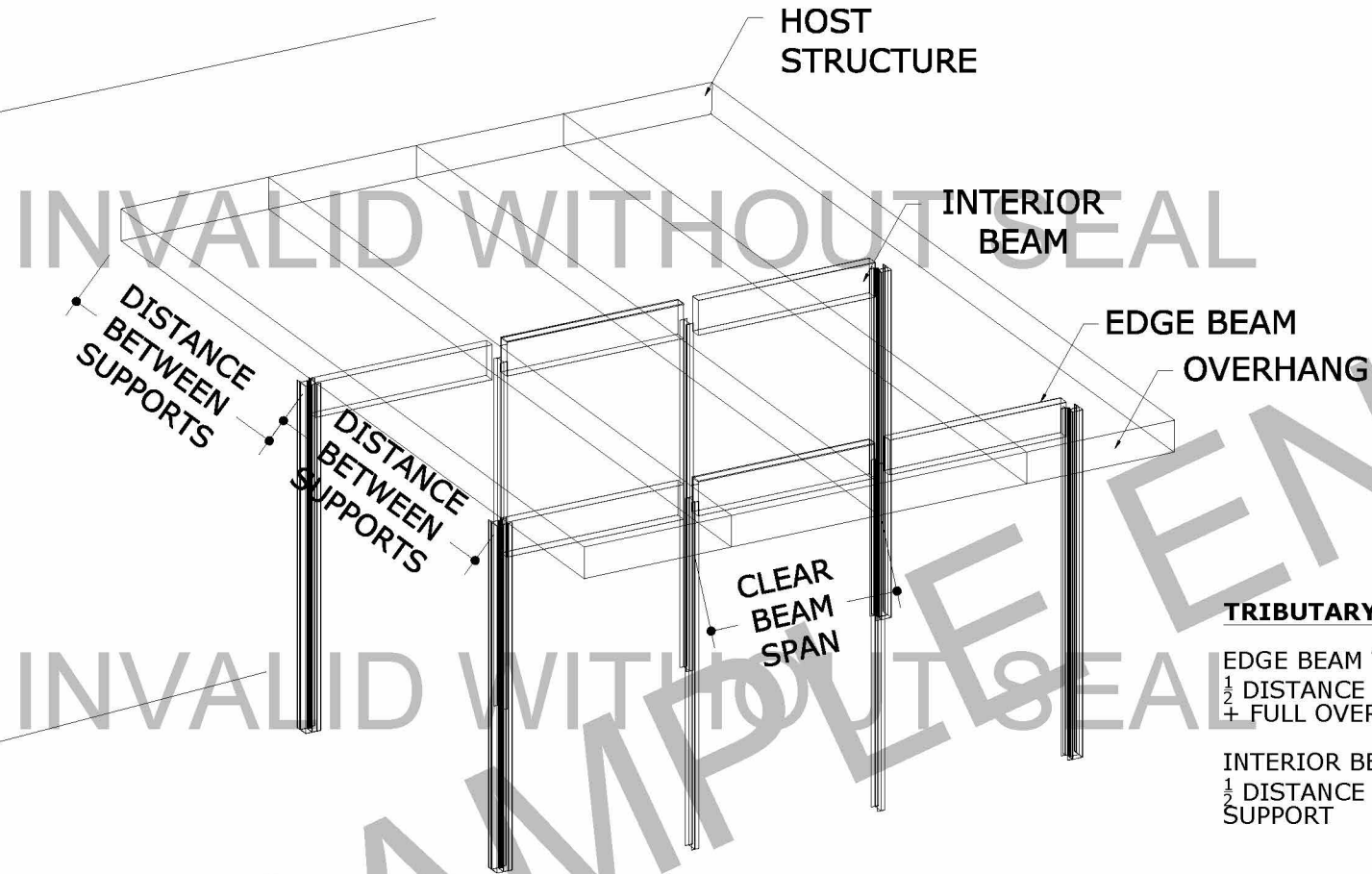




ALUMINUM EDGE / INTERIOR BEAM SPAN
MASTER PLAN CHARTS

FOR USE WITH OPEN, SCREEN,
OR GLASS ENCLOSED STRUCTURES

THIS PLAN DESIGNS LISTED BEAMS ONLY



TRIBUTARY AREA DEFINED

EDGE BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN SUPPORTS
+ FULL OVERHANG LENGTH

INTERIOR BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN EACH ADJACENT
SUPPORT

COPIES OF THIS DOCUMENT NOT VALID FOR PERMIT

LIMIT OF CERTIFICATION:
THESE TABLES CERTIFY BEAM SPANS ONLY. PANEL SPANS AND
CONNECTIONS, AND BEAM CONNECTIONS OR SUPPORTS SHALL BE
PER SEPARATE ENGINEERING IN CONJUNCTION WITH THIS PLAN.

MAXIMUM ALLOWABLE
DESIGN PRESSURES:

AS NOTED IN
DESIGN TABLES

DESIGN NOTES:

POSITIVE & NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE
DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS THIS STRUCTURE HAS BEEN DESIGNED IN
ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE 2012/2015/2018 INTERNATIONAL
BUILDING CODES, 7TH EDITION FLORIDA BUILDING CODE (2020) AS WELL AS CURRENT
VERSIONS OF THE MN, NC, NJ, NY, OH, SC, & VA BUILDING CODES AS APPLICABLE. CODE
ENFORCED COMPLIES WITH STATE OF SEAL AND IF MULTIPLE VERSIONS LISTED THEN MOST
STRINGENT APPLIES.

GENERAL NOTES:

1. CONTRACTOR SHALL INVESTIGATE AND CONFORM TO ALL LOCAL BUILDING CODE
AMENDMENTS WHICH MAY APPLY. DESIGN CRITERIA BEYOND AS STATED HEREIN MAY REQUIRE
ADDITIONAL SITE-SPECIFIC SEALED ENGINEERING.
2. VALUES USE THE ALLOWABLE STRESS (ASD) DESIGN METHOD.
3. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH
THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING
SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.
4. SEPARATE 'SITE-SPECIFIC' SEALED ENGINEERING SHALL BE REQUIRED IN ORDER TO
DEVIATE FROM LOADS, DEFLECTIONS, OR SPANS CONTAINED HEREIN. LINEAR INTERPOLATION
OF THE ALLOWABLE SPAN TABLES LISTED HEREIN SHALL NOT BE PERMITTED. CONTACT THIS
FIRM FOR ALTERNATE SPAN CALCULATIONS AS MAY BE REQUIRED.
5. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A
SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN,
A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS
FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
6. THE CONTRACTOR SHALL CAREFULLY CONSIDER POSSIBLE IMPOSING LOADS ON ROOF,
INCLUDING BUT NOT LIMITED TO ANY CONCENTRATED LOADS WHICH MAY JUSTIFY GREATER
DESIGN CRITERIA. THIS ADDITIONAL ROOF LOAD CRITERIA SHALL BE PROPERLY ANALYZED BY
A LICENSED ENGINEER OR REGISTERED ARCHITECT.
7. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR
MATERIALS TO PREVENT ELECTROLYSIS.
8. ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE
OF THIS SPECIFICATION BY CONTRACTOR, ET. AL. INDEMNIFIES & SAVES HARMLESS THIS
ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING
FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT
WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS
PLAN.
9. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR
AFFIRMATIONS ARE INTENDED.
10. ALTERATIONS, ADDITIONS, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT
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07/15/2021

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OLDSMAR, FL 34677
PH: (813) 855-2627
STRUCTURAL SPAN TABLES
ALUMINUM EDGE & INTERIOR BEAMS

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MAXIMUM ALLOWABLE BEAM SPAN
FOR GIVEN TRIBUTARY WIDTH
(L/60 DEFLECTION LIMIT):

(TYPICAL USE = OPEN & SCREENED)

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"x5"	2"x7"	2"x7" reinforced
10	15'	7' - 0"	14' - 11"	15' - 0"
	14'	8' - 0"	15' - 0"	15' - 0"
	13'	9' - 4"	15' - 0"	15' - 0"
	12'	10' - 11"	15' - 0"	15' - 0"
	11'	13' - 1"	15' - 0"	15' - 0"
	10'	15' - 0"	15' - 0"	15' - 0"
	9'	15' - 0"	15' - 0"	15' - 0"
	8'	15' - 0"	15' - 0"	15' - 0"
	7'	15' - 0"	15' - 0"	15' - 0"
	6'	15' - 0"	15' - 0"	15' - 0"
20	15'	N/A	7' - 5"	7' - 9"
	14'	4' - 0"	8' - 7"	8' - 11"
	13'	4' - 8"	9' - 11"	10' - 4"
	12'	5' - 5"	11' - 8"	12' - 1"
	11'	6' - 6"	13' - 11"	14' - 5"
	10'	7' - 11"	15' - 0"	15' - 0"
	9'	9' - 9"	15' - 0"	15' - 0"
	8'	12' - 4"	15' - 0"	15' - 0"
	7'	15' - 0"	15' - 0"	15' - 0"
	6'	15' - 0"	15' - 0"	15' - 0"
30	15'	N/A	4' - 11"	5' - 2"
	14'	N/A	5' - 8"	5' - 11"
	13'	N/A	6' - 7"	6' - 10"
	12'	N/A	7' - 9"	8' - 1"
	11'	4' - 4"	9' - 3"	9' - 7"
	10'	5' - 3"	11' - 2"	11' - 8"
	9'	6' - 6"	13' - 10"	14' - 4"
	8'	8' - 2"	15' - 0"	15' - 0"
	7'	10' - 9"	15' - 0"	15' - 0"
	6'	14' - 7"	15' - 0"	15' - 0"

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"x5"	2"x7"	2"x7" reinforced
40	15'	N/A	N/A	N/A
	14'	N/A	4' - 3"	4' - 5"
	13'	N/A	4' - 11"	5' - 2"
	12'	N/A	5' - 10"	6' - 0"
	11'	N/A	6' - 11"	7' - 2"
	10'	N/A	8' - 5"	8' - 9"
	9'	4' - 10"	10' - 4"	10' - 9"
	8'	6' - 2"	13' - 1"	13' - 8"
	7'	8' - 0"	15' - 0"	15' - 0"
	6'	10' - 11"	15' - 0"	15' - 0"
50	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	4' - 1"
	12'	N/A	4' - 8"	4' - 10"
	11'	N/A	5' - 6"	5' - 9"
	10'	N/A	6' - 8"	7' - 0"
	9'	N/A	8' - 3"	8' - 7"
	8'	4' - 11"	10' - 6"	10' - 11"
	7'	6' - 5"	13' - 8"	14' - 3"
	6'	8' - 9"	15' - 0"	15' - 0"
60	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	4' - 0"
	11'	N/A	4' - 7"	4' - 9"
	10'	N/A	5' - 7"	5' - 10"
	9'	N/A	6' - 11"	7' - 2"
	8'	4' - 1"	8' - 9"	9' - 1"
	7'	5' - 4"	11' - 5"	11' - 10"
	6'	7' - 3"	15' - 0"	15' - 0"

MAXIMUM ALLOWABLE BEAM SPAN
FOR GIVEN TRIBUTARY WIDTH
(L/120 DEFLECTION LIMIT):

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"x5"	2"x7"	2"x7" reinforced
10	15'	N/A	14' - 11"	15' - 0"
	14'	N/A	15' - 0"	15' - 0"
	13'	N/A	15' - 0"	15' - 0"
	12'	N/A	15' - 0"	15' - 0"
	11'	N/A	15' - 0"	15' - 0"
	10'	15' - 0"	15' - 0"	15' - 0"
	9'	15' - 0"	15' - 0"	15' - 0"
	8'	15' - 0"	15' - 0"	15' - 0"
	7'	15' - 0"	15' - 0"	15' - 0"
	6'	15' - 0"	15' - 0"	15' - 0"
20	15'	N/A	7' - 5"	7' - 9"
	14'	N/A	8' - 7"	8' - 11"
	13'	N/A	9' - 11"	10' - 4"
	12'	N/A	11' - 8"	12' - 1"
	11'	N/A	13' - 11"	14' - 5"
	10'	7' - 11"	15' - 0"	15' - 0"
	9'	9' - 9"	15' - 0"	15' - 0"
	8'	12' - 4"	15' - 0"	15' - 0"
	7'	15' - 0"	15' - 0"	15' - 0"
	6'	15' - 0"	15' - 0"	15' - 0"
30	15'	N/A	4' - 11"	5' - 2"
	14'	N/A	5' - 8"	5' - 11"
	13'	N/A	6' - 7"	6' - 10"
	12'	N/A	7' - 9"	8' - 1"
	11'	N/A	9' - 3"	9' - 7"
	10'	5' - 3"	11' - 2"	11' - 8"
	9'	6' - 6"	13' - 10"	14' - 4"
	8'	8' - 2"	15' - 0"	15' - 0"
	7'	10' - 9"	15' - 0"	15' - 0"
	6'	14' - 7"	15' - 0"	15' - 0"

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"x5"	2"x7"	2"x7" reinforced
40	15'	N/A	N/A	N/A
	14'	N/A	4' - 3"	4' - 5"
	13'	N/A	4' - 11"	5' - 2"
	12'	N/A	5' - 10"	6' - 0"
	11'	N/A	6' - 11"	7' - 2"
	10'	N/A	8' - 5"	8' - 9"
	9'	4' - 10"	10' - 4"	10' - 9"
	8'	6' - 2"	13' - 1"	13' - 8"
	7'	8' - 0"	15' - 0"	15' - 0"
	6'	10' - 11"	15' - 0"	15' - 0"
50	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	4' - 1"
	12'	N/A	4' - 8"	4' - 10"
	11'	N/A	5' - 6"	5' - 9"
	10'	N/A	6' - 8"	7' - 0"
	9'	N/A	8' - 3"	8' - 7"
	8'	4' - 11"	10' - 6"	10' - 11"
	7'	6' - 5"	13' - 8"	14' - 3"
	6'	8' - 9"	15' - 0"	15' - 0"
60	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	4' - 0"
	11'	N/A	4' - 7"	4' - 9"
	10'	N/A	5' - 7"	5' - 10"
	9'	N/A	6' - 11"	7' - 2"
	8'	4' - 1"	8' - 9"	9' - 1"
	7'	5' - 4"	11' - 5"	11' - 10"
	6'	7' - 3"	15' - 0"	15' - 0"

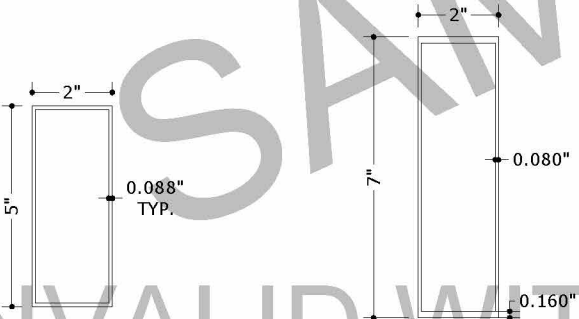
DESIGN TABLE NOTES:

1. BEAM CALCULATIONS CONSIDER VERTICAL LOADS ONLY. WHERE STRUCTURE IS ENCLOSED, DESIGNER SHALL CAREFULLY CONSIDER ADDITIONAL FORCES ON BEAMS TO SECURE & REINFORCE ACCORDINGLY WHICH IS BEYOND THE SCOPE OF THESE PERFORMANCE TABLES.
2. BEAMS HAVE BEEN CALCULATED CONSIDERING THE MAXIMUM BENDING MOMENT, SHEAR AND DEFLECTION DERIVED FROM THE VERTICAL LOADS & TRIBUTARY SPANS APPLIED TO EACH MAX ALLOWABLE SIMPLE BEAM WIDTH AS ILLUSTRATED HEREIN.
3. ALL EXTRUDED ALUMINUM BEAMS SHALL BE 6005-T6, 6061-T6 OR BETTER.
4. DEFLECTION LIMIT SELECTION SHALL BE DETERMINED BY OTHERS AND SHALL MEET THE MINIMUM REQUIREMENTS OF THE GOVERNING CODE.

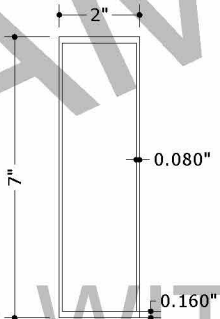
TRIBUTARY AREA DEFINED (SEE S1)

EDGE BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN SUPPORTS
+ FULL OVERHANG LENGTH

INTERIOR BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN EACH ADJACENT SUPPORT

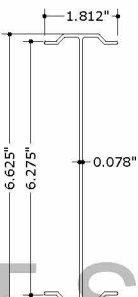


2"x5" EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6



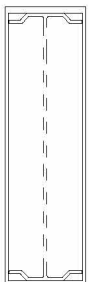
2"x7" EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6

+



2"x7" EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6

=



2"x7" REINFORCED
EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6

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PE#

07/15/2021

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ALUMINUM EDGE & INTERIOR BEAMS

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MAXIMUM ALLOWABLE BEAM SPAN
FOR GIVEN TRIBUTARY WIDTH
(L/180 DEFLECTION LIMIT):

(TYPICAL USE = GLAZED ENCLOSURES)

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"x5"	2"x7"	2"x7" reinforced
10	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	15' - 0"	15' - 0"
	12'	N/A	15' - 0"	15' - 0"
	11'	N/A	15' - 0"	15' - 0"
	10'	N/A	15' - 0"	15' - 0"
	9'	15' - 0"	15' - 0"	15' - 0"
	8'	15' - 0"	15' - 0"	15' - 0"
	7'	15' - 0"	15' - 0"	15' - 0"
	6'	15' - 0"	15' - 0"	15' - 0"
20	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	15' - 0"	15' - 0"
	9'	N/A	15' - 0"	15' - 0"
	8'	N/A	15' - 0"	15' - 0"
	7'	15' - 0"	15' - 0"	15' - 0"
	6'	15' - 0"	15' - 0"	15' - 0"
30	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	11' - 2"	11' - 8"
	9'	N/A	13' - 10"	14' - 4"
	8'	N/A	15' - 0"	15' - 0"
	7'	10' - 9"	15' - 0"	15' - 0"
	6'	14' - 7"	15' - 0"	15' - 0"

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"x5"	2"x7"	2"x7" reinforced
40	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	8' - 5"	8' - 9"
	9'	N/A	10' - 4"	10' - 9"
	8'	N/A	13' - 1"	13' - 8"
	7'	8' - 0"	15' - 0"	15' - 0"
	6'	10' - 11"	15' - 0"	15' - 0"
50	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	6' - 8"	7' - 0"
	9'	N/A	8' - 3"	8' - 7"
	8'	N/A	10' - 6"	10' - 11"
	7'	6' - 5"	13' - 8"	14' - 3"
	6'	8' - 9"	15' - 0"	15' - 0"
60	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	5' - 7"	5' - 10"
	9'	N/A	6' - 11"	7' - 2"
	8'	N/A	8' - 9"	9' - 1"
	7'	5' - 4"	11' - 5"	11' - 10"
	6'	7' - 3"	15' - 0"	15' - 0"

MAXIMUM ALLOWABLE BEAM SPAN
FOR GIVEN TRIBUTARY WIDTH
(L/240 DEFLECTION LIMIT):

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"x5"	2"x7"	2"x7" reinforced
10	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	15' - 0"	15' - 0"
	11'	N/A	15' - 0"	15' - 0"
	10'	N/A	15' - 0"	15' - 0"
	9'	N/A	15' - 0"	15' - 0"
	8'	15' - 0"	15' - 0"	15' - 0"
	7'	15' - 0"	15' - 0"	15' - 0"
	6'	15' - 0"	15' - 0"	15' - 0"
20	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	N/A	N/A
	9'	N/A	15' - 0"	15' - 0"
	8'	N/A	15' - 0"	15' - 0"
	7'	N/A	15' - 0"	15' - 0"
	6'	15' - 0"	15' - 0"	15' - 0"
30	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	N/A	N/A
	9'	N/A	N/A	N/A
	8'	N/A	15' - 0"	15' - 0"
	7'	N/A	15' - 0"	15' - 0"
	6'	N/A	15' - 0"	15' - 0"

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"x5"	2"x7"	2"x7" reinforced
40	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	N/A	N/A
	9'	N/A	N/A	N/A
	8'	N/A	N/A	N/A
	7'	N/A	15' - 0"	15' - 0"
	6'	N/A	15' - 0"	15' - 0"
50	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	N/A	N/A
	9'	N/A	N/A	N/A
	8'	N/A	N/A	N/A
	7'	N/A	13' - 8"	14' - 3"
	6'	N/A	15' - 0"	15' - 0"
60	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	N/A	N/A	N/A
	10'	N/A	N/A	N/A
	9'	N/A	N/A	N/A
	8'	N/A	N/A	N/A
	7'	N/A	11' - 5"	11' - 10"
	6'	N/A	15' - 0"	15' - 0"

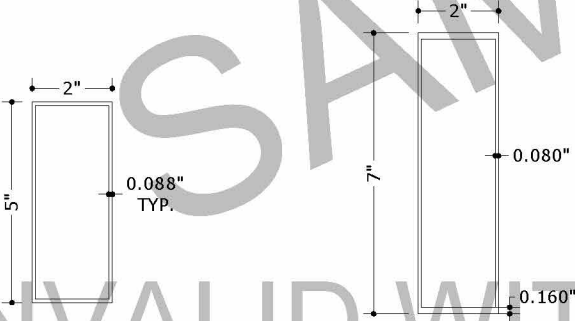
DESIGN TABLE NOTES:

1. BEAM CALCULATIONS CONSIDER VERTICAL LOADS ONLY. WHERE STRUCTURE IS ENCLOSED, DESIGNER SHALL CAREFULLY CONSIDER ADDITIONAL FORCES ON BEAMS TO SECURE & REINFORCE ACCORDINGLY WHICH IS BEYOND THE SCOPE OF THESE PERFORMANCE TABLES.
2. BEAMS HAVE BEEN CALCULATED CONSIDERING THE MAXIMUM BENDING MOMENT, SHEAR AND DEFLECTION DERIVED FROM THE VERTICAL LOADS & TRIBUTARY SPANS APPLIED TO EACH MAX ALLOWABLE SIMPLE BEAM WIDTH AS ILLUSTRATED HEREIN.
3. ALL EXTRUDED ALUMINUM BEAMS SHALL BE 6005-T6, 6061-T6 OR BETTER.
4. DEFLECTION LIMIT SELECTION SHALL BE DETERMINED BY OTHERS AND SHALL MEET THE MINIMUM REQUIREMENTS OF THE GOVERNING CODE.

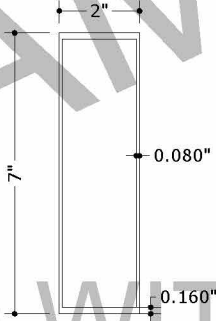
TRIBUTARY AREA DEFINED (SEE S1)

EDGE BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN SUPPORTS
+ FULL OVERHANG LENGTH

INTERIOR BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN EACH ADJACENT SUPPORT

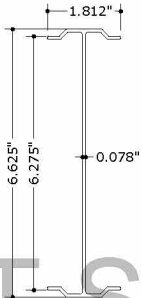


2"x5" EDGE BEAM
N.T.S. 6005-T6 OR 6061-T6



2"x7" EDGE BEAM
N.T.S. 6005-T6 OR 6061-T6

+



2"x7" EDGE BEAM
REINFORCEMENT
N.T.S. 6005-T6 OR 6061-T6

=



2"x7" REINFORCED
EDGE BEAM
N.T.S. 6005-T6 OR 6061-T6

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STRUCTURAL SPAN TABLES
ALUMINUM EDGE & INTERIOR BEAMS

REMARKS
INITIALS
DATE
05/29/20
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07/15/2021 - 3:11pm
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MAXIMUM ALLOWABLE BEAM SPAN
FOR GIVEN TRIBUTARY WIDTH
(L/60 DEFLECTION LIMIT):

(TYPICAL USE = OPEN & SCREENED)

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"X10"	3"X8"	4"X8"
10	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
20	15'	13' - 11"	9' - 9	15' - 0"
	14'	15' - 0"	11' - 2	15' - 0"
	13'	15' - 0"	13' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
30	15'	9' - 3"	6' - 6	11' - 7"
	14'	10' - 8"	7' - 5	13' - 3"
	13'	12' - 5"	8' - 8	15' - 0"
	12'	14' - 6"	10' - 2	15' - 0"
	11'	15' - 0"	12' - 1	15' - 0"
	10'	15' - 0"	14' - 8	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"X10"	3"X8"	4"X8"
40	15'	6' - 11"	4' - 10	8' - 8"
	14'	8' - 0"	5' - 7	9' - 11"
	13'	9' - 3"	6' - 6	11' - 6"
	12'	10' - 11"	7' - 7	13' - 7"
	11'	13' - 0"	9' - 1	15' - 0"
	10'	15' - 0"	11' - 0	15' - 0"
	9'	15' - 0"	13' - 7	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
50	15'	5' - 7"	N/A	6' - 11"
	14'	6' - 5"	4' - 5	7' - 11"
	13'	7' - 5"	5' - 2	9' - 3"
	12'	8' - 8"	6' - 1	10' - 10"
	11'	10' - 4"	7' - 3	12' - 11"
	10'	12' - 7"	8' - 9	15' - 0"
	9'	15' - 0"	10' - 10	15' - 0"
	8'	15' - 0"	13' - 9	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
60	15'	4' - 7"	N/A	5' - 9"
	14'	5' - 4"	N/A	6' - 7"
	13'	6' - 2"	4' - 4	7' - 8"
	12'	7' - 3"	5' - 1	9' - 0"
	11'	8' - 8"	6' - 0	10' - 9"
	10'	10' - 5"	7' - 4	13' - 0"
	9'	12' - 11"	9' - 0	15' - 0"
	8'	15' - 0"	11' - 5	15' - 0"
	7'	15' - 0"	14' - 11	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"

MAXIMUM ALLOWABLE BEAM SPAN
FOR GIVEN TRIBUTARY WIDTH
(L/120 DEFLECTION LIMIT):

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"X10"	3"X8"	4"X8"
10	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
20	15'	13' - 11"	N/A	15' - 0"
	14'	15' - 0"	N/A	15' - 0"
	13'	15' - 0"	N/A	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
30	15'	9' - 3"	N/A	11' - 7"
	14'	10' - 8"	N/A	13' - 3"
	13'	12' - 5"	N/A	15' - 0"
	12'	14' - 6"	10' - 2	15' - 0"
	11'	15' - 0"	12' - 1	15' - 0"
	10'	15' - 0"	14' - 8	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"X10"	3"X8"	4"X8"
40	15'	6' - 11"	N/A	8' - 8"
	14'	8' - 0"	N/A	9' - 11"
	13'	9' - 3"	N/A	11' - 6"
	12'	10' - 11"	7' - 7	13' - 7"
	11'	13' - 0"	9' - 1	15' - 0"
	10'	15' - 0"	11' - 0	15' - 0"
	9'	15' - 0"	13' - 7	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
50	15'	5' - 7"	N/A	6' - 11"
	14'	6' - 5"	N/A	7' - 11"
	13'	7' - 5"	N/A	9' - 3"
	12'	8' - 8"	6' - 1	10' - 10"
	11'	10' - 4"	7' - 3	12' - 11"
	10'	12' - 7"	8' - 9	15' - 0"
	9'	15' - 0"	10' - 10	15' - 0"
	8'	15' - 0"	13' - 9	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
60	15'	4' - 7"	N/A	5' - 9"
	14'	5' - 4"	N/A	6' - 7"
	13'	6' - 2"	N/A	7' - 8"
	12'	7' - 3"	5' - 1	9' - 0"
	11'	8' - 8"	6' - 0	10' - 9"
	10'	10' - 5"	7' - 4	13' - 0"
	9'	12' - 11"	9' - 0	15' - 0"
	8'	15' - 0"	11' - 5	15' - 0"
	7'	15' - 0"	14' - 11	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"

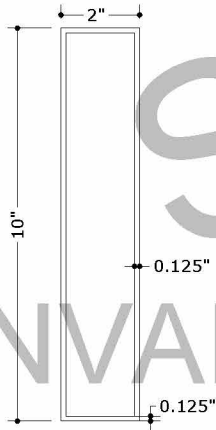
DESIGN TABLE NOTES:

1. BEAM CALCULATIONS CONSIDER VERTICAL LOADS ONLY. WHERE STRUCTURE IS ENCLOSED, DESIGNER SHALL CAREFULLY CONSIDER ADDITIONAL FORCES ON BEAMS TO SECURE & REINFORCE ACCORDINGLY WHICH IS BEYOND THE SCOPE OF THESE PERFORMANCE TABLES.
2. BEAMS HAVE BEEN CALCULATED CONSIDERING THE MAXIMUM BENDING MOMENT, SHEAR AND DEFLECTION DERIVED FROM THE VERTICAL LOADS & TRIBUTARY SPANS APPLIED TO EACH MAX ALLOWABLE SIMPLE BEAM WIDTH AS ILLUSTRATED HEREIN.
3. ALL EXTRUDED ALUMINUM BEAMS SHALL BE 6005-T6, 6061-T6 OR BETTER.
4. DEFLECTION LIMIT SELECTION SHALL BE DETERMINED BY OTHERS AND SHALL MEET THE MINIMUM REQUIREMENTS OF THE GOVERNING CODE.

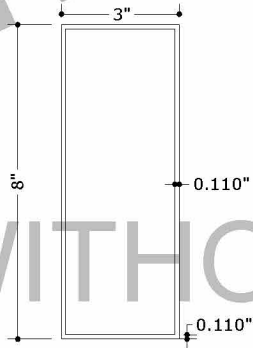
TRIBUTARY AREA DEFINED (SEE S1)

EDGE BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN SUPPORTS
+ FULL OVERHANG LENGTH

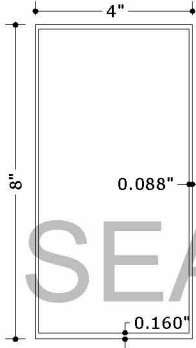
INTERIOR BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN EACH ADJACENT SUPPORT



2"x10" EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6



3"x8" EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6



4"x8" EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6

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STRUCTURAL SPAN TABLES
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MAXIMUM ALLOWABLE BEAM SPAN
FOR GIVEN TRIBUTARY WIDTH
(L/180 DEFLECTION LIMIT):

(TYPICAL USE = GLAZED ENCLOSURES)

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"X10"	3"X8"	4"X8"
10	15'	15' - 0"	N/A	15' - 0"
	14'	15' - 0"	N/A	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
20	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
30	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"X10"	3"X8"	4"X8"
40	15'	6' - 11"	N/A	N/A
	14'	8' - 0"	N/A	N/A
	13'	9' - 3"	N/A	N/A
	12'	10' - 11"	N/A	13' - 7"
	11'	13' - 0"	N/A	15' - 0"
	10'	15' - 0"	N/A	15' - 0"
	9'	15' - 0"	N/A	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
50	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
60	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"

MAXIMUM ALLOWABLE BEAM SPAN
FOR GIVEN TRIBUTARY WIDTH
(L/240 DEFLECTION LIMIT):

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"X10"	3"X8"	4"X8"
10	15'	15' - 0"	N/A	15' - 0"
	14'	15' - 0"	N/A	15' - 0"
	13'	15' - 0"	N/A	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
20	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
30	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"

TOTAL LOAD (PSF)	MAXIMUM ALLOWABLE BEAM SPAN	MAXIMUM ALLOWABLE TRIBUTARY WIDTH		
		2"X10"	3"X8"	4"X8"
40	15'	N/A	N/A	N/A
	14'	N/A	N/A	N/A
	13'	N/A	N/A	N/A
	12'	N/A	N/A	N/A
	11'	13' - 0"	N/A	N/A
	10'	15' - 0"	N/A	15' - 0"
	9'	15' - 0"	N/A	15' - 0"
	8'	15' - 0"	N/A	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
50	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"
60	15'	15' - 0"	15' - 0	15' - 0"
	14'	15' - 0"	15' - 0	15' - 0"
	13'	15' - 0"	15' - 0	15' - 0"
	12'	15' - 0"	15' - 0	15' - 0"
	11'	15' - 0"	15' - 0	15' - 0"
	10'	15' - 0"	15' - 0	15' - 0"
	9'	15' - 0"	15' - 0	15' - 0"
	8'	15' - 0"	15' - 0	15' - 0"
	7'	15' - 0"	15' - 0	15' - 0"
	6'	15' - 0"	15' - 0	15' - 0"

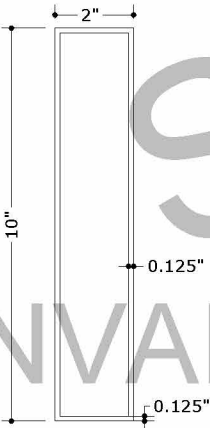
DESIGN TABLE NOTES:

1. BEAM CALCULATIONS CONSIDER VERTICAL LOADS ONLY. WHERE STRUCTURE IS ENCLOSED, DESIGNER SHALL CAREFULLY CONSIDER ADDITIONAL FORCES ON BEAMS TO SECURE & REINFORCE ACCORDINGLY WHICH IS BEYOND THE SCOPE OF THESE PERFORMANCE TABLES.
2. BEAMS HAVE BEEN CALCULATED CONSIDERING THE MAXIMUM BENDING MOMENT, SHEAR AND DEFLECTION DERIVED FROM THE VERTICAL LOADS & TRIBUTARY SPANS APPLIED TO EACH MAX ALLOWABLE SIMPLE BEAM WIDTH AS ILLUSTRATED HEREIN.
3. ALL EXTRUDED ALUMINUM BEAMS SHALL BE 6005-T6, 6061-T6 OR BETTER.
4. DEFLECTION LIMIT SELECTION SHALL BE DETERMINED BY OTHERS AND SHALL MEET THE MINIMUM REQUIREMENTS OF THE GOVERNING CODE.

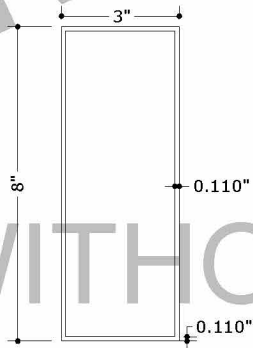
TRIBUTARY AREA DEFINED (SEE S1)

EDGE BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN SUPPORTS
+ FULL OVERHANG LENGTH

INTERIOR BEAM TRIBUTARY AREA =
 $\frac{1}{2}$ DISTANCE BETWEEN EACH ADJACENT SUPPORT



2"x10" EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6



3"x8" EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6



4"x8" EDGE BEAM
N.T.S. 6005-T6
OR 6061-T6

FRANK BENNARDO, P.E.
PE#

07/15/2021

☐ IF CHECKED, CERTIFYING P.E. APPEARS BELOW

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STRUCTURAL SPAN TABLES
ALUMINUM EDGE & INTERIOR BEAMS

REMARKS	DRWN	CHKD	DATE	TT	FB	RWN	EPR	ADD	ADDTL	OPTIONS
INIT ISSUE			05/29/20							
ADD			07/14/21							

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SCALE: NTS UNLESS NOTED

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