TOWN OF JACKSON
PLANNING & BUILDING DEPARTMENT

TRANSMITTAL MEMO

Town of Jackson
- ☒ Public Works/Engineering
- ☒ Building
- ☐ Title Company
- ☒ Town Attorney
- ☒ Police

Joint Town/County
- ☒ Parks and Recreation
- ☒ Pathways
- ☒ Joint Housing Dept

Teton County
- ☐ Planning Division
- ☐ Engineer
- ☐ Surveyor- *Nelson*
- ☐ Assessor
- ☐ Clerk and Recorder
- ☐ Road and Levee

State of Wyoming
- ☐ Teton Conservation
- ☐ WYDOT
- ☐ TC School District #1
- ☐ Game and Fish
- ☐ DEQ

Federal Agencies
- ☐ Army Corp of Engineers

Utility Providers
- ☐ Qwest
- ☐ Lower Valley Energy
- ☐ Bresnan Communications

Special Districts
- ☒ START
- ☒ Jackson Hole Fire/EMS
- ☐ Irrigation Company

Date: December 21, 2022

Item #: P22-296

Planner: Katelyn Page

Phone: 307-733-0440 ext. 1302

Email: kpage@jacksonwy.gov

Owner
The Apartments at Dusty Acres, LLC
PO Box 2075
Jackson, WY 83001

Applicant:
Smartlink Group
3775 Jay St.
Wheat Ridge, CO 80033

REQUESTS:

The applicant is submitting a request for a Basic Use Permit to modify existing wireless communication facility located at 1024 Gregory Lane, legally known as PT NE1/4NE1/4, SEC. 6, TWP. 40, RNG. 116 PIDN: 22-40-16-06-1-00-031

For questions, please call Katelyn Page at 307-733-0440, x1302 or email to the address shown below. Thank you.

Please respond by: **December 30, 2022 (Sufficiency)**
January 11, 2023 (with Comments)

RESPONSE: For Departments not using Trak-it, please send responses via email to: alangley@jacksonwy.gov

PLANNING PERMIT APPLICATION
Planning & Building Department

150 E Pearl Ave.
P.O. Box 1687
Jackson, WY 83001

ph: (307) 733-0440
www.townofjackson.com

For Office Use Only

Fees Paid_____ Date & Time Received _____

Application #s _____ _____ _____

Please note: *Applications received after 3 PM will be processed the next business day.*

PROJECT.

Name/Description: KSGT Radio Relo / IDL04527 / 14471313

Physical Address: 1024 Gregory Lane Jackson, WY 83001

Lot, Subdivision: A portion of the NE1/4 NE1/4 of Section 6, T40N, R116W, 6th P.M. Teton County PIDN: 22401606100031

PROPERTY OWNER.

Name: The Apartments at Dusty Acres, LLC Phone: 307-690-4971, 307-690-2411

Mailing Address: PO Box 2075 Jackson WY ZIP: 83001

E-mail: rem@bresnan.net or leannestaleymoore@gmail.com

APPLICANT/AGENT.

Name: Valerie Cardenas Phone: 303-903-3990

Mailing Address: 3775 Jay Street, Wheat Ridge, CO ZIP: 80033

E-mail: valerie.cardenas@smartlinkgroup.com

DESIGNATED PRIMARY CONTACT.

_____Property Owner X Applicant/Agent

TYPE OF APPLICATION. *Please check all that apply; review the type of application at www.townofjackson/200/Planning*

Use Permit
X Basic Use
_____Conditional Use
_____Special Use

Relief from the LDRs
_____Administrative Adjustment
_____Variance
_____Beneficial Use Determination
_____Appeal of an Admin. Decision

Physical Development
_____Sketch Plan
_____Development Plan
_____Design Review

Subdivision/Development Option
_____ Subdivision Plat
_____Boundary Adjustment (replat)
_____Boundary Adjustment (no plat)
_____Development Option Plan

Interpretations
_____Formal Interpretation
_____Zoning Compliance Verification

Amendments to the LDRs
_____LDR Text Amendment
_____Map Amendment

Miscellaneous
_____**Other:** _____
_____ Environmental Analysis

PRE-SUBMITTAL STEPS. *To see if pre-submittal steps apply to you, go to www.townofjackson.com/200/Planning and select the relevant application type for requirements. Please submit all required pre-submittal steps with application.*

Pre-application Conference #: _____ Environmental Analysis #: _____

Original Permit #: CUP-P18-274, 323 Date of Neighborhood Meeting: _____

SUBMITTAL REQUIREMENTS. *Please ensure all submittal requirements are included. The Planning Department will not hold or process incomplete applications. Partial or incomplete applications will be returned to the applicant. Go to www.townofjackson.com/200/Planning and select the relevant application type for submittal requirements.*

Have you attached the following?

_____ **Application Fee.** Fees are cumulative. Go to www.townofjackson.com/200/Planning and select the relevant application type for the fees.

X **Notarized Letter of Authorization.** A notarized letter of consent from the landowner is required if the applicant is not the owner, or if an agent is applying on behalf of the landowner. Please see the Letter of Authorization template at http://www.townofjackson.com/DocumentCenter/View/845/LetterOfAuthorization-PDF.

_____ **Response to Submittal Requirements**. The submittal requirements can be found on the TOJ website for the specific application. If a pre-application conference is required, the submittal requirements will be provided to applicant at the conference. The submittal requirements are at www.townofjackson.com/200/Planning under the relevant application type.

Note: Information provided by the applicant or other review agencies during the planning process may identify other requirements that were not evident at the time of application submittal or a Pre-Application Conference, if held. Staff may request additional materials during review as needed to determine compliance with the LDRs.

Under penalty of perjury, I hereby certify that I have read this application and associated checklists and state that, to the best of my knowledge, all information submitted in this request is true and correct. I agree to comply with all county and state laws relating to the subject matter of this application, and hereby authorize representatives of Teton County to enter upon the above-mentioned property during normal business hours, after making a reasonable effort to contact the owner/applicant prior to entering.

Signature of Property Owner or Authorized Applicant/Agent

11/29/2022

Date

Valerie Cardenas

Name Printed

Real Estate Specialist

Title

Town of Jackson
150 E Pearl Avenue
PO Box 1687, Jackson, WY 83001
P: (307)733-3932 F: (307)739-0919
www.jacksonwy.gov

LETTER OF AUTHORIZATION

NAMING APPLICANT AS OWNER'S AGENT

The Apartments at Dusty Acres, LLC is the owner in fee of the premises located at:
Print legal name of property owner as listed on warranty deed

Address of Premises: 1024 Gregory Lane, Jackson, WY 83001

Legal Description: A portion of the NE1/4 NE1/4 of Section 6, T40N, R116W, 6th P.M. Teton County - Parcel No.22401606100031
Please attach additional sheet for additional addresses and legal descriptions

And, that the person named as follows: Name of Applicant/agent: Valerie Cardenas - Smartlink Group on behalf of AT&T

Mailing address of Applicant/agent: 3775 Jay Street, Wheat Ridge, CO 80033

Email address of Applicant/agent: valerie.cardenas@smartlinkgroup.com

Phone Number of Applicant/agent: (303) 903-3990

Is authorized to act as property owner's agent and be the applicant for the application(s) checked below for a permit to perform the work specified is this(these) application(s) at the premises listed above:

☐ Development/Subdivision Plat Permit Application ☒ Building Permit Application

☐ Public Right of Way Permit ☐ Grading and Erosion Control Permit ☐ Business License Application

☐ Demolition Permit ☐ All Applications ☒ Other (describe) Planning & Zoning for Rooftop Wireless Facility Modification (AS REQUIRED

Under penalty of perjury, the undersigned swears that the foregoing is true and, if signing on behalf of a corporation, partnership, limited liability company or other entity, the undersigned swears that this authorization is given with the appropriate approval of such entity, if required.

Leanne Staley Moore
Applicant/Agent Signature

Title if signed by officer, partner or member of corporation, LLC (secretary or corporate owner), partnership or other non-individual Owner

STATE OF Wyoming)
) SS.
COUNTY OF Teton)

The foregoing instrument was acknowledged before me by Leanne Moore this 22nd day of November 2022. WITNESS my hand and official seal.

Jeanna Seaton
Notary Public

My commission expires: 5-12-28

JEANNA SEATON
NOTARY PUBLIC
STATE OF WYOMING
COMMISSION ID: 167003
MY COMMISSION EXPIRES: 05/12/2028

smartlink

Contracted by AT&T Mobility

November 30, 2022

Town of Jackson Planning Department
150 E. Pearl Avenue
Jackson, WY 83001

RE: Proposed modifications of AT&T Wireless Communication Facility located in the Town of Jackson
Project Site Info: IDL04527 KSGT Radio Relo/ FA 14471313/ 5G NR 1SR CBAND, DoD
Site Address: 1024 Gregory Lane Jackson, WY 83001

Town of Jackson:

AT&T will be performing a technology upgrade project on a pre-existing wireless communication site located at 1024 Gregory Lane. There will be no increase to the height of the structure, no expansion or disturbance of the ground space involved in this project. All current stealthing measures will remain in place. Construction is estimated to take place between 07/24/2024– 8/14/2024 during normal business hours. AT&T is proposing the following changes:

Rooftop Work - all equipment is located behind stealth screening and will not be visible from public view:

- Remove (12) Antennas
- Remove (6) RRHs
- Relocating (3) RRHs
- Install (6) Antennas
- Install (1) Mast Pipe
- Install (1) Pipe to Pipe Clamp

Shelter Work:

- Remove (1) D4U Cabinet
- Remove existing PDF
- Install (1) AMIA, (3) ABIO and (1) ASIL
- Install (1) Vertiv Rectifier

I certify that this project scope of work is in compliance with all non-discretionary structural, electrical, energy, building and safety codes.

Sincerely,

Valerie Cardenas
Real Estate Specialist
(303) 903-3990, Valerie.cardenas@smartlinkgroup.com

November 29, 2022

Town of Jackson Planning Department
150 E Pearl Ave
Jackson, WY 83001

VIA Electronic Delivery

RE: Request for Minor Modification to Existing Wireless Facility- Section 6409/47 CFR §1.6100 ("6409")
Site Address: 1024 Gregory Lane Jackson, WY 83001
AT&T Site Info: IDL04527 KSGY Radio Relo, Project: CBand & CBand D0D, FA: 14471313

To Whom it May Concern:

On behalf of New Cingular Wireless PCS, LC ("AT&T") we are pleased to submit this request to modify AT&T's existing wireless communication site at the location referenced above, as an Eligible Facilities Request for a minor modification under Section 6409 and Federal Communications Commission ("FCC") rules. This request is being made pursuant to Section 6409 of the federal Middle Class Tax Relief and Job Creation Act of 2012, 47 U.S.C 1455(a) and complies with all regulations set forth therein.

Scope of Work:
AT&T proposes the following minor modifications to this site. (Please note: all work will be performed wholly within the existing premises and utility easements; this site contains a stealth wall as concealment and the project otherwise complies with the site's prior conditions of approval.)

Component	Federal Section 6409 Limits	AT&T's Proposed Modification
Increase height of original structure	10 feet or less	No increase in Height
Antennas extending horizontally from edge of structure	6 feet or less	Antennas extend 0 feet horizontally from edge of structure
Additional equipment cabinets	4 or fewer (does not include separately mounted radios and other pieces of equipment); no new ground-mounted cabinets if there were none before; if there were ground-mounted cabinets, then no new ground-mounted cabinets more than 10% larger than the existing cabinets	0 additional equipment cabinets; No new ground-mounted cabinets

Concealment Elements:
This wireless facility consists of locating all the rooftop equipment behind the existing screen walls. The proposed modification will continue to conceal all equipment, new and proposed behind the existing screen walls. There will be no increase or changes made to the existing screen walls therefore the conditions imposed through the original CUP – P18-274, 323 approval issued on 2/6/2019 will continue to be in effect.

FCC Shot Clock for Section 6409 Minor Modifications:
AT&T requests approval of the following applications, as well as any other authorizations necessary, for its proposed minor modification under Section 6409:

- Basic Use - Planning Permit

The FCC requires that all authorizations related to 6409 applications be completed within 60 days after filing. Based on a filing date of 11/30/2022, the projected shot-clock deadline for a decision is 1/30/2022. Our goal is to work with you to obtain approval of this minor modification earlier than the deadline. We will respond promptly to any request for information you many have for our application. Please let us know how we can work with you to expedite the approval process. We look forward to working with you on this important project, which will significantly improve wireless telecommunications services in your community without requiring an additional site. Should you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

Valerie Cardenas
Real Estate Specialist
(303) 903-3990, Valerie.cardenas@smartlinkgroup.com
On Behalf of AT&T


smartlink

IDL04527
KSGT RELO
FA#: 14471313
PTN#: 3770A154VV/3770A155AH
PACE ID: MRUTH053843/MRUTH053878
34.6' STEALTH ROOFTOP
5G Cband, 5G NR Cband DoD

SITE INFORMATION

TOWER OWNER:	PRIVATE LL THE APARTMENTS OF DUSTY ACRES
SITE NUMBER-NAME:	IDL04527-KSGT RELO
SITE ADDRESS:	1024 GREGORY LANE JACKSON, WY 83001
COUNTY:	TETON
LATITUDE: LONGITUDE:	43° 27' 52.79" N 110° 47' 39.64" W
GROUND ELEVATION:	6129' AMSL
OCCUPANCY TYPE: ZONING JURISDICTION:	UNMANNED TOWN OF JACKSON
PARCEL NUMBER:	22401606100031
POWER PROVIDER:	LOWER VALLEY ENERGY
TELCO PROVIDER:	CENTURY LINK

CONTACT INFORMATION

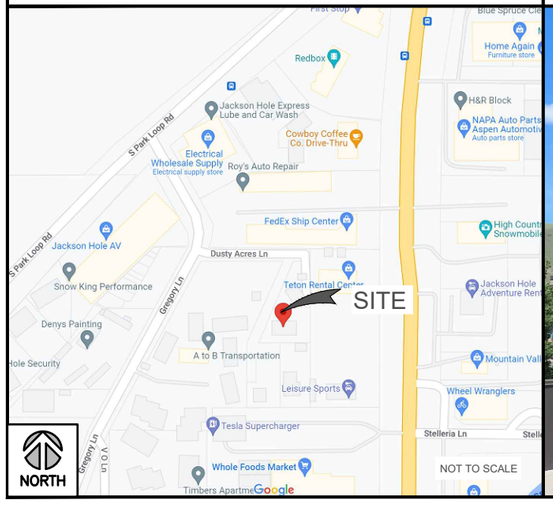
A&E SERVICES:
TRILEAF CORPORATION
1821 WALDEN OFFICE SQUARE
SUITE 500
SCHAUMBURG, IL 60173
CONTACT: HILDA ALLAWIRDI
PHONE: (630) 227-0202, EXT. 537
EMAIL: h.allawirdi@trileaf.com

SITE ACQUISITION SERVICES:
SMARTLINK GROUP, LLC
1997 ANNAPOLIS EXCH. PWKY
SUITE 200
ANNAPOLIS, MD 21401
CONTACT: TAMARA SHIVELEY
PHONE: (801) 230-4877

APPLICABLE CODES

BUILDING CODE 2018 IBC
ELECTRICAL CODE 2017 NEC
TIA-222-H

VICINITY MAP



SITE PHOTO

DRIVING DIRECTIONS

STARTING FROM JACKSON AIRPORT:

TURN RIGHT AT THE 1ST CROSS STREET ONTO US-191 S/US-26 W/US-89 S (8.8 MI), TURN RIGHT ONTO US-191 S/US-26 W/US-89 S/W BROADWAY (2 MI), TURN RIGHT ONTO S PARK LOOP ROAD (0.1 MI), TURN LEFT ONTO GREGORY LN (0.1 MI), TURN LEFT ONTO ACCESS DRIVE AND TO APARTMENT BUILDING, SITE IS AROUND BACK OF BUILDING.

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
C-1	SITE PLAN	1
C-2	EQUIPMENT PLAN	1
C-3	TOWER ELEVATIONS	1
C-3.1	TOWER ELEVATIONS	1
C-4	ANTENNA PLANS	1
C-5	RF WARNING & EQUIPMENT DETAILS	1
C-6	EQUIPMENT DETAILS	1
E-1	PANEL SCHEDULE & ELECTRICAL DIAGRAM	1
G-1	GROUNDING DETAILS	1

SCOPE OF WORK

RFDS VERSION : 2.00 **DATE UPDATED:** 11/14/2022

EQUIPMENT LEVEL
- REMOVE D4U FROM LTE CABINET
- INSTALL PROPOSED (1) AMIA, (3) ABIO & (1) ASIL
- INSTALL (1) PROPOSED VERTIV RECTIFIER

ANTENNA LEVEL
- REMOVE (9) EXISTING SBNHH-1D65A ANTENNAS
- REMOVE (3) EXISTING NNHH-65A-R4 ANTENNAS
- REMOVE (3) EXISTING B25 RRH4x30-4R RRH UNITS
- REMOVE (3) EXISTING AHFIB RRH UNITS
- INSTALL (3) PROPOSED AEQK C-BAND ANTENNAS
- INSTALL (3) PROPOSED AEQU DOD ANTENNAS
- INSTALL (1) 10' MAST PIPE & (1) PIPE TO PIPE CLAMP (POS.2 GAMMA SECTOR)

at&t

smartlink
Smartlink LLC
1997 Annapolis Exch.Pkwy # 200
Annapolis, MD 21401
Tel: 410-263-LINK (5465)
Fax: 410-263-5470
www.smartlinkllc.com

TRILEAF™
architecture | engineering
1515 DES PERES ROAD, STE 200
SAINT LOUIS, MISSOURI 63131
PHONE | 314-997-6111 FAX | 314-997-6066

706311

REVISIONS

REV.	DATE	DESCRIPTION	INT
0	10/24/22	ISSUED FOR REVIEW 90%	JG
1	11/17/22	ISSUED FOR FINAL	JG

Professional Engineer
WYOMING
Date 11.17.22

SITE INFORMATION

SITE #: IDL04527
SITE NAME: KSGT RELO
FA #: 14471313

1024 GREGORY LANE
JACKSON, WY 83001

SHEET TITLE:

TITLE SHEET

SHEET NUMBER:

T-1

GENERAL CONSTRUCTION NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:

   GENERAL CONTRACTOR: TBD
   SUBCONTRACTOR: TBD

2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.

3. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.

5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.

6. UNLESS OTHER WISE, THE WORK SHALL INCLUDE FURNISHING, MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO BE FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ARCHITECT/ENGINEERPRIOR TO PROCEEDING WITH WORK.

8. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE SPACE FOR APPROVAL BY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING.

10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND LOCAL JURISDICTION.

11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLES.

12. ERECTION SHALL BE DONE IN A WORK MANLIKE MANNER BY COMPETENT EXPERIENCED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.

13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. SUB CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.

14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. SUB CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWING PRIOR TO THE BEGINNING CONSTRUCTION.

15. SUBCONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO THE COMMENCEMENT OF WORK.

16. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTORS EXPENSE TO THE SATISFACTION OF THE OWNER.

17. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.

18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND SUBCONTRACTORS TO THE SITE AND/OR BUILDING.

19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.

20. THE GENERAL CONTRACTOR SHALL MAINTAIN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISION, ADDENDA, AND CHANGES ORDERS ON THE PREMISES AT ALL TIMES.

21. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION, EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.

22. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH GRADE AND COMPACTED TO 95 PERCENT STANCE PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE, ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL, PRE-APPROVED BY THE LOCAL JURISDICTION.

23. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.

ELECTRICAL GROUNDING SPECIFICATIONS:

1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE CURRENTLY IN EFFECT FOR THE AUTHORITY HAVING JURISDICTION.

2. ALL GROUNDING DEVICE SHALL BE U.L. LISTED FOR THEIR INTENDED USE.

3. GROUND WIRES SHALL BE TINNED #2 AWG BARE SOLID COPPER UNLESS OTHERWISE NOTED.

4. CONNECTIONS OF ALL GROUND WIRES TO THE GROUND RING SHALL BE EXOTHERMIC (CAD-WELDED), UNLESS OTHERWISE NOTED AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AT&T WIRELESS BROADBAND STANDARDS.

5. GROUNDING CONDUCTORS SHALL BE ROUTED ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE WHEN REQUIRED. GROUND LEADS SHALL BE BENT TO A MINIMUM OF 8' RADIUS.

6. WHERE GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO THE GROUND RING, INSTALL WIRE IN 314' HEAVY WALL LIQUID TIGHT FLEXIBLE CONDUIT FROM CONNECTION POINT TO 5' BELOW GRADE AND SEAL THE TOP WITH SILICONE SEALANT.

7. ALL GROUND BARS SHALL BE TINNED COPPER, SECTOR BARS 2", COLLECTOR AND MGB BARS 4", OF SUFFICIENT LENGTH TO ACCOMMODATE ALL REQUIRED CONNECTIONS WITHOUT DOUBLING LIGS, AND EACH INSTALLED WITH ISOLATORS. WHEN CONNECTING GROUND BARS (WITHIN 10 FEET OF GRADE) DIRECTLY TO THE GROUND RING, 2 EA. #2 SOLID DOWNLEADS SHALL BE CAD-WELDED TO THE GROUNDING, 1 AT EACH OPPOSITE BOTTOM CORNER, AND EACH SHALL RUN IN 3/4" HEAVY WALL LIQUID TIGHT FLEXIBLE CONDUIT FROM GROUND BAR DOWN TO THE GROUND RING, WHEN CONNECTING SECTOR GROUND BARS, DAISY-CHAIN THE GROUND BARS AND RUN 1 EA. #2 AWG STRANDED COPPER WIRE WITH THWN INSULATION FROM THE MIDDLE GROUND BAR TO THE GROUND RING AND CAD-WELD TO THE RING.

8. WHEN ATTACHING STRANDED GROUND LEADS TO THE GROUND BARS, 2 HOLE COMPRESSION LUGS SHALL BE USED, PROTECT WITH WEATHERPROOF HEAT SHRINK, AND WITH A THIN COAT OF "KOP'R SHIELD' OR EQUIVALENT PROPERLY APPLIED AND ATTACHED ONLY WITH STAINLESS STEEL HARDWARE.

9. WHEN GROUNDING EQUIPMENT ENCLOSURES, PANELS, FRAMES, AND OTHER METAL APPARATUS, A #6 AV/G STRANDED COPPER WIRE WITH THWN INSULATION SHALL BE ATTACHED UTILIZING A 2 HOLE COMPRESSION TYPE LUG, PROTECTED WITH WEATHERPROOF HEAT A CLEAN AND CORROSION FREE METALLIC SURFACE UTILIZING STAINLESS STEEL SELF-TAPPING SCREWS AS NOTED IN NOTE 10 BELOW.

10. PREPARE ALL BONDING SURFACES FOR GROUND CONNECTIONS BY REMOVING ANY AND ALL PAINT AND CORROSION TO SHINY METAL. CAD-WELDED CONNECTIONS TO NON-GOPPER SURFACES, APPLY ONE COAT OF ANY ANTI-OXIDIZING PAINT, "COLD GALV" OR EQUIVALENT.

11. GROUND RODS SHALL BE COPPER-CLAD STEEL 5/8"x10', SPACED NO LESS THAN 10' ON CENTER.

12. ALL GROUND SYSTEM CONDUCTORS AND CONDUITS SHALL BE SECURED UTILIZING ONLY NONMETALLIC, NON-CONDUCTIVE, UV RATED CLAMPS, BRACKET, AND OR SUPPORTS.

13. WHEN REQUIRED, THE CONTRACTOR SHALL ENGAGE THE SERVICES OF AN INDEPENDENT TESTING FIRM TO VERIFY, UTILIZING A MEGGER TEST, THAT THE RESISTANCE TO EARTH OF THE NEW GROUND SYSTEM IS EQUAL TO OR LESS THAN 5 (OHMS). A COPY OF THE COMPLETE TESTING REPORT SHALL BE PROVIDED TO THE AT&T REPRESENTATIVE.

14. ALL MATERIALS AND HARDWARE SHALL BE INSTALLED IN A WORKMAN-LIKE MANNER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, AND DEFINED IN NFPA-70.

15. ALL RRH GROUND WIRES SHALL BE #2 GREEN STRANDED.

16. ALL GROUND LUGS SHALL BE 2-HOLE LONG BARRELL.

17. OUTDOOR GROUNDS SHALL BE BLACK HEAT SHRINK W/O INSPECTION HOLES.

18. INDOOR GROUNDS SHALL BE CLEAR HEAT SHRINK W/ INSPECTION HOLES.

ANTENNA PIPE MOUNTS:

1. PROPOSED OR REPLACEMENT ANTENNA PIPE MOUNTS SHALL BE 2-3/8" (O.D.)X10', SCH. 80 PIPE, UNLESS NOTED OTHERWISE.

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REVISIONS

REV.	DATE	DESCRIPTION	INT
0	10/24/22	ISSUED FOR REVIEW 90%	JG
1	11/17/22	ISSUED FOR FINAL	JG

SITE INFORMATION

SITE #: IDL04527
SITE NAME: KSGT RELO
FA #: 14471313

1024 GREGORY LANE
JACKSON, WY 83001

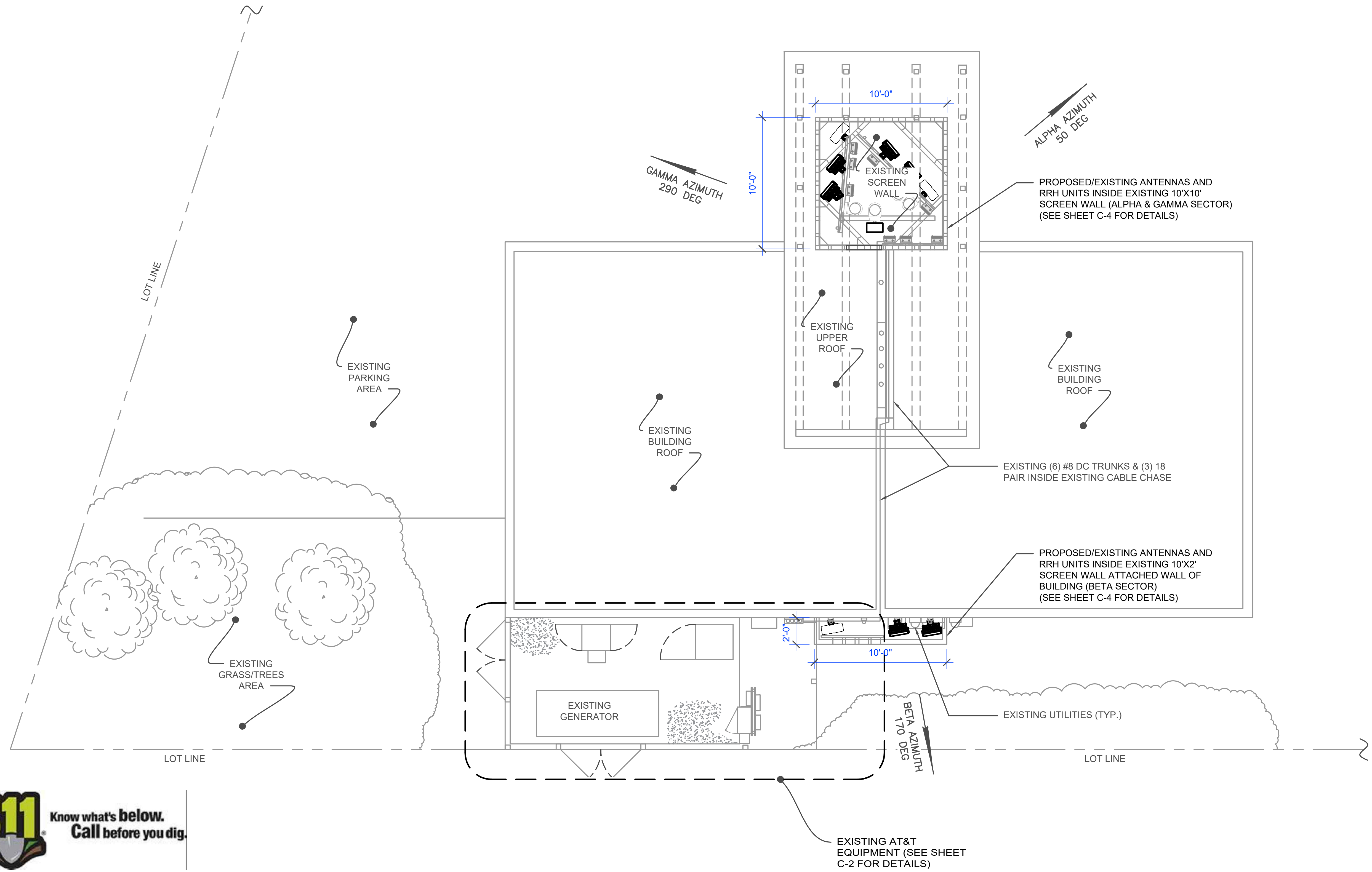
SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

GN-1

NOTE:
THESE DRAWINGS WERE PREPARED BASED ON EXISTING DRAWINGS AND INFORMATION PROVIDED BY OTHERS. ALL EXISTING CONDITIONS SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.



Know what's below. Call before you dig.

THE UTILITIES AS SHOWN ON THIS SET OF DRAWINGS WERE DEVELOPED FROM THE INFORMATION AVAILABLE. THE INFORMATION PROVIDED IS NOT IMPLIED NOR INTENDED TO BE A COMPLETE INVENTORY OF THE UTILITIES IN THIS AREA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE CAUSED BY CONTRACTOR'S ACTIVITIES.

SITE PLAN

4' 0 2' 4'

SCALE: 1/4" = 1'-0" (24x36)
(OR) 1/8" = 1'-0" (11x17)

NORTH

1

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REVISIONS

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1	11/17/22	ISSUED FOR FINAL	JG

Professional Engineer 11739 WYOMING
Date 11-17-22

SITE INFORMATION

SITE #: IDL04527
SITE NAME: KSGT RELO
FA #: 14471313

1024 GREGORY LANE
JACKSON, WY 83001

SHEET TITLE:

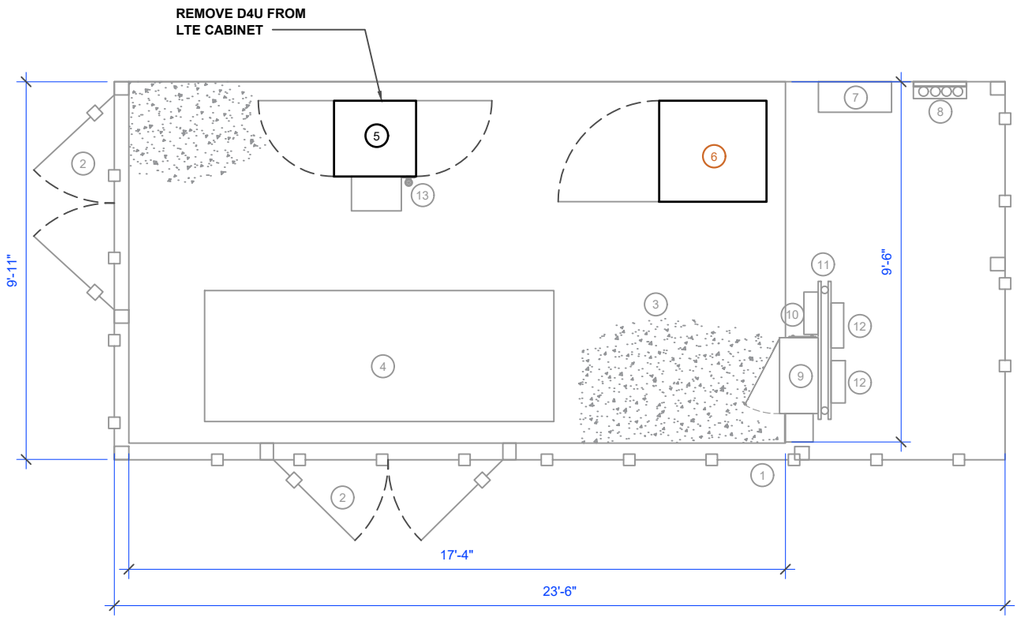
SITE PLAN

SHEET NUMBER:

C-1

KEY NOTES:

1. EXISTING 9'-11"X23'-6" WOOD FENCE / LEASE AREA
2. EXISTING 6' WIDE ACCESS GATE
3. EXISTING AT&T 9'-6"X17'-4" CONCRETE PAD
4. EXISTING AT&T GENERATOR
5. EXISTING AT&T LTE CABINET,
   REMOVE D4U FROM LTE CABINET
6. EXISTING -48vDC VERTIV (NETSURE) PLANT W/ 3 BATTERY SHELVES,
7. EXISTING AT&T FIBER SLACK BOX
8. EXISTING COAX ENTRY PORT
9. EXISTING AT&T PPC CABINET
10. EXISTING TELCO CABINET
11. EXISTING H-FRAME
12. EXISTING AT&T DC12
13. EXISTING AT&T GPS ANTENNA



NORTH

EXISTING EQUIPMENT PLAN

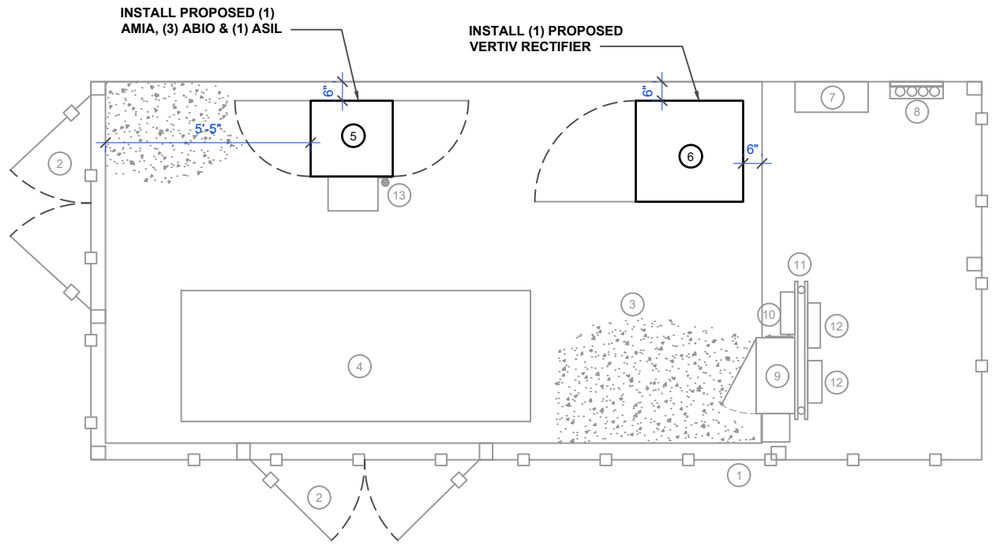
2' 0 1' 2'

SCALE: 1/2" = 1'-0" (24x36)
(OR) 1/4" = 1'-0" (11x17)

1

KEY NOTES:

1. EXISTING 9'-11"X23'-6" WOOD FENCE / LEASE AREA
2. EXISTING 6' WIDE ACCESS GATE
3. EXISTING AT&T 9'-6"X17'-4" CONCRETE PAD
4. EXISTING AT&T GENERATOR
5. EXISTING AT&T LTE CABINET,
   INSTALL PROPOSED (1) AMIA, (3) ABIO & (1) ASIL
6. EXISTING -48vDC VERTIV (NETSURE) PLANT W/ 3 BATTERY SHELVES,
   INSTALL (1) PROPOSED VERTIV RECTIFIER
7. EXISTING AT&T FIBER SLACK BOX
8. EXISTING COAX ENTRY PORT
9. EXISTING AT&T PPC CABINET
10. EXISTING TELCO CABINET
11. EXISTING H-FRAME
12. EXISTING AT&T DC12
13. EXISTING AT&T GPS ANTENNA



NORTH

NEW EQUIPMENT PLAN

2' 0 1' 2'

SCALE: 1/2" = 1'-0" (24x36)
(OR) 1/4" = 1'-0" (11x17)

2

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SITE INFORMATION

SITE #: IDL04527
SITE NAME: KSGT RELO
FA #: 14471313

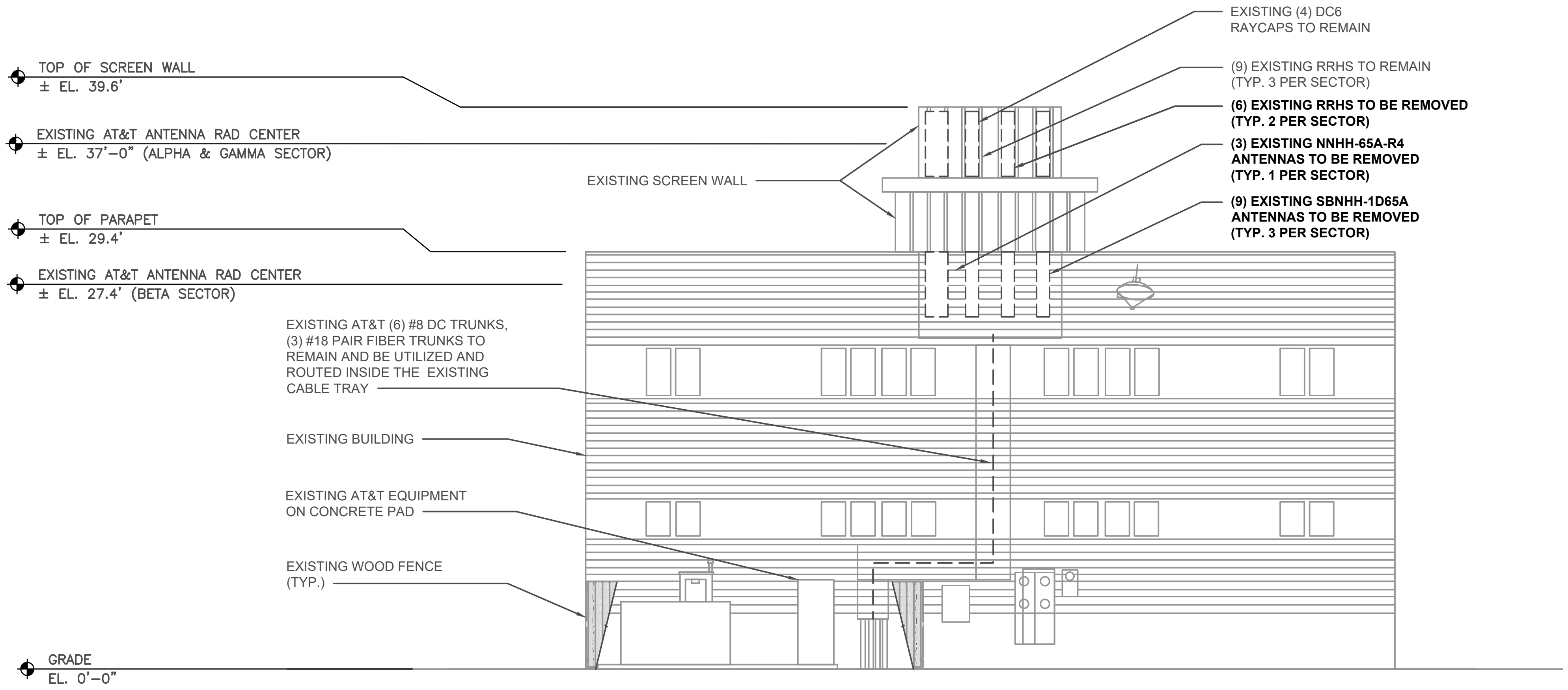
1024 GREGORY LANE
JACKSON, WY 83001

SHEET TITLE:

EQUIPMENT PLAN

SHEET NUMBER:

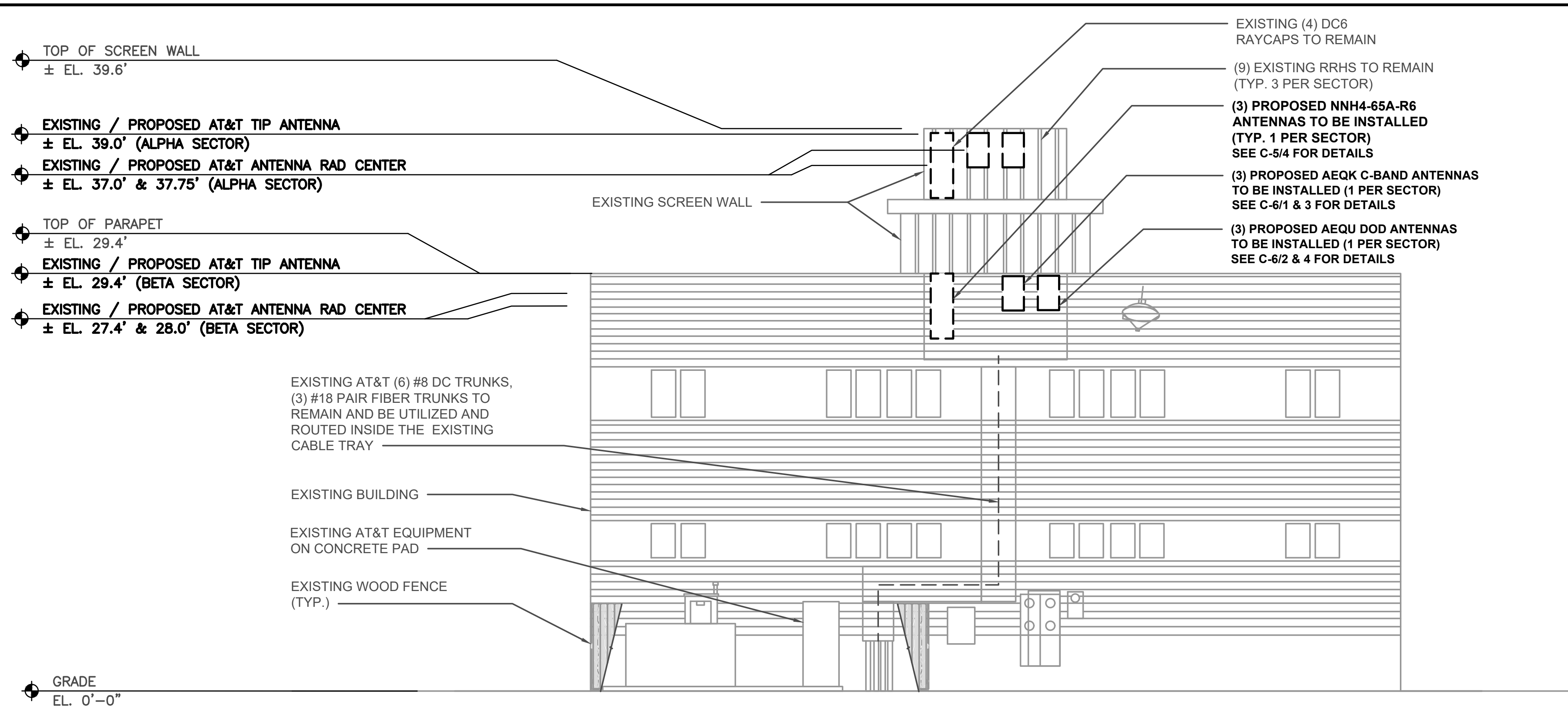
C-2



EXISTING ELEVATION (ALPHA & BETA)

SCALE: 3/16" = 1'-0" (24x36)
(OR) 3/32" = 1'-0" (11x17)

1



NOTE:
STRUCTURAL ANALYSIS MUST BE PERFORMED BEFORE THE INSTALLATION OF NEW ANTENNAS, RRH UNITS, ETC.

PROPOSED ELEVATION (ALPHA & BETA)

SCALE: 3/16" = 1'-0" (24x36)
(OR) 3/32" = 1'-0" (11x17)

2

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REVISIONS

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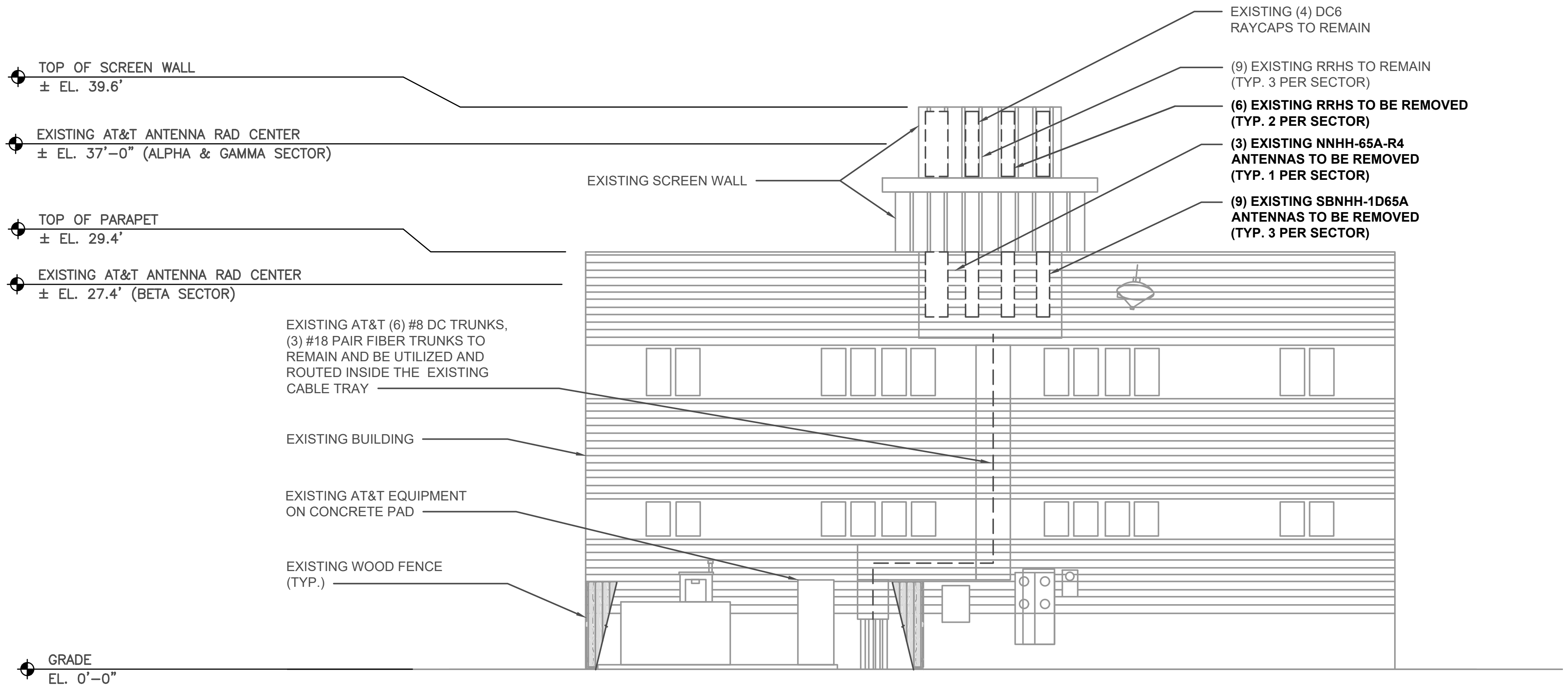
SITE INFORMATION

SITE #: IDL04527
SITE NAME: KSGT RELO
FA #: 14471313

1024 GREGORY LANE
JACKSON, WY 83001

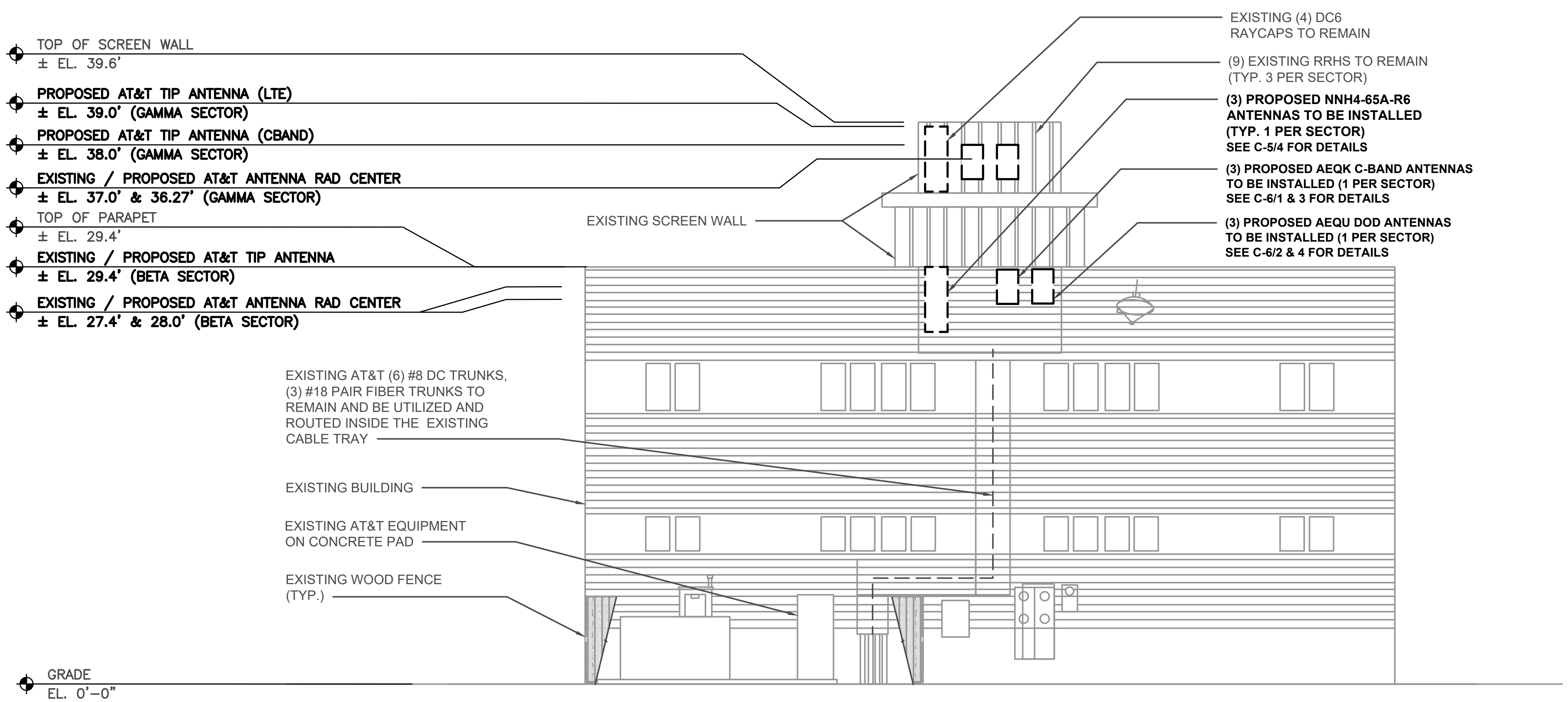
SHEET TITLE:
TOWER ELEVATIONS

SHEET NUMBER:
C-3



EXISTING ELEVATION (BETA & GAMMA)

6' 0 3' 6' SCALE: 3/16" = 1'-0" (24x36) (OR) 3/32" = 1'-0" (11x17) 1



NOTE:
STRUCTURAL ANALYSIS MUST BE PERFORMED BEFORE THE INSTALLATION OF NEW ANTENNAS, RRH UNITS, ETC.

PROPOSED ELEVATION (BETA & GAMMA)

6' 0 3' 6' SCALE: 3/16" = 1'-0" (24x36) (OR) 3/32" = 1'-0" (11x17) 2

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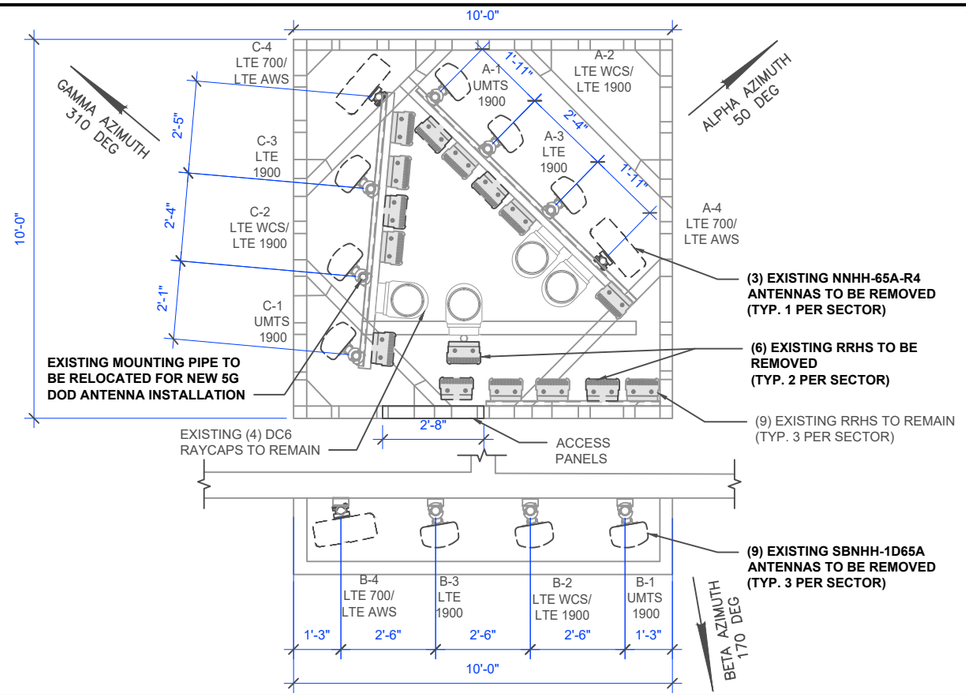
SITE INFORMATION

SITE #: IDL04527
SITE NAME: KSGT RELO
FA #: 14471313

1024 GREGORY LANE
JACKSON, WY 83001

SHEET TITLE:
TOWER ELEVATIONS

SHEET NUMBER:
C-3.1



EXISTING ANTENNA PLAN

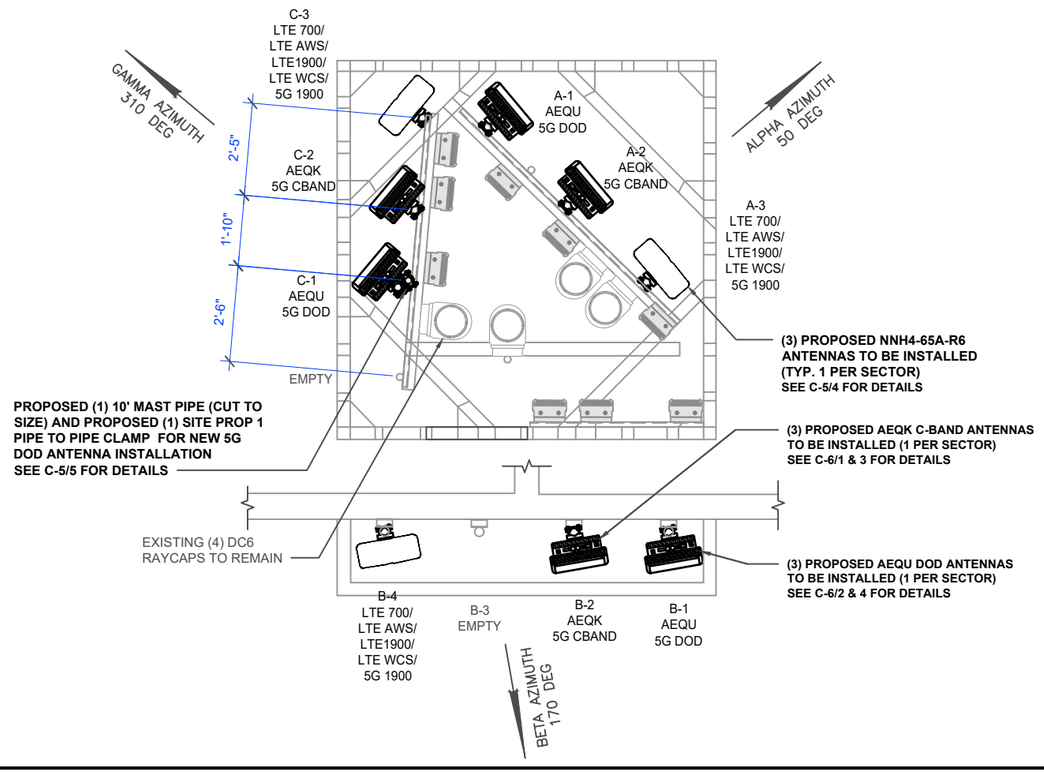
SCALE: NTS

1

NORTH

EXISTING ANTENNA AND TRANSMISSION CABLE REQUIREMENT

SECTOR RAD CTR		ANTENNA TYPE	TECHNOLOGY	ANTENNA AZIMUTH	TRANSMISSION CABLE QTY	TRANSMISSION CABLE LENGTH	TRANSMISSION CABLE TYPE
ALPHA, 37'-0"	A1	SBNHH-1D65A	UMTS 1900	50°	-	70'	FIBER
	A2	SBNHH-1D65A	LTE WCS/1900	50°	-	70'	FIBER
	A3	SBNHH-1D65A	LTE 1900	50°	-	70'	FIBER
	A4	NNHH-65A-R4	LTE 700/AWS	50°	-	70'	FIBER
BETA, 27.4'	B1	SBNHH-1D65A	UMTS 1900	170°	-	70'	FIBER
	B2	SBNHH-1D65A	LTE WCS/1900	170°	-	70'	FIBER
	B3	SBNHH-1D65A	LTE 1900	170°	-	70'	FIBER
	B4	NNHH-65A-R4	LTE 700/AWS	170°	-	70'	FIBER
GAMMA, 37'-0"	C1	SBNHH-1D65A	UMTS 1900	310°	-	70'	FIBER
	C2	SBNHH-1D65A	LTE WCS/1900	310°	-	70'	FIBER
	C3	SBNHH-1D65A	LTE 1900	310°	-	70'	FIBER
	C4	NNHH-65A-R4	LTE 700/AWS	310°	-	70'	FIBER



PROPOSED ANTENNA PLAN

SCALE: NTS

2

NORTH

PROPOSED ANTENNA AND TRANSMISSION CABLE REQUIREMENT

SECTOR RAD CTR		ANTENNA TYPE	TECHNOLOGY	ANTENNA AZIMUTH	TRANSMISSION CABLE QTY	TRANSMISSION CABLE LENGTH	TRANSMISSION CABLE TYPE
ALPHA, 37.0 &37.75'	A1	AEQU	5G DOD	50°	-	70'	FIBER
	A2	AEQK	5G C-BAND	50°	-	70'	FIBER
	A3	NNH4-65A-R6	LTE 700/AWS/1900 /WCS/5G 1900	50°	-	70'	FIBER
	A4	EMPTY	-	-	-	-	-
BETA, 27.4'&28'-0"	B1	AEQU	5G DOD	170°	-	70'	FIBER
	B2	AEQK	5G C-BAND	170°	-	70'	FIBER
	B3	EMPTY	-	-	-	-	-
	B4	NNH4-65A-R6	LTE 700/AWS/1900 /WCS/5G 1900	170°	-	70'	FIBER
GAMMA, 37.0'&36.27'	C1	AEQU	5G DOD	310°	-	70'	FIBER
	C2	AEQK	5G C-BAND	310°	-	70'	FIBER
	C3	NNH4-65A-R6	LTE 700/AWS/1900 /WCS/5G 1900	310°	-	70'	FIBER
	C4	EMPTY	-	-	-	-	-

NOTE TO CONTRACTOR:
1. ANTENNA CLEARANCE AND MOUNTING TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FINAL ANTENNA SPECIFICATIONS MOUNTING HARDWARE AND RF DESIGN. ANTENNA PIPE MOUNT MODIFICATION MAY BE REQUIRED.
2. CONTRACTOR TO VERIFY FINAL ANTENNA CONFIGURATION FROM FINAL RFDS.
3. CONTRACTOR SHALL VERIFY A MINIMUM OF 4 FEET SEPARATION BETWEEN ALL ANTENNAS.
4. STRUCTURAL ANALYSIS MUST BE PERFORMED ON ALL ROOFTOPS, FLAGPOLES, LIGHT POLES, AND TOWER SITES BEFORE INSTALLATION OF NEW ANTENNAS, RRH UNITS, ETC.

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REVISIONS

REV	DATE	DESCRIPTION	INT
0	10/24/22	ISSUED FOR REVIEW 90%	JG
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Professional Engineer
Roger Allan Lee
CT1729
Date 11.17.22
WYOMING

SITE INFORMATION

SITE #: IDL04527
SITE NAME: KSGT RELO
FA #: 14471313

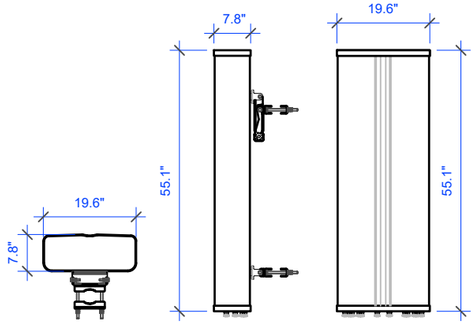
1024 GREGORY LANE
JACKSON, WY 83001

SHEET TITLE:

ANTENNA PLANS

SHEET NUMBER:

C-4



PLAN VIEW SIDE VIEW FRONT VIEW

COMMSCOPE - NNH4-65A-R6

MULTI-BAND ANTENNA WITH (12) INTERNAL ELECTRIC TILT

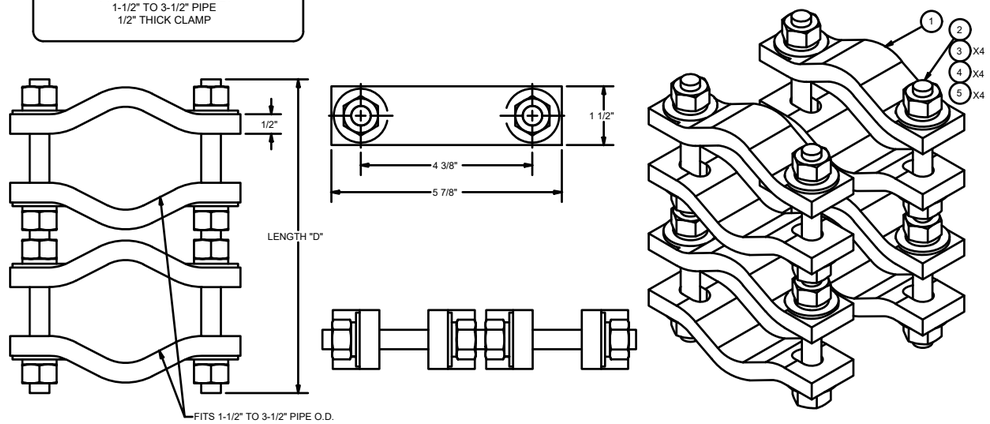
FREQUENCY RANGE	4 x 698-896 MHz 8 x 1695-2360 MHz
ANTENNA	72.8 Lbs
BRACKET	13.3 Lbs
TOTAL WEIGHT	86.0 Lbs

ANTENNA INFORMATION | SCALE: NTS | 4

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	8	SCP	CLAMP HALF, 1/2" THICK, 5-7/8"		1.25	10.00
2	B	C	1/2" THREADED ROD	D	E	F
3	16	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.14
4	16	G12LW	1/2" HDG LOCKWASHER		0.01	0.22
5	16	G12FW	1/2" HDG USS FLATWASHER		0.03	0.54

VARIABLE PARTS TABLE						
ASSEMBLY "A"	QTY "B"	PART "C"	LENGTH "D"	UNIT WT. "E"	NET WT. "F"	TOTAL WEIGHT
SCP08K	4	G12R-8	8"	.45	1.78	13.23
SCP10K	4	G12R-10	10"	.56	2.23	13.68

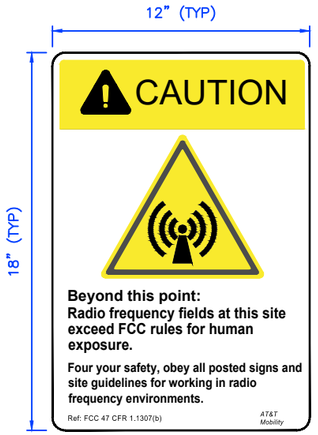
DESCRIPTION
PIPE TO PIPE CLAMP SET
1-1/2" TO 3-1/2" PIPE
1/2" THICK CLAMP

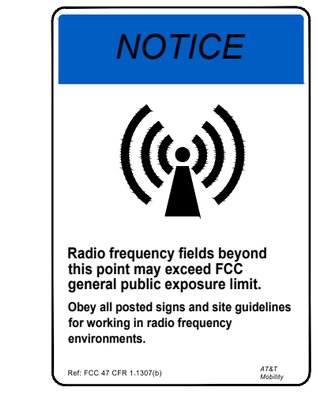


SITE PRO 1 SCP10K PIPE TO PIPE CLAMP DETAILS | SCALE: NTS | 5

VERTIV RECTIFIER | SCALE: NTS | 3

NOT USED | SCALE: NTS | 3





RF WARNING SIGNAGE | SCALE: NTS | 1

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SITE INFORMATION

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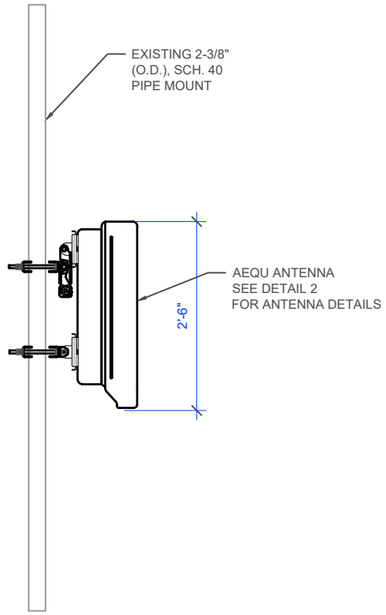
FA #: 14471313

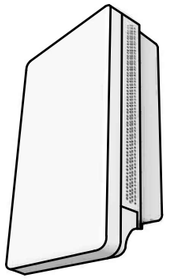
1024 GREGORY LANE
JACKSON, WY 83001

SHEET TITLE:
RF WARNING & EQUIPMENT DETAILS

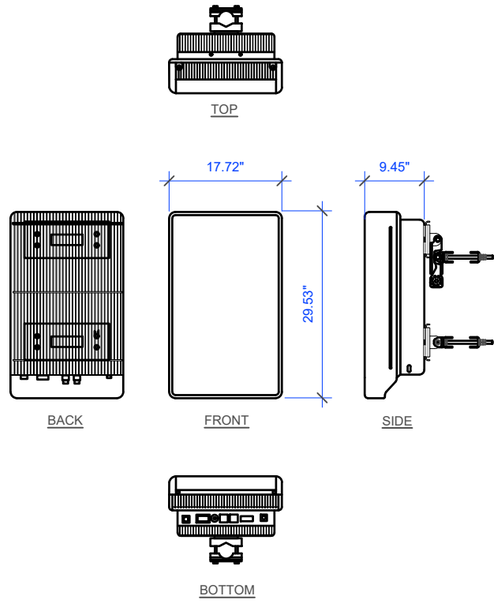
SHEET NUMBER:
C-5



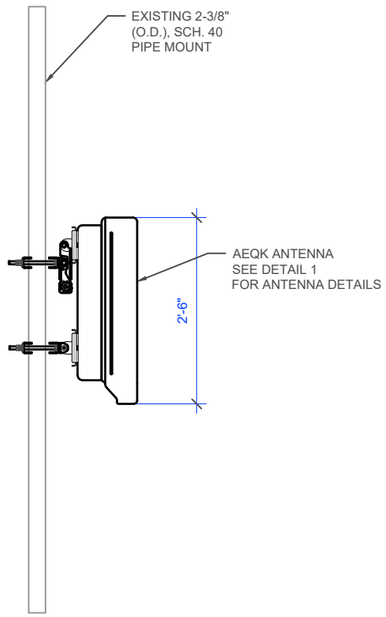
5G DOD ANTENNA DETAIL | SCALE: NTS | 4



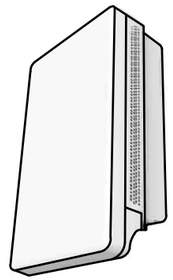
MANUFACTURER	NOKIA
MODEL #	AEQK
DIMENSIONS (HxWxD)	29.53" x 17.72" x 9.45"
NET WEIGHT	<99 lbs (WITHOUT MOUNTING BRACKETS)
OPTICAL PORTS	2 x SFP28, 10/25GE eCPRI
FREQUENCY	



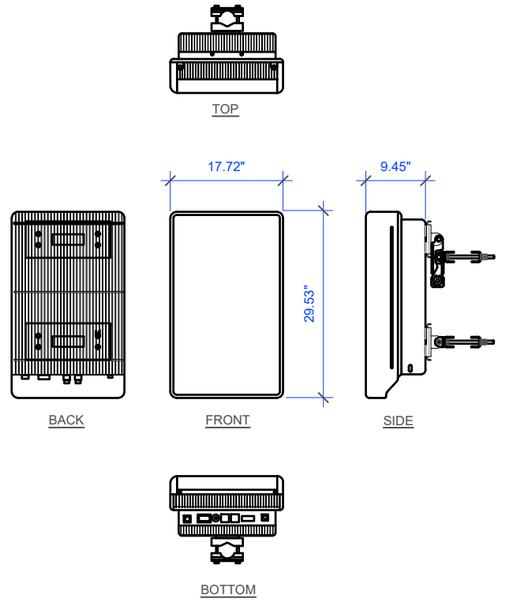
ANTENNA INFORMATION | SCALE: NTS | 1



5G C-BAND ANTENNA DETAIL | SCALE: NTS | 3



MANUFACTURER	NOKIA
MODEL #	AEQU
DIMENSIONS (HxWxD)	29.53" x 17.72" x 9.45"
NET WEIGHT	<99 lbs (WITHOUT MOUNTING BRACKETS)
OPTICAL PORTS	2 x SFP28, 10/25GE eCPRI
FREQUENCY	



ANTENNA INFORMATION | SCALE: NTS | 2

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1	11/17/22	ISSUED FOR FINAL	JG

SITE INFORMATION

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SITE NAME: KSGT RELO
FA #: 14471313

1024 GREGORY LANE
JACKSON, WY 83001

SHEET TITLE:

EQUIPMENT DETAILS

SHEET NUMBER:

C-6

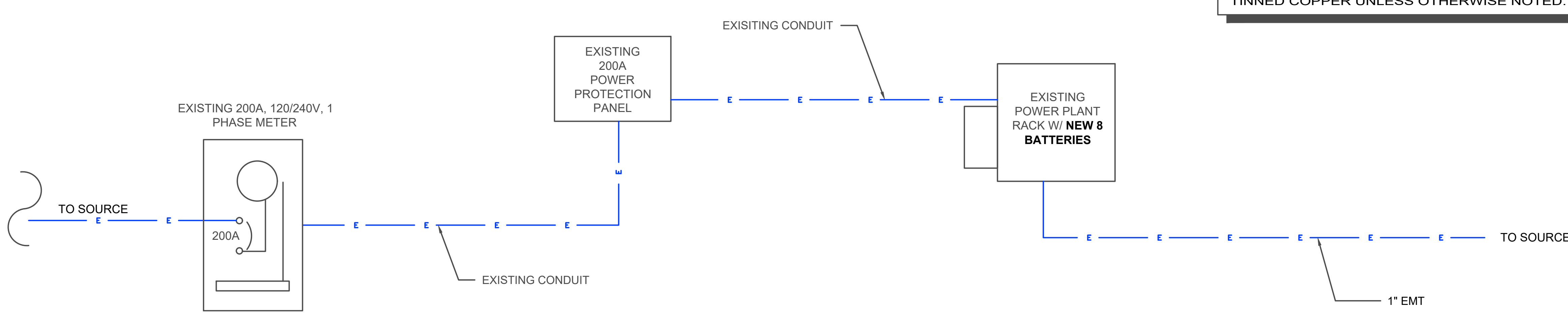
CKT. No.	DESCRIPTION	CB A/P		CB A/P		DESCRIPTION	CKT. No.
1	SURGE SUPPRESION	60		30		RECTIFIER	2
3			2		2		4
5	RECTIFIER	30		30		RECTIFIER	6
7			2		2		8
9	RECTIFIER	30		30		RECTIFIER	10
11			2		2		12
13	RECTIFIER	30		30		RECTIFIER	14
15			2		2		16
17	RECTIFIER	30		20	1	GEN GFCI	18
19			2	20	1	PNL GFCI	20
21	DDB CAB RECEPT	20	1	20	1	GEN GFCI	22
23	PWR BAY GFCI BAT HEAT	20	1			SPARE	24
25	SPARE					SPARE	26
27	SPARE					SPARE	28
29	SPARE					SPARE	30
31	SPARE					SPARE	32
33	SPARE					SPARE	34
35	SPARE					SPARE	36
37	SPARE					SPARE	38
39	SPARE					SPARE	40

EXISTING PANEL SCHEDULE | SCALE: NTS | 1

CKT. No.	DESCRIPTION	CB A/P		CB A/P		DESCRIPTION	CKT. No.
1	SURGE SUPPRESSION	60		30		RECTIFIER	2
3			2		2		4
5	RECTIFIER	30		30		RECTIFIER	6
7			2		2		8
9	RECTIFIER	30		30		RECTIFIER	10
11			2		2		12
13	RECTIFIER	30		30		RECTIFIER	14
15			2		2		16
17	RECTIFIER	30		20	1	GEN GFCI	18
19			2	20	1	PNL GFCI	20
21	DDB CAB RECEPT	20	1	20	1	GEN GFCI	22
23	PWR BAY GFCI BAT HEAT	20	1			SPARE	24
25	SPARE					SPARE	26
27	SPARE					SPARE	28
29	SPARE					SPARE	30
31	SPARE					SPARE	32
33	SPARE					SPARE	34
35	SPARE					SPARE	36
37	SPARE					SPARE	38
39	SPARE					SPARE	40

PROPOSED PANEL SCHEDULE | SCALE: NTS | 2

CONDUCTOR NOTES:
1. ALL CONDUCTOR SHALL BE COPPER.
2. ALL WIRING SHALL BE COPPER WITH THHN/THWN DUAL RATED 600 VOLTS INSULATION.
3. CONDUCTORS SHALL BE 12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE.
4. GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER UNLESS OTHERWISE NOTED.



DC POWER & FIBER SINGLE LINE DIAGRAM | SCALE: NTS | 3

at&t

smartlink

Smartlink LLC
1997 Annapolis Exch.Pkwy # 200
Annapolis, MD 21401
Tel: 410-263-LINK (5465)
Fax: 410-263-5470
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TRILEAF
architecture | engineering

1515 DES PERES ROAD, STE 200
SAINT LOUIS, MISSOURI 63131
PHONE | 314-997-6111 FAX | 314-997-8066

706311

REVISIONS

REV	DATE	DESCRIPTION	INT
0	10/24/22	ISSUED FOR REVIEW 90%	JG
1	11/17/22	ISSUED FOR FINAL	JG

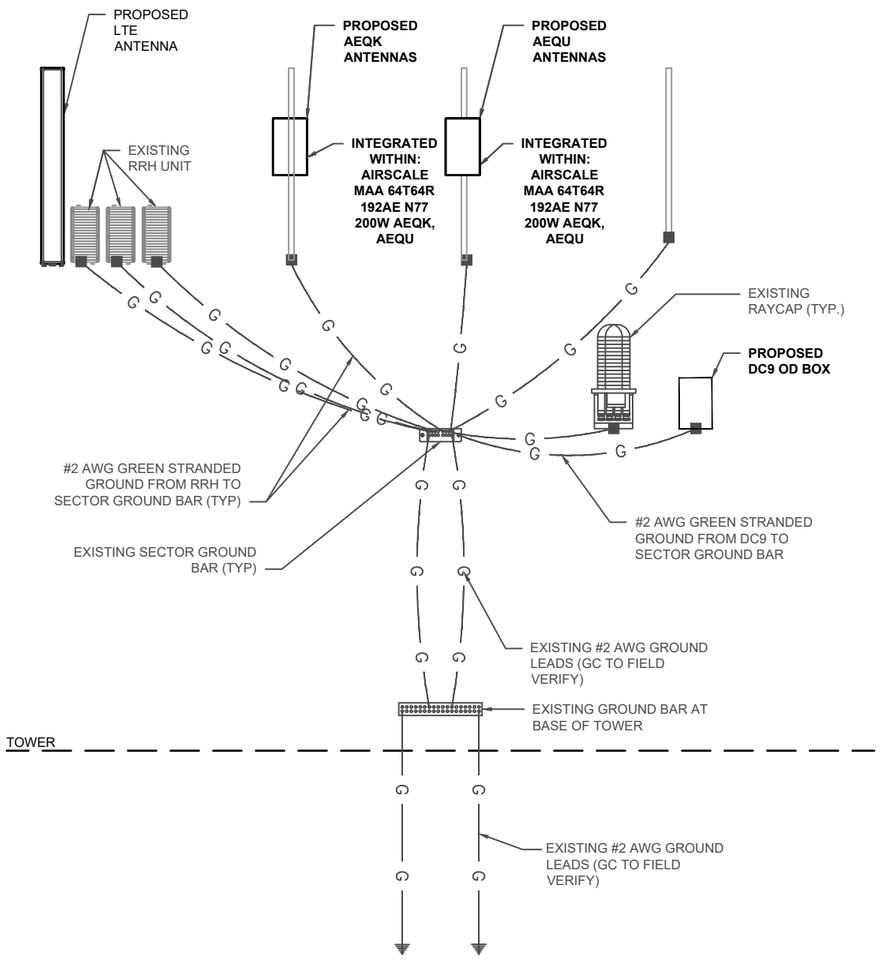
SITE INFORMATION

SITE #: IDL04527
SITE NAME: KSGT RELO
FA #: 14471313

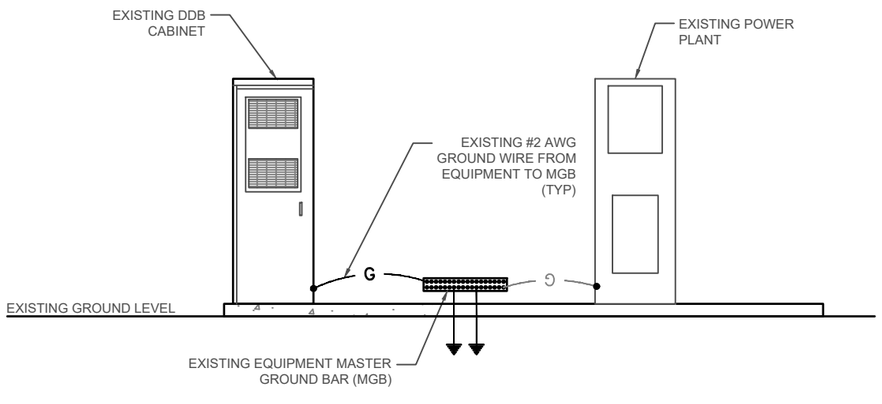
1024 GREGORY LANE
JACKSON, WY 83001

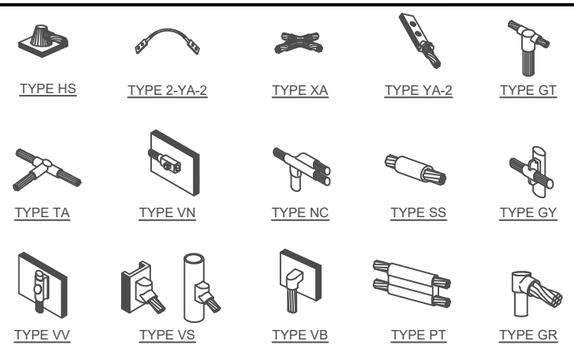
SHEET TITLE:
PANEL SCHEDULE & ELECTRICAL DIAGRAM

SHEET NUMBER:
E-1



TYPICAL GROUNDING SCHEMATIC | SCALE: NTS | 7



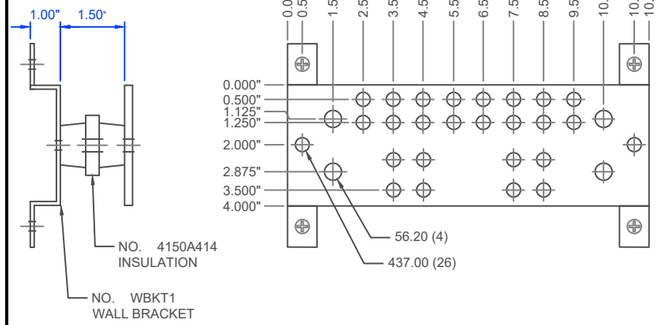


NOTE:
ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.

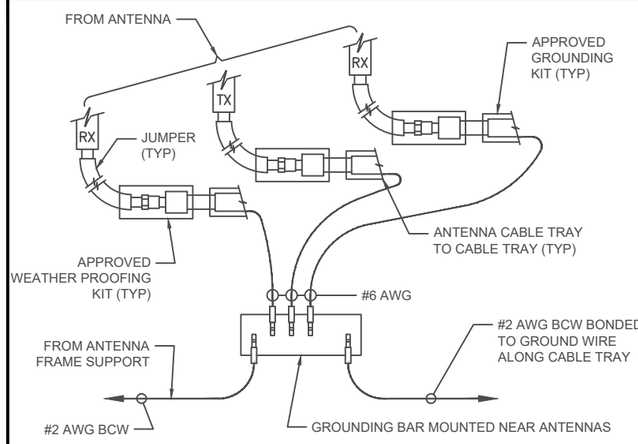
EXOTHERMIC WELDING | SCALE: NTS | 4

NOT USED | SCALE: NTS | 5

NOT USED | SCALE: NTS | 6



12" & 18" GROUND BARS | SCALE: NTS | 1

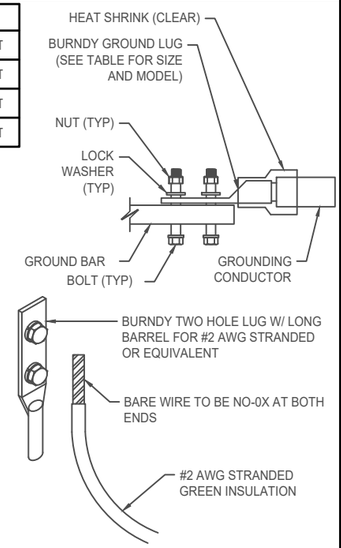


NOTE: DO NOT INSTALL CABLE GROUND KIT AT A BEND

COAX GROUNDING DETAIL | SCALE: NTS | 2

WIRE SIZE	BURNDY LUG	BOLT SIZE
#2 AWG SOLID TINNED	YA3C-2TC38	3/8"-16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8"-16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8"-16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	3/8"-16 NC S 2 BOLT

NOTES:
1. ALL HARDWARE BOLT, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.
2. COPPER SHIELD, ANTIOX, CR NO-OX OR EQUIVALENT SHALL BE PLACED WHERE ALL DISSIMILAR METALS CONNECT.
3. ALL LUGS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
4. ALL RRH GROUND WIRES SHALL BE #2 GREEN STRANDED.
5. ALL GROUND LUGS SHALL BE 2-HOLE, LONG BARREL.
6. OUTDOOR GROUND LUGS SHALL BE BLACK HEAT SHRINK W/O INSPECTION HOLES.
7. INDOOR GROUND LUGS SHALL BE CLEAR HEAT SHRINK W/ INSPECTION HOLES.



MECHANICAL LUG CONNECTION | SCALE: NTS | 3

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706311

REVISIONS

REV.	DATE	DESCRIPTION	INT
0	10/24/22	ISSUED FOR REVIEW 90%	JG
1	11/17/22	ISSUED FOR FINAL	JG

Professional Engineer
11-17-22
WYOMING

SITE INFORMATION

SITE #: IDL04527
SITE NAME: KSGT RELO
FA #: 14471313

1024 GREGORY LANE
JACKSON, WY 83001

SHEET TITLE:
GROUNDING DETAILS

SHEET NUMBER:
G-1

Date: **November 16, 2022**

TRILEAF
environmental architecture engineering

Smartlink
1997 Annapolis Exchange Parkway, Suite 200
Annapolis, MD 21401
(801) 230-4877

Trileaf Architecture & Engineering
1821 Walden Office Square, Suite 500
Schaumburg, IL 60173
(630) 227-0202

Subject:	**Structural Analysis Report**	
Trileaf	**Job Number:**	706311
AT&T Mobility	**Site FA#:**	14471313
	Site ID#:	IDL04527
	Site Name:	KSGT Relo
	Pace No:	MRUTH053843, MRUTH053878
Site Data:	**1024 Gregory Lane, Jackson, WY, Teton County** **Latitude: 43° 27' 52.69", Longitude: -110° 47' 39.80"** **29.33-Foot-Tall Building**	

To whom it may concern:

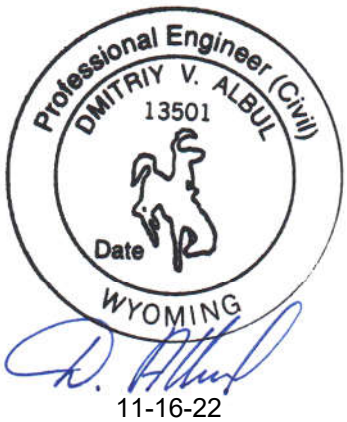
Per your request, Trileaf has performed a structural analysis to evaluate the structural capacity of the existing building elements located at the above referenced address for the addition of wireless telecommunication appurtenances by AT&T Mobility. The analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 105 mph. Exposure Category C with a Topographic Category 1, and Risk Category II were used in this analysis.

Upon reviewing the results of this analysis, it is our opinion that the existing building elements meet the specified TIA code requirements. The building elements are therefore deemed **adequate** to support the existing and proposed loading as listed in this report.

Building Structure	**91.0%**

We at Trileaf appreciate the opportunity of providing our continuing professional services to AT&T Mobility and Smartlink. If you have any questions or need further assistance on this or any other projects, please give us a call.

Sincerely,



Dmitriy Albul, P.E.
Project Engineer

11-16-22

CONTENTS

1.0 INTRODUCTION

The mount system consists of one (1) existing FRP screening antenna frame installed atop of the existing penthouse at 34.6-ft above ground level with antenna centerlines of 37.0-ft and 37.75-ft above for Alpha sector, 37.0-ft and 36.27-ft for Gamma sector, and four (4) mount pipes covered by FRP screening attached to the building wall with antenna centerlines of 28.0-ft and 27.4-ft above. The objective of this report is to assess the existing FRP frames and antenna mounts for supporting the existing and proposed installation. This report is limited to the analysis of the existing antenna mounts only.

2.0 ANALYSIS CRITERIA

Building Code:	2018 International Building Code
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	105 mph
Exposure Category:	C
Topographic Category:	1
Ice Thickness:	0.25 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	30 mph
Seismic Loads:	S_S = 1.054; S_1 = 0.347
Snow Load:	93.0 PSF

3.0 PROPOSED AND EXISTING EQUIPMENT

Table 1 – Proposed and Existing Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size(in)
37.0	37.75	1	Nokia	AEQU	6 3	6DC Trunks Fiber
		1	Nokia	AEQU		
	37.00	2	Commscope	NNH4-65A-R6		
		3	Alcatel-Lucent	RRH4x25-WCS-4R		
		3	Nokia	AirScale Dual RRH 4T4R B25/66 320W AHFIB		
		3	Nokia	AirScale Dual RRH 4T4R B12/14 320W AHLBA		
		4	Raycap	DC6-48-60-18-8F		
	36.27	1	Nokia	AEQU		
		1	Nokia	AEQU		
27.4	28	1	Nokia	AEQU		
		1	Nokia	AEQU		
	27.4	1	Commscope	NNH4-65A-R6		

4.0 ANALYSIS PROCEDURE

Table 2 - Documents Provided

Resource	Remarks
Proposed Loads	RFDS by AT&T Mobility Rev.2.0, dated November 14, 2022
Existing Loads	Construction Drawings by Smartlink, dated November 15, 2022
	Site Photos, dated June 28, 2022
	Previous Structural-Building Wall and Parapet by Geostructural, dated January 3, 2019
	Screen Wall Attachment Design by Geostructural, dated January 3, 2019
	Previous Structural-Building Rooftop by Geostructural, dated July 3, 2018
	Structure Mapping by Geostructural

Analysis Method

RISA-3D (Version 20.0), a commercially available structural analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various load cases. Selected output from the analysis is included in Appendix A.

Assumptions

1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5.0 ANALYSIS RESULTS

Table 3 – Structure Usage

Component Type	% Capacity	Pass/Fail
Vertical Tubes	23.8	Pass
Wood Beams	17.2	Pass
Center Wall	91.0	Pass
Summary		
	91.0	Pass

6.0 ASSUMPTIONS AND LIMITATIONS

Our structural calculations are completed assuming all information provided to Trileaf is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition of "like new" and all members and connections to be free of corrosion and/or structural defects. Trileaf will accept no liability which may arise due to any existing deficiency in design, material, fabrication, erection, construction, etc. or lack of maintenance. Contractor should inspect the condition of the existing structure, mounts and connections and notify Trileaf for any discrepancies and deficiencies before proceeding with the construction.

The analysis results presented in this report are only applicable for the previously mentioned existing and proposed loading. Any deviation of the existing or proposed equipment and placement will require Trileaf to generate an additional structural analysis.

APPENDIX A: PHOTOS AND RISA-3D OUTPUT

EXISTING PENTHOUSE

TRILEAF
environmental architecture engineering

Date:	11/16/2022
Site Name:	KSGT Relo
Project Engineer:	DVA
Project No:	706311
Customer:	Trileaf
Carrier:	AT&T Mobility

Building Code:	2018	
TIA Standard:	H	
Mount Type:	Rooftop	
Mount Existing?	Existing	
Mount Centerline:	37	ft
Superstructure Height:	34.6	ft
Structure Type:	Rooftop	

Site Information		
Exposure Category:	C	
Risk Category:	II	
Ground Elevation	6130.2	ft
Ultimate Wind Speed:	105	mph
Design Wind Speed:	105	mph
Ice Thickness:	0.25	in
Ice Wind Speed:	50.0	mph
Escalated Ice Thickness:	0.21	in
Topographic Method:	2	
Topographic Category:	1	

Factors	
Gh:	0.850
K_{zmin}:	0.850
K_z:	1.027
K_d:	0.850
K_{zt}:	1.000
Ke:	0.801
Ka:	0.900
KesWind	0.950
KesIce	0.850
I ice:	1.000

q_z:	19.73	psf

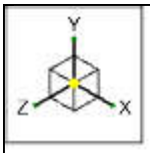
Run Seismic?	Yes
Site Soil:	D (Default)
Short-Period Accel. (Ss):	1.0540
1-Second Accel. (S1):	0.3470
Short-Period Design (SDS):	0.7580
1-Second Design (SD1):	0.0000
Short-Period Coeff. (Fa):	1.0790
1-Second Coeff. (Fv):	0.0000
Cs	0.3790
Cs min	0.0334
Amplification Factor (ap):	1.00
Response Mod. (Rp):	2.50
Overstrength (Ωo):	1.00

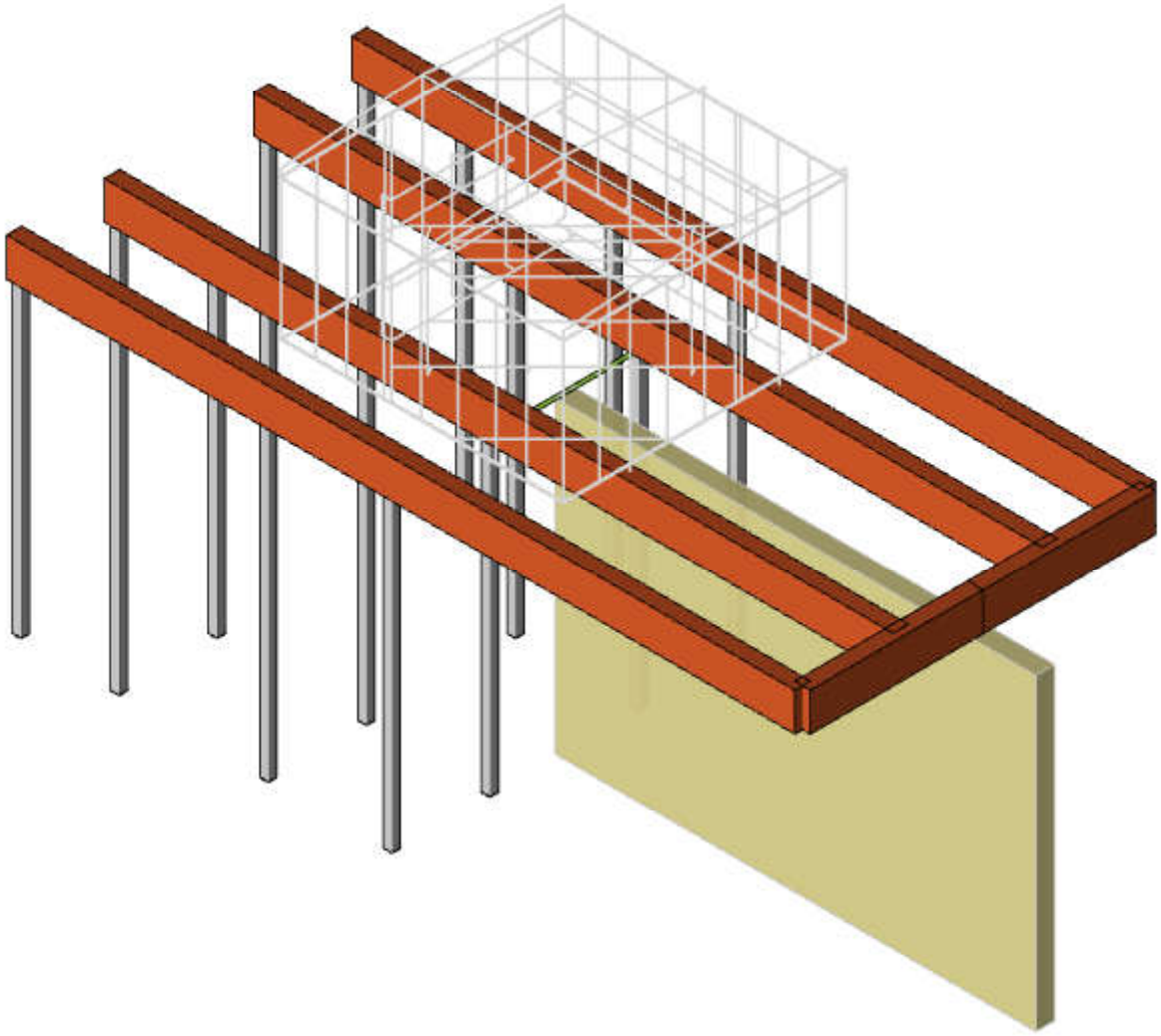
Table 1. Equipment Specifications and Wind Pressure

Manufacturer	Model	Elevation	Pipe Label	Weight (lb)	Height (in)	Width (in)	Depth (in)	EPA_N	EPA_T	$EPA_{N\ w/\ ice}$	$EPA_{T\ w/\ ice}$	q_z:	$q_{z\ ice}$:
NOKIA	AEQU	37	134, 122	99.20	29.53	17.72	9.45	4.23	2.38	4.39	2.52	19.73	4.47
NOKIA	AEQK	37	135, 123	99.20	29.53	17.72	9.45	4.23	2.38	4.39	2.52	19.73	4.47
COMMSCOPE	NNH4-65A-R6	37	136, 124	86.50	55.10	19.60	7.80	9.1	4.18	9.36	4.41	19.73	4.47
NOKIA	AirScale Dual RRH 4T4R B25/66 320W AHFIB	37	177, 178, 177, 178, 159, 160, 159, 160, 170, 169	66.10	22	12.1	5.9	2.16	1.13	2.28	1.23	19.73	4.47
NOKIA	AirScale Dual RRH 4T4R B12/14 320W AHLBA	37	133, 159, 160, 136, 124	46.00	28.74	15.35	9.44	3.59	2.31	3.74	2.44	19.73	4.47
RAYCAP	DC6-48-60-18-8F	37	139, 140, 136	32.8	31.25	11	11	1.21	1.21	1.69	1.69	19.73	4.47
ALCATEL LUCENT	RRH4x25-WCS-4R	37		70	31.5	11.8	8.7	3.12	2.38	3.27	2.52	19.73	4.47
Manufacturer	**Model**	**0 deg**	**90 deg**	**0 deg**	**90 deg**	**Ice Weight**	**0 deg**	**90 deg**	**Seismic Load,**				

Table 3.1. Hot Rolled Member Capacities

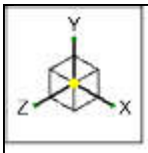
Member Name	Member Shape	Wind load (plf)	Wind Load Ice (plf)	Weight Ice (plf)	Bending Check	Shear Check	Total Capacity	Controlling Capacity
Vertilcal Tube	**HSS4X4X4**	**10.62**	**2.15**	**0.10**	**24%**	**2%**	**24%**	**24%**
Member Name	**Member Shape**	**Wind load (plf)**	**Wind Load Ice (plf)**	**Weight Ice (plf)**	**Bending Check**	**Shear Check**	**Total Capacity**	**Controlling Capacity**
Beam	**6.625X16.25FS**	**0.00**	**0.00**	**0.01**	**17%**	**12%**	**17%**	**17%**

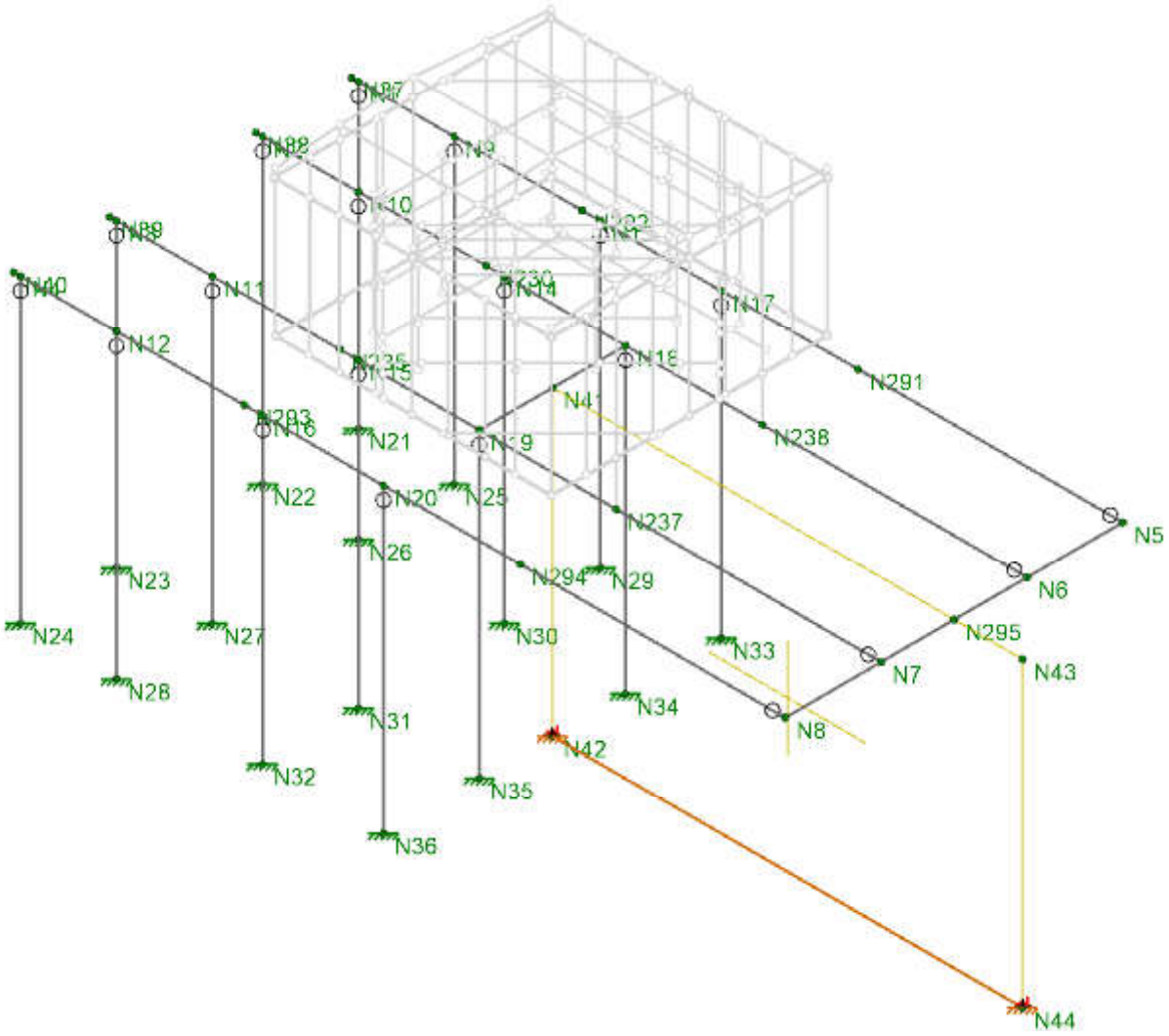




Envelope Only Solution

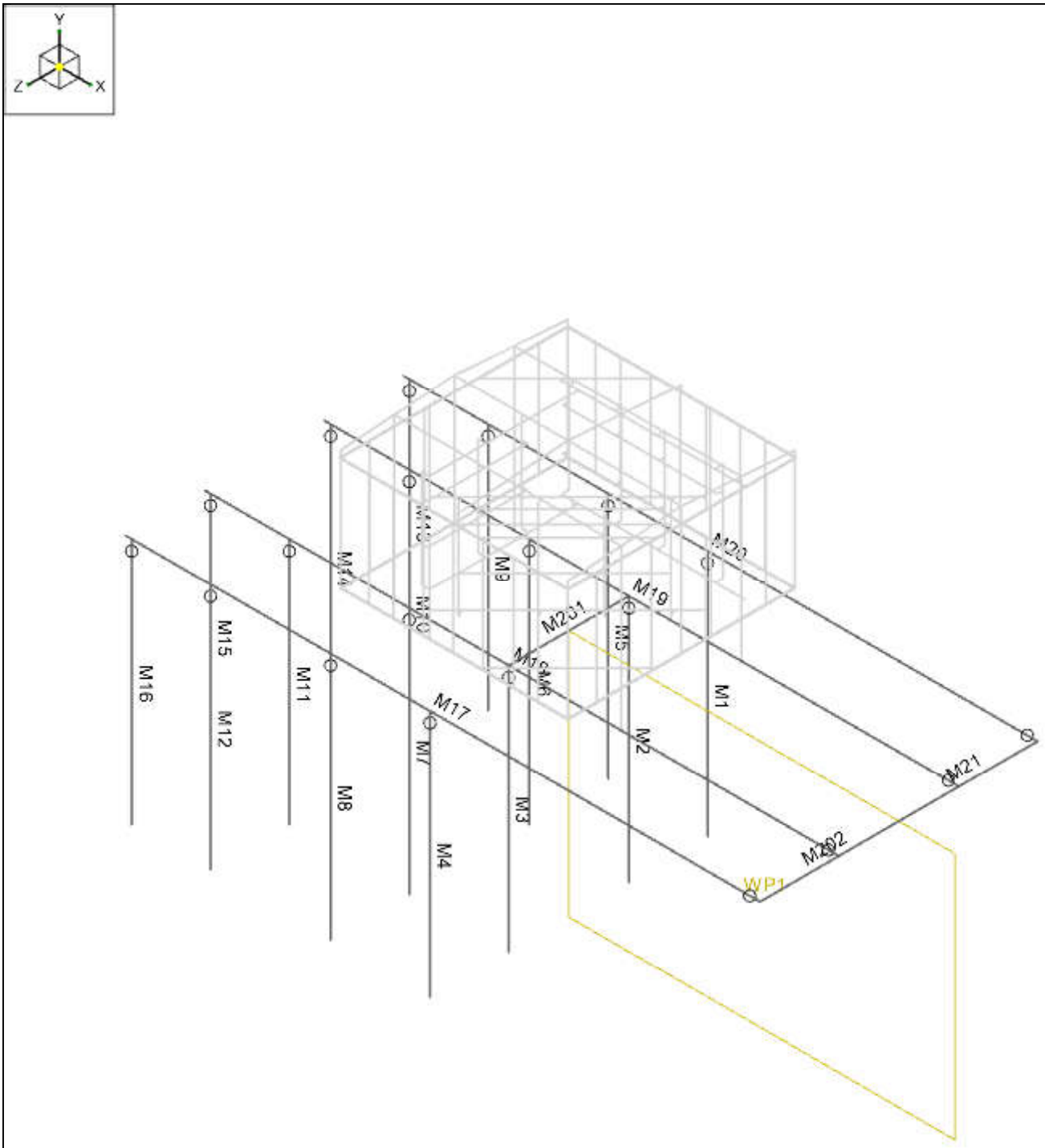
Trileaf	KSGT Relo	SK-1
DVA		Nov 16, 2022
706311	Penthouse Roof Model	KSGT Relo.r3d





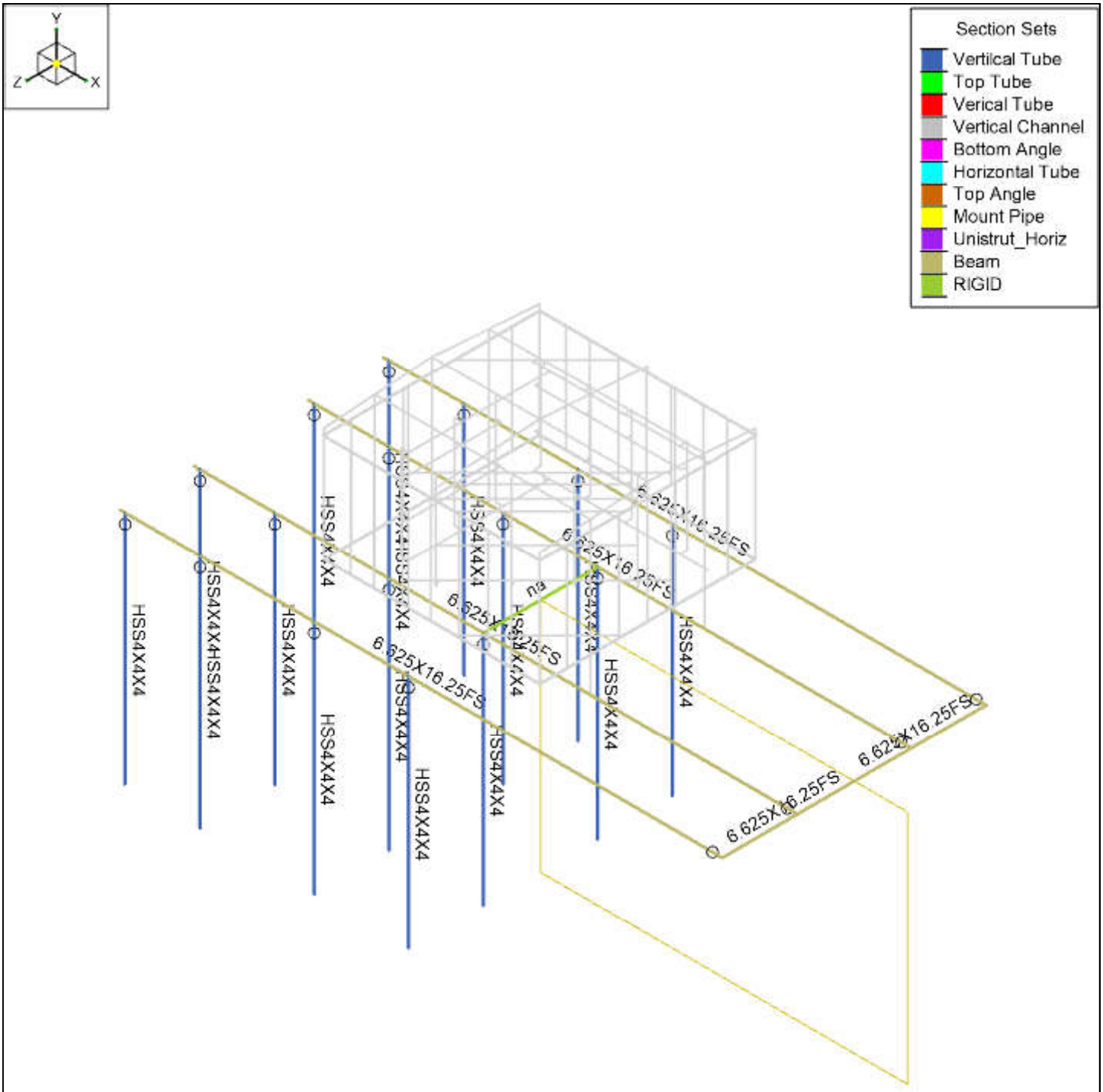
Envelope Only Solution

Trileaf	KSGT Relo	SK-2
DVA		Nov 16, 2022
706311	Node Labels	KSGT Relo.r3d



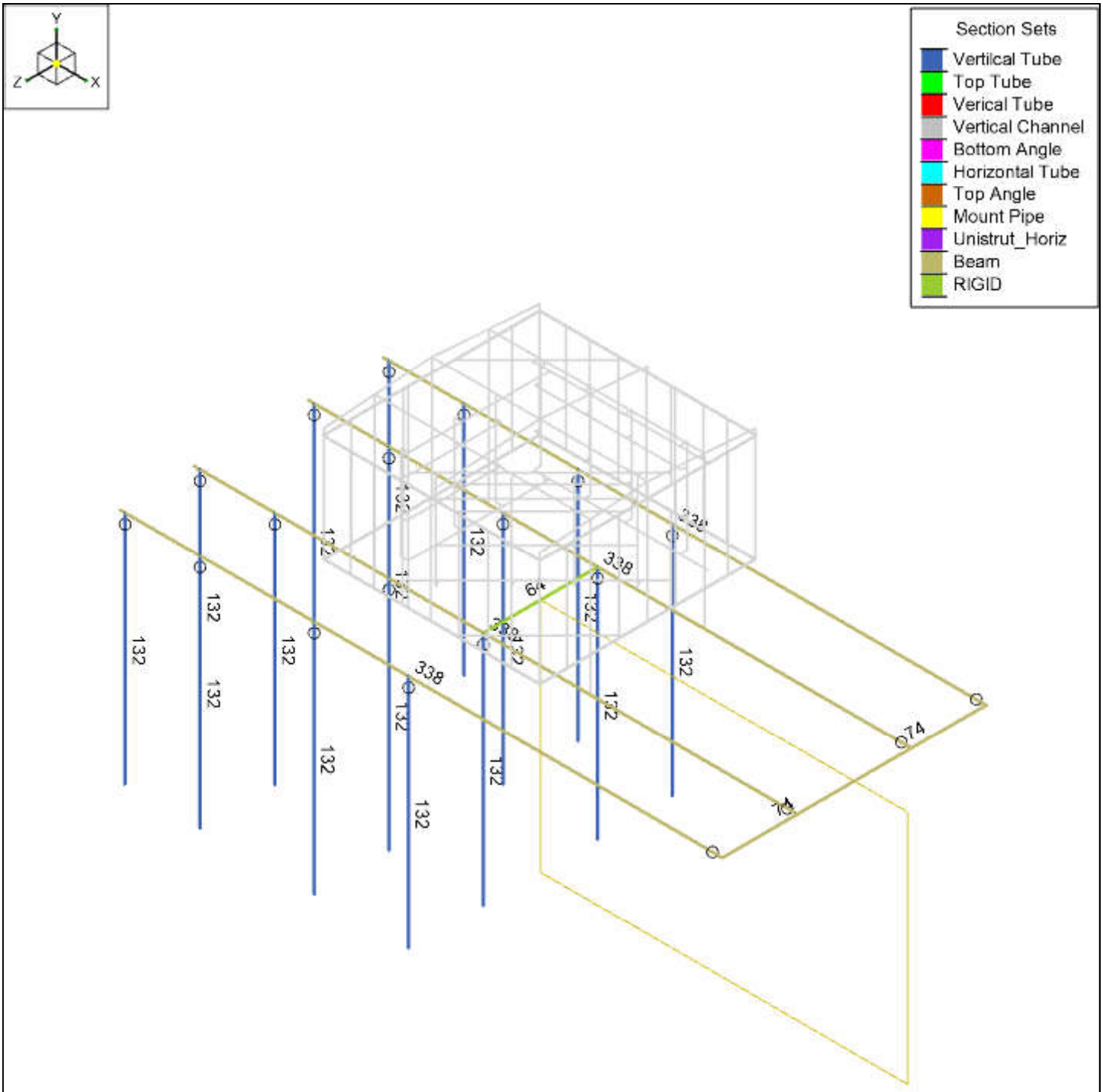
Envelope Only Solution

Trileaf	KSGT Relo	SK-3
DVA		Nov 16, 2022
706311	Member Labels	KSGT Relo.r3d



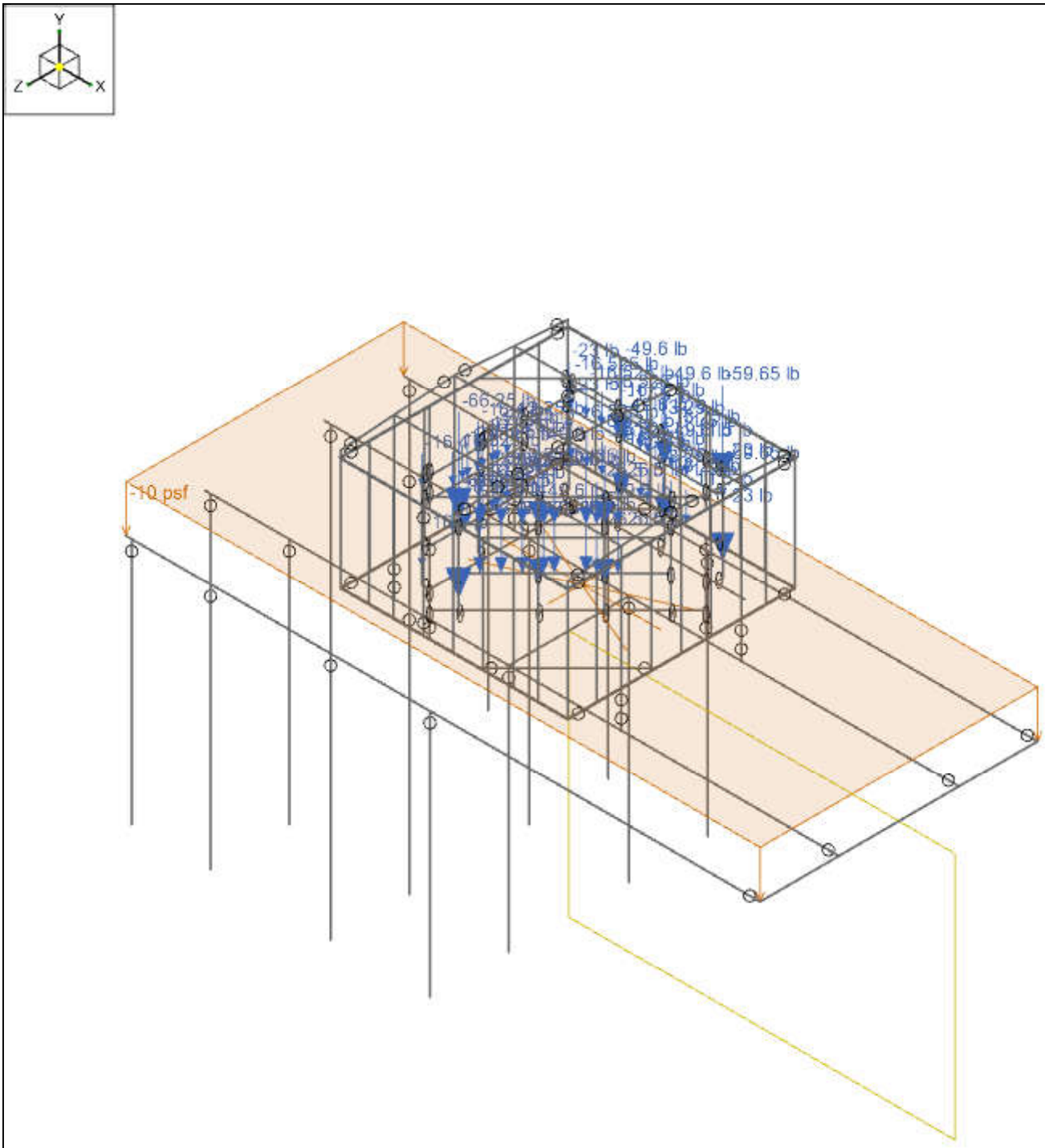
Envelope Only Solution

Trileaf	KSGT Relo	SK-4
DVA		Nov 16, 2022
706311	Member Shapes	KSGT Relo.r3d



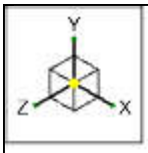
Member Length (in) Displayed
Envelope Only Solution

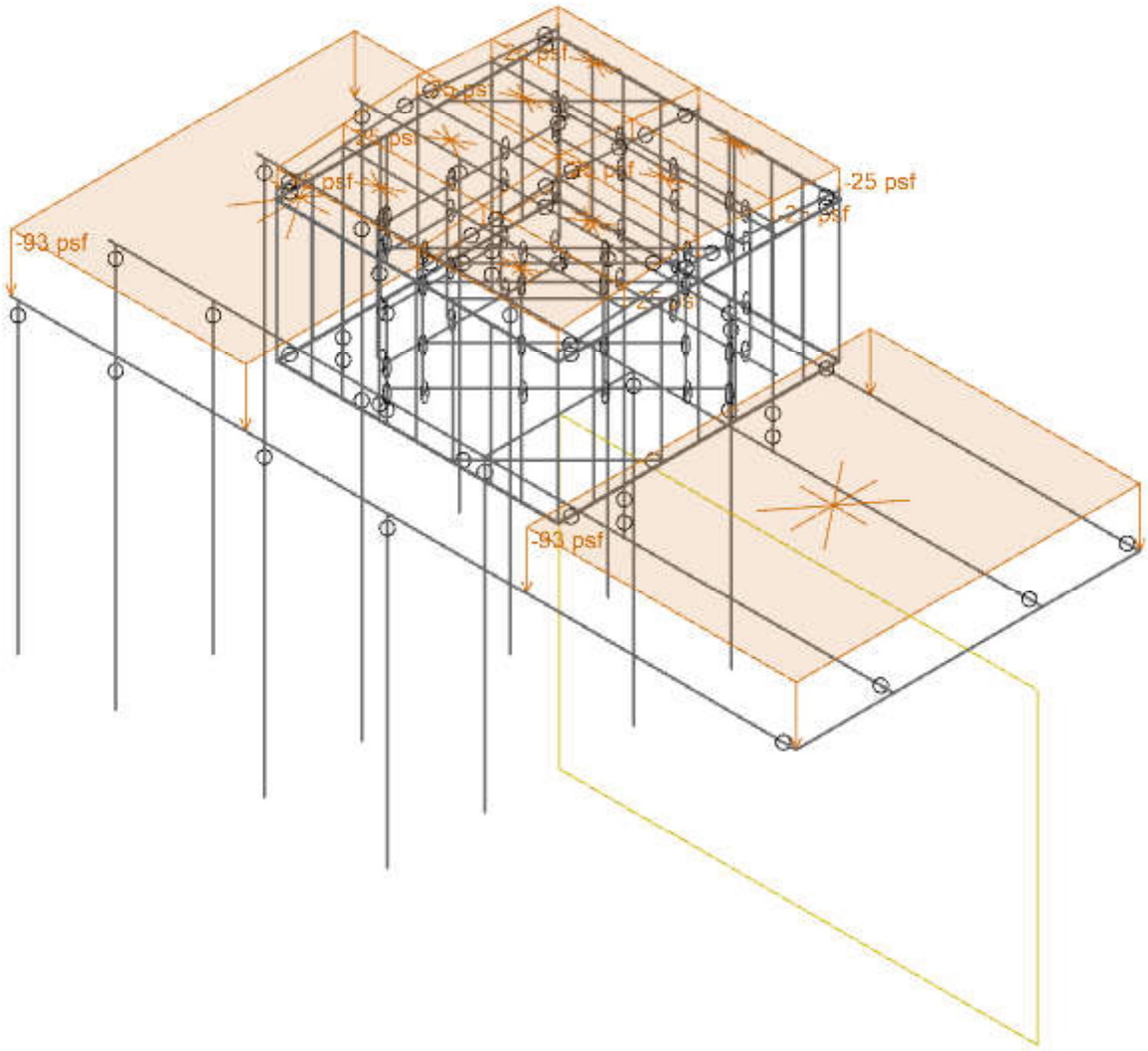
Trileaf	KSGT Relo	SK-5
DVA		Nov 16, 2022
706311	Member Lengths	KSGT Relo.r3d



Loads: BLC 1, Self Weight
Envelope Only Solution

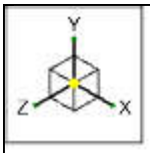
Trileaf	KSGT Relo	SK-6
DVA		Nov 16, 2022
706311	Dead Load	KSGT Relo.r3d

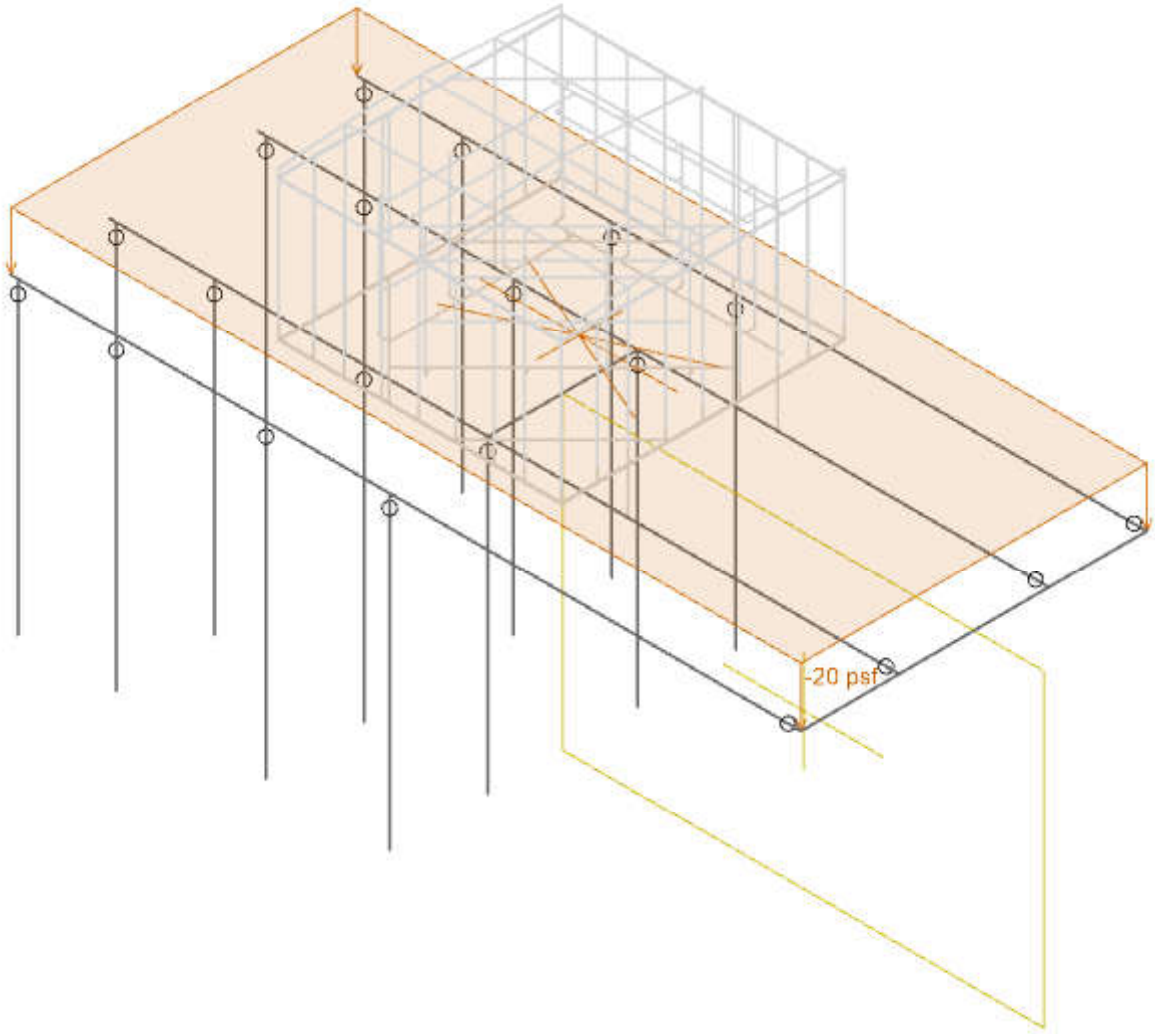




Loads: BLC 37, Snow Loads
Envelope Only Solution

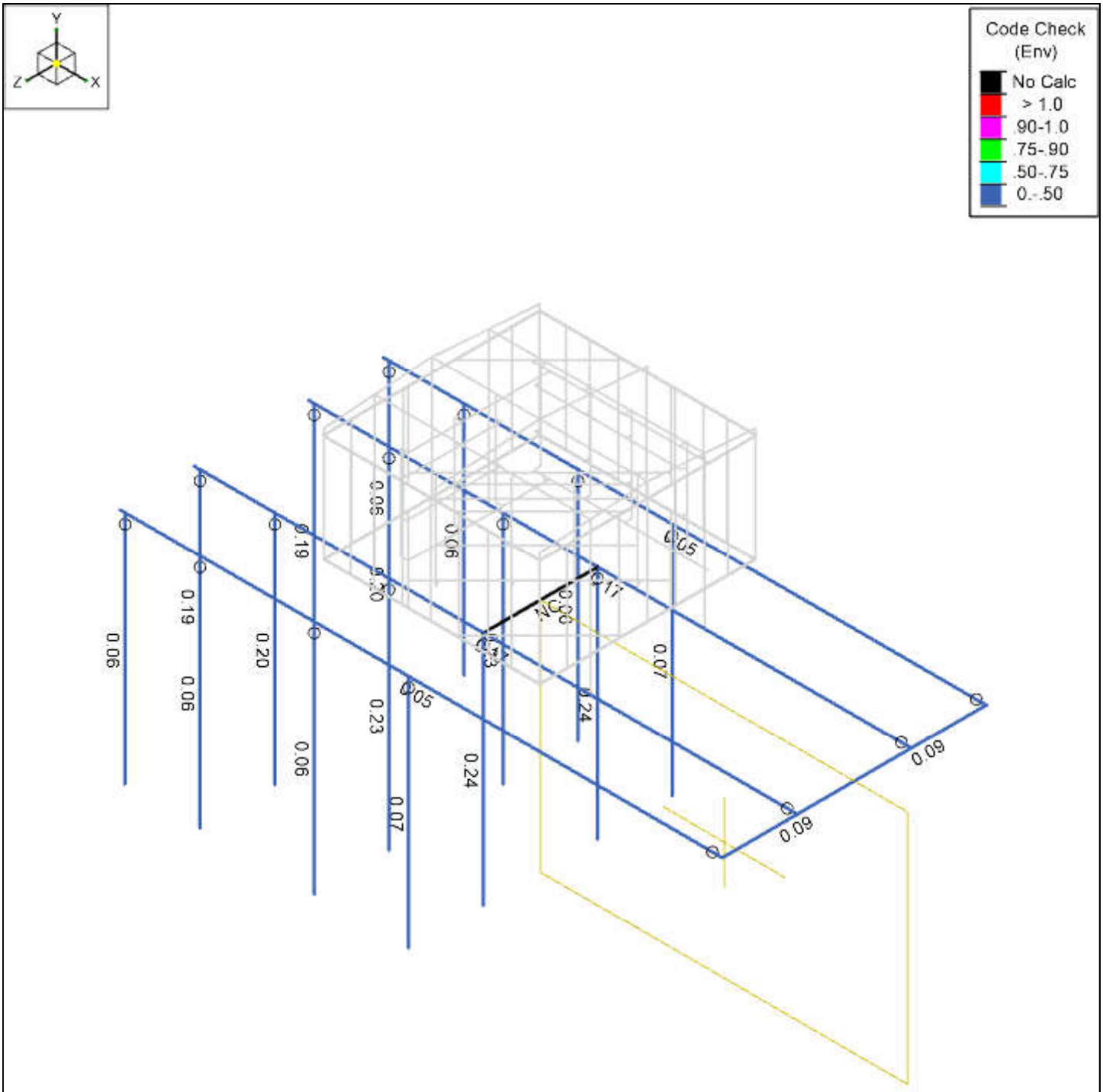
Trileaf	KSGT Relo	SK-7
DVA		Nov 16, 2022
706311	Snow Load	KSGT Relo.r3d





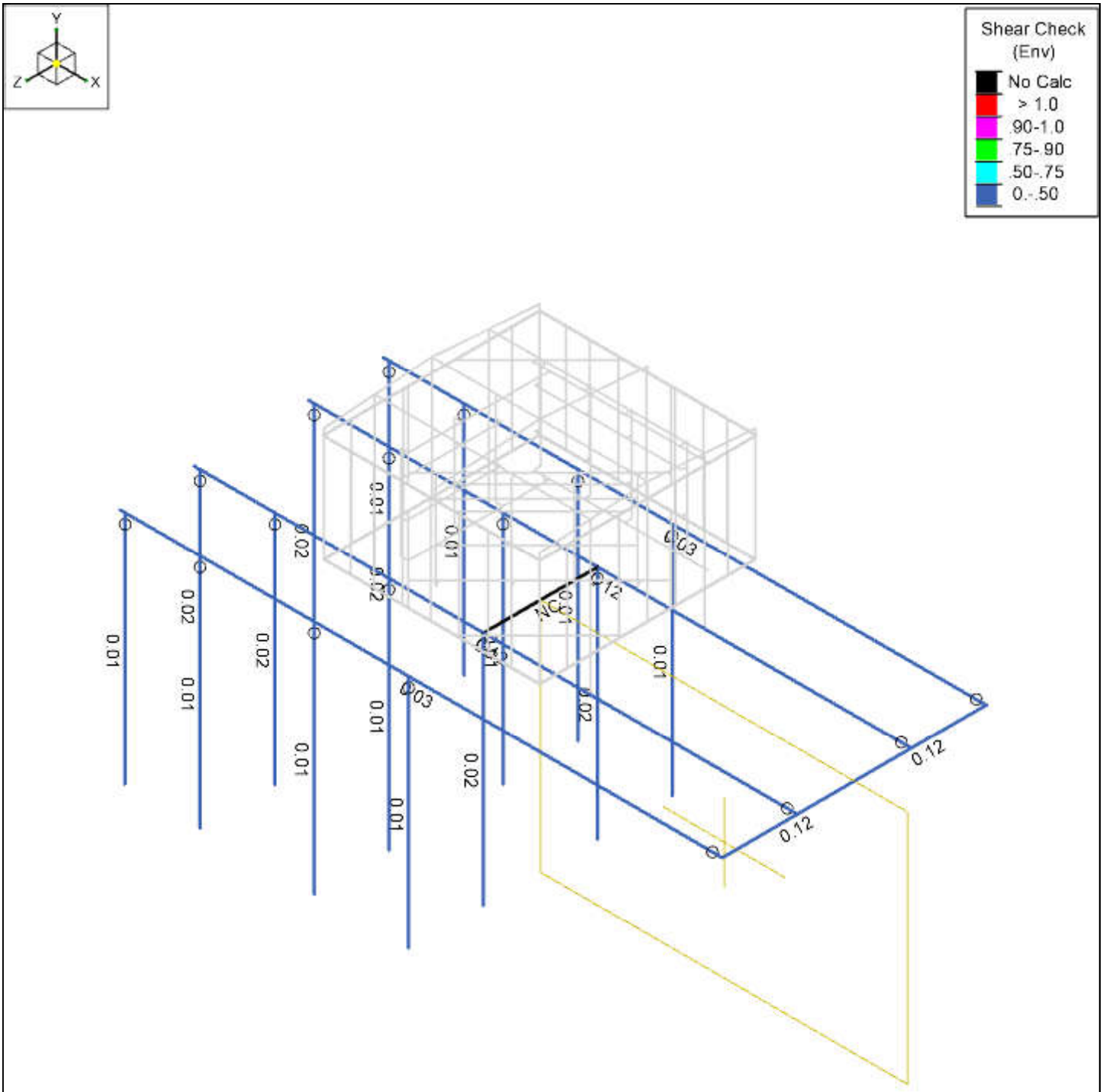
Loads: BLC 29, Live loads
Envelope Only Solution

Trileaf	KSGT Relo	SK-8
DVA		Nov 16, 2022
706311	Roof Live Loaf	KSGT Relo.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Trileaf	KSGT Relo	SK-9
DVA		Nov 16, 2022
706311	Member Bending Check	KSGT Relo.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Trileaf	KSGT Relo	SK-10
DVA		Nov 16, 2022
706311	Member Shear Check	KSGT Relo.r3d

Model Settings

Solution
Members

Number of Reported Sections	5
Number of Internal Sections	100
Member Area Load Mesh Size (in^2)	144
Consider Shear Deformation	Yes
Consider Torsional Warping	Yes

Wall Panels

Approximate Mesh Size (in)	12
Transfer Forces Between Intersecting Wood Walls	Yes
Increase Wood Wall Nailing Capacity for Wind Loads	Yes
Include P-Delta for Walls	Yes
Optimize Masonry and Wood Walls	Yes
Maximum Number of Iterations	3

Processor Core Utilization

Single	No
Multiple (Optimum)	Yes
Maximum	No

Axis
Vertical Global Axis

Global Axis corresponding to vertical direction	Y
Convert Existing Data	Yes

Default Member Orientation

Default Global Plane for z-axis	XZ

Plate Axis

Plate Local Axis Orientation	Nodal

Codes

Hot Rolled Steel	AISC 15th (360-16): LRFD
Stiffness Adjustment	Yes (Iterative)
Notional Annex	None
Connections	AISC 15th (360-16): LRFD
Cold Formed Steel	AISI S100-16: LRFD
Stiffness Adjustment	Yes (Iterative)
Wood	AWC NDS-18: LRFD
Temperature	< 100F
Concrete	ACI 318-19
Masonry	ACI 530-13: Strength
Aluminum	AA ADM1-15: LRFD
Structure Type	Building
Stiffness Adjustment	Yes (Iterative)
Stainless	AISC 14th (360-10): LRFD
Stiffness Adjustment	Yes (Iterative)

Concrete

Compression Stress Block	Rectangular Stress Block
Analyze using Cracked Sections	Yes
Leave room for horizontal rebar splices (2*d bar spacing)	Yes

Model Settings (Continued)

List forces which were ignored for design in the Detail Report	Yes

Rebar

Column Min Steel	1
Column Max Steel	8
Rebar Material Spec	ASTM A615
Warn if beam-column framing arrangement is not understood	No

Shear Reinforcement

Number of Shear Regions	4
Region 2 & 3 Spacing Increase Increment (in)	4

Seismic

RISA-3D Seismic Load Options

Code	ASCE 7-16
Risk Category	I or II
Drift Cat	Other
Base Elevation (ft)	
Include the weight of the structure in base shear calcs	Yes

Site Parameters

S_1 (g)	1
SD_1 (g)	1
SD_S (g)	1
T_L (sec)	5

Structure Characteristics

T Z (sec)	
T X (sec)	
C_tZ	0.02
C_tX	0.02
C_tExp. Z	0.75
C_tExp. X	0.75
R Z	3
R X	3
Ω_0Z	1
Ω_0X	1
C_dZ	4
C_dX	4
ρ Z	1
ρ X	1

Material Take-Off

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General Members				
2	RIGID		91	406.5	0
3	Total General		91	406.5	0
4					
5	Hot Rolled Steel				
6	A500 Gr.B Rect	HSS4X4X4	16	2112	2170.654
7	Total HR Steel		16	2112	2170.654
8					
9	Wood				
10	24F-1.8E DF Balanced	6.625X16.25FS	6	1500	3270.806
11	DF	2-2X6	2	264	128.333
12	DF	2-2X8FS	2	412	267.037
13	DF	2X8FS	2	338	109.537
14	DF	RS 3/8 6d@6	1	206	0.413
15	Total Wood		13	2720	3776.127

Custom Wood Properties

	Label	Fb	Ft	Fv	Fc	E	E05	Type
1	LVL_PRL_1.5E_2250F	2.25	1.5	0.22	1.95	1500	0.5	SCL
2	LVL_PRL_2.0E_2900F	2.9	1.9	0.285	2.75	2000	0.5	SCL
3	LVL_Microllam_1.9E_2600F	2.6	1.555	0.285	2.51	1900	0.5	SCL
4	PSL_Parallam_2.0E_2900F	2.9	2.025	0.29	2.9	2000	0.5	SCL
5	PSL_Parallam_1.8E	2.4	1.755	0.18	2.5	1800	0.5	SCL
6	LSL_TimberStrand_1.55E_2325F	2.325	1.07	0.31	2.05	1550	0.5	SCL
7	LSL_TimberStrand_1.3E_1700F	1.7	1.075	0.4	1.4	1300	0.5	SCL

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	Vertilcal Tube	HSS4X4X4	Column	Tube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
2	FRP Diagonal	L3X3X4	VBrace	Single Angle	FRP	Typical	1.44	1.23	1.23	0.031
3	Top Tube	HSS4X4X1/4	Beam	Tube	FRP	Typical	3.75	8.828	8.828	13.184
4	Verical Tube	HSS4X4X1/4	Column	Tube	FRP	Typical	3.75	8.828	8.828	13.184
5	Vertical Channel	C4X1/4	Column	Channel	FRP	Typical	1.635	0.315	3.569	0.032
6	Bottom Angle	L4X4X4	Beam	Single Angle	FRP	Typical	1.93	3	3	0.044
7	Horizontal Tube	HSS4X4X1/4	Beam	Tube	FRP	Typical	3.75	8.828	8.828	13.184
8	Top Angle	L4X4X4	Beam	Single Angle	FRP	Typical	1.93	3	3	0.044
9	Mount Pipe	PIPE_2.0	Column	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
10	Structure Leg	HSS3X3X3/16	Column	Tube	A500 Gr.B RND	Typical	2.115	2.799	2.799	4.18

Wood Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	Beam	6.625X16.25FS	Beam	Glulam_Western	24F-1.8E DF Balanced	Typical	107.656	393.758	2368.998	1171.423

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
1	Self Weight	DL		-1		76		1
2	Wind Load AZI 0	WLX					8	8
3	Wind Load AZI 30	None					8	8
4	Wind Load AZI 60	None					8	8

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
5	Wind Load AZI 90	WLZ					8	8
6	Wind Load AZI 120	None					8	8
7	Wind Load AZI 150	None					8	8
8	Wind Load AZI 180	None					8	8
9	Wind Load AZI 210	None					8	8
10	Wind Load AZI 240	None					8	8
11	Wind Load AZI 270	None					8	8
12	Wind Load AZI 300	None					8	8
13	Wind Load AZI 330	None					8	8
14	Ice Weight	OL1				76	179	
15	Ice Wind Load AZI 0	OL2					8	
16	Ice Wind Load AZI 30	None					8	
17	Ice Wind Load AZI 60	None					8	
18	Ice Wind Load AZI 90	OL3					8	
19	Ice Wind Load AZI 120	None					8	
20	Ice Wind Load AZI 150	None					8	
21	Ice Wind Load AZI 180	None					8	
22	Ice Wind Load AZI 210	None					8	
23	Ice Wind Load AZI 240	None					8	
24	Ice Wind Load AZI 270	None					8	
25	Ice Wind Load AZI 300	None					8	
26	Ice Wind Load AZI 330	None					8	
27	Seismic Load X	ELX			-0.379	76		
28	Seismic Load Z	ELZ	-0.379			76		
29	Live loads	LL						1
30	BLC 1 Transient Area Loads	None					66	
31	BLC 2 Transient Area Loads	None					4	
32	BLC 3 Transient Area Loads	None					8	
33	BLC 4 Transient Area Loads	None					8	
34	BLC 5 Transient Area Loads	None					4	
35	BLC 6 Transient Area Loads	None					8	
36	BLC 7 Transient Area Loads	None					8	
37	Snow Loads	SL						10
38	BLC 8 Transient Area Loads	None					4	
39	BLC 9 Transient Area Loads	None					8	
40	BLC 10 Transient Area Loads	None					8	
41	BLC 11 Transient Area Loads	None					4	
42	BLC 12 Transient Area Loads	None					8	
43	BLC 13 Transient Area Loads	None					8	
44	BLC 29 Transient Area Loads	None					66	
45	BLC 37 Transient Area Loads	None					85	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4DL	Yes	Y	1	1.4								
2	1.2DL + 1WL AZI 0	Yes	Y	1	1.2	2	1						
3	1.2DL + 1WL AZI 30	Yes	Y	1	1.2	3	1						
4	1.2DL + 1WL AZI 60	Yes	Y	1	1.2	4	1						
5	1.2DL + 1WL AZI 90	Yes	Y	1	1.2	5	1						
6	1.2DL + 1WL AZI 120	Yes	Y	1	1.2	6	1						
7	1.2DL + 1WL AZI 150	Yes	Y	1	1.2	7	1						
8	1.2DL + 1WL AZI 180	Yes	Y	1	1.2	8	1						
9	1.2DL + 1WL AZI 210	Yes	Y	1	1.2	9	1						
10	1.2DL + 1WL AZI 240	Yes	Y	1	1.2	10	1						
11	1.2DL + 1WL AZI 270	Yes	Y	1	1.2	11	1						

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
12	1.2DL + 1WL AZI 300	Yes	Y	1	1.2	12	1						
13	1.2DL + 1WL AZI 330	Yes	Y	1	1.2	13	1						
14	0.9DL + 1WL AZI 0	Yes	Y	1	0.9	2	1						
15	0.9DL + 1WL AZI 30	Yes	Y	1	0.9	3	1						
16	0.9DL + 1WL AZI 60	Yes	Y	1	0.9	4	1						
17	0.9DL + 1WL AZI 90	Yes	Y	1	0.9	5	1						
18	0.9DL + 1WL AZI 120	Yes	Y	1	0.9	6	1						
19	0.9DL + 1WL AZI 150	Yes	Y	1	0.9	7	1						
20	0.9DL + 1WL AZI 180	Yes	Y	1	0.9	8	1						
21	0.9DL + 1WL AZI 210	Yes	Y	1	0.9	9	1						
22	0.9DL + 1WL AZI 240	Yes	Y	1	0.9	10	1						
23	0.9DL + 1WL AZI 270	Yes	Y	1	0.9	11	1						
24	0.9DL + 1WL AZI 300	Yes	Y	1	0.9	12	1						
25	0.9DL + 1WL AZI 330	Yes	Y	1	0.9	13	1						
26	1.2D + 1.0Di	Yes	Y	1	1.2	14	1						
27	1.2D + 1.0Di +1.0Wi AZI 0	Yes	Y	1	1.2	14	1	15	1				
28	1.2D + 1.0Di +1.0Wi AZI 30	Yes	Y	1	1.2	14	1	16	1				
29	1.2D + 1.0Di +1.0Wi AZI 60	Yes	Y	1	1.2	14	1	17	1				
30	1.2D + 1.0Di +1.0Wi AZI 90	Yes	Y	1	1.2	14	1	18	1				
31	1.2D + 1.0Di +1.0Wi AZI 120	Yes	Y	1	1.2	14	1	19	1				
32	1.2D + 1.0Di +1.0Wi AZI 150	Yes	Y	1	1.2	14	1	20	1				
33	1.2D + 1.0Di +1.0Wi AZI 180	Yes	Y	1	1.2	14	1	21	1				
34	1.2D + 1.0Di +1.0Wi AZI 210	Yes	Y	1	1.2	14	1	22	1				
35	1.2D + 1.0Di +1.0Wi AZI 240	Yes	Y	1	1.2	14	1	23	1				
36	1.2D + 1.0Di +1.0Wi AZI 270	Yes	Y	1	1.2	14	1	24	1				
37	1.2D + 1.0Di +1.0Wi AZI 300	Yes	Y	1	1.2	14	1	25	1				
38	1.2D + 1.0Di +1.0Wi AZI 330	Yes	Y	1	1.2	14	1	26	1				
39	(1.2 + 0.2Sds)DL + 1.0E AZI 0	Yes	Y	1	1.352	27	1	28					
40	(1.2 + 0.2Sds)DL + 1.0E AZI 30	Yes	Y	1	1.352	27	0.866	28	0.5				
41	(1.2 + 0.2Sds)DL + 1.0E AZI 60	Yes	Y	1	1.352	27	0.5	28	0.866				
42	(1.2 + 0.2Sds)DL + 1.0E AZI 90	Yes	Y	1	1.352	27		28	1				
43	(1.2 + 0.2Sds)DL + 1.0E AZI 120	Yes	Y	1	1.352	27	-0.5	28	0.866				
44	(1.2 + 0.2Sds)DL + 1.0E AZI 150	Yes	Y	1	1.352	27	-0.866	28	0.5				
45	(1.2 + 0.2Sds)DL + 1.0E AZI 180	Yes	Y	1	1.352	27	-1	28					
46	(1.2 + 0.2Sds)DL + 1.0E AZI 210	Yes	Y	1	1.352	27	-0.866	28	-0.5				
47	(1.2 + 0.2Sds)DL + 1.0E AZI 240	Yes	Y	1	1.352	27	-0.5	28	-0.866				
48	(1.2 + 0.2Sds)DL + 1.0E AZI 270	Yes	Y	1	1.352	27		28	-1				
49	(1.2 + 0.2Sds)DL + 1.0E AZI 300	Yes	Y	1	1.352	27	0.5	28	-0.866				
50	(1.2 + 0.2Sds)DL + 1.0E AZI 330	Yes	Y	1	1.352	27	0.866	28	-0.5				
51	(0.9 - 0.2Sds)DL + 1.0E AZI 0	Yes	Y	1	0.748	27	1	28					
52	(0.9 - 0.2Sds)DL + 1.0E AZI 30	Yes	Y	1	0.748	27	0.866	28	0.5				
53	(0.9 - 0.2Sds)DL + 1.0E AZI 60	Yes	Y	1	0.748	27	0.5	28	0.866				
54	(0.9 - 0.2Sds)DL + 1.0E AZI 90	Yes	Y	1	0.748	27		28	1				
55	(0.9 - 0.2Sds)DL + 1.0E AZI 120	Yes	Y	1	0.748	27	-0.5	28	0.866				
56	(0.9 - 0.2Sds)DL + 1.0E AZI 150	Yes	Y	1	0.748	27	-0.866	28	0.5				
57	(0.9 - 0.2Sds)DL + 1.0E AZI 180	Yes	Y	1	0.748	27	-1	28					
58	(0.9 - 0.2Sds)DL + 1.0E AZI 210	Yes	Y	1	0.748	27	-0.866	28	-0.5				
59	(0.9 - 0.2Sds)DL + 1.0E AZI 240	Yes	Y	1	0.748	27	-0.5	28	-0.866				
60	(0.9 - 0.2Sds)DL + 1.0E AZI 270	Yes	Y	1	0.748	27		28	-1				
61	(0.9 - 0.2Sds)DL + 1.0E AZI 300	Yes	Y	1	0.748	27	0.5	28	-0.866				
62	(0.9 - 0.2Sds)DL + 1.0E AZI 330	Yes	Y	1	0.748	27	0.866	28	-0.5				
63	IBC 16-2 (b)	Yes	Y	DL	1.2	LL	1.6	LLS	1.6	SL	0.5	SLN	0.5
64	IBC 16-3 (c)	Yes	Y	DL	1.2	SL	1.6	SLN	1.6	LL	0.5	LLS	1

Envelope AWC NDS-18: LRFD Member Wood Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Fc' [ksi]	Ft' [ksi]	Fb1' [ksi]	Fb2' [ksi]	Fv' [ksi]	RB	CL	CP	Eqn
1	M19	6.625X16.25FS	0.172	112.667	5	0.119	112.667	z	5	2.601	2.376	4.758	3.131	0.497	6.553	0.992	0.753	3.9-3
2	M18	6.625X16.25FS	0.168	112.667	11	0.115	112.667	z	11	2.601	2.376	4.758	3.131	0.497	6.553	0.992	0.753	3.9-3
3	M21	6.625X16.25FS	0.093	74	8	0.121	74	z	8	3.248	2.376	5.155	3.131	0.497	5.234	0.995	0.94	3.9-3
4	M202	6.625X16.25FS	0.093	0	8	0.12	31.604	z	8	3.248	2.376	5.155	3.131	0.497	5.234	0.995	0.94	3.9-3
5	M20	6.625X16.25FS	0.047	172.521	5	0.033	176.042	y	39	3.337	2.376	4.758	3.131	0.572	11.187	0.966	0.966	3.9-3
6	M17	6.625X16.25FS	0.045	172.521	11	0.032	176.042	y	45	3.337	2.376	4.758	3.131	0.572	11.187	0.966	0.966	3.9-3

Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-in]	phi*Mn z-z [lb-in]	Cb	Eqn
1	M2	HSS4X4X4	0.238	132	5	0.015	132	z	11	84082.362	139518	194166	194166	1.667	H1-1b
2	M3	HSS4X4X4	0.237	132	11	0.015	132	z	11	84082.362	139518	194166	194166	1.667	H1-1b
3	M7	HSS4X4X4	0.229	132	11	0.011	132	z	12	84082.362	139518	194166	194166	1.667	H1-1b
4	M6	HSS4X4X4	0.229	132	5	0.011	132	z	4	84082.362	139518	194166	194166	1.667	H1-1b
5	M11	HSS4X4X4	0.204	132	4	0.024	132	z	11	84082.362	139518	194166	194166	1.667	H1-1b
6	M10	HSS4X4X4	0.203	132	12	0.024	132	z	5	84082.362	139518	194166	194166	1.667	H1-1b
7	M15	HSS4X4X4	0.19	132	4	0.024	132	z	11	84082.362	139518	194166	194166	1.667	H1-1b
8	M14	HSS4X4X4	0.19	132	12	0.024	132	z	5	84082.362	139518	194166	194166	1.667	H1-1b
9	M1	HSS4X4X4	0.073	132	40	0.007	132	z	11	84082.362	139518	194166	194166	1.995	H1-1b
10	M4	HSS4X4X4	0.073	132	46	0.007	132	z	5	84082.362	139518	194166	194166	1.992	H1-1b
11	M5	HSS4X4X4	0.064	132	46	0.006	132	y	12	84082.362	139518	194166	194166	1.971	H1-1b
12	M8	HSS4X4X4	0.064	132	50	0.006	132	y	4	84082.362	139518	194166	194166	1.981	H1-1b
13	M9	HSS4X4X4	0.061	132	46	0.005	132	z	39	84082.362	139518	194166	194166	1.971	H1-1b
14	M12	HSS4X4X4	0.061	132	50	0.005	132	z	39	84082.362	139518	194166	194166	1.981	H1-1b
15	M13	HSS4X4X4	0.058	132	46	0.005	132	z	39	84082.362	139518	194166	194166	1.971	H1-1b
16	M16	HSS4X4X4	0.057	132	46	0.005	132	z	39	84082.362	139518	194166	194166	1.985	H1-1b

AWC NDS-18: LRFD Wall Panel Wood Code Checks (Axial)

	Wall Panel	Region	Stud Size	Stud Spacing[in]	Axial Check	Gov LC	Chord Size	Chord Axial Check	Gov LC
1	WP1	R1	2X8FS	16	0.014	8	2-2X6	0.109	8

AWC NDS-18: LRFD Wall Panel Wood Code Checks (In-Plane)

	Wall Panel	Shear Panel Label	Region	Shear Check	Shear Force[lb/ft]	Gov LC	Hold-Down Label	Chord Strap Label	Tension Check	Tie-Down Force[lb]	Gov LC
1	WP1	RS_3/8_6d@6	R1	0.516	231.093	2	LTT20B_0.148x3_3_SPF-HF	NC	0.91	1027.081	14