

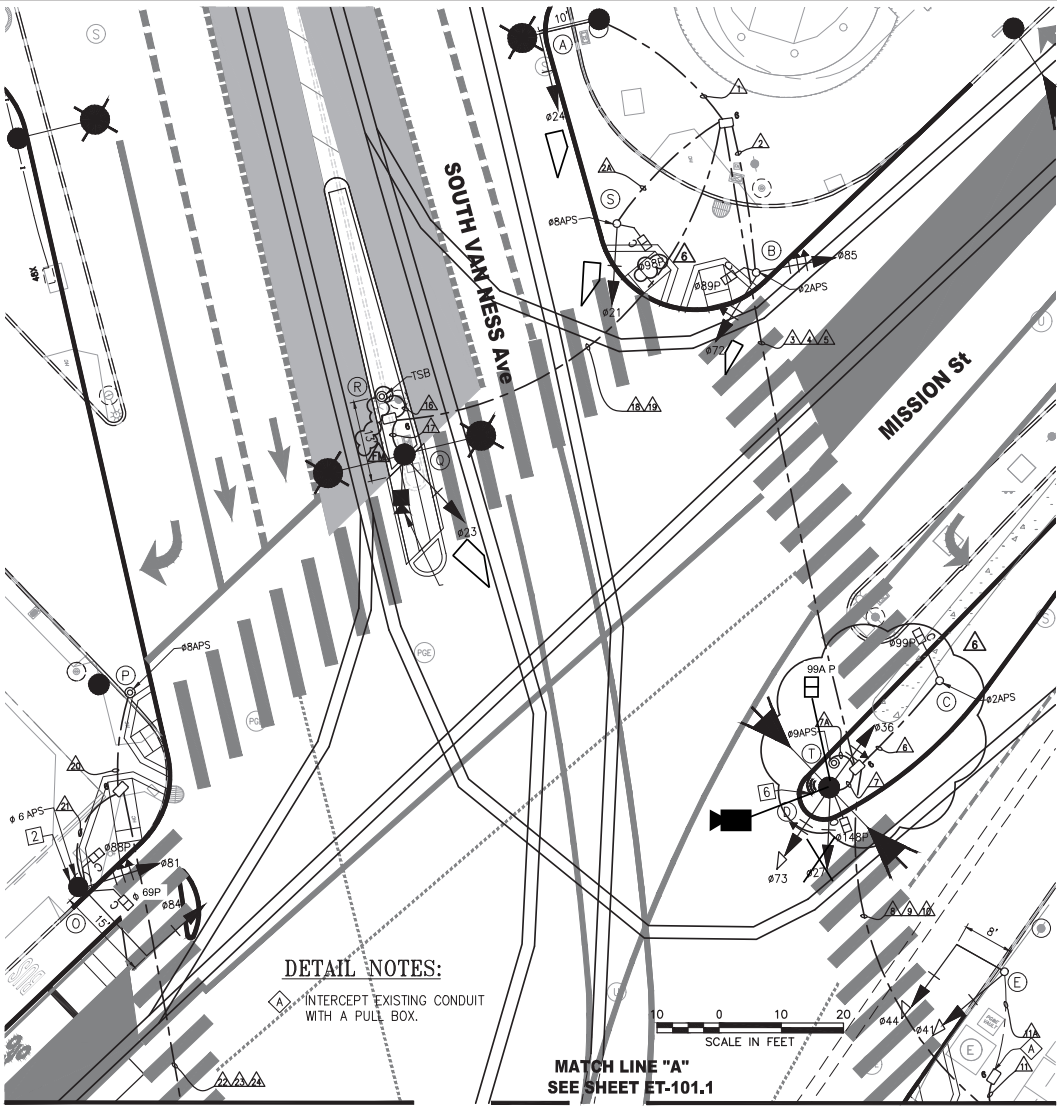
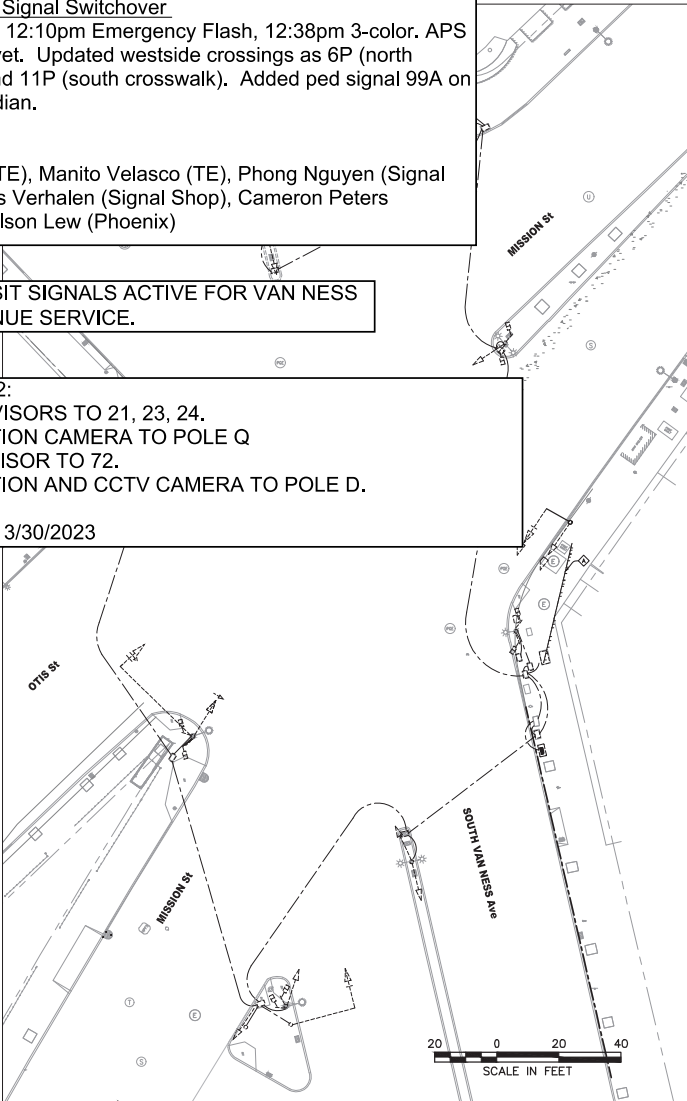
9/9/21 Traffic Signal Switchover
9:13am Dark, 12:10pm Emergency Flash, 12:38pm 3-color. APS not installed yet. Updated westside crossings as 6P (north crosswalk) and 11P (south crosswalk). Added ped signal 99A on east side median.

Staff
Ken Kwong (TE), Manito Velasco (TE), Phong Nguyen (Signal Shop), Dennis Verhalen (Signal Shop), Cameron Peters (Phoenix), Wilson Lew (Phoenix)

4/1/22 TRANSIT SIGNALS ACTIVE FOR VAN NESS REVENUE SERVICE.

SRC 2022-162:
ADD 18" RA VISORS TO 21, 23, 24.
ADD DETECTION CAMERA TO POLE Q
ADD 18" LA VISOR TO 72.
ADD DETECTION AND CCTV CAMERA TO POLE D.

KEN KWONG 3/30/2023



DETAIL NOTES:

INTERCEPT EXISTING CONDUIT WITH A PULL BOX.

91011

EXISTING EQUIPMENT

FOR ORIGINAL SIGNATURES, SEE ET-101.0, REV 0

6		1/21/21	FIELD CHANGE - TSB POLE AT 15'	KK	MV	CL
5		12/20/20	CONFORMED SET, UPGRADE WITH REL #870	KK	MV	CL
4		11/14/19	ELECTRICAL MTR. PIP POLE 10/POLE 8, REMOVED STAND-ALONE TYPE 1A PER POLE LAYOUT, POLE E REMAINS AND POLE P IS PIPED; MOVED SIG TSB TO POLE T (NEW 1A); MA ON POLE O ONLY	KK	MV	CL
3		7/24/19	CONDUIT 18, 19 RELOCATION PER FIELD MEMO #240	KK/ML	MV	CL
2		7/19/19	LATEST DRAWING	KK	MV	CL
1		05/2018	MOVED POLE 8 AND CONDUIT 2, RELOCATED PER SIGNAL 20, SIGNAL 8 AND 15 CHANGED TO 8020A, ADDED POLE 5 AND CONDUIT 20, ADDED TYPE 8020A	KK	MV	CL
NO.	DATE	DESCRIPTION		REVISED	CHECKED	APPROVED
REVISIONS						

DESIGNED	K. KWONG
DRAWN	K. KWONG
CHECKED	R. ZIMMERMAN/C. LIU
REVIEWED	C. LIU
RECOMMENDED	P. WILSON
APPROVED	R. OLEA
DATE	12/4/2015



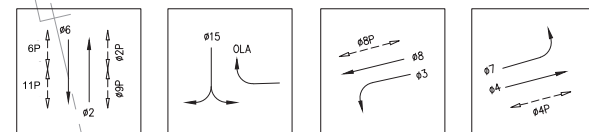
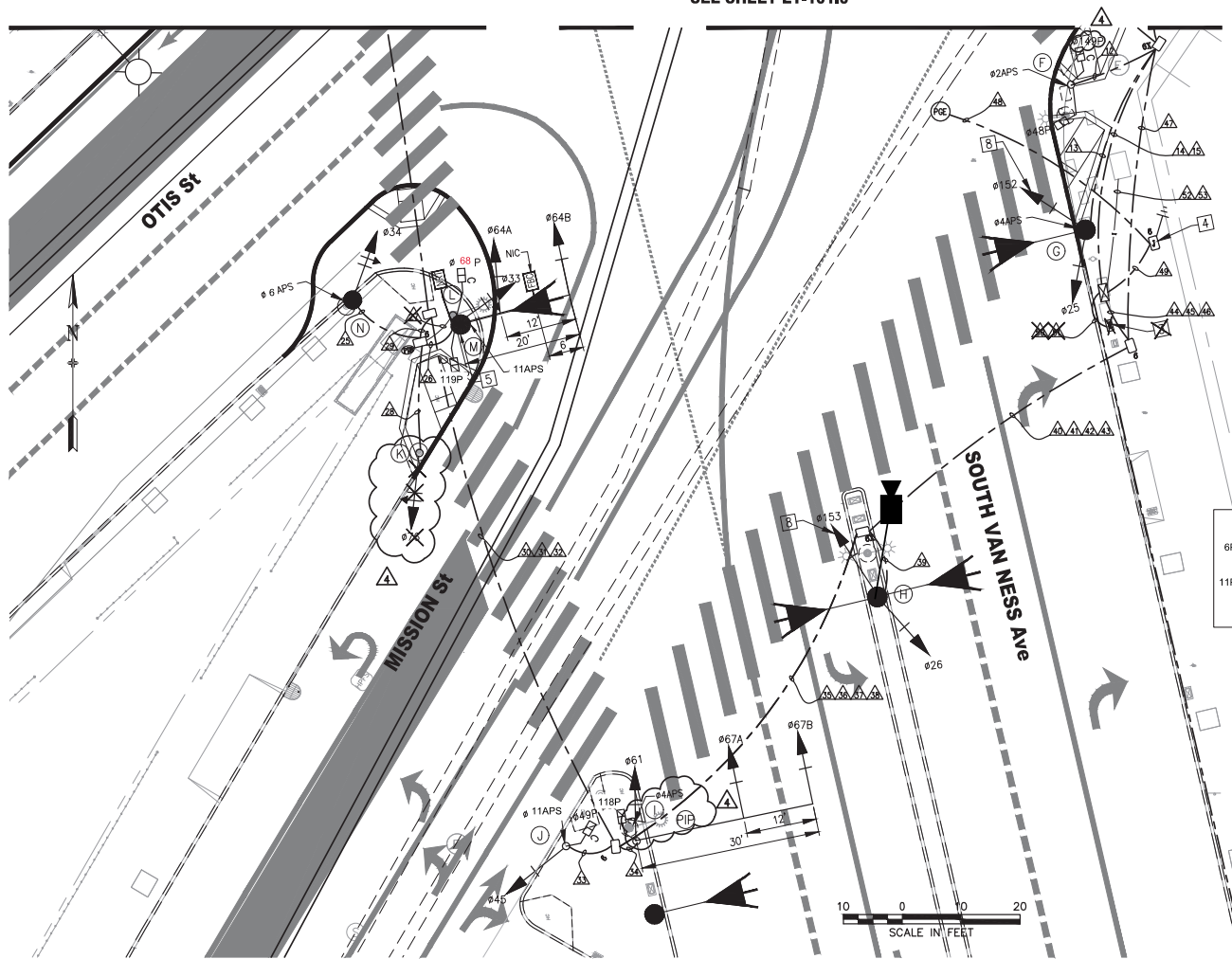
CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY

APPROVED

for the DIRECTOR OF TRANSPORTATION

MUNI BUS RAPID TRANSIT SYSTEM VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT	1289
MISSION/OTIS STREET TRAFFIC SIGNAL WORK	ET-101.0 ET-204
REVISION	6

MATCH LINE "A"
SEE SHEET ET-101.0



PHASE DIAGRAM

FOR ORIGINAL SIGNATURES, SEE ET-101.1, REV 0

NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED
REVISIONS					
4	11/10/20	CONFORM SET: UPDATED W/ RFI #894 & #932 AND FM #333	KK	MY	CL
3	11/14/19	PER POLE LAYOUT: POLE W MOVED TO WN SIDE; POLE N MA CHANGED TO SV-1-I; UPDATED EX. INTERCONNECT PULLBOX	KK	MY	CL
2	7/18/19	LATEST DRAWING	KK	MY	CL
1	03/2018	MOVED NRT SIGNAL, ADDED FBC SIGNAL ON POLE M, REMOVED BBS, ADDED SIGNALS 644 AND 67A, ADDED TYPE 6X PULLBOXES	KK	MY	CL

DESIGNED	K. KWONG
DRAWN	K. KWONG
CHECKED	R. ZAMORA/C. LIU
REVIEWED	C. LIU
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APPROVED	R. OLEA
DATE	12/4/2015



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MUNI BUS RAPID TRANSIT SYSTEM	
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT	

1289

MISSION STREET
TRAFFIC SIGNAL WORK

ET-101.1
ET-204

REVISION

4

T:\J.E. RILEY\SP\SP\Projects\Van Ness MUNI\Signal Design\CADD\CPM401E1705 - 1005 Rev. 3-3-21.dwg KRM/KMG Tm Mar 03/2021 - 13:13 pm

POLE AND EQUIPMENT SCHEDULE														
POLE NO.	POLE STANDARD			VEHICLE SIGNAL					PEDESTRIAN SIGNAL			HPS LUMINAIRE (WATTS)	SPECIAL REQUIREMENTS	
	TYPE	SIG. MA (FEET)	OCS SL	No.	TYPE	MOUNTING	VISORS	LOUVERS	No.	TYPE	MOUNTING			
A	SIGNAL, SL & OCS COMBO POLE	10	99 13	24	3S12"	MAS	RIGHT ANGLED TUNNEL VISOR		-	-	-	-	MOUNT SIGNAL 24 BETWEEN YELLOW AND GREEN	6
B	1-A (10')	-		72 85	3S12"LA 5S12"YGRA	TV-2-T	LEFT ANGLED TUNNEL VISOR	T	89	1S-COUNT	SP-1	-	APS	
C	1-A (7')	-		-	-	-	-		99	1S-COUNT	TP-1	-	APS	
D	SIGNAL, SL & OCS COMBO POLE	6	1573 N1511 S1511	27 36 73	3S12" 3S12"LA 4S12"GLA-LAV	SV-2-TA	T L		99A 148 6	1S-COUNT 1S-COUNT	SP-2-T	-	TSP CCTV	6
E	EX. 16-1-70	8		44 41	3S12"LAV 3S12"LAV	MAS SV-1-T	L L		-	-	-	-	EXISTING MAST ARM POLE TO REMAIN WITH NEW SIGNALS	
F	1-A (10')	-		-	-	-	-		48 149	1S-COUNT 1S-COUNT	SP-2-T	-	APS POLE CAP	
G	SIGNAL, SL & OCS COMBO POLE	-	103 11	25 152	3S12" 3S12"LRB	SV-2-TA	T T		-	-	-	-	APS	6
H	SIGNAL, SL & OCS COMBO POLE	-	105 W115 E115	26 153	3S12" 3S12"LRB	SV-2-TA	T T		-	-	-	-	CCTV	
I	SPECIAL SIGNAL MAST ARM POLE (18-4-100)	30		67A 67B 61	3S12" 3S12" 3S12"	MAS MAS SV-1-T	T T T		118	1S-COUNT	SP-1	-	STRAIGHT HORIZONTAL SIGNAL MA MOUNT AT 21' HIGH MOUNT SIGNAL 67B BETWEEN YELLOW AND GREEN PIP - INSTALL POLE IN PLACE OF EXISTING POLE	6
J	1-A (10')	-		45	3S12"	TV-1-T	T		49	1S-COUNT	SP-1	-	APS	
K	EX SIGNAL & OCS COMBO POLE (FEEDER)	-	1600	76	3S12"LA	SV-1-T							EXTERNAL CONDUIT	6
L	EX SL/TS MA POLE	-		-	-	-	-		-	-	-	-	EXISTING MAST ARM POLE TO BE REMOVED	
M	SPECIAL SIGNAL MAST ARM POLE (19-4-100)	20		64A 64B 33	3S12" 3S12" 4S12"GLA	MAS MAS SV-1-T	T T T		119 68	1S-COUNT 1S-COUNT	SP-2-T	-	STRAIGHT HORIZONTAL SIGNAL MA MOUNT AT 23.5' HIGH TENON FOR FUTURE FBC MIDWAY BETWEEN MAS SIGNALS SINGLE LUMINAIRE FOR STREETLIGHT	6
N	OCS POLE		9	34	4S12"GLA	SV-1-T (36")	T		-	-	-	-	SV-1-T MOUNTING WITH A 36" LONG NIPPLE AT 15' HIGH APS	6
O	SIGNAL & OCS COMBO MAST ARM POLE	15	10	81 84	5S12"YGRA 3S12"	SV-1-T MAS	T T		88 69	1S-COUNT 1S-COUNT	SP-1 (22") SP-1-SF (12")	-	APS	
P	PPB POLE	-										-	APS	
Q	SIGNAL, SL & OCS COMBO POLE	-	97 W012 E012	23	3S12"	SV-1-T	RIGHT ANGLED TUNNEL VISOR		-	-	-	-	VEHICLE DETECTION CAMERA	
R	TSB POLE	-		-	-	-	-		-	-	-	-	TSB	
S	1-A (10')	-		21	3S12"	TV-1-T	RIGHT ANGLED TUNNEL VISOR		38	1S-COUNT	SP-1	-	APS	6
T	PPB POLE	-										-	APS	6

FOR ORIGINAL SIGNATURES, SEE ET-101.2, REV 0

6	11/10/20	CONFORMED SET AND UPDATED WITH 01, 0170 AND 008	KK	MV	CL
5	12/20/20	ELECTRICAL WIRING: PP POLE TO POLE Q; REMOVED STAND-ALONE TYPE 1A	KK	MV	CL
4	11/14/19	PER POLE LAYOUT: POLE E REMOVED; POLE P IS PVR; SIG TRIP MOVED TO POLE Q	KK	MV	CL
3	7/30/18	FIELD MEMO 240-CLARIFIED MAST ARM POLE Q AND N	KK/MV	MV	CL
2	7/18/19	LATEST DRAWING	KK	MV	CL
1	03/2018	UPDATED SIGNALS 2L, 0L, 0S, PED SIGNAL 2A, ADDED SIGNALS 6AA AND 67A, ADDED POLE S, ADDED PIP TENON NOTE	KK	MV	CL
NO.	DATE	DESCRIPTION	REVISION	CHECKED	APPROVED
REVISIONS					

DESIGNED	K. KIMMO
DRAWN	K. KIMMO
CHECKED	R. ZIMMERMANN
REVIEWED	C. LIU
RECOMMENDED	P. WILSON
APPROVED	R. OLEA
DATE	12/4/2015



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MUNI BUS RAPID TRANSIT SYSTEM		1289
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT		
MISSION/OTIS STREET CONDUCTOR POLE AND EQUIPMENT SCHEDULES		ET-101.2
		ET-204
		REVISION
		6

*OTHER REQUIREMENTS ARE COVERED BY NOTES, LEGEND, SPECIAL PROVISIONS, AND STANDARD SPECIFICATIONS.
FOR TYPE OF STANDARD, VEHICLE AND PEDESTRIAN SIGNAL MOUNTING, SEE CALTRANS STANDARD PLANS OR DETAIL DRAWINGS.

- INSTALL APS WIRING AS SHOWN IN CONDUIT AND WIRING SCHEDULE. CITY FORCES TO INSTALL CITY FURNISHED APS UNIT.
- INSTALL CITY FURNISHED TSP WIRING FROM TS OR COMBINED POLES WITH 3 FEET OF SLACK TO TS CABINET.
- INSTALL CITY FURNISHED TRAFFIC CAMERA AND CONTRACTOR FURNISHED WIRING.
- FOR STREETLIGHT WORK, SEE SL-SERIES PLANS.

CONDUIT AND WIRING SCHEDULE

CONDUIT RUN NUMBER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51			
CONDUIT SIZE (INCH)	2	2	2	2	2	2	2	2	2	2	EX	2	2	3	2	1	2	2	2	1	2	2	2	2	2	2	EX	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
VEHICLE SIGNAL Ø21			3	3				3						3																																								
VEHICLE SIGNAL Ø24	3			3				3						3																																								
VEHICLE SIGNAL Ø72		3		3				3						3																																								
VEHICLE SIGNAL Ø85		5		5				5						5																																								
PED SIGNAL Ø89P		2		2				2						2																																								
PED SIGNAL Ø89P	2	2		2				2						2																																								
APS PPB FOR XING SOUTH VAN NESS NS ON POLE S		2		2				2						2																																								
APS PPB FOR XING MISSION ES ON POLE B		2		2				2						2																																								
APS PPB FOR XING MISSION ES ON POLE C						2		2						2																																								
PED SIGNAL Ø99P						2		2						2																																								
VEHICLE SIGNAL Ø27							3		3					3																																								
VEHICLE SIGNAL Ø36							3		3					3																																								
VEHICLE SIGNAL Ø73							4		4					4																																								
PED SIGNAL Ø48P							2		2					2																																								
APS PPB FOR XING MISSION ES ON POLE T							2		2					2																																								
VEHICLE SIGNAL Ø41										3	3			3																																								
VEHICLE SIGNAL Ø44										3	3			3																																								
PED SIGNAL Ø48P												2		2																																								
PED SIGNAL Ø149P												2		2																																								
APS PPB FOR XING MISSION ES ON POLE F												2		2																																								
TRANSIT SIGNAL Ø152													3		3																																							
VEHICLE SIGNAL Ø25													3		3																																							
APS PPB FOR XING SOUTH VAN NESS SS ON POLE G													2		2																																							
TSB MUNI Ø15 ON POLE R					2				2					2	2		2																																					
VEHICLE SIGNAL Ø23					3				3					3		3	3																																					
VEHICLE SIGNAL Ø65-																																																						
PED SIGNAL Ø 69P																																																						
APS PPB FOR XING SOUTH VAN NESS NS ON POLE P																																																						
VEHICLE SIGNAL Ø81																																																						
VEHICLE SIGNAL Ø84																																																						
PED SIGNAL Ø88P																																																						
APS PPB FOR XING OTIS WS ON POLE Q																																																						
VEHICLE SIGNAL Ø34																																																						
VEHICLE SIGNAL Ø33																																																						
VEHICLE SIGNAL Ø64A																																																						
VEHICLE SIGNAL Ø64B																																																						
APS PPB FOR XING OTIS WS ON POLE M																																																						
PED SIGNAL Ø 68P																																																						
PED SIGNAL Ø 119P																																																						
APS PPB FOR XING MISSION WS ON POLE N																																																						
VEHICLE SIGNAL Ø75																																																						
VEHICLE SIGNAL Ø45																																																						
PED SIGNAL Ø49P																																																						
APS PPB FOR XING MISSION WS ON POLE J																																																						
VEHICLE SIGNAL Ø61																																																						
VEHICLE SIGNAL Ø67A																																																						

FOR ORIGINAL SIGNATURES, SEE ET-101.3, REV 0

NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED
REVISIONS					
5	11/20/20	CONCRETE MIX SET AND UPDATED WITH R# 870	KK	MV	CL
1	2/20/20	2020 ELECTRICAL WIRING PER PCS POLE 12, REMOVED TYPE 1A; ADJ. WIRING SORTED.	KK	MV	CL
4	11/14/19	PER LIQUID: POLE 2 IS PER NEW POLE 1 (1A); ADJUSTED WIRING SORTED.	KK	MV	CL
3	7/29/19	RE FIELD MEMO #240-RELOCATED CONDUITS	KK	MV	CL
2	7/18/19	LATEST DRAWING	KK	MV	CL
1	03/2018	UPDATED SCHEDULE FOR SIGNALS B1 AND B5, APS ON POLE 3, REMOVED BBS, ADJUST CONDUIT 2A, UPDATED SIGNAL 21, REMOVED SIGNAL 64A AND 67A	KK	MV	CL

DESIGNED	K. KWONG
DRAWN	K. KWONG
CHECKED	R. ZAMORA/C. LIU
REVIEWED	C. LIU
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MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT

MISSION/OTIS STREET CONDUIT & WIRING SCHEDULES

1289

ET-101.3	
ET-204	

[illegible]

6	11/10/20	CONFORMED SET AND UPDATED WITH RFI #94, #94A, AND #97	KK	MV	CL
5	2/20/20	ELECTRICAL WTR. PIP DGS TOL 1A; REMOVED TYPE 1A; ADD WTR SCHED.	KK	MV	CL
4	11/14/19	PER POLE LAYOUT: REVISED POLE 1A #19S & INTERCONNECT	KK	MV	CL
3	7/29/19	RE FIELD MEMO 240--RELOCATED CONDUIT 18 AND 19	KK/ML	MV	CL
2	1/18/19	LATEST DRAWING	KK	MV	CL
1	03/2018	REMOVED BBS, ADDED CONDUIT 2A, UPDATED SCHEDULE	KK	MV	CL
NO.	DATE	DESCRIPTION	REVISED	CHECKED	APPROVED

REVISIONS

MUNI BUS RAPID TRANSIT SYSTEM	1289	
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT		
MISSION/OTIS STREET CONDUIT & WIRING SCHEDULES	ET-101.4	REVISION
	ET-204	6