Patton Aluminum Products, Inc.

Engineering Specifications for Suspended Canopy System

Prepared by:
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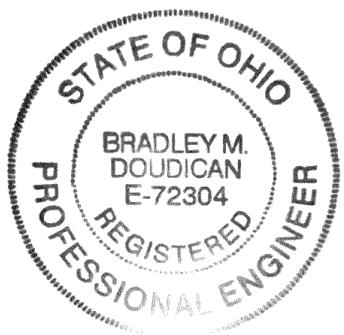

All original documents on file at
Patton Aluminum Products, Inc.
65 Quick Road
New Carlisle, OH 45344

1. GENERAL NOTES

a. THESE NOTES SHALL APPLY TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED.

b. THE CONTRACTOR SHALL CONDUCT ALL OPERATIONS IN STRICT ACCORDANCE WITH THE SAFETY REQUIREMENTS IMPOSED BY THE OWNER AND OSHA. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFTEY CODES AND REGULATIONS GOVERNING THIS WORK.

c. THIS STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER IT IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCES, AND TO ENSURE THE STABILITY OF THE STRUCTURE AND ITS COMPONENT PARTS, AND THE ADEQUACY OF TEMPORARY BRACING, GUYS, OR TIE-DOWNS THAT MIGHT BE NECESSARY. SUCH MATERIAL IS NOT SHOWN AND SHALL REMAIN THE CONTRACTOR'S PROPERTY.

d. ALL DEVIATIONS FROM THE ENGINEERING DRAWINGS SHALL BE SUBMITTED IN WRITTEN FORM TO THE OWNER AND THEIR REPRESENTATIVE FOR APPROVAL.

e. DIMENSIONS PERTAINING TO EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ANY FABRICATIONS, CONSTRUCTION, OR ERECTION.

2. DESIGN DATA

a. UNLESS OTHERWISE INDICATED, ALL DETAILS OF DESIGN, WORKMANSHIP, AND MATERIAL SHALL CONFORM TO THE RESIDENTIAL CODE OF OHIO FOR ONE-, TWO-, AND THREE-FAMILY DWELLINGS, LATEST EDITION. WHERE OTHERWISE NOT CONFORMING TO THIS CODE, DESIGN HAS BEEN PERFORMED IN ACCORDANCE WITH SECTION 301.1.3 "ENGINEERED DESIGN".

b. DEAD LOAD = 10 PSF

c. ROOF LIVE LOAD = 12 PSF

d. GROUND SNOW LOAD - 20 PSF

e. BUILDING CATEGORY - II

f. BASIC DESIGN WIND SPEED - 115 M.P.H., EXPOSURE C

g. IMPORTANCE FACTOR - 1.0

h. ALLOWABLE SOIL BEARING - 1500 PSF

i. SEISMIC DESIGN CATEGORY - B (DOES NOT GOVERN)

3. FOOTINGS AND FOUNDATIONS

a. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR ENGINEERED FILL. EXCAVATIONS SHALL BE FREE OF LOOSE MATERIAL AND WATER. BEARING ELEVATION SHALL BE A MINIMUM OF 36-INCHES BELOW GRADE, UNLESS NOTED OTHERWISE (UNO).

b. ALL CONCRETE FOUNDATIONS SHALL BE 3,000 PSI (28-DAY COMPRESSIVE STRENGTH CONCRETE) UNO.

4. ALUMINUM

a. ALUMINUM MATERAILS SHALL BE 3003-H16 OR 6063-T6 OR OTHER ALUMINUM ALLOW APPROVED BY THE ENGINEER.

b. ALUMINUM CONSTRUCTION AND DESIGN SHALL ADHERE TO "ALUMINUM DESIGN MANUAL" BY THE ALUMINUM ASSOCIATION (2010).

c. ALL WELDING SHALL CONFORM WITH AWS D1.2 "STRUCTURAL WELDING CODE - ALUMINUM" (LATEST EDITION).

5. STRUCTURAL STEEL

a. STRUCTURAL STEEL SHALL BE NEW.

b. STRUCTURAL STEEL FOR BEAMS AND PLATES SHALL COMPLY WITH ASTM SPECIFICATION A-36. STRUCTURAL STEEL FOR STEEL COLUMNS SHALL COMPLY WITH ASTM SPECIFICATION A-53 GRADE B OR A-501. STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

c. ALL DETAILING SHALL CONFORM TO CURRENT AISC SPECIFICATIONS.

d. ALL WELDING SHALL CONFORM TO CURRENT AMERICAN WELDING SOCIETY SPECIFICATIONS FOR MATERIAL BEING WELDED AND BE PERFORMED BY CERTIFIED WELDERS.

e. ALL BOLTS SHALL BE UNFINISHED ASTM A307, UNO.

f. ALL STRUCTURAL STEEL AND MISCELLANEOUS IRON NOT ENCASED IN CONCRETE SHALL RECEIVE ONE SHOP COAT OF APPROVED PRIMER PAINT.

6. ENGINEERED LUMBER

a. ENGINEERED LUMBER DOCUMENTS SHALL BE PREPARED BY A REGISTERED DESIGN PROFESSIONAL AND SHALL BE PROVIDED TO THE RESIDENCE DESIGNER AND THE BUILDING OFFICIAL, AND APPROVED BY BOTH PRIOR TO INSTALLATION.

b. CONSTRUCTION DOCUMENTS SHALL INCLUDE, AT A MINIMUM, THE INFORMATION SPECIFIED BELOW.

b.a. LOCATION PLAN FOR EACH OF THE ENGINEERED LUMBER STRUCTURAL COMPONENTS.
b.b. DESIGN LOADS, SPAN, AND REACTION FORCE AND DIRECTION.
b.c. REQUIRED BEARING WIDTH.
b.d. DETAILS AND SPECIFICATIONS FOR ALL CONNECTORS AND ACCESSORIES.
b.e. REQUIRED PERMANENT MEMBER BRACING LOCATION, BRACE SIZES, AND REACTIONS.
b.c. REQUIRED CONSTRUCTION OR TEMPORARY BRACING AND SHORING AS NECESSARY.
b.d. IF SPECIFIED, PROVIDE MASONRY VENEER SUPPORT DETAILS INCLUDING CONNECTION TO ENGINEERED LUMBER AND REACTION FORCE AND DIRECTION.

7. MISCELLANEOUS

a. ALL MATERIALS, SUPPLIES, AND EQUIPMENT TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS AND AS PER LOCAL CODES AND REQUIREMENTS.

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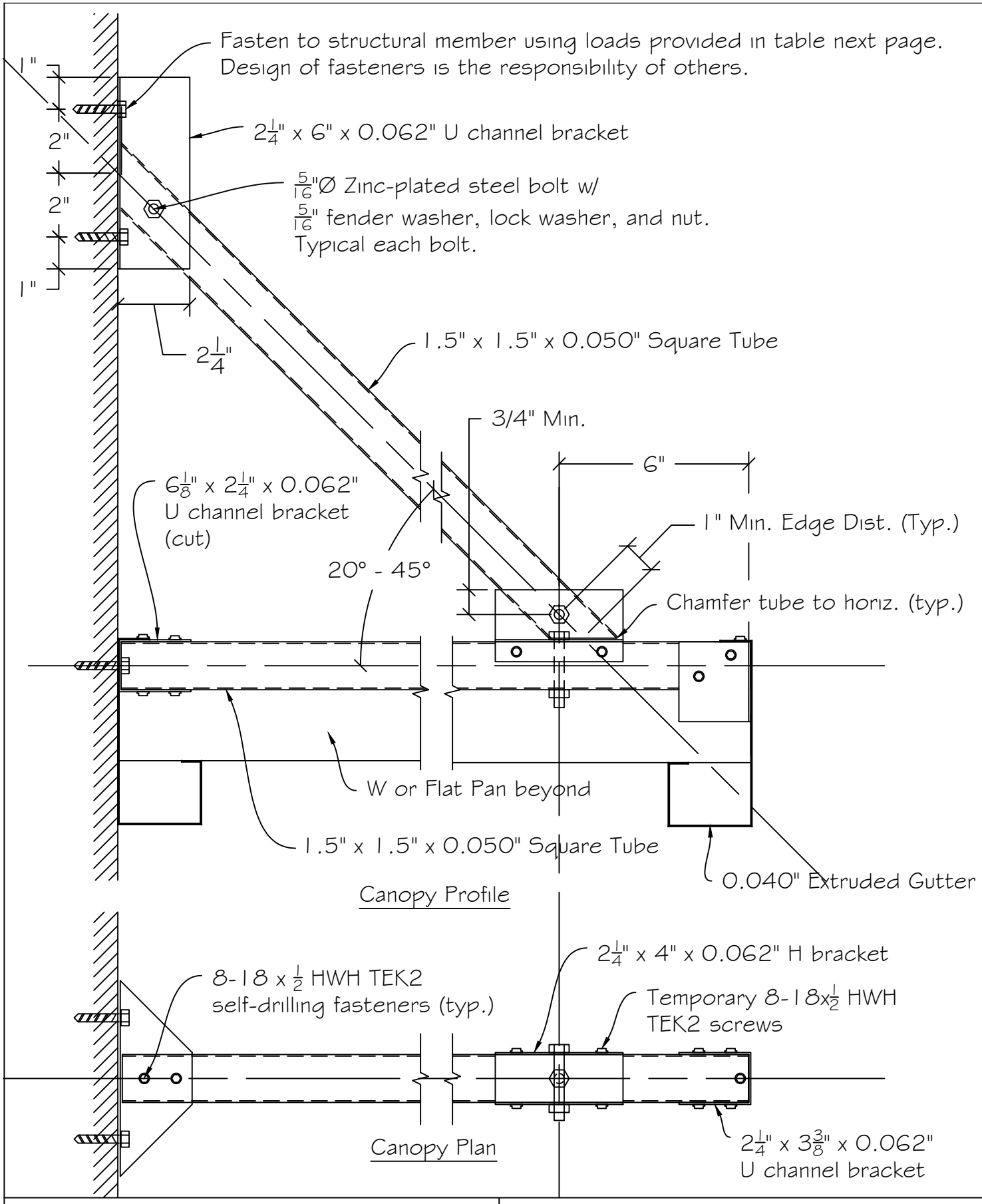
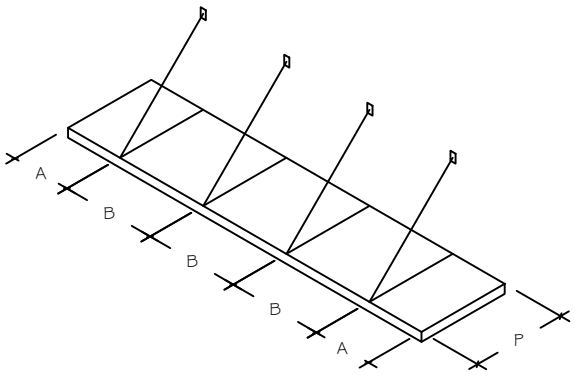
Title: General Notes
Scale: n/a
Date: 5-3-21

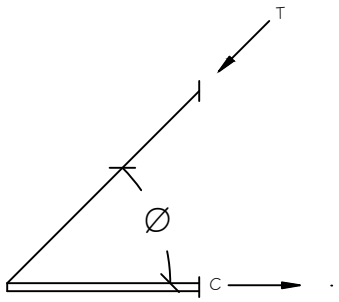
NOTES



Patton Aluminum Products 65 Quick Road, New Carlisle, OH 45344 Ph. 937.845.9404, Fax 937.845.9424	Title: Canopy Plan and Profile Scale: 3" = 1'-0" Date: 5-3-21



Canopy Spans



Loads Applied to Structure

Allowable Canopy Spans							
Live Load (psf)	P (ft)	Ø = 20°			Ø = 45°		
		B (ft)	C (lbs)	T (lbs)	B (ft)	C (lbs)	T (lbs)
20	4	8' 4"	917	976	20' 7"	823	1164
	5	7' 6"	1025	1091	18' 5"	920	1301
	6	6' 10"	1123	1195	16' 10"	1008	1426
	7	5' 3"	1008	1073	14' 5"	1008	1425
	8	3' 4"	740	788	9' 3"	740	1047
	9	2' 4"	567	603	6' 4"	567	802
	10	1' 8"	448	477	4' 6"	448	633
30	4	6' 10"	1123	1195	16' 10"	1008	1426
	5	6' 1"	1255	1336	15' "	1127	1594
	6	5' 7"	1375	1464	13' 9"	1235	1746
	7	3' 6"	1008	1073	9' 7"	1008	1425
	8	2' 3"	740	788	6' 2"	740	1047
40	4	5' 11"	1297	1380	14' 7"	1164	1646
	5	5' 3"	1450	1543	13' "	1301	1840
	6	4' 5"	1451	1544	11' 11"	1426	2016
	7	2' 7"	1008	1073	7' 2"	1008	1425
	8	1' 8"	740	788	4' 8"	740	1047

Notes:

1. Building fascia and connections to existing structure must be designed to accommodate the tensile (T) and compressive (C) forces applied by the canopy loading. Tensile loads are applied in the direction of the supporting rod. Loads have not been factored.
2. Maximum A = 0.25 x B
3. 6063-T5 aluminum components
4. Site-specific engineering is required for any geometry or materials not explicitly shown herein.

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Title: Canopy Span Chart
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