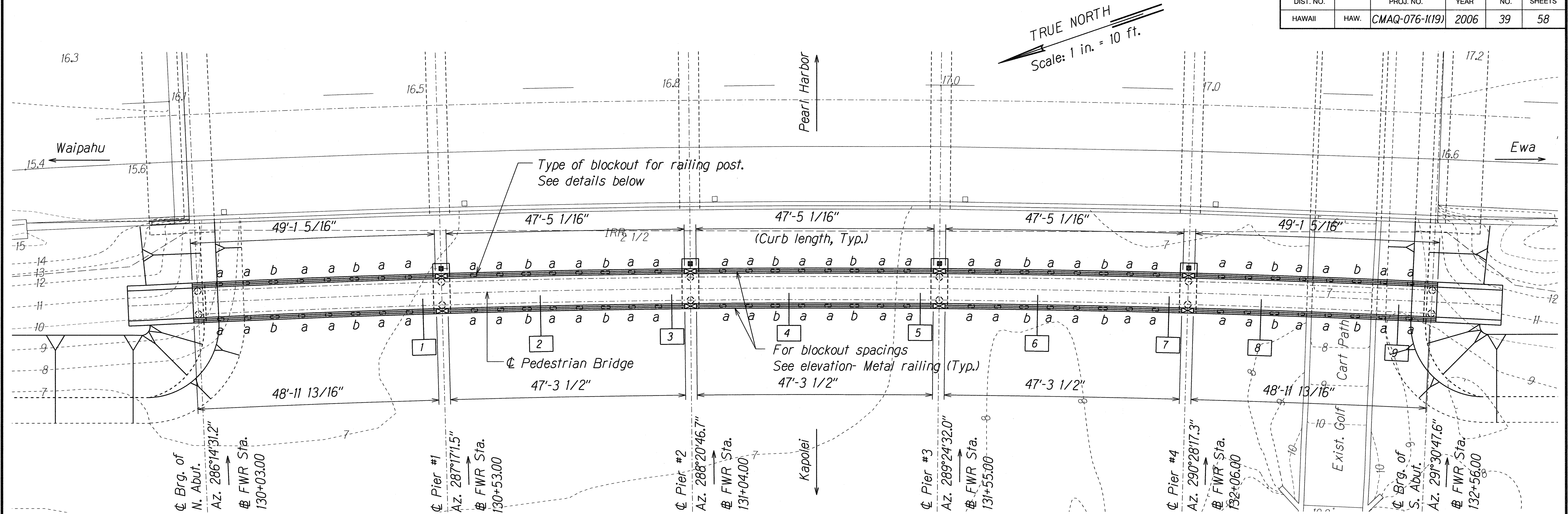
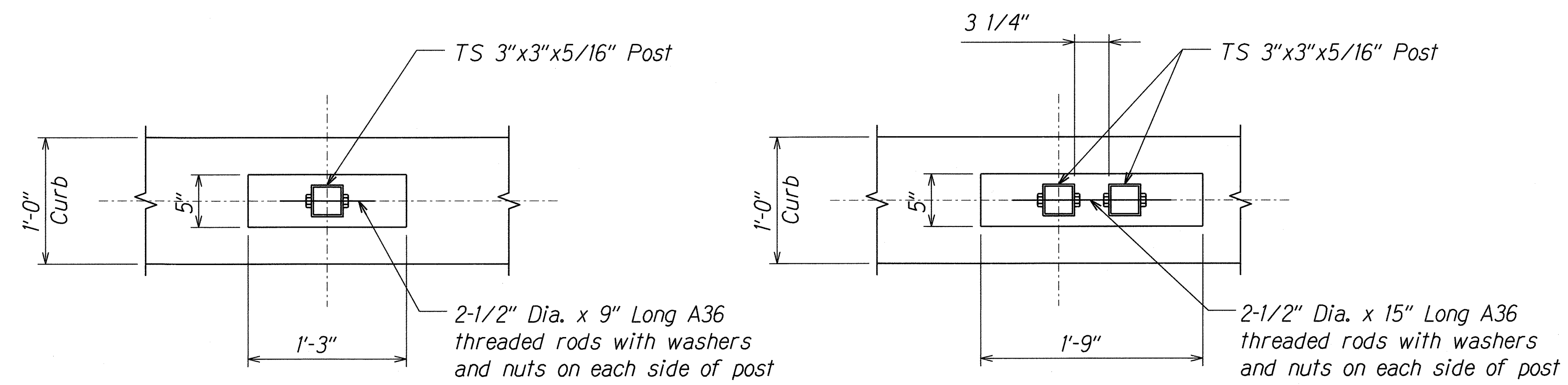


| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | CMAQ-076-1(19)     | 2006        | 39        | 58           |



**METAL RAILING AND POST BLOCKOUT PLAN**  
 Scale: 1" = 10'-0"

**Note:**  
 [1], [5] Indicate deck scupper.  
 (See sheet HS3.4 for scupper locations)



**TYPE "a" - SINGLE POST**

**TYPE "b" - DOUBLE POST**

**POST BLOCKOUT DETAILS**  
 Scale: 1 1/2" = 1'-0"

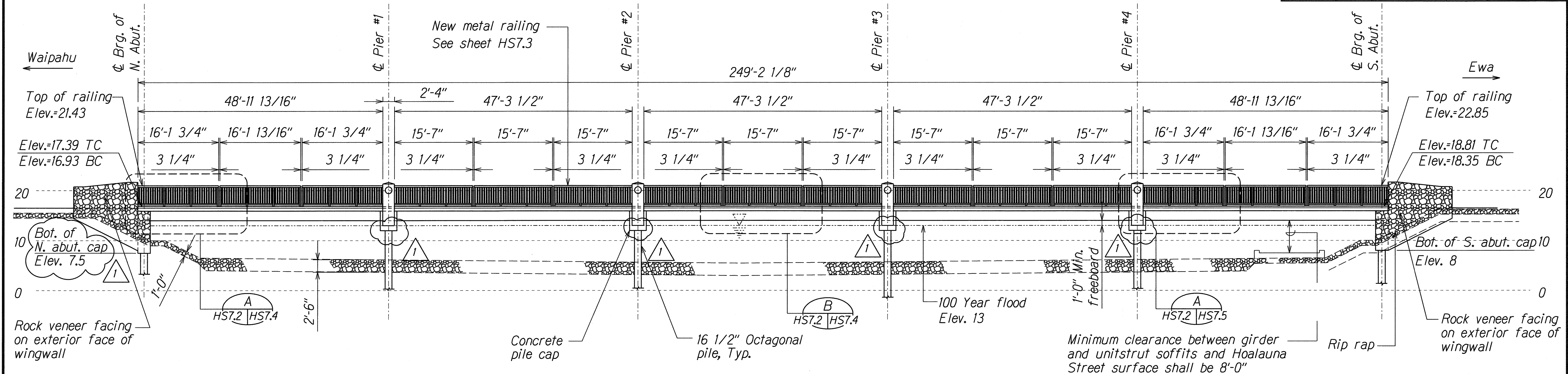
**Note:**  
 For elevation view of post blockout,  
 See sheets HS7.3 & HS7.4.

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| DESIGNED BY       |      |
| QUANTITIES BY     |      |
| CHECKED BY        |      |
| ORIGINAL PLAN     |      |
| NOTE BOOK         |      |
| No.               |      |

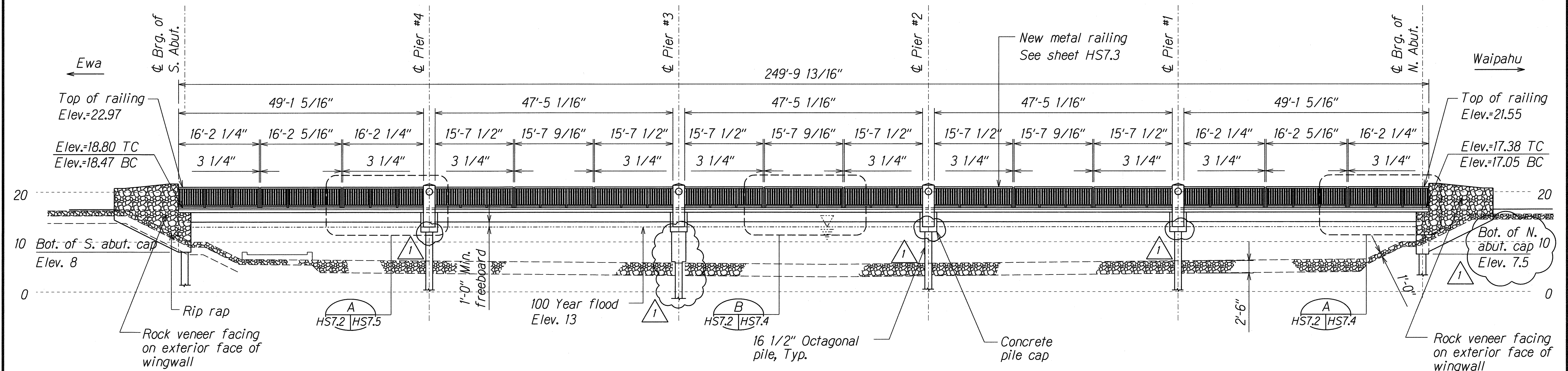
DAVID K. FUJIMURA  
 LICENSED PROFESSIONAL ENGINEER  
 NO. 8104-S  
 HAWAII, U.S.A.  
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
 Signature: David K. Fujimura  
 EXPIRATION DATE OF THE LICENSE: 4-30-08

|                                                                                                                                                                                                                                                                                                                                         |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 9/30/09                                                                                                                                                                                                                                                                                                                                 | 3 As Built |
| DATE                                                                                                                                                                                                                                                                                                                                    | REVISION   |
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION<br><b>METAL RAILING AND POST BLOCKOUT</b><br><b>PLAN AND DETAILS</b><br>Fort Weaver Road Widening<br>Honouliuli Stream Pedestrian Bridge<br>Vicinity of Aawa Drive to Geiger Road<br>Federal Aid Project No. CMAQ-076-1(19)<br>Scale: As Shown Date: Feb. 29, 2008 |            |
| SHEET No. H57.1 OF 33 SHEETS                                                                                                                                                                                                                                                                                                            |            |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | CMAQ-076-1(19)     | 2006        | 40        | 58           |



**RAILING ELEVATION "KAPOLEI SIDE"**  
Scale: 1" = 10'-0"



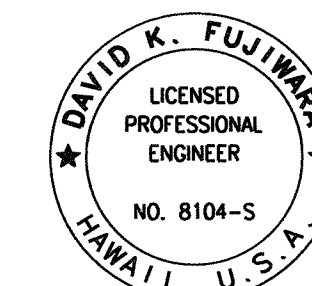
**RAILING ELEVATION "PEARL HARBOR SIDE"**  
Scale: 1" = 10'-0"

**Notes:**

1. The concrete rail pedestals including the "Dessert sand" coloring admixture shall be incidental to the bridge concrete.
2. The rock veneer shall have an average depth of 5/8" and shall have 8" to 24" rock sizes.

|                   |       |
|-------------------|-------|
| DATE              | _____ |
| SURVEY PLOTTED BY | _____ |
| DRAWN BY          | _____ |
| CHECKED BY        | _____ |
| NO.               | _____ |

|         |                                                                                                        |
|---------|--------------------------------------------------------------------------------------------------------|
| 9/30/09 | 3 As Built                                                                                             |
| 7/3/08  | 1 Revise Depth of N. Abutment Cap and Pier Caps<br>Add Concrete Jacket to Pearl Harbor Pile at Pier #3 |
| DATE    | REVISION                                                                                               |



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
Signature: *David K. Fujimura*  
EXPIRATION DATE OF THE LICENSE: 4-30-08

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**METAL RAILING ELEVATIONS**

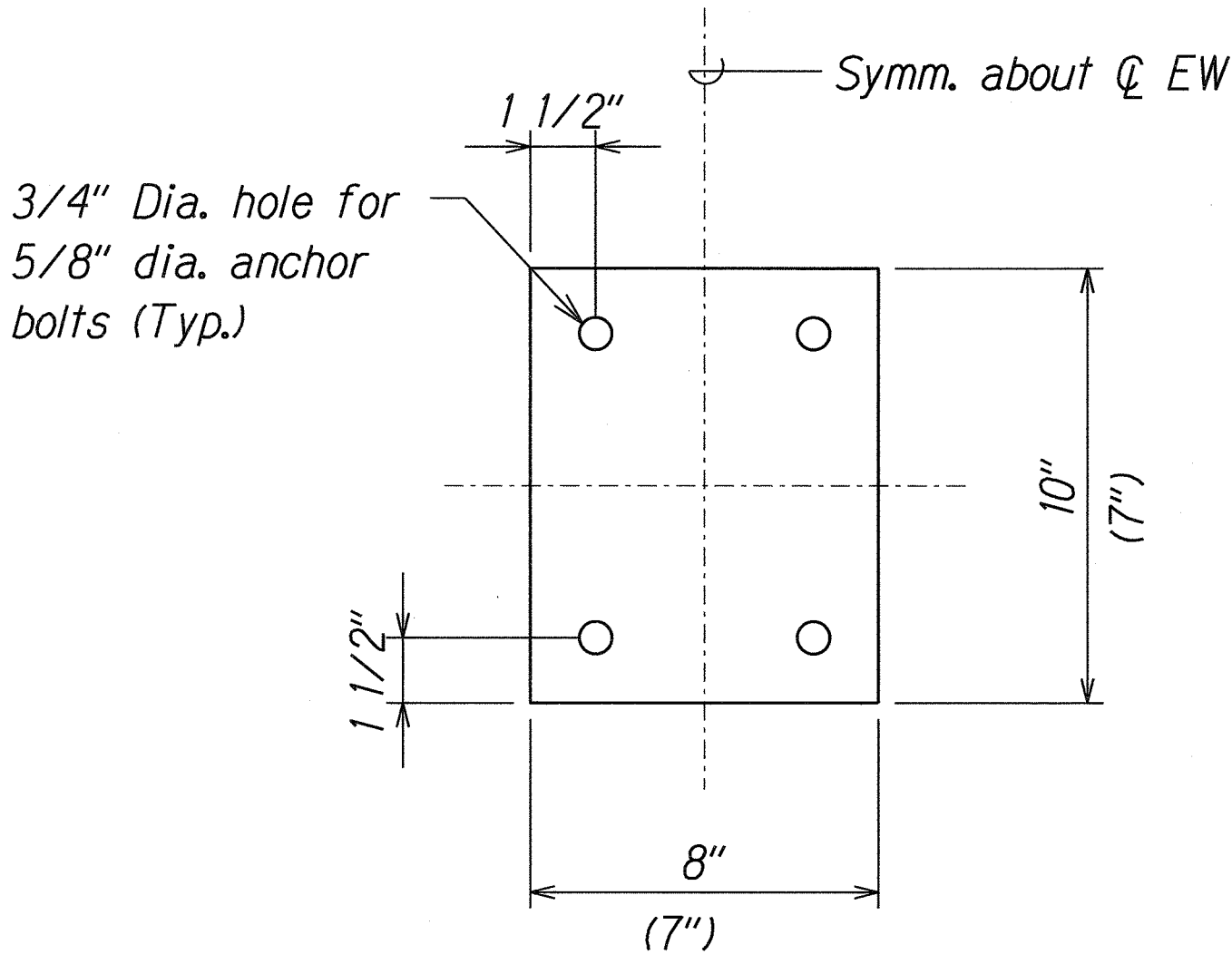
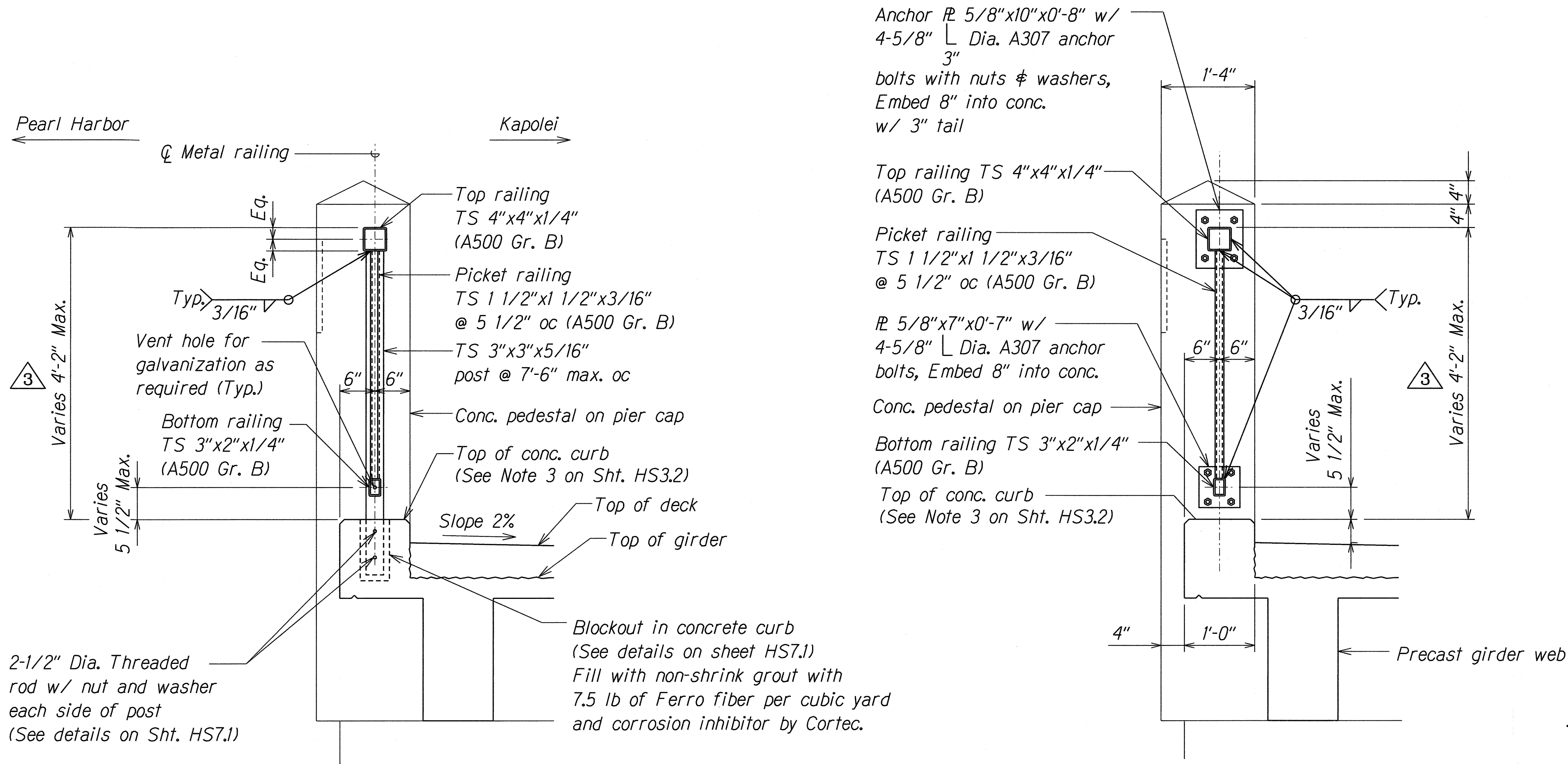
*Fort Weaver Road Widening  
Honouliuli Stream Pedestrian Bridge  
Vicinity of Aawa Drive to Geiger Road  
Federal Aid Project No. CMAQ-076-1(19)*

Scale: As Shown Date: Feb. 29, 2008

SHEET No. **HS7.2** OF **33** SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | CMAQ-076-1(19)     | 2006        | 41        | 58           |

- Notes:
- Railing shall be hot-dip galvanized after fabrication and then painted with the "Gothic Green" paint.
  - All intersecting members to be full weld and grinds smooth
  - All rods washer and nuts shall be galvanized.
  - See specifications for galvanized and welding.

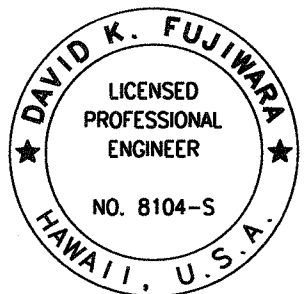


**TYP. METAL RAILING - POST DETAIL**  
 Scale: 1" = 1'-0"  
 HS7.5 HS4.5 HS7.3

**TYP. METAL RAILING - ANCHORING DETAIL**  
 Scale: 1" = 1'-0"  
 HS7.5 HS4.5 HS7.3

Note:  
 Provide vent holes for galvanizing as required.

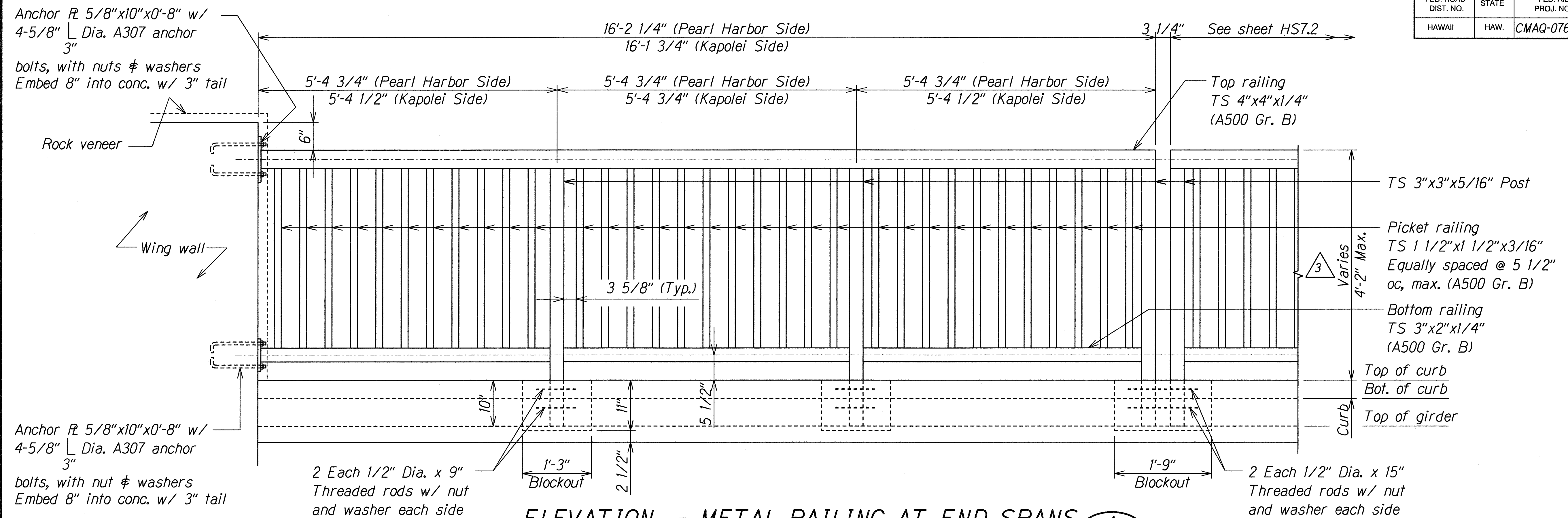
|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| DESIGNED BY       |      |
| QUANTITIES BY     |      |
| CHECKED BY        |      |
| ORIGINAL PLAN     |      |
| NOTE BOOK         |      |
| No.               |      |



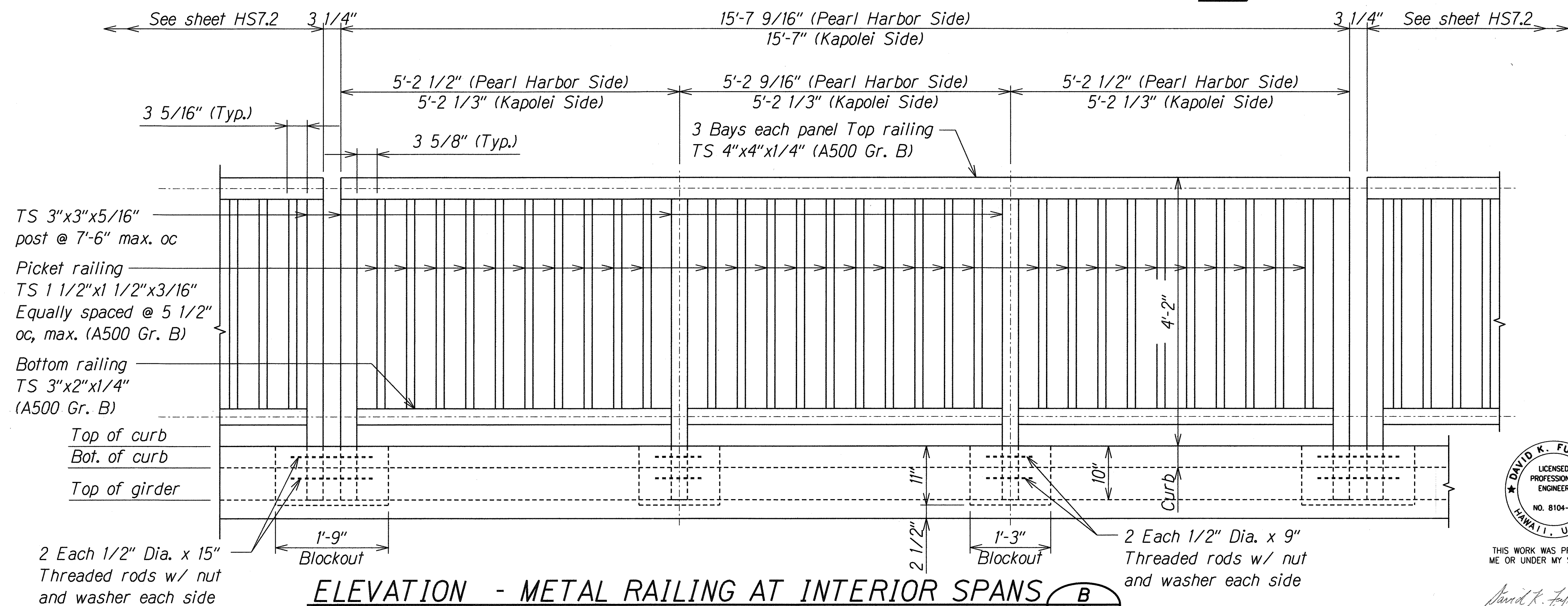
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
 Signature: David K. Fujiwara  
 EXPIRATION DATE OF THE LICENSE: 4-30-08

|                                                                                                                                                                                                                                                                                                    |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| 9/30/09                                                                                                                                                                                                                                                                                            | 3 As Built - Revised Detail |
| DATE                                                                                                                                                                                                                                                                                               | REVISION                    |
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION<br><b>METAL RAILING DETAILS</b><br>Fort Weaver Road Widening<br>Honouliuli Stream Pedestrian Bridge<br>Vicinity of Aawa Drive to Geiger Road<br>Federal Aid Project No. CMAQ-076-1(19)<br>Scale: As Shown Date: Feb. 29, 2008 |                             |
| SHEET No. HS7.3 OF 33 SHEETS                                                                                                                                                                                                                                                                       |                             |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | CMAQ-076-1(19)     | 2006        | 42        | 58           |



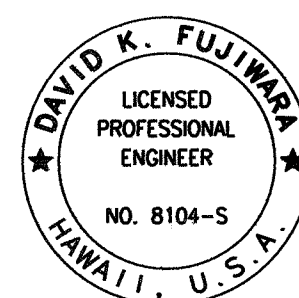
**ELEVATION - METAL RAILING AT END SPANS**  
Scale: 1" = 1'-0"



**ELEVATION - METAL RAILING AT INTERIOR SPANS**  
Scale: 1" = 1'-0"

**Note:**  
For railing post blockout details,  
See sheet HS7.1.

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| DESIGNED BY       |      |
| QUANTITIES BY     |      |
| CHECKED BY        |      |
| ORIGINAL PLAN     | No.  |
| NOTE BOOK         |      |

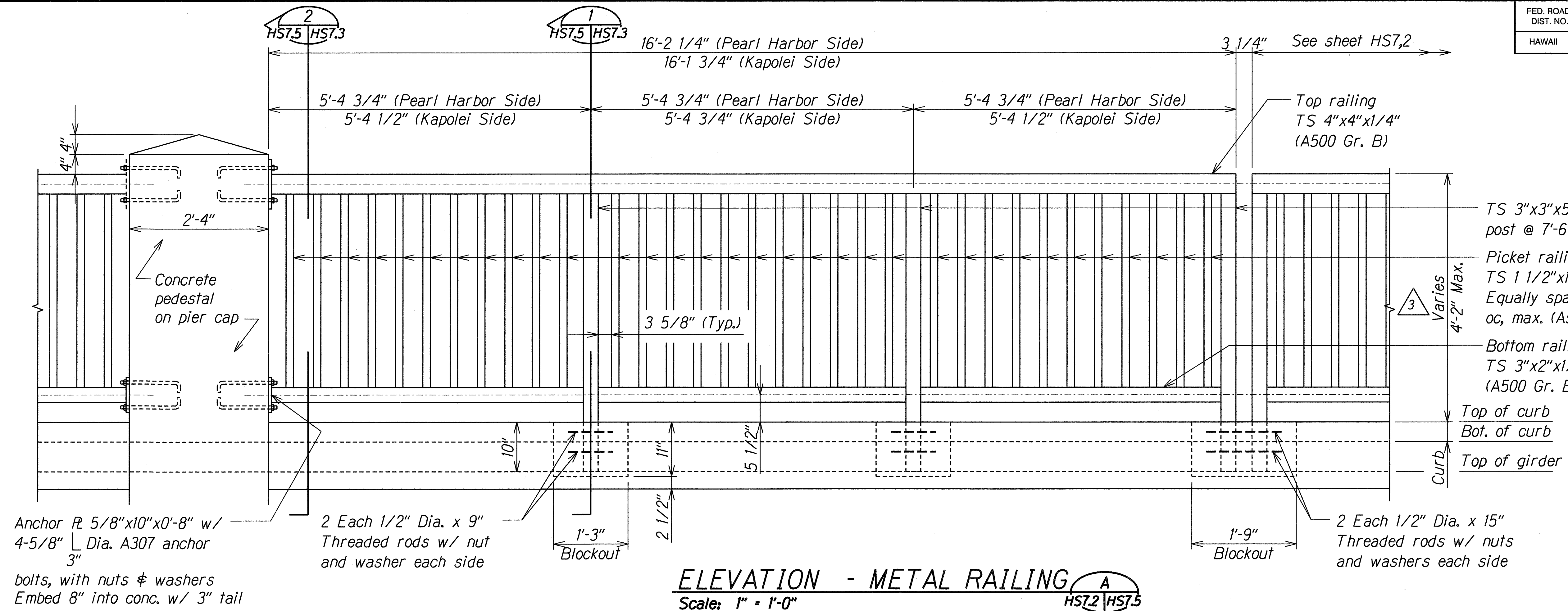


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Signature: David K. Fujiwara  
EXPIRATION DATE OF THE LICENSE: 4-30-08

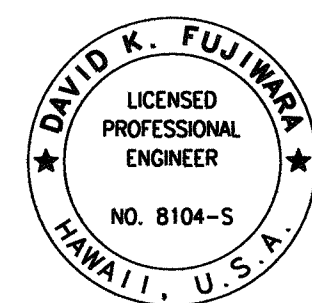
|         |                                                                                         |           |
|---------|-----------------------------------------------------------------------------------------|-----------|
| 9/30/09 |  3 | As Built  |
| 7/3/08  |  1 | New Sheet |
| DATE    | REVISION                                                                                |           |

|                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION<br><br><b><u>METAL RAILING ELEVATIONS</u></b><br><br><i><u>Fort Weaver Road Widening</u></i><br><i><u>Honouliuli Stream Pedestrian Bridge</u></i><br><i><u>Vicinity of Aawa Drive to Geiger Road</u></i><br><i><u>Federal Aid Project No. CMAQ-076-1(19)</u></i><br><br>Scale: As Shown                      Date: Feb. 29, 2008 |  |
| SHEET No. <i>HS7.4</i> OF 33 SHEETS                                                                                                                                                                                                                                                                                                                                                                   |  |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | CMAQ-076-1(19)     | 2006        | 43        | 58           |



|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| DESIGNED BY       |      |
| QUANTITIES BY     |      |
| CHECKED BY        |      |
| ORIGINAL PLAN     |      |
| NOTE BOOK         |      |
| No.               |      |



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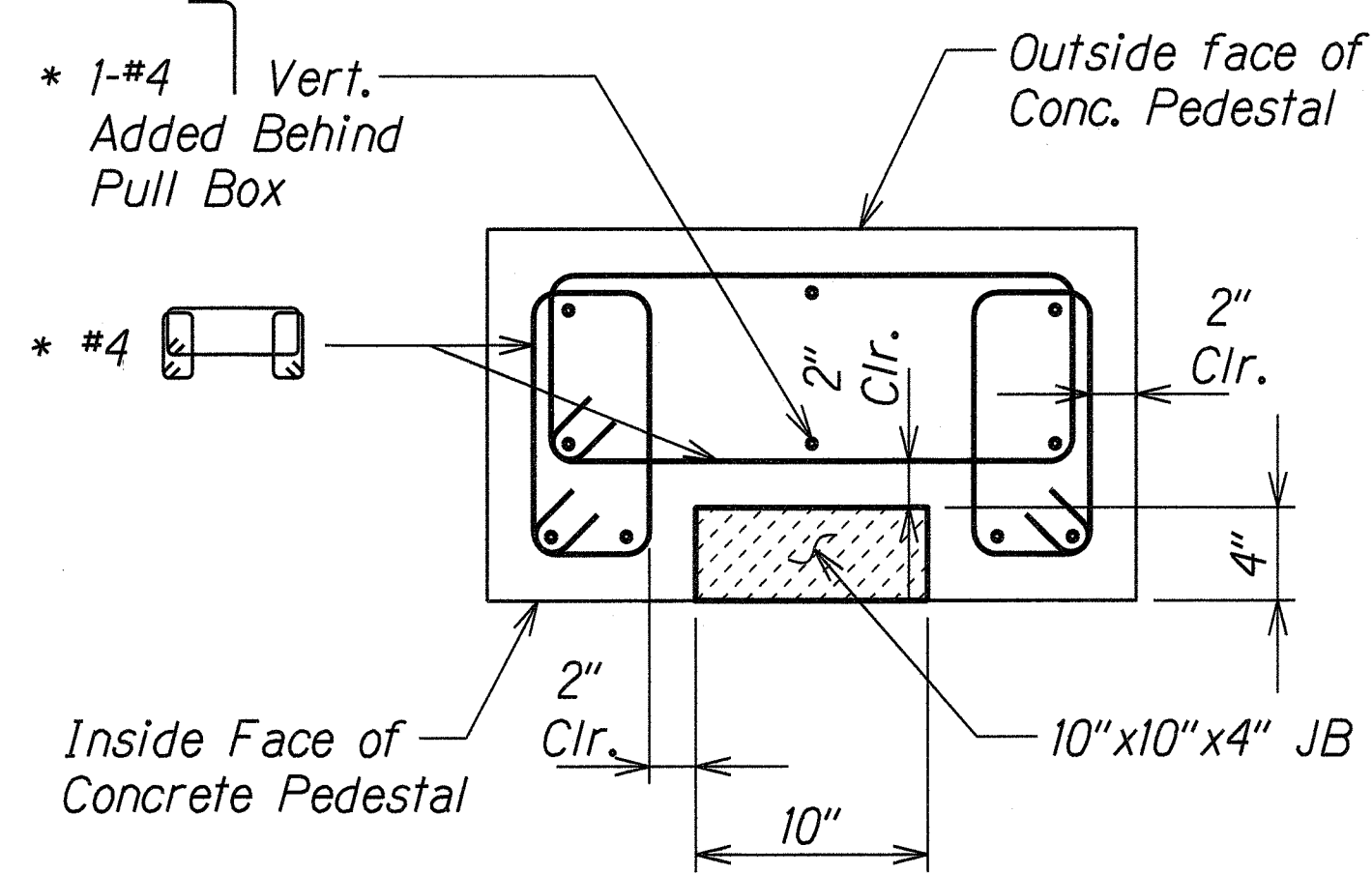
Signature: *David K. Fujiwara* Date: Feb. 29, 2008

EXPIRATION DATE OF THE LICENSE

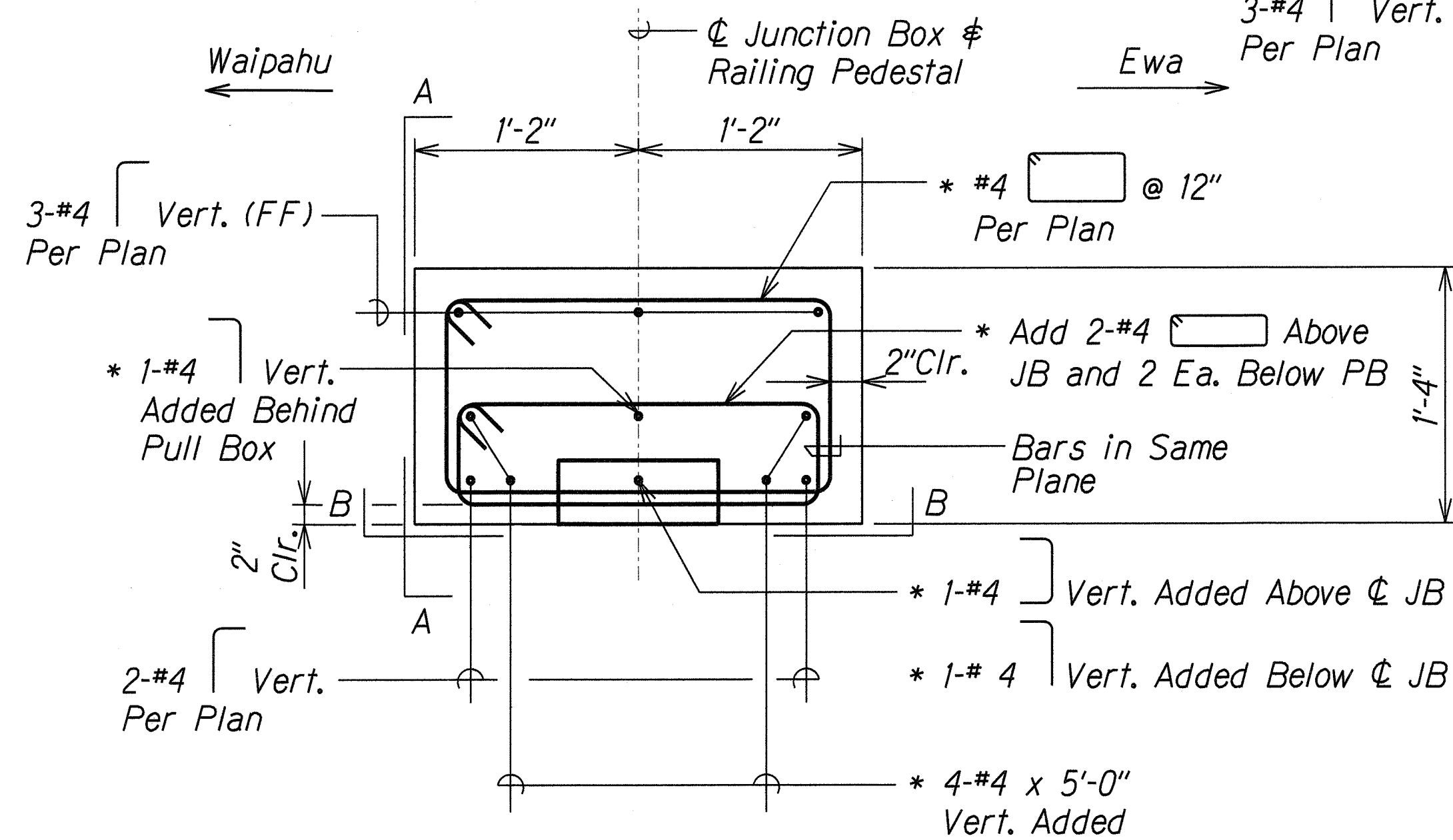
|                                                                                                                                                                                                                                                                                                                                  |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 9/30/09                                                                                                                                                                                                                                                                                                                          | 3 As Built  |
| 7/3/08                                                                                                                                                                                                                                                                                                                           | 1 New Sheet |
| DATE                                                                                                                                                                                                                                                                                                                             | REVISION    |
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION<br><b>METAL RAILING ELEVATION</b><br><i>Fort Weaver Road Widening</i><br><i>Honouliuli Stream Pedestrian Bridge</i><br><i>Vicinity of Aawa Drive to Geiger Road</i><br><i>Federal Aid Project No. CMAQ-076-1(19)</i><br>Scale: As Shown Date: Feb. 29, 2008 |             |
| SHEET No. HS7.5 OF 33 SHEETS                                                                                                                                                                                                                                                                                                     |             |

AS-BUILT

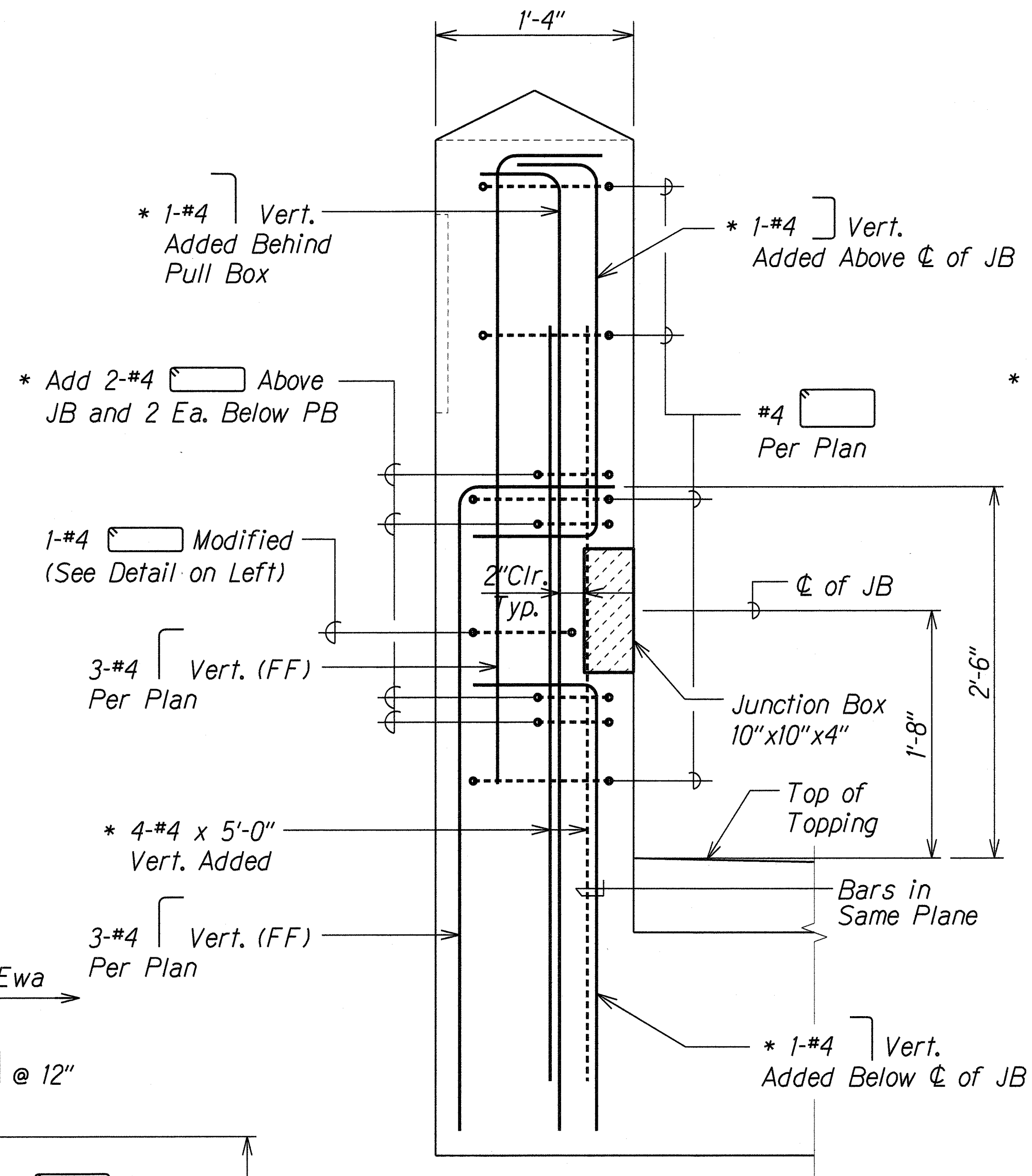
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO.  | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|------------|--------------|
| HAWAII              | HAW.  | CMAQ-076-1(19)     | 2006        | ADD. 43S-1 | 58           |



PLAN VIEW - MODIFIED  
#4 STIRRUPS AROUND  
JUNCTION BOX (JB)  
SCALE: 1 1/2" = 1'-0"

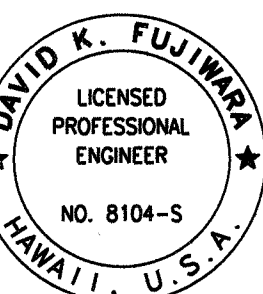
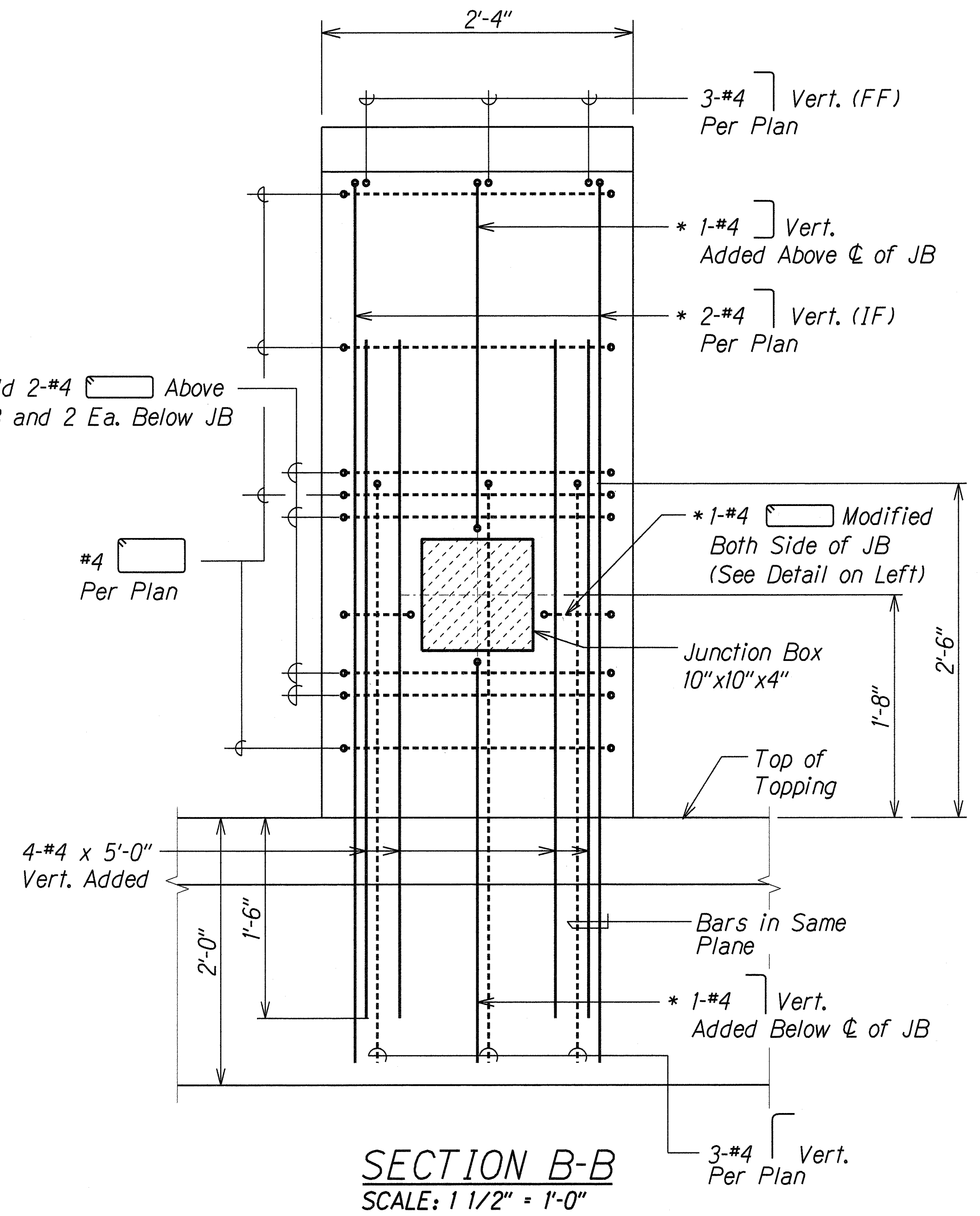


PLAN VIEW - CONC. PEDESTAL  
ADDED REINFORCEMENT  
AROUND JUNCTION BOX  
SCALE: 1 1/2" = 1'-0"



SECTION A-A  
SCALE: 1 1/2" = 1'-0"

Legend:  
• Bars Per Plan  
\* Added Bars



THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION.  
Signature: David K. Fujiwara  
Date: Feb. 29, 2008

|                                                                                                                                                                                                                                                                                                     |                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 9/30/09                                                                                                                                                                                                                                                                                             | As Built - New Sheet |
| DATE                                                                                                                                                                                                                                                                                                | REVISION             |
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION<br><b>METAL RAILING SECTIONS</b><br>Fort Weaver Road Widening<br>Honouliuli Stream Pedestrian Bridge<br>Vicinity of Aawa Drive to Geiger Road<br>Federal Aid Project No. CMAQ-076-1(19)<br>Scale: As Shown Date: Feb. 29, 2008 |                      |
| SHEET No. HS7.5AOF 33 SHEETS                                                                                                                                                                                                                                                                        |                      |

AS-BUILT

ADD. 43S-1