



# STRUCTURAL DESIGN ENCLOSED BUILDING

## MAXIMUM 30'- 0" WIDE X 20'- 0" HEIGHT-BOX EAVE FRAME AND BOW FRAME

8 July 2022 Revision 0 M&A Project No. 22096S

Prepared for:

Unified Steel Structures, Inc. 154 N. Renfro Street Suite 100 Mount Airy, NC 27030

Prepared by:

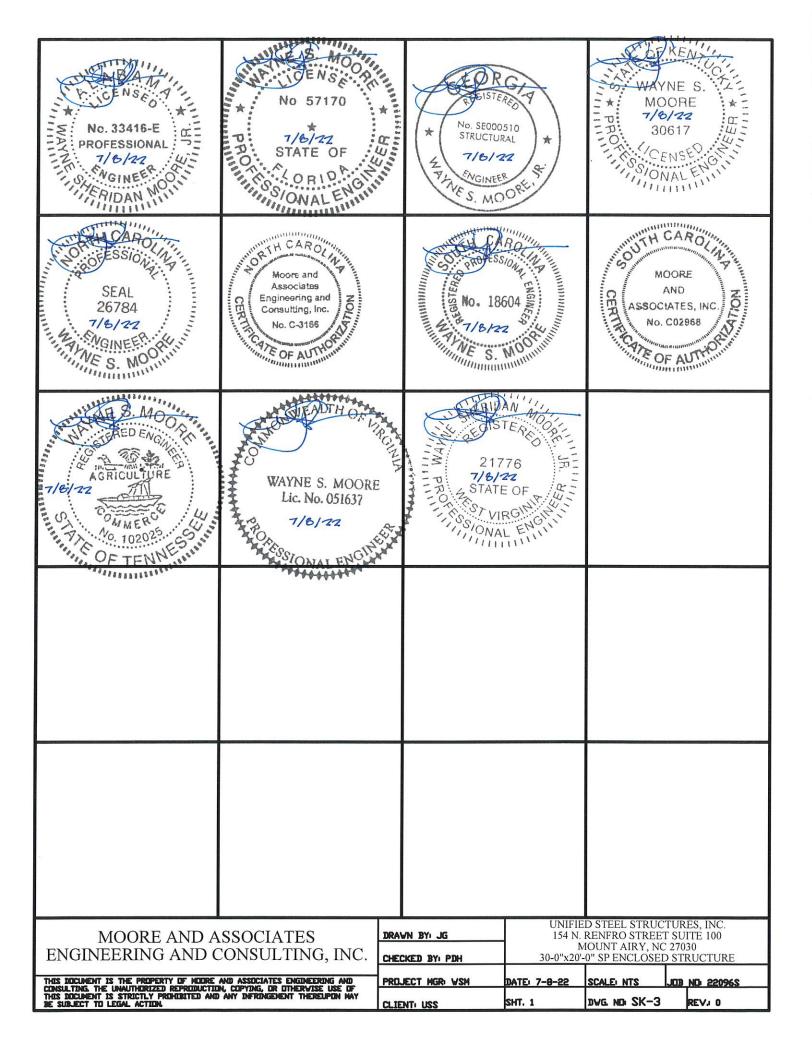
Moore and Associates Engineering and Consulting, Inc.

1009 East Avenue North Augusta, SC 29841

401 S. Main Street, Suite 200 Mount Airy, NC 27030



Moore and Associates Engineering and Consulting, Inc. ("Moore & Associates") is the author and owner of all plans, drawings, specifications, etc. ("Instruments of Service") provided by it, and retains all common law, statutory, and other reserved rights, including without limitation copyrights. A limited license is granted to you for use of the Instruments of Service solely and exclusively in connection with the specific project for which the Instruments of Service were created by Moore & Associates. All other uses, including without limitation transfer to a third party, are strictly prohibited. Acceptance of the Instruments of Service constitutes your agreement to indemnify and to hold Moore & Associates harmless from all cost, expenses, damages, and attorney's fees arising from or relating to any unauthorized use or transfer of the Instruments of Service.



# DRAWING INDEX

|           | 271117727174  |
|-----------|---|
| SHEET 1   | PE SEAL COVER SHEET   |
| SHEET 2   | DRAWING INDEX   |
| SHEET 3   | INSTALLATION NOTES AND SPECIFICATIONS   |
| SHEET 3A  | LIST OF APPLICABLE BUILDING CODES   |
| SHEET 4   | TYPICAL SIDE AND END ELEVATIONS   |
| SHEET 5   | TYPICAL INTERIOR RAFTER/COLUMN FRAMING SECTION (BOX EAVE RAFTER)                  |
| SHEET 5A  | TYPICAL INTERIOR RAFTER/COLUMN AND SIDE FRAMING SECTION (BOX EAVE RAFTER)         |
| SHEET 6   | COLUMN CONNECTION DETAILS (BOX EAVE STRUCTURE)                                    |
| SHEET 6A  | COLUMN CONNECTION DETAILS (BOX EAVE STRUCTURE)                                    |
| SHEET 7   | TYPICAL INTERIOR RAFTER/COLUMN FRAMING SECTION (BOW RAFTER)                       |
| SHEET 7A  | TYPICAL INTERIOR RAFTER/COLUMN AND SIDE FRAMING SECTION (BOW RAFTER)              |
| SHEET 8   | COLUMN CONNECTION DETAILS (BOW RAFTER STRUCTURE)                                  |
| SHEET 8A  | COLUMN CONNECTION DETAILS (BOW RAFTER STRUCTURE)                                  |
| SHEET 9   | BASE RAIL ANCHORAGE OPTIONS   |
| SHEET 10  | TYPICAL END WALL AND SIDE WALL FRAMING<br>SECTIONS (BOX EAVE RAFTER)              |
| SHEET 11  | TYPICAL END WALL AND SIDE WALL FRAMING<br>SECTIONS (BOW RAFTER)                   |
| SHEET 12  | CONNECTION DETAILS  |
| SHEET 13  | CONNECTION DETAILS  |
| SHEET 14  | CONNECTION DETAILS  |
| SHEET 15  | BOX EAVE RAFTER LEAN-TO OPTIONS   |
| SHEET 15A | BOX EAVE RAFTER LEAN-TO OPTION  |
| SHEET 15B | BOX EAVE RAFTER LEAN-TO OPTIONS   |
| SHEET 16  | BOW RAFTER LEAN-TO OPTIONS  |
| SHEET 16A | BOW RAFTER LEAN-TO OPTION   |
| SHEET 17  | BOX EAVE RAFTER VERTICAL ROOF/SIDING<br>OPTION END AND SIDE ELEVATION AND SECTION |
| SHEET 18  | HEADER OPTIONS  |

| MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.  | DRAWN BY: JG<br>CHECKED BY: PDH | 154 N.<br>N | ED STEEL STRUC'<br>RENFRO STREET<br>MOUNT AIRY, NC<br>-0" SP ENCLOSED | FSUITÉ 100<br>±27030     |
|--|---------------------------------|-------------|---|--------------------------|
| THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROMINITED AND ANY INFRINGEMENT THERELPOIN MAY BE SUBJECT TO LEGAL ACTION. | PROJECT MGR: VSM  CLIENT: USS   |             | DWG. ND: SK-3   | JUB NU 22096\$<br>REV. 0 |

#### INSTALLATION NOTES AND SPECIFICATIONS

- 1. DESIGN IS FOR MAXIMUM 30'-0" WIDE x 20'-0" EAVE HEIGHT ENCLOSED STRUCTURES.
- 2. DESIGN WAS DONE IN ACCORDANCE WITH ALL THE APPLICABLE BUILDING CODES LISTED ON SHEET 3A.
- 3. DESIGN LOADS ARE AS FOLLOWS:

A> ROOF DEAD LOAD:

SELF-WEIGHT = 1.5 PSF

MEP = 0 PSF

COLLATERAL = 0 PSF

- B) ROOF LIVE LOAD = 12 PSF
- C) FLOOR LIVE LOAD = 100 PSF (4" CONCRETE SLAB-ON-GRADE)
- D) GROUND SNOW LOAD = 35 PSF
  - = 30 PSF (W < 24'-0" WITH U-CHANNEL RAFTER TIE)

NOTE: UNBALANCED LOADING DUE TO SNOW DRIFTING FROM AN ADJACENT TALLER STRUCTURE HAS NOT BEEN EVALUATED.

- 4. 3-SECOND GUST ULTIMATE WIND SPEED (VULT) 145 MPH (NOMINAL WIND SPEED 112 MPH),
- 5. MAXIMUM RAFTER/COLUMN AND END COLUMN SPACING = 5.0 FEET (UNLESS NOTED OTHERWISE).
- 6, END WALL COLUMNS (POSTS) ARE EQUIVALENT TO SIDE WALL COLUMNS IN SIZE AND SPACING (UNLESS NOTED OTHERWISE).
- 7. RISK CATEGORY I.
- 8. WIND EXPOSURE CATEGORY B/C.
- 9, STRUCTURAL ANALYSIS/DESIGN IS BASED ON TS MEETING THE REQUIREMENTS OF ASTM A653 GRADE 50 WITH MINIMUM YIELD STRENGTH
  (FY) OF 54 KSI AND GALVANIZING MEETING THE REQUIREMENTS OF G60.
- 10. SPECIFICATIONS APPLICABLE TO 29 GAUGE OR 26 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2\*2 1/2\*-14 GAUGE TUBE STEEL (TS) FRAMING MEMBERS (UNLESS NOTED OTHERWISE). WHERE TS 2 1/2\* x 2 1/2\* 14 GAUGE IS SPECIFIED, TS 2 1/4\* x 2 1/4\* 12 GAUGE MAY BE USED AS AN OPTION.
- 11. CONNECTOR SLEEVES ARE MINIMUM 6' LONG, TS 2 1/4"x2 1/4"-14 GAUGE FOR 2 1/2"x2 1/2"-14 GAUGE (UNLESS NOTED OTHERWISE).
  WHERE 6' LONG TS 2 1/4"x2 1/4"-14 GAUGE CONNECTOR SLEEVE IS SPECIFIED, 6' LONG TS 2"x2"-12 GAUGE TS CONNECTOR SLEEVE
  MAY BE USED AS AN OPTION.
- 12. AVERAGE PANEL FASTENER SPACING DN-CENTERS ≈ 9° D.C. (MAX.)
- 13. FASTENERS CONSIST OF #12-14×3/4° SELF-DRILLING FASTENER (SDF), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS. SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20 FEET OR LESS, AND ROOF SLOPES OF 14° (3:12 PITCH) OR LESS SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY. ROOF SLOPES LESS THAN 3:12 REQUIRE USE OF LAP JOINT SEALANT.
- 14. ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL AT OR WITHIN 6' OF EVERY RAFTER COLUMN,
- 15. STANDARD GROUND ANCHORS (SOIL NAILS) CONSIST OF #4 REBAR W/ WELDED NUT x 36' LONG AND MAY BE USED IN SUITABLE SOILS. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USED IN UNSUITABLE SOILS AS NOTED.
- 16. CONTRACTOR TO PROVIDE ADEQUATE BRACING FOR STRUCTURE SO THAT IT WILL BE STABLE DURING ALL STAGES OF CONSTRUCTION. THE STRUCTURE AND FOUNDATION ARE DESIGNED FOR A COMPLETED CONDITION ONLY AND, THEREFORE, REQUIRE ADDITIONAL SUPPORT TO MAINTAIN STABILITY BEFORE COMPLETION.
- 17, WIND FORCES GOVERN OVER SEISMIC FORCES, SEISMIC PARAMETERS ANALYZED ARE

SOIL SITE CLASS = D RISK CATEGORY I

R= 3.25

I<sub>E</sub>== 1.0

 $S_{DS} = 2.625 g$   $V = C_{S}W$ 

S<sub>m</sub>= 2.13 g

- 18. IF MORE THAN 50% OF COLUMN (LEG) ARE REMOVED IN ANY LONGITUDINAL (SIDE) WALLS OF A BUILDING, THE ENGINEER IS TO BE NOTIFIED TO DETERMINE WHETHER PORTAL FRAMES OR OTHER LONGITUDINAL STABILITY ELEMENTS WILL BE REQUIRED.
- 19. THIS MASTER DESIGN IS A GENERIC MASTER DESIGN PRIMARILY INTENDED FOR PLANT FABRICATION AND ERECTION AKIN TO SHOP DRAVINGS. THE MASTER DESIGN IS NOT PRIMARILY INTENDED FOR CONSTRUCTION PERMOT. WHEN APPLYING FOR BUILDING PERMOT, THE CERTIFIED BUILDING DEFICIAL MUST BE CONSULTED TO VERIFY VMETHER THE USE OF THE MASTER DESIGN IS ADEQUATE OR IF A SITE-SPECIFIC DESIGN IS REQUIRED FOR BUILDING PERMOT, ANY VARIATION FROM THE ANALYSIS/DESIGN PARAMETERS OF THE MASTER DESIGN REQUIRES THE DEVELOPMENT OF A SITE-SPECIFIC DESIGN.

| CONSULTING, THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF<br>THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY<br>BE SUBJECT TO LEGAL ACTION. | CLIENT: USS      | SHT. 3       | DVG. ND: SK-3                     | REV# 0        |
|---|------------------|--------------|-----------------------------------|---------------|
| THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND   | PROJECT MGR: VSM | DATE: 7-8-22 | SCALE: NTS                        | JOB NO 22096S |
| ENCONFERDING AND CONGULTURE TRIC  | CHECKED BY: PDH  |              | MOUNT AIRY, NO<br>-0" SP ENCLOSEI |               |
| MOORE AND ASSOCIATES  | DRAVN BY: JG     |              | ID STEEL STRUC<br>RENFRO STREE    |               |

#### LIST OF APPLICABLE BUILDING CODES

2021 INTERNATIONAL BUILDING CODE (IBC 2021)

2018 INTERNATIONAL BUILDING CODE (IBC 2018)

2015 INTERNATIONAL BUILDING CODE (IBC 2015)

2012 INTERNATIONAL BUILDING CODE (IBC 2012)

BUILDING CODE 2021 OF ALABAMA
(ADDPTS THE IBC 2021 WITHOUT AMENDMENTS)
(IBC 2015, IBC 2018, IBC 2021 (DEPENDENT UPON LOCAL JURISDICTION))

GEORGIA STATE MINIMUM STANDARD BUILDING CODE (ADDPTS THE IBC 2018 WITH AMENDMENTS)

2018 KENTUCKY BUILDING CODE (ADOPTS THE IBC 2015 WITH AMENDMENTS)

2018 NORTH CAROLINA BUILDING CODE (ADOPTS THE IBC 2015 WITH AMENDMENTS)

DHID BUILDING CODE 2017 (ADDPTS THE IBC 2015 WITH AMENDMENTS)

2018 SOUTH CAROLINA BUILDING CODE (ADOPTS THE IBC 2018 WITH AMENDMENTS)

BUILDING CODE 2012 OF TENNESSEE
(ADDPTS THE IBC 2012 WITH AMENDMENTS)
BUILDING CODE OF THE CITY OF KNOXVILLE
(ADDPTS THE IBC 2018 WITH AMENDMENTS)
BUILDING CODE 2018 OF NASHVILLE AND DAVIDSON
COUNTY (ADDPTS THE IBC 2018 WITH AMENDMENTS)

2018 VIRGINIA CONSTRUCTION CODE (ADOPTS THE IBC 2018 WITH AMENDMENTS)

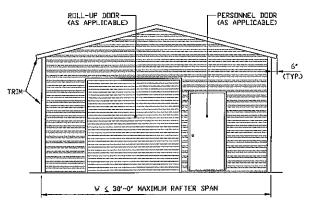
BUILDING CODE 2015 OF WEST VIRGINIA CADOPTS THE IBC 2015 WITH AMENDMENTS)

| MOORE AND ASSOCIATES             |
|----------------------------------|
| ENGINEERING AND CONSULTING, INC. |

THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTIONS. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRUCTLY PROHIBITED AND ANY INFRINGEMENT THERELIPON MAY BE SUBJECT TO LEGAL ACTION.

|   | CLIENT: USS      | SHT. 3A  | DVG. NO SK-3                       | RE√₁ 0         |  |  |  |
|---|------------------|--|------------------------------------|----------------|--|--|--|
|   | PROJECT MGR: VSM | DATE: 7-8-22   | SCALE: NTS                         | 22096S (DI EDI |  |  |  |
|   |                  |  |                                    | "              |  |  |  |
| . | CHECKED BY: PDH  |  | 30-0"x20'-0" SP ENCLOSED STRUCTURE |                |  |  |  |
|   |                  | N/   | OUNT AIRY, NC                      | 27030          |  |  |  |
|   | DRAWN BY: JG     | UNIFIED STEEL STRUCTURES, INC.<br>154 N. RENFRO STREET SUITE 100 |                                    |                |  |  |  |
|   |                  |  |                                    |                |  |  |  |

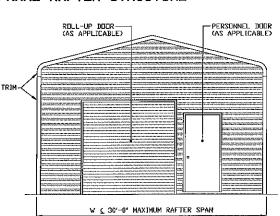
#### BOX EAVE FRAME RAFTER STRUCTURE



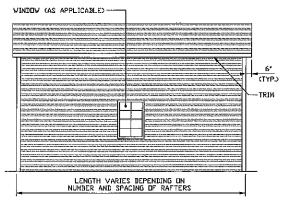
## TYPICAL END ELEVATION

SCALE: NTS

BOW FRAME RAFTER STRUCTURE

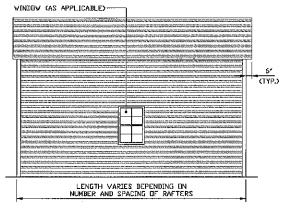


TYPICAL END ELEVATION
SCALE NTS



### TYPICAL SIDE ELEVATION

SCALE: NTS

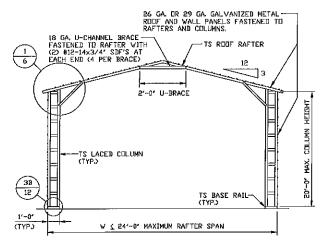


TYPICAL SIDE ELEVATION
SCALE: NTS

| MOORE AND ASSOCIATES             |
|----------------------------------|
| ENGINEERING AND CONSULTING, INC. |

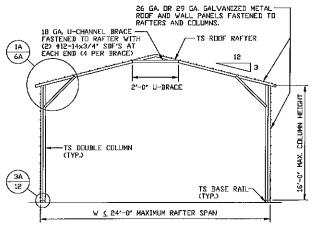
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR DTHERVISE USE OF THIS DOCUMENT IS STRUCTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

| CLIENT: USS      | SHT. 4   | DVG ND SK-3 |     | REV. 0     |  |
|------------------|--|-------------|-----|------------|--|
| PROJECT MGR: WSM | DATE: 7-8-22   | SCALE: NTS  | JO3 | ND: 22096S |  |
| CHECKED BY: PDH  | MOUNT AIRY, NC 27030<br>30-0"x20'-0" SP ENCLOSED STRUCTURE       |             |     |            |  |
| DRAWN BY: JG     | UNIFIED STEEL STRUCTURES, INC.<br>154 N. RENFRO STREET SUITE 100 |             |     |            |  |



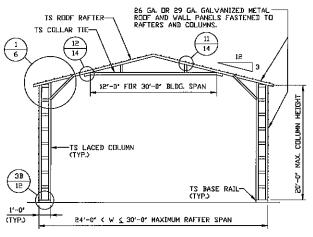
## TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

SCALE: NTS



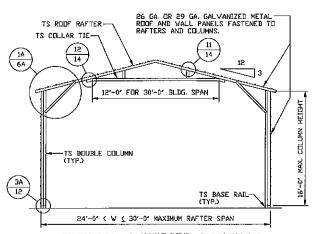
# TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

SCALE: NTS



#### TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION

SCALE: NTS



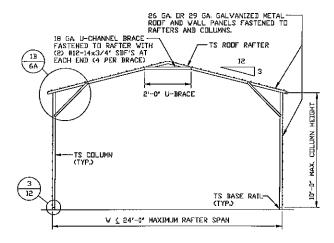
## TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

SCALE: NTS

| 100000 1000 1000 001 1000        |
|----------------------------------|
| MOORE AND ASSOCIATES             |
| ENGINEERING AND CONSULTING, INC. |
| LIGHTEDIANO THE CONSCITUTE, INC. |

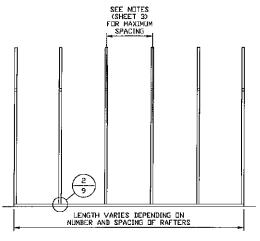
THIS DOCUMENT IS THE PROPERTY OF MOURE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRUCTLY PROHIBITED AND ANY INFRINGEMENT THEREUPIN MAY BE SUBJECT TO LEGAL, ACTION.

|                  | UNIFIED STEEL STRUCTURES, INC. |                      |     |            |  |
|------------------|--------------------------------|----------------------|-----|------------|--|
| DRAWN BY: JG     | 154 N. RENFRO STREET SUITÉ 100 |                      |     |            |  |
|                  |                                | MOUNT AIRY, NC 27030 |     |            |  |
| CHECKED BY: PDH  | 30-0"x20'-                     | 0" SP ENCLOSEI       | STI | RUCTURE    |  |
|                  |                                |                      |     |            |  |
| PROJECT MGR: VSM | DATE: 7-8-22                   | SCALE: NTS           | JOB | ND: 22096S |  |
|                  |                                |                      |     |            |  |
| CLIENT: USS      | SHT. 5                         | DWG. NO SK-3         |     | REV: 0     |  |



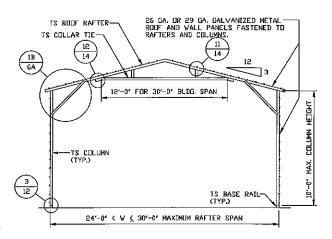
# TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

SCALE: NTS



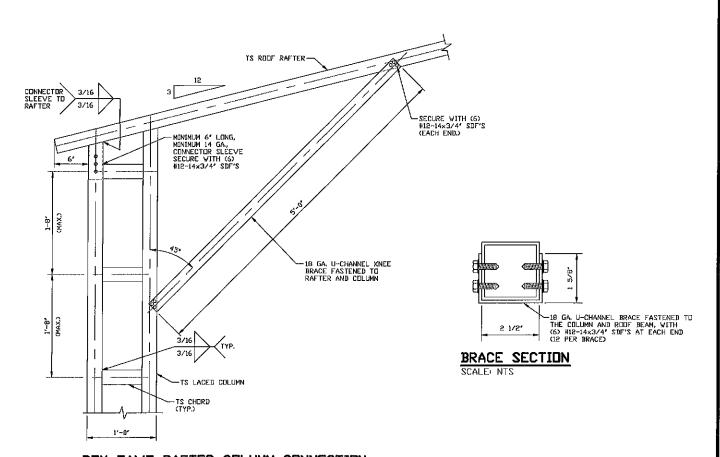
## TYPICAL RAFTER/COLUMN SIDE FRAMING SECTION

CALE: NTS



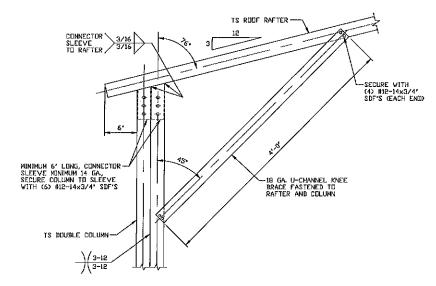
# TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

| CONSULTING, THE UMAITHMENZED REPRODUCTION, COPYING, OR OTHERVISE USE OF<br>THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY<br>BE SUBJECT TO LEGAL ACTION. | CLIENT: USS   | SHT. 5A      | DAC' NO 2K-3                       | REV.: 0      |
|---|---|--------------|------------------------------------|--------------|
| THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND   | PRILJECT MGR: WSM   | DATE: 7-8-22 | SCALE: NTS J                       | DB ND 22096S |
| PAICEMEEDING AND CONGULTED INC.   | MOUNT AIRY, NC 27030  CHECKED BY: PDH 30-0"x20'-0" SP ENCLOSED STRU |              |                                    |              |
|   | DRAWN BY: JG  |              | D STEEL STRUCT!<br>RENFRO STREET ; |              |



BOX EAVE RAFTER COLUMN CONNECTION
DETAIL FOR HEIGHTS 16'-0' < TO \( \) 20'-0'

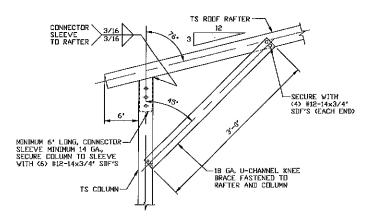
| CONSULTING THE UNAUTHORIZED REPRODUCTION, COPTUNG, OR CITYENVISE USE OF<br>THIS DOCUMENT IS STRICTLY PRODUCTED AND ANY INFRINGEMENT THEREUPON MAY<br>BE SUBJECT TO LEGAL ACTION. | CLIENT) USS      | SHT. 6       | DVG. NO SK-3                  | REV. 0        |
|--|------------------|--------------|-------------------------------|---------------|
| THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING, THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF                                    | PROJECT MGR: WSM | DATE: 7-8-22 | SCALE) NTS                    | JOB NO 22096S |
| ENGINEERING AND CONSULTING, INC.   | CHECKED BY: PDH  |              | C 27030<br>D STRUCTURE        |               |
| MOORE AND ASSOCIATES   | DRAVN BY: JG     |              | D STEEL STRUG<br>RENFRO STREE |               |



BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 10'-0" < T□ <u> < 16'-0"</u>

SCALE: NTS

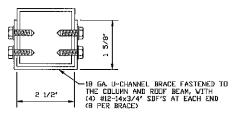
1A



BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS & 10'-0'

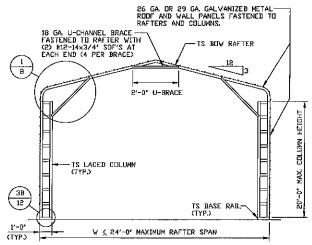
SCALE: NTS

1B



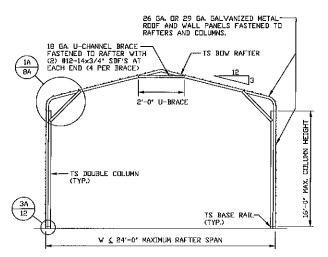
# BRACE SECTION SCALE: NTS

| CONSULTING THE UMAITHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PREMIDITED AND ANY INFRINGEMENT THEREUPIN MAY BE SUBJECT TO LEGAL ACTION. | CLIENT: USS      | SHT. 6A   | DWG. ND: SK-3                  | REV. 0        |
|--|------------------|---|--------------------------------|---------------|
| THIS DOCUMENT IS THE PROPERTY OF MOURE AND ASSOCIATES ENGINEERING AND  | PREJECT MGR: WSM | DATE: 7-8-22                                    | SCALE) NTS                     | JOB NO 22096S |
| PARCINITEDING AND CONGULTURE INC.  | CHECKED BY: PDH  | MOUNT AIRY, NC 27<br>30-0"x20'-0" SP ENCLOSED S |                                | 27030         |
| MOORE AND ASSOCIATES   | DRAWN BYI JG     |   | D STEEL STRUC<br>RENFRO STREET |               |



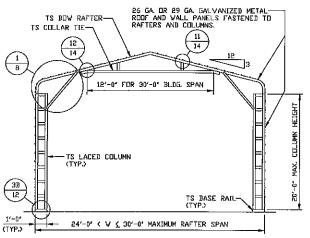
# TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

SCALE: NTS



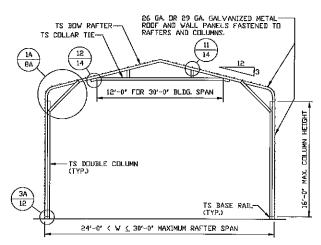
TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION

SCALE: NTS



# TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

SCALE: NTS



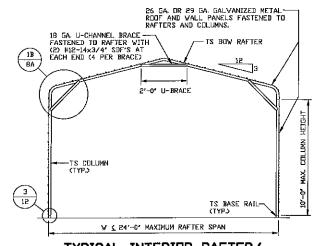
TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

SCALE: NTS

| MOORE AND ASSOCIATE ENGINEERING AND CONSULTI |  |
|--|--|
|  |  |

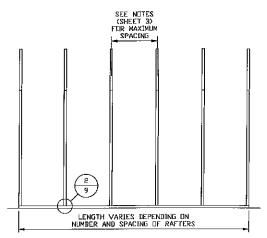
THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING, THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DICLIMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

| CLIENT: USS      | SHT. 7   | BMG ND SK-3  | REV. 0       |  |  |  |
|------------------|--|--------------|--------------|--|--|--|
| PROJECT MGR: VSM | DATE: 7-8-22   | SCALE: NTS J | OB NO 22096S |  |  |  |
| CHECKED BY: PDH  | MOUNT AIRY, NC 27030<br>30-0"x20'-0" SP ENCLOSED STRUCTURE       |              |              |  |  |  |
| DRAVN BY: JG     | UNIFIED STEEL STRUCTURES, INC.<br>154 N. RENFRO STREET SUITE 100 |              |              |  |  |  |



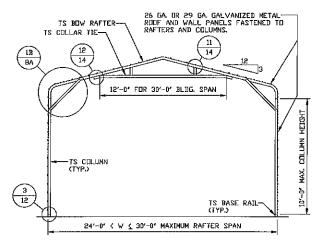
TYPICAL INTERIOR RAFTER/ COLUMN FRAME SECTION

SCALE: NTS



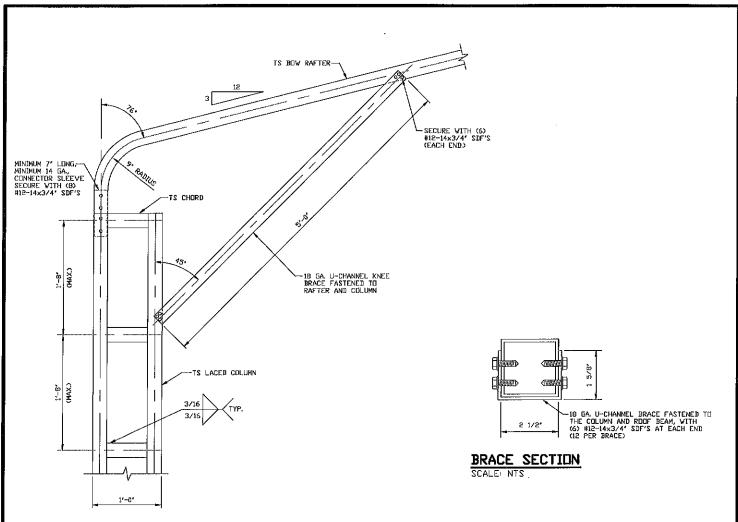
TYPICAL RAFTER/COLUMN FRAMING SIDE SECTION

SCALE: NTS



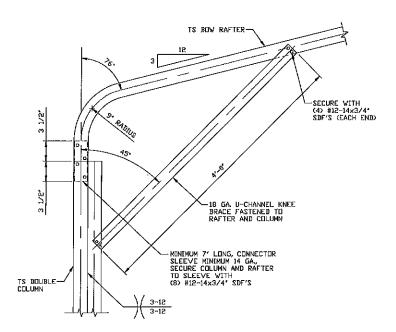
TYPICAL INTERIOR RAFTER/COLUMN FRAME SECTION

| MOORE AND ASSOCIATES  | DRAWN BY: JG                  | 154 N. | D STEEL STRUCT<br>RENFRO STREET       | SUITÉ 100                |
|---|-------------------------------|--------|---------------------------------------|--------------------------|
| ENGINEERING AND CONSULTING, INC.  | CHECKED BY: PDH               |        | 1OUNT AIRY, NC<br>-0" SP ENCLOSED<br> |                          |
| THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNMATHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION. | PRELIECT MGR: VSM CLIENT: USS |        | SCALE: NTS DVG. ND: SK-3              | JOB NO: 22096S<br>REV. 0 |



BOW RAFTER COLUMN CONNECTION DETAIL
FOR HEIGHTS 16'-0' < TO \( \) 20'-0'

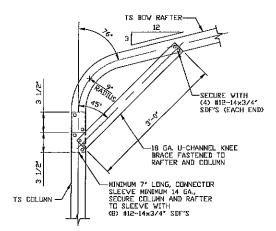
| CORBULTING, THE LAMITHMENZED REPRODUCTION, COPYING, OR OTHERWISE USE OF<br>THIS DICLHENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY<br>BE SUBJECT TO LEGAL ACTION. | CLIENT: USS      | SHT. 0       | DVG. NO: SK-3                    | REV.: 0       |
|---|------------------|--------------|----------------------------------|---------------|
| THIS DOCUMENT IS THE PROPERTY OF HOUSE AND ASSOCIATES ENGINEERING AND   | PROJECT MGR: VSM | DATE: 7-8-22 | SCALE: NTS .                     | JUB NO 22096S |
| ENGINEERING AND CONSULTING, INC.  | CHECKED BY: PDH  |              | IOUNT AIRY, NC<br>0" SP ENCLOSED |               |
| MOORE AND ASSOCIATES  | DRAVN BY: JG     |              | D STEEL STRUCT<br>RENFRO STREET  |               |



BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS 10'-0" < TO ≤ 16'-0"

SCALE: NTS

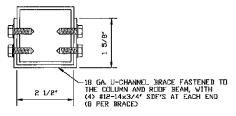
1A



BOX EAVE RAFTER COLUMN CONNECTION DETAIL FOR HEIGHTS \( \) 10'-0"

SCALE: NTS

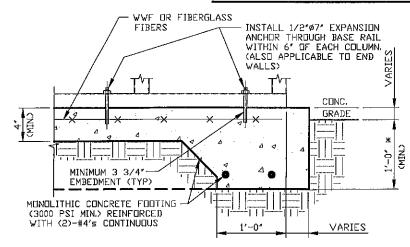
1B



## BRACE SECTION

| CONSULTING THE UNAUTHORIZED REPRODUCTION, COPYING OR OTHERWISE USE OF THIS DOCUMENT IS STREILLY PROPURITED AND ANY INFRINGEMENT THEREUPON MAY BE SURJECT TO LOGAL ACTION. | CLIENT: USS      | SHT. BA      | DWG. ND: SK-3                     | REV.≠ 0        |
|---|------------------|--------------|-----------------------------------|----------------|
| THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND   | PROJECT HGR: VSH | DATE: 7-8-22 | SCALE) NTS                        | JOB NO: 22096S |
| ENGINEERING AND CONSULTING, INC.  | CHECKED BY: PDH  |              | IOUNT AIRY, NC<br>-0" SP ENCLOSED |                |
| MOORE AND ASSOCIATES  | DRAWN BYI JG     |              | D STEEL STRUCT<br>RENFRO STREET   |                |

#### BASE RAIL ANCHORAGE OPTIONS



DRILL 5/8'Ø HOLE THROUGH THE BASE RAIL AND SECURE TO ANCHOR EYE WITH 2" WASHERS 1/2'Ø THROUGH BOLT TOP OF ASPHALT PAVEMENT OR GROUND SURFACE TS CONTINUOUS BASE RAIL HELIX EYE ANCHOR-(SEE NOTES BELOW)

2

#### CONCRETE MONOLITHIC SLAB BASE RAIL ANCHURAGE

SCALE: NTS MINIMUM ANCHOR EDGE DISTANCE IS 4". \* COURDINATE WITH LOCAL BUILDING CODES/ORD. REGARDING REQUIRED FOOTING DEPTH.

#### GROUND BASE HELIX ANCHORAGE **2A** (CAN BE USED FOR ASPHALT) SCALE: NTS

\* COURDINATE WITH LOCAL CODES/ORD. REGARDING REQUIRED ANCHOR LENGTH.

LIMITED CTOD CTDISCTIBEC

#### GENERAL NOTES

NOTE: CONCRETE MONOLITHIC SLAB DESIGN BASED ON MINIMUM SDIL BEARING CAPACITY OF 1,500 PSF.

#### CONCRETE

CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS.

COVER OVER REINFORCING STEEL:

FOR FOUNDATIONS, MINIMUM CONCRETE COVER OVER REINFORCING BARS SHALL BE PER ACT-318: 3' IN FOUNDATIONS WHERE THE CONCRETE IS CAST AGAINST AND PERMANENTLY IN CONTACT WITH THE EARTH OR EXPOSED TO THE EARTH OR WEATHER, AND 1 1/2" ELSEWHERE.

#### REINFURCING STEEL

THE TURNDOWN REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. THE SLAB REINFORCEMENT SHALL BE WELDED WIRE FABRIC MEETING ASTM A185 OR FIBERGLASS FIBER REINFORCEMENT.

#### REINFORCEMENT MAY BE BENT IN THE SHOP OR THE FIELD PROVIDED:

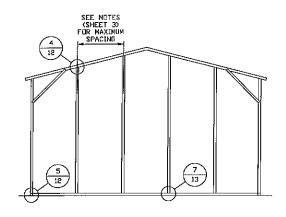
- 1. REINFORCEMENT IS BENT COLD.
  2. THE DIAMETER OF THE BEND, MEASURED ON THE INSIDE OF THE BAR, IS NOT LESS THAN SIX-BAR DIAMETERS.
- 3. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT.

#### HELIX ANCHOR NOTES:

- 1. FOR VERY DENSE AND/OR CEMENTED SANDS, COARSE GRAVEL AND COBBLES, CALICHE, PRELOADED SILTS AND CLAYS, USE MINIMUM (2) 4' HELICES WITH MINIMUM 30' EMBEDMENT OR SINGLE 6" HELIX WITH MINIMUM 50" EMBEDMENT
- 2, FOR CORAL USE MINIMUM (2) 4' HELICES WITH MINIMUM 30' EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM
- 3. FOR MEDIUM DENSE CDARSE SANDS, SANDY GRAVELS, VERY STIFF SILTS, AND CLAYS USE MINIMUM (2) 4' HELICES WITH MINIMUM 30 INCH EMBEDMENT OR SINGLE 6' HELIX WITH MINIMUM 50" EMBEDMENT.
- 4. FOR LODSE TO MEDIUM DENSE SANDS, FIRM TO STIFF CLAYS AND SILTS ALLUVIAL FILL, USE MINIMUM <2> 6' HELICES WITH MINIMUM
- 5. FOR VERY LOSE TO MEDIUM DENSE SANDS, FIRM TO STIFFER CLAYS AND SILTS, ALLUVIAL FILL, USE MINIMUM (2) 8' HELICES WITH MINIMUM 60' EMBEDMENT.

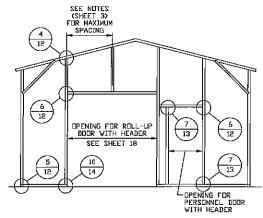
| MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.   | DRAWN BY: JG | 154 N.<br>N | RENFRO STREET<br>IOUNT AIRY, NC<br>0" SP ENCLOSED | T SUITÉ 100<br>27030    |
|---|--------------|-------------|---|-------------------------|
| THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION. |              |             | SCALE: NTS<br>DWG. ND: SK-3                       | JOB NO 22096S<br>REV. 0 |

## TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOX EAVE RAFTER)



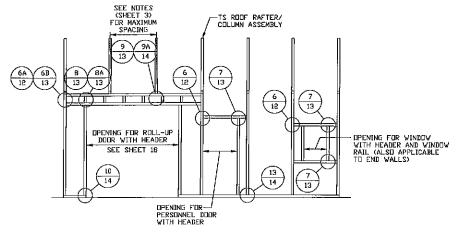
# TYPICAL BOX EAVE RAFTER END WALL FRAMING SECTION

SCALE: NTS



# TYPICAL BOX EAVE RAFTER END WALL OPENINGS FRAMING SECTION

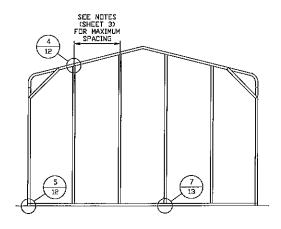
SCALE: NTS



TYPICAL BOX EAVE RAFTER SIDE WALL OPENINGS FRAMING SECTION

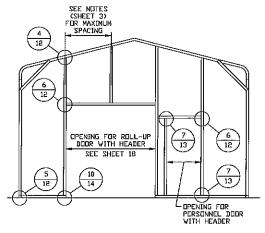
| CONSULTING. THE INAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF<br>THIS DOCUMENT IS STREETLY PROHOBITED AND ANY INFRINGENENT THEREUPON MAY<br>BE SUBJECT TO LEGAL ACTION. | CLIENT: USS      | SHT. 10      | DAG NO 2K-3                       | REV: 0        |
|---|------------------|--------------|-----------------------------------|---------------|
| THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND   | PROJECT NGR: VSN | DATE: 7-8-22 | SCALE: NTS                        | JOB NO 22096S |
| TATORIEDDING AND CONCIL TRIC INC  | CHECKED BY: PDH  |              | IOUNT AIRY, NC<br>-0" SP ENCLOSED |               |
| MOORE AND ASSOCIATES  | DRAVN BY: JG     |              | D STEEL STRŪC<br>RENFRO STREET    |               |

## TYPICAL END WALL AND SIDE WALL FRAMING SECTIONS (BOW RAFTER)



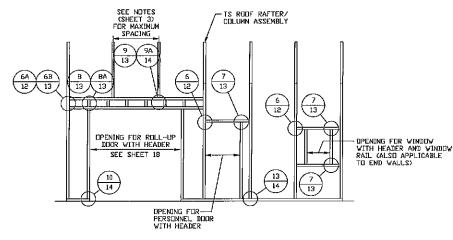
# TYPICAL BOW RAFTER END WALL FRAMING SECTION

SCALE: NTS



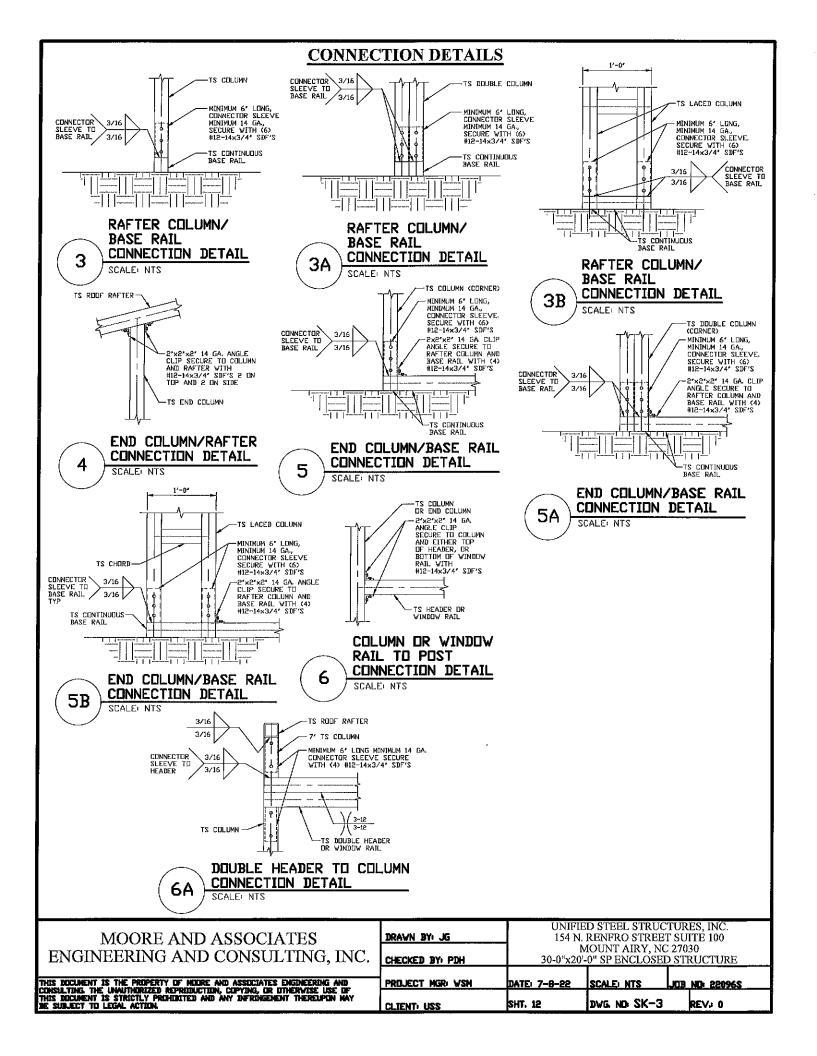
# TYPICAL BOW RAFTER END WALL OPENINGS FRAMING SECTION

SCALE: NTS

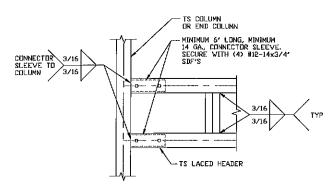


# TYPICAL BOW RAFTER SIDE WALL OPENINGS FRAMING SECTION

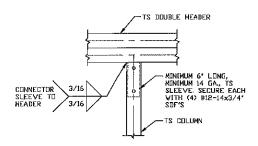
| CONSULTING THE UNANTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF<br>THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY<br>BE SUBJECT TO LEGAL ACTION. | CLIENT: USS      | SHT. 11      | DVG NO SK-3                      |       | SEA" 0    |  |
|--|------------------|--------------|----------------------------------|-------|-----------|--|
| THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND  | PROJECT NGR: VSM | DATE: 7-8-22 | SCALE: NTS                       | JOB I | ND 22096S |  |
| ENGINEERING AND CONSULTING, INC.   | CHECKED BY: PDH  |              | 10UNT AIRY, NO<br>0" SP ENCLOSEI |       |           |  |
| MOORE AND ASSOCIATES   | DRAWN BY: JG     |              | D STEEL STRUC<br>RENFRO STREE    |       |           |  |



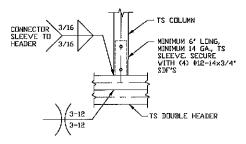
## **CONNECTION DETAILS**



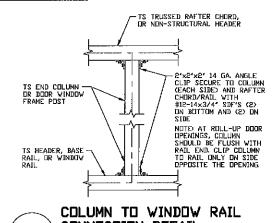
LACED HEADER
TO COLUMN
CONNECTION DETAIL
SCALE NTS



8 DOUBLE HEADER/
COLUMN
CONNECTION DETAIL
SCALE: NTS



9 COLUMN/
DOUBLE HEADER
CONNECTION DETAIL
SCALE NTS



TYP 3/16

SCALE; NTS

TYP 3/16

TS LACED HEADER

MINIMUM 6' LDING, MINIMUM
14 GA, TS SLEEVE. SECURE
EACH WITH (4) #12-14x3/4'
SDF'S

TS COLUMN

LACED HEADER/
COLUMN
CONNECTION DETAIL
SCALE NTS

| MOORE AND ASSOCIATES            |    |
|---------------------------------|----|
| ENGINEERING AND CONSULTING, INC | C. |

THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL, ACTION.

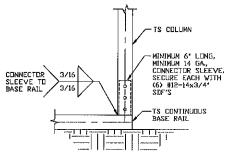
|   | CLIENT: USS      | SHT. 13  | DVG. NO SK-3  | REV.: 0     |  |  |
|---|------------------|--|---------------|-------------|--|--|
| _ | PREJECT MGR: VSM | DATE: 7-8-22   | SCALE) NTS JO | B ND 22096S |  |  |
|   | CHECKED BY: PDH  | MOUNT AIRY, NC 27030<br>30-0"x20'-0" SP ENCLOSED STRUCTURE       |               |             |  |  |
|   | DRAWN BY: JG     | UNIFIED STEEL STRUCTURES, INC.<br>154 N. RENFRO STREET SUITE 100 |               |             |  |  |

# CONNECTOR 3/16 SLEEVE TO 3/16 HEADER TYP 3/16 TYP 3/16 TS COLUMN MINIMUM 14 GA., TS SLEEVE SCURE WITH (4) #112-14×3/4\* TYP 3/16 TYP 3/16 TS LACED HEADER

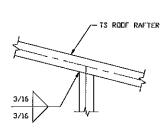
9A CONNECTION DETAIL

SCALE, NTS

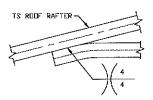
## **CONNECTION DETAILS**



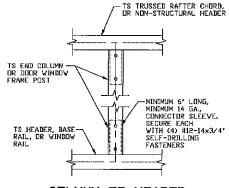
10 COLUMN/BASE RAIL CONNECTION DETAIL SCALE NTS



RAFTER TO CHORD CONNECTION DETAIL
SCALE: NTS



12 COLLAR TIE CONNECTION DETAIL
SCALE: NTS



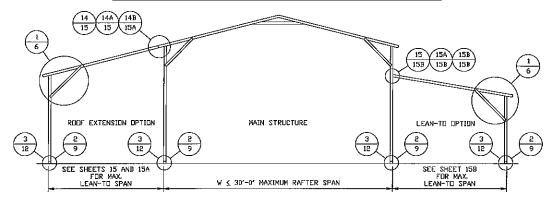
COLUMN TO HEADER
OR BASE RAIL
CONNECTION DETAIL
SCALE NTS

| MOORE AND ASSOCIATES             |
|----------------------------------|
| ENGINEERING AND CONSULTING, INC. |

THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING, THE UNMITHDRIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STROTTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

| CLIENT: USS          | SHT. 14  | DWG NO SK-3                     |     | REV, O     |  |  |
|----------------------|--|---------------------------------|-----|------------|--|--|
| <br>PROJECT MGR: WSM | DATE: 7-8-22   | SCALE: NTS                      | JOB | ND: 22096S |  |  |
| CHECKED BY PDH       | MOUNT AIRY, NC 27030<br>30-0"x20'-0" SP ENCLOSED STRUCTURE |                                 |     |            |  |  |
| DRAVN BY: JG         |  | D STEEL STRUC'<br>RENFRO STREET |     |            |  |  |

#### BOX EAVE RAFTER LEAN-TO OPTIONS



#### TYPICAL BOX EAVE RAFTER LEAN-TO OPTIONS FRAMING SECTION (BOTH OPTIONS SHOWN)

SCALE NTS

MAXIMUM WIDTH OF LACED MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 20'-0'.

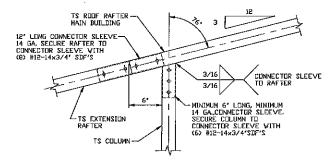
MAXIMUM WIDTH OF DOUBLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 16'-0',

MAXIMUM WIDTH OF SINGLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 12'-0',

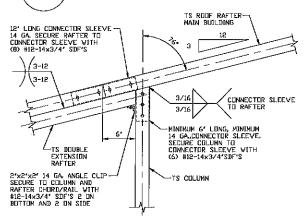
MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE LACED COLUMNS
FOR EAVE HEIGHTS 16'-0' < TO < 20'-0',

MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE DOUBLE COLUMNS
FOR EAVE HEIGHTS 10'-0' < TO < 16'-0',

MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE SINGLE COLUMNS
FOR EAVE HEIGHTS 10'-0'.



# SIDE EXTENSION RAFTER/COLUMN DETAIL FOR RAFTER SPANS & 12'-0'



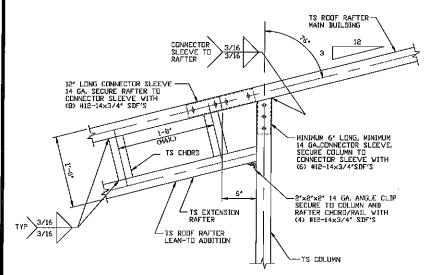
SIDE EXTENSION RAFTER/
COLUMN DETAIL FOR RAFTER
SPANS 12'-0' < TO \( \) 16'-0'

| MOORE AND ASSOCIATES             |
|----------------------------------|
| ENGINEERING AND CONSULTING, INC. |
|                                  |

|                   |                     | DORE AND ASSOCIATES ENG   |               |
|-------------------|---------------------|---------------------------|---------------|
| CONSULTING. THE L | JNAUTHORIZED REPROI | luction, copying, or othe | RVISE USE OF  |
|                   |                     | d and any infringement "  | Thereupon May |
| DE SUBJECT TO LE  | ogal action         |                           |               |
|                   |                     |                           |               |

| CLIENT: USS      | SHT. 15  | DWG. NO SK-3 |     | REV+ 0     |  |
|------------------|--|--------------|-----|------------|--|
| PROJECT MGRI WSM | DATE: 7-8-22   | SCALE: NTS   | JOB | NO: 22096S |  |
| CHECKED BY: PDH  | MOUNT AIRY, NC 27030<br>30-0"x20'-0" SP ENCLOSED STRUCTURE |              |     |            |  |
| DRAWN BY: JG     | 154 N. RENFRO STREET SUITE 100                             |              |     |            |  |

## **BOX EAVE RAFTER LEAN-TO OPTION**



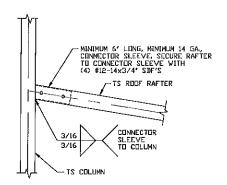
SIDE EXTENSION RAFTER/COLUMN DETAIL FOR RAFTER SPANS 16'-0' < TO \( \) 20'-0'

| ·                               |    |
|---------------------------------|----|
| ENGINEERING AND CONSULTING, INC | ٦. |
| MOORE AND ASSOCIATES            |    |

| THIS DOCUMENT IS THE PROPERTY OF HOD  | re and associates engineering and  |
|---------------------------------------|------------------------------------|
| Consulting. The Unauthorized Reproduc | TION, COPYING, OR OTHERWISE USE OF |
| THIS DOCUMENT IS STRICTLY PROMIBITED  | AND ANY INFRINGEMENT THEREUPON MAY |
| DE SUBJECT TO LEGAL ACTION.           |                                    |
|                                       |                                    |

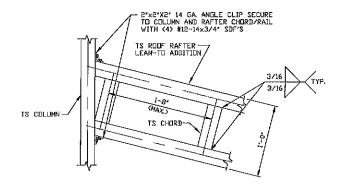
| PROJECT MGR: VSM  CLIENT: USS | DATE: 7-8-22<br>SHT, 15A | DVG. NO SK-                     | _ | ND 22096S<br>REV.: 0 | _ |
|-------------------------------|--------------------------|---------------------------------|---|----------------------|---|
|                               |                          |                                 |   |                      |   |
| CHECKED BY: PDH               |                          | MOUNT AIRY, 1<br>'-0" SP ENCLOS |   |                      |   |
| DRAWN BY: JG                  |                          | ED STEEL STRU<br>RENFRO STRE    |   |                      |   |

## **BOX EAVE RAFTER LEAN-TO OPTIONS**



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS & 12'-0' SCALE! NTS

LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL
FOR RAFTER SPANS 12'-0' < TO < 16'-0'
SCALE NTS



LEAN-TO RAFTER TO RAFTER
COLUMN CONNECTION DETAIL

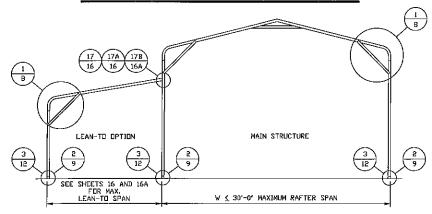
FOR RAFTER SPANS 16'-0" < TO \( \) 20'-0"

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.

THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UMAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRUCTLY PROBUBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

|   | CLIENT: USS      | SHT. 15B     | DWG NO SK-3                         | REV. 0        |
|---|------------------|--------------|-------------------------------------|---------------|
| _ | PROJECT HGR: WSM | DATE: 7-8-22 | SCALE: NTS J                        | DB NO: 22096S |
|   | CHECKED BY: PDH  |              | OUNT AIRY, NC 2<br>0" SP ENCLOSED : |               |
|   | DRAWN BY: JG     |              | D STEEL STRUCT!<br>RENFRO STREET :  |               |

#### **BOW RAFTER LEAN-TO OPTIONS**



#### TYPICAL BOW RAFTER LEAN-TO OPTION FRAMING SECTION

SCALE NTS

MAXIMUM WIDTH DF LACED MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 20'-0'.

MAXIMUM WIDTH OF DOUBLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 16'-0'.

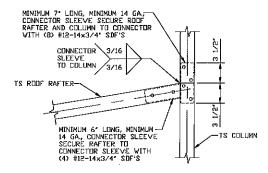
MAXIMUM WIDTH OF SINGLE MEMBER ROOF EXTENSION AND LEAN-TO OPTION IS 12'-0'.

MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE LACED COLUMNS
FOR EAVE HEIGHTS 16'-0' < TO < 20'-0'.

MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE DOUBLE COLUMNS
FOR EAVE HEIGHTS 10'-0' < TO < 16'-0'.

MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE SINGLE COLUMNS
FOR EAVE HEIGHTS 10'-0' < TO < 16'-0'.

MAIN BUILDING COLUMNS WITH LEAN-TO OR ROOF EXTENSION ATTACHED ARE REQUIRED TO BE SINGLE COLUMNS
FOR EAVE HEIGHTS < 10'-0'.



LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS \( \) 12'-0'

MINIMUM 7' LONG, MINIMUM

14 GA., CONNECTOR SLEEVE
SECUER CDIF RAFTER AND
CDLUMN TO CONNECTOR WITH
(8) #12-14x3/4' SDF'S

IS DOUBLE ROOF
RAFTER

(3-12

2'x2'x2' 14 GA. ANGLE CLIP
SECURE TIT COLUMN AND
RAFTER CHURD/RAIL WITH
(4) #12-14x3/4' SDF'S

LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 12'-0' < TO < 16'-0"

MOORE AND ASSOCIATES ENGINEERING AND CONSULTING, INC.

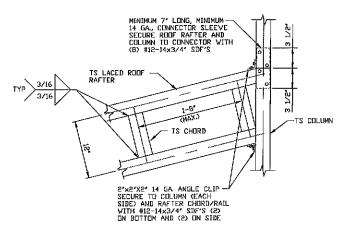
17A

THIS DOCUMENT IS THE PROPERTY OF MODRE AND ASSOCIATES ENGINEERING AND CONSULTING. THE UNAUTHORIZED REPRODUCTION, COPYING, OR OTHERWISE USE OF THIS DOCUMENT IS STRICTLY PROHIBITED AND ANY INFRINGEMENT THEREUPON MAY BE SUBJECT TO LEGAL ACTION.

| CLIENT: USS      | SHT. 16  | DWG NO SK-3 |     | REV. 0    |  |
|------------------|--|-------------|-----|-----------|--|
| PROJECT MGR: VSM | DATE: 7-8-22   | SCALE) NTS  | JOB | NO 22096S |  |
| CHECKED BY: PDH  | MOUNT AIRY, NC 27030<br>30-0"x20'-0" SP ENCLOSED STRUCTURE |             |     |           |  |
| DRAWN BY: JG     | 154 N. RENFRO STREET SUITE 100                             |             |     |           |  |

LIMITED CTEEL CTOLICTIDES INC

## **BOW RAFTER LEAN-TO OPTION**



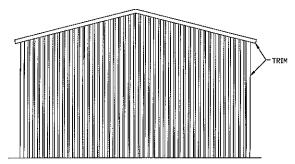
LEAN-TO RAFTER TO RAFTER COLUMN CONNECTION DETAIL FOR RAFTER SPANS 16'-0" < TO < 20'-0"

| MOORE AND ASSOCIATES             |
|----------------------------------|
| ENGINEERING AND CONSULTING, INC. |

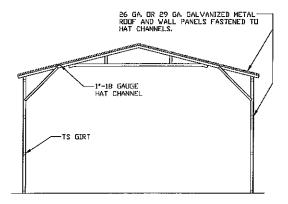
|       |            |             |             |             | TES ENGINEERING A |     |
|-------|------------|-------------|-------------|-------------|-------------------|-----|
|       |            |             |             |             | or othervise use  |     |
|       |            |             | HORITED AND | ANY INFRING | EMENT THEREUPON   | MAY |
| 15 2m | CECT THE L | egal action |             |             |                   |     |

| ľ  |                  | SHT. 16A   | DVG NO SK-3                   |       | REV. 0     |  |
|----|------------------|--|-------------------------------|-------|------------|--|
| -[ | PROJECT MGR: VSM | DATE: 7-8-22   | SCALE NTS                     | . INR | ND: 22096S |  |
|    | CHECKED BY PDH   | MOUNT AIRY, NC 27030<br>30-0"x20'-0" SP ENCLOSED STRUCTURE |                               |       |            |  |
| I  | DRAVN BY: JG     |  | D STEEL STRUC<br>RENFRO STREE |       |            |  |

## **BOX EAVE RAFTER VERTICAL ROOF/SIDING OPTION**

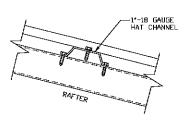


TYPICAL END ELEVATION VERTICAL ROOF/SIDING



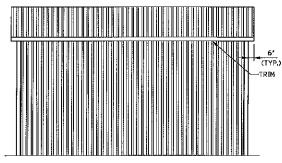
TYPICAL SECTION VERTICAL ROOF/SIDING OPTION

SCALE: NTS



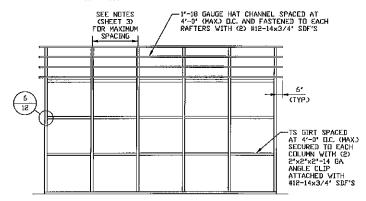
PANEL ATTACHMENT
(ALTERNATE FOR VERTICAL ROOF PANELS)

SCALE: NTS



#### TYPICAL SIDE ELEVATION VERTICAL ROOF/SIDING

SCALE: NTS



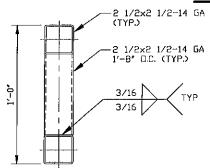
#### TYPICAL FRAMING SECTION VERTICAL ROOF/SIDING OPTION

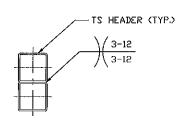
| MOORE AND ASSOCIATES           |    |
|--------------------------------|----|
| MOOKE AND ASSOCIATES           |    |
| ENGINEERING AND CONSULTING, IN | C. |

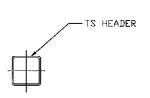
| THIS DOCUMENT IS  | THE PROPERTY OF  | HOORE AND AS   | SOCIATES ENGIN | EERING AND  |
|-------------------|------------------|----------------|----------------|-------------|
| CONSULTING, THE U | nauthurized repr | KUDUCTION, COP | YING, DR OTHER | vise use of |
| THUS DOCUMENT IS  |                  | TED AND ANY II | nfringement th | EREUPON HAY |
| DE SUBJECT TO LE  | JGAL ACTION.     |                |                |             |

| PROJECT MGRI WSM | DATE: 7-8-22   | SCALE: NTS | JOB | NO 22096S |
|------------------|--|------------|-----|-----------|
| CHECKED BY: PDH  | 30-0"x20'-0" SP ENCLOSED STRUCTURE   |            |     |           |
| BRAWN BY: JG     | UNIFIED STEEL STRUCTURES, INC.<br>154 N. RENFRO STREET SUITE 100<br>MOUNT AIRY, NC 27030 |            |     |           |

## SIDE WALL HEADER OPTIONS

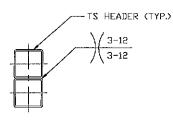


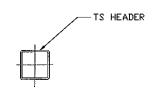




HEADER DETAIL FOR 12'-0' < LENGTHS < 20'-0" HEADER DETAIL FOR 7'-0" < LENGTHS ≤ 12'-0"
SCALE( NTS HEADER DETAIL FOR SCALE: NTS

## END WALL HEADER OPTIONS





HEADER DETAIL FOR

HEADER DETAIL FOR 13'-0' < LENGTHS <u>4</u> 20'-0' LENGTHS & 13'-0"

| MOORE AND ASSOCIATES             |
|----------------------------------|
| ENGINEERING AND CONSULTING, INC. |

| THIS DOCUMENT IS | THE PROPERTY OF MO   | ORE AND ASSOCIATES EX   | GINEERING AND |
|------------------|----------------------|-------------------------|---------------|
| CONSULTING, THE  | INAUTHORIZED REPRODU | ICTION, COPYING, OR OTH | ERVISE USE OF |
| THUS DUCUMENT IS | STRICTLY PROHIBITED  | AND ANY INFRINGEMENT    | THEREUPON HAY |
| ME SUBJECT TO L  | EGAL ACTION,         |                         |               |

| DRAWN BY: JG     | 154 N.       | UNIFIED STEEL STRUCTURES, INC.<br>154 N. RENFRO STREET SUITE 100 |                |  |
|------------------|--------------|--|----------------|--|
| CHECKED BY: PDH  |              | MOUNT AIRY, NC 27030<br>30-0"x20'-0" SP ENCLOSED STRUCTURE       |                |  |
| PREJECT MGR: WSH | DATE: 7-8-22 | SCALE: NTS   | JUB ND: 22096S |  |
| CLIENT: USS      | SHT. 18      | DVG. NO SK-3   | REV. 0         |  |