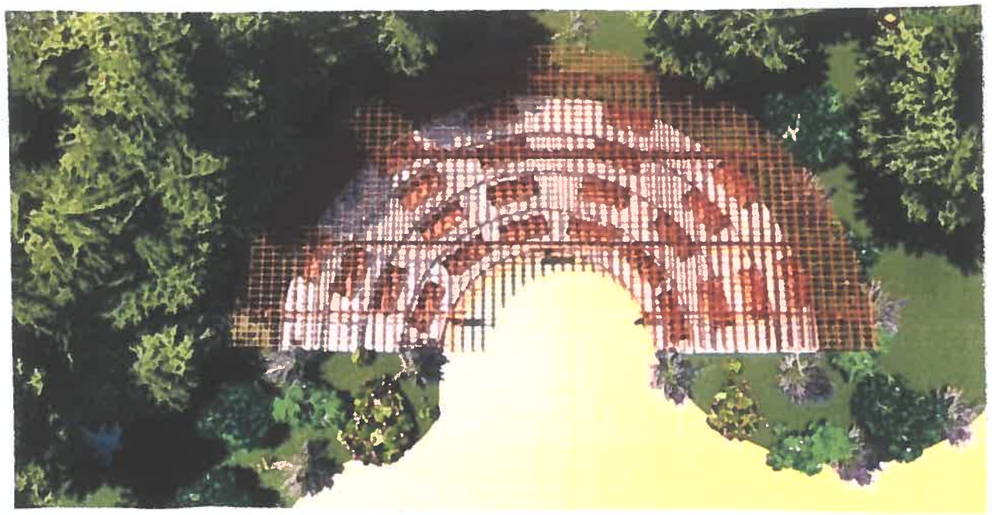
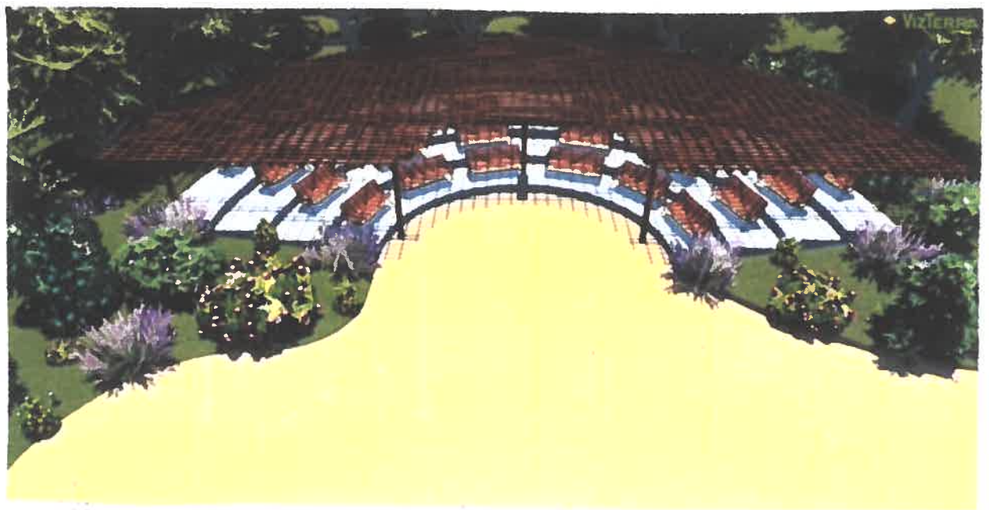


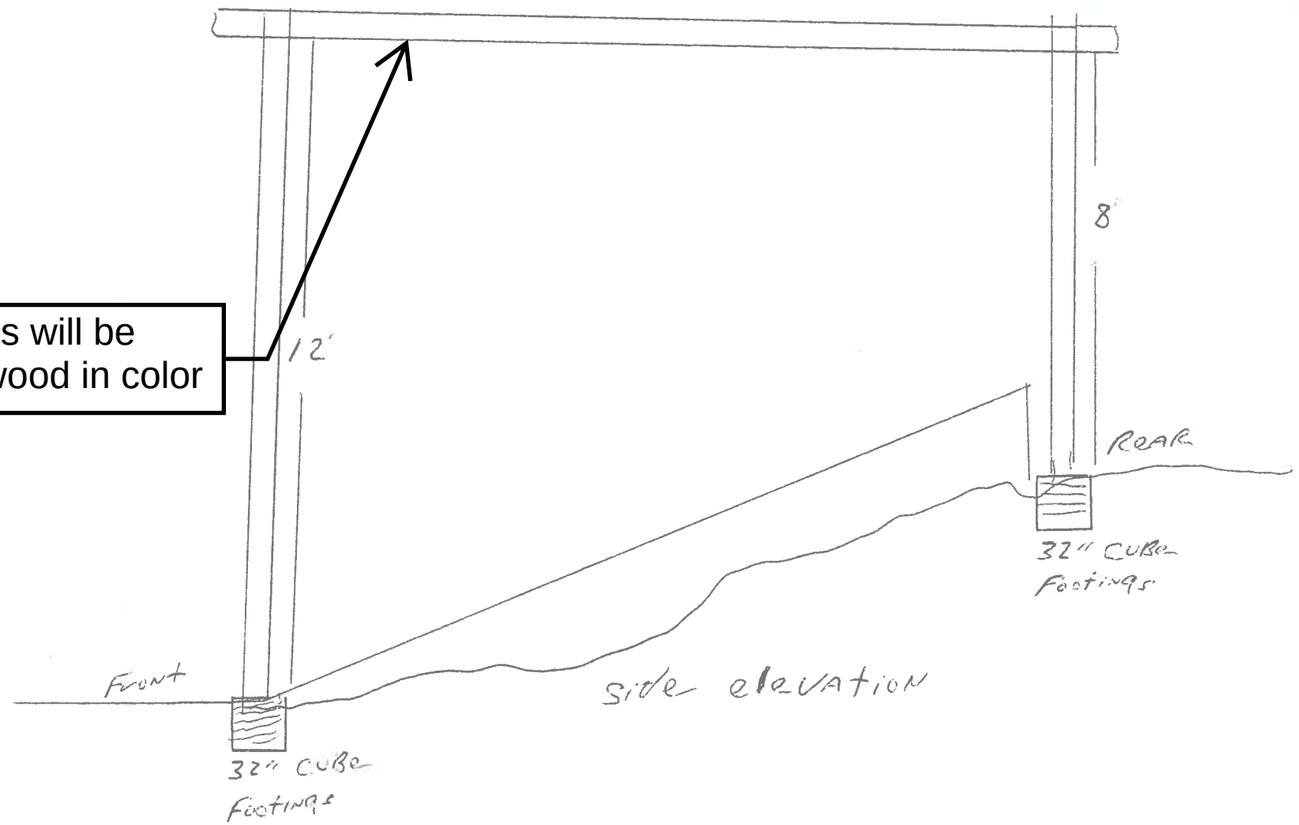


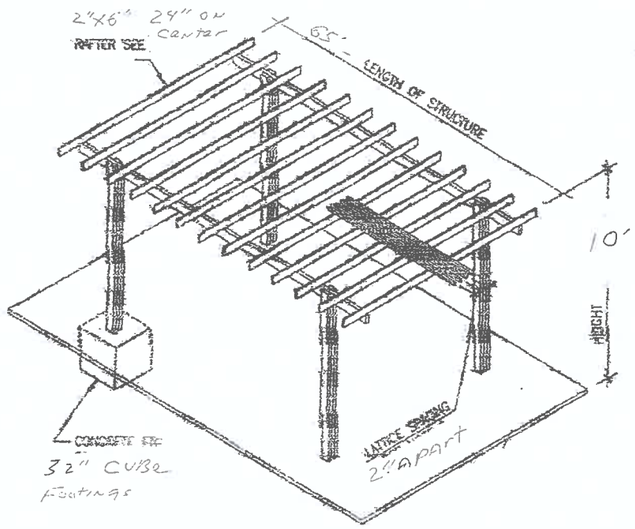
Trellis to have scallop cut edges

Trellis will be Siennawood in color

Shipley Nature Center
17851 Golden West St
Huntington Beach CA

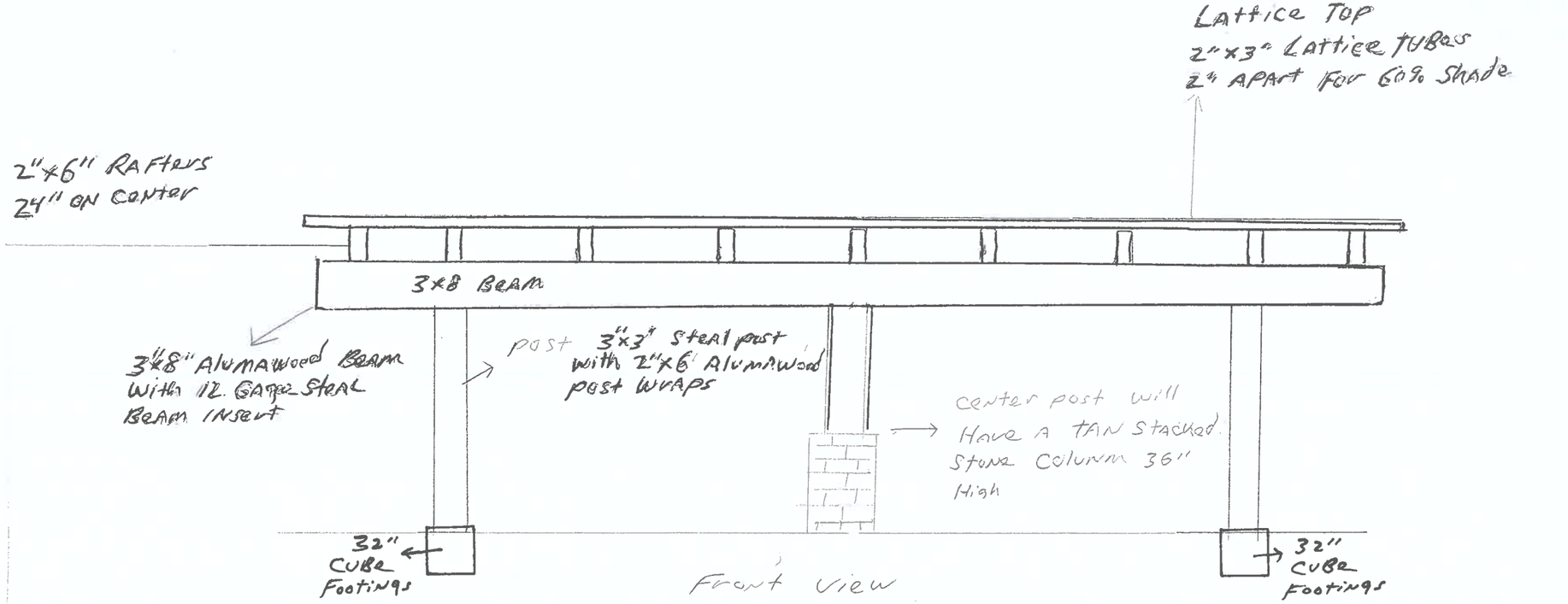
Conceptual plan
Lattice cover for
outdoor Amphitheater

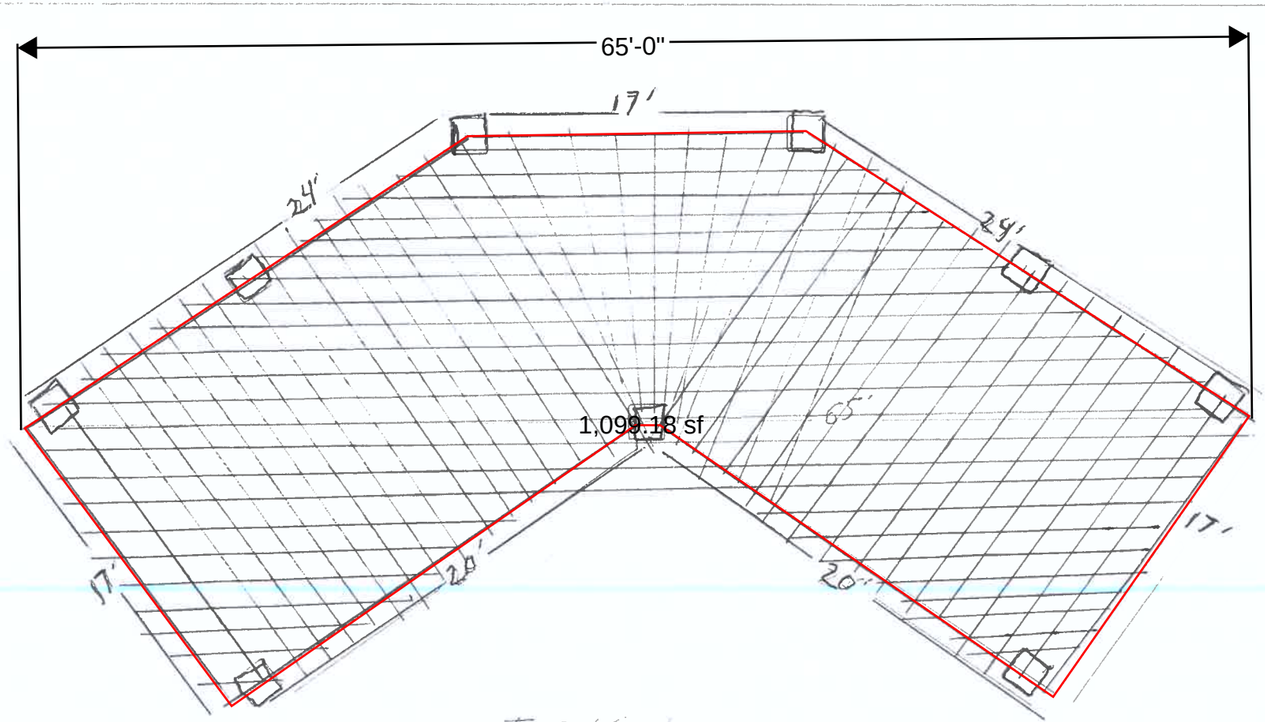




ISOMETRIC VIEW

3/32"=1'-0"





Top view

9 - post + 9 Footings Footings to Be 32" CUBES

Front post view

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

Shipley Nature center
17851 Goldenwest St
Huntington Beach CA

Conceptual plan
Lattice Cover For
Out Door Amphitheater

plot PLAN

400'
to central park dr

trees

trees

trees

17'-0"

17'-0"

50'

17'x65' Alumawood
Lattice cover over
Shipley's Nature center
Amphitheater

17851 Goldenwest St
Huntington Beach CA
92647

Shipley Nature
center Bld

PATIO COVER SYSTEM AS MFG. BY: DURALUM PRODUCTS, INC.

POINT OF CONTACTS

10# LATTICE FREESTAND

INFORMATION REQUESTS SHALL BE DIRECTED AS FOLLOW:

CONTRACTORS : PLEASE CONTACT DURALUM
BUILDING DEPARTMENTS : PLEASE CONTACT 4STEL ENGINEERING
HOME OWNERS: PLEASE REQUEST ANY INFORMATION THROUGH YOUR CONTRACTOR

4STEL ENGINEERING

26030 ACERO
MISSION VIEJO, CA 92691

PHONE: (949) 305-1150
FAX: (949) 305-1420

STRUCTURAL ENGINEER OF RECORD: DUSTIN K. ROSEPINK, SE 5885
POINT OF CONTACT: MARIE-DOMINIQUE SETA, SE 5987

DESIGN PARAMETERS

GOVERNING CODES :
THE DESIGN OF ATTACHED AND FREESTANDING COVERS SHOWN IN THIS REPORT COMPLIES WITH THE FOLLOWING CODES:
- 2015/2018/2021 INTERNATIONAL BUILDING AND RESIDENTIAL CODES,
- 2016/2019/2022 CALIFORNIA BUILDING AND RESIDENTIAL CODES,
- ASCE/SEI 7-10 and 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES,
- 2015/2020 ALUMINUM DESIGN MANUAL,
- ACI 318-14/19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE.

LIVE LOADS DESIGN PARAMETERS:
IT IS THE RESPONSIBILITY OF THE ENTITY SUBMITTING THE DRAWINGS FOR THIS PROJECT TO VERIFY LIVE LOADS WITH THE LOCAL AUTHORITY HAVING JURISDICTION
1. IN RESIDENTIAL APPLICATIONS, ROOF LIVE LOAD CAN GENERALLY BE TAKEN AS 10 PSF PER IRC / CRC APPENDIX H, SECTION AH105.1 OR IBC / CBC APPENDIX I, SECTION 105.1.
2. IN COMMERCIAL APPLICATIONS, ROOF LIVE LOAD CAN GENERALLY BE TAKEN AS 20 PSF PER IBC / CBC CHAPTER 16

WIND SPEED DESIGN PARAMETERS:
1. THE FREESTANDING AND ATTACHED COVERS NOTED HEREIN ARE DESIGNED AS "OPEN STRUCTURES," IN ACCORDANCE WITH ASCE/SEI 7.
2. FREESTANDING COVERS SHALL NOT BE ENCLOSED WITH ANY TYPE OF SOLID OR MESH MATERIAL, UNLESS SPECIFICALLY DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
3. COVERS SHALL NOT BE INSTALLED IN AREAS NEAR HILLS, RIDGES AND ESCARPMENTS AS DEFINED IN ASCE/SEI 7, SECTION 26.2, UNLESS SITE SPECIFIC ENGINEERING IS PROVIDED VALIDATING THE WIND LOAD USED.
4. THE BASIC WIND SPEEDS CONSIDERED IN THIS REPORT ARE 110, 120, 130 MPH, EXPOSURES B AND C (BASED ON THE 2015/2018/2021 IBC, 2015/2018/2021 IRC, 2016/2019/2022 CBC, AND 2016/2019/2022 CRC).

SEISMIC LOAD DESIGN PARAMETERS:
SEISMIC DESIGN BASE SHEAR: 17 POUNDS PER LINEAR FOOT ALONG THE SUPPORTING BEAMS, CONSIDERING A 24'-0" MAX SPAN BETWEEN BEAMS AND THE FOLLOWING DESIGN PARAMETERS:
1. SITE CLASS: D
2. SEISMIC DESIGN CATEGORY: E
3. MAPPED SPECTRAL RESPONSE COEFFICIENTS: Ss = 1.50, S1 = 0.6, Sds = 1.0, Sd1 = 0.50
4. RESPONSE MODIFICATION FACTOR, R=1.25
5. RISK CATEGORY II
6. WHEN THE BUILDING CODE USED FOR THE SITE SPECIFIC DESIGN IS ASCE 7-10 (2015 IBC/IRC OR 2016 CBC/CRC), PATIO COVER STRUCTURES DETAILED IN THIS SET OF PLANS ARE IN COMPLIANCE WITH ASCE 7-10 SECTION 12.8.1.3. AS A RESULT, THIS SET OF PLANS CAN BE USED AT ANY SITE WITH $S_s > 1.50$, CONSIDERING $S_s = 1.50$.
7. WHEN THE BUILDING CODE USED FOR THE SITE SPECIFIC DESIGN IS ASCE 7-16 (2018/2021 IBC/IRC OR 2019 CBC/CRC), PATIO COVER STRUCTURES DETAILED IN THIS SET OF PLANS ARE IN COMPLIANCE WITH ASCE 7-16 SECTION 12.8.1.3. AS A RESULT, THIS SET OF PLANS CAN BE USED AT ANY SITE WITH $1.0 < S_{DS} < 1.428$, CONSIDERING $S_{DS} = 1.00$. FOR SITES WITH $S_{DS} < 1.0$, USE S_{DS}. FOR SITES WITH $S_{DS} > 1.428$, IT IS ACCEPTABLE TO REDUCE THE SEISMIC LOADS USING $0.7*S_{DS}$ INSTEAD OF S_{DS}.
8. MINIMUM STRUCTURAL SEISMIC SEPARATION BETWEEN EXISTING BUILDING AND FREESTANDING PATIO COVER SHALL BE 4" AT 10' HIGH MAX PATIO COVERS AND 5" AT 12' HIGH MAX PATIO COVER. REFER TO STATE AND CITY CODES FOR OTHER SPACING REQUIREMENTS THAT MAY BE MORE STRINGENT.
9. WHEN GROUND SNOW LOAD IS HIGHER THAN 30 psf, 10% OF THE SNOW LOAD WAS INCLUDED IN THE SEISMIC DESIGN.

OTHER DESIGN PARAMETERS:
1. DESIGN LOADS COMBINATIONS ARE IN ACCORDANCE WITH IBC AND CBC SECTION 1605.
2. ALL APPLICABLE REDUCTION FACTORS DETAILED IN THIS REPORT ARE CUMULATIVE
3. SOLID AND LATTICE ALUMINUM COVERS ARE CLASS A ROOF ASSEMBLY IN ACCORDANCE WITH SECTION CBC 1505.2, EXCEPTION 2.

DESIGN ASSUMPTIONS:
1. MINIMUM ROOF SLOPE FOR SOLID ROOF PANELS WITH DECK : SEE DETAIL 1B/S3.2
2. MINIMUM ROOF SLOPE FOR SOLID ROOF PANELS WITH DURAPANEL : SEE DETAIL 1A/S3.2
3. MAXIMUM ROOF SLOPE FOR ALL STRUCTURES IS 3 DEGREES
4. THE "LENGTH OF STRUCTURE" SHALL BE TAKEN AS THE CONTINUOUS DISTANCE MEASURED ALONG THE EXISTING BUILDING WALL FROM ONE END OF PATIO COVER SUPPORT BEAM TO THE OTHER, INCLUDING ANY BEAM SPLICES. THE STRUCTURE LENGTH SHALL BE DETERMINED THIS WAY REGARDLESS OF ROOF COVERING TYPE, INCLUDING COMBINATION ROOFS WITH BOTH TRELLIS AND DECK ROOF USED ON THE SAME CONTINUOUS PATIO COVER STRUCTURE. HOWEVER, PORTIONS OF THE STRUCTURE DESIGNED AS LATTICE COVER SHALL NOT BE COVERED BY ROOF DECK.
5. CALCULATIONS FOR MAXIMUM SPANS WHEN ATTACHING TO AN EXISTING ROOF OVERHANG, AS SHOWN ON TABLE 1 ON S6.1 AND/OR L6.1, ARE ASSUMING THAT THE EXISITNG WOOD RAFTERS OR TRUSSES ARE DOUGLAS FIR-LARCH No2. THIS TABLE CAN ALSO BE USED FOR OTHER WOOD SPECIES WITH Fb ≥ 900 psi AND Fv ≥ 180 psi.

SNOW LOADS DESIGN PARAMETERS

SEE SHEETS S2.1 AND S2.2 OR L2.1 AND L2.2 FOR SNOW LOADS DESIGN PARAMETERS AND CALCULATIONS.

FOR PATIO COVERS WITH SNOW LOADS, CALCULATIONS PREPARED BY A REGISTERED DESIGN PROFESSIONAL SHALL BE SUBMITTED TO THE BUILDING OFFICIAL DEMONSTRATING THAT THE DESIGN SNOW LOADS DO NOT EXCEED THE ALLOWABLE ROOF SNOW LOADS SPECIFIED ON THESE PRODUCT DRAWINGS.

CALCULATIONS SHALL ADDRESS THE SNOW LOAD PROVISIONS OF IBC SECTION 1608, INCLUDING, BUT NOT LIMITED TO, RAIN-ON-SNOW SURCHARGE LOAD, UNBALANCED SNOW, AND SNOW DRIFT.

SHEET INDEX

SEE SHEET S1.x OR L1.x FOR SHEET INDEX.
ALL UNUSED SHEETS SHALL BE REMOVED FROM THIS SET OF DRAWINGS.

GENERAL NOTES

DRAWING NOTES :
1. THE DRAWINGS AND SPECIFICATIONS SHOWN REPRESENT THE FINISHED STRUCTURE, UNLESS OTHERWISE NOTED, AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES.
2. THE APPROVED SET OF DRAWINGS AND SPECIFICATIONS SHALL BE KEPT AT THE JOB SITE AND SHALL BE AVAILABLE TO THE AUTHORIZED REPRESENTATIVES OF THE BUILDING AND SAFETY DEPARTMENT. THERE SHALL BE NO DEVIATION FROM THE APPROVED PLANS AND SPECIFICATIONS WITHOUT AN APPROVED CHANGE ORDER.

MATERIAL SPECIFICATIONS:
1. ALUMINUM ALLOYS SPECIFIED ON DRAWINGS. Fty = 28 KSI AND Ftu = 35 KSI FOR ALL ALUMINUM MEMBERS UNO. Fty = 30 KSI FOR DURAXING AND T6 PANS SHOWN ON S3.3. ALTERNATE ALUMINUM ALLOYS MAY BE SUBSTITUTED FOR THOSE SHOWN, PROVIDED THEY ARE REGISTERED WITH THE ALUMINUM ASSOCIATION, ASTM OR EN (EUROPEAN STANDAROS), AND HAVE EQUAL OR GREATER YIELD AND ULTIMATE STRENGTHS.
2. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,500 POUNDS PER SQUARE INCH.
3. EMBEDDED STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED, AND CONFORM TO A500 GRADE B. ROLL FORMED STEEL MEMBERS SHALL CONFORM TC A653-SS (STRUCTURAL STEEL) GRADE 50 G60.
4. BOLTS: ALUMINUM BOLTS SHALL BE 2024-T4; STEEL BOLTS SHALL BE ASTM A-307. ALL BOLTS SHALL HAVE STANDARD-CUT PLATED WASHERS.
5. SCREWS: ALL SCREWS ARE SELF DRILLING (SDS) OR SHEET METAL SCREWS (SMS) IN CONFORMANCE WITH ICC-ES ESR 1976, ICC-ESR 3006, OR APPROVED EQUAL.
6. FASTENERS TO WOOD: WOOD AND LAG SCREWS ARE REQUIRED TO BE INSTALLED IN ACCORDANCE WITH THE 2015 NATIONAL DESIGN SPECIFICATIONS, INCLUDING PRE-DRILLING OF HOLES. ALL LAG SCREWS SHALL BE FULL-THREADED LAG SCREWS.
7. POST-INSTALLED ANCHORS: POST-INSTALLED ANCHORS USED SHALL BE SIMPSON STRONG TIE STRONG BOLT 2, STAINLESS STEEL (ICC-ESR 3037) OR EQUAL. BOLTS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTALLATION AND IAPMO REPORT. SPECIAL INSPECTION IS NOT REQUIRED.
8. ALL COMPONENTS MANUFACTURED OR SUPPLIED BY DURALUM AND DESCRIBED IN THIS DOCUMENTS ARE INTERCHANGEABLE, PROVIDED THEY ARE SELECTED APPROPRIATELY TO SUPPORT THE LOADING THEY ARE SUBJECT TO.
9. THE SELF WEIGHT OF THE PATIO COVER COMPONENTS IN THIS REPORT CAN BE CALCULATED FROM THEIR SECTION PROPERTIES. THE SOLID COVERS VARY IN WEIGHT FROM ABOUT 1 PSF TO ABOUT 3 PSF.
10. ROOF INSULATED PANELS (WHERE OCCURS). SEE S3.2 AND IAPMO 505.

FOOTINGS:
1. ALL NEW CONCRETE FOOTINGS SHALL BEAR ON FIRM, NATURAL, UNDISTURBED SOIL OR CERTIFIED FILL.
2. DESIGN VERTICAL SOIL BEARING PRESSURE IS 1,500 POUNDS PER SQUARE FOOT.
3. DESIGN LATERAL SOIL BEARING PRESSURE IS 200 POUNDS PER SQUARE FOOT PER FOOT OF FOOTING DEPTH. (EQUALS 100 PSF/FT x 2 PER TABLE 1806.2 AND SECTION 1806.3.4).
4. THE BOTTOM OF FOOTINGS SHALL EXTEND BELOW THE FROST DEPTH. CONTRACTOR TO VERIFY FROST DEPTH WITH AUTHORITY HAVING JURISDICTION.

SLAB ON GRADE USED AS A FOUNDATION SYSTEM:
IN ACCORDANCE WITH IRC/CRC APPENDIX H, SECTION AH105.2, AND IBC/IRC APPENDIX I, SECTION 1105.2, IN AREAS WITH A FROST DEPTH EQUAL TO ZERO, ATTACHED COVERS FOR RESIDENTIAL USE MAY BE SECURED TO AN EXISTING CONCRETE SLAB PROVIDED THE FOLLOWING:
1. THE SLAB ON GRADE IS AT LEAST 3 1/2 INCHES THICK. SEE DETAIL 3 ON S7.2 OR L7.2 AND DETAIL 4 ON S7.1 OR L7.1 FOR REQUIREMENTS FOR THICKER SLAB.
2. THE SLAB ON GRADE SHALL BE CONTINUOUS BETWEEN COLUMNS AND A MINIMUM OF 10'-0" WIDE. WITHIN THIS AREA, THERE SHALL BE NO CRACKS WIDER THAN 1/4" OR CONTROL/EXPANSION JOINT DEEPER/WIDER THAN 3/4".
3. THERE SHALL BE A 6" MINIMUM DISTANCE BETWEEN ANY ANCHOR BOLT AND A SLAB EDGE, CRACK WIDER THAN 1/32" OR CONTROL/EXPANSION JOINT DEEPER THAN 1/2". SEE DETAILS 4 ON S7.1 OR L7.1 FOR EXCEPTION TO MINIMUM EDGE DISTANCE.
4. DESIGN FOR PATIO COVERS SUPPORTED ON CONCRETE SLAB ON GRADE IS IN ACCORDANCE WITH THE IRC/CRC SECTION AH105.2 FOR 10 PSF LL RESIDENTIAL CONSTRUCTION, CONSIDERING A MAXIMUM DEAD AND LIVE LOAD AT EACH COLUMN OF 750 POUNDS.
5. DESIGN FOR PATIO COVERS SUPPORTED ON CONCRETE SLAB ON GRADE IS IN ACCORDANCE WITH ACI 318-19 FOR 20, 25 AND 30 PSF LL/GSL RESIDENTIAL AND COMMERCIAL CONSTRUCTION.

NOTES TO LOCAL AUTHORITY HAVING JURISDICTION AND ENTITY SUBMITTING DRAWINGS FOR APPROVAL

USE OF THIS SET OF PLANS FOR A SITE SPECIFIC PROJECT:
1. NOT ALL PAGES OF THIS SET OF DRAWINGS WILL BE USED FOR A SITE SPECIFIC PROJECT. EACH PROJECT SUBMITTED TO THE LOCAL AUTHORITY HAVING JURISDICTION SHOULD INCLUDE ONLY THE PERTINENT SITE-SPECIFIC STRUCTURAL COMPONENTS LOCATED WITHIN THIS IAPMO-LISTED EVALUATION REPORT.
2. ALL ITEMS PERTAINING TO EACH INSTALLATION (TYPE OF ROOF PANEL, HEADER SPAN, COLUMN SIZE, CONNECTION DETAILS ETC.) SHALL BE CIRCLED AND CLEARLY IDENTIFIED BY THE ENTITY SUBMITTING THE DRAWINGS FOR APPROVAL.
3. PLEASE NOTE THAT 4STEL ENGINEERING GENERATED AND STAMPED THE ORIGINAL IAPMO PRODUCT DRAWINGS AS AVAILABLE FROM IAPMO DIRECTLY, BUT WAS NOT INVOLVED IN MAKING ANY SITE SPECIFIC SELECTIONS OR ANOTATIONS ON THOSE DRAWINGS. ANY HANDMARKING OR HIGHLIGHTING ON THE SITE SPECIFIC SET OF DRAWINGS ARE THE RESPONSIBILITY OF THE ENTITY SUBMITTING THE DRAWINGS FOR APPROVAL.
4. EACH INSTALLATION SHALL BEAR AN IDENTIFYING TAG INDICATING THE NAME AND ADDRESS OF THE MANUFACTURER DESIGN LOADS AND ENCLOSABILITY.
5. THE ORIGINAL IAPMO REPORT BEARS AN ELECTRONIC STAMP FROM 4STEL ENGINEERING, AND A WET STAMP IS NOT REQUIRED IN ACCORDANCE WITH THE REGULATIONS STATED BY THE PROFESSIONAL BOARD OF ENGINEERS.
6. A COLOR COPY OF THE ORIGINAL PAGES FROM THE IAPMO REPORT IS NOT REQUIRED. A COLOR COPY OF THE CONSTRUCTION DOCUMENTS MAY BE REQUIRED IF SELECTIONS WERE MADE IN A WAY THAT WILL NOT BE VISIBLE ON A BLACK AND WHITE COPY
7. THESE PRODUCT DRAWINGS REPRESENT THE DESIGNS EVALUATED FOR RECOGNITION AS PART OF IAPMO UES EVALUATION REPORT ER-195. THESE DRAWINGS TOGETHER WITH IAPMO UES-ER-195 ARE COLLECTIVELY REFERRED TO IN THIS DOCUMENT AS "THIS EVALUATION REPORT".
8. A FULL COPY OF THIS IAPMO REPORT IS AVAILABLE AT: HTTP://WWW.IAPMOES.ORG/BUILDING-PRODUCTS-EVALUATION-REPORT-PROGRAM/EVALUATION-REPORT-DIRECTORY

AT A MINIMUM, SUBMISSION FOR A BUILDING PERMIT MUST INCLUDE THE FOLLOWING INFORMATION FROM THIS EVALUATION REPORT:
1. SITE SPECIFIC SITE PLAN SHOWING STRUCTURE DIMENSIONS (COLUMN LOCATIONS, BEAM SPANS, OVERHANG LENGTHS...)
2. TITLE SHEET AND GENERAL NOTES SHEET, G0.1
3. PRINTED IAPMO REPORT 195
4. STRUCTURAL CONFIGURATION (i.e. SOLID OR LATTICE ROOF, FREESTANDING OR ATTACHED), SHEET S1.x OR L1.x
5. SNOW LOAD DESIGN SHEETS S2.1 AND S2.2, WHERE APPLICABLE.
6. BASED ON THE REQUIRED DESIGN LOADS, SITE-SPECIFIC RAFTER AND/OR PANEL SPAN TABLES S3.x OR L3.x
7. TYPE OF HEADER, POST TYPE & QUANTITY, FOOTING SIZE (WHERE REQUIRED) BASED ON THE SITE-SPECIFIC DESIGN LOADS.
8. APPROPRIATE STRUCTURAL DETAILS.
9. SEE S1.x OR L1.x FOR SHEET INDEX.

JOB NAME: Shipley Nature Center	LIVE LOAD (PSF): 10 PSF	ROOF SNOW LOAD (PSF) VERIFIED W/ AHJ (OR N/A): 10 PSF
JOB ADDRESS: 17851 Goldenwest St Huntington Beach CA 92647	WIND SPEED (MPH) AND EXPOSURE (B OR C): 110 PSF	GROUND SNOW LOAD (PSF) VERIFIED W/ AHJ (OR N/A):

DURALUM
2485 RAILROAD ST,
CORONA, CA 92880
951.736.4500

REGISTERED PROFESSIONAL ENGINEER
DUSTIN K ROSEPINK
S 5885
STRUCTURAL
STATE OF CALIFORNIA

DATE SIGNED: June 6, 2024

4STEL ENGINEERING
26030 ACERO, SUITE 200
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

AHU APPROVAL

PATIO COVER SYSTEMS BY DURALUM - V3.1.3

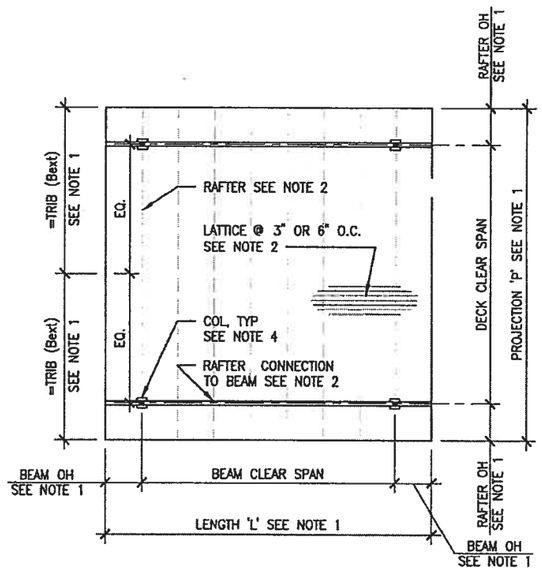
THESE DRAWINGS REPRESENT THE DESIGNS EVALUATED BY IAPMO UES AND REFERENCED IN THE FOLLOWING EVALUATION REPORT :

IAPMO-UES ER-195
VALID THROUGH JUNE 30, 2025

4 STEL JOB #	DA02-03
DATE	06/05/24
DRAWN BY	RWC
CHECKED	MDS

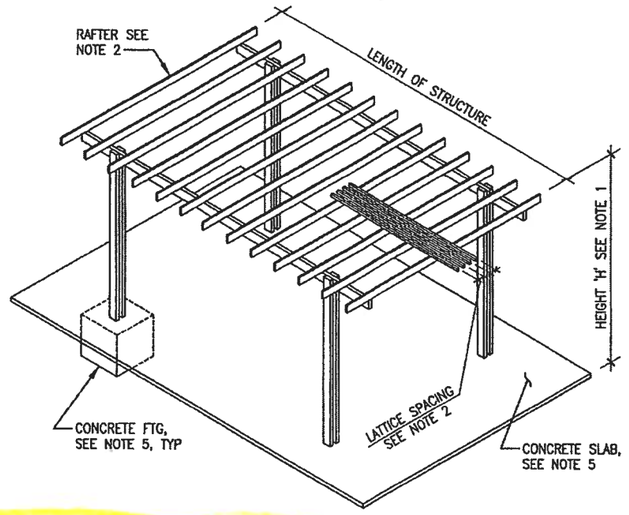
TITLE SHEET, DESIGN LOADS, GENERAL NOTES

G0.1



C **PLAN VIEW**

1/16"=1'-0"



B **ISOMETRIC VIEW**

3/32"=1'-0"

TABLE 1
MINIMUM NUMBER OF POSTS REQUIRING ATTACHMENT PER 3/L6.3

WITH 2 x 6.5 x 0.032 SIDE PLATES (SIDE PLATE TYPE SP3)						
TRIB WIDTH	WIND SPEED AND EXPOSURE					
	110B	110C	120B	120C	130B	130C
5'	2	2	2	3	3	3
6'	2	3	3	3	3	4
7'	2	3	3	4	3	4
8'	3	3	3	4	4	5
9'	3	4	4	4	4	5
10'	3	4	4	5	5	6
11'	4	4	4	5	5	6
12'	4	5	5	6	5	7

WITH 2 x 6.5 x 0.042 SIDE PLATES (SIDE PLATE TYPE SP4)						
TRIB WIDTH	WIND SPEED AND EXPOSURE					
	110B	110C	120B	120C	130B	130C
5'	2	2	2	2	2	3
6'	2	2	2	3	3	3
7'	2	3	3	3	3	4
8'	2	3	3	4	3	4
9'	3	3	3	4	4	5
10'	3	4	4	4	4	5
11'	3	4	4	5	5	6
12'	3	4	4	5	5	5

NOTES:
1. NUMBER OF POSTS SHOWN IN THIS TABLE IS A MINIMUM. ADD POSTS AS REQUIRED TO ENSURE THAT THE "MAX POST SPACING (SPAN)" SHOWN ON SHEETS L6.xx.x IS NOT EXCEEDED.
2. THIS TABLE IS TO BE USED IN CONJUNCTION WITH DETAIL 3/L6.3.
3. THIS TABLE DOES NOT APPLY IF THE SIDE PLATES ARE PROVIDED FOR AESTHETICAL PURPOSES AND THE BEAM IS CONNECTED TO THE COLUMN DIRECTLY PER 2/L6.3 OR WITH A BRACKET PER 1/L4.3 & 1/L6.3.

A **TABLE 1 - MINIMUM NUMBER OF COL REQUIRING TOP ATTACHMENT PER 3/L6.3**

NOTES:

1. PATIO COVER DIMENSIONS

A. SEE DESIGN ASSUMPTION 4 ON G0.1 FOR PATIO COVERS CONSISTING OF SOLID COVERS AND LATTICE FRAMING.
B. HEIGHT OF STRUCTURE 'H' (TO TOP OF COVER) SHALL NOT BE OVER 12 FT.
C. BEAM OVERHANG 'OH' SHALL NOT EXCEED 25% OF BEAM'S ADJACENT CLEAR SPAN.
D. RAFTER OVERHANG 'OH' SHALL NOT EXCEED 25% OF RAFTER'S ADJACENT CLEAR SPAN.
E. LATTICE OVERHANG 'OH' SHALL NOT EXCEED 25% OF THE TOTAL UNSPLICED LENGTH OF THE LATTICE MEMBER OR 24", WHICHEVER IS LESS.
F. TRIBUTARY WIDTH ARE AS SHOWN ON PLAN:
   - TRIB (Bext)= ½ ADJACENT RAFTER CLEAR SPAN @ RIGHT + RAFTER OH @ LEFT
   - TRIB (BLDG)= ½ ADJACENT RAFTER CLEAR SPAN

2. LATTICE COVERS

A. SEE SHEET L4.1 FOR LATTICE PROFILES.
B. SEE SHEET L3.1F FOR RAFTER PROFILES AND MAXIMUM SPANS.
C. SEE SHEET L2.2 FOR REDUCTION OF RAFTER MAXIMUM SPAN WHEN DESIGNING FOR SNOW LOADS.
E. SEE SHEETS L6.1 FOR CONNECTION OF LATTICE COVERS TO (E) BUILDING.ROOF OF STRUCTURES DESIGNED AS LATTICE COVERS SHALL REMAIN UNCOVERED. THERE SHALL BE NO OBSTRUCTIONS TO THE FLOW OF WIND THROUGH THE LATTICE MEMBERS, SUCH AS FABRIC OR PLANTS.
F. CLEAR SPACING OF LATTICE MEMBERS SHALL BE EQUAL TO OR LARGER THAN THEIR WIDTH, AND NOTHING SHALL BE ADDED TO COVER THE LATTICE MEMBERS, THAT COULD OBSTRUCT WIND FLOW, INCLUDING, BUT NOT LIMITED TO FABRIC OR PLANTS.
G. IF CLEAR SPACING BETWEEN LATTICE FRAMING MEMBERS IS MORE THAN 1.5 TIMES THEIR WIDTH (OR ON CENTER SPACING IS MORE THAN 2.5 TIMES THEIR WIDTH), IT IS ACCEPTABLE TO DESIGN THE STRUCTURE FOR A GROUND SNOW LOAD OF 20 PSF, EVEN IF THE SITE SPECIFIC GROUND SNOW LOADS ARE HIGHER THAN 20 PSF AND UP TO 84 PSF.

3. BEAMS

A. SEE SHEET L4.1 FOR BEAM PROFILES.
B. SEE SHEET L4.4 FOR FAN BEAM DETAILS.
C. SEE SHEETS 9/L7.2 & L8.xx.x FOR TABLES SHOWING MAXIMUM BEAM SPAN.
D. SEE SHEET L2.2 FOR REDUCTION OF BEAM MAXIMUM SPAN WHEN DESIGNING FOR SNOW LOADS.
E. SEE SHEETS L6.x FOR BEAM CONNECTIONS & DETAILS.

4. COLUMNS

A. SEE TABLE 1 ON THIS SHEET FOR MINIMUM NUMBER OF COLUMNS REQUIRED BASED ON COVER DIMENSIONS.
B. SEE SHEET L4.2 FOR COLUMN PROFILES.
C. SEE SHEETS 9/L7.2 AND L8.xx.x FOR TABLES SHOWING MAXIMUM POST SPACING.
D. SEE SHEETS L6.x & L7.x FOR COLUMN CONNECTIONS & DETAILS.

5. FOUNDATIONS

A. SEE SHEETS L7.1 AND L7.2 FOR COLUMN CONNECTION TO FOUNDATION.
B. SEE BEAM SPAN TABLES ON SHEETS L8.xx.x FOR MINIMUM FOOTING SIZE FOR PATIO COVER SUPPORTED ON CONCRETE FOOTING, BASED ON BEAM SPAN SELECTED.
C. SEE 9/L7.2 FOR ALTERNATE FOOTING SIZES.

SHEET INDEX - LATTICE STRUCTURES: TYPE G

LATTICE COVER STRUCTURE TYPE G: FREESTANDING SINGLE SPAN WITH OPTIONAL CANTILEVER

DURALUM
2485 RAILROAD ST,
CORONA, CA 92880
951.736.4500

REGISTERED PROFESSIONAL ENGINEER
DUSTIN K ROSEPINK
S 5885
STRUCTURAL
STATE OF CALIFORNIA

DATE SIGNED: June 6, 2024

STEL ENGINEERING
26030 ACERO, SUITE 200
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

AHU APPROVAL

PATIO COVER SYSTEMS BY DURALUM - V3.1.3

THESE DRAWINGS REPRESENT THE DESIGNS EVALUATED BY IAPMO UES AND REFERENCED IN THE FOLLOWING EVALUATION REPORT :

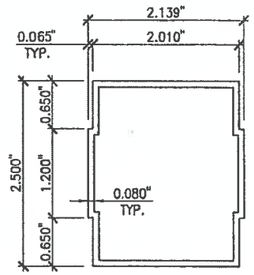
IAPMO-UES ER-195
VALID THROUGH JUNE 30, 2025

4 STEL JOB #	DA02-03
DATE	06/06/24
DRAWN BY	RWC
CHECKED	MDS

LATTICE STRUCTURES: TYPE G

L1.3

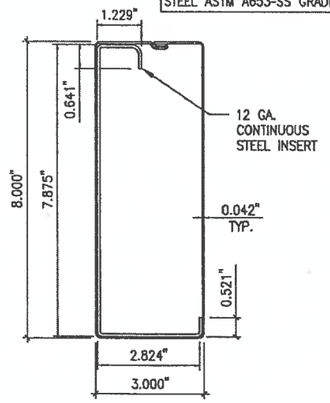
ALUM. ALLOY 6063-T6



NOTE:
SEE 1/S4.6 FOR DETAILS AT FAN BEAM.

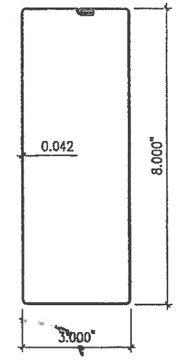
B17 FAN BEAM 6"=1'-0"

ALUM. ALLOY 3004-H36
STEEL ASTM A653-SS GRADE 50 G60



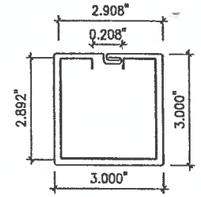
B14 3 x 8 x 0.042" ALUM. BEAM W/- 12 GA. STL. INSERT 3"=1'-0"

ALUM. ALLOY 3004-H36



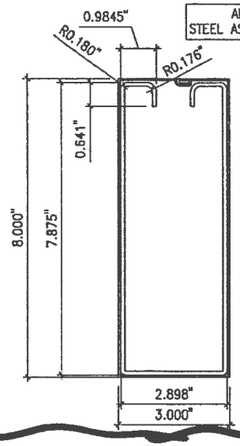
B11 3 x 8 x 0.042" 3"=1'-0"

ALUM. ALLOY 3004-H36



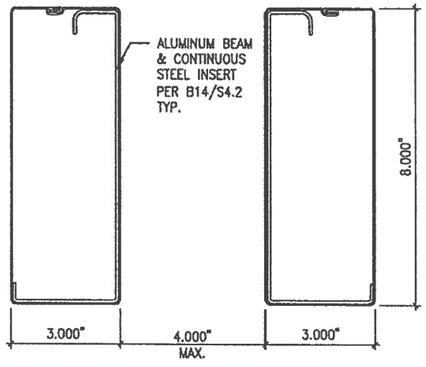
B5 3 x 3 x 0.032" ALUM. BEAM W/- 12 GA. STL. "U" CHANNEL 3"=1'-0"

ALUM. ALLOY 3004-H36
STEEL ASTM A653-SS GRADE 50 G60



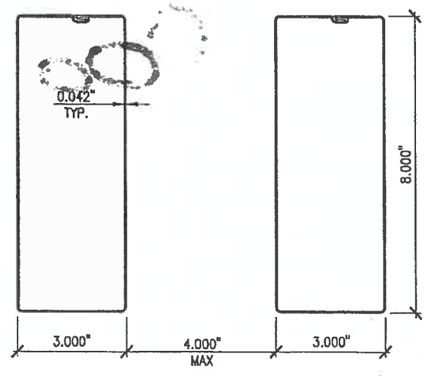
B18 3 x 8 x 0.042" w/ 12 GA. STL. "U" CHANNEL 6"=1'-0"

ALUM. ALLOY 3004-H36
STEEL ASTM A653-SS GRADE 50 G60



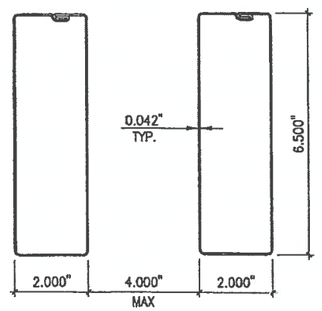
B15 DBL 3 x 8 x 0.042" ALUM. BEAM W/ 14 GA. STL. INSERT 3"=1'-0"

ALUM. ALLOY 3004-H36



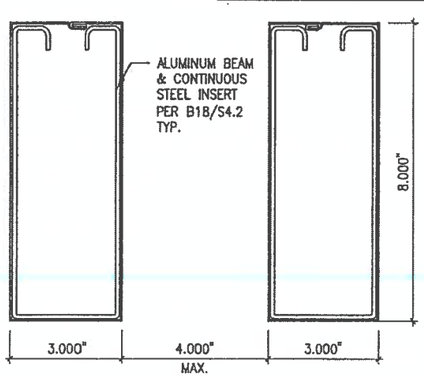
B12 DBL 3 x 8 x 0.042" 3"=1'-0"

ALUM. ALLOY 3004-H36



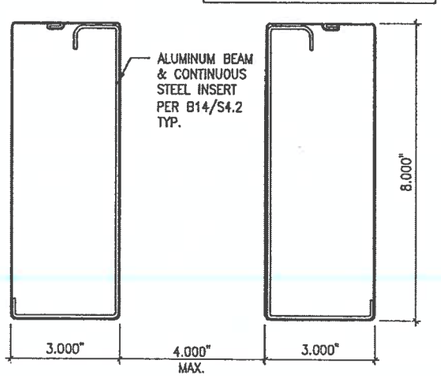
B9 DBL 2 x 6 1/2 x 0.042" 3"=1'-0"

ALUM. ALLOY 3004-H36
STEEL ASTM A653-SS GRADE 50 G60



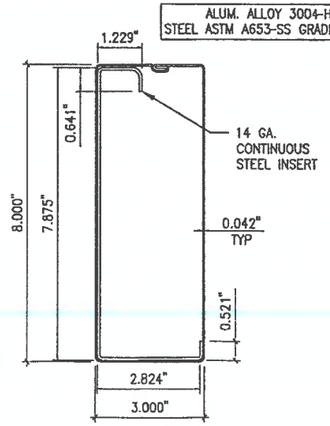
B19 DBL 3 x 8 x 0.042" w/ 12 GA. STL. "U" CHANNEL 3"=1'-0"

ALUM. ALLOY 3004-H36
STEEL ASTM A653-SS GRADE 50 G60



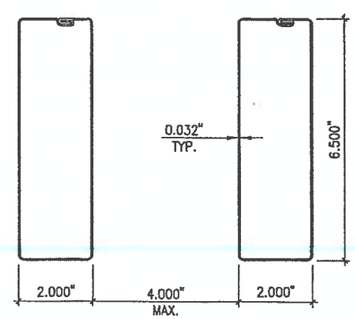
B16 DBL 3 x 8 x 0.042" ALUM. BEAM W/ 12 GA. STL. INSERT 3"=1'-0"

ALUM. ALLOY 3004-H36
STEEL ASTM A653-SS GRADE 50 G60



B13 3 x 8 x 0.042" ALUM. BEAM W/- 14 GA. STL. INSERT 3"=1'-0"

ALUM. ALLOY 3004-H36



B10 DBL 2 x 6 1/2 x 0.032" 3"=1'-0"

DURALUM
2485 RAILROAD ST,
CORONA, CA 92880
951.736.4500

REGISTERED PROFESSIONAL ENGINEER
DUSTIN K. ROSEPINK
S 5885
STRUCTURAL
STATE OF CALIFORNIA

DATE SIGNED: June 6, 2024

4STEL ENGINEERING
26030 ACERO, SUITE 200
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

AHU APPROVAL

PATIO COVER SYSTEMS
BY DURALUM - V3.1.3

THESE DRAWINGS REPRESENT THE DESIGNS EVALUATED BY IAPMO UES AND REFERENCED IN THE FOLLOWING EVALUATION REPORT :

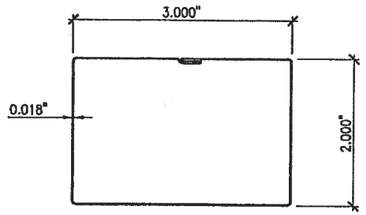
IAPMO-UES ER-195
VALID THROUGH JUNE 30, 2025

4 STEL JOB #	DA02-03
DATE	06/06/24
DRAWN BY	RWC
CHECKED	MDS

LATTICE STRUCTURES:
BEAM PROFILES

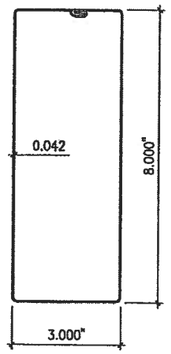
L4.1

ALUM. ALLOY 3004-H36



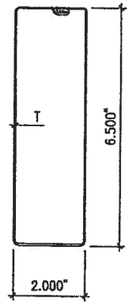
L1 **2 x 3 LATTICE TUBE** 6"=1'-0"

ALUM. ALLOY 3004-H36



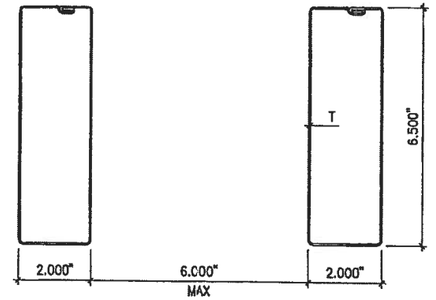
R1 **3" x 8" RAFTER** 3"=1'-0"

ALUM. ALLOY 3004-H36



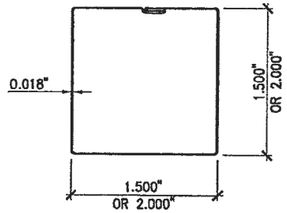
R2 **2" x 6.5" RAFTER** 3"=1'-0"

ALUM. ALLOY 3004-H36



R3 **DBL 2" x 6.5" RAFTER** 3"=1'-0"

ALUM. ALLOY 3004-H36



L2 **1 1/2 x 1 1/2 OR 2 x 2 LATTICE TUBE** 6"=1'-0"

NOTE:
IT IS ACCEPTABLE TO SUBSTITUTE:
- (2) 3x8 @ 32"OC IN LIEU OF (1) 3x8 @ 16"OC
- (2) 3x8 @ 48"OC IN LIEU OF (1) 3x8 @ 24"OC
- (2) 2x6 @ 32"OC IN LIEU OF (1) 2x6 @ 16"OC
- (2) 2x6 @ 48"OC IN LIEU OF (1) 2x6 @ 24"OC

1 **ALLOWABLE RAFTER SPANS**

3x8 RAFTER - FREESTANDING STRUCTURE

LL/GSL	T (IN)	SPACING O/C	WIND SPEED / EXP					
			110 B	110 C	120 B	120 C	130 B	130 C
10	0.042	16"	26'-3"	26'-3"	26'-3"	26'-3"	26'-3"	25'-7"
		24"	21'-6"	21'-6"	21'-6"	21'-6"	21'-6"	21'-0"
20	0.042	16"	21'-10"	21'-10"	21'-10"	21'-10"	21'-10"	21'-10"
		24"	17'-10"	17'-10"	17'-10"	17'-10"	17'-10"	17'-10"
25	0.042	16"	21'-6"	21'-6"	21'-6"	21'-2"	21'-3"	20'-6"
		24"	17'-7"	17'-7"	17'-7"	17'-4"	17'-6"	16'-10"
30	0.042	16"	19'-1"	19'-1"	19'-1"	19'-1"	19'-1"	19'-1"
		24"	15'-7"	15'-7"	15'-7"	15'-7"	15'-7"	15'-7"
40	0.042	16"	16'-8"	16'-8"	16'-8"	16'-8"	16'-8"	16'-8"
		24"	13'-8"	13'-8"	13'-8"	13'-8"	13'-8"	13'-8"
50	0.042	16"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
		24"	11'-2"	11'-2"	11'-2"	11'-2"	11'-2"	11'-2"
60	0.042	16"	18'-9"	18'-9"	18'-9"	18'-6"	18'-7"	18'-1"
		24"	15'-4"	15'-4"	15'-4"	15'-1"	15'-2"	14'-9"
72	0.042	16"	17'-2"	17'-2"	17'-2"	17'-2"	17'-2"	17'-0"
		24"	14'-0"	14'-0"	14'-0"	14'-0"	14'-0"	13'-10"
84	0.042	16"	15'-11"	15'-11"	15'-11"	15'-11"	15'-11"	15'-11"
		24"	13'-0"	13'-0"	13'-0"	13'-0"	13'-0"	13'-0"

2x6 1/2 RAFTER - FREESTANDING STRUCTURE

LL/GSL	T (IN)	SPACING O/C	WIND SPEED / EXP					
			110 B	110 C	120 B	120 C	130 B	130 C
10	0.024	16"	14'-2"	14'-2"	14'-2"	14'-2"	14'-2"	13'-9"
		24"	11'-7"	11'-7"	11'-7"	11'-7"	11'-7"	11'-3"
	0.032	16"	18'-0"	18'-0"	18'-0"	18'-0"	18'-0"	17'-7"
		24"	14'-8"	14'-8"	14'-8"	14'-8"	14'-8"	14'-4"
	0.042	16"	21'-9"	21'-9"	21'-9"	21'-9"	21'-9"	21'-2"
		24"	17'-9"	17'-9"	17'-9"	17'-9"	17'-9"	17'-3"
20	0.024	16"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"	11'-9"
		24"	9'-8"	9'-8"	9'-8"	9'-8"	9'-8"	9'-8"
	0.032	16"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
		24"	12'-3"	12'-3"	12'-3"	12'-3"	12'-3"	12'-3"
	0.042	16"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"	18'-1"
		24"	14'-9"	14'-9"	14'-9"	14'-9"	14'-9"	14'-9"
25	0.024	16"	11'-7"	11'-7"	11'-7"	11'-6"	11'-6"	11'-2"
		24"	9'-6"	9'-6"	9'-6"	9'-6"	9'-6"	9'-2"
	0.032	16"	14'-9"	14'-9"	14'-9"	14'-6"	14'-7"	14'-2"
		24"	12'-1"	12'-1"	12'-1"	11'-10"	12'-0"	11'-7"
	0.042	16"	17'-9"	17'-9"	17'-9"	17'-7"	17'-8"	17'-1"
		24"	14'-7"	14'-7"	14'-7"	14'-4"	14'-6"	14'-0"
30	0.024	16"	10'-3"	10'-3"	10'-3"	10'-3"	10'-3"	10'-3"
		24"	8'-6"	8'-6"	8'-6"	8'-6"	8'-6"	8'-6"
	0.032	16"	13'-1"	13'-1"	13'-1"	13'-1"	13'-1"	13'-1"
		24"	10'-8"	10'-8"	10'-8"	10'-8"	10'-8"	10'-8"
	0.042	16"	15'-9"	15'-9"	15'-9"	15'-9"	15'-9"	15'-9"
		24"	12'-10"	12'-10"	12'-10"	12'-10"	12'-10"	12'-10"
40	0.024	16"	9'-1"	9'-1"	9'-1"	9'-1"	9'-1"	9'-1"
		24"	7'-2"	7'-2"	7'-2"	7'-2"	7'-2"	7'-2"
	0.032	16"	11'-6"	11'-6"	11'-6"	11'-6"	11'-6"	11'-6"
		24"	9'-4"	9'-4"	9'-4"	9'-4"	9'-4"	9'-4"
	0.042	16"	13'-9"	13'-9"	13'-9"	13'-9"	13'-9"	13'-9"
		24"	11'-3"	11'-3"	11'-3"	11'-3"	11'-3"	11'-3"
50	0.024	16"	8'-2"	8'-2"	8'-2"	8'-2"	8'-2"	8'-2"
		24"	6'-9"	6'-9"	6'-9"	6'-9"	6'-9"	6'-9"
	0.032	16"	10'-3"	10'-3"	10'-3"	10'-3"	10'-3"	10'-3"
		24"	8'-4"	8'-4"	8'-4"	8'-4"	8'-4"	8'-4"
	0.042	16"	12'-6"	12'-6"	12'-6"	12'-6"	12'-6"	12'-6"
		24"	10'-2"	10'-2"	10'-2"	10'-2"	10'-2"	10'-2"
60	0.024	16"	5'-8"	5'-8"	5'-8"	5'-7"	5'-7"	5'-6"
		24"	5'-6"	5'-6"	5'-6"	5'-5"	5'-5"	5'-4"
	0.032	16"	8'-9"	8'-9"	8'-9"	8'-7"	8'-7"	8'-5"
		24"	7'-1"	7'-1"	7'-1"	6'-12"	6'-12"	6'-10"
	0.042	16"	10'-11"	10'-11"	10'-11"	10'-9"	10'-10"	10'-6"
		24"	8'-11"	8'-11"	8'-11"	8'-10"	8'-10"	8'-7"
72	0.024	16"	5'-2"	5'-2"	5'-2"	5'-2"	5'-2"	5'-2"
		24"	5'-1"	5'-1"	5'-1"	5'-1"	5'-1"	4'-12"
	0.032	16"	7'-12"	7'-12"	7'-12"	7'-12"	7'-12"	7'-11"
		24"	6'-6"	6'-6"	6'-6"	6'-6"	6'-6"	6'-5"
	0.042	16"	9'-12"	9'-12"	9'-12"	9'-12"	9'-12"	9'-11"
		24"	8'-2"	8'-2"	8'-2"	8'-2"	8'-2"	8'-1"
84	0.024	16"	4'-10"	4'-10"	4'-10"	4'-10"	4'-10"	4'-10"
		24"	4'-8"	4'-8"	4'-8"	4'-8"	4'-8"	4'-8"
	0.032	16"	7'-5"	7'-5"	7'-5"	7'-5"	7'-5"	7'-5"
		24"	6'-1"	6'-1"	6'-1"	6'-1"	6'-1"	6'-1"
	0.042	16"	9'-4"	9'-4"	9'-4"	9'-4"	9'-4"	9'-4"
		24"	7'-7"	7'-7"	7'-7"	7'-7"	7'-7"	7'-7"

DBL. 2x6 1/2 RAFTER - FREESTANDING STRUCTURE

LL/GSL	T (IN)	SPACING O/C	WIND SPEED / EXP					
			110 B	110 C	120 B	120 C	130 B	130 C
10	0.024	16"	19'-10"	19'-10"	19'-10"	19'-10"	19'-10"	19'-4"
		24"	16'-3"	16'-3"	16'-3"	16'-3"	16'-3"	15'-10"
	0.032	16"	25'-3"	25'-3"	25'-3"	25'-3"	25'-3"	24'-8"
		24"	20'-8"	20'-8"	20'-8"	20'-8"	20'-8"	20'-2"
	0.042	16"	30'-8"	30'-8"	30'-8"	30'-8"	30'-8"	28'-10"
		24"	25'-1"	25'-1"	25'-1"	25'-1"	25'-1"	24'-4"
20	0.024	16"	16'-7"	16'-7"	16'-7"	16'-7"	16'-7"	16'-7"
		24"	13'-7"	13'-7"	13'-7"	13'-7"	13'-7"	13'-7"
	0.032	16"	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"	21'-1"
		24"	17'-3"	17'-3"	17'-3"	17'-3"	17'-3"	17'-3"
	0.042	16"	25'-6"	25'-6"	25'-6"	25'-6"	25'-6"	25'-6"
		24"	20'-10"	20'-10"	20'-10"	20'-10"	20'-10"	20'-10"
25	0.024	16"	16'-3"	16'-3"	16'-3"	16'-1"	16'-2"	15'-8"
		24"	9'-3"	9'-3"	9'-3"	9'-3"	9'-3"	9'-3"
	0.032	16"	20'-9"	20'-9"	20'-9"	20'-6"	20'-7"	19'-10"
		24"	17'-0"	17'-0"	17'-0"	16'-8"	16'-9"	16'-3"
	0.042	16"	25'-1"	25'-1"	25'-1"	25'-1"	25'-1"	25'-1"
		24"	20'-6"	20'-6"	20'-6"	20'-6"	20'-6"	20'-6"
30	0.024	16"	14'-6"	14'-6"	14'-6"	14'-6"	14'-6"	14'-6"
		24"	11'-10"	11'-10"	11'-10"	11'-10"	11'-10"	11'-10"
	0.032	16"	18'-4"	18'-4"	18'-4"	18'-4"	18'-4"	18'-4"
		24"	15'-1"	15'-1"	15'-1"	15'-1"	15'-1"	15'-1"
	0.042	16"	22'-2"	22'-2"	22'-2"	22'-2"	22'-2"	22'-2"
		24"	18'-2"	18'-2"	18'-2"	18'-2"	18'-2"	18'-2"
40	0.024	16"	12'-8"	12'-8"	12'-8"	12'-8"	12'-8"	12'-8"
		24"	10'-4"	10'-4"	10'-4"	10'-4"	10'-4"	10'-4"
	0.032	16"	16'-1"	16'-1"	16'-1"	16'-1"	16'-1"	16'-1"
		24"	13'-2"	13'-2"	13'-2"	13'-2"	13'-2"	13'-2"
	0.042	16"	19'-4"	19'-4"	19'-4"	19'-4"	19'-4"	19'-4"
		24"	15'-10"	15'-10"	15'-10"	15'-10"	15'-10"	15'-10"
50	0.024	16"	11'-4"	11'-4"	11'-4"	11'-4"	11'-4"	11'-4"
		24"	9'-4"	9'-4"	9'-4"	9'-4"	9'-4"	9'-4"
	0.032	16"	14'-6"	14'-6"	14'-6"	14'-6"	14'-6"	14'-6"
		24"	11'-10"	11'-10"	11'-10"	11'-10"	11'-10"	11'-10"
	0.042	16"	17'-6"	17'-6"	17'-6"	17'-6"	17'-6"	17'-6"
		24"	14'-3"	14'-3"	14'-3"	14'-3"	14'-3"	14'-3"
60	0.024	16"	7'-12"	7'-12"	7'-12"	7'-11"	7'-11"	7'-8"
		24"	7'-9"	7'-9"	7'-9"	7'-8"	7'-8"	7'-6"
	0.032	16"	12'-4"	12'-4"	12'-4"	12'-2"	12'-2"	11'-10"
		24"	10'-1"	10'-1"	10'-1"	9'-11"	9'-12"	9'-8"
	0.042	16"	14'-10"	14'-10"	14'-10"	14'-10"	14'-10"	14'-10"
		24"	12'-8"	12'-8"	12'-8"	12'-5"	12'-6"	12'-2"
72	0.024	16"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"	6'-9"
		24"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"	6'-9"
	0.032	16"	11'-3"	11'-3"	11'-3"	11'-3"	11'-3"	11'-2"
		24"	9'-3"	9'-3"	9'-3"	9'-3"	9'-3"	9'-1"
	0.042	16"	13'-11"	13'-11"	13'-11"	13'-11"	13'-11"	13'-11"
		24"	11'-7"	11'-7"	11'-7"	11'-7"	11'-7"	11'-6"
84	0.024	16"	5'-12"	5'-12"	5'-12"	5'-12"	5'-12"	5'-12"
		24"	5'-12"	5'-12"	5'-12"	5'-12"	5'-12"	5'-12"
	0.032	16"	10'-6"	10'-6"	10'-6"	10'-6"	10'-6"	10'-6"
		24"	8'-7"	8'-7"	8'-7"	8'-7"	8'-7"	8'-7"
	0.042	16"	13'-2"	13'-2"	13'-2"	13'-2"	13'-2"	13'-2"
		24"	10'-9"	10'-9"	10'-9"	10'-9"	10'-9"	10'-9"

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AHU APPROVAL

PATIO COVER SYSTEMS
BY DURALUM - V3.1.3

THESE DRAWINGS REPRESENT THE DESIGNS EVALUATED BY IAPMO UES AND REFERENCED IN THE FOLLOWING EVALUATION REPORT :

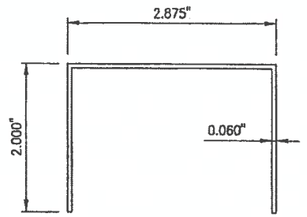
IAPMO-UES ER-195
VALID THROUGH JUNE 30, 2025

STEL JOB #	DA02-03
DATE	06/06/24
DRAWN BY	RWC
CHECKED	MDS

LATTICE STRUCTURES:
FREESTANDING COVERS
RAFTER SPANS

L3.1F

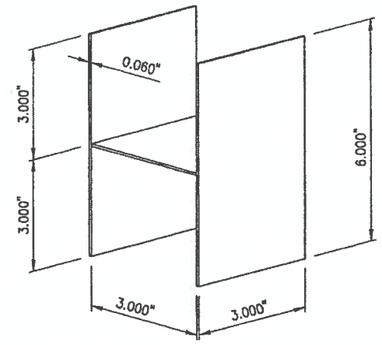
ALUM. ALLOY 6063-T6



NOTE:
BRACKET IS 2¾" LONG

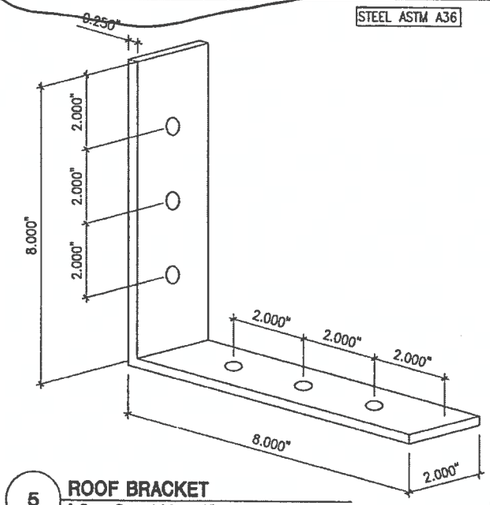
4 "U" BRACKET AT COLUMN
6"=1'-0"

ALUM. ALLOY 6063-T6



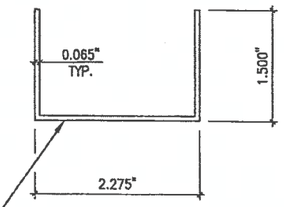
1 "H" BRACKET
N.T.S.

STEEL ASTM A36



5 ROOF BRACKET
L8 x 8 x 1/4 x 2"
3"=1'-0"

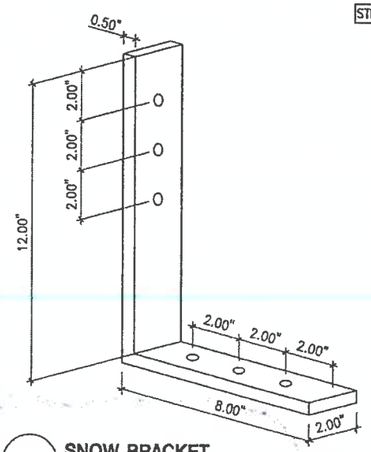
ALUM. ALLOY 6063-T6



LENGTH = 2½" @ SINGLE 3 x 8 OR 3 x 3 BEAM BELOW
LENGTH = 6¾" @ DOUBLE 2 x 6½ BEAM BELOW
LENGTH = 6¾" @ DOUBLE 3 x 8 BEAM BELOW

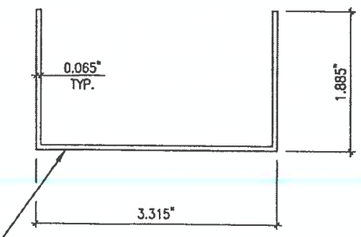
2 "U" BRACKET
2 x 6-1/2" RAFTER TO BEAM
6"=1'-0"

STEEL ASTM A36



6 SNOW BRACKET
L12 x 8 x 1/2 x 2"
2"=1'-0"

ALUM. ALLOY 6063-T6



LENGTH = 2½" @ SINGLE 3 x 8 OR 3 x 3 BEAM BELOW
LENGTH = 6¾" @ DOUBLE 2 x 6½" BEAM BELOW
LENGTH = 8¾" @ DOUBLE 3 x 8 BEAM BELOW

3 "U" BRACKET
3 x 8 RAFTER TO BEAM
6"=1'-0"

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DATE	06/06/24
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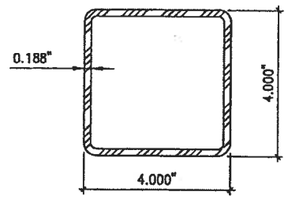
LATTICE STRUCTURES:
CONNECTORS

L4.3

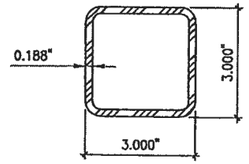
ASTM A500 GRADE B



NOTE:
IT IS ACCEPTABLE TO COVER THIS COLUMN SECTION (FULL HEIGHT) WITH ALUMINUM BENT PLATES FOR AESTHETICAL PURPOSES. NO FASTENERS ARE REQUIRED. SLEEVE SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE BEAM/COLUMN CONNECTION.

C10 HSS 4 x 4 x 3/16 — 3"=1'-0"

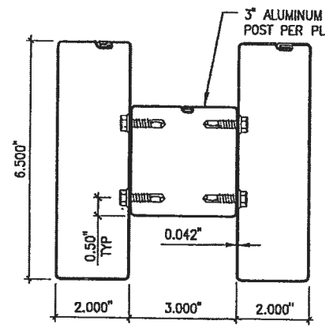
ASTM A500 GRADE B



NOTE:
IT IS ACCEPTABLE TO COVER THIS COLUMN SECTION (FULL HEIGHT) BY SECTION C1 FOR AESTHETICAL PURPOSES. NO FASTENERS ARE REQUIRED. SLEEVE SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE BEAM/COLUMN CONNECTION.

C7 HSS 3 x 3 x 3/16 — 3"=1'-0"

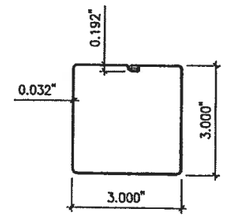
ALUM. ALLOY 3004-H36



NOTE:
SEE TABLE 1 ON L1.x FOR APPLICATION OF THIS DETAIL.

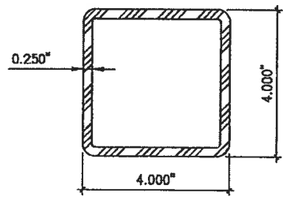
SP4 0.042" SIDE PLATES — 3"=1'-0"

ALUM. ALLOY 3004-H36



C1 3" SQ. ALUM. POST — 3"=1'-0"

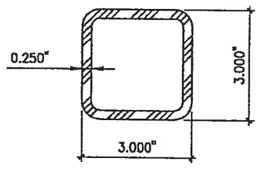
ASTM A500 GRADE B



NOTE:
IT IS ACCEPTABLE TO COVER THIS COLUMN SECTION (FULL HEIGHT) WITH ALUMINUM BENT PLATES FOR AESTHETICAL PURPOSES. NO FASTENERS ARE REQUIRED. SLEEVE SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE BEAM/COLUMN CONNECTION.

C11 HSS 4 x 4 x 1/4 — 3"=1'-0"

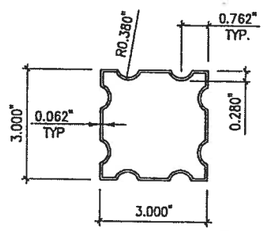
ASTM A500 GRADE B



NOTE:
IT IS ACCEPTABLE TO COVER THIS COLUMN SECTION (FULL HEIGHT) BY SECTION C1 FOR AESTHETICAL PURPOSES. NO FASTENERS ARE REQUIRED. SLEEVE SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE BEAM/COLUMN CONNECTION.

C8 HSS 3 x 3 x 1/4 — 3"=1'-0"

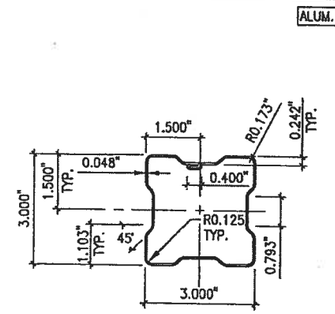
ALUM. ALLOY 6063-T6



NOTE:
IT IS ACCEPTABLE TO COVER THIS COLUMN SECTION (FULL HEIGHT) BY SECTION C1 FOR AESTHETICAL PURPOSES. NO FASTENERS ARE REQUIRED. SLEEVE SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE BEAM/COLUMN CONNECTION.

C5 3" MAG POST — 3"=1'-0"

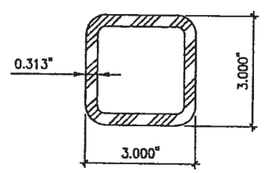
ALUM. ALLOY 3004-H36



NOTE:
IT IS ACCEPTABLE TO COVER THIS COLUMN SECTION (FULL HEIGHT) BY SECTION C1 FOR AESTHETICAL PURPOSES. NO FASTENERS ARE REQUIRED. SLEEVE SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE BEAM/COLUMN CONNECTION.

C2 3" SQ. ALUM. POST — 3"=1'-0"

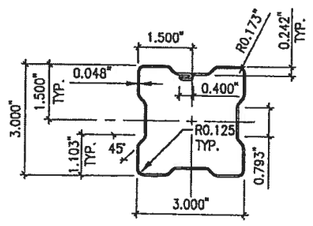
ASTM A500 GRADE B



NOTE:
IT IS ACCEPTABLE TO COVER THIS COLUMN SECTION (FULL HEIGHT) BY SECTION C1 FOR AESTHETICAL PURPOSES. NO FASTENERS ARE REQUIRED. SLEEVE SHALL EXTEND FROM THE FOUNDATION TO THE UNDERSIDE OF THE BEAM/COLUMN CONNECTION.

C9 HSS 3 x 3 x 5/16 — 3"=1'-0"

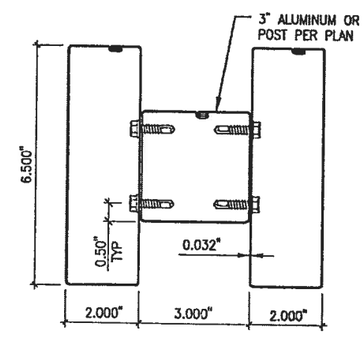
STEEL A653 GRADE 50 CP60



NOTE:
IT IS ACCEPTABLE TO COVER THIS COLUMN SECTION (FULL HEIGHT) BY SECTION C1 FOR AESTHETICAL PURPOSES. NO FASTENERS ARE REQUIRED. SLEEVE SHALL EXTEND FROM THE FOUNDATION, TO THE UNDERSIDE OF THE BEAM/COLUMN CONNECTION.

C6 3" SQ. STEEL POST — 3"=1'-0"

ALUM. ALLOY 3004-H36



NOTE:
SEE TABLE 1 ON L1.x FOR APPLICATION OF THIS DETAIL.

SP3 0.032" SIDE PLATES — 3"=1'-0"

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AHU APPROVAL

PATIO COVER SYSTEMS
BY DURALUM - V3.1.3

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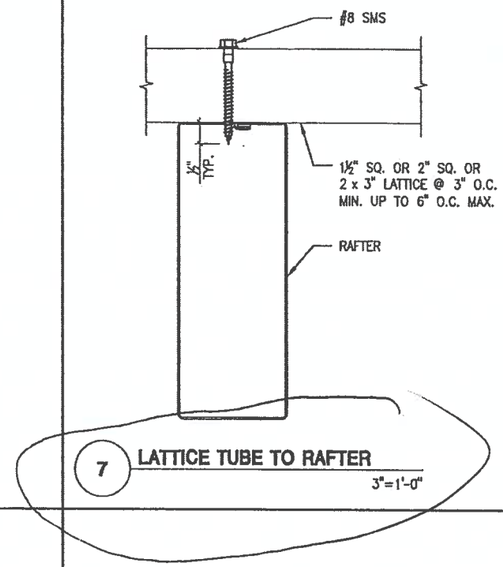
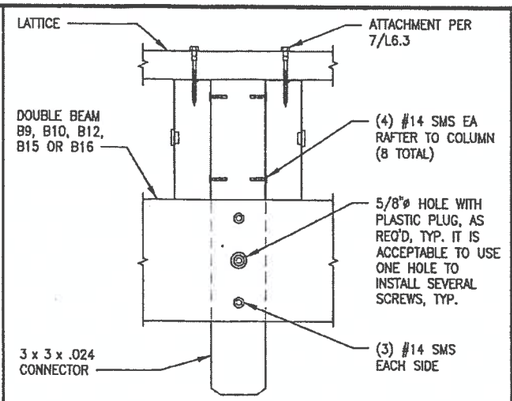
4 STEL JOB #	DA02-03
DATE	06/06/24
DRAWN BY	RWC
CHECKED	MDS

LATTICE STRUCTURES:
COLUMN PROFILES

L4.2

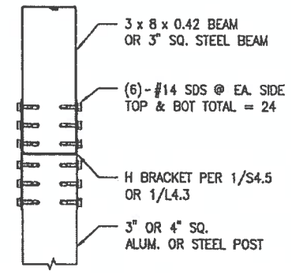


7 **LATTICE TUBE TO RAFTER** 3"=1'-0"



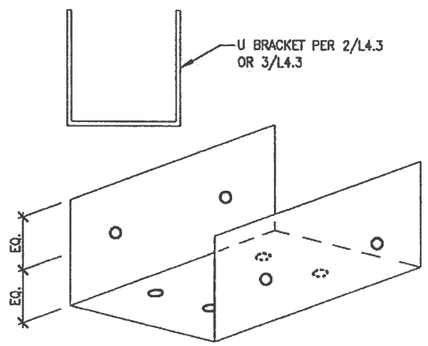
NOTE:
THIS DETAIL IS NOT TO BE USED IN LIEU OF A COLUMN.

4 **STUB COLUMN TO DBL BEAM CONNECTION** 1-1/2"=1'-0"

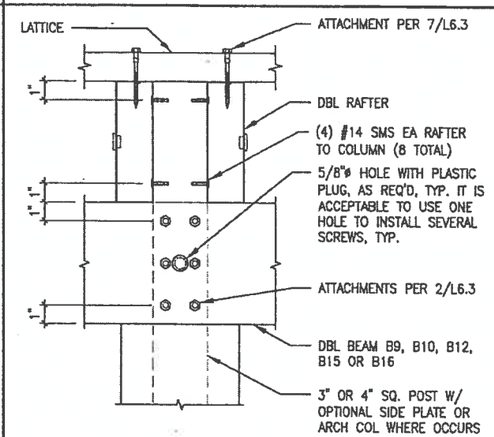


NOTES:
THIS DETAIL IS TO BE USED AS AN ALTERNATE TO DETAIL 3/S6.3

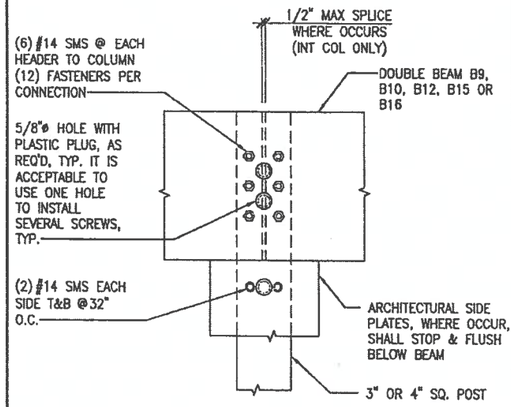
1 **"H" BRACKET TO POST** 1-1/2"=1'-0"



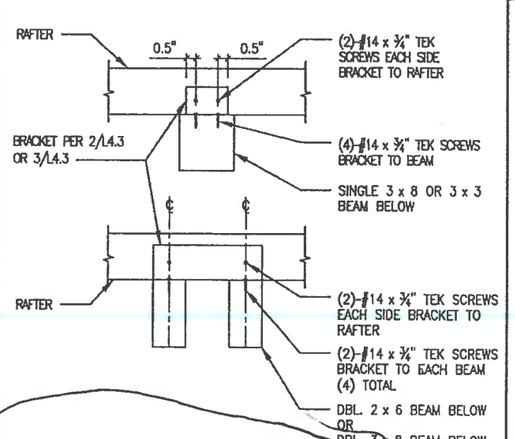
BRACKET
SCALE: 6"=1'-0"



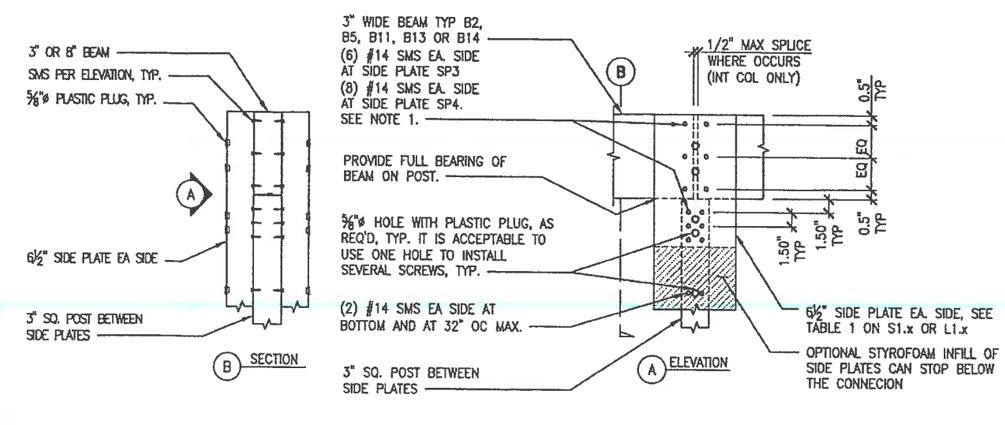
5 **DBL RAFTER TO DBL BEAM CONNECTION** 1-1/2"=1'-0"



2 **DBL BEAM TO COL** 1-1/2"=1'-0"



8 **BEAM TO RAFTER BRACKET CONNECTION** 1-1/2"=1'-0"



3 **BEAM TO POST CONNECTION** 3/4"=1'-0"

NOTES:
AT COLUMN B2, ADJUST SCREW LOCATION TO LOCATE SCREWS INTO THE FLAT PORTION / VERTICAL WALL OF BEAM

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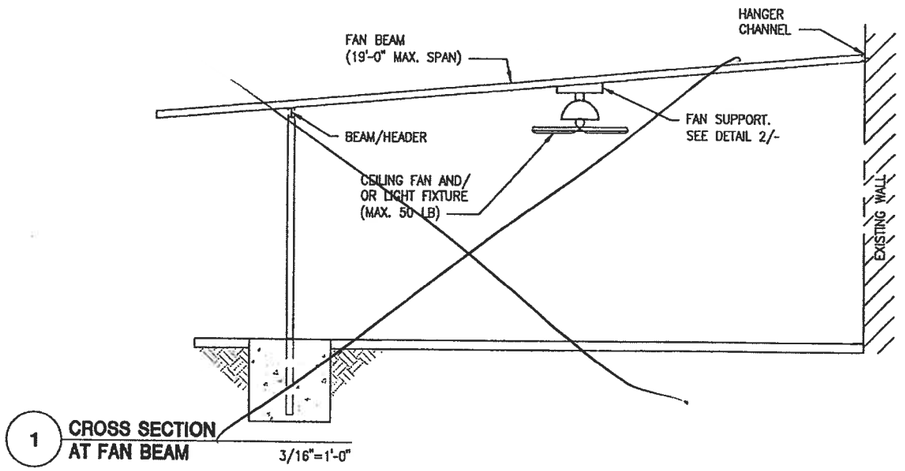
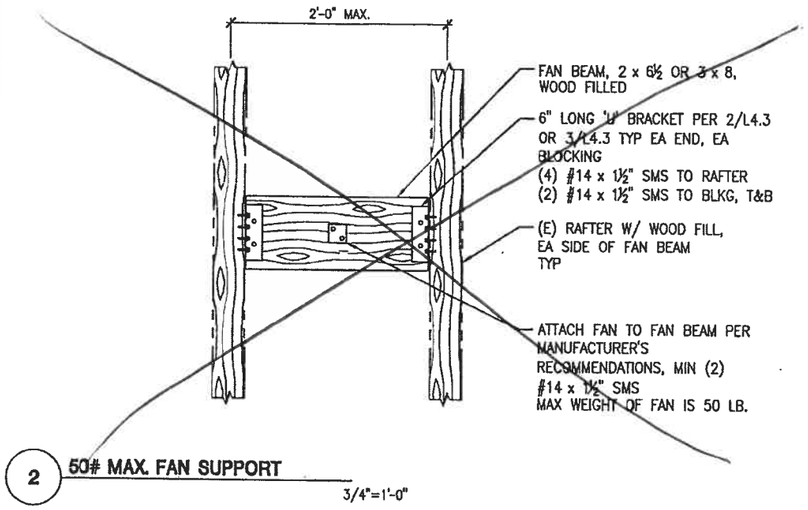
LATTICE STRUCTURES: CONNECTION DETAILS

L6.3



1 **CROSS SECTION AT FAN BEAM** 3/16"=1'-0"



2 **50# MAX. FAN SUPPORT** 3/4"=1'-0"

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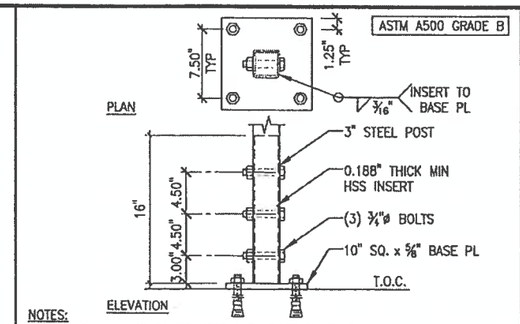
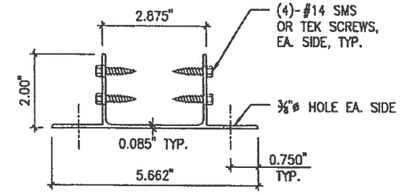
LATTICE STRUCTURES: FAN BEAM DETAILS

L4.4



NOTES:
1. THIS BRACKET IS TO BE USED WITH POST TYPE C7, C8 & C9, AND WITH C6 (WHEN FOOTING SIZE IS 25" OR LARGER).
2. SEE TABLE 2 ON S7.1 FOR ATTACHMENT TO FOOTING/SLAB.
3. INSTALL 1¼ x 1¼ x ⅛ HDG WELDED WASHER PLATE WHEN HOLE DIAMETER IS MORE THAN ⅛" BIGGER THAN ANCHOR BOLT DIAMETER.
4. THIS BRACKET CAN ALSO BE USED FOR POST TYPE C2, C5, OR C6 (ALL FOOTING SIZES) SEE TABLE 2 ON L7.1 AND 7/L7.1 FOR ANCHORAGE REQUIREMENTS.

4 STEEL POST SLEEVE FOR POSTS C7, C8, C9 3/4"=1'-0"



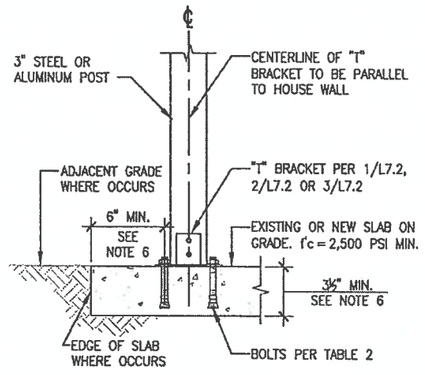
NOTES:
1. BRACKET LENGTH IS 2.75"
2. THIS BRACKET IS TO BE USED WITH POST TYPE C1, WITH OR WITHOUT SIDE PLATES PER SP3 OR SP4.
3. SEE TABLE 2 ON L7.1 FOR ATTACHMENT TO FOOTING/SLAB.
4. INSTALL 1¼ x 1¼ x ⅛ HDG WASHER PLATE AT ANCHORS FOR 130 MPH

1 ALUMINUM T-BRACKET FOR POST C1 3"=1'-0"

TABLE 3 - (MAX WIND SPEED: 130MPH, EXP C) MAXIMUM POST SPACING WHEN PATIO COVER IS INSTALLED ON SLAB ON GRADE				
TRIB WIDTH	LATTICE FRAMING			
	LL/GSL (psf)		GSL (psf)	
	10 psf	20 psf	25 psf	30 psf
5'	13'-7"	11'-0"	10'-4"	9'-0"
6'	11'-4"	9'-9"	9'-0"	8'-4"
7'	9'-8"	9'-0"	8'-0"	7'-6"
8'	8'-6"	8'-6"	7'-6"	7'-0"
9'	7'-7"	8'-0"	7'-0"	NP
10'	6'-9"	7'-6"	NP	NP
11'	6'-2"	7'-0"	NP	NP
12'	5'-8"	6'-6"	NP	NP

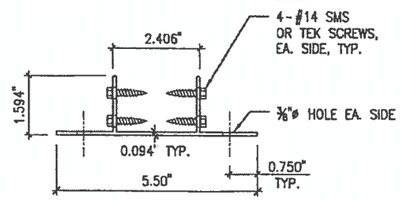
NOTES:
1 - "NP" INDICATES THAT A FOOTING IS REQUIRED, AND THE PATIO COVER CAN NOT BE SUPPORTED ON A SLAB ON GRADE.
2 - FOR LIVE OR SNOW LOADS HIGHER THAN THE ONES SHOWN ON THIS TABLE, A FOOTING IS REQUIRED AND THE PATIO COVER CANNOT BE INSTALLED ON SLAB ON GRADE.

TABLE 4 - (MAX WIND SPEED: 130MPH, EXP C) MAXIMUM TWO POST ATTACHED STRUCTURE WIDTH WHEN PATIO COVER IS INSTALLED ON SLAB ON GRADE				
TRIB WIDTH (ft)	LATTICE RAFTERS			
	LL/GSL (psf)		GSL (psf)	
	10 psf	20 psf	25 psf	30 psf
5	27'-2"	22'-0"	20'-8"	18'-0"
6	22'-8"	19'-6"	18'-0"	16'-8"
7	19'-4"	18'-0"	16'-0"	15'-0"
8	17'-0"	17'-0"	15'-0"	14'-0"
9	15'-2"	16'-0"	14'-0"	NP
10	13'-6"	15'-0"	NP	NP
11	12'-4"	14'-0"	NP	NP
12	11'-4"	13'-0"	NP	NP



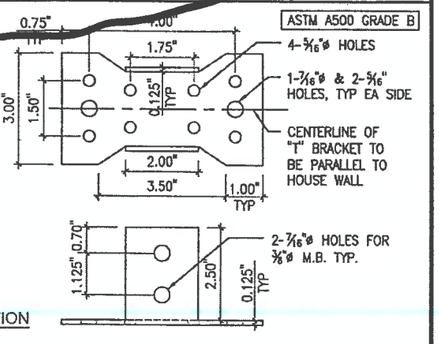
NOTES:
1. THIS DETAIL CAN BE USED WITH POST TYPES C1, C2, C5, OR C6.
2. TABLES 3 AND 4 IN THIS DETAIL CAN BE USED FOR FREESTANDING STRUCTURES AND/OR COMMERCIAL APPLICATIONS, BUT THE STRUCTURE CANNOT BE INSTALLED ON A SLAB ON GRADE AND REQUIRES A FOOTING PER S8.xx.x.
3. THIS DETAIL SHALL NOT BE USED FOR POST TYPE C10 & C11.
4. SEE "SLAB ON GRADE USED AS A FOUNDATION SYSTEM" NOTES ON G0.1 FOR MINIMUM OVERALL DIMENSION OF SLAB AND ACCEPTABLE CRACKING AND CONTROL/EXPANSION JOINTS CRITERIA.
5. WHEN THE PATIO COVER IS INSTALLED ON A SLAB ON GRADE (RESIDENTIAL APPLICATIONS ONLY), THE MAXIMUM POST SPACING IS THE LOWEST OF THE "MAX POST SPACING (SPAN)" SHOWN ON L8.XX.1 AND THE MAXIMUM POST SPACING SHOWN IN TABLE 3.
6. SEE NOTE 2 ON 4/L7.1 FOR ALTERNATE.
7. THIS DETAIL CAN ONLY BE USED IN AREAS WITH A FROST DEPTH EQUAL TO ZERO.
8. SEE "GENERAL NOTES - SLAB ON GRADE USED AS A FOUNDATION SYSTEM" NOTES ON G0.1 FOR MORE INFORMATION.

9 "T" BRACKET CONNECTION TO SLAB ON GRADE 1"=1'-0"



NOTES:
1. BRACKET LENGTH IS 2.75".
2. THIS BRACKET IS TO BE USED WITH POST TYPE C2 OR C5, WITH OR WITHOUT SIDE PLATES PER SP3 OR SP4.
3. SEE TABLE 2 ON L7.1 FOR ATTACHMENT TO FOOTING/SLAB.
4. INSTALL 1½ x 1½ x ⅛ HDG WASHER PLATE AT ANCHORS FOR 130 MPH.
5. STEEL T-BRACKET PER 3/L7.2 CAN BE USED IN LIEU OF THIS BRACKET.

2 ALUMINUM T-BRACKET FOR POSTS C2, C5 3"=1'-0"



NOTES:
1. THIS BRACKET IS TO BE USED WITH POST TYPE C6 WHEN FOOTING SIZE IS 24" OR SMALLER, WITH OR WITHOUT SIDE PLATES PER SP3 OR SP4.
2. BRACKET CAN ALSO BE USED WITH POST TYPE C2 OR C5 PER TABLE 2 ON L7.1 AND 2/L7.1
3. SEE TABLE 2 ON L7.1 FOR ATTACHMENT TO FOOTING/SLAB.

3 STEEL T-BRACKET FOR POST C6 3"=1'-0"

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AHU APPROVAL

PATIO COVER SYSTEMS BY DURALUM - V3.1.3

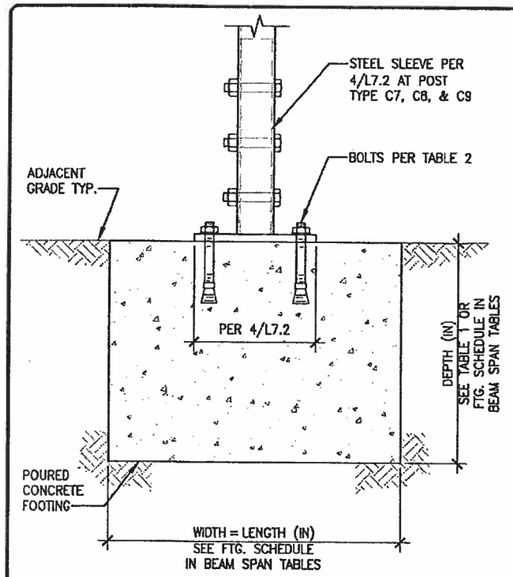
THESE DRAWINGS REPRESENT THE DESIGNS EVALUATED BY IAPMO UES AND REFERENCED IN THE FOLLOWING EVALUATION REPORT :

IAPMO-UES ER-195
VALID THROUGH JUNE 30, 2025

4 STEL JOB #	DA02-03
DATE	06/06/24
DRAWN BY	RWC
CHECKED	MDS

LATTICE STRUCTURES: FOUNDATION DETAILS

L7.2



NOTES:
1. THIS DETAIL CAN BE USED FOR STEEL POST TYPES C6, C7, C8, OR C9.
2. THIS DETAIL SHALL NOT BE USED FOR ALUMINUM POST TYPE C1 OR ALUMINUM POST TYPES C2 OR C5.
3. IT IS ACCEPTABLE TO EMBED THE STEEL POST DIRECTLY INTO THE FOOTING PER 5/L7.1 INSTEAD OF USING THE POST SLEEVE SHOWN IN THIS DETAIL.
4. THIS DETAIL CAN BE USED AT FREESTANDING OR AT ATTACHED STRUCTURES.

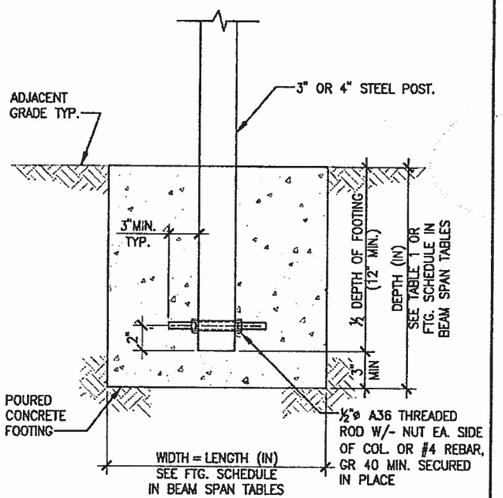
7 STEEL POST SLEEVE CONNECTION TO CONCRETE FOOTING 1"=1'-0"

TABLE 2 - ANCHORAGE SCHEDULE

BRACKET	DETAIL	POST TYPE	FTG (IN)	ANCHOR BOLTS (SEE NOTE 2)	SEE NOTES
ALUM T	1/L7.2	C1	SOG	(2)-3/8" dia w/ 1-7/8" embed	
ALUM T	1/L7.2	C1	ALL	(2)-3/8" dia w/ 2-7/8" embed	
ALUM T	2/L7.2	C2	SOG	(2)-3/8" dia w/ 1-7/8" embed	3
ALUM T	2/L7.2	C2	ALL	(2)-3/8" dia w/ 2-7/8" embed	3
ALUM T	2/L7.2	C5	SOG	(2)-3/8" dia w/ 1-7/8" embed	3
ALUM T	2/L7.2	C5	ALL	(2)-3/8" dia w/ 2-7/8" embed	3
STEEL T	3/L7.2	C6	SOG	(2)-3/8" dia w/ 1-7/8" embed	
STEEL T	3/L7.2	C6	≤ 22"	(2)-3/8" dia w/ 2-7/8" embed	1,3,4
STEEL T	3/L7.2	C6	≤ 24"	(2)-1/2" dia w/ 3-1/4" embed	1,3,4
STEEL INS	4/L7.2	C6	≤ 30"	(4)-1/2" dia w/ 3-1/4" embed	1,4
STEEL INS	4/L7.2	C6	≤ 34"	(4)-5/8" dia w/ 4" embed	1,4
STEEL INS	4/L7.2	C6	≥ 35"	(4)-3/4" dia w/ 4-3/4" embed	1,4
STEEL INS	4/L7.2	C7, C8, C9	ALL	(4)-3/4" dia w/ 4-3/4" embed	1,5
EMBED	5/L7.1	C10,C11	ALL	N/A	

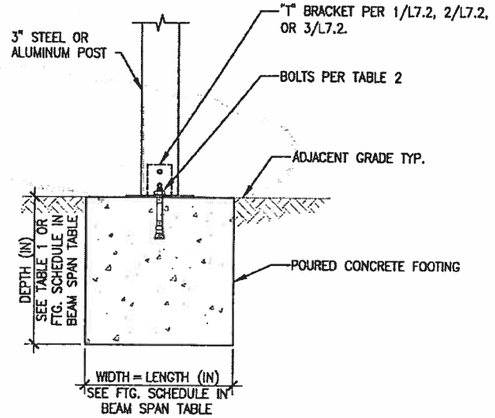
NOTES:
1 - "FTG (IN)" IS THE FOOTING DIMENSION REFERENCED IN BEAM SPAN TABLES ON SHEETS L8.xx.x
2 - ANCHOR BOLTS SHALL BE SIMPSON STRONG BOLT 2, STAINLESS STEEL (ICC-ESR 3037). HILTI KB-TZ SS CAN ALSO BE USED WITH A 4" SLAB, AND A REDUCED EDGE DISTANCE OF 3 1/2" (ICC-ESR-1917).
3 - IT IS ACCEPTABLE TO USE THE STEEL INSERT PER 4/L7.2 INSTEAD OF THE ALUMINUM T PER 2/L7.2 FOR POST TYPES C2 AND C5OR INSTEAD OF THE STEEL T PER 3/L7.2 FOR POST TYPE C6. BOLTS CAN REMAIN AS SPECIFIED IN THIS TABLE, BUT (4) BOLTS SHALL BE USED. SEE NOTE 6.
4 - IT IS ACCEPTABLE TO USE THE EMBEDDED POST DETAIL 5/L7.1 INSTEAD OF THE STEEL INSERT OR STEEL T FOR STEEL POSTS C6.
5 - IT IS ACCEPTABLE TO USE THE EMBEDDED POST DETAIL 5/L7.1 INSTEAD OF THE STEEL INSERT FOR STEEL POSTS C7, C8 AND C9.

4 ANCHORAGE OF POSTS TO SLAB OR FOOTING



NOTES:
1. THIS DETAIL IS TO BE USED FOR POST TYPES C10 & C11.
2. THIS DETAIL CAN ALSO BE USED FOR STEEL POST TYPES C6, C7, C8, C9 PER TABLE 2 ON L7.1.
3. THIS DETAIL SHALL NOT BE USED FOR ALUMINUM POST TYPES C1, C2, OR C5.
4. THIS DETAIL CAN BE USED AT FREESTANDING OR AT ATTACHED STRUCTURES.

5 STEEL POST EMBEDDED INTO CONCRETE FOOTING 1"=1'-0"



NOTES:
1. THIS DETAIL SHALL NOT BE USED FOR FREESTANDING STRUCTURES.
2. THIS DETAIL SHALL NOT BE USED FOR POST TYPE C7, C8, C9, C10, C11.

2 "T" BRACKET CONNECTION TO CONCRETE FOOTING 1"=1'-0"

TABLE 1
ALTERNATE FOOTING DIMENSIONS

FTG (IN) W = L = D (SEE NOTE 1)	Alt 1 W x L x D (SEE NOTE 2)	Alt 2 W x L x D (SEE NOTE 3)	Alt 3 (ATTACHED) W x L x 18" (SEE NOTE 4)	Alt 4 W x L x 18" (SEE NOTE 5)	Alt 5 W x L x 24" (SEE NOTE 6)	Alt 6 W x L x 30" (SEE NOTE 7)	Alt 7 W x L x 36" (SEE NOTE 8)	Alt 8 W x L x 42" (SEE NOTE 9)
18	18 x 18 x 18	12 x 12 x 12	18 x 18 x 18	18 x 18 x 18	16 x 16 x 24	14 x 14 x 30	13 x 13 x 36	12 x 12 x 42
20	20 x 20 x 20	12 x 12 x 12	21 x 21 x 18	25 x 25 x 18	19 x 19 x 24	17 x 17 x 30	15 x 15 x 36	14 x 14 x 42
22	22 x 22 x 22	16 x 16 x 16	25 x 25 x 18	33 x 33 x 18	21 x 21 x 24	19 x 19 x 30	17 x 17 x 36	16 x 16 x 42
24	24 x 24 x 24	20 x 20 x 20	28 x 28 x 18	43 x 43 x 18	24 x 24 x 24	22 x 22 x 30	20 x 20 x 36	18 x 18 x 42
26	26 x 26 x 26	23 x 23 x 23	32 x 32 x 18		31 x 31 x 24	24 x 24 x 30	22 x 22 x 36	21 x 21 x 42
28	28 x 28 x 28	25 x 25 x 25	35 x 35 x 18		38 x 38 x 24	27 x 27 x 30	25 x 25 x 36	23 x 23 x 42
30	30 x 30 x 30	28 x 28 x 28	39 x 39 x 18			30 x 30 x 30	28 x 28 x 36	26 x 26 x 42
32	32 x 32 x 32	30 x 30 x 30	43 x 43 x 18			37 x 37 x 30	30 x 30 x 36	28 x 28 x 42
34	34 x 34 x 34	32 x 32 x 32	47 x 47 x 18				33 x 33 x 36	31 x 31 x 42
36	36 x 36 x 36	34 x 34 x 34	51 x 51 x 18				36 x 36 x 36	34 x 34 x 42
38	38 x 38 x 38	37 x 37 x 37	55 x 55 x 18				43 x 43 x 36	36 x 36 x 42
40	40 x 40 x 40	39 x 39 x 39	60 x 60 x 18					39 x 39 x 42
42	42 x 42 x 42	41 x 41 x 41	64 x 64 x 18					42 x 42 x 42
44	44 x 44 x 30							
46	46 x 46 x 30							
48	48 x 48 x 30							
50	50 x 50 x 30							
52	52 x 52 x 30							
54	54 x 54 x 30							
56	56 x 56 x 30							
58	58 x 58 x 30							
60	60 x 60 x 30							
62	62 x 62 x 30							
64	64 x 64 x 30							
66	66 x 66 x 30							
68	68 x 68 x 30							
70	70 x 70 x 30							
72	72 x 72 x 30							
74	74 x 74 x 30							
76	76 x 76 x 30							
78	78 x 78 x 30							
80	80 x 80 x 30							
82	82 x 82 x 30							
84	84 x 84 x 30							
86	86 x 86 x 30							
88	88 x 88 x 30							
90	90 x 90 x 30							

NOTES:
1 - "FTG (IN)" IS THE FOOTING DIMENSION REFERENCED IN BEAM SPAN TABLES ON SHEETS S8.xx.x OR L8.xx.x.
2 - "ALT 1" IS THE FOOTING DIMENSION BASED ON THE "FTG (IN)" DIMENSION. NOTE THAT W=D=L.
3 - "ALT 2" IS THE ALTERNATE FOOTING DIMENSION REQUIRED WHEN A 3.5" MIN THICK SLAB IS PRESENT ABOVE THE FOOTING. NOTE THAT W=D=L.
4 - "ALT 3" IS THE ALTERNATE FOOTING DIMENSION REQUIRED WHEN THE FOOTING IS KEPT TO AN 18" DEPTH FOR UPLIFT DESIGN ONLY. THIS VALUE IS TO BE USED ONLY AT ATTACHED PATIO STRUCTURES. NOTE THAT W=L AND D=18".
5 - "ALT 4" IS THE ALTERNATE FOOTING DIMENSION REQUIRED WHEN THE FOOTING IS KEPT TO AN 18" DEPTH. NOTE THAT W=L AND D=18".
6 - "ALT 5" IS THE ALTERNATE FOOTING DIMENSION REQUIRED WHEN THE FOOTING IS KEPT TO AN 24" DEPTH. NOTE THAT W=L AND D=24".
7 - "ALT 6" IS THE ALTERNATE FOOTING DIMENSION REQUIRED WHEN THE FOOTING IS KEPT TO AN 30" DEPTH. NOTE THAT W=L AND D=30".
8 - "ALT 7" IS THE ALTERNATE FOOTING DIMENSION REQUIRED WHEN THE FOOTING IS KEPT TO AN 36" DEPTH. NOTE THAT W=L AND D=36".
9 - "ALT 8" IS THE ALTERNATE FOOTING DIMENSION REQUIRED WHEN THE FOOTING IS KEPT TO AN 42" DEPTH. NOTE THAT W=L AND D=42".

3 FOUNDATION TABLES

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AHU APPROVAL

PATIO COVER SYSTEMS BY DURALUM - V3.1.3

THESE DRAWINGS REPRESENT THE DESIGNS EVALUATED BY IAPMO UES AND REFERENCED IN THE FOLLOWING EVALUATION REPORT :

IAPMO-UES ER-195
VALID THROUGH JUNE 30, 2025

4 STEL JOB #	DA02-03
DATE	06/06/24
DRAWN BY	RWC
CHECKED	MDS

LATTICE STRUCTURES: FOUNDATION DETAILS

L7.1

ATTACHED & FREESTANDING LATTICE COVERS - 10 PSF SNOW LOAD OR LIVE LOAD - 110 MPH - EXP. B & C

		B5 3" SQ. ALUM W/ 12 GA STL"U" CHANNEL						B10 DBL 2 x6.5 x 0.032						B11 3 x 8 x 0.042					
		ATTACHED			FREESTANDING			ATTACHED			FREESTANDING			ATTACHED			FREESTANDING		
TRIB WIDTH	WIND EXP	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE
5'	110 B	16'-9"	15	C1	14'-7"	29	C7	14'-10"	15	C1	14'-10"	28	C7	15'-4"	15	C1	15'-4"	28	C7
	110 C	16'-9"	17		14'-7"	31	C8	14'-10"	17		14'-6"	30		15'-4"	17		15'-1"	30	
6'	110 B	15'-3"	16	C1	13'-3"	28	C7	13'-7"	15	C1	13'-7"	28	C7	14'-1"	15	C1	14'-1"	28	C7
	110 C	15'-3"	18		13'-3"	30	C8	13'-7"	17		13'-3"	29		14'-1"	17		13'-9"	29	
7'	110 B	14'-2"	16	C1	12'-4"	28	C7	12'-7"	15	C1	12'-7"	28	C7	13'-1"	15	C1	13'-1"	28	C7
	110 C	14'-2"	18		12'-4"	30		12'-7"	17		12'-3"	29		13'-1"	17		12'-9"	29	
8'	110 B	13'-3"	16	C1	11'-7"	29	C7	11'-9"	16	C1	11'-9"	28	C7	12'-3"	16	C1	12'-3"	28	C7
	110 C	13'-3"	19		11'-7"	29		11'-9"	18		11'-6"	28		12'-3"	18		12'-0"	28	
9'	110 B	12'-7"	17	C2	11'-0"	29	C7	11'-2"	16	C1	11'-2"	29	C7	11'-7"	16	C1	11'-7"	29	C7
	110 C	12'-7"	19		11'-0"	29		11'-2"	18		10'-10"	28		11'-7"	18		11'-3"	28	
10'	110 B	12'-0"	17	C2	10'-4"	30	C7	10'-7"	16	C1	10'-7"	29	C7	11'-0"	16	C1	11'-0"	29	C7
	110 C	12'-0"	19		10'-4"	30		10'-7"	19		10'-3"	29		11'-0"	19		10'-8"	29	
11'	110 B	11'-4"	17	C2	9'-10"	30	C8	10'-1"	17	C1	10'-1"	29	C7	10'-6"	17	C1	10'-6"	29	C7
	110 C	11'-4"	20		9'-10"	30		10'-1"	19		9'-10"	29		10'-6"	19		10'-1"	29	
12'	110 B	10'-10"	18	C2	9'-6"	30	C8	9'-8"	17	C2	9'-8"	29	C7	9'-8"	17	C2	9'-8"	29	C7
	110 C	10'-10"	20		9'-6"	30		9'-8"	19		9'-6"	29		9'-8"	19		9'-2"	29	

		B9 DBL 2 x6.5 x 0.042						B12 DBL 3 x 8 x 0.042						B13 3 x 8 x 0.042 W/ 14 GA STL INSERT					
		ATTACHED			FREESTANDING			ATTACHED			FREESTANDING			ATTACHED			FREESTANDING		
TRIB WIDTH	WIND EXP	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE
5'	110 B	18'-0"	15	C1	18'-0"	29	C7	21'-8"	16	C1	21'-8"	31	C7	20'-9"	16	C1	20'-9"	31	C7
	110 C	18'-0"	18		17'-6"	31		21'-8"	19		21'-2"	33	C8	20'-9"	18		20'-2"	33	C8
6'	110 B	16'-4"	16	C1	16'-4"	29	C7	19'-9"	17	C2	19'-9"	30	C7	19'-0"	17	C1	19'-0"	30	C7
	110 C	16'-4"	18		16'-0"	30		19'-9"	19		19'-3"	32		19'-0"	19		18'-6"	32	
7'	110 B	15'-2"	16	C1	15'-2"	29	C7	18'-4"	17	C2	18'-4"	30	C7	17'-7"	17	C2	17'-7"	30	C7
	110 C	15'-2"	19		14'-10"	30		18'-4"	20		17'-10"	31		17'-7"	19		17'-1"	31	
8'	110 B	14'-3"	17	C1	14'-3"	29	C7	17'-2"	18	C2	17'-2"	31	C7	16'-6"	18	C2	16'-6"	31	C7
	110 C	14'-3"	19		13'-10"	29		17'-2"	20		16'-9"	31		16'-6"	20		16'-1"	31	
9'	110 B	13'-6"	17	C2	13'-6"	30	C7	16'-3"	18	C5	16'-3"	31	C7	15'-6"	18	C2	15'-6"	31	C7
	110 C	13'-6"	19		13'-1"	30		16'-3"	21		15'-9"	31		15'-6"	20		15'-2"	31	
10'	110 B	12'-9"	17	C2	12'-9"	30	C7	15'-4"	18	C5	15'-4"	32	C7	14'-9"	18	C5	14'-9"	32	C7
	110 C	12'-9"	20		12'-6"	30		15'-4"	21		15'-1"	32		14'-9"	21		14'-4"	32	
11'	110 B	12'-2"	18	C2	12'-2"	31	C7	14'-8"	19	C5	14'-8"	32	C7	14'-1"	19	C5	14'-1"	32	C7
	110 C	12'-2"	20		11'-10"	30		14'-8"	21		14'-4"	32		14'-1"	21		13'-8"	32	
12'	110 B	11'-8"	18	C2	11'-8"	31	C7	14'-1"	19	C5	14'-1"	32	C7	13'-6"	19	C5	13'-6"	32	C7
	110 C	11'-8"	20		11'-4"	31		14'-1"	22		13'-9"	32		13'-6"	21		13'-2"	32	

		B14 3 x 8 x 0.042 BEAM W/ 12 GA STL INSERT						B15 DBL 3 x 8 x 0.042 W/ DBL 14 GA STL INSERT						B16 DBL 3 x 8 x 0.042 W/ DBL 12 GA STL INSERT					
		ATTACHED			FREESTANDING			ATTACHED			FREESTANDING			ATTACHED			FREESTANDING		
TRIB WIDTH	WIND EXP	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE
5'	110 B	22'-8"	17	C1	22'-8"	31	C7	29'-2"	18	C2	29'-2"	33	C8	32'-0"	19	C5	32'-0"	34	C8
	110 C	22'-8"	19		22'-1"	33	C8	29'-2"	21		28'-6"	36	C9	32'-0"	21		31'-2"	36	C11
6'	110 B	20'-8"	17	C2	20'-8"	31	C7	26'-8"	19	C5	26'-8"	33	C8	29'-2"	19	C5	29'-2"	33	C8
	110 C	20'-8"	20		20'-2"	32		26'-8"	21		26'-0"	35	C9	29'-2"	22		28'-6"	38	C9
7'	110 B	19'-2"	18	C2	19'-2"	31	C7	24'-8"	19	C5	24'-8"	33	C8	27'-1"	20	C5	27'-1"	33	C8
	110 C	19'-2"	20		19'-2"	32		24'-8"	22		24'-1"	34		27'-1"	22		26'-4"	35	C9
8'	110 B	18'-0"	18	C2	18'-0"	31	C7	23'-2"	20	C5	23'-2"	33	C8	25'-3"	20	C5	25'-3"	34	C8
	110 C	18'-0"	21		[illegible]			23'-2"	22		22'-7"	33		25'-3"	23		24'-8"	34	
9'	110 B	17'-0"	18	C5	17'-0"	32	C7	21'-10"	20	C5	21'-10"	34	C8	23'-10"	21	C5	23'-10"	35	C9
	110 C	17'-0"	21		17'-0"	31		21'-10"	23		21'-3"	34		23'-10"	23		23'-3"	34	C8
10'	110 B	16'-1"	19	C5	16'-1"	32	C7	20'-9"	20	C5	20'-9"	34	C8	22'-8"	21	C5	22'-8"	35	C9
	110 C	16'-1"	21		16'-1"	32		20'-9"	23		20'-2"	34		22'-8"	24		22'-1"	35	
11'	110 B	15'-4"	19	C5	15'-4"	32	C7	19'-9"	21	C5	19'-9"	35	C9	21'-8"	21	C5	21'-8"	36	C9
	110 C	15'-4"	22		15'-4"	32		19'-9"	24		19'-3"	34		21'-8"	24		21'-1"	35	
12'	110 B	14'-9"	19	C5	14'-9"	32	C8	19'-0"	21	C5	19'-0"	35	C9	20'-8"	22	C5	20'-8"	36	C11
	110 C	14'-9"	22		14'-9"	33		19'-0"	24		18'-6"	35		20'-8"	25		20'-2"	36	C10

		B18 3 x 8 x 0.042 W/ 12 GA STL U-INSERT						B19 3 x 8 x 0.042 W/ DBL 12 GA STL U-INSERT					
		ATTACHED			FREESTANDING			ATTACHED			FREESTANDING		
TRIB WIDTH	WIND EXP	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE	MAX POST SPACING (SPAN)	FTG (IN)	MIN POST TYPE
5'	110 B	25'-10"	17	C6	25'-10"	42	C8	32'-6"	18	C6	32'-6"	49	C8
	110 C	22'-11"	19	C6	22'-11"	41	C11	28'-11"	21	C6	28'-11"	47	C11
6'	110 B	24'-3"	17	C6	24'-3"	48	C8	30'-7"	19	C6	30'-7"	51	C8
	110 C	21'-7"	20	C6	21'-7"	42	C9	27'-2"	21	C6	27'-2"	49	C9
7'	110 B	23'-1"	18	C6	23'-1"	49	C8	29'-1"	19	C8	29'-1"	53	C8
	110 C	20'-6"	21	C6	20'-6"	47	C9	25'-10"	22	C6	25'-10"	51	C9
8'	110 B	22'-1"	18	C6	22'-1"	51	C8	27'-10"	20	C6	27'-10"	54	C8
	110 C	19'-7"	21	C6	19'-7"	49		24'-8"	23	C6	24'-8"	52	
9'	110 B	21'-2"	19	C6	21'-2"	52	C9	26'-9"	20	C6	26'-9"	56	C9
	110 C	18'-10"	22	C6	18'-10"	50	C8	23'-9"	23	C6	23'-9"	54	C8
10'	110 B	20'-6"	19	C6	20'-6"	53	C9	25'-10"	21	C6	25'-10"	57	C9
	110 C	18'-2"	22	C6	18'-2"	51		22'-11"	24	C6	22'-11"	55	
11'	110 B	19'-10"	20	C6	19'-10"	54	C9	25'-0"	21	C6	25'-0"	58	C9
	110 C	17'-7"	23	C7	17'-7"	52		22'-2"	24	C7	22'-2"	56	
12'	110 B	19'-3"	20	C6	19'-3"	55	C11	24'-3"	22	C6	24'-3"	59	C11
	110 C	17'-1"	23	C7	17'-1"	53	C10	21'-7"	25	C7	21'-7"	57	C10

NOTES:
1 - WHEN THE PATIO COVER IS INSTALLED ON A SLAB ON GRADE (RESIDENTIAL APPLICATIONS ONLY), THE MAXIMUM POST SPACING IS THE LOWEST OF THE "MAX POST SPACING (SPAN)" SHOWN ABOVE AND THE MAXIMUM POST SPACINGS SHOWN ON DETAIL 8/L7.1
2 - IT IS ACCEPTABLE TO SUBTITUTE COLUMNS W/ HIGHER NUMBERS W/ THOSE SPECIFIED IN THE TABLES SHOWN.

DURALUM
2485 RAILROAD ST,
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951.736.4500

REGISTERED PROFESSIONAL ENGINEER
DUSTIN K ROSER
S 5885
STRUCTURAL
STATE OF CALIFORNIA

DATE SIGNED: June 6, 2024

4 STEL ENGINEERING
26030 ACERO, SUITE 200
MISSION VIEJO, CA 92691
949.305.1150 | FAX 949.305.1420

AHU APPROVAL

PATIO COVER SYSTEMS
BY DURALUM - V3.1.3

THESE DRAWINGS REPRESENT THE DESIGNS EVALUATED BY IAPMO UES AND REFERENCED IN THE FOLLOWING EVALUATION REPORT :

IAPMO-UES ER-195
VALID THROUGH JUNE 30, 2025

4 STEL JOB #	DA02-03
DATE	06/06/24
DRAWN BY	RWC
CHECKED	MDS

LATTICE STRUCTURES:
BEAM SPANS &
FOUNDATION SIZES
10 PSF LL/SL, 110 MPH

L8.10.1

ATTACHED & FREESTANDING LATTICE COVERS - 10 PSF SNOW LOAD OR LIVE LOAD - 120 MPH - EXP. B & C

B5 — 3" SQ. ALUM W/ 12 GA STL"U" CHANNEL

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG. (IN.)	ATTACHED MIN. POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG. (IN.)	FREESTANDING MIN. POST TYPE
5'	120 B	16'-9"	16	C1	14'-7"	31	C8
	120 C	16'-4"	18		14'-7"	33	C10
6'	120 B	15'-3"	16	C1	13'-3"	30	C8
	120 C	15'-0"	19		13'-3"	32	C9
7'	120 B	14'-2"	17	C1	12'-4"	29	C7
	120 C	13'-10"	19		12'-4"	31	C9
8'	120 B	13'-3"	17	C1	11'-7"	29	C7
	120 C	13'-0"	20		11'-7"	31	C8
9'	120 B	12'-7"	18	C2	11'-0"	29	C7
	120 C	12'-3"	20		11'-0"	30	C8
10'	120 B	12'-0"	18	C2	10'-4"	30	C7
	120 C	11'-8"	21		10'-4"	30	C8
11'	120 B	11'-4"	18	C2	9'-10"	30	C8
	120 C	11'-2"	21		9'-10"	30	
12'	120 B	10'-10"	18	C2	9'-6"	30	C8
	120 C	10'-8"	21		9'-6"	31	

B10 — DBL 2 x 6.5 x 0.032

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG. (IN.)	ATTACHED MIN. POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG. (IN.)	FREESTANDING MIN. POST TYPE
5'	120 B	14'-10"	15	C1	14'-10"	30	C7
	120 C	14'-8"	18		14'-1"	31	
6'	120 B	13'-7"	16	C1	13'-7"	29	C7
	120 C	13'-4"	18		12'-10"	31	
7'	120 B	12'-7"	16	C1	12'-7"	29	C7
	120 C	12'-4"	19		12'-0"	30	
8'	120 B	11'-9"	17	C1	11'-9"	28	C7
	120 C	11'-8"	19		11'-2"	30	
9'	120 B	11'-2"	17	C1	11'-2"	29	C7
	120 C	11'-0"	20		10'-7"	29	
10'	120 B	10'-7"	17	C1	10'-7"	29	C7
	120 C	10'-6"	20		10'-1"	29	
11'	120 B	10'-1"	17	C1	10'-1"	29	C7
	120 C	10'-0"	20		9'-7"	29	
12'	120 B	9'-8"	18	C2	9'-8"	29	C7
	120 C	9'-7"	21		9'-2"	30	

B11 — 3 x 8 x 0.042

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG. (IN.)	ATTACHED MIN. POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG. (IN.)	FREESTANDING MIN. POST TYPE
5'	120 B	15'-4"	15	C1	15'-4"	30	C7
	120 C	15'-2"	18		14'-7"	31	
6'	120 B	14'-1"	16	C1	14'-1"	29	C7
	120 C	13'-10"	18		13'-4"	31	
7'	120 B	13'-1"	16	C1	13'-1"	29	C7
	120 C	12'-10"	19		12'-4"	30	
8'	120 B	12'-3"	17	C1	12'-3"	28	C7
	120 C	12'-1"	19		11'-7"	30	
9'	120 B	11'-7"	17	C1	11'-7"	29	C7
	120 C	11'-4"	20		11'-0"	29	
10'	120 B	11'-0"	17	C1	11'-0"	29	C7
	120 C	10'-9"	20		10'-4"	29	
11'	120 B	10'-6"	17	C1	10'-6"	29	C7
	120 C	10'-3"	20		9'-6"	29	
12'	120 B	9'-8"	18	C2	9'-8"	29	C7
	120 C	9'-4"	21		8'-9"	30	

B9 — DBL 2 x 6.5 x 0.042

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG. (IN.)	ATTACHED MIN. POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG. (IN.)	FREESTANDING MIN. POST TYPE
5'	120 B	18'-0"	16	C1	18'-0"	31	C7
	120 C	17'-8"	19		17'-0"	31	C8
6'	120 B	16'-4"	17	C1	16'-4"	30	C7
	120 C	16'-2"	19		15'-7"	30	
7'	120 B	15'-2"	17	C1	15'-2"	30	C7
	120 C	15'-0"	20		14'-4"	30	
8'	120 B	14'-3"	18	C1	14'-3"	29	C7
	120 C	14'-1"	20	C2	13'-6"	29	
9'	120 B	13'-6"	18	C2	13'-6"	30	C7
	120 C	13'-3"	21		12'-9"	30	
10'	120 B	12'-9"	18	C2	12'-9"	30	C7
	120 C	12'-7"	21		12'-1"	30	
11'	120 B	12'-2"	19	C2	12'-2"	31	C7
	120 C	12'-0"	21		11'-7"	30	
12'	120 B	11'-8"	19	C2	11'-8"	31	C7
	120 C	11'-6"	22		11'-1"	31	

B12 — DBL 3 x 8 x 0.042

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG. (IN.)	ATTACHED MIN. POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG. (IN.)	FREESTANDING MIN. POST TYPE
5'	120 B	21'-8"	17	C1	21'-8"	33	C8
	120 C	21'-4"	20		20'-7"	34	
6'	120 B	19'-9"	18	C2	19'-9"	32	C7
	120 C	19'-7"	21		18'-9"	34	C8
7'	120 B	18'-4"	18	C2	18'-4"	31	C7
	120 C	18'-1"	21		17'-4"	33	C8
8'	120 B	17'-2"	19	C2	17'-2"	31	C7
	120 C	17'-0"	22		16'-3"	32	
9'	120 B	16'-3"	19	C5	16'-3"	31	C7
	120 C	16'-0"	22		15'-4"	32	
10'	120 B	15'-4"	19	C5	15'-4"	32	C7
	120 C	15'-2"	22		14'-7"	31	
11'	120 B	14'-8"	20	C5	14'-8"	32	C7
	120 C	14'-6"	23		14'-0"	32	
12'	120 B	14'-1"	20	C5	14'-1"	32	C7
	120 C	13'-10"	23		13'-4"	32	C8

B13 — 3 x 8 x 0.042 W/ 14 GA STL INSERT

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG. (IN.)	ATTACHED MIN. POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG. (IN.)	FREESTANDING MIN. POST TYPE
5'	120 B	20'-9"	17	C1	20'-9"	32	C7
	120 C	20'-4"	20		19'-8"	34	C8
6'	120 B	19'-0"	18	C1	19'-0"	32	C7
	120 C	18'-8"	20	C2	18'-0"	33	C8
7'	120 B	17'-7"	18	C2	17'-7"	31	C7
	120 C	17'-3"	21		16'-8"	33	
8'	120 B	16'-6"	18	C2	16'-6"	30	C7
	120 C	16'-2"	21		15'-7"	32	
9'	120 B	15'-6"	19	C2	15'-6"	31	C7
	120 C	15'-3"	22		14'-8"	32	
10'	120 B	14'-9"	19	C5	14'-9"	31	C7
	120 C	14'-6"	22		14'-0"	31	
11'	120 B	14'-1"	19	C5	14'-1"	32	C7
	120 C	13'-10"	23		13'-4"	31	
12'	120 B	13'-6"	20	C5	13'-6"	32	C7
	120 C	13'-3"	23		12'-[illegible]	32	

B14 — 3 x 8 x 0.042 BEAM W/ 12 GA STL INSERT

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG. (IN.)	ATTACHED MIN. POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG. (IN.)	FREESTANDING MIN. POST TYPE
5'	120 B	22'-8"	18	C1	22'-8"	33	C8
	120 C	22'-4"	20	C2	21'-6"	35	C9
6'	120 B	20'-8"	18	C2	20'-8"	32	C7
	120 C	20'-4"	21		19'-8"	34	C8
7'	120 B	19'-2"	19	C2	19'-2"	32	C7
	120 C	18'-10"	21		18'-2"	33	C8
8'	120 B	18'-0"	19	C2	18'-0"	31	C7
	120 C	17'-8"	22		17'-1"	33	C8
9'	120 B	17'-0"	19	C5	17'-0"	32	C7
	120 C	16'-8"	22		16'-1"	32	
10'	120 B	16'-1"	20	C5	16'-1"	32	C7
	120 C	15'-10"	23		15'-3"	32	
11'	120 B	15'-4"	20	C5	15'-4"	32	C7
	120 C	15'-2"	23		14'-7"	32	C8
12'	120 B	14'-9"	20	C5	14'-9"	33	C8
	120 C	14'-6"	23		14'-0"	32	

B15 — DBL 3 x 8 x 0.042 W/ DBL 14 GA STL INSERT

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG. (IN.)	ATTACHED MIN. POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG. (IN.)	FREESTANDING MIN. POST TYPE
5'	120 B	29'-2"	19	C2	29'-2"	35	C9
	120 C	28'-9"	22		27'-8"	37	C11
6'	120 B	26'-8"	20	C5	26'-8"	35	C9
	120 C	26'-3"	23		25'-3"	36	C11
7'	120 B	24'-8"	20	C5	24'-8"	34	C8
	120 C	24'-4"	23		23'-6"	36	C9
8'	120 B	23'-2"	21	C5	23'-2"	33	C8
	120 C	22'-9"	24		22'-0"	35	C9
9'	120 B	21'-10"	21	C5	21'-10"	34	C8
	120 C	21'-6"	24		20'-8"	34	C9
10'	120 B	20'-9"	21	C5	20'-9"	34	C8
	120 C	20'-4"	25		19'-8"	34	
11'	120 B	19'-9"	22	C5	19'-9"	35	C9
	120 C	19'-6"	25		18'-9"	34	
12'	120 B	19'-0"	22	C5	19'-0"	35	C9
	120 C	18'-8"	26		18'-0"	34	

B16 — DBL 3 x 8 x 0.042 W/ DBL 12 GA STL INSERT

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG. (IN.)	ATTACHED MIN. POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG. (IN.)	FREESTANDING MIN. POST TYPE
5'	120 B	32'-0"	20	C5	32'-0"	36	C11
	120 C	32'-0"	23		30'-3"	38	
6'	120 B	29'-2"	20	C5	29'-2"	35	C9
	120 C	29'-2"	23		27'-8"	37	C11
7'	120 B	27'-1"	21	C5	27'-1"	35	C9
	120 C	27'-1"	24		25'-8"	37	C11
8'	120 B	25'-3"	21	C5	25'-3"	34	C8
	120 C	25'-3"	25		24'-0"	36	C11
9'	120 B	23'-10"	22	C5	23'-10"	35	C9
	120 C	23'-10"	25		22'-0"	35	
10'	120 B	22'-8"	22	C5	22'-8"	35	C9
	120 C	22'-8"	26		22'-1"	35	
11'	120 B	21'-8"	22	C5	21'-8"	36	C9
	120 C	21'-8"	26		21'-1"	35	
12'	120 B	20'-8"	23	C5	20'-8"	36	C11
	120 C	20'-8"	26		20'-2"	35	C9

B18 — 3 x 8 x 0.042 W/ 12 GA STL U-INSERT

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG (IN)	ATTACHED MIN POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG (IN)	FREESTANDING MIN POST TYPE
5'	120 B	24'-8"	18	C6	24'-8"	42	C11
	120 C	21'-7"	20	C6	21'-7"	40	
6'	120 B	23'-3"	18	C6	23'-3"	47	C9
	120 C	20'-4"	21	C6	20'-4"	41	C11
7'	120 B	22'-1"	19	C6	22'-1"	48	C9
	120 C	19'-4"	22	C6	19'-4"	46	C11
8'	120 B	21'-1"	19	C6	21'-1"	50	C8
	120 C	18'-6"	22	C6	18'-6"	48	C11
9'	120 B	20'-4"	20	C6	20'-4"	51	C9
	120 C	17'-9"	23	C6	17'-9"	49	
10'	120 B	19'-7"	20	C6	19'-7"	52	C9
	120 C	17'-2"	24	C7	17'-2"	50	
11'	120 B	19'-0"	21	C6	19'-0"	53	C9
	120 C	16'-7"	24	C7	16'-7"	51	
12'	120 B	18'-5"	21	C6	18'-5"	54	C11
	120 C	16'-2"	24	C7	16'-2"	52	C9

B19 — 3 x 8 x 0.042 W/ DBL 12 GA STL U-INSERT

TRIB WIDTH	WIND EXP.	ATTACHED MAX POST SPACING (SPAN)	ATTACHED FTG (IN)	ATTACHED MIN POST TYPE	FREESTANDING MAX POST SPACING (SPAN)	FREESTANDING FTG (IN)	FREESTANDING MIN POST TYPE
5'	120 B	31'-2"	19	C6	31'-2"	49	C11
	120 C	27'-3"	22	C6	27'-3"	46	
6'	120 B	29'-4"	20	C6	29'-4"	50	C9
	120 C	25'-8"	23	C6	25'-8"	48	C11
7'	120 B	27'-10"	20	C6	27'-10"	52	C9
	120 C	24'-4"	23	C6	24'-4"	50	C11
8'	120 B	26'-7"	21	C6	26'-7"	54	C8
	120 C	23'-3"	24	C6	23'-3"	51	C11
9'	120 B	25'-7"	21	C6	25'-7"	55	C9
	120 C	22'-5"	25	C7	22'-5"	53	
10'	120 B	24'-8"	22	C6	24'-8"	56	C9
	120 C	21'-7"	25	C7	21'-7"	54	
11'	120 B	23'-11"	22	C6	23'-11"	58	C9
	120 C	20'-11"	26	C7	20'-11"	55	
12'	120 B	23'-3"	23	C7	23'-3"	59	C11
	120 C	20'-4"	26	C7	20'-4"	56	C9

NOTES:

1 - WHEN THE PATIO COVER IS INSTALLED ON A SLAB ON GRADE (RESIDENTIAL APPLICATIONS ONLY), THE MAXIMUM POST SPACING IS THE LOWEST OF THE "MAX POST SPACING (SPAN)" SHOWN ABOVE AND THE MAXIMUM POST SPACINGS SHOWN ON DETAIL 8/L7.1

2 - IT IS ACCEPTABLE TO SUBTITUTE COLUMNS W/ HIGHER NUMBERS W/ THOSE SPECIFIED IN THE TABLES SHOWN.

DURALUM
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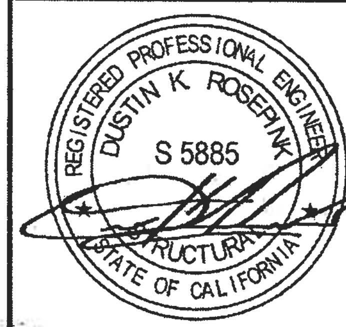

DATE SIGNED: June 6, 2024

4 STEL ENGINEERING
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AHU APPROVAL

PATIO COVER SYSTEMS BY DURALUM - V3.1.3

THESE DRAWINGS REPRESENT THE DESIGNS EVALUATED BY IAPMO UES AND REFERENCED IN THE FOLLOWING EVALUATION REPORT :

IAPMO-UES ER-195
VALID THROUGH JUNE 30, 2025

4 STEL JOB #	DA02-03
DATE	06/06/24
DRAWN BY	RWC
CHECKED	MDS

LATTICE STRUCTURES: BEAM SPANS & FOUNDATION SIZES 10 PSF LL/SL, 120 MPH

L8.10.2