INFORMATION HANDOUT

For Contract No. 07-287304
At 07-LA-210-R39.8/R42.2

Identified by
Project ID 0700021033

MATERIALS INFORMATION

Aerially Deposited Lead Site Investigation

As Built – Communication System Routing

Stantec

AERIALLY DEPOSITED LEAD SITE INVESTIGATION

STATE ROUTE 210
From Azusa Avenue to Glendora Avenue
Los Angeles County, California
LA-210, PM R39.8/R42.2

EFIS NUMBER: 0700021033
EA NUMBER: 287301
07A3322-13

STANTEC PROJECT NO.: 185832013

Submitted to:
California Department of Transportation,
District 7
100 South Main Street
Los Angeles, California 90012

Submitted by:
Stantec Consulting Services Inc.
25864-F Business Center Drive
Redlands, California 92374

Prepared by:

Anne E. Perez
Associate Geologist

Reviewed by:

for Dion Monge
Associate Scientist

Approved by:

Kevin Miskin, P.E. C48458
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
KEVIN KOY MISKIN
No. C48458
Exp. 6/14
CIVIL
STATE OF CALIFORNIA

October 25, 2013

TABLE 1 - BORING LOCATIONS/STATIONS
AERIALLY DEPOSITED LEAD SITE INVESTIGATION
LA-210, PM R39.8/R42.2
LOS ANGELES COUNTY, CALIFORNIA
EFIS 0700021033 (EA#287301)
TASK ORDER #13
CONTRACT 07A3322

INVESTIGATION SITES	BORING ID	DIRECTION	APPROXIMATE STATION	NOTES
1	1224-101	EB	550+50	Southside slope under Citrus Avenue Overcrossing
	1224-102	EB	550+85	
2	1224-103	EB	577+55	Southside slope under Barranca Avenue Overcrossing
	1224-104	EB	577+95	
3	1224-105	EB	602+45	EB Off-ramp to SB Grand Avenue terminus, SW corner
	1224-106	EB	603+55	
4	1224-107	EB	604+90	EB Off-ramp to NB Grand Avenue Loop Ramp, south side
	1224-108	EB	606+35	
	1224-109	EB	607+30	
	1224-110	EB	607+70	
5	1224-111	EB	606+90	EB Off-ramp to NB Grand Avenue Loop Ramp, Freeway Gore Area
	1224-112	EB	606+70	
6	1224-113	EB	610+60	EB On-ramp at Grand Avenue, Freeway Gore Area
	1224-114	EB	612+00	
7	1224-115	WB	614+20	WB Off-ramp at Baseline Road terminus, SE corner
	1224-116	WB	614+10	
8	1224-117	WB	613+90	Gore Area between WB On-ramp and WB Off-ramp at Baseline Road
	1224-118	WB	613+40	
9	1224-119	WB	551+00	Northside slope under Citrus Avenue Overcrossing
	1224-120	WB	550+50	

Notes:
Station numbers are for reference and should be considered approximate.

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS - LEAD
AERIALLY DEPOSITED LEAD SITE INVESTIGATION
LA-210, PM R39.8/R42.2
LOS ANGELES COUNTY, CALIFORNIA
EFIS 0700021033 (EA#287301)
TASK ORDER #13
CONTRACT 07A3322

	Investigation Sites	Sample ID	Total Lead (1) (mg/kg)	Soluble Lead (1) Cal WET-Citric (mg/L)	Soluble Lead (1) Cal WET-DI (mg/L)	Soluble Lead (1) TCLP (mg/L)	pH (2)
Raw Sample Data	1	1224-101-0	140	**11**	--	0.28	6.6
		1224-102-0	43	1.5	--	0.019 J	--
	2	1224-103-0	140	**9.2**	--	0.46	7.3
		1224-104-0	330	**27**	--	2.2	--
	3	1224-105-0	17	0.67 J	--	<0.0022	--
		1224-106-0	100	**6.5**	--	0.018 J	8.2
	4	1224-107-0	240	**14**	--	0.3	7.1
		1224-108-0	24	1.2	--	0.011 J	--
		1224-109-0	55	2.6	--	0.022 J	--
		1224-110-0	97	**5.2**	--	0.040 J	--
	5	1224-111-0	430	**31**	--	0.37	--
		1224-112-0	310	**20**	--	0.31	7.2
	6	1224-113-0	30	3.6	--	0.026 J	--
		1224-114-0	550	**67**	--	0.51	7.4
	7	1224-115-0	15	0.65 J	--	0.0057 J	--
		1224-116-0	8.2	0.31 J	--	0.0034 J	7
	8	1224-117-0	62	3.2	--	0.038 J	7.1
		1224-118-0	230	**16**	--	0.26	--
	9	1224-119-0	6.9	0.23 J	--	<0.0022	--
		1224-120-0	38	1.3	--	0.0098 J	7.4
Threshold Limits		California Hazardous Waste	1000	5	--	--	--
		RCRA Hazardous Waste	--	--	--	5	≤2 or ≥12.5
		California Human Health Screening Level[3]	320	--	--	--	--

Notes:

(1) Total Lead, Soluble Threshold Limit Concentration (STLC or "Soluble Lead"), and Toxicity Characteristic Leaching Procedure (TCLP) analysis by EPA method 6010B. Extraction methods vary.

(2) pH determined with EPA method 9045B.

(3) California Human Health Screening Levels for Commercial/Industrial and Residential Land Use, Soil, California Environmental Protection Agency, January 2005; updated 2010 Office of Environmental Health Hazard Assessment Table 1.

mg/kg = milligrams per kilogram

-- = Not analyzed or not applicable

mg/L = milligrams per liter

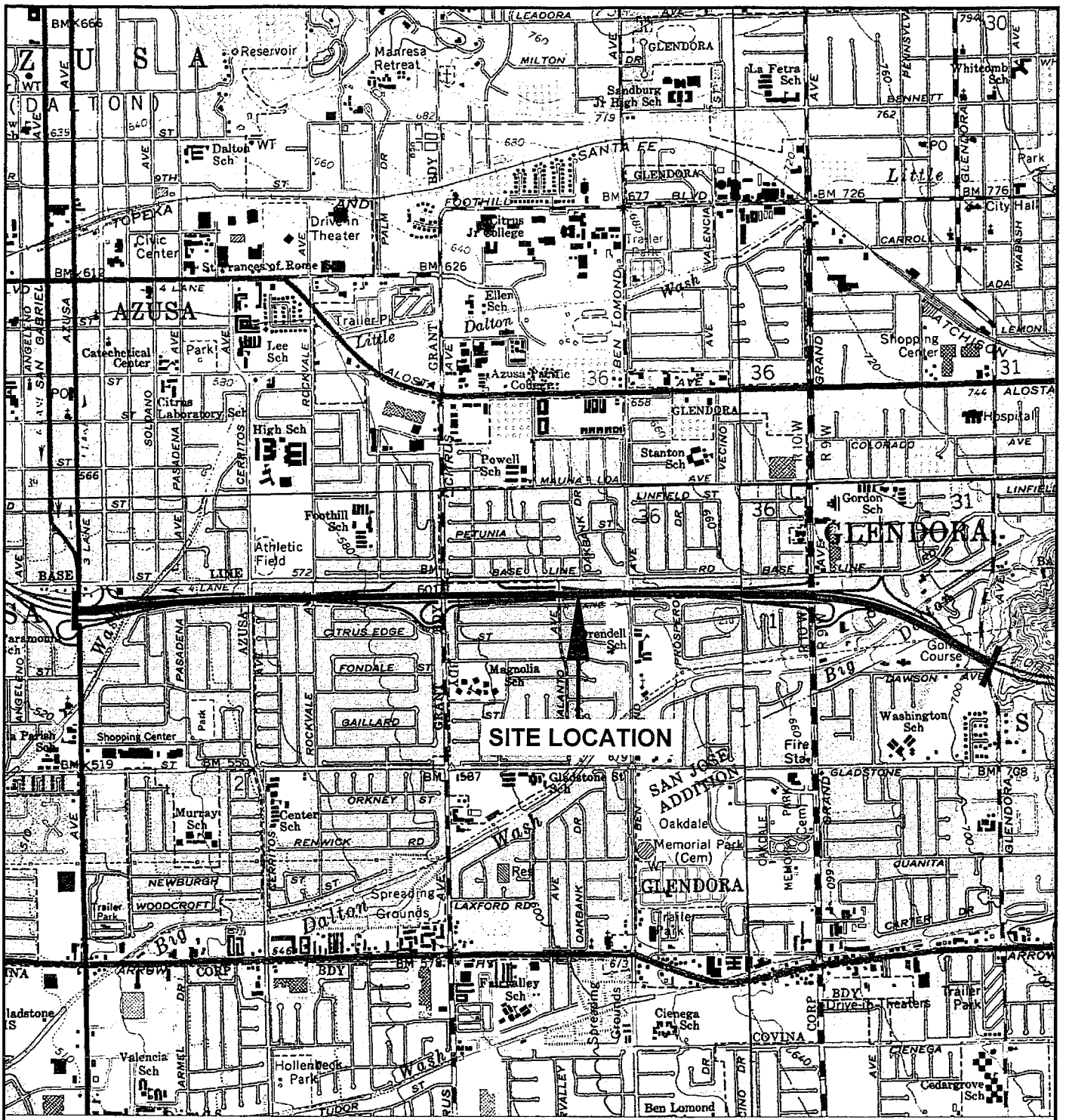
Bold = Exceeds threshold limit

J - Concentration is reported between the practical quantitation limit and the method detection limit.

TABLE 3
SUMMARY OF SOIL ANALYTICAL RESULTS - METALS
AERIALLY DEPOSITED LEAD SITE INVESTIGATION
LA-210, PM R39.8/R42.2
LOS ANGELES COUNTY, CALIFORNIA
EFIS 0700021033 (EA#287301)
TASK ORDER #13
CONTRACT 07A3322

Caltrans Unique Sample ID	Sample Depth (feet bgs)	Sample Date	TITLE 22 METALS by EPA Test Method 6010/7470																
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium (III)	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
CHHSLs - Industrial Use (1)			*380*	*0.24*	*63,000*	*190*	*7.5*	*100,000*	*3,200*	*38,000*	*320*	*4,800*	*16,000*	*4,800*	*4,800*	*63*	*6,700*	*100,000*	*180*
Expected Background Concentrations (2)			*0.15-1.95*	*12 (3)*	*133-1400*	*0.25-2.70*	*0.05-1.70*	*23-1579*	*2.7-46.9*	*9.1-96.4*	*12.4-97.1*	*0.1-9.6*	*9-509*	*0.015-0.430*	*13.2-39.4*	*9.8-36.2*	*75-288*	*133-236*	*0.05-0.90*
California TTLC			*500*	*500*	*10,000*	*75*	*100*	*2,500*	*8,000*	*2,500*	*1,000*	*3,500*	*2,000*	*100*	*500*	*700*	*2,400*	*5,000*	*20*
10 x California STLC			*150*	*50*	*1,000*	*7.5*	*10*	*50*	*800*	*250*	*50*	*3,500*	*200*	*10*	*50*	*70*	*240*	*2,500*	*2*
SOIL SAMPLES																			
1224-106-0	SURFACE	10/1/2013	**0.27 J**	**4.9**	**91**	**0.16 J**	**0.11 J**	**9.6**	**4.6**	**20**	*	**0.41 J**	**9.4**	<0.24	<0.06	<0.30	**21**	**96**	**0.04 J**
1224-107-0	SURFACE	10/1/2013	**0.49 J**	**5.7**	**150**	**0.21 J**	**0.58 J**	**14**	**8.3**	**31**	*	**1.1**	**15**	**0.59 J**	<0.06	<0.30	**31**	**250**	**0.67**
1224-112-0	SURFACE	10/1/2013	**0.40 J**	**3.6**	**110**	**0.16 J**	**0.26 J**	**11**	**6.2**	**33**	*	**0.82 J**	**40**	**0.48 J**	<0.06	<0.30	**23**	**200**	**0.02 J**
1224-114-0	SURFACE	10/1/2013	**0.49 J**	**5.1**	**130**	**0.19 J**	**0.40 J**	**13**	**7.2**	**38**	*	**1.1**	**13**	**0.36 J**	<0.06	<0.30	**27**	**250**	**0.03 J**

NOTES:
All soil results in mg/Kg
CHHSLs = California Human Health Screening Levels
TTLC = Total Threshold Limit Concentration
STLC = Soluble Threshold Limit Concentration
bgs = below ground surface
Sample depth in feet below the ground surface
<0.5 - Analyte not reported at or above stated method detection limit
(1) Soil, California Human Health Screening Levels for Commercial/Industrial and Residential Land Use, California Environmental Protection Agency, January 2005; updates 2009 & 2010 Office of Environmental Health Hazard Assessment Table 1.
(2) G.R. Bradford, A.C. Chang, A.L. Page, D. Bakhtar, J.A. Frampton, and H. Wright, Background Concentrations of Trace and Major Elements in California Soils, March 1996.
(3) California Department of Toxic Substances Control (DTSC), 2008, Determination of a Southern California Regional Background Arsenic Concentration in Soil, March.
= Shaded cells indicate a concentration that exceeds either the RSL, CHHSL, and/or the background concentration for that particular metal.
J - Concentration is reported between the practical quantitation limit and the method detection limit.
*** See Table 2**



SOURCES:
USGS 7.5 MINUTE TOPOGRAPHIC MAPS–
AZUSA, CA QUADRANGLE
1966, PHOTOREVISED 1972,
GLENDORA, CA QUADRANGLE
1966, PHOTOREVISED 1972,
SAN DIMAS, CA QUADRANGLE
1966, PHOTOREVISED 1981, AND
BALDWIN PARK, CA QUADRANGLE
1966, PHOTOREVISED 1981

QUADRANGLE LOCATIONS

0 2000 4000

APPROXIMATE SCALE (FEET)

N

Stantec

25864-F BUSINESS CENTER DRIVE
REDLANDS, CALIFORNIA 92374
PHONE:(909) 335-6116 FAX:(909) 335-6120

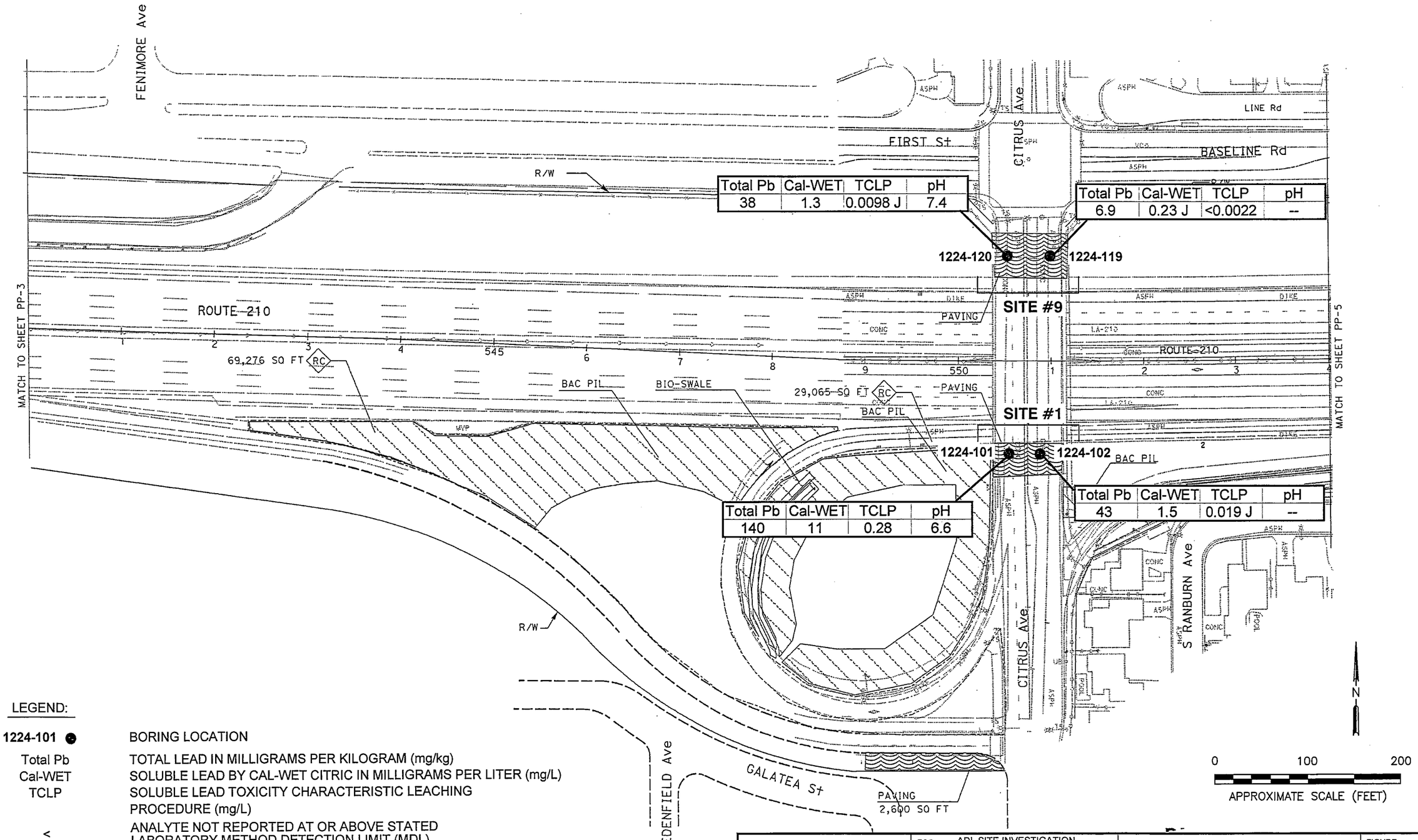
FOR: ADL SITE INVESTIGATION
Caltrans Contract #07a3322
Task Order No. 13
LA-210, PM R39.8/R42.2
From Azusa Avenue to Glendora Avenue
Los Angeles County
EFIS: 0700021033; EA:278301

SITE LOCATION MAP

FIGURE: 1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185832013	KM	AP	KM	10/18/13

FILEPATH:W:\OFFICE- REDLANDS\185832013\185832013-SLM13.dwg|kmitchell|Oct 18, 2013 at 16:02|Layout: FIGURE 1



Total Pb	Cal-WET	TCLP	pH
38	1.3	0.0098 J	7.4

Total Pb	Cal-WET	TCLP	pH
6.9	0.23 J	<0.0022	--

Total Pb	Cal-WET	TCLP	pH
140	11	0.28	6.6

Total Pb	Cal-WET	TCLP	pH
43	1.5	0.019 J	--

LEGEND:

1224-101 ●	BORING LOCATION
Total Pb	TOTAL LEAD IN MILLIGRAMS PER KILOGRAM (mg/kg)
Cal-WET	SOLUBLE LEAD BY CAL-WET CITRIC IN MILLIGRAMS PER LITER (mg/L)
TCLP	SOLUBLE LEAD TOXICITY CHARACTERISTIC LEACHING PROCEDURE (mg/L)
<	ANALYTE NOT REPORTED AT OR ABOVE STATED LABORATORY METHOD DETECTION LIMIT (MDL)
--	NOT ANALYZED
J	CONCENTRATION IS REPORTED BETWEEN THE PRACTICAL QUANTITATION LIMIT AND THE MDL

Stantec
25864-F BUSINESS CENTER DRIVE
REDLANDS, CALIFORNIA 92374
PHONE: (909) 335-6116 FAX: (909) 335-6120

FOR: ADL SITE INVESTIGATION
Caltrans Contract #07a3322
Task Order No. 13
LA-210, PM R39.8/R42.2
From Azusa Avenue to Glendora Avenue
Los Angeles County
EFIS: 0700021033; EA:278301

BORING LOCATION PLAN-1
(PLANTING PLAN- PP-4)

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185832013	KM	AP	KM	10/18/13

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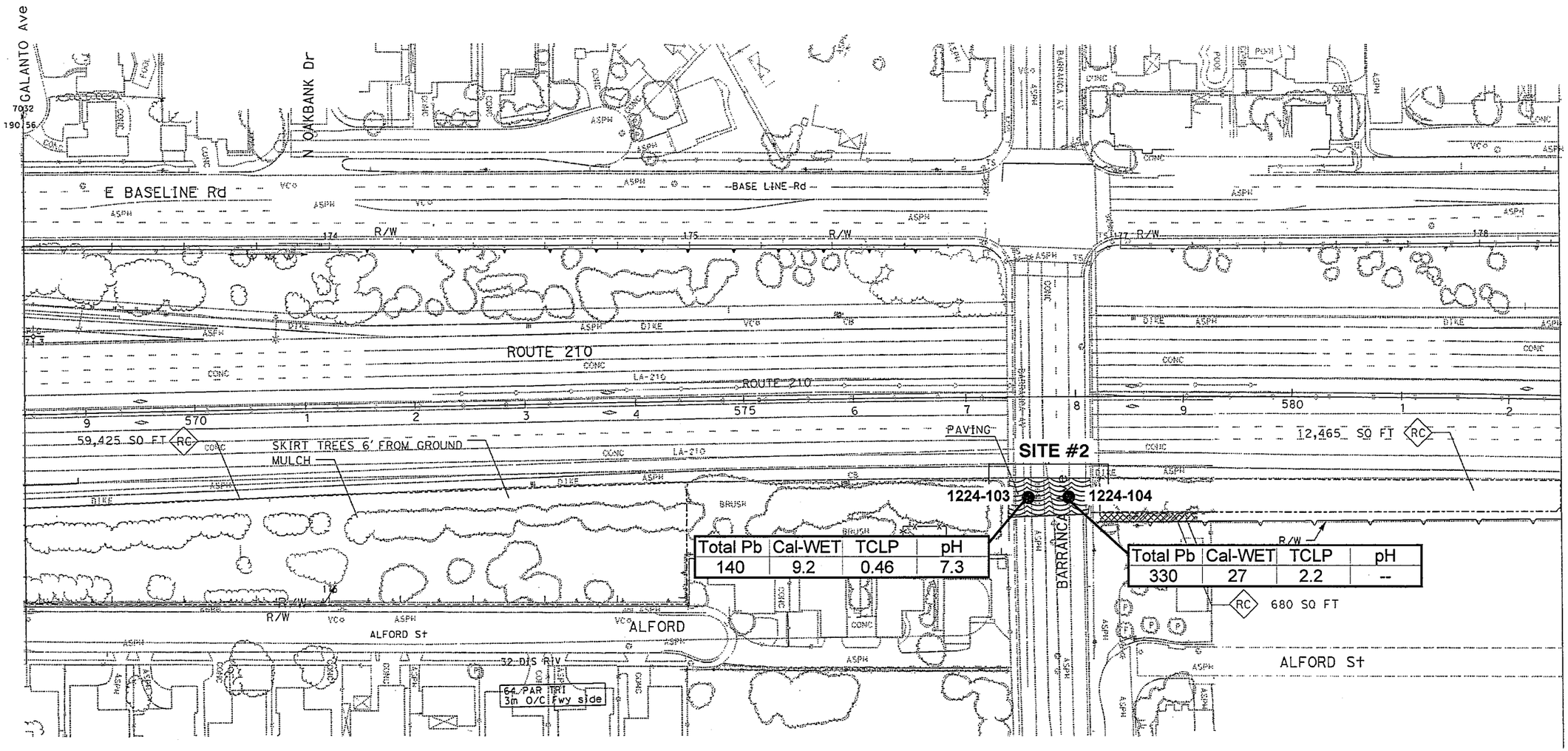

LEGEND:

1224-104 ●	BORING LOCATION
Total Pb	TOTAL LEAD IN MILLIGRAMS PER KILOGRAM (mg/kg)
Cal-WET	SOLUBLE LEAD BY CAL-WET CITRIC IN MILLIGRAMS PER LITER (mg/L)
TCLP	SOLUBLE LEAD TOXICITY CHARACTERISTIC LEACHING PROCEDURE (mg/L)
<	ANALYTE NOT REPORTED AT OR ABOVE STATED LABORATORY METHOD DETECTION LIMIT (MDL)
--	NOT ANALYZED
J	CONCENTRATION IS REPORTED BETWEEN THE PRACTICAL QUANTITATION LIMIT AND THE MDL

0 100 200

APPROXIMATE SCALE (FEET)

Stantec

25864-F BUSINESS CENTER DRIVE
REDLANDS, CALIFORNIA 92374
PHONE: (909) 335-6116 FAX: (909) 335-6120

FOR: ADL SITE INVESTIGATION
Caltrans Contract #07a3322
Task Order No. 13
LA-210, PM R39.8/R42.2
From Azusa Avenue to Glendora Avenue
Los Angeles County
EFIS: 0700021033; EA:278301

BORING LOCATION PLAN-2
(PLANTING PLAN- PP-6)

FIGURE: 3

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
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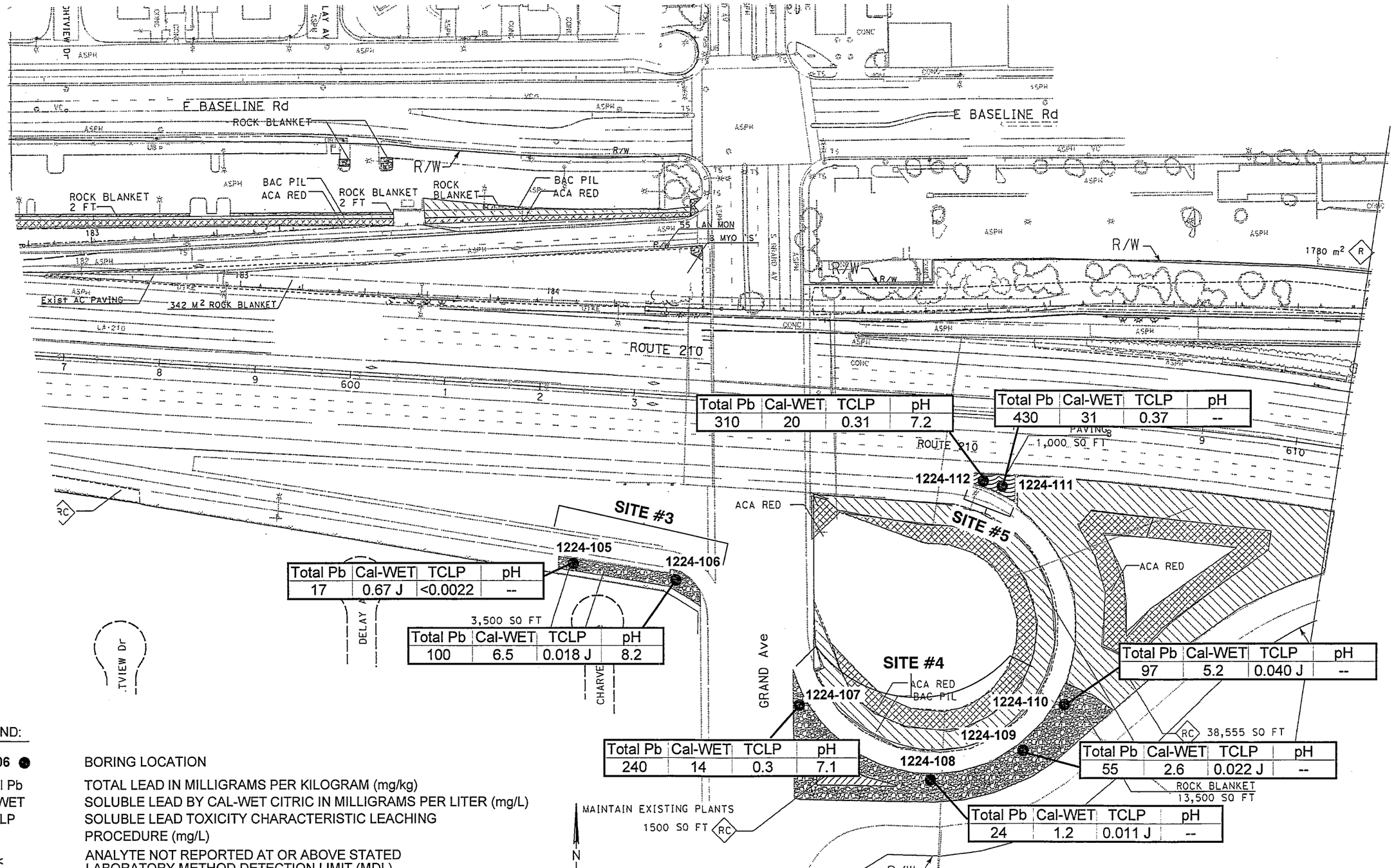

Total Pb	Cal-WET	TCLP	pH
310	20	0.31	7.2

Total Pb	Cal-WET	TCLP	pH
430	31	0.37	--

Total Pb	Cal-WET	TCLP	pH
17	0.67 J	<0.0022	--

Total Pb	Cal-WET	TCLP	pH
100	6.5	0.018 J	8.2

Total Pb	Cal-WET	TCLP	pH
97	5.2	0.040 J	--

Total Pb	Cal-WET	TCLP	pH
240	14	0.3	7.1

Total Pb	Cal-WET	TCLP	pH
55	2.6	0.022 J	--

Total Pb	Cal-WET	TCLP	pH
24	1.2	0.011 J	--

LEGEND:

1224-106 ●	BORING LOCATION
Total Pb	TOTAL LEAD IN MILLIGRAMS PER KILOGRAM (mg/kg)
Cal-WET	SOLUBLE LEAD BY CAL-WET CITRIC IN MILLIGRAMS PER LITER (mg/L)
TCLP	SOLUBLE LEAD TOXICITY CHARACTERISTIC LEACHING PROCEDURE (mg/L)
<	ANALYTE NOT REPORTED AT OR ABOVE STATED LABORATORY METHOD DETECTION LIMIT (MDL)
--	NOT ANALYZED
J	CONCENTRATION IS REPORTED BETWEEN THE PRACTICAL QUANTITATION LIMIT AND THE MDL

Stantec
25864-F BUSINESS CENTER DRIVE
REDLANDS, CALIFORNIA 92374
PHONE: (909) 335-6116 FAX:(909) 335-6120

FOR: ADL SITE INVESTIGATION
Caltrans Contract #07a3322
Task Order No. 13
LA-210, PM R39.8/R42.2
From Azusa Avenue to Glendora Avenue
Los Angeles County
EFIS: 0700021033; EA:278301

BORING LOCATION PLAN-3
(PLANTING PLAN- PP-8)

FIGURE: 4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
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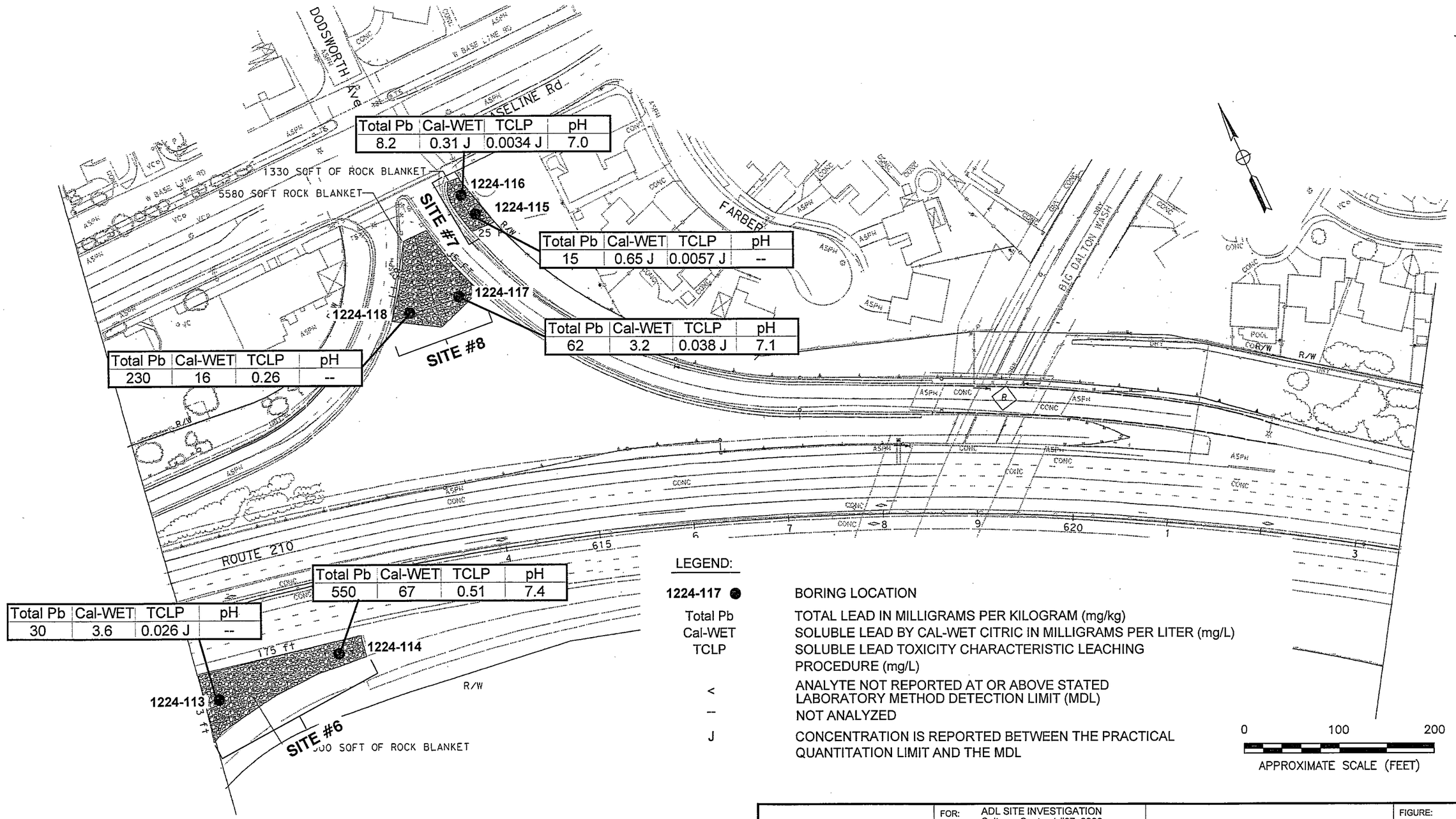

Stantec

25864-F BUSINESS CENTER DRIVE
REDLANDS, CALIFORNIA 92374
PHONE: (909) 335-6116 FAX: (909) 335-6120

FOR: ADL SITE INVESTIGATION
Caltrans Contract #07a3322
Task Order No. 13
LA-210, PM R39.8/R42.2
From Azusa Avenue to Glendora Avenue
Los Angeles County
EFIS: 0700021033; EA:278301

BORING LOCATION PLAN- 4
(PLANTING PLAN- PP-9)

FIGURE: 5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	1	213

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

ACIM-210-1(791)E

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY

IN LOS ANGELES COUNTY IN MONROVIA, DUARTE, IRWINDALE, GLENDORA, SAN DIMAS AND LA VERNE ON ROUTE 210 FROM MAYFLOWER AVENUE UNDERCROSSING TO FOOTHILL BOULEVARD UNDERCROSSING AND AT SAN GABRIEL VALLEY HUB BUILDING AND AT REGIONAL TRAFFIC MANAGEMENT CENTER

To be supplemented by Standard Plans dated July, 2004

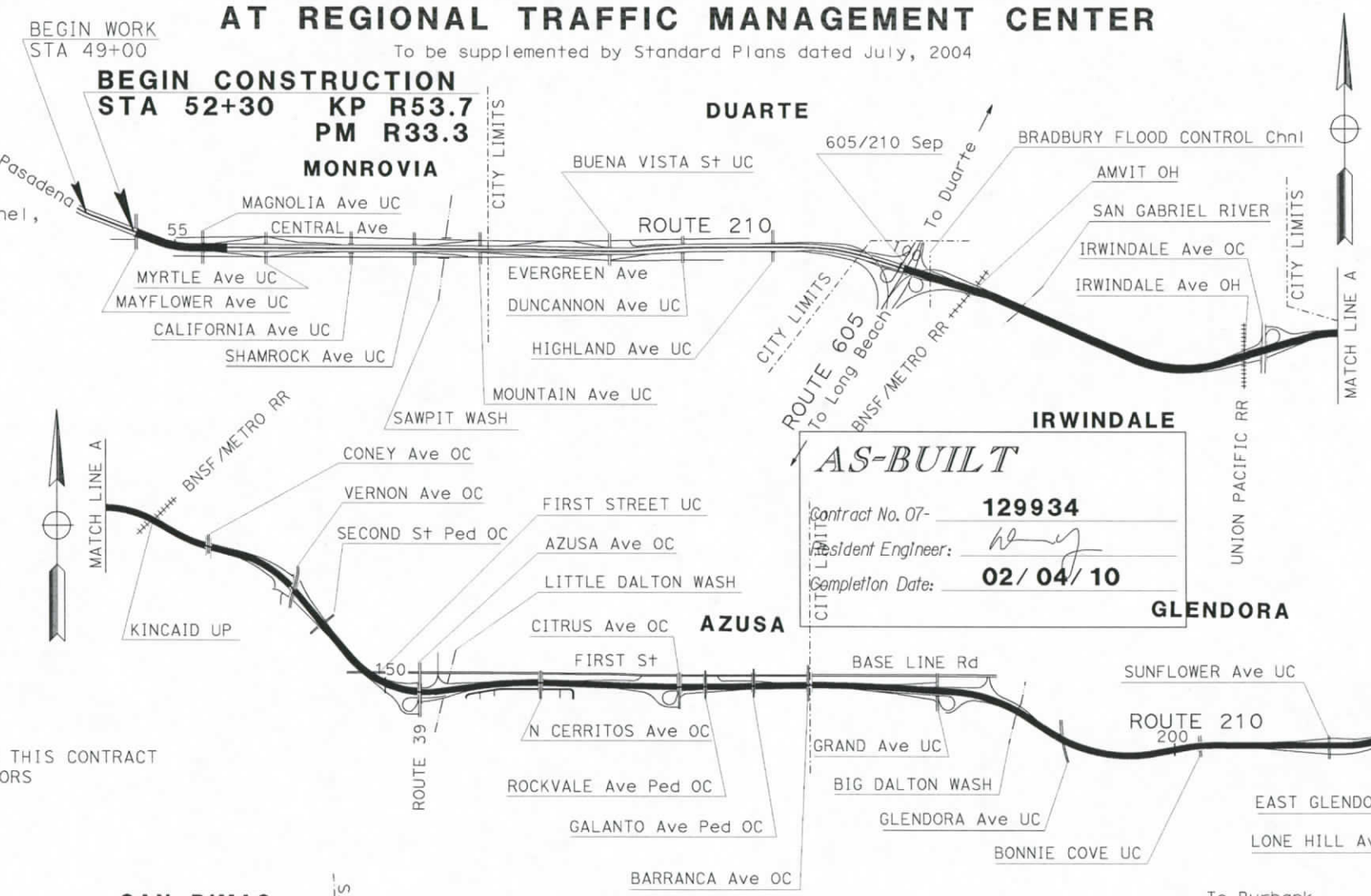
INDEX OF SHEETS

Sheet No.	Description
1	Title and Location Map
2	Key Map and Line Index
3-13	Construction Details
14-39	Utility Plans and Detail
40-49	Traffic Handling Plans
50	Construction Area Signs
51-54	Retaining Wall Plans, Details and Quantities
55	Summary of Quantities
56-60	Irrigation Plans
61-148	Electrical Plans
149-162	Revised Standard Plans

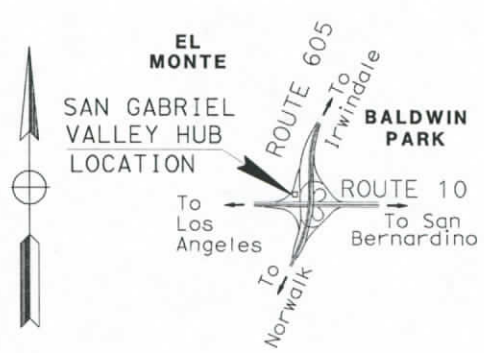
STRUCTURE PLANS

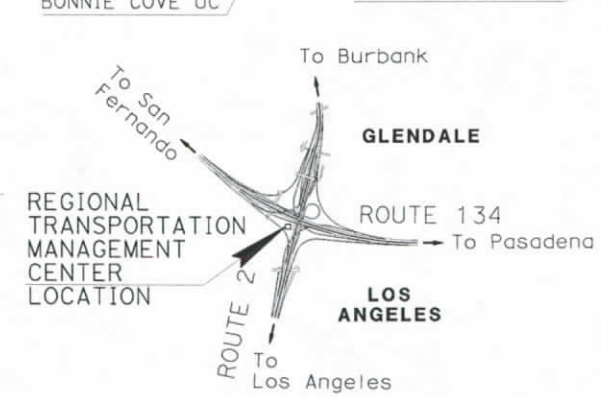
163-166	Amelia Avenue UC, Br. No. 53-1994
167-169	Azusa Avenue, Route 210/39 Separation, Br. No. 53-1886
170-171	Big Dalton Wash, Br. No. 53-2060
172-174	Bonnie Cove Avenue UC, Br. No. 53-2025
175-177	Bradbury Flood Control Channel, Br. No. 53-1955
178-180	East Connector UC, Br. No. 53-1970
181-183	East Glendora OH, Br. No. 53-1930
184-186	Glendora Avenue UC, Br. No. 53-2072
187-189	Grand Avenue UC, Br. No. 53-2048
190-192	Lone Hill Avenue UC, Br. No. 53-1971
193-194	MWD Pipeline UC, Br. No. 53-2071
195-198	Route 210/66 Separation, Br. No. 53-2075
199-202	San Dimas Avenue UC, Br. No. 53-2064
203-205	San Dimas Canyon Road UC, Br. No. 53-2069
206-207	San Gabriel River, Br. No. 53-1867
208-210	Sunflower Avenue UC, Br. No. 53-2061
211-213	Walnut Avenue UC, Br. No. 53-2068

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO CONTRACTORS AND SPECIAL PROVISIONS BOOK.



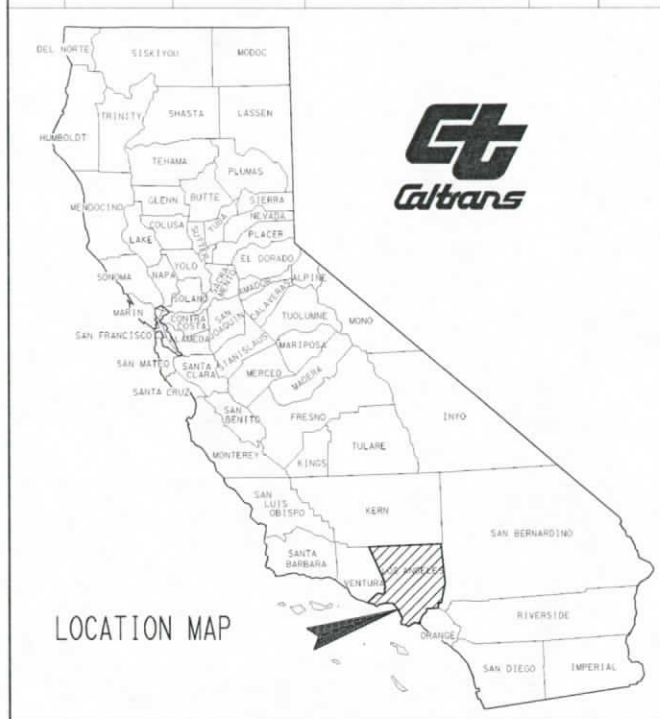
AS-BUILT
Contract No. 07- 129934
Resident Engineer:
Completion Date: 02/04/10





The Contractor shall possess the Class (or Classes) of license as specified in the "Notice to Contractors".

NO SCALE



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

Caltrans Metric

Conway Chu
Project Engineer Date
Registered Electrical Engineer

CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

May 22, 2006
Plans Approval Date

Contract No. 07-129934

PROJECT ENGINEER	DATE	PROJECT MANAGER	DATE
C. CHU	01/06	J. TAN	01/06

LAST REVISION 00-00-00 DATE PLOTTED => 17-JUN-2010 08:14

FORM DC-OE-93-PF (REV. 3/88)

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

USERNAME => s129112
DGN FILE => 129934ab001.dgn

CU 07388 EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	61	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CONWAY CHU
No. E15305
Exp. 3/31/07
ELECTRICAL
STATE OF CALIFORNIA

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

Caltrans Metric

ABBREVIATIONS: (SHEETS E-2 THROUGH E-86)

2SMFO	-	2 SINGLEMODE FIBER OPTIC CABLE
12SMFO	-	12 SINGLEMODE FIBER OPTIC CABLE
48SMFO	-	48 SINGLEMODE FIBER OPTIC CABLE
6P22	-	6-PAIR 22 CABLE
50P22	-	50-PAIR 22 CABLE
AT & SF	-	ATCHISON TOPEKA AND SOUTHERN PACIFIC
AZLW	-	AZUSA LIGHT & WATER DEPT
CCR	-	CAMERA CONTROL RECEIVER
CIA	-	CONTROLLER INTERFACE ASSEMBLY
CO	-	COMPANY
COMM	-	COMMUNICATION
DACCS	-	DIGITAL ACCESS AND CROSS CONNECTION SYSTEM
DCE	-	DATA COMMUNICATION EQUIPMENT
DEMARC	-	DEMARCATION
DEMUX	-	DEMULTIPLEX
DM	-	DATA MODEM
DWP	-	LA DEPARTMENT OF WATER AND POWER
FDF	-	FIBER DISTRIBUTION FRAME
FDU	-	FIBER DISTRIBUTION UNIT
FOCM	-	FIBER OPTIC CONTROL MODEM
FOTM	-	FIBER OPTIC TRAFFIC MODEM
FT	-	FOOTHILL FREEWAY
GTE TEL	-	GENERAL TELEPHONE
JKFD	-	JACKFIELD
MUX	-	MULTIPLEX
MWD	-	METROPOLITAN WATER DISTRICT
PDA	-	POWER DISTRIBUTION ASSEMBLY
PTSCM	-	PUBLIC TELEPHONE SYSTEM CONTROL MODEM
RCVR	-	RECEIVER
RMS	-	RAMP METERING SYSTEM
R/F	-	RADIO FREQUENCY
SCADA	-	SUPERVISORY CONTROL AND DATA ACQUISITION
SCE	-	SOUTHERN CALIFORNIA EDISON
SCGAS	-	SOUTHERN CALIFORNIA GAS COMPANY
SCWC	-	SOUTHERN CALIFORNIA WATER COMPANY
STC	-	SCREENED TRANSMISSION CABLE
TDM	-	TIME DIVISION MULTIPLEXER
TWP	-	TWISTED WIRE PAIR
VMX, V-MUX	-	VIDEO MULTIPLEXER
WIM	-	WEIGH-IN-MOTION
XMTR	-	TRANSMITTER
V-TX, VX	-	VIDEO TRANSMIT
V-RX	-	VIDEO RECEIVE
(C)	-	COMMUNICATION

GENERAL NOTES: (SHEETS E-2 THROUGH E-49)

1. THE LOCATION OF EXISTING CONTROLLER CABINETS, EXISTING SERVICE ENCLOSURES, AND POWER POLES ARE APPROXIMATE. THE LOCATION OF PROPOSED PULL BOXES AND SPLICE VAULTS ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
2. BEFORE REMOVING OR MODIFYING ANY EXISTING ELECTRICAL FACILITIES, THE CONTRACTOR SHALL PROVIDE 72 HOUR ADVANCE WRITTEN NOTICE TO ALL AGENCIES CONCERNED.
3. UNLESS OTHERWISE NOTED, ALL COMMUNICATION CONDUIT BENDS SHALL BE 1.3 m RADIUS FACTORY BENDS.
4. COMMUNICATION CONDUIT SHALL BE CENTERED IN THE PAVED SHOULDER OR AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.
5. ALL CONDUITS INSTALLED ACROSS FREEWAYS AND RAMPS SHALL BE BY DIRECTIONAL JACKING METHOD, UNLESS OTHER WISE DIRECTED BY THE ENGINEER. ALL CONDUITS INSTALLED ALONG FREEWAYS AND RAMPS ON AC, CONCRETE PAVEMENT AND SOIL, SHALL BE BY OPEN TRENCH METHOD UNLESS OTHER WISE DIRECTED BY THE ENGINEER. SEE SHEET E-54.
6. FOR NOTES PERTAINING TO UTILITIES SEE SHEET U-1.
7. ALL PULL BOXES AND SPLICE VAULTS SHALL BE INSTALLED IN UNPAVED AREA UNLESS NOTED OTHERWISE.
8. WHEN EXISTING DETECTOR LOOPS AND CONDUITS ARE SHOWN IN THE VICINITY OF PROPOSED CONDUIT TRENCHES, THE CONTRACTOR SHALL AVOID DAMAGING THE EXISTING CONDUIT. TRENCHING WITH HAND TOOLS MAY BE REQUIRED.
9. FOR BRIDGE ATTACHMENTS, SEE STRUCTURAL PLANS.
10. NEW CONTROLLER CABINETS SHALL BE INSTALLED OUTSIDE CLEAR RECOVERY ZONE, MINIMUM 9 m, OR 1.2 m BEHIND EXISTING GUARD RAILING.

LEGEND: (SHEETS E-2 THROUGH E49)

CCTV	CCTV CABINET
CCTV	EXISTING CCTV CABINET
VN	VIDEO NODE CABINET
VN	EXISTING VIDEO NODE CABINET
DN	DATA NODE CABINET
DN	EXISTING DATA NODE CABINET
CN	CABLE NODE CABINET
CN	EXISTING CABLE NODE CABINET
V S	SPLICE VAULT WITH SPLICE CLOSURE
V S	EXISTING SPLICE VAULT WITH SPLICE CLOSURE
V	SPLICE VAULT
V	EXISTING SPLICE VAULT
●	CCTV CAMERA POLE LOCATION
○	EXISTING CCTV CAMERA POLE LOCATION
	CCTV CAMERA ASSEMBLY AND POLE
	EXISTING CCTV CAMERA ASSEMBLY AND POLE
	EXISTING HIGHWAY ADVISORY RADIO (HAR) FLASHING BEACON AND SIGN
	EXISTING VAULT
	FIBER OPTIC CABLE

AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**

TABLE 1 - CCTV WIRING

CONDUCTOR TYPE	FUNCTION	QUANTITY
RG6A/U COAX CABLE	CAMERA VIDEO INTERFACE CABLE	1
RS232 (5#22) CABLE	CAMERA CONTROL CABLE	1
3#18	POWER CABLE	1

COMMUNICATION SYSTEM ROUTING
(LEGEND AND NOTES)

NO SCALE

E-1

	DATE	REVISED BY	DATE	REVISED BY
	3/02	CC	8/05	CC

CALCULATED/DESIGNED BY: CC
CHECKED BY: JT

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	62	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 EXP. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)			
CONDUCTOR TYPE	FUNCTION	RUN	
		4	
6P22 CABLE	VOICE/DATA	2	
12SMFO CABLE	SHORT HAUL VIDEO		1
INNERDUCT (SIZE 25)			1
CONDUIT SIZE		103 (E)	

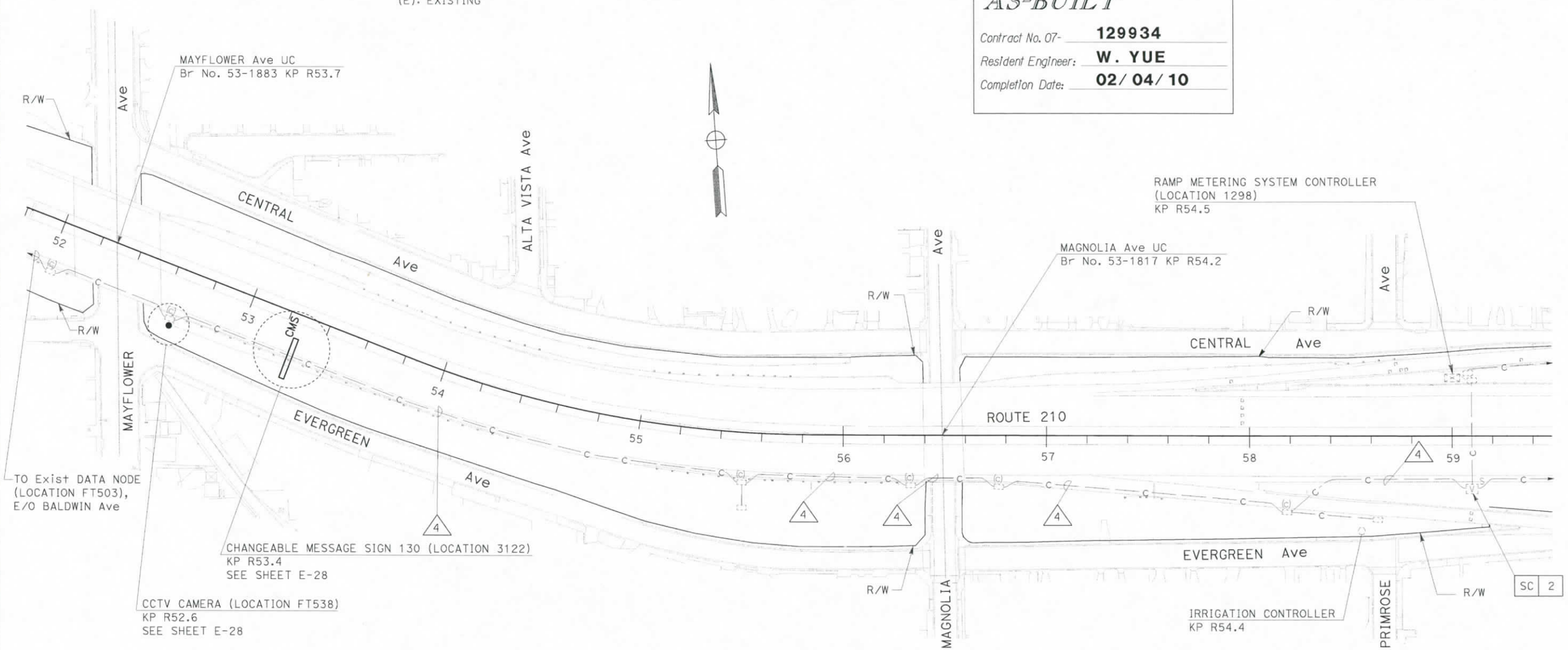
(E): EXISTING

AS-BUILT

Contract No. 07- **129934**

Resident Engineer: **W. YUE**

Completion Date: **02/04/10**



PROJECT NOTES: (THIS SHEET)

1. INSTALL INNERDUCT AND CABLES IN EXISTING SPARE 103C.

2 INSTALL FIBER OPTIC SPLICE CLOSURE AND TWISTED PAIR SPLICE CLOSURE.

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.
FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-2

DATE	REVISED BY	CC
3/02	11/05	7/05

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PROJECT ENGINEER CONWAY CHU

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R53.7/R75.3	63	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
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PROJECT NOTES: (THIS SHEET)

1. INSTALL FOTM, FOCM, PTSCM, 48-FIBER FDU, AND CABLES IN EXISTING CONTROLLER CABINET. SEE SHEET E-61 FOR DETAILS.
2. INSTALL FIBER OPTIC SPLICE CLOSURE IN EXISTING SPLICE VAULT.

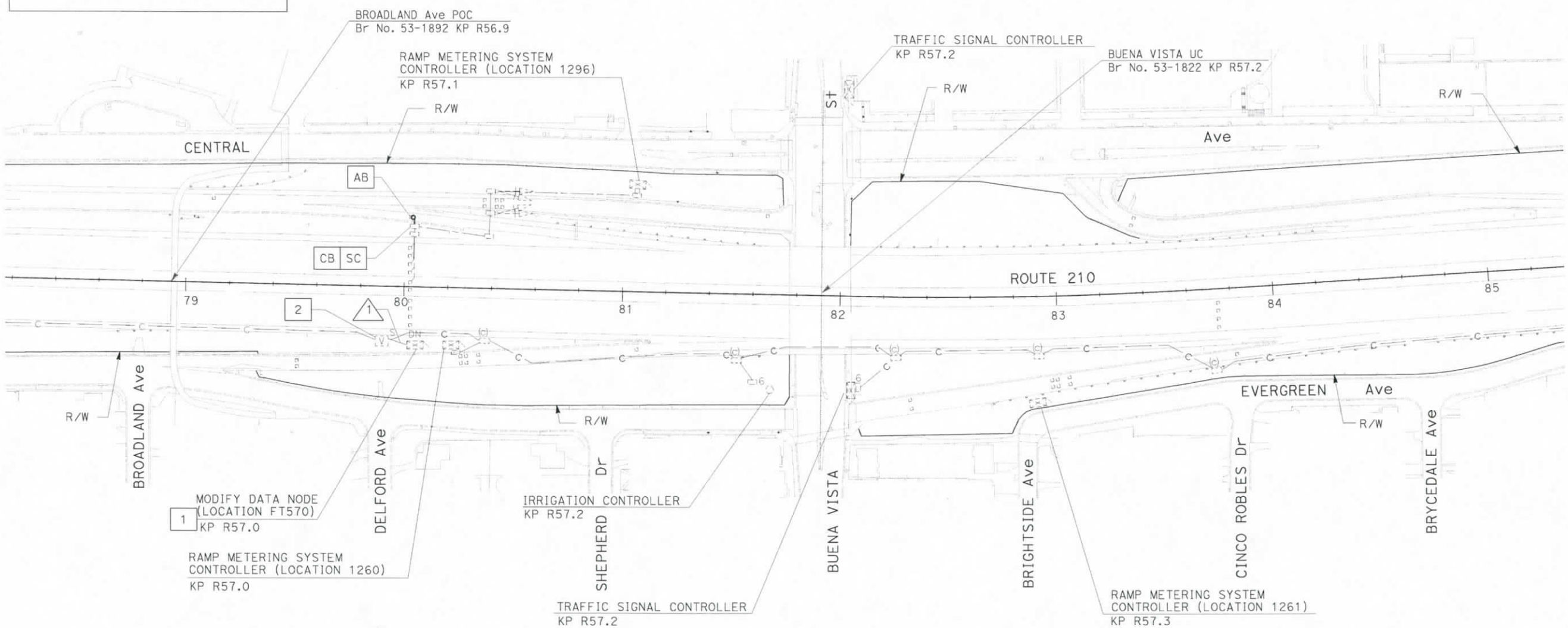
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN		
			1	
50P22 CABLE	VOICE/DATA	1(E)		
2SMFO CABLE	DATA/VIDEO		1(E)	
12SMFO CABLE	CAMERA CONTROL			1
INNERDUCT (SIZE 32)			1(E)	
CONDUIT SIZE		103(E)		103(E)

(E): EXISTING

AS-BUILT

Contract No. 07- 129934
Resident Engineer: W. YUE
Completion Date: 02/04/10



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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING MODIFY DATA NODE (LOCATION FT570)

SCALE 1:1000

E-3

	DATE	REVISED BY	CC
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CHECKED BY	JT		
PROJECT ENGINEER	CONWAY CHU		

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07	LA	210	R53.7/R75.3	64	213

Conway Chu
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5-22-06
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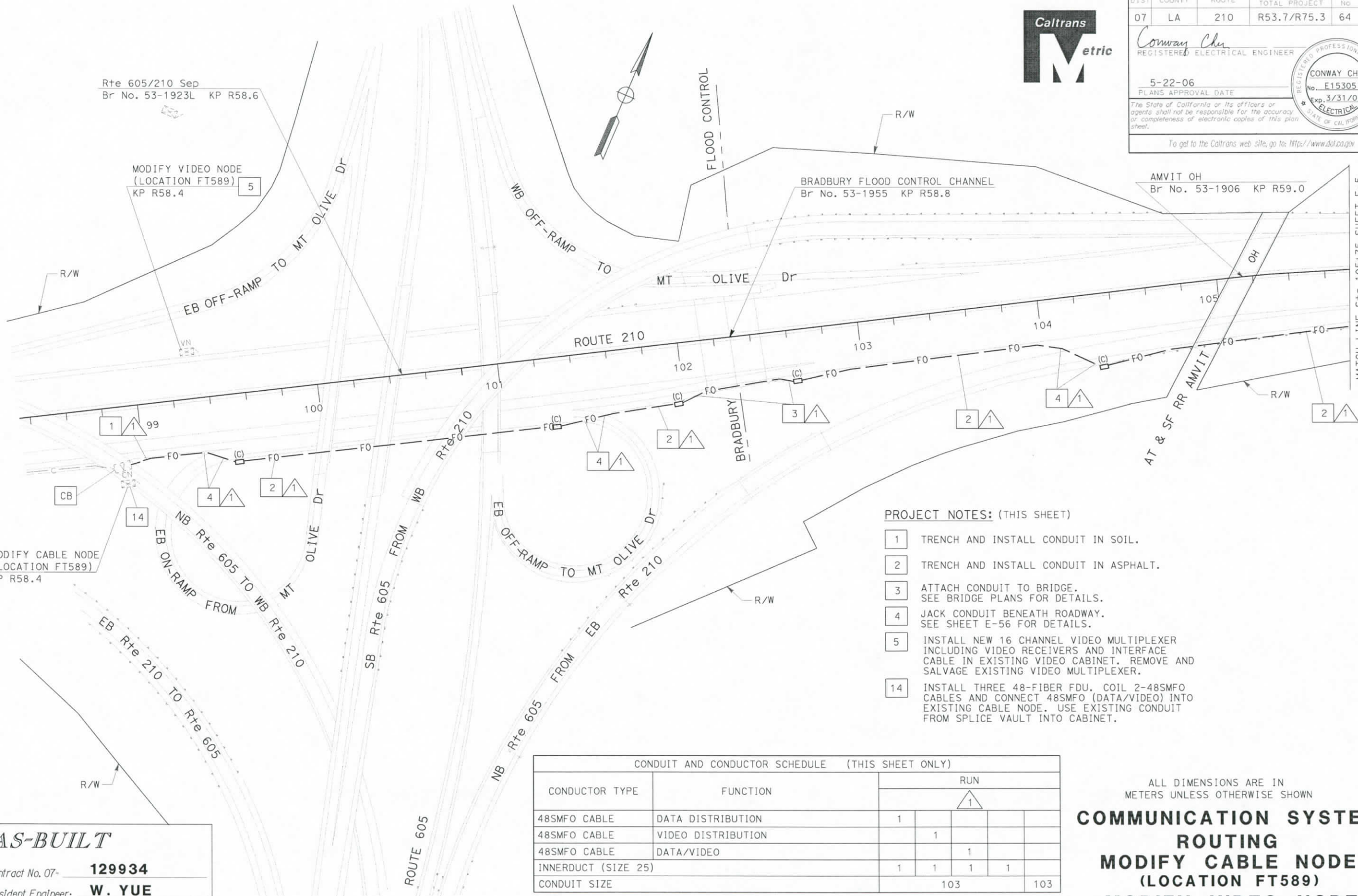

PROJECT NOTES: (THIS SHEET)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
5. INSTALL NEW 16 CHANNEL VIDEO MULTIPLEXER INCLUDING VIDEO RECEIVERS AND INTERFACE CABLE IN EXISTING VIDEO CABINET. REMOVE AND SALVAGE EXISTING VIDEO MULTIPLEXER.
14. INSTALL THREE 48-FIBER FDU. COIL 2-48SMFO CABLES AND CONNECT 48SMFO (DATA/VIDEO) INTO EXISTING CABLE NODE. USE EXISTING CONDUIT FROM SPLICE VAULT INTO CABINET.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1				
48SMFO CABLE	DATA DISTRIBUTION	1				
48SMFO CABLE	VIDEO DISTRIBUTION		1			
48SMFO CABLE	DATA/VIDEO			1		
INNERDUCT (SIZE 25)		1	1	1	1	
CONDUIT SIZE		103				103

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

AS-BUILT

Contract No. 07- 129934
Resident Engineer: W. YUE
Completion Date: 02/04/10

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING
MODIFY CABLE NODE (LOCATION FT589)
MODIFY VIDEO NODE (LOCATION FT589)

SCALE 1:1000

E-4

DATE	REVISED BY	DATE REVISED
3/02	CC	7/05
8/05	JT	CC

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PROJECT ENGINEER CONWAY CHU

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07	LA	210	R53.7/R75.3	65	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CONWAY CHU
No. E15305
EXP. 3/31/07
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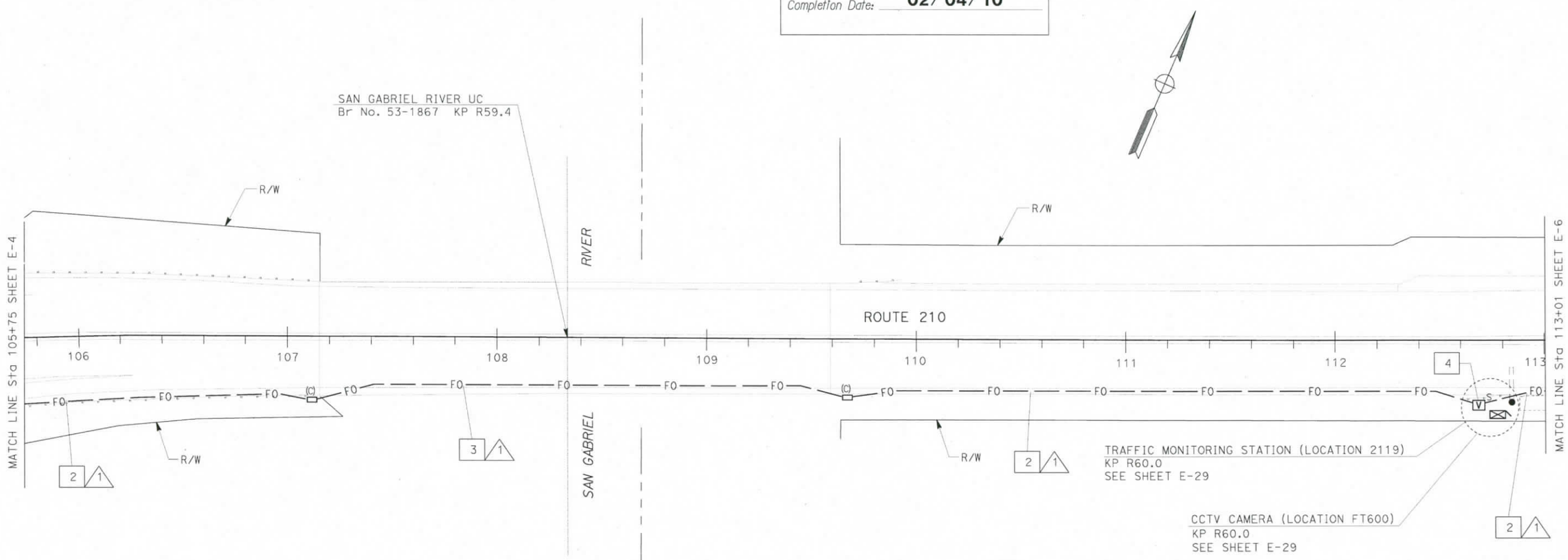
AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN				
				1		
48SMFO CABLE	DATA DISTRIBUTION	1				
48SMFO CABLE	VIDEO DISTRIBUTION		1			
48SMFO CABLE	DATA/VIDEO			1		
INNERDUCT (SIZE 25)		1	1	1	1	
CONDUIT SIZE		103				103



PROJECT NOTES: (THIS SHEET)

2 TRENCH AND INSTALL CONDUIT IN ASPHALT.

3 ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.

4 INSTALL TWO FIBER OPTIC SPLICE CLOSURES.

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-5

CC	3/02	REVISED BY
CC	8/05	DATE REVISED
CC	JT	7/05
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PROJECT ENGINEER	CONWAY CHU	

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CU 07388 | EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R53.7/R75.3	66	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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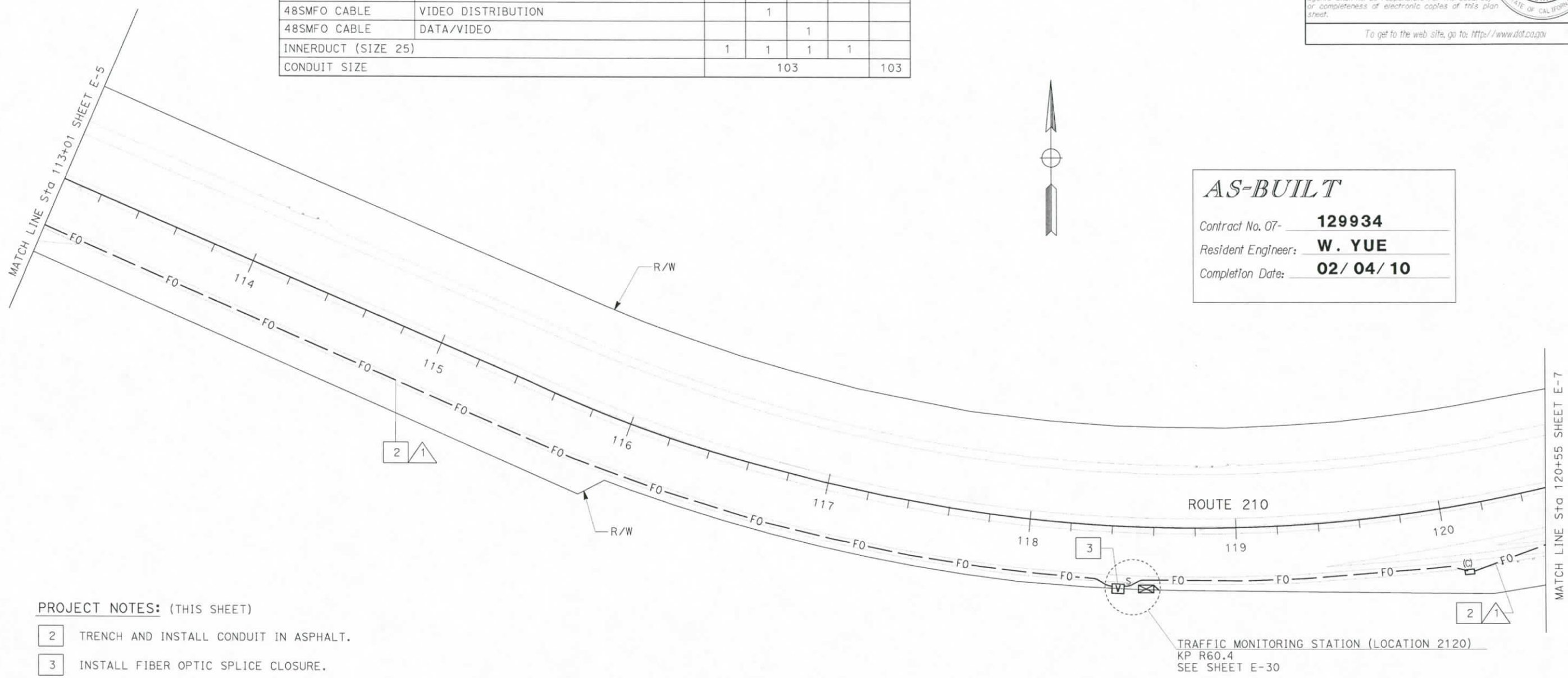
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN 1				
48SMFO CABLE	DATA DISTRIBUTION	1				
48SMFO CABLE	VIDEO DISTRIBUTION		1			
48SMFO CABLE	DATA/VIDEO			1		
INNERDUCT (SIZE 25)		1	1	1	1	
CONDUIT SIZE		103				103



AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**

PROJECT NOTES: (THIS SHEET)

2 TRENCH AND INSTALL CONDUIT IN ASPHALT.

3 INSTALL FIBER OPTIC SPLICE CLOSURE.

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA,
SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.
FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-6

	DATE	REVISED BY	CC
	3/02	REVISED BY	CC
	8/05	DATE REVISED	7/05

CALCULATED/DESIGNED BY: JT
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PROJECT ENGINEER: CONWAY CHU

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CU 07388

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	210	R53.7/R75.3	67	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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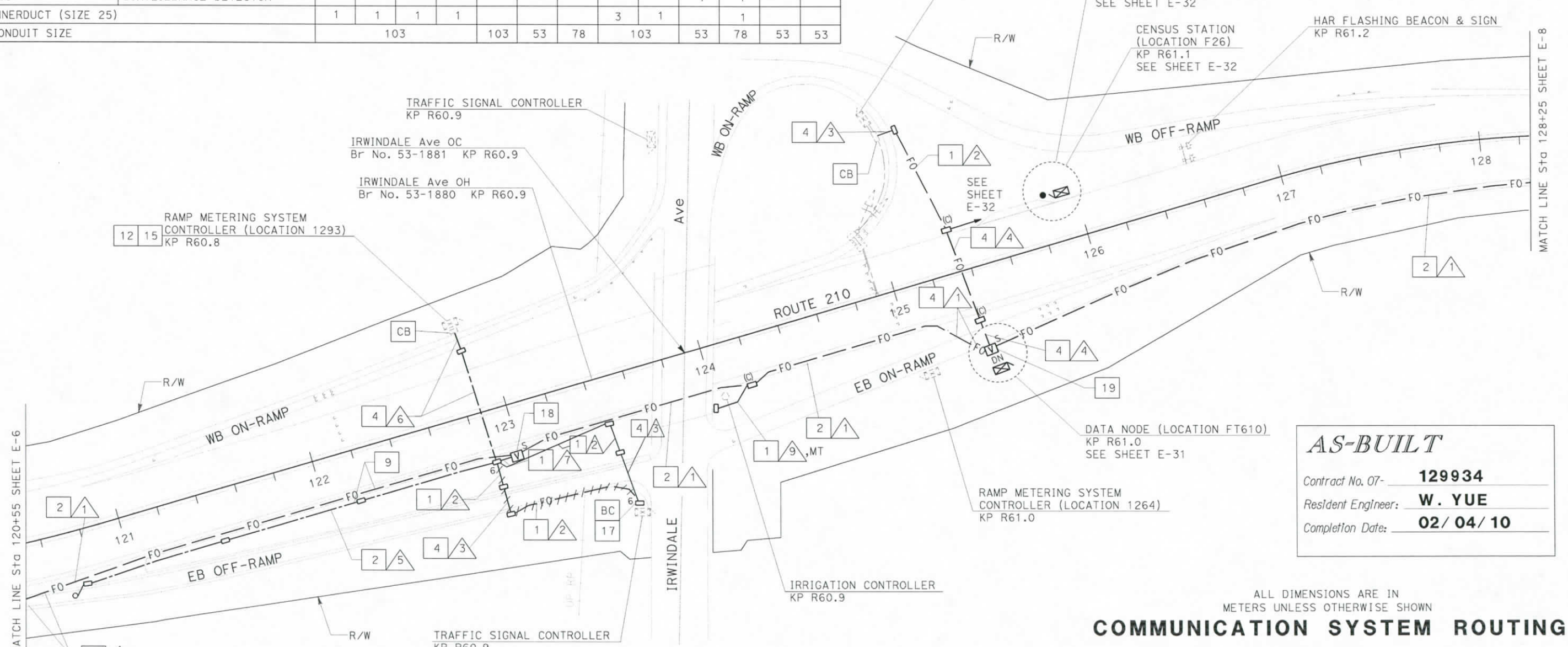
PROJECT NOTES: (THIS SHEET)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
9. INSTALL CONDUITS IN SAME TRENCH.
12. INSTALL FOTM, 12-FIBER FDU AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
13. INSTALL TELEPHONE BRIDGE, 12 PAIR TERMINAL BLOCK, FOTM, 12-FIBER FDU, AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO AND EXISTING INTERCONNECT CABLE.
15. ADD NEW DLC'S THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET AND CONNECT TO EXISTING TERMINAL BLOCK. INSTALL STATE-FURNISHED LOOP DETECTOR SENSOR.
17. COIL 10 m OF 12SMFO CABLE IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL BY OTHERS.
18. INSTALL FIBER OPTIC SPLICE CLOSURE.
19. INSTALL TWO FIBER OPTIC SPLICE CLOSURES.

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2	RUN 3	RUN 4		RUN 5	RUN 6	RUN 7	RUN 9
48SMFO CABLE	DATA DISTRIBUTION	1												
12SMFO CABLE	VOICE/DATA						1	1	2			1	2	
48SMFO CABLE	VIDEO DISTRIBUTION		1											
48SMFO CABLE	DATA/VIDEO			1										
12SMFO CABLE	SHORT HAUL VIDEO									1				
DLC	SURVEILLANCE DETECTOR										1	1		
INNERDUCT (SIZE 25)		1	1	1	1				3	1		1		
CONDUIT SIZE		103				103	53	78	103		53	78	53	53



AS-BUILT

Contract No. 07- 129934
Resident Engineer: W. YUE
Completion Date: 02/04/10

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

E-7

DATE	REVISED BY	DATE REVISED
3/02	CC	7/05
8/05	JT	

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PROJECT ENGINEER: CONWAY CHU

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	68	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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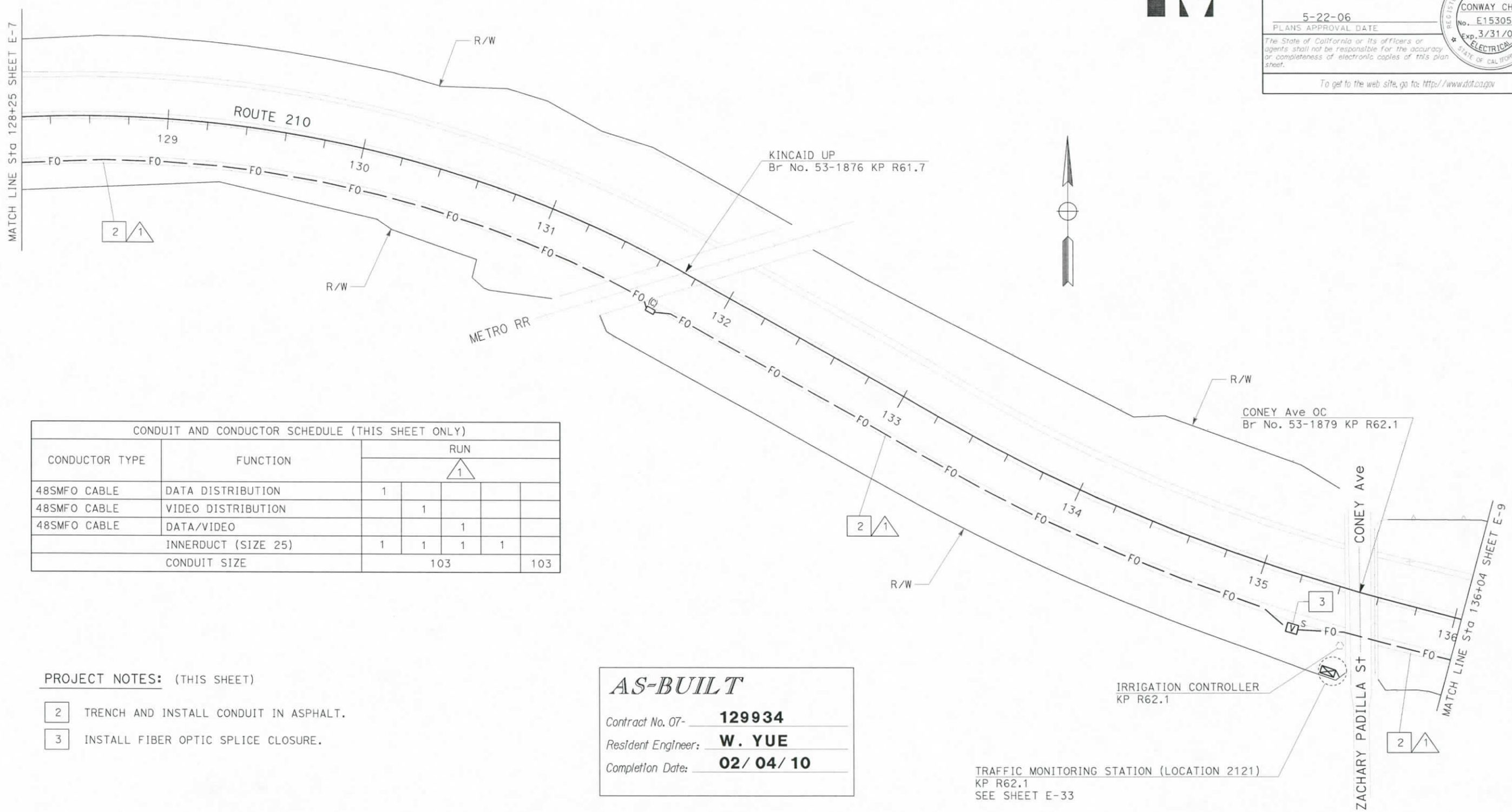

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN				
		1				
48SMFO CABLE	DATA DISTRIBUTION	1				
48SMFO CABLE	VIDEO DISTRIBUTION		1			
48SMFO CABLE	DATA/VIDEO			1		
	INNERDUCT (SIZE 25)	1	1	1	1	
	CONDUIT SIZE	103				103

PROJECT NOTES: (THIS SHEET)

2 TRENCH AND INSTALL CONDUIT IN ASPHALT.

3 INSTALL FIBER OPTIC SPLICE CLOSURE.

AS-BUILT

Contract No. 07- **129934**

Resident Engineer: **W. YUE**

Completion Date: **02/04/10**

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-8

	DATE	REVISED BY	DATE REVISED
	3/02	CC	7/05
	8/05	JT	

CALCULATED/DESIGNED BY: CC
CHECKED BY:

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R53.7/R75.3	69	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

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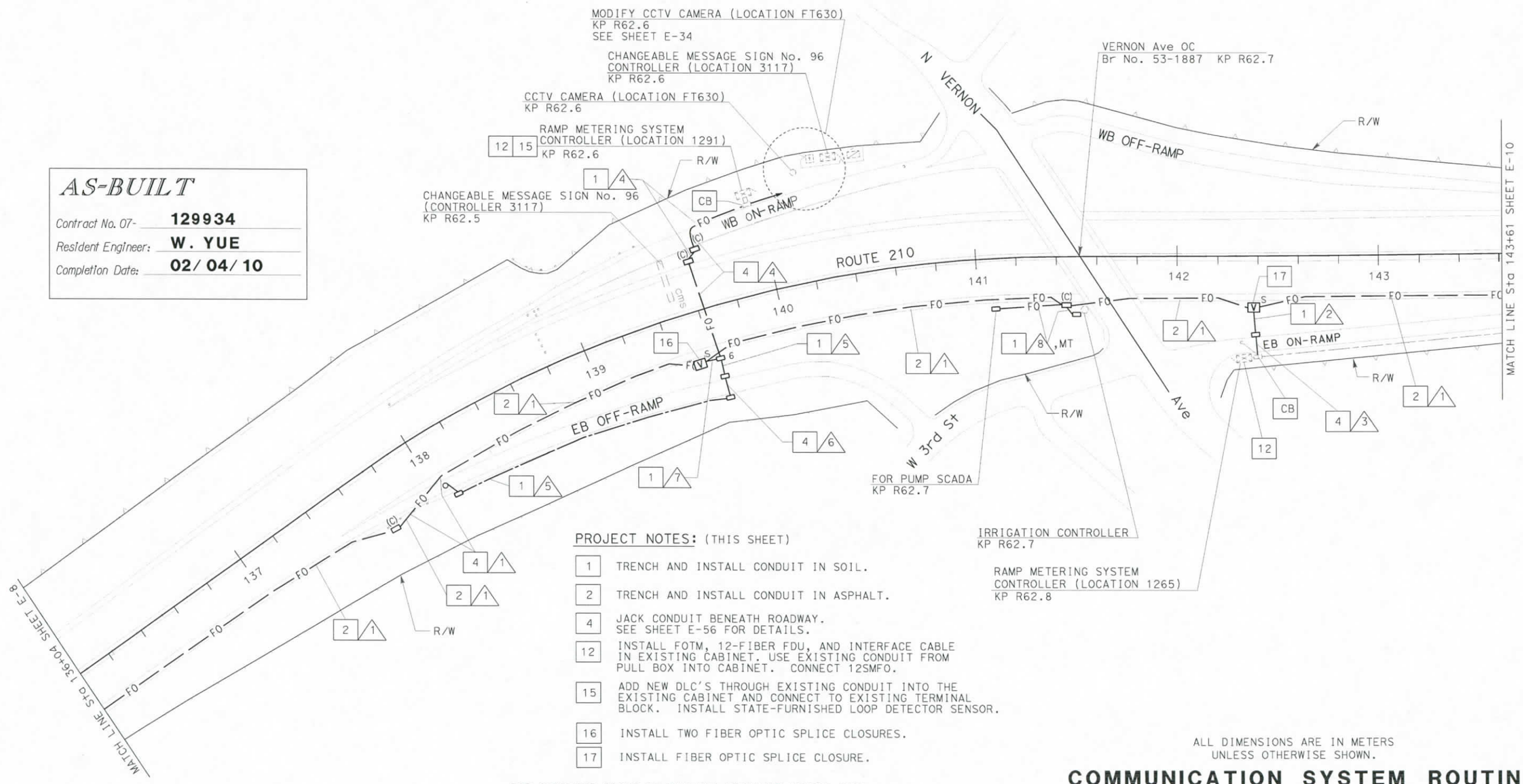
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1					2	3	4		5	6	7	8
48SMFO CABLE	DATA DISTRIBUTION	1												
12SMFO CABLE	VOICE/DATA						1	1		2			2	
48SMFO CABLE	VIDEO DISTRIBUTION		1											
48SMFO CABLE	DATA/VIDEO			1										
12SMFO CABLE	SHORT HAUL VIDEO									1			1	
DLC	SURVEILLANCE DETECTOR								1		1	1		
INNERDUCT (SIZE 25)		1	1	1	1					3				
CONDUIT SIZE		103				103	53	78	103		53	78	53	53



AS-BUILT

Contract No. 07- 129934

Resident Engineer: W. YUE

Completion Date: 02/ 04/ 10

PROJECT NOTES: (THIS SHEET)

1 TRENCH AND INSTALL CONDUIT IN SOIL.

2 TRENCH AND INSTALL CONDUIT IN ASPHALT.

4 JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.

12 INSTALL FOTM, 12-FIBER FDU, AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.

15 ADD NEW DLC'S THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET AND CONNECT TO EXISTING TERMINAL BLOCK. INSTALL STATE-FURNISHED LOOP DETECTOR SENSOR.

16 INSTALL TWO FIBER OPTIC SPLICE CLOSURES.

17 INSTALL FIBER OPTIC SPLICE CLOSURE.

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-9

DATE	REVISED BY	DATE REVISED
3/02	CC	7/05
8/05	JT	

CALCULATED/DESIGNED BY CC
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PROJECT ENGINEER CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 17-JUN-2010 TIME PLOTTED => 13:16

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

USERNAME => s129112
DGN FILE => 712993ug009.dgn

CU 07388 EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	70	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 EXP. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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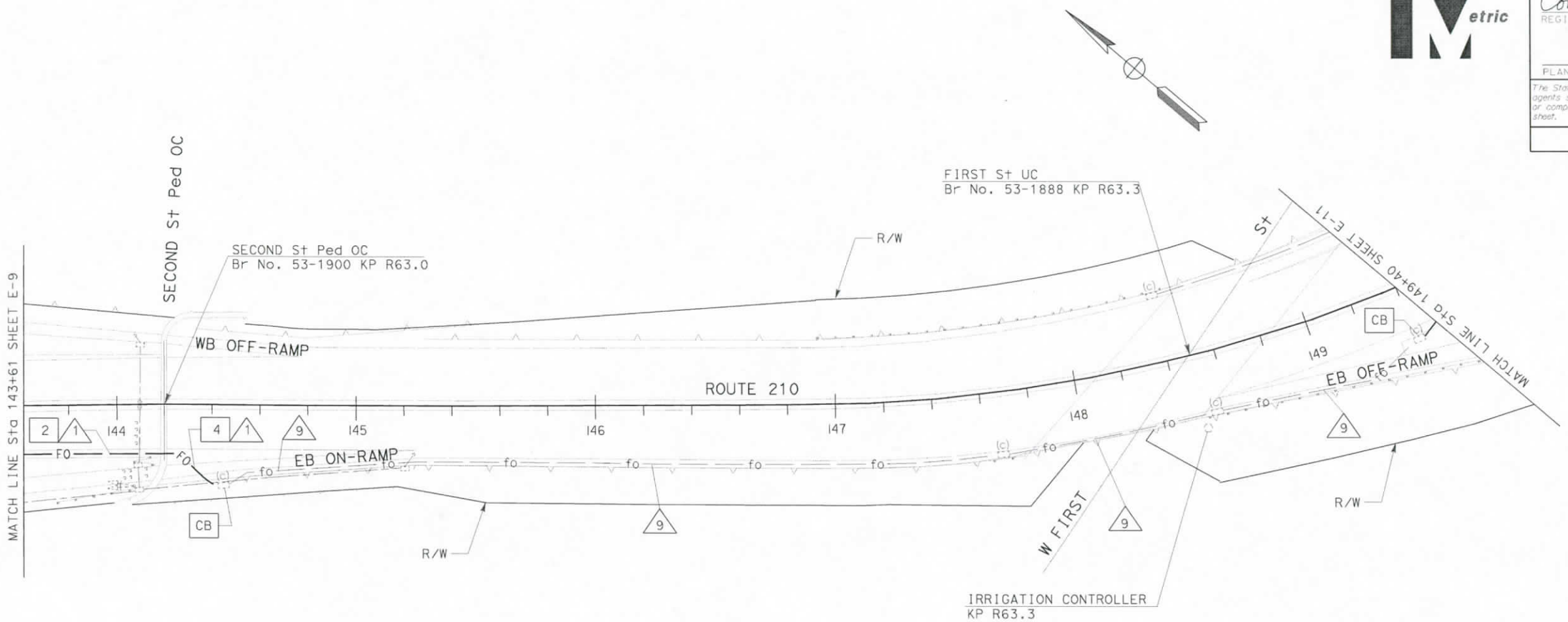

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)										
CONDUCTOR TYPE	FUNCTION	RUN								
		1					9			
48SMFO CABLE	DATA DISTRIBUTION	1					1			
48SMFO CABLE	VIDEO DISTRIBUTION		1					1		
48SMFO CABLE	DATA/VIDEO			1					1	
INNERDUCT (SIZE 25)		1	1	1	1		1	1	2	
CONDUIT SIZE		103				103	103(E)			103(E)

(E): EXISTING

PROJECT NOTES: (THIS SHEET)

2 TRENCH AND INSTALL CONDUIT IN ASPHALT.

4 JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.

AS-BUILT

Contract No. 07- **129934**

Resident Engineer: **W. YUE**

Completion Date: **02/04/10**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-10

DATE	REVISED BY	DATE REVISED
3/02	CC	7/05
8/05	JT	

CALCULATED/DESIGNED BY: CC
CHECKED BY: JT

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00
DATE PLOTTED => 21-JUN-2010
TIME PLOTTED => 08:59

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USERNAME => s129112
DGN FILE => 712993ud010.dgn

CU 07388

EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R53.7/R75.3	71	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 EXP. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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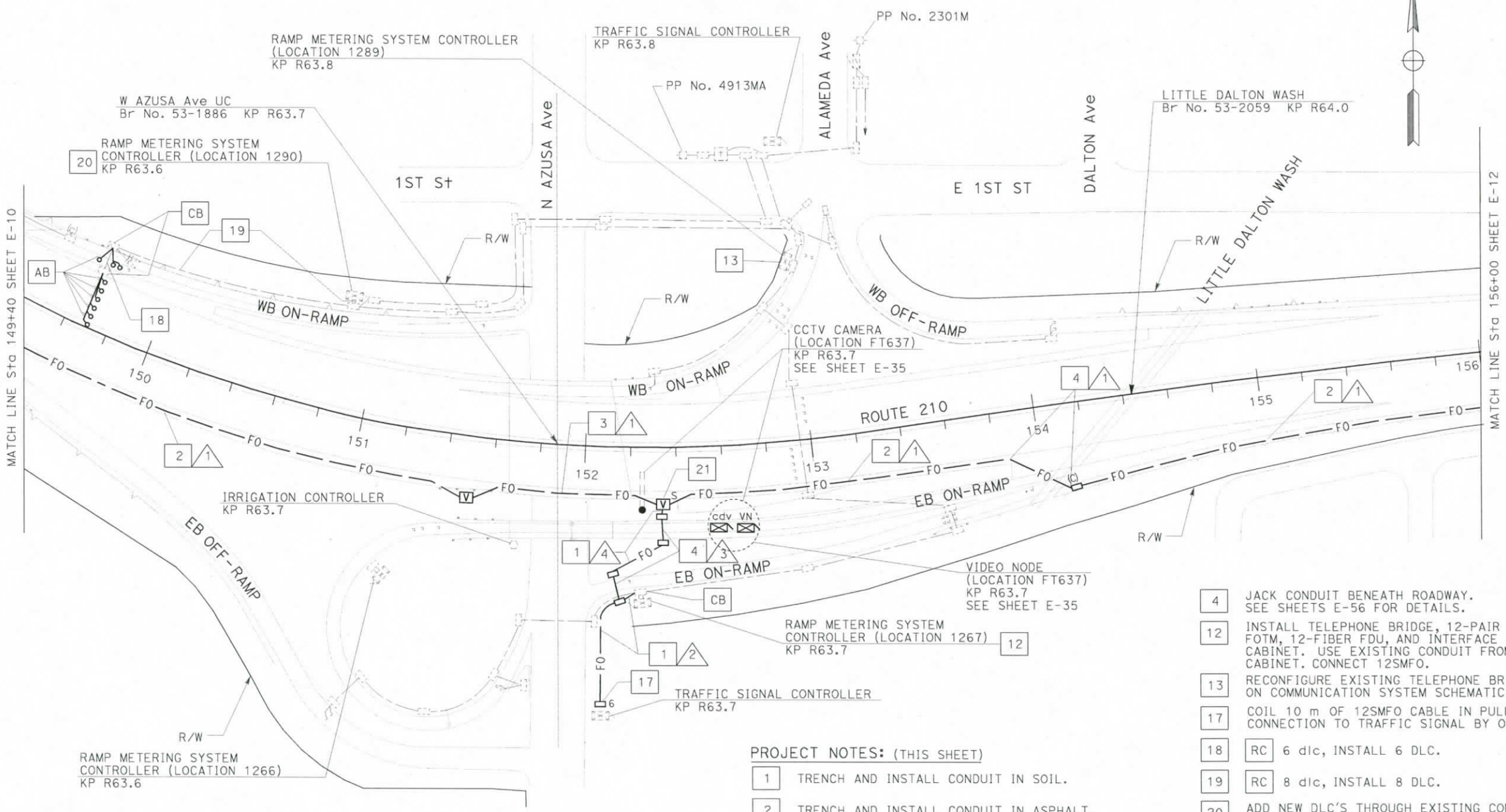
AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/04/10**

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2	RUN 3	RUN 4
48SMFO CABLE	DATA DISTRIBUTION	1							
12SMFO CABLE	VOICE/DATA						1	2	2
48SMFO CABLE	VIDEO DISTRIBUTION		1						
48SMFO CABLE	DATA/VIDEO			1					
INNERDUCT (SIZE 25)		1	1	1	1				
CONDUIT SIZE		103				103	53	78	53



PROJECT NOTES: (THIS SHEET)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEETS E-56 FOR DETAILS.
12. INSTALL TELEPHONE BRIDGE, 12-PAIR TERMINAL BLOCK, FOTM, 12-FIBER FDU, AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
13. RECONFIGURE EXISTING TELEPHONE BRIDGE AS SHOWN ON COMMUNICATION SYSTEM SCHEMATIC.
17. COIL 10 m OF 12SMFO CABLE IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL BY OTHERS.
18. RC 6 dlc, INSTALL 6 DLC.
19. RC 8 dlc, INSTALL 8 DLC.
20. ADD NEW DLC'S THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
21. INSTALL TWO FIBER OPTIC SPLICE CLOSURES.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-11

	DATE	REVISED BY	DATE REVISED	CC
	3/02	CC	8/05	JT

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PROJECT ENGINEER CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 21-JUN-2010 TIME PLOTTED => 08:59

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USERNAME => s129112
DGN FILE => 712993ua011.dgn

CU 07388 EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	72	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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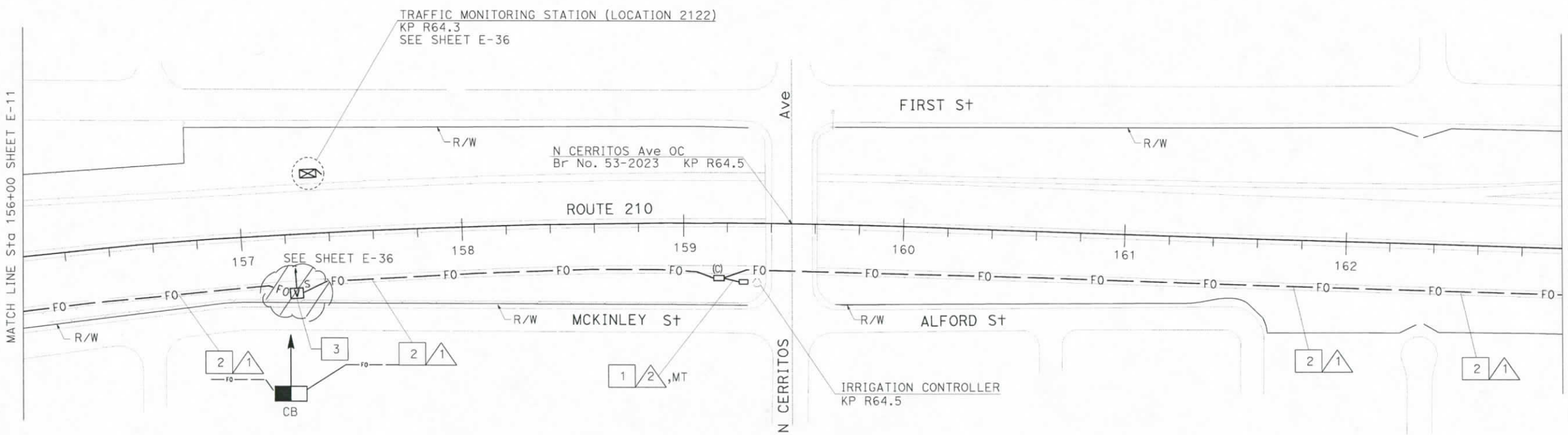
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN					
		1					2
48SMFO CABLE	DATA DISTRIBUTION	1					
48SMFO CABLE	VIDEO DISTRIBUTION		1				
48SMFO CABLE	DATA/VIDEO			1			
INNERDUCT (SIZE 25)		1	1	1	1		
CONDUIT SIZE		103				103	53

AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**



PROJECT NOTES: (THIS SHEET)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. INSTALL FIBER OPTIC SPLICE CLOSURE.

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-12

	CC	CC	DATE 3/02	REVISED BY	CC
			8/05	DATE REVISED	7/05

CALCULATED/DESIGNED BY: CC
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PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans **ITS DEVELOPMENT**

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

USERNAME => s129112
DGN FILE => 712993ua012.dgn

CU 07388 | EA 129931

LAST REVISION 00-00-00 | DATE PLOTTED => 21-JUN-2010 | TIME PLOTTED => 08:59

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	73	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 EXP. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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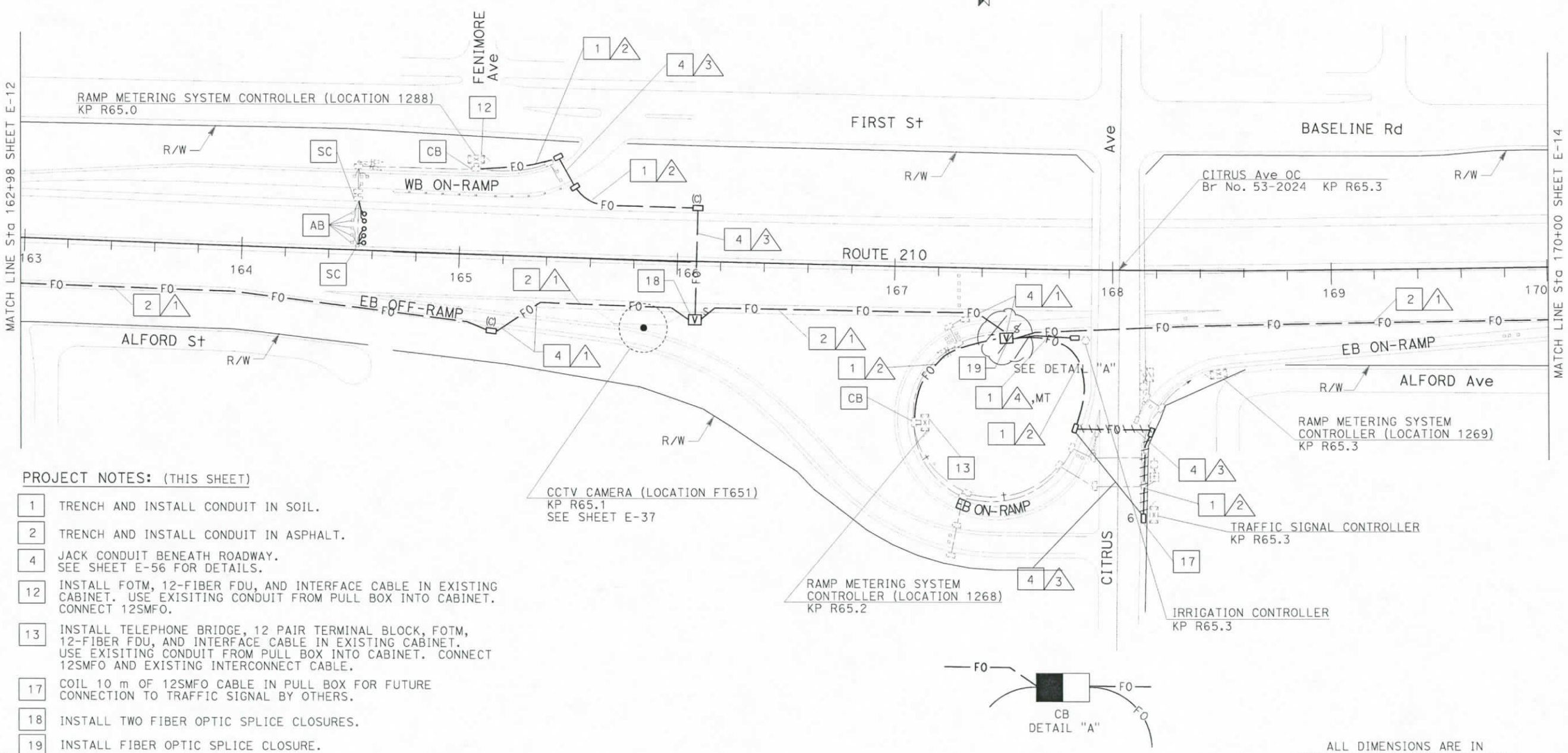
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)									
CONDUCTOR TYPE	FUNCTION	RUN							
		1					2	3	4
48SMFO CABLE	DATA DISTRIBUTION	1							
12SMFO CABLE	VOICE/DATA						1	1	
48SMFO CABLE	VIDEO DISTRIBUTION		1						
48SMFO CABLE	DATA/VIDEO			1					
INNERDUCT (SIZE 25)		1	1	1	1				
CONDUIT SIZE		103				103	53	78	53

AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**



PROJECT NOTES: (THIS SHEET)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
12. INSTALL FOTM, 12-FIBER FDU, AND INTERFACE CABLE IN EXISTING CABINET. USE EXISITING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
13. INSTALL TELEPHONE BRIDGE, 12 PAIR TERMINAL BLOCK, FOTM, 12-FIBER FDU, AND INTERFACE CABLE IN EXISTING CABINET. USE EXISITING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO AND EXISTING INTERCONNECT CABLE.
17. COIL 10 m OF 12SMFO CABLE IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL BY OTHERS.
18. INSTALL TWO FIBER OPTIC SPLICE CLOSURES.
19. INSTALL FIBER OPTIC SPLICE CLOSURE.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-13

DATE 3/02	REVISED BY	CC	CALCULATED/ DESIGNED BY	CC
8/05	DATE REVISED	7/05	CHECKED BY	JT

PROJECT ENGINEER CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 | DATE PLOTTED => 21-JUN-2010 | TIME PLOTTED => 08:59

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USERNAME => s129112
DGN FILE => 712993ua013.dgn

CU 07388 | EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	210	R53.7/R75.3	74	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CONWAY CHU
No. E15305
Exp. 3/31/07
ELECTRICAL
STATE OF CALIFORNIA

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Caltrans Metric

AS-BUILT

Contract No. 07- **129934**

Resident Engineer: **W. YUE**

Completion Date: **02/ 04/ 10**

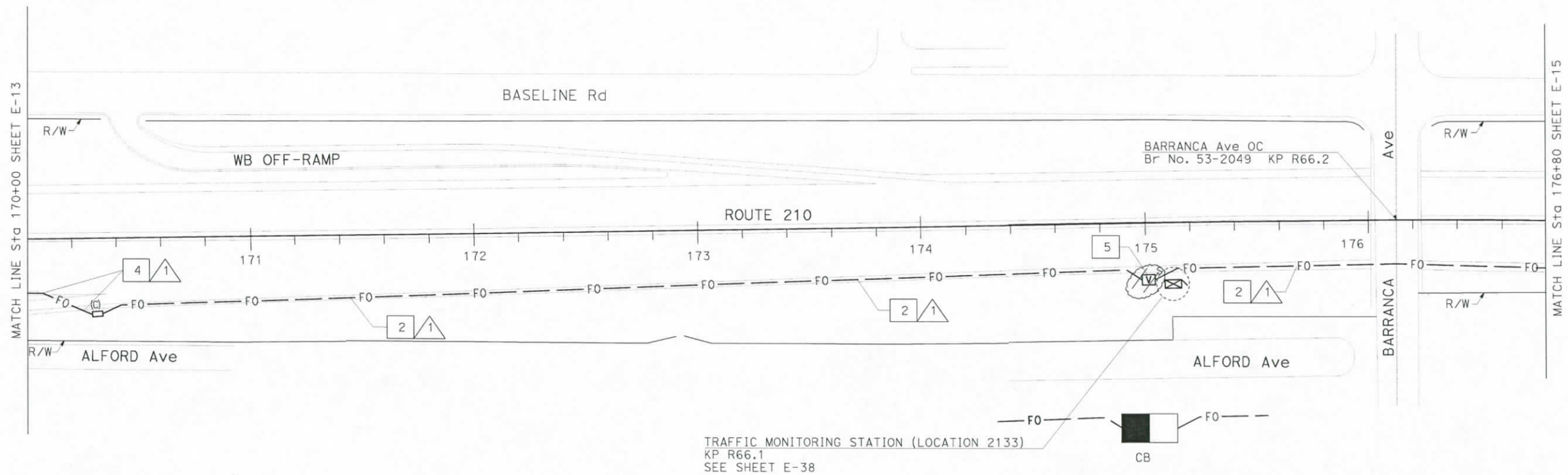
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN 1				
48SMFO CABLE	DATA DISTRIBUTION	1				
48SMFO CABLE	VIDEO DISTRIBUTION		1			
48SMFO CABLE	DATA/VIDEO			1		
INNERDUCT (SIZE 25)		1	1	1	1	
CONDUIT SIZE		103				103

PROJECT NOTES: (THIS SHEET ONLY)

2 TRENCH AND INSTALL CONDUIT IN ASPHALT.

4 JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.

5 INSTALL FIBER OPTIC SPLICE CLOSURE.



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-14

	DATE	REVISED BY	CC
	3/02	REVISED	7/05
	8/05	DATE REVISED	

CALCULATED/DESIGNED BY: CC
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PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 | DATE PLOTTED => 21-JUN-2010 | TIME PLOTTED => 09:00

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USERNAME => s129112
DGN FILE => 712993ua014.dgn

CU 07388 | EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	75	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CONWAY CHU
No. E15305
EXP. 3/31/07
ELECTRICAL
STATE OF CALIFORNIA

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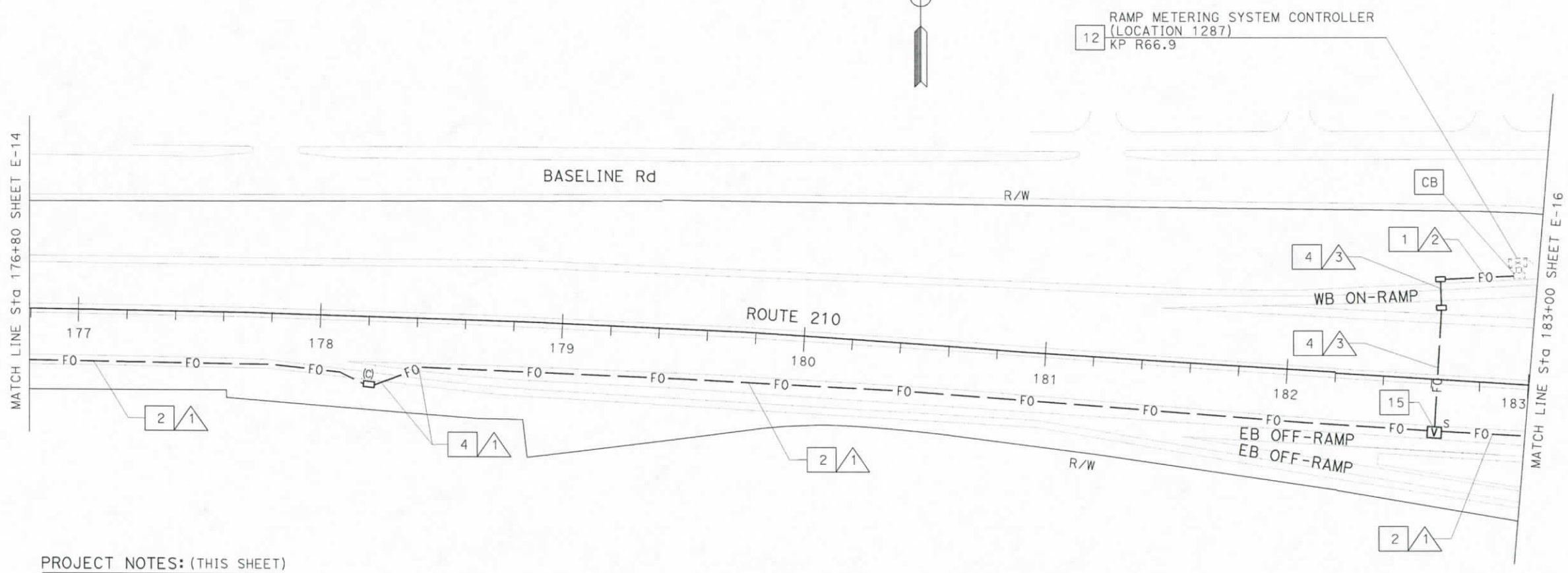
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN						
		1					2	3
48SMFO CABLE	DATA DISTRIBUTION	1						
12SMFO CABLE	VOICE/DATA						1	1
48SMFO CABLE	VIDEO DISTRIBUTION		1					
48SMFO CABLE	DATA/VIDEO			1				
INNERDUCT (SIZE 25)		1	1	1	1			
CONDUIT SIZE		103				103	53	78



PROJECT NOTES: (THIS SHEET)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
12. INSTALL FOTM, 12-FIBER FDU AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
15. INSTALL FIBER OPTIC SPLICE CLOSURE.

AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-15

DATE	REVISED BY	DATE REVISED
3/02	CC	7/05
8/05	JT	

CALCULATED/DESIGNED BY: CC
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PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 | DATE PLOTTED => 21-JUN-2010 | TIME PLOTTED => 09:00

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USERNAME => s129112
DGN FILE => 712993ua015.dgn

CU 07388 | EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R53.7/R75.3	76	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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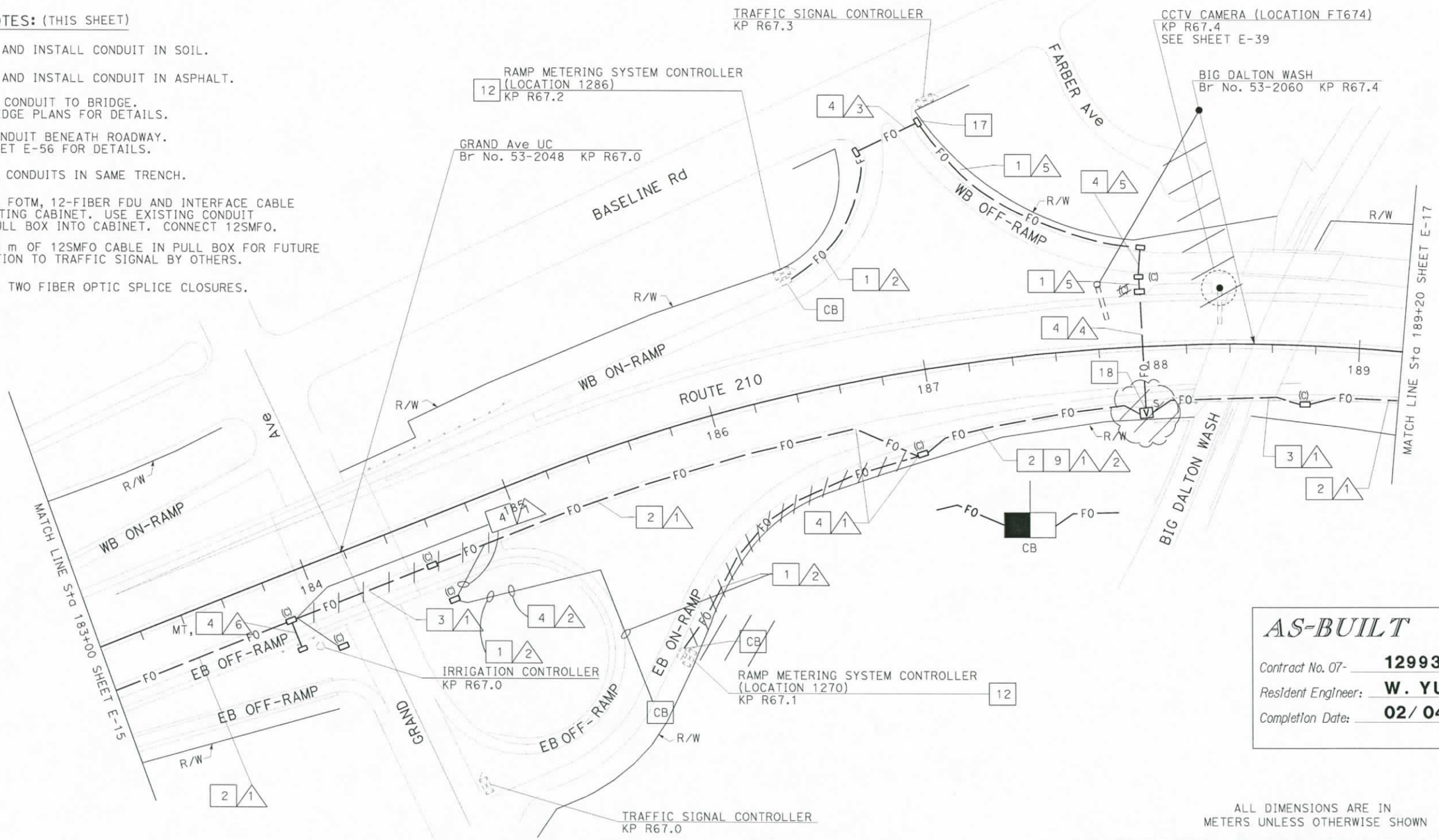
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)												
CONDUCTOR TYPE	FUNCTION	RUN										
				1			2	3	4		5	6
48SMFO CABLE	DATA DISTRIBUTION	1										
12SMFO CABLE	VOICE/DATA						1	1	2		2	
48SMFO CABLE	VIDEO DISTRIBUTION		1									
48SMFO CABLE	DATA/VIDEO			1								
12SMFO CABLE	SHORT HAUL VIDEO									1		
INNERDUCT (SIZE 25)		1	1	1	1				2	1	2	
CONDUIT SIZE		103				103	53	78	103		78	78

PROJECT NOTES: (THIS SHEET)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
9. INSTALL CONDUITS IN SAME TRENCH.
12. INSTALL FOTM, 12-FIBER FDU AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
17. COIL 10 m OF 12SMFO CABLE IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL BY OTHERS.
18. INSTALL TWO FIBER OPTIC SPLICE CLOSURES.



AS-BUILT
Contract No. 07- 129934
Resident Engineer: W. YUE
Completion Date: 02/04/10

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-16

DATE 3/02	REVISED BY	DATE REVISED 7/05	CC
CC		CC 8/05	
CALCULATED/DESIGNED BY		CHECKED BY	
PROJECT ENGINEER		CONWAY CHU	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

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

USERNAME => s129112
DGN FILE => 712993ua016.dgn

CU 07388 | EA 129931

LAST REVISION 00-00-00 | DATE PLOTTED => 21-JUN-2010 TIME PLOTTED => 09:00

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R53.7/R75.3	77	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 EXP. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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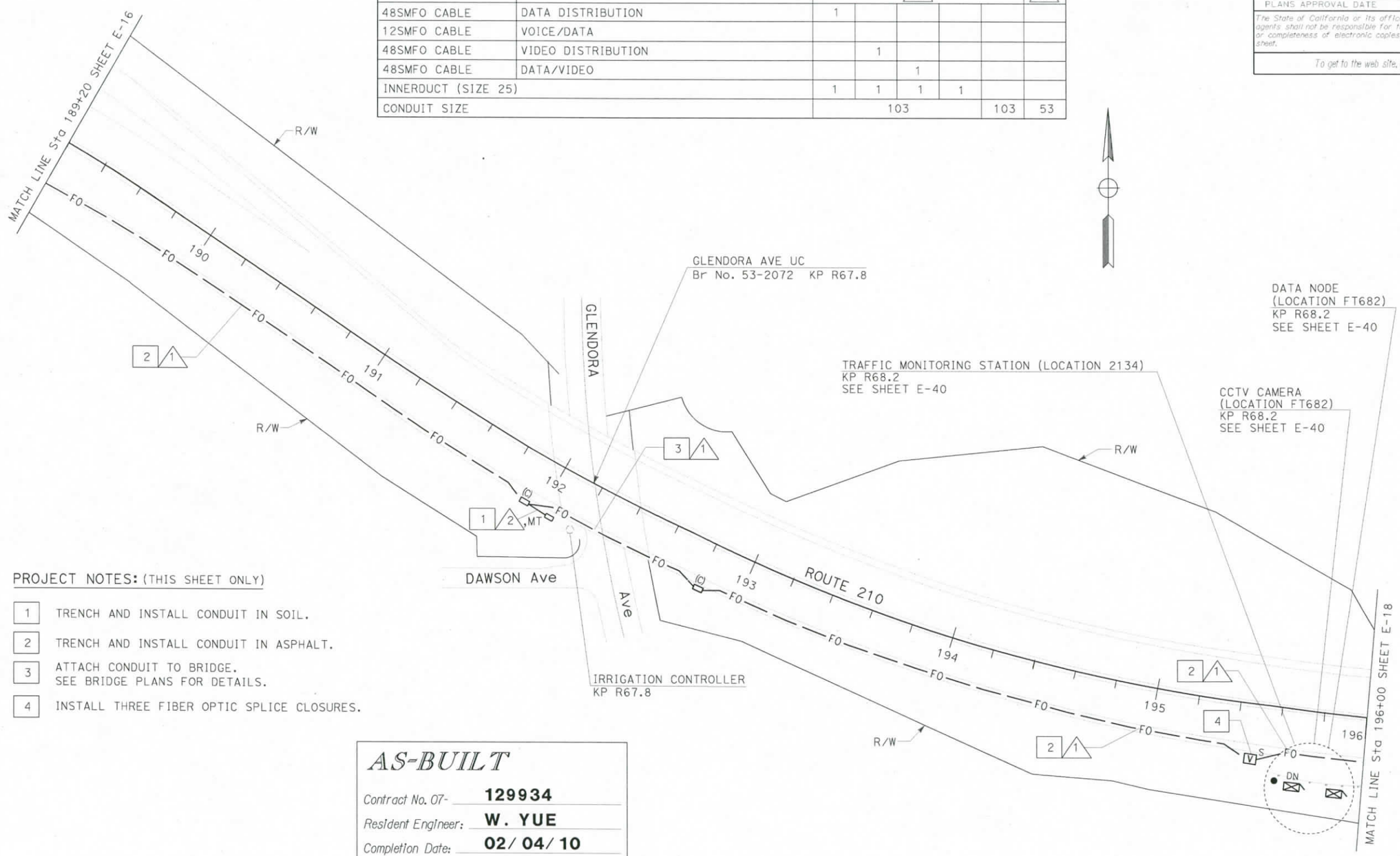
Caltrans Metric

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN					
				1			2
48SMFO CABLE	DATA DISTRIBUTION	1					
12SMFO CABLE	VOICE/DATA						
48SMFO CABLE	VIDEO DISTRIBUTION		1				
48SMFO CABLE	DATA/VIDEO			1			
INNERDUCT (SIZE 25)		1	1	1	1		
CONDUIT SIZE		103				103	53



PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. INSTALL THREE FIBER OPTIC SPLICE CLOSURES.

AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-17

	DATE	REVISED BY	CC
	3/02	REVISED BY	CC
	8/05	DATE REVISED	7/05

CALCULATED/DESIGNED BY: JT
CHECKED BY:

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 21-JUN-2010 TIME PLOTTED => 09:00

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

USERNAME => s129112
DGN FILE => 712993u0017.dgn

CU 07388 EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
07	LA	210	R53.7/R75.3	78	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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Caltrans Metric

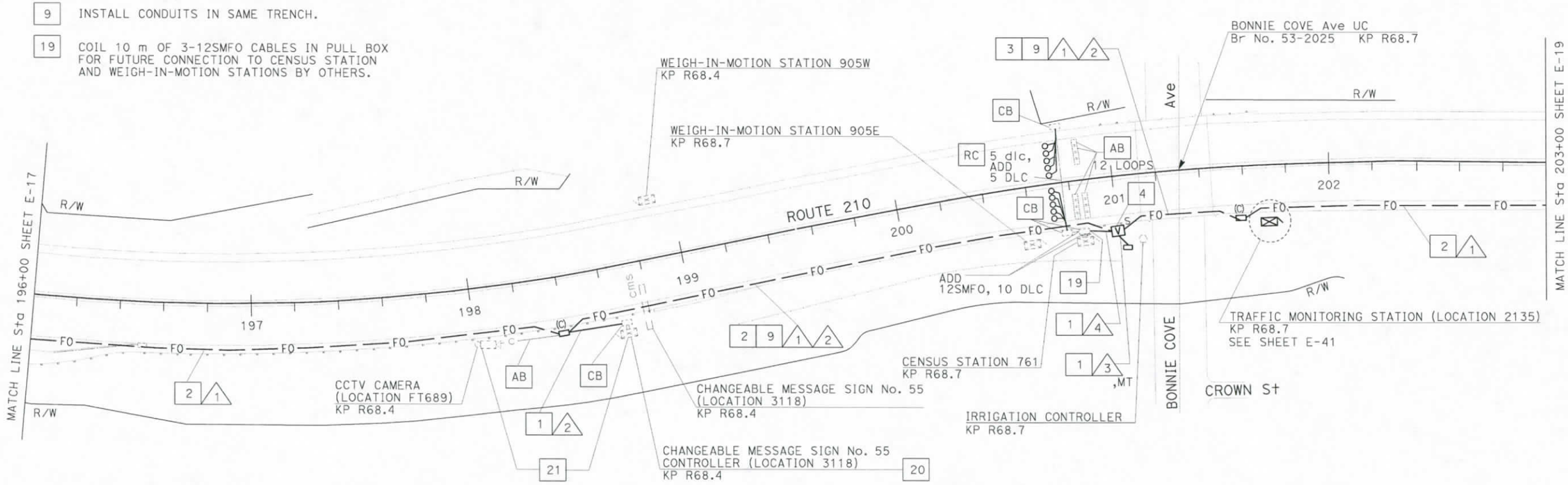
AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)									
CONDUCTOR TYPE	FUNCTION	RUN							
		1					2	3	4
12SMFO CABLE	VOICE/DATA						1		3
48SMFO CABLE	DATA DISTRIBUTION	1							
48SMFO CABLE	VIDEO DISTRIBUTION		1						
48SMFO CABLE	DATA/VIDEO			1					
INNERDUCT (SIZE 25)		1	1	1	1				3
CONDUIT SIZE		103				103	53	53	103

PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. INSTALL FIBER OPTIC SPLICE CLOSURE.
9. INSTALL CONDUITS IN SAME TRENCH.
19. COIL 10 m OF 3-12SMFO CABLES IN PULL BOX FOR FUTURE CONNECTION TO CENSUS STATION AND WEIGH-IN-MOTION STATIONS BY OTHERS.
20. INSTALL FOTM, 12-FIBER FDU AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
21. RS SLOW-SCAN CCTV CAMERA EQUIPMENT AND POLE.



FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-18

DATE	REVISED BY	DATE	REVISED BY	CC
3/02	CC	8/05	JT	7/05

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PROJECT ENGINEER CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 21-JUN-2010 TIME PLOTTED => 09:00

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USERNAME => s129112
DGN FILE => 712993ug018.dgn

CU 07388 EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	79	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CONWAY CHU
No. E15305
Exp. 3/31/07
ELECTRICAL
STATE OF CALIFORNIA

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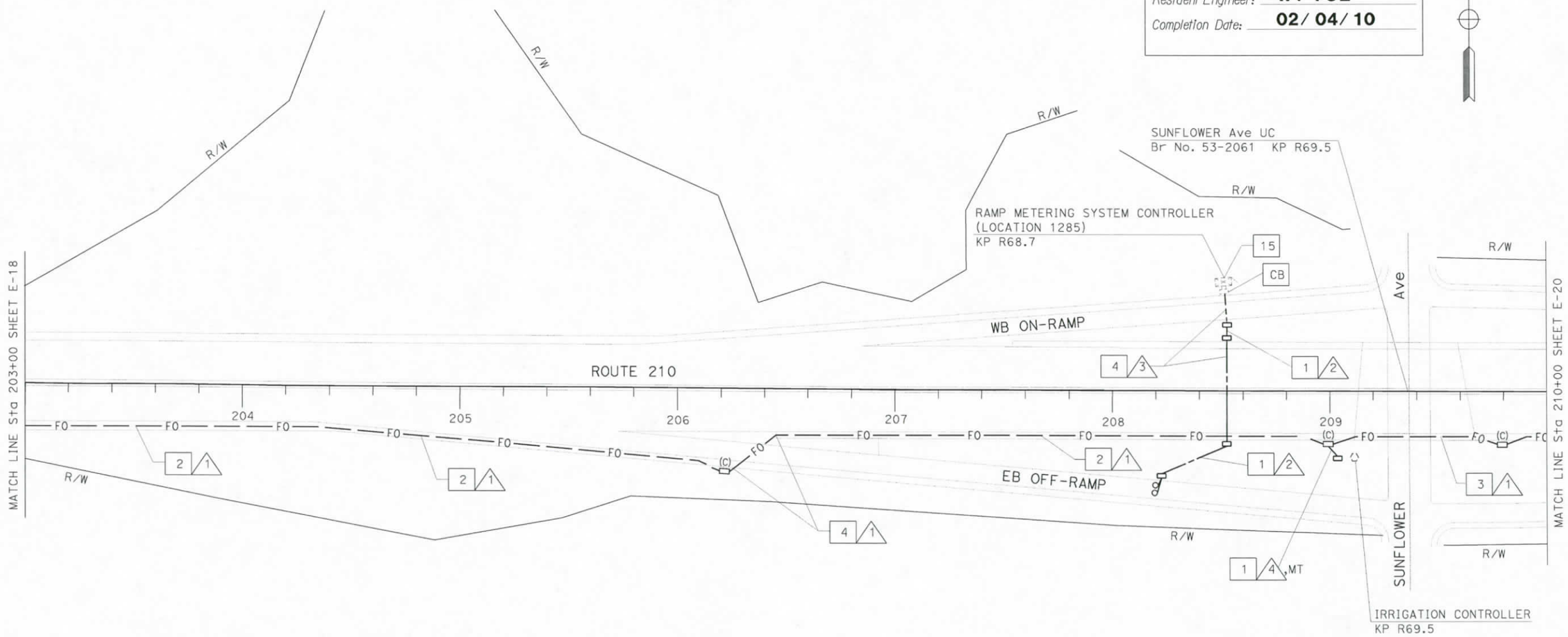
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)									
CONDUCTOR TYPE	FUNCTION	RUN							
				1			2	3	4
48SMFO CABLE	DATA DISTRIBUTION	1							
48SMFO CABLE	VIDEO DISTRIBUTION		1						
48SMFO CABLE	DATA/VIDEO			1					
DLC	SURVEILLANCE DETECTOR						2	2	
INNERDUCT (SIZE 25)		1	1	1	1				
CONDUIT SIZE		103				103	53	78	53

PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
15. ADD NEW DLC'S THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET AND CONNECT TO EXISTING TERMINAL BLOCK. INSTALL STATE FURNISHED LOOP DETECTOR SENSOR(S).

AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/04/10**



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-19

DATE	REVISED BY	DATE	REVISED BY	CC
3/02	8/05	7/05		

CALCULATED/DESIGNED BY: CC
CHECKED BY: JT
PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 07-12-05 DATE PLOTTED => 21-JUN-2010 TIME PLOTTED => 09:00

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USERNAME => s129112
DGN FILE => 712993ua019.dgn

CU 07388 EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R53.7/R75.3	80	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CONWAY CHU
No. E15305
Exp. 3/31/07
ELECTRICAL
STATE OF CALIFORNIA

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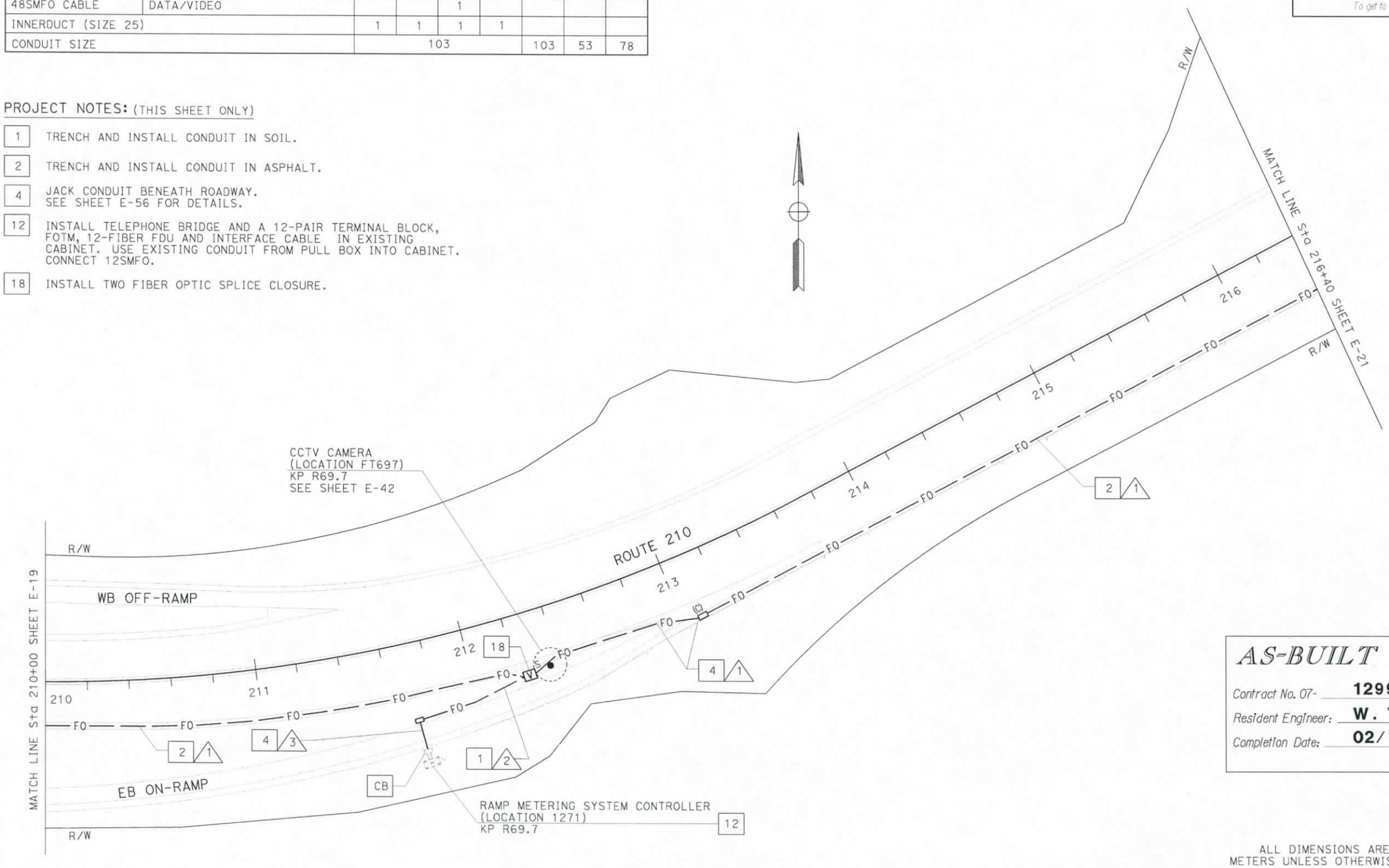
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN						
		1					2	3
48SMFO CABLE	DATA DISTRIBUTION	1						
12SMFO CABLE	VOICE/DATA						1	1
48SMFO CABLE	VIDEO DISTRIBUTION		1					
48SMFO CABLE	DATA/VIDEO			1				
INNERDUCT (SIZE 25)		1	1	1	1			
CONDUIT SIZE		103				103	53	78

PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
12. INSTALL TELEPHONE BRIDGE AND A 12-PAIR TERMINAL BLOCK, FOTM, 12-FIBER FDU AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
18. INSTALL TWO FIBER OPTIC SPLICE CLOSURE.



AS-BUILT

Contract No. 07- 129934
Resident Engineer: W. YUE
Completion Date: 02/04/10

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY FOR LEGEND AND GENERAL NOTES SEE SHEET E-1

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-20

DATE	REVISED BY	DATE REVISED	CC
3/02	8/05	7/05	

CALCULATED/DESIGNED BY: CC
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PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00 DATE PLOTTED => 21-JUN-2010 TIME PLOTTED => 09:00

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USERNAME => s129112
DGN FILE => 712993ua020.dgn

CU 07388 EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	81	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 EXP. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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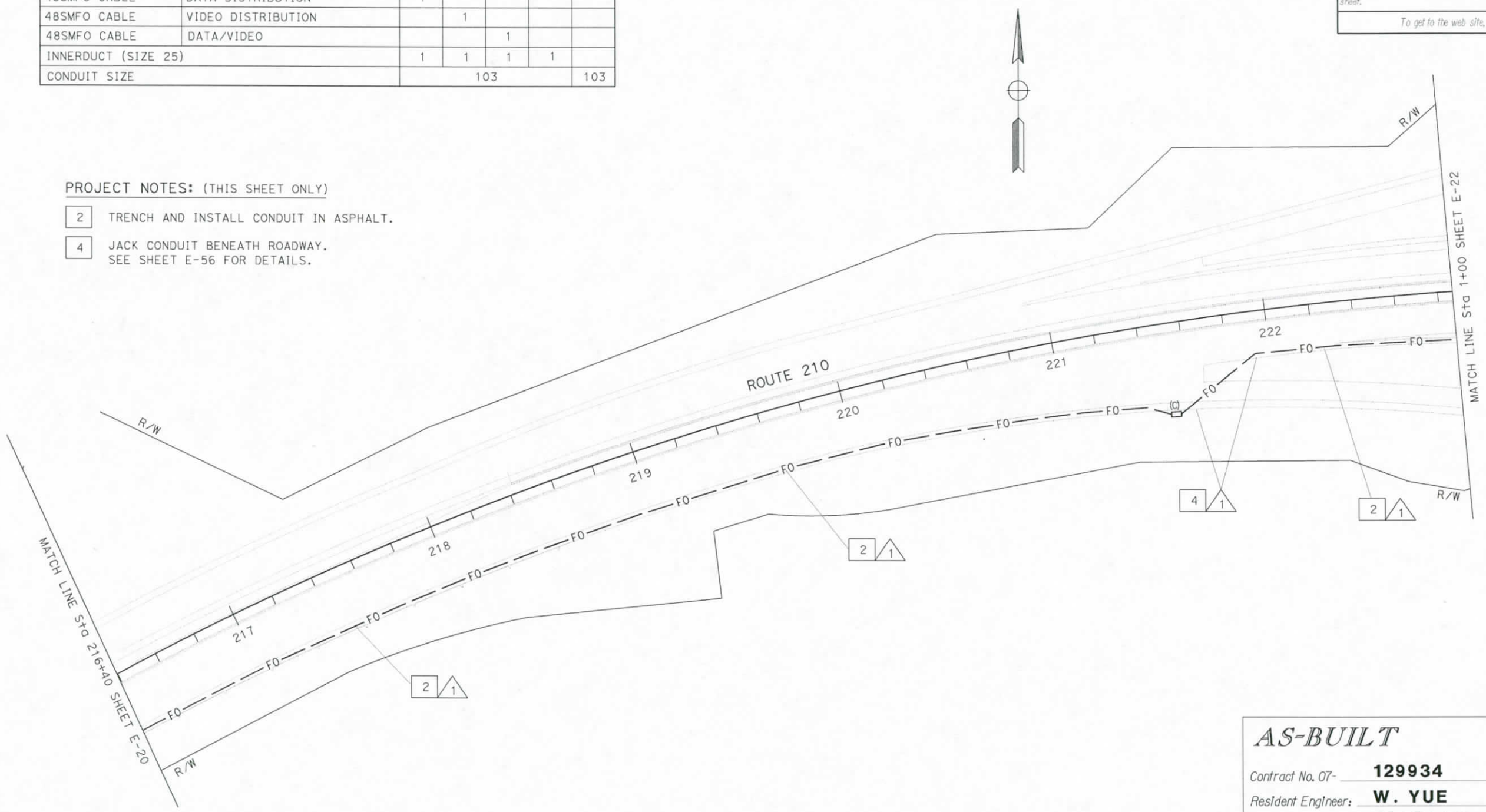
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)						
CONDUCTOR TYPE	FUNCTION	RUN				
				1		
48SMFO CABLE	DATA DISTRIBUTION	1				
48SMFO CABLE	VIDEO DISTRIBUTION		1			
48SMFO CABLE	DATA/VIDEO			1		
INNERDUCT (SIZE 25)		1	1	1	1	
CONDUIT SIZE		103				103

PROJECT NOTES: (THIS SHEET ONLY)

2 TRENCH AND INSTALL CONDUIT IN ASPHALT.

4 JACK CONDUIT BENEATH ROADWAY.
SEE SHEET E-56 FOR DETAILS.



AS-BUILT
Contract No. 07- 129934
Resident Engineer: W. YUE
Completion Date: 02/ 04/ 10

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA,
SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY.
FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-21

	DATE	REVISED BY	DATE	REVISED BY	CC
	3/02		8/05		7/05

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CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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USERNAME => s129112
DGN FILE => 712993ua021.dgn

CU 07388 | EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R53.7/R75.3	82	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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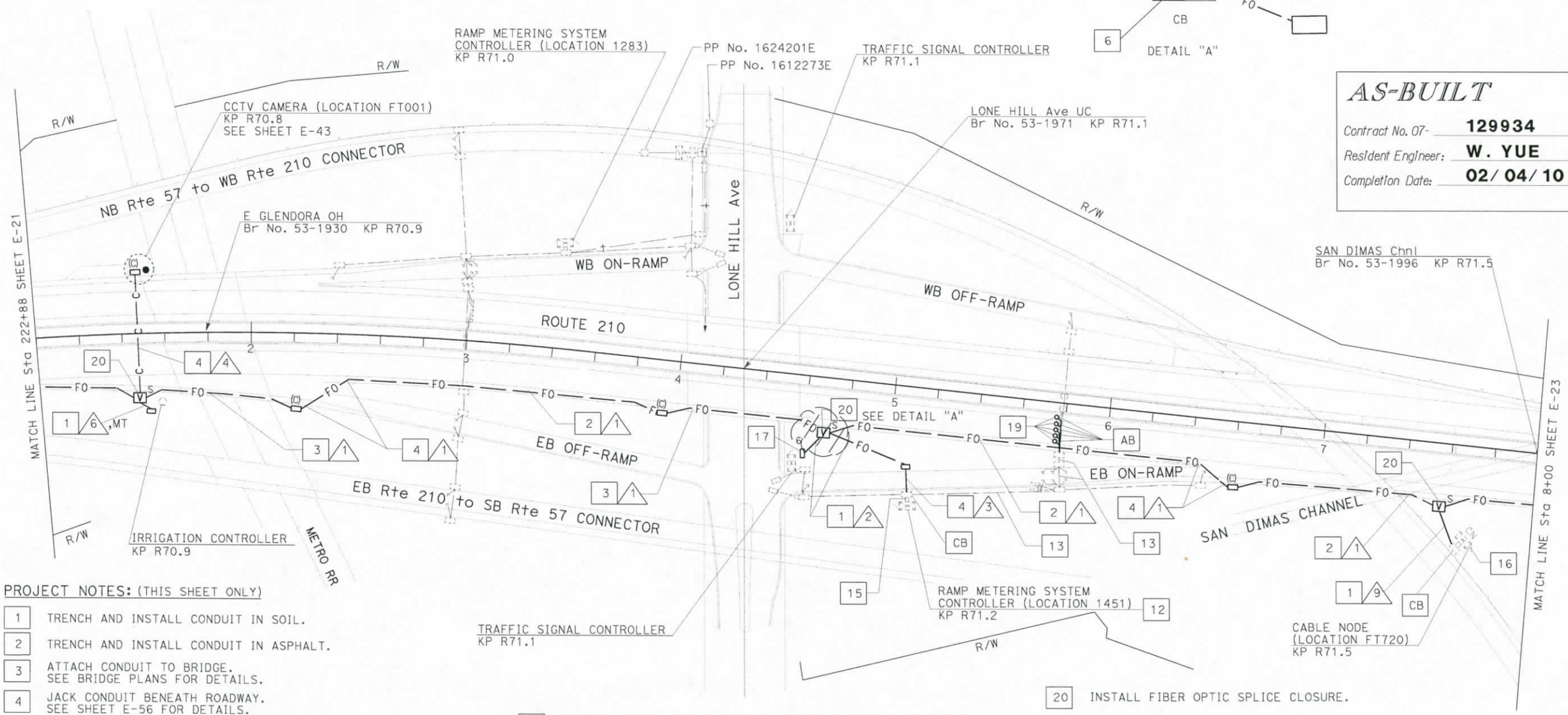
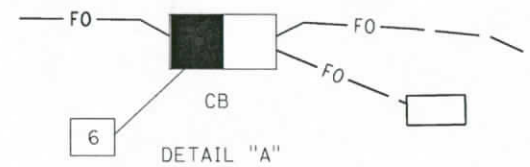
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2	RUN 3	RUN 4	RUN 6	RUN 9
48SMFO CABLE	DATA DISTRIBUTION	1									
12SMFO CABLE	VOICE/DATA						1	1			1
48SMFO CABLE	VIDEO DISTRIBUTION		1								
48SMFO CABLE	DATA/VIDEO			1							
12SMFO CABLE	SHORT HAUL VIDEO								1		
INNERDUCT (SIZE 25)		1	1	1	1				1		1
CONDUIT SIZE		103				103	53	78	103	53	103





AS-BUILT

Contract No. 07- **129934**

Resident Engineer: **W. YUE**

Completion Date: **02/ 04/ 10**

PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
12. INSTALL TELEPHONE BRIDGE AND 12 PAIR TERMINAL BLOCK, FOTM, 12-FIBER FDU AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
13. RC 5 dlc. ADD 5 DLC IN EXISTING CONDUIT.
15. RC 5 dlc. ADD 5 DLC THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET AND CONNECT TO EXISTING TERMINAL BLOCK.
16. INSTALL 12SMFO CABLE THROUGH EXISTING CONDUIT INTO THE EXISTING CABINET AND COIL 10 m IN CABINET.
17. COIL 10 m 12SMFO CABLE IN PULL BOX FOR FUTURE CONNECTION TO TRAFFIC SIGNAL CONTROLLER BY OTHERS.
19. FOR LOOP INSTALLATION DETAILS SEE Std PLANS ES-5A AND ES-5B.
20. INSTALL FIBER OPTIC SPLICE CLOSURE.

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY FOR LEGEND AND GENERAL NOTES SEE SHEET E-1

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-22

DATE	REVISED BY	DATE REVISED
3/02	CC	7/05
8/05	JT	

CALCULATED/DESIGNED BY: CC
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PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
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LAST REVISION 00-00-00
DATE PLOTTED => 21-JUN-2010
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DGN FILE => 712993ua022.dgn

CU 07388 | EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	83	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CONWAY CHU
No. E15305
EXP. 3/31/07
ELECTRICAL
STATE OF CALIFORNIA

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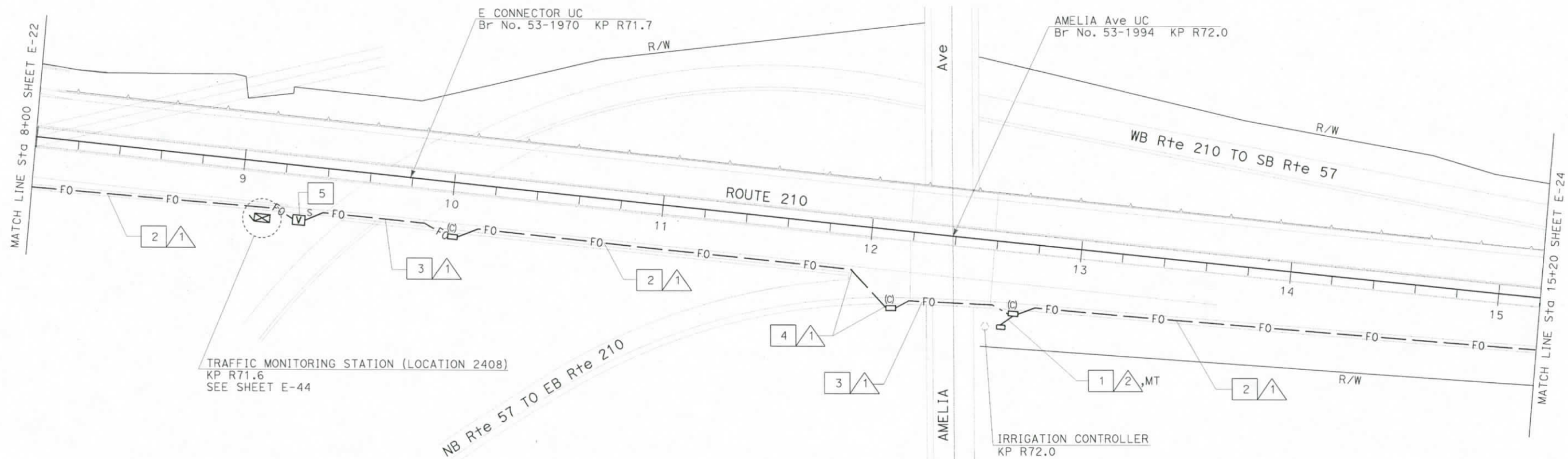
CONDUCTOR TYPE	FUNCTION	RUN 1					RUN 2
48SMFO CABLE	DATA DISTRIBUTION	1					
12SMFO CABLE	VOICE/DATA						
48SMFO CABLE	VIDEO DISTRIBUTION		1				
48SMFO CABLE	DATA/VIDEO			1			
INNERDUCT (SIZE 25)		1	1	1	1		
CONDUIT SIZE		103				103	53



PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
5. INSTALL FIBER OPTIC SPLICE CLOSURE.

AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

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COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-23

	DATE	REVISED BY	DATE REVISED
CC	7/05		

CALCULATED/DESIGNED BY	CC	
CHECKED BY	JT	8/05

PROJECT ENGINEER: CONWAY CHU

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DGN FILE => 712993ua023.dgn

CU 07388 | EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
07	LA	210	R53.7/R75.3	84	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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Caltrans Metric

AS-BUILT

Contract No. 07- **129934**

Resident Engineer: **W. YUE**

Completion Date: **02/ 04/ 10**

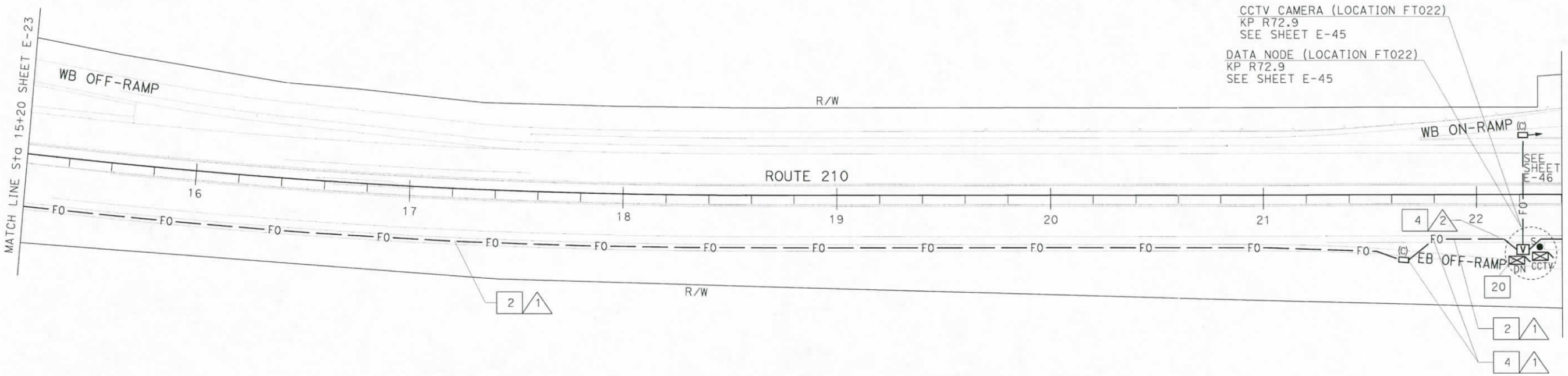
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)							
CONDUCTOR TYPE	FUNCTION	RUN					
		1					2
48SMFO CABLE	DATA DISTRIBUTION	1					
48SMFO CABLE	VIDEO DISTRIBUTION		1				
48SMFO CABLE	DATA/VIDEO			1			
12SMFO CABLE	VOICE/DATA						1
INNERDUCT (SIZE 25)		1	1	1	1		
CONDUIT SIZE		103				103	78

PROJECT NOTES: (THIS SHEET ONLY)

2 TRENCH AND INSTALL CONDUIT IN ASPHALT.

4 JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.

20 INSTALL TWO FIBER OPTIC SPLICE CLOSURES.



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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-24

CC	3/02	CC	8/05
REVISED BY	DATE	REVISED BY	DATE
CC	7/05	JT	
CALCULATED/ DESIGNED BY		CHECKED BY	

PROJECT ENGINEER CONWAY CHU

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DGN FILE => 712993ua024.dgn

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	85	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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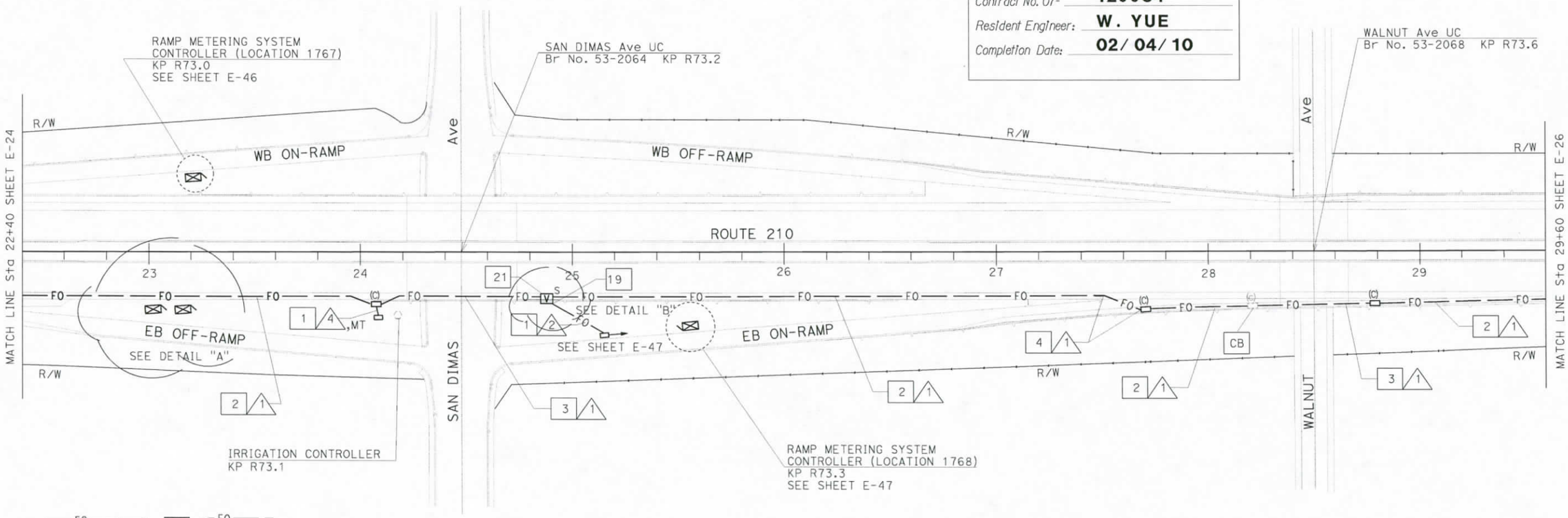
CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN						
				1			2	4
48SMFO CABLE	DATA DISTRIBUTION	1						
12SMFO CABLE	VOICE/DATA						1	
48SMFO CABLE	VIDEO DISTRIBUTION		1					
48SMFO CABLE	DATA/VIDEO			1				
INNERDUCT (SIZE 25)		1	1	1	1			
CONDUIT SIZE		103				103	53	53

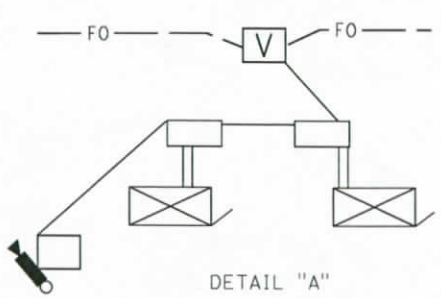
PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
19. JACKED CONDUIT BETWEEN SOUNDWALL CIDH PILES.
21. INSTALL FIBER OPTIC SPLICE CLOSURE.

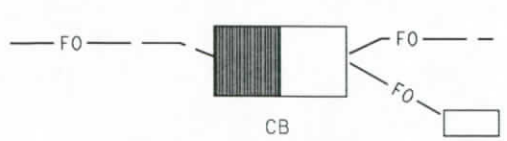
AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/04/10**





DETAIL "A"



DETAIL "B"

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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-25

DATE	REVISED BY	CC
3/02	REVISED	CC
8/05	DATE REVISED	7/05

CALCULATED/DESIGNED BY: CC
CHECKED BY: JT

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
ITS DEVELOPMENT

LAST REVISION 00-00-00 | DATE PLOTTED => 21-JUN-2010 | TIME PLOTTED => 09:00

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USERNAME => s129112
DGN FILE => 712993ua025.dgn

CU 07388 | EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	86	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER CONWAY CHU No. E15305 Exp. 3/31/07 ELECTRICAL STATE OF CALIFORNIA

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Caltrans Metric

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)								
CONDUCTOR TYPE	FUNCTION	RUN						
		1				2	3	
48SMFO CABLE	DATA DISTRIBUTION	1						
12SMFO CABLE	VOICE/DATA					1		
48SMFO CABLE	VIDEO DISTRIBUTION		1					
48SMFO CABLE	DATA/VIDEO			1				
12SMFO CABLE	SHORT HAUL VIDEO							1
INNERDUCT (SIZE 25)		1	1	1	1	1		1
CONDUIT SIZE		103			103	78	103	

PROJECT NOTES: (THIS SHEET ONLY)

2 TRENCH AND INSTALL CONDUIT IN ASPHALT.

3 ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.

4 JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.

17 COIL 10 m OF 12SMFO CABLE IN PULL BOX FOR FUTURE CONNECTION TO CENSUS STATION BY OTHERS.

19 JACK CONDUIT BETWEEN SOUNDWALL CIDH PILES.

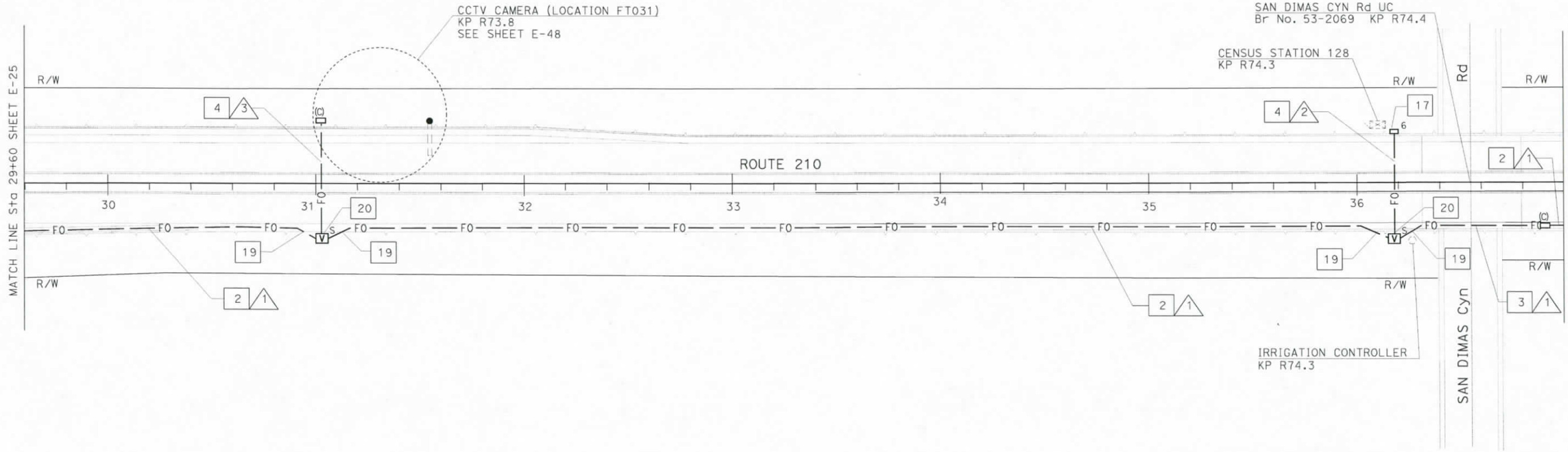
20 INSTALL FIBER OPTIC SPLICE CLOSURE.

AS-BUILT

Contract No. 07- **129934**

Resident Engineer: **W. YUE**

Completion Date: **02/ 04/ 10**



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE. THIS PLAN ACCURATE FOR ELECTRICAL WORK ONLY. FOR LEGEND AND GENERAL NOTES SEE SHEET E-1.

COMMUNICATION SYSTEM ROUTING

SCALE 1:1000

E-26

DATE	REVISED BY	DATE REVISED
3/02	CC	7/05
8/05	JT	

CALCULATED/DESIGNED BY: CC
CHECKED BY: JT
PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00
DATE PLOTTED => 21-JUN-2010
TIME PLOTTED => 09:00

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

USERNAME => s129112
DGN FILE => 712993ua026.dgn

CU 07388

EA 129931

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	210	R53.7/R75.3	87	213

Conway Chu
REGISTERED ELECTRICAL ENGINEER

5-22-06
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CONWAY CHU
No. E15305
Exp. 3/31/07
ELECTRICAL
STATE OF CALIFORNIA

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Caltrans Metric

CONDUIT AND CONDUCTOR SCHEDULE (THIS SHEET ONLY)

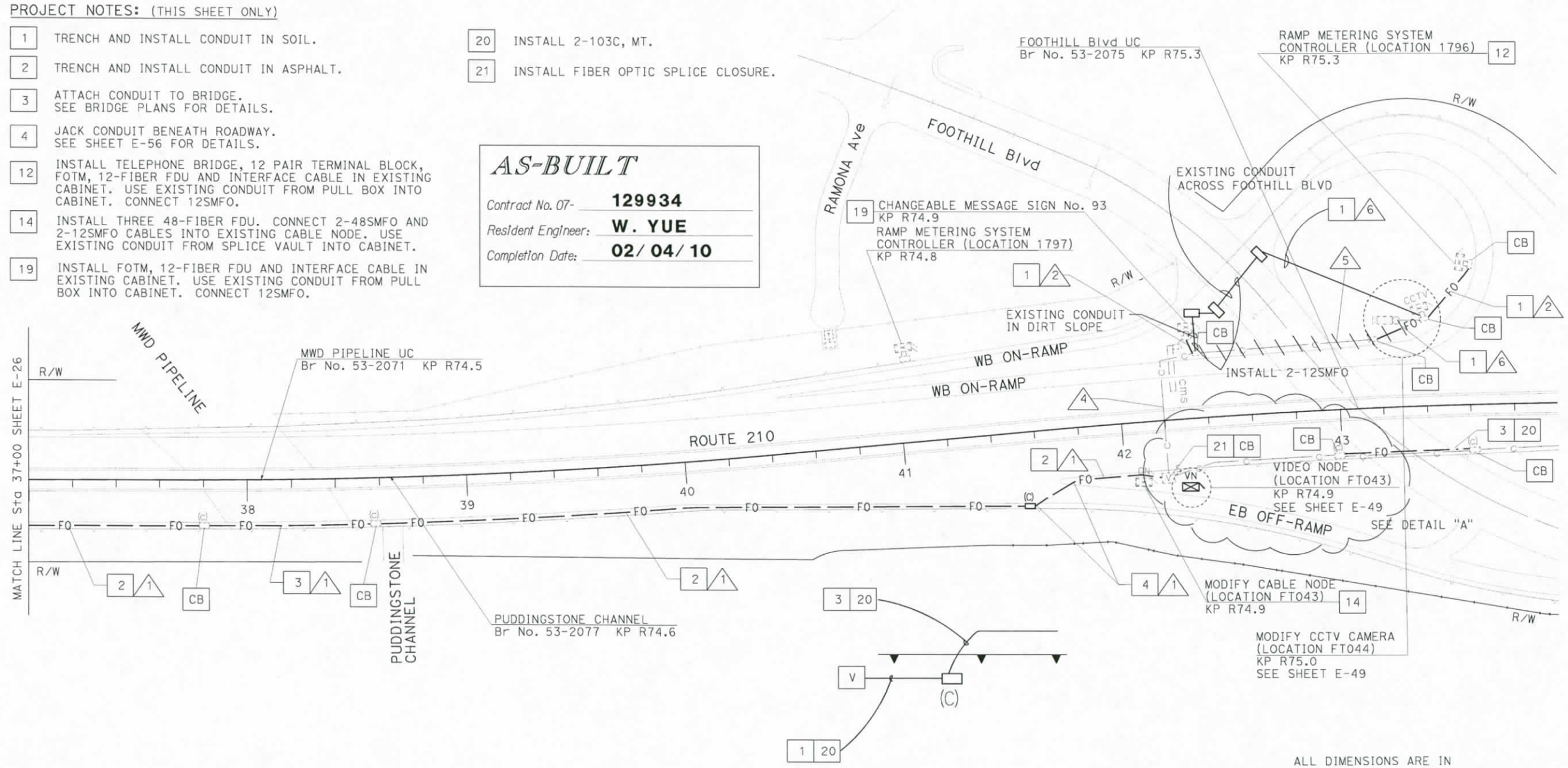
CONDUCTOR TYPE	FUNCTION	RUN 1					2	4		5		6	
48SMFO CABLE	DATA DISTRIBUTION	1											
12SMFO CABLE	VOICE/DATA						1	2		1		1	
48SMFO CABLE	VIDEO DISTRIBUTION		1										
48SMFO CABLE	DATA/VIDEO			1									
12SMFO CABLE	SHORT HAUL VIDEO								1		1		1
INNERDUCT (SIZE 25)		1	1	1	1			2	1	1	1	1	1
CONDUIT SIZE		103				103	53	103(E)		78(E)		78	

PROJECT NOTES: (THIS SHEET ONLY)

1. TRENCH AND INSTALL CONDUIT IN SOIL.
2. TRENCH AND INSTALL CONDUIT IN ASPHALT.
3. ATTACH CONDUIT TO BRIDGE. SEE BRIDGE PLANS FOR DETAILS.
4. JACK CONDUIT BENEATH ROADWAY. SEE SHEET E-56 FOR DETAILS.
12. INSTALL TELEPHONE BRIDGE, 12 PAIR TERMINAL BLOCK, FOTM, 12-FIBER FDU AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
14. INSTALL THREE 48-FIBER FDU. CONNECT 2-48SMFO AND 2-12SMFO CABLES INTO EXISTING CABLE NODE. USE EXISTING CONDUIT FROM SPLICE VAULT INTO CABINET.
19. INSTALL FOTM, 12-FIBER FDU AND INTERFACE CABLE IN EXISTING CABINET. USE EXISTING CONDUIT FROM PULL BOX INTO CABINET. CONNECT 12SMFO.
20. INSTALL 2-103C, MT.
21. INSTALL FIBER OPTIC SPLICE CLOSURE.

AS-BUILT

Contract No. 07- **129934**
Resident Engineer: **W. YUE**
Completion Date: **02/ 04/ 10**



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

COMMUNICATION SYSTEM ROUTING
MODIFY CABLE NODE
(LOCATION FT043)

SCALE 1:1000

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E-27

DATE 3/02	REVISED BY	CC
8/05	DATE REVISED 7/05	

CALCULATED/DESIGNED BY: CC
CHECKED BY: JT

PROJECT ENGINEER: CONWAY CHU

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ITS DEVELOPMENT

LAST REVISION 00-00-00 DATE PLOTTED => 21-JUN-2010 TIME PLOTTED => 09:00

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USERNAME => s129112
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CU 07388 EA 129931