INFORMATION HANDOUT

For Contract No. 07-1W1404
At 07-LA-1-21.9/23.9

Identified by
Project ID 0700021008

As-Builts

Fiber Optic System As-Built Drawings

Adaptive Traffic control Signal And Communication System Routing

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,105	Var	208	308

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Keene Matsuda — No. E11758 — EXP. 9/30/06 ELECTRICAL — STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

DATE	REVISED BY	DATE REVISED
4/06	MR	4/06 KM

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

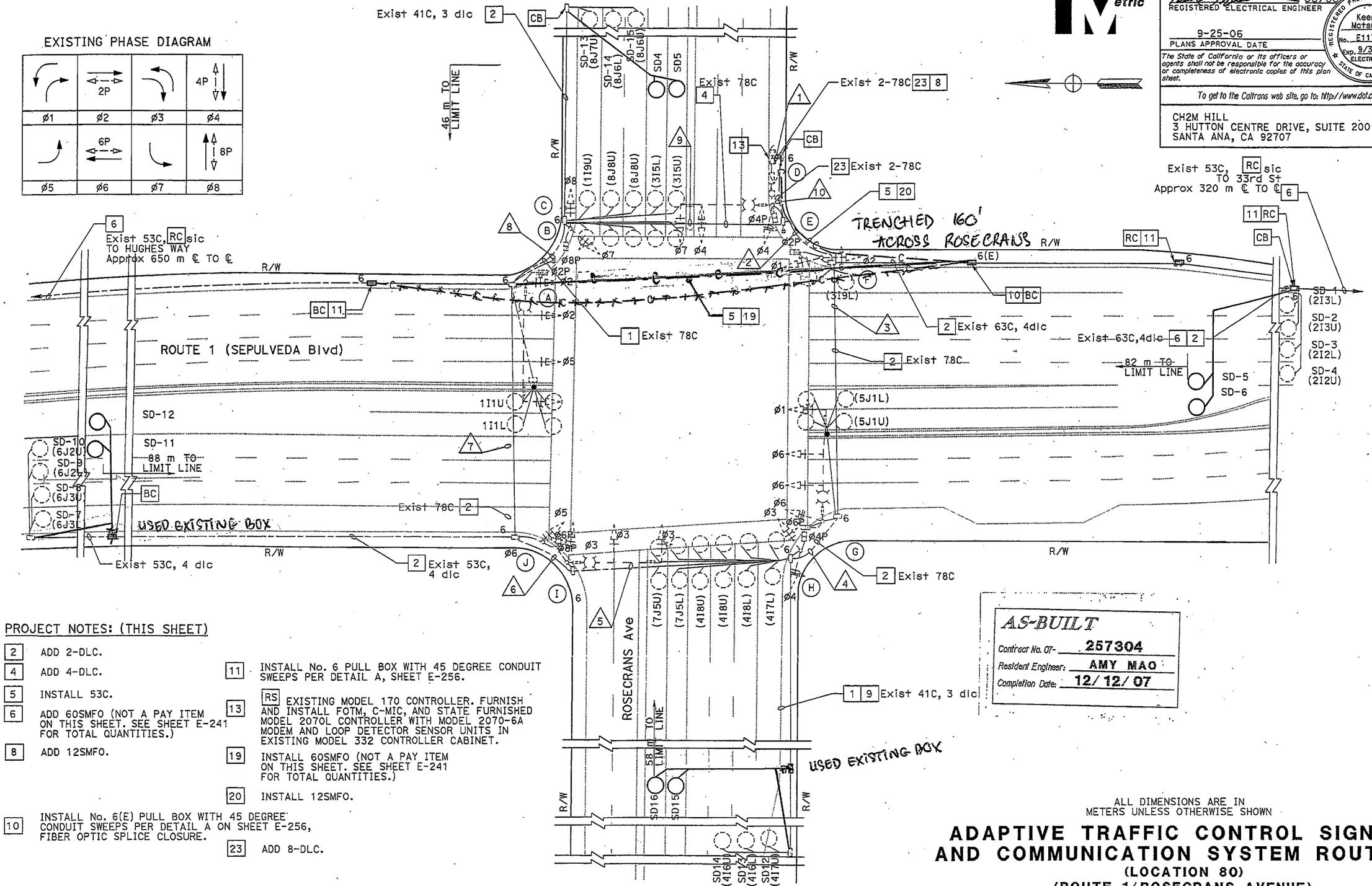
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-185.

EXISTING PHASE DIAGRAM

	2P		4P
ø1	ø2	ø3	ø4
	6P		8P
ø5	ø6	ø7	ø8



AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

PROJECT NOTES: (THIS SHEET)

2 ADD 2-DLC.

4 ADD 4-DLC.

5 INSTALL 53C.

6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO.

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

20 INSTALL 12SMFO.

23 ADD 8-DLC.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 80)
(ROUTE 1/ROSECRANS AVENUE)

SCALE 1:200

E-184

LAST REVISION 00-00-00 | DATE PLOTTED => 27-SEP-2006 | TIME PLOTTED => 15:45

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua184.dgn

CU 07382 | EA 257301

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,105	Var	25	308

08/06
REGISTERED ELECTRICAL ENGINEER

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

9-25-06
PLANS APPROVAL DATE

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GENERAL NOTES: (FOR SHEET E-2 TO SHEET E-258)

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT THE DISTRICT OFFICE.
2. ALL EXISTING sic PULL BOXES AND 90 DEGREE CONDUIT BENDS SHALL BE REPLACED WITH NEW No. 6 PULL BOXES AND 45 DEGREE BENDS PER DETAIL A, SHEET E-256.
3. ALL NEW INDUCTIVE SYSTEM LOOPS SHALL HAVE NEW STUB-OUT.

ABBREVIATIONS: (FOR SHEET E-2 TO SHEET E-277)

#	- NUMBER
12SMFO	- 12 SINGLE MODE FIBER OPTIC CABLE
60SMFO	- 60 SINGLE MODE FIBER OPTIC CABLE
ATCS	- ADAPTIVE TRAFFIC CONTROL SIGNAL
CAT6	- CATEGORY 6
CCM	- CAMERA CONTROL MODEM
CCR	- CAMERA CONTROL RECEIVER
CIA	- CONTROLLER INTERFACE ASSEMBLY
CHAN	- CHANNEL
C-MIC	- CABINET MOUNT INTERFACE CENTER
COMM	- COMMUNICATION
DACCS	- DIGITAL ACCESS AND CROSS CONNECT SYSTEM
DEMUX	- DEMULTIPLEXER
DN	- DATA NODE
DS-1	- DIGITAL SIGNAL LEVEL 1
DSX-1	- DIGITAL SIGNAL CROSS-CONNECT LEVEL 1
FDU	- FIBER DISTRIBUTION UNIT
FOTM	- FIBER OPTIC TRAFFIC MODEM
FODM	- FIBER OPTIC DATA MODEM
INTRFCE	- INTERFACE
JKFD	- JACKFIELD
LAX	- LOS ANGELES INTERNATIONAL AIRPORT
LCU	- LOCAL CONTROL UNIT
MUX	- MULTIPLEXER
PDA	- POWER DISTRIBUTION ASSEMBLY
PR	- PAIR
RX	- RECEIVER
SCE	- SOUTHERN CALIFORNIA EDISON
SCGAS	- SOUTHERN CALIFORNIA GAS COMPANY
SDXX	- SYSTEM LOOP DETECTOR NO. XX
SM	- SINGLEMODE
SONET	- SYNCHRONOUS OPTICAL NETWORK
TDM	- TIME DIVISION MULTIPLEXER
TEL	- TELEPHONE
TELCO	- TELEPHONE COMPANY
TMC	- TRAFFIC MANAGEMENT CENTER
TPC	- TWISTED PAIR CABLE
TTMC	- TEMPORARY TRAFFIC MANAGEMENT CENTER
VN	- VIDEO NODE
VDMUX	- VIDEO DEMULTIPLEXER
VMX or VMUX	- VIDEO MULTIPLEXER
V-RX or VRD	- VIDEO RECEIVER/DATA TRANSCEIVER
V-TX or VTD	- VIDEO TRANSMITTER/DATA TRANSCEIVER
XMTR	- TRANSMITTER

LEGEND: (FOR SHEET E-2 TO SHEET E-239)

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

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA, ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LEGEND AND NOTES)

NO SCALE

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-1

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	DRAWN BY	CHECKED BY	DATE	REVISED BY	DATE REVISED
YEFIM ZABEZHINSKY	MR	KM		4/06		4/06

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

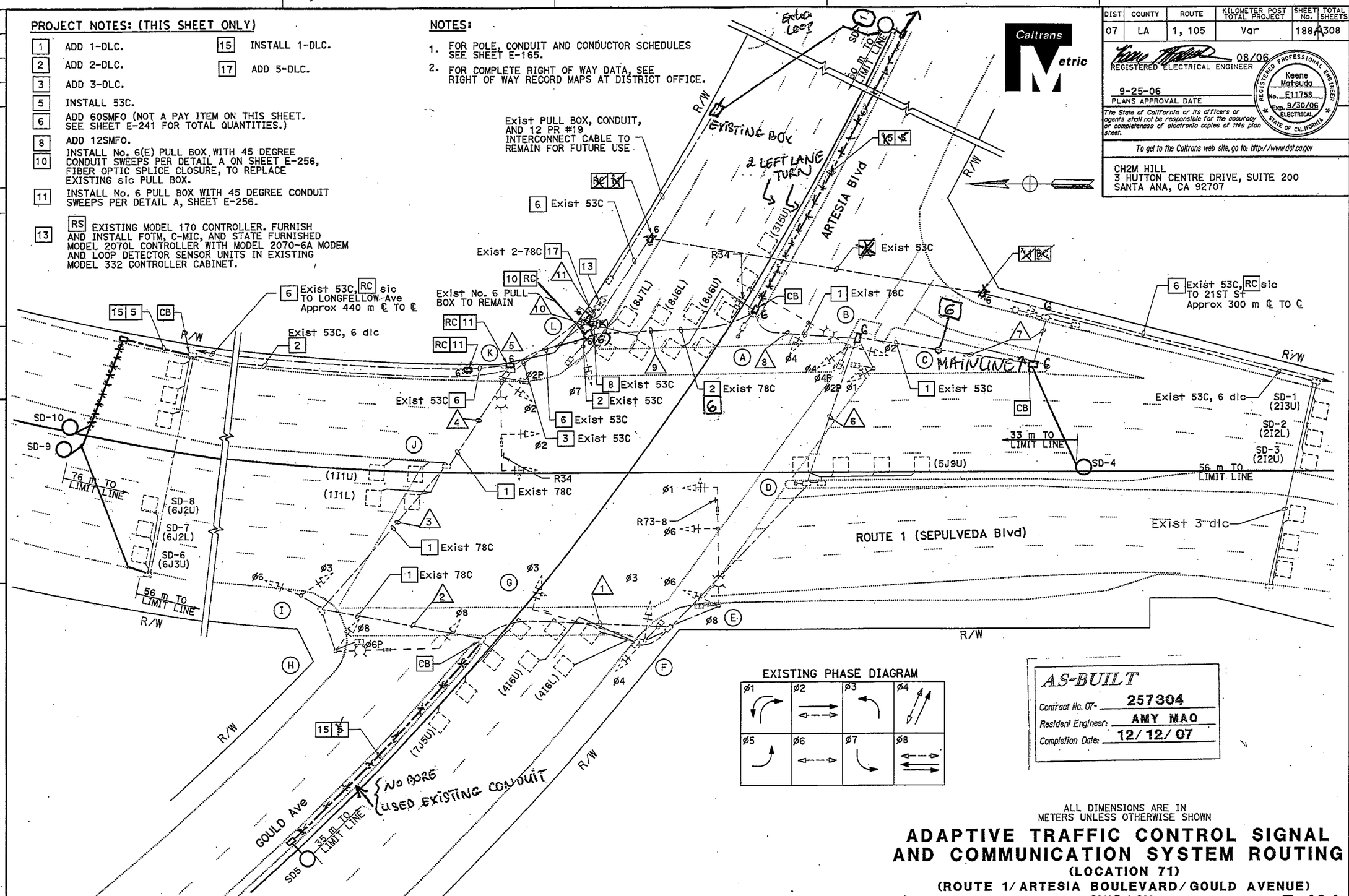
MEDIAN TOO SMALL TO SET A BOX

PROJECT NOTES: (THIS SHEET ONLY)

- 1 ADD 1-DLC.
- 2 ADD 2-DLC.
- 3 ADD 3-DLC.
- 5 INSTALL 53C.
- 6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
- 8 ADD 12SMFO.
- 10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE, TO REPLACE EXISTING sic PULL BOX.
- 11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- 15 INSTALL 1-DLC.
- 17 ADD 5-DLC.

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-165.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



EXISTING PHASE DIAGRAM

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 71)

(ROUTE 1/ARTESIA BOULEVARD/GOULD AVENUE)

SCALE 1:200

E-164

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 105	Var	188	308

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

9-25-06
PLANS APPROVAL DATE

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SANTA ANA, CA 92707

DATE	REVISED BY	DATE REVISED
4/06	MR	4/06

CALCULATED/DESIGNED BY: KM
CHECKED BY:

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION: DATE PLOTTED => 28-SEP-2006 00-00-00 TIME PLOTTED => 07:05

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trpierce
DGN FILE => 725730ua164.dgn

CU 07382 EA 257301

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-167.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

EXISTING PHASE DIAGRAM

ø1	ø2	ø3	ø4
ø5	ø6	ø7	ø8

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 105	Var	190	308

08/06
REGISTERED ELECTRICAL ENGINEER

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

9-25-06
PLANS APPROVAL DATE

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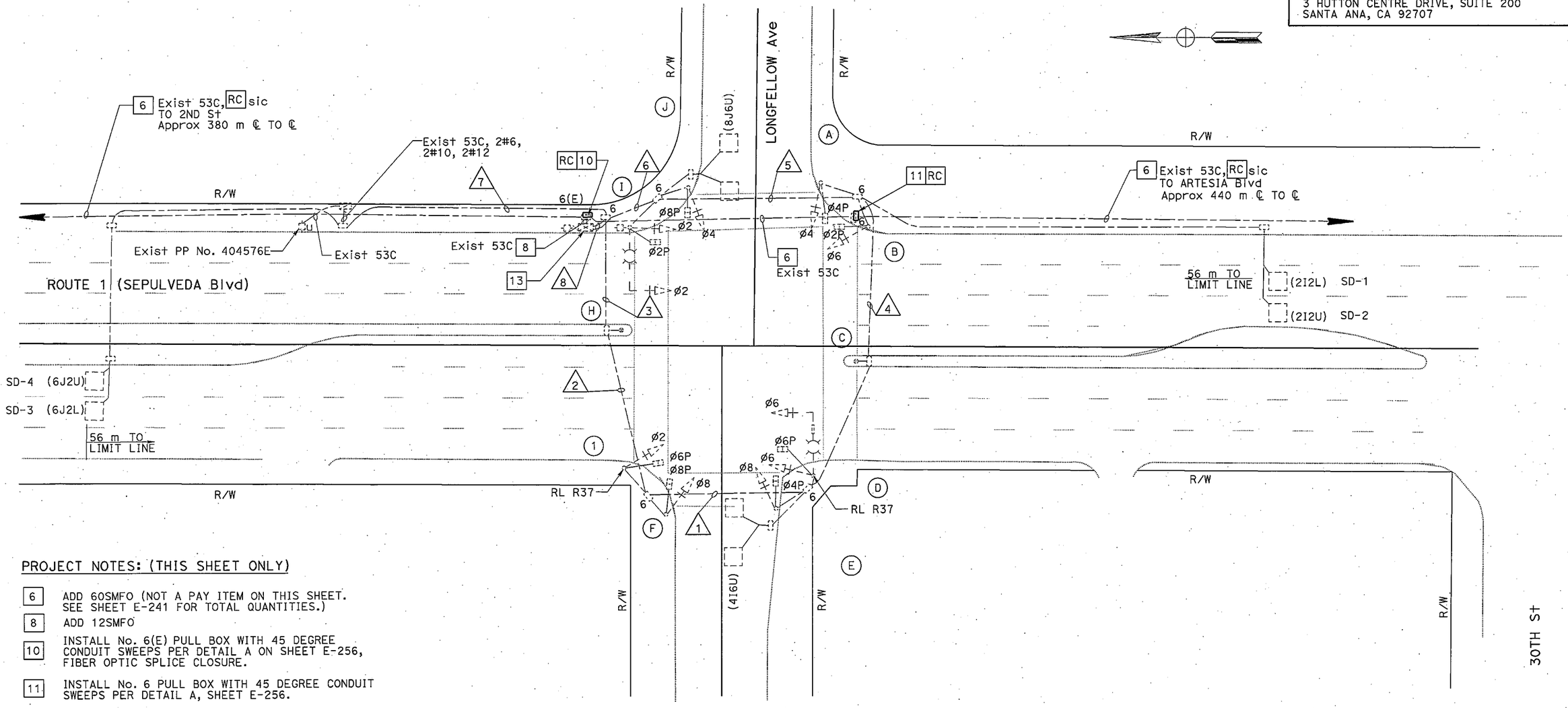

PROJECT NOTES: (THIS SHEET ONLY)

6	ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
8	ADD 12SMFO
10	INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11	INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13	RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 72)

(ROUTE 1/LONGFELLOW AVENUE)

SCALE 1:200

E-166

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

RELATIVE BORDER SCALE 0 20 40 60 80

DESIGNED BY	CALCULATED/ CHECKED BY	DATE REVISED BY	DATE REVISED
MR	KM	4/06	4/06

DESIGN OVERSIGHT YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 105	Var	192	308

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER 08/06

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL STATE OF CALIFORNIA

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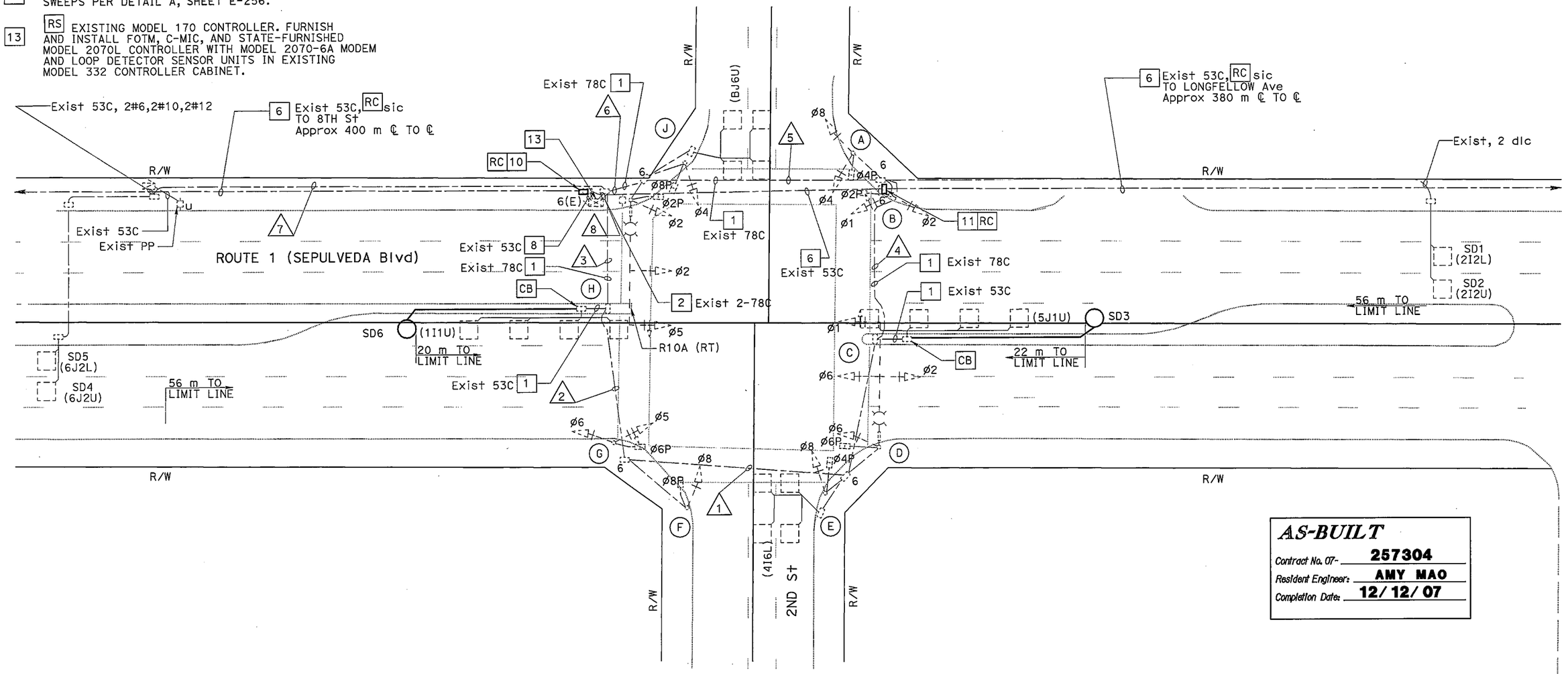
SANTA ANA, CA 92707

PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC.
2. ADD 2-DLC.
5. INSTALL 53C.
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
8. ADD 12SMFO.
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE-FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
15. INSTALL 1-DLC.
19. INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

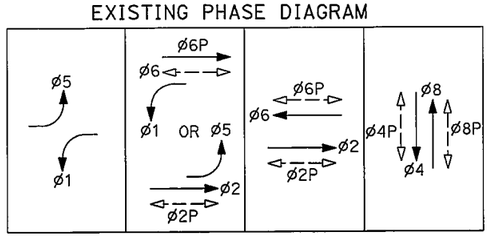
NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-169.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

EXISTING PHASE DIAGRAM



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 73)
(ROUTE 1/2ND STREET)
SCALE 1:200

E-168

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT: YEFIM ZABEZHINSKY
CALCULATED/DESIGNED BY: MR
CHECKED BY: KM
DATE 4/06
REVISED BY
DATE REVISED 4/06

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 105	Var	194	308

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

Keene Matsuda
No. E11758
Exp. 9/30/06
ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

9-25-06
PLANS APPROVAL DATE

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NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-171.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

PROJECT NOTES: (THIS SHEET ONLY)

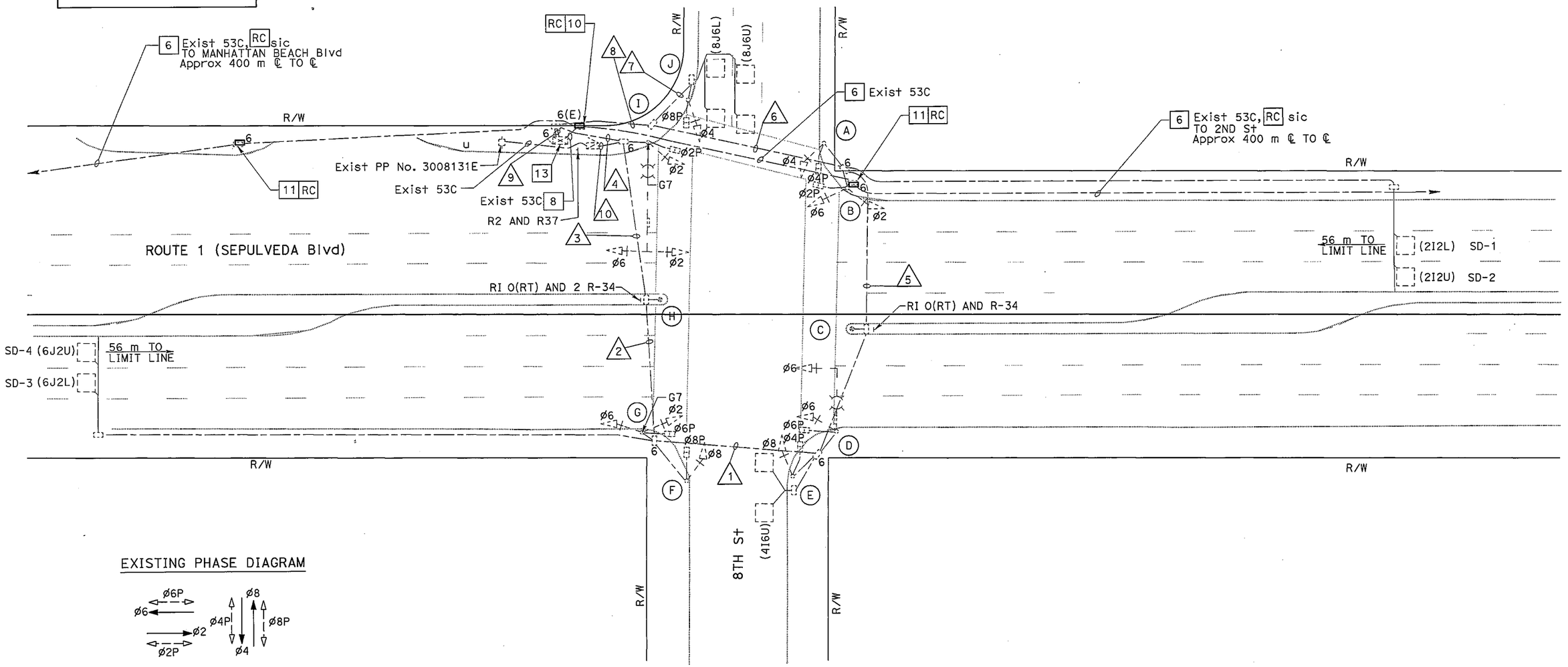
6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

8 ADD 12SMFO.

10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.

11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.

13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.



EXISTING PHASE DIAGRAM

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 74)
(ROUTE 1/8TH STREET)

SCALE 1:200

E-170

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

RELATIVE BORDER SCALE 0 20 40 60 80 USERNAME => s123048

DESIGN OVERSIGHT	CALCULATED/ DESIGNED BY	CHECKED BY	DRAWN BY	DATE REVISED	REVISED BY	DATE
YEFIM ZABEZHINSKY	MR	KM	MR	4/06	KM	4/06

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION

DATE	REVISED BY	DATE	REVISED BY
4/06	MR	4/06	KM

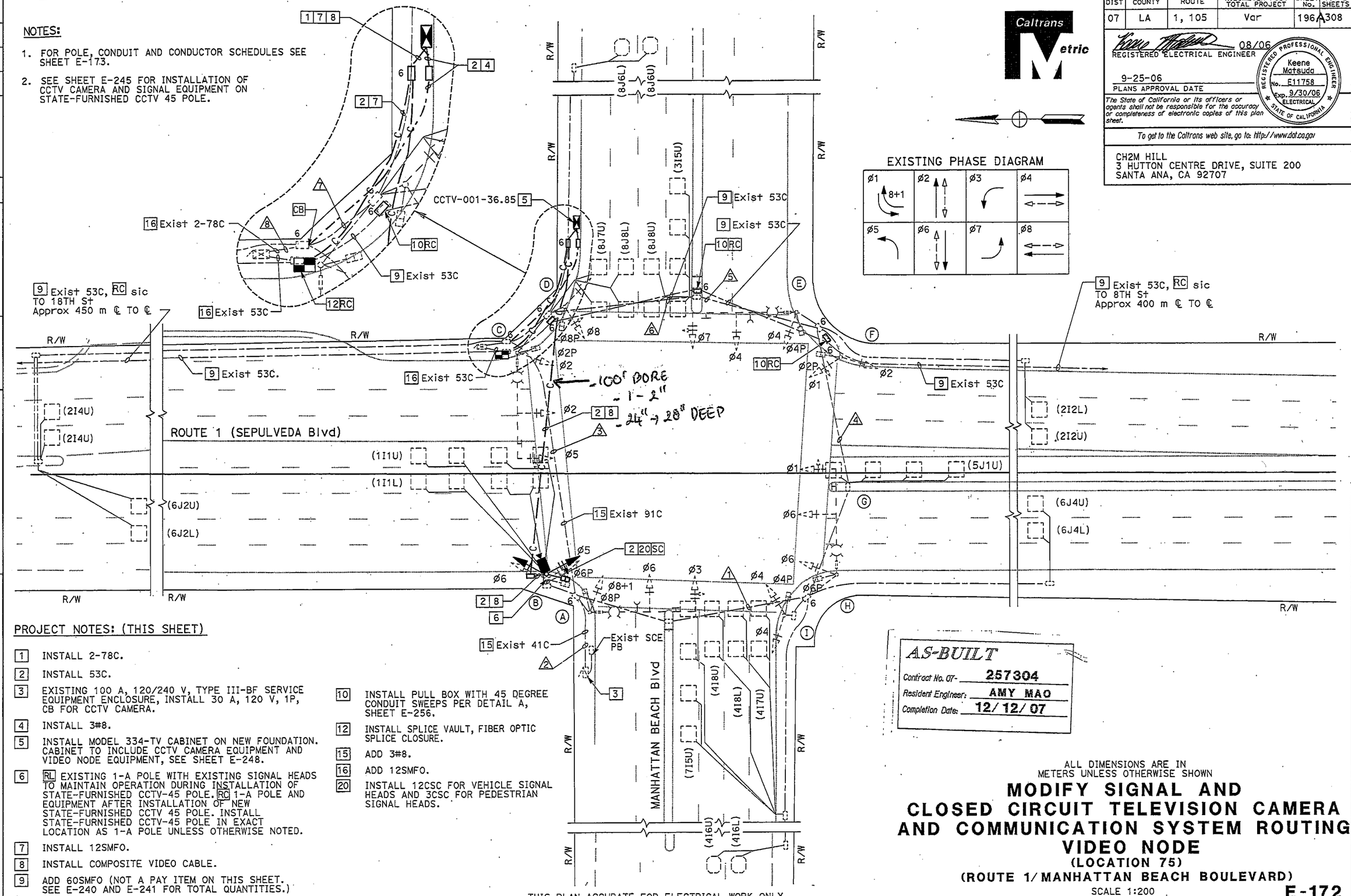
CALCULATED/DESIGNED BY | CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-173.
2. SEE SHEET E-245 FOR INSTALLATION OF CCTV CAMERA AND SIGNAL EQUIPMENT ON STATE-FURNISHED CCTV 45 POLE.



EXISTING PHASE DIAGRAM

PROJECT NOTES: (THIS SHEET)

1. INSTALL 2-78C.
2. INSTALL 53C.
3. EXISTING 100 A, 120/240 V, TYPE III-BF SERVICE EQUIPMENT ENCLOSURE, INSTALL 30 A, 120 V, 1P, CB FOR CCTV CAMERA.
4. INSTALL 3#8.
5. INSTALL MODEL 334-TV CABINET ON NEW FOUNDATION. CABINET TO INCLUDE CCTV CAMERA EQUIPMENT AND VIDEO NODE EQUIPMENT, SEE SHEET E-248.
6. RL EXISTING 1-A POLE WITH EXISTING SIGNAL HEADS TO MAINTAIN OPERATION DURING INSTALLATION OF STATE-FURNISHED CCTV-45 POLE. RC 1-A POLE AND EQUIPMENT AFTER INSTALLATION OF NEW STATE-FURNISHED CCTV 45 POLE. INSTALL STATE-FURNISHED CCTV-45 POLE IN EXACT LOCATION AS 1-A POLE UNLESS OTHERWISE NOTED.
7. INSTALL 12SMFO.
8. INSTALL COMPOSITE VIDEO CABLE.
9. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE E-240 AND E-241 FOR TOTAL QUANTITIES.)
10. INSTALL PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
12. INSTALL SPLICE VAULT, FIBER OPTIC SPLICE CLOSURE.
15. ADD 3#8.
16. ADD 12SMFO.
20. INSTALL 12CSC FOR VEHICLE SIGNAL HEADS AND 3CSC FOR PEDESTRIAN SIGNAL HEADS.

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA AND COMMUNICATION SYSTEM ROUTING VIDEO NODE

(LOCATION 75)

(ROUTE 1/ MANHATTAN BEACH BOULEVARD)

SCALE 1:200

E-172

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 105	Var	196	308

Caltrans Metric

REGISTERED ELECTRICAL ENGINEER 08/06

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

9-25-06
PLANS APPROVAL DATE

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LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:50

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trplerce
DGN FILE => 725730ua172.dgn

CU 07382 | EA 257301

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 105	Var	198	308

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Keene Matsuda — No. E11758 — Exp. 9/30/06 ELECTRICAL — STATE OF CALIFORNIA

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SANTA ANA, CA 92707

Caltrans Metric

DATE	REVISED BY	DATE REVISED
4/06	MR	4/06 KM

CALCULATED/DESIGNED BY
CHECKED BY

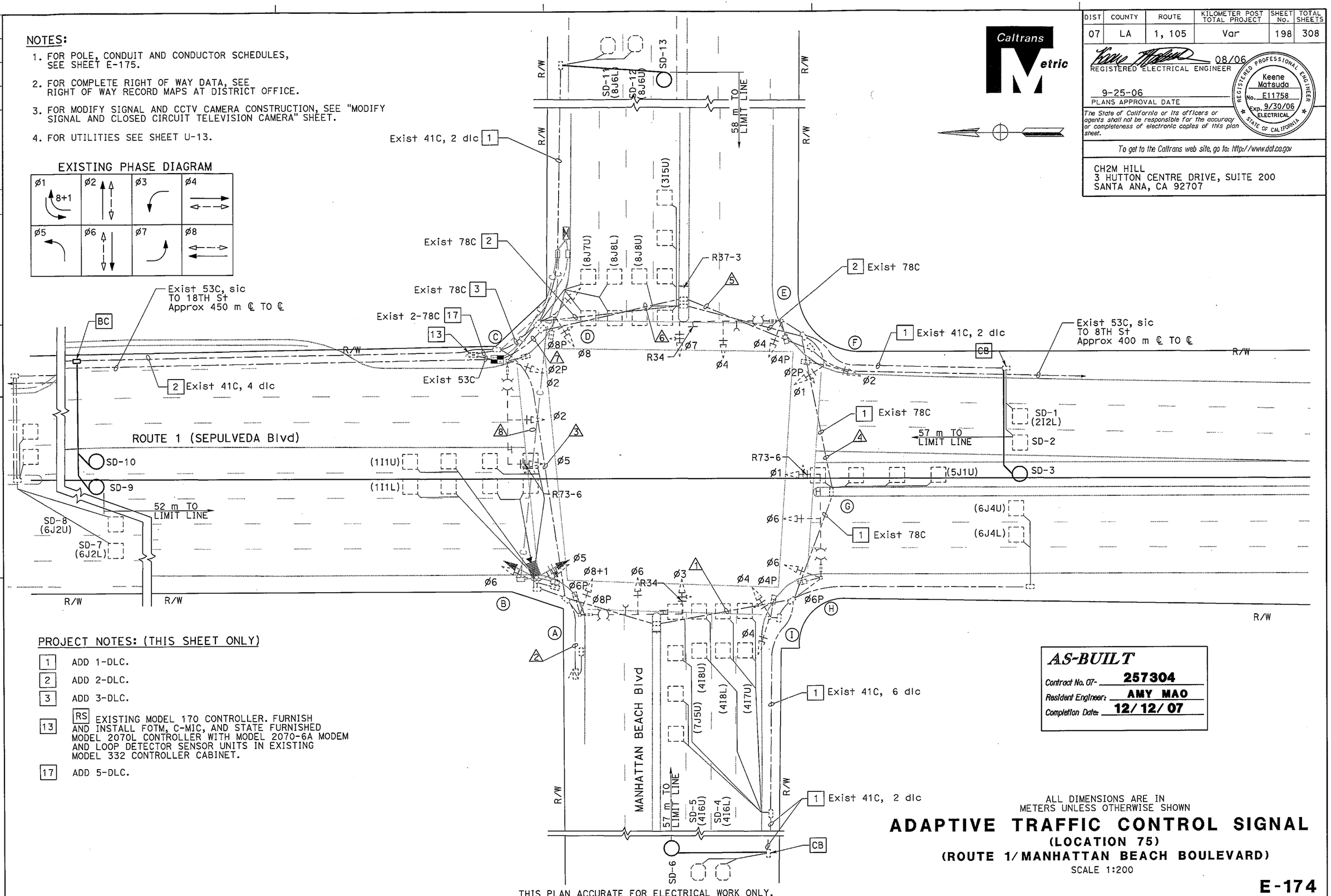
DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-175.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
3. FOR MODIFY SIGNAL AND CCTV CAMERA CONSTRUCTION, SEE "MODIFY SIGNAL AND CLOSED CIRCUIT TELEVISION CAMERA" SHEET.
4. FOR UTILITIES SEE SHEET U-13.

EXISTING PHASE DIAGRAM



PROJECT NOTES: (THIS SHEET ONLY)

1	ADD 1-DLC.
2	ADD 2-DLC.
3	ADD 3-DLC.
13	RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
17	ADD 5-DLC.

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL

(LOCATION 75)

(ROUTE 1/MANHATTAN BEACH BOULEVARD)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

RELATIVE BORDER SCALE 0 20 40 60 80

E-174

NOTES:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-177.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

Caltrans Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 105	Var	200	308

08/06
REGISTERED ELECTRICAL ENGINEER

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

9-25-06
PLANS APPROVAL DATE

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

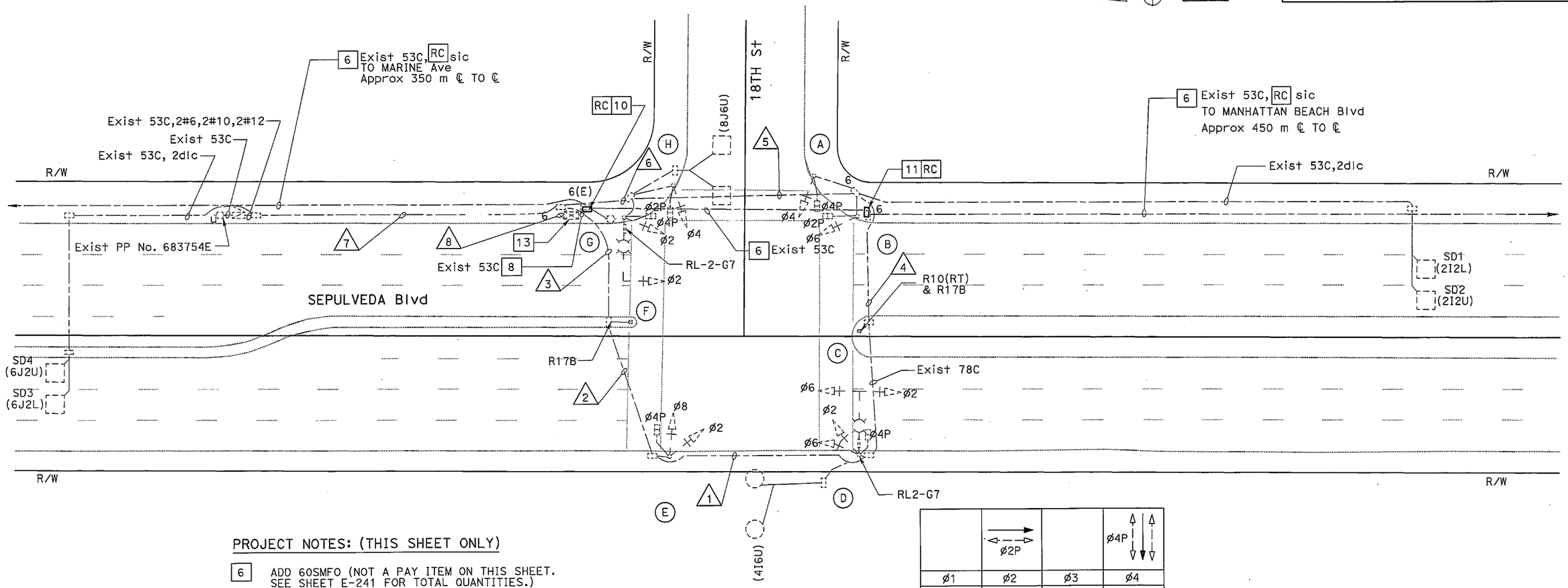
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

DATE	REVISED BY	DATE REVISED
4/06	MR	4/06 KM

CALCULATED/DESIGNED BY
CHECKED BY

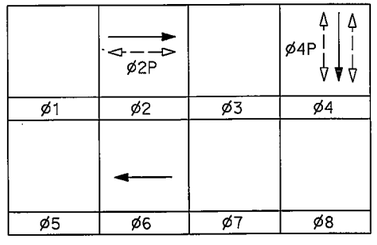
DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans



PROJECT NOTES: (THIS SHEET ONLY)

6	ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
8	ADD 12SMFO.
10	INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11	INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13	RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.



PHASE DIAGRAM

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 76)
(ROUTE 1/18TH STREET)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-176

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1, 105	Var	202 A308	

Caltrans Metric

08/06
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — Keene Matsuda — No. E11758 — Exp. 9/30/06 ELECTRICAL — STATE OF CALIFORNIA

9-25-06
PLANS APPROVAL DATE

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

DATE	REVISED BY	DATE REVISED
4/06	MR	4/06 KM

CALCULATED/DESIGNED BY
CHECKED BY

DESIGN OVERSIGHT
YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

NOTES:

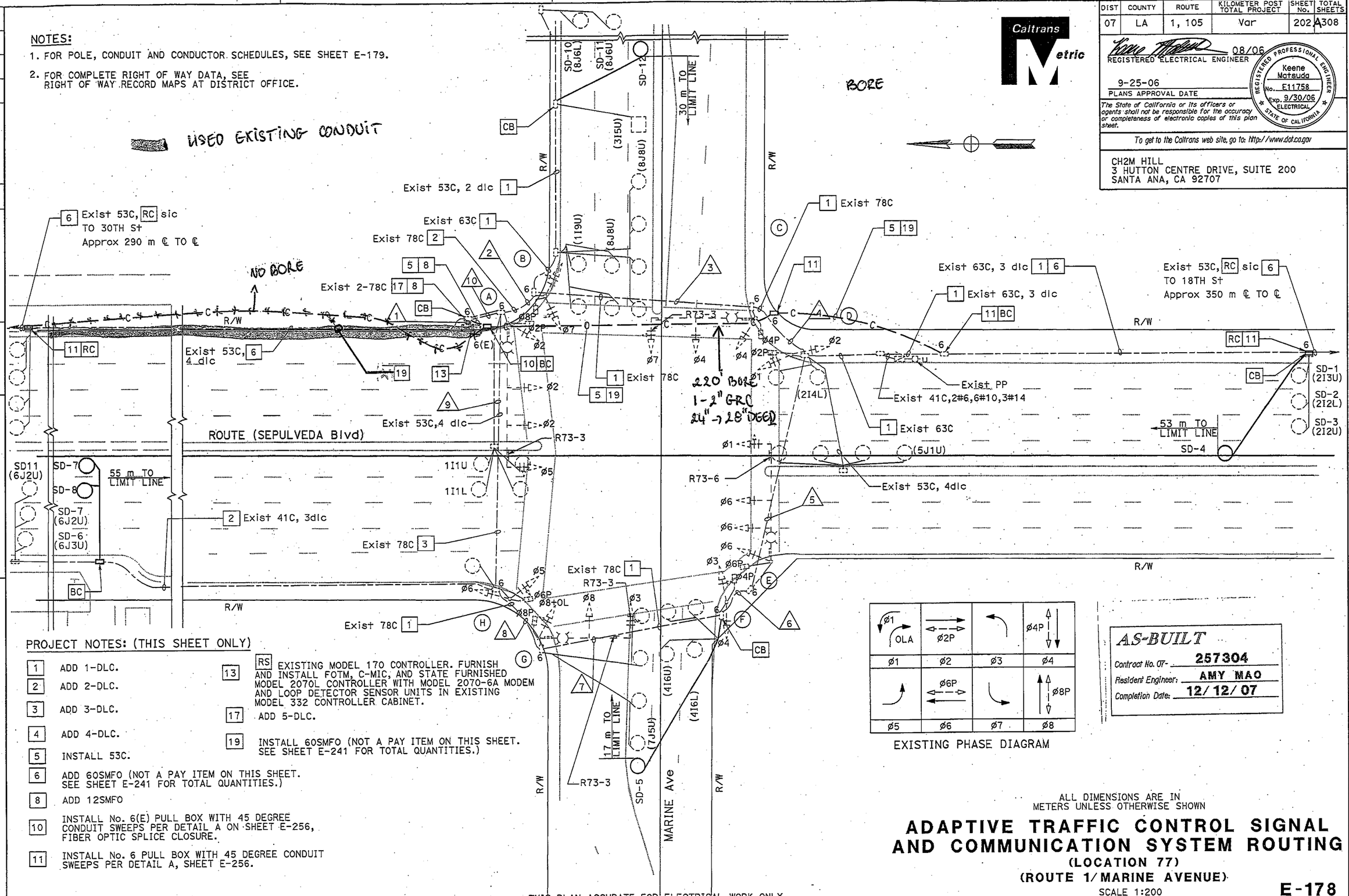
1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES, SEE SHEET E-179.
2. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

USED EXISTING CONDUIT

BORE

NO BORE

220' BORE
1-2" GRC
24" → 28" DEEP



PROJECT NOTES: (THIS SHEET ONLY)

1	ADD 1-DLC.
2	ADD 2-DLC.
3	ADD 3-DLC.
4	ADD 4-DLC.
5	INSTALL 53C.
6	ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
8	ADD 12SMFO
10	INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11	INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13	RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
17	ADD 5-DLC.
19	INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

Ø1 OLA	Ø2P		Ø4P
Ø1	Ø2	Ø3	Ø4
	Ø6P		Ø8P
Ø5	Ø6	Ø7	Ø8

EXISTING PHASE DIAGRAM

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 77)

(ROUTE 1/MARINE AVENUE)

SCALE 1:200

E-178

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

LAST REVISION 00-00-00 | DATE PLOTTED => 28-SEP-2006 | TIME PLOTTED => 06:50

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

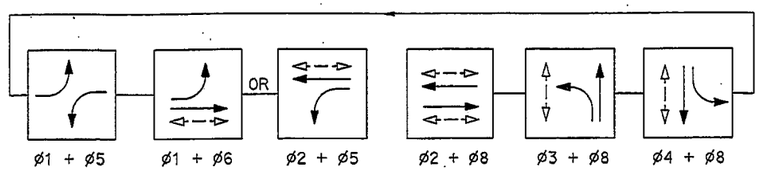
USERNAME => trpierce
DGN FILE => 725730ua178.dgn

CU 07382 | EA 257301

NOTE:

1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-181.

EXISTING PHASE DIAGRAM



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,105	Var	204	308

REGISTERED ELECTRICAL ENGINEER — 08/06

Keene Matsuda No. E11758 Exp. 9/30/06 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

9-25-06
PLANS APPROVAL DATE

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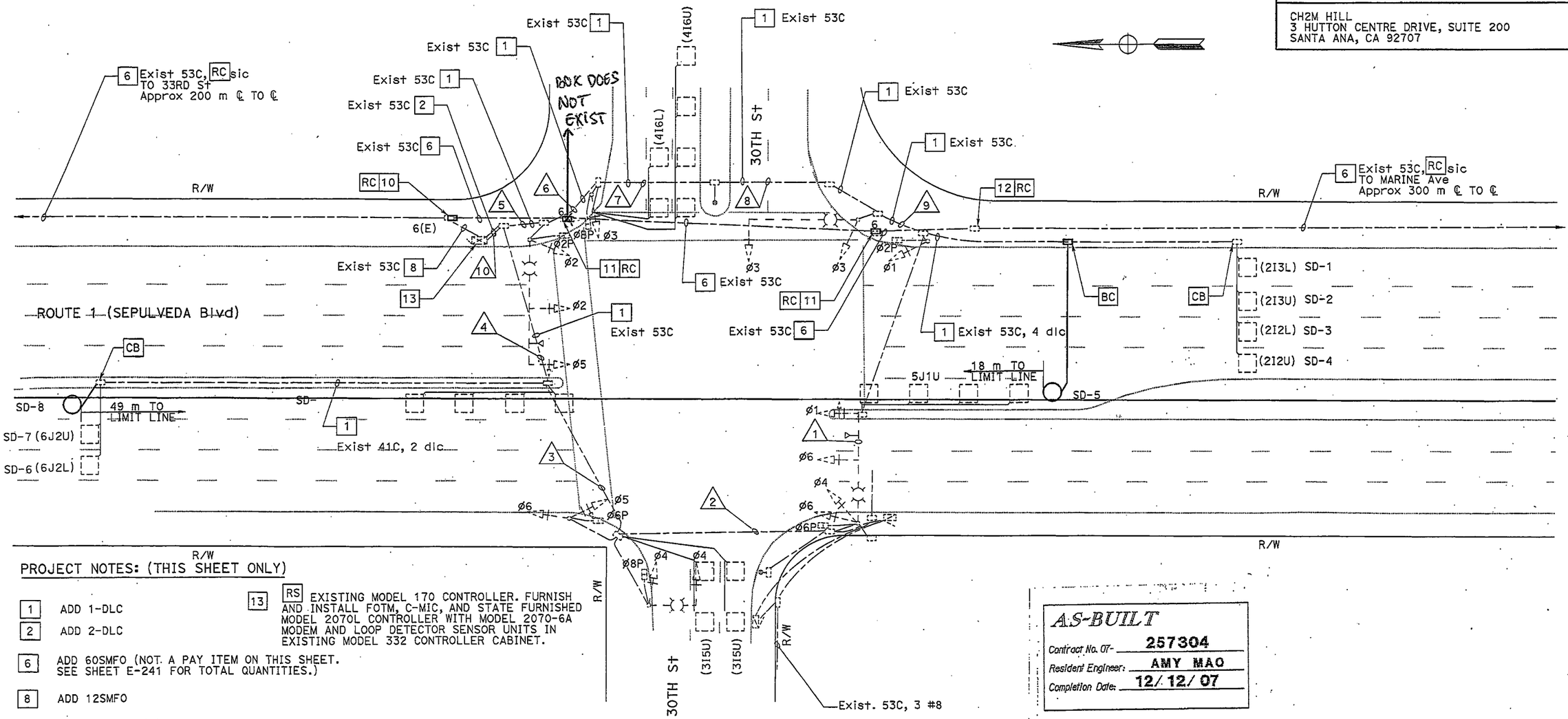
SANTA ANA, CA 92707



R/W

PROJECT NOTES: (THIS SHEET ONLY)

1. ADD 1-DLC
2. ADD 2-DLC
6. ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
8. ADD 12SMFO
10. INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
11. INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
13. RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 78)

(ROUTE 1/30TH STREET)

SCALE 1:200

E-180

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

RELATIVE BORDER SCALE IS IN MILLIMETERS 0 20 40 60 80

USERNAME => trphils
DGN FILE => 725730ua180.dgn

CU 07382 | EA 257301

DESIGN OVERSIGHT — YEFIM ZABEZHINSKY

CALCULATED/DESIGNED BY — MR
CHECKED BY — KM

DATE REVISED BY — 4/06
DATE REVISED — 4/06

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 27-SEP-2006 | TIME PLOTTED => 15:45

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	1,105	Var	206	308

08/06
REGISTERED ELECTRICAL ENGINEER

9-25-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Keene Matsuda — No. E11758 — Exp. 9/30/06 ELECTRICAL — STATE OF CALIFORNIA

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CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CA 92707

Caltrans Metric

DATE	REVISED BY	DATE REVISED
4/06	MR	4/06

CALCULATED/DESIGNED BY: KM
CHECKED BY:

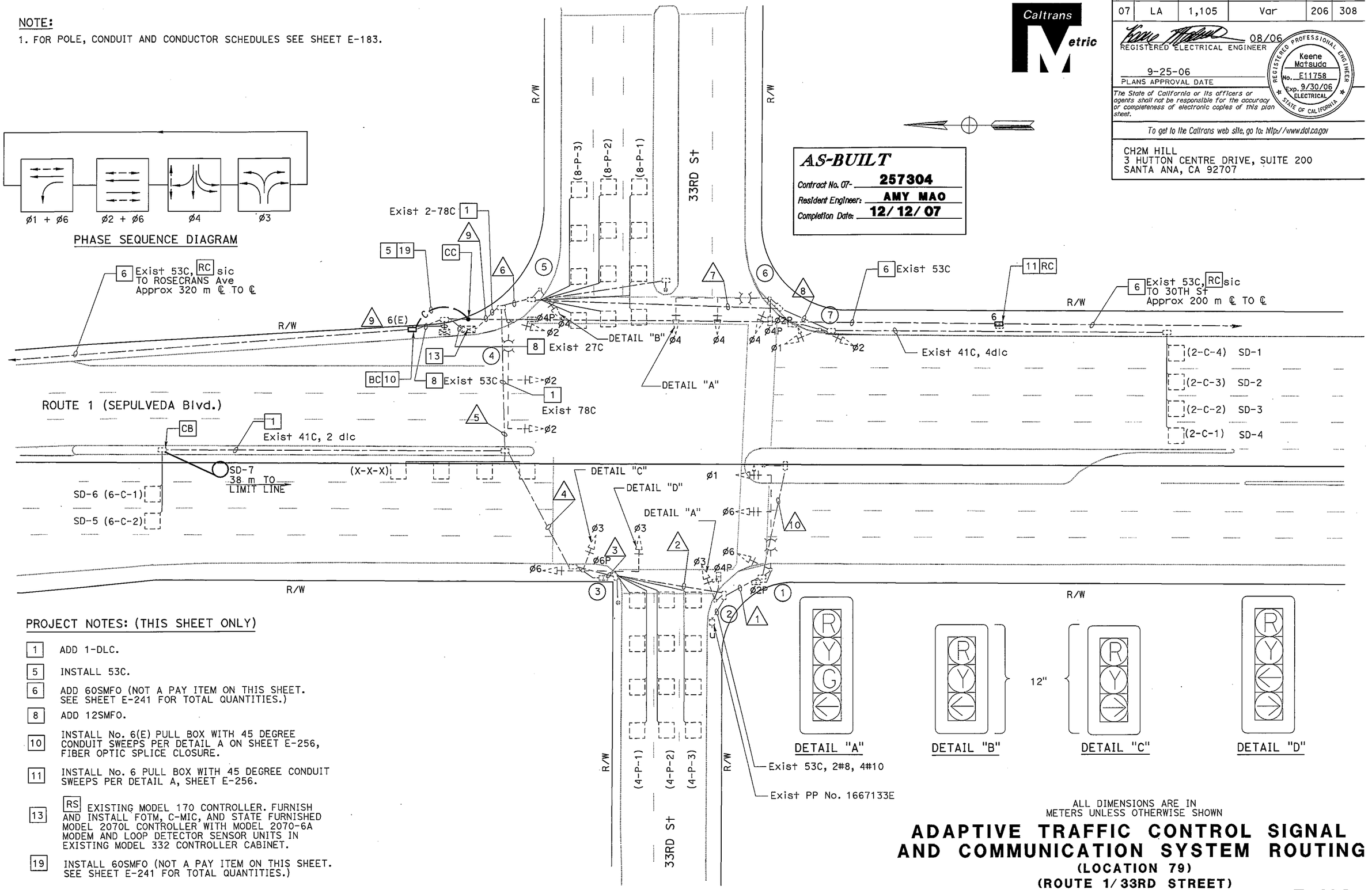
DESIGN OVERSIGHT: YEFIM ZABEZHINSKY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

NOTE:
1. FOR POLE, CONDUIT AND CONDUCTOR SCHEDULES SEE SHEET E-183.

PHASE SEQUENCE DIAGRAM

AS-BUILT
Contract No. 07- 257304
Resident Engineer: AMY MAO
Completion Date: 12/12/07



PROJECT NOTES: (THIS SHEET ONLY)

- 1 ADD 1-DLC.
- 5 INSTALL 53C.
- 6 ADD 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)
- 8 ADD 12SMFO.
- 10 INSTALL No. 6(E) PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A ON SHEET E-256, FIBER OPTIC SPLICE CLOSURE.
- 11 INSTALL No. 6 PULL BOX WITH 45 DEGREE CONDUIT SWEEPS PER DETAIL A, SHEET E-256.
- 13 RS EXISTING MODEL 170 CONTROLLER. FURNISH AND INSTALL FOTM, C-MIC, AND STATE FURNISHED MODEL 2070L CONTROLLER WITH MODEL 2070-6A MODEM AND LOOP DETECTOR SENSOR UNITS IN EXISTING MODEL 332 CONTROLLER CABINET.
- 19 INSTALL 60SMFO (NOT A PAY ITEM ON THIS SHEET. SEE SHEET E-241 FOR TOTAL QUANTITIES.)

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

ADAPTIVE TRAFFIC CONTROL SIGNAL AND COMMUNICATION SYSTEM ROUTING

(LOCATION 79)
(ROUTE 1/33RD STREET)

SCALE 1:200

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.

E-182