

# Bridge Design Details 1.3 August 2022

## **Titles and Borders**

All words in Sheet Titles (e.g., GENERAL PLAN, TYPICAL SECTION, etc.) shall be spelled out completely.

| BRIDGE No.<br>XX-XXXX | XYZ                             | AVENUE OVE   | RCROS       | SSIN | IG    |         |
|-----------------------|---------------------------------|--|-------------|------|-------|---------|
| POST MILE<br>X.X      |                                 | GENERAL F  | LAN         |      |       |         |
|                       | OUTE: XXX/XXX<br>No.: XX-XXXXX4 | DISREGARD PRINTS BEARING<br>EARLIER REVISION DATES | REVESION DA | ATES | SHEET | of<br>X |

Figure 1.3.1 Sheet titles

Abbreviations for Structure Names are acceptable when space is limited (e.g., OC, St, Ave, No., etc). The Structure Name should fit in one box and be the same on every sheet. The main characteristic of a project shall be identified in the Structure Name (e.g., REPLACE, RETROFIT, WIDEN, etc.); if more than one characteristic fits, use "MODIFY."

| BRIDGE No.       | >  | (YZ | AVE                            | 00 ( | MO  | D       | FY      | () |       |         |
|------------------|--|-----|--------------------------------|------|-----|---------|---------|----|-------|---------|
| POST MILE<br>X.X |  | ТΥ  | PICA                           | LSE  | сті | 01      | N       |    |       |         |
|                  | COUNTY/ROUTE: XXX/XXX<br>CONTRACT No.: XX-XXXXX4 |     | D PRINTS BEAF<br>REVISION DATE |      | F   | REVISIO | N DATES |    | SHEET | of<br>X |

#### Figure 1.3.2 Structure names

For adjacent structures shown on the same set of plans, such as bridge widenings, joint seal and approach slab replacements, or other similar work, Bridge Numbers shall be given as "XX-XXXXL/R". Refer to Bridge Design Details: 3.1 General Plan Detailing Examples, Attachment 3A.A.10.



#### Names on Structure Plan Sheets

Names shown on Structure Plan sheets should be placed as each component of the work is completed. The check of both the design and details is performed by the Engineer assigned to be the "Checker". The Engineer who initiates the engineering design is the "Designer" and is never listed as the "Checker". The "Designer" and "Checker" are both responsible for a complete review of all the details and ensure they meet the intent of the design. Names should be printed using upper and lowercase text.

Please note that on the GENERAL PLAN sheet, additional names are placed in the border. In the lower left corner, the Design Branch Chief's name at the time the work was completed is given (see Figure 1.3.5), the Engineers responsible for "Layout" are recorded and the name of the Specifications Engineer is listed for both of the "Specifications" and "Plans and Specs Compared" cells. If the specifications are prepared by a non-registered Engineer, the name of non-registered Specifications Engineer is listed in the "Specifications" cell and the name of registered Specifications Reviewer is listed in the "Plans and Specs Compared" cell. In some cases, the names for the seismic analysis will be the same as the designer and checker, while in other cases they may be from another Branch. If seismic analysis is not done on the structure, "N/A" shall be placed in the name boxes.

The Design Branch number is also provided on all Structure Plan sheets.

|            |                               | ſ                                  | - BOTH SHOULD<br>Be the same     | always                        | ADD ENGINEERS RESPONSIBL<br>FOR SEISMIC DESIGN AND C                     | E<br>HECK    |                  |   |                       |
|------------|-------------------------------|------------------------------------|----------------------------------|-------------------------------|--|--------------|------------------|---|-----------------------|
| DESIGN     | Engineer 1                    | Engineer 2                         | SEISMIC                          | Engineer 1                    | CHECKED<br>Engineer 2  | ST A         | TE OF            | DIVISION OF ENGINEERING SERVICES<br>Bridge design |                       |
| DETAILS    | Detailer 1                    | Engineer 2                         | LAYOUT                           | Engineer 1                    | Engineer 2   | CALI         | FORNIA           | BRANCH X  | XX-XXXX<br>POST MILE  |
| QUANTITIES | ev<br>Engineer 3 / Engineer 4 | снескер<br>Engineer 5 / Engineer 6 | SPECIFICATIONS                   | BY<br>Specifications Engineer | PLANS AND SPECS COMPARED<br>Specifications Reviewer                      | DEPARTMENT C | OF TRANSPORTATIO |   | X.X                   |
|            |                               |                                    | DATE PLOTTED =<br>FILE => bdd 1. |                               | D => 14:16 ORIGINAL SCALE<br>IN INCHES FOR<br>E => s136481 REDUCED PLANS | 0 1          | 2 3              | UNIT: XXXX<br>PROJECT NUMBER & PHASE: XXXXXXXXXXX | COUNTY/RO<br>CONTRACT |



|                                  |                               |  | - BOTH<br>BE | 'H SHOULD<br>The Same | ALWA | YS         |      |   |                          |
|----------------------------------|-------------------------------|--|--------------|-----------------------|------|------------|------|---|--------------------------|
| DESIGN                           | By<br>Engineer 1              | CHECKED<br>Engineer 2 -                                  | Г            | s                     | TAT  | E OF       |      | DIVISION OF ENGINEERING SERVICES<br>Bridge design | BRIDGE No.               |
| DETAILS                          | BY<br>Detailer 1              | CHECKED<br>Engineer 2                                    |              | CAL                   | .IF  | ORNIA      |      | BRANCH X  | XX-XXXX<br>POST MILE     |
| QUANTITIES                       | вy<br>Engineer 3 / Engineer 4 | снескер<br>Engineer 5 / Engineer 6                       | DEP          | ARTMEN                | T OF | TRANSPORTA | TION |   | X.X                      |
| DATE PLOTTED =<br>F]LE => bdd 1. |                               | > 15:23 ORJGINAL SCALE<br>IN INCHES FOR<br>REDUCED PLANS | 0            | ·                     | 1    | 2          |      | UNIT: XXXX<br>PROJECT NUMBER & PHASE: XXXXXXXXXXX | COUNTY/ROU<br>CONTRACT N |

Figure 1.3.4 Names on Structure Plan Sheets



# **Sheet Title and Signature Block**

| Dist                          | COUNTY  | ROUTE   | POST MILES<br>TOTAL PROJECT | SHEET<br>No.                         | TOTAL<br>SHEETS |
|-------------------------------|---|---------|-----------------------------|--------------------------------------|-----------------|
|                               |   |         |                             |                                      |                 |
| REC<br>PLA<br>THE ST<br>SHALL | SISTERED C<br>INS APPRON<br>TATE OF CALIFOR<br>NOT BE RESPONS | AL DATE | CERS OF AGENTS              | ur Bridge<br>12345<br>2/2/22<br>IVIL | ENGINEER #      |

Typical Index Block includes the signature and seal of registered Project Engineer with name, license number and expiration date. Index Blocks are used on GENERAL PLAN (GP), Detail Sheet(s) and Bridge Standard Detail Sheets (XS Sheets).

NOTE: Do not change the District placeholder cells (District, County, Route, Post Miles Total Project, Sheet No. or Total Sheets). These placeholders and signatures are placed electronically with date of authorization during the Expedite phase of a project.

| XX-XXXX ATZ<br>POST MILE<br>X.X                | GENERAL F  | PLAN           |          |
|--|--|----------------|----------|
| COUNTY/ROUTE XXX/XXX<br>CONTRACT No. XX-XXXXX4 | DISREGARD PRINTS BEARING<br>EARLIER REVISION DATES | REVISION DATES | SHEET OF |
|  |  |                |          |
| al Engineer                                    | DESI<br>DETA<br>Cal Engin                          | eer - Branch X | c<br>c   |

| BRIDGE No.<br>XX-XXXX                            | XYZ | AVENUE OVE   | RCROSSIN       | ١G         |         |
|--|-----|--|----------------|------------|---------|
| POST MILE<br>X.X                                 | C   | OLUMN CASING                                       | - STEEL        |            |         |
| COUNTY/ROUTE: XXX/XXX<br>CONTRACT No.: XX-XXXXX4 |     | DISREGARD PRINTS BEARING<br>EARLIER REVISION DATES | REVISION DATES | SHEET<br>X | OF<br>X |

| BRIDGE No.<br>XX-XXXX | XYZ                             | AVENUE OVERCROSSIN                                 | ١G         |         |
|-----------------------|---------------------------------|--|------------|---------|
| POST MILE<br>X.X      |                                 | TRIP JOINT SEAL ASSEMBLY<br>Imum movement rating = | 4"         |         |
|                       | OUTE: XXX/XXX<br>No.: XX-XXXXX4 | DISREGARD PRINTS BEARING<br>EARLIER REVISION DATES | SHEET<br>X | of<br>X |

| BRIDGE STANDARD DETAILS                         |                            |  |  |  |  |  |  |  |
|---|----------------------------|--|--|--|--|--|--|--|
| X \$8-010                                       | JONUORY 2021               | The components of the Bridge Standard<br>Details have been prepared under the<br>responsible charge of the Technical Owner,<br>a registered Civil engineer in the State<br>of California |  |  |  |  |  |  |
| Refer to: http://www.dot.o<br>sheets/index.html | a.gov/hq/esc/techpubs/manu | al/bridgemanuals/bridge-standard-detail-   |  |  |  |  |  |  |

Typical Sheet Title Block for Structure Plan Sheets.

Branch Chief Block on GP sheet.

NOTE: Branch Chief name should be printed using upper and lowercase text. Plans created by Consultant for Division of Engineering Services should include the Branch Chief name and number.

Typical Sheet Title Block for Bridge Standard Detail Sheets (XS Sheets).

Typical Sheet Title Block for Bridge Standard Detail Sheets (XS Sheets) with long name.

Typical Signature Block for Bridge Standard Detail Sheets (XS Sheets).

Figure 1.3.5 Sheet titles and signature blocks



# Level for Engineer's Signatures

When creating new design sheets, Engineers' signatures and their corresponding expiration dates shall be placed on Level *str\_Border\_PSE\_Signature-A*. This level is dedicated solely to these signatures in order to facilitate easy removal.

Note that this level shall also be utilized for the Project Engineer's signature and date that is recorded in a Change Order (CO) decal.

# **PE Registration Date**

Once a Structure Project Engineer has signed the form for use of electronic signatures and the Structure Design Technician has placed the digitized signature on the sheet, his/her seal information and expiration date remains valid in perpetuity as long as the information on the sheet is unmodified. Any changes made to the sheet will require a new seal and date, or a supplemental seal typically furnished for change orders. This policy applies to all contract plan sheets.

## **Unit, Phase and Contract Number**

The Unit Number on Contract Plan sheet(s) is the four digit cost center number of the Design Branch assigned to do the work. The Project Number is the District assigned Enterprise Financial Infrastructure System (EFIS) number ending with a 1, which identifies Phase 1 design stage of the Plans, Specifications and Estimate (PS&E). The Contract Number is the six digit District Project Expenditure Authorization (EA) number ending with a 4. During the planning phase of projects, the Project EA number is listed as the five digit number preceding the number 4; the project EA only becomes a contract when plans are delivered to construction.

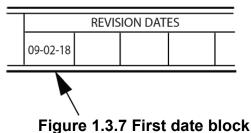
The Project Number & Phase and Contract Number on all Structure Plan sheets must match the number on Roadway Plans and Special Provisions.

| DIVISION OF ENGINEERING SERVICES    | BRIDGE No. | <b>VV7</b>    | AVENUE OVE               |          | 1 e e li |       |    |  |
|-------------------------------------|------------|---------------|--------------------------|----------|----------|-------|----|--|
| BRIDGE DESIGN                       | XX-XXXX    |               | ERCRUSSING               |          |          |       |    |  |
| BRANCH X                            | POST MILE  |               |                          |          |          |       |    |  |
|                                     | X.X        | GENERAL PLAN  |                          |          |          |       |    |  |
| UNIT: XXXX                          | COUNTY /R  | OUTE: XXX/XXX | DISREGARD PRINTS BEARING | REVISION | N DATES  | SHEET | OF |  |
| PROJECT NUMBER & PHASE: XXXXXXXXXXX |            | No. XX-XXXXX4 | EARLIER REVISION DATES   |          |          | Х     | Х  |  |



## **Revision Date Blocks**

A) The date in the first box is the date that the CADD file is created (e.g., 09-02-18) This date does not change throughout the life of the sheet



rigure 1.5.7 First date block

B) The next three revision dates follow in the next three boxes (e.g.,10-04-18, 10-06-18, 10-09-18), with the previous revision dates crossed out.

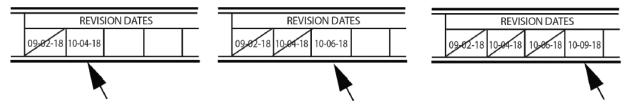


Figure 1.3.8 Revision date blocks

C) If there are more revisions, delete (blank out) the date in the second box. The next revision date (e.g., 10-11-18) will go in the third box. From this point on, alternate dates between the third and fourth boxes only, leaving the creation date in the first box crossed out and the second box empty.

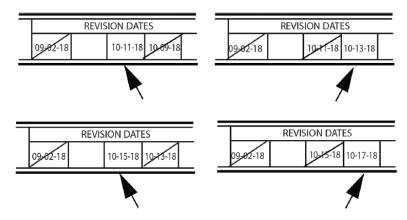


Figure 1.3.9 Additional revision date blocks