

Dana Hemenway Sculpture Support

SFO Terminal 1C

October 12, 2018





RJSD

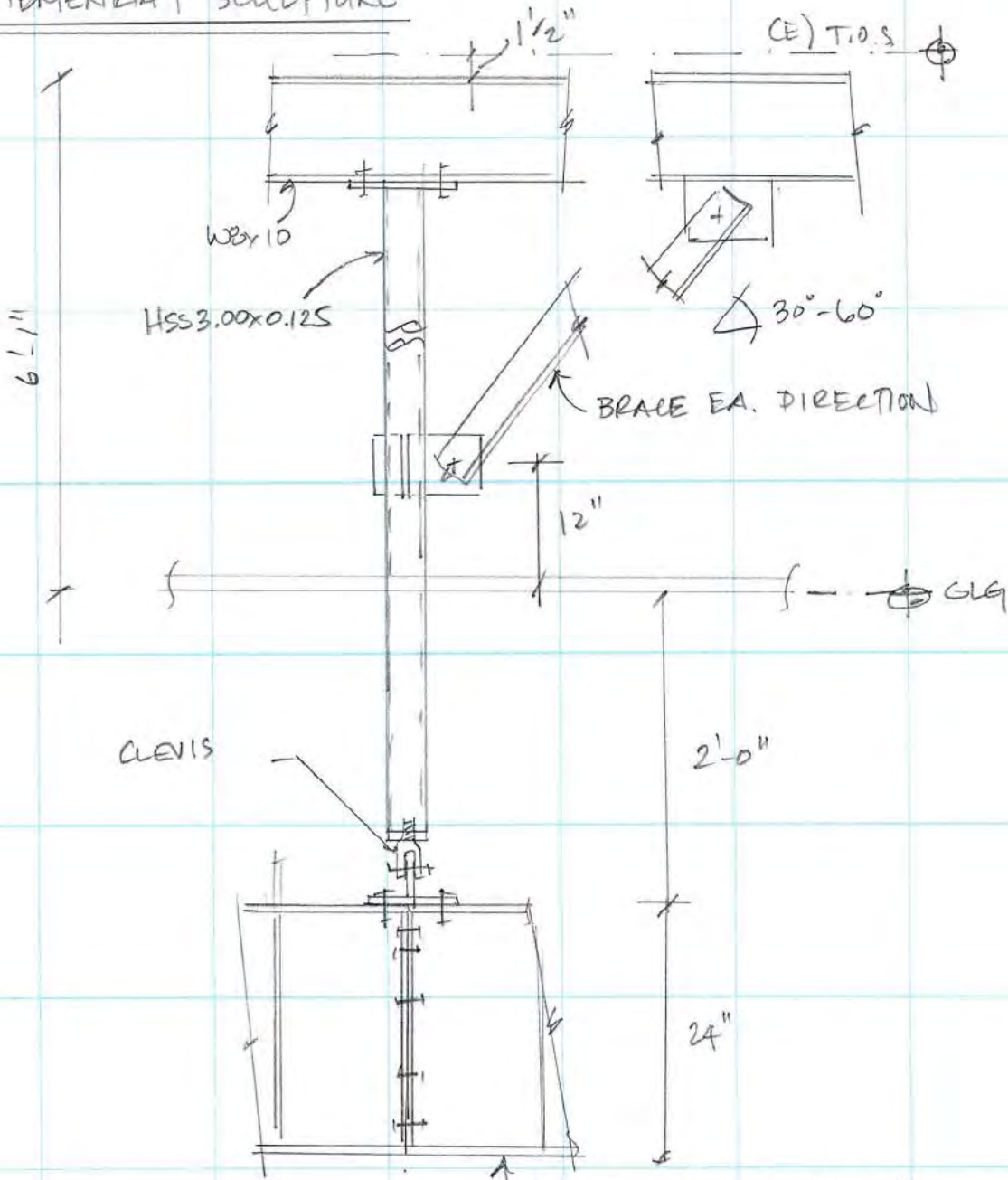


3118 Turk Blvd

San Francisco, CA 94118

<input checked="" type="checkbox"/>	EXCEPTIONS
<input type="checkbox"/>	NO EXCEPTIONS
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:16 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION	
BUILDING INSPECTION & CODE ENFORCEMENT	
	
	
San Francisco International Airport	
BICE #: C-10011.66.T1C-133.4	
BPN: 19102	

DANA HEMENWAY SCULPTURE



<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:26 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION BUILDING INSPECTION & CODE ENFORCEMENT	

WEIGHT = 85 plf

$$F_p = \frac{0.4 \times 1.0 \times 1.04}{(2.5/1.0)} \times (1 + 2. \frac{1.0}{r}) = 0.5 W_p$$

STEEL ARC CHANDELETR BY ARTIST + FABRICATOR

DANA HEMENWAY SCULPTURE

POST DESIGN

$$\left. \begin{aligned} M_{ux} &= 1.33 \text{ k}' \\ T_u &= 1.24 \text{ k} \\ M_{uy} &= 1.28 \text{ k}' \end{aligned} \right\} \text{SEE ETABS}$$

$$\rightarrow M_u = (1.33^2 + 1.28^2)^{1/2} = 1.8 \text{ k}' = 22 \text{ k}''$$

HSS 3.00x0.125

$$\phi T_n = 0.9 \times 42 \times 1.05 \text{ k} = 40 \text{ k}$$

$$\phi M_n = 0.9 \times 42 \times 0.965 = 36.4 \text{ k}''$$

$$D/C = \frac{1.24}{2.40} + \frac{22}{36.4} = 0.62 \quad \underline{OK}$$

BRACE DESIGN

HORIZ. REACTION = 0.65 k

WORST CASE $60^\circ \rightarrow P_u =$

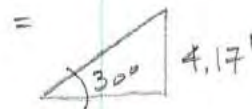
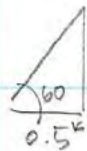
$$\frac{0.65 \text{ k}}{\cos 60^\circ} = 1.3 \text{ k}$$

LENGTH WORST CASE 30°

L3x3x1/4 $\phi P_n = 6.22 \text{ k}$

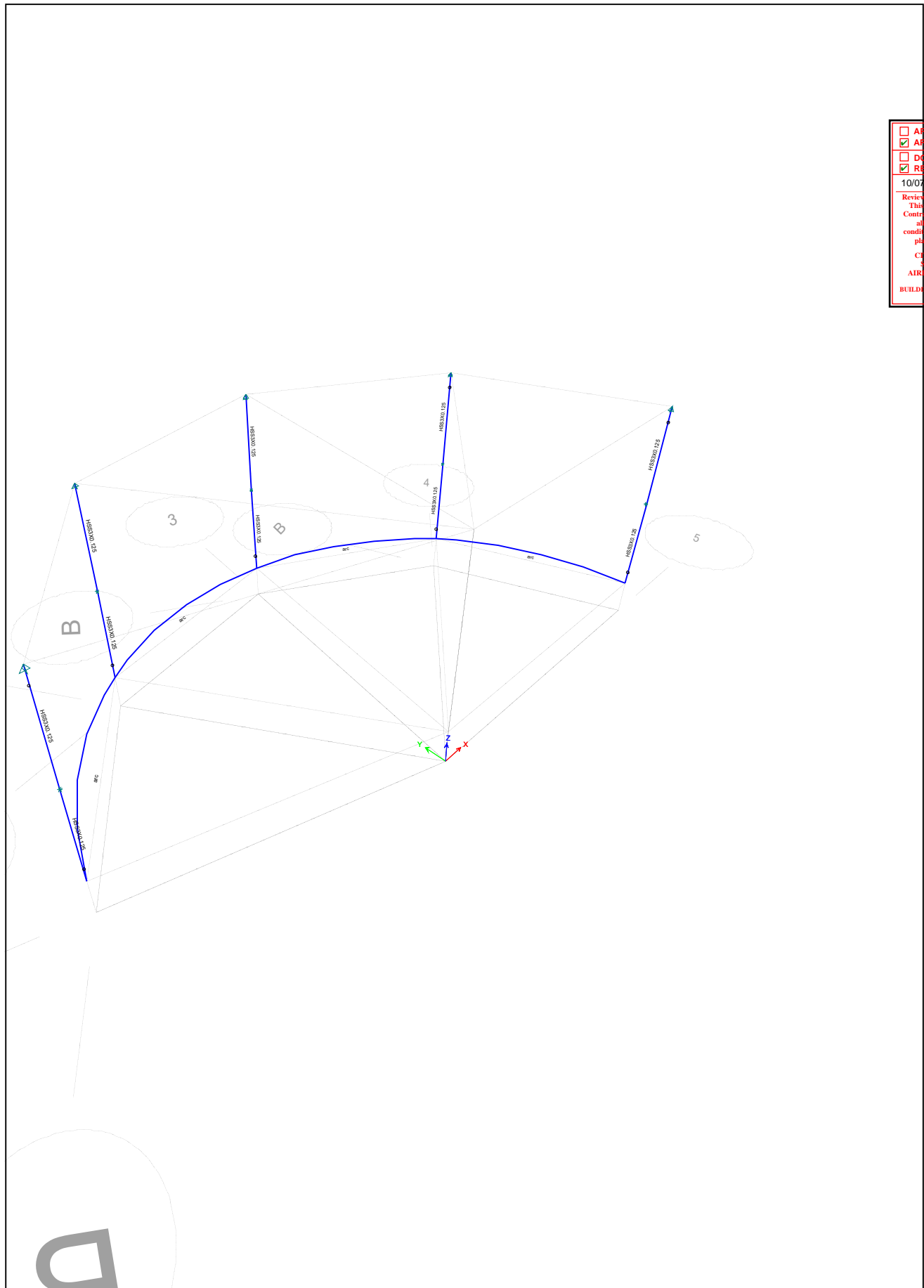
(AISC TABLE 4-12)

$$D/C = 0.21$$



$$= \frac{4.17'}{\sin 30^\circ} = 8.34'$$

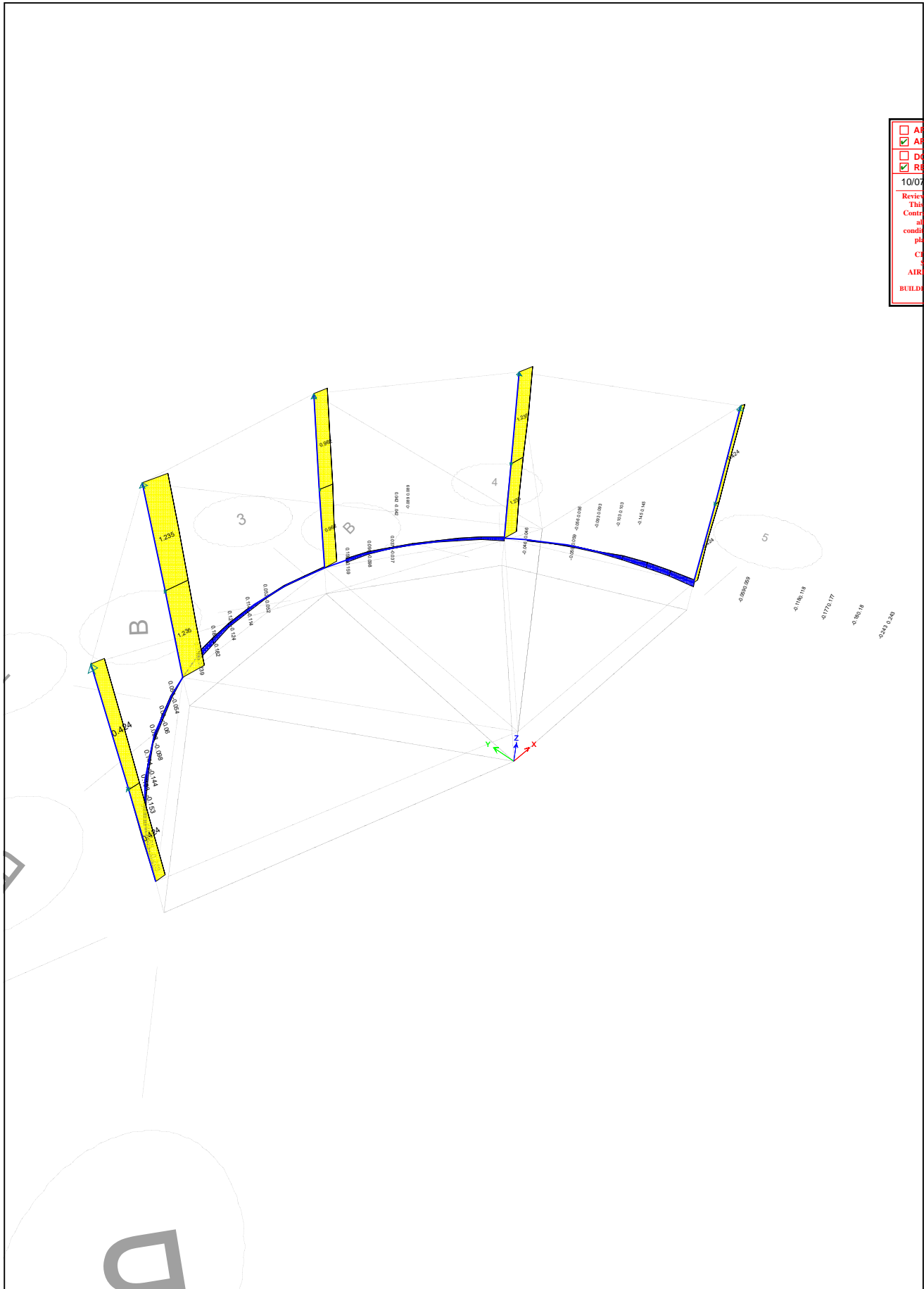
<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:29 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION	
BUILDING INSPECTION & CODE ENFORCEMENT	



<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:29 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION BUILDING INSPECTION & CODE ENFORCEMENT	

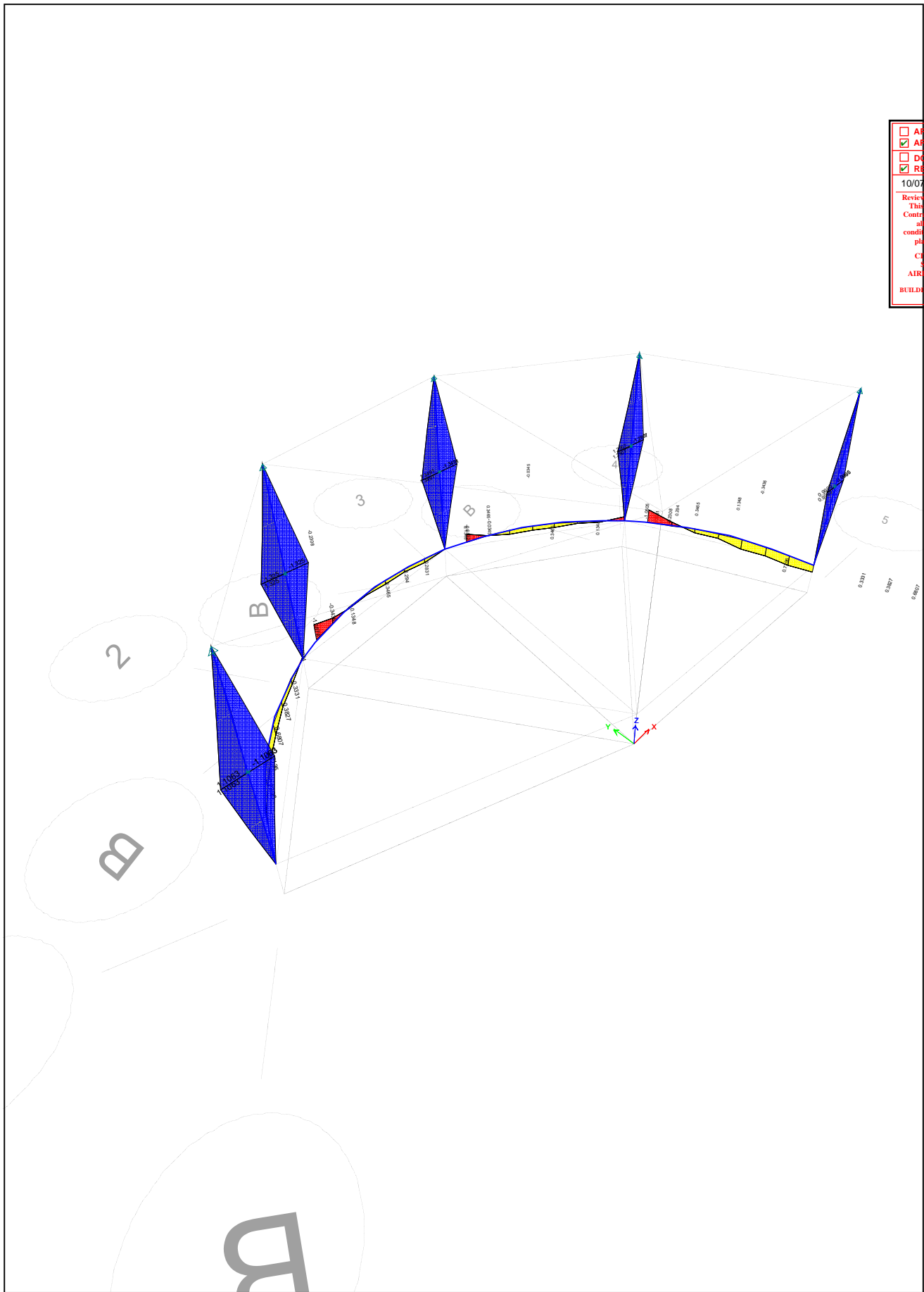
large arc.EDB

3-D View

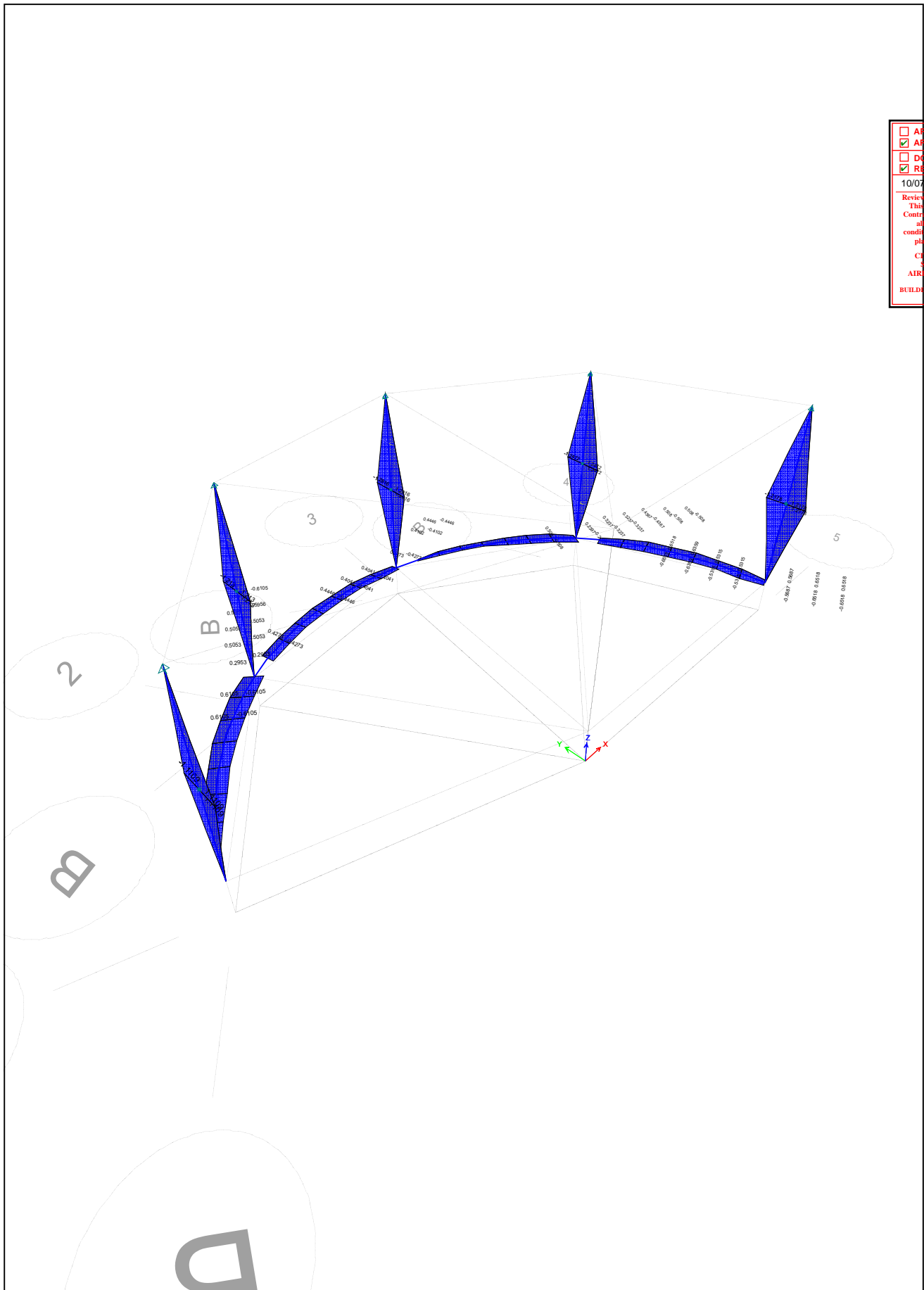


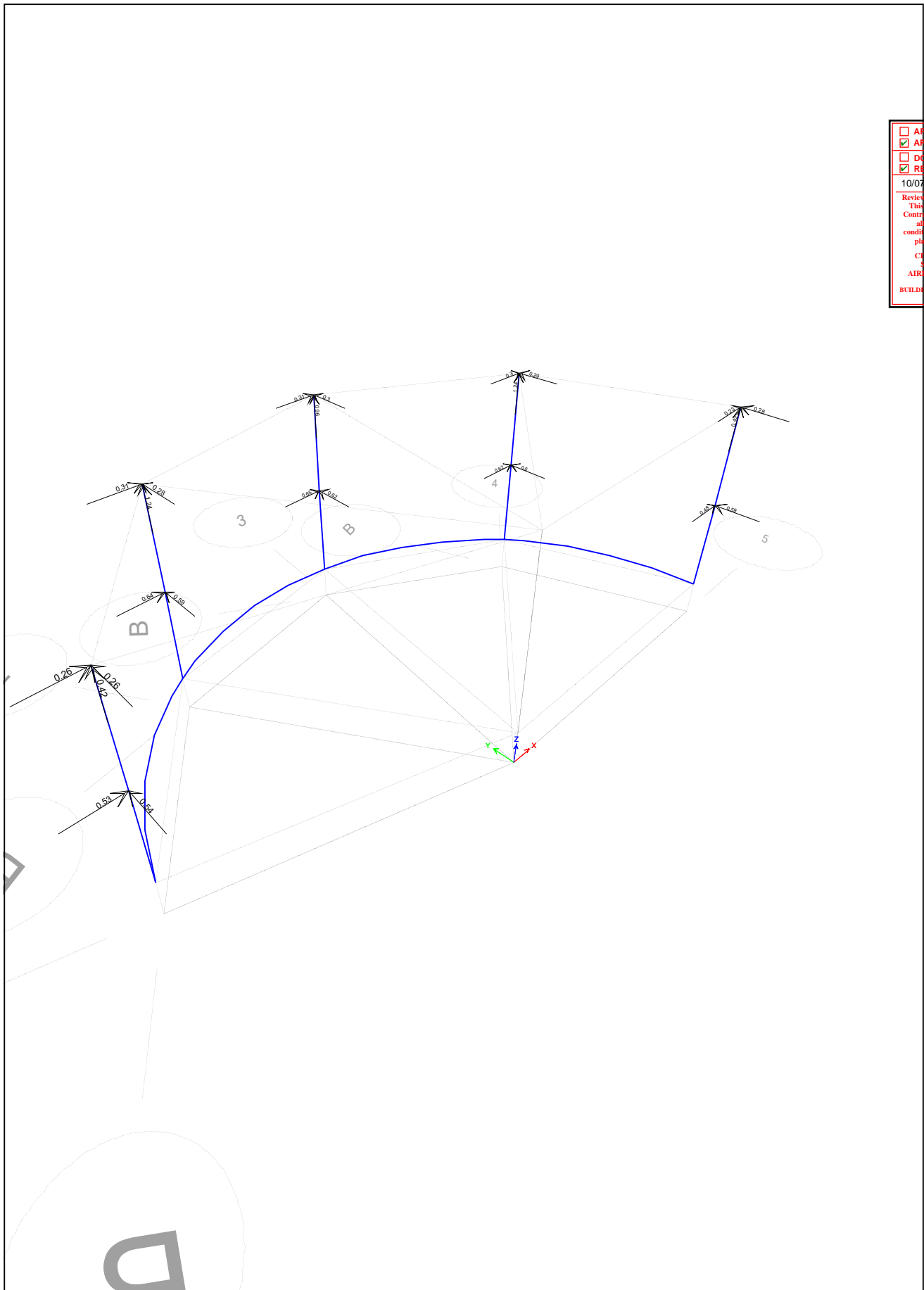
large arc.EDB

3-D View Axial Force Diagram (ENVL) [kip]



<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:30 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION BUILDING INSPECTION & CODE ENFORCEMENT	

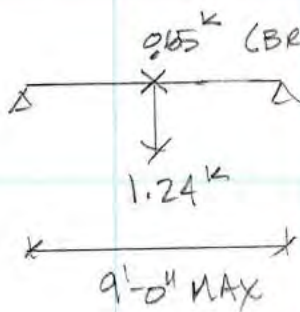




<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:30 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION BUILDING INSPECTION & CODE ENFORCEMENT	

DANA HEMENWAY SCULPTURE

SUPPORTING BEAM (W8x10)



$$M_{ux} = 1.24 \text{ k} \times 9' / 4 = 2.8 \text{ k}'$$

$$L_b = 9' \quad \phi M_n = 18 \text{ k}' \quad D/c = 0.16$$

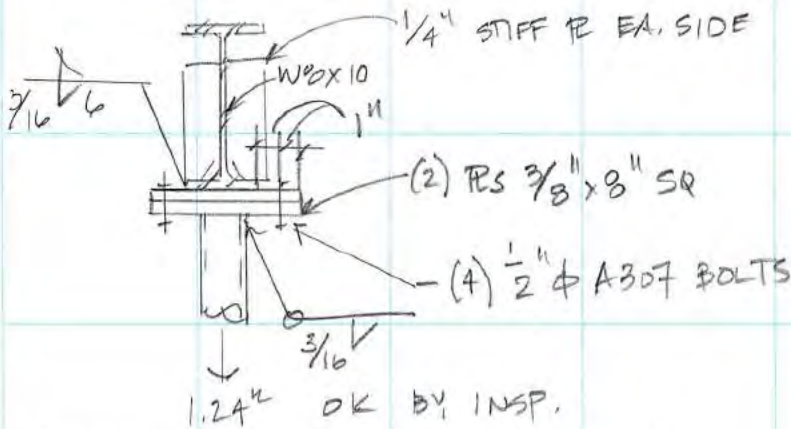
$$M_{uy} = 0.65 \text{ k} \times 9' / 4 = 1.46 \text{ k}'$$

$$\phi M_n = 0.9 \times 50 \times 1.66 = 75 \text{ k}'' = 6.2 \text{ k}'$$

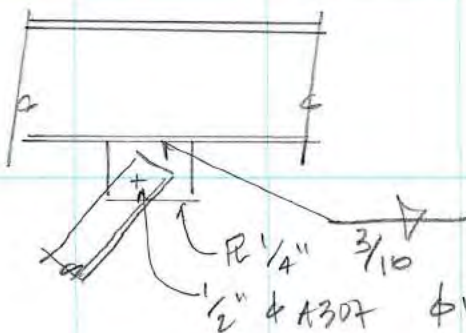
$$D/c = 0.24$$

$$D/c \quad 0.40$$

CONNECTION TO ICB



CONNECTION OF BRACE TO WB



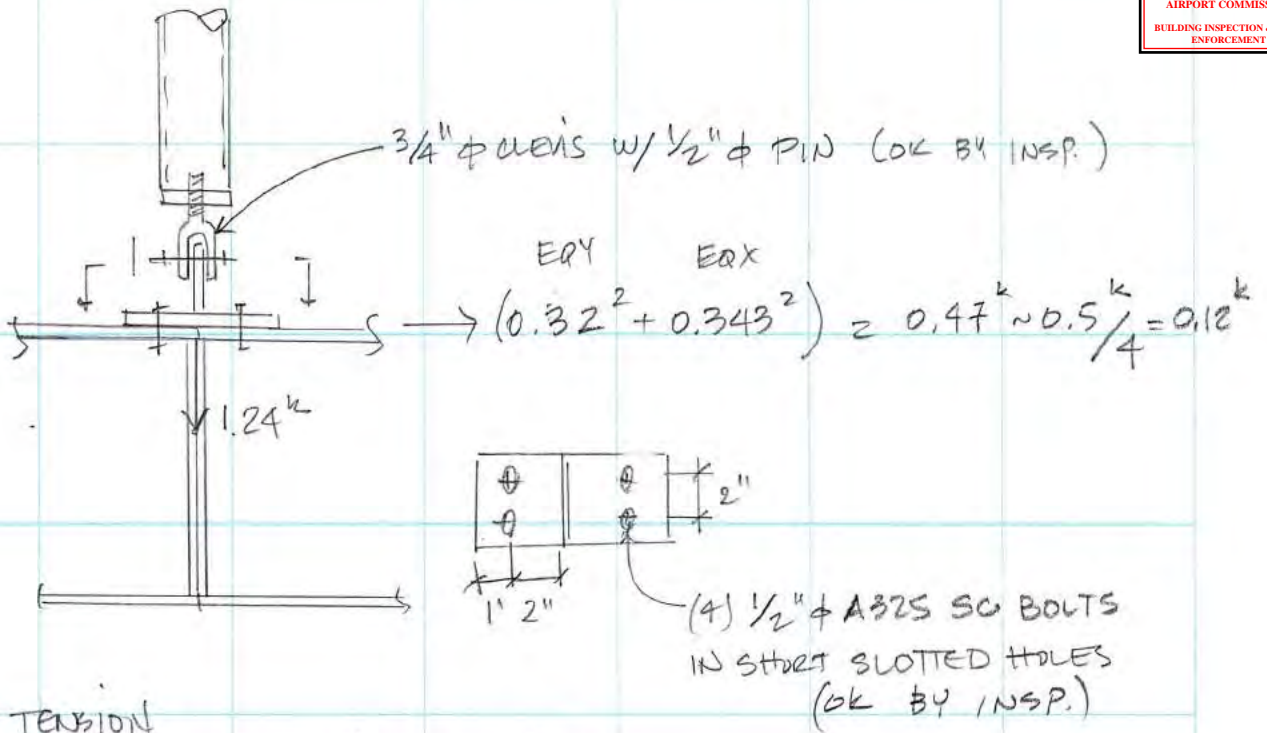
$$\phi V_n = 0.75 \times 0.2 \text{ in}^2 \times 24 = 3.6 \text{ k} > 1.3 \text{ k} \text{ OK}$$

<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:30 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION BUILDING INSPECTION & CODE ENFORCEMENT	

DANA HEMENWAY SCULPTURE

CONNECTION OF POST TO ARC

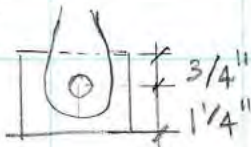
APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT
 10/07/2019 1:19:31 PM
 Reviewed for Code Compliance.
 This review does not relieve
 Contractor of responsibility for
 all compliance with the
 conditions imposed by contract
 plans and specifications.
 CITY & COUNTY OF
 SAN FRANCISCO
 AIRPORT COMMISSION
 BUILDING INSPECTION & CODE
 ENFORCEMENT



CLEVIS TENSION

$- 0.9 \times 0.6 \times 36 \text{ ksi} = 19^k \gg 1.24^k$

R $3/8"$



TENSILE RUPTURE

$\phi P_n = 0.75 \times 2 \times 0.375 \times t \times b_{eff} \times F_u = 45^k$

$b_{eff} = 2t + 0.63 = 2 \times 0.375 + 0.63 = 1.38"$

SHEAR RUPTURE

$\phi P_n = 0.6 F_u A_{gv}$

$= 0.6 \times 58 \times 2t (a + d/2) = 19.6^k \quad \underline{OK}$

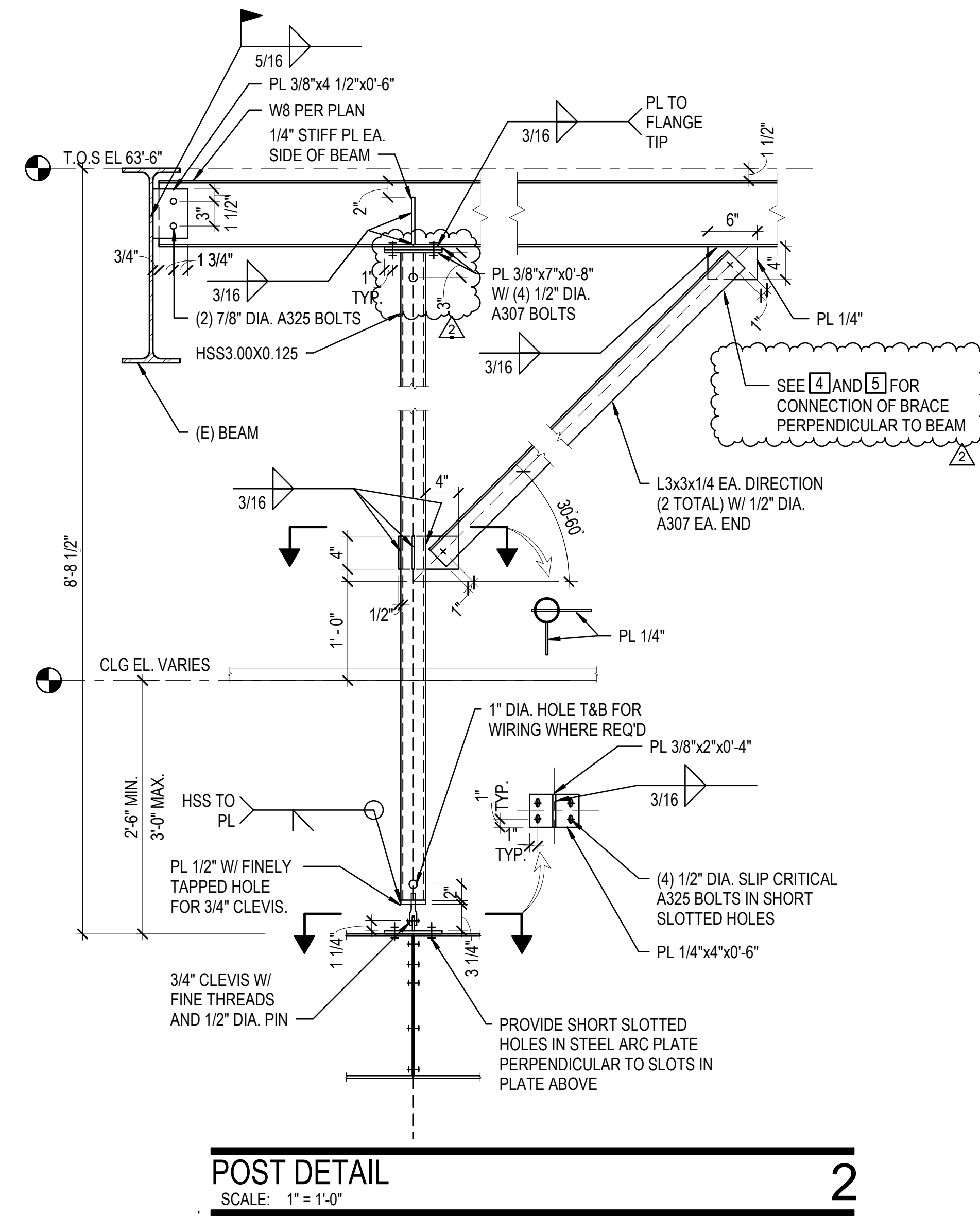
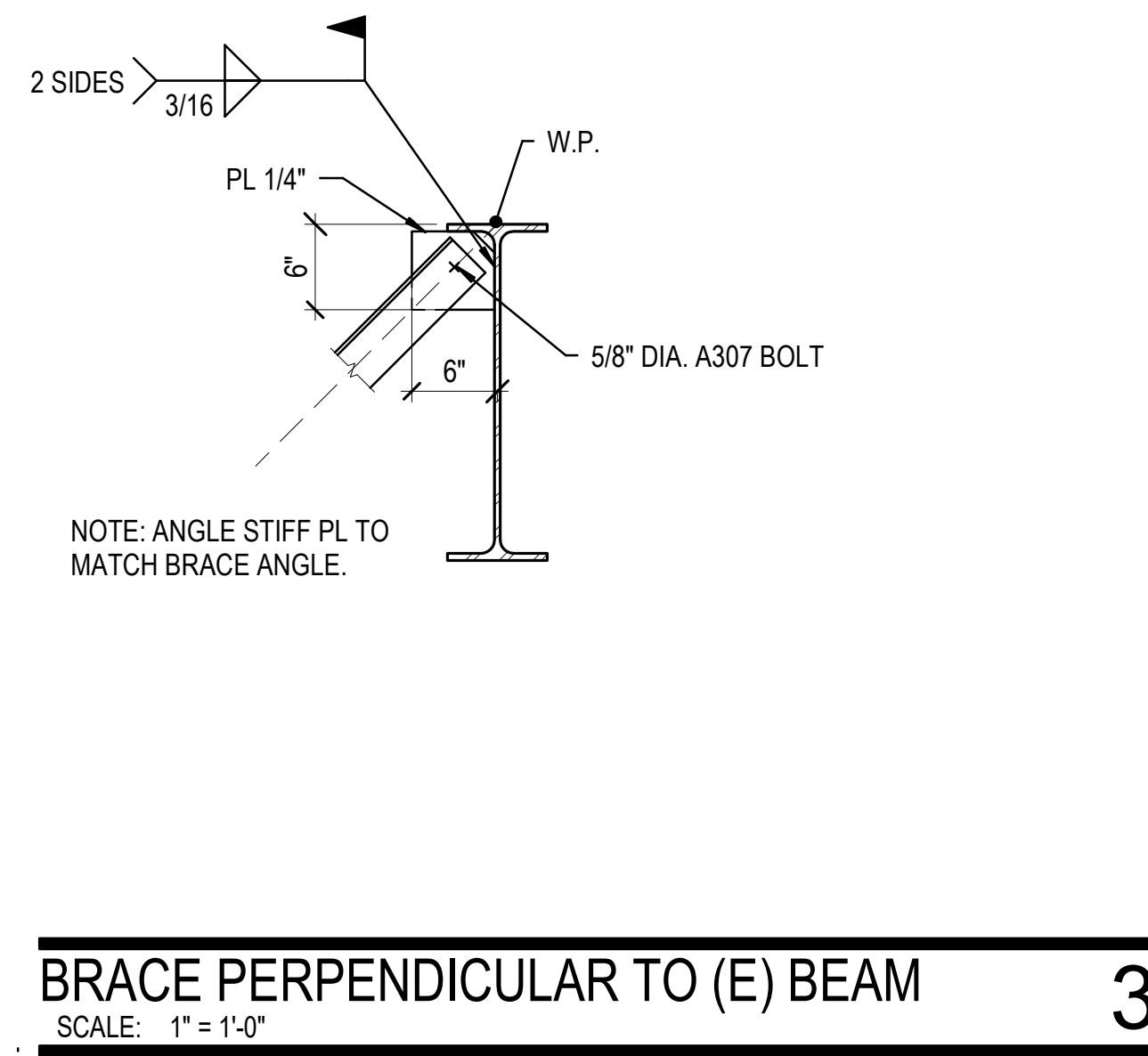
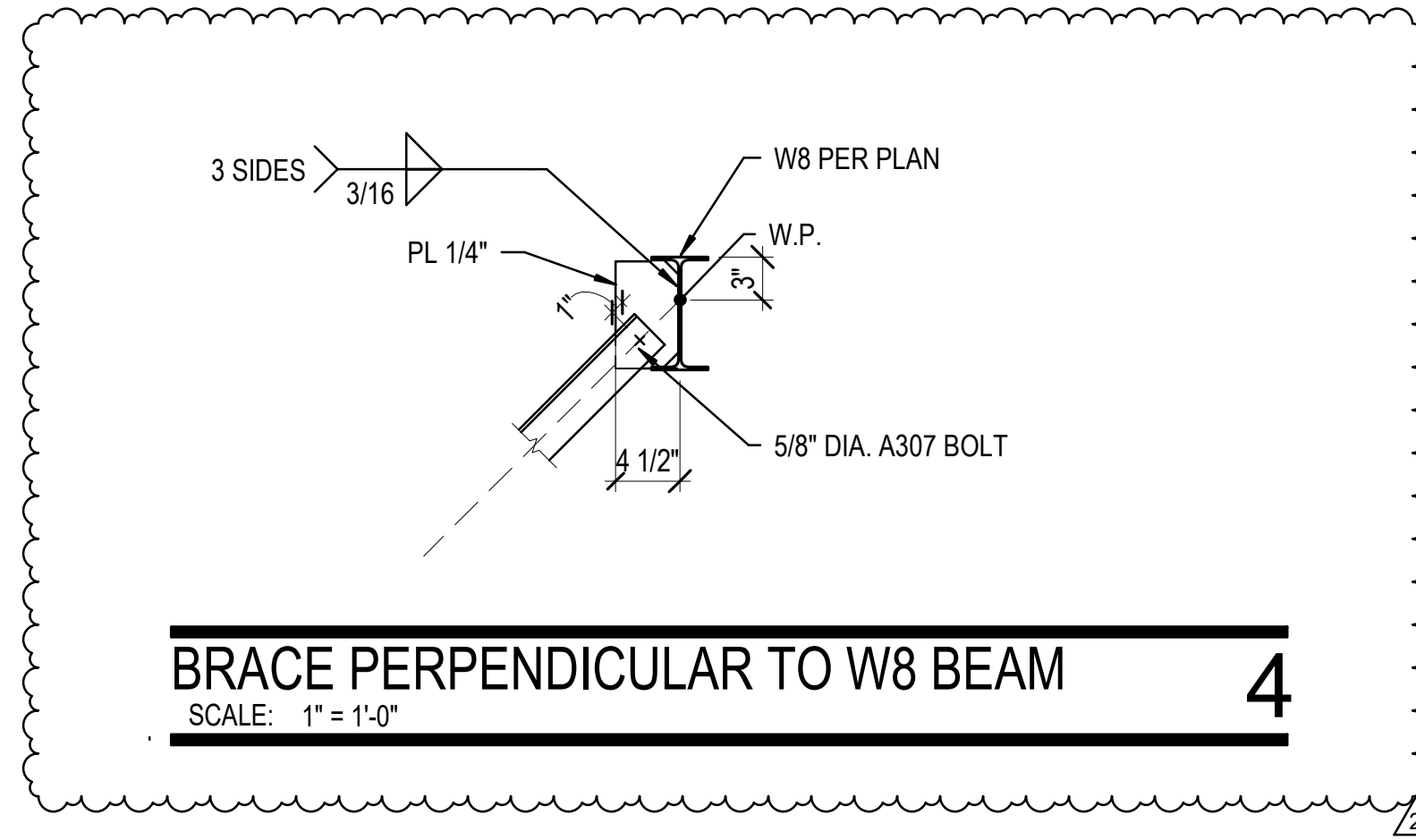
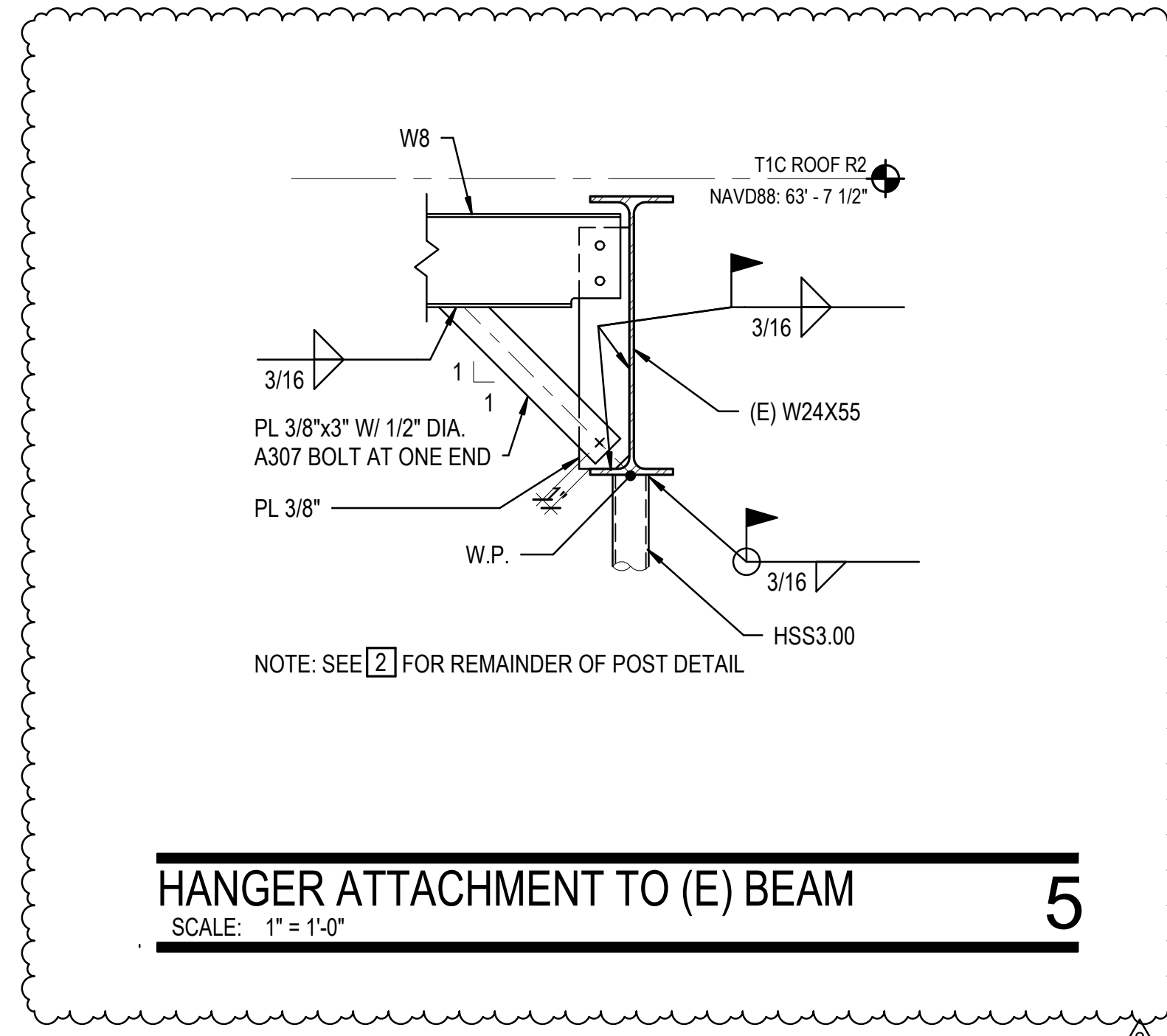
$M_u = 0.5^k \times 1\ 1/4" = 0.625^k"$

$\phi M_n = 0.9 \times 36 \times \frac{1}{4} \times 0.375^2 \times 4 = 4.6^k"$ OK

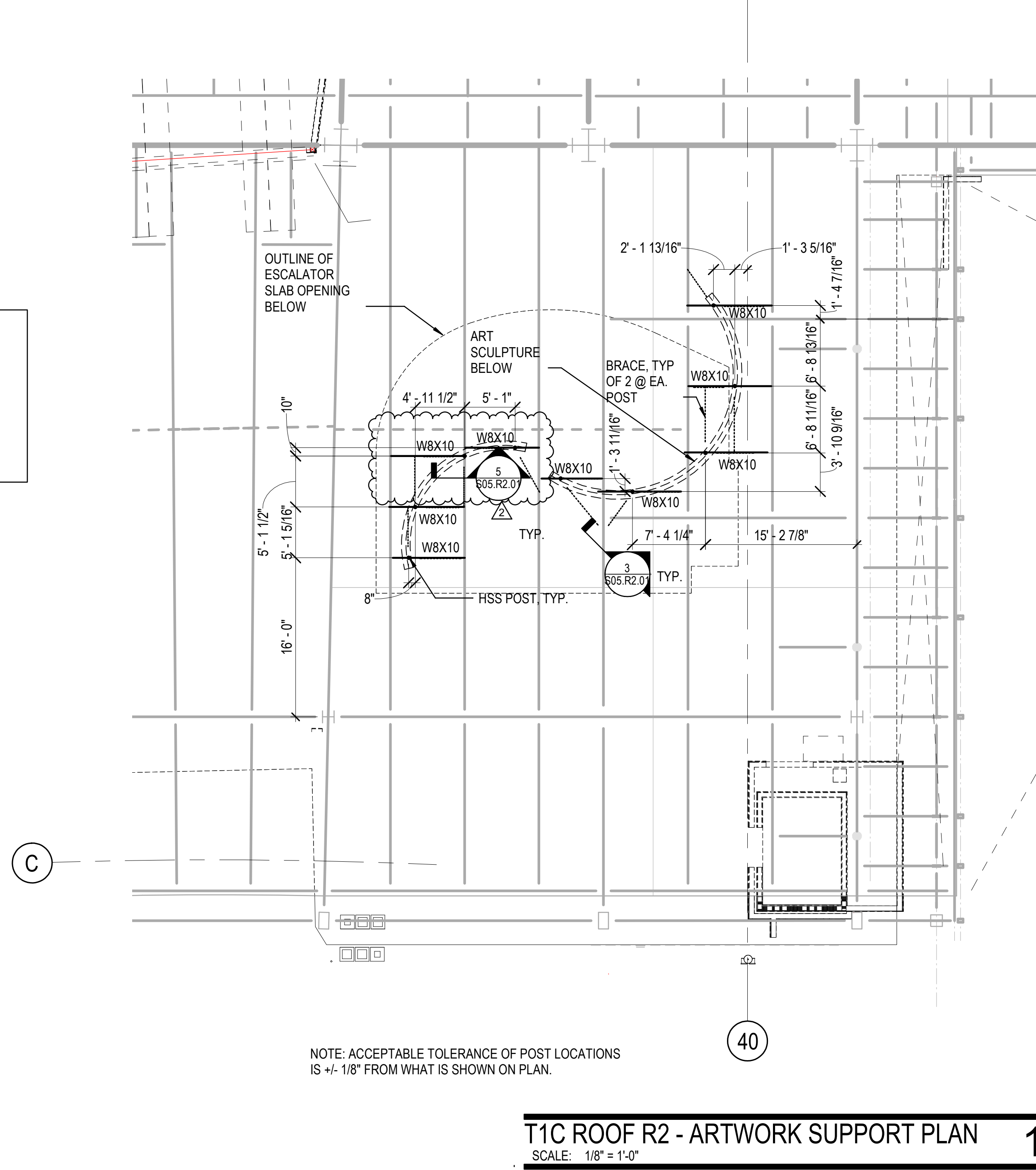
$\phi T_n = 0.9 \times 36 \times 0.375 \times 4 = 48.6^k$

$D/C = \frac{0.625}{4.6} + \frac{1.24}{19.6} = 0.20$

APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT
 10/07/2019 1:19:31 PM
 Reviewed for Code Compliance.
 This review does not relieve
 Contractor of responsibility for
 all compliance with the
 conditions imposed by contract
 plans and specifications.
 CITY & COUNTY OF
 SAN FRANCISCO
 AIRPORT COMMISSION
 BUILDING INSPECTION & CODE
 ENFORCEMENT



- NOTES:
- STEEL PLATES: ASTM A36 OR ASTM A572, GRADE 50.
 - WELDING ELECTRODES: E70XX W/ SPECIAL INSPECTION PER ASCI 341 SECTION J6.
 - BOLTING:
 - ASTM A307.
 - ASTM A325 TYPE 1, TYP. BOLTS ARE PRETENSIONED. PROVIDE CLASS A FAYING SURFACE FOR SLIP CRITICAL BOLTS.
 - STEEL HSS TUBES: ASTM A500, GRADE B.
 - W SHAPES: ASTM A992.
 - ANGLES: ASTM A36 OR ASTM A572 GR 50.



ISSUE	DATE	DESCRIPTION
2	OCT 26, 2018	ADDENDUM 1
1	OCT 12, 2018	100% CONSTRUCTION DOCUMENTS

C:\Users\maureen\Documents\SFA-T1-ART_maureen\WVNXG.rvt

- REVIEWED NO EXCEPTIONS TAKEN
- REVIEWED REVISE & RESUBMIT
- REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED
- REJECTED REFER TO TRANSMITTAL

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

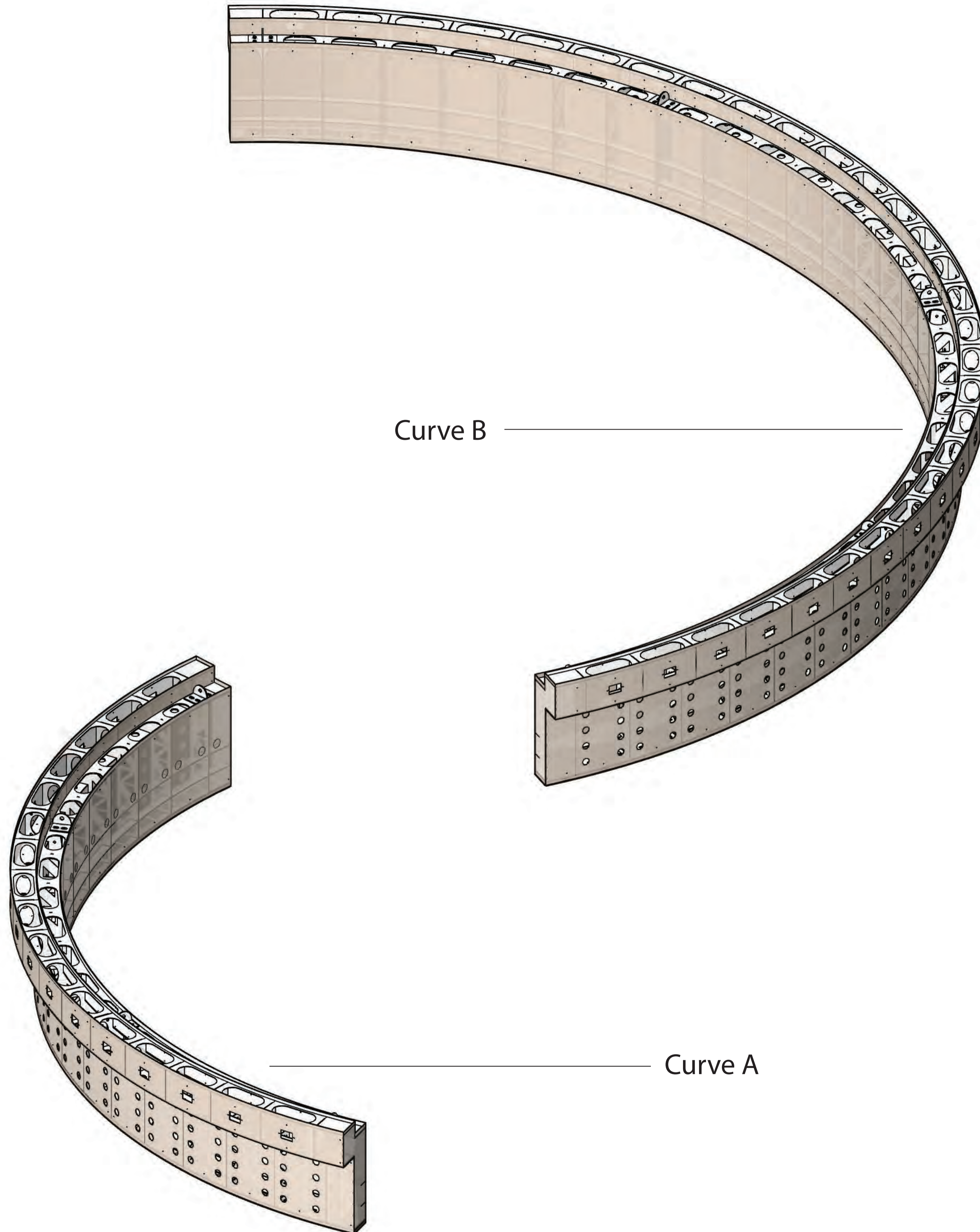
- APPROVED
- APPROVED AS NOTED
- DO NOT RESUBMIT
- RESUBMIT

10/07/2019 1:19:31 PM

Reviewed for Code Compliance.
This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT



Curve B

Curve A

03/01/2019 Shop drawings

DATE DESCRIPTION

9451
Hemenway

INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA

INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Perspective

SHEET NO.

1

REVISION

0

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL RESUBMITTAL NOT REQUIRED

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118
By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:32 PM

Reviewed for Code Compliance.
This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

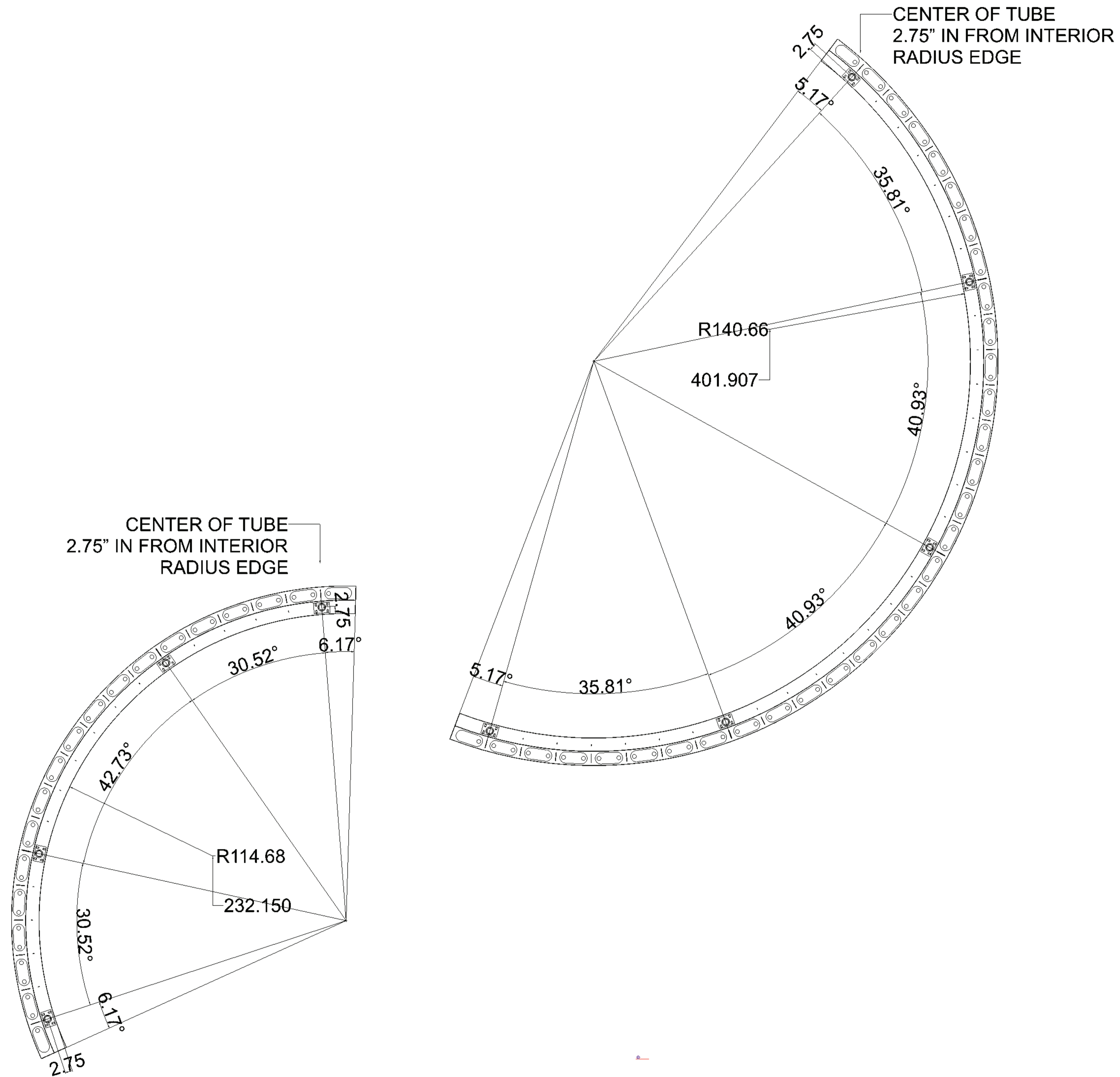
BUILDING INSPECTION & CODE
ENFORCEMENT

DATE	DESCRIPTION
03/01/2019	Shop drawings

**9451
Hemenway**
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

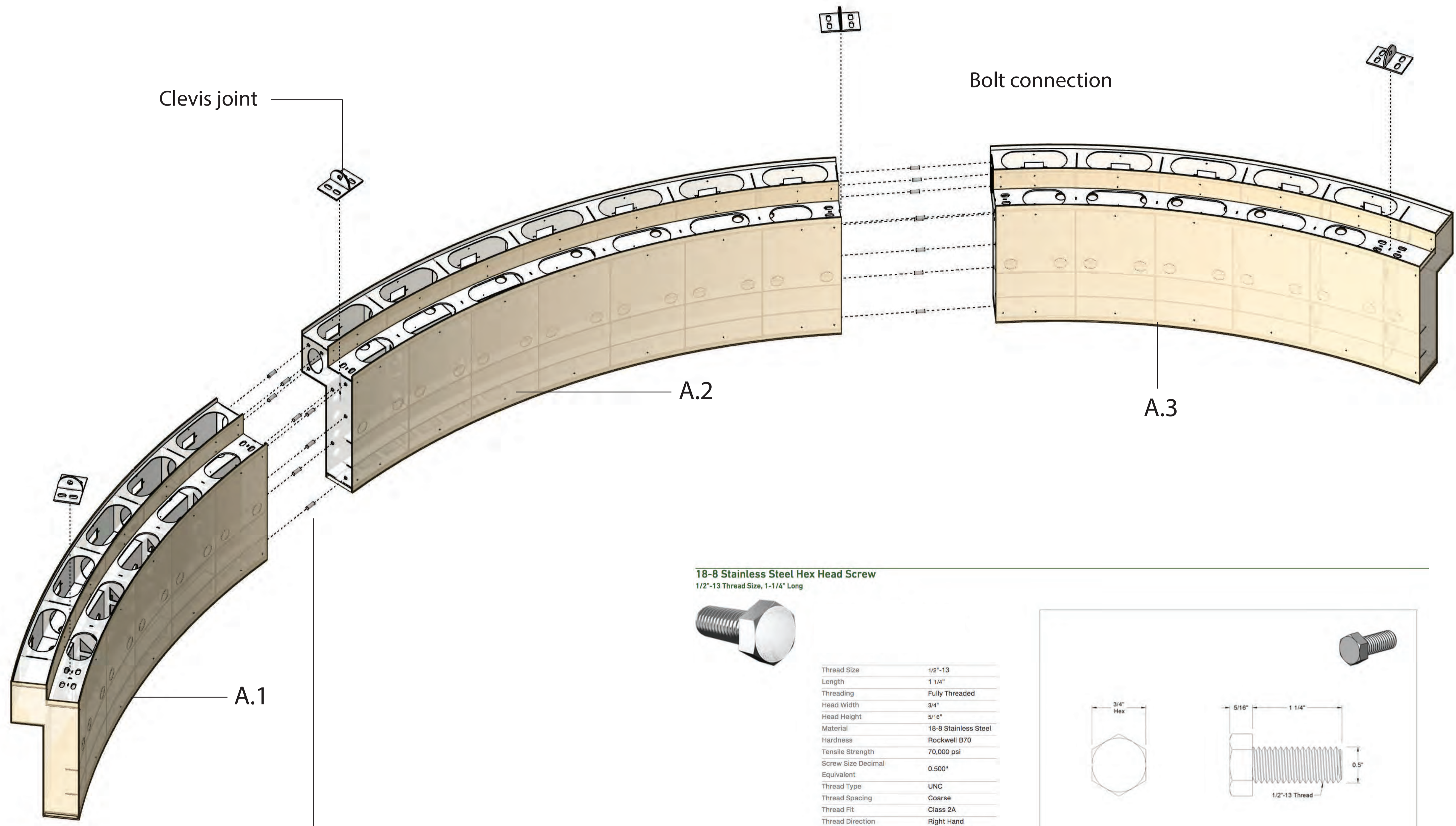
PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Top view



REVIEWED NO EXCEPTIONS TAKEN
 REVIEWED REVISE & RESUBMIT
 REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED
 REJECTED REFER TO TRANSMITTAL
 Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.
 Ryan Joyce Structural Design
 3118 Turk Blvd.
 San Francisco, CA 94118
 By: Maureen Joyce Date: 03/01/2019

APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT
 10/07/2019 1:19:32 PM
 Reviewed for Code Compliance.
 This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
 CITY & COUNTY OF SAN FRANCISCO
 AIRPORT COMMISSION
 BUILDING INSPECTION & CODE ENFORCEMENT

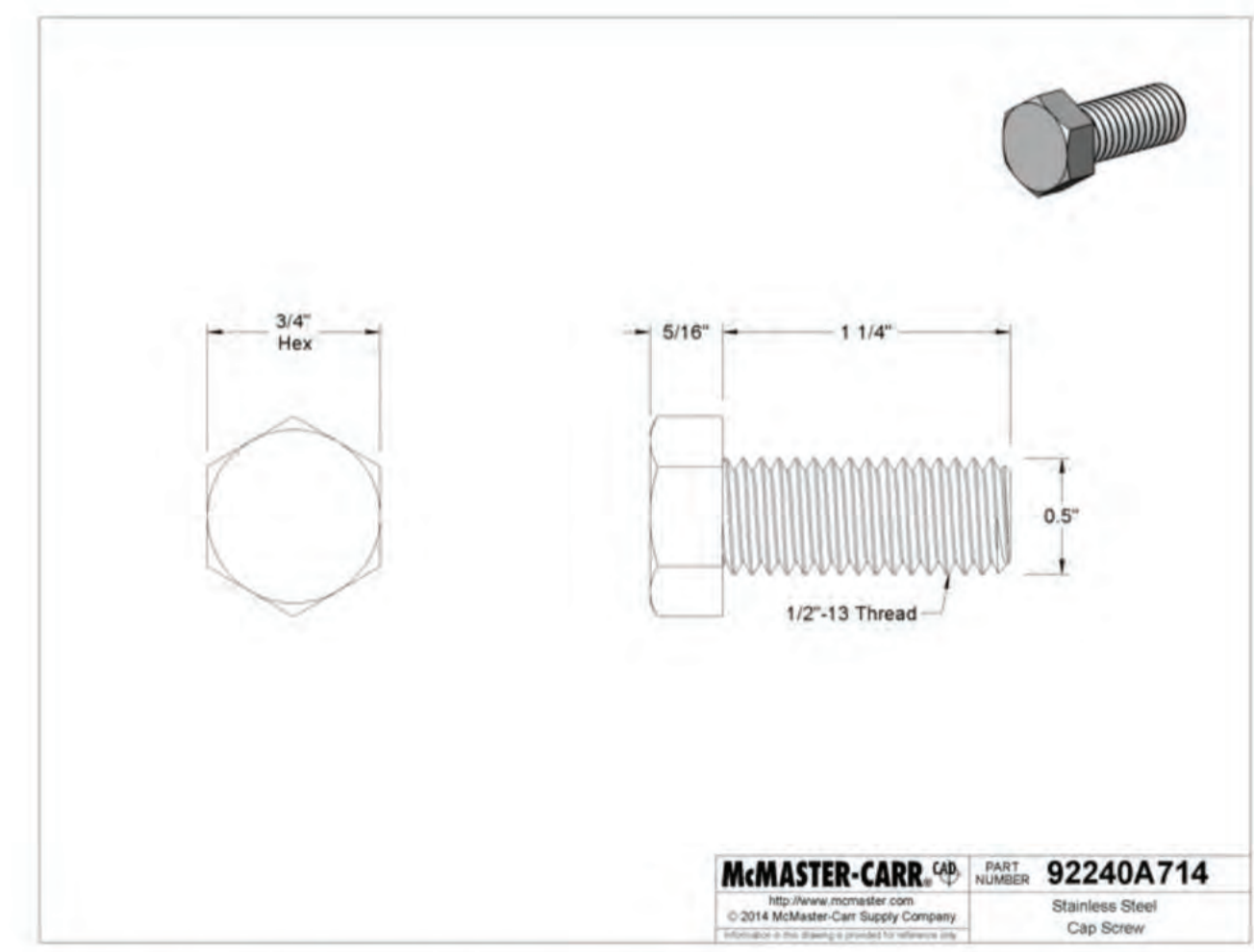


18-8 Stainless Steel Hex Head Screw
1/2"-13 Thread Size, 1-1/4" Long



Thread Size	1/2"-13
Length	1 1/4"
Threading	Fully Threaded
Head Width	3/4"
Head Height	5/16"
Material	18-8 Stainless Steel
Hardness	Rockwell B70
Tensile Strength	70,000 psi
Screw Size Decimal Equivalent	0.500"
Thread Type	UNC
Thread Spacing	Coarse
Thread Fit	Class 2A
Thread Direction	Right Hand
Head Type	Hex
Hex Head Profile	Standard
Drive Style	External Hex
Specifications Met	ASME B18.2.1
System of Measurement	Inch
RoHS	Compliant

These screws have good chemical resistance and may be mildly magnetic. Length is measured from under the head.



McMASTER-CARR PART NUMBER: 92240A714
Stainless Steel Cap Screw

The information in this 3-D model is provided for reference only. Details

DETAIL 1. Bolt connection

03/01/2019	Shop drawings
DATE	DESCRIPTION

9451 Hemenway
INSTALL LOCATION
1335 Yosemite Ave. San Francisco, CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

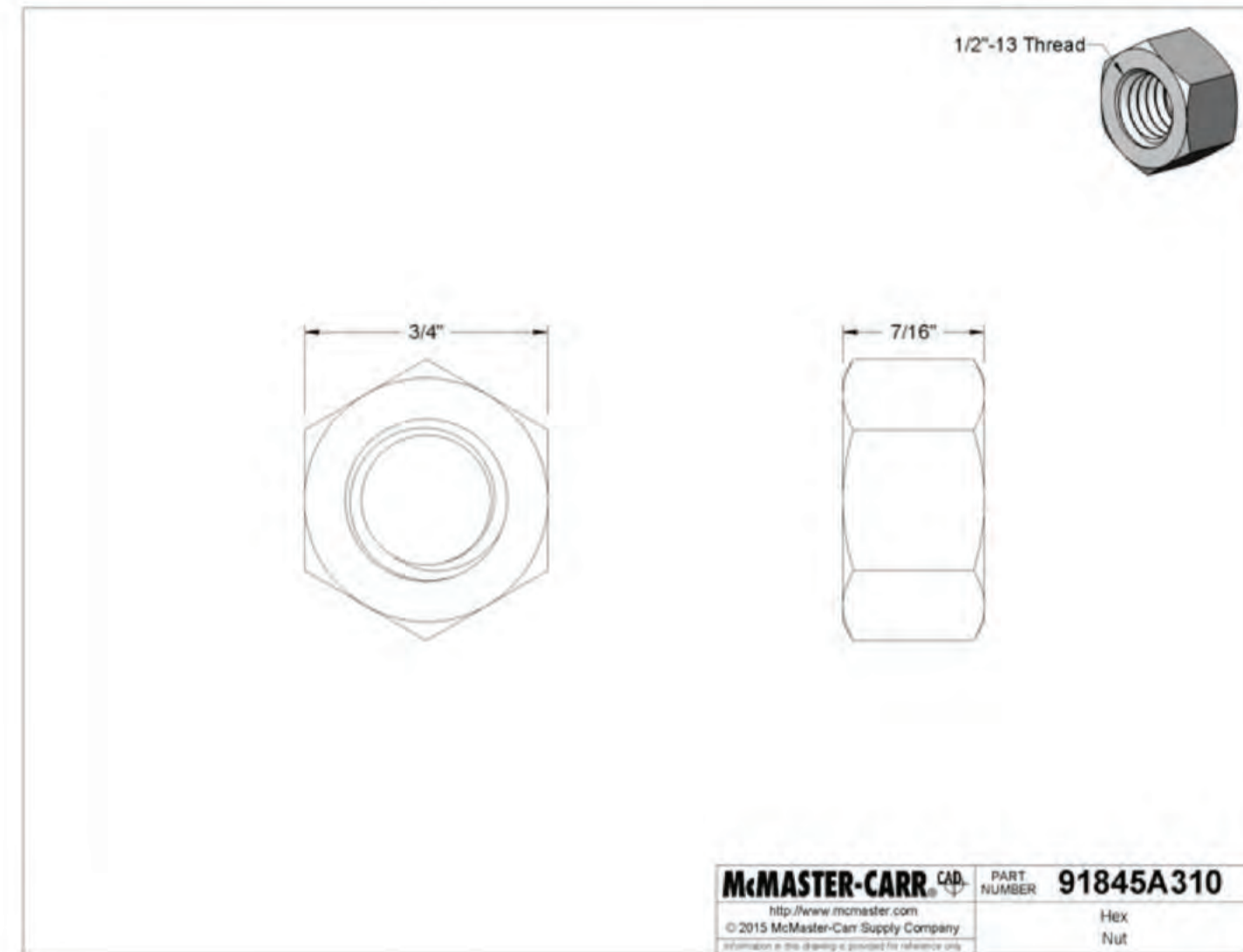
SHEET NAME
Curve A

18-8 Stainless Steel Hex Nut
1/2"-13 Thread Size

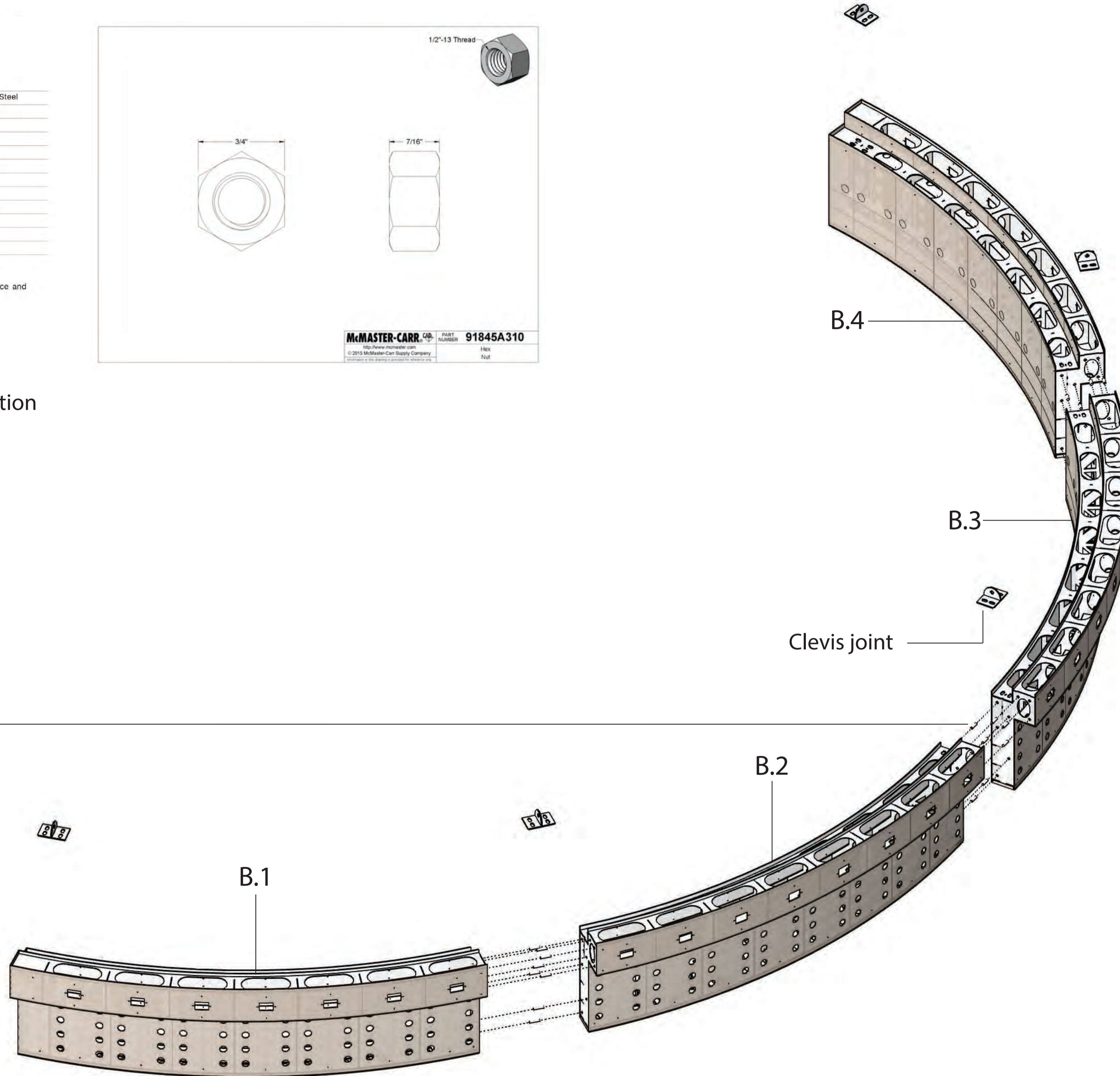


Material	18-8 Stainless Steel
Thread Size	1/2"-13
Thread Type	UNC
Thread Spacing	Coarse
Thread Fit	Class 2B
Thread Direction	Right Hand
Width	3/4"
Height	7/16"
Drive Style	External Hex
Nut Type	Hex
Hex Nut Profile	Standard
System of Measurement	Inch
RoHS	Compliant

These nuts have good chemical resistance and may be mildly magnetic.



DETAIL 2. Nuts for bolt connection



**ONE HAT
ONE HAND**

SAN FRANCISCO, CA

1335 Yosemite Avenue
San Francisco CA 94124
(415) 822 - 2020

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL RESUBMITTAL NOT REQUIRED

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:32 PM

Reviewed for Code Compliance.
This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT

DATE	DESCRIPTION
03/01/2019	Shop drawings

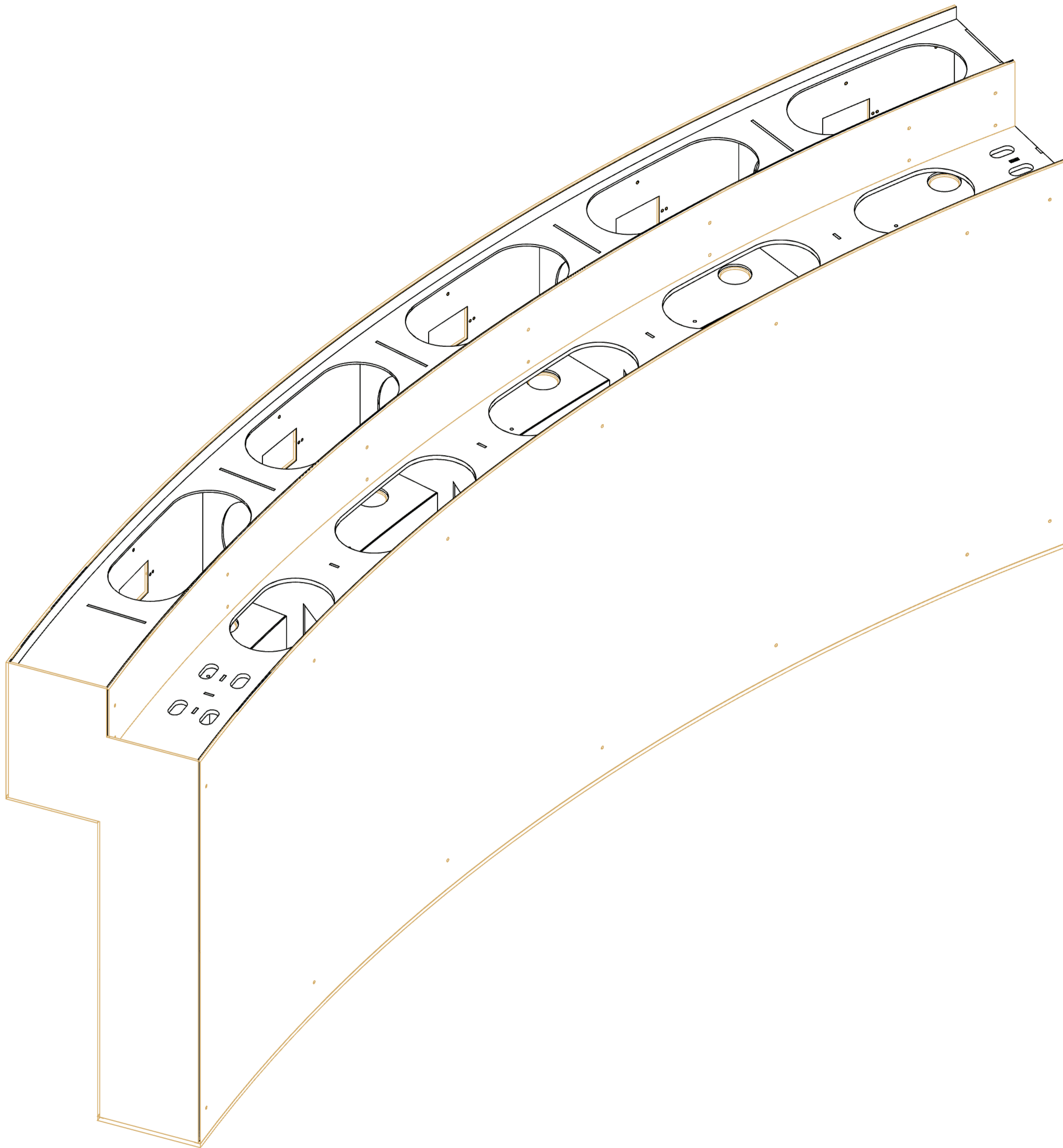
9451
Hemenway
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Curve B

SHEET NO.
4

REVISION
0



**ONE HAT
ONE HAND**

SAN FRANCISCO, CA



1335 Yosemite Avenue
San Francisco CA 94124
(415) 822 - 2020

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:32 PM

Reviewed for Code Compliance.
This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

**CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION**

**BUILDING INSPECTION & CODE
ENFORCEMENT**

03/01/2019 Shop drawings
DATE DESCRIPTION

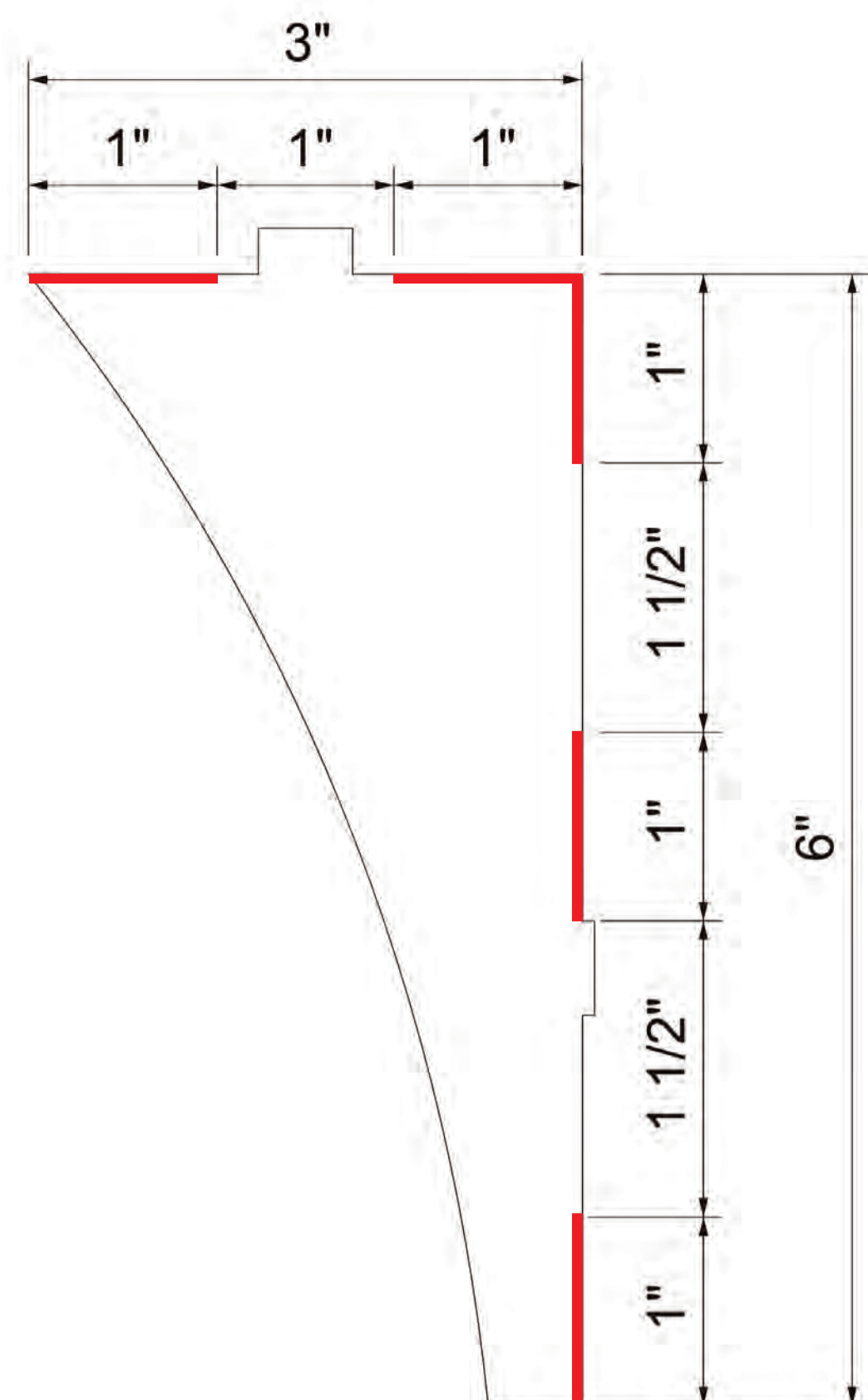
**9451
Hemenway**
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

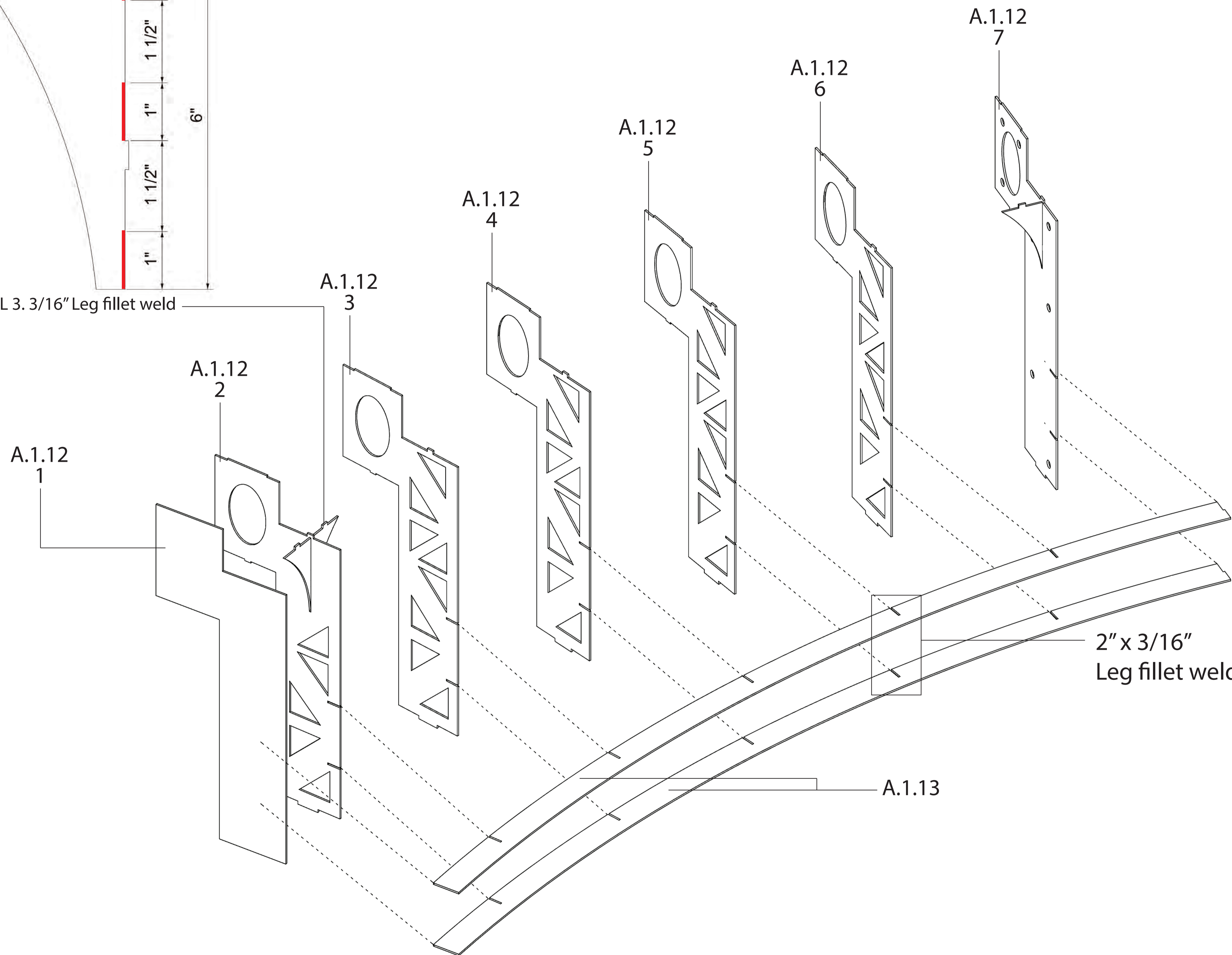
SHEET NAME
Assembly process A.1 - 1/7

SHEET NO.
5

REVISION
0



DETAIL 3. 3/16" Leg fillet weld



2" x 3/16"
Leg fillet weld

ONE HAT ONE HAND

SAN FRANCISCO, CA



1335 Yosemite Avenue
San Francisco CA 94124
(415) 822 - 2020

- | | |
|---|---|
| <input checked="" type="checkbox"/> REVIEWED
NO EXCEPTIONS TAKEN | <input type="checkbox"/> REVIEWED
REVISE & RESUBMIT |
| <input type="checkbox"/> REVIEWED
MAKE CORRECTIONS NOTED
RESUBMITTAL NOT REQUIRED | <input type="checkbox"/> REJECTED
REFER TO TRANSMITTAL |

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

- | |
|---|
| <input type="checkbox"/> APPROVED |
| <input checked="" type="checkbox"/> APPROVED AS NOTED |
| <input type="checkbox"/> DO NOT RESUBMIT |
| <input checked="" type="checkbox"/> RESUBMIT |

10/07/2019 1:19:33 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT

03/01/2019	Shop drawings
DATE	DESCRIPTION

9451
Hemenway
INSTALL LOCATION
1335 Yosemite Ave. San Francisco, CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Assembly process A.1 - 2/7

SHEET NO.
6

REVISION
0

REVIEWED NO EXCEPTIONS TAKEN REVIEWED REVISE & RESUBMIT
 REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED REJECTED REFER TO TRANSMITTAL RESUBMITTAL NOT REQUIRED
 Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.
 Ryan Joyce Structural Design
 3118 Turk Blvd.
 San Francisco, CA 94118
 By: Maureen Joyce Date: 03/01/2019

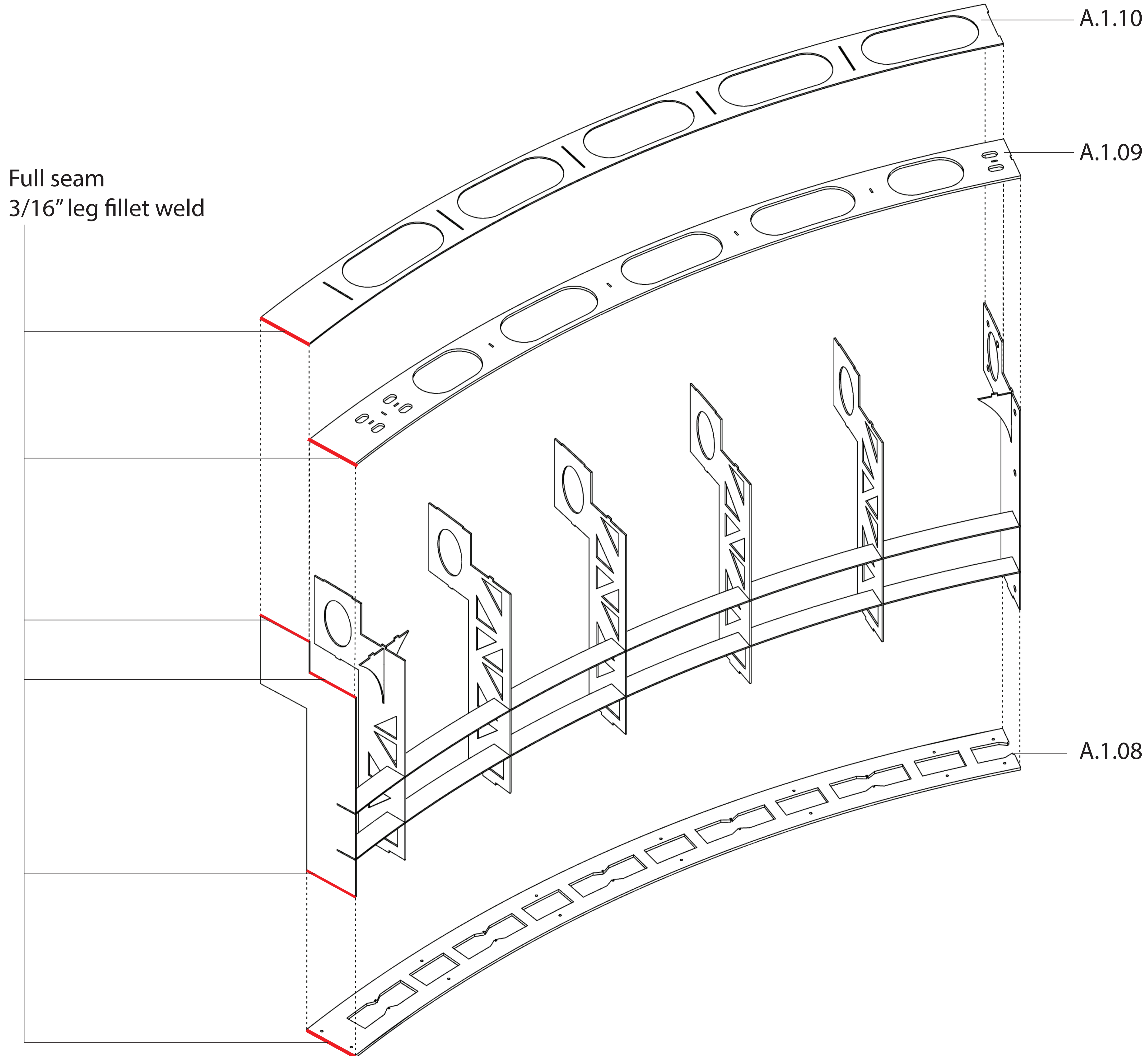
APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT
 10/07/2019 1:19:33 PM
 Reviewed for Code Compliance.
 This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
 CITY & COUNTY OF SAN FRANCISCO
 AIRPORT COMMISSION
 BUILDING INSPECTION & CODE ENFORCEMENT

03/01/2019 Shop drawings
DATE DESCRIPTION

9451
Hemenway
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Assembly process A.1 - 3/7



<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:33 PM

Reviewed for Code Compliance.
This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

**CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION**

**BUILDING INSPECTION & CODE
ENFORCEMENT**

DATE	DESCRIPTION
03/01/2019	Shop drawings

**9451
Hemenway**

INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA

INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Assembly process A.1 - 4/7

1/2" x 1/8" Leg fillet weld
every 2 1/2"

DETAIL 4. 1.5" x 3/16" Leg fillet weld

A.1.15

A.1.14

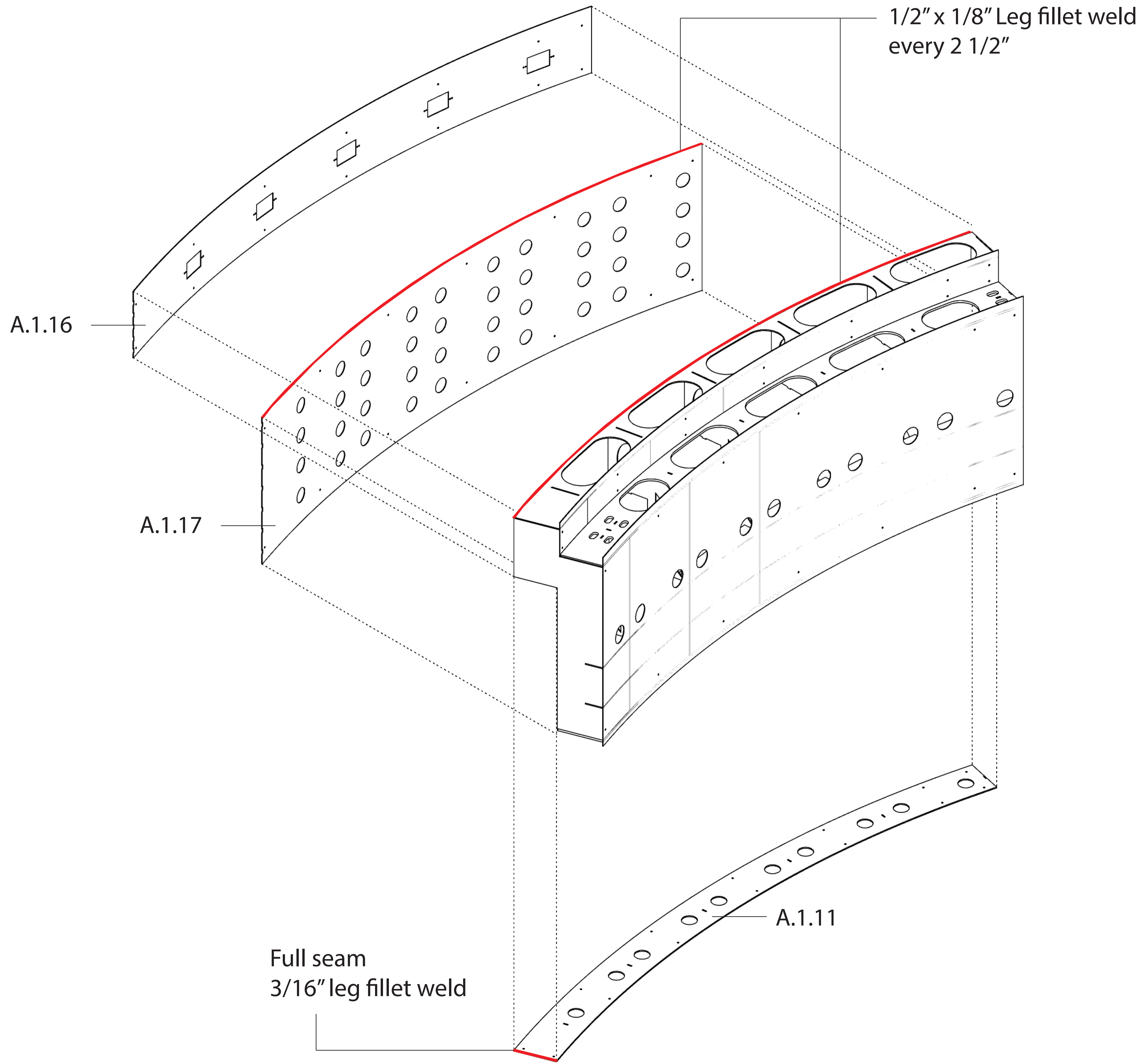
<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL RESUBMITTAL NOT REQUIRED

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118
By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:34 PM
Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.
CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION
BUILDING INSPECTION & CODE
ENFORCEMENT



DATE	DESCRIPTION
03/01/2019	Shop drawings

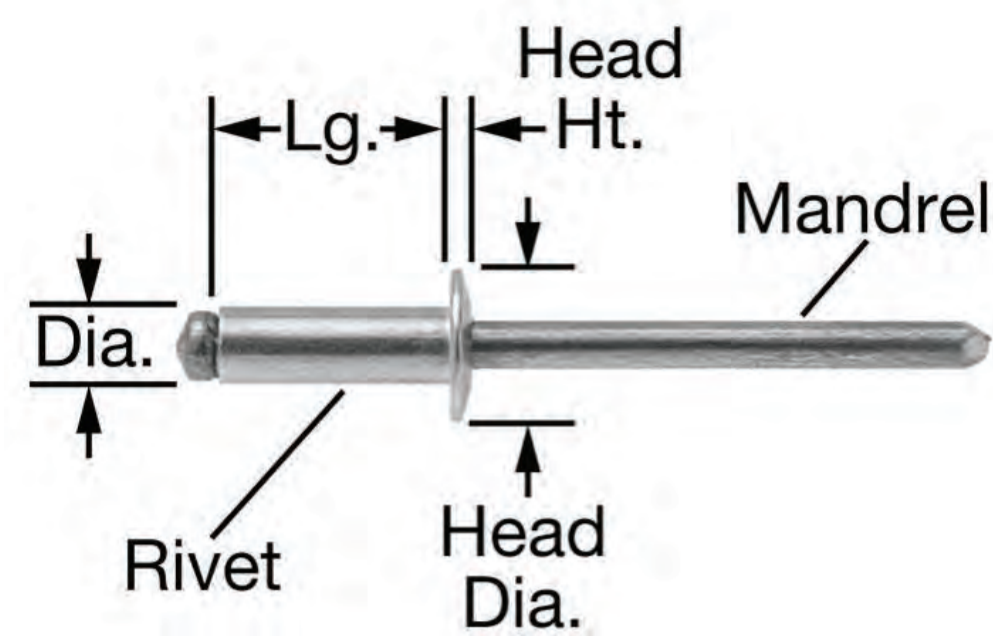
**9451
Hemenway**
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

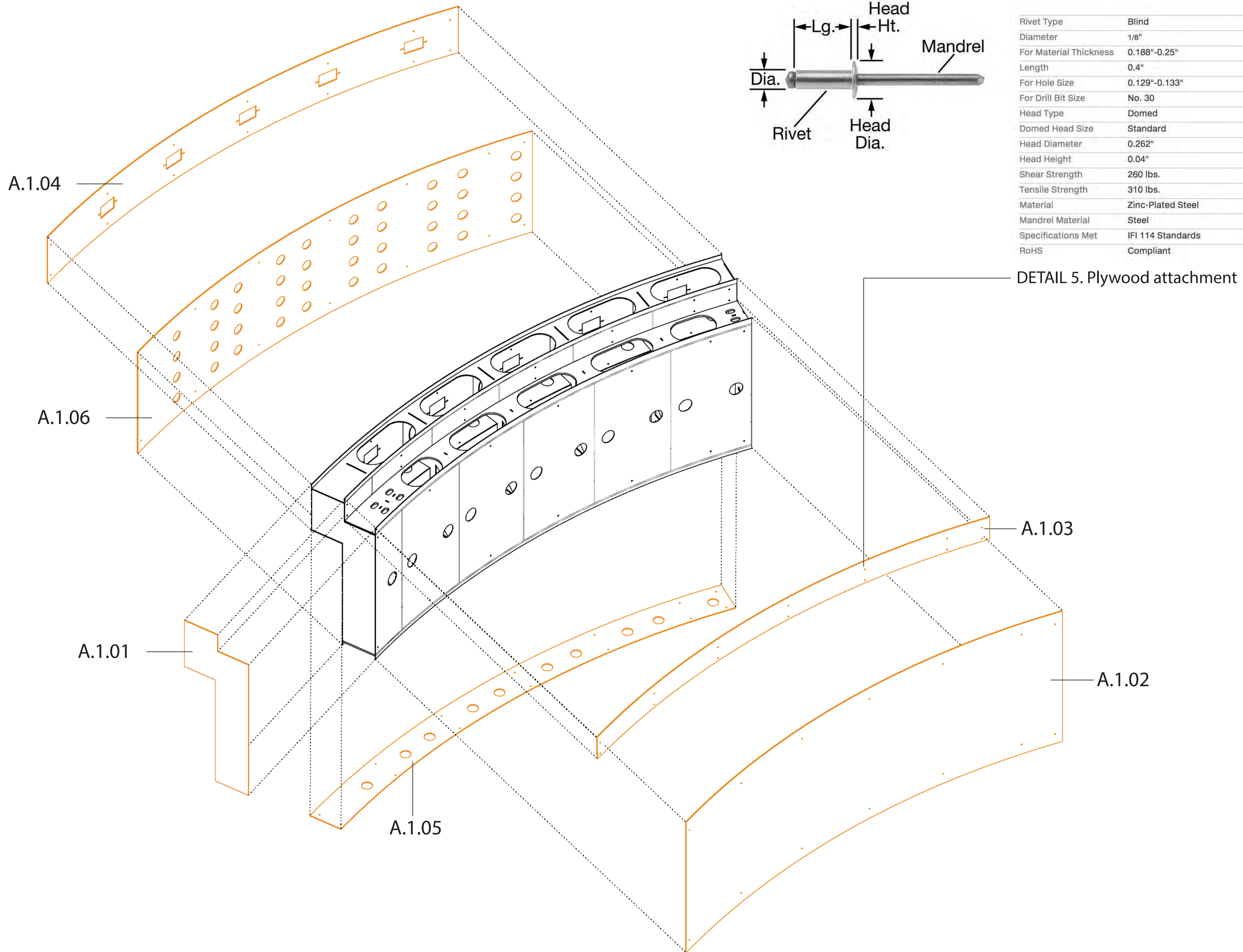
SHEET NAME
Assembly process A.1 - 5/7

Zinc-Plated Blind Rivets

Domed Head, 1/8" Diameter, for 0.188"- 0.25" Material Thickness



Rivet Type	Blind
Diameter	1/8"
For Material Thickness	0.188"-0.25"
Length	0.4"
For Hole Size	0.129"-0.133"
For Drill Bit Size	No. 30
Head Type	Domed
Domed Head Size	Standard
Head Diameter	0.262"
Head Height	0.04"
Shear Strength	260 lbs.
Tensile Strength	310 lbs.
Material	Zinc-Plated Steel
Mandrel Material	Steel
Specifications Met	IFI 114 Standards
RoHS	Compliant



**ONE HAT
ONE HAND**

SAN FRANCISCO, CA



1335 Yosemite Avenue
San Francisco CA 94124
(415) 822-2020

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:34 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

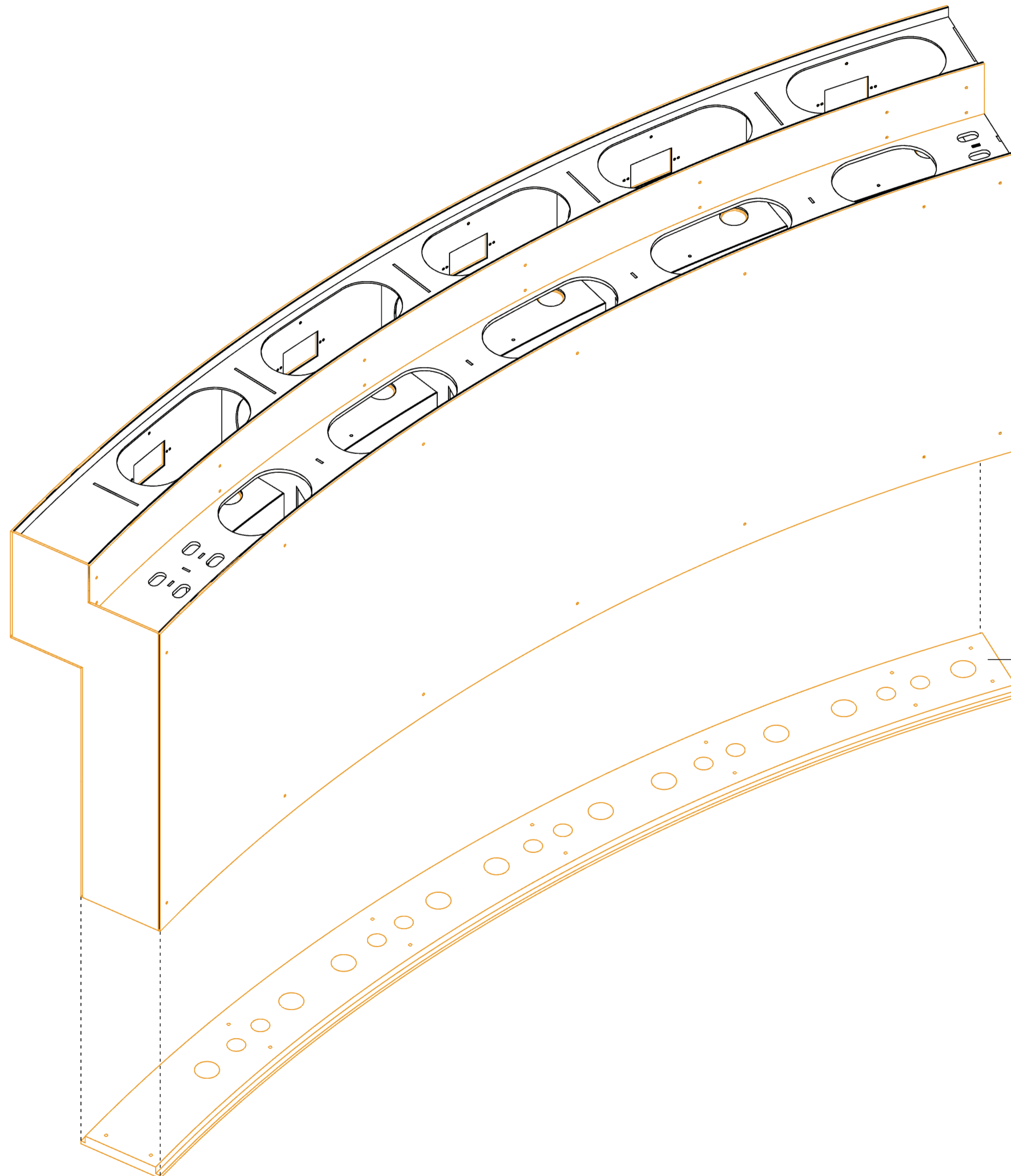
BUILDING INSPECTION & CODE
ENFORCEMENT

03/01/2019	Shop drawings
DATE	DESCRIPTION

9451
Hemenway
INSTALL LOCATION
1335 Yosemite Ave. San Francisco, CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Assembly process A.1 - 6/7



A.1.07

ONE HAT ONE HAND

SAN FRANCISCO, CA

1335 Yosemite Avenue
San Francisco CA 94124
(415) 822 - 2020

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL RESUBMITTAL REQUIRED

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:34 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT

DATE	DESCRIPTION
03/01/2019	Shop drawings

**9451
Hemenway**
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Assembly process A.1 - 7/7

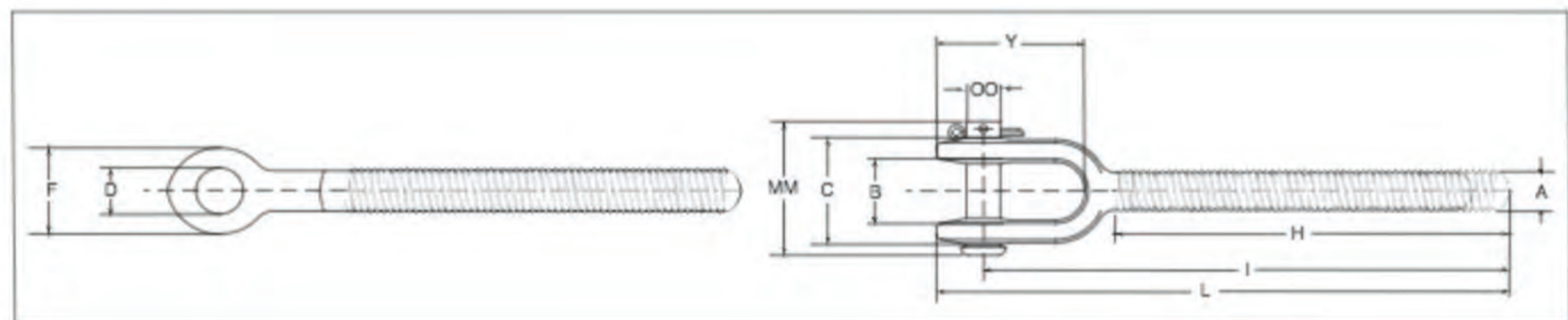
SHEET NO.
11

REVISION
0

Turnbuckles - Jaw End Fittings

HG-4037 Jaw End Fittings

- Quenched and Tempered or Normalized.
- Hot dip galvanized steel.
- Forged jaw ends are fitted with bolts and nuts on sizes 1/4" through 5/8", and pins and cotters on sizes 3/4" through 2-3/4".
- Modified UNJ thread for improved fatigue properties.
- Fatigue Rated.

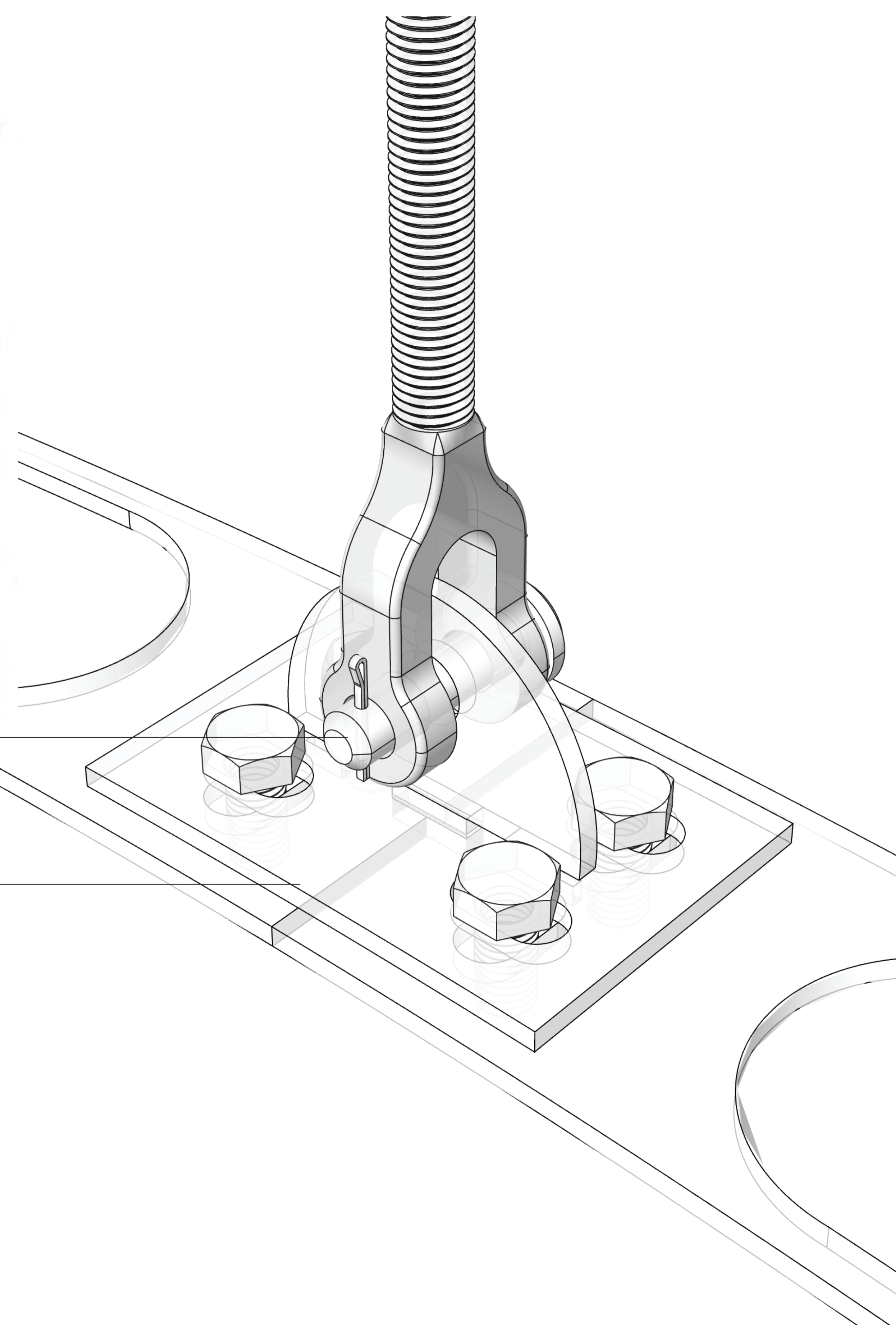


HG-4037 Jaw End Fittings

Shank Dia. & Take Up (in.)	RH Jaw Stock No.	LH Jaw Stock No.	Working Load Limit (lbs.)	Weight Each (lbs.)	Dimensions (in.)										OO Bolt Pin
					A	B	C	D	F	H	I Nom. Min.	L Nom. Min.	Y	MM	
5/8 x 6	1072412	1073037	3500	1.05	.63	.79	1.75	.55	1.31	4.31	7.12	7.91	2.36	2.44	.50

DETAIL 6. Clevis joint

To be prepped as a Class A faying surface



REVIEWED NO EXCEPTIONS TAKEN
 REVIEWED REVISE & RESUBMIT
 REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED
 REJECTED REFER TO TRANSMITTAL

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT

10/07/2019 1:19:35 PM

Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

CITY & COUNTY OF SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE ENFORCEMENT

03/01/2019	Shop drawings
DATE	DESCRIPTION

9451
Hemenway
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Clevis joint



1335 Yosemite Avenue
San Francisco CA 94124
(415) 822 - 2020

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL RESUBMITTAL NOT REQUIRED

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:35 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

**CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION**

**BUILDING INSPECTION & CODE
ENFORCEMENT**

03/01/2019	Shop drawings
DATE	DESCRIPTION

9451
Hemenway
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Clevis joint

SHEET NO.
13

REVISION
0

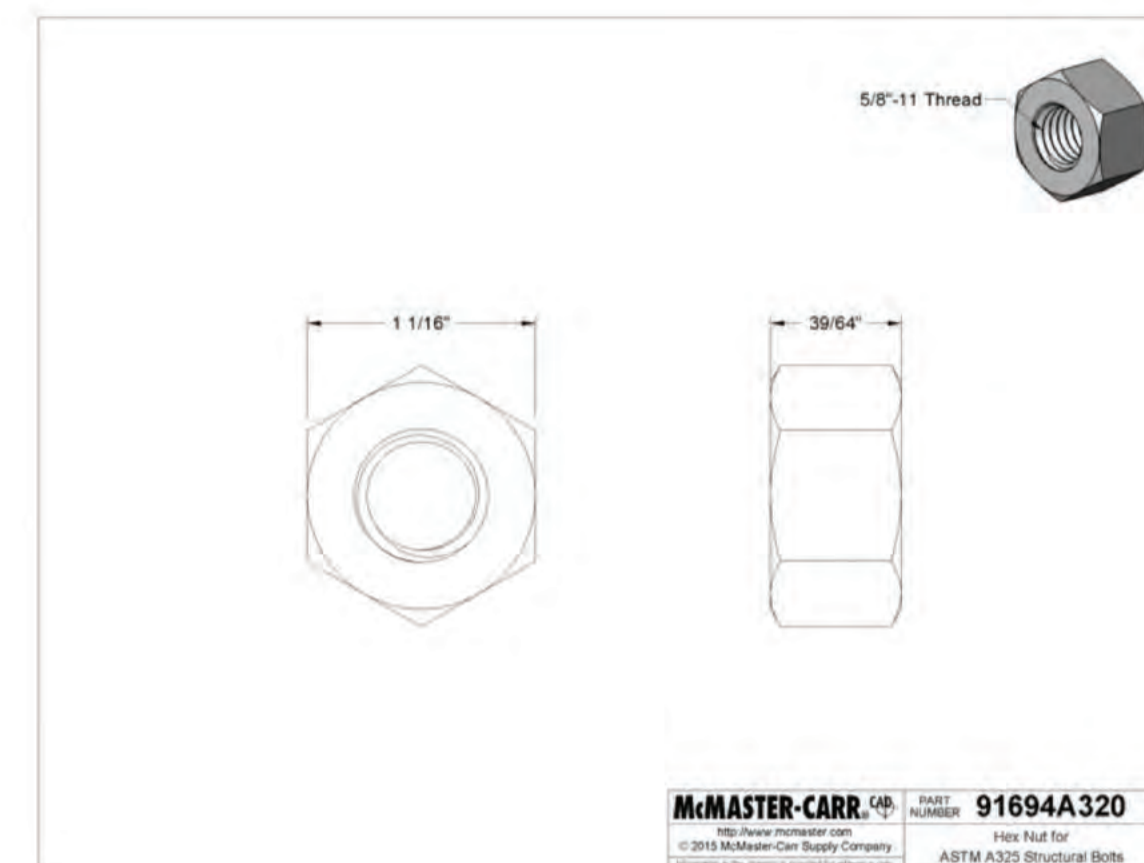
Extra-Wide Hex Nut for Structural Applications

Grade DH, Hot-Dipped Galvanized Steel, 5/8"-11 Thread

Packs of 10 Delivers tomorrow 9-11 am
\$9.00 per pack of 10
91694A320

ADD TO ORDER

Material	Hot-Dipped Galvanized Steel
Fastener Strength	Grade DH
Grade/Class	Grade DH
Thread Size	5/8"-11
Thread Type	UNC
Thread Spacing	Coarse
Thread Fit	Class 2B
Thread Direction	Right Hand
Width	1 1/16"
Height	3/8"
Specifications Met	ASTM A563
Drive Style	External Hex
Nut Type	Hex
Hex Nut Profile	Extra Wide
System of Measurement	Inch
RoHS	Compliant



The information in this 3-D model is provided for reference only. Details

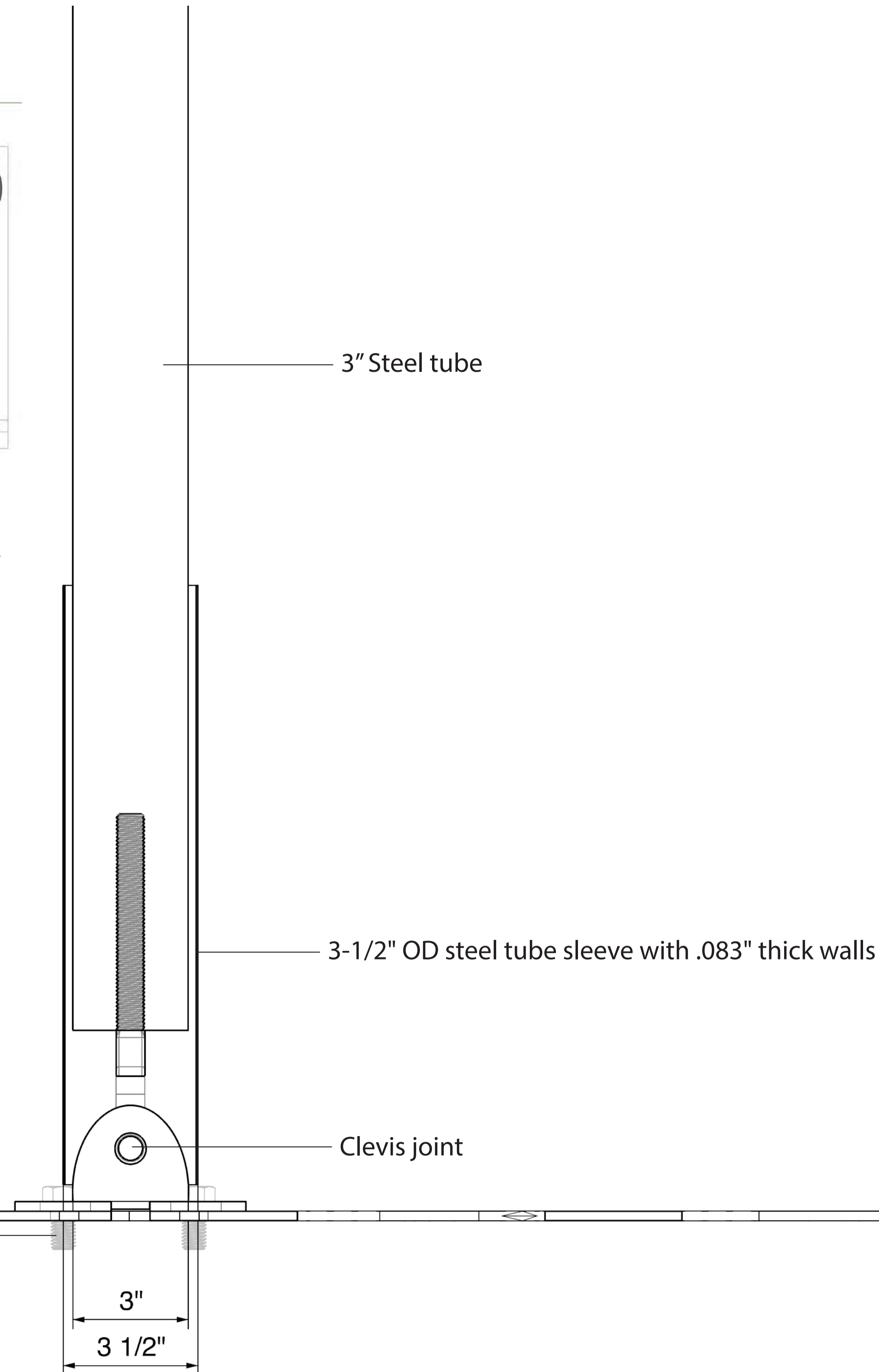
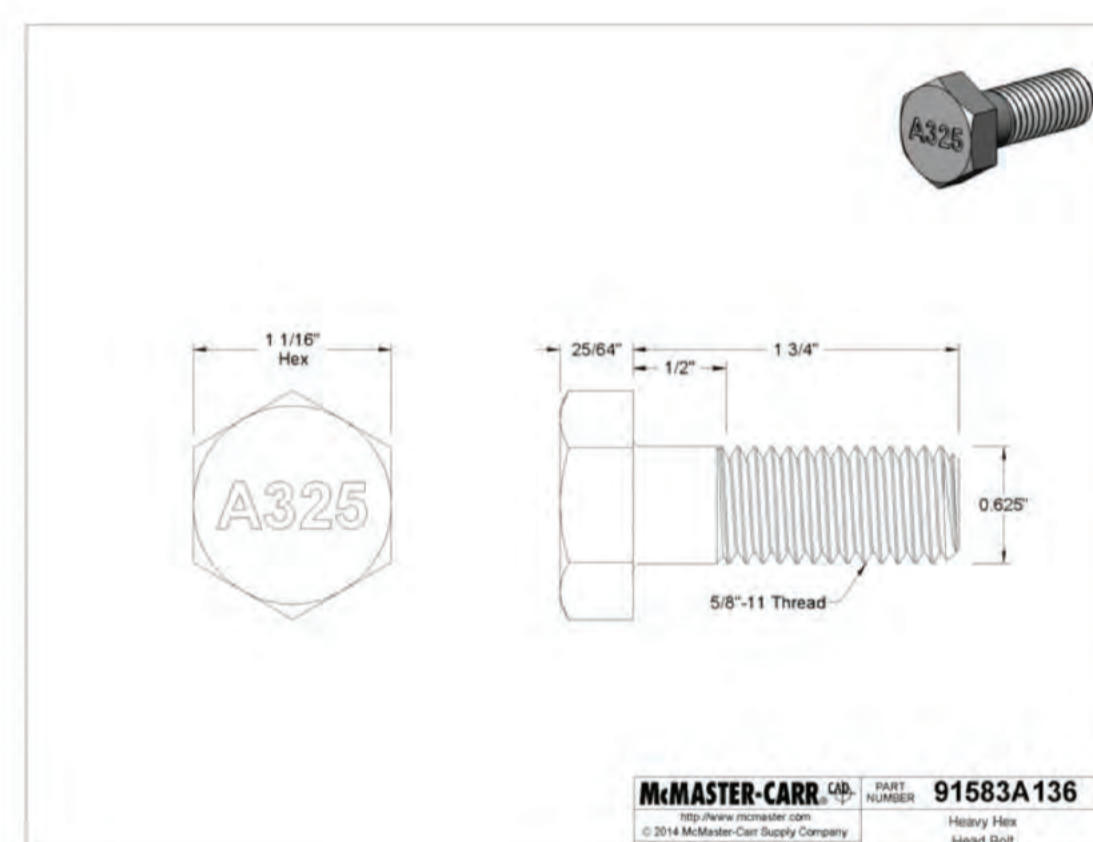
Extra-Wide Galvanized Steel Hex Head Screw

for Structural Applications, 5/8"-11 Thread, 1-3/4" Long

Packs of 10 Delivers tomorrow 9-11 am
\$13.29 per pack of 10
91583A136

ADD TO ORDER

Thread Size	5/8"-11
Length	1 3/4"
Threading	Partially Threaded
Thread Length	1 1/4"
Grip Length	1/2"
Head Width	1 1/16"
Head Height	25/64"
Material	Hot-Dipped Galvanized Steel
Hardness	Rockwell C19
Tensile Strength	100,000 psi
Screw Size Decimal Equivalent	0.625"
Thread Type	UNC
Thread Spacing	Coarse
Thread Fit	Class 2A
Thread Direction	Right Hand
Head Type	Hex
Hex Head Profile	Wide
Drive Style	External Hex
Specifications Met	ASME B15.2.0, ASTM A325
System of Measurement	Inch



DETAIL 7. Bolts and nuts for rigging plate

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:35 PM

Reviewed for Code Compliance.
This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

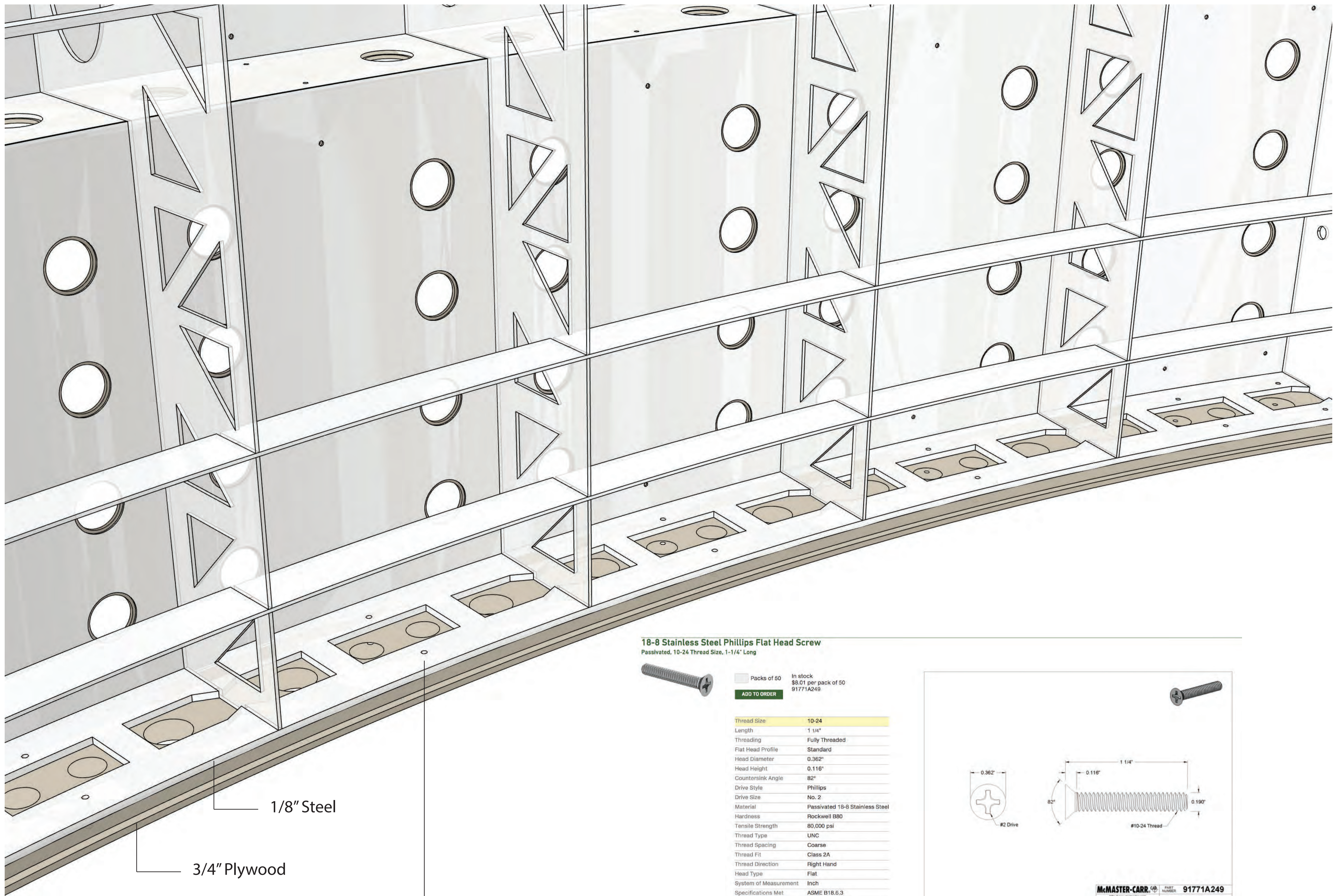
BUILDING INSPECTION & CODE
ENFORCEMENT

03/01/2019	Shop drawings
DATE	DESCRIPTION

9451
Hemenway
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Bottom plywood attachment



1/8" Steel

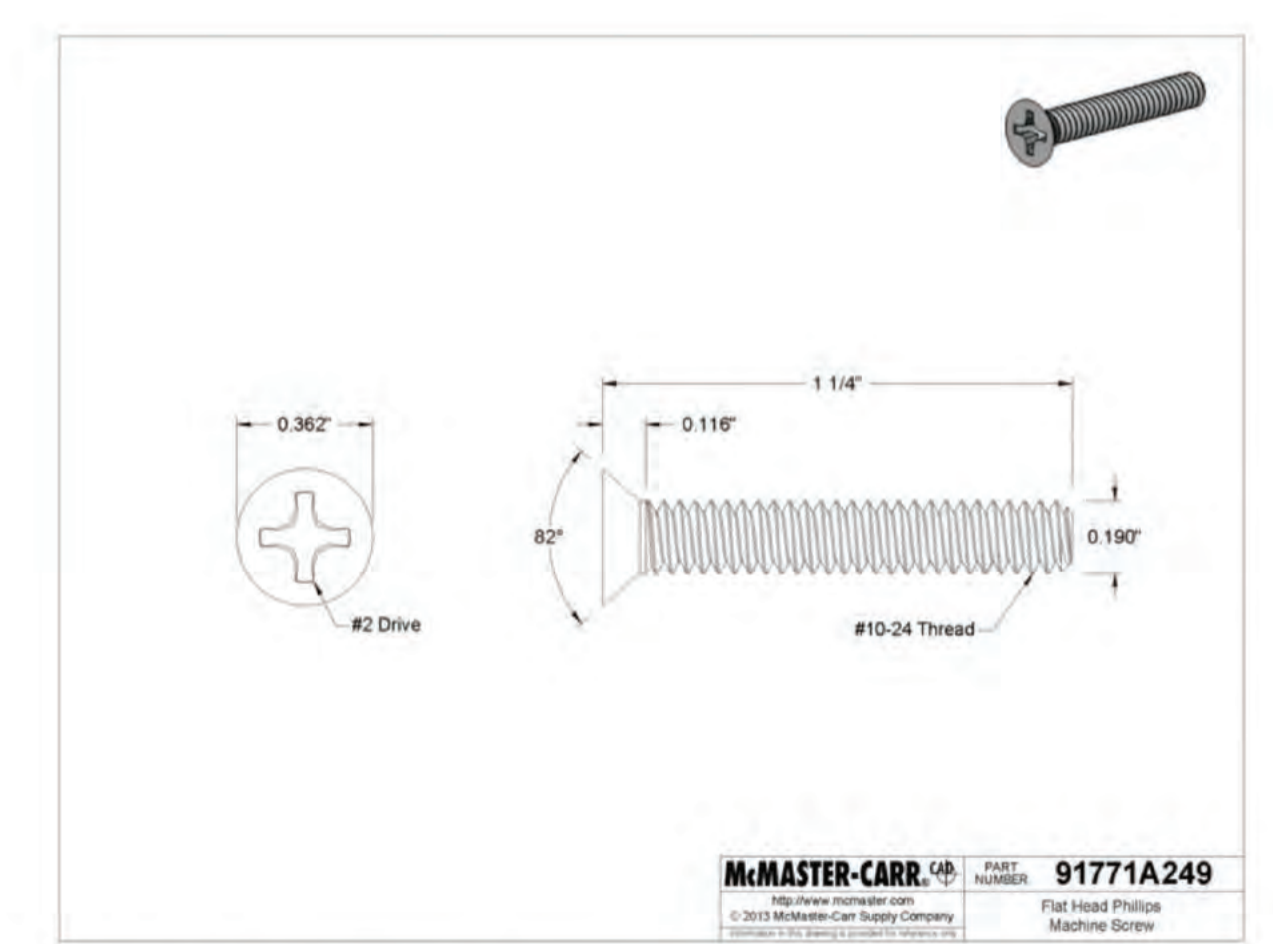
3/4" Plywood

DETAIL 8. Bottom plywood attachment

18-8 Stainless Steel Phillips Flat Head Screw
Passivated, 10-24 Thread Size, 1-1/4" Long

Packs of 50 In stock \$8.01 per pack of 50 91771A249
[ADD TO ORDER](#)

Thread Size	10-24
Length	1 1/4"
Threading	Fully Threaded
Flat Head Profile	Standard
Head Diameter	0.362"
Head Height	0.116"
Countersink Angle	82°
Drive Style	Phillips
Drive Size	No. 2
Material	Passivated 18-8 Stainless Steel
Hardness	Rockwell B80
Tensile Strength	80,000 psi
Thread Type	UNC
Thread Spacing	Coarse
Thread Fit	Class 2A
Thread Direction	Right Hand
Head Type	Flat
System of Measurement	Inch
Specifications Met	ASME B18.6.3
RoHS	Compliant



The information in this 3-D model is provided for reference only. Details

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL RESUBMITTAL NOT REQUIRED

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

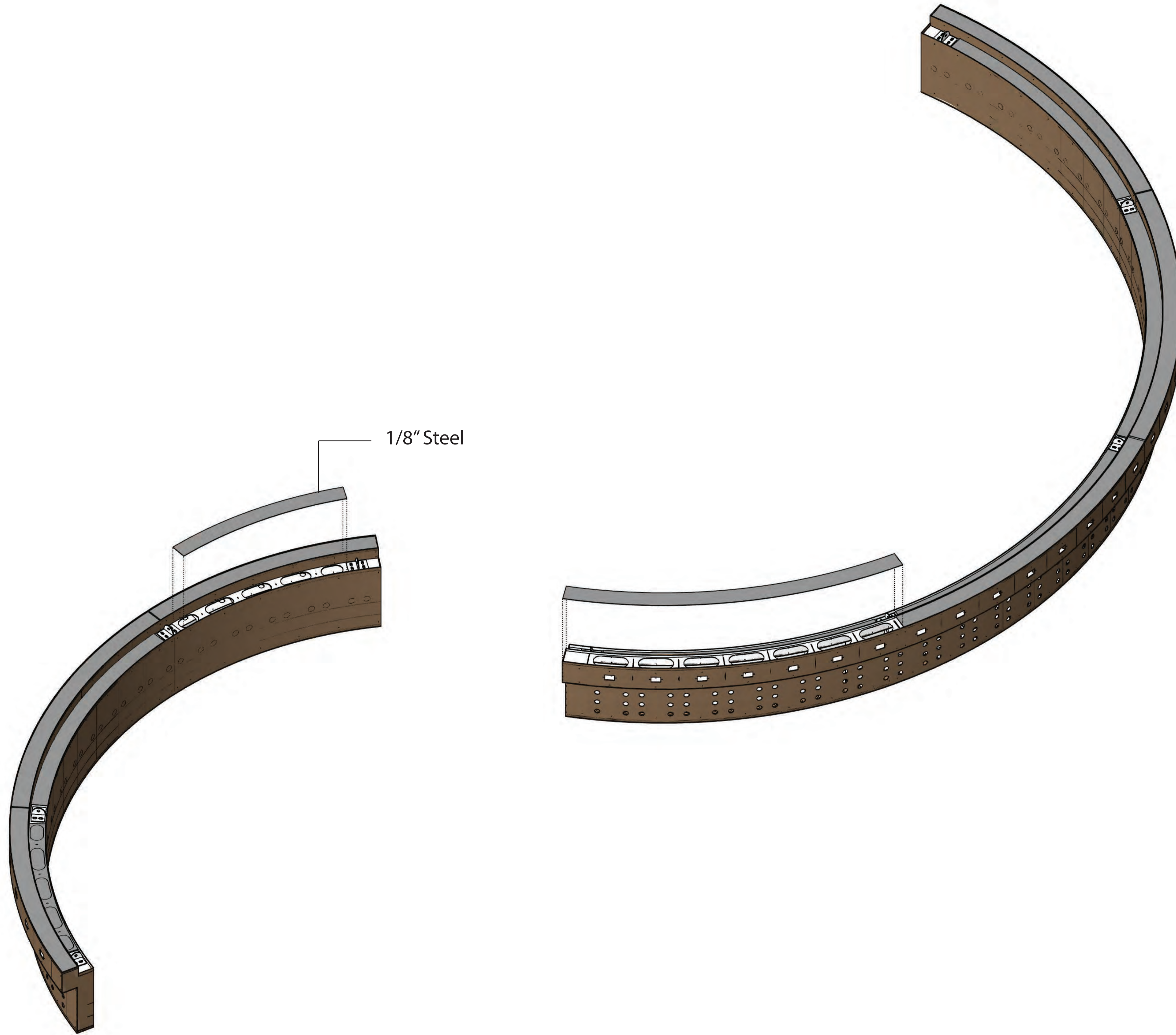
<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:36 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT



DATE	DESCRIPTION
03/01/2019	Shop drawings

**9451
Hemenway**
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Cap piece over top sections

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

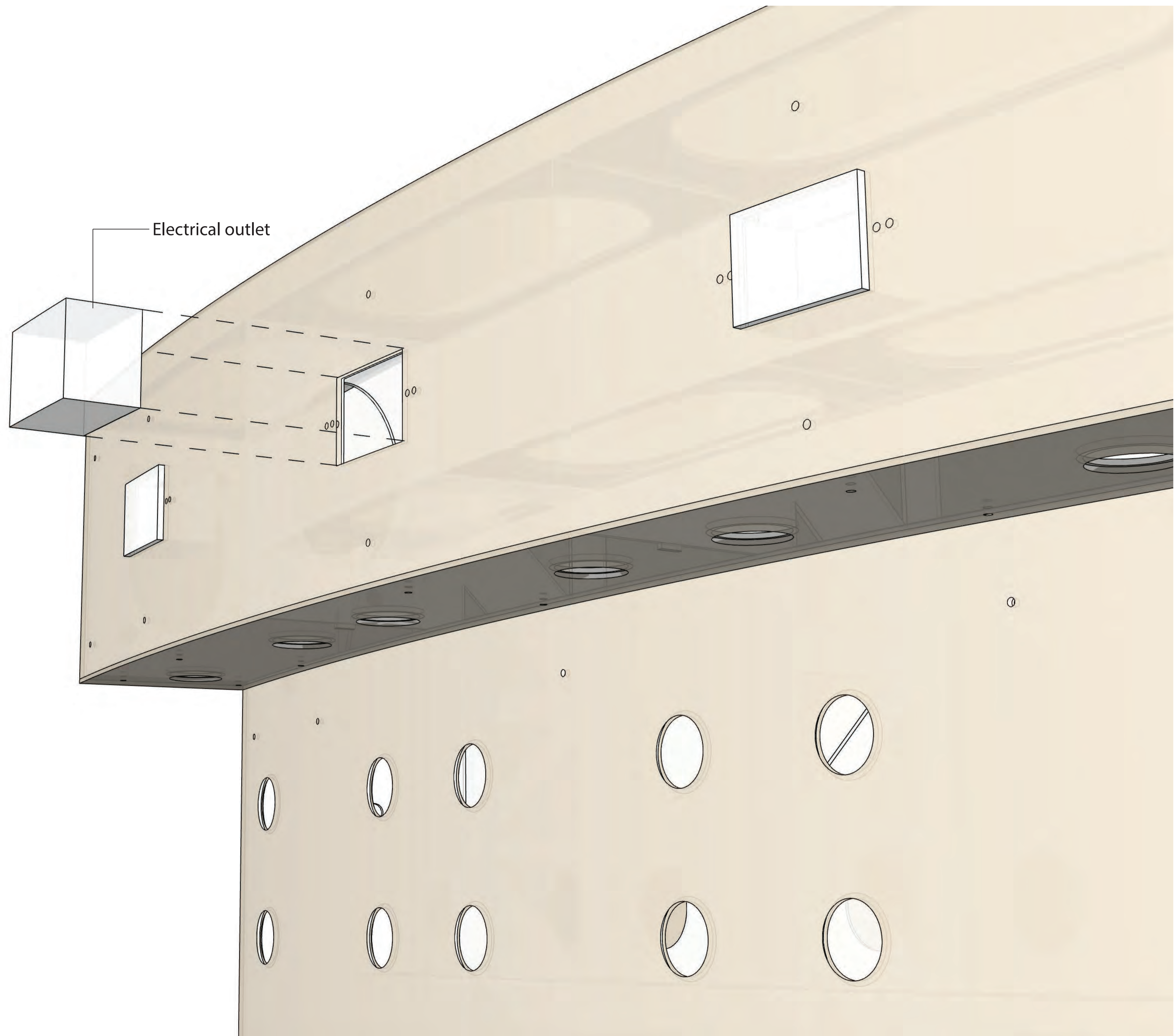
<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:36 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT



03/01/2019	Shop drawings
DATE	DESCRIPTION

**9451
Hemenway**
INSTALL LOCATION
1335 Yosemite Ave. San Francisco. CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Electrical outlet



<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

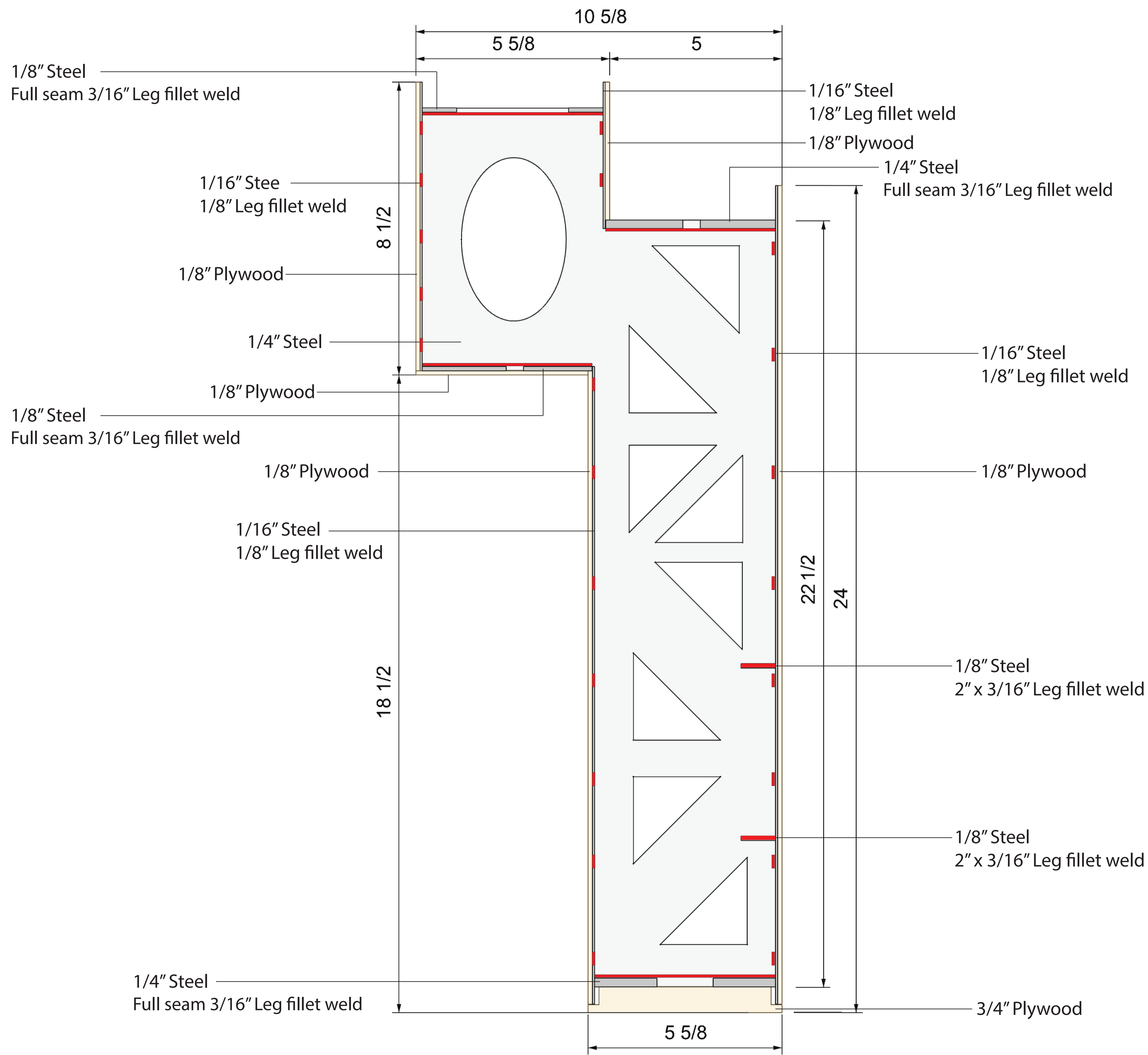
<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:36 PM

Reviewed for Code Compliance.
This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

**CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION**

**BUILDING INSPECTION & CODE
ENFORCEMENT**



DATE	DESCRIPTION
03/01/2019	Shop drawings

**9451
Hemenway**

INSTALL LOCATION
1335 Yosemite Ave. San Francisco, CA

INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Section view



<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL RESUBMITTAL NOT REQUIRED

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
3118 Turk Blvd.
San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

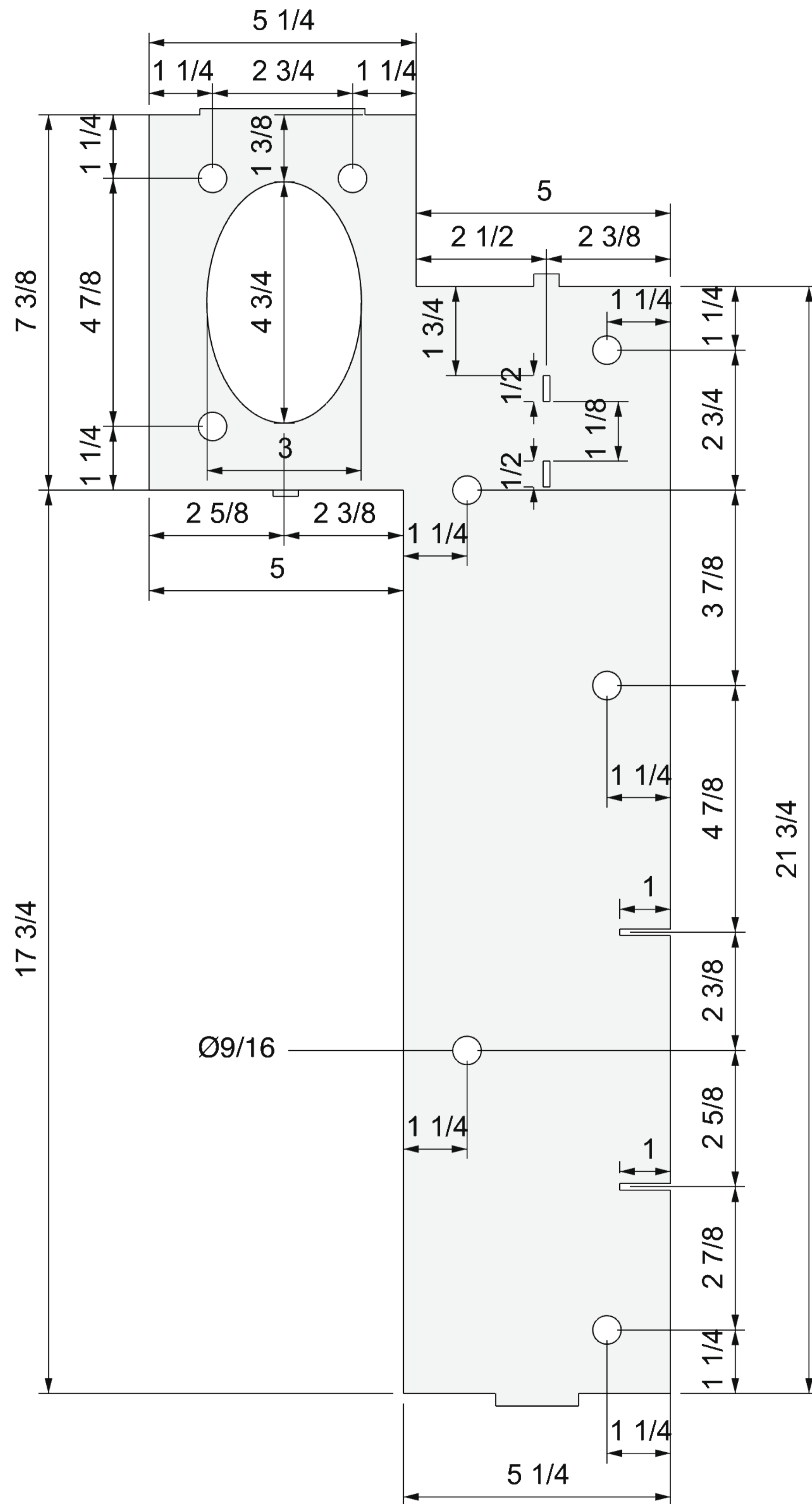
<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:37 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT



DATE	DESCRIPTION
03/01/2019	Shop drawings

9451
Hemenway
INSTALL LOCATION
1335 Yosemite Ave. San Francisco, CA
INSTALL DATE
N/A

PROJECT MANAGER / DESIGNER
Ben Turner / Eduardo Teran

SHEET NAME
Structure piece at the splice

Curve A

TOTAL - 1712 lbs
STEEL - 517 lbs 16 ga - 83 sqft - 216 lbs 1/8" - 39 sqft - 199 lbs 1/4" - 10 sqft - 102 lbs WOOD - 81 lbs CERAMICS - 510 lbs ELECTRICAL - 60 lbs ROPE, CORD, BULBS - 544 lbs

SECTION - 671 lbs (3 Total)
STEEL - 190.2 lbs 16 ga - 32 sqft - 83.2 lbs 1/8" - 13.5 sqft - 69 lbs 1/4" - 3.7 sqft - 38 lbs WOOD - 27 lbs CERAMICS - 210 lbs ELECTRICAL - 20 lbs ROPE, CORD, BULBS - 224 lbs

Curve B

TOTAL - 2919 lbs
STEEL - 871 lbs 16 ga - 146.5 sqft - 381 lbs 1/8" - 62 sqft - 316.2 lbs 1/4" - 17 sqft - 173.4 lbs WOOD - 108 lbs CERAMICS - 900 lbs ELECTRICAL - 80 lbs ROPE, CORD, BULBS - 960 lbs

SECTION - 732 lbs (4 Total)
STEEL - 224 lbs 16 ga - 38 sqft - 99 lbs 1/8" - 15.5 sqft - 79 lbs 1/4" - 4.5 sqft - 46 lbs WOOD - 27 lbs CERAMICS - 240 lbs ELECTRICAL - 20 lbs ROPE, CORD, BULBS - 256 lbs

MATERIAL WEIGHT ASSUMPTIONS:

STEEL:

- 16 ga. - 2.6 lbs/sqft
- 1/8" - 5.1 lbs / sqft
- 1/4" - 10.2 lbs/ sqft

CERAMICS -

15 lbs/per (10-20 lbs). 2 ceramics per rope strand or 1 ceramic per bulb:
 CURVE A: 34 bulbs // Max 14 per section = 510 lbs TOTAL // 210 lbs/ section
 CURVE B: 60 bulbs // Max 16 per section = 900 lbs TOTAL // 240 lbs/ section

Wood - estimate...41.5 sqft " poplar per section... 0.5 lbs/sqft = 21 lbs/section
 Plywood bottom - 4 sqft per section ~ 1.5 lbs/sqft = 6 lbs / section
 Estimate ~ 50-75 lbs electrical hardware per soffit



SAN FRANCISCO, CA



1335 Yosemite Avenue
 San Francisco CA 94124
 (415) 822 - 2020

<input checked="" type="checkbox"/> REVIEWED NO EXCEPTIONS TAKEN	<input type="checkbox"/> REVIEWED REVISE & RESUBMIT
<input type="checkbox"/> REVIEWED MAKE CORRECTIONS NOTED RESUBMITTAL NOT REQUIRED	<input type="checkbox"/> REJECTED REFER TO TRANSMITTAL RESUBMITTAL NOT REQUIRED

Review is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for quantities, dimensions, fabrication processes, techniques of construction and coordination of his work with that of all other trades.

Ryan Joyce Structural Design
 3118 Turk Blvd.
 San Francisco, CA 94118

By: Maureen Joyce Date: 03/01/2019

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT

10/07/2019 1:19:37 PM

Reviewed for Code Compliance.
 This review does not relieve
 Contractor of responsibility for
 all compliance with the
 conditions imposed by contract
 plans and specifications.

**CITY & COUNTY OF
 SAN FRANCISCO
 AIRPORT COMMISSION**

**BUILDING INSPECTION & CODE
 ENFORCEMENT**

03/01/2019	Shop drawings
DATE	DESCRIPTION

9451
 Hemenway
 INSTALL LOCATION
 1335 Yosemite Ave. San Francisco, CA
 INSTALL DATE
 N/A

PROJECT MANAGER / DESIGNER
 Ben Turner / Eduardo Teran

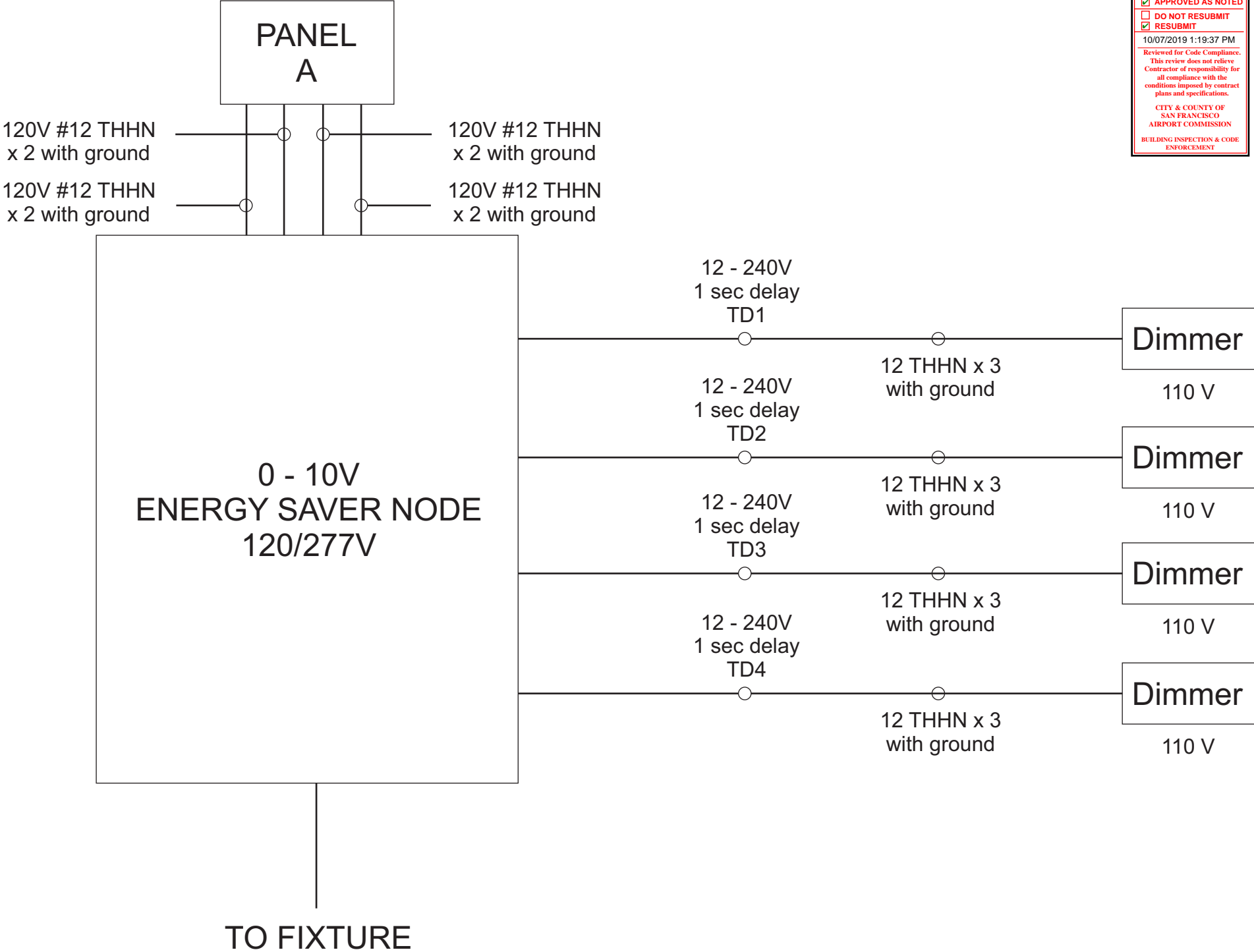
SHEET NAME
 Weight calculations

APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT

10/07/2019 1:19:37 PM

Reviewed for Code Compliance.
 This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

CITY & COUNTY OF SAN FRANCISCO
 AIRPORT COMMISSION
 BUILDING INSPECTION & CODE ENFORCEMENT





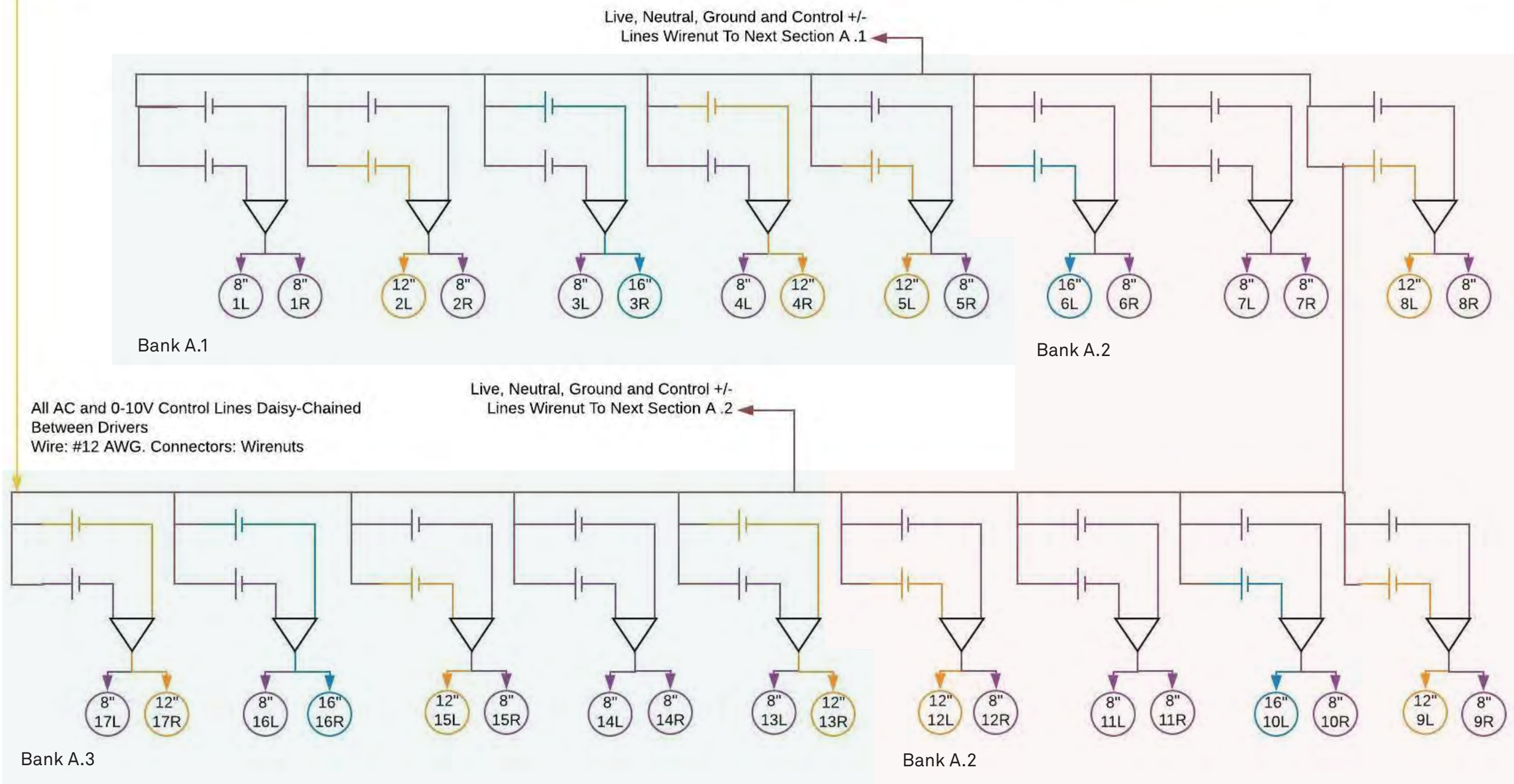
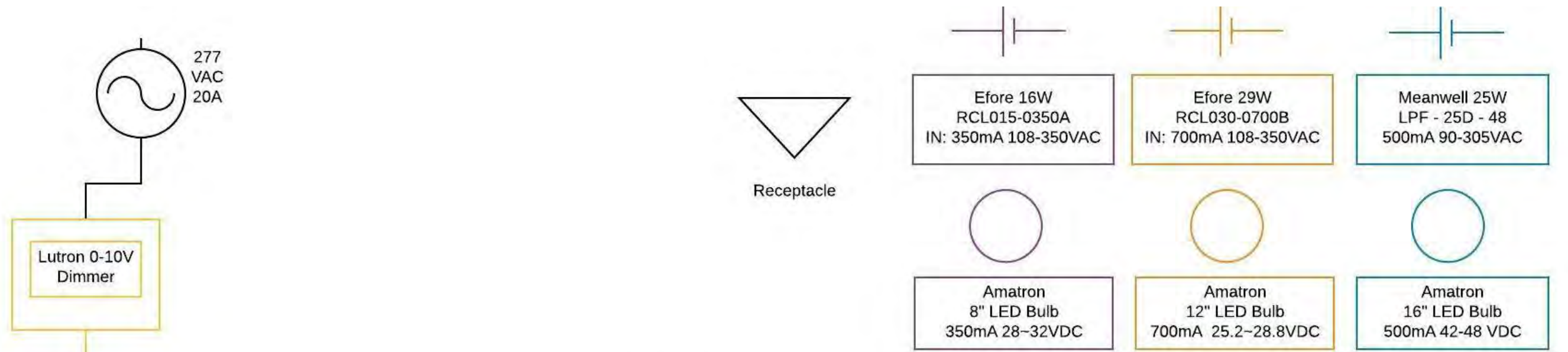
APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT

10/07/2019 1:19:37 PM

Reviewed for Code Compliance.
This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.

CITY & COUNTY OF SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE ENFORCEMENT



REV.	DATE	DESCRIPTION
4	2019/04/16	Wiring Diagram

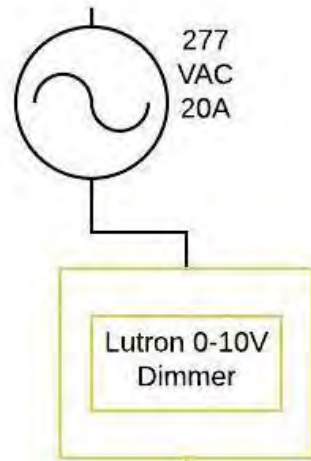
9451
Dana Hemenway Chandelier

INSTALL LOCATION
780 S Airport Blvd San Francisco, CA 94128

INSTALL DATE
2019 / April

PROJECT MANAGER / DESIGNER
Ben Turner

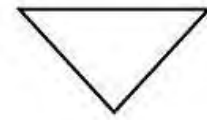
SHEET NAME
Small Soffit



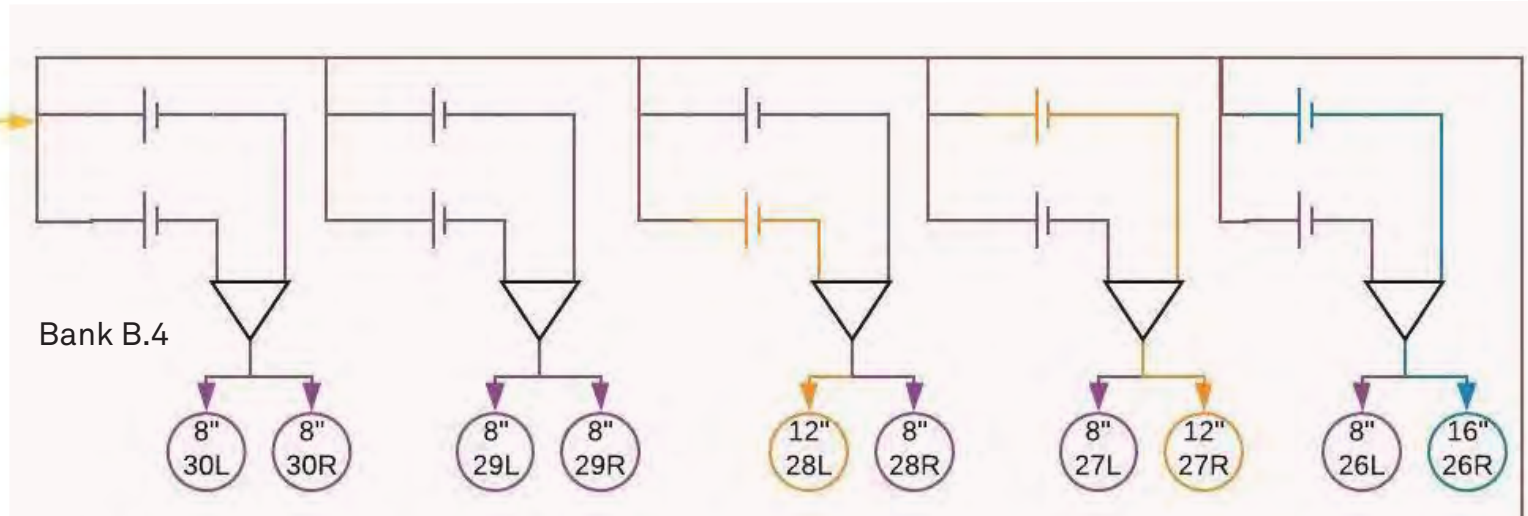
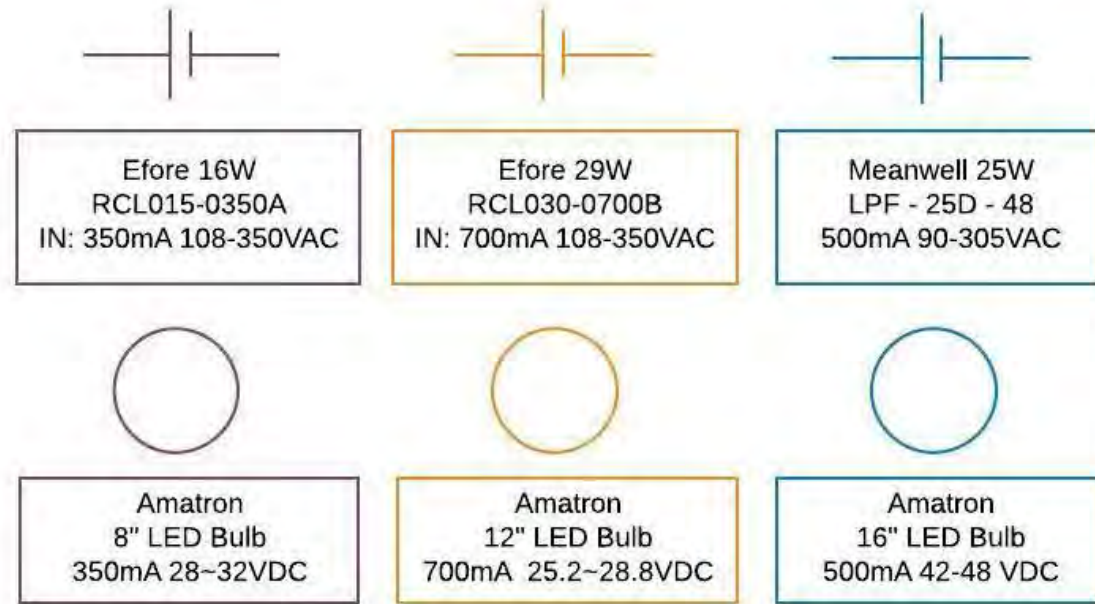
Lutron 0-10V Dimmer

All AC and 0-10V Control Lines Daisy-Chained Between Drivers
Wire: #12 AWG, Connectors: Wirenuts

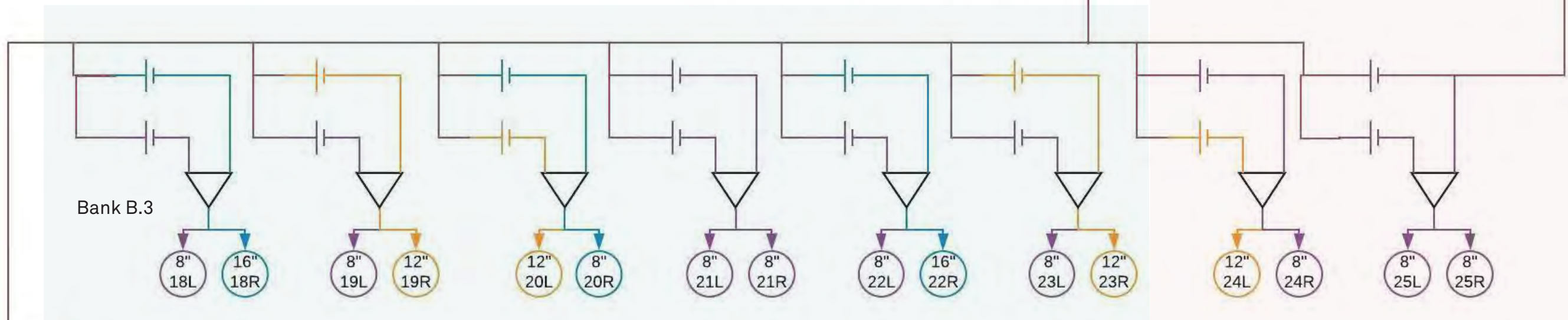
Live, Neutral, Ground, Control +/- to B.4



Receptacle



Live, Neutral, Ground and Control +/-
Lines Wirenut To Next Section B.3



Continued On Next Page



<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:38 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION	
BUILDING INSPECTION & CODE ENFORCEMENT	

REV.	DATE	DESCRIPTION
4	2019/04/16	Wiring Diagram

9451
Dana Hemenway Chandelier

INSTALL LOCATION
780 S Airport Blvd San Francisco, CA 94128
INSTALL DATE
2019 / April

PROJECT MANAGER / DESIGNER
Ben Turner

SHEET NAME
Large Soffit

SHEET NO.
B.1-1

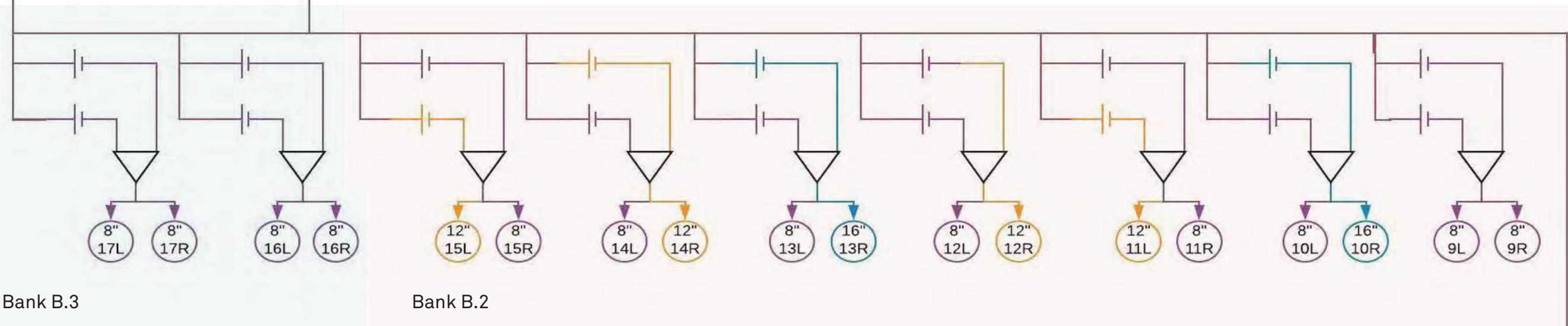
REVISION
4



<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:38 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION	
BUILDING INSPECTION & CODE ENFORCEMENT	

Continued From Last Page

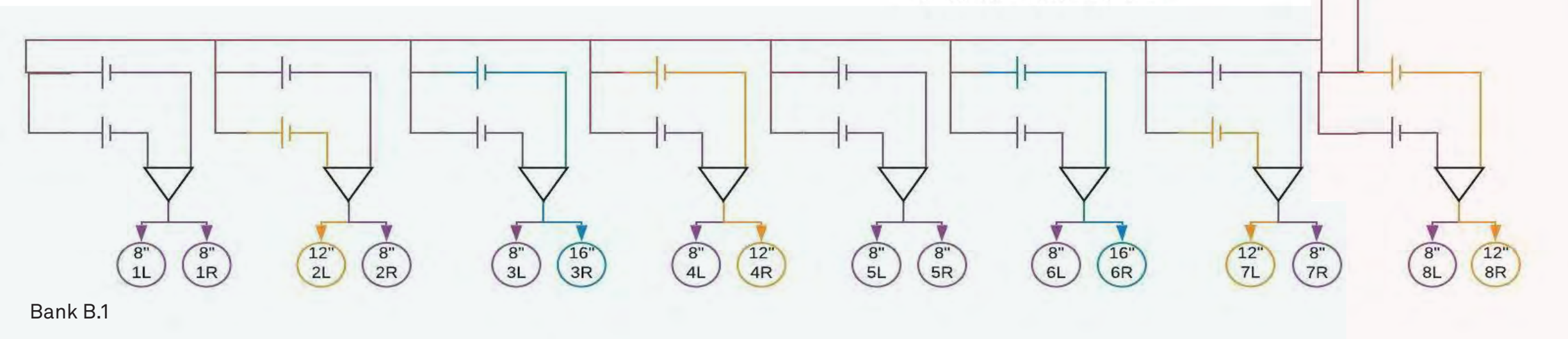
Live, Neutral, Ground and Control +/- Wirenut To Next Section B.2



Bank B.3

Bank B.2

Live, Neutral, Ground and Control +/- Wirenut To Next Section B.1



Bank B.1

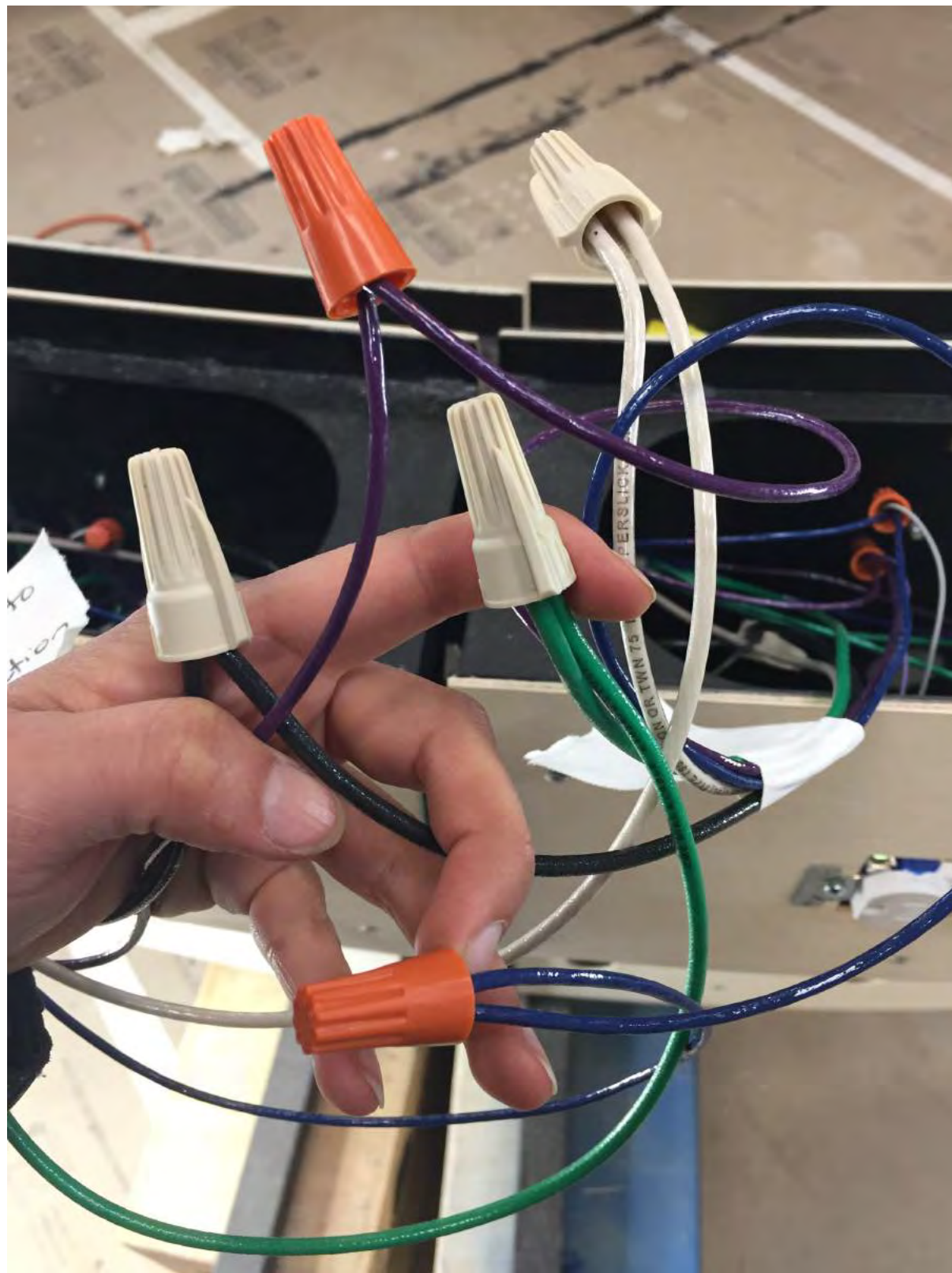
4	2019/04/16	Wiring Diagram
REV.	DATE	DESCRIPTION

9451
Dana Hemenway Chandelier

INSTALL LOCATION
780 S Airport Blvd San Francisco, CA 94128
INSTALL DATE
2019 / April

PROJECT MANAGER / DESIGNER
Ben Turner

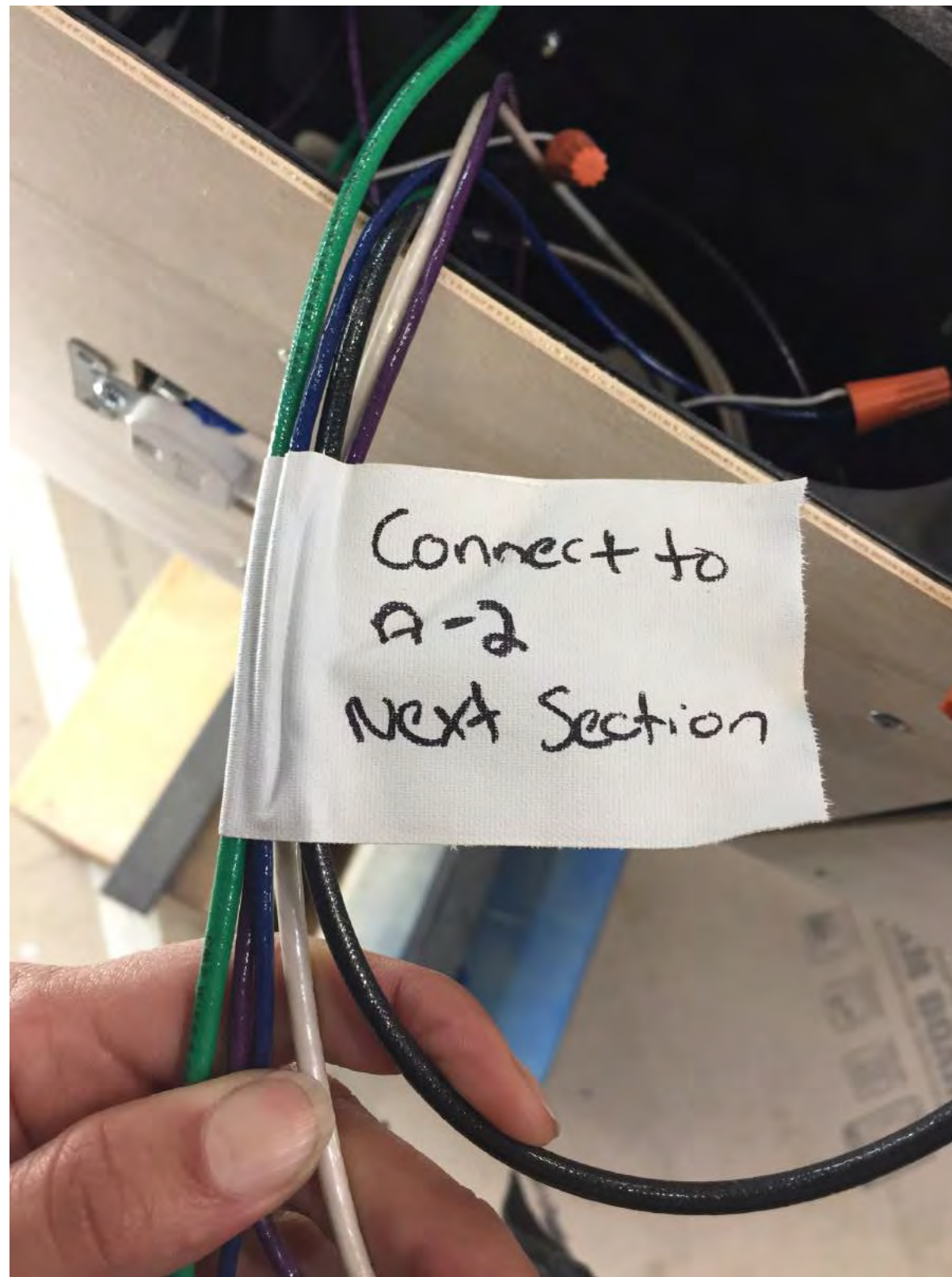
SHEET NAME
Large Soffit



Each section has 5 wires that need to be connected via wire-nuts to the next section.

AC Live, Neutral and Ground - 12 AWG

Control voltage lines - + (Purple) / - (Blue) - 16 AWG



Each wire set that is needing to be connected to the next section is bundled and labeled.



- APPROVED
- APPROVED AS NOTED
- DO NOT RESUBMIT
- RESUBMIT

10/07/2019 1:19:38 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

**CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION**

**BUILDING INSPECTION & CODE
ENFORCEMENT**

REV.	DATE	DESCRIPTION
4	2019/04/16	Sectional Connection

9451
Dana Hemenway Chandelier

INSTALL LOCATION
780 S Airport Blvd San Francisco, CA 94128
INSTALL DATE
2019 / April

PROJECT MANAGER / DESIGNER
Ben Turner

SHEET NAME
Onsite Installation Detail



SAN FRANCISCO, CA



1335 Yosemite Avenue
San Francisco CA 94124
(415) 822 - 2020

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:39 PM
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION
BUILDING INSPECTION & CODE ENFORCEMENT

PART	Vendor	Quantity	Constant Current	Operating Voltage Per Unit	Input Current 277VAC	Output Voltage Per Unit	Rated Power Per Unit
LED BULBS							
Large Soffit Curve B							
8" AMUL-8D12W-Y 5000K	Amatron	39	350mA	28~32Vdc			11
12" AMUL-8D20W-Y 5000K	Amatron	14	700mA	25.2~28.8Vdc			20
16" AMUL-8D24W-Y 5000K	Amatron	7	500mA	42~48Vdc			24
TOTAL WATTAGE							877
Small Soffit Curve A							
8" AMUL-8D12W-Y 5000K	Amatron	21	350mA	28~32Vdc			11
12" AMUL-8D20W-Y 5000K	Amatron	9	700mA	25.2~28.8Vdc			20
16" AMUL-8D24W-Y 5000K	Amatron	4	500mA	42~48Vdc			24
TOTAL WATTAGE							507
0-10V - DRIVERS							
Large Soffit Curve B							
EFORE RCL015-0350A	TRC Electronics	39	350mA	108-350	0.05	24-42V	16
EFORE RCL030-0700B	TRC Electronics	14	700mA	108-350	0.1	24-42V	29
MEANWELL LPF -25D-48	TRC Electronics	7	500 mA	90-305	0.2	26-40V	25
TOTAL POWER / CURRENT DRAW (LARGE)					4.75		1205
Small Soffit Curve A							
EFORE RCL015-0350A	TRC Electronics	21	350mA	108-350	0.05	24-42V	16
EFORE RCL030-0700B	TRC Electronics	9	700mA	108-350	0.1	24-42V	29
MEANWELL LPF -25D-48	TRC Electronics	4	500 mA	90-305	0.2	26-40V	25
TOTAL POWER / CURRENT DRAW (SMALL)					2.75		697
Alternative to Efore RCL015 - Meanwell LPF-16D-48	TRC Electronics		340mA	90-305		26.40-48	16
Alternative to Efore RCL030 - Meanwell LPF-25D-36	TRC Electronics		700mA	90-305		19.8-36	25

4	2019/04/16	Bill of Materials
REV.	DATE	DESCRIPTION

9451
Dana Hemenway Chandelier

INSTALL LOCATION
780 S Airport Blvd San Francisco, CA 94128
INSTALL DATE
2019 / April

PROJECT MANAGER / DESIGNER
Ben Turner

SHEET NAME
Bill of Materials

SHEET NO.
D.1-1

REVISION
4

<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:39 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION	
BUILDING INSPECTION & CODE ENFORCEMENT	

MACRAME MATERIALS

Macramé strands flow down from the soffit structure.

Each strand is comprised of two extension cords knotted around two one-inch diameter fiber ropes. The ropes are tied off with whipping twine. There are two glazed ceramic “beads” inserted along the macramé pattern in each strand. The extension cords from each macramé strand are plugged into duplex power outlets that line the top of each soffit. The extension cords are then woven through a series of perforations in the faces of each soffit. Each strand ends with two circular LED light fixtures plugged into the extension cords.

1. ELECTRICAL CORDS & PLUGS
2. ROPE
3. WHIPPING TWINE
4. BULBS

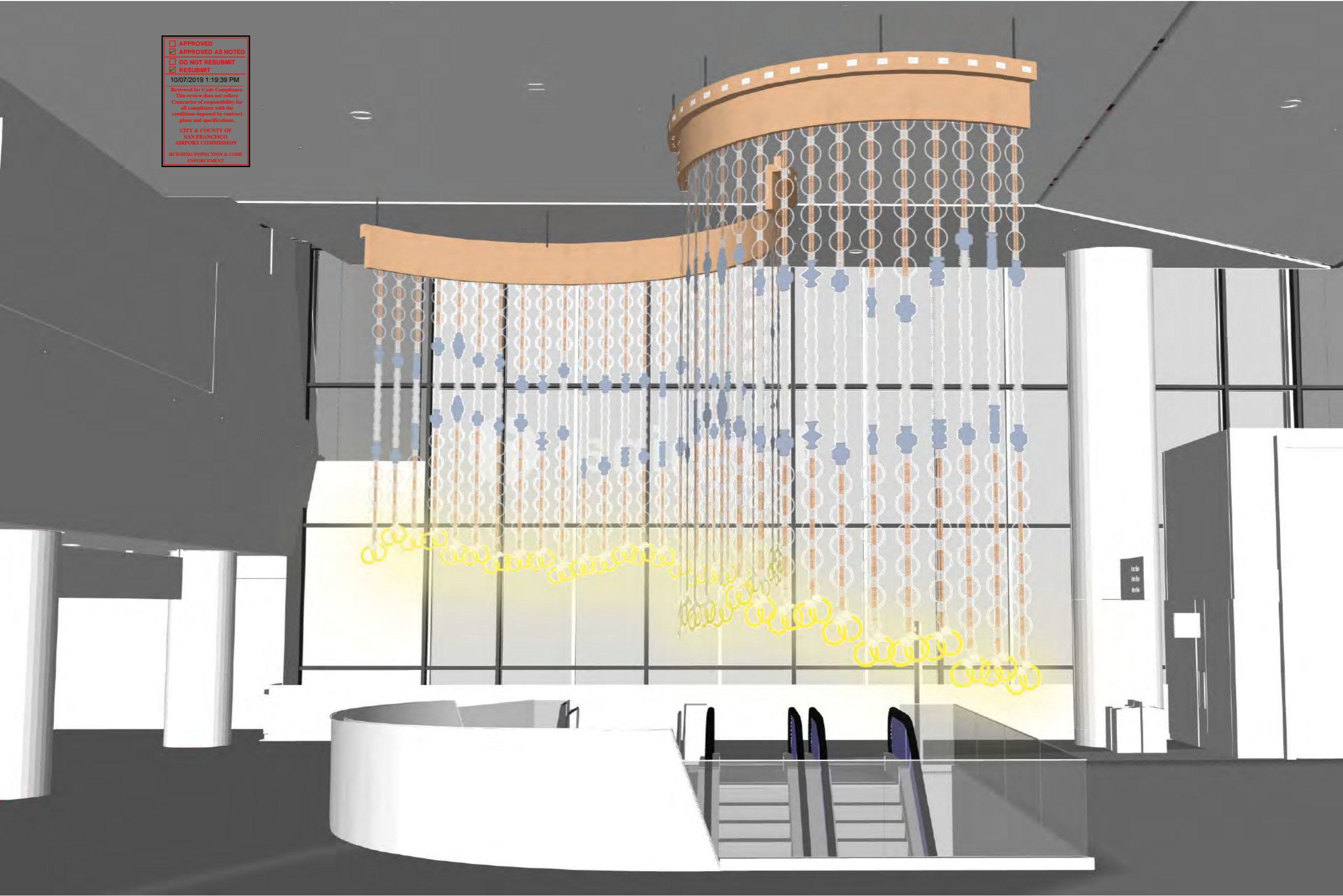
APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT

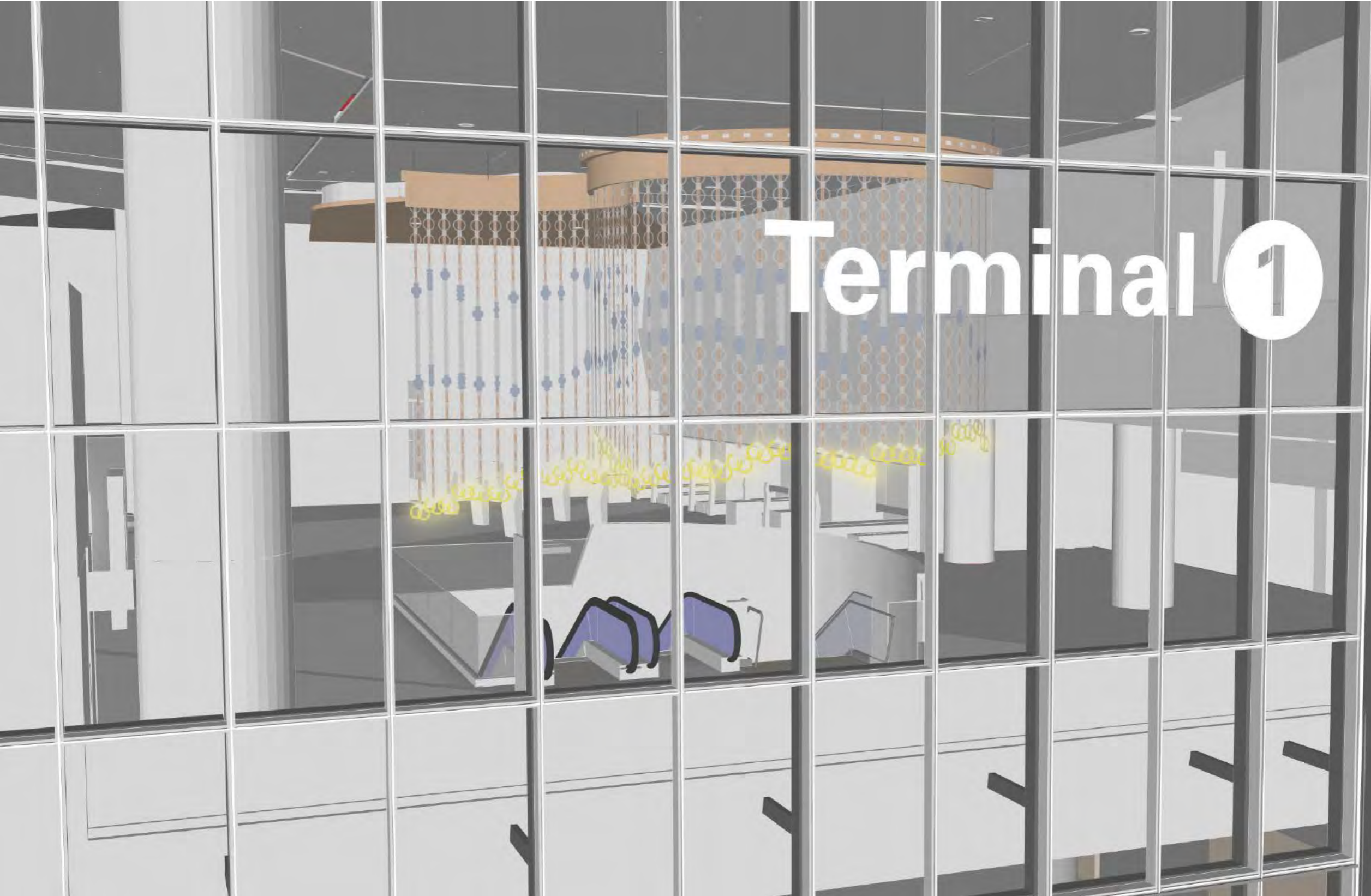
10/07/2019 1:19:39 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT





APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT

10/07/2019 1:19:40 PM
Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION
BUILDING INSPECTION & CODE
ENFORCEMENT

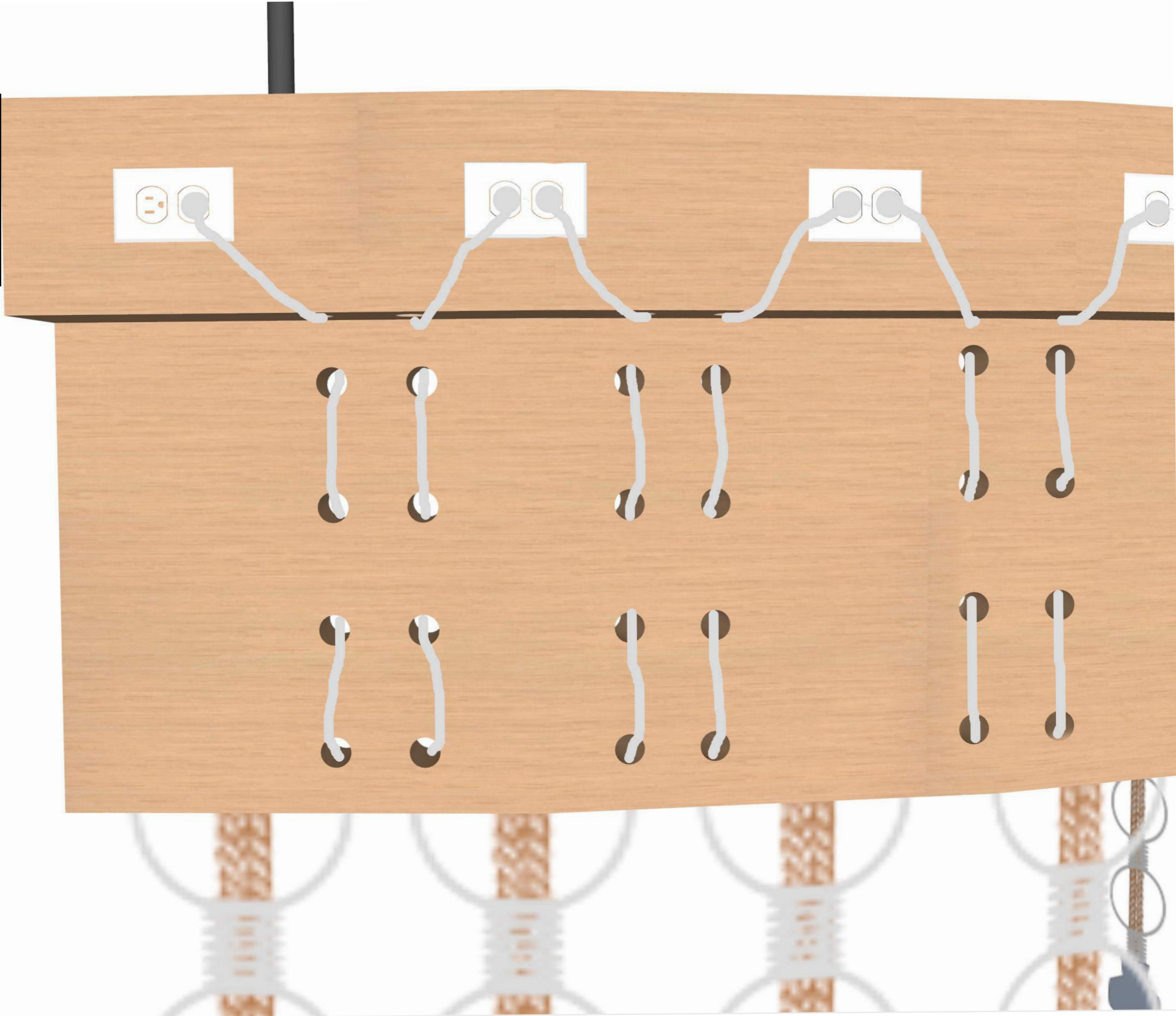
APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT

10/07/2019 1:19:40 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT





APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT

10/07/2019 1:19:40 PM

Reviewed for Code Compliance.
This review does not relieve
Contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.

CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION

BUILDING INSPECTION & CODE
ENFORCEMENT

Pro Star® 14/3 SJTW Heavy Duty Extension Cords

This contractor grade, ETL Listed heavy duty extension cord will provide years of dependable service. Available in black or white with solid molded ends, these cords are the top picks for the A/V, Special Events, Entertainment and Rental industries.

Features:

- ❖ Manufactured to 14/3 AWG (American Wire Gauge) specifications
- ❖ All copper is soft drawn & annealed for maximum flexibility under full load
- ❖ Our Pro Star® PVC insulation and jacket guarantees working flexibility in temperatures down to -40°F
- ❖ SJTW outside jacket is rated at 300 volts
- ❖ We use heavy duty molded on 15A-125V NEMA 5-15 plugs & connectors that will not pull away from the cord body
- ❖ Jacket color: Black, White
- ❖ Lengths: 15ft, 25ft, 50ft, & 100ft
- ❖ cETLus Listed for USA and Canada

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:41 PM
<small>Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.</small>
<small>CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION</small>
<small>BUILDING INSPECTION & CODE ENFORCEMENT</small>



P.O.S.H.
Portside Out, Starboard Home

*Good UV-resistance,
 soft touch and low elongation*



P.O.S.H.

Polyester halyard and sheet ropes

Portside Out, Starboard Home! Langman Ropes P.O.S.H. is a spun polyester rope. The rope comes in a 3-strand or 4-strand construction. P.O.S.H. rope is good UV-resistant and has a low elongation. Because of the good UV-resistance, soft touch and low elongation this rope is used a lot as halyard and sheet rope on classic ships and fishing boats.

FEATURES

- > Soft touch (like cotton)
- > Good handling
- > Low elongation (pre-stretched)

APPLICATIONS

- > Running rigging tall ship
- > Sheet and halyard lines
- > Because of the soft look also very well suitable for decorative purposes

TECHNICAL SPECIFICATIONS

Construction	3-, 4-strand	Wet vs dry strength:	100%
Specific gravity	1.38 (sinks)	Melting point	265 °C
UV-resistance:	good	Short term heat resistance	170 °C
Abrasion resistance	good	Elongation at 20% break	2%
Chemical resistance:	good	Colour(s):	beige

P.O.S.H. ROPE TWISTED

Diameter	Circumference inch	Weight / 220mtr kg	Linear breaking load kg	Linear breaking load kN	Art.nr
6 mm	¾	5,1	554	5,44	S.12.03.71.06
8 mm	1	9,5	1.000	9,81	S.12.03.71.08
10 mm	1 ¼	15,5	1.560	15,31	S.12.03.71.10
12 mm	1 ½	21,8	2.230	21,88	S.12.03.71.12
14 mm	1 ¾	29,3	3.10	30,62	S.12.03.71.14
16 mm	2	38,5	3.980	39,06	S.12.03.71.16
18 mm	2 ¼	48,4	4.980	48,87	S.12.03.71.18
20 mm	2 ½	60,1	6.230	61,14	S.12.03.71.20
24 mm	3	86,5	8.960	87,93	S.12.03.71.24
28 mm	3 ½	117,7	12.000	117,76	S.12.03.71.28
32 mm	4	154,0	14.000	137,39	S.12.04.71.32
36 mm	4 ½	194,3	17.272	169,50	S.12.04.71.36
40 mm	5	239,8	21.663	209,65	S.12.04.71.40

* 4-strand twisted

Alternatives:

Synthetic ropes with a classic look:

- Hempex rope, spun (soft) polypropylene rope
- Polyester classic rope, (flat/smooth) polyester rope (even better uv-resistant)
- Polytex rope, high quality (flat/smooth) polypropylene rope (better abrasion resistant)
- Spunline, double braided polyester. The cover is a mix from spun polyester with filament polyester.

Natural rope alternatives:

- Hemp rope
- Manila rope

Quotation request?:

Go to contact, email us and mention diameter, colour, quantities and you will receive a quotation as soon as possible!

Marlow®

DATASHEET

APPROVED
 APPROVED AS NOTED
 DO NOT RESUBMIT
 RESUBMIT
 10/07/2019 1:19:41 P
 Reviewed for Code Compliance
 This review does not relieve the Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications
 CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION
 BUILDING INSPECTION & CODE ENFORCEMENT

SPLICING TOOLS

Whipping Twine

Marlow whipping twine is widely regarded as the best on the market, the polyester whipping twine is available in 4 sizes and a variety of colours (no.4 only). The waxed finish makes for easier whipping and a better finish.



AVAILABLE IN 'DISPLAY BOXES' OF 12 SPOOLS OR ON 1KG COPS.

SIZE	COLOUR	DIAMETER	LENGTH
No.2	WHITE	0.5mm	92m/ 302ft
No.2 - Kilo Cop	WHITE	0.5mm	4570m/ 14,993ft
No.4	WHITE	0.8mm	41m/ 134ft
No.4	RED	0.8mm	41m/ 134ft
No.4	BLUE	0.8mm	41m/ 134ft
No.4	BLACK	0.8mm	41m/ 134ft
No.4	GREEN	0.8mm	41m/ 134ft
No.4	GOLD	0.8mm	41m/ 134ft
No.4	NATURAL	0.8mm	41m/ 134ft
No.4 - Kilo Cop	VARIOUS	0.8mm	2220m/ 7,283ft
No.8	WHITE	1.1mm	23m/ 75ft
No.8 - Kilo Cop	WHITE	1.1mm	1170m/ 3,839ft
No.16	WHITE	1.5mm	12m/ 39ft
No.16- Kilo Cop	WHITE	1.5mm	525m/ 1,722ft

Marlow Ropes Ltd
 Ropemaker Park
 Hailsham
 East Sussex, BN27 3GU
 England

Marlow Ropes, Inc.
 Cordage Business Park
 Plymouth
 MA 02360
 USA

www.marlowropes.com
 UK: +44 (0) 1323 444 444
sales@marlowropes.com
 US: salesusa@marlowropes.com
salesusa@marlowropes.com



Disclaimer

Marlow Ropes Ltd endeavours to ensure that all products are manufactured to the highest standard, these guidelines are not intended and do not create any warranties, express or implied.
 Marlow Ropes Ltd expressly disclaims warranties or representations of any kind, express or implied, including the implied warranties of merchantability and fitness for a particular purpose.
 Marlow Ropes Ltd shall not be liable for any consequential, incidental or contingent damages whatsoever stemming from the use of these guidelines.
 Marlow Ropes Ltd has a policy of continual improvement which may result in specification and colour changes without prior notice.

AMATRON FROSTED LED CIRCLINE BULBS: 16", 12", AND 8" TUBES



Polycarbonate Lens

Poly Carbonate Frosted Cover
Cast Aluminum Heat Sink
High Lumen Output LED
Aluminum Printed Circuit Board
G10q Fitting With Wires Provided
External UL Recognized Power Driver

LED Circline bulbs retrofit into Circline light fixtures. They save electricity and last five times longer. LED will emit clear, non-flickering beautiful light.

APPROVED
APPROVED AS NOTED
CITY LIGHT
RESUBMIT
2:02 PM
Required for Code Compliance.
This review does not relieve
the contractor of responsibility for
all compliance with the
conditions imposed by contract
plans and specifications.
CITY & COUNTY OF
SAN FRANCISCO
AIRPORT COMMISSION
BUILDING INSPECTION & CODE
ENFORCEMENT

AMATRON LED Circline Retrofit Kits come with everything needed for a full retrofit of most existing Circline Fixtures.

*ELECTRICIAN MUST CUT CURRENT
AND REMOVE BALLAST FROM
FIXTURE BEFORE INSTALLING
LED CIRCLINE BULBS.*

ELECTRICIAN: TO INSTALL

1. Attach AC wires from Power Line to INLET of each External Power Driver.
2. Attach supplied wires of 4-hole G10q plug to OUTLET of each External Power Driver.
3. Attach 4-hole G10q plug to 4 pins on the AMATRON LED Circline Tubes.



White Aluminum Heat Sink

AMATRON FROSTED LED CIRCLINE BULBS: 16", 12", AND 8" TUBES

www.amatronled.com

FEATURES

- No ballasts are required or should be used for LED lighting.
- LED bulbs are instant On/Off with no flickering.
- Tubes are made from aluminum and poly carbonate shatter-proof construction.
- Eco-friendly. Contains no mercury or lead.
- Easy disposal.
- No UV (Ultraviolet) or IR (Infrared) light.

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:42 PM
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION
BUILDING INSPECTION & CODE ENFORCEMENT

MODEL INFORMATION

ITEM NO.	SIZE	WATTS	CCT	LENS	VOLTAGE	LUMENS
AMUL-8D12W-Y-F-3K	8"	12W	3000K	Frosted	100-277VAC	1250 lm
AMUL-8D12W-Y-F-4K	8"	12W	4100K	Frosted	100-277VAC	1300 lm
AMUL-8D12W-Y-F-5K	8"	12W	5000K	Frosted	100-277VAC	1300 lm
AMUL-12D20W-Y-F-3K	12"	20W	3000K	Frosted	100-277VAC	2000 lm
AMUL-12D20W-Y-F-4K	12"	20W	4100K	Frosted	100-277VAC	2150 lm
AMUL-12D20W-Y-F-5K	12"	20W	5000K	Frosted	100-277VAC	2150 lm
AMUL-16D24W-Y-F-3K	16"	24W	3000K	Frosted	100-277VAC	2400 lm
AMUL-16D24W-Y-F-4K	16"	24W	4100K	Frosted	100-277VAC	2500 lm
AMUL-16D24W-Y-F-5K	16"	24W	5000K	Frosted	100-277VAC	2500 lm

SPECS

BEAM ANGLE	120° ~ 160°
CRI	>80
FREQUENCY	50/60Hz
OPERATING TEMP	-4°F ~ 122°F
WARRANTY	HYEARS

ETL CLASSIFIED



Intertek
5003054





FIBER-SHIELD INDUSTRIES, INC.
26 OLD DOCK ROAD
YAPHANK, NY 11980
Tel: (631) 345-0240
Fax: (631) 345-0509
info@fiber-shield.com

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:42 PM
<small>Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.</small>
<small>CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION</small>
<small>BUILDING INSPECTION & CODE ENFORCEMENT</small>

TECHNICAL DATA SHEET

PRODUCT NAME: FLAME-SHIELD®
PRODUCT ID#: FS-115

DESCRIPTION: FLAME-SHIELD, (also sold under our mark of Flamecryl™), is a *halogenated mixture* which when properly applied will impart flame resistance to cellulosic or synthetic substrates, or cellulosic/synthetic combinations.

TECHNICAL SPECIFICATIONS:

Form	Aqueous Solution
Appearance	Water-Like
Color	Clear to Milky White
Odor	Ammonia like
Ph	6.5 - 7.5
Freezing Point	32 deg. F
Shelf life	6-12 months when stored between 55° - 110° F

DIRECTIONS FOR USE:

DILUTION: Dilute to necessary strength (depending on the type of fabric composition). **Flame-Shield** can be sprayed, brushed, padded or placed in a bath for immersion. Allow treated fabrics to be air-dried or oven-dried before use. It is suggested that prior to treatment, small samples be treated and tested for suitability of product and for Fire Code that the fabric must pass.

CAUTION: Over application may cause streaking of fabric or chalky residues to appear.

NOTES:

1. **FLAME-SHIELD** is registered with the United

States Patent and Trademark office in Washington, DC.

2. Approved by **CITY OF NEW YORK, BUREAU OF STANDARD AND APPEALS:**

Calendar # 141-89-SM

3. Approved by the **STATE OF CALIFORNIA, CALIFORNIA STATE FIRE MARSHAL:**

Registration # C-17400.

CONSULT **SAFETY DATA SHEETS (SDS)** FOR FURTHER INFORMATION. All sales are subject to FIBER-SHIELD INDUSTRIES, INC'S CONDITIONS OF SALE.



<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:43 PM
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION
BUILDING INSPECTION & CODE ENFORCEMENT

Safety Data Sheet

FLAME-SHIELD® fire retardant

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : FLAME-SHIELD (FS-115)
Product Use Description : Fire retardant
Manufacturer or supplier's details
Company : Fiber-Shield Industries, Inc.
Address : 26 Old Dock Road
Yaphank, NY 11980-0240
Telephone : (631) -345-0240
Fax : (631) -345-0509

24 Hour emergency telephone number:
CHEMTREC (800) 424-9300 or (703) 527-3887

SECTION 2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION: Eye Irritation - Classification Not Possible
Skin Irritation - Classification Not Possible
Acute Toxicity - Not Classified; Appx 33% of ingredients(s) have unknown acute toxicity
Respiratory Sensitization - Classification Not Possible
Skin Sensitization - Classification Not Possible

GHS LABEL REQUIREMENTS: Symbol - None
Signal Word - None
Hazard Statement(s) - None
Precautionary Statement(s) - None

Other Hazards: May cause skin, and respiratory irritation. It may also be harmful if inhaled.



Safety Data Sheet FLAME-SHIELD®

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:43 PM
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION
BUILDING INSPECTION & CODE ENFORCEMENT

SECTION 3. INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	PER CENT
Water	7732-18-5	65-70
Proprietary flame retardant ingredients	Trade Secret	30-35

SECTION 4. FIRST AID MEASURES

INGESTION: Consult a physician immediately.

EYE CONTACT: Flush with large amounts of water for 10-15 minutes. Consult a physician if needed.

SKIN CONTACT: Wash affected area with soap and water. Remove contaminated clothing and shoes.

INHALATION: Leave the contaminated area and seek fresh air. If breathing is difficult, contact a physician.

SECTION 5. FIREFIGHTING MEASURES

EXTINGUISHING MEDIA: Alcohol foam, CO₂, dry chemical or water spray

PROTECTIVE EQUIPMENT: Use NIOSH/MSHA approved SCBA and bunker gear.

HAZARDOUS COMBUSTION PRODUCTS: CO₂, CO and possible traces of HBr.



Safety Data Sheet FLAME-SHIELD®

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:43 PM
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION
BUILDING INSPECTION & CODE ENFORCEMENT

SECTION 6. ACCIDENTAL RELEASE MEASURES

Ensure cleanup is done only by trained personnel wearing appropriate personal protective equipment.
Ventilate area and cover with absorbent material.
Collect spilled material in a container and seal.
Spilled material is a slipping hazard.

SECTION 7. HANDLING & STORAGE

HANDLING

Follow safe industrial hygiene practices and wear proper protective equipment.
Use only in well ventilated areas.
Wash hands thoroughly after handling.
Wash clothing after use.
Avoid contact with skin or eyes.
Do not breathe vapor or spray.
Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.
If smoking tobacco becomes contaminated by this material, exposure to toxic gases through inhalation can occur.
Therefore, do not smoke in the work areas and wash hands and face after handling in order to avoid transfer of material onto tobacco.

STORAGE

Store material at 5°C (40°F) to 40°C (104°F).
Can perish if frozen. Keep from freezing.
Keep away from heat, steam, sunlight, sparks and open flame.
Store containers tightly closed when not in use.



Safety Data Sheet

FLAME-SHIELD®

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:44 PM
<small>Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.</small>
<small>CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION</small>
<small>BUILDING INSPECTION & CODE ENFORCEMENT</small>

SECTION 8. EXPOSURE CONTROLS & PERSONAL PROTECTIVE EQUIPMENT

EXPOSURE LIMITS: No exposure limits available for the product. Excessive exposure to thermal degradation (above 425°C/797°F) of this product could result in delayed pulmonary edema in some cases, and on extremely high exposure, damage to the liver and kidneys.

RESPIRATORY PROTECTION: Use with adequate ventilation and/or respirator suitable for protection when spraying this material.

EYE PROTECTION: Safety glasses with side shields or goggles.

PROTECTIVE CLOTHING: Chemical resistant gloves and protective clothing should be worn when handling this material.

VENTILATION: Use local exhaust ventilation if needed.

OTHER PROTECTIVE EQUIPMENT: Eyewash station and safety shower.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE: Clear to hazy liquid

ODOR: Not available

ODOR THRESHOLD: Not available

pH: 6.5-7.5

MELTING POINT: Not Applicable



Safety Data Sheet FLAME-SHIELD®

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:44 PM
<small>Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.</small>
<small>CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION BUILDING INSPECTION & CODE ENFORCEMENT</small>

FREEZING POINT:	Approximately 0°C (32°F)
BOILING POINT/RANGE:	Approximately 100°C (212°F) (water)
FLASH POINT:	Doesn't flash
FLAMMABLE LIMITS:	LEL - Not Available UEL - Not Available
EVAPORATION RATE (Butyl acetate=1):	Not Available
VAPOR PRESSURE:	Not Available
VAPOR DENSITY:	Not Available
SPECIFIC GRAVITY (H ₂ O=1):	Approximately 1.2 at 25°C
APPARENT DENSITY:	Not Available
SOLUBILITY(IES):	Miscible in water
PARTITION COEFFICIENT (n-octanol/water):	Not Available
AUTO-IGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available
VISCOSITY:	Not Available



Safety Data Sheet

FLAME-SHIELD®

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:44 PM
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION
BUILDING INSPECTION & CODE ENFORCEMENT

SECTION 10. STABILITY & REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: None known.

INCOMPATIBILITIES: None known.

HAZARDOUS POLYMERIZATION: Should not occur

HAZARDOUS DECOMPOSITION: CO, CO₂, HBr

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS OF EXPOSURE

Ingestion: May be harmful if swallowed
Eye Contact: May cause mild irritation
Skin contact: May cause skin irritation
Inhalation: May cause respiratory irritation

CHRONIC EFFECTS OF EXPOSURE: No Data Available

ACUTE TOXICITY: No Data Available

SKIN CORROSION/IRRITATION: No Data Available

SERIOUS EYE DAMAGE/IRRITATION: No Data Available

RESPIRATORY OR SKIN SENSITIZATION: No Data Available



Safety Data Sheet FLAME-SHIELD®

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:45 PM
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION
BUILDING INSPECTION & CODE ENFORCEMENT

GERM CELL MUTAGENICITY:	No Data Available
CARCINOGENICITY:	None of the components in this material are listed by NTP, OSHA or IARC.
REPRODUCTIVE TOXICITY:	No Data Available
STOT-SINGLE EXPOSURE:	No Data Available
STOT-REPEATED EXPOSURE:	No Data Available
ASPIRATION HAZARD:	Not applicable

SECTION 12. ECOLOGICAL INFORMATION

BIODEGRADABILITY:	No data
BIOACCUMULATION:	No data

SECTION 13. DISPOSAL CONSIDERATIONS

Comply with Federal, State and Local regulations concerning health and environment when disposing of materials. Regulations may also apply to empty containers, liners, or rinsate..

SECTION 14. TRANSPORT INFORMATION

UN CLASSIFICATION:	Not applicable
DOT HAZARD DESCRIPTION:	Not applicable
CANADIAN TRANSPORTATION OF DANGEROUS GOODS (TDG):	Not applicable



Safety Data Sheet FLAME-SHIELD®

<input type="checkbox"/> APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED
<input type="checkbox"/> DO NOT RESUBMIT
<input checked="" type="checkbox"/> RESUBMIT
10/07/2019 1:19:45 PM
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION
BUILDING INSPECTION & CODE ENFORCEMENT

SECTION 15. REGULATORY INFORMATION

TSCA:	All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substance Control Act (TSCA) Chemical Substance Inventory.
California Prop 65	None
Canada	All components are listed on DSL
EINECS	All components are in compliance with inventory listing in EINECS
Other:	State and local regulations may have specific requirements for this product or components of this product; consult specific state and local regulatory requirements for additional information.

SECTION 16. OTHER INFORMATION

This product does not contain any PBDEs.

Fiber-Shield Industries Inc. (FSI) believes the information in the SDS to be correct as of the date issued, but FSI assumes no liability for the accuracy or completeness of the data relied on in preparing this SDS. FSI makes no warranties in this SDS, either express or implied, and excludes all warranties, including without limitation any implied warranty of merchantability, fitness for a particular purpose or course of performance, or usage of trade.

FSI may provide SDS information in electronic form as a customer service. Due to the remote possibility that electronic transfer may result in errors, omissions or alterations in this information, FSI makes no representation or warranty as to its completeness or accuracy when so transferred.

SDS Issued: 4/14/15

SDS Revised: N/A



Dana Hemenway <dana.hemenway@gmail.com>

FlameGard & FlameBlock FAQ

FabricBack Support <support@fabricback.com>

Tue, Jul 23, 2019 at 11:17 AM

To: dana.hemenway@gmail.com

<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
7/23/2019 1:19:45 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION	
BUILDING INSPECTION & CODE ENFORCEMENT	

Hello-

We treat your fabrics at our plant in Alpharetta Ga and ship it back to you or to your workroom. We do not sell products or provide in-home service.

Thank you for contacting us for more information about our FlameGard® flame retardancy and our FlameBlock® fire barrier services. We have compiled a list of the questions most frequently asked by our customers. We have included those below.

If you have a question or concern that is not addressed, please feel free to contact us by phone at (678) 566-0932, or by email at support@fabricback.com. It will be our pleasure to assist you in any way that we can.

What is FlameGard® flame retardancy?

A flame retardant is a water-based substance applied to the fabric that reduces flammability and delays its combustion. Although all fabrics will burn, those that are treated with FlameGard® fire retardant are significantly more flame resistant. FlameGard® is a non-toxic treatment that complies with most fire codes. On most fabrics, it does not significantly affect the fabric's original hand, texture or color. FlameGard® is custom formulated by our engineers based on the chemical composition of the fabric being treated, the application, and any applicable fire code requirements. A certificate of application is provided with each treatment. Please contact us for any questions related to your specific application.

What is FlameBlock® fire barrier?

FlameBlock® is a non-flammable barrier film laminated to the back of any fabric to block fire penetration. Frequently used to meet the most stringent fire codes for upholstery and in the aviation industry. First, the fabric is treated with our FlameGard® treatment, then it is laminated with our FlameBlock® barrier liner.

Do I need to get my fabric flame treated?

Fabrics used in public places such as schools, theaters, convention halls, hotels, and other public places must meet certain flammability standards, required by local governmental regulations. The most common test for flame retardancy is known as the NFPA 701 Test 1 for drapery, NFPA 260 for upholstery, and ASTM E-84 Adhered for wall covering. Fire codes vary by city, state, and county. Please check with your local fire marshal's office for the fire code applicable to your situation. Please contact us for any questions related to your specific application.

What types of fabric can be flame treated?

Natural fiber fabrics, such as cotton, linen, silk, and wool can be treated to meet all flammability standards. Most synthetic fabrics, such as nylons, acrylic, polypropylene, and acetates are non-absorbent fibers that are difficult to treat. However, rayon and polyester can be treated. We often treat fabrics that are a blend of natural and synthetic fibers. In this case, higher proportions of natural fiber yield better results. Please provide us with the chemical composition of the fabric to be treated.

Can you treat wallpaper, trims or other decorative materials?

We have provided flame retardancy treatments to a wide variety of materials and articles other than fabrics or rolled goods. Please inquire.

Please provide the certificate to BICE and FIRE.

Do you provide certificates of Flame Retardancy?
We provide a certificate of treatment on all fabrics that are finished with FlameGard®. This means that our treatment has been satisfactory on similar composition fabrics. For most of our clients, this meets their needs. For projects that require a particular finished fabric to meet specific fire codes, we can also provide a certificate of flame retardancy. This certifies that your fabric was tested after our application by an independent laboratory and is certified to meet the applicable codes. If you require a certificate of flame retardancy, please notify us before placing your order and we will provide information on sample size and cost of testing, etc.

Are you able to process over existing finishes such as stain resistant or acrylic backing?

Stain resist fabrics are difficult to treat. However, it is possible in some instances to wash remove existing stain protection and apply for the fire protection and reapply the stain protection if needed. However, we would need to do a sample first to ascertain that this can be accomplished. Acrylic backing cannot be removed and it is nonabsorbent therefore fabric can be FR treated from the face side only and which may be sufficient. However, we must do a sample first to see the efficacy of the FR treatment

Can I clean Flame Protected Draperies?

Fabric must be re-treated after each cleaning in order to be compliant with fire code.

Are the chemicals used for flame retardancy safe?

We use certified environmentally safe chemicals. They are non-toxic.

COMMERCIAL APPLICATION APPROVALS:

Wood Approvals: Class A / Class 1 ASTM E-84, CA Title 19 1236.4, NFPA 255, UL 723, UBC 42-1 Fabric Approvals: NFPA 701 & CA Title 19 1237.1, No. C-26501, NYC COA #5687, CAN/ULC-S109-03 Small and Large Scale, FAA 25.853, NFPA 260, BFD 1X-1, ASTM E84, CA 117, UFAC. Please inquire about your specific fiber wood and other testing information

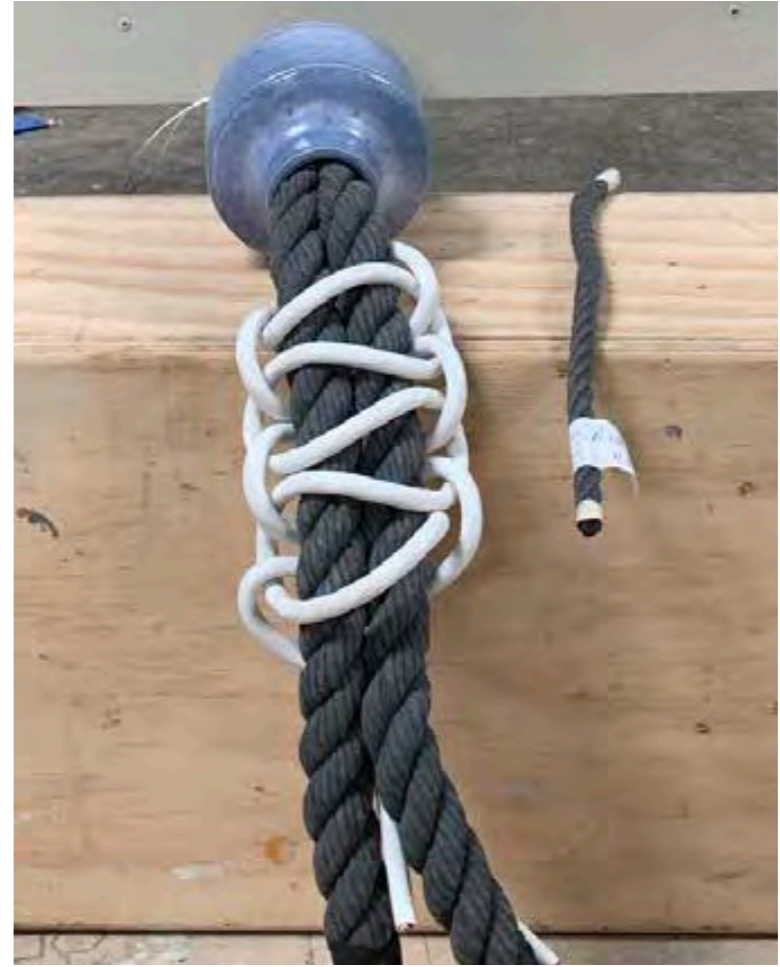
Please inquire for British or European test requirements

--
Regards,
Becky Flannigan

Fabric Backing & Finishing Co.
375-C Winkler Drive
Alpharetta, GA 30004
www.fabricback.com
support@fabricback.com
Phone: 678-566-0932
Fax: 678-566-0942

<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DO NOT RESUBMIT
<input checked="" type="checkbox"/>	RESUBMIT
10/07/2019 1:19:46 PM	
Reviewed for Code Compliance. This review does not relieve Contractor of responsibility for all compliance with the conditions imposed by contract plans and specifications.	
CITY & COUNTY OF SAN FRANCISCO AIRPORT COMMISSION BUILDING INSPECTION & CODE ENFORCEMENT	

MATERIALS



1" POSH Rope - Grey



Circline 9in, 12in, 16in LED bulbs
In Custom Fixtures



White ProStar Extension Cords



Bendy Poplar Surface with
Stain & Semi Gloss finish



Construction technique for top structure:
metal skinned with bendy poplar

CERAMIC FORMS

CERAMIC FORMS - FINAL 3D MODELS



CERAMICS FORMS - Glaze Pattern/Selection

Curve A - Overview of form pattern & glaze selection

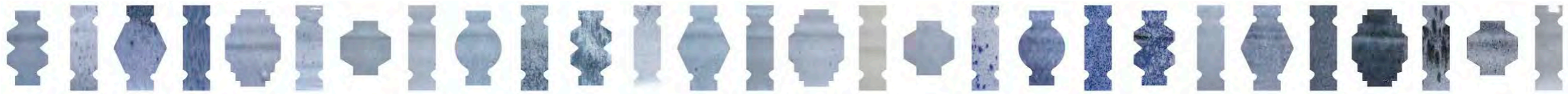


Detail of each glaze selected:



CERAMICS FORMS - Glaze Pattern/Selection

Curve B - Overview of form pattern & glaze selection



Detail of each glaze selected:

