INFORMATION HANDOUT

For Contract No. 07-1W6904
At 07-LA-72-0.0/6.8

Identified by
Project ID 0713000048

AS-BUILTS

Modify Signal and Closed Circuit Television Camera
Adaptive Traffic Control Signal and Communication System Routing
Data Node and Video Node
Contract No. 07-257704
07-LA-72-0.5/10.9
Resident Engineer B. Alonza
October 26, 2007

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	12	70

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

GENERAL NOTES: (FOR SHEETS E-2 THROUGH E-53)

1. 12SMFO TERMINATING AT A No. 6(E) PULL BOX OR SPLICE VAULT SHALL BE SPLICED IN THE NEW FIBER OPTIC SPLICE CLOSURE.
2. THE CONTRACTOR SHALL PROTECT ALL UTILITY FACILITIES IN PLACE DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL RC ALL EXISTING PULL BOXES CONTAINING sic CONDUIT AND 90 DEGREE BENDS AND INSTALL No. 6 PULL BOXES AND 45 DEGREE CONDUIT SWEEPS PER DETAIL A SHEET E-40 UNLESS OTHERWISE SHOWN ON THE PLANS.
4. ALL NEW INDUCTIVE LOOP DETECTORS SHALL HAVE NEW STUB-OUT.
5. ALL NEW TRAFFIC SIGNAL FACES SHALL BE 300 mm SECTIONS.
6. LOCATIONS OF ELECTRICAL FACILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD.

ABBREVIATIONS: (FOR SHEETS E-2 THROUGH E-53)

12SMFO	- 12 SINGLEMODE FIBER OPTIC CABLE
60SMFO	- 60 SINGLEMODE FIBER OPTIC CABLE
AWG	- AMERICAN WIRE GAUGE
C-MIC	- CABINET MOUNT INTERFACE CENTER
CCM	- CAMERA CONTROL MODEM
CCR	- CAMERA CONTROL RECEIVER
COAX	- COAXIAL CABLE
DACCS	- DIGITAL ACCESS AND CROSS CONNECT SYSTEM
DEMUX	- DEMULTIPLEXER
DS-1	- DIGITAL SIGNAL LEVEL 1
DSX	- DIGITAL SIGNAL CROSS-CONNECT LEVEL 1
FDU	- FIBER DISTRIBUTION UNIT
FOTM	- FIBER OPTIC TRAFFIC MODEM
FOCM	- FIBER OPTIC CONTROL MODEM
LCU	- LOCAL CONTROL UNIT
MUX	- MULTIPLEXER
RX	- RECEIVER
SD XX	- SYSTEM INDUCTIVE LOOP DETECTOR
SONET	- SYNCHRONOUS OPTICAL NETWORK
TDM	- TIME DIVISION MULTIPLEXER
TSMOD	- TRAFFIC SIGNAL MODEM
TX	- TRANSMITTER
V-RX OR VRD	- VIDEO RECEIVER/DATA TRANSCEIVER
V-TX OR VTD	- VIDEO TRANSMITTER/DATA TRANSCEIVER

LEGEND: (FOR SHEETS E-2 THROUGH E-53)

- MODEL 334-TV CABINET
- CCTV CAMERA POLE LOCATION
- FIBER OPTIC CABLE
- SPLICE VAULT

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING DATA NODE AND VIDEO NODE

(LEGEND AND NOTES)

NO SCALE

E-1

DATE	REVISED BY	DATE REVISED
8/06	MH	8/06 GW

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:50

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	13	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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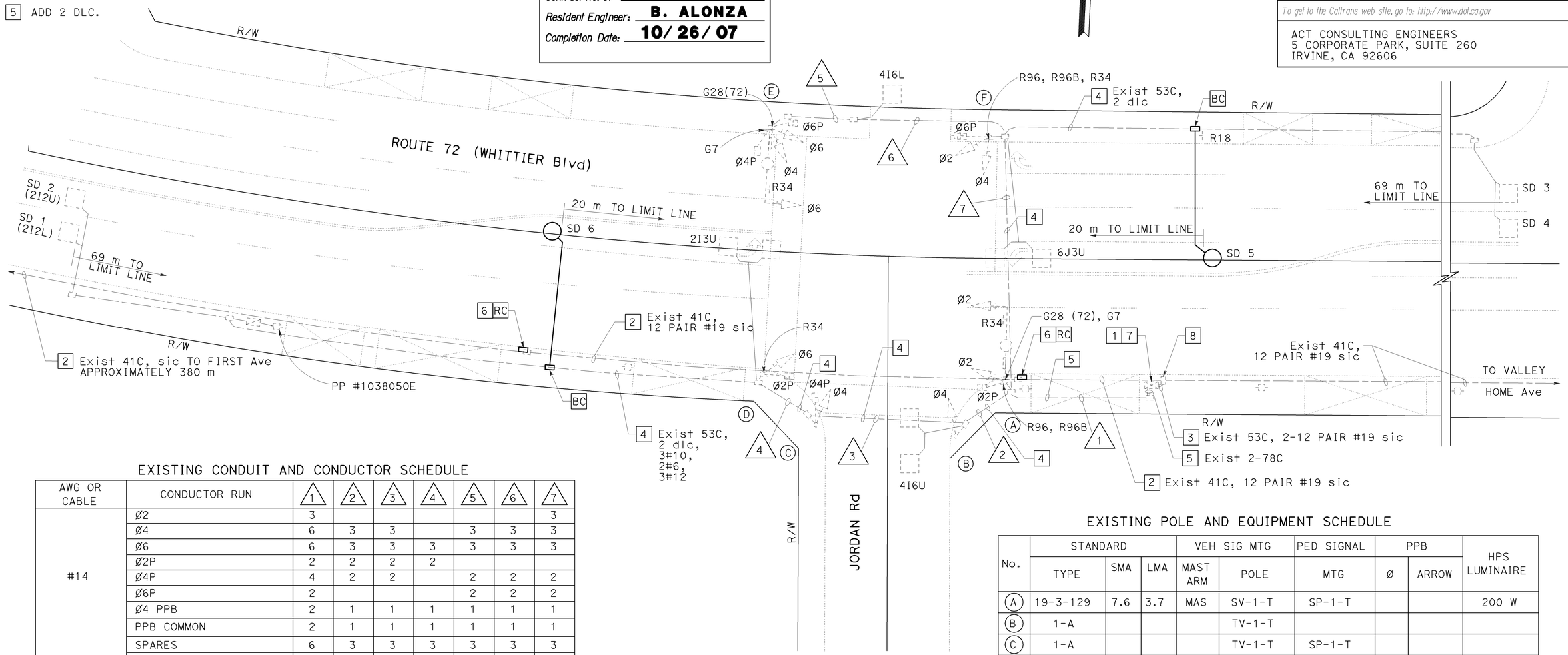
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, FDU, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. RC 1-12 PAIR #19 sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
4. ADD 1 DLC.
5. ADD 2 DLC.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
7. TERMINATE 60SMFO IN EXISTING MODEL 332 CONTROLLER CABINET.
8. COIL EXISTING 12 PAIR #19 sic IN THE PULL BOX FOR FUTURE USE.

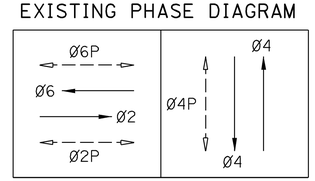
AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7
#14	Ø2	3						3
	Ø4	6	3	3		3	3	3
	Ø6	6	3	3	3	3	3	3
	Ø2P	2	2	2	2			
	Ø4P	4	2	2		2	2	2
	Ø6P	2				2	2	2
	Ø4 PPB	2	1	1	1	1	1	1
	PPB COMMON	2	1	1	1	1	1	1
	SPARES	6	3	3	3	3	3	3
	TOTAL	33	15	15	10	15	15	18
#12	ILLUMINATED SIGN		3	3	3	3	3	3
#10	LUMINAIRE		3	3	3	3	3	3
	SIGNAL COMMON	2	1	1	1	1	1	1
#6	SERVICE	2	2	2	2			
2#12 DLC	Ø2	3	3	3	3			
	Ø4	2	1				1	1
	Ø6	3						3
CONDUIT SIZE		63	53	53	53	53	53	53

EXISTING PHASE DIAGRAM



EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD			VEH SIG MTG		PED SIGNAL	PPB		HPS LUMINAIRE
	TYPE	SMA	LMA	MAST ARM	POLE	MTG	Ø	ARROW	
A	19-3-129	7.6	3.7	MAS	SV-1-T	SP-1-T			200 W
B	1-A				TV-1-T				
C	1-A				TV-1-T	SP-1-T			
D	1-A				TV-1-T	SP-1-T	4	→	
E	19-3-129	7.6	3.7	MAS	SV-2-TA	SP-2-T	4	←	200 W
F	1-A				TV-2-T	SP-1-T			

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 1)
(ROUTE 72/JORDAN ROAD)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E-2

DATE 8/06	REVISED BY	DATE REVISED
MH	GW	8/06

CALCULATED/DESIGNED BY — CHECKED BY

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00 — DATE PLOTTED => 14-AUG-2008 — TIME PLOTTED => 17:50

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
DGN FILE => 725770ug002.dgn

CU 07382 | EA 257701

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	14	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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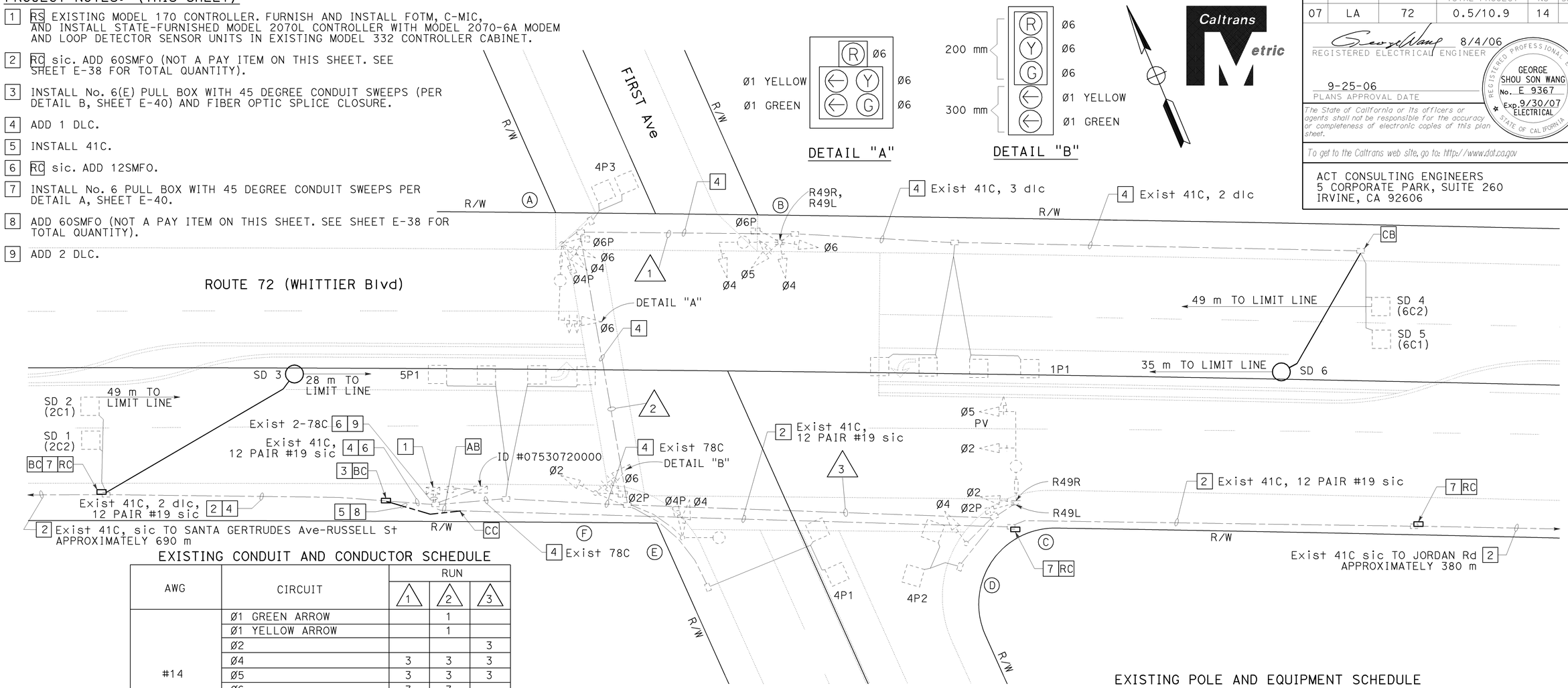
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL B, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. INSTALL 41C.
6. RC sic. ADD 12SMFO.
7. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
8. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
9. ADD 2 DLC.



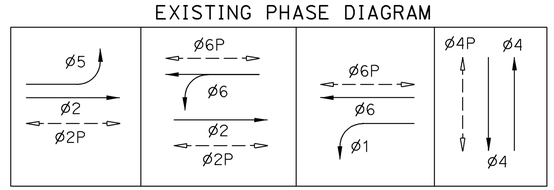
EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3
#14	Ø1 GREEN ARROW		1	
	Ø1 YELLOW ARROW		1	
	Ø2			3
	Ø4	3	3	3
	Ø5	3	3	3
	Ø6	3	3	
	Ø2P			2
	Ø4P		2	
	Ø6P	2	2	
	Ø2 PPB			1
	Ø4 PPB		2	
	Ø6 PPB	1	1	
	PPB COMMON	1	1	1
	SPARES	3	3	3
	TOTAL	16	22	16
#12	SIGN LIGHTING		2	2
	SIGNAL COMMON	1	1	1
#10	LUMINAIRE	2	2	2
DLC	Ø1 P DETECTOR	1	1	
	Ø4 P DETECTOR		1	1
	Ø5 P DETECTOR			
	Ø2 C DETECTOR			
	Ø6 C DETECTOR	2	2	
	TOTAL	3	4	1
	CONDUIT SIZE	53	53	53

NOTE:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

FREE OPERATION EXISTING PHASE DIAGRAM



AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	STANDARD SMA	STANDARD LMA	LUMINAIRE WITH TYPE IV PEC INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	SIGNAL MOUNTING VEHICLE MAST ARM	SIGNAL MOUNTING PED	PPB PHASE
A	19-2-113	7.6	3.7	400 W HPS	SV-2-T	MAS-5	SP-2-CS	4/6
B	17-1-113	6.1	3.7	200 W HPS	SV-3-T	MAS	SP-1-CS	6
C	19-4-113	9.1	3.7	400 W HPS	SV-1-T	(2) MAS	SP-1-CS	
D	1-A				TV-1-T			2
E	15TS		3.7	200 W HPS	SV-1-T		SP-1-CS	2
F	1-A				TV-2-T		SP-1-CS	4

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 2)
(ROUTE 72/FIRST AVENUE)

SCALE 1:200

E-3

DATE	REVISED BY	DATE	REVISED
8/06	MH	8/06	GW

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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USERNAME => s123048
DGN FILE => 725770ua003.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:50

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	15	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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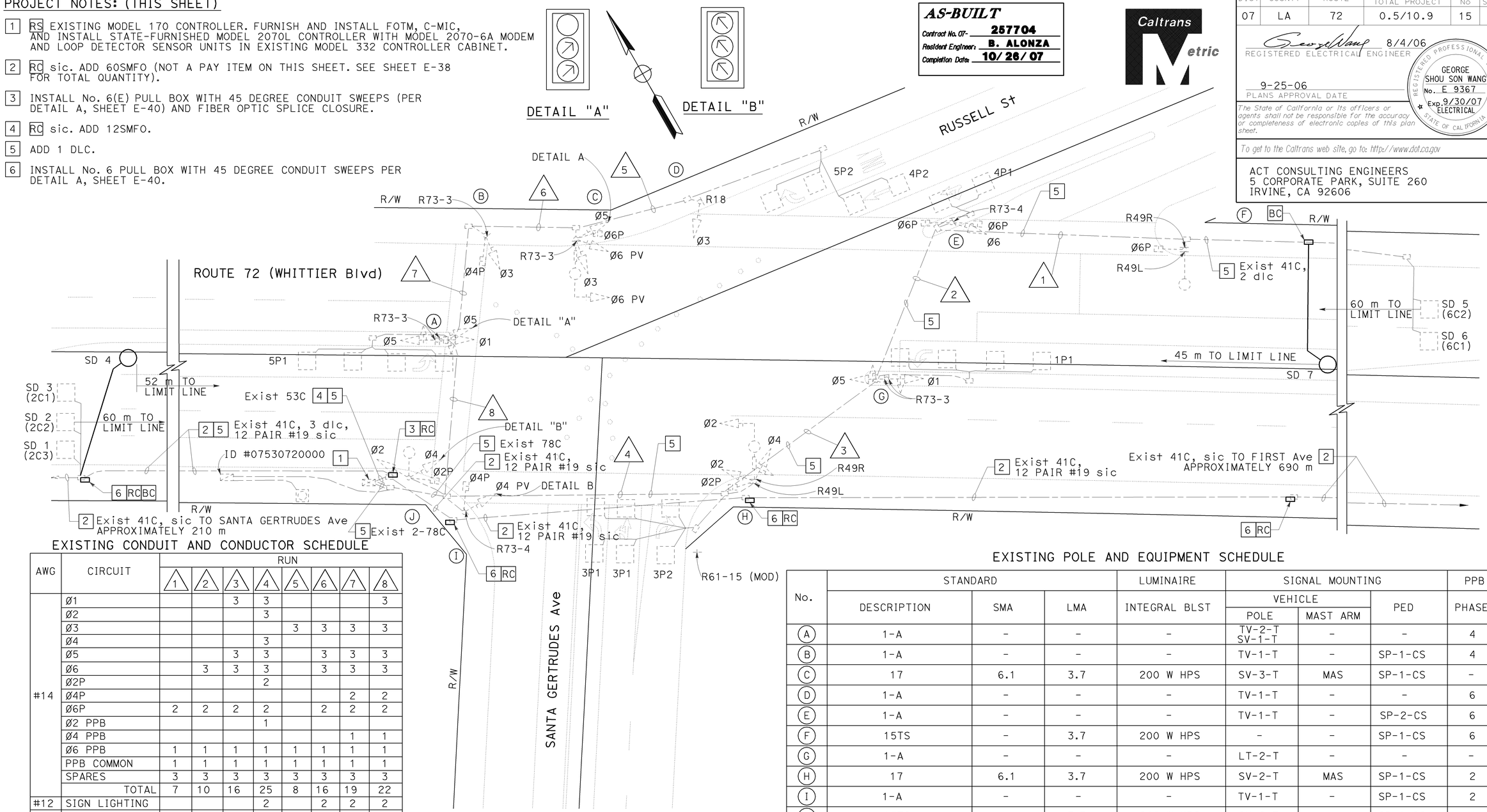
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. RC sic. ADD 12SMFO.
5. ADD 1 DLC.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

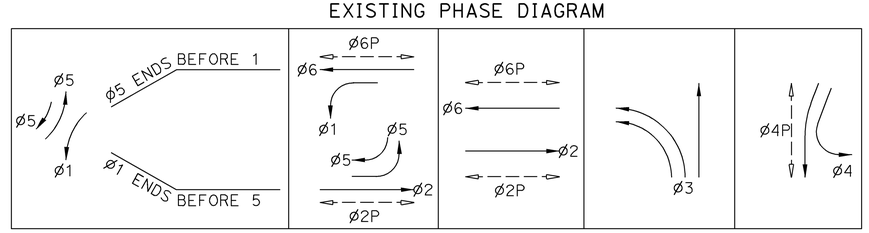
AWG	CIRCUIT	RUN 1	2	3	4	5	6	7	8
#14	Ø1			3	3				3
	Ø2				3				
	Ø3					3	3	3	3
	Ø4				3				
	Ø5			3	3		3	3	3
	Ø6		3	3	3		3	3	3
	Ø2P				2				
	Ø4P							2	2
	Ø6P	2	2	2	2		2	2	2
	Ø2 PPB				1				
	Ø4 PPB							1	1
	Ø6 PPB	1	1	1	1	1	1	1	1
	PPB COMMON	1	1	1	1	1	1	1	1
	SPARES	3	3	3	3	3	3	3	3
	TOTAL	7	10	16	25	8	16	19	22
#12	SIGN LIGHTING				2		2	2	2
#10	LUMINARIE	2	2	2	2		2	2	2
	SIGNAL COMMON	1	1	1	1	1	1	1	1
DLC	Ø5P DETECTOR					1	1	1	2
	Ø1P DETECTOR			1	1				
	Ø3P DETECTOR				2				
	Ø4P DETECTOR		1	1	1	1	1	1	1
	Ø2C DETECTOR								
	Ø6C DETECTOR	2	2	2	2				
	TOTAL	2	3	4	6	2	2	2	3
CONDUIT SIZE		53	53	53	78	53	53	53	53

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	SMA	LMA	LUMINAIRE INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	MAST ARM	PED	PPB PHASE
A	1-A	-	-	-	TV-2-T SV-1-T	-	-	4
B	1-A	-	-	-	TV-1-T	-	SP-1-CS	4
C	17	6.1	3.7	200 W HPS	SV-3-T	MAS	SP-1-CS	-
D	1-A	-	-	-	TV-1-T	-	-	6
E	1-A	-	-	-	TV-1-T	-	SP-2-CS	6
F	15TS	-	3.7	200 W HPS	-	-	SP-1-CS	6
G	1-A	-	-	-	LT-2-T	-	-	-
H	17	6.1	3.7	200 W HPS	SV-2-T	MAS	SP-1-CS	2
I	1-A	-	-	-	TV-1-T	-	SP-1-CS	2
J	15TS	-	3.7	200 W HPS	SV-2-T	-	SP-1-CS	4

FREE OPERATION EXISTING PHASE DIAGRAM



THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 3)

(ROUTE 72/SANTA GERTRUDES AVENUE-RUSSELL STREET)

SCALE 1:200

E-4

DATE	REVISED BY	DATE REVISED
8/06	MH	8/06 GW

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USERNAME => s123048
DGN FILE => 725770ua004.dgn
CU 07382
EA 257701

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	16	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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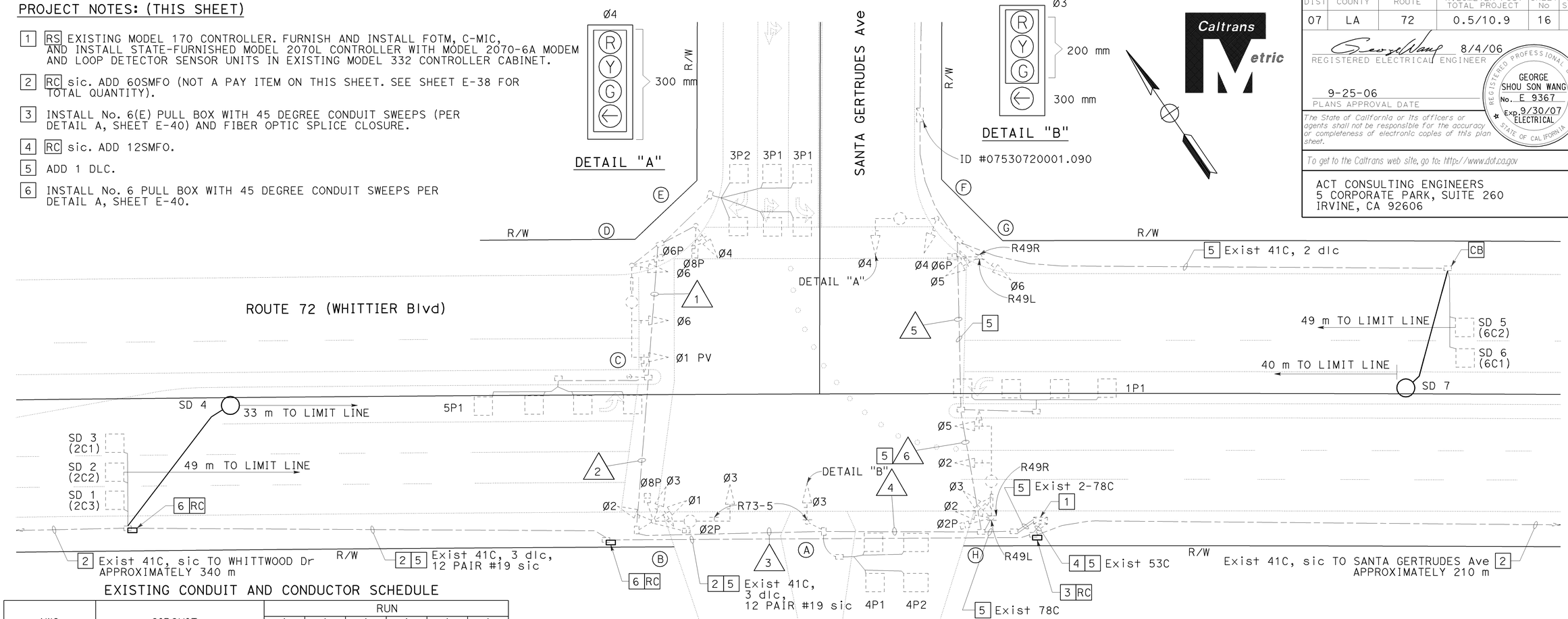
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. RC sic. ADD 12SMFO.
5. ADD 1 DLC.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.



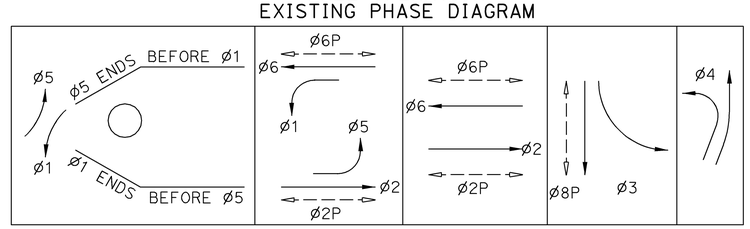
EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6
#14	Ø1	3	3	3	3		
	Ø2			3	3		
	Ø3			3	3		
	Ø4	3	3	3	3	3	3
	Ø5					3	3
	Ø6	3	3	3	3	3	3
	Ø2P			2	2		
	Ø6P	2	2	2	2	2	2
	Ø8P	2	2	2	2		
	Ø2 PPB			1	1		
	Ø6 PPB	1	1	1	1	1	1
	Ø8 PPB	1	1	1	1		
	PPB COMMON	1	1	1	1	1	1
	SPARE	3	3	3	3	3	3
	TOTAL	19	19	28	28	16	16
#12	SIGN LIGHTING	2	2	2	2		
#10	SIGNAL COMMON	1	1	1	1	1	1
	LUMINAIRE	2	2	2	2	2	2
DLC	Ø1P DETECTOR						1
	Ø3P DETECTOR	2	2	2	2		
	Ø4P DETECTOR				2		
	Ø5P DETECTOR		1	1	1		
	Ø2C DETECTOR						
	Ø6C DETECTOR					2	2
	TOTAL	2	3	3	5	2	3
#8	SIGNAL SERVICE					2	2
	CONDUIT SIZE	53	53	78	78	53	53

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

FREE OPERATION EXISTING PHASE DIAGRAM



THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	STANDARD SMA	STANDARD LMA	LUMINAIRE WITH TYPE IV PEC INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	SIGNAL MOUNTING VEHICLE MAST ARM	SIGNAL MOUNTING PED	PPB PHASE
A	1-A				TV-1-T			2
B	19-2-113	7.6	3.7	200 W HPS	SV-3-T	MAS	SP-2-SC	2/8
C	PPB POST							8
D	19-4-113	9.1	3.7	200 W HPS	SV-1-T	(2) MAS	SP-1-SC	8
E	1-A				TV-1-T		SP-1-SC	6
F	17-1-113	6.1	3.7	200 W HPS	SV-1-T	MAS		6
G	1-A				TV-2-T		SP-1-SC	
H	19-4-113	9.1	3.7	200 W HPS	SV-2-T	(2) MAS	SP-1-SC	2

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 4)

(ROUTE 72/SANTA GERTRUDES AVENUE)

SCALE 1:200

E-5

DATE	REVISED BY	DATE	REVISED
8/06	MH	8/06	GW

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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USERNAME => s123048
DGN FILE => 725770ua005.dgn

CU 07382 EA 257701

LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:50

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	17	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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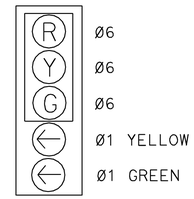
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

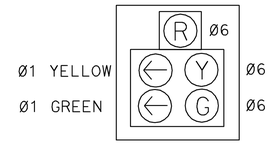
Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. RC sic. ADD 12SMFO.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.



DETAIL "A"



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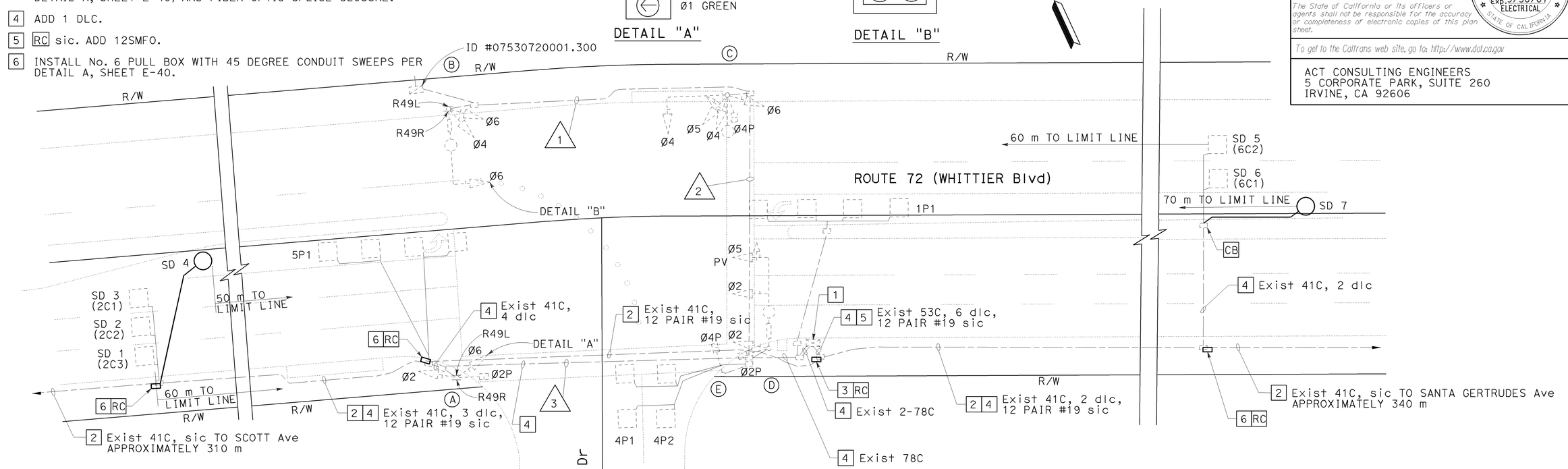


EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3
#14	Ø1 GREEN ARROW	1	1	1
	Ø1 YELLOW ARROW	1	1	1
	Ø2			3
	Ø4	3	3	
	Ø5		3	
	Ø6	3	3	3
	Ø2P			2
	Ø4P		2	
	Ø2 PPB			1
	Ø4 PPB		1	
	PPB COMMON		1	1
	SPARES	3	3	3
	TOTAL	11	18	15
#12	SIGN LIGHTING	2	2	
#10	SIGNAL COMMON	1	1	1
	LUMINAIRE	2	2	
DLC	Ø1P DETECTOR			
	Ø4P DETECTOR			
	Ø5P DETECTOR			1
	Ø2C DETECTOR			3
	Ø6C DETECTOR			
	TOTAL			4
#8	SIGNAL SERVICE	2	2	
	CONDUIT SIZE	53	53	53

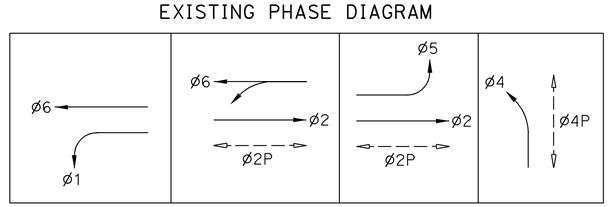
NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	STANDARD SMA	STANDARD LMA	LUMINAIRE WITH TYPE IV PEC INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	SIGNAL MOUNTING VEHICLE MAST ARM	SIGNAL MOUNTING PED	PPB PHASE
A	1-A				TV-2-T		SP-1-CS	2
B	19-2-113	7.6	3.7	200 W HPS	SV-2-T	MAS-5		
C	17-1-113	6.1	3.7	200 W HPS	SV-3-T	MAS	SP-1-CS	4
D	19-4-113	9.1	3.7	200 W HPS	SV-1-T	(2) MAS	SP-1-CS	4
E	1-A						TP-1	2

FREE OPERATION EXISTING PHASE DIAGRAM



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ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 5)
(ROUTE 72/WHITTWOOD DRIVE)

SCALE 1:200

E-6

REVISED BY	DATE REVISED	CALCULATED/DESIGNED BY	CHECKED BY
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DGN FILE => 725770ua006.dgn

CU 07382 EA 257701

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	18	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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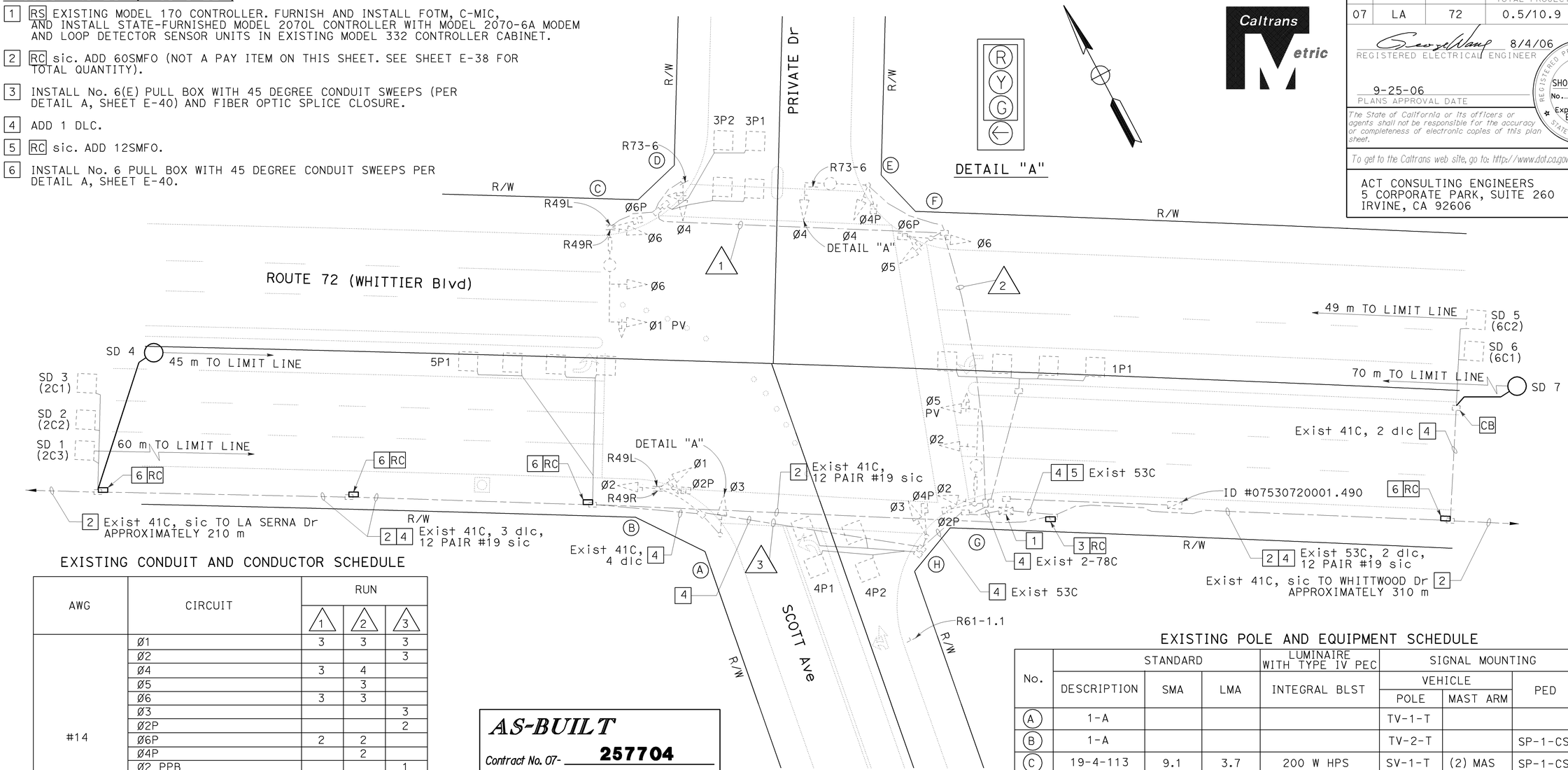
Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. RC sic. ADD 12SMFO.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3
#14	Ø1	3	3	3
	Ø2			3
	Ø4	3	4	
	Ø5		3	
	Ø6	3	3	
	Ø3			3
	Ø2P			2
	Ø6P	2	2	
	Ø4P		2	
	Ø2 PPB			1
	Ø6 PPB	1	1	
	Ø4 PPB		1	
	PPB COMMON	1	1	1
	SPARES	3	3	3
	TOTAL	16	23	16
#12	SIGN LIGHTING	2	2	
#10	SIGNAL COMMON	1	1	1
	LUMINAIRE	2	2	
DLC	Ø1P DETECTOR			
	Ø4P DETECTOR			
	Ø5P DETECTOR			1
	Ø3P DETECTOR	2	2	
	Ø2C DETECTOR			3
	Ø6C DETECTOR			
	TOTAL	2	2	4
	CONDUIT SIZE	53	53	53

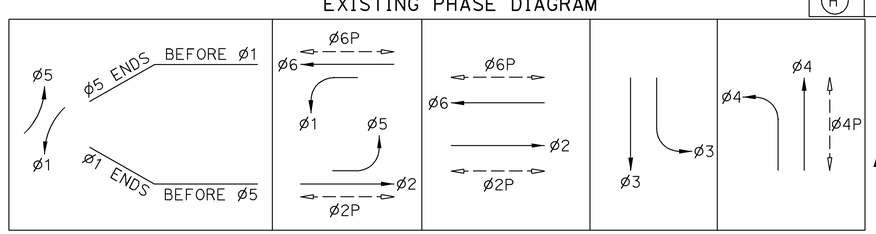
NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	STANDARD SMA	STANDARD LMA	LUMINAIRE WITH TYPE IV PEC INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	SIGNAL MOUNTING VEHICLE MAST ARM	SIGNAL MOUNTING PED	PPB PHASE
A	1-A				TV-1-T			2
B	1-A				TV-2-T		SP-1-CS	
C	19-4-113	9.1	3.7	200 W HPS	SV-1-T	(2) MAS	SP-1-CS	
D	1-A				TV-1-T			6
E	17-2-113	6.1	3.7	200 W HPS	SV-1-T	MAS	SP-1-CS	6
F	1-A				TV-2-T		SP-1-CS	4
G	19-4-113	9.1	3.7	200 W HPS	SV-1-T	(2) MAS	SP-1-CS	4
H	1-A				TV-1-T		SP-1-CS	2

FREE OPERATION
EXISTING PHASE DIAGRAM



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 6)
(ROUTE 72/SCOTT AVENUE)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E-7

REVISED BY	DATE REVISED
MH	8/06

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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DGN FILE => 725770ua007.dgn

CU 07382

EA 257701

LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:50

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	19	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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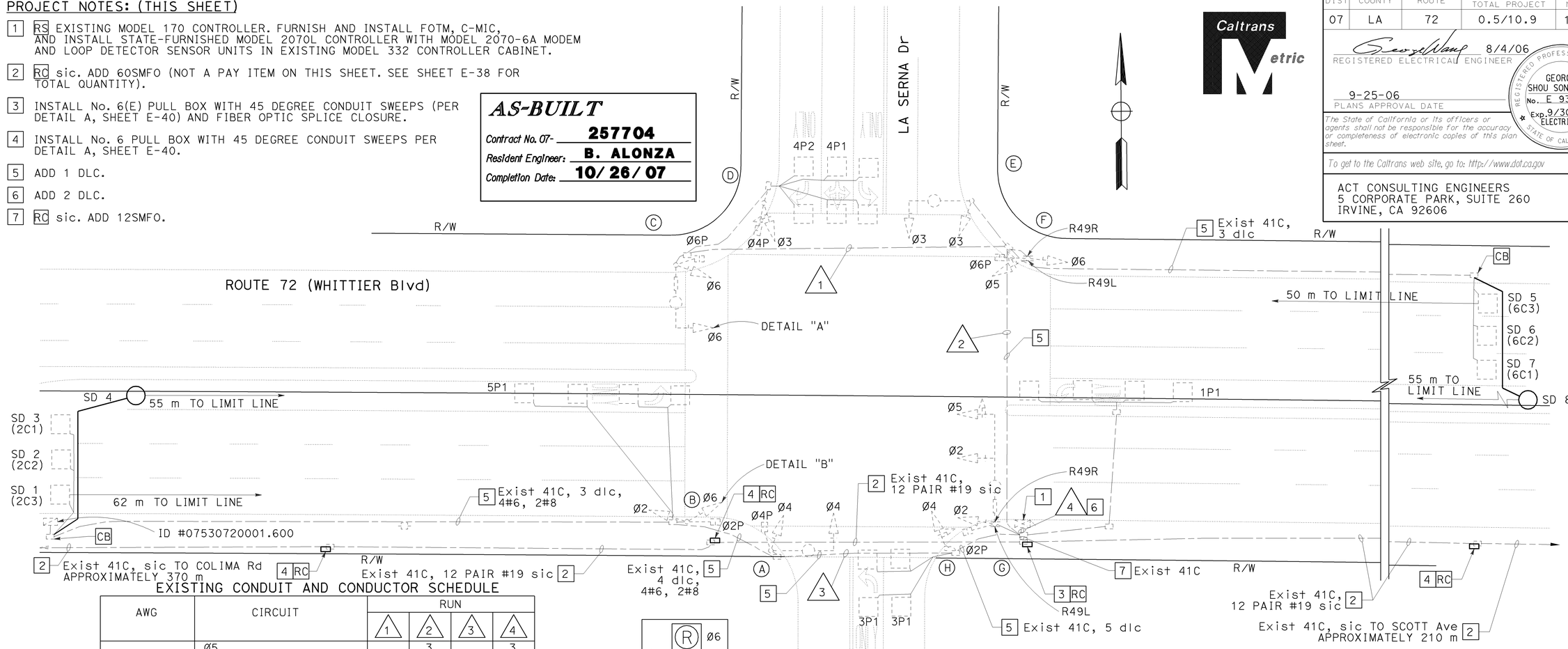
Caltrans Metric

PROJECT NOTES: (THIS SHEET)

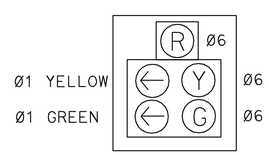
1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
5. ADD 1 DLC.
6. ADD 2 DLC.
7. RC sic. ADD 12SMFO.

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

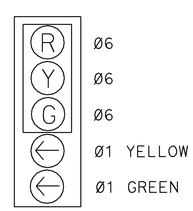


EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3	RUN 4
#14	Ø5		3		3
	Ø6	3	3	3	3
	Ø1 GREEN ARROW	1	1	1	2
	Ø2			3	3
	Ø3	3	4		4
	Ø4			4	4
	Ø6P	2	2		2
	Ø2P			2	2
	Ø4P	2	2	2	4
	PPB (Ø6)	1	1		1
	PPB (Ø2)			1	1
	PPB (Ø4)	1	1	1	2
	PPB COMMON	1	1	1	1
	Ø1 YELLOW ARROW	1	1	1	2
	SPARES	3	3	3	6
	TOTAL	18	22	22	40
#10	SIGNAL COMMON	1	1	1	1
#6	SIGNAL SERVICE			2	2
#8	LUMINAIRE	2	2	2	
	ISNS	2	2	2	
DLC	Ø5P DETECTOR			1	1
	Ø6C DETECTOR		3		3
	Ø1P DETECTOR				1
	Ø2C DETECTOR			3	3
	Ø3P DETECTOR				1
	Ø4P DETECTOR	2	2		2
	CONDUIT SIZE	53	63	63	2-78



DETAIL "A"

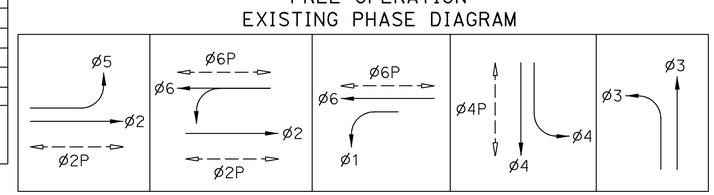


DETAIL "B"

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	SMA	LMA	LUMINAIRE INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	VEHICLE MAST ARM	PED	PPB PHASE
A	17-1-113	6.1	3.7	400 W HPS	SV-1-T	MAS-5	SP-1-T	2
B	1-A				TV-2-T		SP-1-T	4
C	17-2-113	6.1	3.7	400 W HPS	SV-1-T	MAS	SP-1-T	4
D	1-A				TV-1-T		SP-1-T	6
E	17-1-113	6.1	3.7	400 W HPS	SV-1-T	MAS		6
F	1-A				TV-2-T		SP-1-T	
G	24-4-113	10.7	3.7	400 W HPS	SV-1-T	(2) MAS	SP-1-T	
H	1-A				TV-1-T			2

FREE OPERATION EXISTING PHASE DIAGRAM



THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 7)
(ROUTE 72/LA SERNA DRIVE)

SCALE 1:200

E-8

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

DATE 8/06	REVISED BY	DATE REVISED
MH	GW	8/06

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DGN FILE => 725770ua008.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 | DATE PLOTTED => 14-AUG-2008 | TIME PLOTTED => 17:50

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	20	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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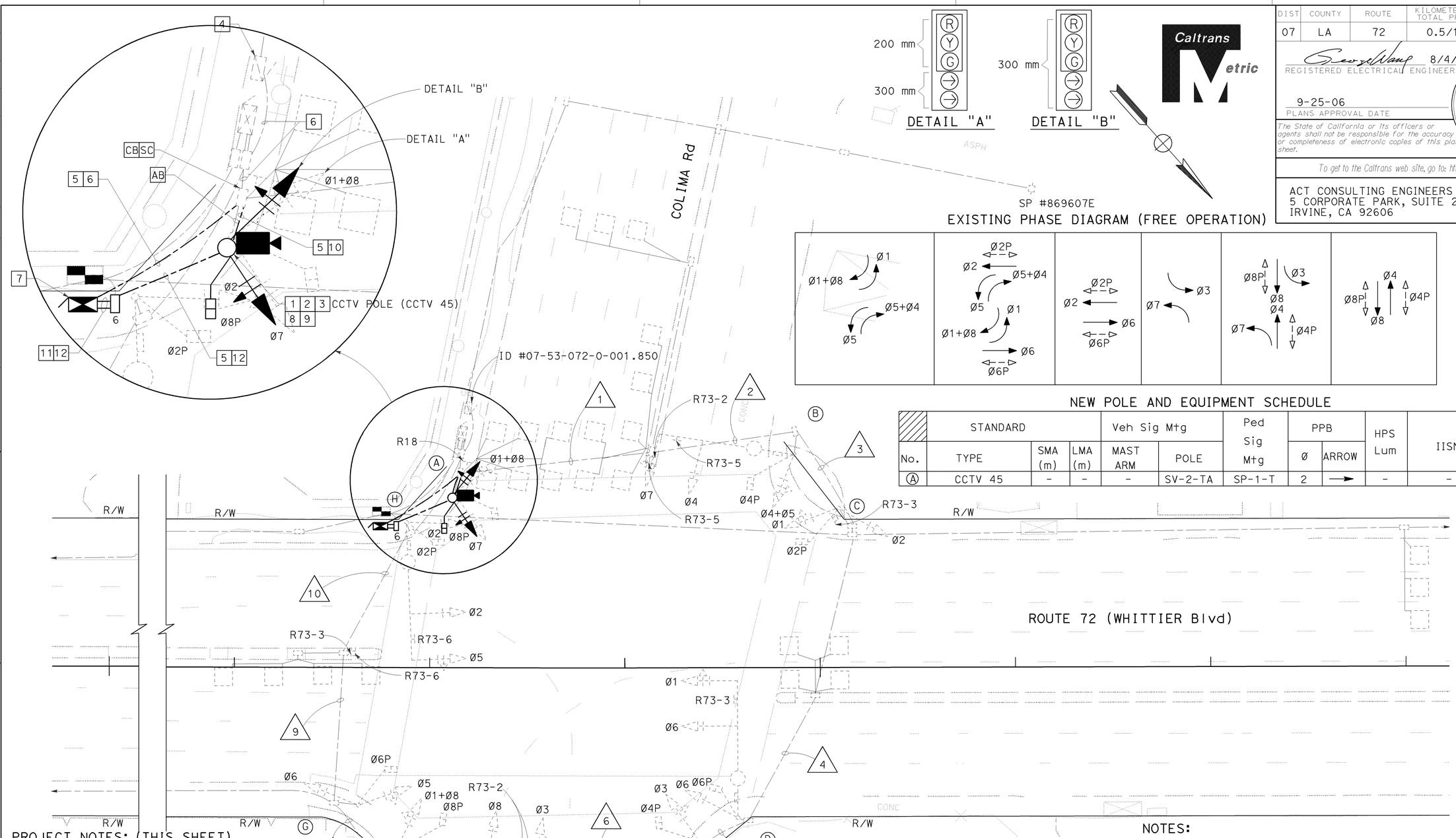
IRVINE, CA 92606



NEW POLE AND EQUIPMENT SCHEDULE

	STANDARD			Veh Sig Mtg		Ped Sig Mtg	PPB		HPS Lum	IISNS
No.	TYPE	SMA (m)	LMA (m)	MAST ARM	POLE		Ø	ARROW		
A	CCTV 45	-	-	-	SV-2-TA	SP-1-T	2	→	-	-

PROJECT NOTES: (THIS SHEET)

1. RC EXISTING TYPE 1-A STANDARD FOUNDATION.
2. INSTALL CCTV CAMERA ASSEMBLY, SEE SHEET E-43.
3. INSTALL STATE-FURNISHED CCTV 45 POLE AT EXACT LOCATION OF EXISTING TYPE 1-A STANDARD. SEE SHEET E-44.
4. EXISTING 100 A, 120/240 V, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, ADD 20 A, 120 V, 1P, CB FOR CCTV CAMERA.
5. INSTALL 53C.
6. ADD 3#6.
7. INSTALL MODEL 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-45.
8. RL EXISTING TYPE 1-A STANDARD WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF CCTV 45 POLE. THE CONTRACTOR SHALL FURNISH A RELOCATION PLAN TO THE ENGINEER FOR APPROVAL.
9. RC TEMPORARY EXISTING TYPE 1-A STANDARD, SIGNAL HEADS AND PPB AFTER NEW CCTV 45 POLE WITH SIGNAL EQUIPMENT ARE INSTALLED AND OPERATIONAL.
10. INSTALL 12CSC AND 3CSC FROM EXISTING PULL BOX TO TERMINAL COMPARTMENT OF NEW SIGNAL HEADS AND PPB. SC 12CSC AND 3CSC TO EXISTING SIGNAL CONDUCTORS.
11. INSTALL 2-78C.
12. INSTALL COMPOSITE VIDEO CABLES.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date 10/26/07

NOTES:

1. FOR EXISTING SCHEDULES SEE SHEET E-10.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
3. FOR COMMUNICATION SYSTEM ROUTING, SEE SHEET E-11.
4. FOR EXISTING UTILITIES, SEE SHEET U-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA

(LOCATION 8)
(ROUTE 72/COLIMA ROAD)

SCALE 1:200

E-9

DATE 8/06	REVISED BY	MH	CALCULATED/ DESIGNED BY
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	21	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGE SHOU SON WANG
No. E 9367
Exp. 9/30/07
ELECTRICAL
STATE OF CALIFORNIA

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IRVINE, CA 92606

AS-BUILT
Contract No. 07- **257704**
Resident Engineer: **B. ALONZA**
Completion Date: **10/26/07**

Caltrans Metric

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10
28 CABLE	Ø1+Ø8 G&Y ARROWS	-	-	-		-	-	-	2	2	2
	Ø5+Ø4 G&Y ARROWS	2	2	-		-	2	2	2	2	2
	Ø1	3	3	3		3	3	3	3	3	3
	Ø2	3	3	3		-	-	-	-	-	-
	Ø3	-	-	-		-	3	3	3	3	3
	Ø4	3	3	-		-	3	3	3	3	3
	Ø5	-	-	-		-	-	-	-	3	3
#14	Ø6	-	-	-	USE	3	3	3	3	3	3
	Ø7	3	3	-		-	-	-	-	-	-
	Ø8	-	-	-		-	-	-	3	3	3
	Ø2P	2	2	2		-	-	-	-	-	-
	Ø4P	2	2	-		-	2	2	2	2	2
	Ø6P	-	-	-		2	2	2	2	2	2
	Ø8P	-	-	-		-	-	-	2	2	2
	Ø2PPB	1	1	-		-	-	-	-	-	-
	Ø4PPB	1	1	1		1	1	1	1	1	1
	Ø6PPB	-	-	-		-	1	1	1	1	1
	Ø8PPB	-	-	-		-	-	-	-	1	1
	PPB COMMON	1	1	1		1	1	1	1	1	1
	SPARES	3	3	3		3	3	3	3	3	3
	TOTAL	24	24	13		13	24	24	31	35	35
#10	SIGNAL COMMON	1	1	1		1	1	1	1	1	1
#10	IISNS	2	2			2	2	2	2	2	2
#10	LUMINAIRES	2	2			2	2	2	2	2	2
#6	SIGNAL SERVICE	-	-	-		-	-	-	-	-	-
DLC	Ø1 DETECTOR	-	-	-	FUTURE	-	-	-	-	-	1
	Ø2 DETECTOR	3	3	3		-	-	-	-	-	-
	Ø3 DETECTOR	1	-	-		-	-	-	-	-	-
	Ø4 DETECTOR	-	-	-		-	6	6	6	6	6
	Ø5 DETECTOR	2	2	2		-	-	-	-	-	-
	Ø6 DETECTOR	-	-	-		-	-	-	-	3	3
	Ø7 DETECTOR	-	-	-		-	-	2	2	2	2
	Ø8 DETECTOR	4	-	-		-	-	-	-	-	-
	TOTAL DLC	10	5	5		-	6	8	8	11	12
CONDUIT SIZE		78	78	53	78	41	78	78	78	89	89

EXISTING POLE AND EQUIPMENT SCHEDULE

	STANDARD			Veh Sig Mtg		Ped Sig Mtg	PPB		HPS Lum	SPECIAL REQUIREMENTS IISNS
No.	TYPE	SMA	LMA	MAST ARM	POLE		Ø	ARROW		
Ⓐ	1-A	-	-	-	TV-2-T	SP-1-T	2	→	-	-
Ⓑ	26-4-113	13.7	3.6	MAT,MAS	SV-1-T	SP-1-T	2	←	200 W	Whittier Blvd
Ⓒ	1-A	-	-	-	TV-2-T	SP-1-T	4	→	-	-
Ⓓ	26-4-113	13.7	3.6	MAT,MAS	SV-1-T	SP-1-T	4	←	200 W	Colima Rd
Ⓔ	1-A	-	-	-	TV-2-T	SP-1-T	6	→	-	-
Ⓕ	29-5-113	15.2	3.6	MAT,MAS	SV-1-T	SP-1-T	6	←	200 W	Whittier Blvd
Ⓖ	1-A	-	-	-	TV-2-T	SP-1-T	8	→	-	-
Ⓗ	26-4-113	13.7	3.6	MAT,MAS	SV-1-T	SP-1-T	8	←	200 W	Colima Rd

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA
(LOCATION 8)
(ROUTE 72/COLIMA ROAD)

E-10

MH	DATE 8/06	REVISED BY	
GW	8/06	DATE REVISED	

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
DGN FILE => 725770ua010.dgn

CU 07382

EA 257701

LAST REVISION 00-00-00

DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:50

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	22	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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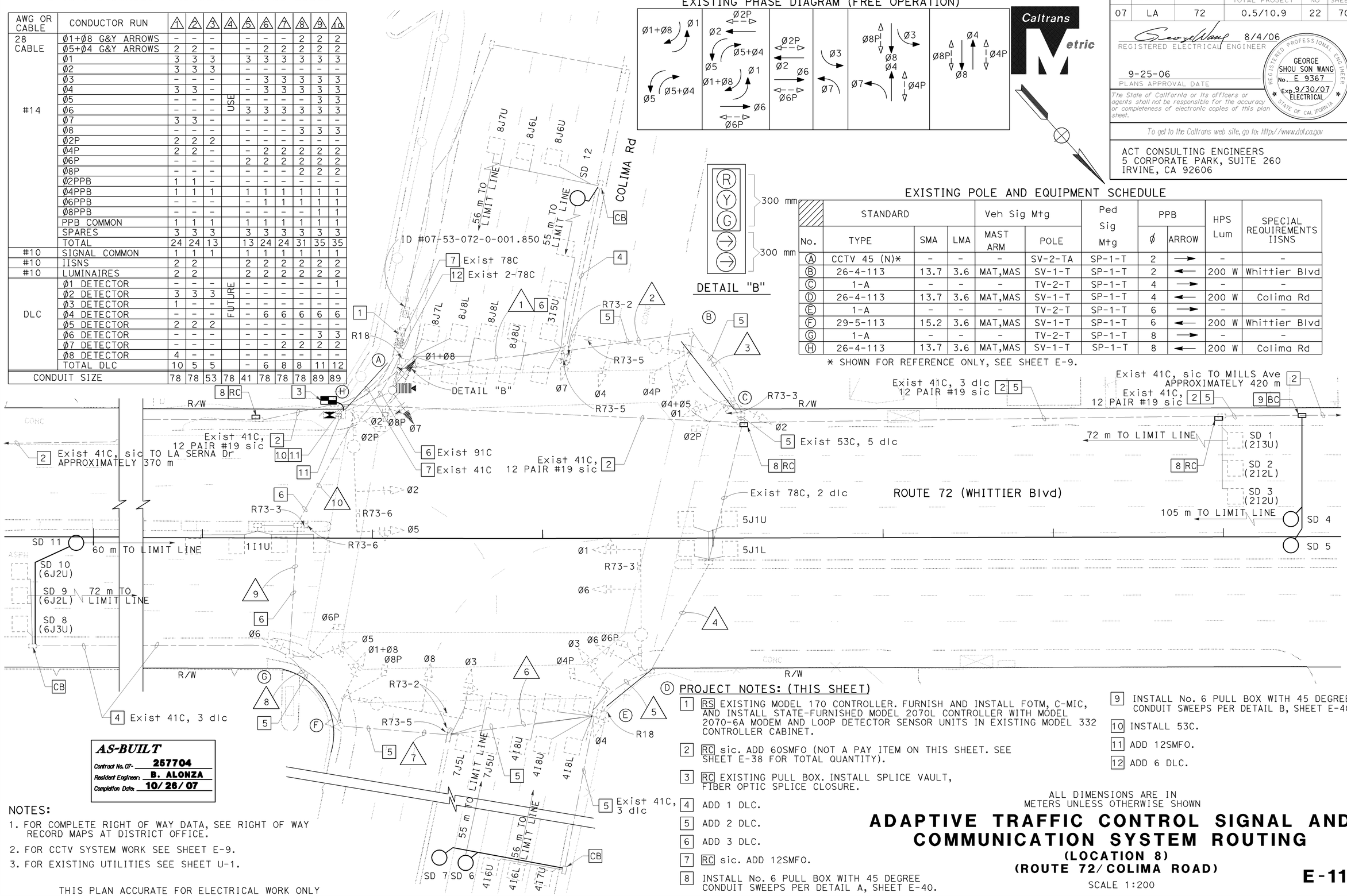
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10
28 CABLE	Ø1+Ø8 G&Y ARROWS	-	-	-		-	-	-	2	2	2
	Ø5+Ø4 G&Y ARROWS	2	2	-		-	2	2	2	2	2
#14	Ø1	3	3	3		3	3	3	3	3	3
	Ø2	3	3	3		-	-	-	-	-	-
	Ø3	-	-	-		-	3	3	3	3	3
	Ø4	3	3	-		-	3	3	3	3	3
	Ø5	-	-	-	USE	-	-	-	-	3	3
	Ø6	-	-	-		3	3	3	3	3	3
	Ø7	3	3	-		-	-	-	-	-	-
	Ø8	-	-	-		-	-	-	3	3	3
	Ø2P	2	2	2		-	-	-	-	-	-
	Ø4P	2	2	-		-	2	2	2	2	2
	Ø6P	-	-	-		2	2	2	2	2	2
	Ø8P	-	-	-		-	-	-	2	2	2
	Ø2PPB	1	1	-		-	-	-	-	-	-
	Ø4PPB	1	1	1		1	1	1	1	1	1
	Ø6PPB	-	-	-		-	1	1	1	1	1
	Ø8PPB	-	-	-		-	-	-	-	1	1
	PPB COMMON	1	1	1		1	1	1	1	1	1
	SPARES	3	3	3		3	3	3	3	3	3
	TOTAL	24	24	13		13	24	24	31	35	35
#10	SIGNAL COMMON	1	1	1		1	1	1	1	1	1
#10	IISNS	2	2			2	2	2	2	2	2
#10	LUMINAIRES	2	2			2	2	2	2	2	2
DLC	Ø1 DETECTOR	-	-	-	FUTURE	-	-	-	-	-	1
	Ø2 DETECTOR	3	3	3		-	-	-	-	-	-
	Ø3 DETECTOR	1	-	-		-	-	-	-	-	-
	Ø4 DETECTOR	-	-	-		-	6	6	6	6	6
	Ø5 DETECTOR	2	2	2		-	-	-	-	-	-
	Ø6 DETECTOR	-	-	-		-	-	-	-	3	3
	Ø7 DETECTOR	-	-	-		-	-	2	2	2	2
	Ø8 DETECTOR	4	-	-		-	-	-	-	-	-
	TOTAL DLC	10	5	5		-	6	8	8	11	12
CONDUIT SIZE		78	78	53	78	41	78	78	78	89	89

EXISTING PHASE DIAGRAM (FREE OPERATION)



DETAIL "B"

EXISTING POLE AND EQUIPMENT SCHEDULE

	STANDARD			Veh Sig Mtg		Ped Sig Mtg	PPB		HPS Lum	SPECIAL REQUIREMENTS IISNS
No.	TYPE	SMA	LMA	MAST ARM	POLE		Ø	ARROW		
A	CCTV 45 (N)*	-	-	-	SV-2-TA	SP-1-T	2	→	-	-
B	26-4-113	13.7	3.6	MAT,MAS	SV-1-T	SP-1-T	2	←	200 W	Whittier Blvd
C	1-A	-	-	-	TV-2-T	SP-1-T	4	→	-	-
D	26-4-113	13.7	3.6	MAT,MAS	SV-1-T	SP-1-T	4	←	200 W	Colima Rd
E	1-A	-	-	-	TV-2-T	SP-1-T	6	→	-	-
F	29-5-113	15.2	3.6	MAT,MAS	SV-1-T	SP-1-T	6	←	200 W	Whittier Blvd
G	1-A	-	-	-	TV-2-T	SP-1-T	8	→	-	-
H	26-4-113	13.7	3.6	MAT,MAS	SV-1-T	SP-1-T	8	←	200 W	Colima Rd

* SHOWN FOR REFERENCE ONLY, SEE SHEET E-9.

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

NOTES:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. FOR CCTV SYSTEM WORK SEE SHEET E-9.
3. FOR EXISTING UTILITIES SEE SHEET U-1.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. RC EXISTING PULL BOX. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. ADD 2 DLC.
6. ADD 3 DLC.
7. RC sic. ADD 12SMFO.
8. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
9. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL B, SHEET E-40.
10. INSTALL 53C.
11. ADD 12SMFO.
12. ADD 6 DLC.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 8)
(ROUTE 72/COLIMA ROAD)

SCALE 1:200

E-11

REVISED BY	DATE REVISED	CALCULATED/ DESIGNED BY	CHECKED BY	DESIGN OVERSIGHT
MH	GW			YEFIM ZABEZHINSKY

DATE 8/06

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
DGN FILE => 725770ua011.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:50

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	23	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

DATE 8/06	REVISED BY	DATE REVISED

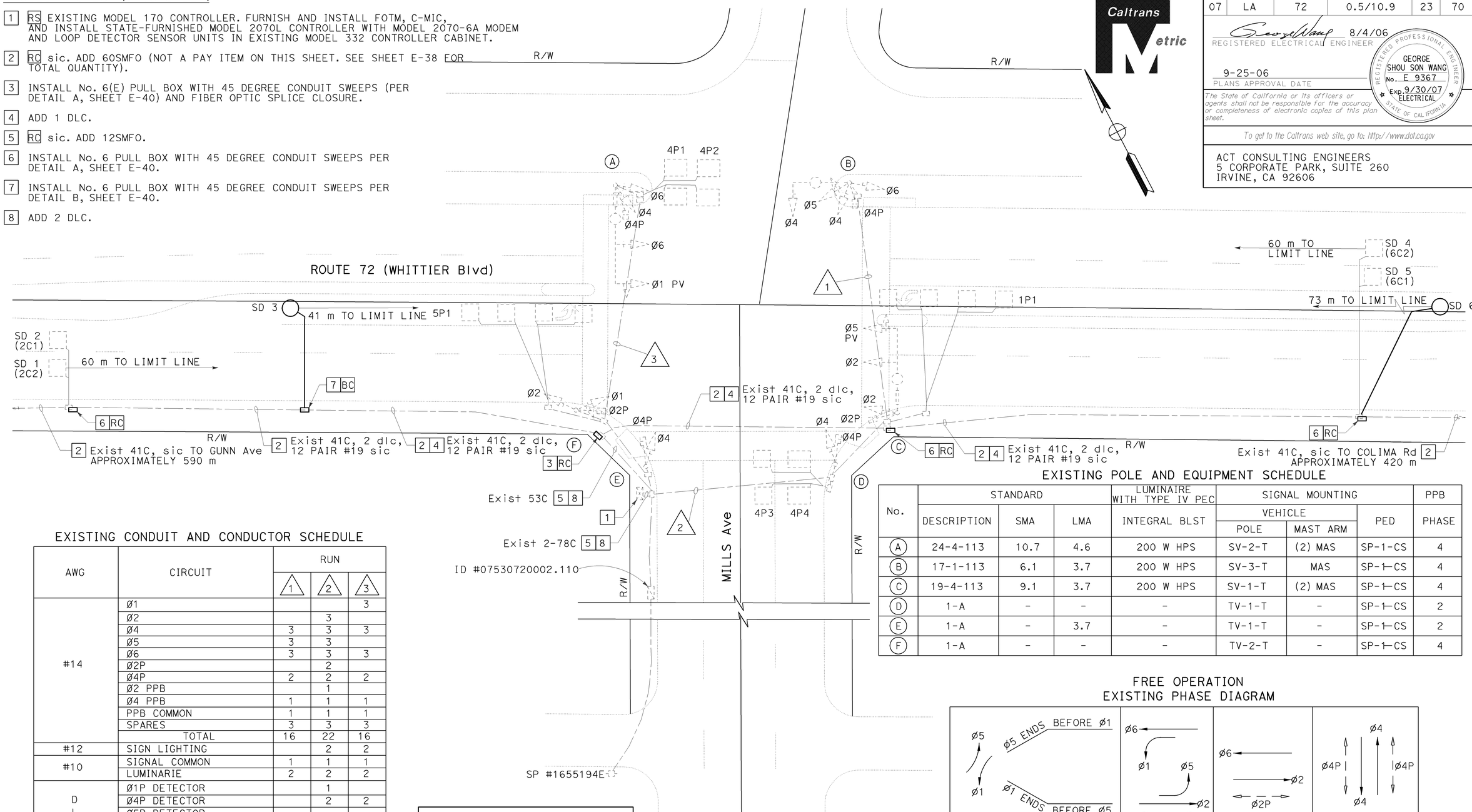
CALCULATED/ DESIGNED BY	CHECKED BY
MH	GW

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. RC sic. ADD 12SMFO.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
7. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL B, SHEET E-40.
8. ADD 2 DLC.



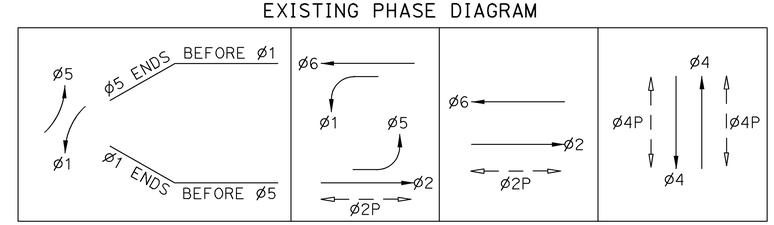
EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD			LUMINAIRE WITH TYPE IV PEC	SIGNAL MOUNTING			PPB
	DESCRIPTION	SMA	LMA	INTEGRAL BLST	VEHICLE		PED	PHASE
					POLE	MAST ARM		
A	24-4-113	10.7	4.6	200 W HPS	SV-2-T	(2) MAS	SP-1-CS	4
B	17-1-113	6.1	3.7	200 W HPS	SV-3-T	MAS	SP-1-CS	4
C	19-4-113	9.1	3.7	200 W HPS	SV-1-T	(2) MAS	SP-1-CS	4
D	1-A	-	-	-	TV-1-T	-	SP-1-CS	2
E	1-A	-	3.7	-	TV-1-T	-	SP-1-CS	2
F	1-A	-	-	-	TV-2-T	-	SP-1-CS	4

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3
#14	Ø1			3
	Ø2		3	
	Ø4	3	3	3
	Ø5	3	3	
	Ø6	3	3	3
	Ø2P		2	
	Ø4P	2	2	2
	Ø2 PPB		1	
	Ø4 PPB	1	1	1
	PPB COMMON	1	1	1
	SPARES	3	3	3
	TOTAL	16	22	16
#12	SIGN LIGHTING		2	2
#10	SIGNAL COMMON	1	1	1
	LUMINARIE	2	2	2
DLC	Ø1P DETECTOR		1	
	Ø4P DETECTOR		2	2
	Ø5P DETECTOR			
	Ø2C DETECTOR			
	Ø6C DETECTOR			
	TOTAL		3	2
	CONDUIT SIZE	53	53	53

FREE OPERATION EXISTING PHASE DIAGRAM



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 9)
(ROUTE 72/MILLS AVENUE)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E-12

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
DGN FILE => 725770ua012.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 | DATE PLOTTED => 14-AUG-2008 TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	24	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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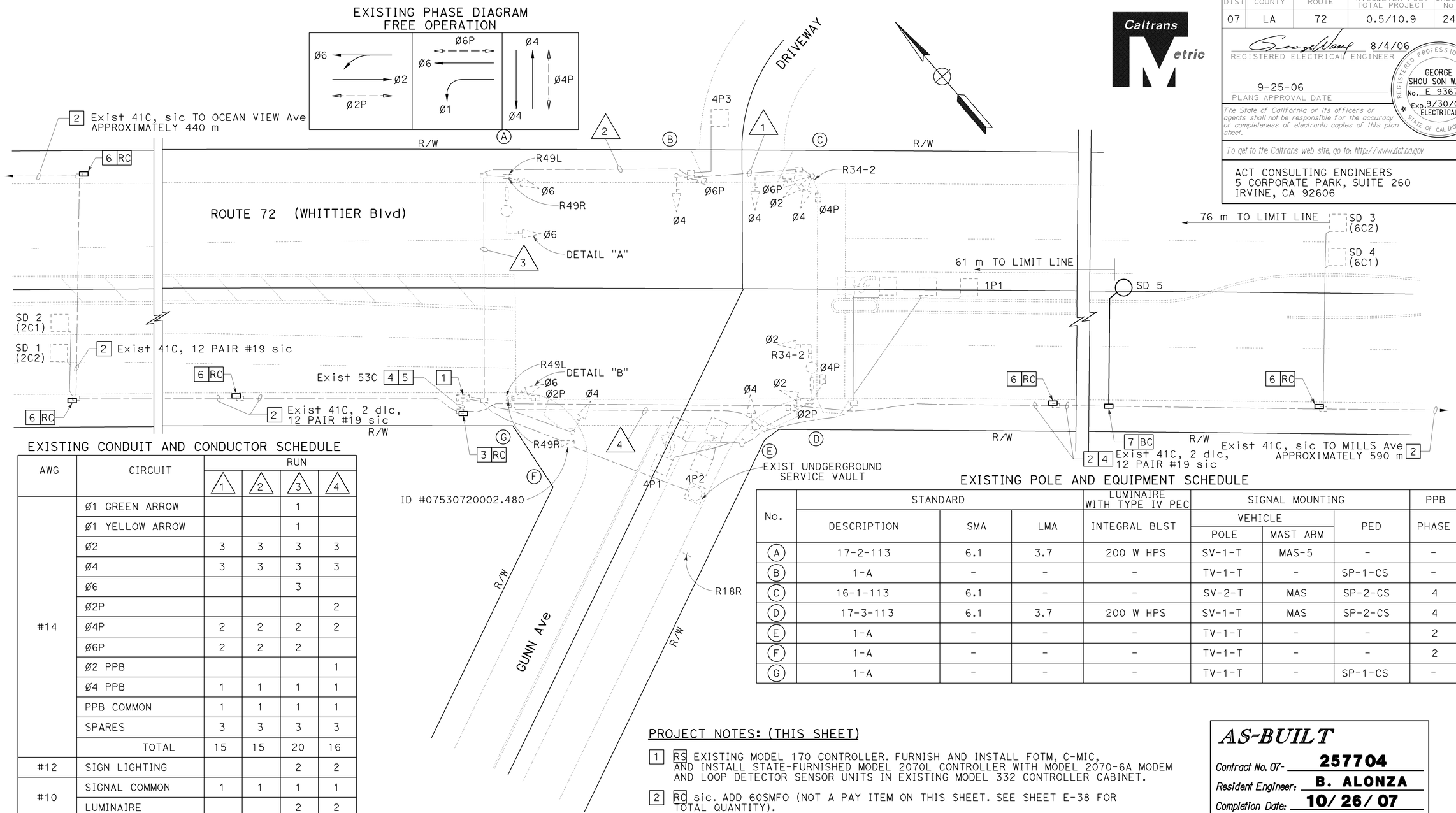
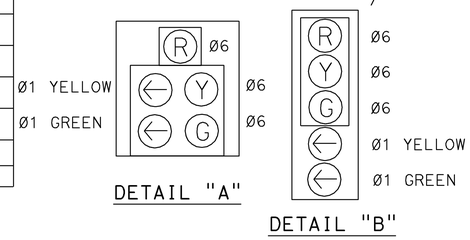
IRVINE, CA 92606



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3	RUN 4
#14	Ø1 GREEN ARROW			1	
	Ø1 YELLOW ARROW			1	
	Ø2	3	3	3	3
	Ø4	3	3	3	3
	Ø6			3	
	Ø2P				2
	Ø4P	2	2	2	2
	Ø6P	2	2	2	
	Ø2 PPB				1
	Ø4 PPB	1	1	1	1
	PPB COMMON	1	1	1	1
	SPARES	3	3	3	3
	TOTAL	15	15	20	16
#12	SIGN LIGHTING			2	2
#10	SIGNAL COMMON	1	1	1	1
	LUMINAIRE			2	2
DLC	Ø1P DETECTOR				1
	Ø4P DETECTOR		1	1	2
	Ø2C DETECTOR				
	Ø6C DETECTOR				
	TOTAL		1	1	3
	CONDUIT SIZE	53	53	53	53



EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	STANDARD SMA	STANDARD LMA	LUMINAIRE WITH TYPE IV PEC INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	SIGNAL MOUNTING VEHICLE MAST ARM	PED	PPB PHASE
A	17-2-113	6.1	3.7	200 W HPS	SV-1-T	MAS-5	-	-
B	1-A	-	-	-	TV-1-T	-	SP-1-CS	-
C	16-1-113	6.1	-	-	SV-2-T	MAS	SP-2-CS	4
D	17-3-113	6.1	3.7	200 W HPS	SV-1-T	MAS	SP-2-CS	4
E	1-A	-	-	-	TV-1-T	-	-	2
F	1-A	-	-	-	TV-1-T	-	-	2
G	1-A	-	-	-	TV-1-T	-	SP-1-CS	-

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. RC sic. ADD 12SMFO.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
7. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL B, SHEET E-40.

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 10)
(ROUTE 72/GUNN AVENUE)

SCALE 1:200

E-13

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

DATE	REVISED BY	DATE REVISED
8/06	MH	8/06 GW

CALCULATED/DESIGNED BY
CHECKED BY
DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
DGN FILE => 725770ua013.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 DATE PLOTTED => 14-AUG-2008 TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	25	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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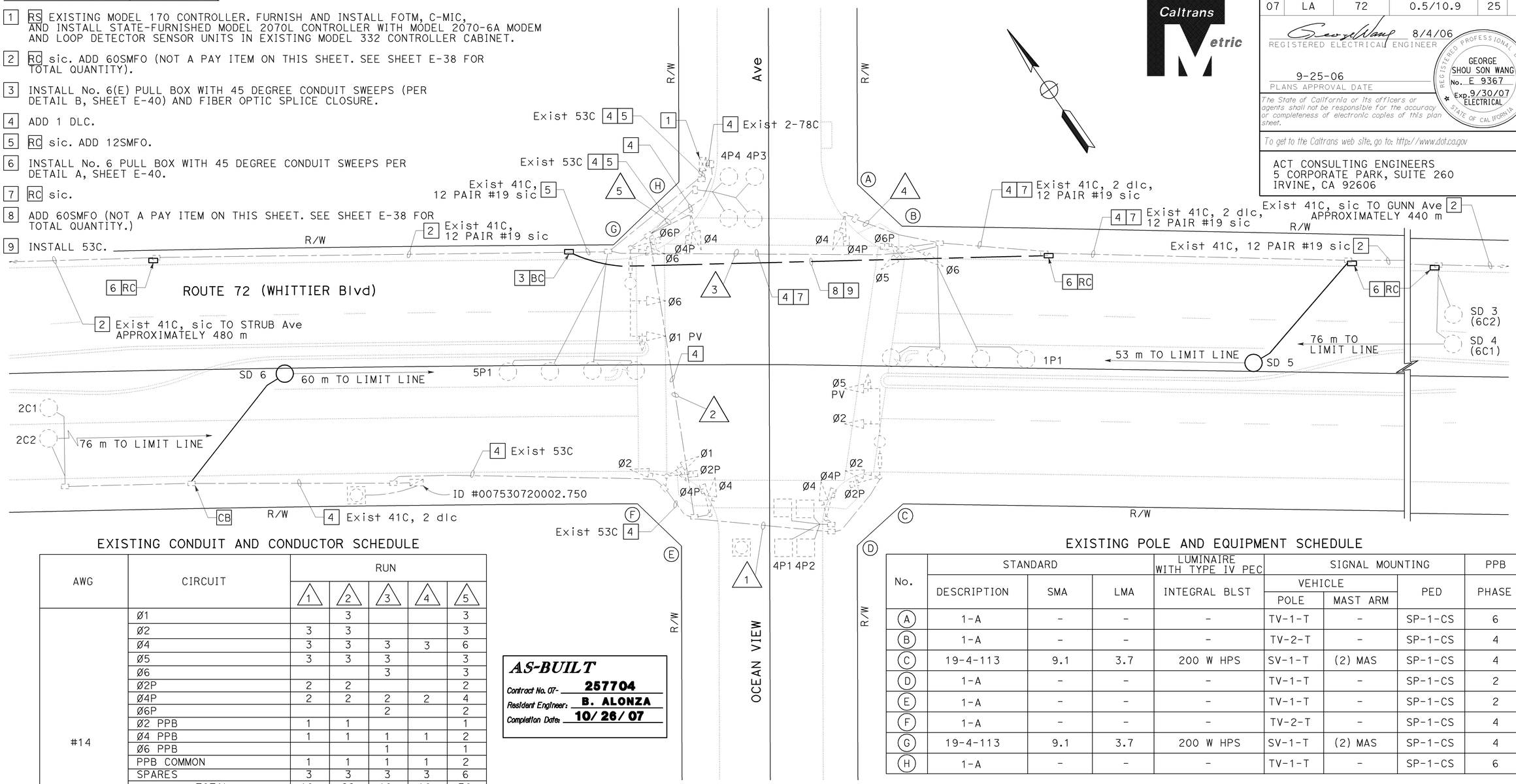
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL B, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. RC sic. ADD 12SMFO.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
7. RC sic.
8. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY.)
9. INSTALL 53C.



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

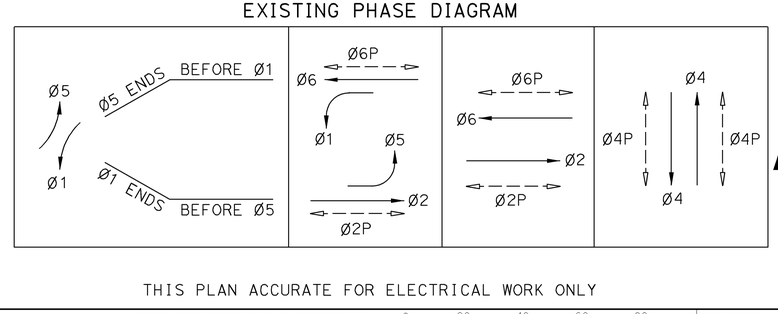
AWG	CIRCUIT	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5
#14	Ø1		3			3
	Ø2	3	3			3
	Ø4	3	3	3	3	6
	Ø5	3	3	3		3
	Ø6			3		3
	Ø2P	2	2			2
	Ø4P	2	2	2	2	4
	Ø6P			2		2
	Ø2 PPB	1	1			1
	Ø4 PPB	1	1	1	1	2
	Ø6 PPB			1		1
	PPB COMMON	1	1	1	1	2
	SPARES	3	3	3	3	6
	TOTAL	19	22	19	10	38
#12	SIGN LIGHTING	2	2			
#10	SIGNAL COMMON	1	1	1	1	2
	LUMINAIRE	2	2			
DLC	Ø1 P DETECTOR			1		
	Ø4 P DETECTOR	2	2			4
	Ø5 P DETECTOR					
	Ø2 C DETECTOR		2			2
	Ø6 C DETECTOR			2		
	TOTAL	2	4	3		6
#8	SIGNAL SERVICE		2			2
	CONDUIT	53	63	53	53	63

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	STANDARD SMA	STANDARD LMA	LUMINAIRE WITH TYPE IV PEC INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	SIGNAL MOUNTING VEHICLE MAST ARM	SIGNAL MOUNTING PED	PPB PHASE
A	1-A	-	-	-	TV-1-T	-	SP-1-CS	6
B	1-A	-	-	-	TV-2-T	-	SP-1-CS	4
C	19-4-113	9.1	3.7	200 W HPS	SV-1-T	(2) MAS	SP-1-CS	4
D	1-A	-	-	-	TV-1-T	-	SP-1-CS	2
E	1-A	-	-	-	TV-1-T	-	SP-1-CS	2
F	1-A	-	-	-	TV-2-T	-	SP-1-CS	4
G	19-4-113	9.1	3.7	200 W HPS	SV-1-T	(2) MAS	SP-1-CS	4
H	1-A	-	-	-	TV-1-T	-	SP-1-CS	6

FREE OPERATION EXISTING PHASE DIAGRAM



NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 11)
(ROUTE 72/OCEAN VIEW AVENUE)

SCALE 1:200

E-14

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DATE 8/06	REVISED BY	DATE REVISED
MH	GW	8/06

CALCULATED/DESIGNED BY
CHECKED BY

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
DGN FILE => 725770ua014.dgn

CU 07382 EA 257701

LAST REVISION 00-00-00 DATE PLOTTED => 14-AUG-2008 TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	26	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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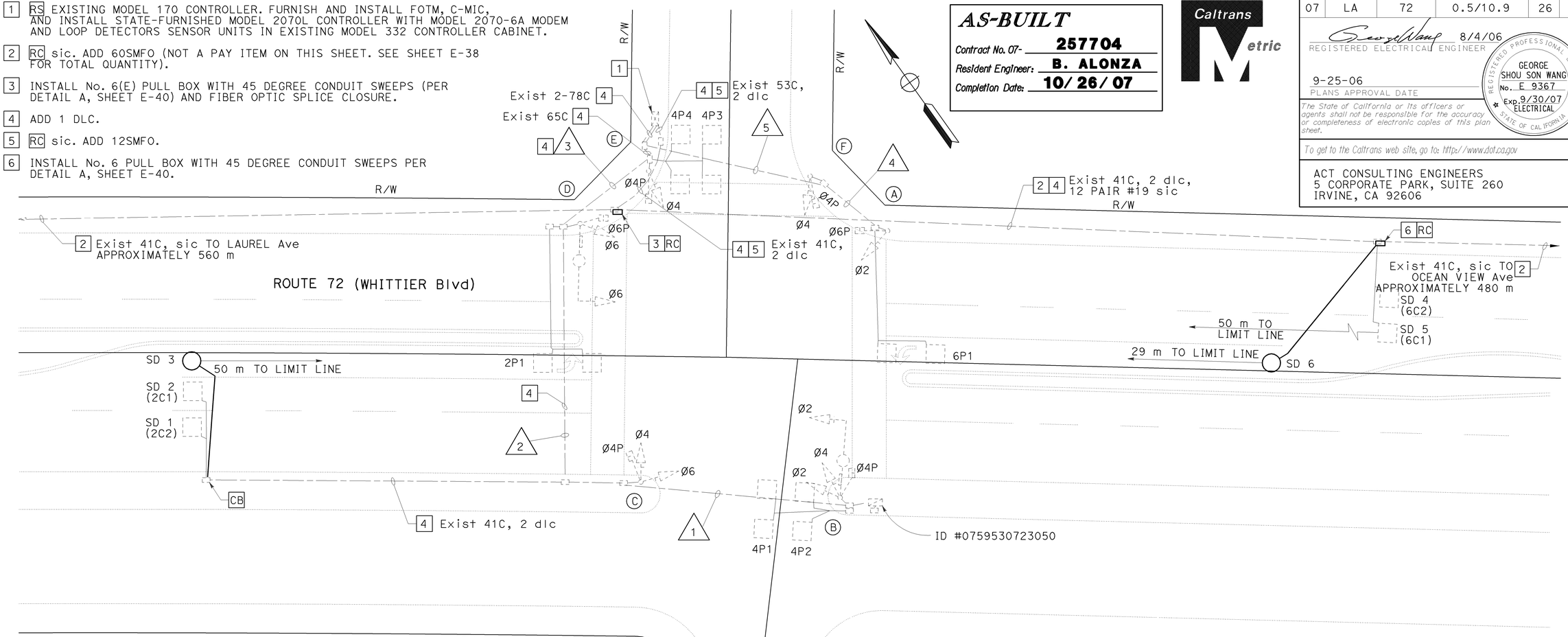
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

AS-BUILT
Contract No. 07- **257704**
Resident Engineer: **B. ALONZA**
Completion Date: **10/ 26/ 07**

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTORS SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. RC sic. ADD 12SMFO.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.

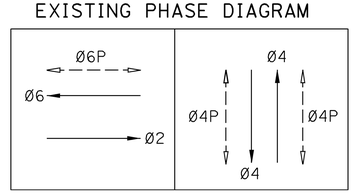


EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3	RUN 4	RUN 5
#14	Ø2	3	3	3	3	3
	Ø4	3	3	3		3
	Ø6		3	3		
	Ø4P	2	2	2		2
	Ø6P			2	2	2
	Ø4 PPB	1	1	1	1	1
	Ø6 PPB					1
	PPB COMMON	1	1	1	1	1
	SPARES	3	3	3	3	3
	TOTAL	13	16	18	10	16
#12	SIGN LIGHTING	2	2			
#10	SIGNAL COMMON	1	1	1	1	1
	LUMINAIRE	2	2			
DLC	Ø2P DETECTOR			1		
	Ø4P DETECTOR	2	2	2		
	Ø6P DETECTOR				1	1
	Ø2C DETECTOR		2	2		
	Ø6C DETECTOR					
	TOTAL	2	4	5	1	1
#8	SIGNAL SERVICE	2	2	2		
	CONDUIT SIZE	53	53	63	53	53

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

FREE OPERATION EXISTING PHASE DIAGRAM



EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	STANDARD SMA	STANDARD LMA	LUMINAIRE WITH TYPE IV PEC INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	SIGNAL MOUNTING VEHICLE MAST ARM	SIGNAL MOUNTING PED	PPB PHASE
A	1-A				TV-1-T		SP-1-CS	4
B	19-2-113	7.6	3.7	200 W HPS	SV-2-T	MAS	SP-1-CS	4
C	1-A				TV-2-T		SP-1-CS	4
D	19-2-113	7.6	3.7	200 W HPS	SV-1-T	MAS	SP-1-CS	4
E	1-A				TV-1-T		SP-1-CS	6
F	1-A				TV-1-T		SP-1-CS	6

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 12)
(ROUTE 72/ STRUB AVENUE)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E-15

DATE	MH	CALCULATED/ DESIGNED BY	DESIGN OVERSIGHT
8/06	GW	CHECKED BY	YEFIM ZABEZHINSKY

REVISED BY / DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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USERNAME => s123048
DGN FILE => 725770ua015.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 | DATE PLOTTED => 14-AUG-2008 | TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	27	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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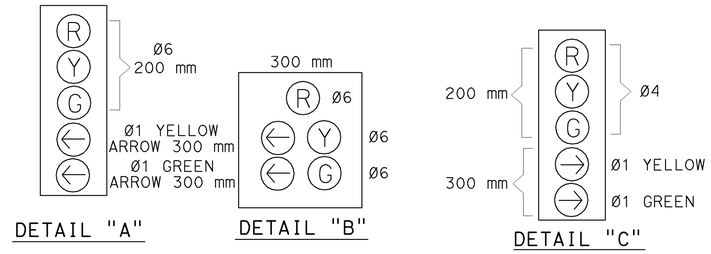
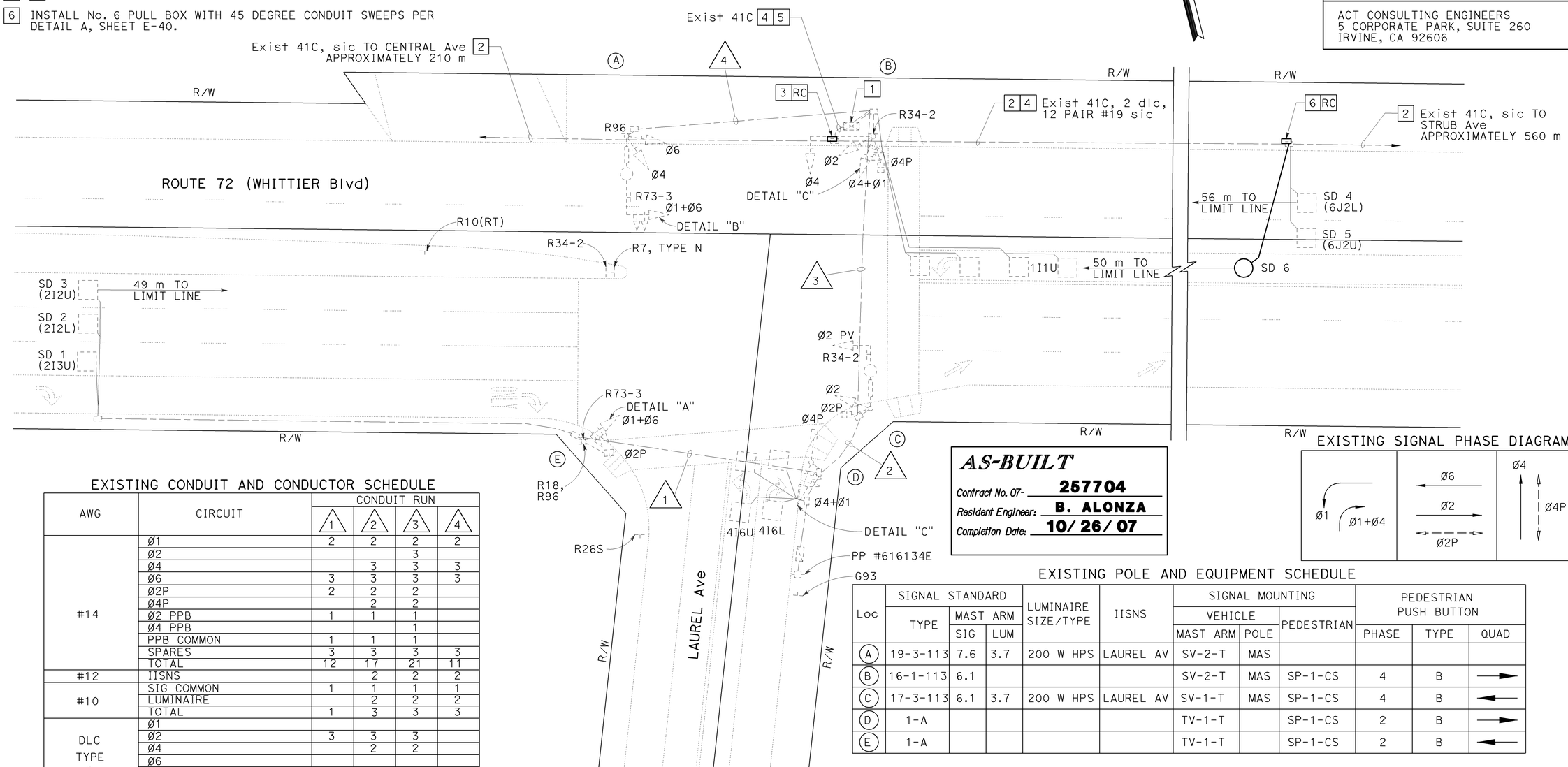
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. RC sic. ADD 12SMFO.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.





AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

EXISTING SIGNAL PHASE DIAGRAM

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	CONDUIT RUN 1	2	3	4
#14	Ø1	2	2	2	2
	Ø2			3	
	Ø4		3	3	3
	Ø6	3	3	3	3
	Ø2P	2	2	2	
	Ø4P		2	2	
	Ø2 PPB	1	1	1	
	Ø4 PPB			1	
	PPB COMMON	1	1	1	
	SPARES	3	3	3	3
	TOTAL	12	17	21	11
#12	IISNS		2	2	2
#10	SIG COMMON	1	1	1	1
	LUMINAIRE		2	2	2
	TOTAL	1	3	3	3
DLC TYPE C	Ø1				
	Ø2	3	3	3	
	Ø4		2	2	
	Ø6				
	TOTAL	3	5	5	
	CONDUIT SIZE	53	53	53	53

EXISTING POLE AND EQUIPMENT SCHEDULE

Loc	SIGNAL STANDARD TYPE	MAST ARM SIG	MAST ARM LUM	LUMINAIRE SIZE/TYPE	IISNS	SIGNAL MOUNTING VEHICLE MAST ARM	VEHICLE POLE	PEDESTRIAN	PEDESTRIAN PUSH BUTTON PHASE	TYPE	QUAD
A	19-3-113	7.6	3.7	200 W HPS	LAUREL AV	SV-2-T	MAS				
B	16-1-113	6.1				SV-2-T	MAS	SP-1-CS	4	B	→
C	17-3-113	6.1	3.7	200 W HPS	LAUREL AV	SV-1-T	MAS	SP-1-CS	4	B	←
D	1-A					TV-1-T		SP-1-CS	2	B	→
E	1-A					TV-1-T		SP-1-CS	2	B	←

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 13)
(ROUTE 72/LAUREL AVENUE)

SCALE 1:200

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E-16

DATE 8/06	REVISED BY MH	CALCULATED/DESIGNED BY MH
8/06	DATE REVISED GW	CHECKED BY GW

DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
DGN FILE => 725770ua016.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 DATE PLOTTED => 14-AUG-2008 TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	28	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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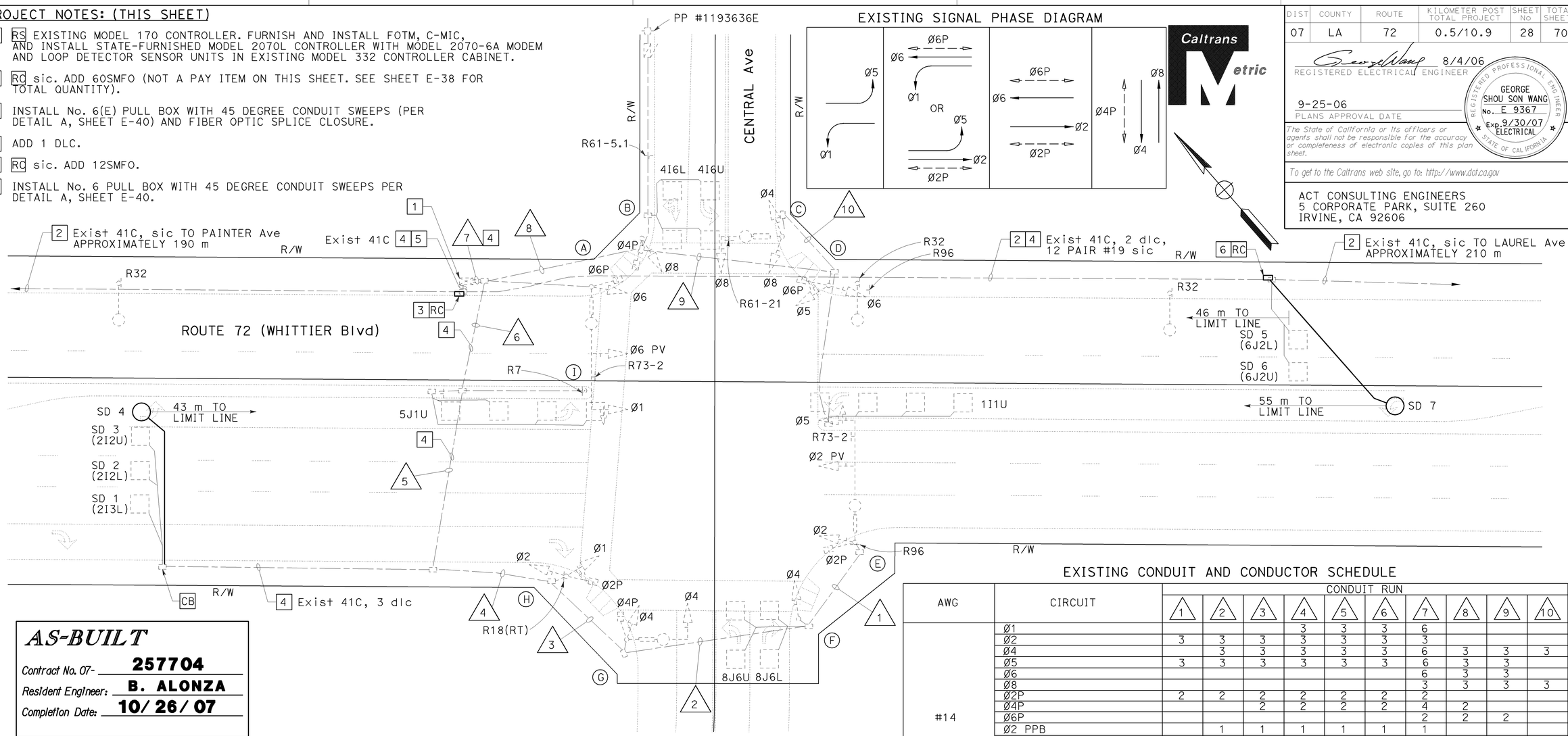
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. RC sic. ADD 12SMFO.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.



AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

EXISTING POLE AND EQUIPMENT SCHEDULE

Loc	SIGNAL STANDARD TYPE	MAST ARM SIG	MAST ARM LUM	LUMINAIRE SIZE/TYPE	IISNS	SIGNAL MOUNTING VEHICLE POLE MTG	SIGNAL MOUNTING VEHICLE MAST ARM	SIGNAL MOUNTING PEDESTRIAN	PEDESTRIAN PUSH BUTTON PHASE	PEDESTRIAN PUSH BUTTON TYPE	PEDESTRIAN PUSH BUTTON ARROW
A	26-4-113	13.7	3.7	200 W HPS	CENTRAL Ave	SV-1-T	MAS MAT	SP-1-T	4	B	←
B	1-A	-	-	-	-	TV-1-T	-	SP-1-T	6	B	→
C	17-3-113	6.1	3.7	200 W HPS	WHITTIER Blvd	SV-2-T	MAS	-	6	B	←
D	1-A	-	-	-	-	TV-2-T	-	SP-1-CS	-	-	
E	26-4-113	12.2	3.7	200 W HPS	CENTRAL Ave	SV-1-T	MAS MAT	SP-1-T	-	-	
F	1-A	-	-	-	-	TV-1-T	-	-	2	B	→
G	17-3-113	6.1	3.7	200 W HPS	WHITTIER Blvd	SV-1-T	MAS	SP-1-T	2	B	←
H	1-A	-	-	-	-	TV-2-T	-	SP-1-T	4	B	→
I	PPB POST	-	-	-	-	-	-	-	4	B	←

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	CONDUIT RUN 1	2	3	4	5	6	7	8	9	10
#14	Ø1				3	3	3	6			
	Ø2	3	3	3	3	3	3	3			
	Ø4		3	3	3	3	3	6	3	3	3
	Ø5	3	3	3	3	3	3	6	3	3	
	Ø6							6	3	3	
	Ø8							3	3	3	3
	Ø2P	2	2	2	2	2	2	2			
	Ø4P			2	2	2	2	4	2		
	Ø6P							2	2	2	
	Ø2 PPB		1	1	1	1	1	1			
	Ø4 PPB				1	1	1	1			
	Ø6 PPB							1	1	1	1
	PPB COMMON		1	1	1	1	1	2	1	1	1
	SPARES	3	3	3	3	3	3	6	3	3	3
	TOTAL	11	16	18	22	22	22	49	21	19	11
#12	IISNS	2	2	2	2	2	2		2	2	2
#10	SIG COMMON	1	1	1	1	1	1	2	1	1	1
	LUMINAIRE	2	2	2	2	2	2		2	2	2
	TOTAL	3	3	3	3	3	3	2	3	3	3
DLC TYPE C	Ø1							1	1	1	
	Ø2					3	3	3			
	Ø4							2	2		
	Ø5						1	1			
	Ø6										
	Ø8		2	2	2	2	2	2			
	TOTAL		2	2	2	5	6	9	3	1	
	CONDUIT SIZE	53	78	53	53	63	63	2-78	53	53	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 14)
(ROUTE 72/CENTRAL AVENUE)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E-17

DATE	REVISED BY	DATE REVISED
8/06	MH	8/06 GW

CALCULATED/DESIGNED BY
CHECKED BY
DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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USERNAME => s123048
DGN FILE => 725770ua017.dgn

CU 07382 EA 257701

LAST REVISION 00-00-00 DATE PLOTTED => 14-AUG-2008 TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	29	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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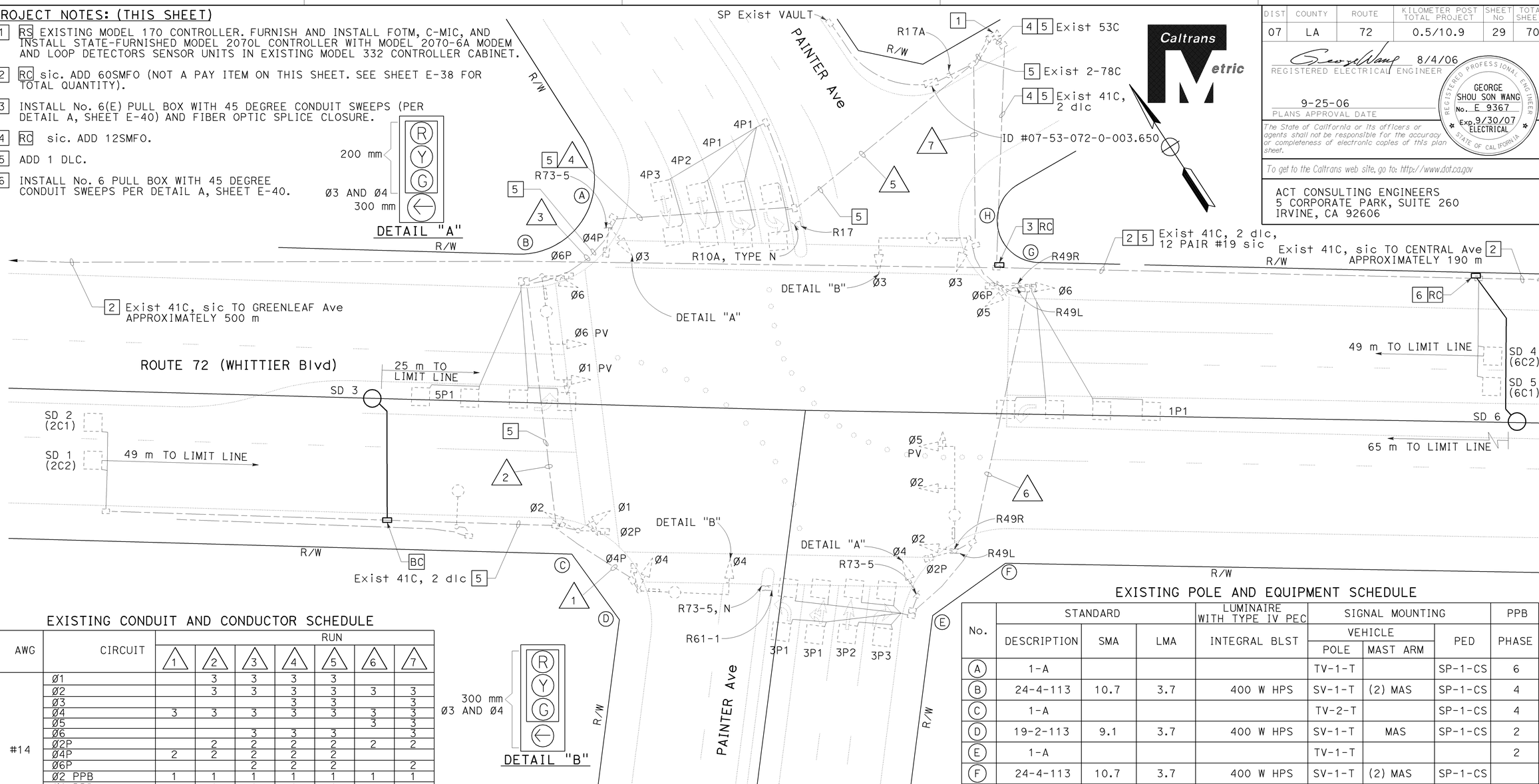
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTORS SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. RC sic. ADD 12SMFO.
5. ADD 1 DLC.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.



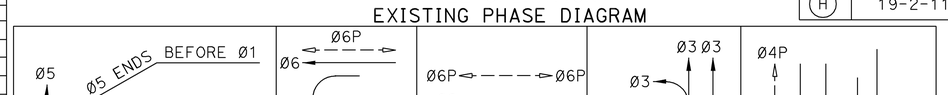
EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	2	3	4	5	6	7
#14	Ø1		3	3	3	3		
	Ø2		3	3	3	3	3	3
	Ø3				3	3		3
	Ø4	3	3	3	3	3	3	3
	Ø5						3	3
	Ø6			3	3	3		3
	Ø2P		2	2	2	2	2	2
	Ø4P	2	2	2	2	2		
	Ø6P			2	2	2		2
	Ø2 PPB	1	1	1	1	1	1	1
	Ø4 PPB		1	1	1	1		
	Ø6 PPB				1	1		1
	PPB COMMON	1	1	1	1	1	1	1
	SPARES	3	3	3	3	3	3	3
	TOTAL	10	19	24	28	28	16	25
#12	SIGN LIGHTING	2	2	2	2	2	2	2
#10	LUMINAIRE	2	2	2	2	2	2	2
	SIGNAL COMMON	1	1	1	1	1	1	1
DLC	Ø1P DETECTOR							1
	Ø3P DETECTOR						3	3
	Ø4P DETECTOR					3		
	Ø5P DETECTOR			1	1	1		
	Ø2C DETECTOR		2	2	2	2		
	Ø6C DETECTOR							
	TOTAL		2	3	3	6	3	4
	CONDUIT SIZE	53	53	53	53	63	53	63

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	SMA	LMA	LUMINAIRE WITH TYPE IV PEC INTEGRAL BLST	SIGNAL MOUNTING VEHICLE POLE	MAST ARM	PED	PPB PHASE
A	1-A				TV-1-T		SP-1-CS	6
B	24-4-113	10.7	3.7	400 W HPS	SV-1-T	(2) MAS	SP-1-CS	4
C	1-A				TV-2-T		SP-1-CS	4
D	19-2-113	9.1	3.7	400 W HPS	SV-1-T	MAS	SP-1-CS	2
E	1-A				TV-1-T			2
F	24-4-113	10.7	3.7	400 W HPS	SV-1-T	(2) MAS	SP-1-CS	
G	1-A				TV-2-T		SP-1-CS	
H	19-2-113	9.1	3.7	400 W HPS	SV-1-T	MAS		6

FREE OPERATION EXISTING PHASE DIAGRAM



AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 15)
(ROUTE 72/PAINTER AVENUE)

SCALE 1:200

E-18

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

REVISED BY	DATE REVISED
MH	8/06

CALCULATED/DESIGNED BY	CHECKED BY
MH	GW

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

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CU 07382 | EA 257701

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	72	0.5/10.9	30	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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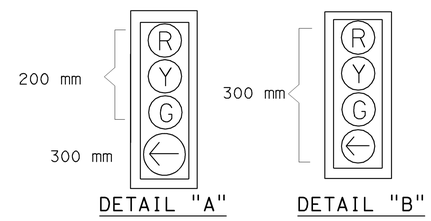
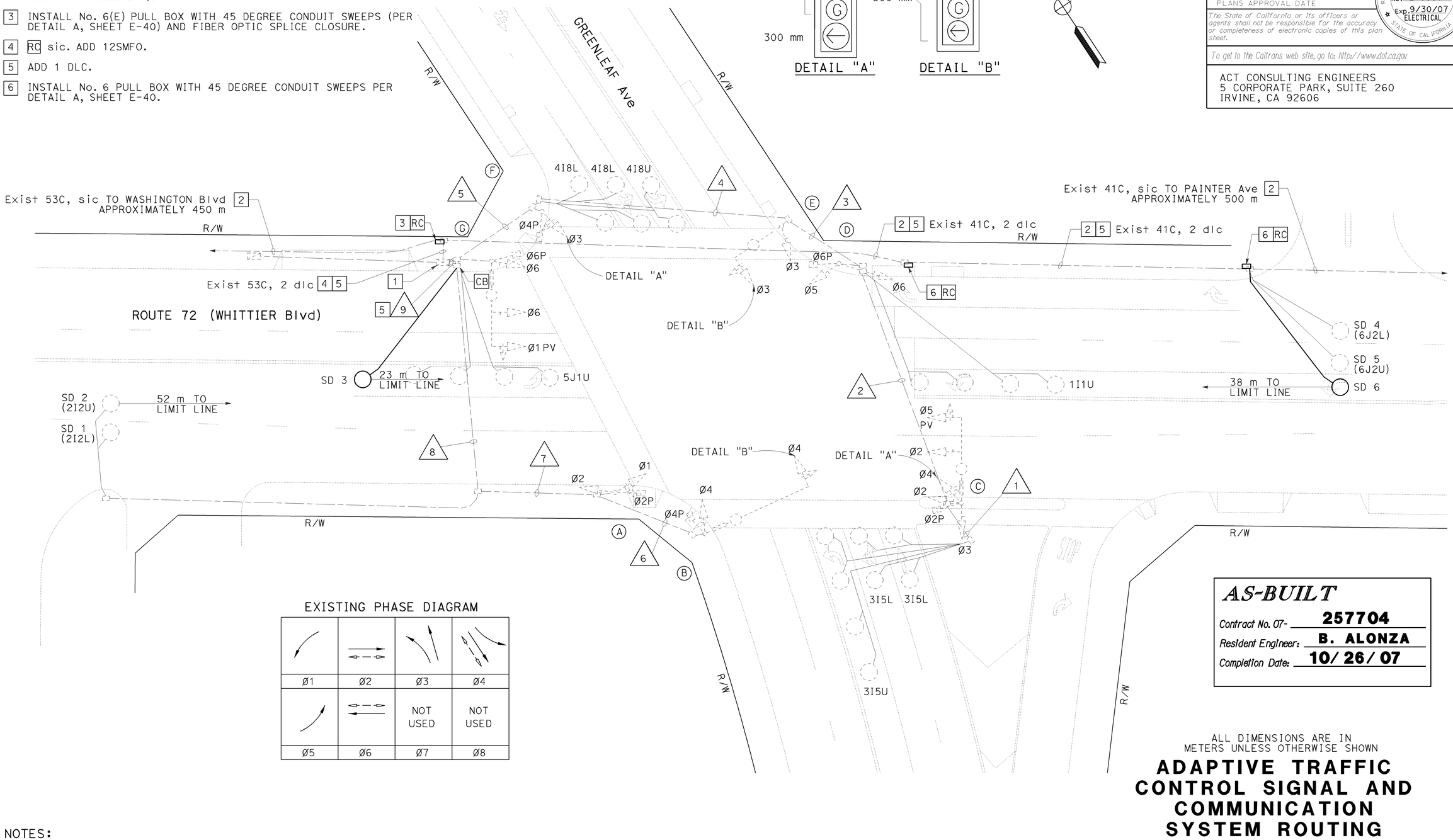
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. RC sic. ADD 12SMFO.
5. ADD 1 DLC.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.





EXISTING PHASE DIAGRAM

Ø1	Ø2	Ø3	Ø4
Ø5	Ø6	NOT USED	NOT USED
Ø7	Ø8		

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 16)
(ROUTE 72/GREENLEAF AVENUE)

SCALE 1:200

E-19

NOTES:
1. FOR EXISTING SCHEDULES SEE SHEET E-20.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

DATE 8/06	MH	CALCULATED/ DESIGNED BY	DESIGN OVERSIGHT
8/06	GW	CHECKED BY	YEFIM ZABEZHINSKY

REVISED BY / DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
DGN FILE => 725770ua019.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	31	70

Caltrans Metric

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

8/4/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	2	3	4	5	6	7	8	9
#14	Ø1							3	3	6
	Ø2		3	3	3	3		3	3	6
	Ø3		3	3	3	3				3
	Ø4		3	3	3	3	3	3	3	6
	Ø5		3	3	3	3				3
	Ø6			3	3	3				6
	Ø2 PED		2	2	2	2		2	2	4
	Ø4 PED					2	2	2	2	4
	Ø6 PED			2	2	2				2
	Ø2 PPB		1	1	1	1	1	1	1	1
	Ø4 PPB							1	1	1
	Ø6 PPB				1	1				1
	SPARES		1	1	1	1	1	1	1	1
	TOTAL		16	21	22	24	7	16	16	44
#12	SIGN LIGHTING		2	2	2	2	2	2	2	2
#10	SIGNAL COMMON		1	1	1	1	1	1	1	1
	LUMINAIRE		2	2	2	2	2	2	2	2
	TOTAL		3	3	3	3	3	3	3	3
DLC	Ø1P DETECTOR			1	1	1				1
	Ø2P DETECTOR								2	2
	Ø3P DETECTOR	2	2	2	2	2				2
	Ø4P DETECTOR					2				2
	Ø5P DETECTOR									1
	Ø6P DETECTOR									
	TOTAL	2	2	2	3	5			2	8
	CONDUIT	53	63	63	63	78	78	53	53	2-78

EXISTING POLE AND EQUIPMENT SCHEDULE

STANDARD No.	TYPE	SMA	LMA	VEH SIG MTG MAST ARM	POLE	PED SIG MTG	PPB Ø	ARROW	HPS LUMINAIRE
A	1-A	-	-	-	TV-2-T	SP-1-CS	4	←	-
B	26-3-129	12.2	4.6	MAS	SV-1-T	SP-1-CS	2	←	250 W
C	19-4-113	9.1	3.7	2 MAS	SV-3-TA	SP-1-CS	2	←	400 W
D	1-A	-	-	-	TV-2-T	SP-1-CS	-		-
E	17-2-113	6.1	3.7	MAS	SV-1-T	-	6	←	400 W
F	1-A	-	-	-	TV-1-T	SP-1-CS	6	→	-
G	19-4-113	9.1	3.7	2 MAS	SV-1-T	SP-1-CS	4	←	400 W

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 16)
(ROUTE 72/GREENLEAF AVENUE)

E-20

DATE 8/06	REVISED BY	MH	CALCULATED/DESIGNED BY	DESIGN OVERSIGHT
8/06	DATE REVISED	GW	CHECKED BY	YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	32	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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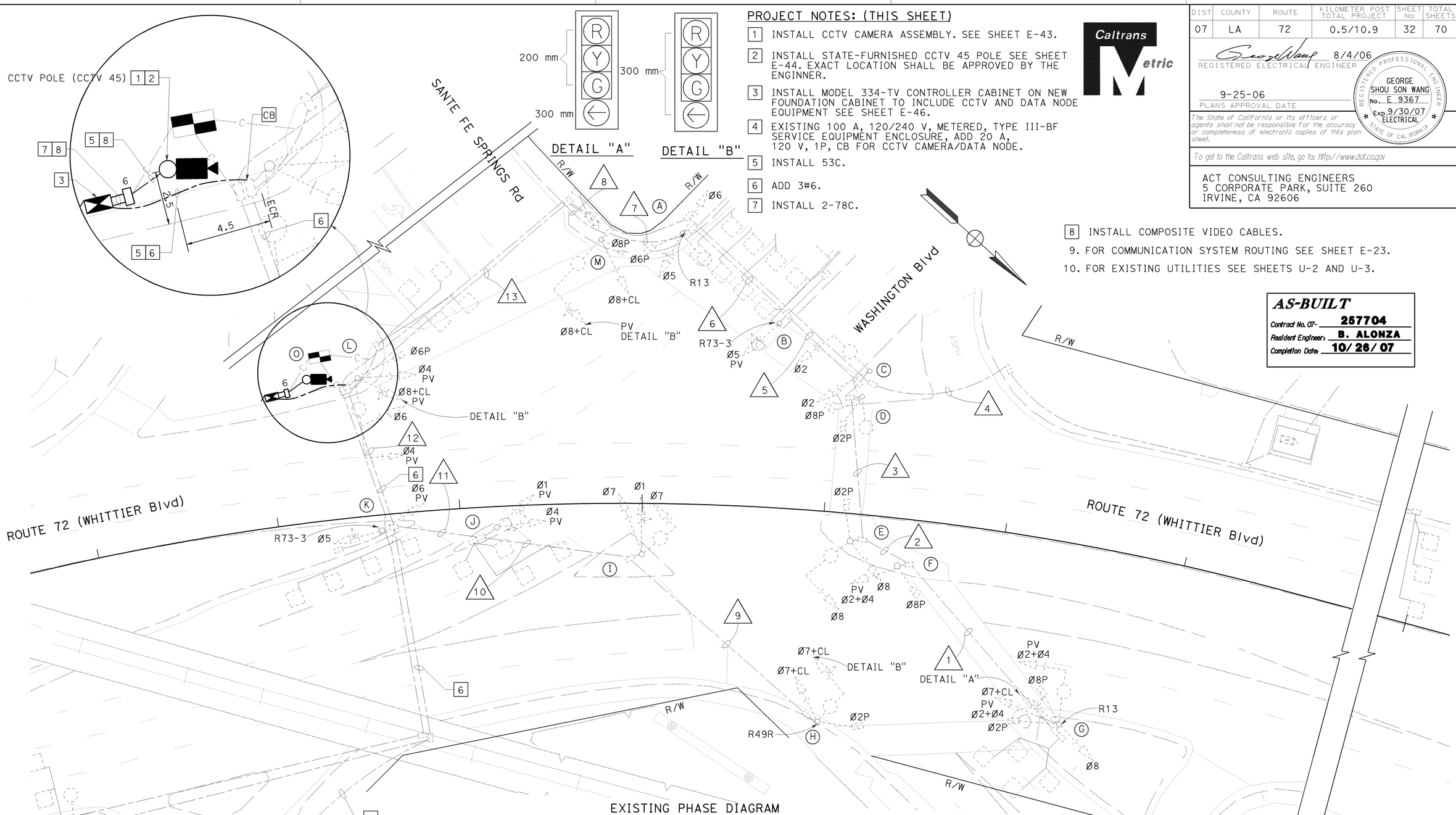
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

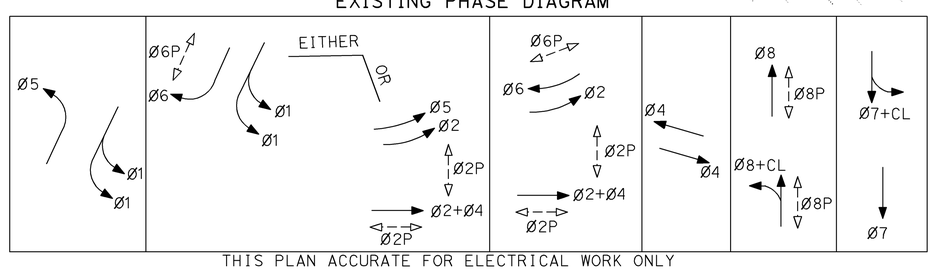
PROJECT NOTES: (THIS SHEET)

1. INSTALL CCTV CAMERA ASSEMBLY. SEE SHEET E-43.
2. INSTALL STATE-FURNISHED CCTV 45 POLE SEE SHEET E-44. EXACT LOCATION SHALL BE APPROVED BY THE ENGINNER.
3. INSTALL MODEL 334-TV CONTROLLER CABINET ON NEW FOUNDATION CABINET TO INCLUDE CCTV AND DATA NODE EQUIPMENT SEE SHEET E-46.
4. EXISTING 100 A, 120/240 V, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, ADD 20 A, 120 V, 1P, CB FOR CCTV CAMERA/DATA NODE.
5. INSTALL 53C.
6. ADD 3#6.
7. INSTALL 2-78C.
8. INSTALL COMPOSITE VIDEO CABLES.
9. FOR COMMUNICATION SYSTEM ROUTING SEE SHEET E-23.
10. FOR EXISTING UTILITIES SEE SHEETS U-2 AND U-3.

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07



EXISTING PHASE DIAGRAM



THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

NOTES:
1. FOR NEW POLE AND EQUIPMENT SCHEDULE AND EXISTING SCHEDULES SEE SHEET E-22.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CLOSED CIRCUIT TELEVISION CAMERA AND DATA NODE

(LOCATION 17)
(ROUTE 72/ WASHINGTON BOULEVARD)

SCALE 1:200

E-21

DATE	REVISED BY	DATE	REVISED BY
8/06	MH	8/06	GW

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

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USERNAME => s123048
DGN FILE => 725770ug021.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 | DATE PLOTTED => 14-AUG-2008 | TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	33	70

Caltrans Metric

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

George Wang 8/4/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

NEW POLE AND EQUIPMENT SCHEDULE

No.	STANDARD TYPE	SMA (m)	LMA (m)	Veh Sig M+g MAST ARM	Veh Sig M+g POLE	Ped Sig M+g	PPB Ø	PPB ARROW	HPS Lum	IISNS
⓪	CCTV 45	-	-	-	-	-	-	-	-	-

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	1	2	3	4	5	6	7	8	9	10	11	12	13
#14	Ø1	-	-	-	-	-	-	-	-	-	3	3	3	3
	Ø2	-	-	-	-	3	3	3	3	-	-	-	-	-
	Ø4	-	-	-	-	-	-	-	-	-	-	3	3	3
	Ø8	3	3	3	-	3	3	3	3	-	-	-	-	-
	Ø5	-	-	-	-	-	3	3	3	-	-	-	3	3
	Ø6	-	-	-	-	-	-	3	3	-	-	-	3	3
	Ø7	-	-	-	-	-	-	-	-	-	3	3	3	3
	Ø2+Ø4	3	3	3	-	3	3	3	3	-	-	-	-	-
	Ø7+CL	3	3	3	-	3	3	3	3	3	3	3	3	3
	Ø8+CL	-	-	-	-	-	-	-	3	-	-	-	-	3
	Ø2P	2	2	2	-	2	2	2	2	2	2	2	2	2
	Ø8P	2	2	2	-	4	4	4	4	-	-	-	-	-
	Ø6P	-	-	-	-	-	-	2	2	-	-	-	-	2
	Ø2PPB	1	1	1	-	1	1	1	1	1	1	1	1	1
	Ø6PPB	-	-	-	-	-	-	-	1	-	-	-	-	1
	Ø8PPB	1	1	1	-	2	2	2	2	-	-	-	-	-
	PPB COMMON	1	1	1	-	1	1	1	1	1	1	1	1	1
	SPARES	3	3	3	-	3	3	3	3	3	3	3	3	3
	TOTAL	19	19	19	-	25	28	33	37	10	16	19	25	31
#10	SIGNAL COMMON	1	1	1	-	1	1	1	1	1	1	1	1	1
#8	LUMINAIRE	2	2	2	-	2	2	2	2	2	2	2	2	2
DLC	Ø1P DETECTOR	-	-	-	-	-	1	1	1	-	-	-	-	-
	Ø2P DETECTOR	-	-	-	-	-	-	-	-	-	-	1	1	1
	Ø8P DETECTOR	1	1	1	-	1	1	1	1	-	-	-	-	-
	Ø5P DETECTOR	-	-	-	-	-	-	-	-	-	-	-	1	1
	Ø6P DETECTOR	-	-	-	-	-	-	2	2	-	-	-	-	-
	Ø7P DETECTOR	-	-	-	-	-	-	-	-	-	-	-	-	1
	Ø4P DETECTOR	-	-	-	2	2	2	2	2	-	-	-	1	1
#6	SIGNAL SERVICE	-	-	-	-	-	-	-	-	-	-	-	2	2
12 PR #19	INTERCONNECT	-	-	-	1	-	-	-	-	-	-	-	-	-
	CONDUIT SIZE	53	53	53	53	53	63	78	78	53	53	53	63	63

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD TYPE	SMA (m)	LMA (m)	SIGNAL MOUNTING VEHICLE MAST ARM	SIGNAL MOUNTING VEHICLE POLE	Ped Sig M+g	PPB Ø	LUMINAIRE WITH TYPE IV PEC INTEGRAL BLST
Ⓐ	15TS	-	3.6	-	SV-2-T	SP-1-CS	8	200 W HPS
Ⓑ	1-A	-	-	-	TV-1-T	-	8	-
Ⓒ	17-1-113	6.1	3.6	MAS	SV-1-T	-	8	200 W HPS
Ⓓ	15TS	-	3.6	-	-	SP-2-CS	2	200 W HPS
Ⓔ	17-1-113	6.1	3.6	MAS	SV-1-T	SP-1-CS	2	200 W HPS
Ⓕ	1-A	-	-	-	TV-1-T	SP-1-CS	8	-
Ⓖ	17-1-113	6.1	3.6	MAS	SV-3-T	SP-2-CS	8,2	200 W HPS
Ⓗ	17-1-113	4.6	3.6	MAS	SV-1-T	SP-1-CS	2	200 W HPS
Ⓘ	17-1-113	4.6	3.6	MAS	SV-2-T	-	-	200 W HPS
Ⓙ	1-A	-	-	-	TV-2-T	-	-	-
Ⓚ	1-A	-	-	-	TV-1 SV-1-T	-	-	-
Ⓛ	19-2-113	9.1	3.6	(2)MAS	SV-2-T	SP-1-CS	6	200 W HPS
Ⓜ	19-1-113	7.6	3.6	MAS	SV-1-T	SP-1-CS	6	200 W HPS
Ⓝ	15	-	3.6	-	-	-	-	200 W HPS

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA DATA NODE

(LOCATION 17)
(ROUTE 72/WASHINGTON BOULEVARD)

E-22

DATE	REVISED BY	CALCULATED/ DESIGNED BY	MH
8/06	8/06	CHECKED BY	GW

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
TRAFFIC DESIGN

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	34	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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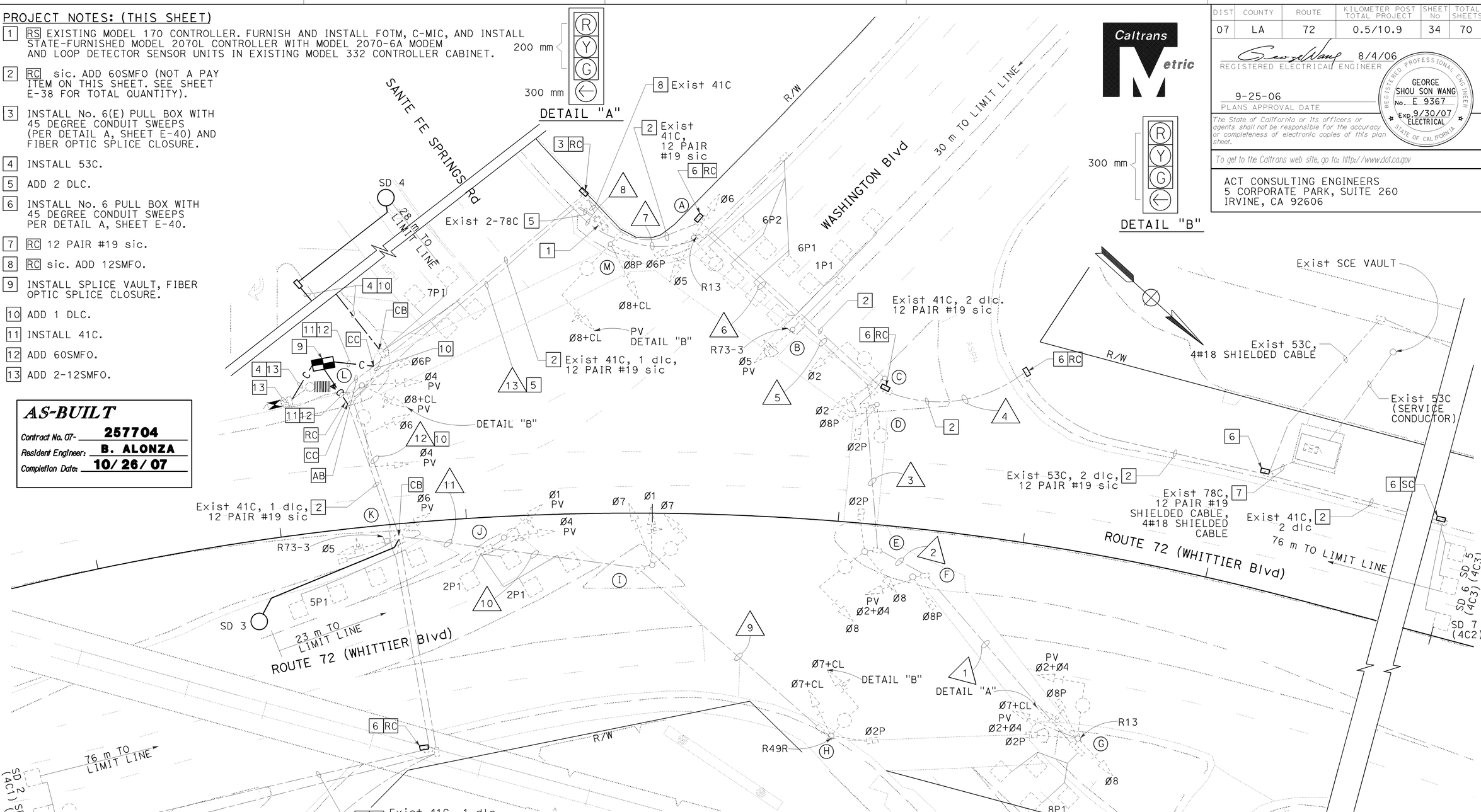
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. INSTALL 53C.
5. ADD 2 DLC.
6. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
7. RC 12 PAIR #19 sic.
8. RC sic. ADD 12SMFO.
9. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
10. ADD 1 DLC.
11. INSTALL 41C.
12. ADD 60SMFO.
13. ADD 2-12SMFO.

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07



NOTES:
1. FOR EXISTING SCHEDULES SEE SHEET E-24.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
3. FOR CCTV SYSTEM WORK SEE SHEET E-21.
4. FOR EXISTING UTILITIES SEE SHEETS U-2 AND U-3.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 17)
(ROUTE 72/WASHINGTON BOULEVARD)

SCALE 1:200

E-23

DATE	REVISED BY	DATE REVISED
8/06	MH	8/06 GW

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DESIGN OVERSIGHT — YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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USERNAME => s123048
DGN FILE => 725770ua023.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 | DATE PLOTTED => 14-AUG-2008 | TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	35	70

Caltrans Metric

8/4/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GEORGE SHOU SON WANG
No. E 9367
Exp. 9/30/07
ELECTRICAL
STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

AS-BUILT
Contract No. 07- **257704**
Resident Engineer: **B. ALONZA**
Completion Date: **10/26/07**

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	1	2	3	4	5	6	7	8	9	10	11	12	13
#14	Ø1	-	-	-	-	-	-	-	-	-	3	3	3	3
	Ø2	-	-	-	-	3	3	3	3	-	-	-	-	-
	Ø4	-	-	-	-	-	-	-	-	-	-	3	3	3
	Ø8	3	3	3	-	3	3	3	3	-	-	-	-	-
	Ø5	-	-	-	-	-	3	3	3	-	-	-	3	3
	Ø6	-	-	-	-	-	-	3	3	-	-	-	3	3
	Ø7	-	-	-	-	-	-	-	-	-	3	3	3	3
	Ø2+Ø4	3	3	3	-	3	3	3	3	-	-	-	-	-
	Ø7+CL	3	3	3	-	3	3	3	3	3	3	3	3	3
	Ø8+CL	-	-	-	-	-	-	-	3	-	-	-	-	3
	Ø2P	2	2	2	-	2	2	2	2	2	2	2	2	2
	Ø8P	2	2	2	-	4	4	4	4	-	-	-	-	-
	Ø6P	-	-	-	-	-	-	2	2	-	-	-	-	2
	Ø2PPB	1	1	1	-	1	1	1	1	1	1	1	1	1
	Ø6PPB	-	-	-	-	-	-	-	1	-	-	-	-	1
	Ø8PPB	1	1	1	-	2	2	2	2	-	-	-	-	-
	PPB COMMON	1	1	1	-	1	1	1	1	1	1	1	1	1
	SPARES	3	3	3	-	3	3	3	3	3	3	3	3	3
	TOTAL	19	19	19	-	25	28	33	37	10	16	19	25	31
#10	SIGNAL COMMON	1	1	1	-	1	1	1	1	1	1	1	1	1
#8	LUMINAIRE	2	2	2	-	2	2	2	2	2	2	2	2	2
DLC	Ø1P DETECTOR	-	-	-	-	-	1	1	1	-	-	-	-	-
	Ø2P DETECTOR	-	-	-	-	-	-	-	-	-	-	1	1	1
	Ø8P DETECTOR	1	1	1	-	1	1	1	1	-	-	-	-	-
	Ø5P DETECTOR	-	-	-	-	-	-	-	-	-	-	-	1	1
	Ø6P DETECTOR	-	-	-	-	-	-	2	2	-	-	-	-	-
	Ø7P DETECTOR	-	-	-	-	-	-	-	-	-	-	-	-	1
	Ø4P DETECTOR	-	-	-	2	2	2	2	2	-	-	-	1	1
#6	SIGNAL SERVICE	-	-	-	-	-	-	-	-	-	-	-	5	2
12 PR #19	INTERCONNECT	-	-	-	1	-	-	-	-	-	-	-	-	-
	CONDUIT SIZE	53	53	53	53	53	63	78	78	53	53	53	63	63

EXISTING POLE AND EQUIPMENT SCHEDULE

STANDARD				SIGNAL MOUNTING		Ped Sig Mtg	PPB	LUMINAIRE WITH TYPE IV PEC
				VEHICLE				
No.	TYPE	SMA (m)	LMA (m)	MAST ARM	POLE		Ø	INTEGRAL BLST
Ⓐ	15TS	-	3.6	-	SV-2-T	SP-1-CS	8	200 W HPS
Ⓑ	1-A	-	-	-	TV-1-T	-	8	-
Ⓒ	17-1-113	6.1	3.6	MAS	SV-1-T	-	8	200 W HPS
Ⓓ	15TS	-	3.6	-	-	SP-2-CS	2	200 W HPS
Ⓔ	17-1-113	6.1	3.6	MAS	SV-1-T	SP-1-CS	2	200 W HPS
Ⓕ	1-A	-	-	-	TV-1-T	SP-1-CS	8	-
Ⓖ	17-1-113	6.1	3.6	MAS	SV-3-T	SP-2-CS	8,2	200 W HPS
Ⓗ	17-1-113	4.6	3.6	MAS	SV-1-T	SP-1-CS	2	200 W HPS
Ⓘ	17-1-113	4.6	3.6	MAS	SV-2-T	-	-	200 W HPS
Ⓙ	1-A	-	-	-	TV-2-T	-	-	-
Ⓚ	1-A	-	-	-	TV-1 SV-1-T	-	-	-
Ⓛ	19-2-113	9.1	3.6	(2)MAS	SV-2-T	SP-1-CS	6	200 W HPS
Ⓜ	19-1-113	7.6	3.6	MAS	SV-1-T	SP-1-CS	6	200 W HPS
Ⓝ	15	-	3.6	-	-	-	-	200 W HPS
Ⓞ	CCTV 45 (N)*	-	-	-	-	-	-	-

* SHOWN FOR REFERENCE ONLY, SEE SHEET E-22.

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 17)
(ROUTE 72/WASHINGTON BOULEVARD)

E-24

DATE	REVISED BY
8/06	DATE REVISED

CALCULATED/DESIGNED BY: MH
CHECKED BY: GW

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:51

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	36	70

George Wang 8/4/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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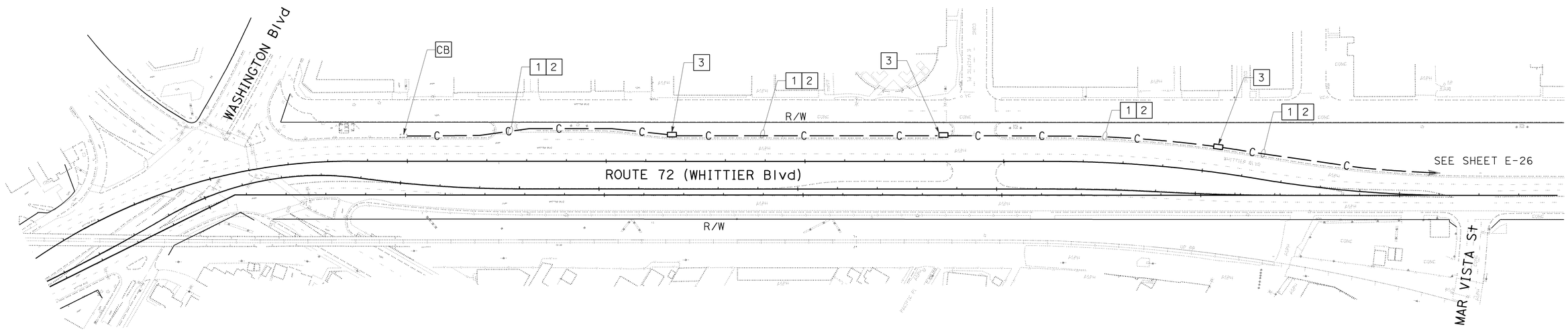
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07



NOTES: (THIS SHEET ONLY)

1. INSTALL 53C.
2. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL C, SHEET E-40.

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 18)

SCALE 1:1000

E-25

CALCULATED/ DESIGNED BY	MH	DATE 8/06	REVISED BY
CHECKED BY	GW	8/06	DATE REVISED

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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USERNAME => s123048
DGN FILE => 725770ua025.dgn

CU 07382 | EA 257701

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	72	0.5/10.9	37	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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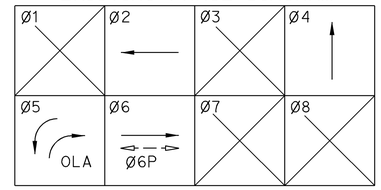
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

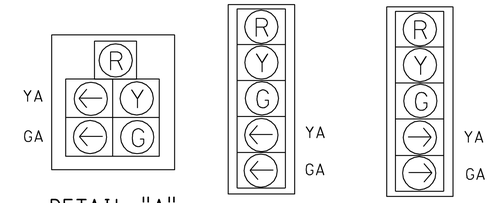
Caltrans Metric

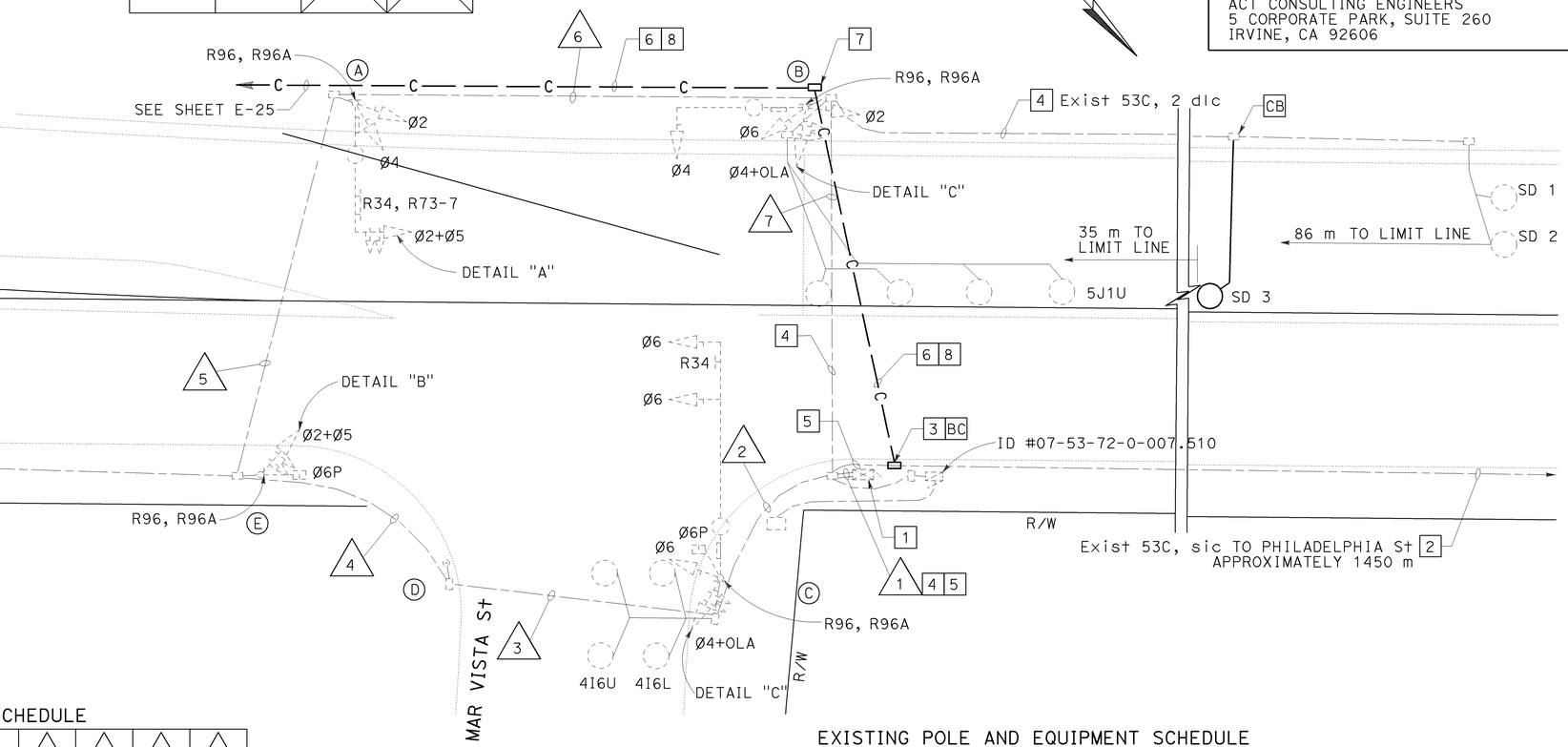
PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL B, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. RC sic. ADD 12SMFO.
6. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
7. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL C, SHEET E-40.
8. INSTALL 53C.

EXISTING PHASE DIAGRAM







EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7
DLC	Ø2 DETECTOR	2						2
	Ø4 DETECTOR	2	2					
	Ø5 DETECTOR	1						1
	Ø6 DETECTOR	2	2	2	2			
	TOTAL DLC	7	4	2	2			3
#10	LUMINAIRES		2				2	2
#6	SIGNAL SERVICE	2						
28-CONDUCTOR CABLE		4	2	2	2	2	2	2
CONDUIT SIZE		2-78	78	78	78	78	78	78

EXISTING POLE AND EQUIPMENT SCHEDULE

STANDARD				VEH SIG MTG		PED SIGNAL	PPB		HPS LUMINAIRE	SPECIAL REQUIREMENTS
No.	TYPE	SMA	LMA	MAST ARM	POLE	MTG	Ø	ARROW		
A	19-4-129	9.1	4.6	MAS	SV-2-TA				200 W	MAR VISTA ST
B	17-3-129	6.1	3.7	MAS	SV-3-TA				200 W	WHITTER BLVD
C	26-4-129	13.7	4.6	2 MAS	SV-2-TA	SP-1-T	6	→	200 W	MAR VISTA ST
D	PPB POST						6	←		
E	1-A				TV-1-T	SP-1-T				

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 18)
(ROUTE 72/MAR VISTA STREET)

SCALE 1:200

E-26

REVISED BY	DATE REVISED
MH	8/06

CALCULATED/DESIGNED BY	CHECKED BY
GW	

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
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USERNAME => s123048
DGN FILE => 725770ua026.dgn
CU 07382
EA 257701

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	72	0.5/10.9	38	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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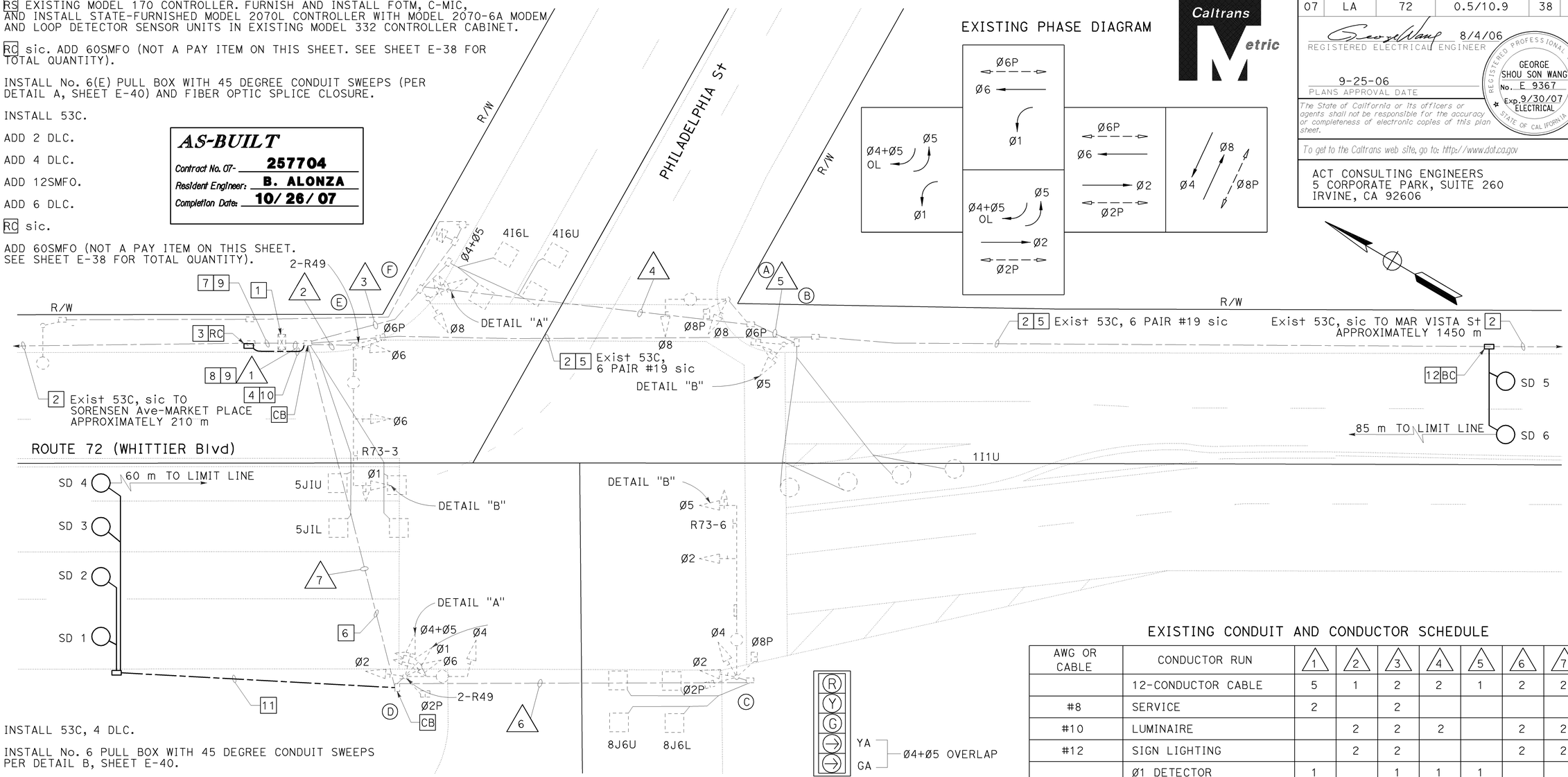
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. INSTALL 53C.
5. ADD 2 DLC.
6. ADD 4 DLC.
7. ADD 12SMFO.
8. ADD 6 DLC.
9. RC sic.
10. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).

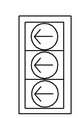
AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07



11 INSTALL 53C, 4 DLC.

12 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL B, SHEET E-40.

DETAIL "A"



DETAIL "B"

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD			VEH SIG MTG		PED SIGNAL	PPB		HPS LUMINAIRE	SPECIAL REQUIREMENTS
	TYPE	SMA	LMA	MAST ARM	POLE	MTG	Ø	ARROW		
A	17-1-113	4.6	3.7	MAS	SV-1-T	SP-1-S	6	←	250 W	
B	1-A				TV-1	SP-1-S	8	→		
C	26-4-113	13.7	3.7	2-MAS	SV-2-TA	SP-2-S	8	←	250 W	PHILADELPHIA
							6	→		
D	17-1-113	4.6	3.7	MAS	SV-3-TA	SP-1-S	6	←	250 W	
E	26-4-113	13.7	3.7	2-MAS	SV-1-T	SP-1-T			250 W	PHILADELPHIA
F	1-A				TV-2-T		6	→		

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7
	12-CONDUCTOR CABLE	5	1	2	2	1	2	2
#8	SERVICE	2		2				
#10	LUMINAIRE		2	2	2		2	2
#12	SIGN LIGHTING		2	2			2	2
DLC	Ø1 DETECTOR	1		1	1	1		
	Ø2 DETECTOR							
	Ø4 DETECTOR	2		2				
	Ø5 DETECTOR	2						
	Ø6 DETECTOR							
	Ø8 DETECTOR	2					2	2
CONDUIT SIZE		2-53	53	78	78	53	53	53

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 19)
(ROUTE 72/PHILADELPHIA STREET)

SCALE 1:200

E-27

DATE	REVISED BY	DATE	REVISED
8/06	MH	8/06	GW

CALCULATED/DESIGNED BY
CHECKED BY
DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DGN FILE => 725770ua0027.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 | DATE PLOTTED => 14-AUG-2008 | TIME PLOTTED => 17:52

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	39	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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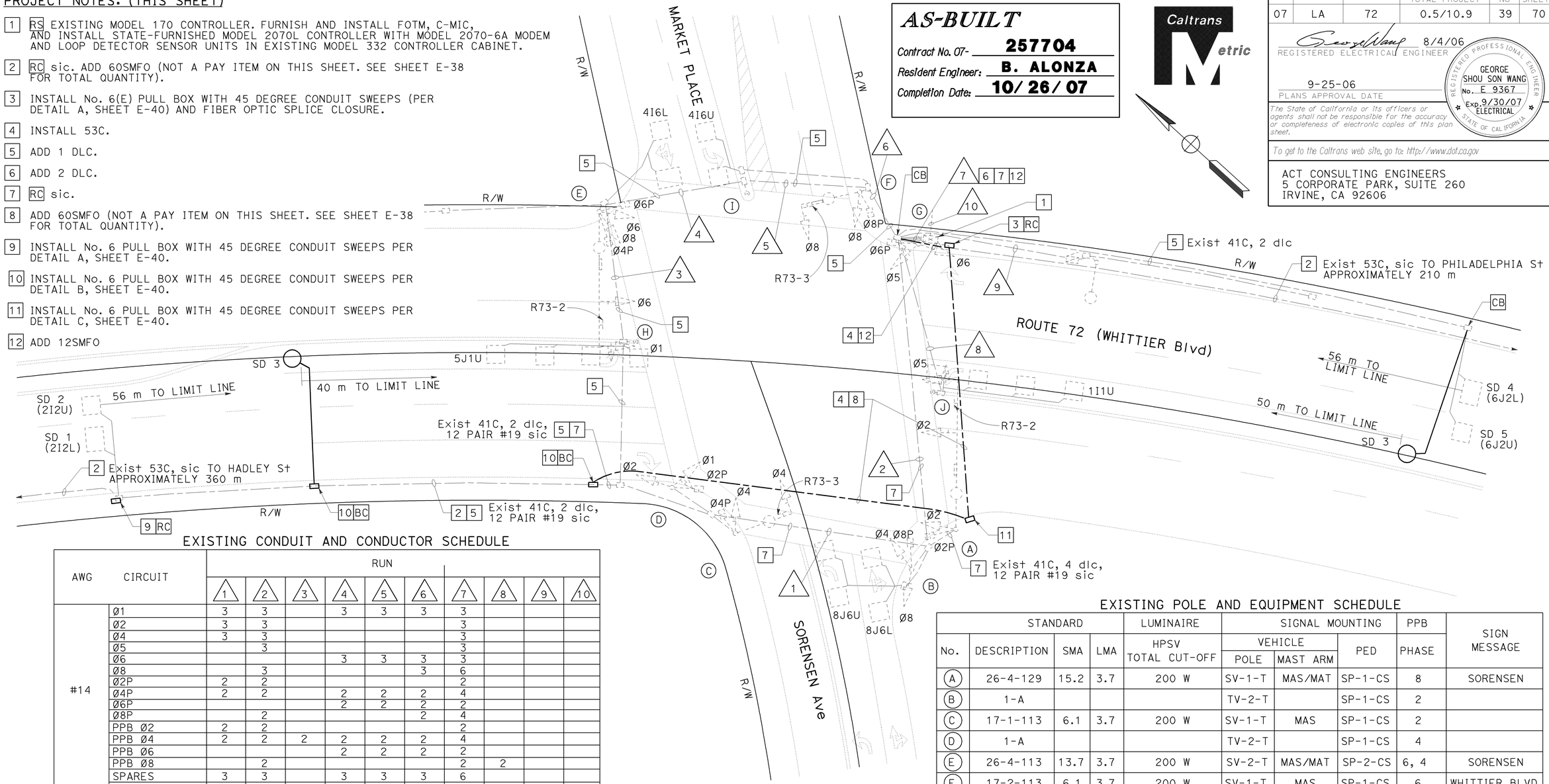
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

AS-BUILT
Contract No. 07- **257704**
Resident Engineer: **B. ALONZA**
Completion Date: **10/26/07**

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

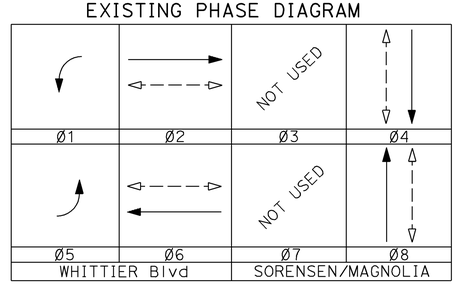
1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. INSTALL 53C.
5. ADD 1 DLC.
6. ADD 2 DLC.
7. RC sic.
8. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
9. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
10. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL B, SHEET E-40.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL C, SHEET E-40.
12. ADD 12SMFO



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	2	3	4	5	6	7	8	9	10
#14	Ø1	3	3		3	3	3	3			
	Ø2	3	3					3			
	Ø4	3	3					3			
	Ø5		3					3			
	Ø6				3	3	3	3			
	Ø8		3				3	6			
	Ø2P	2	2					2			
	Ø4P	2	2		2	2	2	4			
	Ø6P				2	2	2	2			
	Ø8P		2				2	4			
	PPB Ø2	2	2					2			
	PPB Ø4	2	2	2	2	2	2	4			
	PPB Ø6				2	2	2	2			
	PPB Ø8		2					2	2		
	SPARES	3	3		3	3	3	6			
	TOTAL	20	30	2	17	17	22	49	2		
#10	COMMON	1	1		1	1	1	2			
	LUMINAIRE	2	2		2	2	2			2	
	SIGN LIGHTING	2	2		2	2	2			2	
#6	SERVICE							2		2	
25 PAIR #19	TELEPHONE INTERCONNECT										1
DLC	Ø1 DETECTOR							1	1		
	Ø2 DETECTOR			2	2	2	2	2			
	Ø4 DETECTOR				1	1	2	2			
	Ø5 DETECTOR			1	1	1	1	1			
	Ø6 DETECTOR							2			
	Ø8 DETECTOR		2					2			
	CONDUIT SIZE	53	53	78	78	78	78	3-53	53	53	53

EXISTING PHASE DIAGRAM



EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	SMA	LMA	LUMINAIRE HPSV TOTAL CUT-OFF	SIGNAL MOUNTING VEHICLE POLE	MAST ARM	PED	PPB PHASE	SIGN MESSAGE
A	26-4-129	15.2	3.7	200 W	SV-1-T	MAS/MAT	SP-1-CS	8	SORENSEN
B	1-A				TV-2-T		SP-1-CS	2	
C	17-1-113	6.1	3.7	200 W	SV-1-T	MAS	SP-1-CS	2	
D	1-A				TV-2-T		SP-1-CS	4	
E	26-4-113	13.7	3.7	200 W	SV-2-T	MAS/MAT	SP-2-CS	6, 4	SORENSEN
F	17-2-113	6.1	3.7	200 W	SV-1-T	MAS	SP-1-CS	6	WHITTIER BLVD
G	1-A				TV-2		SP-1-CS	8	
H	PPB POST							4	
I	PPB POST							6	
J	PPB POST							8	

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 20)
(ROUTE 72/SORENSEN AVENUE-MARKET PLACE)

SCALE 1:200

E-28

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

DATE 8/06	REVISED BY MH	CALCULATED/DESIGNED BY
8/06	GW	CHECKED BY

DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans

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DGN FILE => 725770ua028.dgn

CU 07382 EA 257701

LAST REVISION 00-00-00 DATE PLOTTED => 14-AUG-2008 TIME PLOTTED => 17:52

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	40	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL C, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. INSTALL 53C.
5. NOT USED.
6. ADD 3 DLC.
7. ADD 6 DLC.
8. ADD 5 DLC.
9. ADD 11 DLC.
10. ADD 12SMFO.
11. RC sic.
12. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
13. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL C, SHEET E-40.
14. INSTALL 53C, 3 DLC.
15. NOT USED.
16. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
17. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL B, SHEET E-40.

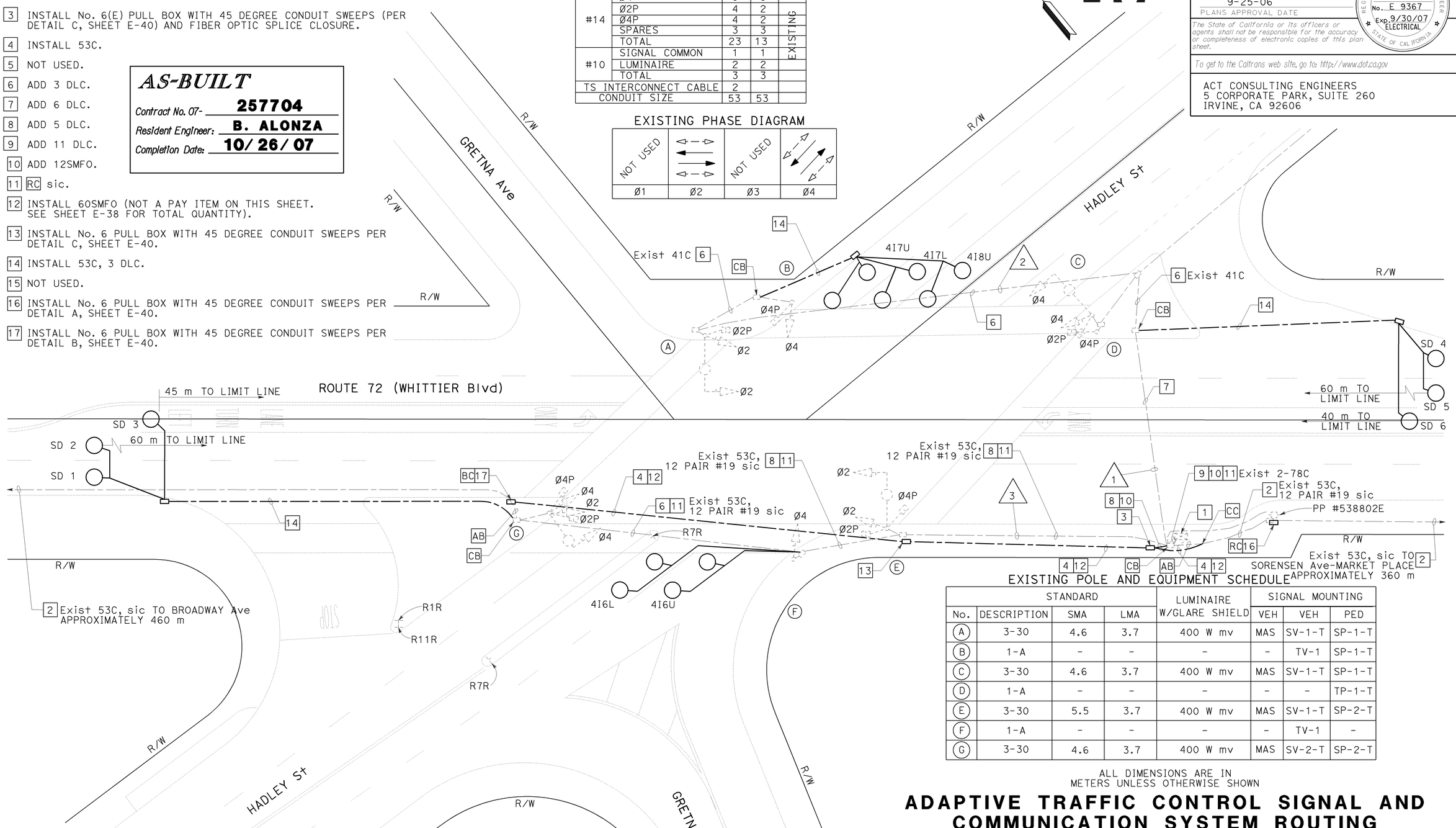
AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3
#14	Ø2	6	3	EXISTING
	Ø4	6	3	
	Ø2P	4	2	
	Ø4P	4	2	
	SPARES	3	3	
	TOTAL	23	13	
#10	SIGNAL COMMON	1	1	
	LUMINAIRE	2	2	
	TOTAL	3	3	
TS INTERCONNECT CABLE		2		
CONDUIT SIZE		53	53	

EXISTING PHASE DIAGRAM

NOT USED		NOT USED	
Ø1	Ø2	Ø3	Ø4



EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD DESCRIPTION	STANDARD SMA	STANDARD LMA	LUMINAIRE W/GLARE SHIELD	SIGNAL MOUNTING VEH	SIGNAL MOUNTING VEH	SIGNAL MOUNTING PED
A	3-30	4.6	3.7	400 W mv	MAS	SV-1-T	SP-1-T
B	1-A	-	-	-	-	TV-1	SP-1-T
C	3-30	4.6	3.7	400 W mv	MAS	SV-1-T	SP-1-T
D	1-A	-	-	-	-	-	TP-1-T
E	3-30	5.5	3.7	400 W mv	MAS	SV-1-T	SP-2-T
F	1-A	-	-	-	-	TV-1	-
G	3-30	4.6	3.7	400 W mv	MAS	SV-2-T	SP-2-T

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 21)
(ROUTE 72/HADLEY STREET)

SCALE 1:200

E-29

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

DATE	REVISED BY	DATE REVISED
8/06	MH	8/06 GW

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

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DGN FILE => 725770ua029.dgn

CU 07382 EA 257701

LAST REVISION 00-00-00 DATE PLOTTED => 14-AUG-2008 TIME PLOTTED => 17:52

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	41	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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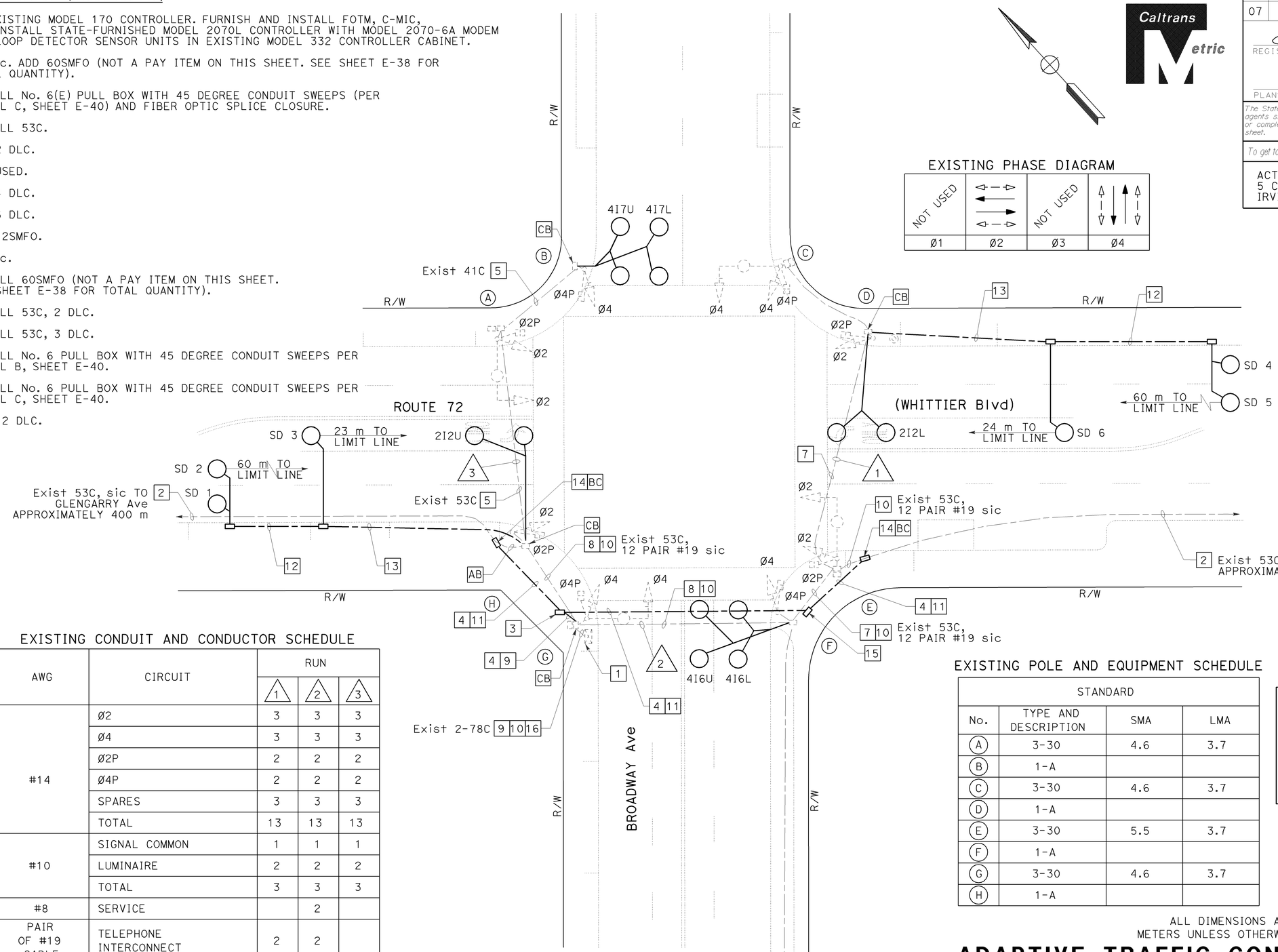
To get to the Caltrans web site, go to: http://www.dot.ca.gov

ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL C, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. INSTALL 53C.
5. ADD 2 DLC.
6. NOT USED.
7. ADD 4 DLC.
8. ADD 6 DLC.
9. ADD 12SMFO.
10. RC sic.
11. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
12. INSTALL 53C, 2 DLC.
13. INSTALL 53C, 3 DLC.
14. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL B, SHEET E-40.
15. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL C, SHEET E-40.
16. ADD 12 DLC.



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3
#14	Ø2	3	3	3
	Ø4	3	3	3
	Ø2P	2	2	2
	Ø4P	2	2	2
	SPARES	3	3	3
	TOTAL	13	13	13
#10	SIGNAL COMMON	1	1	1
	LUMINAIRE	2	2	2
	TOTAL	3	3	3
#8	SERVICE		2	
PAIR OF #19 CABLE	TELEPHONE INTERCONNECT	2	2	
	CONDUIT SIZE	53	53	53

EXISTING POLE AND EQUIPMENT SCHEDULE

STANDARD			
No.	TYPE AND DESCRIPTION	SMA	LMA
A	3-30	4.6	3.7
B	1-A		
C	3-30	4.6	3.7
D	1-A		
E	3-30	5.5	3.7
F	1-A		
G	3-30	4.6	3.7
H	1-A		

AS-BUILT
Contract No. 07- **257704**
Resident Engineer: **B. ALONZA**
Completion Date: **10/ 26/ 07**

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 22)

(ROUTE 72/BROADWAY AVENUE)

SCALE 1:200

E-30

DATE 8/06	REVISED BY	MH	CALCULATED/ DESIGNED BY
DATE REVISED	8/06	GW	CHECKED BY

DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans

LAST REVISION 00-00-00 DATE PLOTTED => 14-AUG-2008 TIME PLOTTED => 17:52

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
DGN FILE => 725770ua030.dgn

CU 07382 EA 257701

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	42	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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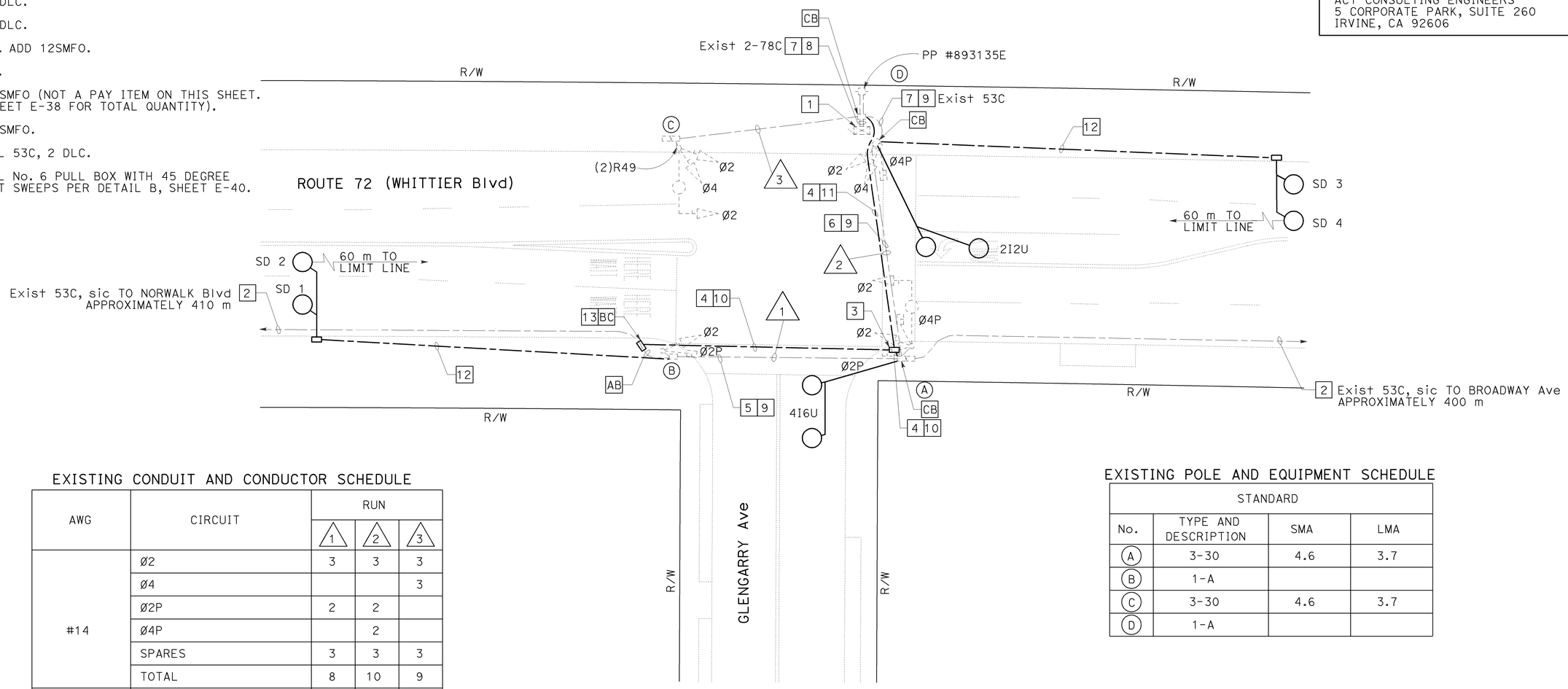
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL C, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. INSTALL 53C.
5. ADD 2 DLC.
6. ADD 3 DLC.
7. ADD 6 DLC.
8. RC sic. ADD 12SMFO.
9. RC sic.
10. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
11. ADD 12SMFO.
12. INSTALL 53C, 2 DLC.
13. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL B, SHEET E-40.



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN 1	RUN 2	RUN 3
#14	Ø2	3	3	3
	Ø4			3
	Ø2P	2	2	
	Ø4P		2	
	SPARES	3	3	3
	TOTAL	8	10	9
#10	SIGNAL COMMON	1	1	1
	LUMINAIRE		2	2
	TOTAL	1	3	3
	CONDUIT SIZE	53	53	53

EXISTING POLE AND EQUIPMENT SCHEDULE

STANDARD			
No.	TYPE AND DESCRIPTION	SMA	LMA
A	3-30	4.6	3.7
B	1-A		
C	3-30	4.6	3.7
D	1-A		

EXISTING PHASE DIAGRAM

Ø1	Ø2	Ø3	Ø4
NOT USED		NOT USED	

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 23)
(ROUTE 72/GLENGARRY AVENUE)

SCALE 1:200

E-31

DATE 8/06	REVISED BY	MH	CALCULATED/DESIGNED BY	DESIGN OVERSIGHT
8/06	DATE REVISED	GW	CHECKED BY	YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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DGN FILE => 725770ua031.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 | DATE PLOTTED => 14-AUG-2008 | TIME PLOTTED => 17:52

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	43	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

AS-BUILT

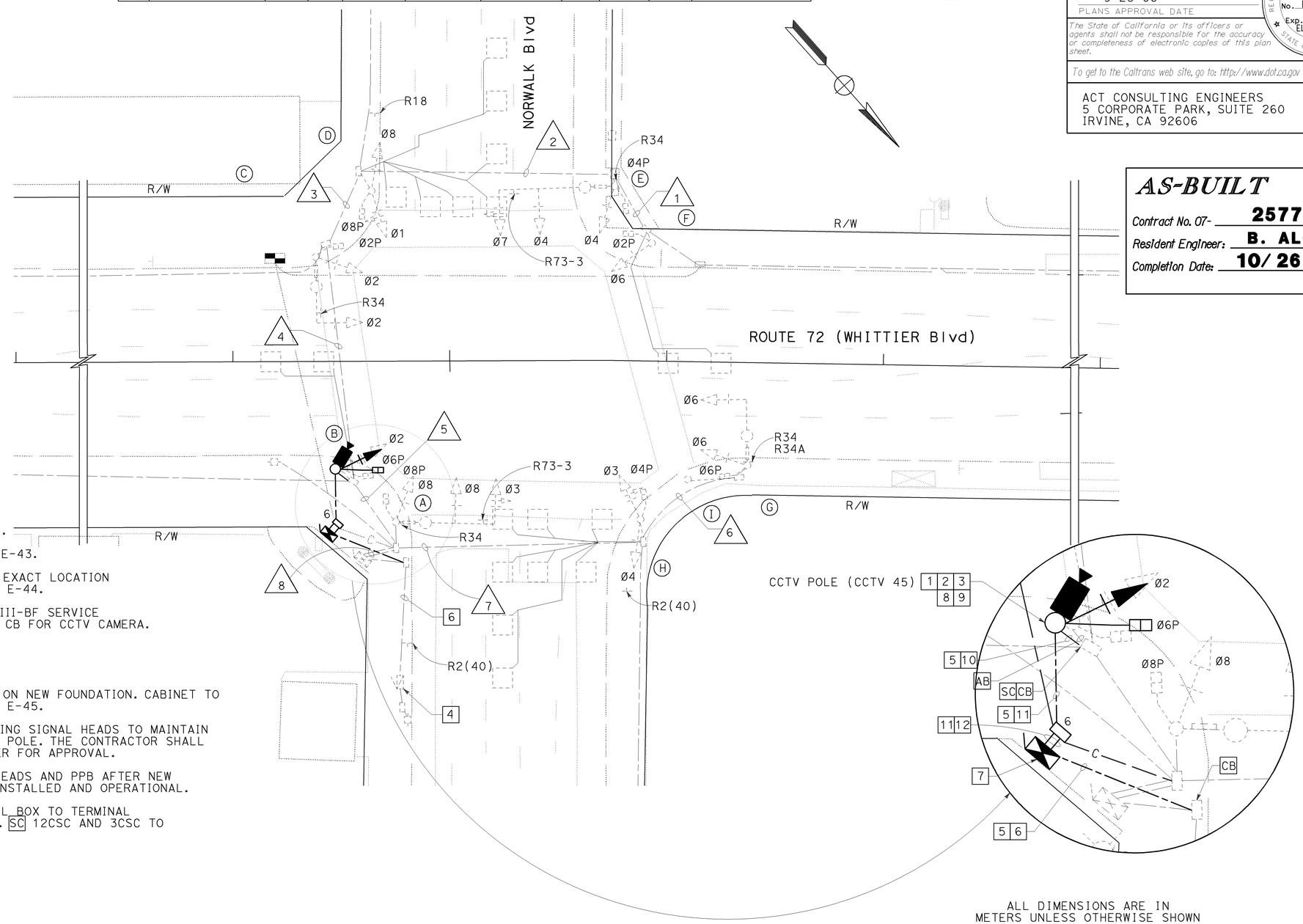
Contract No. 07- **257704**
Resident Engineer: **B. ALONZA**
Completion Date: **10/ 26/ 07**

EXISTING PHASE DIAGRAM

Ø1	Ø2	Ø3	Ø4
Ø5	Ø6	Ø7	Ø8

NEW POLE AND EQUIPMENT SCHEDULE

	STANDARD			Veh Sig Mtg		Ped Sig Mtg	PPB		HPS Lum	IISNS
No.	TYPE	SMA (m)	LMA (m)	MAST ARM	POLE		Ø	ARROW		
Ⓑ	CCTV 45	-	-	-	SV-1-T	SP-1-T	8	→	-	-



PROJECT NOTES: (THIS SHEET)

1. RC EXISTING TYPE 1-A STANDARD FOUNDATION.
2. INSTALL CCTV CAMERA ASSEMBLY, SEE SHEET E-43.
3. INSTALL STATE-FURNISHED CCTV 45 POLE AT EXACT LOCATION OF EXISTING TYPE 1-A STANDARD. SEE SHEET E-44.
4. EXISTING 100 A, 120/240 V, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, ADD 20 A, 120 V, 1P, CB FOR CCTV CAMERA.
5. INSTALL 53C.
6. ADD 3#6.
7. INSTALL MODEL 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT. SEE SHEET E-45.
8. RL EXISTING TYPE 1-A STANDARD WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF CCTV 45 POLE. THE CONTRACTOR SHALL FURNISH A RELOCATION PLAN TO THE ENGINEER FOR APPROVAL.
9. RC TEMPORARY TYPE 1-A STANDARD, SIGNAL HEADS AND PPB AFTER NEW CCTV 45 POLE WITH SIGNAL EQUIPMENT ARE INSTALLED AND OPERATIONAL.
10. INSTALL 12CSC AND 3CSC FROM EXISTING PULL BOX TO TERMINAL COMPARTMENT OF NEW SIGNAL HEADS AND PPB. SC 12CSC AND 3CSC TO EXISTING SIGNAL CONDUCTORS.
11. INSTALL COMPOSITE VIDEO CABLES.
12. INSTALL 2-78C.

NOTES:

1. FOR EXISTING SCHEDULES SEE SHEET E-33.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
3. FOR COMMUNICATION SYSTEM ROUTING SEE SHEET E-34.
4. FOR EXISTING UTILITIES SEE SHEET U-4.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA
(LOCATION 24)
(ROUTE 72/NORWALK BOULEVARD)

SCALE 1:200

E-32

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

DATE 8/06	REVISED BY	DATE REVISED
MH	GW	8/06

CALCULATED/DESIGNED BY — CHECKED BY

DESIGN OVERSIGHT — YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

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DGN FILE => 725770ua032.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00 | DATE PLOTTED => 14-AUG-2008 | TIME PLOTTED => 17:52

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	44	70

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

AS-BUILT

Contract No. 07- **257704**
Resident Engineer: **B. ALONZA**
Completion Date: **10/26/07**

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	1	2	3	4	5	6	7	8
#14	Ø2	-	-	-	3	3	-	-	3
	Ø3	-	-	-	-	-	-	3	3
	Ø4	-	3	3	3	3	-	3	6
	Ø6	3	3	3	3	3	3	3	6
	Ø7	-	3	3	3	3	-	-	3
	Ø8	-	-	3	3	3	-	-	6
	Ø2P	2	2	2	2	2	-	-	2
	Ø4P	-	2	2	2	2	-	2	4
	Ø6P	-	-	-	-	2	2	2	4
	Ø8P	-	-	2	2	2	-	-	2
	Ø2 PPB	-	1	1	1	1	-	-	1
	Ø4 PPB	1	1	1	1	1	1	1	2
	Ø6 PPB	-	-	-	-	-	-	1	2
	Ø8 PPB	-	-	-	1	1	-	-	1
	PPB COMMON	1	1	1	1	1	1	1	2
	SPARES	3	3	3	3	3	3	3	6
	TOTAL	10	19	24	28	30	10	19	53
#12	IISNS	-	2	2	2	2	2	2	-
#10	SIGNAL COMMON	1	1	1	1	1	1	1	2
	LUMINAIRE	-	2	2	2	2	2	2	-
	TOTAL	1	3	3	3	3	3	3	2
DLC	Ø2	3	3	3	3	3	-	-	3
	Ø3	-	-	1	1	1	-	-	1
	Ø4	-	-	-	-	-	-	4	4
	Ø6	-	-	-	-	3	-	-	3
	Ø7	-	-	-	-	-	-	1	1
	Ø8	-	-	4	4	4	-	-	4
	TOTAL	3	3	8	8	11	0	5	16
CONDUIT SIZE		78	78	78	78	78	78	78	2-78 1-53 1-41

EXISTING POLE AND EQUIPMENT SCHEDULE

	STANDARD	ARMS		SIGNAL MOUNTING			PPB			LUMINAIRE
No.	TYPE	SIG	LUM	VEHICLE		PED	TYPE	Ø	ARROW	HPSV
Ⓐ	19-4-113	9.1	3.6	MAS,MAS	SV-1-T	SP-1-T	B	6	←	200 W
Ⓑ	1-A	-	-	-	TV-1-T	SP-1-T	B	8	→	-
Ⓒ	17-3-113	6.1	3.6	MAS	SV-1-T	SP-1-T	B	8	←	200 W
Ⓓ	1-A	-	-	-	TV-2-T	SP-1-T	B	2	→	-
Ⓔ	24-4-113	10.7	4.6	MAS,MAS	SV-1-T	SP-1-T	B	2	←	200 W
Ⓕ	1-A	-	-	-	TV-1-T	SP-1-T	B	4	→	-
Ⓖ	17-3-113	6.1	4.6	MAS	SV-1-T	SP-1-T	B	4	-	200 W
Ⓗ	1-A	-	-	-	TV-2-T	SP-1-T	B	6	→	-
Ⓘ	PPB POST	-	-	-	-	-	B	4	←	-

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA
(LOCATION 24)
(ROUTE 72/NORWALK BOULEVARD)

E-33

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans **TRAFFIC DESIGN**

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

CALCULATED/DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED	DATE 8/06
MH	GW		8/06	

LAST REVISION 00-00-00 DATE PLOTTED => 14-AUG-2008 TIME PLOTTED => 17:52

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	45	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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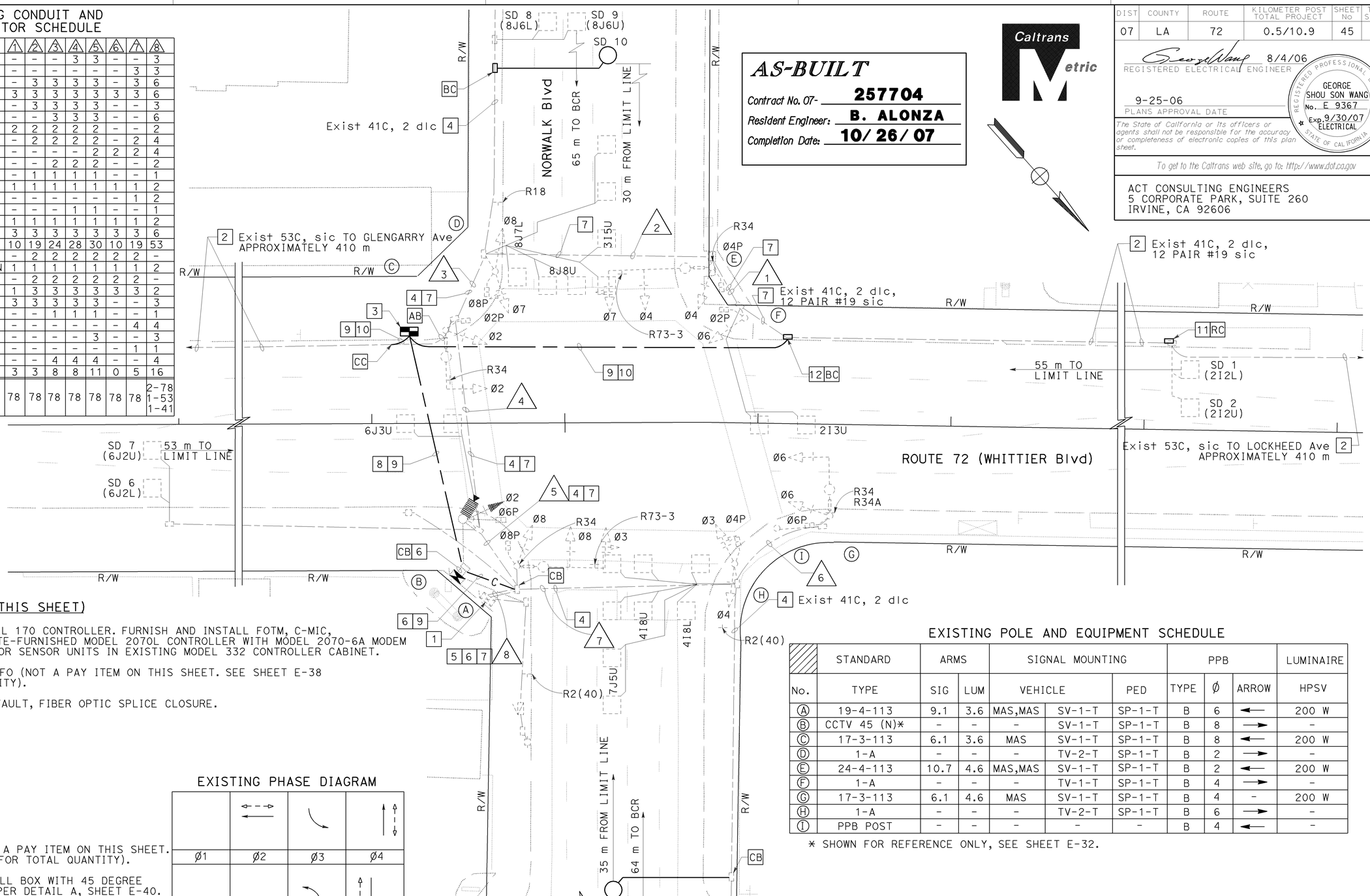
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	1	2	3	4	5	6	7	8
#14	Ø2	-	-	-	3	3	-	-	3
	Ø3	-	-	-	-	-	-	3	3
	Ø4	-	3	3	3	3	-	3	6
	Ø6	3	3	3	3	3	3	3	6
	Ø7	-	3	3	3	3	-	-	3
	Ø8	-	-	3	3	3	-	-	6
	Ø2P	2	2	2	2	2	-	-	2
	Ø4P	-	2	2	2	2	-	2	4
	Ø6P	-	-	-	-	2	2	2	4
	Ø8P	-	-	2	2	2	-	-	2
	Ø2 PPB	-	1	1	1	1	-	-	1
	Ø4 PPB	1	1	1	1	1	1	1	2
	Ø6 PPB	-	-	-	-	-	-	1	2
	Ø8 PPB	-	-	-	1	1	-	-	1
	PPB COMMON	1	1	1	1	1	1	1	2
	SPARES	3	3	3	3	3	3	3	6
	TOTAL	10	19	24	28	30	10	19	53
#12	IISNS	-	2	2	2	2	2	2	-
#10	SIGNAL COMMON	1	1	1	1	1	1	1	2
	LUMINAIRE	-	2	2	2	2	2	2	-
	TOTAL	1	3	3	3	3	3	3	2
DLC	Ø2	3	3	3	3	3	-	-	3
	Ø3	-	-	1	1	1	-	-	1
	Ø4	-	-	-	-	-	-	4	4
	Ø6	-	-	-	-	3	-	-	3
	Ø7	-	-	-	-	-	-	1	1
	Ø8	-	-	4	4	4	-	-	4
	TOTAL	3	3	8	8	11	0	5	16
CONDUIT SIZE		78	78	78	78	78	78	78	2-78 1-53 1-41



PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
4. ADD 1 DLC.
5. ADD 2 DLC.
6. ADD 12SMFO.
7. RC sic.
8. ADD 2-12SMFO.
9. INSTALL 53C.
10. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-40.
12. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL B, SHEET E-40.

EXISTING PHASE DIAGRAM

EXISTING POLE AND EQUIPMENT SCHEDULE

	STANDARD	ARMS		SIGNAL MOUNTING			PPB			LUMINAIRE
No.	TYPE	SIG	LUM	VEHICLE		PED	TYPE	Ø	ARROW	HPSV
A	19-4-113	9.1	3.6	MAS,MAS	SV-1-T	SP-1-T	B	6	←	200 W
B	CCTV 45 (N)*	-	-	-	SV-1-T	SP-1-T	B	8	→	-
C	17-3-113	6.1	3.6	MAS	SV-1-T	SP-1-T	B	8	←	200 W
D	1-A	-	-	-	TV-2-T	SP-1-T	B	2	→	-
E	24-4-113	10.7	4.6	MAS,MAS	SV-1-T	SP-1-T	B	2	←	200 W
F	1-A	-	-	-	TV-1-T	SP-1-T	B	4	→	-
G	17-3-113	6.1	4.6	MAS	SV-1-T	SP-1-T	B	4	-	200 W
H	1-A	-	-	-	TV-2-T	SP-1-T	B	6	→	-
I	PPB POST	-	-	-	-	-	B	4	←	-

* SHOWN FOR REFERENCE ONLY, SEE SHEET E-32.

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. FOR CCTV SYSTEM WORK, SEE SHEET E-32.
3. FOR EXISTING UTILITIES, SEE SHEET U-4.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 24)
(ROUTE 72/NORWALK BOULEVARD)

SCALE 1:200

E-34

DATE	REVISED BY	DATE REVISED
8/06	MH	GW

CALCULATED/DESIGNED BY
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DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => s123048
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CU 07382 | EA 257701

LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:52

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	46	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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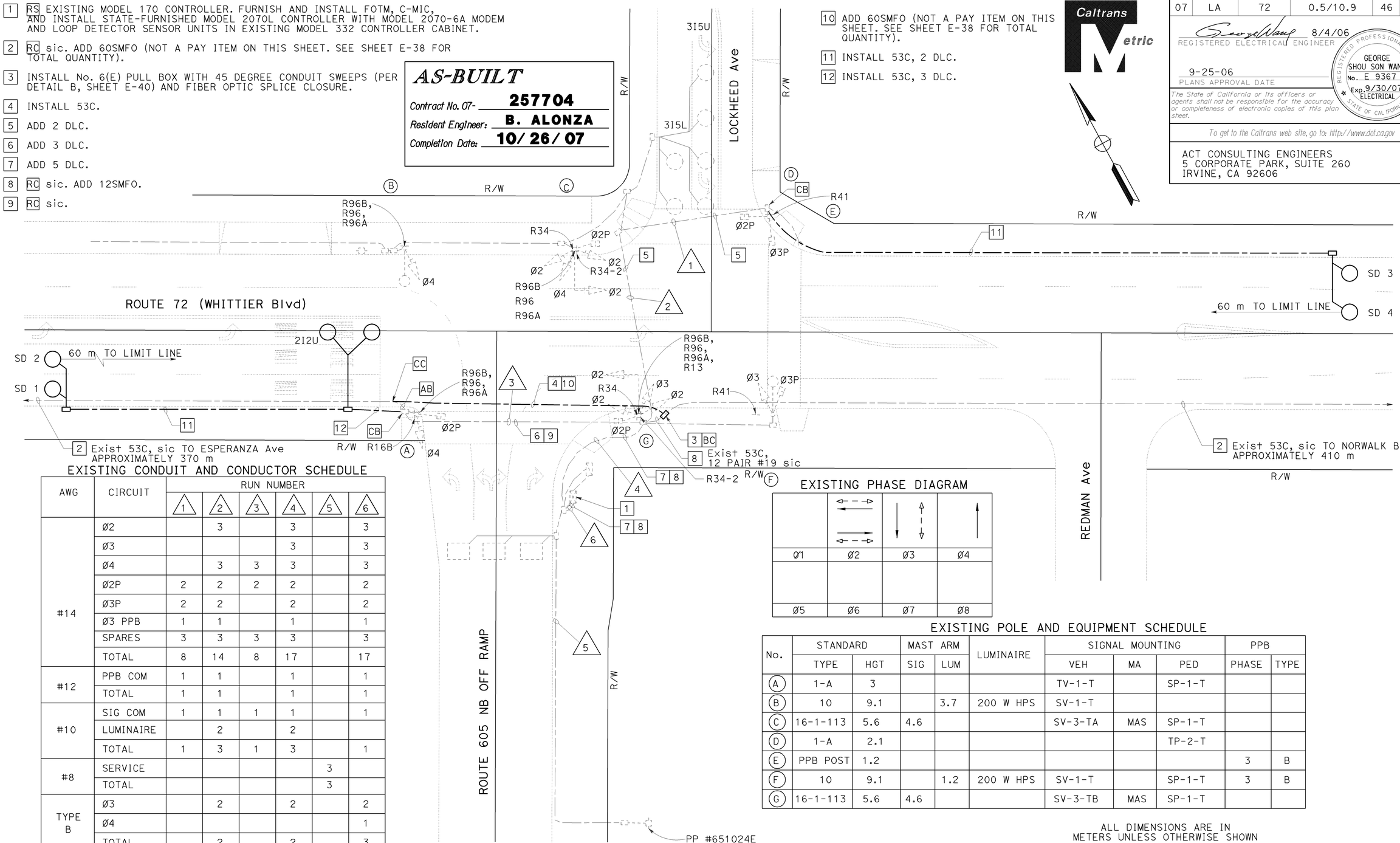
ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL B, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE.
4. INSTALL 53C.
5. ADD 2 DLC.
6. ADD 3 DLC.
7. ADD 5 DLC.
8. RC sic. ADD 12SMFO.
9. RC sic.
10. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
11. INSTALL 53C, 2 DLC.
12. INSTALL 53C, 3 DLC.

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	RUN NUMBER 1	2	3	4	5	6
#14	Ø2		3		3		3
	Ø3				3		3
	Ø4		3	3	3		3
	Ø2P	2	2	2	2		2
	Ø3P	2	2		2		2
	Ø3 PPB	1	1		1		1
	SPARES	3	3	3	3		3
	TOTAL	8	14	8	17		17
#12	PPB COM	1	1		1		1
	TOTAL	1	1		1		1
#10	SIG COM	1	1	1	1		1
	LUMINAIRE		2		2		
	TOTAL	1	3	1	3		1
#8	SERVICE					3	
	TOTAL					3	
TYPE B	Ø3		2		2		2
	Ø4						1
	TOTAL		2		2		3
2PR #18	INT CABLE					1	
	CONDUIT	53	53	53	2-53	41	2-53

EXISTING PHASE DIAGRAM

Ø1	Ø2	Ø3	Ø4
Ø5	Ø6	Ø7	Ø8

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD TYPE	STANDARD HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE	SIGNAL MOUNTING VEH	SIGNAL MOUNTING MA	SIGNAL MOUNTING PED	PPB PHASE	PPB TYPE
A	1-A	3				TV-1-T		SP-1-T		
B	10	9.1		3.7	200 W HPS	SV-1-T				
C	16-1-113	5.6	4.6			SV-3-TA	MAS	SP-1-T		
D	1-A	2.1						TP-2-T		
E	PPB POST	1.2							3	B
F	10	9.1		1.2	200 W HPS	SV-1-T		SP-1-T	3	B
G	16-1-113	5.6	4.6			SV-3-TB	MAS	SP-1-T		

NOTE:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 25)
(ROUTE 72/LOCKHEED AVENUE)

SCALE 1:200

E-35

REVISED BY	DATE REVISED
MH	8/06

CALCULATED/DESIGNED BY: GW
CHECKED BY:

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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USERNAME => s123048
DGN FILE => 725770ua035.dgn

CU 07382 | EA 257701

LAST REVISION 00-00-00
DATE PLOTTED => 14-AUG-2008
TIME PLOTTED => 17:52

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	47	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

PROJECT NOTES: (THIS SHEET)

1. RC EXISTING TYPE 1-A STANDARD FOUNDATION.
2. INSTALL CCTV CAMERA ASSEMBLY, SEE SHEET E-43.
3. INSTALL STATE-FURNISHED CCTV 45 POLE AT EXACT LOCATION OF EXISTING TYPE 1-A STANDARD. SEE SHEET E-44
4. EXISTING 100 A, 120/240 V, METERED, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, ADD 20 A, 120 V, 1P, CB FOR CCTV CAMERA.
5. INSTALL 53C.
6. ADD 3#6.
7. INSTALL MODEL 334-TV CONTROLLER CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV AND VIDEO NODE EQUIPMENT. SEE SHEET E-47.
8. RL EXISTING TYPE 1-A STANDARD WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF CCTV 45 POLE. THE CONTRACTOR SHALL FURNISH A RELOCATION PLAN TO THE ENGINEER FOR APPROVAL.
9. RC TEMPORARY TYPE 1-A STANDARD, SIGNAL HEADS AND PPB AFTER NEW CCTV 45 POLE WITH SIGNAL EQUIPMENT ARE INSTALLED AND OPERATIONAL.
10. INSTALL 12CSC AND 3CSC FROM EXISTING PULL BOX TO TERMINAL COMPARTMENT OF NEW SIGNAL HEADS AND PPB. SC 12CSC AND 3CSC TO EXISTING SIGNAL CONDUCTORS.
11. INSTALL COMPOSITE VIDEO CABLES.
12. INSTALL 2-78C.
13. RELOCATE EXISTING STREET NAME SIGN FROM EXISTING TYPE 1-A STANDARD TO NEW CCTV 45 POLE.

EXISTING POLE AND EQUIPMENT SCHEDULE

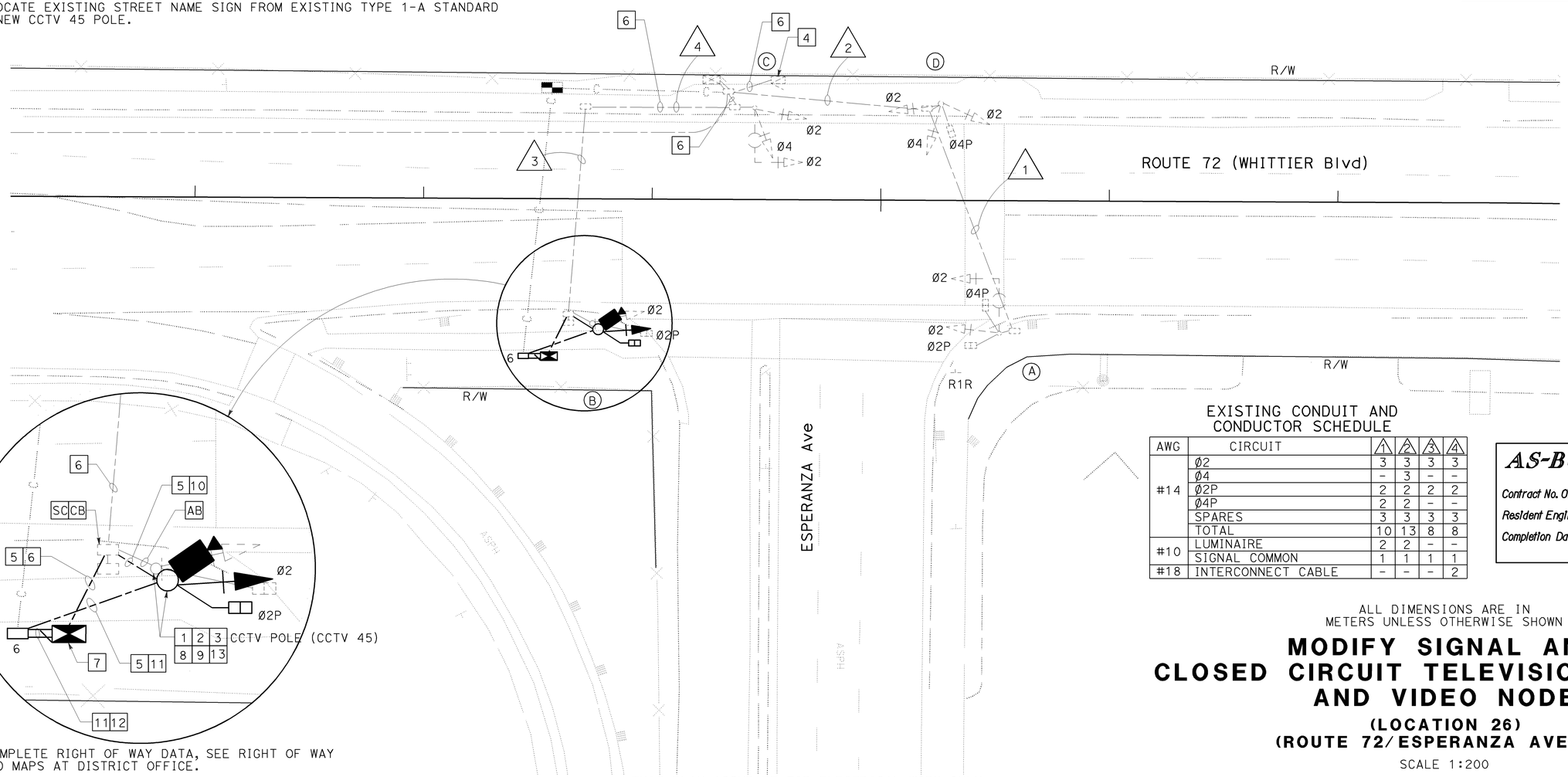
	STANDARD			Veh Sig M+g		Ped Sig M+g	HPS Lum
No.	TYPE	SMA	LMA	MAST ARM	POLE		
A	3-30	4.6	3.6	MAS	SV-1-T	SP-1-T	200 W
B	1-A	-	-	-	TV-1-T	SP-1-T	-
C	3-30	4.6	3.6	MAS	SV-2-T	-	200 W
D	1-A	-	-	-	TV-3-T	SP-1-T	-

NEW POLE AND EQUIPMENT SCHEDULE

	STANDARD			Veh Sig M+g		Ped Sig M+g	PPB	
No.	TYPE	SMA (m)	LMA (m)	MAST ARM	POLE		Ø	ARROW
B	CCTV 45	-	-	-	SV-1-T	SP-1-T	2	→

EXISTING PHASE DIAGRAM

Ø2	Ø4
← → ←- -	↑ - - ↓



EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	1	2	3	4
#14	Ø2	3	3	3	3
	Ø4	-	3	-	-
	Ø2P	2	2	2	2
	Ø4P	2	2	-	-
	SPARES	3	3	3	3
	TOTAL	10	13	8	8
#10	LUMINAIRE	2	2	-	-
	SIGNAL COMMON	1	1	1	1
#18	INTERCONNECT CABLE	-	-	-	2

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND VIDEO NODE

(LOCATION 26)
(ROUTE 72/ESPERANZA AVENUE)

SCALE 1:200

NOTES:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. FOR COMMUNICATION SYSTEM ROUTING, SEE SHEET E-37.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

E-36

DATE	REVISED BY	DATE REVISED
8/06	MH	8/06 GW

CALCULATED/DESIGNED BY
CHECKED BY
DESIGN OVERSIGHT YEFIM ZABEZHINSKY

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	72	0.5/10.9	48	70

REGISTERED ELECTRICAL ENGINEER 8/4/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER GEORGE SHOU SON WANG No. E 9367 Exp. 9/30/07 ELECTRICAL STATE OF CALIFORNIA

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ACT CONSULTING ENGINEERS
5 CORPORATE PARK, SUITE 260
IRVINE, CA 92606

Caltrans Metric

AS-BUILT
Contract No. 07- 257704
Resident Engineer: B. ALONZA
Completion Date: 10/26/07

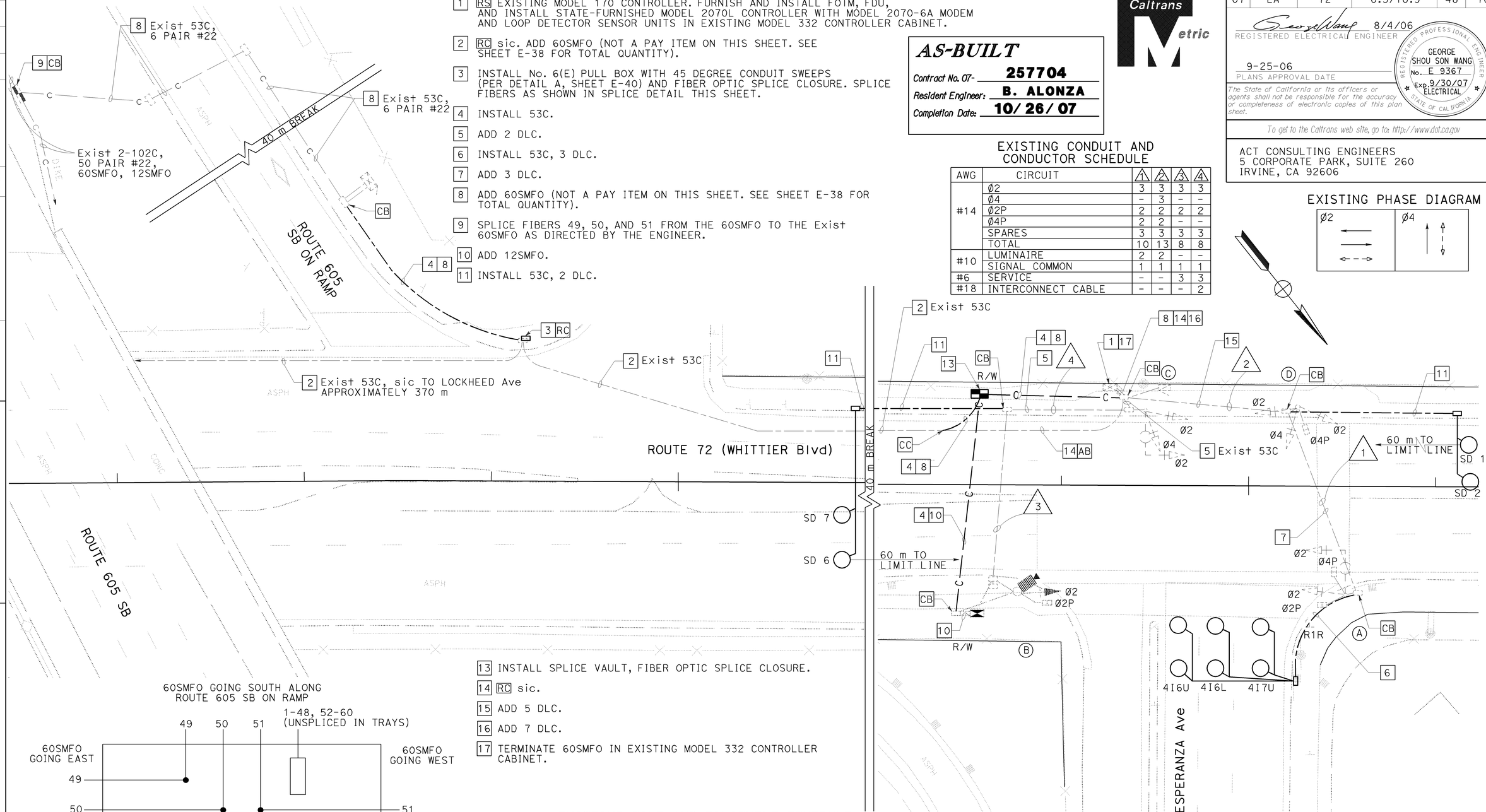
PROJECT NOTES: (THIS SHEET)

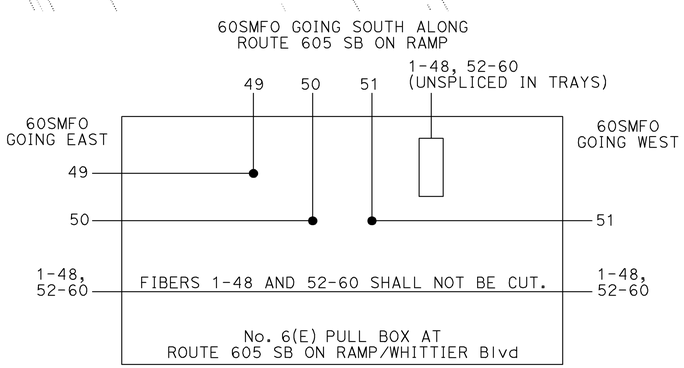
1. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, FDU, AND INSTALL STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
2. RC sic. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
3. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS (PER DETAIL A, SHEET E-40) AND FIBER OPTIC SPLICE CLOSURE. SPLICE FIBERS AS SHOWN IN SPLICE DETAIL THIS SHEET.
4. INSTALL 53C.
5. ADD 2 DLC.
6. INSTALL 53C, 3 DLC.
7. ADD 3 DLC.
8. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-38 FOR TOTAL QUANTITY).
9. SPLICE FIBERS 49, 50, AND 51 FROM THE 60SMFO TO THE Exist 60SMFO AS DIRECTED BY THE ENGINEER.
10. ADD 12SMFO.
11. INSTALL 53C, 2 DLC.
13. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
14. RC sic.
15. ADD 5 DLC.
16. ADD 7 DLC.
17. TERMINATE 60SMFO IN EXISTING MODEL 332 CONTROLLER CABINET.

EXISTING CONDUIT AND CONDUCTOR SCHEDULE

AWG	CIRCUIT	1	2	3	4
#14	Ø2	3	3	3	3
	Ø4	–	3	–	–
	Ø2P	2	2	2	2
	Ø4P	2	2	–	–
	SPARES	3	3	3	3
	TOTAL	10	13	8	8
#10	LUMINAIRE	2	2	–	–
	SIGNAL COMMON	1	1	1	1
#6	SERVICE	–	–	3	3
#18	INTERCONNECT CABLE	–	–	–	2

EXISTING PHASE DIAGRAM





SPLICE DETAIL

EXISTING POLE AND EQUIPMENT SCHEDULE

	STANDARD			Veh Sig Mtg		Ped Sig Mtg	HPS Lum
No.	TYPE	SMA (m)	LMA (m)	MAST ARM	POLE		
Ⓐ	3-30	4.6	3.6	MAS	SV-1-T	SP-1-T	200 W
Ⓑ	CCTV 45 (N)*	–	–	–	SV-1-T	SP-1-T	–
Ⓒ	3-30	4.6	3.6	MAS	SV-2-T	–	200 W
Ⓓ	1-A	–	–	–	TV-3-T	SP-1-T	–

* SHOWN FOR REFERENCE ONLY, SEE SHEET E-36.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

NOTES:
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
2. FOR CCTV SYSTEM WORK, SEE SHEET E-36.
3. FOR EXISTING UTILITIES, SEE SHEET U-5.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING
(LOCATION 26)
(ROUTE 72/ESPERANZA AVENUE)

SCALE 1:200

E-37

REVISED BY	DATE REVISED
MH	8/06

CALCULATED/DESIGNED BY	CHECKED BY
GW	

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

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