

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1, 23.1/24.1 | 70 | 196 |

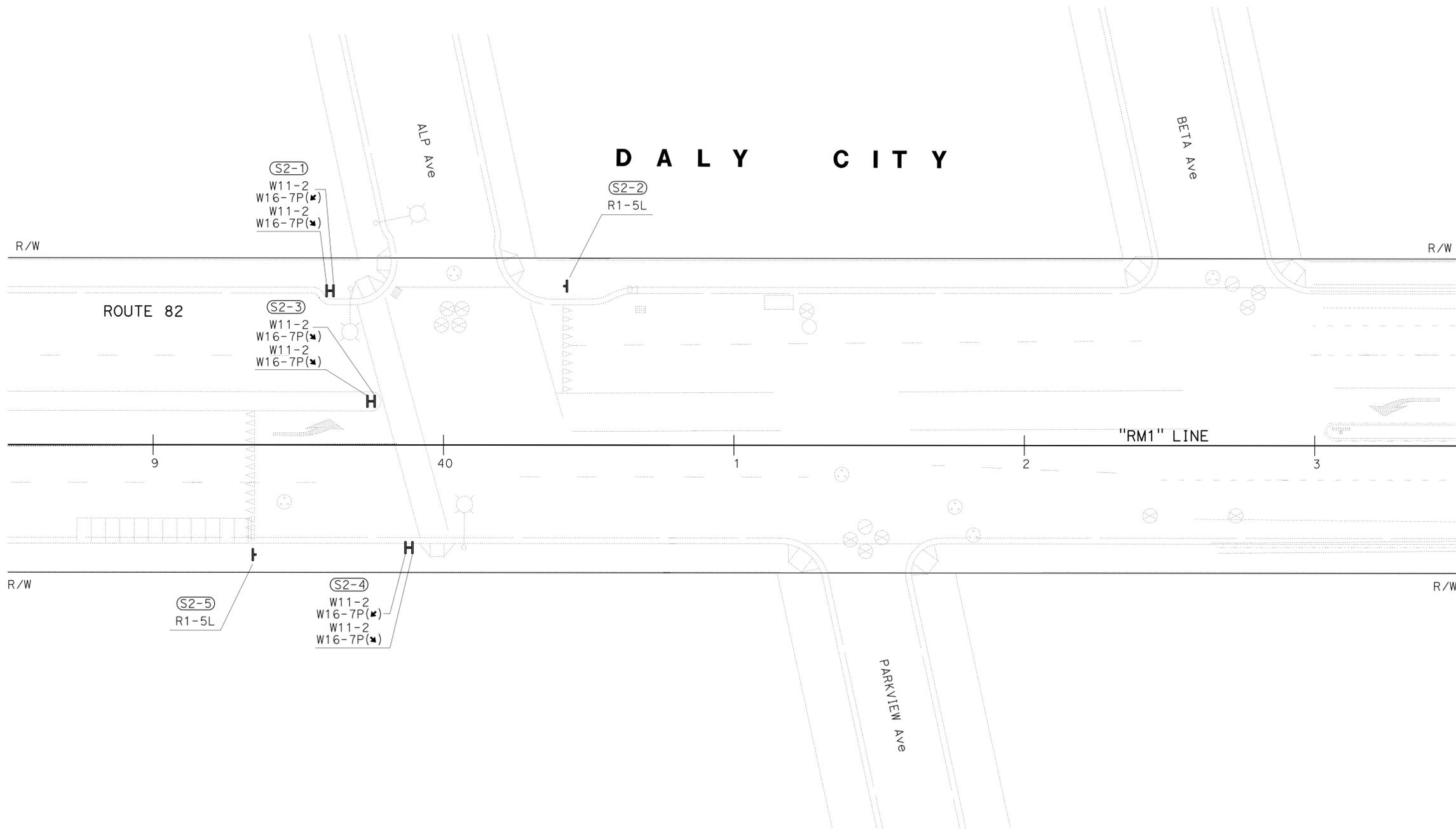
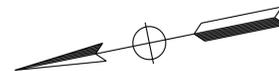
| | |
|---------------------------|----------|
| <i>Lily Ting</i> | 2-16-16 |
| REGISTERED CIVIL ENGINEER | DATE |
| 2-16-16 | 2 |
| PLANS APPROVAL DATE | |

| |
|----------------------------------|
| REGISTERED PROFESSIONAL ENGINEER |
| Lily Y. Ting |
| No. 37330 |
| Exp. 6-30-16 |
| CIVIL |
| STATE OF CALIFORNIA |

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

NOTE:

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



| | |
|----------------------------------------------------|---------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | TRAFFIC |
| FUNCTIONAL SUPERVISOR | RAJESH OBEROI |
| CALCULATED/DESIGNED BY | CHECKED BY |
| LILY TING | RAJESH OBEROI |
| REVISED BY | DATE REVISED |
| RO | 1-27-16 |

2 REPLACED PER ADDENDUM No. 2 DATED MAY 19, 2016

**SIGN PLAN
LOCATION No. 2
NO SCALE**

APPROVED FOR SIGN WORK ONLY

FOR NOTES AND LEGEND,
SEE SHEET S-1

S-2

LAST REVISION | DATE PLOTTED => 13-MAY-2016
02-01-16 | TIME PLOTTED => 07:14

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1, 23.1/24.1 | 71 | 196 |

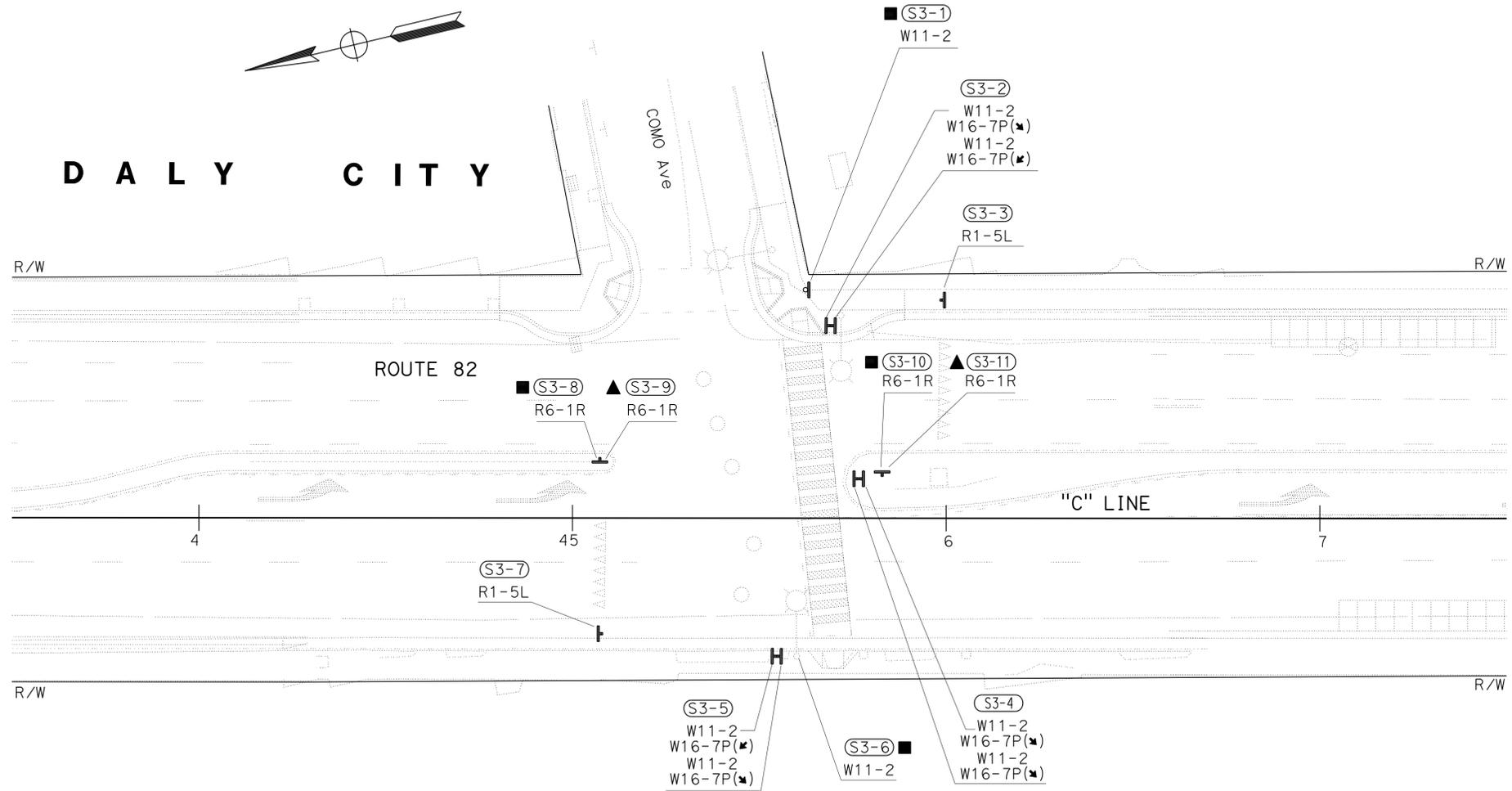
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|---------------------------|----------|
| <i>Lily Ting</i> | 2-16-16 |
| REGISTERED CIVIL ENGINEER | DATE |
| 2-16-16 | 2 |
| PLANS APPROVAL DATE | |

| | |
|----------------------------------|-----------|
| REGISTERED PROFESSIONAL ENGINEER | |
| Lily Y. Ting | No. 37330 |
| Exp. 6-30-16 | CIVIL |
| STATE OF CALIFORNIA | |

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| | | | | |
|----------------------------------------------------|-----------------------|------------------------|---------------|---------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | CALCULATED/DESIGNED BY | REVISOR | RO |
| Caltrans | RAJESH OBEROI | CHECKED BY | RAJESH OBEROI | 1-27-16 |
| TRAFFIC | | | | |



2 REPLACED PER ADDENDUM No. 2 DATED MAY 19, 2016

SIGN PLAN
LOCATION No. 3
NO SCALE

APPROVED FOR SIGN WORK ONLY

FOR NOTES AND LEGEND,
SEE SHEET S-1

S-3

LAST REVISION DATE PLOTTED => 13-MAY-2016
02-01-16 TIME PLOTTED => 07:14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC

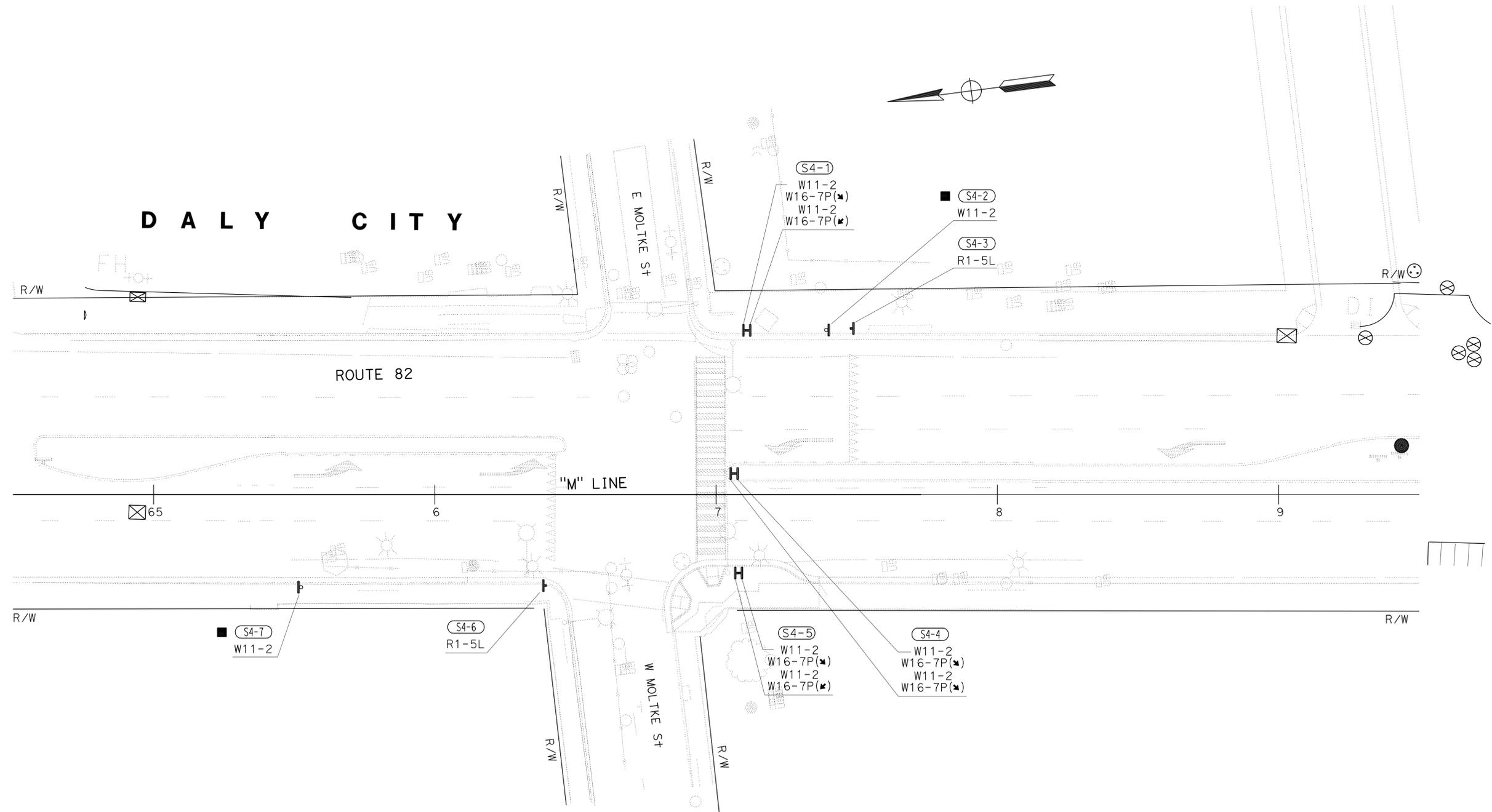
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|------------------------|---------------|
| FUNCTIONAL SUPERVISOR | RAJESH OBEROI |
| CALCULATED/DESIGNED BY | CHECKED BY |
| LILY TING | RAJESH OBEROI |
| REVISOR | DATE |
| RO | 1-27-16 |

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1, 23.1/24.1 | 72 | 196 |

REGISTERED CIVIL ENGINEER DATE 2-16-16
 LILY TING
 No. 37330
 Exp. 6-30-16
 CIVIL
 STATE OF CALIFORNIA

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2 REPLACED PER ADDENDUM No. 2 DATED MAY 19, 2016

SIGN PLAN
LOCATION No. 4
 NO SCALE

APPROVED FOR SIGN WORK ONLY

FOR NOTES AND LEGEND,
 SEE SHEET S-1

S-4

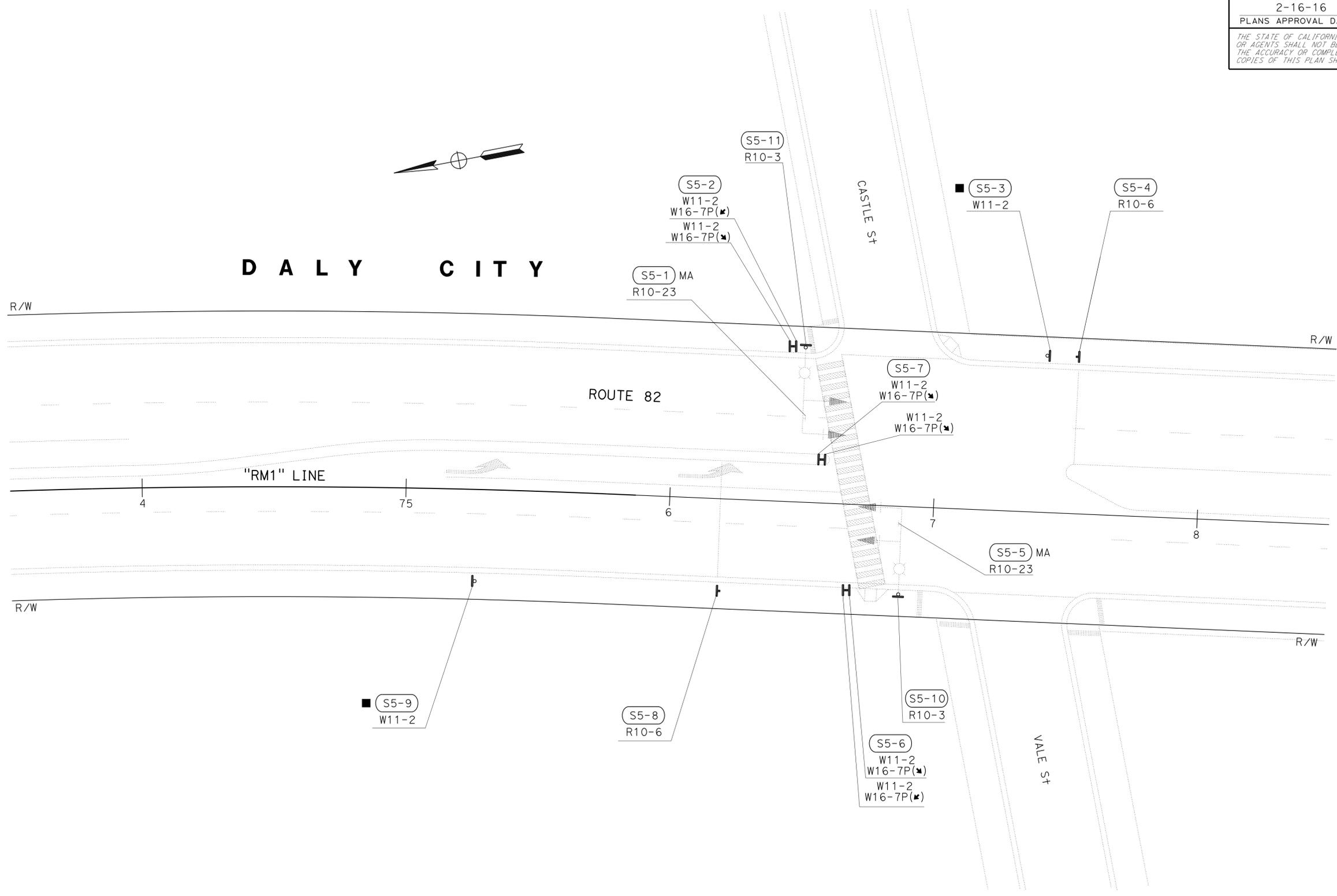
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|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1, 23.1/24.1 | 73 | 196 |

| | | |
|---------------------------|------|---------|
| Lily Y. Ting | | 2-16-16 |
| REGISTERED CIVIL ENGINEER | DATE | |
| 2-16-16 | | 2 |
| PLANS APPROVAL DATE | | |

| | |
|--------------|---------|
| Lily Y. Ting | |
| No. | 37330 |
| Exp. | 6-30-16 |
| CIVIL | |

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



2 REPLACED PER ADDENDUM No. 2 DATED MAY 19, 2016

**SIGN PLAN
LOCATION No. 5
NO SCALE**

APPROVED FOR SIGN WORK ONLY

FOR NOTES AND LEGEND,
SEE SHEET S-1

S-5

| | |
|----------------------------------------------------|---------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | TRAFFIC |
| FUNCTIONAL SUPERVISOR | RAJESH OBEROI |
| CALCULATED/DESIGNED BY | CHECKED BY |
| LILY TING | RAJESH OBEROI |
| REVISOR | DATE |
| RO | 1-27-16 |

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1, 23.1/24.1 | 82 | 196 |

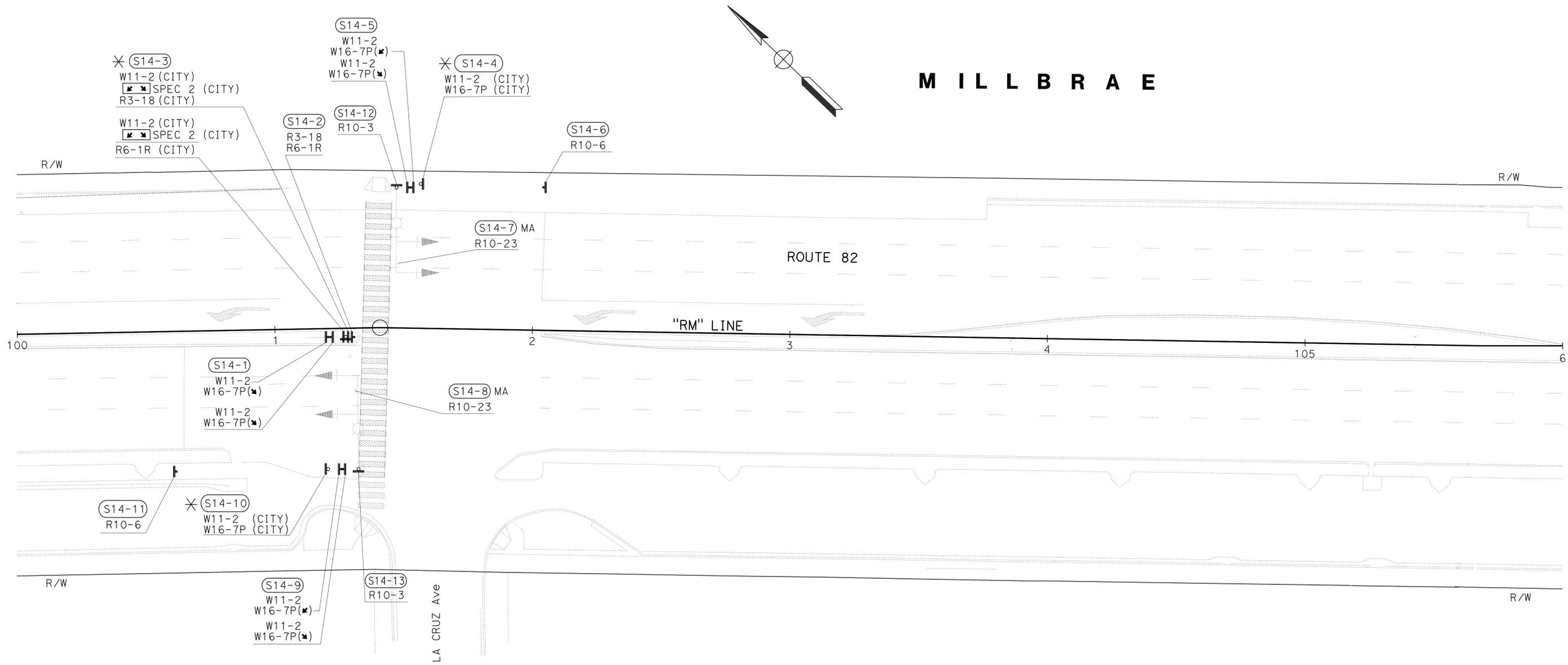
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|---------------------------|---------|
| Lily Y. Ting | 2-16-16 |
| REGISTERED CIVIL ENGINEER | DATE |
| 2-16-16 | 2 |
| PLANS APPROVAL DATE | |

| |
|----------------------------------|
| Lily Y. Ting |
| REGISTERED PROFESSIONAL ENGINEER |
| No. 37330 |
| Exp. 6-30-16 |
| CIVIL |

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NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: RAJESH OBEROI
 CALCULATED/DESIGNED BY: RAJESH OBEROI
 REVISIONS: 1-27-16



2 REPLACED PER ADDENDUM No. 2 DATED MAY 19, 2016

SIGN PLAN
LOCATION No. 14
 NO SCALE

APPROVED FOR SIGN WORK ONLY

FOR NOTES AND LEGEND,
 SEE SHEET S-1

S-14

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 04 | SM | 82,84 | 1.4/25.1, 23.1/24.1 | 86 | 196 |

| | |
|---------------------------|----------|
| <i>Lily Ting</i> | 2-16-16 |
| REGISTERED CIVIL ENGINEER | DATE |
| 2-16-16 | 2 |
| PLANS APPROVAL DATE | |

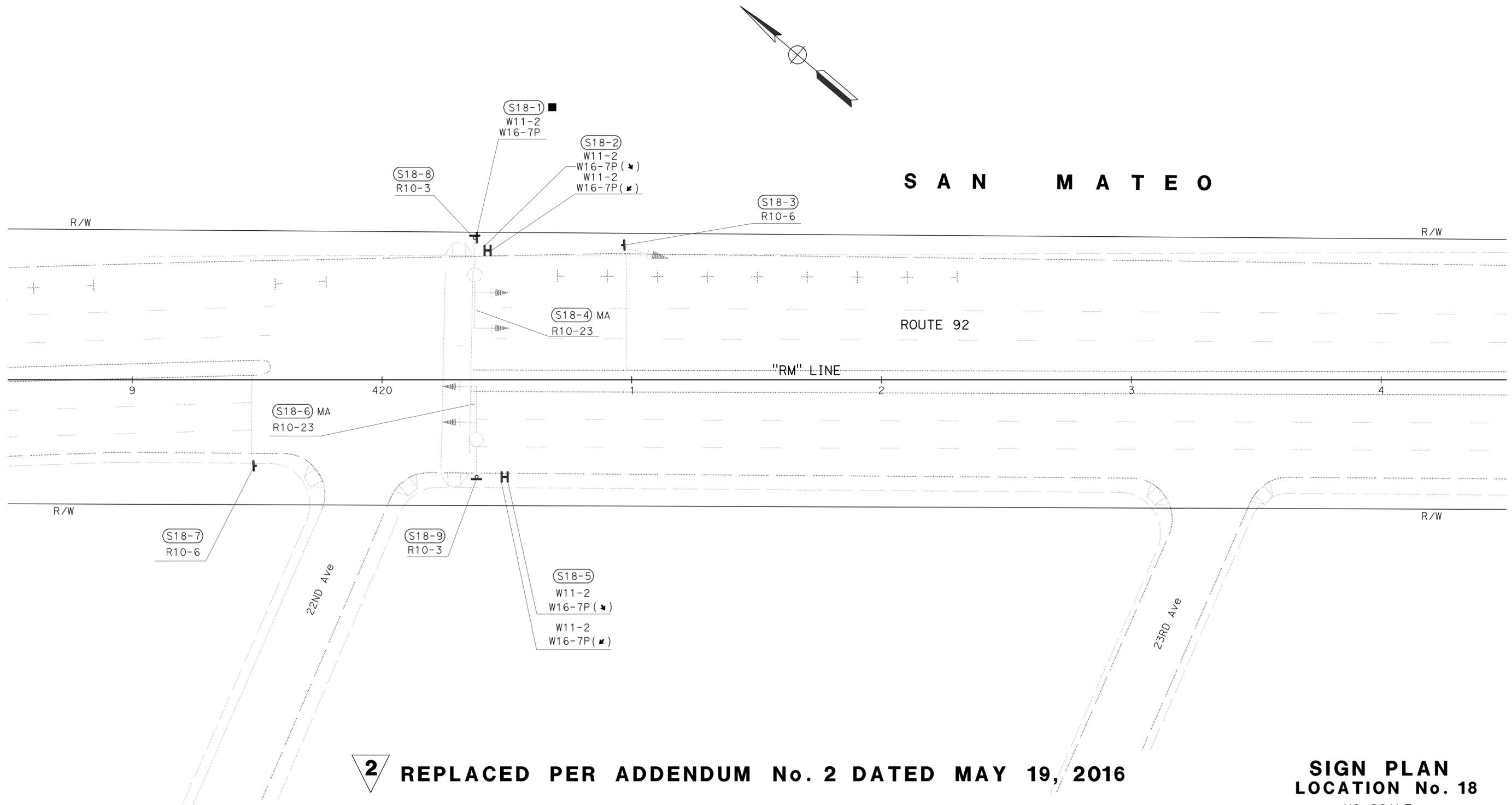
| | |
|--------------|--------------|
| Lily Y. Ting | |
| No. 37330 | Exp. 6-30-16 |
| CIVIL | |

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| | | | | |
|----------------------------------------------------|-----------------------|------------------------|---------------|---------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | CALCULATED/DESIGNED BY | REVISOR | RO |
| Caltrans | RAJESH OBEROI | CHECKED BY | LILY TING | 1-27-16 |
| TRAFFIC | RAJESH OBEROI | | RAJESH OBEROI | |



2 REPLACED PER ADDENDUM No. 2 DATED MAY 19, 2016

SIGN PLAN
LOCATION No. 18
NO SCALE

APPROVED FOR SIGN WORK ONLY

FOR NOTES AND LEGEND,
SEE SHEET S-1

S-18

LAST REVISION DATE PLOTTED => 13-MAY-2016
02-05-16 TIME PLOTTED => 07:14

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1, 23.1/24.1 | 88 | 196 |

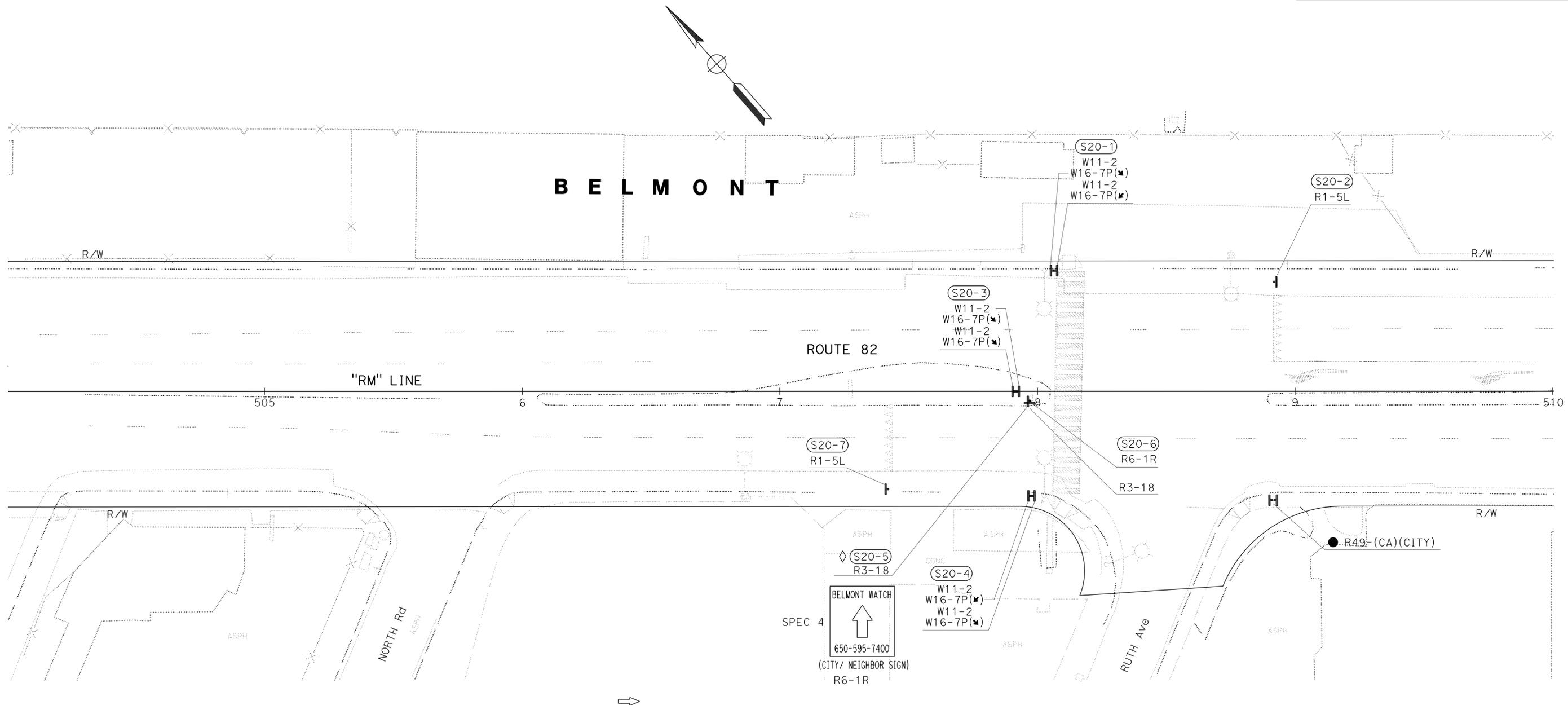
| | |
|-----------------------------------------------|-----------------|
| <i>Lily Ting</i> REGISTERED CIVIL ENGINEER | 2-16-16 DATE |
| 2-16-16 PLANS APPROVAL DATE | 2 |

| |
|---------------------------------------------------------------------------------------------------------------|
| REGISTERED PROFESSIONAL ENGINEER Lily Y. Ting No. 37330 Exp. 6-30-16 CIVIL STATE OF CALIFORNIA |
|---------------------------------------------------------------------------------------------------------------|

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NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

| | | | | |
|----------------------------------------------------|-----------------------|------------------------|---------------|---------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | FUNCTIONAL SUPERVISOR | CALCULATED/DESIGNED BY | REVISOR | RO |
| Caltrans | RAJESH OBEROI | CHECKED BY | RAJESH OBEROI | 1-27-16 |
| TRAFFIC | | | | |



2 REPLACED PER ADDENDUM No. 2 DATED MAY 19, 2016

SIGN PLAN
LOCATION No. 20
NO SCALE

APPROVED FOR SIGN WORK ONLY

FOR NOTES AND LEGEND,
SEE SHEET S-1

S-20

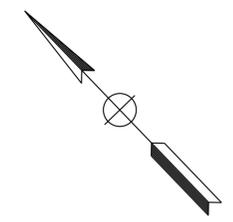
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|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1, 23.1/24.1 | 149 | 196 |

1-28-16
 REGISTERED ELECTRICAL ENGINEER DATE
 Elaine T. Wong
 No. 13753
 Exp. 6-30-17
 ELECTRICAL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER

2-16-16
 PLANS APPROVAL DATE

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

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

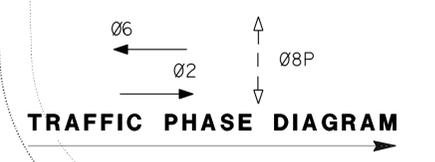
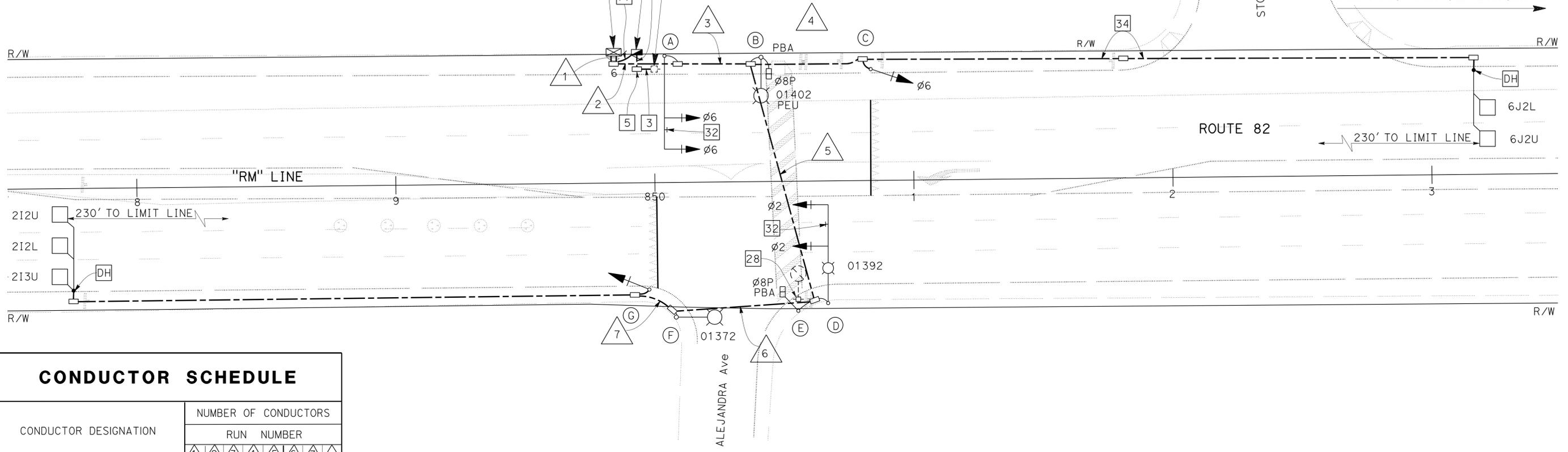


637 INSTALL MODEL 2070 CONTROLLER ASSEMBLY IN MODEL 332L CABINET WITH 2070-7G GPS TIME SOURCE

8 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE No. 01402
 Ctid No. 04350820001402
 LOAD: (TOU)
 500 W TRAFFIC SIGNALS
 3-235 W LED

1 SYSTEM No. 35-082-1402
 TYPE H SERVICE BOX (120/240 V)

A T H E R T O N



| CONDUCTOR DESIGNATION | NUMBER OF CONDUCTORS | | | | | | |
|-----------------------------|----------------------|------|---|----|---|---|---|
| | RUN NUMBER | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| No. 14 CONDUCTORS | | | | | | | |
| Ø2 | 8 | 8 | 8 | | 8 | 2 | 2 |
| Ø6 | 8 | 8 | 2 | 2 | | | |
| Ø8P | 4 | 4 | 4 | | 2 | | |
| PPBØ8 | 2 | 2 | 2 | | 1 | | |
| PPB NEUTRAL | 2 | 2 | 2 | | 1 | | |
| PHOTO ELECTRIC UNIT (PEU) | | 3 | 3 | | | | |
| SPARES | 6 | 6 | 6 | 3 | 3 | 3 | 3 |
| TOTAL No. 14 | 33 | 27 | 5 | 15 | 5 | 5 | |
| No. 6 SERVICE TO CONTROLLER | 2 | | | | | | |
| No. 8 CONDUCTORS | | | | | | | |
| LIGHTING (240 V) | | 2 | 2 | | 2 | 2 | |
| SIGNAL NEUTRAL | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| TOTAL No. 8 | 2 | 4 | 4 | 1 | 3 | 3 | 1 |
| DLC | | | | | | | |
| 2I2U | 1 | 1 | | | 1 | 1 | 1 |
| 2I2L | 1 | 1 | | | 1 | 1 | 1 |
| 2I3U | 1 | 1 | | | 1 | 1 | 1 |
| 6J2U | 1 | 1 | 1 | 1 | | | |
| 6J3U | 1 | 1 | 1 | 1 | | | |
| TOTAL DLC | 5 | 5 | 2 | 2 | 3 | 3 | 3 |
| CONDUIT SIZE | 2-3" | 2-3" | 3 | 3 | 3 | 3 | 3 |

| LOCATION | STANDARD | | | VEHICLE SIGNAL MOUNTING | | PED SIGNAL MOUNTING | PBA Ø | LED LUMINAIRE (WATTS) | SPECIAL REQUIREMENT |
|----------|----------------|-----|-----|-------------------------|--------|---------------------|-------|-----------------------|--------------------------------------------------|
| | TYPE | SMA | LMA | MAST ARM | POLE | | | | |
| (A) | 23-4-100 | 35 | 15 | MAS | MAS | | | | [29] F=15' |
| (B) | (Mod) 15TS | | 15 | | | SP-1-T | 8 | 235 | [9][22] APS WITH LED COUNTDOWN PEDESTRIAN SIGNAL |
| (C) | 1-B | | | | TV-1-T | | | | |
| (D) | (Mod) 24-4-100 | 35 | 15 | MAS | MAS | | | 235 | [22][29] F=15' |
| (E) | 1-B | | | | | TP-1-T | 8 | | APS WITH LED COUNTDOWN PEDESTRIAN SIGNAL |
| (F) | (Mod) 15 | | 15 | | | | | 235 | [22] |
| (G) | 1-B | | | | TV-1-T | | | | [9] |

2 REPLACED PER ADDENDUM No. 2 DATED MAY 19, 2016

2
SIGNAL AND LIGHTING PEDESTRIAN HYBRID BEACONS AND LIGHTING
 LOCATION No. 30
 SCALE: 1" = 20'

FOR NOTES, ABBREVIATION AND LEGEND, SEE SHEET E-1

APPROVED FOR ELECTRICAL WORK ONLY

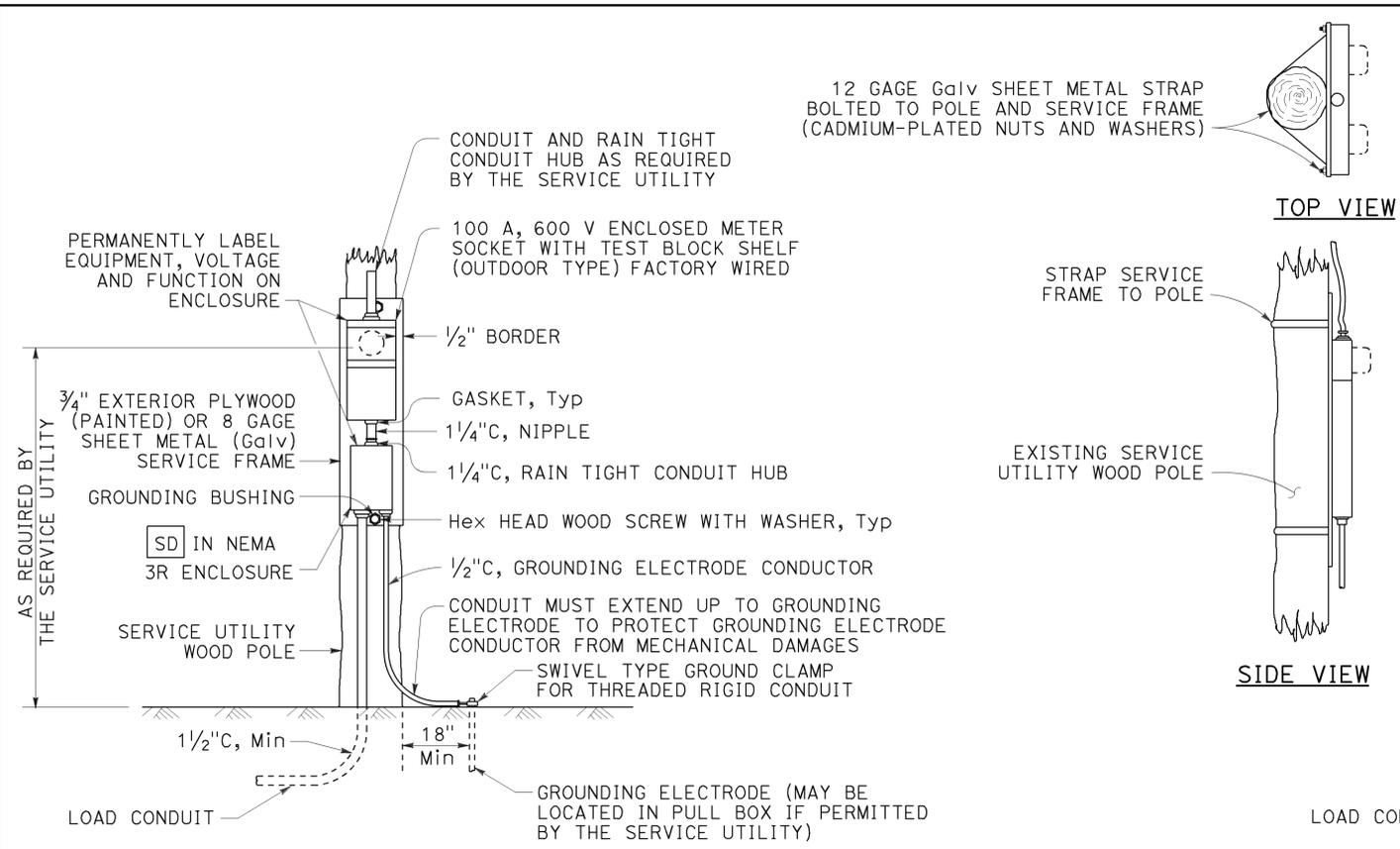
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 ELECTRICAL
 BEHZAD GOLEMOHAMMADI
 BEHZAD GOLEMOHAMMADI
 ELAINE WONG
 JESSIE CABUGAO
 ELAINE WONG
 1-27-16
 EW

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1 23.1/24.1 | 172A | 196 |

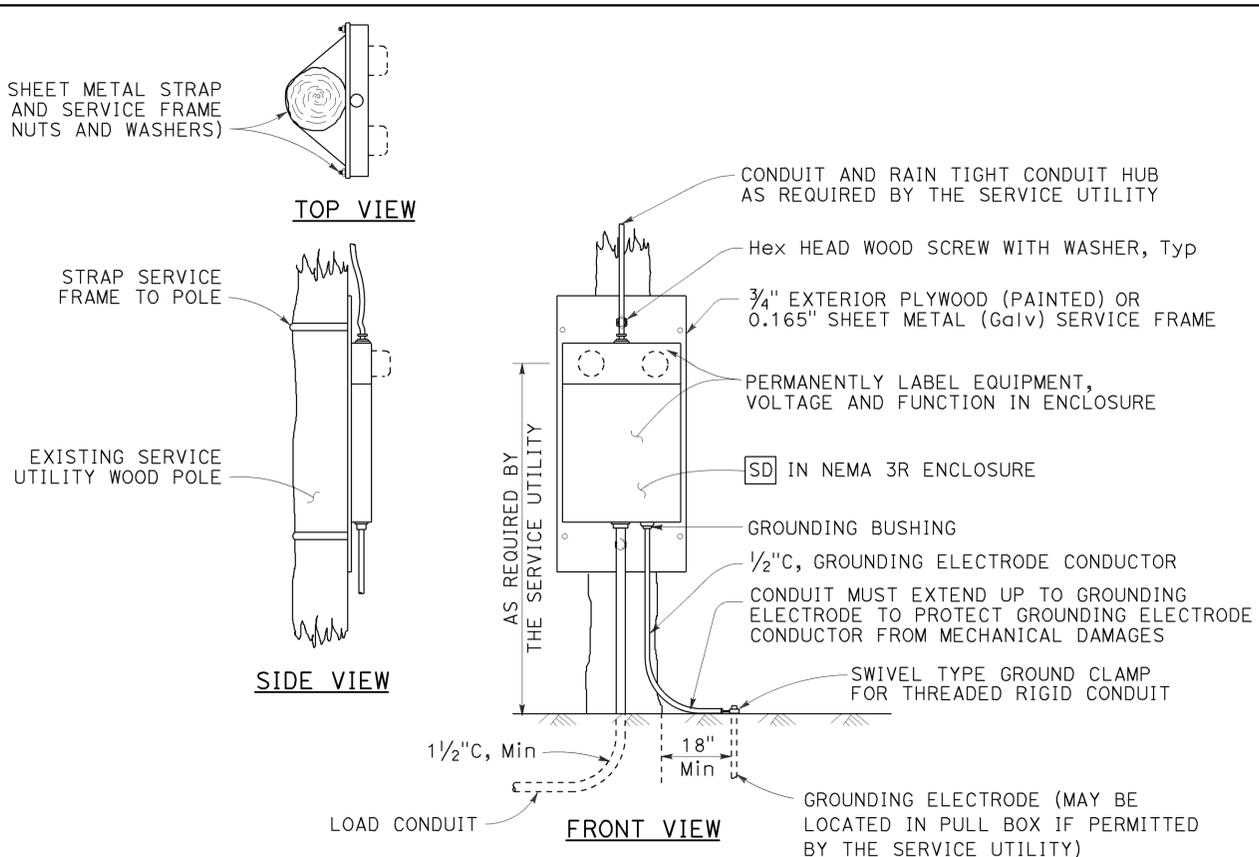
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



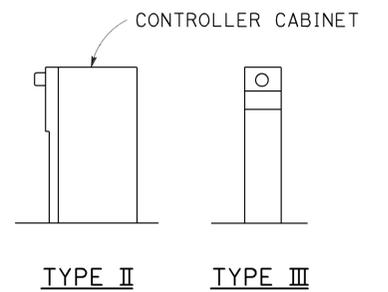
TO ACCOMPANY PLANS DATED 2-16-16



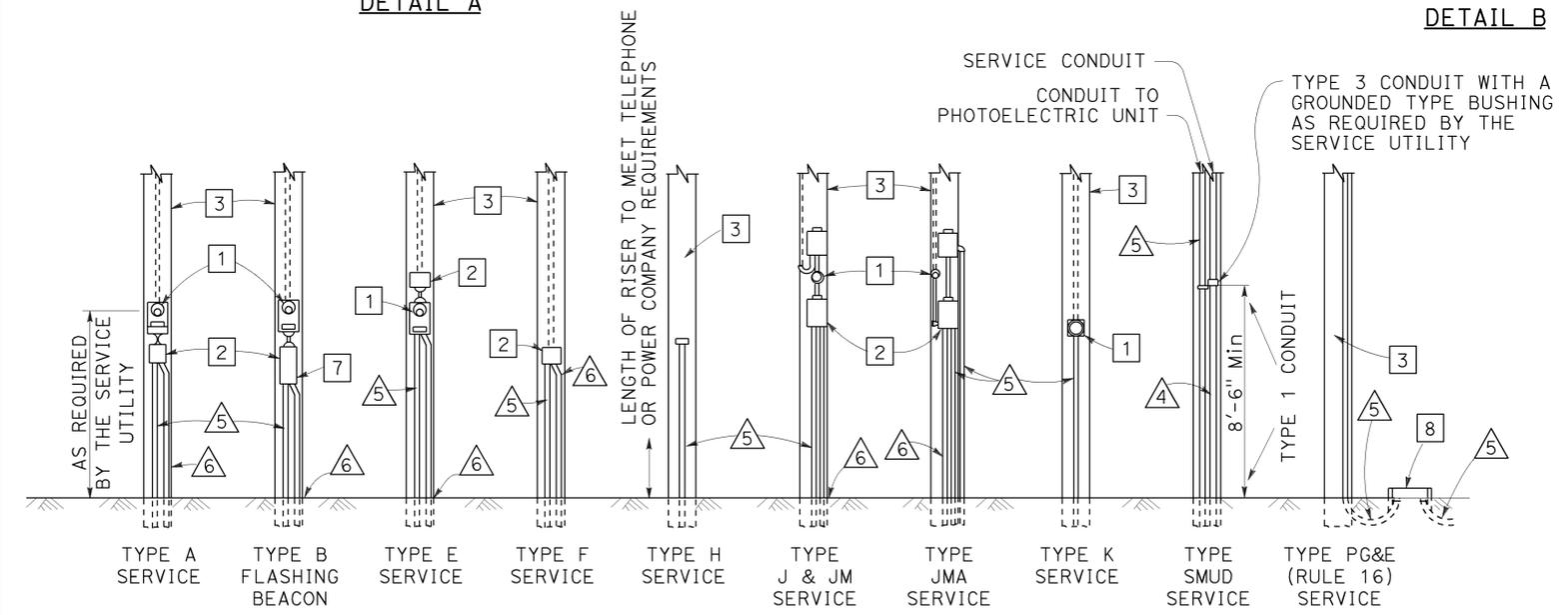
TYPE SCE-1
DETAIL A



TYPE SCE-2
DETAIL B

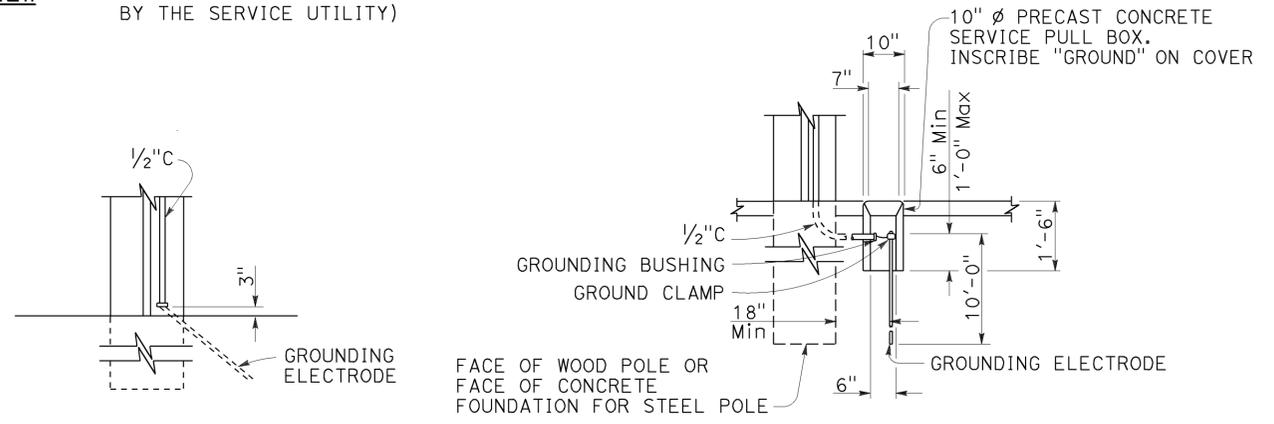


TYPE OF SERVICE (TYPICAL)
DETAIL C
See Notes 1 and 2



POLE MOUNTED SERVICE INSTALLATIONS
DETAIL D

- LEGEND:**
- 1 METER SOCKET.
 - 2 SERVICE ENCLOSURE WITH A MINIMUM 60 A RATED MAIN CIRCUIT BREAKER, UNLESS OTHERWISE SHOWN.
 - 3 A. UTILITY OWNED POLE. THE SERVICE UTILITY WILL FURNISH AND INSTALL REQUIRED SERVICE RISER, PEU WITH CONDUCTORS AND OTHER EQUIPMENT AS NEEDED.
B. STATE OWNED POLE. THE CONTRACTOR SHALL FURNISH AND INSTALL REQUIRED SERVICE RISER AND EQUIPMENT.
 - 4 2" C, SERVICE CONDUIT MUST HAVE A GROUNDED TYPE BUSHING INSTALLED AT UPPER END OF THE METALLIC POLE RISER CONDUIT. A GROUNDING CONDUCTOR MUST BE ATTACHED TO THE BUSHING, CARRIED THROUGH THE CONDUIT RUN AND ATTACHED TO THE SERVICE EQUIPMENT ENCLOSURE'S GROUNDING ELECTRODE.
 - 5 CONDUIT, LENGTH AND SIZE AS REQUIRED.
 - 6 1/2" C, 1#6. SEE DETAIL E.
 - 7 FLASHING BEACON CONTROL ASSEMBLY.
 - 8 SERVICE PULL BOX, No. 5 UNLESS OTHERWISE NOTED, FURNISHED AND INSTALLED BY THE CONTRACTOR. SERVICE UTILITY SHALL DETERMINE THE EXACT LOCATION.



SERVICE GROUNDING
DETAIL E

- NOTES:**
- Type II service equipment enclosure mounted on the side of a controller cabinet.
 - Type III complete free-standing service equipment enclosure.
 - Ground clamp and required fittings must be accessible. Conduit must extend to protect grounding electrode conductor from mechanical damage.
 - Use where service utility requires 18" clearance between grounding electrode and the pole or service equipment enclosure. Installation shown is for sidewalk or paved areas. In unpaved areas, omit special service pull box and locate ground clamp above ground or locate ground clamp in nearest pull box.



ADDED PER ADDENDUM No. 2
DATED MAY 19, 2016

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS
(SERVICE EQUIPMENT)

NO SCALE

RSP ES-2A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-2A DATED MAY 20, 2011 - PAGE 428 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-2A

2010 REVISED STANDARD PLAN RSP ES-2A

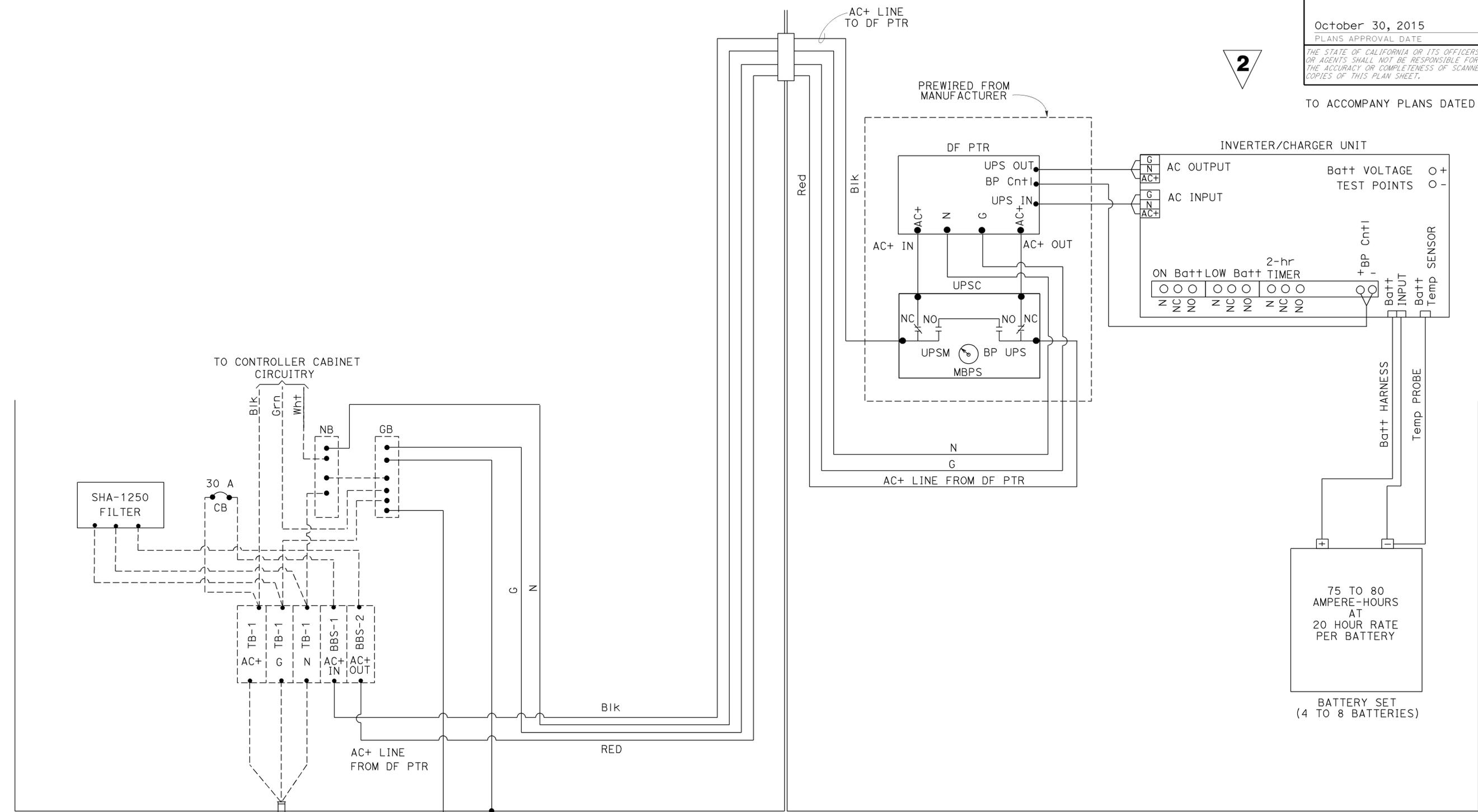
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|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1 23.1/24.1 | 176A | 196 |

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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2

TO ACCOMPANY PLANS DATED 2-16-16



SINGLE-PHASE, 120 V
2-WIRE ckt FROM
SERVICE EQUIPMENT
ENCLOSURE

CONTROLLER CABINET

BBS CABINET

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(BBS POWER CONNECTION DIAGRAM,
WITH BYPASS CONTROL LINE)**
NO SCALE

2 ADDED PER ADDENDUM No. 2 DATED MAY 19, 2016

RSP ES-3I DATED OCTOBER 30, 2015 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-3I

2010 REVISED STANDARD PLAN RSP ES-3I

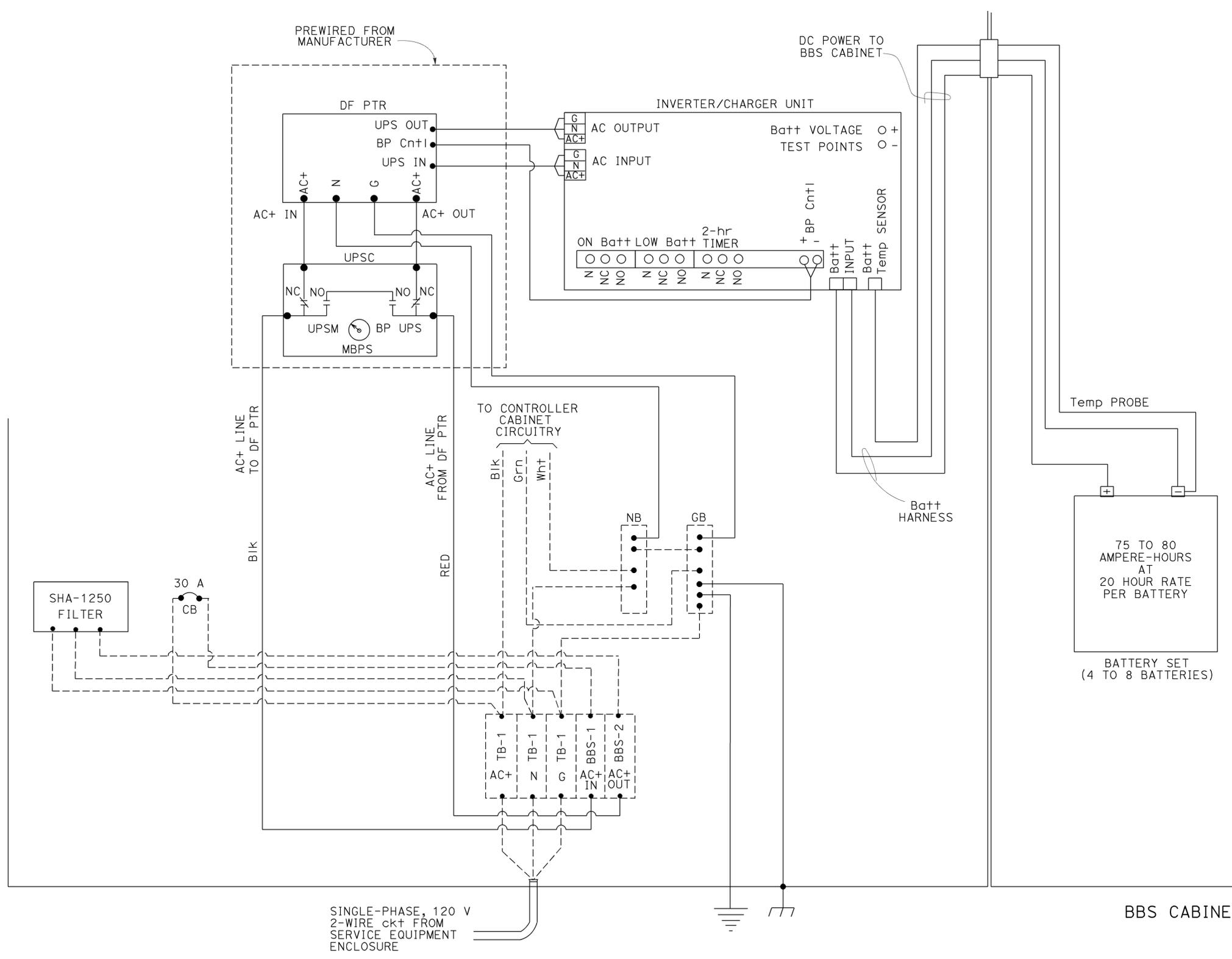
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|-----------------------------|--------------|-----------------|
| 04 | SM | 82,84 | 1.4/25.1 23.1/24.1 | 176B | 196 |

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
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TO ACCOMPANY PLANS DATED 2-16-16

2



2 ADDED PER ADDENDUM No. 2 DATED MAY 19, 2016

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (BBS POWER CONNECTION DIAGRAM,
 WITH BYPASS CONTROL LINE)**

NO SCALE

RSP ES-3J DATED OCTOBER 30, 2015 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-3J

2010 REVISED STANDARD PLAN RSP ES-3J

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 04 | SM | 82,84 | 1.4/25.1 23.1/24.1 | 176D | 196 |

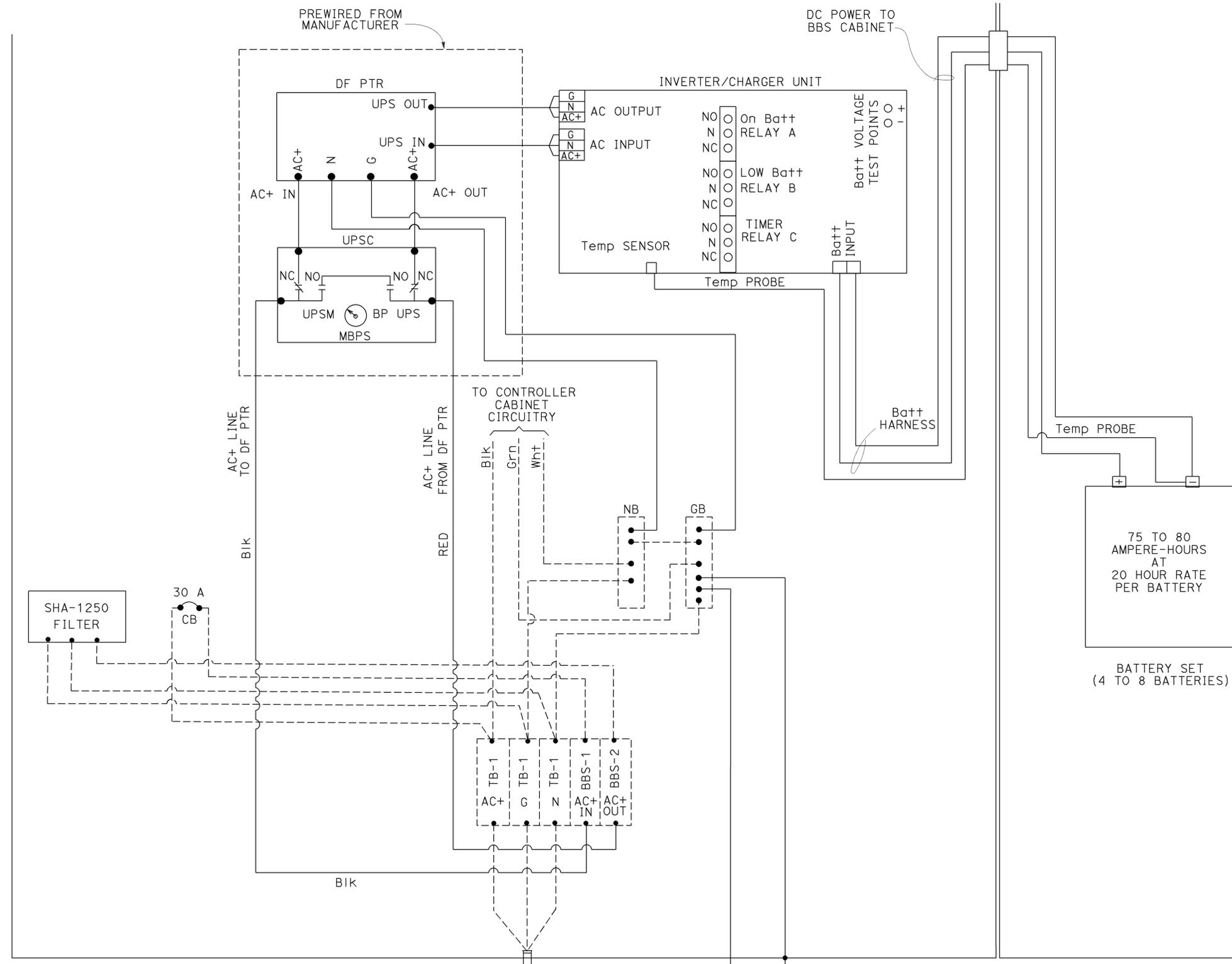
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 Theresa Aziz Gabriel
 No. E15129
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

October 30, 2015
 PLANS APPROVAL DATE

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2

TO ACCOMPANY PLANS DATED 2-16-16



2 ADDED PER ADDENDUM No. 2 DATED MAY 19, 2016

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
ELECTRICAL SYSTEMS
(BBS POWER CONNECTION DIAGRAM, WITHOUT BYPASS CONTROL LINE)
 NO SCALE

RSP ES-3L DATED OCTOBER 30, 2015 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-3L

2010 REVISED STANDARD PLAN RSP ES-3L

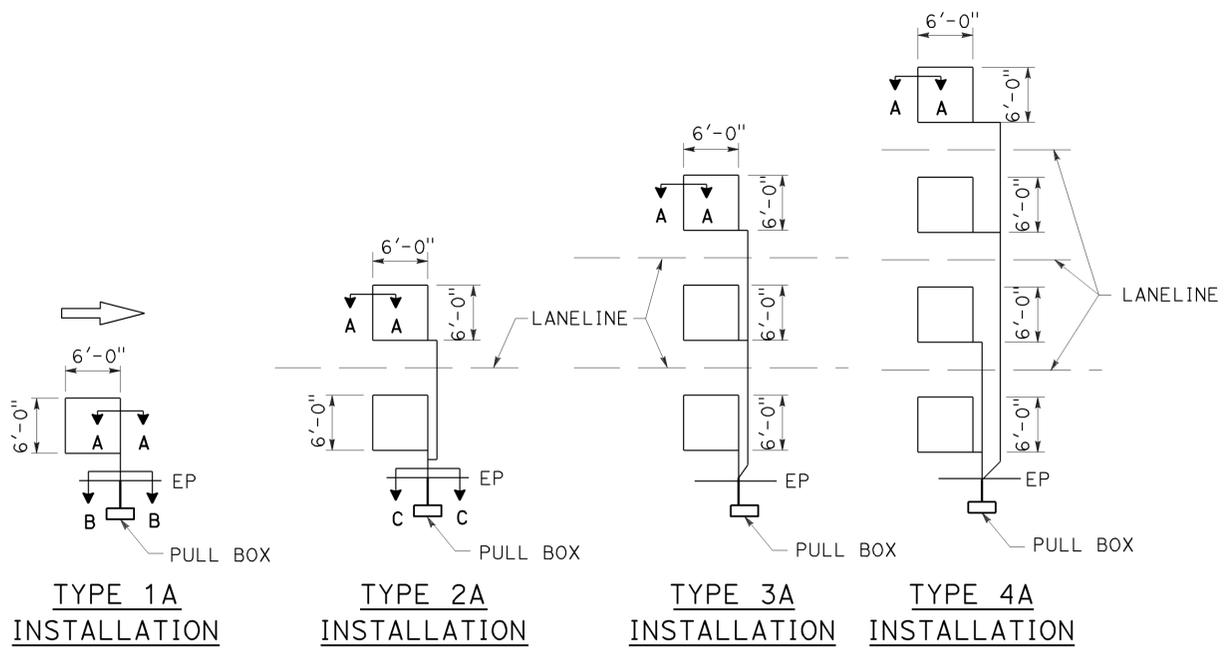
| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1 23.1/24.1 | 181A | 196 |

Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 October 30, 2015
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



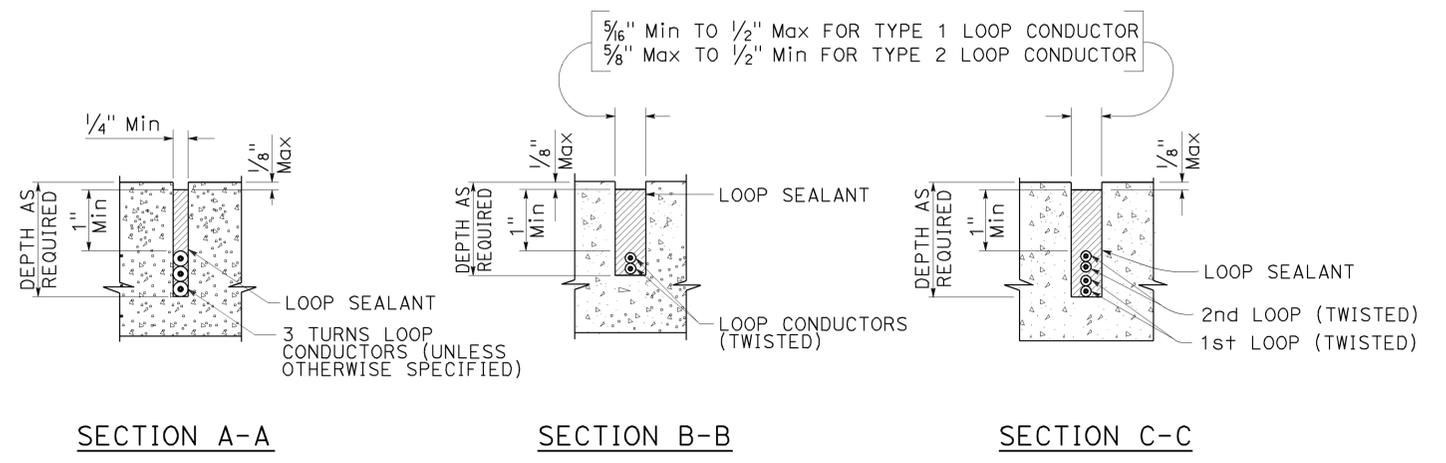
2

TO ACCOMPANY PLANS DATED 2-16-16

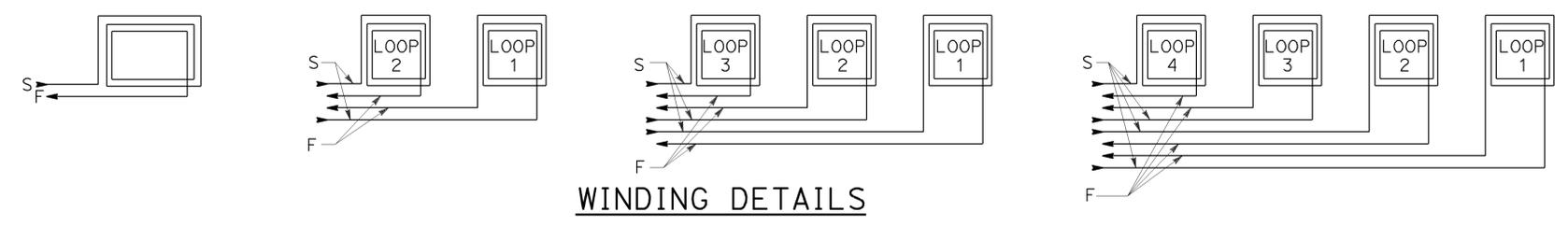


SAWCUT DETAILS

- Type A loop detector configurations illustrated
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans.

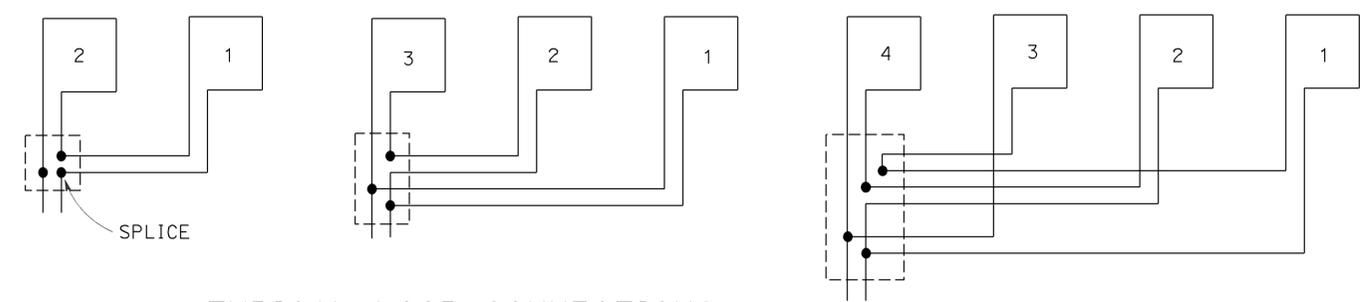


SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



WINDING DETAILS

ABBREVIATIONS:
 S - START
 F - FINISH



TYPICAL LOOP CONNECTIONS

Dashed lines represent the pull box

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
 (LOOP DETECTORS)**
 NO SCALE

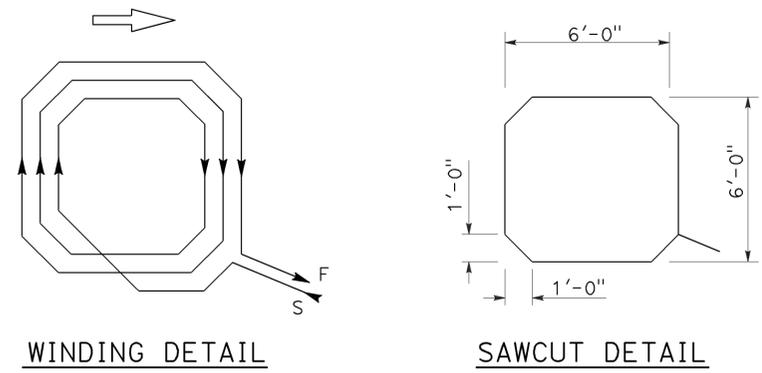
2 ADDED PER ADDENDUM No. 2 DATED MAY 19, 2016

RSP ES-5A DATED OCTOBER 30, 2015 SUPERSEDES STANDARD PLAN ES-5A DATED MAY 20, 2011 - PAGE 448 OF THE STANDARD PLANS BOOK DATED 2010.

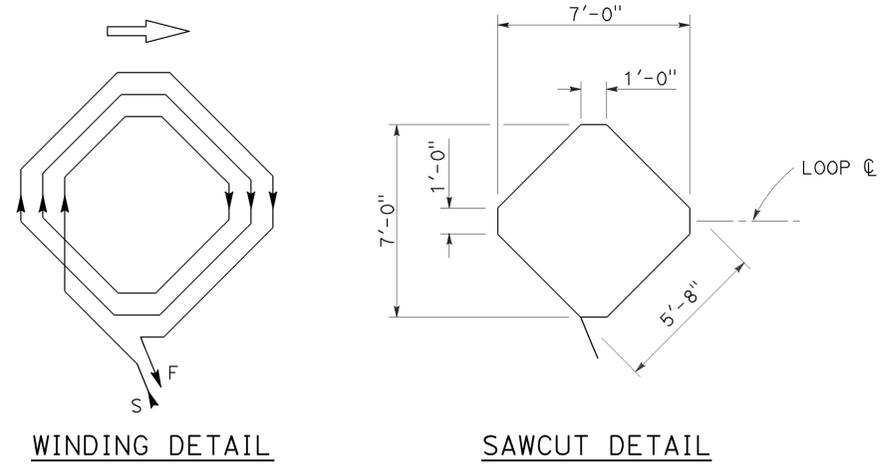
REVISED STANDARD PLAN RSP ES-5A

2010 REVISED STANDARD PLAN RSP ES-5A

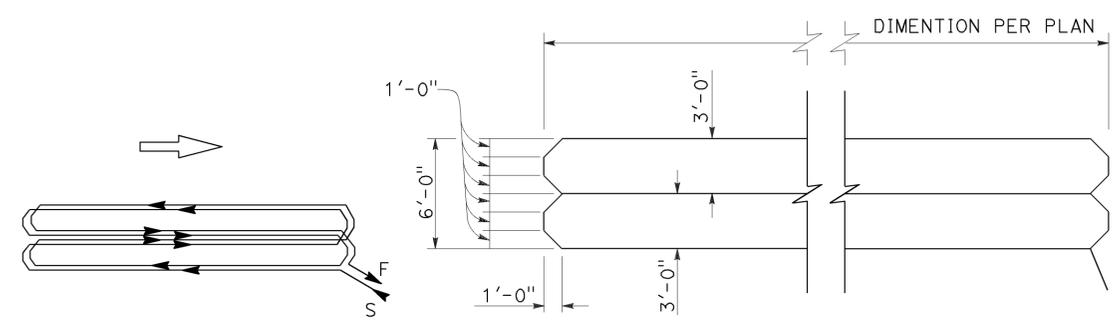
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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|--------------------------|-------------------------------------------------------------------------------------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 04 | SM | 82,84 | 1.4/25.1 23.1/24.1 | 181B | 196 |
| <i>Theresa Gabriel</i> REGISTERED ELECTRICAL ENGINEER October 30, 2015 PLANS APPROVAL DATE <small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small> | | | | | |
| | | | |  | |
| TO ACCOMPANY PLANS DATED 2-16-16 | | | | | |



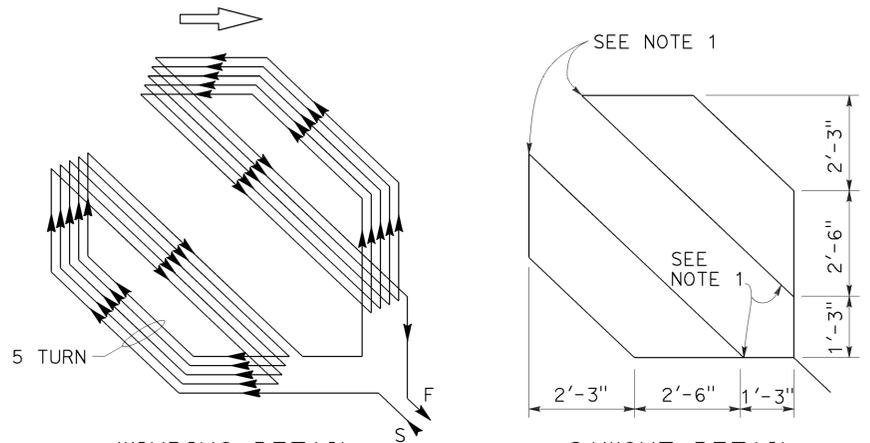
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



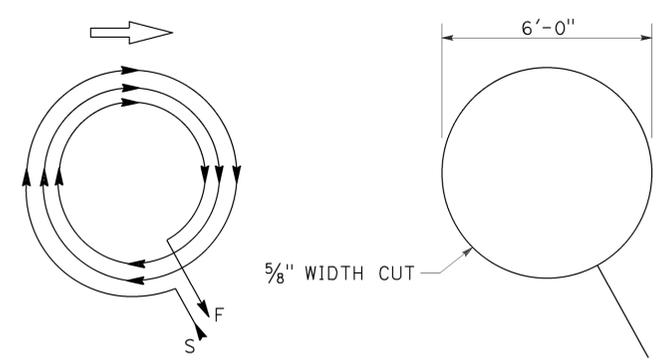
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



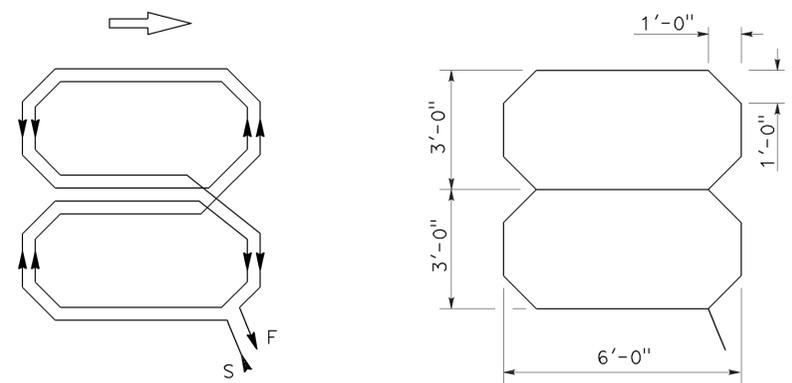
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION

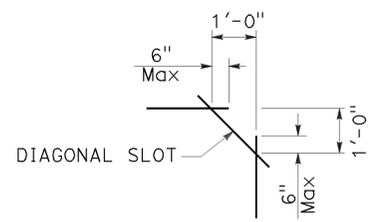


WINDING DETAIL
SAWCUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION

2



PLAN VIEW OF DIAGONAL SLOT AT CORNERS

- NOTES:**
1. Round corners of acute angle sawcuts to prevent damage to conductors.
 2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.
 3. Use Type D loops for limit line detector installations in left turn and bicycle lanes.

2 **ADDED PER ADDENDUM No. 2 DATED MAY 19, 2016**

RSP ES-5B DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-5B DATED JULY 19, 2013 AND STANDARD PLAN ES-5B DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

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ELECTRICAL SYSTEMS (DETECTORS)
NO SCALE

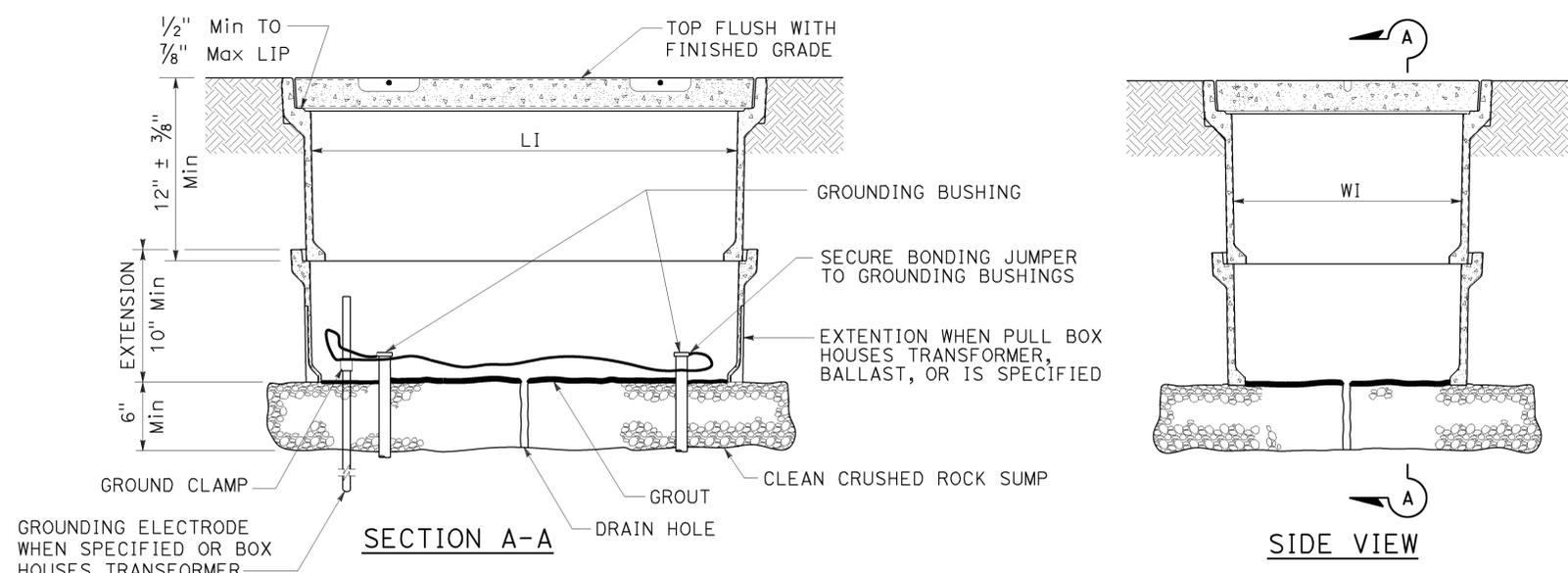
REVISED STANDARD PLAN RSP ES-5B

2010 REVISED STANDARD PLAN RSP ES-5B

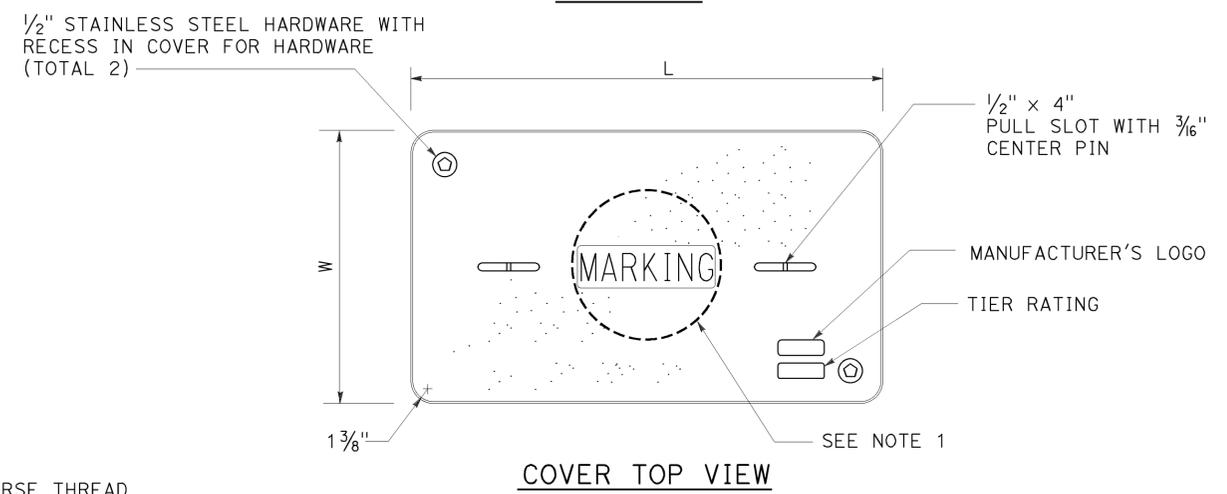


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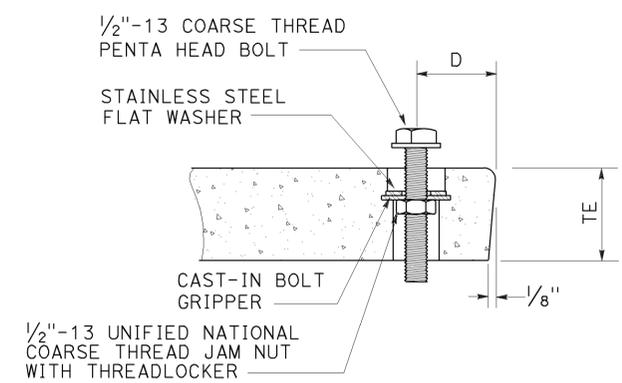
TO ACCOMPANY PLANS DATED 2-16-16



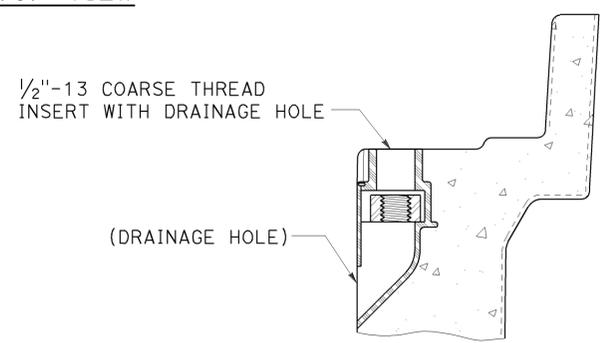
**INSTALLATION DETAILS
DETAIL A**



COVER TOP VIEW



**TYPICAL COVER CAPTIVE BOLT
OR SIMILAR**



**TYPICAL THREADED INSERT
OR SIMILAR**

NOTES:

- Pull box covers shall be marked as follows: "SERVICE" Service circuits between service point and service disconnect; "SPRINKLER-CONTROL" sprinkler control circuits, 50 V or less; "CALTRANS" on all pull boxes, except pull boxes marked "SPRINKLER-CONTROL"; and "TELEPHONE" Telephone service;
 - No. 3 1/2 pull box.
 - "SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - No. 5, 6, 9 or 9A pull box.
 - "TRAFFIC SIGNAL" - Traffic signal circuits with or without lighting or sign lighting circuits.
 - "LIGHTING" - Lighting or sign lighting circuits where voltage is under 600 V.
 - "LIGHTING-HIGH VOLTAGE" - Lighting or sign lighting circuits where voltage is above 600 V.
 - "IRRIGATION" - Circuits to irrigation controller 120 V or more.
 - "RAMP METER" - Ramp meter circuits.
 - "COUNT STATION" - Count or speed monitor circuits.
 - "COMMUNICATIONS" - Communication circuits.
 - "TOS COMMUNICATIONS" - TOS communication line.
 - "TOS POWER" - TOS power.
 - "TDC POWER" - Telephone demarcation cabinet power.
 - "CCTV" - Closed circuit television circuits.
 - "TMS" - Traffic monitoring station circuits.
 - "CMS" - Changeable message sign circuits.
 - "HAR" - Highway advisory radio circuits.
 - "BOOSTER PUMP" - Booster pump circuit.
- The nominal dimensions of the opening in which the cover sets shall be the same as the cover dimensions except the length and width dimensions shall be 1/8" greater.
- Covers and boxes shall be interchangeable with California standard male and female gages. When interchanged with a standard male or female gage, the top surfaces shall be flush within 1/8". Top outside radius of covers and pull boxes shall have a 1/8" radius.
- Pull box extension may be another pull box as long as the bottom edge of the pull box can fit into the cover opening.
- Dimensions for the cover for non-traffic pull box are nominal values.

2

**ADDED PER ADDENDUM No. 2
DATED MAY 19, 2016**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(NON-TRAFFIC PULL BOX)**
NO SCALE

RSP ES-8A DATED OCTOBER 30, 2015 SUPERSEDES RSP ES-8A DATED JULY 19, 2013 AND RSP ES-8A DATED JANUARY 20, 2012 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-8A

| DIMENSION TABLE | | | | | | | | | | |
|-----------------|-------------------|-------------------------|----------------|-------------|-------------|--------|--------|-----------------------|---------------|----------------|
| PULL BOX | PULL BOX | | | COVER | | | | | | |
| | MINIMUM DEPTH BOX | MINIMUM DEPTH EXTENSION | MINIMUM WEIGHT | LI Min | WI Min | TE | D | L | W | MINIMUM WEIGHT |
| No. 3 1/2 | 12" | N/A | 40 lb | 1' - 3" | 9" | 1 3/4" | 1 3/4" | 1'-3 1/4" - 1'-3 3/8" | 10" - 10 1/8" | 30 lb |
| No. 5 | 12" | 10" | 55 lb | 1' - 8" | 11" | 2" | 1 3/4" | 1'-11 1/4" | 1'-1 3/4" | 60 lb |
| No. 6 | 12" | 10" | 70 lb | 2' - 4 1/4" | 1' - 3 1/4" | 2" | 2" | 2'-6 1/2" | 1'-5 1/2" | 85 lb |

2010 REVISED STANDARD PLAN RSP ES-8A