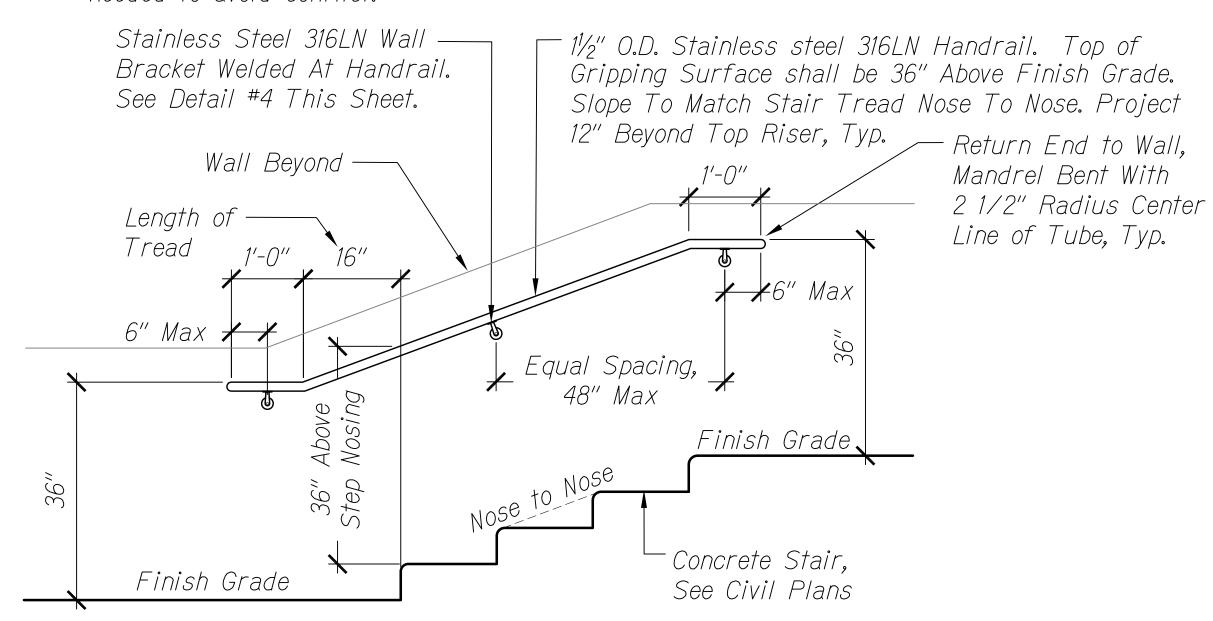


Notes:

- . All railings to be 316LN stainless steel with Polished ₱ Buffed finish.
- 2. Weld \$\phi\$ grind smooth all rail connections at transitions and wall brackets.
- 3. Submit railing shop drawings and finish sample to engineer for review prior to proceeding.
- 4. Prior to installation of any wall bracket anchors, the Contractor shall scan the existing concrete railing and locate all reinforcing steel. Adjust location of wall bracket anchor as needed to avoid conflict.



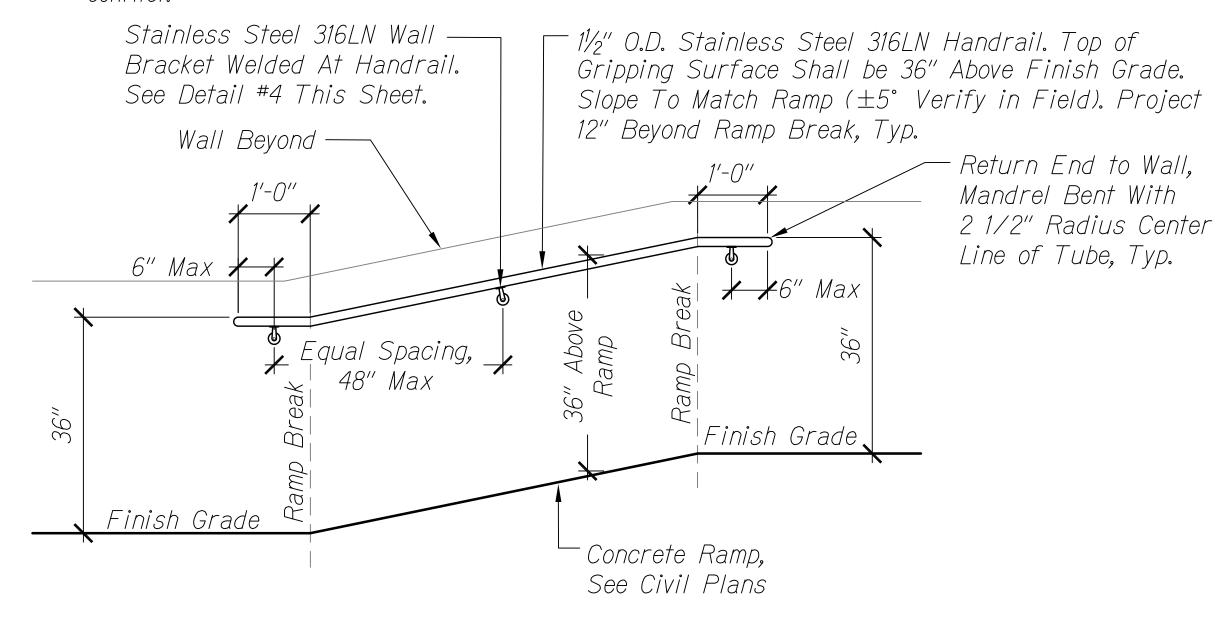
STAIR W/ WALL-MOUNTED HANDRAIL

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



Notes:

- 1. All railings to be 316LN stainless steel with Polished \$ Buffed finish.
- 2. Weld \$\phi\$ grind smooth all rail connections at transitions and wall brackets.
- 3. Submit railing shop drawings and finish sample to engineer for review prior to proceeding.
- 4. Prior to installation of any wall bracket anchors, the Contractor shall scan the existing concrete railing and locate all reinforcing steel. Adjust location of wall bracket anchor as needed to avoid conflict.



RAMP W/ WALL-MOUNTED HANDRAIL

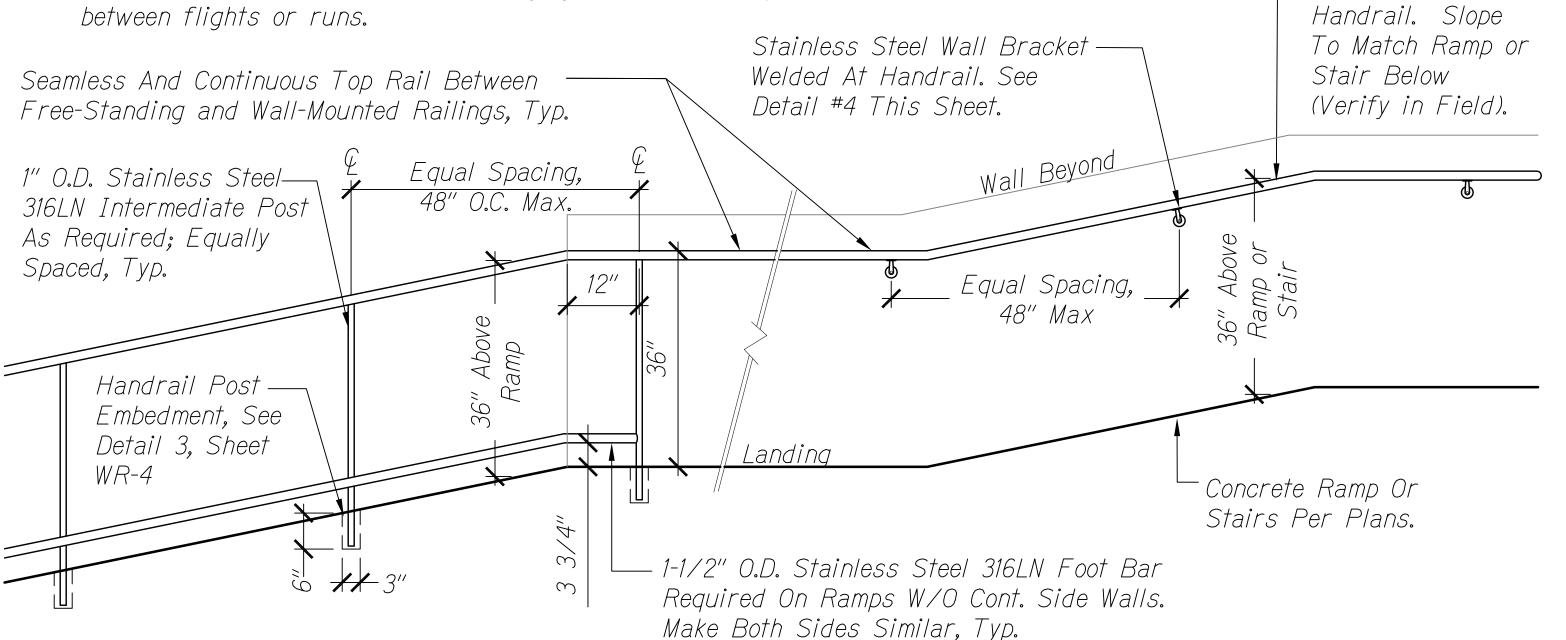
Scale: 3/4"=1'-0"



Notes:

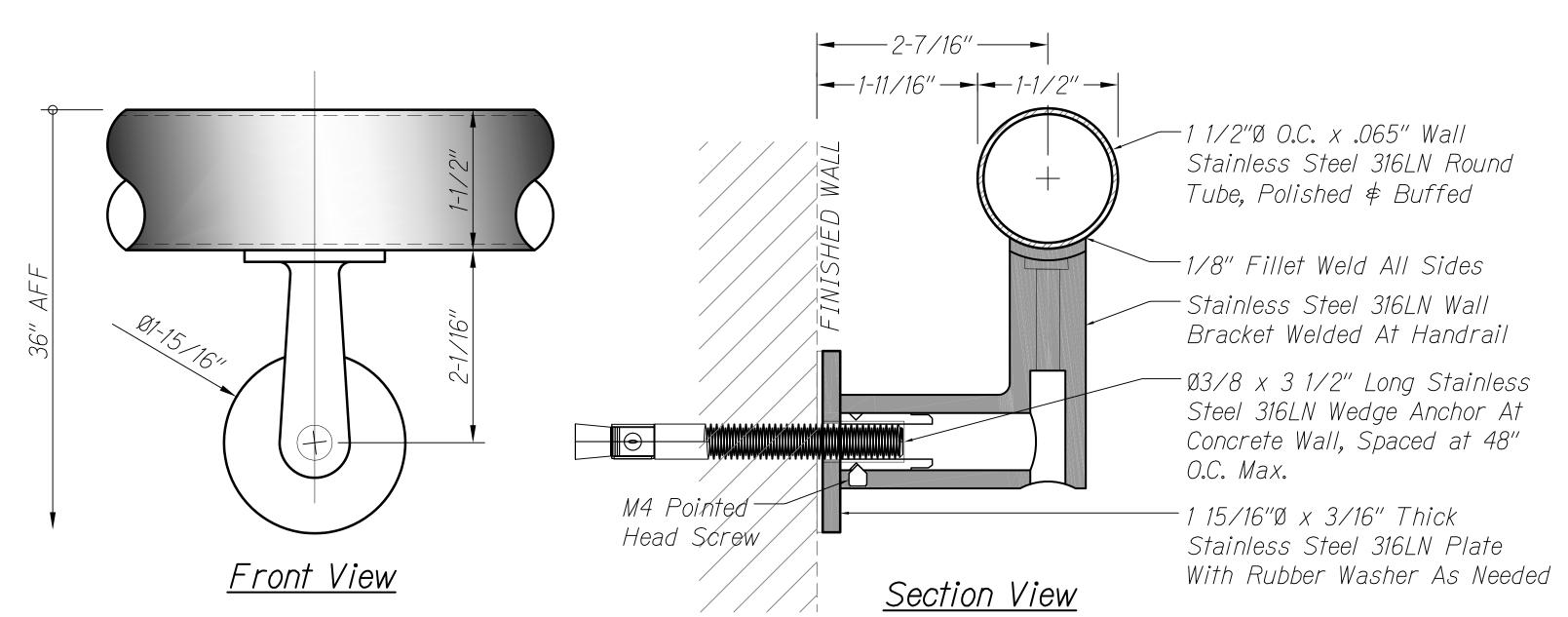
- 1. Refer to details and notes from Free-Standing Handrails, Sheet WR-3 and Wall-Mounted Handrails, Sheet WR-4.
- 2. Handrails must be continuous within the full length of each stair flight or ramp run.

3. Inside handrails on switchback or dogleg stairs and ramps shall be continuous between flights or runs.



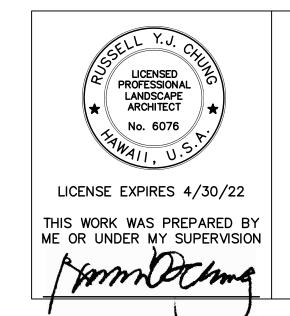
TRANSITION BETWEEN WALL-MOUNTED AND FREE-STANDING HANDRAIL

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



WALL BRACKET

Scale: 1"=1"



STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJ. NO.

наw. *BLD-092-1(029)* 2021

FED. ROAD DIST. NO.

HAWAII

FISCAL SHEET YEAR NO.

- 1½" O.D. Stainless

Steel 316LN

113

Walkway Railing

<u>Details - 1</u>

ALA MOANA BOULEVARD

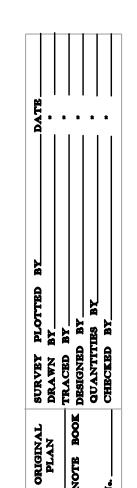
ALA MUANA BUULEVARD ELEVATED PEDESTRIAN WALKWAY Federal Aid Project No. BLD-092-1(029)

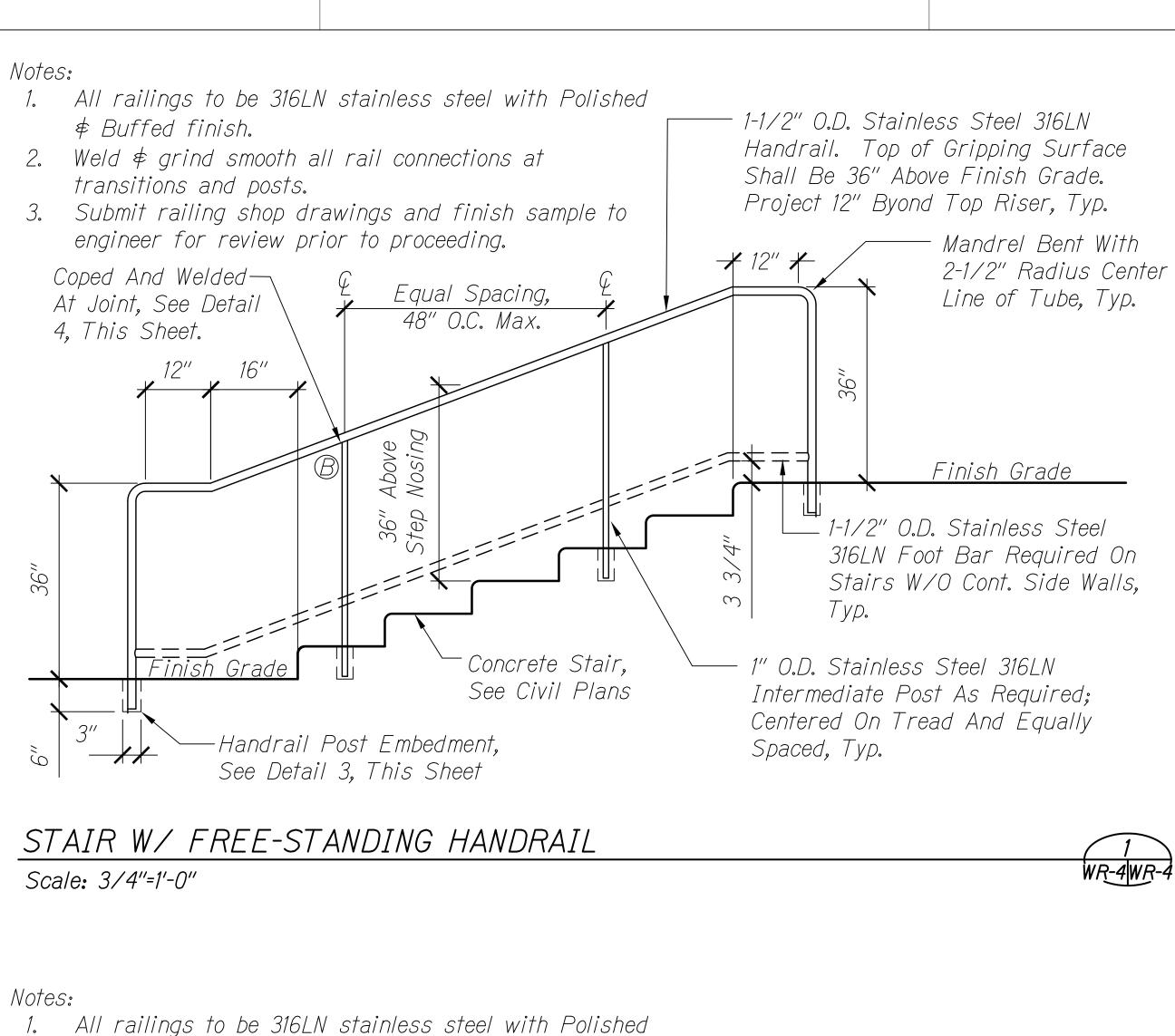
Scale: As Shown

SHEET No. WR-3 OF 4 SHEETS

113

Date: July 2021

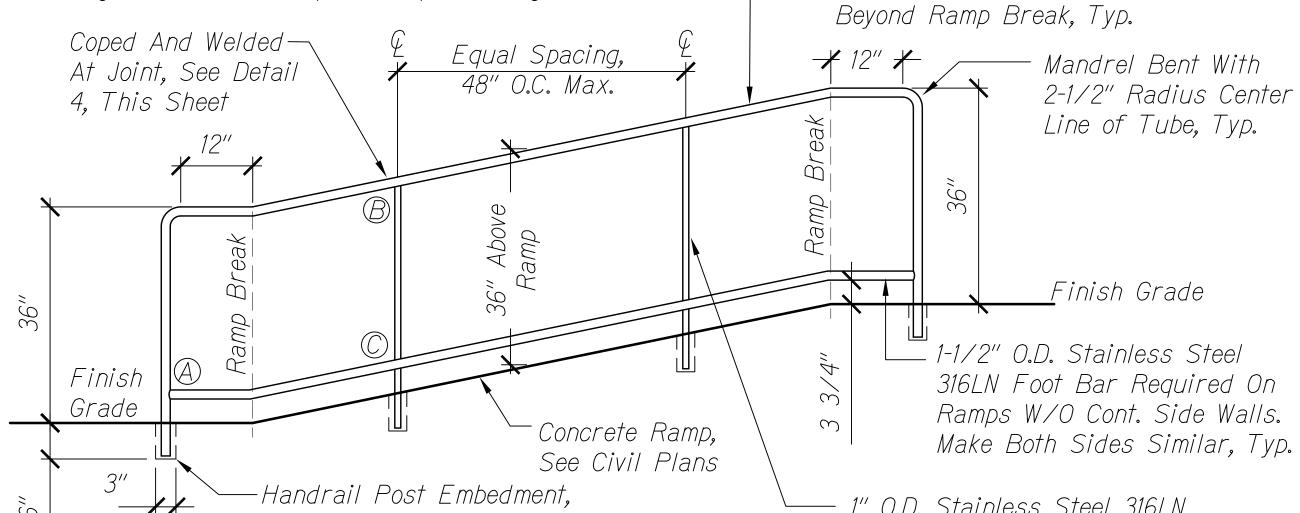




♦ Buffed finish.

2. Weld \$\phi\$ grind smooth all rail connections at transitions and posts.

3. Submit railing shop drawings and finish sample to engineer for review prior to proceeding.



RAMP W/ FREE-STANDING HANDRAIL

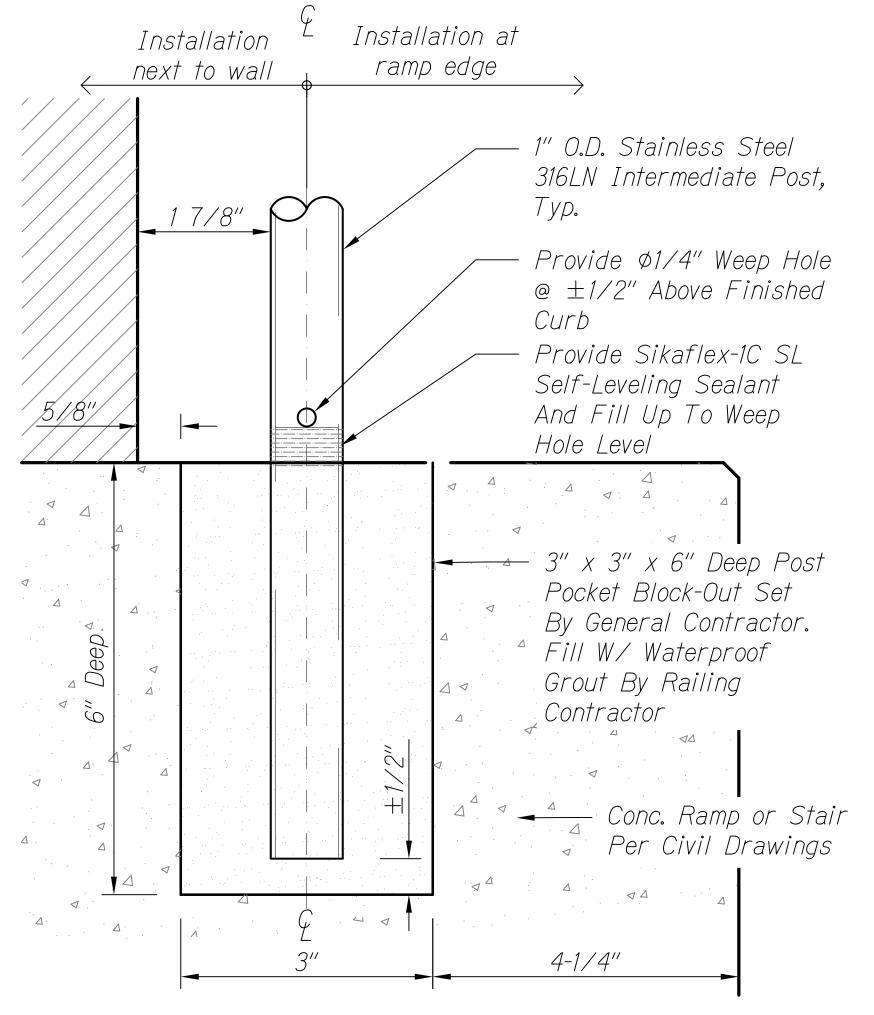
Scale: 3/4"=1'-0"

\{\}

SURVEY PLOTTED DRAWN BY TRACED BY QUANTITIES BY CHECKED BY

Note:

Non-shrink grout shall be a pre-mixed product consisting of non-staining, non-metallic aggregate cement, water reducing and plasticizing agents capable of developing a minimum compressive strength of 4,000 psi in 3 days and 8,500 psi in 28 days. The non-shrink grout shall additionally contain at least 10 grams of a migrating amine carboxylate corrosion inhibiting admixture per 0.4 to 0.5 cubic feet of non-shrink grout.



HANDRAIL POST EMBEDMENT

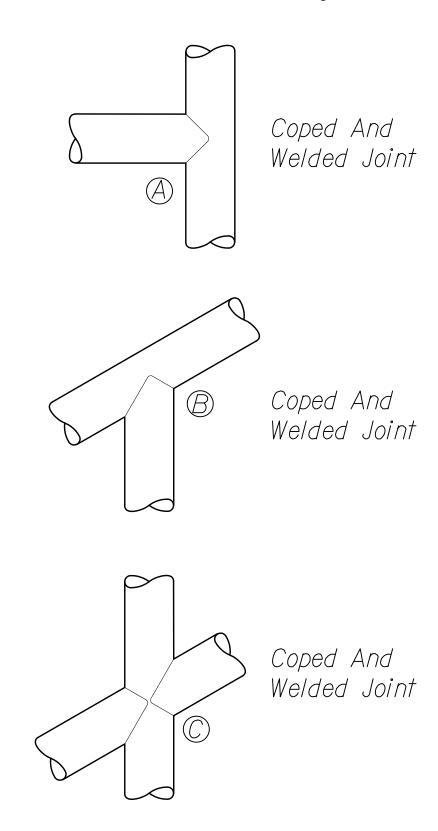
Scale: 3/4"=1"

0.D.



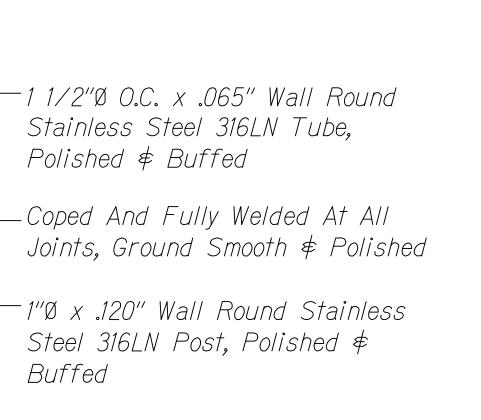
FEDERAL AID PROJ. NO. FED. ROAD DIST. NO. FISCAL SHEET YEAR SHEETS HAW. BLD-092-1(029) 2021 114 HAWAII

All welded joints shall be 1/8" fillet welds on all sides. Joints shall be ground smooth.



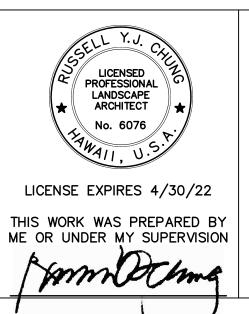
TYPICAL WELDED CONNECTIONS

Scale: Not To Scale



POST SECTION

-1" O.D.-

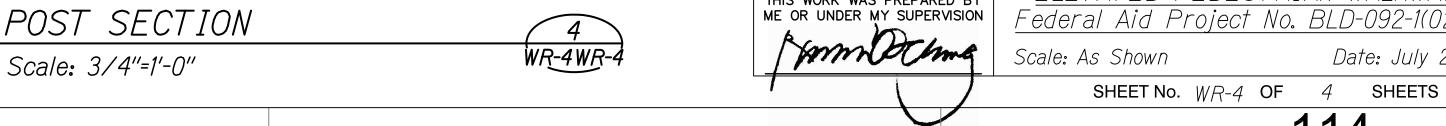


STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

Walkway Railing Details - 2

ALA MOANA BOULEVARD ELEVATED PEDESTRIAN WALKWAY Federal Aid Project No. BLD-092-1(029)

Date: July 2021



See Detail 3, This Sheet

Ramps W/O Cont. Side Walls. Make Both Sides Similar, Typ.

11/2" O.D. Stainless Steel 316LN Handrail.

Ramp (±5° Verify in Field). Project 12"

Top of Gripping Surface Shall Be 36"

Above Finish Grade. Slope To Match

1" O.D. Stainless Steel 316LN Intermediate Post As Required; Equally Spaced, Typ.

 $\frac{2}{WR-4WR-4}$