Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1201	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

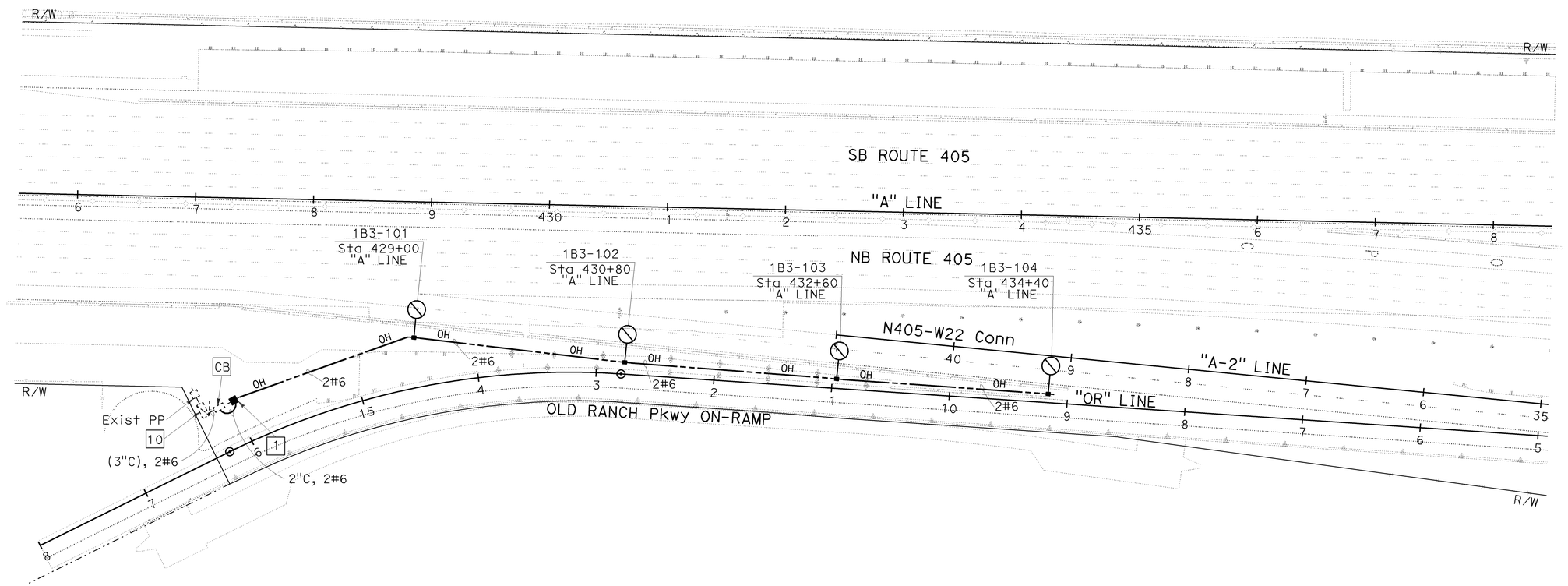
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



TEMPORARY LIGHTING
(STAGE 1B.3)

SCALE: 1" = 50'

E-15

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:25

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1202	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

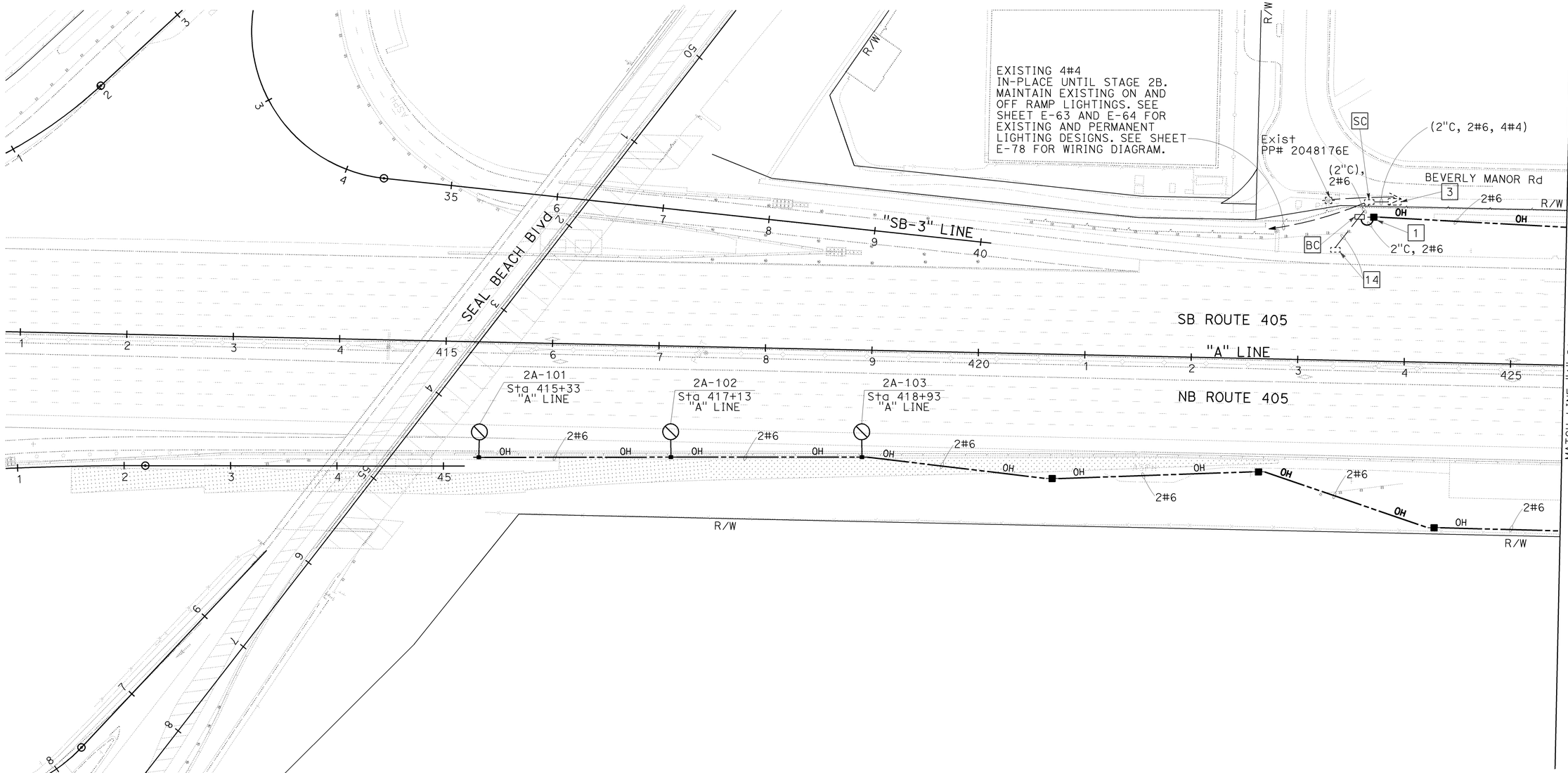
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



TEMPORARY LIGHTING
(STAGE 2A)

SCALE: 1" = 50'

E-16

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY: CW
DATE REVISED: 8/10/09
VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:25

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1203	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

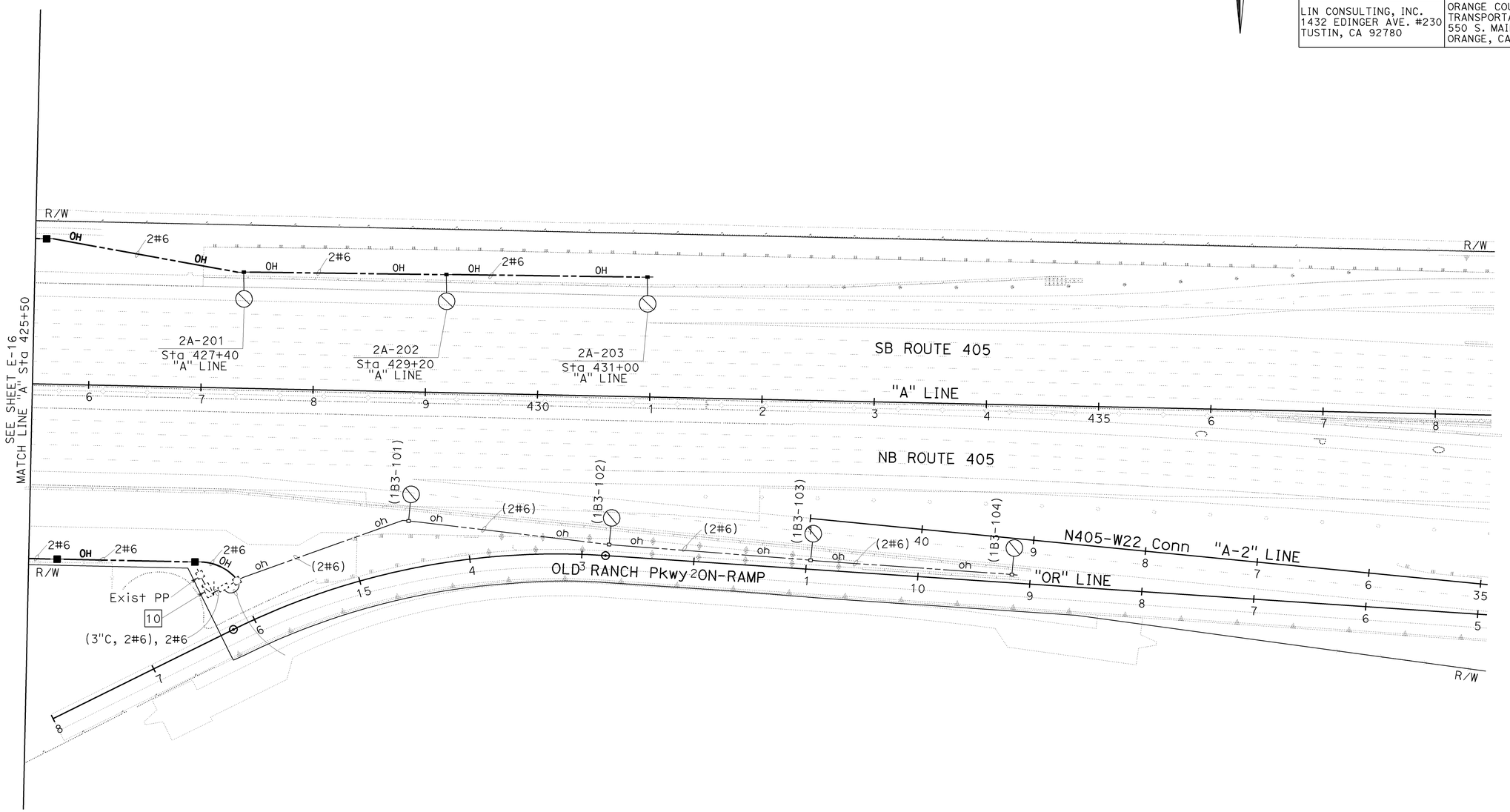
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



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

TEMPORARY LIGHTING
(STAGE 2A)

SCALE: 1" = 50'

E-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:25

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1204	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

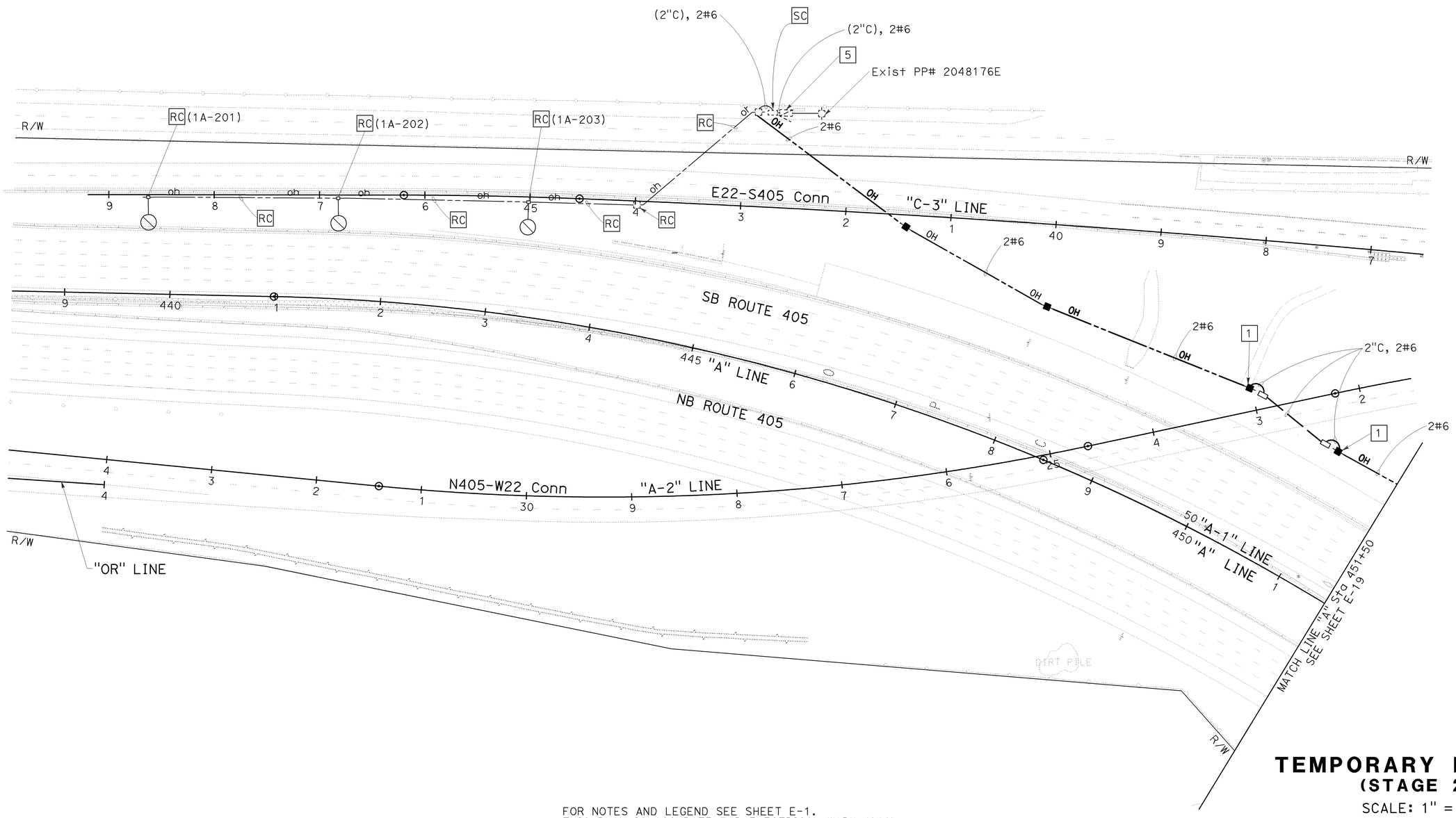
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL — STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



TEMPORARY LIGHTING
(STAGE 2A)

SCALE: 1" = 50'

E-18

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

VICENTE ENCARNACION / CHARLOTTE WU — TIMMY TO

REVISED BY: CW — DATE REVISED: 8/10/09

CALCULATED-DESIGNED BY / CHECKED BY

LAST REVISION 08-10-09 — DATE PLOTTED => 02-FEB-2010 — TIME PLOTTED => 11:25

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1205	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL — STATE OF CALIFORNIA

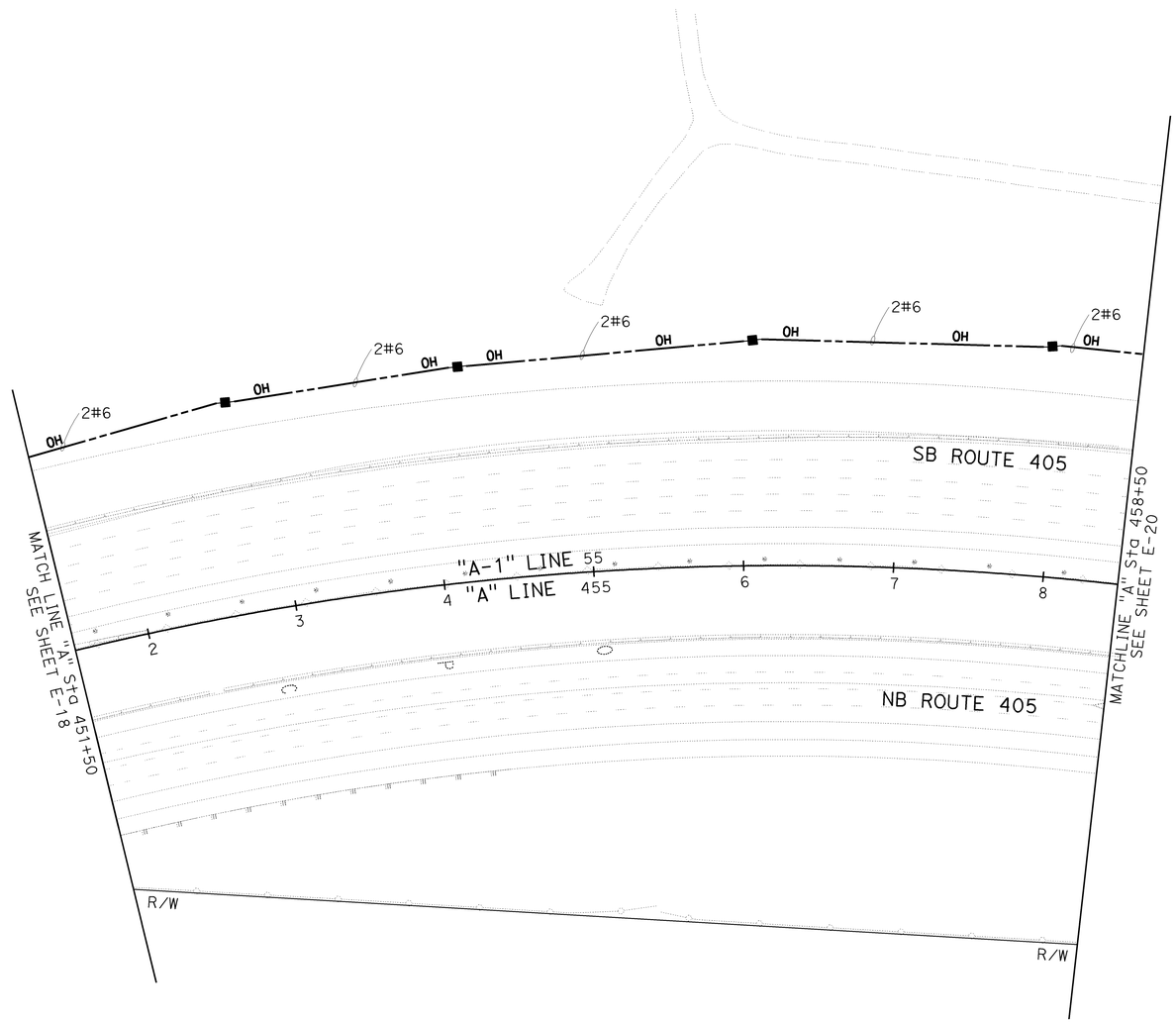
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2A)

SCALE: 1" = 50'

E-19

REVISED BY	CW
DATE REVISED	8/10/09
VICENTE ENCARNACION CHARLOTTE WU	TIMMY TO
CALCULATED-DESIGNED BY	
CHECKED BY	
CONSULTANT FUNCTIONAL SUPERVISOR	DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 02-FEB-2010 | TIME PLOTTED => 11:25

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1206	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

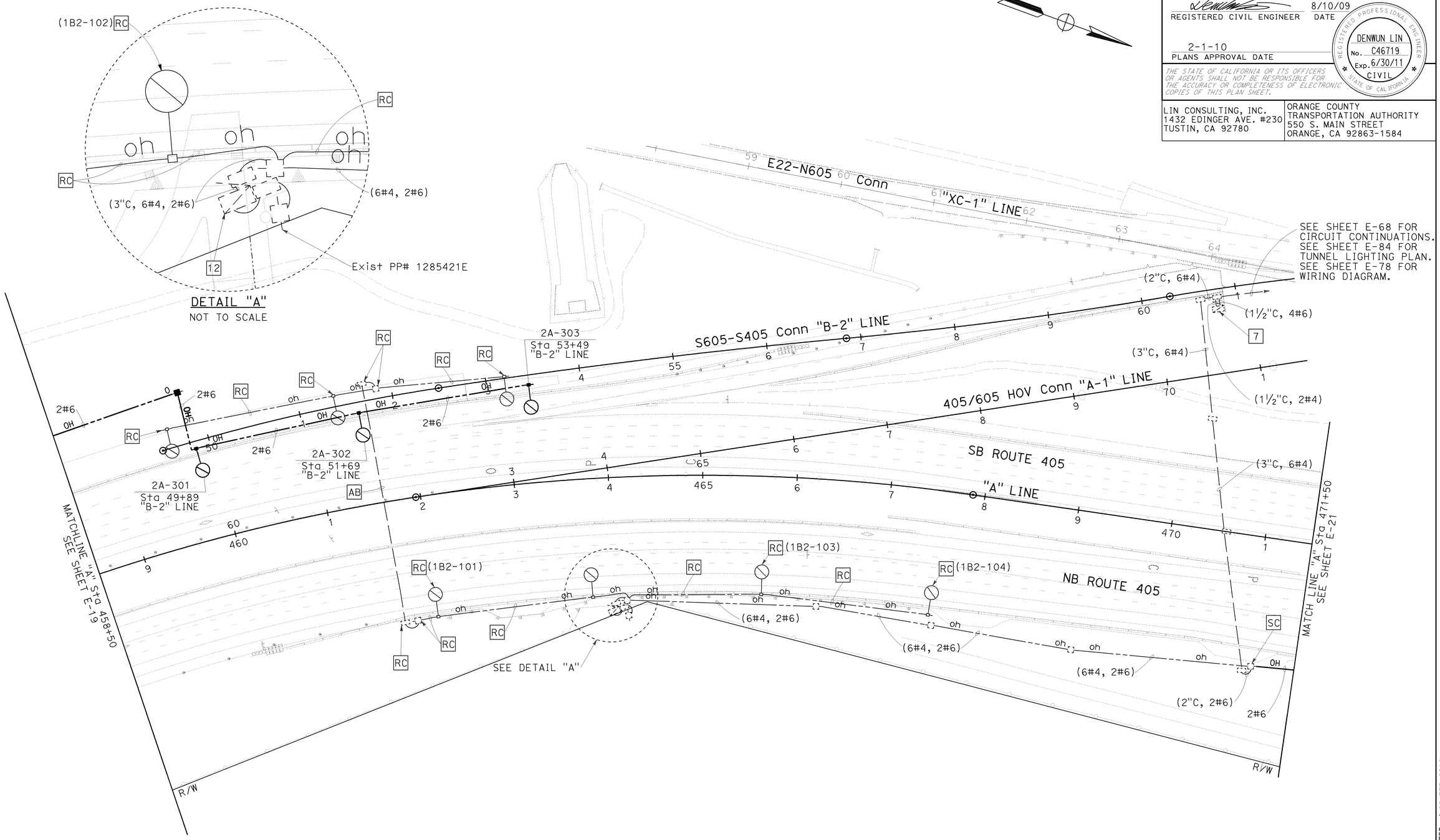
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



TEMPORARY LIGHTING
(STAGE 2A)

SCALE: 1" = 50'

E-20

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

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:25

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1207	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

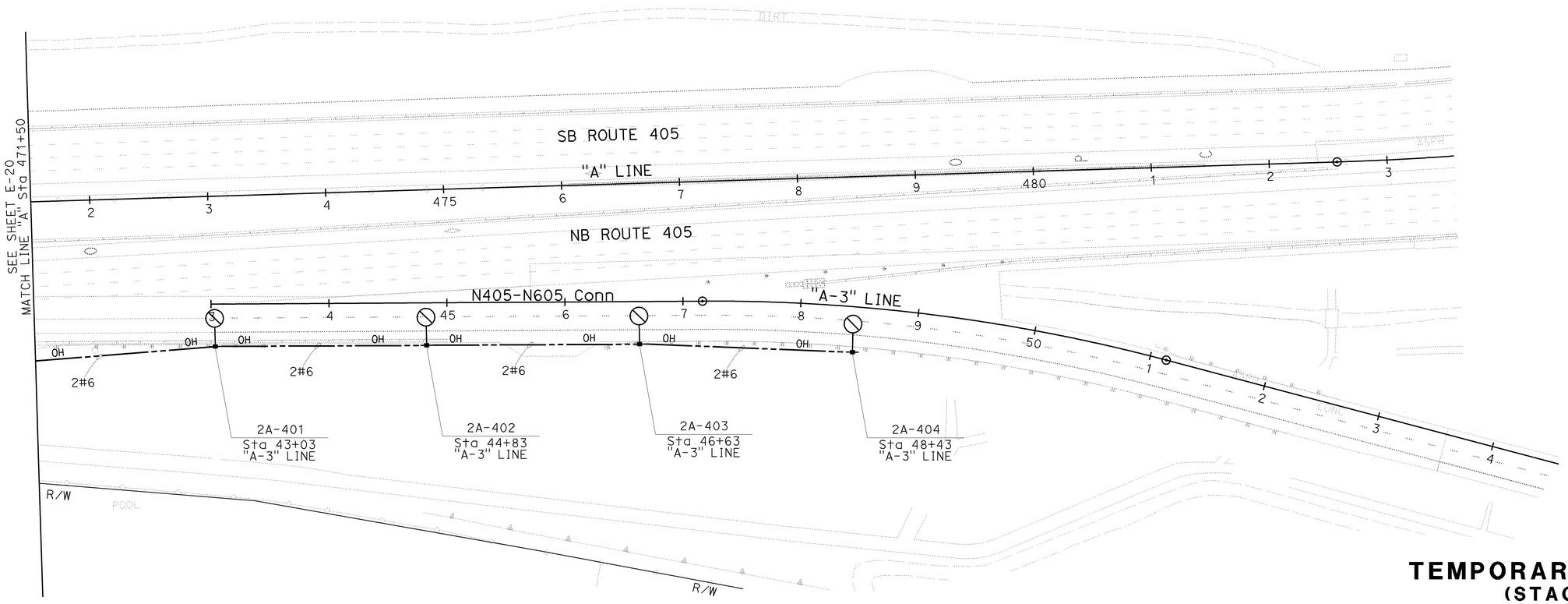
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2A)

SCALE: 1" = 50'

E-21

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:25

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1208	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

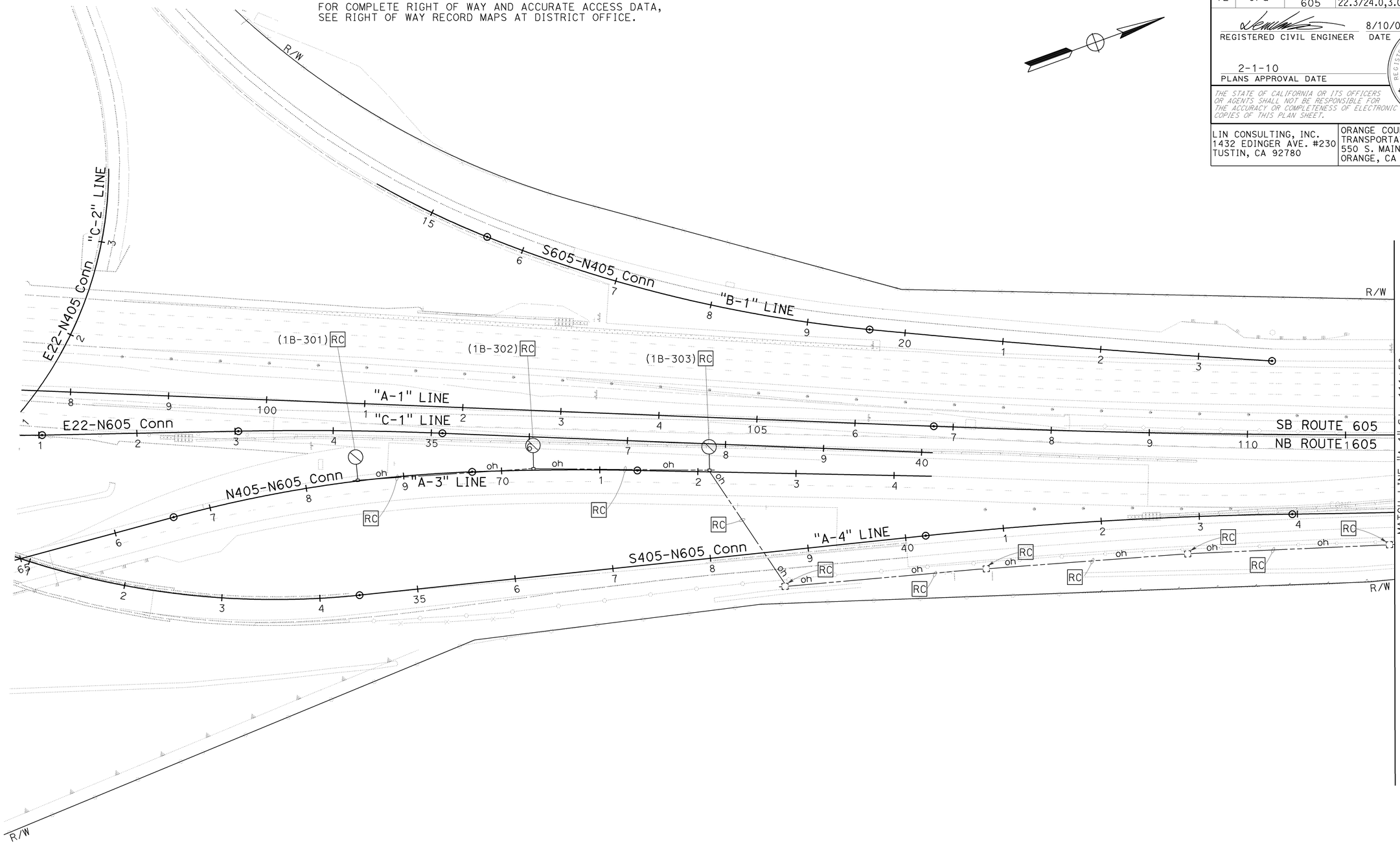
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2A)

SCALE 1"=50'

E-22

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:26

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1209	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

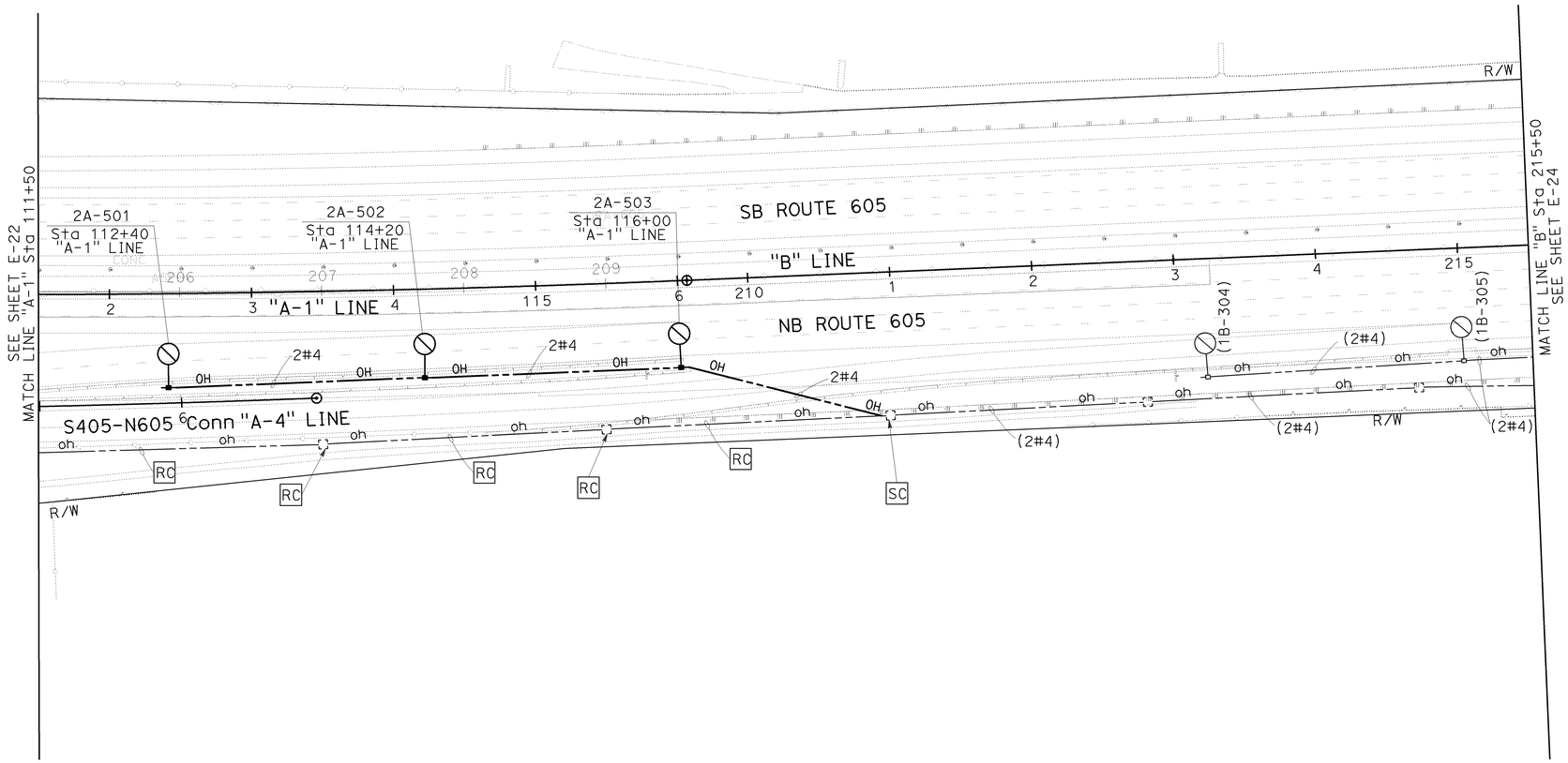
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2A)

SCALE: 1" = 50'

E-23

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 11:26

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1210	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

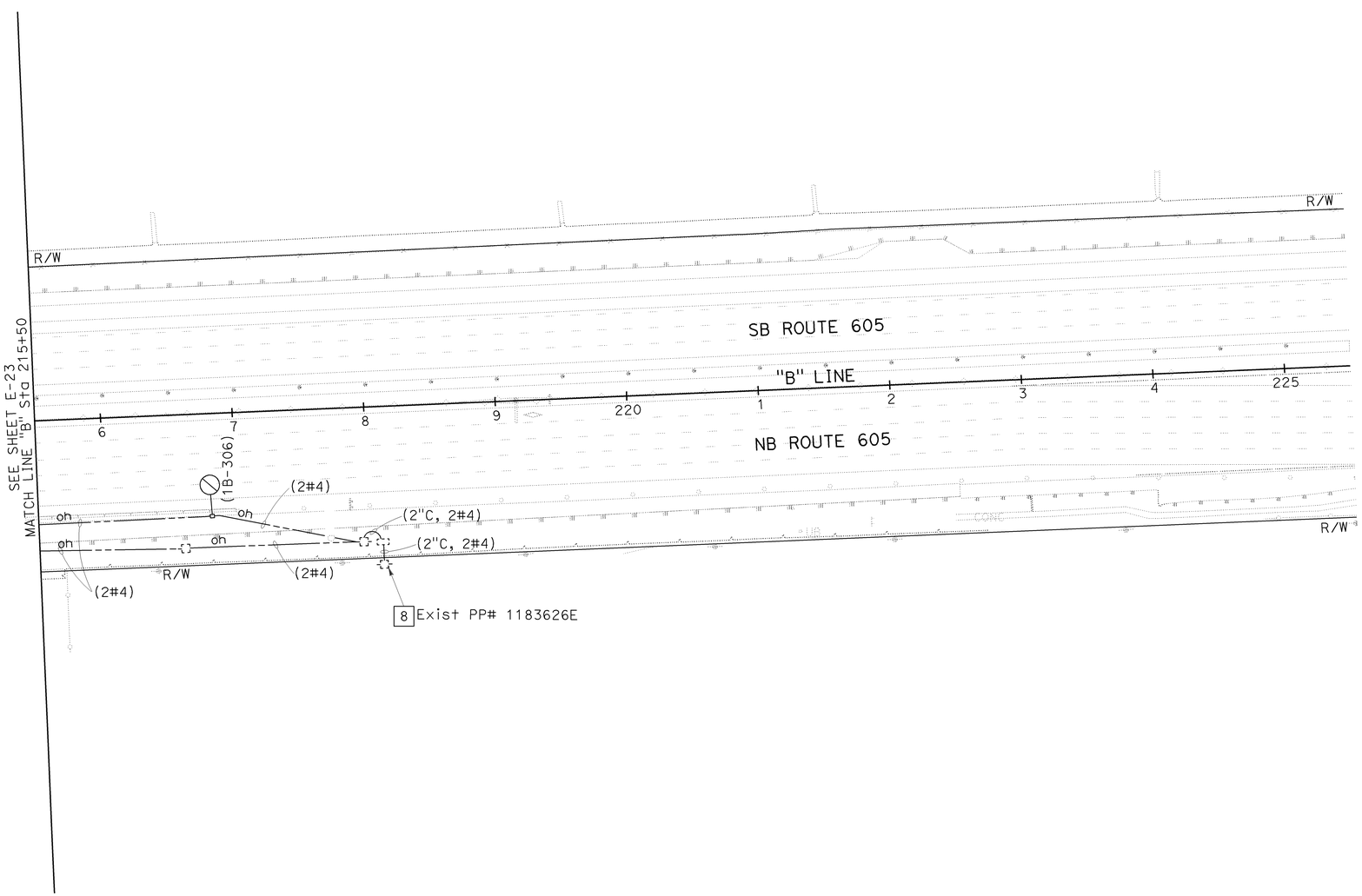
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



TEMPORARY LIGHTING
(STAGE 2A)

SCALE: 1" = 50'

E-24

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:26

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlenard
DGN FILE => c07163ua024.dgn
CU 12235
EA 071631

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1211	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

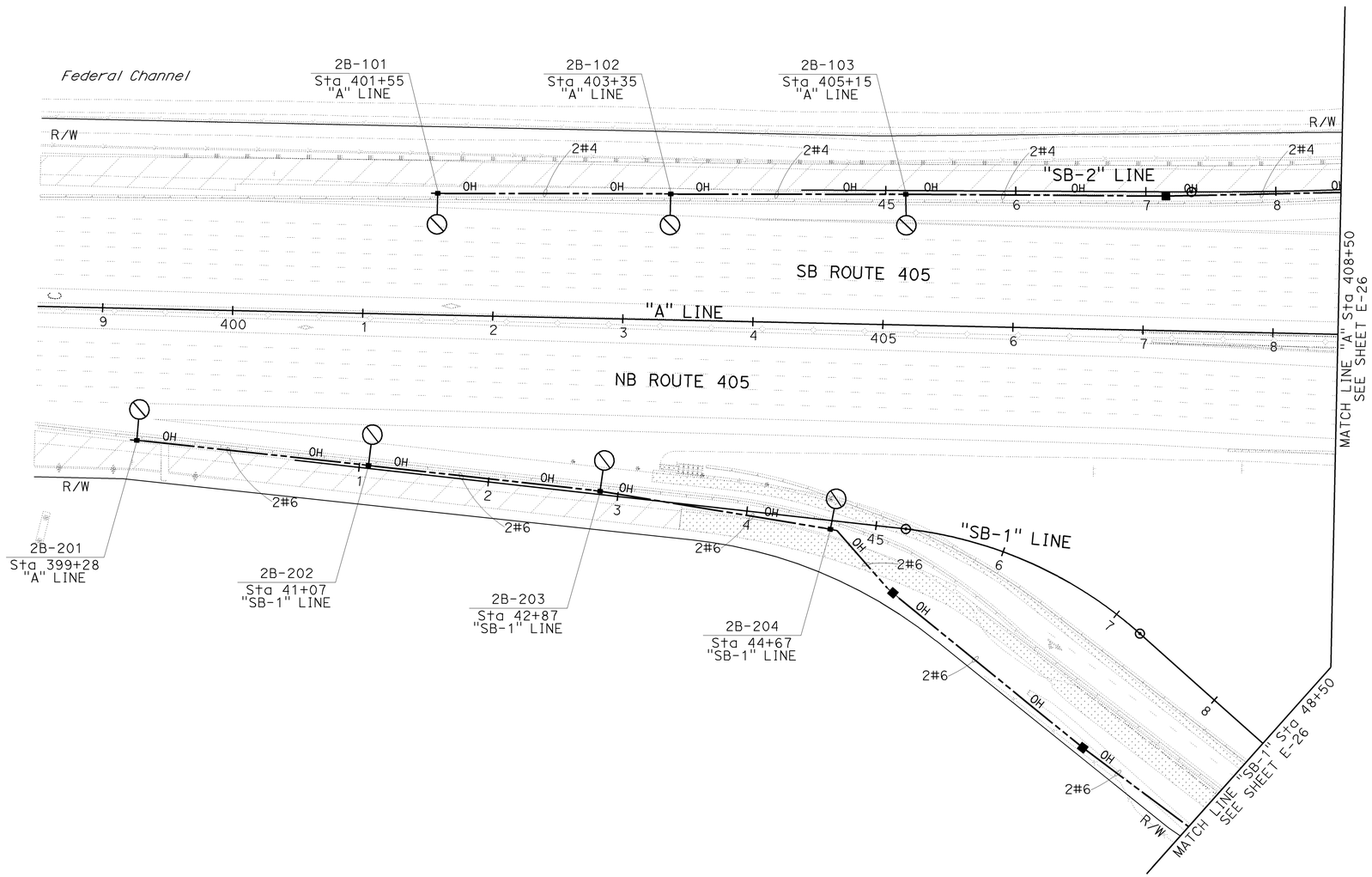
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



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

TEMPORARY LIGHTING
(STAGE 2B.1)

SCALE: 1" = 50'

E-25

REVISED BY	DATE REVISED
CW	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION
CHECKED BY: CHARLOTTE WU
TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1212	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL — STATE OF CALIFORNIA

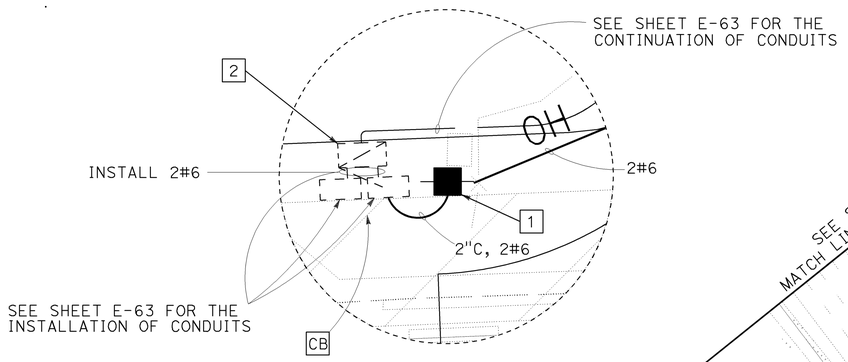
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

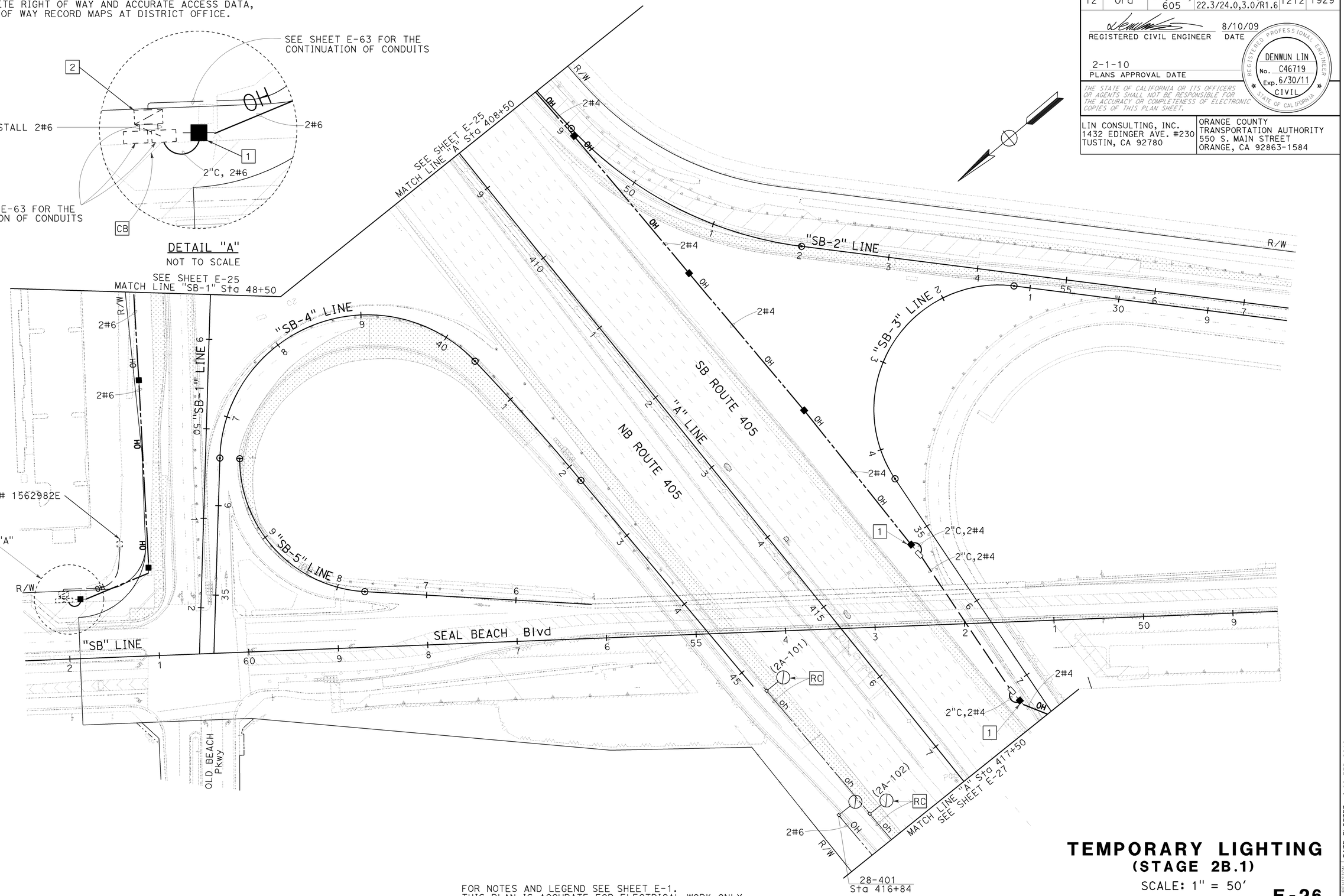
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



DETAIL "A"
NOT TO SCALE



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

TEMPORARY LIGHTING
(STAGE 2B.1)

SCALE: 1" = 50'

E-26

REVISED BY	DATE REVISED
CW	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 02-FEB-2010 | TIME PLOTTED => 11:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1213	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

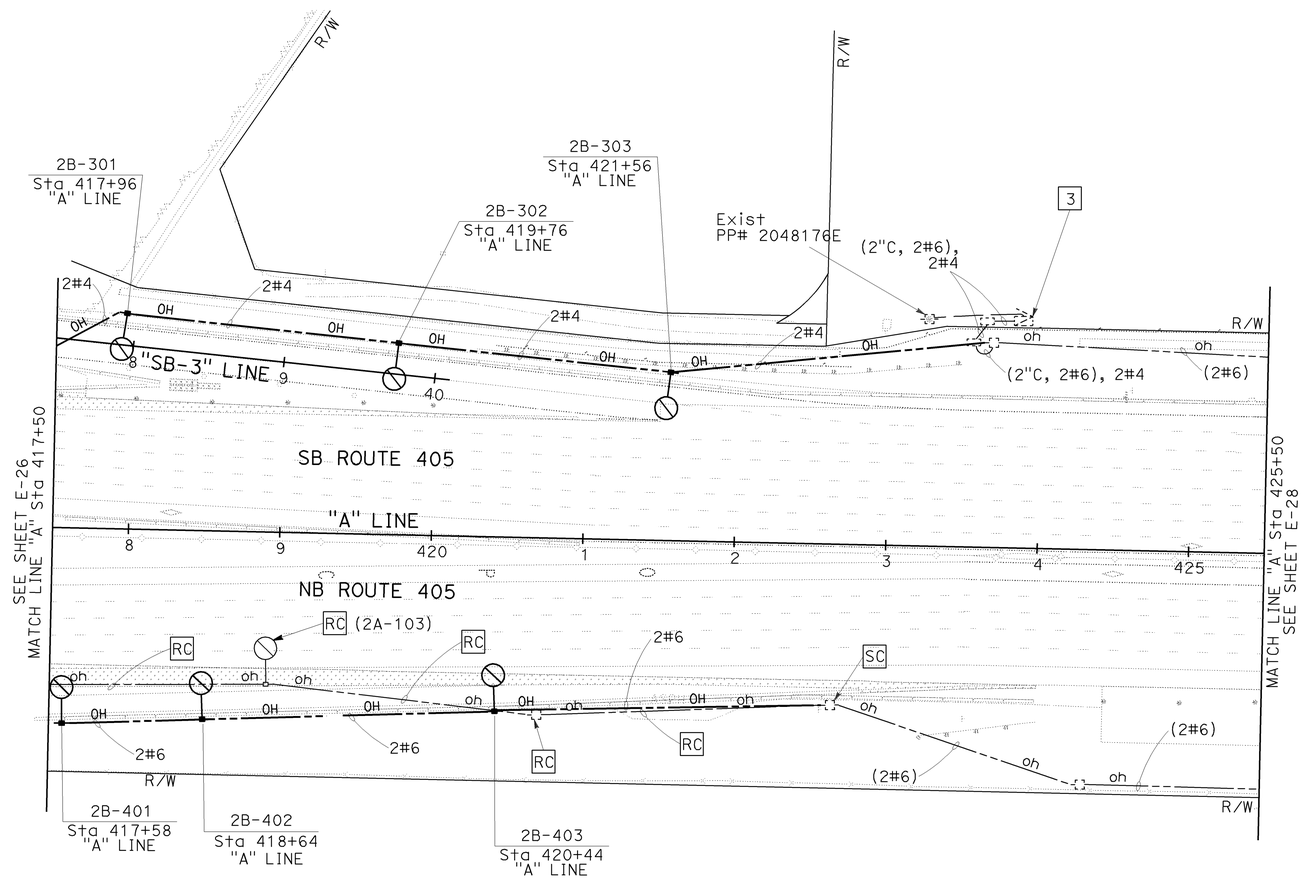
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2B.1)

SCALE: 1" = 50'

E-27

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY: VICENTE ENCARNACION / CHARLOTTE WU
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 08:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1214	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

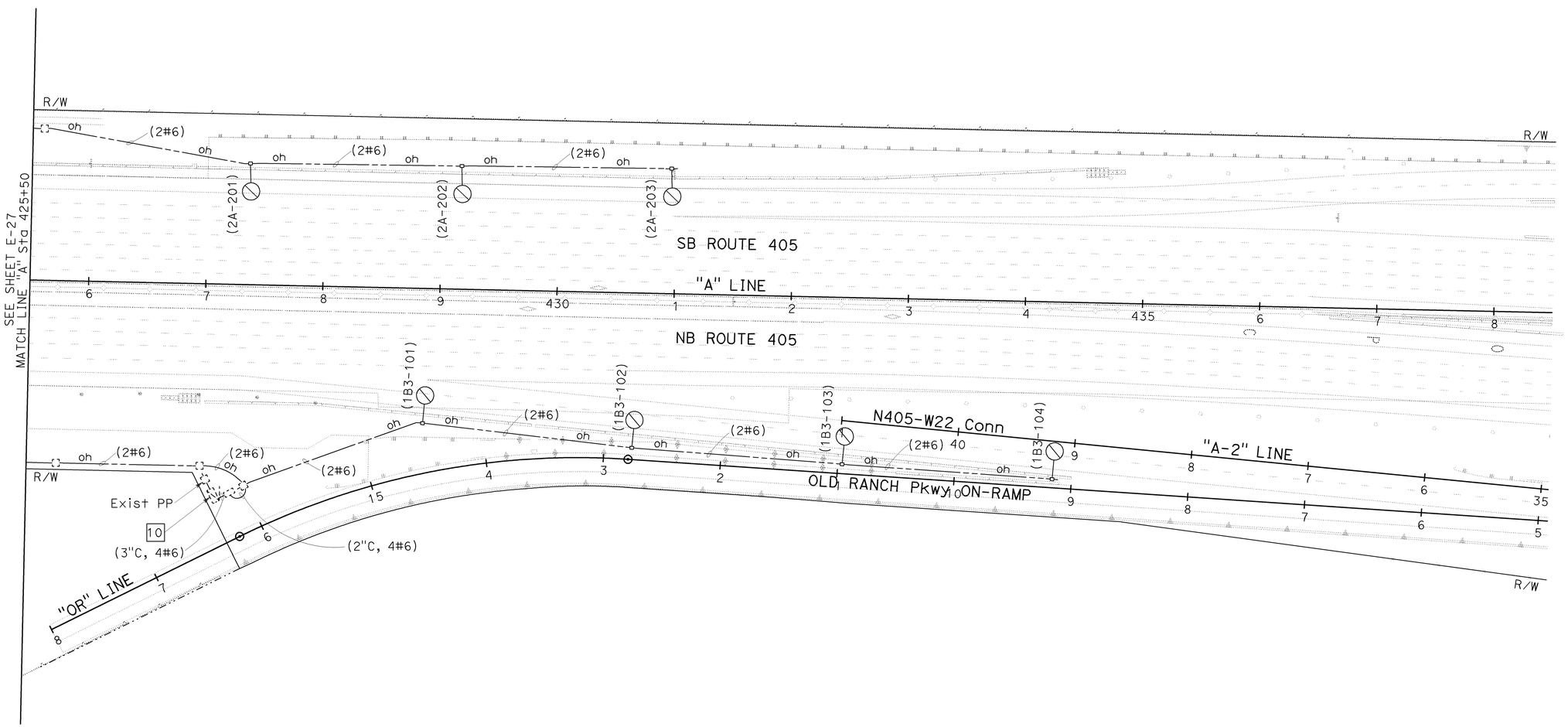
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



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

TEMPORARY LIGHTING
(STAGE 2B.1)

SCALE: 1" = 50'

E-28

CW	8/10/09
REVISED BY	DATE REVISED
VICENTE ENCARNACION CHARLOTTE WU	TIMMY TO
CALCULATED-DESIGNED BY	CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR	DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 11:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1215	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

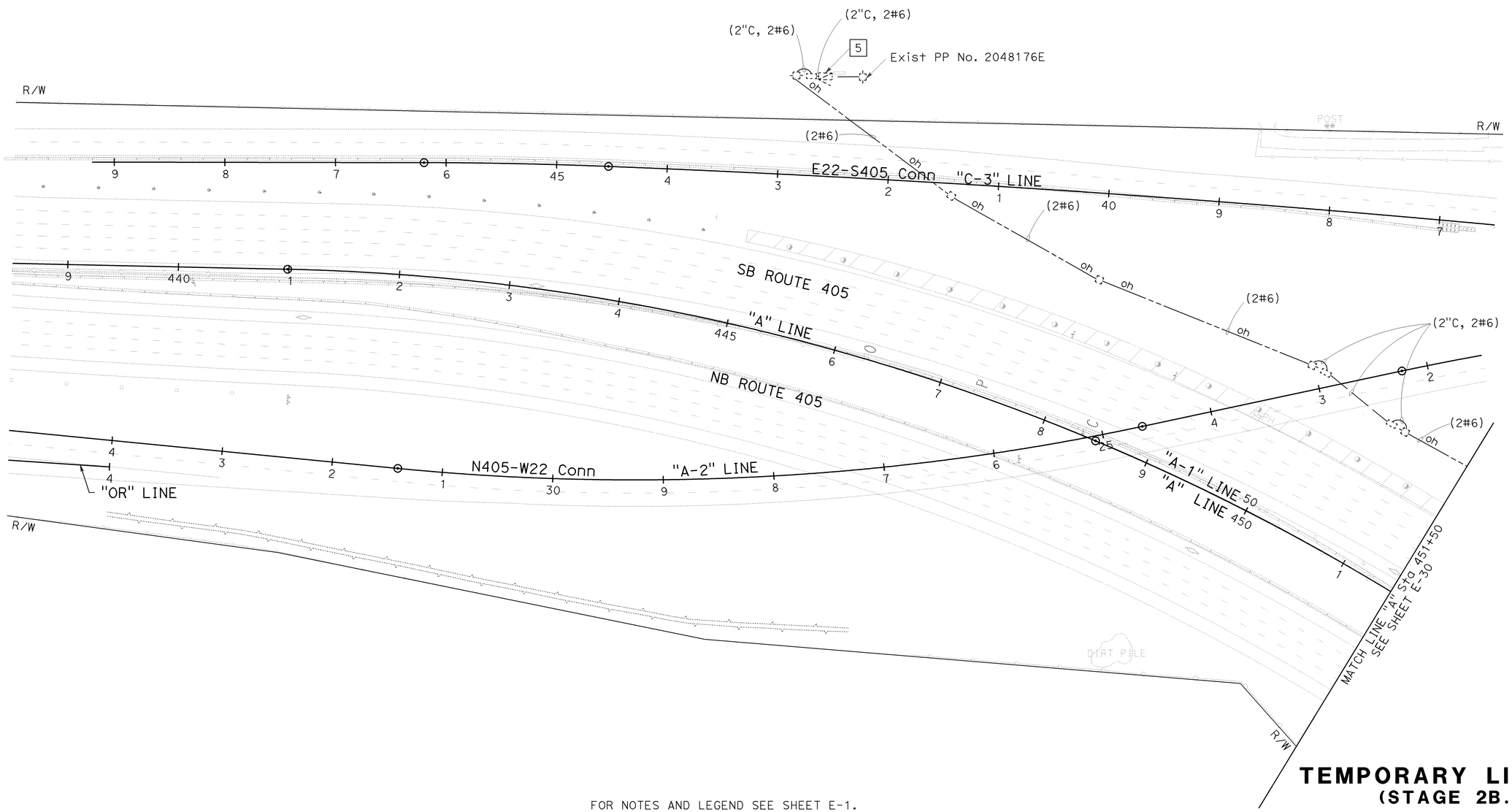
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



TEMPORARY LIGHTING
(STAGE 2B.2)

SCALE: 1" = 50'

E-29

FOR NOTES AND LEGEND SEE SHEET E-1.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:28

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlenard
DGN FILE => c07163ua029.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1216	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

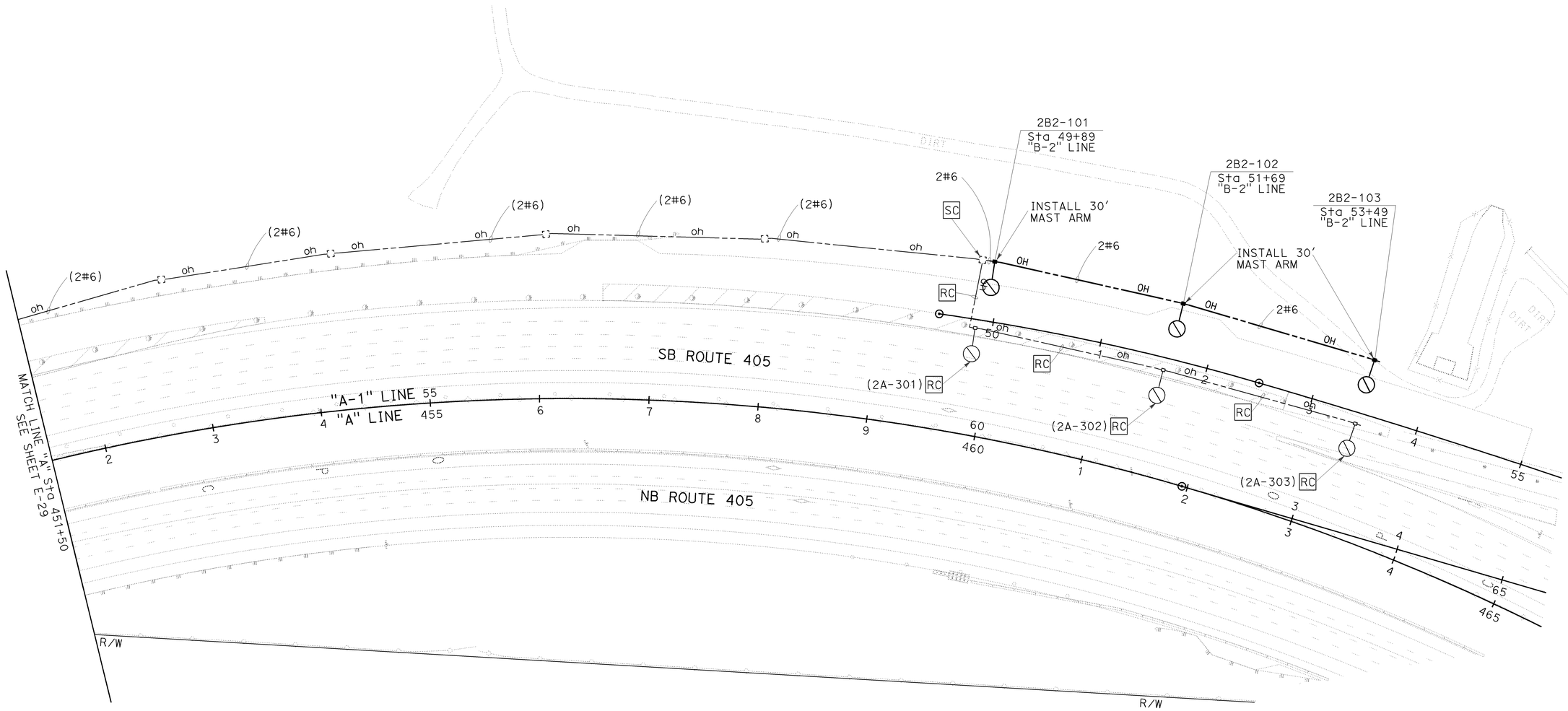
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2B.2)

SCALE: 1" = 50'

E-30

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION: DATE PLOTTED => 02-FEB-2010
08-10-09 TIME PLOTTED => 11:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1217	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

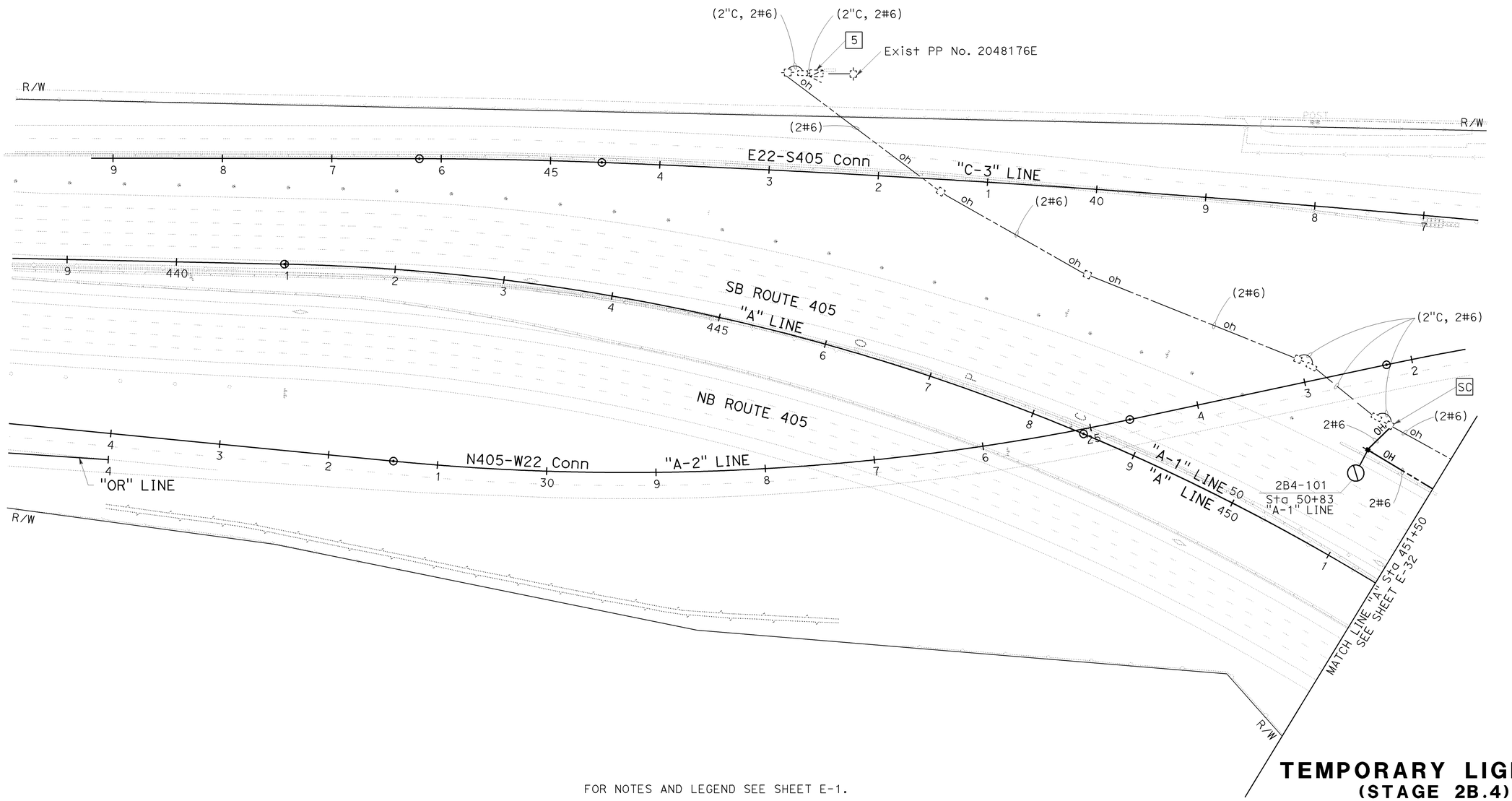
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA,
CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



FOR NOTES AND LEGEND SEE SHEET E-1.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY LIGHTING
(STAGE 2B.4)

SCALE: 1" = 50'

E-31

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1218	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

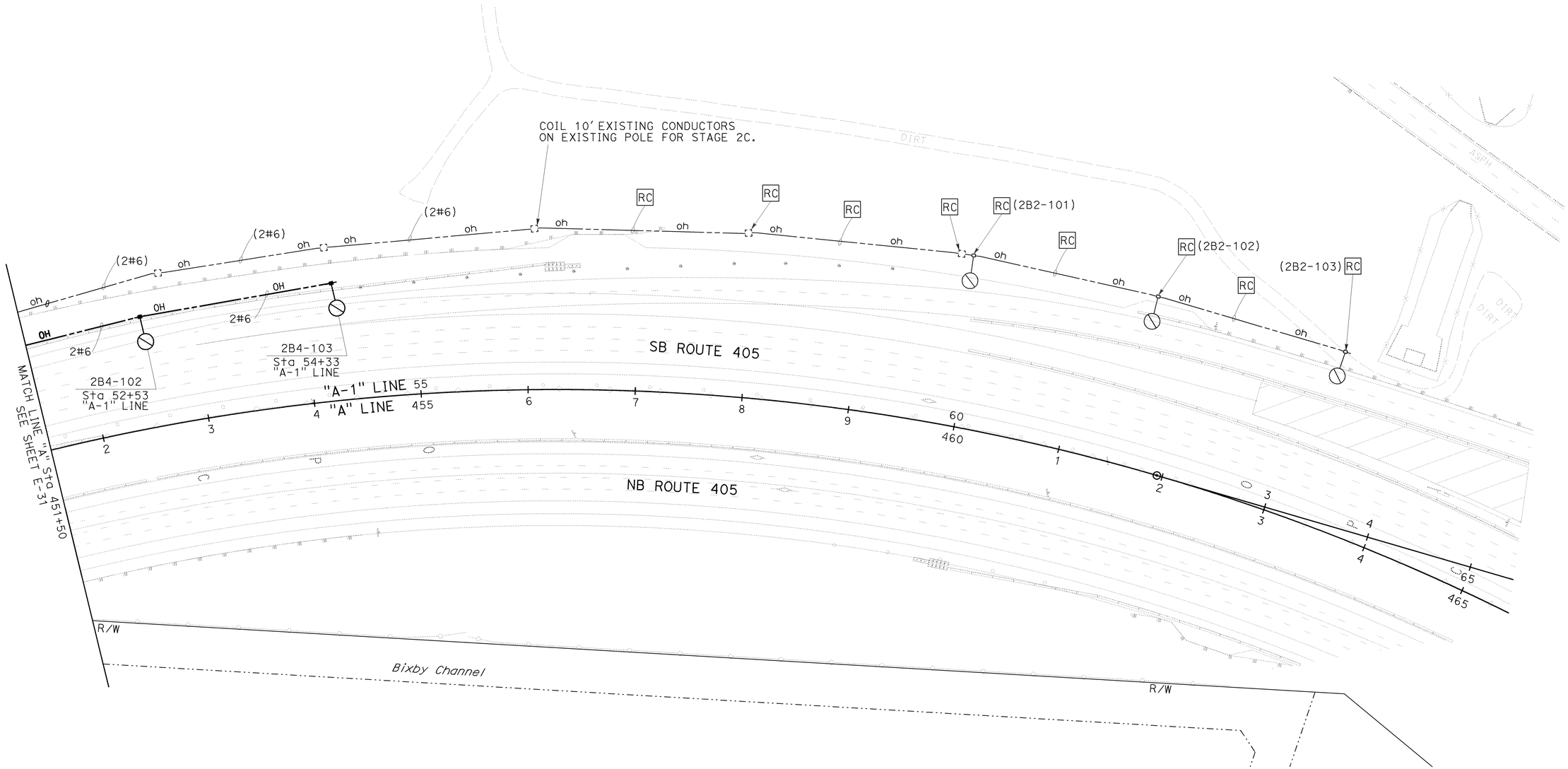
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2B.4)

SCALE 1"=50'

E-32

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO

REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1219	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

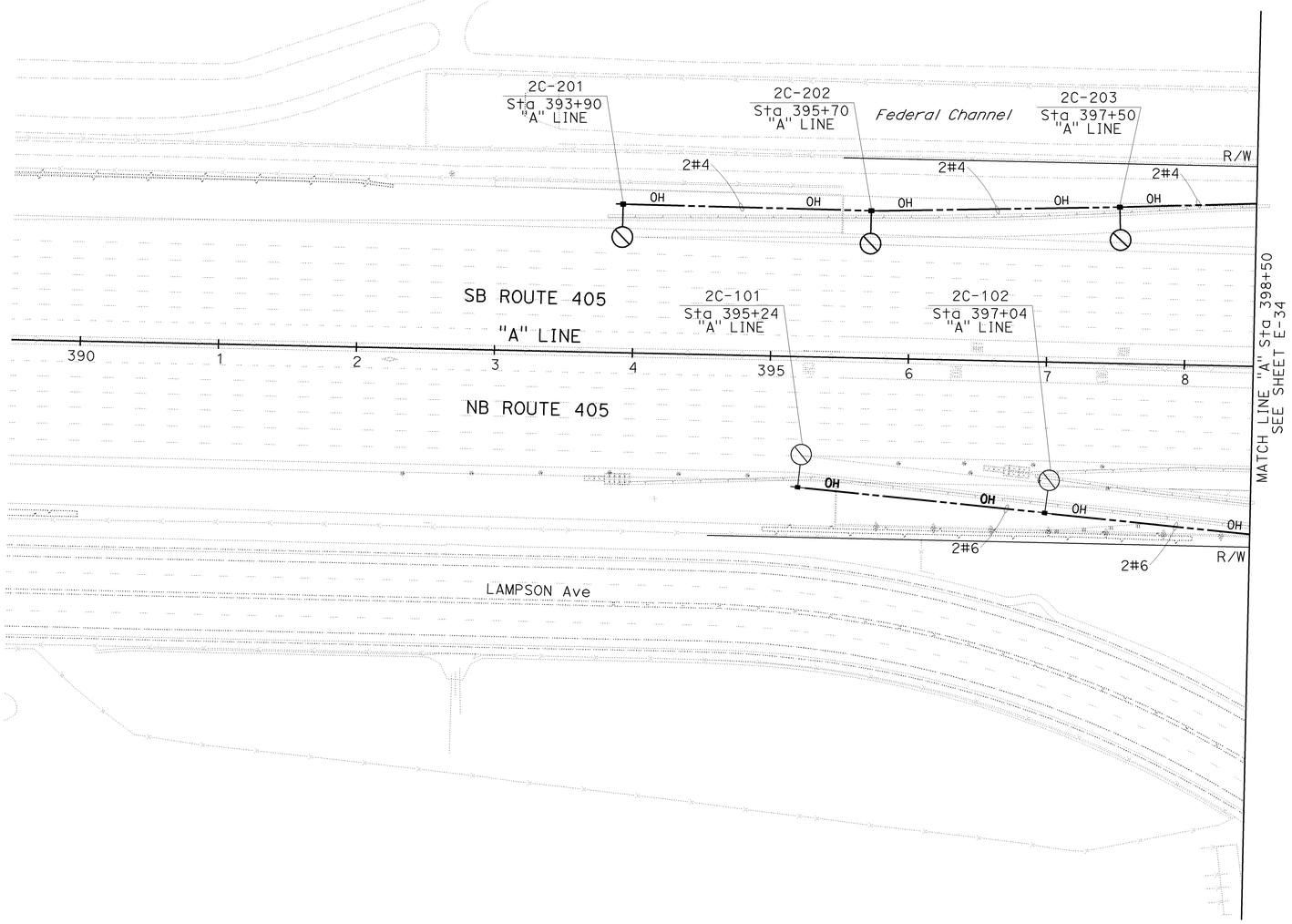
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2C)

SCALE 1"=50'

E-33

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY
CHECKED BY
VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 02-FEB-2010
08-10-09 TIME PLOTTED => 11:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1220	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

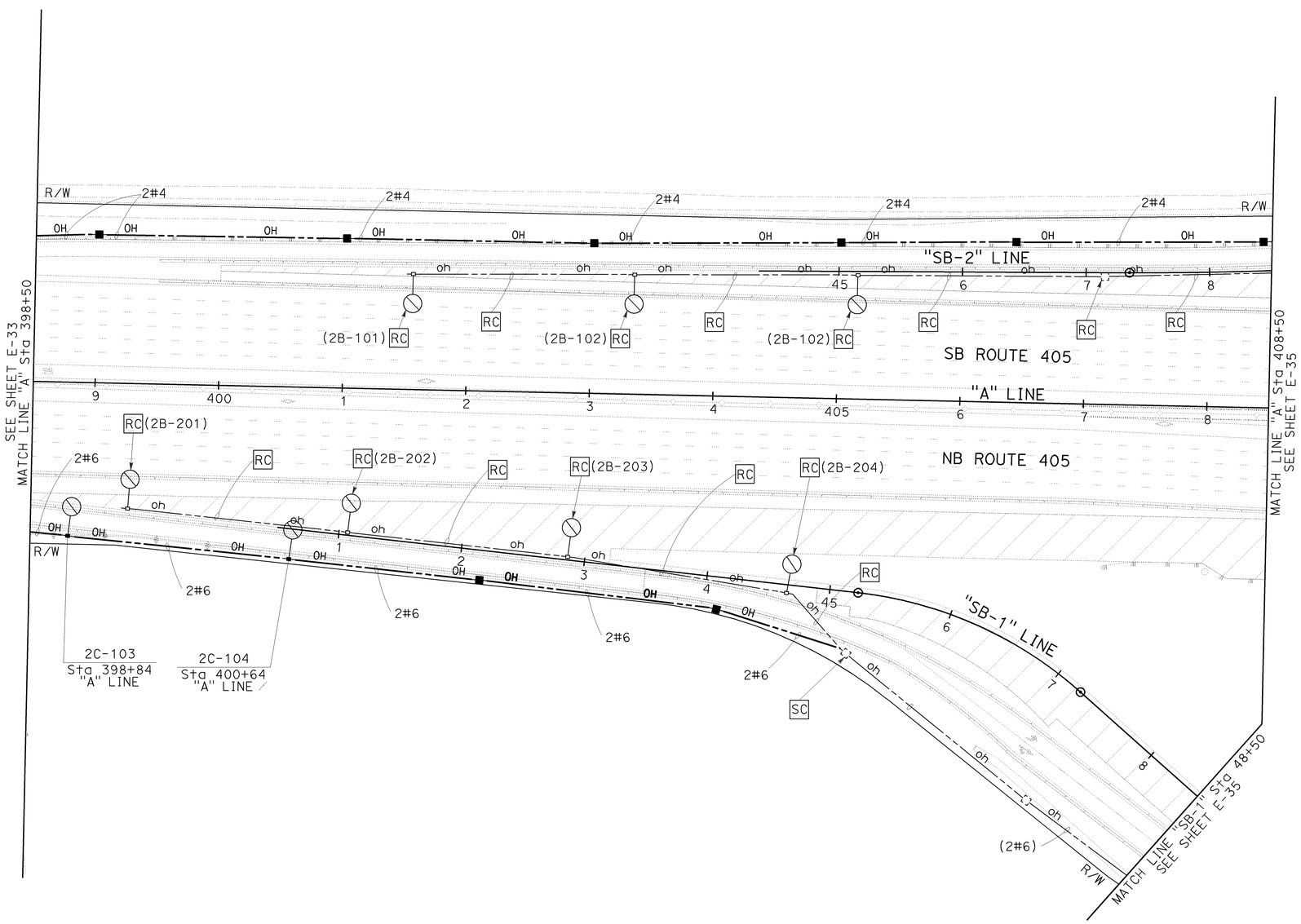
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2C)

SCALE 1"=50'

E-34

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENNUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 11:29

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1221	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

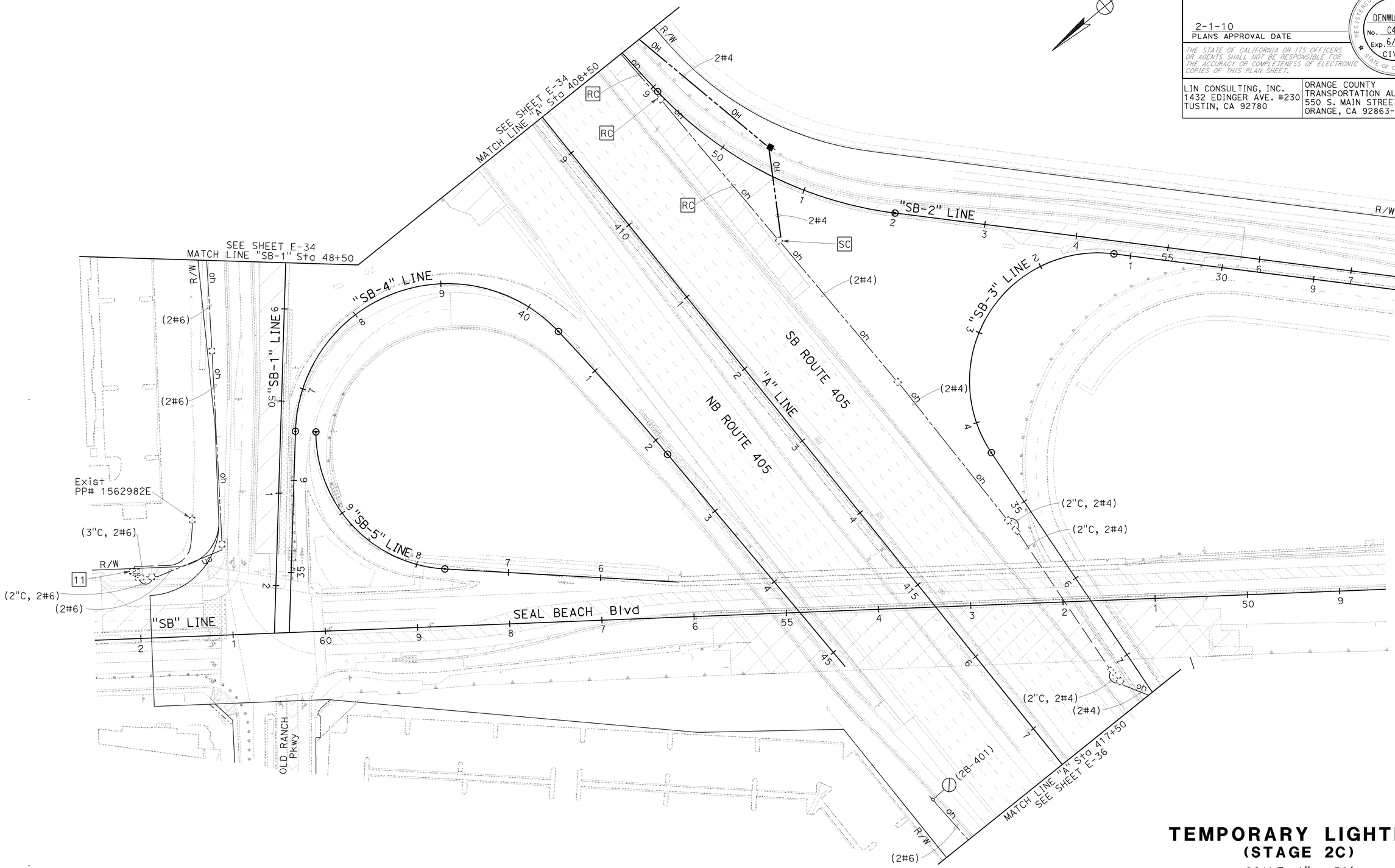
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2C)

SCALE: 1" = 50'

E-35

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU

CHECKED BY: TIMMY TO

REVISED BY: CW

DATE REVISED: 8/10/09

LAST REVISION 08-10-09

DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 08:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1222	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

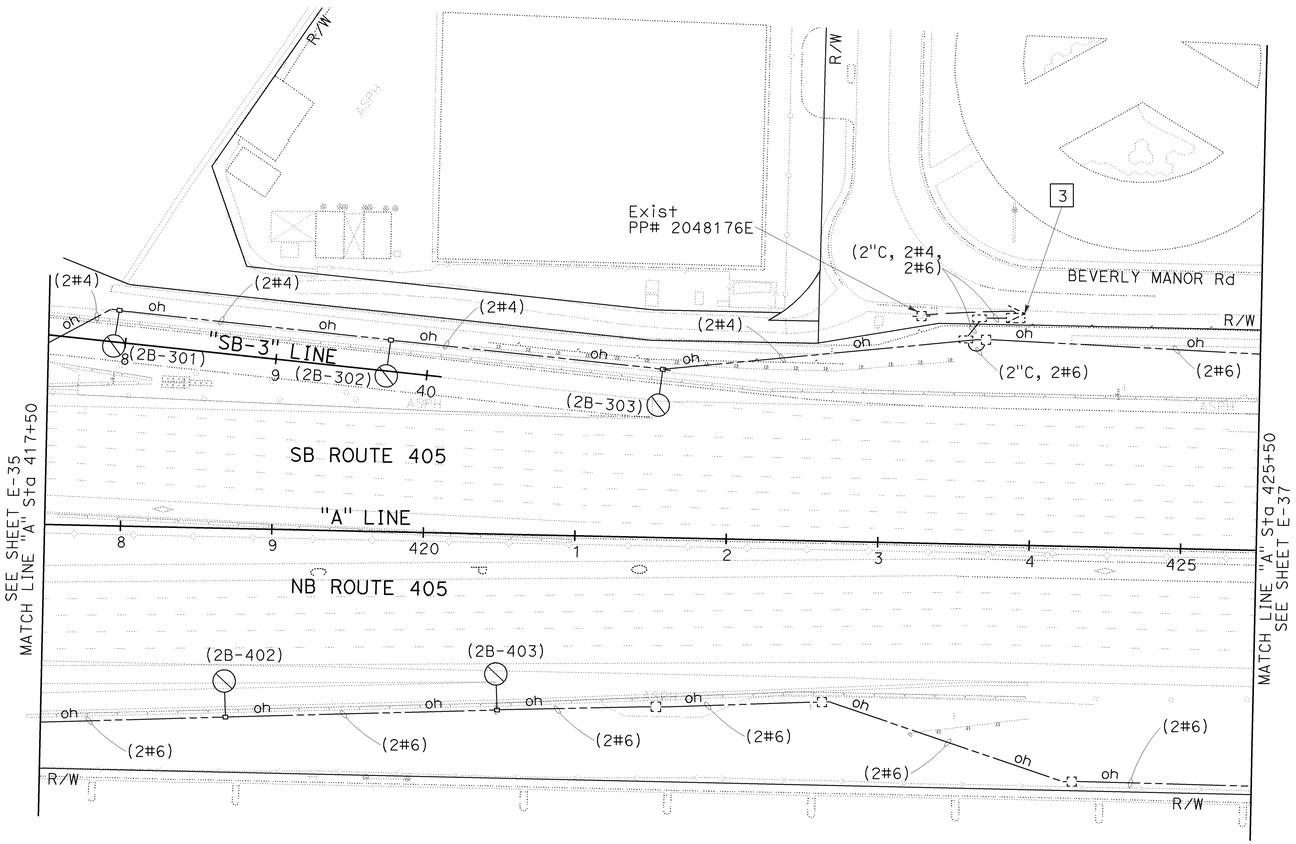
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2C)

SCALE 1"=50'

E-36

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 12:51

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1223	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

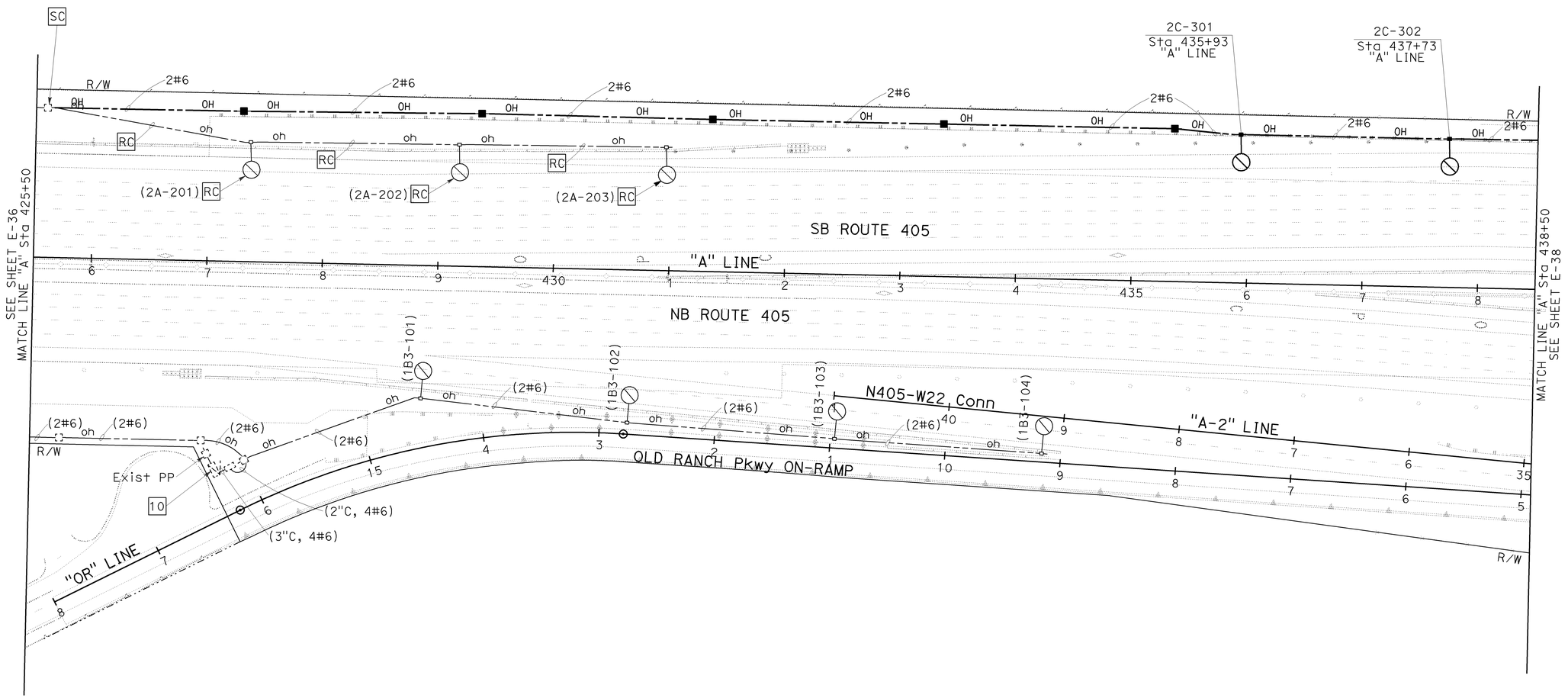
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2C)

SCALE: 1" = 50'

E-37

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 11:38

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1224	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

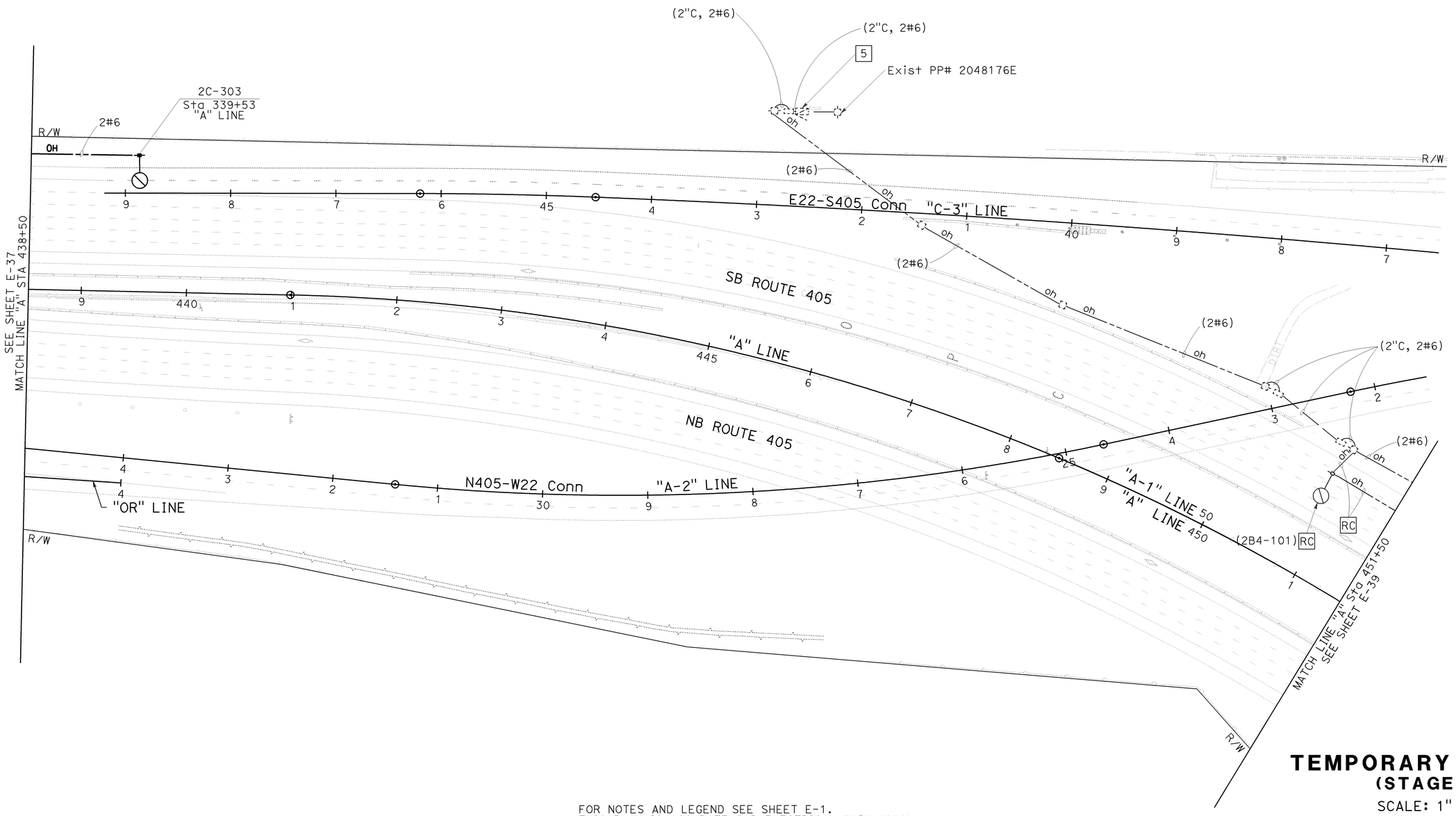
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



TEMPORARY LIGHTING
(STAGE 2C)

SCALE: 1" = 50'

E-38

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU

CHECKED BY: TIMMY TO

REVISED BY: CW

DATE REVISED: 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 12:52

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1225	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

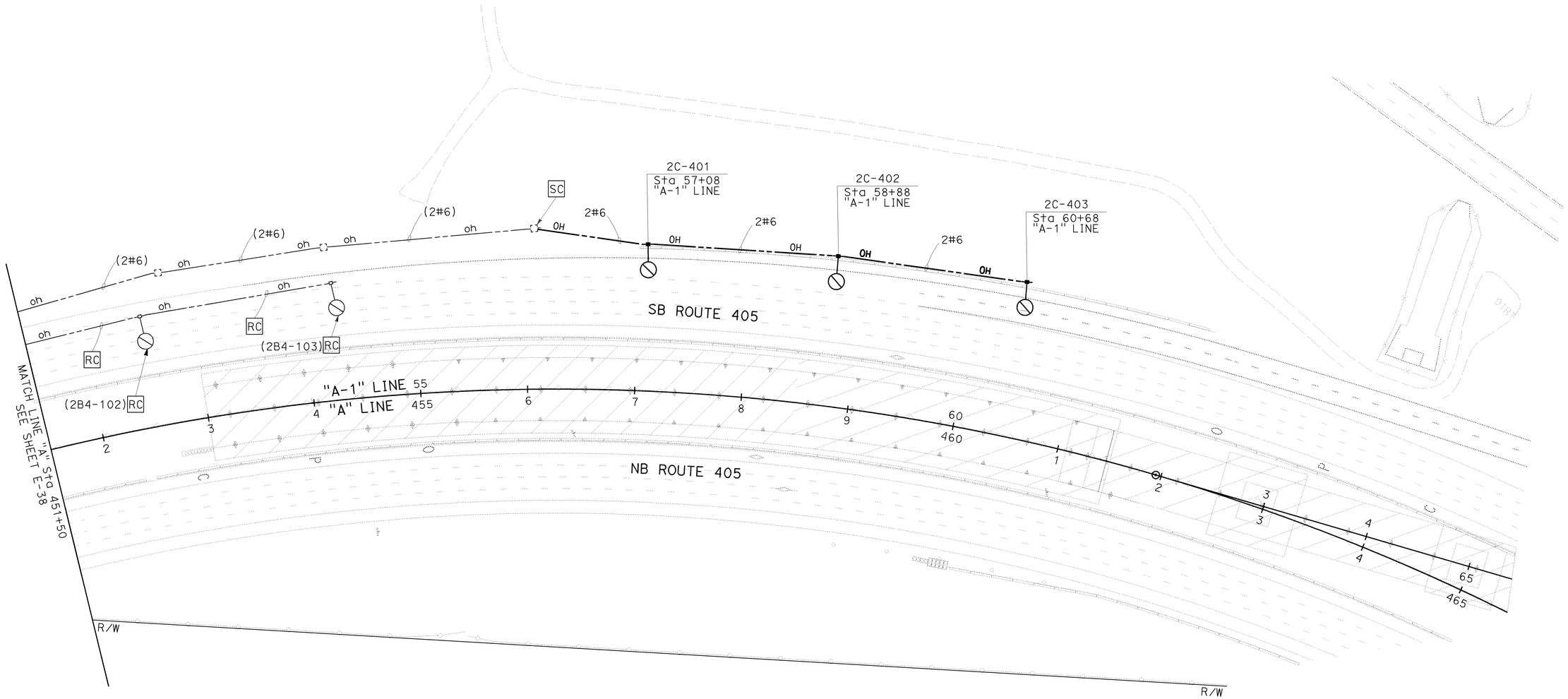
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 2C)

SCALE: 1" = 50'

E-39

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 12:52

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1226	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

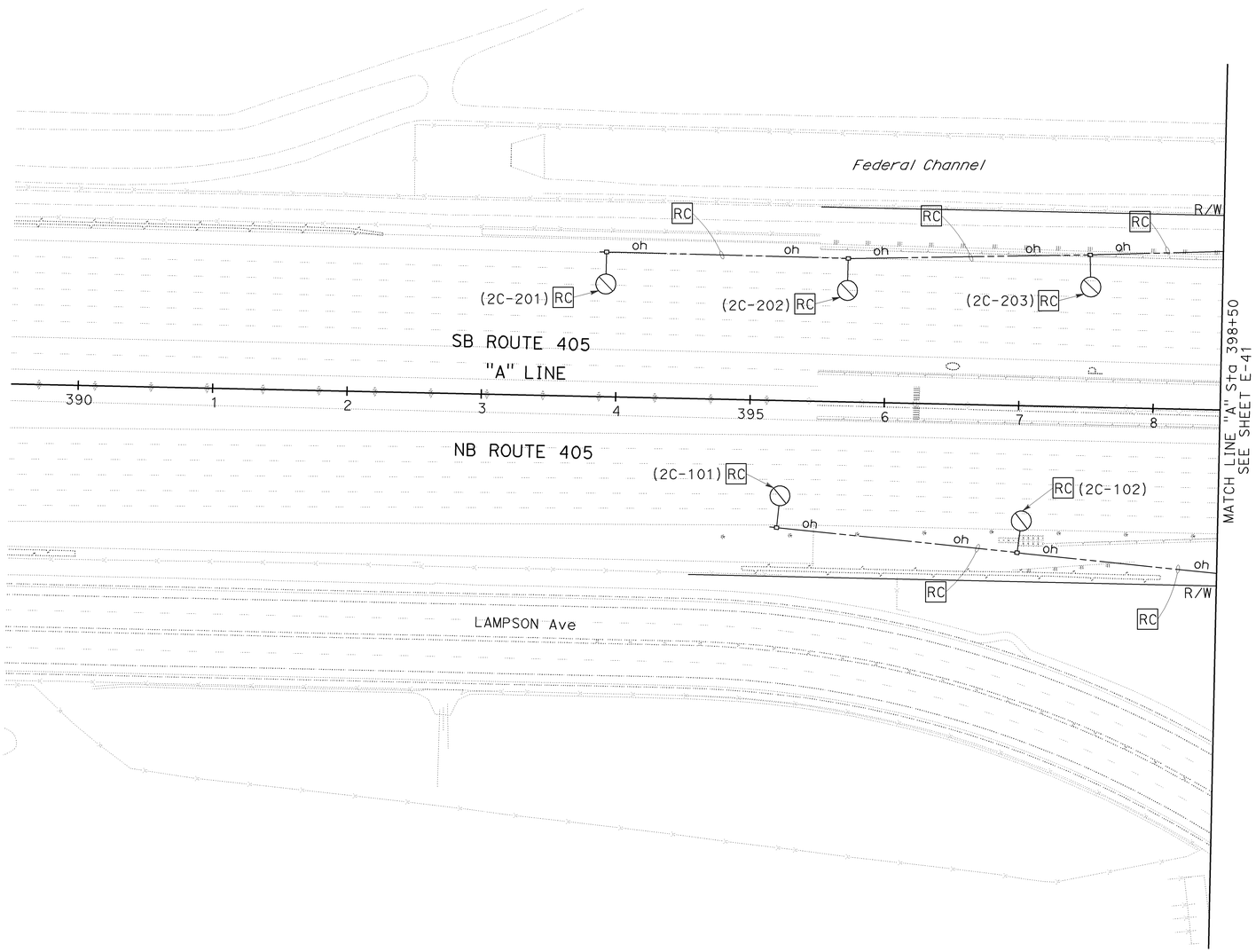
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3A.1)

SCALE: 1" = 50'

E-40

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 12:52

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1227	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

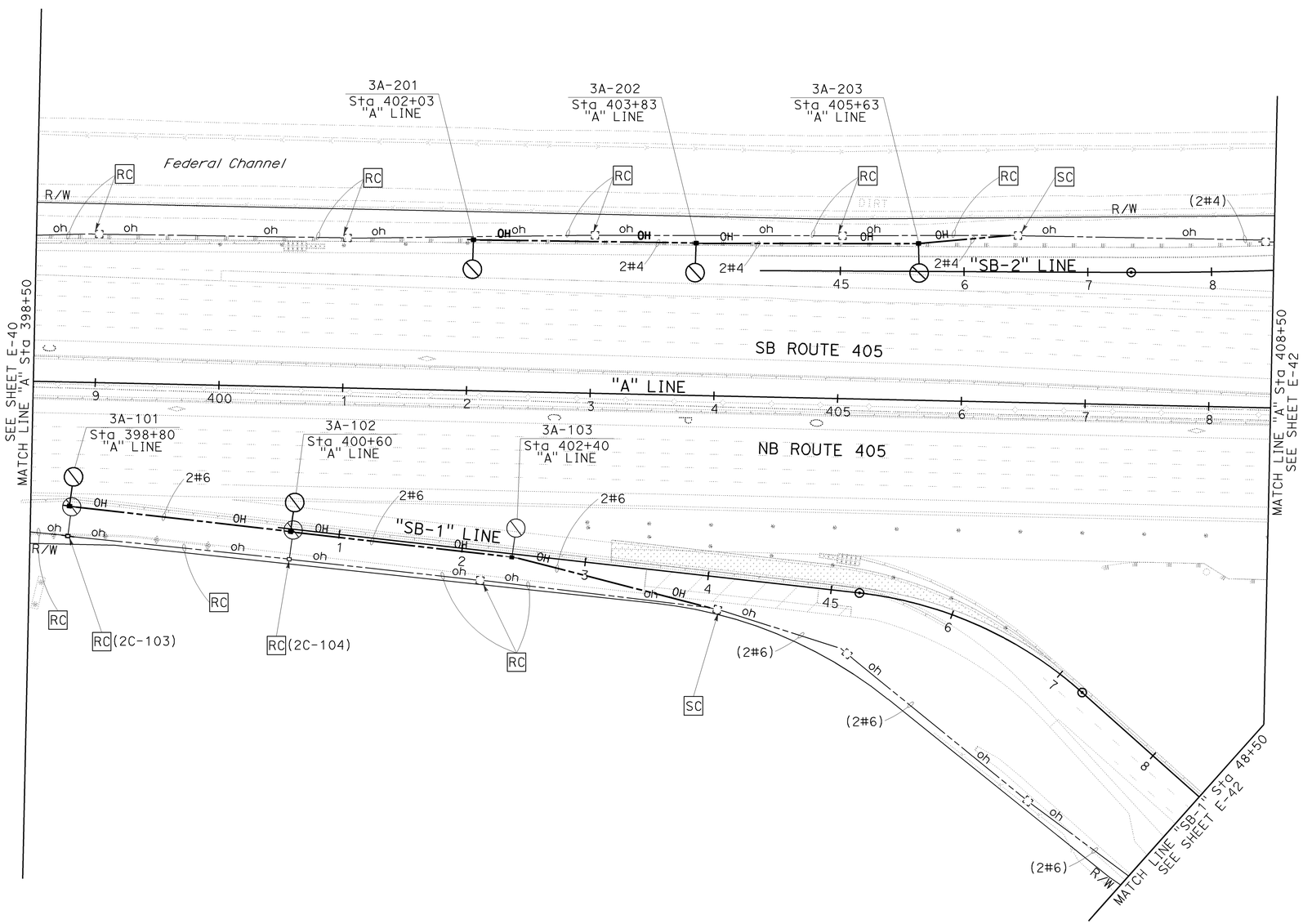
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3A.1)

SCALE: 1" = 50'

E-41

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY: VICENTE ENCARNACION / CHARLOTTE WU
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 12:52

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trienard DGN FILE => c07163ua041.dgn | CU 12235 | EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1228	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DENWUN LIN — No. C46719 — Exp. 6/30/11 — CIVIL — STATE OF CALIFORNIA

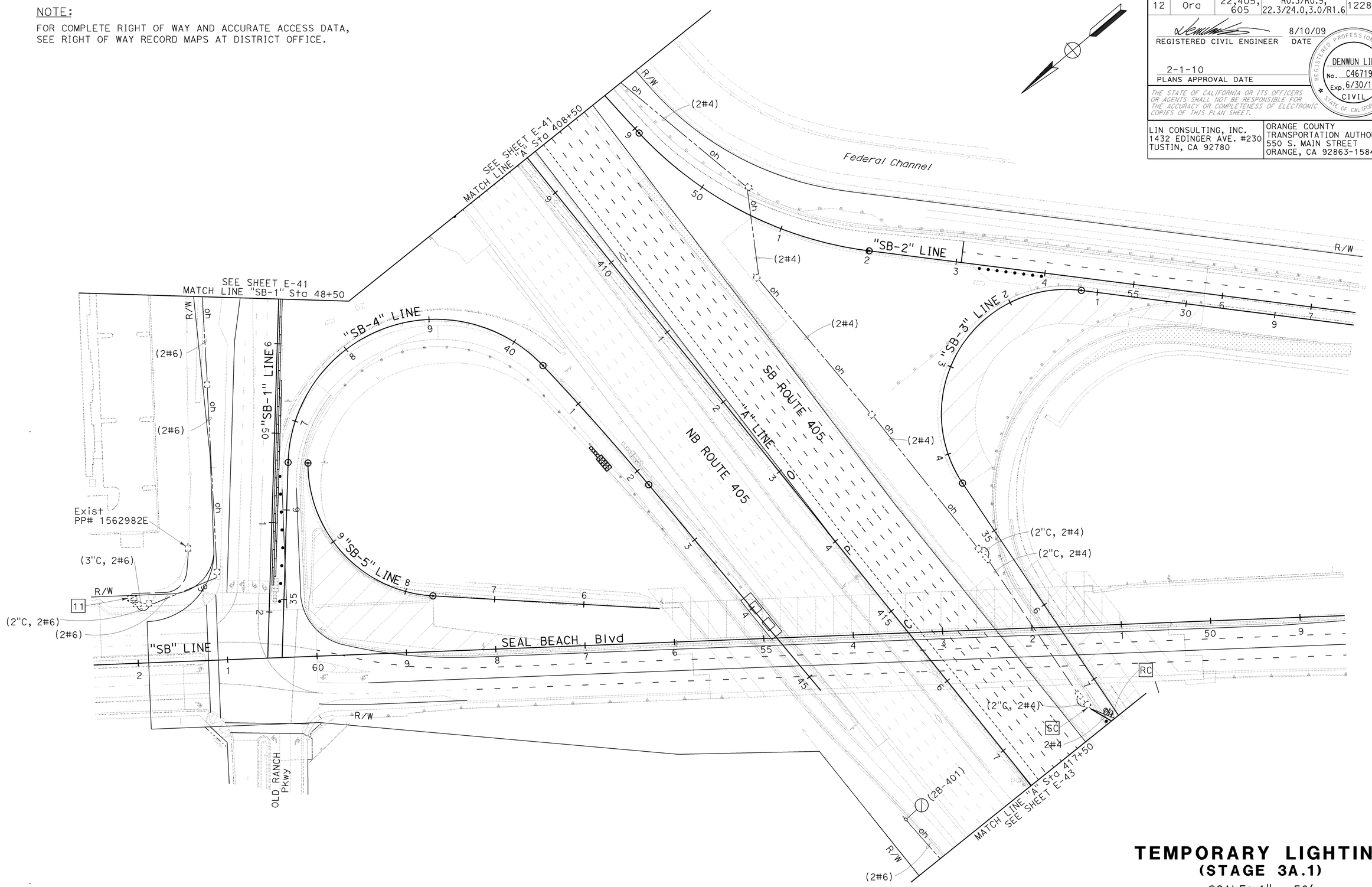
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3A.1)

SCALE: 1" = 50'

E-42

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 12:52
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlenard
DGN FILE => c07163ua042.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1229	1229

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

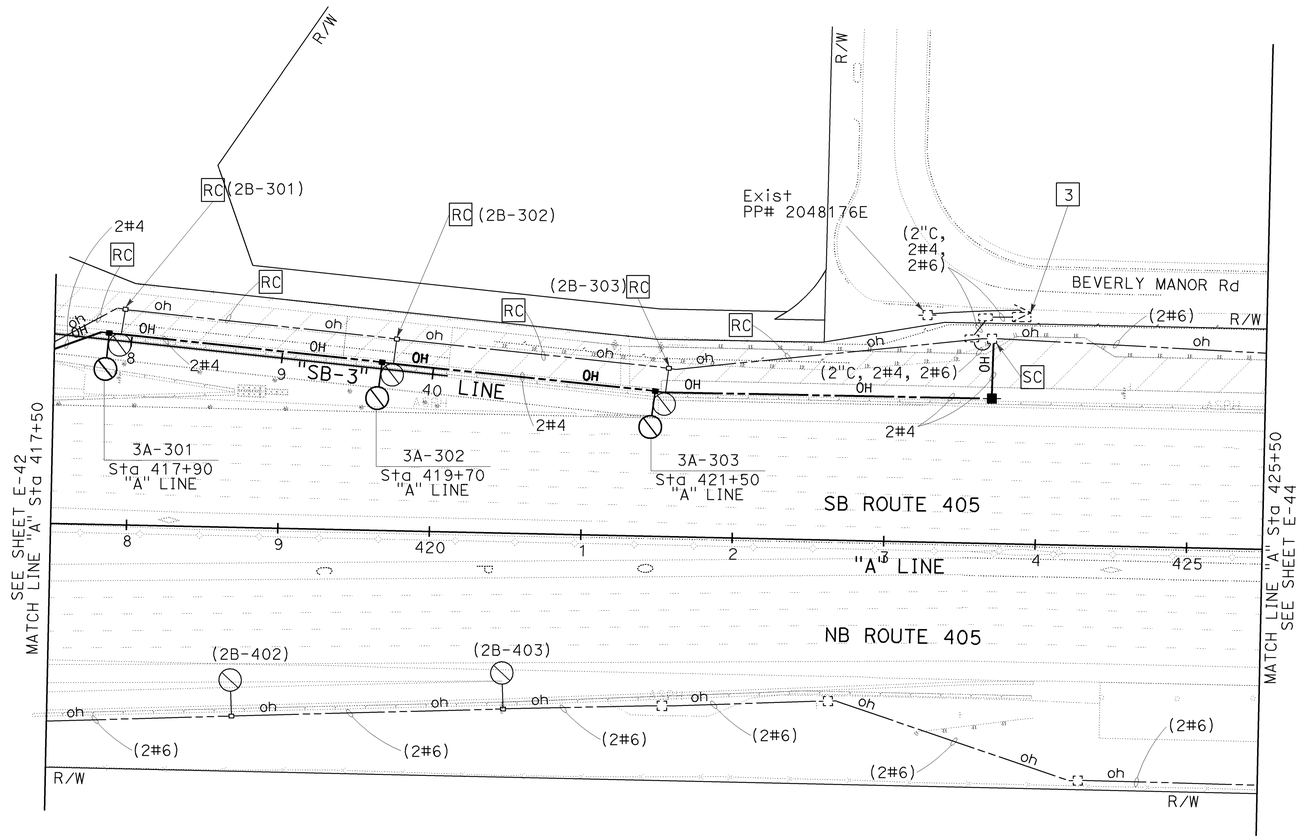
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3A.1)

SCALE: 1" = 50'

E-43

REVISED BY	DATE REVISED	CALCULATED-DESIGNED BY	CHECKED BY	CONSULTANT FUNCTIONAL SUPERVISOR
CW	8/10/09	VICENTE ENCARNACION CHARLOTTE WU	TIMMY TO	DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 12:52

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1230	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

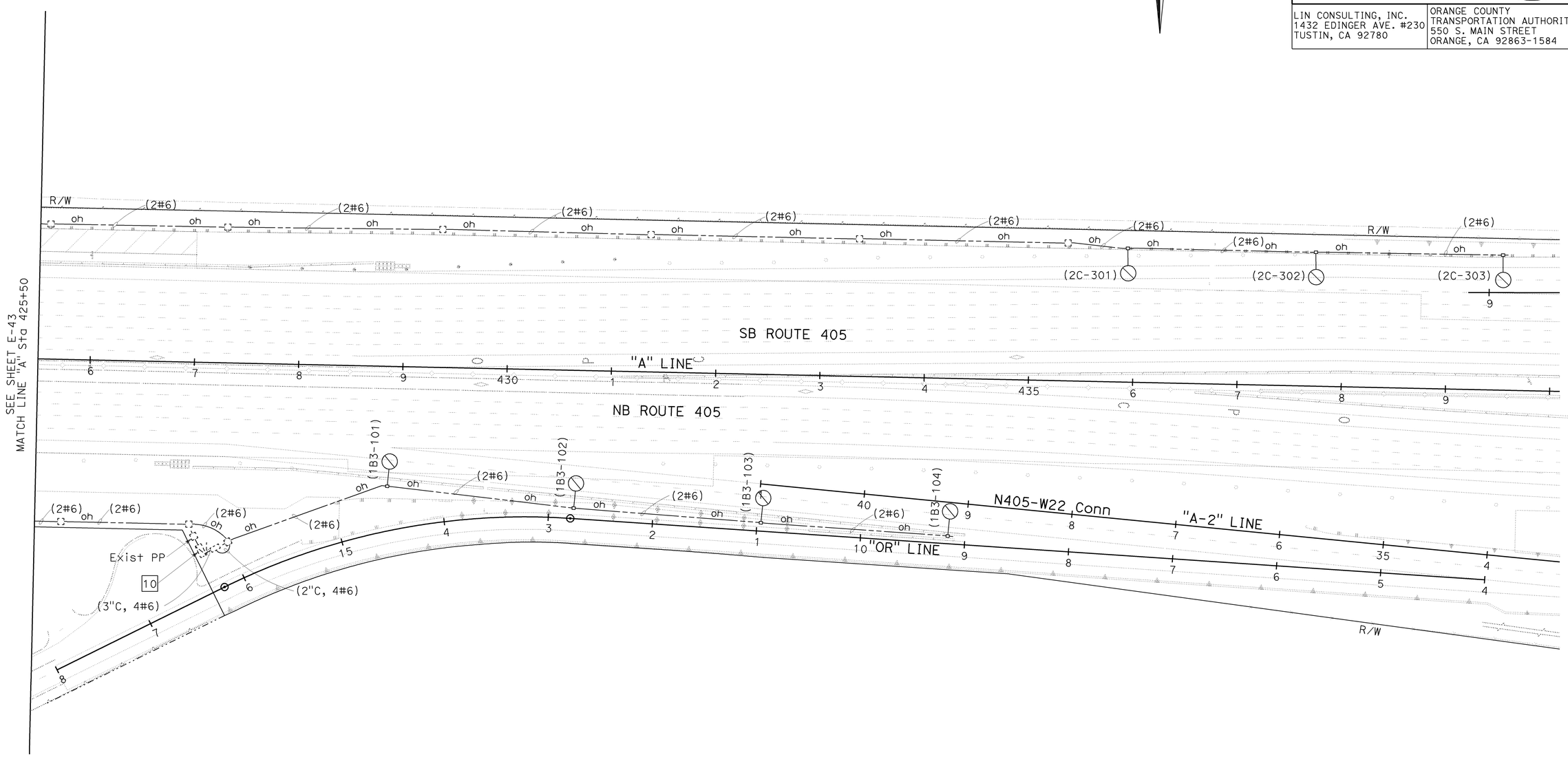
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3A.1)

SCALE: 1" = 50'

E-44

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 12:52

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1231	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

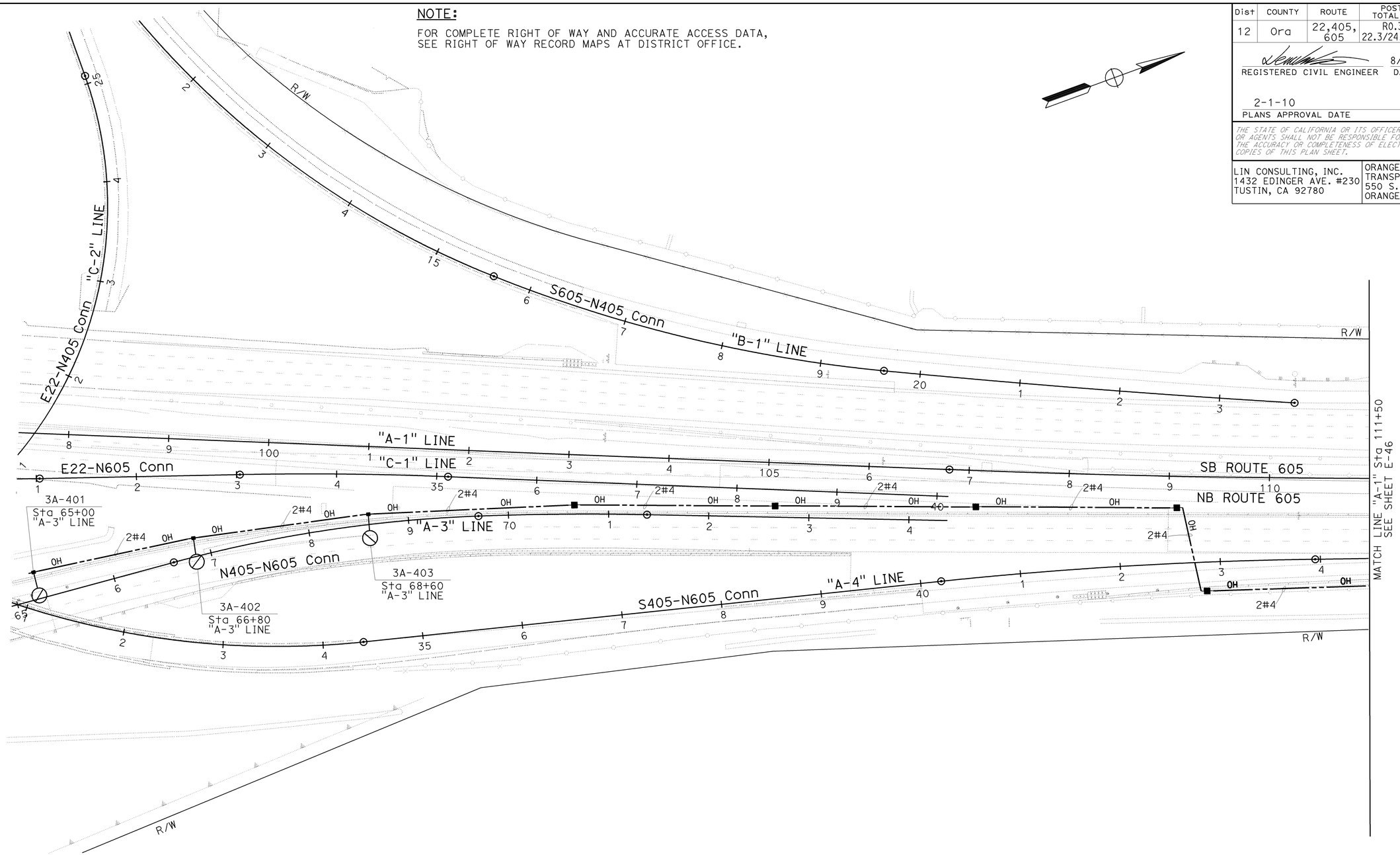
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3A.1)

SCALE: 1" = 50'

E-45

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1232	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

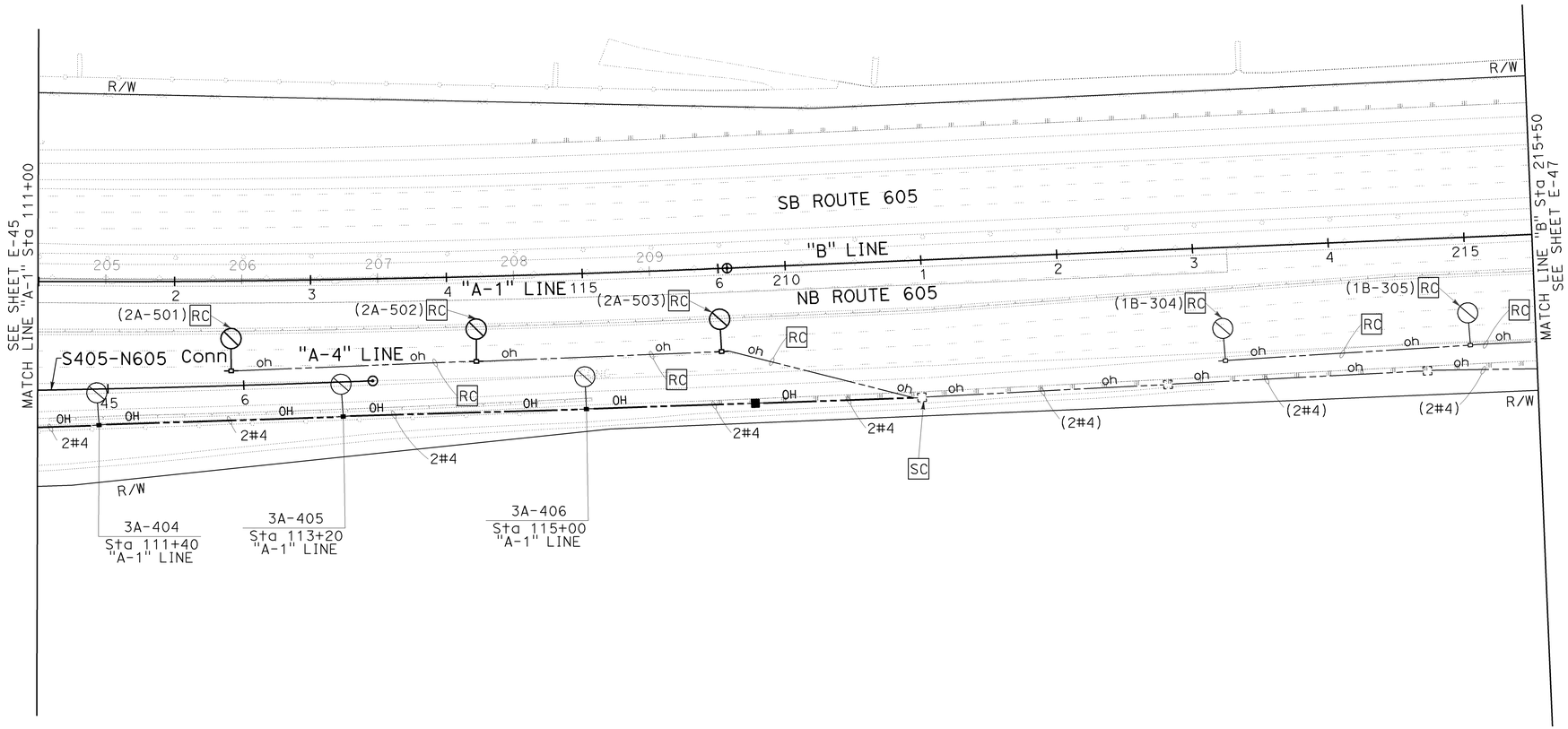
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3A.1)

SCALE: 1" = 50'

E-46

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY:
REVISED BY: CW
DATE REVISED: 8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1233	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

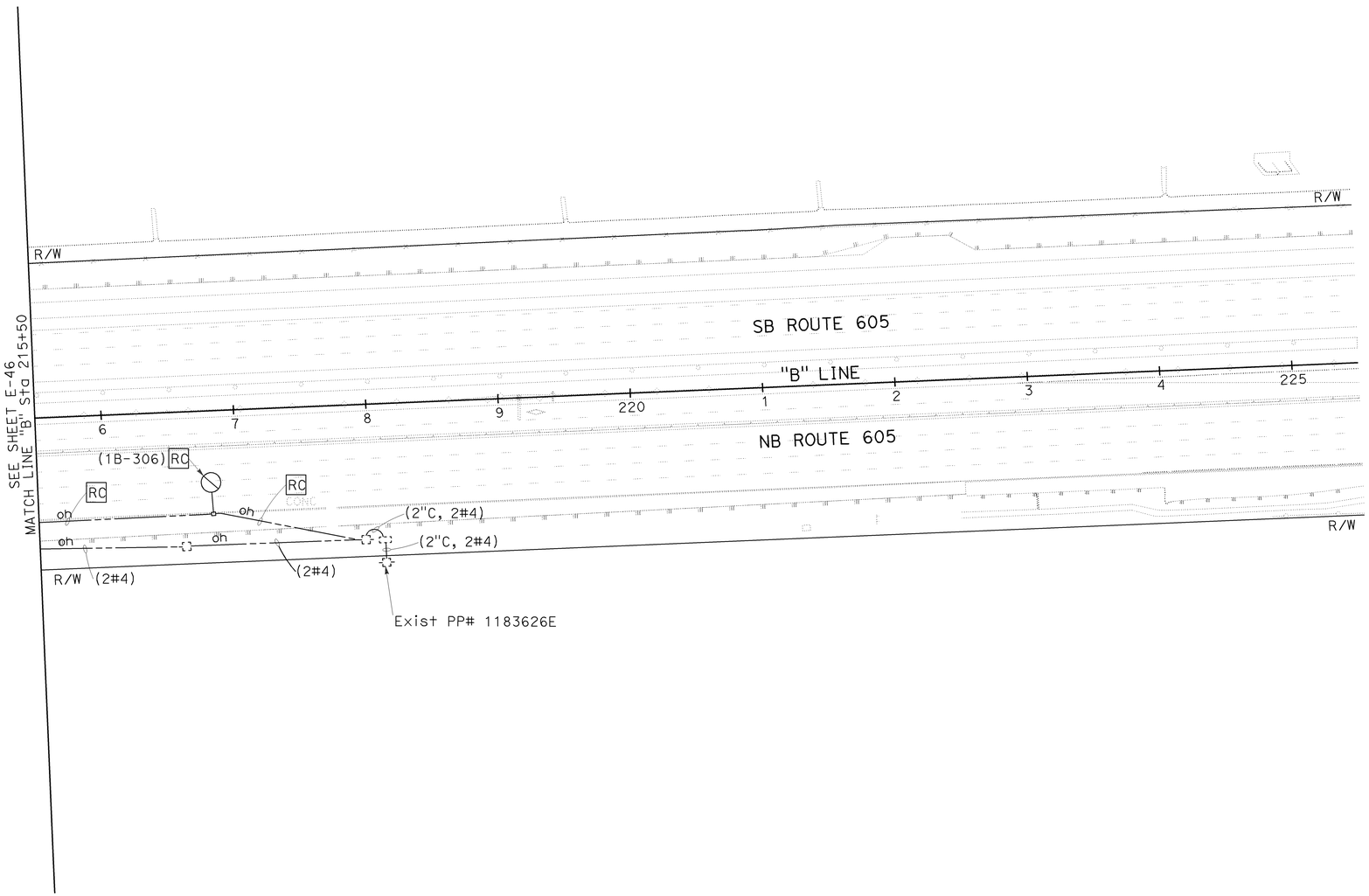
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3A.1)

SCALE: 1" = 50'

E-47

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO

REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:34
08-10-09

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1234	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

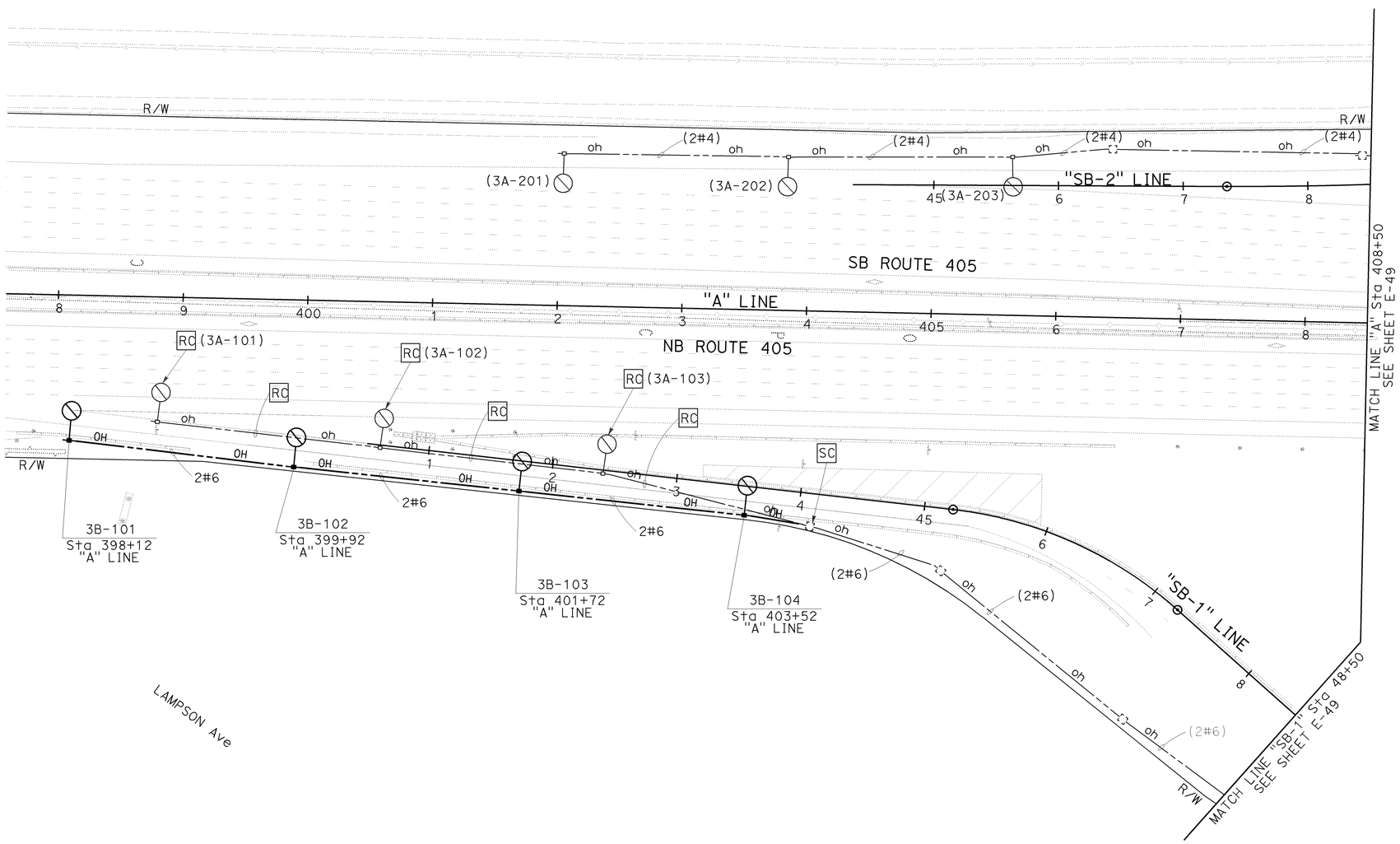
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3B.1)

SCALE: 1" = 50'

E-48

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1235	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

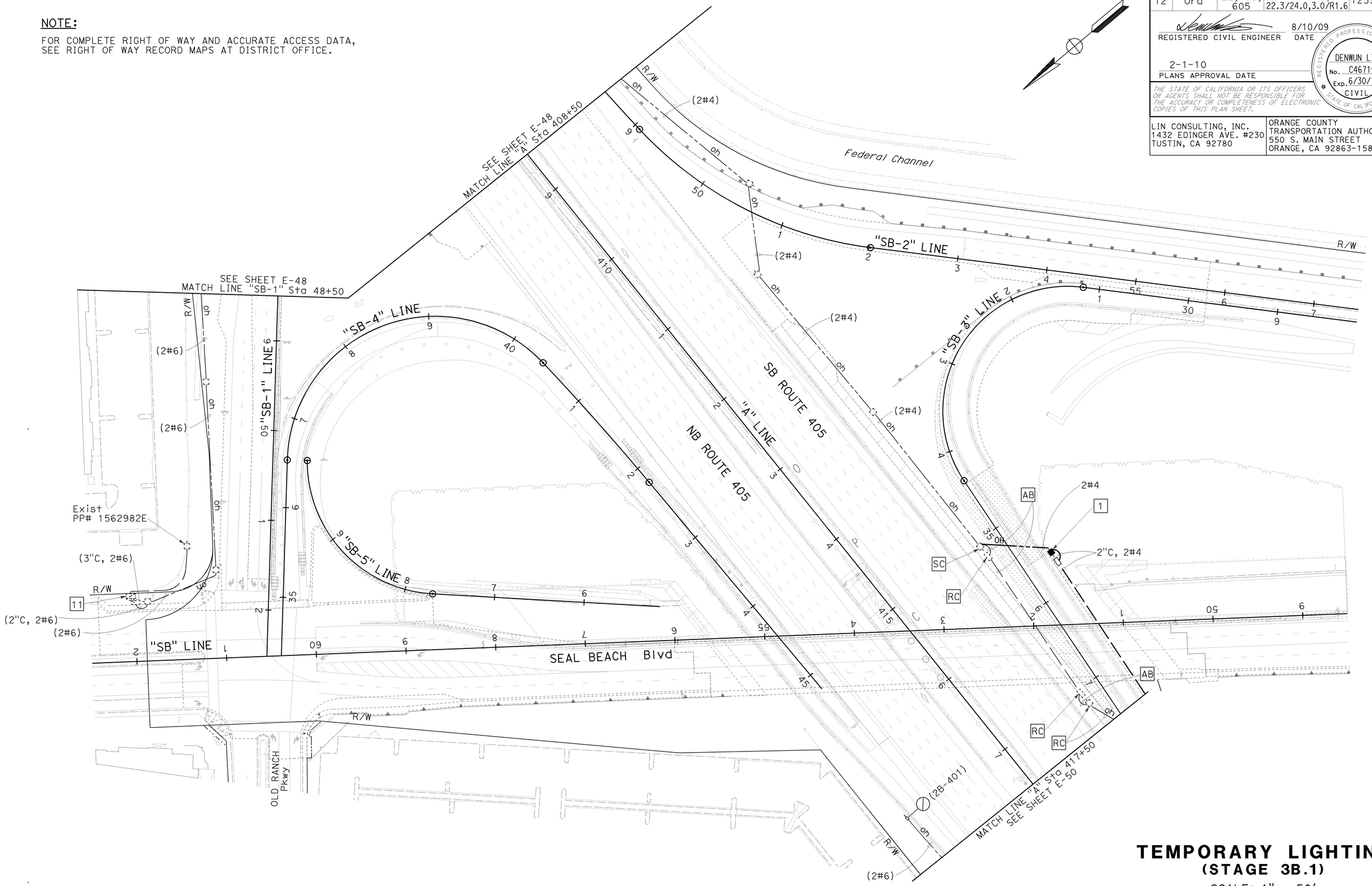
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



TEMPORARY LIGHTING
(STAGE 3B.1)

SCALE: 1" = 50'

E-49

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:34

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trpierce
DGN FILE => c07163ua049.dgn
CU 12235
EA 071631

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1236	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

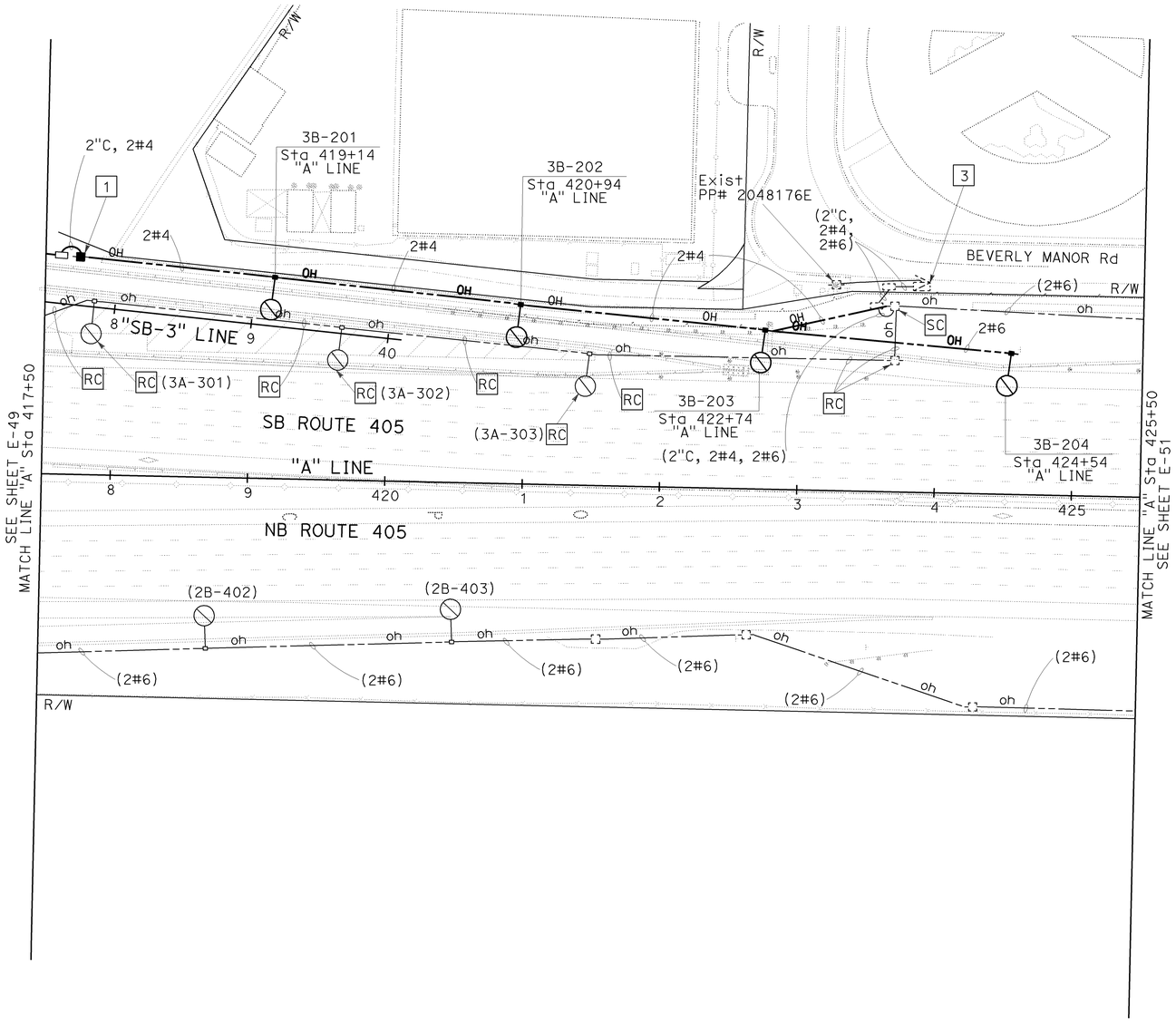
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



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

TEMPORARY LIGHTING
(STAGE 3B.1)

SCALE: 1" = 50'

E-50

REVISED BY	DATE REVISED
CW	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1237	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

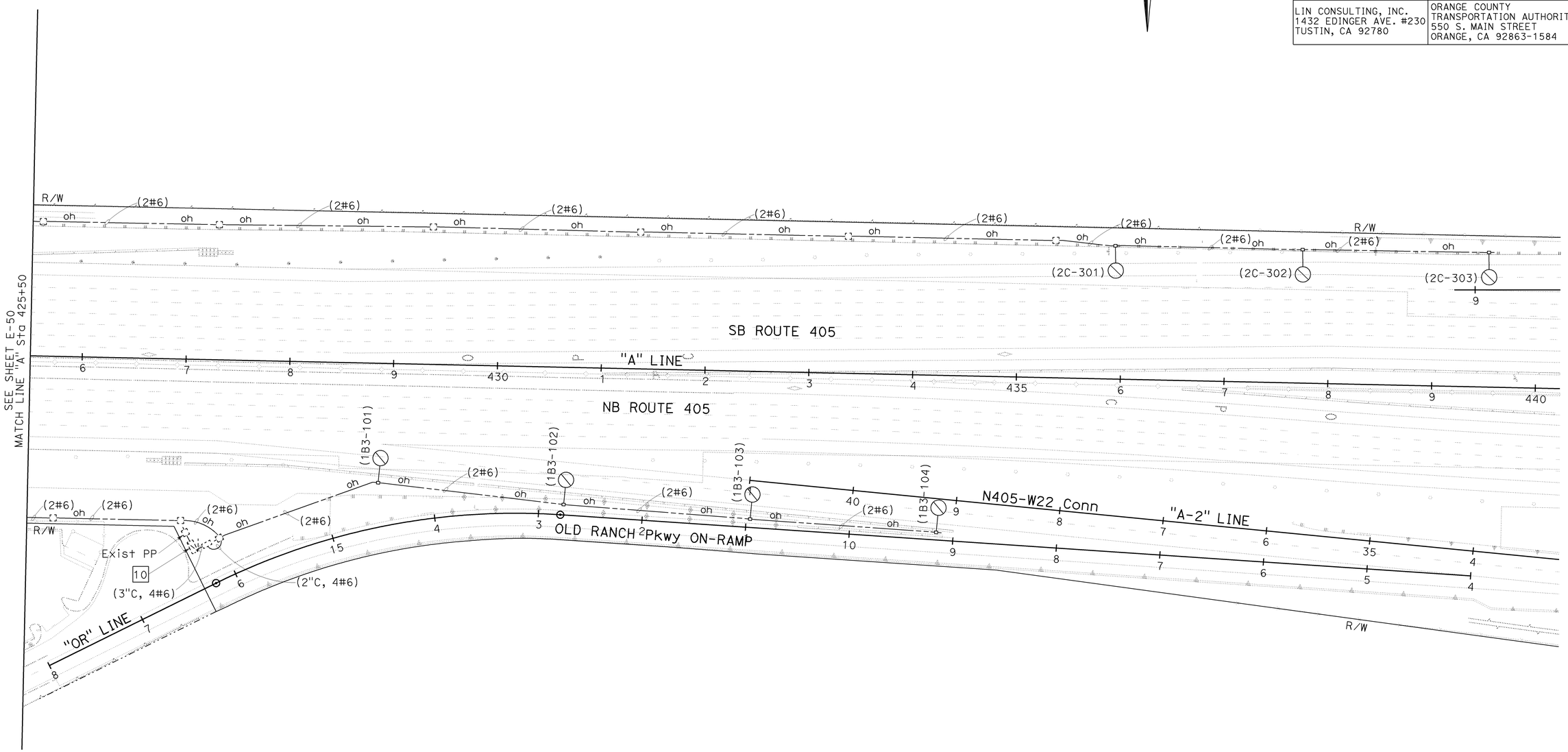
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3B.1)

SCALE: 1" = 50'

E-51

REVISED BY	CW
DATE REVISED	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1238	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

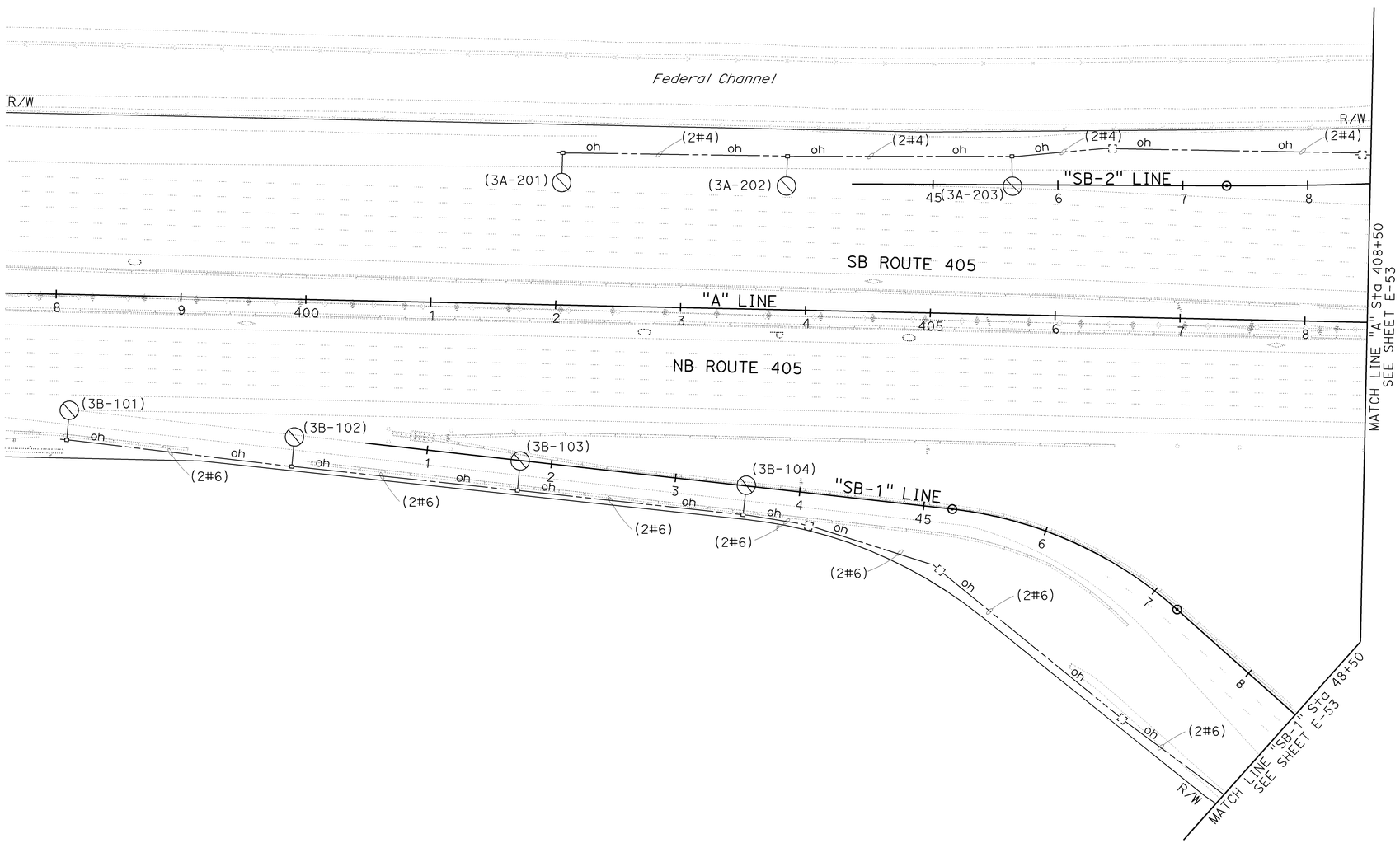
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3C)

SCALE: 1" = 50'

E-52

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:54

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1239	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

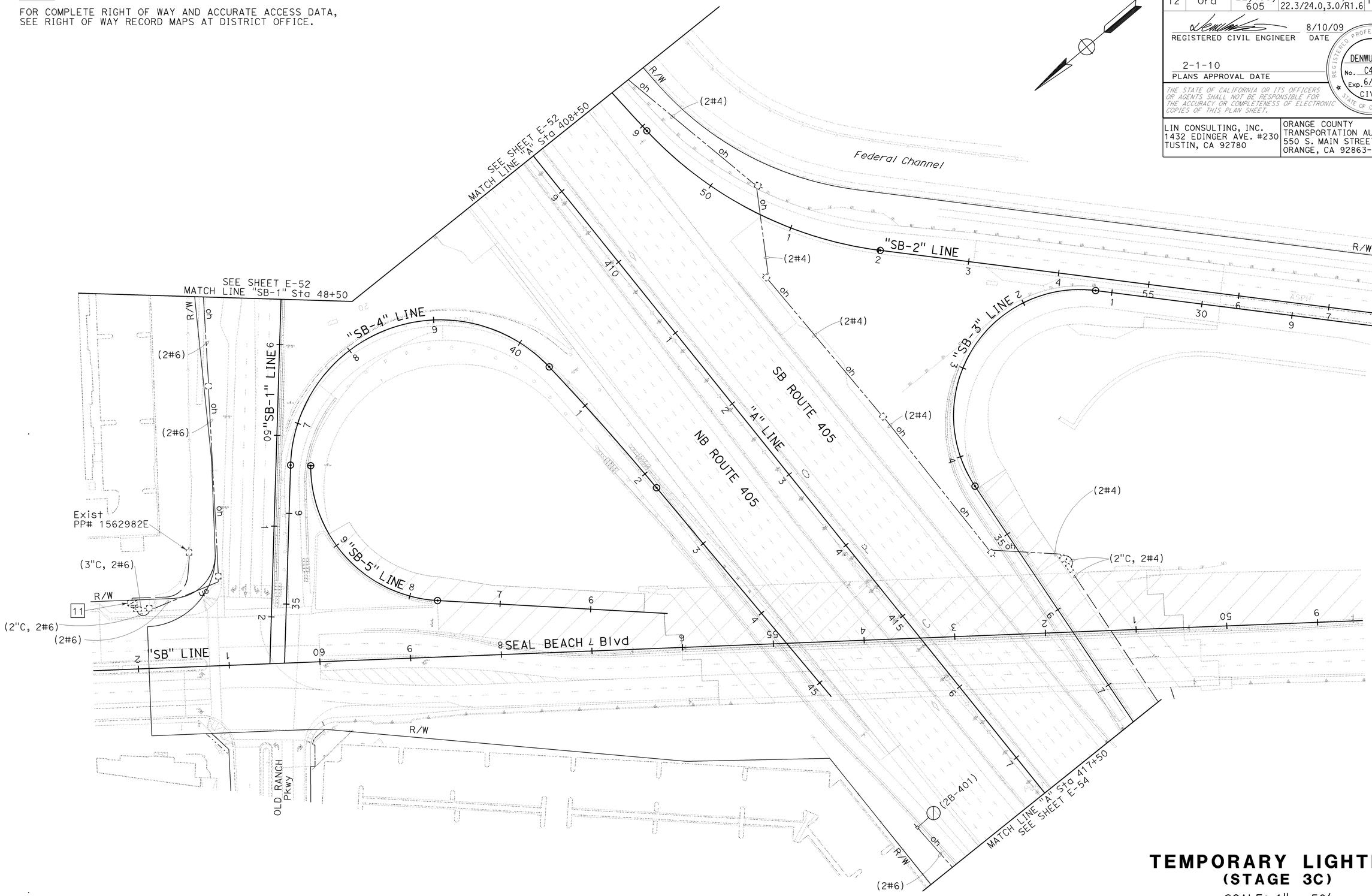
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3C)

SCALE: 1" = 50'

E-53

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1240	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

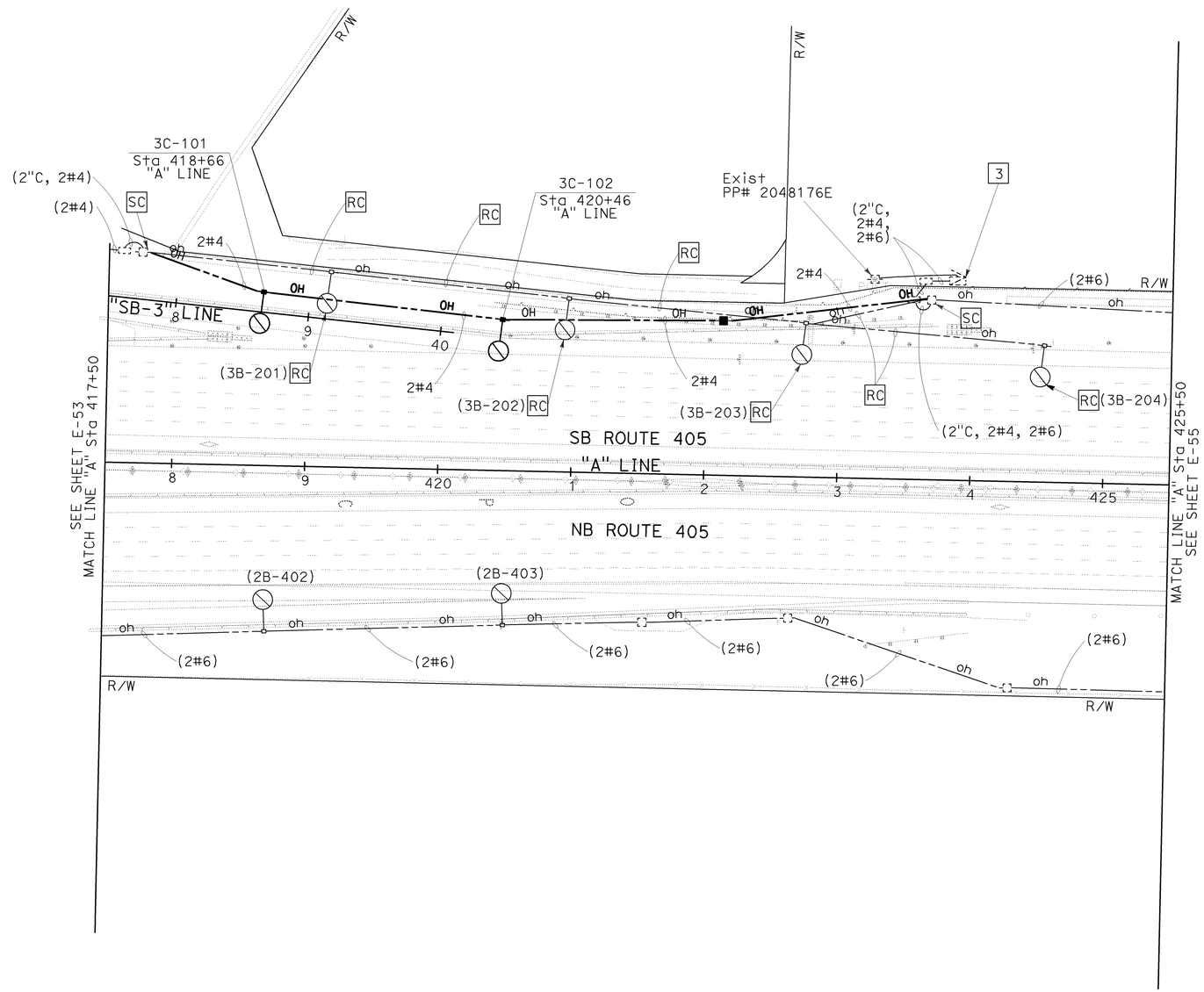
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3C)

SCALE: 1" = 50'

E-54

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09 | DATE PLOTTED => 02-FEB-2010 | TIME PLOTTED => 14:34

BORDER LAST REVISED 8/1/2008 | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => trpierce | DGN FILE => c07163ua054.dgn | CU 12235 | EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1241	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

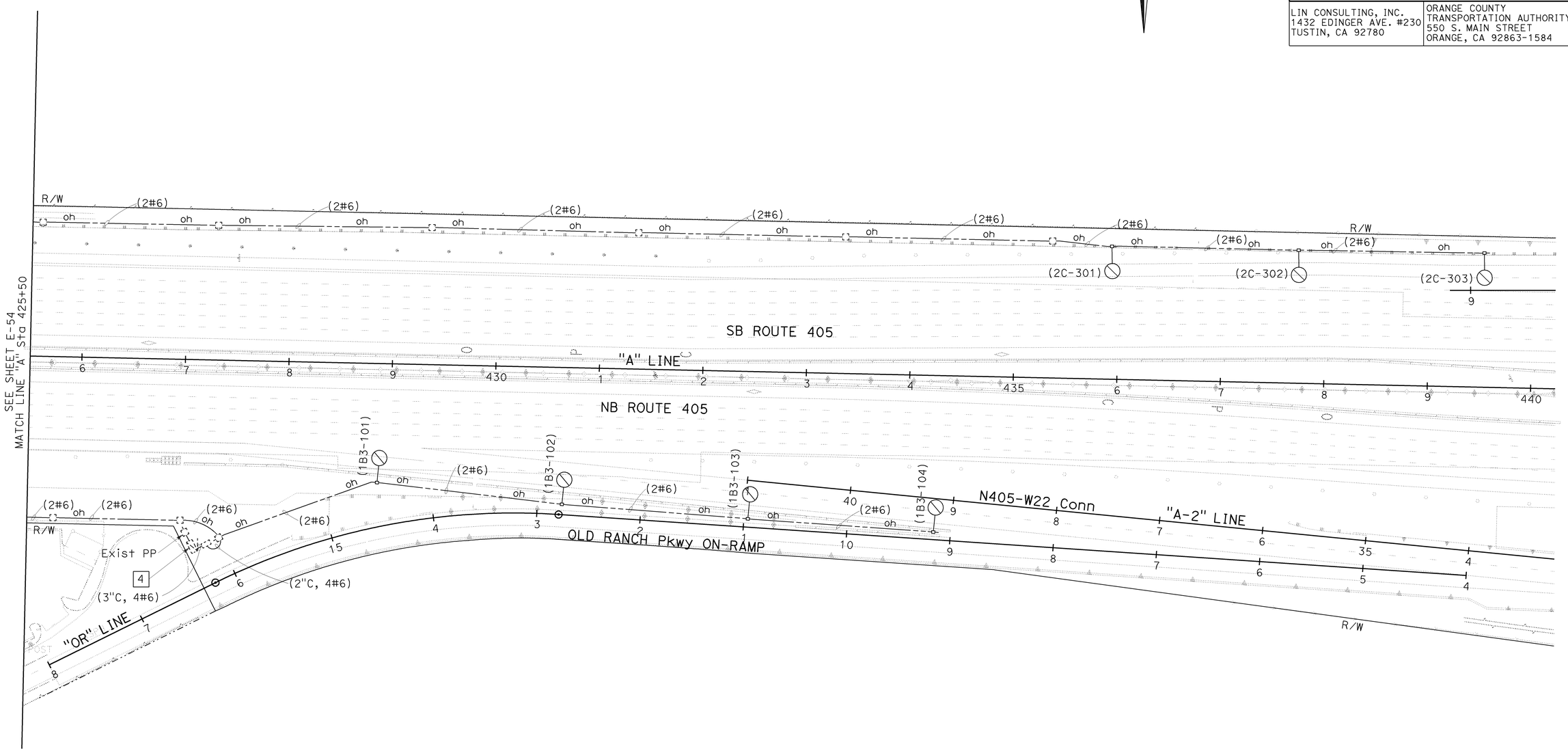
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3C)

SCALE: 1" = 50'

E-55

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1242	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DENWUN LIN — No. C46719 — Exp. 6/30/11 — CIVIL — STATE OF CALIFORNIA

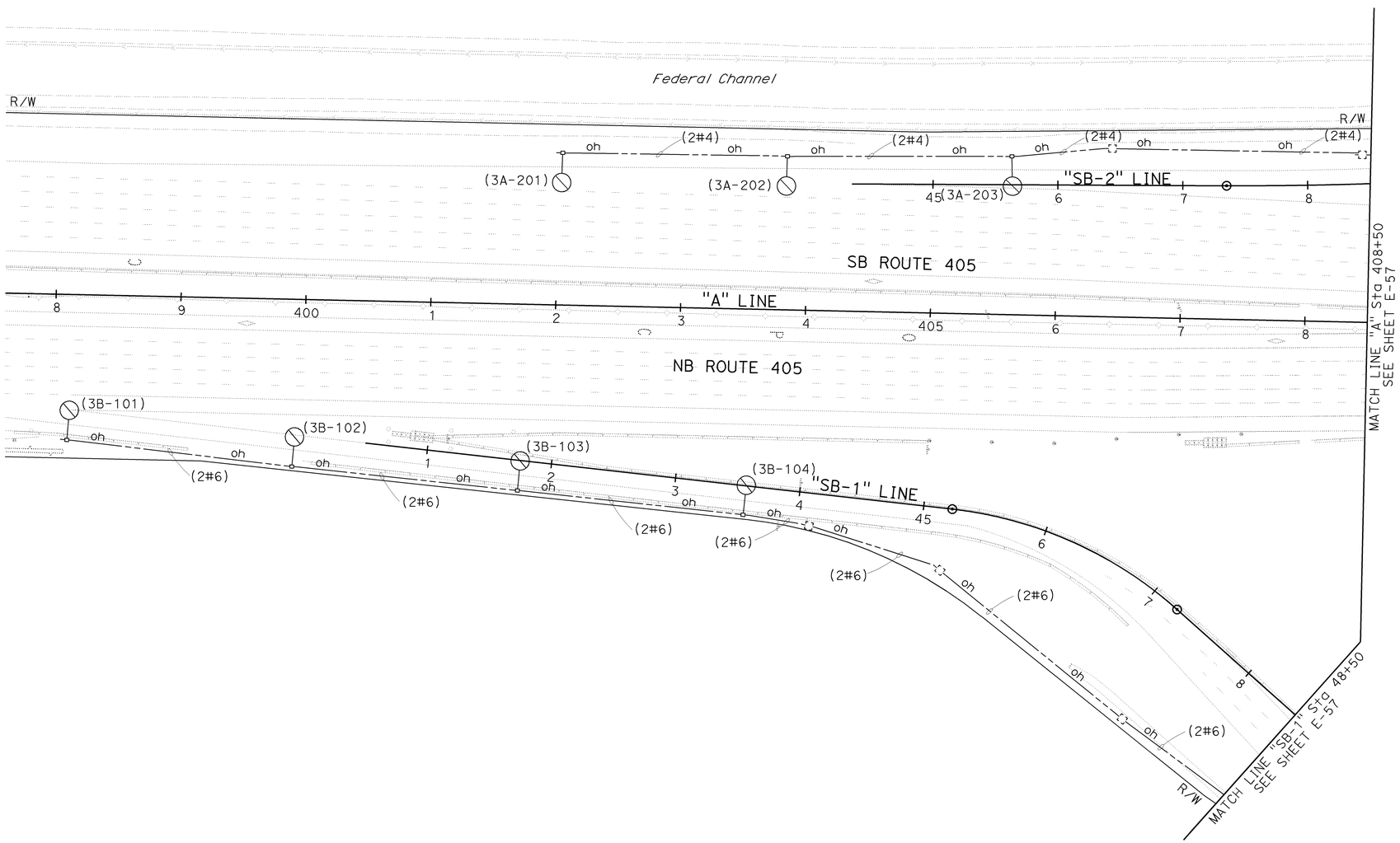
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3D.1)

SCALE: 1" = 50'

E-56

REVISED BY	DATE REVISED
CW	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 — DATE PLOTTED => 02-FEB-2010 — TIME PLOTTED => 14:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1243	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

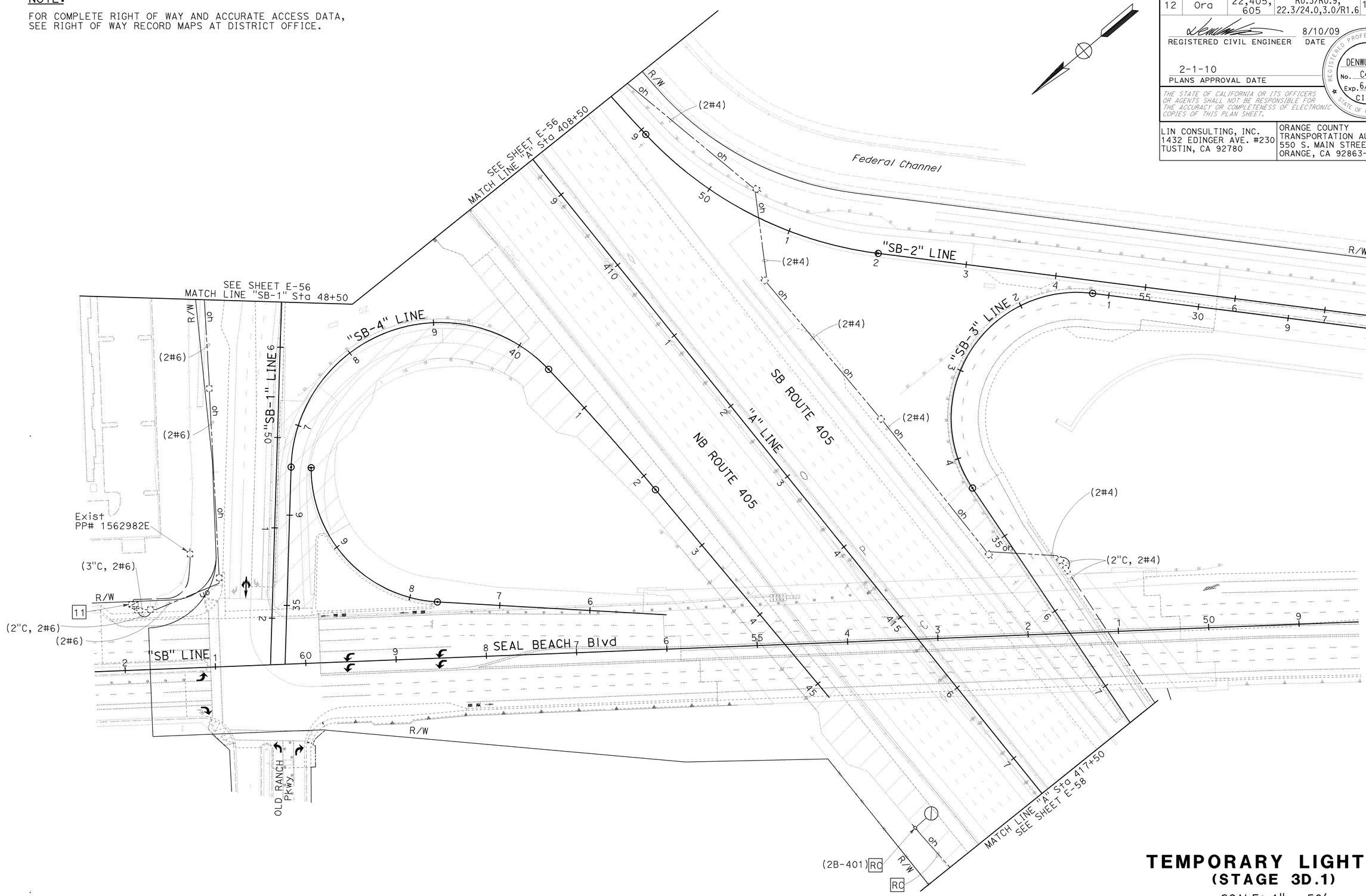
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3D.1)

SCALE: 1" = 50'

E-57

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1244	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

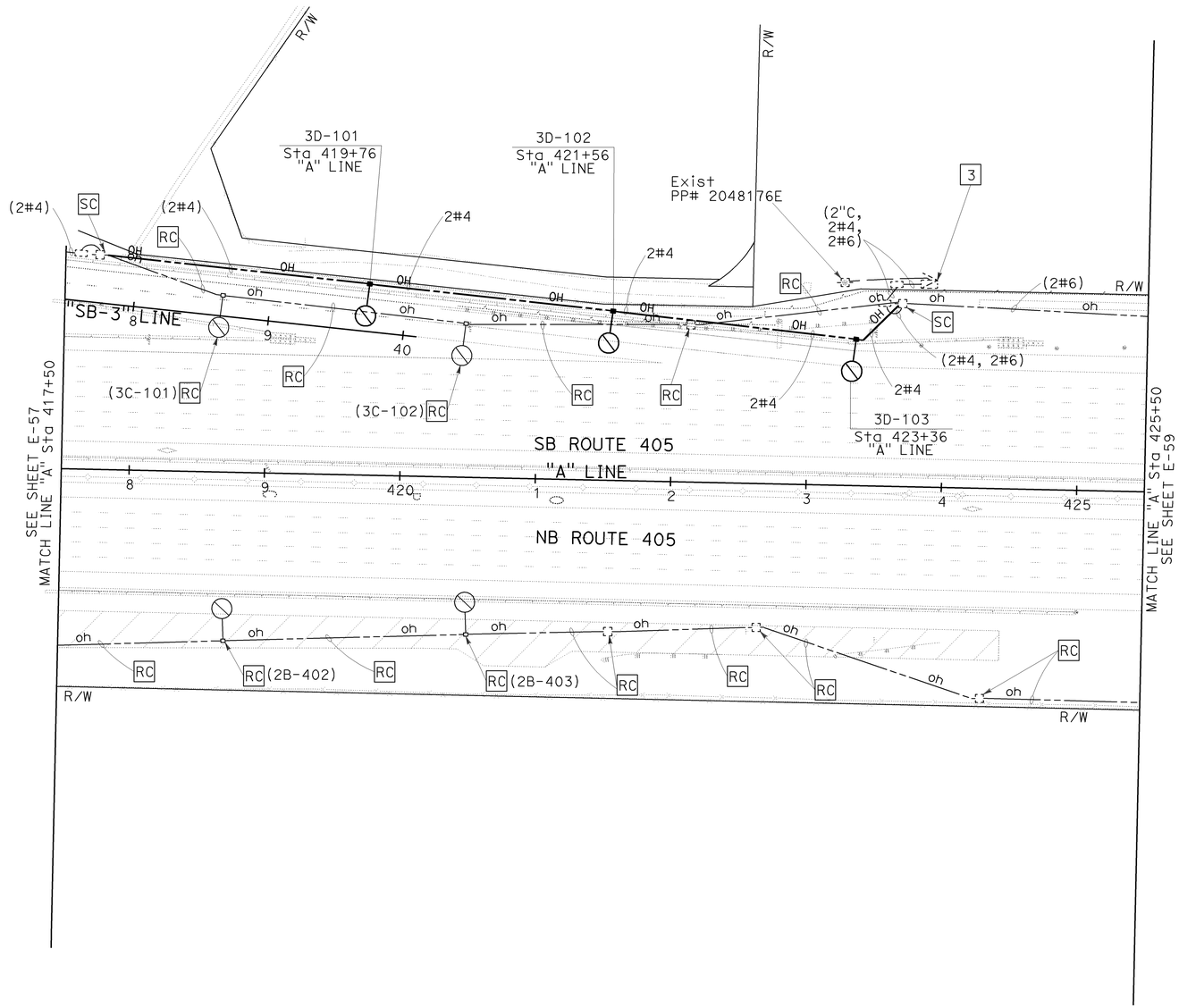
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



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

TEMPORARY LIGHTING
(STAGE 3D.1)

SCALE: 1" = 50'

E-58

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY:

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1245	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

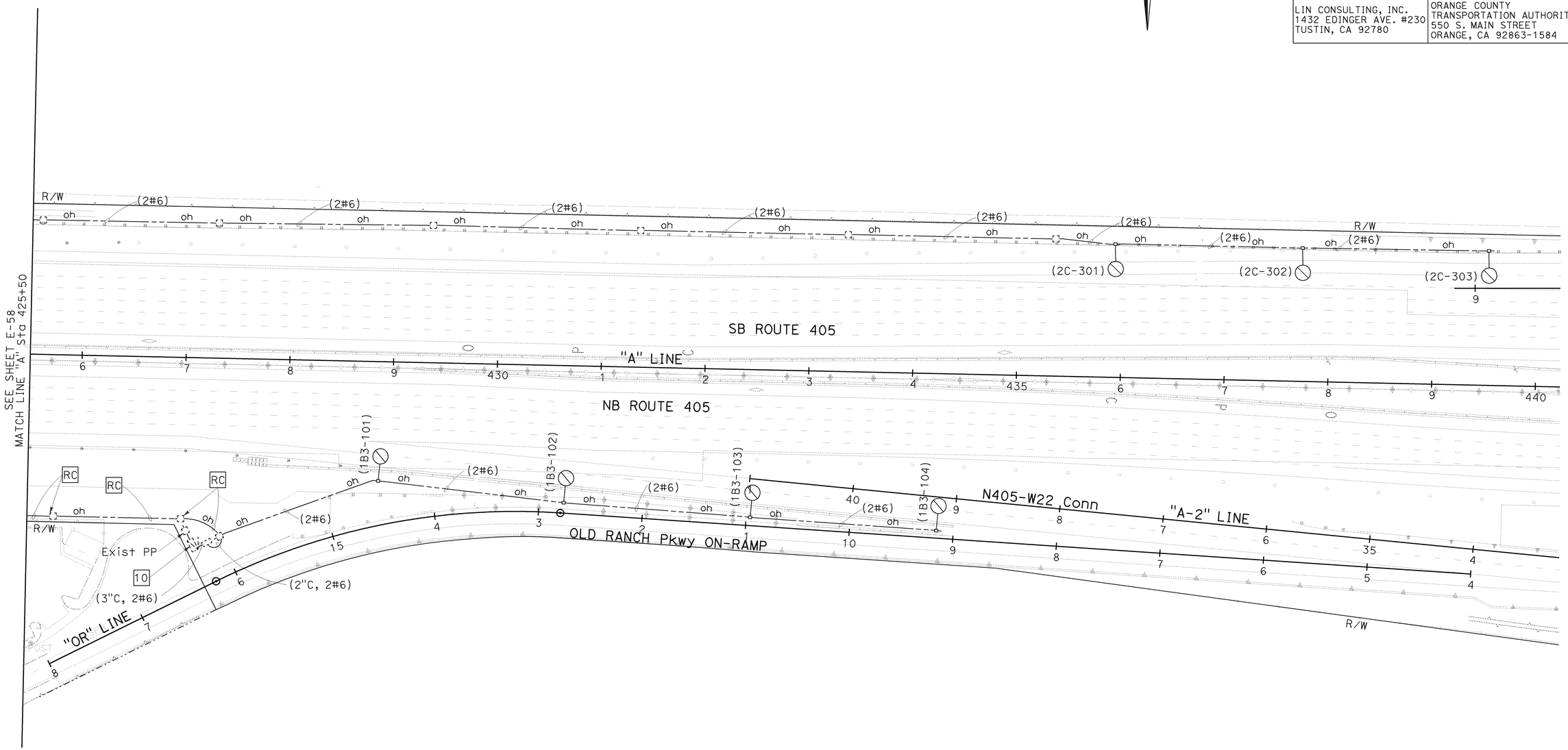
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



TEMPORARY LIGHTING
(STAGE 3D.1)

SCALE: 1" = 50'

E-59

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 14:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1246	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

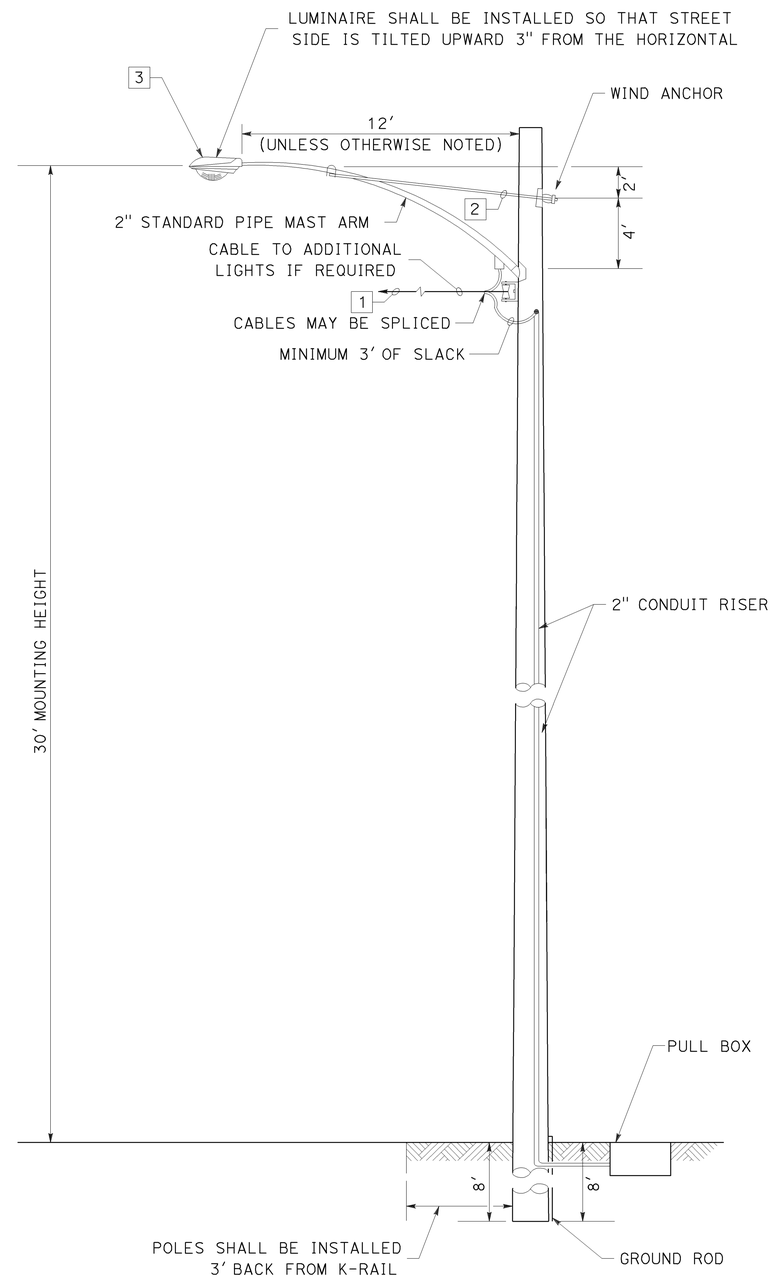
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

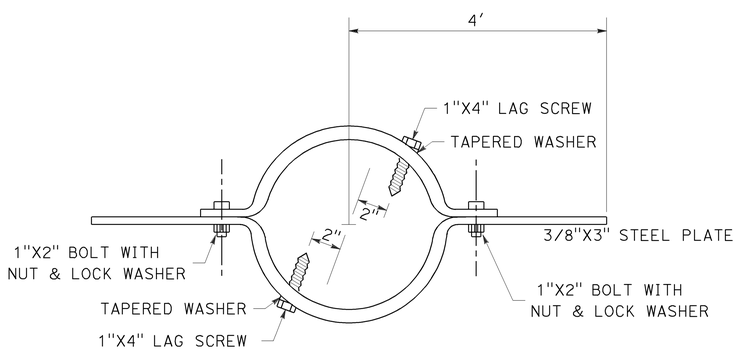
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTES: (FOR THIS SHEET ONLY)

1. CABLE SHALL BE SUSPENDED FROM SPAN-WIRE AS FOLLOWS:
   A) MAIN RUN-3/8" SPAN-WIRE.
   B) SECONDARY RUN-1/4" SPAN-WIRE.
2. MAST ARM FOR LUMINAIRES SHALL CONFORM TO SECTION 86-2.12 OF THE STANDARD SPECIFICATIONS. FOR PIPE TIE RODS SHALL 3/4" FOR MAST ARMS WITH 3/8" ROUND BOLT ON EACH END.
3. LUMINAIRE SHALL HAVE INTEGRAL BALLAST.
4. ALL OVERHEAD CABLE SHALL BE SLACK SPANNED WITH 20' MINIMUM OVERHEAD CLEARANCE.
5. NO SPARE CONDUCTORS REQUIRED EXCEPT AS NOTED.
6. MULTI-CONDUCTOR OR SINGLE CONDUCTOR CABLE MAY BE USED.
7. WOOD POLES SHALL CONFORM TO SECTION 86-2.12 OF THE STANDARD SPECIFICATIONS. POLES SHALL BE BREAST BLOCKED, GUYED OR RAKED WHERE NECESSARY.
8. OVERHEAD LINE CONSTRUCTION NOT SPECIFICALLY COVERED HEREON SHALL CONFORM WITH THE PROVISIONS OF GENERAL ORDER NO 95 OF PUBLIC UTILITIES COMMISSION.



TYPICAL MOUNTING DETAILS
WOOD POLES



WIND ANCHOR
TO BE INSTALLED PERPENDICULAR TO MAST ARMS AND 2' MINIMUM BELOW GRADE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY LIGHTING
(ELECTRICAL DETAILS)

NO SCALE

E-60

REVISED BY	DATE REVISED
CW	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 11:38

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1247	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

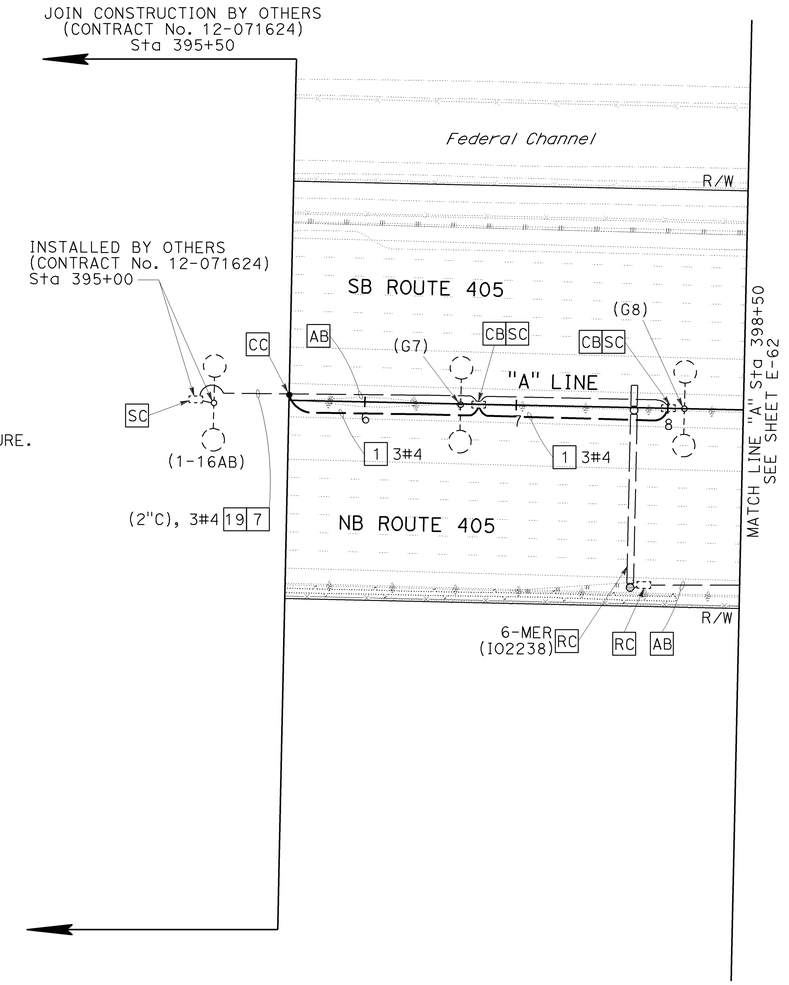
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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

CONSTRUCTION NOTES (FOR SHEETS E-61 TO E-75 ONLY):

1. INSTALL 2" CONDUIT IN THE GROUND BENEATH NEW CONCRETE BARRIER.
2. INSTALL 3" CONDUIT PER POWER COMPANY'S REQUIREMENT. CONDUCTORS TO BE INSTALLED BY POWER COMPANY.
3. INSTALL 2" CONDUIT IN CONCRETE BARRIER.
4. STRUCTURE INSTALLATIONS PER Std ES-9A DETAIL I.
5. STRUCTURE INSTALLATIONS PER Std ES-9B DETAIL XY.
6. INSTALL TYPE H RISER ON EXISTING POWER POLE.
7. FOR WIRING DIAGRAM SEE SHEET E-76.
8. RELOCATE EXISTING 120/240 V METERED SERVICE IN TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH TYPE V PHOTOELECTRIC CONTROL ON NEW FOUNDATION.
   METER#1: (ID#12-55-405-0-022.680)
   100 A, 240 V, 2P MAIN CB
   30 A, 240 V, 2P, CB LIGHTING (Ckt No.1)
   30 A, 240 V, 2P, CB LIGHTING (Ckt No.2)
   50 A, 240 V, 2P, CB MEDIAN LIGHTING
   15 A, 120 V, 1P, CB LIGHTING CONTROL
   METER#2: (ID#12-55-405-0-022.681)
   100 A, 240 V, 2P MAIN CB
   20 A, 120 V, 1P, CB RAMP METERING (LOCATION 2)
   15 A, 120 V, 1P, CB IRRIGATION (ICC 'Y')
9. EXISTING 120/240 V METERED SERVICE IN TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH TYPE V PHOTOELECTRIC CONTROL.
   (ID# 12-55-405-0-022.710)
   100 A, 240 V, 2P MAIN CB
   30 A, 240 V, 2P, CB LIGHTING (Ckt No.3)
   30 A, 240 V, 2P, CB LIGHTING (Ckt No.4)
   30 A, 240 V, 2P, CB LIGHTING (Ckt No.5)
   15 A, 120 V, 1P, CB LIGHTING CONTROL
   20 A, 120 V, 1P, CB IRRIGATION (ICC 'M')
10. NOT USED.
11. EXISTING 120/240 V METERED SERVICE IN TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
   (ID# 12-55-405-0-035.140)
   100 A, 240 V, 2P MAIN CB
   15 A, 120 V, 1P, CB IRRIGATION (ICC 'A')
   15 A, 120 V, 1P, CB IRRIGATION (ICC 'B')
   15 A, 120 V, 1P, CB IRRIGATION (ICC 'C')
   15 A, 120 V, 1P, CB IRRIGATION (ICC 'D')
   15 A, 120 V, 1P, CB IRRIGATION (ICC 'E')
   15 A, 120 V, 1P, CB IRRIGATION (ICC 'F')
12. EXISTING 120/240 V METERED SERVICE IN TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH TYPE V PHOTOELECTRIC CONTROL.
   METER#1: (ID# 12-55-405-0-22.760)
   100 A, 240 V, 2P MAIN CB
   30 A, 240 V, 2P, CB LIGHTING (Ck No.6)
   30 A, 240 V, 2P, CB LIGHTING (Ck No.7)
   15 A, 120 V, 1P, CB LIGHTING CONTROL
   METER#2: (ID# 12-55-405-0-22.761)
   100 A, 240 V, 2P MAIN CB
   30 A, 120 V, 1P, CB TRAFFIC MONITORING STATION (MSID 2241)
   30 A, 120 V, 1P, CB TRAFFIC MONITORING STATION (MSID 5048)
13. NOT USED.
14. NOT USED.
15. EXISTING 120/240 V METERED SERVICE IN TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH TYPE V PHOTOELECTRIC CONTROL.
   (ID# 12-55-405-0-021.783)
   100 A, 240 V, 2P MAIN CB
   30 A, 240 V, 2P, CB LIGHTING (Ckt No.8)
   30 A, 240 V, 2P, CB LIGHTING (Ckt No.9)
   15 A, 120 V, 1P, CB LIGHTING CONTROL
16. RELOCATE EXISTING 480 V METERED SERVICE IN TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH TYPE V PHOTOELECTRIC CONTROL ON NEW FOUNDATION.
   (ID# 12-55-405-0-023.760)
   100 A, 240 V, 2P MAIN CB
   30 A, 240 V, 2P, CB LIGHTING (Ckt No.10)
   30 A, 480 V, 2P, CB LIGHTING (Ckt No.11)
   30 A, 480 V, 2P, CB LIGHTING (Ckt No. EX10)
   30 A, 480 V, 2P, CB LIGHTING (Ckt No.13)
   ADDITIONAL 30 A, 480 V, 2P, CB LIGHTING (Ckt No.12)
   40 A, 480 V, 2P, CB TUNNEL LIGHTING
   15 A, 120 V, 1P, CB LIGHTING CONTROL
17. INSTALL 2" CONDUIT WITH PULLROPE FOR FUTURE TMS.
18. EXISTING 120/240 V METERED SERVICE IN TYPE III-B SERVICE EQUIPMENT ENCLOSURE.
   (ID# 12-55-405-0-022.705)
   100 A, 240 V, 2P MAIN CB
   20 A, 120 V, 2P, CB IRRIGATION (ICC 'Z1')
   20 A, 120 V, 2P, CB RAMP METERING (LOCATION 1)
   20 A, 120 V, 2P, CB TRAFFIC SIGNAL (LOCATION 2)
19. RC CONDUCTORS FROM EXISTING CONDUIT. INSTALL NEW CONDUCTORS AS SPECIFIED ON PLAN.
20. INSTALL 2" CONDUIT IN SHOULDER AS INDICATED.
21. CONNECT EXISTING CONDUCTOR AND CONDUIT FROM EXISTING LIGHT POLE TO NEW PULL BOX.
22. INSTALL 120/240 V METERED SERVICE IN TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
   METER#1: (ID#12-55-405-0-035.600)
   100 A, 240 V, 2P MAIN CB
   20 A, 120 V, 2P, CB IRRIGATION (IRR 'J')
   20 A, 120 V, 2P, CB IRRIGATION (IRR 'K')
   20 A, 120 V, 2P, CB IRRIGATION (IRR 'L')
   30 A, 120 V, 1P, CB TRAFFIC MONITORING STATION (MSID 2218)
   30 A, 120 V, 1P, CB TRAFFIC MONITORING STATION (MSID 2219)
   30 A, 120 V, 1P, CB TRAFFIC MONITORING STATION (MSID 2430)
   30 A, 120 V, 1P, CB CLOSED CIRCUIT TELEVISION (CCTV #146)
   30 A, 120 V, 1P, CB LOWERING DEVICE
23. EXISTING IRRIGATION CONTROLLER ENCLOSURE TO BE RELOCATED AS INDICATED.
24. RELOCATED EXISTING IRRIGATION CONTROLLER ENCLOSURE AS INDICATED.
25. EXISTING IRRIGATION CONTROLLER ENCLOSURE.
26. CONDUIT OR CONDUCTOR CALLOUTS WITH PARENTHESES ARE EXISTING.
27. ALL NEW CONDUIT SHALL BE 2"C UNLESS OTHERWISE NOTED.



GENERAL NOTES (FOR SHEETS E-61 TO E-75 ONLY):

1. ALL WORK WITHIN THE STATE RIGHT OF WAY SHALL CONFORM TO CALTRANS STANDARD PLANS DATED MAY 2006 AND CALTRANS STANDARD SPECIFICATIONS DATED MAY 2006, THE SPECIAL PROVISIONS, OR AS DIRECTED BY THE STATE REPRESENTATIVE.
2. POLE LOCATION SHALL BE APPROVED BY STATE REPRESENTATIVE PRIOR TO INSTALLATION.

LEGEND (FOR SHEETS E-61 TO E-75 ONLY):

RELOCATE TYPE 21 DOUBLE MAST ARM WITH 2-310 W LUMINARIE AS INDICATED ON PLAN.

EXISTING TYPE 21 DOUBLE MAST ARM WITH 2-400 W LUMINARIE.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE 1"=50'

E-61

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 11:38

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1248	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

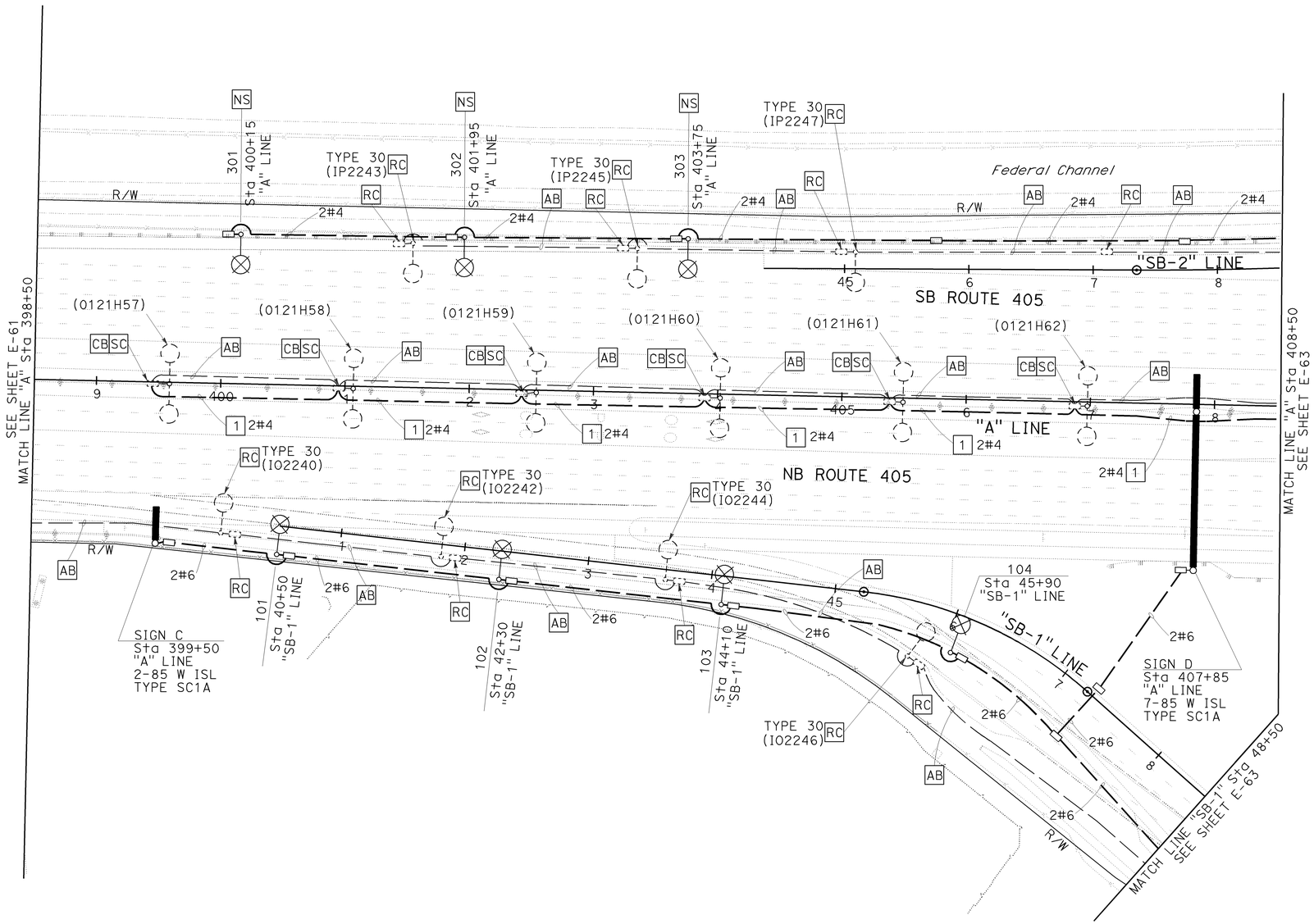
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-76.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE 1"=50'

E-62

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY:

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 13:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1249	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

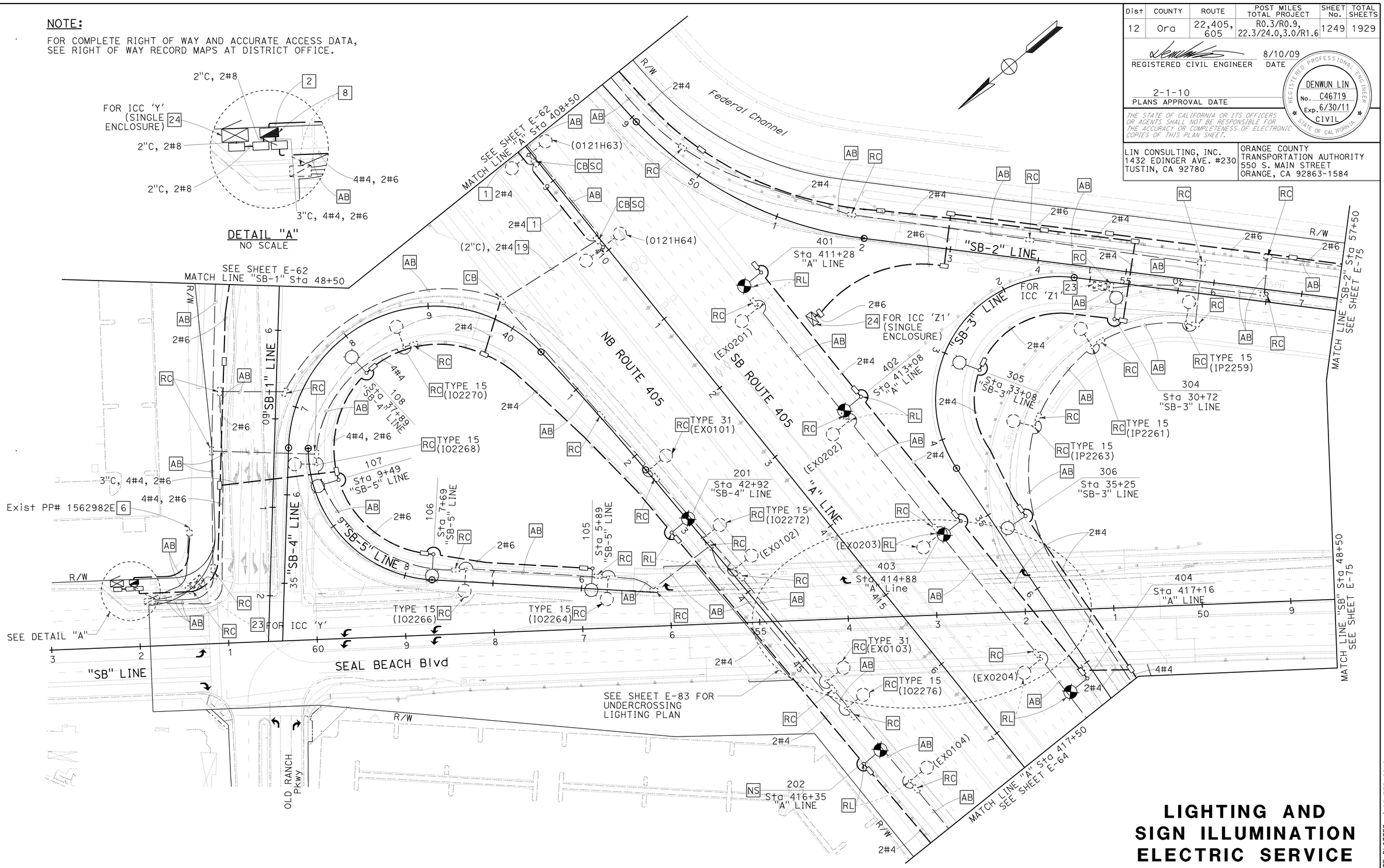
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



LIGHTING AND SIGN ILLUMINATION ELECTRIC SERVICE (IRRIGATION)

SCALE 1"=50'

FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-76.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-63

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:00

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlenard
DGN FILE => c07163ua063.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1250	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

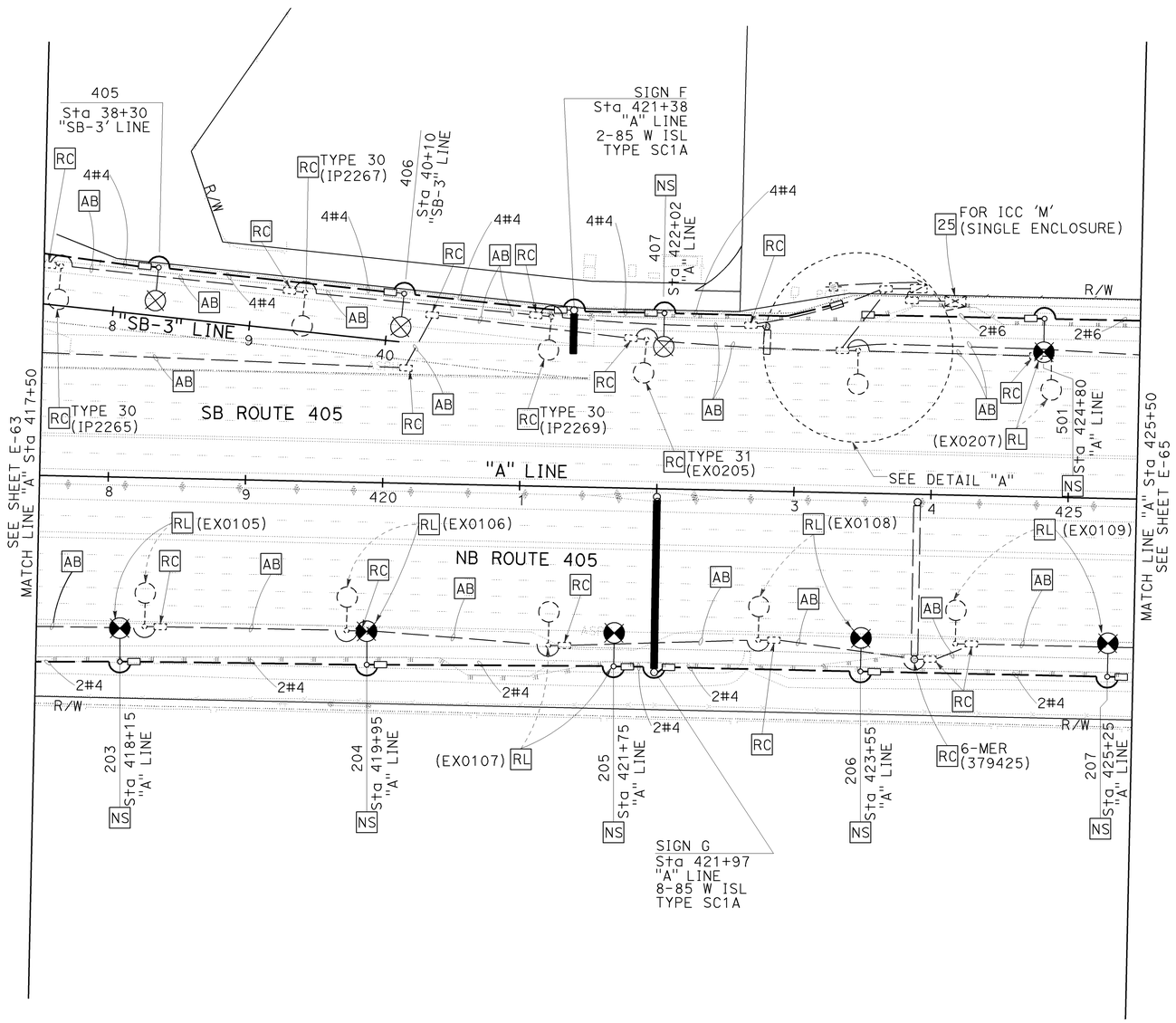
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

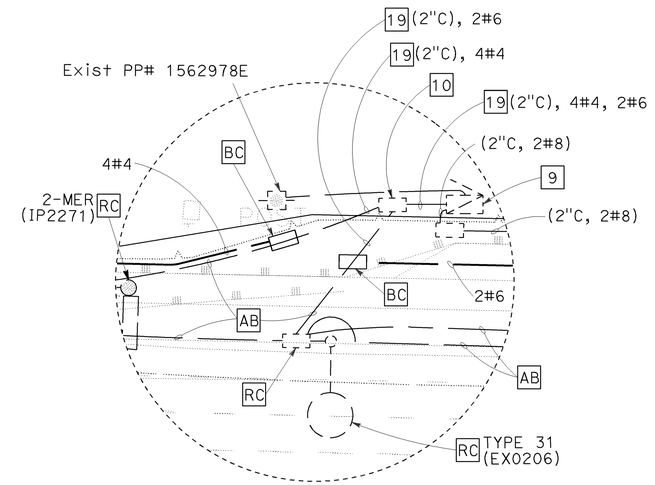
LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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





DETAIL "A"
NO SCALE

FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-76.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION ELECTRIC SERVICE (IRRIGATION)

SCALE: 1" = 50'

E-64

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 13:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1251	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

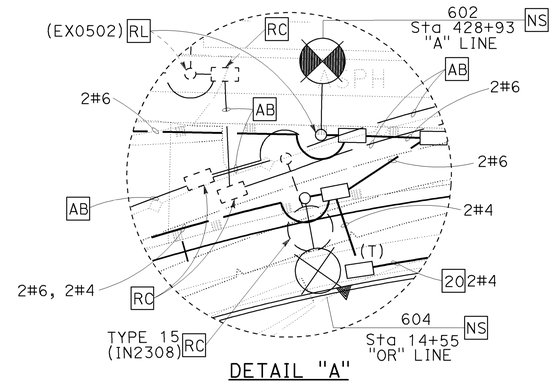
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

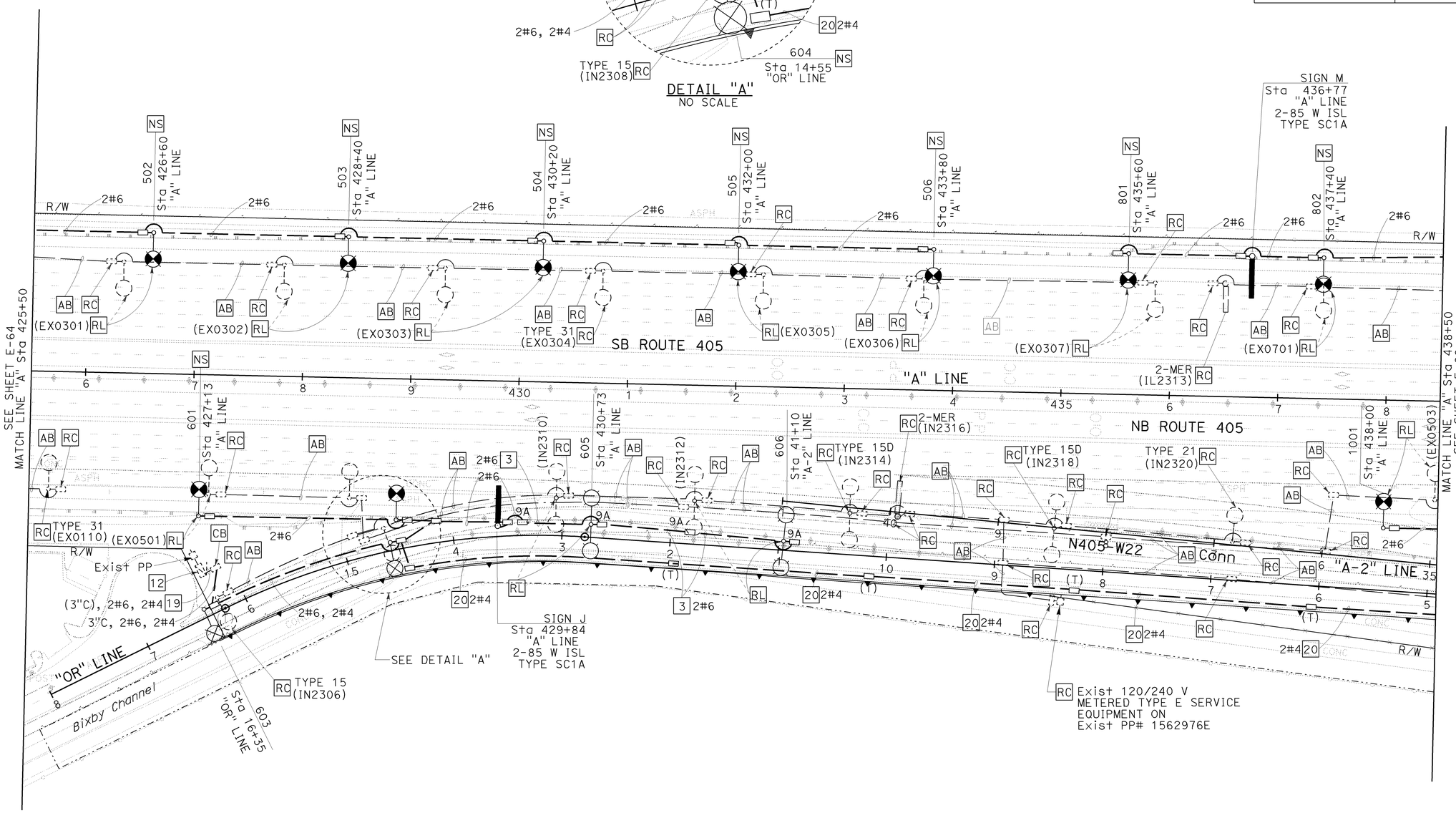
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



DETAIL "A"
NO SCALE



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-76 AND E-77.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE 1"=50'

E-65

REVISED BY	CW
DATE REVISED	8/10/09
CALCULATED-DESIGNED BY	VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY	TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR	DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 13:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1252	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

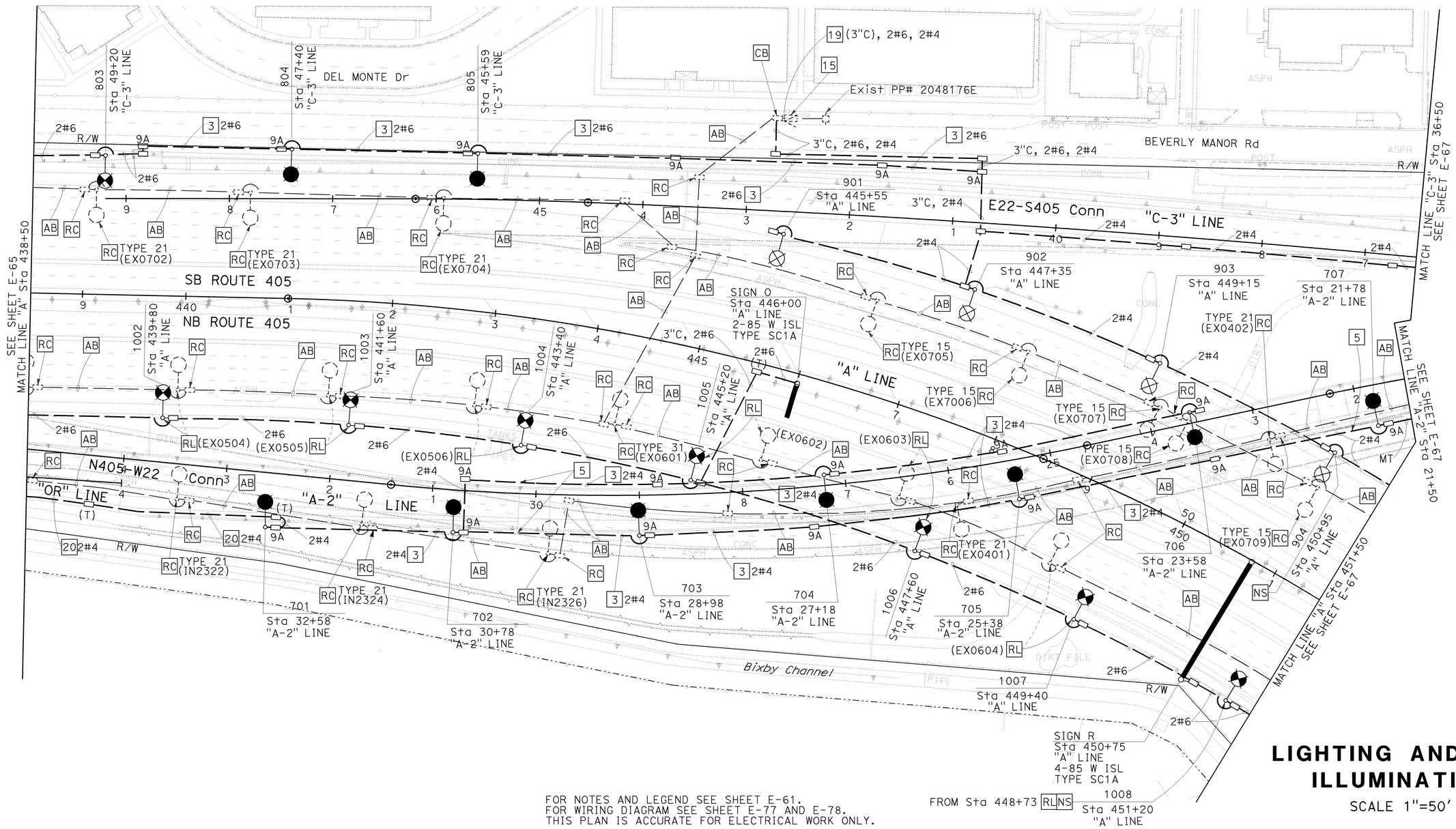
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-77 AND E-78.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE 1"=50'

E-66

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU

CHECKED BY: TIMMY TO

REVISED BY: CW

DATE REVISED: 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 13:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1253	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

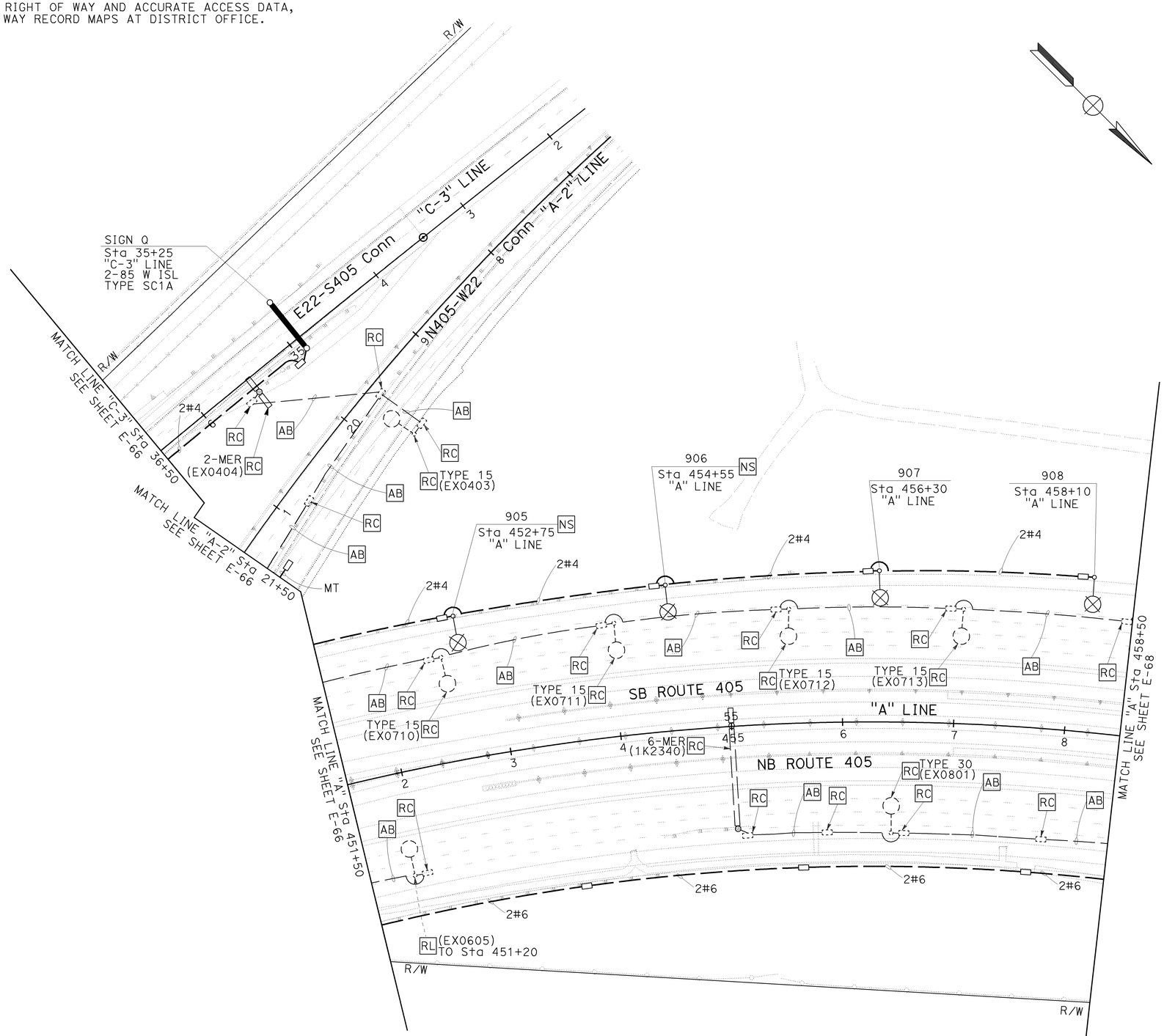
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-77 AND E-78.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1" = 50'

E-67

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO

REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:01
08-10-09

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trlenard
DGN FILE => c07163ua067.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1254	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

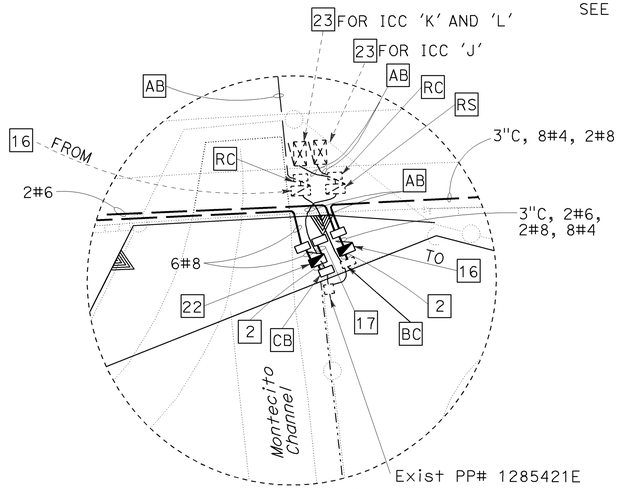
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

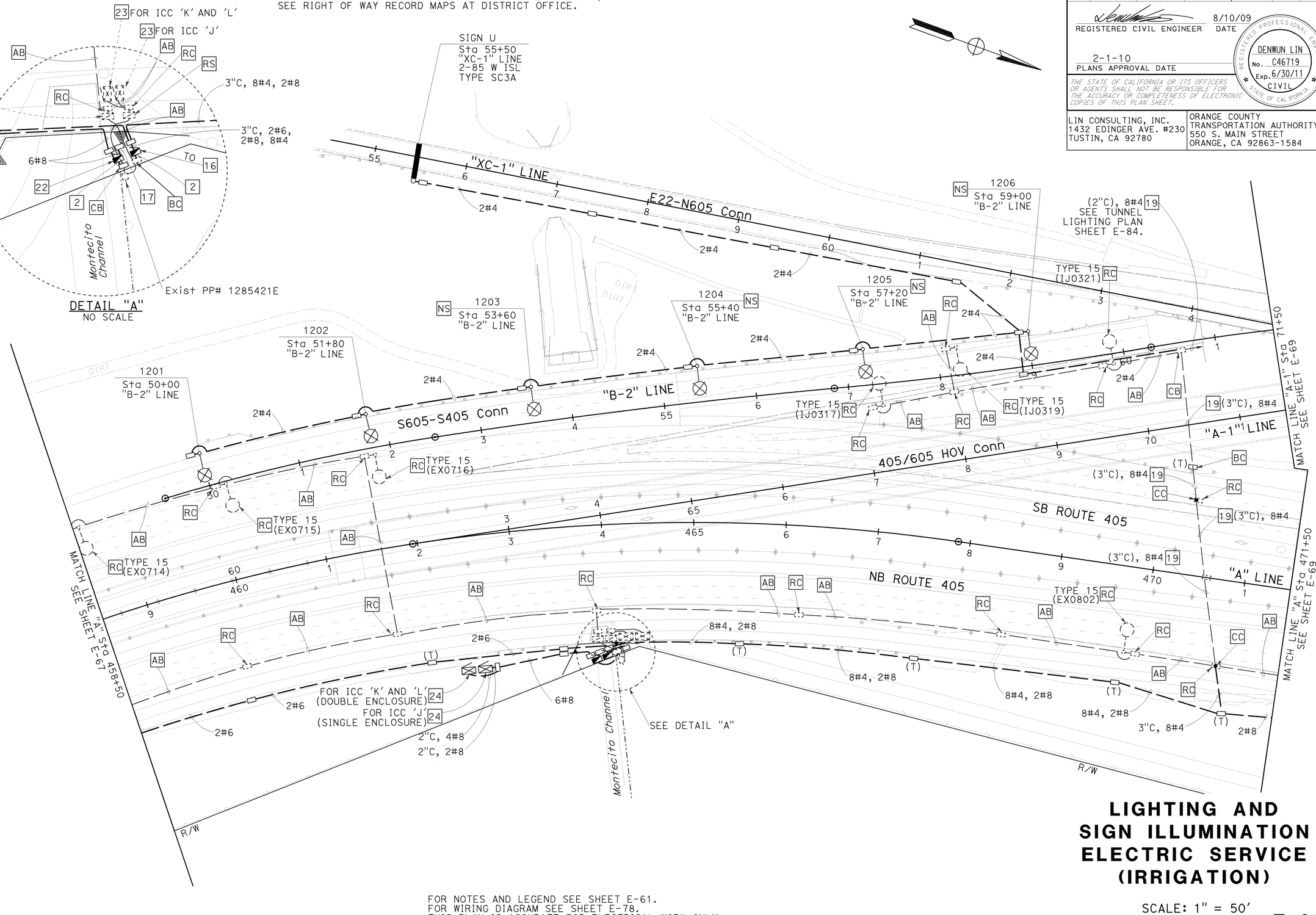
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



DETAIL "A"
NO SCALE



LIGHTING AND SIGN ILLUMINATION ELECTRIC SERVICE (IRRIGATION)

SCALE: 1" = 50'

FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-78.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-68

REVISED BY	DATE REVISED	VICENTE ENCARNACION CHARLOTTE WU	CALCULATED-DESIGNED BY	CHECKED BY	CONSULTANT FUNCTIONAL SUPERVISOR
CW	8/10/09	TIMMY TO			DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 13:01

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1255	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

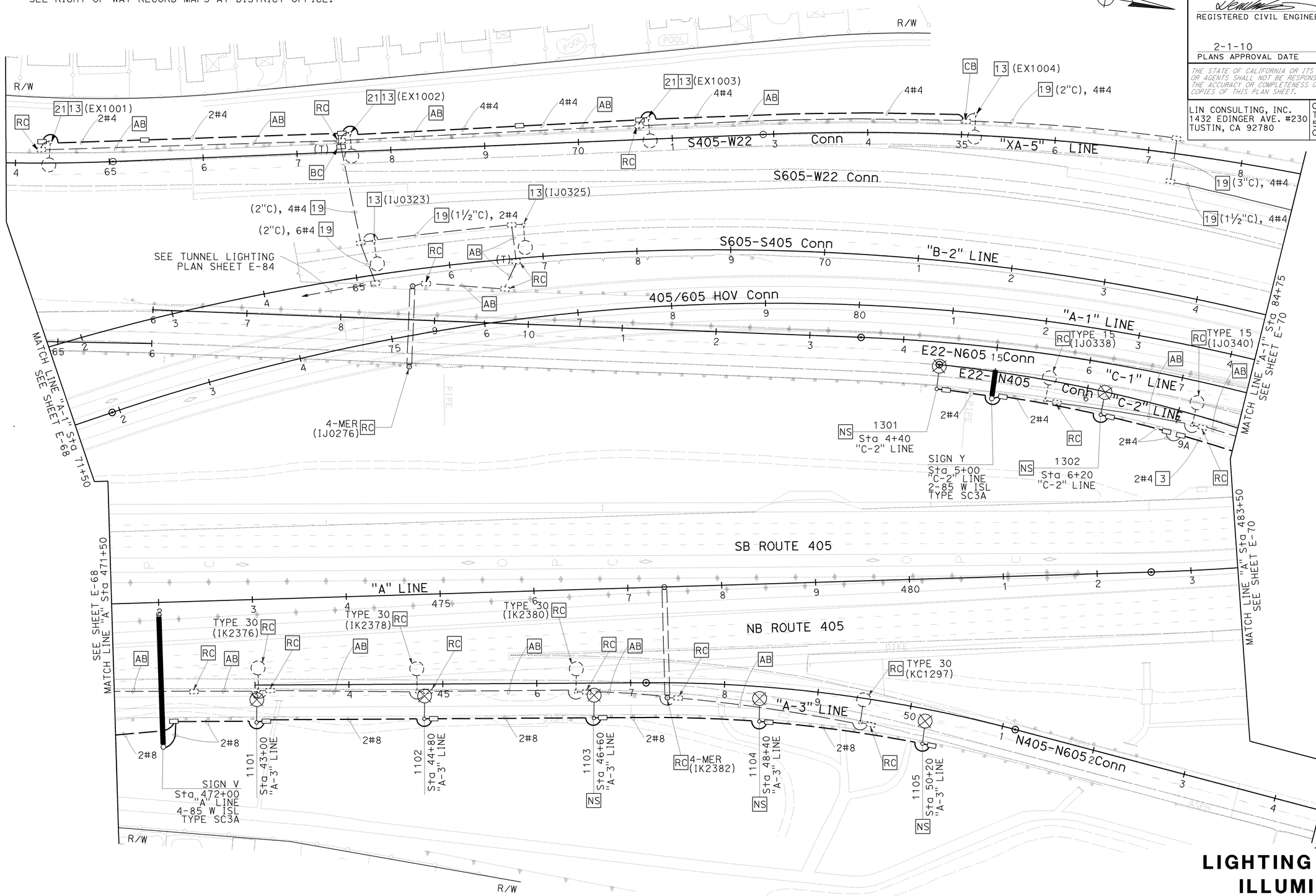
2-1-10 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-78.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1" = 50'

E-69

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU

CHECKED BY: TIMMY TO

REVISED BY: CW

DATE REVISED: 8/10/09

LAST REVISION: 08-10-09

DATE PLOTTED => 02-FEB-2010

TIME PLOTTED => 13:01

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => trienard
DGN FILE => c07163ua069.dgn

CU 12235

EA 071631

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1256	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

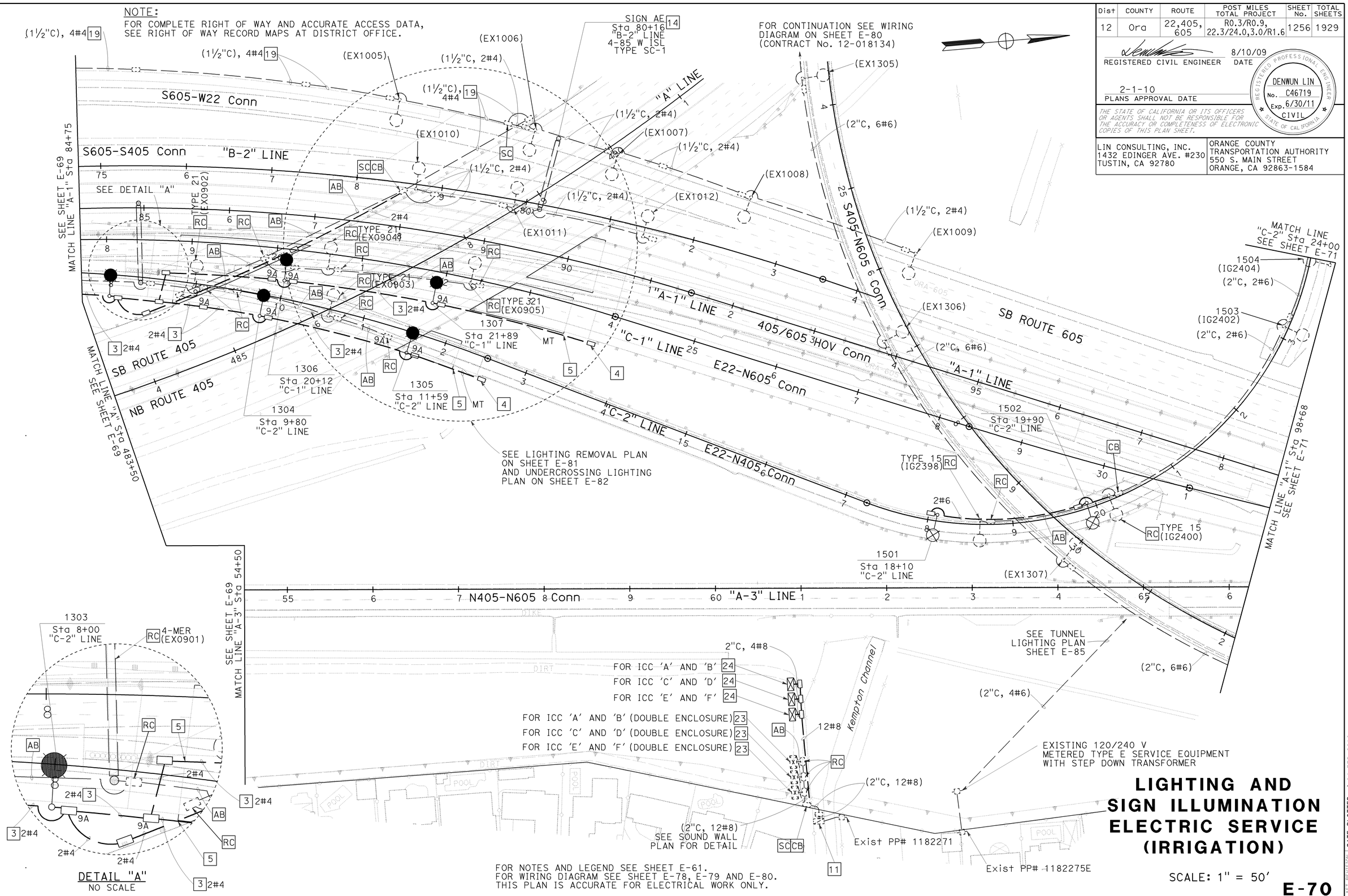
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-78, E-79 AND E-80.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION ELECTRIC SERVICE (IRRIGATION)

SCALE: 1" = 50'

E-70

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: CW
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09
VICENTE ENCARNACION CHARLOTTE WU

LAST REVISION DATE PLOTTED => 04-FEB-2010
TIME PLOTTED => 11:08
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trmikesl
DGN FILE => c07163ua070.dgn
CU 12235
EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1257	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

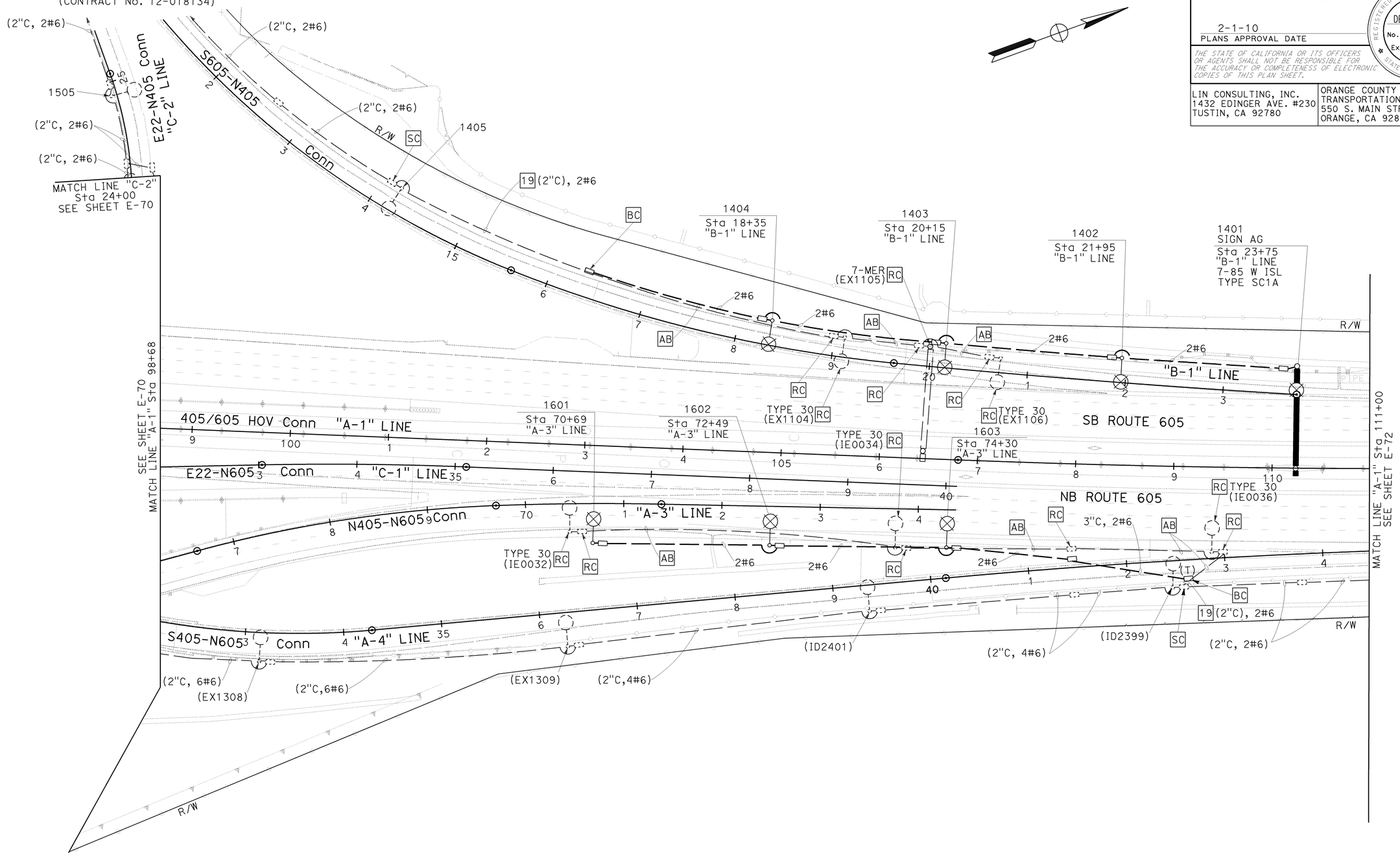
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-80.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1" = 50'

E-71

REVISED BY	DATE REVISED
CW	8/10/09

CALCULATED-
DESIGNED BY
CHECKED BY

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:01

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1258	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DENWUN LIN
No. C46719
Exp. 6/30/11
CIVIL
STATE OF CALIFORNIA

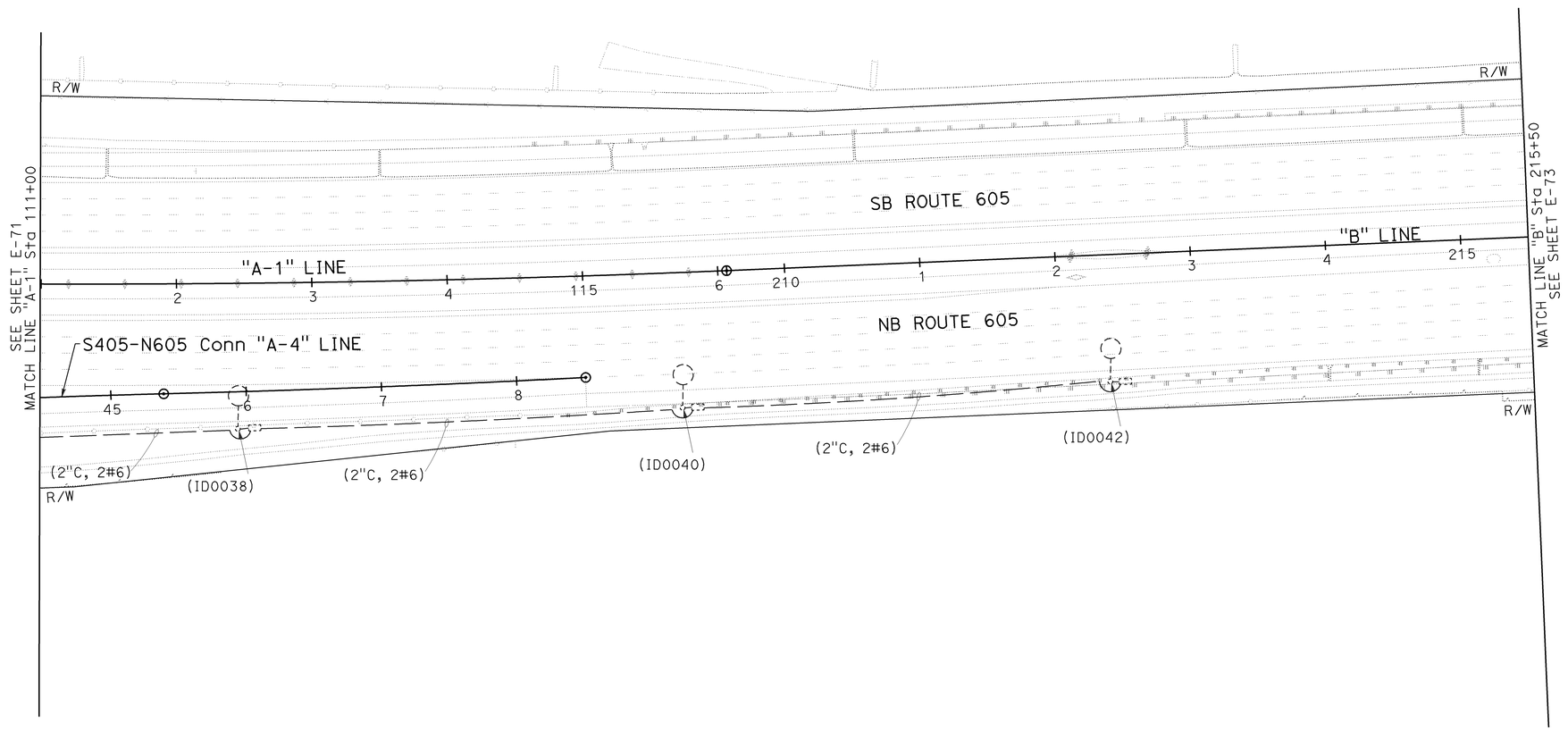
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-80.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1" = 50'

E-72

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:01

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1259	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

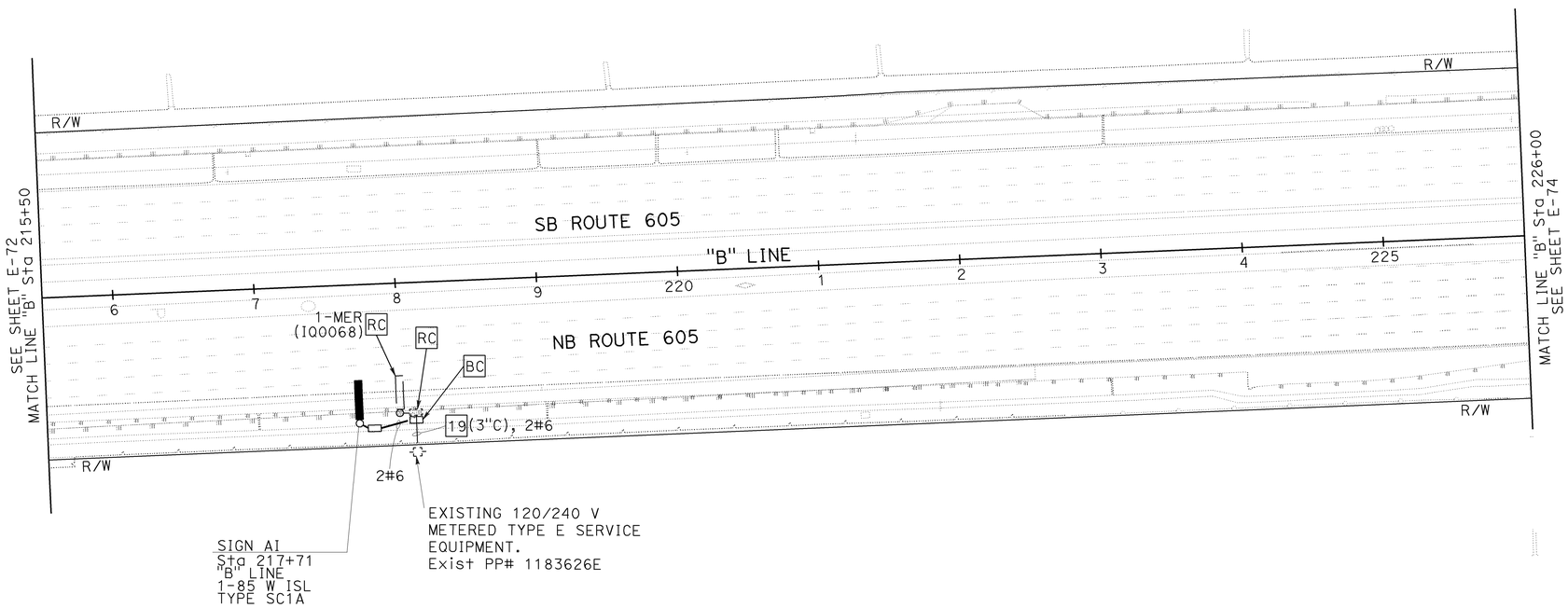
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-80.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1" = 50'

E-73

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 09-FEB-2010 TIME PLOTTED => 11:38

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => trlenard
DGN FILE => c07163ua073.dgn
CU 12235
EA 071631

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1260	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

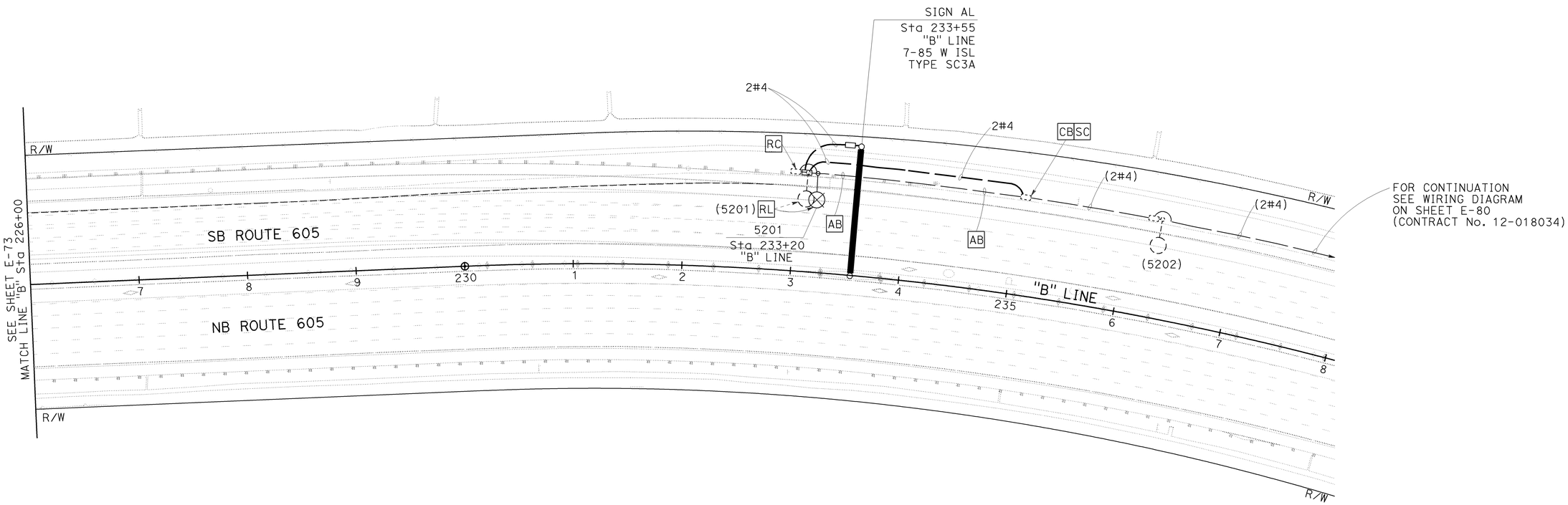
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL — STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-80.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION

SCALE: 1" = 50'

E-74

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 13:01

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1261	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

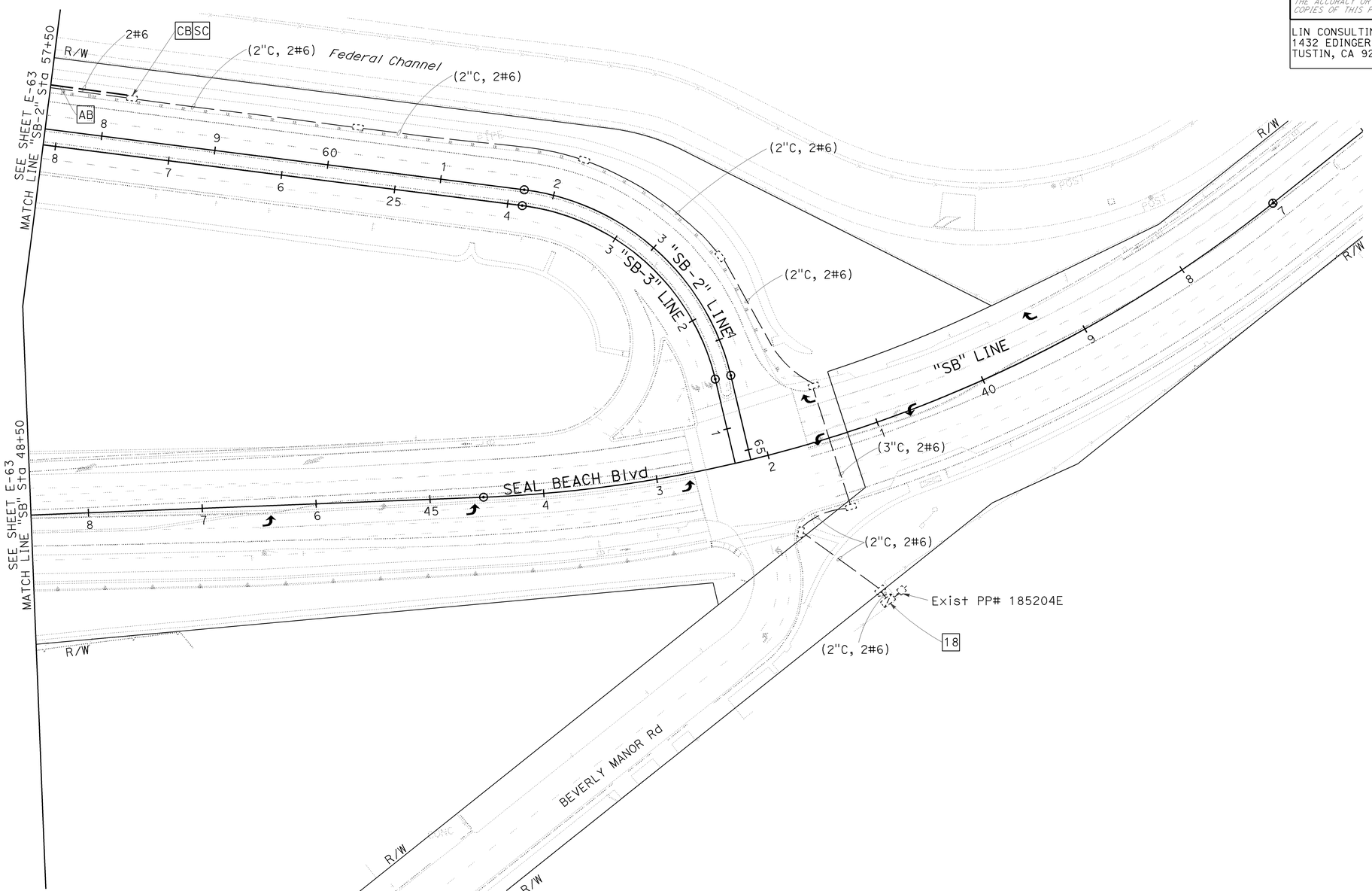
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



FOR NOTES AND LEGEND SEE SHEET E-61.
FOR WIRING DIAGRAM SEE SHEET E-76.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

ELECTRIC SERVICE (IRRIGATION)

SCALE: 1" = 50'

E-75

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU

CHECKED BY: TIMMY TO

REVISED BY: CW

DATE REVISED: 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 13:04

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1262	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

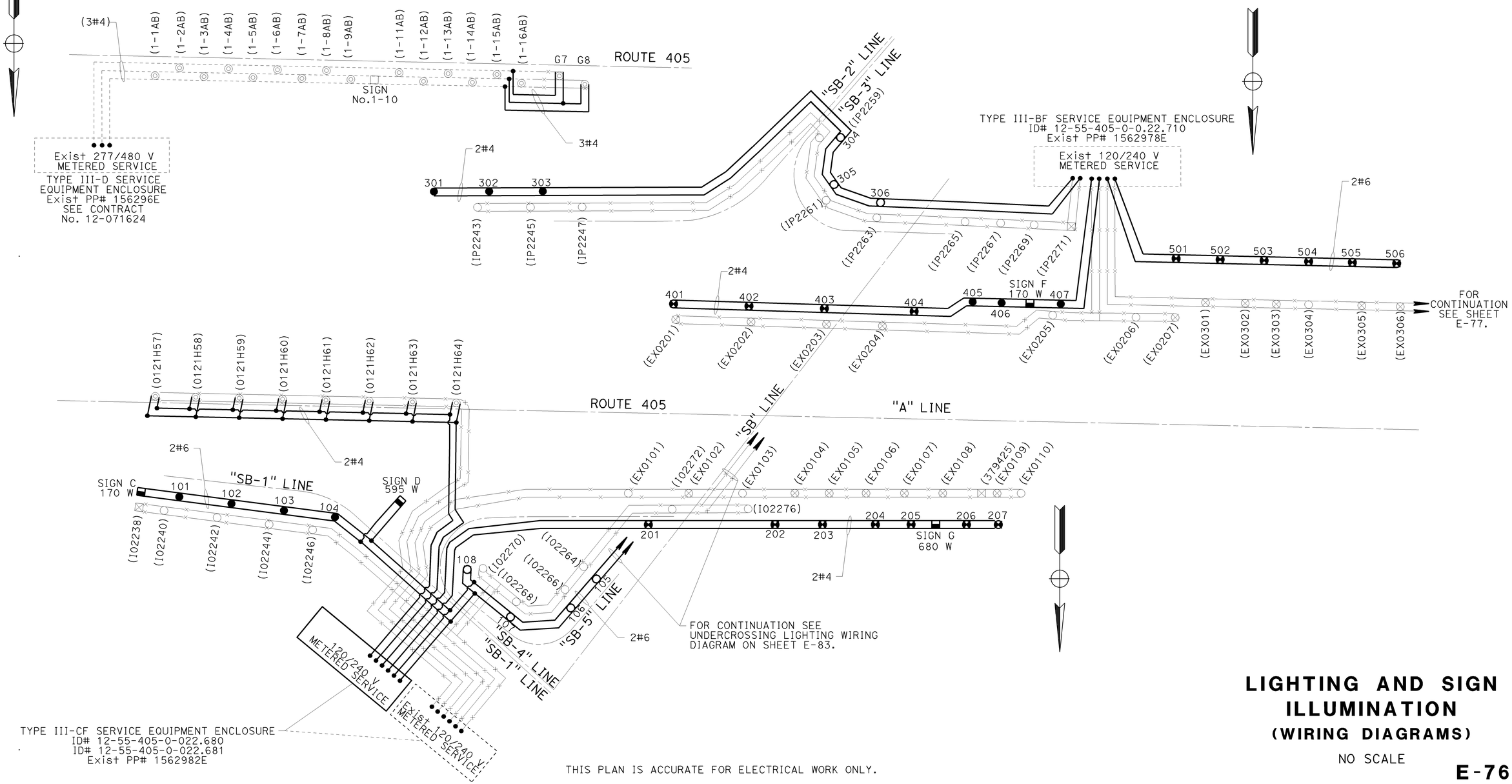
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

LEGEND (FOR SHEET E-76 TO 80 ONLY):

- NEW CONDUCTOR
- EXISTING CONDUCTOR
- EXISTING CONDUCTOR TO BE REMOVED
- SPLICE
- EXISTING SIGN ILLUMINATION
- EXISTING SIGN ILLUMINATION TO BE REMOVED
- PROPOSED SIGN ILLUMINATION
- EXISTING 2-400 WATTS LUMINAIRE
- RELOCATED DOUBLE MAST ARM WITH 2-310 WATTS LUMINAIRE
- EXISTING LUMINAIRE
- EXISTING LUMINAIRE TO BE REMOVED
- NEW 200 WATTS HPS LUMINAIRE
- NEW 310 WATTS HPS LUMINAIRE
- EXISTING 310 WATTS HPS LUMINAIRE TO BE RELOCATED
- RELOCATED 310 WATTS HPS LUMINAIRE
- EXISTING DOUBLE MAST ARM WITH 2-310 WATTS LUMINAIRE TO BE RELOCATED
- NEW SOFFIT LUMINAIRE
- EXISTING SOFFIT LUMINAIRE
- EXISTING SOFFIT LUMINAIRE TO BE REMOVED

NOTE (FOR SHEET E-76 TO 80 ONLY):

1. CONDUCTORS AND LUMINAIRE ID NUMBER CALLOUTS WITH PARENTHESES ARE EXISTING.



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION
(WIRING DIAGRAMS)

NO SCALE

E-76

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO
CALCULATED-DESIGNED BY
CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 02-FEB-2010
08-10-09 TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1263	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

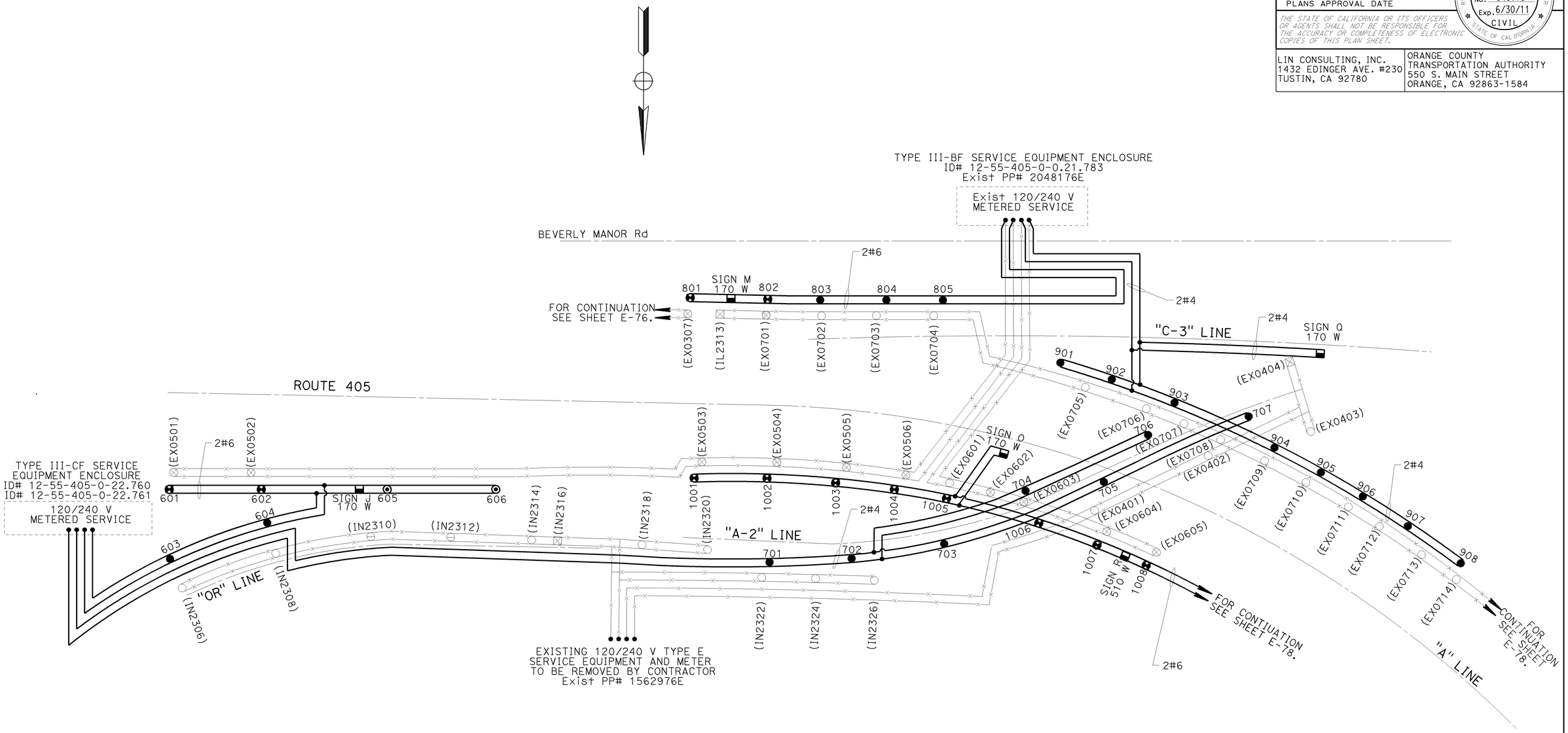
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL — STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



FOR LEGEND AND NOTE SEE SHEET E-76.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION
(WIRING DIAGRAMS)

NO SCALE

E-77

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION / CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION | DATE PLOTTED => 02-FEB-2010
08-10-09 | TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1264	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

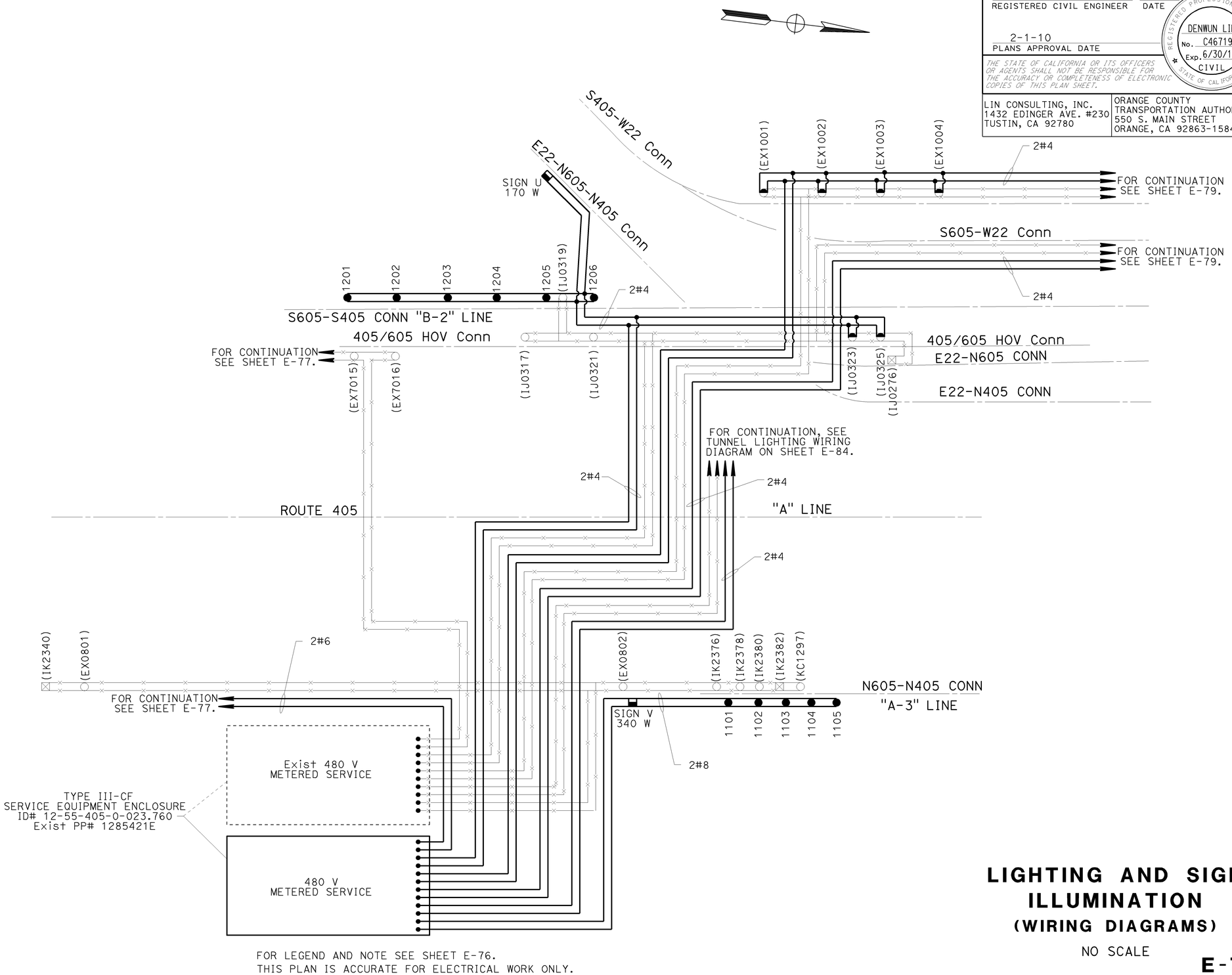
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



FOR LEGEND AND NOTE SEE SHEET E-76.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION
(WIRING DIAGRAMS)

NO SCALE

E-78

REVISED BY	CW	8/10/09
DATE REVISED		

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO
CALCULATED-DESIGNED BY
CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1265	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

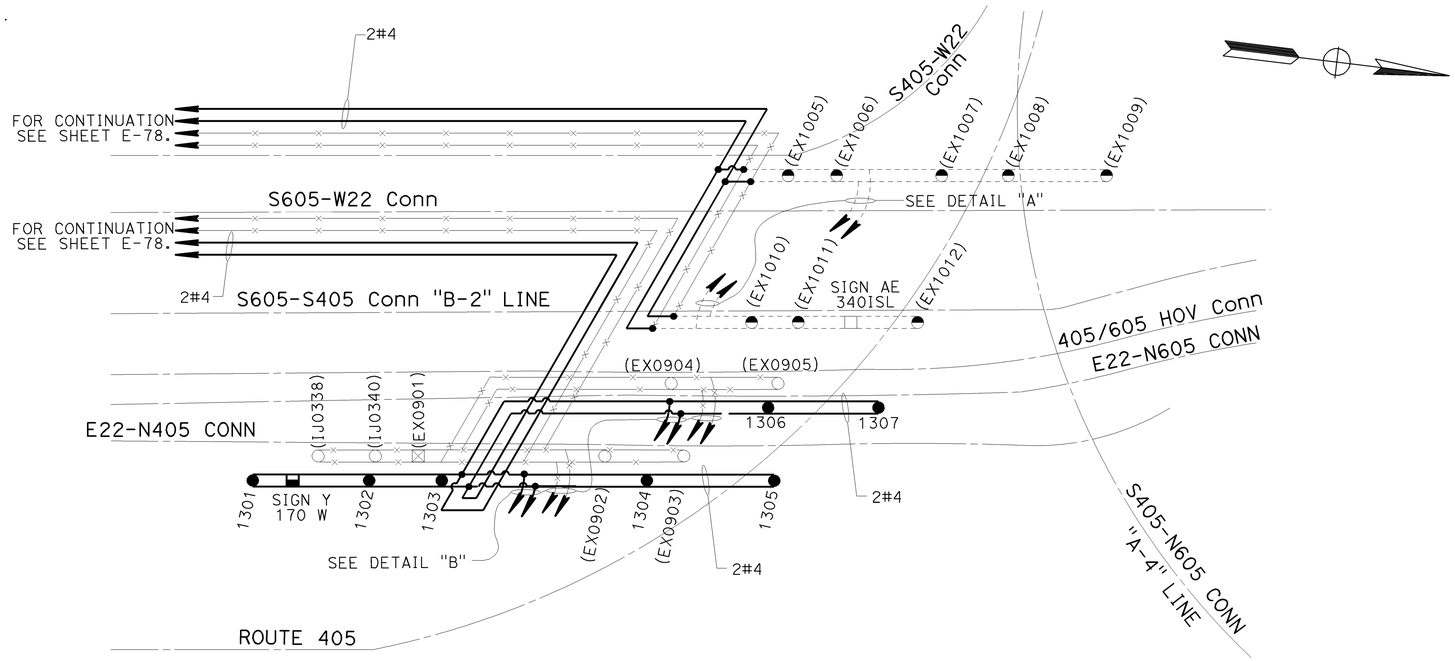
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

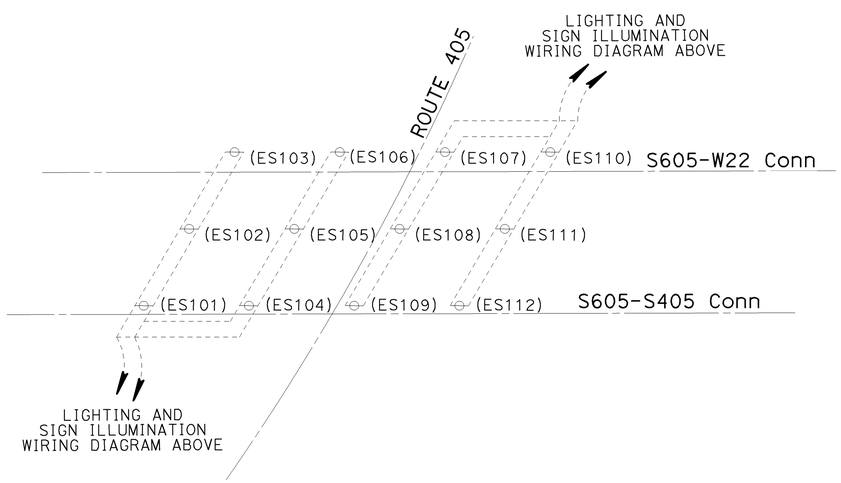
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

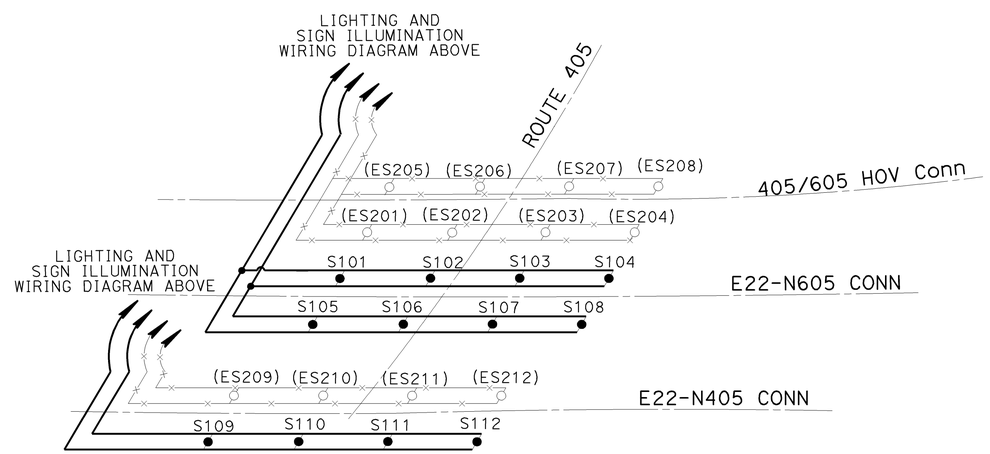
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



WIRING DIAGRAM
LIGHTING AND SIGN ILLUMINATION



DETAIL "A"
UNDERCROSSING LIGHTING WIRING DIAGRAM
S605-W22 Conn/ S605-S405 Conn



DETAIL "B"
UNDERCROSSING LIGHTING WIRING DIRAGRAM
E22-N605 Conn/ E22-N405 Conn

FOR LEGEND AND NOTE SEE SHEET E-76.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION
(WIRING DIAGRAMS)

NO SCALE

E-79

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY:

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 02-FEB-2010 | TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1266	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

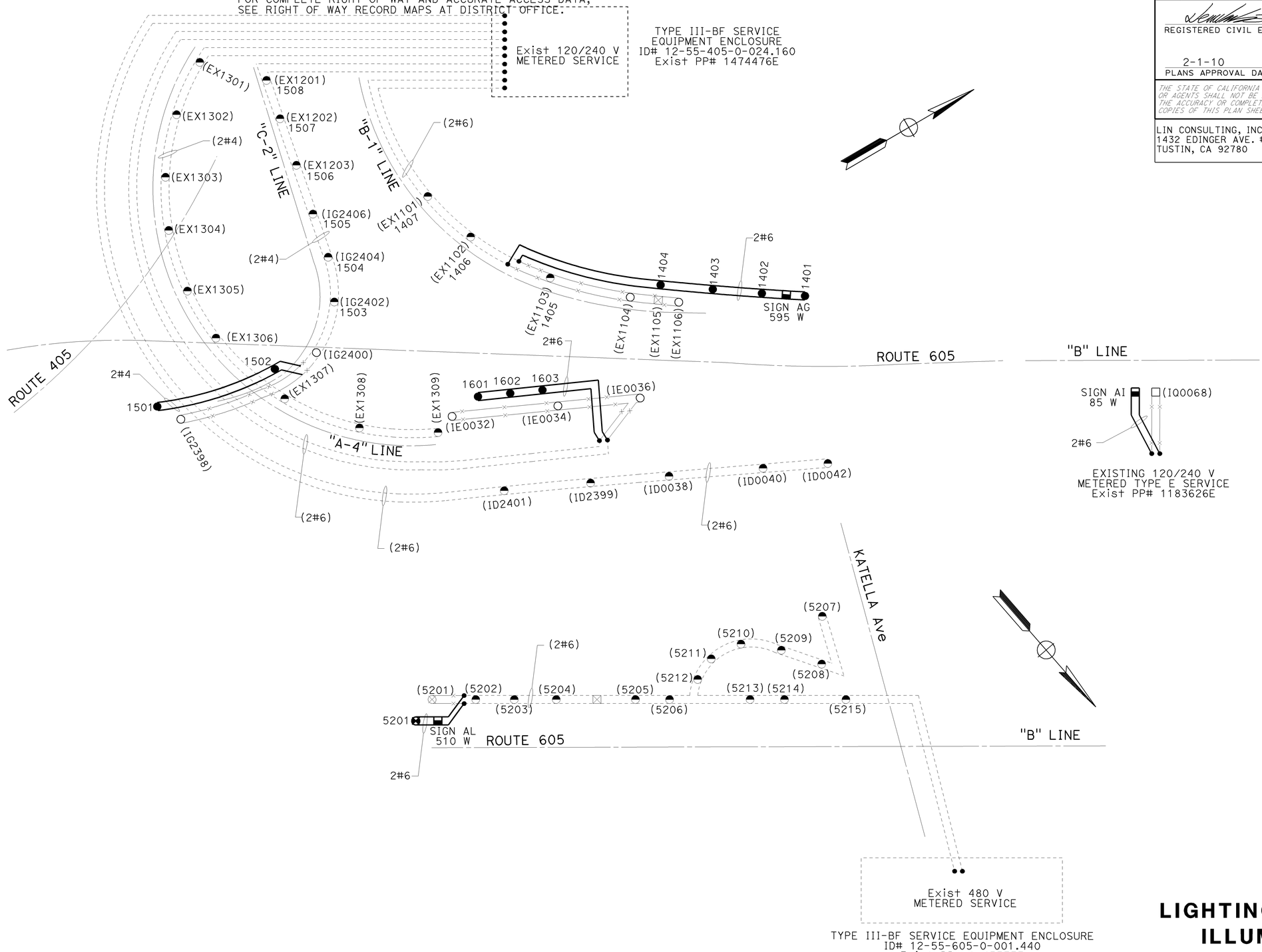
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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



FOR LEGEND SEE SHEET E-76.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING AND SIGN ILLUMINATION
(WIRING DIAGRAMS)

NO SCALE

E-80

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:05

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1267	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

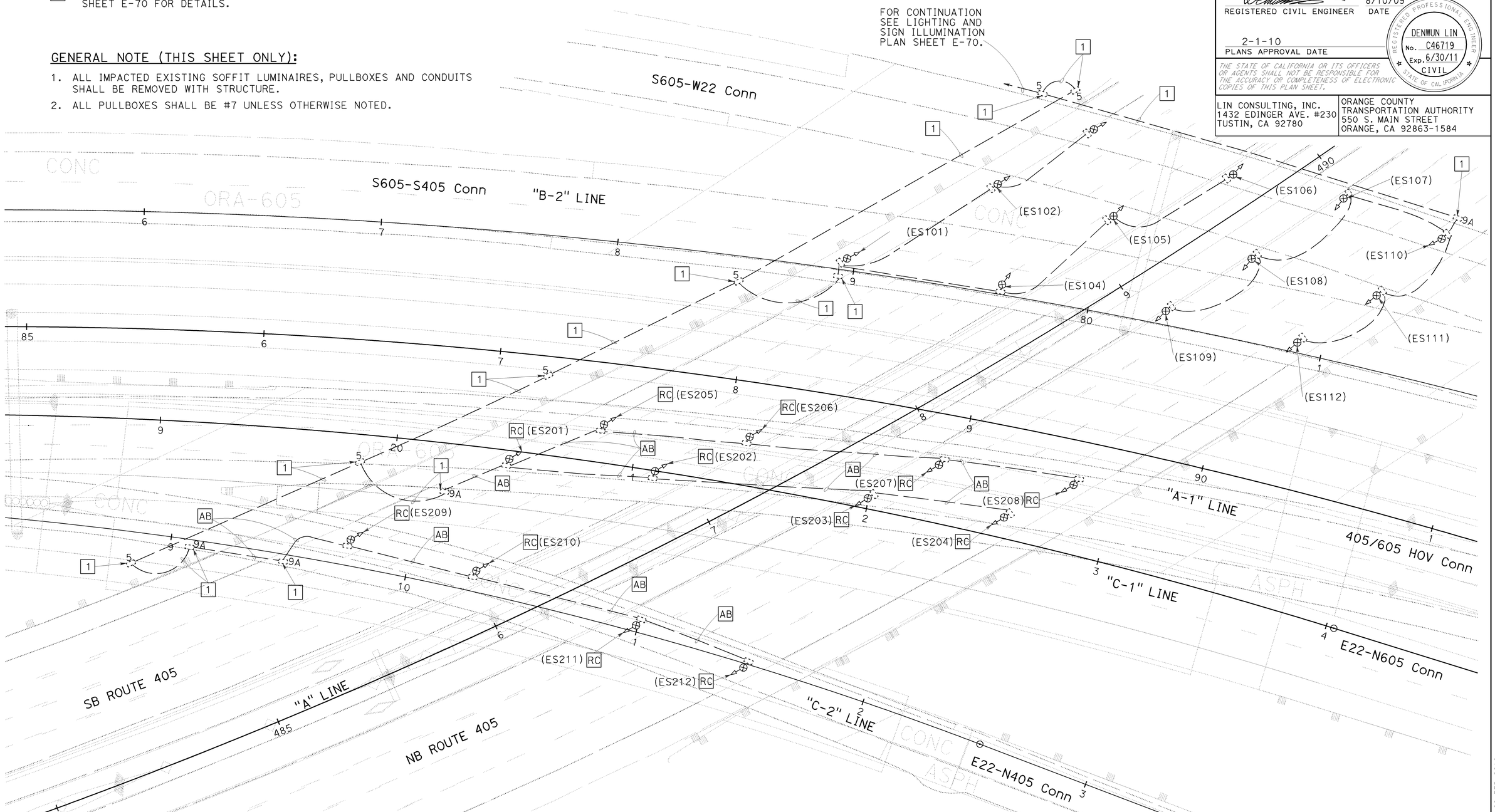
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES (THIS SHEET ONLY):

1 FOR REFERENCE ONLY. SEE LIGHTING AND SIGN ILLUMINATION PLAN SHEET E-70 FOR DETAILS.

GENERAL NOTE (THIS SHEET ONLY):

1. ALL IMPACTED EXISTING SOFFIT LUMINAIRES, PULLBOXES AND CONDUITS SHALL BE REMOVED WITH STRUCTURE.
2. ALL PULLBOXES SHALL BE #7 UNLESS OTHERWISE NOTED.



FOR WIRING DIAGRAM SEE SHEET E-79.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING
(REMOVAL)

SCALE: 1" = 20'

E-81

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR DENWUN LIN	VICENTE ENCARNACION CHARLOTTE WU TIMMY TO
Caltrans	CALCULATED-DESIGNED BY / CHECKED BY	REVISED BY CW / DATE REVISED 8/10/09

LAST REVISION 08-10-09 DATE PLOTTED => 09-FEB-2010 TIME PLOTTED => 11:38

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1268	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

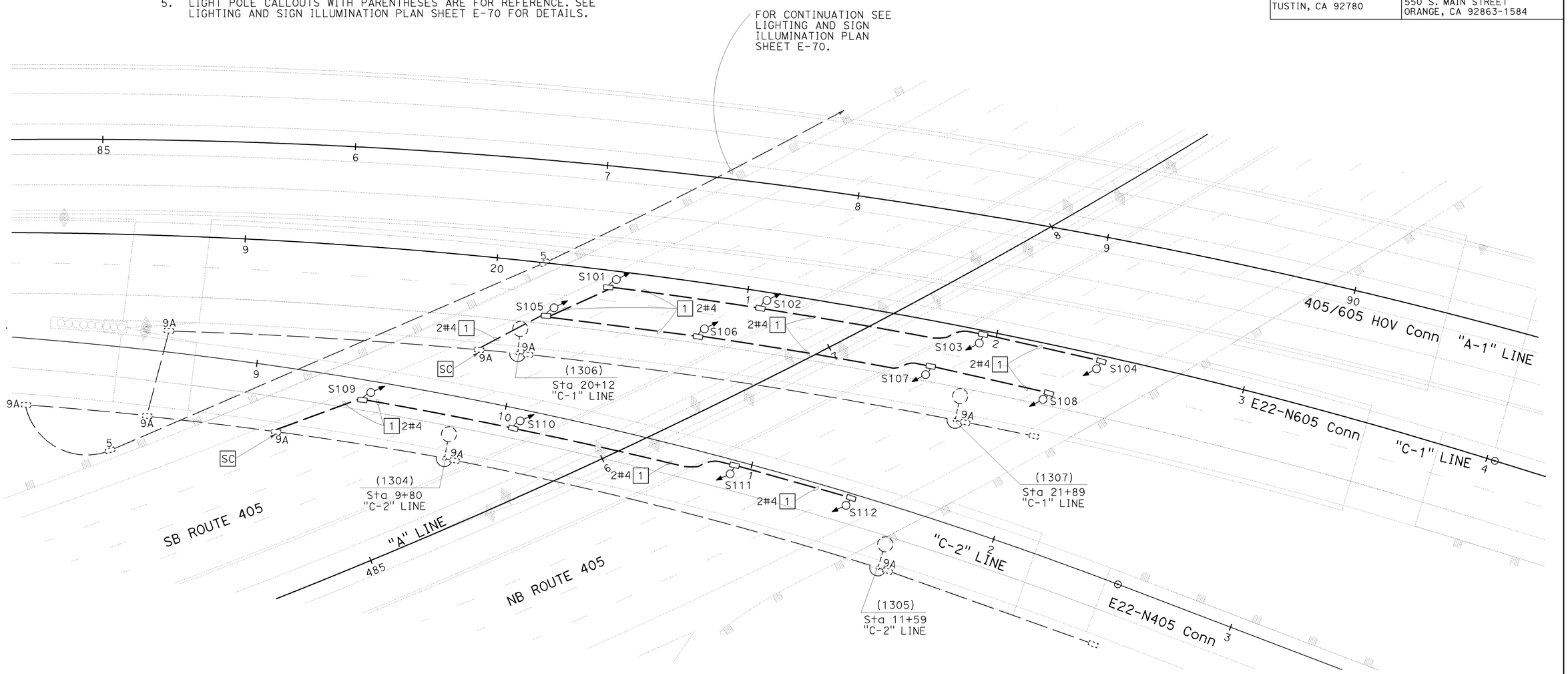
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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

CONSTRUCTION NOTES (THIS SHEET ONLY):

1. INSTALL CONDUIT IN BRIDGE STRUCTURE.
2. ALL NEW CONDUIT SHALL BE 2"C UNLESS OTHERWISE NOTED.
3. ALL PULLBOXES SHALL BE #7 UNLESS OTHERWISE NOTED.
4. LIGHTING POLE, PULL BOX AND CONDUIT SHOWN ON THIS SHEET ARE FOR REFERENCE ONLY UNLESS SPECIFIED OTHERWISE. SEE LIGHTING AND SIGN ILLUMINATION PLAN SHEET E-70 FOR DETAILS.
5. LIGHT POLE CALLOUTS WITH PARENTHESES ARE FOR REFERENCE. SEE LIGHTING AND SIGN ILLUMINATION PLAN SHEET E-70 FOR DETAILS.



FOR WIRING DIAGRAM SEE SHEET E-79.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING
(UNDERCROSSING)

SCALE: 1" = 20'

E-82

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 09:55
08-10-09

BORDER LAST REVISED 8/1/2008
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
USERNAME => s135318
DGN FILE => c07163ua082.dgn
CU 12235
EA 071631

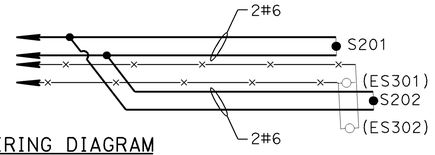
NOTE:

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

LEGEND (THIS SHEET ONLY):

- NEW SOFFIT LUMINAIRE
- EXISTING SOFFIT LUMINAIRE TO BE REMOVED
- SPLICE
- NEW CONDUCTOR
- EXISTING CONDUCTOR TO BE REMOVED

FOR CONTINUATION SEE WIRING DIAGRAM ON SHEET E-76.



WIRING DIAGRAM
UNDERCROSSING LIGHTING

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1269	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

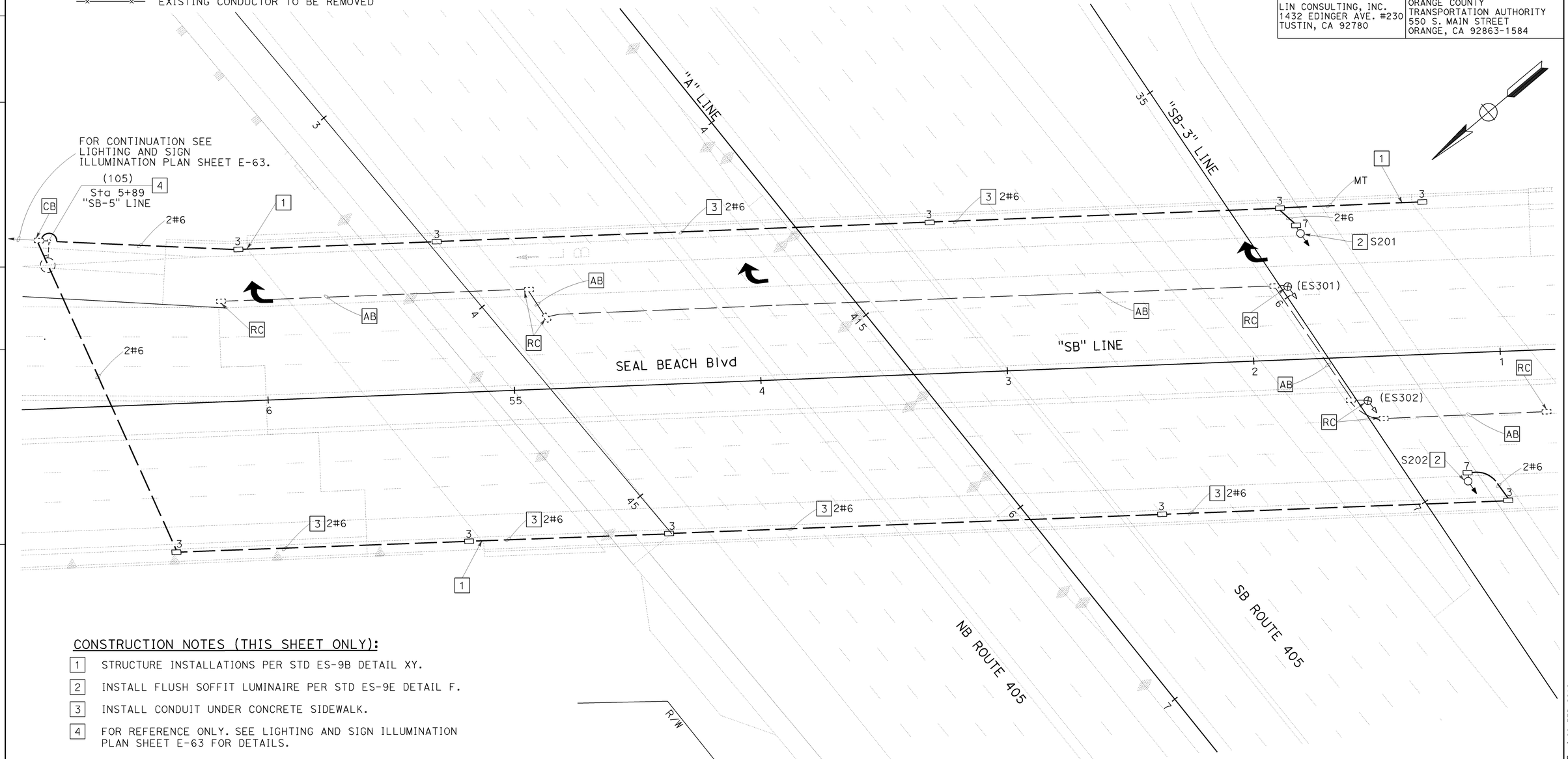
2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584



CONSTRUCTION NOTES (THIS SHEET ONLY):

1. STRUCTURE INSTALLATIONS PER STD ES-9B DETAIL XY.
2. INSTALL FLUSH SOFFIT LUMINAIRE PER STD ES-9E DETAIL F.
3. INSTALL CONDUIT UNDER CONCRETE SIDEWALK.
4. FOR REFERENCE ONLY. SEE LIGHTING AND SIGN ILLUMINATION PLAN SHEET E-63 FOR DETAILS.
5. ALL NEW CONDUIT SHALL BE 2"C UNLESS OTHERWISE NOTED.

GENERAL NOTE (THIS SHEET ONLY):

1. ALL EXISTING SOFFIT LUMAIRES AND CONDUITS SHALL BE REMOVED WITH REMOVING STRUCTURE PARTS.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING
(UNDERCROSSING)

SCALE: 1" = 20'

E-83

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 09:55

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1270	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

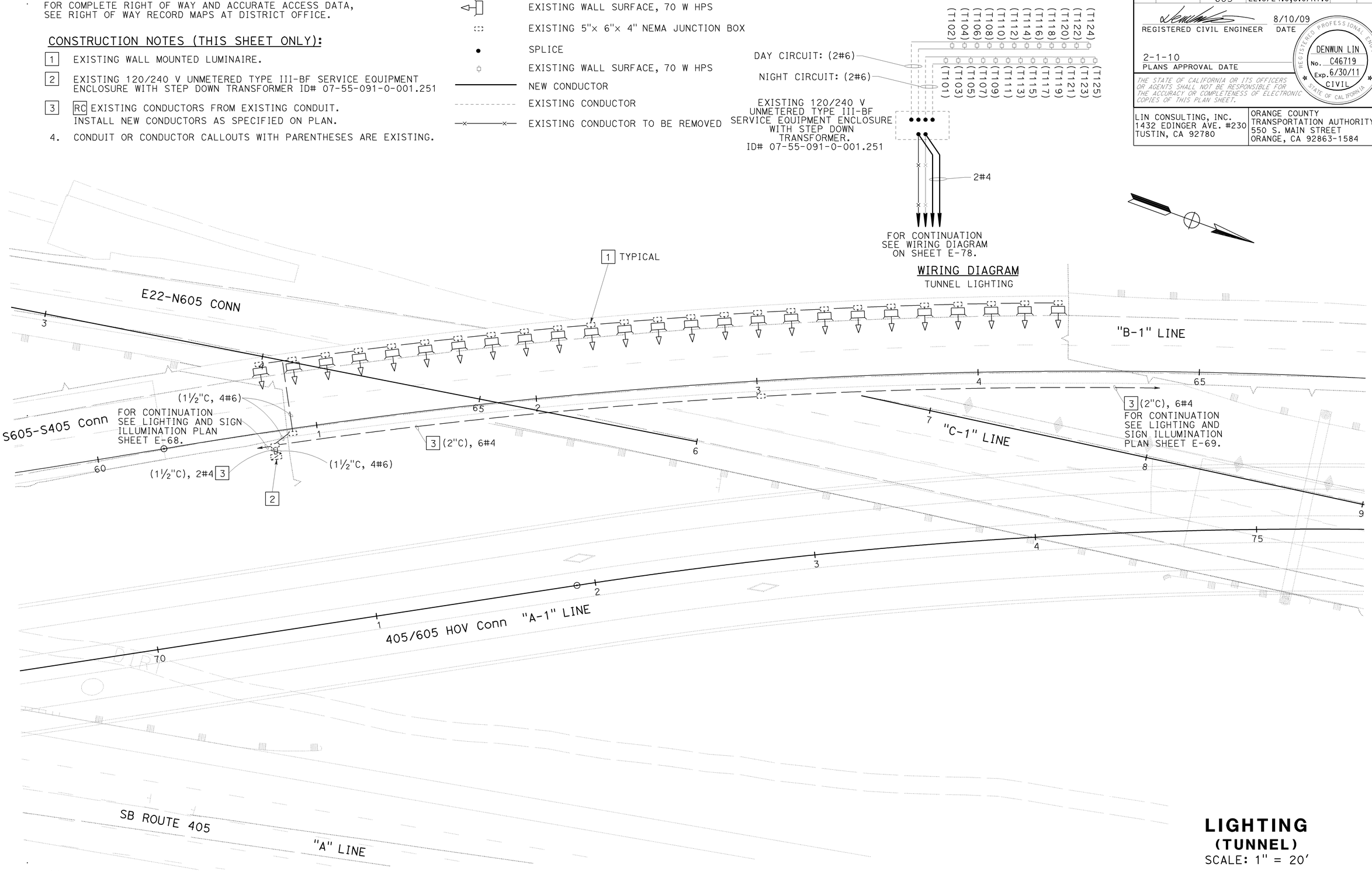
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET ONLY):

1. EXISTING WALL MOUNTED LUMINAIRE.
2. EXISTING 120/240 V UNMETERED TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH STEP DOWN TRANSFORMER ID# 07-55-091-0-001.251
3. RC EXISTING CONDUCTORS FROM EXISTING CONDUIT. INSTALL NEW CONDUCTORS AS SPECIFIED ON PLAN.
4. CONDUIT OR CONDUCTOR CALLOUTS WITH PARENTHESES ARE EXISTING.

LEGEND (THIS SHEET ONLY):

- EXISTING WALL SURFACE, 70 W HPS
- EXISTING 5"x 6"x 4" NEMA JUNCTION BOX
- SPLICE
- EXISTING WALL SURFACE, 70 W HPS
- NEW CONDUCTOR
- EXISTING CONDUCTOR
- EXISTING CONDUCTOR TO BE REMOVED



THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING
(TUNNEL)
SCALE: 1" = 20'

E-84

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY

REVISED BY: CW
DATE REVISED: 8/10/09

LAST REVISION DATE PLOTTED => 09-FEB-2010
08-10-09 TIME PLOTTED => 09:56

NOTE:

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

CONSTRUCTION NOTES (THIS SHEET ONLY):

1. INSTALL 2" CONDUIT ON TUNNEL WALL.
2. ALL NEW CONDUIT SHALL BE 2"C UNLESS OTHERWISE NOTED.
3. CONDUIT OR CONDUCTOR CALLOUTS WITH PARENTHESES ARE EXISTING.

LEGEND (THIS SHEET ONLY):

- EXISTING WALL SURFACE, 70 W HPS
- PROPOSED WALL SURFACE, 70 W HPS
- RELOCATED WALL SURFACE, 70 W HPS
- TRAFFIC FLOW
- JB 5"x 6"x 4" NEMA JUNCTION BOX (JB), SEE STANDARD PLAN ES-9A DETAIL W
- EXISTING 5"x 6"x 4" NEMA JUNCTION BOX
- SPLICE
- EXISTING WALL SURFACE, 70 W HPS
- EXISTING WALL SURFACE, 70 W HPS, TO BE RELOCATED
- NEW WALL SURFACE, 70 W HPS
- RELOCATED WALL SURFACE, 70 W HPS
- NEW CONDUCTOR
- EXISTING CONDUCTOR
- EXISTING CONDUCTOR TO BE REMOVED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1271	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

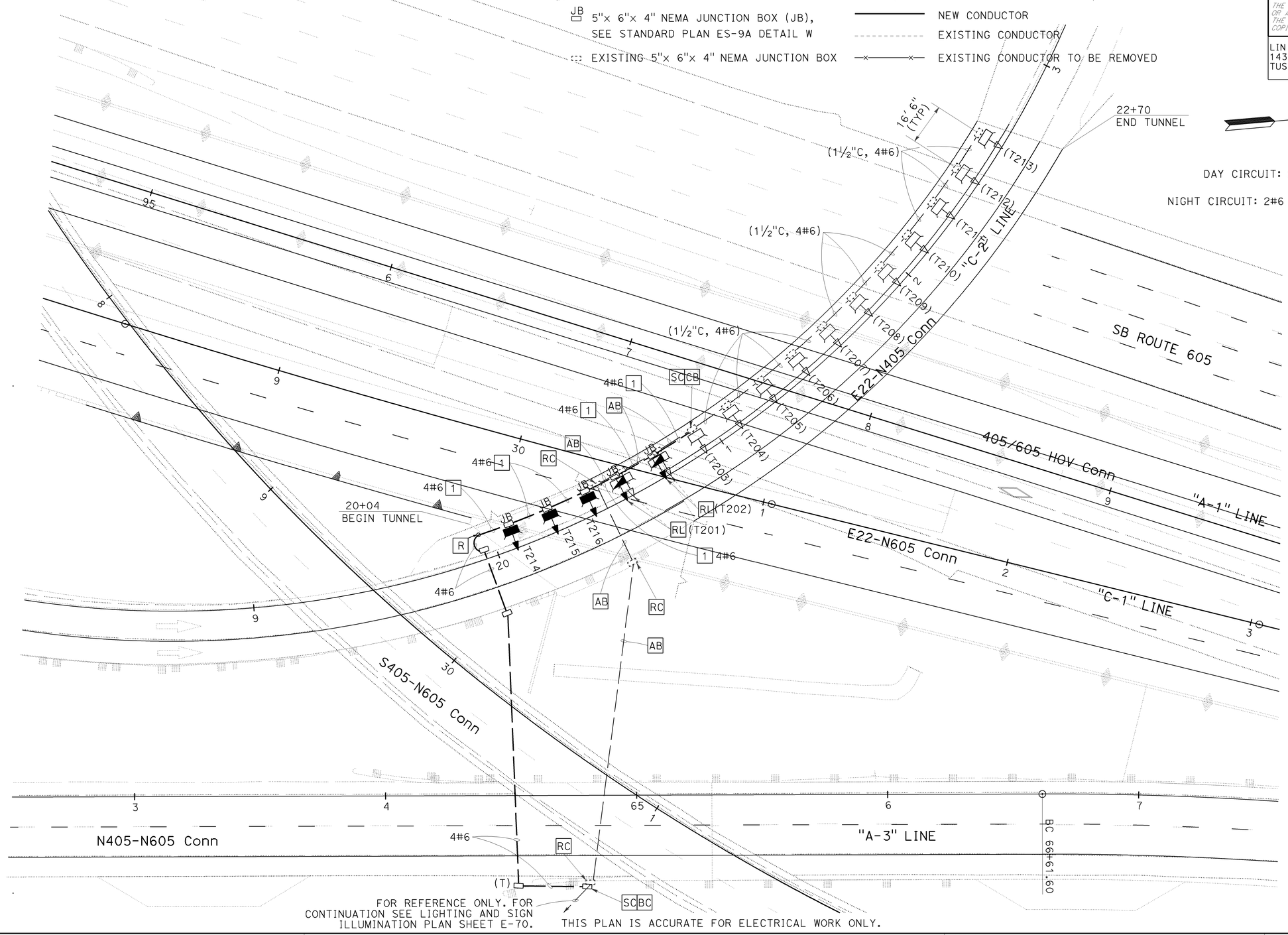
2-1-10 PLANS APPROVAL DATE

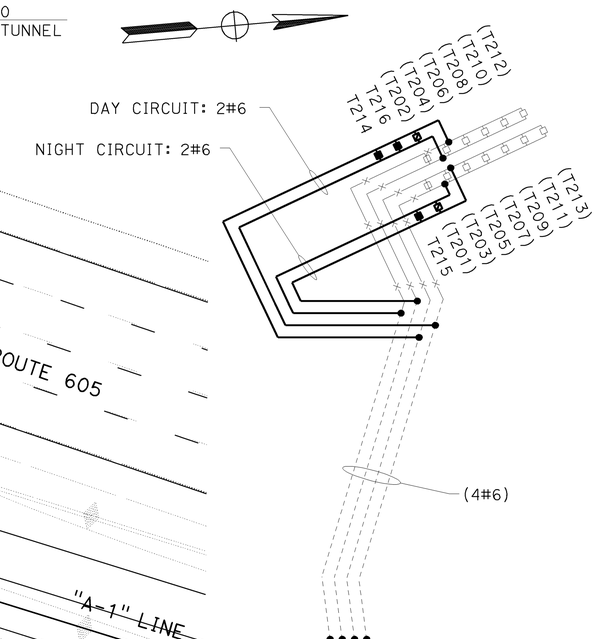
REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584





PROTECT EXISTING 120/240 V METERED TYPE E SERVICE EQUIPMENT WITH STEP DOWN TRANSFORMER IN-PLACE. Exist PP# 1182275E

WIRING DIAGRAM
TUNNEL LIGHTING

FOR REFERENCE ONLY. FOR CONTINUATION SEE LIGHTING AND SIGN ILLUMINATION PLAN SHEET E-70.

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

LIGHTING (TUNNEL)

SCALE: 1" = 20'

E-85

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU

CHECKED BY: TIMMY TO

REVISED BY: CW

DATE REVISED: 8/10/09

LAST REVISION: 08-10-09 DATE PLOTTED => 09-FEB-2010 TIME PLOTTED => 09:56

BORDER LAST REVISED 8/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME => s135318
DGN FILE => c07163ua085.dgn

CU 12235

EA 071631

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1272	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

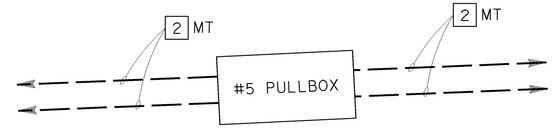
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

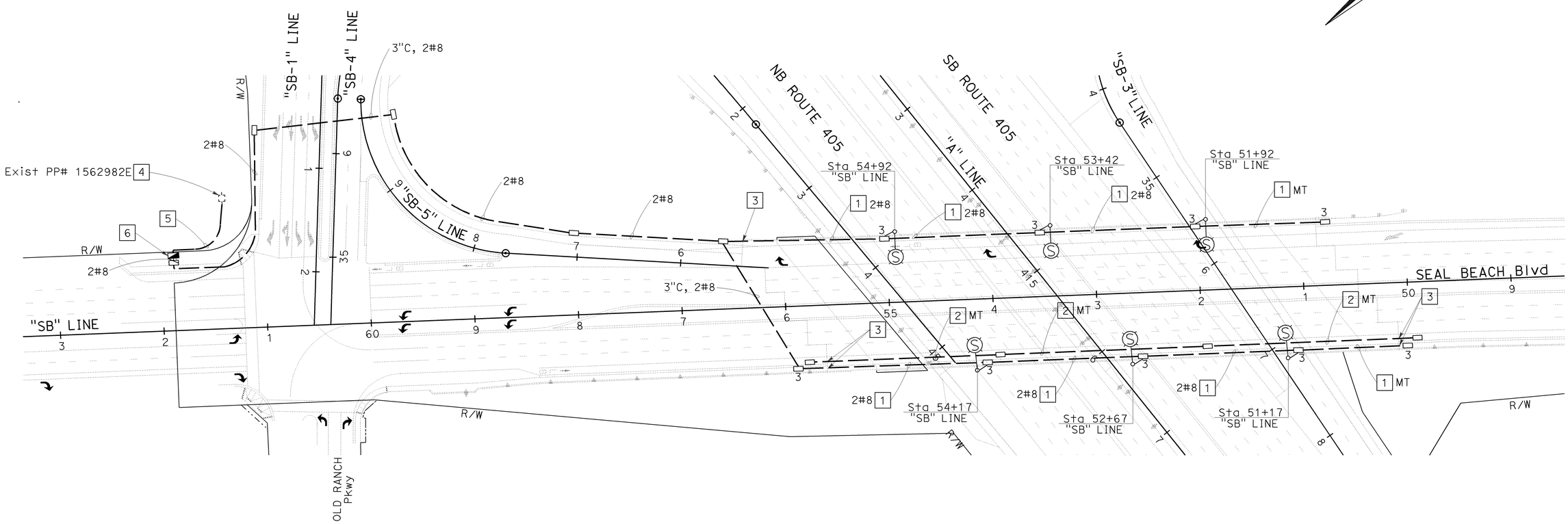
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

CONSTRUCTION NOTES (THIS SHEET ONLY):

1. INSTALL 2" LIGHTING CONDUIT UNDER CONCRETE SIDEWALK.
2. INSTALL 2-3" TYPE 3 CONDUIT UNDER CONCRETE SIDEWALK. SEE DETAIL "A" FOR PULLBOX CONNECTIONS.
3. STRUCTURE INSTALLATIONS PER STD ES-9A DETAIL XY.
4. INSTALL TYPE H RISER ON EXISTING POWER POLE.
5. INSTALL 3" CONDUIT PER POWER COMPANY'S REQUIREMENT. CONDUCTORS TO BE INSTALLED BY POWER COMPANY.
6. INSTALL 120/240 V METERED SERVICE IN TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH TYPE V PHOTOELECTRIC CONTROL.
   100 A, 240 V, 2P MAIN CB
   30 A, 240 V, 2P, CB CITY BRIDGE LIGHTING
7. ALL PULLBOXES SHALL BE #5 UNLESS OTHERWISE NOTED.
8. ALL NEW CONDUIT SHALL BE 2"C UNLESS OTHERWISE NOTED.



DETAIL "A"
NO SCALE



LIGHTING (CITY STREET)

SCALE: 1" = 50'

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-86

REVISED BY	DATE REVISED
CW	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 09:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1273	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

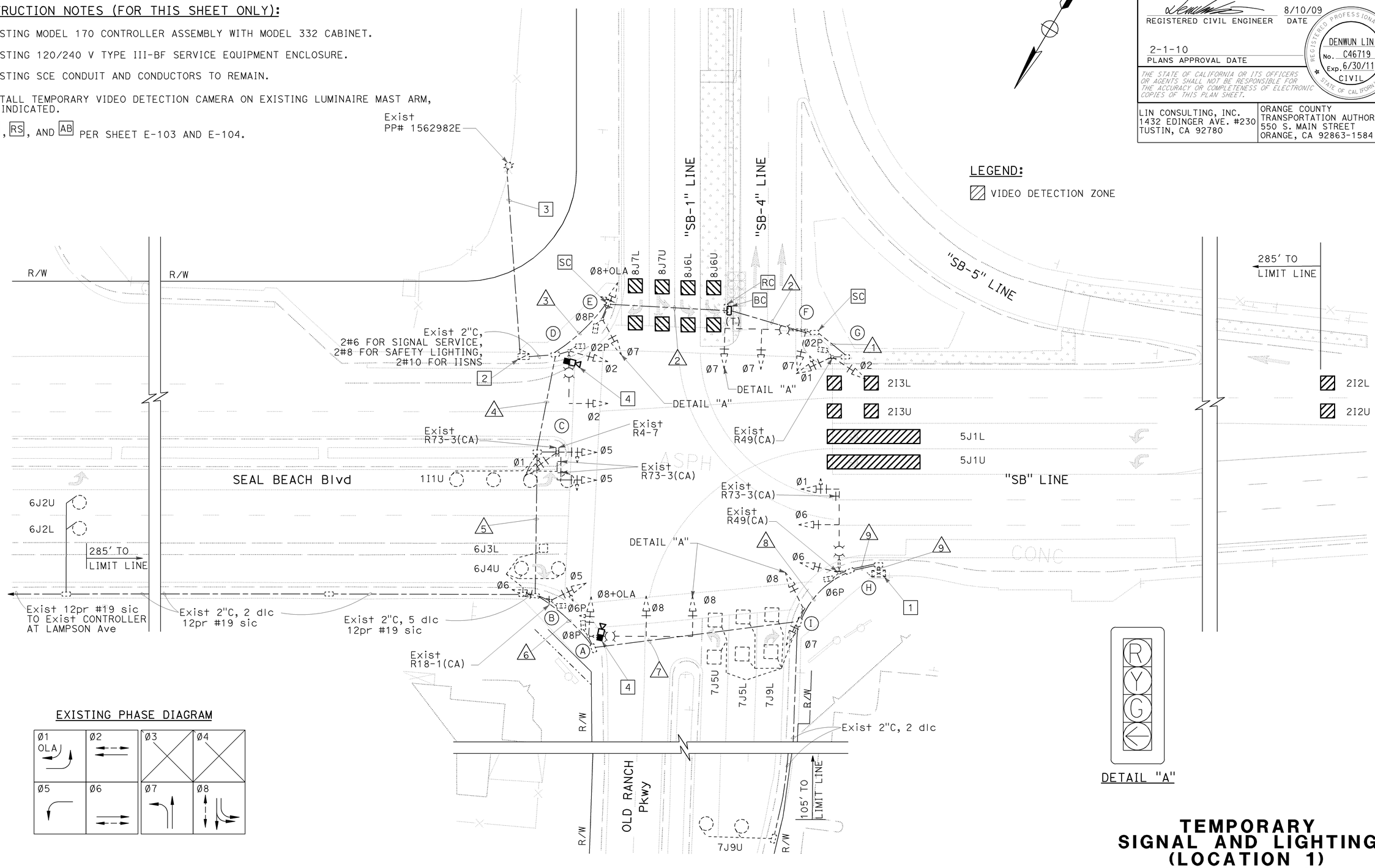
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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

CONSTRUCTION NOTES (FOR THIS SHEET ONLY):

1. EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
2. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
3. EXISTING SCE CONDUIT AND CONDUCTORS TO REMAIN.
4. INSTALL TEMPORARY VIDEO DETECTION CAMERA ON EXISTING LUMINAIRE MAST ARM, AS INDICATED.
5. RC, RS, AND AB PER SHEET E-103 AND E-104.



FOR POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-88.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1)
(STAGE 1A & 1B)

SCALE: 1" = 20'

E-87

REVISED BY	DATE REVISED
HK	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 09-FEB-2010 TIME PLOTTED => 09:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1274	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

EXISTING POLE AND EQUIPMENT SCHEDULE

No.	STANDARD Type	STANDARD SMA	STANDARD LMA	VEH SIG MTG Mast Arm	VEH SIG MTG Pole	PED SIG MTG	PPB Ø	PPB ARROW	HPS LUM	POLE LOC	IISNS
A	TYPE 27(E)	45'(E)	12'(E)	2-MAS(E)	SV-1-T(E)	SP-1-T(E)	6(E)	←	200 W(E)	EXISTING	Seal Beach Blvd (E)
B	1-A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	8(E)	→	-	EXISTING	-
C	TYPE 33(E)	10'(E)	-	MAS(E)	TV-2-T(E)	-	-	-	-	EXISTING	-
D	TYPE 17(E)	25'(E)	12'(E)	MAS(E)	SV-1-T(E)	SP-1-T(E)	8(E)	←	200 W(E)	EXISTING	Old Ranch Pky → ← 405 NORTH (E)
E	1-A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	2(E)	→	-	EXISTING	-
F	TYPE 27(E)	35'(E)	12'(E)	2-MAS(E)	SV-1-T(E)	-	2(E)	←	200 W(E)	EXISTING	Seal Beach Blvd (E)
G	1-A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	-	-	-	EXISTING	-
H	TYPE 24(E)	35'(E)	12'(E)	2-MAS(E)	SV-1-T(E)	SP-1-T(E)	-	-	200 W(E)	EXISTING	Old Ranch Pky → ← 405 NORTH (E)
I	1-A(E)	-	-	-	TV-2-T(E)	-	6(E)	→	-	EXISTING	-

ALL EQUIPMENT ARE TEMPORARY UNLESS OTHERWISE NOTED
(E) = EXISTING

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)								
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9
#14	Ø1	3(E)	3	3	3	3	3	3	3	3+3(E)
	Ø2	3(E)	3	3	3+3(E)	3+3(E)	3+3(E)	3+3(E)	3+3(E)	3+3(E)
	Ø5					3(E)	6(E)	6(E)	6(E)	6(E)
	Ø6						3(E)	3(E)	3(E)	6(E)
	Ø7		3	3+3(E)	3+3(E)	3+3(E)	3+3(E)	3+3(E)	3+3(E)	3+3(E)
	Ø8			3(E)	3(E)	3(E)	3(E)	6(E)	9(E)	9(E)
	Ø2P	2(E)	2	2	2+2(E)	2+2(E)	2+2(E)	2+2(E)	2+2(E)	2+2(E)
	Ø6P						2(E)	2(E)	4(E)	4(E)
	Ø8P			2(E)	2(E)	2(E)	2(E)	4(E)	4(E)	4(E)
	Ø2PPB		1	1+1(E)	1+1(E)	1+1(E)	1+1(E)	1+1(E)	1+1(E)	1+1(E)
	Ø6PPB							1(E)	2(E)	2(E)
	Ø8PPB				1(E)	1(E)	2(E)	2(E)	2(E)	2(E)
	PPB COMMON		1	1+1(E)	1+1(E)	1+1(E)	1+1(E)	1+1(E)	1+1(E)	1+1(E)
	TOTAL	8(E)	13	13+10(E)	13+16(E)	13+19(E)	13+28(E)	13+34(E)	13+40(E)	13+46(E)
AWG	CIRCUIT									
#8	LIGHTING		2	2	2(E)	2(E)	2(E)	2(E)	2(E)	
#6	SIGNAL SERVICE				2(E)	2(E)	2(E)	2(E)	2(E)	2(E)
#10	IISNS		2	2	2(E)	2(E)	2(E)	2(E)	2(E)	
DLC										
PHASE										
Ø1						1(E)	1(E)	1(E)	1(E)	1(E)
Ø6 ADV							2(E)	2(E)	2(E)	2(E)
Ø6							2(E)	2(E)	2(E)	2(E)
Ø7 ADV									1(E)	1(E)
Ø7									3(E)	3(E)
	TOTAL					1(E)	5(E)	5(E)	9(E)	9(E)
VIDEO CAMERA CABLE					1	1	1	2	2	2
INTERCONNECT 12PR #19							1(E)	1(E)	1(E)	1(E)
CONDUIT SIZE		2"(E)	2"(E)	2"(E)	2"(E)	2"(E)	2"(E)	2"(E)	2"(E)	2-3"(E)

ALL CONDUITS, CONDUCTORS AND CABLES ARE TEMPORARY UNLESS OTHERWISE NOTED.
(E) = EXISTING

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 1A & 1B)

SCALE 1"=20'

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-88

REVISED BY	HK
DATE REVISED	8/10/09
VICENTE ENCARNACION CHARLOTTE WU	TIMMY TO
CALCULATED-DESIGNED BY	
CHECKED BY	
CONSULTANT FUNCTIONAL SUPERVISOR	DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 02-FEB-2010 | TIME PLOTTED => 13:16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1275	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

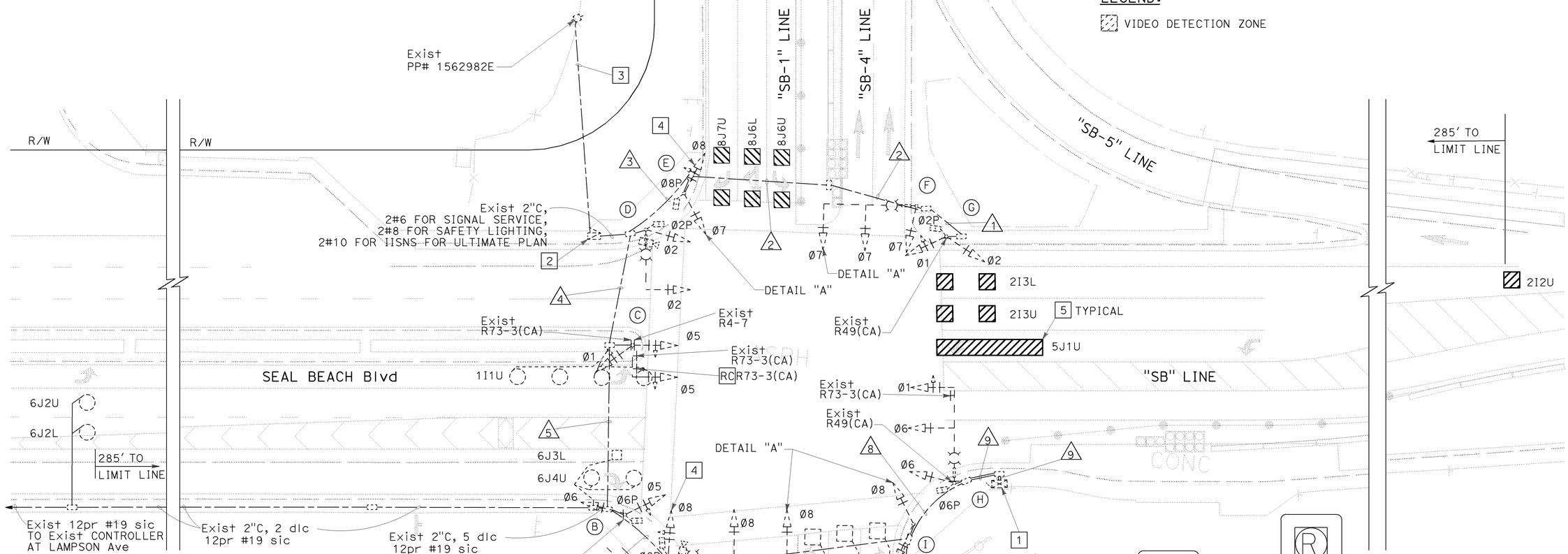
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

CONSTRUCTION NOTES (FOR THIS SHEET ONLY):

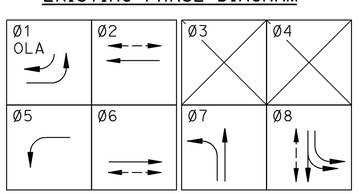
1. EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
2. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
3. EXISTING SCE CONDUIT AND CONDUCTORS.
4. COVER EXISTING SIGNAL HEAD AS INDICATED. SEE DETAIL "B".
5. ADJUST VIDEO DETECTION ZONE.
6. RC, RS, AND AB PER SHEET E-103 AND E-104.

LEGEND:

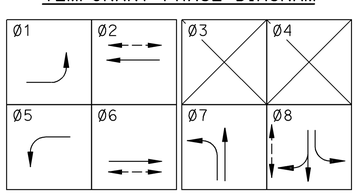
VIDEO DETECTION ZONE

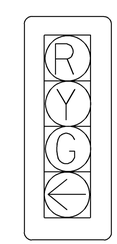


EXISTING PHASE DIAGRAM

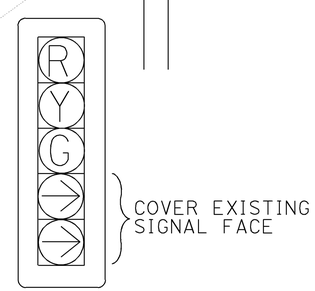


TEMPORARY PHASE DIAGRAM





DETAIL "A"



DETAIL "B"

FOR POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-90.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 2A)

SCALE: 1" = 20'

E-89

REVISED BY	DATE REVISED
HK	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 09-FEB-2010 TIME PLOTTED => 09:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1276	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

No.	STANDARD Type	STANDARD SMA	STANDARD LMA	VEH SIG MTG Mast Arm	VEH SIG MTG Pole	PED SIG MTG	PPB Ø	PPB ARROW	HPS LUM	POLE LOC	IISNS
A	TYPE 27(E)	45'(E)	12'(E)	2-MAS(E)	SV-1-T(E)	SP-1-T(E)	6(E)	←	200 W(E)	EXISTING	Seal Beach Blvd (E)
B	1-A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	8(E)	→	-	EXISTING	-
C	TYPE 33(E)	10'(E)	-	MAS(E)	TV-2-T(E)	-	-	-	-	EXISTING	-
D	TYPE 17(E)	25'(E)	12'(E)	MAS(E)	SV-1-T(E)	SP-1-T(E)	8(E)	←	200 W(E)	EXISTING	Old Ranch Pky → ← 405 NORTH (E)
E	1-A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	2(E)	→	-	EXISTING	-
F	TYPE 27(E)	35'(E)	12'(E)	2-MAS(E)	SV-1-T(E)	-	2(E)	←	200 W(E)	EXISTING	Seal Beach Blvd (E)
G	1-A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	-	-	-	EXISTING	-
H	TYPE 24(E)	35'(E)	12'(E)	2-MAS(E)	SV-1-T(E)	SP-1-T(E)	-	-	200 W(E)	EXISTING	Old Ranch Pky → ← 405 NORTH (E)
I	1-A(E)	-	-	-	TV-2-T(E)	-	6(E)	→	-	EXISTING	-

ALL EQUIPMENT ARE TEMPORARY UNLESS OTHERWISE NOTED
(E) = EXISTING

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)								
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9
#14	Ø1	3(E)	3(E)	3(E)	3(E)	3(E)	3(E)	3(E)	3(E)	6(E)
	Ø2	3(E)	3(E)	3(E)	6(E)	6(E)	6(E)	6(E)	6(E)	6(E)
	Ø5					3(E)	6(E)	6(E)	6(E)	6(E)
	Ø6						3(E)	3(E)	3(E)	6(E)
	Ø7		3(E)	6(E)	6(E)	6(E)	6(E)	6(E)	6(E)	6(E)
	Ø8			3(E)	3(E)	3(E)	3(E)	6(E)	9(E)	9(E)
	Ø2P	2(E)	2(E)	2(E)	4(E)	4(E)	4(E)	4(E)	4(E)	4(E)
	Ø6P						2(E)	2(E)	4(E)	4(E)
	Ø8P			2(E)	2(E)	2(E)	2(E)	4(E)	4(E)	4(E)
	Ø2PPB		1(E)	2(E)	2(E)	2(E)	2(E)	2(E)	2(E)	2(E)
	Ø6PPB							1(E)	2(E)	2(E)
	Ø8PPB				1(E)	1(E)	2(E)	2(E)	2(E)	2(E)
	PPB COMMON		1(E)	2(E)	2(E)	2(E)	2(E)	2(E)	2(E)	2(E)
	TOTAL	8(E)	13(E)	23(E)	29(E)	32(E)	41(E)	47(E)	53(E)	59(E)
AWG	CIRCUIT									
#8	LIGHTING		2(E)	2(E)	2(E)	2(E)	2(E)	2(E)	2(E)	
#6	SIGNAL SERVICE				2(E)	2(E)	2(E)	2(E)	2(E)	2(E)
#10	IISNS		2(E)	2(E)	2(E)	2(E)	2(E)	2(E)	2(E)	
DLC										
PHASE										
Ø1						1(E)	1(E)	1(E)	1(E)	1(E)
Ø6 ADV							2(E)	2(E)	2(E)	2(E)
Ø6							2(E)	2(E)	2(E)	2(E)
Ø7 ADV									1(E)	1(E)
Ø7									3(E)	3(E)
	TOTAL					1(E)	5(E)	5(E)	9(E)	9(E)
VIDEO CAMERA CABLE					1(E)	1(E)	1(E)	2(E)	2(E)	2(E)
INTERCONNECT 12PR #19							1(E)	1(E)	1(E)	1(E)
CONDUIT SIZE		2"(E)	2"(E)	2"(E)	2"(E)	2"(E)	2"(E)	2"(E)	2"(E)	2-3"(E)

ALL CONDUITS, CONDUCTORS AND CABLES ARE TEMPORARY UNLESS OTHERWISE NOTED.
(E) = EXISTING

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 2A)

SCALE 1"=20'

E-90

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY:

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 02-FEB-2010 | TIME PLOTTED => 13:16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1277	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES (FOR THIS SHEET ONLY):

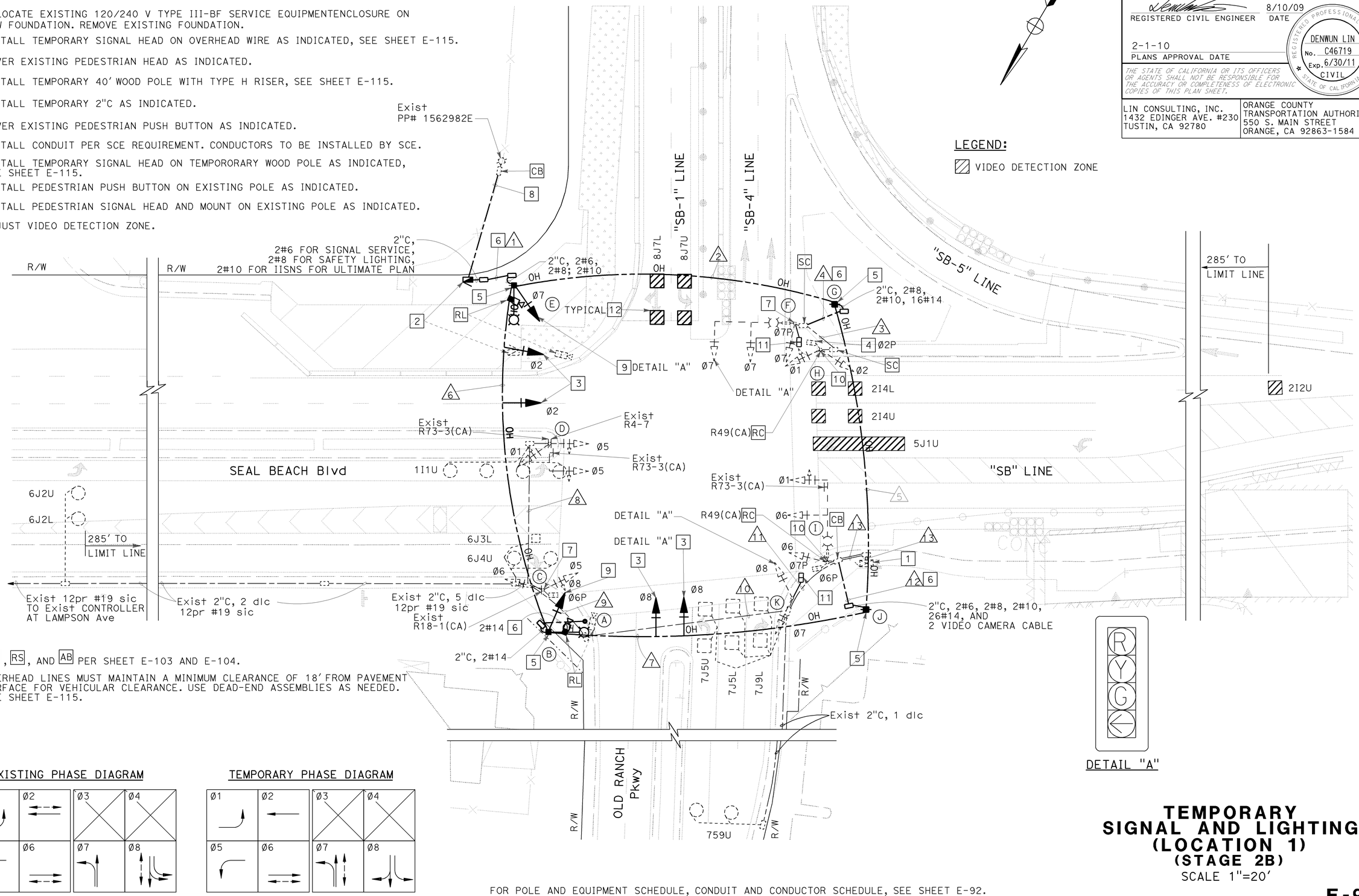
1. EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
2. RELOCATE EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENTENCLOSURE ON NEW FOUNDATION. REMOVE EXISTING FOUNDATION.
3. INSTALL TEMPORARY SIGNAL HEAD ON OVERHEAD WIRE AS INDICATED, SEE SHEET E-115.
4. COVER EXISTING PEDESTRIAN HEAD AS INDICATED.
5. INSTALL TEMPORARY 40' WOOD POLE WITH TYPE H RISER, SEE SHEET E-115.
6. INSTALL TEMPORARY 2"C AS INDICATED.
7. COVER EXISTING PEDESTRIAN PUSH BUTTON AS INDICATED.
8. INSTALL CONDUIT PER SCE REQUIREMENT. CONDUCTORS TO BE INSTALLED BY SCE.
9. INSTALL TEMPORARY SIGNAL HEAD ON TEMPORORARY WOOD POLE AS INDICATED, SEE SHEET E-115.
10. INSTALL PEDESTRIAN PUSH BUTTON ON EXISTING POLE AS INDICATED.
11. INSTALL PEDESTRIAN SIGNAL HEAD AND MOUNT ON EXISTING POLE AS INDICATED.
12. ADJUST VIDEO DETECTION ZONE.

NOTE:

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

LEGEND:

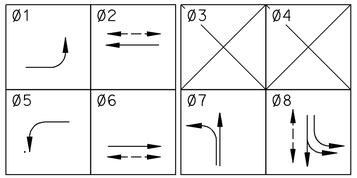
VIDEO DETECTION ZONE



13. RC, RS, AND AB PER SHEET E-103 AND E-104.
14. OVERHEAD LINES MUST MAINTAIN A MINIMUM CLEARANCE OF 18' FROM PAVEMENT SURFACE FOR VEHICULAR CLEARANCE. USE DEAD-END ASSEMBLIES AS NEEDED. SEE SHEET E-115.

DETAIL "A"

EXISTING PHASE DIAGRAM



TEMPORARY PHASE DIAGRAM

FOR POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-92.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 2B)

SCALE 1"=20'

E-91

REVISED BY	DATE REVISED
HK	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 13:17

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1278	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

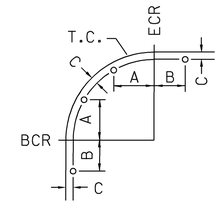
ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD Type	STANDARD Sig M.A.	STANDARD Lum M.A.	VEH SIG MTG Mast Arm	VEH SIG MTG Pole	PED SIG MTG	PPB Ø	PPB ARROW	HPS LUM	POLE LOC. (ft) A	POLE LOC. (ft) B	POLE LOC. (ft) C	IISNS
A	PPB POST	-	-	-	-	-	6	←	-	10′	-	-	-
B	WOOD POLE	-	12′	-	SV-2-TA	-	-	-	200W	6′	-	15.0′	-
C	1-A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	-	-	-	EXISTING			-
D	TYPE 33(E)	-	-	-	-	-	-	-	-	EXISTING			-
E	WOOD POLE	-	12′	-	SV-1-T	-	-	-	200W	-	3′	8.5′	-
F	TYPE 24(E)	35′(E)	12′(E)	2-MAS(E)	SV-1-T(E)	-	2(C)	←(C)	200W(E)	EXISTING			Seal Beach Blvd (E)
G	WOOD POLE	-	-	-	-	-	-	-	-	3′	-	30.0′	-
H	1-A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	7	→	-	EXISTING			-
I	TYPE 24(E)	35′(E)	12′(E)	2-MAS(E)	SV-1-T(E)	SP-1-T(E)	7	←	200W(E)	EXISTING			Old Ranch Pky → ← 405 NORTH (E)
J	WOOD POLE	-	-	-	-	-	-	-	-	-	3′	19.0′	-
K	1-A(E)	-	-	-	TV-2-T(E)	-	6(E)	→	-	EXISTING			-

ALL EQUIPMENT ARE TEMPORARY UNLESS OTHERWISE NOTED
(E) = EXISTING

(C) = COVER EXISTING



Note:
"C" SHALL BE 2.5′
UNLESS OTHERWISE NOTED

POLE LOCATION
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)												
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10	11	12	13
#14	Ø1			3	3	3			3(E)	3(E)	3(E)	3(E)	3	3+3(E)
	Ø2			3	3	3	3	3					6	6
	Ø5								3(E)	6(E)	6(E)	6(E)		6(E)
	Ø6									3(E)	3(E)	3(E)		6(E)
	Ø7				3	3	3	3				3(E)	6	6+3(E)
	Ø8							3				3(E)	3	3+3(E)
	Ø2P			2	2	2							2	2
	Ø6P									2(E)	2(E)	2(E)		4(E)
	Ø7P				2	2						2	2	4
	Ø8P									2(E)	2(E)	2(E)		2(E)
	Ø2PPB				1	1							1	1
	Ø6PPB							1				1(E)	1	1+1(E)
	Ø7PPB			1	1	1							1	2
	PPB COMMON			1	1	1		1		1(E)	1(E)	1(E)	1	1(E)
	TOTAL			10	16	16	6	11	6(E)	17(E)	17(E)	2+24(E)	26	28+29(E)
AWG	CIRCUIT													
#8	LIGHTING	2	2		2	2		2					2(E)	
#6	SIGNAL SERVICE	2	2			2							2(E)	2(E)
#10	IISNS	2	2		2	2							2(E)	
DLC														
PHASE														
Ø1										1(E)	1(E)	1(E)		1(E)
Ø6 ADV										2(E)	2(E)	2(E)		2(E)
Ø6										2(E)	2(E)	2(E)		2(E)
Ø7 ADV												1(E)		1(E)
Ø7												3(E)		3(E)
	TOTAL									5(E)	5(E)	9(E)		9(E)
VIDEO CAMERA CABLE							1	2					2	2
INTERCONNECT 12PR #19										1(E)	1(E)	1(E)		1(E)
CONDUIT SIZE		2"	OH	2"(E)	2"	OH	OH	OH	2"(E)	2"(E)	2"(E)	2"(E)	2"	2-3"(E)

ALL CONDUITS, CONDUCTORS AND CABLES ARE TEMPORARY UNLESS OTHERWISE NOTED.
(E) = EXISTING
OH = OVERHEAD WIRE

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1)
(STAGE 2B)
SCALE: 1" = 20′

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-92

REVISED BY	HK
DATE REVISED	8/10/09
CONSULTANT FUNCTIONAL SUPERVISOR	DENWUN LIN
CALCULATED-DESIGNED BY	VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY	TIMMY TO

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 09-FEB-2010 TIME PLOTTED => 09:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1279	1929

REGISTERED CIVIL ENGINEER — DATE 8/10/09

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL — STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

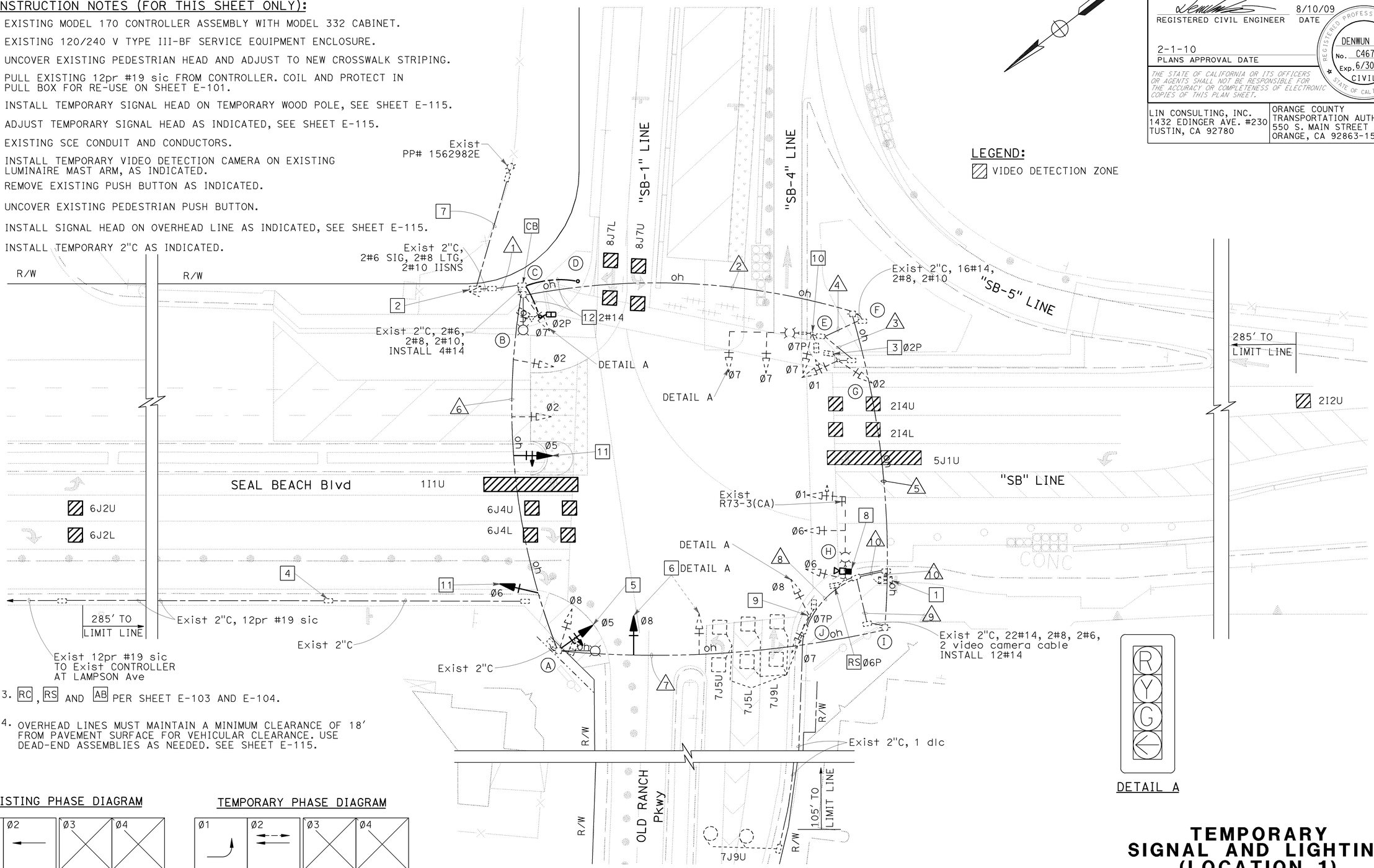
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

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

CONSTRUCTION NOTES (FOR THIS SHEET ONLY):

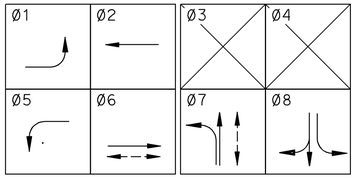
1. EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
2. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
3. UNCOVER EXISTING PEDESTRIAN HEAD AND ADJUST TO NEW CROSSWALK STRIPING.
4. PULL EXISTING 12pr #19 sic FROM CONTROLLER. COIL AND PROTECT IN PULL BOX FOR RE-USE ON SHEET E-101.
5. INSTALL TEMPORARY SIGNAL HEAD ON TEMPORARY WOOD POLE, SEE SHEET E-115.
6. ADJUST TEMPORARY SIGNAL HEAD AS INDICATED, SEE SHEET E-115.
7. EXISTING SCE CONDUIT AND CONDUCTORS.
8. INSTALL TEMPORARY VIDEO DETECTION CAMERA ON EXISTING LUMINAIRE MAST ARM, AS INDICATED.
9. REMOVE EXISTING PUSH BUTTON AS INDICATED.
10. UNCOVER EXISTING PEDESTRIAN PUSH BUTTON.
11. INSTALL SIGNAL HEAD ON OVERHEAD LINE AS INDICATED, SEE SHEET E-115.
12. INSTALL TEMPORARY 2"C AS INDICATED.



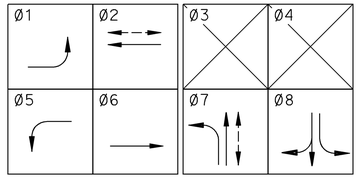
13. RC, RS AND AB PER SHEET E-103 AND E-104.

14. OVERHEAD LINES MUST MAINTAIN A MINIMUM CLEARANCE OF 18' FROM PAVEMENT SURFACE FOR VEHICULAR CLEARANCE. USE DEAD-END ASSEMBLIES AS NEEDED. SEE SHEET E-115.

EXISTING PHASE DIAGRAM



TEMPORARY PHASE DIAGRAM



FOR POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-94.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

DETAIL A

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 2C)

SCALE: 1" = 20'

E-93

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY:

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 09-FEB-2010 | TIME PLOTTED => 09:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1280	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

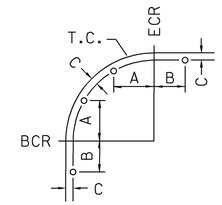
LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD Type	STANDARD SMA	STANDARD LMA	VEH SIG MTG Mast Arm	VEH SIG MTG Pole	PED SIG MTG	PPB Ø	PPB ARROW	HPS LUM	POLE LOC. (ft) A	POLE LOC. (ft) B	POLE LOC. (ft) C	IISNS
A	WOOD POLE(E)	-	12'(E)	-	SV-2-TA(E)	-	-	-	200 W(E)	EXISTING			-
B	1-A	-	-	-	-	SP-1-T	-	-	-	14'	-	-	-
C	WOOD POLE(E)	-	12'(E)	-	SV-1-T(E)	-	-	-	200 W(E)	EXISTING			-
D	1-A	-	-	-	-	-	2	→	-	13'	-	-	-
E	TYPE 24(E)	35'(E)	12'(E)	2-MAS(E)	SV-1-T(E)	SP-1-T(E)	2(E)	←	200 W(E)	EXISTING			Seal Beach Blvd (E)
F	WOOD POLE(E)	-	-	-	-	-	-	-	-	EXISTING			-
G	1A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	7(E)	→	-	EXISTING			-
H	TYPE 24(E)	35'(E)	12'(E)	2-MAS(E)	SV-1-T(E)	SP-1-T(E)	7(E)	←	200 W(E)	EXISTING			Old Ranch Pky → (E) / ← 405 NORTH
I	WOOD POLE(E)	-	-	-	-	-	-	-	-	EXISTING			-
J	1A(E)	-	-	-	TV-2-T(E)	SP-1-T(E)	6(R)	(R)→	-	EXISTING			-

ALL EQUIPMENT ARE TEMPORARY UNLESS OTHERWISE NOTED
(E) = EXISTING
(R) = REMOVE



Note:
"C" SHALL BE 2.5'
UNLESS OTHERWISE NOTED

POLE LOCATION
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)									
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10
#14	Ø1			3(E)	3(E)	3(E)				3(E)	3(E)
	Ø2			3(E)	3(E)	3(E)	3(E)	3(E)		6(E)	6(E)
	Ø5						3	6		6	6
	Ø6						3	3		3	3
	Ø7				3(E)	3(E)	3(E)	3(E)	3(E)	6(E)	9(E)
	Ø8							3(E)	3(E)	3(E)	6(E)
	Ø2P		2	2(E)	2(E)	2+2(E)				2+2(E)	2+2(E)
	Ø6P										
	Ø2PPB		1		1(E)	1+1(E)				1+1(E)	1+1(E)
	Ø6PPB								1(E)		1(E)
	PPB COMMON		1	1(E)	1(E)	1(E)			1(E)	1(E)	1(E)
	TOTAL		4	9(E)	13(E)	3+13(E)	6+6(E)	9+9(E)	8(E)	12+22(E)	12+29(E)
AWG	CIRCUIT										
#8	LIGHTING	2(E)	2(E)		2(E)	2(E)		2(E)		2(E)	
#6	SIGNAL SERVICE	2(E)	2(E)			2(E)				2(E)	2(E)
#10	IISNS	2(E)	2(E)		2(E)	2(E)				2(E)	
DLC											
PHASE											
Ø7 ADV									1(E)		1(E)
Ø7									3(E)		3(E)
	TOTAL								4(E)		4(E)
VIDEO CAMERA CABLE							1(E)	2(E)		2(E)	2(E)
CONDUIT SIZE		2"(E)	OH(E)	2"(E)	2"(E)	OH(E)	OH(E)	OH(E)	2"(E)	2"(E)	2-3"(E)

ALL CONDUITS, CONDUCTORS AND CABLES ARE TEMPORARY UNLESS OTHERWISE NOTED.
(E) = EXISTING
OH = OVERHEAD LINE

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 2C)

SCALE 1"=20'

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-94

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:17

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1281	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES (FOR THIS SHEET ONLY):

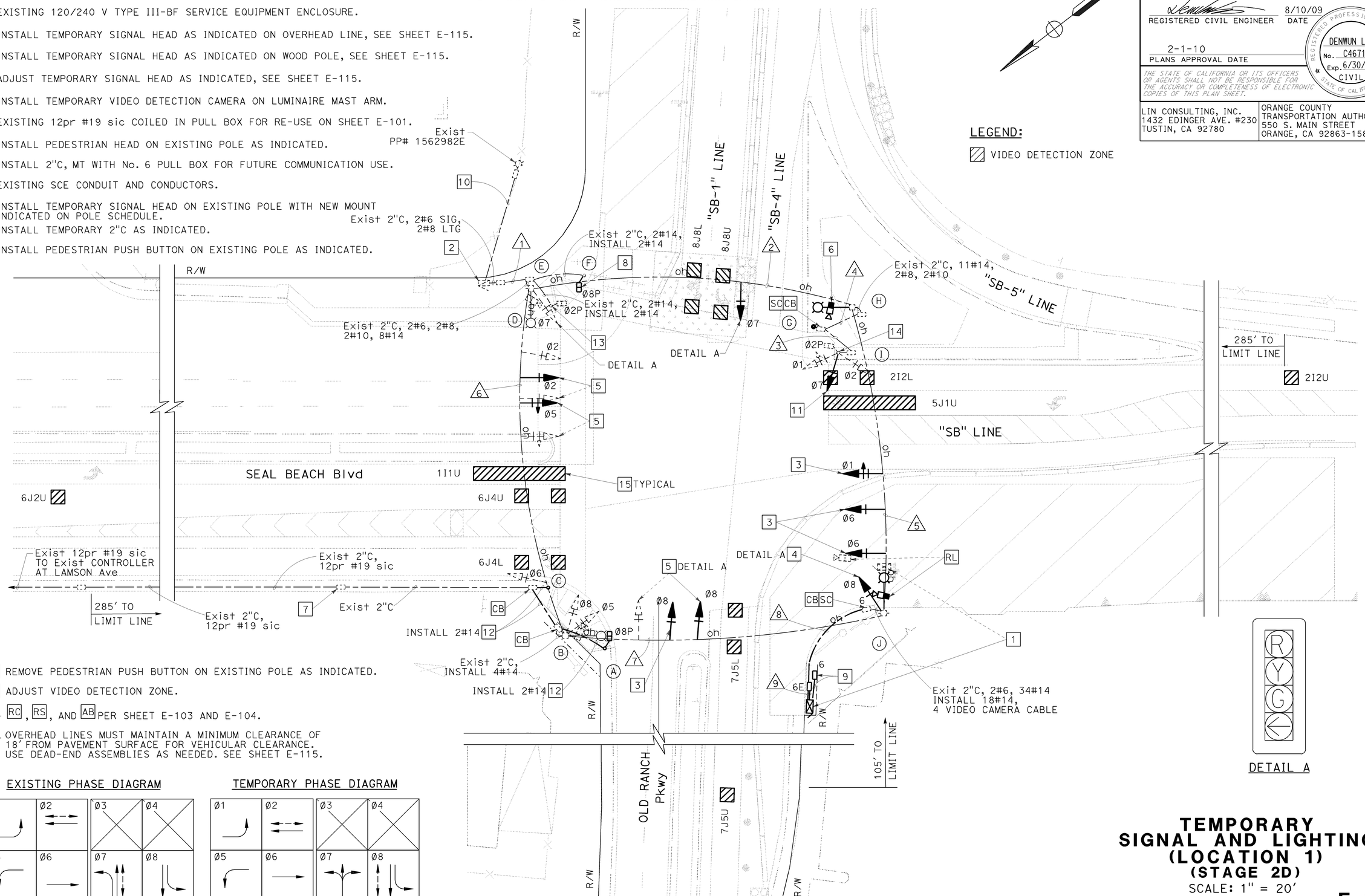
1. RELOCATE EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
2. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
3. INSTALL TEMPORARY SIGNAL HEAD AS INDICATED ON OVERHEAD LINE, SEE SHEET E-115.
4. INSTALL TEMPORARY SIGNAL HEAD AS INDICATED ON WOOD POLE, SEE SHEET E-115.
5. ADJUST TEMPORARY SIGNAL HEAD AS INDICATED, SEE SHEET E-115.
6. INSTALL TEMPORARY VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM.
7. EXISTING 12pr #19 sic COILED IN PULL BOX FOR RE-USE ON SHEET E-101.
8. INSTALL PEDESTRIAN HEAD ON EXISTING POLE AS INDICATED.
9. INSTALL 2"C, MT WITH No. 6 PULL BOX FOR FUTURE COMMUNICATION USE.
10. EXISTING SCE CONDUIT AND CONDUCTORS.
11. INSTALL TEMPORARY SIGNAL HEAD ON EXISTING POLE WITH NEW MOUNT INDICATED ON POLE SCHEDULE.
12. INSTALL TEMPORARY 2"C AS INDICATED.
13. INSTALL PEDESTRIAN PUSH BUTTON ON EXISTING POLE AS INDICATED.

NOTE:

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

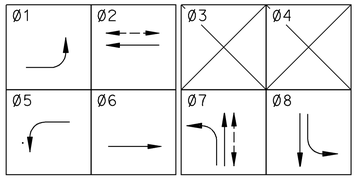
LEGEND:

VIDEO DETECTION ZONE

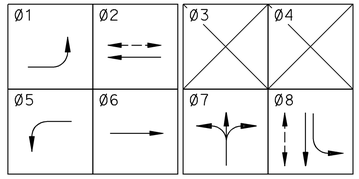


14. REMOVE PEDESTRIAN PUSH BUTTON ON EXISTING POLE AS INDICATED.
15. ADJUST VIDEO DETECTION ZONE.
16. RC, RS, AND AB PER SHEET E-103 AND E-104.
17. OVERHEAD LINES MUST MAINTAIN A MINIMUM CLEARANCE OF 18' FROM PAVEMENT SURFACE FOR VEHICULAR CLEARANCE. USE DEAD-END ASSEMBLIES AS NEEDED. SEE SHEET E-115.

EXISTING PHASE DIAGRAM



TEMPORARY PHASE DIAGRAM



DETAIL A

FOR POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-96.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 2D)

SCALE: 1" = 20'

E-95

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO
CALCULATED-DESIGNED BY
CHECKED BY
CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 09:56

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1282	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

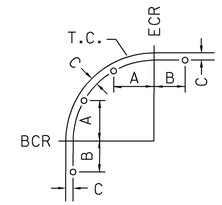
LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD			VEH SIG MTG		PED SIG	PPB		HPS LUM	POLE LOC. (ft)		
	Type	SMA	LMA	Mast Arm	Pole	MTG	Ø	ARROW		A	B	C
A	1-A	-	-	-	-	SP-1-T	-	-	-	5	-	-
B	WOOD POLE(E)	-	12′(E)	-	SV-2-TA(E)	-	-	-	200 W(E)	EXISTING		
C	1-A	-	-	-	-	-	8	→	-	4	-	-
D	1-A(E)	-	-	-	-	SP-1-T(E)	8	←	-	EXISTING		
E	WOOD POLE(E)	-	12′(E)	-	SV-1-T(E)	-	-	-	200 W(E)	EXISTING		
F	1-A(E)	-	-	-	-	SP-1-T	2(E)	→	-	EXISTING		
G	PPB POST	-	-	-	-	-	2	←	-	-	2.5	-
H	WOOD POLE(E)	-	12′	-	-	-	-	-	200 W	EXISTING		
I	1-A(E)	-	-	-	TV-3-T	SP-1-T(E)	-	-	-	EXISTING		
J	WOOD POLE(E)	-	12′	-	SV-1-T	-	-	-	200 W	EXISTING		

ALL EQUIPMENT ARE TEMPORARY UNLESS OTHERWISE NOTED
(E) = EXISTING



Note:
"C" SHALL BE 2.5′
UNLESS OTHERWISE NOTED

POLE LOCATION
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)								
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9
#14	Ø1			3(E)	3(E)	3+3(E)			6	6
	Ø2			3(E)	3(E)	3(E)	3(E)	3(E)	6	6
	Ø5						3(E)	6(E)	6	6
	Ø6					3	3(E)	3(E)	6	6
	Ø7			3	3(E)	3+3(E)	3(E)	3(E)	9	9
	Ø8							3(E)	6	6
	Ø2P		2(E)	2(E)		4(E)			4	4
	Ø8P		2			2		2	4	4
	Ø2PPB		1(E)		1(E)	2(E)			2	2
	Ø8PPB		1			1		1	2	2
	PPB COMMON		1(E)		1(E)	1(E)		1	1	1
	TOTAL		3+4(E)	3+8(E)	11(E)	12+16(E)	12(E)	4+18(E)	52	52
AWG	CIRCUIT									
#8	LIGHTING	2(E)	2(E)			2(E)		2(E)		
#6	SIGNAL SERVICE	2(E)	2(E)			2(E)			2	2
VIDEO CAMERA CABLE						1	1	2	4	4
CONDUIT SIZE		2"(E)	OH(E)	2"(E)	2"(E)	OH(E)	OH(E)	OH(E)	2"	2-3"(N)

ALL CONDUITS, CONDUCTORS AND CABLES ARE TEMPORARY UNLESS OTHERWISE NOTED.
(N) = NEW, FOR PERMANENT CONDITION
(E) = EXISTING
OH = OVERHEAD WIRE

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 2D)

NO SCALE

E-96

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY
CHECKED BY
REVISED BY: HK
DATE REVISED: 8/10/09
VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:20

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1283	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES (FOR THIS SHEET ONLY):

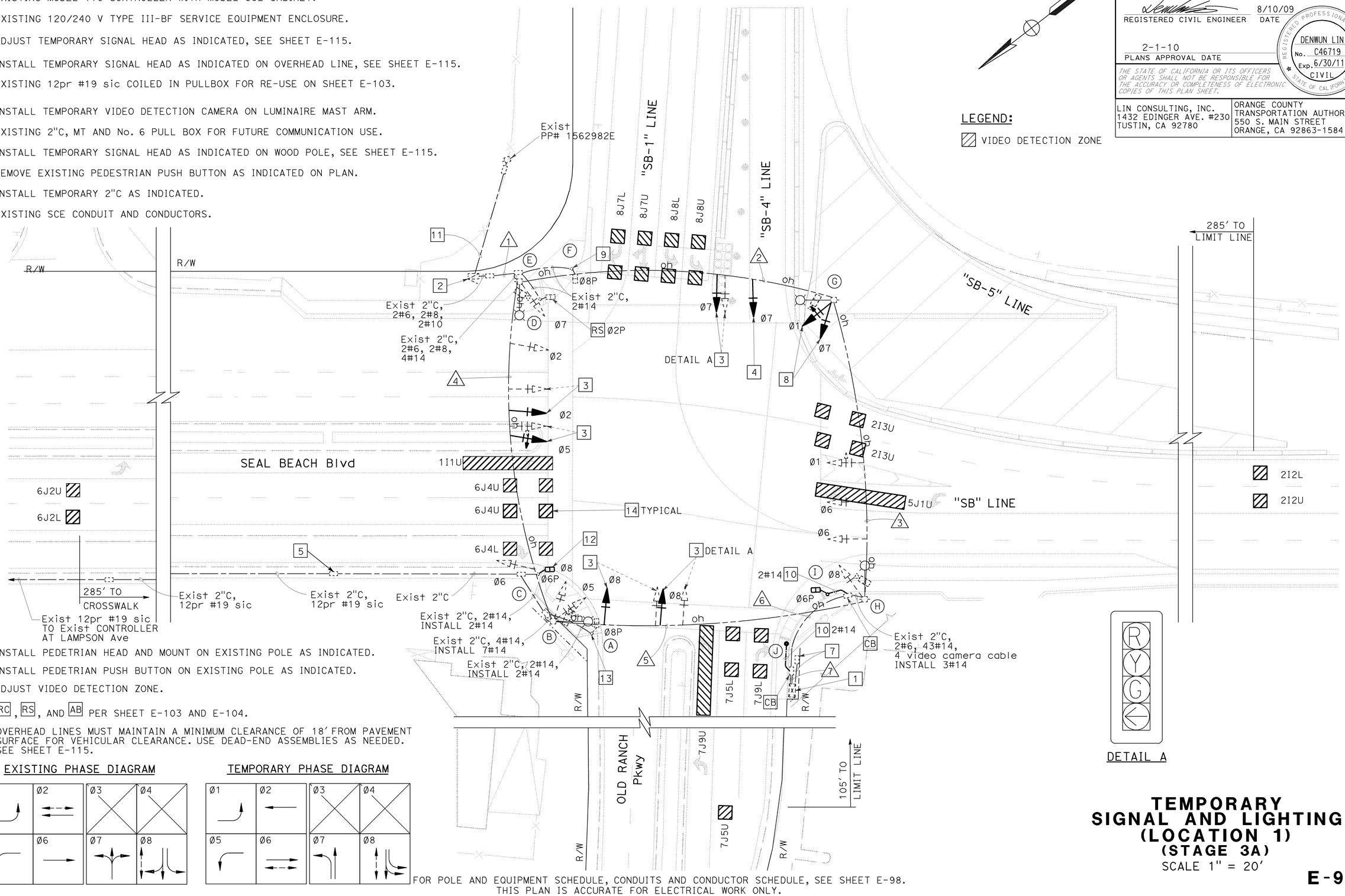
1. EXISTING MODEL 170 CONTROLLER WITH MODEL 332 CABINET.
2. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
3. ADJUST TEMPORARY SIGNAL HEAD AS INDICATED, SEE SHEET E-115.
4. INSTALL TEMPORARY SIGNAL HEAD AS INDICATED ON OVERHEAD LINE, SEE SHEET E-115.
5. EXISTING 12pr #19 sic COILED IN PULLBOX FOR RE-USE ON SHEET E-103.
6. INSTALL TEMPORARY VIDEO DETECTION CAMERA ON LUMINAIRE MAST ARM.
7. EXISTING 2"C, MT AND No. 6 PULL BOX FOR FUTURE COMMUNICATION USE.
8. INSTALL TEMPORARY SIGNAL HEAD AS INDICATED ON WOOD POLE, SEE SHEET E-115.
9. REMOVE EXISTING PEDESTRIAN PUSH BUTTON AS INDICATED ON PLAN.
10. INSTALL TEMPORARY 2"C AS INDICATED.
11. EXISTING SCE CONDUIT AND CONDUCTORS.

NOTE:

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

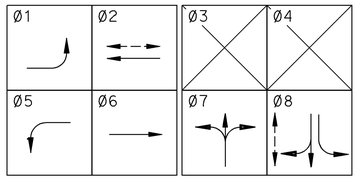
LEGEND:

VIDEO DETECTION ZONE



12. INSTALL PEDETRIAN HEAD AND MOUNT ON EXISTING POLE AS INDICATED.
13. INSTALL PEDETRIAN PUSH BUTTON ON EXISTING POLE AS INDICATED.
14. ADJUST VIDEO DETECTION ZONE.
15. RC, RS, AND AB PER SHEET E-103 AND E-104.
16. OVERHEAD LINES MUST MAINTAIN A MINIMUM CLEARANCE OF 18' FROM PAVEMENT SURFACE FOR VEHICULAR CLEARANCE. USE DEAD-END ASSEMBLIES AS NEEDED. SEE SHEET E-115.

EXISTING PHASE DIAGRAM



TEMPORARY PHASE DIAGRAM

DETAIL A

FOR POLE AND EQUIPMENT SCHEDULE, CONDUITS AND CONDUCTOR SCHEDULE, SEE SHEET E-98.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 3A)

SCALE 1" = 20'

E-97

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: HK
DATE REVISED: 8/10/09

LAST REVISION 08-10-09 | DATE PLOTTED => 09-FEB-2010 | TIME PLOTTED => 09:57

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1284	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

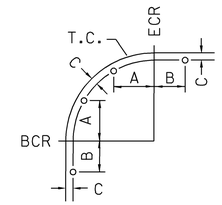
LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD Type	STANDARD SMA	STANDARD LMA	VEH SIG MTG Mast Arm	VEH SIG MTG Pole	PED SIG MTG	PPB Ø	PPB ARROW	HPS LUM	POLE LOC. (ft) A	POLE LOC. (ft) B	POLE LOC. (ft) C
A	1-A(E)	-	-	-	-	SP-1-T(E)	6	←	-	EXISTING		
B	WOOD POLE(E)	-	12'(E)	-	SV-2-TA(E)	-	-	-	200 W(E)	EXISTING		
C	1-A(E)	-	-	-	-	SP-1-T	8(E)	→	-	EXISTING		
D	1-A(E)	-	-	-	-	-	8(E)	←	-	EXISTING		
E	WOOD POLE(E)	-	12'(E)	-	SV-1-T(E)	-	-	-	200 W(E)	EXISTING		
F	1-A(E)	-	-	-	-	SP-1-T(E)	-	-	-	EXISTING		
G	WOOD POLE(E)	-	12'(E)	-	SV-2-TA	-	-	-	200 W(E)	EXISTING		
H	WOOD POLE(E)	-	12'(E)	-	SV-1-T(E)	-	-	-	200 W(E)	EXISTING		
I	1-A	-	-	-	-	SP-1-T	-	-	-	12.5	-	4
J	PPB POST	-	-	-	-	-	6	→	-	6	-	4

ALL EQUIPMENT ARE TEMPORARY UNLESS OTHERWISE NOTED
(E) = EXISTING



Note:
"C" SHALL BE 2.5'
UNLESS OTHERWISE NOTED

POLE LOCATION
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE CABLE TYPE	CONDUCTOR RUN	CONDUIT RUN NUMBER AND SIZE (in) 1	2	3	4	5	6	7
#14	Ø1			6(E)			6(E)	6(E)
	Ø2				3(E)	3(E)	3(E)	3(E)
	Ø5				3(E)	6(E)	6(E)	6(E)
	Ø6			3(E)	3(E)	3(E)	6(E)	6(E)
	Ø7		3(E)	6(E)	3(E)	3(E)	9(E)	9(E)
	Ø8					3(E)	6(E)	6(E)
	Ø6P					2	4	4
	Ø8P		2(E)	2(E)		2(E)	4(E)	4(E)
	Ø6PPB					1	1	2
	Ø8PPB		1(E)	1(E)		1(E)	2(E)	2(E)
	PPB COMMON		1(E)	1(E)		1(E)	1(E)	1(E)
	TOTAL		7(E)	19(E)	12(E)	3+22(E)	5+43(E)	6+43(E)
AWG	CIRCUIT							
#8	LIGHTING	2(E)	2(E)	2(E)		2(E)		
#6	SIGNAL SERVICE	2(E)	2(E)	2(E)			2(E)	2(E)
VIDEO CAMERA CABLE				1(E)	1(E)	2(E)	4(E)	4(E)
CONDUIT SIZE		2"(E)	OH(E)	OH(E)	OH(E)	OH(E)	2"(E)	2-3"(E)

ALL CONDUITS, CONDUCTORS AND CABLES ARE TEMPORARY UNLESS OTHERWISE NOTED.
(E) = EXISTING
OH = OVERHEAD WIRE

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 3A)

NO SCALE

E-98

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY / CHECKED BY
VICENTE ENCARNACION / CHARLOTTE WU
TIMMY TO
REVISED BY: HK
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:21

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1285	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES (FOR THIS SHEET ONLY):

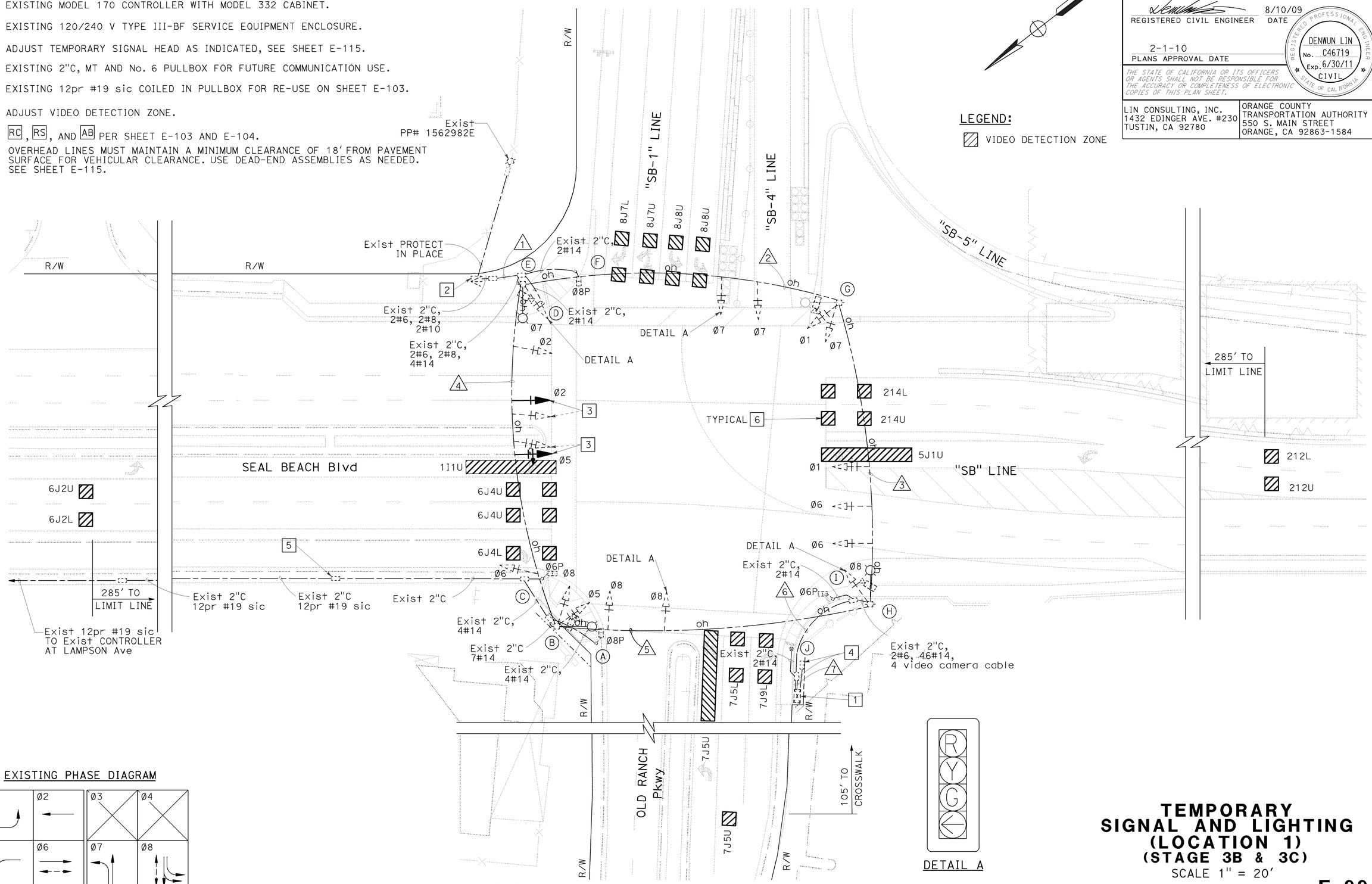
1. EXISTING MODEL 170 CONTROLLER WITH MODEL 332 CABINET.
2. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
3. ADJUST TEMPORARY SIGNAL HEAD AS INDICATED, SEE SHEET E-115.
4. EXISTING 2"C, MT AND No. 6 PULLBOX FOR FUTURE COMMUNICATION USE.
5. EXISTING 12pr #19 sic COILED IN PULLBOX FOR RE-USE ON SHEET E-103.
6. ADJUST VIDEO DETECTION ZONE.
7. RC, RS, AND AB PER SHEET E-103 AND E-104.
8. OVERHEAD LINES MUST MAINTAIN A MINIMUM CLEARANCE OF 18' FROM PAVEMENT SURFACE FOR VEHICULAR CLEARANCE. USE DEAD-END ASSEMBLIES AS NEEDED. SEE SHEET E-115.

NOTE:

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

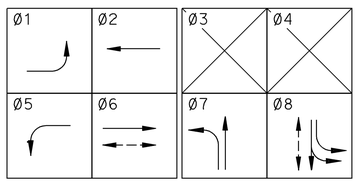
LEGEND:

VIDEO DETECTION ZONE



DETAIL A

EXISTING PHASE DIAGRAM



FOR POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-100.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1)
(STAGE 3B & 3C)

SCALE 1" = 20'

E-99

REVISED BY	DATE REVISED
HK	8/10/09

CALCULATED-DESIGNED BY
CHECKED BY
TIMMY TO
VICENTE ENCARNACION CHARLOTTE WU
CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 09:57

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1286	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD			VEH SIG MTG		PED SIG	PPB		HPS	POLE LOC.
	Type	SMA	LMA	Mast Arm	Pole	MTG	Ø	ARROW	LUM	
A	1-A(E)	-	-	-	-	SP-1-T(E)	6(E)	←	-	EXISTING
B	WOOD POLE(E)	-	12'(E)	-	SV-2-TA(E)	-	-	-	200 W(E)	EXISTING
C	1-A(E)	-	-	-	-	SP-1-T(E)	8(E)	→	-	EXISTING
D	1-A(E)	-	-	-	-	-	8(E)	←	-	EXISTING
E	WOOD POLE(E)	-	12'(E)	-	SV-1-T(E)	-	-	-	200 W(E)	EXISTING
F	1-A(E)	-	-	-	-	SP-1-T(E)	-	-	-	EXISTING
G	WOOD POLE(E)	-	12'(E)	-	SV-2-TA(E)	-	-	-	200 W(E)	EXISTING
H	WOOD POLE(E)	-	12'(E)	-	SV-1-T(E)	-	-	-	200 W(E)	EXISTING
I	1-A(E)	-	-	-	-	SP-1-T(E)	-	-	-	EXISTING
J	PPB POST(E)	-	-	-	-	-	6(E)	→	-	EXISTING

ALL EQUIPMENT ARE TEMPORARY UNLESS OTHERWISE NOTED
(E) = EXISTING

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)						
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7
#14	Ø1			6(E)			6(E)	6(E)
	Ø2				3(E)	3(E)	3(E)	3(E)
	Ø5				3(E)	6(E)	6(E)	6(E)
	Ø6			3(E)	3(E)	3(E)	6(E)	6(E)
	Ø7		3(E)	6(E)	3(E)	3(E)	9(E)	9(E)
	Ø8					3(E)	6(E)	6(E)
	Ø6P					2(E)	4(E)	4(E)
	Ø8P		2(E)	2(E)		2(E)	4(E)	4(E)
	Ø6PPB					1(E)		2(E)
	Ø8PPB		1(E)	1(E)		1(E)	2(E)	2(E)
	PPB COMMON		1(E)	1(E)		1(E)	1(E)	1(E)
	TOTAL		7(E)	19(E)	12(E)	25(E)	48(E)	49(E)
AWG	CIRCUIT							
#8	LIGHTING	2(E)	2(E)	2(E)		2(E)		
#6	SIGNAL SERVICE	2(E)	2(E)	2(E)			2(E)	2(E)
VIDEO CAMERA CABLE				1(E)	1(E)	2(E)	4(E)	4(E)
CONDUIT SIZE		2"(E)	OH(E)	OH(E)	OH(E)	OH(E)	2"(E)	2-3"(E)

ALL CONDUITS, CONDUCTORS AND CABLES ARE TEMPORARY UNLESS OTHERWISE NOTED.
(E) = EXISTING
OH = OVERHEAD WIRE

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 3B & 3C)

NO SCALE

E-100

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:21

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1287	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

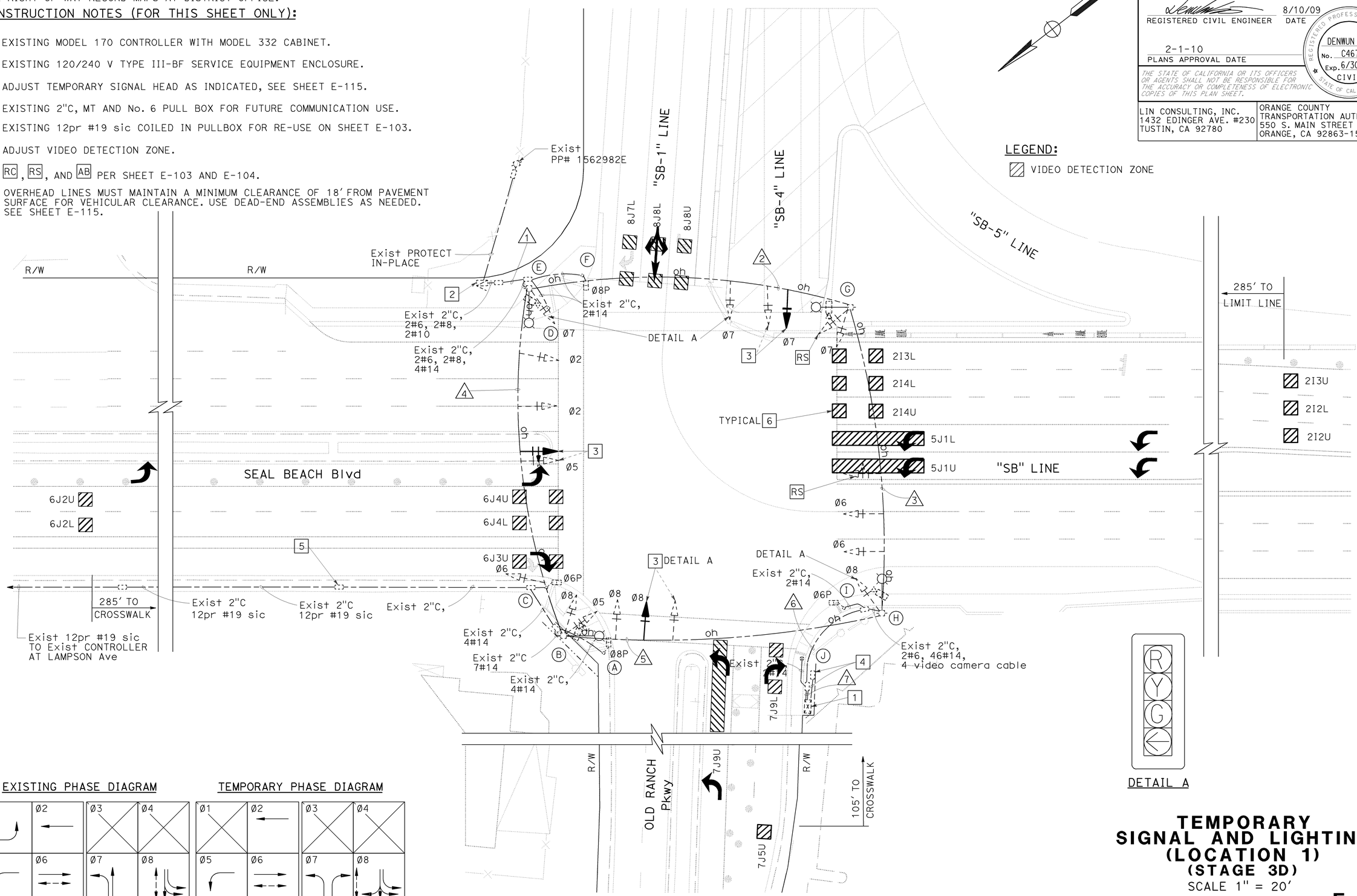
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.

CONSTRUCTION NOTES (FOR THIS SHEET ONLY):

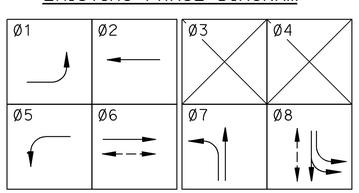
1. EXISTING MODEL 170 CONTROLLER WITH MODEL 332 CABINET.
2. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
3. ADJUST TEMPORARY SIGNAL HEAD AS INDICATED, SEE SHEET E-115.
4. EXISTING 2"C, MT AND No. 6 PULL BOX FOR FUTURE COMMUNICATION USE.
5. EXISTING 12pr #19 sic COILED IN PULLBOX FOR RE-USE ON SHEET E-103.
6. ADJUST VIDEO DETECTION ZONE.
7. RC, RS, AND AB PER SHEET E-103 AND E-104.
8. OVERHEAD LINES MUST MAINTAIN A MINIMUM CLEARANCE OF 18' FROM PAVEMENT SURFACE FOR VEHICULAR CLEARANCE. USE DEAD-END ASSEMBLIES AS NEEDED. SEE SHEET E-115.

LEGEND:

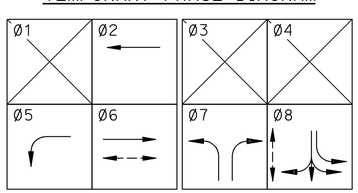
VIDEO DETECTION ZONE



EXISTING PHASE DIAGRAM



TEMPORARY PHASE DIAGRAM



FOR POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-102.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1)

(STAGE 3D)

SCALE 1" = 20'

E-101

REVISED BY	DATE REVISED
HK	8/10/09

CALCULATED- DESIGNED BY
CHECKED BY

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 09:57

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1288	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD			VEH SIG MTG		PED SIG	PPB		HPS	POLE LOC.
	Type	SMA	LMA	Mast Arm	Pole	MTG	Ø	ARROW	LUM	
A	1-A(E)	-	-	-	-	SP-1-T(E)	6(E)	←	-	EXISTING
B	WOOD POLE(E)	-	12'(E)	-	SV-2-TA(E)	-	-	-	200 W(E)	EXISTING
C	1-A(E)	-	-	-	-	SP-1-T(E)	8(E)	→	-	EXISTING
D	1-A(E)	-	-	-	-	-	8(E)	←	-	EXISTING
E	WOOD POLE(E)	-	12'(E)	-	SV-1-T(E)	-	-	-	200 W(E)	EXISTING
F	1-A(E)	-	-	-	-	SP-1-T(E)	-	-	-	EXISTING
G	WOOD POLE(E)	-	12'(E)	-	SV-2-TA(E)	-	-	-	200 W(E)	EXISTING
H	WOOD POLE(E)	-	12'(E)	-	SV-1-T(E)	-	-	-	200 W(E)	EXISTING
I	1-A(E)	-	-	-	-	SP-1-T(E)	-	-	-	EXISTING
J	PPB POST(E)	-	-	-	-	-	6(E)	→	-	EXISTING

ALL EQUIPMENT ARE TEMPORARY UNLESS OTHERWISE NOTED
(E) = EXISTING

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)						
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7
#14	Ø1			6(E)			6(E)	6(E)
	Ø2				3(E)	3(E)	3(E)	3(E)
	Ø5				3(E)	6(E)	6(E)	6(E)
	Ø6			3(E)	3(E)	3(E)	6(E)	6(E)
	Ø7		3(E)	6(E)	3(E)	3(E)	9(E)	9(E)
	Ø8					3(E)	6(E)	6(E)
	Ø6P					2(E)	4(E)	4(E)
	Ø8P		2(E)	2(E)		2(E)	4(E)	4(E)
	Ø6PPB					1(E)		2(E)
	Ø8PPB		1(E)	1(E)		1(E)	2(E)	2(E)
	PPB COMMON		1(E)	1(E)		1(E)	1(E)	1(E)
	TOTAL		7(E)	19(E)	12(E)	25(E)	48(E)	49(E)
AWG	CIRCUIT							
#8	LIGHTING	2(E)	2(E)	2(E)		2(E)		
#6	SIGNAL SERVICE	2(E)	2(E)	2(E)			2(E)	2(E)
VIDEO CAMERA CABLE				1(E)	1(E)	2(E)	4(E)	4(E)
CONDUIT SIZE		2"(E)	OH(E)	OH(E)	OH(E)	OH(E)	2"(E)	2-3"(E)

ALL CONDUITS, CONDUCTORS AND CABLES ARE TEMPORARY UNLESS OTHERWISE NOTED.
(E) = EXISTING
OH = OVERHEAD WIRE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 1) (STAGE 3D)

NO SCALE

E-102

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 09:57

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1289	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

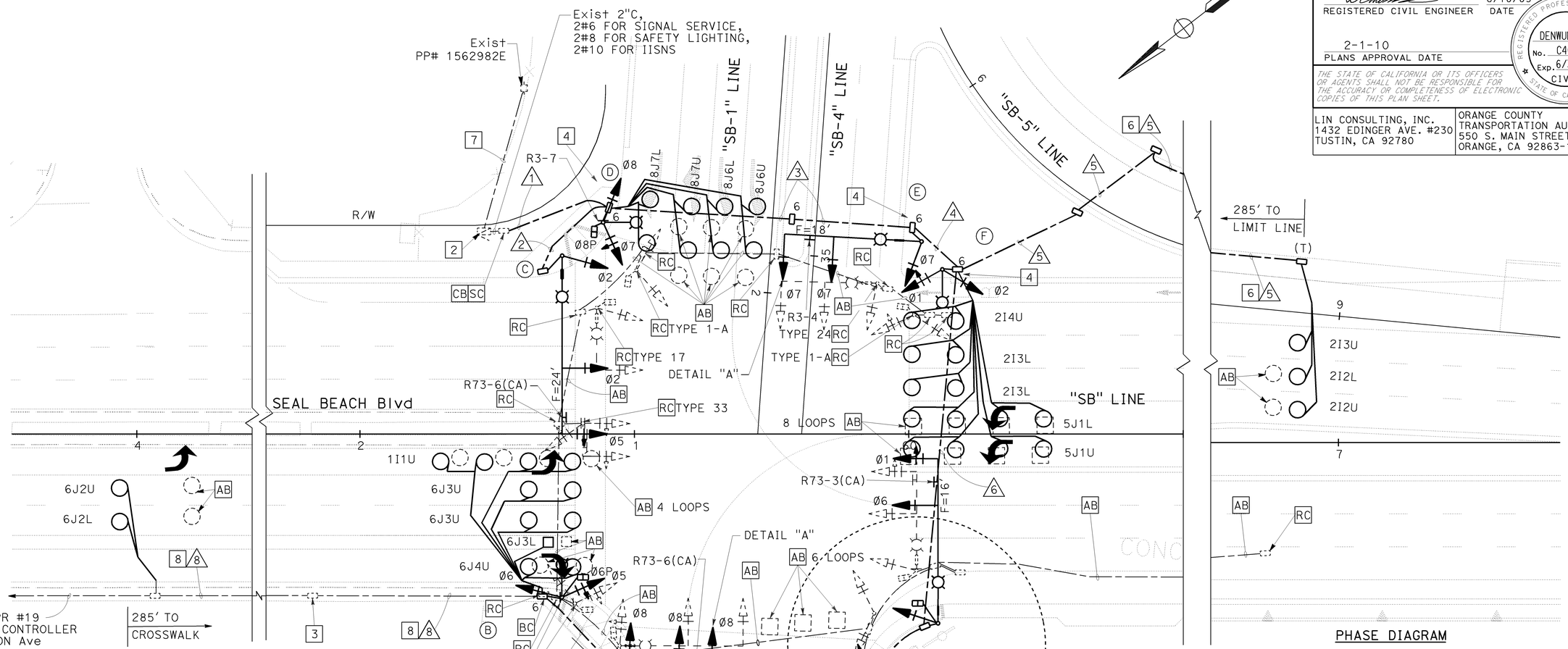
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

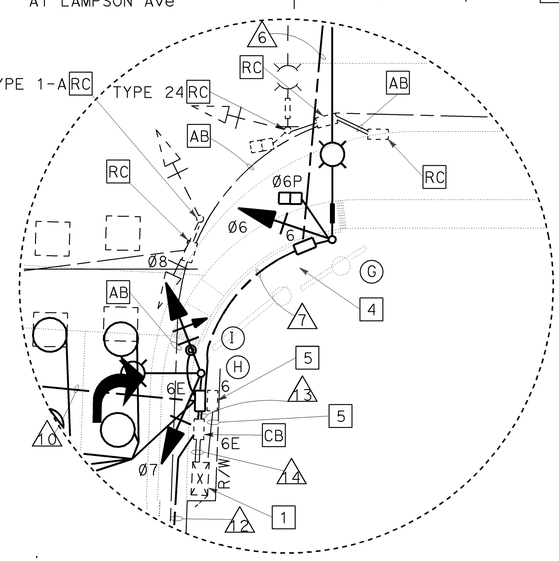
LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

NOTE:

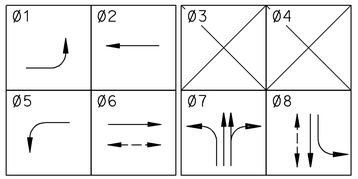
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



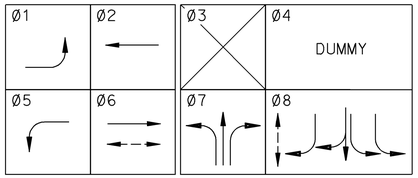


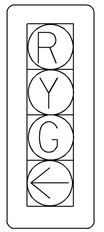
DETAIL "B"
NO SCALE

PHASE DIAGRAM



PROPOSED PHASE DIAGRAM





RED
YELLOW
GREEN
GREEN ARROW

DETAIL "A"
NO SCALE

MODIFY SIGNAL AND LIGHTING (LOCATION 1)

SCALE: 1" = 20'

FOR CONSTRUCTION NOTES, POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-104.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-103

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY:

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION DATE PLOTTED => 09-FEB-2010
08-10-09 TIME PLOTTED => 09:57

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1290	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

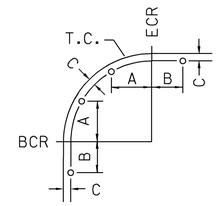
LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD Type	STANDARD SMA	STANDARD LMA	VEH SIG MTG Mast Arm	VEH SIG MTG Pole	PED SIG MTG	PPB Ø	PPB ARROW	HPS LUM	POLE LOC. (ft) A	POLE LOC. (ft) B	POLE LOC. (ft) C	IISNS
A	19-4-100	30′	12′	2-MAS	SV-1-T	SP-1-T	6	←	200 W	5	-	-	SEAL BEACH Blvd
B	15TS	-	12′	-	SV-2-TA	SP-1-T	8	→	200 W	7.5	-	-	
C	60-5-100	65′	15′	2-MAS	SV-1-T	-	8	←	200 W	13.5	-	5	←OLD RANCH Pky 405 NORTH→
D	15TS	-	12′	-	TV-2-T	SP-1-T	-	-	200 W	12.5	-	3	
E	29-5-100	50′	15′	2-MAS	SV-1-T	-	-	-	200 W	-	10	6.7	SEAL BEACH Blvd
F	15TS	-	12′	-	TV-2-T	-	-	-	200 W	-	12	3	
G	60-5-100	60′	15′	2-MAS	SV-1-T	SP-1-T	-	-	200 W	5	-	6.5	OLD RANCH Pky→ ←405 NORTH
H	15TS	-	12′	-	SV-2-TA	-	-	-	200 W	3.5	-	6.5	
I	PPB POST	-	-	-	-	-	6	→	-	7.5	-	4.5	

ALL EQUIPMENT ARE NEW UNLESS OTHERWISE NOTED
(E) = EXISTING



Note:
"C" SHALL BE 2.5′
UNLESS OTHERWISE NOTED

POLE LOCATION
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE: CABLE TYPE	STD	PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
VEH-PED 12CSC	A	8,8P / 6										1 / 1			1 / 1	1 / 1
	B	5,6,6P / 8									1 / 1	1 / 1			1 / 1	1 / 1
	C	2,5 / 8		1 / 1	1 / 1	1 / 1		1 / 1	1 / 1						1 / 1	1 / 1
	D	7,8,8P			1	1		1	1						1	1
	E	7				1		1	1						1	1
	F	1,2						1	1						1	1
	G	1,6,6P							1						1	1
	H	7,8													1	1
	I	/ 6													1	1
PPB 3CSC		TOTAL		1 / 1	2 / 1	3 / 1		4 / 1	5 / 1		1 / 1	2 / 2			8 / 4	8 / 4
AWG		CIRCUIT														
#4		LIGHTING	2	2	2	2		2	2		2	2				
#6		SIGNAL SERVICE	2		2	2		2	2						2	2
#10		IISNS	2	2	2	2		2	2			2				
12PR#19 SIC										1(E)	1(E)	1(E)			1(E)	1(E)
LOOP DLC																
PHASE																
Ø1											1	1			1	1
Ø2								2	2						2	2
Ø2 ADV							3	3	3						3	3
Ø5								2	2						2	2
Ø6											3	3			3	3
Ø6 ADV										2	2	2			2	2
Ø7															3	3
Ø7 ADV													2	2		2
Ø8					4	4		4	4						4	4
		TOTAL			4	4	3	11	11	2	6	6	2	2	20	22
CONDUIT SIZE			2"	2"	3"	3"	2"	4"	4"	2" (E)	3"	3"	2"(E)	2"	2-4"	2-4"(E)

ALL CONDUITS, CONDUCTORS, DLC AND CABLES ARE NEW UNLESS OTHERWISE NOTED.
(E) = EXISTING

CONSTRUCTION NOTES (FOR SHEET E-103 ONLY):

1. EXISTING MODEL 332 CABINET. REMOVE AND SALVAGE EXISTING MODEL 170 CONTROLLER AND INSTALL STATE FURNISHED 2070 CONTROLLER ASSEMBLY.
2. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
3. EXISTING 12pr #19 sic COIL, REINSTALL TO CURRENT CABINET LOCATION AS INDICATED ON PLAN.
4. TYPE 1 BARRICADE FOR REFERENCE ONLY, FOR EXACT LOCATION SEE SIGN PLAN S-3.
5. EXISTING 2"C, MT AND No. 6 PULL BOX FOR FOR FUTURE COMMUNICATION USE.
6. INSTALL CONDUIT IN SHOULDER AS INDICATED ON PLAN.
7. EXISTING SCE CONDUIT AND CONDUCTORS.
8. CONTRACTOR SHALL REMOVE EXISTING DLC FROM EXISTING CONDUIT AND INSTALL NEW DLC AS INDICATED ON PLAN.
9. ALL TEMPORARY OR EXISTING CONDUITS, CONDUCTORS, POLES AND EQUIPMENT SHALL BE REMOVED BY CONTRACTOR OR SALVAGED, UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE NEW UNLESS OTHERWISE NOTED.

MODIFY SIGNAL AND LIGHTING (LOCATION 1)

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-104

REVISED BY	HK
DATE REVISED	8/10/09
VICENTE ENCARNACION CHARLOTTE WU	TIMMY TO
CALCULATED-DESIGNED BY	
CHECKED BY	
CONSULTANT FUNCTIONAL SUPERVISOR	DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 | DATE PLOTTED => 09-FEB-2010 | TIME PLOTTED => 09:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1291	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

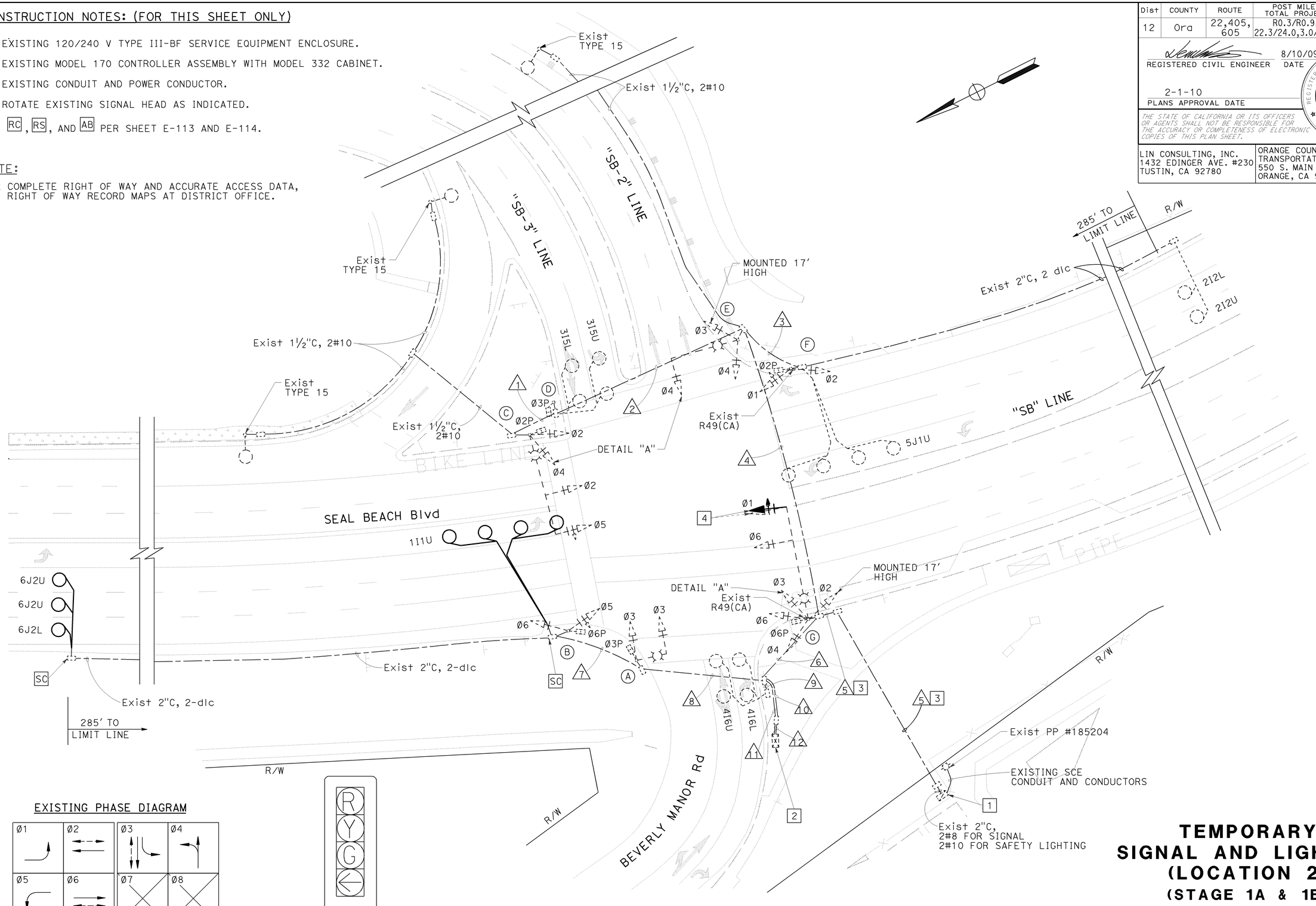
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES: (FOR THIS SHEET ONLY)

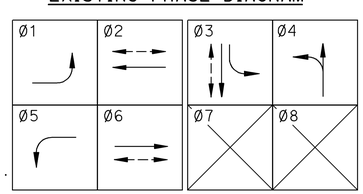
1. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
2. EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
3. EXISTING CONDUIT AND POWER CONDUCTOR.
4. ROTATE EXISTING SIGNAL HEAD AS INDICATED.
5. RC, RS, AND AB PER SHEET E-113 AND E-114.

NOTE:

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



EXISTING PHASE DIAGRAM



DETAIL A

FOR POLE AND EQUIPMENT SCHEDULE, CONDUITS AND CONDUCTOR SCHEDULE, SEE SHEET E-106.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 2)

(STAGE 1A & 1B)

SCALE 1" = 20'

E-105

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENNUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 09:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1292	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD			VEH SIG MTG		PED SIG	PPB		HPS	POLE LOC. (ft)		
	Type	SMA	LMA	Mast Arm	Pole	MTG	Ø	ARROW	LUM	A	B	C
A	17-2-80	15′	12′	MAS	SV-1-T	SP-1-T	6	←	200 W	EXISTING		
B	1-A	-	-	-	TV-2-T	SP-1-T	3	→		EXISTING		
C	26-3-80	45′	12′	2-MAS	SV-2-TA	SP-1-T	3	←	200 W	EXISTING		
D	1-A	-	-	-	-	TP-1	2	→	-	EXISTING		
E	19-2-80	30′	12′	MAS	SV-1-T SV-1-T	-	-	-	200 W	EXISTING		
F	1-A	-	-	-	TV-2-T	SP-1-T	2	←	-	EXISTING		
G	29-5-80	50′	15′	2-MAS	SV-2-TA SV-1-T	SP-1-T	6	←	200 W	EXISTING		

ALL EQUIPMENT ARE EXISTING UNLESS OTHERWISE NOTED

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)											
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10	11	12
#14	Ø1			3	3		6				6		6
	Ø2	3	3	3	6		9				9		9
	Ø3				3		6		3		9		9
	Ø4	3	3		6		9				9		9
	Ø5	3	3		3		3	3	3		6		6
	Ø6						3	3	3		6		6
	Ø2P	2	2	2	4		4				4		4
	Ø3P		2		2		2		2		4		4
	Ø6P						2	2	2		4		4
	Ø2PPB		1	1	1		2				2		2
	Ø3PPB	1	1		1		1	1	1		2		2
	Ø6PPB						1		1		2		2
	PPB COMMON	1	1	1	1		1	1	1		1		1
	TOTAL	13	16	10	30		49	10	16		64		64
AWG	CIRCUIT												
#10	LIGHTING	2	2		2	2	2		2				
#8	SIGNAL SERVICE					2	2				2		2
LOOP DLC													
PHASE													
Ø1								1	1			1	1
Ø2 ADV				2	2		2					2	2
Ø3			2		2		2					2	2
Ø4										2		2	2
Ø5				1	1		1					1	1
Ø6 ADV								2	2			2	2
TOTAL			2	3	5		5	3	3	2		10	10
CONDUIT SIZE		2"	2"	2"	2"	2"	2"	2"	2"	1½"	2½"	2"	2-3"

ALL CONDUCTORS AND CONDUITS ARE EXISTING UNLESS OTHERWISE NOTED.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 2)

(STAGE 1A & 1B)

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-106

REVISED BY	DATE REVISED
HK	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:27

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1293	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

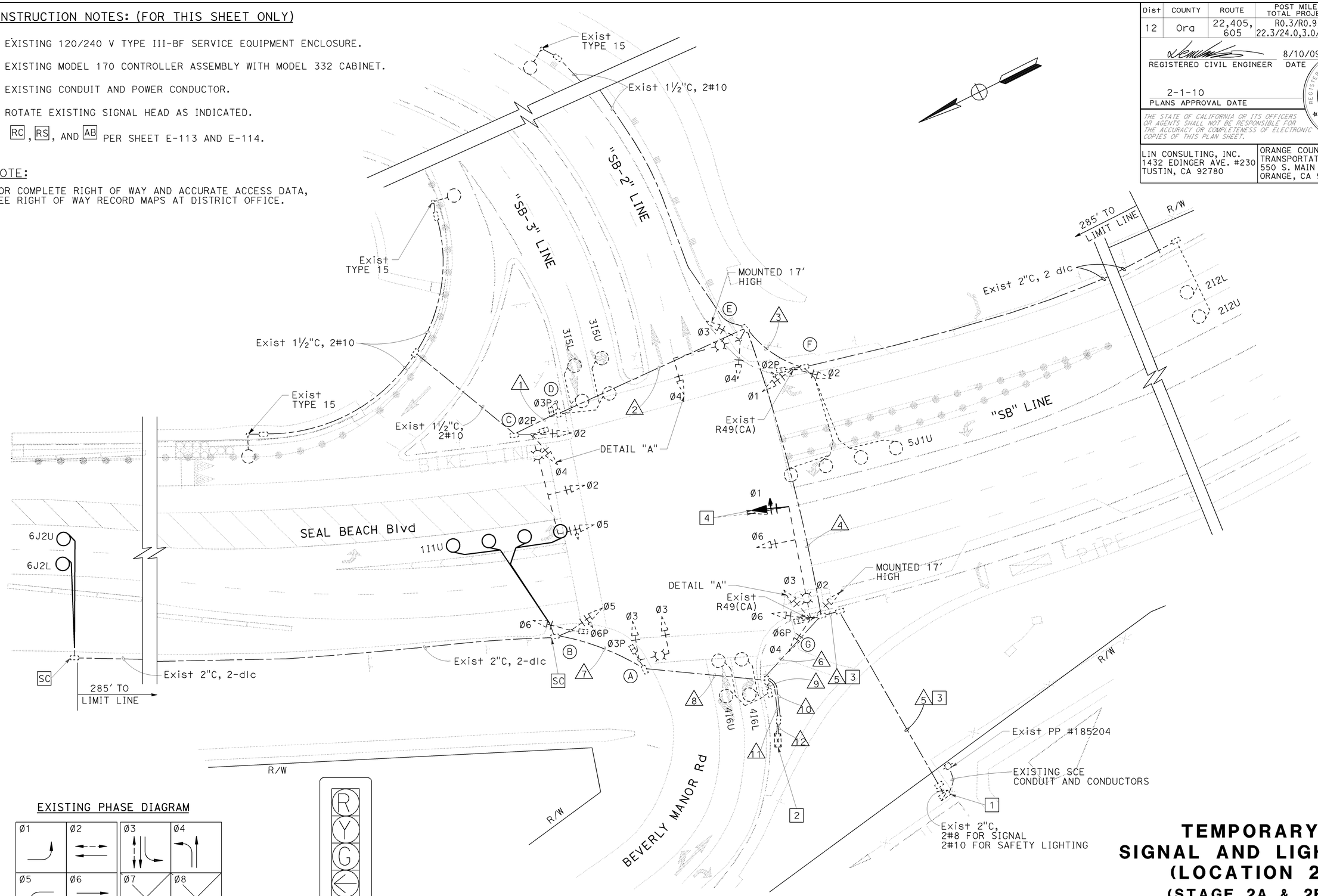
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES: (FOR THIS SHEET ONLY)

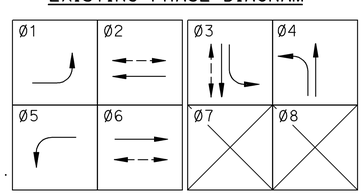
1. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
2. EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
3. EXISTING CONDUIT AND POWER CONDUCTOR.
4. ROTATE EXISTING SIGNAL HEAD AS INDICATED.
5. RC, RS, AND AB PER SHEET E-113 AND E-114.

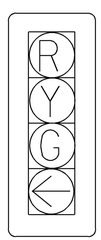
NOTE:

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



EXISTING PHASE DIAGRAM





DETAIL A

FOR POLE AND EQUIPMENT SCHEDULE, CONDUITS AND CONDUCTOR SCHEDULE, SEE SHEET E-108.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 2)

(STAGE 2A & 2B)

SCALE 1" = 20'

E-107

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 09-FEB-2010 TIME PLOTTED => 09:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1294	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD			VEH SIG MTG		PED SIG	PPB		HPS	POLE LOC. (ft)		
	Type	SMA	LMA	Mast Arm	Pole	MTG	Ø	ARROW	LUM	A	B	C
A	17-2-80	15′	12′	MAS	SV-1-T	SP-1-T	6	←	200 W	EXISTING		
B	1-A	-	-	-	TV-2-T	SP-1-T	3	→		EXISTING		
C	26-3-80	45′	12′	2-MAS	SV-2-TA	SP-1-T	3	←	200 W	EXISTING		
D	1-A	-	-	-	-	TP-1	2	→	-	EXISTING		
E	19-2-80	30′	12′	MAS	SV-1-T SV-1-T	-	-	-	200 W	EXISTING		
F	1-A	-	-	-	TV-2-T	SP-1-T	2	←	-	EXISTING		
G	29-5-80	50′	15′	2-MAS	SV-2-TA SV-1-T	SP-1-T	6	←	200 W	EXISTING		

ALL EQUIPMENT ARE EXISTING UNLESS OTHERWISE NOTED

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)											
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10	11	12
#14	Ø1			3	3		6				6		6
	Ø2	3	3	3	6		9				9		9
	Ø3				3		6		3		9		9
	Ø4	3	3		6		9				9		9
	Ø5	3	3		3		3	3	3		6		6
	Ø6						3	3	3		6		6
	Ø2P	2	2	2	4		4				4		4
	Ø3P		2		2		2		2		4		4
	Ø6P						2	2	2		4		4
	Ø2PPB		1	1	1		2				2		2
	Ø3PPB	1	1		1		1	1	1		2		2
	Ø6PPB						1		1		2		2
	PPB COMMON	1	1	1	1		1	1	1		2		2
	TOTAL	13	16	10	30		49	10	16		64		64
AWG	CIRCUIT												
#10	LIGHTING	2	2		2	2	2		2				
#8	SIGNAL SERVICE					2	2				2		2
LOOP DLC													
PHASE													
Ø1								1	1			1	1
Ø2 ADV				2	2		2					2	2
Ø3			2		2		2					2	2
Ø4										2		2	2
Ø5				1	1		1					1	1
Ø6 ADV								2	2			2	2
TOTAL			2	3	5		5	3	3	2		10	10
CONDUIT SIZE		2"	2"	2"	2"	2"	2"	2"	2"	1½"	2½"	2"	2-3"

ALL CONDUCTORS AND CONDUITS ARE EXISTING UNLESS OTHERWISE NOTED.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 2)

(STAGE 2A & 2B)

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-108

REVISED BY	DATE REVISED
HK	8/10/09

CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:27

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1295	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

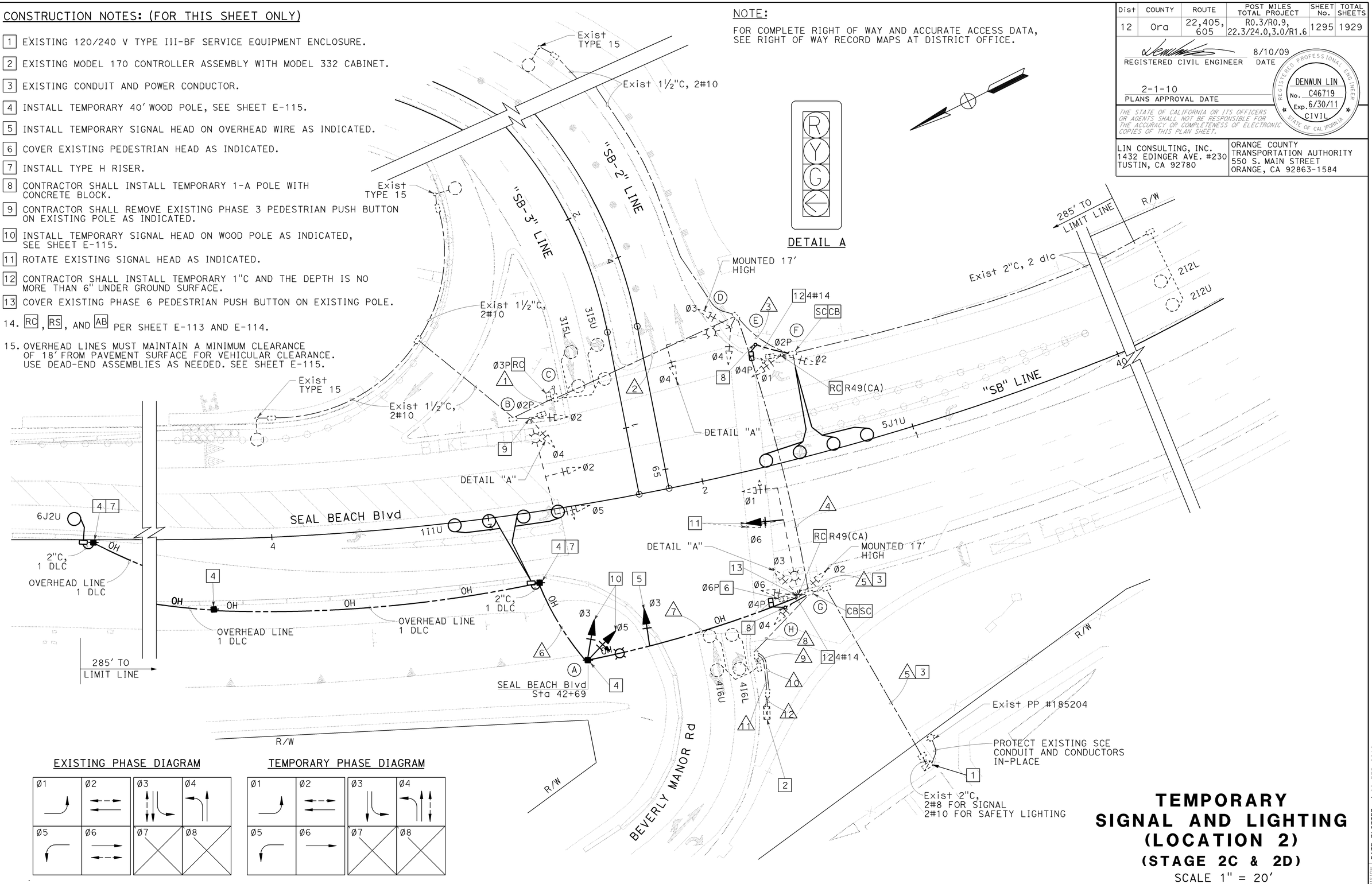
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES: (FOR THIS SHEET ONLY)

1. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
2. EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
3. EXISTING CONDUIT AND POWER CONDUCTOR.
4. INSTALL TEMPORARY 40′ WOOD POLE, SEE SHEET E-115.
5. INSTALL TEMPORARY SIGNAL HEAD ON OVERHEAD WIRE AS INDICATED.
6. COVER EXISTING PEDESTRIAN HEAD AS INDICATED.
7. INSTALL TYPE H RISER.
8. CONTRACTOR SHALL INSTALL TEMPORARY 1-A POLE WITH CONCRETE BLOCK.
9. CONTRACTOR SHALL REMOVE EXISTING PHASE 3 PEDESTRIAN PUSH BUTTON ON EXISTING POLE AS INDICATED.
10. INSTALL TEMPORARY SIGNAL HEAD ON WOOD POLE AS INDICATED, SEE SHEET E-115.
11. ROTATE EXISTING SIGNAL HEAD AS INDICATED.
12. CONTRACTOR SHALL INSTALL TEMPORARY 1"C AND THE DEPTH IS NO MORE THAN 6" UNDER GROUND SURFACE.
13. COVER EXISTING PHASE 6 PEDESTRIAN PUSH BUTTON ON EXISTING POLE.
14. RC, RS, AND AB PER SHEET E-113 AND E-114.
15. OVERHEAD LINES MUST MAINTAIN A MINIMUM CLEARANCE OF 18′ FROM PAVEMENT SURFACE FOR VEHICULAR CLEARANCE. USE DEAD-END ASSEMBLIES AS NEEDED. SEE SHEET E-115.

NOTE:

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



FOR POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-110.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 2)

(STAGE 2C & 2D)

SCALE 1" = 20′

E-109

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 09-FEB-2010 TIME PLOTTED => 09:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1296	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD Type	STANDARD SMA	STANDARD LMA	VEH SIG MTG Mast Arm	VEH SIG MTG Pole	PED SIG MTG	PPB Ø	PPB ARROW	HPS LUM	POLE LOCATION
A	WOOD POLE(T)	-	12'(T)	-	SV-2-TA(T)	-	-	-	200 W(T)	SEE SHEET E-108
B	27-3-80	45'	12'	2-MAS	SV-2-TA	SP-1-T	-	-	200 W	EXISTING
C	1-A	-	-	-	-	-	2	→	-	EXISTING
D	19-2-80	30'	12'	MAS	SV-1-T SV-1-T	-	-	-	200 W	EXISTING
E	1-A(T)	-	-	-	-	SP-1-T(T)	4(T)	→	-	* VARIES
F	1-A	-	-	-	TV-2-T	SP-1-T	2	←	-	EXISTING
G	29-5-80	50'	15'	2-MAS	SV-3-TA SV-1-T	SP-1-T	-	-	200 W	EXISTING
H	1-A(T)	-	-	-	-	SP-1-T(T)	4(T)	←	-	* VARIES

ALL EQUIPMENT ARE EXISTING UNLESS OTHERWISE NOTED
(T) = TEMPORARY
* LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD.

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)											
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10	11	12
#14	Ø1			3	3				6		6		6
	Ø2	3	3	3	6				6		6		6
	Ø3				3			3(T)	6+3(T)		6+3(T)		6+3(T)
	Ø4	3	3		6				9		9		9
	Ø5	3	3		3			3(T)	3+3(T)		3+3(T)		3+3(T)
	Ø6								3		3		3
	Ø2P	2	2	2	4				4		4		4
	Ø4P			2(T)	2(T)				4(T)		4(T)		4(T)
	Ø2PPB		1	1	2				2		2		2
	Ø4PPB			1(T)	1(T)				2(T)		2(T)		2(T)
	PPB COMMON		1	1+1(T)	1+1(T)				1+1(T)		1+1(T)		1+1(T)
	TOTAL	11	13	10+4(T)	28+4(T)			6(T)	40+13(T)		40+13(T)		40+13(T)
AWG	CIRCUIT												
#10	LIGHTING	2	2		2	2		2(T)	2				
#8	SIGNAL SERVICE					2			2		2		2
LOOP DLC													
PHASE													
Ø1							1(T)	1(T)	1(T)			1(T)	1(T)
Ø2 ADV				2	2				2			2	2
Ø3			2		2				2			2	2
Ø4										2		2	2
Ø5				1	1				1			1	1
Ø6 ADV							1(T)	1(T)	1(T)			1(T)	1(T)
TOTAL			2	3	5		2(T)	2(T)	5+2(T)	2		7+2(T)	7+2(T)
CONDUIT SIZE		2"	2"	2"	2"	2"	OH(T)	OH(T)	2"	1½"	2½"	2"	2-3"

ALL CONDUCTORS AND CONDUITS ARE EXISTING UNLESS OTHERWISE NOTED.
(T) = TEMPORARY

TEMPORARY SIGNAL AND LIGHTING (LOCATION 2)

(STAGE 2C & 2D)

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-110

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY / CHECKED BY
VICENTE ENCARNACION / CHARLOTTE WU / TIMMY TO
REVISED BY: HK
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:27

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1297	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

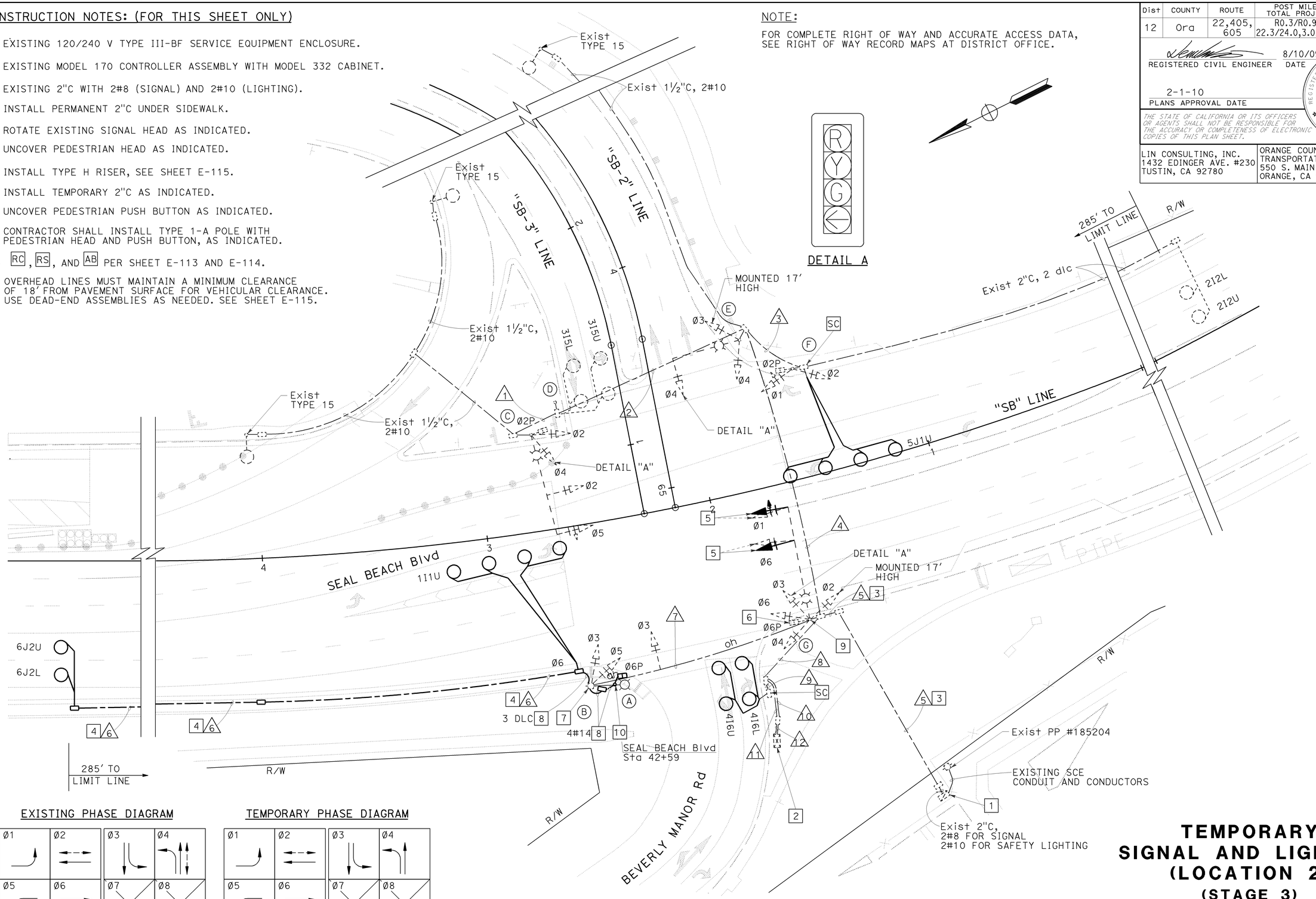
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES: (FOR THIS SHEET ONLY)

1. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT ENCLOSURE.
2. EXISTING MODEL 170 CONTROLLER ASSEMBLY WITH MODEL 332 CABINET.
3. EXISTING 2"C WITH 2#8 (SIGNAL) AND 2#10 (LIGHTING).
4. INSTALL PERMANENT 2"C UNDER SIDEWALK.
5. ROTATE EXISTING SIGNAL HEAD AS INDICATED.
6. UNCOVER PEDESTRIAN HEAD AS INDICATED.
7. INSTALL TYPE H RISER, SEE SHEET E-115.
8. INSTALL TEMPORARY 2"C AS INDICATED.
9. UNCOVER PEDESTRIAN PUSH BUTTON AS INDICATED.
10. CONTRACTOR SHALL INSTALL TYPE 1-A POLE WITH PEDESTRIAN HEAD AND PUSH BUTTON, AS INDICATED.
11. RC, RS, AND AB PER SHEET E-113 AND E-114.
12. OVERHEAD LINES MUST MAINTAIN A MINIMUM CLEARANCE OF 18' FROM PAVEMENT SURFACE FOR VEHICULAR CLEARANCE. USE DEAD-END ASSEMBLIES AS NEEDED. SEE SHEET E-115.

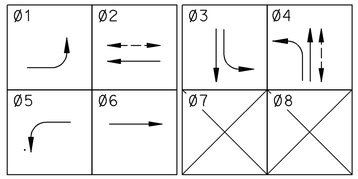
NOTE:

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

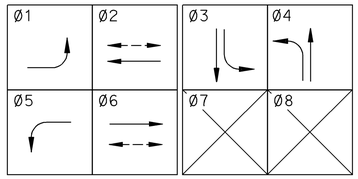


DETAIL A

EXISTING PHASE DIAGRAM



TEMPORARY PHASE DIAGRAM



FOR POLE AND EQUIPMENT SCHEDULE, CONDUIT AND CONDUCTOR SCHEDULE, SEE SHEET E-112.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 2)

(STAGE 3)

SCALE 1" = 20'

E-111

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU

CALCULATED-DESIGNED BY: TIMMY TO
CHECKED BY:

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09
DATE PLOTTED => 09-FEB-2010
TIME PLOTTED => 09:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1298	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY
TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD			VEH SIG MTG		PED SIG	PPB		HPS	POLE LOCATION
	Type	SMA	LMA	Mast Arm	Pole	MTG	Ø	ARROW	LUM	
A	PPB POST(T)	-	-	-	-	-	6(T)	←	-	SEE SHEET E-111
B	WOOD POLE	-	12′	-	SV-2-TA	SP-1-T(T)	-	-	200 W	EXISTING
C	27-3-80	45′	12′	2-MAS	SV-2-TA	SP-1-T	-	-	200 W	EXISTING
D	1-A	-	-	-	-	-	2	→	-	EXISTING
E	19-2-80	30′	12′	MAS	SV-1-T SV-1-T	-	-	-	200 W	EXISTING
F	1-A	-	-	-	TV-2-T	SP-1-T	2	←	-	EXISTING
G	29-5-80	50′	15′	2-MAS	SV-3-TA SV-1-T	SP-1-T	6	←	200 W	EXISTING

ALL EQUIPMENT ARE EXISTING UNLESS OTHERWISE NOTED.
(T) = TEMPORARY

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)											
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10	11	12
#14	Ø1			3	3				6		6		6
	Ø2	3	3	3	6				6		6		6
	Ø3				3			3	9		9		9
	Ø4	3	3		6				9		9		9
	Ø5	3	3		3			3	6		6		6
	Ø6								3		3		3
	Ø2P	2	2	2	4				4		4		4
	Ø6P							2(T)	2+2(T)		2+2(T)		2+2(T)
	Ø2PPB		1	1	2				2		2		2
	Ø6PPB							1(T)	1+1(T)		1+1(T)		1+1(T)
	PPB COMMON		1	1	2			1(T)	1		1		1
	TOTAL	11	13	10	29			6+4(T)	49+3(T)		49+3(T)		49+3(T)
AWG	CIRCUIT												
#10	LIGHTING	2	2		2	2		2	2				
#8	SIGNAL SERVICE					2			2		2		2
LOOP DLC													
PHASE													
Ø1								1(T)	1(T)			1(T)	1(T)
Ø2 ADV				2	2				2			2	2
Ø3			2		2				2			2	2
Ø4										2		2	2
Ø5				1	1				1			1	1
Ø6 ADV							2(T)	2(T)	2(T)			2(T)	2(T)
TOTAL			2	3	5		2(T)	3(T)	5+3(T)	2		7+3(T)	7+3(T)
CONDUIT SIZE		2"	2"	2"	2"	2"	2"(N)	OH	2"	1½"	2½"	2"	2-3"

ALL CONDUCTORS AND CONDUITS ARE EXISTING UNLESS OTHERWISE NOTED.
(T) = TEMPORARY
(N) = INSTALL NEW PER PERMANENT PLAN.

TEMPORARY SIGNAL AND LIGHTING (LOCATION 2)

(STAGE 3)

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-112

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: VICENTE ENCARNACION, CHARLOTTE WU
CHECKED BY: TIMMY TO
REVISED BY: HK
DATE REVISED: 8/10/09

LAST REVISION 08-10-09
DATE PLOTTED => 02-FEB-2010
TIME PLOTTED => 13:28

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1299	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

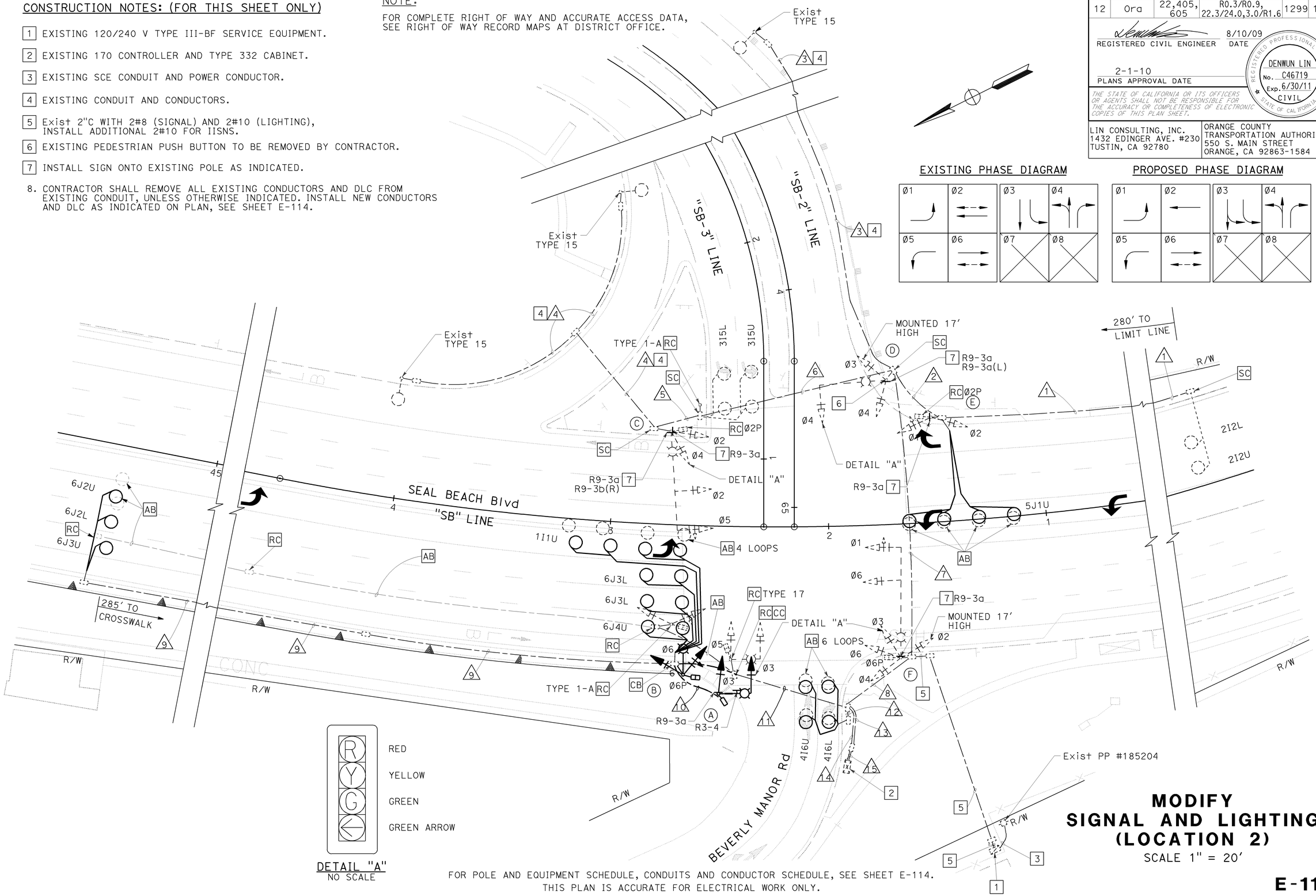
ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

CONSTRUCTION NOTES: (FOR THIS SHEET ONLY)

1. EXISTING 120/240 V TYPE III-BF SERVICE EQUIPMENT.
2. EXISTING 170 CONTROLLER AND TYPE 332 CABINET.
3. EXISTING SCE CONDUIT AND POWER CONDUCTOR.
4. EXISTING CONDUIT AND CONDUCTORS.
5. Exist 2"C WITH 2#8 (SIGNAL) AND 2#10 (LIGHTING), INSTALL ADDITIONAL 2#10 FOR IISNS.
6. EXISTING PEDESTRIAN PUSH BUTTON TO BE REMOVED BY CONTRACTOR.
7. INSTALL SIGN ONTO EXISTING POLE AS INDICATED.
8. CONTRACTOR SHALL REMOVE ALL EXISTING CONDUCTORS AND DLC FROM EXISTING CONDUIT, UNLESS OTHERWISE INDICATED. INSTALL NEW CONDUCTORS AND DLC AS INDICATED ON PLAN, SEE SHEET E-114.

NOTE:

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



FOR POLE AND EQUIPMENT SCHEDULE, CONDUITS AND CONDUCTOR SCHEDULE, SEE SHEET E-114.
THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

MODIFY SIGNAL AND LIGHTING (LOCATION 2)

SCALE 1" = 20'

E-113

REVISED BY	DATE REVISED
HK	8/10/09

VICENTE ENCARNACION
CHARLOTTE WU
TIMMY TO

CALCULATED-DESIGNED BY
CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR
DENNUN LIN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

LAST REVISION 08-10-09 DATE PLOTTED => 09-FEB-2010 TIME PLOTTED => 09:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	22,405, 605	R0.3/R0.9, 22.3/24.0,3.0/R1.6	1300	1929

REGISTERED CIVIL ENGINEER 8/10/09 DATE

2-1-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER DENWUN LIN No. C46719 Exp. 6/30/11 CIVIL STATE OF CALIFORNIA

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.

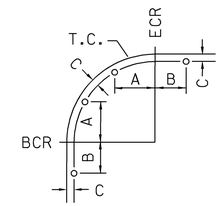
LIN CONSULTING, INC.
1432 EDINGER AVE. #230
TUSTIN, CA 92780

ORANGE COUNTY TRANSPORTATION AUTHORITY
550 S. MAIN STREET
ORANGE, CA 92863-1584

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD Type	STANDARD SMA	STANDARD LMA	VEH SIG MTG Mast Arm	VEH SIG MTG Pole	PED SIG MTG	PPB Ø	PPB ARROW	HPS LUM	POLE LOC. (ft) A	POLE LOC. (ft) B	POLE LOC. (ft) C
A	19A-4-100(N)	15'*(N)	12'(N)	MAS(N)	SV-1-T(N)	-	6(N)	◄——(N)	310 W(N)	25	-	6
B	15TS(N)	-	12'(N)	-	TV-2-T(N)	SP-1-T(N)	-	-	250 W(N)	9	-	6
C	27-3-80	45'	12'	2-MAS	SV-2-TA	-	-	-	200 W	EXISTING		
D	1-A	-	-	-	-	-	-	-	-	EXISTING		
E	19-2-80	30'	12'	MAS	SV-1-T SV-1-T	-	-	-	200 W	EXISTING		
F	1-A	-	-	-	TV-2-T	-	-	-	-	EXISTING		
G	29-5-80	50'	12'	2-MAS	SV-3-TA SV-1-T	SP-1-T	6	◄——	200 W	EXISTING		

* INSTALL SIGNAL MAST ARM AS INDICATED
ALL EQUIPMENT ARE EXISTING UNLESS OTHERWISE NOTED
(N) = NEW



Note:
"C" SHALL BE 2.5'
UNLESS OTHERWISE NOTED.

POLE LOCATION
NO SCALE

CONDUIT AND CONDUCTOR SCHEDULE

CABLE SCHEDULE		CONDUIT RUN NUMBER AND SIZE (in)														
CABLE TYPE	CONDUCTOR RUN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
#14	Ø1		3(N)					3(N)	6(N)					6(N)		6(N)
	Ø2		3(N)			3(N)	3(N)	3(N)	6(N)					6(N)		6(N)
	Ø3							3(N)	6(N)		3(N)	3(N)		6(N)		6(N)
	Ø4					3(N)	3(N)	3(N)	6(N)					6(N)		6(N)
	Ø5					3(N)	3(N)	3(N)	3(N)			3(N)		6(N)		6(N)
	Ø6								3(N)			3(N)		6(N)		6(N)
	Ø6P								2(N)					4(N)		4(N)
	Ø6PPB								1(N)		1(N)	1(N)		2(N)		2(N)
	PPB COMMON								1(N)		1(N)	1(N)		2(N)		2(N)
	SPARE		3(N)			3(N)	3(N)	3(N)	3(N)		3(N)	3(N)		6(N)		6(N)
	TOTAL		9(N)			12(N)	12(N)	18(N)	37(N)		8(N)	14(N)		50(N)		50(N)
AWG	CIRCUIT															
#10	LIGHTING			2	2	2(N)	2(N)	2(N)	2(N)		2(N)	2(N)				
#8	SIGNAL SERVICE								2(N)					2(N)		2(N)
#10	IISNS								2(N)		2(N)	2(N)				
#10	SIGNAL COMMON		1(N)			1(N)	1(N)	1(N)	1(N)		1(N)	1(N)		1(N)		1(N)
LOOP DLC																
PHASE																
Ø1												1(N)			1(N)	1(N)
Ø2 ADV		2(N)	2(N)					2(N)	2(N)						2(N)	2(N)
Ø3							2(N)	2(N)	2(N)						2(N)	2(N)
Ø4													2(N)		2(N)	2(N)
Ø5			1(N)					1(N)	1(N)						1(N)	1(N)
Ø6												2(N)			2(N)	2(N)
Ø6 ADV										3(N)		3(N)			3(N)	3(N)
TOTAL		2(N)	3(N)				2(N)	5(N)	5(N)	3(N)		6(N)	2(N)		13(N)	13(N)
CONDUIT SIZE		1½"	2"	1½"	1½"	2"	2"	2"	2"	2"	2"(N)	2"	1½"	2½"	2"	2-3"

ALL CONDUCTORS AND CONDUITS ARE EXISTING UNLESS OTHERWISE NOTED.
(N) = NEW

MODIFY SIGNAL AND LIGHTING (LOCATION 2)

NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

E-114

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: DENWUN LIN
CALCULATED-DESIGNED BY: CHECKED BY
REVISED BY: HK — DATE REVISED: 8/10/09
VICENTE ENCARNACION CHARLOTTE WU — TIMMY TO

LAST REVISION 08-10-09 DATE PLOTTED => 02-FEB-2010 TIME PLOTTED => 13:28