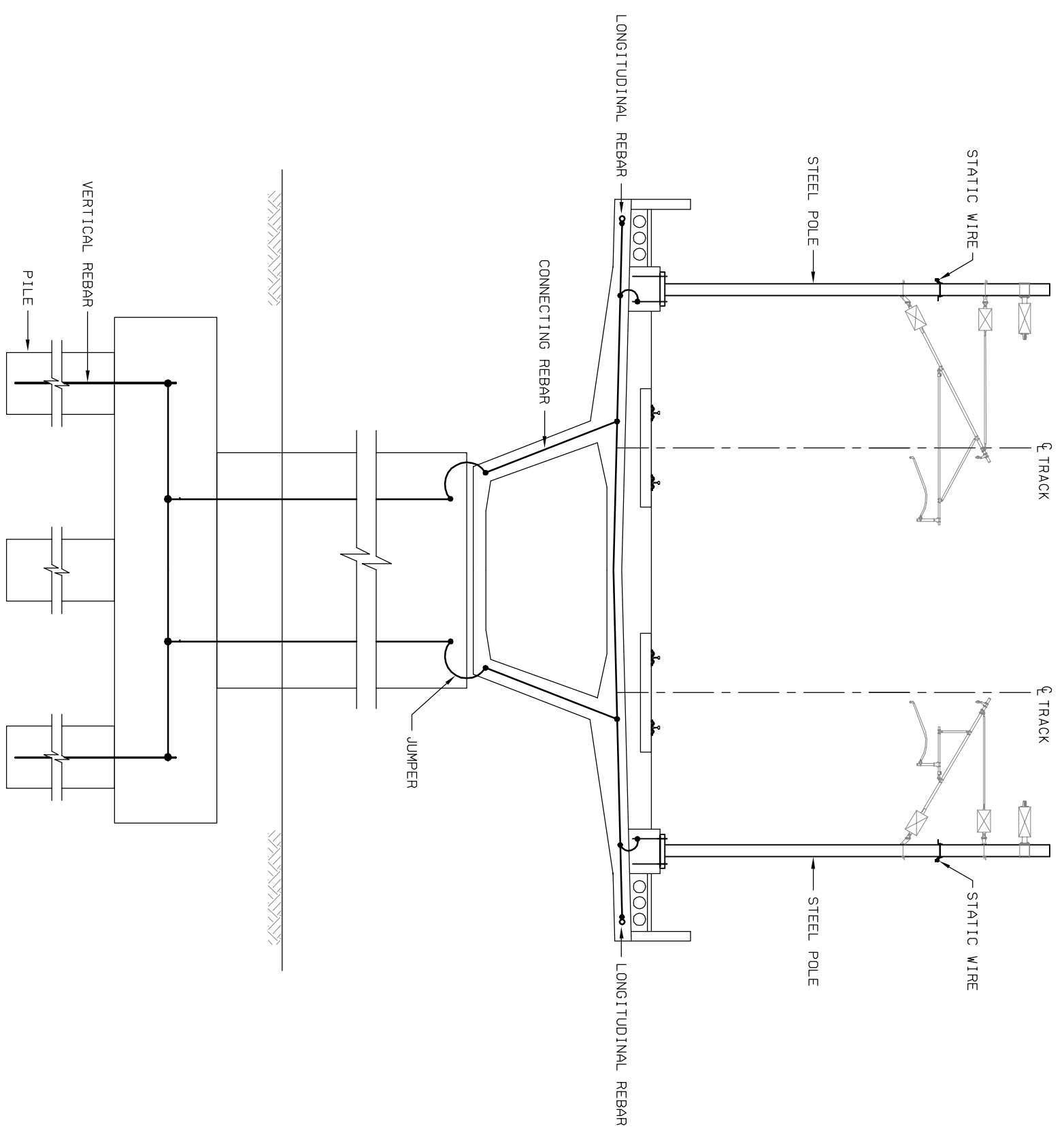


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TYPICAL OCS GROUNDING AND BONDING  
AT VIADUCT STRUCTURE

- NOTES:**
- GROUNDING DETAIL DESIGN SHALL BE COORDINATED WITH VIADUCT DESIGNER.
  - THE GROUNDING AND BONDING FOR THE EMERGENCY WALKWAY AREA AND OTHER PUBLICLY ACCESSIBLE AREAS SHALL BE DESIGNED TO AVOID INADMISSIBLE TOUCH AND STEP VOLTAGES AND ALSO MEET THE SIGNALING OPERATION REQUIREMENTS.

- LEGEND:**
- WELDED CONNECTION
  - LONGITUDINAL REBAR

DESIGNED BY  
M. HSIAD  
DRAWN BY  
J. LAU  
CHECKED BY  
R. SCHMEDES  
IN CHARGE  
K. JONG  
DATE  
12-31-09



CALIFORNIA HIGH-SPEED TRAIN PROJECT  
OVERHEAD CONTACT SYSTEM  
DIRECTIVE DRAWING  
TYPICAL OCS GROUNDING AND BONDING  
AT VIADUCT STRUCTURE

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| CONTRACT NO. |            |
| DRAWING NO.  | TM 3.2.6-A |
| SCALE        | NTS        |
| SHEET NO.    |            |

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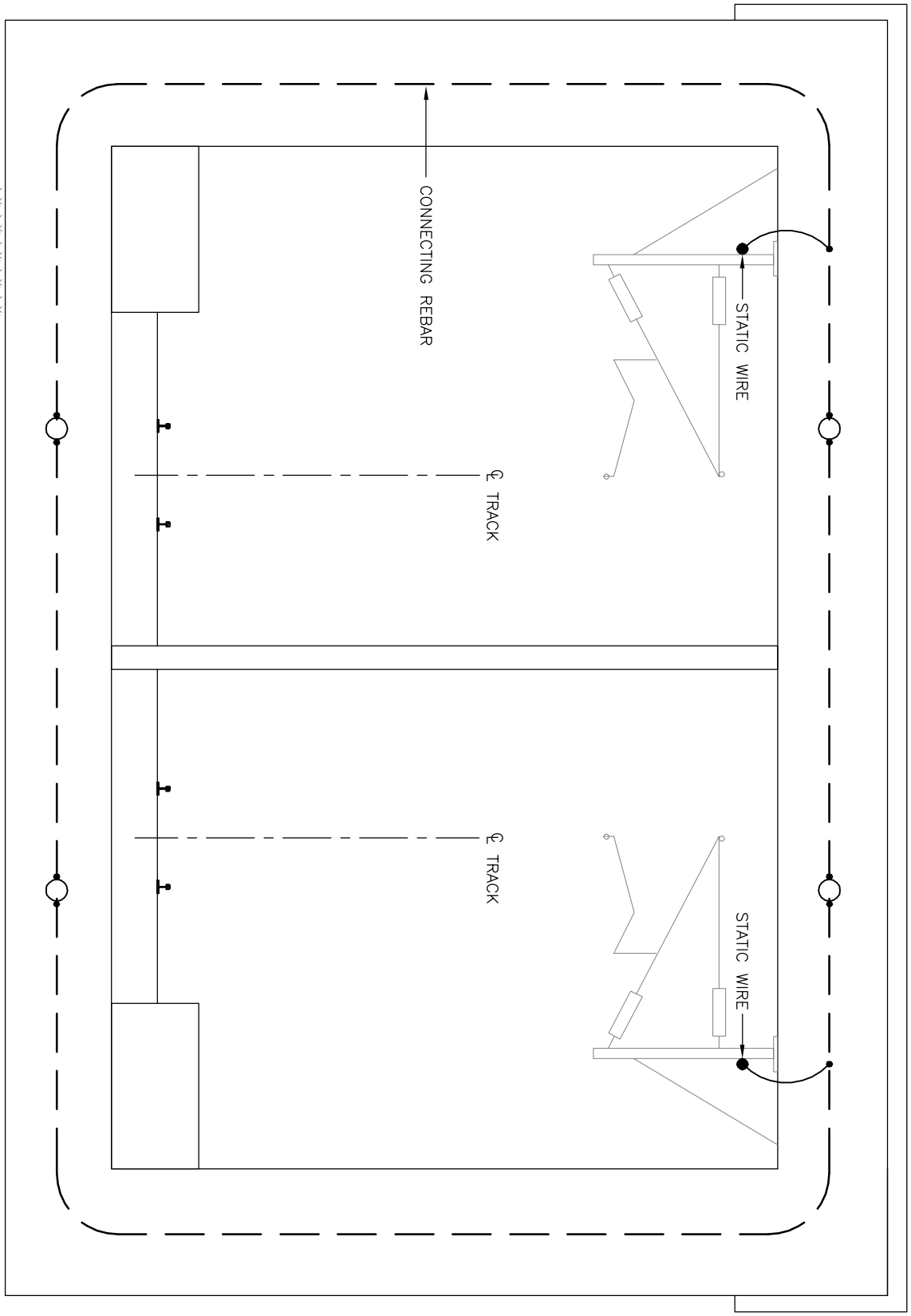
DESIGNED BY  
M. HSIAD  
DRAWN BY  
J. LAU  
CHECKED BY  
R. SCHMEDES  
IN CHARGE  
K. JUNG  
DATE  
12-31-09



CALIFORNIA HIGH-SPEED TRAIN PROJECT  
OVERHEAD CONTACT SYSTEM  
DIRECTIVE DRAWING  
TYPICAL DCS GROUNDING AND BONDING  
IN CUT AND COVER TUNNEL

CONTRACT NO.  
DRAWING NO.  
TM 3.2.6-B  
SCALE  
NTS  
SHEET NO.

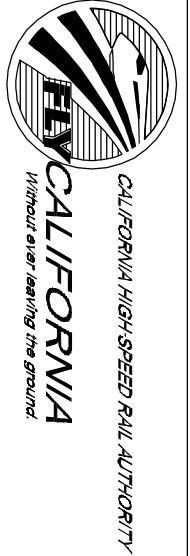
TYPICAL GROUNDING AND BONDING ARRANGEMENT  
IN CUT AND COVER TUNNEL



- NOTES:**
1. SMALL METALLIC ITEMS, SUCH AS RAILINGS, FENCES, ETC., BEYOND THE STEP AND TOUCH POTENTIAL LIMIT, NEED NOT BE GROUNDED. STEP AND TOUCH POTENTIALS EXIST WITHIN 8' OF A STANDING TRAIN, 8' FROM AN ELECTRICALLY CONTINUOUS BONDED FENCE, OR 8' FROM ANY METALLIC ITEM BONDED TO STATIC WIRE.
  2. GROUNDING DETAILS DESIGN SHALL BE COORDINATED WITH CIVIL DESIGNER.
  3. EACH STATIC WIRE SHALL BE BONDED TO THE BRIDGE REBAR AT 1000 FEET INTERVALS, BUT NOT LESS THAN TWO CONNECTIONS PER STRUCTURE.
- LEGEND:**
- WELDED CONNECTION
  - LONGITUDINAL REBAR

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12-31-09

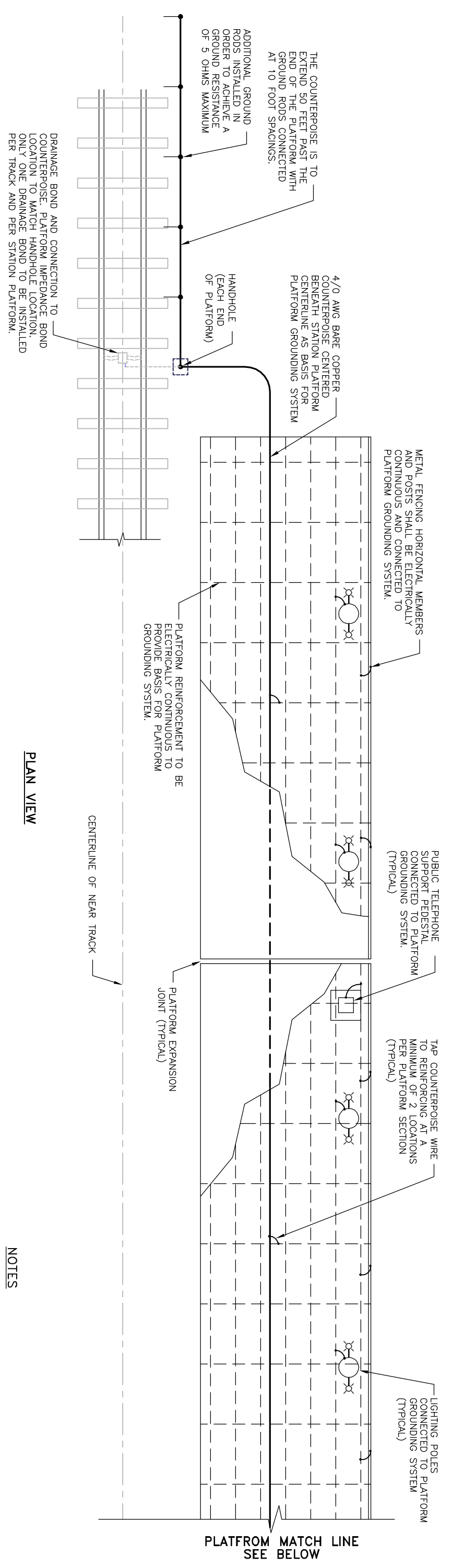
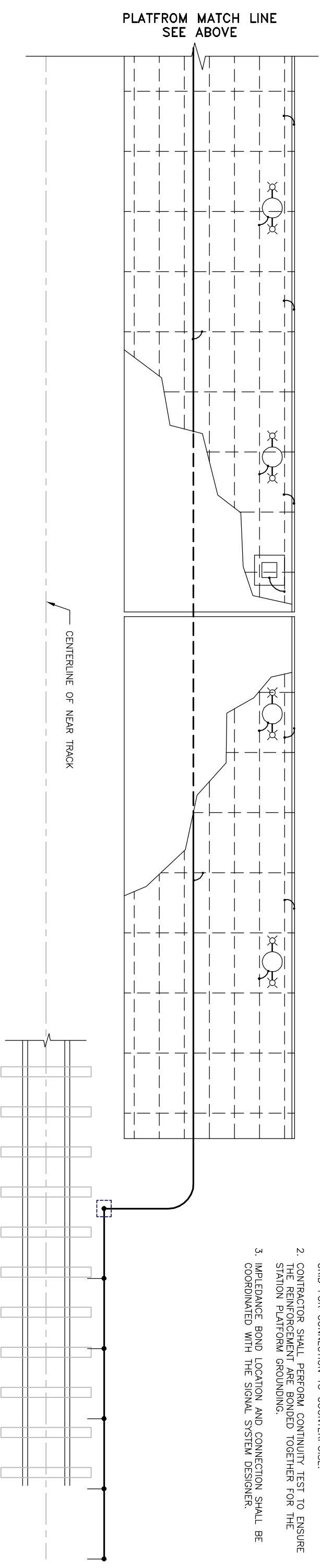


**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**OVERHEAD CONTACT SYSTEM**  
DIRECTIVE DRAWING  
TYPICAL OCS GROUNDING AND BONDING  
AT PASSENGER PLATFORM

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| CONTRACT NO. |            |
| DRAWING NO.  | TM 3.2.6-C |
| SCALE        | NTS        |
| SHEET NO.    |            |

**TYPICAL OCS GROUNDING AND BONDING  
AT PASSENGER PLATFORM**

**PLAN VIEW**



**PLAN VIEW**

**NOTES**

1. THE PLATFORM REINFORCEMENT TO BE BONDED AND TACK WELDED TO FORM CONTINUITY GROUND GRID. PROVIDE A CONNECTION POINT AT EACH END OF PLATFORM GROUND GRID FOR CONNECTION TO COUNTERPOISE.
2. CONTRACTOR SHALL PERFORM CONTINUITY TEST TO ENSURE THE REINFORCEMENT ARE BONDED TOGETHER FOR THE STATION PLATFORM GROUNDING.
3. IMPEDANCE BOND LOCATION AND CONNECTION SHALL BE COORDINATED WITH THE SIGNAL SYSTEM DESIGNER.

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DESIGNED BY  
M. HSIAD

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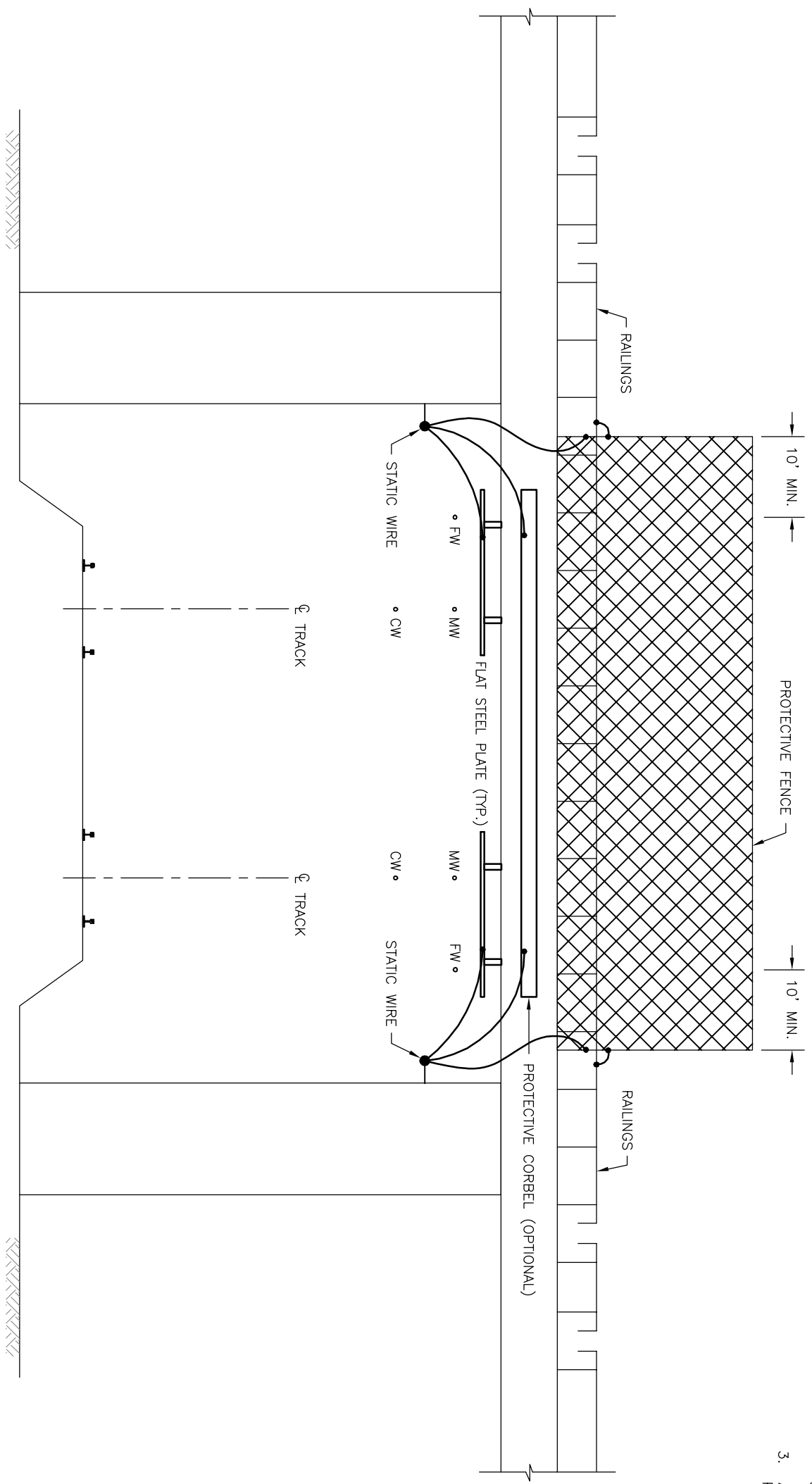
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CALIFORNIA HIGH-SPEED TRAIN PROJECT  
OVERHEAD CONTACT SYSTEM  
DIRECTIVE DRAWING  
TYPICAL OCS GROUNDING AND BONDING  
AT OVERHEAD STRUCTURE

CONTRACT NO.  
DRAWING NO.  
TM 3.2.6-D  
SCALE  
NTS  
SHEET NO.

TYPICAL OVERHEAD STRUCTURE GROUNDING AND BONDING



- NOTES:
1. BRIDGE CROSS SECTION IS SCHEMATIC IN NATURE TO SHOW GROUNDING AND BONDING, AND DOES NOT PORTRAY BRIDGE CONDITION.
  2. GROUNDING DETAIL DESIGN SHALL BE COORDINATED WITH SYSTEM AND CIVIL DESIGNER.
  3. ALTERNATE MATERIAL FOR SOLID BARRIERS MAY BE PROPOSED FOR APPROVAL BY THE FINAL DESIGNER.