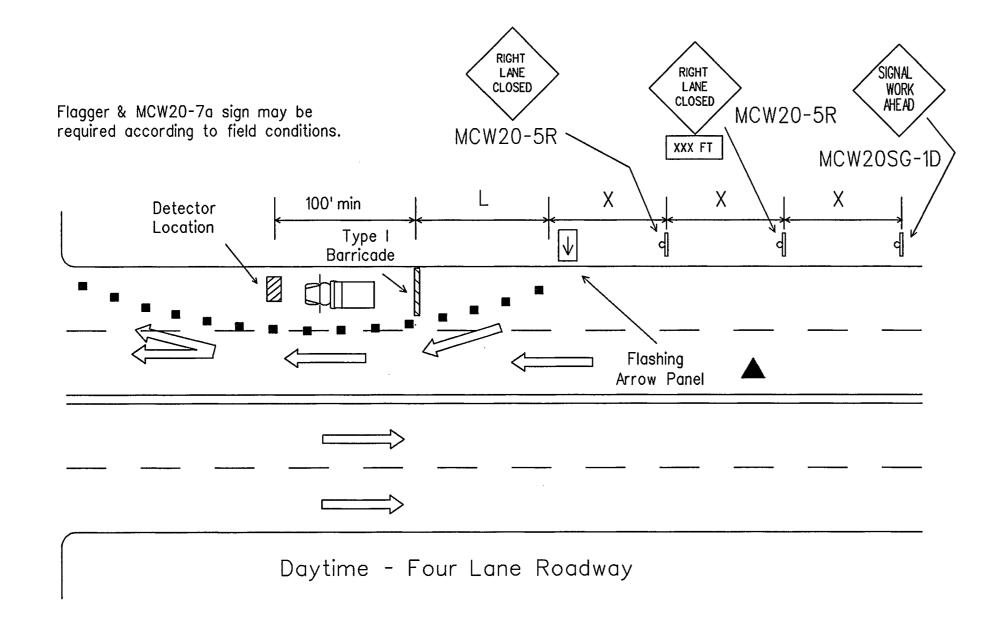


TRANSFORMER BASE MOUNTING DETAILS



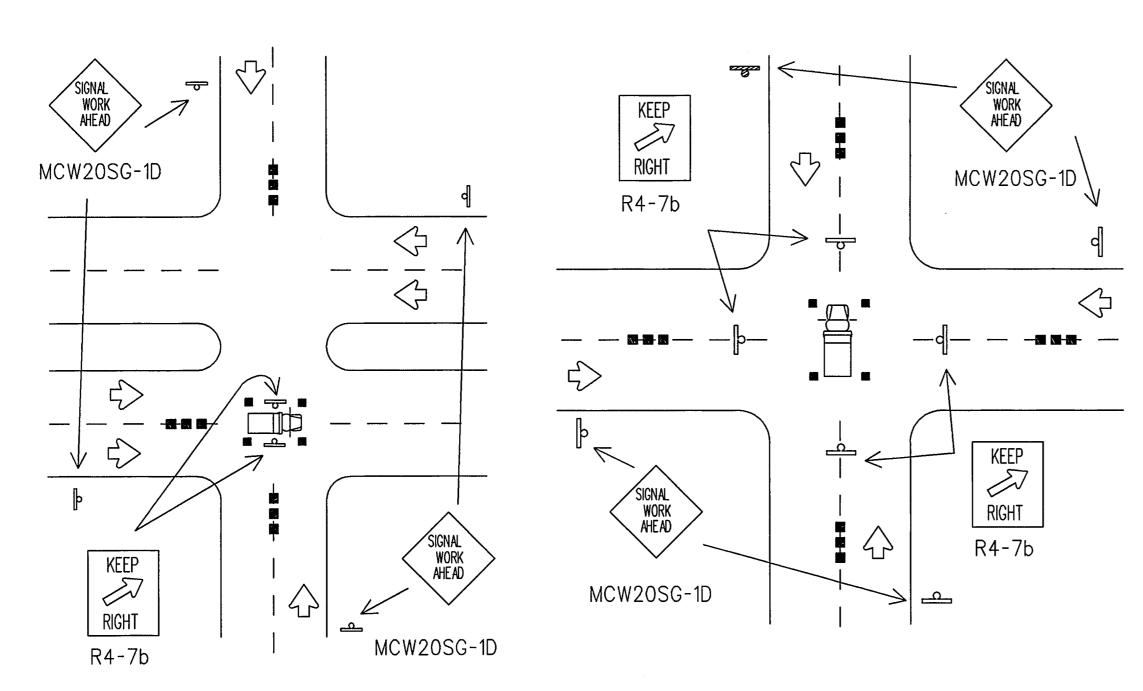
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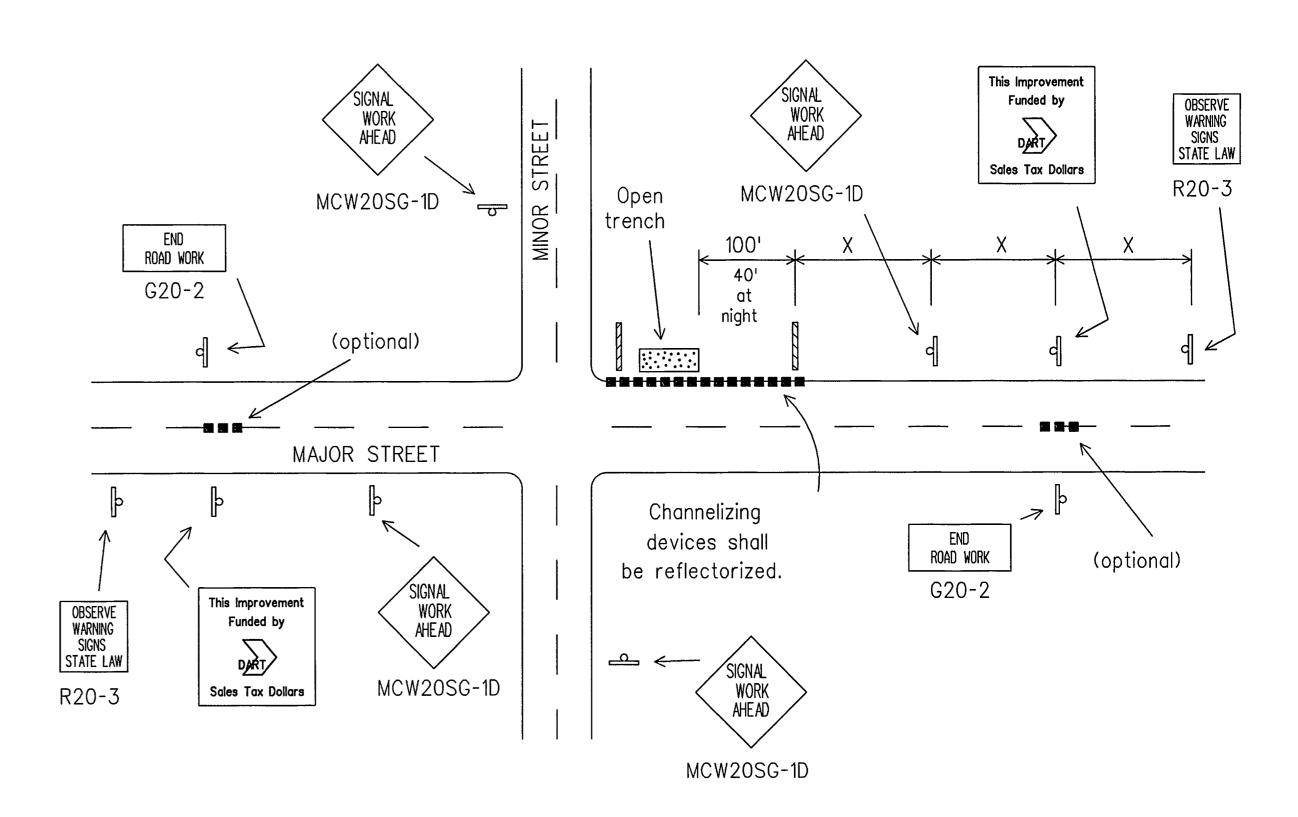
TYPICAL DETECTOR INSTALLATION

Nighttime - 1. Channelizing Devices shall be reflectorized.
2. Barricades shall have Flashing Warning Lights.



TYPICAL HANGING SIGNAL INSTALLATIONS

Advance warning channelizing devices are optional.



TYPICAL ADVANCE SIGNING

	Minimum Desirable Taper Lengths		Suggested Maximum Spacing of Device		Minimum Sign Spacing		
Posted Speed	Formula	10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent	X Distance
30	2	150'	165'	180'	30'	60'-75'	120'
35	$L = \frac{WS^2}{60}$	205'	225'	245'	35'	70'-90'	160'
40		265'	295'	320'	40'	80'-100'	240'
45	L=WS	450'	495'	540'	45'	90'-110'	320'

L=Length of Taper (FT.) W=Width of Offset (FT.) S=Posted Speed (MPH)

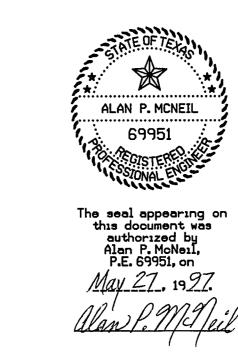
Legend

Heavy Work Vehicle

Channelizing Devices

Flashing Arrow Panel

Type | Barricade



The arrow panel may be omitted when stated elsewhere in the plans.

Typical channelizing device is the 28" cone. Plastic drums may be used if approved by the Owner. Metal drums shall NOT be used as a channelizing device or sign support.

Advance signs and barricades shall be in place when signal construction operations are in progress. The contractor may remove advance signs and barricades when no construction operations are underway if permitted elsewhere in the plans. Obstructions or hazards at the work area shall be clearly marked and delineated at all times.

All holes, trenches or other hazardous areas shall be adequately protected by barricades, lights or other protective devices. Trenches shall be covered or surrounded with orange plastic construction fence as directed by the Engineer.

Flagger and MCW20-7a sign may be required according to field conditions. Vehicles parked in roadway shall be equipped with two strobes. High level flags at corners of vehicle may also be used. Work operations that require work vehicle in traveled way 20 minutes or less may use cones, high level flags and strobes as advance warning devices. Cones should only be placed around vehicle. Flaggers may be used on high speed rural intersections

	rsections.							
DATE		REVISION	ВҮ					
		OF ADDISON COUNTY, TEX	AS					
	TRAFFIC CONTROL PLAN DETAILS SHEET 1 OF 2							
	PROJECT NO. 641153.01000							
	BARTON-ASCHMAN ASSOCIATES INC. ENGINEERS - DALLAS, TEXAS							
DESIGNED	DRAWN	DATE 05/27/97	FILE workzone.dgn					

SHEET 14 OF 15

APPROVED APM CHECKED APM SCALE 1"= 20"

