FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 292	382

STRUCTURAL INDEX TO DRAWINGS

SHEET	DESCRIPTION
S0.1	STRUCTURAL INDEX TO DRAWINGS
S0.2	STRUCTURAL INDEX TO DRAWINGS
S0.3	STRUCTURAL GENERAL NOTES
S0.4	STRUCTURAL GENERAL NOTES
S0.5	SYMBOLS AND ABBREVIATIONS
SP1.1	PALAMA SEPARATION - DEMO PLAN AND ELEVATION
SP1.2	PALAMA SEPARATION - DEMO SECTION
SP1.3	PALAMA SEPARATION - DEMO END POST PLANS AND SECTIONS
SP1.4	PALAMA SEPARATION - DEMO END POST PLANS
SP2.1	PALAMA SEPARATION - LAYOUT PLAN AND ELEVATION
SP3.1	PALAMA SEPARATION - END POST PLANS
SP3.2	PALAMA SEPARATION - END POST PLANS
SP3.3	PALAMA SEPARATION - SECTIONS
SP3.4	PALAMA SEPARATION - END POST SECTIONS
1 SP4.1	PALAMA SEPARATION - TYPICAL DECK AND RAILING SECTIONS
1 SP4.2	PALAMA SEPARATION - TYPICAL RAILING SECTIONS AT LIGHT POLE
1 SP4.3	PALAMA SEPARATION - TYPICAL RAILING SECTIONS AT LIGHT POLE
1 SP4.4	PALAMA SEPARATION - TYPICAL RAILING SECTION AT LIGHT POLE
SP5.1	TYPICAL END POST PLAN AND ELEVATION
SP5.2	TYPICAL END POST SECTIONS
SP5.3	TYPICAL END POST SECTIONS
SP5.4	TYPICAL END POST SECTIONS AND DETAIL
SP6.1	EXIST. BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - DEMO PLAN
SP6.2	NEW BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - PLAN AND SECTION
SP6.3	NEW BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - SECTIONS
SP6.4	NEW BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - SECTIONS

SHEET	DESCRIPTION
SN1.1	NUUANU STREAM BRIDGE - DEMO PLAN AND ELEVATION
SN1.2	NUUANU STREAM BRIDGE - DEMO SECTIONS
SN2.1	NUUANU STREAM BRIDGE - PLAN AND ELEVATION
SN2.2	NUUANU STREAM BRIDGE - BARRIER/RET. WALL ELEVATIONS AND SECTION
SN3.1	NUUANU STREAM BRIDGE - DECK FRAMING PLAN
SN4.1	NUUANU STREAM BRIDGE - TYP. DECK AND RAILING SECTIONS
SN4.2	NUUANU STREAM BRIDGE - SECTIONS
SN4.3	NUUANU STREAM BRIDGE - SECTIONS
SN4.4	NUUANU STREAM BRIDGE - SECTIONS
SN5.1	NUUANU STREAM BRIDGE - PRECAST PLANK SECTIONS
SN6.1	NUUANU STREAM BRIDGE - CONSTRUCTION SEQUENCE
SB1.1	TYPICAL GLARE SCREEN ON EXISTING BARRIER - SECTION AND ELEVATION
SB1.2	TYPICAL GLARE SCREEN ON EXISTING BARRIER - PLAN AND ELEVATION
SB2.1	TYPICAL CONCRETE BARRIER REPAIR - ELEVATION AND SECTION
SB3.1	QUEEN EMMA BARRIER - PLAN AND SECTION
SB3.2	QUEEN EMMA BARRIER - SECTIONS
SB4.1	QUEEN EMMA RELOCATE EXIST. LIGHT POLE - DEMO PLAN AND ELEVATION
SB4.2	QUEEN EMMA RELOCATE EXIST. LIGHT POLE - DEMO SECTIONS AND DETAIL
SB4.3	QUEEN EMMA RELOCATE EXIST. LIGHT POLE - LAYOUT PLAN AND ELEVATION
SB4.4	QUEEN EMMA RELOCATE EXIST. LIGHT POLE - SECTION
SB4.5	QUEEN EMMA RELOCATE EXIST. LIGHT POLE - SECTIONS
SB4.6	QUEEN EMMA RELOCATE EXIST. LIGHT POLE - SECTION

SHEET	DESCRIPTION
SW0.1	TYPICAL RETAINING WALL DETAILS
SW1.1	TYPICAL SCHOOL STREET RETAINING WALL 1 - SECTION
SW2.1	NUUANU STREAM RETAINING WALLS 2A AND 2B - PLAN AND ELEVATION
SW2.2	NUUANU STREAM RETAINING WALL 2A - SECTIONS AND ELEVATION
SW2.3	NUUANU STREAM RETAINING WALL 2B - SECTIONS
SW2.4	RETAINING WALL 2 ABOVE GDI - PLAN AND SECTIONS
SW2.5	NUUANU STREAM RETAINING WALL 3 - SECTIONS AND DETAIL
SW2.6	RETAINING WALL 3 ABOVE GDI - PLAN AND SECTIONS
SW3.1	TYPICAL RETAINING WALL - DEMO FOR NEW LIGHT POLE
1 SW3.2	NEW LIGHT POLE ON RETAINING WALL PLAN, ELEVATION AND SECTION
SW3.3	NEW LIGHT POLE ON RETAINING WALL ELEVATIONS
SW3.4	TYPICAL RETAINING WALL, CONTROL JOINT, SECTIONS AND DETAIL
SI1.1	RECONSTRUCTED GDI AT STA. 50+80 RT. - PLAN AND SECTION
SI1.2	RECONSTRUCTED GDI AT STA. 50+80 RT. - SECTIONS
SI1.3	RECONSTRUCTED GDI AT STA. 50+80 RT. - SECTIONS
SI1.4	RECONSTRUCTED GDI AT STA. 50+80 RT. - FRAME AND GRATING DETAILS

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Description

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL INDEX TO DRAWINGS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: None — Date: April 26, 2013

SHEET No. S0.1 OF 86 SHEETS

ADD. 292

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

DRAWING NAME: Z:\00 ONGOING\11-030 HI RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100R\HIRA-S001 ADD.DWG PLOT TIME: 06-14-13, 10:17 AM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 293	382

STRUCTURAL INDEX TO DRAWINGS

SHEET	DESCRIPTION
SI1.5	RECONSTRUCTED GDI AT STA. 52+75 RT. - PLAN AND SECTIONS
SI1.6	RECONSTRUCTED GDI AT STA. 54+75 RT. - PLAN AND SECTIONS
SI1.7	DRAIN INLET RECONSTRUCTION DETAIL
SI2.1	GDI AT STA. 125+75.37 - DEMO PLAN AND SECTIONS
SI2.2	GDI AT STA. 125+75.37 - SECTION 1
SI2.3	GDI AT STA. 125+75.37 - PLAN AND SECTIONS
SI2.4	GDI AT STA. 125+75.37 - SECTIONS
SI2.5	GDI AT STA. 125+75.37 - PLANS
SI2.6	GDI AT STA. 125+75.37 - SECTIONS
SI2.7	GDI AT STA. 125+75.37 - SECTIONS
SI3.1	GDI AT STA. 128+24.77 - DEMO PLAN AND SECTION
SI3.2	GDI AT STA. 128+24.77 - PLANS AND SECTION
SI3.3	GDI AT STA. 128+24.77 - SECTIONS
SI4.1	GDI AT STA. 85+00 AND STA. 148+00 - DEMO PLAN AND SECTIONS
SI4.2	GDI AT STA. 85+00 AND STA. 148+00 - PLANS
SI4.3	GDI AT STA. 85+00 AND STA. 148+00 - SECTIONS
SI5.1	GDI AT STA. 187+90 - DEMO PLAN AND SECTION
SI5.2	GDI AT STA. 187+90 - PLANS
SI5.3	GDI AT STA. 187+90 - SECTIONS
SI5.4	GDI AT STA. 187+90 - PLAN AND SECTION
SL1.1	LIGHT POLE FOUNDATION
SR1.1	METAL RAILING SPLICE DETAILS

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRA-S001 ADD.DWG PLOT TIME: 06-14-13, 10:17 AM

ORIGINAL PLAN
NOTE BOOK
No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Description

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL INDEX TO DRAWINGS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: None Date: April 26, 2013

SHEET No. S0.2 OF 86 SHEETS

ADD. 293

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 294	382

STRUCTURAL GENERAL NOTES

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

2. Design Specifications:
   (A) AASHTO 2010 LRFD Bridge Design Specifications (Fifth Edition) and its subsequent interim specifications with interim supplements and modifications by the HDOT Highways Division.
   (B) HDOT Document dated October 20, 2010 with subject title "Design Criteria for Bridges and Structures"
   (C) AASHTO 2009 Standard Specifications for structural supports for Highways, Signs, Luminaires, and Traffic Signals (Fifth Edition) ant its subsequent interim specifications with interim supplements and modifications by the HDOT Highways Division.
   (D) Temporary shoring and falsework shall follow the AASHTO Guide Design Specification for Bridge Temporary Works.

3. Loads:
   (A) Live Load: AASHTO HL-93 Truck Loading
   (B) Railing Test Level: TL-4

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

Item No.	Structural Parts	Classes of Concrete	Specified Compressive Strength, f'c (28 Days)	Maximum Cement Content (lbs/cy)
(1)	Deck Cast in Place Concrete	Very Early Strength Latex Modified Concrete (VESLMC)	See Section 540	-
(2)	Nuuanu Stream Bridge Pier and Abutment Corbels, and Concrete on Sheet SP3.3 Refer to Note 4. (K)	-	5000 psi	650
(3)	Precast Concrete	-	5000 psi	650
(4)	Retaining Walls, End Posts, Bridge Rails, and Concrete Barriers	-	4000 psi	625
(5)	Foundations for Retaining Wall, End Post, and Concrete Barriers	-	4000 psi	625
(6)	Drilled Shafts	-	4500 psi	670
(7)	Light Pole Base on Retaining Wall	-	4000 psi	625
(8)	Except as noted otherwise all others	-	4000 psi	625

All concrete shall have a maximum W/C Ratio of 0.45. 1
The W/C Ratio for Class A Concrete shall follow the standard specifications.

All concrete in Items 2, 3, 4, 5, and 7 shall have a 128 ounces of BASF Master Life AS20 or Grace Eclipse Shrinkage Reducing Admixture per cubic yard of concrete.

4. Materials (Cont.):
   A migrating corrosion inhibitor amine carboxylate water-based admixture shall be added to the concrete for Items 3, 4, 5 and 7. The minimum dosage shall be 1.5 pints per cubic yard of concrete. The admixture shall not affect the set time of the concrete.
   (B) The use of any calcium chloride in any concrete is prohibited.
1 (C) All reinforcing steel shall be ASTM A 615 Grade 60 deformed bars unless otherwise noted.
   (D) Reinforcing steel shall be ASTM A 706 where welded connections are required.
   (E) All structural steel shall be ASTM A36 hot dip galvanized after fabrication, unless otherwise noted.
   (F) All anchor bolts, washers and nuts shall be ASTM A325 hot dip galvanized after fabrication, unless otherwise specified. Washers shall be used with bolts and anchor bolts.
   (G) All stainless steel shall be duplex stainless steel Type 2205 with a minimum yield strength of 65 ksi and a minimum tensile strength 95 ksi.
   (H) All welding shall conform to the latest ANSI / AASHTO / AWS D1.5 Bridge Welding Code. All welds shall be ground smooth. Unless noted otherwise, all welding shall be shielded arc welding done with E70 electrodes.
   (I) A migrating corrosion inhibitor amine carboxylate water-based admixture shall be added to the dry pack mortar, grout and non-shrink grout. The minimum dosage shall be 10 grams per 0.4 to 0.5 cubic feet of dry pack mortar, grout, or non-shrink grout.
   (I) Glass fiber reinforced polymer (GFRP) rebar shall conform to Special Provisions Section 672.
   (K) A calcium nitrite corrosion inhibitor shall be added to the concrete for Item 4. (A) (2).
1 The Dose shall be a minimum 5 gallons per cubic yard of concrete and accepted by the Engineer. In addition to inhibiting corrosion, the calcium nitrite shall accelerate the concrete hydration to give a final set at 3 hours. At final set, the minimum concrete compressive strength shall 700 psi. The 3 hours and the 28 day compressive strengths shall be determined by ASHTO T-22, ASTM C109 or ASTM C779. These tests shall be performed by the Contractor in the presence of the Engineer. If ASTM C779 is used, the Contractor shall first prepare base-line samples which will be used by Engineer for comparison and acceptance of the work. The records of these tests shall be submitted to the Engineer the same day the tests are performed. The addition a SRA to the calcium nitrite shall not alter the 3 hour and 28 day compressive strength.

5. Reinforcement:
   (A) The covering measured from the surface of the concrete to the face of any reinforcing bars shall be as follows, except as otherwise shown:
      (1) Deck slabs
         a. Top bars = 2 1/2" (Unless otherwise noted)
         b. Bottom bars = 1 1/2"
      (2) Concrete cast against and permanently exposed to earth = 3"
      (3) All others unless otherwise noted = 2".
   (B) Reinforcing bars shall be detailed in accordance with the latest edition of the AASHTO LRFD bridge design specifications 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 either 1 1/2 times the maximum size of the coarse aggregate or 1 1/2".
   (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) 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.
   (B) The Contractor shall verify all site conditions and not rely upon these plans for existing, dimensions, elevations and azimuths, stream channel location, roads, roadway gutters, curbs and sidewalks, etc.. Conditions may differ from those shown.

The Nuuanu Bridge Pier and Abutment Corbels were Poured using a Corbel Mix that isn't Required 700 PSI in 3-Hours. A Corrosion Inhibitor was included. (Per RFI 098)

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC.
APRIL 30, 2014
LIC. EXP. DATE

DATE	REVISION
6/14/13	1 Revise Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL GENERAL NOTES

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: None Date: April 26, 2013

SHEET No. S0.3 OF 86 SHEETS

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%HIRA-S003 ADD.DWG PLOT TIME: 06-14-13, 10:18 AM

"AS-BUILT"

ADD. 294

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 295	382

STRUCTURAL GENERAL NOTES (CONT.)

6. Construction Notes (Cont.): /1

(C) 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.

(D) 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.

(E) Except as otherwise noted, all vertical dimensions are measured plumb.

(F) For concrete finish see Standard Specifications and Special Provisions.

/1 (G) Construction joints may be relocated or additional ones added subject to the acceptance of the Engineer.

(H) Unless otherwise noted, all exposed concrete edges shall be chamfered 3/4" x 3/4".

(J) The Contractor shall verify the location and size of all existing reinforcing bars prior to drilling.

(K) Location of drilled holes shown in plans are approximate. Prior to placing holes in concrete, the Contractor shall locate all reinforcing steel, anchor bolts, thru bolts holes, etc. and adjust the location of the drilled holes to clear of them. Final hole locations are /1 subject to the acceptance of the Engineer.

(L) Drilled holes in existing concrete for reinforcing steel dowels shall not be left unfilled for more than 8 hours. Embed length of epoxy dowels shown on plans shall be increased if the epoxy used is not able to develop the full strength of the dowels. Epoxy shall attain full strength prior to pouring concrete around reinforcing steel dowels. Follow all manufacturer's recommendations for dowel and epoxy.

(M) Contractor shall unplug, clean and maintain existing drains during construction of the project.

(N) Bolts and nuts for guardrail connections shall bear flush against concrete surfaces. Wedge washers shall be used as required.

(O) When only portions of concrete are to be demolished. The intersections between the demolished concrete and the concrete that are to remain shall have a 1/4 inch deep sawcut or to depth of shallowest reinforcement around the entire perimeter of the demolished area.

(P) The concrete surfaces which new concrete is poured against shall be roughened to a full amplitude of 1/4 of an inch and cleaned.

(Q) All existing reinforcing shall remain in place and shall not be damaged in any way unless otherwise noted.

(R) Existing reinforcing at exposed edges of concrete shall be cut back to provide 2" clear from finish concrete surface.

(S) The Contractor shall restore the bridge name inscribed in railing when it is obstructed or removed. This work shall be considered incidental to the cost of the end posts.

(T) New concrete surfaces shall match the finish of the existing structure. Any reveals, patterns, or decorative features shall also match the existing structure.

6. Construction Notes (Cont.): /1

(U) The Contractor shall submit shop drawings and calculations for the proposed details needed to protect the existing structures from increases in the existing load due to construction dead and live loads. The drawings and calculations shall be stamped by a licensed Structural Engineer and a licensed Civil Engineer specializing in geotechnical engineering in the State of Hawai'i. The above work, including working drawings and calculations, shall be incidental to various Contract items. The drawings and calculations shall be found acceptable by the Engineer before any construction work is to proceed.

/1 (V) At least 30 days prior to commencing work, submit calculations and working drawings stamped by a licensed civil engineer specializing in geotechnical engineering in the State of Hawaii for any excavation or exposed, cut face 4 ft in height or greater. Also, if shoring is to be used, submit calculations and working drawing stamped by a licensed civil engineer specializing in structural engineering in the State of Hawaii. Follow all OSHA and HIOSH regulations.

/1 (W) Cover VESLMC with a curing blanket with R value ofat least 1.0 ft^2-°F.hr/BTU for a minimum of 24 hrs. The blanket shall be placed in contact with the concrete after the concrete has set enough to not be damaged by the application of the blanket. The maximum surface temperature drop allowed when removing the blanket is 40° F.

/1 (X) Separate dissimilar metals at point of contact by wrapping bar with teflon tape.

7. General:

(A) All items noted incidental will not be paid for separately.

(B) Standard Plans refer to all structures in general, except for modifications as may be required for special conditions. For such modifications refer to the corresponding detailed drawings.

(C) Plans of the existing structures are available for review from the Highways Design Branch located at the State Department of Transportation, Highways Division Kakuhihewa Building, Room 609, 601 Kamokila Boulevard, Kapolei, HI 96707 (phone number 692-7586).

(D) Temporarily relocate highway lighting conduit, pullboxes, etc. obstructing construction as needed. This work shall be considered incidental to the various contract items.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	/1 Revise Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL GENERAL NOTES

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: None Date: April 26, 2013

SHEET No. S0.4 OF 86 SHEETS

ADD. 295

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

DRAWING NAME: Z:\OD ONGOING\11-030 HI RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100X\HIRA-S003 ADD.DWG PLOT TIME 06-14-13, 11:18 AM)

SYMBOLS AND ABBREVIATIONS

&	And
@	At
ø	Diameter
≥	Greater Than or Equal to
≤	Less Than or Equal to
#	Number
Abut.	Abutment
Abbr.	Abbreviation
Add.	Additional
Alt.	Alternate
AB	Anchor Bolt
AC	Asphaltic Concrete
Approx.	Approximate
Az.	Azimuth
Bk.	Back
Bal.	Balance
℄	Baseline
Bm.	Beam
Brg., Brgs.	Bearing, Bearings
BVC	Beginning of Vertical Curve
Bet.	Between
BF	Both Faces
BW	Both Ways
BFE	Bottom of Footing Elevation
Bot., Bott., B	Bottom
BOF	Bottom of Footing
Br.	Bridge
Blt.	Bolt
Cant.	Cantilever
CIP	Cast Iron Pipe
℄	Center line
CG	Center of Gravity
cc	Center to Center
CFCW	1 Continuous Flashing Compound Waterproofing
Cl.	Class
Clr.	Clearance
CO	Clean Out
Col.	Column
Conc.	Concrete
CBW	Concrete Barrier Wall
CMU	Concrete Masonry Unit
Conn.	Connection
Const.	Construction
CJ	Construction Joint
Cntl. Jt.	Control Joint
CLSM	Controlled Low Strength Material
Cont.	Continuous
CSL	Crosshole Sonic Log
CF	Cubic Feet
CY, Cu. Yd.	Cubic Yard
Det.	Detail
Dia.	Diameter
Diaph.	Diaphragm
Dim.	Dimension
Dist.	Distance
DO	Ditto
Dwls.	Dowels
Dn.	Down
Dbl.	Double
DI	Drain Inlet, Ductile Iron
Dwg., Dwgs.	Drawing, Drawings
DS	Drilled Shaft
E	East
EA, Ea., ea.	Each
EF	Each Face
EFH	Each Face Horizontal
EFV	Each Face Vertical
EW	Each Way
EPE	Existing Edge of Pavement
EPS	Expanded Polystyrene
ES	Edge of Shoulder
Elec.	Electrical
EMH	Electrical Manhole
El., Elev.	Elevation
Emb.	Embankment
EVC	End of Vertical Curve
Eq.	Equal
Est.	Estimated
Exc.	Excavation
Excl.	Excluding
Exist., Ex.	Existing
Exp., (E)	Expansion
EJ	Expansion Joint
Ext.	Exterior
(F)	FIxed
FA	Force account
FB	Flat Bar
FC	Compression Stresses
f'c	Specified Compressive Strength of Concrete at 28 days
f'ci	1 Specified Compressive Strength of Concrete at Time of Initial Prestress
FF	1 Far Face. Front Face
Fig.	Figure
Fin. Gr.	Finish Grade
FRP	Fiberglass Reinforced Plastic
FT	Tensile Stresses
Ftg.	Footing
Ft.	Feet, Foot
Ga.	Gage, Gauge
Galv.	Galvanized
G, Gir.	Girder
GDI	Grated Drain Inlet
GFRP	Glass Fiber Reinforced Polymer Rebar
Gr.	Grade
Grd.	Ground
GRP	Grouted Rubble Pavement
Ht.	Height
(H)	Hinge
Horiz., H	Horizontal
HDOT	State of Hawaii Department of Transportation
HDPE	High Density Polyethylene
HS	High strength
HECO	Hawaiian Electric Company
IB	Inbound
In.	Inch
ID	Inside Diameter
IF	Inside Face
Int.	Interior
Inv.	Invert
Jt.	Joint
K	Kips
KF	Kip Foot
KSF	Kips Per Square Foot
KSI	Kips Per Square Inch
KLF	Kips Per Linear Foot
L	Length
lb., lbs., LBS.	Pound, Pounds
Ltg. Std.	Lighting Standard
LF, Lin. Ft.	Linear Feet/Foot
LS	Lump Sum
Longit.	Longitudinal
M	Modified
MH	Manhole
Max.	Maximum
Mech.	Mechanical
Min.	Minimum
Misc.	Miscellaneous
MPH	Miles Per Hour
NF	Near Face
N	North
NIC	Not in Contract
No.	Number
NTS	Not to Scale
O/S	Offset
oc	On Center
Opn'g	Opening
OB	Outbound
OD	Outside Diameter
OG	Outside Girder, Outbound Girder
Perf.	Perforated
PL	Plate
PCC	Portland Cement Concrete
PC	Point of Curvature
PCF	Pounds per Cubic Foot
P(e)	Effective Prestress Force After All Losses
PPM	Parts Per Million
PSF	Pounds per Square Foot
PSI, psi	Pounds per Square Inch
PLF	Pounds per Linear Foot
PI	Point of Intersection of Tangents
PIVC	Point of Intersection of Vertical Curve
PT	Point of Tangency
Pt., Pts.	Point, Points
PRC	Point of Reverse Curvature
PVC	Polyvinyl Chloride
Prestr.	Prestressed
P/S	Prestressed Strands
PB	Pull Box
Rad., R	Radius
RF	Rear Face
Rebar	Reinforcing Bar
Ref.	Reference
Reinf.	Reinforced, Reinforcing, Reinforcement
Req'd.	Required
Ret.	Retaining
ROW	Right of Way
Rdwy.	Roadway
Sect.	Section
SRW	Segmental Retaining Wall
Sht.	Sheet
Sim.	Similar
Sl.	Slope
S	South
Spc., Spg.	Spaces, Spacing
Sprd.	Spread
Spec.	Specification
SF	Square Feet
SY	Square Yard
SS	Stainless Steel
Std.	Standard
Sta.	Station
Stiff.	Stiffener
Stirr.	Stirrup
Stl.	Steel
Str.	Straight
Struct.	Structure
SE	Super Elevation
Symm.	Symmetrical
Tan.	Tangent
TC	Continuity Tendons
Temp.	Temporary
TD	Deck Tendon
Thk.	Thick
T	Top
T&B	Top and Bottom
TCE	Top of Column (and Bent Cap Soffit) Elevation
TOD	Top of Deck
TOP	Top of Pier
TFE	Top of Footing Elevation
Tot.	Total
Transv.	Transverse
TS	Structural Tubing
TSS	Tendon For Girder in Simply Supported Condition
Typ.	Typical
Undergrd.	Underground
Var.	Varies
Vert., V	Vertical
VC	Vertical Curve
VESLMC	Very Early Strength Latex Modified Concrete
W/C	Water/Cement
w/	With
W	West
WWF	Welded Wire Fabric
WW	Wingwall
WP	Work Point, Working Point
WS	Water Surface
Yr.	Year

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 296	382

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Added and Revise Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SYMBOLS AND ABBREVIATIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: None — Date: April 26, 2013

SHEET No. S0.5 OF 86 SHEETS

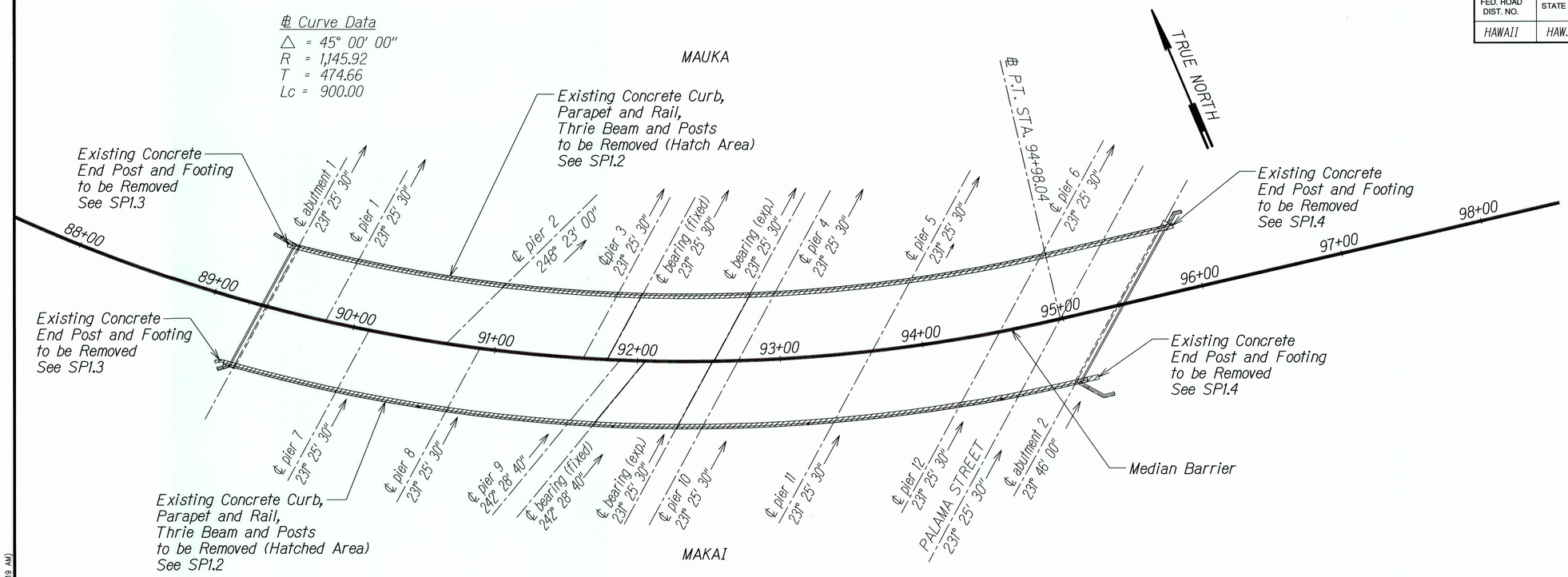
ADD. 296

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

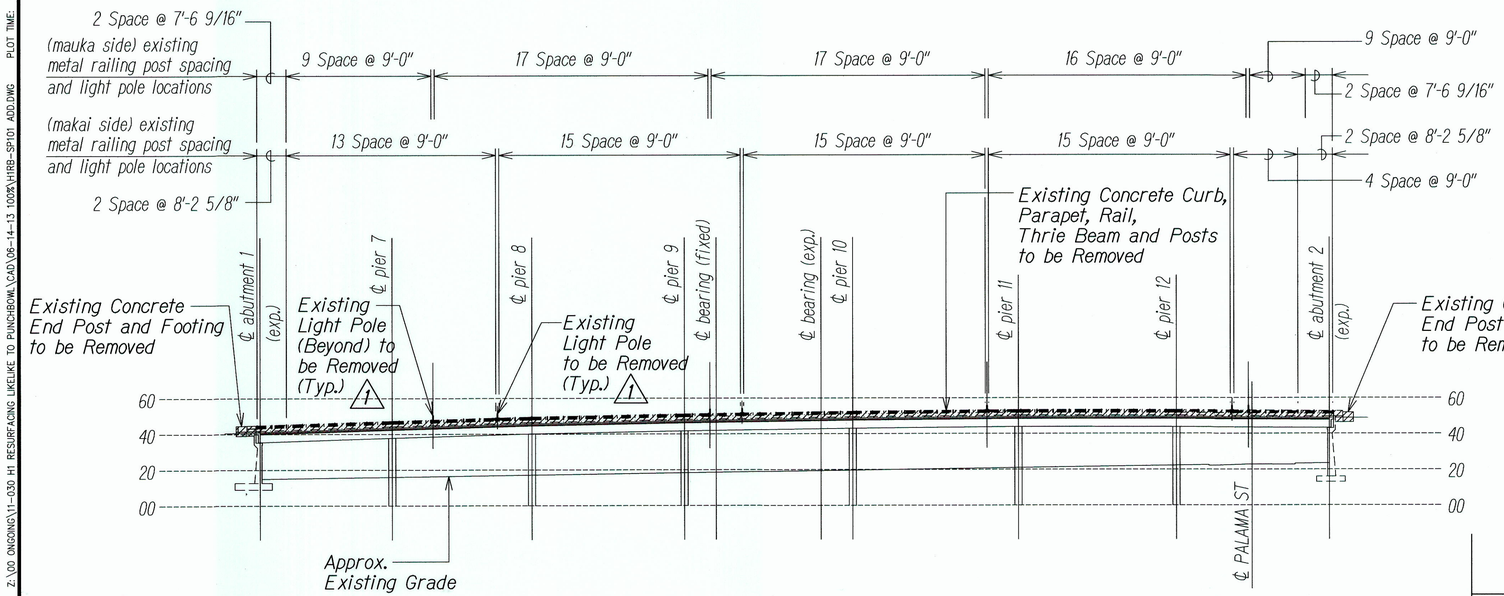
DRAWING NAME: Z:\OD ONGONG\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRA-S005 ADD.DWG PLOT TIME: 06-14-13, 10:19 AM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 297	382

℄ Curve Data
△ = 45° 00' 00"
R = 1,145.92
T = 474.66
Lc = 900.00



DEMO PLAN
Scale: 40" = 10'-0"



DEMO ELEVATION
Scale: ~~40" = 10'-0"~~ 1" = 40'-0" (Per RFI 008)

DATE	REVISION
6/14/13	1 Revise Notes

"AS-BUILT"

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC.
APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION
DEMO - PLAN AND ELEVATION
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

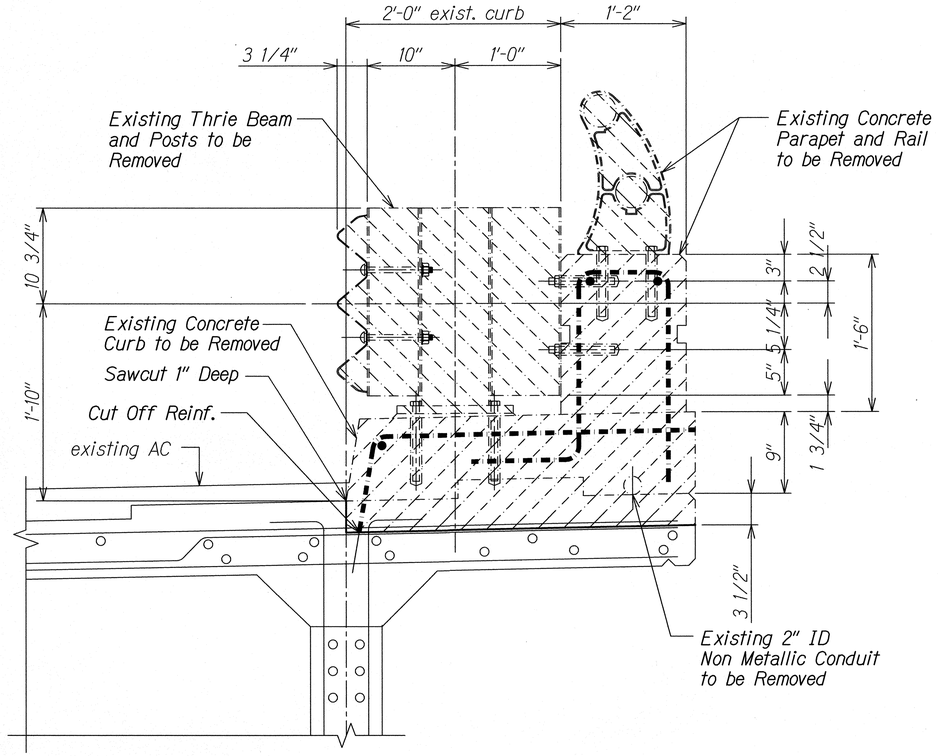
SHEET No. SP1.1 OF 86 SHEETS

ADD. 297

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

DRAWING NAME: Z:\OO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100K\HRB-SP101 ADD.DWG PLOT TIME: 06-14-13, 10:19 AM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	298	382



SECTION A
Scale: 1 1/2" = 1'-0" SP1.2 | SP1.2

Notes:

1. Demolish all items within hatch area.
2. Concrete to be removed within 6 inches of existing concrete to remain shall be removed with chipping or pneumatic tools having a maximum hammer weight of 15 pounds.

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRB-SP101.DWG PLOT TIME: 05-17-13, 2:40 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

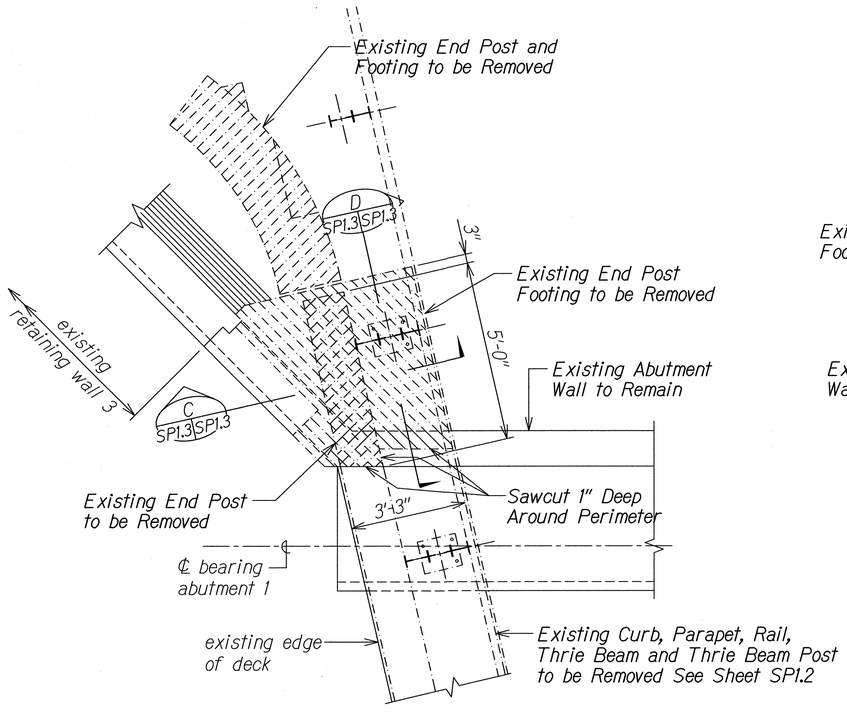
PALAMA SEPARATION
DEMO - SECTION

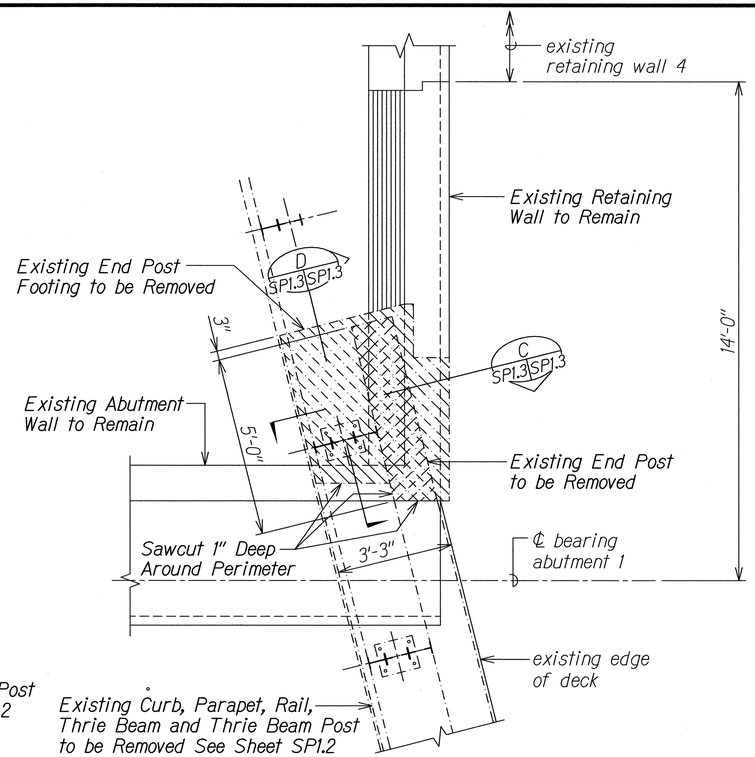
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SP1.2 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	299	382



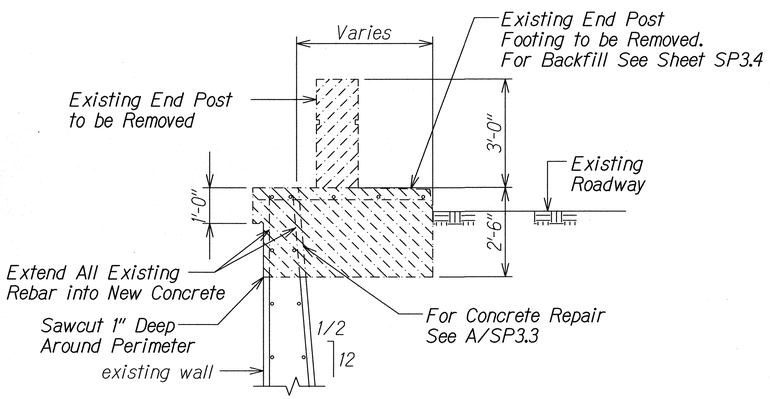


Note:
1. Concrete to be removed within 6 inches of existing concrete to remain shall be removed with chipping or pneumatic tools having a maximum hammer weight of 15 pounds.

PLAN - DEMO AT END POST ABUTMENT 1 (MAKAI SIDE)

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

A SP1.3 SP1.3



SECTION

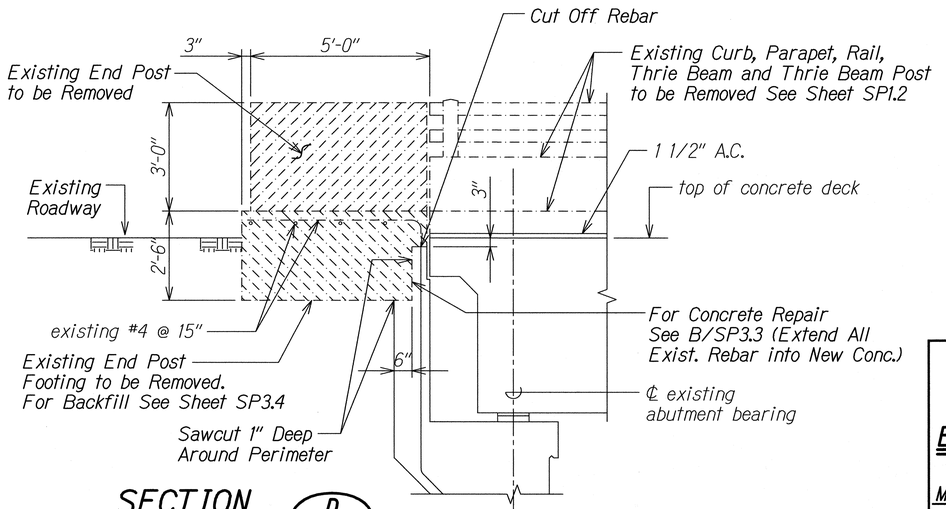
Scale: 1/2" = 1'-0"

C SP1.3 SP1.3 SP1.4

PLAN - DEMO AT END POST ABUTMENT 1 (MAUKA SIDE)

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

B SP1.3 SP1.3



SECTION

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

D SP1.3 SP1.3 SP1.4

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION DEMO
END POST PLANS AND SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SP1.3 OF 86 SHEETS

299

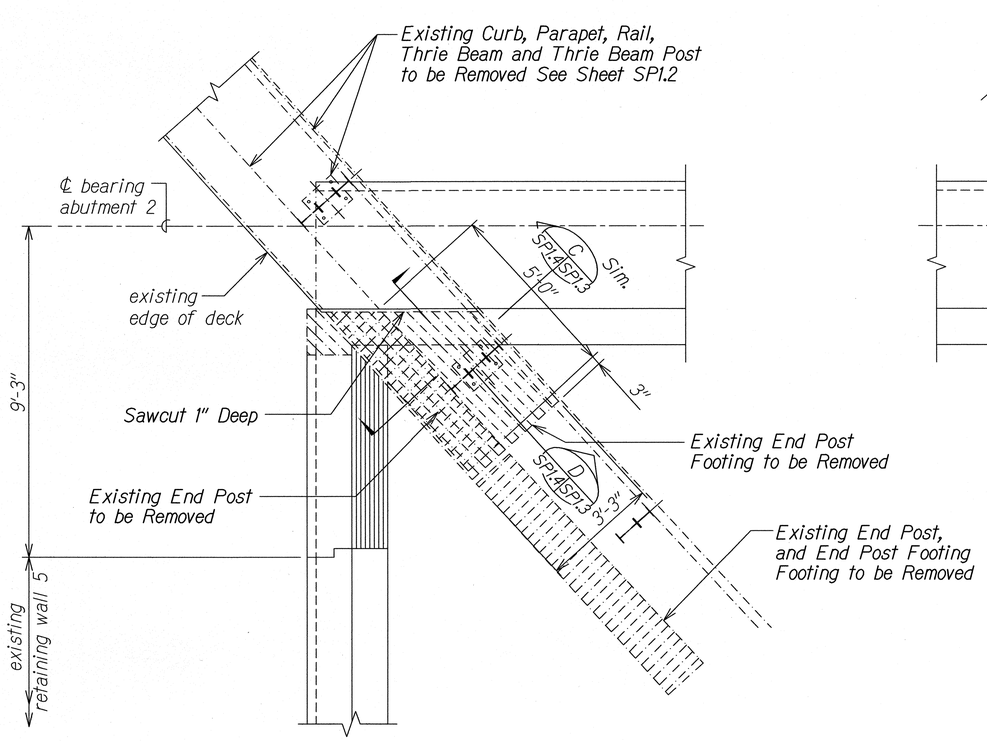
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

DRAWING NAME: Z:\OO_ONGOING\11-030_H1_RESURFACING_LIKELIKE_TO_PUNCHBOWL\CAD\05-17-13_100%\H1RB-SP101.DWG PLOT TIME: 05-17-13, 2:41 PM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	300	382

Note:

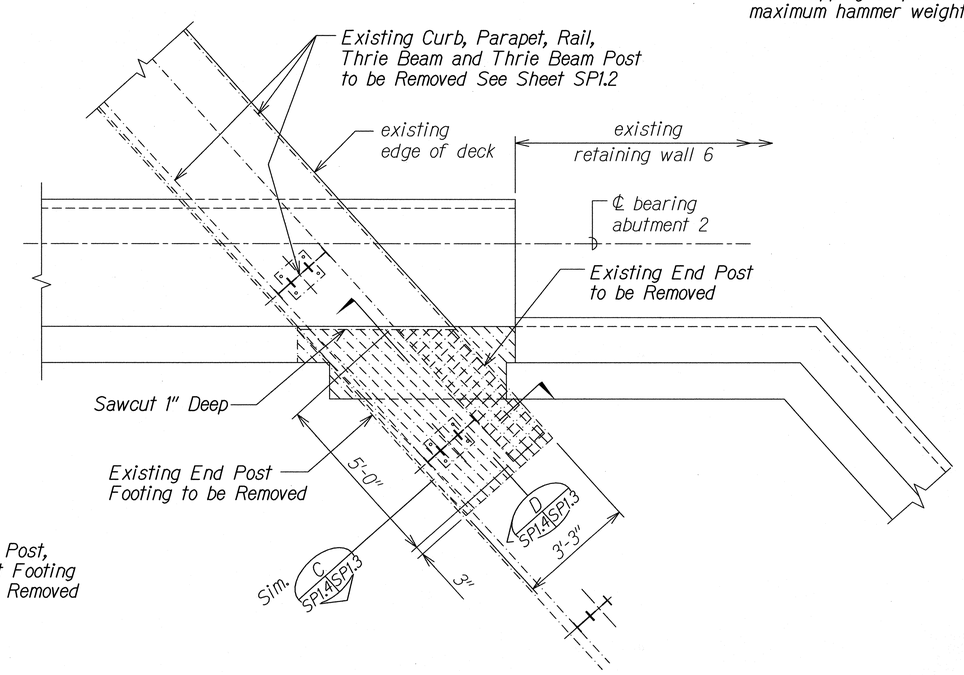
1. Concrete to be removed within 6 inches of existing concrete to remain shall be removed with chipping or pneumatic tools having a maximum hammer weight of 15 pounds.



PLAN - DEMO AT END POST ABUTMENT 2 (MAKAI SIDE)

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

A SP1.4 | SP1.4



PLAN - DEMO AT END POST ABUTMENT 2 (MAUKA SIDE)

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

B SP1.4 | SP1.4

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION DEMO
END POST PLANS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

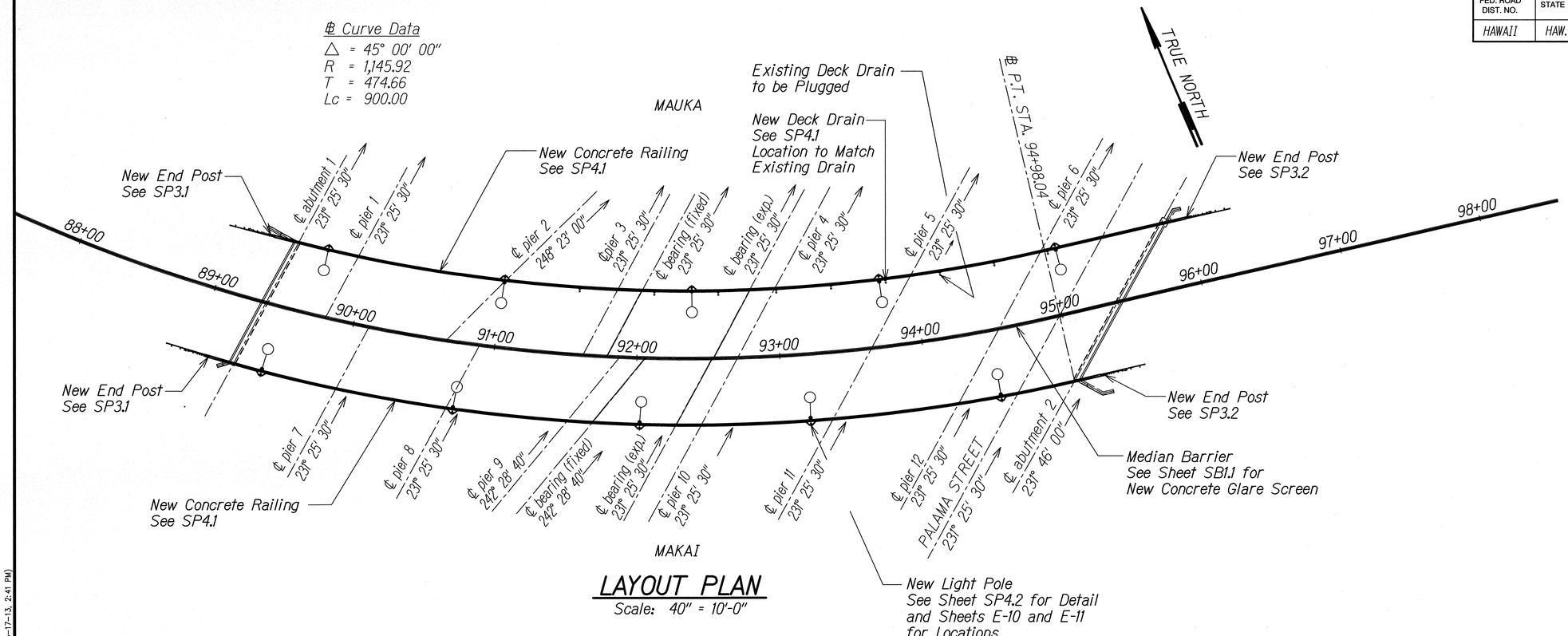
SHEET No. SP1.4 OF 86 SHEETS

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

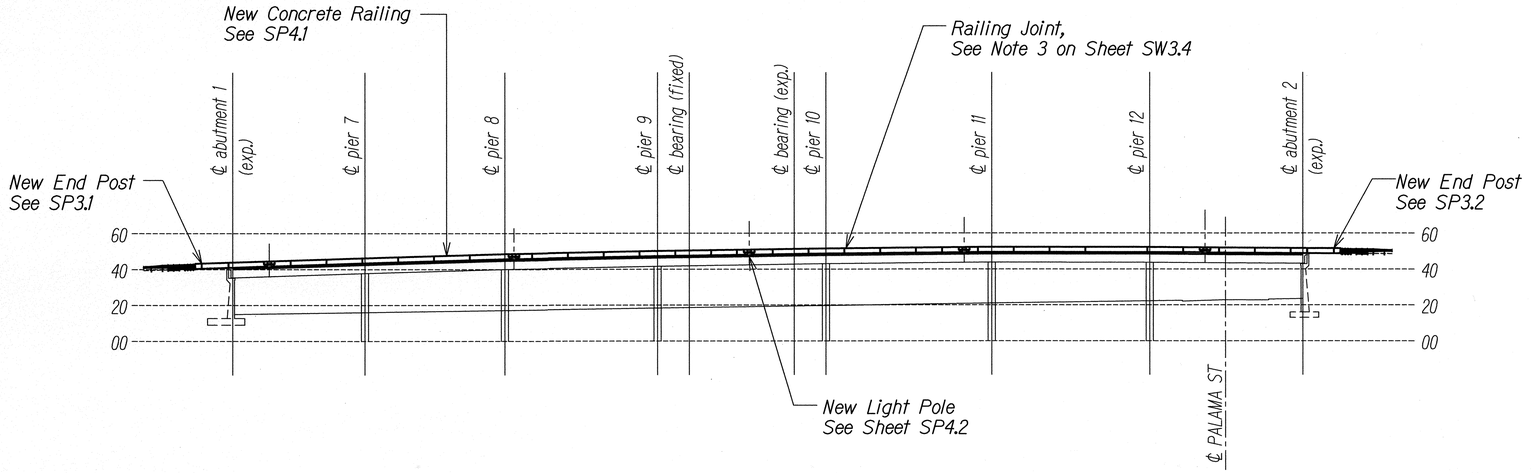
DRAWING NAME: Z:\OD ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRB-SP101.DWG PLOT TIME: 05-17-13, 2:41 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	301	382

℄ Curve Data
△ = 45° 00' 00"
R = 1,145.92
T = 474.66
Lc = 900.00



LAYOUT PLAN
Scale: 40" = 10'-0"



BRIDGE ELEVATION
Scale: 40" = 10'-0"

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 1005%H1RB-SP201.DWG PLOT TIME: 05-17-13, 2:41 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

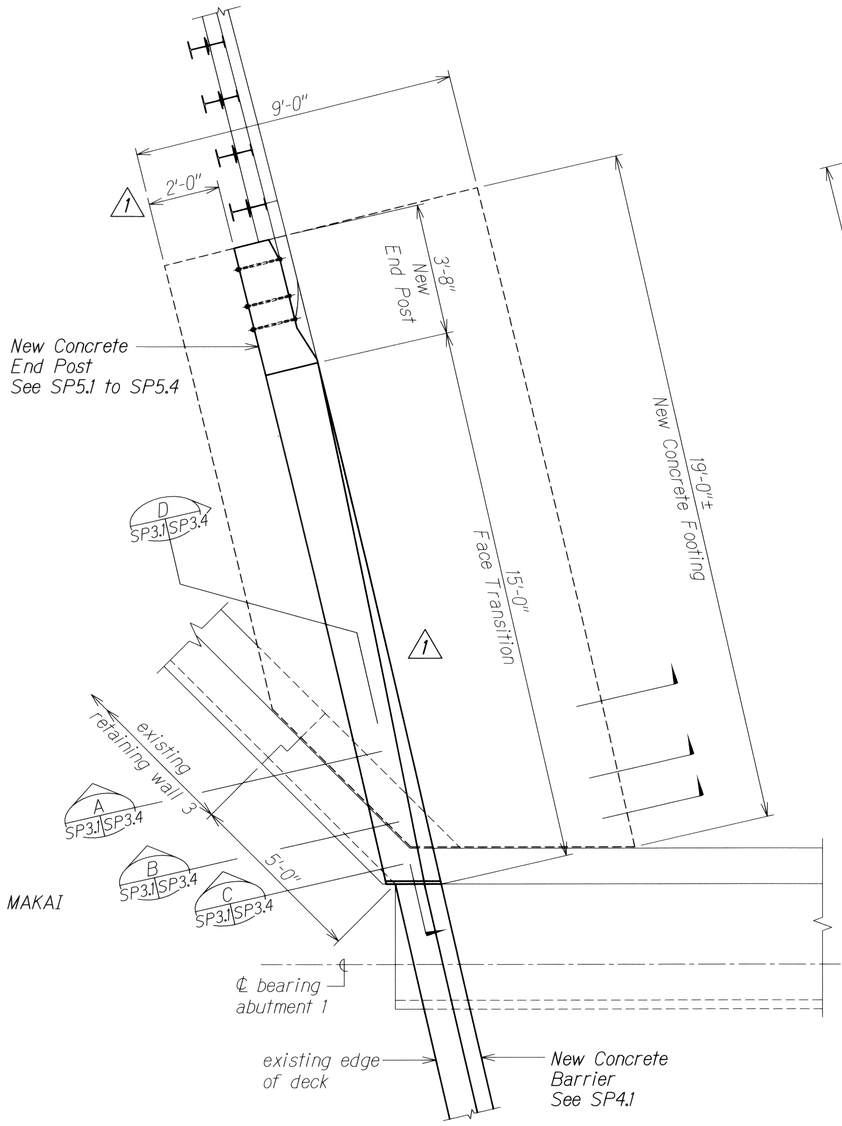
PALAMA SEPARATION
LAYOUT PLAN AND ELEVATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

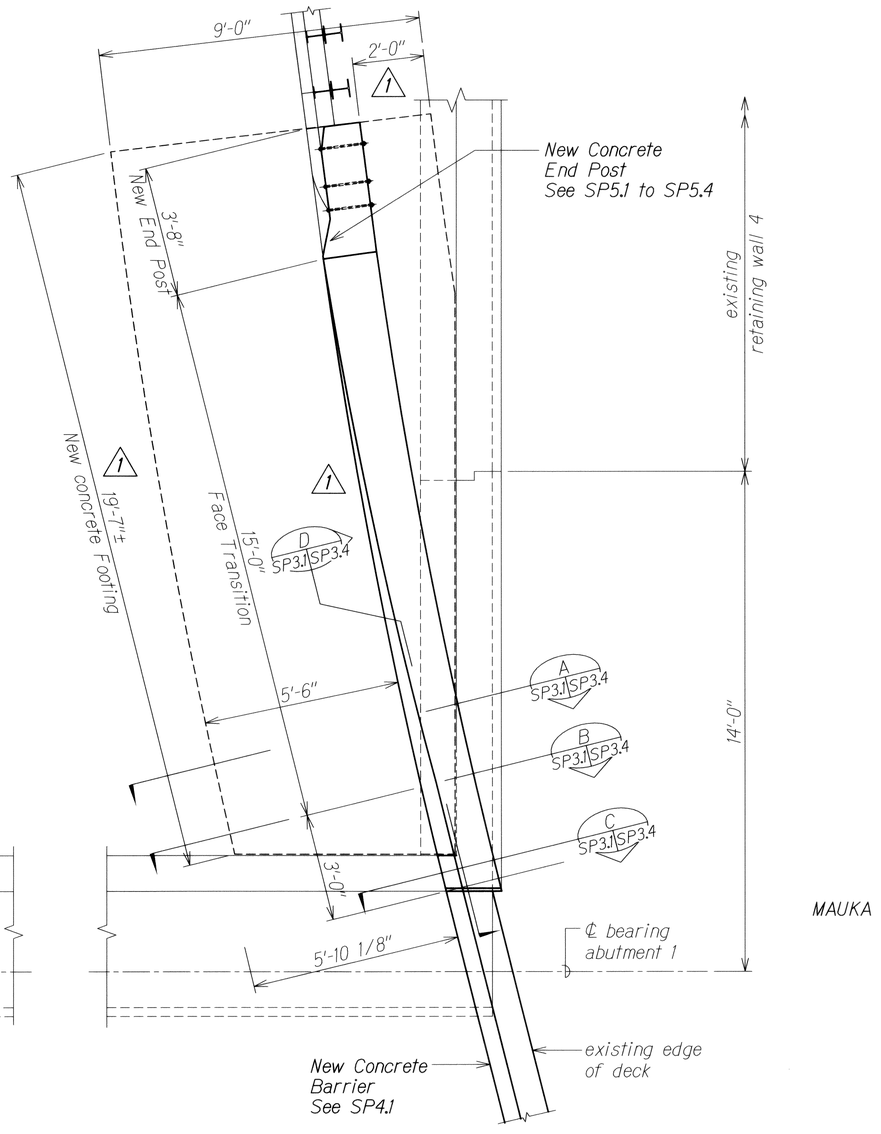
SHEET No. SP2.1 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(269)	2013	ADD. 302	382



PLAN - AT END POST ABUTMENT 1 (MAKAI SIDE) A SP3J SP3J

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



PLAN - AT END POST ABUTMENT 1 (MAUKA SIDE) B SP3J SP3J

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRB-SP301 ADD.DWG PLOT TIME: 06-14-13, 11:09 AM

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

DATE	REVISION
6/14/13	1 Revise Details

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION END POST PLANS

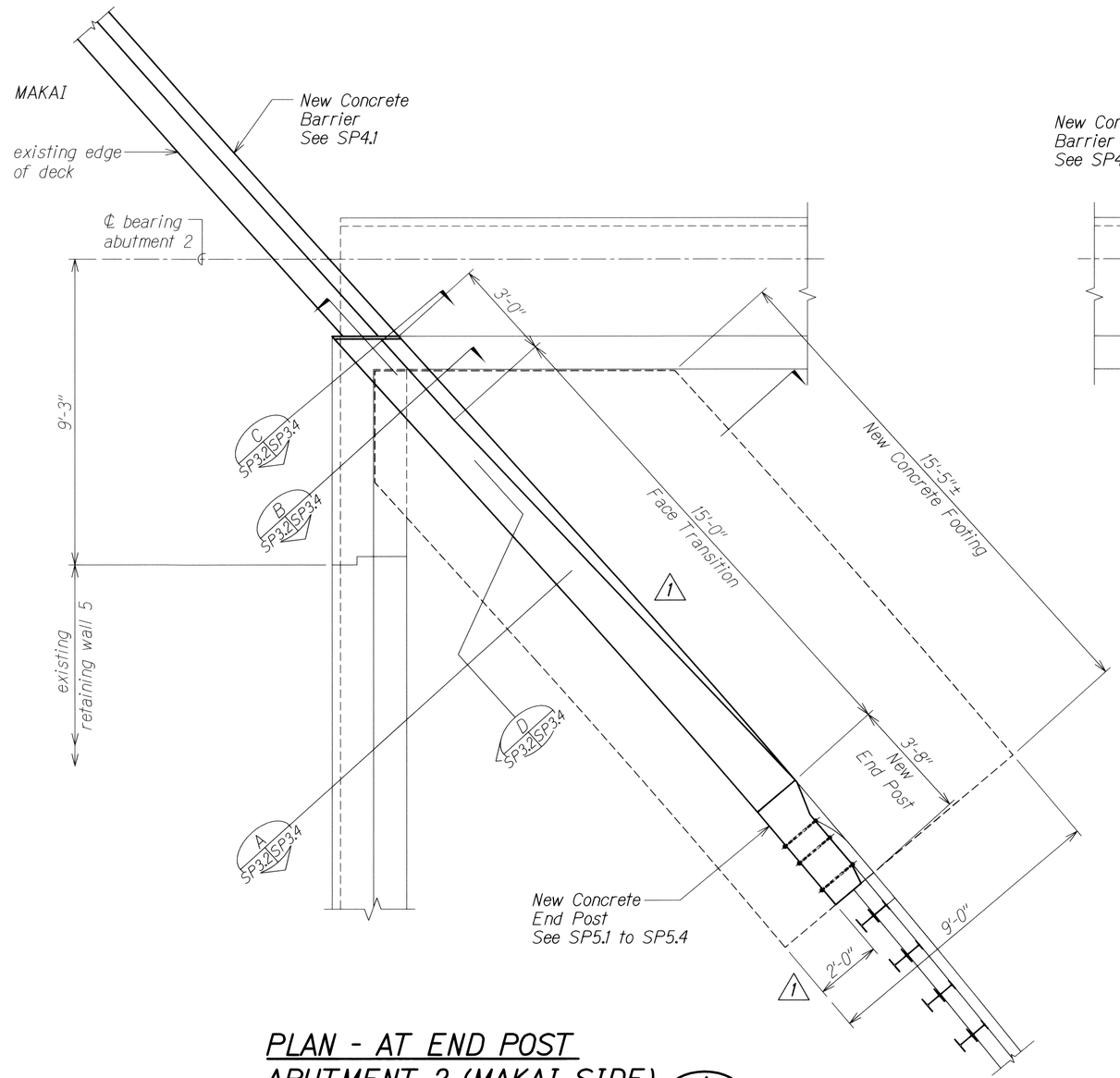
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SP3.1 OF 86 SHEETS

ADD. 302

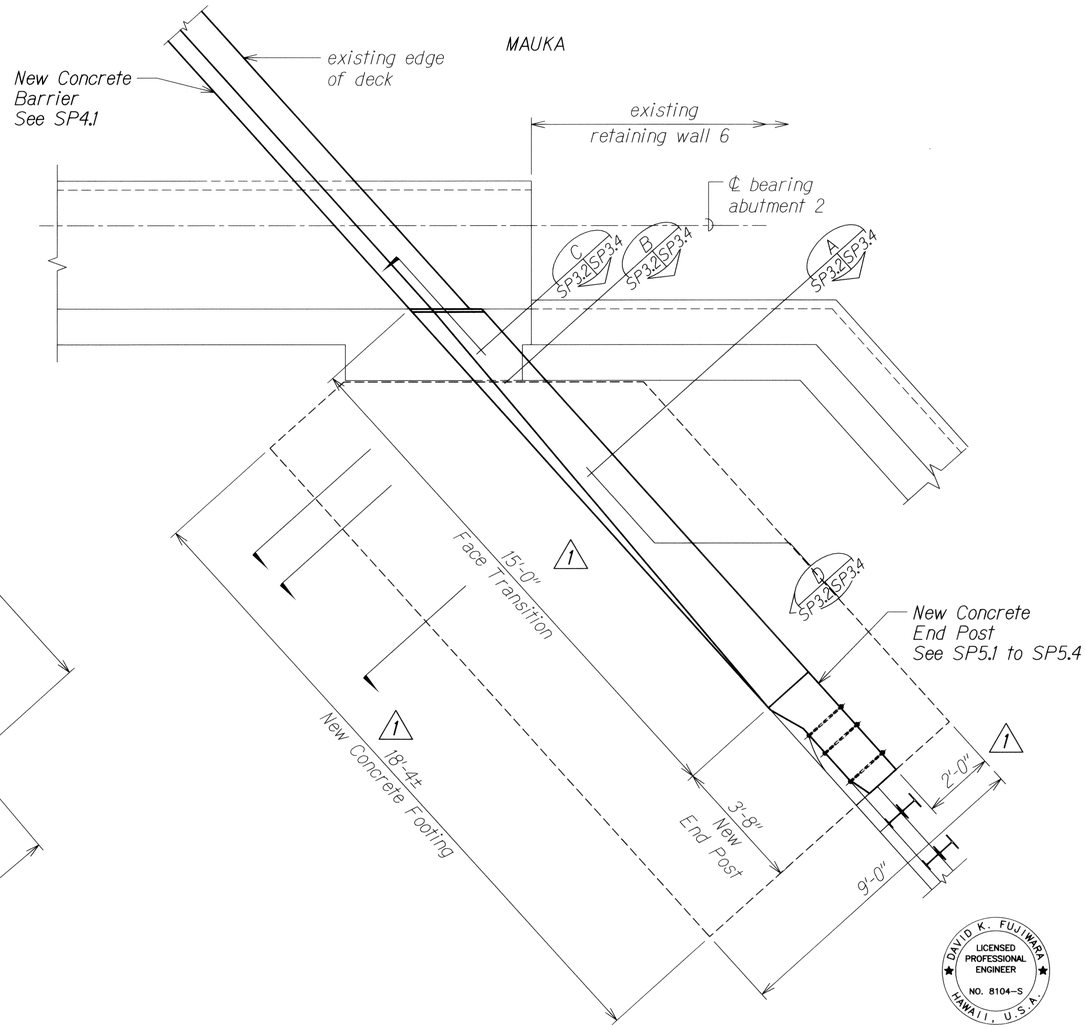
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(269)	2013	ADD. 303	382



PLAN - AT END POST ABUTMENT 2 (MAKAI SIDE)

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

A SP3.2 SP3.2



PLAN - AT END POST ABUTMENT 2 (MAUKA SIDE)

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

B SP3.2 SP3.2

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara — APRIL 30, 2014

KSF, INC. — LIC. EXP. DATE

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRB-SP301 ADD.DWG PLOT TIME: 06-14-13, 11:09 AM

DATE	REVISION
6/14/13	1 Revise Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION END POST PLANS

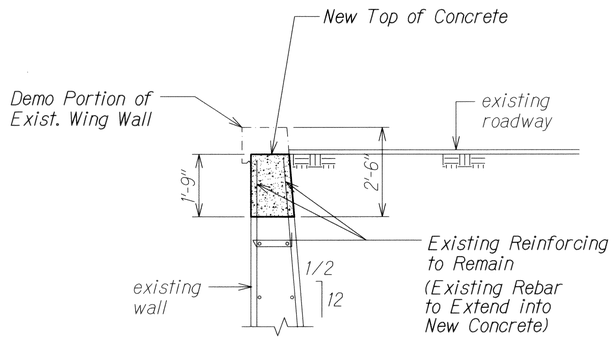
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

Scale: As Shown — Date: April 26, 2013

SHEET No. SP3.2 OF 86 SHEETS

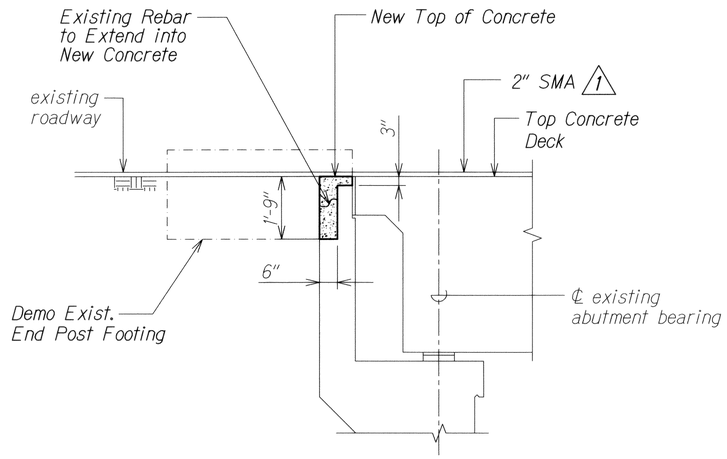
ADD. 303

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 304	382



SECTION A

Scale: 1/2" = 1'-0" SP3.3 SP3.3



SECTION B

Scale: 1/2" = 1'-0" SP3.3 SP3.3

Note:
Existing reinforcing that is to remain
shall be cut off 2" clr. from face of concrete.

DRAWING NAME: Z:\OD ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100% HIRB-SP303 ADD.DWG PLOT TIME 06-14-13, 10:20 AM)

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

DATE	REVISION
6/14/13	1 Revise Note

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION SECTIONS

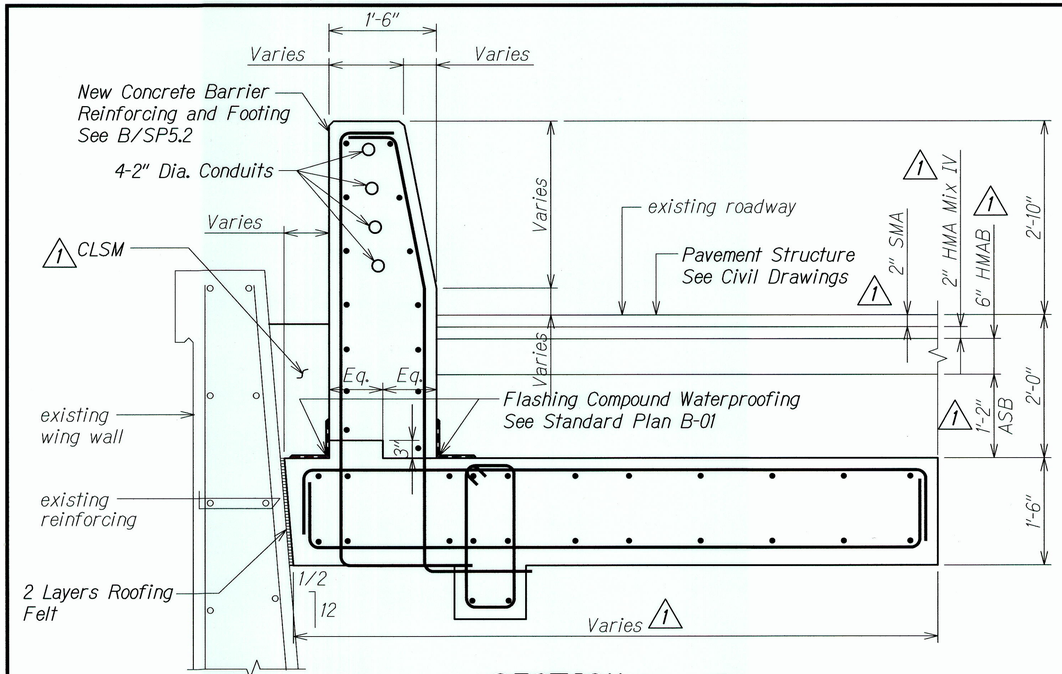
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

Scale: As Shown Date: April 26, 2013

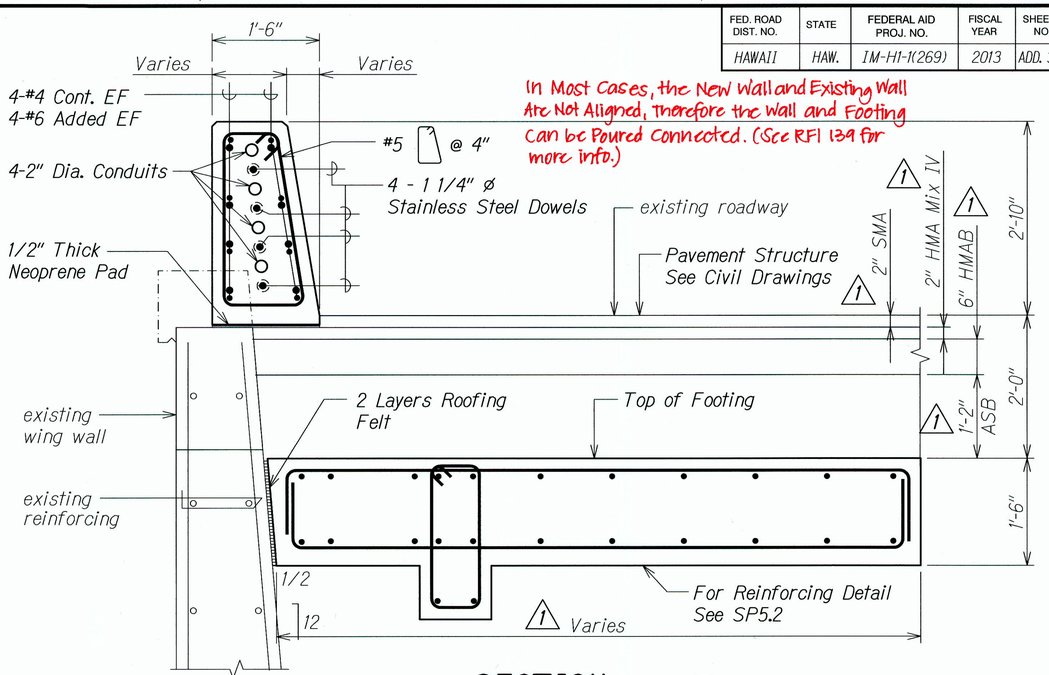
SHEET No. SP3.3 OF 86 SHEETS

ADD. 304

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 305	382

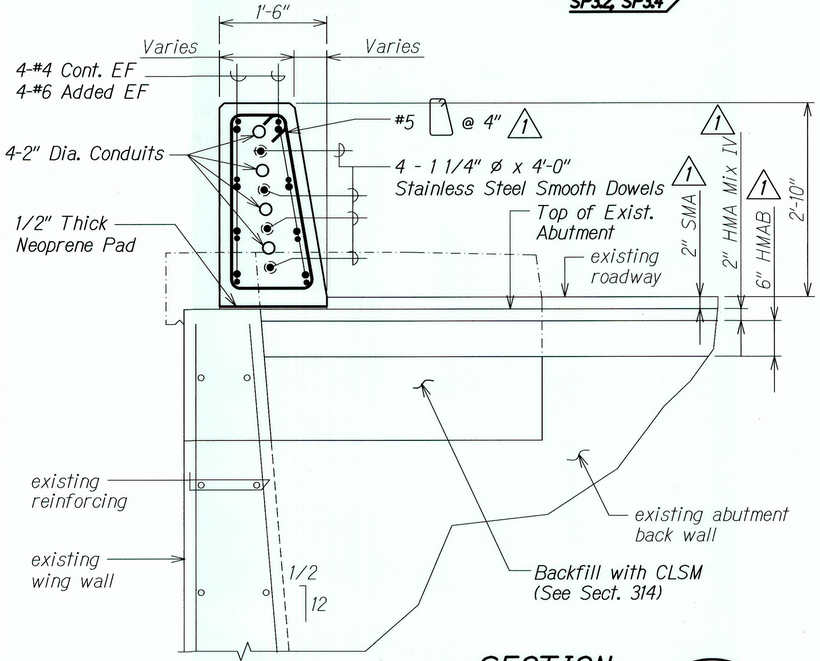


SECTION A
Scale: 1" = 1'-0"
SP3.1 | SP3.4 — SP3.2, SP3.4

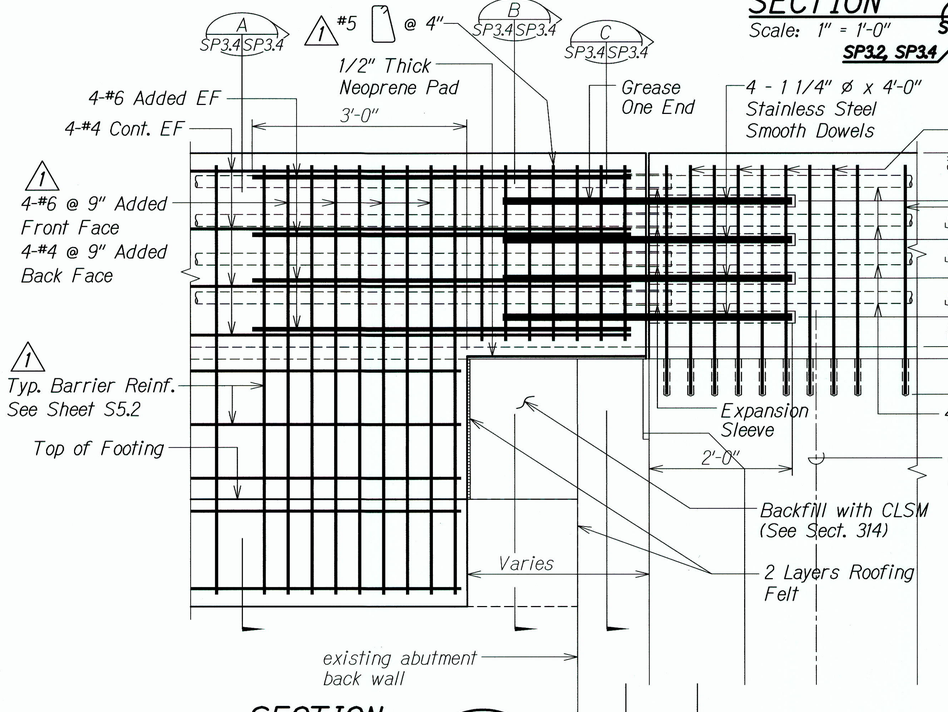


SECTION B
Scale: 1" = 1'-0"
SP3.1 | SP3.4 — SP3.2, SP3.4

Notes:
1. See Structural General Note 6 (V). Regarding Dissimilar Metals.
1 2. See Civil Plans for pavement sections not shown.



SECTION C
Scale: 1" = 1'-0"
SP3.1 | SP3.4 — SP3.2, SP3.4



SECTION D
Scale: 1" = 1'-0"
SP3.4 | SP3.4 — SP3.1, SP3.2

DATE	REVISION
6/14/13	1 Revise Details and Note

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION END POST SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown — Date: April 26, 2013

SHEET No. SP3.4 OF 86 SHEETS

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

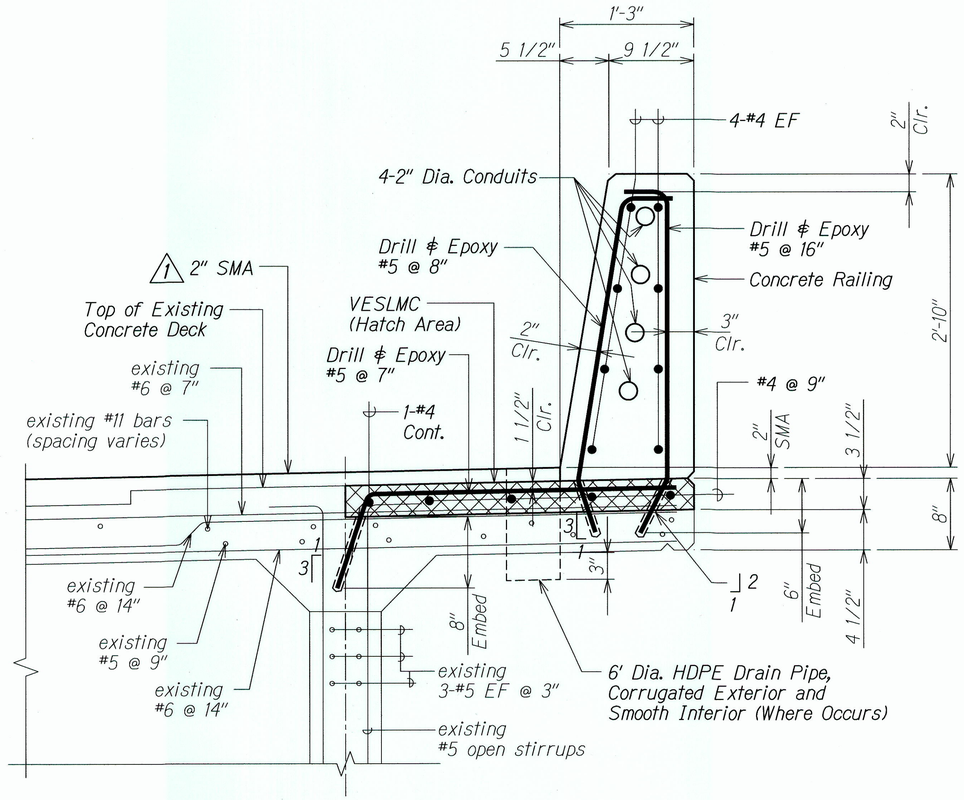
ORIGINAL PLAN
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
NOTE BOOK
No.

DRAWING NAME: Z:\DD ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRB-SP304 ADD.DWG PLOT TIME: 06-14-13, 11:21 AM

"AS-BUILT"

ADD. 305

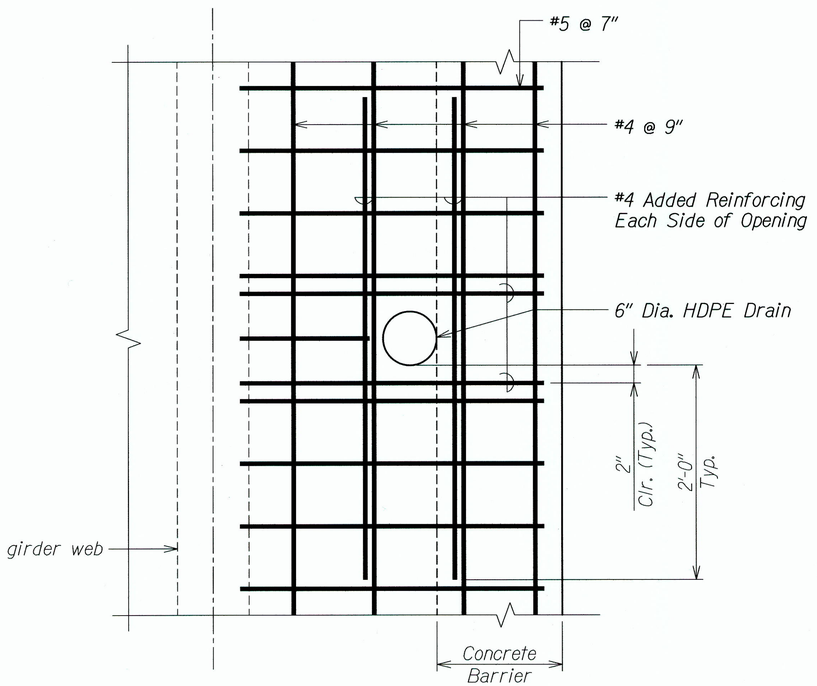
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 306	382



TYPICAL DECK AND RAILING SECTION (A SP4J SP4J)

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

Per RFI 100, To Accommodate Clearance Requirements
1) Grade Remains as Shown Above
2) Minimum Clearance Between the new Rebar and the Finish Grade of VESLMC was 1".
3) Areas where 1" is not Attainable, the 2 new Outermost #4 Bars need not be Installed for only the Immediate Area.



SLAB REINFORCING AT DRAIN (B SP4J SP4J)

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

Notes:
1. VESLMC shall attain a minimum compressive strength of 3000 psi before opening to traffic. See Special Provisions Sections 540.03 (H)(5).
2. Pour VESLMC deck before installing railing dowels.
3. See General Notes 6. (L) on sheet S0.4 (1)
4. See General Note 3. on sheet SW3.4

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION

TYPICAL DECK AND RAILING SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SP4.1 OF 86 SHEETS

DATE	REVISION
6/14/13	(1) Revise Notes

"AS-BUILT"

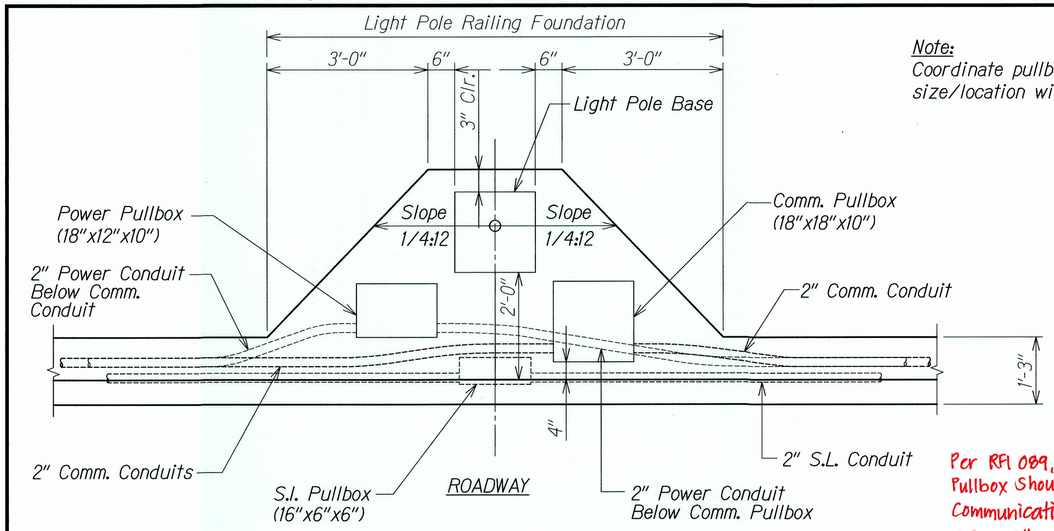
ADD. 306

ORIGINAL PLAN | NOTE BOOK No. ____

SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRB-SP401 ADD.DWG PLOT TIME: 06-14-13, 10:20 AM)

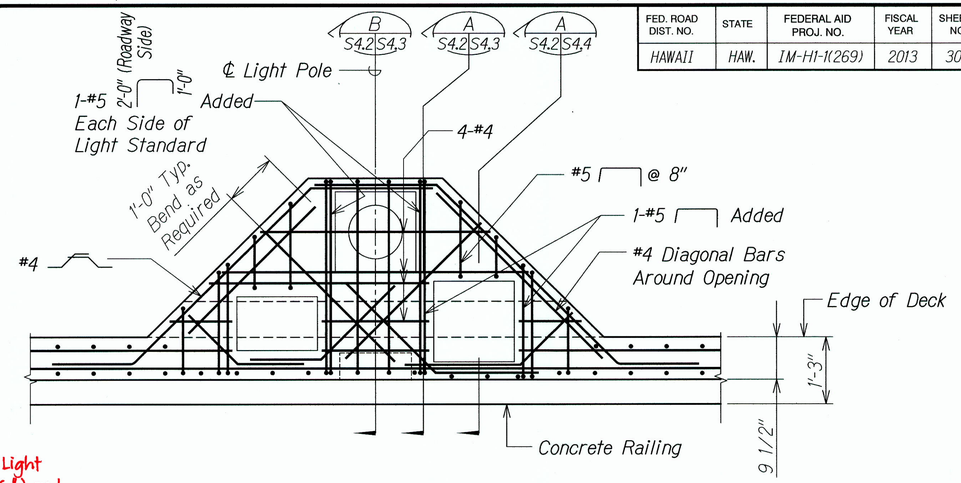
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	307	382



Note:
Coordinate pullbox/junction box size/location with sheet E-25.

PLAN - RAILING AT LIGHT POLE (A SP4.2 | SP4.2)

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



TOP RAILING REINFORCING AT LIGHT POLE (B SP4.2 | SP4.2)

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

Per RFI 089, Sizing for Street Light Pullbox Should be (18"x8"x6") and Communication Pullbox Should be (18"x18"x12").

ELEVATION AT LIGHT POLE (C SP4.2 | SP4.2)

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

BOTTOM RAILING REINFORCING AT LIGHT POLE (D SP4.2 | SP4.2)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC.
APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION

TYPICAL RAILING, SECTIONS AT LIGHT POLE

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

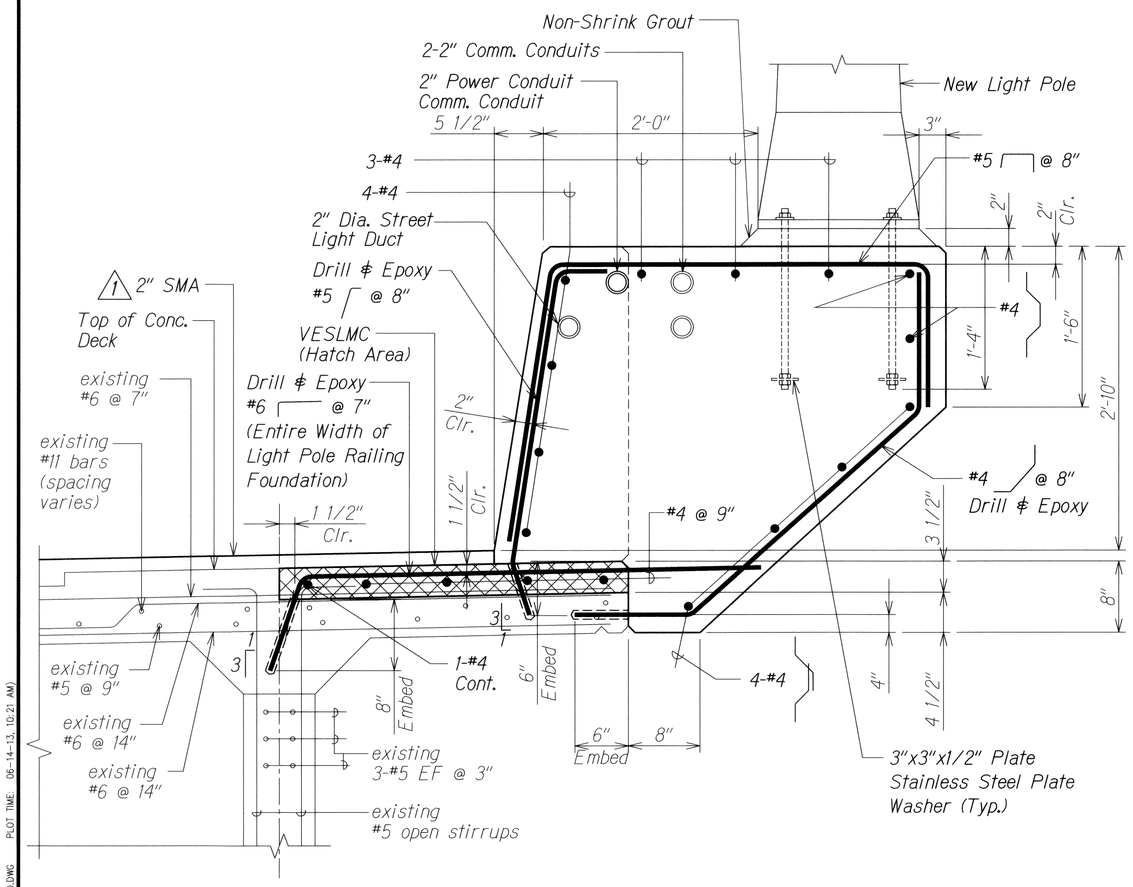
SHEET No. SP4.2 OF 86 SHEETS

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRB-SP402.DWG PLOT TIME: 05-17-13, 2:43 PM)

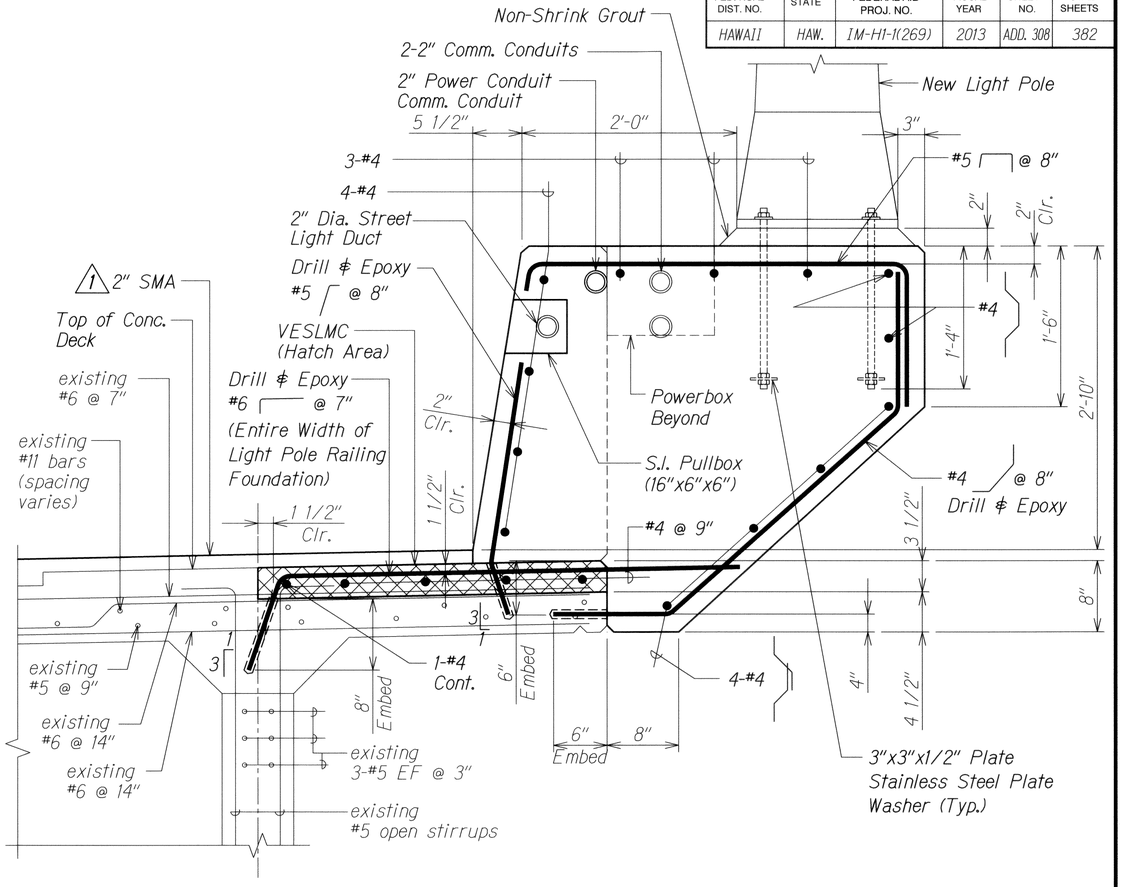
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 308	382



SECTION A

Scale: 1 1/2" = 1'-0" SP4.2 | SP4.3



SECTION B

Scale: 1 1/2" = 1'-0" SP4.2 | SP4.3

Notes:

1. *VESLMC shall attain a minimum compressive strength of 3000 psi before opening to traffic. See Special Provisions Sections 540.03 (H)(5).*
2. *Pour VESLMC deck before installing dowels.*

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

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

DATE	REVISION
6/14/13	1 Revise Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION

TYPICAL RAILING SECTIONS AT LIGHT POLE

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

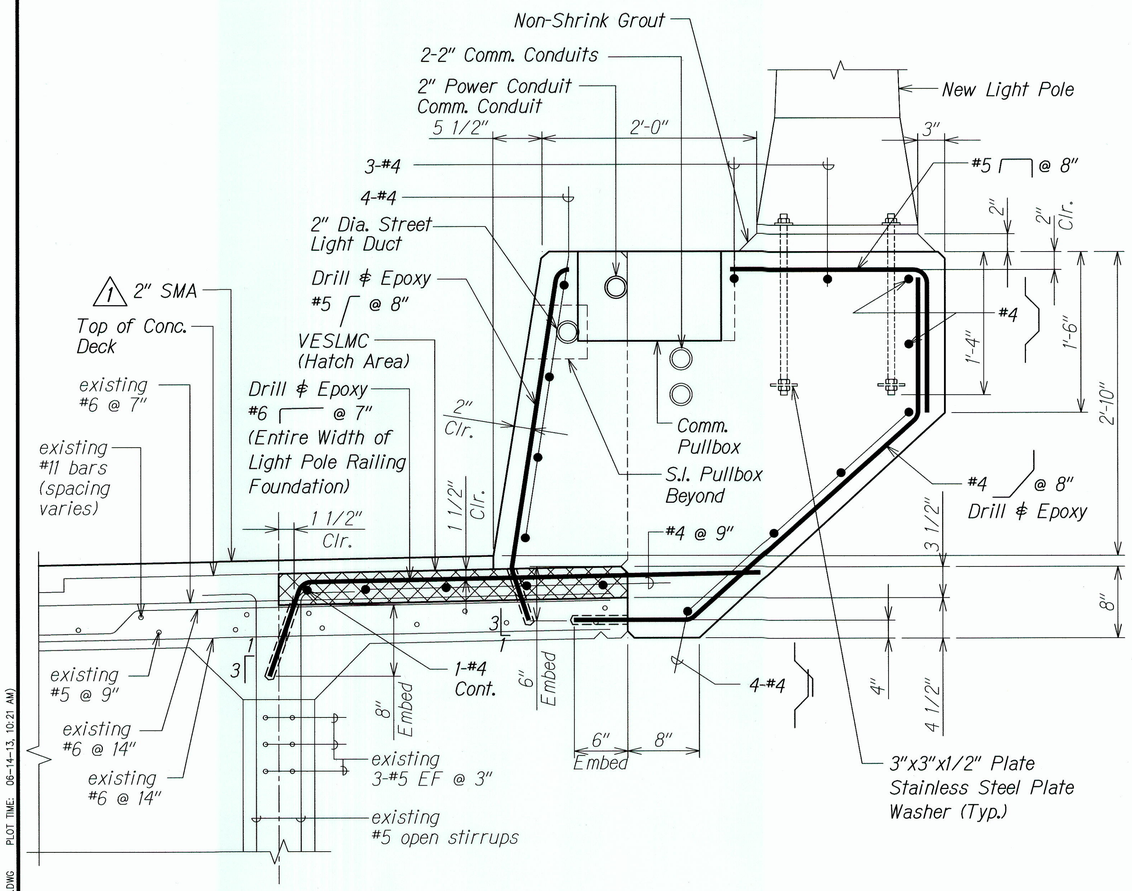
Scale: As Shown Date: April 26, 2013

SHEET No. SP4.3 OF 86 SHEETS

ADD. 308

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100R\H1RB-SP402 ADD.DWG PLOT TIME: 06-14-13, 10:21 AM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(269)	2013	ADD. 309	382



SECTION A

Scale: 1 1/2" = 1'-0" SP4.2 | SP4.4

The Light Pole Foundations at Eastbound Palama Sta. 89+50 and 90+75 are 5" Larger (Width and Length) Than Instructed. See RFI 126 for more info.

Notes:

1. VESLMC shall attain a minimum compressive strength of 3000 psi before opening to traffic. See Special Provisions Sections 540.03 (H)(5).
2. Pour VESLMC deck before installing dowels.

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\08-14-13 100%\HRB-SP402 ADD.DWG PLOT TIME: 08-14-13, 10:21 AM

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PALAMA SEPARATION

TYPICAL RAILING SECTION AT LIGHT POLE

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

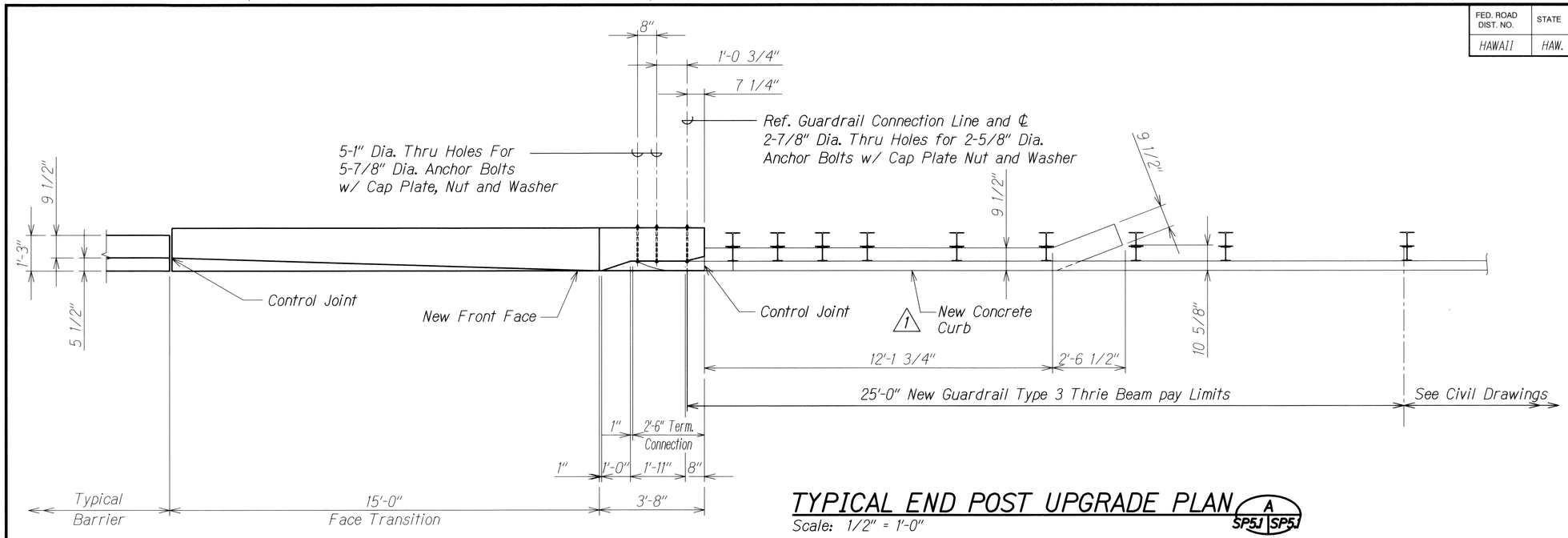
Scale: As Shown Date: April 26, 2013

SHEET No. SP4.4 OF 86 SHEETS

"AS-BUILT"

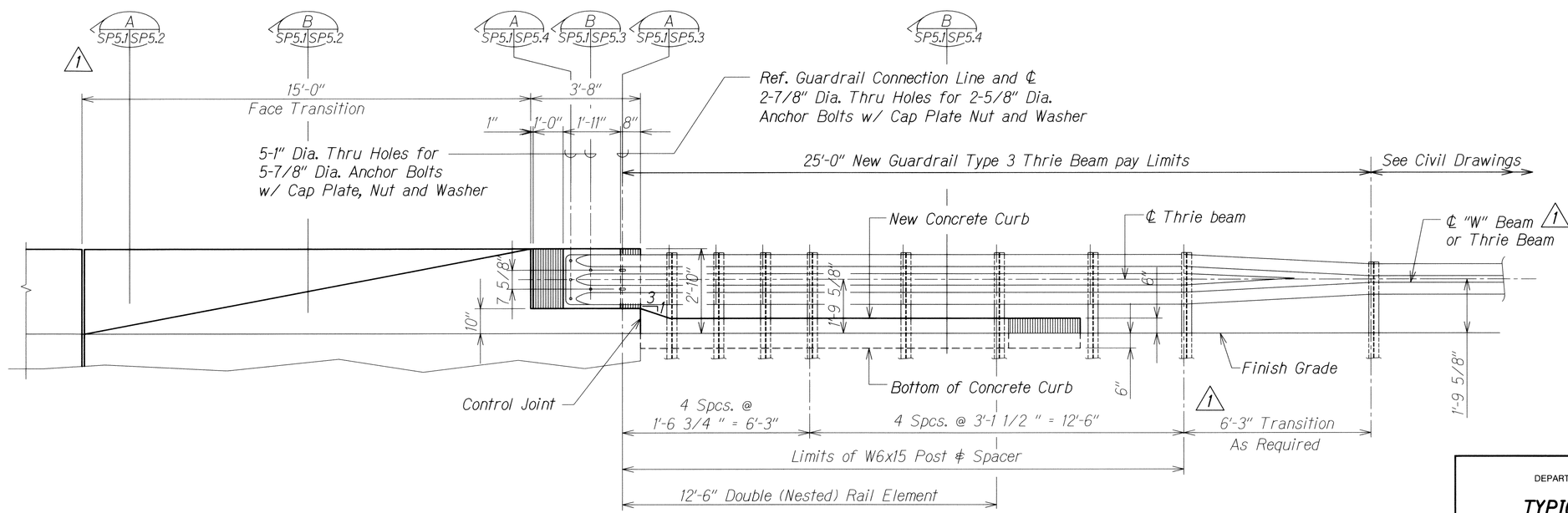
ADD. 309

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(269)	2013	ADD. 310	382



TYPICAL END POST UPGRADE PLAN (A SP5.1 SP5.1)

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



ELEVATION (B SP5.1 SP5.1)

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

DATE	REVISION
6/14/13	1 Revise Notes

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRB-SP50 ADD.DWG PLOT TIME: 06-14-13, 10:23 AM)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL END POST PLAN AND ELEVATION

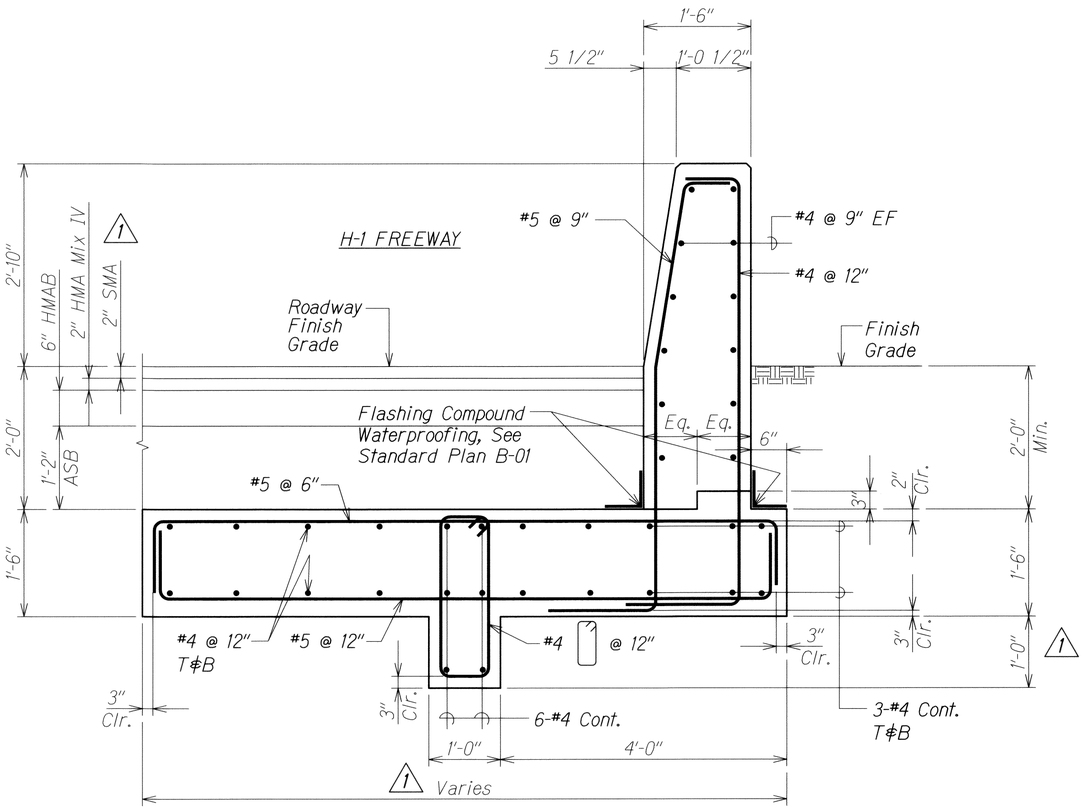
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

Scale: As Shown Date: April 26, 2013

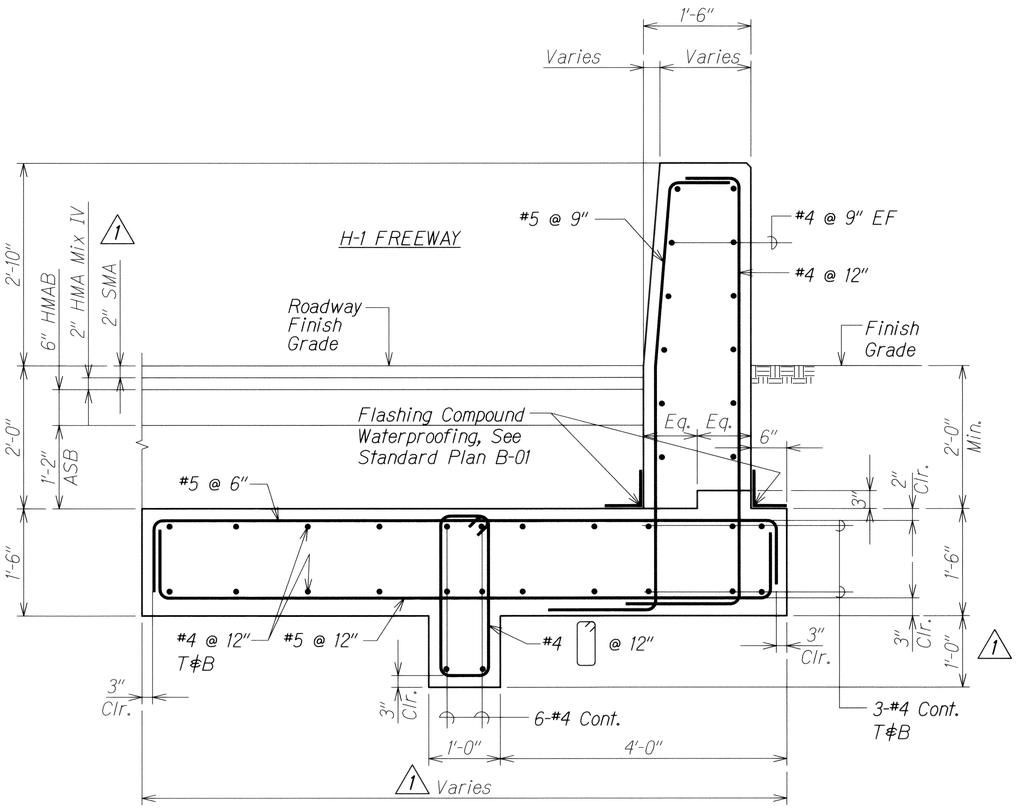
SHEET No. SP5.1 OF 86 SHEETS

ADD. 310

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 311	382



SECTION A
Scale: 1" = 1'-0" SP5J SP5.2



SECTION B
Scale: 1" = 1'-0" SP5J SP5.2

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL END POST SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SP5.2 OF 86 SHEETS

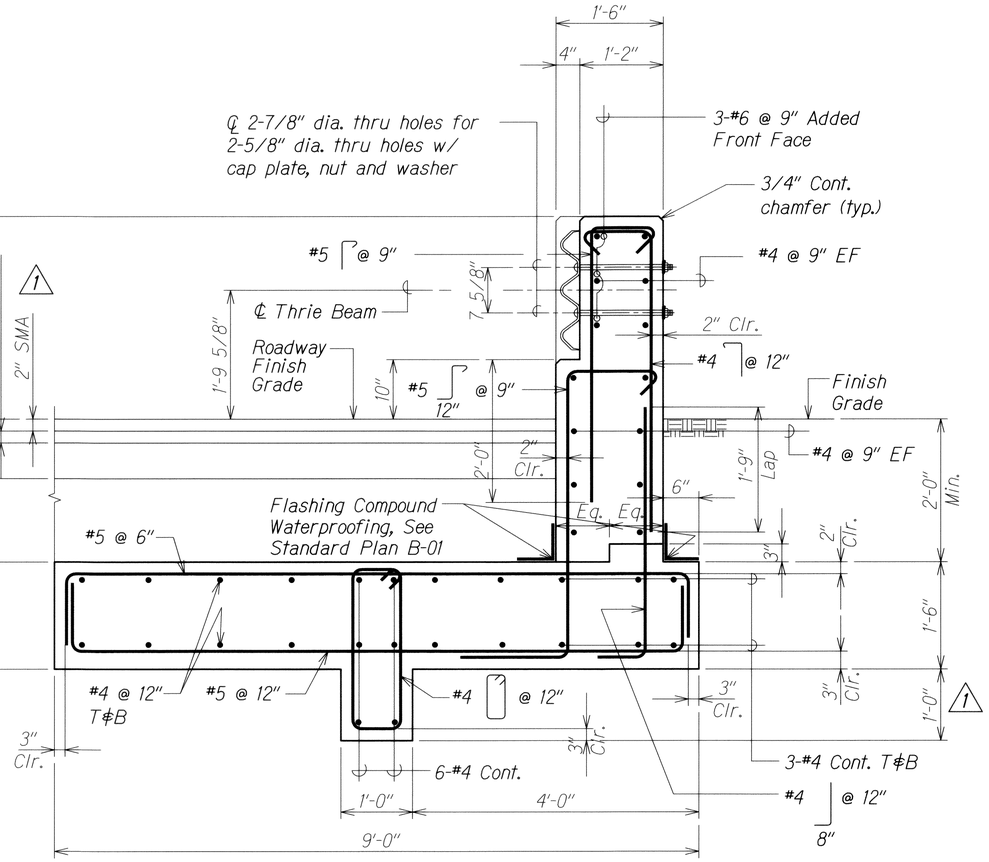
DATE	REVISION
6/14/13	1 Revise Details

ADD. 311

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

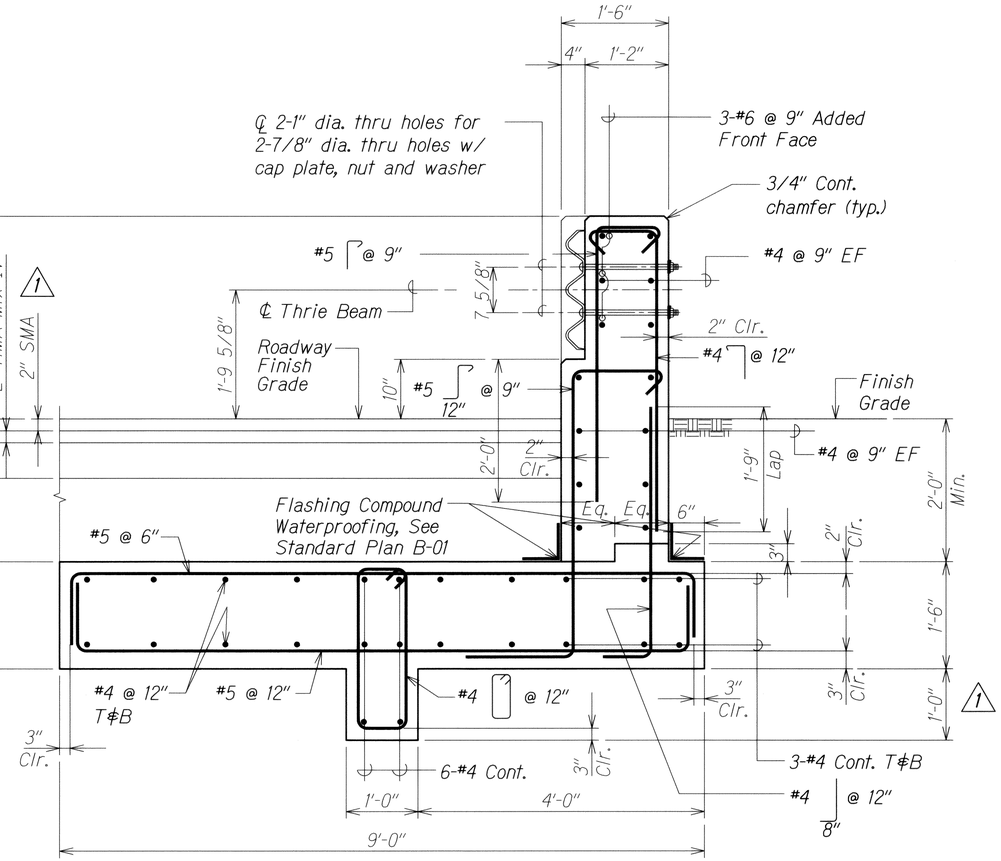
DRAWING NAME: Z:\00 ONGOINGS\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRB-SP502 ADD.DWG PLOT TIME: 06-14-13, 10:27 AM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(269)	2013	ADD. 312	382



SECTION A

Scale: 1" = 1'-0" SP5.1 | SP5.3



SECTION B

Scale: 1" = 1'-0" SP5.1 | SP5.3

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

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

DRAWING NAME: Z:\DO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRBE-SP502 ADD.DWG PLOT TIME: 06-14-13, 10:27 AM)

DATE	REVISION
6/14/13	1 Revise Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL END POST SECTIONS

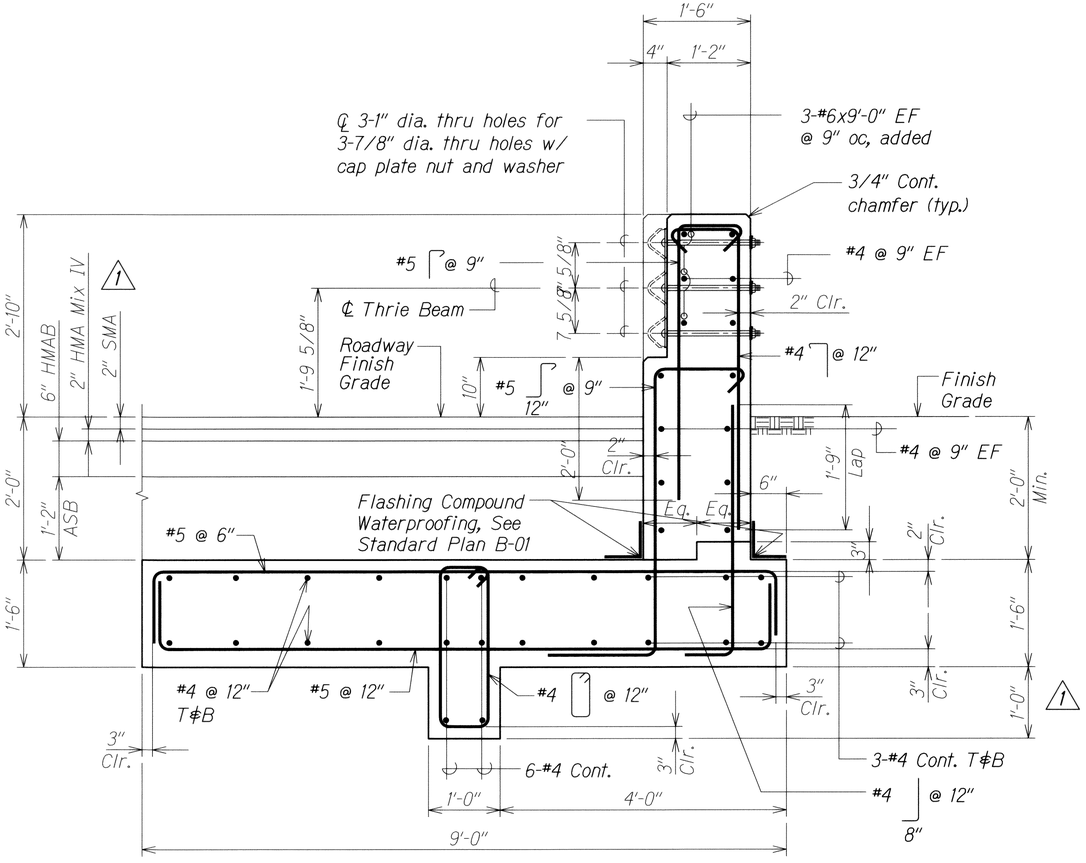
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

Scale: As Shown Date: April 26, 2013

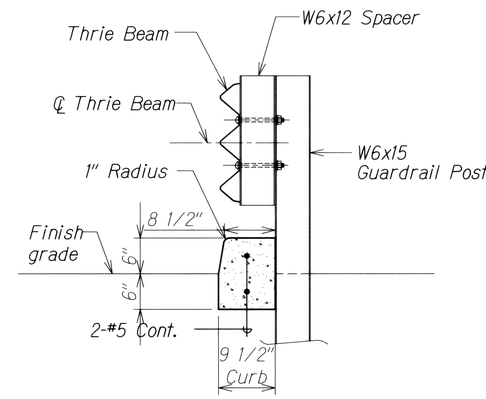
SHEET No. SP5.3 OF 86 SHEETS

ADD. 312

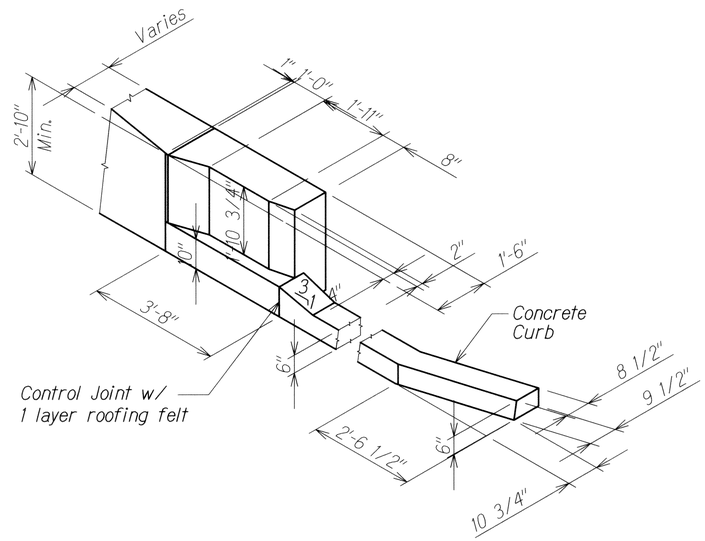
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 313	382



SECTION A
Scale: 1" = 1'-0" SP5J SP5.4



SECTION B
Scale: 1" = 1'-0" SP5J SP5.4



END POST DETAIL 1
Scale: 1/2" = 1'-0" SP5.4 SP5.4

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

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

DATE	REVISION
6/14/13	1 Revise Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL END POST SECTIONS AND DETAIL

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

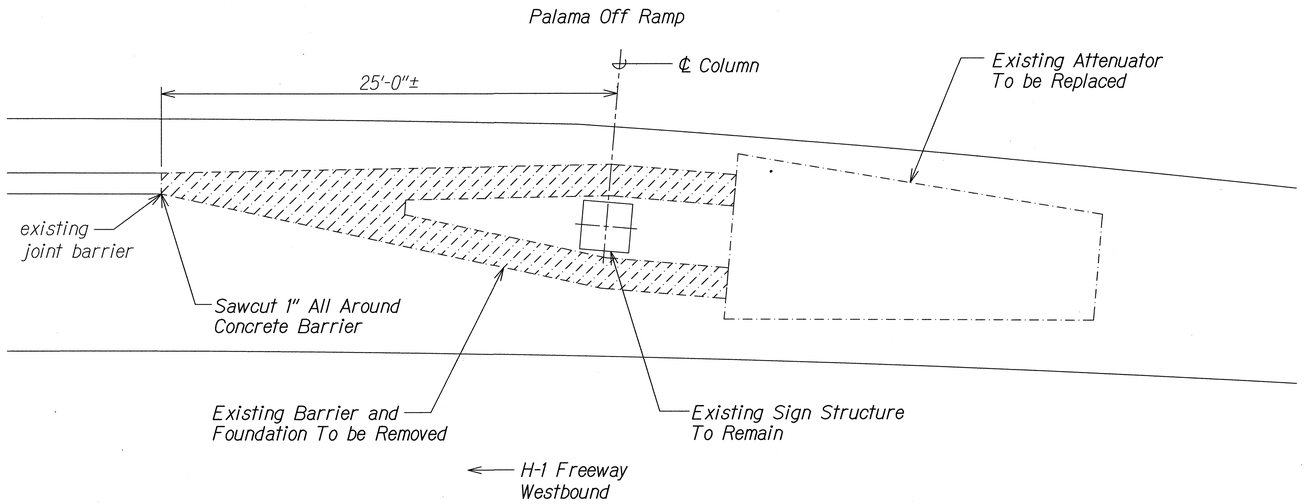
Scale: As Shown Date: April 26, 2013

SHEET No. SP5.4 OF 86 SHEETS

ADD. 313

DRAWING NAME: Z:\DO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRB-SP502 ADD.DWG PLOT TIME: 06-14-13, 10:27 AM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	314	382



DEMO EXISTING BARRIER
AT STA. 103+06.16 TO 103+36.52 - PLAN

A
SP6.1 | SP6.1

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRB-SP601.DWG PLOT TIME: 05-17-13, 2:44 PM)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

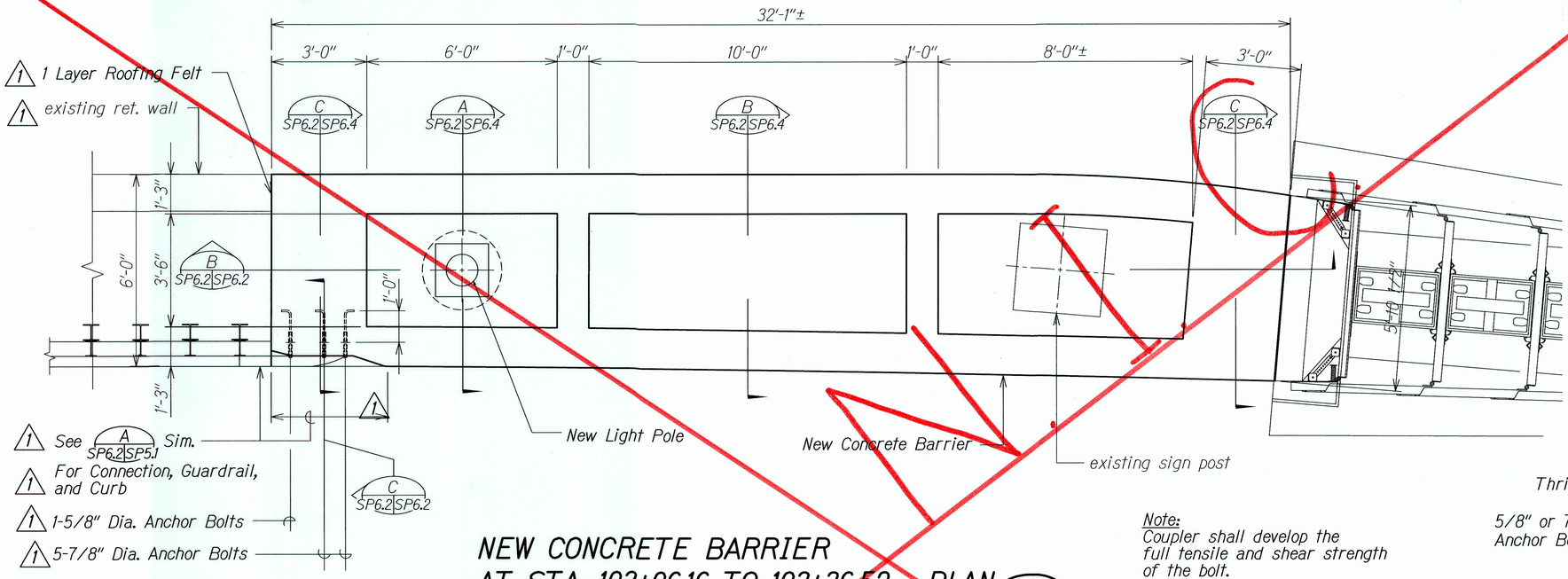
EXIST. BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - DEMO PLAN

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SP6.1 OF 86 SHEETS

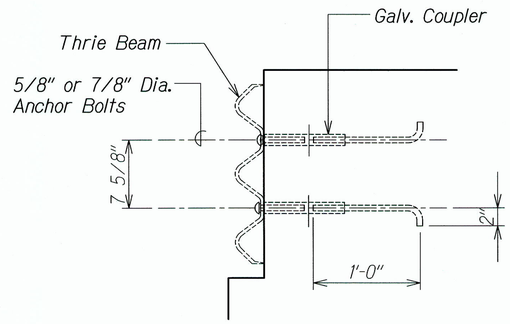
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 315	382



NEW CONCRETE BARRIER AT STA. 103+06.16 TO 103+36.52 - PLAN (A SP6.2 SP6.2)

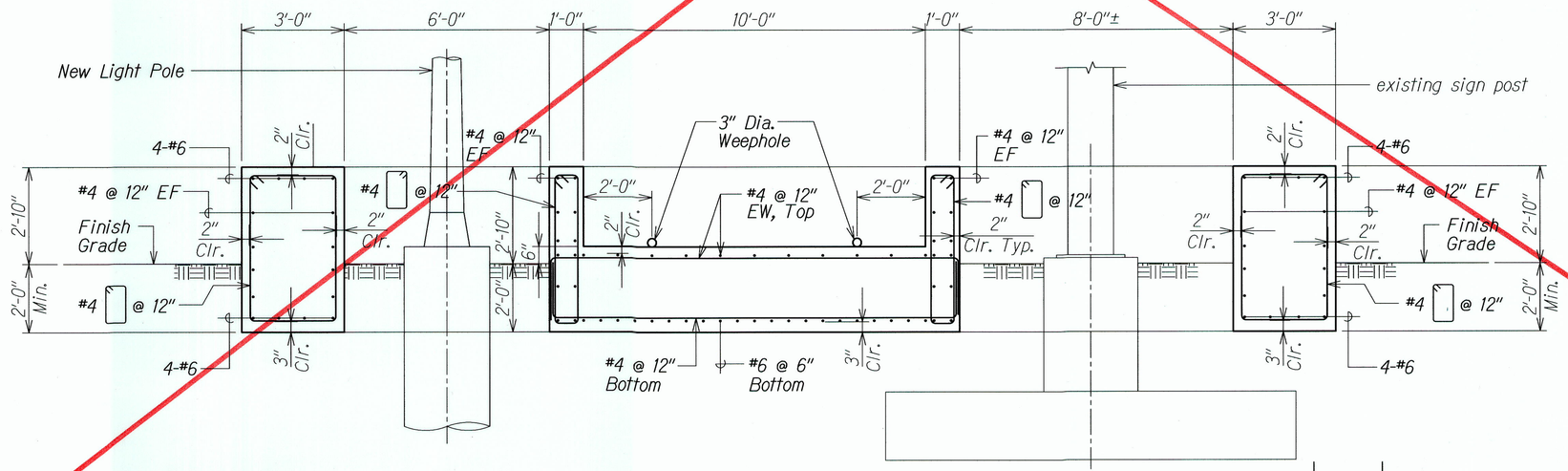
Scale: 1/2" = 1'-0"

Note:
Coupler shall develop the full tensile and shear strength of the bolt.



1 SECTION (C SP6.2 SP6.2)

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



SECTION (B SP6.2 SP6.2)

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

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

DRAWING NAME: Z:\OO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRB-SP601 ADD.DWG PLOT TIME: 06-14-13, 11:24 AM)

DATE	REVISION
6/14/13	1 Revise Details and Title Block

"AS-BUILT"

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

1 NEW BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - PLAN AND SECTION

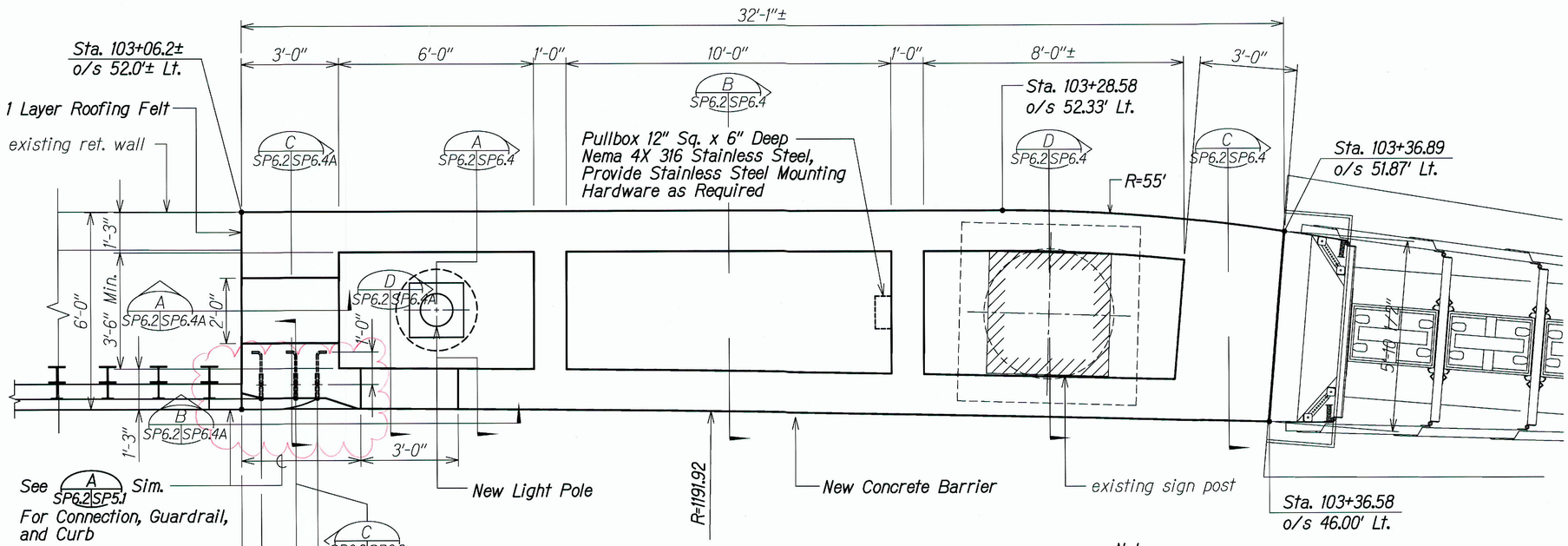
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SP6.2 OF 86 SHEETS

ADD. 315

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. C.O. 315	382

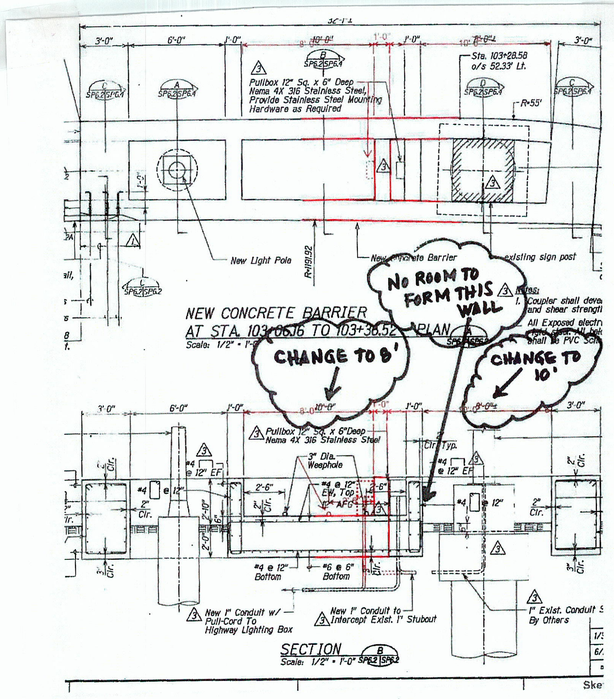


NEW CONCRETE BARRIER AT STA. 103+06.16 TO 103+36.52 - PLAN (A SP6.2 SP6.2)

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

Notes:

1. Coupler shall develop the full tensile and shear strength of the bolt.
2. All Exposed electrical conduit shall be galvanized rigid steel. All below grade electrical conduit shall be PVC Schedule 40, concrete encased.



DUE TO THE DESTINATION SIGN STRUCTURE INSTALLED INCORRECTLY, THE NEW WALL WAS SHIFTED OVER 2" BY ADJUSTING THE ADJACENT DIMENSIONS. SEE RFI 132, 132A, 132B AND ATTACHED SKETCH FOR MORE INFO.

RFI 132.8

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - PLAN AND SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SP6.2 OF 86 SHEETS

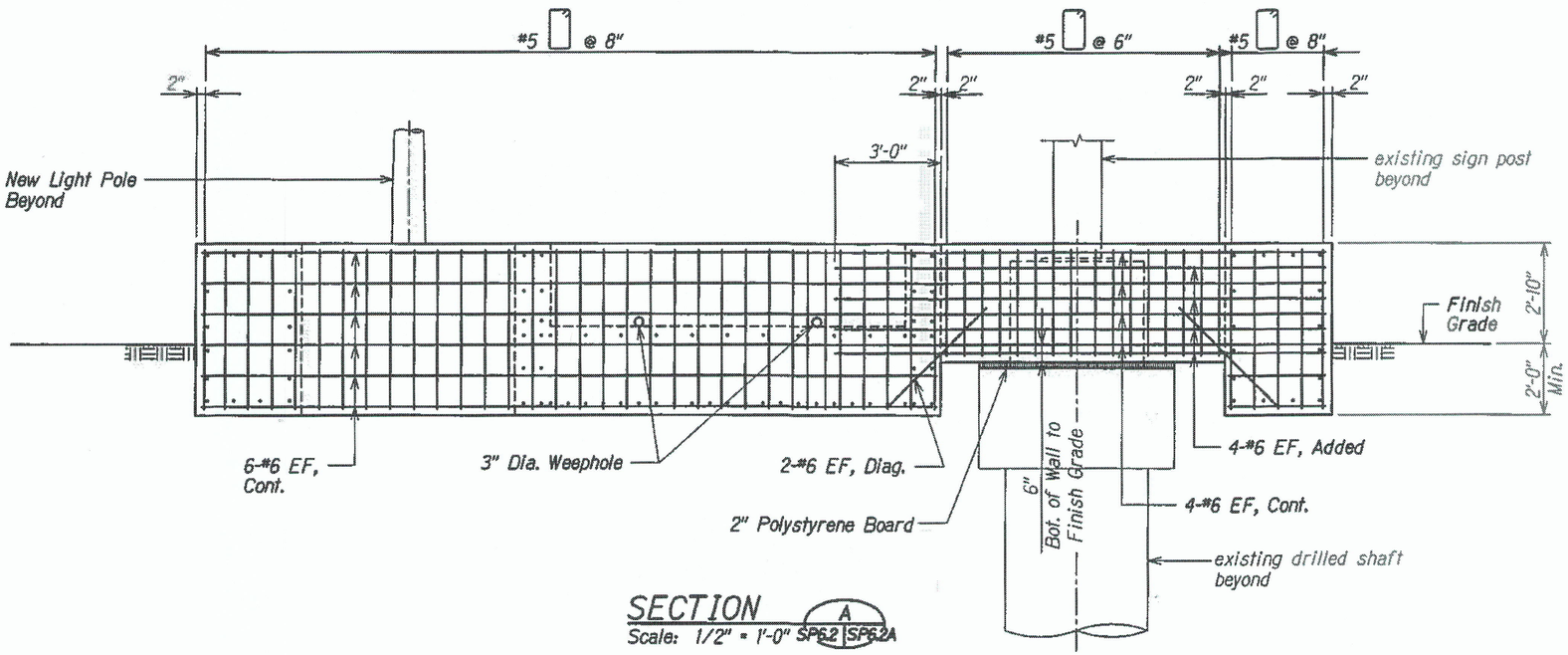
"AS-BUILT"

ADD. C.O. 315 JUL 17 2014

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

DRAWING NAME: Z:\00 ONGOING\11-030.1 H1 RESURFACING LIKELIKE TO PUNCHBOWL POST DESIGN\PB TM\CAD\07-16-14 RFI\H1RB-SP601 ADD C01-RFI.DWG PLOT TIME: 07-16-14, 5:23 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	CO. 315S-1	382



SECTION A
Scale: 1/2" = 1'-0" SP6.2 | SP6.2A

DRAWING NAME: Z:\DO ONGOING\11-030.0 HI RESURFACING DELIKE TO PUNCHBOWL\CAD\02-05-14 CONV\HRB-SP6SH ADD CO.DWG PLOT TIME: 02-05-14, 3:10 PM)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujimara
RSF, INC.
APRIL 30, 2014
LIC. EXP. DATE

DATE	REVISION
1/30/14	3 New Sheet

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - ELEVATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

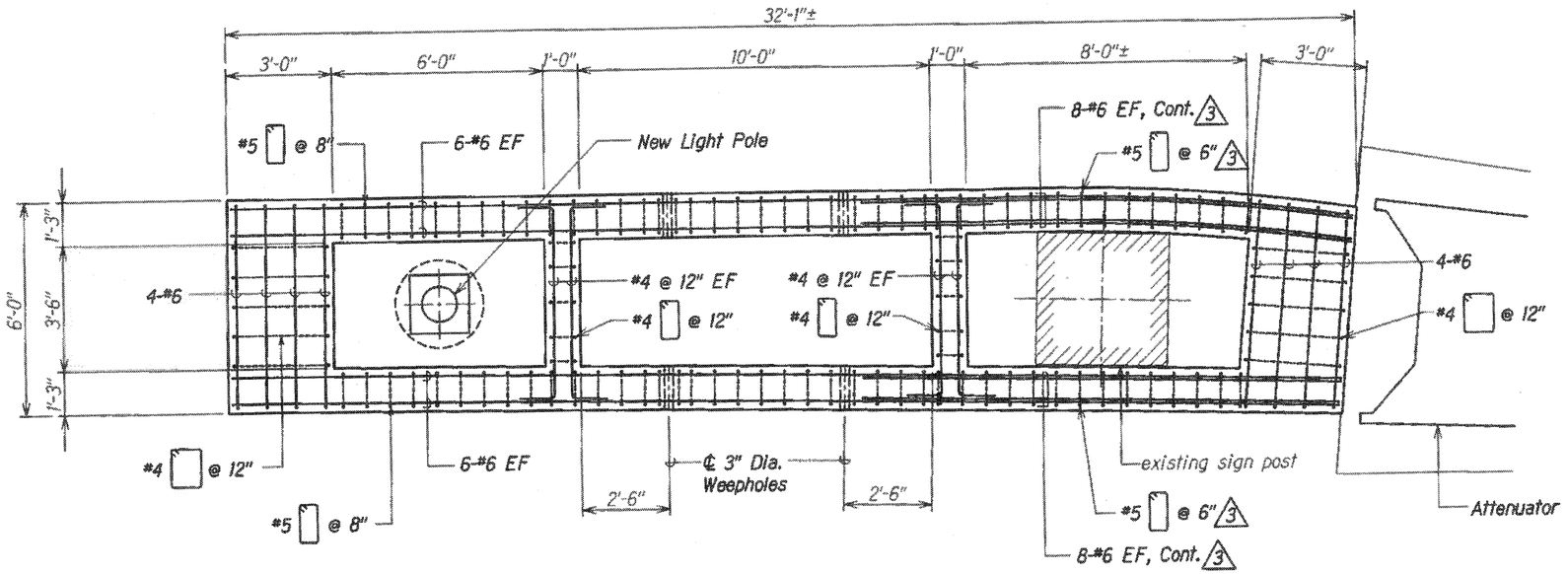
SHEET No. SP6.2A OF 86 SHEETS

Sketch No. CCO4-A

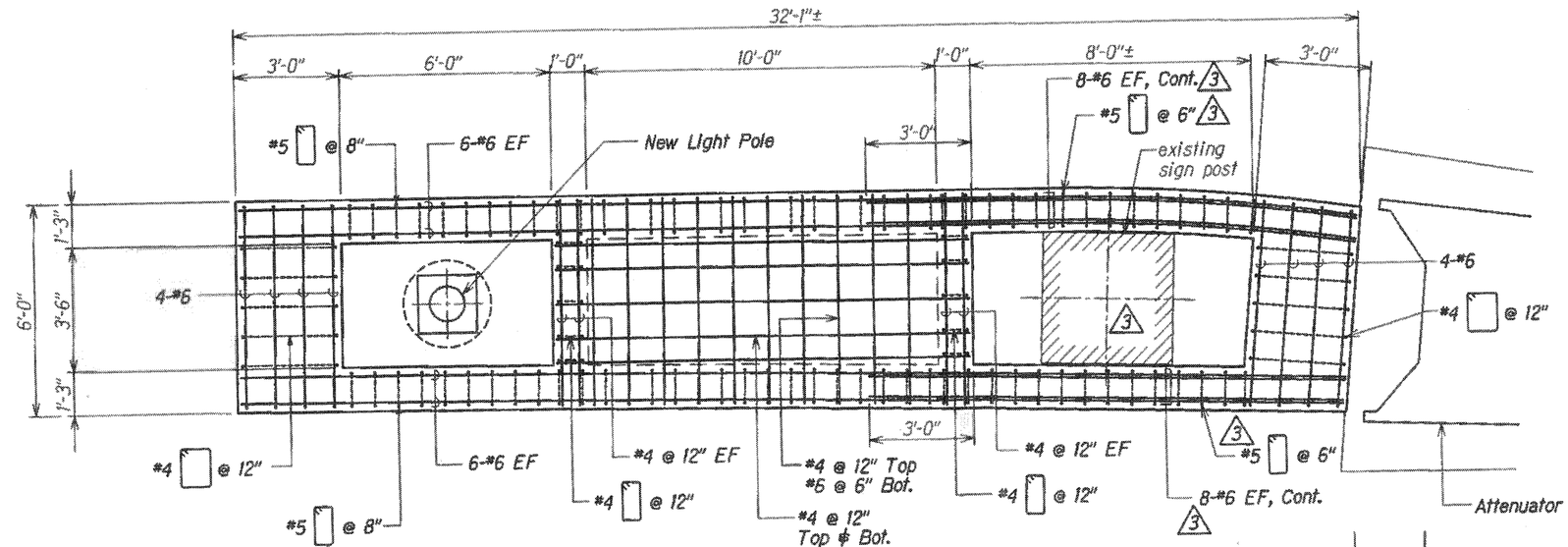
C.O. 315S-1

RECEIVED FEB 10 2014

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	C.O. 316	382



WALL SECTION A
Scale: 1/2" = 1'-0"
SP6.3 | SP6.3



FOUNDATION PLAN B
Scale: 1/2" = 1'-0"
SP6.3 | SP6.3

DRAWING NAME: Z:\00 ONGOING\11-033.0 III RESURFACING LAEOKE TO PUNCHBOWL\CAD\02-05-14 CO\HWRB-SP601 ADD CO1.DWG PLOT TIME: 02-05-14, 3:11 PM

ORIGINAL PLAN | SHEET PLOTTED BY ... DATE | SHEET SHOWS ... | No. ... | SHEARED BY ... | TRACED BY ... | DESIGNED BY ... | CHECKED BY ...

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC. | APRIL 30, 2014 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown | Date: April 26, 2013

SHEET No. SP6.3 OF 86 SHEETS

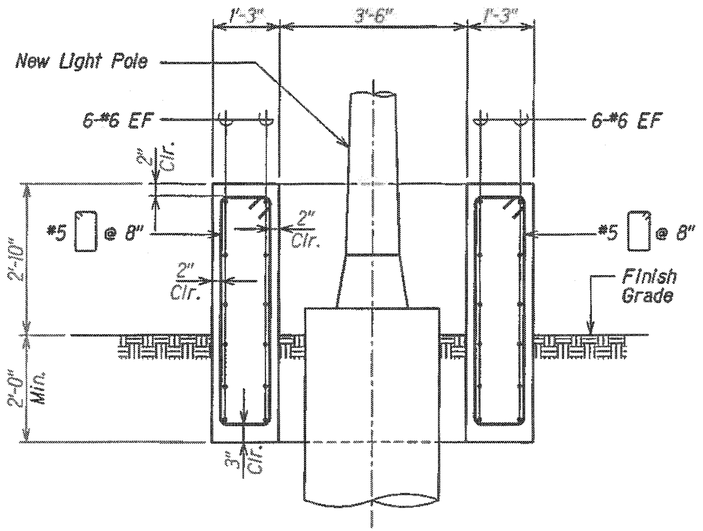
DATE	REVISION
1/30/14	3 Revise Details

Sketch No. CCO4-A

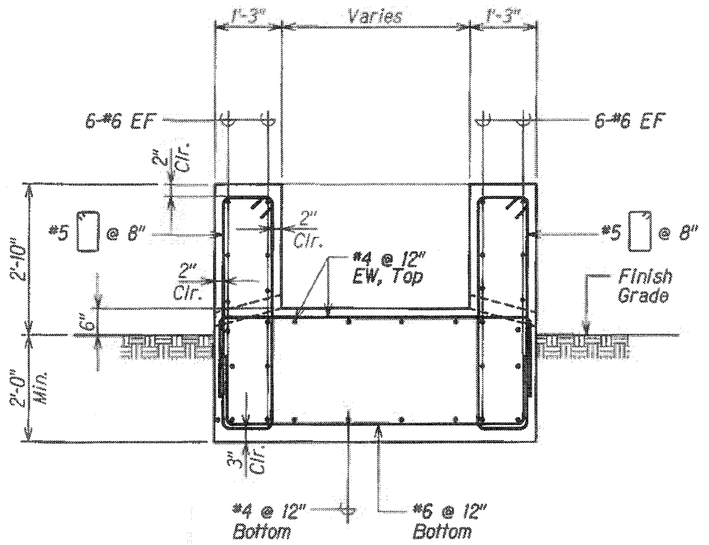
C.O. 316

RECEIVED FEB 10 2014

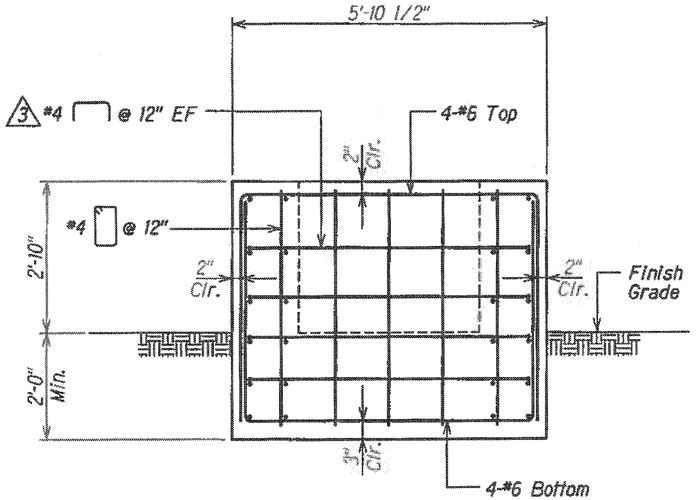
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	C.O. 317	382



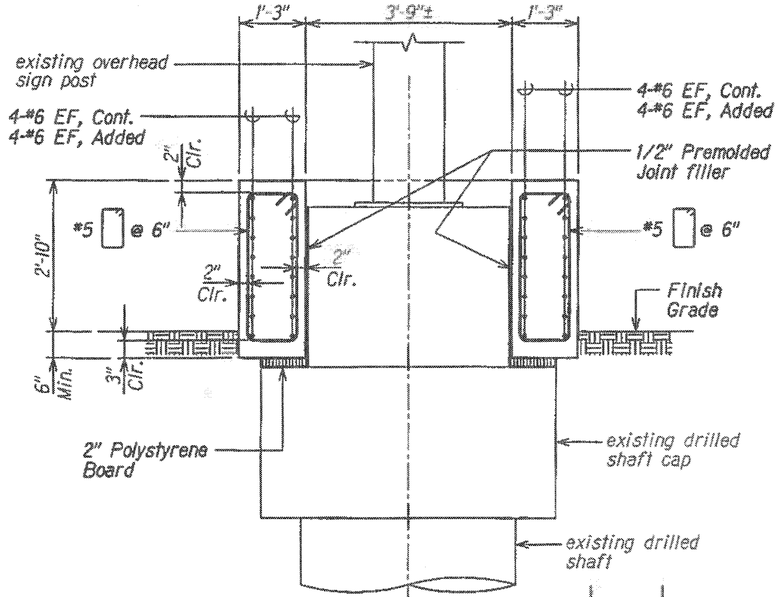
SECTION A
Scale: 3/4" = 1'-0" SP6.2 SP6.4



SECTION B
Scale: 3/4" = 1'-0" SP6.2 SP6.4



SECTION C
Scale: 3/4" = 1'-0" SP6.2 SP6.4



3 SECTION D
Scale: 3/4" = 1'-0" SP6.2 SP6.4

DRAWING NAME: Z:\100 ENGINEERING\13-00\100 H1 RESURFACING UNDER TO PUNCHBOWL\CAD\12-05-14 CO1\HIRB-SP601 ADD COLDIG PLOT TIME: 02-05-14, 3:11 PM

DATE	SURVEY PLOTTED BY:
	DRAWN BY:
	TRACED BY:
	DESIGNED BY:
	QUANTITIES BY:
	CHECKED BY:

OFFICIAL PLAN
PRINT WIDE
No.

DATE	REVISION
1/30/14	3 New Section

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC.
APR. 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

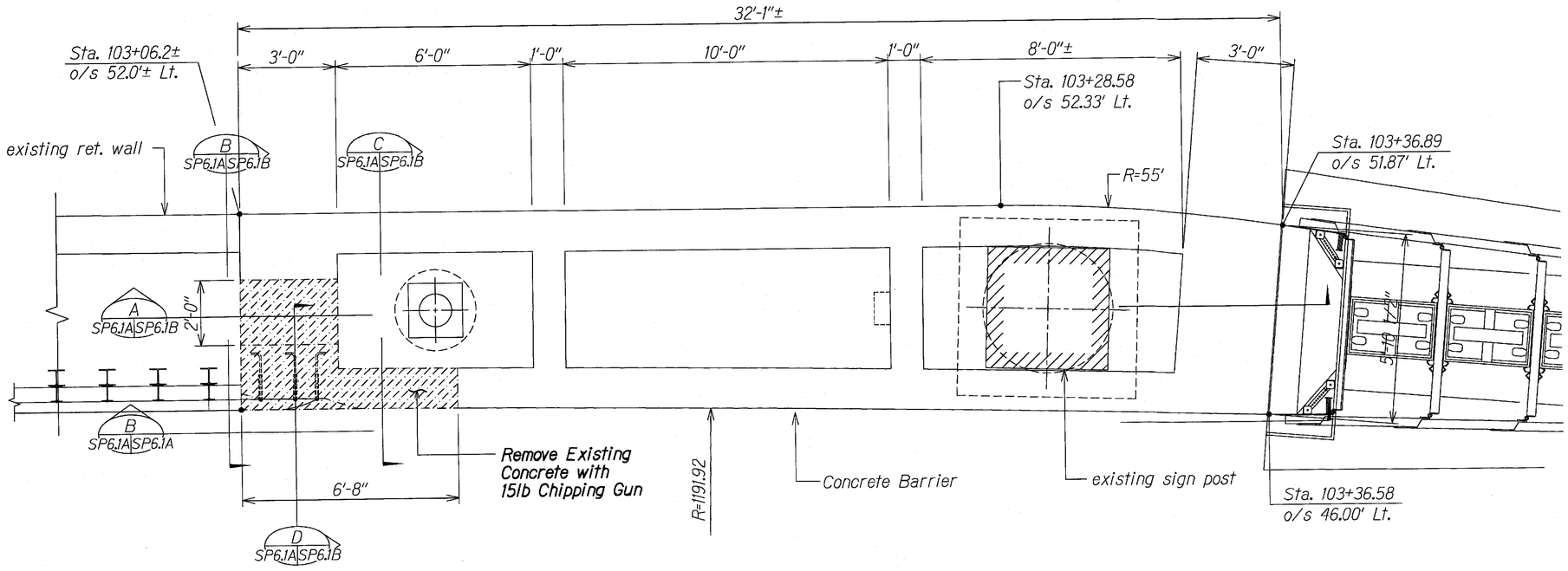
SHEET No. SP6.4 OF 86 SHEETS

Sketch No. CCO4-A

C.O. 317

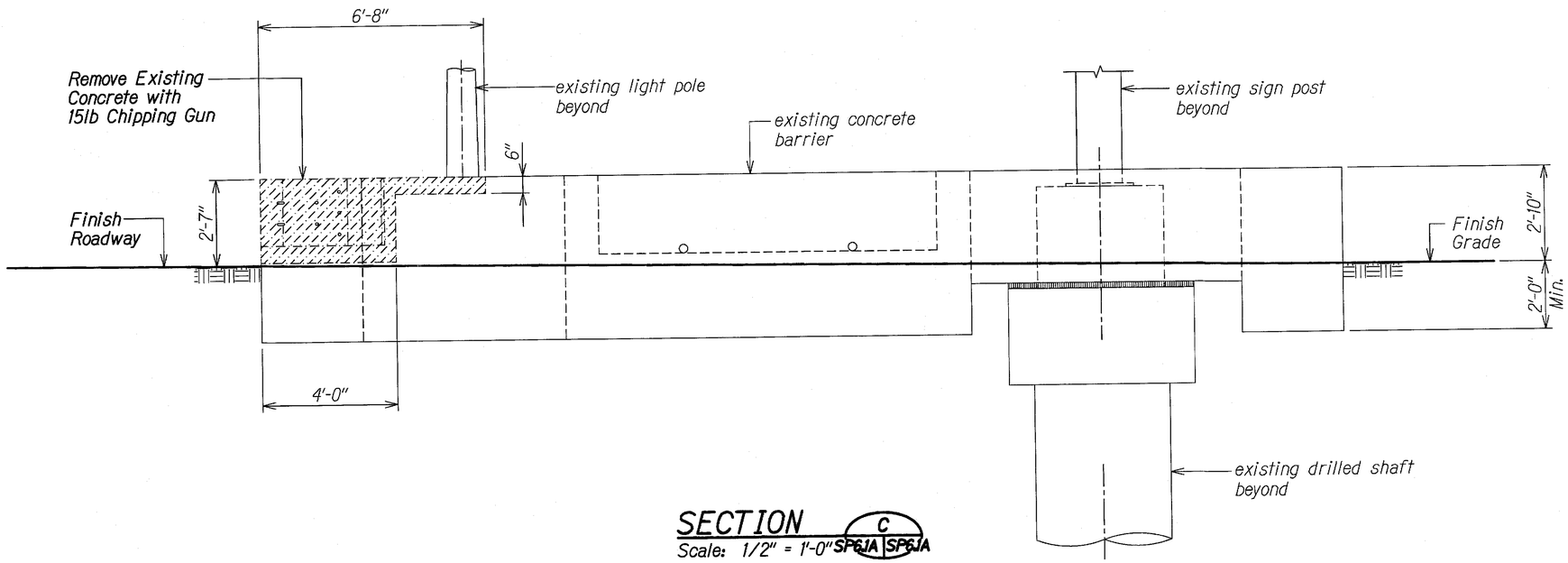
RECEIVED FEB 10 2014

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	3175	382



DEMOLITION PLAN
AT STA. 103+06.16 TO 103+36.52 (A SP6.1A|SP6.1A)

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



SECTION (C SP6.1A|SP6.1A)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXIST. BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - DEMO PLAN

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SP6.1A OF 86 SHEETS

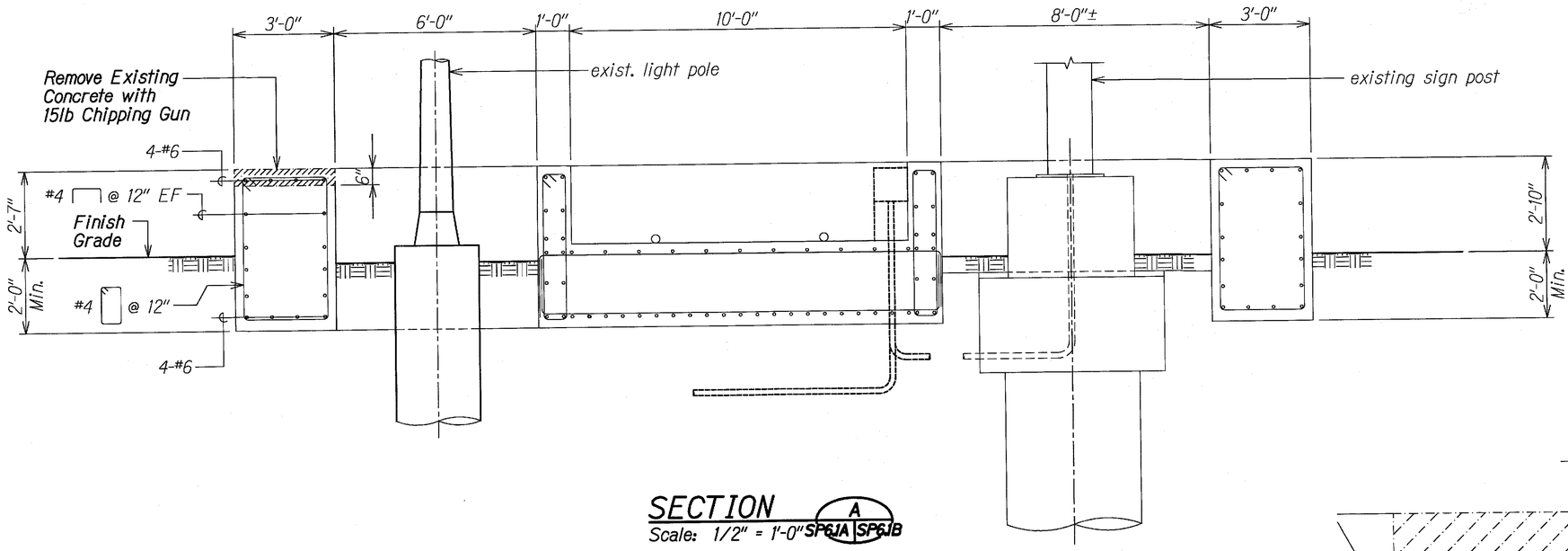
JUL 17 2014

3175-1

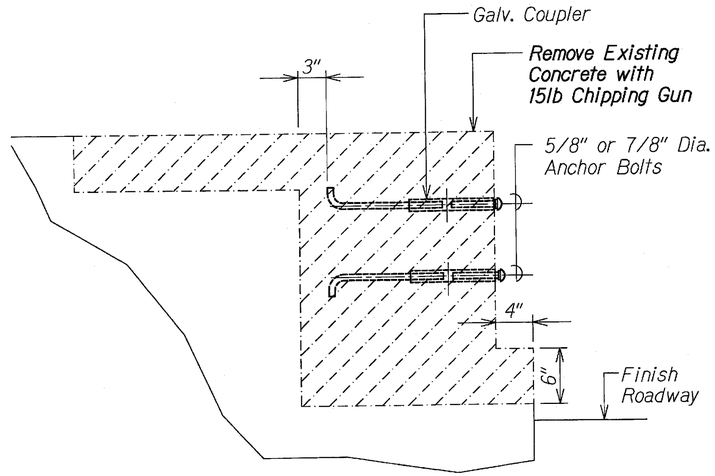
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No.

DRAWING NAME: Z:\OD ONGOING\11-030.1 H1 RESURFACING LIKELIKE TO PUNCHBOWL POST DESIGN-PB TM\CAD\07-16-14 RF\HRB-SP601 ADD C01-RF.DWG PLOT TIME: 07-16-14, 5:22 PM)

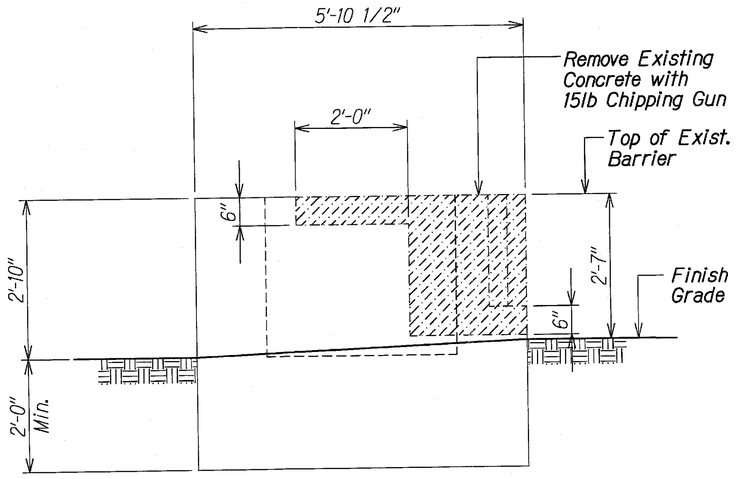
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	317S-2	382



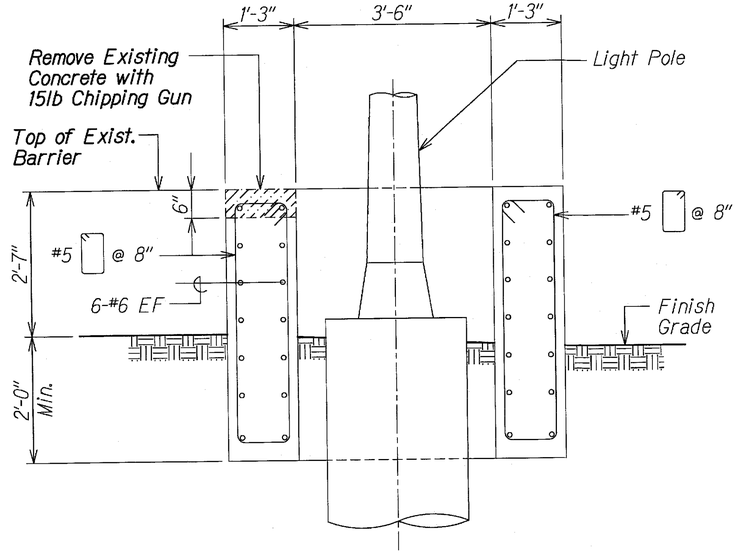
SECTION A
Scale: 1/2" = 1'-0" SP6JA SP6JB



SECTION D
Scale: 1 1/2" = 1'-0" SP6JA SP6JB



SECTION B
Scale: 3/4" = 1'-0" SP6JA SP6JB



SECTION C
Scale: 3/4" = 1'-0" SP6JA SP6JB

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXIST. BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown — Date: April 26, 2013

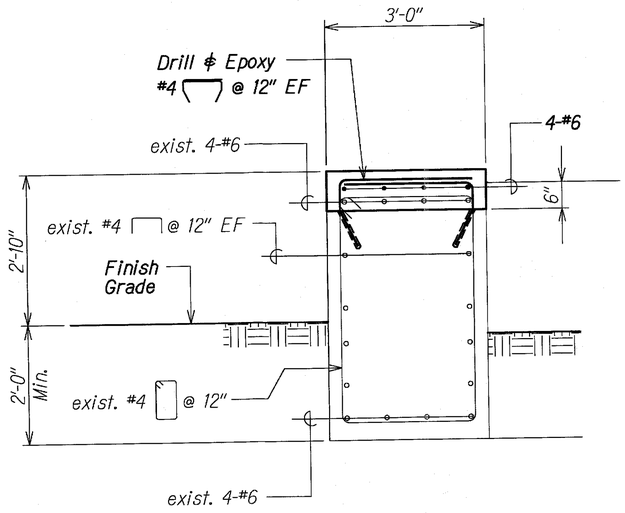
SHEET No. SP6.1B OF 86 SHEETS

JUL 17 2014 317S-2

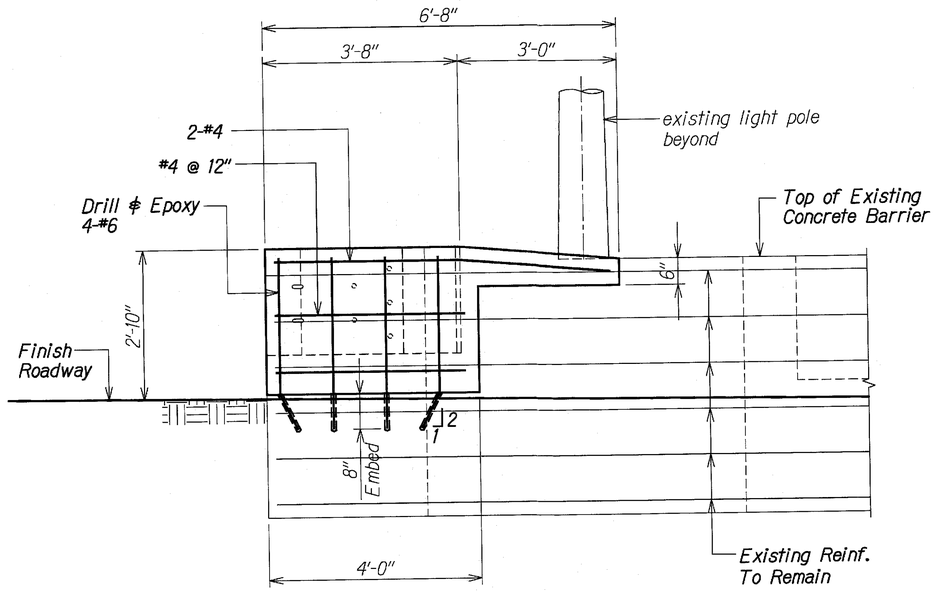
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | NOTE BOOK | No. | DATE

DRAWING NAME: Z:\00 ONGOING\11-030.1 H1 RESURFACING LIKELIHE TO PUNCHBOWL POST DESIGN-PB TMCAD\07-16-14 REV\HIRB-SP6D1 ADD C01-RFI.DWG PLOT TIME: 07-16-14, 5:22 PM)

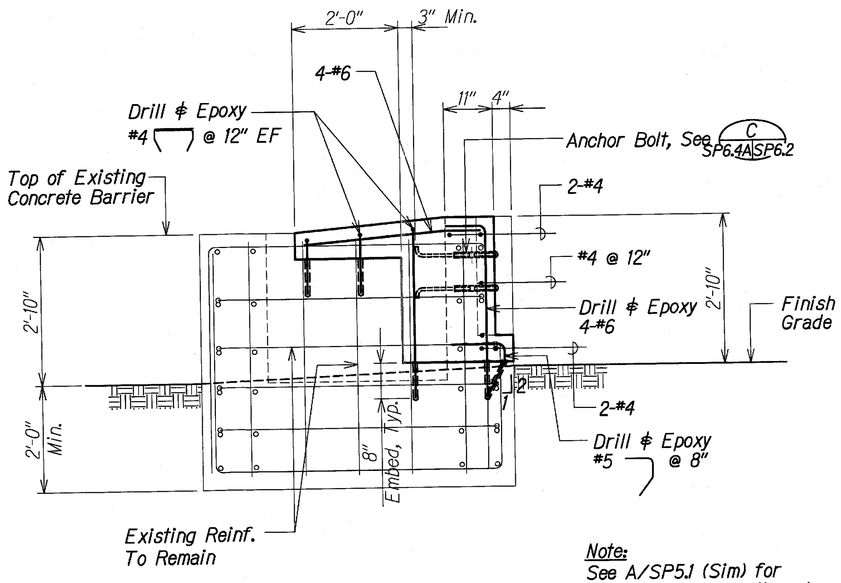
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	317S-3	382



SECTION A
Scale: 3/4" = 1'-0" SP6.2 SP6.4A

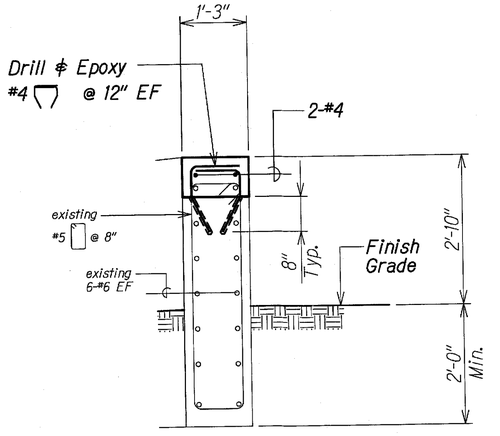


SECTION B
Scale: 3/4" = 1'-0" SP6.2 SP6.4A



SECTION C
Scale: 3/4" = 1'-0" SP6.2 SP6.4A

Note:
See A/SP5.1 (Sim) for connection, guardrail, and curb details.



SECTION D
Scale: 3/4" = 1'-0" SP6.2 SP6.4A

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW BARRIER AT STA. 103+06.16 TO STA. 103+36.52 - SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

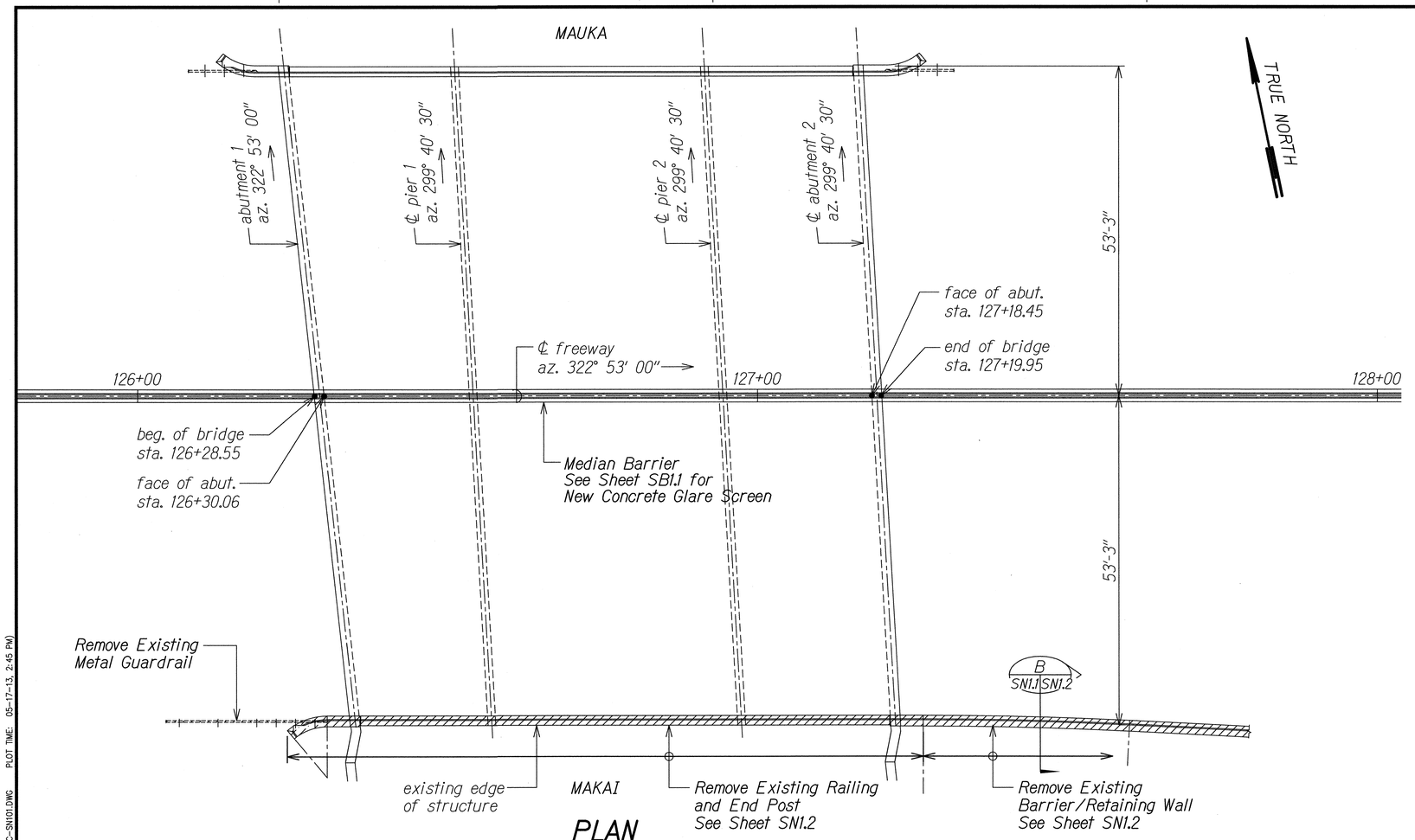
SHEET No. SP6.4A OF 86 SHEETS

JUL 17 2014 317S-3

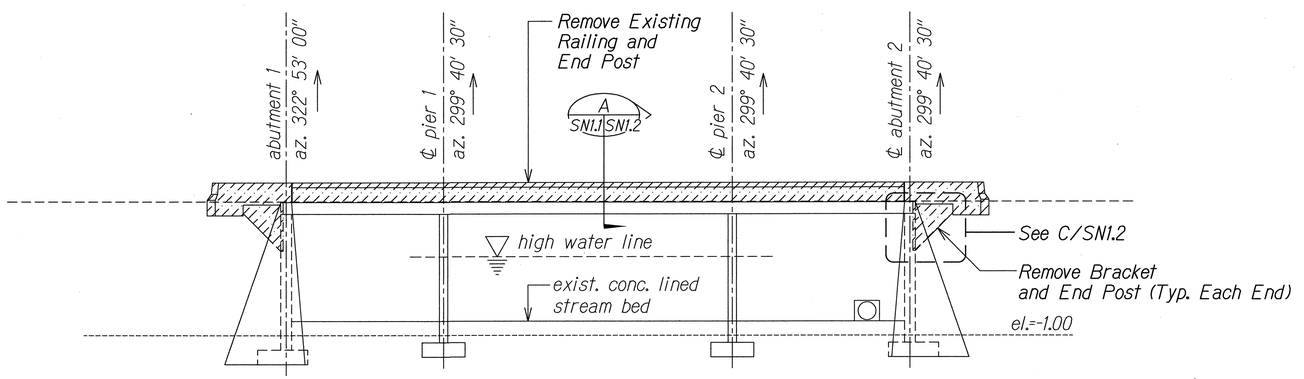
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No.

DRAWING NAME: Z:\00 ONGOING\11-030.1 H1 RESURFACING LIKELIKE TO PUNCHBOWL POST DESIGN-PB TM\CAD\07-16-14 RFT\H1RB-SP601 ADD C01-RR.DWG PLOT TIME: 07-16-14, 5:23 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	318	382



PLAN
Scale: 1" = 10'-0"



ELEVATION
Scale: 1" = 10'-0"

DRAWING NAME: Z:\OO ONOONG\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100X\HIRC-SN101.DWG PLOT TIME: 05-17-13, 2:45 PM

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

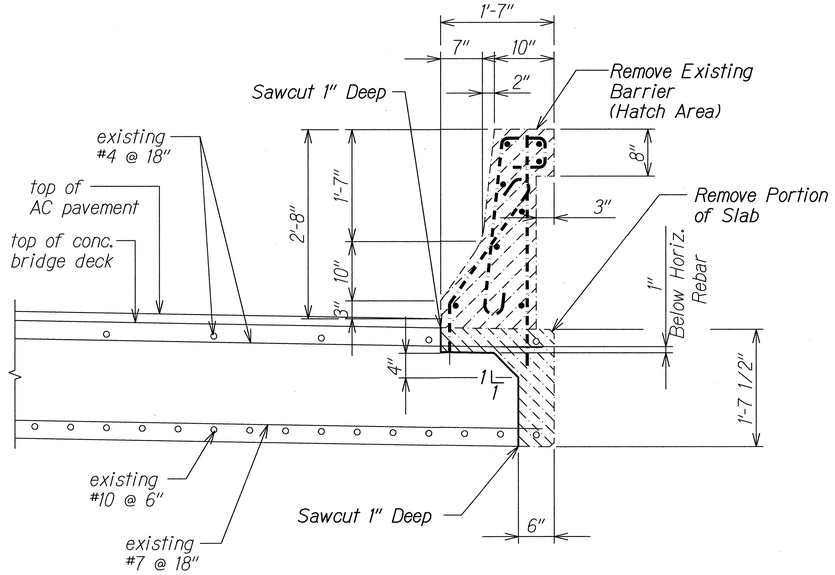
NUUANU STREAM BRIDGE DEMO - PLAN AND ELEVATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

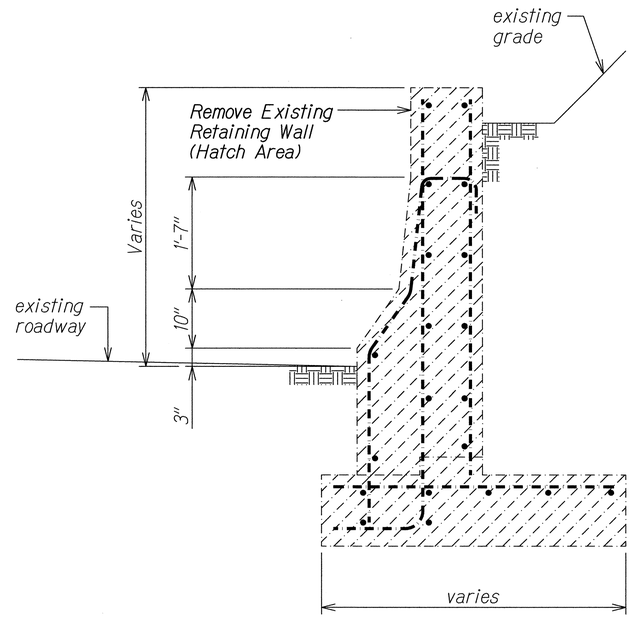
SHEET No. SN1.1 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	319	382



SECTION NEAR MIDSPAN A
SN1J SN1.2

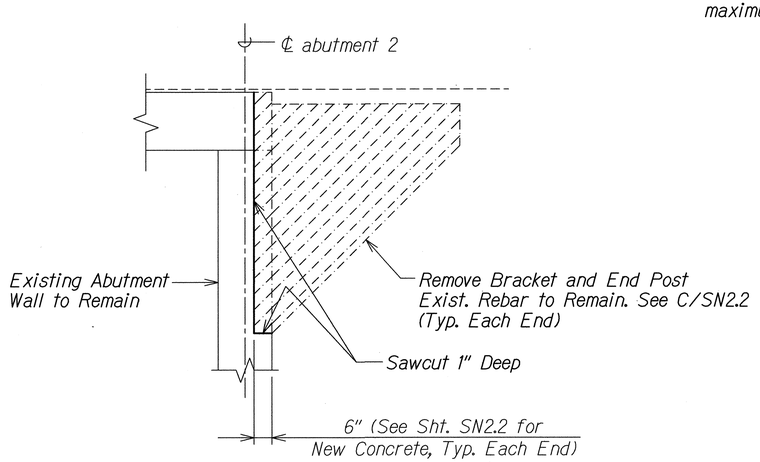
Scale: 1" = 1'-0"



SECTION B
SN1J SN1.2

Scale: 1" = 1'-0"

Notes:
1. Deck reinforcing and retaining wall dimensions and reinforcing vary. See General Notes for "AS BUILT" drawings.
2. Concrete to be removed within 6 inches of existing concrete to remain shall be removed with chipping or pneumatic tools having a maximum hammer weight of 15 pounds.



SECTION C
SN1J SN1.2

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

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRC-SN101.DWG PLOT TIME: 05-17-13, 2:45 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

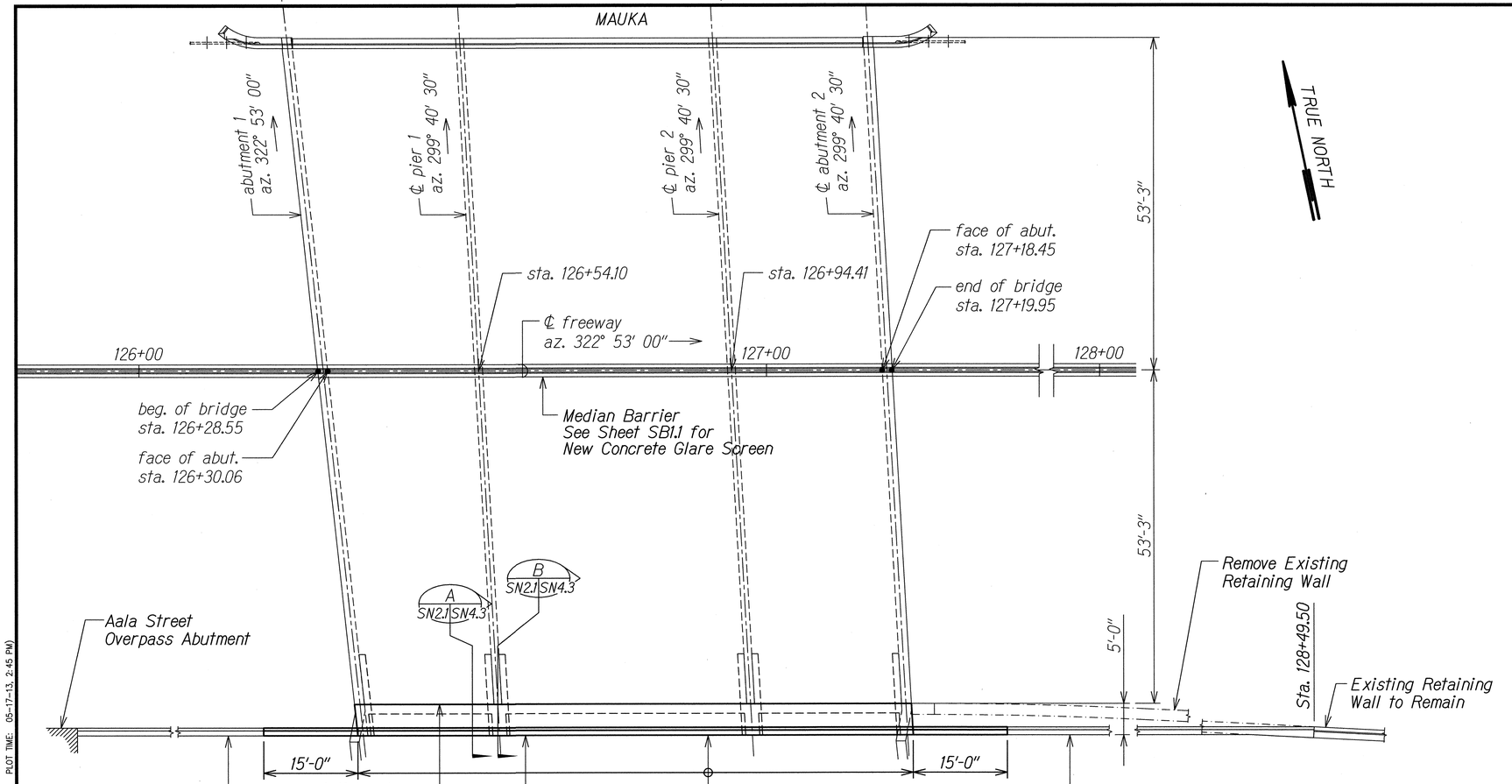
NUUANU STREAM BRIDGE DEMO - SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

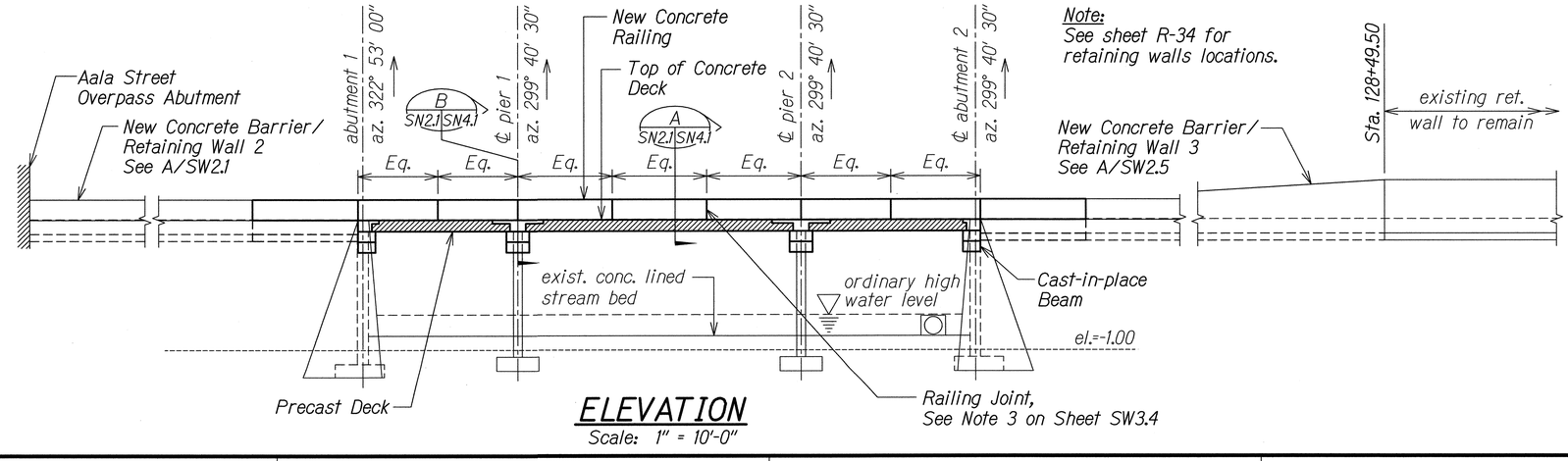
Scale: As Shown Date: April 26, 2013

SHEET No. SN1.2 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	320	382



PLAN
Scale: 1″ = 10′-0″



ELEVATION
Scale: 1″ = 10′-0″

ORIGINAL PLAN

NOTE BOOK No.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100R\HIRC-SN201.DWG PLOT TIME: 05-17-13, 2:45 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

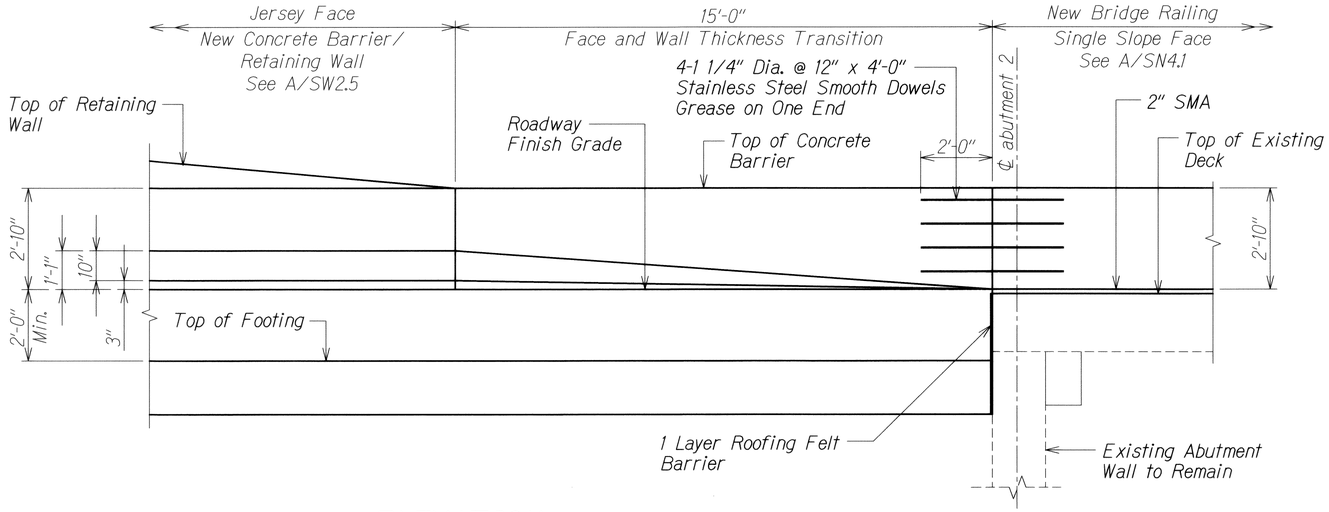
NUUANU STREAM BRIDGE
PLAN AND ELEVATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

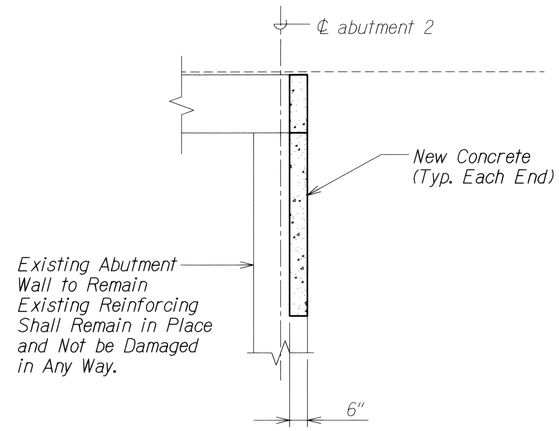
Scale: As Shown Date: April 26, 2013

SHEET No. SN2.1 OF 86 SHEETS

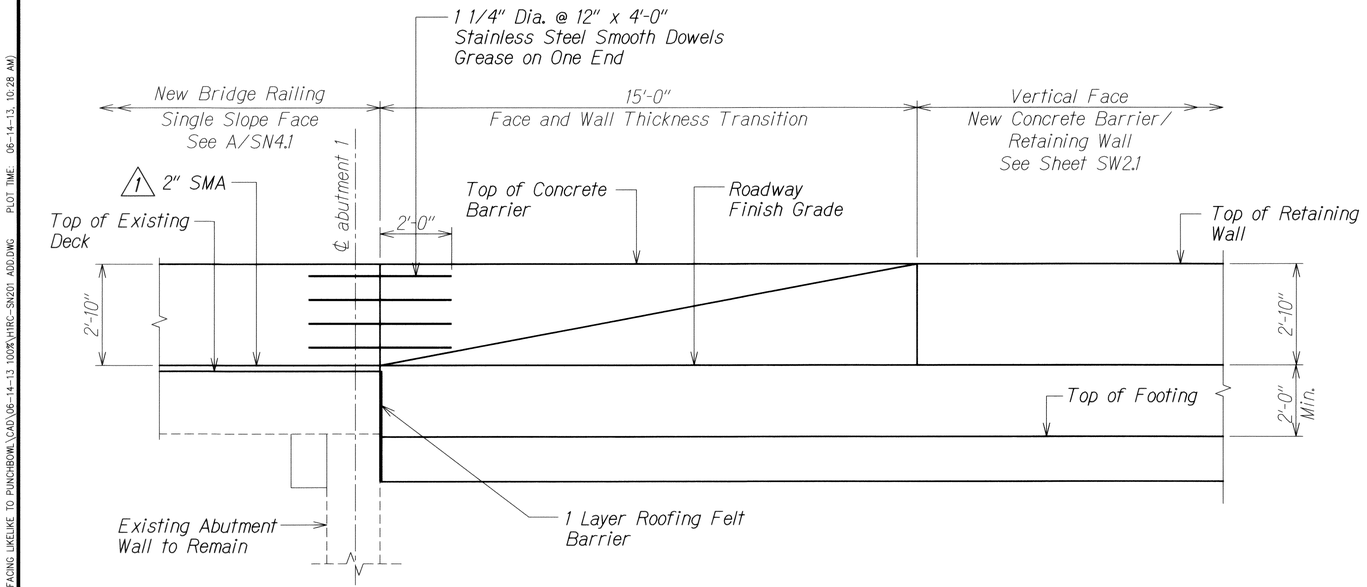
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 321	382



ELEVATION A
Scale: 1/2" = 1'-0" SN22 | SN22



SECTION C
Scale: 1/2" = 1'-0" SN22 | SN22



ELEVATION B
Scale: 1/2" = 1'-0" SN22 | SN22

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRC-SN201 ADD.DWG PLOT TIME: 06-14-13 10:28 AM)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE BARRIER/ RET. WALL ELEVATIONS AND SECTION

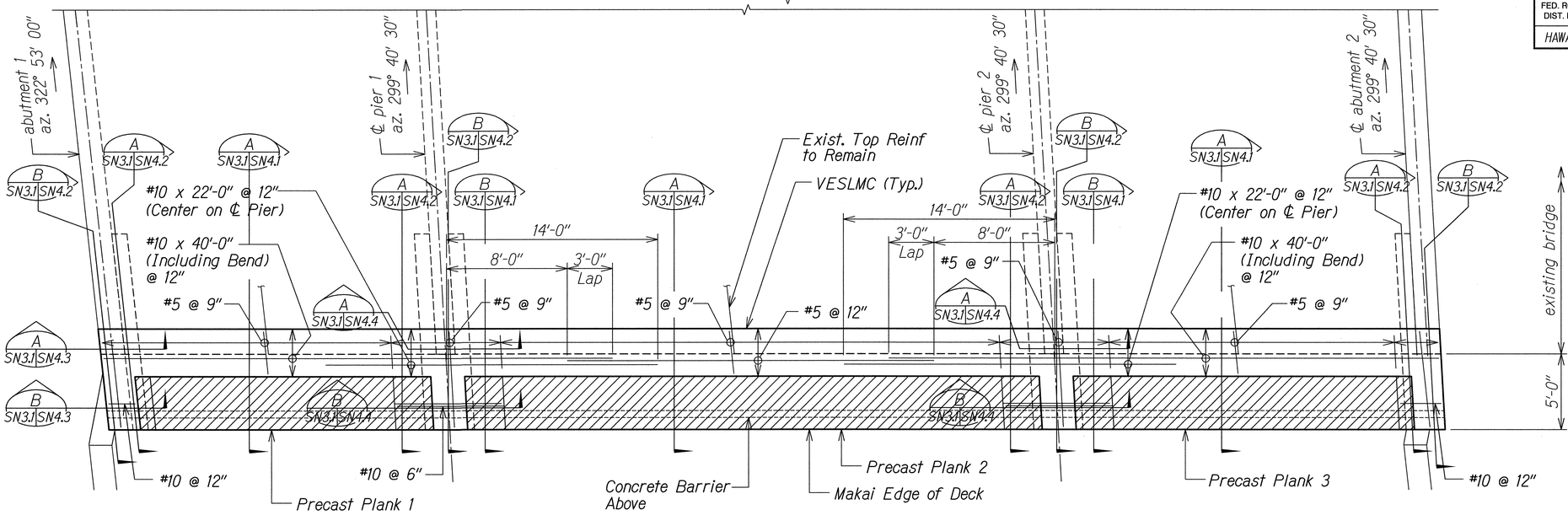
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SN2.2 OF 86 SHEETS

ADD. 321

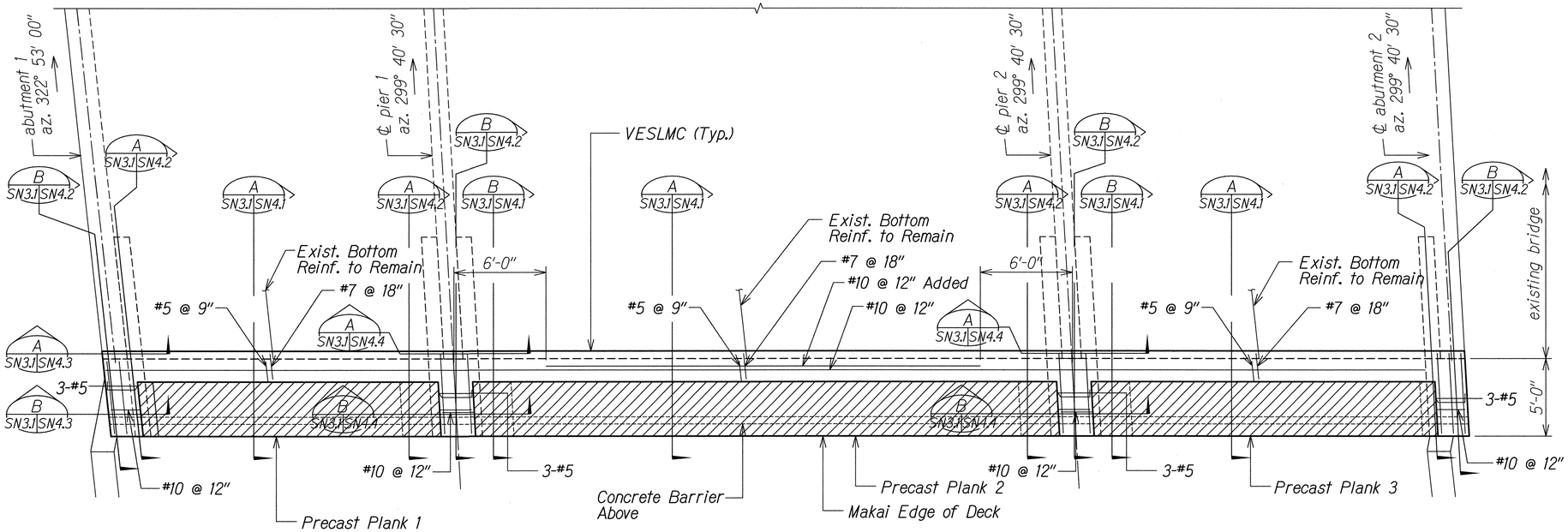
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	322	382



CAST IN PLACE CONCRETE TOP REINFORCING DECK FRAMING PLAN

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

A SN3.1 SN3.1



Note:
Splices for bottom #10 longitudinal bars shall be within 4'-0" of the abutment or ℄ piers.

CAST IN PLACE CONCRETE BOTTOM REINFORCING DECK FRAMING PLAN

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

B SN3.1 SN3.1

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE
DECK FRAMING PLANS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

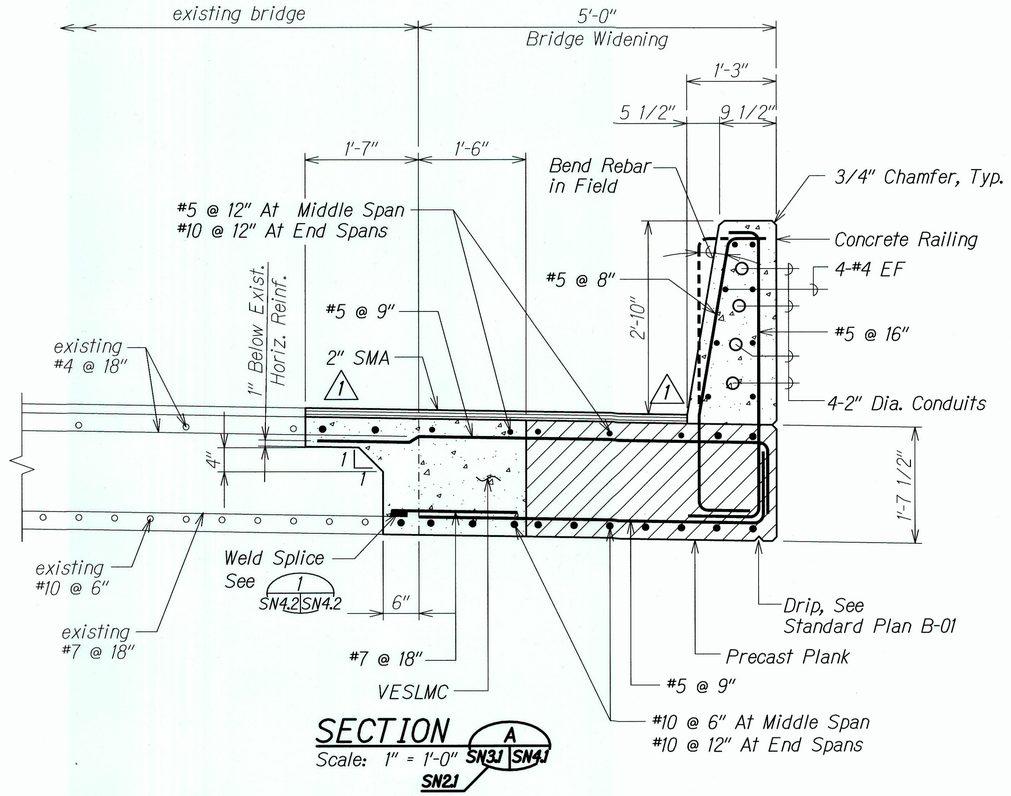
SHEET No. SN3.1 OF 86 SHEETS

322

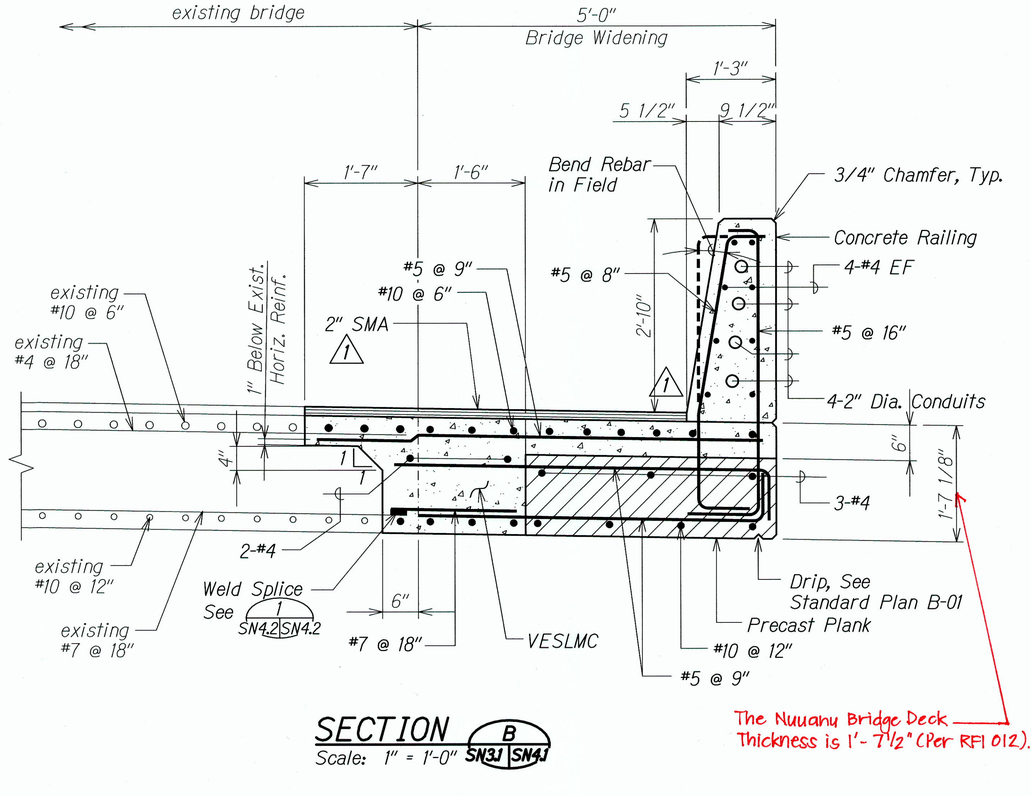
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
No.	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRC-SN301.DWG PLOT TIME: 05-17-13, 2:46 PM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 323	382



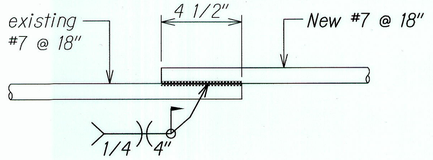
SECTION A
Scale: 1" = 1'-0" SN3J SN4J SN2J



SECTION B
Scale: 1" = 1'-0" SN3J SN4J

Notes:

1. The Contractor shall verify the finish grades and camber the precast slab accordingly to account for existing site conditions and dead load deflection. Shop drawings shall be submitted to the Engineer for acceptance. 1
2. Falsework for cast in place slab shall be supported by both the precast plank and existing slab or may be supported independently by a temporary falsework structure.
3. Existing #4 @ 18" may be bent to facilitate placing of precast planks.



REBAR SPLICE DETAIL
Scale: 3" = 1'-0" 1 SN4J SN4J

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC.
APRIL 30, 2014
LIC. EXP. DATE

DATE	REVISION
6/14/13	1 Revise Notes and Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE
TYPICAL DECK AND RAILING SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SN4.1 OF 86 SHEETS

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

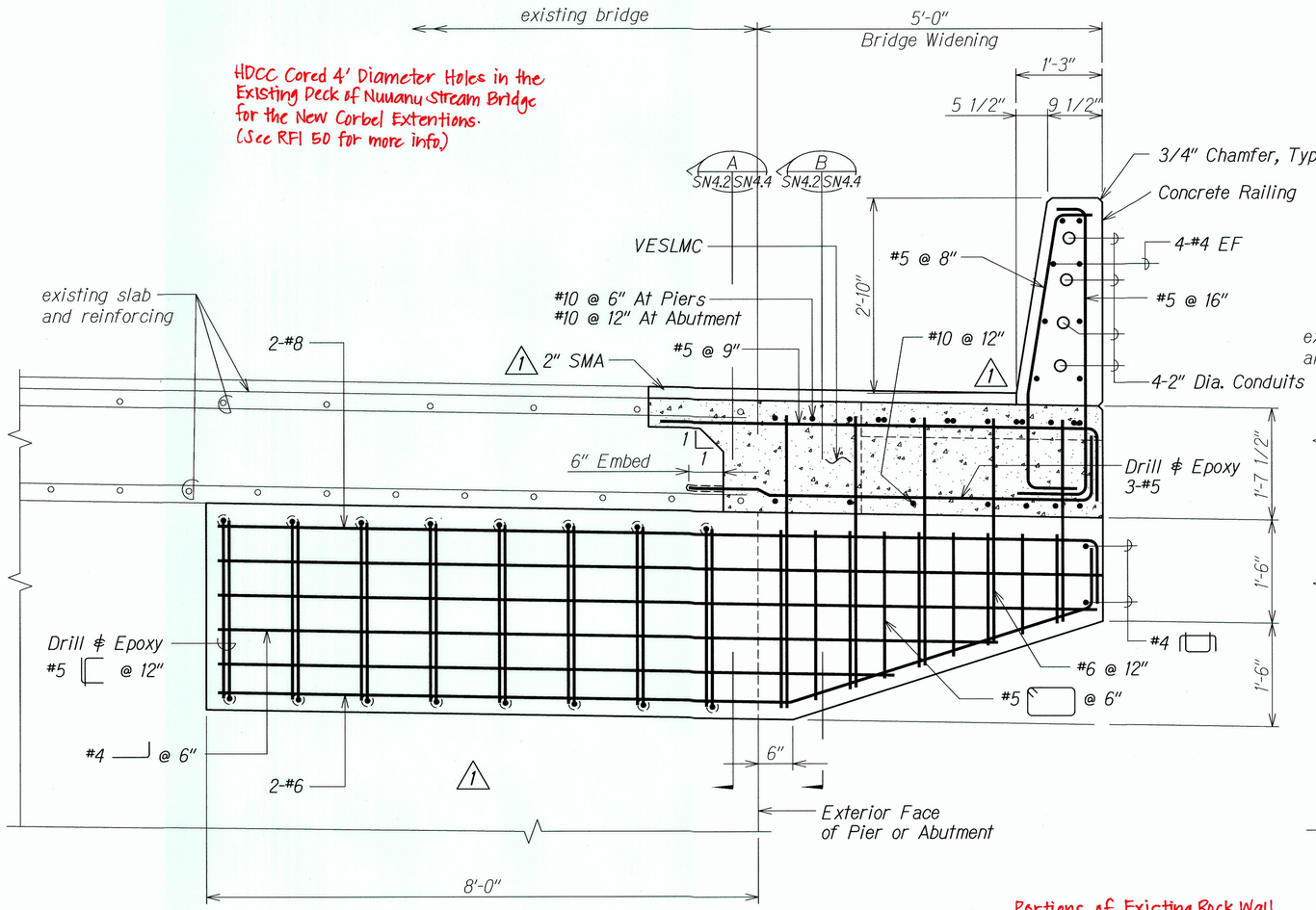
DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRC-SN401 ADD.DWG PLOT TIME: 06-14-13, 10:30 AM)

"AS-BUILT"

ADD. 323

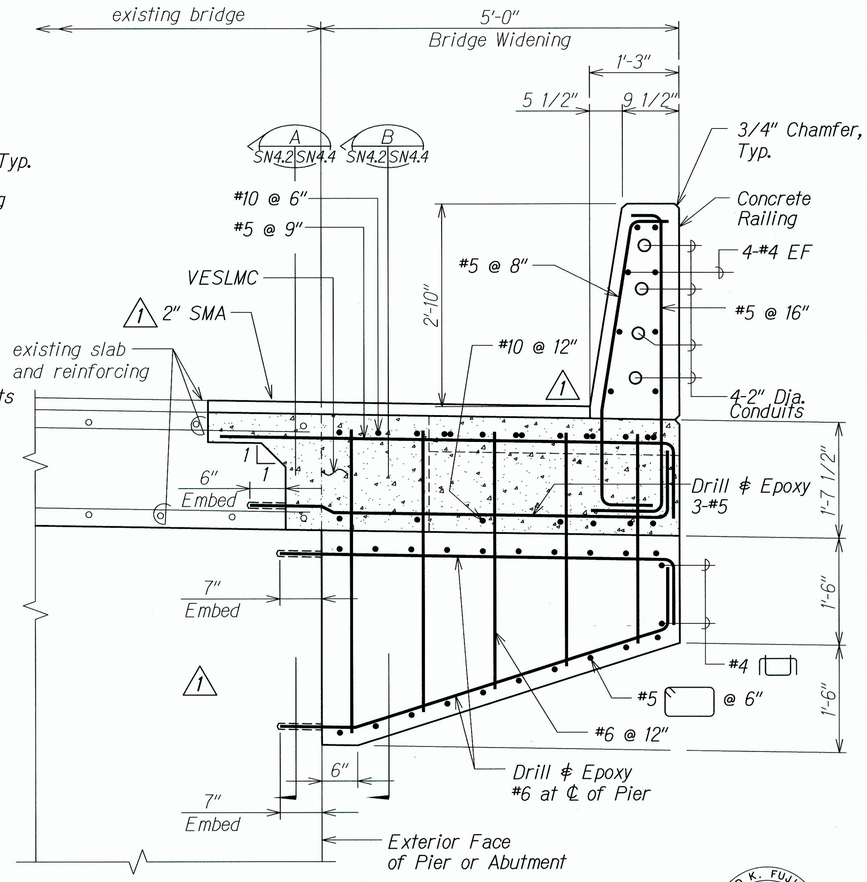
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 324	382

HDCC Cored 4' Diameter Holes in the Existing Deck of Nuuanu Stream Bridge for the New Corbel Extentions. (See RFI 50 for more info.)



SECTION A
Scale: 1" = 1'-0"
SN3.1 SN4.2 SN4.2, SN4.4

Portions of Existing Rock Wall Were Removed for Extension on the Concrete corbel. (See RFI 078 and Pg.SN4.XX for more info.)



SECTION B
Scale: 1" = 1'-0"
SN3.1 SN4.2

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujimara
KSF, INC.
APRIL 30, 2014
LIC. EXP. DATE

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100X\HIRC-SN401 ADD.DWG PLOT TIME: 06-14-13, 10:30 AM)

DATE	REVISION
6/14/13	1 Revise Notes and Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE
SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

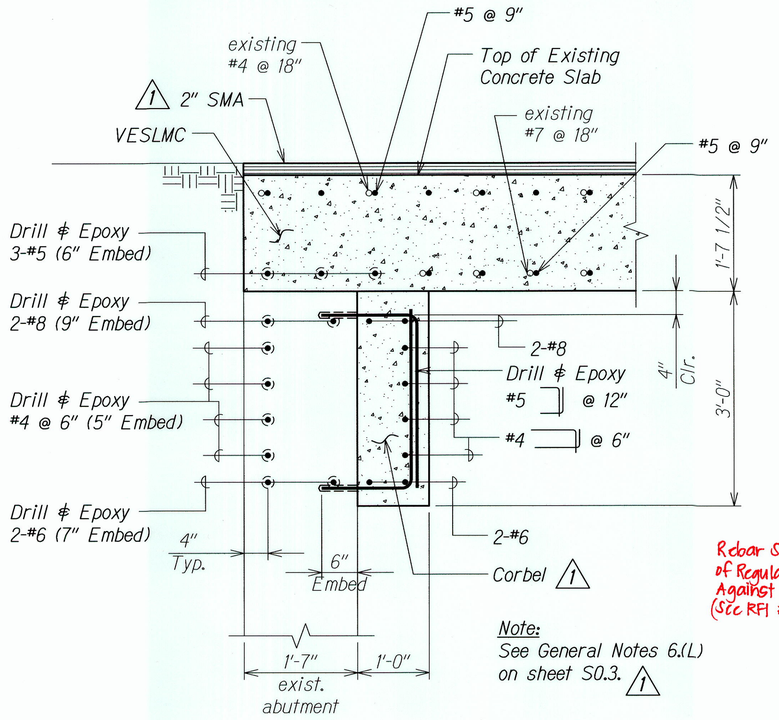
Scale: As Shown Date: April 26, 2013

SHEET No. SN4.2 OF 86 SHEETS

"AS-BUILT"

ADD. 324

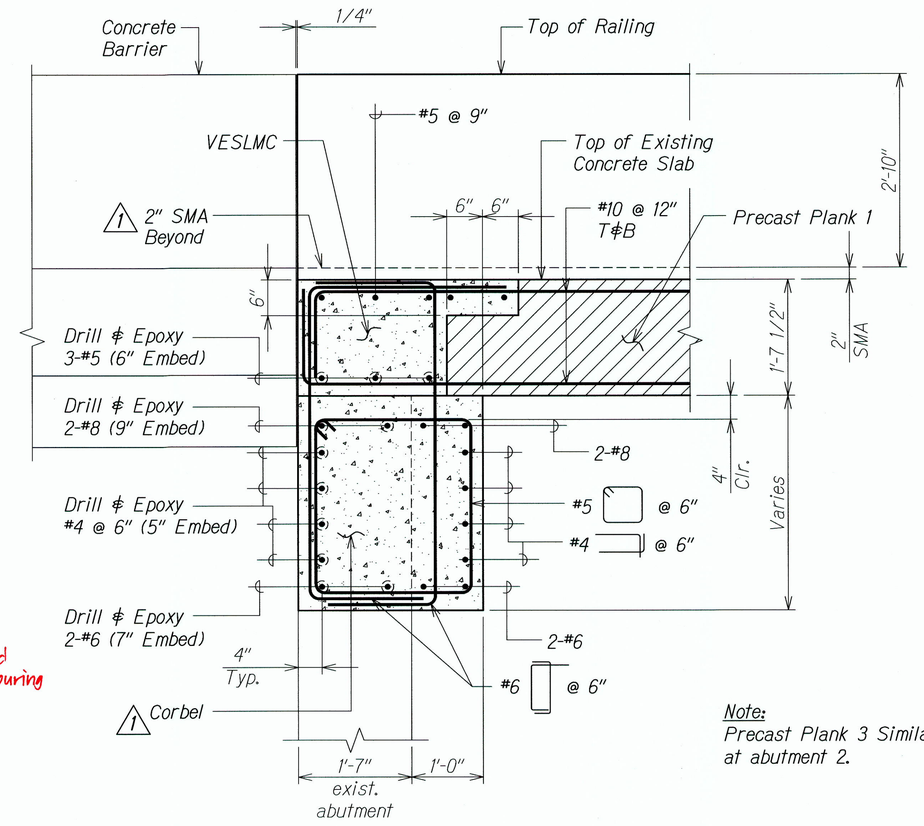
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 325	382



Rebar Snapties were used instead of Regular Snapties since we are Pouring Against an Existing Structure. (See RFI 31 for more info.)

Note:
See General Notes 6.(L) on sheet S0.3. 1

SECTION A
Scale: 1" = 1'-0"
SN3.1 | SN4.3 | SN4.2



Note:
Precast Plank 3 Similar at abutment 2.

SECTION B
Scale: 1" = 1'-0"
SN3.1 | SN4.3 | SN4.2

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC.
APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SN4.3 OF 86 SHEETS

DATE	REVISION
6/14/13	1 Revise Notes

"AS-BUILT"

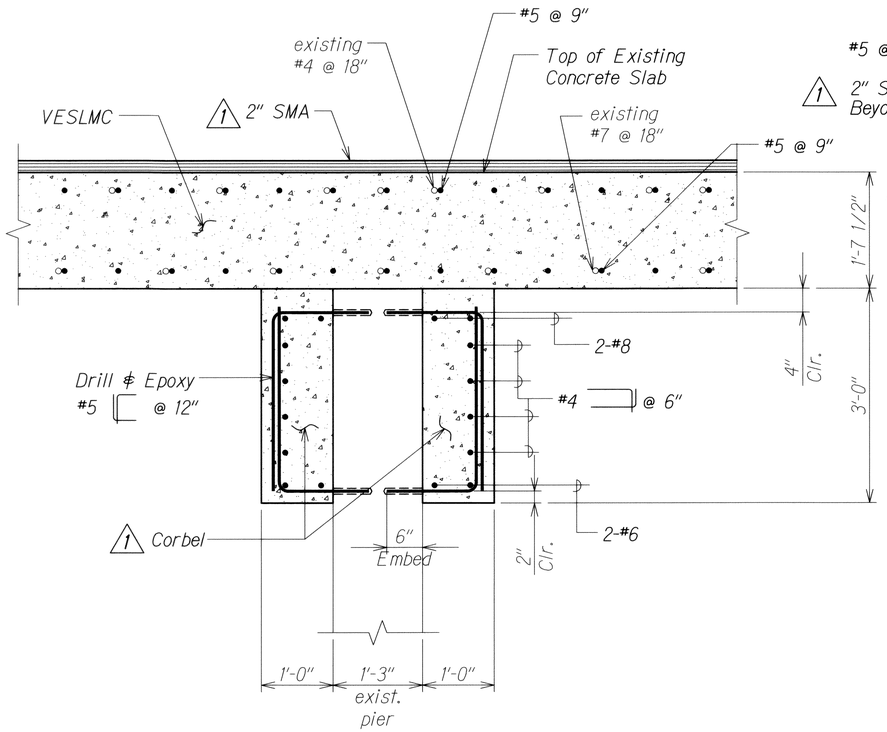
ADD. 325

ORIGINAL PLAN
NOTE BOOK
No.

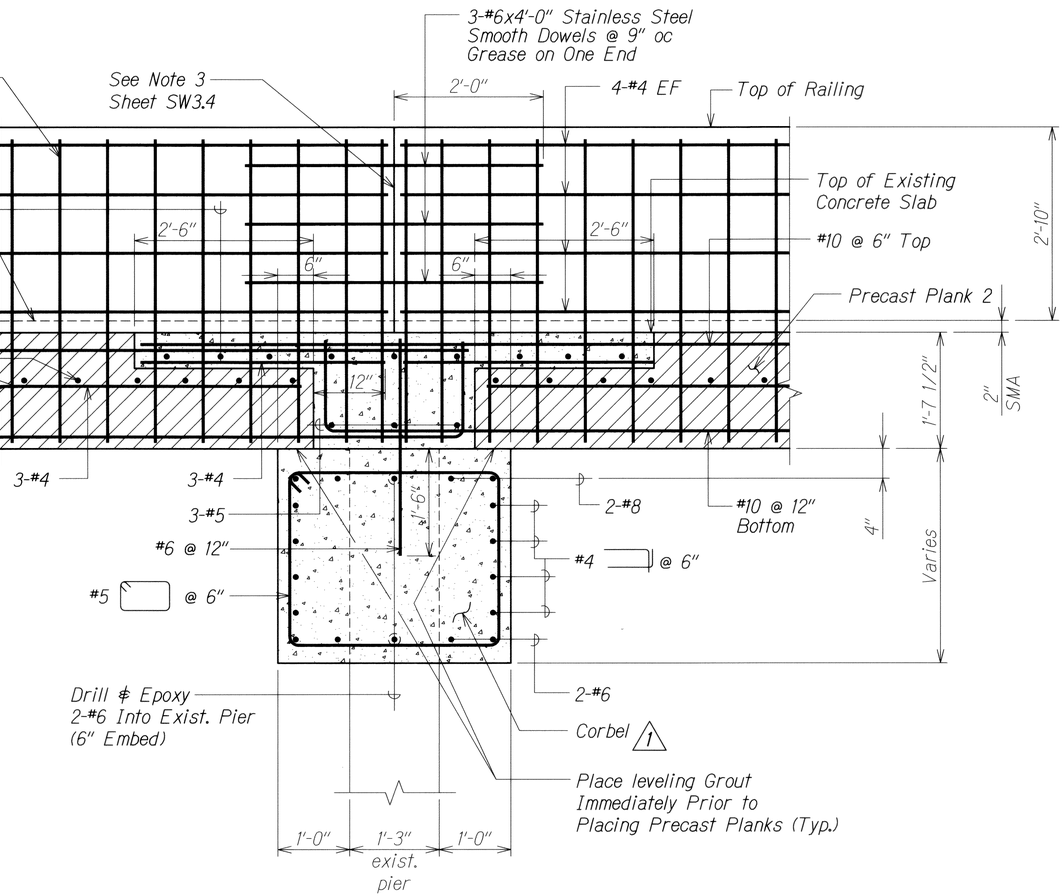
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRC-SN401 ADD.DWG PLOT TIME: 06-14-13, 10:30 AM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 326	382



SECTION A
Scale: 1" = 1'-0" SN3J SN4.4



SECTION B
Scale: 1" = 1'-0" SN3J SN4.4

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014.
LIC. EXP. DATE

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRC-SN40! ADD.DWG PLOT TIME: 06-14-13, 10:30 AM)

DATE	REVISION
6/14/13	1 Revise Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE
SECTIONS

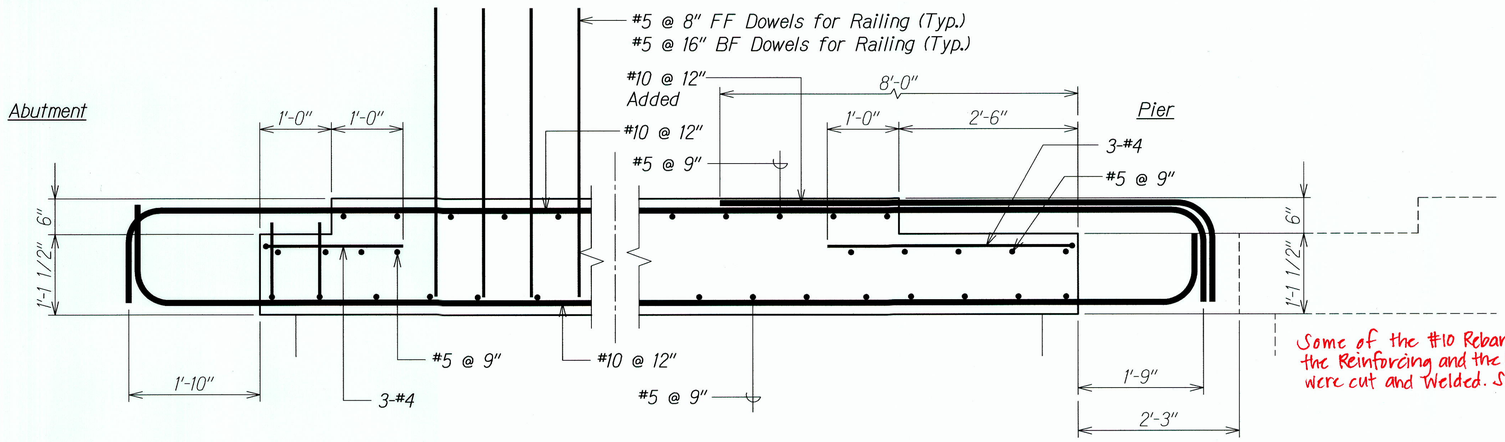
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SN4.4 OF 86 SHEETS

ADD. 326

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(269)	2013	ADD. 327	382



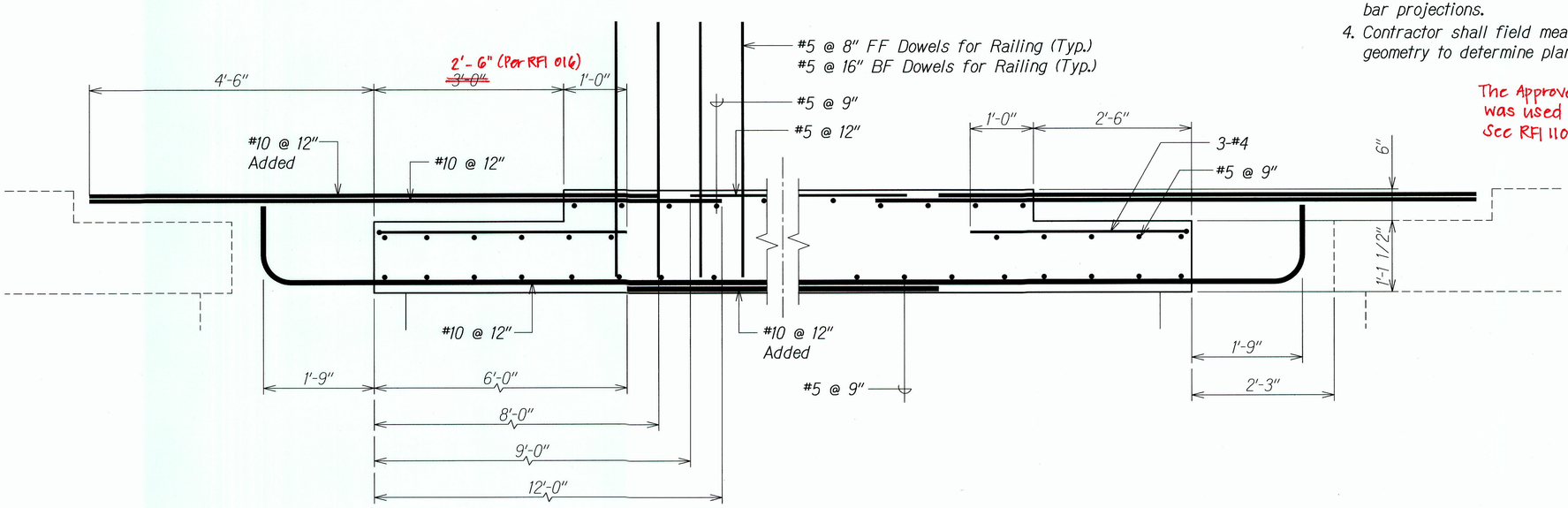
PRECAST PLANKS #1 AND #3 (A SN5.1 | SN5.1)

Scale: 1" = 1'-0"

The Rebar Spacing Along Top of Planks of 6" O.C. was Followed. See RFI 015 for more info.

Only the Middle Span Plank (Approximately 40') Needs to be Cambered. See RFI 36 for more info.

Some of the #10 Rebar Hinder the 2" Clearance Between the Reinforcing and the Edge of Concrete. These Rebar were cut and Welded. See RFI 133 for more info.



PRECAST PLANK #2 (B SN5.1 | SN5.1)

Scale: 1" = 1'-0"

Notes:

1. Space dowels 2" clear from railing joints.
2. Stagger #10 top and bottom bars to avoid conflict over piers.
3. See sheet SN4.1 for #5 @ 9" transverse bar projections.
4. Contractor shall field measure existing geometry to determine plank dimensions.

The Approved 6000 PSI, Product Code 6012 MCSF was used to pour the Precast Planks. See RFI 110 for more info.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE
PRECAST PLANK SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

Scale: As Shown — Date: April 26, 2013

SHEET No. SN5.1 OF 86 SHEETS

"AS-BUILT"

ADD. 327

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\08-14-13 100%\HRC-SN501 ADD.DWG PLOT TIME: 06-14-13, 10:31 AM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 328	382

NUUANU STREAM BRIDGE CONSTRUCTION SEQUENCE:

1. Install temporary barriers and traffic control devices

2. Perform demolition work

3. Construct corbels

4. Install precast planks after the corbels have reach their 28 day strength or a minimum of 7 days after constructing corbels whichever occurs last.

5. Install deck reinforcing

6. Pour deck concrete continuously from end to end. Pour deck concrete so concrete poured over any adjacent pier or abutment is still plastic until the concrete is poured over any neighboring pier or abutment. Concrete pour shall occur during the H-1 lane closures stated under construction Phase 1 or 3 (See Sheet TC-3) The concrete shall obtain 3000 psi compressive strength prior to reopening the lanes to traffic and construction loading. See Special Provisions Sections 540.03 (H)(5).

7. Install bridge railing a minimum of 3 days after pouring deck.

8. Pave the widened area of the bridge. Contractor shall provide transitions where pavement surface has abrupt changes of more than 1/4". Paving shall occur during the repaving of the adjacent existing SMA topping over the bridge deck.

1

DRAWING NAME: Z:\OD ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRC-SN601 ADD.DWG PLOT TIME: 06-14-13, 10:31 AM

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Note

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE CONSTRUCTION SEQUENCE

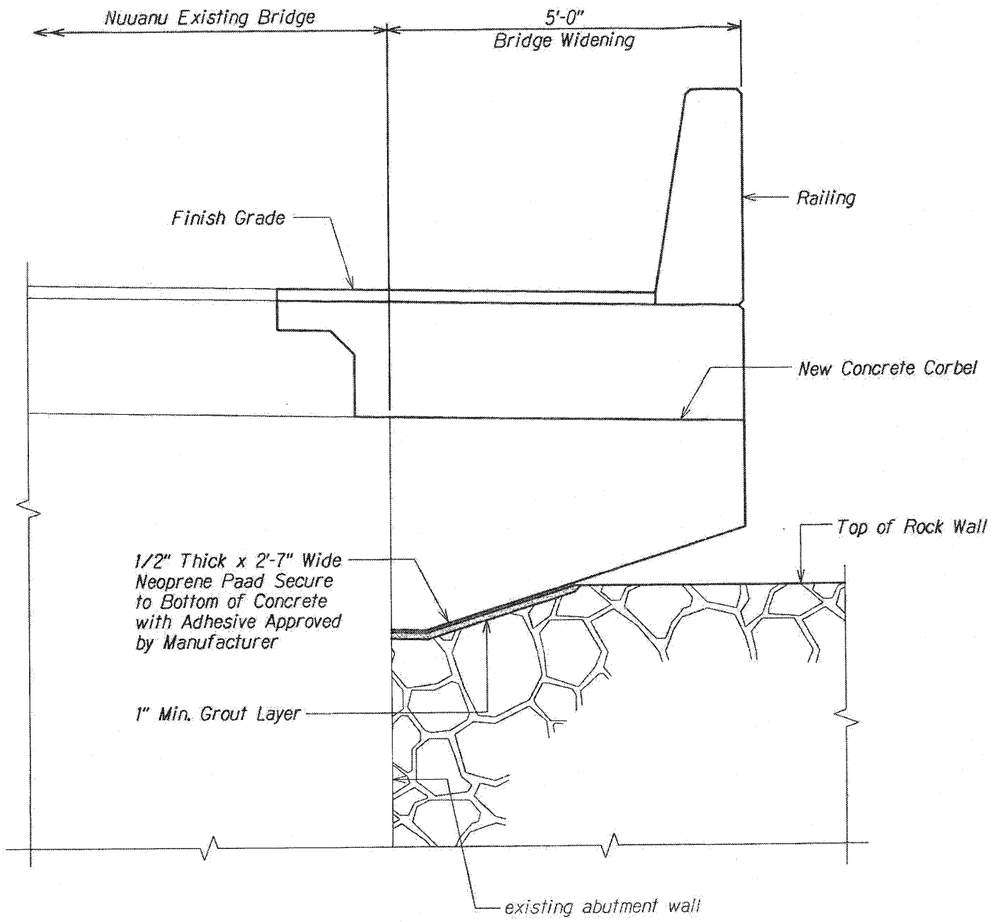
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SN6.1 OF 86 SHEETS

ADD. 328

DIST. NO.		PROJ. NO.	YEAR	NO.	SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	328S-1	382



SECTION A
Scale: 1" = 1'-0" SN4.xx | SN4.xx

RFI - NEW SHEET
12-04-2013

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE
SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: Dec. 04, 2013

SHEET No. SN4.xx OF 86 SHEETS

JUL 07 2014

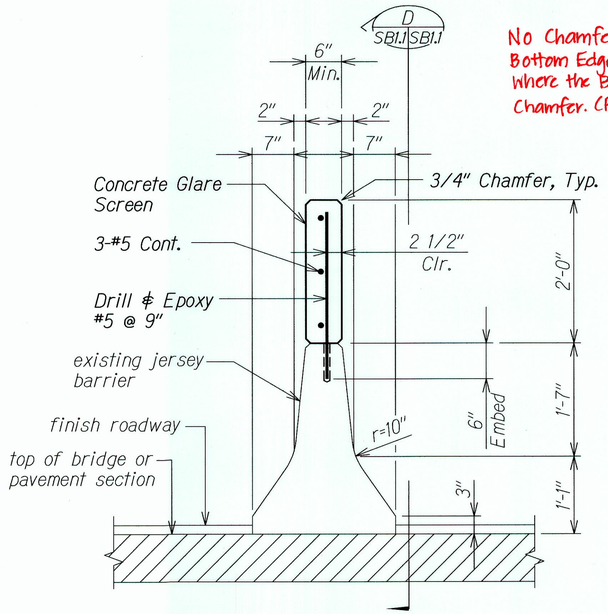
328S-1

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

DRAWING NAME: Z:\OO ONGOING\11-030.0 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\12-04-13 100% RFI\HIRC-SN4XX RFI NEW SHT.DWG PLOT TIME: 12-04-13, 10:35 AM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	329	382

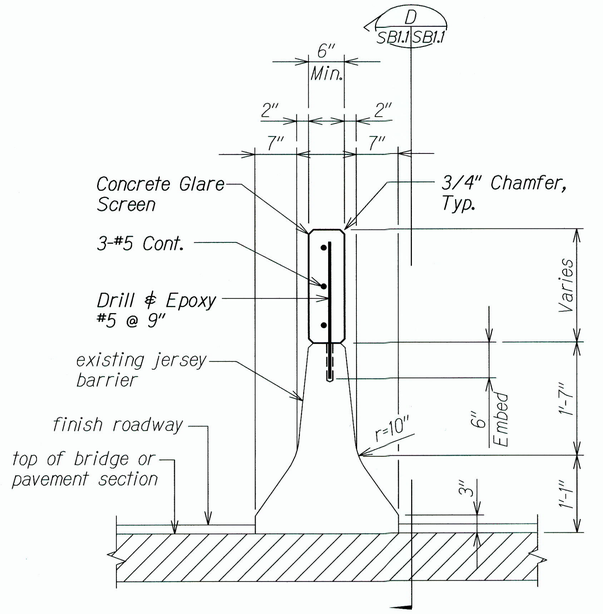
No Chamfer Installed Across Bottom Edge of Glare Screen where the Bottom Edge has no Chamfer. (Per RFI 111)



TYPICAL CONCRETE GLARE SCREEN SECTION

Scale: 1" = 1'-0"

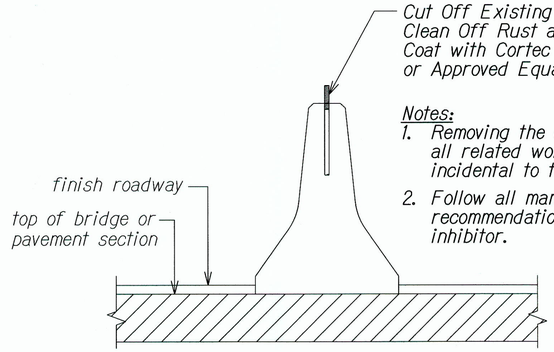
A SBI.1 SBI.1



TYPICAL CONCRETE GLARE SCREEN AT TRANSITION - SECTION

Scale: 1" = 1'-0"

B SBI.1 SBI.1

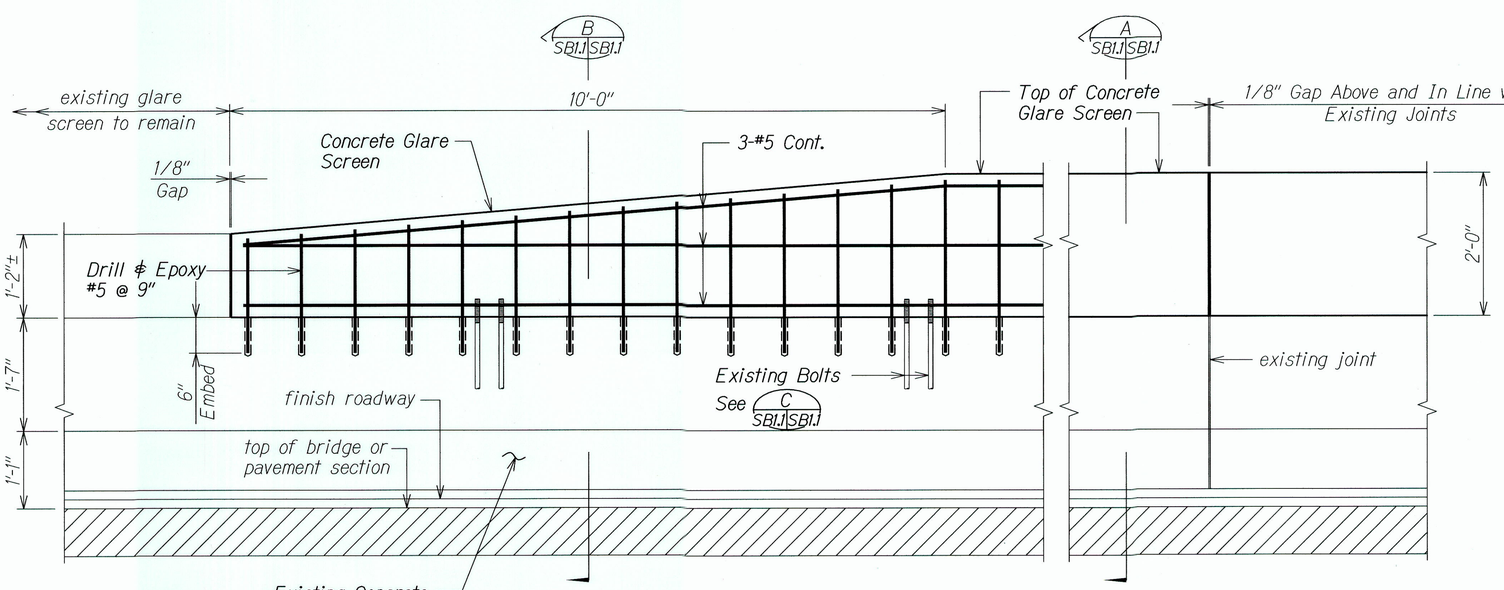


Notes:
1. Removing the existing bolts and all related work shall be considered incidental to the glare screen work.
2. Follow all manufacturer's recommendations for the corrosion inhibitor.

SECTION

Scale: 1" = 1'-0"

C SBI.1 SBI.1



Notes:
1. Joints shall be located at 20'-0" oc max. and shall match existing joints in barriers.
2. #5 @ 9" Vertical dowels in drilled hole shall be located a minimum of 3" from all joints.

ELEVATION

Scale: 1" = 1'-0"

D SBI.1 SBI.1

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL GLARE SCREEN ON EXISTING BARRIER SECTION AND ELEVATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

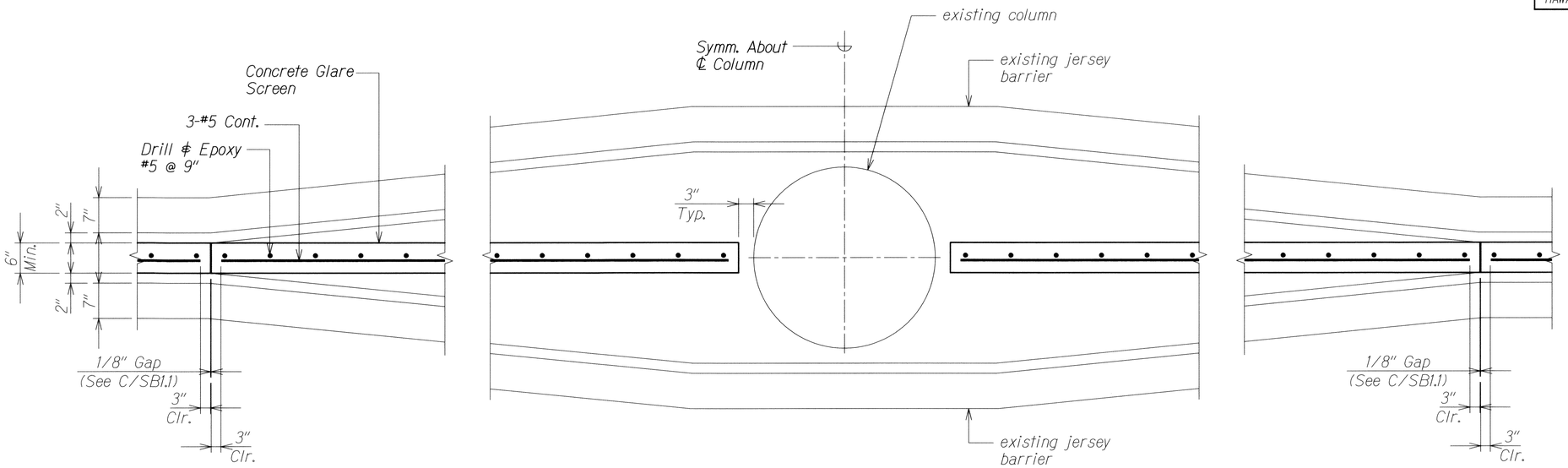
SHEET No. SBI.1 OF 86 SHEETS

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRD-SB101.DWG PLOT TIME: 05-17-13, 2:47 PM)

"AS-BUILT"

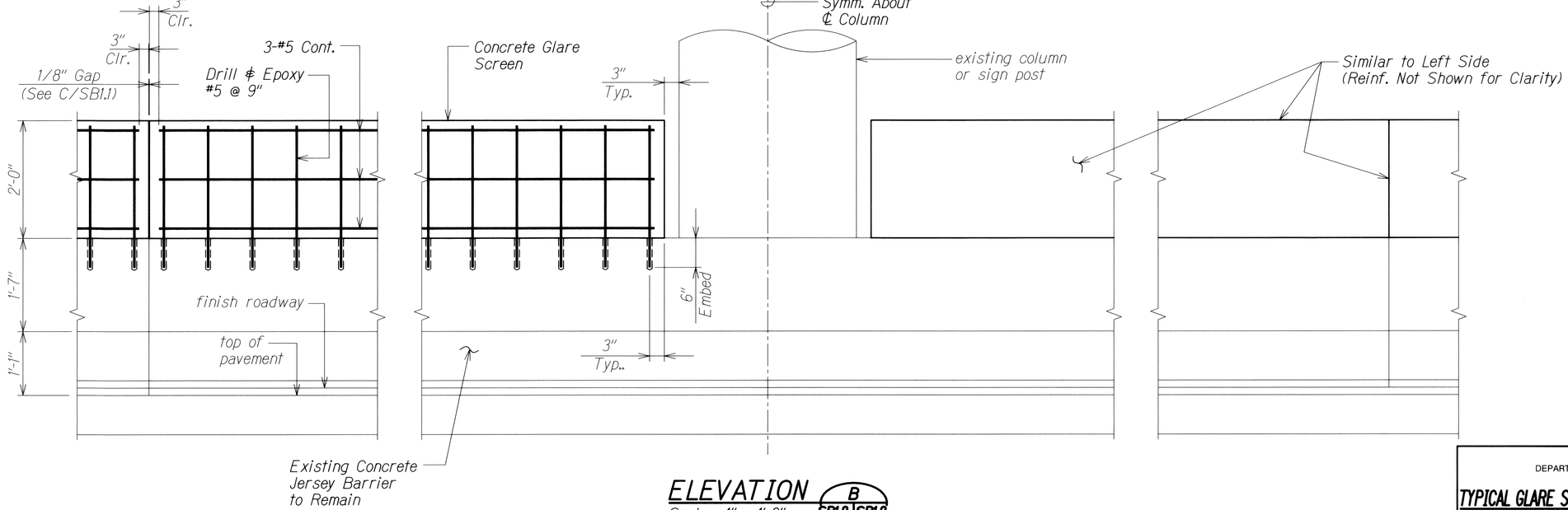
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 330	382



TYPICAL CONCRETE GLARE SCREEN PLAN AT COLUMN

B SB1.2 | SB1.2

Scale: 1" = 1'-0"



ELEVATION

B SB1.2 | SB1.2

Scale: 1" = 1'-0"

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Title Block

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL GLARE SCREEN ON EXISTING BARRIER

1 PLAN AND ELEVATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

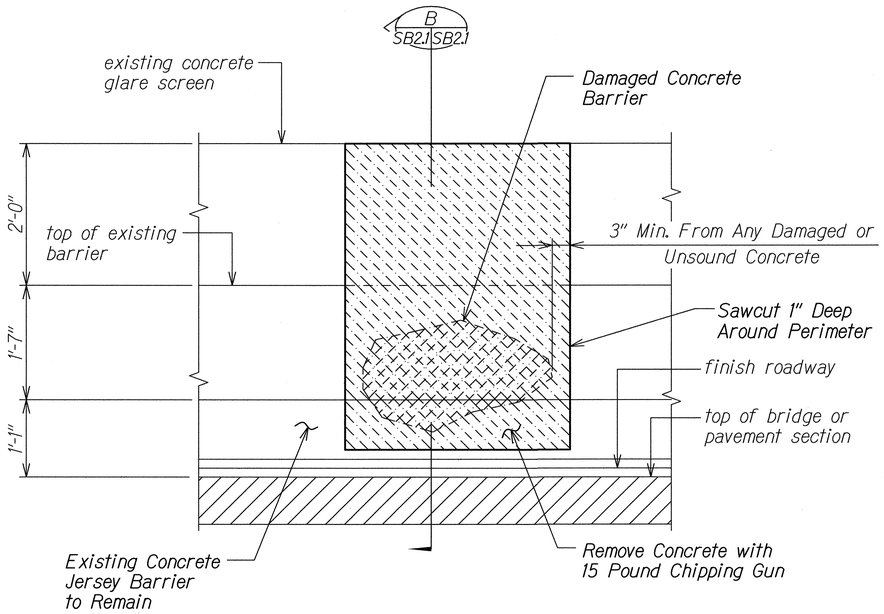
SHEET No. SB1.2 OF 86 SHEETS

ADD. 330

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

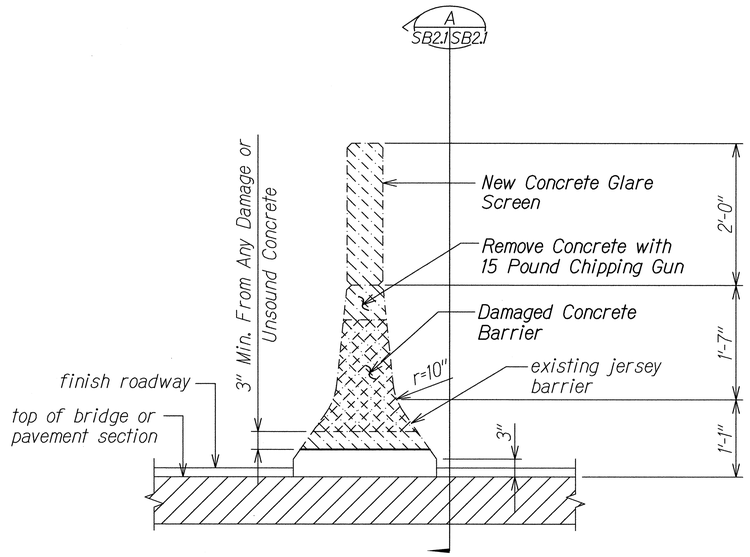
DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRG-SB101 ADD.DWG PLOT TIME: 06-14-13, 10:31 AM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	331	382



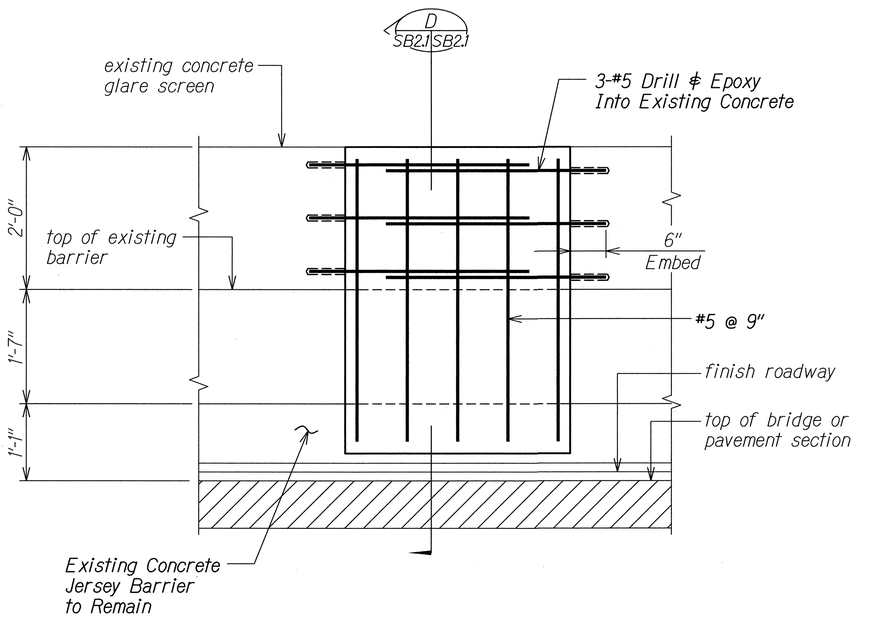
TYPICAL CONCRETE BARRIER REPAIR ELEVATION (A SB2.1 SB2.1)

Scale: 1" = 1'-0"



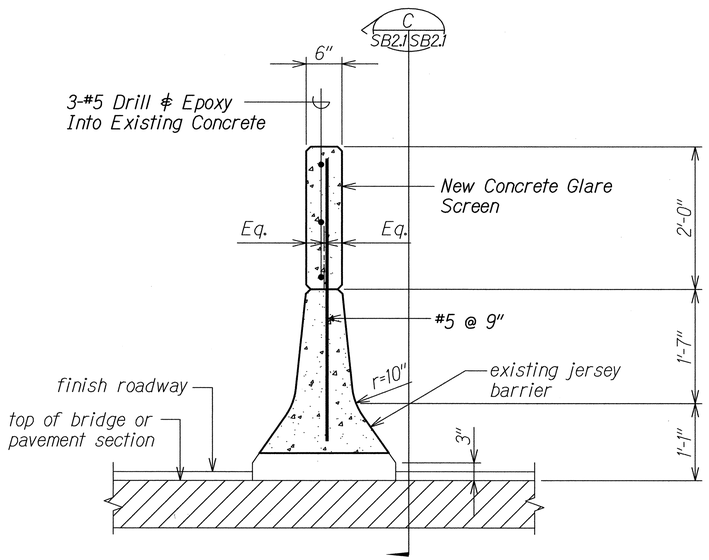
SECTION (B SB2.1 SB2.1)

Scale: 1" = 1'-0"



TYPICAL CONCRETE BARRIER REPAIR ELEVATION (C SB2.1 SB2.1)

Scale: 1" = 1'-0"



SECTION (D SB2.1 SB2.1)

Scale: 1" = 1'-0"

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

DRAWING NAME: Z:\00_ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HIRD-SB201.DWG PLOT TIME: 05-17-13, 2:47 PM)

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

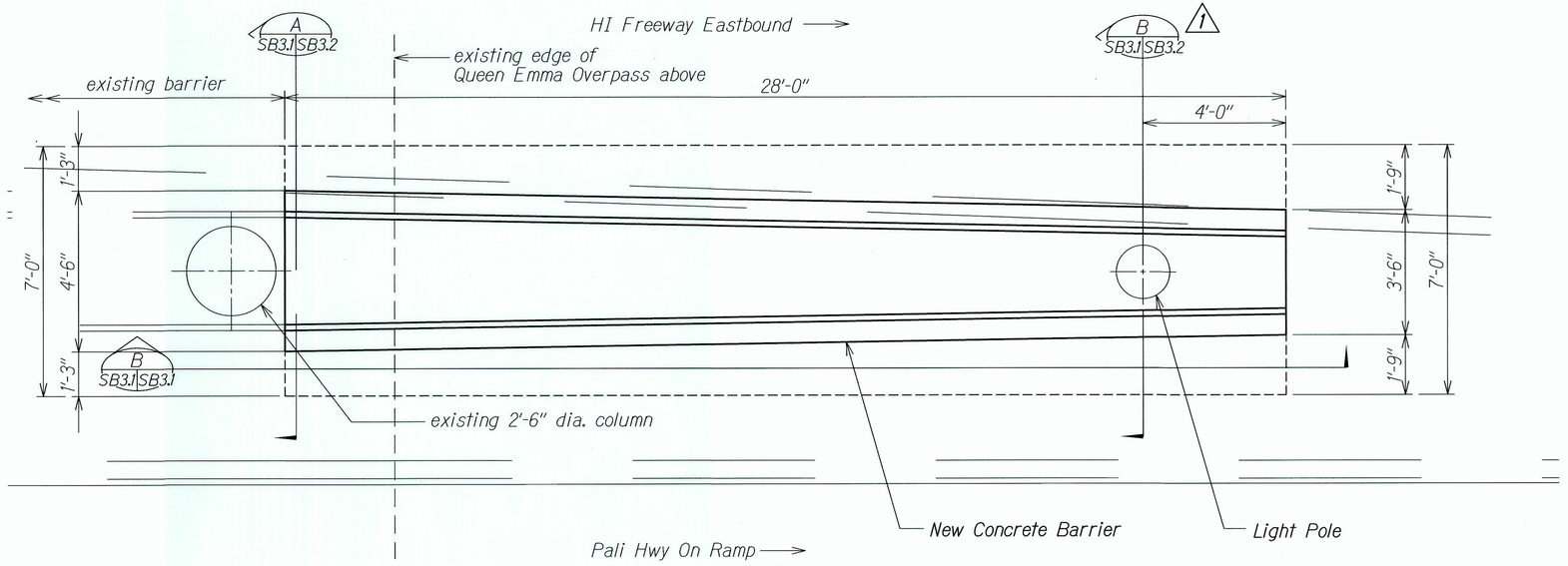
TYPICAL CONCRETE BARRIER REPAIR ELEVATION AND SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SB2.1 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 332	382

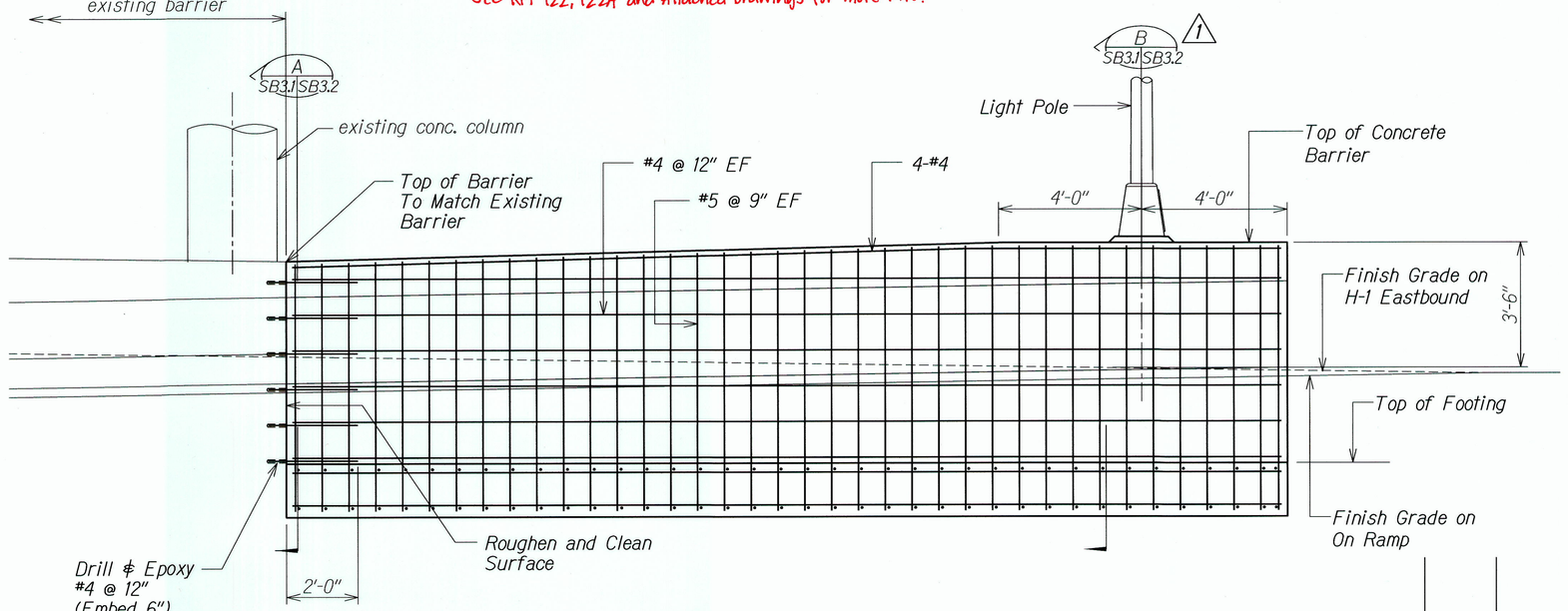


QUEEN EMMA OVERPASS BARRIER

A SB3.1 SB3.1

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

Instead of Three Handhole Boxes Installed at Lightpole #133,
Small Polymer Concrete Pullboxes are Recessed in the Barrier Wall.
See RFI 122, 122A and Attached Drawings for more info.



ELEVATION

B SB3.1 SB3.1

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

Note:
Construction of barrier shall be paid for under concrete for barrier/retaining walls, concrete for barrier/retaining wall footing, reinforcing steel for barrier/retaining walls, and reinforcing steel for barrier/retaining wall footings.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara

KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

ORIGINAL PLAN	STUFF PLOTTED BY	DATE
	SHOWN BY	
NOTE BOOK	TRACED BY	
No.	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRD-SB301 ADD.DWG PLOT TIME: 06-14-13, 10:32 AM)

6/14/13	1	Revise Section Call Out
DATE		REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

QUEEN EMMA BARRIER
PLAN AND SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

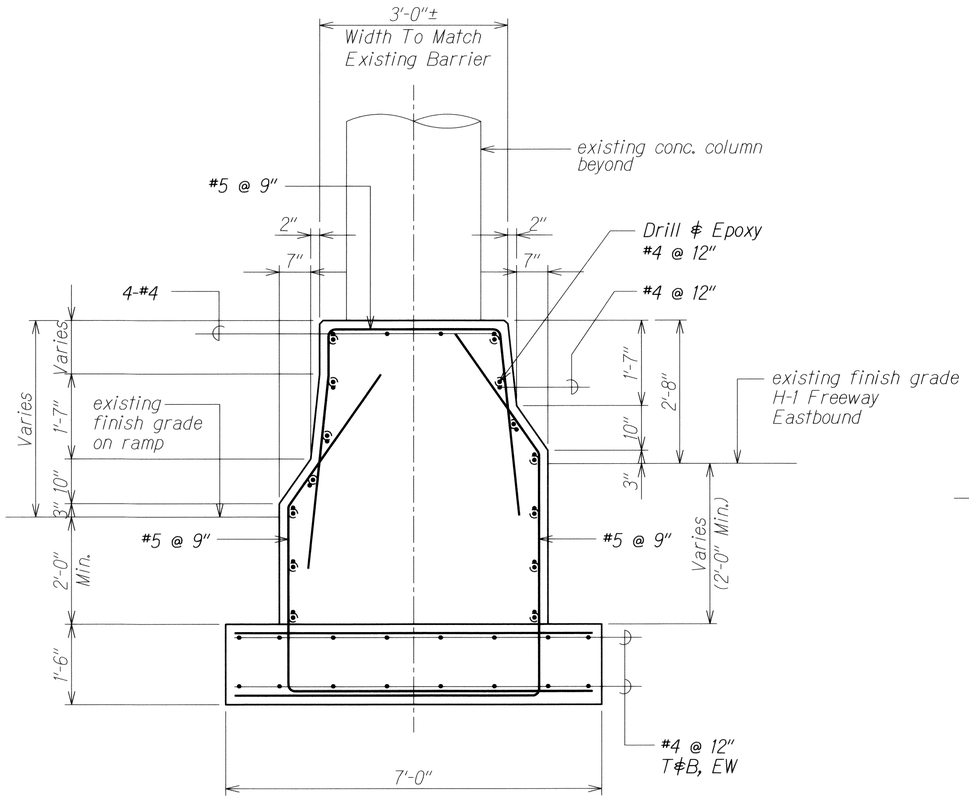
Scale: As Shown Date: April 26, 2013

SHEET No. SB3.1 OF 86 SHEETS

"AS-BUILT"

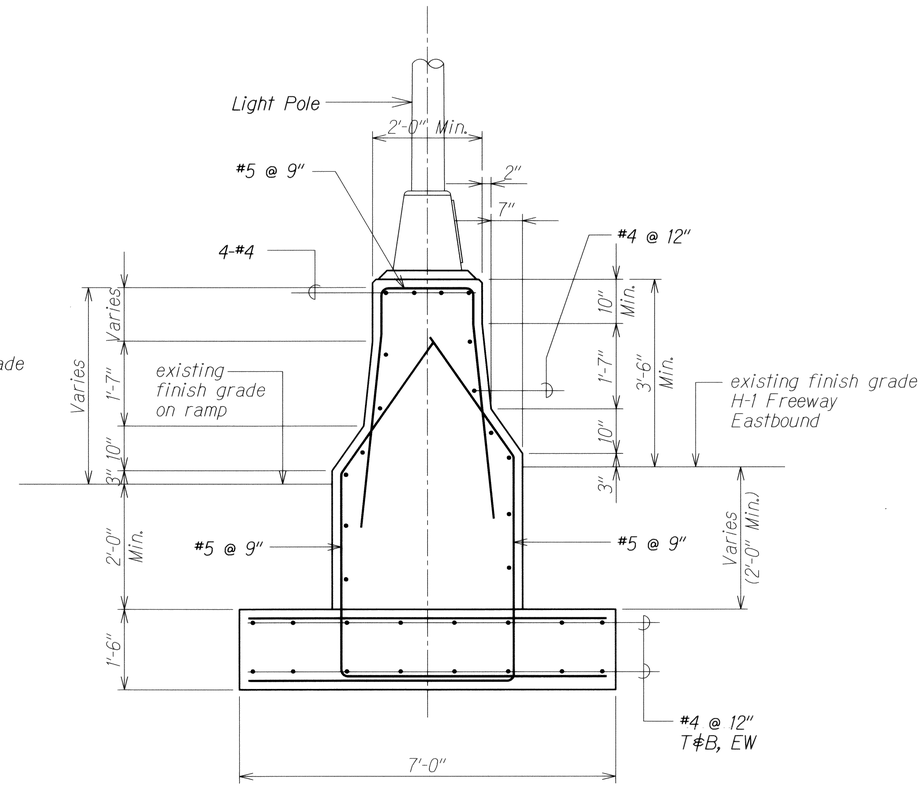
ADD. 332

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 333	382



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

1 Note:
Backfill and concrete curb shall match existing condition.
Concrete shall be 4000 psi.



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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

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

DATE	REVISION
6/14/13	1 Added Note

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

QUEEN EMMA BARRIER SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

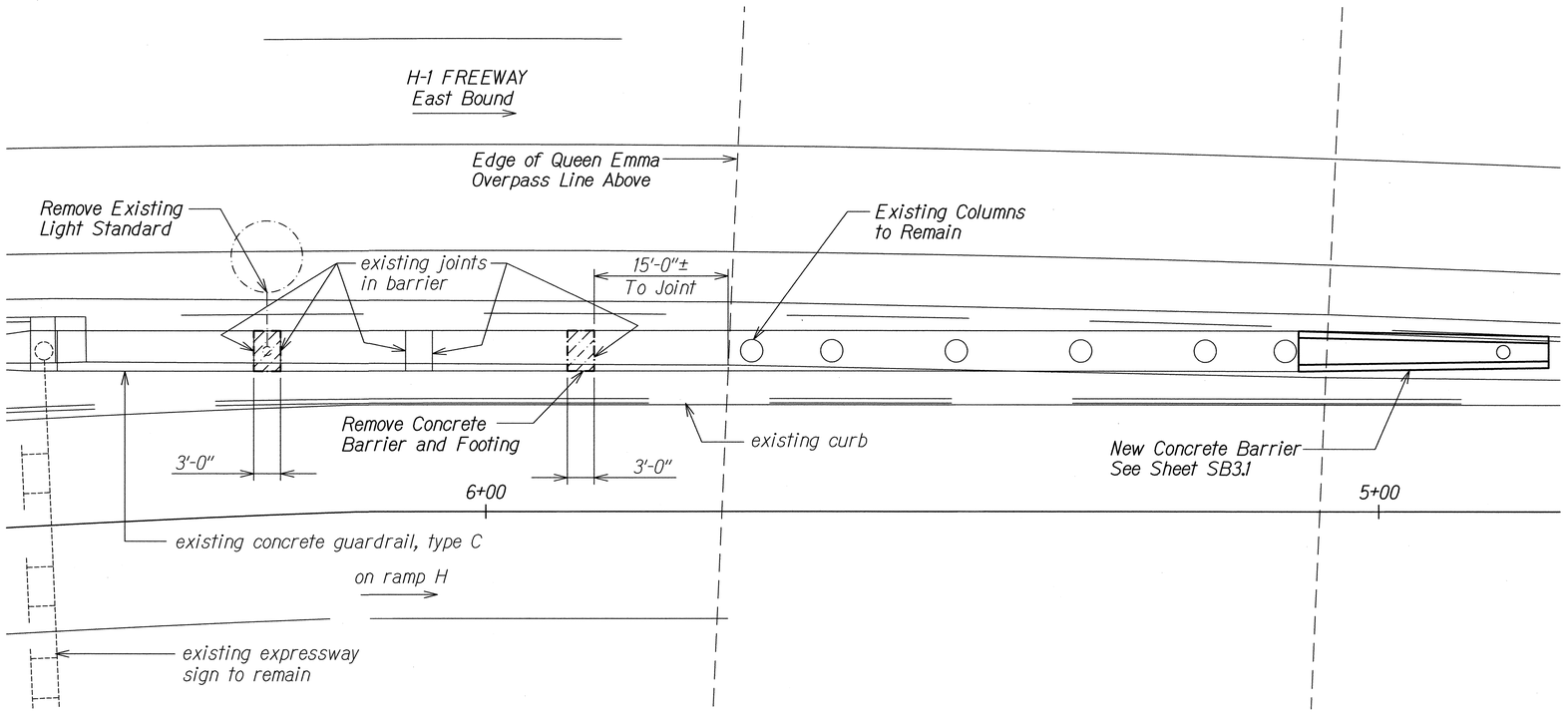
Scale: As Shown Date: April 26, 2013

SHEET No. SB3.2 OF 86 SHEETS

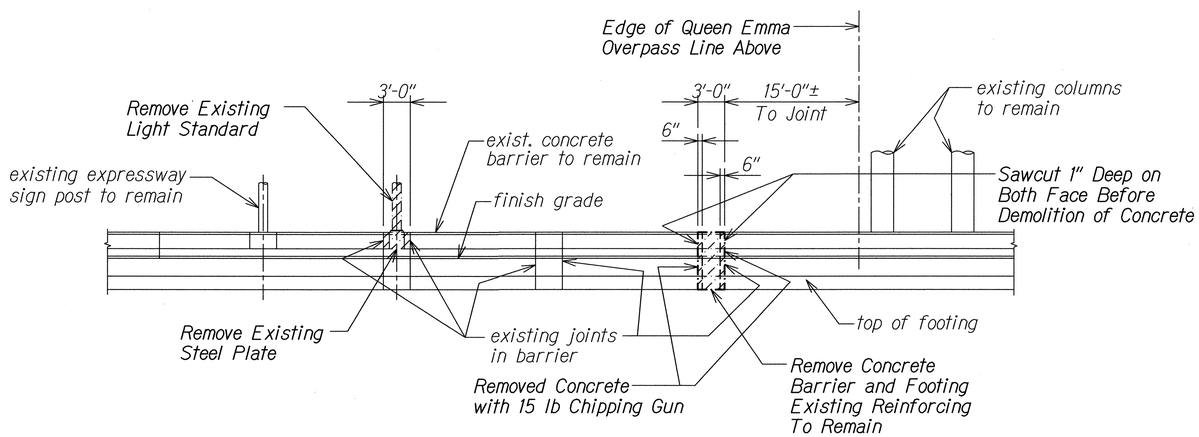
ADD. 333

DRAWING NAME: Z:\00 ONGOING\11-030 HI RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRD-SB301 ADD.DWG PLOT TIME: 06-14-13, 10:32 AM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	334	382



DEMO PLAN
Scale: 1/8" = 1'-0"



DEMO ELEVATION
Scale: 1/8" = 1'-0"

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

DRAWING NAME: Z:\OD ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HIRD-SB401.DWG PLOT TIME: 05-17-13, 2:48 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

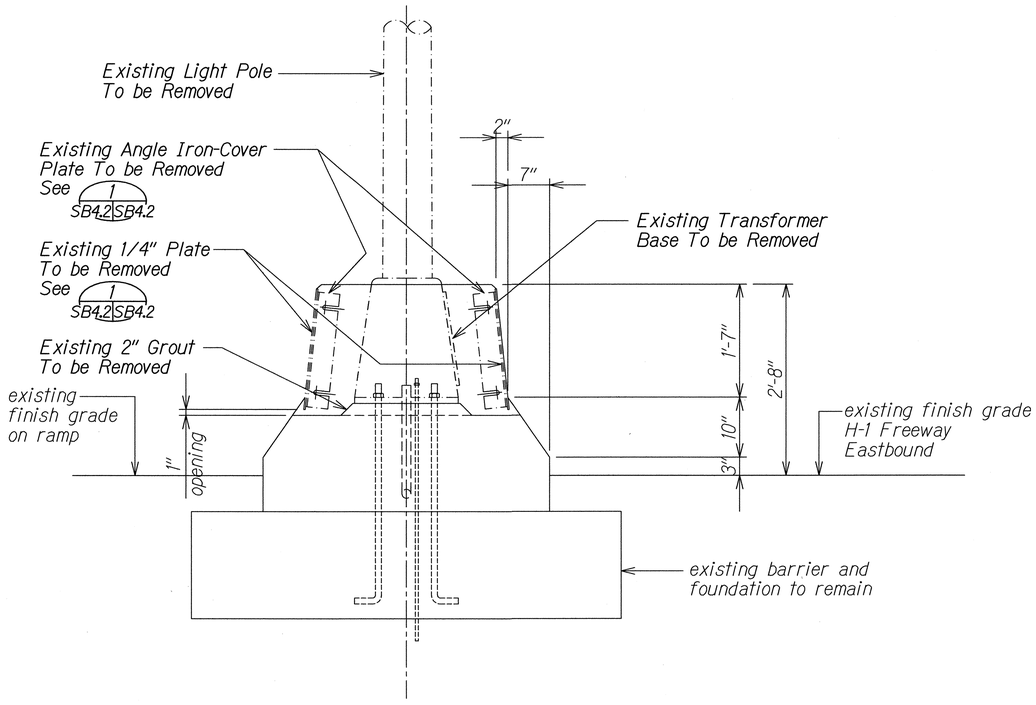
QUEEN EMMA RELOCATE EXIST. LIGHT POLE
DEMO PLAN AND ELEVATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

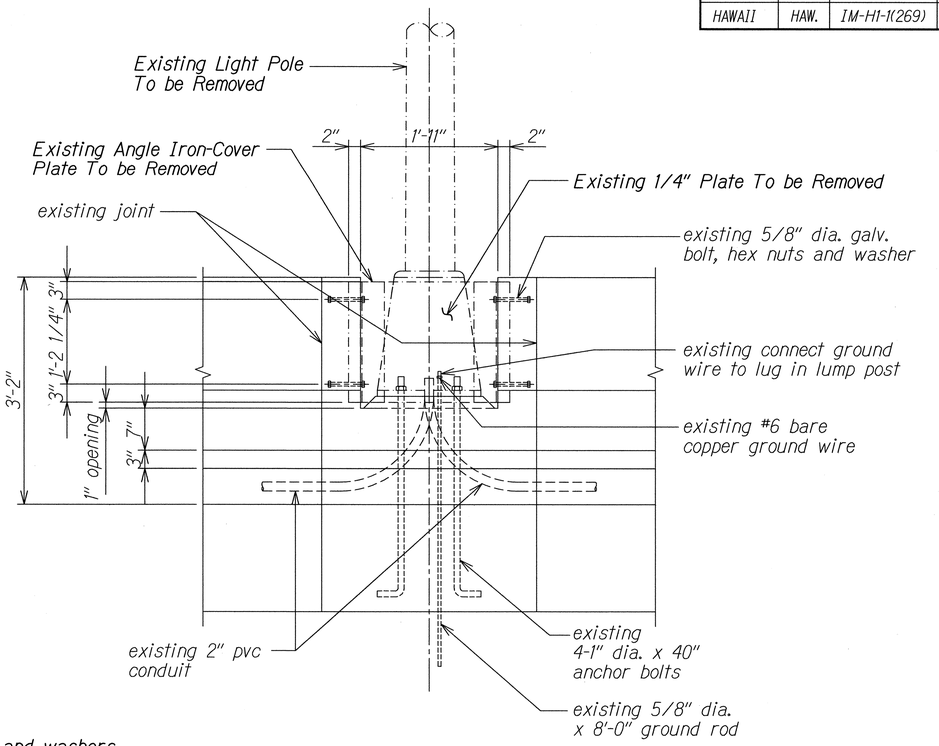
Scale: As Shown Date: April 26, 2013

SHEET No. SB4.1 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	335	382



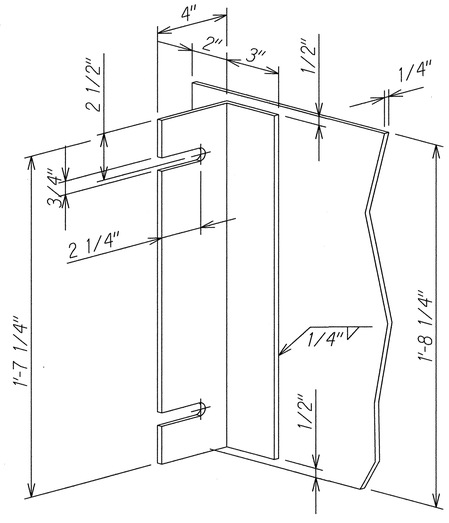
SECTION A
Scale: 1" = 1'-0" SB4.1 SB4.2



SECTION B
Scale: 1" = 1'-0" SB4.1 SB4.2

Notes:

1. All existing bolts, nuts, and washers shall be removed.
2. Anchors bolts may be left in place provided all of the bolts are buried in concrete with a minimum of 2" clear to any edge of concrete. Any anchor bolts left in place shall be cleaned of all rust and coated with Cortec MCI 2020 Corrosion Inhibitor or appoved equal.
3. Follow all manufacturer's recommendations for the corrosion inhibitor.



ANGLE IRON-COVER PLATE DETAIL
Not to Scale 1 SB4.2 SB4.2

DRAWING NAME: Z:\OO_ONCOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\H1RD-SB402.DWG PLOT TIME: 05-17-13, 2:49 PM)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

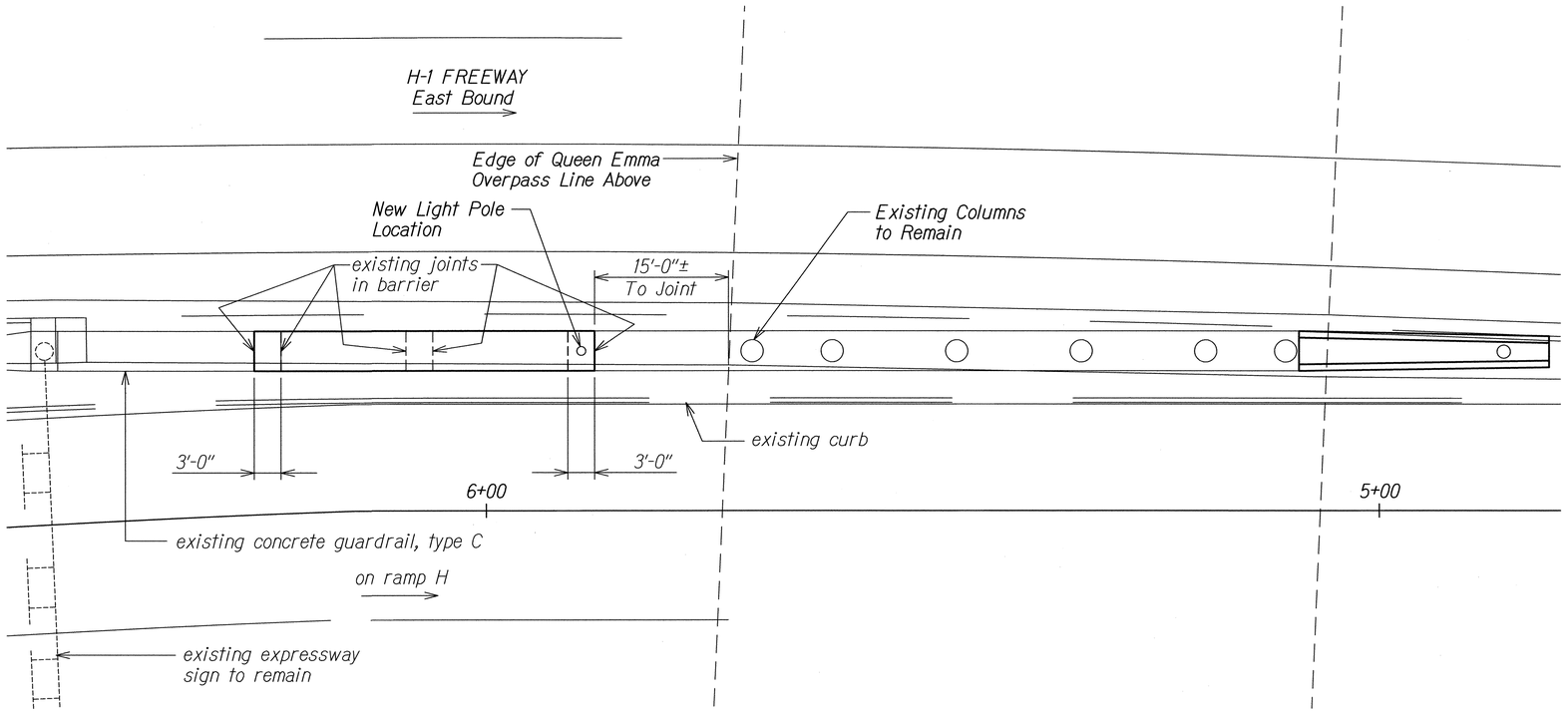
QUEEN EMMA RELOCATE EXIST. LIGHT POLE DEMO SECTIONS AND DETAIL

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

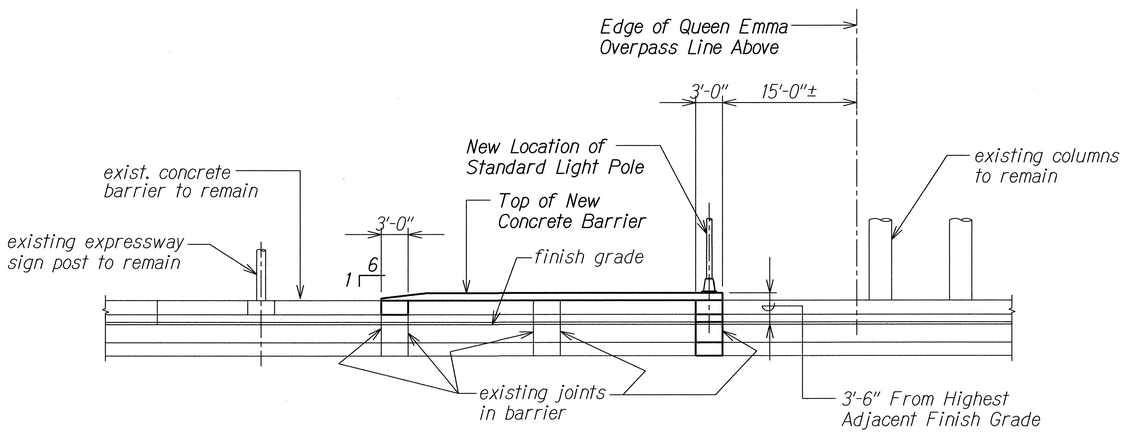
Scale: As Shown Date: April 26, 2013

SHEET No. SB4.2 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	336	382



LAYOUT PLAN
Scale: 1/8" = 1'-0"



ELEVATION
Scale: 1/8" = 1'-0"

Notes:
1. Face of new barrier shall match the face of the existing barrier.
2. See Electrical Plans for light pole details.
3. Construction of barrier shall be paid for under concrete for barrier/retaining walls, concrete for barrier/retaining wall footing, reinforcing steel for barrier/retaining walls, and reinforcing steel for barrier/retaining wall footings.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

QUEEN EMMA RELOCATE EXIST. LIGHT POLE
LAYOUT PLAN AND ELEVATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

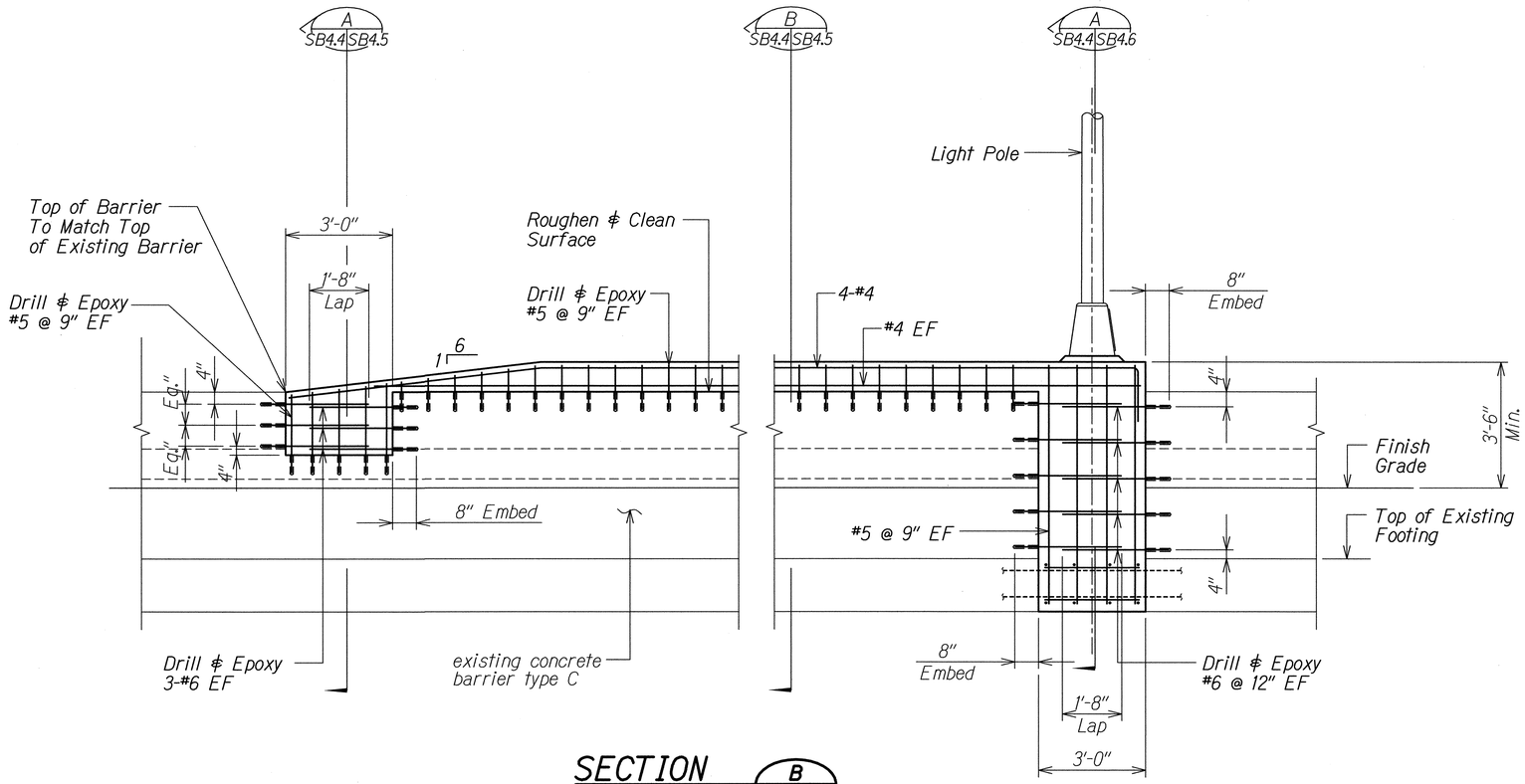
Scale: As Shown Date: April 26, 2013

SHEET No. SB4.3 OF 86 SHEETS

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRD-SB403.DWG PLOT TIME: 05-17-13, 2:49 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	337	382



SECTION B
Scale: 1/2" = 1'-0" SB4.4 SB4.4

DRAWING NAME: Z:\OO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\H1RD-SB404.DWG PLOT TIME: 05-17-13, 2:51 PM

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

QUEEN EMMA RELOCATE EXIST. LIGHT POLE

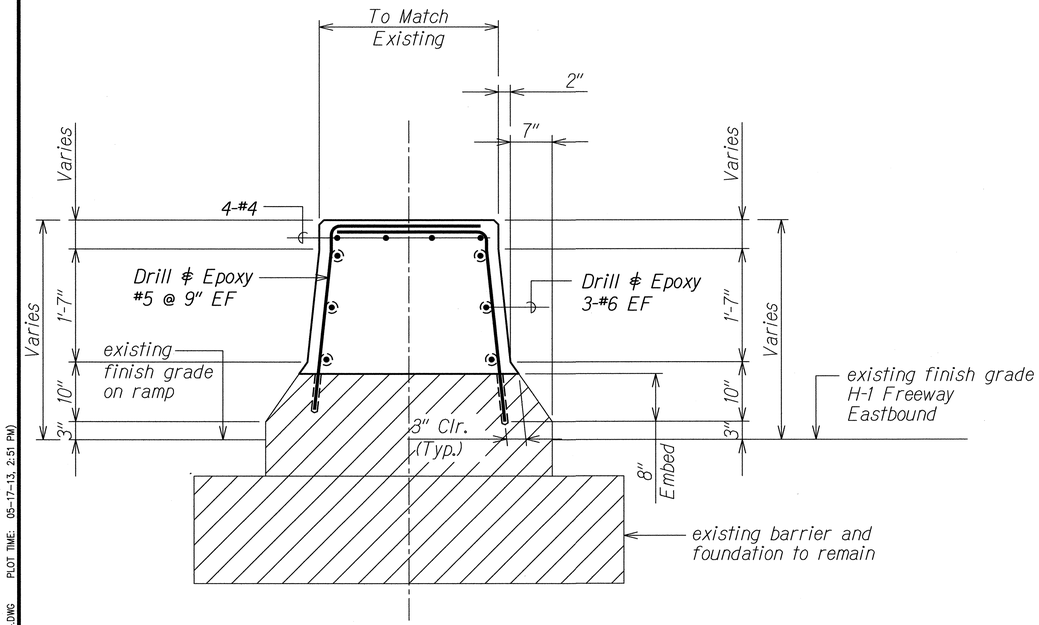
SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

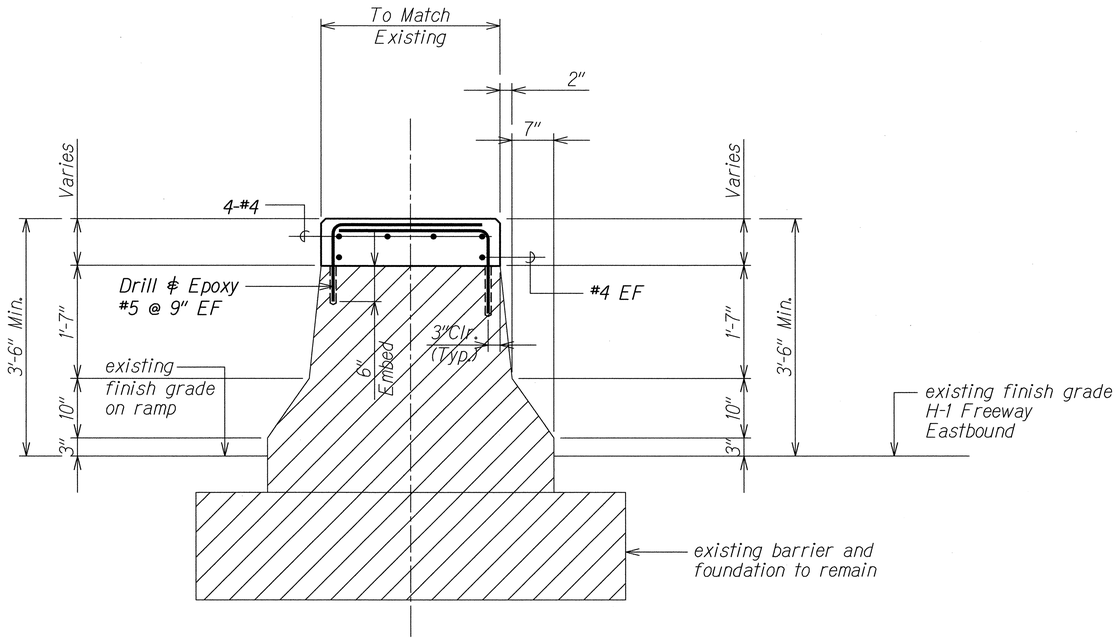
Scale: As Shown Date: April 26, 2013

SHEET No. SB4.4 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	338	382



SECTION A
Scale: 3/4" = 1'-0"
S4.4 | S4.5



SECTION B
Scale: 3/4" = 1'-0"
S4.4 | S4.5

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

QUEEN EMMA RELOCATE EXIST. LIGHT POLE SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

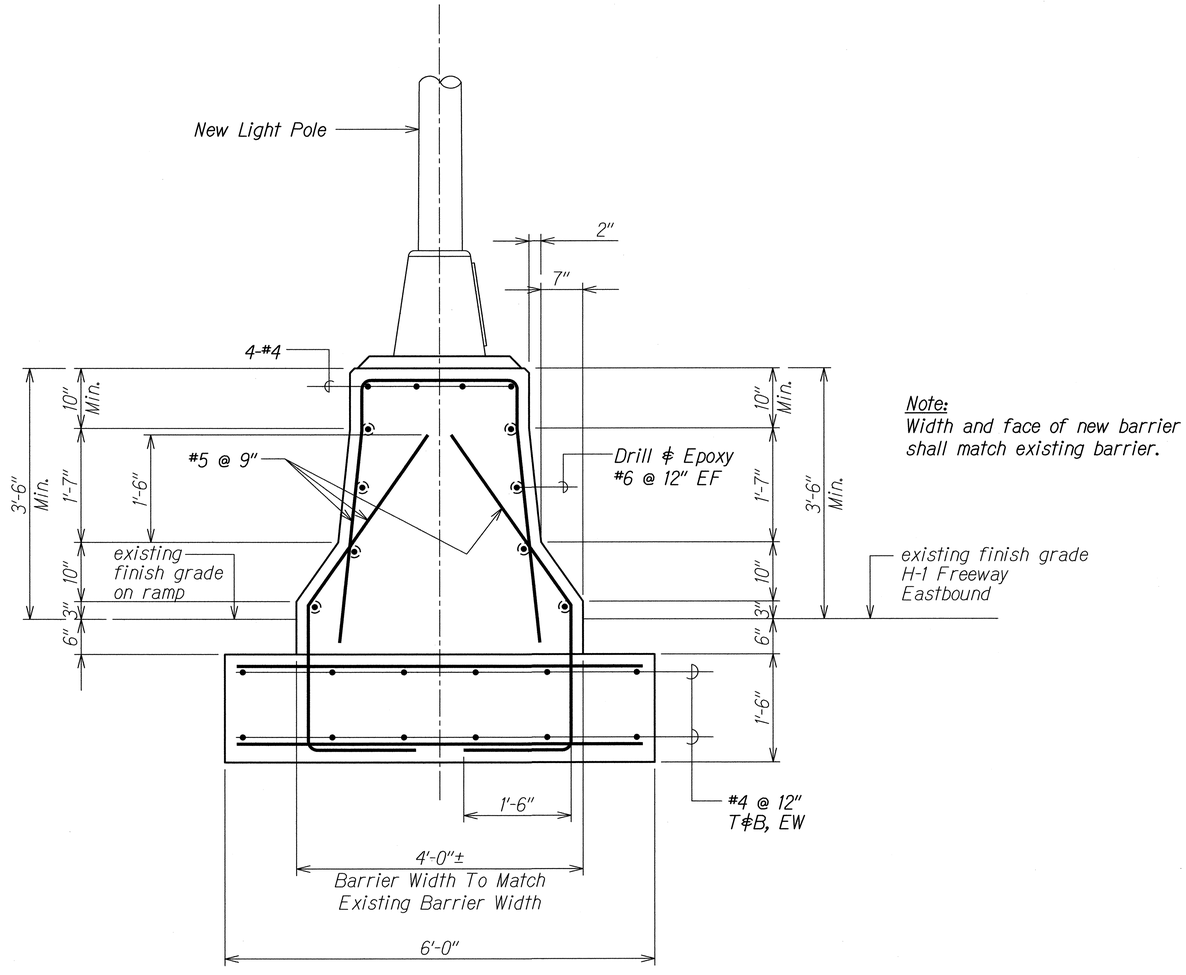
SHEET No. SB4.5 OF 86 SHEETS

338

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

DRAWING NAME: Z:\OO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRD-SB404.DWG PLOT TIME: 05-17-13, 2:51 PM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	339	382



Note:
Width and face of new barrier shall match existing barrier.

SECTION A
Scale: 3/4" = 1'-0"
S4.4 | S4.6

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRD-SB404.DWG PLOT TIME: 05-17-13, 2:51 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

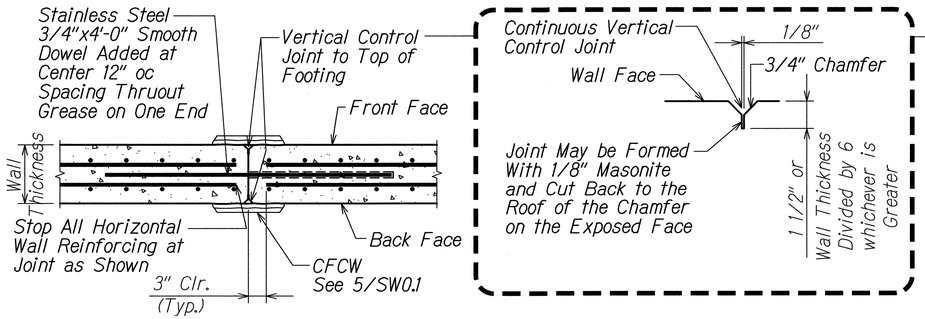
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

QUEEN EMMA RELOCATE EXIST. LIGHT POLE
SECTION
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SB4.6 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	340	382

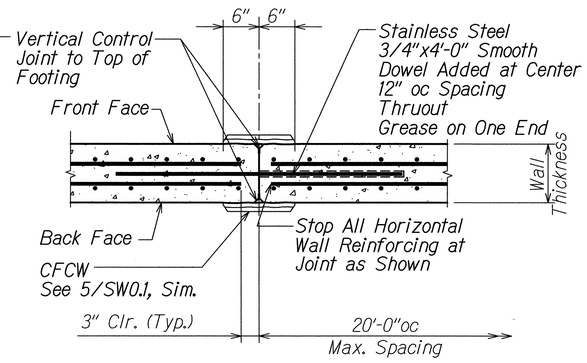


DOUBLE CURTAIN

CONSTRUCTION JOINT AT CONTROL JOINT LOCATION

Scale: 1" = 1'-0"

1 SW0.1 | SW0.1

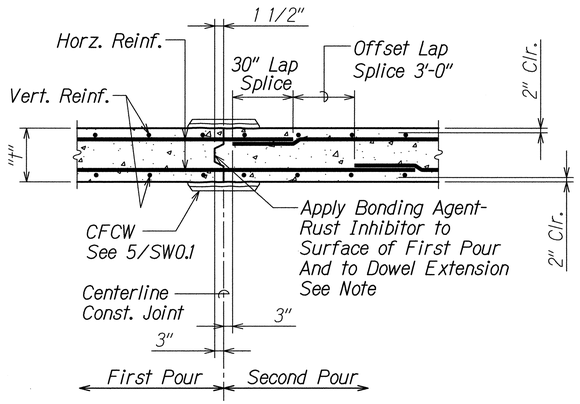


DOUBLE CURTAIN

TYPICAL WALL VERTICAL CONTROL JOINT DETAIL

Scale: 1" = 1'-0"

2 SW0.1 | SW0.1



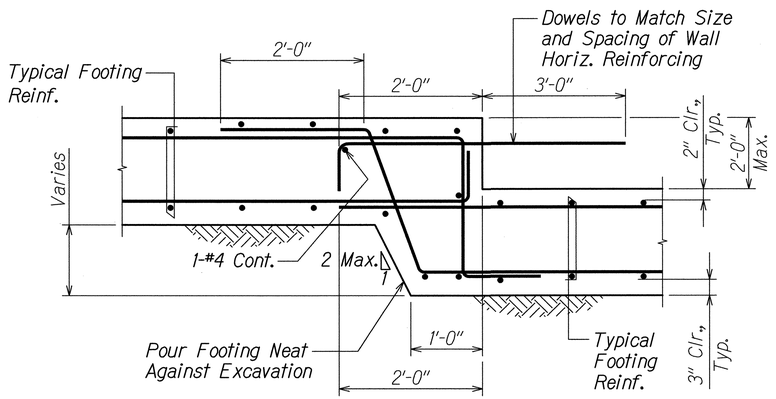
DOUBLE CURTAIN

Note: Use 1 1/2" Deep X "t"/3 Keys.

TYPICAL WALL VERTICAL CONSTRUCTION JOINT DETAIL

Scale: 1" = 1'-0"

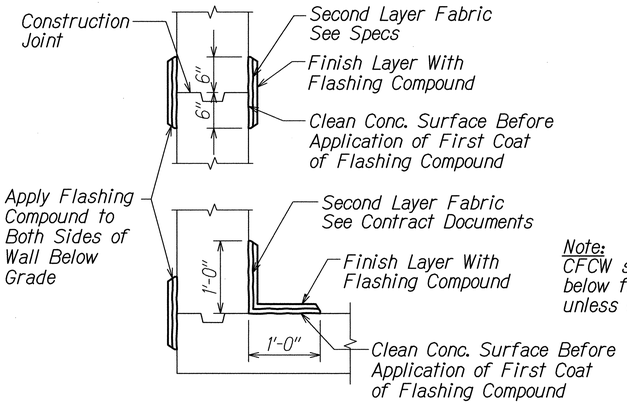
3 SW0.1 | SW0.1



TYPICAL WALL STEP FOOTING DETAIL

Scale: 1" = 1'-0"

4 SW0.1 | SW0.1

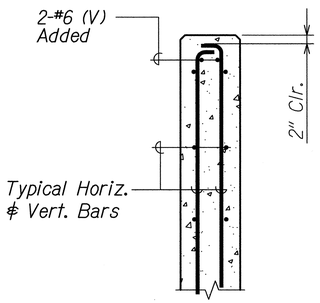


Note: CFCW shall be applied below finish grade only unless otherwise noted.

TYP. CONTINUOUS FLASHING COMPOUND WATERPROOFING (CFCW DETAILS)

Scale: 1" = 1'-0"

5 SW0.1 | SW0.1

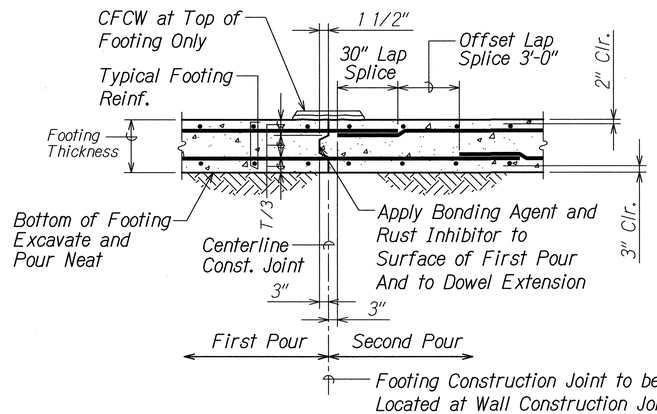


DOUBLE CURTAIN

CONCRETE WALL ENDS

Scale: 1" = 1'-0"

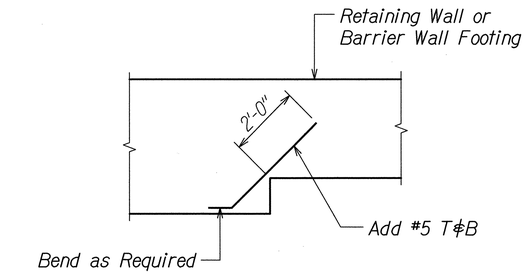
6 SW0.1 | SW0.1



TYPICAL FOOTING CONSTRUCTION JOINT DETAIL

Scale: 1" = 1'-0"

7 SW0.1 | SW0.1



TYPICAL FOOTING CORNER PLAN DETAIL

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

8 SW0.1 | SW0.1

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL RETAINING WALL DETAILS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

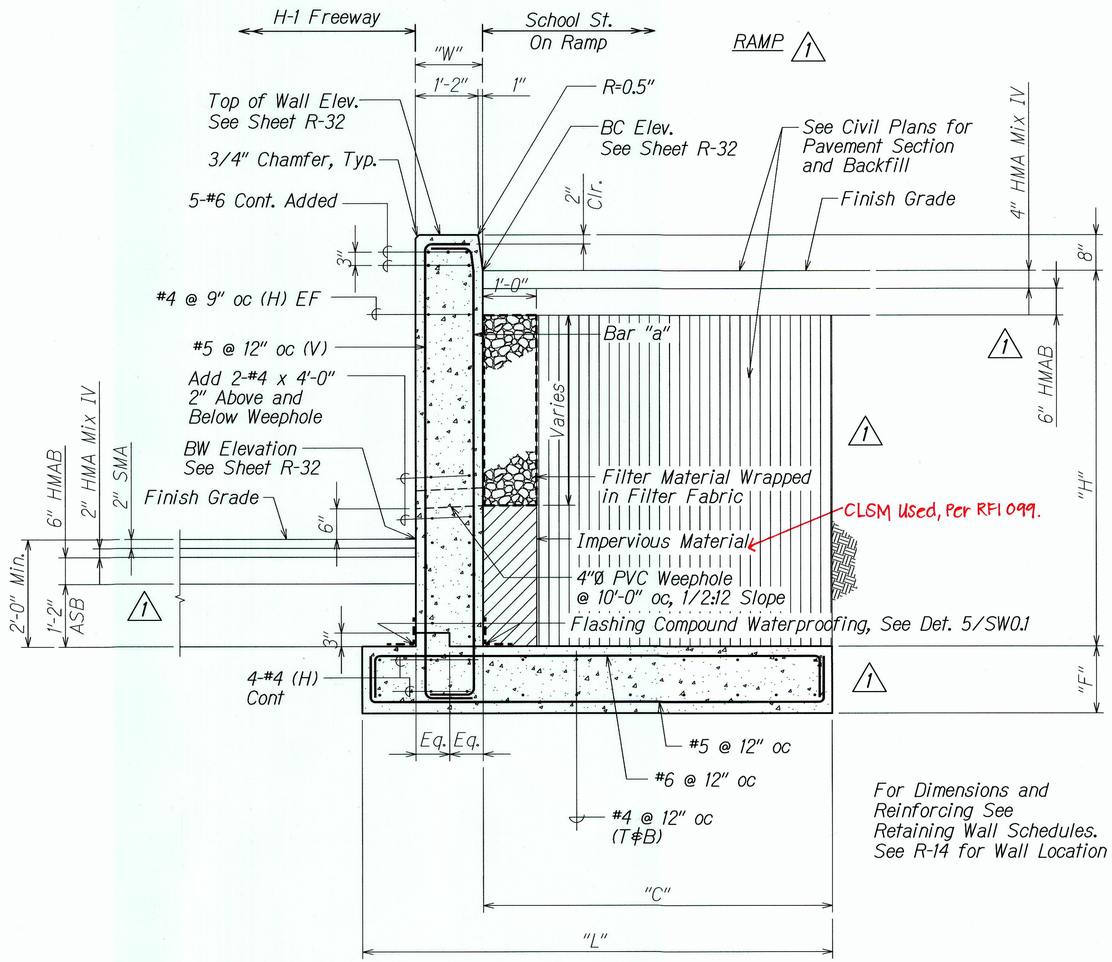
Scale: As Shown Date: April 26, 2013

SHEET No. SW0.1 OF 86 SHEETS

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

DRAWING NAME: Z:\00_ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HIRE-SW001.DWG PLOT TIME: 05-17-13, 2:51 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 341	382



For Dimensions and Reinforcing See Retaining Wall Schedules. See R-14 for Wall Location

DIMENSIONS AND REINFORCING STEEL FOR RETAINING WALL 1

STEM DESIGN HEIGHT - "H"	≤ 2'-0"	≤ 4-0"	≤ 6'-0"
FOOTING WIDTH - "L"	3'-6"	4'-3"	5'-3"
HEEL - "C"	1'-6"	1'-9"	2'-3"
STEM THICKNESS (AT BASE) - "W"	1'-3"	1'-3"	1'-3"
FOOTING DEPTH - "F"	1'-3"	1'-3"	1'-3"
KEY DEPTH - "D"	-	-	-
"a" BARS	#5 @ 12"	#6 @ 12"	#6 @ 12"

TYPICAL SCHOOL STREET RETAINING WALL 1 SECTION

A SW1.1 | SW1.1

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

SURVEY PLOTTED BY _____ DATE
DRAWN BY "
TRACED BY "
DESIGNED BY "
QUANTITIES BY "
CHECKED BY "

ORIGINAL PLAN
NOTE BOOK
No. _____

DRAWING NAME: Z:\00 ONGOING\11-030 HI RESURFACING LIKELIKE TO PUNCHBOWL\CAD\08-14-13 100%\HIRE-SW101 ADD.DWG PLOT TIME: 08-14-13, 10:32 AM

DATE	REVISION
6/14/13	1 Revise Detail

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL SCHOOL STREET RETAINING WALL 1 SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

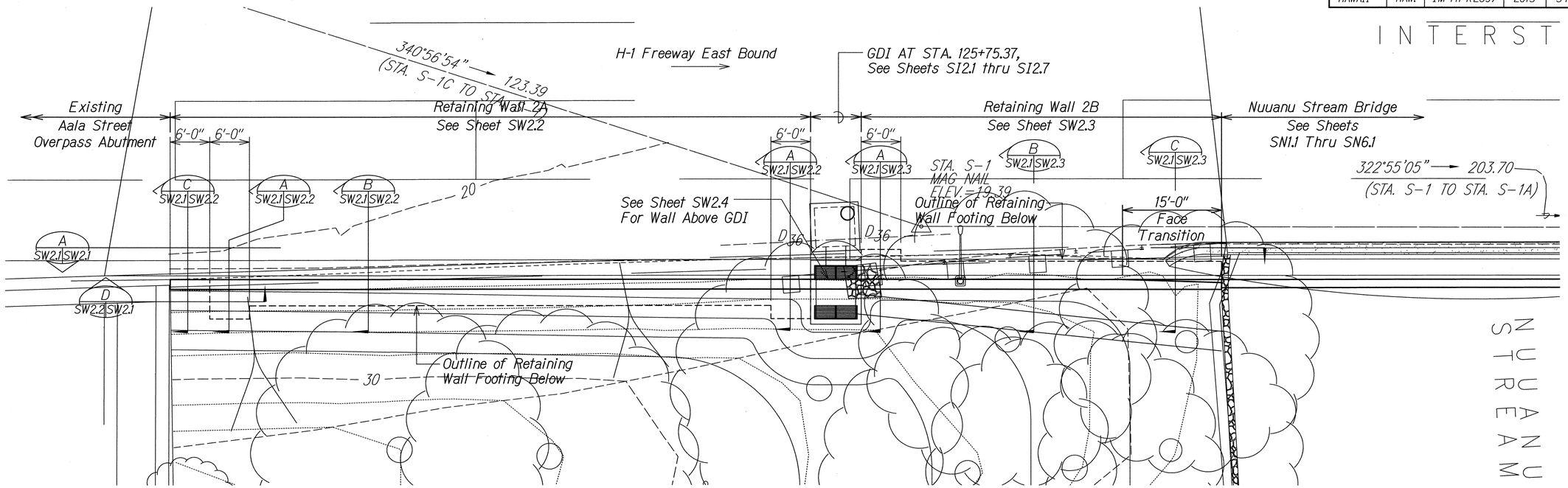
SHEET No. SW1.1 OF 86 SHEETS

"AS-BUILT"

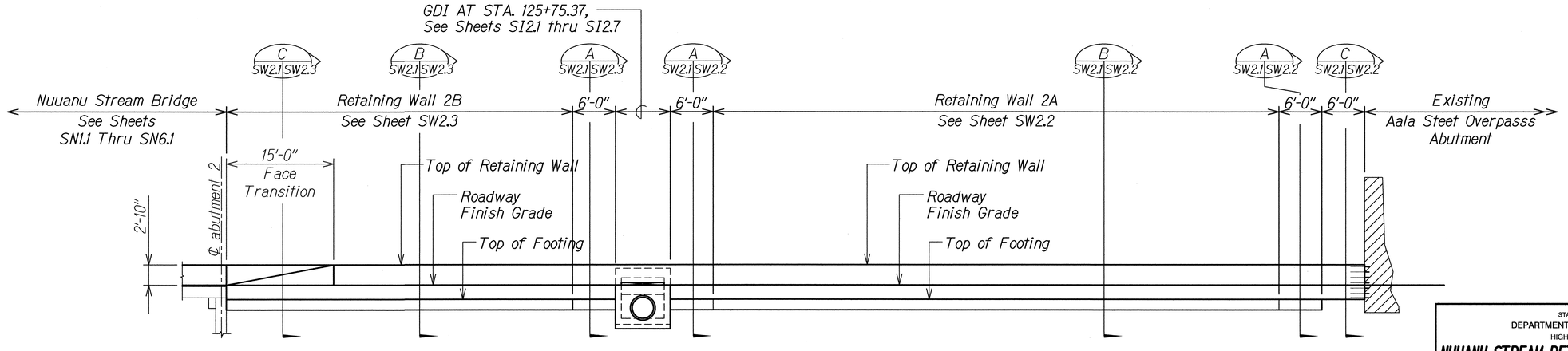
ADD. 341

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(269)	2013	342	382

INTERST



PLAN
Scale: 1/8" = 1'-0"



ELEVATION A SW2.1|SW2.1
Scale: 1/8" = 1'-0"

Note:
See Civil Plans for wall elevations and finish grade.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM RETAINING WALLS 2A AND 2B
PLAN AND ELEVATION
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

Scale: As Shown Date: April 26, 2013

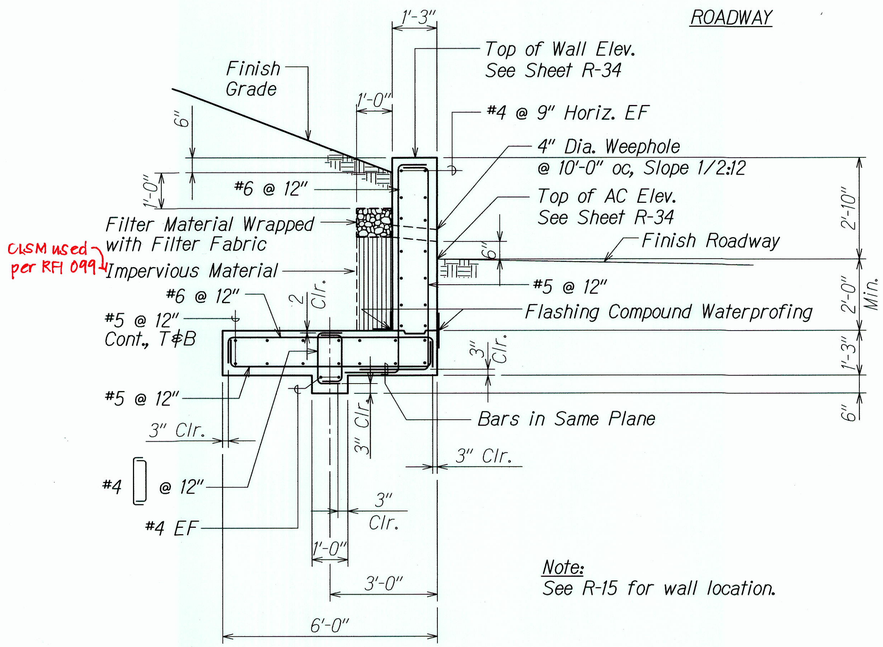
SHEET No. SW2.1 OF 86 SHEETS

342

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%HIRE-SW201.DWG PLOT TIME: 05-17-13, 2:52 PM

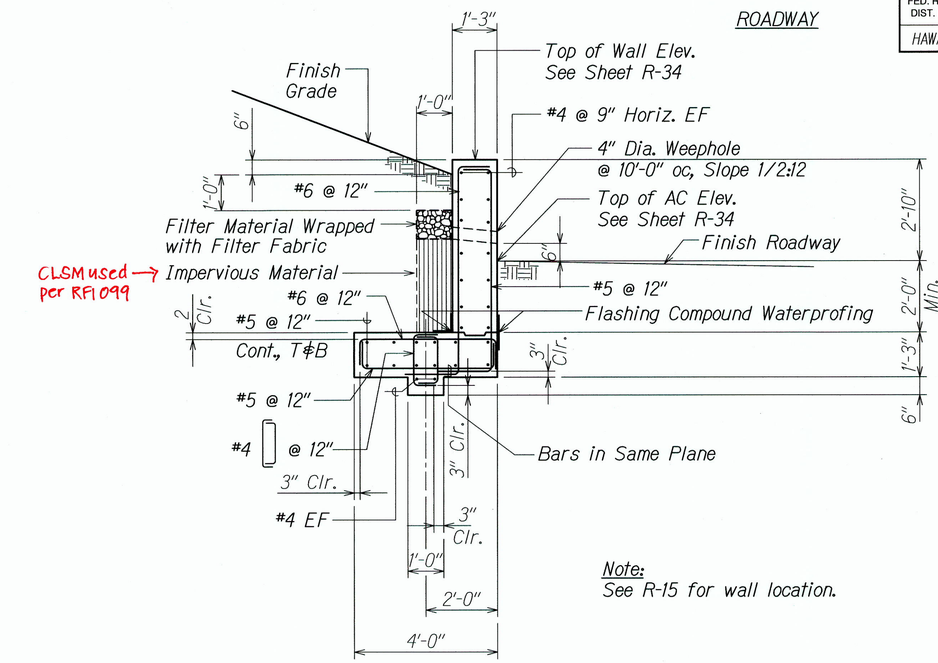
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	343	382



NUUANU STREAM RETAINING WALL 2A SECTION (A)

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

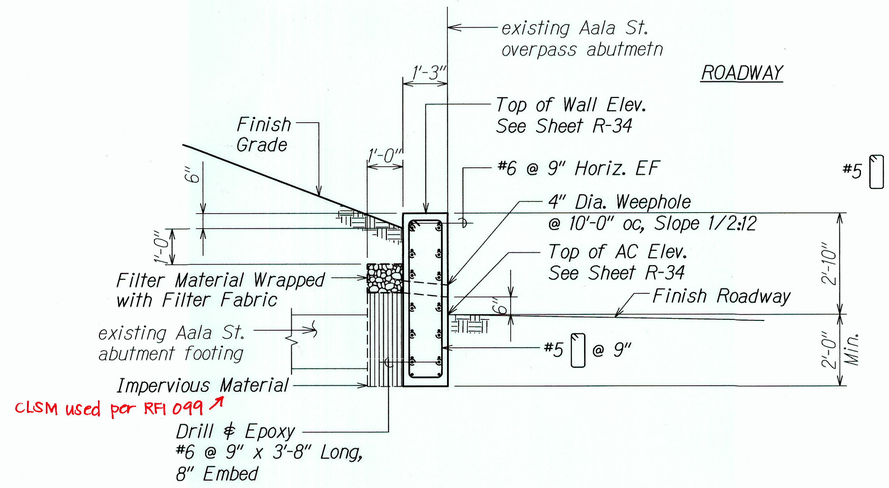
SW2.1 | SW2.2



NUUANU STREAM RETAINING WALL 2A TYPICAL SECTION (B)

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

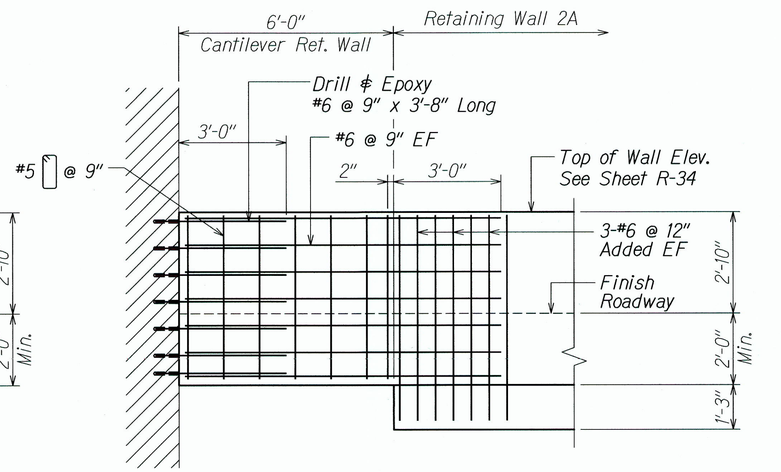
SW2.1 | SW2.2



NUUANU STREAM RETAINING WALL 2A AT CANTILEVER WALL - SECTION (C)

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

SW2.1 | SW2.2



NUUANU STREAM RETAINING WALL 2A AT CANTILEVER WALL - ELEVATION (D)

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

SW2.2 | SW2.2

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL NUUANU STREAM RETAINING WALL 2A SECTIONS AND ELEVATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown — Date: April 26, 2013

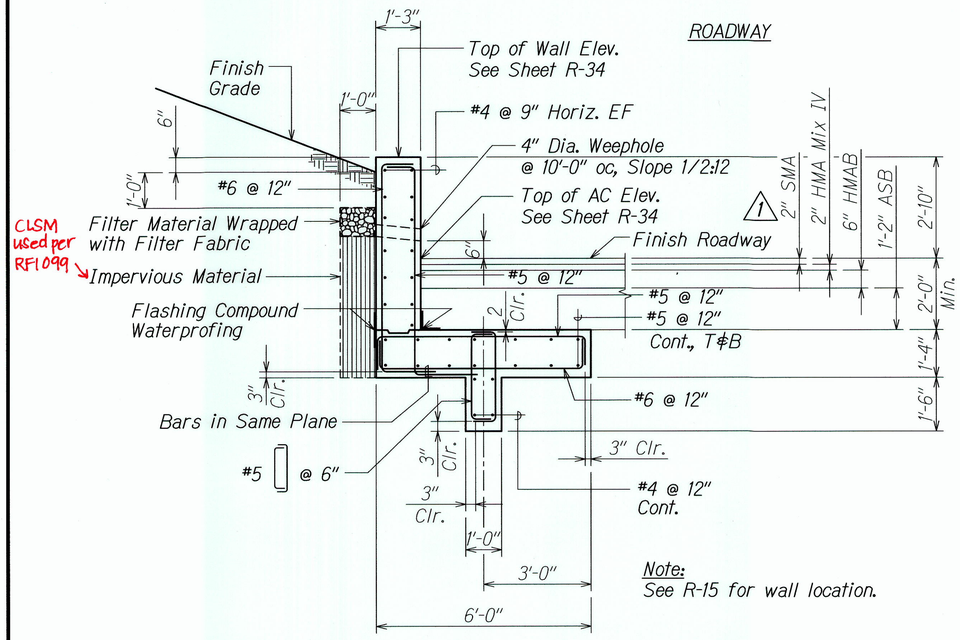
SHEET No. SW2.2 OF 86 SHEETS

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

DRAWING NAME: Z:\00_ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HIRE-SW202.DWG PLOT TIME: 05-17-13, 2:52 PM)

"AS-BUILT"

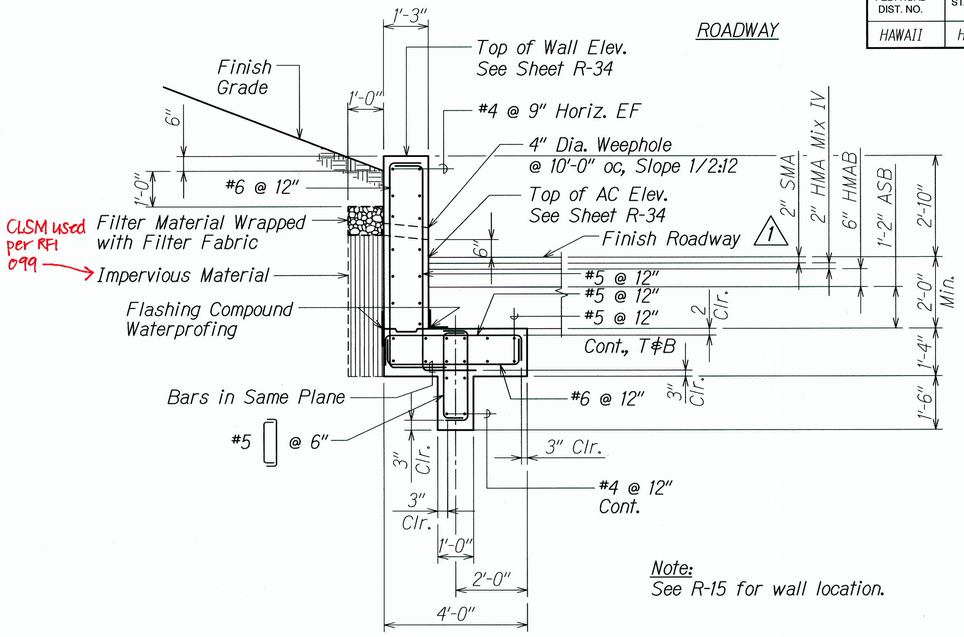
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 344	382



NUUANU STREAM RETAINING WALL 2B SECTION A

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

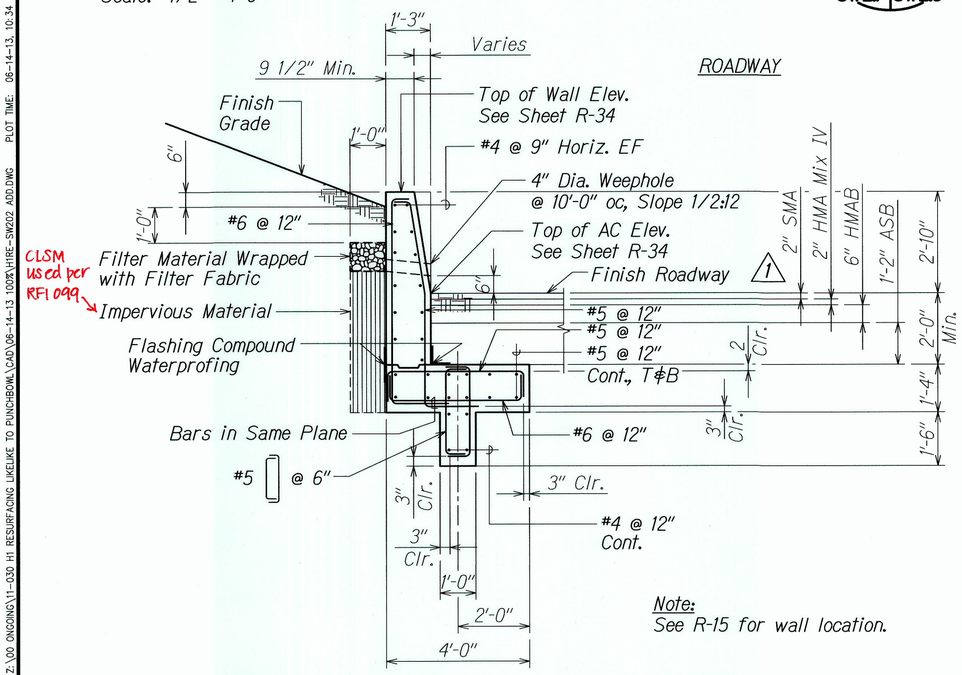
SW2.1 | SW2.3



NUUANU STREAM RETAINING WALL 2B TYPICAL SECTION B

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

SW2.1 | SW2.3



NUUANU STREAM RETAINING WALL 2B AT FACE TRANSITION - SECTION C

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

SW2.1 | SW2.3

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRE-SW202 ADD.DWG PLOT TIME: 06-14-13, 10:34 AM)

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL NUUANU STREAM RETAINING WALL 2B SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

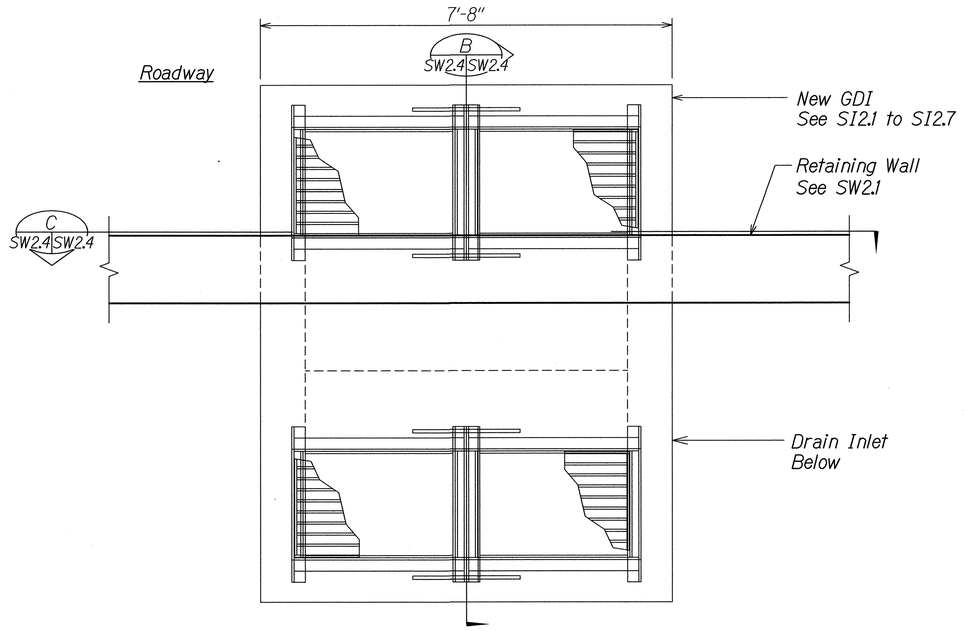
Scale: As Shown — Date: April 26, 2013

SHEET No. SW2.3 OF 86 SHEETS

"AS-BUILT"

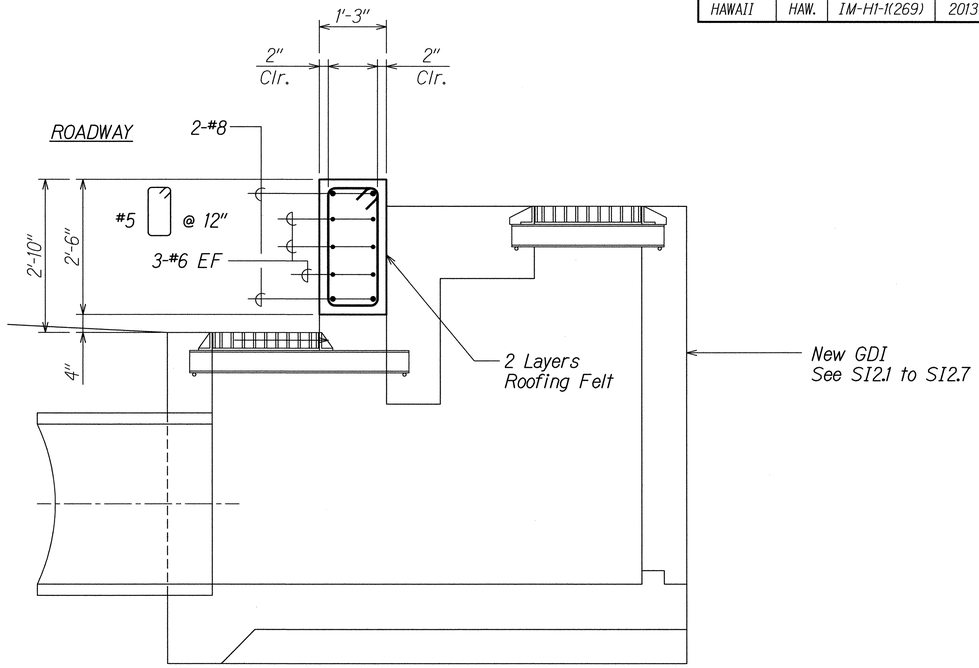
ADD. 344

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	345	382



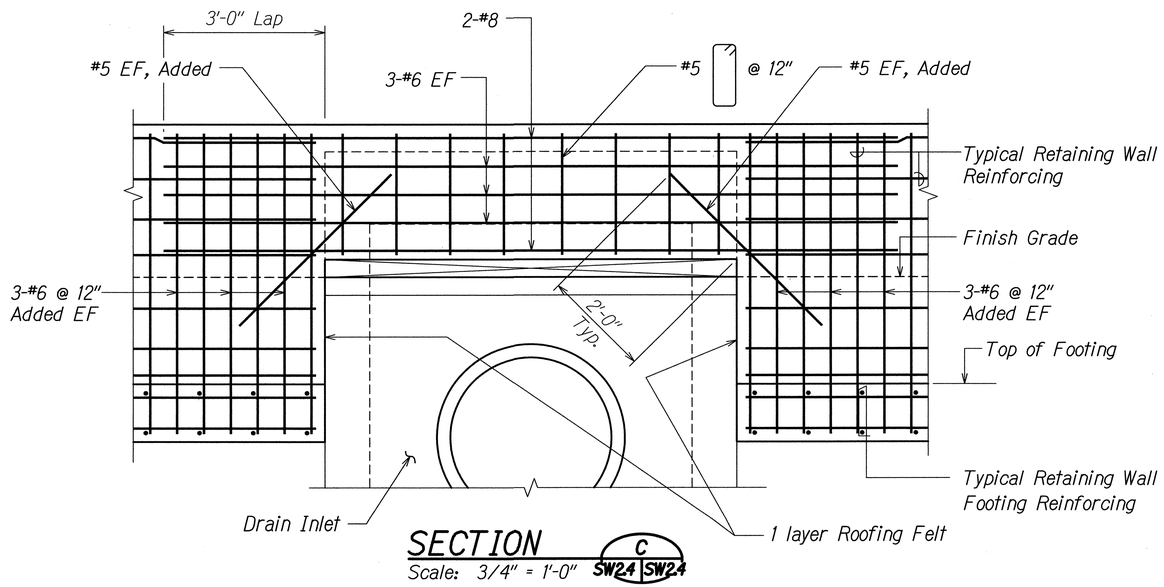
RETAINING WALL 2 ABOVE GDI AT STA. 125+75.37 - PLAN (A SW2.4 SW2.4)

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



SECTION (B SW2.4 SW2.4)

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



SECTION (C SW2.4 SW2.4)

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

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

DRAWING NAME: Z:\OO ONGOING\11-030 HI RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100K\HIRE-SW204.DWG PLOT TIME: 05-17-13, 2:53 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

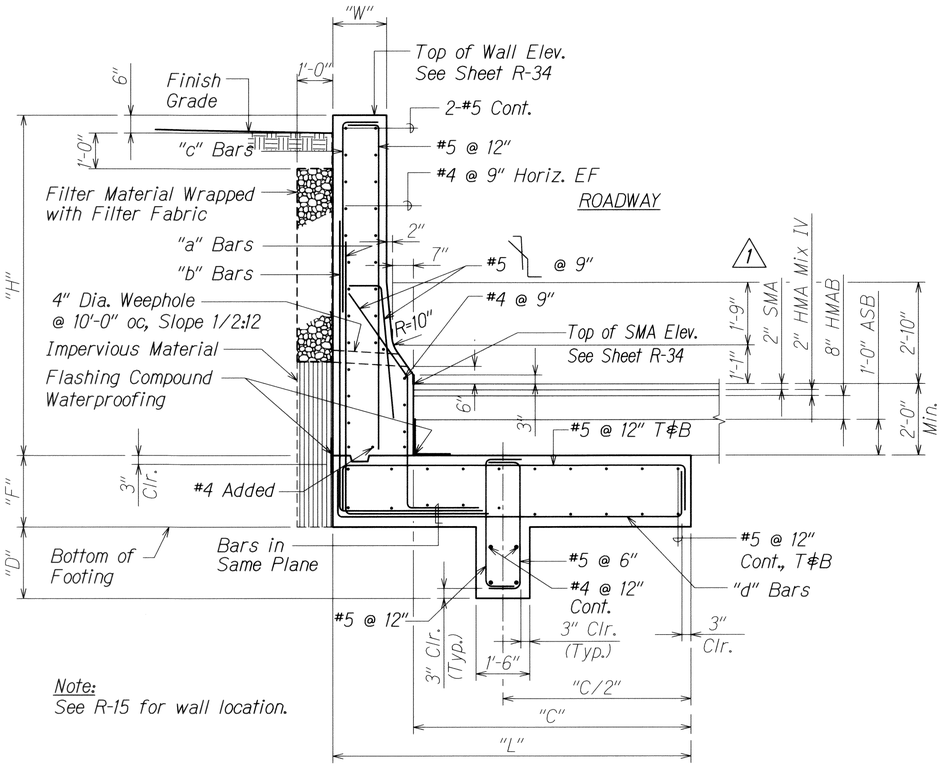
RETAINING WALL 2 ABOVE GDI PLAN AND SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SW2.4 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 346	382

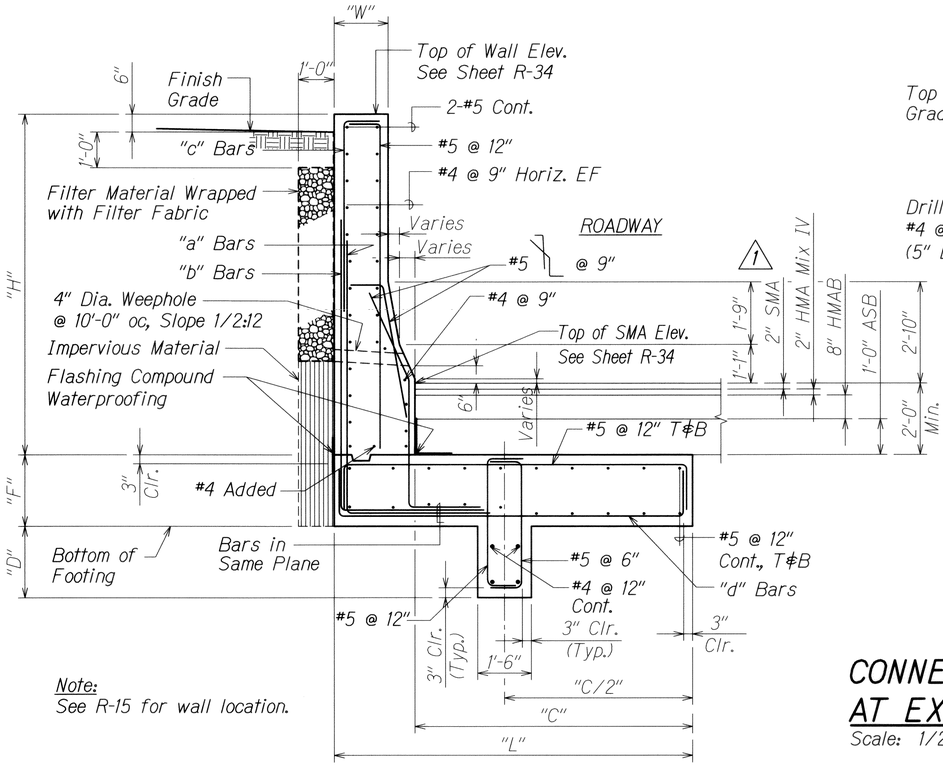


Note:
See R-15 for wall location.

NUUANU STREAM
RETAINING WALL 3 TYPICAL SECTION A

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

SW2.5 | SW2.5

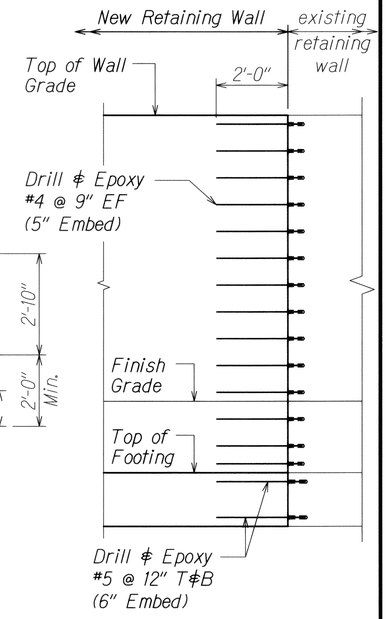


Note:
See R-15 for wall location.

NUUANU STREAM RETAINING
WALL 3 AT FACE TRANSITION - SECTION B

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

SW2.5 | SW2.5

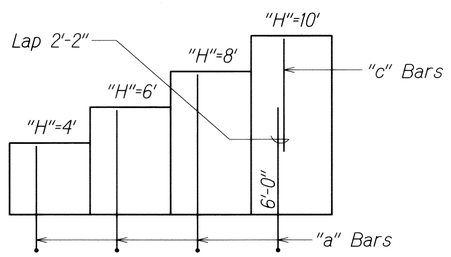


CONNECTION DETAIL AT EXISTING WALL C

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

SW2.5 | SW2.5

DIMENSIONS AND REINFORCING STEEL FOR RETAINING WALL 3			
STEM DESIGN HEIGHT - "H"	≤ 6'-0"	≤ 8'-0"	≤ 10'-0"
FOOTING WIDTH - "L"	4'-6"	7'-0"	8'-6"
HEEL - "C"	3'-6"	5'-6"	7'-0"
STEM THICKNESS - "W"	1'-0"	1'-6"	1'-6"
FOOTING DEPTH - "F"	1'-7"	1'-7"	1'-7"
KEY DEPTH - "D"	-	1'-0"	2'-0"
"a" BARS	#6 @ 12"	#6 @ 12"	#6 @ 12"
"b" BARS	-	-	-
"c" BARS	-	-	#5 @ 12"
"d" BARS	#6 @ 12"	#6 @ 12"	#6 @ 12"



VERTICAL REINFORCING STEEL ARRANGEMENT D

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

SW2.5 | SW2.5

Notes:

1. Spacing of "a" bars and "b" bars given in table is at base of stem with repeating placement pattern as indicated.
2. Dimension next to "a" bars and "b" bars indicates distance from top of footing to upper end of bars.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM RETAINING WALL 3
SECTIONS AND DETAIL

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

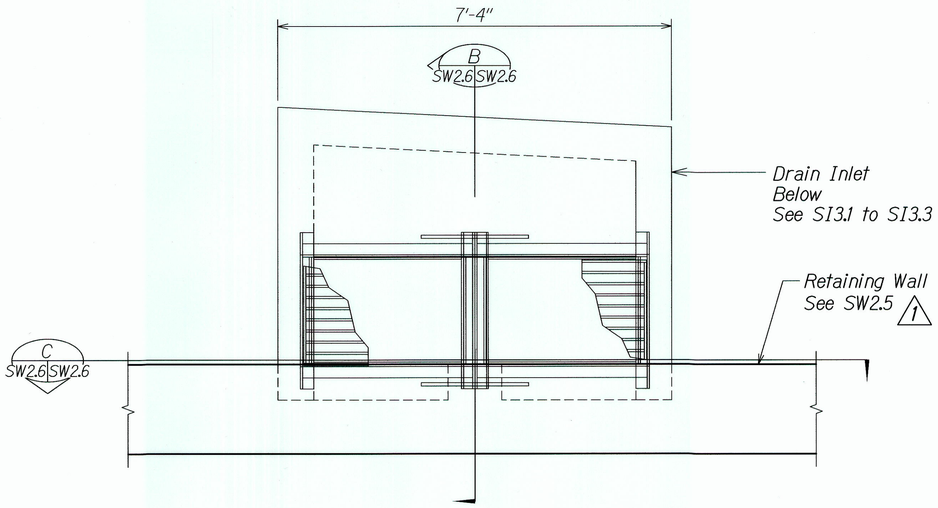
SHEET No. SW2.5 OF 86 SHEETS

ADD. 346

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

DRAWING NAME: Z:\00 ONGOING\1I-039 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRE-SW2D5 ADD.DWG PLOT TIME: 06-14-13, 10:34 AM)

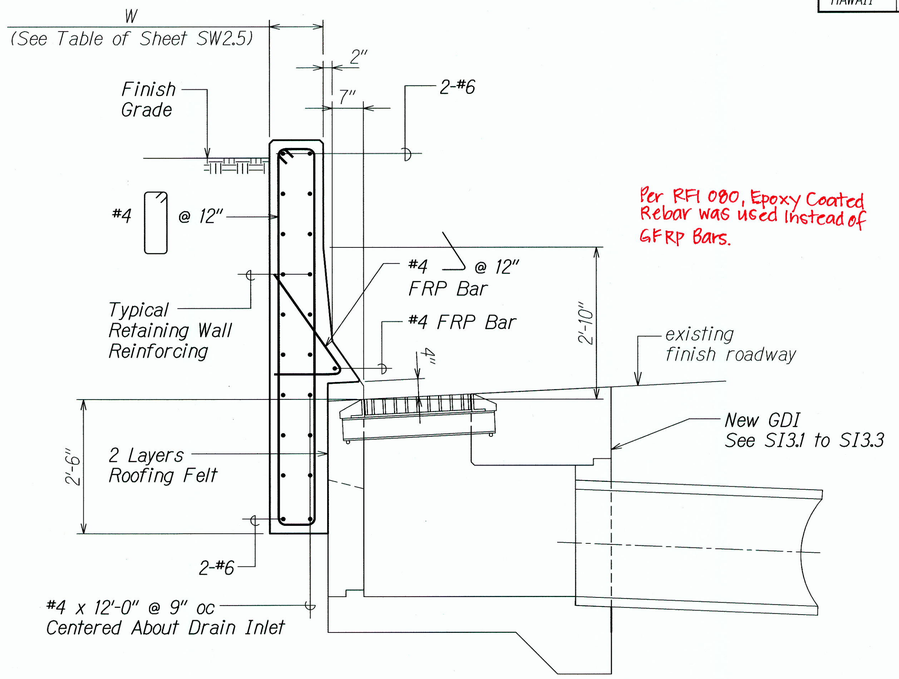
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 347	382



RETAINING WALL 3 ABOVE GDI AT STA. 128+24.77 - PLAN

A SW2.6 SW2.6

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

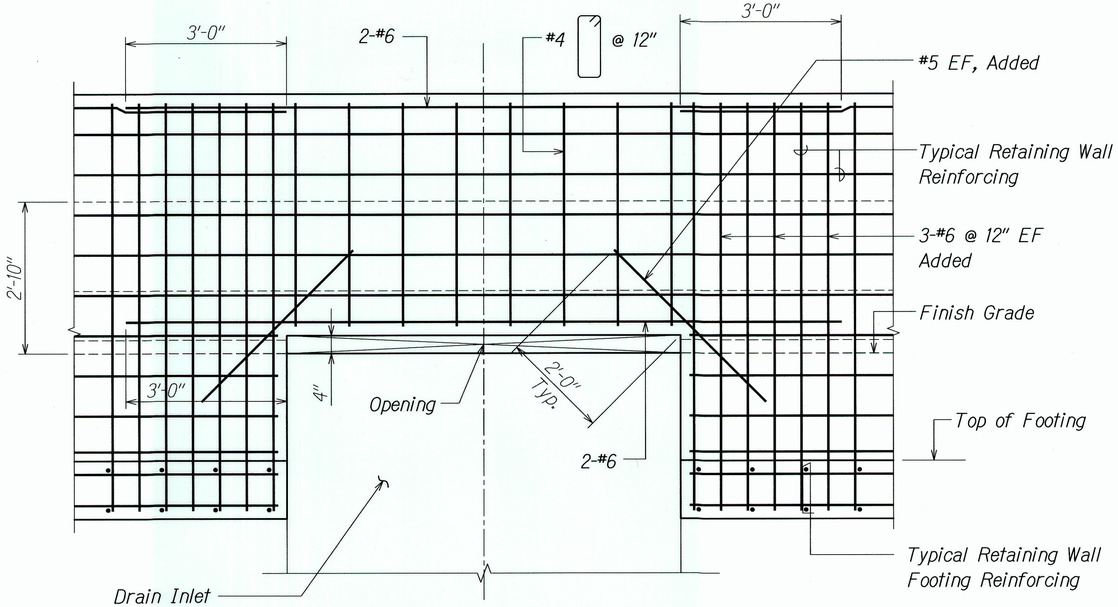


Per RFI 080, Epoxy Coated Rebar was used instead of GFRP Bars.

SECTION

B SW2.6 SW2.6

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



SECTION

C SW2.6 SW2.6 1

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRE-SW206 ADD.DWG PLOT TIME: 06-14-13, 10:34 AM)

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

DATE	REVISION
6/14/13	1 Revise Note and Section Call Out

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RETAINING WALL 3 ABOVE GDI PLAN AND SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

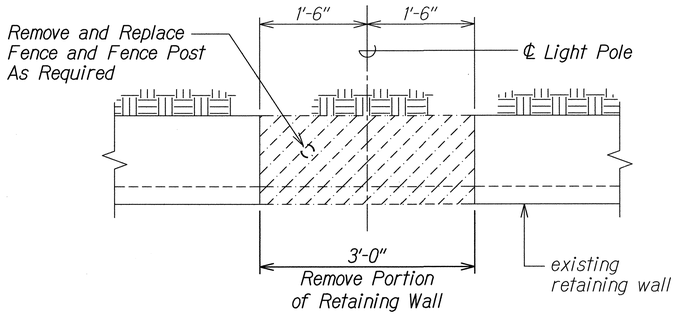
Scale: As Shown Date: April 26, 2013

SHEET No. SW2.6 OF 86 SHEETS

"AS-BUILT"

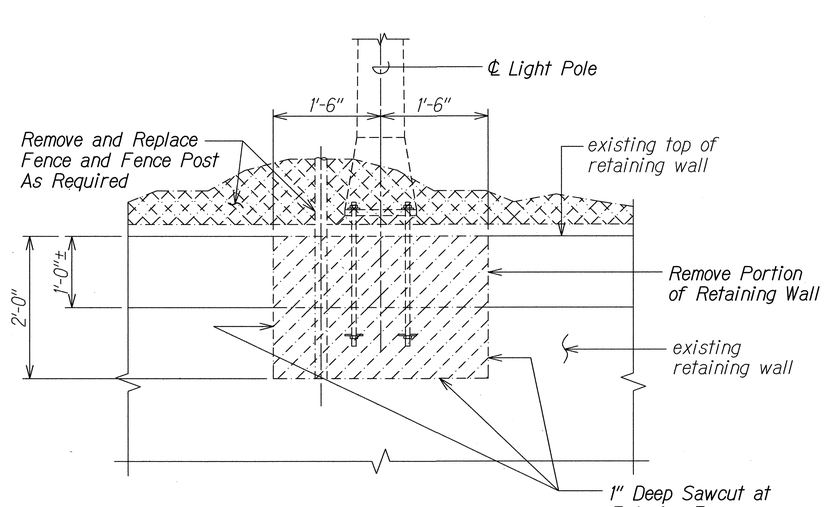
ADD. 347

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	348	382



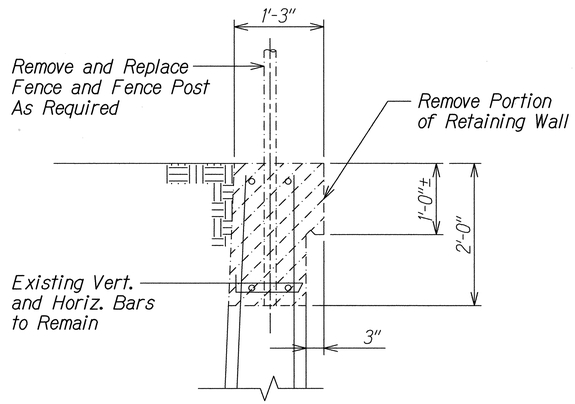
DEMO - PLAN (A SW3.1 | SW3.1)

Scale: 1" = 1'-0"



DEMO - ELEVATION (B SW3.1 | SW3.1)

Scale: 1" = 1'-0"



DEMO - SECTION (C SW3.1 | SW3.1)

Scale: 1" = 1'-0"

Note:

1. Concrete to be removed within 6 inches of existing concrete to remain shall be removed with chipping or pneumatic tools having a maximum hammer weight of 15 pounds.

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

DRAWING NAME: Z:\OD ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCH\BOWL\CAD\05-17-13 100%\HIRE-SW301.DWG PLOT TIME: 05-17-13, 2:53 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

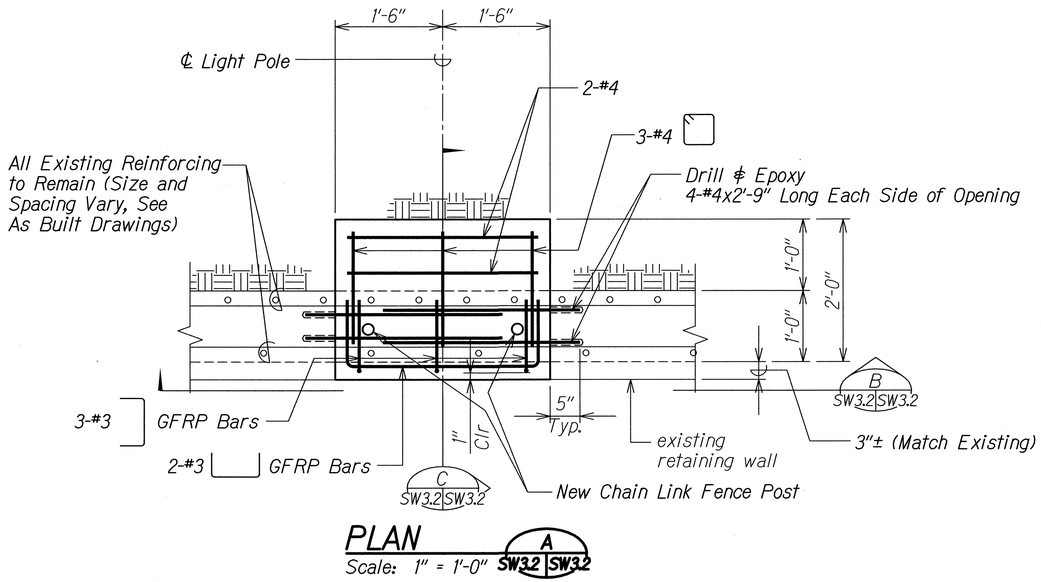
TYPICAL RETAINING WALL DEMO FOR NEW LIGHT POLE

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

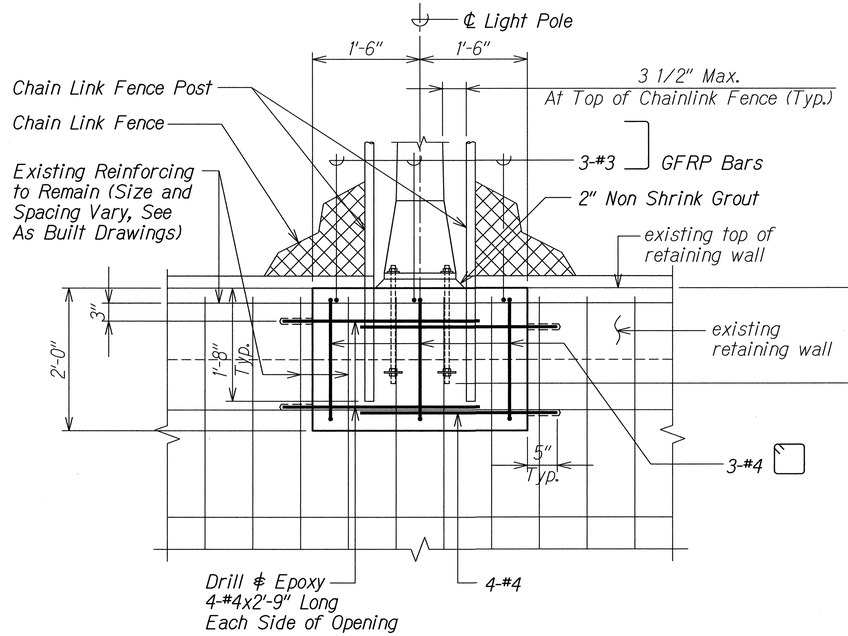
Scale: As Shown Date: April 26, 2013

SHEET No. SW3.1 OF 86 SHEETS

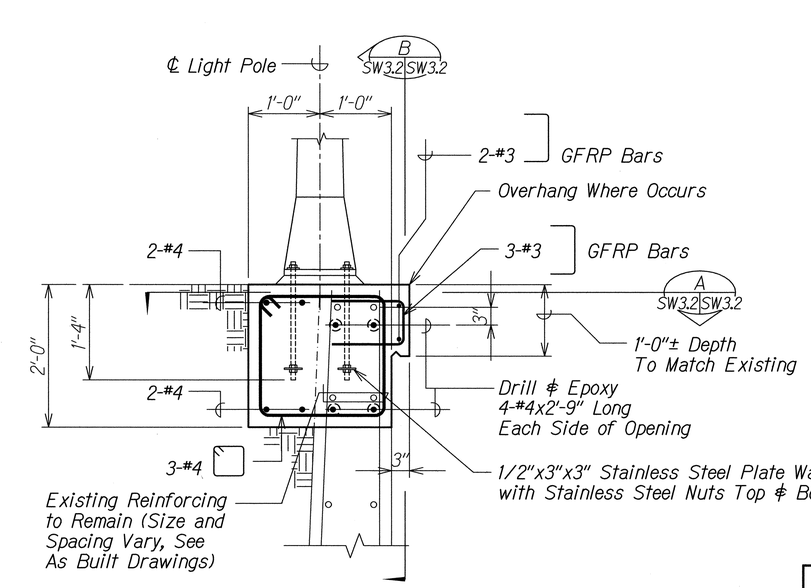
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	349	382



PLAN
Scale: 1" = 1'-0" A SW3.2 SW3.2



ELEVATION
Scale: 1" = 1'-0" B SW3.2 SW3.2



SECTION
Scale: 1" = 1'-0" C SW3.2 SW3.2

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW LIGHT POLE ON RETAINING WALL PLAN, ELEVATION AND SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

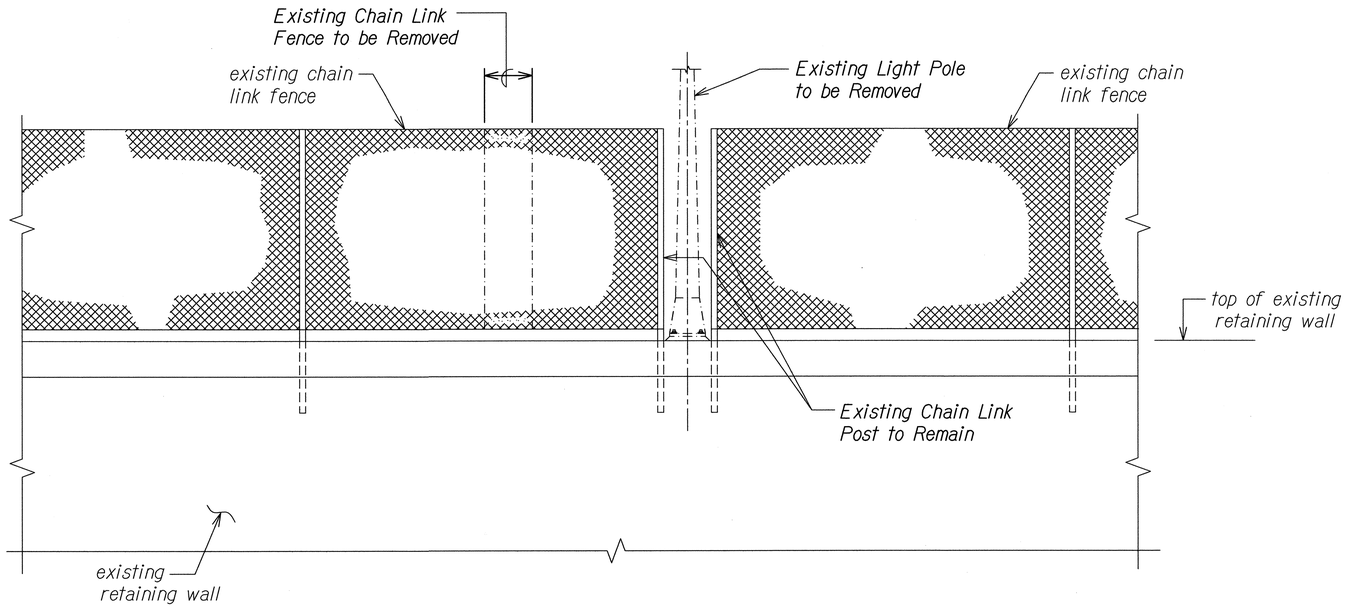
Scale: As Shown Date: April 26, 2013

SHEET No. SW3.2 OF 86 SHEETS

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HIRE-SW301.DWG PLOT TIME: 05-17-13, 2:53 PM)

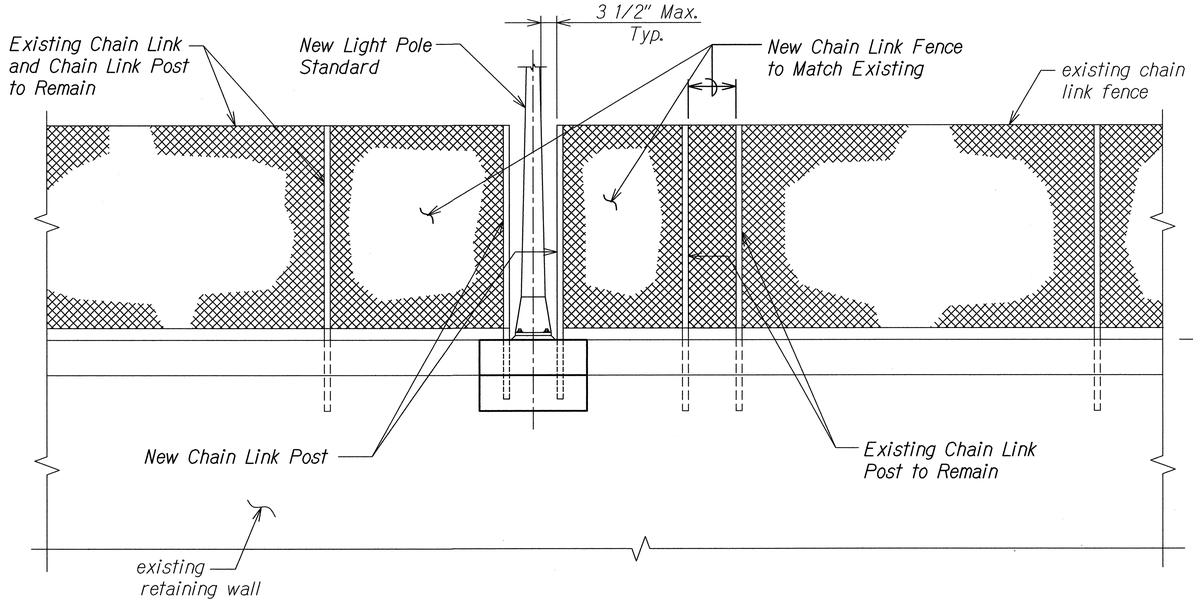
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	350	382



ELEVATION - DEMO EXISTING LIGHT POLE

A SW3.3 | SW3.3

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



ELEVATION - NEW LIGHT POLE STANDARD

A SW3.3 | SW3.3

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

Note:
1. Height of new fence to match existing.
2. See State Standard Plan D-02 for additional details.
3. The cost for the fence shall be considered incidental to the cost of the light pole.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW LIGHT POLE ON RETAINING WALL ELEVATIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

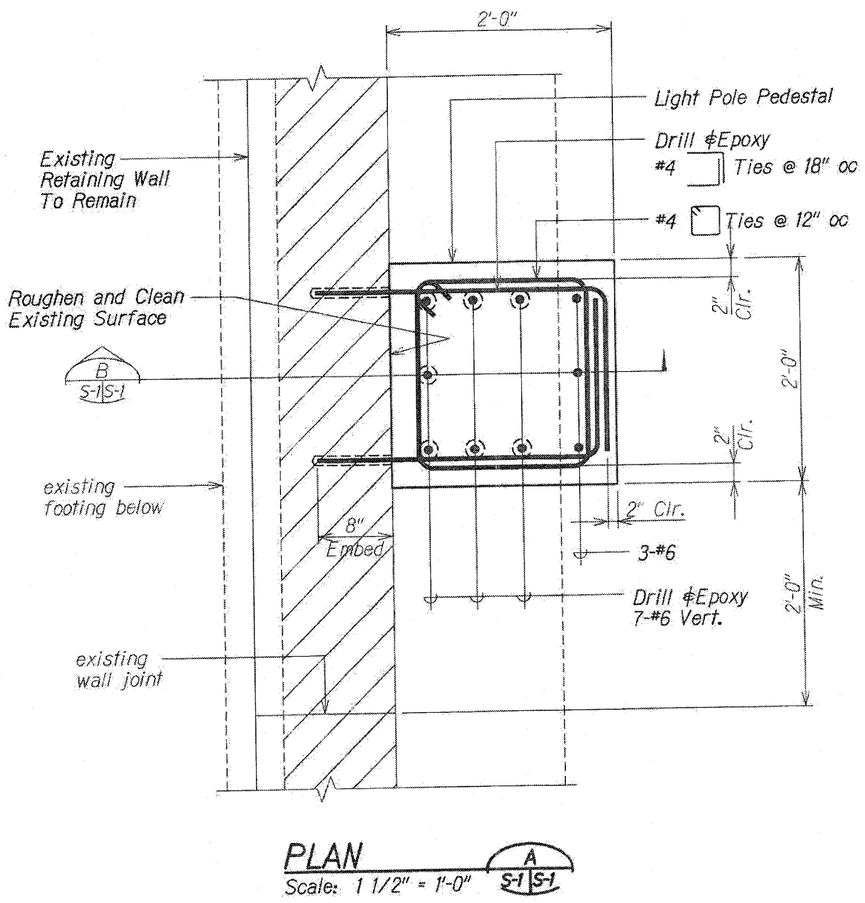
Scale: As Shown Date: April 26, 2013

SHEET No. SW3.3 OF 86 SHEETS

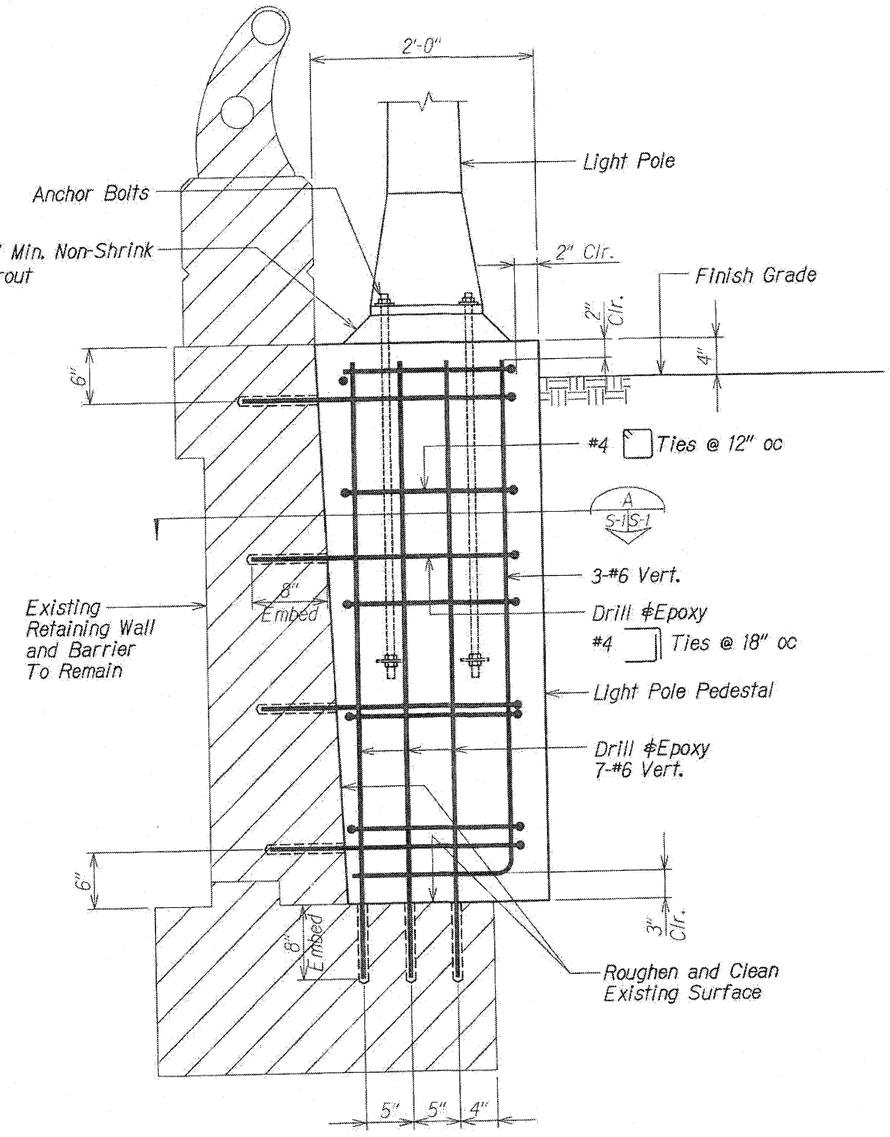
ORIGINAL PLAN
NOTE BOOK
No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

DRAWING NAME: Z:\OO ONCOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HIRE-SW301.DWG PLOT TIME: 05-17-13, 2:54 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	350S-1	382



PLAN
Scale: 1 1/2" = 1'-0" A S-1 S-1



SECTION
Scale: 1 1/2" = 1'-0" B S-1 S-1

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LIGHT POLE AT RETAINING WALL PLAN AND SECTION (RFI-153)

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: May 01, 2014

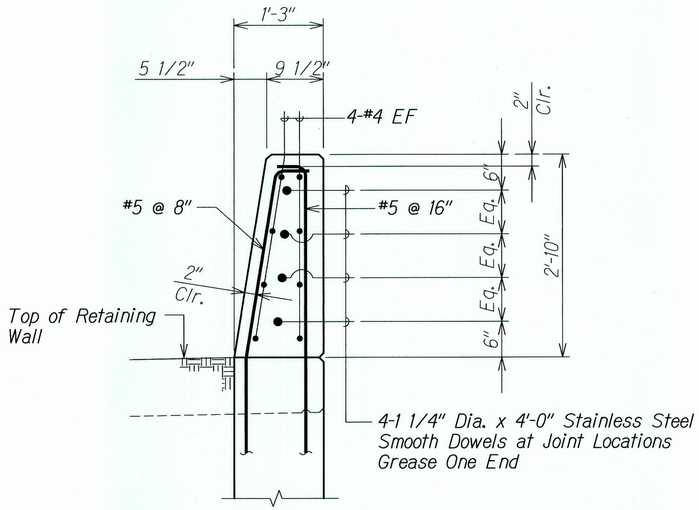
SHEET No. S-1 OF SHEETS

APR 24 2014 350 S-1

DRAWING NAME: Z:\00 ONGOING\11-030.0 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-01-14 C01 RFI-153\H1RB-SP6XX-RFI-153.DWG PLOT TIME: 05-01-14, 10:45 AM)

PLAN
NOTE BOOK
No.
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

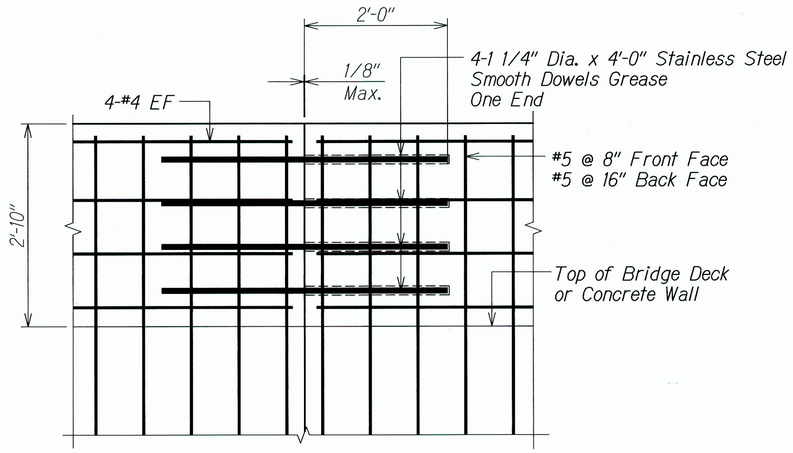
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	351	382



TYPICAL RAILING SECTION AT RETAINING WALL

Scale: 1" = 1'-0"

A SW3.4 | SW3.4



TYPICAL RAILING CONTROL JOINT DETAIL

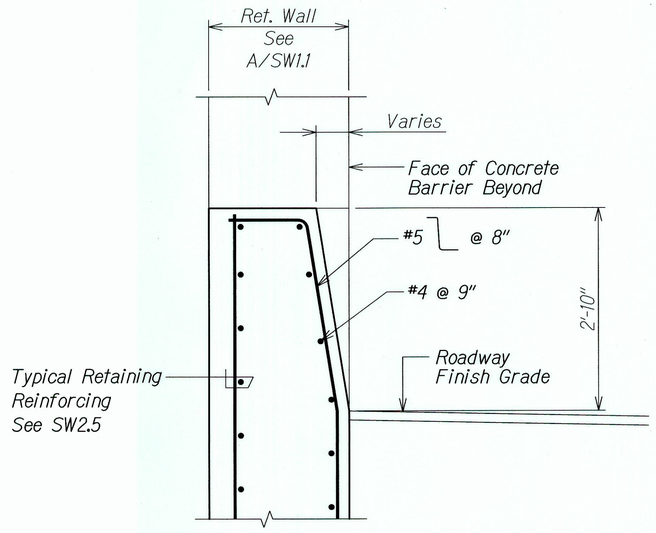
Scale: 1" = 1'-0"

1 SW3.4 | SW3.4

Notes:

1. Control joints shall be spaced at a 20'-0" oc, max.
2. Barrier control joints shall be at the same location as wall and bridge control and expansion joints and shown on the plans. Additional joints shall be added as required.
3. At bridge deck railing, use 1/2" open railing joints at 20'-0" oc, maximum, match existing expansion joints, and be over ℄ piers. Fill bottom 3 inches joint with non-shrink grout.

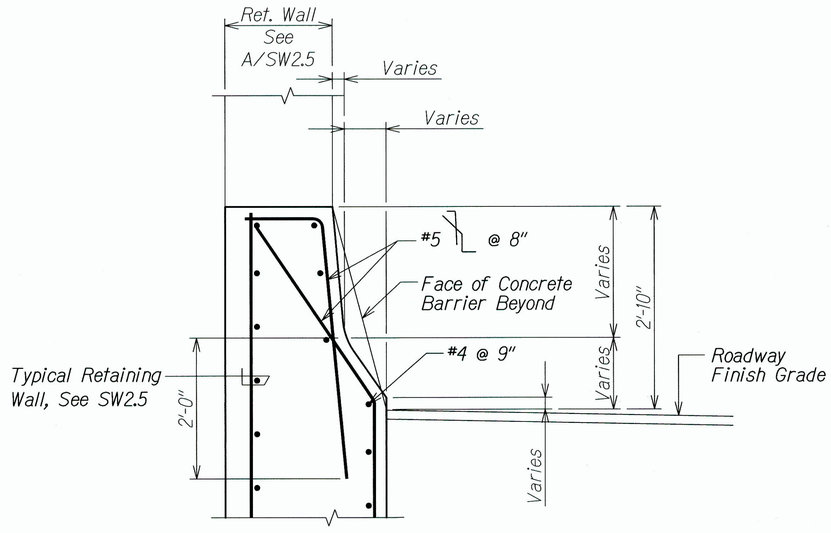
HDCC used Pre-Molded Joint Fillers for the 1/2" Railing Joint and Left in Place. (See RFI 058 for more info.)



SECTION AT SINGLE SLOPE TRANSITION

Scale: 1" = 1'-0"

B SW3.4 | SW3.4



SECTION AT JERSEY FACE TRANSITION

Scale: 1" = 1'-0"

C SW3.4 | SW3.4

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

DRAWING NAME: Z:\DO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100X\HIRE-SW304.DWG PLOT TIME: 05-17-13, 2:54 PM)

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara — APRIL 30, 2014

KSF, INC. — LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL RETAINING WALL CONTROL JOINT, SECTION AND DETAILS

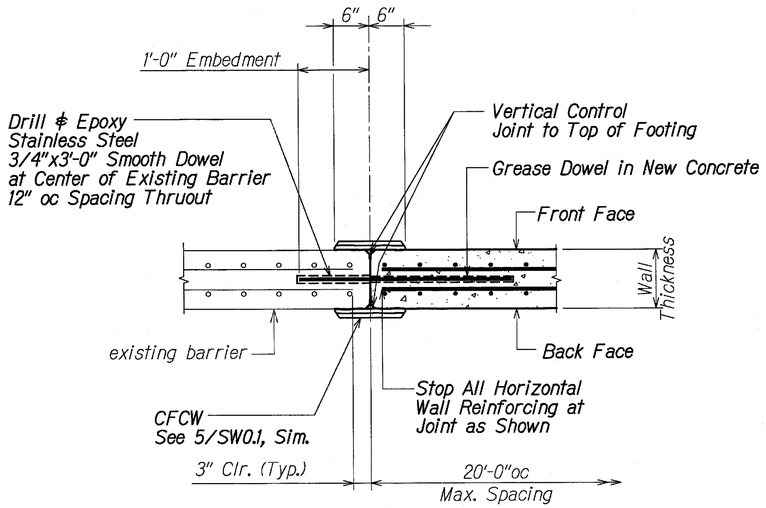
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SW3.4 OF 86 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	351S-1	382



DOUBLE CURTAIN

TYPICAL WALL VERTICAL CONTROL JOINT DETAIL

Scale: 1" = 1'-0"

1
SK-7 | SK-7

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

DRAWING NAME: Z:\OD ONGOING\11-0301 H1 RESURFACING LIKELIKE TO PUNCHBOWL POST DESIGN-PB TM\CAD\07-14-14 RFI\VHRF-SK-7 CONTROLJOINT-RFI.DWG PLOT TIME: 07-14-14, 4:33 PM)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONTROL JOINT DETAIL

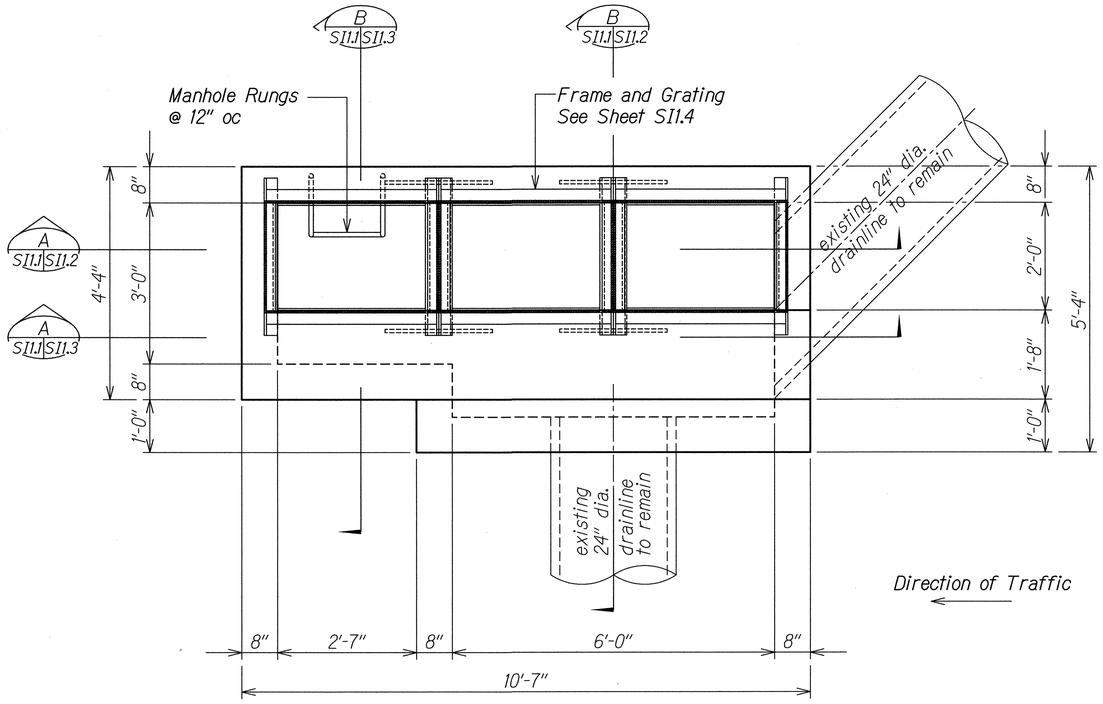
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: July 14, 2014

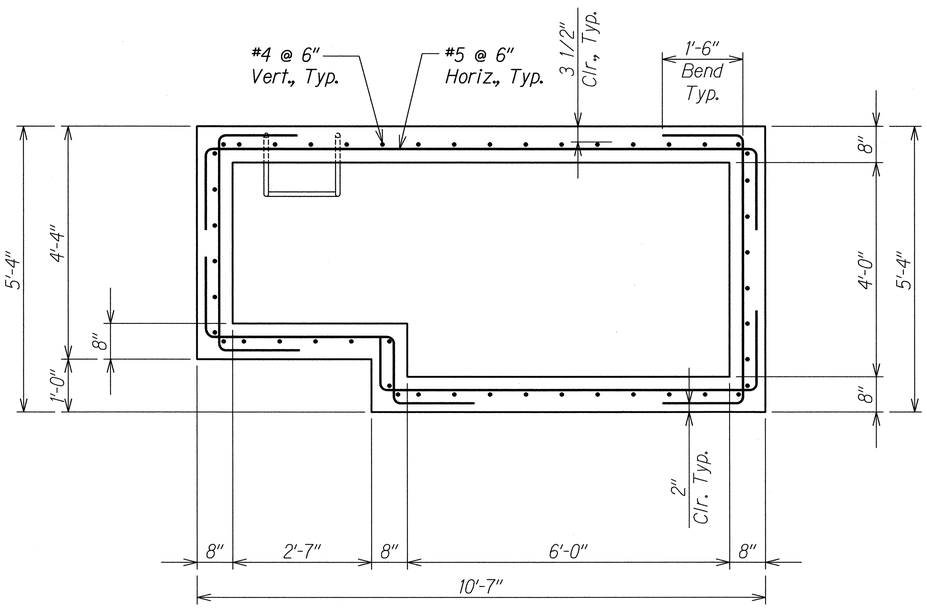
SHEET No. SK-7 OF 86 SHEETS

JUL 16 2014 351 S-1

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	352	382



PLAN
Scale: 3/4" = 1'-0"
A
SI1.1 SI1.1



SECTION
Scale: 3/4" = 1'-0"
B
SI1.2 SI1.1

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RECONSTRUCTED GDI AT STA. 50+80 RT.
PLAN AND SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

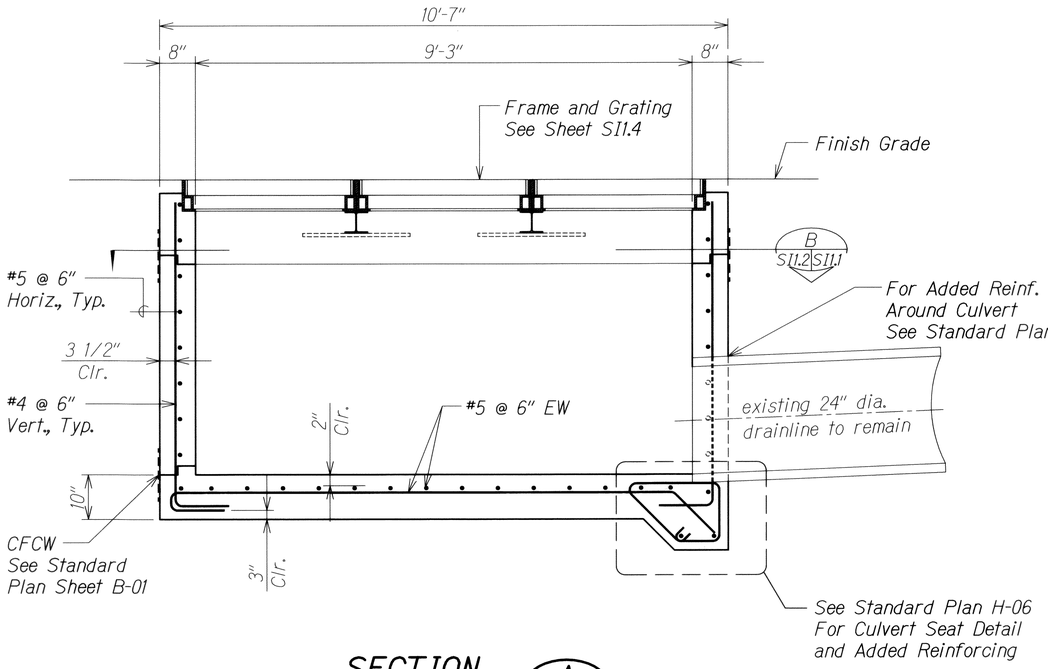
SHEET No. SI1.1 OF 86 SHEETS

352

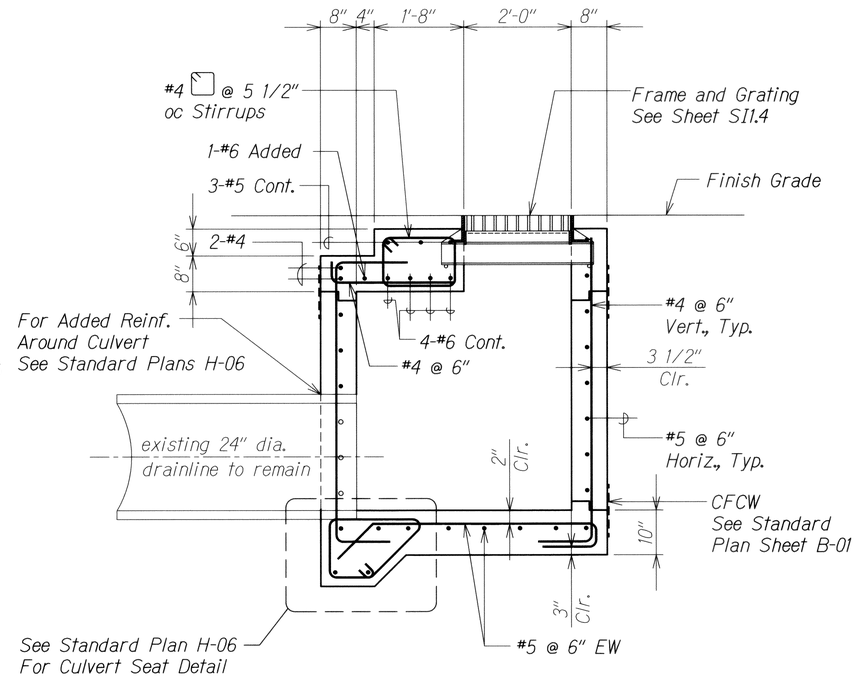
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
No.	QUANTITIES BY	
	CHECKED BY	

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRF-SI101.DWG PLOT TIME: 05-17-13, 2:54 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 353	382



SECTION A
Scale: 3/4" = 1'-0" SI1J SI1.2



SECTION B
Scale: 3/4" = 1'-0" SI1J SI1.2

DRAWING NAME: Z:\OO ONGOING\11-030 H1 RESURFACING, LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRF-SI01 ADD.DWG PLOT TIME: 06-14-13, 10:35 AM)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

DATE	REVISION
6/14/13	1 Revise Title Block

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RECONSTRUCTED GDI AT STA. 50+80 RT.

1 SECTIONS

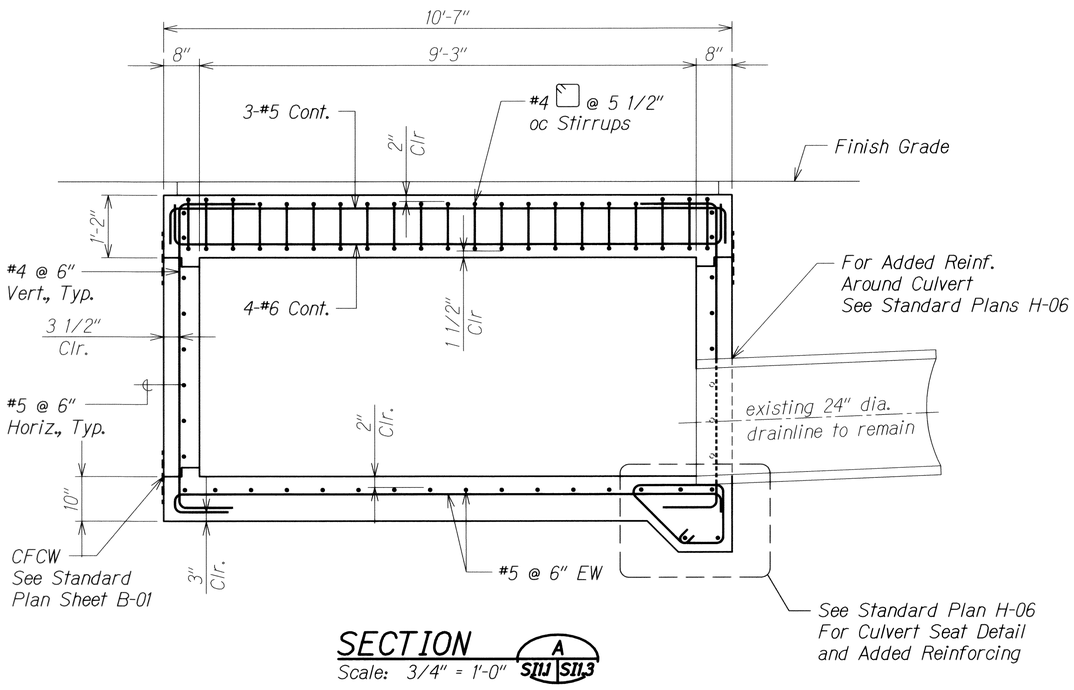
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

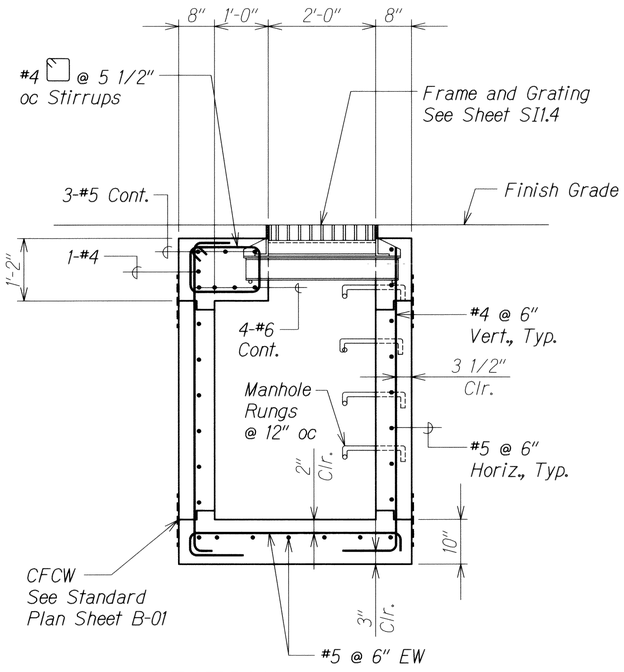
SHEET No. SI1.2 OF 86 SHEETS

ADD. 353

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(269)	2013	ADD. 354	382



SECTION A
Scale: 3/4" = 1'-0" S11J S11.3



SECTION B
Scale: 3/4" = 1'-0" S11J S11.3

DRAWING NAME: Z:\00 ONGOING\11-039 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRF-S1101 ADD.DWG PLOT TIME: 06-14-13, 10:35 AM

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Title Block

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RECONSTRUCTED GDI AT STA. 50+80 RT.

1 SECTIONS

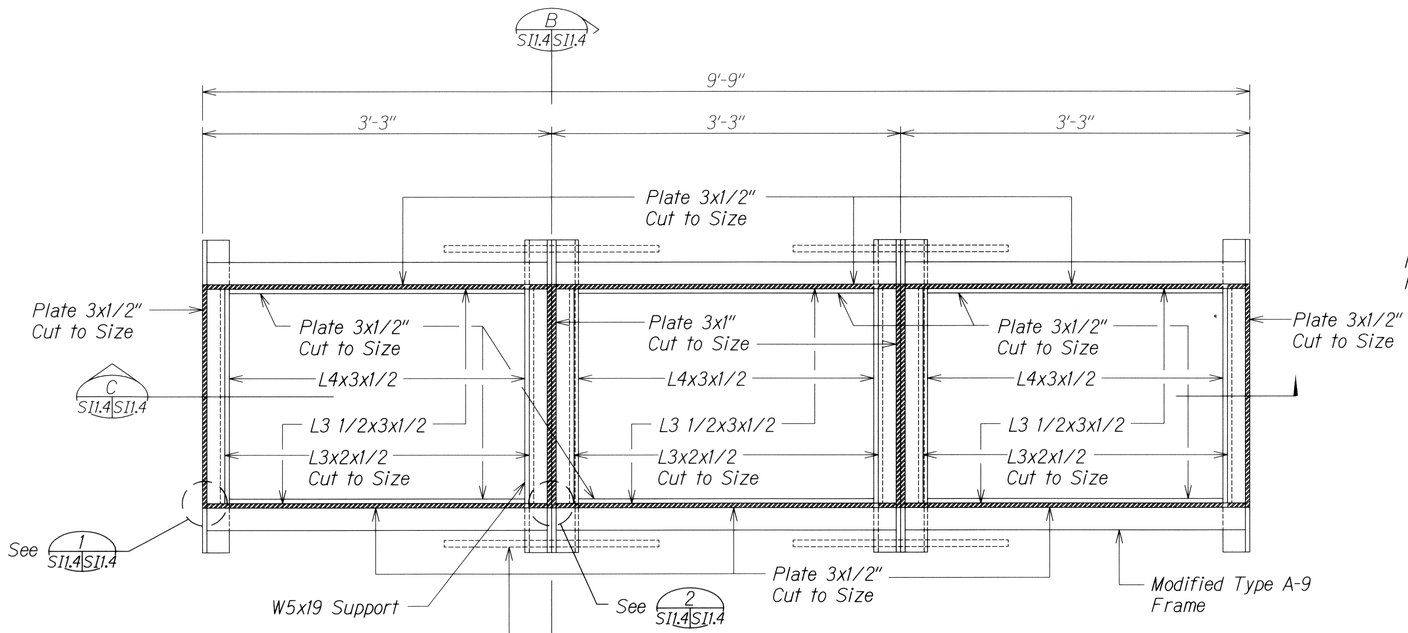
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

Scale: As Shown Date: April 26, 2013

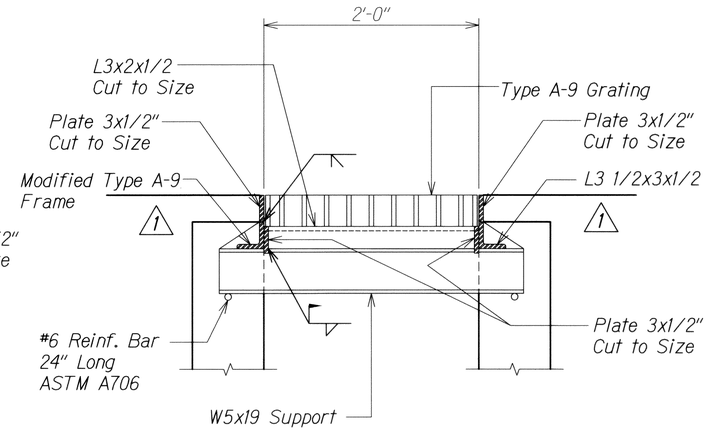
SHEET No. S11.3 OF 86 SHEETS

ADD. 354

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 355	382

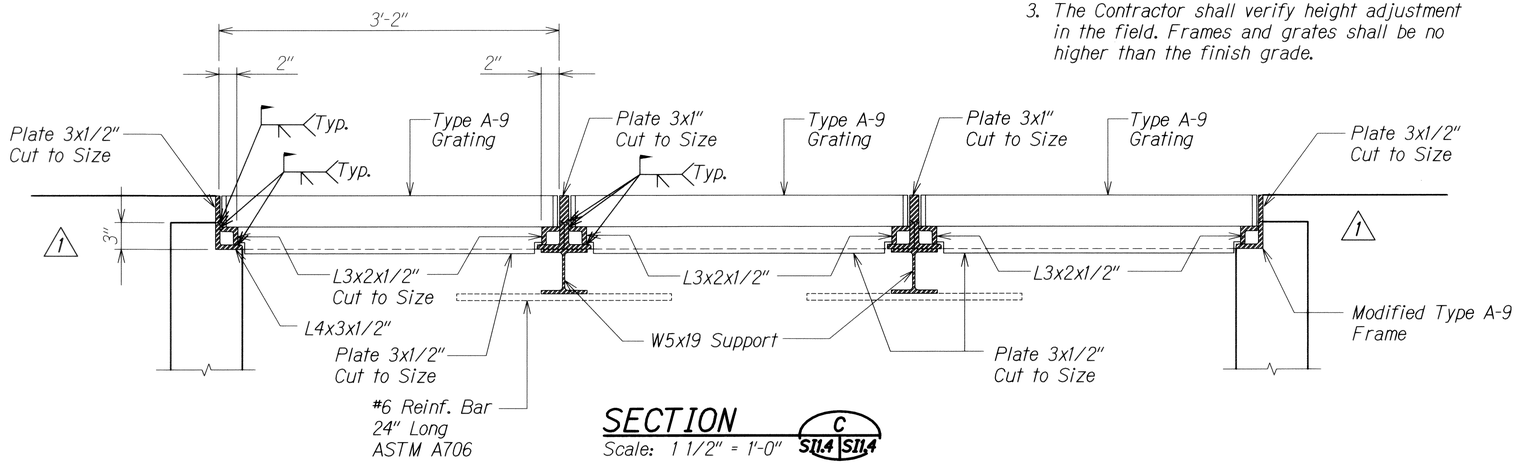


PLAN
Scale: 1 1/2" = 1'-0" A S11.4 S11.4

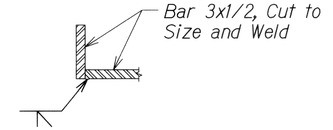


SECTION
Scale: 1 1/2" = 1'-0" B S11.4 S11.4

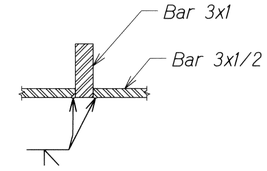
Notes:
1. For additional details for Type A-9 Frame and grate see State Standard Plans H-10 and H-11.
2. All fillet welds shall be 5/16"
3. The Contractor shall verify height adjustment in the field. Frames and grates shall be no higher than the finish grade.



SECTION
Scale: 1 1/2" = 1'-0" C S11.4 S11.4



DETAIL
Scale: 3" = 1'-0" 1 S11.4 S11.4 S11.7



DETAIL
Scale: 3" = 1'-0" 2 S11.4 S11.4 S11.7

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC. — APRIL 30, 2014. LIC. EXP. DATE

DATE	REVISION
6/14/13	1 Revise Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RECONSTRUCTED GDI AT STA. 50+80 RT.
FRAME AND GRATING DETAILS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

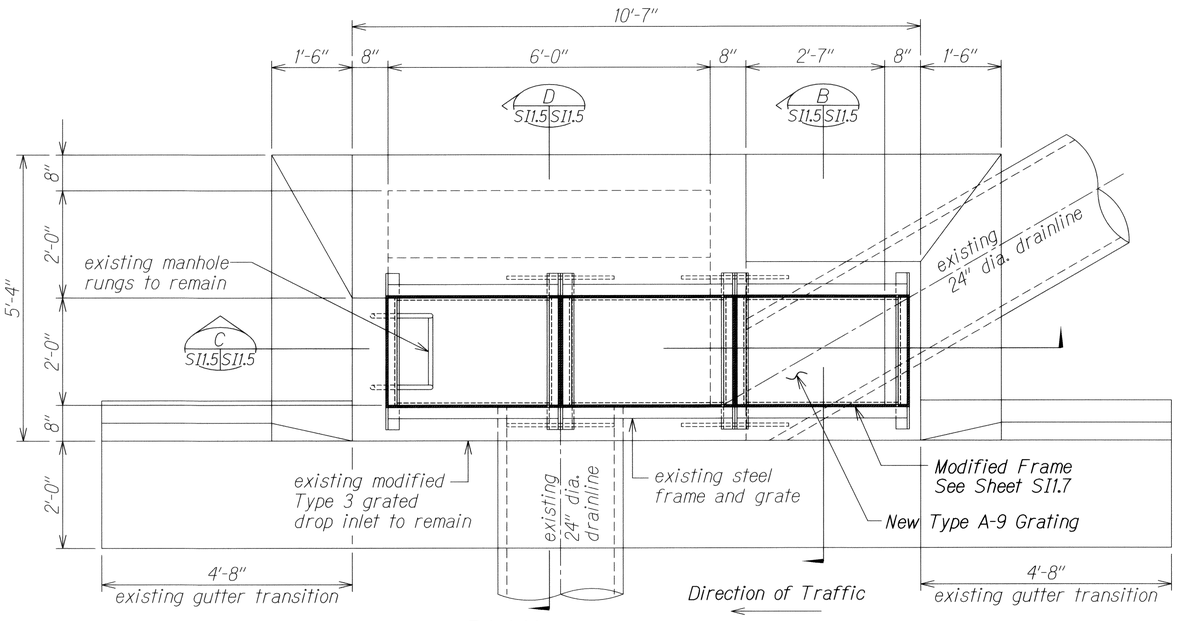
SHEET No. S11.4 OF 86 SHEETS

ADD. 355

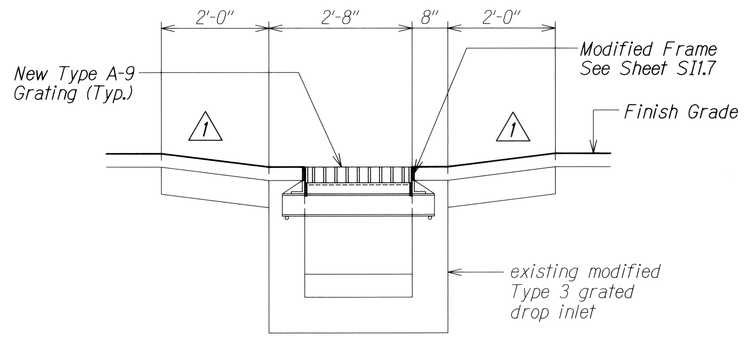
ORIGINAL PLAN | NOTE BOOK No. | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRF-S101 ADD.DWG PLOT TIME: 06-14-13, 10:35 AM

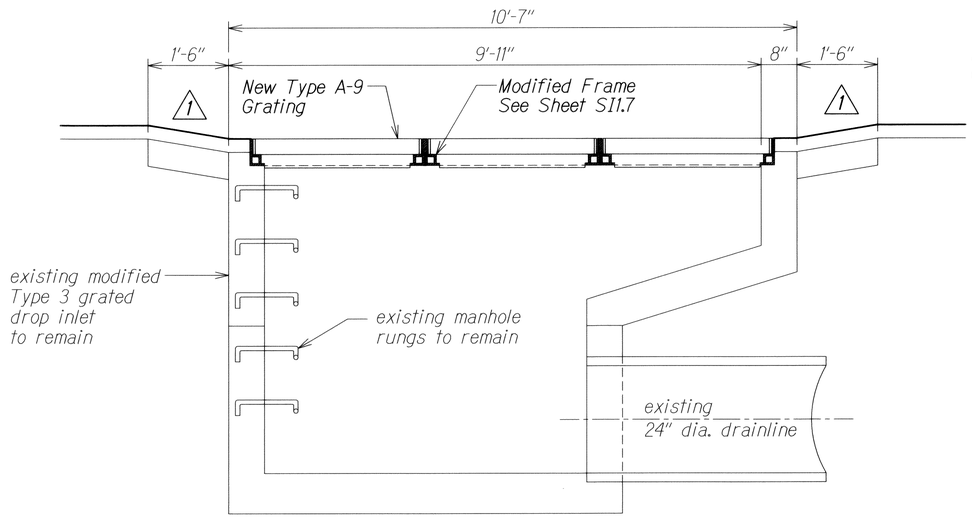
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 356	382



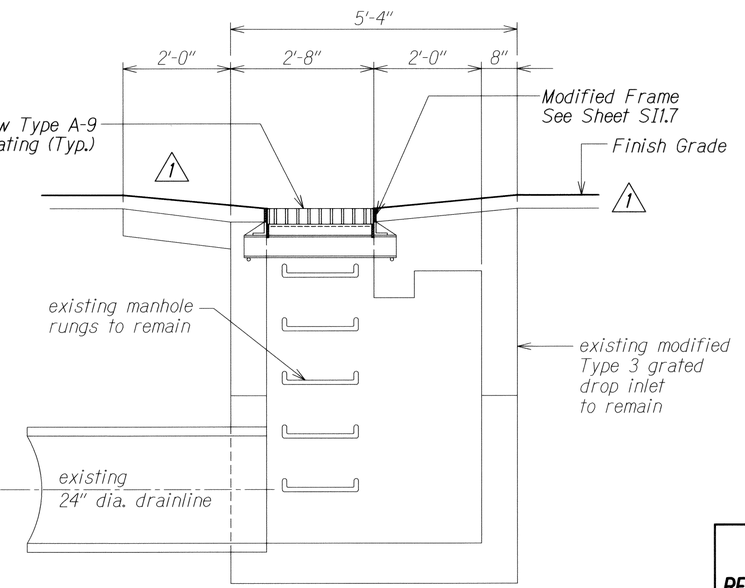
PLAN (A SI1.5 SI1.5)
Scale: 3/4" = 1'-0"



SECTION (B SI1.5 SI1.5)
Scale: 3/4" = 1'-0"



SECTION (C SI1.5 SI1.5)
Scale: 3/4" = 1'-0"



SECTION (D SI1.5 SI1.5)
Scale: 3/4" = 1'-0"

MODIFIED TYPE 3 GRATED DROP INLET AT STA. 52+75 E.B. RT.
Scale: 3/4" = 1'-0"

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\H1RF-SI105_ADD.DWG PLOT TIME: 06-14-13, 10:36 AM)

DATE	REVISION
6/14/13	1 Revise Details

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

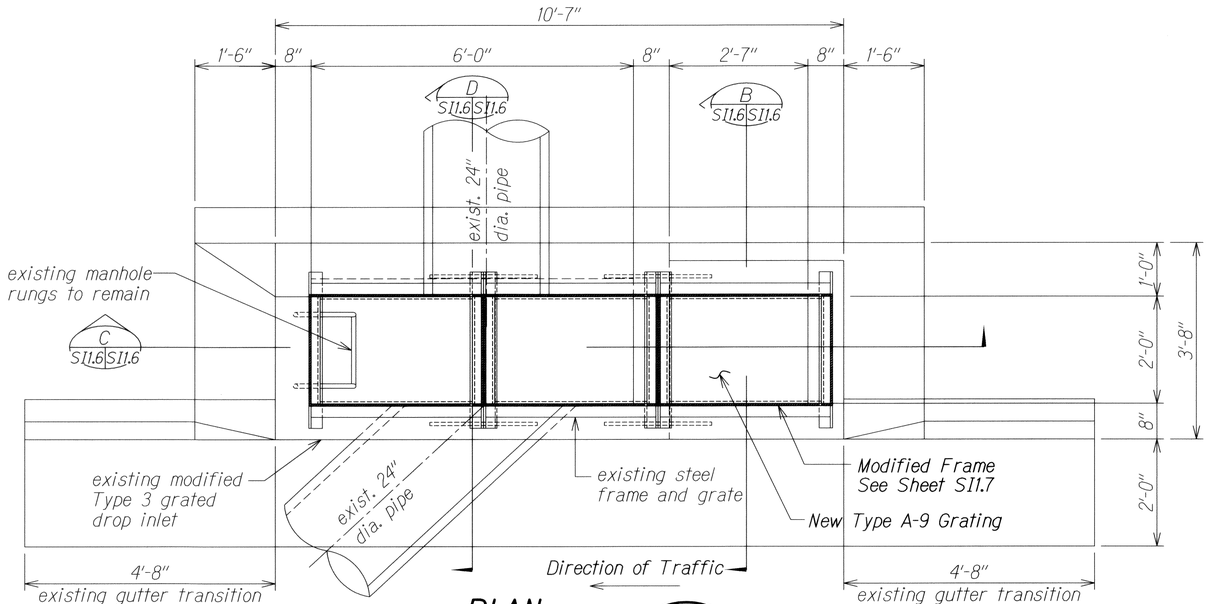
RECONSTRUCTED GDI AT STA. 52+75 RT.
PLAN AND SECTIONS
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

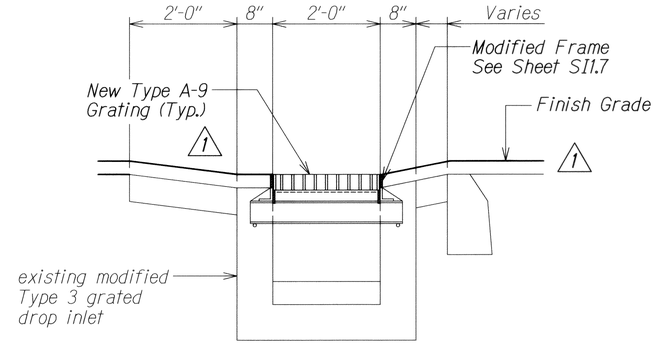
SHEET No. SI1.5 OF 86 SHEETS

ADD. 356

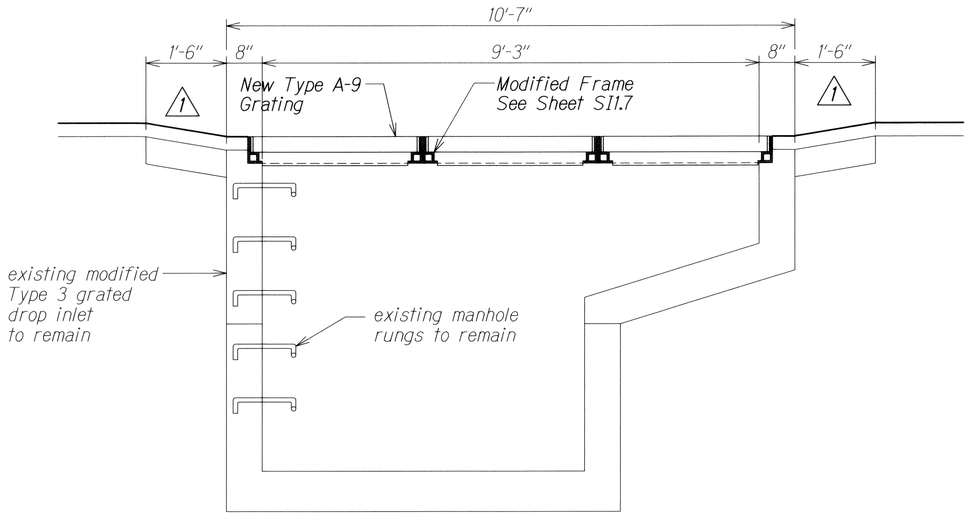
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 357	382



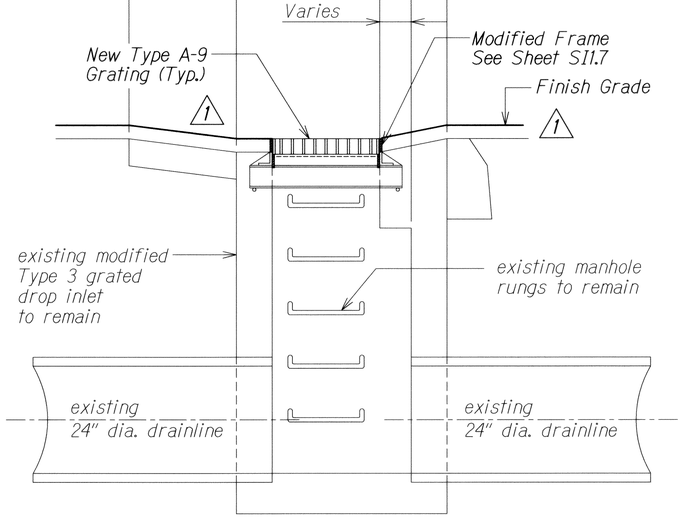
PLAN
Scale: 3/4" = 1'-0" A SI1.6 SI1.6



SECTION
Scale: 3/4" = 1'-0" B SI1.6 SI1.6



SECTION
Scale: 3/4" = 1'-0" C SI1.6 SI1.6



SECTION
Scale: 3/4" = 1'-0" D SI1.6 SI1.6

MODIFIED TYPE 3 GRATED DROP INLET AT STA. 54+75 E.B. RT.

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

DATE	REVISION
6/14/13	1 Revise Details

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RECONSTRUCTED GDI AT STA. 54+75 RT.
PLAN AND SECTIONS
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

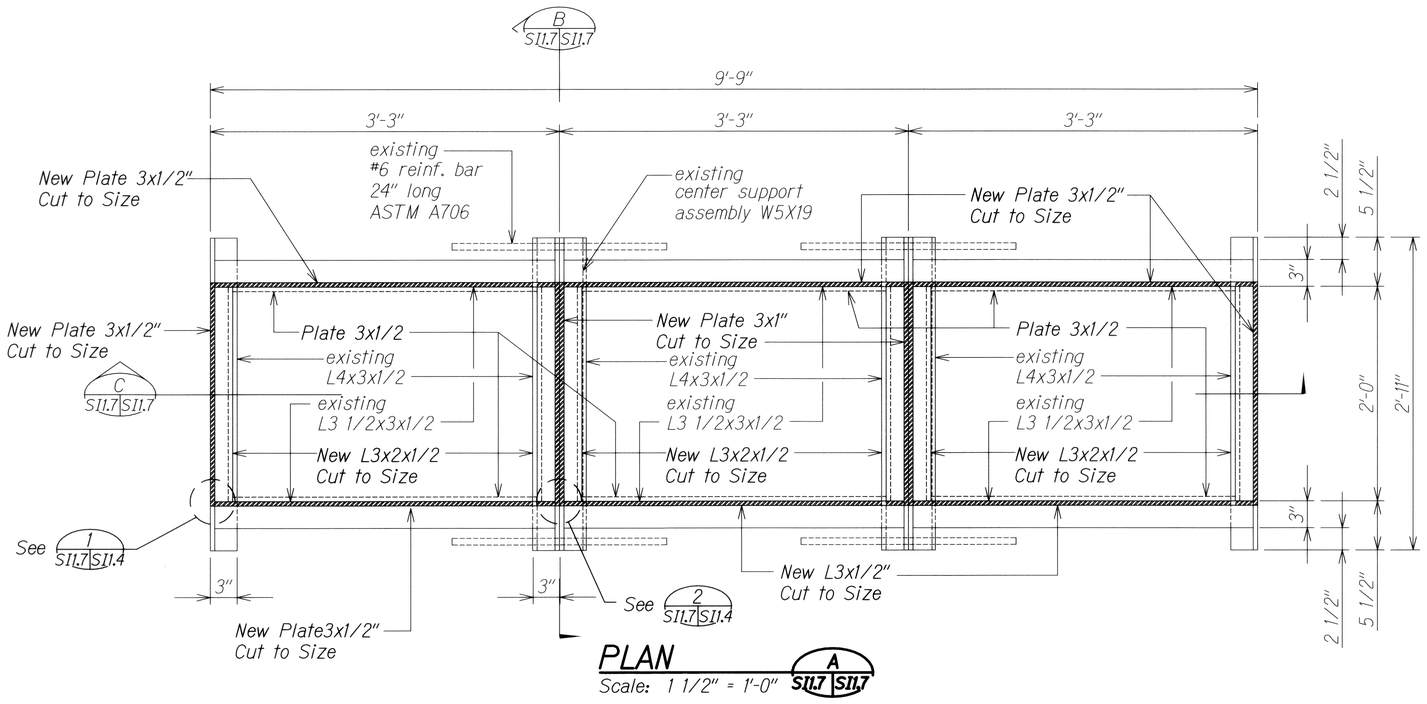
SHEET No. SI1.6 OF 86 SHEETS

ADD. 357

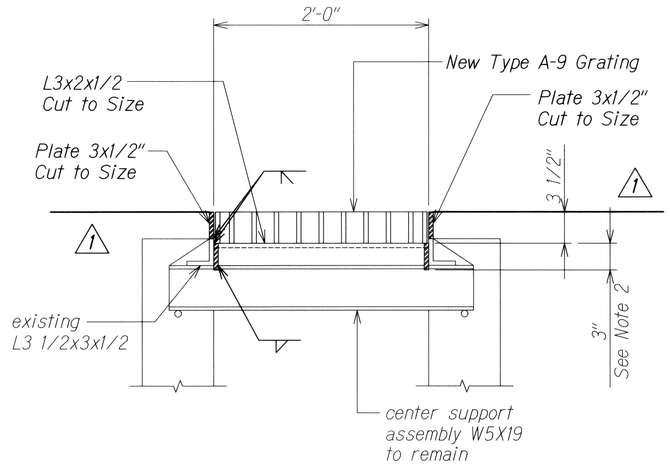
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
No.	QUANTITIES BY	
	CHECKED BY	

DRAWING NAME: Z:\00 ONGOING\11-030_H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13_100%\H1RF-SI105_ADD.DWG PLOT TIME: 06-14-13, 10:36 AM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 358	382

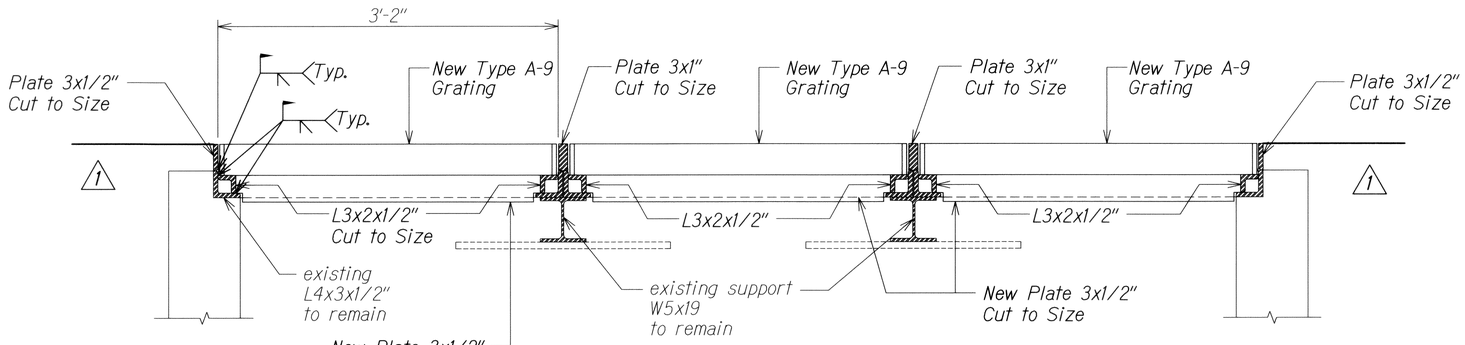


PLAN
Scale: 1 1/2" = 1'-0" A S11.7 S11.7



SECTION
Scale: 1 1/2" = 1'-0" B S11.7 S11.7

Notes:
1. All fillet welds shall be 5/16"
2. The Contractor shall verify height adjustment in the field. Frames and grates shall be no higher than the finish grade.



SECTION
Scale: 1 1/2" = 1'-0" C S11.7 S11.7

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujimara
KSF, INC. APRIL 30, 2014 LIC. EXP. DATE

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

DRAWING NAME: Z:\00 ONGOING\11-030 HI RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100R\HRF-S110S ADD.DWG PLOT TIME: 06-14-13

DATE	REVISION
6/14/13	1 Revise Details

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAIN INLET RECONSTRUCTION DETAIL

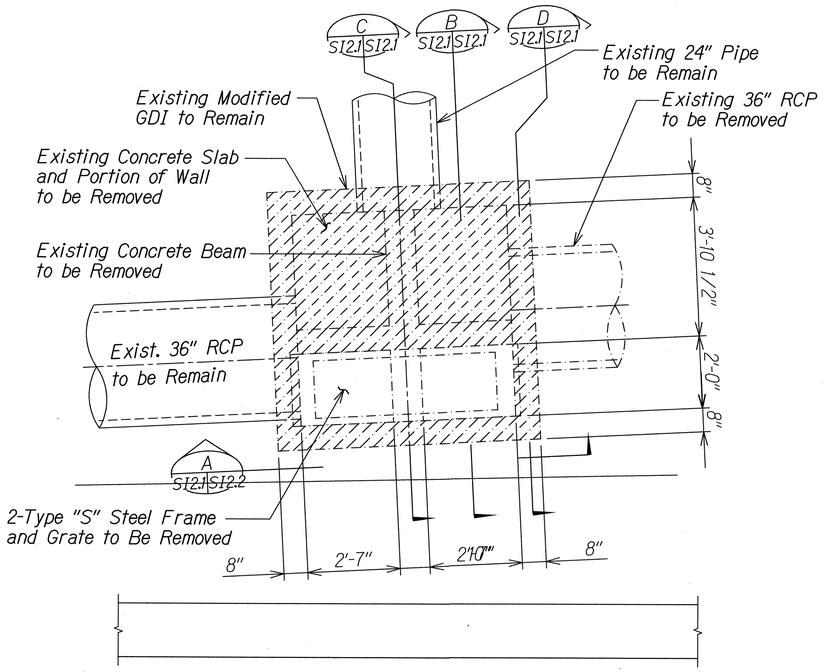
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. S11.7 OF 86 SHEETS

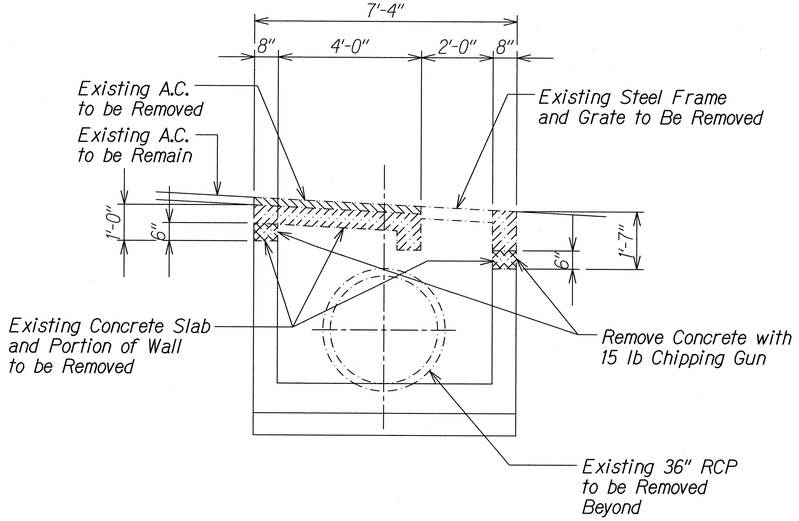
ADD. 358

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	359	382



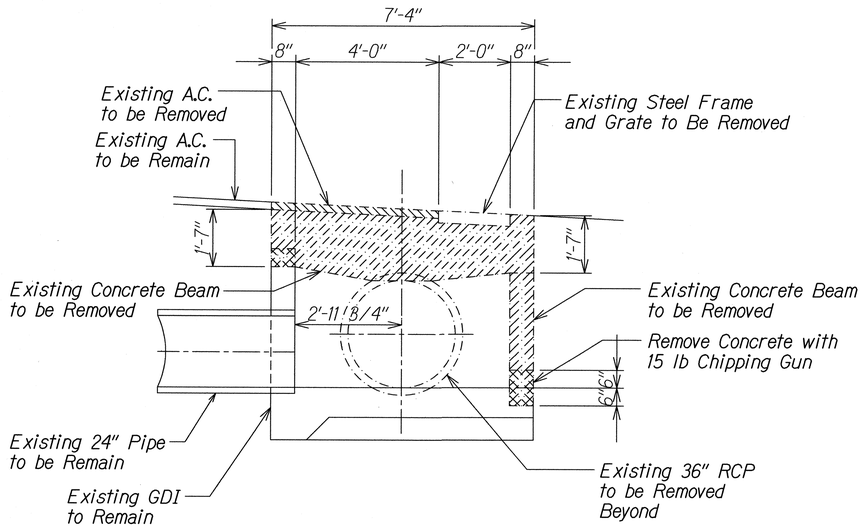
EXISTING GDI AT STA. 125+75.37 - DEMO PLAN (A S12.1 S12.1)

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



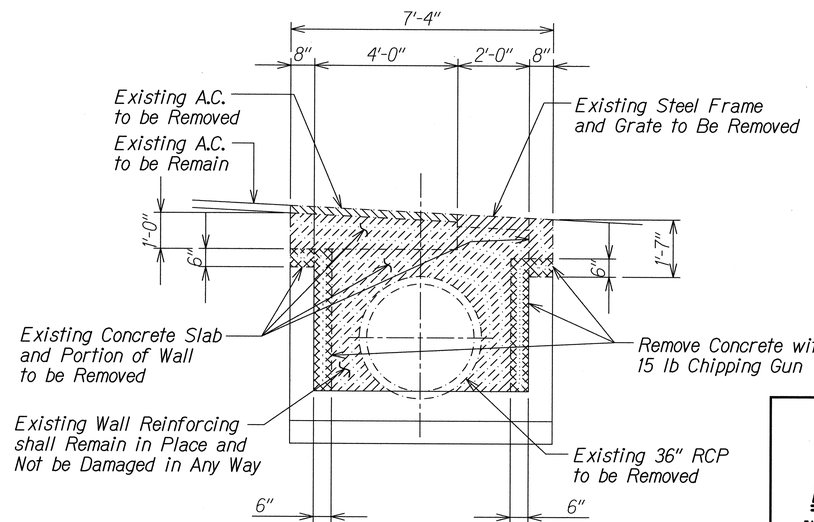
SECTION (B S12.1 S12.1)

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



SECTION (C S12.1 S12.1)

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



SECTION (D S12.1 S12.1)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 125+75.37
DEMO PLAN AND SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

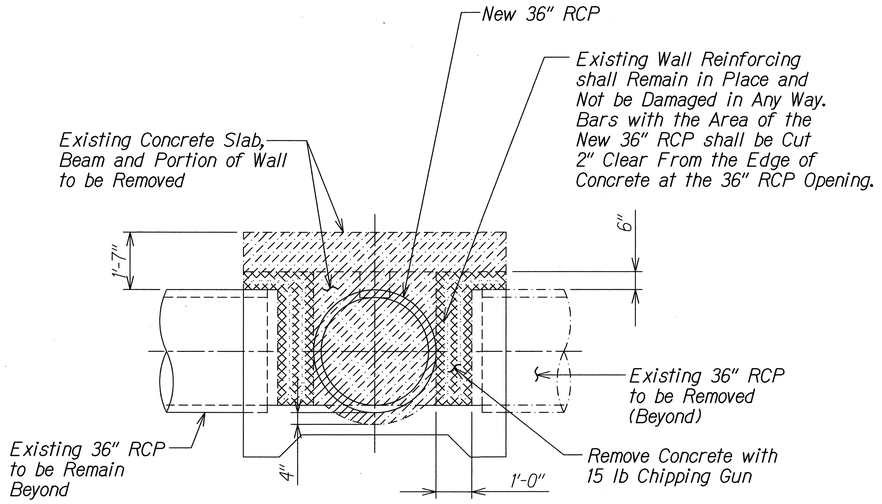
Scale: As Shown — Date: April 26, 2013

SHEET No. S12.1 OF 86 SHEETS

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\H1RF-S1201.DWG PLOT TIME: 05-17-13, 2:55 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	360	382



SECTION A

Scale: 1/2" = 1'-0" S121 S122

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRF-S1201.DWG PLOT TIME: 05-17-13, 2:55 PM)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 125+75.37

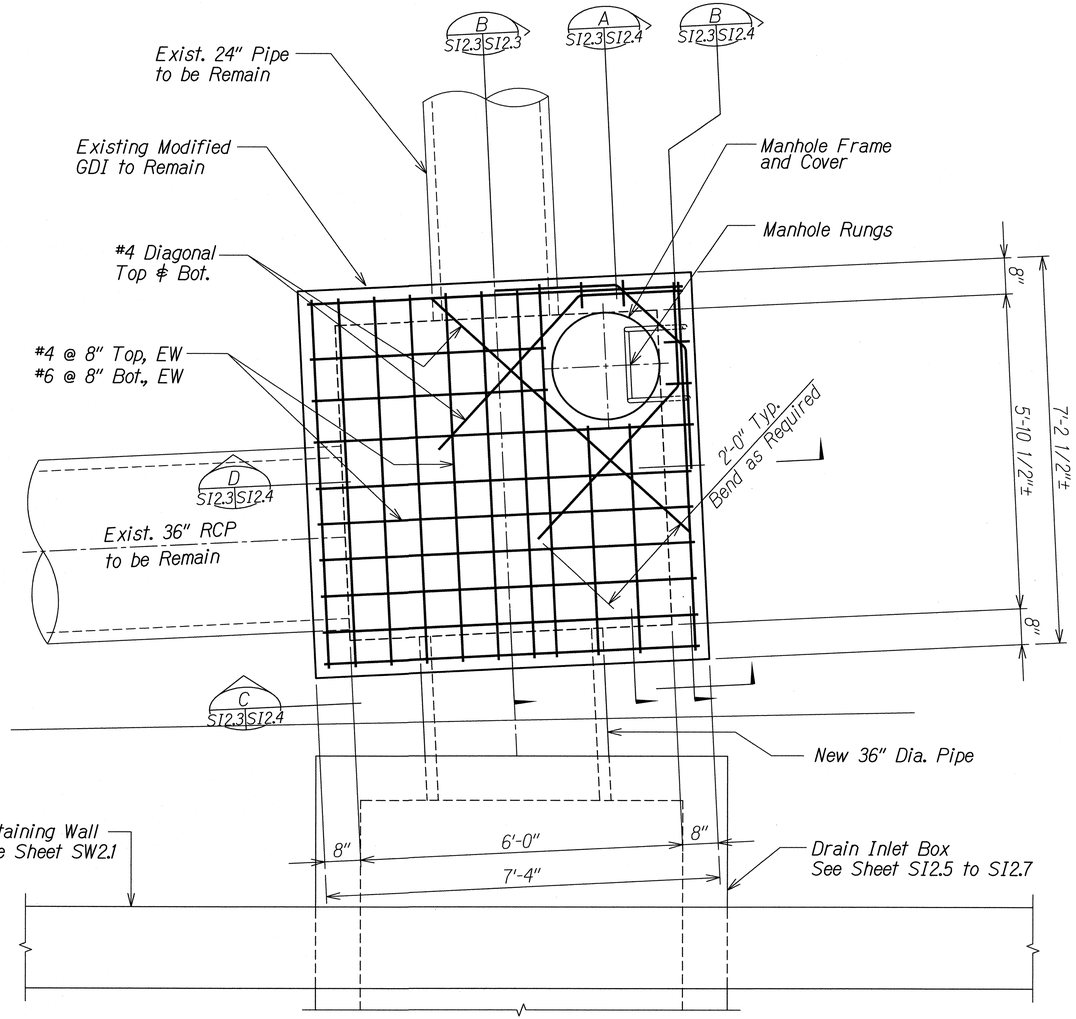
SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

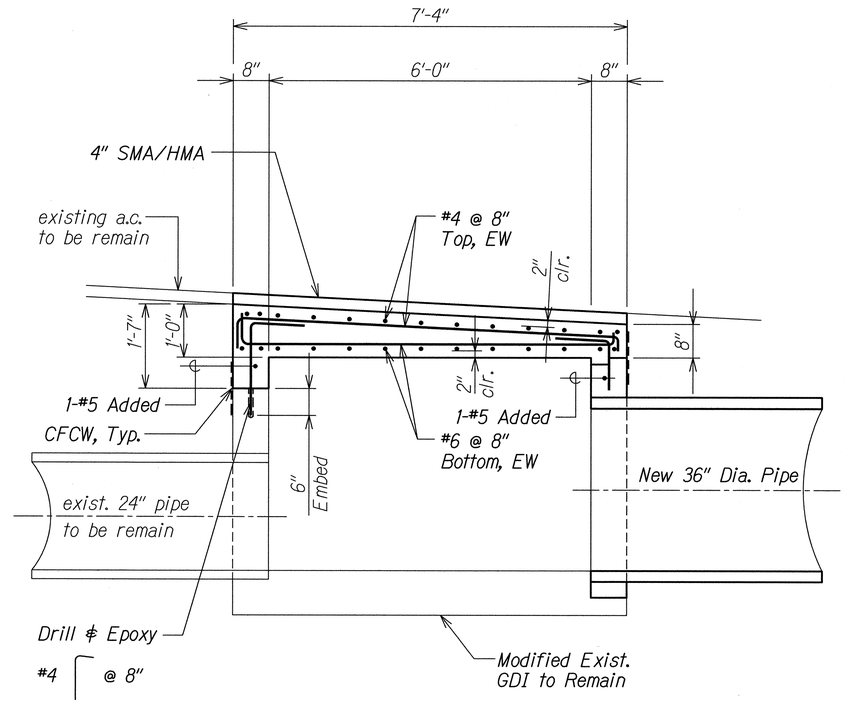
SHEET No. S12.2 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	361	382



MODIFIED EXISTING GDI AT STA. 125+75.37 - PLAN (A SI2.3 SI2.3)

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



SECTION (B SI2.3 SI2.3)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 125+75.37
PLAN AND SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

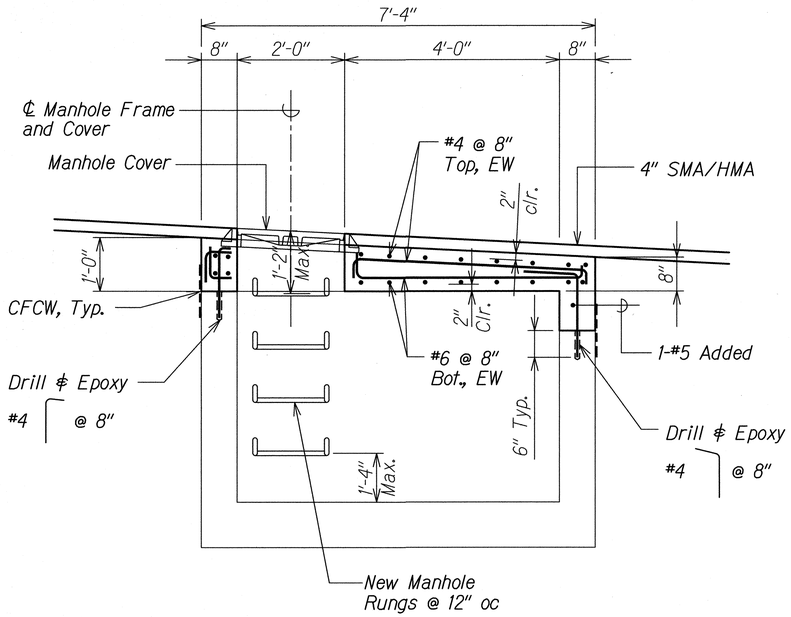
Scale: As Shown Date: April 26, 2013

SHEET No. SI2.3 OF 86 SHEETS

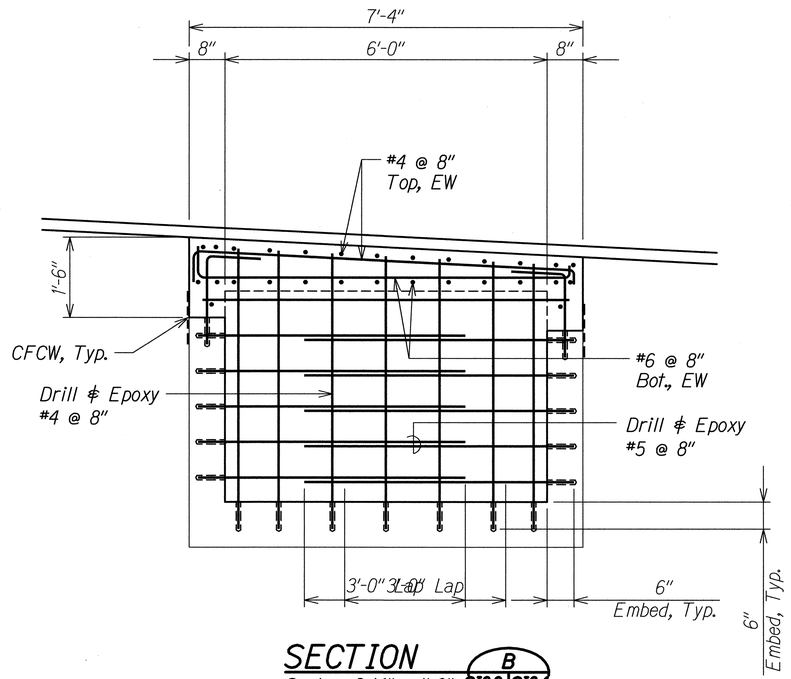
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
No.	TRACED BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100K\HRF-SI201.DWG PLOT TIME: 05-17-13, 2:55 PM)

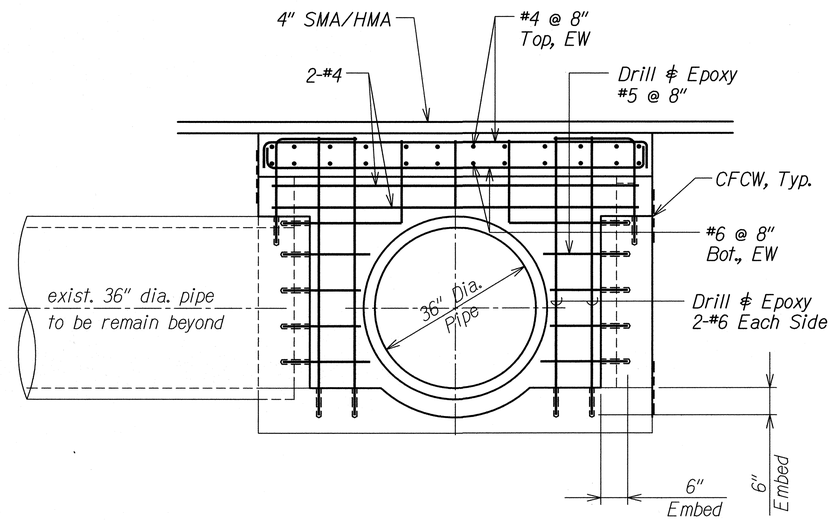
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H1-1(269)	2013	362	382



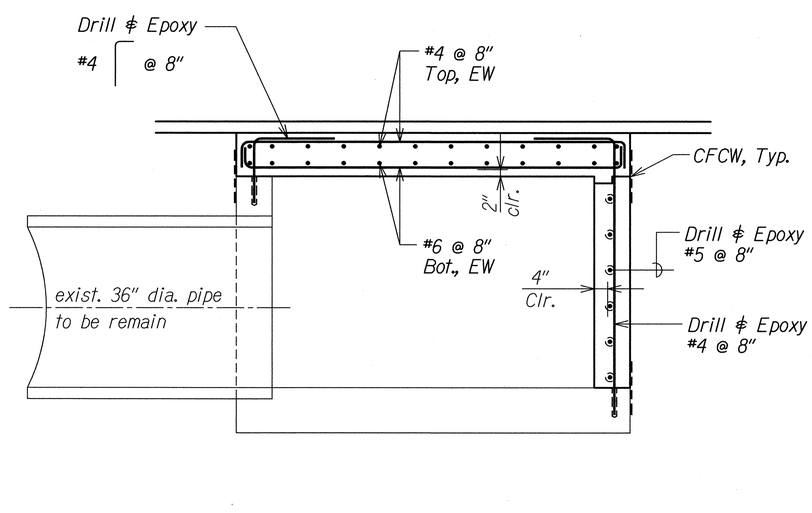
SECTION A
Scale: 3/4" = 1'-0" S123 S124



SECTION B
Scale: 3/4" = 1'-0" S123 S124



SECTION C
Scale: 3/4" = 1'-0" S123 S124



SECTION D
Scale: 3/4" = 1'-0" S123 S124

DRAWING NAME: Z:\00_ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\H1RF-S1201.DWG PLOT TIME: 05-17-13, 2:56 PM)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 125+75.37

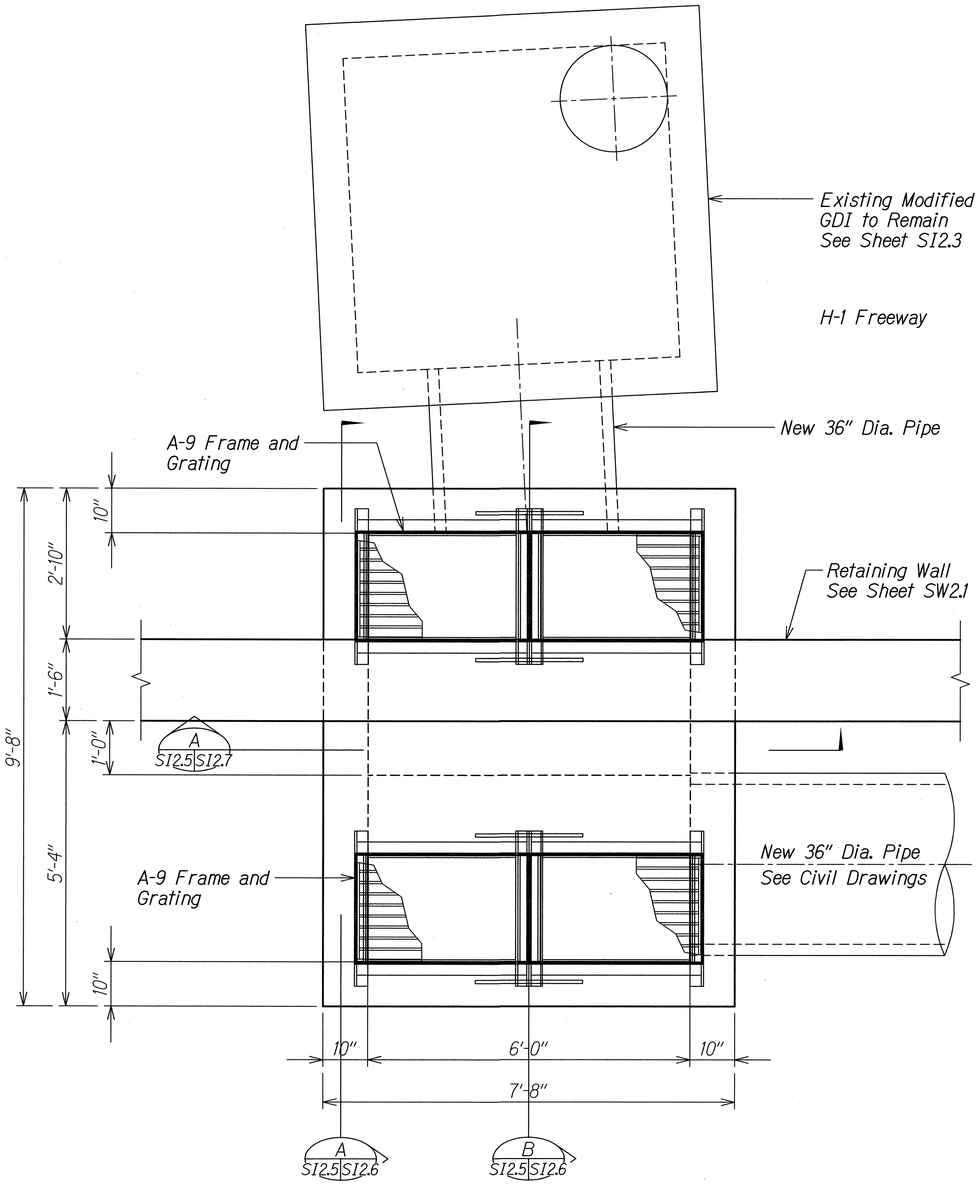
SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-H1-1(269)

Scale: As Shown Date: April 26, 2013

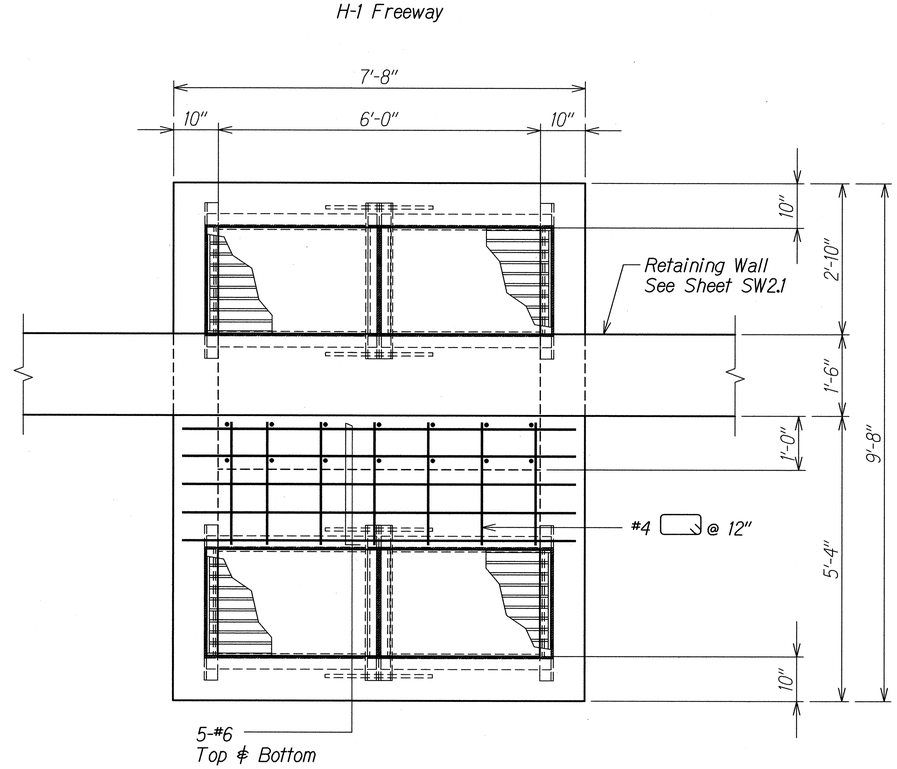
SHEET No. S12.4 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	363	382



GDI AT STA. 125+75.37 - PLAN (A SI2.5 SI2.5)

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



TOP SLAB REINFORCING PLAN (B SI2.5 SI2.5)

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

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

DRAWING NAME: Z:\06 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\H1RF-SI201.DWG PLOT TIME: 05-17-13, 2:56 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

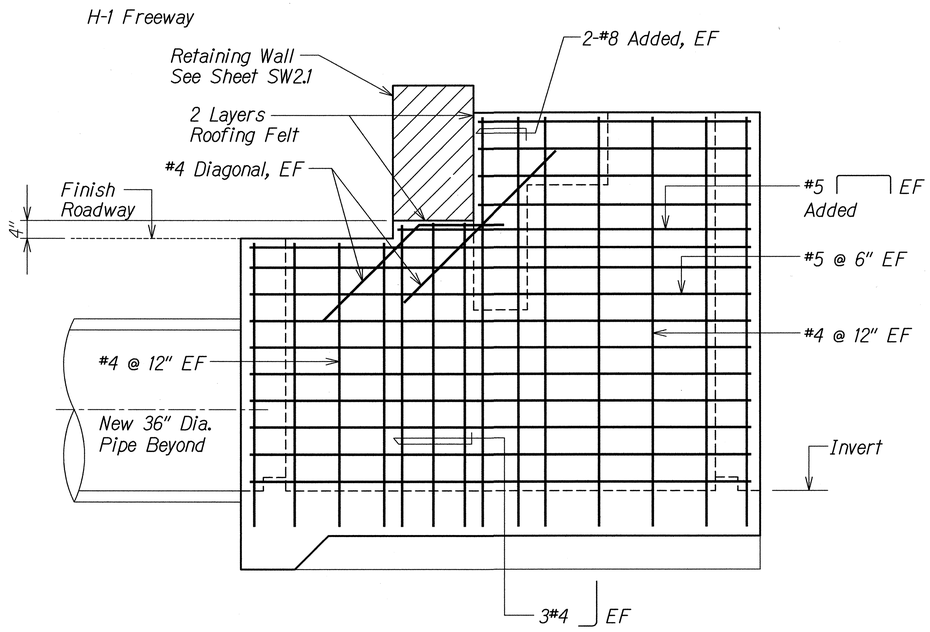
GDI AT STA. 125+75.37
PLANS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

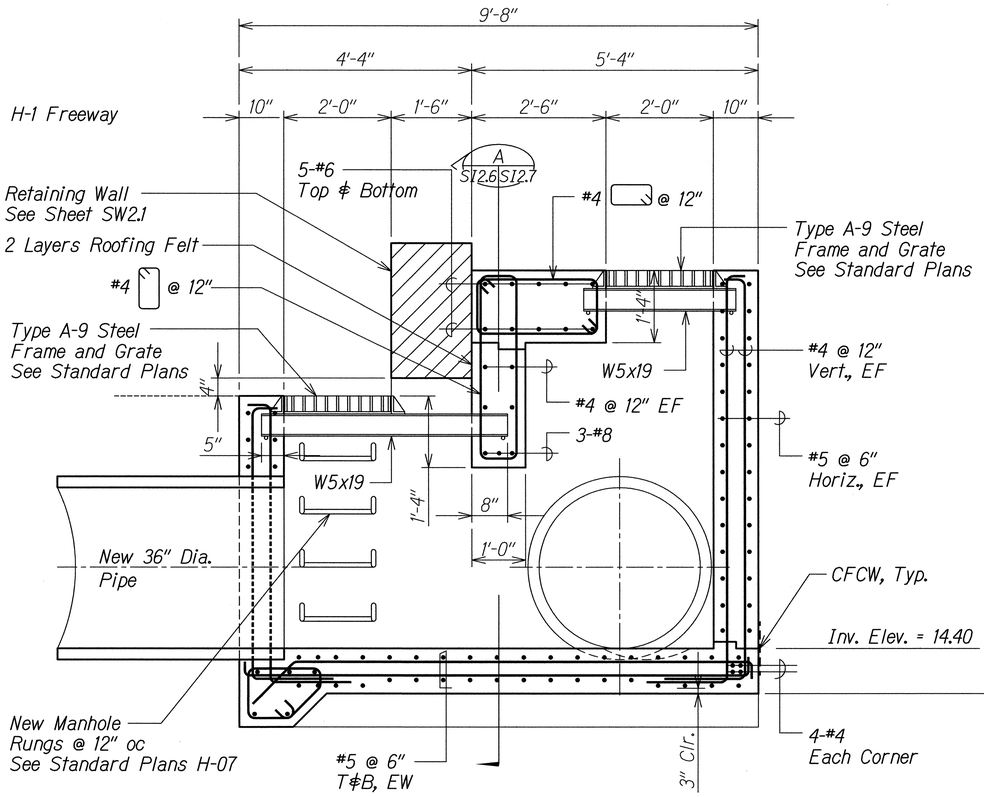
Scale: As Shown Date: April 26, 2013

SHEET No. SI2.5 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	364	382



SECTION A
Scale: 3/4" = 1'-0" SI25 | SI26



SECTION B
Scale: 3/4" = 1'-0" SI25 | SI26

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 125+75.37
SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

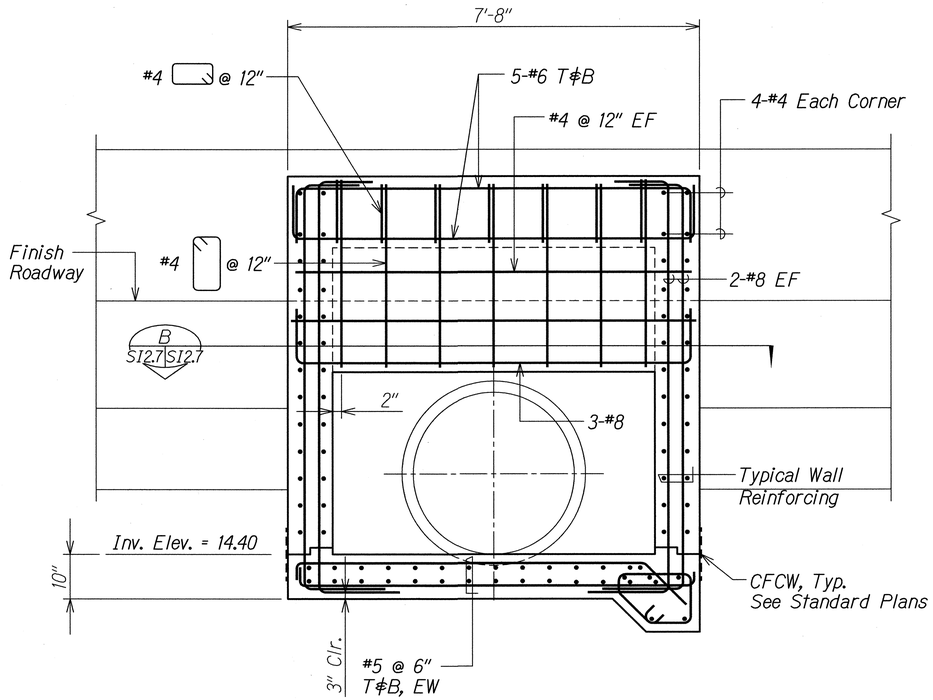
SHEET No. SI2.6 OF 86 SHEETS

364

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

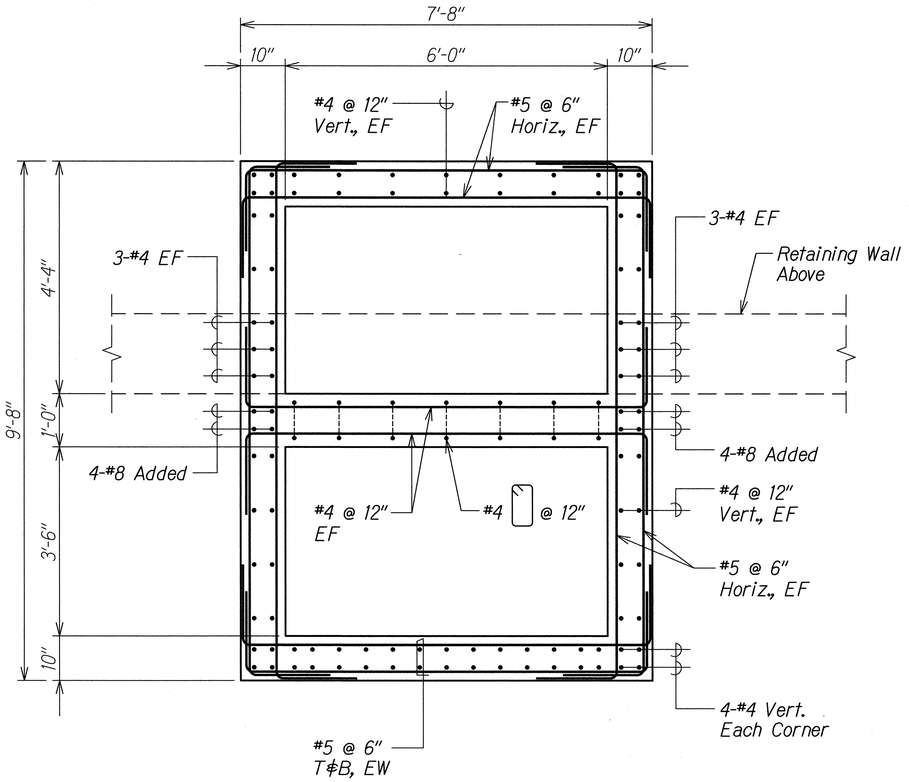
DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HIRF-SI201.DWG PLOT TIME: 05-17-13, 2:56 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	365	382



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

A
S12.6 S12.7
S12.7



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

B
S12.7 S12.7

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 125+75.37
SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

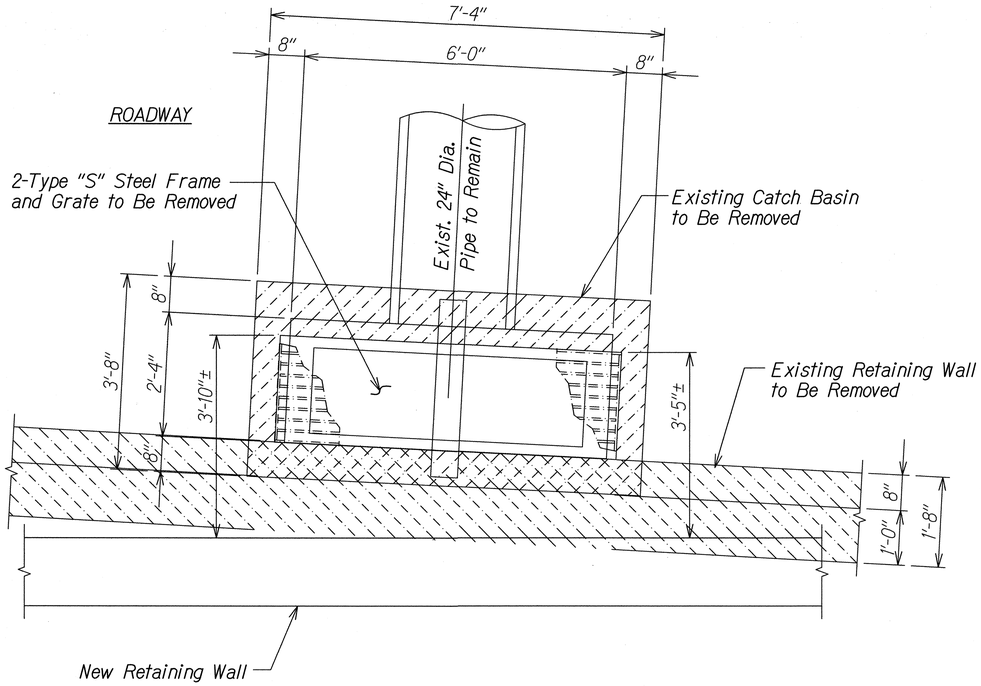
Scale: As Shown Date: April 26, 2013

SHEET No. S12.7 OF 86 SHEETS

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

DRAWING NAME: Z:\OO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HRF-S201.DWG PLOT TIME: 05-17-13, 2:56 PM)

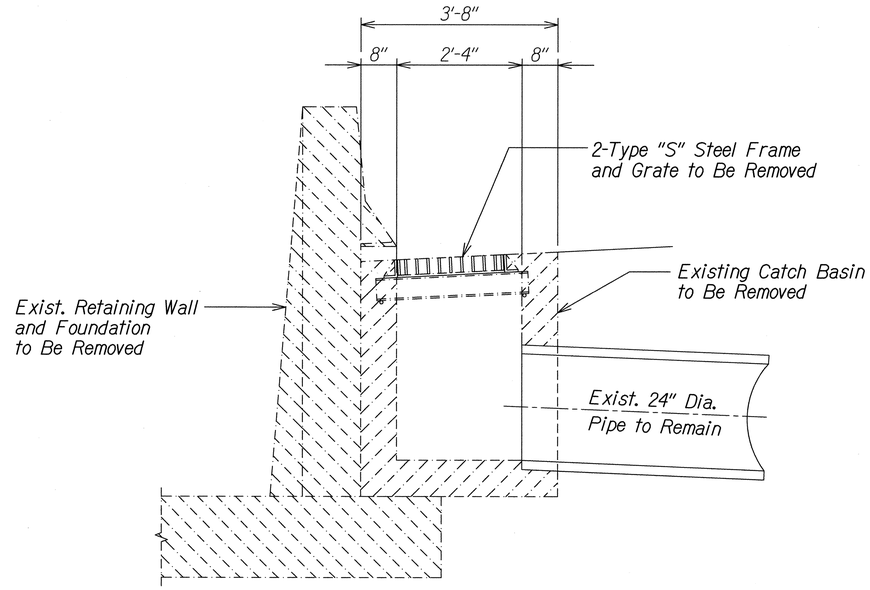
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	366	382



EXISTING GDI AT STA. 128+24.77 - DEMO PLAN

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

S13J | S13J



SECTION

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

S13J | S13J

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

DRAWING NAME: Z:\OO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 1002%H1RF-SI301.DWG PLOT TIME: 05-17-13, 2:56 PM

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

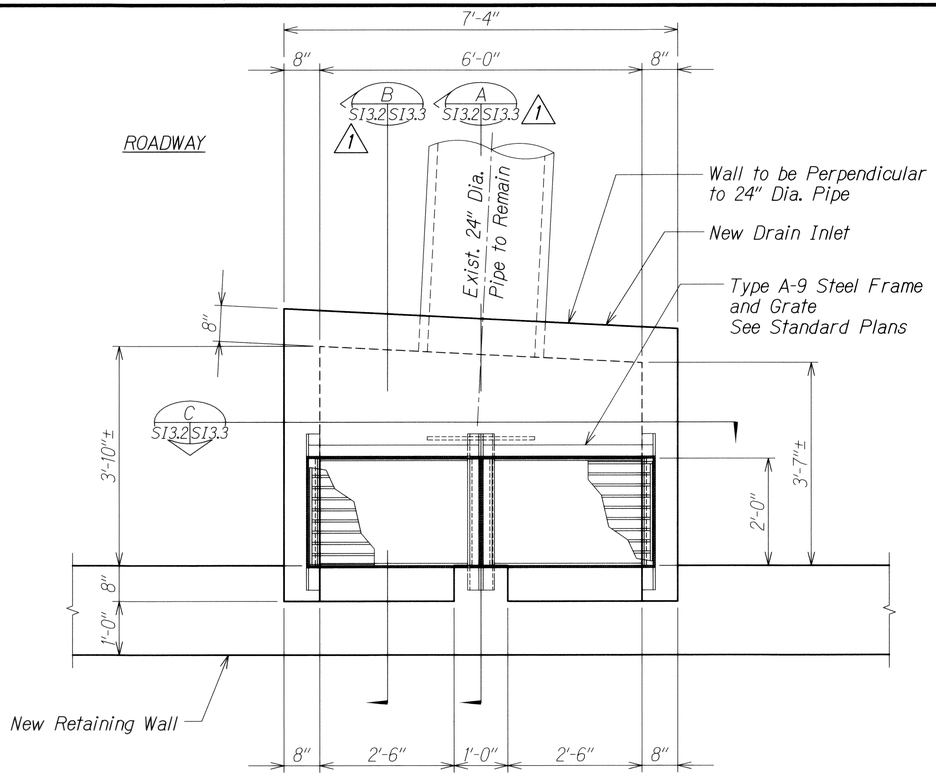
GDI AT STA. 128+24.77
DEMO PLAN AND SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

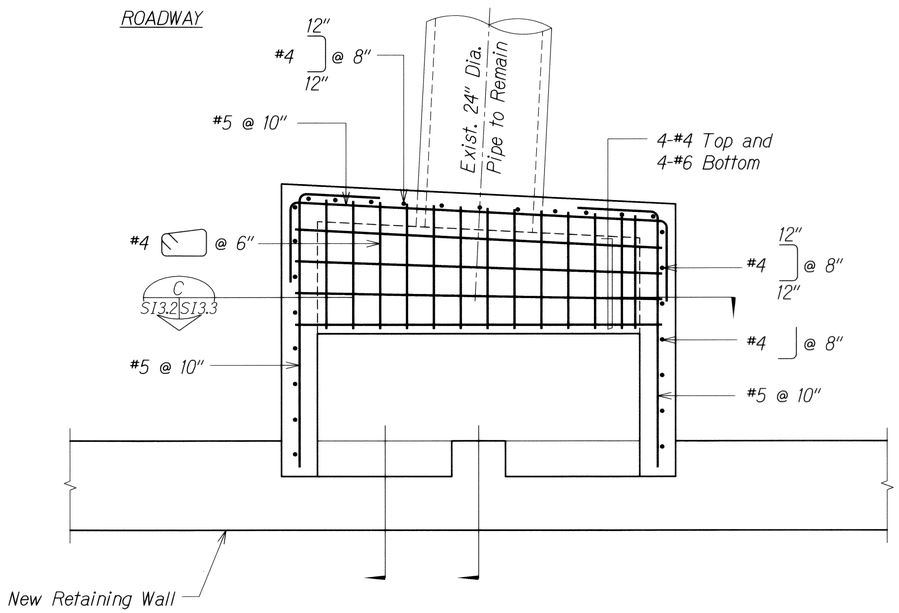
SHEET No. S13.1 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 367	382



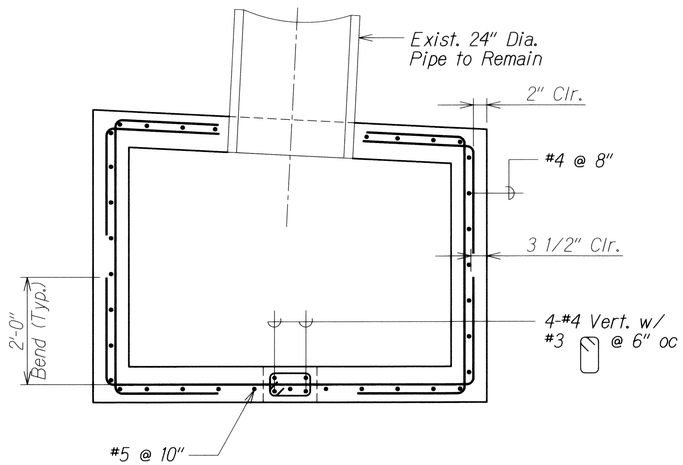
GDI AT STA. 128+24.77 - PLAN (A SI3.2 SI3.3)

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



TOP SLAB REINFORCING - PLAN (B SI3.2 SI3.2)

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



SECTION (C SI3.3 SI3.2)

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

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

DRAWING NAME: Z:\00 ONGOING\11-039 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRF-S300 ADD.DWG PLOT TIME: 06-14-13, 10:36 AM

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

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

DATE	REVISION
6/14/13	1 Revise Section Callout

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 128+24.77 PLANS AND SECTION

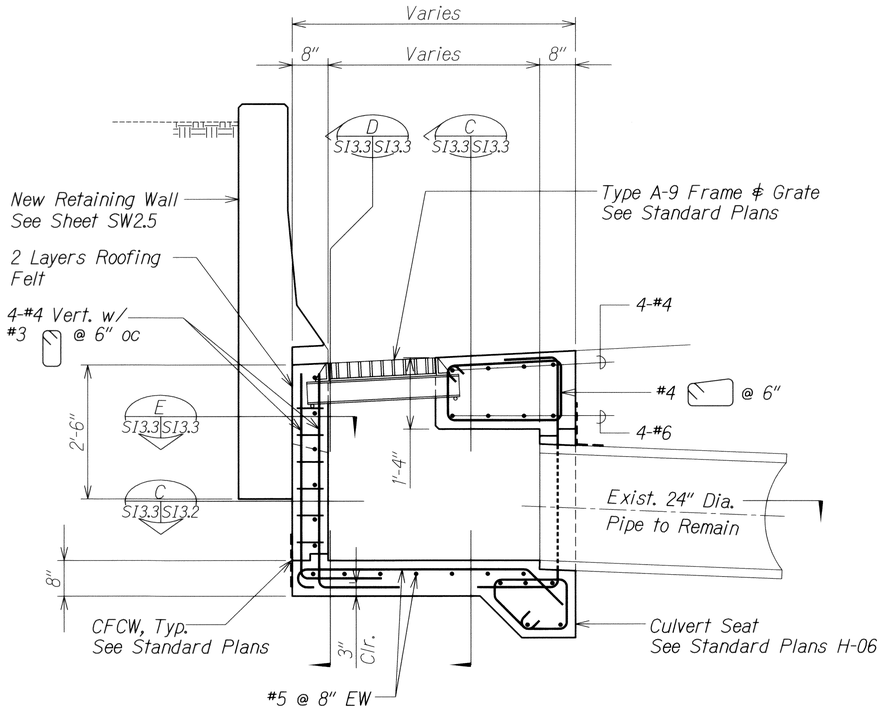
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

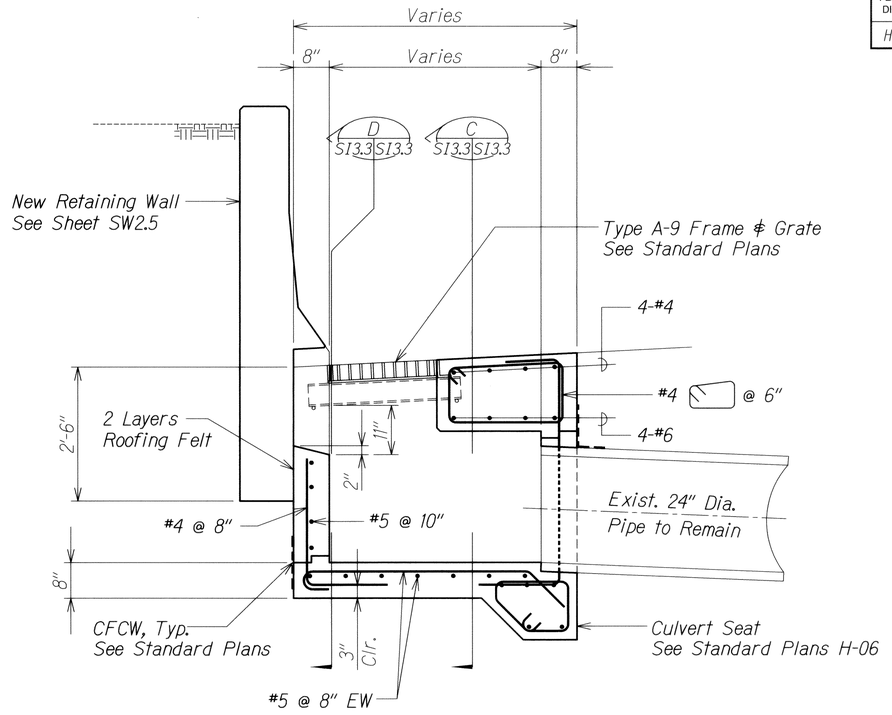
SHEET No. SI3.2 OF 86 SHEETS

ADD. 367

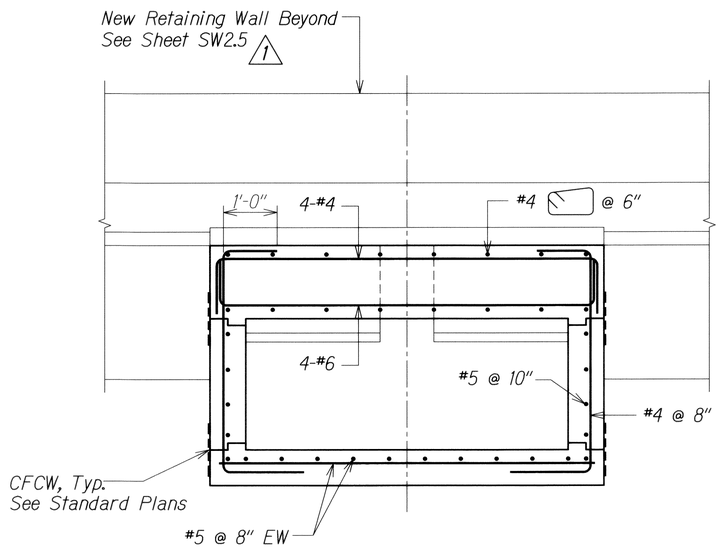
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 368	382



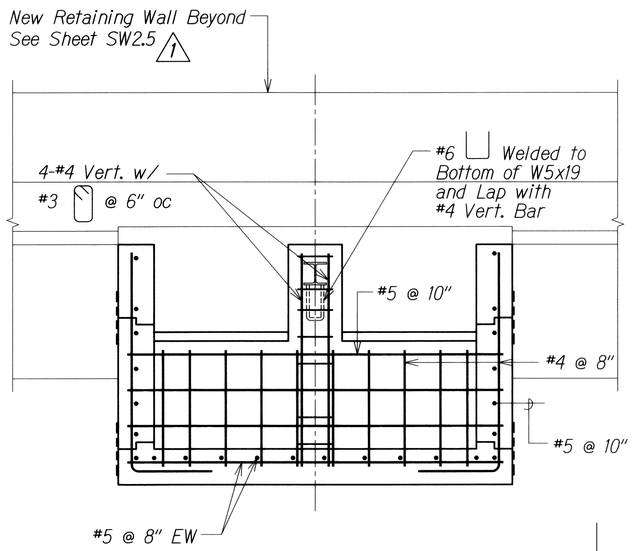
SECTION A
Scale: 3/4" = 1'-0" SI3.2 SI3.3



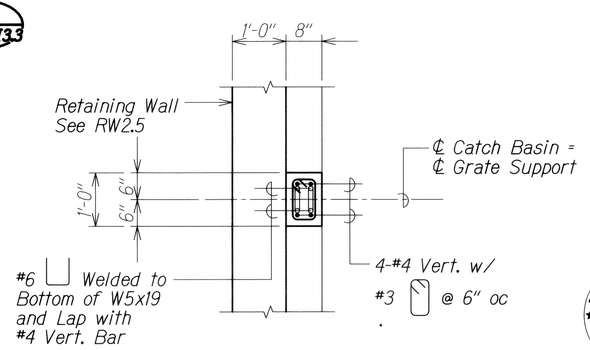
SECTION B
Scale: 3/4" = 1'-0" SI3.2 SI3.3



SECTION C
Scale: 3/4" = 1'-0" SI3.3 SI3.3



SECTION D
Scale: 3/4" = 1'-0" SI3.3 SI3.3



SECTION E
Scale: 3/4" = 1'-0" SI3.3 SI3.3

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara

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

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

DATE	REVISION
6/14/13	1 Revise Notes

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 128+24.77
SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

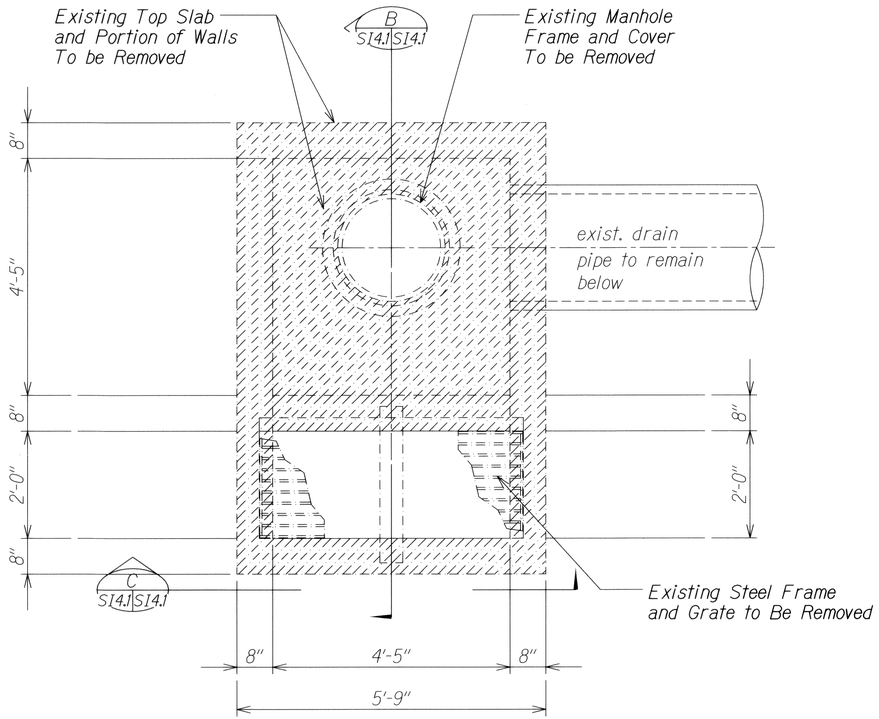
Scale: As Shown Date: April 26, 2013

SHEET No. SI3.3 OF 86 SHEETS

ADD. 368

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HRF-SI301 ADD.DWG PLOT TIME: 06-14-13, 10:37 AM

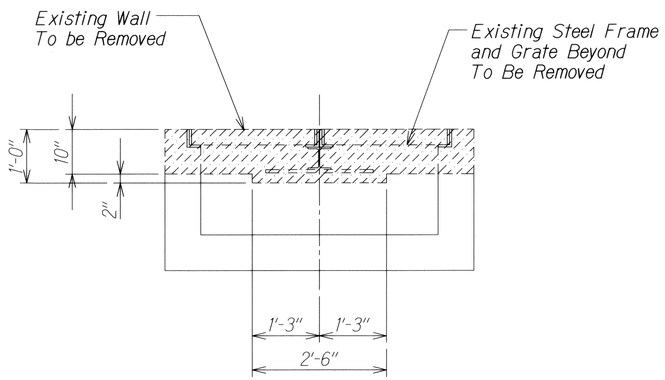
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 369	382



EXISTING GDI AT STA. 85+00 AND STA. 148+00 - DEMO PLAN

A S14.1 S14.1

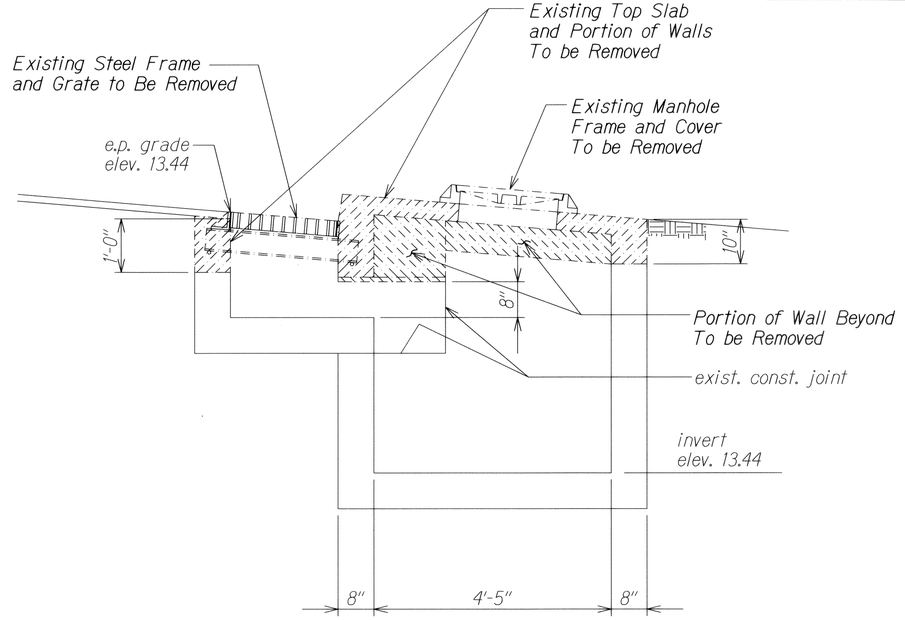
Scale: 3/4" = 1'-0"



SECTION

C S14.1 S14.1

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



SECTION

B S14.1 S14.1

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

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE BOOK | No.

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\HIRF-S1401 ADD.DWG PLOT TIME: 06-14-13, 10:40 AM)

DATE	REVISION
6/14/13	1 Revise Title Block

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 85+00 AND STA. 148+00 DEMO PLAN AND SECTIONS 1

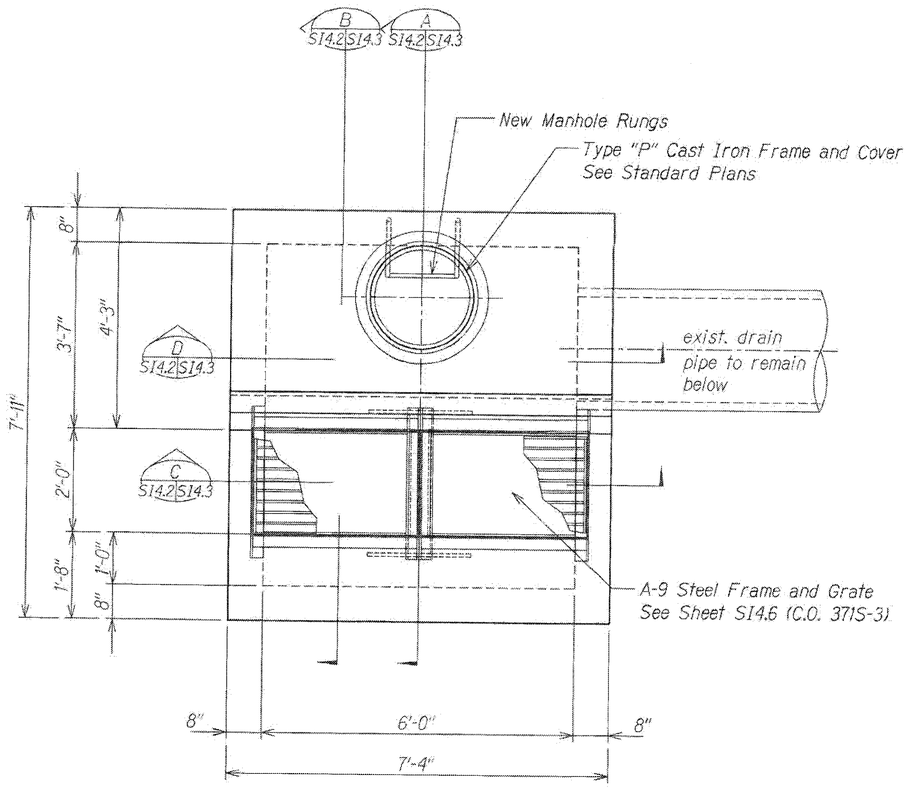
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown — Date: April 26, 2013

SHEET No. S14.1 OF 86 SHEETS

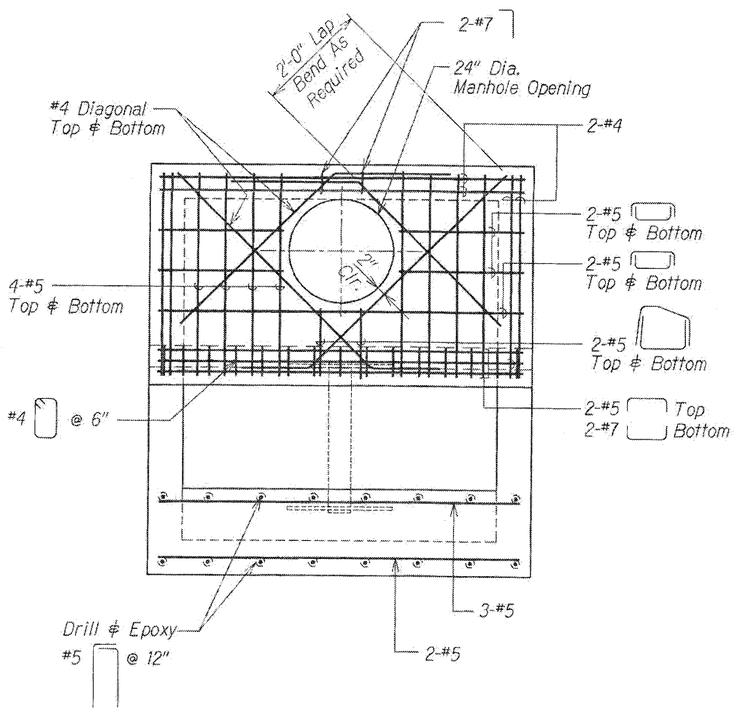
ADD. 369

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	C.O. 370	382



MODIFIED EXISTING GDI AT STA. 85+00 - PLAN (A S14.2 S14.2)

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



TOP SLAB REINFORCING PLAN (B S14.2 S14.2)

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

DRAWING NAME: Z:\DO ENGDNG\11-0350 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\03-03-14 CO1\H1RF_SI401 ADD RFI CO.DWG PLOT TIME: 03-03-14, 9:43 AM)

ORIGINAL PLAN | SERVICE PLOTTED BY ____ DATE ____ | DRAFT BY ____ | TRACED BY ____ | DESIGNED BY ____ | QUANTITIES BY ____ | CHECKED BY ____ | NOTE BOOK ____ | No. ____

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC. APRIL 30, 2014 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 85+00 PLANS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

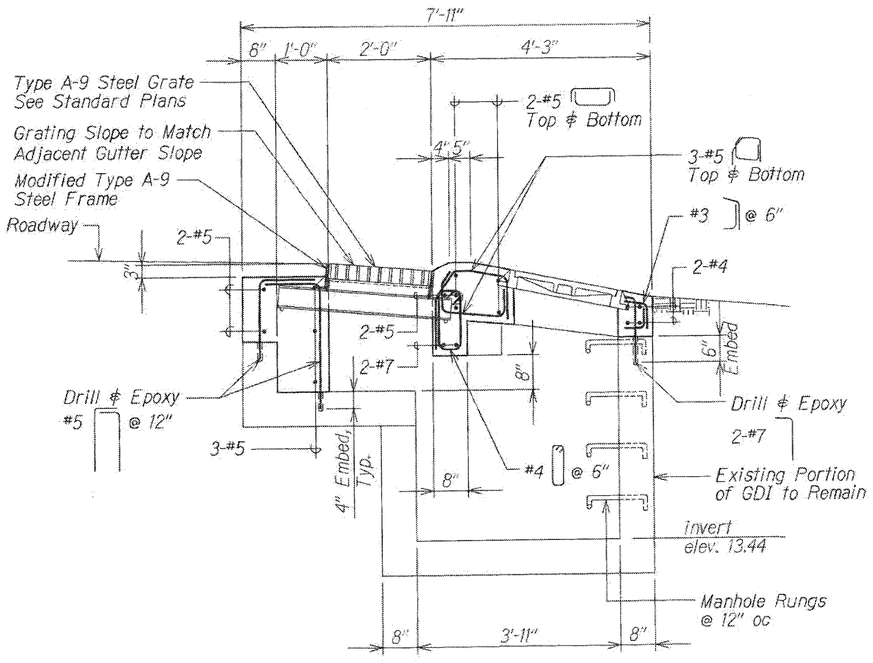
SHEET No. S14.2 OF 86 SHEETS

DATE	REVISION
03/03/14	5 C.O. - Revised Drawings

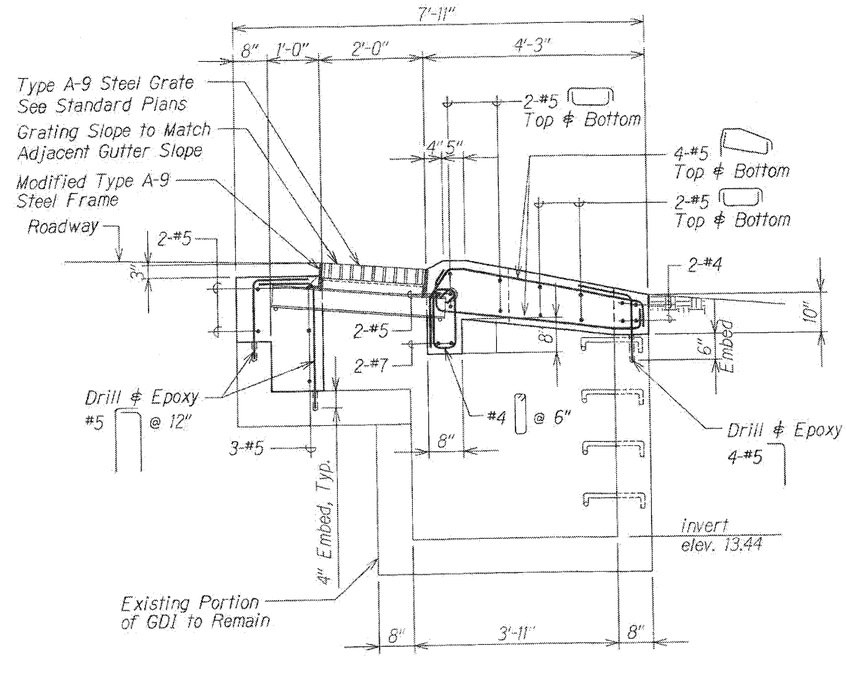
C.O. 370

RECEIVED MAY 07 2014

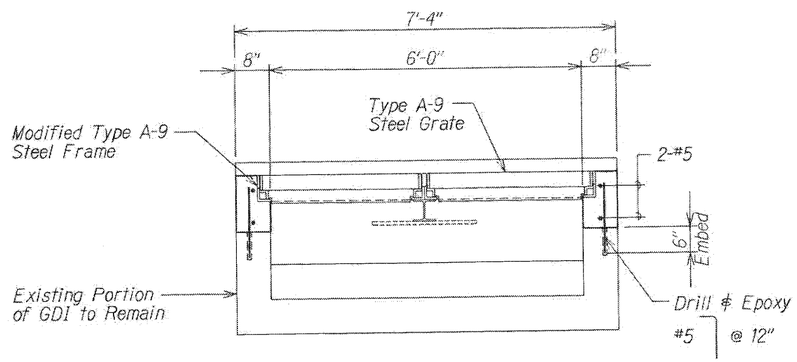
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	C.O. 371	382



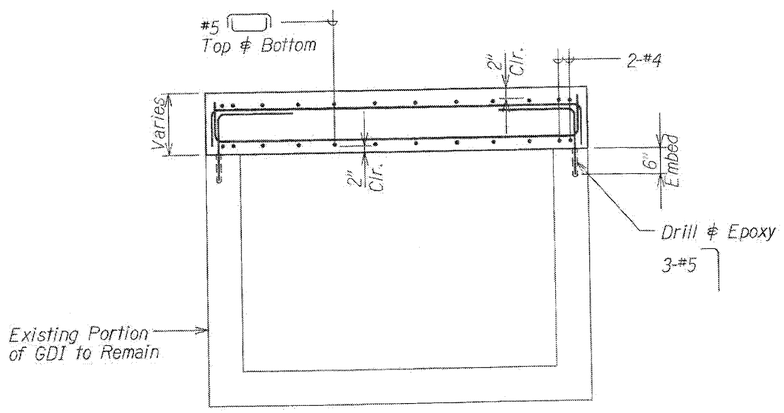
SECTION A
Scale: 3/4" = 1'-0" S14.2 | S14.3



SECTION B
Scale: 3/4" = 1'-0" S14.2 | S14.3



SECTION C
Scale: 3/4" = 1'-0" S14.2 | S14.3



SECTION D
Scale: 3/4" = 1'-0" S14.2 | S14.3

DATE	REVISION
03/03/14	5 C.O. - Revised Drawings

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 85+00 SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. S14.3 OF 86 SHEETS

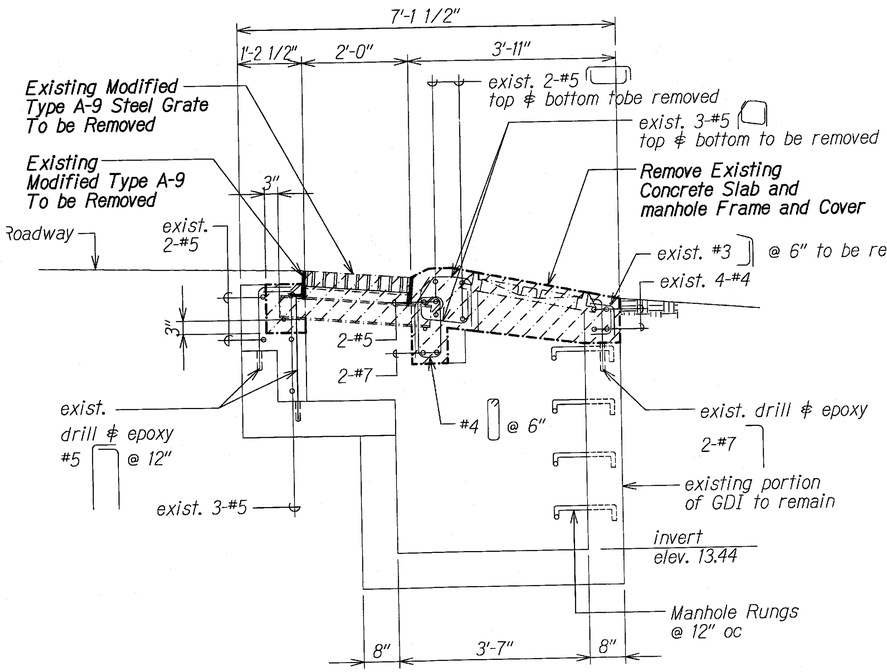
C.O. 371

JUL 07 2014

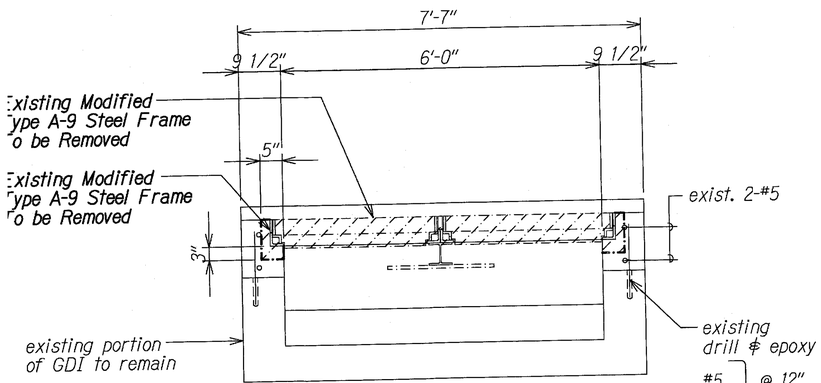
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
No.	QUANTITIES BY	
	CHECKED BY	

DRAWING NAME: Z:\00 ONGOING\11-030.0 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\03-03-14 C01\H1RF-S1401 ADD RFI CO.DWG PLOT TIME: 03-03-14, 9:44 AM)

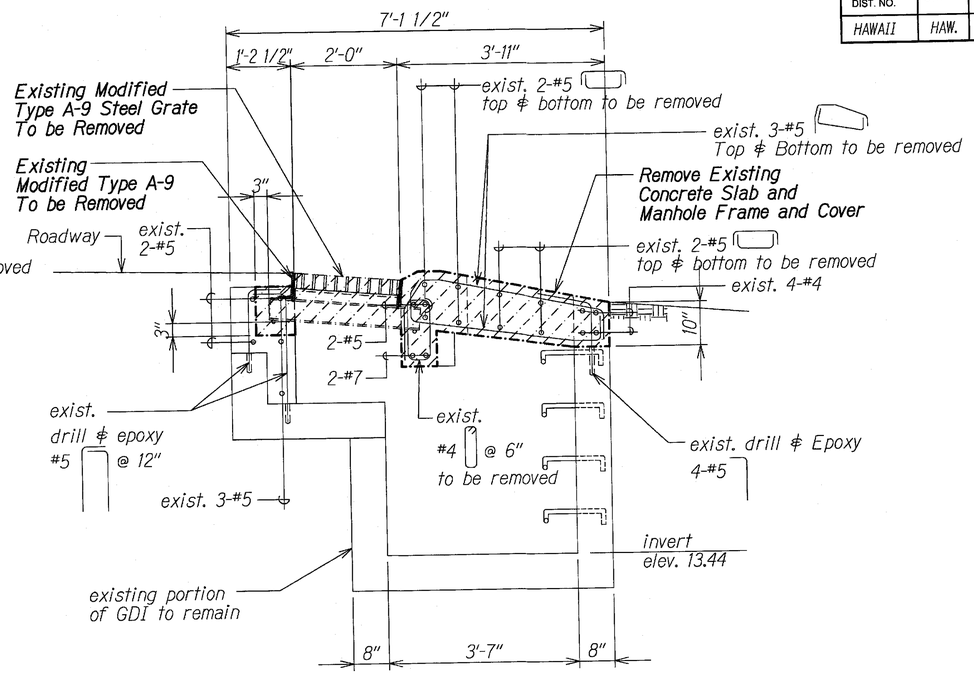
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	371S-1	382



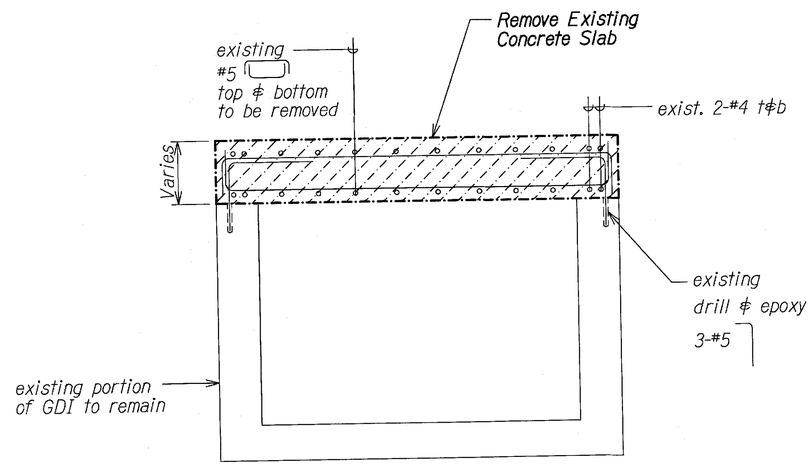
SECTION A
Scale: 3/4" = 1'-0" SI47A SI47B



SECTION C
Scale: 3/4" = 1'-0" SI47A SI47B



SECTION B
Scale: 3/4" = 1'-0" SI47B SI47B



SECTION D
Scale: 3/4" = 1'-0" SI47A SI47B

Notes:
1. Remove and reuse steel beam, frame, and grate. The steel beam, frame, and grate shall not be damaged in any way.
2. All existing rebar shall remain in place and shall not be damaged in any way unless otherwise noted.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

KSF, INC. — APRIL 30, 2 LIC. EXP. D

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 148+00
DEMOLITION SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenu
FAP No. IM-HI-1(269)

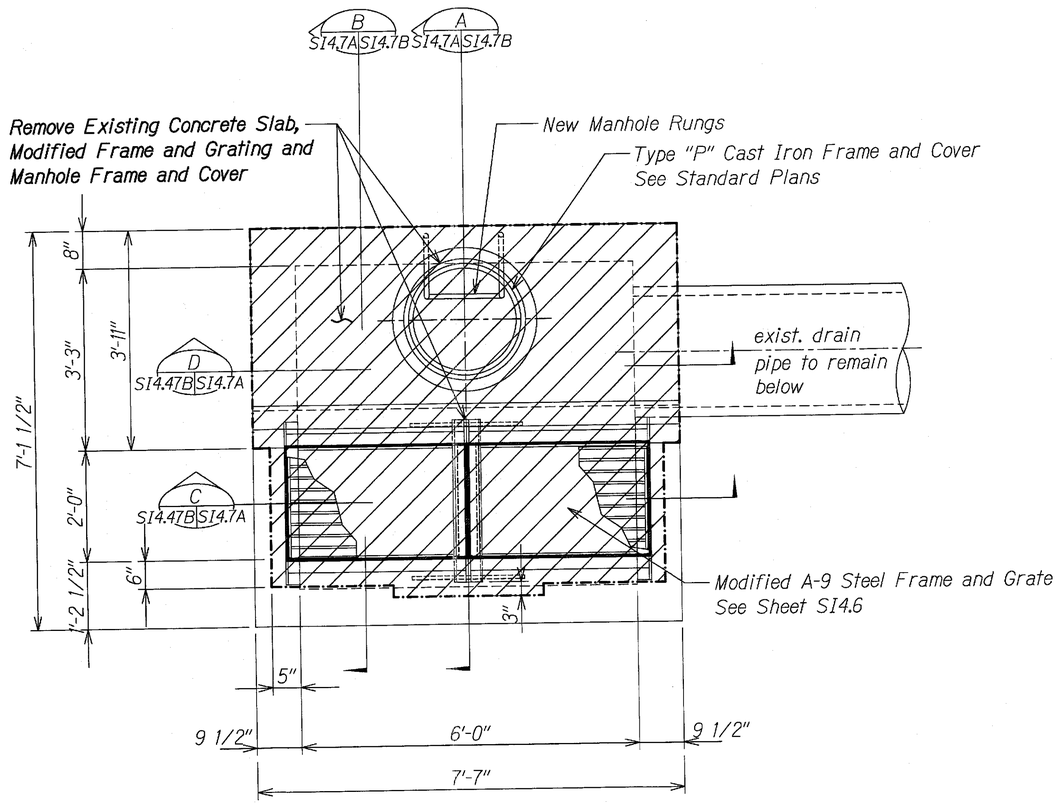
Scale: As Shown — Date: July 18, 2014

SHEET No. SI47A OF 86 SHEETS

JUL 18 2014

371 S-1

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	371S-2	382



EXISTING GDI AT STA. 148+00 - DEMOLITION PLAN

A SI4.7A SI4.7A

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 148+00
DEMOLITION PLAN

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: July 18, 2014

SHEET No. SI4.7B OF 86 SHEETS

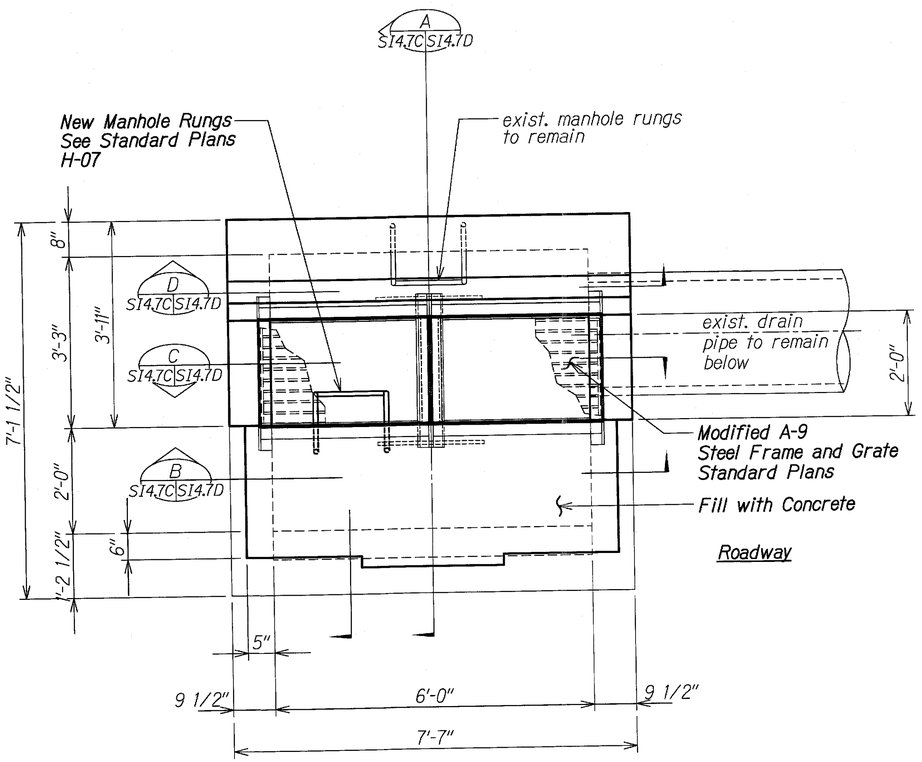
JUL 18 2014

371 S-2

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

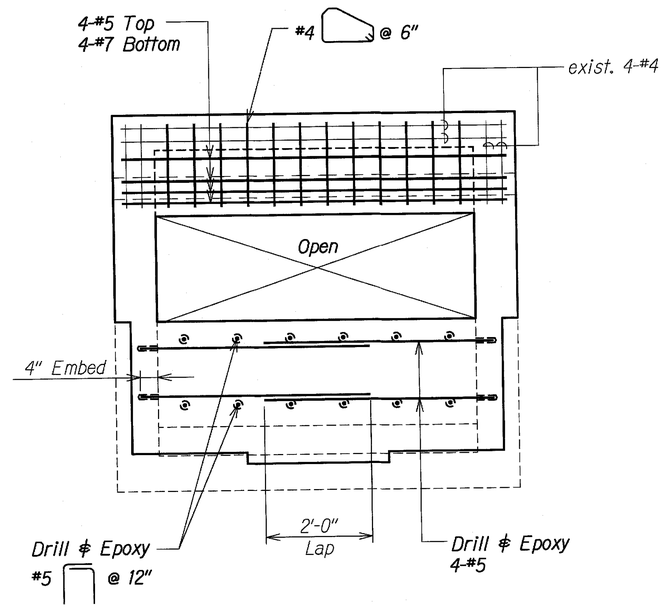
DRAWING NAME: Z:\00 ONGOING\I-030.1 H1 RESURFACING LIKELIKE TO PUNCHBOWL POST DESIGN-PB TM\CAD\07-18-14 RFT\HRF-SI404 C01 RFT.DWG PLOT TIME: 07-18-14, 1:38 PM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	371-S3	382



EXISTING GDI AT STA. 148+00 - DEMOLITION PLAN (A S14.7C S14.7C)

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



TOP SLAB REINFORCING PLAN (B S14.7C S14.7C)

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

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

KSF, INC. — APRIL 30, 20[illegible]
LIC. EXP. DA[illegible]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 148+00
PLAN AND SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

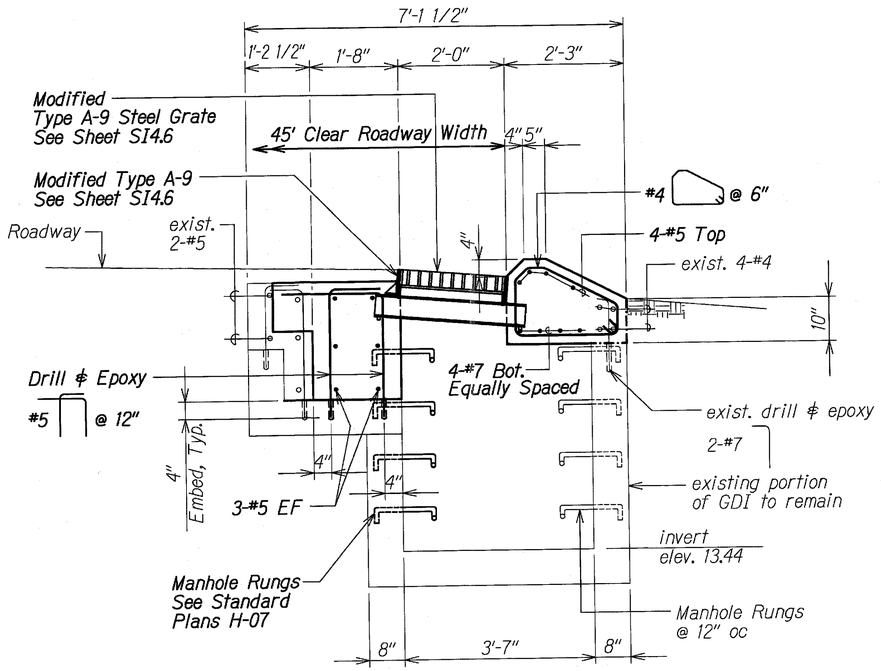
Scale: As Shown — Date: July 18, 2014

SHEET No. S14.7C OF 86 SHEETS

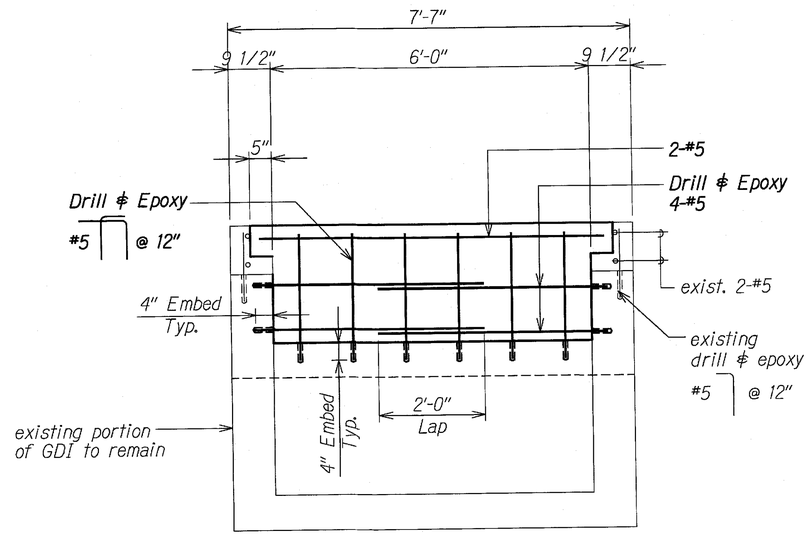
JUL 1 8 2014

371 S-3

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	3715-4	382

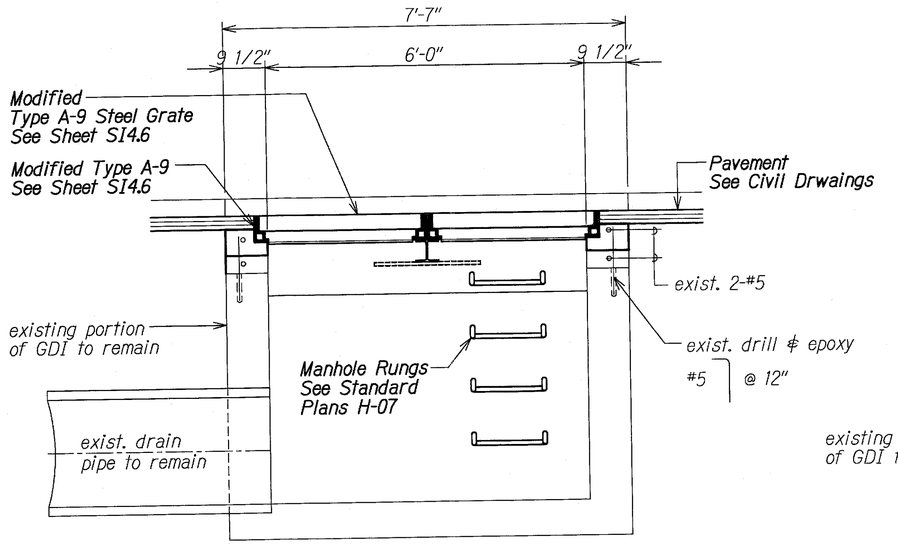


SECTION A
Scale: 3/4" = 1'-0" SI4.7C SI4.7D

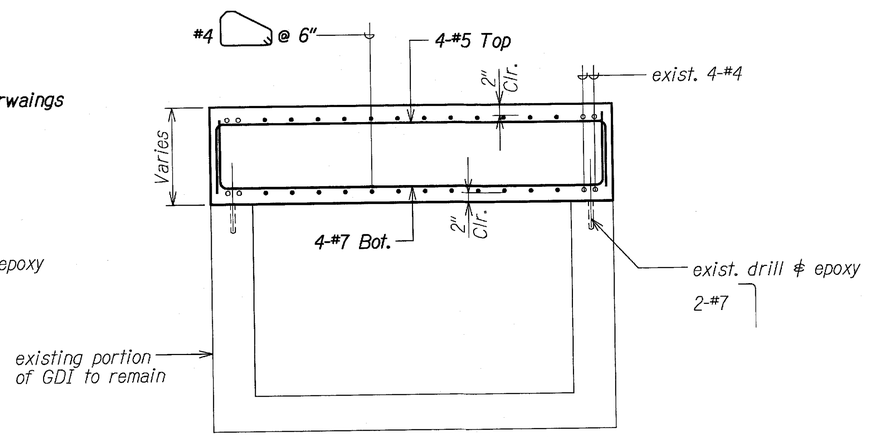


SECTION B
Scale: 3/4" = 1'-0" SI4.7C SI4.7D

Note:
Remove and reuse steel beam, frame, and grate. The steel beam, frame, and grate shall not be damaged in any way.



SECTION C
Scale: 3/4" = 1'-0" SI4.7C SI4.7D



SECTION D
Scale: 3/4" = 1'-0" SI4.7C SI4.7D

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 148+00
SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: July 18, 2014

SHEET No. SI4.7D OF 86 SHEETS

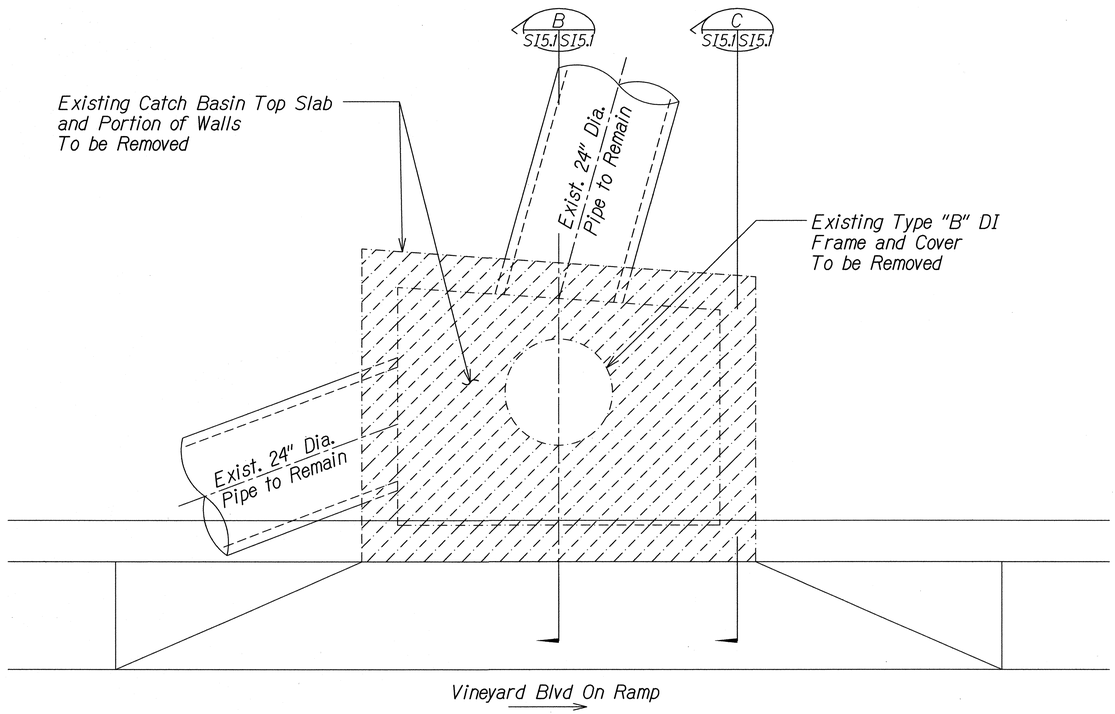
JUL 18 2014

3715-4

DRAWING NAME: Z:\00 ONGOING\11-030.1 H1 RESURFACING LIKELIKE TO PUNCHBOWL POST DESIGN-PB TM\CAD\07-18-14 REV\H1RF-SI404 C01 REF.DWG PLOT TIME: 07-18-14, 1:39 PM)

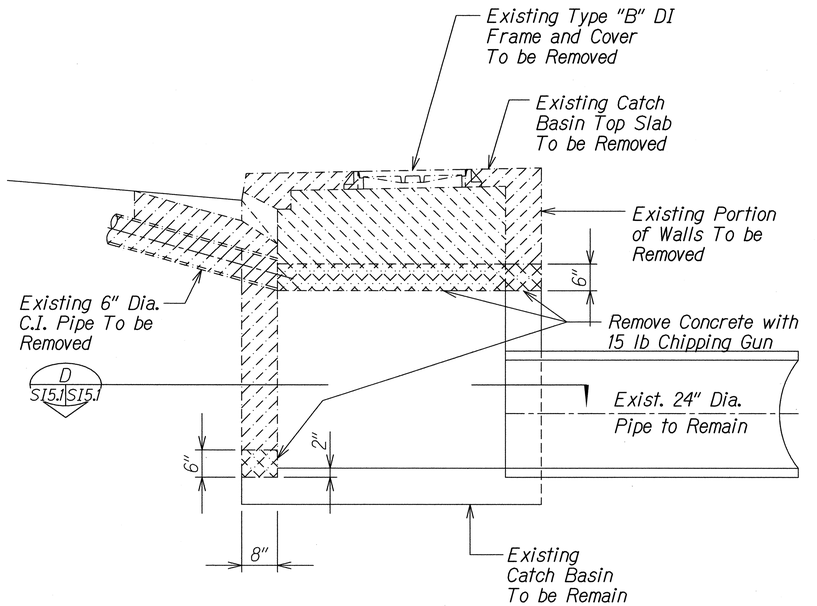
ORIGINAL PLAN
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
NOTE BOOK
No.
DATE

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	372	382



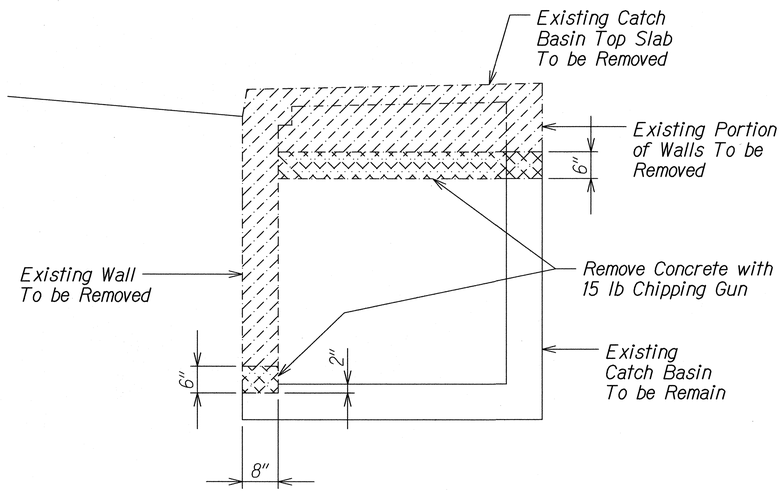
EXISTING GDI AT STA. 187+90 - DEMO PLAN (A S15.1 S15.1)

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



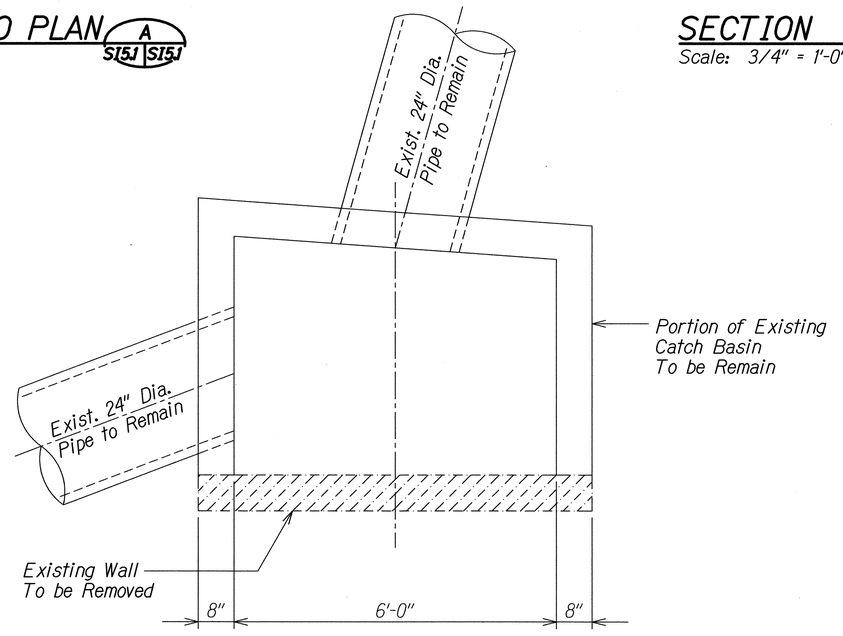
SECTION (B S15.1 S15.1)

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



SECTION (C S15.1 S15.1)

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



SECTION (D S15.1 S15.1)

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

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\H1RF-SI501.DWG PLOT TIME: 05-17-13, 2:57 PM)

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

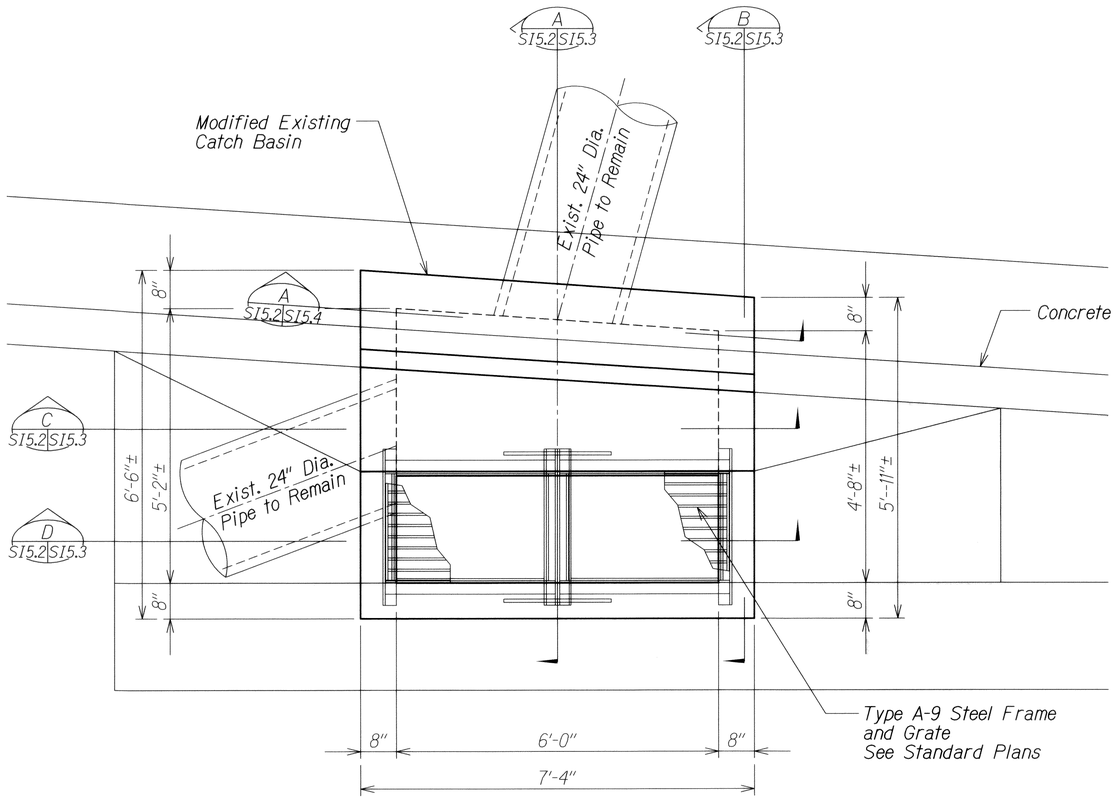
GDI AT STA. 187+90
DEMO PLAN AND SECTION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown — Date: April 26, 2013

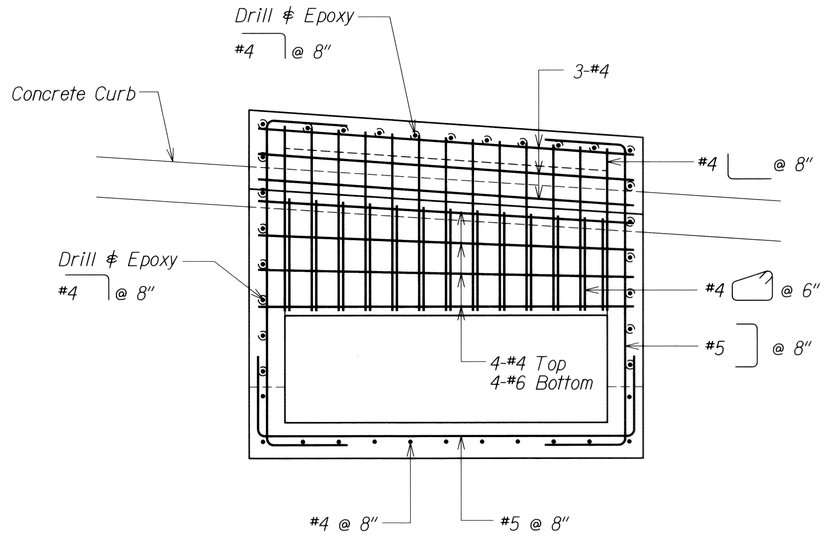
SHEET No. SI5.1 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 373	382



GDI AT STA. 187+90 - PLAN (A S15.2 | S15.2)

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



TOP SLAB REINFORCING PLAN (B S15.3 | S15.2) 1

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

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

DRAWING NAME: Z:\DO ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\H1RF-SI501 ADD.DWG PLOT TIME: 06-14-13, 10:40 AM)

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

DATE	REVISION
6/14/13	1 Revise Section Callout

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 187+90 PLANS

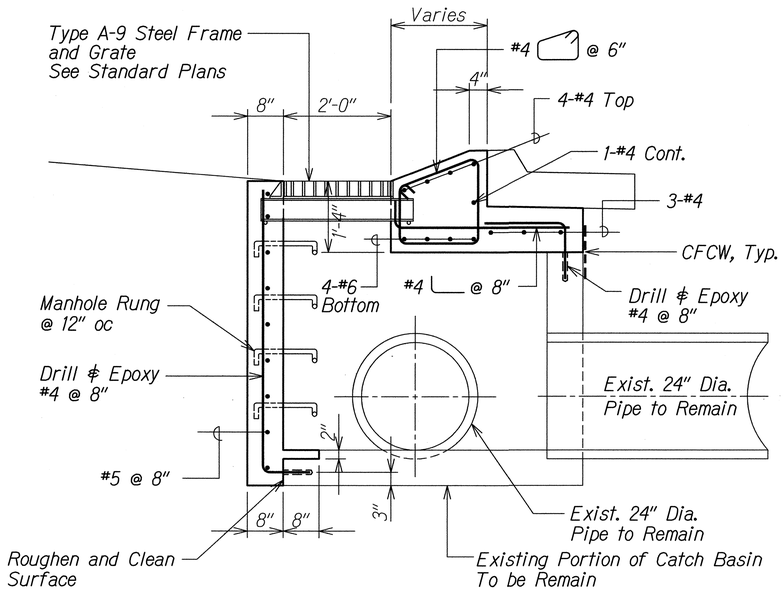
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. S15.2 OF 86 SHEETS

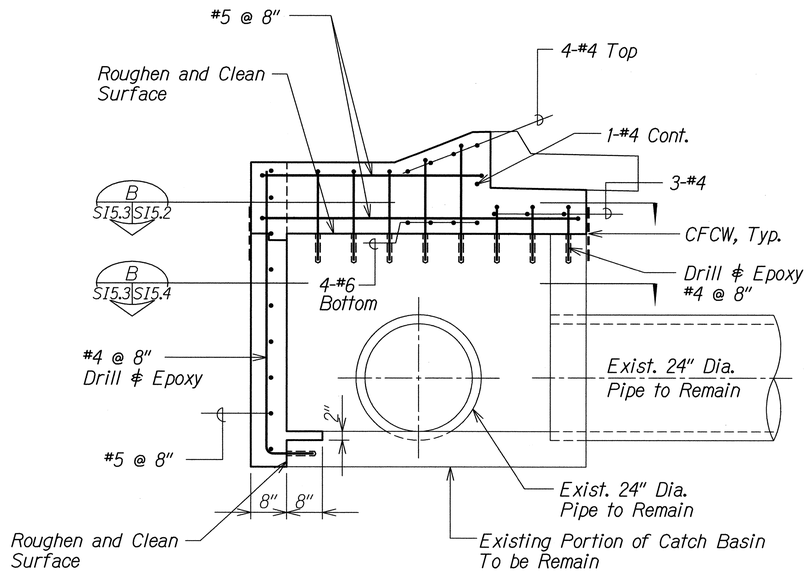
ADD. 373

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	374	382



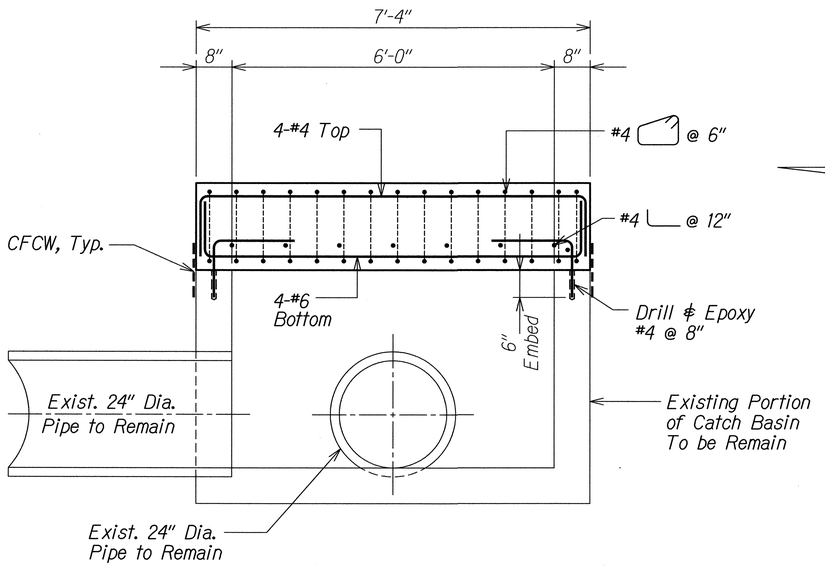
SECTION A

Scale: 3/4" = 1'-0" S15.2 | S15.3



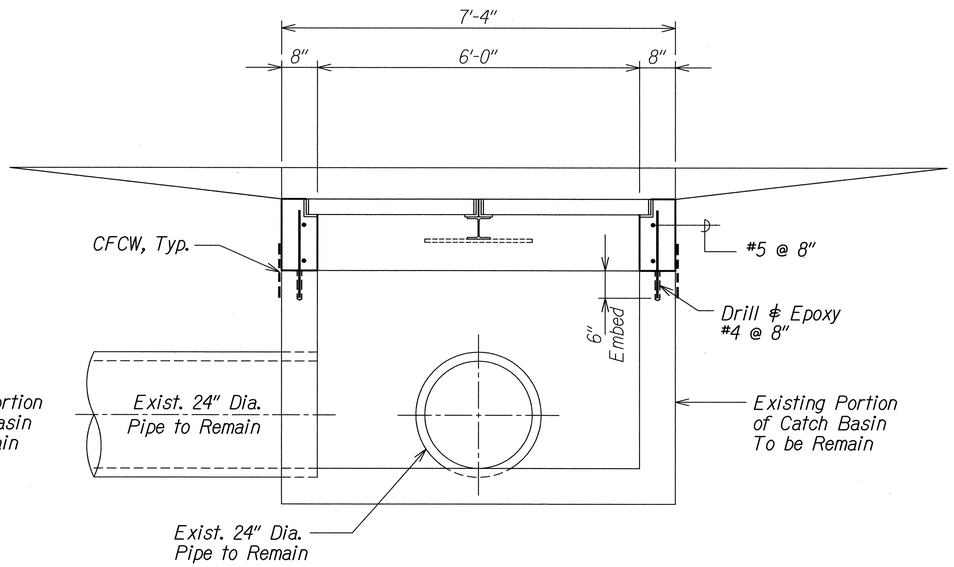
WALL SECTION B

Scale: 3/4" = 1'-0" S15.2 | S15.3



SECTION C

Scale: 3/4" = 1'-0" S15.2 | S15.3



SECTION D

Scale: 3/4" = 1'-0" S15.2 | S15.3

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

DRAWING NAME: Z:\OD ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 1003%\H1RF-SI501.DWG PLOT TIME: 05-17-13, 2:57 PM)

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

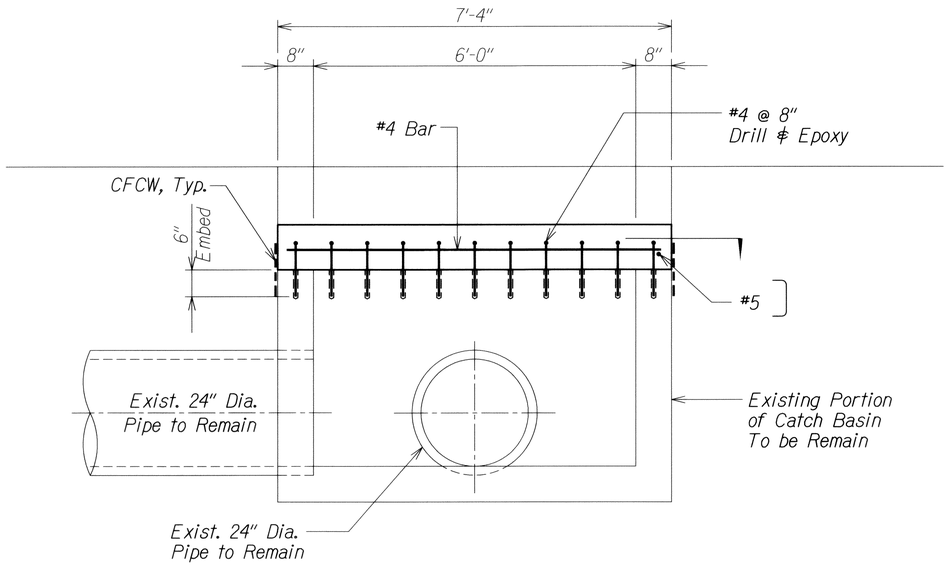
GDI AT STA. 187+90
SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

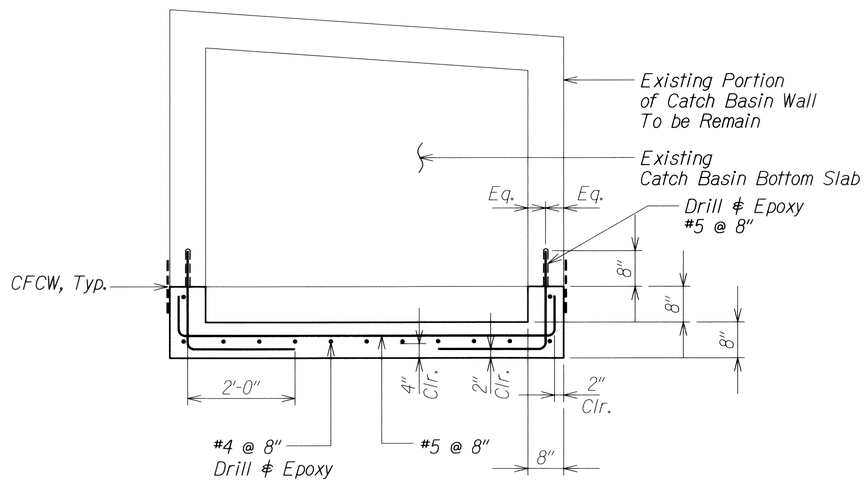
SHEET No. S15.3 OF 86 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 375	382



SECTION A

Scale: 3/4" = 1'-0" S15.4 S15.4 /1



WALL PLAN B

Scale: 3/4" = 1'-0" S15.4 S15.4 /1

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

DRAWING NAME: Z:\00 ONGOING\11-030 HI RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 1002%\HRF-S1501 ADD.DWG PLOT TIME: 06-14-13, 10:40 AM

DATE	REVISION
6/14/13	/1 Revise Section Callout

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara
KSF, INC.

APRIL 30, 2014
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GDI AT STA. 187+90
PLAN AND SECTION

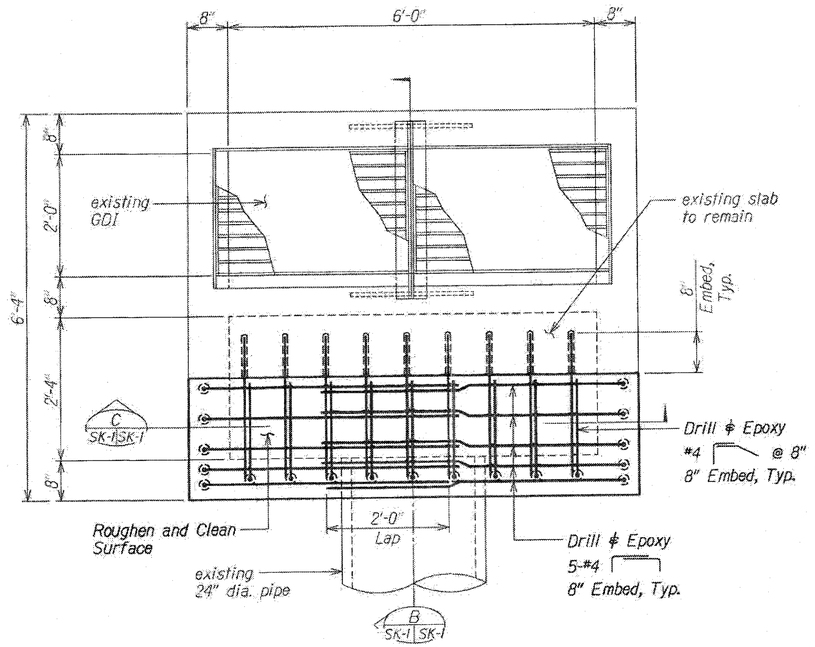
INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. S15.4 OF 86 SHEETS

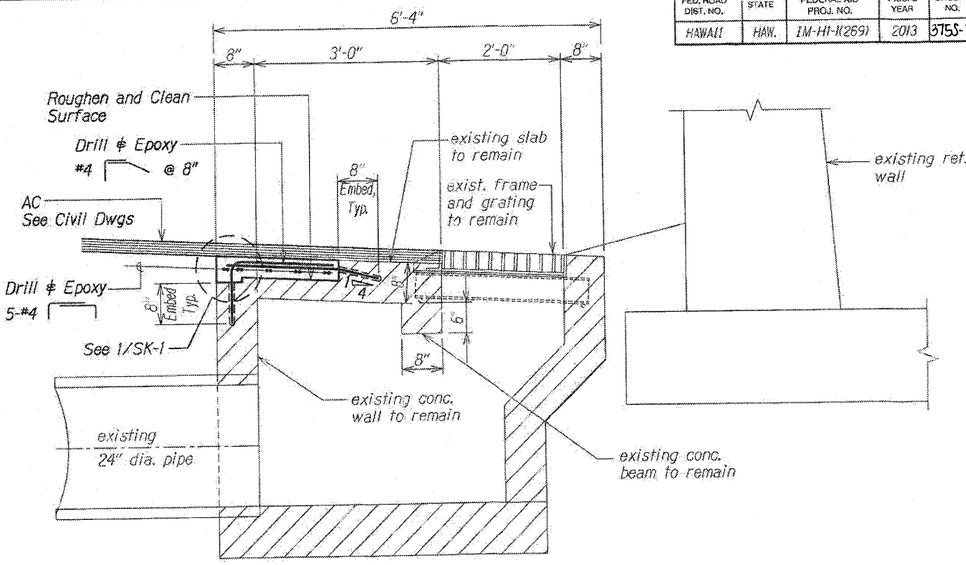
ADD. 375

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	3755-1	382



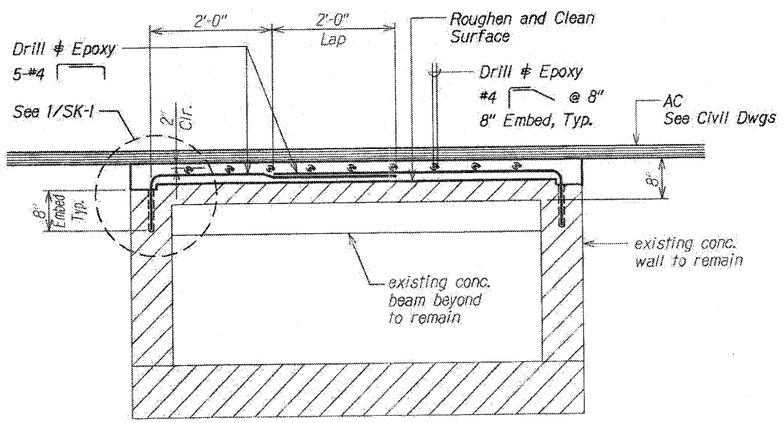
REPAIR EXISTING DRAIN INLET TOP SLAB - PLAN (A SK-1 SK-1)

Scale: 1" = 1'-0"



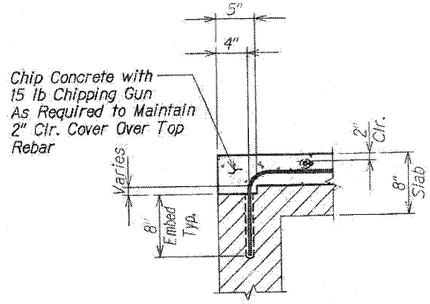
SECTION (B SK-1 SK-1)

Scale: 1" = 1'-0"



SECTION (C SK-1 SK-1)

Scale: 1" = 1'-0"



DETAIL (1 SK-1 SK-1)

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

DAVID K. FUJIMARA LICENSED PROFESSIONAL ENGINEER NO. 6104-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REPAIR EXISTING DRAIN INLET TOP SLAB - PLAN AND SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-H269)

Scale: As Shown — Date: April 04, 2014

SHEET No. SK-1 OF 86 SHEETS

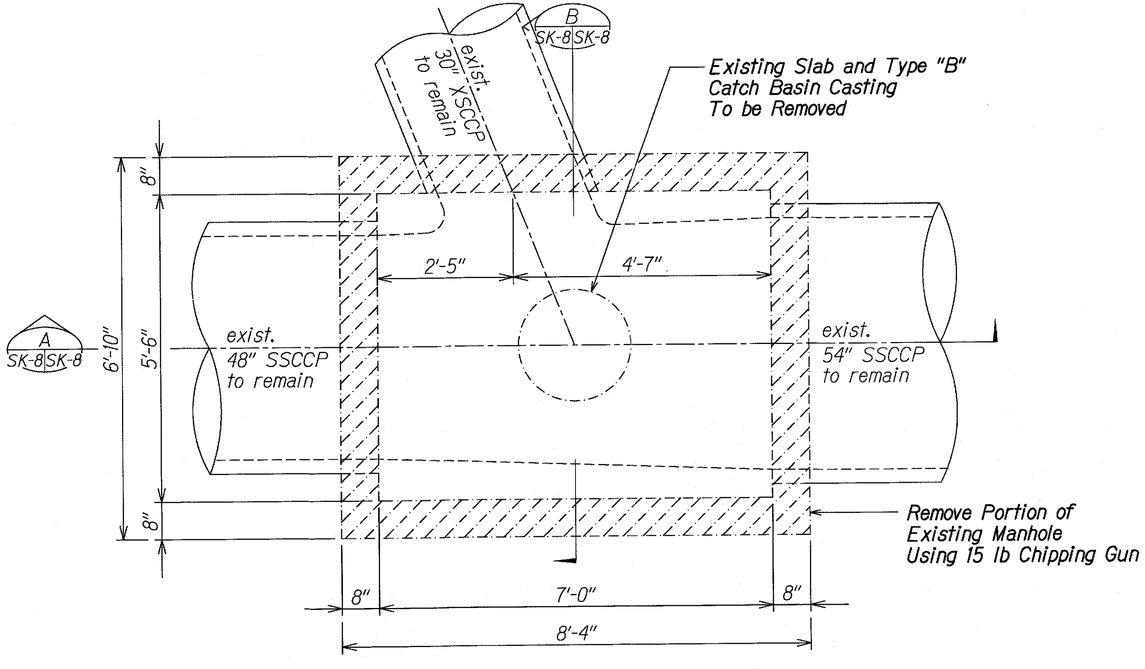
3755-1

MAR 31 2014

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

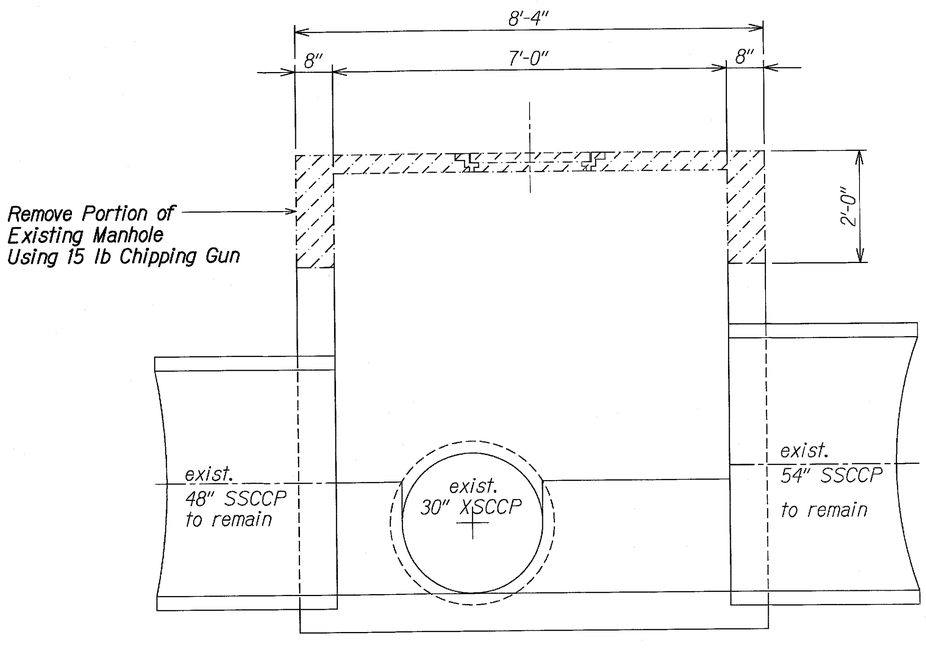
DRAWING NAME: Z:\JOB ON\CONV\11-030.0 HI RESURFACING LIMOLINE TO PUNCHBOWL*CAD\34-04-14 CON REV\10RF-S_____ 601 BOX REPAIR.DWG PLOT TIME: (04-04-14, 10:52 AM)

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	375S-2	382



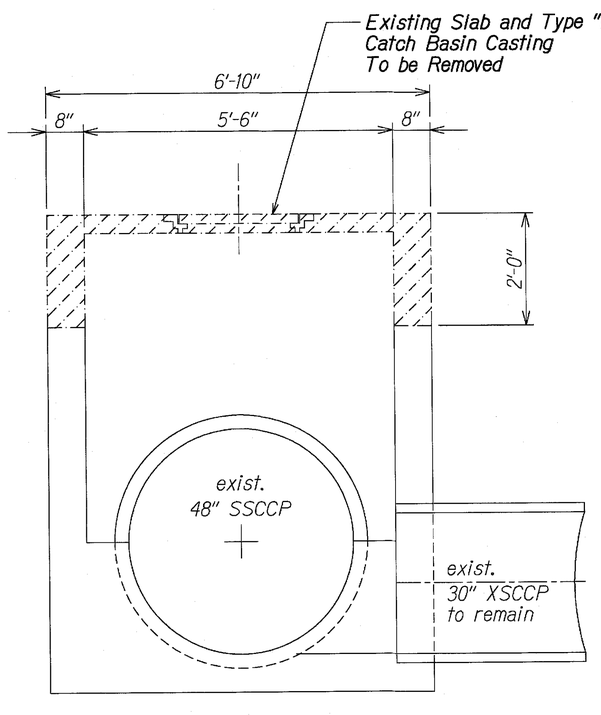
S.D.M.H. #7-L - DEMO PLAN (A SK-8 SK-8)

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



SECTION (B SK-8 SK-8)

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



SECTION (C SK-8 SK-8)

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

Note:
All existing rebar shall remain in place and shall not be damaged in any way unless otherwise noted.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXISTING S.D.M.H. #7-L DEMOLITION PLAN AND SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

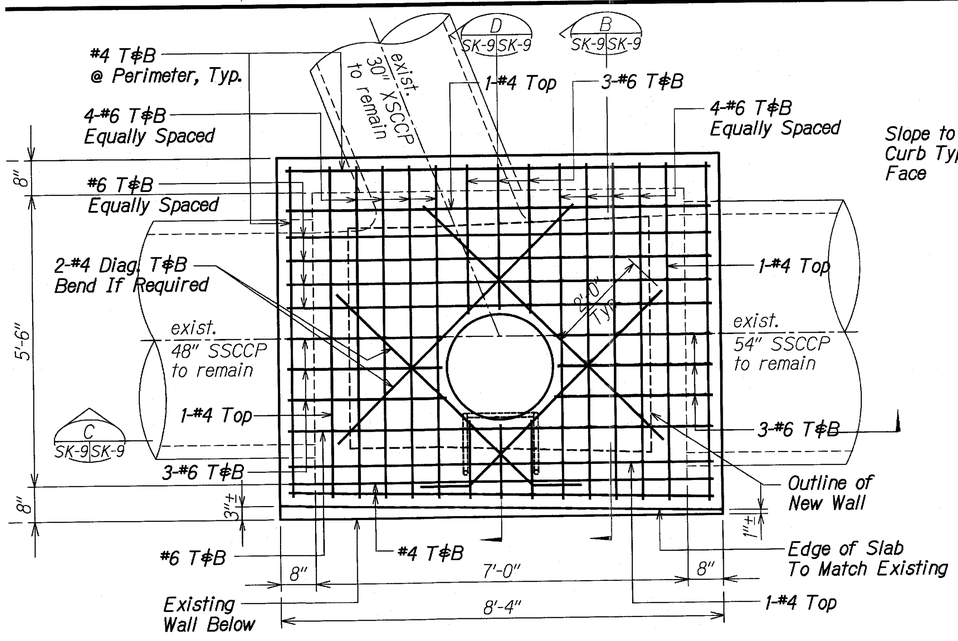
Scale: As Shown Date: July 14, 2014

SHEET No. SK-8 OF 86 SHEETS

375S-2

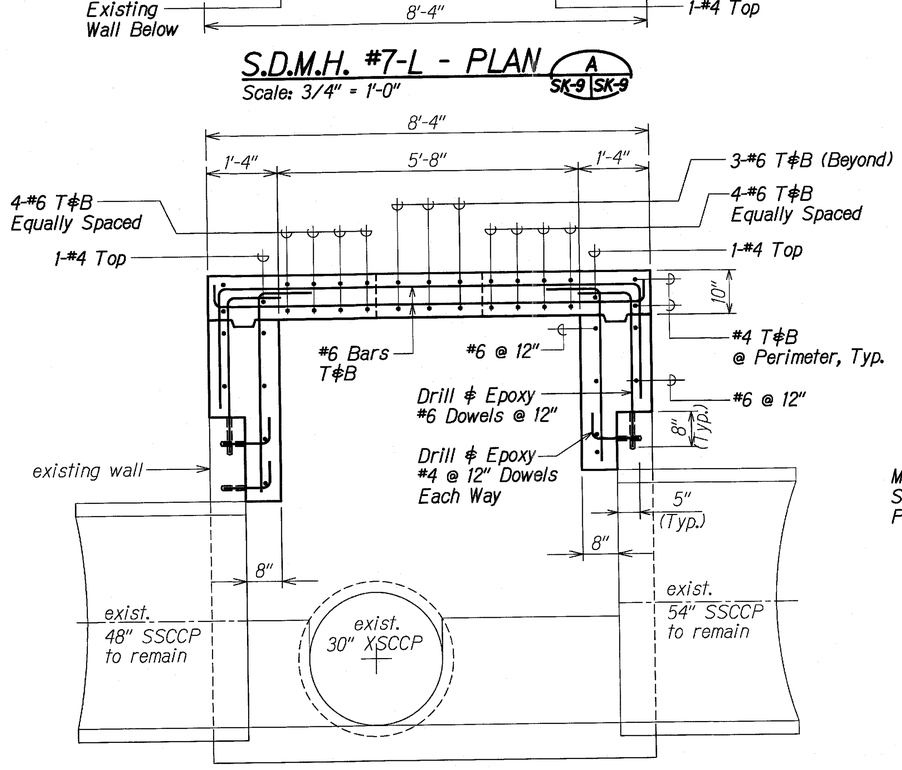
JUL 17 2014

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	3155-3	382



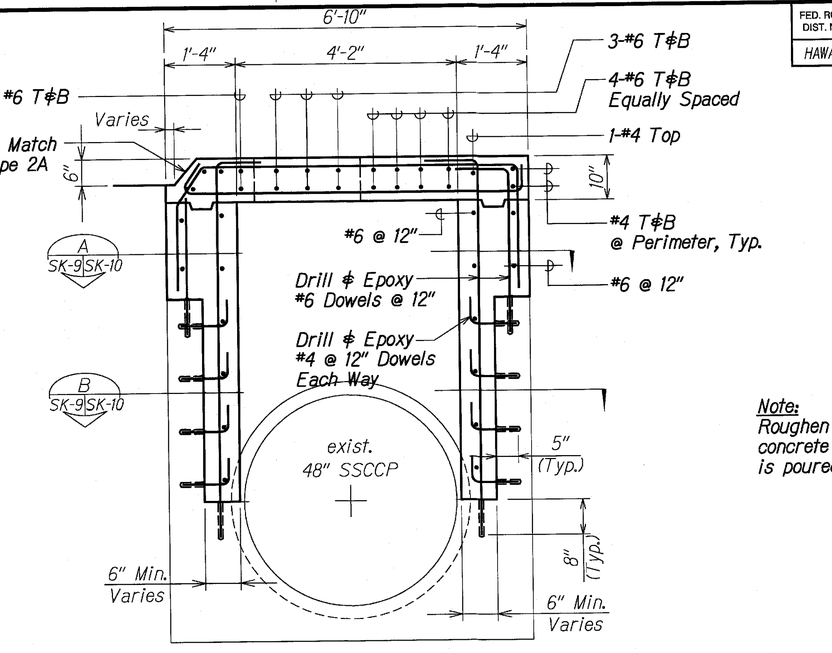
S.D.M.H. #7-L - PLAN (A SK-9 SK-9)

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



SECTION (C SK-9 SK-9)

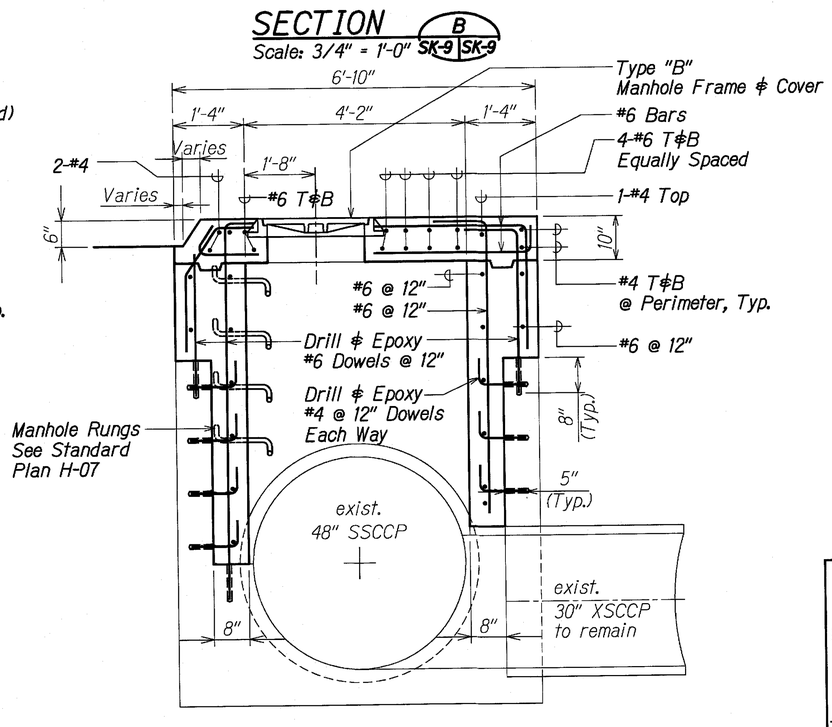
Scale: 3/4" = 1'-0"



Note:
Roughen and clean all existing concrete where new concrete is poured against it.

SECTION (B SK-9 SK-9)

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



SECTION (D SK-9 SK-9)

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXISTING S.D.M.H. #7-L DEMOLITION PLAN AND SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

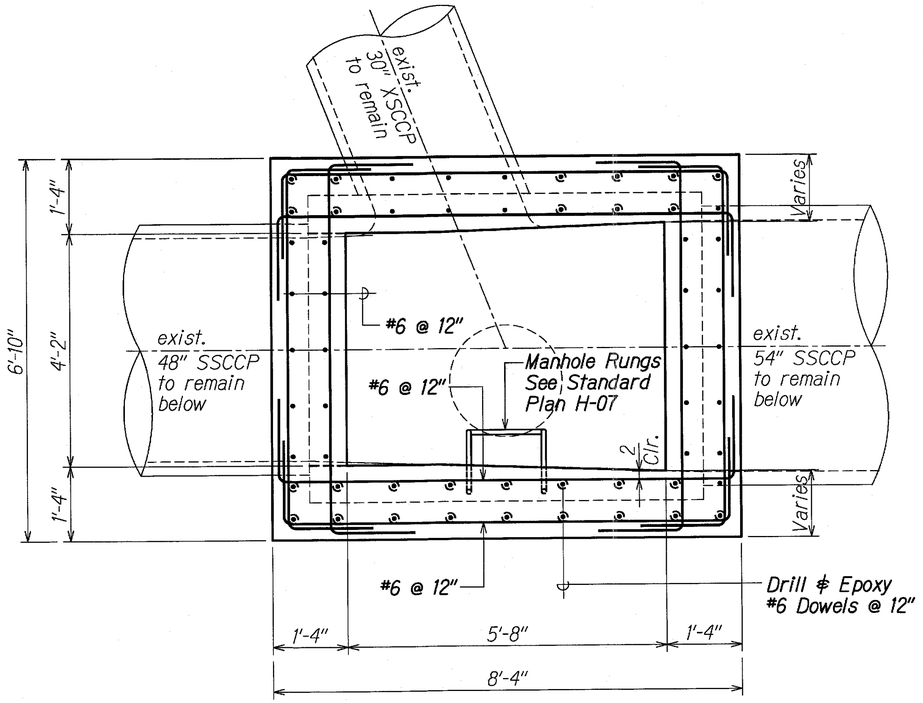
Scale: As Shown Date: July 14, 2014

SHEET No. SK-9 OF 86 SHEETS

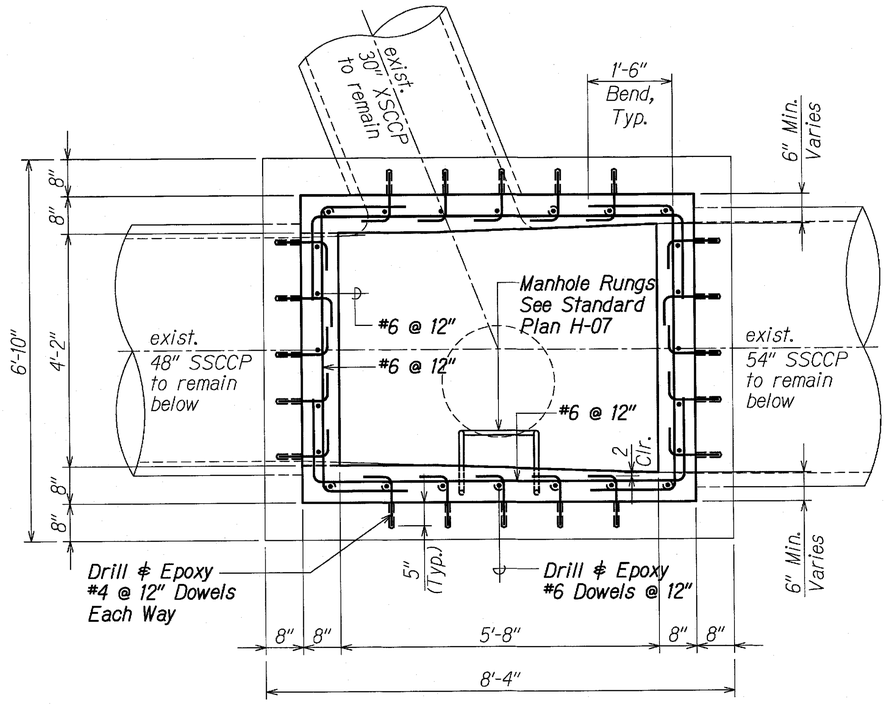
JUL 17 2014

3155-3

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	375S-4	382



SECTION A
Scale: 3/4" = 1'-0" SK-9 SK-10



SECTION B
Scale: 3/4" = 1'-0" SK-9 SK-10

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXISTING S.D.M.H. #7-L DEMOLITION PLAN AND SECTIONS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

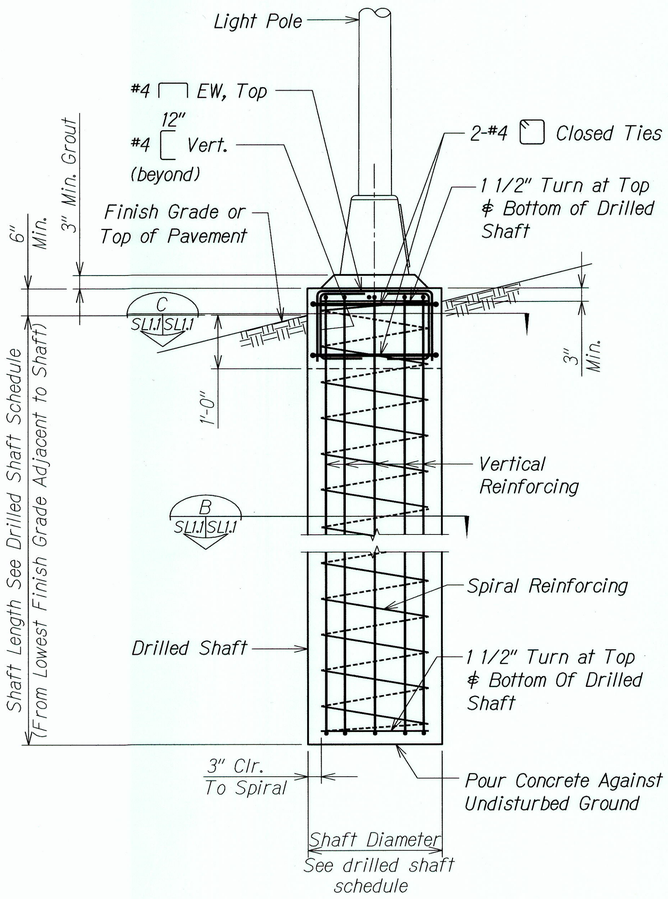
Scale: As Shown Date: July 14, 2014

SHEET No. SK-10 OF 86 SHEETS

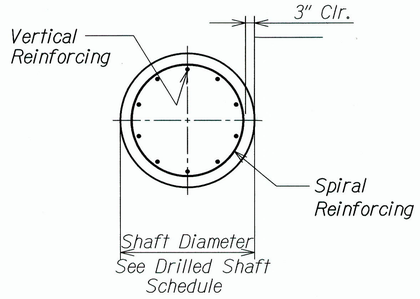
375 S-4

JUL 17 2014

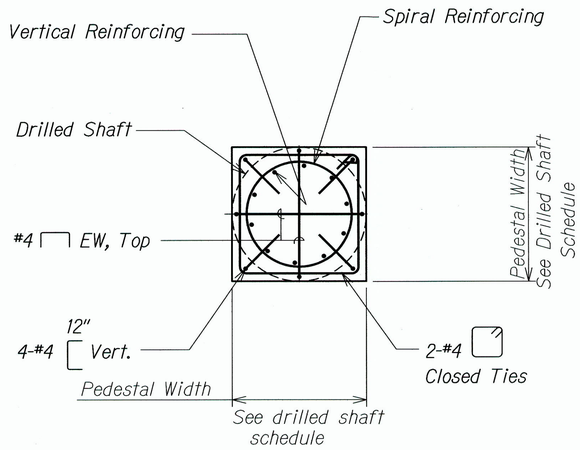
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	376	382



TYPICAL LIGHT POLE FOUNDATION
A SLI.1 SLI.1
Scale: 3/4" = 1'-0"



SECTION
B SLI.1 SLI.1
Scale: 3/4" = 1'-0"

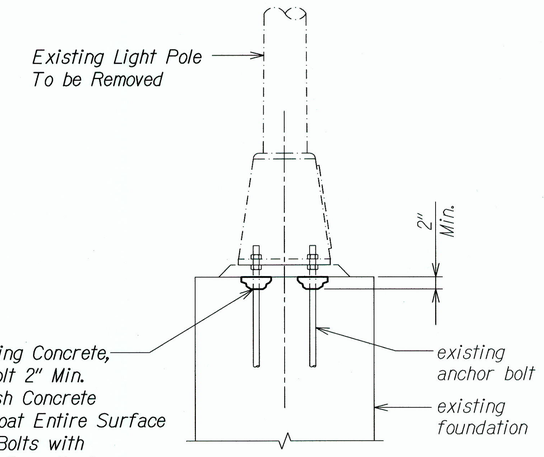


SECTION
C SLI.1 SLI.1
Scale: 3/4" = 1'-0"

Drilled Shaft Schedule					
	Shaft diameter inch	Shaft Length feet	Pedestal Width inch	Vertical reinforcing	Spiral reinforcing
Typical Light Pole	30	7'-6"	30	10-#8	#5 @ 8"
Light Pole in Slope Area, Vicinity of Bishop Museum (See Elect. Drawings)	30	18'-0"	30	10-#8	#5 @ 8"

Item 2, "Light Pole in Slope Area, Vicinity of Bishop Museum Applies to All Poles in Sloped Areas (Per RFI 011)

Notes:
1. For the Typical Light Pole Drilled Shaft, Standard Plan TE-47 may be used instead of the 30" dia. drilled shaft shown in the schedule.
2. See electrical drawings for additional details.
3. Traffic signal standard manufacturer's recommendations shall be followed.



SECTION
D SLI.1 SLI.1
Scale: 1" = 1'-0"

For Street Light Foundations, 4" Slump Requirement was Waived. The Concrete must meet Spec Requirement of 7" ± 1" for Water-Free Borehole and 8" ± 1" for Concrete Placed Underwater. (Per RFI 020)

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
David K. Fujiwara
KSF, INC. APRIL 30, 2014 LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LIGHT POLE FOUNDATION

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

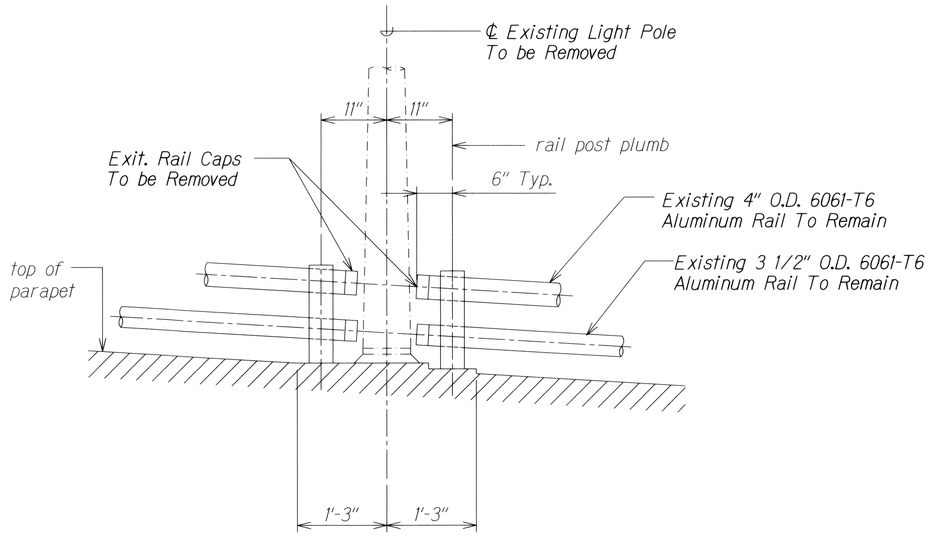
SHEET No. SLI.1 OF 86 SHEETS

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

DRAWING NAME: Z:\00 ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\05-17-13 100%\HIRG-SL101.DWG PLOT TIME: 05-17-13, 2:58 PM)

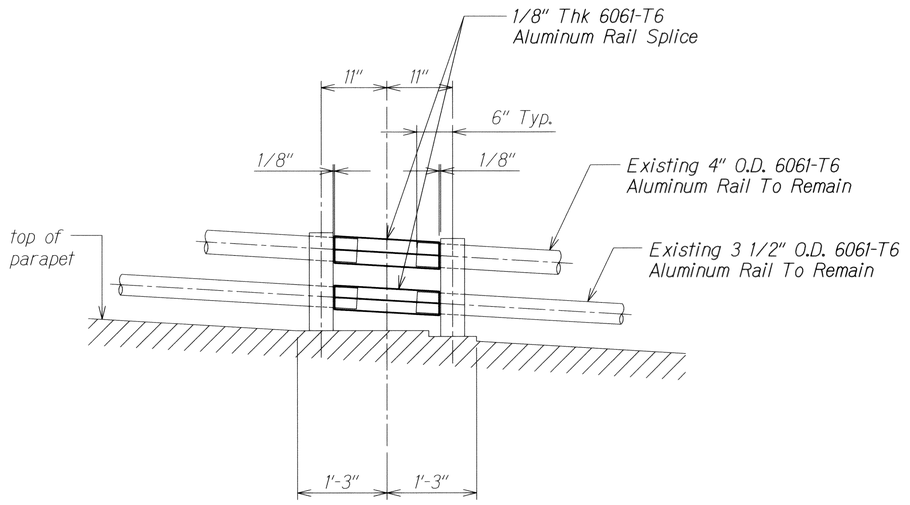
"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-HI-1(269)	2013	ADD. 377	382

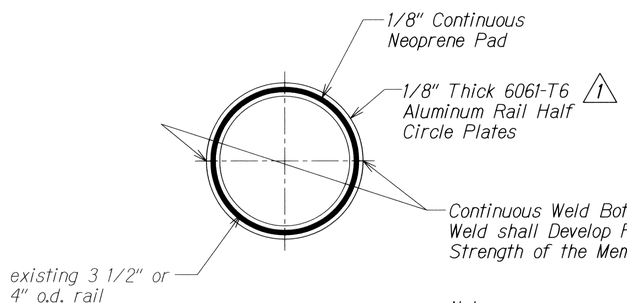


DEMO SECTION A
Scale: 1" = 1'-0"

Note:
The cost of the metal railing splice shall be considered incidental to the cost of removing of the light pole.



METAL RAILING SPLICE SECTION B
Scale: 1" = 1'-0"



DETAIL 1
Scale: 3" = 1'-0"

Note:
New Aluminum members shall fit snug around existing members.

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

DRAWING NAME: Z:\DD ONGOING\11-030 H1 RESURFACING LIKELIKE TO PUNCHBOWL\CAD\06-14-13 100%\H1RH-SR101 ADD.DWG PLOT TIME: 06-14-13, 10:41 AM

DATE	REVISION
6/14/13	1 Revise Note

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

David K. Fujiwara

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

METAL RAILING SPLICE DETAILS

INTERSTATE ROUTE H-1 REHABILITATION
Middle Street to Vicinity of Ward Avenue
FAP No. IM-HI-1(269)

Scale: As Shown Date: April 26, 2013

SHEET No. SR1.1 OF 86 SHEETS

ADD. 377