

General Notes:

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	110	268

1. General:

- A. Workmanship and materials shall conform to the AASHTO LRFD Bridge Design Specification, 2nd Edition, and the Hawaii Standard Specifications for Bridge and Road Construction, as modified by the State of Hawaii Department of Transportation.
- B. The Contractor shall compare the Civil, Structural, and Electrical drawings with each other and report in writing to the Engineer, inconsistencies or omissions.
- C. The Contractor shall take field measurements and verify field conditions and shall compare such field measurements and conditions with the drawings before commencing the work. Report in writing to the Engineer all inconsistencies or omissions.
- D. The Contractor shall be responsible for methods of construction, workmanship and job safety. The Contractor shall provide temporary shoring and bracing as required for stability of structural members and systems.
- E. Details noted as typical on structural drawings shall apply in all conditions unless specifically shown or noted otherwise.
- F. The Contractor shall be responsible for coordinating the work of all trades.
- G. The Contractor shall be responsible for protection of the adjacent properties, structures, streets, and utilities during the construction period. Any damage or deteriorated property shall be restored to the same or better condition at no cost to the State.
- H. The Contractor's attention is directed to the General Notes, Sheet C-1, Paragraph 5, for note regarding existing buried utilities.
- I. No existing conduits or utilities shall be abandoned on bridge or slip covers.
- J. Before performing any work near the harbor pier structures, the Contractor shall coordinate with the D.O.T. Property Mgr, Mr. Derrick Lining at 587-1944.

2. Design Criteria:

- A. Seismic Zone 2, A=0.18 (AASHTO LRFD Spec., 2nd Ed)
A=0.18
- B. Basic Wind Speed 105 MPH
- C. Lateral Earth Pressures
 - Active Earth Pressure 40 pcf
 - Restrained Condition 55 pcf
 - Passive Resistance 450 pcf
- D. Allowable Bearing Capacity
 - Service Limit State 2,500 psf
 - Extreme Event Limit State 7,500 psf
 - Strength Limit State 4,500 psf
- E. Friction Factor 0.50
- F. Bridge Railing In accordance with AASHTO TL - 2 Design Factors

3. Foundation:

- A. Foundation design is based upon geotechnical investigations by Ernest K. Hirata and Associates, Inc. dated April 20, 2000, May 4, 2001 and July 26, 2001.
- B. Contractor shall provide for de-watering of excavation from either surface water, ground water or seepage. NPDES permit required for discharging into State waters.
- C. Contractor shall provide for design and installation of all cribbing, sheeting, and shoring necessary for personnel safety and to preserve excavations and earth banks, and adjacent structures and property for damage.
- D. Footings shall bear on undisturbed in-situ firm soils. The soil beneath the footings shall be compacted to provide a relatively firm and smooth bearing surface prior to placement of reinforcing steel and concrete. If soft and/or loose materials are encountered at the bottom of footing excavation, they shall be over-excavated down to firm soil. The over-excavation shall be backfilled with select granular material up to the required bottom of footing elevation, and compacted to a minimum of 95% relative compaction. The footing bottom may be extended down to the underlying competent material at no extra cost to the State.
- E. Excavation boundaries and grade elevations for footing shall be approved by the Engineer prior to placing the concrete and reinforcing.
- F. Fill and backfill shall consist of:
 - a. On site soil.
 - b. Excavated tuff, crushed to conform to grading requirements for imported fill.
 - c. Imported fill in conformance with section 703.17 of the standard specifications with a CBR greater than 25.

- G. Fill and backfill shall be placed in uniform lifts of no more than 8 inches in loose thickness, moisture-conditioned to within 3 percent of the optimum moisture content, and uniformly compacted to at least 90 percent, but should not exceed 95 percent relative compaction to minimize the lateral earth pressure against the wall.

4. Reinforcing Steel:

- A. Reinforcing steel shall be deformed bars conforming to ASTM A615, Grade 60. Any reinforcing steel to be welded shall be ASTM A706.
- B. Clear concrete coverage for reinforcing bars shall be as follows, unless otherwise noted:
 - a. Footing, Grade Beams, ETC.
Cast against earth _____ 3"
 - b. Footing, Grade Beams, ETC.
Formed and exposed to earth _____ 2"
 - c. Wall faces exposed to each or weather _____ 2"
- C. Splices:
 - a. Reinforcing steel shall be detailed in accordance with the latest edition of the A.C.I. Detailing Manual unless otherwise noted. Lap splices not shown in the plans shall not be located in areas of high stress. For example the longitudinal reinforcing steel in the slip cover sidewalks shall not have lap splices occurring at mid-span between pilecaps, nor shall they be located directly over the pilecaps.
 - b. Mechanical splice connectors shall develop in tension 90 percent of the specified ultimate tensile strength of reinforcing bars.
- D. Bar bends and hook shall be "standard hooks" in accordance with ACI 318-95 and AASHTO 5.11.2.

5. Concrete:

- A. The following concrete shall have a minimum 28-day compressive strength of 4,000 psi:
 - a. Retaining Walls
 - b. Beams
 - c. Suspended Slabs
 - d. Sidewalks on Slip Covers and Nuuanu Street Bridge
 - e. Bridge Railings
 Spall repair concrete shall have a 28-day compressive strength of 3,000 psi. The concrete in the sidewalks, curbs and gutters shall attain a compressive strength of 3,000 psi before being exposed to vehicle traffic. The joints must be cleaned and filled with joint material prior to opening to traffic. Concrete compressive cylinders are to be tested in accordance with ASTM C39.
- B. All inserts, anchor bolts, plates, etc. embedded in concrete shall be hot-dipped galvanized unless otherwise noted.
- C. Conduits, pipes, and sleeves passing through a wall not conforming to typical details shall be located and submitted to the Engineer for approval.
- D. Construction joints may be located by the Contractor and submitted to the Engineer for approval. Construction joints shall be made and located as not to impair the strength of the structure and to minimize shrinkage stresses. All construction joints shall be cleaned, laitance removed and wetted. See typical details for specific requirements. Expansion joints shall be located in the bridge railings at all bridge abutment and bent row expansion joints.
- E. Non-shrink grouts shall be premixed compound consisting of non-metallic aggregate and non-standing types, cement, water reducing and plasticizing agents capable of developing minimum compressive strength of 4,000 psi in 3 days and 7,000 psi in 28 days.
- F. Joint filler shall be ASTM D1751 or ASTM D994; asphalt impregnated fiberboard or felt 1/2 inch thick.
- G. Unless otherwise noted, chamfer all concrete edges 3/4".
- H. Concrete construction shall conform to American Concrete Institute ACI 318-95.
- I. Concrete delivery tickets shall record all free water in the mix: at batching by plant, for consistency by driver, and any additional request by Contractor if permitted by the mix design.
- J. Reinforcing bars, anchor bolts, inserts and other items to be cast in the concrete shall be secured in position prior to placement of concrete.
- K. All drilled holes for dowels shall be brushed to remove loose material then cleaned with compressed air, prior to injecting the epoxy.
- L. Epoxy shall conform to AASHTO M235, Type IV, Grade 3, Class C.
- M. In order to avoid concrete cracking, the Contractor shall provide a construction joint in all sidewalks, curbs and gutters at the end of all bridge and slip cover decks, and at all other locations that may be subjected to differential movement.

6. Existing Concrete:

- A. Verify location of existing reinforcement with an electromagnetic rebar locator before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement.
- B. Contractor shall not damage, cut or drill through existing reinforcing. If reinforcing is damaged, the Contractor shall inform the Engineer immediately and shall be responsible for repairing the damage at Contractor's sole expense and to the satisfaction of the Engineer.
- C. All holes which need to be abandoned due to the presence of reinforcing, shall be filled with non-shrink grout.
- D. The Contractor will not be paid for the holes which need to be filled and abandoned. The Engineer shall review and approved all relocated holes prior to installing dowel. Alternated holes shall be located according to the following criteria
 - a. Alternate hole shall be within 3" of the original hole.
 - b. The hole shall not occur within 3" of all edges.
 - c. Alternate hole shall be at least 1/2" clear distance from existing rebar.
 - d. Holes shall not be located within an existing crack in base concrete.

7. Demolition:

- A. During the demolition of the existing bridge railings, sidewalks and applicable section of bridge deck, no concrete, reinforcing steel or any other debris shall be allowed to fall into the water. Any debris that does inadvertently fall into the water shall be removed by the Contractor at his expense.
- B. When structures are to be modified and only portions of the existing structure are to be removed, these portions shall be removed in such a manner as to leave the remaining structure undamaged and in proper condition for the use contemplated. Any spalls, cracks, or any other damage to the portions remaining in service shall be repaired by the Contractor at his expense. All spall repairs shall be according to the plans.
- C. Before beginning concrete removal operations involving the removal of a portion of a monolithic concrete element, a saw cut approximately one inch deep shall be made to a true line along the limits of removal on all faces of the element which will be visible in the completed work. Old concrete shall be carefully removed to the lines designated by drilling, chipping or other methods approved by the Engineer. The surfaces presented as a result of this removal shall be reasonably true and even, with sharp, straight corners that will permit a neat and workmanlike joint with the new construction or be satisfactory for the purpose intended.
- D. Where existing reinforcing bars are to extend from the existing structure into new construction, the concrete shall be removed so as to leave the projecting bars clean and undamaged. Where projecting bars are not to extend into the new construction, they shall be cut off flush with the surface of the old concrete.

8. Structural Steel:

- A. Fabrication and erection of structural steel shall conform to the American Institute of Steel Construction Manual of Steel Construction, Ninth Edition.
- B. Structural steel shall conform to ASTM A36, unless otherwise noted.
- C. Steel pipes shall conform to ASTM A53, Grade B.
- D. Steel tubes shall conform to ASTM 500, Grade B.
- E. Bolts shall conform to ASTM A307, Grade A, unless otherwise noted.
- F. Welds and welding procedures shall conform to the structural welding code AWS D1.1 of the American Welding Society.
- G. Welding shall be performed by welders prequalified for welding procedures to be used.
- H. Welding electrodes shall be E70XX.
- I. Steel shall be hot-dipped galvanized after fabrication.

9. Areas exposed after bridge railing and sidewalk demolition or excavation shall be shielded with approved protective barriers and end treatments.

10. The Contractor's attention is directed to Special Provisions Section 656-Soil Anchors, for all notes related to the Soil Anchors.



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL NOTES

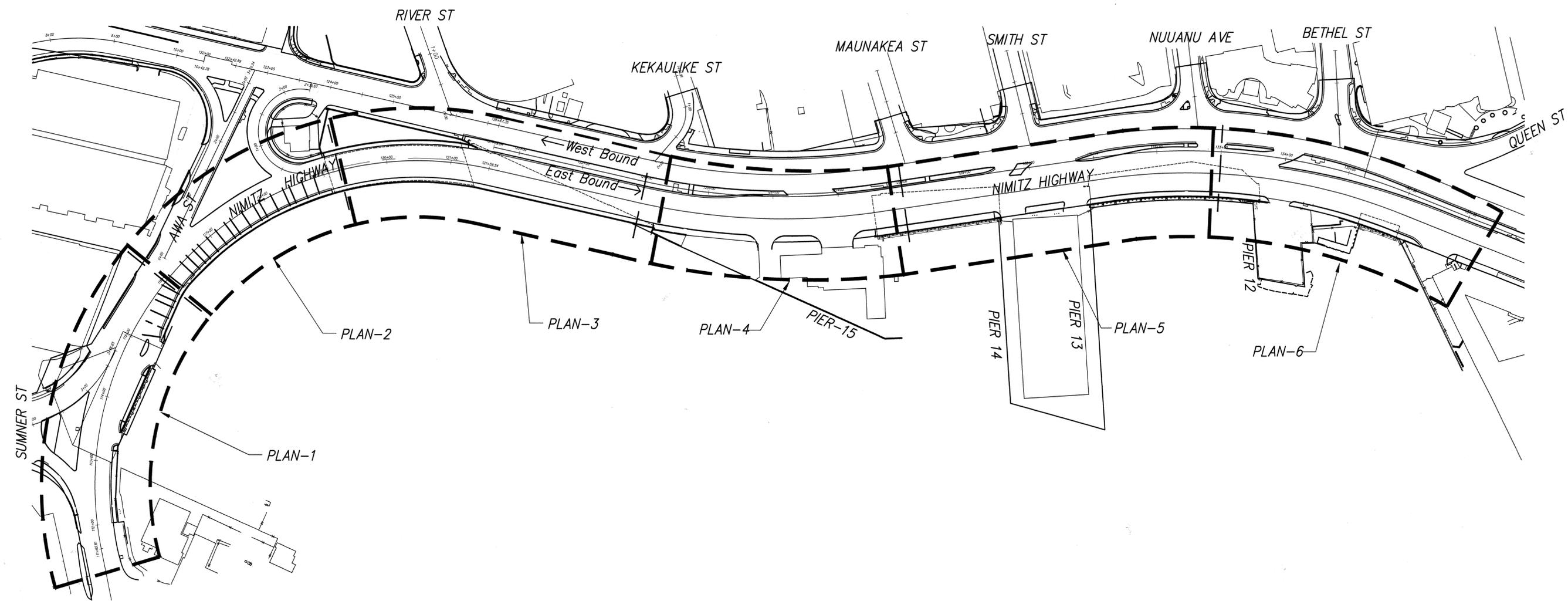
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01

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ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2001	111	248

TRUE NORTH
Scale: 1" = 80'



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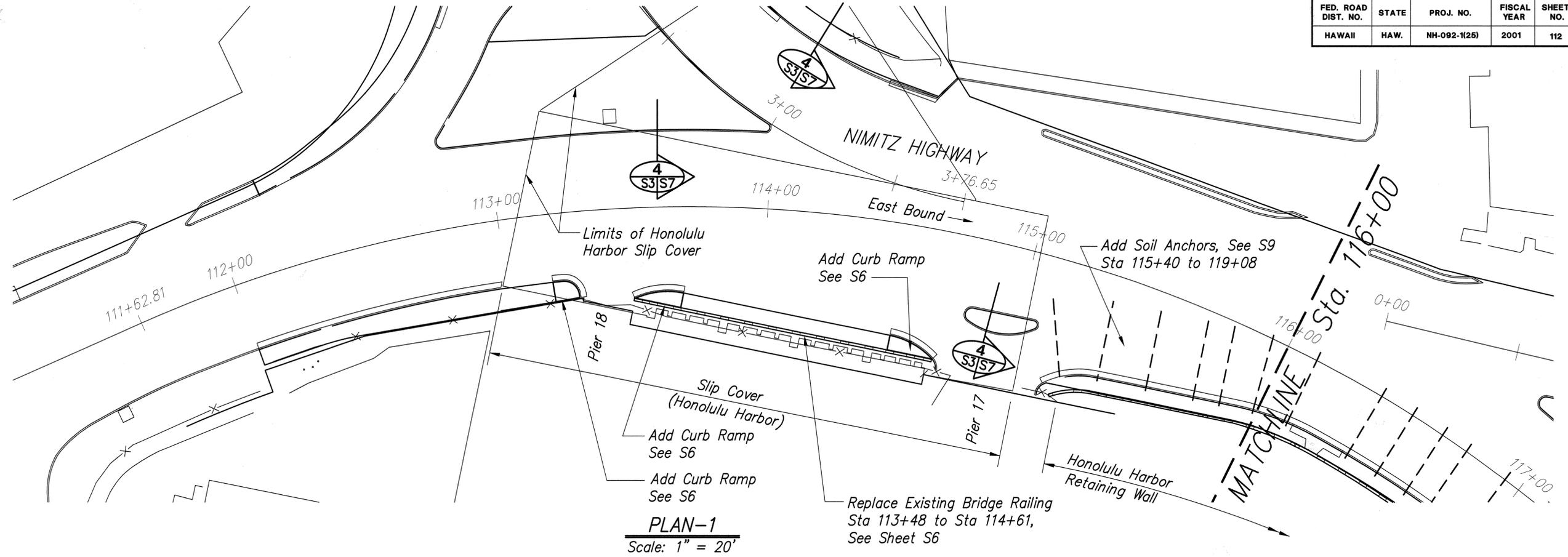
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KEY MAP

NIMITZ HIGHWAY REHABILITATION
SUMMER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

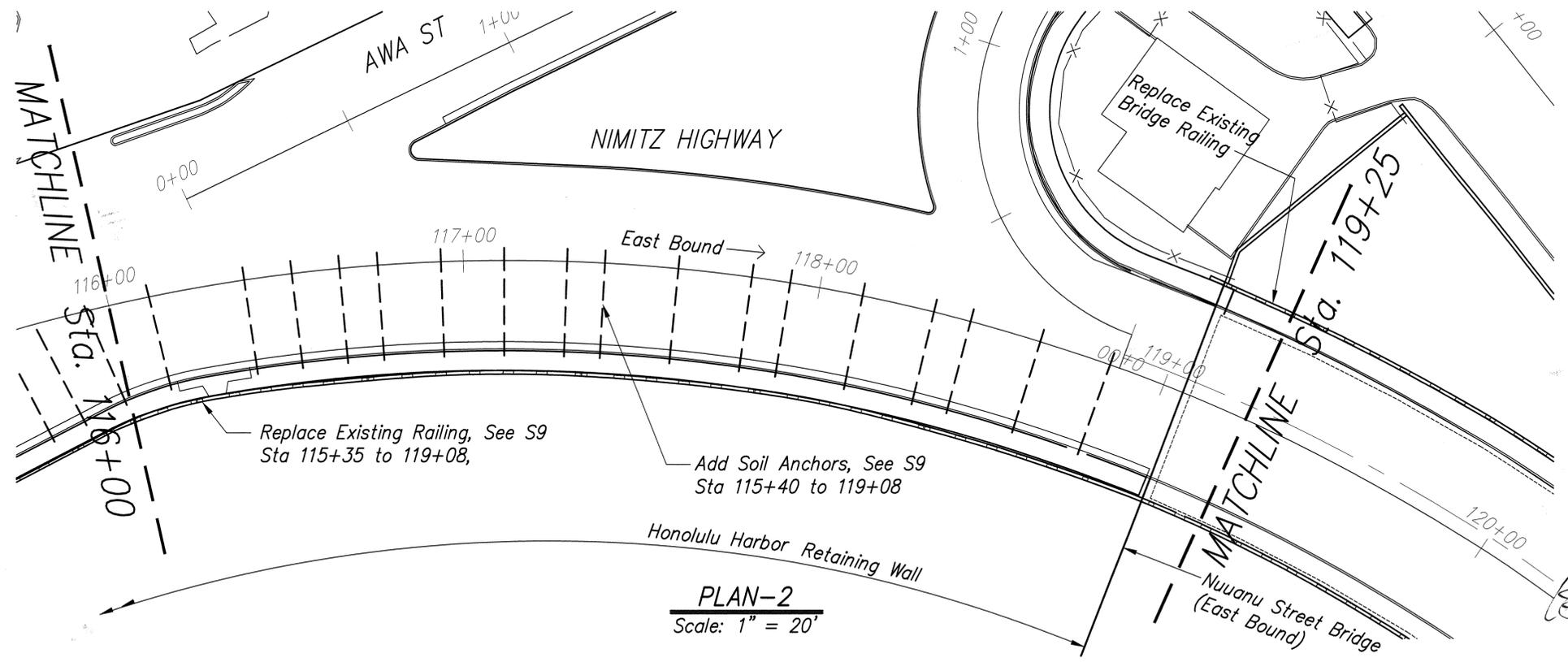
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FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2001	112	248

TRUE NORTH
Scale: 1" = 20'



PLAN-1
Scale: 1" = 20'



PLAN-2
Scale: 1" = 20'

TRUE NORTH
Scale: 1" = 20'

Note:
Refer to Sht S10 for soil anchor locations.

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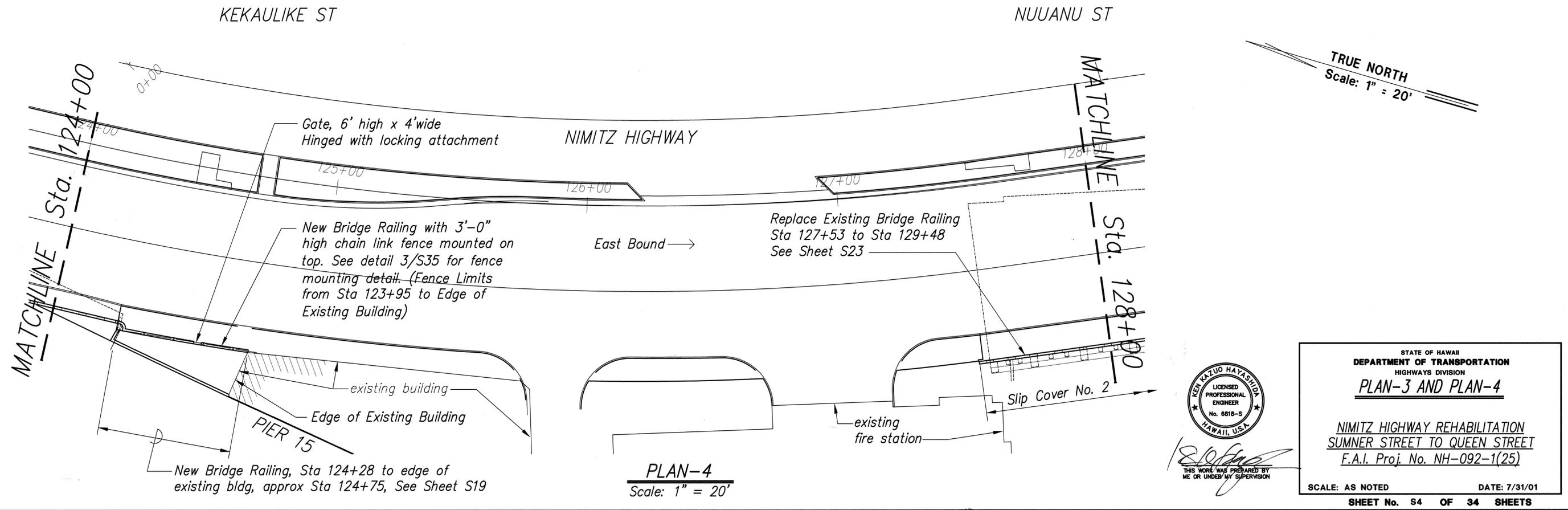
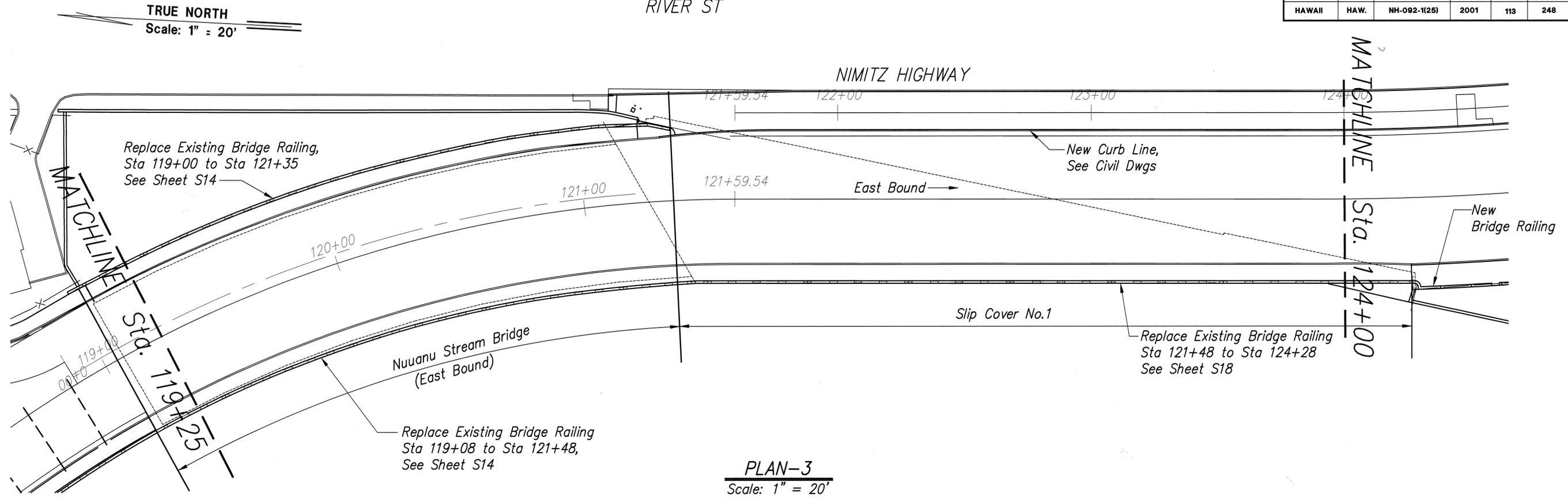
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PLAN-1 AND PLAN-2

NIMITZ HIGHWAY REHABILITATION
SUMMER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 7/31/01
SHEET No. 83 OF 34 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2001	113	248



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

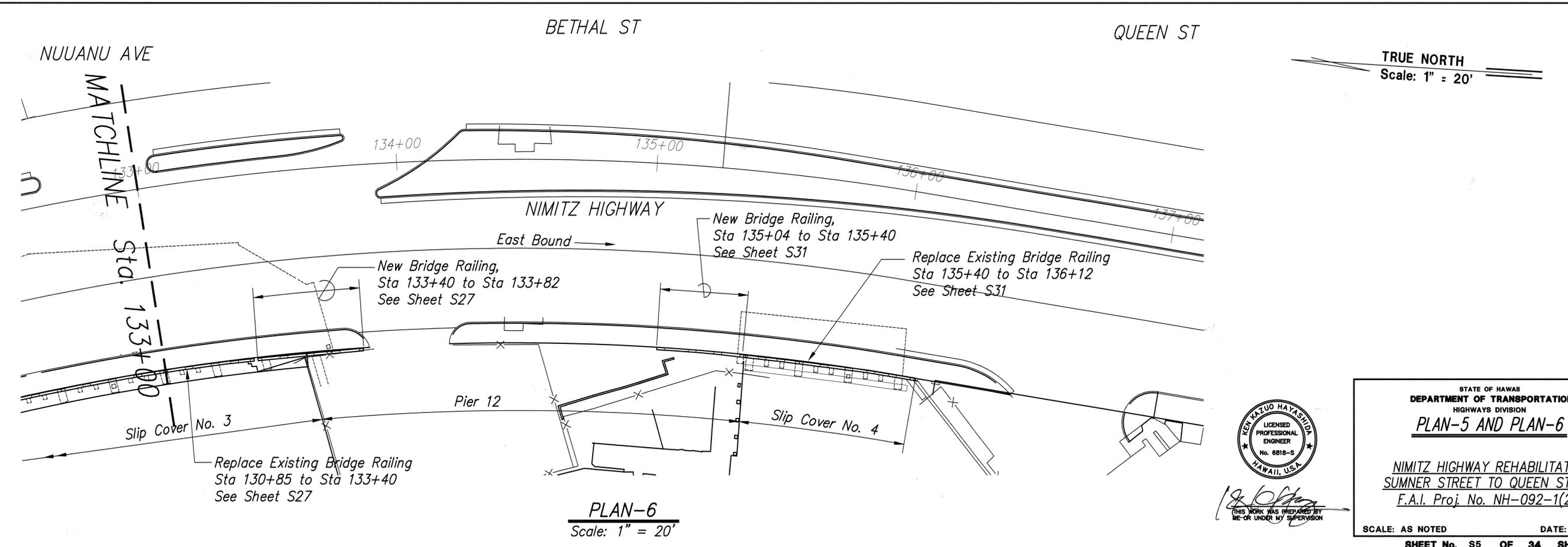
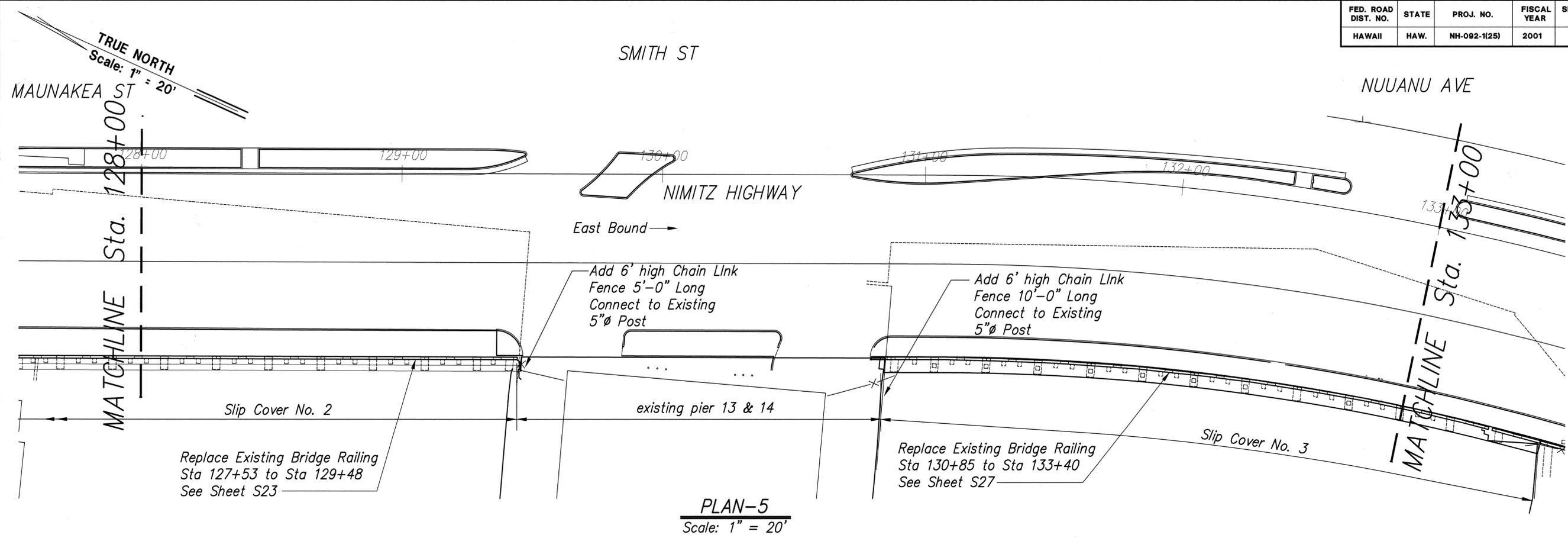
PLAN-3 AND PLAN-4

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 7/31/01

SHEET No. 84 OF 84 SHEETS

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HAWAII	HAW.	NH-092-1(25)	2001	114	248



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18/10/01

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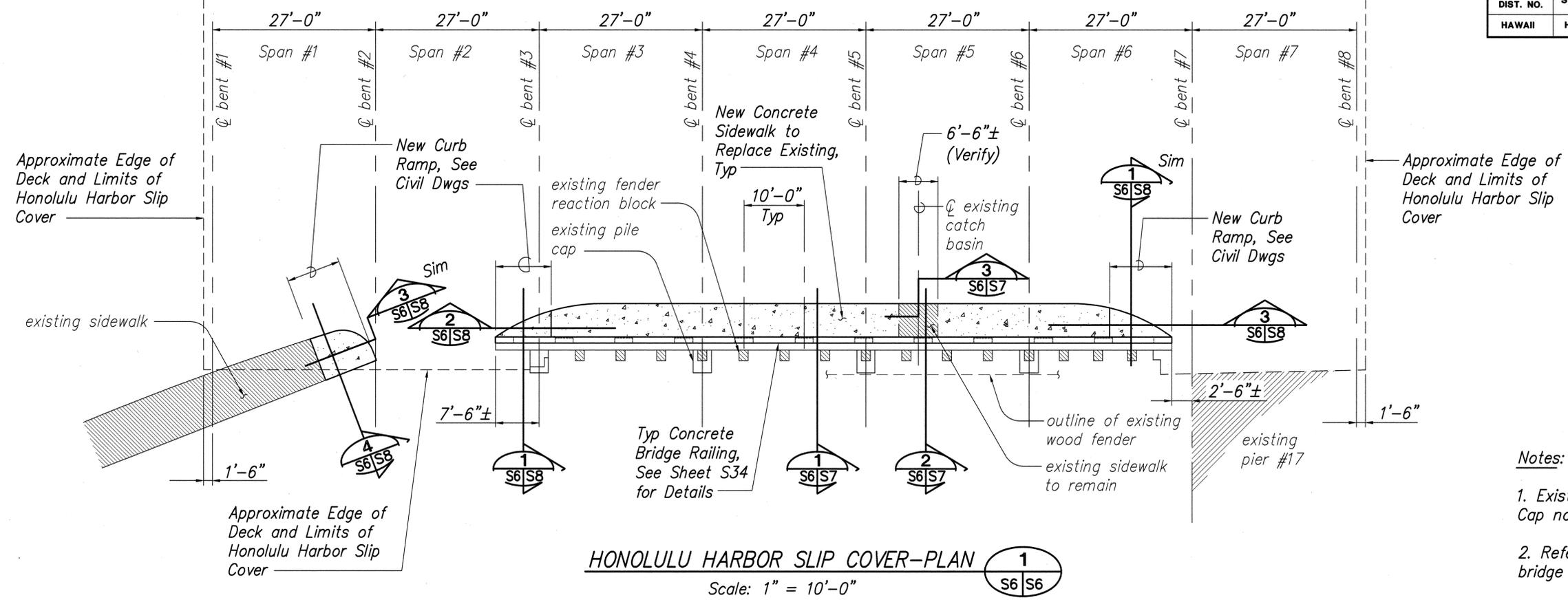
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PLAN-5 AND PLAN-6

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

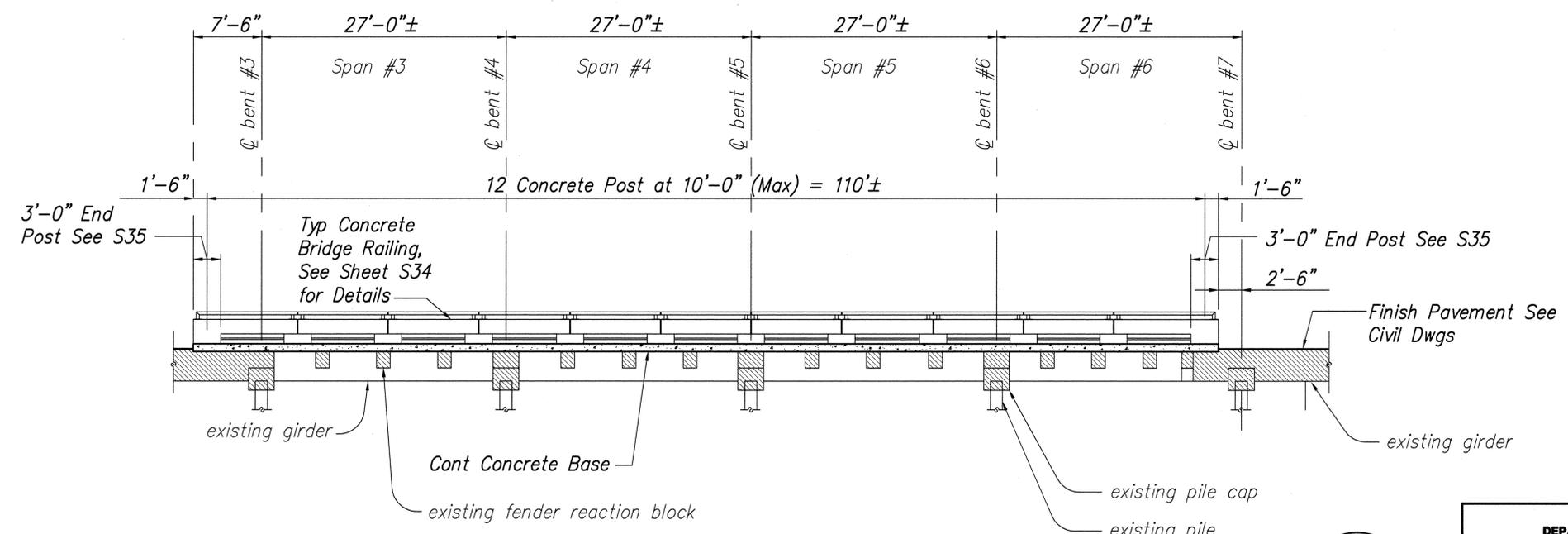
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SHEET No. 55 OF 34 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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- Notes:
- Existing Wood Fender above Pile Cap not shown for Clarity.
 - Refer to Sht S34 for typical bridge railing notes.



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

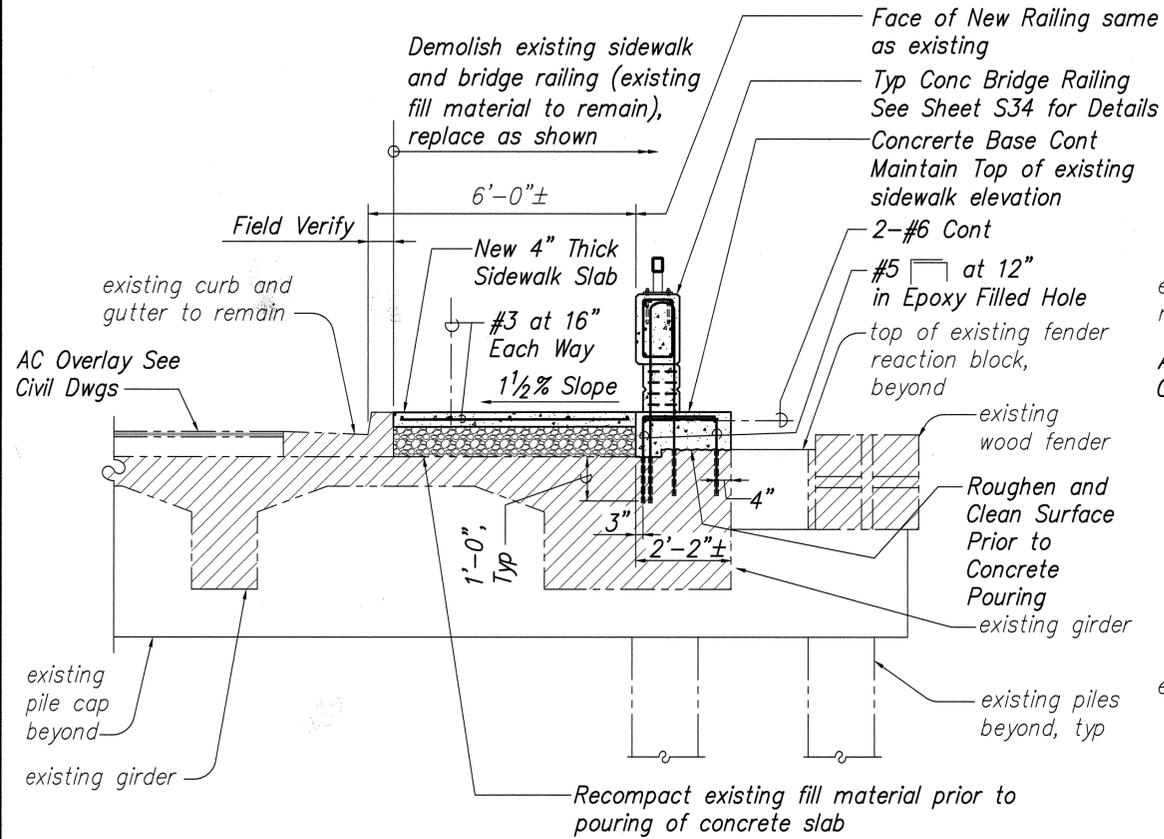
**HONOLULU HARBOR SLIP COVER
PLAN AND ELEVATION**

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

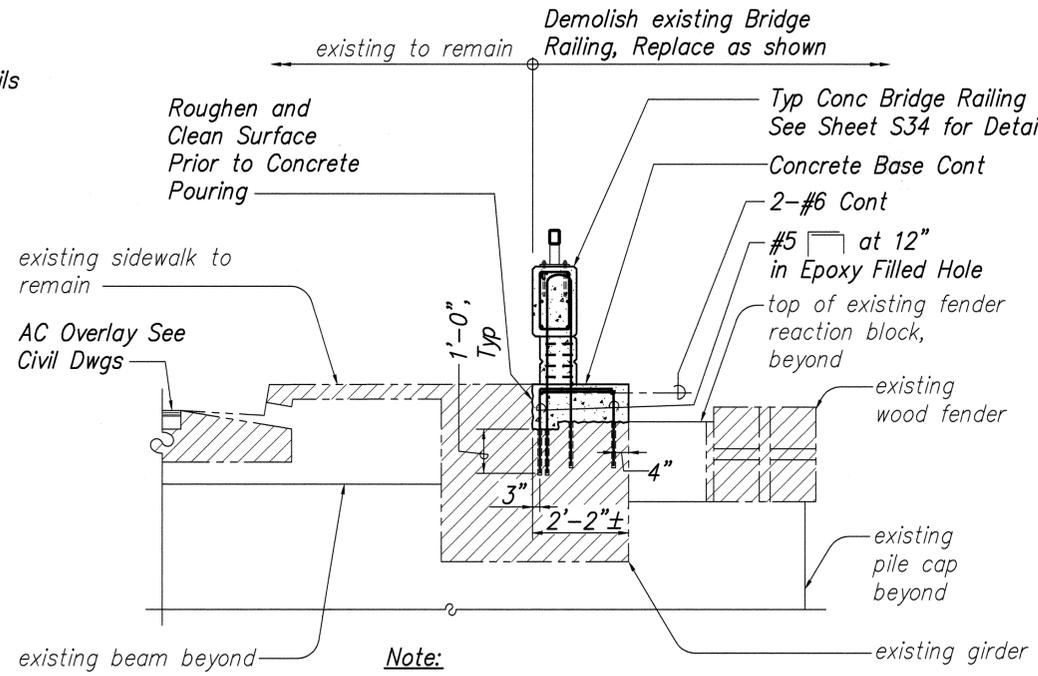
SCALE: AS NOTED DATE: 11/01/01

SHEET No. S6 OF 50 SHEETS

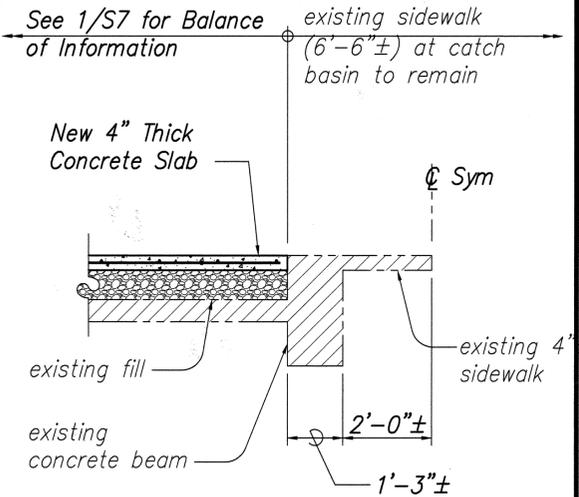
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	116	288



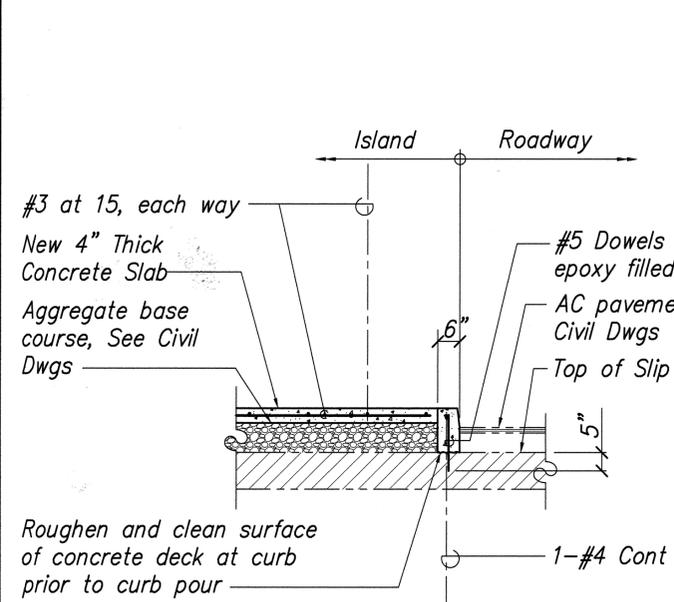
TYPICAL SECTION 1
Scale: 1/2" = 1'-0"
S6/S7



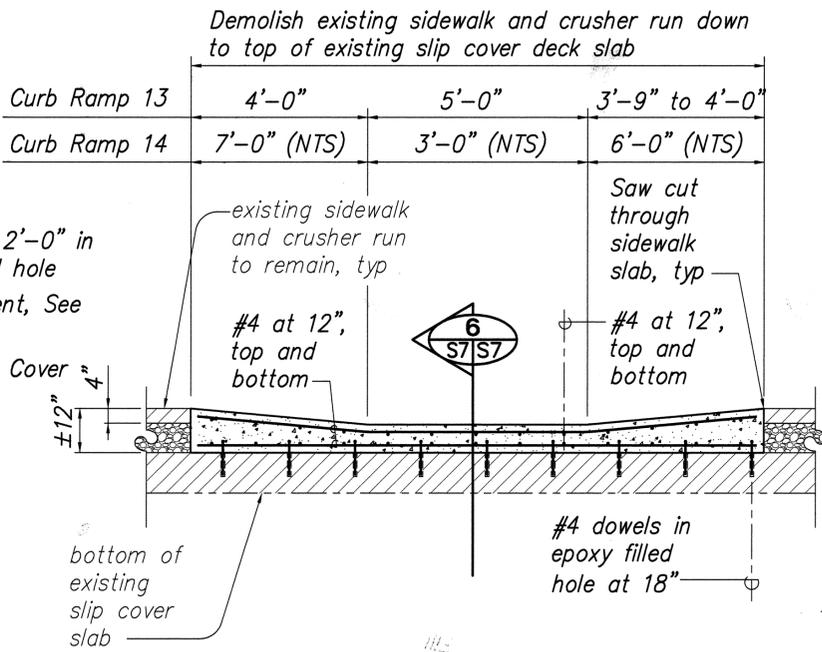
SECTION 2
Scale: 1/2" = 1'-0"
S6/S7



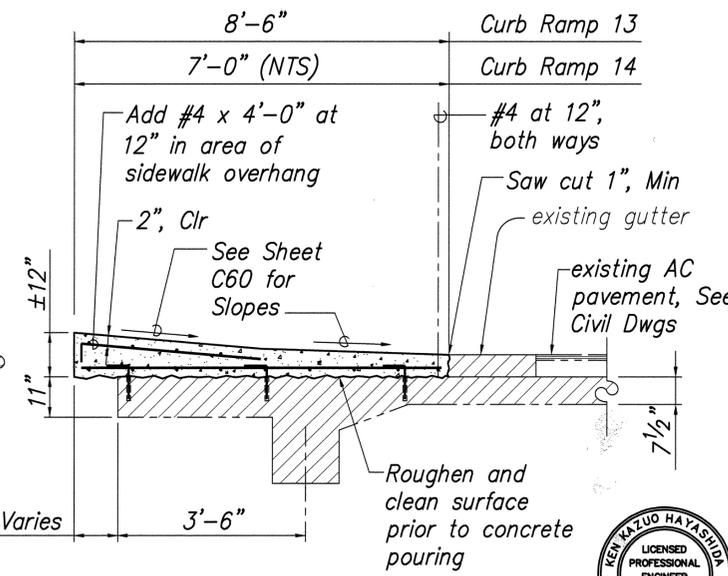
SECTION 3
Scale: 1/2" = 1'-0"
S6/S7



TYPICAL SECTION 4
Scale: 1/2" = 1'-0"
(Typical for all curb connections to existing slip cover deck slab)
S3/S7



CURB RAMP 13 & 14 SECTION 5
Scale: 1/2" = 1'-0"
C56/S7



SECTION 6
Scale: 1/2" = 1'-0"
S7/S7

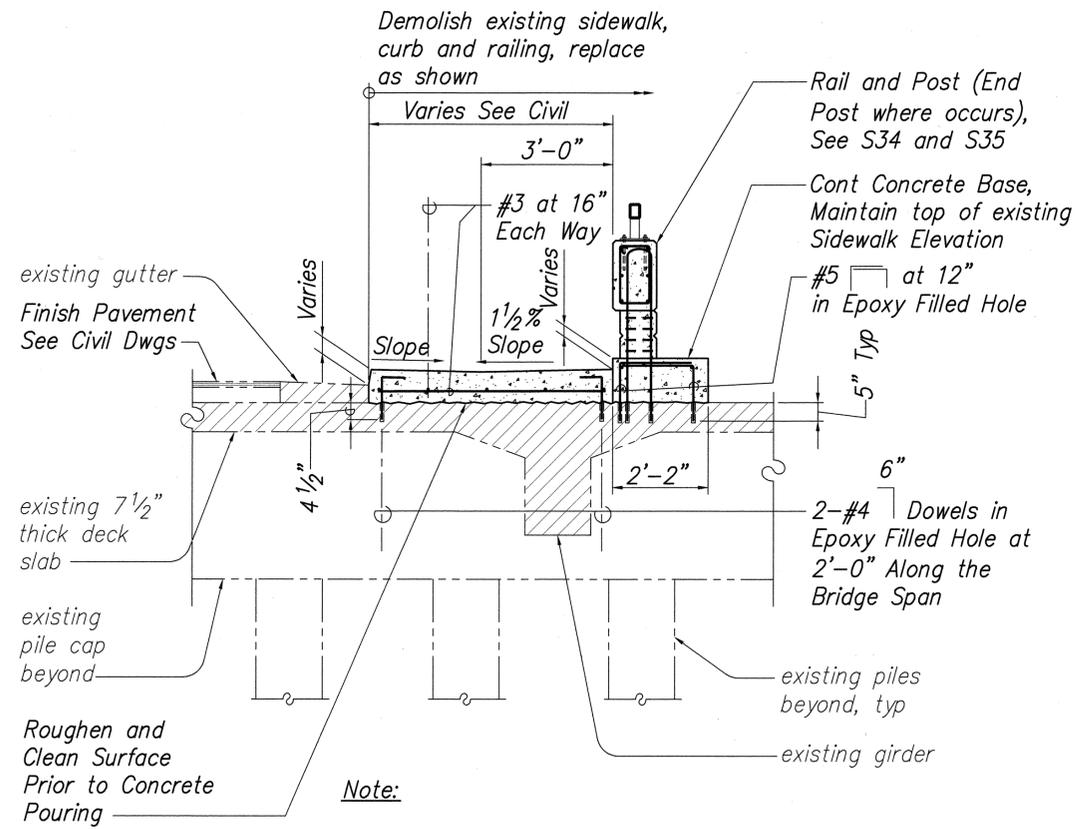
- Notes:**
1. The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
 2. Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.
 3. Refer to Sheets S47 thru S50 for demolition pay limits.
 4. Verify with Civil Drawings length and Slope of Ramp.

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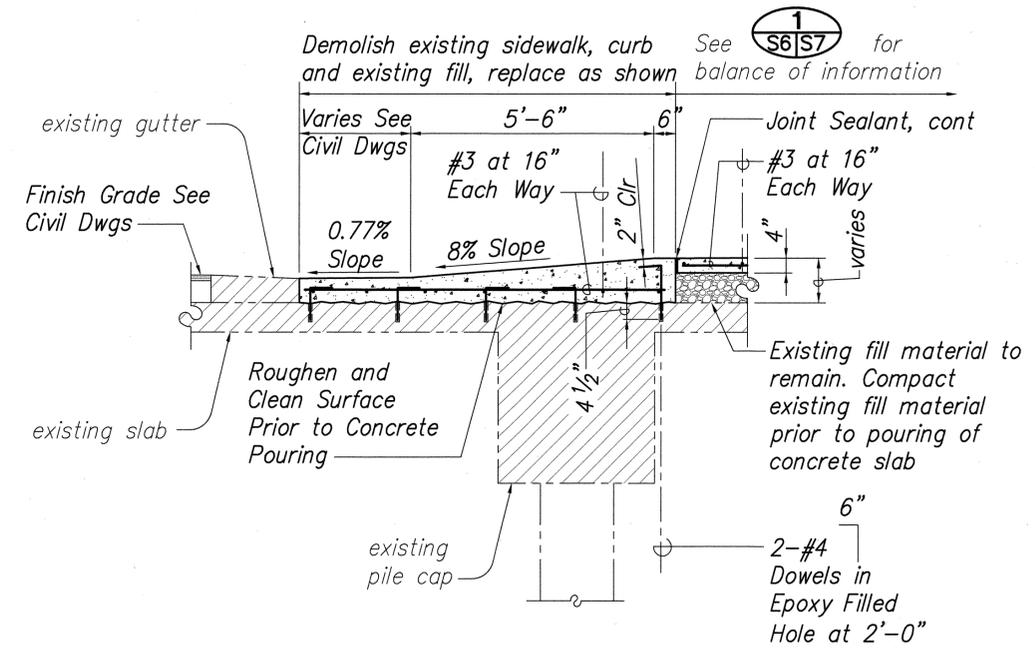
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU HARBOR SLIP COVER -
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)
SCALE: AS NOTED
DATE: 11/01/01
SHEET No. S7 OF 50 SHEETS

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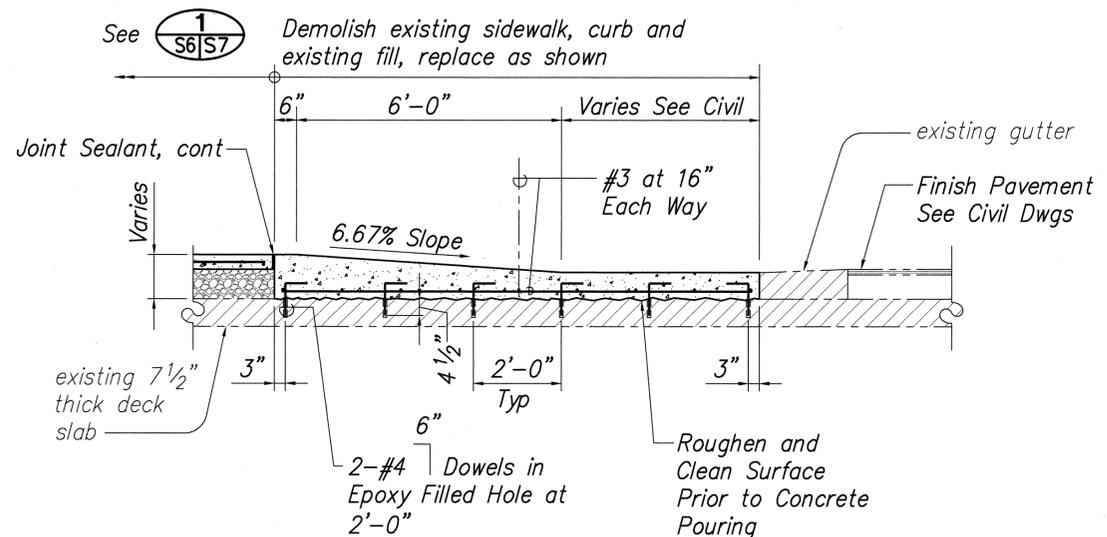


SECTION 1
Scale: 1/2" = 1'-0"
Typical on Ramp at Span #6 unless Noted otherwise.

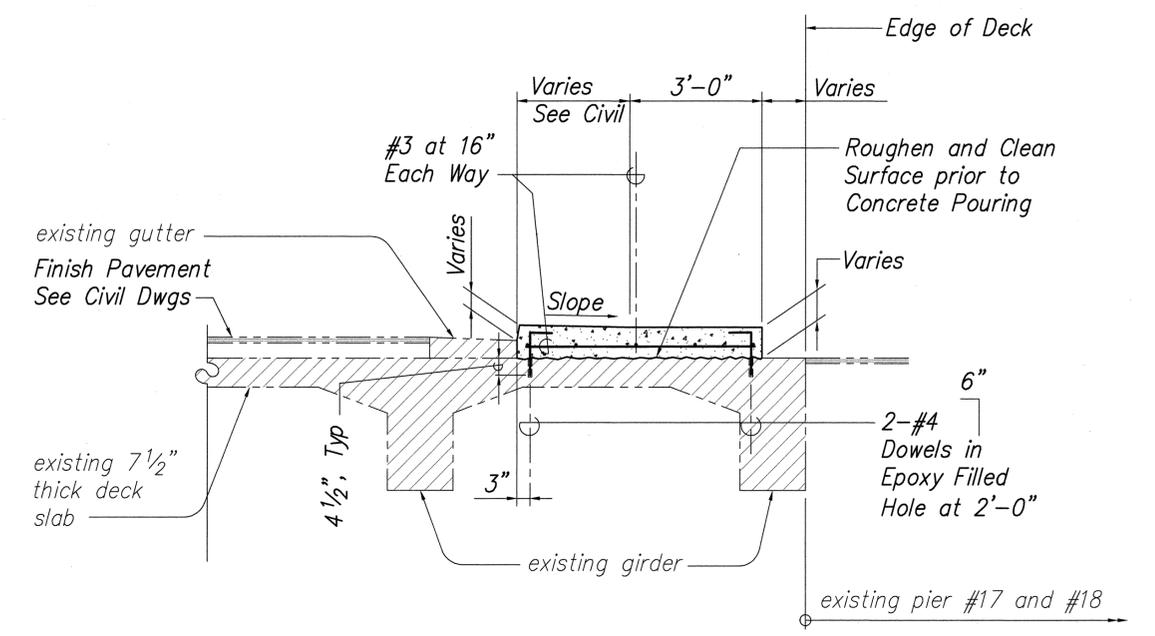
- Notes:**
1. The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
 2. Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.
 3. Refer to Sheets S47 thru S50 for demolition pay limits.
 4. Verify with Civil Drawings length and Slope of Ramp.



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



SECTION 3
Scale: 1/2" = 1'-0"



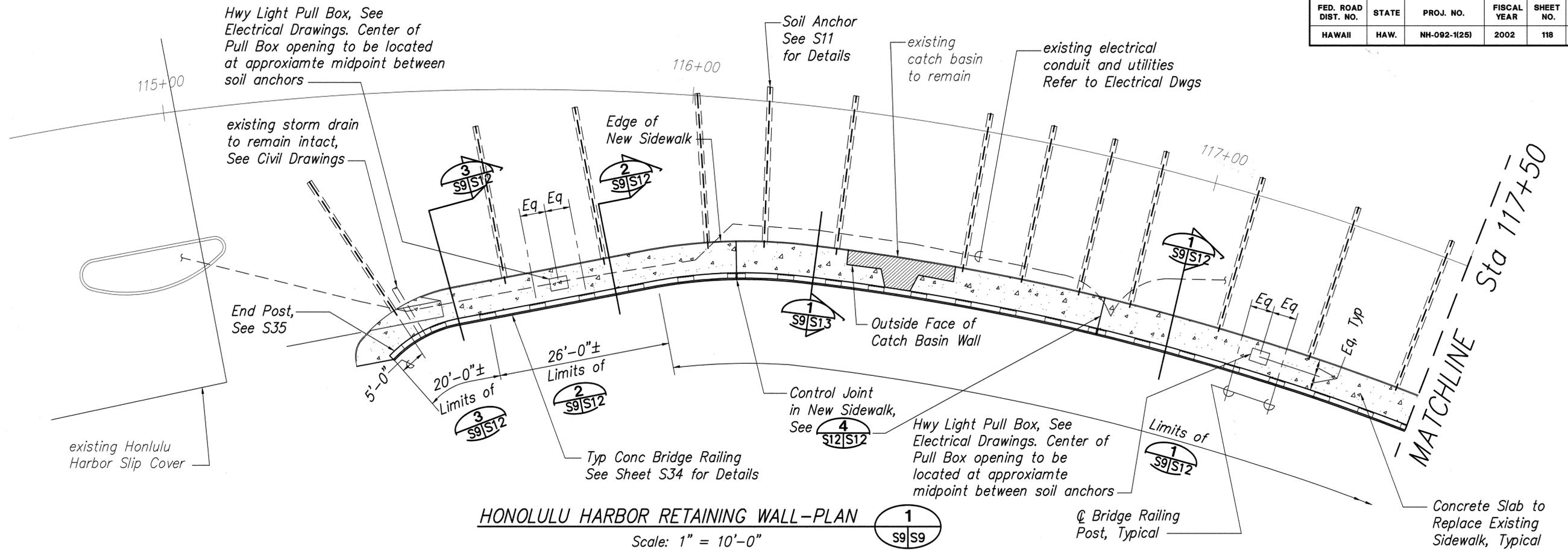
SECTION 4
Scale: 1/2" = 1'-0"

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QUANTITIES BY
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NOTE BOOK
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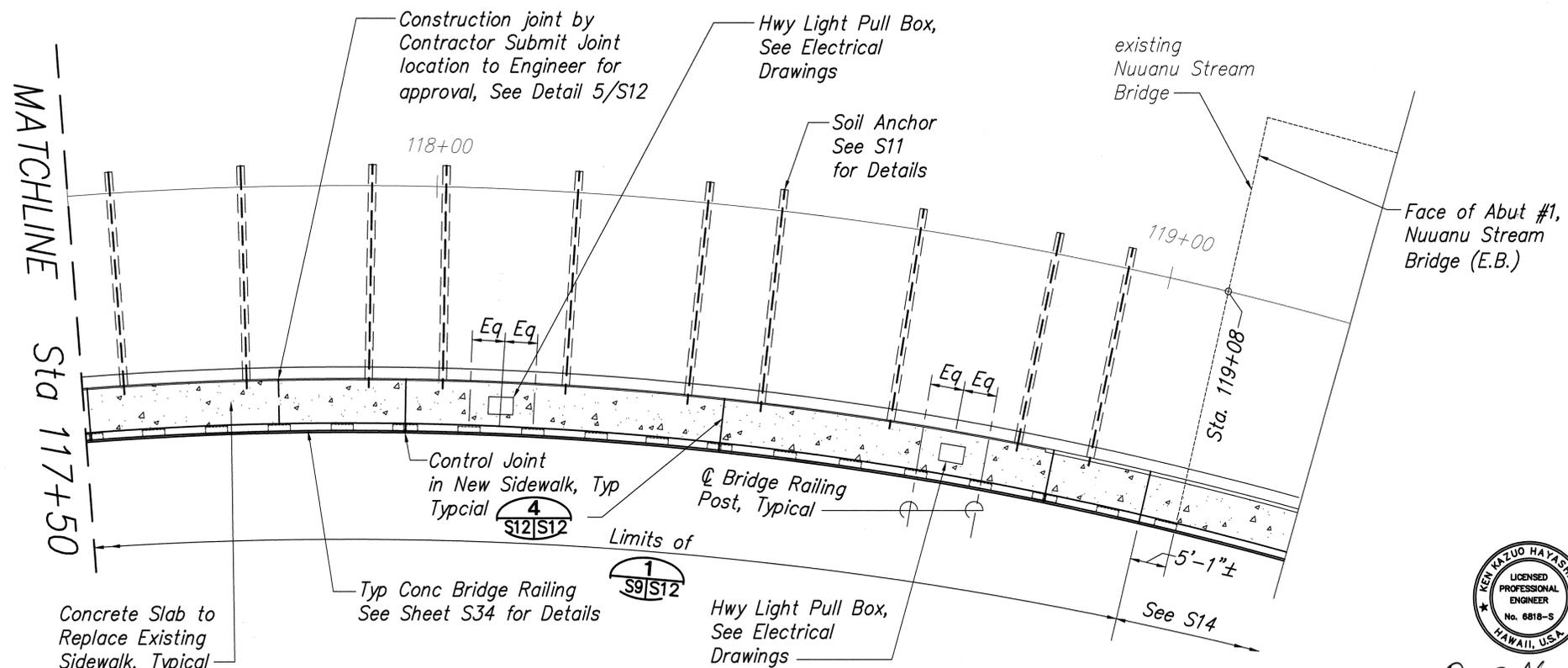


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU HARBOR SLIP COVER -
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)
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HONOLULU HARBOR RETAINING WALL-PLAN 1
Scale: 1" = 10'-0"



HONOLULU HARBOR RETAINING WALL-PLAN 2
Scale: 1" = 10'-0"

- Notes:**
1. Verify location of existing utilities before drilling holes. Soil Anchor may need to be adjusted to avoid existing utilities.
 2. Refer to Electrical and Civil Drawings for existing utilities to be demolished.
 3. See S9/S13 for concrete slab opening detail at pull box.
 4. For locations of control joints, See Sheet S10 (exp. jt).

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HONOLULU HARBOR RETAINING WALL
PLAN

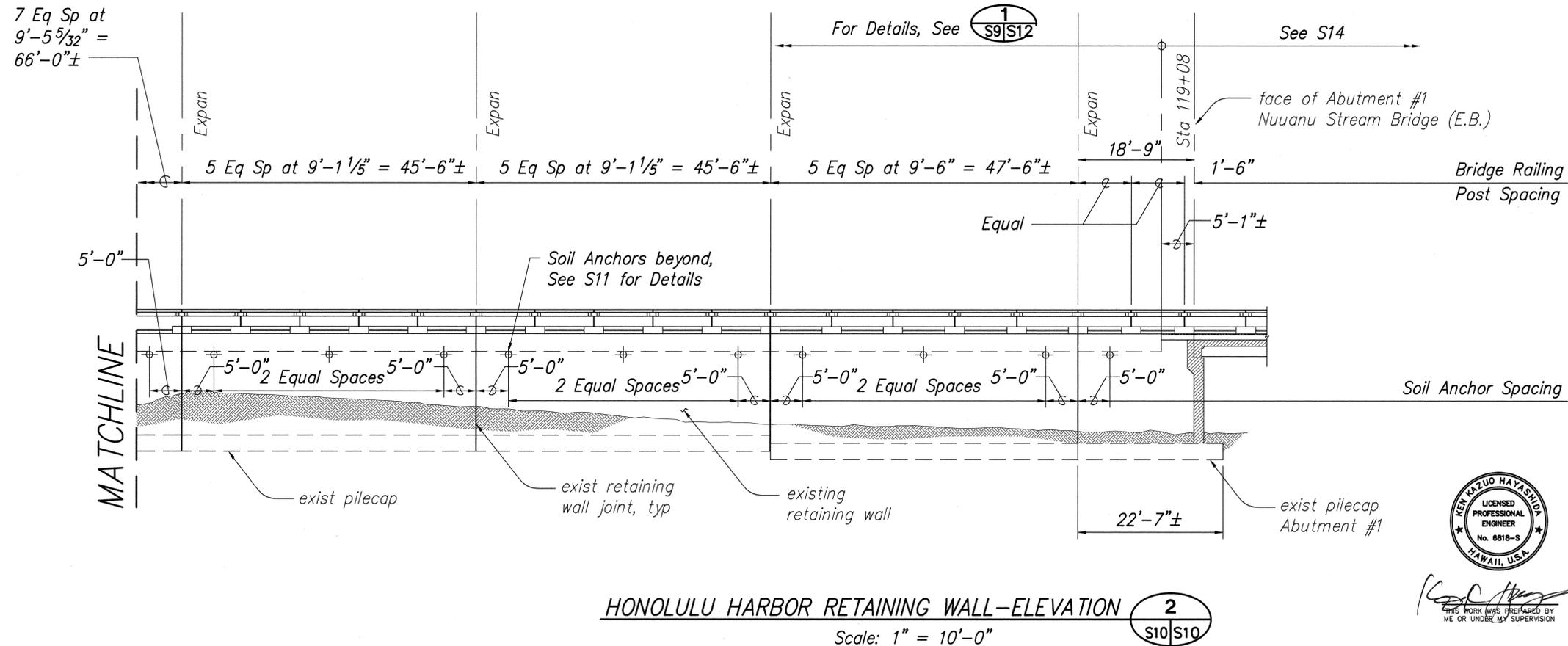
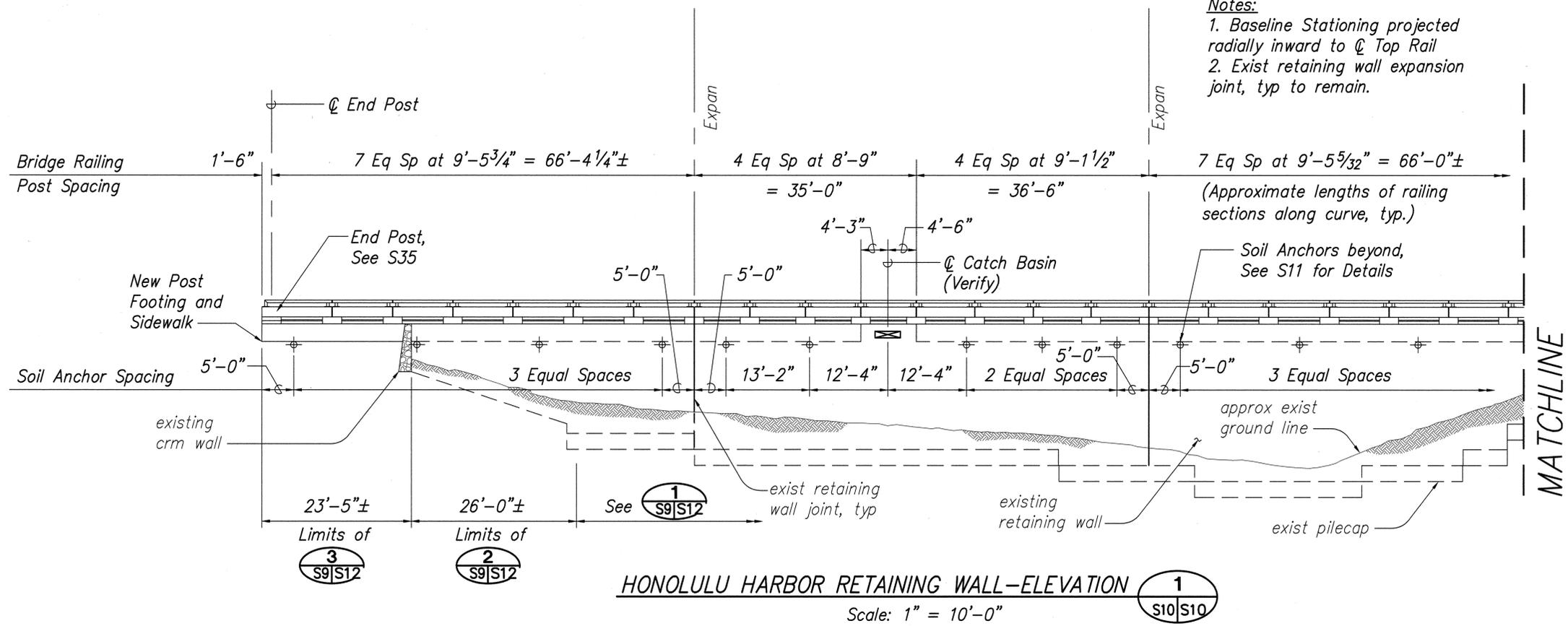
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S9 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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Notes:

1. Baseline Stationing projected radially inward to ϕ Top Rail
2. Exist retaining wall expansion joint, typ to remain.



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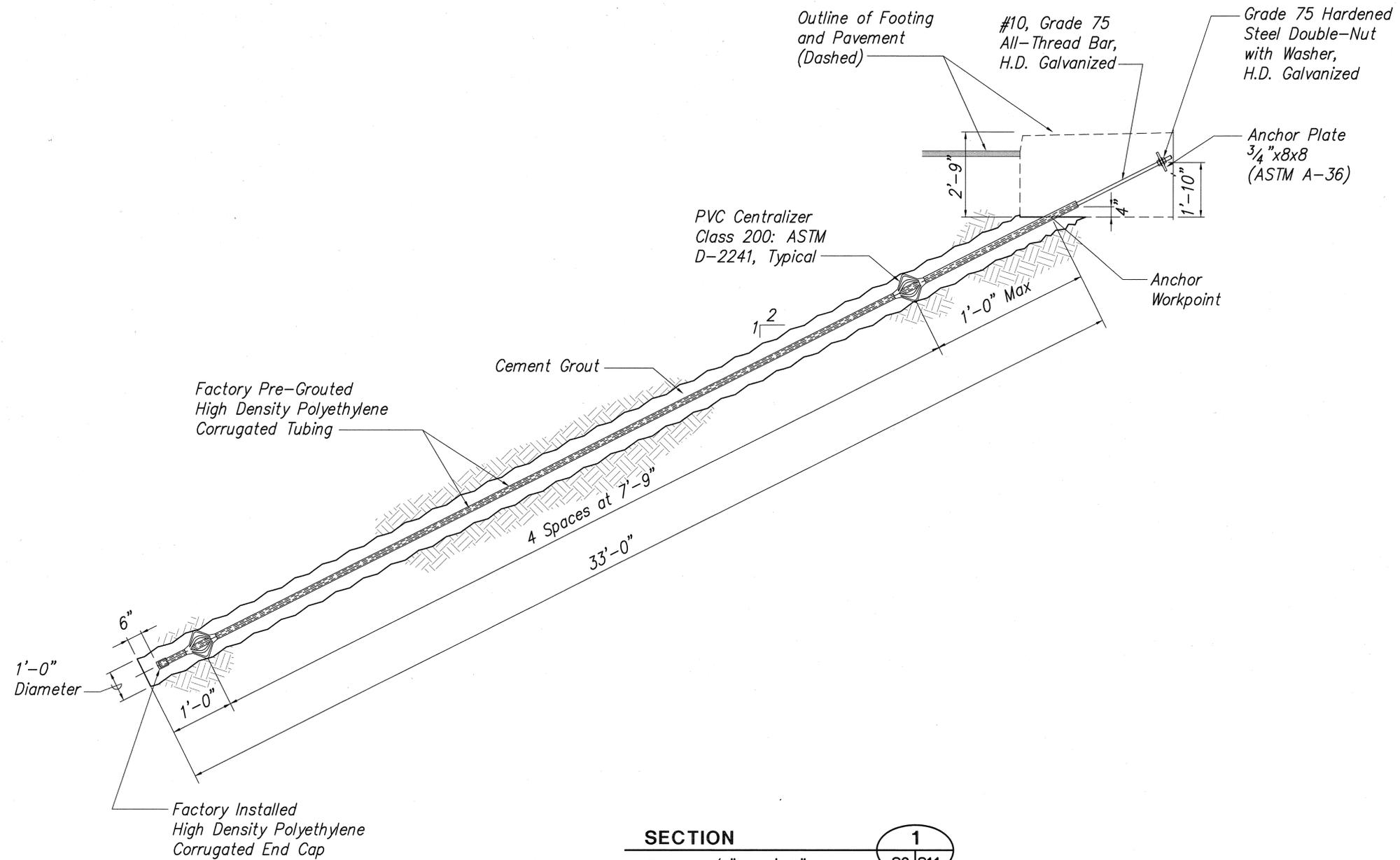
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**HONOLULU HARBOR RETAINING WALL
ELEVATION**

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S10 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	120	268



SECTION 1
 Scale: 1/2" = 1'-0" S9 | S11

- Notes:
1. Refer to Demolition Pay Limits Sheets S47 thru S50.
 2. In order to avoid cracking of factory-installed grout inside HDPE tubing, use a 3-point pick (min) when handling all-thread bar.

ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

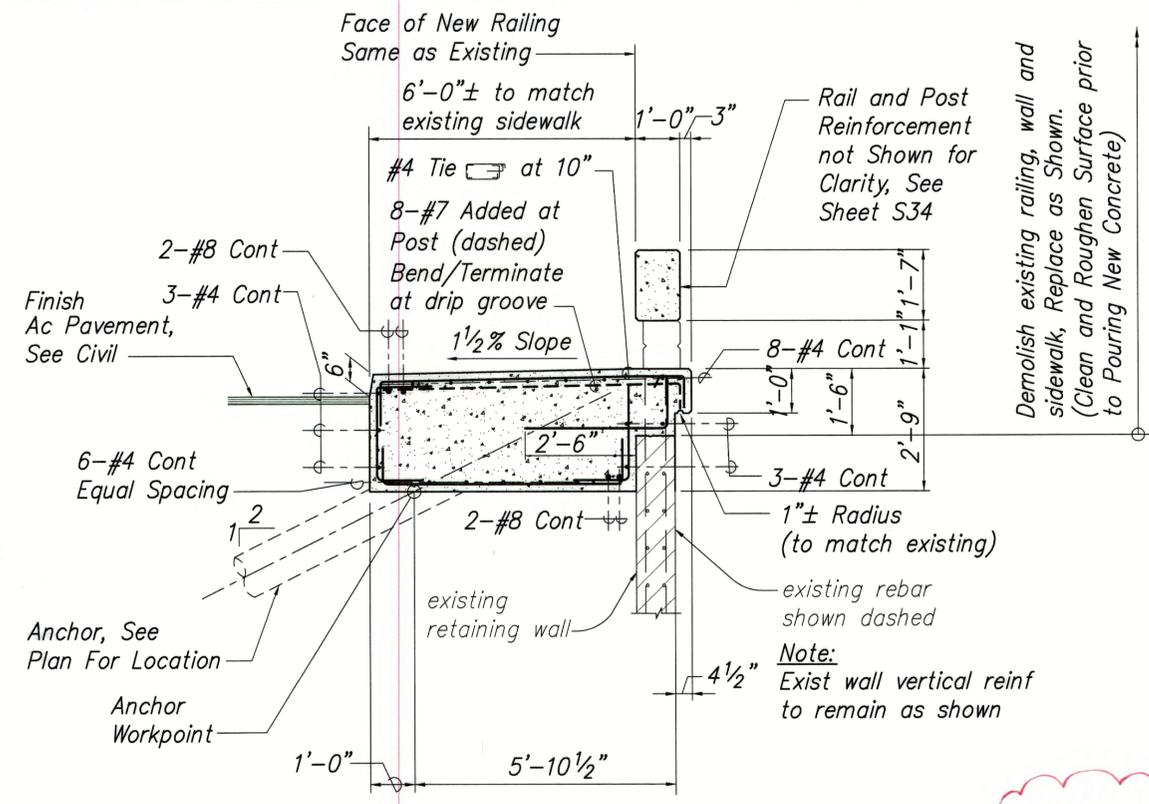
HONOLULU HARBOR RETAINING WALL,
SECTION AND DETAILS

NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

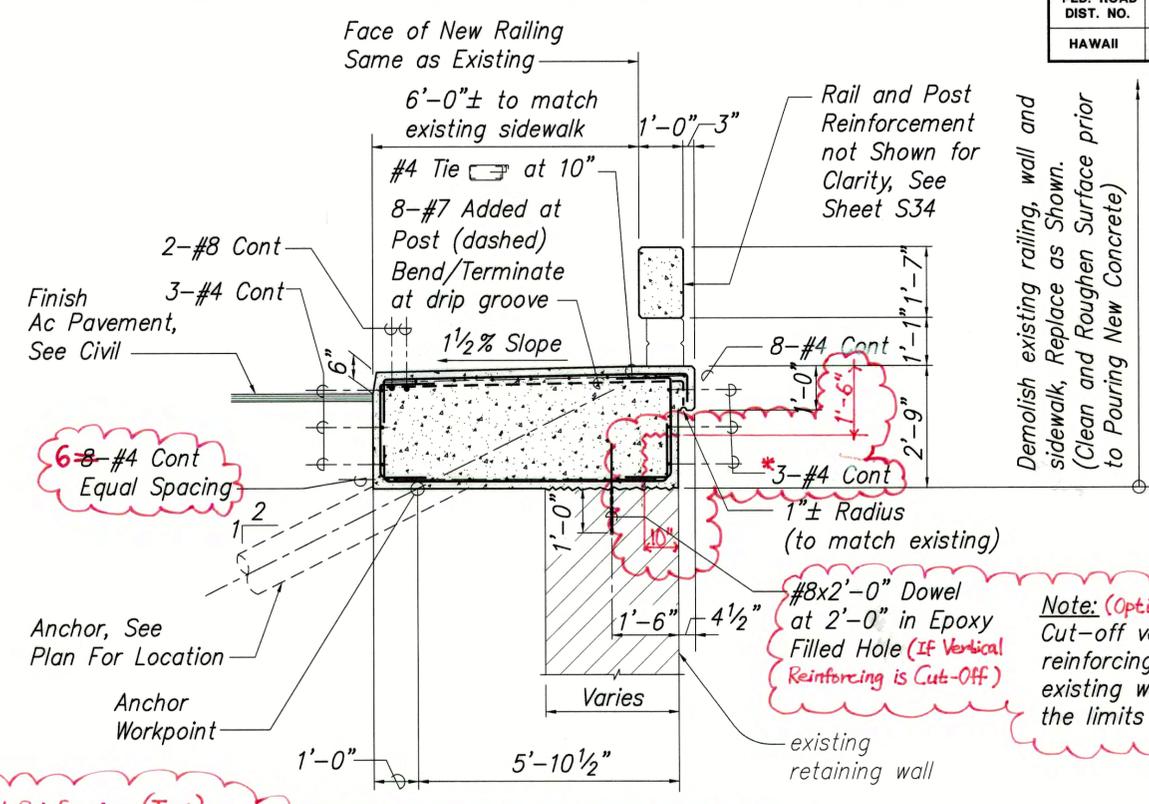
SCALE: AS NOTED DATE: 11/01/01

SHEET No. S11 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	121	268

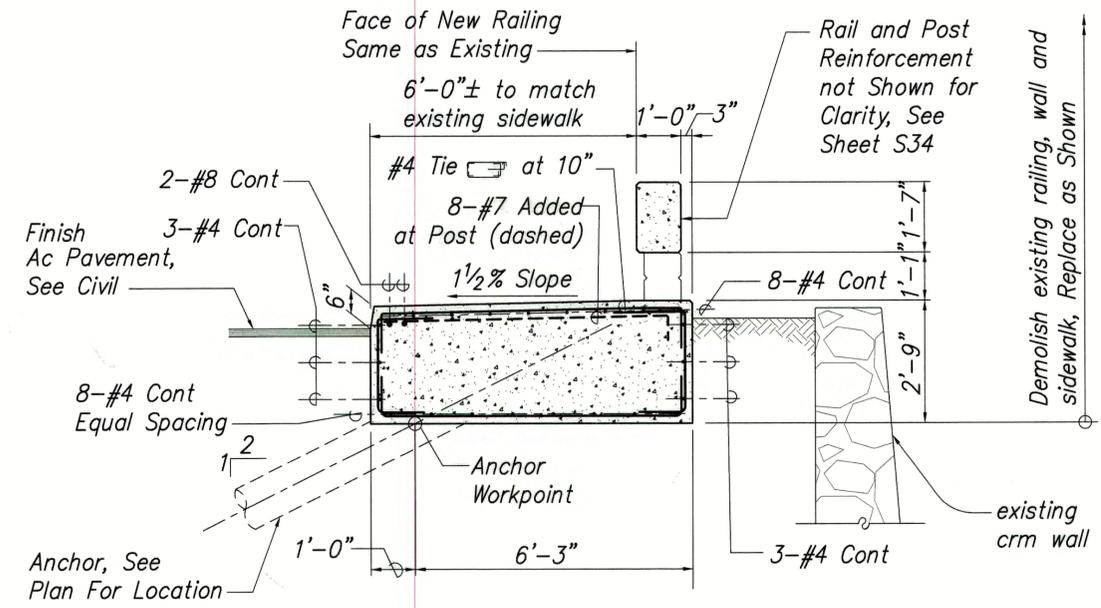


SECTION 1
Scale: 1/2" = 1'-0"
S9 S12

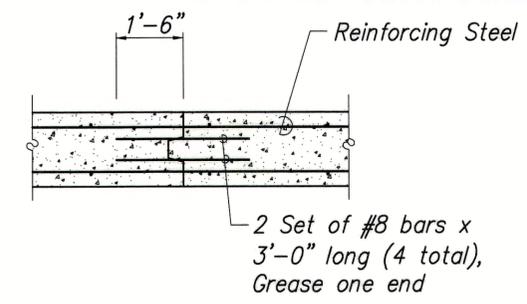


SECTION 2
Scale: 1/2" = 1'-0"
S9 S12

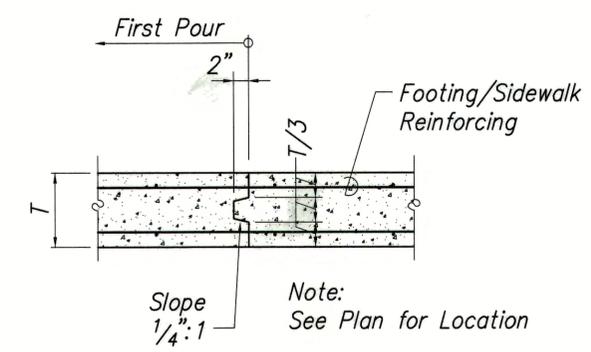
* Section 2 Steel Reinforcing (Typ:) Same as Section 1 Reinforcing Except as noted



SECTION 3
Scale: 1/2" = 1'-0"
S9 S12



TYP CONTROL JOINT DETAIL 4
Not to Scale
S12 S12



TYP CONSTRUCTION JOINT DETAIL 5
Not to Scale
S12 S12

Notes:
1. Refer to Demolition Pay Limits Sheets S47 thru S50.

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
QUANTITIES BY	_____
DESIGNED BY	_____
TRACED BY	_____
DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
QUANTITIES BY	_____
DESIGNED BY	_____
TRACED BY	_____



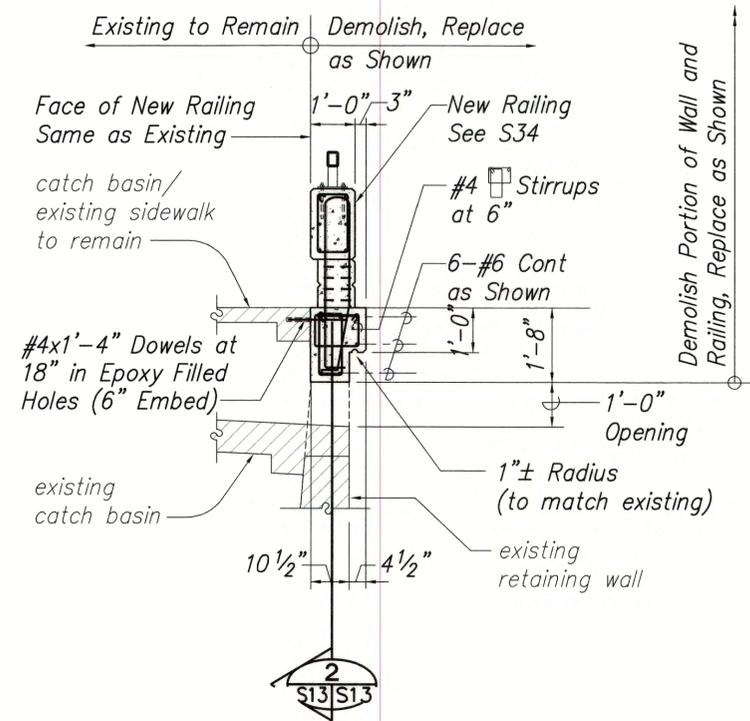
Field Change No. 4.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU HARBOR RETAINING WALL,
STA. 115+55 TO 119+00 - PLAN & ELEVATION
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

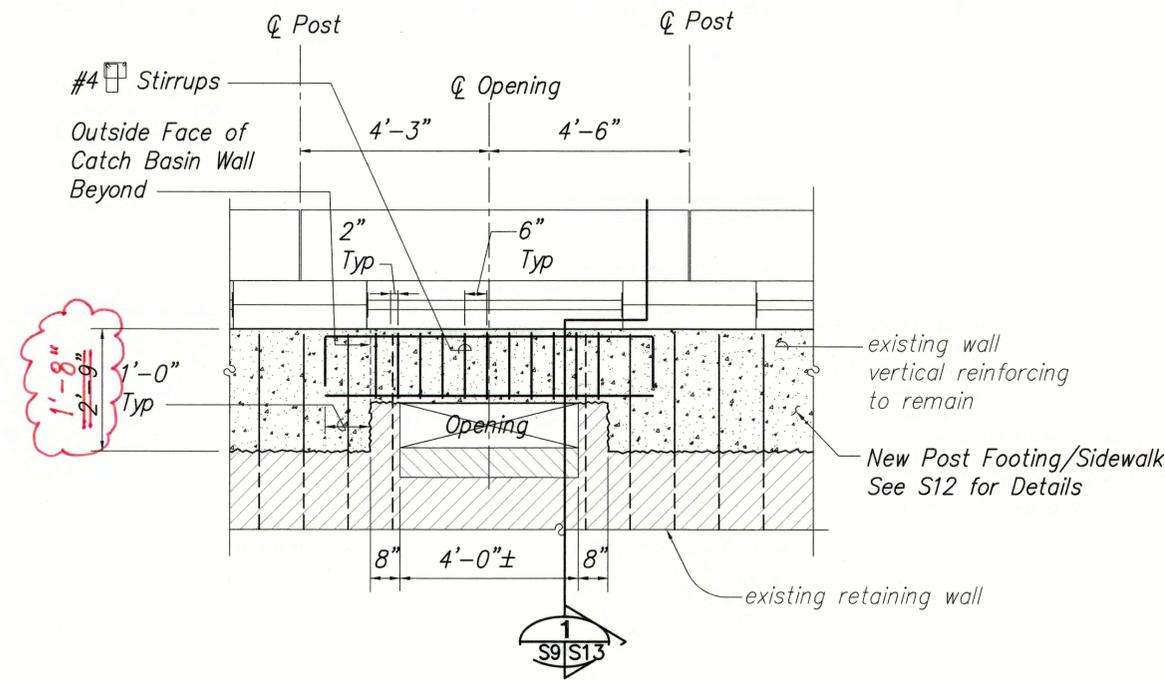
SCALE: AS NOTED DATE: 11/01/01
SHEET No. S12 OF 50 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	122	268



SECTION 1
Scale: 1/2" = 1'-0"
S9 | S13

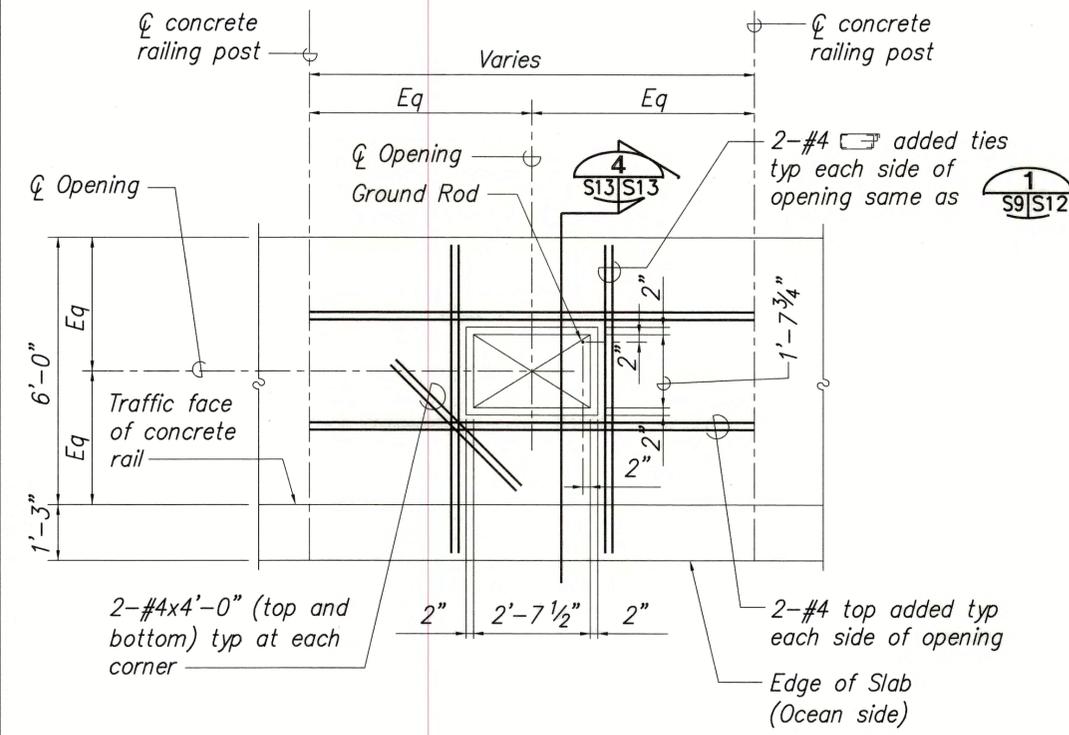


SECTION 2
Scale: 1/2" = 1'-0"
S13 | S13

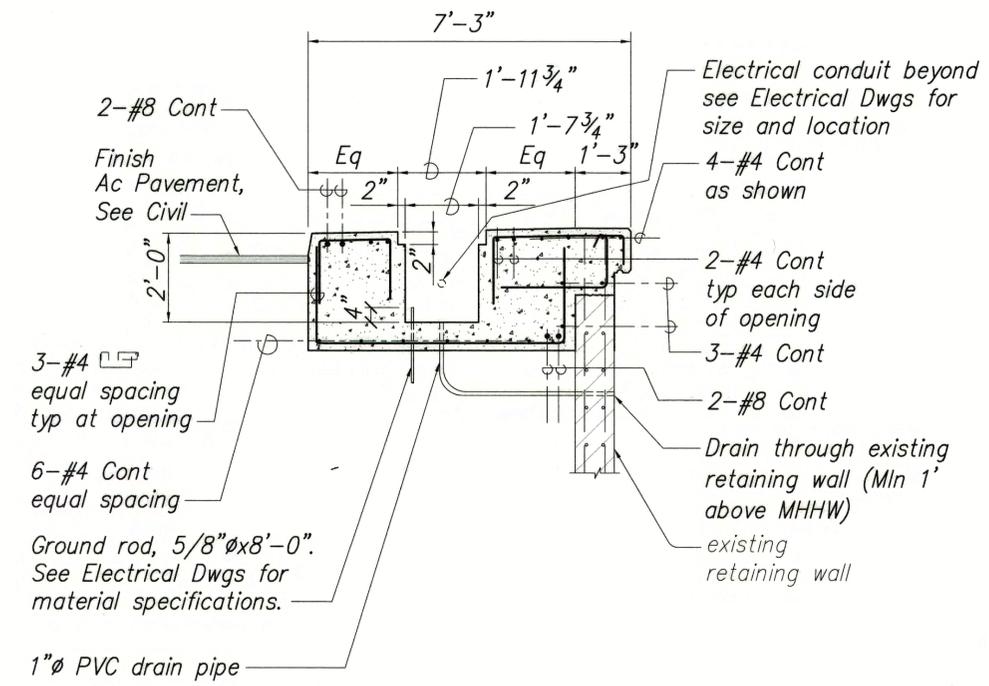
Notes:
1. Refer to Demolition Pay Limits Sheets S47 thru S50.

NEW CONCRETE 1'-8" HEIGHT OVER OPENING TO 1'-10" ON BOTH SIDES OF OPENING. BEYOND 1'-10" OF OPENING, NEW CONCRETE HEIGHT IS 1'-6" TYPICAL PER SECTION 1 OF SHEET S-12.

FIELD CHANG NO. 4



PLAN (SLAB REINFORCING AROUND OPENING) SECTION 3
Scale: 1/2" = 1'-0"
S9 | S13



SECTION 4
Scale: 1/2" = 1'-0"
S13 | S13

- Note:
- See S9 | S12 for balance of information.
 - Verify with Electrical for dimensions at opening.
 - Railing not shown for clarity.
 - The cost for all material and labor to install the ground rod and PVC drain pipe shall be made incidental to the cost of the concrete.

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

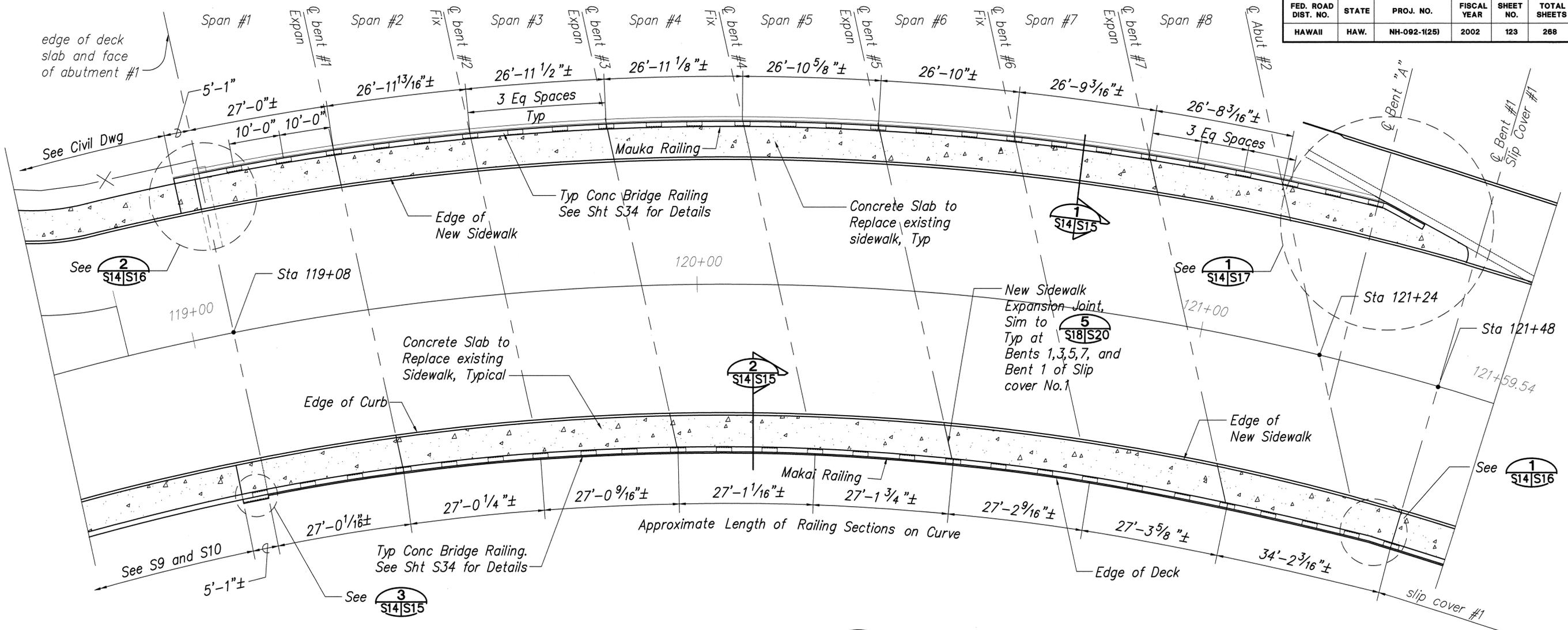


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU HARBOR RETAINING WALL,
SECTION AND DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

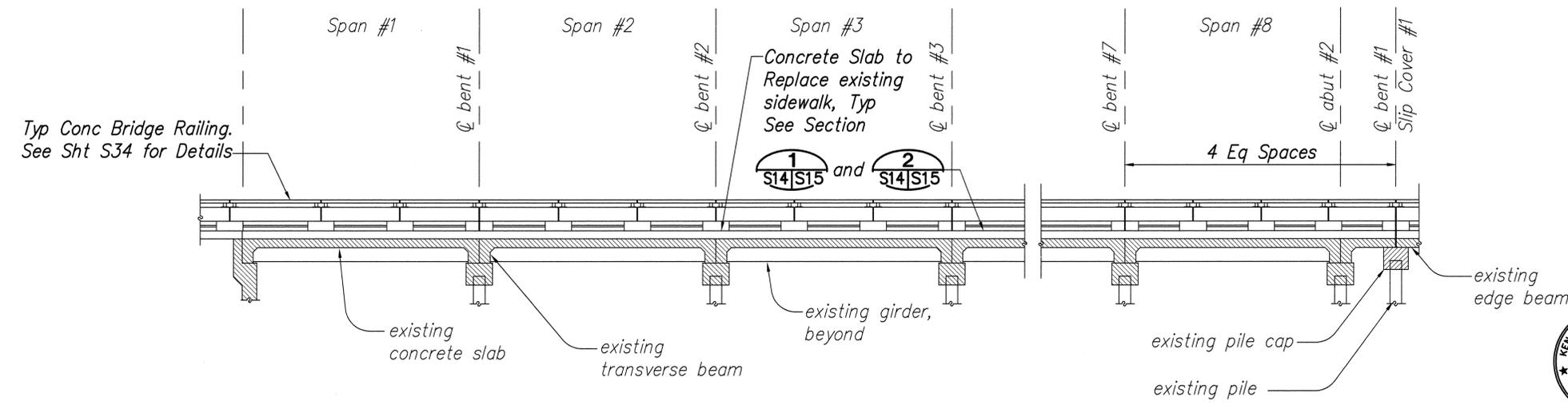
SCALE: AS NOTED DATE: 11/01/01
SHEET No. S13 OF 50 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	123	268



NUUANU STREAM BRIDGE-PLAN 1
Scale: 1" = 10'-0"



NUUANU STREAM BRIDGE-ELEVATION 2
Scale: 1/8" = 1'-0"

- Notes:**
1. Provide expansion joint in bridge railing post and sidewalk Bents 1,3,5,7, and Bent 1 of Slip Cover No.1. Typical for both mauka and makai railings. See detail Sheet S34.
 2. Refer to Sheet S34 for typical bridge railing notes.

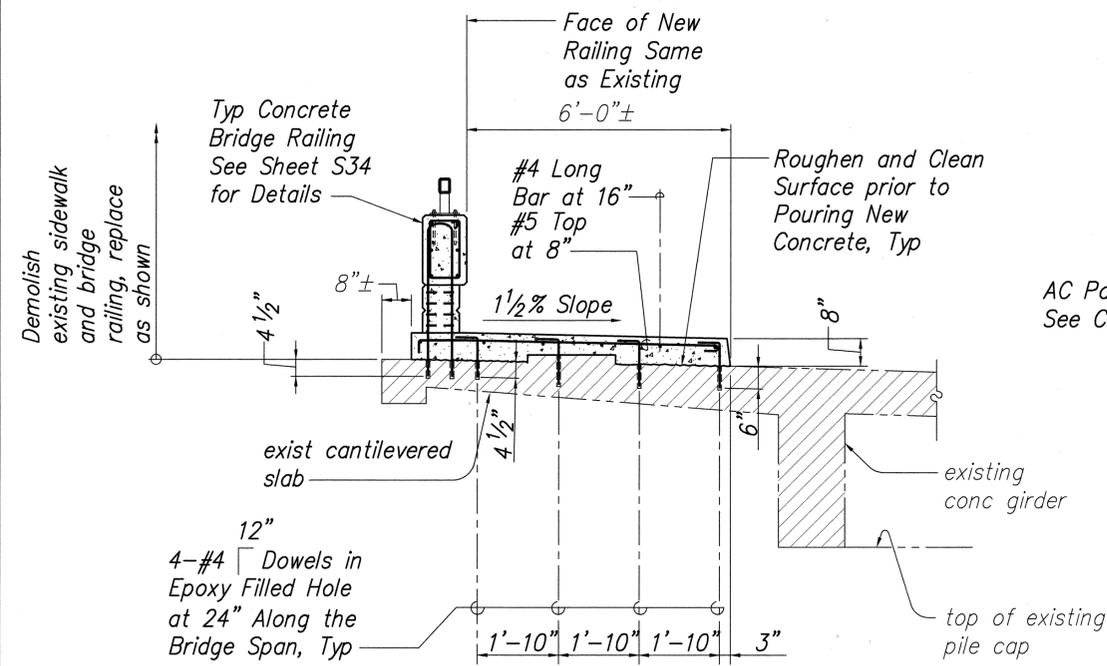
DATE: _____
 SURVEY PLOTTED BY: _____
 ORIGINAL PLAN: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 CHECKED BY: _____
 No. _____



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
NUUANU STREAM BRIDGE (E.B.)
PLAN AND ELEVATION
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

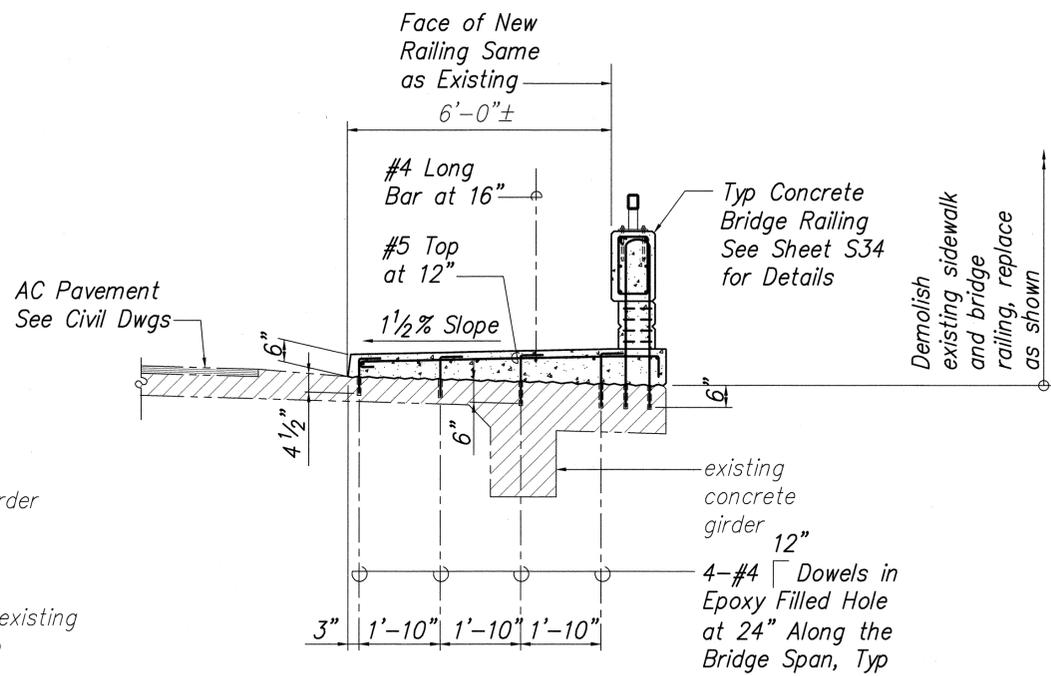
SCALE: AS NOTED DATE: 11/01/01
 SHEET No. S14 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	124	268



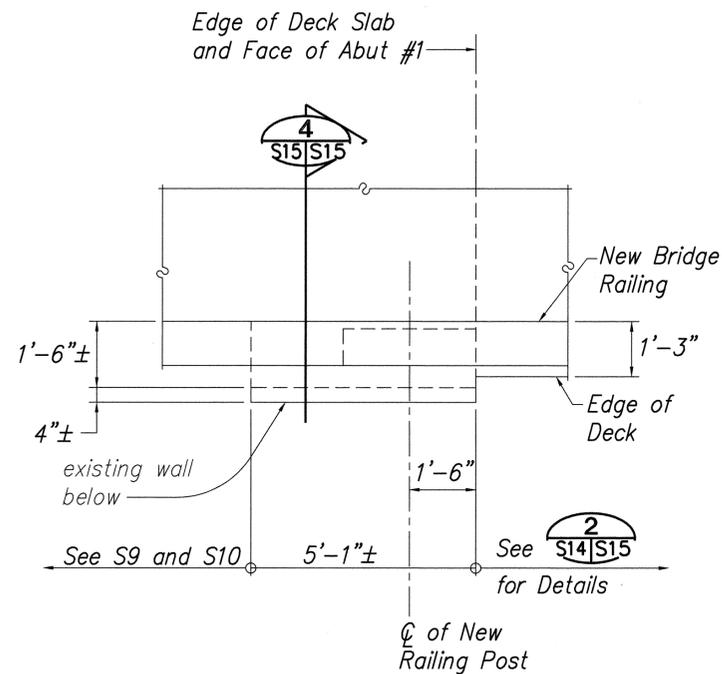
(Typical for all Spans at Mauka side, Unless Noted Otherwise)

SECTION 1
Scale: 1/2" = 1'-0" S14 | S15

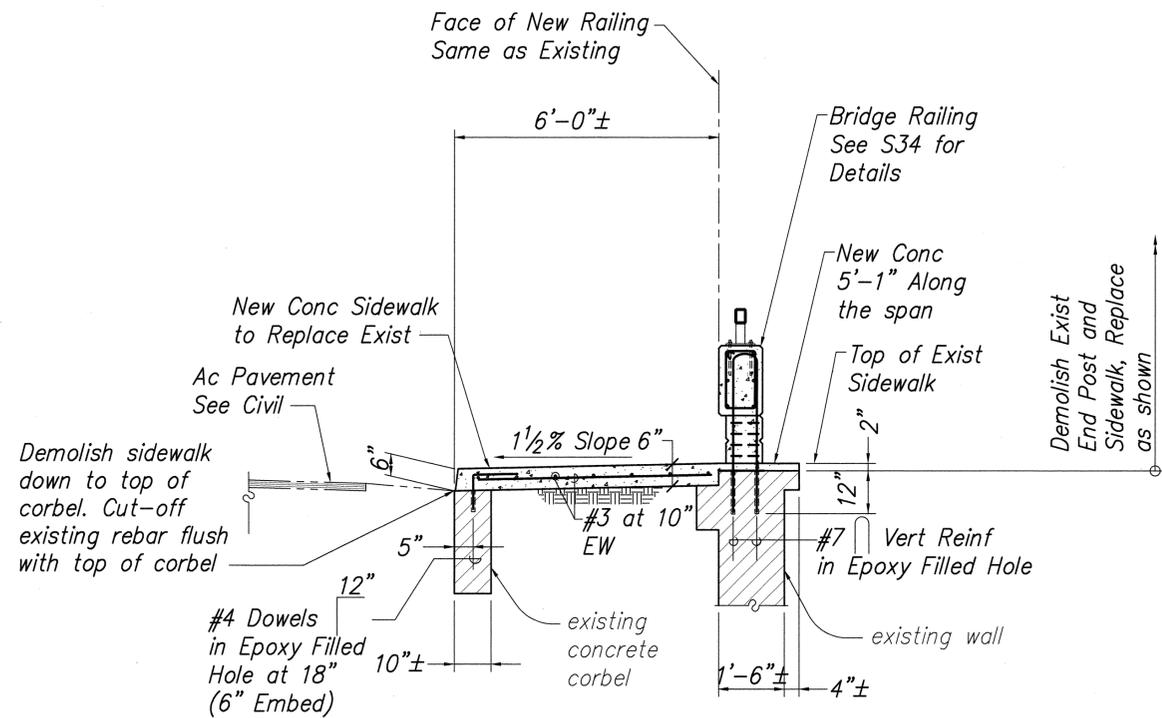


(Typical for all Spans at Makai side, Unless Noted Otherwise)

SECTION 2
Scale: 1/2" = 1'-0" S14 | S15



PLAN 3
Scale: 1/2" = 1'-0" S14 | S15



SECTION 4
Scale: 1/2" = 1'-0" S15 | S15

Notes:

1. The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
2. Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.
3. Refer to Sheet S47 thru S50 for demolition pay limits.

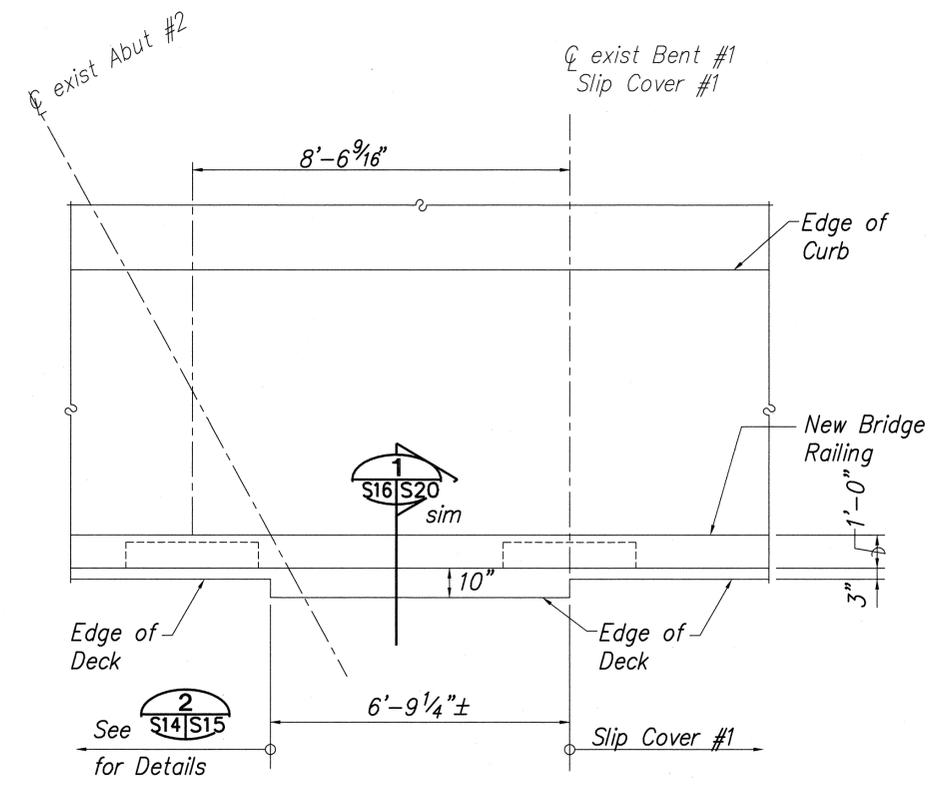
DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
No.	_____



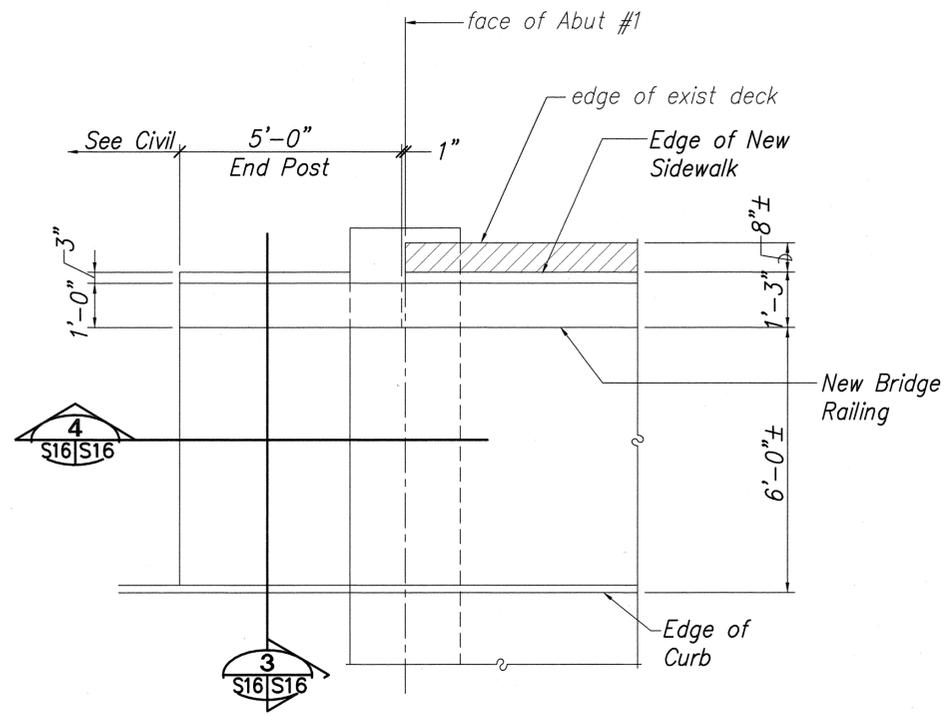
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
NUUANU STREAM BRIDGE (E.B.)
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S15 OF 50 SHEETS

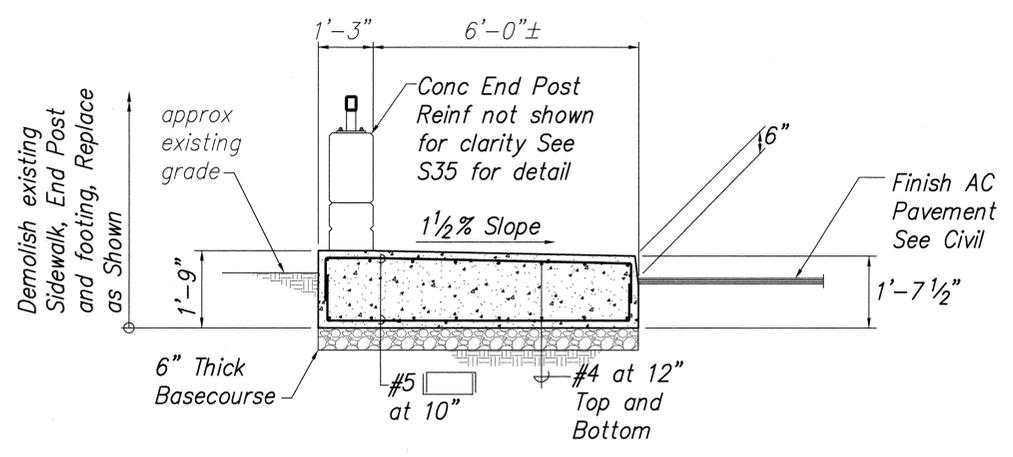
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	125	268



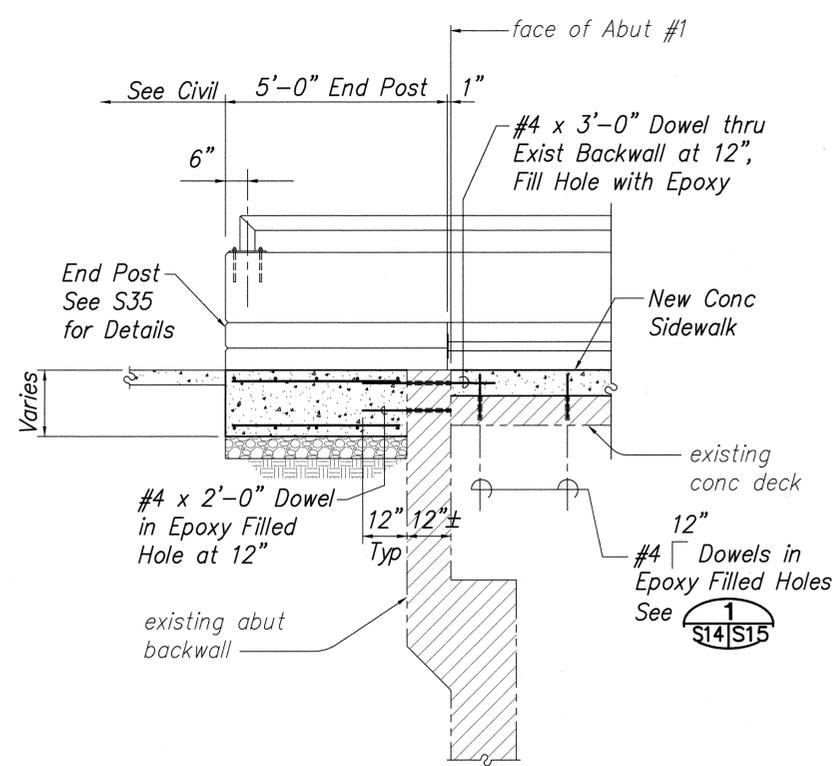
PLAN 1
Scale: 1/2" = 1'-0" S14|S16



PLAN 2
Scale: 1/2" = 1'-0" S14|S16



SECTION 3
Scale: 1/2" = 1'-0" S16|S16



SECTION 4
Scale: 1/2" = 1'-0" S16|S16

- Notes:**
1. The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
 2. Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.
 3. Refer to Sheet S47 thru S50 for demolition pay limits.

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NUUANU STREAM BRIDGE (E.B.)

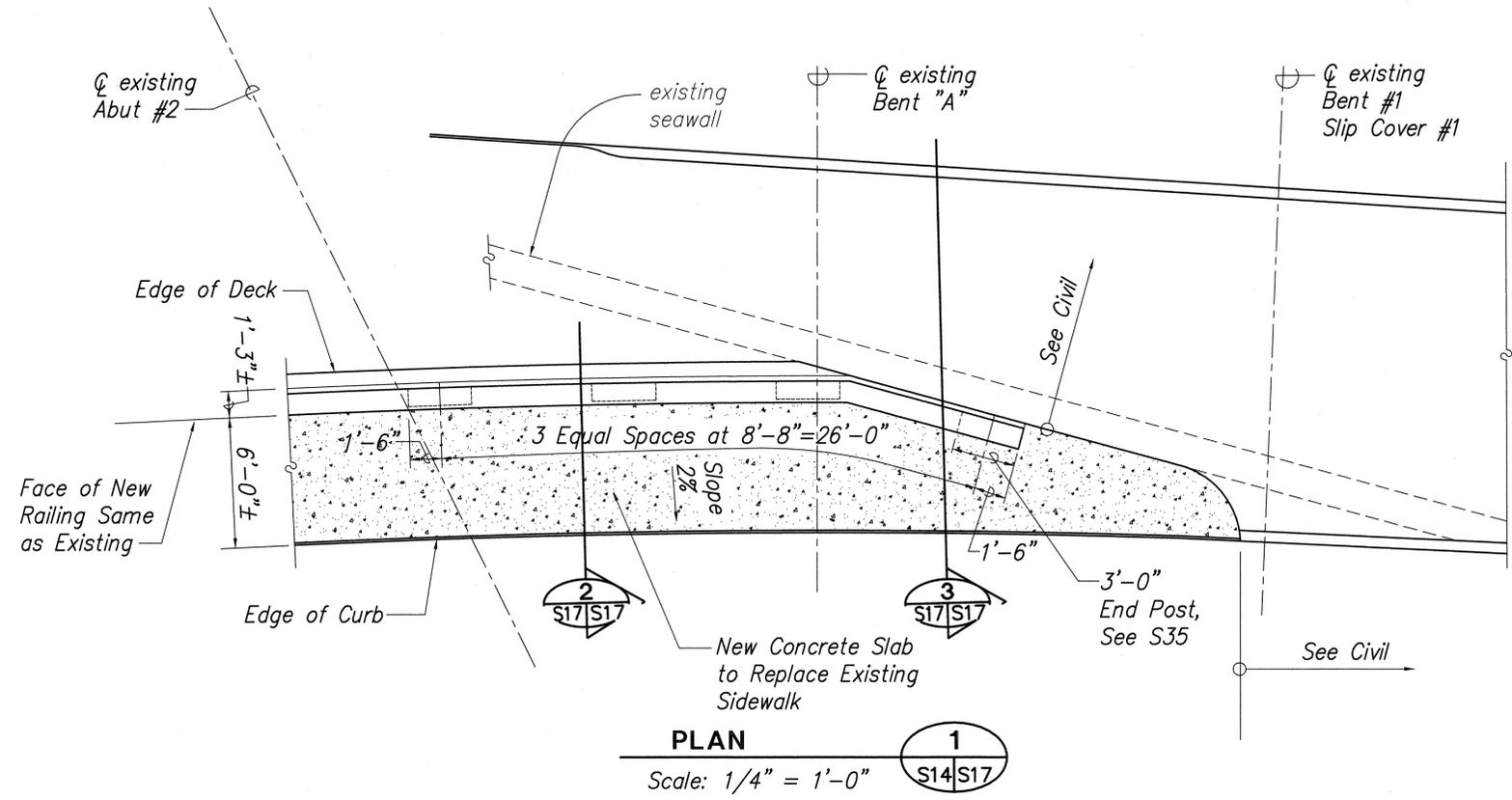
SECTIONS & DETAILS

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

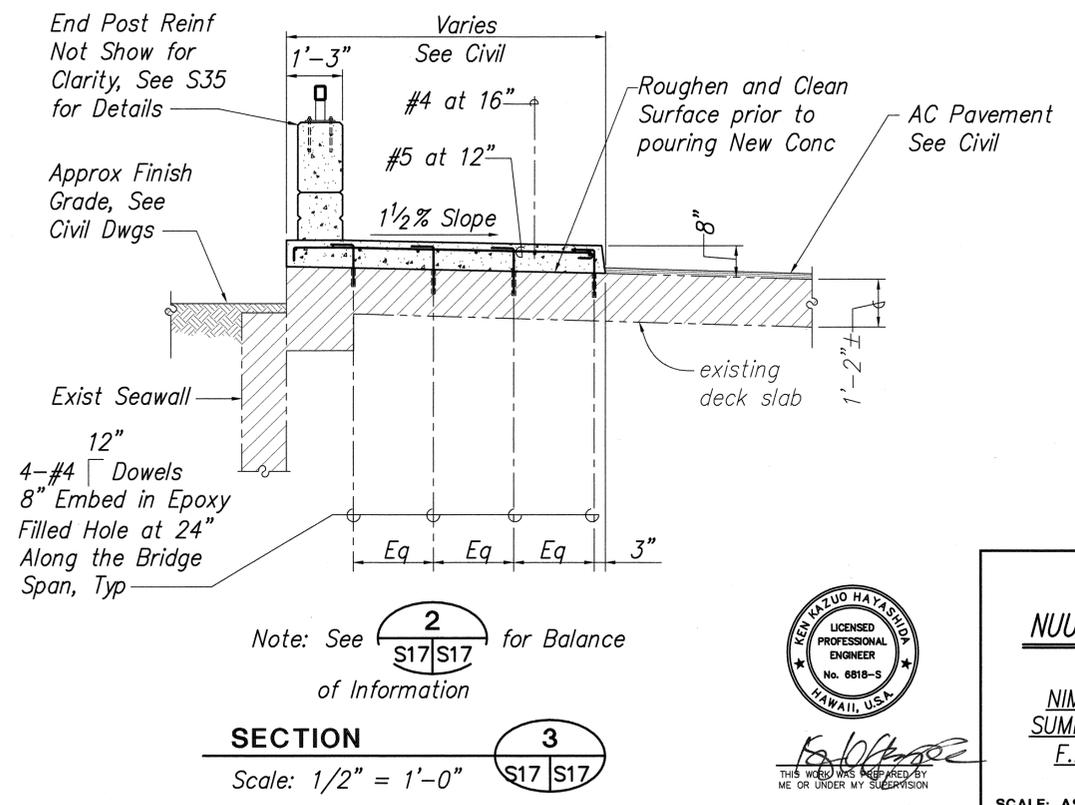
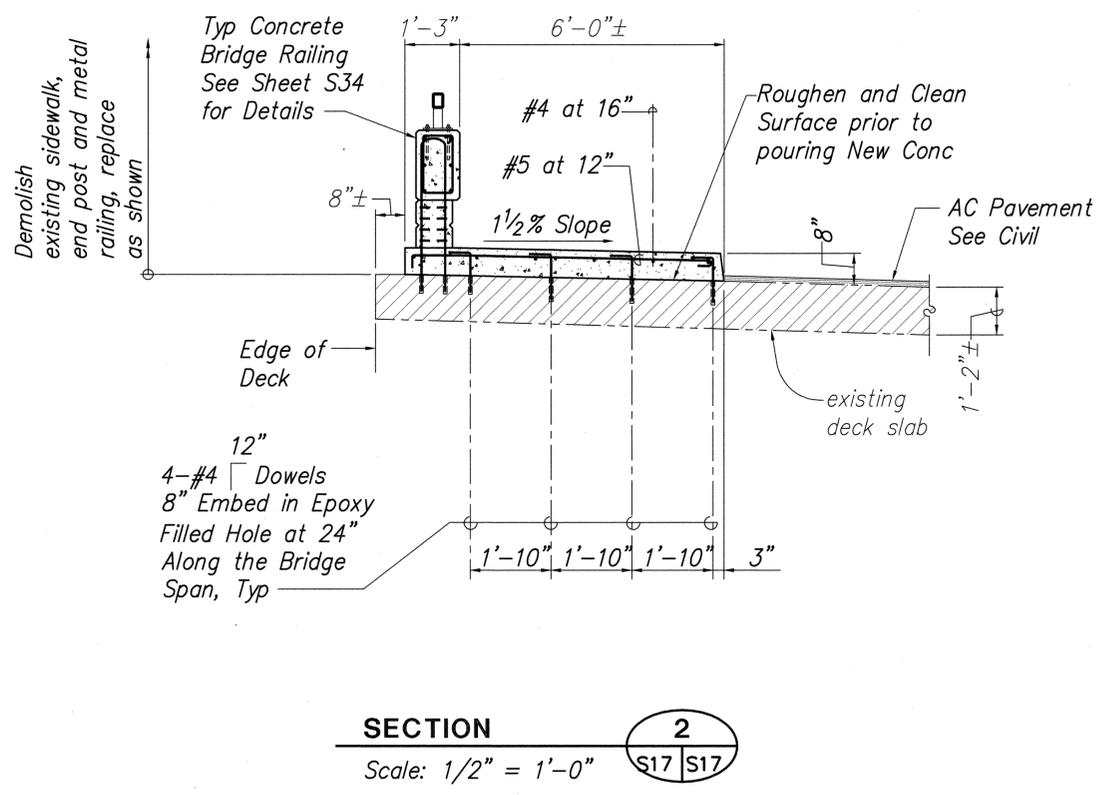
SCALE: AS NOTED DATE: 11/01/01

SHEET No. S16 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	126	268



- Notes:**
1. The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
 2. Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.
 3. Refer to Sheet S47 thru S50 for demolition pay limits.



Note: See **2** for Balance of Information

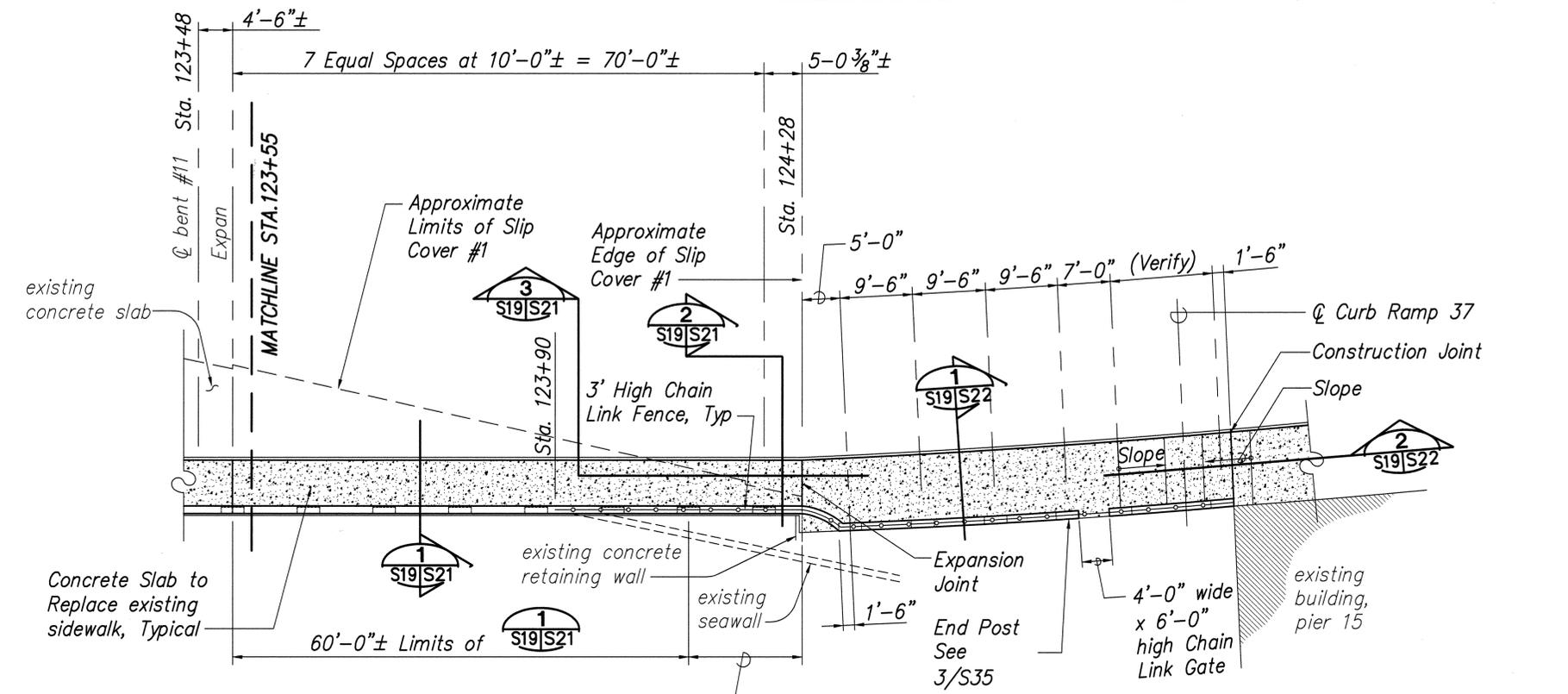
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DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
NUUANU STREAM BRIDGE (E.B.)
 SECTIONS & DETAILS
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
 SHEET No. S17 OF 50 SHEETS

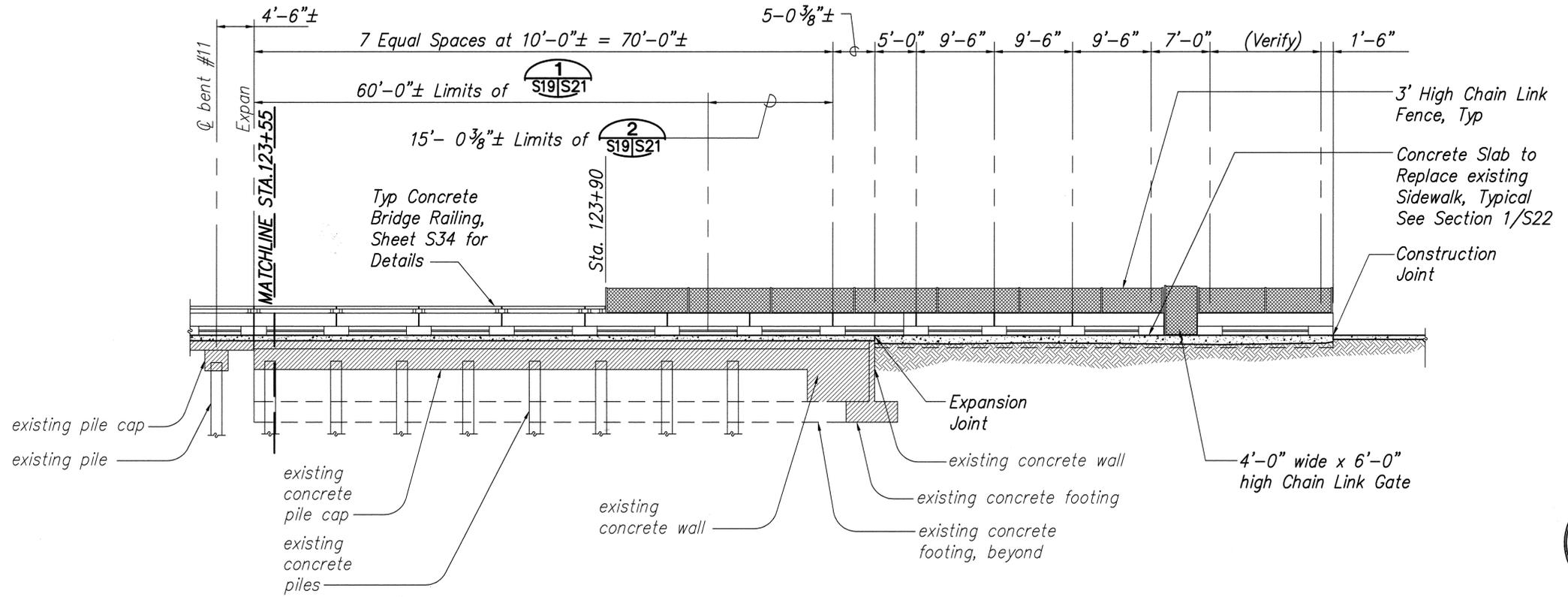
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	128	268



Note: Baseline Stationing Projected inward along the Centerline of Pile Cap.

15'-0 3/8"± Limits of 2 S19/S21 3 S19/S21

SLIP COVER #1 PLAN 2 1 S19/S19
Scale: 1" = 10'-0"



Note: Concrete Railing Post shall have equal spacing between Bent unless Noted otherwise.

SLIP COVER #1 ELEVATION 2 2 S19/S19
Scale: 1/8" = 1'-0"

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



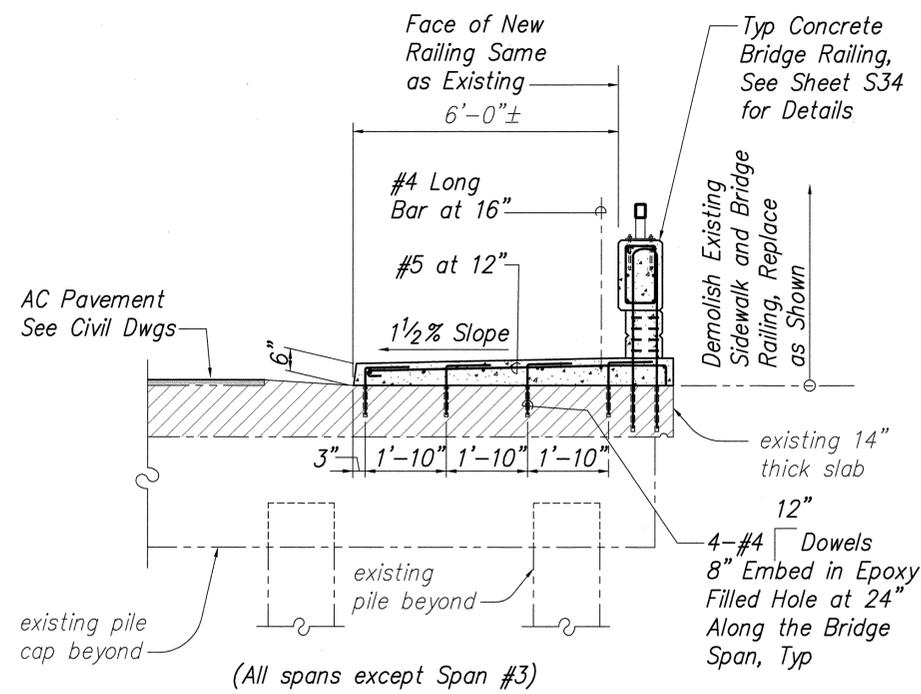
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**SLIP COVER #1-
PLAN AND ELEVATION 2**

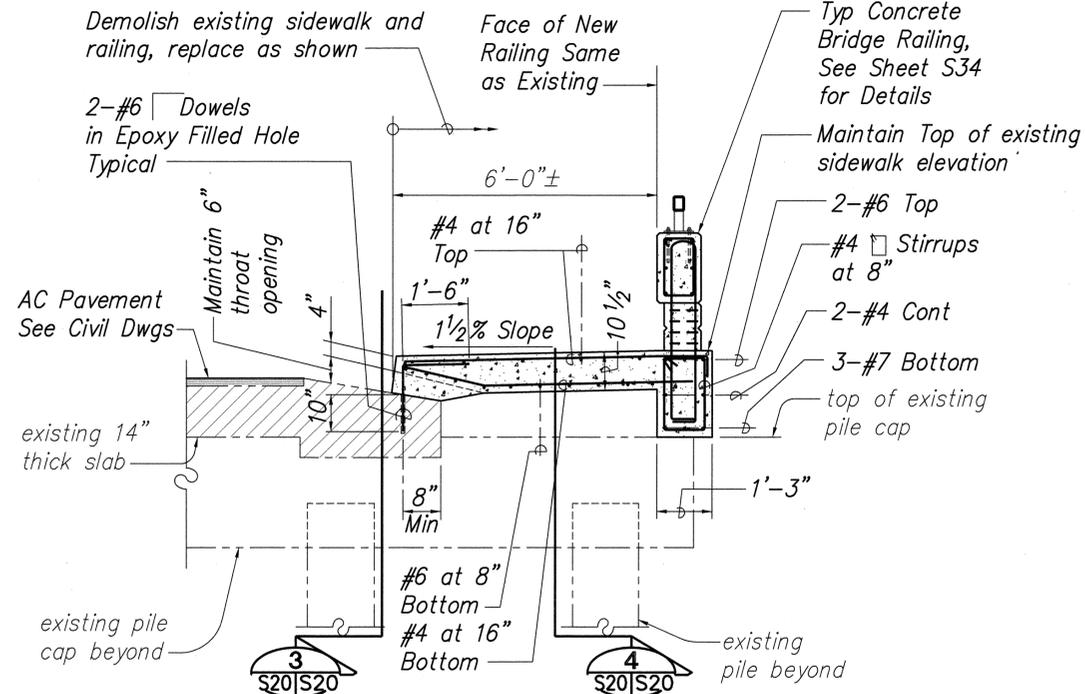
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S19 OF 50 SHEETS

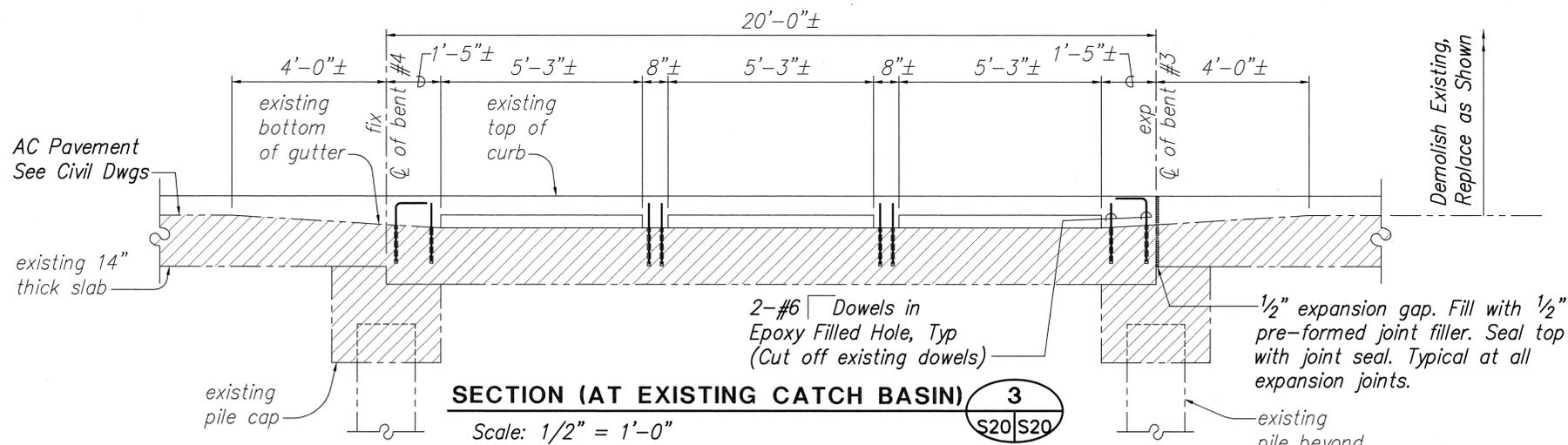
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	129	268



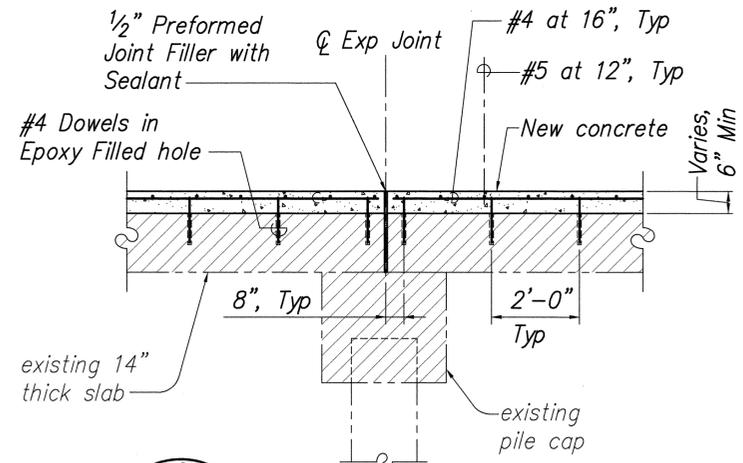
TYPICAL SECTION 1
Scale: 1/2" = 1'-0"
S16, S18, S20



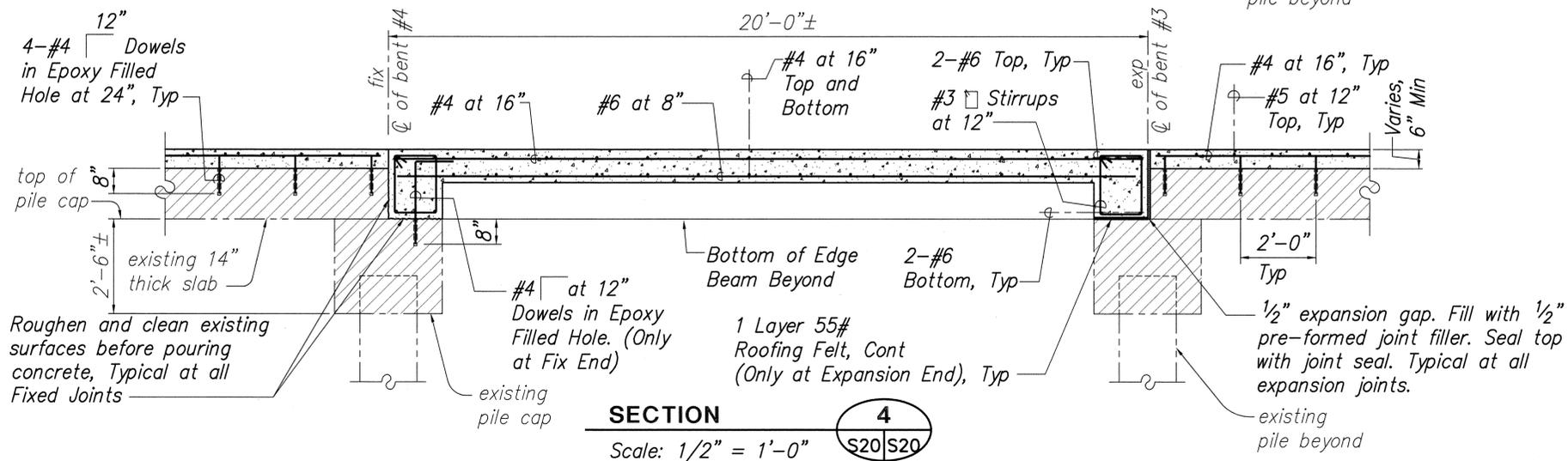
SECTION (AT EXISTING CATCH BASIN SPAN 3) 2
Scale: 1/2" = 1'-0"
S18, S20



SECTION (AT EXISTING CATCH BASIN) 3
Scale: 1/2" = 1'-0"
S20, S20



SECTION (TYPICAL AT EXPANSION JOINT) 5
Scale: 1/2" = 1'-0"
S18, S20



SECTION 4
Scale: 1/2" = 1'-0"
S20, S20

Notes:

1. The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
2. Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.
3. Refer to Sheet S47 thru S50 for demolition pay limits.

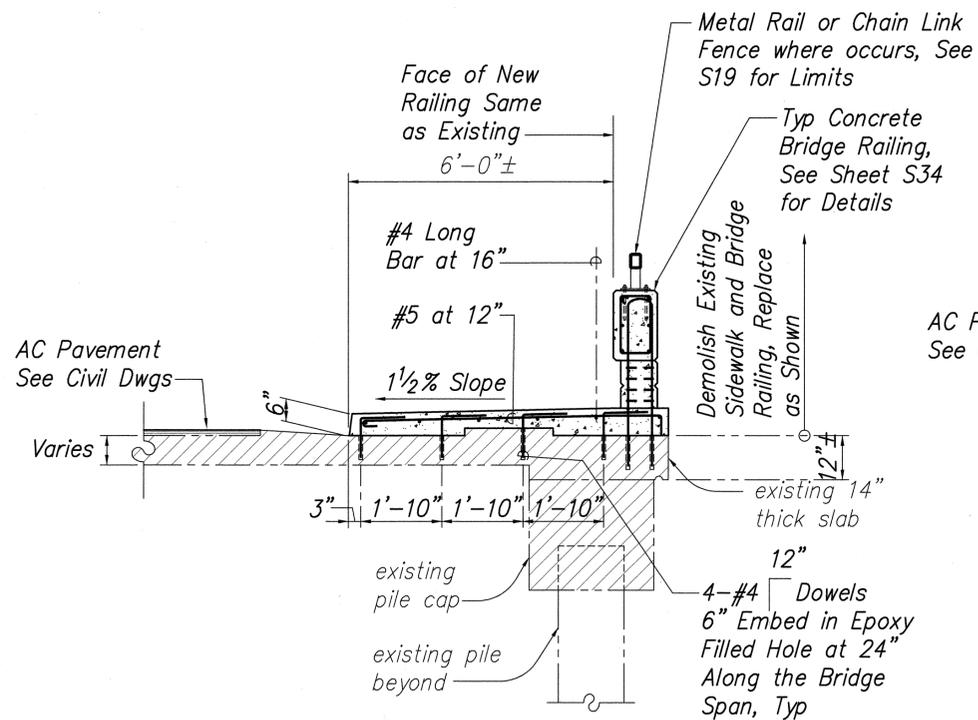
SURVEY PLOTTED BY	DATE
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DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #1 -
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S20 OF 50 SHEETS

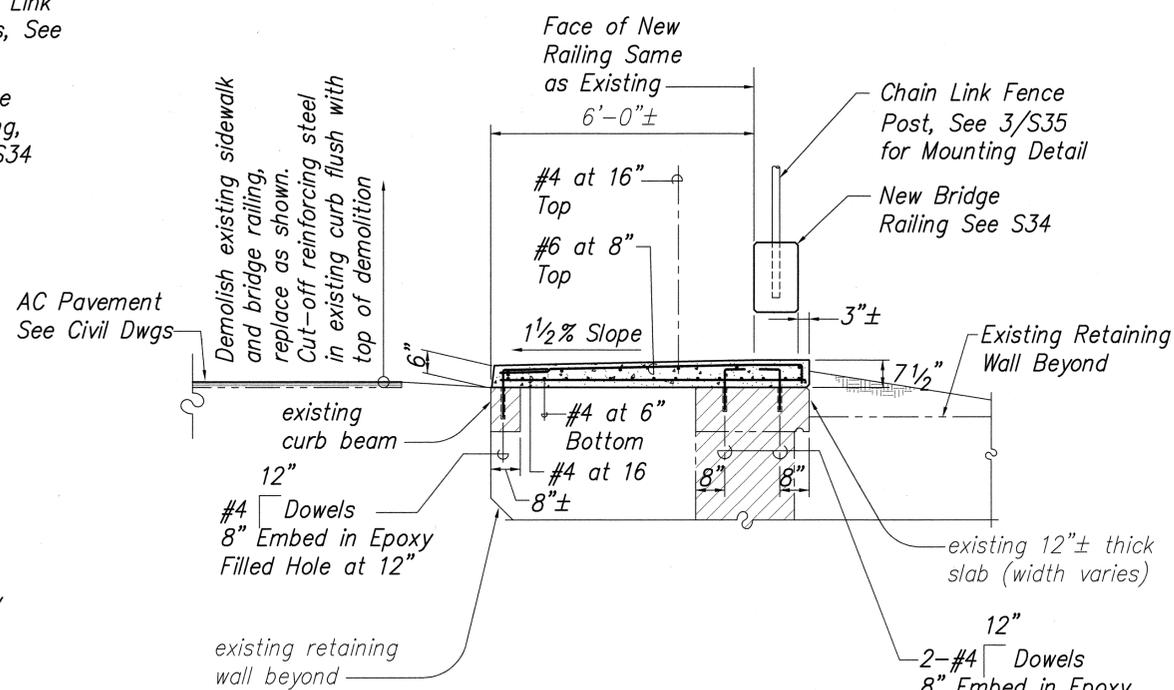
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	130	268



TYPICAL SECTION 1

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

S19/S21



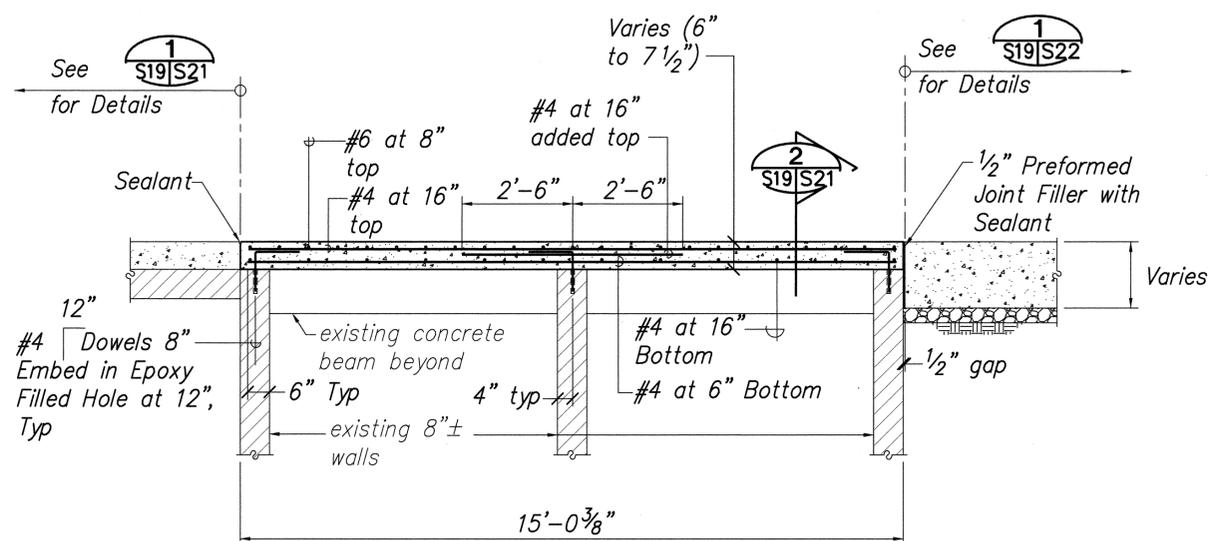
TYPICAL SECTION 2

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

S19/S21

Notes:

1. The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
2. Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.
3. Refer to Sheet S47 thru S50 for demolition pay limits.



TYPICAL SECTION 3

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

S19/S21

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



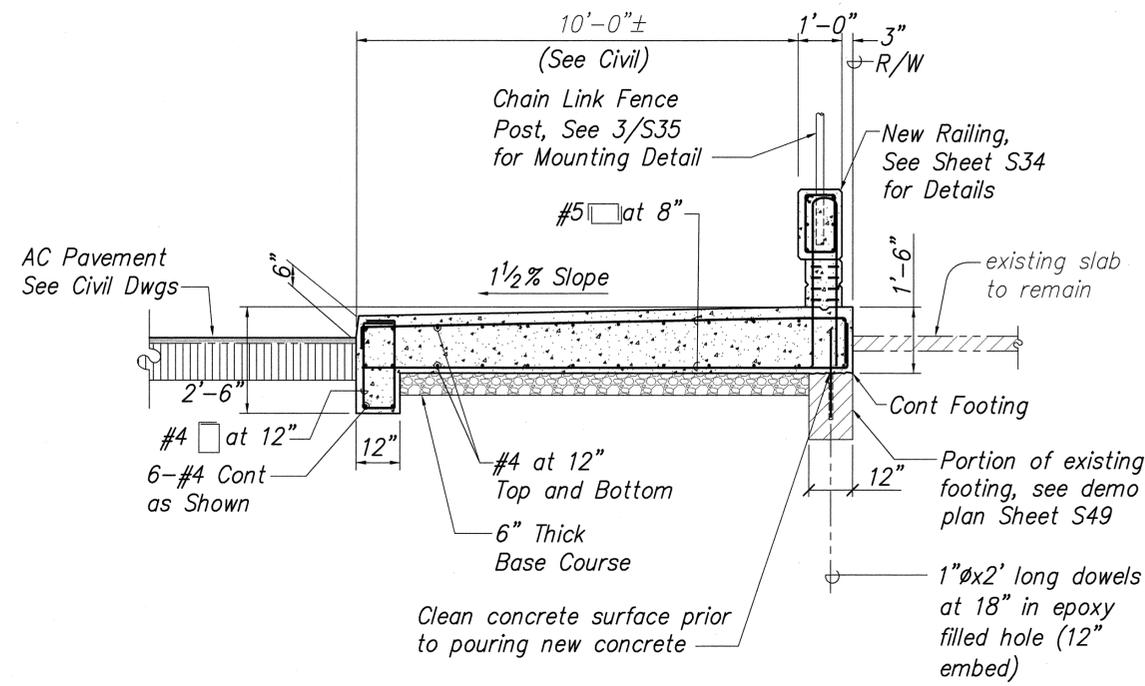
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #1 -
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

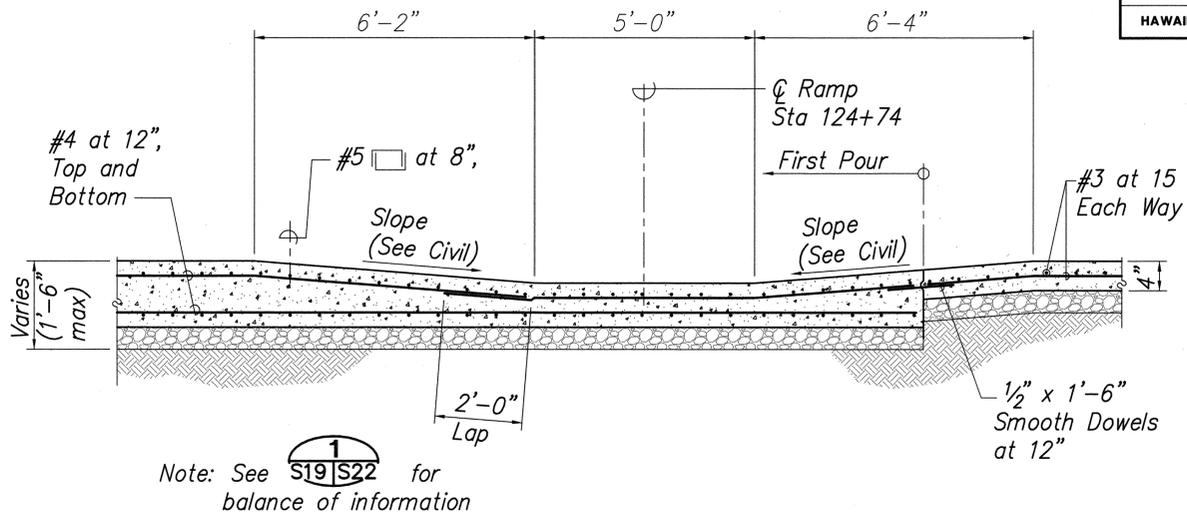
SCALE: AS NOTED DATE: 11/01/01

SHEET No. S21 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	131	268



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



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

Notes:

1. The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
2. Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.
3. Refer to Sheet S47 thru S50 for demolition pay limits.

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



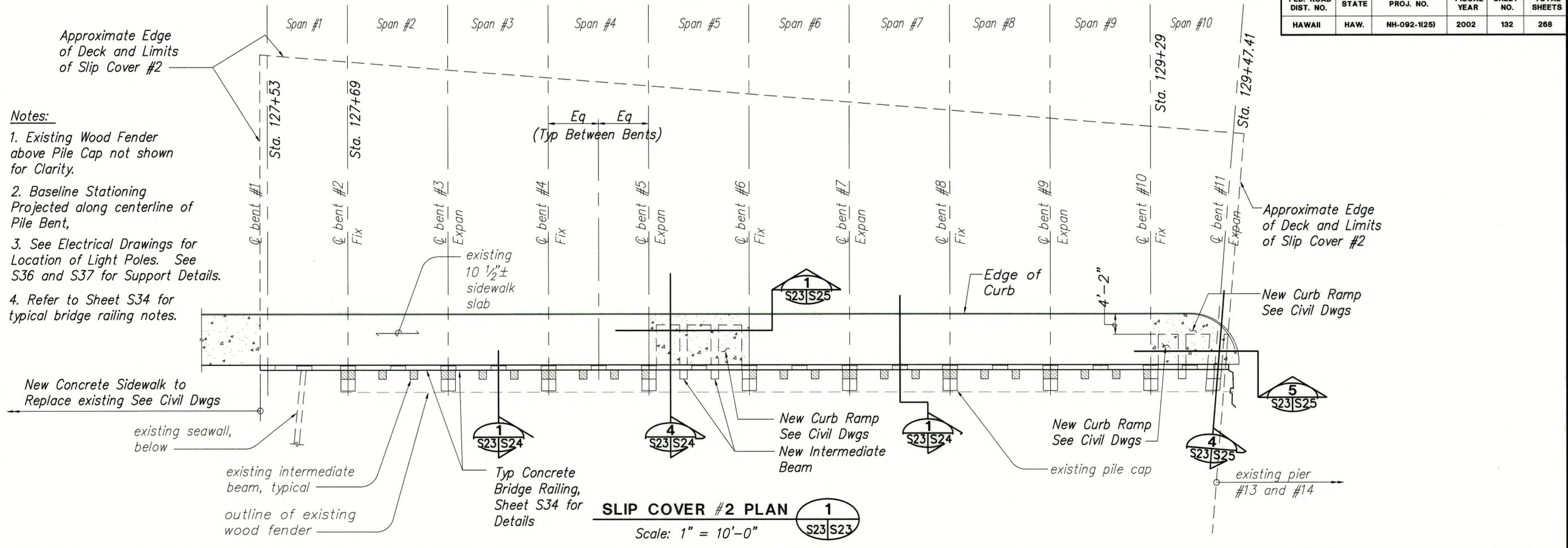
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #1 -
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)
SCALE: AS NOTED DATE: 11/01/01
SHEET No. S22 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	132	268

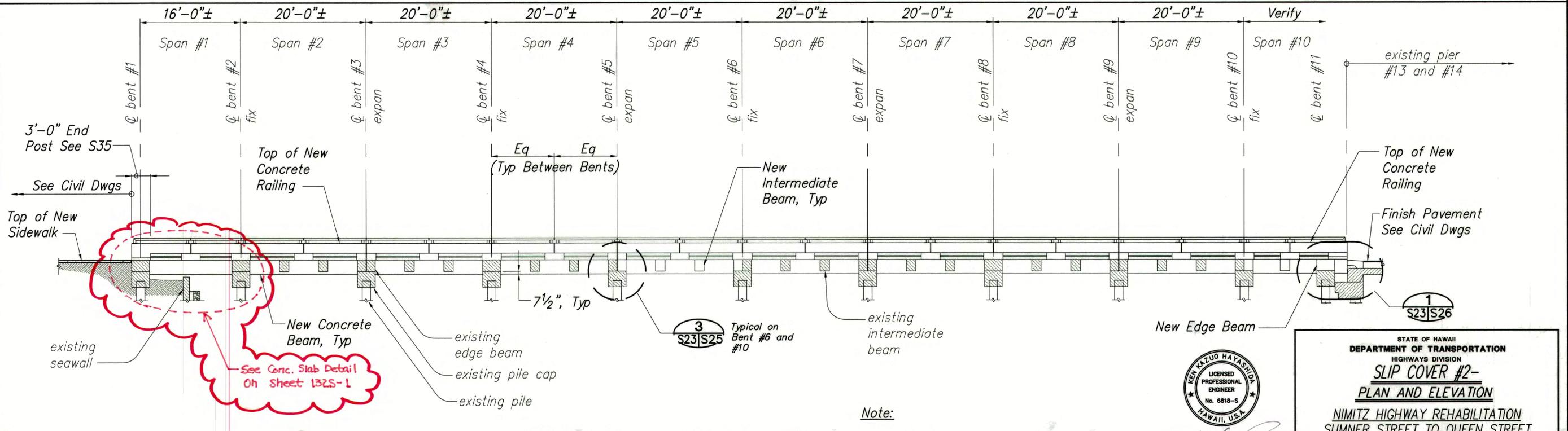
Notes:

- Existing Wood Fender above Pile Cap not shown for Clarity.
- Baseline Stationing Projected along centerline of Pile Bent,
- See Electrical Drawings for Location of Light Poles. See S36 and S37 for Support Details.
- Refer to Sheet S34 for typical bridge railing notes.

New Concrete Sidewalk to Replace existing See Civil Dwgs



SLIP COVER #2 PLAN 1
Scale: 1" = 10'-0"



SLIP COVER #2 ELEVATION 2
Scale: 1/8" = 1'-0"

Note:
1. Existing Wood Fender not shown for Clarity.

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**SLIP COVER #2-
PLAN AND ELEVATION**
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S23 OF 50 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	132S-1	268

Drawn By: KAI HAWAII INC;

808 533 2886;

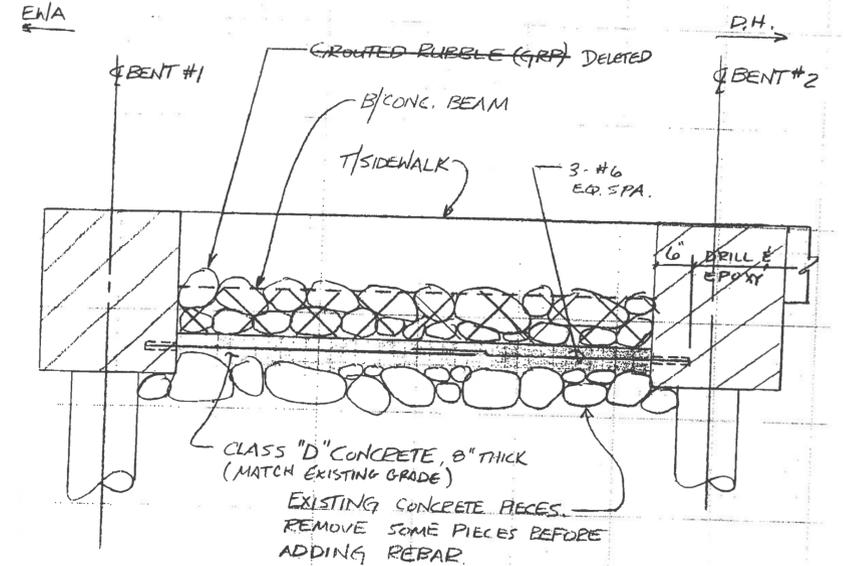
Dec-15-03 3:27PM;

Page 2/2



PROJECT: NIMITZ HWY
 BY: M-H DATE: 12/15/03
 PAGE: 1 OF: 1

NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.P. PROJECT NO. NH-092-1(25)



CLASS "D" CONCRETE, 8" THICK
 (MATCH EXISTING GRADE)
 EXISTING CONCRETE PIECES
 REMOVE SOME PIECES BEFORE
 ADDING REBAR.

ELEVATION SPAN 1
 SKETCH OF SLIP COVER 2 CONCRETE SLABS
 (NOT TO SCALE)

C.C.P. 11
ATTACHMENT No. 2

Standard Financial Plaza 705 South King Street, Suite 106 Honolulu, Hawaii 96813
 Phone: (808) 533-2210 Fax: (808) 533-2486 E-mail: mail@kaihawaii.com

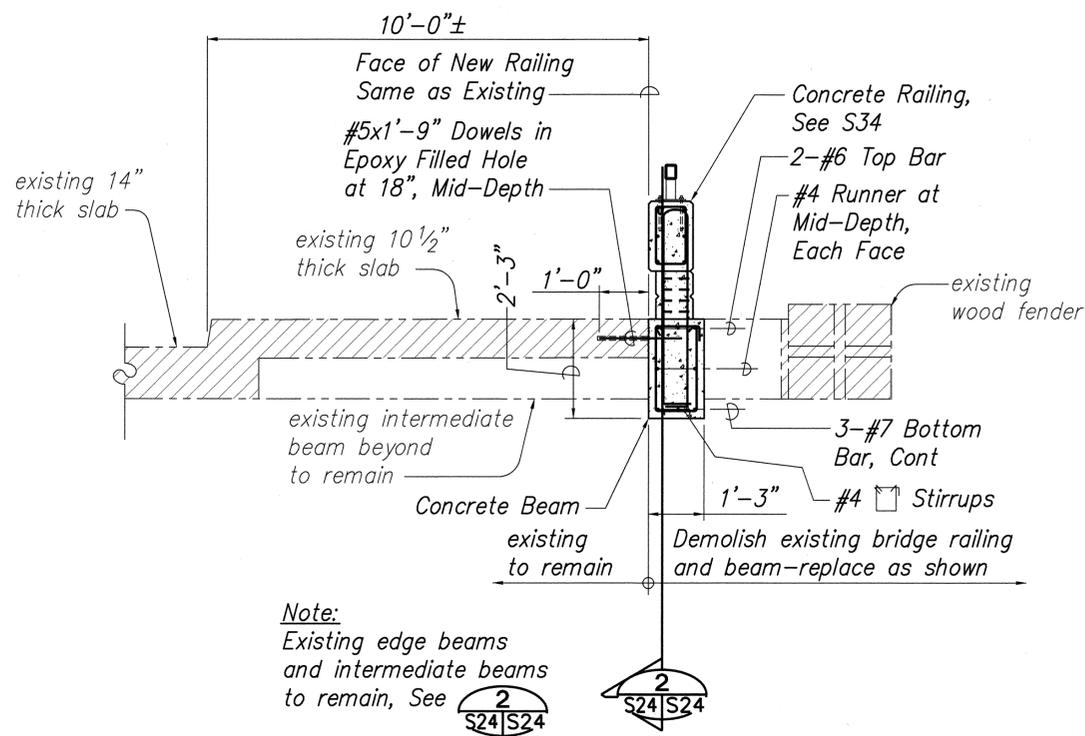
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
SLIP COVER #2-
CONCRETE ELEVATION SPAN
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.P. Proj. No. NH-092-1(25)
 Scale: AS NOTED Date: 11/01/01

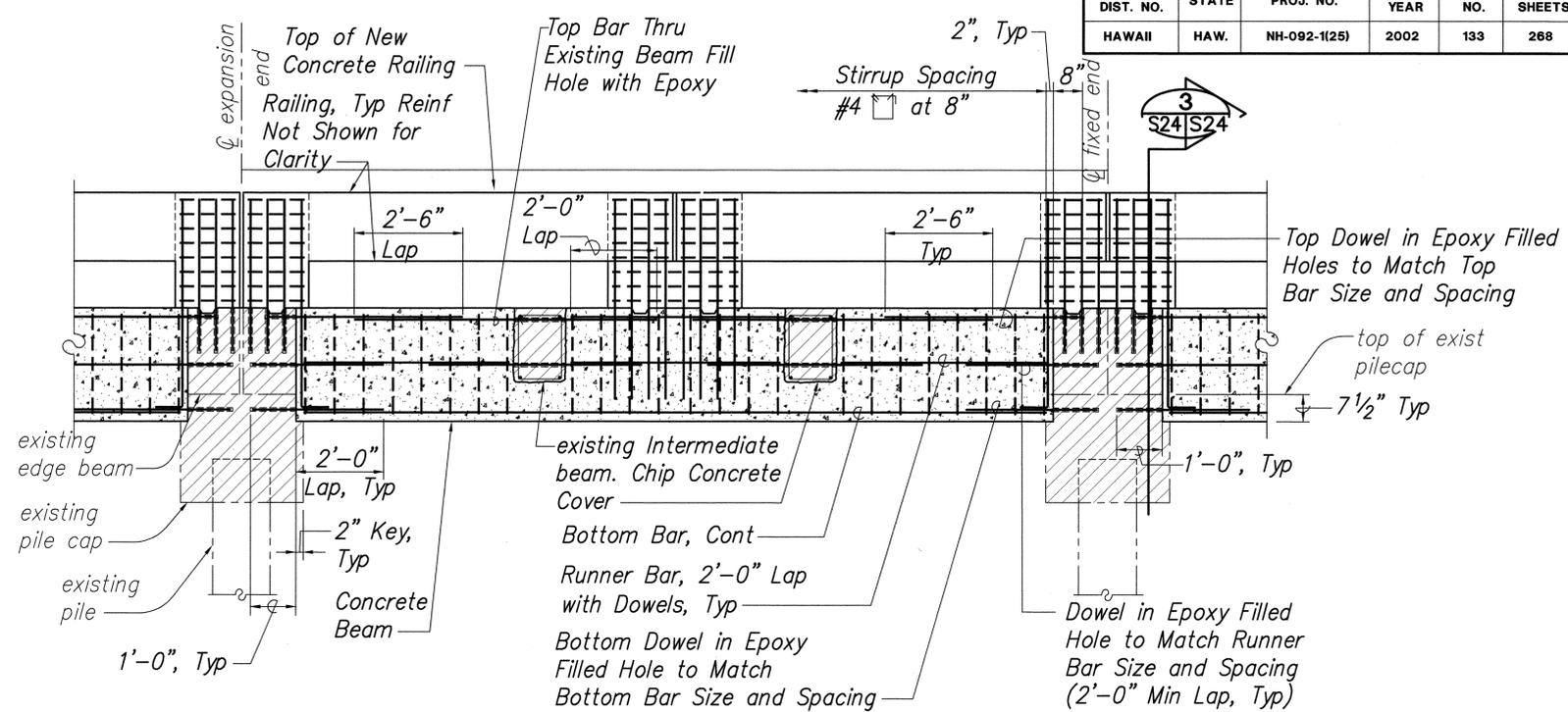
SHEET No. C-72 OF 107 SHEETS

"AS-BUILT"

132S-1



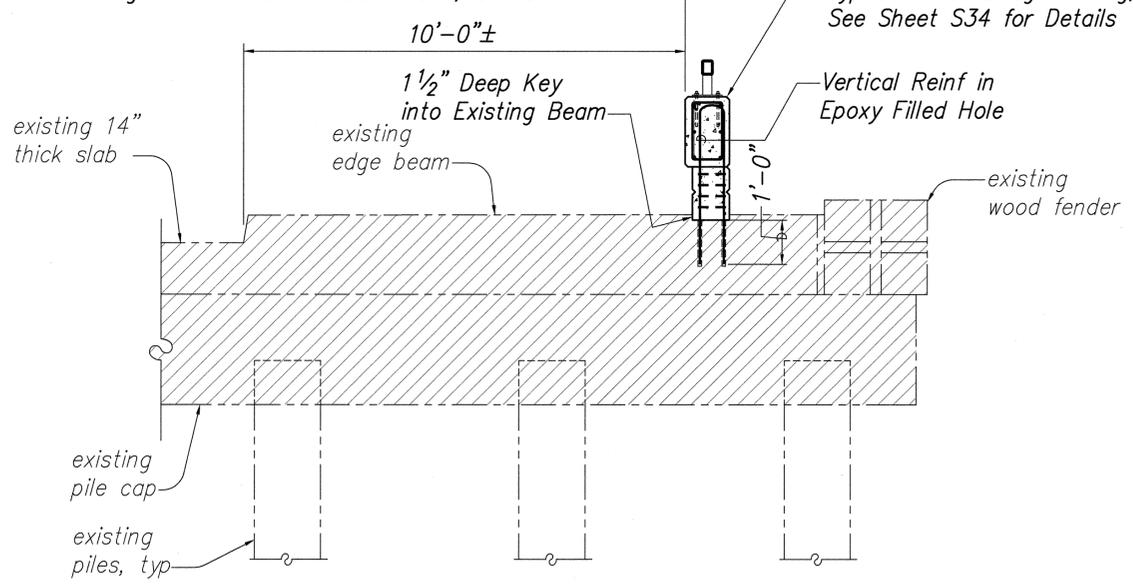
TYPICAL SECTION (EXCEPT SPAN 5 AND SPAN 10) 1
Scale: 1/2" = 1'-0" S23/S24



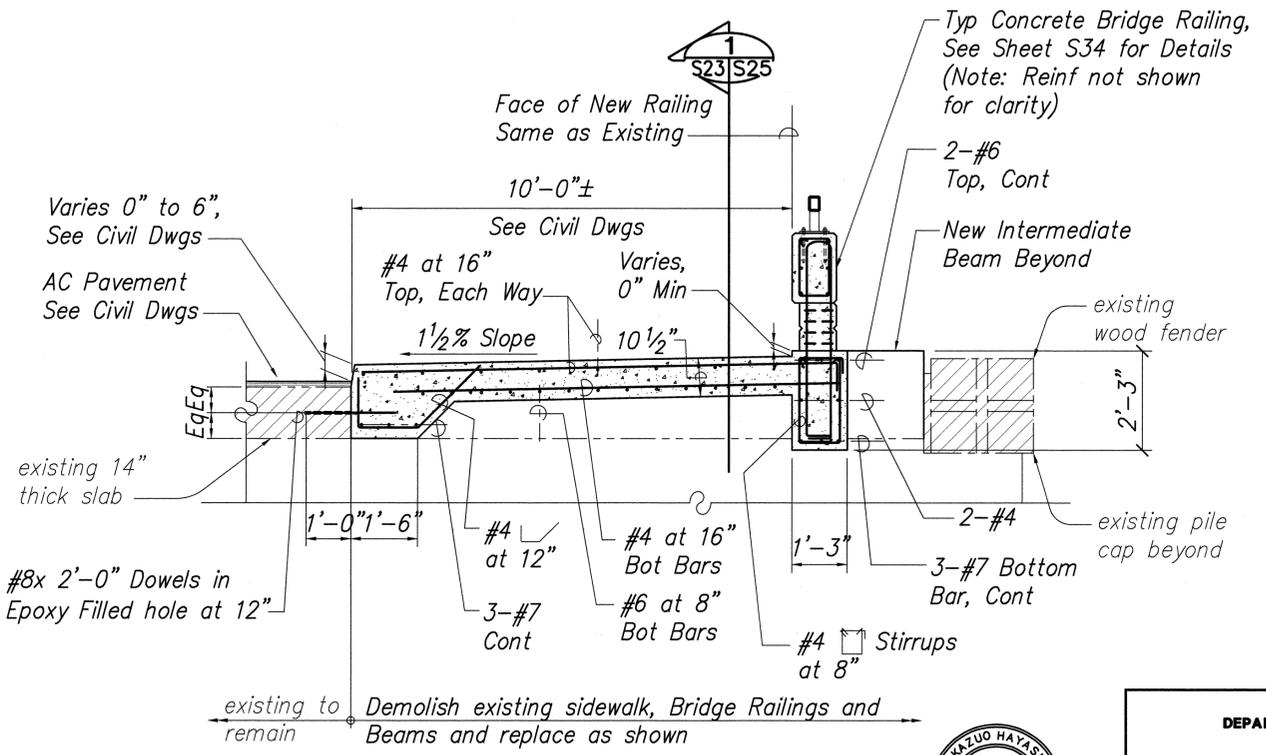
CONCRETE BEAM ELEVATION DETAIL 2
Scale: 1/2" = 1'-0" S24/S24

Notes:

- The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
- Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.



SECTION 3
Scale: 1/2" = 1'-0" S24/S24



SECTION (AT SPAN 5) 4
Scale: 1/2" = 1'-0" S23/S24

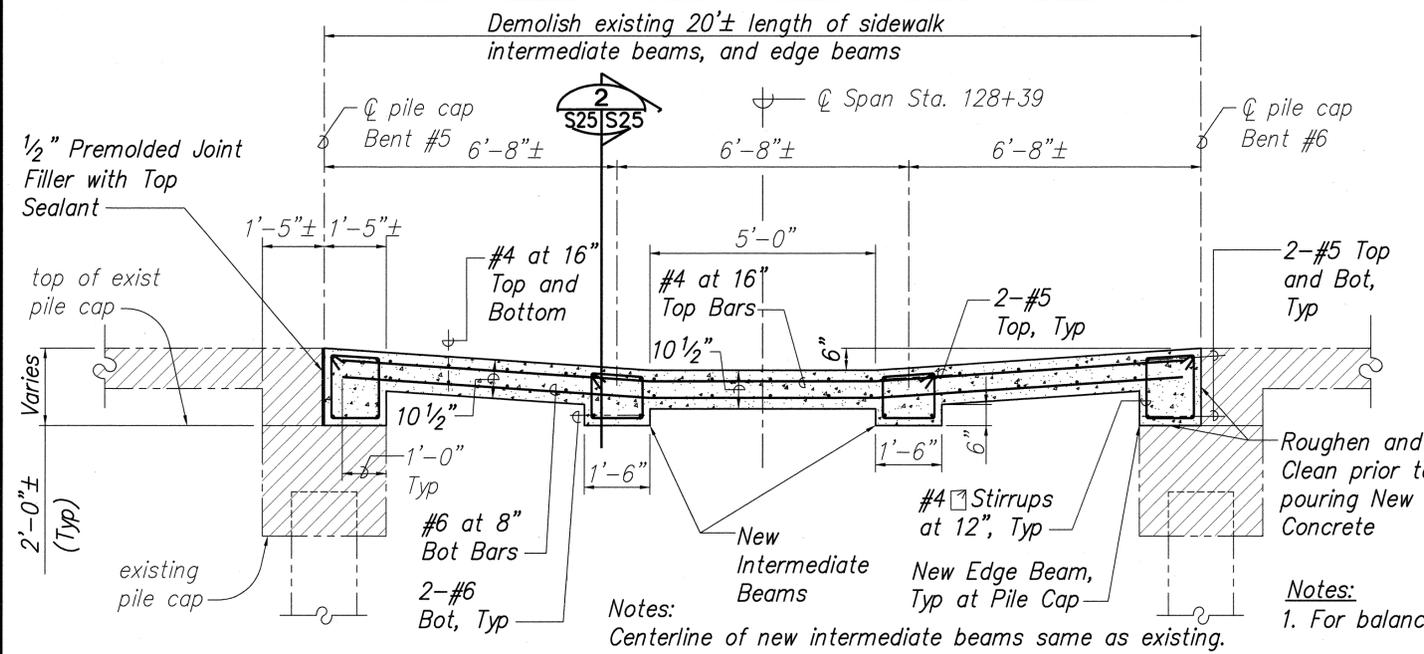
DATE	
SURVEY PLOTTED BY	
DESIGNED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
No.	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #2
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

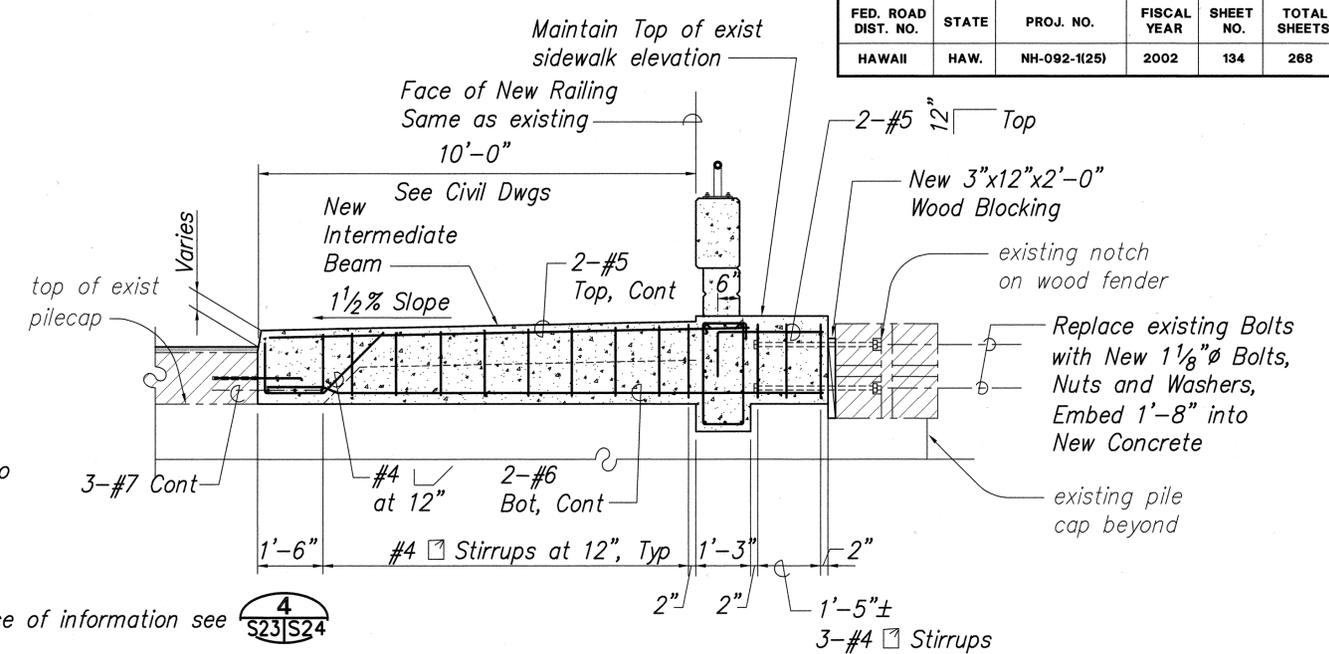
SCALE: AS NOTED
DATE: 11/01/01
SHEET No. S24 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	134	268



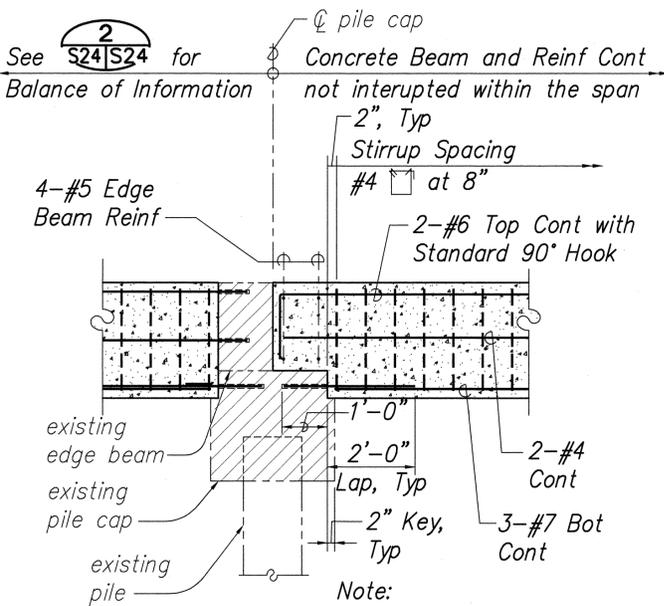
SECTION (SPAN 5) 1
Scale: 1/2" = 1'-0" S23/S25

- Notes:**
- The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
 - Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sht S1.

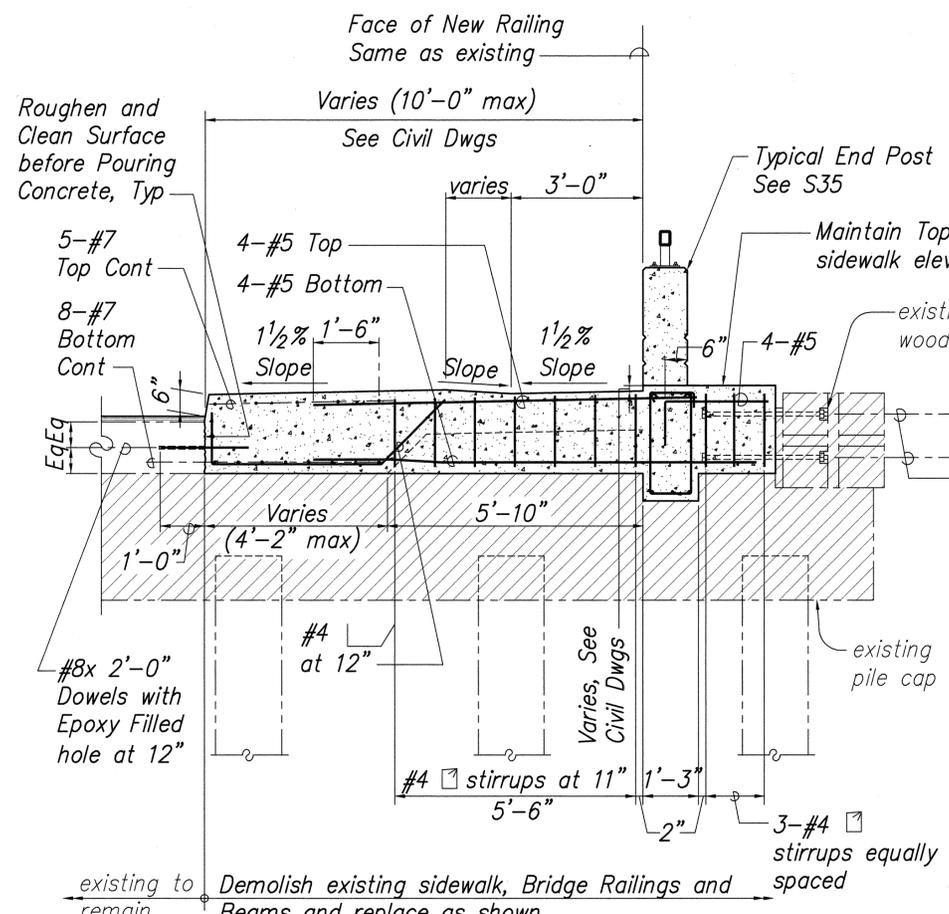


SECTION 2
Scale: 1/2" = 1'-0" S25/S25

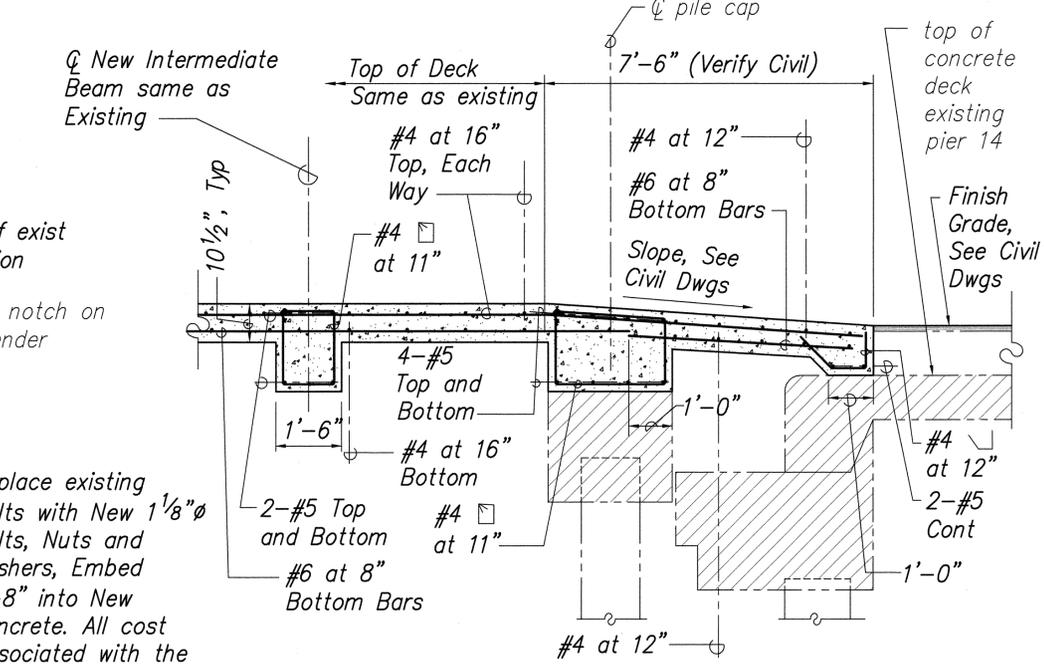
- Notes:**
- For balance of information see S23/S24
 - Make cost of new wood blocking, nuts, bolts and washers, and the labor & equipment necessary for installation incidental to the cost of the bridge railing.



SECTION 3
Scale: 1/2" = 1'-0" S23/S25



SECTION 4
Scale: 1/2" = 1'-0" S23/S25



SECTION 5
Scale: 1/2" = 1'-0" S23/S25

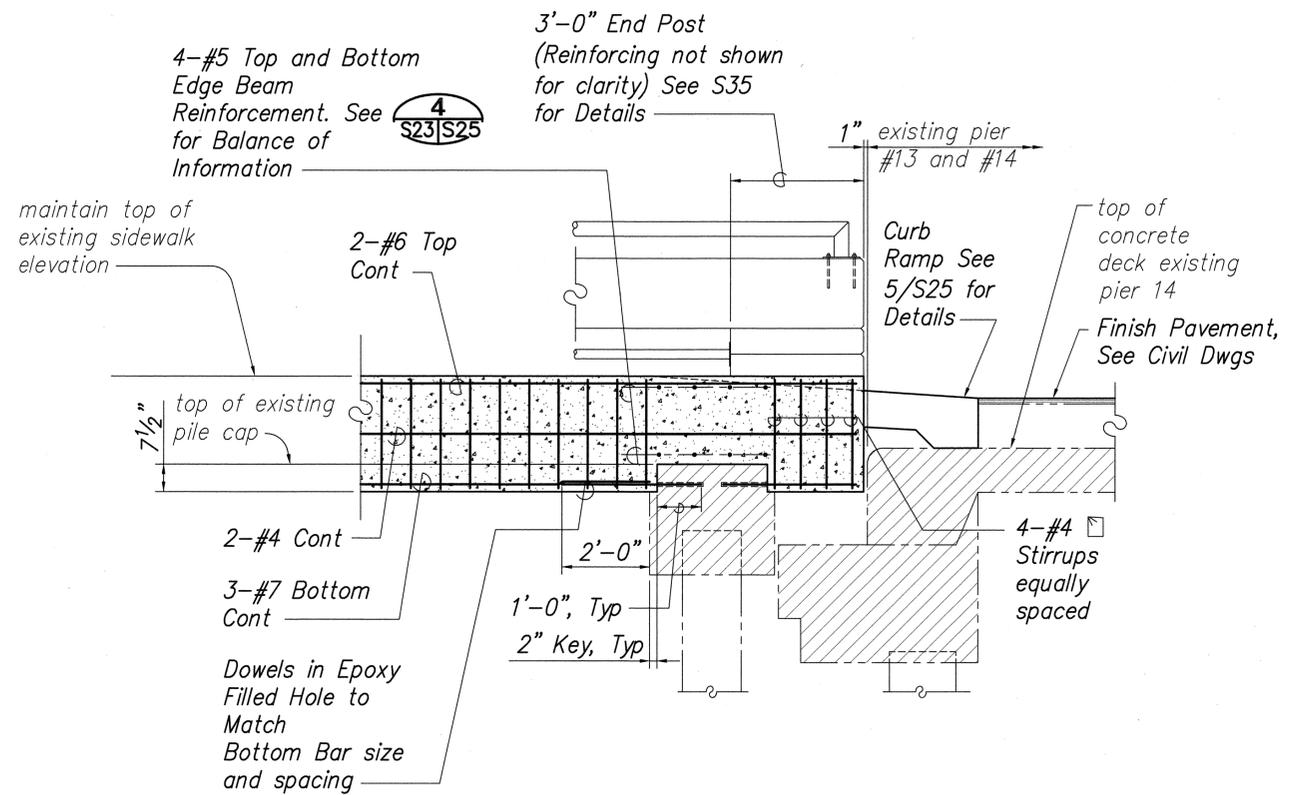
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SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
No.	_____



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #2
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S25 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	135	268



SECTION 1
Scale: 1/2" = 1'-0" **S23/S26**

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

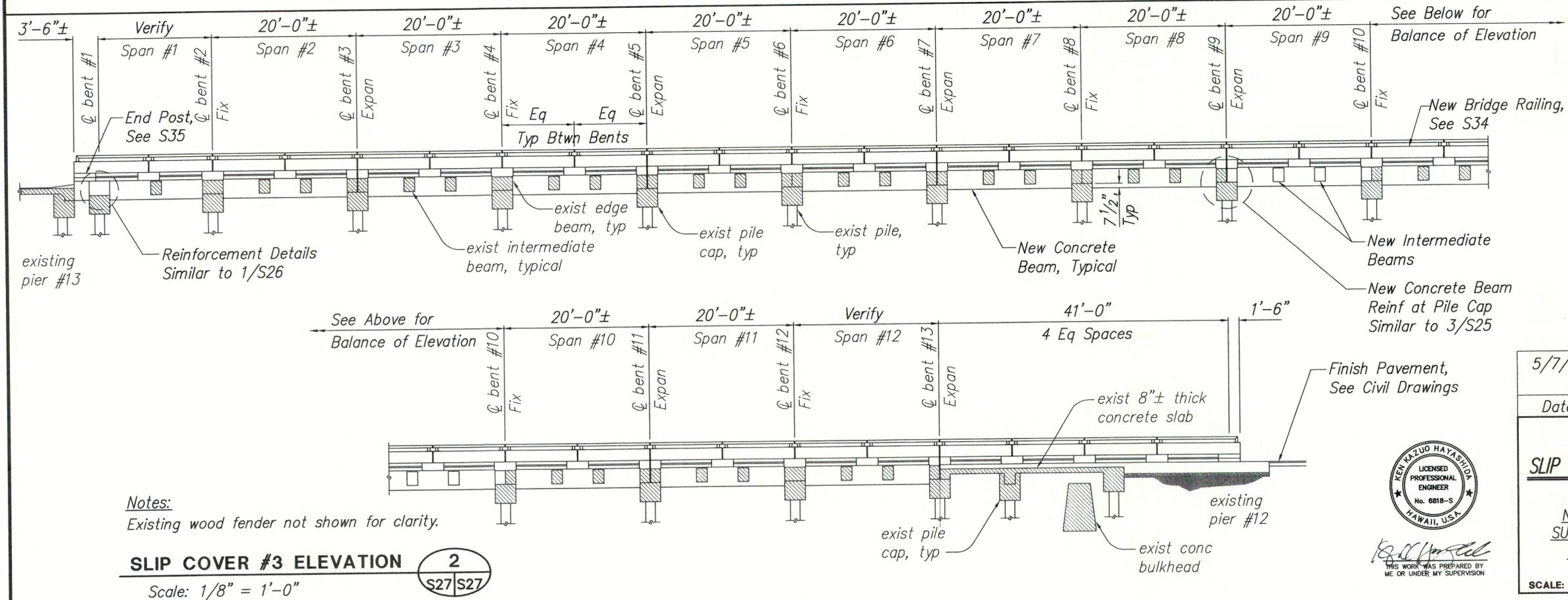
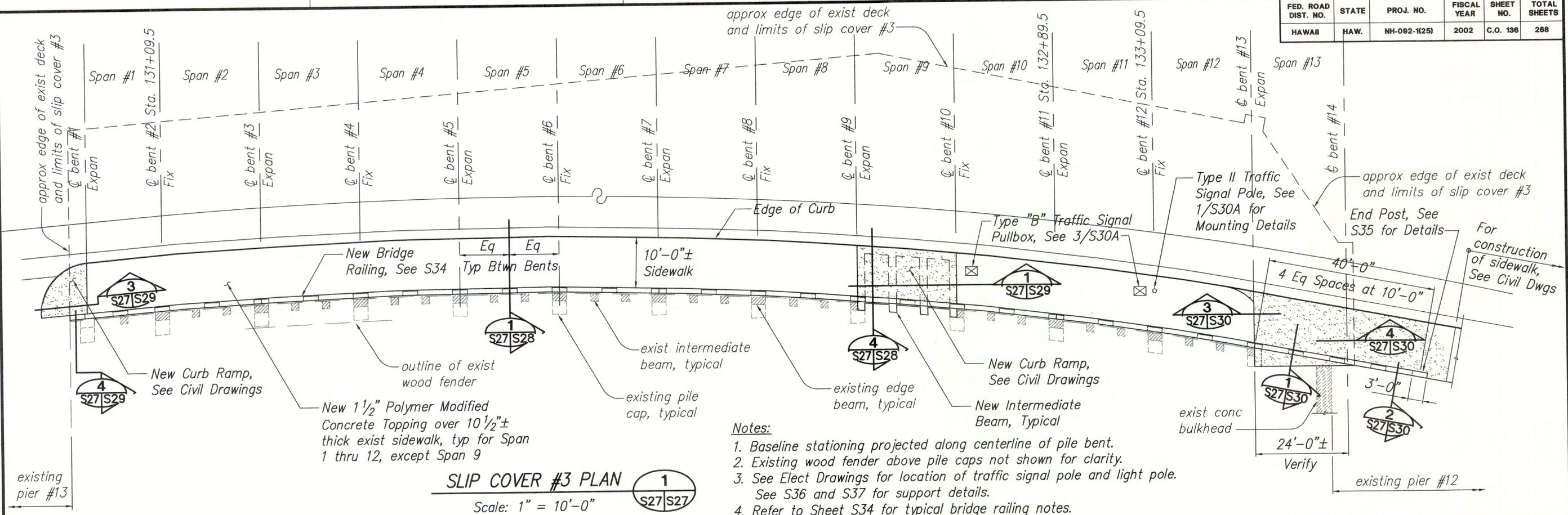


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #2
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01

SHEET No. S26 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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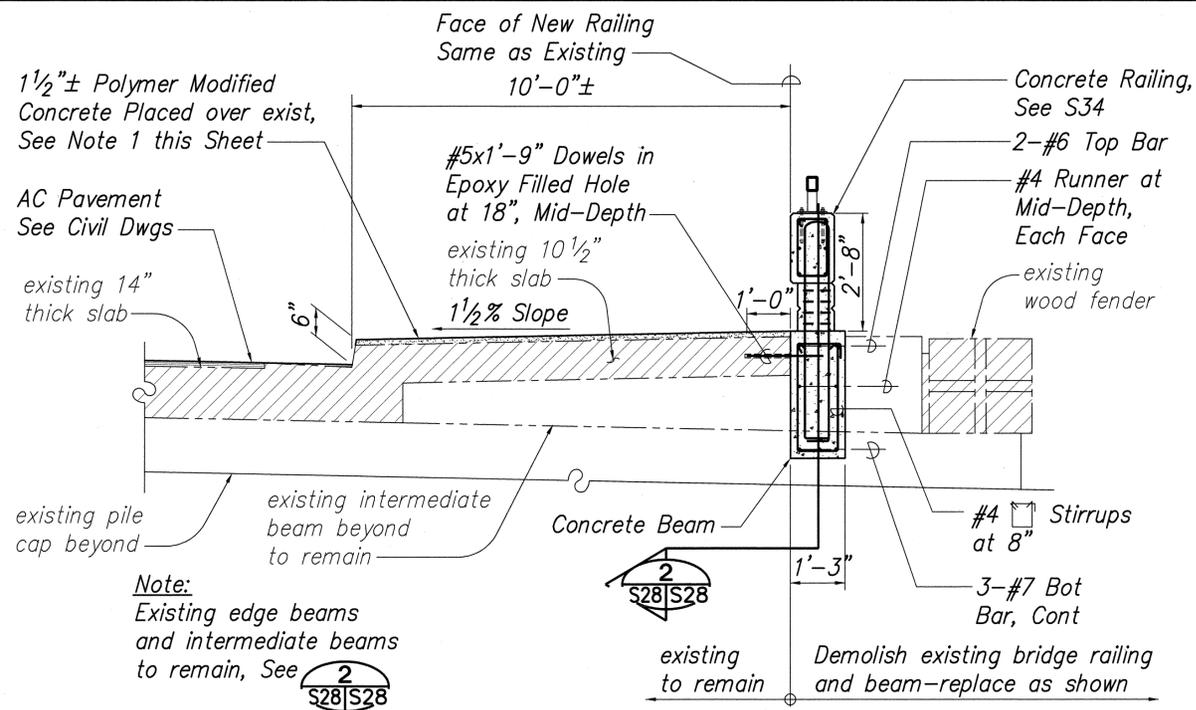
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

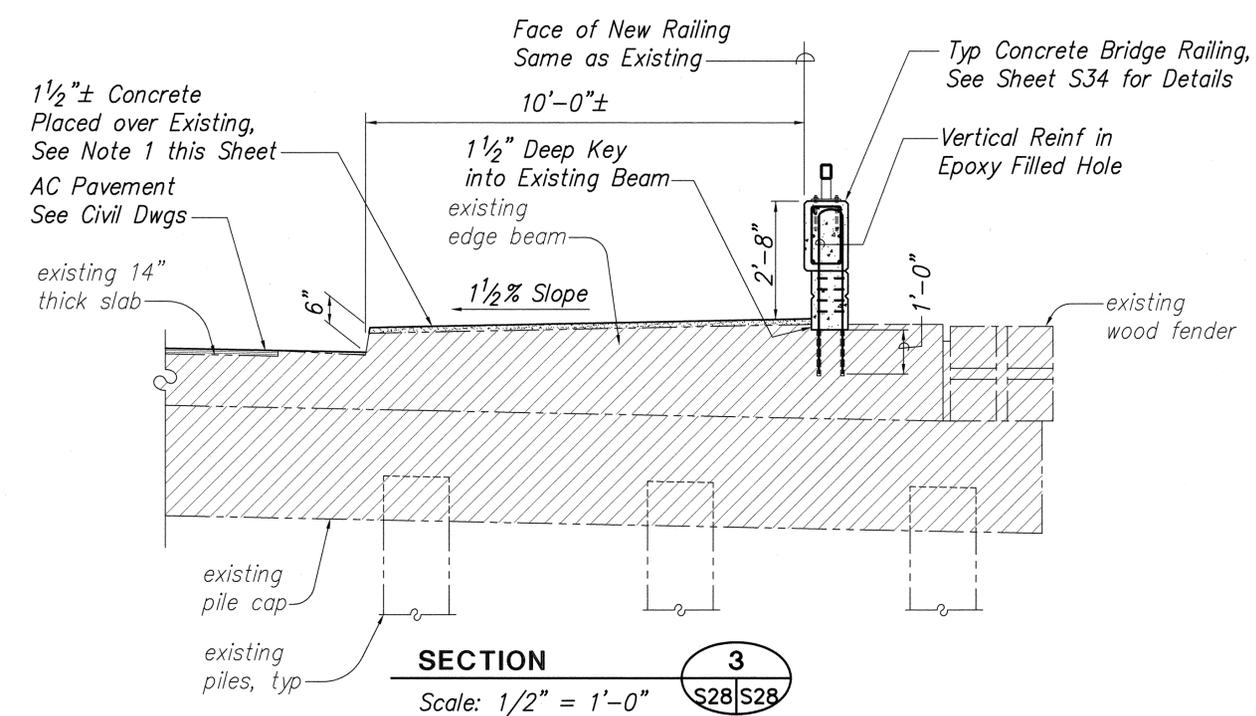
5/7/03	Added Type II Traffic Signal and Pullbox Location
Date	Description
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
SLIP COVER #3 & PULLBOX LOCATION	
PLAN AND ELEVATION	
NIMITZ HIGHWAY REHABILITATION SUMNER STREET TO QUEEN STREET F.A.I. Proj. No. NH-092-1(25)	
SCALE: AS NOTED	DATE: 11/01/01
SHEET No. S27 OF 50 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	137	268

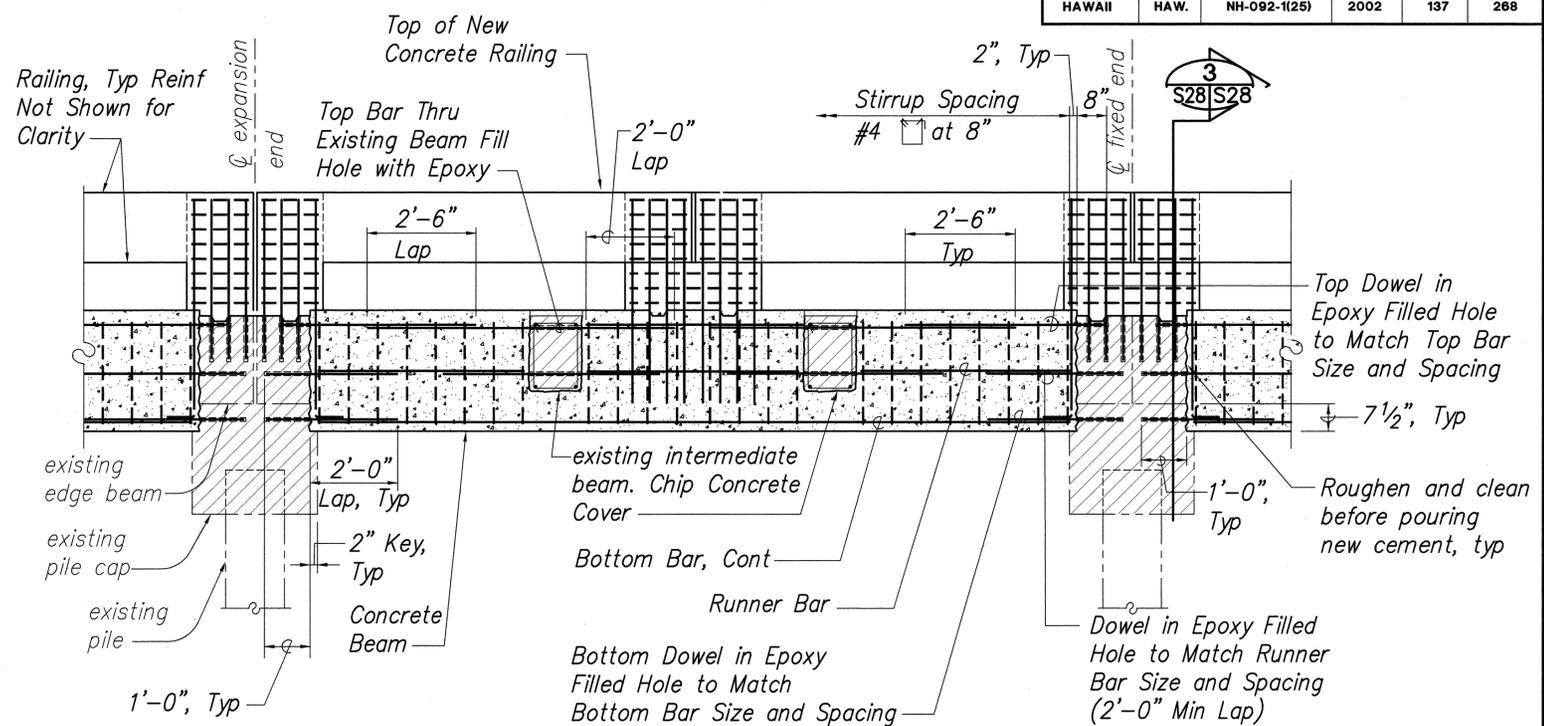


TYPICAL SECTION (EXCEPT SPAN 9 AND SPAN 13) 1
Scale: 1/2" = 1'-0" S27/S28

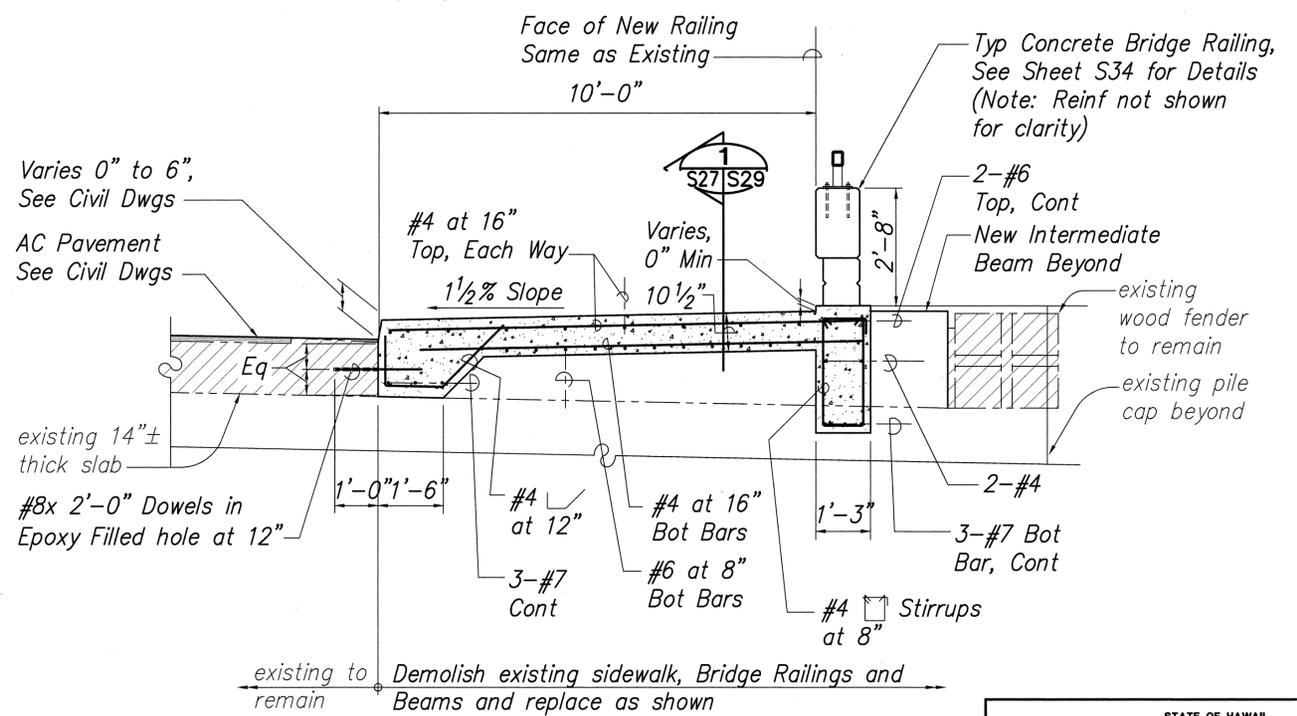
- Notes:**
- Existing concrete surface shall be roughened to 1/4" amplitude and must be cleaned and free of laitance, dust, and other bond inhibiting materials before applying bonding grout and new polymer modified concrete. Refer to specifications for minimum performance requirements for surface preparation, bonding agent and polymer modified concrete.
 - The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
 - Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sheet S1.



SECTION (SPAN 9) 3
Scale: 1/2" = 1'-0" S28/S28



CONCRETE BEAM ELEVATION DETAIL 2
Scale: 1/2" = 1'-0" S28/S28



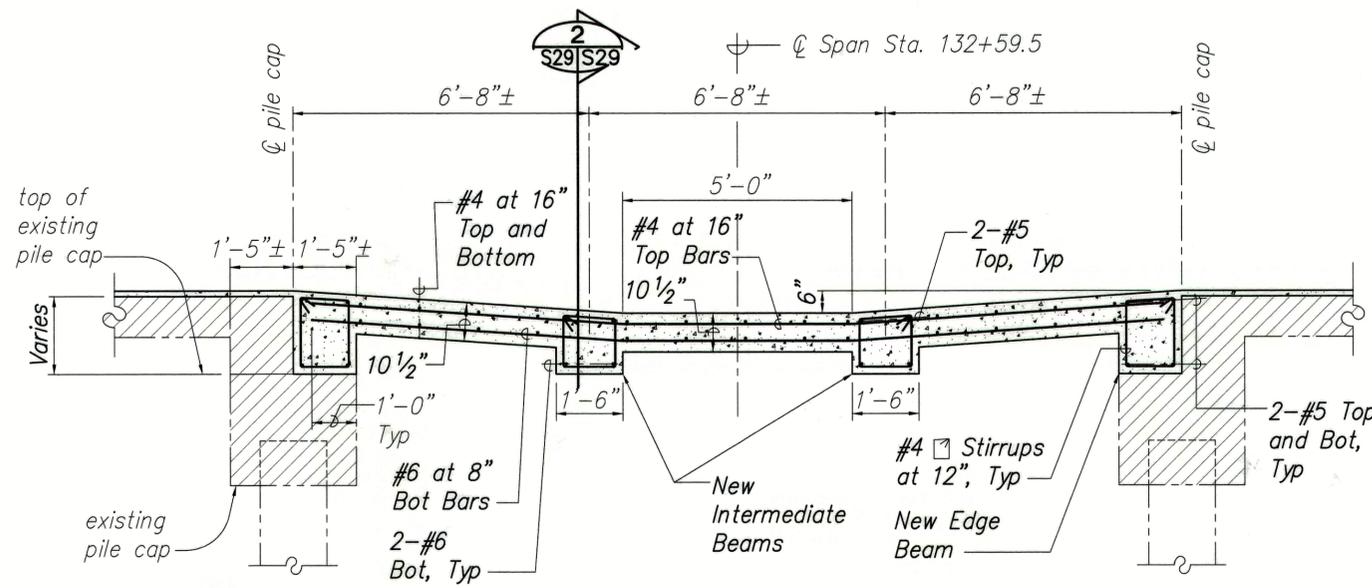
SECTION (SPAN 9) 4
Scale: 1/2" = 1'-0" S27/S28

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

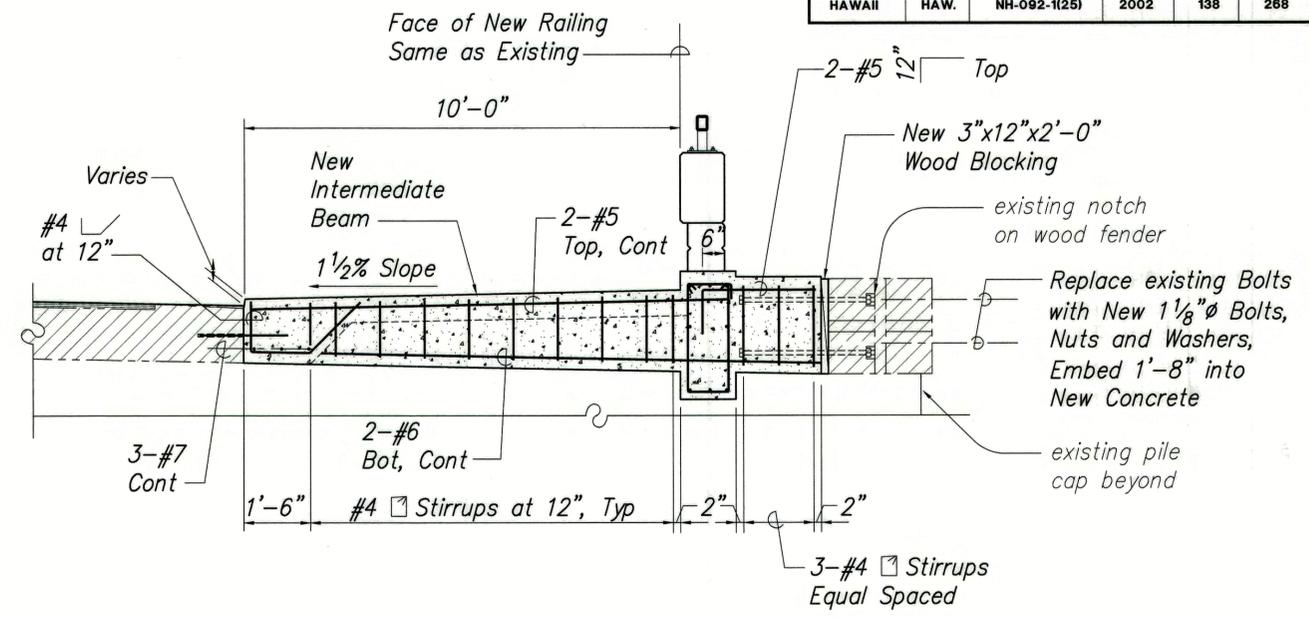


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #3
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)
SCALE: AS NOTED DATE: 11/01/01
SHEET No. S28 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	138	268

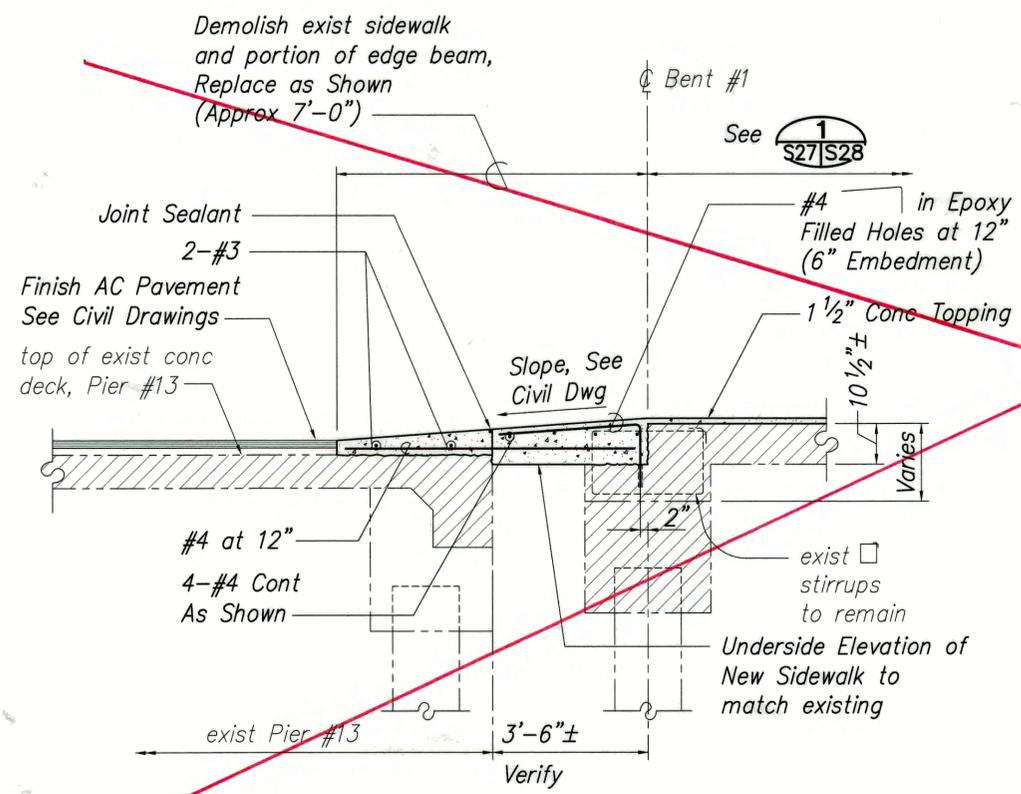


SECTION AT RAMP (SPAN 9)
 Scale: 1/2" = 1'-0"
 S27/S29

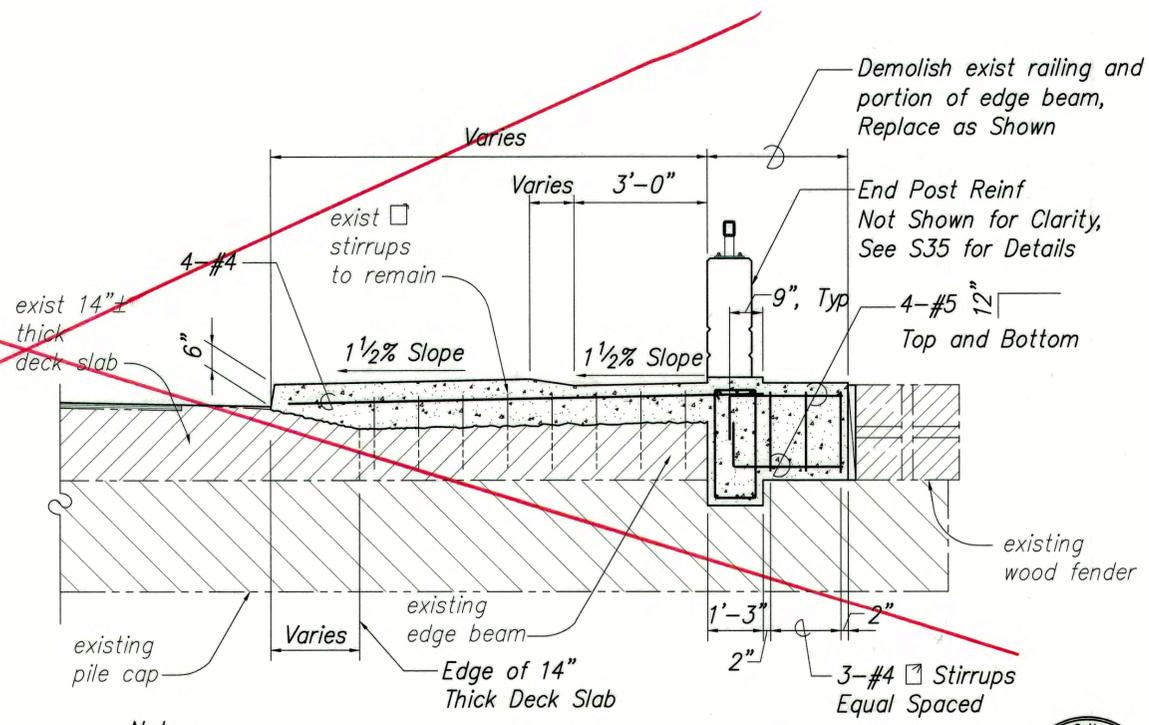


SECTION 2
 Scale: 1/2" = 1'-0"
 S29/S28

Notes:
 1. For balance of information see S27/S28
 2. Make cost of new wood blocking, nuts, bolts and washers, and the labor & equipment necessary for installation incidental to the cost of the bridge railing.



SECTION 3
 Scale: 1/2" = 1'-0"
 S27/S29



SECTION 4
 Scale: 1/2" = 1'-0"
 S27/S25

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

*** DETAILS SUPERSEDED BY ADDITIONAL SHEET. SEE SHEET 138S-1**

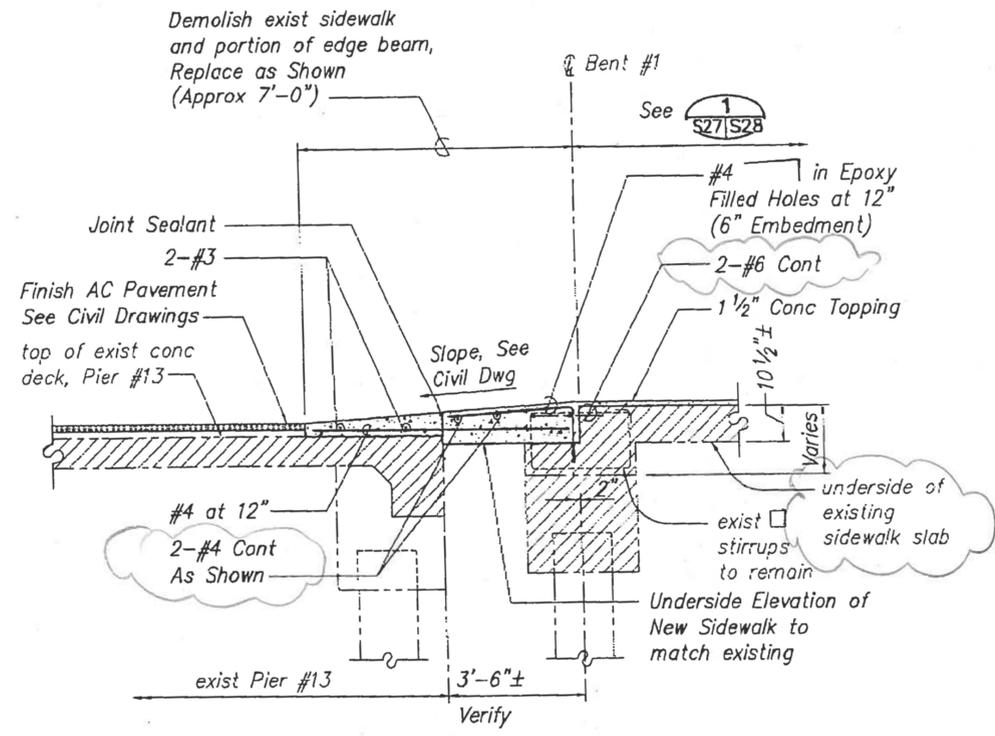


STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
SLIP COVER #3
 SECTIONS & DETAILS
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

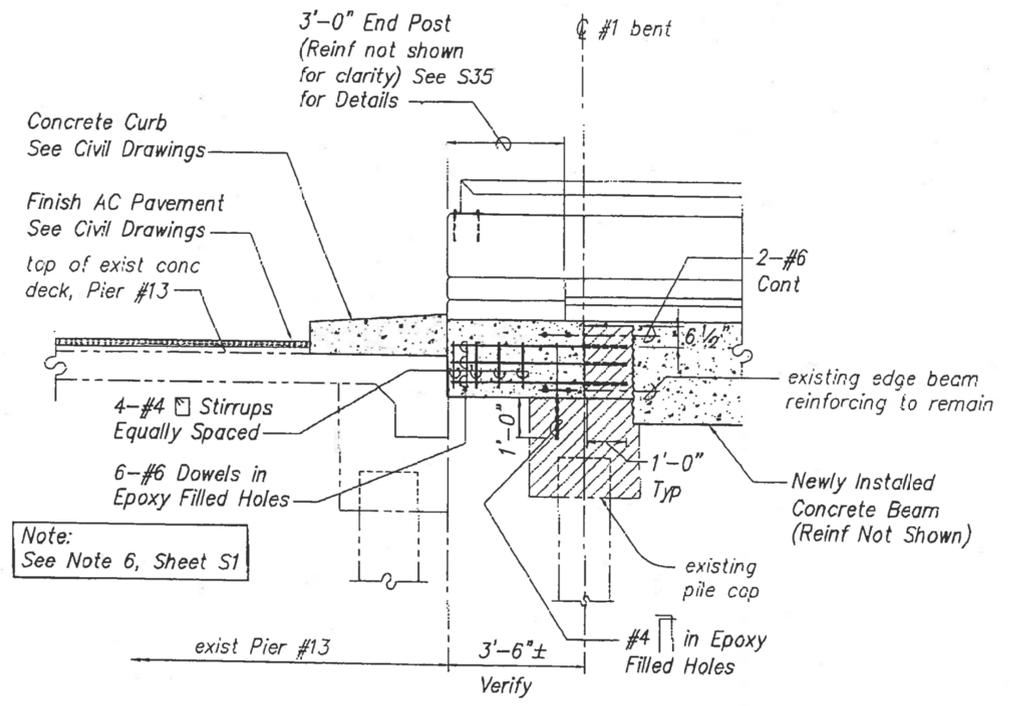
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 SHEET No. S29 OF 50 SHEETS

"AS-BUILT"

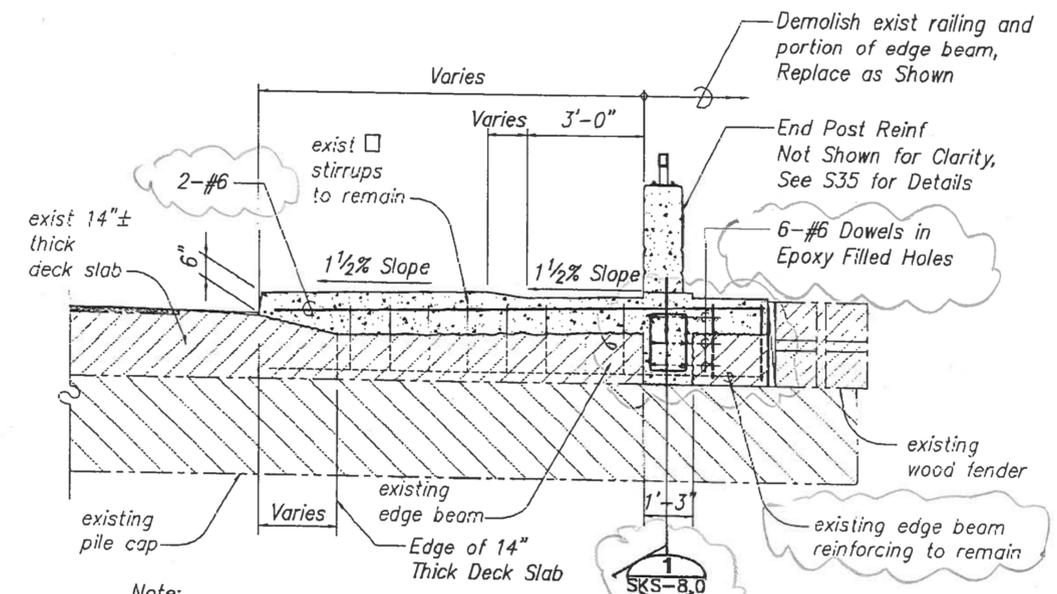
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	138S-1	268



SECTION 3
Scale: 1/2" = 1'-0"
S27/S29



SECTION 1
Scale: 1/2" = 1'-0"
SKS-8.0



SECTION 4
Scale: 1/2" = 1'-0"
S27/S29

DATE: _____
SURVEY PLOTTED BY: _____
DRAWN BY: _____
TRACED BY: _____
DESIGNED BY: _____
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NOTE BOOK: _____
SCALE: _____

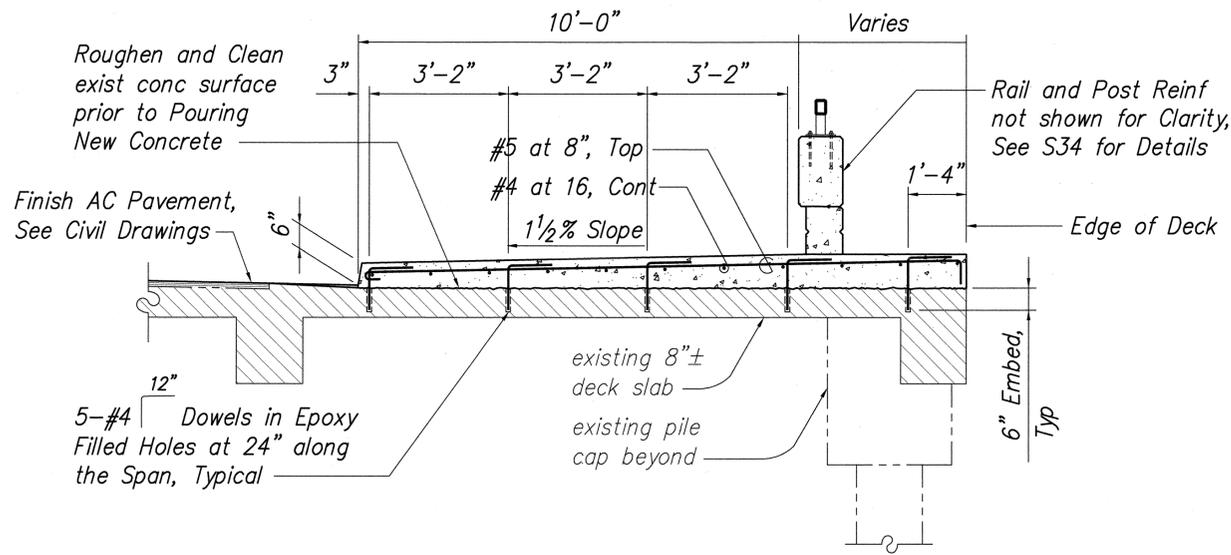
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SLIP COVER #3-
SECTIONS & DETAILS

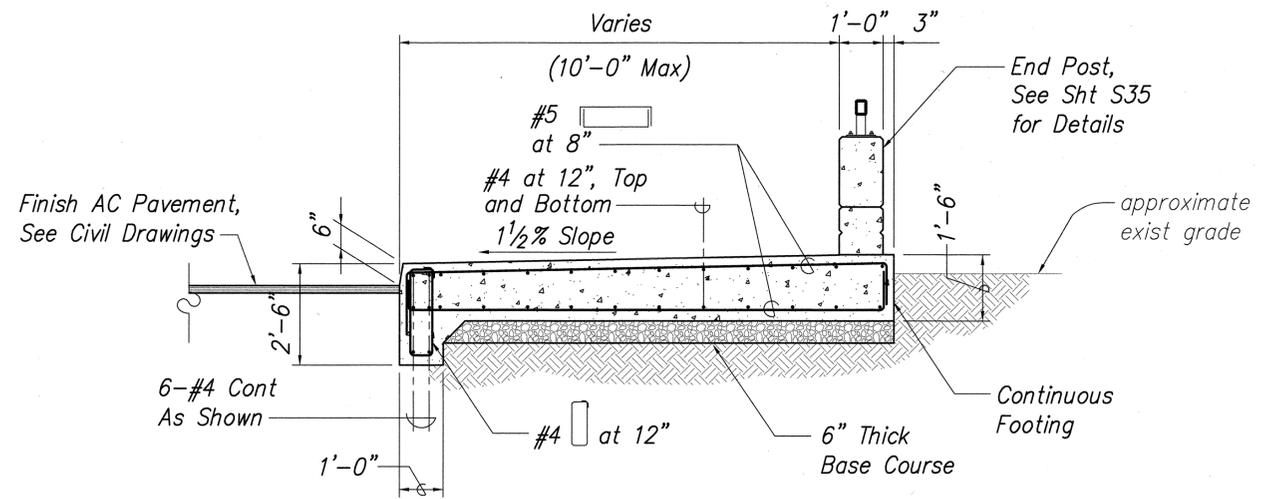
NIMITZ HIGHWAY REHABILITATION
SUMMER STREET TO QUEEN STREET
F.A.I Proj. No. NH-092-1(25)

Scale: AS NOTED Date: 11/01/01
SHEET No. S-29 OF 50 SHEETS

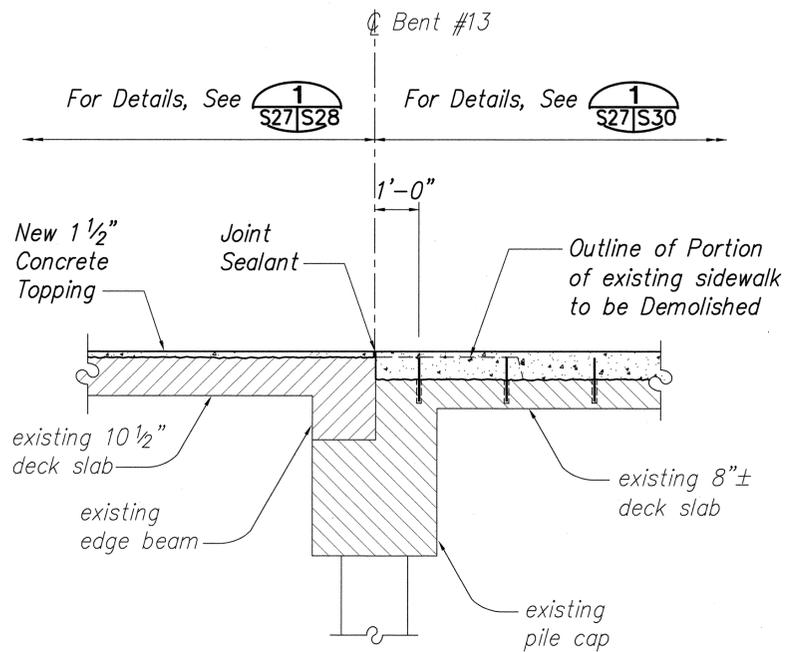
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	139	268



SECTION 1
Scale: 1/2" = 1'-0"
S27/S30

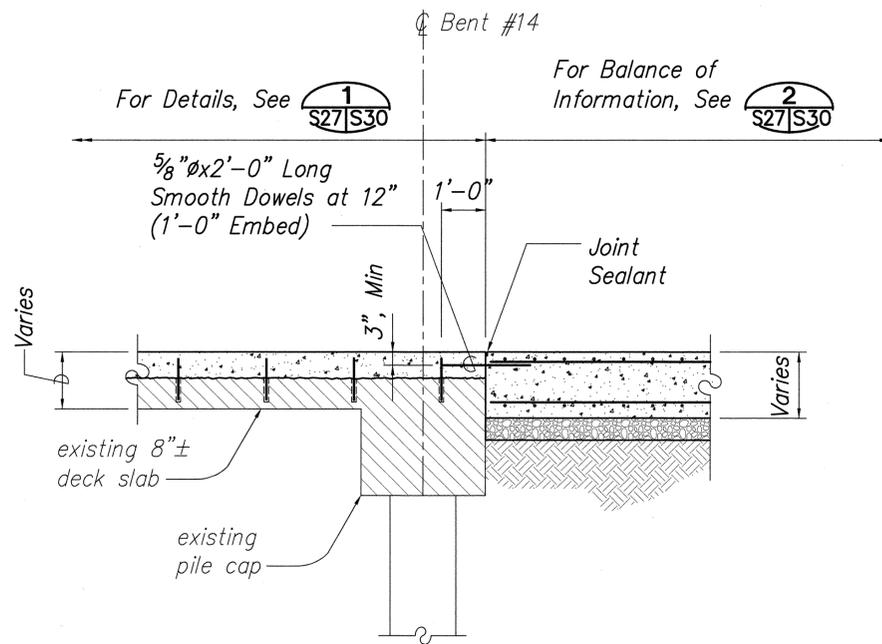


SECTION 2
Scale: 1/2" = 1'-0"
S27/S30



Note:
Reinforcing and Dowels not shown for Clarity.

SECTION 3
Scale: 1/2" = 1'-0"
S27/S30



SECTION 4
Scale: 1/2" = 1'-0"
S27/S30

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

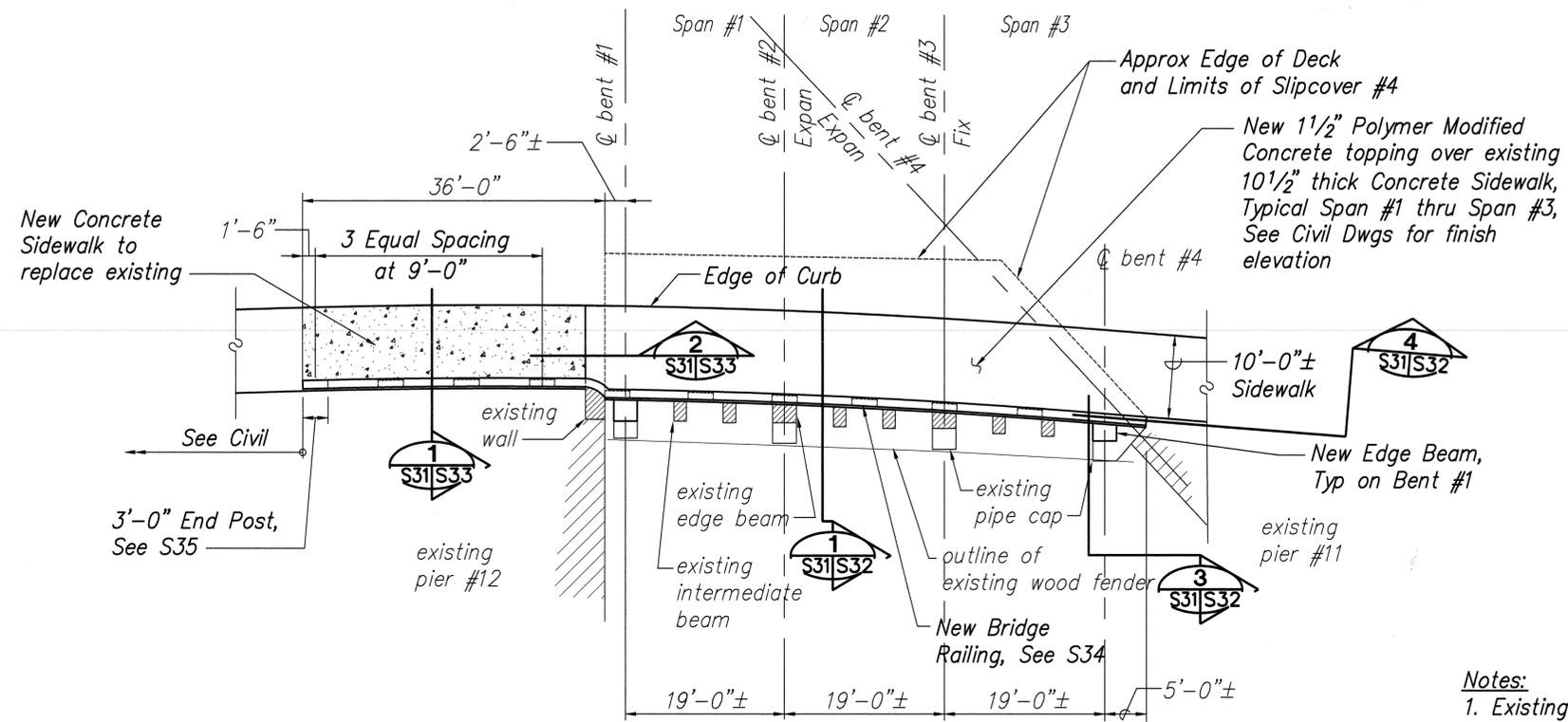


Ken Kazuo Hayashida
Licensed Professional Engineer
No. 6818-S
Hawaii, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #3
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

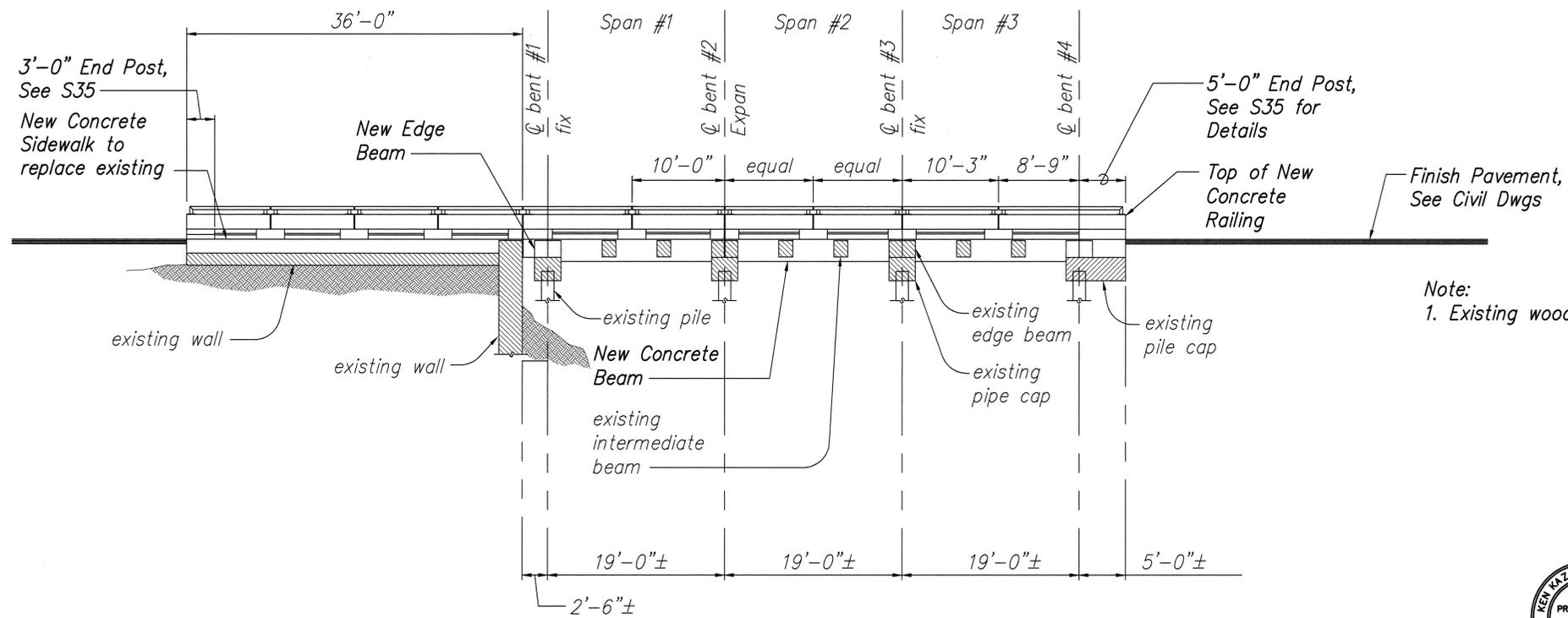
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SHEET No. S30 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	140	268



SLIP COVER #4 PLAN 1
 Scale: 1" = 10'-0" S31|S31

- Notes:**
- Existing wood fender above pile cap not shown for clarity.
 - Refer to Sheet S34 for typical bridge railing notes.



SLIP COVER #4 ELEVATION 2
 Scale: 1/8" = 1'-0" S31|S31

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



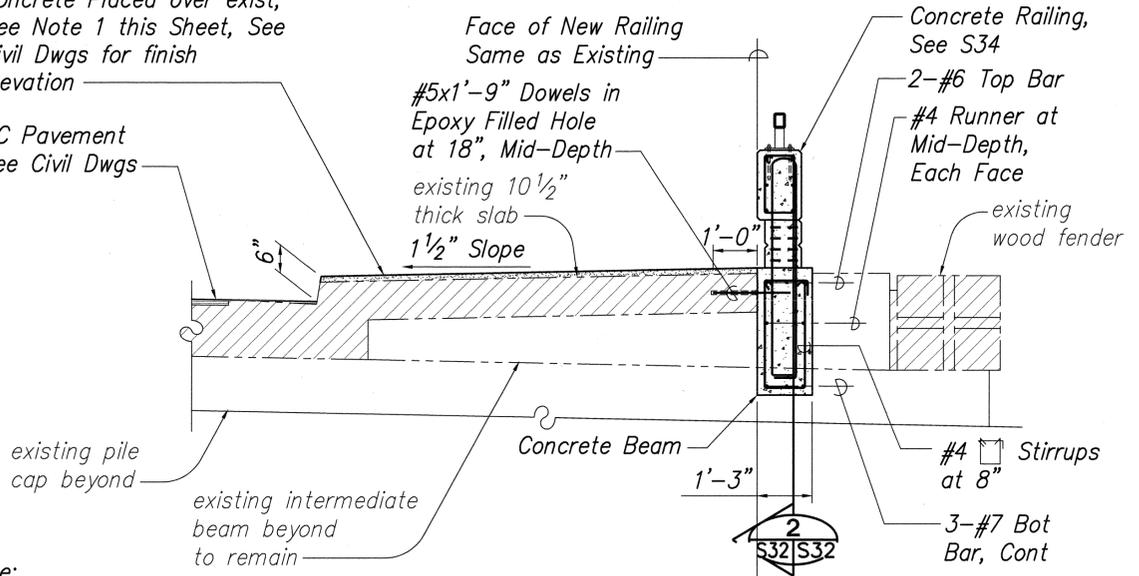
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
SLIP COVER #4-
PLAN AND ELEVATION
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
 SHEET No. S31 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	141	268

1 1/2"± Polymer Modified Concrete Placed over exist, See Note 1 this Sheet, See Civil Dwgs for finish elevation

AC Pavement See Civil Dwgs

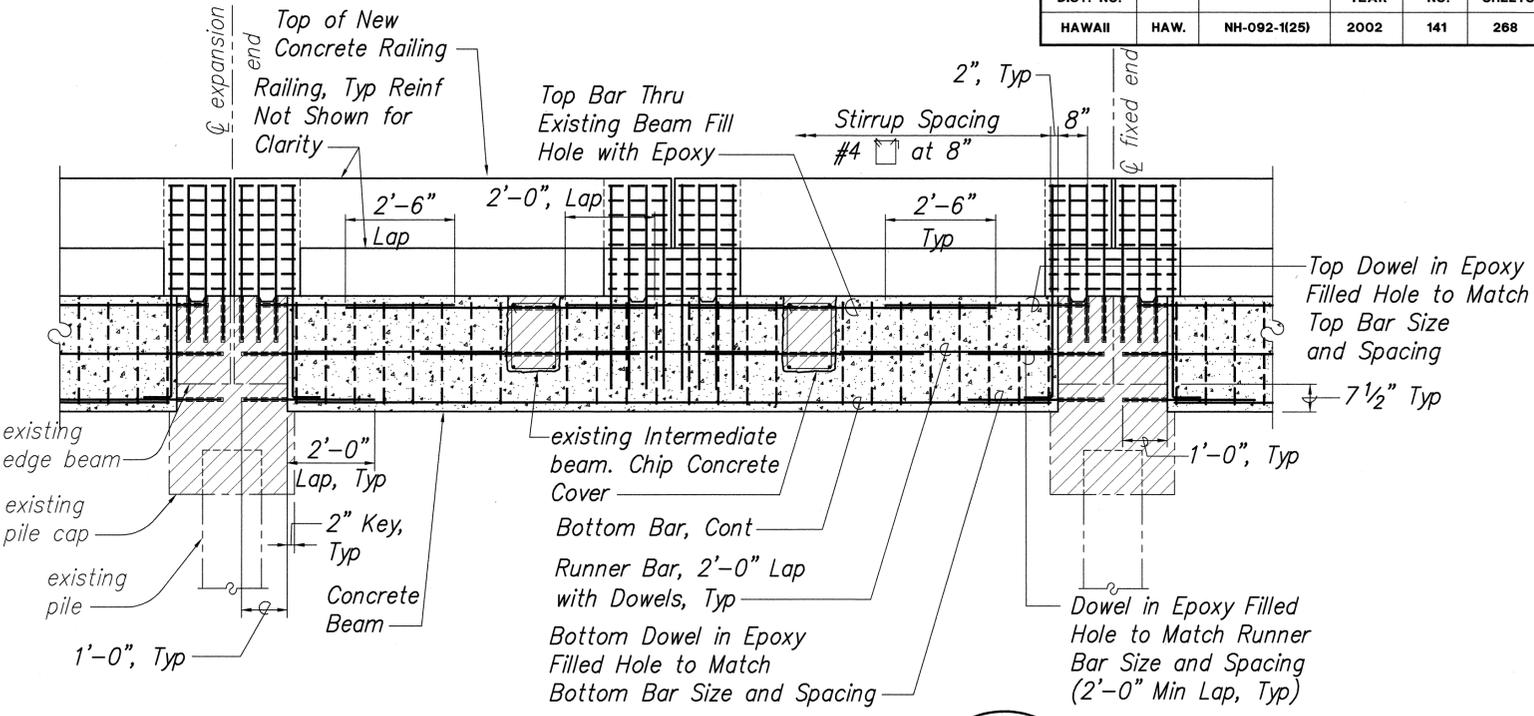


Note:
Existing edge beams and intermediate beams to remain, See 2/S32

TYPICAL SECTION

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

1
S31|S32



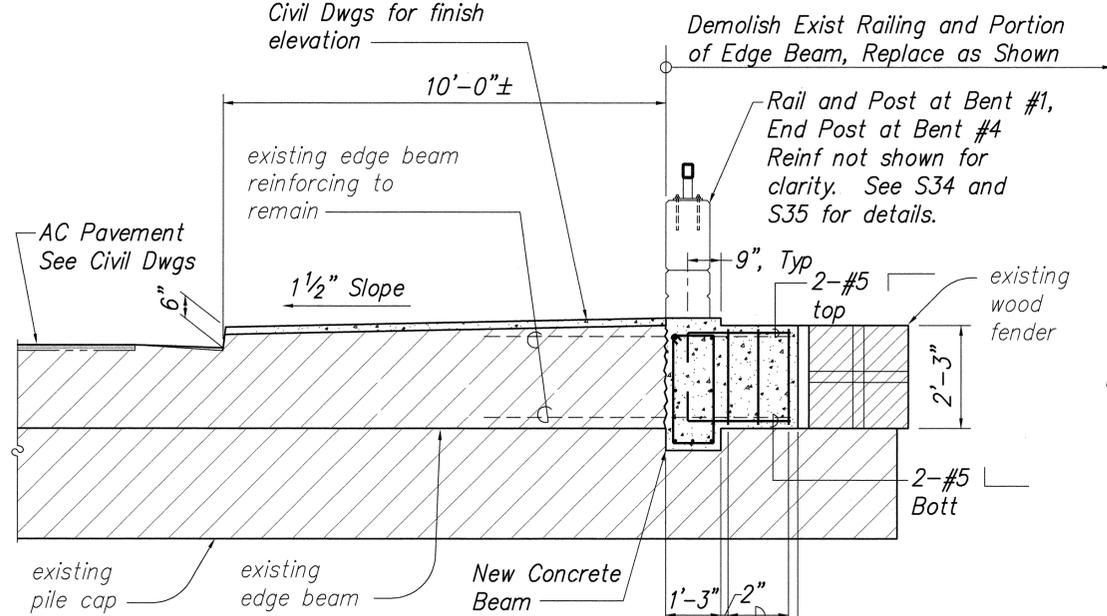
CONCRETE BEAM ELEVATION DETAIL

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

2
S32|S32

1 1/2"± Polymer Modified Concrete Placed over exist, See Note 1 this Sheet, See Civil Dwgs for finish elevation

AC Pavement See Civil Dwgs



Note:
Replace existing fender connection fasteners with new, See 4/S23|S25

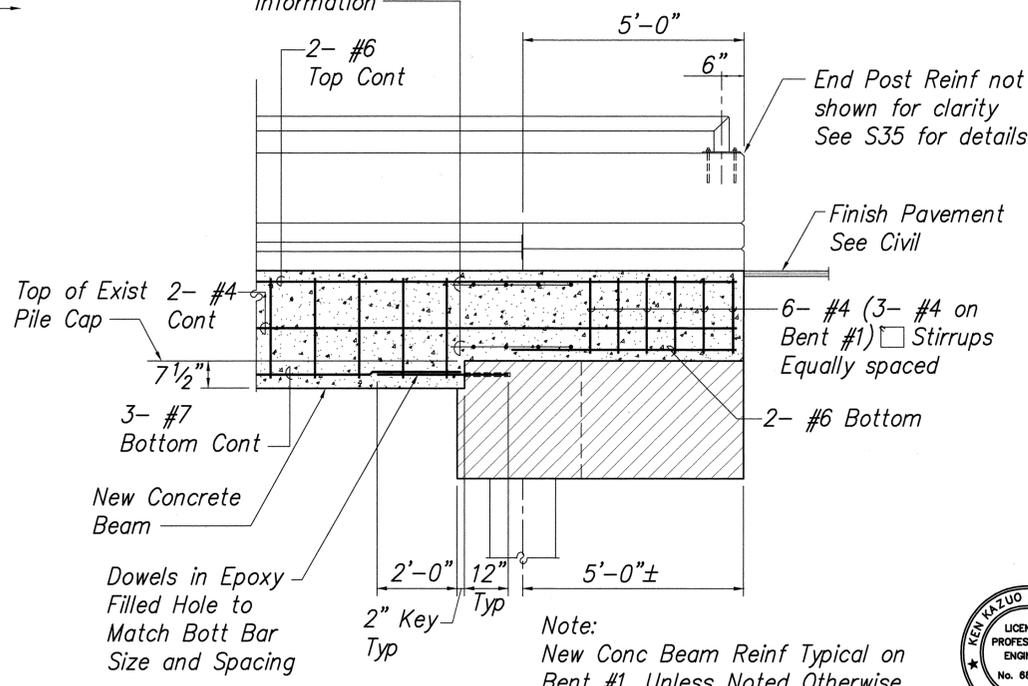
SECTION

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

3
S31|S32

2-#5 Top and Bottom Edge Beam Reinf See 3/S31|S32

For Balance of Information



SECTION

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

4
S31|S32

Notes:

- Existing concrete surface shall be roughened to 1/4" amplitude and must be cleaned and free of laitance, dust, and other bond inhibiting materials before applying bonding agent and new polymer modified concrete. Refer to specifications for minimum performance requirements for surface preparation, bonding agent and polymer modified concrete.
- The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
- Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sheet S1.

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

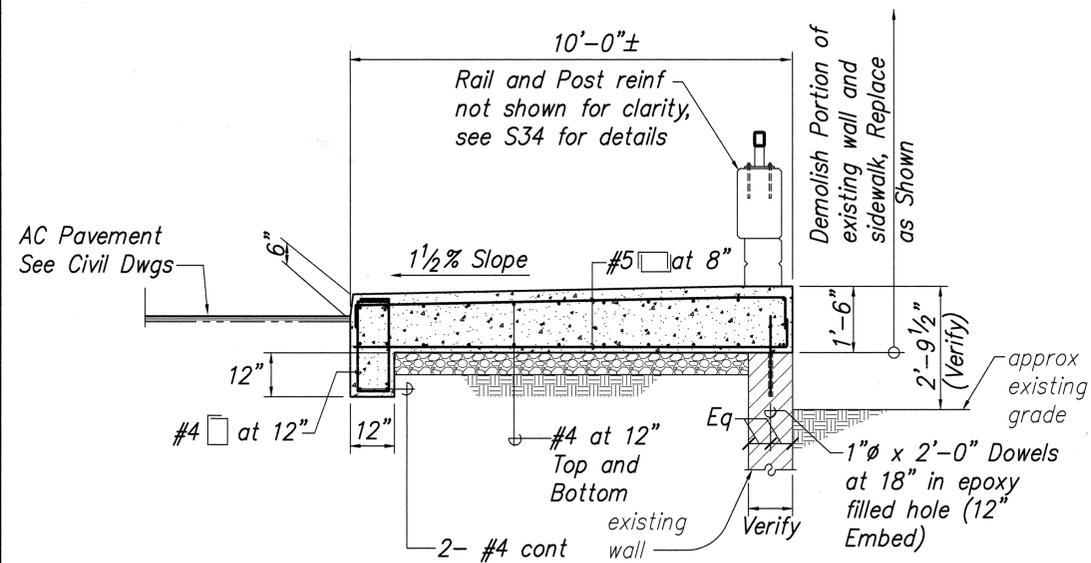


Ken Kazuo Hayashida
Professional Engineer
No. 8818-S
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #4
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S32 OF 50 SHEETS

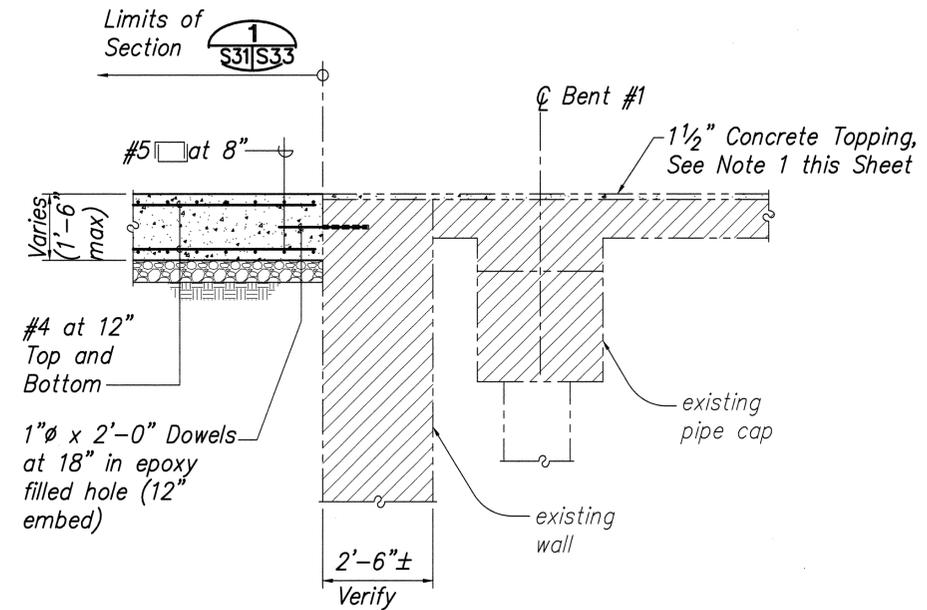
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	142	268



SECTION

1
S31|S33

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



SECTION

2
S31|S33

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

Notes:

- Existing concrete surface shall be roughened to 1/4" amplitude and must be cleaned and free of laitance, dust, and other bond inhibiting materials before applying bonding grout and new polymer modified concrete. Refer to specifications for minimum performance requirements for surface preparation, bonding agent and polymer modified concrete.
- The Contractor shall review drawings for Project Nos, FU-44(3) and FU44(5) prior to calculating demolition quantities and performing the work. These drawings are available at the DOT, Kapolei Office (692-7585).
- Verify location of existing reinforcement before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement. See Note 6, Sheet S1.

SURVEY PLOTTED BY	DATE
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CHECKED BY	
NOTE BOOK	
NO.	



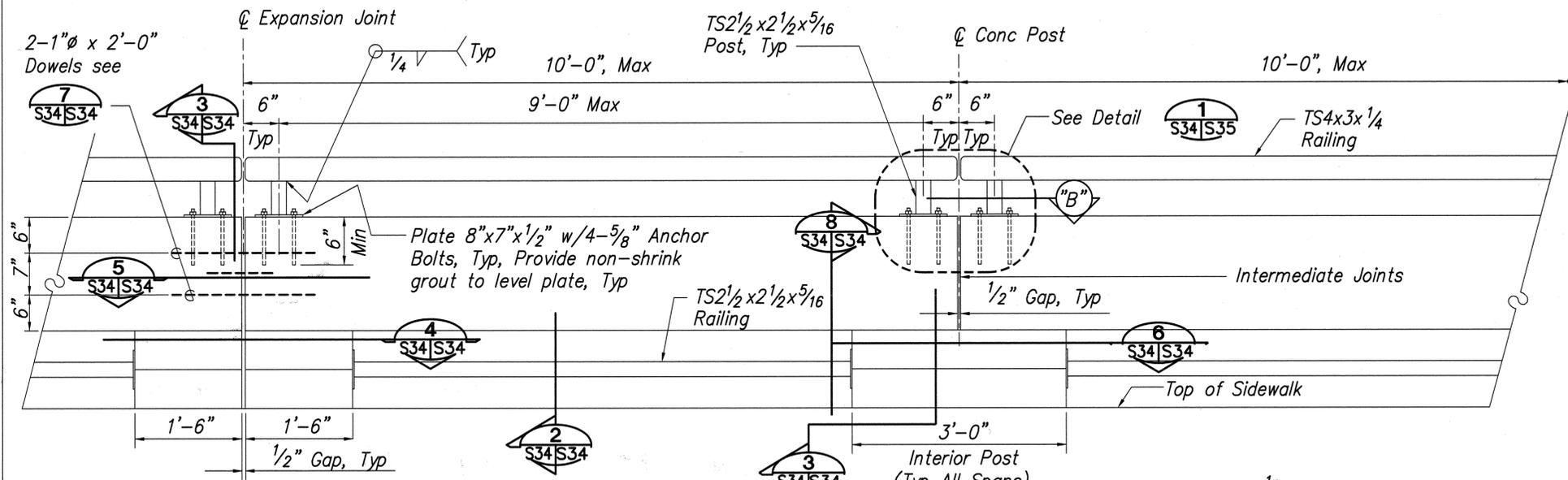
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLIP COVER #4
SECTIONS & DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMMER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01

SHEET No. S33 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	ADD. 143	268

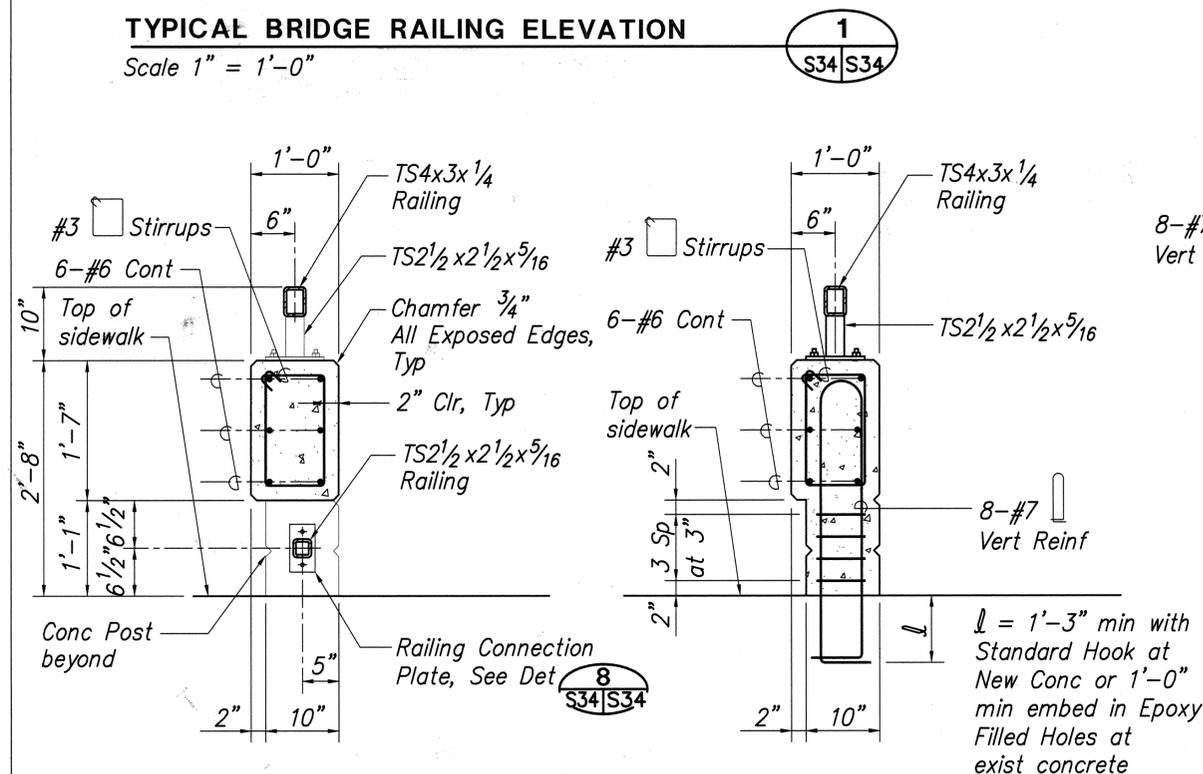


NOTES:

1. Bridge Railing Expansion Joint shall be at 40'-0" Max, unless specifically shown or noted.
2. Pipe Railings, Base Plates, Anchor Bolts and Nuts shall be Hot-dipped Galvanized after fabrication, Typical for both Upper and Lower Railings.
3. For Traffic Railing span supporting Light Pole, See S36 for additional details.
4. The Contractor shall ensure that the traffic-side face of the bridge railing at all expansion joints, corners and other discontinuities shall be made flush and smooth.
5. Chamfer all concrete edges 3/4".
6. Stirrup Spacing is reduced to 4" in all Bridge Railings that are located adjacent to Railing Posts that support Highway Light Poles. See 1/S36.

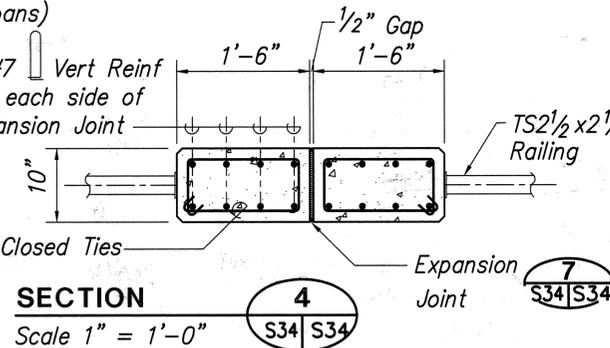
TYPICAL BRIDGE RAILING ELEVATION

Scale 1" = 1'-0"

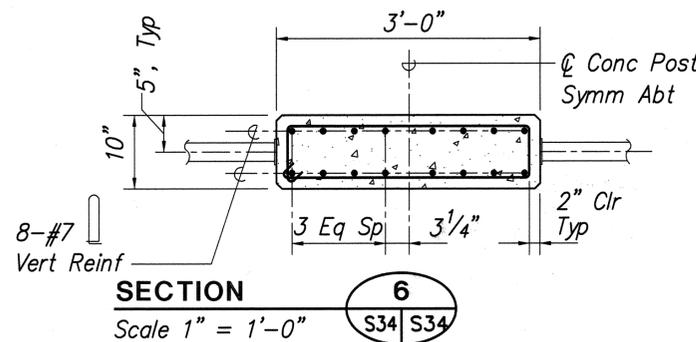


SECTION 2
Scale 1" = 1'-0" S34 S34

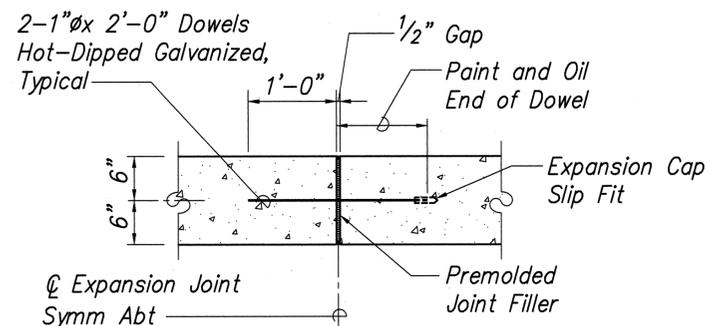
SECTION 3
Scale 1" = 1'-0" S34 S34



SECTION 4
Scale 1" = 1'-0" S34 S34

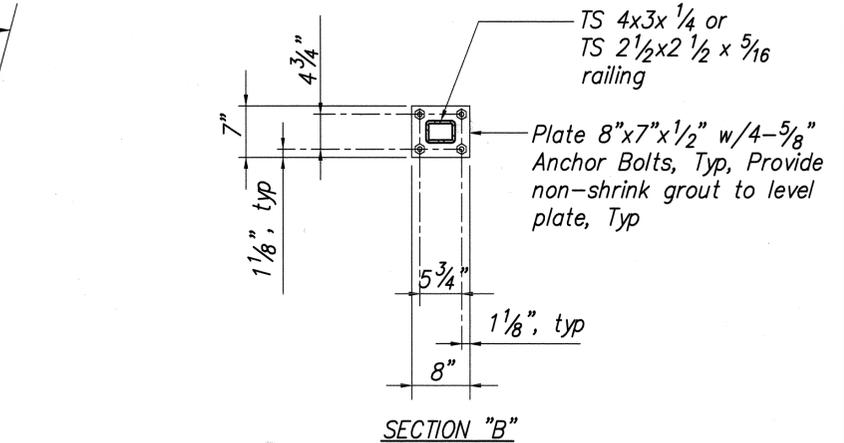


SECTION 6
Scale 1" = 1'-0" S34 S34

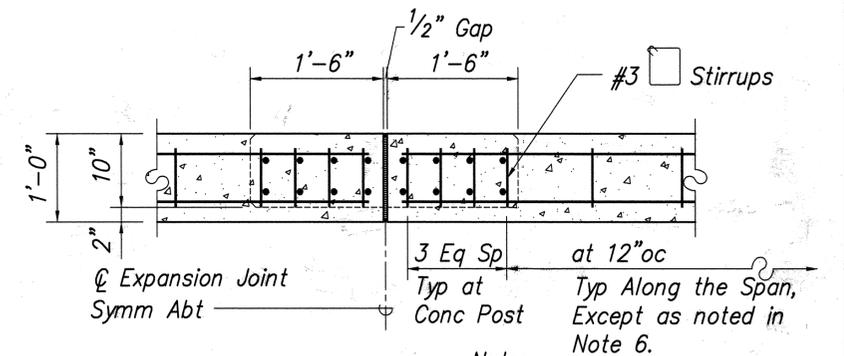


Note: Railing reinf not shown for clarity.

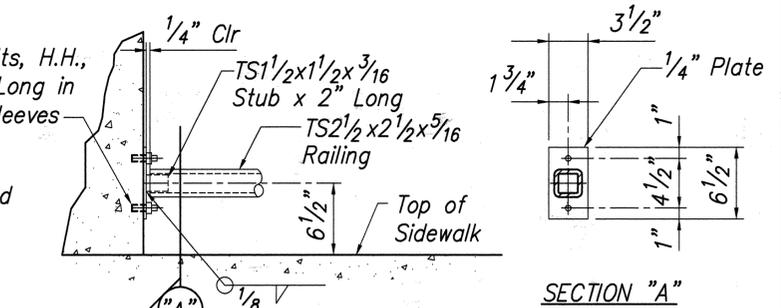
PLAN SECTION TYP EXPANSION JOINT
Not to Scale S34 S34



SECTION "B"



SECTION 5
Scale 1" = 1'-0" S34 S34



SECTION "A"

RAILING CONNECTION PLATE 8
Scale 1 1/2" = 1'-0" S34 S34

1/10/02	Added Section "B"
Date	Revision



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
BRIDGE RAILING
SECTIONS AND DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01

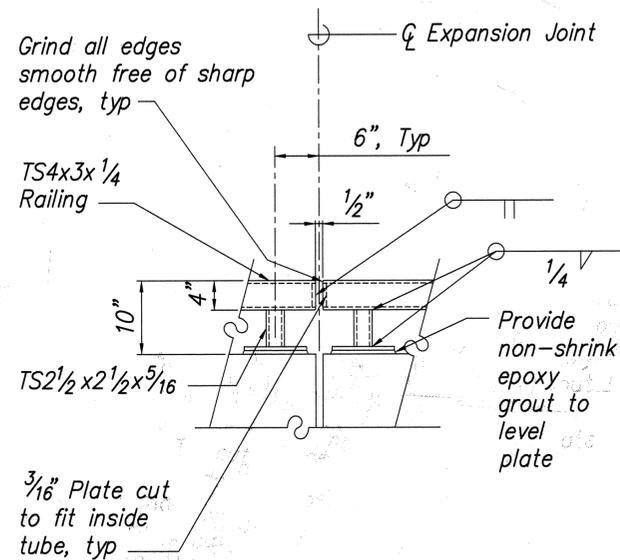
SHEET No. S34 OF 50 SHEETS

ADD.143

SURVEY PLOTTED BY	DATE
ORIGINAL PLAN	DATE
TRACED BY	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
NOTE BOOK	NO.

Length of End Post "L"	Bar "a"	Bar "b"
3'-0"	8-#7	8-#3
4'-0"	10-#7	10-#3
5'-0"	12-#7	12-#3

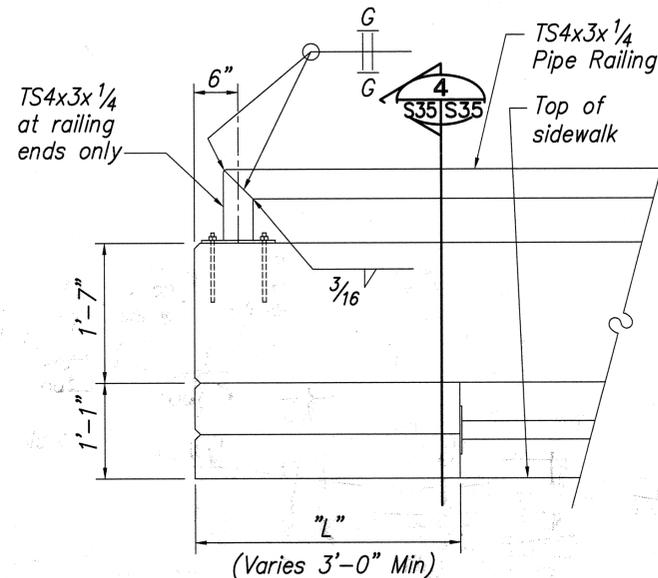
Galvanized metal sleeve with inside diameter 1/2" larger than outside diameter of post. Payment for labor, materials and equipment required to install the fence post, sleeves and grout to be made incidental to cost of fence.



DETAIL

Scale 1" = 1'-0"

1
S35 | S35



TYPICAL END POST ELEVATION

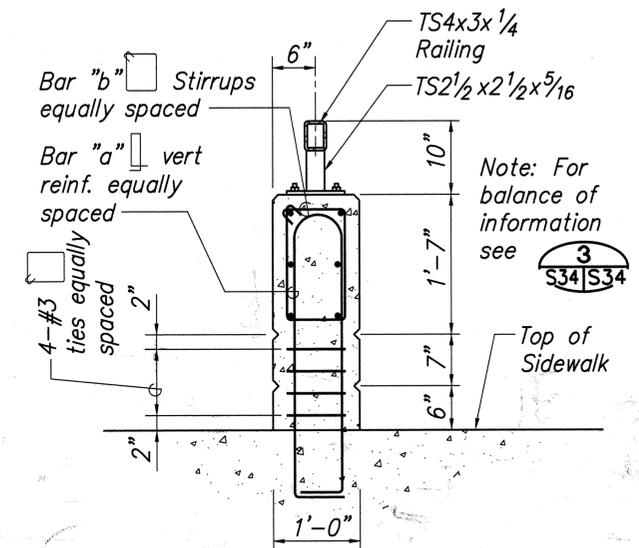
Scale 1" = 1'-0"

2
S35 | S35

END POST ELEVATION

Scale 1" = 1'-0"

3
S19 | S35

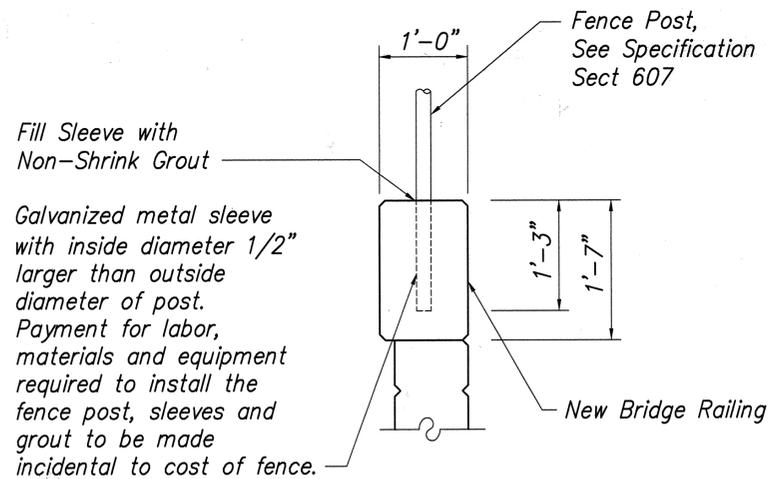


SECTION

Scale 1" = 1'-0"

4
S35 | S35

Note: Metal pedestrian railing shall not be installed in area where chain link fence is to be mounted to top of bridge railing.



TYPICAL MOUNTING DETAIL

CHAIN LINK FENCE ON BRIDGE RAILING

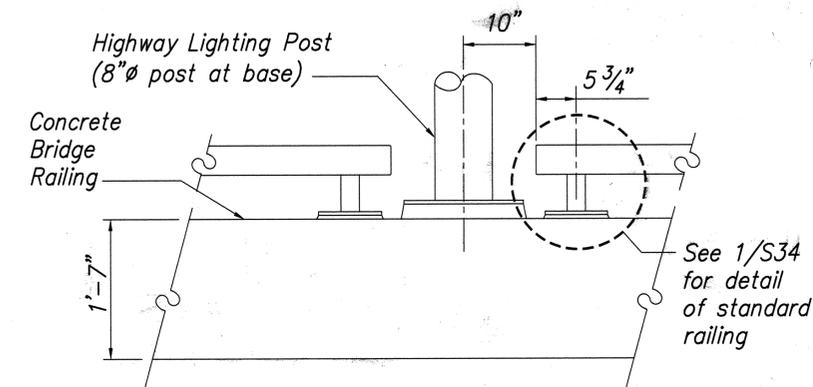
Scale 1" = 1'-0"

5
S35 | S35

SPECIAL COATING SCHEDULE FOR ZINC COATED METAL BRIDGE RAILING				
	OPTION 1	OPTION 2	OPTION 3	OPTION 4
PREPARATION:	Carboline thinner #2 or surface cleaner #3, per SSPC-SP1, Apply Rustbound Penetrating Sealer.	Solvent clean per SSPC-1, and as recommended by the manufacturer	Solvent clean per SSPC-SP1, and as recommended by the manufacturer	Solvent clean per SSPC-SP1. Apply Galvanized Zinc Treatment (Acid Etching)
1ST COAT:	Carboline Carboguard 890 epoxy DFT 5 mil (min) WFT 7 mil (min)	Tnemec High-Build Epoxoline II Series N69 DFT 5 mil (min) WFT 7 mil (min)	Sherwin Williams Tile Clad High Solids B62 Series DFT 4 mil (min) WFT 7 mil (min)	Ameron Amercoat 385 epoxy DFT 5 mil (min) WFT 8 mil (min)
RECOATING TIME:	8 HRS (min) 2 Days (max)	10 HRS (min) 2 Days (max)	8 HRS (min) 14 Days (max)	8 HRS (min) 2 Days (max)
TOP COAT:	Carboline Carbothane 133HB Aliphatic polyurethane DFT 5 mil (min) WFT 7 mil (max)	Tnemec Endura-Shield Series 75 DFT 4 mil (min) WFT 7 mil (min)	Sherwin Williams Corothane II B65 W200 Series/B60V2 DFT 4 mil (min) WFT 7 mil (min)	Ameron Amercoat 450 SA Polyurethane DFT 4 mil WFT 7 mil

Notes:

- Contractor shall shop coat all members. Field coating shall consist of touch up only.
- Color for top coat shall match gray color of the galvanized steel surface, intermediate coat shall have contrasting light color. Finish for top coat shall not be gloss or high gloss.
- Multiple coats may be required to obtain minimum dry film thickness (DFT).



TYPICAL MOUNTING DETAIL METAL BRIDGE RAILING AT HIGHWAY LIGHTING POST

Scale 1" = 1'-0"

6
S35 | S35

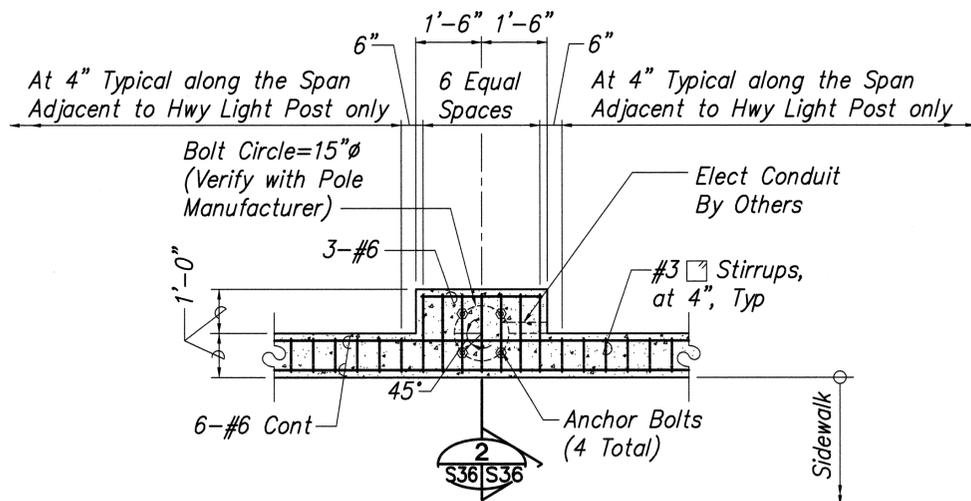
DATE	
SURVEY PLOTTED BY	
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DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



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1/7/02	Added Detail 6
Date	Revision
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION BRIDGE RAILING SECTIONS AND DETAILS NIMITZ HIGHWAY REHABILITATION SUMNER STREET TO QUEEN STREET F.A.I. Proj. No. NH-092-1(25)	
SCALE: AS NOTED	DATE: 11/01/01
SHEET No. S35 OF 50 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	ADD. 145	269



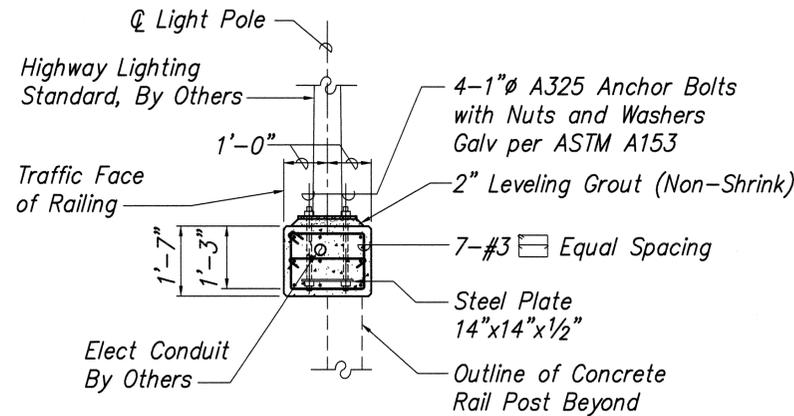
Notes:

1. See S34 for Balance of Information of Bridge Railing.
2. Electrical conduit to be mounted to back face of bridge railing. Conduit is not shown for clarity. See Electrical drawings.

**TYPICAL MOUNTING DETAIL
HIGHWAY LIGHT POLE ON BRIDGE RAILING**

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

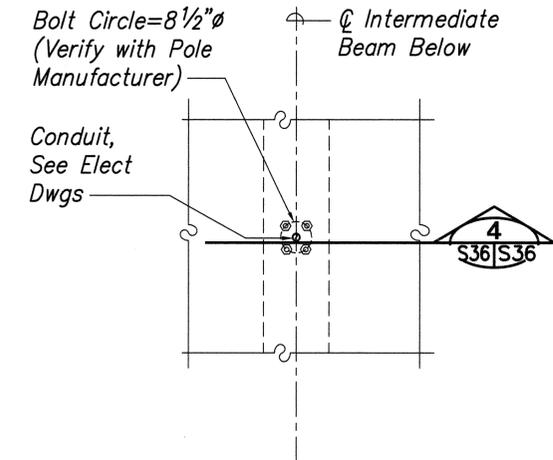
1
S36|S36



SECTION

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

2
S36|S36



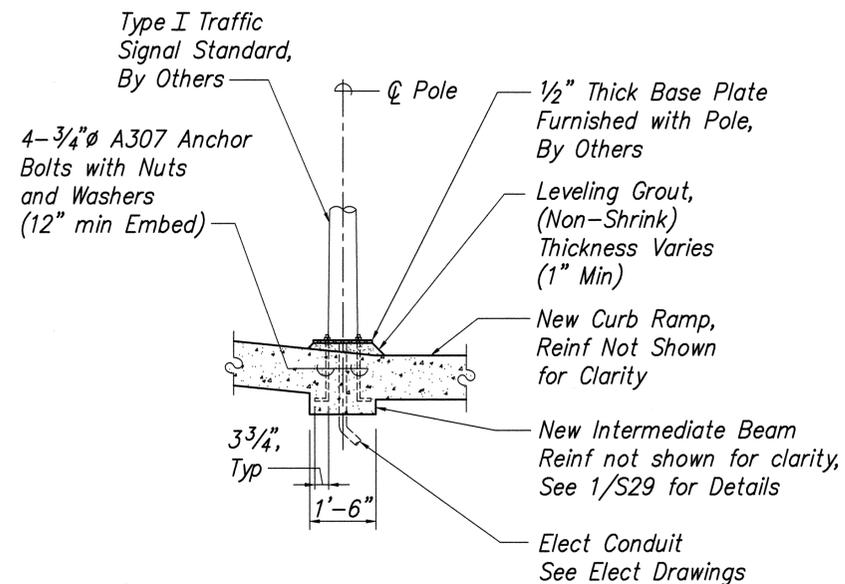
TYPE I TRAFFIC SIGNAL POLE SUPPORT DETAIL

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

3
S36|S36

Notes:

1. See Electrical Drawings for Location of Light Pole and Traffic Signal Pole.
2. All Anchor Bolts, Nuts and Washers shall be Hot-Dipped Galvanized per ASTM A153.
3. Anchor Bolts shall be ASTM A307 unless noted otherwise.
4. Nuts shall Conform to ASTM A563, Grade DH.
5. Washers shall Conform to ASTM F436.



SECTION

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

4
S36|S36

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



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1/7/02	Revised Location of Conduit, Details 1 & 2
Date	Revision

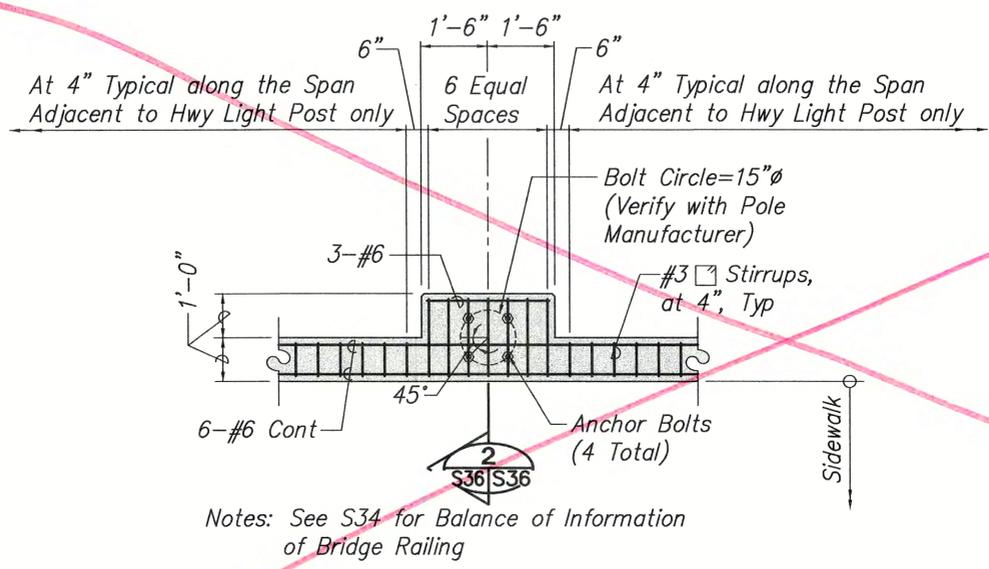
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**LIGHTING AND TRAFFIC SIGNAL POLE
SUPPORT DETAILS**
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01

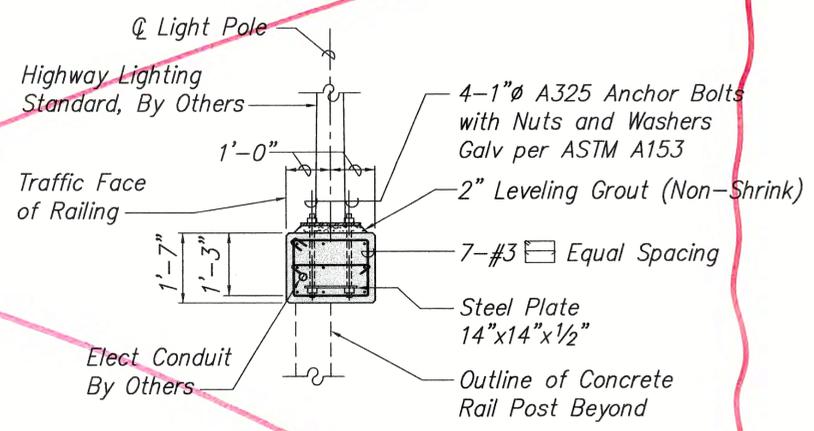
SHEET No. S36 OF 50 SHEETS

ADD.145

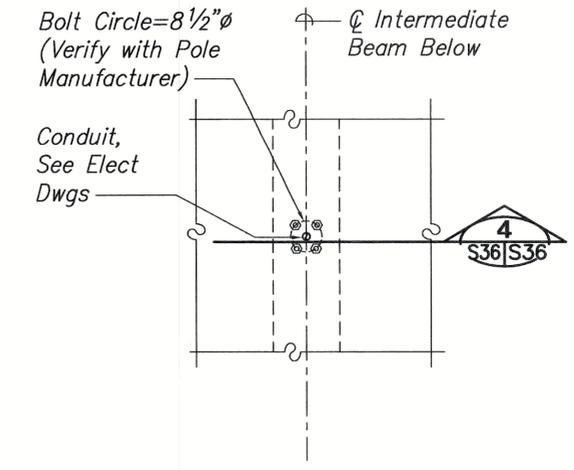
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	CO 145	268



**TYPICAL MOUNTING DETAIL
HIGHWAY LIGHT POLE ON BRIDGE RAILING** 1
Scale: 1/2" = 1'-0" S36/S36
* See ADD. 145

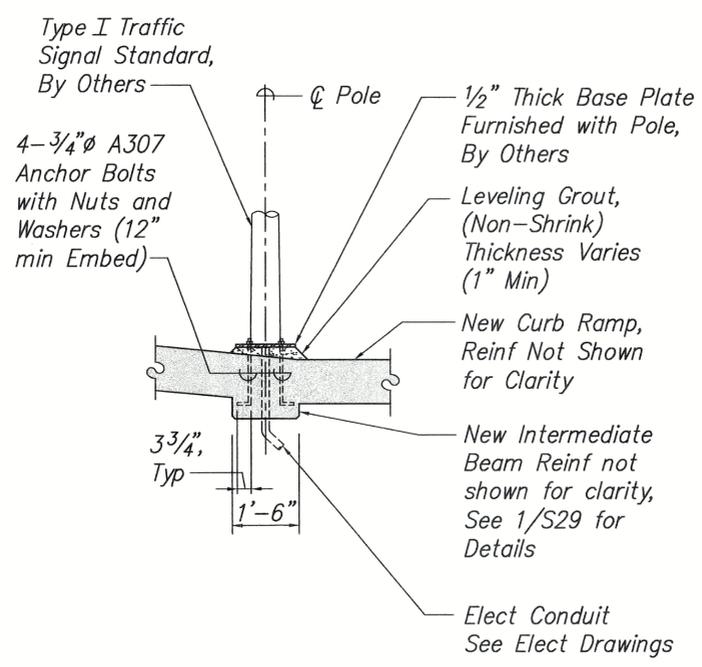


SECTION 2
Scale: 1/2" = 1'-0" S36/S36

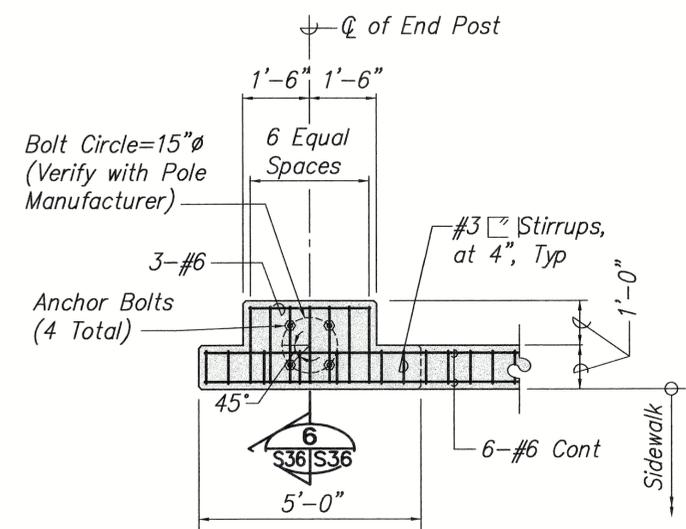


TYPE I TRAFFIC SIGNAL POLE SUPPORT DETAIL 3
Scale: 1/2" = 1'-0" S36/S36

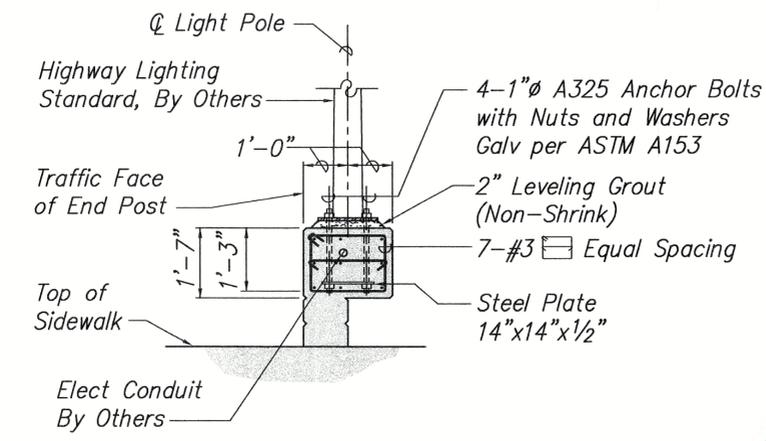
- Notes:**
1. See Electrical Drawings for Location of Light Pole and Traffic Signal Pole.
 2. All Anchor Bolts, Nuts and Washers shall be Hot-Dipped Galvanized per ASTM A153.
 3. Anchor Bolts shall be ASTM A307 unless noted otherwise.
 4. Nuts shall Conform to ASTM A563, Grade DH.
 5. Washers shall Conform to ASTM F436.



SECTION 4
Scale: 1/2" = 1'-0" S36/S36



MOUNTING DETAIL OF HIGHWAY LIGHT POLE ON SLIP COVER NO. 4 END POST 5
Scale: 1/2" = 1'-0" S36/S36



SECTION 6
Scale: 1/2" = 1'-0" S36/S36

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QUANTITIES BY	
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ORIGINAL PLAN	
NOTE BOOK	
No.	

4/14/03	Added Details 5 & 6
1/7/02	Revised Location of Conduit, Details 1 & 2
Date	Revision

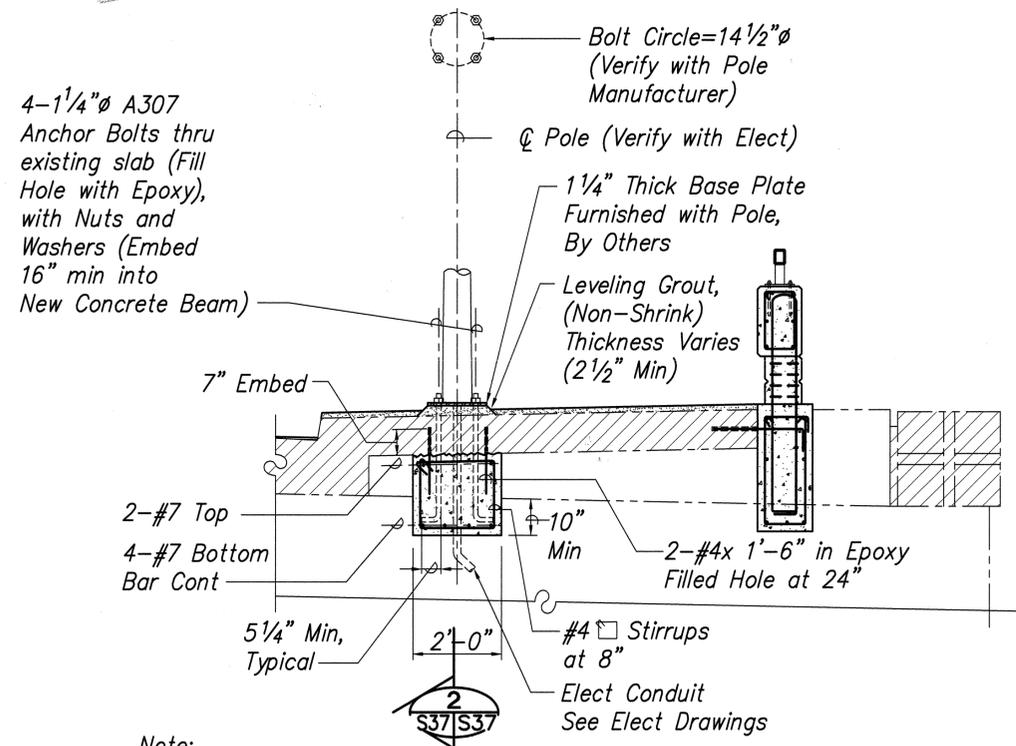


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**LIGHTING AND TRAFFIC SIGNAL POLE
SUPPORT DETAILS**
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)
SCALE: AS NOTED DATE: 11/01/01
SHEET No. S36 OF 50 SHEETS

"AS-BUILT"

C.O. 145

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	146	288

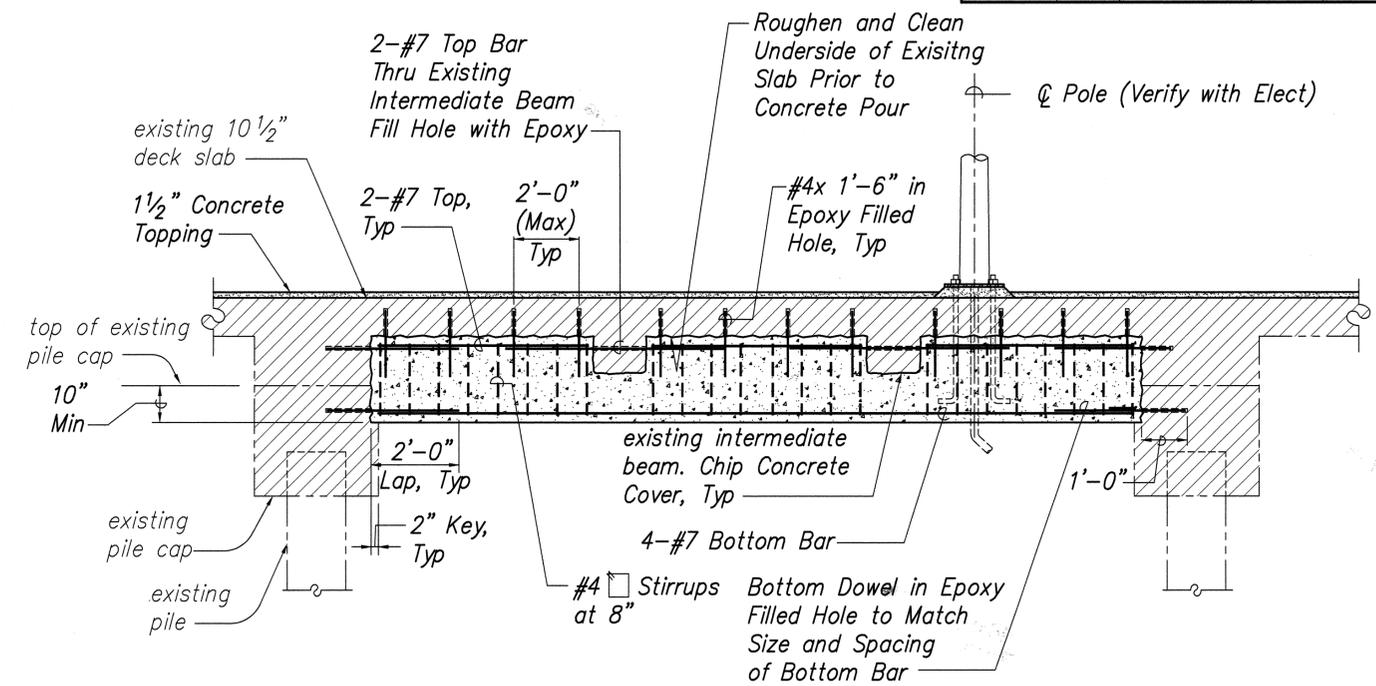


Note:
See 1/S28 for Balance of Information

TYPE II TRAFFIC SIGNAL POLE SUPPORT DETAIL

1
S37/S37

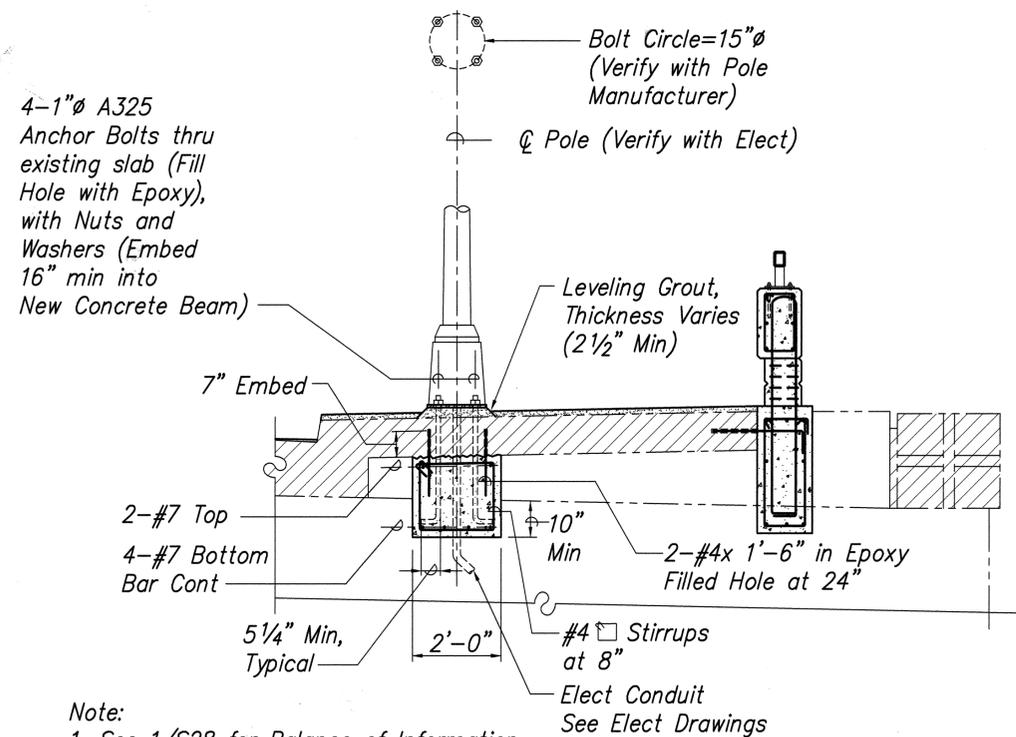
Scale: 1/2" = 1'-0"



CONCRETE BEAM ELEVATION DETAIL

2
S37/S37

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



Note:
1. See 1/S28 for Balance of Information.
2. Beam Elevation for Light Pole Support Similar to 2/S37.

LIGHT POLE OVER SIDEWALK SUPPORT DETAIL

3
S37/S37

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

- Notes:
1. See Electrical Drawings for Location of Light Pole and Traffic Signal Pole.
 2. All Anchor Bolts, Nuts and Washers shall be Hot-Dipped Galvanized per ASTM A153.
 3. Anchor Bolts shall be ASTM A307 unless noted otherwise.
 4. Nuts shall Conform to ASTM A563, Grade DH.
 5. Washers shall Conform to ASTM F436.

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QUANTITIES BY	
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NOTE BOOK	
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LIGHTING AND TRAFFIC SIGNAL POLE SUPPORT DETAILS

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

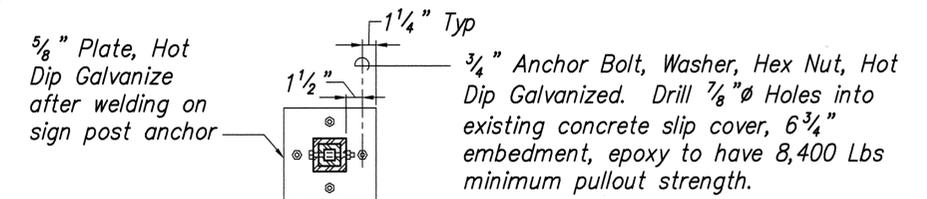
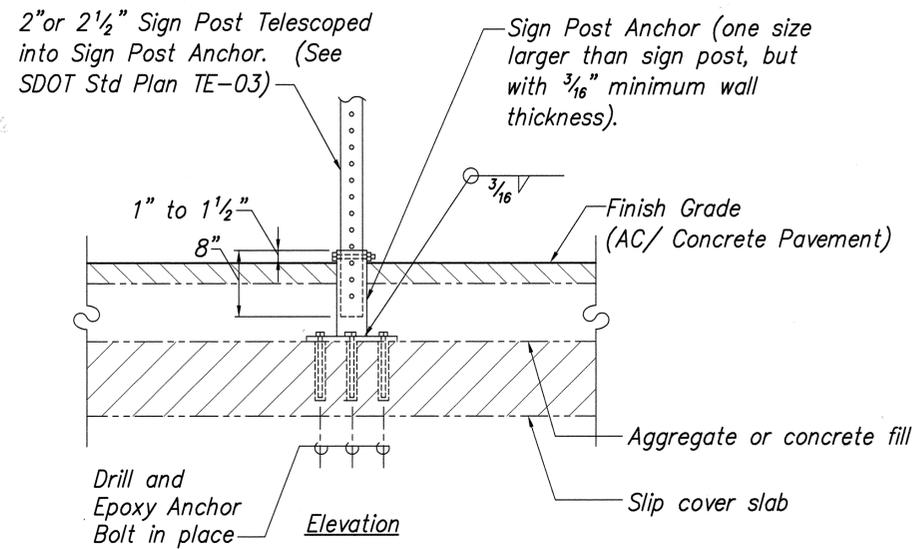
SCALE: AS NOTED DATE: 11/01/01

SHEET No. S37 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	147	268

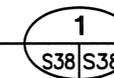
Notes:

1. Square tube sign post shall conform to Subsection 713.11(C) Square Tube Posts of the specifications.
2. All accessories, fittings and stiffeners details(as required) shall be submitted to Engineer for approval 20 days prior to installation.
3. Square tube posts shall be perforated with 7/16"Ø holes, 1" o.c., 4 sides, along entire length of post.
4. All posts shall be 12 gage unless otherwise specified or shown on the plans.
5. For additional details see Standard Plan TE-01.
6. Basic formulas for use with the windload charts:
 $Factor = Ax \times B \times H$
Therefore, if sign area(AxB) is known,
Maximum H = $\frac{Factor}{sign\ area(AxB)}$
and if H is known,
Maximum sign area(AxB) = $\frac{Factor}{H}$
7. Contractor to locate reinforcing steel in existing slip cover slab in area where sign post is to be connected. Avoid drilling holes for anchor bolts through existing reinforcement. Refer to Para 6 and 7 on Sheet S1.
8. For AC restoration, refer to typical restoration details.



SQUARE TUBE SIGN POST INSTALLATION

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



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QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

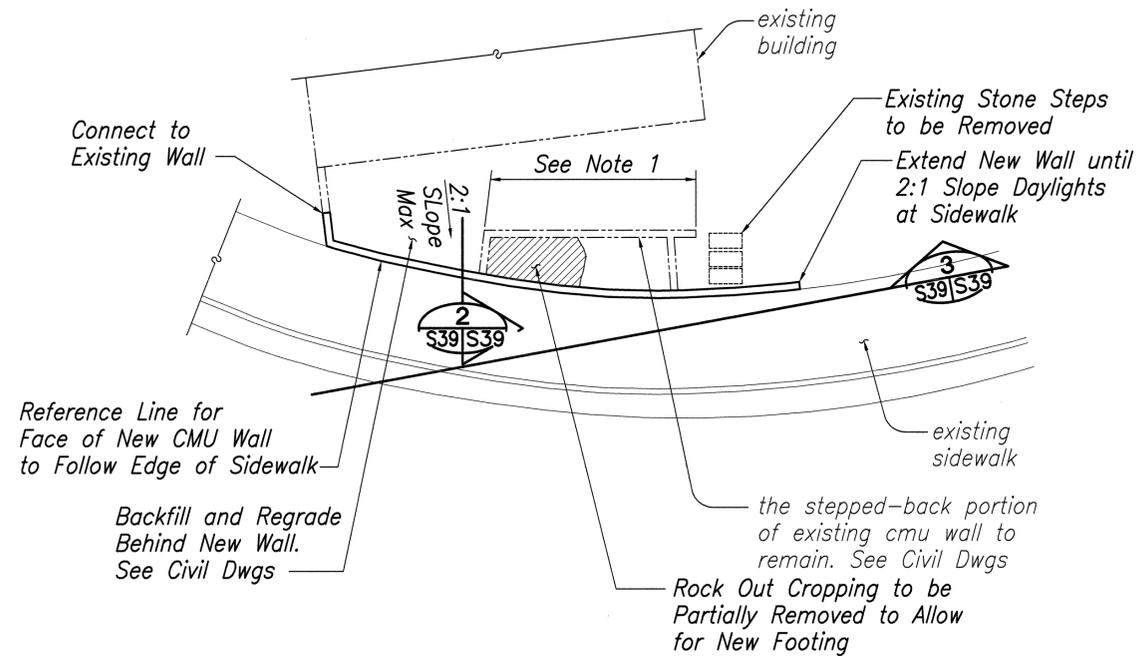


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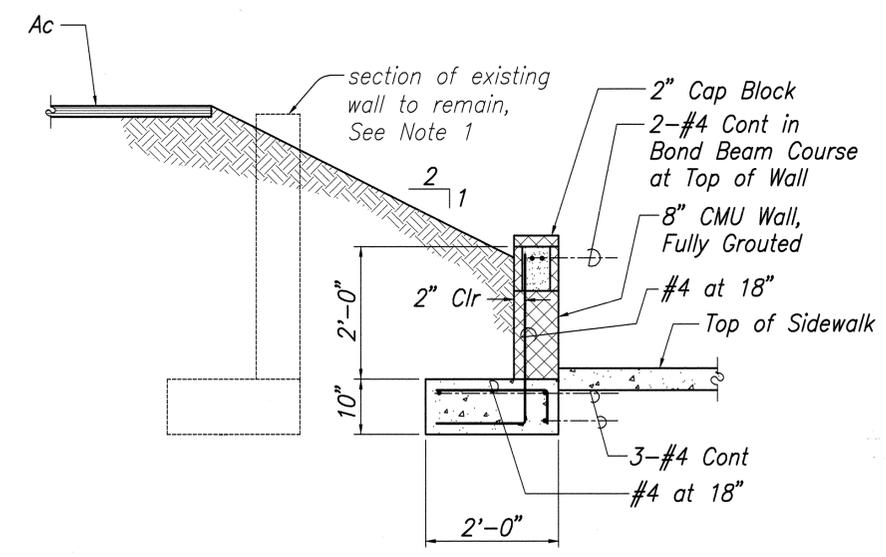
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SIGN POST CONNECTIONS,
TYPICAL DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S38 OF 50 SHEETS

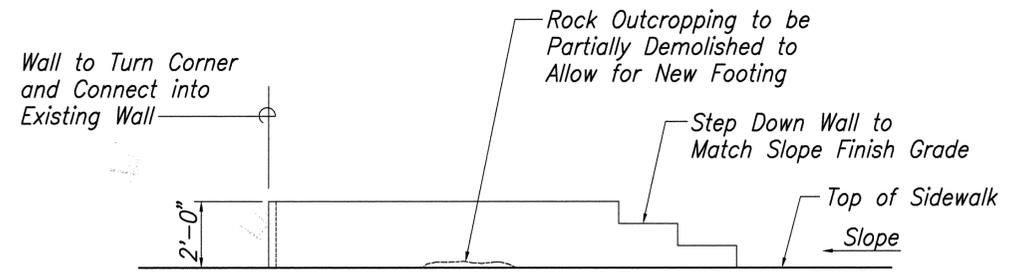
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	148	268



PLAN, CMU RETAINING WALL 1
 Scale: 1/8" = 1'-0" S39|S39



SECTION 2
 Scale: 3/4" = 1'-0" S39|S39

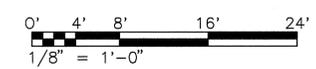


LONGITUDINAL SECTION 3
 Scale: 1/8" = 1'-0" Horizontal
 3/8" = 1'-0" Vertical S39|S39

Notes:

1. Indicated length of existing CMU retaining wall that remains intact. All other section of existing retaining wall to be demolished, including footings.

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TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

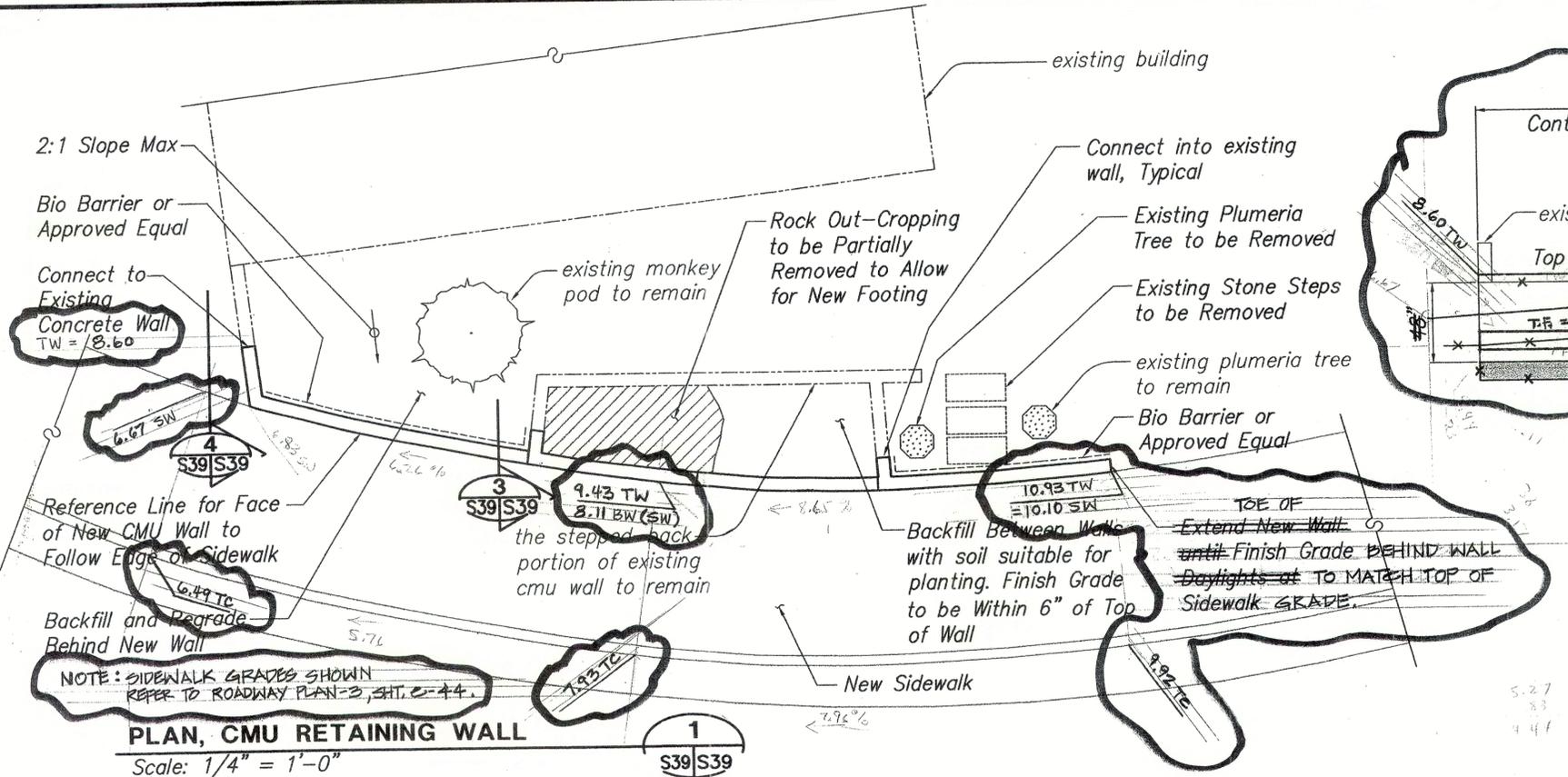


STATE OF HAWAII
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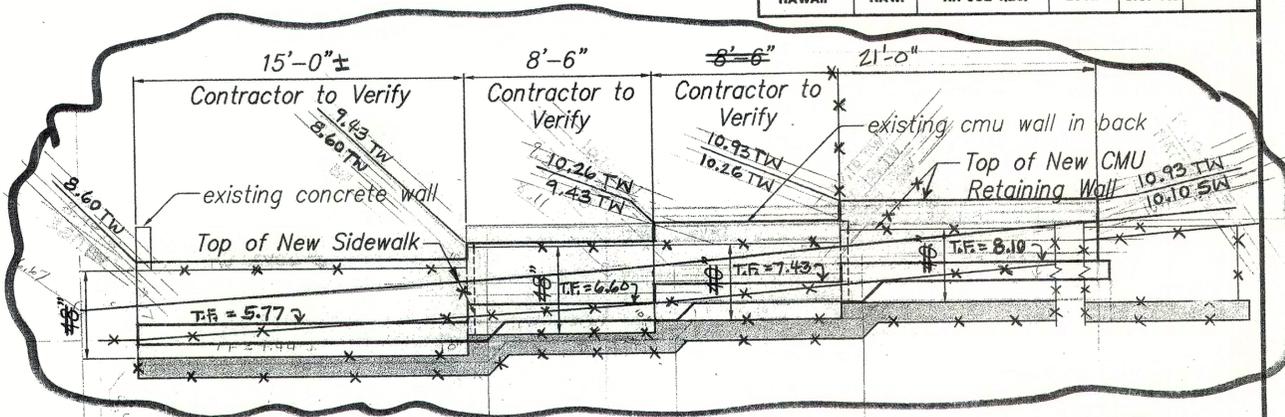
CMU RETAINING WALL
PLAN, ELEVATION AND SECTION
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01

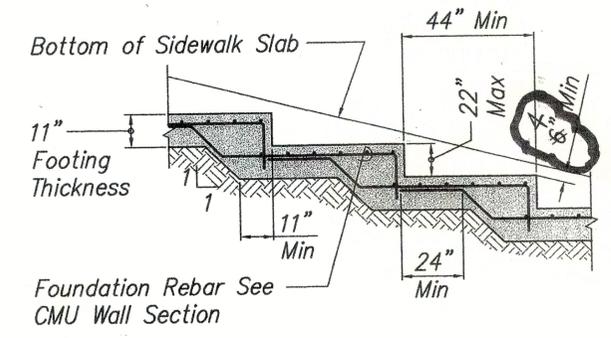
SHEET No. S39 OF 50 SHEETS



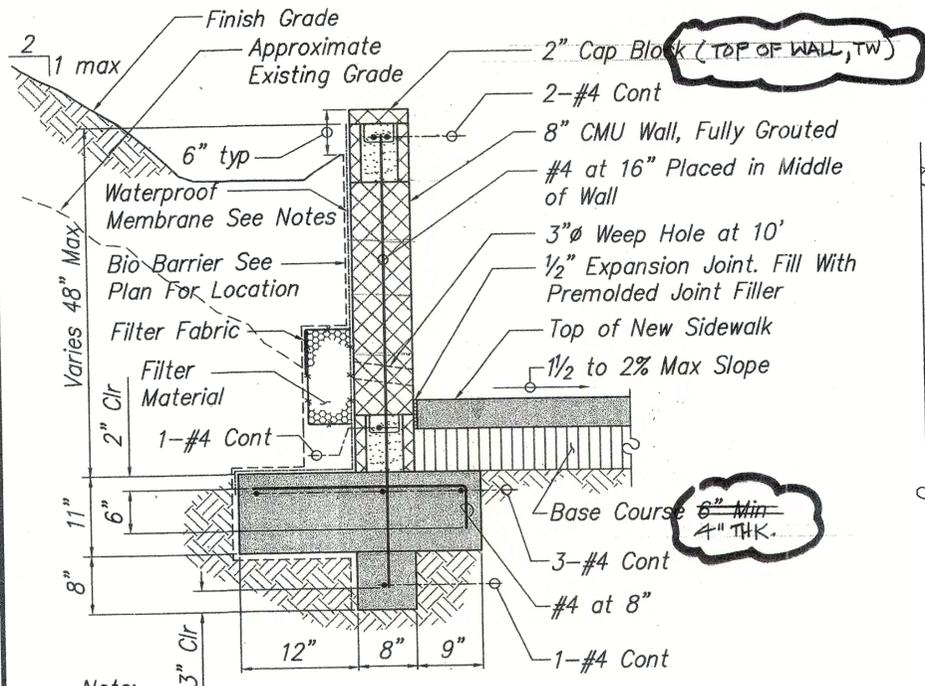
PLAN, CMU RETAINING WALL
Scale: 1/4" = 1'-0"
S39/S39



LONGITUDINAL ELEVATION
Scale: 1/4" = 1'-0"
S39/S39

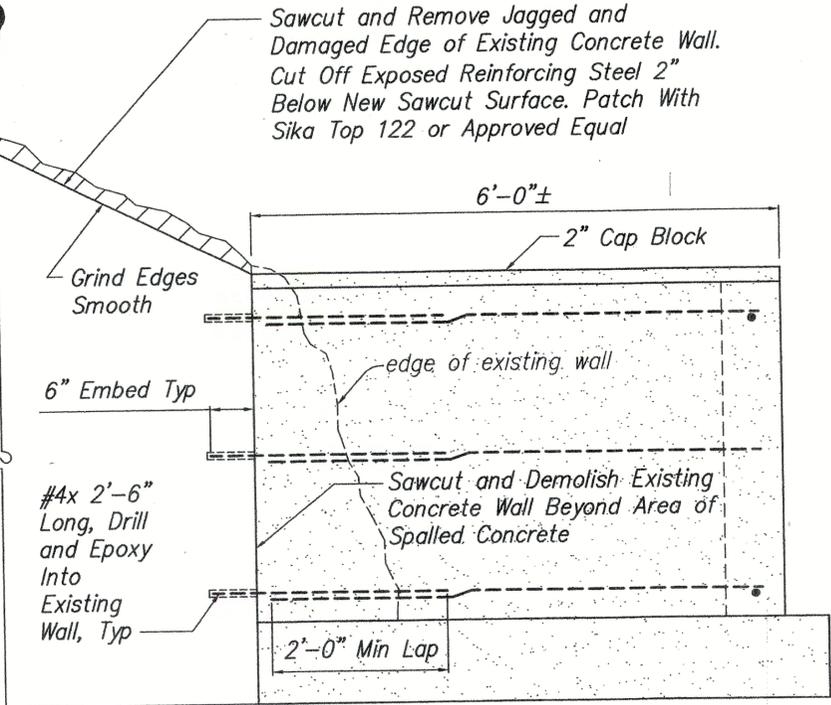


STEPPED FOOTING DETAIL
Not to Scale
S39/S39



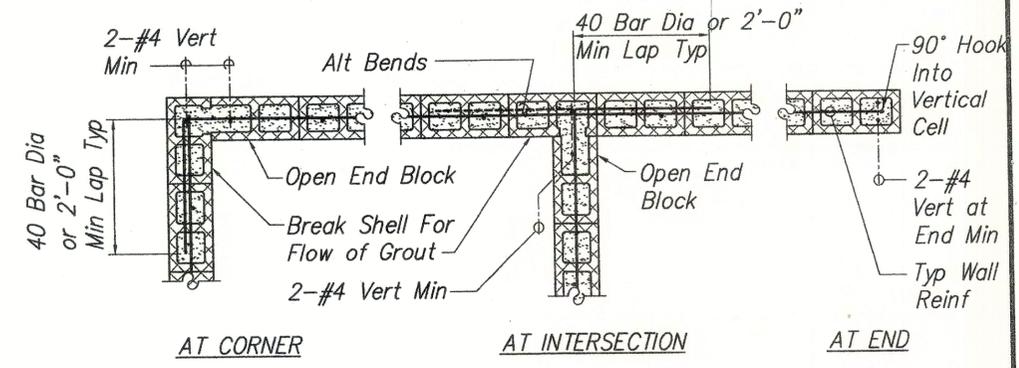
CMU WALL SECTION
Scale: 1" = 1'-0"
S39/S39

Note:
1. Provide Step Foundation for Locations that Slope Exceeds 1% see S39/S39 for Detail.
2. Waterproofing Shall consist of a Primer, Fiber Layer, and Asphalt, and Shall Conform to ASTM D 1668, AASHTO M 116, and AASHTO M115, Respectively.



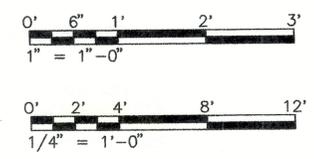
CONNECTION BETWEEN CMU WALL AND EXISTING CONCRETE WALL
Scale: 1" = 1'-0"
S39/S39

Note:
Vertical Bars Not Shown for Clarity



CMU WALL REINFORCING AT BOND BEAM
Not to Scale
S39/S39

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



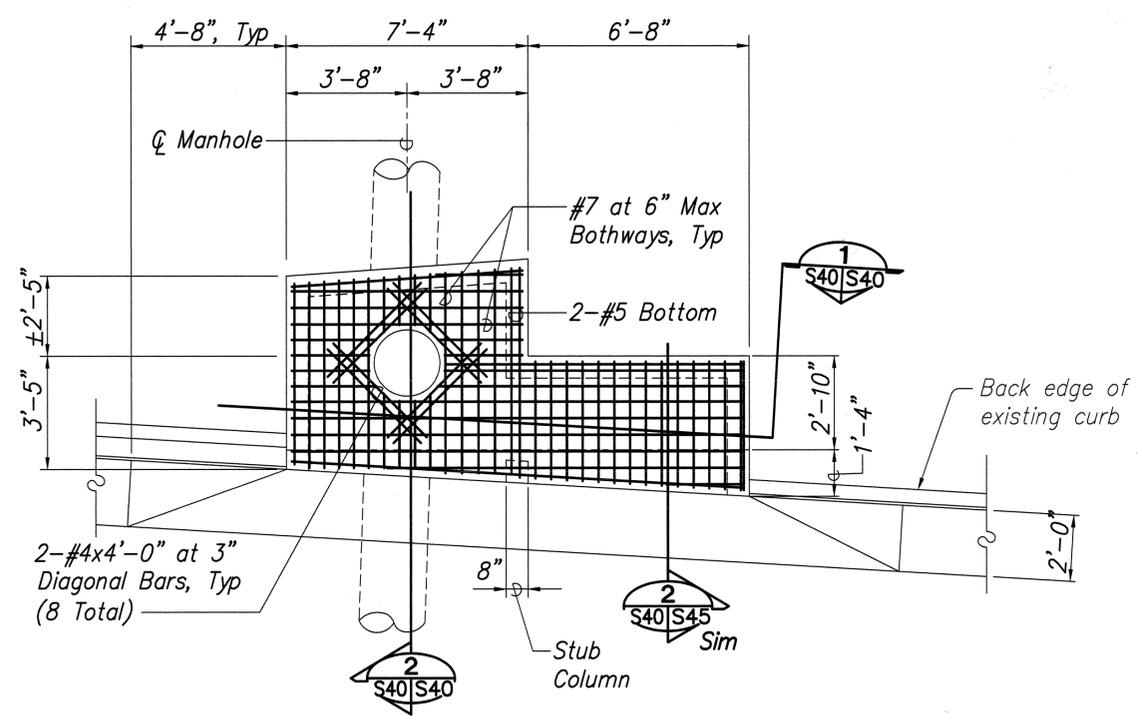
10/21/03	Revised Retaining Wall Design
Date	Revision

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CMU RETAINING WALL
PLAN, ELEVATION AND SECTION
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED
DATE: 11/01/01
SHEET No. S39 OF 50 SHEETS

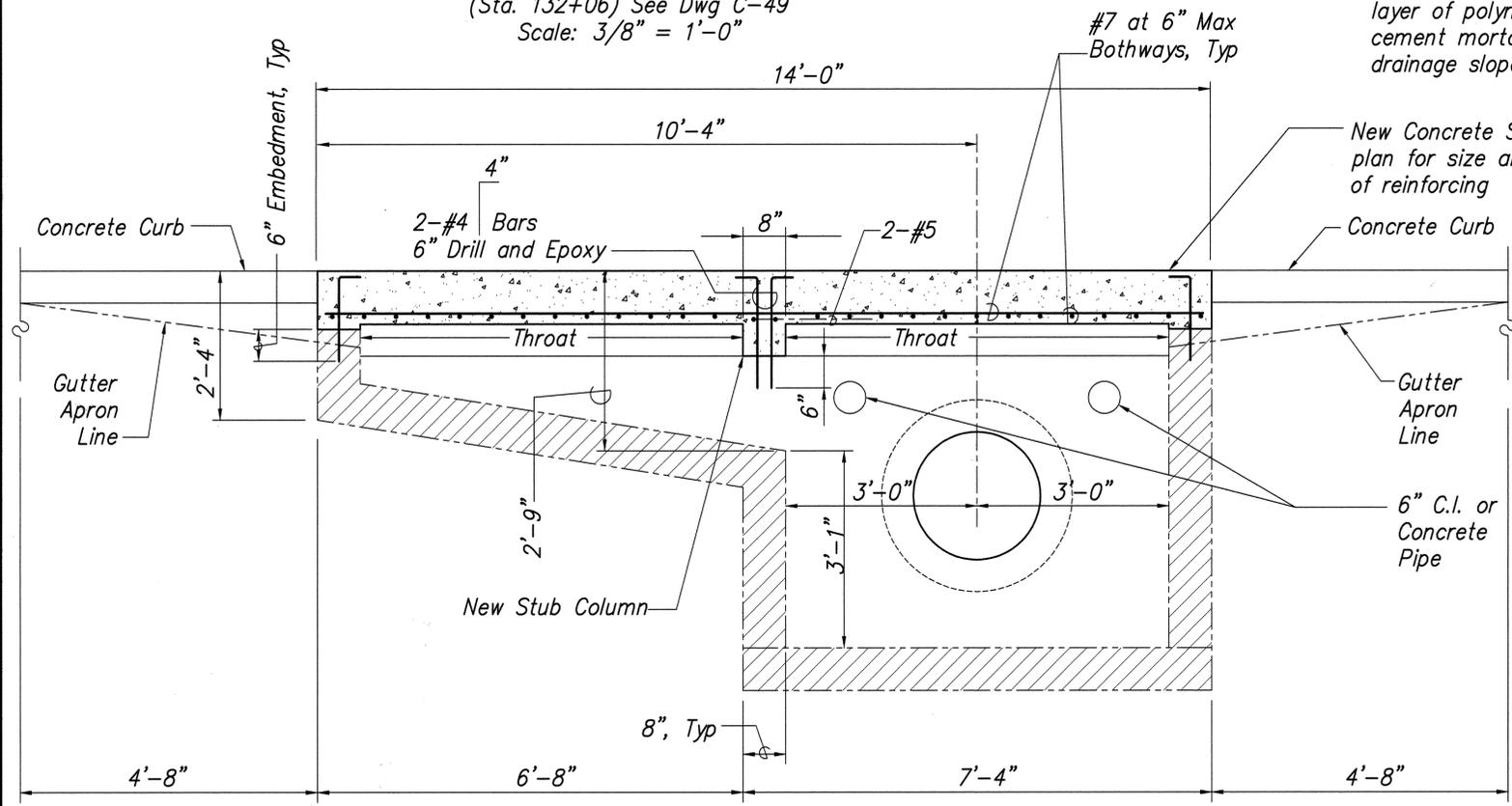
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	149	288



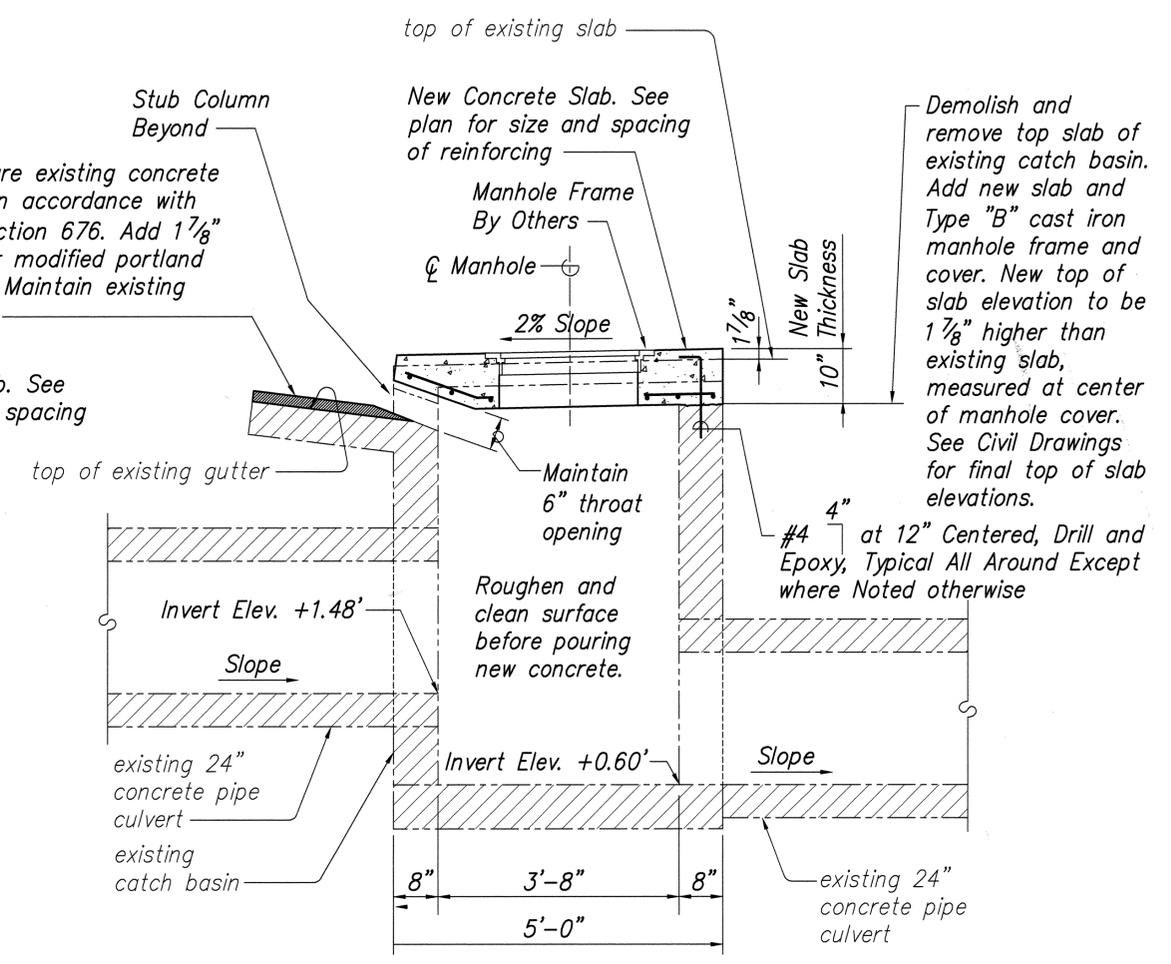
PLAN, TYPE "C" CATCH BASIN (MODIFIED)

REINFORCING

(Sta. 132+06) See Dwg C-49
Scale: 3/8" = 1'-0"



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



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

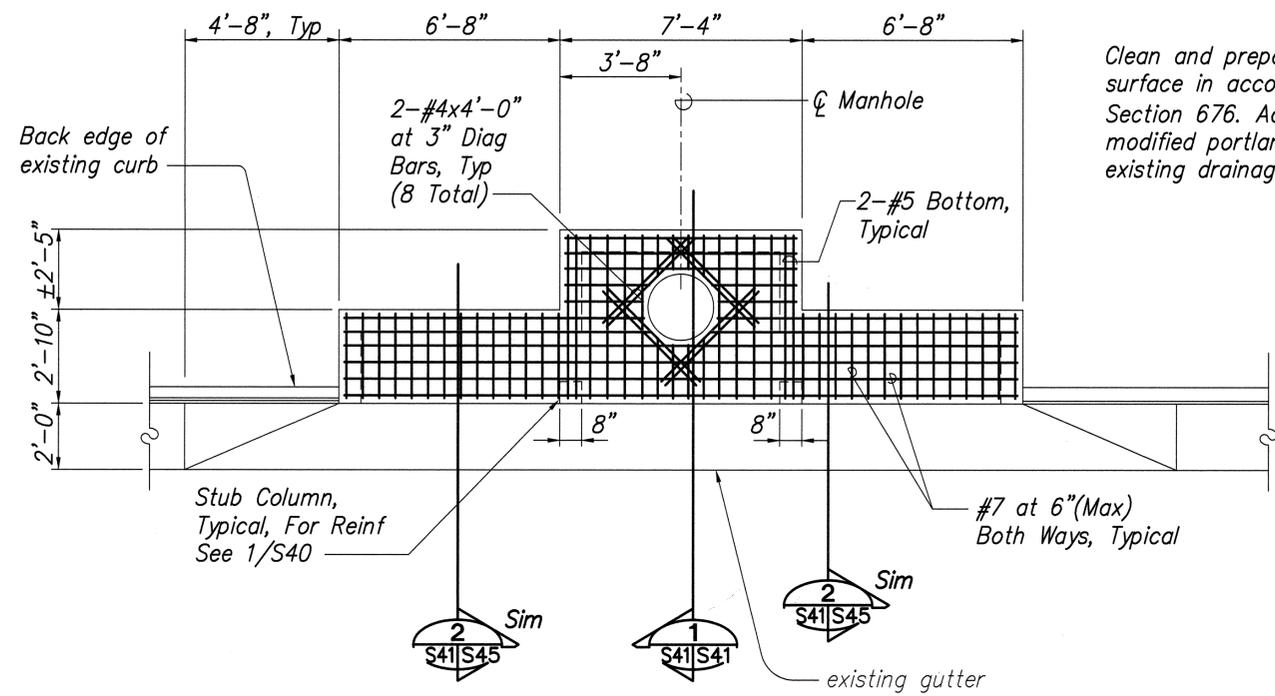
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CATCH BASIN RETROFIT
Sta. 132+06
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

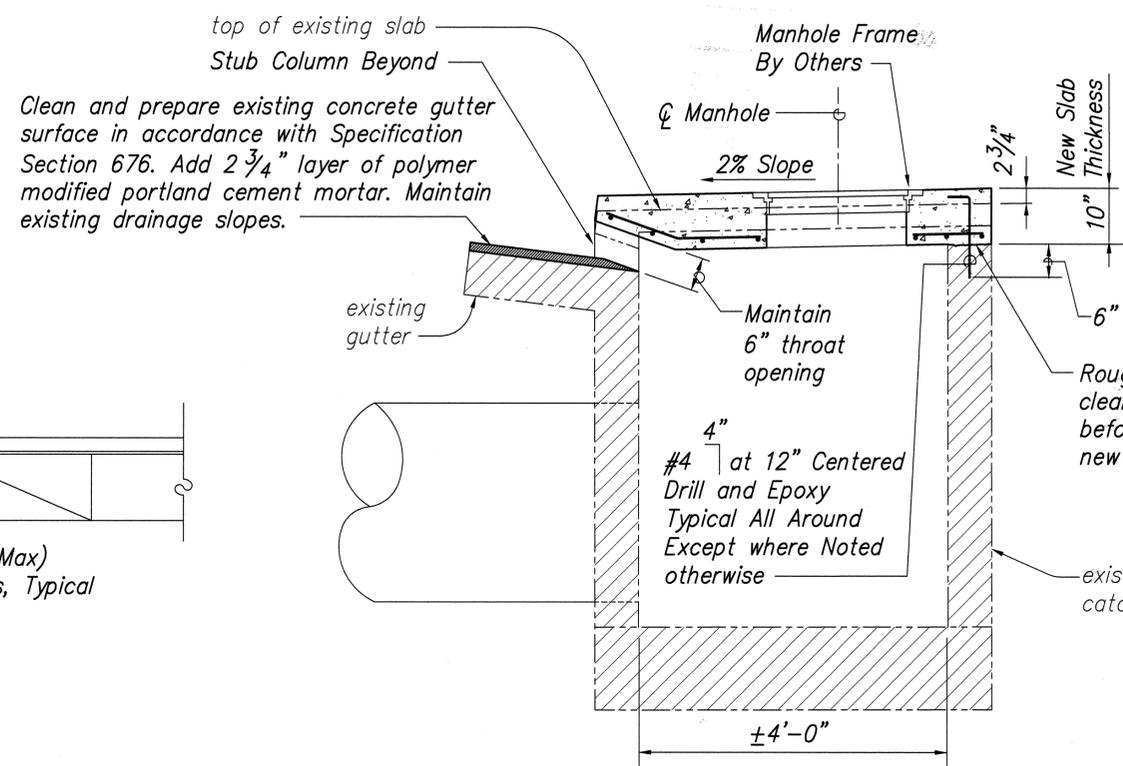
SCALE: AS NOTED DATE: 11/01/01
SHEET No. S40 OF 50 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	150	268



PLAN, TYPE "A" CATCH BASIN

(Sta. 2+41, Awa Street "A") See Dwg C-46
Scale: 3/8" = 1'-0"



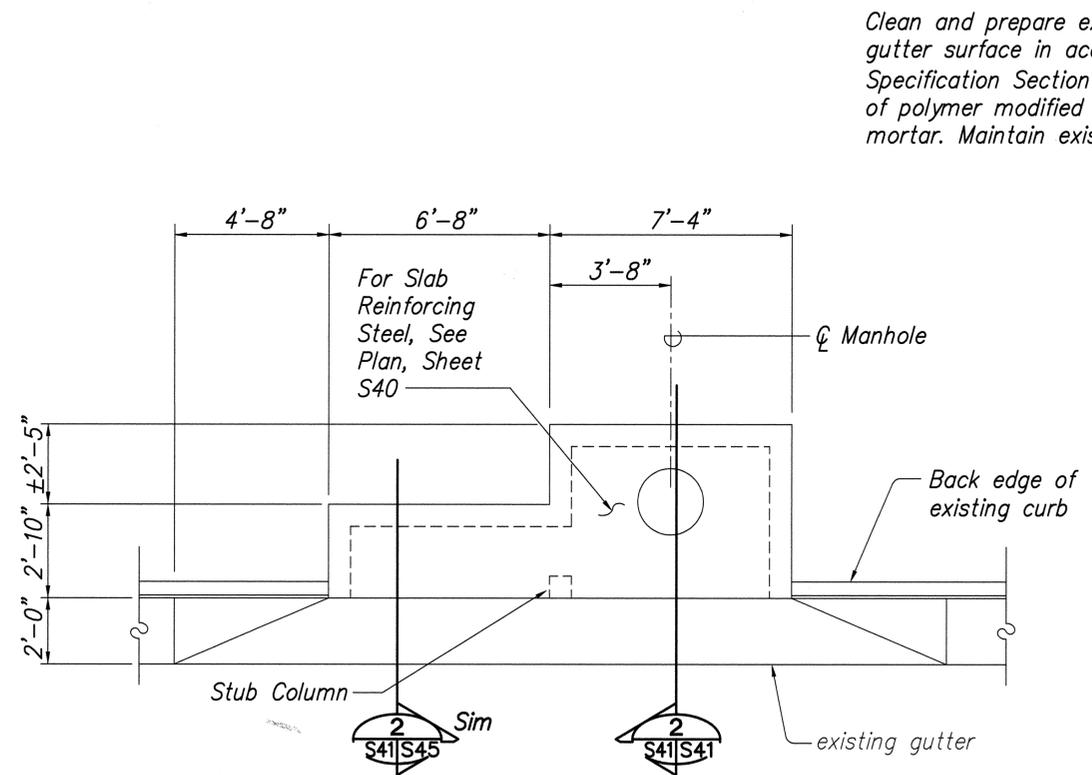
SECTION

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

1
S41/S41

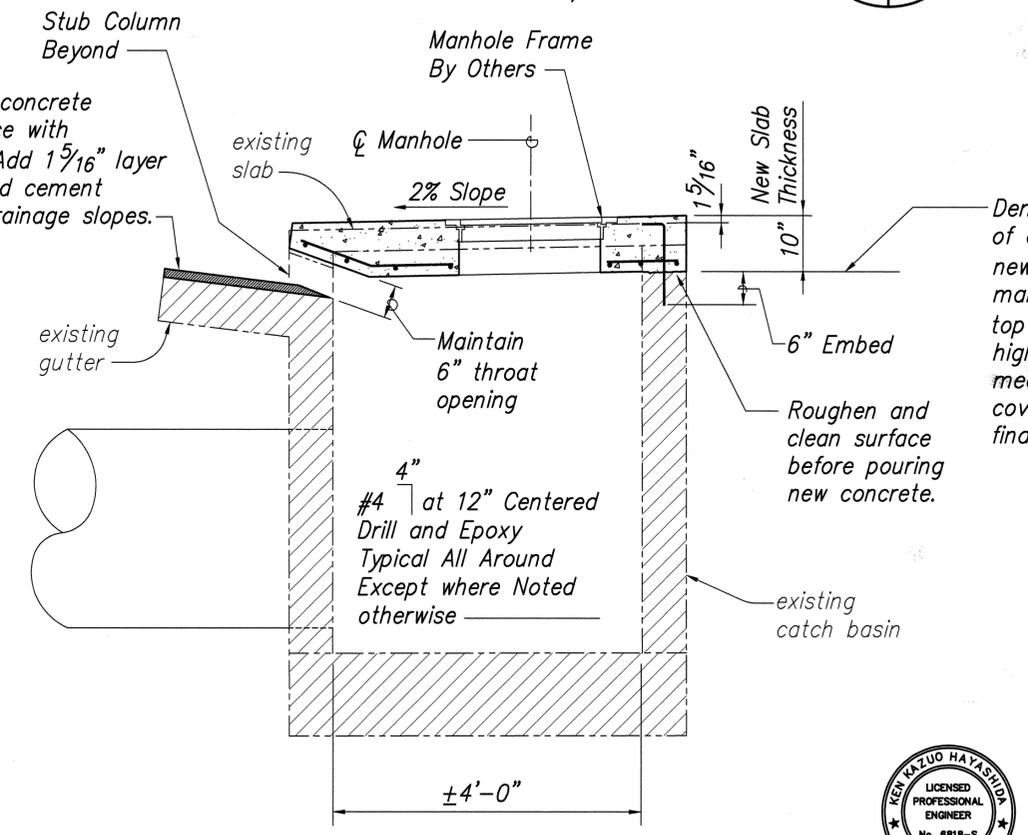
Demolish and remove top slab of existing catch basin. Add new slab and Type "B" cast iron manhole frame and cover, with top of slab elevation 2 3/4" higher than existing slab, measured at center of manhole cover. See Civil Drawings for final top of slab elevations.

Note:
Size of Opening to Fit Frame and Cover



PLAN, TYPE "B" CATCH BASIN

(Sta. 1+45, Sumner Street) See Dwg C-44
Scale: 3/8" = 1'-0"



SECTION

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

2
S41/S41

Demolish and remove top slab of existing catch basin. Add new slab and Type "B" cast iron manhole frame and cover, with top of slab elevation 1 5/16" higher than existing slab, measured at center of manhole cover. See Civil Drawings for final top of slab elevations.

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
NOTED BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
NO.	_____



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

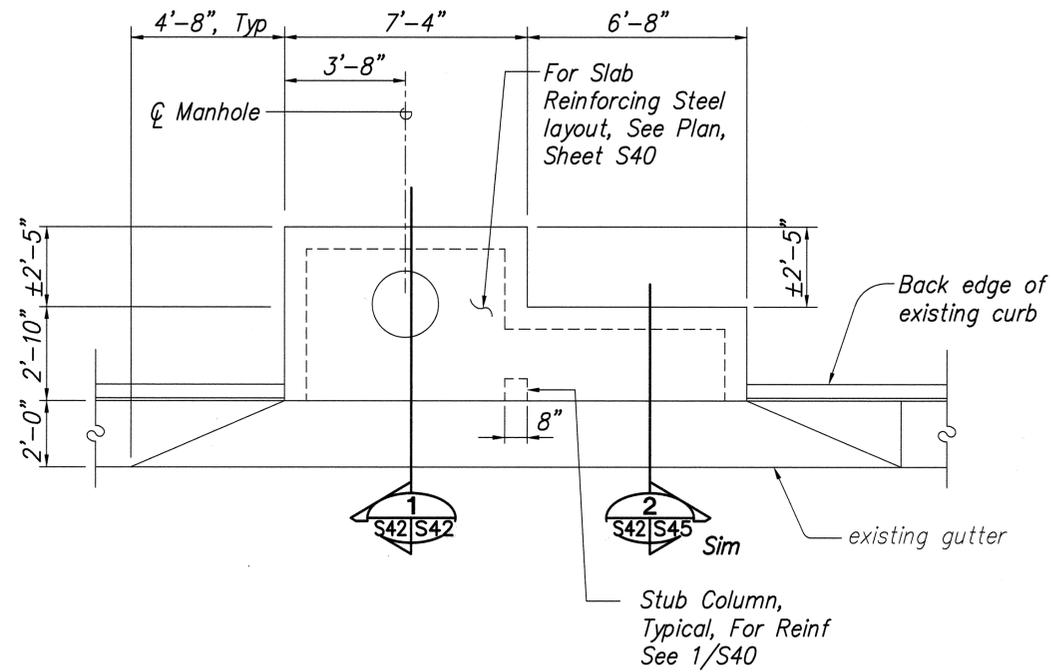
CATCH BASIN RETROFIT
VARIOUS LOCATIONS

NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01

SHEET No. S41 OF 50 SHEETS

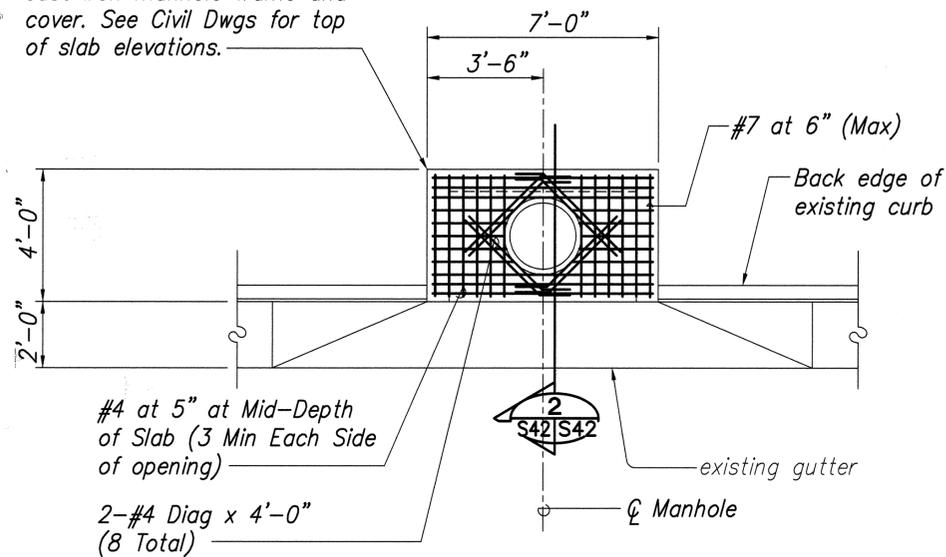
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	151	268



PLAN, TYPE "C" CATCH BASIN

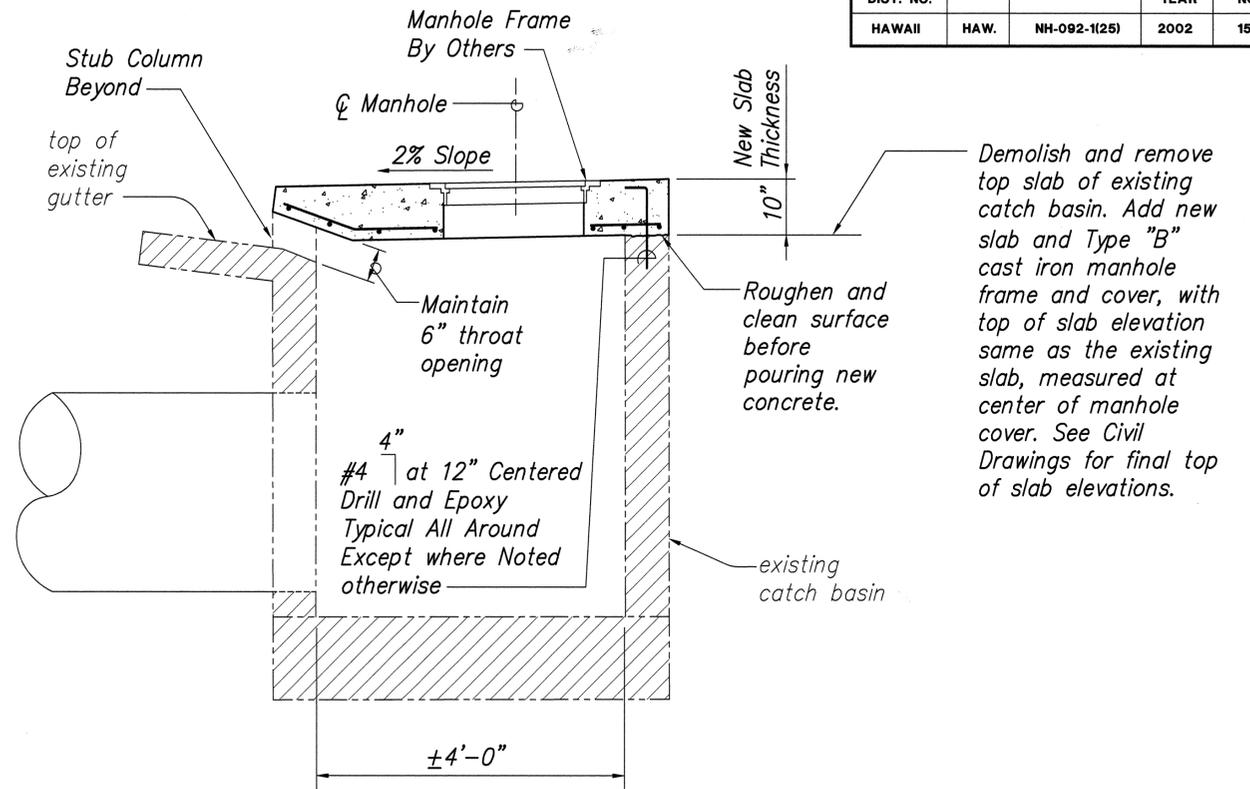
(Sta. 124+50, Nimitz Hwy, Kaya) See Dwg C-48
Scale: 3/8" = 1'-0"

Demolish and remove top slab of existing catch basin. Add new slab and Type "B" cast iron manhole frame and cover. See Civil Dwg for top of slab elevations.



PLAN, CATCH BASIN RETROFIT

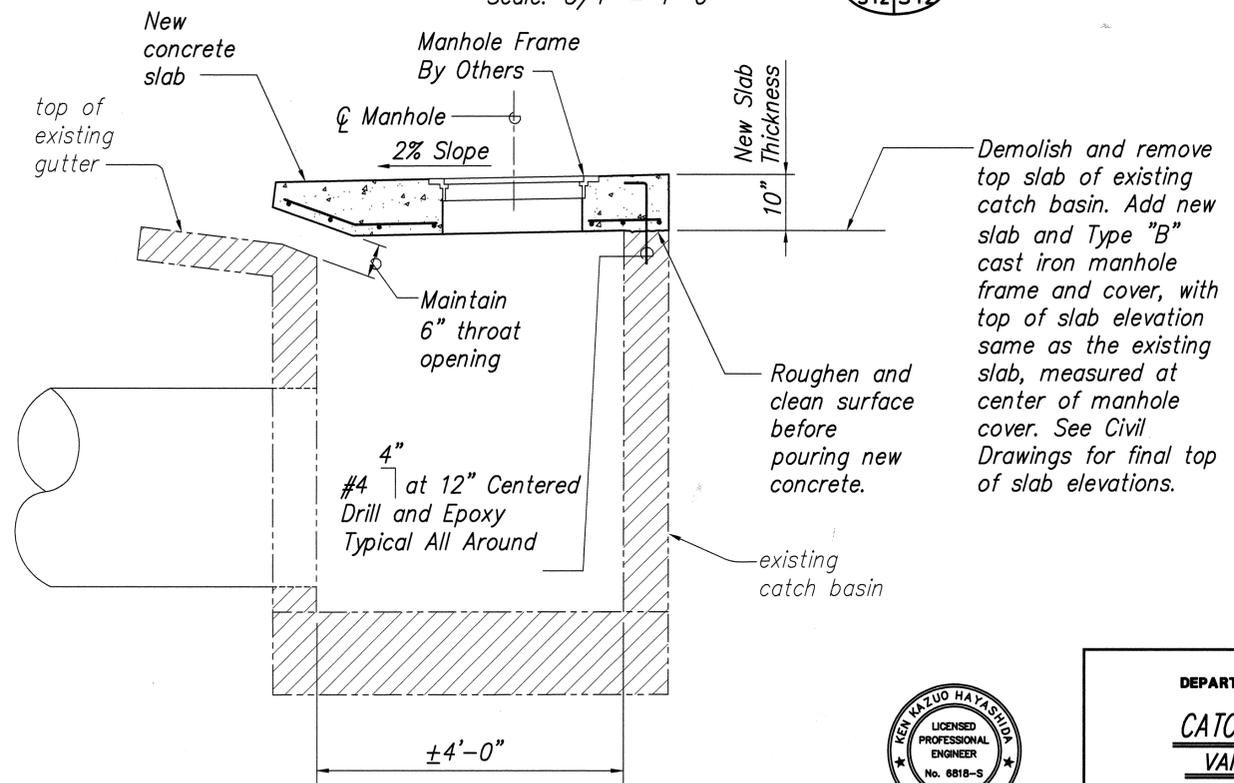
(Sta. 1+82, Iwilei Off-ramp) See Dwg C-46
Scale: 3/8" = 1'-0"



SECTION 1

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

S42/S42



SECTION 2

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

S42/S42



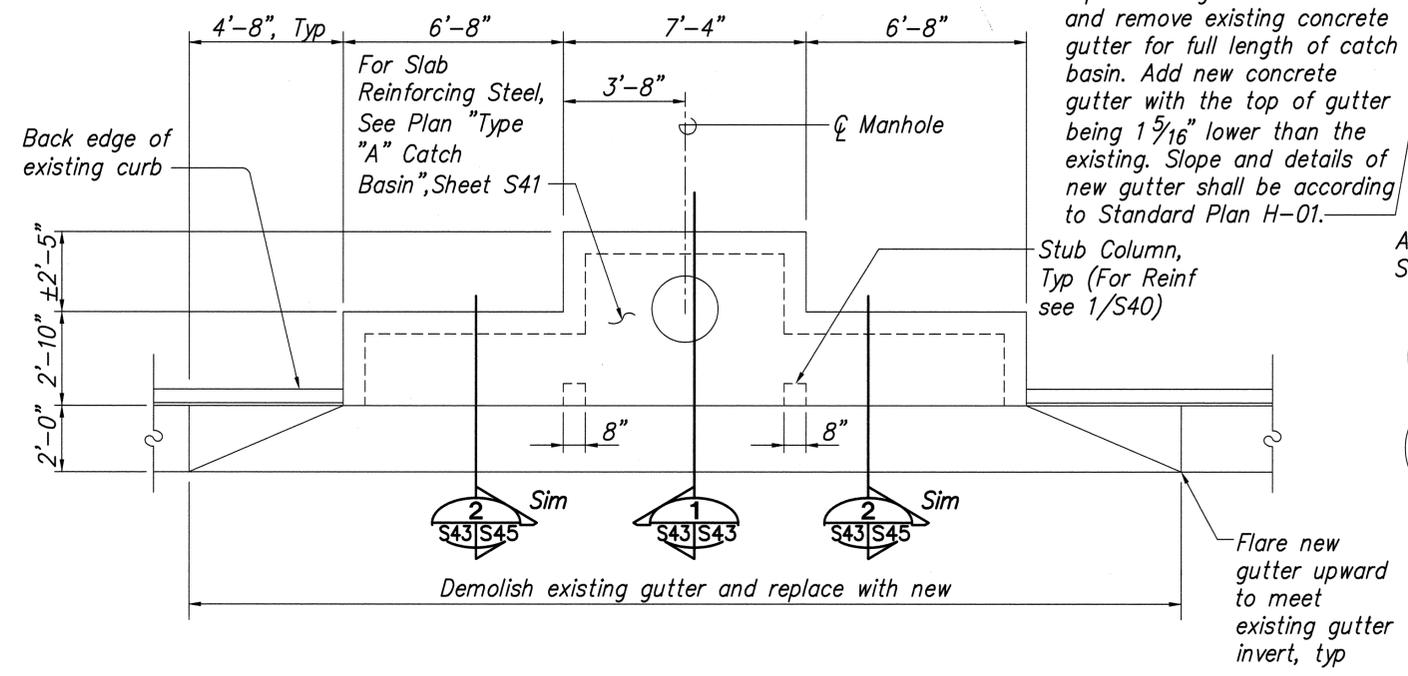
Ken Hayashida
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CATCH BASIN RETROFIT
VARIOUS LOCATIONS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

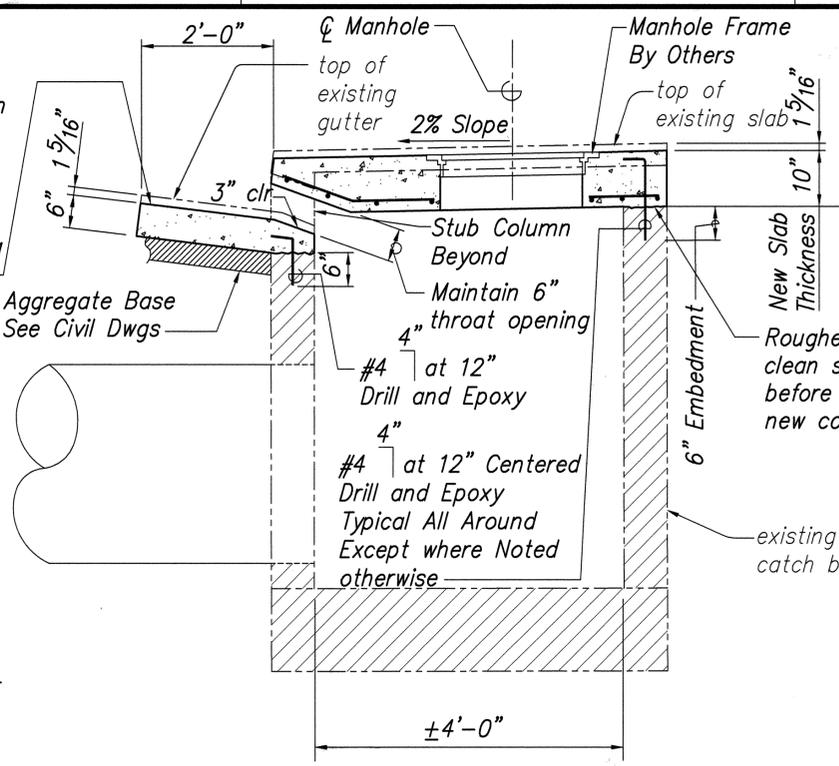
SCALE: AS NOTED DATE: 11/01/01

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

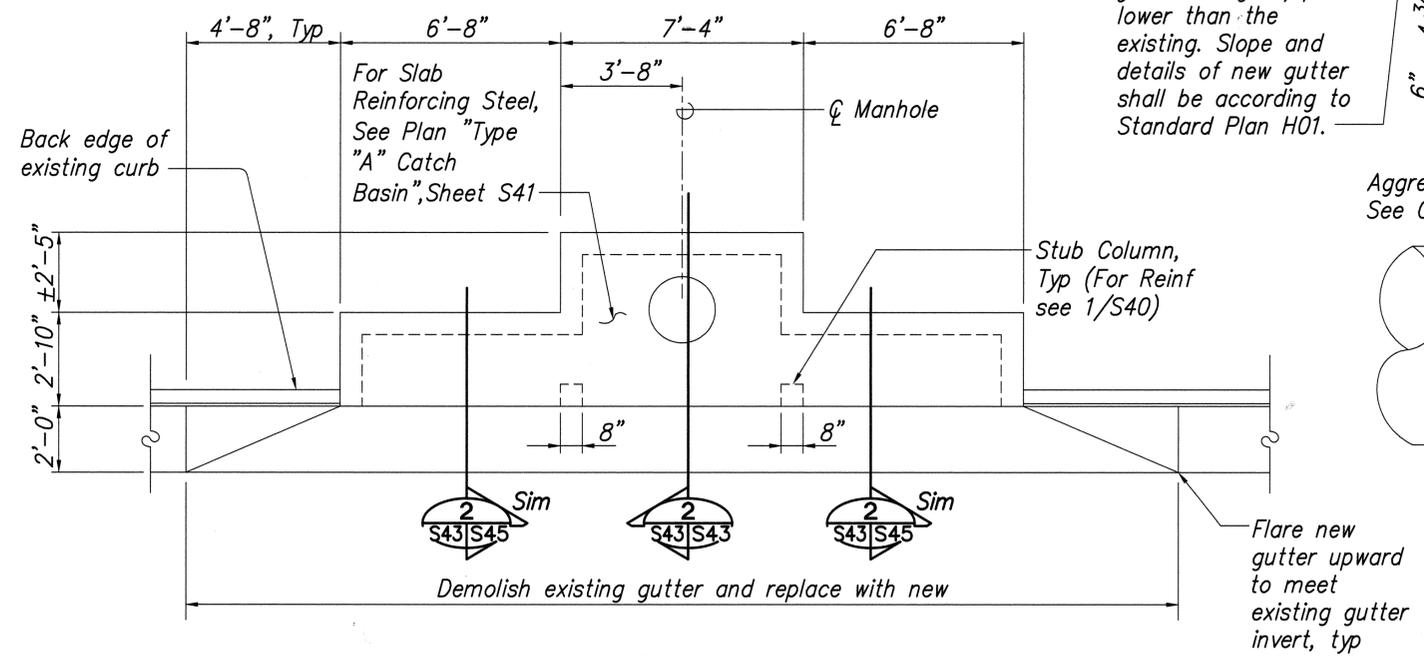
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	152	268



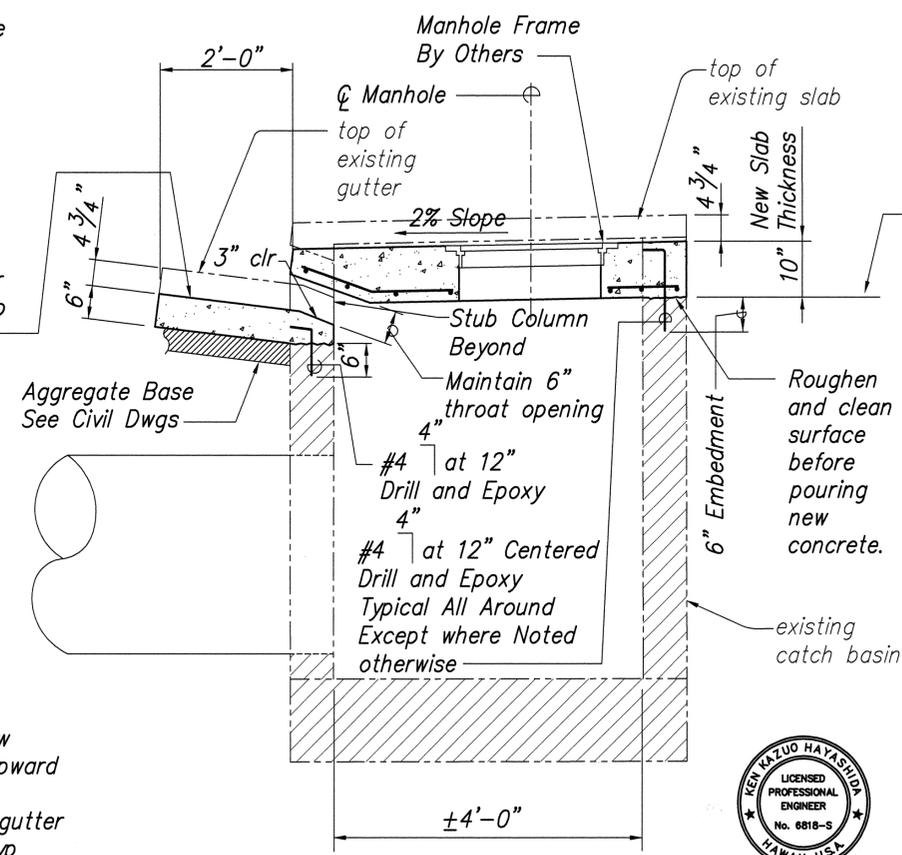
PLAN, TYPE "A" CATCH BASIN
 (Sta. 123+26, Nimitz Hwy, O.B.) See Dwg C-46
 Scale: 3/8" = 1'-0"



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



PLAN, TYPE "A" CATCH BASIN
 (Sta. 2+50, Awa Street "A") See Dwg C-46
 Scale: 3/8" = 1'-0"



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

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NO.	_____

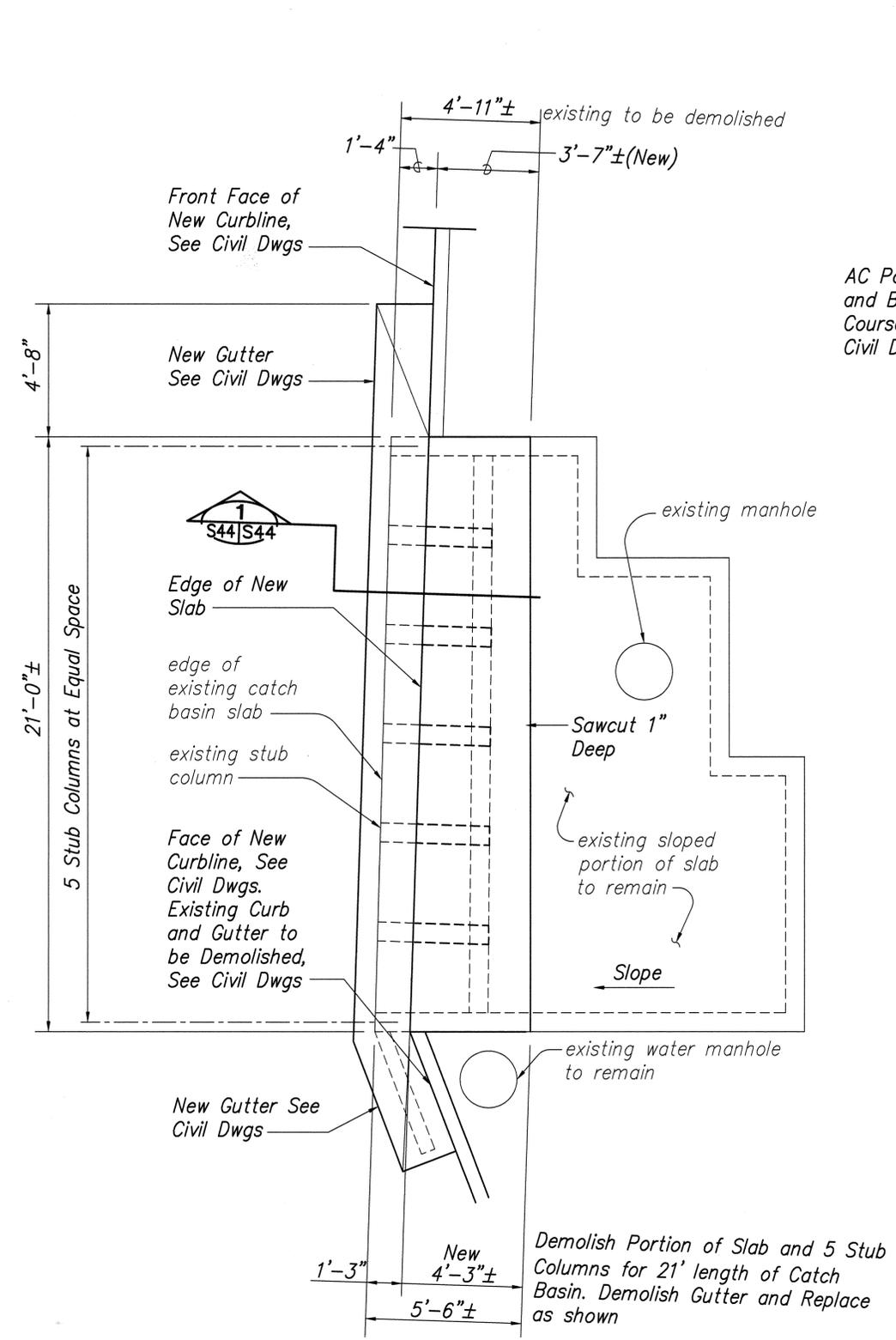


STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
CATCH BASIN RETROFIT
 VARIOUS LOCATIONS
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

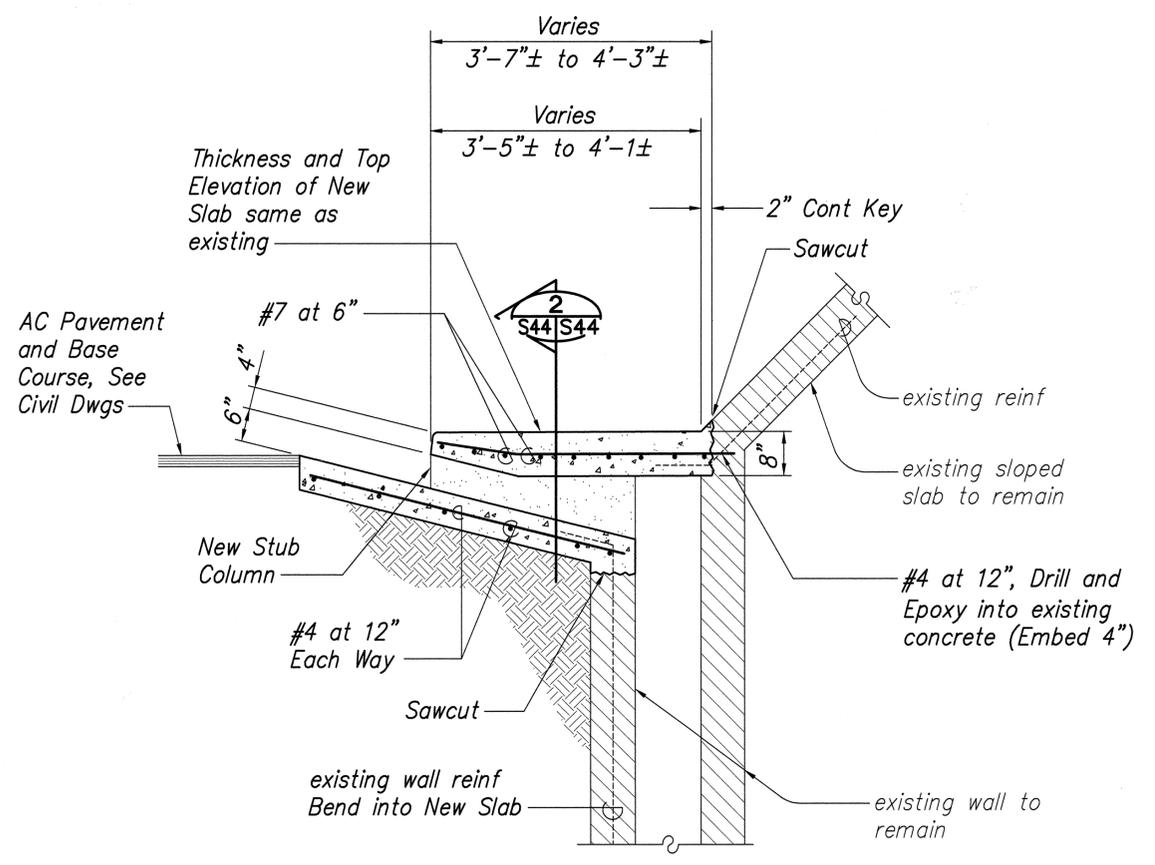
SCALE: AS NOTED DATE: 11/01/01

SHEET No. S43 OF 50 SHEETS

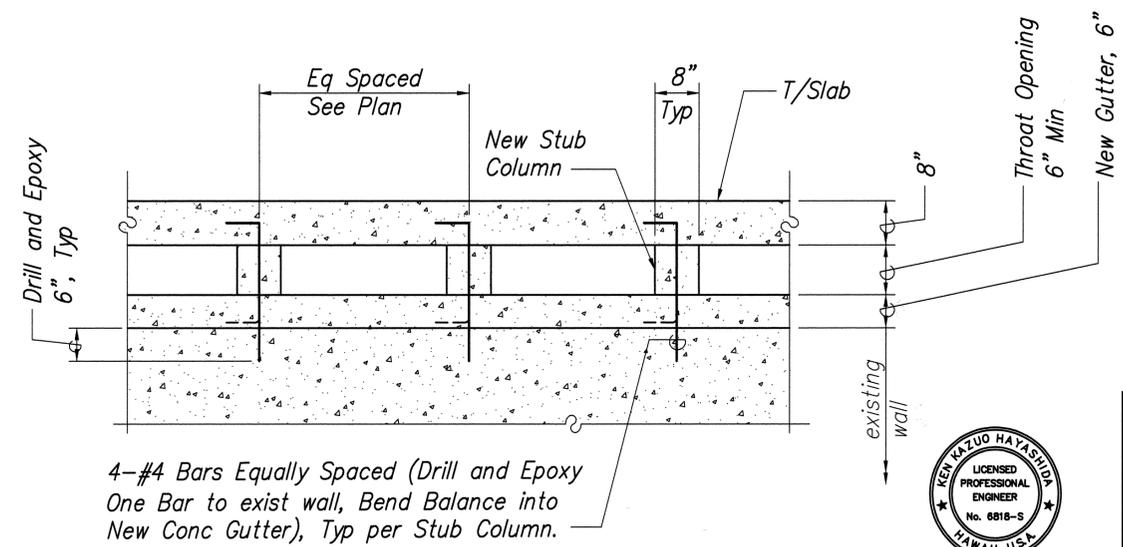
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	153	268



PLAN, CATCH BASIN RETROFIT
 (Sta. 134+51, Nimitz Hwy) See Dwg C-50
 Scale: 3/8" = 1'-0"



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



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

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

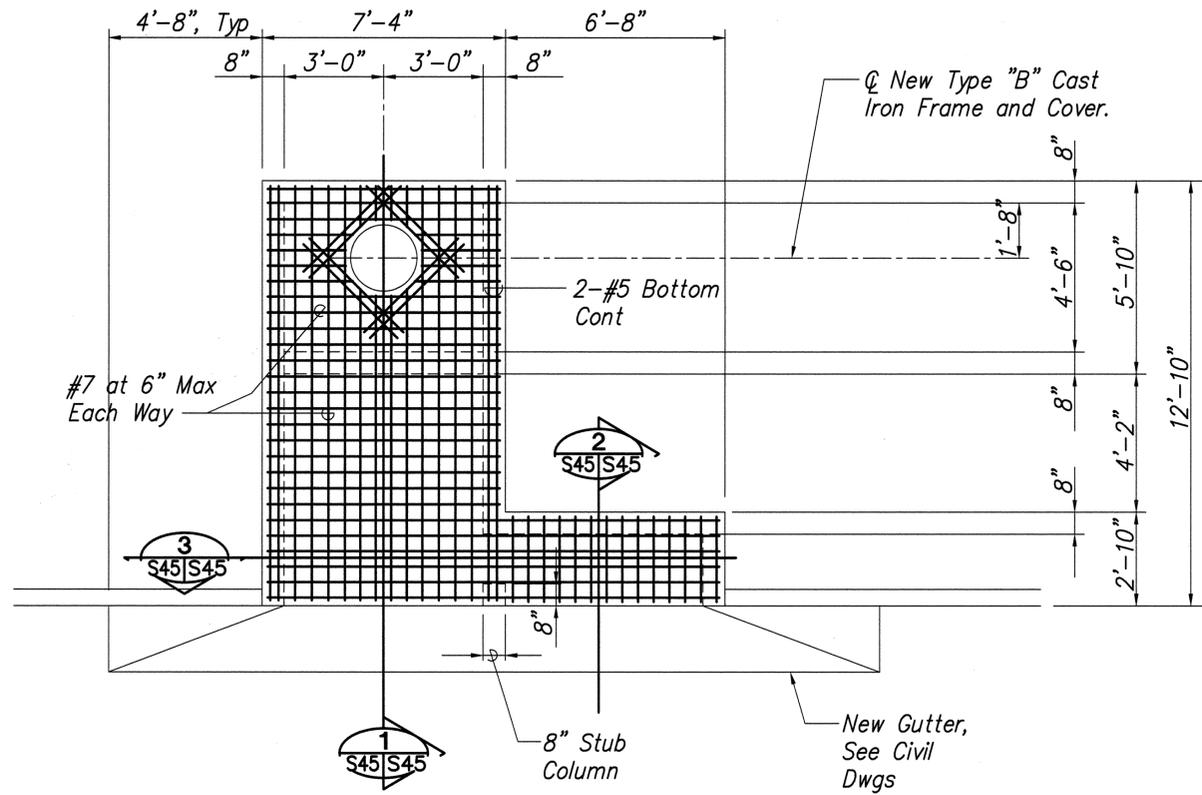


STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
CATCH BASIN RETROFIT
 VARIOUS LOCATIONS
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

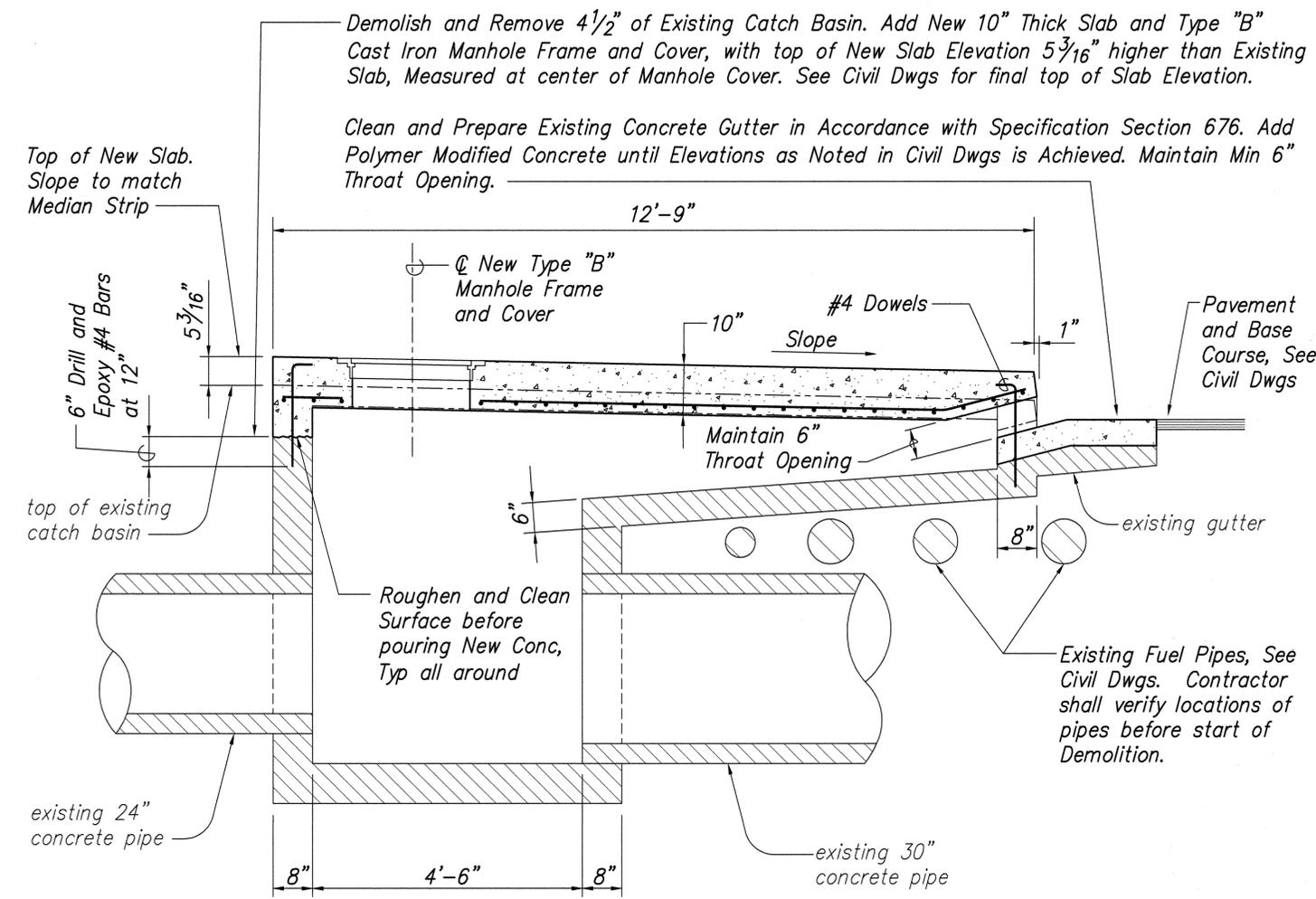
SCALE: AS NOTED DATE: 11/01/01

SHEET No. S44 OF 50 SHEETS

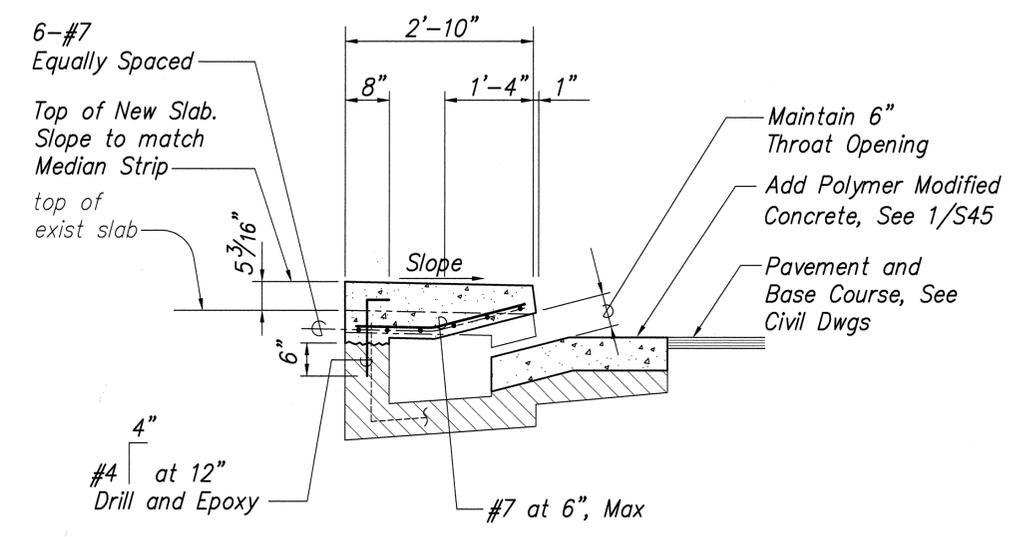
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	154	288



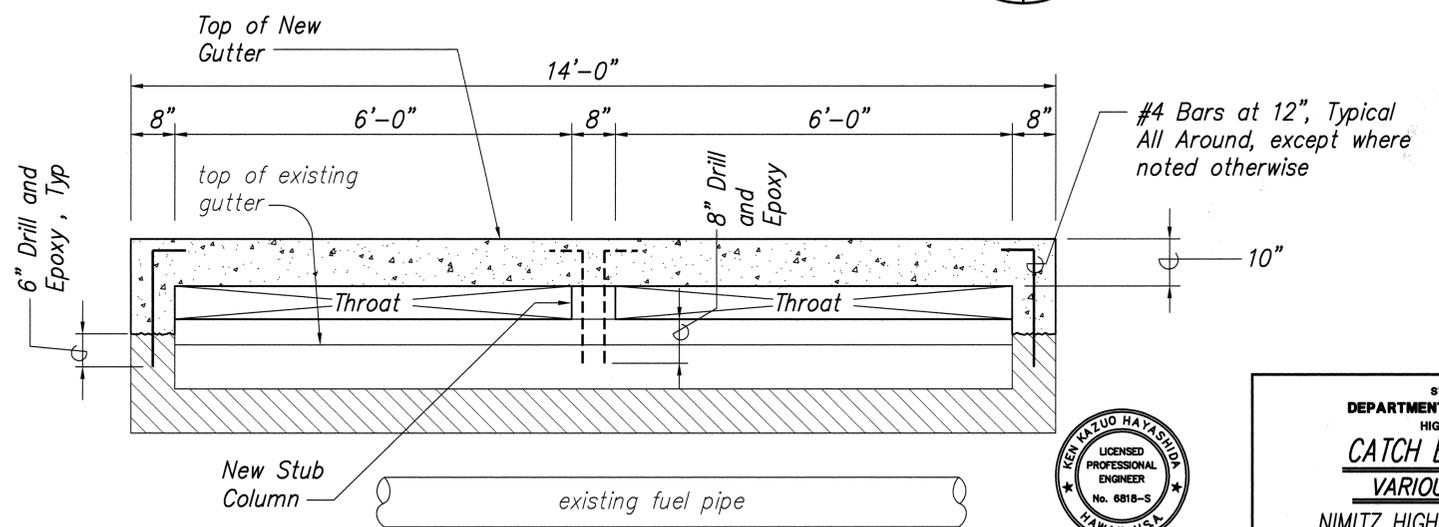
PLAN, CATCH BASIN RETROFIT
(Sta. 124+50, Nimitz Hwy) See Dwg C-48
Scale: 3/8" = 1'-0"



SECTION 1
Scale: 3/4" = 1'-0" S45/S45



SECTION 2
Scale: 3/4" = 1'-0" S40, S41, S42, S43, S44, S45/S45



SECTION 3
Scale: 3/4" = 1'-0" S45/S45

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

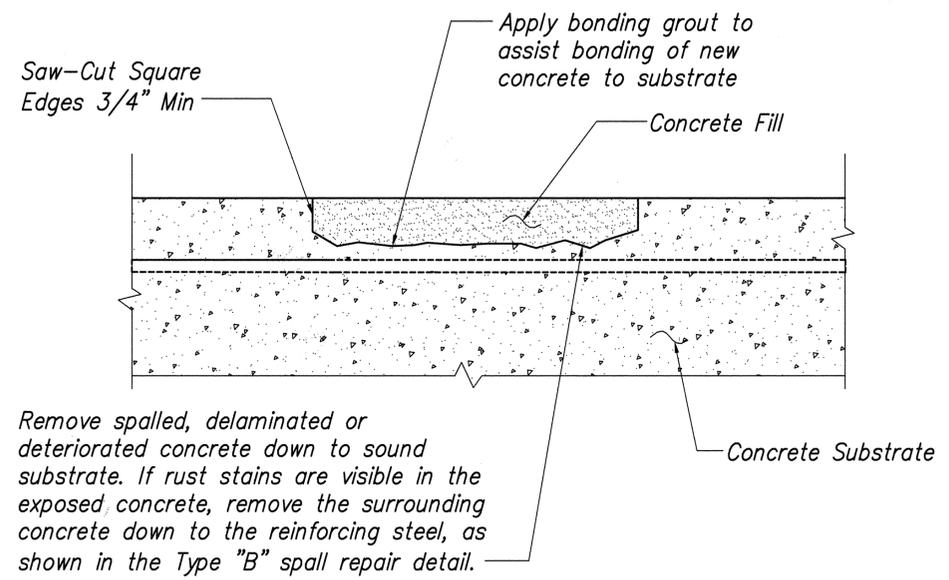
YEN KAZUO HAYASHIDA
LICENSED PROFESSIONAL ENGINEER
No. 6818-S
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CATCH BASIN RETROFIT
VARIOUS LOCATIONS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)
SCALE: AS NOTED DATE: 11/01/01
SHEET No. S45 OF 50 SHEETS

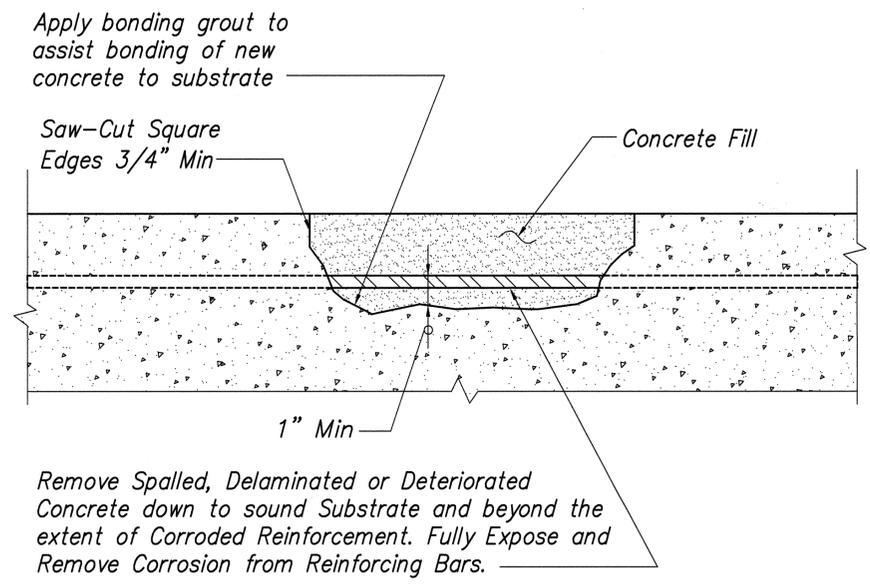
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	155	268

Note:

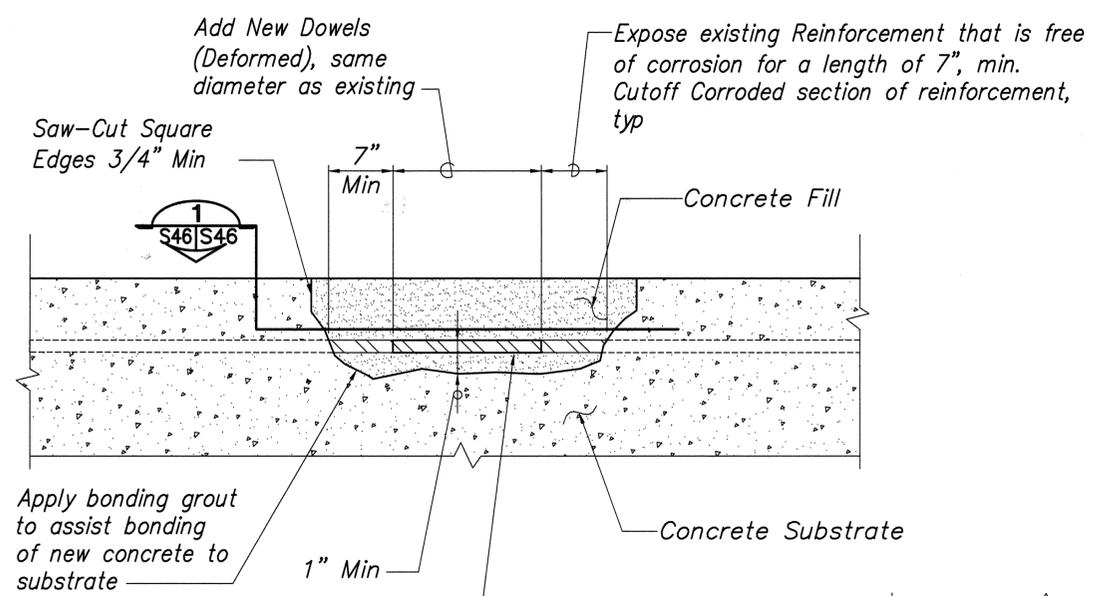
1. The Newly Exposed Concrete Substrate Surface within the Spall shall be Inspected and Approved by the Engineer Prior to Applying the Epoxy Bonding Agent and Concrete Fill.
2. The Reinforcing Steel shall be Inspected and Approved by the Engineer Prior to Pouring the Concrete.
3. All concrete used for spall repair fill shall have a compressive strength of 3,000 psi, min.
4. Roughen and clean spalled substrate prior to applying bonding grout. Remove all Dust, Oil and all other Substances that can act as a bond breaker.
5. The bonding grout material and application shall be according to Specification Section 676.
6. Reinforcing Steel to be welded shall be ASTM A-706. If ASTM A615 reinforcing steel is welded a report of material properties and welding procedures shall be submitted to the Engineer at least two weeks prior to performing the work. The report shall conform to welding procedures specified in "Structural Welding Code-Reinforcing Steel" (ASW D1.4) of the American Welding Society.



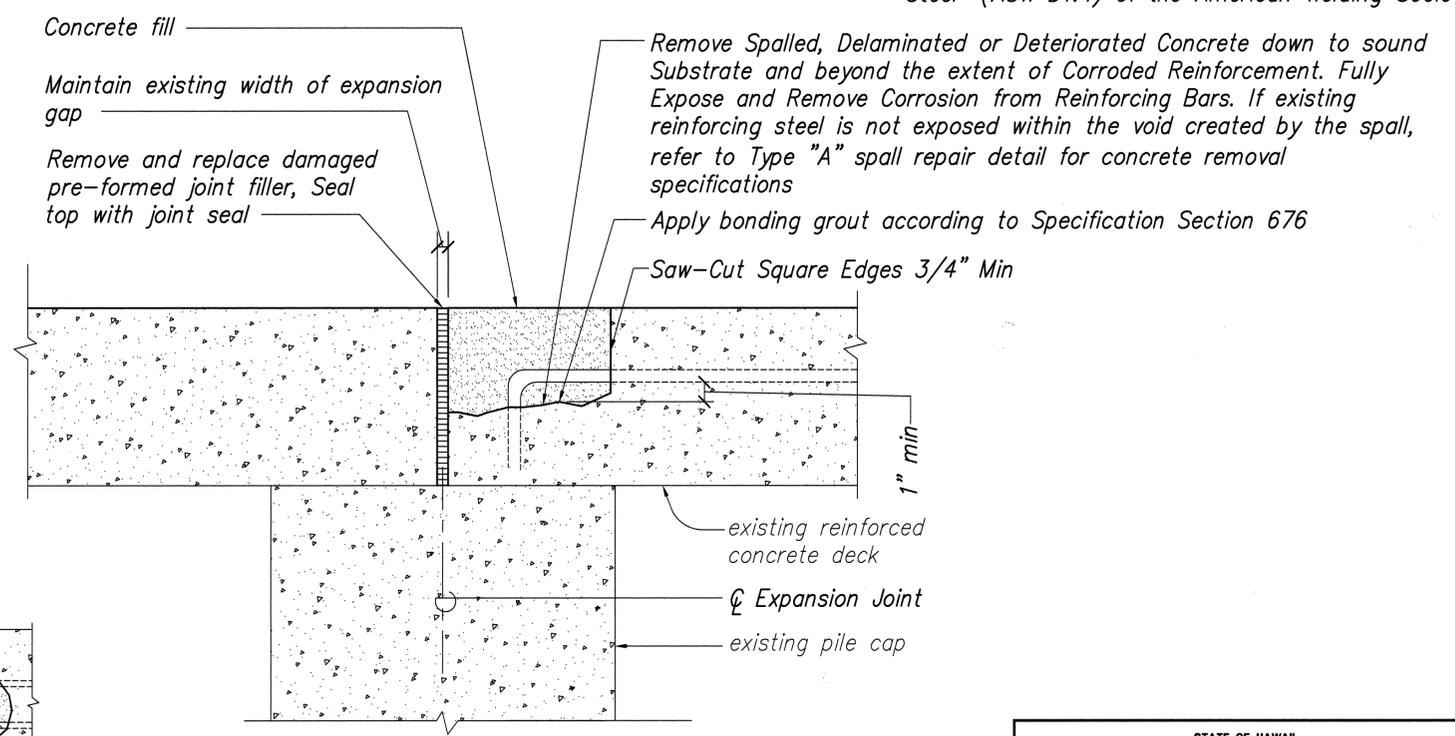
TYPE "A"
Not to Scale



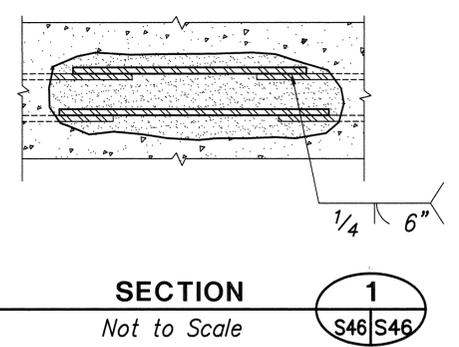
TYPE "B"
Not to Scale



TYPE "C"
Not to Scale



TYPE "D"
Not to Scale



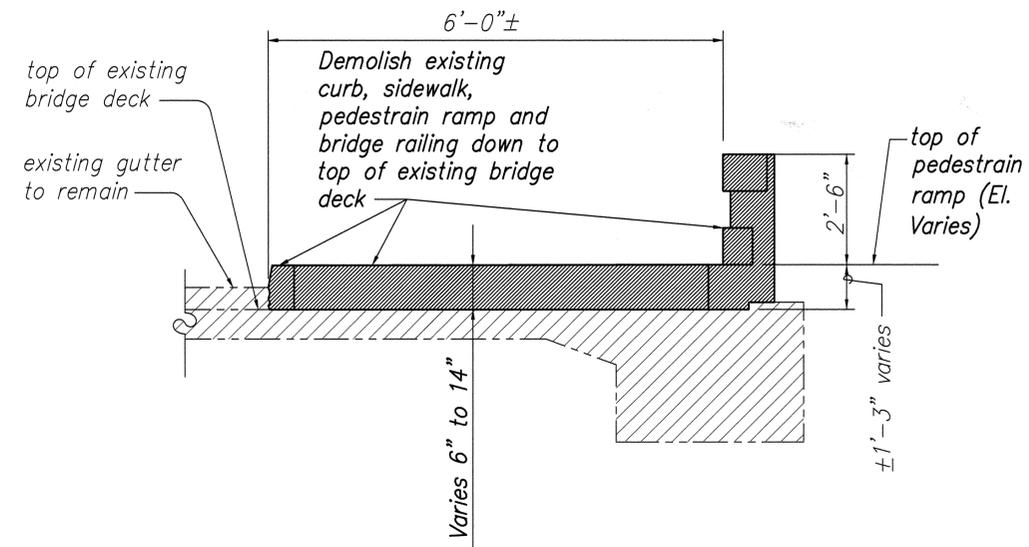
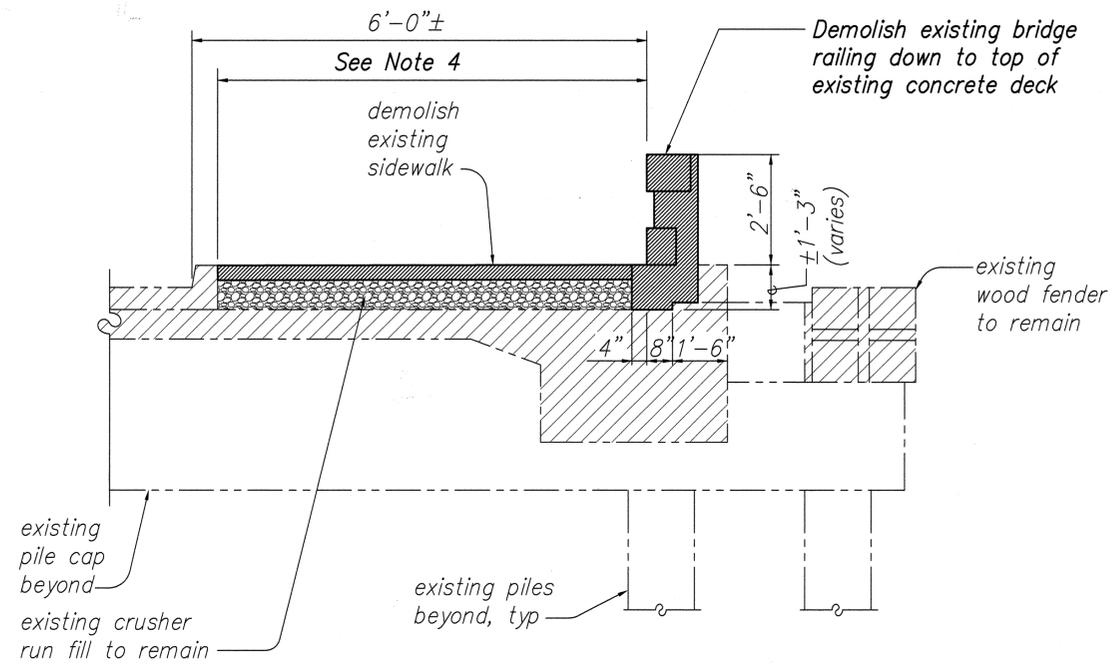
SECTION 1
Not to Scale

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD SPALL REPAIR DETAILS
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)
SCALE: AS NOTED DATE: 11/01/01
SHEET No. S46 OF 50 SHEETS

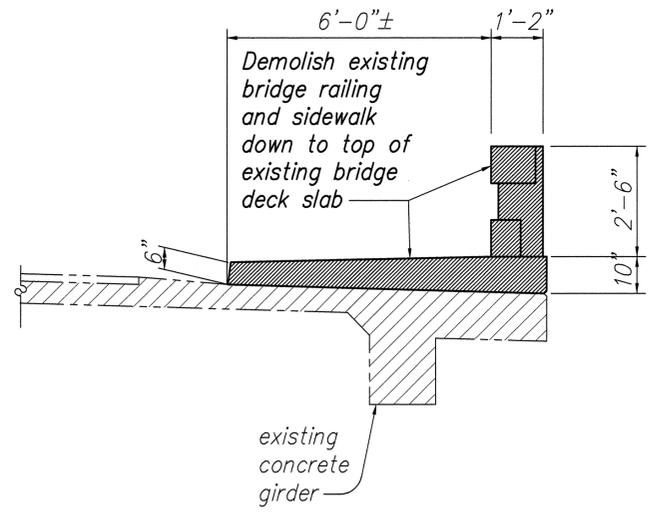
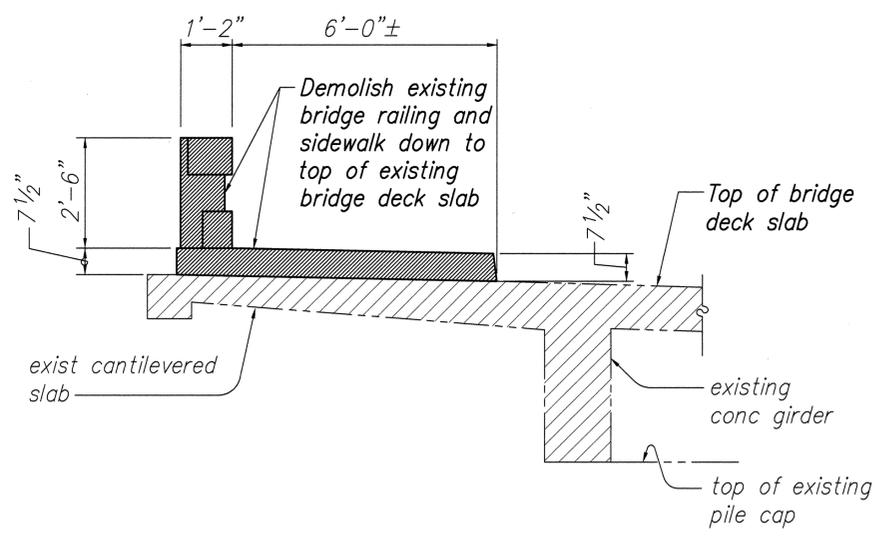
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	156	268



- Notes:**
1. All demolition includes reinforcing steel and electrical conduits unless noted otherwise.
 2. Refer to Project No. FU-44(3), Sept. 1950 drawings for details of existing reinforcing steel and interface details. These drawings are available at the DOT, Kapolei Office (692-7585).
 3. Contractor shall provide temporary supports and shoring as necessary prior to demolition of structure load bearing elements. The temporary supports shall be capable of supporting all equipment, materials and other loads applied to the adjacent structure during construction.
 4. Do not demolish sidewalk at catch basin, Span 5 (approximate length = 6'-6"). Only the existing bridge railing is to be demolished in this area.
 5. Refer to Demolition Note 7, Sheet S1.

HONOLULU HARBOR SLIP COVER
 Sta. 113+50 to 114+75
 Scale: 1/2" = 1'-0"

HONOLULU HARBOR SLIP COVER PEDESTRIAN RAMPS
 (3 Locations)
 Scale: 1/2" = 1'-0"



- Legend:**
- ▨ Indicates demolition pay limits
 - ▤ Indicates excavation pay limits

NUUANU STREAM BRIDGE, MAUKA SIDE OF BRIDGE
 Sta. 119+00 to 121+10
 Scale: 1/2" = 1'-0"

NUUANU STREAM BRIDGE, MAKAI SIDE OF BRIDGE
 Sta. 119+08 to 121+48
 Scale: 1/2" = 1'-0"

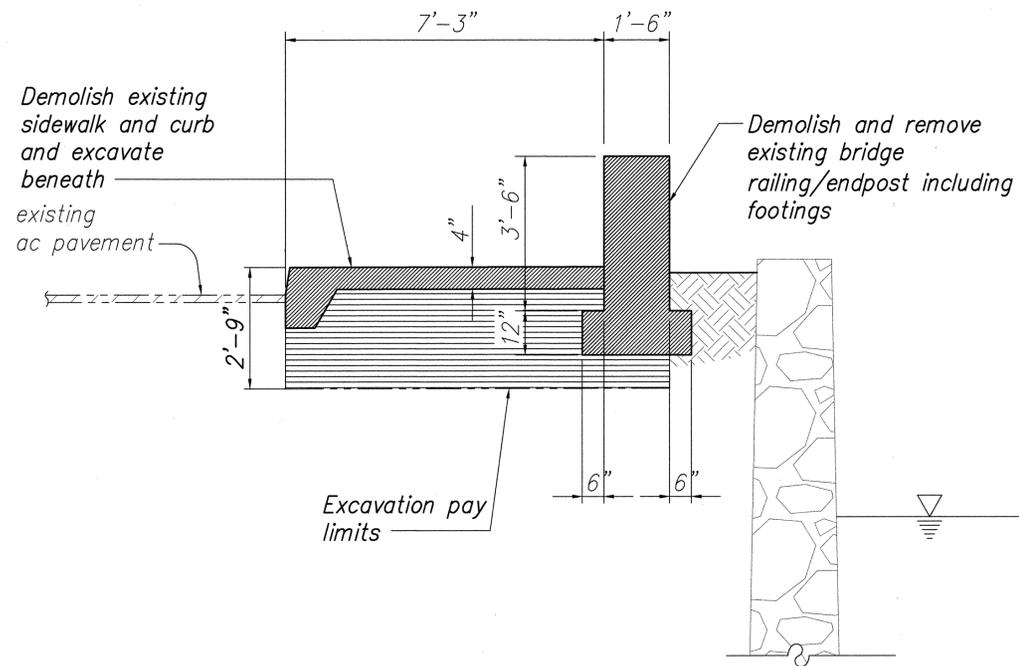
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	



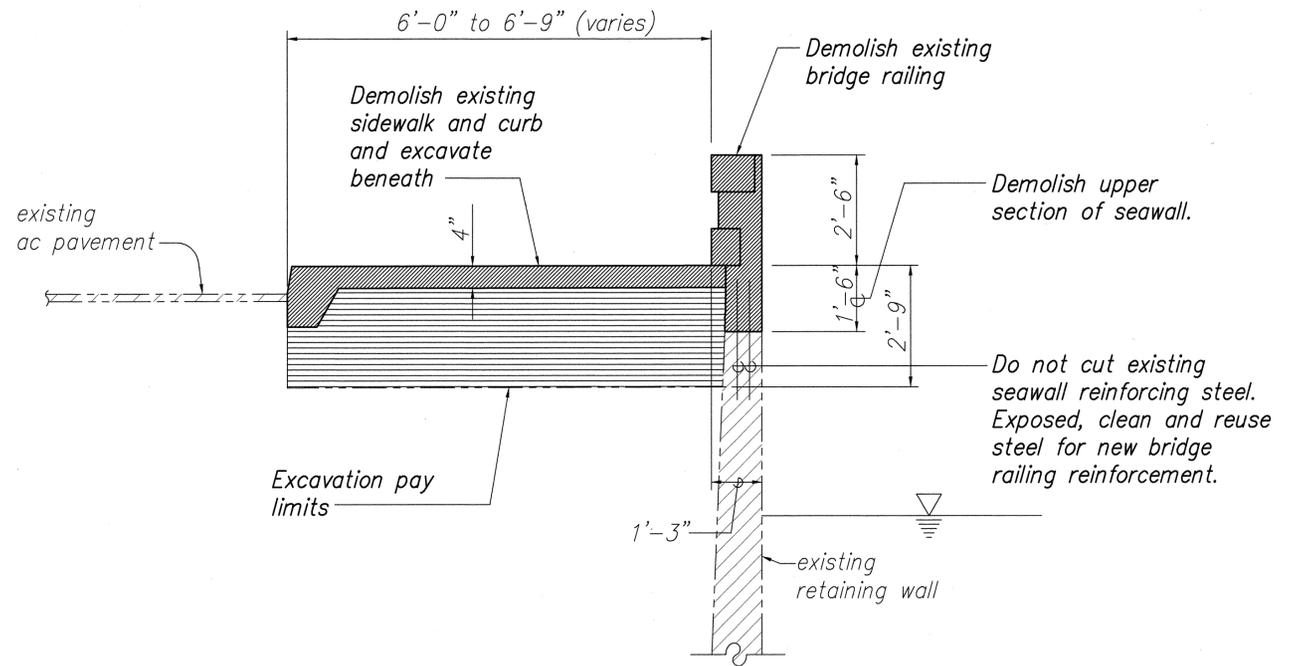
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STRUCTURAL
DEMO PLAN-1
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
 SHEET No. S47 OF 50 SHEETS

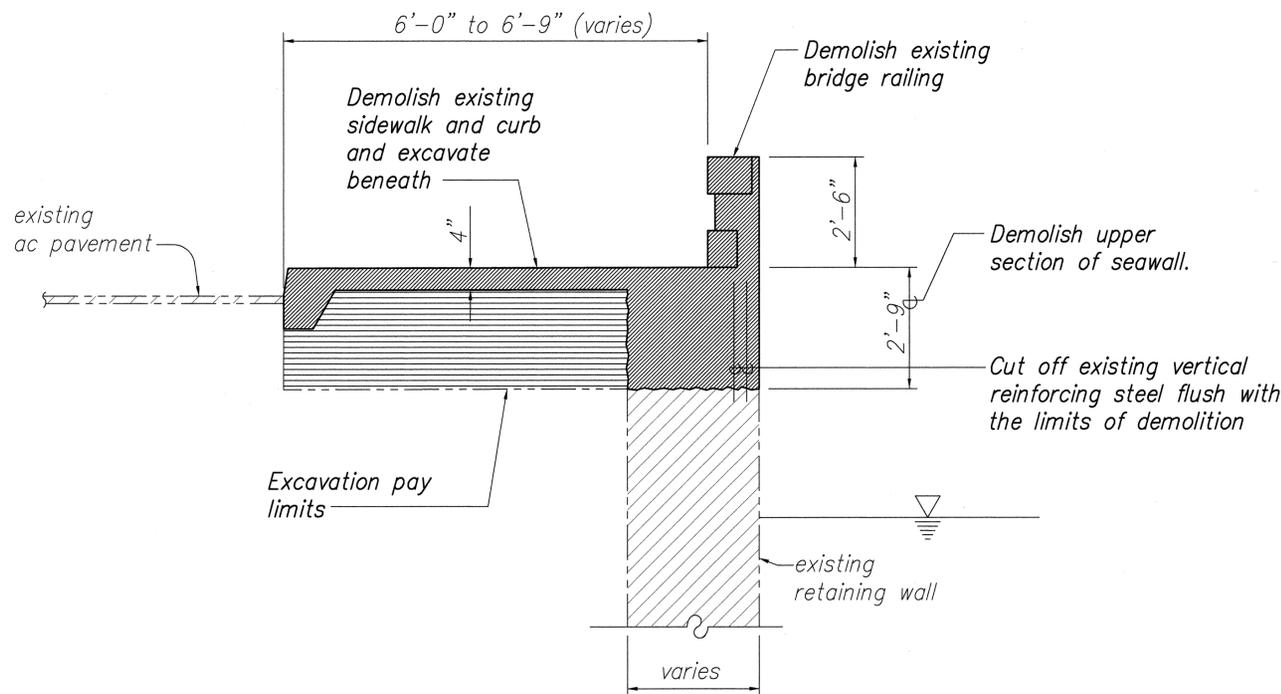
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	157	268



HONOLULU HARBOR RETAINING WALL
 Sta. 115+35 to 115+55
 Scale: 1/2" = 1'-0"



HONOLULU HARBOR RETAINING WALL
 Sta. 115+84 to 119+08
 Scale: 1/2" = 1'-0"



HONOLULU HARBOR RETAINING WALL
 Sta. 115+55 to 115+84 (Verify)
 Scale: 1/2" = 1'-0"

Notes:

1. All demolition includes reinforcing steel and electrical conduits unless noted otherwise.
2. Refer to Project No. FU-44(3), Sept. 1950 drawings for details of existing reinforcing steel and interface details. These drawings are available at the DOT, Kapolei Office (692-7585).
3. Contractor shall provide temporary supports and shoring as necessary prior to demolition of structure load bearing elements. The temporary supports shall be capable of supporting all equipment, materials and other loads applied to the adjacent structure during construction.
4. Refer to Demolition Note 7, Sheet S1.

Legend:

- Indicates demolition pay limits
- Indicates excavation pay limits

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



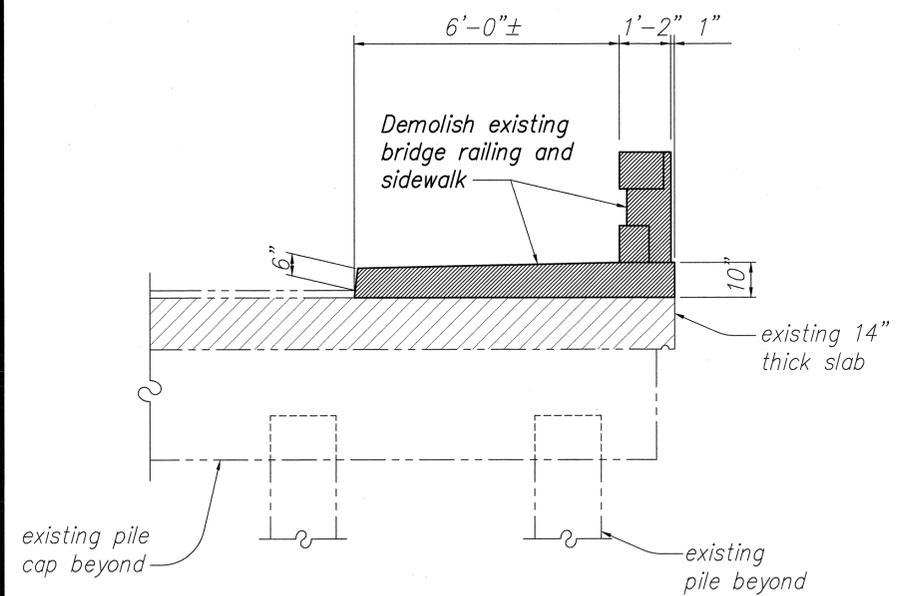
Ken Hatayama
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STRUCTURAL
DEMO PLAN-2
 NIMITZ HIGHWAY REHABILITATION
 SUMNER STREET TO QUEEN STREET
 F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
 SHEET No. S48 OF 50 SHEETS

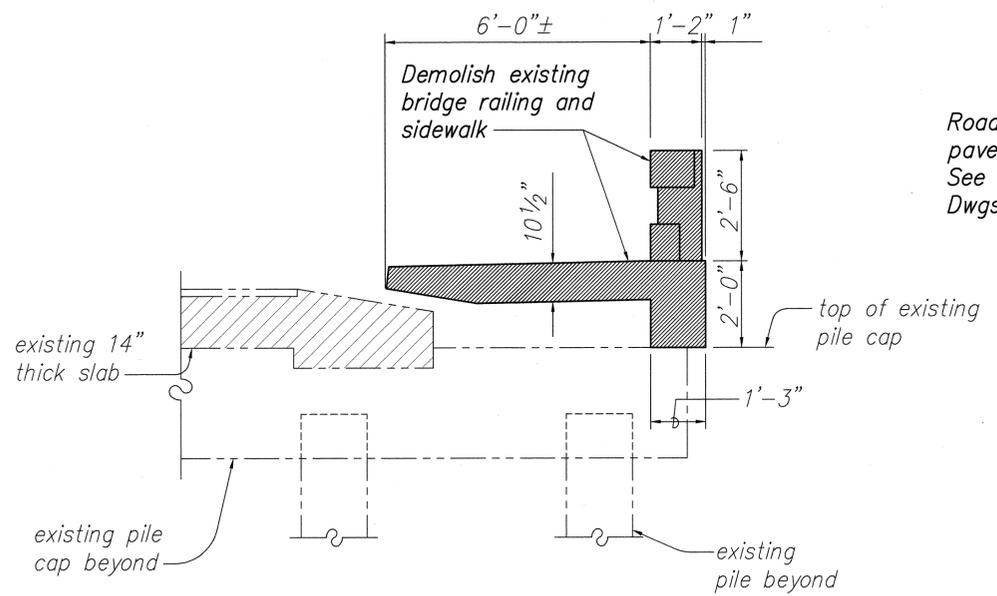
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	158	268

Note: See notes on previous drawing.



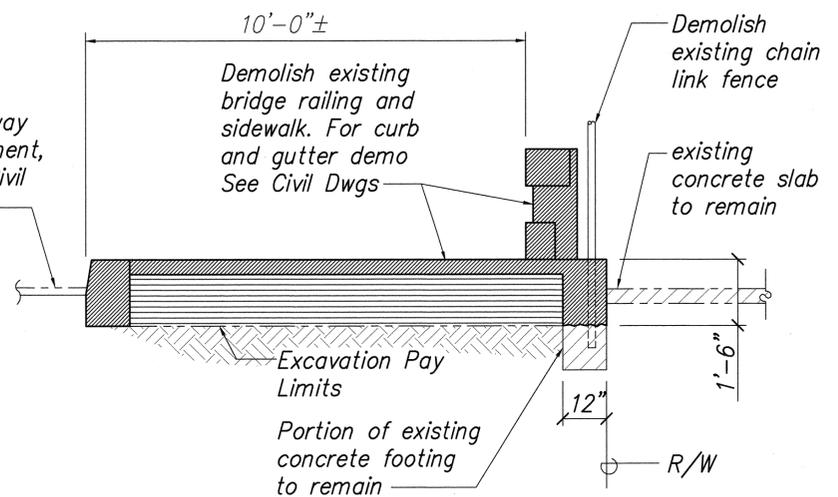
SLIP COVER NO. 1

Sta. 121+48 to 121+88 and Sta. 122+08 to 124+28
Scale: 1/2" = 1'-0"



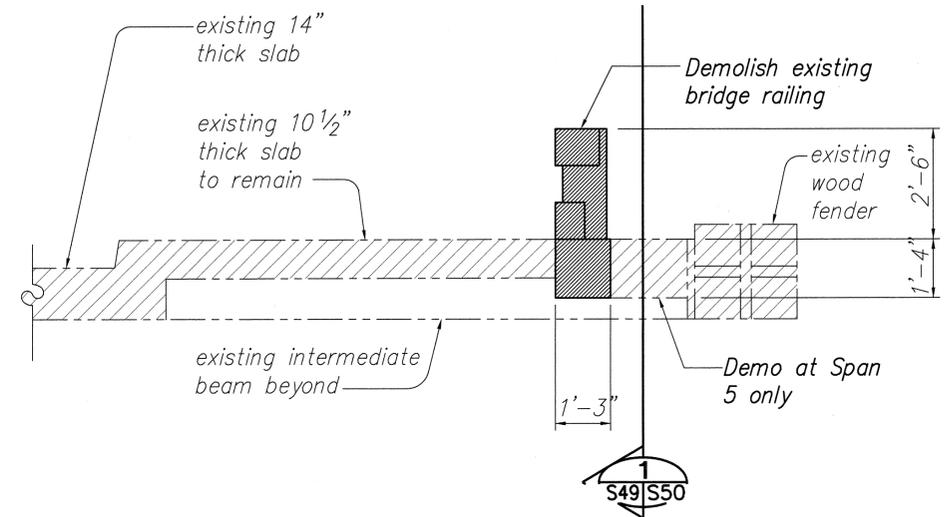
SLIP COVER NO. 1, SECTION THRU DRAINAGE OPENING

Sta. 121+88 to 122+08
Scale: 1/2" = 1'-0"



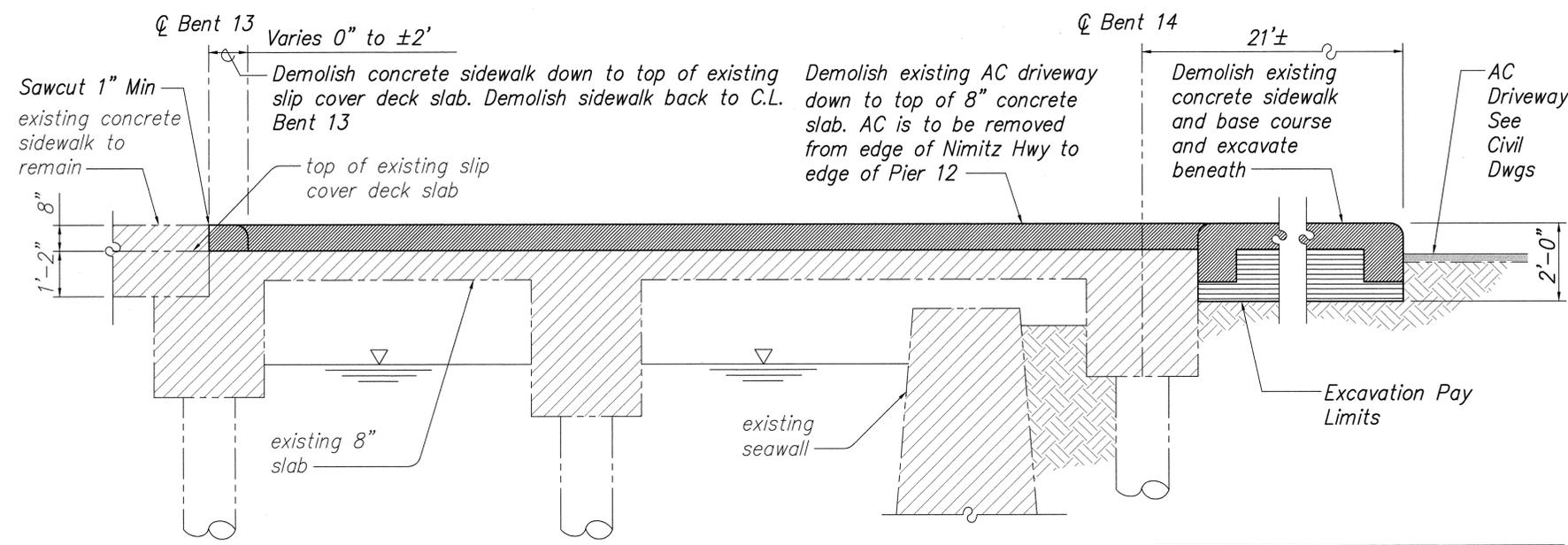
SLIP COVER NO. 1

Sta. 124+28 to 124+75
Scale: 1/2" = 1'-0"



SLIP COVER NOS. 2, 3, AND 4

Sta. 127+53 to 129+48 and
Sta. 130+85 to 133+40 and
Sta. 135+40 to 136+14
Scale: 1/2" = 1'-0"



SLIP COVER NO. 3, DIAMOND HEAD END AT PIER 12

Sta. 133+40
Scale: 1/2" = 1'-0"

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

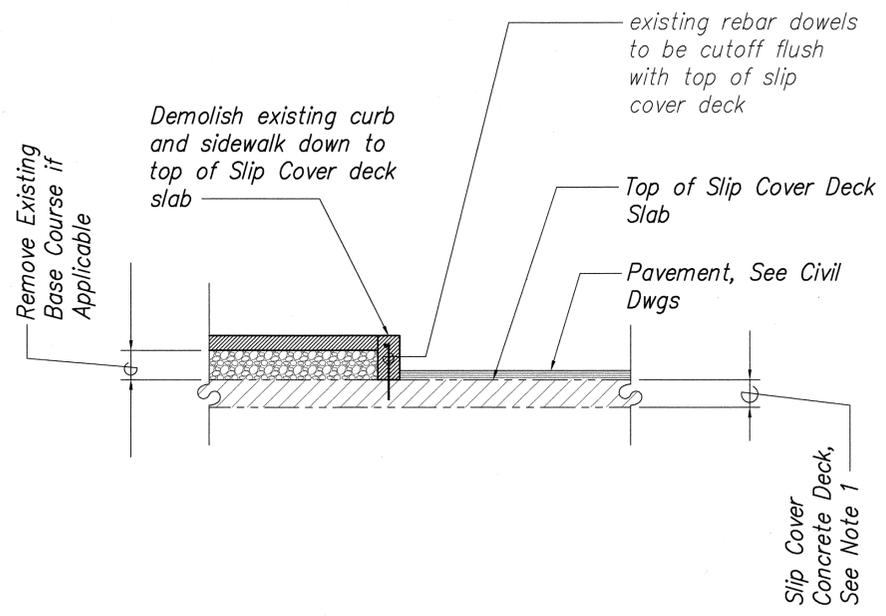


THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

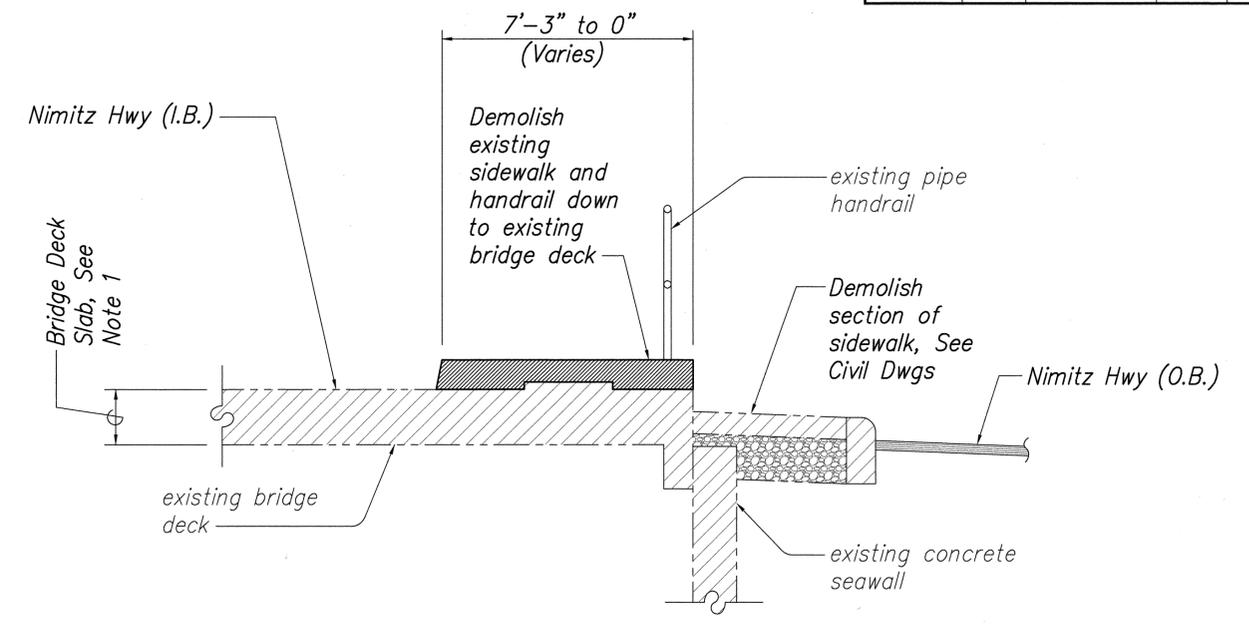
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STRUCTURAL
DEMO PLAN-3
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)

SCALE: AS NOTED DATE: 11/01/01
SHEET No. S49 OF 50 SHEETS

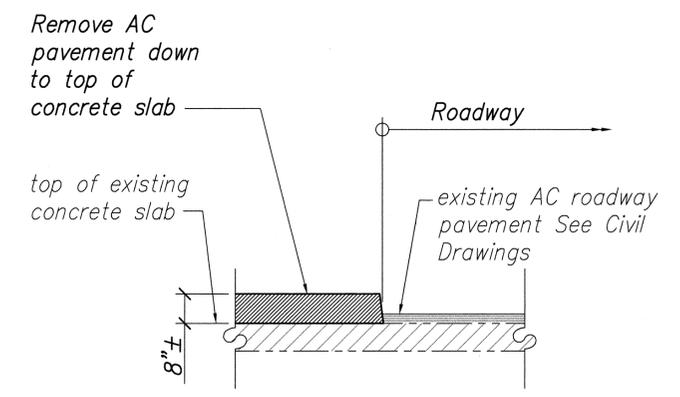
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-092-1(25)	2002	159	268



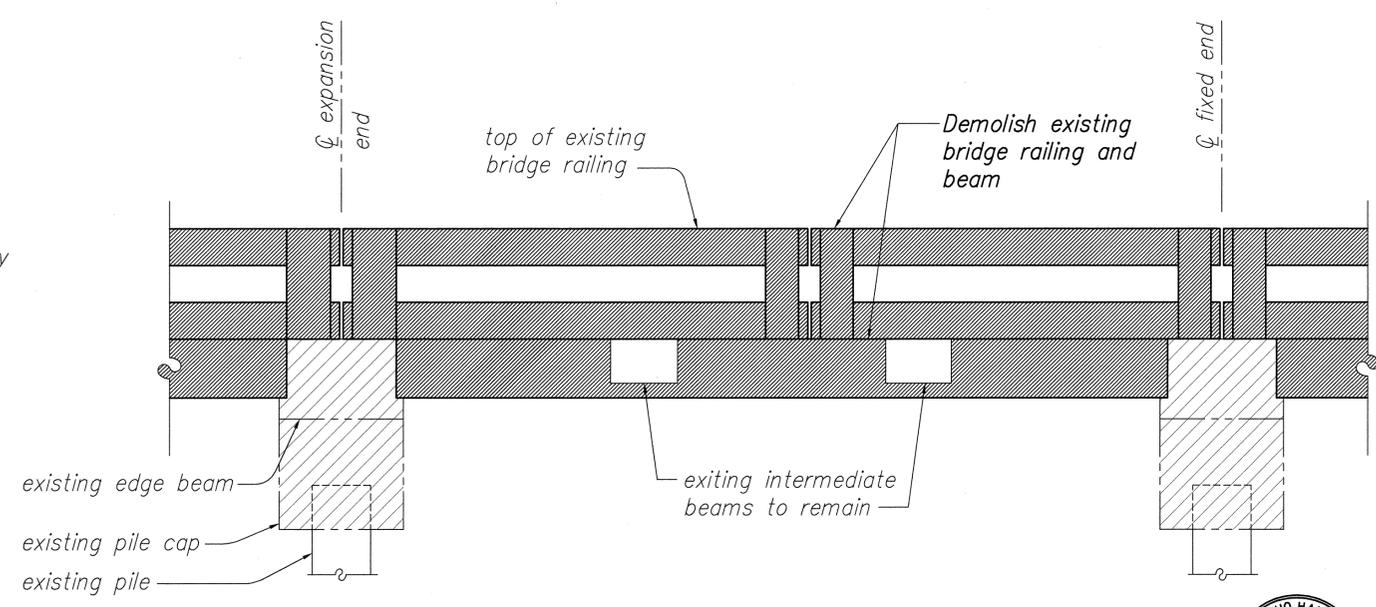
TRAFFIC ISLAND AT HONOLULU HARBOR SLIP COVER
Scale: 1/2" = 1'-0"



NUUANU STREAM BRIDGE, DIAMOND HEAD END OF BRIDGE
(Looking Toward Ewa)
Sta. 121+10 to 121+46±
Scale: 1/2" = 1'-0"



DEMOLITION OF AC PAVEMENT FROM CONCRETE SLAB
(Location:)
Traffic Island at Honolulu Slip Cover
Scale: 1/2" = 1'-0"



SECTION 1
S49 | S50

- Note:**
- The Concrete Slip Cover Deck shall not be damaged during the Demolition work. Any damage incurred shall be repaired according to the Typical Spall Repair Detail herein, at no cost to the State.
 - Refer to Demolition Note 7, Sheet S1.

Legend:
■ Indicates demolition pay limits

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STRUCTURAL
DEMO PLAN-4
NIMITZ HIGHWAY REHABILITATION
SUMNER STREET TO QUEEN STREET
F.A.I. Proj. No. NH-092-1(25)
SCALE: AS NOTED DATE: 11/01/01
SHEET No. S50 OF 50 SHEETS