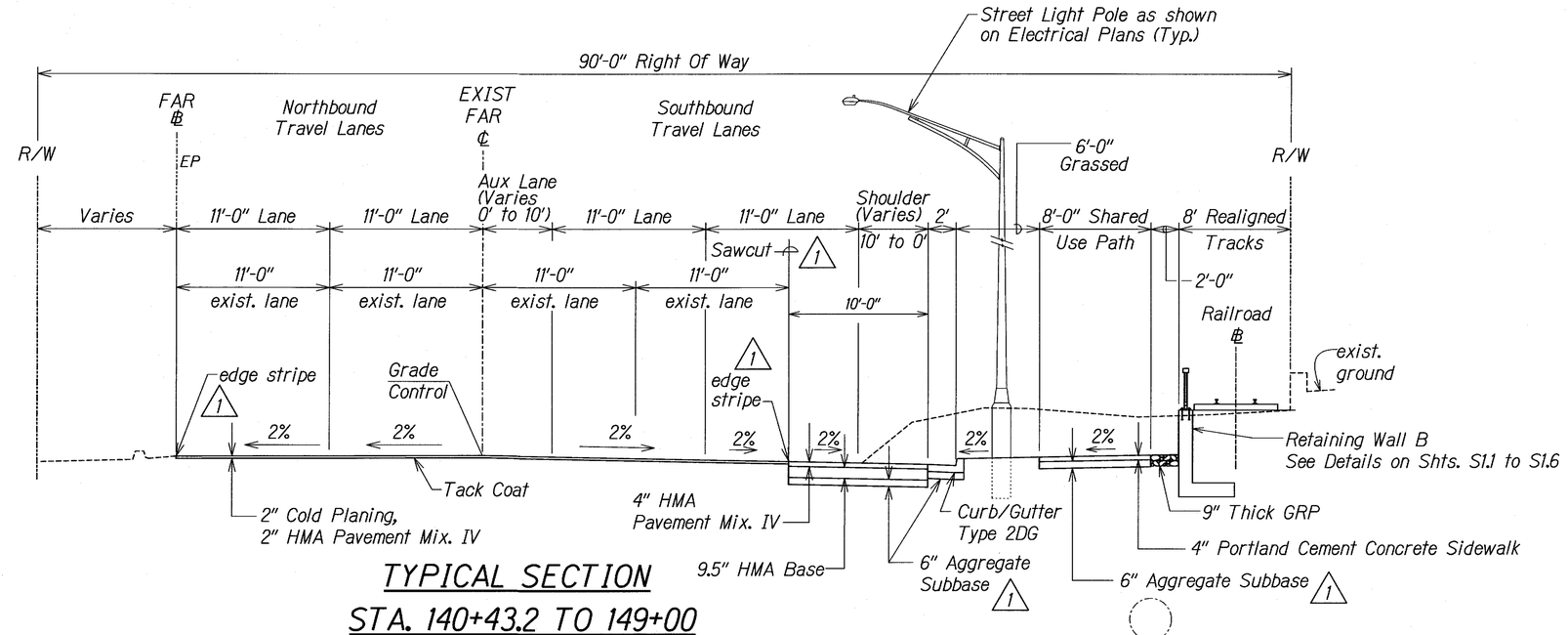
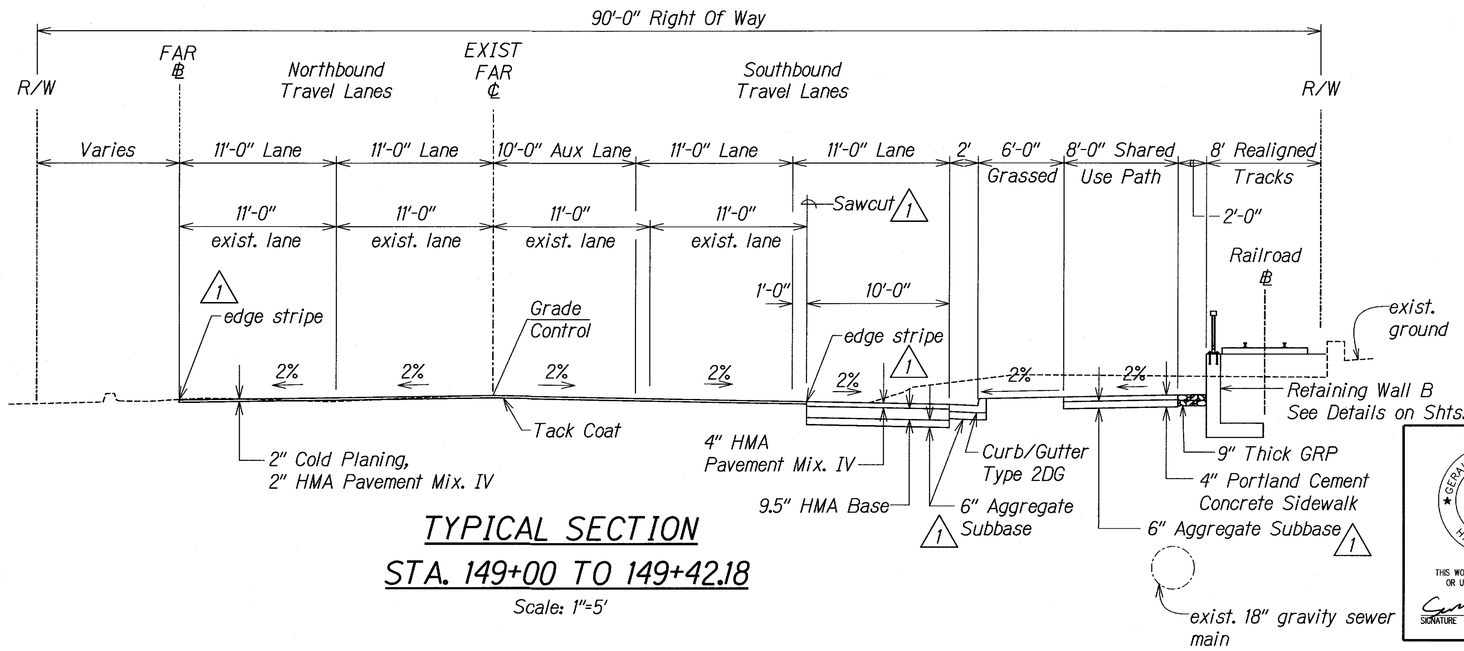
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD13	230



TYPICAL SECTION
STA. 140+43.2 TO 149+00

Scale: 1"=5'



TYPICAL SECTION
STA. 149+00 TO 149+42.18

Scale: 1"=5'

11/06/13	⚠1 Revised Typical Sections
Date	Revision

GERALD D. ANDRADE
LICENSED PROFESSIONAL ENGINEER
No. 10,377-C
HAWAII, U.S.A.

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TYPICAL SECTIONS
STA. 141+00 TO 149+42.22

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: 1"=5' Date: April 2013

SHEET No. T-1 OF 3 SHEETS

ADD 13

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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NOTE BOOK	DESIGNED BY	
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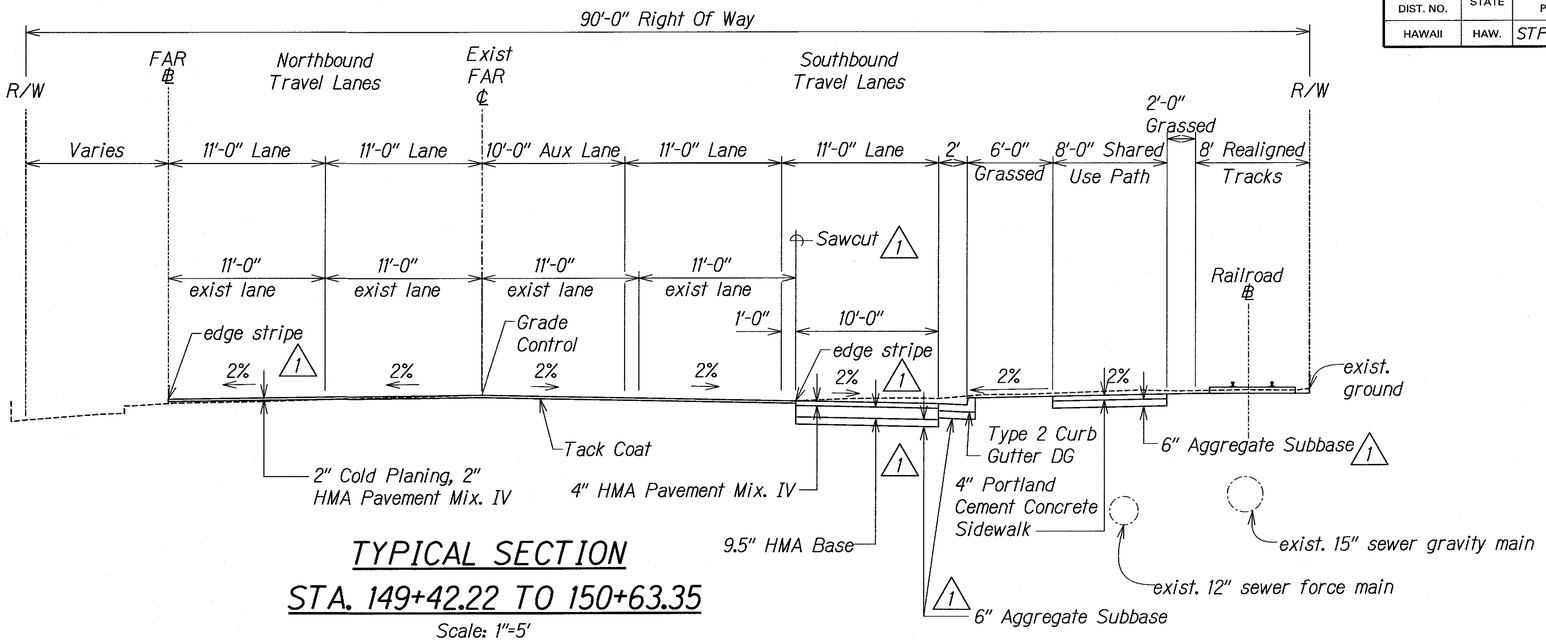
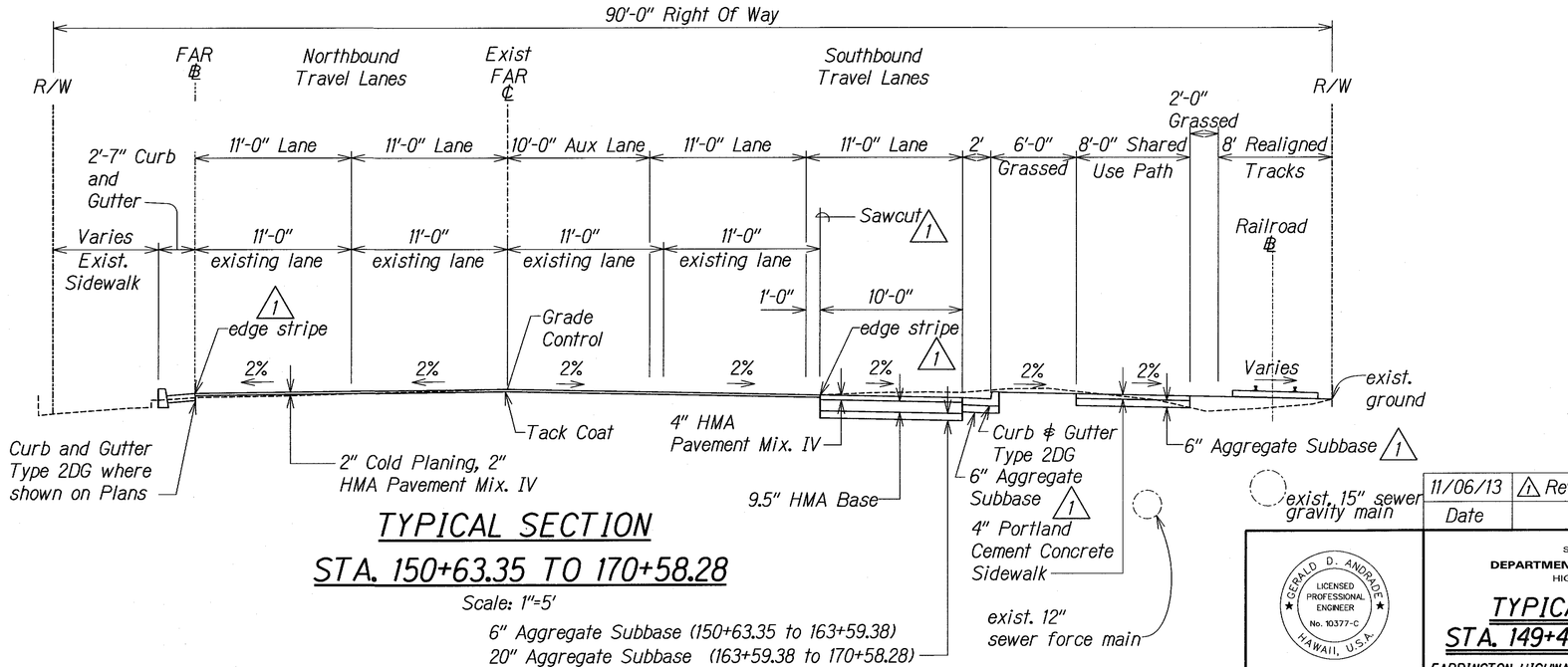
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD14	230



TYPICAL SECTION
STA. 149+42.22 TO 150+63.35

Scale: 1"=5'



TYPICAL SECTION
STA. 150+63.35 TO 170+58.28

Scale: 1"=5'

6" Aggregate Subbase (150+63.35 to 163+59.38)
20" Aggregate Subbase (163+59.38 to 170+58.28)

11/06/13	⚠1 Revised Typical Sections
Date	Revision

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL SECTIONS
STA. 149+42.22 TO 170+58.28

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: Date: April 2013

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LICENSED PROFESSIONAL ENGINEER
No. 10377-C
HAWAII, U.S.A.

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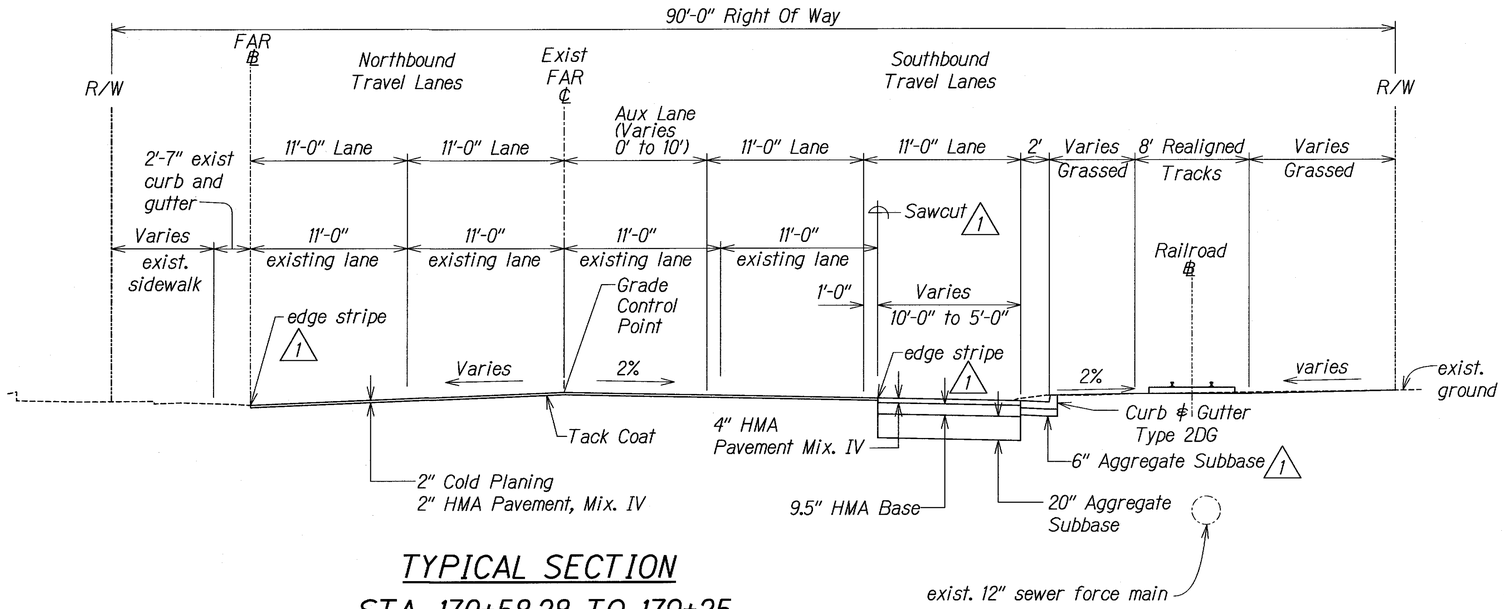
SHEET No. T-2 OF 3 SHEETS

ADD 14

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD15	230



TYPICAL SECTION
STA. 170+58.28 TO 179+25

Scale: 1"=5'

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Date	Revision
11/06/13	⚠ Revised Typical Section

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TYPICAL SECTIONS
STA. 170+58.28 TO 179+25

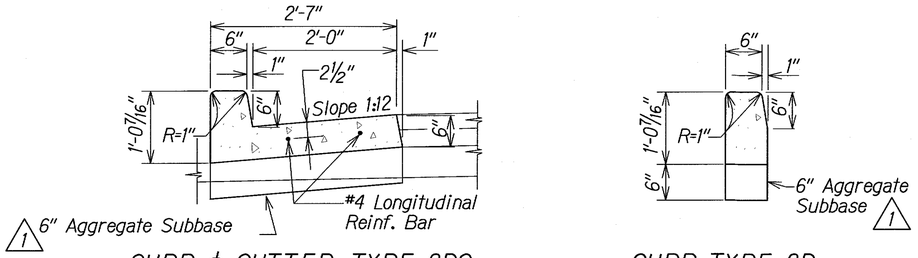
FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: 1"=5' Date: April 2013

SHEET No. T-3 OF 3 SHEETS

ADD 15

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD37	230

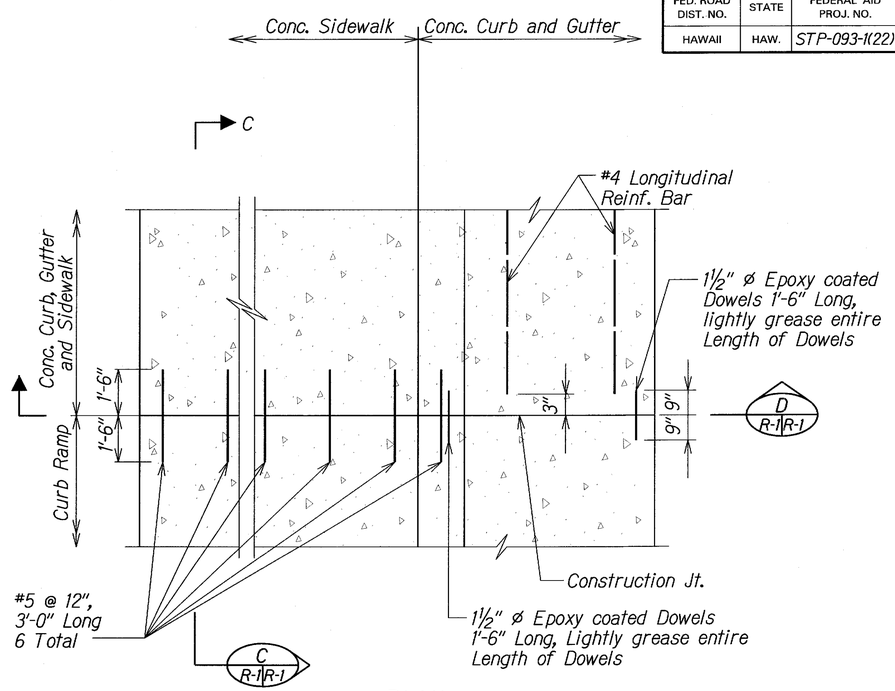


CURB & GUTTER, TYPE 2DG

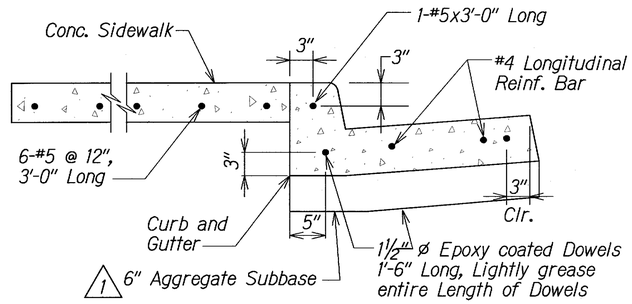
CURB TYPE 2D

CAST-IN-PLACE CONCRETE CURBS OR GUTTERS

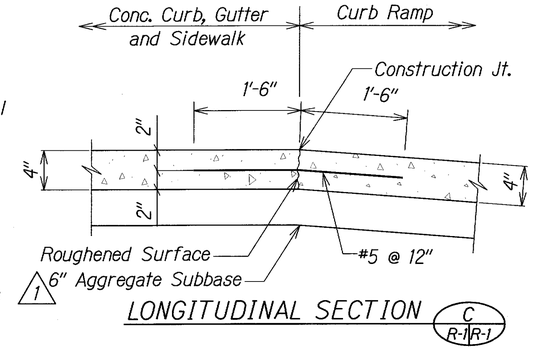
Scale: NTS



PLAN



SECTION D R-1 R-1



LONGITUDINAL SECTION C R-1 R-1

CURB RAMP CONNECTION

Scale: NTS

Date	Revision
11/06/13	1 Revised Details

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LICENSED PROFESSIONAL ENGINEER
No. 10377-C
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY CONSTRUCTION
CURB & GUTTER DETAILS

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: NTS Date: April 2013

SHEET No. R-1 OF 8 SHEETS

ADD 37

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STRUCTURAL GENERAL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD. 170	230

1. General Specifications: Hawaii Department of Transportation, Standard Specifications for Road and Bridge and Public Works Construction, 2005, together with Special Provisions prepared for this contract.

2. Design Specifications:
   (A) AASHTO 2012 LRFD Bridge Design Specifications (Sixth Edition) including subsequent interim specifications with interim supplements and modifications by the Highways Division, Department of Transportation, State of Hawaii.
   (B) HDOT Memorandum dated October 20, 2010 with subject title "Design Criteria for Bridges and Structures".
   (C) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 5th Edition (2009) including subsequent interim revisions and additions.

3. Loads:
   (A) Live Load: Pedestrian Loading - 85 psf
   (B) Wind Load: 105 mph. Value is a 3 second gust speed at 32.8 ft above ground for Exposure C category and is associated with an annual probability of 0.02 (50 year mean recurrence interval).
   (C) Utility Load: An allowance of 150 PLF on each side of the bridge for utility loads has been provided for in the design.
   (D) Seismic Load: Acceleration Coefficient - 0.17g
   (E) Ballast Rock = 160 pcf

4. Materials:
   (A) All concrete strengths shall be as noted below:

Item No.	Structural Parts	Specified Compressive Strength, f'c (28 Days)	1 Maximum Cement Content (lbs./Cu. Yd.)
(1)	Culvert Extension and Culvert Return Walls (See Notes 4(B) & 4(C))	SBD (See Standard Specifications & Special Provisions Section 601)	750
(2)	Concrete Railing (See Notes 4(B) & 4(C))	Lightweight Concrete (See Standard Specifications & Special Provisions Section 601)	799
1 (3)	Drilled Shaft for Type II Traffic Signal Standard (including Pedestal)	4500 psi	670
(4)	Retaining Wall (See Notes 4(B) & 4(C))	5000 psi	625
(5)	Drainline Connection at Existing Culvert (See Notes 4(B) & 4(C))	5000 psi	625
(6)	Except as noted otherwise, all others	4000 psi	625

   All concrete with a 28 day compressive strength of 4,000 psi or greater shall have a maximum W/C Ratio of 0.45.

4. Materials (Cont.):
   (B) A shrinkage reducing admixture (SRA), Tetraguard AS20 by BASF or Eclipse by W.R. Grace & Co., or approved equal, shall be added to the concrete mix for Items (1), (2) ,(5) and (6). The minimum dosage requirement shall be 128 ounces per cubic yard of concrete.
   (C) A migrating corrosion inhibitor amine carboxylate water-based admixture shall be added to the concrete mix for Items (1), (2), (5) and (6). The minimum dosage shall be 24 ounces per cubic yard of concrete. The admixture shall not affect the set time of the concrete.
   (D) All reinforcing steel shall be ASTM A615 Grade 60 deformed bars unless otherwise noted.
   (E) Reinforcing steel shall be ASTM A934 where epoxy-coated reinforcing bars are specified.
   (F) Glass Fiber Reinforced Polymer Bar
      (1) Glass Fiber Reinforced Polymer (GFRP) rebar shall have a minimum tensile strength of 110 ksi for #4 bar and smaller. All others shall have a minimum tensile strength of 95 ksi.
      (2) The modulus of elasticity of the GFRP bar shall be a minimum of 5,900,000 psi.
      (3) Minimum concrete cover for the GFRP bars shall be 1" unless otherwise noted.
      (4) Minimum lap splice lengths for the GFRP bars shall be 42 bar diameters unless otherwise noted.
      (5) All GFRP bars shall be securely tied in place. Tie wire shall be either Alloy 302 or 304 Stainless Steel or non-metallic.
      (6) The GFRP bars may be cut in the field with a masonry or diamond blade.
      (7) All work including materials and bends shall follow manufacturer's recommendations.
   (G) Expanded Polystyrene (EPS) : EPS 15 ASTM D 6817 (Type 1 per ASTM C578).
   (H) Non-shrink grout shall be Portland Cement base, prepackaged, non-metallic, non-gaseous ready to use grout mix and shall be applied as recommended by the manufacturer. Non-shrink grout shall have a minimum 28-day compressive strength of 8,900 psi. A migrating corrosion inhibitor amine carboxylate water-based admixture shall be added to the non-shrink grout. The minimum dosage shall be 10 grams per 0.4 to 0.5 cubic feet of non-shrink grout.

5. Reinforcement:
   (A) The minimum covering measured from the surface of the concrete to the face of any reinforcing bars shall be 3" except for GFRP bars, the minimum cover shall be 1" unless otherwise noted.
   (B) Reinforcing bars shall be detailed in accordance with the latest edition of the design specification in Note 2 unless otherwise noted.
   (C) Minimum clear spacing between parallel bars shall be 1 1/2 times the diameter of bars (for non bundled bars). In no case shall the clear distance between the bars be less than 1 1/2 times the maximum size of the coarse aggregate or 1 1/2".

5. Reinforcement (Cont.):
   (D) All dimensions relating to reinforcing bars are to centers of bars unless otherwise noted.
   (E) Reinforcing bars shall be securely tied at all intersections and lap splices except where the spacing of intersections is less than one foot in each direction, in which case alternate intersections shall be tied.

6. Construction Notes:
   (A) See Standard Specifications and Special Provisions.
   (B) Except as otherwise noted, all vertical dimensions are measured plumb.
   (C) The Contractor shall verify all site conditions and not rely upon these plans since conditions may differ from those shown.
   (D) The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing and new structures from damage due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.
   (E) The Contractor shall verify the location of all utility lines and notify the respective owners before commencing with excavation, and any temporary piling or sheeting.
   (F) The Contractor shall verify all dimensions and site conditions and shall report any discrepancies in writing to the Engineer before commencing work or ordering materials.
   (G) For concrete finish see Standard Specifications and Special Provisions.
   (H) Construction joints may be relocated or additional ones added subject to the approval of the Engineer.
   (J) Unless otherwise noted, all exposed concrete edges shall be chamfered 3/4"x3/4".
   (K) Contractor shall verify elevations before fabricating wall reinforcing.
   (L) Immediately prior to pouring concrete onto construction joints, the joints shall be coated with Duralprep A.C., which is a water based epoxy modified portland cement bonding agent and anti-corrosion coating, or approved equal. The coating shall be applied in accordance with the manufacturer's recommendations.

DAVID K. FUJIWARA LICENSED PROFESSIONAL ENGINEER NO. 8104-S HAWAII, U.S.A.

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David K. Fujiwara — KSF, INC. — APRIL 30, 2014 LIC. EXP. DATE

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	DESIGNED BY	
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DRAWING NAME: Z:\00 ONGOING\12-026-FARRINGTON HWY NANAKULI TO HALEAKALA-ULEHAWA\CAD\11-08-13 ADD1\FHU-S002 ADD.DWG PLOT TIME: 11-04-13, 4:55 PM)

11/08/13	1	Add. 1 - Modified 4.(A) Materials
DATE		REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL GENERAL NOTES

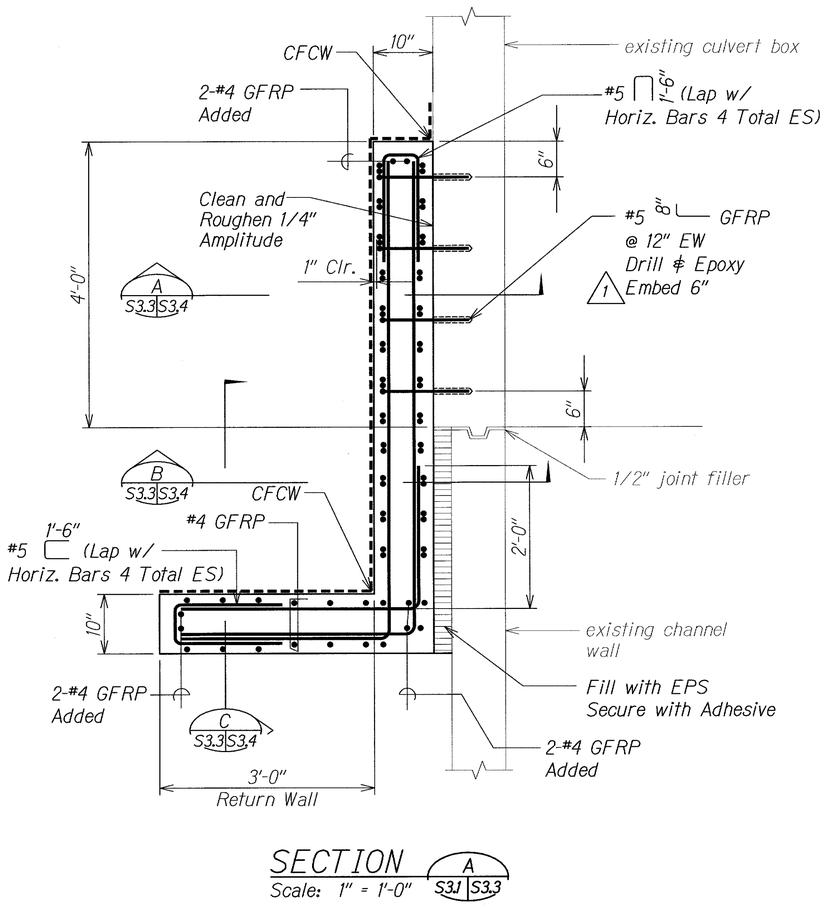
FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: None Date: April 2013

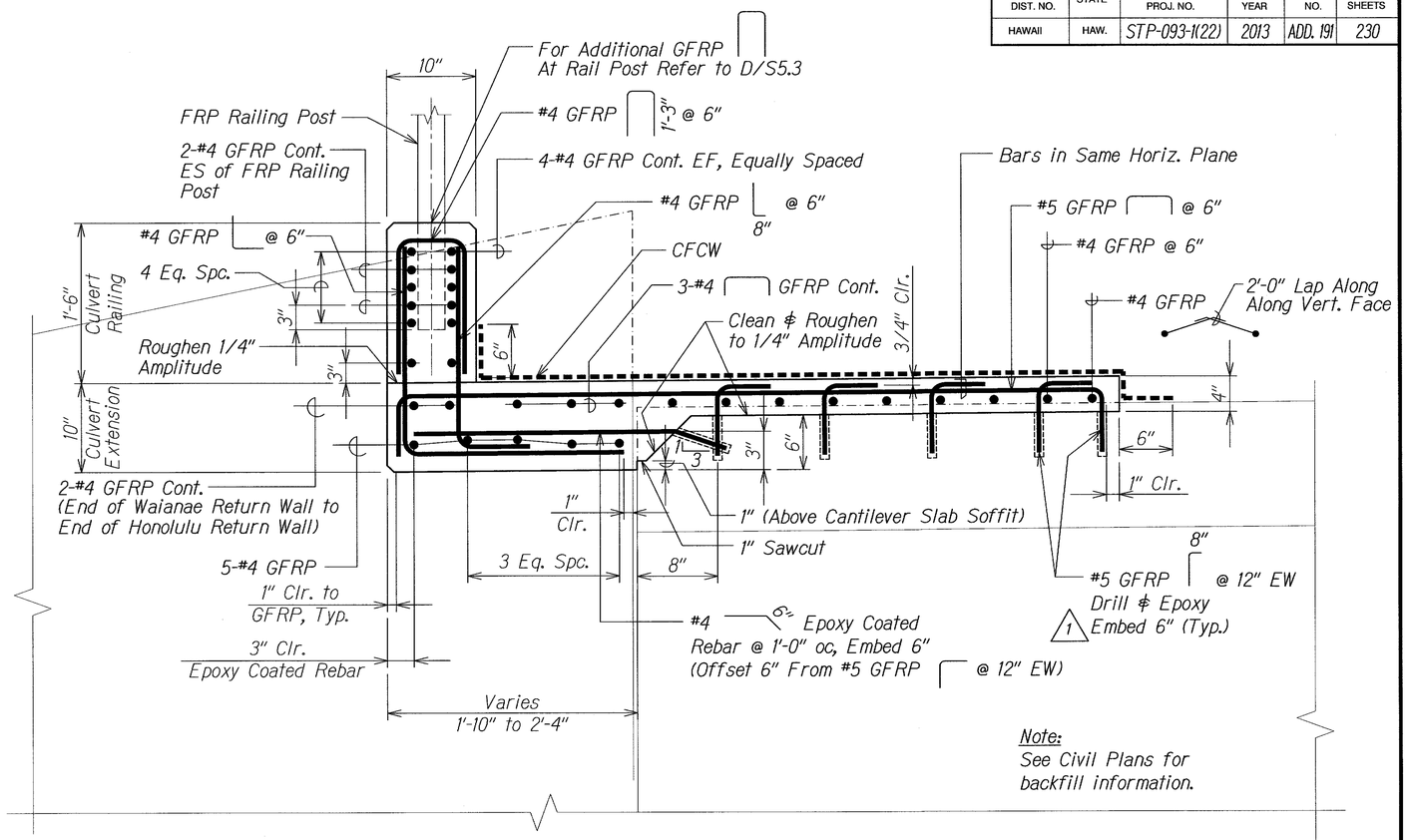
SHEET No. S0.2 OF 6 SHEETS

ADD. 170

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD. 191	230



SECTION A
Scale: 1" = 1'-0"
S3.1 S3.3



Note:
See Civil Plans for backfill information.

SECTION B
Scale: 1 1/2" = 1'-0"
S3.1 S3.3
S5.2

DRAWING NAME: Z:\00 ONGOING\12-026-FARRINGTON HWY NANAKULI TO HALEAKALA-ULEHAWA\CAD\11-08-13 ADD1\FHU-S301 ADD1.DWG PLOT TIME: 11-04-13, 4:57 PM

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NO. 8104-S
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STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SECTIONS

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

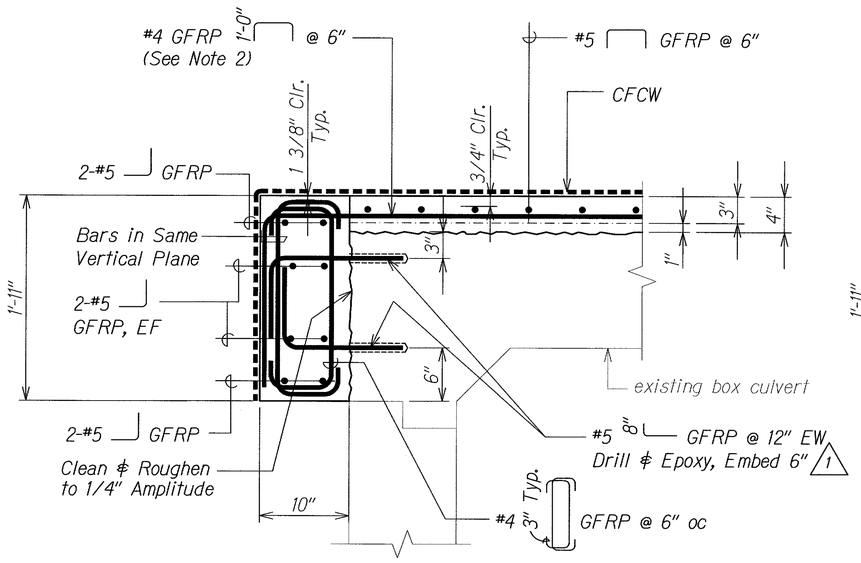
Scale: As Shown Date: April 2013

SHEET No. S3.3 OF 5 SHEETS

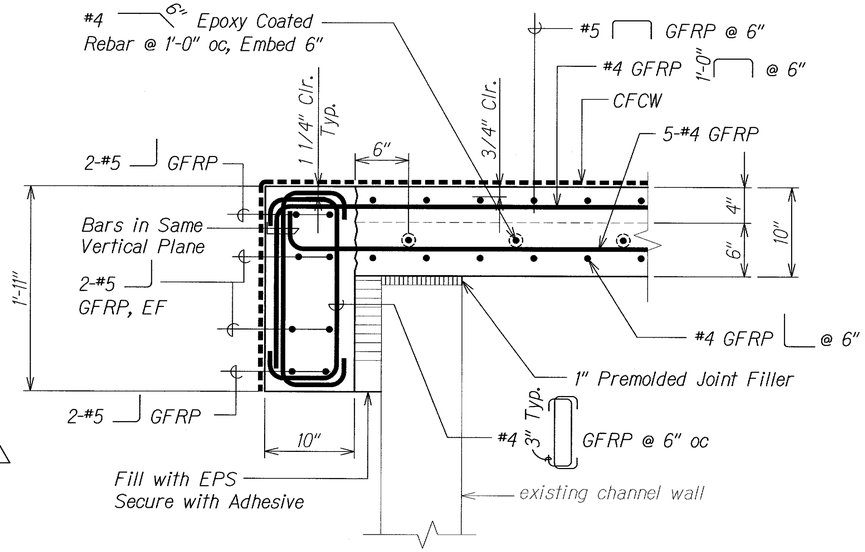
DATE	REVISION
11/08/13	1 Add. 1 - Modified Embedment

ADD. 191

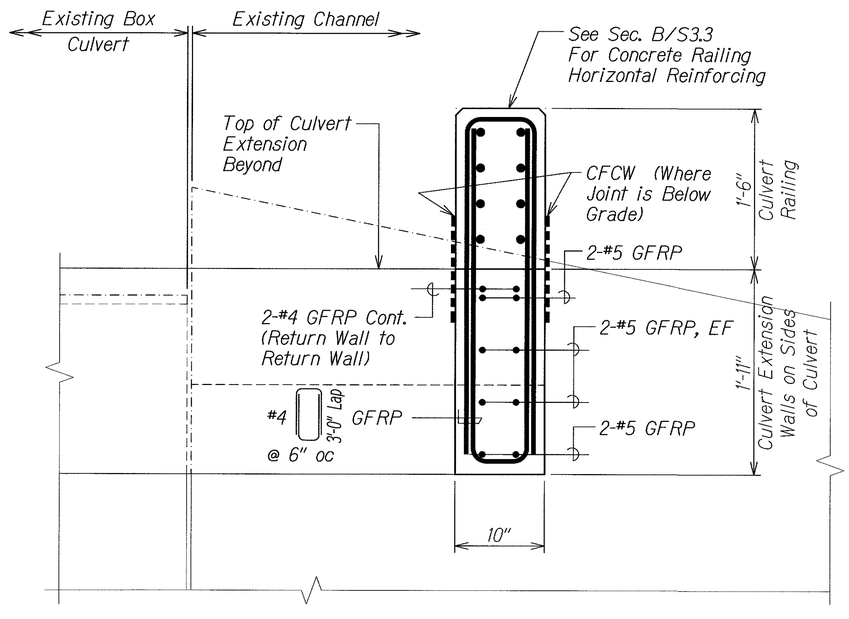
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD. 192	230



SECTION A
Scale: 1 1/2" = 1'-0" S3.3 | S3.4



SECTION B
Scale: 1 1/2" = 1'-0" S3.3 | S3.4



SECTION C
Scale: 1 1/2" = 1'-0" S3.3 | S3.4

Notes:

1. For FRP Railing, see Sheets S5.2 and S5.3.
2. Offset #4 GFRP ⌐ or #4 GFRP ⊔ such that there is a maximum bundle of three (3) bars. Offset shall be 1" minimum.

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	CHECKED BY	

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11/08/13	1	Add. 1 - Modified Embedment
DATE		REVISION

DAVID K. FUJIWARA
LICENSED PROFESSIONAL ENGINEER
NO. 8104-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SECTIONS

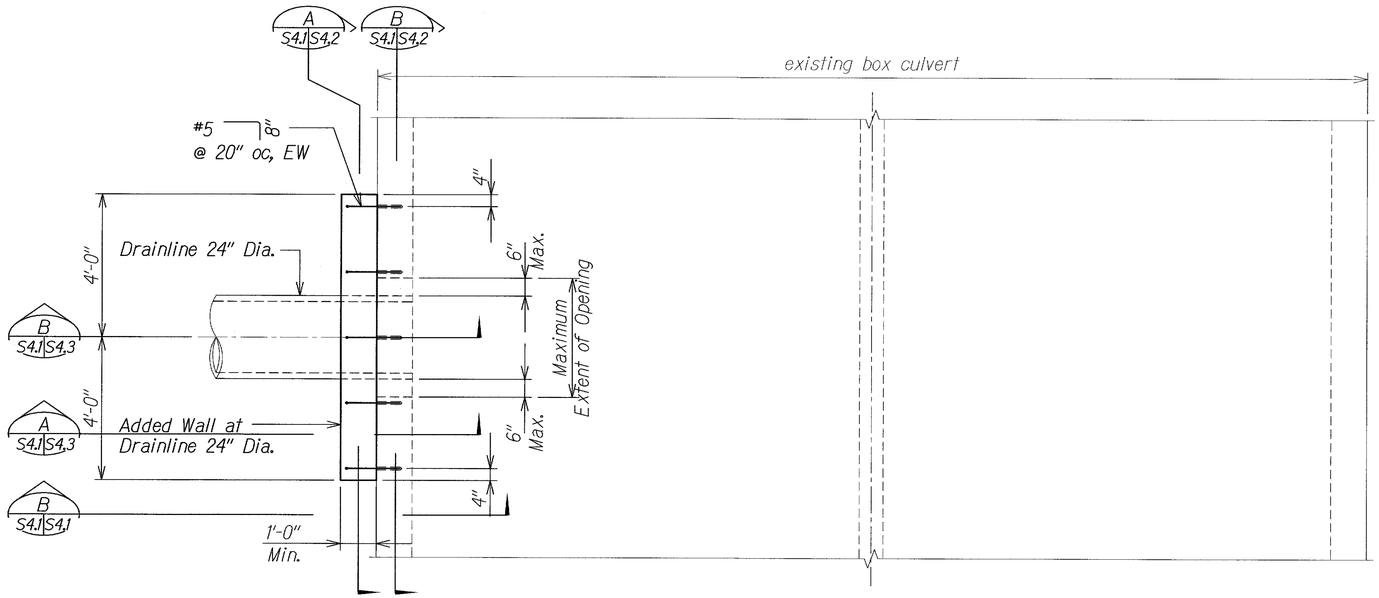
FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: As Shown Date: April 2013

SHEET No. S3.4 OF 5 SHEETS

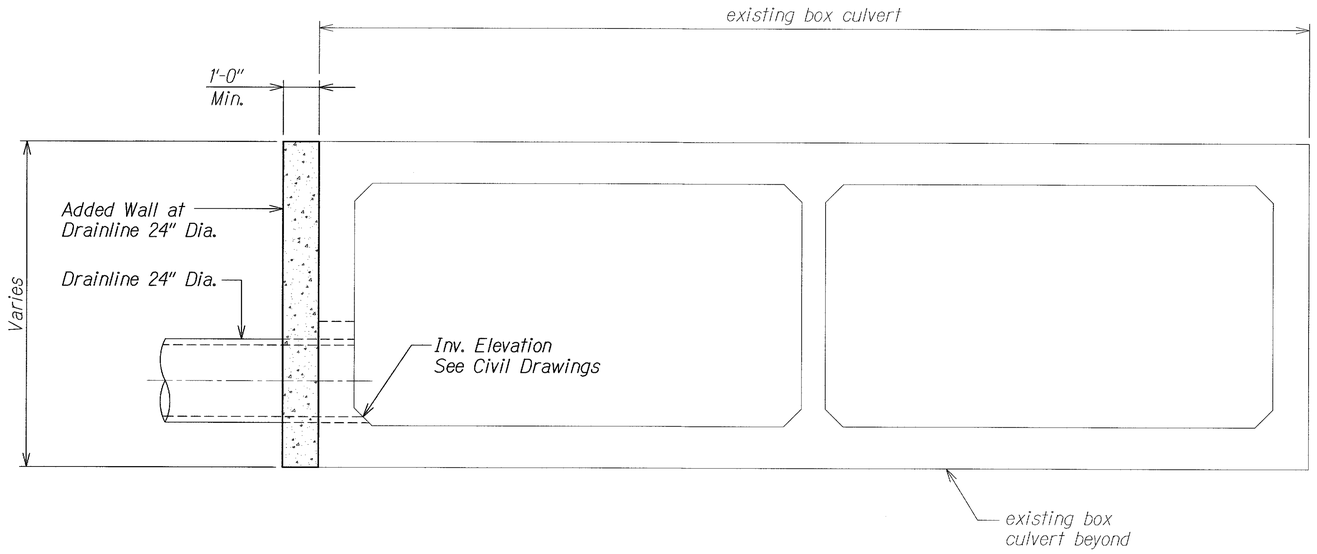
ADD. 192

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD. 194	230



TYPICAL CONNECTION OF 24" DIA. DRAIN PIPE TO BOX CULVERT - PLAN (A S4.1 S4.1)

Scale: 1/2" = 1'-0"



BOX CULVERT - SECTION (B S4.1 S4.1)

Scale: 1/2" = 1'-0"

/1 *Notes:*

1. *All work for removal of existing reinforced concrete will be paid for under Item No. 202.0200 - Removal of Portion of Existing Box Culvert.*
2. *The work for evaluation, design, construction and removal of the temporary shoring shall be incidental to Pay Item 206.2000 - Excavation for Drainage Facilities.*
3. *The Contractor shall be responsible for protecting the sides of the excavations from cave-ins. If the Contractor decides to brace or shore the cut slope, the Contractor shall submit working drawings and calculations. The working drawings and calculations shall be stamped by a registered Hawaii Structural Engineer and a registered Civil Engineer specializing in Geotechnical Engineering in the State of Hawaii. If the Contractor decides not to brace the cut slope, the Contractor shall submit, when requested by the Engineer, calculations, showing the stablility of the slope, stamped by a registered Civil Engineer specializing in Geotechnical Engineering in the State of Hawaii. The working drawings and calculations shall be reviewed and accepted by the Engineer before proceeding with the construction.*
4. *Structural General Note 6.(M) is applicable for the removal of existing reinforced concrete and connection of 24" dia. pipe connection.*

CONSTRUCTION SEQUENCE:

(1) *Install shoring, excavate trench for drain, and remove all superimposed loads from top slab of existing culvert.*

(2) *Sawcut opening in existing culvert wall.*

(3) *Install 24" drain pipe and reinforcing in opening of existing wall and fill blockout between drain and existing wall, See sheets S4.2 and S4.3.*

(4) *Place reinforcing for added wall and pour added wall, see Sheets S4.2 and S4.3*

DAVID K. FUJIWARA LICENSED PROFESSIONAL ENGINEER NO. 8104-S HAWAII, U.S.A.

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HIGHWAYS DIVISION

TYPICAL CONN. OF 24" DIA. PIPE TO EXIST. BOX CULVERT-PLAN & SECTION

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: As Shown Date: April 2013

SHEET No. S4.1 OF 3 SHEETS

DATE	REVISION
11/08/13	/1 Add. 1 - Modified Notes

ADD. 194

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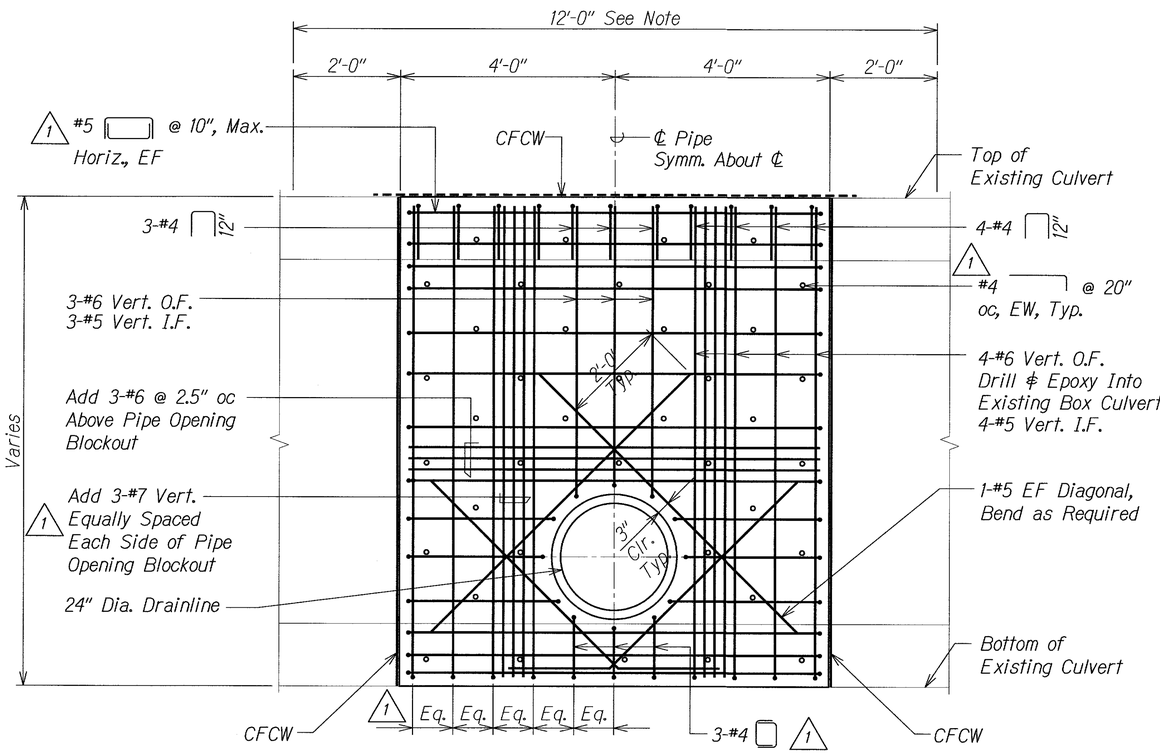
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD. 195	230

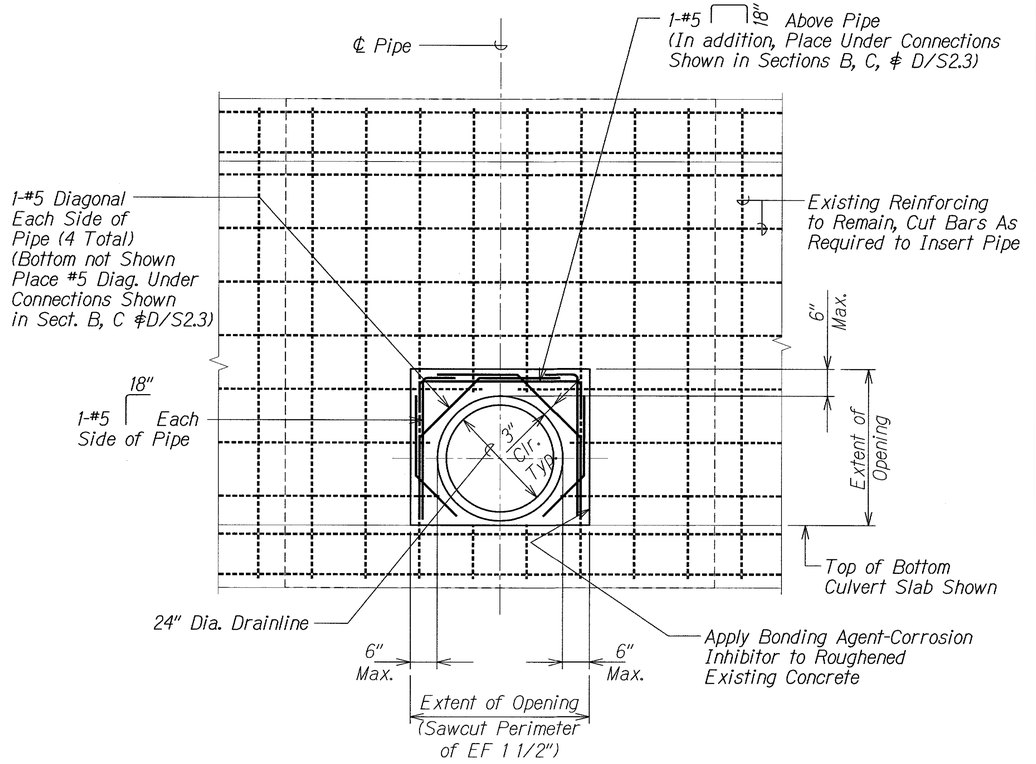


Note:
Remove all superimposed loads from top slab of existing culvert prior to removal of existing concrete.
See Specifications Section 206 for payment.

SECTION - ADDED WALL AT EXISTING BOX CULVERT WALL

Scale: 3/4" = 1'-0"

A S4.1 | S4.2



SECTION - ADDED REINFORCING WITHIN EXISTING BOX CULVERT WALL AT OPENING

Scale: 3/4" = 1'-0"

B S4.1 | S4.2

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KSF, INC. APRIL 30, 2014 LIC. EXP. DATE

DATE	REVISION
11/08/13	1 Add. 1 - Modified Section

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SECTIONS

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: As Shown Date: April 2013

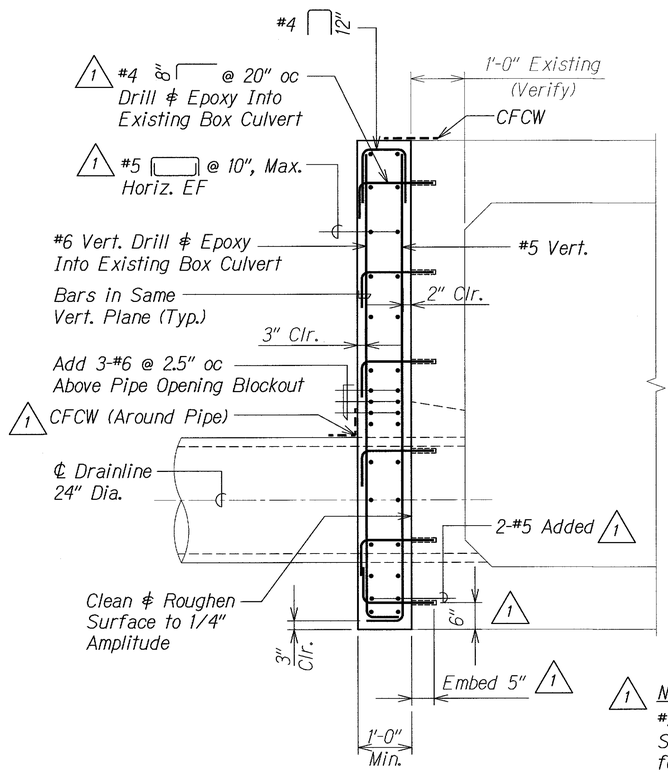
SHEET No. S4.2 OF 3 SHEETS

ADD. 195

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

DRAWING NAME: Z:\00 ONGOING\12-026-FARRINGTON HWY NANAKULI TO HALEAKALA-ULEHAWA\CAD\11-08-13 ADD1\FHU-S401 ADD1.DWG PLOT TIME: 11-06-13, 9:31 AM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD. 196	230

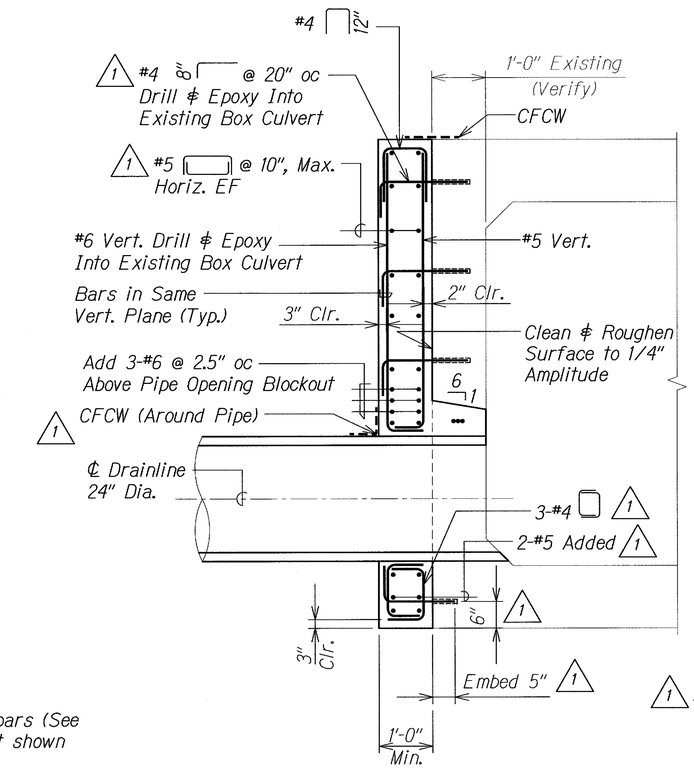


1 Note:
#5 Diagonal bars (See Sht. S4.2) not shown for clarity.

SECTION - ADDED WALL AT 24" DIA. DRAINLINE

A S4.1 | S4.3

Scale: 3/4" = 1'-0"



1 Note:
#5 Diagonal bars (See Sht. S4.2) not shown for clarity.

SECTION - ADDED WALL AT 24" DIA. DRAINLINE

B S4.1 | S4.3

Scale: 3/4" = 1'-0"

DRAWING NAME: Z:\00 ONGOING\12-026-FARRINGTON HWY NANAKULI TO HALEAKALA-ULEHAWA\CAD\11-08-13 ADD1\FHU-S401 ADD1.DWG PLOT TIME: 11-06-13, 9:26 AM)

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

DAVID K. FUJIMARA
LICENSED PROFESSIONAL ENGINEER
NO. 8104-S
HAWAII, U.S.A.

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KSF, INC. — APRIL 30, 2014 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SECTIONS

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

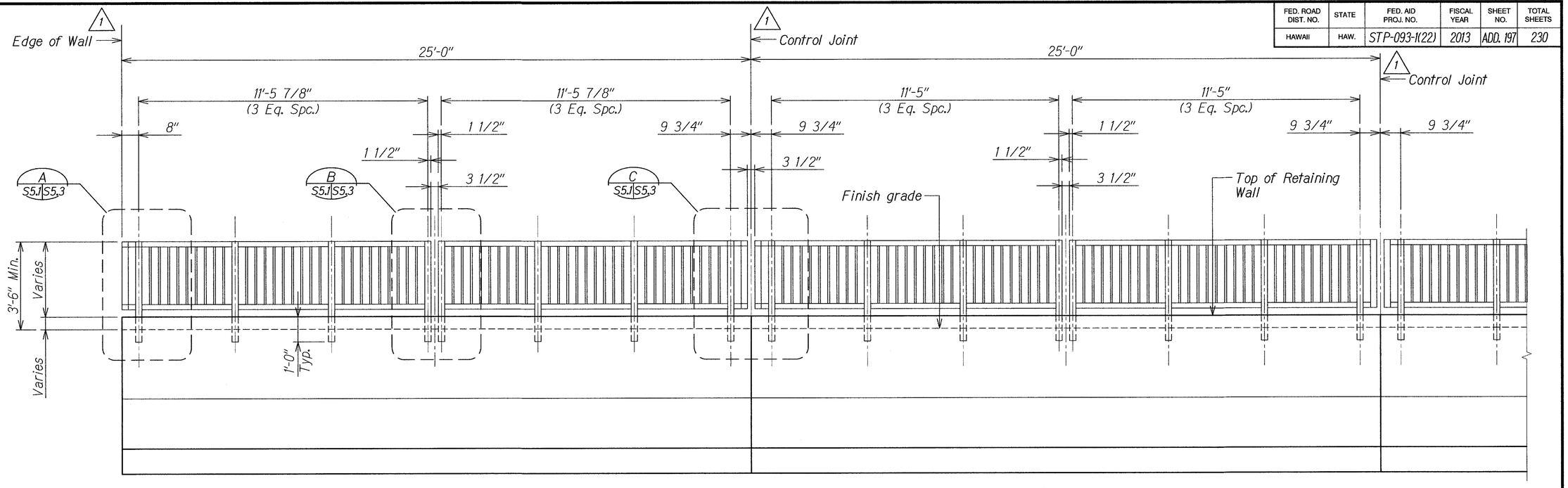
Scale: As Shown Date: April 2013

SHEET No. S4.3 OF 3 SHEETS

DATE	REVISION
11/08/13	1 Add. 1 - Modified Sections

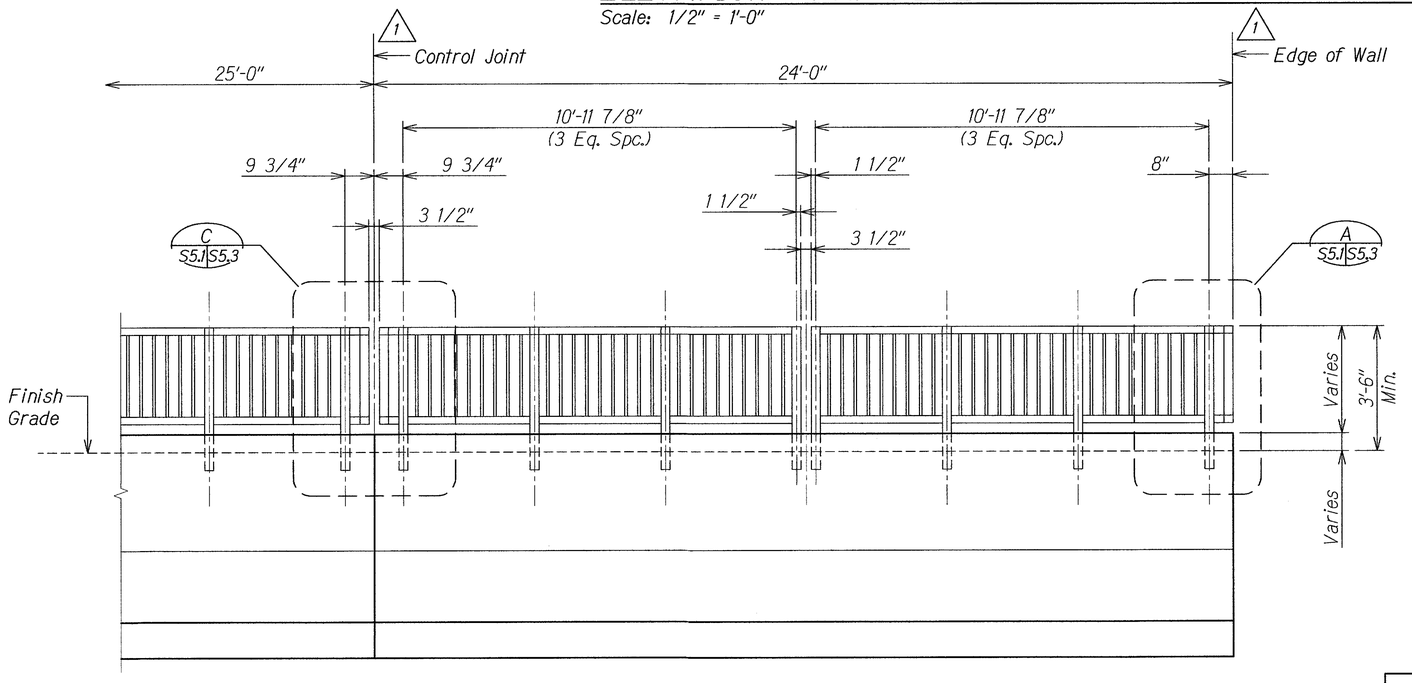
ADD. 196

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD. 197	230



ELEVATION - FRP PEDESTRIAN RAILING AT RETAINING WALL (A S5.1 S5.1)

Scale: 1/2" = 1'-0"



ELEVATION - FRP PEDESTRIAN RAILING AT END OF RETAINING WALL (B S5.1 S5.1)

Scale: 1/2" = 1'-0"

1 Note:
Contractor shall verify and coordinate FRP Railing supply lengths with retaining wall Control Joint locations.

DAVID K. FUJIWARA
LICENSED PROFESSIONAL ENGINEER
NO. 8104-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FRP PEDESTRIAN RAILING ELEVATIONS

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: As Shown Date: April 2013

SHEET No. S5.1 OF 3 SHEETS

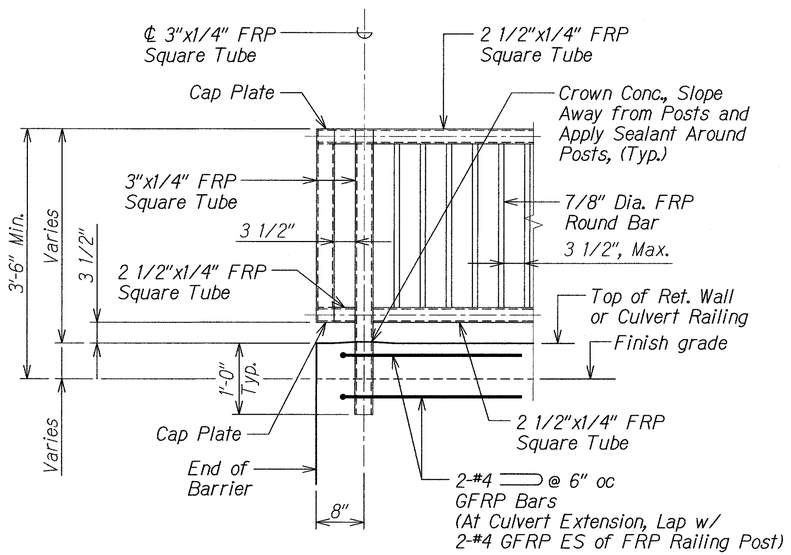
DATE	REVISION
11/08/13	1 Add. 1 - Added Callouts & Note

ADD. 197

ORIGINAL PLANS PREPARED BY
NOTE BOOK
No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

DRAWING NAME: Z:\00 ONGOING\12-026-FARRINGTON HWY NANAKULI TO HALEAKALA-ULEHAWA\CAD\11-08-13 ADD1\FHU-S501 ADD1.DWG PLOT TIME: 11-04-13, 5:01 PM)

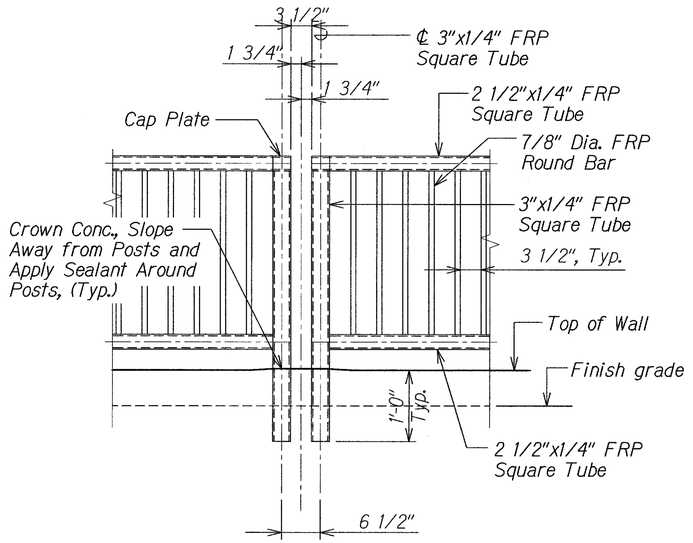
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD. 199	230



ELEVATION - END CONDITION FRP PEDESTRIAN RAILING ON RET. WALL OR CULVERT EXTENSION

Scale: 1" = 1'-0"

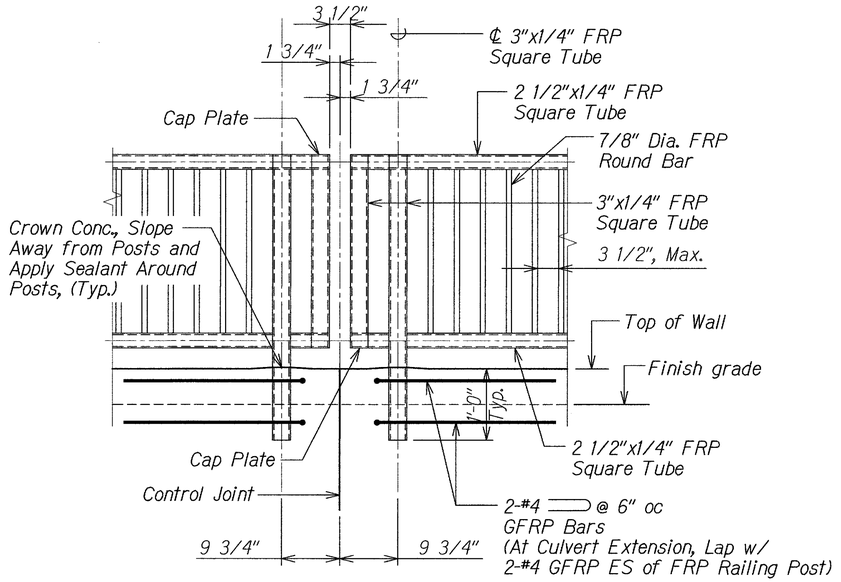
A — S5.1 | S5.3 — S5.2 S5.3



ELEVATION - AT TYPICAL BETWEEN PANEL FRP PEDESTRIAN RAILING ON RET. WALL OR CULVERT EXTENSION

Scale: 1" = 1'-0"

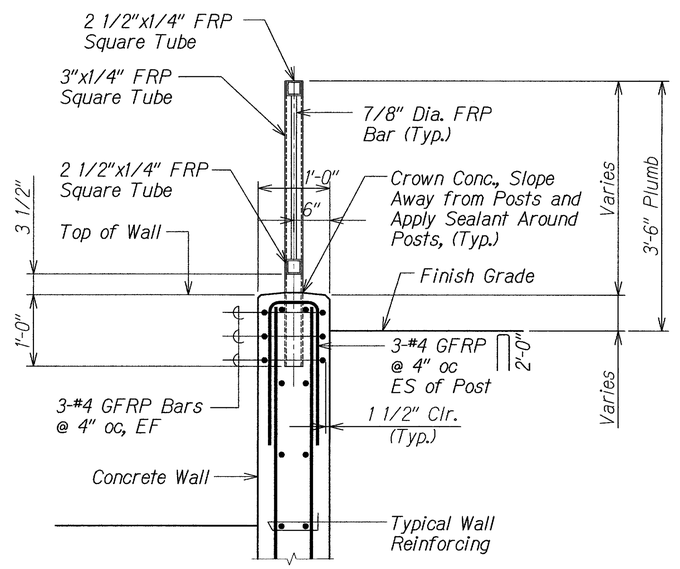
B — S5.1 | S5.3 — S5.2 S5.3



ELEVATION - AT CONTROL JOINT FRP PEDESTRIAN RAILING ON RET. WALL OR CULVERT EXTENSION

Scale: 1" = 1'-0"

C — S5.1 | S5.3 — S5.3



TYPICAL RAILING SECTION

Scale: 1" = 1'-0"

D — S5.3 | S5.3

Notes:

1. Top of railing shall be 3'-6" above finish grade adjacent to the railing.
2. Control joints in the walls or barriers shall match railing joints.
3. All openings in railing shall be capped and sealed to prevent water intrusion.
4. Reinforcing at post locations is shown for concrete retaining wall only. See sheet S3.3 for condition at culvert extension.
1. 5. See Special Provisions Section 507.03 (B) (7) for painting details

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FRP PEDESTRIAN RAILING ELEVATIONS AND SECTION

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: As Shown — Date: April 2013

SHEET No. S5.3 OF 3 SHEETS

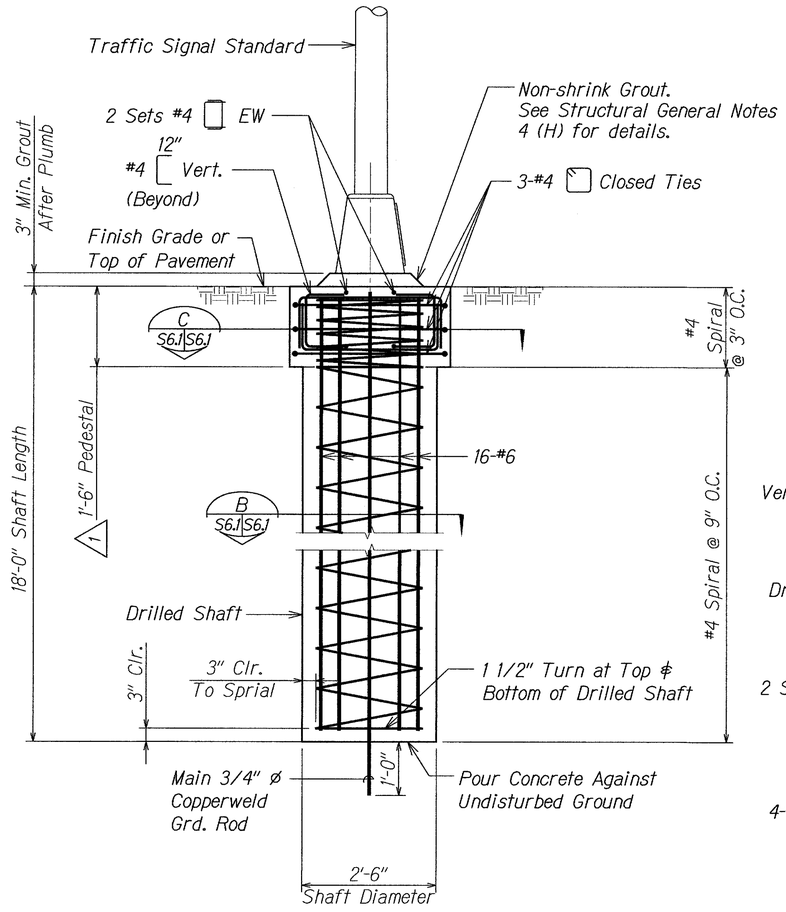
DATE	REVISION
11/08/13	1 Add. 1 - Added Note

ADD. 199

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

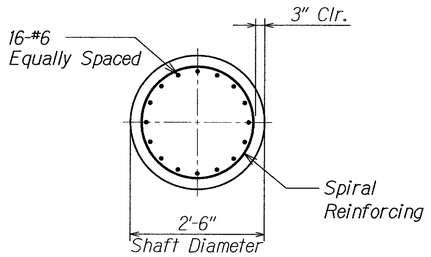
DRAWING NAME: Z:\DO ONGOING\12-028-FARRINGTON HWY NANAKULI TO HALEAKALA-ULEHAWA\CAD\11-08-13 ADD1\FHU-SS01 ADD1.DWG PLOT TIME: 11-04-13, 5:01 PM)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(22)	2013	ADD. 200	230



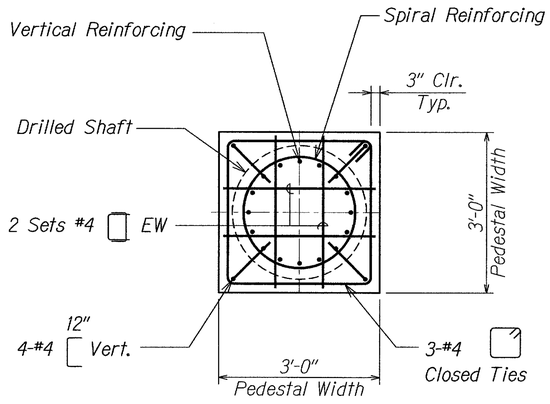
TYPICAL POLE FOUNDATION (A S6.1 S6.1)

Scale: 3/4" = 1'-0"



SECTION (B S6.1 S6.1)

Scale: 3/4" = 1'-0"



SECTION (C S6.1 S6.1)

Scale: 3/4" = 1'-0"

Notes:

1. See Civil drawings for additional details.
2. Traffic Signal Standard manufacturer's recommendations shall be followed.

Drilled Shaft Schedule

	Shaft Diameter Inch	Shaft Length Feet	Pedestal Width Inch	Vertical Reinforcing	Spiral Reinforcing
Type II - Traffic Signal Standard	30	18	36	16-#6	#4 @ 9"

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

DRAWING NAME: Z:\00 ONGOING\12-026-FARRINGTON HWY NANAKULI TO HALEAKALA-ULEHAWA\CAD\11-08-13 ADD1\FHU-S601 ADD1.DWG PLOT TIME: 11-04-13, 5:02 PM)

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL TRAFFIC SIGNAL POLE FOUNDATION

FARRINGTON HIGHWAY INTERSECTION IMPROVEMENTS
AT NANAKULI AVENUE AND HALEAKALA AVENUE
Federal-Aid Project No. STP-093-1(22)

Scale: As Shown Date: April 2013

SHEET No. S6J OF 1 SHEETS

DATE	REVISION
11/08/13	1 Add. 1 - Modified Callout

ADD. 200