INDE	EX OF STRUCTURAL DRAWINGS
Sheet No.	Description
SG-1	GENERAL NOTES, INDEX OF STRUCTURAL DRAWINGS AND ESTIMATED QUANTITIES
SG-2 - SG-6	ABBREVIATIONS, REPAIR DETAILS, DAMAGE SCHEDULE AND KEYPLAN
SM-1	MILLLER STREET PEDESTRIAN OVERCROSSING - PLAN
SA-1 - SA-3	ALAPAI STREET PEDESTRIAN OVERCROSSING DEMOLITION PLAN, RENOVATION PLAN AND DETAILS
SW-1	WARD AVENUE OVERPASS - PLAN AND RAILING ELEVATIONS
SP-1 - SP-3	PIIKOI VIADUCT PLAN - DECK REPAIR, RAILING REPAIR AND DECK DRAIN DETAILS
SKE-1	KEAAUMOKU STREET OVERPASS - PLAN
SPU-1 - SPU-5	PUNAHOU STREET OVERPASS RAILING DEMOLITION PLAN, RENOVATION PLAN AND SECTIONS AND DETAILS
SMC-1	McCULLY STREET OVERPASS - PLAN
SWI-1 - SWI-6	WILDER AVENUE PEDESTRIAN OVERCROSSING DEMOLITION PLAN, RENOVATION PLAN AND DETAILS

EST	IMATE	ED QUANTITIES		
Bridge Name	Item No.	Item	QTY	Unit
Alapai Overcrossing	202.0100	Removal of Concrete Curb	790	LF
Punahou Overpass	202.0200	Removal of Bride Railing - Concrete	220	LF
Wilder Overcrossing	202.0300	Removal of Bridge Railing - Metal	570	LF
Wilder Overcrossing	507.0100	Metal Bride Railing	570	LF
Punahou Overpass	507.0200	Concrete Bride Railing	220	LF
Ward Overpass	512.0100	Concrete Rehabilitation of Cracks	49	LF
Keaaumoku Overpass	512.0200	Concrete Rehabilitation of Spalls	20	SF
McCully Overpass	512.0200	Concrete Rehabilitation of Spalls	69.5	SF
Miller Overcrossing	512.0200	Concrete Rehabilitation of Spalls	27	SF
Piikoi Viaduct	512.0200	Concrete Rehabilitation of Spalls	79.75	SF
Ward Overpass	512.0200	Concrete Rehabilitation of Spalls	<i>3.25</i>	SF
Replace Reinforcing Steel	602.0100	Replace Reinforcing Steel	F.A.	F.A.
Piikoi Viaduct	604.0100	Cast Iron Grate 8 1/4" x 1'-11 3/4"x 1" (Viaduct Deck Scuppers)	5	EA
Alapai Overcrossing	638.0100	Curb, Type 2D	790	LF
Piikoi Viaduct	676.0100	Repair for Concrete Deck	770	SF

GENERAL STRUCTURAL NOTES:

DESIGN SPECIFICATIONS:

AASHTO 2017 LRFD Bridge Design Specifications with Subsequent Interim Specifications and as Modified by State of Hawaii, Highways Division, "Design Criteria for Bridges and Structures", dated August 14, 2014

GENERAL SPECIFICATIONS:

The State of Hawaii 2005 Standard Specifications for Road and Bridge Construction, and Special Provisions Prepared for This Project.

DESIGN LIVE LOAD:

Pedestrian live load - 75 psf

ADDITIONAL LOADS:

Bridge railing (pedestrian) -50 plf transverse and vertical -200 lbs concentrated load

Bridge railing (overpasses) - LRFD TL-2.

MATERIALS:

- Reinforced concrete: f'c=4000 psi, unless noted otherwise.
- Reinforcing steel: ASTM A615, Grade 60 unless noted otherwise.
- Reinforcing steel to be welded: ASTM A706, Grade 60 unless noted otherwise.
- 4. Structural steel: ASTM A36, hot dip galvanized, unless noted otherwise.
- Stainless steel: Type 316, unless noted otherwise.
- 6. All welding shall be in accordance with the current edition of reinforcing steel welding code AWS D 1.4.
- Provide shrinkage reducing admixture and migrating corrosion inhibiting admixture to concrete for bridge decks, and bridge railings. see special provision for requirements.
- Concrete repair material for viaduct deck damage repair: f'c=6000 psi, see Section 676 of the special provisions.
- Concrete repair material for the rehabilitation of damaged or deteriorated structural concrete for the surfaces of bridge railings, sidewalks, and surfaces indicated: f'c=6,000 psi, see Section 512 of the special provisions.

GENERAL:

- All items noted incidental will not be paid for separately.
- Standard detail drawings refer to all structures in general, except for modifications as may be required for special conditions. For such modifications, refer to the corresponding detailed drawings.
- Edge of existing concrete to be remained shall be square cut by sawcutting to a minimum depth of 1/2" or up to the depth of existing reinforcement.

CONSTRUCTION NOTES:

FED. ROAD DIST. NO. FISCAL SHEET TOTAL YEAR NO. SHEETS FED.-AID PROJ. NO. STATE 2021 | 278 | HAW. | *NH-H1-1(279)* |

- Materials and workmanship shall conform to the State of Hawaii 2005 Standard Specification for Road and Bridge Construction, and Special Provisions Prepared for This Project, Project Drawings, and Project Specific Permit Requirements. Per Hawaii Standard Specification Subsection 106.11, the Contractor shall submit a certification of material origin to meet the requirement for the use of American-Made materials.
- 2. In general, top of concrete deck slab shall be constructed to follow the roadway vertical and horizontal Curves.
- 3. For the installation of anchor bolts, the Contractor shall provide rigid templates to maintain the proper locations and shall protect such anchor bolts at all times during the period of construction. Methods shall be approved by the Engineer.
- Except as noted otherwise, all vertical dimensions are measured plumb.
- Information for existing bridge has been prepared based on record drawings. The Contractor shall verify all site conditions and not rely upon these plans for utilities, stream location, or other existing features, etc. Conditions may differ from those shown.
- Record drawings are available for review at the State of Hawaii Department of Transportation, Highways Division.
- The Contractor shall verify the location of all utility lines and notify the respective owners before commencing the work. Any damage to utility lines caused by the Contractor shall be replaced at his expense and at no cost to the State.
- For concrete finish, see Standard Specifications.
- 9. Unless noted otherwise, all exposed concrete edges shall be chamfered 3/4"x3/4".
- 10. Contractor to take adequate measures to protect the public and structures during construction. Such measures shall include but not be limited to falsework, formwork, bracing, loads for construction equipment, wind forces, stream flow, seismic forces, and others. No debris shall be allowed to fall onto roadway due to construction operations. Submit debris containment plan to the Engineer for review and approval prior to starting the work.
- 11. Contractor to be solely responsible for acquiring required construction related permits from the various government agencies required to complete the work.
- 12. Contractor shall take precautions to prevent damage to existing reinforcing steel that is to be incorporated into the new work.
- 13. All expansion and premolded joint filler shall be incidental to concrete and will not be paid for separately.
- 14. H-1 lanes/on-ramps/off-ramps lane closure scenario:
 - (1) Partial closure scenario: The Contractor's work zone will be located on the shoulder side of the road. Work hours will be from 8:30pm until 4:30am, Sunday through Thursday, except for State Holiday. Two through lanes shall be maintained during construction. The Contractor will be permitted to close lanes in either direction. During the rest of the day, all lanes will be open for use.
 - (2) Full closure scenario: During the construction work on H-1 in both the eastbound (Koko Head bound) and westbound (Ewa bound) directions, all travel lanes will be closed in one direction for construction work overnight. There should be no partial or full closures in the opposing direction except for emergency situations. The recommended lane closure hours are permitted from 8:30pm to 4:30am, Sunday through Thursday, except for State Holidays. All lanes are to be open to traffic by 4:30am. No lane closures shall take place between 4:30am and 8:30pm.
- 15. Cross streets/frontage streets lane closure scenario:

During the construction work on cross streets and frontage roads, only single lane closures, are permitted unless otherwise mentioned. Lane closures are allowed between 9:00am and 3:00pm, Monday through Friday, except on holidays. Work that requires full road closures shall be scheduled to occur on Sundays between 8:00am and 12:00am.



Mym Ohalo 04/30/22

GENERAL NOTES, INDEX OF STRUCTURAL |DRAWINGS AND ESTIMATED QUANTITIES

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

INTERSTATE ROUTE H-1 RESURFACING Miller Pedestrian Overpass to Kapiolani Interchange Federal-Aid Project No. NH-H1-1(279) EXPIRATION DATE OF THE LICENSE Date: August 2021

Scale: AS NOTED SHEET No. SG-1 OF 27 SHEETS

GENERAL STRUCTURAL NOTES (Cont.): REINFORCING STEEL:

- Reinforcing splices shall be made only where indicated on the drawings.
- 2. All reinforcing bars, anchor bolts, dowels and other embedded items are to be securely tied in place before concrete pour.
- All reinforcing bar bends shall be made cold.
- 4. Reinforcement shall be detailed in accordance with AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017, including subsequent interim revisions, unless otherwise noted.
- 5. Welding of reinforcing steel is Not permitted, unless otherwise shown on the drawings. Welding of reinforcing steel shall conform to (the latest edition of AWS D1.4 "AWS Structural Welding Code-Reinforcing Steel" of the American Welding Society. Deformed reinforcing bars to be welded shall conform to ASTM. A706, Grade 60.
- Unless otherwise noted, the covering measured from the surface of the concrete to the face of any reinforcing bars shall be as follows:

(a) Deck top bars
(b) Deck bottom bars1 1/2" clea
(c) Railing and parapets2" clea
(d) Formed surfaces exposed to earth and weather2" clear
(e) All others

- 7. Minimum clear spacing between parallel bars shall be 1 1/2 times the diameter of the bar, but in no case shall the clear distance between parallel bars be less than 1 1/2 times the maximum size of the coarse aggregate, or 1 1/2 inches.
- All dimensions relating to reinforcing bars (e.g. spacing of bars, etc.) are to center of bars, unless otherwise noted.
- Reinforcing bars shall be securely tied at all intersections and lap spliced except where the spacing of the intersections is less than 12 inched in each direction, in which case alternate intersections shall be tied.

STRUCTURAL STEEL AND MISCELLANEOUS METAL:

- 1. All steel tubes shall conform to ASTM A500, Grade B. All structural pipes shall conform to ASTM A53, Grade B. Plates and rods shall conform to ASTM A36.
- 2. All structural steel and miscellaneous metal and rods shall be hot dip galvanized after fabrication. All holes (other than stainless steel) shall be punched before galvanizing.
- 3. All anchor bolts and threaded rods and other hardware including nuts and washers which connect steel to concrete shall conform to ASTM F1554, Grade 55, hot dipped galvanized.
- 4. Thru bolts for guardrail connections shall conform to ASTM A325, galvanized unless otherwise noted.
- 5. All welds shall be in conformance with the structural welding code AWS D1.1-2000 of the American Welding Society. Electrodes for A36, A500 and A992 shall be E70.
- 6. All stainless steel plates, bars, rods, anchor bolts and shapes shall be Type 316. Welding of stainless steel shall be in accordance with the latest edition of AWS D1.6 "Structural Welding Code - Stainless Steel".
- Stainless steel threaded rods and nuts shall conform to ASTM A276, Type 316L.

ARREVIATIONS.

Max.

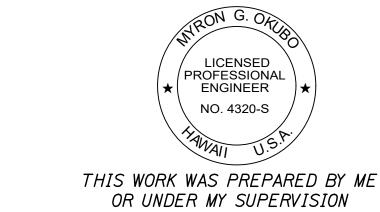
Min.

Maximum

Minimum

Milepost

AE	BBREVIAL	<u> 1UNJ:</u>			
Α	Abut. Ave. Az.	Abutment Avenue Azimuth	R	R Reinf. RENO.	Radius Reinforced, Reinfocement Renovation
В С	Bot. B.L.	Bottom Base Line	S	S. SF Sim.	South Square Feet Similar
C	C.L. CIr. Conc. Cont. CR	Centerline Clear Concrete Continue Crack Repair		Sp. SR Sta. Std. St.	Span Spall Repair Station Standard Street
D	Det. DEMO. Dia.	Detail Demolition Diameter	T	T.F. Thk. Typ.	Top Face Thick Typical
Ε	Ea. E.F. Exist. (E)	Each Each Face Existing Existing	U V	U.O.N. Vert.	Unless Otherwise Noted Vertical
0 F	O.C.	On Center			
, G	F.A. FT.	Force Account Feet			
Н	Galv.	Galvanized			
	Horiz.	Horizontal			
I	I.D. I.T.F.	Inside Face Inside Top Face			
L	LF	Linear Feet			



Mym Ohnlo 04/30/22

GENERAL NOTES AND

FED. ROAD DIST. NO.

STATE

HAWAII | HAW. | *NH-H1-1(279)* |

FED.-AID PROJ. NO.

FISCAL YEAR

2021

SHEET TOTAL SHEETS

304

279

ABBREVIATIONS

INTERSTATE ROUTE H-1 RESURFACING Miller Pedestrian Overpass to Kapiolani Interchange

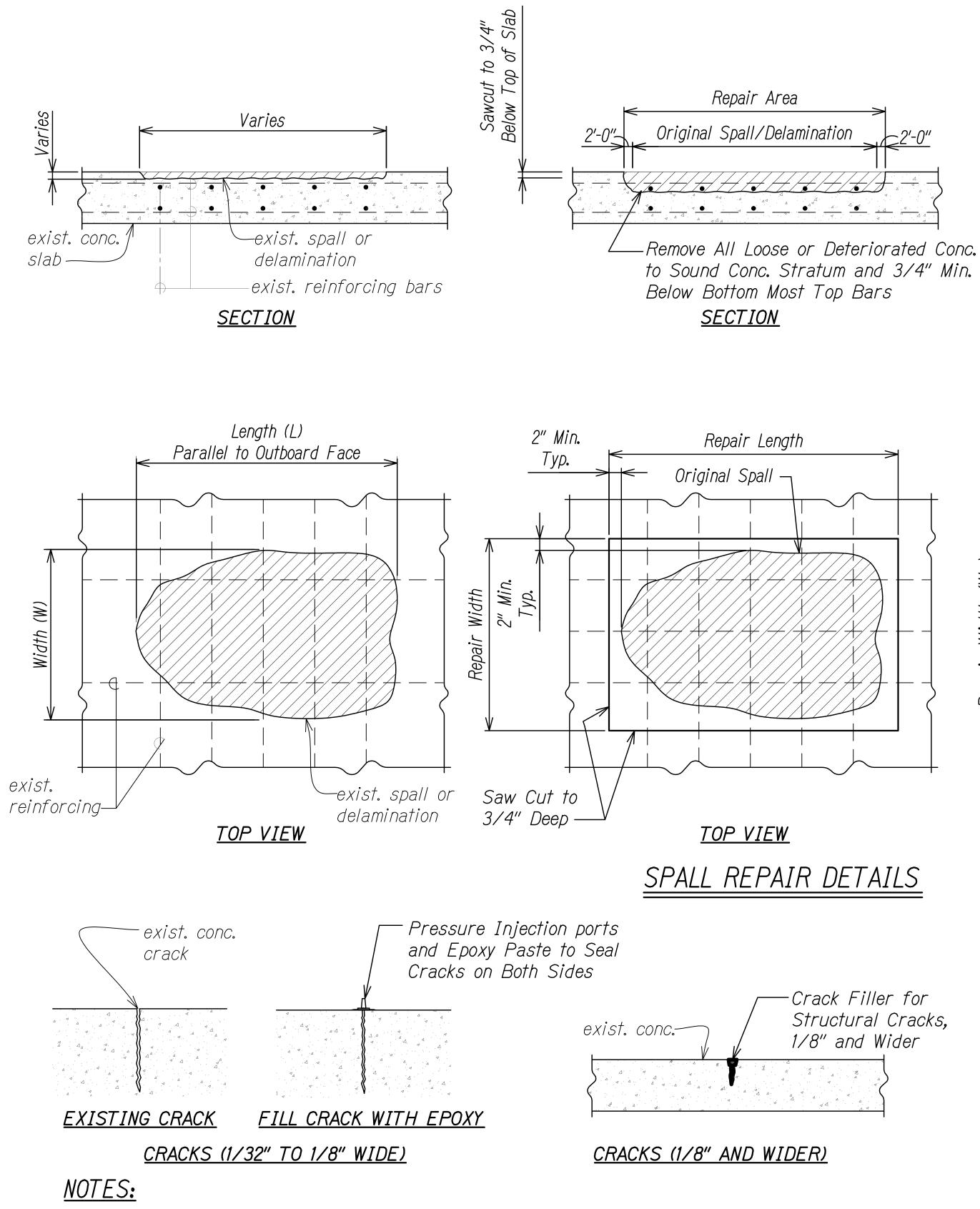
Federal-Aid Project No. NH-H1-1(279) OF THE LICENSE Scale: AS NOTED Date: August 2021

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

SHEET No. SG-2 OF 27 SHEETS



1. Cracks may be horizontal, vertical or overhead.

Epoxy mortars and epoxy compounds shall conform to ASTM C881/C881M,

Type IV, Class C, Grade 1 or 3. Surface shall be free of standing water,

TYP. CRACK REPAIR DETAILS

dust, and debris. Follow manufacturer's instructions for application.

The Contractor shall be aware of extensive repair requirements in Section 676 Concrete Repair of the Special Provisions for Viaduct concrete deck repair.

Repair Length or Width

Original Spall or

0 •

-Remove Conc. for

SECTION

Repair Length (Lr)

Remove Corroded

Outline of

or Spall —

TOP VIEW

Delamination

Reinf. Bars

Delamination—

Repair

Note-4

2" Min. Lap, See

exist. reinf.

Sound Reinf.

to Remain.

Lap, See Note-

REPAIR NOTES:

Remove Corrode Reinf. Bars

Sound Reinf. to Remain.

(Wr)

Corroded Reinf. Lap, See

• 0 •

Lap, See 2" Min.

_Corroded

Reinf. Bars

Saw Cut to

3/4" Deep

Sound Reinf.

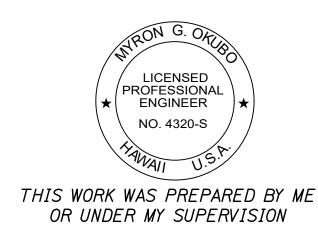
to Remain.

The Contractor shall be aware of extensive repair requirements in Section 512 Concrete Rehabilitation of the Special Provisions for the rehabilitation of damaged or deteriorated structural concrete for the surface of bridge railings, sidewalks, and surfaces indicated.

FISCAL SHEET TOTAL YEAR NO. SHEETS FED. ROAD DIST. NO. FED.-AID PROJ. NO. STATE 2021 NH-H1-1(279) 280 *304* HAW. HAWAII

GENERAL NOTES:

- Both spalls and delaminations are called out as "Spalls" on the plans, no distinction is made since repair is the same. Size shown on plan=WxL.
- 2. Notify the Engineer when reinforcing steel requires replacement.
- Replace corroded reinforcing steel per sheet SG-4. Corroded reinforcing bars are those after cleaning, have the bar diameter reduced to less than the allowable bar size chart shown on sheet SG-4.
- Remove and replace corroded reinforcing bar with new reinforcing bar matching the original bar size with contact lap splice length equal to 48 bar diameters for main reinforcing bars or 24 bar diameters for temperature bar, or with alternate lap weld splice length per detail B on sheet SG-4.
- The repair length or width should equal to twice the splice length plus 2" minimum on each side of the corroded length of reinforcing bar.
- The Contractor shall confirm the damaged areas of the bridge decks shown on the plans by visual examination and sounding methods in accordance with ASTM D4580. The roadway plans shall be used as a guide to illustrate the general location of the area to be repaired. Mark the limits of decking to be repaired for approval by the Engineer. The Engineer may direct the Contractor to do additional repairs outside of the marked priority areas.
- 7. Removal of damaged concrete and preparation of concrete to receive repair materials is incidental to the various repairs.
- 8. Repair material and procedures shall be accepted by the Engineer before use.
- 9. The Contractor shall protect the public and environment from dust pollution and other damages resulting from the blasting, chipping and drilling operation. The Contractor shall be aware of and follow all State, Federal and county environmental regulations and provide containment to prevent abrasives, dust and debris from dispersing into surrounding areas and into the stream or stream bank. The Contractor shall submit the method of containing and controlling pollution for acceptance to the Engineer.



HIGHWAYS DIVISION

REPAIR DETAILS

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

INTERSTATE ROUTE H-1 RESURFACING Miller Pedestrian Overpass to Kapiolani Interchange Federal-Aid Project No. NH-H1-1(279)

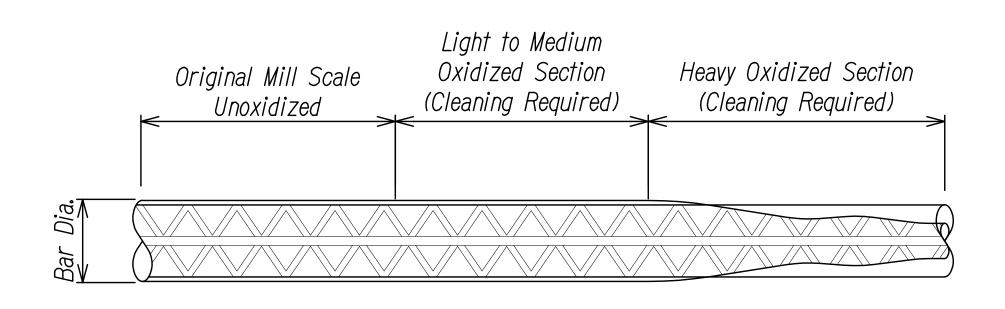
Scale: AS NOTED Date: August 2021 SHEET No. SG-3 OF 27 SHEETS

Mym Ohnlo 04/30/22

SIGNATUR

EXPIRATION DATE OF THE LICENSE

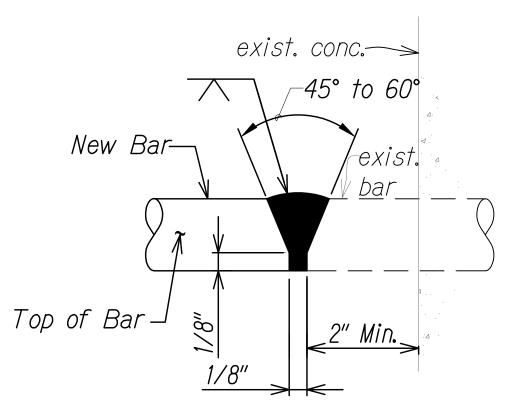
FED. ROAD DIST. NO.	STATE	FEDAID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-H1-1(279)	2021	281	304

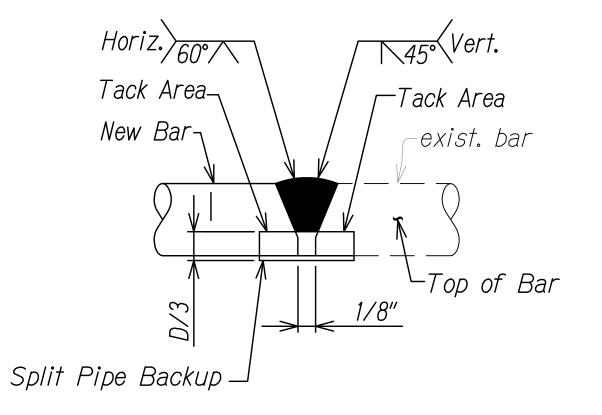


Allowable Bar Size Chart									
•	Bar Size ASTM A615	Minimum Diameter (inch)							
3/8"ø	#3	5/16"ø							
1/2"ø	#4	7/16''ø							
5/8''ø	#5	1/2"ø							
3/4"ø	#6	5/8''ø							
7/8''ø	#7	3/4"ø							

NOTES:

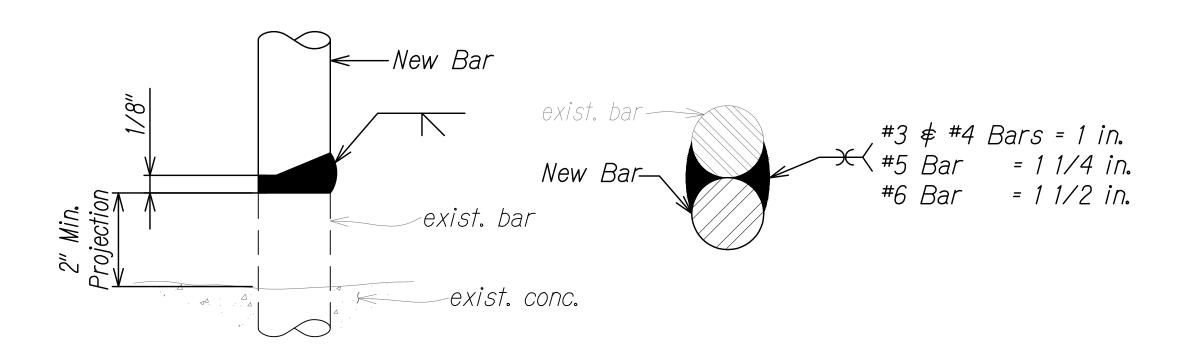
- Remove all heavy corrosion and scale from reinforcing bars.
- 2. If reinforcing bar size, after cleaning, is less than the minimum shown in allowable bar size chart, repair by adding additional reinforcing steel.





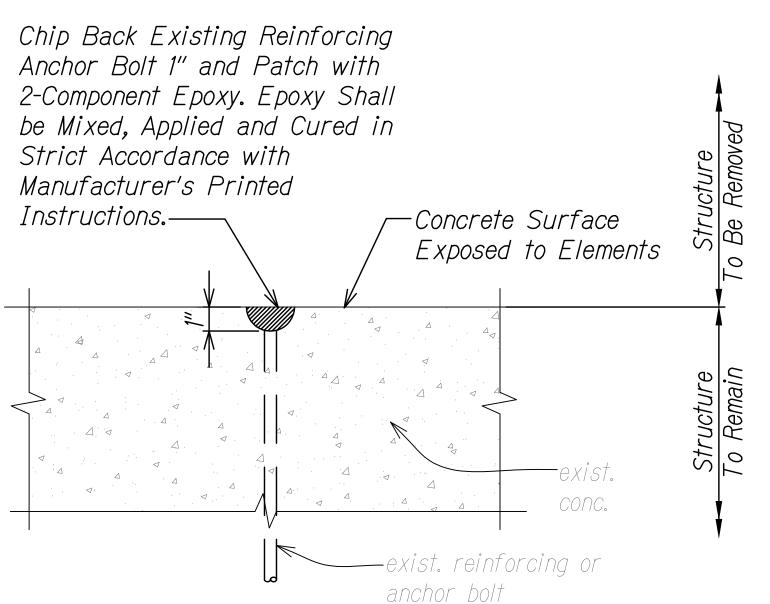


HORIZONTAL AND VERTICAL









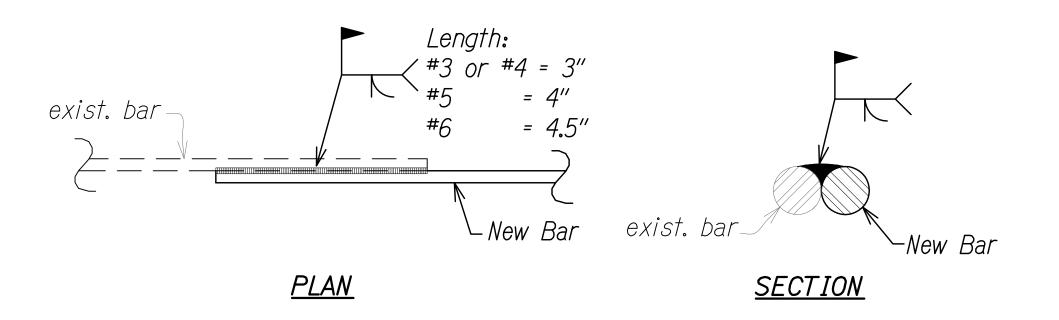
Patching ends of Reinforcing Steel or Anchor Bolt Shall be Considered Incidental to Concrete.

NOTES:

Demolition of existing members in the way of new construction shall be executed in a manner such to minimize damage to the portions of the members to remain outside the limits of demolition, where not incorporated into new work.

REPAIR DETAILS

REPAIR DETAILS



REINFORCING WELDING NOTES:

- 1. Chip, grind, or gouge to sound metal before welding.
- 2. Use detail A and C for #9 bar and larger, detail B for #8 bar and smaller, detail D for #6 bar and smaller.
- 3. Use E70 electrodes for stirrups, E90 electrodes for all others.
- 4. See AWS D1.4 for welding process preheating, cooling controls, and other details, for welding existing rebar which is not ASTM A706.

LICENSED PROFESSIONAL ENGINEER NO. 4320-S THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION Mym Ohnlo 04/30/22 EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION **HIGHWAYS DIVISION**

REPAIR DETAILS

INTERSTATE ROUTE H-1 RESURFACING Miller Pedestrian Overpass to Kapiolani Interchange Federal-Aid Project No. NH-H1-1(279)

Scale: AS NOTED

Date: August 2021 SHEET No. SG-4 OF 27 SHEETS

ALTERNATE LAP SPLICE DETAILS

	Di		SPALL DAMA	GE SUMEDUL	_ <u></u>		Γ
BRIDGE NAME	MARK	SPALL (SF)	REMARKS	BRIDGE NAME		SPALL (SF)	REMARKS
Miller Street	CD 1	07.00	6 6 1 6 1 6 1 1		SR-38	300.00	See Sheet SP-
Pedestrian Overcrossing	<i>SR-1</i>	27.00	See Sheet SM-1		SR-39	1.00	See Sheet SP-
	SR-2	0.50	See Sheet SW-1		SR-40	<i>0.</i> 75	See Sheet SP-
	SR-3	0.25	See Sheet SW-1		SR-41	2.00	See Sheet SP-
Ward Avenue	SR-4	1.25	See Sheet SW-1		SR-42	12.00	See Sheet SP-
Overpass	SR-5	0.25	See Sheet SW-1		SR-43	30.00	See Sheet SP
·	SR-6	0.50	See Sheet SW-1		SR-44	1.00	See Sheet SP-
	<i>SR</i> -7	0.50	See Sheet SW-1		SR-45	4.00	See Sheet SP-
	SR-8	13.75	See Sheet SP-1		SR-46	1.00	See Sheet SP-
	SR-9	25.00	See Sheet SP-1		SR-47	2.00	See Sheet SP-
	SR-10	2.00	See Sheet SP-1		SR-48	0.25	See Sheet SP-
	SR-11	1.00	See Sheet SP-1		SR-49	2.00	See Sheet SP-
	SR-12	4.00	See Sheet SP-1		SR-50	8.00	See Sheet SP
	SR-13	1.00	See Sheet SP-1		SR-51	21.00	See Sheet SP
	SR-14	2.00	See Sheet SP-1		SR-52	90.00	See Sheet SP-
	SR-15	1.50	See Sheet SP-1	Piikoi Viaduct	SR-53	<i>1.</i> 25	See Sheet SP-
	SR-16	1.00	See Sheet SP-1		SR-54	2.00	See Sheet SP-
	SR-17	2.00	See Sheet SP-1		SR-55	6.00	See Sheet SP-
	SR-18	2.00	See Sheet SP-1		SR-56	30.00	See Sheet SP
	SR-19	1.00	See Sheet SP-1		SR-57	1.00	See Sheet SP-
	SR-20	1.00	See Sheet SP-1		SR-58	2.00	See Sheet SP-
	SR-21	0.25	See Sheet SP-1		SR-59	1.00	See Sheet SP-
Dilloi Vie doet	SR-22	2.00	See Sheet SP-1		SR-60	15.00	See Sheet SP-
Piikoi Viaduct	SR-23	1.00	See Sheet SP-1		SR-61	0.75	See Sheet SP-
	SR-24	18.00	See Sheet SP-1		SR-62	2.00	See Sheet SP-
	SR-25	0.50	See Sheet SP-1		SR-63	4.00	See Sheet SP-
	SR-26	3.00	See Sheet SP-1		SR-64	2.00	See Sheet SP-
	SR-27	4.00	See Sheet SP-1		SR-65	0.25	See Sheet SP-
	SR-28	2.00	See Sheet SP-1		SR-66	4.00	See Sheet SP-
	SR-29	<i>4.50</i>	See Sheet SP-1		SR-67	3.00	See Sheet SP-
	SR-30	7.00	See Sheet SP-1		SR-68	1.00	See Sheet SP-
	SR-31	100.00	See Sheet SP-1		SR-69	4.00	See Sheet SP-
	SR-32	0.50	See Sheet SP-1		SR-70	1.00	See Sheet SP-
	SR-33	3.00	See Sheet SP-1		SR-71	2.00	See Sheet SP
	SR-34	6.00	See Sheet SP-1		SR-72	1.00	See Sheet SP
	SR-35	0.50	See Sheet SP-1		SR-73	1.00	See Sheet SP-
	SR-36	0.50	See Sheet SP-1		<i>SR</i> -74	3.00	See Sheet SP-
	SR-37	7.00	See Sheet SP-1	1			

BRIDGE NAME		SPALL (SF)	REMARKS	BRIDGE NAME		SPALL (SF)	REMARKS
	SR-75	7.00	See Sheet SP-2		SR-112	2.00	See Sheet SKE-1
	SR-76	35.00	See Sheet SP-2	1	SR-113	2.00	See Sheet SKE-1
	SR-77	0.25	See Sheet SP-2	- Keeaumoku	SR-114	2.00	See Sheet SKE-1
	SR-78	1.50	See Sheet SP-2	Street Overpass	SR-115	2.00	See Sheet SKE-1
	SR-79	1.00	See Sheet SP-2		SR-116	2.00	See Sheet SKE-1
	SR-80	1.00	See Sheet SP-2		SR-117	2.00	See Sheet SKE-1
	SR-81	1.00	See Sheet SP-2		SR-118	1.00	See Sheet SMC-1
	SR-82	1.00	See Sheet SP-2	1	SR-119	1.00	See Sheet SMC-1
	SR-83	1.00	See Sheet SP-2	1	SR-120	<i>1.50</i>	See Sheet SMC-1
	SR-84	1.00	See Sheet SP-2	1	SR-121	<i>1.50</i>	See Sheet SMC-1
	SR-85	1.50	See Sheet SP-2	1	SR-122	<i>4.00</i>	See Sheet SMC-1
	SR-86	2.00	See Sheet SP-2		SR-123	1.00	See Sheet SMC-1
	SR-87	1.00	See Sheet SP-2		SR-124	1.00	See Sheet SMC-1
	SR-88	2.00	See Sheet SP-2	1	SR-125	<i>1.50</i>	See Sheet SMC-1
	SR-89	0. 25	See Sheet SP-2		SR-126	1.00	See Sheet SMC-1
	SR-90	2.00	See Sheet SP-2		SR-127	<i>8.00</i>	See Sheet SMC-1
	SR-91	1.00	See Sheet SP-2		SR-128	1.00	See Sheet SMC-1
	SR-92	1.00	See Sheet SP-2		SR-129	<i>4.00</i>	See Sheet SMC-1
Piikoi Viaduct	SR-93	2.25	See Sheet SP-2		SR-130	8.00	See Sheet SMC-1
	SR-94	1.00	See Sheet SP-2	Overpass	SR-131	15.00	See Sheet SMC-1
	SR-95	0.25	See Sheet SP-2	1	SR-132	1.00	See Sheet SMC-1
	SR-96	1.00	See Sheet SP-2	1	SR-133	1.00	See Sheet SMC-1
	SR-97	0.25	See Sheet SP-2	1	SR-134	1.00	See Sheet SMC-1
	SR-98	0.25	See Sheet SP-2	1	SR-135	1.00	See Sheet SMC-1
	SR-99	0.50	See Sheet SP-2	1	SR-136	<i>1.50</i>	See Sheet SMC-1
	SR-100	0.25	See Sheet SP-2	1	SR-137	1.50	See Sheet SMC-1
	SR-101	0.25	See Sheet SP-2	1	SR-138	6.00	See Sheet SMC-1
	SR-102	1.00	See Sheet SP-2	1	SR-139	1.00	See Sheet SMC-1
	SR-103	0.25	See Sheet SP-2	1	SR-140	2.00	See Sheet SMC-1
	SR-104	0.75	See Sheet SP-2	1	SR-141	1.50	See Sheet SMC-1
	SR-105	0.25	See Sheet SP-2	1	SR-142	1.50	See Sheet SMC-1
	SR-106	0.25	See Sheet SP-2		SR-143	1.00	See Sheet SMC-1
	SR-107	2.00	See Sheet SP-2				
	SR-108	0.25	See Sheet SP-2				
	SR-109	0.50	See Sheet SP-2				
Keeaumoku	SR-110	4.00	See Sheet SKE-1				
Street Overpass	SR-111	4.00	See Sheet SKE-1				

FED. ROAD DIST. NO. FED.-AID PROJ. NO. FISCAL SHEET TOTAL YEAR NO. SHEETS STATE 2021 282 304 HAWAII HAW. *NH-H1-1(279)*

BRIDGE CRACK DAMAGE SCHEDULE

CRACK REMARKS BRIDGE NAME MARK See Sheet SW-1 See Sheet SW-1 Ward Avenue Overpass CR-3 See Sheet SW-1 CR-4 See Sheet SW-1

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION LICENSED PROFESSIONAL ENGINEER NO. 4320-S

DAMAGE SCHEDULE

INTERSTATE ROUTE H-1 RESURFACING Miller Pedestrian Overpass to Kapiolani Interchange Federal-Aid Project No. NH-H1-1(279)

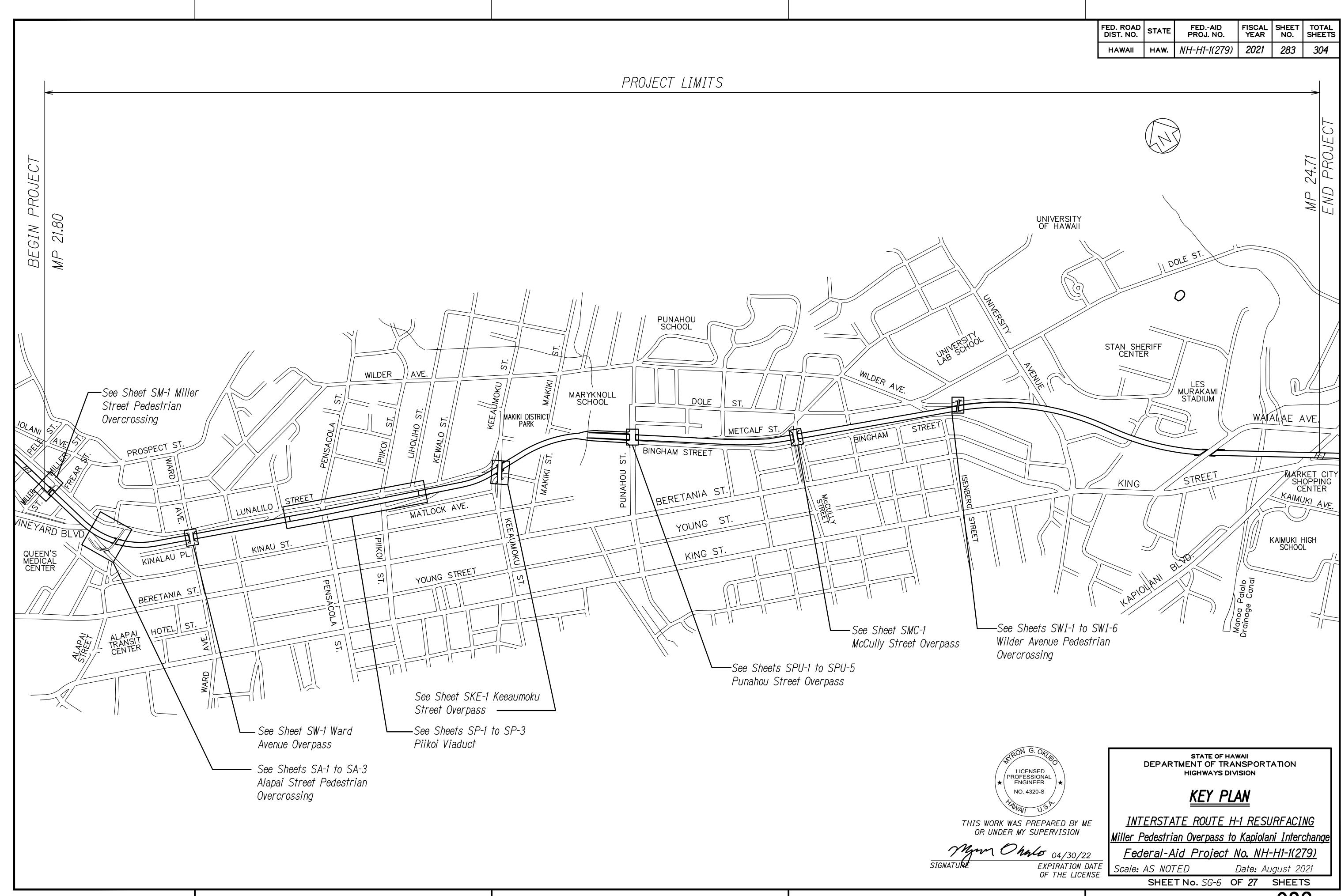
Date: August 2021 SHEET No.SG-5 OF 27 SHEETS

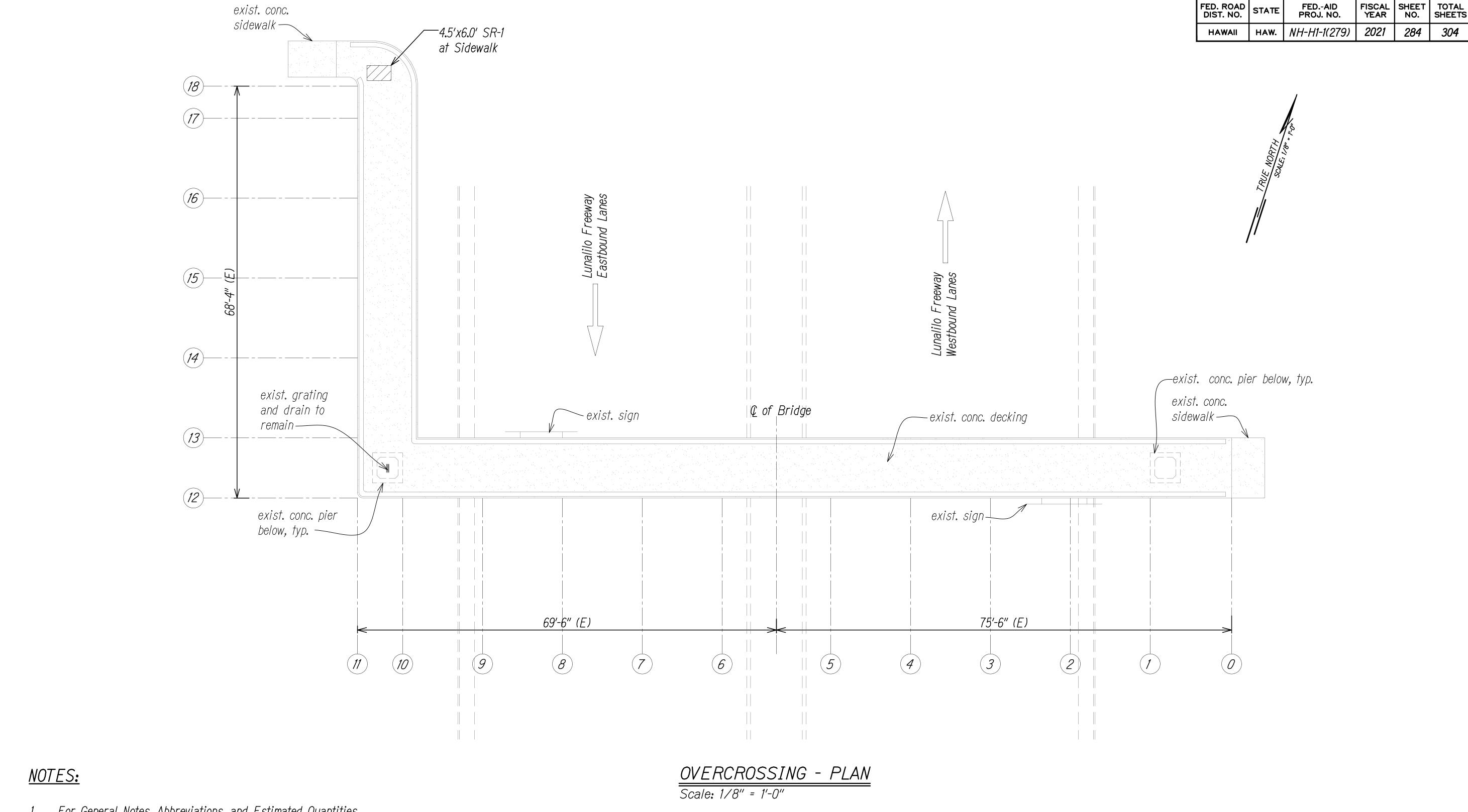
Federal-Aid Property of the LICENSE

Federal-Aid Property Scale: AS NOTED

SHEET No.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

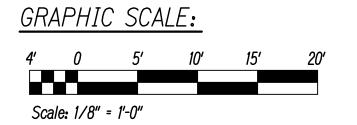


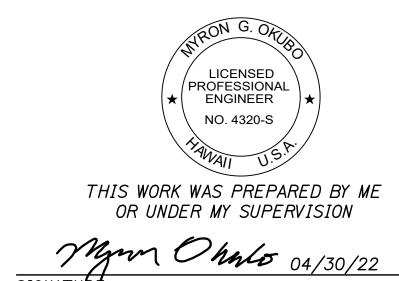


1. For General Notes, Abbreviations, and Estimated Quantities, See Sheets SG-1 and SG-2.

2. SR-1, SR-2, etc. Denotes Concrete Spall Repair. See Sheets SG-3 and SG-4.

3. Provide Access for Pedestrian, Secure Work Site at End of Day to Provide Protection at Demoed Rails, No Work Over Live Traffic, etc





STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION MILLER STREET PEDESTRIAN

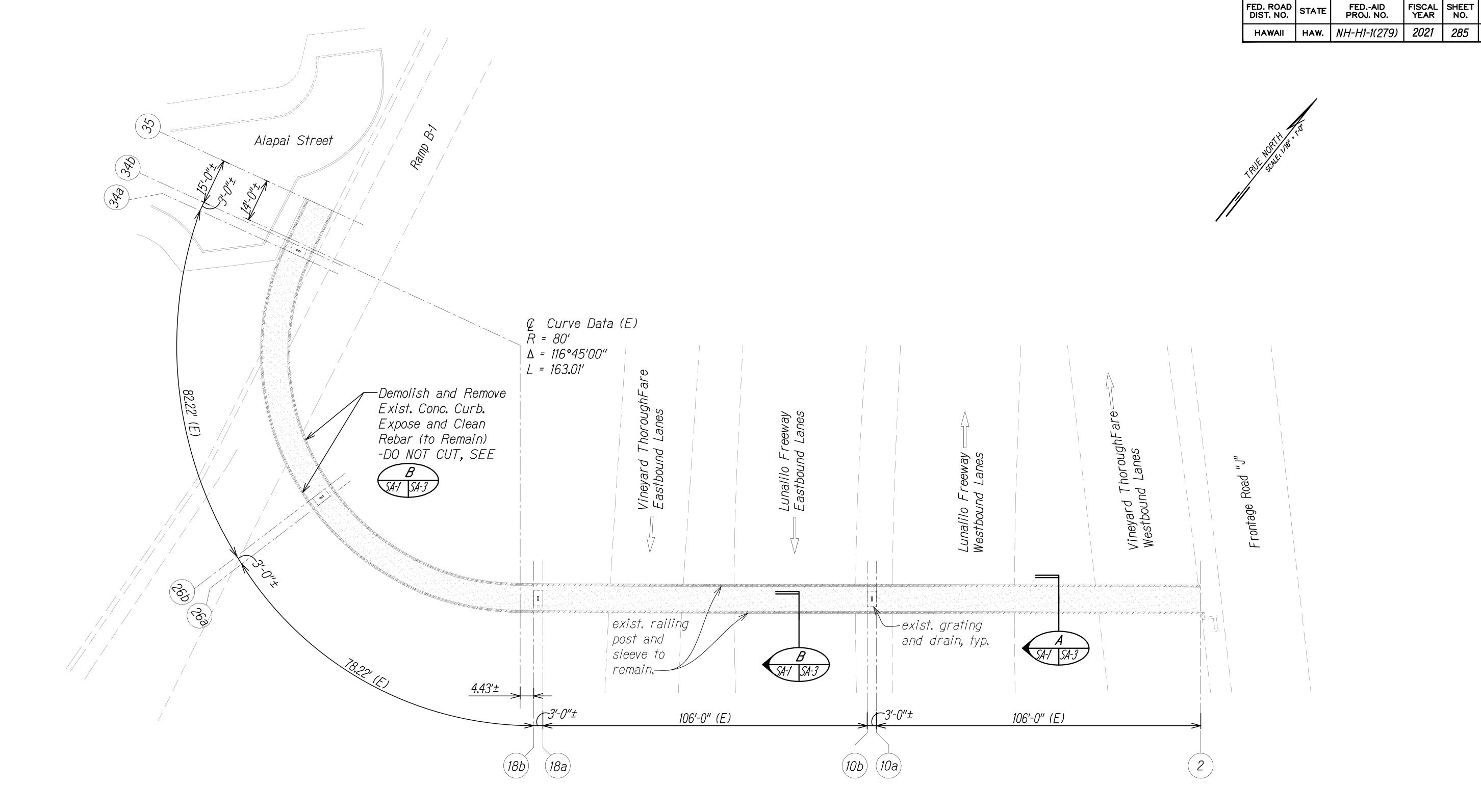
OVERCROSSING - PLAN

INTERSTATE ROUTE H-1 RESURFACING Miller Pedestrian Overpass to Kapiolani Interchange

Federal-Aid Project No. NH-H1-1(279) EXPIRATION DATE
OF THE LICENSE

Scale: AS NOTED Date: August 2021 SHEET No. SM-1 OF 27 SHEETS

284

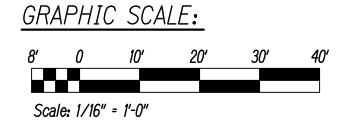


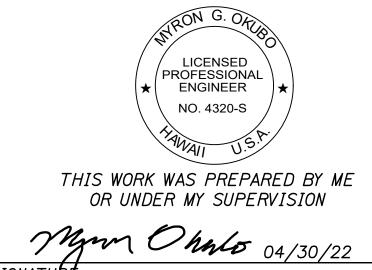
NOTES:

- 1. For General Notes, Abbreviations, and Estimated Quantities, See Sheets SG-1 and SG-2.
- 2. See Electrical Drawings for LED Lights and New Conduits Construction.
- 3. Provide Access for Pedestrian, Secure Work Site at End of Day to Provide Protection at Demoed Rails, No Work Over Live Traffic, etc

DEMOLITION PLAN

Scale: 1/16" = 1'-0"





EXPIRATION DATE OF THE LICENSE STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

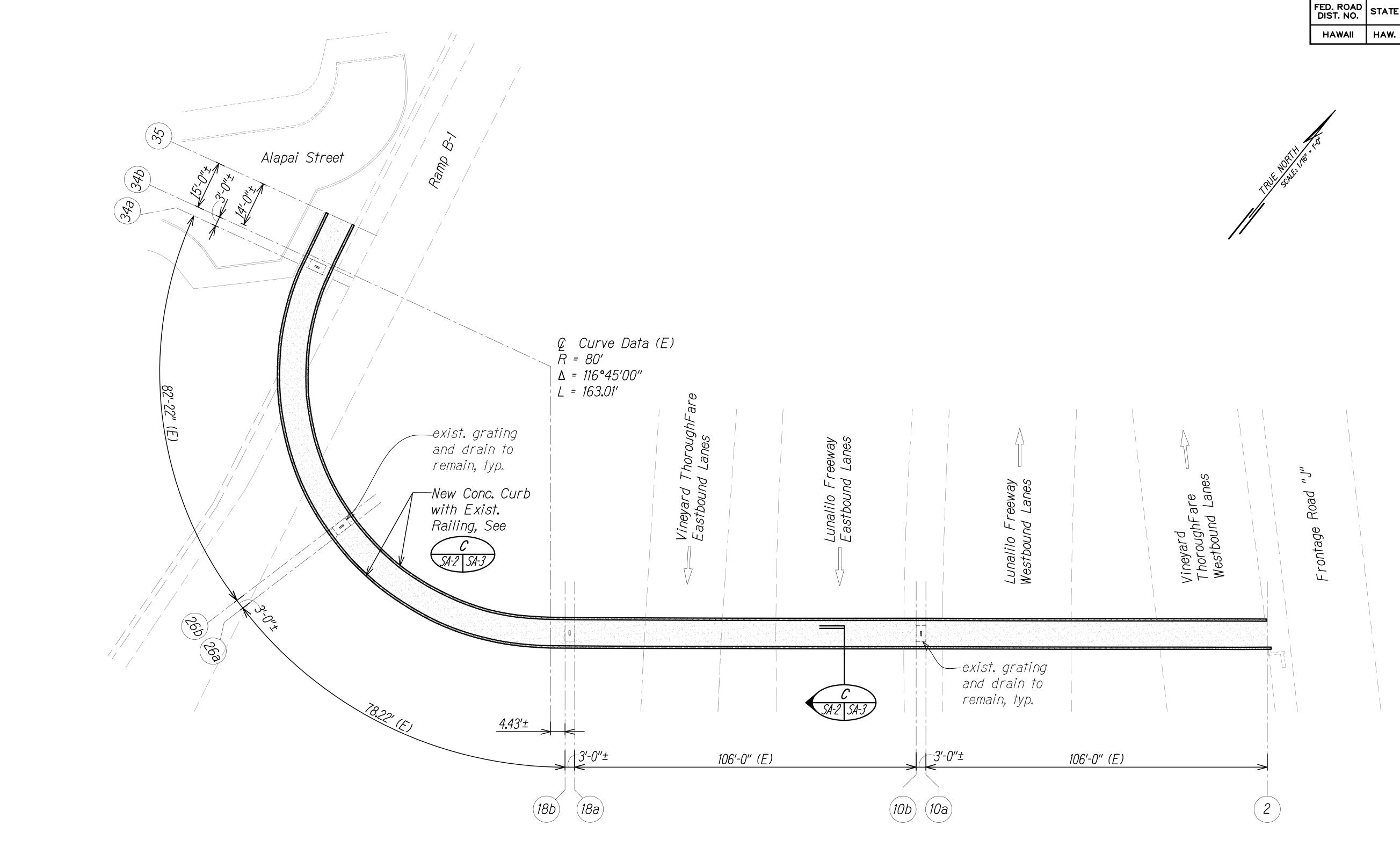
<u>ALAPAI STREET PEDESTRIAN</u> <u>OVERCROSSING - DEMOLITION PLAN</u>

INTERSTATE ROUTE H-1 RESURFACING

Miller Pedestrian Overpass to Kapiolani Interchange <u>Federal-Aid Project No. NH-H1-1(279)</u>

Scale: AS NOTED Date: August 2021

SHEET No. SA-1 OF 27 SHEETS

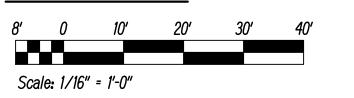


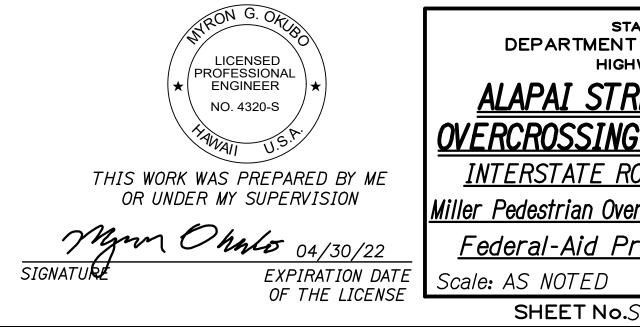
NOTES:

- 1. For General Notes, Abbreviations, and Estimated Quantities, See Sheets SG-1 and SG-2.
- 2. See Electrical Drawings for LED Lights and New Conduits Construction.
- 3. Provide Access for Pedestrian, Secure Work Site at End of Day To Provide Protection at Demoed Rails, No work Over Live Traffic, etc

RENOVATION PLAN Scale: 1/16" = 1'-0"

GRAPHIC SCALE:





STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FED.-AID PROJ. NO.

NH-H1-1(279)

FISCAL SHEET YEAR NO.

2021 286

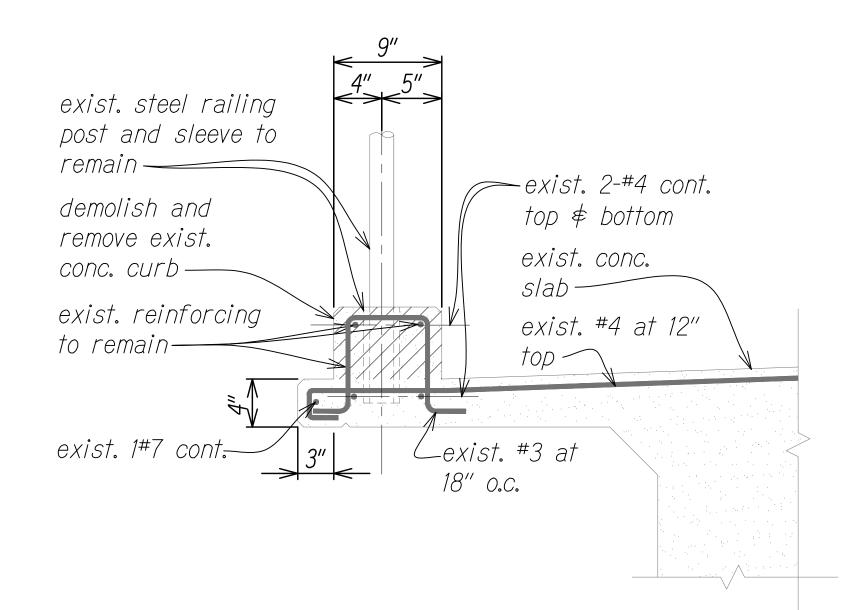
<u>ALAPAI STREET PEDESTRIAN</u> <u>OVERCROSSING - RENOVATION PLAN</u>

INTERSTATE ROUTE H-1 RESURFACING
Miller Pedestrian Overpass to Kapiolani Interchange

Federal-Aid Project No. NH-H1-1(279)

AS NOTED Date: August 2021
SHEET No.SA-2 OF 27 SHEETS

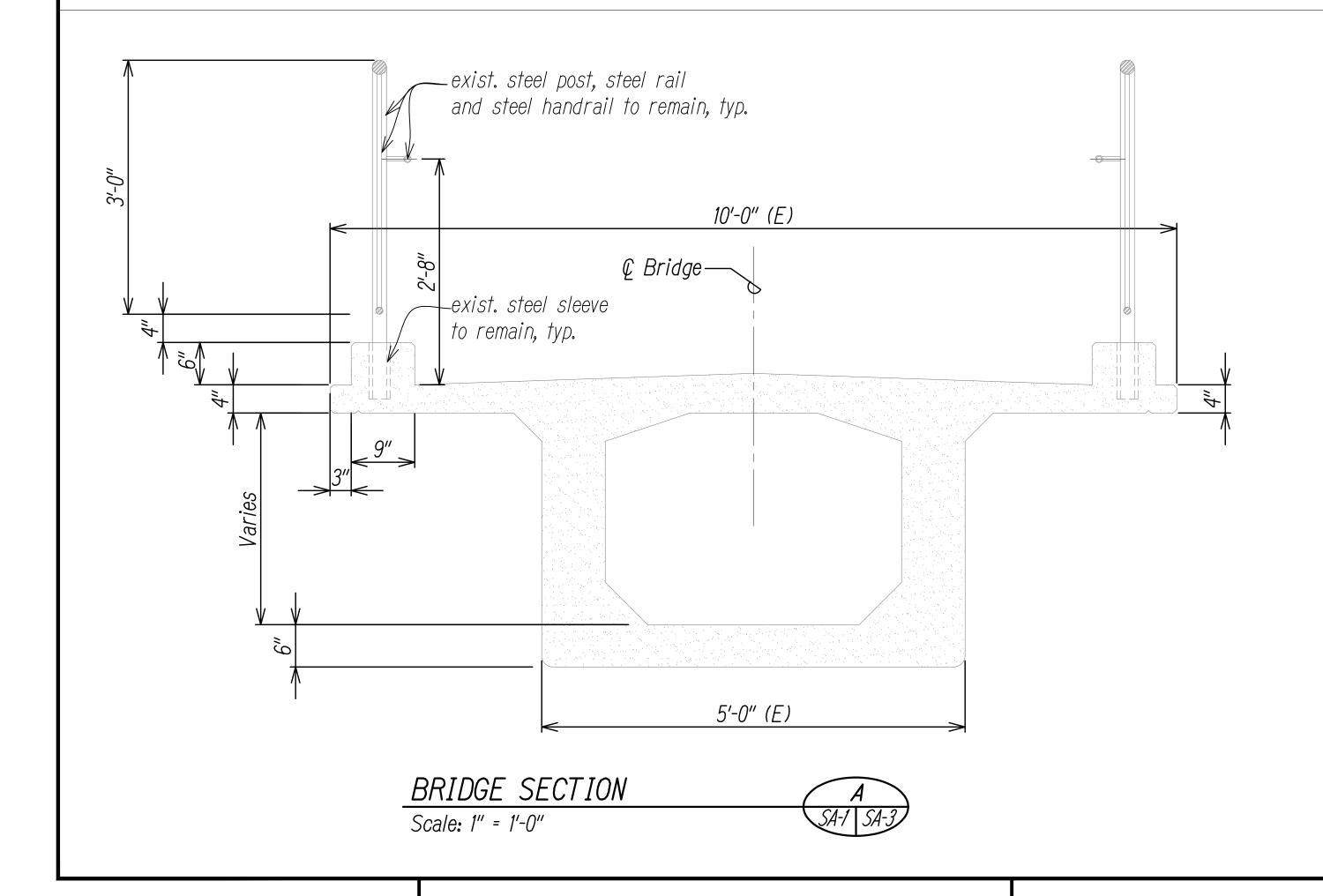
FED. ROAD DIST. NO. FISCAL SHEET TOTAL YEAR NO. SHEETS FED.-AID PROJ. NO. STATE HAW. NH-H1-1(279) 2021 287 *304* HAWAII

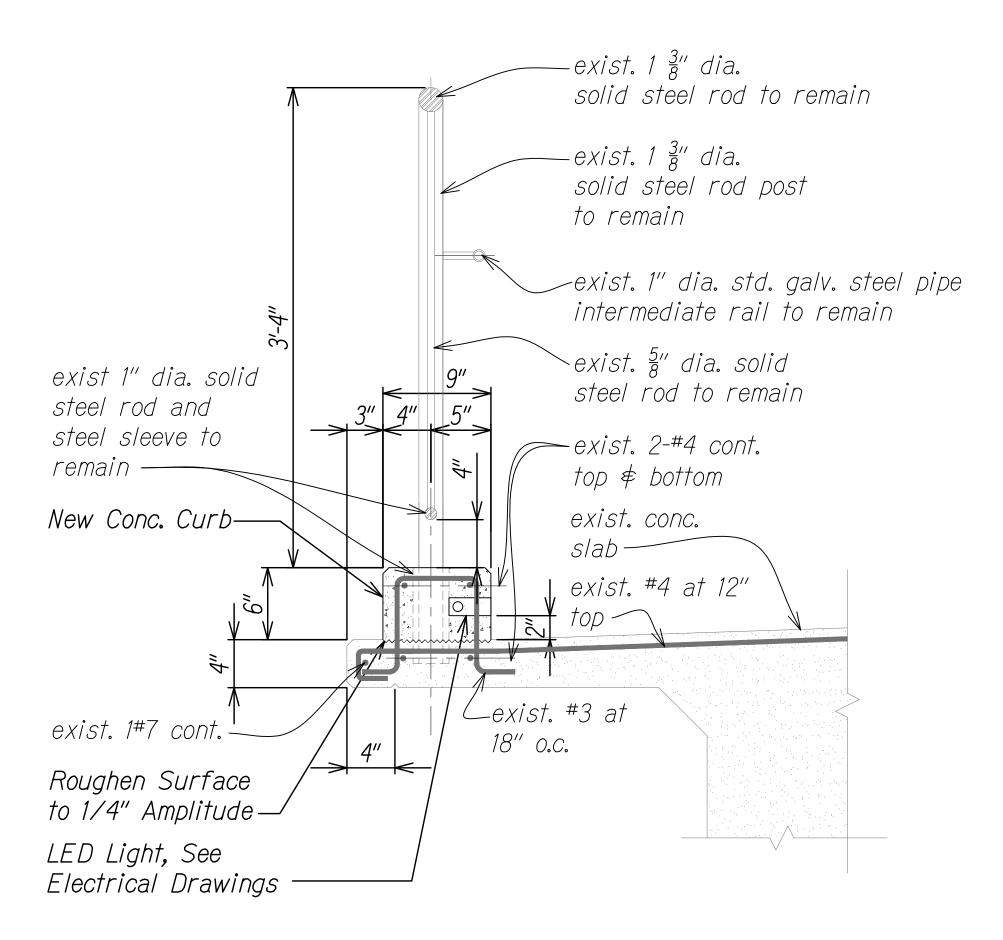


NOTES:

- For General Notes, Abbreviations, and Estimated Quantities, See Sheets SG-1 and SG-2.
- 2. See Electrical Drawings for LED Lights and New Conduits Construction.
- 3. Take Precautions so as Not to Damage Existing Reinforcing Steel and Pedestrian Railing. Should the Existing Reinforcing Steel be Damaged Splice New Bar In Accordance with Details on Sheet SG-4 At No Additional Cost to the State. Damages to the Existing Pedestrian Railing should be Repaired or Replaced at no Additional Cost to the State and as Directed by the Engineer.







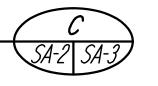
NOTE:

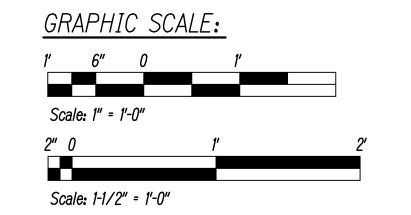
Lap splices shall be 48 bar diameters or 2'-0" whichever is greater if new bar is required, unless otherwise shown.

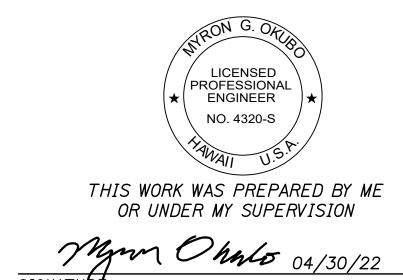
CURB RENOVATION DETAIL

SIGNATURE

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







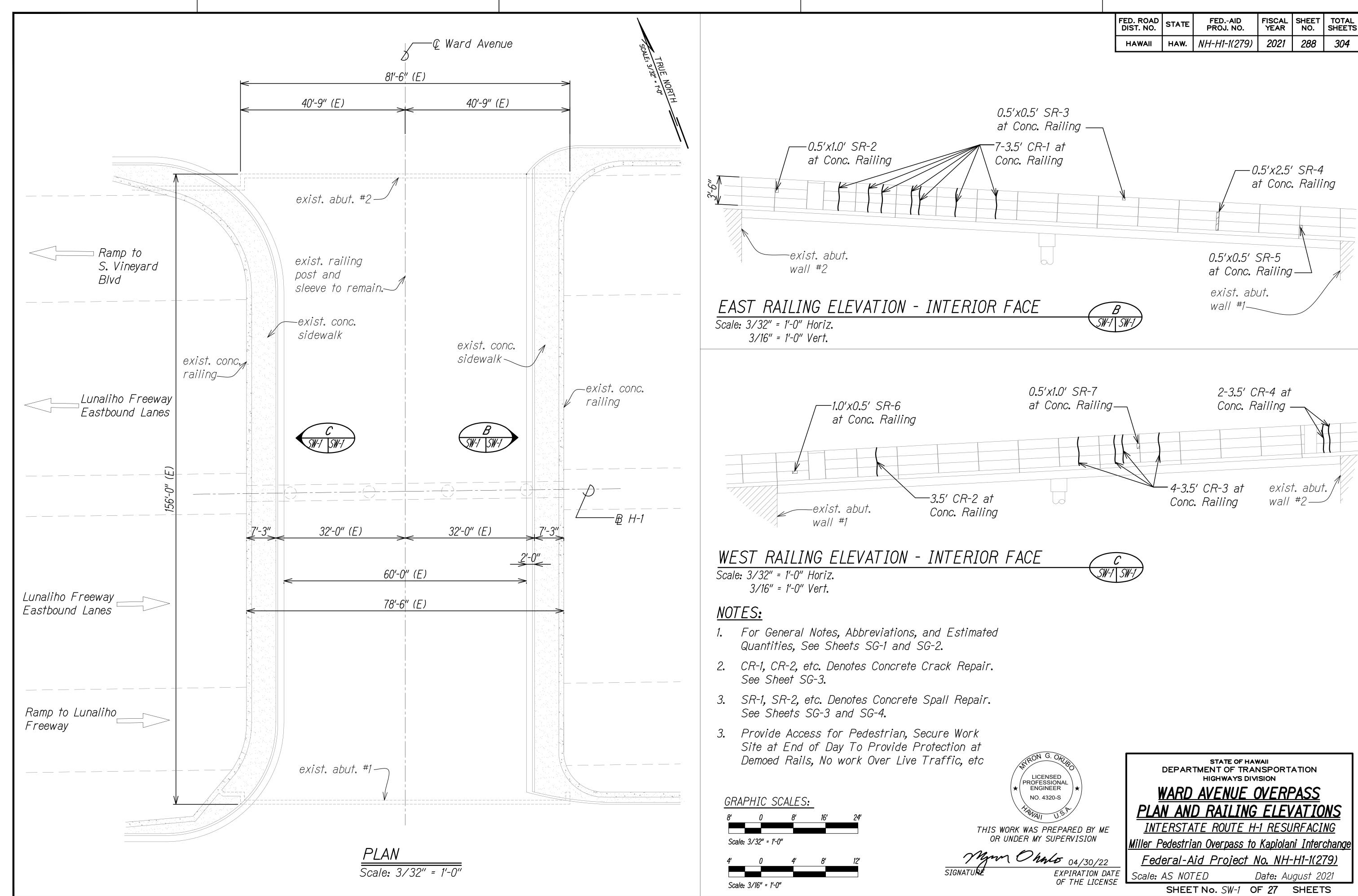
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

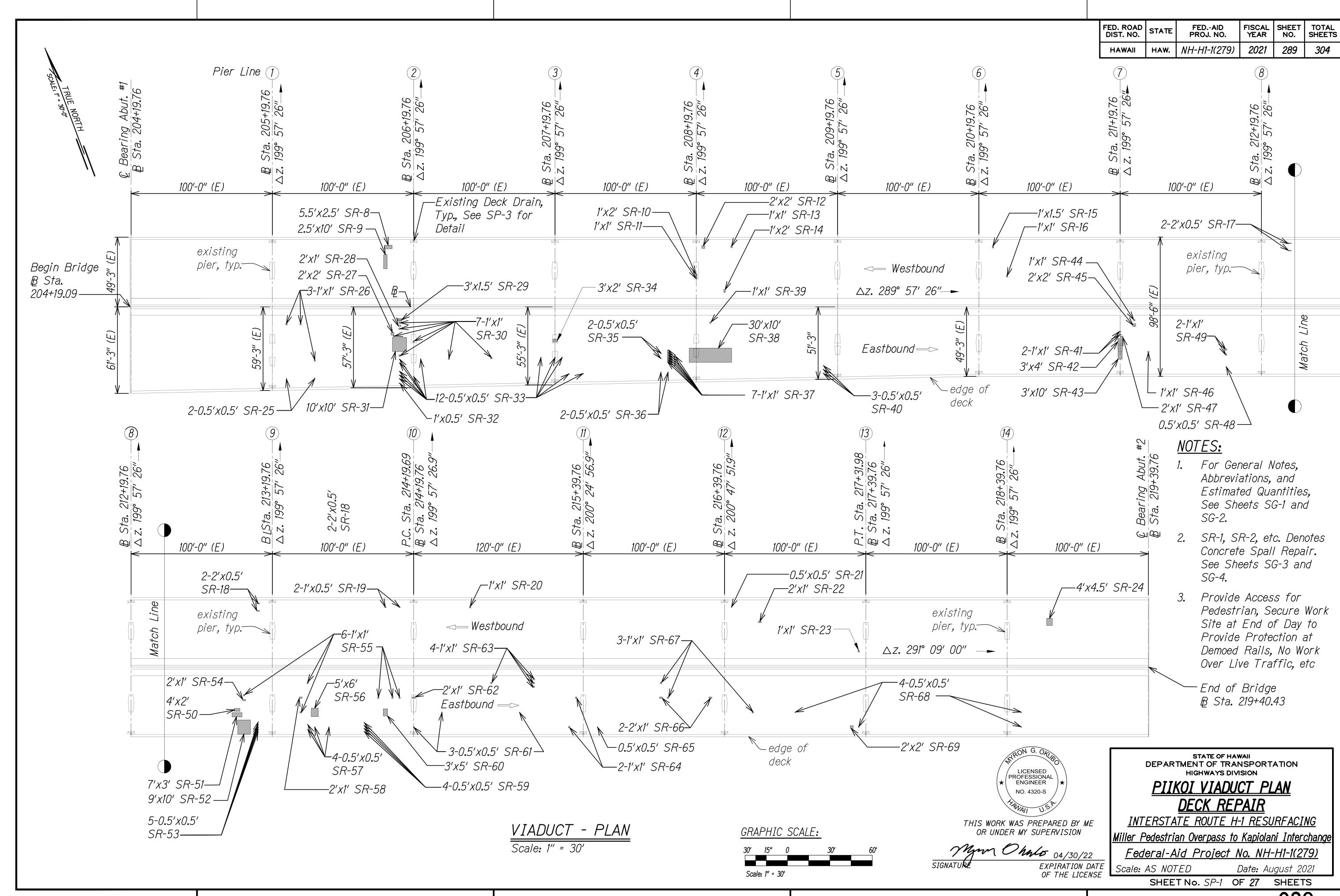
ALAPAI STREET PEDESTRIAN OVERCROSSING - DETAILS

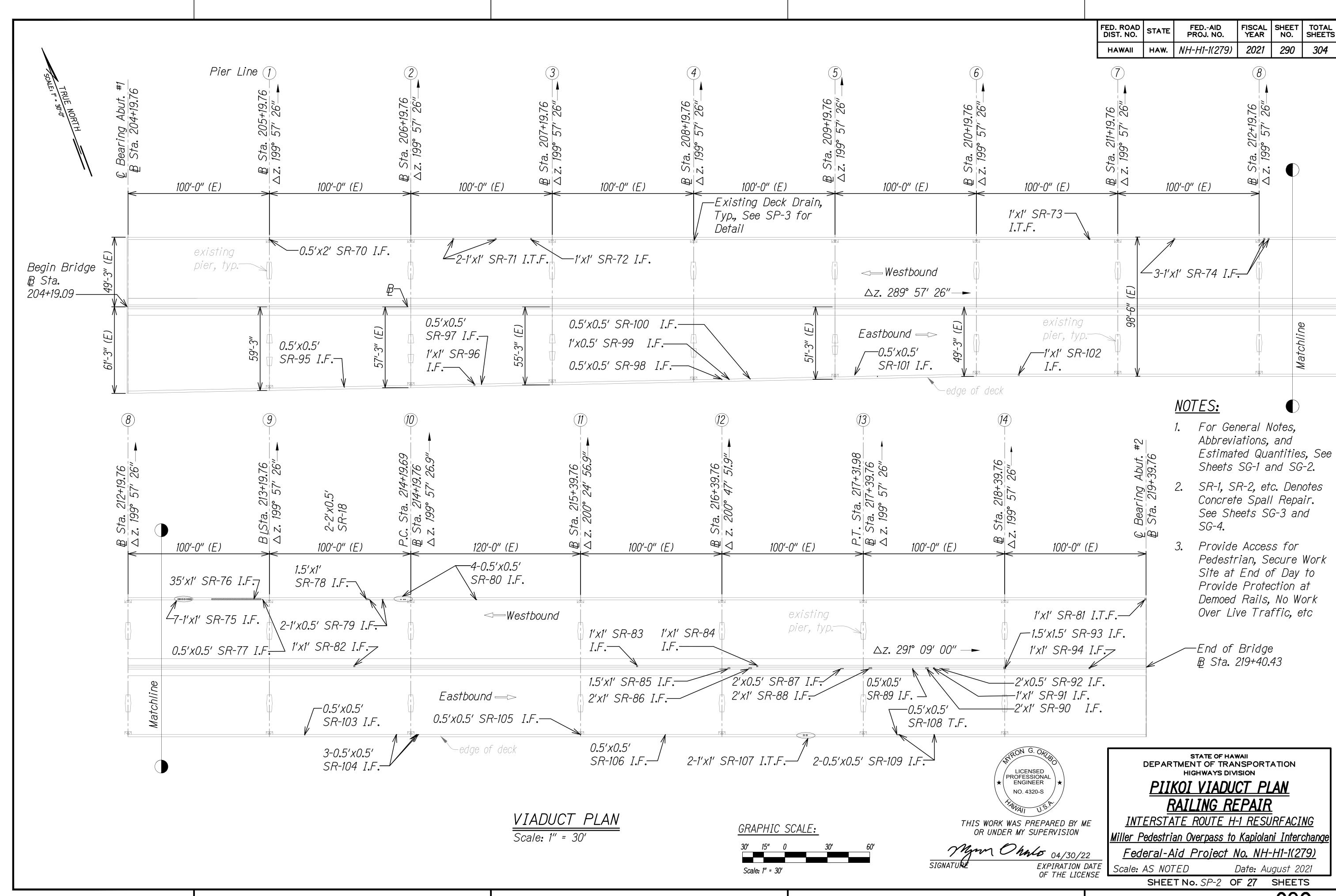
INTERSTATE ROUTE H-1 RESURFACING Miller Pedestrian Overpass to Kapiolani Interchange

Federal-Aid Project No. NH-H1-1(279) EXPIRATION DATE OF THE LICENSE Scale: AS NOTED Date: August 2021

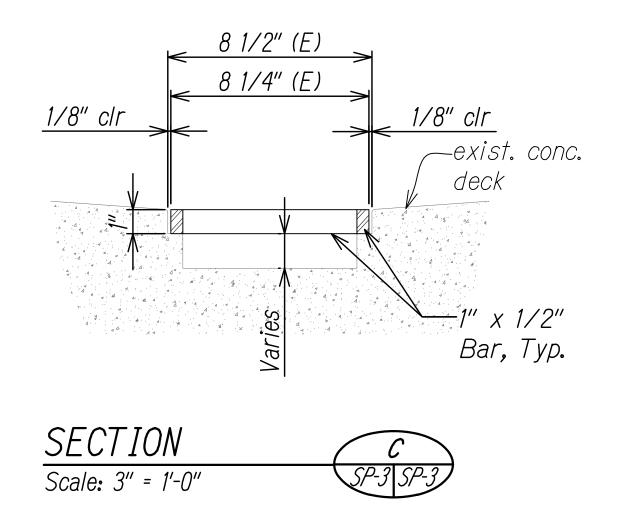
SHEET No. SA-3 OF 27 SHEETS

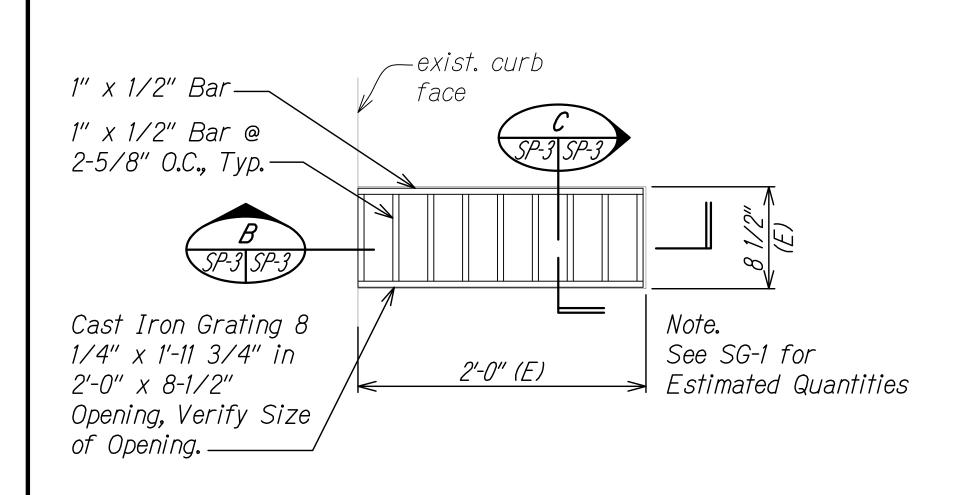




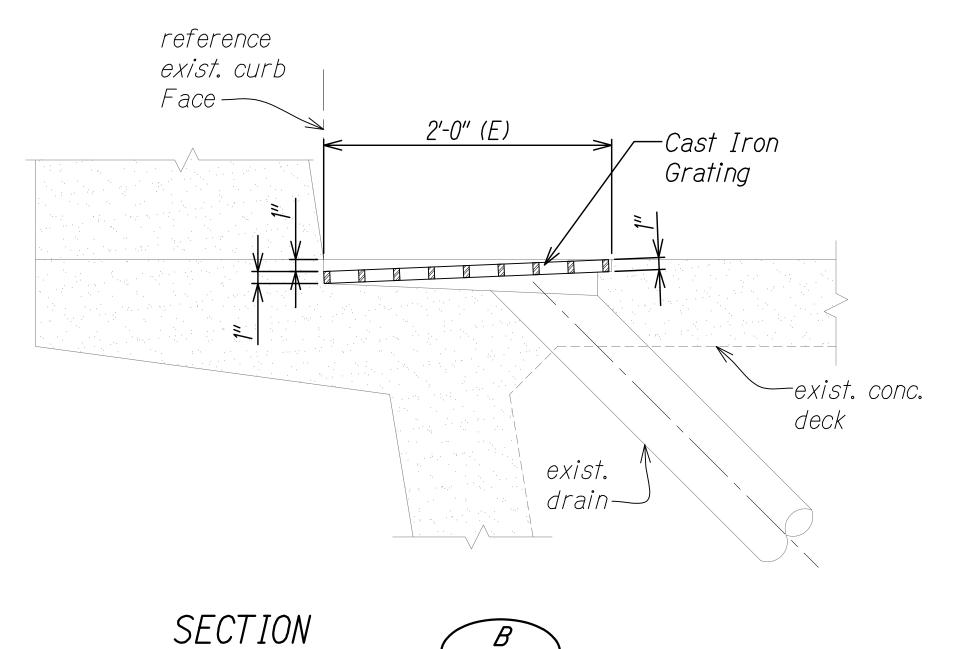


FED. ROAD	STATE	FEDAID	FISCAL	SHEET	TOTAL
DIST. NO.		PROJ. NO.	YEAR	NO.	SHEETS
HAWAII	HAW.	NH-H1-1(279)	2021	291	304





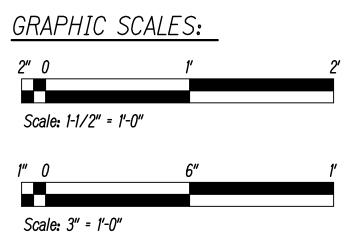


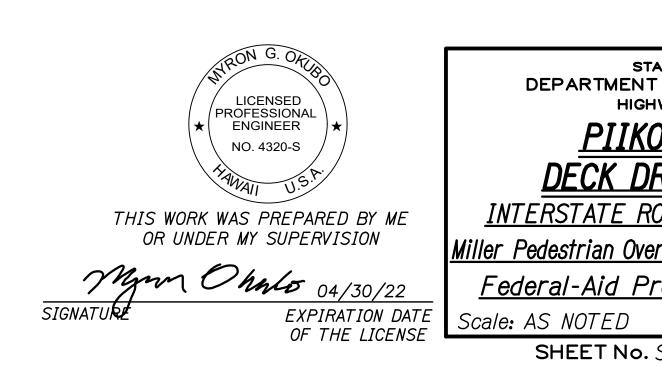


Scale: 1 1/2" = 1'-0"

NOTES:

- 1. For General Notes, Abbreviations, and Estimated Quantities, See Sheets SG-1 And SG-2.
- 2. The Contractor To Verify Size Of Opening Of Deck Drain.
- 3. Clear Debris and Dirt From Deck Drain and Downspout which was Clogged by Debris and Dirt.
- 4. Replace Or Repair Existing Deck Drain Grating which was Damaged or Missing.
- 5. Deck Drain Grating to be Able to Resist HL-93 Loading.





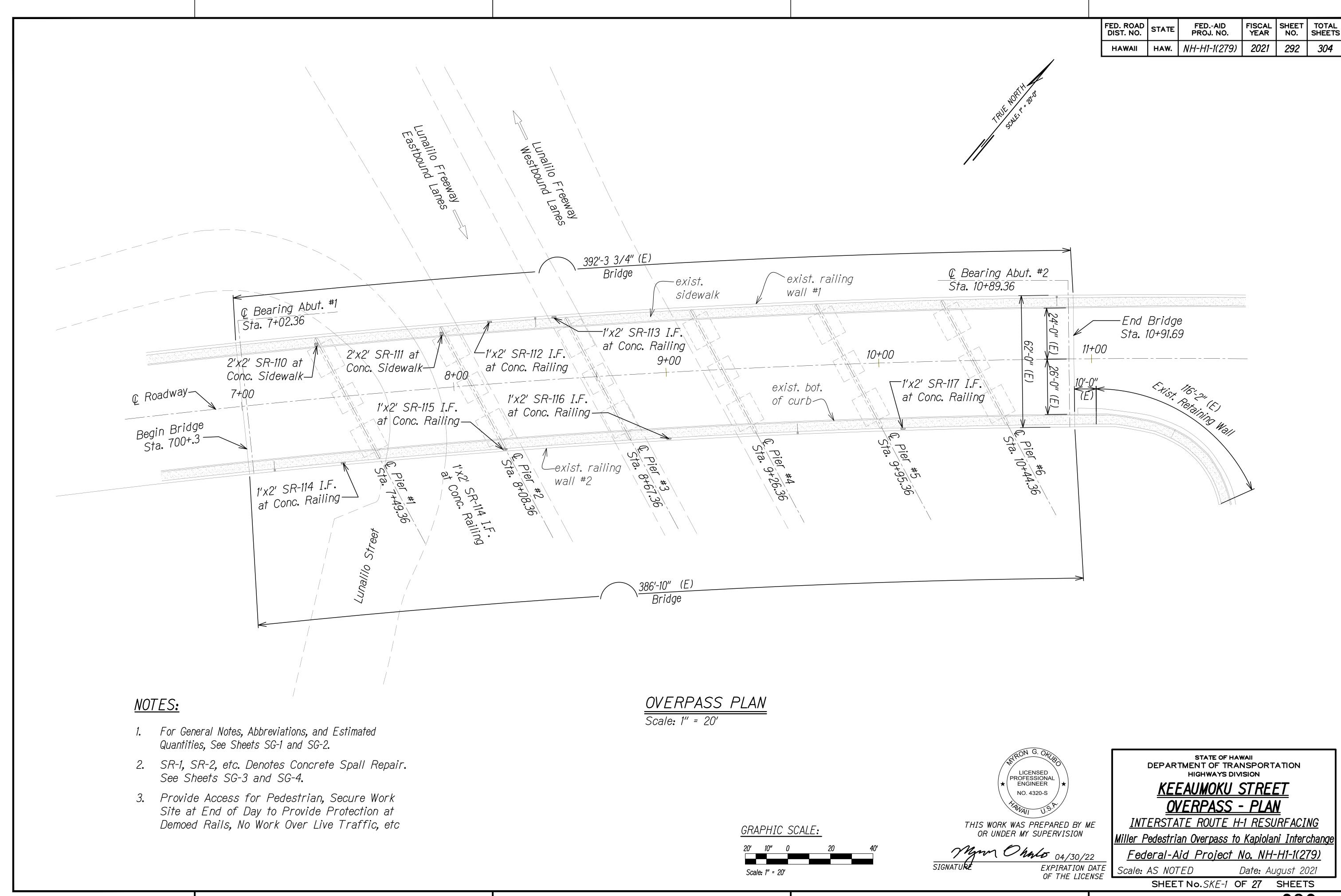
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

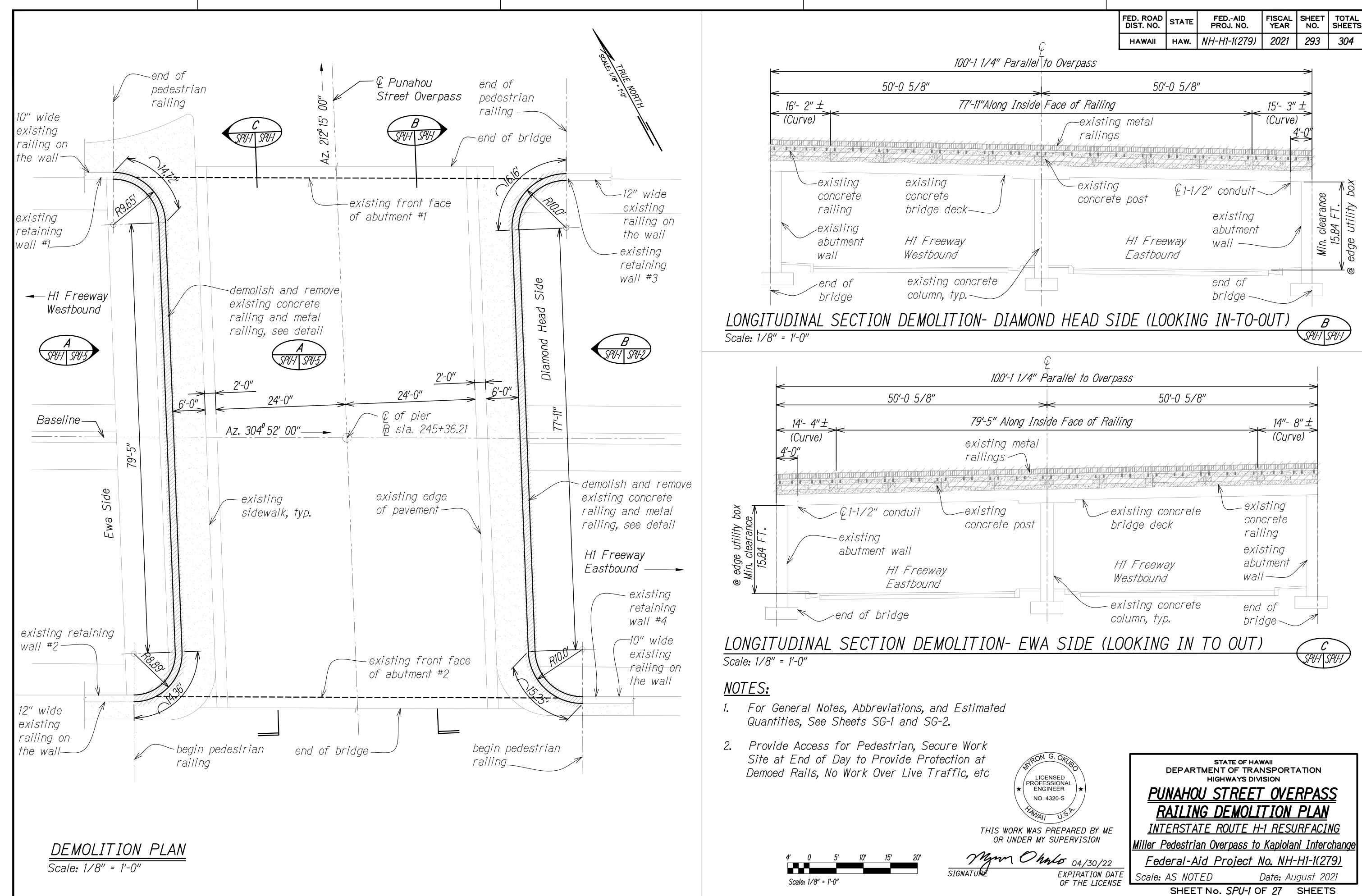
PIIKOI VIADUCT
DECK DRAIN DETAILS

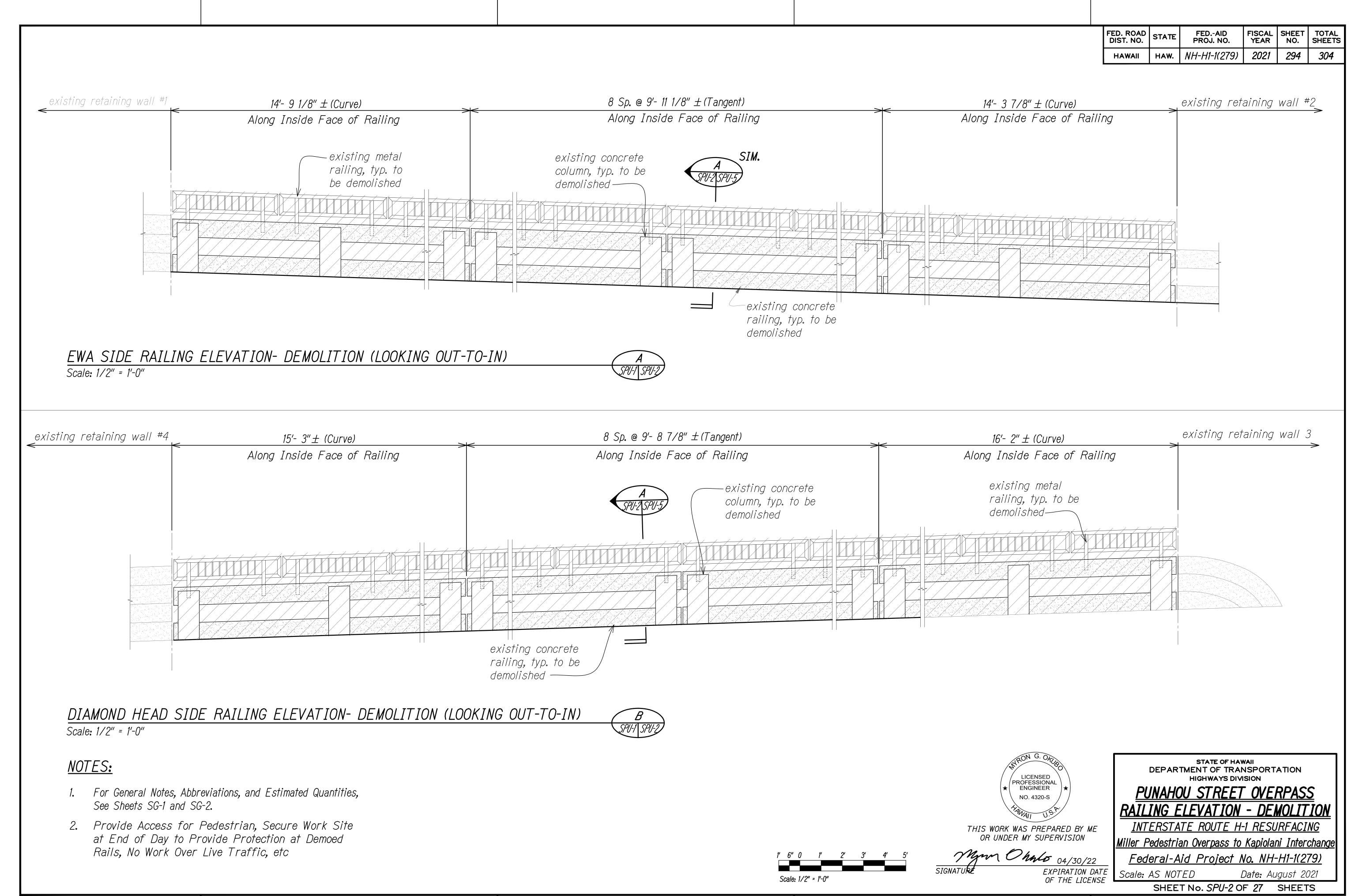
INTERSTATE ROUTE H-1 RESURFACING
Miller Pedestrian Overpass to Kapiolani Interchange

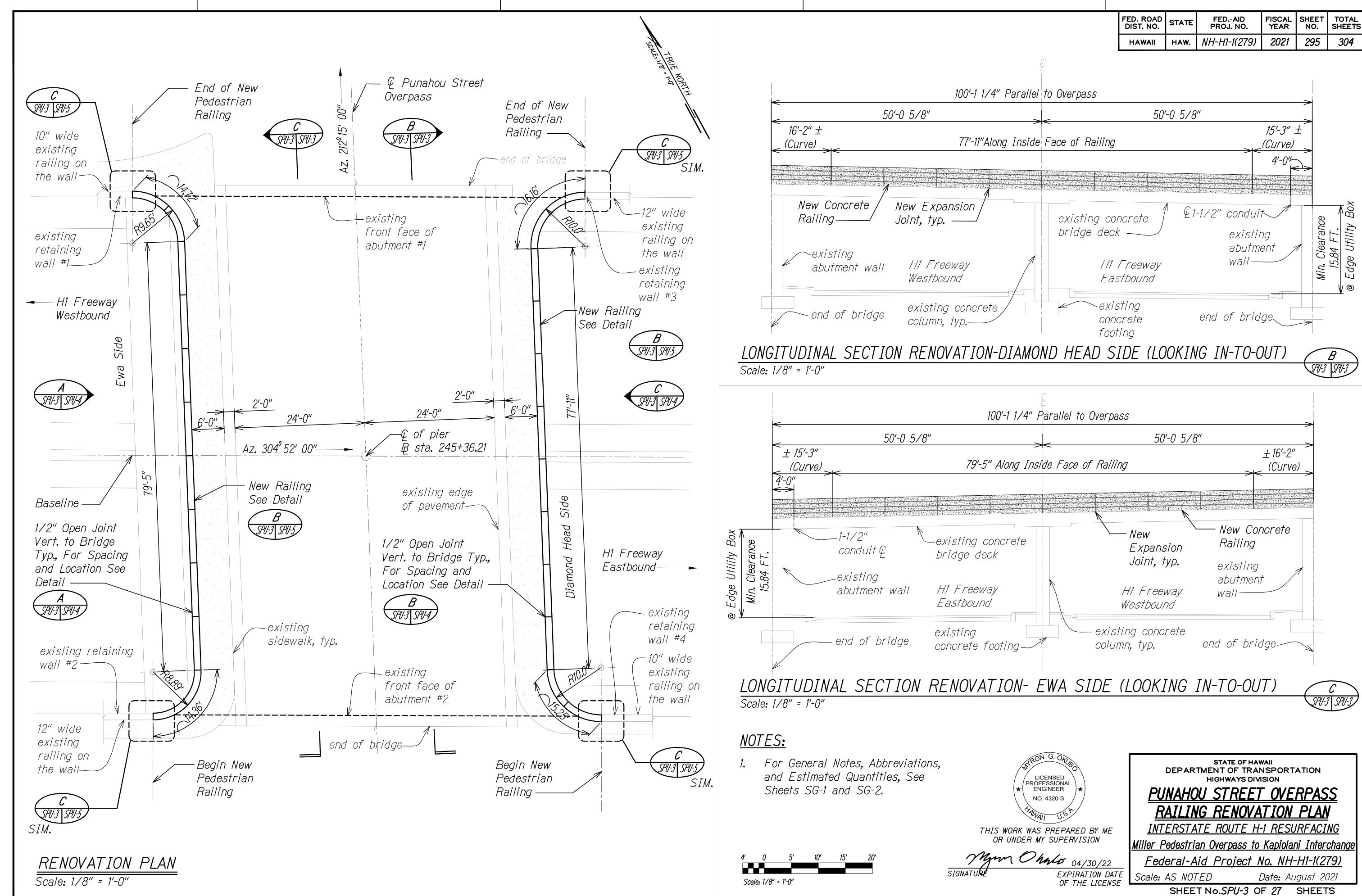
Scale: AS NOTED Date: August 2021

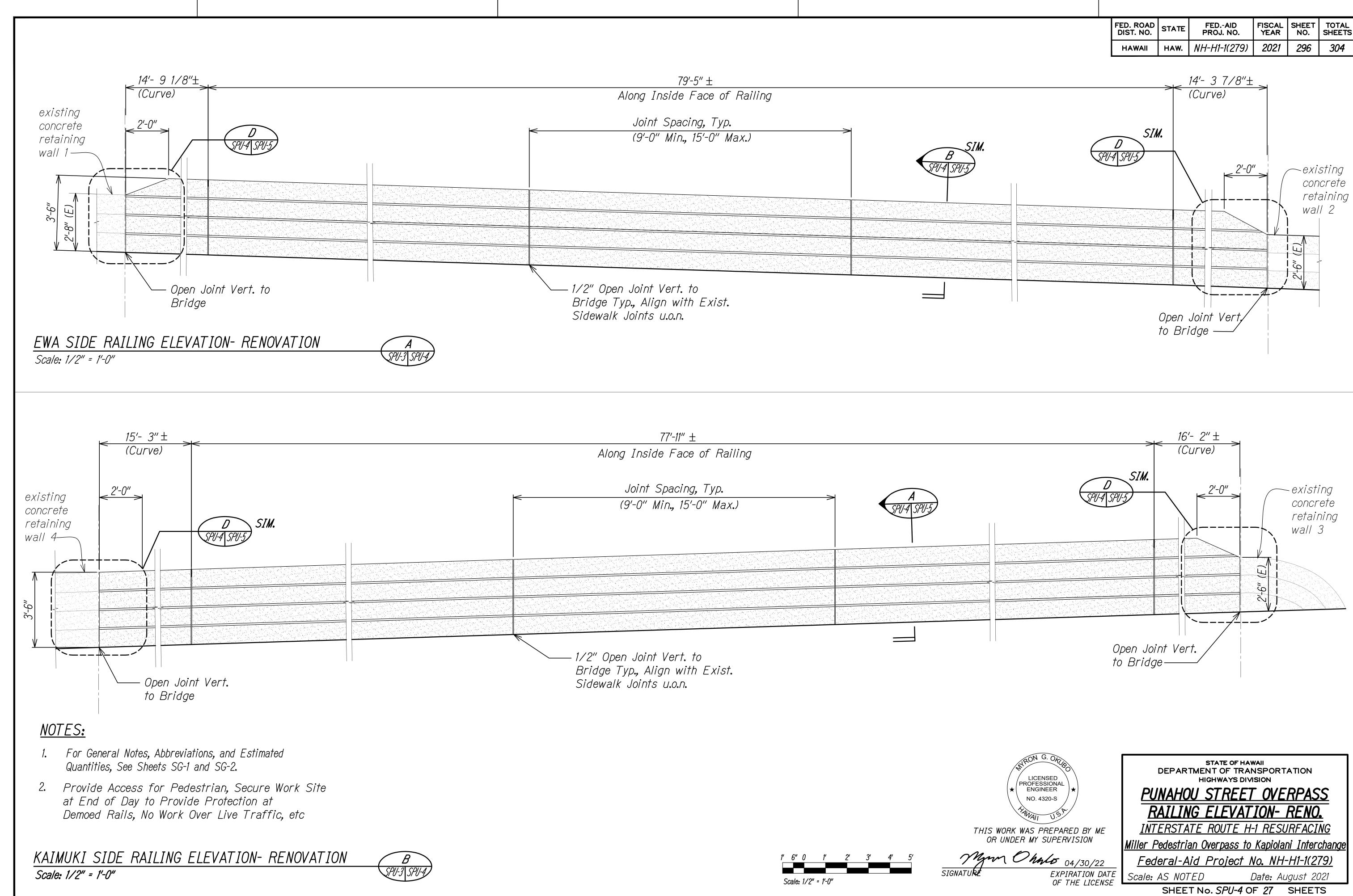
SHEET No. SP-3 OF 27 SHEETS

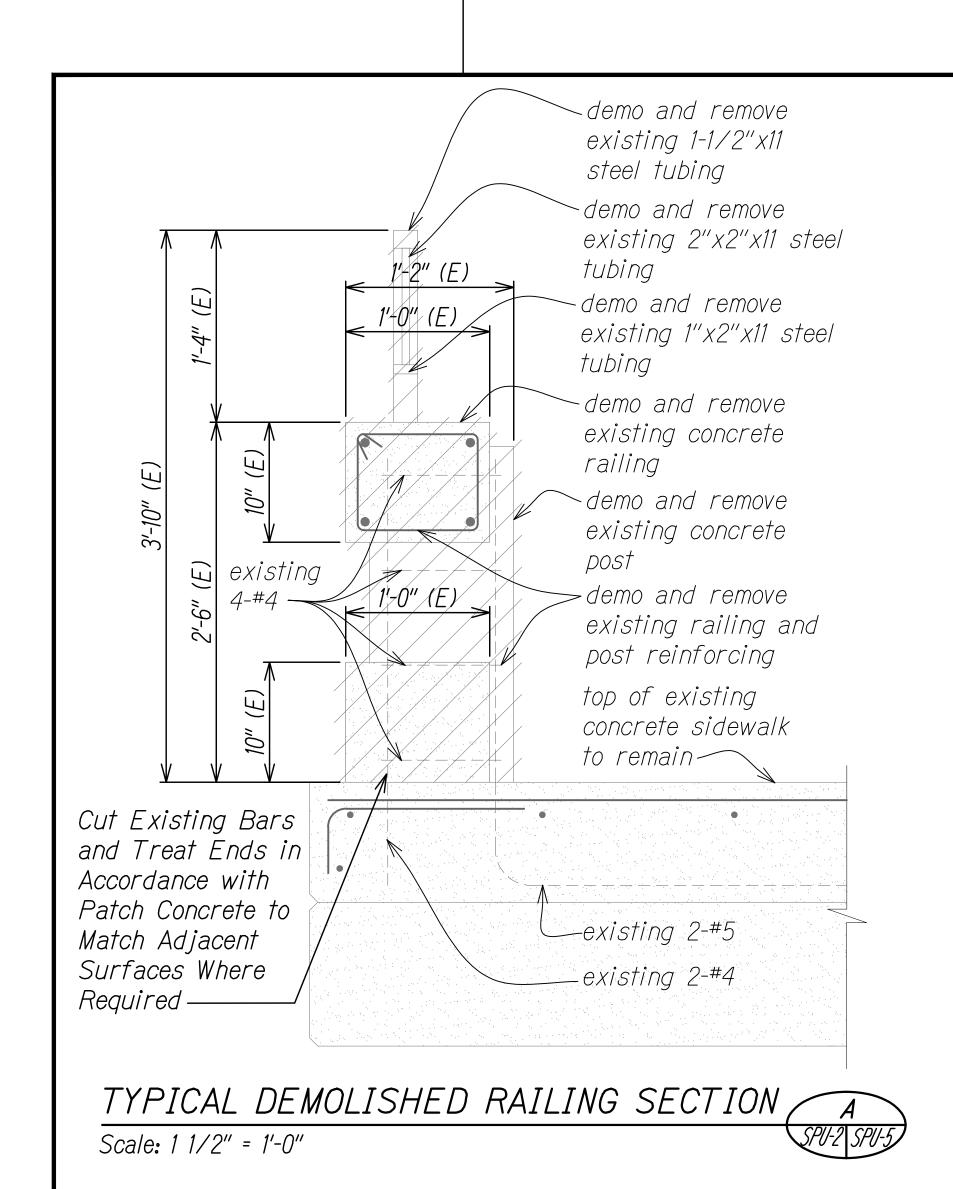


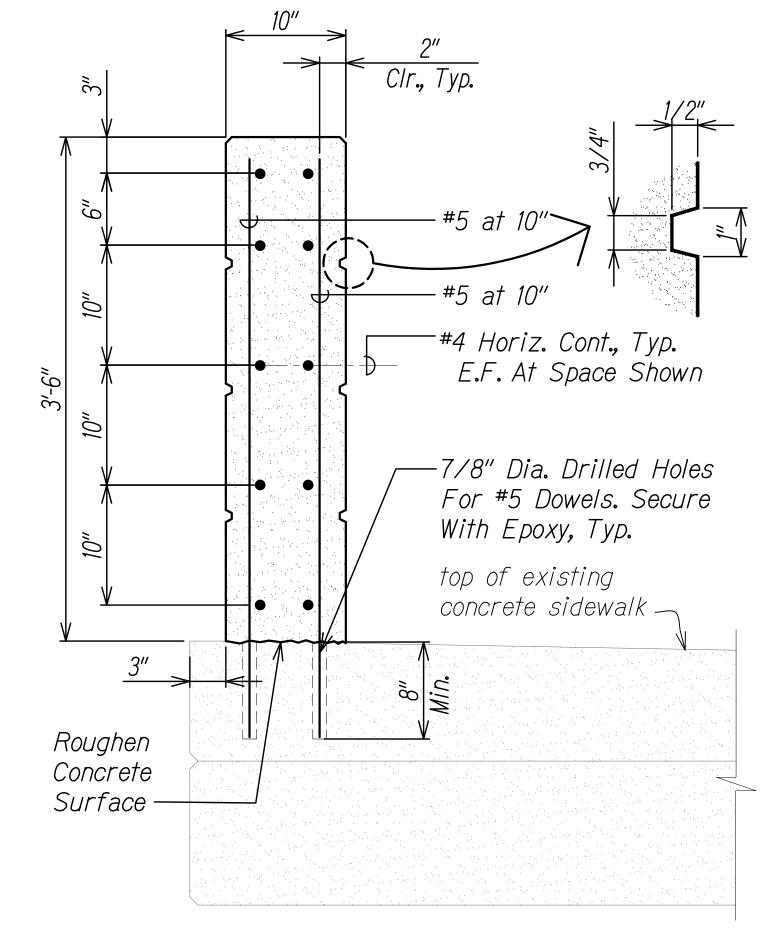




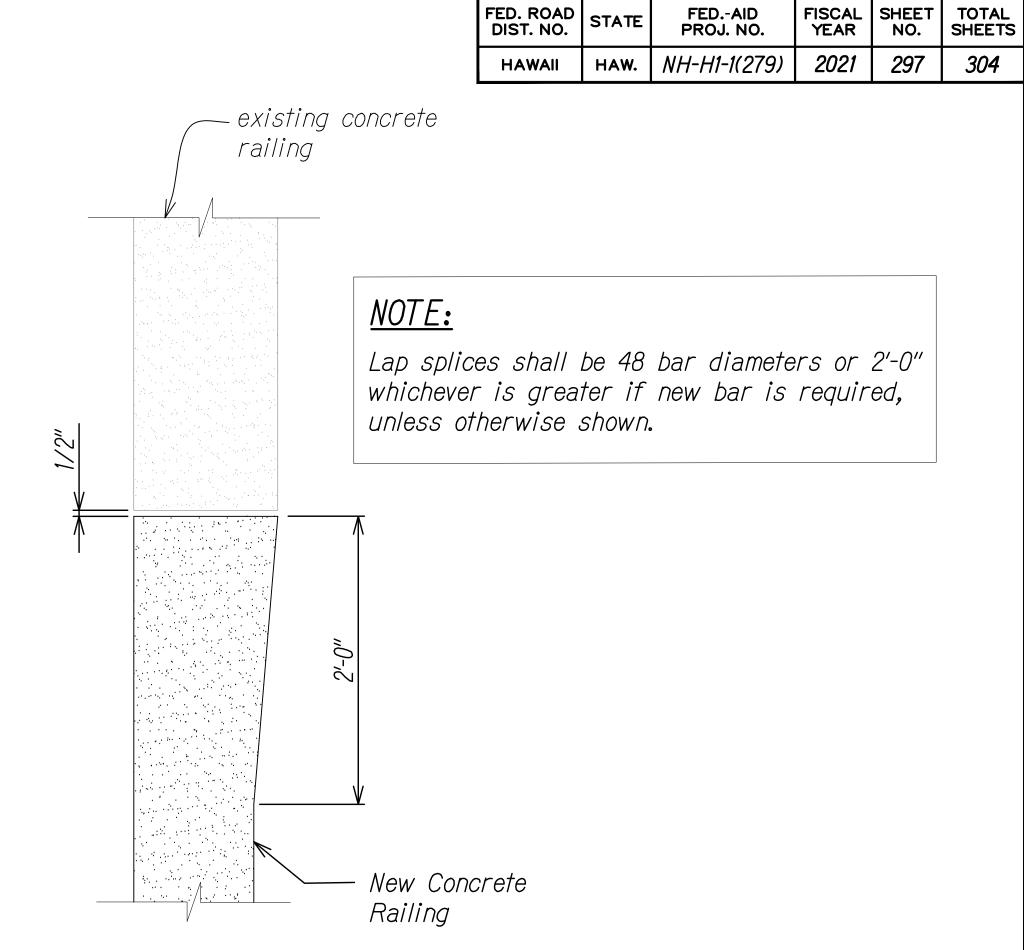








Scale: 1 1/2" = 1'-0"

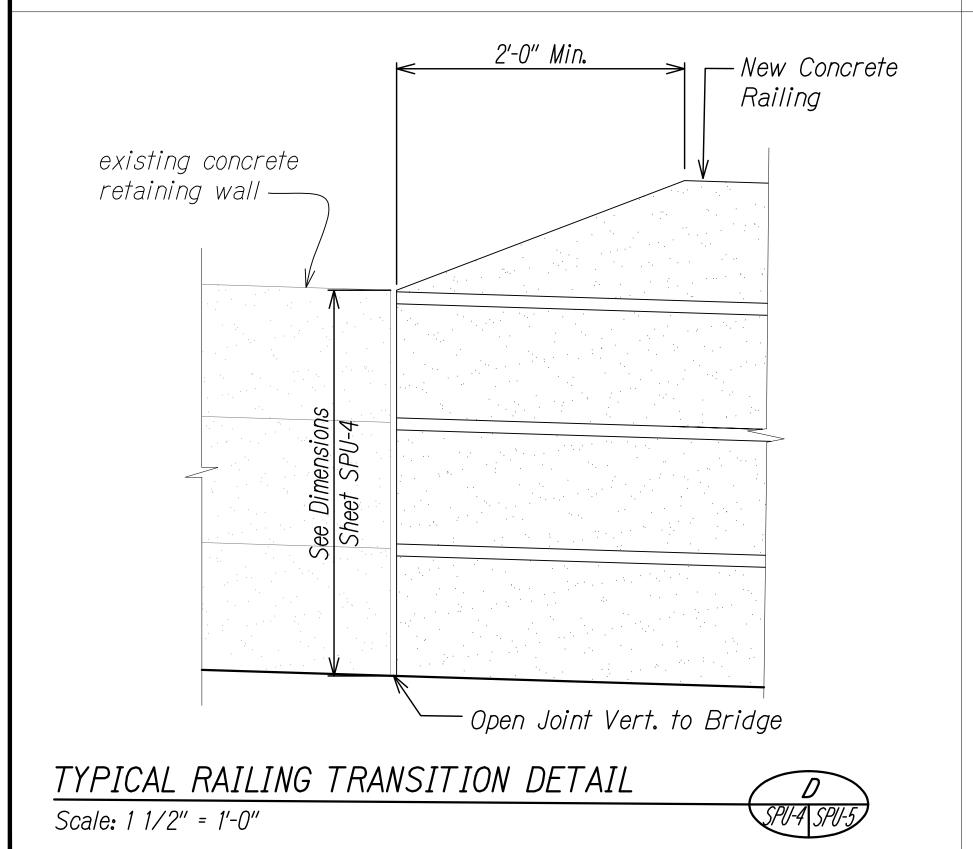


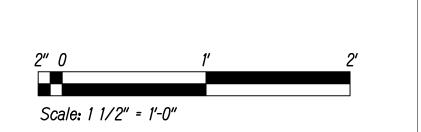


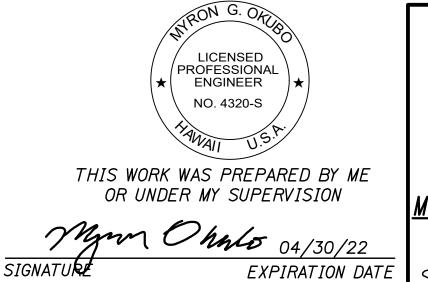




- 1. For General Notes, Abbreviations, and Estimated Quantities, See Sheets SG-1 and SG-2.
- 2. Provide Access for Pedestrian, Secure Work Site at End of Day to Provide Protection at Demoed Rails, No Work Over Live Traffic, etc







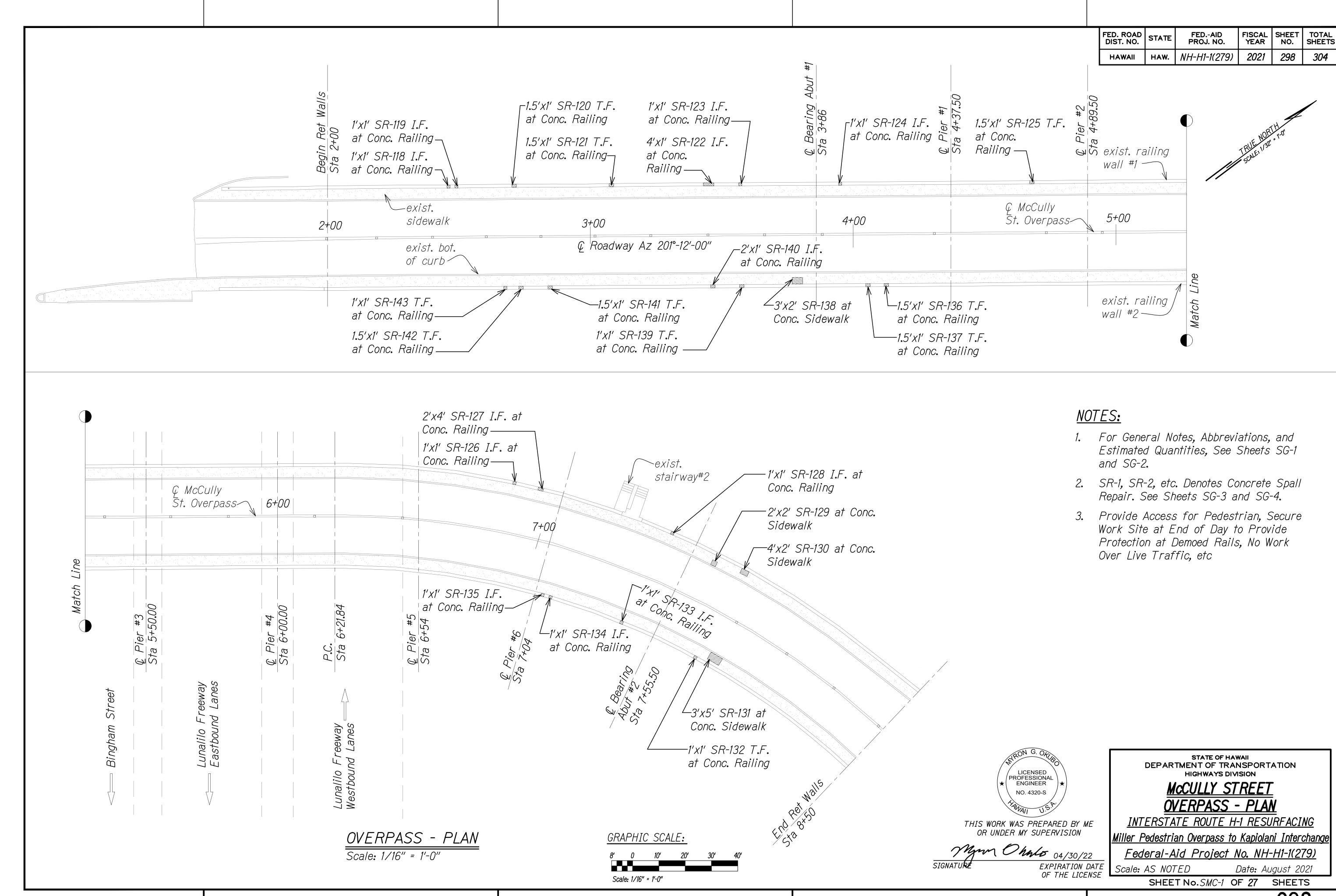
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

PUNAHOU STREET OVERPASS SECTIONS AND DETAILS

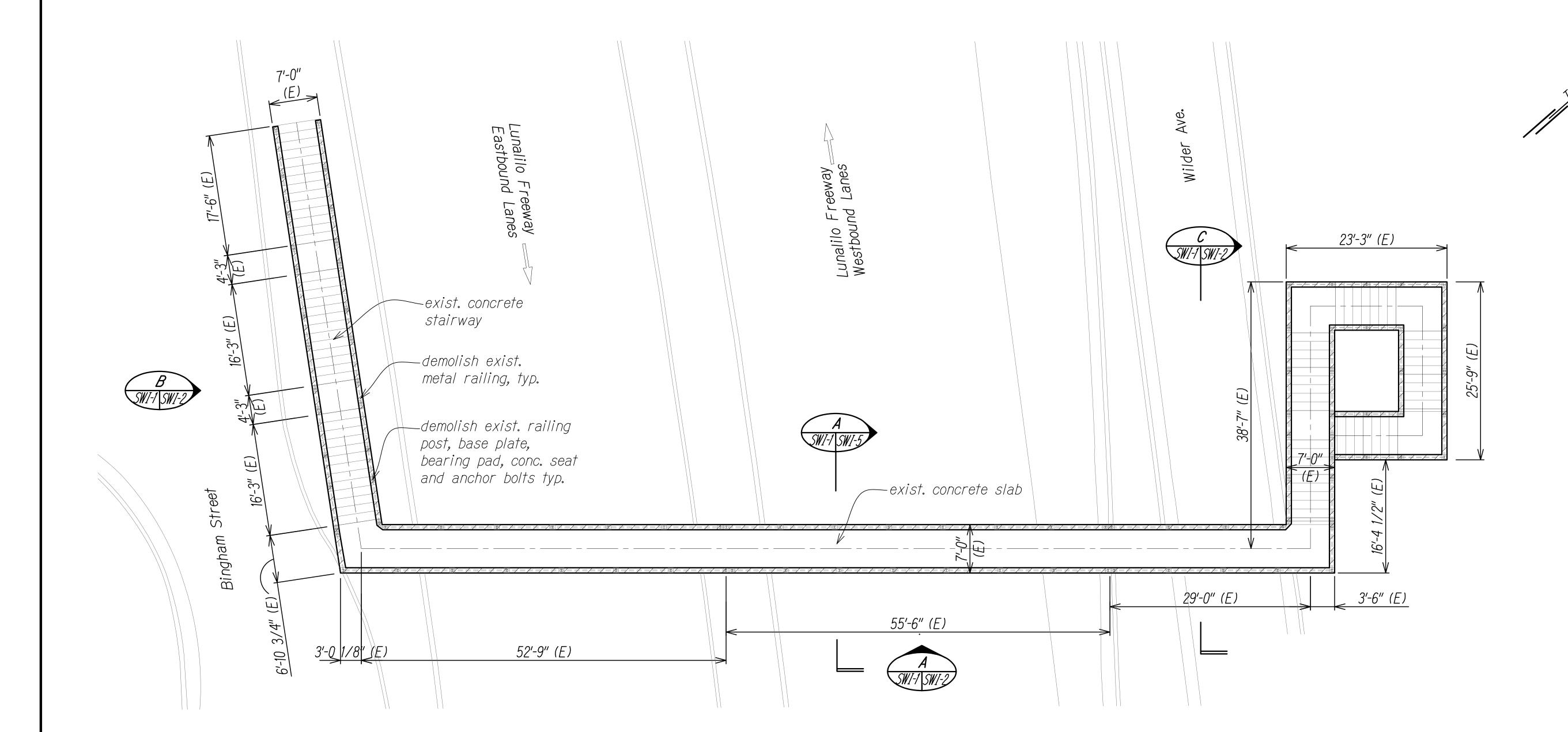
INTERSTATE ROUTE H-1 RESURFACING Miller Pedestrian Overpass to Kapiolani Interchange

Federal-Aid Project No. NH-H1-1(279) EXPIRATION DATE OF THE LICENSE Scale: AS NOTED Date: August 2021

SHEET No. SPU-5 OF 27 SHEETS



FED. ROAD DIST. NO. FISCAL SHEET TOTAL SHEETS FED.-AID PROJ. NO. STATE 2021 299 HAW. | *NH-H1-1(279)*

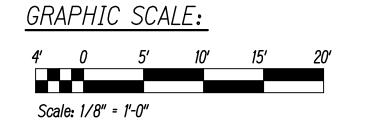


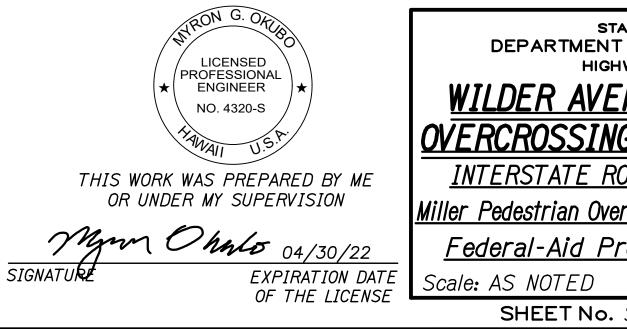
NOTES:

- 1. For General Notes, Abbreviations, and Estimated Quantities, See Sheets SG-1 and SG-2.
- 2. Provide Access for Pedestrian, Secure Work Site at End of Day to Provide Protection at Demoed Rails, No Work Over Live Traffic, etc

DEMOLITION PLAN

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





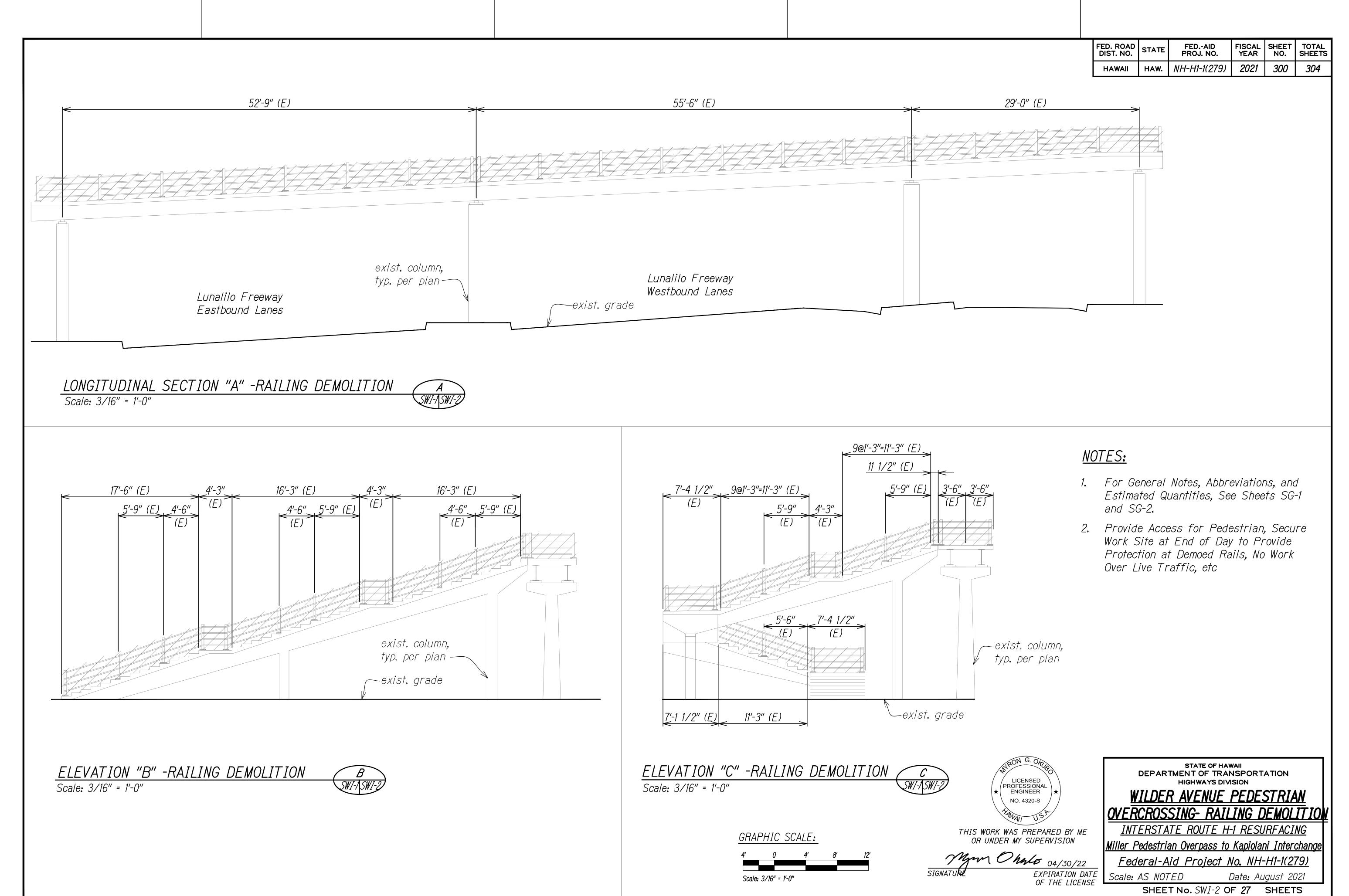
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

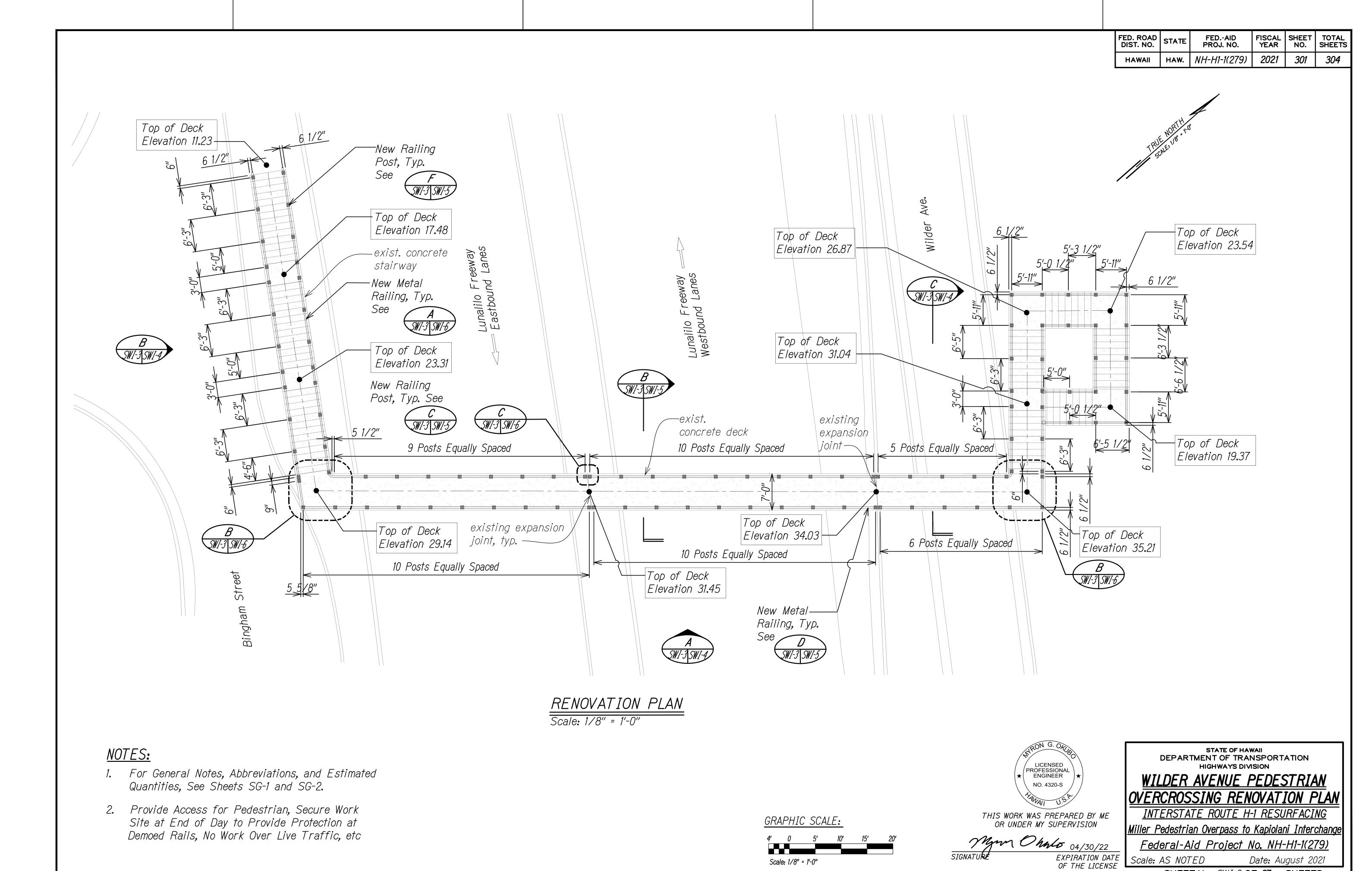
WILDER AVENUE PEDESTRIAN OVERCROSSING DEMOLITION PLAN

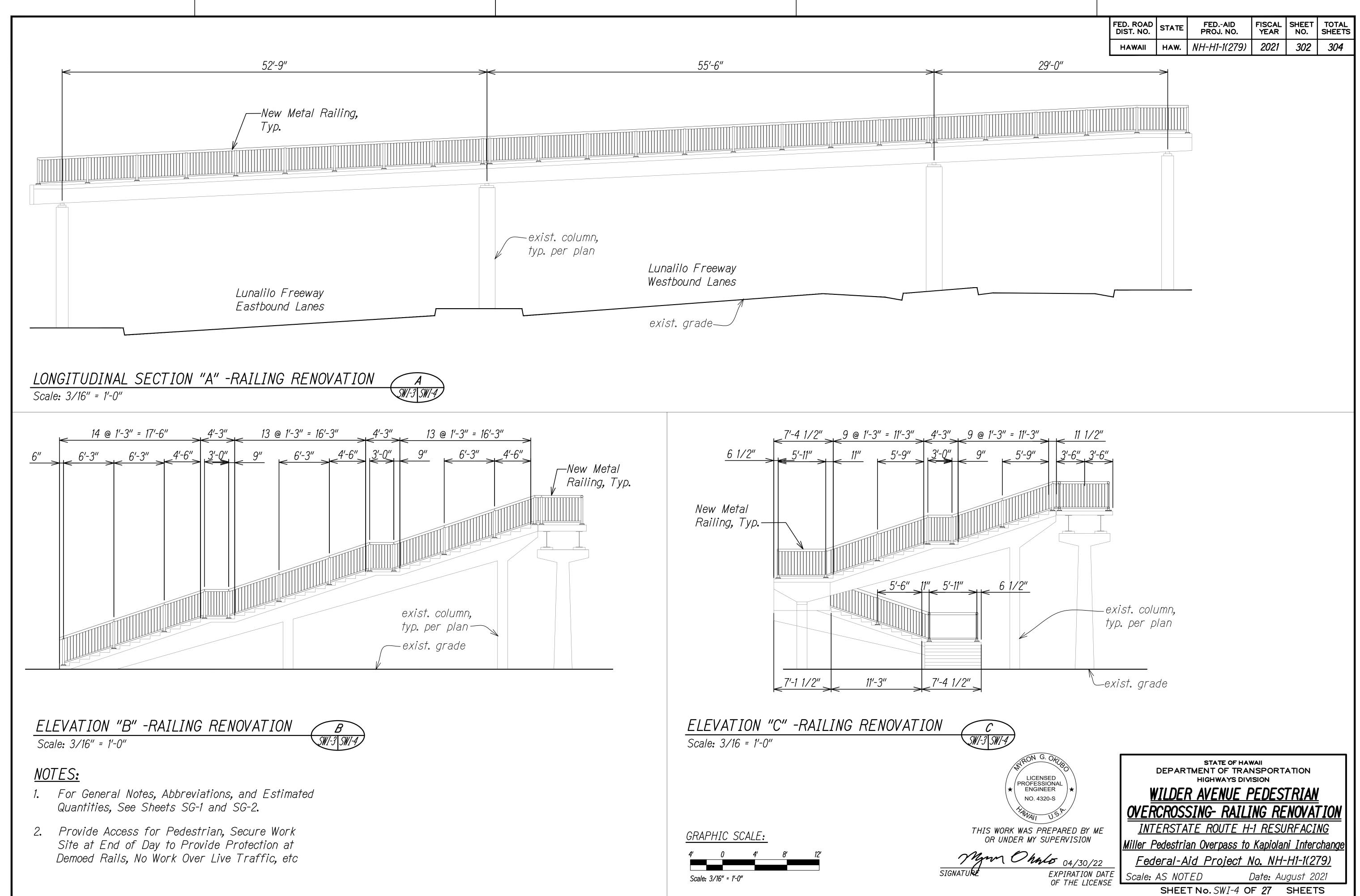
INTERSTATE ROUTE H-1 RESURFACING Miller Pedestrian Overpass to Kapiolani Interchange

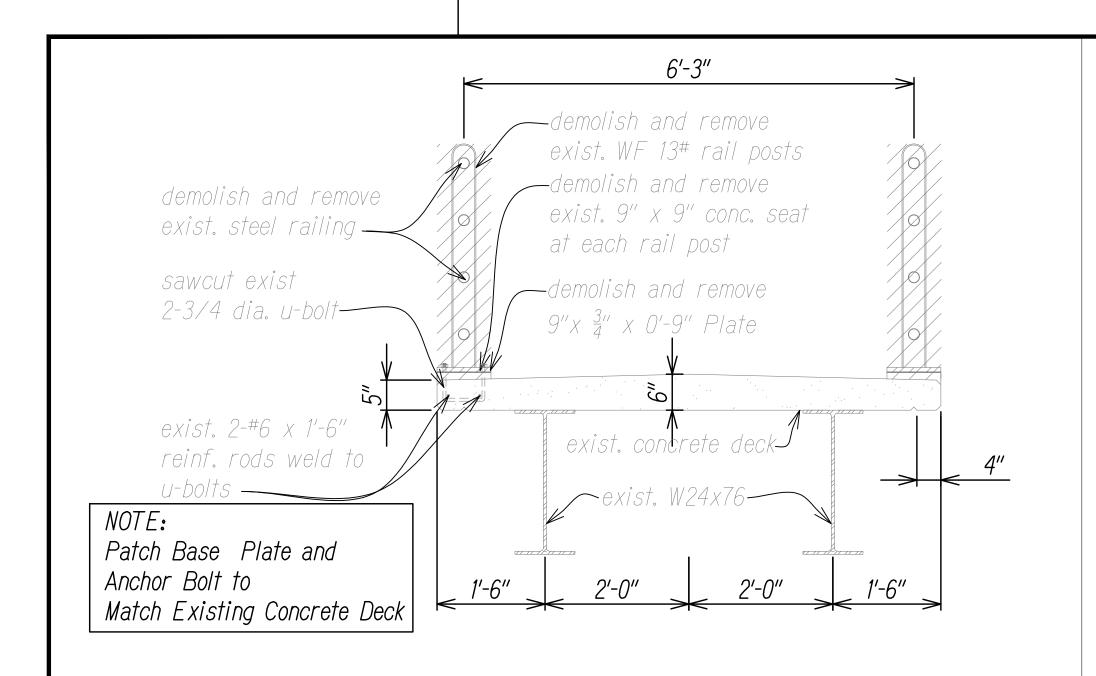
Federal-Aid Project No. NH-H1-1(279)

Date: August 2021 SHEET No. SWI-1 OF 27 SHEETS





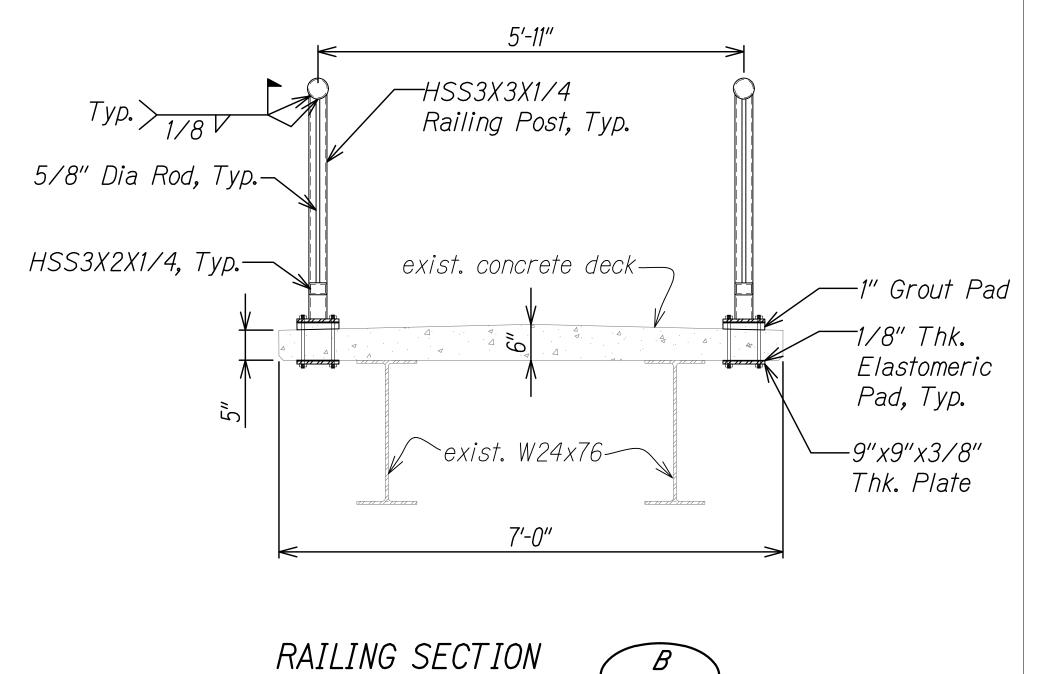




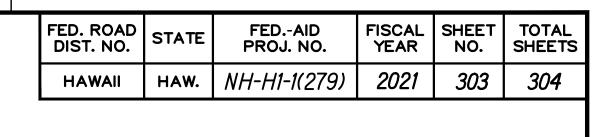
DEMOLITION SECTION

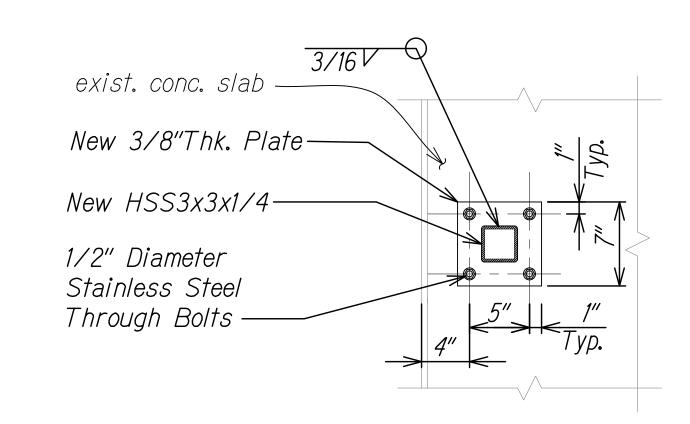
Scale: 3/4" = 1'-0"

SWI-1 SWI-5



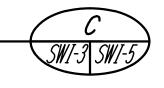
SWI-3 SWI-5)

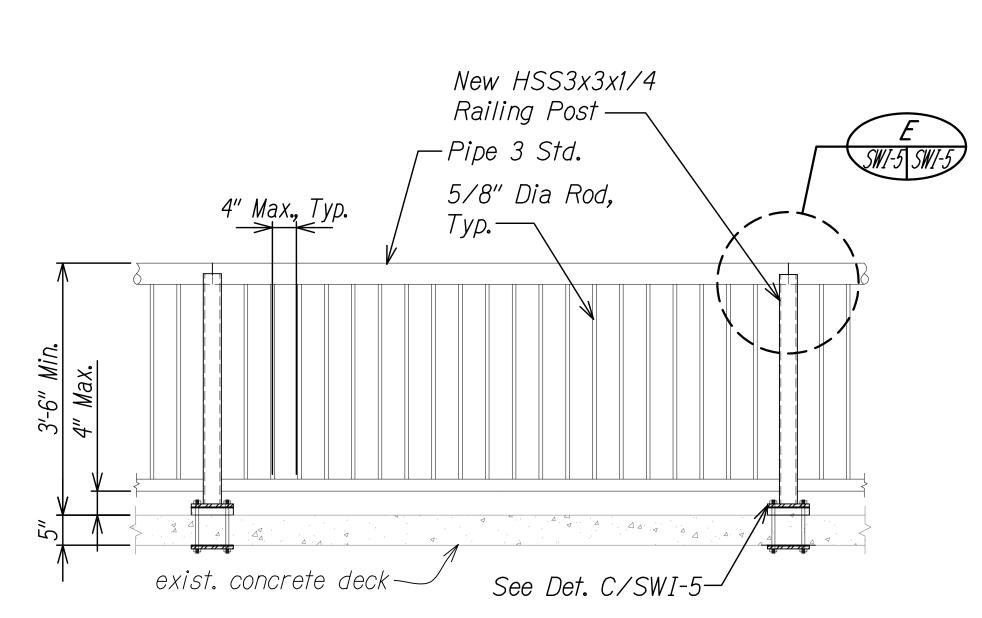


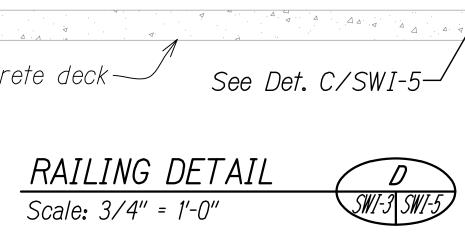


THROUGH-BOLT BASEPLATE DETAIL

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

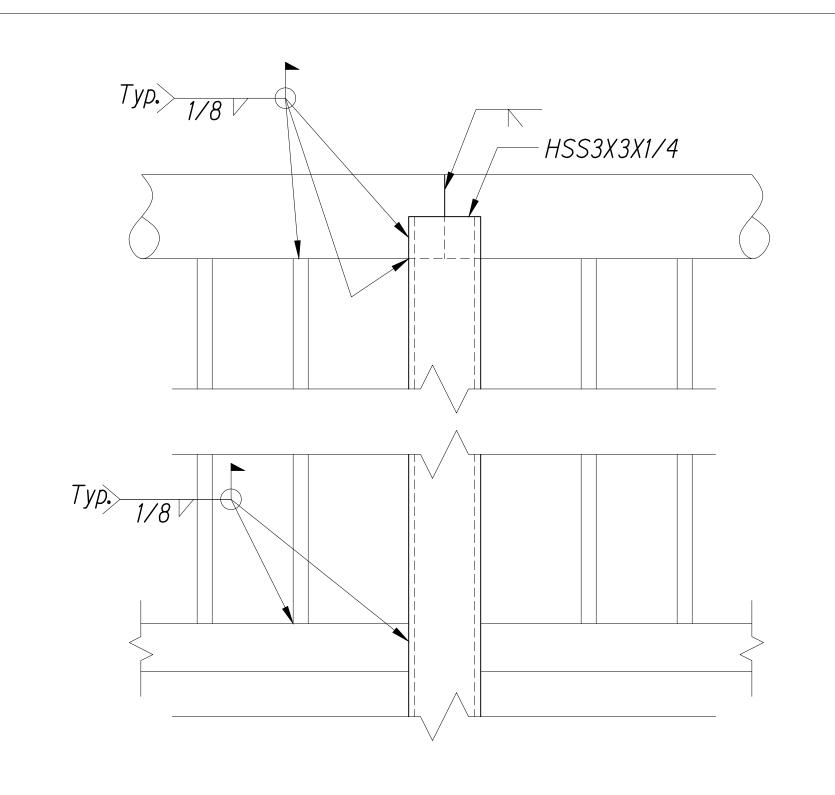






NOTES:

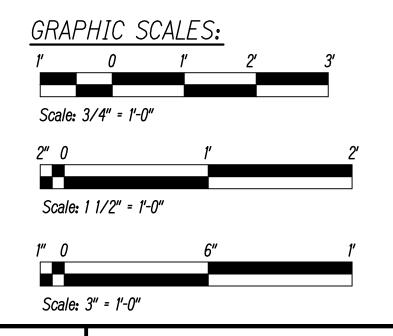
- 1. For General Notes, Abbreviations, and Estimated Quantities, See Sheets SG-1 and SG-2.
- 2. Provide Access for Pedestrian, Secure Work Site at End of Day to Provide Protection at Demoed Rails, No Work Over Live Traffic, etc.
- 3. Grind Smooth All Field Welds.

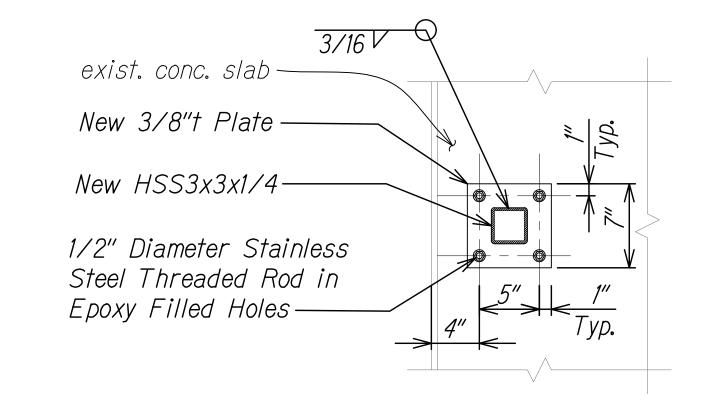


RAILING DETAIL

Scale: 3" = 1'-0"

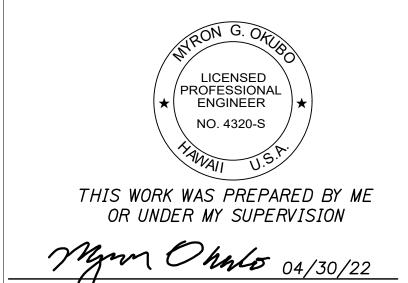
Scale: 3/4" = 1'-0"





THREADED ROD BASEPLATE DETAIL Scale: 1 1/2" = 1'-0"





SIGNATURE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WILDER AVE. PEDESTRIAN OV

<u>WILDER AVE. PEDESTRIAN OVER-</u> CROSSING SECTIONS AND DETAILS

INTERSTATE ROUTE H-1 RESURFACING

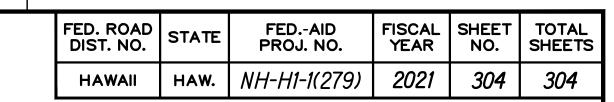
Miller Pedestrian Overpass to Kapiolani Interchange

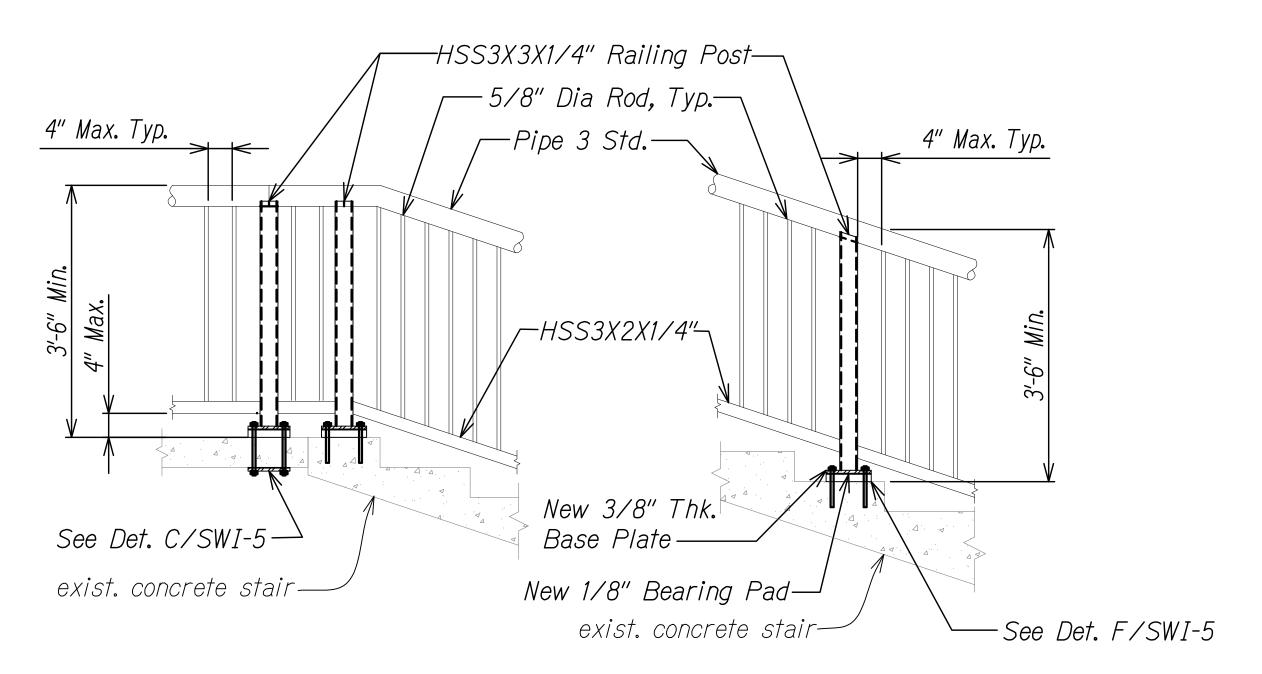
Federal-Aid Project No. NH-H1-1(279)

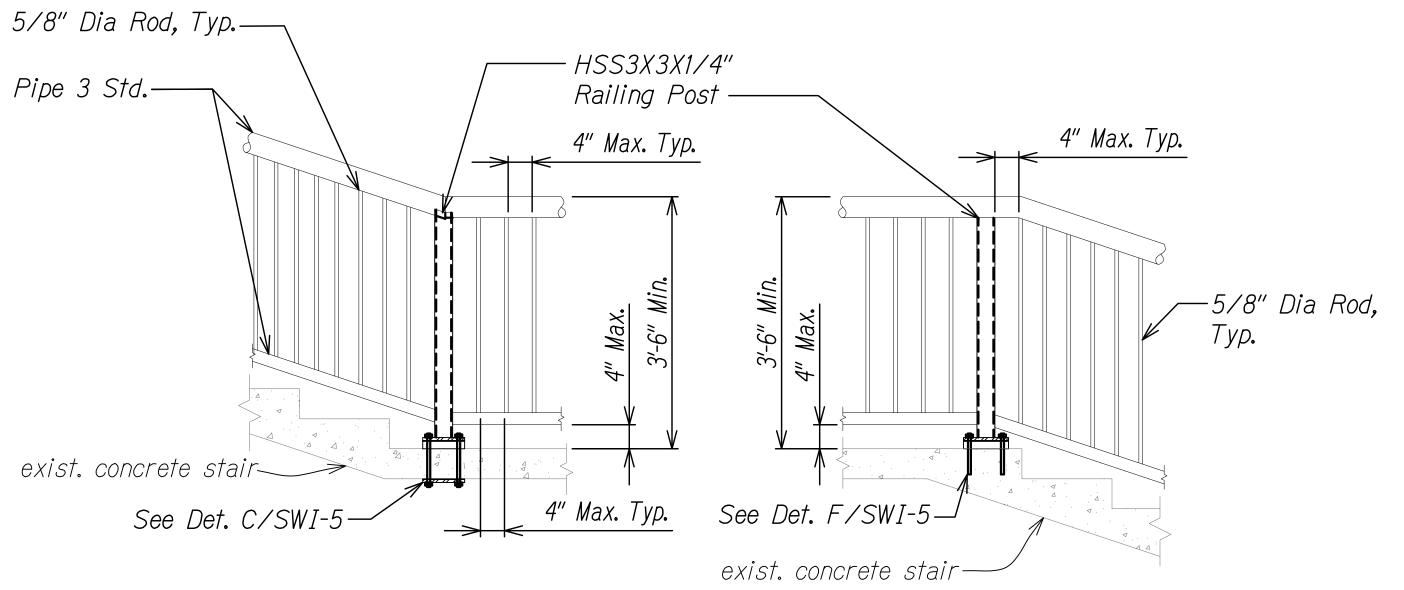
Scale: AS NOTED Date: August 2021

OF THE LICENSE

SHEET No. SWI-5 OF 27 SHEETS



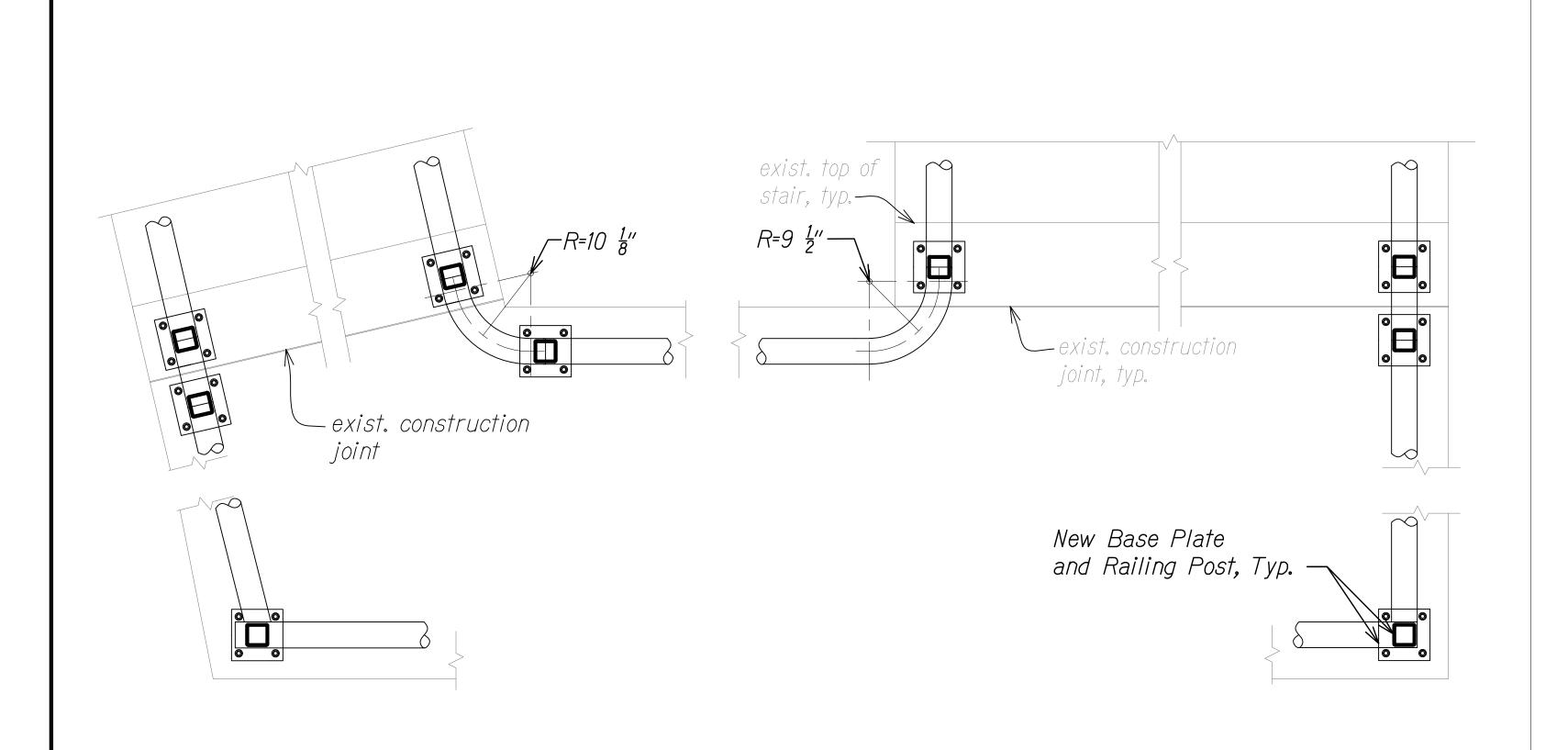




RAILING SECTION AT STAIRS

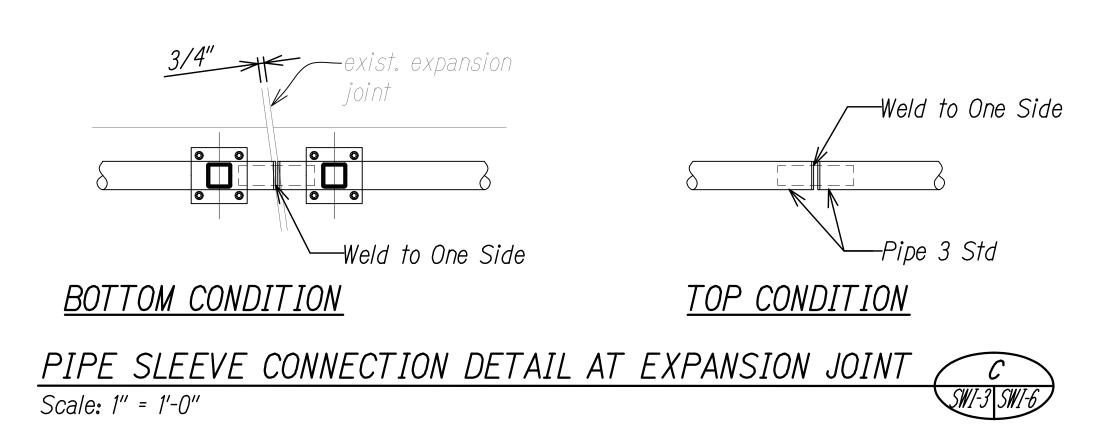
Scale: 3/4" = 1'-0"





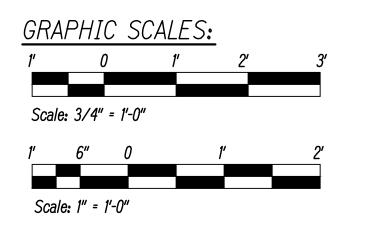
ENLARGED STAIRS RAILING DETAIL

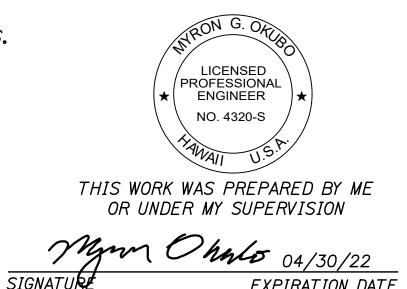
Scale: 1" = 1'-0"



NOTES:

- 1. For General Notes, Abbreviations, and Estimated Quantities, See Sheets SG-1 and SG-2.
- 2. Provide Access for Pedestrian, Secure Work Site at End of Day to Provide Protection at Demoed Rails, No Work Over Live Traffic, etc.
- 3. Grind Smooth All Field Welds.





STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WILDER AVE. PEDESTRIAN OVERCROSSING SECTIONS AND DETAILS

INTERSTATE ROUTE H-1 RESURFACING

Miller Pedestrian Overpass to Kapiolani Interchange

Federal-Aid Project No. NH-H1-1(279)

SHEET No. SWI-6 OF 27 SHEETS