INFORMATION HANDOUT

For Contract No. 07-2W7604
At 07-LA-5,118,210-PM Various

Identified by
Project ID 0713000441

As-Builts

Fiber Optic System As-Built Drawings

Communication System Routing

PROJECT NOTES

1. INSTALL TYPE III-RF SERVICE EQUIPMENT ENCLOSURE ON NEW FOUNDATION
2. INSTALL CAMERA POLE (TYPE 15) ON EXISTING SIGN STRUCTURE POLE. SEE STRUCTURES SHEETS FOR DETAILS. INSTALL CAMERA ON POLE. SEE SHEET E-75 FOR CAMERA INSTALLATION DETAILS.
3. INSTALL CAMERA POLE (TYPE 30) AND FOUNDATION. SEE STRUCTURES SHEETS FOR DETAILS. INSTALL CAMERA ON POLE. SEE SHEET E-75 FOR CAMERA INSTALLATION DETAILS.
4. INSTALL CAMERA POLE (TYPE 40) AND FOUNDATION. SEE STRUCTURES SHEETS FOR DETAILS. INSTALL CAMERA ON POLE. SEE SHEET E-75 FOR CAMERA INSTALLATION DETAILS.
5. INSTALL CAMERA POLE (TYPE 45) AND FOUNDATION. SEE STRUCTURES SHEETS FOR DETAILS. INSTALL CAMERA ON POLE. SEE SHEET E-75 FOR CAMERA INSTALLATION DETAILS.
6. INSTALL NO.6(T) PB (MODIFIED) WITH TWISTED PAIR SPLICE CLOSURE. SEE DETAIL B, SHEET E-69
7. INSTALL TYPE 334-TV CABINETS (2) ON NEW FOUNDATION. CABINETS TO INCLUDE CAMERA CONTROL RECEIVER, EQUIPMENT AT DATA NODE AND EQUIPMENT AT VIDEO NODE. SEE DETAIL B, SHEET E-74.
8. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION; CABINET TO INCLUDE CAMERA CONTROL RECEIVER, VIDEO TRANSMITTER AND VIDEO REPEATER. SEE DETAIL A, SHEET E-74.
9. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION; CABINET TO INCLUDE CAMERA CONTROL RECEIVER AND VIDEO TRANSMITTER. SEE DETAIL A, SHEET E-73.
10. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION; CABINET TO INCLUDE CAMERA CONTROL RECEIVER, VIDEO TRANSMITTER AND EQUIPMENT AT DATA NODE. SEE DETAIL C, SHEET E-73.
11. INSTALL TYPE 334-TV CABINET ON NEW FOUNDATION. CABINETS TO INCLUDE CAMERA CONTROL RECEIVER AND EQUIPMENT AT VIDEO NODE. SEE DETAIL B, SHEET E-73.
12. JACK 4" GALVANIZED STEEL CONDUIT BENEATH ROADWAY. SEE DETAIL B, SHEET E-65.
13. INSTALL CONDUIT(S) IN 6" WIDE TRENCH IN DIRT OFF SHOULDER, WITHIN 10' OF EDGE OF SHOULDER. SEE SHEETS E-61 AND E-64 FOR DETAILS.
14. INSTALL CONDUIT(S) IN 6" WIDE TRENCH IN ASPHALT SHOULDER, MAINTAINING 4' MINIMUM DISTANCE FROM EDGE OF TRAVELWAY. SEE SHEETS E-62 AND E-64 FOR DETAILS.
15. JACK TWO 4" GALVANIZED STEEL CONDUITS BENEATH ROADWAY. SEE DETAIL C, SHEET E-65.
16. INSTALL COMMUNICATIONS TERMINAL BLOCK AND TELEPHONE BRIDGE IN EXISTING CONTROLLER CABINET. SEE SHEET E-71 FOR DETAILS.
17. PRUNE PLANTS AFTER CAMERA IS INSTALLED AND OPERATING ENGINEER TO VERIFY THAT FINAL VIEW IS UNOBSCURED.
18. INSTALL BD-3 PEDESTAL FOR COMMUNICATIONS. SEE SHEET E-72 FOR DETAILS.
19. INSTALL CONDUIT(S) IN 6" WIDE SAWCUT TRENCH IN CONCRETE SIDEWALK, MAINTAINING 4' MINIMUM DISTANCE FROM EDGE OF TRAVELWAY. SEE SHEETS E-63 AND E-64 FOR DETAILS.
28. INSTALL 3" STL CONDUIT. ELECTRIC UTILITY COMPANY TO INSTALL 3 #2 CONDUCTORS.
29. ELECTRIC UTILITY COMPANY TO INSTALL METER.
30. INSTALL 3" CONDUIT TYPE H SERVICE RISER ON POWER POLE.
31. INSTALL 240V/120V STEP DOWN TRANSFORMER IN PULL BOX.
32. JACK 2" GALVANIZED STEEL CONDUIT BENEATH ROADWAY. SEE DETAIL A, SHEET E-65.
33. ADD SERVICE (AND COMMUNICATIONS) CONDUCTORS IN EXISTING CONDUIT.
34. INSTALL 15A, 120V CIRCUIT BREAKER FOR CAMERA AND TYPE 334-TV CABINET.
35. REMOVE EXISTING SERVICE RISER FROM POWER POLE.
36. INSTALL 20A, 120V CIRCUIT BREAKER FOR CONTROLLER CABINET.
37. INSTALL 2 15A, 120V CIRCUIT BREAKERS FOR CAMERAS AND TYPE 334-TV CABINETS.
38. ADD COMMUNICATIONS CABLE(S) TO EXISTING CONDUIT.
39. INSTALL 15A, 240V CIRCUIT BREAKER FOR CAMERA AND TYPE 334-TV CABINET.
40. INSTALL 40A, 120V CIRCUIT BREAKER FOR CONTROLLER CABINET.
41. INSTALL 20A, 120V CIRCUIT BREAKER FOR CONTROLLER CABINET.
42. INSTALL 40A, 240V CIRCUIT BREAKER FOR FREEWAY LIGHTING.
43. INSTALL 40A, 240V CIRCUIT BREAKER FOR FREEWAY SIGN(S).
51. ATTACH RISER CONDUIT TO FACE OF ABUTMENT WALL WITH TWO-HOLE PIPE STRAPS. LOCATE IN LINE WITH CONDUIT LOCATION ON STRUCTURE. SEE DETAIL A, SHEET E-87.
52. ATTACH RISER CONDUIT TO FACE OF COLUMN OR PIER WALL WITH TWO-HOLE PIPE STRAPS. LOCATE RISER IN LINE WITH CONDUIT LOCATION ON STRUCTURE. SEE DETAIL B, SHEET E-88
53. ATTACH RISER CONDUIT TO FACE OF WING WALL AND/OR ABUTMENT WALL WITH TWO-HOLE PIPE STRAPS. LOCATE IN LINE WITH CONDUIT LOCATION ON STRUCTURE. SEE DETAIL C, SHEET E-68.
54. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL R, SHEET E-91.
55. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL J, SHEET E-91.
56. CORE HOLE IN CONCRETE WALL AT LOCATION REQUIRED BY PLACEMENT OF CONDUIT ON STRUCTURE. DIAMETER OF CORED HOLE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT PLUS 1/2 INCH. SEE DETAIL D, SHEET E-89
57. INSTALL CONDUIT(S) IN NEW CONCRETE RAIL AT FACE OF TYPE 9 RAIL ON WING WALL. TRANSITION CONDUIT(S) FROM NEW CONCRETE SECTION TO TRENCH IN BACKFILL NEAR END OF WING WALL. SEE RAIL MODIFICATIONS SAN FERNANDO ROAD OVERHEAD BARRIER DETAILS.
58. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL E, SHEET E-90.
59. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL P, SHEET E-90.
60. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL L, SHEET E-90.
61. ATTACH CONDUIT WITH PIPE HANGER STRAPS TO BOTTOM SOFFIT OF BRIDGE DECK SLAB IN INTERIOR BAY. LOCATE CONDUIT TO CLEAR BRACING. SEE DETAIL I, SHEET E-92.
66. ATTACH CONDUIT TO OUTSIDE OF BRIDGE RAIL. INSTALL COVER OVER CONDUIT. SEE DETAIL O, SHEET E-93.
68. DRILL AND BOND REINFORCING STEEL IN HORIZONTAL SURFACE BEHIND TYPE 27 RAIL. PLACE CONDUIT(S) ON HORIZONTAL OR VERTICAL POSITION TO CLEAR EXISTING FACILITIES. ENCASE CONDUITS IN CONCRETE. SEE DETAIL N, SHEET E-92.
70. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL F, SHEET E-90.
71. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN UTILITY VOID AND REPLACE CONCRETE. SEE DETAIL G, SHEET E-91.
72. ATTACH CONDUIT WITH ONE-HOLE PIPE STRAPS TO OUTSIDE OF RAIL POST. LOCATE CONDUIT AT SAME ELEVATION AS BOTTOM CHANNEL OF RAIL. SEE DETAIL H, SHEET E-90.
73. CONSTRUCT TYPE 25M-9 BARRIER AT FACE OF EXISTING TYPE 9 BARRIER RAIL. INSTALL CONDUIT IN NEWLY CONSTRUCTED RAIL. SEE MODIFICATIONS SAN FERNANDO ROAD OVERHEAD BARRIER DETAILS
74. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL M, SHEET E-91.
75. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL K, SHEET E-89.
76. SAW CUT AND TRENCH IN CONCRETE SIDEWALK. INSTALL CONDUIT(S) IN TRENCH AND REPLACE CONCRETE. SEE DETAIL S, SHEET E-89
79. CONNECT NEWLY INSTALLED CONDUIT TO EXISTING CONDUIT.

GENERAL NOTES

1. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON PLAN ARE OBTAINED FROM OWNER'S RECORDS AND/OR OWNERS PLANS.
2. THE LOCATION OF UNDERGROUND FACILITIES SHOWN ON PLAN ARE APPROXIMATE.
3. **BLANK**
4. THE LOCATIONS OF EXISTING CONTROLLER CABINETS, EXISTING SERVICE ENCLOSURES, POWER POLES AND EXISTING DEMARCATION BOXES ARE APPROXIMATE.
5. THE LOCATIONS OF PROPOSED CCTV POLES AND TOWERS SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER PRIOR TO PLACEMENT OF FOUNDATIONS.
6. THE LOCATIONS OF PROPOSED CABINETS, PULL BOXES, SPLICE VAULTS AND DEMARCATION BOXES ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER
7. TYPE 334-TV CABINET DOOR SWING SHOWN ON NEW CABINETS INDICATES FRONT DOOR.
8. EXISTING DETECTOR LOOPS AND CONDUITS ARE SHOWN IN THE VICINITY OF PROPOSED CONDUIT TRENCHES. CONTRACTOR SHALL EXERCISE CARE TO AVOID DAMAGE TO EXISTING CONDUITS. TRENCHING WITH HAND TOOLS MAY BE REQUIRED.
9. BEFORE REMOVING OR MODIFYING ANY EXISTING ELECTRICAL FACILITIES, THE CONTRACTOR SHALL PROVIDE 72 HOUR ADVANCED WRITTEN NOTICE TO ALL AGENCIES CONCERNED.
10. FOR SUPPLEMENTAL LEGEND, SEE STANDARD PLANS ES-1A AND ES-1B
11. UNLESS OTHERWISE NOTED, ALL CONDUIT BENDS SHALL BE 4 FOOT RADIUS FACTORY BENDS.
12. ALL CONDUITS IN CONDUCTOR SCHEDULE TABLES ARE EXISTING UNLESS MARKED (N) INDICATING PROPOSED NEW CONDUIT. ALL CONDUCTORS IN PROPOSED NEW CONDUITS ARE NEW. ALL CONDUCTORS IN EXISTING CONDUITS ARE EXISTING UNLESS MARKED (N).
13. PVC, WHERE CALLED OUT IN THESE PLANS, SHALL MEAN RIGID NON-METALLIC CONDUIT AS DEFINED IN THE STANDARD SPECIFICATIONS.
14. ALL NO. 5 AND NO. 6 PULLBOXES ARE THE TRAFFIC TYPE WHETHER OR NOT THE PULLBOX IS IDENTIFIED WITH A (T) MODIFIER.

LEGEND

- PROPOSED CCTV CAMERA. SEE SHEET E-75 & STRUCTURES SHEETS FOR DETAILS
- PROPOSED SPLICE VAULT. SEE SHEET E-70 FOR DETAILS
- (T) OR — PROPOSED NO. 6(T) PULLBOX (MODIFIED). SEE SHEETS E-65 THROUGH E-69 FOR DETAILS
- PROPOSED COMMUNICATIONS CONDUIT(S)
- PROPOSED SERVICE CONDUIT
- CONDUIT LINE DELIMITER FOR CONSTRUCTION NOTES
- EXISTING DETECTOR LOOP (S). SHEETS E-3 THROUGH E-36
- 3/75 DETAIL CALLOUT FOR DETAIL B ON SHEET E-75
- EXISTING SIGN SUPPORT STRUCTURE
- PROPOSED NO. 5(T) PULLBOX ON TRUNK LINE. SEE DETAIL A, SHEET E-65, AND DETAIL C, SHEET E-69
- PROPOSED TYPE 334-TV CABINET

LEGEND AND NOTES

E-1

DIST	COUNTY	ROUTE	POST MILE / TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,30.1	20	53

Joseph A. Kwan 3/23/92
REGISTERED CIVIL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

JOSEPH A. KWAN No. 10991 Exp. 9-30-92 CIVIL STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
15200 VALLEY VIEW AVE., SUITE 150
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC
CONTROL DESIGN SYSTEMS

AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

DESIGN BY GLORIA GWINNE
CALCULATED/DESIGNED BY
CHECKED BY
DATE REVISED 6-1 | 7-2 | 7-20
DATE REVISED 5-22
DATE REVISED
DATE

E1 DWG NO. 3132
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

FORM DC-OE-92-PF (REV. 3/88)

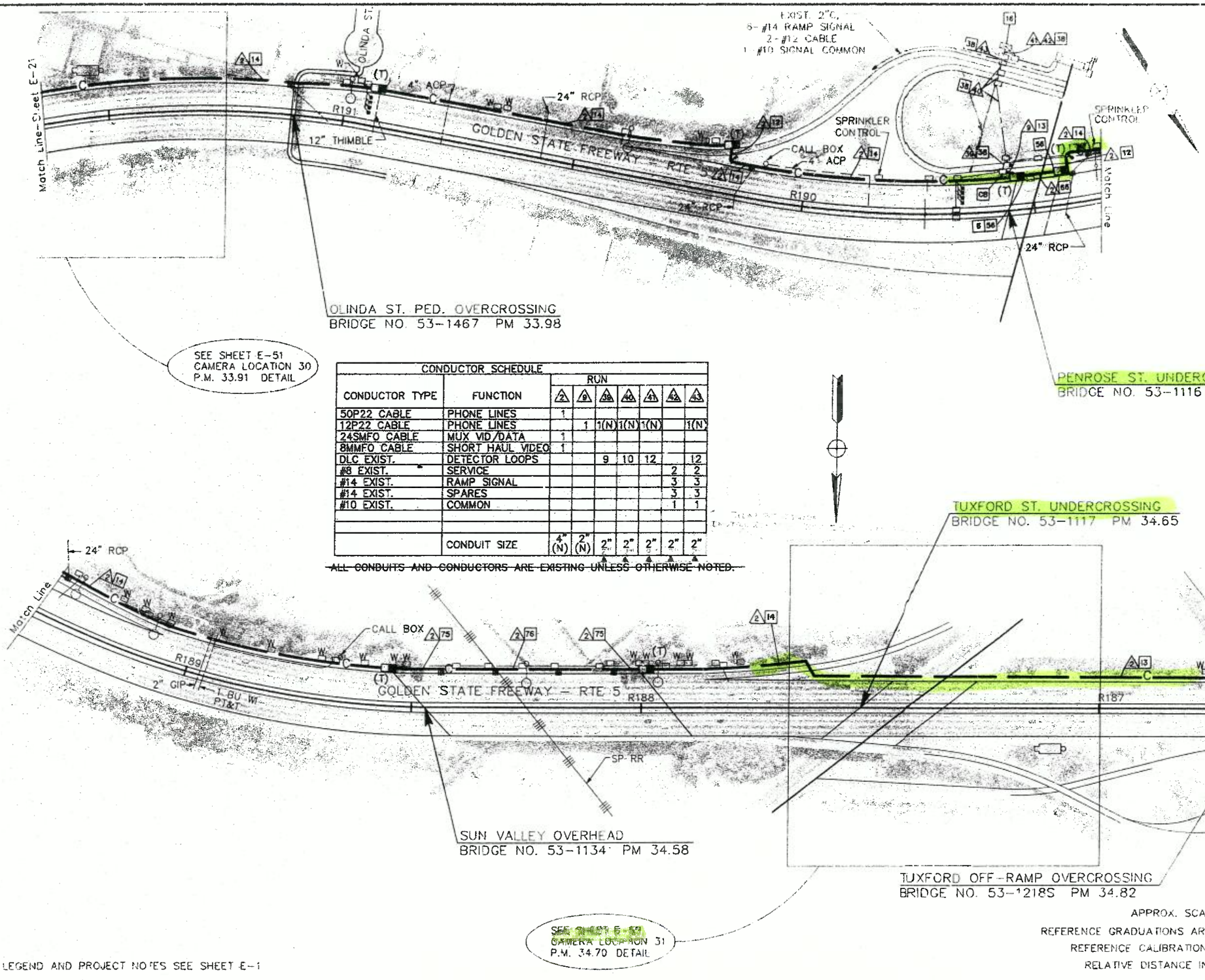
07 | 16634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,SO.I	44	153

Joseph A. Kwak
REGISTERED ELECTRICAL ENGINEER

8-31-92
PLANS APPROVAL DATE

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 360
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC
CONTROL DESIGN SYSTEMS



CONDUCTOR SCHEDULE								
		RUN						
CONDUCTOR TYPE	FUNCTION	2	9	39	40	41	42	43
50P22 CABLE	PHONE LINES	1						
12P22 CABLE	PHONE LINES		1	1(N)	1(N)	1(N)		1(N)
24SMFO CABLE	MUX VID/DATA	1						
8MMFO CABLE	SHORT HAUL VIDEO	1						
DLC EXIST.	DETECTOR LOOPS			9	10	12		12
#8 EXIST.	SERVICE						2	2
#14 EXIST.	RAMP SIGNAL						3	3
#14 EXIST.	SPARES						3	3
#10 EXIST.	COMMON						1	1
	CONDUIT SIZE	4" (N)	2" (N)	2"	2"	2"	2"	2"

~~ALL CONDUITS AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.~~

AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

APPROX. SCALE: 1"=100'
REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVALS
REFERENCE CALIBRATIONS INDICATE APPROXIMATE
RELATIVE DISTANCE IN THOUSANDS OF FEET.

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-22

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN OVERSIGHT: GLORIA GWYNNE
CALCULATED/DESIGNED BY: CHECKED BY: JK
DATE: 3/23
REVISED BY: DATE REVISED
03/18/92
11663E22.DWG

FOR REDUCED PLANS

JO 6.9/46.2,SO.I 45 153

Joseph L Kwak

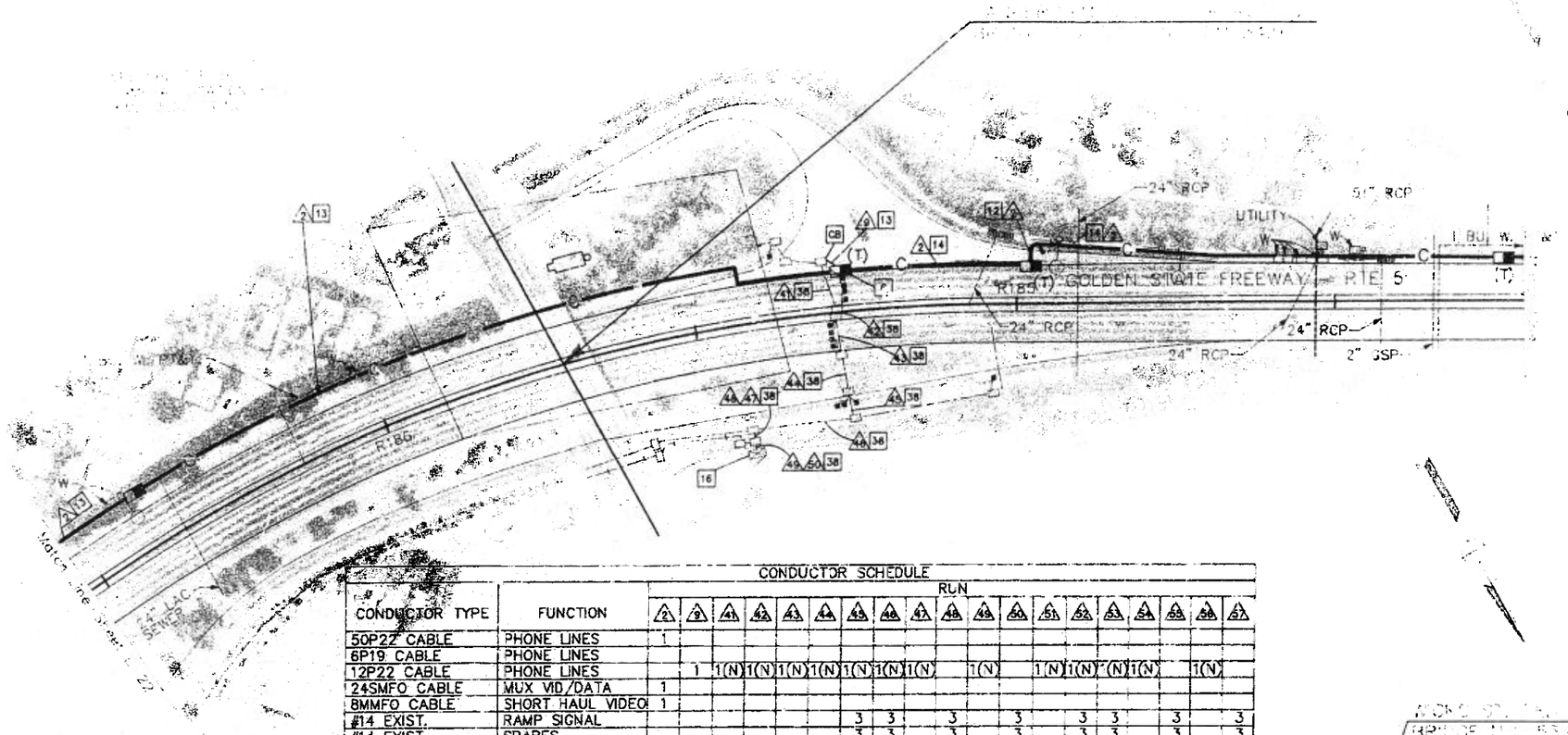
8-31-92

AS BUILT

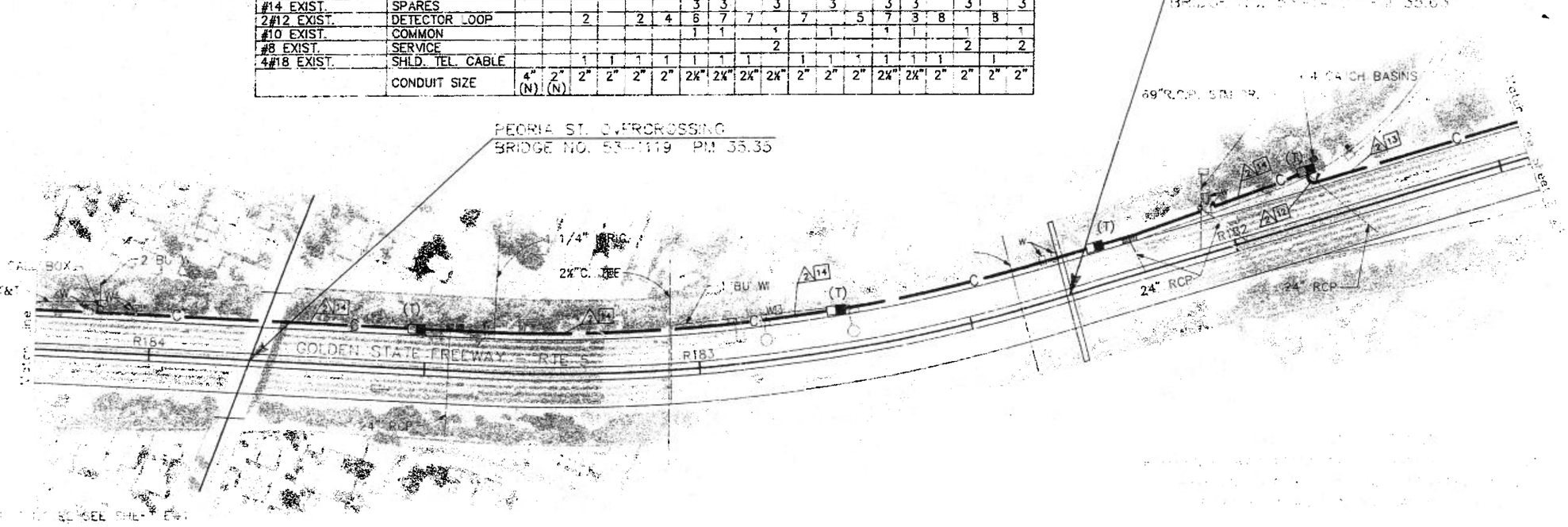
Contract No. 07- 116634

Resident Engineer: Hussan Mannaa

Completion Date: June 13, 1997



CONDUCTOR TYPE	FUNCTION	CONDUCTOR SCHEDULE RUN																			
		2	9	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
50P22 CABLE	PHONE LINES	1																			
6P19 CABLE	PHONE LINES																				
12P22 CABLE	PHONE LINES		1	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)	1(N)		1(N)		1(N)	1(N)	1(N)	1(N)			1(N)	
24SMFO CABLE	MUX VID/DATA	1																			
8MMFO CABLE	SHORT HAUL VIDEO	1																			
#14 EXIST.	RAMP SIGNAL							3	3		3		3		3	3		3		3	
#14 EXIST.	SPARES							3	3		3		3		3	3		3		3	
2#12 EXIST.	DETECTOR LOOP			2		2	4	6	7	7		7		5	7	3	8		8		
#10 EXIST.	COMMON							1	1		1		1		1			1		1	
#8 EXIST.	SERVICE										2							2		2	
4#18 EXIST.	SHLD. TEL. CABLE			1	1	1	1	1	1	1		1	1	1	1	1	1		1		
	CONDUIT SIZE	4" (N)	2" (N)	2"	2"	2"	2"	2½"	2½"	2½"	2½"	2"	2"	2"	2½"	2½"	2"	2"	2"	2"	



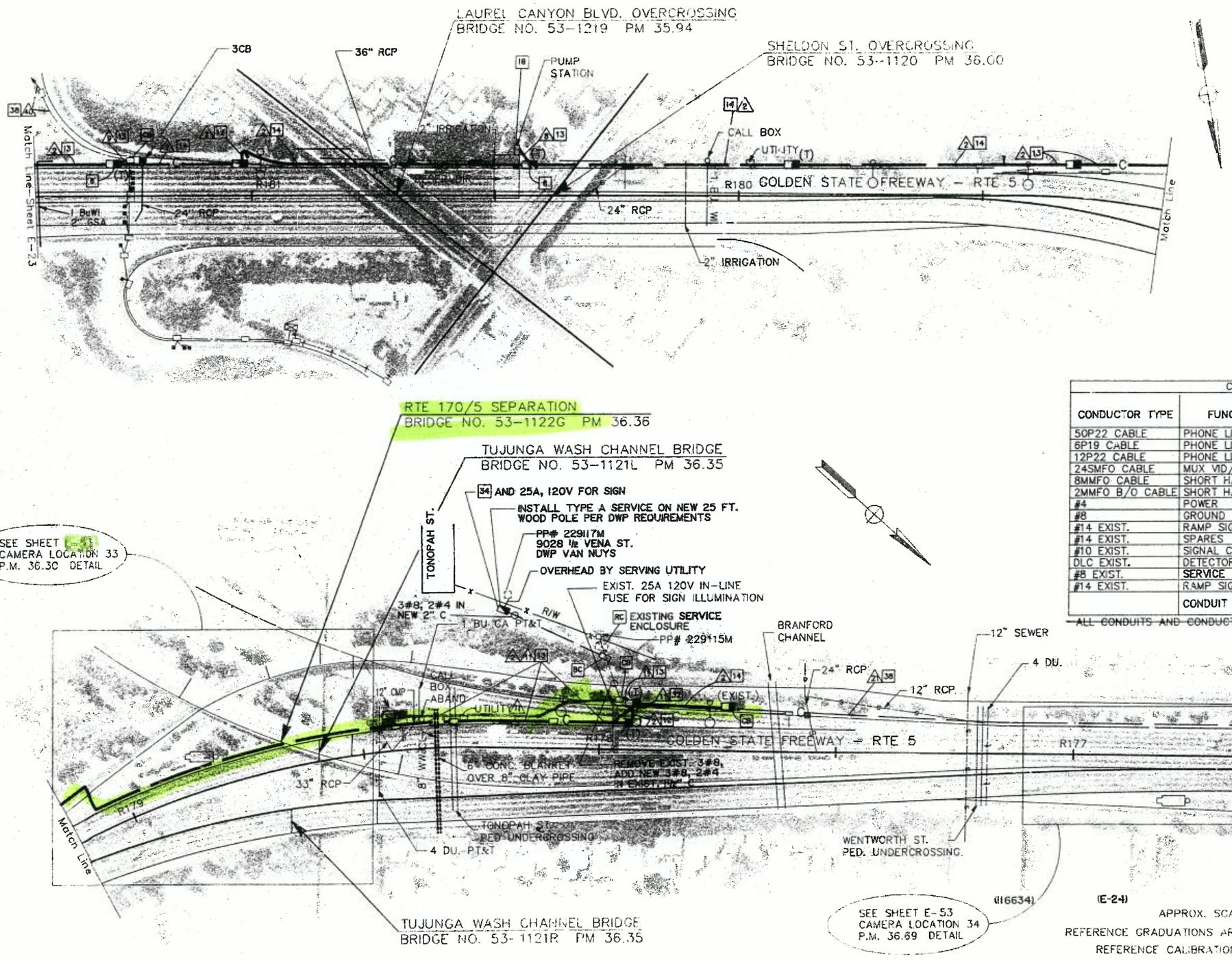
DESIGN OVERSIGHT
GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

JK 3/23

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-23



CONDUCTOR SCHEDULE											
		RUN									
CONDUCTOR TYPE	FUNCTION	2	8	9	11	21	30	40	44	48	50
50P22 CABLE	PHONE LINES	1				1(N)					
6P19 CABLE	PHONE LINES		1								
12P22 CABLE	PHONE LINES			1				1(N)	1(N)	1(N)	
24SMFO CABLE	MUX VID/DATA	1				1(N)					
8MMFO CABLE	SHORT HAUL VIDEO	1				1(N)					
2MMFO B/O CABLE	SHORT HAUL VIDEO										
#4	POWER				2		2(N)				
#8	GROUND				1						
#14 EXIST.	RAMP SIGNAL										6
#14 EXIST.	SPARES										3
#10 EXIST.	SIGNAL COMMON										1
DLC EXIST.	DETECTOR LOOP							5	5	5	4
#8 EXIST.	SERVICE						2				
#14 EXIST.	RAMP SIGNAL										
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2" (N)	4"	2"	2"	2"	2"	2"

ALL CONDUITS AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.

DIST	COUNTY	ROUTE	POST MILE / STAT PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	10	16.9/46.2,50.1	46	53

Joseph A. Kwak
REGISTERED ELECTRICAL ENGINEER

8-31-92
PLANS APPROVAL DATE

JOSEPH A. KWAK No. 13991 Exp. 6/30/95 STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

(116634) (E-24)

APPROX. SCALE 1"=100'
REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVALS
REFERENCE CALIBRATIONS INDICATE APPROXIMATE RELATIVE DISTANCE IN THOUSANDS OF FEET.

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-24

DATE	REVISED BY	DATE REVISED
	JK	3/23

CALCULATED/DESIGNED BY
CHECKED BY
DESIGN OVE... GLORIA GWYNNE ...JHT

STATE CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans
03/18/92
1163E24.DWG

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

FORM DC-OE-42-FP (REV. 3/88)

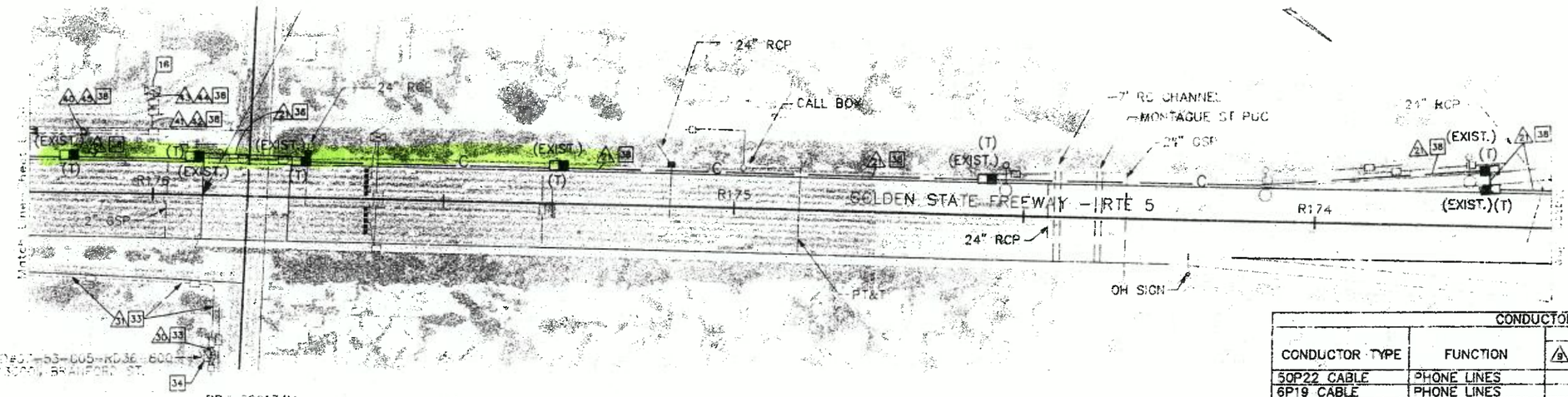
DU 07387 EA 116634

BRANFORD ST. UNDERCROSSING
BRIDGE NO. 53-1123 PM 36.86

A	5,10	16.9/46.2, SO.1	47	153		

Joseph A. Kwak

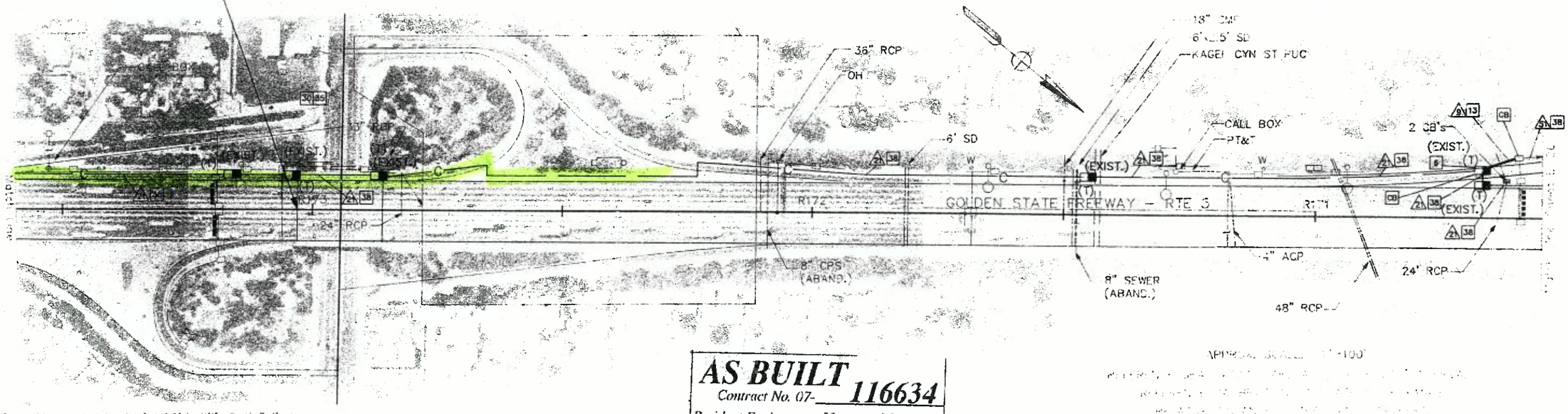
8-31-92



CONDUCTOR SCHEDULE											
CONDUCTOR TYPE	FUNCTION	RUN 9	21	30	40	41	42	43	44	45	51
50P22 CABLE	PHONE LINES		1(N)								
6P19 CABLE	PHONE LINES										
12P22 CABLE	PHONE LINES	1			1(N)	1(N)		1(N)			1(N)
24SMFO CABLE	MUX VID/DATA		1(N)								
8MMFO CABLE	SHORT HAUL VIDEO		1(N)								
2MMFO B/O CABLE	SHORT HAUL VIDEO										
#4	POWER			2(N)							
2-#12(EXIST)	DLC				5	9		9		4	7
4-#18(EXIST)	SHIELDED TEL. CABLE										
#14(EXIST)	RAMP SIGNAL						6		6	6	3
#14(EXIST)	SPARES						3		3	3	3
#10(EXIST)	SIGNAL COMMON						1		1	1	1
#8(EXIST)	SERVICE			2					2		
2-#12(EXIST)	TDC SERVICE			2							
	CONDUIT SIZE	2" (N)	4"	3"	2"	2"	2"	2"	2"	2"	2½"

OSBORNE ST. UNDERCROSSING
BRIDGE NO 53-1124 PM 37.41

SEE SHEET E-54
CAMERA LOCATION 35
P.M. 37.54 DETAIL



AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-25

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE

CALCULATED BY
DESIGNED BY
CHECKED BY JK 3/23 DATE REVISED BY

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, 50.1	48	153

Joseph A. Kwak
REGISTERED ELECTRICAL ENGINEER

8-3-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. KWAK No. 10991 Exp. 6/30/95 STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mauuan
Completion Date: June 13, 1997

CONDUCTOR SCHEDULE								
		RUN						
CONDUCTOR TYPE	FUNCTION	2	21	40	41	42		
50P22 CABLE	PHONE LINES	1	1(N)					
12P22	PHONE LINES			1(N)	1(N)			
24SMFO CABLE	MUX VID/DATA	1	1(N)					
8MMFO CABLE	SHORT HAUL VIDEO	1	1(N)					
#4	POWER							
#14 EXIST.	RAMP SIGNAL			3		3		
#10 EXIST.	SIGNAL COMMON			1		1		
DLC EXIST.	DETECTOR LOOP			7	7			
#14 EXIST.	SPARES			3		3		
#8 EXIST.	SERVICE					2		
#12 EXIST.	SHIELDED TEL. CABLE							
	CONDUIT SIZE	4" (N)	4"	2"	3"	3"		

FOR LEGEND AND PROJECT NOTES SEE SHEET E-1

NOTE: FOR COMPLETE R/W AND ACCURATE ACCESS DATA, SEE R/W RECORD MAPS AT THE DISTRICT OFFICE.

APPROX. SCALE: 1"=100'
REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVALS
REFERENCE CALIBRATIONS INDICATE APPROXIMATE RELATIVE DISTANCE IN THOUSANDS OF FEET

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-26

DATE	REVISED BY	DATE REVISED
3/23	JK	

CALCULATED/DESIGNED BY
CHECKED BY
DESIGN OVERSIGHT: GLORIA GWYNNE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
03/19/92
11663E26.DWG

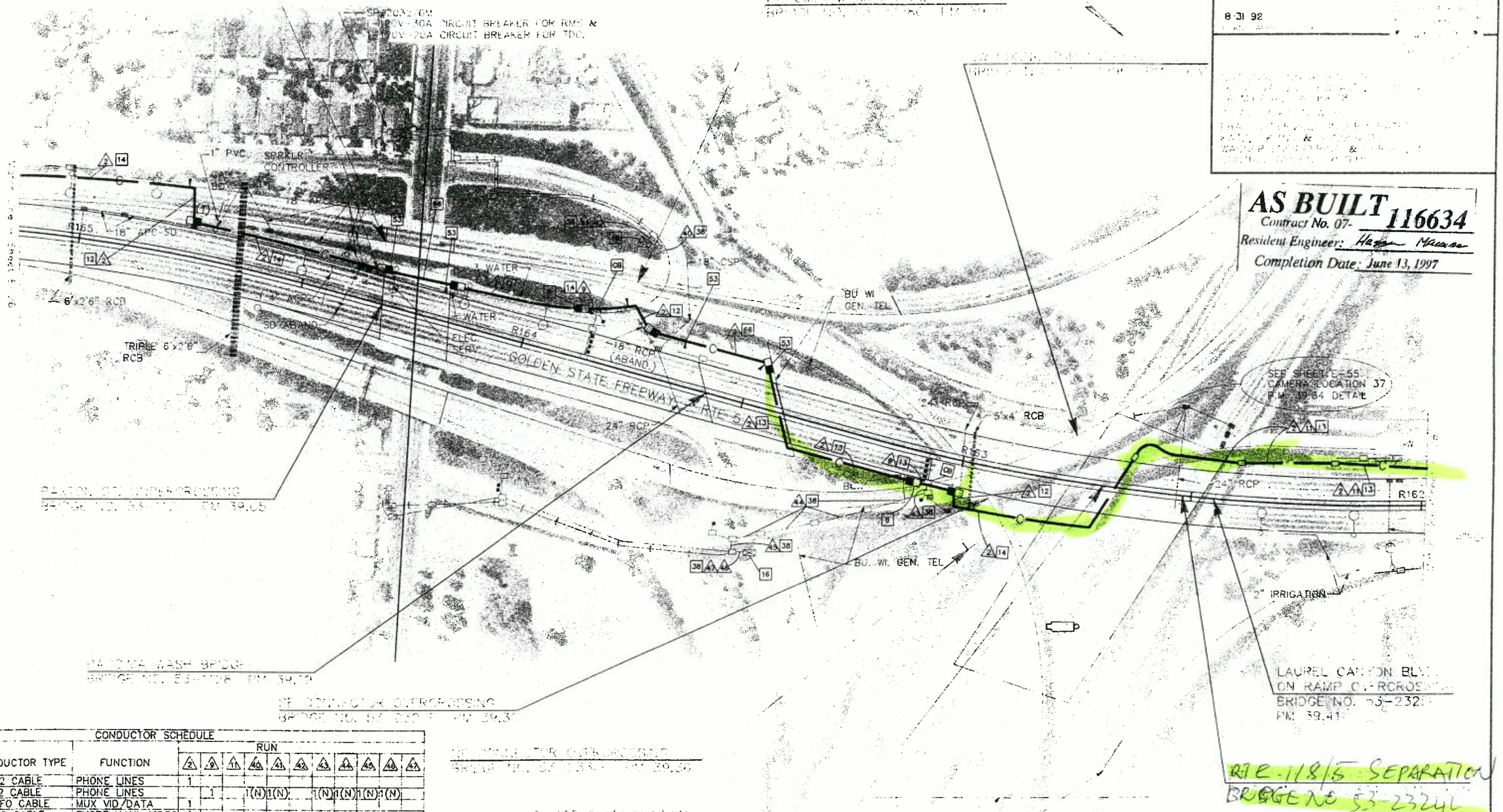
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

07 LA 5,10 16.9/46.2, 50.1 49 153

Joseph A. Kwak

8-31-92

AS BUILT
Contract No. 07- **116634**
Resident Engineer: Hagan Mazaree
Completion Date: June 13, 1997



RTE 118/5 SEPARATION
BRIDGE NO 53-2324L
PM 39.39

CONDUCTOR SCHEDULE												
CONDUCTOR TYPE	FUNCTION	RUN 2	9	11	40	41	42	43	44	45	46	47
50P22 CABLE	PHONE LINES	1										
12P22 CABLE	PHONE LINES		1		1(N)	1(N)		1(N)	1(N)	1(N)	1(N)	
24SMFO CABLE	MUX VID/DATA	1										
8MMFO CABLE	SHORT HAUL VIDEO	1										
#4	POWER			2								
#8	GROUND			1								
#14 EXIST.	RAMP SIGNAL						2					2
#8 EXIST.	SERVICE						2					2
#10 EXIST.	COMMON						1					1
2-#12 EXIST.	DECTECTOR LOOP				5	6		4	5	6	8	
4-#18 EXIST.	SHIELDED TEL. CABLE					1					1	
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2"	3"	3"	2"	2"	2½"	3"	3"

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-27

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

DESIGN OVERSIGHT
GLORIA GWYNNE

JK 3/23

16.9146.2.30.1 54 153

Joseph A. Kwok

8-31-92

RTE 20/5 SEPARATION

BRIDGE No 53-1085F PM 44.01

PP#528409M
DWP, GRANADA HILLS
30A, 120V, RMS
20A, 120V, TDC

INSTALL 2-15A, 240V CIRCUIT BREAKERS FOR CCTV

ID#07-53-005-R-043668
13500± SAN FERNANDO RD.

SEE SHEET E-32 FOR CAMERA DETAILS
P.M. 43.78 OFFSET

Match Line - Sheet E-33

18" CSP

R140

R139

SP RR

FOUNDATION ONLY

UTILITY

SB TRUCK RTE 5

GALV. PIPE IN 6"

ABAN.

24" RCP

8" CMP

GOLDEN STATE FREEWAY - RTE 5

R138

R 38

ABAND.

3" GALV. PIPE IN 6" CMP

48" CMP

22" H.P. SCG

FSM. SCG & CMP

NB TRUCK RTE 5

EXIST. ABANDONED CATTLE PASS

CONDUCTOR SCHEDULE											
		RUN									
CONDUCTOR TYPE	FUNCTION	2	7	9	11	30	31	33	35	36	37
50P22 CABLE	PHONE LINES	1							1(N)	1(N)	1(N)
12P22 CABLE	PHONE LINES			1							
24SMFO CABLE	MUX VID/DATA	1									
8MMFO CABLE	SHORT HAUL VIDEO	1									
#6	POWER		2			2(N)	2(N)	2			
#4	POWER				2	2(N)	2(N)	2			
#8 EXIST.	SERV. FOR RMS					2	2				
#12 EXIST.	SERV. FOR TDC					2					
DLC EXIST.	DETECTOR LOOPS								2	5	6
#8	GROUND		1		1			1			
	CONDUIT SIZE	4" (N)	2" (N)	2" (N)	2" (N)	3"	2"	2" (N)	2"	2"	2"

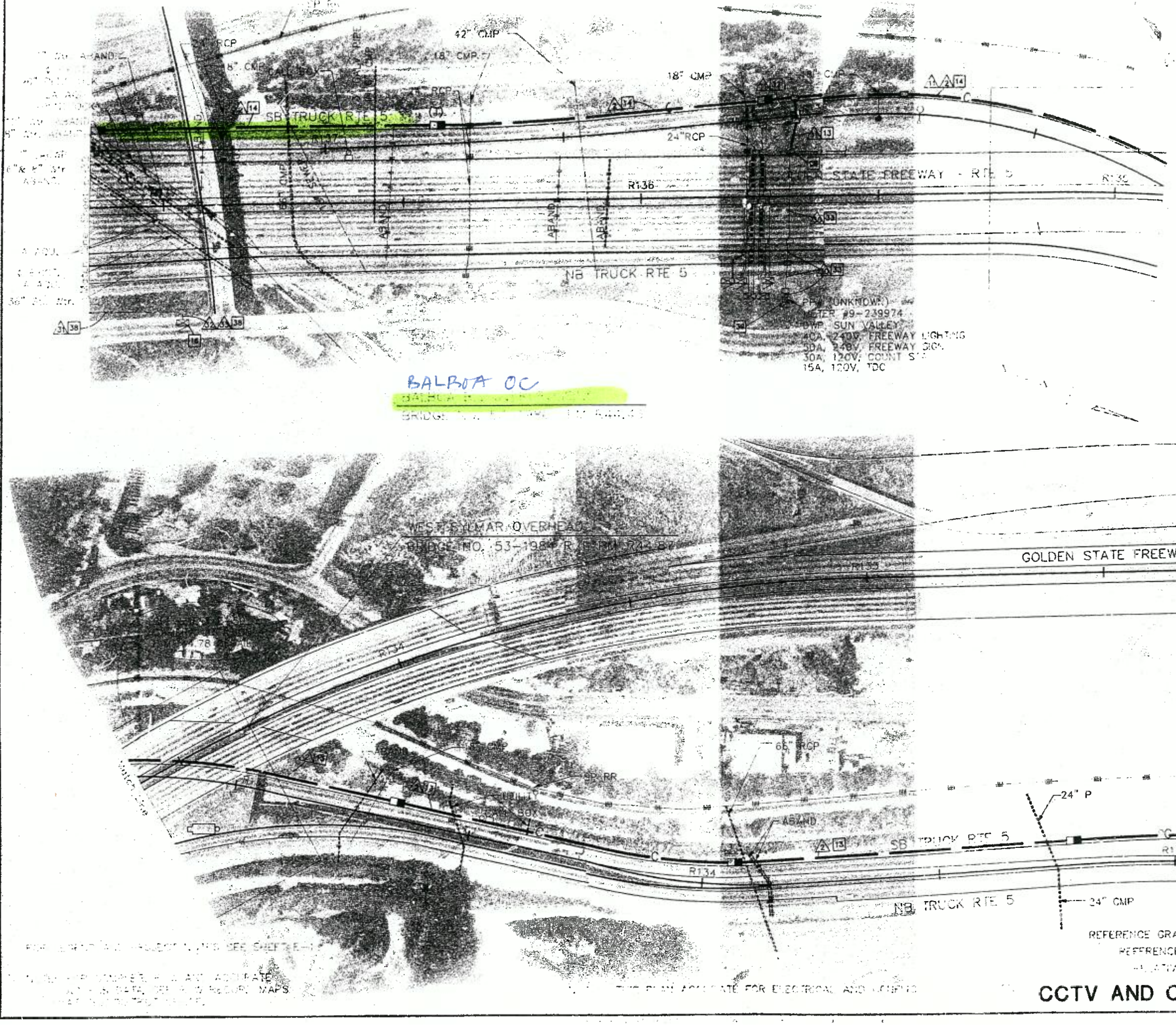
AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM (LAYOUT)

E-32

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN OVER: T
GLORIA GWYNNE
ACCEPTED
DESIGNED BY
CHECKED BY JK 3/23
DRAWN BY
CHECKED BY
Caltrans

8-31-92



CONDUCTOR SCHEDULE

CONDUCTOR TYPE	FUNCTION	PUN 2	4	10	31	32	33
50P22 CABLE	PHONE LINES	1					
12P22 CABLE	PHONE LINES				1(N)	1(N)	
24SMFO CABLE	MUX VID/DATA	1					
8MMFO CABLE	SHORT HAUL VIDEO	1					
#6	POWER			4			
#4	POWER		2	2(N)			
#8	GROUND						
2#12 EXIST.	DLC				6	6	
1#18 EXIST.	SHIELDED TEL. CABLE						
#8 EXIST.	RMS SERVICE						2
	CONDUIT SIZE	4" (N)	2" (N)	2"	2"	3"	3"

AS BUILT
Contract No. 07- 116634
Resident Engineer: Hassan Mannaa
Completion Date June 13, 1997

APPROX. SCALE: 1" = 100'
REFERENCE GRADUATIONS ARE AT APPROX. 500' INTERVAL
REFERENCE CALIBRATIONS INDICATE APPROXIMATE
RELATIVE DISTANCE IN THOUSANDS OF FEET.

CCTV AND COMMUNICATIONS SYSTEM

E-33

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN OVERSIGHT
GLORIA GWYNNE
JK 3/23

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2, 50.1	74	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

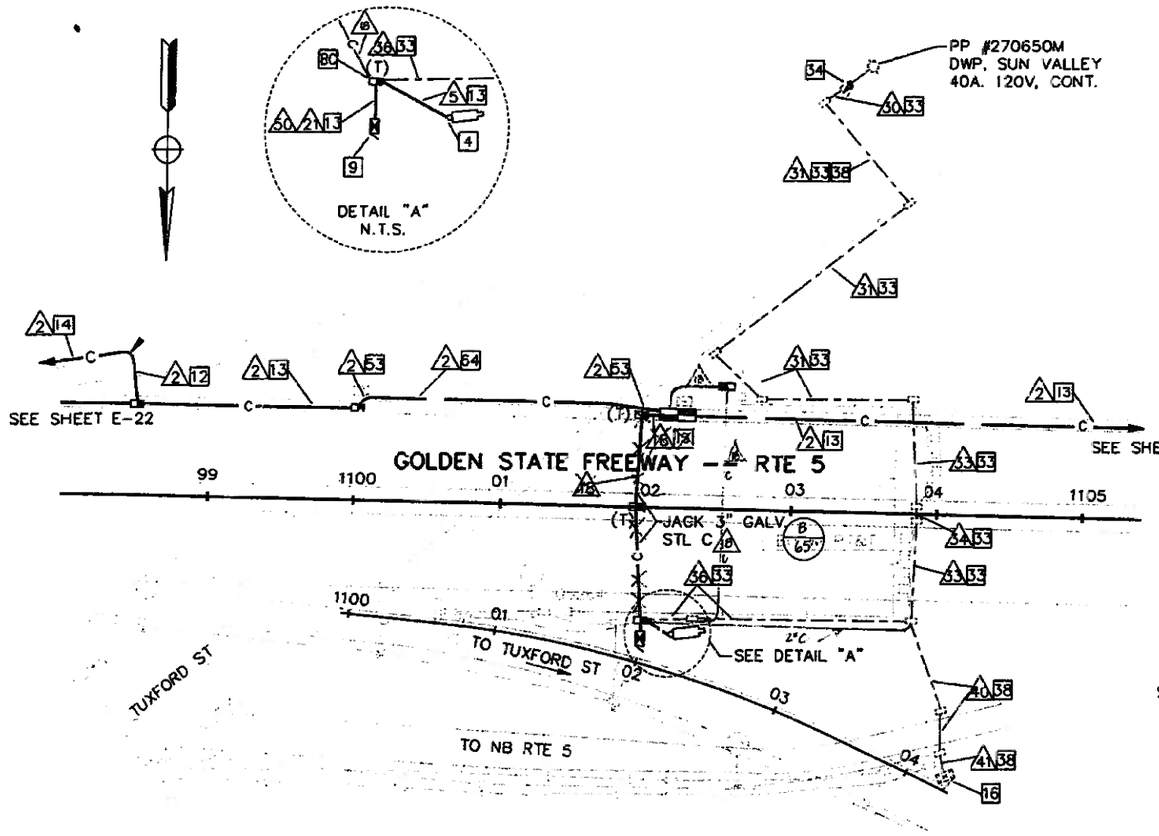
8-31-92
PLANS APPROVAL DATE

RECORDED PROFESSIONAL ENGINEER JOSEPH A. KWAK No. 10991 Exp. 6/30/95 ELECTRICAL STATE OF CALIFORNIA

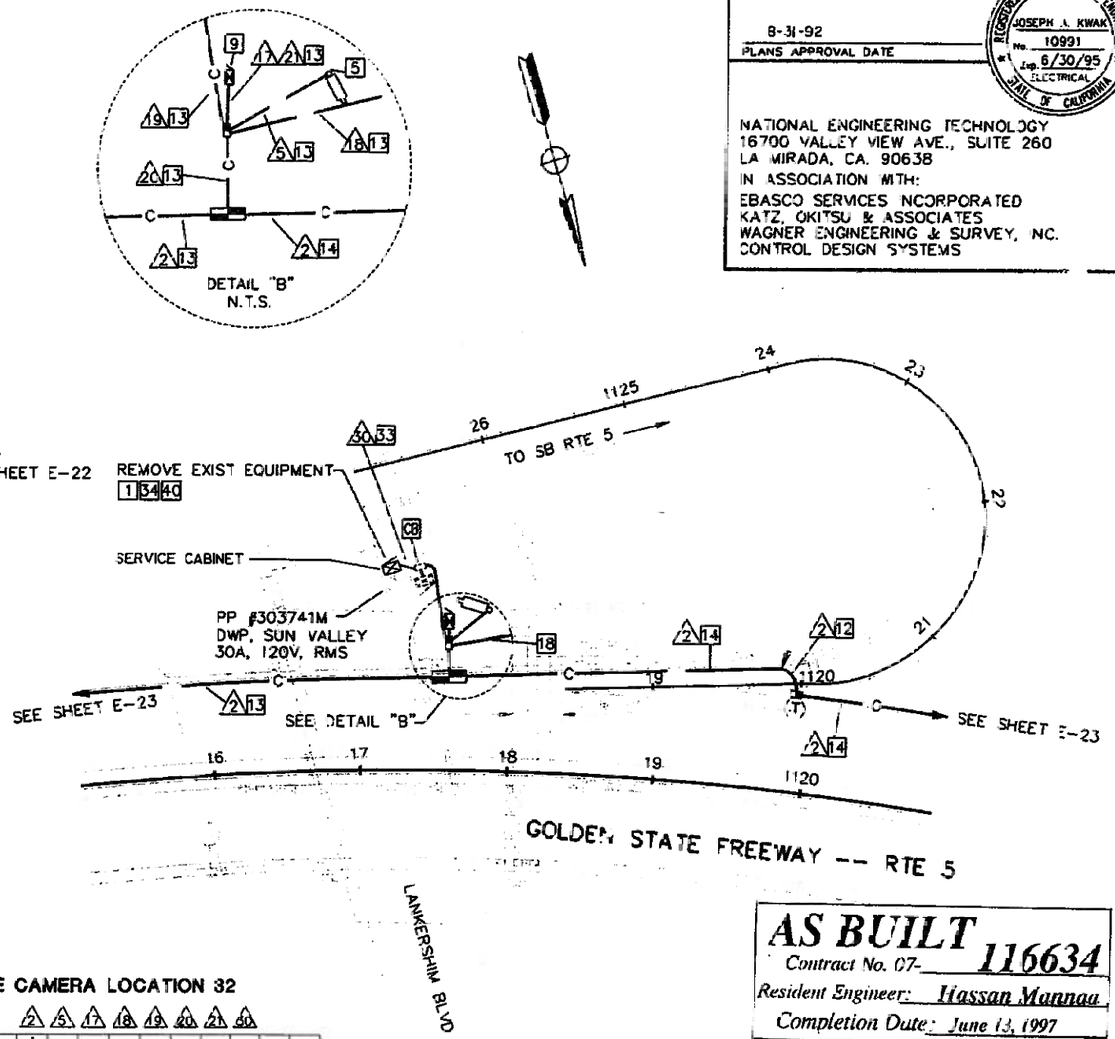
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS

DESIGN OVERSIGHT
GLORIA GWYNNE

CALCULATED/ DESIGNED BY
CHECKED BY
DATE REVISED BY
DATE REVISED



CAMERA LOCATION 31, PM34.70



CAMERA LOCATION 32, PM34.98

AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CONDUCTOR SCHEDULE CAMERA LOCATION 31

CONDUCTOR TYPE	FUNCTION	2	5	18	21	30	31	33	34	36	40	41	50
50P22 CABLE	PHONE LINES	1											
6P19 CABLE	PHONE LINES			1									1
12P22 CABLE	PHONE LINES			1						1(N)	1(N)	1(N)	
24SMFO CABLE	MUX VID/DATA	1											
8MMFO CABLE	SHORT HAUL VIDEO	1											
2MMFO B/O CABLE	SHORT HAUL VIDEO			1									1
RG-6A/U COAX	BASEBAND VIDEO		1										1
27C18 CABLE	CONTROL		1										1
#4	POWER				2	2(N)	2(N)	2(N)	2(N)	2(N)	2(N)		
#8	GROUND		1		2								
2-#12 CAE E (EXIST)	DLC						4	2		1	5	7	
#8 (EXIST)	SERVICE					2							
4-#18 (EXIST)	SHIELD TELE CABLE						1	1	1		1		
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2"	2"	2"	2"	2"	2"	2½"	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 32

CONDUCTOR TYPE	FUNCTION	2	5	17	18	19	20	21	50
50P22 CABLE	PHONE LINES	1							
6P19 CABLE	PHONE LINES			1	1		2		
12P22 CABLE	PHONE LINES								
24SMFO CABLE	MUX VID/DATA	1							
8MMFO CABLE	SHORT HAUL VIDEO	1							
2MMFO B/O CABLE	SHORT HAUL VIDEO			1			1		
RG-6A/U COAX	BASEBAND VIDEO		1	1					
27C18 CABLE	CONTROL		1	1					
#8	POWER					2		2	2(N)
#8	GROUND		1			1		2	
#14 (EXIST)	SPARES								
2-#12 CABLE (EXIST)	DEMAND LOOP DET.								
2-#12 CABLE (EXIST)	PASSAGE LOOP DET.								
2-#12 CABLE (EXIST)	COUNT LOOP DET.								
#10	SIGNAL COMMON								
4-#18 (EXIST)	SHIELD TELE. CABLE								
#8 (EXIST)	SERVICE							2	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	2" (N)	3" (N)	3" (N)	2"

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY.
SEE SHEET E-1 FOR LEGEND AND GENERAL NOTES

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 31 AND 32

SCALE: 1"= 50'

E-52

DC-OE-92-PF (REV. 3/88)

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

CU 07387 EA 116634

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.9/46.2,30.1	75	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

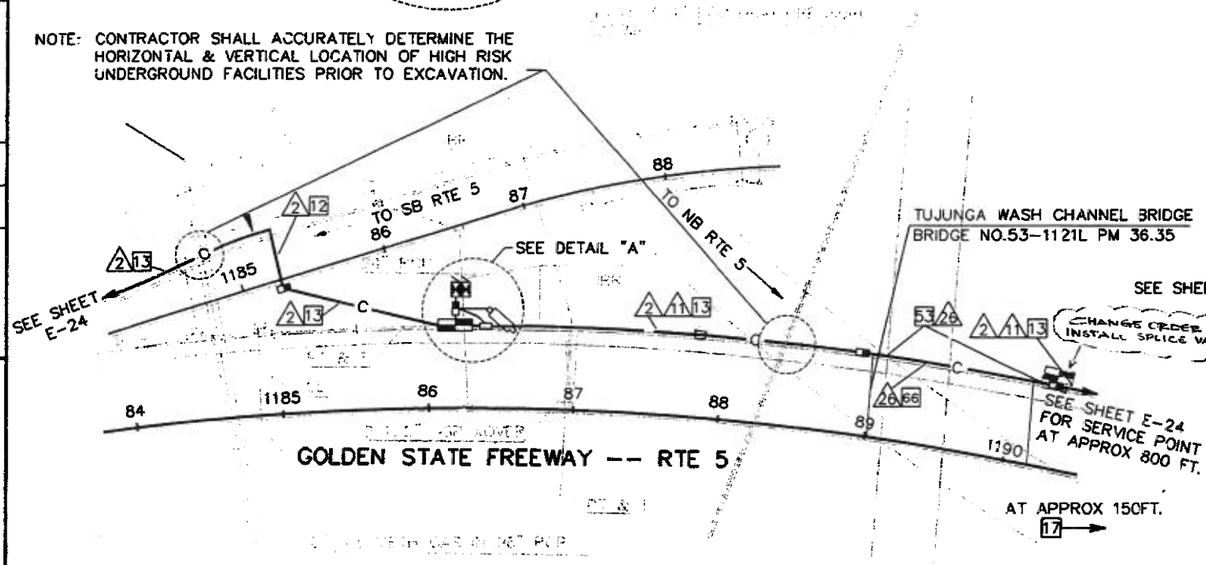
3-31-92
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER JOSEPH A. KWAK No. 10991 Exp. 6/30/95 ELECTRICAL STATE OF CALIFORNIA

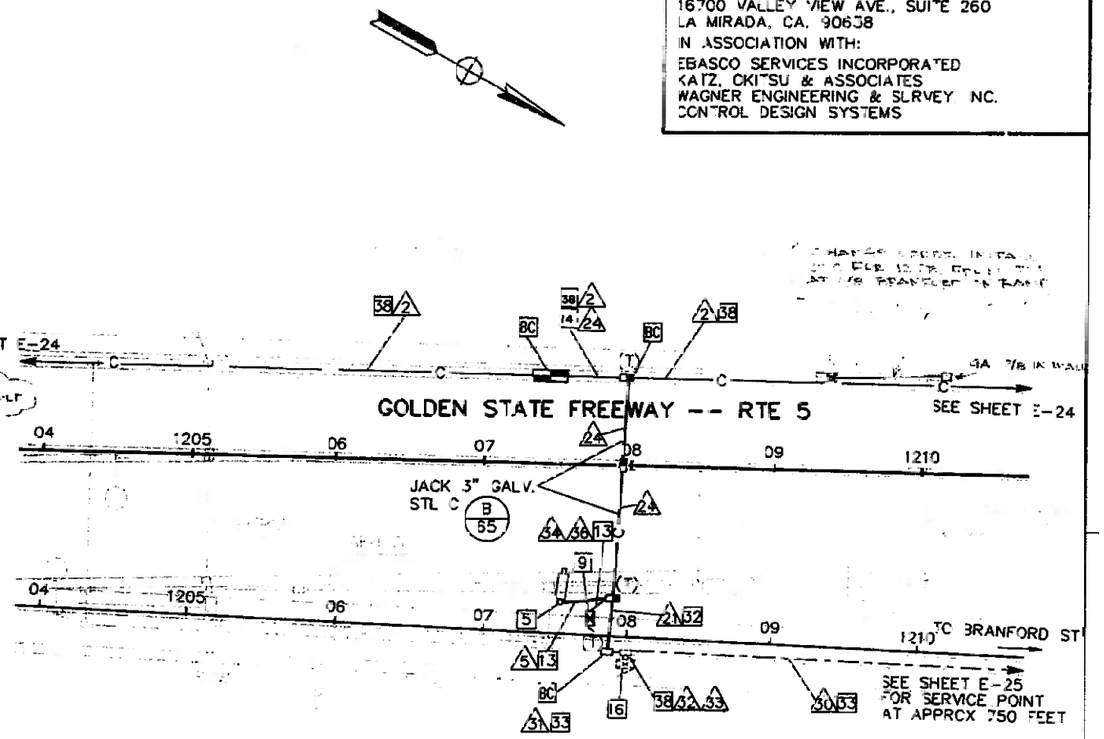
NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY INC.
CONTROL DESIGN SYSTEMS

DETAIL "A"
N.T.S.

NOTE: CONTRACTOR SHALL ACCURATELY DETERMINE THE HORIZONTAL & VERTICAL LOCATION OF HIGH RISK UNDERGROUND FACILITIES PRIOR TO EXCAVATION.



CAMERA LOCATION 33, PM36.30



CAMERA LOCATION 34, PM36.59

CONDUCTOR SCHEDULE CAMERA LOCATION 33

CONDUCTOR TYPE	FUNCTION	2	4	5	11	22	24	26
50P22 CABLE	PHONE LINES	1	2			2		1
6P19 CABLE	PHONE LINES							
24SMFO CABLE	MUX VID/DATA	1						1
2SMFO B/O CABLE	MUX VID/DATA		3			3		
8MMFO CABLE	SHORT HAUL VIDEO	1	2			2		1
2MMFO B/O CABLE	SHORT HAUL VIDEO							
RG-6A/U COAX	BASEBAND VIDEO			1		1		
27C18 CABLE	CONTROL			1		1		
#4	POWER				2		2	2
#8	GROUND			1	1		2	1
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3" (N)	4" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 34

CONDUCTOR TYPE	FUNCTION	2	5	21	24	30	31	32	33	34	36
50P22 CABLE	PHONE LINES	1(N)									
6P19 CABLE	PHONE LINES				1					1	
12P22 CABLE	PHONE LINES			1	1		1	1(N)			
24SMFO CABLE	MUX VID/DATA	1(N)									
8MMFO CABLE	SHORT HAUL VIDEO	1(N)									
2MMFO B/O CABLE	SHORT HAUL VIDEO				1						
RG-6A/U COAX	BASEBAND VIDEO		1							1	
27C18 CABLE	CONTROL		1							1	
#4	POWER			2		2(N)	2(N)				2
#8	GROUND		1	1							2
#8 EXIST	POWER					2		2			
2#12 EXIST	DLC						12	12			
CONDUIT	SIZE	4"	3" (N)	2" (N)	3" (N)	2"	3"	3"	3"	3" (N)	3" (N)

AS BUILT
Contract No. 07-116634
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 33 AND 34

SCALE: 1"= 50'

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY.
SEE SHEET E-1 FOR LEGEND AND GENERAL NOTES

E-53

REVISED BY | DATE REVISED | CALCULATED/DESIGNED BY | CHECKED BY
DESIGN OVERSIGHT: GLORIA GWYNNE
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
116635 3 WES 03/21/92

FORM DC-OE-92-FF (REV 3/88)
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2
CU 07387 EA 116634

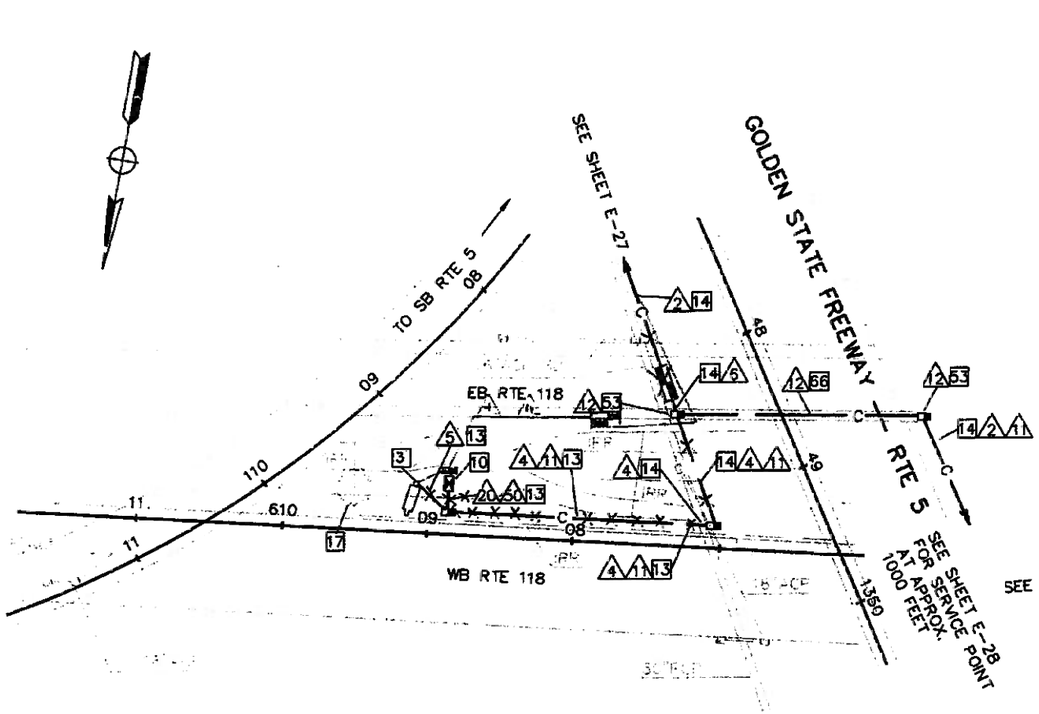
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	6.9/46.2,30..	77	153

Joseph A. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

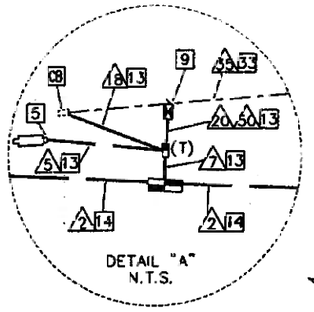
8-31-92
PLANS APPROVAL DATE

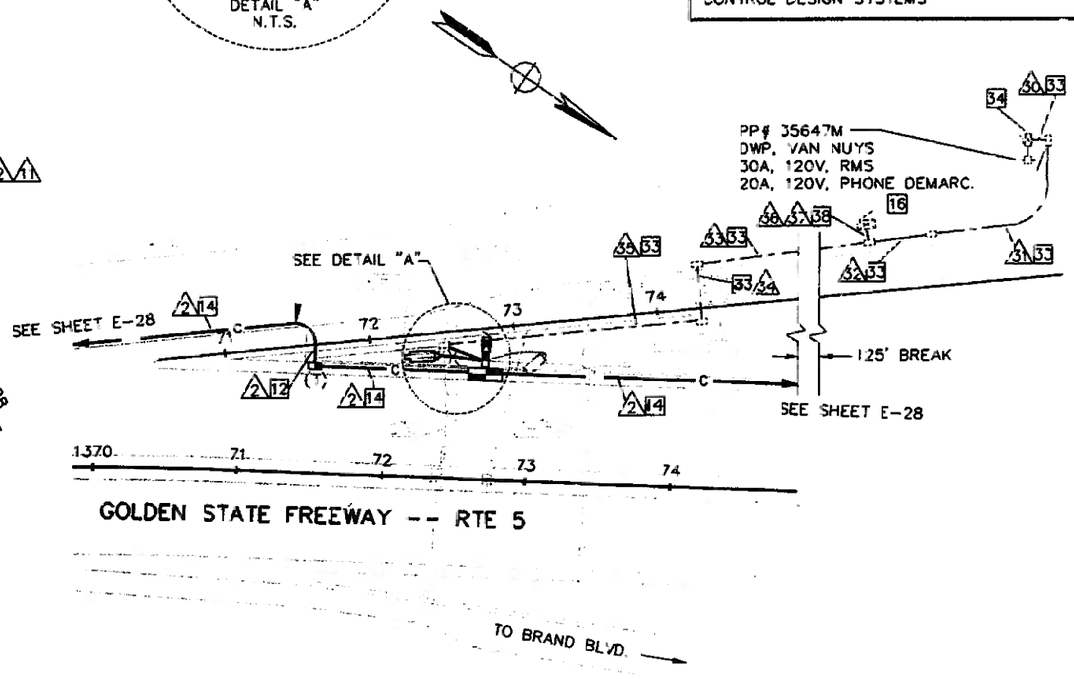
REGISTERED PROFESSIONAL ENGINEER JOSEPH A. KWAK 6/30/95 ELECTRICAL STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS



CAMERA LOCATION 37, PM39.34





CAMERA LOCATION 38, PM39.84

CONDUCTOR SCHEDULE CAMERA LOCATION 37

CONDUCTOR TYPE	FUNCTION	2	4	5	6	11	12	20	60
50P22 CABLE	PHONE LINES	1	2		1		1	2	
6P19 CABLE	PHONE LINES								
24SMFO CABLE	MUX VID/DATA	1			1		1		
2SMFO B/O CABLE	MUX VID/DATA		2		2			2	
8MMFO CABLE	SHORT HAUL VIDEO	1			1		1		
2MMFO B/O CABLE	SHORT HAUL VIDEO		1		1			1	
RG-6A/U COAX	BASEBAND VIDEO			1				1	
27C18 CABLE	CONTROL			1				1	
#4	POWER					2	2		2
#8	GROUND			1		1	1		2
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	4" (N)	2" (N)	4" (N)	2" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 38

CONDUCTOR TYPE	FUNCTION	2	5	7	18	20	50	51	52	53	54	55	56	57	58
50P22 CABLE	PHONE LINES	1													
6P19 CABLE	PHONE LINES			1		1									
12P22 CABLE	PHONE LINES			1	1					1(N)	1(N)	1(N)		1(N)	
24SMFO CABLE	MUX VID/DATA	1													
8MMFO CABLE	SHORT HAUL VIDEO	1													
2MMFO B/O CABLE	SHORT HAUL VIDEO			1		1									
RG-6A/U COAX	BASEBAND VIDEO		1			1									
27C18 CABLE	CONTROL		1			1									
#8	POWER														
#6	POWER				2		2(N)	2(N)	2(N)	2(N)	2(N)	2(N)			2
#8	GROUND		1		1										2
#8 (EXIST)	POWER						2	2	2				2		
SHIELDED CABLE	DLC								2	13	10	7		15	
#10	SIGNAL COMMON									1	1		1		
#14	FUT. RAMP SIGNAL									9	9		9		
SHIELDED CABLE	TELE CABLE													1	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	2" (N)	3" (N)	3"	2"	2"	3"	3"	2"	3"	3"	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 37 AND 38

SCALE: 1" = 50'

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY.
SEE SHEET E-1 FOR LEGEND AND GENERAL NOTES.

E-55

DESIGN OVERSIGHT: GLORIA GWYNNE
CALCULATED/DESIGNED BY:
CHECKED BY:
DATE REVISED BY:
DATE REVISED:
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
WES 03/21/92
1166JE55.D

FORM DC-OE-92-PF (REV. 3/88)

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

CU 07387 EA 116634

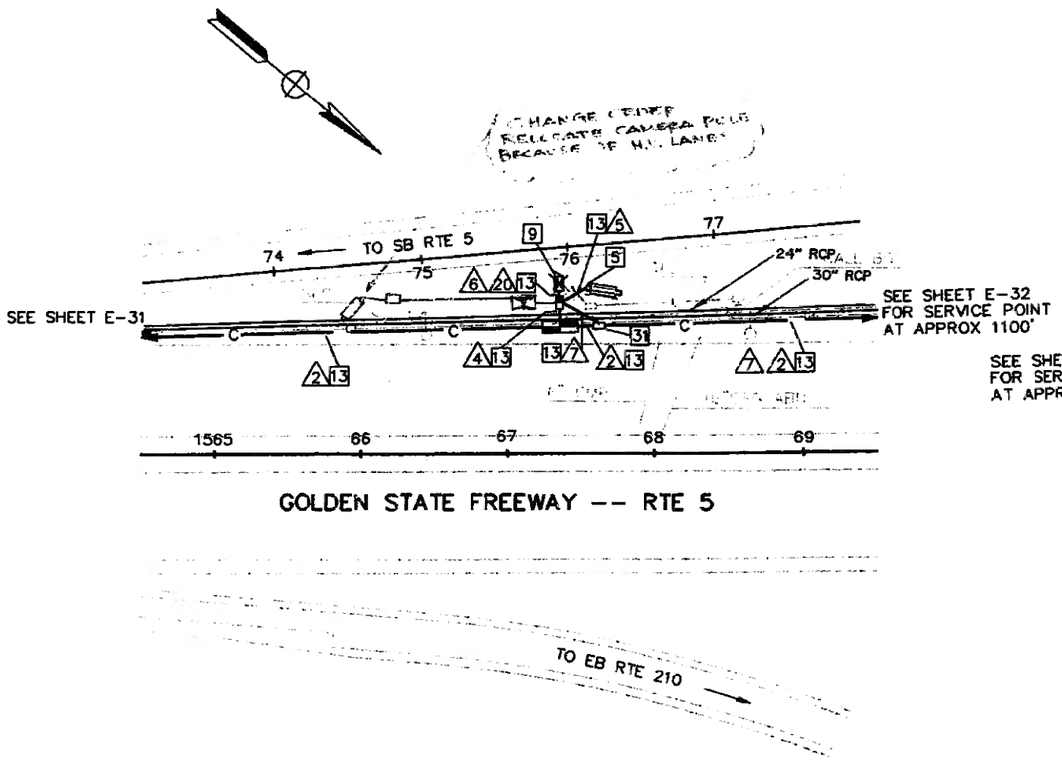
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	5,10	16.3/46.2,30.1	80	153

Joseph L. Kwak 3/23/92
REGISTERED ELECTRICAL ENGINEER (Date)

8-31-92
PLANS APPROVAL DATE

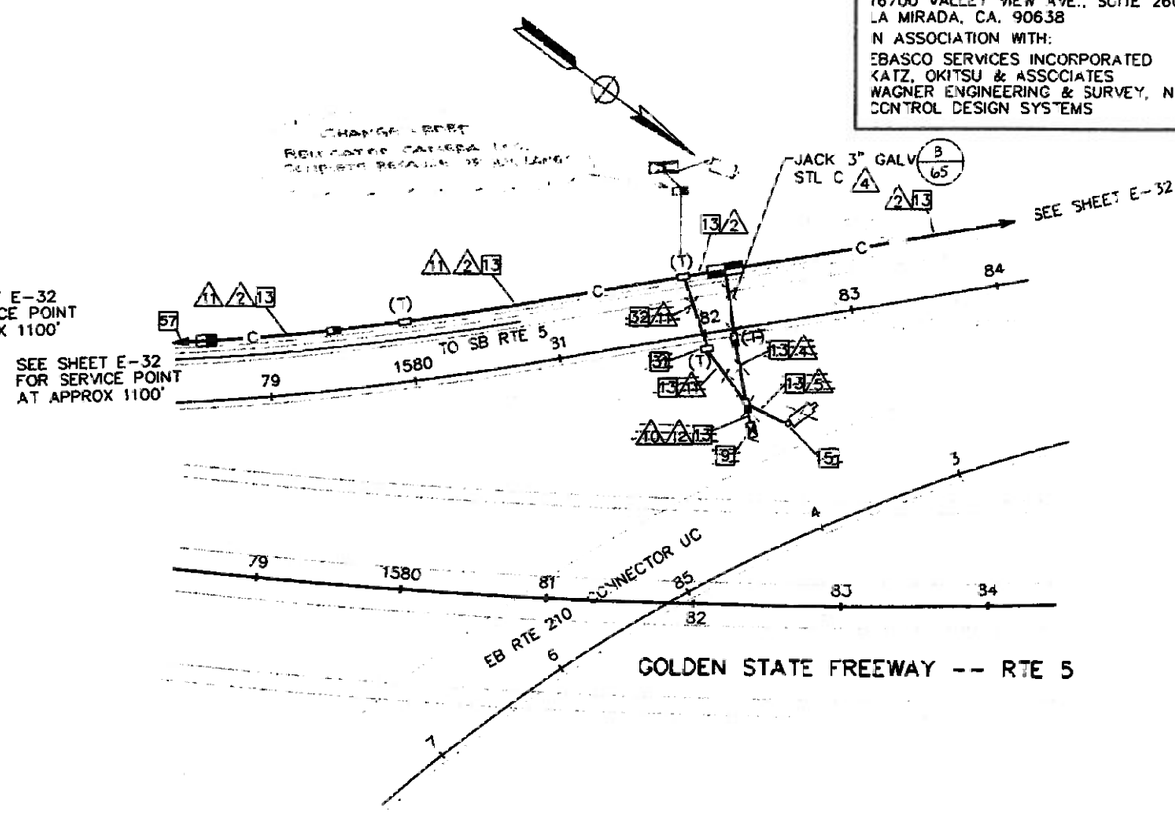
REGISTERED PROFESSIONAL ENGINEER — JOSEPH L KWAK No. 10991 Exp. 6/30/95 ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
16700 VALLEY VIEW AVE., SUITE 260
LA MIRADA, CA. 90638
IN ASSOCIATION WITH:
EBASCO SERVICES INCORPORATED
KATZ, OKITSU & ASSOCIATES
WAGNER ENGINEERING & SURVEY, INC.
CONTROL DESIGN SYSTEMS



GOLDEN STATE FREEWAY -- RTE 5

CAMERA LOCATION 43, PM43.48



GOLDEN STATE FREEWAY -- RTE 5

CAMERA LOCATION 44, PM43.76

CONDUCTOR SCHEDULE CAMERA LOCATION 43

CONDUCTOR TYPE	FUNCTION	2	4	5	6	7	20
50P22 CABLE	PHONE LINES	1					
6P19 CABLE	PHONE LINES		1				1
24SMFO CABLE	MUX VID/DATA	1					
8MMFO CABLE	SHORT HAUL VIDEO	1					
2MMFO B/O CABLE	SHORT HAUL VIDEO		1				1
RG-6A/U COAX	BASEBAND VIDEO			1			1
27C18 CABLE	CONTROL			1			1
#6	POWER				2	2	
#8	GROUND			1	2	1	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	3" (N)

CONDUCTOR SCHEDULE CAMERA LOCATION 44

CONDUCTOR TYPE	FUNCTION	2	4	5	10	11	12
50P22 CABLE	PHONE LINES	1					
6P19 CABLE	PHONE LINES		1				1
24SMFO CABLE	MUX VID/DATA	1					
8MMFO CABLE	SHORT HAUL VIDEO	1					
2MMFO B/O CABLE	SHORT HAUL VIDEO		1				1
RG-6A/U COAX	BASEBAND VIDEO			1			1
27C18 CABLE	CONTROL			1			1
#8	POWER						
#4	POWER				2	2	
#8	GROUND			1	2	1	
CONDUIT	SIZE	4" (N)	3" (N)	3" (N)	3" (N)	2" (N)	3" (N)

AS BUILT 116634
Contract No. 07-
Resident Engineer: Hassan Mannaa
Completion Date: June 13, 1997

CCTV AND COMMUNICATIONS SYSTEM LOCATIONS 43 AND 44

SCALE: 1"= 50'

NOTE: THIS PLAN ACCURATE FOR ELECTRICAL AND CONFLICTING UTILITIES ONLY.
SEE SHEET E-1 FOR LEGEND AND GENERAL NOTES

E-58

DESIGN OVERSIGHT: GLORIA GWYNNE

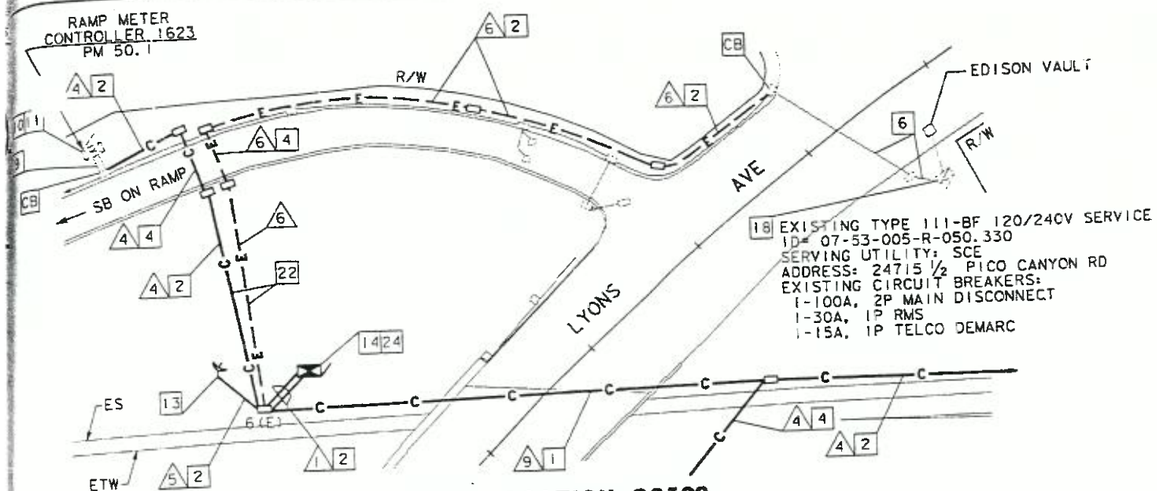
CALCULATED/DESIGNED BY | CHECKED BY | DATE | REVISED BY | DATE REVISED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
WES 03/21/92
1166JE58.0

FORM DC-OE-92-PF (REV. 3/88)

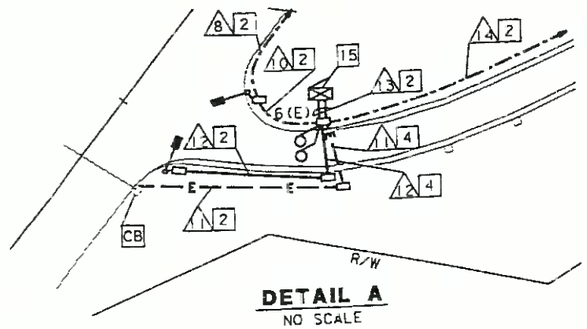
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

CU 07387 EA 116634



VSAT LOCATION GS503

SCALE: 1"=50'

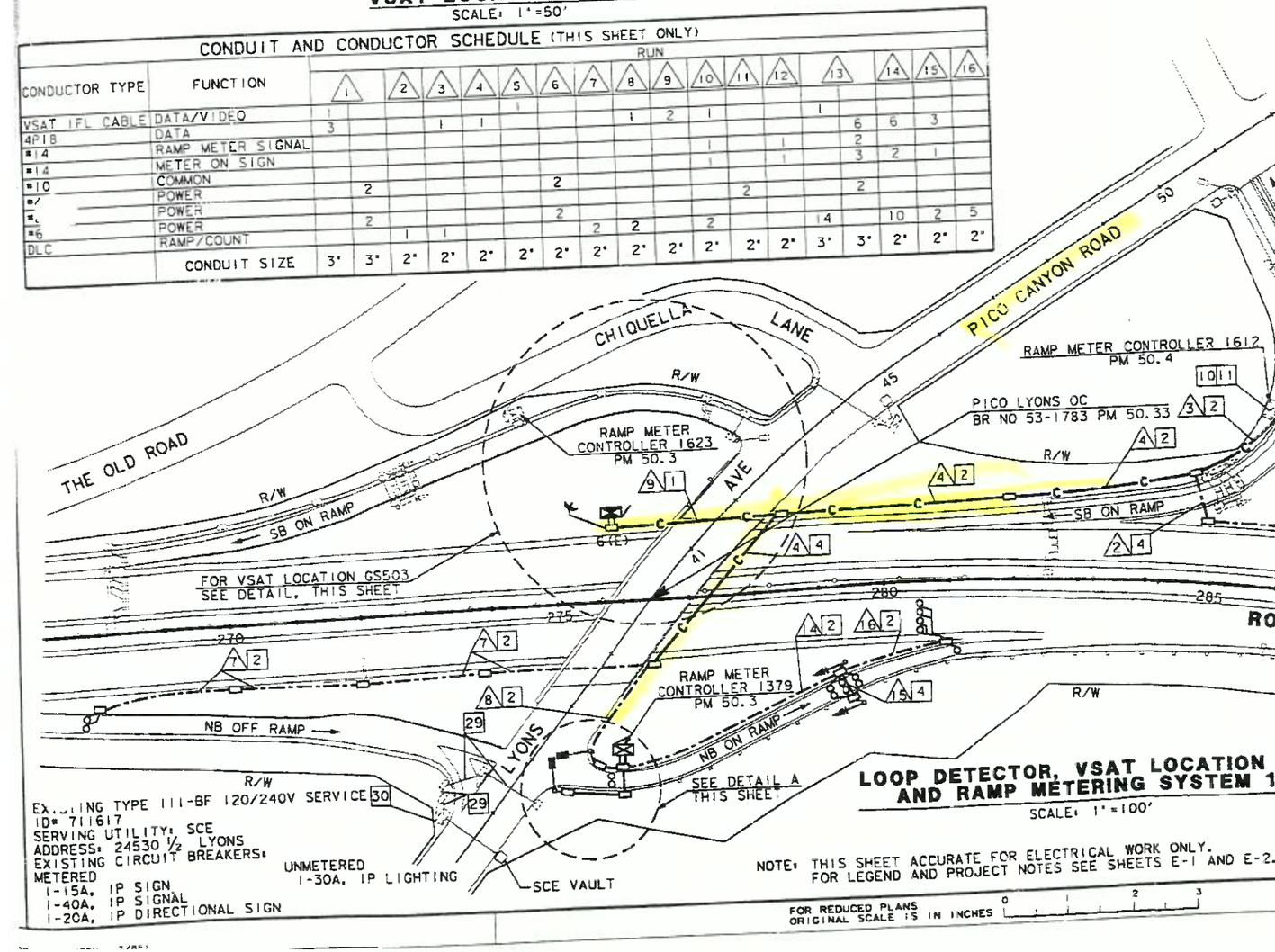


DETAIL A

NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VSAT IFL CABLE	DATA/VIDEO	1			1	1			1	2	1			1			
4PTB	DATA	3													6	6	3
#14	RAMP METER SIGNAL										1		1		2		
#14	METER ON SIGN										1		1		3	2	1
#10	COMMON		2				2					2			2		
#7	POWER																
#6	POWER						2										
DLC	POWER		2					2	2		2			14		10	2	5
	RAMP/COUNT			1	1												
	CONDUIT SIZE	3"	3"	2"	2"	2"	2"	2"	2"	2"	2"	2"	2"	3"	3"	2"	2"	2"



LOOP DETECTOR, VSAT LOCATION GS503 AND RAMP METERING SYSTEM 1379

SCALE: 1"=100'

DIST	COUNTY	ROUTE	TOTAL PROJECT	NO.	SHEET
07	LA	5			

Toni Parola 5/21/96
REGISTERED ELECTRICAL ENGINEER

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — TERI J. PAROLA — No. 14898 — Exp. 6/30/99 — ELECTRICAL — STATE OF CALIFORNIA

NATIONAL ENGINEERING TECHNOLOGY
14320 FIRESTONE BLVD., SUITE 100
LA MIRADA, CA 90638

IN ASSOCIATION WITH:

ABRATIQUE AND ASSOCIATES, INC.
RAYTHEON INFRASTRUCTURE SERVICES, INC.

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

PROJECT NOTES: (THIS SHEET ONLY)

1. INSTALL CONDUIT(S) IN TRENCH IN PAVED SHOULDER. MAINTAIN A MINIMUM DISTANCE OF 4 FEET FROM EDGE OF TRAVELED WAY. SEE SHEET E-32 FOR DETAILS.
2. INSTALL CONDUIT(S) IN TRENCH IN SOIL. SEE SHEET E-31 FOR DETAILS.
4. JACK RIGID STEEL CONDUIT(S) UNDER ROADWAY.
6. ADD 2#4 AND 2#6 POWER CONDUCTORS TO EXISTING CONDUIT.
9. ADD CABLE(S) AND CONNECT TO CONTROLLER.
10. INSTALL 12-PAIR TERMINAL BLOCK IN CONTROLLER CABINET. SEE DETAIL 1, SHEET E-38 AND SHEET E-34.
11. DISCONNECT EXISTING TELCO DEMARCATION CABLE ONLY AFTER TESTING ALL INSTALLED EQUIPMENT, VERIFYING THE INSTALLATION IS OPERATIONAL AND OBTAINING APPROVAL FROM THE ENGINEER.
13. INSTALL VSAT SATELLITE ANTENNA AND POLE. SEE SHEET C-10.
14. INSTALL VSAT CABINET ON NEW FOUNDATION. CABINET SHALL INCLUDE VSAT EQUIPMENT. SEE DETAIL 10, SHEET E-40 AND DETAIL G, SHEET E-41.
15. INSTALL TYPE 334 CABINET ON NEW FOUNDATION. INSTALL STATE FURNISHED MODEL 170 CONTROLLER AND LOOP DETECTOR SENSORS. INSTALL 12-PAIR TERMINAL BLOCK. SEE DETAIL 2, SHEET E-38, DETAIL A, SHEET E-41 AND SHEET E-35.
18. INSTALL THE FOLLOWING CIRCUIT BREAKERS:
    1-30A, 1P VSAT
    1-40A, 1P AIR CONDITIONING
    INSTALL CONDUITS IN THE SAME TRENCH. SEE SHEETS E-31 AND E-32 FOR DETAILS.
22. INSTALL CONDUITS IN THE SAME TRENCH.
24. CONNECT 2#6 TO PDA AND 2#4 TO AIR CONDITIONING UNIT (ACU).
28. IDENTIFY AND RC EXISTING DLC CONNECTED TO ABANDONED LOOPS. ADD NEW DETECTOR LOOP CABLE(S) THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
29. ADD 2#8 POWER CONDUCTORS TO EXISTING CONDUIT.
30. INSTALL 30A, 120V, SINGLE POLE CIRCUIT BREAKER FOR RMS.

NOTE: THIS SHEET ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND PROJECT NOTES SEE SHEETS E-1 AND E-2.

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

LOOP DETECTOR, RAMP METERING SYSTEM (LOCATION 1379) AND VSAT (LOCATION GS503)

SCALE: AS NOTED

E-7

USERNAME => $$$$$$USER$$$$$$
DGN FILE => $$$$$$$$$$DGNSPEC$$$$$$$$$$

CU 07396 | EA 120771

TIME PLOTTED => $$$$$$$SYTIME$$$$$$

REVISION 00-00-00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	5			

REGISTERED ELECTRICAL ENGINEER

J. RUELAS
No. E015604
Exp. 12-31-07
ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

CONDUCTOR AND CONDUIT SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10	11	12
5CSC	RAMP METERING			1	1						2	2	1
9CSC	RAMP METERING				1	1		1			1		
12 PAIR #18	VEHICLE DETECTION				1	1	1			1	1		
DLC	QUEUE DETECTOR			1	1						1	1	
	DEMAND DETECTOR				1			1			1		
	PASSAGE DETECTOR				1			1			1		
	SURVEILLANCE DETECTOR												
	COUNT DETECTOR				1	1		1	1	1			
#6	SERVICE	2	2		4	2	2			2	2		
CONDUIT SIZE		3"	2"	2"	2-3" 2-2"	3"	2-2"	2"	2"	2"	2"	2"	3"

PROJECT NOTES: (THIS SHEET)

[1] EXISTING POWER POLE (P.P.#1831037E)

[2] EXISTING 120/240 V TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING:

METER 1:
1-100 A, 2P, MAIN BREAKER.
1-50 A, 1P, CB FOR SIGNAL.
1-20 A, 1P, CB FOR RAMP METER.

METER 1A
1-100 A, 2P, MAIN BREAKER.
1-15 A, 1P, CB FOR HWY LIGHTING.
1-15 A, 1P, CB FOR SIGN LIGHTING.
1-30 A, 1P, CB FOR VSAT.
1-30 A, 1P, CB FOR VDS.

METER 2:
1-100 A, 2P, MAIN BREAKER.
1-15 A, 1P, CB FOR PEU.
1-15 A, 1P, CB FOR IRRIGATION.
1-40 A, 1P, CB FOR HWY LIGHTING

METER 2A
1-100 A, 2P, MAIN BREAKER.
1-30 A, 1P, CB FOR SIGN LIGHTING.
1-15 A, 1P, CB FOR FLASHING BEACON.
1-15 A, 1P, CB FOR SPARE.

INSTALL THE FOLLOWING IN METER 2A:
1-30 A, 1P, CB FOR RAMP METER.

[3] INSTALL STATE-FURNISHED 170 CONTROLLER ASSEMBLY AND MODEL 334 CABINET ON NEW FOUNDATION AT SAME LOCATION AS EXISTING. INSTALL MVDS EQUIPMENT AND RADIO MODEM PER DETAIL. SEE SHEETS E-9 AND E-10.

[RC] EXISTING TMS CABINET AND FOUNDATION COMPLETE.

[4] INSTALL WIRELESS MICROWAVE VEHICLE DETECTION SYSTEM. SEE DETAIL E-7.

PROJECT NOTES: (THIS SHEET)

[5] INSTALL 2#6 FOR RAMP METER IN EXISTING CONDUIT.

[6] INSTALL 2-3" AND 2-2" CONDUIT. INSTALL 2-5CSC, 1-9CSC, 14 DLC, 12 PAIR #18, 2#6, 4 PAIR #18 AND RG-6A/U CABLE.

[7] INSTALL TYPE 1A WITH TV-2-T AND SV-1-T MOUNTING. SEE DETAIL SHEET E-8.

[8] INSTALL TYPE 1A WITH TP-1-T MOUNTING AND LED METER-ON SIGN.

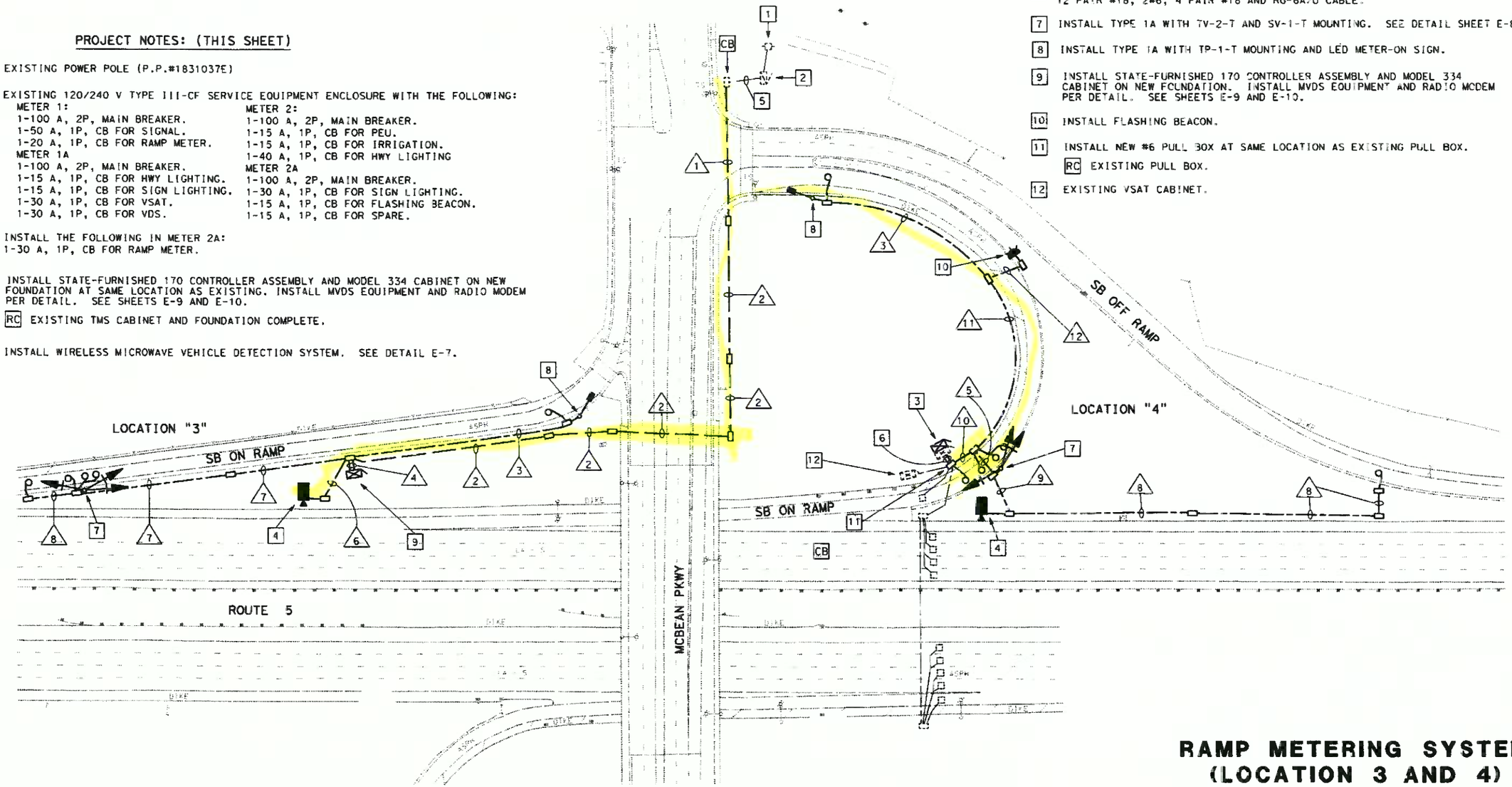
[9] INSTALL STATE-FURNISHED 170 CONTROLLER ASSEMBLY AND MODEL 334 CABINET ON NEW FOUNDATION. INSTALL MVDS EQUIPMENT AND RADIO MODEM PER DETAIL. SEE SHEETS E-9 AND E-10.

[10] INSTALL FLASHING BEACON.

[11] INSTALL NEW #6 PULL BOX AT SAME LOCATION AS EXISTING PULL BOX.

[RC] EXISTING PULL BOX.

[12] EXISTING VSAT CABINET.



RAMP METERING SYSTEM (LOCATION 3 AND 4)

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY

SCALE: 1"=50'

E-6

LAST REVISION 00-00-00
DATE PLOTTED => 09 JAN-2014
TIME PLOTTED => 10:51

REVISED BY | DATE REVISED
CALCULATED-DESIGNED BY | CHECKED BY
SUPERVISING ENGINEER: JESSE RUELAS
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC DESIGN
Caltrans

BORDER LAST REVISED 11/1/2006

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s109951
DGN FILE => 71x840tid06.dgn

CU 07383

EA 71X8401