CODE REFERENCE AND DESIGN CRITERIA

THE FOLLOWING CODES AND REFERENCES WERE USED FOR THIS PROJECT:

1. 2020 NEW YORK STATE BUILDING CODE
2. ASCE 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
3. ALUMINUM ASSOCIATION ALUMINUM DESIGN MANUAL 2015
4. AISC STEEL CONSTRUCTION MANUAL 14TH ED.

**STRUCTURES NOT INTENDED OR WARRANTED TO RESIST LOADS IN EXCESS OF THOSE OUTLINED BELOW. LOADS IN EXCESS OF THE DESIGN LOADS BELOW ARE TO BE MANAGED PER THE HIGH WIND ACTION PLAN AND SNOW MANAGEMENT PLAN PROVIDED.

DESIGN CRITERIA

WIND NOTES [2020 NY BUILDING CODE]	
ULTIMATE WIND SPEED	113 MPH
TEMPORARY USE FACTOR	0.75
TEMPORARY STRUCTURE DESIGN WIND SPEED	113x0.75 = 85 MPH
MAXIMUM OPERATING WIND SPEED (SEE HWAP)	40 MPH
EXPOSURE CATEGORY	B
RISK CATEGORY	II
VELOCITY PRESSURE COEFFICIENT	0.57
GUST FACTOR	0.85
INTERNAL PRESSURE COEFFICIENT (OPEN STRUCTURE)	+/- 0.00
ROOF PITCH	0 DEGREES
MAX ROOF PRESSURE COEFFICIENTS (OPEN STRUCTURE)	1.2 / -1.1
TEMPORARY STRUCTURE (85 MPH) BASIC WIND PRESSURE	9 PSF
OPERATION LEVEL (40 MPH)BASIC WIND PRESSURE	3 PSF
GROUND SNOW LOAD	25 PSF
DESIGN GROUND SNOW LOAD	0 PSF
SEE SNOW MANAGEMENT PLAN	

ALL ALUMINUM COMPONENTS ARE 6061-T6

GENERAL STRUCTURAL NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES AND/OR INCONSISTENCIES WITH ANY OF THE WORK INVOLVED.

2. THE CONTRACT STRUCTURAL DOCUMENTS REPRESENT THE FINISHED STRUCTURE, UNLESS INDICATED OTHERWISE. THE CONTRACTOR IS RESPONSIBLE FOR METHOD OF CONSTRUCTION AND IS RESPONSIBLE FOR THE SAFETY OF WORKERS, AND PROTECTION OF EXISTING STRUCTURES.

3. IN THE EVENT OF DISCREPANCY BETWEEN ANY PROVISION OF THESE DOCUMENTS, DRAWINGS AND SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY.

HIGH WIND ACTION PLAN

WIND SPEED: ACTION TO BE TAKEN WHEN WIND SPEEDS ARE EITHER MEASURED ON SITE, FORECAST WITH A DEGREE OF CERTAINTY, OR EXPECTED TO EXCEED THE BELOW THRESHOLDS. SHOULD THE ACTION ITEMS BE UNABLE TO BE PERFORMED SAFELY AND IN A TIMELY FASHION AS DETERMINED BY SITE MANAGEMENT, EVACUATE ALL STRUCTURES AT 40 MPH MEASURED/REPORTED WIND SPEED.

		25 MPH (16)	30 MPH (20)	35 MPH (23)	40 MPH (27)
SHADE STRUCTURE	ROOF SKIN	RESPONSIBLE CREW PUT ON ALERT. SECURE LOOSE ITEMS	REMOVE AND SECURE WALL SKINS	REMOVE AND SECURE ROOF SKIN	REMOVE ROOF SKIN, EVACUATE ALL PERSONS MIN. 200 FT FROM STRUCTURE

OPERATIONAL NOTES:
1. AN ANEMOMETER IS TO BE INSTALLED AT THE HIGHEST POINT OF THE STRUCTURE TO MONITOR THE ON-SITE CONDITIONS.
2. WEATHER REPORTS MUST BE MONITORED DURING THE INSTALLATION OF THIS STRUCTURE.
3. INSTALLATION MUST BE REMOVED AND STOWED WITH THE THREAT OF SEVERE WEATHER (I.E. TROPICAL STORM OR HURRICANE EVENT)
4. STRUCTURES MUST BE BALLASTED AND ANCHORED PER STRUCTURE PLANS.
5. WIND SPEEDS NOTED ARE FOR 3-SECOND GUST MEASUREMENT. ESTIMATED SUSTAINED WIND SPEEDS IN PARENTHESES.
6. STRUCTURE MANAGEMENT PLAN SHALL BE DEVELOPED INCORPORATING THE ABOVE ENVIRONMENTAL THRESHOLDS/ACTIONS AS WELL AS THE PARTIES RESPONSIBLE FOR MONITORING THE WEATHER, IMPLEMENTING THE HWAP, PERFORMING THE ACTION ITEMS, EVACUATION PROCEDURES, SAFETY ZONES, STANDOFF DISTANCES (WITHIN THE PROPERTY LINE), PLANS TO PREVENT WIND-BORN DEBRIS, AND VERIFICATION THAT THESE PROCEDURES DO NOT ADVERSELY IMPACT OTHER STRUCTURES.

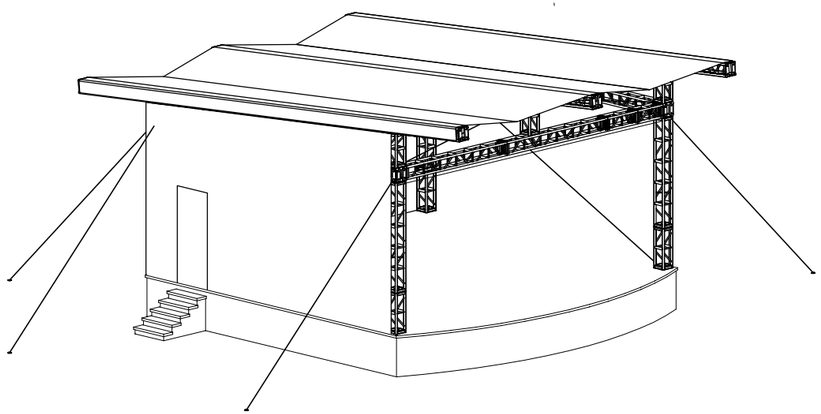
SNOW MANAGEMENT PLAN

FORECAST OF POTENTIAL WINTER WEATHER SHALL BE MONITORED THROUGH THE USE OF A WEATHER SERVICE. IN THE EVENT OF FORECAST SNOW ACCUMULATION, CERTAIN ACTIONS MUST BE TAKEN TO MAINTAIN STRUCTURAL INTEGRITY OF THE STRUCTURE.

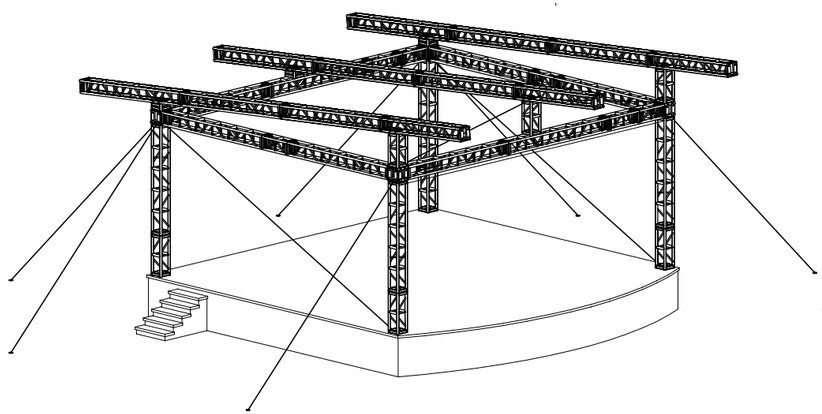
THIS PLAN IS TO MANAGE TYPICAL WINTER STORMS. IN THE EVENT OF A BLIZZARD OR THE EVENT THAT THE FOLLOWING PROCEDURES CANNOT BE SAFELY OR SATISFACTORILY PERFORMED DUE TO LACK OF ELECTRICAL POWER, RESTRICTED ACCESS TO STRUCTURES OR ROOFS, ETC., THE STRUCTURE SHALL BE DISMANTLED OR SECURED AT THE DISCRETION OF THE SITE MANAGER AND EVACUATED.

SNOW MANAGEMENT PLAN ITEMS:

SNOW ACCUMULATION FORECAST TO EXCEED 1":
1. RESPONSIBLE CREW PUT ON ALERT.
2. REMOVE ROOF SKINS.



2 ROOF SHADE STRUCTURE AXON
SCALE: NTS



1 ROOF SHADE STRUCTURE AXON - NO SKINS
SCALE: NTS

Timothy Franklin

Digitally signed by Timothy Franklin
DN: E=tfranklin@theta-consulting.com, CN=Timothy Franklin, O=Theta Consulting LLC, L=Doylestown, S=Pennsylvania, C=US
Date: 2021.06.30 17:05:06-04'00'

STATE OF NEW YORK
TIMOTHY CARL FRANKLIN
079917
LICENSED PROFESSIONAL ENGINEER

30 JUNE 2021

CITY WINERY

STAGE ROOF ADDITION
23 FACTORY ST
MONTGOMERY, NY

THETA CONSULTING, LLC
Structural Engineering
PO BOX 1804
DOYLESTOWN PA, 18901
(215) 340-0903
THETA-CONSULTING.COM

REVISIONS

No.	DATE	REMARKS

TITLE: GENERAL NOTES, HWAP, & AXON
DATE: 14 MAY 2021
SCALE: AS NOTED

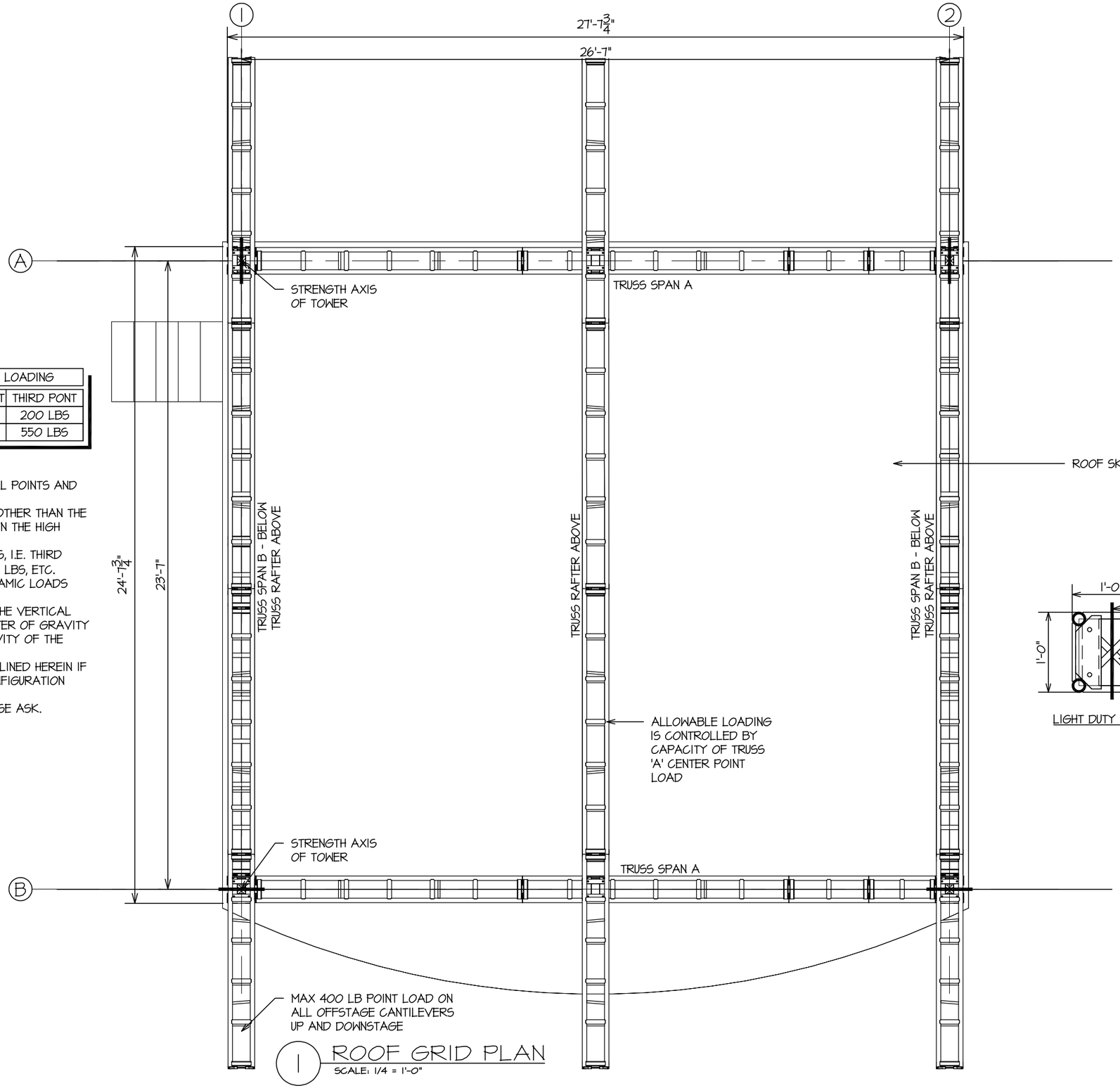
DRAWING NO.
S100

PROJECT NO.
LMJ-2121

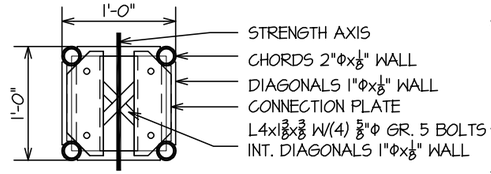
plot date: 6/30/21 file path: e:\theta consulting\current projects\lmj-2121 city winery grid\drawings

LIGHT DUTY 12x12 TRUSS ALLOWABLE LOADING			
	UNIFORM	CENTER PONT	THIRD PONT
TRUSS SPAN A	28 LB/FT	450 LBS	200 LBS
TRUSS SPAN B	40 LB/FT	700 LBS	550 LBS

NOTES:
1. LOADS ARE ASSUMED AT TRUSS PANEL POINTS AND ARE NOT ADDITIVE.
2. NO LATERAL LOADS WERE ASSUMED OTHER THAN THE AFFECT OF WIND LOADS DESCRIBED IN THE HIGH WIND ACTION PLAN.
3. LOADS SHOWN ARE INDIVIDUAL LOADS, I.E. THIRD POINT LOAD IS (2) POINT LOADS AT X LBS, ETC.
4. LOADS ARE STATIC EQUIVALENT, DYNAMIC LOADS SHALL BE REDUCED ACCORDINGLY.
5. ALL LOADS ARE ASSUMED TO BE IN THE VERTICAL PLANE OF THE TRUSS WITH THEIR CENTER OF GRAVITY PLACED BELOW THE CENTER OF GRAVITY OF THE TRUSS.
6. THE TRUSS IS PART OF A SYSTEM OUTLINED HEREIN IF TRUSS TO BE USED IN ANY OTHER CONFIGURATION LOADS OUTLINED ARE NOT VALID.
7. MOST IMPORTANT - IF IN DOUBT PLEASE ASK.



1 ROOF GRID PLAN
SCALE: 1/4 = 1'-0"



LIGHT DUTY TRUSS

ALL MATERIAL IS 6061-T6 ALUMINUM

21 SEP 2020

CITY WINERY

STAGE ROOF ADDITION
23 FACTORY ST
MONTGOMERY, NY

THETA CONSULTING, LLC
Structural Engineering
PO BOX 1804
DOYLESTOWN PA, 18901
(215) 340-0903
THETA-CONSULTING.COM

REVISIONS

No.	DATE	REMARKS

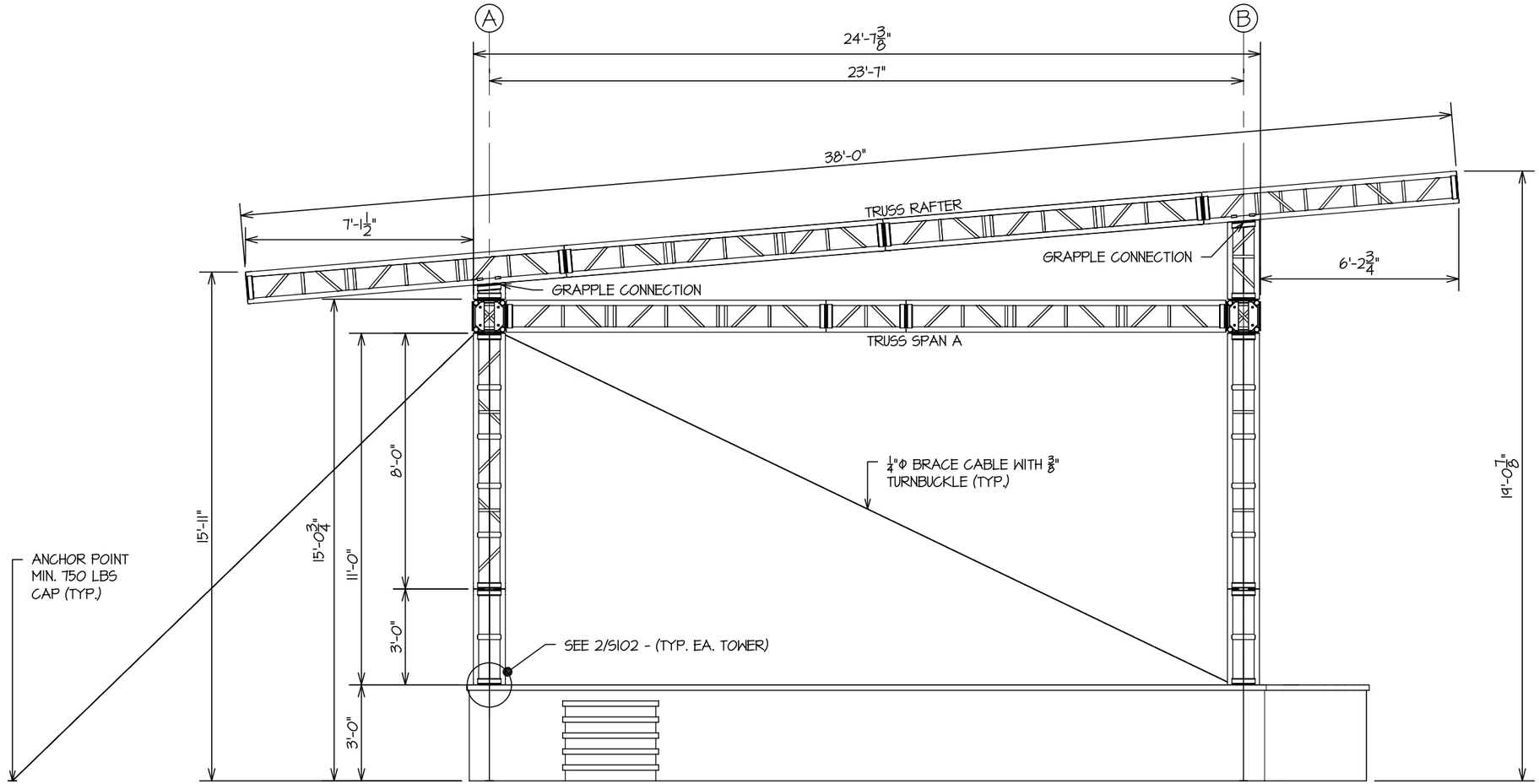
TITLE: GRID PLAN
DATE: 14 MAY 2021
SCALE: AS NOTED

DRAWING NO.

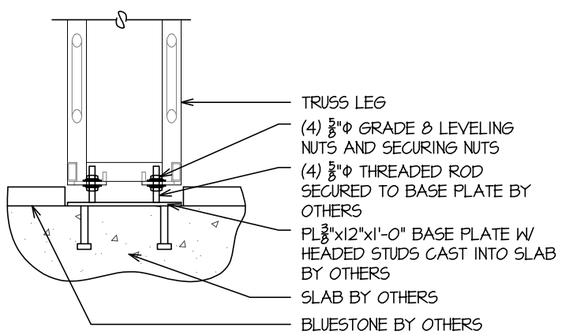
S101

PROJECT NO.
LMJ-2121

plot date: 6/30/21 file path: e:\theta consulting\current projects\lmj-2121 city winery grid\drawings



1 SIDE ELEVATION
SCALE: 1/4 = 1'-0"



2 ANCHORAGE DETAIL
SCALE: 3/4 = 1'-0"

CITY WINERY

STAGE ROOF ADDITION
23 FACTORY ST
MONTGOMERY, NY

THETA CONSULTING, LLC
Structural Engineering
PO BOX 1804
DOYLESTOWN PA, 18901
(215) 340-0903
THETA-CONSULTING.COM

REVISIONS

No.	DATE	REMARKS

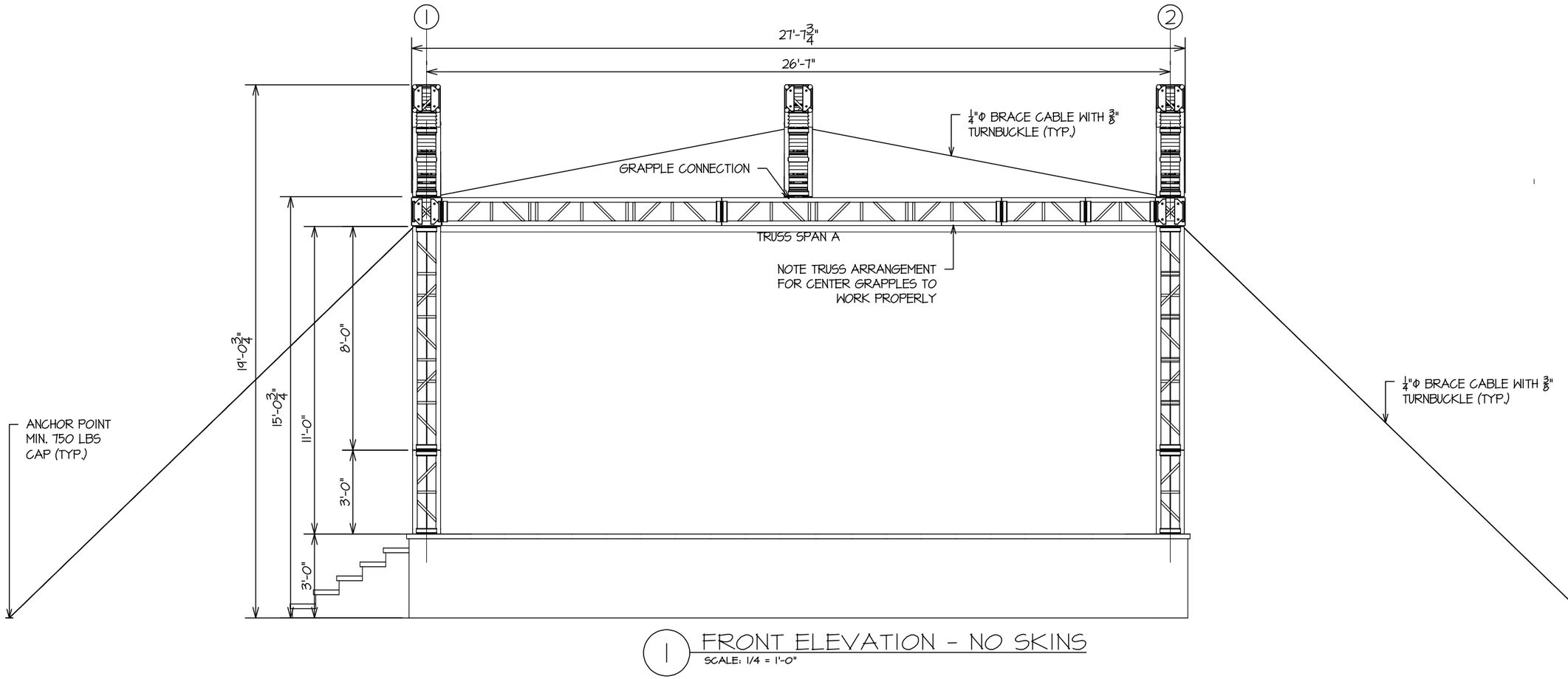
TITLE: SIDE ELEVATION
DATE: 14 MAY 2021
SCALE: AS NOTED

DRAWING NO.
S102

PROJECT NO.
LMJ-2121

STATE OF NEW YORK
TIMOTHY CARL FRANKLIN
079917
LICENSED PROFESSIONAL ENGINEER

30 JUNE 2021



1 FRONT ELEVATION - NO SKINS
SCALE: 1/4 = 1'-0"

CITY WINERY

STAGE ROOF ADDITION
23 FACTORY ST
MONTGOMERY, NY

THETA CONSULTING, LLC
Structural Engineering
PO BOX 1804
DOYLESTOWN PA, 18901
(215) 340-0903
THETA-CONSULTING.COM

REVISIONS

No.	DATE	REMARKS

TITLE: FRONT ELEVATOIN
DATE: 14 MAY 2021
SCALE: AS NOTED

DRAWING NO.

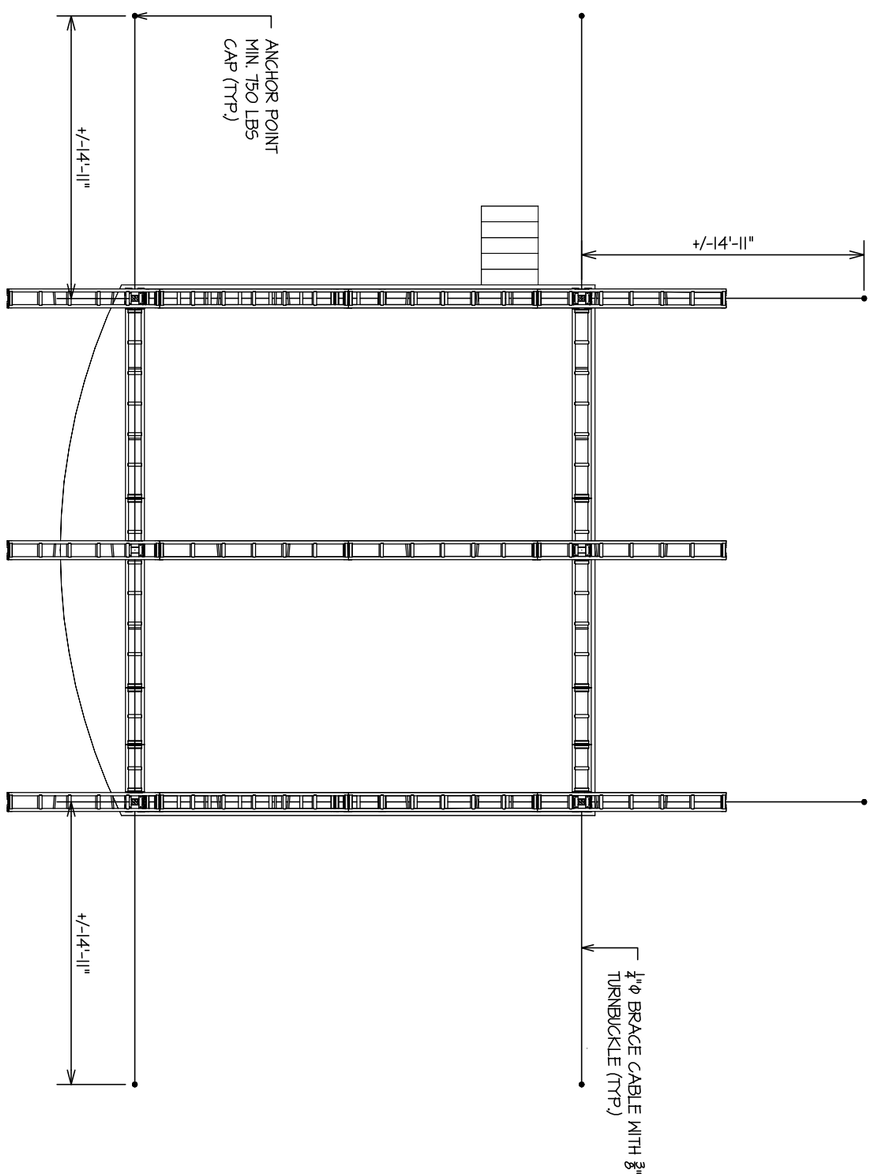
S103

PROJECT NO.
LMJ-2121

STATE OF NEW YORK
TIMOTHY CARL FRANKLIN
079917
LICENSED PROFESSIONAL ENGINEER

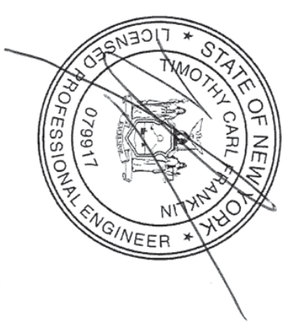
30 JUNE 2021

plot date: 6/30/21 file path: e:\theta consulting\current projects\lmj-2121 city winery grid\drawings



1 ROOF GRID BRACE PLAN

SCALE: 1/4 = 1'-0"



30 JUNE 2021

PROJECT NO. LMJ-2121

DRAWING NO. S104

TITLE: ROOF GRID BRACE PLAN

DATE: 14 MAY 2021

SCALE: AS NOTED

REVISIONS

No. DATE REMARKS

THETA CONSULTING, LLC
Structural Engineering
PO BOX 1804
DOYLESTOWN PA. 18901
(215) 340-0903
THETA-CONSULTING.COM

CITY WINERY

STAGE ROOF ADDITION
23 FACTORY ST
MONTGOMERY, NY