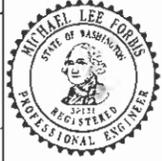


# CONSTRUCTION NOTES

1. INSTALL SMALL CABINET FIBER OPTIC DISTRIBUTION PANEL (12 PORT) IN CABINET IN ACCORDANCE WITH THE COMMUNICATION CABLES AND INTERFACES SPECIAL PROVISION. TERMINATE ALL STRANDS OF 12 SMFO CABLE IN THE DISTRIBUTION PANEL USING FACTORY-CONNECTORIZED, LC-LC CONNECTORS.
2. INSTALL FIBER OPTIC TERMINAL CABINET AND ASSOCIATED EQUIPMENT IN ACCORDANCE WITH THE FIBER OPTIC TERMINAL CABINET SPECIAL PROVISION AND ITS DETAILS SHEET ITD10. MAKE POWER CONNECTION TO THE CABINET.
3. INSTALL 1-4B PORT PRETERMINATED FIBER OPTIC PATCH PANEL IN CABINET IN ACCORDANCE WITH THE COMMUNICATION CABLES AND INTERFACES SPECIAL PROVISION.
4. SPLICE 2-4B SMFO CABLES TO PRETERMINATED FIBER OPTIC STUB CABLES (2-24SMFO, 1-4B5MFO) IN APPROVED SPLICE CLOSURE IN CABLE VAULT AS SHOWN IN ITS DETAIL SHEETS ITD23-ITD25.
5. SPLICE 4B SMFO CABLES TO 2-24 SMFO PRETERMINATED FIBER OPTIC STUB CABLES IN AN APPROVED SPLICE CLOSURE AS SHOWN IN ITS DETAIL SHEETS ITD23-ITD25.
6. REMOVE EXISTING TYPE 1 JUNCTION BOX. INSTALL NEW TYPE 2L JUNCTION BOX IN ACCORDANCE WITH THE JUNCTION BOX SPECIAL PROVISIONS AND ITS DETAIL SHEETS ITD27-ITD28.
7. INSTALL CABLE VAULT AT GRADE IN ACCORDANCE WITH THE ITS SPECIAL PROVISIONS AND STANDARD PLAN J-15D.
8. INSTALL 30 Amp BREAKER ON EXISTING CIRCUIT. MAKE POWER CONNECTION TO NEW BREAKER FOR ITS EQUIPMENT.
9. INSTALL TYPE R1 VEHICLE DETECTION INDUCTION LOOPS IN ACCORDANCE WITH THE INDUCTION LOOP VEHICLE DETECTION SPECIAL PROVISION AND ITS DETAIL SHEETS ITD4-ITD7.
10. INSTALL LOOPS IN ACCORDANCE WITH THE TYPE R1 INDUCTION LOOPS SPEED DETECTION LAYOUT DETAIL SHEET ITD4.
11. REMOVE EXISTING LOOP SPLICE(S). SPLICE NEW LOOP WIRE(S) TO EXISTING DETECTOR LEAD-IN(S) IN JUNCTION BOX IN ACCORDANCE WITH THE ITS SPECIAL PROVISIONS AND ITS DETAIL SHEETS ITD5-ITD6.
12. REMOVE EXISTING JUNCTION BOX. INTERCEPT EXISTING 2" CONDUIT WITH NEW 2" CONDUIT AND EXTEND IT TO NEW JUNCTION BOX.
13. INSTALL HEAVY DUTY JUNCTION BOX TYPE 4 IN ACCORDANCE WITH THE STANDARD PLAN J-11B.
14. INSTALL HEAVY DUTY JUNCTION BOX TYPE 5 IN ACCORDANCE WITH THE STANDARD PLAN J-11B.
15. INSTALL FOUR VEHICLE SIGNAL DISPLAY HEADS, SIGNS, AND ALL ASSOCIATED EQUIPMENT ON SIGNAL BRIDGE IN ACCORDANCE WITH THE TRAFFIC DATA ACCUMULATION AND RAMP METERING SYSTEM SPECIAL PROVISION AND ITS DETAIL SHEET ITD21. SEE BRIDGE PLAN FOR DETAILS OF SIGNAL BRIDGE STRUCTURE AND FOUNDATION. SEE SIGNING PLAN FOR SIGN DETAILS.
16. INSTALL TYPE R2 VEHICLE DETECTION INDUCTION LOOPS IN ACCORDANCE WITH THE INDUCTION LOOP VEHICLE DETECTION SPECIAL PROVISION AND ITS DETAIL SHEETS ITD4-ITD7.
17. INSTALL MODEL 334 CONTROLLER CABINET AND ASSOCIATED EQUIPMENT IN ACCORDANCE WITH THE MODEL 334 SPECIAL PROVISION AND ITS DETAIL SHEETS ITD1-ITD3.
18. INSTALL 480-120/240 V, 5 KVA TRANSFORMER AND CABINET FOR ITS EQUIPMENT IN ACCORDANCE WITH THE TRANSFORMER AND CABINETS SPECIAL PROVISION AND ITS DETAIL SHEETS ITD15.
19. INSTALL SINGLE CABINET WITH TRANSFORMER FOUNDATION ON SLOPED AREA IN ACCORDANCE WITH THE ITS DETAIL SHEET ITD20.
20. POWER JUNCTION BOX. SEE ILLUMINATION PLAN FOR CONTINUATION.
21. INSTALL CAMERA CONTROLLER CABINET, OPTILECOM DIGITAL VIDEO TRANSMITTER, AND ASSOCIATED EQUIPMENT ACCORDANCE WITH THE CLOSED CIRCUIT TELEVISION SYSTEM SPECIAL PROVISION AND ITS DETAIL SHEET ITD9.
22. INSTALL HAR TRANSMITTER CONTROLLER CABINET, MANAGED ETHERNET SWITCH AND SWITCH BRACKET, AND ASSOCIATED EQUIPMENT IN ACCORDANCE WITH THE HIGHWAY ADVISORY RADIO TRANSMITTER SPECIAL PROVISION AND ITS DETAILS SHEET ITD16. INSTALL FC-LC CONNECTOR BETWEEN ETHERNET SWITCH AND THE PATCH PANEL IN ADJACENT CAMERA CABINET.
23. INSTALL NEW HAR TRANSMITTER ANTENNA AND ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH THE HIGHWAY ADVISORY RADIO TRANSMITTER SPECIAL PROVISION, MANUFACTURER'S RECOMMENDATION AND ITS DETAILS SHEET ITD16.
24. REMOVE EXISTING HAR TRANSMITTER CABINET, POLE AND ALL ASSOCIATED EQUIPMENT AND DELIVER TO SIGNAL SHOP IN ACCORDANCE WITH THE REMOVE AND DELIVER SPECIAL PROVISION.
25. INSTALL WEATHER STATION FOUNDATION, TOWER, PAD MOUNTED CABINET AND ASSOCIATED EQUIPMENT IN ACCORDANCE WITH THE ROAD/WEATHER INFORMATION SYSTEM SPECIAL PROVISION AND MANUFACTURER'S RECOMMENDATION. SEE WEATHER STATION'S FOUNDATION DETAILS SHEET ITD17.
26. INSTALL PAVEMENT SENSORS 4' FROM FOG LINE AND PAVEMENT SENSOR CABLES FOR WEATHER STATION IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS APPROVED BY THE ENGINEER.
27. INSTALL MANAGED ETHERNET SWITCH, CABINET DEVICE SERVER, AND SWITCH BRACKET IN CABINET IN ACCORDANCE WITH THE VIDEO, VOICE & DATA DISTRIBUTION & TRANSMISSION SYSTEM SPECIAL PROVISION. MAKE FIBER CONNECTION TO THE SWITCH USING 4 FC-LC SINGLE MODE PATCH CORDS. MAKE EIA-232 CONNECTION BETWEEN DATA PORT OF THE DEVICE SERVER AND THE C2 PORT OF THE I70 CONTROLLER. INSTALL A 1 FOOT CAT6 CABLE BETWEEN THE UNMANAGED ETHERNET SWITCH AND THE CABINET DEVICE SERVER.
28. INSTALL 480-120/240 V, 10.0 KVA TRANSFORMER AND CABINET FOR ITS EQUIPMENT IN ACCORDANCE WITH THE TRANSFORMER AND CABINETS SPECIAL PROVISION AND ITS DETAIL SHEETS ITD15.
29. INSTALL MULTIPLE CABINET WITH TRANSFORMER FOUNDATION IN ACCORDANCE WITH THE ITS DETAIL SHEET ITD18.
30. SPLICE 12 SMFO CABLE TO PRETERMINATED FIBER OPTIC STUB CABLE IN APPROVED SPLICE CLOSURE AS SHOWN IN ITS DETAIL SHEETS ITD23-ITD26.
31. INSTALL TYPE WR VEHICLE DETECTION INDUCTION LOOPS IN ACCORDANCE WITH THE INDUCTION LOOP VEHICLE DETECTION SPECIAL PROVISION AND ITS DETAIL SHEETS ITD4-ITD7.
32. DISCONNECT AND REMOVE EXISTING CAMERA AND CAMERA CONTROL CABLES AND DELIVER TO SIGNAL SHOP. INSTALL NEW TOP-POLE MOUNT COLOR CAMERA SYSTEM, AND PEDESTAL MOUNT ON EXISTING CAMERA POLE. MAKE CONNECTION TO EXISTING CAMERA CONTROLLER CABINET USING NEW CAMERA CONTROL CABLE IN ACCORDANCE WITH THE CLOSED CIRCUIT TELEVISION SYSTEM SPECIAL PROVISION.
33. REMOVE EXISTING ADVANCE WARNING SIGN, POLE. REMOVE EXISTING FOUNDATION.
34. INSTALL FLASHING BEACON, POLE, SIGN, FOUNDATION FOR ADVANCED WARNING SIGN IN ACCORDANCE WITH THE ITS SPECIAL PROVISIONS AND ITS DETAIL SHEET ITD8.
35. INSTALL SINGLE CABINET FOUNDATION IN ACCORDANCE WITH THE ITS DETAIL SHEET ITD19.
36. INSTALL CONDUIT UNDER ROADWAY. THE CONDUIT SHALL BE INSTALLED UNDER EXISTING PAVEMENT USING APPROVED DIRECTIONAL BORING METHOD.
37. INSTALL 2" STUB OUT CONDUIT IN PAVEMENT FOR DETECTOR LOOP WIRE LEAD-INS.
38. ABANDON LOOP.
39. SPLICE 1-12SMFO, 2-4B5MFO, AND 1-96SMFO CABLE TO PRETERMINATED FIBER OPTIC STUB CABLE IN AN APPROVED SPLICE CLOSURE IN CABLE VAULT AS SHOWN IN THE ITS DETAIL SHEETS ITD23-ITD25.
40. SPLICE 2- 4B5MFO CABLE TO PRETERMINATED FIBER OPTIC STUB CABLE IN AN APPROVED SPLICE CLOSURE AS SHOWN IN THE ITS DETAIL SHEETS ITD23-ITD26.

FILE NAME				S:\414126\SCD\SR5XL2628 196TH STREET (SR 524)INTERCHANGE SB BRAIDED RAMP\XL2628_SH.ITS.DGN				FED.AID PROJ.NO.				SR 5 196TH ST (SR524) INTERCHANGE SB BRAIDED RAMP  ITS NOTES	Plot 7
TIME		3:06:26 PM		REGION NO.	STATE				ITD1				
DATE		11/9/2009		10	WASH				SHEET				
PLOTTED BY		tranp		JOB NUMBER									OF
DESIGNED BY		P. TRAN		CONTRACT NO.		LOCATION NO.				SHEETS			
ENTERED BY		H. MOSTAGHIMI											
CHECKED BY		G. LEEGE											
PROJ. ENGR.		S. SHALKLAWUN											
REGIONAL ADM.		L. ENG											
REVISION				DATE		BY							

# CONSTRUCTION NOTES

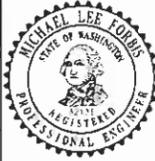
41. INSTALL PRETERMINATED FIBER OPTIC PATCH PANELS (4-96 PORT) IN COMMUNICATION HUB IN ACCORDANCE WITH THE VIDEO, VOICE, & DATA DISTRIBUTION AND TRANSMISSION SYSTEM SPECIAL PROVISION.
42. SPLICE ALL STRANDS OF SINGLE MODE FIBER OPTIC CABLES AND PRETERMINATED FIBER OPTIC STUB CABLES IN AN APPROVED SPLICE CLOSURE AS SHOWN IN ITS DETAILS SHEET ITD23-ITD25.
43. PULL BACK EXISTING SMFO CABLES TO COMMUNICATION HUB TO THIS CABLE VAULT.
44. SPLICE ALL EXISTING AND NEW SMFO CABLES TO THE PRETERMINATED STUB CABLES STUB IN AN APPROVED SPLICE CLOSURE AS SHOWN IN ITS DETAILS SHEET ITD23-ITD25.
45. INSTALL OPTELECOM DIGITAL VIDEO TRANSMITTER AND POWER SUPPLY IN CABINET IN ACCORDANCE WITH THE VIDEO, VOICE, & DATA DISTRIBUTION AND TRANSMISSION SYSTEM SPECIAL PROVISION.
46. REPLACE EXISTING LID WITH A HEAVY DUTY LID TO EXISTING PULL BOX IN ACCORDANCE WITH THE STANDARD PLAN J90.10-00.
47. INSTALL 1-24 PORT PRETERMINATED FIBER OPTIC PATCH PANEL IN CABINET IN ACCORDANCE WITH THE COMMUNICATION CABLES AND INTERFACES SPECIAL PROVISIONS.
48. REPLACE EXISTING JUNCTION BOX WITH NEW TYPE 1L JUNCTION BOX IN ACCORDANCE WITH ITS SPECIAL PROVISIONS AND ITS DETAIL SHEETS ITD27-ITD28.
49. ABANDON EXISTING JUNCTION BOX.

## ITS Legend

Existing	New	
		Type 1L Junction Box
		Type 2 Junction Box
		Type 3 Junction Box
		Type 4 Junction Box
		Type 5 Junction Box
		ITS Cable Vault
		ITS Pull Box
		Transformer Cabinet
		CCTV Controller Cabinet
		Controller Cabinet
		Terminal Cabinet
		Communication HUB
		RI Induction Loop
		WR Induction Loop
		CCTV Camera
		Conduit
		HAR Controller Cabinet
		HAR Transmitter
		Advance Warning Sign
		Ramp Meter Signal Head Type 2
		Electrical Service Cabinet
		Shoulder Mounted VMS
		VMS Controller Cabinet
		Weather Station
		Weather Station Pavement Sensor

## GENERAL NOTES

1. THE LOCATIONS OF FEATURES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND BE APPROVED BY THE ENGINEER.
2. POWER CONDUCTORS SHALL BE WHITE FOR NEUTRAL, BLACK FOR HOT, AND GREEN FOR GROUND.

FILE NAME		S:\14126\SCD\SR5\XL2628 196TH STREET (SR 524) INTERCHANGE SB BRAIDED RAMP\XL2628_SH ITS.DGN		REGION NO.		STATE		FED.AID PROJ.NO.						SR 5 196TH ST (SR524) INTERCHANGE SB BRAIDED RAMP		Plot 8	
TIME		3:06:26 PM		10		WASH										ITD2	
DATE		11/9/2009		JOB NUMBER				LOCATION NO.				SHEET					
PLOTTED BY		tranp		CONTRACT NO.								OF					
DESIGNED BY		P. TRAN										ITS NOTES					
ENTERED BY		H. MOSTAGHIMI															
CHECKED BY		G. LEEGE															
PROJ. ENGR.		S. SHALKLAWUN															
REGIONAL ADM.		L. ENG		REVISION		DATE		BY									



# △ WIRE NOTES

RUN NO.	EXISTING CONDUIT	NEW CONDUIT	INNERDUCT	EXISTING CONDUCTOR	NEW CONDUCTOR	REMARK
45		3"			19-2C(SH)	DETECTOR LEAD-INS
		3"			4-5C	SIGNAL HEAD
46						NOT USED
47						NOT USED
48		2"			1-24SMFO	PRETERMINATED CABLE
		3"			21-2C(SH)	DETECTOR LEAD-INS
		3"			8-2C(SH)	DETECTOR LEAD-INS
		2"			4-5C	SIGNAL HEADS
					3-3C	ADVANCE WARNING SIGNS
49		2"			3*8	POWER 120V TO CABINET
50		2"			3*6	SEE ILLUMINATION PLAN FOR CONTINUATION
		2"				NO CONDUCTOR
51		2"			1-CCC	CAMERA CONTROL CABLE
52	2"			2-2C(SH)		REMOVE
53	1.5"			1-6TWP		REMOVE
54	2"			2-2C(SH)		REMOVE
				1-6TWP		REMOVE
55		3"			1-12SMFO	COMM TO 005es18236
		3"			8-2C(SH)	DETECTOR LEAD-INS
					3-3C	ADVANCE WARNING SIGNS
56		2"			1-2C(SH)	DETECTOR LEAD-INS
					2-3C	ADVANCE WARNING SIGNS
57		2"			2-2C(SH)	DETECTOR LEAD-INS
					2-3C	ADVANCE WARNING SIGNS
58		2"			2*14AWG	DETECTOR LOOP WIRE LEADS
59		2"			1-2C(SH)	DETECTOR LEAD-INS
60	1.5"			1-3C		REMOVE
					1-3C	ADVANCE WARNING SIGN
61		2"			4-2C(SH)	DETECTOR LEAD-INS
					1-3C	ADVANCE WARNING SIGN
62		2"			3-2C(SH)	DETECTOR LEAD-INS
					1-3C	ADVANCE WARNING SIGN
63	2"			1-2C(SH)		REMOVE
					1-2C(SH)	DETECTOR LEAD-INS
64	2"			2-2C(SH)		REMOVE
				1-3C		REMOVE
					2-2C(SH)	DETECTOR LEAD-INS
					1-3C	ADVANCE WARNING SIGN
65	2"			1-2C(SH)		REMOVE
				1-3C		REMOVE
					1-2C(SH)	DETECTOR LEAD-INS
					1-3C	ADVANCE WARNING SIGN
66	1.5"			1-3C		REMOVE
67		3"			1-48SMFO	PRETERMINATED CABLE
					1-CAT6	COMM TO 005ws18253
		2"			1-CCC	CAMERA CONTROL CABLE
		2"				NO CONDUCTOR
68		3"			8-2C(SH)	DETECTOR LEAD-INS
		3"			1-24SMFO	PRETERMINATED CABLE. COMM TO 005es18259
		2"				NO CONDUCTOR
69		2"			1-CAT6	COMM TO 005ws18253
70		2"			COAX	PAVEMENT SENSOR CABLES
71		2"			1-12SMFO	LATERAL TO COMMUNICATION HUB
72		3"				NO CONDUCTOR
73		2"			1-COAX	HART ANTENNA CABLE
74		2"			4-PATCHCORDS	LATERAL COMM TO HART
75		3"			1-12SMFO	COMM TO 005es18236
					1-24SMFO	PRETERMINATED CABLE. COMM TO 005es18259
76		2"			3*6	SEE ILLUMINATION PLAN FOR CONTINUATION
		2"			3*8	POWER 120V TO 005ws18253

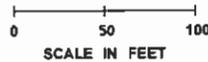
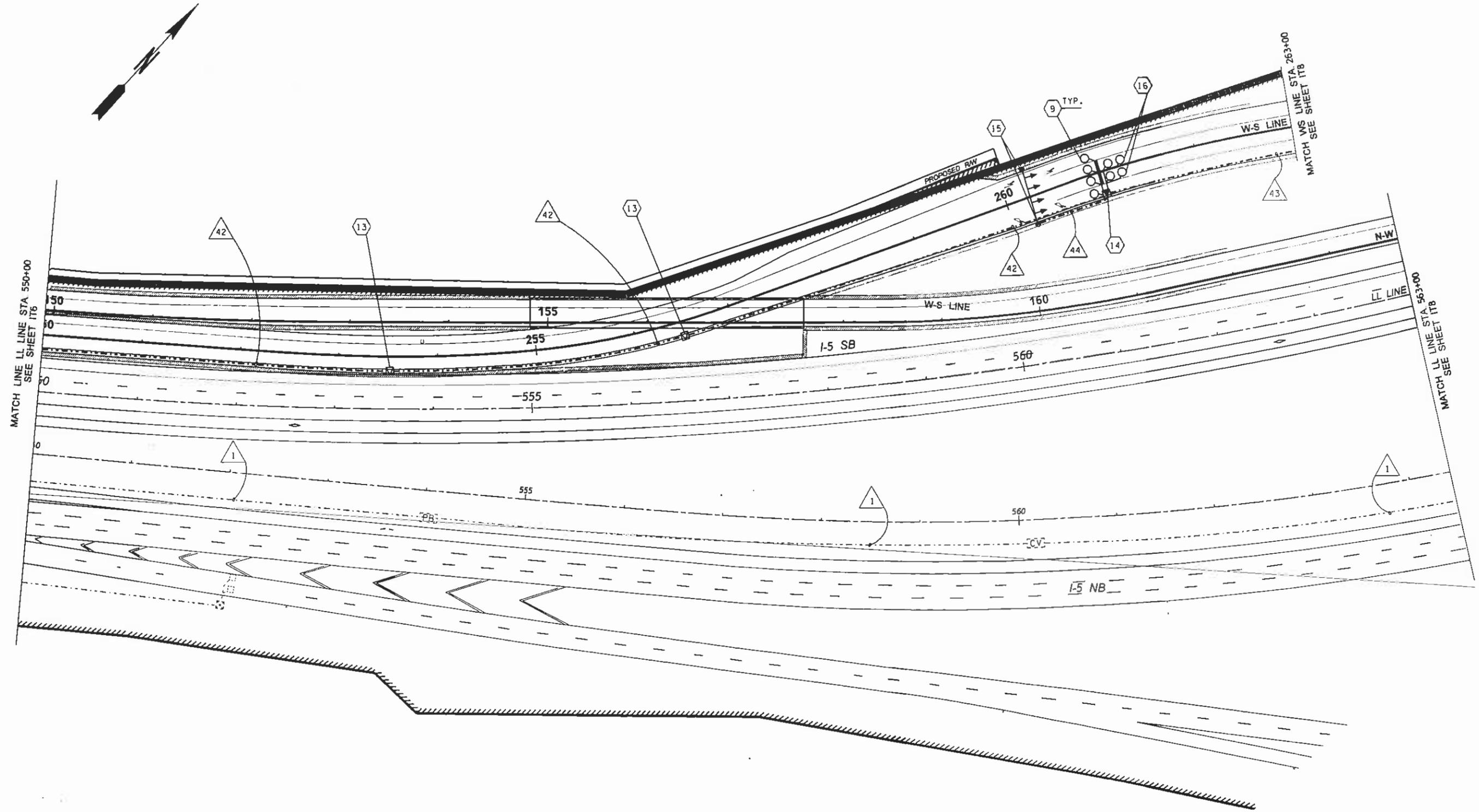
RUN NO.	EXISTING CONDUIT	NEW CONDUIT	INNERDUCT	EXISTING CONDUCTOR	NEW CONDUCTOR	REMARK
77		3"			4-2C(SH)	DETECTOR LEAD-INS
					1-3C	ADVANCE WARNING SIGN
		3"			1-12SMFO	COMM TO 005es18236
78		3"			1-12SMFO	COMM TO 005es18236
		3"			1-3C	ADVANCE WARNING SIGN
79		2"			1-COAX	WEATHER STATION SENSOR CABLE
80	4"		A	1-48SMFO		SR 525 MAINLINE COMMUNICATION
			B,C,D			NO CONDUCTOR
81	4"		A	1-48SMFO		SR 405 MAINLINE COMMUNICATION
			B	1-36SMFO		SR 405 VIDEO/DATA DISTRIBUTION
			C,D			NO CONDUCTOR
	4"		A,B,C,D			NO CONDUCTOR
82	4"		A	1-48SMFO		PULL BACK TO CABLE VAULT
			B	1-36SMFO		PULL BACK TO CABLE VAULT
			C		1-96SMFO	PRETERMINATED CABLE STUB
			D		1-96SMFO	PRETERMINATED CABLE STUB
	4"		A	1-48SMFO		PULL BACK TO CABLE VAULT
			B,C,D			NO CONDUCTOR
	4"		A,B,C,D			NO CONDUCTOR
83	4"		A	1-48SMFO		MAINLINE, PULL BACK TO CABLE VAULT
			B		1-96SMFO	PRETERMINATED CABLE
			C		1-96SMFO	PRETERMINATED CABLE
			D			NO CONDUCTOR
	4"		A	1-60SMFO		MAINLINE, PULL BACK TO CABLE VAULT
			B	1-12MMFO		REMOVE SOUTHBOUND DISTRIBUTION
				1-12MMFO		NORTHBOUND DISTRIBUTION
			C	2-25TWP		VOICE/DATA DISTRIBUTION
			D			NO CONDUCTOR
84	2"			1-COAX		REMOVE
				1-6TWP		LATERAL COMM TO 005vc18259
85	2"			1-2MMFO		VIDEO COMM
				1-6TWP		VOICE/DATA COMM
					1-3C	ADVANCE WARNING SIGN
86	2"			1-2MMFO		VIDEO COMM
					1-3C	ADVANCE WARNING SIGN
87	2"			1-2MMFO		VIDEO COMM
				2-CCC		REMOVE EX. CCTV CABLES
					1-CCC	CAMERA CONTROL CABLE
88	2"			2-CCC		REMOVE EX. CCTV CABLES
					1-CCC	CAMERA CONTROL CABLE
89		2"			1-3C	ADVANCE WARNING SIGN
90	2"			1-2MMFO		VIDEO COMM
				2-6TWP		REMOVE
91	1.5"			3*6		POWER TO COMMUNICATION HUB
92	4"		A	1-60SMFO		EX. MAINLINE COMMUNICATION
			B	1-25TWP		VOICE/DATA COMMUNICATION
			C	1-12MMFO		VIDEO/DATA DISTRIBUTION
			D			NO CONDUCTOR
	4"		A,B,C,D			NO CONDUCTOR
93	2"			POWER		SEE ELECTRICAL PLAN
					3*8	POWER TO 005es18259
94		2"			1-24SMFO	LATERAL COMM HUB
95		2"			3*8	POWER TO 005es18259
		2"				NO CONDUCTOR

FILE NAME: S:\414126\SCD\SR5XL2628 196TH STREET (SR 524)INTERCHANGE SB BRAIDED RAMP\XL2628_SH.ITS.DGN		REGION NO. STATE		FED.AID PROJ.NO.				SR 5		Plot 10 PLAN REF NO <b>ITD4</b> SHEET OF SHEETS
TIME: 3:06:28 PM	DATE: 11/9/2009	10	WASH					196TH ST (SR524) INTERCHANGE		
DESIGNED BY: P. TRAN	ENTERED BY: H. MOSTAGHIMI	JOB NUMBER						SB BRAIDED RAMP		
CHECKED BY: G. LEEGE	PROJ. ENGR. S. SHALKLAWUN	CONTRACT NO.		LOCATION NO.				ITS NOTES		
REGIONAL ADM. L. ENG	REVISION	DATE	BY			P.E. STAMP BOX	DATE			





T. 27N. R. 4E. W.M.



FILE NAME S:\414126\SCD\SR5XL2628 196TH STREET (SR 524)INTERCHANGE SB BRAIDED RAMP\XL2628 SH.ITS.DGN			
TIME	3:06:23 PM	REGION NO.	STATE
DATE	11/9/2009	10	WASH
PLOTTED BY	trnp	JOB NUMBER	
DESIGNED BY	P. TRAN	CONTRACT NO.	
ENTERED BY	H. MOSTAGHIMI	LOCATION NO.	
CHECKED BY	G. LEEGE		
PROJ. ENGR.	S. SHALKLAWUN		
REGIONAL ADM.	L. ENG		
REVISION		DATE	BY

FED.AID PROJ.NO.

DATE

P.E. STAMP BOX

DATE

P.E. STAMP BOX

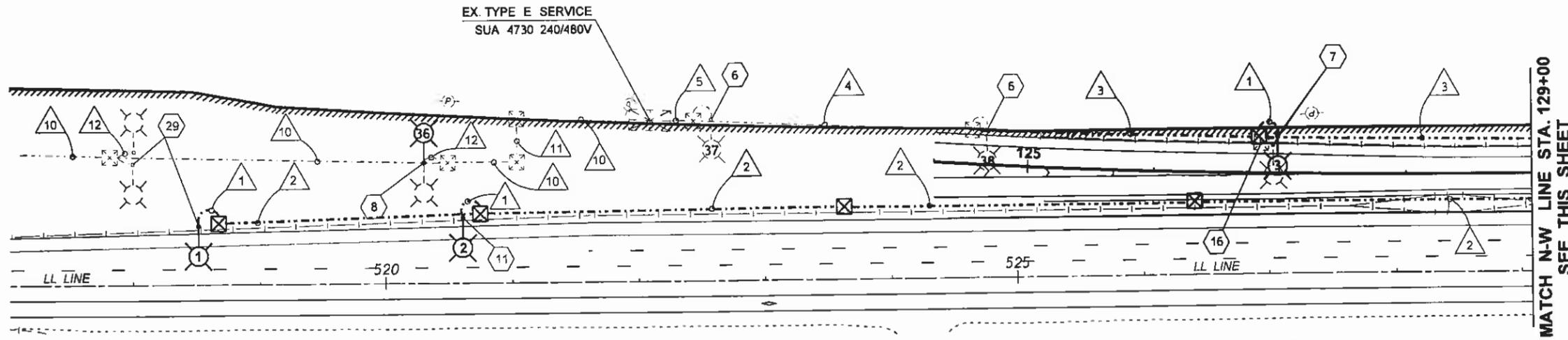
Washington State  
Department of Transportation

SR 5  
196TH ST (SR524) INTERCHANGE  
SB BRAIDED RAMP

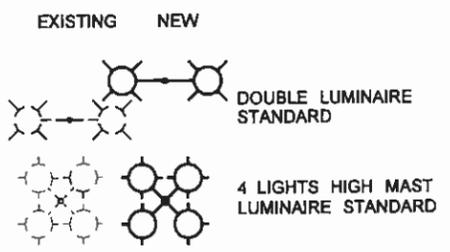
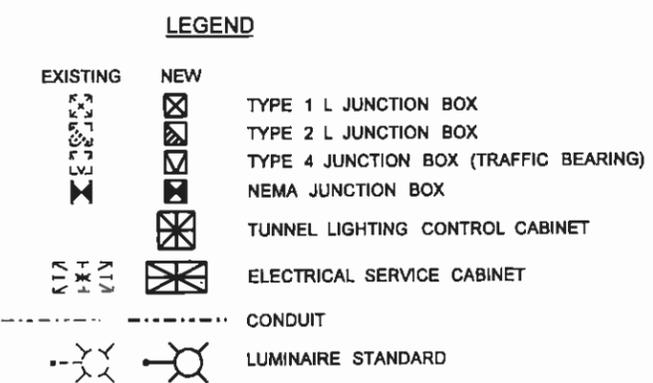
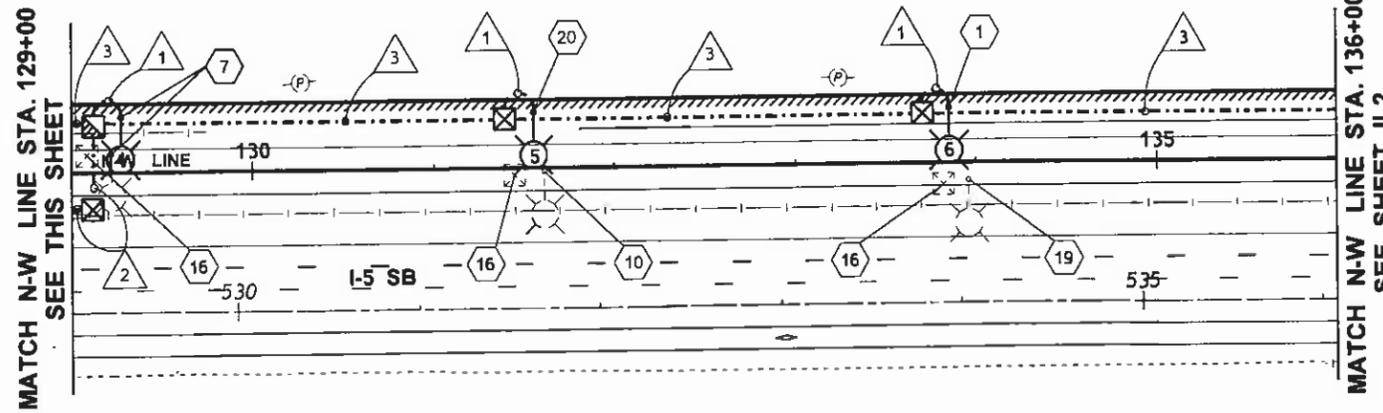
ITS PLAN

Plot 4  
IT7  
SHEET  
OF  
SHEETS



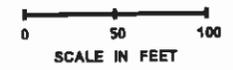


WRING SCHEDULE		EX. SERVICE NO. SUA 4730			
NO.	CONDUIT SIZE	CONDUCTORS		CIRCUIT	COMMENTS
		EXISTING	NEW		
1	1"		2-#8	C	
2	2"		2-#8	C	
3	2"		2-#6,2-#4	B,C	
4	EX 1 1/2"		2-#6,2-#4	B,C	
5	EX 1 1/2"		2-#6,2-#4	B,C	
5	EX 2"				SPARE
10	EX 1 1/2"	2-#6		A	
11	EX 2"	2-#6		A	
11	EX 2"				SPARE
12	EX 1"		2-#8	A	
13	NOT USE				
14	NOT USE				
15	NOT USE				



LUMINAIRE SCHEDULE		EX SERVICE NO. SUA 4730							
LUMINAIRE NUMBER	CIRCUIT	LOCATION		TYPE - DISTRIBUTION - WATTAGE	MAST ARM	H1	BASE TYPE	FDT DEPTH	COMMENTS
		STATION	OFFSET						
1	C	LL 518+52	45.6 LT	EX 400W	EX 12	EX 40	FIXED	4.5	EX POLE
2	C	LL 520+61	50.8 LT	EX 400W	EX 12	EX 40	FIXED	4.5	EX POLE
3	C	N-W 127+00	30.6 LT	EX 400W	EX 12	EX 40	FIXED	8.0	EX POLE
4	C	N-W 129+27	30.2 LT	EX 400W	EX 12	EX 40	FIXED	8.0	EX POLE
5	C	N-W 131+55	30.2 LT	EX 400W	EX 12	EX 40	SLIP	8.0	EX POLE
6	C	N-W 133+86	30.2 LT	III - MED CUT OFF - 400 HPS	12	50	SLIP	4.5	
36	C	LL 520+30	94.1 LT	III - MED CUT OFF - 400 HPS	14	40	EX	EX	
37	C	LL 522+58	125.5 LT	EX 400W	EX 8	EX 40	EX	EX	
38	C	LL 524+77	114.0 LT	EX 400W	EX 8	EX 40	EX	EX	

FDT = FOUNDATION  
 SEE STANDARD PLAN J-28.30-00 FOR FOUNDATION TYPE.  
 SEE STANDARD PLAN J-28.22-00 TO J-28.26-01 FOR LUMINAIRE STANDARD PLACEMENT.



**NOTE:**  
 FOR BREAKER SCHEDULE, LUMINAIRE SCHEDULE,  
 AND CONSTRUCTION NOTES SEE SHEET IL6

FILE NAME	T:\14124\ELECTRICAL\Projects\15\XL2628_196th_ST\2628_ILSH.dgn			REGION NO.	STATE	FED.AID PROJ.NO.			I-5 196TH ST (SR 524) INTERCHANGE SB BRAIDED RAMP ILLUMINATION PLAN	Plot 1
TIME	10:46:10 AM			10	WASH					PLAN REF NO.
DATE	11/9/2009			JOB NUMBER	09A030				SHEET	
PLOTTED BY	kove			CONTRACT NO.					OF	
DESIGNED BY	S. KOV			LOCATION NO.					SHEETS	
ENTERED BY	H. TRINH									
CHECKED BY	A. MOSTOWFY									
PROJ. ENGR.	D. DO									
REGIONAL ADM.	L. ENG			REVISION	DATE	BY	P.E. STAMP BOX	DATE		

**CONSTRUCTION NOTES:**

- 1 CONSTRUCT FOUNDATION AND INSTALL LUMINAIRE STANDARD. SEE LUMINAIRE SCHEDULE.
- 2 INSTALL LUMINAIRE STANDARD ON RETAINING WALL BY USING ELBOW MOUNTING. SEE STANDARD PLAN J-28.45-00 AND LUMINAIRE SCHEDULE.
- 3 INSTALL TYPE 4 HEAVY DUTY JUNCTION BOX.
- 4 CONSTRUCT FOUNDATION IN ACCORDANCE WITH DETAIL SHEETS ED1 AND ED2 AND RELOCATE HIGH MAST LUMINAIRE STANDARD. SEE LUMINAIRE SCHEDULE.
- 5 CONSTRUCT FOUNDATION AND INSTALL 4 LIGHTS HIGH MAST LUMINAIRE STANDARD. SEE LUMINAIRE SCHEDULE SHEET IL5 AND BRIDGE SHEET BS21 FOR FOUNDATION DETAILS.
- 6 RENUMBERING LUMINAIRE STANDARD.
- 7 CONSTRUCT FOUNDATION AND RELOCATE EXISTING LUMINAIRE STANDARD
- 8 REPLACE EXISTING LUMINAIRE STANDARD PER LUMINAIRE SCHEDULE. RELOCATE EXISTING DOUBLE MAST ARM LUMINAIRE STANDARD. SEE LUMINAIRES #7 AND #8 FOR NEW LOCATION
- 9 CONSTRUCT FOUNDATION AND INSTALL RELOCATED LUMINAIRES. SEE CONSTRUCTION NOTE 8.
- 10 RELOCATE EXISTING LUMINAIRE STANDARD SEE LUMINAIRE #2 FOR NEW LOCATION.
- 11 CONSTRUCT FOUNDATION AND INSTALL RELOCATED LUMINAIRE. SEE CONSTRUCTION NOTE 10
- 12 REMOVE EXISTING JUNCTION BOX. CONNECT NEW CONDUIT TO EXISTING CONDUIT AND EXTEND TO NEW JUNCTION BOX.
- 13 SPLICE NEW CONDUCTORS TO APPROPRIATE EXISTING CIRCUIT CONDUCTORS.
- 14 CONSTRUCT CONCRETE BARRIER LIGHT STANDARD FOUNDATION PER STANDARD PLAN C-8b. INSTALL DOUBLE MAST ARM LUMINAIRE STANDARD. SEE LUMINAIRE SCHEDULE
- 15 INTERCEPT CONDUIT, CONNECT NEW CONDUIT TO EXISTING AND ROUTE AS SHOWN. MAINTAIN ALL BONDING AND GROUNDING.
- 16 REMOVE JUNCTION BOX AND ABANDON CONDUIT. BACKFILL.
- 17 REMOVE LIGHT STANDARD AND FOUNDATION. BACKFILL.
- 18 REMOVE TYPE E SERVICE CABINET, FOUNDATION AND CONDUIT ELBOW. BACKFILL COORDINATE POWER DISCONNECT AND METER REMOVAL WITH THE UTILITY COMPANY THROUGH THE ENGINEER.
- 19 RELOCATE EXISTING LUMINAIRE STANDARD. SEE LUMINAIRE #5 FOR NEW LOCATION.
- 20 CONSTRUCT FOUNDATION AND INSTALL RELOCATED LUMINAIRE. SEE CONSTRUCTION NOTE 19.
- 21 SHARE DIRECTIONAL BORING WITH ITS CONDUIT INSTALLATION.
- 22 CONSTRUCT FOUNDATION AND INSTALL TYPE E SERVICE CABINET PER DETAIL SHEET ED3. THE FACE OF OF THE CABINET SHALL FACE SOUTH SEAL CABINET TO THE FOUNDATION WITH A 1/2" BEAD OF SILICONE. COORDINATE POWER CONNECTION WITH THE UTILITY COMPANY THROUGH THE ENGINEER.
- 23 CONSTRUCT FOUNDATION AND INSTALL DOUBLE MAST ARM LUMINAIRE. SEE LUMINAIRE SCHEDULE.
- 24 REMOVE HIGH MAST LUMINAIRE STANDARD AND FOUNDATION. BACKFILL
- 25 ROUTE CONDUIT AND CONDUCTORS INTO UTILITY COMPANY PEDESTAL. COORDINATE POWER CONNECTION WITH THE UTILITY COMPANY THROUGH THE ENGINEER.
- 26 REMOVE UNUSED CONDUIT ELBOWS.
- 27 INSTALL PHOTO LIGHTING CONTROL CABINET AND ASSOCIATED EQUIPMENT ON THE SAME FOUNDATION AS SERVICE CABINET. INSTALL THE CABINET BY USING UNISTRUT. SEE DETAIL SHEET ED2.
- 28 INSTALL TRAFFIC BARRIER MOUNTED JUNCTION BOX. SEE STANDARD PLAN J-16a
- 29 CONSTRUCT FOUNDATION AND RELOCATE EXISTING LUMINAIRE STANDARD. CUT THE EXISTING ANCHOR BOLT TO FLUSH WITH THE TOP OF THE FOUNDATION.
- 30 SEE SIGNING PLAN AND DETAIL SHEET ED7 FOR CONTINUATION OF CIRCUIT POWER.
- 31 UNSPLICE CANTILEVER SIGN CIRCUIT WIRES AND REMOVE THESE WIRES FROM THIS JUNCTION BOX TO THE ISOLATION SWITCH BOX LOCATED ON SIGN STRUCTURE.
- 32 INTERCEPT EXISTING CONDUIT AND INSTALL TYPE 2 JUNCTION BOX.
- 33 INSTALL TUNNEL LIGHTING SENSOR ON LUMINAIRE STANDARD
- 34 SEE SHEET IL6 FOR CONTINUATION OF CIRCUIT POWER.

LUMINAIRE SCHEDULE						SERVICE NO. SUA 2299				
LUMINAIRE NUMBER	CIRCUIT	LOCATION		TYPE - DISTRIBUTION - WATTAGE	MAST ARM	H1	BASE TYPE	FDT DEPTH	COMMENTS	
		STATION	OFFSET							
31	A	B	LL 568+43	51.0 RT	III - MED CUT OFF - 400 HPS	2.5	80	FIXED	8.0	SEE DETAIL SHEET ED2 FOR FDT INSTALLATION
	B	C			III - MED CUT OFF - 400 HPS	2.5				
	C	D			III - MED CUT OFF - 400 HPS	2.5				
	D	1			III - MED CUT OFF - 400 HPS	2.5				

LUMINAIRE SCHEDULE						SERVICE NO. SUA 4053				
LUMINAIRE NUMBER	CIRCUIT	LOCATION		TYPE - DISTRIBUTION - WATTAGE	MAST ARM	H1	BASE TYPE	FDT DEPTH	COMMENTS	
		STATION	OFFSET							
21	A	W-S 258+23	23.0 RT	III - MED CUT OFF - 400 HPS	12	40	FIXED	N/A	ELBOW MOUNT	
22	A	N-W 157+85	26.3 RT	III - MED CUT OFF - 400 HPS	12	40	FIXED	4.5		
23	A	W-S 260+19	30.0 RT	III - MED CUT OFF - 400 HPS	12	40	FIXED	N/A	ELBOW MOUNT	
24	A	N-W 159+90	10.6 RT	III - MED CUT OFF - 400 HPS	12	50	FIXED	4.5		
25	A	W-S 261+95	33.5 RT	III - MED CUT OFF - 400 HPS	12	40	FIXED	N/A	ELBOW MOUNT	
26	A	N-W 161+44	7.3 RT	III - MED CUT OFF - 400 HPS	12	50	SLIP	4.5		
27	A	N-W 163+47	7.1 RT	III - MED CUT OFF - 400 HPS	12	50	SLIP	4.5		
28	A	W-S 264+00	27.5 RT	III - MED CUT OFF - 400 HPS	12	40	FIXED	N/A	ELBOW MOUNT	
29	A	N-W 166+00	32.0 LT	III - MED CUT OFF - 400 HPS	12	50	FIXED	4.5		
30	A	W-S 265+98	34.4 RT	III - MED CUT OFF - 400 HPS	12	40	FIXED	N/A	ELBOW MOUNT	
32	A	B	WS 268+60	21.0 RT	III - MED CUT OFF - 400 HPS	2.5	80	FIXED	8.0	SEE DETAIL SHEET ED2 FOR FDT INSTALLATION
	B	C			III - MED CUT OFF - 400 HPS	2.5				
	C	B			III - MED CUT OFF - 400 HPS	2.5				
	D	C			III - MED CUT OFF - 400 HPS	2.5				
33	B	W-S 270+61	45.0 LT	III - MED CUT OFF - 400 HPS	16	40	SLIP	4.5		
34	A	B	W-S 275+86	68.7 LT	III - MED CUT OFF - 400 HPS	2.5	80	FIXED	8.0	SEE DETAIL SHEET ED2 FOR FDT INSTALLATION
	B	C			III - MED CUT OFF - 400 HPS	2.5				
	C	B			III - MED CUT OFF - 400 HPS	2.5				
	D	C			III - MED CUT OFF - 400 HPS	2.5				
35	A	B	W-S 272+98	71.4 RT	EX 400W	EX 2.5	EX 80	FIXED	8.0	EXISTING LUMINAIRE
	B	C			EX 400W	EX 2.5				
	C	B			EX 400W	EX 2.5				
	D	C			EX 400W	EX 2.5				

FDT = FOUNDATION  
SEE STANDARD PLAN J-28.30-00 FOR FOUNDATION TYPE.  
SEE STANDARD PLAN J-28.22-00 TO J-28.26-01 FOR LUMINAIRE STANDARD PLACEMENT.

BREAKER SCHEDULE						SUA 4053	
TYPE E SERVICE						240/480V	
CIRCUIT	DESCRIPTION	BREAKER RATING	CONTACTOR RATING	VOLTAGE	LOAD (KVA)		
---	MAIN	200 AMP	---	---	---		
A	ILLUMINATION A	30 AMP	30 AMP	480	5.28		
B	ILLUMINATION B	30 AMP	30 AMP	480	3.70		
C	ILLUMINATION C	30 AMP	30 AMP	480	3.17		
D	ITS TRANSFORMER #1	20 AMP	N/A	480	5.00		
E	ITS TRANSFORMER #2	100 AMP	N/A	480	37.50		
F	ITS TRANSFORMER #3	40 AMP	N/A	480	12.50		
G	ITS TRANSFORMER #4	20 AMP	N/A	480	5.00		
H	SPARE	20 AMP	30 AMP	480	0.00		
I	INTERNAL TRANSFORMER	20 AMP	N/A	480	---		
II	TRANSFORMER SECONDARY	35 AMP	N/A	120	---		
I-1	GFCI	20 AMP	N/A	120	1.8		
I-2	HEAT STRIP	15 AMP	N/A	120	0.10		
I-3	PHOTOCELL	15 AMP	N/A	120	0.001		
BUSWORK SHALL BE RATED AT 250 AMP MINIMUM			PEAK		74.05		
			CONTINUOUS		72.25		

BREAKER SCHEDULE						SUA 4730	
EX TYPE E SERVICE						240/480V	
CIRCUIT	DESCRIPTION	BREAKER RATING	CONTACTOR RATING	VOLTAGE	LOAD (KVA)		
---	MAIN	EX 100 AMP	---	---	---		
A	ILLUMINATION A	EX 25 AMP	EX 30 AMP	240	EX 16.0		
B	ILLUMINATION B	EX 20 AMP	EX 30 AMP	240	5.2		
C	ILLUMINATION C	30 AMP	30 AMP	240	7.9		
D	ILLUMINATION D	X	X	240	X		
E	ILLUMINATION E	X	X	240	X		
F	SPARE	20 AMP	N/A	240	0.0		
G	SPARE	20 AMP	N/A	240	0.0		
H	SIGNAL	X	N/A	120	X		
I	GFCI	EX 20 AMP	N/A	120	1.8		
J	HEAT STRIP	EX 15 AMP	N/A	120	0.1		
K	PHOTOCELL	EX 15 AMP	N/A	120	0.001		
					PEAK		34.33
					CONTINUOUS		32.53

FILE NAME	T:\14124\ELECTRICAL\Projects\I-5\X2628_196th ST\2628_ILSH.dgn		
TIME	10:46:34 AM		
DATE	11/9/2009		
PLOTTED BY	kova		
DESIGNED BY	S. KOV		
ENTERED BY	H. TRINH		
CHECKED BY	A. MOSTOWFY		
PROJ. ENGR.	D. DO		
REGIONAL ADM.	L. ENG		
REVISION	DATE	BY	
REGION NO.	STATE	FED.AID PROJ.NO.	
10	WASH		
JOB NUMBER	09A030		
CONTRACT NO.	LOCATION NO.		



I-5  
196TH ST (SR 524) INTERCHANGE  
SB BRAIDED RAMP  
ILLUMINATION PLAN

Plot 6  
PLAN REF NO.  
IL6  
SHEET  
OF  
SHEETS