DESIGN REVIEW

Permit info: DSRFY2024-0017

Application Date: 08/26/2024 Rec'd by: MA

FOR OFFICE USE ONLY

6015 Glenwood Street ▪ Garden City, ID 83714 ▪ 208.472.2921
▪ www.gardencityidaho.org ▪ building@gardencityidaho.org

APPLICANT	PROPERTY OWNER
Name: Sarah Baird, Crown Castle, on behalf of AT&T Mobility	**Name:**
Company: Crown Castle on behalf of AT&T Mobility	**Company:** DB II LLC by its attorney-in-fact Global Signal Acquisitions IV LLC
Address: 6210 Fleming St.	**Address:** 8247 W. State St.
City: Everett	**City:** Garden City
State: WA **Zip:** 98203	**State:** ID **Zip:** 83714
Tel.: 206-336-3204	**Tel.:**
E-mail: sarah.baird@crowncastle.com	**E-mail:**

PROPERTY AND DESIGN INFORMATION

This application is a request to: ☐ **Construct New** ☑ **Addition** ☐ **Subdivision**

Revision refile to approved Design Review permit DSRFY2023-0001

Site Address: 8247 W. State St., Garden City, ID 83714

Subdivision Name: Azalea	**Lot:** 11	**Block:** 2
Tax Parcel Number: R0719420250	**Zoning:** C-2	**Total Acres:** 0.567
Proposed Use: Existing Wireless Communications Facility	**Floodplain:** Yes **No**	

OBJECTIVES 8-4C

1. How does the design of the structure advance an urban form through its relationship to the street, the pedestrian and adjacent properties?
2. How does the design maximize the opportunities for safe and comfortable pedestrian accessibility and minimize the effects of parking and vehicular circulation?
3. What are the building materials?
4. What are the existing notable site features and how does the design respect them?
5. Is the building consistent with the adopted streetscape?

Bike and Pedestrian: How have bike and pedestrian circulation been arranged with respect to adjacent facilities, internal circulation, and potential vehicular conflicts? Is there sidewalk? How far away are the nearest transit facilities and is there safe and comfortable access to the facilities?

Parking and parking lot standards: Is there a tree provided for every 5 parking stalls? Is there bike parking provided? Is the parking adequately screened from adjacent uses and the street? Is there any stall that is located more than 100' from a shade tree?

Community Interaction: How does the development incorporate into the envisioned neighborhood? How does the proposed project support a compact development pattern that enables intensification of development and changes over time? How does the proposed design support a development

pattern in nodes rather than strip commercial along arterial corridors? How does the project promote a place where people want to be? If not exempt 8-4G sustainability, how many points will the project have, as totaled from the sustainability checklist?

Landscaping: Is there more than 5% of the site dedicated to landscaping? Is there one class II or III tree provided for every 50' of street frontage? Will any trees be removed from the site? What kind of irrigation will be provided? Is the landscaping compatible with local climatic conditions?

Building Design: How does the building provide visual interest and positively contribute to the overall urban fabric of the community? What is the Floor to Area ratio? Is there relief incorporated into facades and or rooflines greater than 50'? What are the setbacks? How are the outdoor service and equipment areas screened? If there are multiple structures, are the setbacks consistent? Are there any "green building" concepts are incorporated into the project?

I consent to this application and hereby certify that information contained on this application and in the accompanying materials is correct to the best of my knowledge. I agree to be responsible for all application materials, fees and application correspondence with the City. I will hold harmless and indemnify the City of Garden City from any and all claims and/or causes of action from or an outcome of the issuance of a permit from the City.

Sarah Baird 7/31/2024 See attached

Signature of the Applicant (date) Signature of the Owner (date)

APPLICATION INFORMATION REQUIRED

Note:
AN ELECTRONIC COPY OF THE ENTIRE APPLICATION SUBMITTAL REQUIRED
INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED UNDER ANY CIRCUMSTANCES

ONE (1) HARD COPY OF EACH CHECKLIST ITEM REQUIRED:

- [x] **Compliance Statement and Statement of Intent**
- [x] **Neighborhood Map**
- [x] **Site Plan**
- [ ] **Landscape Plan**
- [ ] **Schematic Drawing**
- [ ] **Lighting Plan**
- [ ] **Topographic Survey**
- [ ] **Grading Plan**
- [ ] **Will Serve Letter **If required, must submit a Fire Flow Request**
- [x] **Ada County Approved Addresses**
- [ ] **Waiver Request of Application Materials**
- [x] **Affidavit of Legal Interest**
- [ ] **Sustainability Checklist **if applicable***

☑ PLEASE CHECK THE FOLLOWING:

INFORMATION REQUIRED ON COMPLIANCE STATEMENT AND STATEMENT OF INTENT:

- ☐ Statement explaining how the proposed structure(s) is compliant with the standards of review for the proposed application
- ☐ Purpose, scope, and intent of project
- ☐ Information concerning noxious uses, noise, vibration, and any other aspects of the use or structure that may impact adjacent properties or the surrounding community

INFORMATION REQUIRED ON NEIGHBORHOOD MAP:

- ☐ 8 ½" x 11" size minimum
- ☐ Location of contiguous lots and lot(s) immediately across from any public or private street, building envelopes and/or existing buildings and structures at a scale not less than one inch equals one hundred feet (1" = 100')
- ☐ Impact of the proposed siting on existing buildings, structures, and/or building envelopes

INFORMATION REQUIRED ON SITE PLAN:

- ☐ Scale not less than 1" = 20', legend, and north arrow.
- ☐ Property boundary, dimensions, setbacks and parcel size.
- ☐ Location of the proposed building, improvement, sign, fence or other structure, and the relationship to the platted building envelope and/or building zone
- ☐ Building envelope dimensions with the center of the envelope location established in relation to the property lines
- ☐ Adjacent public and private street right of way lines
- ☐ Total square footage of all proposed structures calculated for each floor. If the application is for an addition or alteration to an existing building or structure, then the new or altered portions shall be clearly indicated on the plans and the square footage of new or altered portion and the existing building shall be included in the calculations
- ☐ For uses classified as drive-through, the site plan shall demonstrate safe pedestrian and vehicular access and circulation on the site and between adjacent properties as required in Section 8-2C-13 of Title 8.
- ☐ The site plan shall demonstrate safe vehicular access as required in 8-4E-4
- ☐ Driveways, access to public streets, parking with stalls, loading areas.
- ☐ Sidewalks, bike and pedestrian paths.
- ☐ Berms, walls, screens, hedges and fencing.
- ☐ Location and width of easements, canals, ditches, drainage areas.
- ☐ Location, dimensions and type of signs.
- ☐ Trash storage and mechanical equipment and screening.
- ☐ Parking including noted number of regular, handicap and bike parking as well as dimensions of spaces and drive aisles depicted on plan
- ☐ Log depicting square footage of impervious surface, building and landscaping
- ☐ Location and height of fences and exterior walls
- ☐ Location and dimensions of outdoor storage areas
- ☐ Location of utilities and outdoor serviced equipment and areas
- ☐ Location of any proposed public art, exterior site furniture, exterior lighting, signage

INFORMATION REQUIRED ON LANDSCAPE PLAN:

- ☐ Scale the same as the site plan.
- ☐ Type, size, and location of all existing and proposed plants, trees, and other landscape materials.
- ☐ Size, location and species of existing vegetation labeled to remain or to be removed.
- ☐ All areas to be covered by automatic irrigation, including location of proposed irrigation lines.
- ☐ Cross section through any special features, berms, and retaining walls.
- ☐ A plant list of the variety, size, and quantity of all proposed vegetation
- ☐ Log of square footage of landscaping materials corresponding to location
- ☐ Locations and dimensions of open space and proposed storm water systems

INFORMATION REQUIRED ON SCHEMATIC DRAWINGS (ELEVATIONS):

- ☐ Scale not less than 1/8 inch = 1 foot (1/8" = 1')
- ☐ Floor plans; elevations, including recorded grade lines; or cross sections that describe the highest points of all structures and/or buildings, showing relationship to recorded grade existing prior to any site preparation, grading or filing
- ☐ Decks, retaining walls, architectural screen walls, solid walls, and other existing and proposed landscape features shall be shown in elevations and sections with the details to show the completed appearance of those structures
- ☐ Overall dimensions of all proposed structures
- ☐ Specifications on exterior surface materials and color
- ☐ Sample materials (as determined by the staff)

INFORMATION REQUIRED ON LIGHTING PLAN:

- ☐ 11" x 17" size minimum
- ☐ Location, type, height, lumen output, and luminance levels of all exterior lighting
- ☐ Refer to Garden City Code 8-4A-6 for outdoor lighting requirements
- ☐ Location of municipal street lights

INFORMATION FOR TOPOGRAPHIC SURVEY:

- ☐ The topographic map is a map of the application site and adjoining parcels prepared by an engineer and/or land surveyor, and at a scale of not less than one inch (1") to twenty feet (20').
- ☐ If the site has been known to have been altered over time, then the applicant shall provide evidence of the natural topography of the site

INFORMATION REQUIRED ON GRADING PLAN:

- ☐ 11" x 17" size minimum
- ☐ Scale not less than one inch equals twenty feet (1" = 20')
- ☐ Two foot (2') contours for the entire proposal site
- ☐ One foot (1') contours for details, including all planimetric features
- ☐ Existing site features, including existing structures, trees, streams, canals, and floodplain hazard areas
- ☐ Existing easement and utility locations
- ☐ Approximate limiting dimensions, elevations, and finish contours to be achieved by the contemplated grading within the project, showing all proposed cut and fill slopes, drainage channels, and related construction; and finish and spot grade elevations for all wall and fence construction, and paved and recreational surface
- ☐ Slope and soil stabilization and re-vegetation plan, including identification of areas where existing or natural vegetation will be removed and the proposed method of re-vegetating. Show all areas of disturbance and construction fencing location; re-vegetation is required for all disturbed areas
- ☐ Proposed storm water systems

INFORMATION REQUIRED MASTER SIGN PLAN:

***Required for developments of two or more buildings*:**

- ☐ **Location, elevations, and materials of proposed signage**

INFORMATION REQUIRED FOR IRRIGATION/DITCH INFORMATION FORM:

***Required if irrigation canal/irrigation ditch runs through property or along property lines*:**

- ☐ **Letter from company indicating approval**

INFORMATION REQUIRED FOR WAIVER REQUEST OF APPLICATION MATERIALS:

- ☐ **Statement must include a list of the application materials to be waived and an explanation for the request.**

6015 Glenwood Street ▪ Garden City, Idaho 83714
Phone 208 - 472-2921 ▪ Fax 208 - 472-2926 ▪
www.gardencityidaho.org

Affidavit of Legal Interest

State of Idaho)
)SS
County of Ada)

I, Sarah Baird (Name), 8020 Katy Freeway (Address)

Houston (City), TX 77024 (State and Zip)

Being first duly sworn upon oath, depose and say:

1. That I am the record owner of the property described on the attached, and I grant my permission

   to Crown Castle USA Inc. (Name), 8020 Katy Freeway, Houston, TX 77024 (Address)
   to submit the accompanying application pertaining to that property.

2. I agree to indemnify, defend and hold the City of Garden City and its employees harmless from any claim or liability resulting from any dispute as to the statements contained herein or as to the ownership of the property which is the subject of the application.

3. I hereby grant permission to City of Garden City staff to enter the subject property for the purpose of site inspections related to processing said applications.

Dated this 26th day of August, 20 24

Signature

Subscribed and sworn to before me the day and year first above written

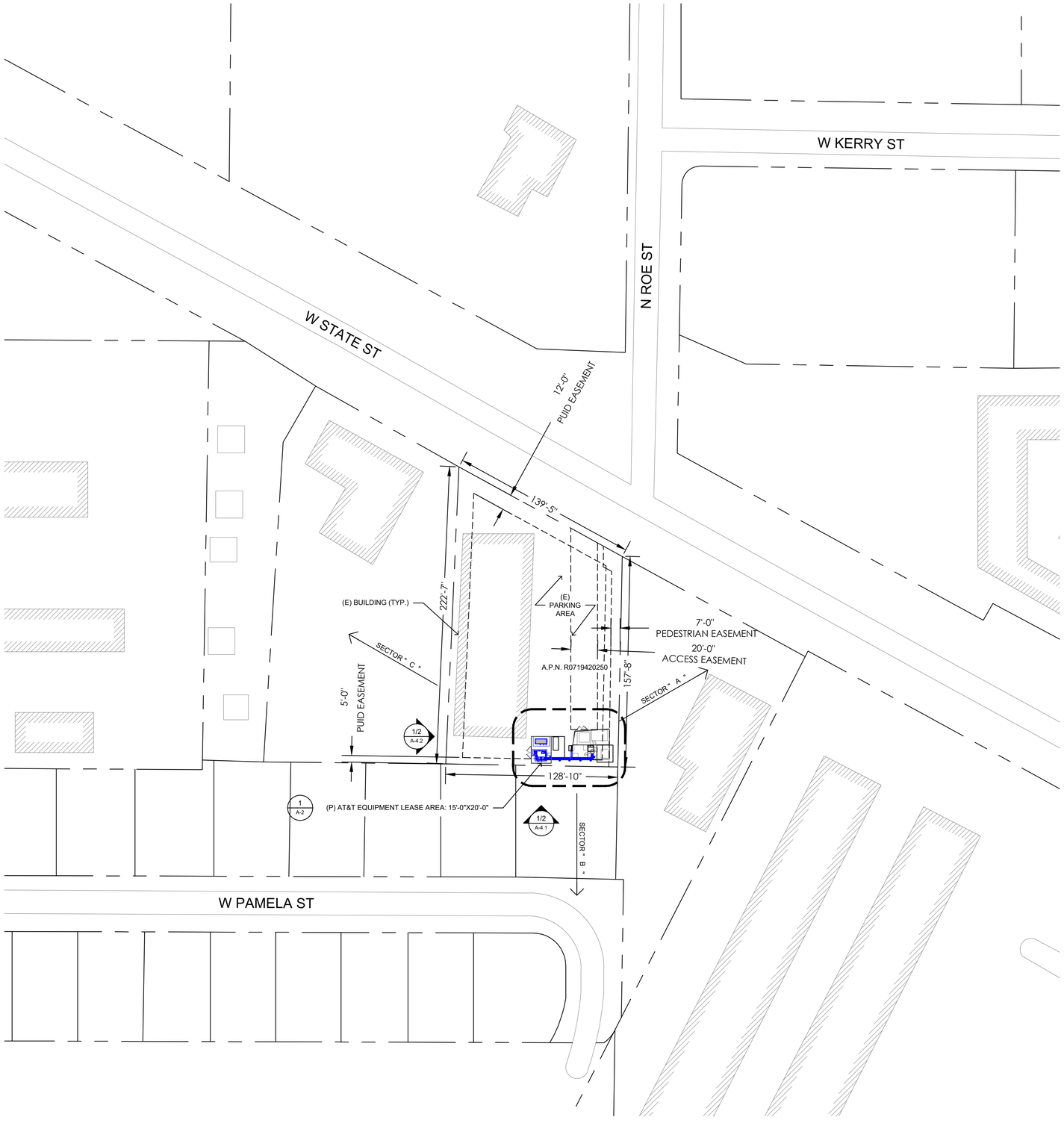
Notary Public for Idaho

Residing at:_____

My Commission expires_____

NOTE

THERE IS NO LANDSCAPING ON SITE AT THIS TIME.



1 OVERALL SITE PLAN

SCALE: 40' 20' 0 40' 1"=40'-0" (FULL SIZE) 1"=80'-0" (11x17)

N

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
A	09/16/21	PRELIMINARY CD'S
B	12/03/21	CLIENT REVISIONS
0	12/24/21	CLIENT REVISIONS
1	01/10/22	CLIENT REVISIONS
2	02/14/22	CLIENT REVISIONS
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

Licensor:

PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER

SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
A-1

CROWN CASTLE

8020 Katy Freeway
Houston, TX 77024

Phone: (206) 336-3204
www.crowncastle.com

August 26, 2024

City of Garden City
Planning & Zoning
6015 Glenwood Street
Garden City, ID 83714-1347

Via Email

************NOTICE OF ELIGIBLE FACILITIES REQUEST************

RE: Request for Minor Modification to Existing Wireless Facility – Section 6409
Site Address: 8247 W State Street, Garden City, ID 83714
Crown Site Number: 824322 / Crown Site Name: GrdnCity_Roe
Customer Site Number: IDL02365 / Application Number: 665802

On behalf of New Cingular Wireless PCS, LLC ("AT&T Mobility" or "Applicant"), Crown Castle USA Inc. ("Crown Castle") is pleased to submit this request to modify the existing wireless facility noted above through the collocation, replacement and/or removal of the Applicant's equipment as an eligible facilities request for a minor modification under Section 6409[1] and the rules of the Federal Communications Commission ("FCC").[2]

Section 6409 mandates that state and local governments must approve any eligible facilities request for the modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station. Under Section 6409, to toll the review period, if the reviewing authority determines that the application is incomplete, it must provide written notice to the applicant within 30 days, which clearly and specifically delineates all missing documents or information reasonably related to whether the request meets the federal requirements.[3] Additionally, if a state or local government, fails to issue any approvals required for this request within 60 days, these approvals are deemed granted. The FCC has clarified that the 30-day and 60-day deadlines begins when an applicant: (1) takes the first step required under state or local law; and (2) submits information sufficient to inform the jurisdiction that this modification qualifies under the federal law[4]. Please note that with the submission of this letter and enclosed items, the thirty and sixty-day review periods have started. **Based on the date of this filing, the deadline for written notice of incomplete application is September 25, 2024, and the deadline for issuance of approval is October 25, 2024.**

[1] Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409 (2012) (codified at 47 U.S.C. § 1455).
[2] *Acceleration of Broadband Deployment by Improving Wireless Facility Siting Policies*, 29 FCC Rcd. 12865 (2014) (codified at 47 CFR § 1.6100); and *Implementation of State & Local Governments' Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012*, WT Docket No. 19-250 (June 10, 2020).
[3] *See* 47 CFR § 1.6100 (c)(3). [4] *See* 2020 Upgrade Order at paragraph 16.

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Houston, TX 77024

Phone: (206) 336-3204
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The proposed scope of work for this project includes:

> Collocation of antennas, ancillary equipment and ground equipment as per plans for a new carrier on an existing wireless communication facility.

At the end of this letter is a checklist outlining the applicable substantial change criteria under Section 6409. Additionally, the following items are included in support of this request:

- Design Review Application
- Compliance Statement and Statement of Intent
- Neighborhood Map
- Photos of Site (in lieu of landscaping plan)
- Affidavit of Legal Interest
- Lease Agreement
- Warranty Deed
- Ada County Property Report
- Mount Analysis
- Structural Analysis
- Site Plan
- Construction Drawings

As these documents indicate, (i) the modification involves the collocation, removal or replacement of transmission equipment; and (ii) such modification will not substantially change the physical dimensions of such tower or base station. As such, it is an "eligible facilities request" as defined in the FCC's rules to which the 60-day deadline for approval applies. Accordingly, Applicant requests all authorization necessary for this proposed minor modification under Section 6409.

Our goal is to work with you to obtain approvals earlier than the deadline. We will respond promptly to any request for related information you may have in connection with this request. 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 improve wireless telecommunication services in your community using collocation on existing infrastructure. If you have any questions, please do not hesitate to contact me.

Regards,

Sarah Baird
Permitting Specialist, Tower Services

8020 Katy Freeway
Houston, TX 77024

Phone: (206) 336-3204
www.crowncastle.com

Crown Castle, Agent for AT&T Mobility
(206) 336-3204
Sarah.Baird@crowncastle.com

CROWN CASTLE

8020 Katy Freeway
Houston, TX 77024

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Section 6409 Substantial Change Checklist for Towers Outside of the Public Right of Way

The Federal Communications Commission has determined that a modification substantially changes the physical dimension of a wireless tower or base station under 47 U.S.C. § 1455(a) if it meets one of six enumerated criteria under 47 C.F.R. § 1.6100.

Criteria for Towers Outside of the Public Rights of Way

YES/NO **NO**	Does the modification increase the height of the tower by more than the greater of: (a) 10%; or (b) the height of an additional antenna array plus separation of up to 20 feet from the top of the nearest existing antenna?
YES/NO **NO**	Does the modification add an appurtenance to the body of the tower that would protrude from the edge of the tower more than 20 feet or more than the width of the tower structure at the level of the appurtenance, whichever is greater?
YES/NO **NO**	Does the modification involve the installation of more than the standard number of new equipment cabinets for the technology involved or add more than four new equipment cabinets?
YES/NO **NO**	Does the modification entail any excavation or deployment outside the current site by more than 30 feet in any direction, not including any access or utility easements?
YES/NO **NO**	Does the modification defeat the concealment elements of the eligible support structure?
YES/NO **NO**	Does the modification violate conditions associated with the siting approval for the tower or base station other than as specified in 47 C.F.R. § 1.6100(c)(7)(i) – (iv)?

If all questions in the above section are answered "NO," then the modification does not constitute a substantial change to the existing tower under 47 C.F.R. § 1.6100.

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August 26, 2024

City of Garden City
Planning & Zoning
6015 Glenwood Street
Garden City, ID 83714-1347

Via Email

RE: Statement of Compliance and Statement of Intent
Site Address: 8247 W State Street, Garden City, ID 83714
Crown Site Number: 824322 / Crown Site Name: GrdnCity_Roe
Customer Site Number: IDL02365 / Application Number: 665802

AT&T is requesting conditional use permit and design review approval to expand a current legal non-conforming use in the C-2 zone pursuant to Garden City Code § 8-1B-3. The existing facility was lawfully established through Conditional Use Permit 03-17-CU by Garden City on December 17, 2003. Garden City subsequently amended allowed uses in the C-2 zone that excluded Wireless Communication Facilities.

This letter is submitted as the Compliance Statement and Statement of Intent in consideration of the requirement by Garden City for a conditional use permit application.

Crown ID:	Site Number: 824322 Application Number: 585871
Applicant:	Sarah Baird, Crown Castle, on behalf of New Cingular Wireless PCS, LLC (“AT&T Mobility”)
Property Owner:	DB II LLC by its attorney-in-fact Global Signal Acquisitions IV LLC 8247 W. State St. Garden City, ID 83714
Tower/Facility Owner:	Crown Castle USA Inc. 8020 Katy Freeway Houston, TX 77024
Request:	Conditional Use Permit and Design Review to expand an existing legal non-conforming use, pursuant to Garden City Code 8-1B-3
Location:	8247 W. State St. Garden City, Idaho 83714 Parcel #: R0719420250

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8020 Katy Freeway
Houston, TX 77024

Phone: (206) 336-3204
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Zoning: C-2 (General Commercial

AT&T continues to expand and upgrade its wireless communication network to meet the public's demand for current and future technologies related to wireless services. The proposed installation includes installing antennas and ancillary equipment at the 90-foot level on the existing 119' monopole that currently exists. AT&T proposes to install associated ground equipment, including an 8' x 8' walk-in-cabinet and an emergency generator, within an expanded fenced compound. Detailed construction drawings are included with this application.

§ 8-1B-3 NONCONFORMING USES:

A. A nonconforming use may continue as long as the use remains lawful and is not abandoned, expanded, or extended, subject to the following provisions:

Response: Not applicable as a wireless communication facility as defined by the City's code is not proposed. § 8-7A-2 defines a Wireless Communication Facility as (*a) steel monopole, guywire tower, lattice tower or other similar structure designed to support directional antennas, parabolic dishes or antennas, microwave dishes; in addition to associated ground equipment and other similar equipment used in the wireless communications industry*. The proposed collocation of antennas are to be attached to an **existing** legal non-conforming *Wireless Communication Facility*.

2. In addition to the setbacks required for the base zoning district as set forth in section 8-2B-3, table 8-2B-2, "Form Standards In All Base Zoning Districts", of this chapter, a support tower for a wireless communication facility shall be set back one foot (1') for every ten feet (10') of the total tower height.

Response: Not applicable as a new support tower is not proposed.

3. All equipment shelters, cabinets or other on ground ancillary structures shall meet the setback requirements of the zone.

Response: AT&T proposes to expand the fenced area to accommodate its 8' x 8' walk in cabinet and an emergency generator, and the required minimum 5-foot setback to all property lines in the C-2 zone will be maintained.

B. Height: The maximum height, including all antenna attachments shall be one hundred feet (100') in the C-1 zone and one hundred twenty five feet (125') in the LI zone.

Response: Not applicable as the existing facility is not within a C-1 or LI zone. As previously stated the proposed installation includes installing antennas and ancillary equipment at the 90-foot level on the existing 119' monopole that was legally established in 2003.

Further, § 8-2B-3 (E)(2) exempts maximum height limitations as follows: *The maximum height limitations shall not apply to the following: fire and hose tower; power line tower; water tank or tower; windmill; **wireless communication facility**, or other commercial or personal tower **and**/or **antenna structure**; **or other appurtenances** usually required to be placed above the level of the ground and not intended for human occupancy* (emphasis added in bold.)

C. Collocation: No new towers shall be allowed unless there has been an analysis certified by a qualified engineer and specific to the site that collocation on an existing wireless communication facility is infeasible. Evidence to demonstrate that no existing facility can accommodate the proposed new facility may consist of any of the following:

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1. No existing towers or structures are located within the geographic area required to meet the proposed facility's requirements;

2. Existing structures are not of sufficient height to meet the engineering requirements of the proposed structure;

3. Existing structures do not have sufficient structural strength to support the proposed antenna and/or equipment; or

4. The proposed antenna would cause electromagnetic interference with the antenna on existing structures, or the antenna on the existing structure would cause similar interference with the proposed antenna.

Response: Not applicable as a new tower is not proposed.

D. Site Design:

1. *Tower facilities shall be landscaped with a buffer outside the perimeter of the compound in accordance with the standards set forth in subsection 8-4I-5C of this title.*

Response: No impact or change to the existing combination of existing solid wood fence and existing landscaping previously installed to satisfy this condition, and the AT&T equipment will be screened with a fence that will match the existing fenced area.

2. Materials, colors, textures and screening shall be used that blend the tower facility to the natural and built environment. Supporting electrical and mechanical equipment installed on the tower shall use colors that are similar to the tower.

Response: Supporting electrical and mechanical equipment proposed for installation on the tower will match the materials, colors and textures of the existing electrical and mechanical equipment currently installed that includes colors that are similar to the tower.

3. Except as required by the federal aviation administration (FAA) or the federal communications commission (FCC), transmission structures shall not be artificially lighted. Equipment shelters may use lighting consistent with the lighting standards set forth in section 8-4A-4, "Outdoor Lighting", of this title.

Response: No new tower lighting is proposed as part of this application.

E. Site Maintenance: A wireless communication facility that is no longer in use shall be completely removed and the site restored to its preexisting condition within six (6) months of the cessation of operation.

Response: The proposed wireless communication facility will be removed within six months of the cessation of operation to the extent that any conflicting law or right that may conflict including legal remedy(s) is not waived should this unlikely event occur.

F. Other Regulations Apply: The site and structure design shall be subject to review by the design committee and the process set forth in section 8-6B-3 of this title. (Ord. 898-08, 9-8-2008; and. Ord. 944-12, 5-14-2012)

Response: This section is recognized not withstanding pre-emptive law and ruling under the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409 (2012) and subsequent FCC Infrastructure Orders.

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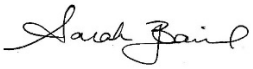
Conclusion

Thank you in advance for your prompt review and approval of this application.

Regards,



Sarah Baird
Permitting Specialist, Tower Services
Crown Castle, Agent for AT&T Mobility
(206) 336-3204
Sarah.Baird@crowncastle.com

Google Maps 8247 W State St

Imagery ©2024 Airbus, Maxar Technologies, Map data ©2024 100 ft

8247 W State St

Building

Directions | Save | Nearby | Send to phone | Share

8247 W State St, Boise, ID 83714

At this place

Crash Champions Collision Repair Garden City

4.6 (132)

Auto body shop · Floor 1

Open · Closes 5 PM

Parcel: **R0719420250** Year: 2024 Parcel Status: **Active**

Property Details

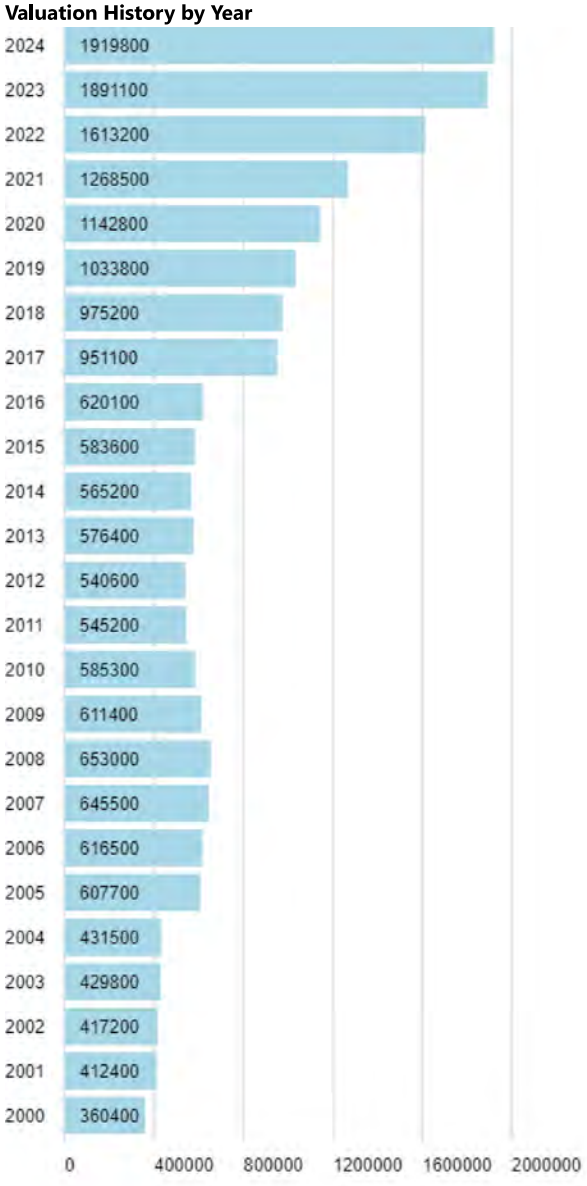
Primary Owner: DBII LLC
Address: 8247 W STATE ST GARDEN CITY, ID 837140000
Instrument #: 2020069819
Subdivision: AZALEA SUB
Assessor ID: LOT 11 BLK 2 AZALEA SUBDIVISION
Township/Range/Section: 4N1E24
Land Group Type: SUB
Zone Code: C-2
Total Acres: 0.567
Tax Code Area: 06-3

Valuation

Valuation Details

Roll	State Category Code	Acreage	Assessed Value	Valuation Method	Code Area
Property	420	0.000	1210900	INCOME	06-3
Property	401	0.000	162000	COST	06-3
Property	210	0.567	281000	MARKET	06-3
Property	450	0.000	265900	MARKET	06-3

Valuation History by Year



Tax Districts

Tax District	Levy	Description	Phone
1	0.001610248	ADA COUNTY	2082877000
3	0.000087279	EMERGENCY MEDICAL	2082872975
6	0.000490927	ADA COUNTY HIGHWAY DIST	2083876100
7	0.003188013	SCHOOL DISTRICT NO. 1	2084722607
16	0.001942155	GARDEN CITY	2084722907
19	0.000021842	DRY CREEK CEMETERY	2088531940
26	0.001640750	N ADA CO FIRE & RESCUE	2083750906
43	0.000015543	MOSQUITO ABATEMENT	2085774646
45	0.000070503	FLOOD CONTROL DIST. #10	2088612766
100	0.000087502	COLLEGE OF WESTERN IDAHO	2085623291

Total Levy: 0.009154762
Note: The current year levies are estimated using the previous year, they will be updated when the districts set them in October.

Taxes

Year	Total Taxes	Taxes Paid	Taxes Due	Delinquent	Tax Data Current as of
2023	17317.62	-17317.62	0.00	No	8/23/2024
2022	13683.66	-13683.66	0.00	No	8/23/2024
2021	13739.00	-13739.00	0.00	No	8/23/2024
2020	13480.92	-13480.92	0.00	No	8/23/2024
2019	13942.94	-13942.94	0.00	No	8/23/2024
2018	14049.62	-14049.62	0.00	No	8/23/2024
2017	14163.74	-14163.74	0.00	No	8/23/2024
2016	9543.12	-9543.12	0.00	No	8/23/2024
2015	9189.22	-9189.22	0.00	No	8/23/2024
2014	9045.14	-9045.14	0.00	No	8/23/2024
2013	590.50	-590.50	0.00	No	8/23/2024
2013	9223.02	-9223.02	0.00	No	8/23/2024

"Total Taxes" is the full annual property tax charge and may not reflect any certifications, special assessments, adjustments, or fees.

"Taxes Paid" includes payments made by the taxpayer or on their behalf, such as payments by mortgage servicers and the State of Idaho for the Property Tax Reduction Program (circuit breaker), Veteran's Property Tax Reduction Program, and the Homeowner's Tax Relief credit.

"Taxes Due" includes all taxes owing for the first and second half installments. If the first half is paid timely, the second half is due by June 20.

Please refer to your tax bill or contact the Treasurer's Office for information about taxes due and due dates. You can find your most recent tax bill and contact information for the Treasurer's Office at adacounty.id.gov/treasurer (https://adacounty.id.gov/treasurer/).

*Interest accrues daily on delinquencies. Please call the Ada County Treasurer's Office at (208) 287-6800 (tel:2082876800) for the total amount due with interest calculated to date of payment.

For Tax inquires please contact the Treasurer (https://adacounty.id.gov/treasurer/) at (208) 287-6800 (tel:2082876800)

Characteristics

Land

Characteristic	Value
Residential Acres	0.000
Commercial Acres	0.567
Other Acres	0.000
Street	None
Sidewalks	No
Curb-gutters	No
Corner	No

Commercial

Characteristic	Value
Commercial Group Type	COMM SHOP GARDEN CITY
Year Built	1997
Year Remodel	N/A
Business Name	Treasure Valley COLLISION Cntr
Number of Floors	1
Number of Units	0
Leasable Sq Ft	0
Ground Floor Sq Ft	8200
Total Square Feet	8200
Total Land Acres	0.567
Method	INCOME

Sketch

Ada County appraisers follow American National Standards Institute (ANSI) building measurement standards for square footage calculations. This information is to be used ONLY for reference purposes and Ada County is not responsible for any inaccuracies. If you have questions concerning the accuracy, please use the Help option in the Menu at the top of this screen.

SITE NUMBER: IDL02365

SITE NAME: NW BOISE CITY

FA#: 15201834

USID: 310862

8247 W STATE STREET
BOISE, ID 83714
JURISDICTION: ADA COUNTY

SITE TYPE: MONOPOLE / WIC

PROJECT DESCRIPTION

NEW SITE BUILD UNMANNED TELECOMMUNICATIONS FACILITY.

1. BRING POWER / FIBER TO SITE LOCATION
2. ADD AT&T APPROVED 6'X6' CONCRETE WALK IN CABINET (CWIC) & ASSOCIATED INTERIOR EQUIPMENT
3. ADD NEW COMPOUND FENCE
4. ADD (1) 30KW AC DIESEL GENERATOR
5. ADD (1) NEW GPS UNIT
6. ADD (3) VFA12-HD-WLL SECTOR MOUNTS ON (E) MONOPOLE
7. ADD (12) ANTENNAS, (4) PER SECTOR
8. ADD (9) RRHs, (3) PER SECTOR
9. ADD (3) DC9 SURGE SUPPRESSORS, (1) PER SECTOR
10. ADD (6) DC TRUNKS
11. ADD (3) FIBER TRUNKS

PROJECT INFORMATION

Property Information:
Site Name: NW BOISE CITY

Site Number: IDL02365

FA#: 15201834

Site Address: 8247 W STATE STREET
BOISE, ID 83714

A.P.N. Number: R0719420250
ZONING: C-2

Current Use: UNMANNED TELECOMMUNICATIONS SITE

Proposed Use: UNMANNED TELECOMMUNICATIONS SITE

Jurisdiction: ADA COUNTY

Latitude: 43°40'22.6308" N (43.6729530)°

Longitude: 116°17'21.2712" W (-116.2892420)°

Ground Elevation: 2609' FT. AMSL

Property Owner:
TREASURE VALLEY
COLLISION CENTER
8247 W STATE STREET
BOISE, ID 83714

Power Agency:
IDAHO POWER
ph: 800-488-6151

Telephone Agency:
TBD
ph: TBD

PACE#: MRUTH063125

USID: 310862

Project: NSB

RFDS ID: RFDS-8928

PROJECT TEAM

APPLICANT / LESSEE:
PROJECT MANAGER
AT&T MOBILITY CORP.
ADDRESS: 7670 S. CHESTER ST.
CITY, STATE ZIP: CENTENNIAL, CO 80112
CONTACT: FRANK DEPERALTA
EMAIL: fd1733@att.com
PH: (858) 666-7635

CONSTRUCTION MANAGER:
AT&T MOBILITY CORP.
ADDRESS: 7670 S. CHESTER ST.
CITY, STATE ZIP: CENTENNIAL, CO 80112
CONTACT: REID POST
EMAIL: RP836C@ATT.COM
PH: (720) 838-4228

RF ENGINEER:
AT&T MOBILITY CORP.
ADDRESS: 7670 S. CHESTER ST.
CITY, STATE ZIP: CENTENNIAL, CO 80112
CONTACT: SHAD RYDALCH
EMAIL: JR129E@ATT.COM
PH: (208) 317-0011

ARCHITECT / ENGINEER:
TELCYTE INFRASTRUCTURE SERVICES
ADDRESS: 3450 N HIGLEY RD - SUITE 102
CITY, STATE ZIP: MESA, AZ 85215
CONTACT: CHRISTIAN MUELLER
EMAIL: cmueller@telcyte.com
PH: (720) 244-6013

TOWER OWNER:
CROWN CASTLE
ADDRESS: 2055 STEARMAN DR.
CITY, STATE ZIP: CHANDLER, AZ 85286
CONTACT: ALLIE KMIECIAK
EMAIL: Allie.Kmieciak@crowncastle.com
PH: (847) 273-0496

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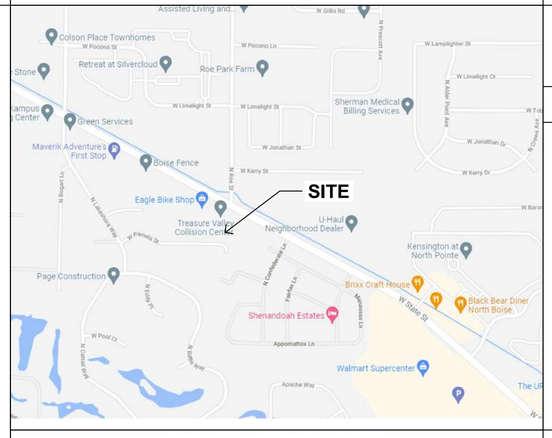
SURVEY & WIC ATTACHMENT DETAILS ADDED AS ADDENDUM

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. 2018 INTERNATIONAL BUILDING CODE (IBC) (INCLUDING APPENDIX H – SIGNS AND APPENDIX J - GRADING) (MASS TIMBER PROVISIONS ONLY OF THE 2021 IBC)
2. 2018 INTERNATIONAL FIRE CODE (IFC) (INCLUDING APPENDICES B, C, D, F AND L)(2019 NFPA 13 AND 2019 NFPA 72 STANDARDS)
3. 2018 INTERNATIONAL MECHANICAL CODE (IMC) (INCLUDING APPENDIX A)
4. 2017 IDAHO STATE PLUMBING CODE (INCLUDING CHAPTER 13 – MEDICAL GAS); BASED ON THE 2015 UNIFORM PLUMBING CODE (UPC)
5. 2023 NATIONAL ELECTRICAL CODE (NEC) W/ ADA COUNTY AMENDMENTS

VICINITY MAP



PROJECTS

LTE 1C	☒	LTE 3C	☒	LTE 5C	☒
LTE 2C	☒	LTE 4C	☒	LTE 6C	☒

DIRECTIONS FROM AT&T

DIRECTIONS FROM AT&T's OFFICE AT 161 INVERNESS DR W, ENGLEWOOD, CO 80112:

1. HEAD WEST ON W AIRPORT WAY TOWARD S OWYHEE ST FOR 443 FT
2. SLIGHT RIGHT ONTO S OWYHEE ST FOR 479 FT
3. TURN LEFT ONTO W WRIGHT ST FOR 1.1 MI
4. TURN RIGHT ONTO S ORCHARD ST FOR 3.6 MI
5. TURN LEFT ONTO W CHINDEN BLVD FOR 2.6 MI
6. TURN RIGHT ONTO ID-44 W/N GLENWOOD ST FOR 1.3 MI
7. USE THE LEFT 2 LANES TO TURN LEFT ONTO ID-44 W/W STATE ST
8. DESTINATION WILL BE ON THE LEFT

SPECIAL INSPECTIONS

NONE

APPROVALS

APPROVED BY:	INITIALS:	DATE:
AT&T:		
VENDOR:		
R.F.:		
LEASING / LANDLORD:		
ZONING:		
CONSTRUCTION:		
POWER / TELCO:		
PG&E:		

OCCUPANCY AND CONSTRUCTION TYPE

OCCUPANCY : U (UNMANNED)

CONSTRUCTION TYPE: V-B

DISABLED ACCESS REQUIREMENTS
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION, ACCESSIBILITY ACCESS IS NOT REQUIRED, IN ACCORDANCE WITH CALIFORNIA BUILDING CODE, CODE OF REGULATIONS, TITLE 24, PART 2, VOLUME 1, CHAPTER 11B, DIVISION 2, SECTION 11B-203.5

GENERAL CONTRACTOR NOTES

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE AT 24" x 36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOBSITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME.

DIGALERT
800-227-2600
Call 2 Full Working Days In Advance

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
A	09/16/21	PRELIMINARY CD'S
B	12/03/21	CLIENT REVISIONS
0	12/24/21	CLIENT REVISIONS
1	01/10/22	CLIENT REVISIONS
2	02/14/22	CLIENT REVISIONS
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

Licensor:
PROFESSIONAL ENGINEER
LICENSED
18283
STATE OF IDAHO
TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1

GENERAL CONSTRUCTION NOTES:

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   GENERAL CONTRACTOR: T.B.D.
   CONTRACTOR: T.B.D.
   OWNER: AT&T

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

3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR 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 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 NOTED OTHERWISE, 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 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 CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.

8. THE CONTRACTOR 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 CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE 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 CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.

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

12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED 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. 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. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.

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

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

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

18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS 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 IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.

21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.

22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER AND RF. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.

23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.

24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.

25. 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.

26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD 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.

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

29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.

30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.

31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.

32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).

33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.

34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.

35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.

36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.

37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.

38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.

40. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

ANTENNA MOUNTING

41. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA-222 OR APPLICABLE LOCAL CODES.

42. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.

43. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.

44. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.

45. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.

46. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.

47. ALL UNUSED PORTS ON ANY ANTENNA SHALL BE COVERED WITH CONCEALOR CAP WITH PROPER WEATHER PROOFING OR BE TERMINATED WITH A 50 Ω LOAD.

48. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5° AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5° AS DEFINED BY THE RFDS. REFER TO ND-00246.

49. JUMPERS WHERE REQUIRED MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.

50. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH AT&T COMPONENT

51. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION (IF REQUIRED).

TORQUE REQUIREMENTS

52. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.

53. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
   A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
   B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.

54. ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB-FT (12 NM).

55. ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB-FT (58 NM).

56. ALL GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.

57. ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18-22 LB-FT (24.4 - 29.8 NM).

58. ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15-20 LB-IN (1.7 - 2.3 NM).

FIBER & POWER CABLE MOUNTING

59. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (6) SIX FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.

60. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.

61. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

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IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
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7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE
INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
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3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
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6	08/19/24	CLIENT COMMENTS

Licensor:
PROFESSIONAL ENGINEER
LICENSED
18283
STATE OF IDAHO
TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

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GENERAL CONSTRUCTION NOTES CONTINUED:

COAXIAL CABLE NOTES

62. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.

63. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.

64. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION. REFER TO "ANTENNA SYSTEM LABELING STANDARD" ND-00027 LATEST VERSION.

65. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.

66. CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCORDANCE WITH AT&T STANDARDS..

GENERAL CABLE AND EQUIPMENT NOTES

70. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.

71. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.

72. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.

73. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED. SELF BONDING TAPE AND PLASTIC ENCLOSURES ALSO PERMITTED PER ATT-002-290-041 SECTION 7.

74. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
A. TEMPERATURE SHALL BE ABOVE 50° F.
B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.

76. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.

77. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANTENNA AND THE COAX CONFIGURATION IS THE CORRECT MAKE AND MODELS, PRIOR TO INSTALLATION.

78. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.

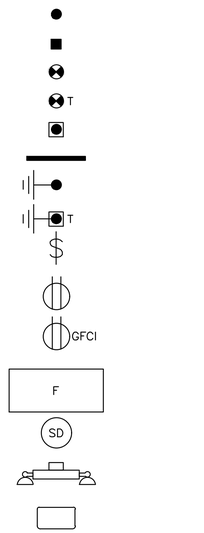
79. ANTENNA CONTRACTOR SHALL FURNISH AND INSTALL A 12'-0" T-BOOM SECTOR ANTENNA MOUNT, IF APPLICABLE, INCLUDING ALL HARDWARE.

DRAWING ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	LF	LINEAR FEET
AGL	ABOVE GRADE LEVEL	MAX	MAXIMUM
AWG	AMERICAN WIRE GAUGE	MECH	MECHANICAL
AC	AIR CONDITIONING	MFR	MANUFACTURER
APPROX	APPROXIMATELY	MGR	MANAGER
AZ	AZIMUTH	MIN	MINIMUM
BLDG	BUILDING	MISC	MISCELLANEOUS
CM	CONSTRUCTION MANAGER	MTL	METAL
CAB	CABINET	MW	MICROWAVE
CL	CENTERLINE	NEC	NATIONAL ELECTRICAL CODE
CLG	CEILING	NIC	NOT IN CONTRACT
CLR	CLEAR	NTS	NOT TO SCALE
CO	COPPER	N/A	NOT APPLICABLE
CONC	CONCRETE	OC	ON CENTER
COND	CONDUIT	OD	OUTSIDE DIAMETER
CONST	CONSTRUCTION	OP	OVERHEAD POWER
CONT	CONTINUOUS	OT	OVERHEAD FIBER
D/C	DRAFTER/CHECKER	OPP	OPPOSITE
DEMO	DEMOLISH	PL	PROPERTY LINE
DIA OR Ø	DIAMETER	PLYWD	PLYWOOD
DIM	DIMENSION	PM	PROJECT MANAGER
DN	DOWN	PROJ	PROJECT
DTL	DETAIL	PROP	PROPERTY
DWG	DRAWING	PT	PRESSURE TREATED
EA	EACH	RF	RADIO-FREQUENCY
ELECT	ELECTRICAL	RO	ROUGH OPENING
ELEV	ELEVATION	ROW	RIGHT OF WAY
EQ	EQUAL	RRU	REMOTE RADIO UNIT
EQUIP	EQUIPMENT	REQ	REQUIRED
EXT	EXTERIOR	SBTC	SOLID BARE TINNED COPPER
FIN	FINISH	SF	SQUARE FEET
FLR	FLOOR	SHT	SHEET
FRP	FIBERGLASS REINFORCED POLYMER	SPEC	SPECIFICATION
FT	FOOT, FEET	SQ	SQUARE
GA	GAUGE	SS	STAINLESS STEEL
GALV	GALVANIZED	STL	STEEL
GC	GENERAL CONTRACTOR	STRUCT	STRUCTURE, STRUCTURAL
GLB	GLULAM BEAM	TOC	TOP OF CONCRETE
GWB	GYPSUM WALL BOARD	TOM	TOP OF MASONRY
GR	GRADE	THRU	THROUGH
GRND	GROUND	TYP	TYPICAL
HVAC	HEATING/VENTING/AIR CONDITIONING	UBC	UNIFORM BUILDING CODE
HORIZ	HORIZONTAL	UG	UNDERGROUND
HT	HEIGHT	UNO	UNLESS NOTED OTHERWISE
IBC	INTERNATIONAL BUILDING CODE	UP	UNDERGROUND POWER
ID	INSIDE DIAMETER	UF	UNDERGROUND FIBER
IN	INCH	VIF	VERIFY IN FIELD
INSUL	INSULATION	VERT	VERTICAL
INT	INTERIOR	WP	WATERPROOF
JBOX	JUNCTION BOX	W/	WITH
LB(S) OR #	POUND(S)	W/O	WITHOUT

LEGEND

EXOTHERMIC CONNECTION
MECHANICAL CONNECTION
CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
EXOTHERMIC WITH INSPECTION SLEEVE
GROUNDING BAR
GROUND ROD
TEST GROUND ROD WITH INSPECTION SLEEVE
SINGLE POLE SWITCH
DUPLEX RECEPTACLE
DUPLEX GFCI RECEPTACLE
FLUORESCENT LIGHTING FIXTURE
SMOKE DETECTION (DC)
EMERGENCY LIGHTING (DC)
SECURITY LIGHT W/PHOTOCELL



CHAIN LINK FENCE
WOOD/WROUGHT IRON FENCE
WALL STRUCTURE
LEASE AREA
PROPERTY LINE (PL)
SETBACKS
ICE BRIDGE
CABLE TRAY
WATER LINE
UNDERGROUND POWER — UG-P — UG-P
UNDERGROUND TELCO — UG-T — UG-T
OVERHEAD POWER — OH-P — OH-P
OVERHEAD TELCO — OH-T — OH-T
UNDERGROUND TELCO/POWER
ABOVE GROUND POWER
ABOVE GROUND TELCO
ABOVE GROUND TELCO/POWER

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PROFESSIONAL ENGINEER LICENSED 18283 TIM ALEXANDER STATE OF IDAHO
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GENERAL SITE WORK & DRAINAGE NOTES:

PART 1 - GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

1.1 REFERENCES:

A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION).

B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).

C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).

1.2 INSPECTION AND TESTING:

A. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY SUBCONTRACTORS INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE SUBCONTRACTOR.

B. ALL WORK SHALL BE INSPECTED AND RELEASED BY THE GENERAL CONTRACTOR WHO SHALL CARRY OUT THE GENERAL INSPECTION OF THE WORK WITH SPECIFIC CONCERN TO PROPER PERFORMANCE OF THE WORK AS SPECIFIED AND/OR CALLED FOR ON THE DRAWINGS. IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO REQUEST TIMELY INSPECTIONS PRIOR TO PROCEEDING WITH FURTHER WORK THAT WOULD MAKE PARTS OF WORK INACCESSIBLE OR DIFFICULT TO INSPECT.

1.3 SITE MAINTENANCE AND PROTECTION:

A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE SUBCONTRACT.

B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.

C. KEEP SITE FREE OF ALL PONDING WATER.

D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT AND EPA REQUIREMENTS.

E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.

F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.

1. PROVIDE A MINIMUM 48-HOUR NOTICE TO THE ENGINEER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.

PART 2 - PRODUCTS

2.1 SUITABLE BACKFILL: ASTM D2321 (CLASS I, II, III OR IVA) FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.

2.2 NON-POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS III, IVA OR IVB) COARSE AGGREGATE. FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.

2.3 POROUS GRANULAR EMBANKMENT AND BACKFILL: ASTM D2321 (CLASS IA, IB OR II) COARSE AGGREGATE FREE FROM FROZEN LUMPS, REFUSE, STONES OR ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION OR OTHER MATERIAL THAT MAY MAKE THE INORGANIC MATERIAL UNSUITABLE FOR BACKFILL.

2.4 SELECT STRUCTURAL FILL: GRANULAR FILL MATERIAL MEETING THE REQUIREMENTS OF ASTM E850-95. FOR USE AROUND AND UNDER STRUCTURES WHERE STRUCTURAL FILL MATERIAL ARE REQUIRED.

2.5 GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SE OR SW-SM).

2.6 COARSE AGGREGATE FOR ACCESS ROAD SUBBASE COURSE SHALL CONFORM TO ASTM D2940.

2.7 UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTIC SILTS AND CLAYS (LL>45). MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL, VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION, AND DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICAL THESE WILL BE SOILS CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND OL.

2.8 GEOTEXTILE FABRIC: MIRAFI 500X OR ENGINEERED APPROVED EQUAL.

2.9 PLASTIC MARKING TAPE: SHALL BE ACID AND ALKALI RESISTANT POLYETHYLENE FILM SPECIFICALLY MANUFACTURED FOR MARKING AND LOCATING UNDERGROUND UTILITIES, 6 INCHES WIDE WITH A MINIMUM THICKNESS OF 0.004 INCH. TAPE SHALL HAVE MINIMUM STRENGTH OF 1500 PSI IN BOTH DIRECTIONS AND MANUFACTURED WITH INTEGRAL CONDUCTORS, FOIL BACKING OR OTHER MEANS TO ENABLE DETECTION BY A METAL DETECTOR WHEN BURIED UP TO 3 FEET DEEP. THE METALLIC CORE OF THE TAPE SHALL BE ENCASED IN A PROTECTIVE JACKET OR PROVIDED WITH OTHER MEANS TO PROTECT IT FROM CORROSION. TAPE COLOR SHALL BE RED FOR ELECTRIC UTILITIES AND ORANGE FOR TELECOMMUNICATION UTILITIES.

PART 3 - EXECUTION

3.1 GENERAL:

A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ANY TIME.

B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK.

C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.

1. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS, BRUSH, AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
2. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.

3. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE FILL.

A. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.

B. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM NOT SHOWN THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.

C. SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.

3.2 BACKFILL:

A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.

1. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.

2. BACKFILL BY PLACING AND COMPACTING SUITABLE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCHES LOOSE THICKNESS AND COMPACTED. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.

3. WHENEVER THE DENSITY TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE SPECIFICATION REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DISKING AND DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE MINIMUM COMPACTION REQUIREMENTS.

B. THOROUGHLY COMPACT EACH LAYER OF BACKFILL TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.3 TRENCH EXCAVATION:

A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.

B. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.

C. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, BACKFILL AT THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION AND BACKFILL WITH GRANULAR BEDDING MATERIAL.

3.4 TRENCH BACKFILL:

A. PROVIDE GRANULAR BEDDING MATERIAL IN ACCORDANCE WITH THE DRAWINGS AND THE UTILITY REQUIREMENTS.

B. NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.

C. CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING. BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.

D. PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TAMP BACKFILL INTO SPACE AROUND CONDUITS.

E. PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE, OR UNBALANCED LOADING.

F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8-INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE.

G. COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH BUT NO LESS THAN A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE STANDARD PROCTOR TEST, ASTM D 698.

3.5 AGGREGATE ACCESS ROAD:

A. CLEAR, GRUB, STRIP AND EXCAVATE FOR THE ACCESS ROAD TO THE LINES AND GRADES INDICATED ON THE DRAWINGS. SCARIFY TO A DEPTH OF 6 INCHES AND PROOF-ROLL. ALL HOLES, RUTS, SOFT PLACES AND OTHER DEFECTS SHALL BE CORRECTED.

B. THE ENTIRE SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE MODIFIED PROCTOR TEST, ASTM D 1557.

C. AFTER PREPARATION OF THE SUBGRADE IS COMPLETE THE GEOTEXTILE FABRIC (MIRAFI 500Xi) SHALL BE INSTALLED TO THE LIMITS INDICATED ON THE DRAWINGS BY ROLLING THE FABRIC OUT LONGITUDINALLY ALONG THE ROADWAY. THE FABRIC SHALL NOT BE DRAGGED ACROSS THE SUBGRADE. PLACE THE ENTIRE ROLL IN A SINGLE OPERATION, ROLLING OUT AS SMOOTHLY AS POSSIBLE.

1. OVERLAPS PARALLEL TO THE ROADWAY WILL BE PERMITTED AT THE CENTERLINE AND AT LOCATIONS BEYOND THE ROADWAY SURFACE WIDTH (I.E. WITHIN THE SHOULDER WIDTH) ONLY. NO LONGITUDINAL OVERLAPS SHALL BE LOCATED BETWEEN THE CENTERLINE AND THE SHOULDER. PARALLEL OVERLAPS SHALL BE A MINIMUM OF 3 FEET WIDE.

2. TRANSVERSE (PERPENDICULAR TO THE ROADWAY) OVERLAPS AT THE END OF A ROLL SHALL OVERLAP IN THE DIRECTION OF THE AGGREGATE PLACEMENT (PREVIOUS ROLL ON TOP) AND SHALL HAVE A MINIMUM LENGTH OF 3 FEET.

3. ALL OVERLAPS SHALL BE PINNED WITH STAPLES OR NAILS A MINIMUM OF 10 INCHES LONG TO INSURE POSITIONING DURING PLACEMENT OF AGGREGATE. PIN LONGITUDINAL SEAMS AT 25 FOOT CENTERS AND TRANSVERSE SEAMS EVERY 5 FEET.

D. THE AGGREGATE BASE AND SURFACE COURSES SHALL BE CONSTRUCTED IN LAYERS NOT MORE THAN 4 INCH (COMPACTED) THICKNESS. AGGREGATE TO BE PLACED ON GEOTEXTILE FABRIC SHALL BE END-DUMPED ON THE FABRIC FROM THE FREE END OF THE FABRIC OR OVER PREVIOUSLY PLACED AGGREGATE. THE FIRST LIFT SHALL BE BLADED DOWN TO A THICKNESS OF 8 INCHES PRIOR TO COMPACTION. AT NO TIME SHALL EQUIPMENT, EITHER TRANSPORTING THE AGGREGATE OR GRADING THE AGGREGATE, BE PERMITTED ON THE ROADWAY WITH LESS THAN 4 INCHES OF MATERIAL COVERING THE FABRIC.

E. THE AGGREGATE SHALL BE IMMEDIATELY COMPACTED TO NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS PROVIDED BY THE MODIFIED PROCTOR TEST, ASTM D 1557 WITH A TAMPING ROLLER, OR WITH A PNEUMATIC-TIRED ROLLER, OR WITH A VIBRATORY MACHINE OR ANY COMBINATION OF THE ABOVE. THE TOP LAYER SHALL BE GIVEN A FINAL ROLLING WITH A THREE-WHEEL OR TANDEM ROLLER.

3.6 FINISH GRADING:

A. PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.

B. UTILIZE SATISFACTORY FILL MATERIAL RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENT OF REMOVED UNSUITABLE MATERIALS.

C. ACHIEVE FINISHED GRADE BY PLACING A MINIMUM OF 4 INCHES OF 1/2" - 3/4" CRUSHED STONE ON TOP SOIL STABILIZER FABRIC.

D. REPAIR ALL ACCESS ROADS AND SURROUNDING AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.

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A&E:
TELCYTE INFRASTRUCTURE SERVICES
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AT&T SITE NO:	IDL02365
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PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER
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SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
GN-3

GENERAL CONCRETE WORK NOTES:

PART 1 - GENERAL

1.1 SCOPE:

A. FORM WORK, REINFORCING STEEL, ACCESSORIES, CAST-IN PLACE CONCRETE, FINISHING, CURING AND TESTING FOR STRUCTURAL CONCRETE FOUNDATIONS.

1.2REFERENCES:

A. ACI (AMERICAN CONCRETE INSTITUTE)

1. ACI 301 SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS.

2. ACI 304 RECOMMENDED PRACTICE FOR MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE.

3. ACI 305 RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING.

4. ACI 306 RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING.

5. ACI 308 STANDARD PRACTICE FOR CURING CONCRETING.

6. ACI 309 STANDARD PRACTICE FOR CONSOLIDATION OF CONCRETE.

7. ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.

8. ACI 347 RECOMMENDED PRACTICE FOR CONCRETE FORMWORK.

B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS). THE APPLICABLE STANDARDS OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS ARE LISTED IN THE ACI STANDARDS AND ARE A PART OF THIS SPECIFICATION.

PART 2 - PRODUCTS

2.1REINFORCING MATERIALS:

A. REINFORCING BARS: ASTM A615, GRADE 60, PROPOSED DEFORMED BILLET-STEEL BARS, PLAIN FINISH.

B. FURNISH CHAIRS, BOLSTERS, BAR SUPPORTS, SPACERS AS REQUIRED FOR SUPPORT OF REINFORCING STEEL AND WIRE FABRIC.

2.2 CONCRETE MATERIALS:

A. PORTLAND CEMENT SHALL BE TYPE II, CONFORMING TO ASTM C-150.

B. AGGREGATE SHALL CONFORM TO ASTM C-33.

1. FINE AGGREGATE SHALL BE UNIFORMLY GRADED, CLEAN SHARP, WASHED NATURAL, OR CRUSHED SAND, FREE FROM ORGANIC IMPURITIES.

2. COARSE AGGREGATE SHALL BE NATURAL WASHED GRAVEL OR WASHED CRUSHED ROCK HAVING HARD, STRONG, DURABLE PIECES, FREE FROM ADHERENT COATINGS.

3. MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE 3/4 INCH IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM C-33 GRADATION SIZE NO. 67.

C. WATER USED IN CONCRETE MIX SHALL BE POTABLE, CLEAN, AND FREE FROM OILS, ACIDS, SALTS, CHLORIDES, ALKALI, SUGAR, VEGETABLE, OR OTHER INJURIOUS SUBSTANCES.

D. THE CONCRETE SHALL CONTAIN AN AIR-ENTRAINING ADMIXTURE COMPLYING WITH THE REQUIREMENTS OF ASTM C-260 AND ACI 212. 1R AND A WATER- REDUCING ADMIXTURE COMPLYING WITH THE REQUIREMENTS OF ASTM C-494 AND ACI 212. 1R. ADMIXTURES SHALL BE PURCHASED AND BATCHED IN LIQUID SOLUTION. THE USE OF CALCIUM CHLORIDE OR AN ADMIXTURE CONTAINING CALCIUM CHLORIDE IS PROHIBITED. ADMIXTURES SHALL BE OF THE SAME MANUFACTURER TO ASSURE COMPATIBILITY. ACCEPTABLE MANUFACTURERS ARE:

1. W.R. GRACE

2. SIKA CORP.

3. MASTER BUILDERS

4. EUCLID CHEMICAL CO.

E. CURING COMPOUND SHALL CONFORM TO ASTM C309, TYPE I, ID, CLASS A AND B AND ASTM C171 AS APPLICABLE.

2.3CONCRETE MIX:

A. PROPORTION CONCRETE MIX IN ACCORDANCE WITH REQUIREMENTS OF ACI 301. THE STRENGTH OF CONCRETE SHALL BE AS INDICATED ON THE DRAWINGS. WHERE STRENGTH IS NOT CLEARLY INDICATED, CONCRETE OF MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 P.S.I. SHALL BE USED.

B. THE CONCRETE MIX SHALL BE DESIGNED FOR A MAXIMUM SLUMP OF THREE INCHES AT THE POINT OF DISCHARGE. MIXES OF THE STIFFEST CONSISTENCY THAT CAN BE EFFICIENTLY PLACED SHALL BE USED.

C. ALL CONCRETE SHALL HAVE (3) TO FIVE (5) PERCENT ENTRAINED AIR.

D. ALL STRUCTURAL CONCRETE SHALL CONTAIN A WATER-REDUCING AGENT.

PART 3 - EXECUTION

3.1 GENERAL:

A. CONSTRUCT AND ERECT THE FORM WORK IN ACCORDANCE WITH ACI 301 AND ACI 347.

B. COLD-WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 306.

C. HOT-WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI 305.

3.2 INSERTS, EMBEDDED COMPONENTS AND OPENINGS:

A. CONTRACTOR SHALL CHECK ALL CIVIL, ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHOR BOLTS, INSERTS AND OTHER ITEMS TO BE BUILT INTO THE CONCRETE WORK.

B. COORDINATE THE WORK OF OTHER SECTION IN FORMING AND SETTING OPENINGS. RECESSES, SLOTS, CHASES, ANCHORS, INSERTS AND OTHER ITEMS TO BE EMBEDDED.

C. EMBEDDED ITEMS SHALL BE SET ACCURATELY IN LOCATION, ALIGNMENT, ELEVATION AND PLUMBNESS, LOCATE AND MEASURE FROM ESTABLISHED SURVEYED REFERENCE BENCHMARKS.

D. EMBEDDED ITEMS SHALL BE ANCHORED INTO PLACE IN A MANNER TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT AND CONSOLIDATION. COMPONENTS FORMING A PART OF A COMPLETE ASSEMBLY SHALL BE ALIGNED BEFORE ANCHORING INTO PLACE. PROVIDE TEMPORARY BRACING, ANCHORAGE, AND TEMPLATES AS REQUIRED TO MAINTAIN THE SETTING AND ALIGNMENT.

3.3 REINFORCEMENT PLACEMENT:

A. PLACE REINFORCEMENT ACCORDING TO CHECKED AND RELEASED DRAWINGS AND IN ACCORDANCE WITH ACI 301 AND ACI 318.

B. ACCURATELY POSITION, SUPPORT AND SECURE REINFORCEMENT AGAINST DISPLACEMENT FROM FORM WORK CONSTRUCTION OR CONCRETE PLACEMENT AND CONSOLIDATION. SUPPORT REINFORCING ON METAL CHAIRS, RUNNERS, BOLSTERS, SPACERS AND HANGERS.

C. SPLICES OF REINFORCING BARS SHALL BE CLASS B UNLESS SHOWN OTHERWISE ON THE DRAWINGS. SPLICES SHALL BE STAGGERED. FULL DEVELOPMENT LENGTH SHALL BE PROVIDED ACROSS JOINTS.

D. LOCATE REINFORCING TO PROVIDE CONCRETE COVER AND SPACING SHOWN ON THE DRAWINGS. MINIMUM COVER SHALL BE AS REQUIRED BY ACI 318.

E. WELDING OF AND TO ANY REINFORCING MATERIALS INCLUDING TACK WELDING OF CROSSING BARS IS STRICTLY PROHIBITED.

3.4 CONCRETE PLACEMENT:

A. PRIOR TO PLACING CONCRETE, THE FORMS AND REINFORCEMENT SHALL BE THOROUGHLY INSPECTED; ALL TEMPORARY BRACING, TIES AND CLEATS REMOVED; ALL OPENINGS FOR UTILITIES PROPERLY BOXED; ALL FORMS PROPERLY SECURED IN THERE CORRECT POSITION AND MADE TIGHT. ALL REINFORCEMENT AND EMBEDDED ITEMS SHALL BE SECURED IN THEIR PROPER LOCATIONS. ALL OLD AND DRY CONCRETE AND DIRT SHALL BE CLEANED OFF AND ALL STANDING WATER AND OTHER FOREIGN MATERIAL REMOVED.

B. PLACING CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301 AND ACI 304 AND SHALL BE CARRIED OUT AT SUCH A RATE THAT THE CONCRETE PREVIOUSLY PLACED IS STILL PLASTIC AND INTEGRATED WITH THE FRESHLY PLACED CONCRETE. CONCRETING ONCE STARTED, SHALL BE CARRIED ON AS A CONTINUOUS OPERATION UNTIL THE SECTION IS COMPLETED. NO COLD JOINTS SHALL BE ALLOWED.

C. ALL CONCRETE SHALL BE THOROUGHLY CONSOLIDATED AND COMPACTED BY VIBRATION SPACING, RODDING, OR FORKING DURING THE OPERATION OF PLACING AND DEPOSITING IN ACCORDANCE WITH ACI 309. THE CONCRETE SHALL BE THOROUGHLY WORKED AROUND REINFORCEMENT, EMBEDDED ITEMS, AND INTO THE CORNER OF THE FORMS SO AS TO ELIMINATE ALL AIR AND STONE POCKETS.

3.5 FINISHING:

A. FINISHING OF THE FLOOR SLABS SHALL BE IN ACCORDANCE WITH ACI 302.1 SECTION 7.2 WITH A MINIMUM OF THREE TROWELINGS. THE SLAB FINISH TOLERANCE AS MEASURED IN ACCORDANCE WITH ASTM E 1155 SHALL HAVE AN OVERALL TEST NUMBER FOR FLATNESS, FF= 20 AND FOR LEVEL. FL=15. THE MINIMUM LOCAL NUMBER FOR FLATNESS, FF= 15 AND FOR LEVEL FL=10.

B. SURFACE OF FLOOR SLAB SHALL RECEIVE TWO COATS OF CLEAR SEALER/HARDNER.

C. ABOVE GRADE WALL SURFACES SHALL HAVE A SMOOTH FORM FINISH AS DEFINED IN CHAPTER 10 OF ACI 301.

3.6 CURING:

A. FRESHLY DEPOSITED CONCRETE SHALL BE PROTECTED FROM PREMATURE DRYING AND EXCESSIVELY HOT AND COLD TEMPERATURES AND SHALL BE MAINTAINED WITH MINIMUM MOISTURE LOSS AT A RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD OF TIME NECESSARY FOR THE HYDRATION OF THE CEMENT AND PROPER HARDENING OF THE CONCRETE.

B. CONCRETE SHALL BE KEPT CONTINUOUSLY MOIST AT LEAST OVERNIGHT, IMMEDIATELY FOLLOWING THE INITIAL CURING. BEFORE THE CONCRETE HAS DRIED. ADDITIONAL CURING SHALL BE ACCOMPLISHED BY ONE OF THE FOLLOWING MATERIALS OR METHODS:

1. PONDING OR CONTINUOUS SPRINKLING.

2. ABSORPTIVE MAT OR FABRIC KEPT CONTINUOUSLY WET.

3. NON-ABSORPTIVE FILM (POLYETHYLENE) OVER PREVIOUSLY SPRINKLED SURFACE.

4. SAND OR OTHER COVERING KEPT CONTINUOUSLY WET.

5. CONTINUOUS STEAM (NOT EXCEEDING 150 F) OR VAPOR MIST BATH.

6. SPRAYED- ON CURING COMPOUND APPLIED IN TWO COATS, SPRAYED IN PERPENDICULAR DIRECTION

C. THE FINAL CURING SHALL CONTINUE UNTIL THE CUMULATIVE NUMBER OF DAYS OR FRACTION THEREOF, NOT NECESSARILY CONSECUTIVE, DURING WHICH TEMPERATURE OF THE AIR IN CONTACT WITH CONCRETE IS ABOVE 50F HAS TOTALED SEVEN (7) DAYS. CONCRETE SHALL NOT BE PERMITTED TO FREEZE DURING THE CURING PERIOD. RAPID DRYING AT THE END OF THE CURING PERIOD SHALL BE PREVENTED.

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GENERAL STEEL WORK NOTES:

PART 1 - GENERAL

1.1 SCOPE:

A. PROVIDE FABRICATION AND ERECTION OF STRUCTURAL STEEL AND OTHER ITEMS AS SHOWN ON THE DRAWINGS OR REQUIRED BY OTHER SECTIONS OF THESE SPECIFICATIONS.

1.2 REFERENCES:

A. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC). MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN (ASD).

B. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
ASTM A36: STRUCTURAL STEEL
ASTM A53: PIPE, STEEL BLACK AND HOT DIPPED, ZINC-COATED WELDED AND SEAMLESS.
ASTM A108: STEEL BARS, CARBON, COLD FINISHED, STANDARD QUALITY.
ASTM A123: ZINC (HOT-DIPPED GALVANIZED) COATING ON IRON AND STEEL PRODUCTS.
ASTM A307: CARBON STEEL BOLTS AND STUDS, 60,000 P.S.I. TENSILE STRENGTH.
ASTM A325: HIGH-STRENGTH BOLT FOR STRUCTURAL STEEL JOINTS.
ASTM A490: HEAT-TREATED, STRUCTURAL STEEL BOLTS, 150 (KSI) (1035MPA) TENSILE STRENGTH.
ASTM A500: COLD-FORMED WELDED AND SEAMLESS CARBON STEEL STRUCTURAL TUBING IN ROUNDS AND SHAPES.
ASTM A563: CARBON AND ALLOY STEEL NUTS.
ASTM B695: COATINGS OF ZINC MECHANICALLY DEPOSITED ON IRON AND STEEL.
ASTM F436: HARDENED STEEL WASHERS.
ASTM F959: COMPRESSIBLE-WASHER-TYPE DIRECT TENSION INDICATOR FOR USE WITH STRUCTURAL FASTENERS.

C. AMERICAN WELDING SOCIETY (AWS):
AWS A5.1: COVERED CARBON STEEL ARC WELDING ELECTRODES.
AWS A5.5: LOW ALLOY STEEL COVERED ARC WELDING ELECTRODES.
AWS D1.1: STRUCTURAL WELDING CODE - STEEL.

D. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC): "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS OR ASTM A490 BOLTS." AS ENDORSED BY AISC.

E. STEEL STRUCTURES PAINTING COUNCIL (SSPC):
SSPC-SP3: POWER TOOL CLEANING.
SSPC-PAINT 11: RED IRON OXIDE, ZINC CHROME, RAW LINSEED OIL OR ALKYD PAINT.

1.3 SUBMITTALS:

A. SUBMIT THE FOLLOWING FOR APPROVAL:

1. FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND ALL TOP STEEL ELEVATIONS.

B. WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1.

PART 2 - PRODUCTS

2.1 STRUCTURAL STEEL:

A. SHAPES, PLATES AND BARS SHALL CONFIRM TO ASTM A36.

B. STRUCTURAL TUBING SHALL CONFIRM TO ASTM A500, GRADE B. STEEL PIPE SHALL CONFIRM TO ASTM A53, TYPE E OR S, GRADE B.

2.2 ANCHOR BOLTS:

A. ANCHOR BOLTS SHALL CONFIRM TO ASTM A307 WITH HEAVY HEXAGONAL NUTS.

2.3 BOLTS:

A. COMMON (MACHINE) BOLTS SHALL CONFIRM TO ASTM A307 GRADE A AND NUTS TO ASTM A563. ONE COMMON BOLT ASSEMBLY SHALL CONSIST OF A BOLT. A HEAVY HEX NUT AND A HARDENED WASHER.

B. HIGH-STRENGTH BOLTS SHALL CONFORM TO ASTM A325; ONE HIGH STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY HEX NUT, A HARDENED WASHER CONFORMING TO ASTM F436. THE HARDENED WASHER SHALL BE INSTALLED AGAINST THE ELEMENT TURNED IN TIGHTENING. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.

2.4 WELDING ELECTRODES:

A. WELDING ELECTRODES SHALL COMPLY WITH AWS D1.1 USING A5.1 OR A5.5 E70XX AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED.

2.5 PRIMER:

A. PRIMER SHALL BE RED OXIDE-CHROMATE PRIMER COMPLYING WITH SSPC PAINT SPECIFICATION NO. 11.

PART 3 - EXECUTION

3.1 FABRICATION:

A. SHOP FABRICATE AND ASSEMBLY MATERIALS AS SPECIFIED HEREIN.

1. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH THE AISC-ASD SPECIFICATION, AND AS INDICATED ON THE APPROVED SHOP DRAWINGS.

2. ALL EXPOSED STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED PER ASTM.

3. PROPERLY MARK AND MATCH-MARK MATERIALS FOR FIELD ASSEMBLY AND FOR IDENTIFICATION AS TO LOCATION FOR WHICH INTENDED.

4. FABRICATE AND DELIVER IN A SEQUENCE WHICH WILL EXPEDITE ERECTION AND MINIMIZE FIELD HANDLING OF MATERIALS.

5. WHERE FINISHING IS REQUIRED, COMPLETE THE ASSEMBLY, INCLUDING THE WELDING OF UNITS, BEFORE START OF FINISHING OPERATIONS.

6. PROVIDE FINISH SURFACE OF MEMBERS EXPOSED IN THE FINAL STRUCTURE FREE FROM MARKINGS, BURNS, AND OTHER DEFECTS.

B. PROVIDE CONNECTIONS AS SPECIFIED HEREIN:

1. PROVIDE BOLTS AND WASHERS OF TYPES AND SIZE REQUIRED FOR COMPLETION OF FIELD ERECTION. USE 3/4 INCH DIAMETER A325 BOLTS UNLESS NOTED OTHERWISE.

2. INSTALL HIGH STRENGTH THREADED FASTENERS IN ACCORDANCE WITH RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS."

3. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1 FOR PROCEDURES, APPEARANCE, QUALITY OF WELD, AND METHODS USED IN CORRECTING WELDED WORK.

4. THE FABRICATOR SHALL FURNISH AND INSTALL ERECTION CLIPS FOR FIT-UP OF WELDED CONNECTIONS.

5. DOUBLE ANGLE MEMBERS SHALL HAVE WELDED FILLERS SPACED IN ACCORDANCE WITH CHAPTER E4 OF THE AISC-ASD SPECIFICATION.

6. GUSSET AND STIFFENER PLATES SHALL BE 3/8 INCH THICK MINIMUM.

3.2 PRIMING:

A. STRUCTURAL STEEL SHALL BE PRIMED AS SPECIFIED HEREIN, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

B. STRUCTURAL STEEL SURFACE PREPARATION SHALL CONFIRM TO SSPC-SP3, "POWER TOOL CLEANING."

C. SURFACE PREPARATION AND PRIMER SHALL BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE AS INCLUDED IN THE ASD MANUAL OF STEEL CONSTRUCTION.

D. MATERIALS SHALL REMAIN CLOSED UNTIL REQUIRED FOR USE, MANUFACTURER'S POT-LIFE REQUIREMENTS SHALL BE STRICTLY ADHERED TO.

E. PRIMER SHALL BE APPLIED TO DRY, CLEAN, PREPARED SURFACE AND UNDER FAVORABLE CONDITIONS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. UNLESS OTHERWISE RECOMMENDED BY THE MANUFACTURER PRIMING SHALL NOT BE DONE WHEN AMBIENT TEMPERATURE IS LESS THAN 50 DEGREE F. THE RELATIVE HUMIDITY IS MORE THAN 90 PERCENT, OR THE SURFACE TEMPERATURE IS LESS THAN 5 DEGREE F ABOVE THE DEW POINT.

F. GENERALLY ALL PRIMER SHALL BE SPRAY APPLIED. BRUSH OR ROLLER APPLICATION SHALL BE RESTRICTED TO TOUCHUP AND TO AREAS NOT ACCESSIBLE BY SPRAY GUN.

G. PRIMER SHALL BE UNIFORMLY APPLIED WITHOUT RUNS, SAGS, SOLVENT BLISTERS, DRY SPRAY OR OTHER BLEMISHES. ALL BLEMISHES AND OTHER IRREGULARITIES SHALL BE REPAIRED OR REMOVED AND THE AREA RE-COATED. SPECIAL ATTENTION SHALL BE PAID TO CREVICES, WELD LINES, BOLT HEADS, CORNERS, EDGES, ETC., TO OBTAIN THE REQUIRED NOMINAL FILM THICKNESS.

H. THE DRY FILM THICKNESS OF THE PRIMER SHALL BE 2.0 MILS.

I. IF THE PRIMER IS DAMAGED BY WELDING OR PHYSICAL ABUSE, THE AREA SHALL BE TOUCHED UP AND REPAIRED. THE TOUCHUP PAINT SHALL BE COMPATIBLE WITH THE APPLIES PRIMER WITH MINIMUM DRY FILM THICKNESS OF 1.5 MILS.

3.3 INSTALLATION:

A. INSTALLATION OF STRUCTURAL STEEL SHALL COMPLY WITH AISC "CODE OF STANDARD PRACTICE."

B. STRUCTURAL FIELD WELDING SHALL BE DONE BY THE ELECTRIC SUBMERGED OR SHIELDED METAL ARC PROCESS. WELDED CONSTRUCTION SHALL COMPLY WITH AWS D1.1.

C. PROVIDE ANCHOR BOLTS AND OTHER CONNECTORS REQUIRED FOR SECURING STRUCTURAL STEEL TO ELEVATOR SHAFT WALLS AND OTHER IN-PLACE WORK. PROVIDE TEMPLATES AND OTHER DEVICES NECESSARY FOR PRESETTING BOLTS AND ANCHORS TO ACCURATE LOCATIONS.

D. SPLICE MEMBERS ONLY WHERE INDICATED ON THE DRAWINGS.

E. ANY GAS CUTTING TORCHES HAVE TO BE APPROVED IN WRITING BY THE PROJECT STRUCTURAL ENGINEER.

F. PROVIDE TEMPORARY SHORING BRACING WITH CONNECTIONS OF SUFFICIENT STRENGTH TO BEAR IMPOSED LOADS. REMOVE TEMPORARY CONNECTIONS AND MEMBERS WHEN PERMANENT MEMBERS ARE IN PLACE AND THE FINAL CONNECTIONS HAVE BEEN MADE.

G. ALIGN AND ADJUST MEMBERS, AND OTHER SURFACES WHICH WILL BE IN THE PERMANENT CONTACT, BEFORE ASSEMBLY.

H. HIGH-STRENGTH BOLTS AS A MINIMUM, SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN THE LATEST AISC SPECIFICATION. ALL HIGH-STRENGTH BOLTS SPECIFIED ON THE DESIGN DRAWINGS TO BE USED IN PRETENSIONED OR SLIP-CRITICAL JOINTS SHALL BE TIGHTENED TO A BOLT TENSION NOT LESS THAN THAT GIVEN IN AISC TABLE J3.1. INSTALLATION SHALL BE BY ANY OF THE FOLLOWING METHODS: TURN-OF NUT METHOD, A DIRECT-TENSION-INDICATOR, TWIST-OFF-TYPE TENSION-CONTROL BOLT, CALIBRATED WRENCH, OR ALTERNATIVE DESIGN BOLT.

STRUCTURAL NOTES

1.0 GENERAL CONDITIONS

1.1 DESIGN AND CONSTRUCTION OF ALL WORK SHALL CONFORM TO THE IBC 2006 EDITION AND ALL OTHER APPLICABLE STATE CODES, ORDINANCES, AND REGULATIONS. IN CASE OF CONFLICT BETWEEN THE CODES, STANDARDS, AND REGULATIONS. SPECIFICATIONS, GENERAL NOTES AND/OR MANUFACTURER'S REQUIREMENTS. USE THE MOST STRINGENT PROVISION.

1.2 IT IS THE EXPRESS INTENT OF THE PARTIES INVOLVED IN THIS PROJECT THAT THE CONTRACTOR OR SUBCONTRACTOR OR INDEPENDENT CONTRACTOR OR THEIR RESPECTIVE EMPLOYEES SHALL EXCULPATE THE ARCHITECT, THE ENGINEER, THE CONSTRUCTION MANAGER, THE OWNER, AND THEIR AGENTS, FROM ANY LIABILITY WHATSOEVER AND HOLD THEM HARMLESS AGAINST LOSS, DAMAGES, LIABILITY OR ANY EXPENSE ARISING IN ANY MATTER FROM THE WRONGFUL OR NEGLIGENT ACT, OR FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, OR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OR FAILURE TO CONFORM TO THE STATE SCAFFOLDING ACT IN CONNECTION WITH THE WORK.

1.3 DO NOT SCALE DRAWINGS.

1.4 VERIFY ALL EQUIPMENT MOUNTING DIMENSIONS PER MANUFACTURER DRAWINGS.

1.5 SUBMIT ONE SEPIA AND TWO PRINTS OF ALL STRUCTURAL SHOP DRAWINGS. MARKED UP SEPIA SHALL BE RETURNED.

1.6 DESIGN LOADS ARE:

WIND SPEED	115 MPH 3 SEC EXP C	
SNOW LOAD	300 PSF	
SEISMIC ZONE	SBC & UBC - 4 AND IBC - E	
SHELTER WEIGHT:	WITHOUT EQUIPMENT	5,500lbs
	WITH EQUIPMENT	7,500lbs

2.0 STEEL

2.1 MEET OR EXCEED THE FOLLOWING CODES & STANDARDS (LATEST EDITION) EXCEPT AS NOTED:

A. STRUCTURAL STEEL...AISC SPECIFICATION & CODE OF STANDARD PRACTICE
-SHAPES AND PLATES...ASTM A572
-PLATES BENT OR COLD FORMED...ASTM A 283, GRADE C
-PIPES...ASTM A 53, GRADE B
-STRUCTURAL SHEETS, HOT ROLLED...ASTM A 510
-COLD FORMED STEEL TUBING...ASTM A 500 GRADE B
-BOLTS, NUTS & WASHERS FOR ANCHOR BOLTS AND SECONDARY CONNECTIONS...ASTM A307
-ALL STEEL SHALL BE HOT-DIPPED GALVANIZED.

B. WELDS...AWS E 70XX
EXCEPTION IS TAKEN TO AISC CODE OF STANDARD PRACTICE PARAGRAPH 4.2.1 REGARDING OWNERS AND FABRICATOR'S RESPONSIBILITY FOR CONNECTION DESIGN AND DETAILING IS THE CONTRACTORS RESPONSIBILITY. ENGINEER'S REVIEW OF SHOP DRAWINGS IS FOR GENERAL CONSIDERATIONS ONLY AND DOES NOT CONSTITUTE AN ACCEPTANCE OF THESE RESPONSIBILITIES BY THE OWNER AND/OR ENGINEER.

3.0 FIBER REINFORCED PLASTIC

3.1 ALL FRP MATERIAL SHALL BE EXTREN SERIES 500 OR EQUIV.

3.2 ALL ADHESIVE SHALL BE PLEXUS METHACRYLATE ADHESIVE OR EQUIV.

3.3 ALL FRP CONNECTIONS SHALL BE FULL BONDED EACH SIDE WITH 3 /8" PLATE AND MINIMUM (2) 3/8" PAN HEAD FRP SCREWS PER MEMBER.

3.4 ALL PANELS SHALL BE FULL BONDED W/ 3/8" PAN HEAD FRP SCREWS AT 12" O.C.

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GENERAL ELECTRICAL NOTES:

PART 1 - GENERAL

1.1 GENERAL CONDITIONS:

A. CONTRACTOR SHALL INSPECT THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BID. ANY QUESTIONS ARISING DURING THE BID PERIOD IN REGARDS TO THE CONTRACTORS FUNCTIONS, THE SCOPE OF WORK, OR ANY OTHER ISSUE RELATED TO THIS PROJECT SHALL BE BROUGHT UP DURING THE BID PERIOD WITH THE PROJECT MANAGER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN AWARDED.

B. THE CONTRACTOR SHALL OBTAIN PERMITS, LICENSES, MAKE ALL DEPOSITS, AND PAY ALL FEES REQUIRED FOR THE CONSTRUCTION PERFORMANCE FOR THE WORK UNDER THIS SECTION.

C. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL SYSTEMS AND COMPONENTS COVERED UNDER THIS SECTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. DRAWING SHALL NOT BE SCALED TO DETERMINE DIMENSIONS.

1.2 LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES.

A. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES. CONDUIT BENDS SHALL BE THE RADIUS BEND FOR THE TRADE SIZE OF CONDUIT IN COMPLIANCE WITH THE LATEST EDITIONS OF NEC.

1.3 REFERENCES:

A. THE PUBLICATIONS LISTED BELOW ARE PART OF THIS SPECIFICATION. EACH PUBLICATION SHALL BE THE LATEST REVISION AND ADDENDUM IN EFFECT ON THE DATE. THIS SPECIFICATION IS ISSUED FOR CONSTRUCTION UNLESS OTHERWISE NOTED. EXCEPT AS MODIFIED BY THE REQUIREMENT SPECIFIED HEREIN OR THE DETAILS OF THE DRAWINGS, WORK INCLUDED IN THIS SPECIFICATION SHALL CONFORM TO THE APPLICABLE PROVISION OF THESE PUBLICATIONS.

1. ANSI/IEEE (AMERICAN NATIONAL STANDARDS INSTITUTE)
2. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS)
3. ICE (INSULATED CABLE ENGINEERS ASSOCIATION)
4. NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)
5. NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
6. OSHA (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION)
7. UL (UNDERWRITERS LABORATORIES. INC.)
8. AT&T GROUNDING AND BONDING STANDARDS TP-76416

1.4 SCOPE OF WORK:

A. WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL, AND ASSOCIATED SERVICES REQUIRED TO COMPLETE REQUIRED CONSTRUCTION AND BE OPERATIONAL.

B. ALL ELECTRICAL EQUIPMENT UNDER THIS CONTRACT SHALL BE PROPERLY TESTED, ADJUSTED, AND ALIGNED BY THE CONTRACTOR.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATING, DRAINING, TRENCHES, BACKFILLING, AND REMOVAL OF EXCESS DIRT.

D. THE CONTRACTOR SHALL FURNISH TO THE OWNER WITH CERTIFICATES OF A FINAL INSPECTION AND APPROVAL FROM THE INSPECTION AUTHORITIES HAVING JURISDICTION.

E. THE CONTRACTOR SHALL PREPARE A COMPLETE SET OF AS-BUILT DRAWINGS, DOCUMENT ALL WIRING EQUIPMENT CONDITIONS, AND CHANGES WHILE COMPLETING THIS CONTRACT. THE AS-BUILT DRAWINGS SHALL BE SUBMITTED AT COMPLETION OF THE PROJECT.

PART 2 - PRODUCTS

2.1 GENERAL:

A. ALL MATERIALS AND EQUIPMENT SHALL BE UL LISTED, NEW, AND FREE FROM DEFECTS.

B. ALL ITEMS OF MATERIALS AND EQUIPMENT SHALL BE ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.

C. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.

D. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 10,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PER THE GOVERNING JURISDICTION.

2.2 MATERIALS AND EQUIPMENT:

A. CONDUIT:

1. RIGID METAL CONDUIT (RMC) SHALL BE HOT-DIPPED GALVANIZED INSIDE AND OUTSIDE INCLUDING ENDS AND THREADS AND ENAMELED OR LACQUERED INSIDE IN ADDITION TO GALVANIZING.
2. LIQUIDTIGHT FLEXIBLE METAL CONDUIT SHALL BE UL LISTED.
3. CONDUIT CLAMPS, STRAPS AND SUPPORTS SHALL BE STEEL OR MALLEABLE IRON. ALL FITTINGS SHALL BE COMPRESSION AND CONCRETE TIGHT TYPE. GROUNDING BUSHINGS WITH INSULATED THROATS SHALL BE INSTALLED ON ALL CONDUIT TERMINATIONS.
4. NONMETALLIC CONDUIT AND FITTINGS SHALL BE SCHEDULE 40 PVC. INSTALL USING SOLVENT-CEMENT-TYPE JOINTS AS RECOMMENDED BY THE MANUFACTURER.

B. CONDUCTORS AND CABLE:

1. CONDUCTORS AND CABLE SHALL BE FLAME-RETARDANT, MOISTURE AND HEAT RESISTANT THERMOPLASTIC, SINGLE CONDUCTOR, COPPER, TYPE THHN/THWN-2, 600 VOLT, SIZE AS INDICATED, #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR USED.
2. #10 AWG AND SMALLER CONDUCTOR SHALL BE SOLID OR STRANDED AND #8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED.
3. SOLDERLESS, COMPRESSION-TYPE CONNECTORS SHALL BE USED FOR TERMINATION OF ALL STRANDED CONDUCTORS.
4. STRAIN-RELIEF SUPPORTS GRIPS SHALL BE HUBBELL KELLEMS OR APPROVED EQUAL. CABLES SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC AND CABLE MANUFACTURER'S RECOMMENDATIONS. ALL CONDUCTORS SHALL BE TAGGED AT BOTH ENDS OF THE CONDUCTOR, AT ALL PULL
5. BOXES, J-BOXES, EQUIPMENT AND CABINETS AND SHALL BE IDENTIFIED WITH APPROVED PLASTIC TAGS (ACTION CRAFT, BRADY, OR APPROVED EQUAL).

C. DISCONNECT SWITCHES:

1. DISCONNECT SWITCHES SHALL BE HEAVY DUTY, DEAD-FRONT, QUICK-MAKE, QUICK-BREAK, EXTERNALLY OPERABLE, HANDLE LOCKABLE AND INTERLOCK WITH COVER IN CLOSED POSITION, RATING AS INDICATED, UL LABELED FURNISHED IN NEMA 3R ENCLOSURE, SQUARE-D OR ENGINEERED APPROVED EQUAL.

D. CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:

1. INSTALL CHEMICAL GROUNDING AS REQUIRED. THE SYSTEM SHALL BE ELECTROLYTIC MAINTENANCE FREE ELECTRODE CONSISTING OF RODS WITH A MINIMUM #2 AWG CU EXOTHERMALLY WELDED PIGTAIL, PROTECTIVE BOXES, AND BACKFILL MATERIAL. MANUFACTURER SHALL BE LYNCOLE XIT GROUNDING ROD TYPES K2-(*)CS OR K2L-(*)CS (*) LENGTH AS REQUIRED.
2. GROUND ACCESS BOX SHALL BE A POLYPLASTIC BOX FOR NON-TRAFFIC APPLICATIONS, INCLUDING BOLT DOWN FLUSH COVER WITH "BREATHER" HOLES, XIT MODEL #XB-22. ALL DISCONNECT SWITCHES AND CONTROLLING DEVICES SHALL BE PROVIDED WITH ENGRAVED LAMICOID NAMEPLATES INDICATING EQUIPMENT CONTROLLED, BRANCH CIRCUITS ID NUMBERING, AND THE ELECTRICAL POWER SOURCE.
3. BACKFILL MATERIAL SHALL BE LYNCONITE AND LYNCOLE GROUNDING GRAVEL.

E. SYSTEM GROUNDING:

1. ALL GROUNDING COMPONENTS SHALL BE TINNED AND GROUNDING CONDUCTOR SHALL BE #2 AWG BARE, SOLID, TINNED, COPPER. ABOVE GRADE GROUNDING CONDUCTORS SHALL BE INSULATED WHERE NOTED.
2. GROUNDING BUSES SHALL BE BARE, TINNED, ANNEALED COPPER BARS OF RECTANGULAR CROSS SECTION. STANDARD BUS BARS MGB, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD. ALL GROUNDING BUSES SHALL BE IDENTIFIED WITH MINIMUM 3/4" LETTERS BY WAY OF STENCILING OR DESIGNATION PLATE.
3. CONNECTORS SHALL BE HIGH-CONDUCTIVITY, HEAVY DUTY, LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED. USE TWO-HOLE COMPRESSION LUGS WITH CLEAR HEAT SHRINK FOR MECHANICAL CONNECTIONS. USE TWO-HOLE COMPRESSION LUGS WITH INSPECTION WINDOW AND CLEAR HEAT SHRINK.
4. EXOTHERMIC WELDED CONNECTIONS SHALL BE PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.
5. GROUND RODS SHALL BE ERICO #615800, COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN WELDED TO CORE, 5/8"x10'-0". ALL GROUNDING RODS SHALL BE INSTALLED WITH INSPECTION SLEEVES.
6. INSTALL AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS IN COMPLIANCE WITH THE AT&T SPECIFICATIONS AND NEC. THE EQUIPMENT GROUNDING CONDUCTORS SHALL BE BONDED AT ALL JUNCTION BOXES, PULLBOXES, DISCONNECT SWITCHES, STARTERS, AND EQUIPMENT CABINETS.

F. OTHER MATERIALS:

1. THE CONTRACTOR SHALL PROVIDE OTHER MATERIALS, THOUGH NOT SPECIFICALLY DESCRIBED, WHICH ARE REQUIRED FOR A COMPLETELY OPERATIONAL SYSTEM AND PROPER INSTALLATION OF THE WORK.
2. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR REQUIRED BY NEC.

G. PANELS AND LOAD CENTERS:

1. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN.

PART 3 - EXECUTION

3.1 GENERAL:

A. ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

B. B. EQUIPMENT SHALL BE TIGHTLY COVERED AND PROTECTED AGAINST DIRT OR WATER, AND AGAINST CHEMICAL OR MECHANICAL INJURY DURING INSTALLATION AND CONSTRUCTION PERIODS.

3.2 LABOR AND WORKMANSHIP:

A. ALL LABOR FOR THE INSTALLATION OF MATERIALS AND EQUIPMENT FURNISHED FOR THE ELECTRICAL SYSTEM SHALL BE INSTALLED BY EXPERIENCED WIREMEN, IN A NEAT AND WORKMAN-LIKE MANNER.

B. ALL ELECTRICAL EQUIPMENT SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE CONTRACTOR AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.

C. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, REMOVE ALL LABELS AND ANY DEBRIS, CRATING OR CARTONS AND LEAVE THE INSTALLATION FINISHED AND READY FOR OPERATION.

3.3 COORDINATION:

A. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ELECTRICAL ITEMS WITH THE OWNER-FURNISHED EQUIPMENT DELIVERY SCHEDULE TO PREVENT UNNECESSARY DELAYS IN THE TOTAL WORK.

3.4 INSTALLATION:

A. CONDUIT:

1. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH TRADE SIZE.
2. PROVIDE RIGID PVC SCHEDULE 80 CONDUITS FOR ALL RISERS, RMC OTHERWISE NOTED. EMT MAY BE INSTALLED FOR EXTERIOR CONDUITS WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
3. INSTALL SCH. 40 PVC CONDUIT WITH A MINIMUM COVER OF 24" UNDER ROADWAYS, PARKING LOTS, STREETS, AND ALLEYS. CONDUIT SHALL HAVE A MINIMUM COVER OF 18" IN ALL OTHER NON-TRAFFIC APPLICATIONS (REFER TO 2011 NEC, TABLE 300.5).
4. USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION TO EQUIPMENT WITH MOVEMENT, VIBRATION, OR FOR EASE OF MAINTENANCE. USE LIQUID TIGHT, FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORT TO ALLOW FOR EXPANSION AND CONTRACTION.
5. A RUN OF CONDUIT BETWEEN BOXES OR EQUIPMENT SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE QUARTER-BENDS. CONDUIT BEND SHALL BE MADE WITH THE UL LISTED BENDER OR FACTORY 90 DEGREE ELBOWS MAY BE USED.
6. FIELD FABRICATED CONDUITS SHALL BE CUT SQUARE WITH A CONDUIT CUTTING TOOL AND REAMED TO PROVIDE A SMOOTH INSIDE SURFACE.
7. PROVIDE INSULATED GROUNDING BUSHING FOR ALL CONDUITS.
8. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENINGS IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. CONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.
9. ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF CONDUCTORS OR CABLES. CONDUIT SHALL BE FREE OF DIRT AND DEBRIS.
10. INSTALL PULL STRINGS IN ALL CLEAN EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END.
11. INSTALL 2" HIGHLY VISIBLE AND DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUITS AND CONDUCTORS.
12. CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.
13. PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS TO ALLOW FOR RACEWAYS AND CABLES TO BE ROUTED THROUGH THE BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE EFFECTIVELY SEALED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FIRE STOPS AT FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE, AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.

B. CONDUCTORS AND CABLE:

1. ALL POWER WIRING SHALL BE COLOR CODED AS FOLLOWS:

DESCRIPTION	208/240/120 VOLT SYSTEMS
PHASE A	BLACK
PHASE B	RED
PHASE C	BLUE
NEUTRAL	WHITE
GROUNDING	GREEN

2. SPLICES SHALL BE MADE ONLY AT OUTLETS, JUNCTION BOXES, OR ACCESSIBLE RACEWAY CONDUITS APPROVED FOR THIS PURPOSE.
3. PULLING LUBRICANTS SHALL BE UL APPROVED. CONTRACTOR SHALL USE NYLON OR HEMP ROPE FOR PULLING CONDUCTOR OR CABLES INTO THE CONDUIT.
4. CABLES SHALL BE NEATLY TRAINED, WITHOUT INTERLACING, AND BE OF SUFFICIENT LENGTH IN ALL BOXES & EQUIPMENT TO PERMIT MAKING A NEAT ARRANGEMENT. CABLES SHALL BE SECURED IN A MANNER TO AVOID TENSION ON CONDUCTORS OR TERMINALS. CONDUCTORS SHALL BE PROTECTED FROM MECHANICAL INJURY AND MOISTURE. SHARP BENDS OVER CONDUIT BUSHINGS IS PROHIBITED. DAMAGED CABLES SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

C. DISCONNECT SWITCHES:

1. INSTALL DISCONNECT SWITCHES LEVEL AND PLUMB. CONNECT TO WIRING SYSTEM AND GROUNDING SYSTEM AS INDICATED.

D. GROUNDING:

1. ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING MANUFACTURER, AT&T GROUNDING AND BONDING STANDARDS TP-76416, ND-00135, AND THE NATIONAL ELECTRICAL CODE.
2. PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
3. ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPED OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES. BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND WHERE THE MAIN
4. GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUND RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN #2 AWG COPPER. ROOFTOP GROUND RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). SEE STANDARD 6.3.2.2.
5. TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING. CONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN-POINTS TO THE EXISTING
6. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE GROUNDING SYSTEM. EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.
8. APPLY CORROSION-RESISTANCE FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED.
9. A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.
10. BOND ALL INSULATED GROUNDING BUSHINGS WITH A BARE 6 AWG GROUNDING CONDUCTOR TO A GROUND BUS.
11. DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE, USE THE GREATER OF THE TWO DISTANCES.
12. ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
13. THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
14. DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE, USING THE GREATER OF THE TWO DISTANCES.
15. IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUND BAR AT THE BASE OF THE TOWER, A SECOND GROUND BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE, TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LINE ARRESTORS
16. CONTRACTOR SHALL REPAIR, AND/OR REPLACE, EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE CONTRACTORS EXPENSE.

3.5 ACCEPTANCE TESTING

A. CERTIFIED PERSONNEL USING CERTIFIED EQUIPMENT SHALL PERFORM REQUIRED TESTS AND SUBMIT WRITTEN TEST REPORTS UPON COMPLETION.

B. WHEN MATERIAL AND/OR WORKMANSHIP IS FOUND NOT TO COMPLY WITH THE SPECIFIED REQUIREMENTS, THE NON-COMPLYING ITEMS SHALL BE REMOVED FROM THE PROJECT SITE AND REPLACED WITH ITEMS COMPLYING WITH THE SPECIFIED REQUIREMENTS PROMPTLY AFTER RECEIPT OF NOTICE FOR NON-COMPLIANCE.

C. TEST PROCEDURES;

1. ALL FEEDERS SHALL HAVE INSULATION TESTED AFTER INSTALLATION, BEFORE CONNECTION TO DEVICES. THE CONDUCTORS SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS. TESTING SHALL BE FOR ONE MINUTE USING 1000V DC. PROVIDE WRITTEN DOCUMENTATION FOR ALL TEST RESULTS.
2. PRIOR TO ENERGIZING CIRCUITRY, TEST WIRING DEVICES FOR ELECTRICAL CONTINUITY AND PROPER POLARITY CONNECTIONS.
3. MEASURE AND RECORD VOLTAGES BETWEEN PHASES AND BETWEEN PHASE CONDUCTORS AND NEUTRALS. SUBMIT A REPORT OF MAXIMUM AND MINIMUM VOLTAGES
4. PERFORM GROUNDING TEST TO MEASURE GROUNDING RESISTANCE OF GROUNDING SYSTEM USING THE IEEE STANDARD 3-POINT "FALL-OF-POTENTIAL" METHOD. PROVIDE PLOTTED TEST VALUES AND LOCATION SKETCH. NOTIFY THE ENGINEER IMMEDIATELY IF MEASURED VALUE IS OVER 5 OHMS.

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

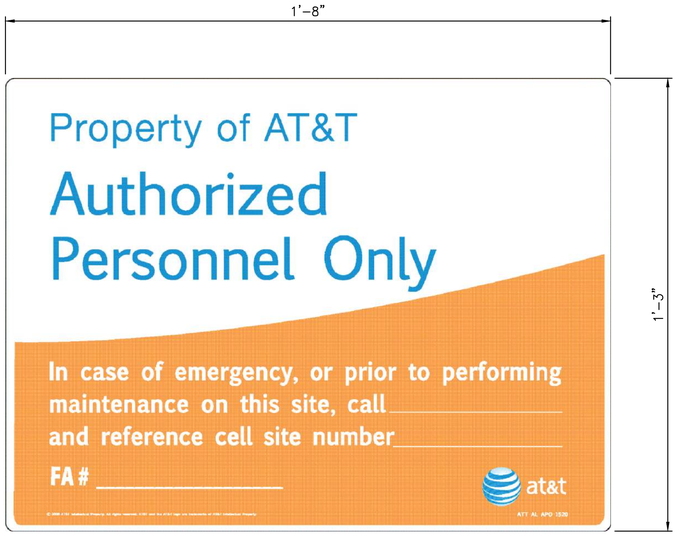
REV	DATE	DESCRIPTION
A	09/16/21	PRELIMINARY CD'S
B	12/03/21	CLIENT REVISIONS
0	12/24/21	CLIENT REVISIONS
1	01/10/22	CLIENT REVISIONS
2	02/14/22	CLIENT REVISIONS
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

Licensor:
PROFESSIONAL ENGINEER LICENSED
18283
STATE OF IDAHO
TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
GENERAL NOTES

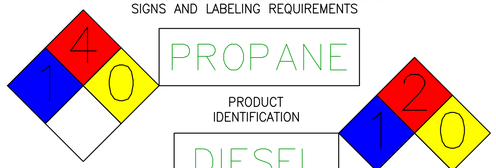
SHEET NUMBER:
GN-6



NOTES:
1. PLACE SIGN ON ROOM, SHELTER OR CABINET DOOR.

6 DOOR SIGN
N.T.S.

AT&T ABOVEGROUND FUEL STORAGE SYSTEMS
SIGNS AND LABELING REQUIREMENTS



HAZARD RATINGS:
9 O'CLOCK – HEALTH
12 O'CLOCK – FLAMMABILITY
3 O'CLOCK – INSTABILITY
6 O'CLOCK – SPECIAL

COMBUSTIBLE

FLAMMABLE

NO SMOKING

SIGNS MUST BE OF DURABLE MATERIAL WITH RED LETTERING ON WHITE BACKGROUND. LETTERS SHALL NOT BE LESS THAN 3 INCHES (762 mm) IN HEIGHT. SIGNS SHALL NOT BE OBSTRUCTED OR REMOVED AND SHALL BE IN ENGLISH AS A PRIMARY LANGUAGE. COMBUSTIBLE SIGN MAY ALSO BE WHITE LETTER ON RED BACKGROUND

NOTES:
1. PLACE AT DOOR OR TANK.
2. SEE SIGN PLACEMENT TABLE IN A–12 FOR ADDITIONAL INFORMATION

5 FUEL STORAGE SIGN
N.T.S.

NFPA 704 HAZARD IDENTIFICATION
SYSTEM 15" DIAMOND

INFORMATION

Federal Communications Commission
Tower Registration Number

1 2 3 4 5 6 7

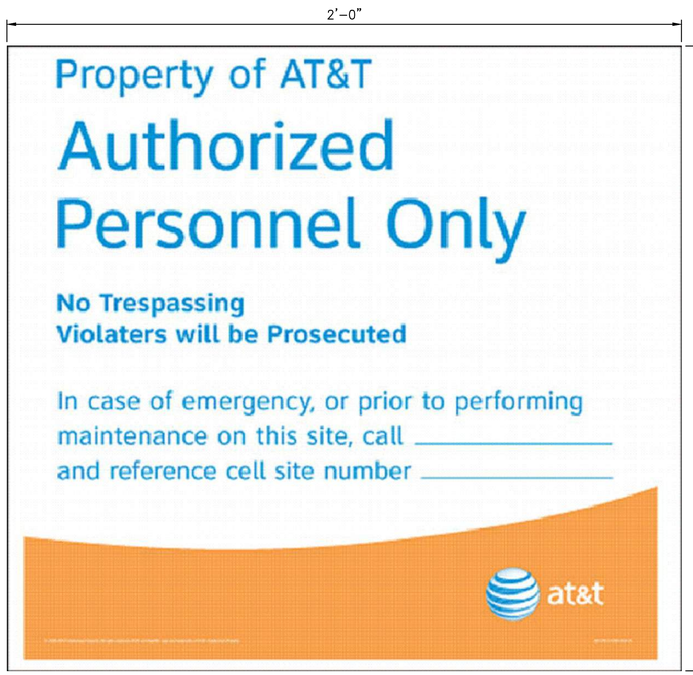
Posted in accordance with Federal Communications Commission rules on antenna tower registration 47CFR 17.4 (g).

NOTES:
1. 12" x 8" ALUMINUM.
2. REQUIREMENT IS SPECIFIED IN SECTION 4 OF CNTP.
3. POSTED AT BASE OF TOWER AND AT EACH ENTRANCE POINT.
4. SEE SIGN PLACEMENT TABLE IN A–12 FOR ADDITIONAL INFORMATION

4 FCC TOWER REG. (ASRN)
N.T.S.

NOTES:
1. PLACE SIGN ON GATE OR DOOR AND EACH SIDE OF FENCED COMPOUND.
2. PLACE SIN ON AT&T COMPOUND ONLY.
4. SEE SIGN PLACEMENT TABLE IN A–12 FOR ADDITIONAL INFORMATION

3 NO TRESPASSING SIGN
N.T.S.



NOTES:
1. ALUMINUM SIGN.
2. PLACE AT MAIN ENTRANCE GATES TO COMPOUND.
3. SEE SIGN PLACEMENT TABLE IN A–12 FOR ADDITIONAL INFORMATION.

2 GATE SIGN
N.T.S.

INFORMATION

AT&T Mobility operates telecommunications antennas at this location. Remain at least 3 feet away from any antenna and obey all posted signs.

Contact the owner(s) of the antenna(s) before working closer then 3 feet from the antenna(s)

Contact AT&T Mobility at _____ prior to performing any maintenance or repairs near AT&T antennas

This is site# _____

Contact the management office if this door/hatch/gate is found unlocked.

INFORMACION

En esta propiedad se ubican antenas de telecommunicaciones operadas por AT&T Mobility. Favor mantener una distancia de no menos de 3 pies y obedecer todos los avisos.

Comuniquese con el propietario o los propietarios de las antenas antes de trabajar o caminar a una distancia de menos de 3 pies de la antena

Comuniquese con AT&T Mobility _____ antes de realizar cualquier mantenimiento o reparaciones cerca de las antenas de AT&T Mobility.

Esta es la estación base número _____

Favor comunicarse can la oficina de la administración del edificio si esta puerta o compuerta se encuentra sin candado

INFORMATION SIGN 1:
1. 8" X 12" ALUMINUM.
2. PLACE AT ENTRANCE (GATE, DOOR, HATCHWAY, ETC).
3. POSTED ADJACENT TO CAUTION (YELLOW) SIGN.
4. BUILDING OWNER MAY HAVE LIMITATIONS ON WHERE CAN BE POSTED.
5. SEE SIGN PLACEMENT TABLE IN A–12 FOR ADDITIONAL INFORMATION

INFORMATION

ACTIVE ANTENNAS ARE MOUNTED

☐ ON THE OUTSIDE FACE OF THIS BUILDING

☐ BEHIND THIS PANEL

☐ ON THIS STRUCTURE

STAY BACK A MINIMUM OF 3 FEET FROM THESE ANTENNAS

Contact AT&T Mobility at _____ and follow their instructions prior to performing any maintenance or repairs closer than 3 feet from the antennas.

This is AT&T Mobility site _____
AT&T Mobility

INFORMATION SIGN 2:
1. NON–METALLIC (VINYL OR SIMILAR WEATHERPROOF MATERIAL) LABEL WITH AN ADHESIVE BACKING.
2. APPROXIMATELY 5 X 7 INCHES.

POSTING:
1. ACTIVE ANTENNAS BEHIND A RADIO TRANSPARENT PANEL. A NON_METALLIC VERSION WITH AN ADHESIVE BACKING SHOULD BE AFFIXED TO THE FACE OF THE RADIO TRANSPARENT PANEL CONCEALING THE ANTENNAS.
2. ANTENNAS MOUNTED ON THE OUTSIDE FACE OF A BUILDING. A METALLIC OR NON–METALLIC VERSION SHOULD BE MOUNTED ON THE PARAPETS INSIDE WALL DIRECTLY ABOVE THE ANTENNA.
3. ROOFTOP ANTENNAS MOUNTED ON SUPPORT STRUCTURES. A METALLIC OR NON–METALLIC VERSION (DEPENDING UPON MOUNTING CONDITIONS) SHOULD BE MOUNTED ON THE SUPPORT STRUCTURE, OR VERY NEAR IT, IN SUCH A MANNER THAT THE SIGN IS CLEARLY ASSOCIATED WITH THE STRUCTURE.
4. ANTENNAS THAT ARE STAND–ALONE (E.G., LAMP POSTS, STADIUMS) IN AREAS WHERE THERE IS LITTLE POTENTIAL FOR EXCEEDING THE GENERAL POPULATION/UNCONTROLLED MPE EXCEPT, PERHAPS, VERY CLOSE TO THE ANTENNA. IN THIS CASE, THE INFORMATION SIGN 2 WOULD BE MOUNTED CLOSE TO THE ANTENNA IN ORDER TO ALERT MAINTENANCE WORKERS.
5. SEE SIGN PLACEMENT TABLE FOR ADDITIONAL INFORMATION.

1 RADIO FREQUENCY INFORMATION SIGN
N.T.S.

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE
INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
A	09/16/21	PRELIMINARY CD'S
B	12/03/21	CLIENT REVISIONS
0	12/24/21	CLIENT REVISIONS
1	01/10/22	CLIENT REVISIONS
2	02/14/22	CLIENT REVISIONS
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

Licensor:

PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

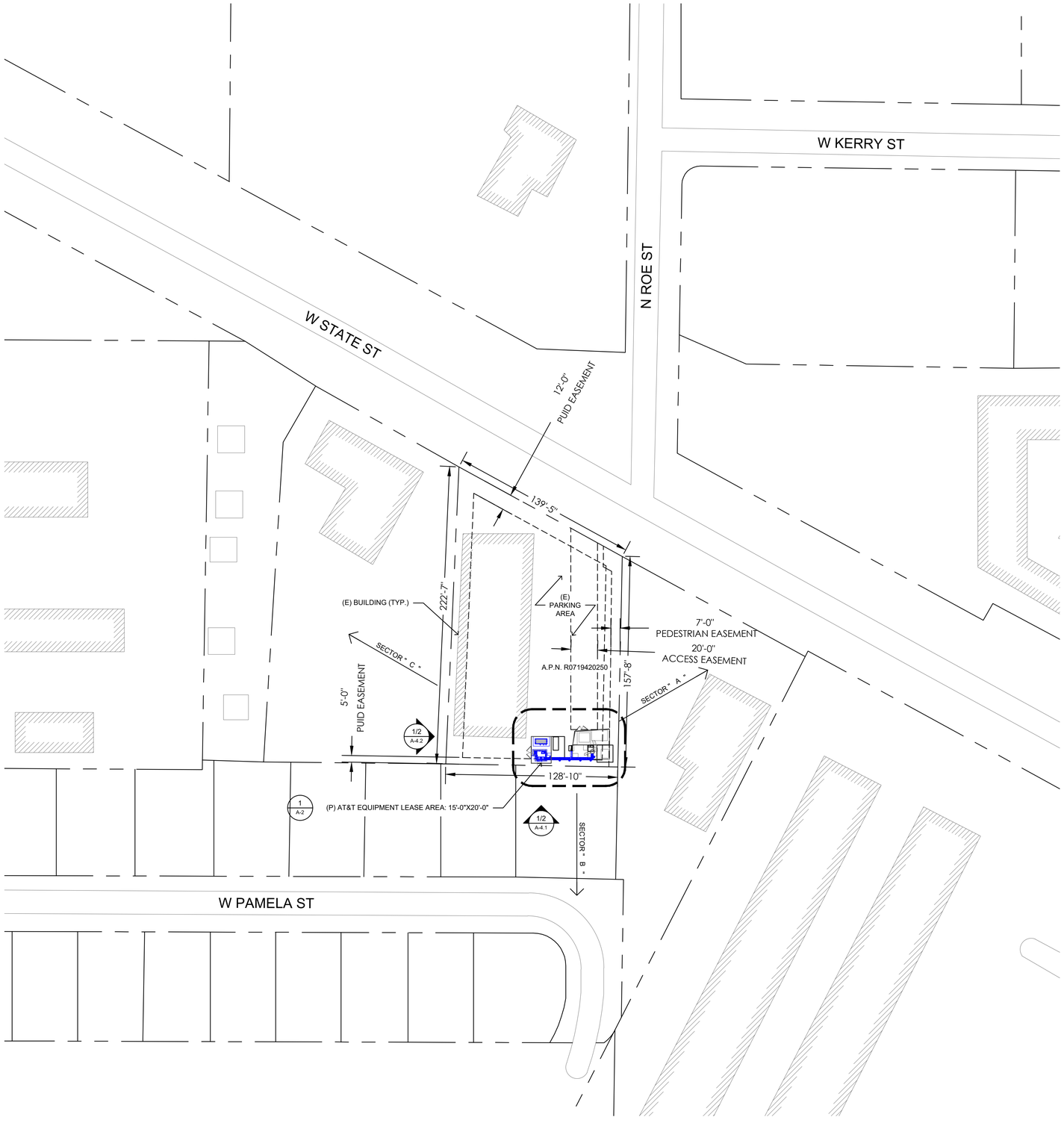
Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
SITE SIGNAGE

SHEET NUMBER:
GN-7

NOTE

THERE IS NO LANDSCAPING ON SITE AT THIS TIME.



1 OVERALL SITE PLAN

SCALE: 40' 20' 0 40' 1"=40'-0" (FULL SIZE) 1"=80'-0" (11x17)

N

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
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3	12/08/22	JDX COMMENTS
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6	08/19/24	CLIENT COMMENTS

Licensor:

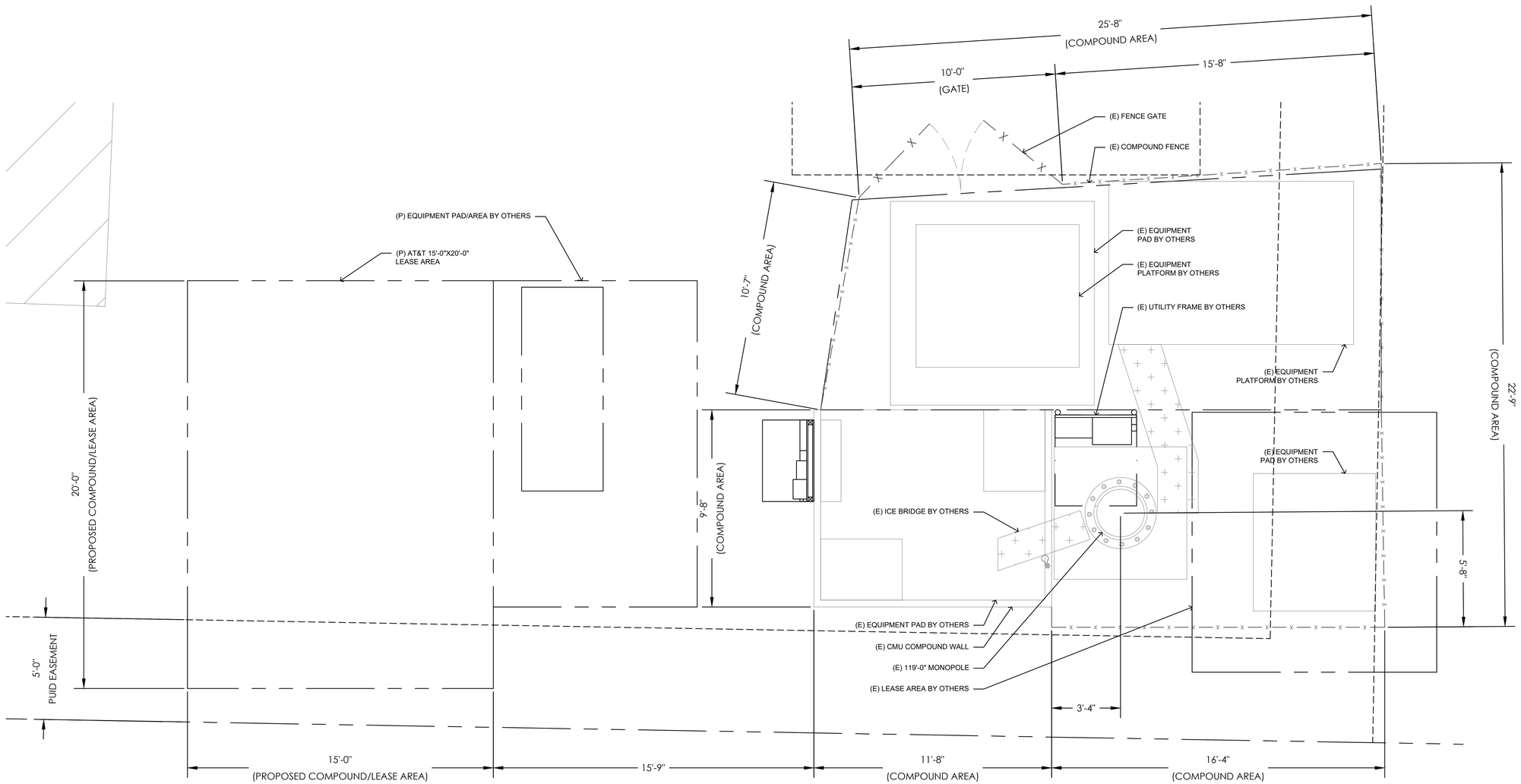
PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER

SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
A-1



1 EXISTING COMPOUND PLAN

SCALE: 2' 1' 0 2' — 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)

N

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
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CHECKED BY:	CM

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6	08/19/24	CLIENT COMMENTS

Licensor:
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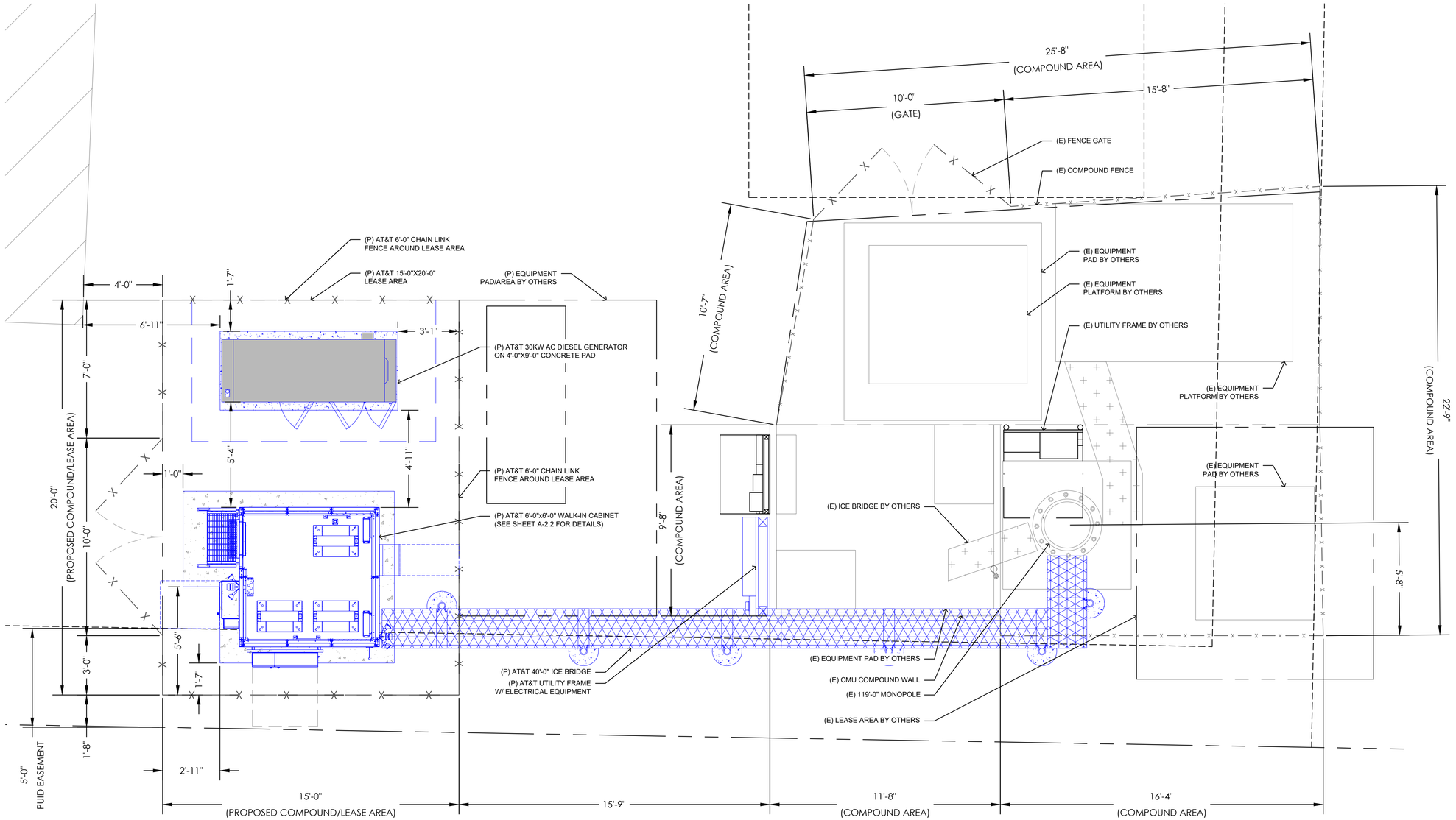
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
EXISTING COMPOUND PLAN

SHEET NUMBER:
A-2



1 PROPOSED COMPOUND PLAN

SCALE: 2 1 0 2 — 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)

N

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
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AT&T SITE NO:	IDL02365
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Issued For:
8/19/24
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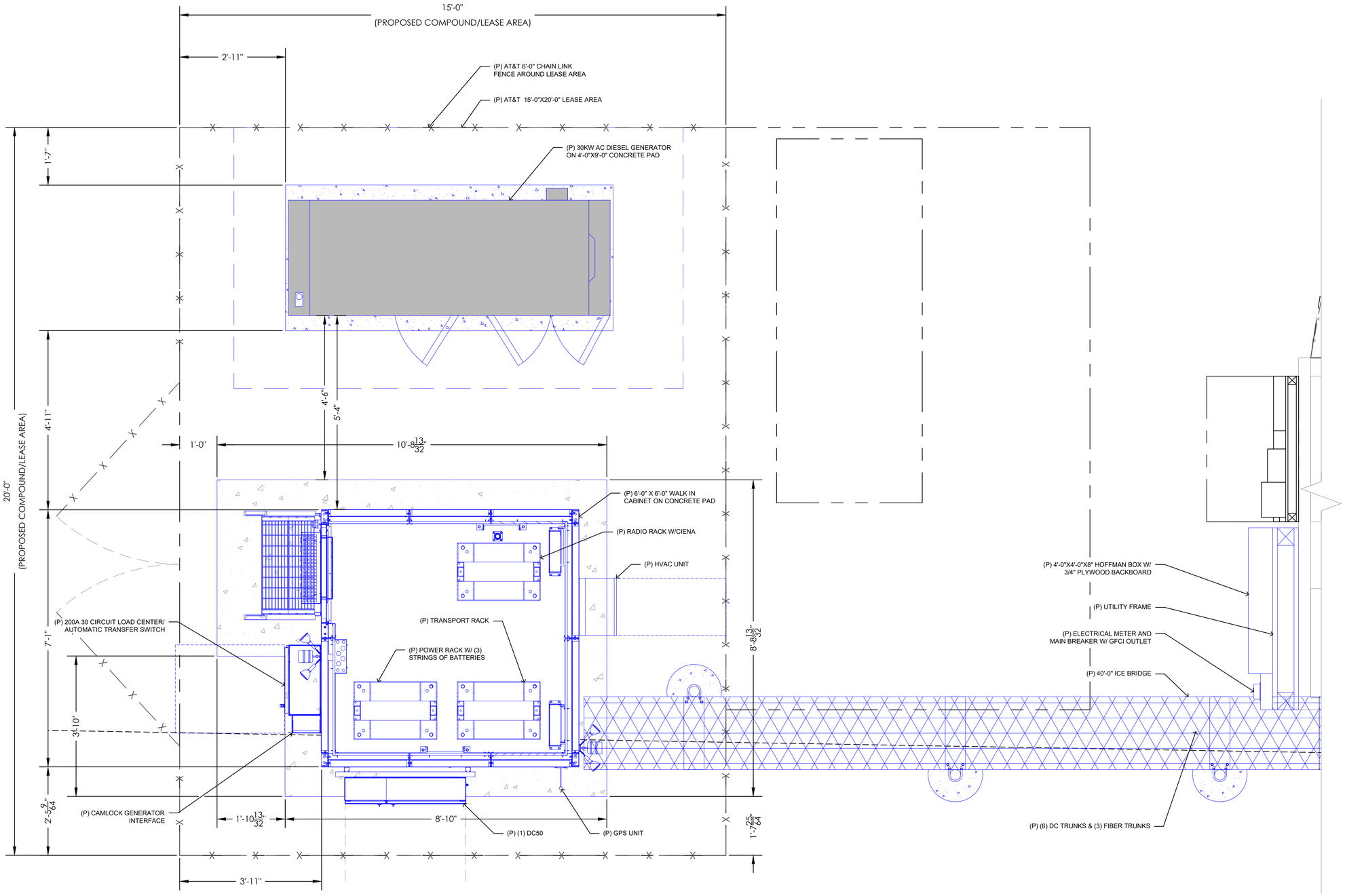
SHEET TITLE:
PROPOSED COMPOUND PLAN

SHEET NUMBER:
A-2.1



1 INTERIOR WIC LAYOUT
SCALE: 1"=1'-0" (FULL SIZE) 1/2"=1'-0" (11x17)

N

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
A	09/16/21	PRELIMINARY CD'S
B	12/03/21	CLIENT REVISIONS
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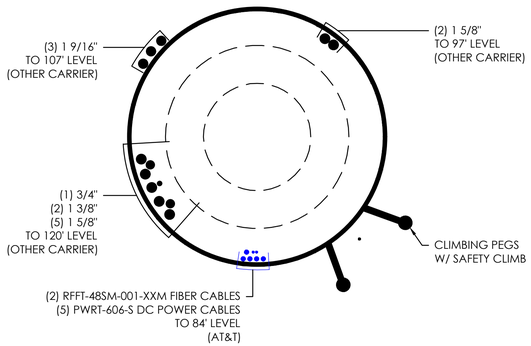
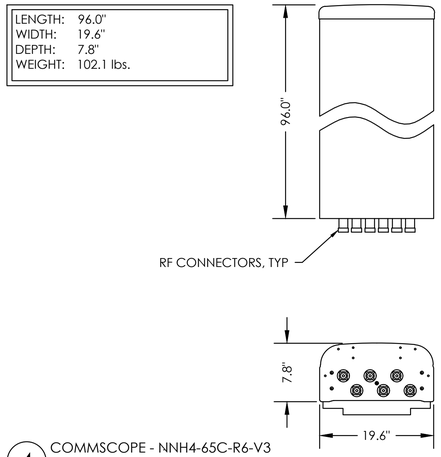
SHEET TITLE:
INTERIOR WIC LAYOUT

SHEET NUMBER:
A-2.2



5 BASELEVEL
SCALE: NOT TO SCALE



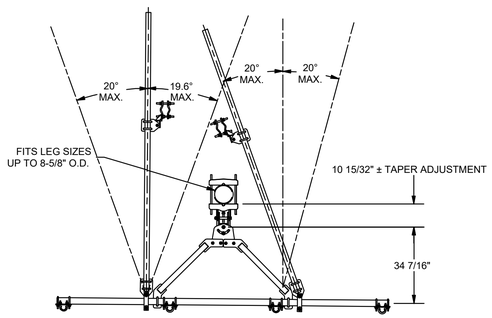
4 COMMSCOPE - NNH4-65C-R6-V3
SCALE: NOT TO SCALE

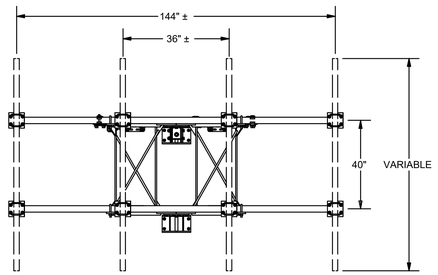
NEW ANTENNA SCHEDULE

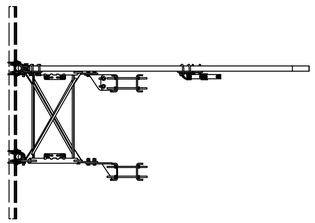
SECTOR	POSITION	TECH	ANTENNA	RRH	AZIMUTH	TIP HEIGHT	ANTENNA DIMS (HxWxD)
ALPHA	1	5G	COMMSCOPE - NNH4-65C-R6-V3*	(1) 4490 B5/B12A*	SEE FINAL RFDS	84'-0"	96X19.6X7.8
ALPHA	2	5G	AIR6419 B77D (STACKED) AIR6419 B77G (STACKED)	-	-	-	-
ALPHA	3	LTE	COMMSCOPE - NNH4-65C-R6-V3*	(1) 4890 B25/B66 (1) 4478 B14	SEE FINAL RFDS	84'-0"	96X19.6X7.8
ALPHA	4						
BETA	1	5G	COMMSCOPE - NNH4-65C-R6-V3*	(1) 4490 B5/B12A*	SEE FINAL RFDS	84'-0"	96X19.6X7.8
BETA	2	5G	AIR6419 B77D (STACKED) AIR6419 B77G (STACKED)	-	-	-	-
BETA	3	LTE	COMMSCOPE - NNH4-65C-R6-V3*	(1) 4890 B25/B66 (1) 4478 B14	SEE FINAL RFDS	-	-
BETA	4					84'-0"	96X19.6X7.8
GAMMA	1	5G	COMMSCOPE - NNH4-65C-R6-V3*	(1) 4490 B5/B12A*	SEE FINAL RFDS	84'-0"	96X19.6X7.8
GAMMA	2	5G	AIR6419 B77D (STACKED) AIR6419 B77G (STACKED)	-	-	-	-
GAMMA	3	LTE	COMMSCOPE - NNH4-65C-R6-V3*	(1) 4890 B25/B66 (1) 4478 B14	SEE FINAL RFDS	-	-
GAMMA	4					84'-0"	96X19.6X7.8

NOTE: CONFIRM THAT GENERAL CONTRACTOR IS USING LATEST VERSION OF RFDS.
*OR SIMILAR

2 RF SCHEDULE
SCALE: NOT TO SCALE

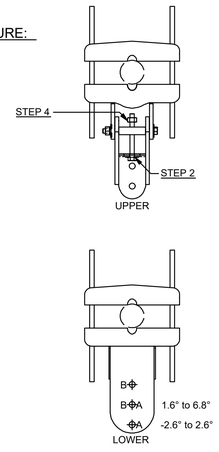




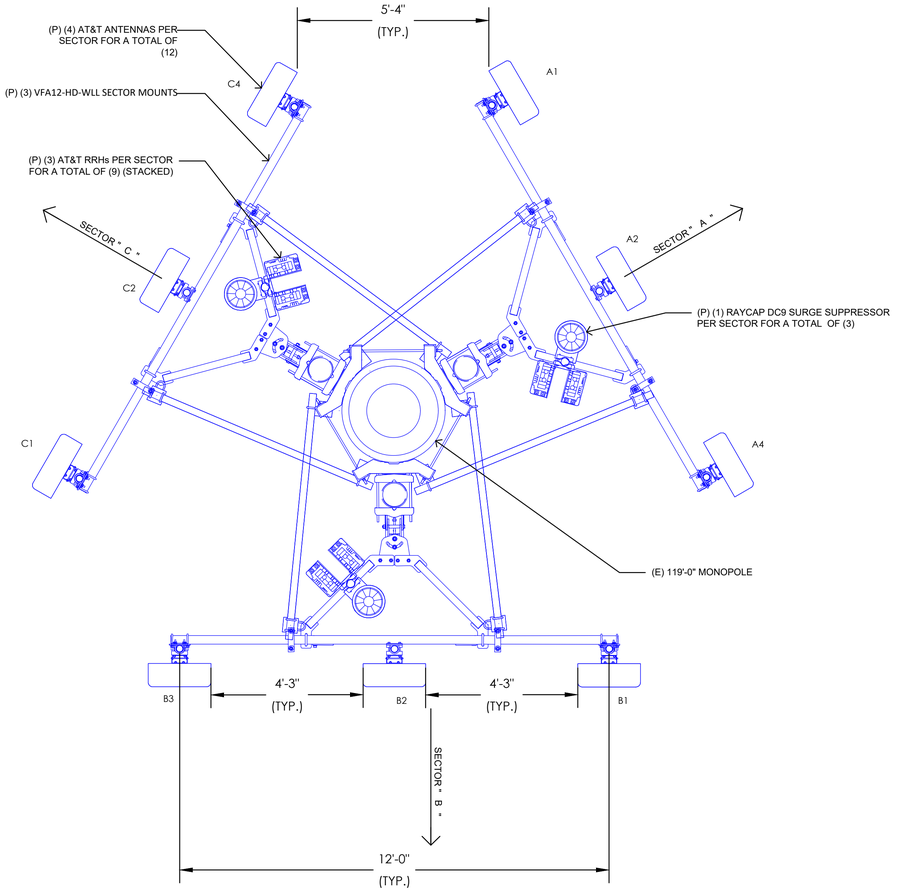


ANGLE CALIBRATING PROCEDURE:

1. MEASURE TOWER TAPER AND PICK LOWER BRACKET HOLE:
   - ☐ HOLE A = -2.6° TO 2.6°
   - ☐ HOLE B = 1.6° TO 6.8°
2. USE CALIBRATING BOLT TO ADJUST FRAME TO DESIRED TAPER
3. TORQUE LOCKING BOLTS TO 100 ft.-lbs.
4. ADVANCE LOCKING NUT TO POSITIONING PLATE, THEN TIGHTEN.



3 SITEPRO1 VFA12-HD-WLL-30120 HEAVY WLL ANTENNA FRAME DETAIL - ANT# 15997
SCALE: NOT TO SCALE



1 ANTENNA PLAN
SCALE: 1/2"=1'-0" (FULL SIZE)
1/4"=1'-0" (11x17)

N

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

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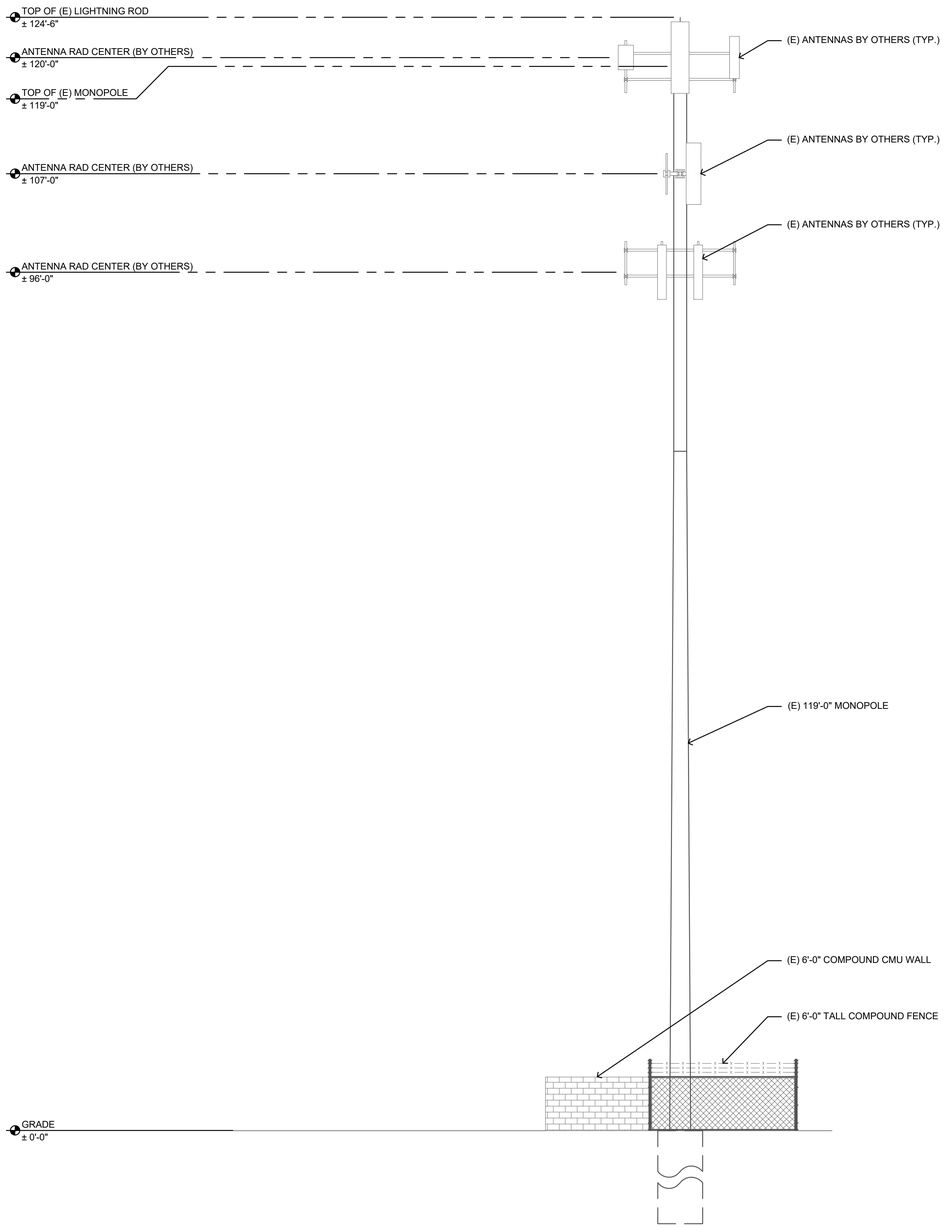
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 TIM ALEXANDER STATE OF IDAHO
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

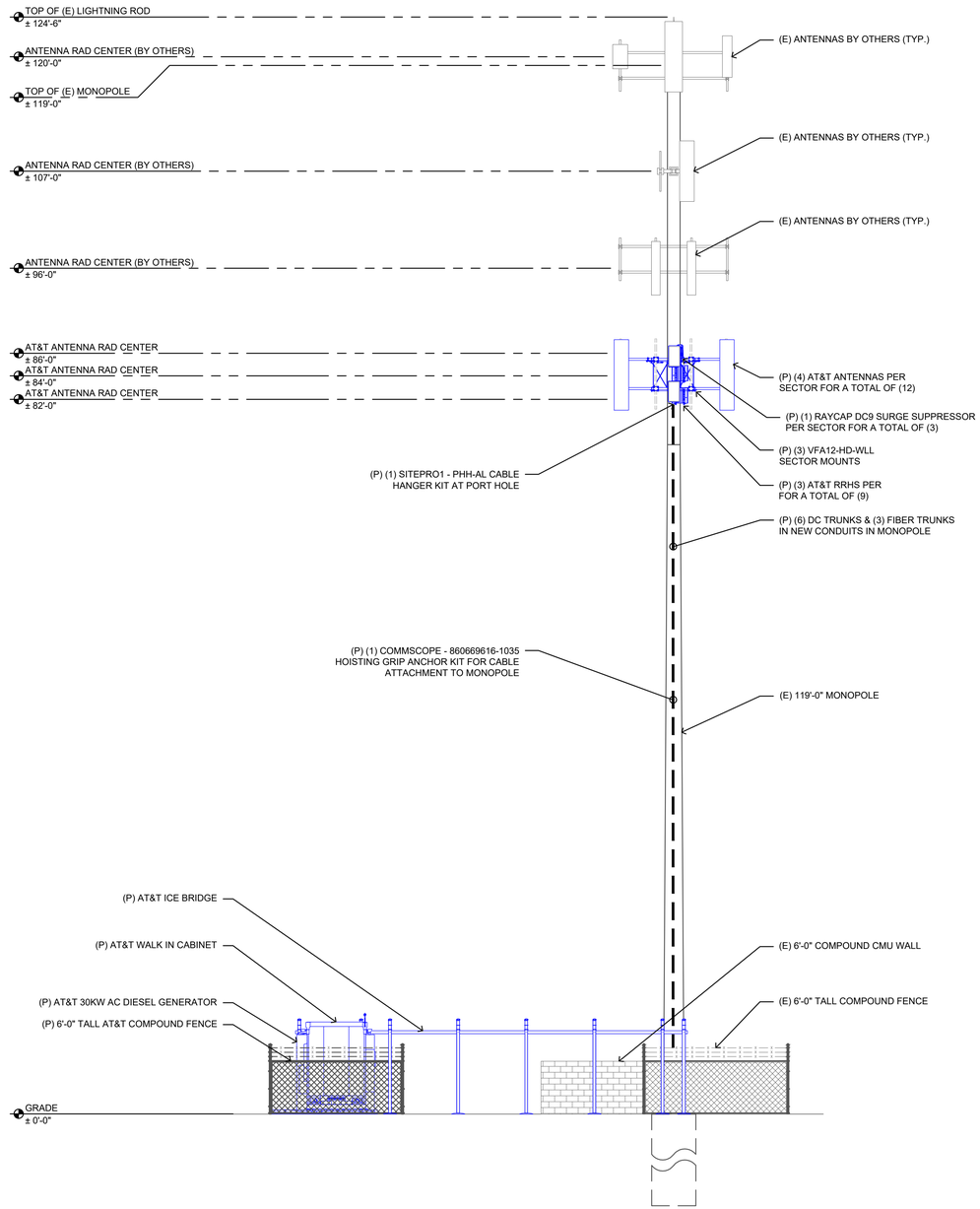
SHEET TITLE:
ANTENNA PLAN & DETAILS

SHEET NUMBER:
A-3



2 EXISTING SOUTH ELEVATION

SCALE: 4' 2' 0 4' 3/16"=1'-0" (FULL SIZE) 3/32"=1'-0" (11x17)



1 PROPOSED SOUTH ELEVATION

SCALE: 4' 2' 0 4' 3/16"=1'-0" (FULL SIZE) 3/32"=1'-0" (11x17)

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
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AT&T SITE NO:	IDL02365
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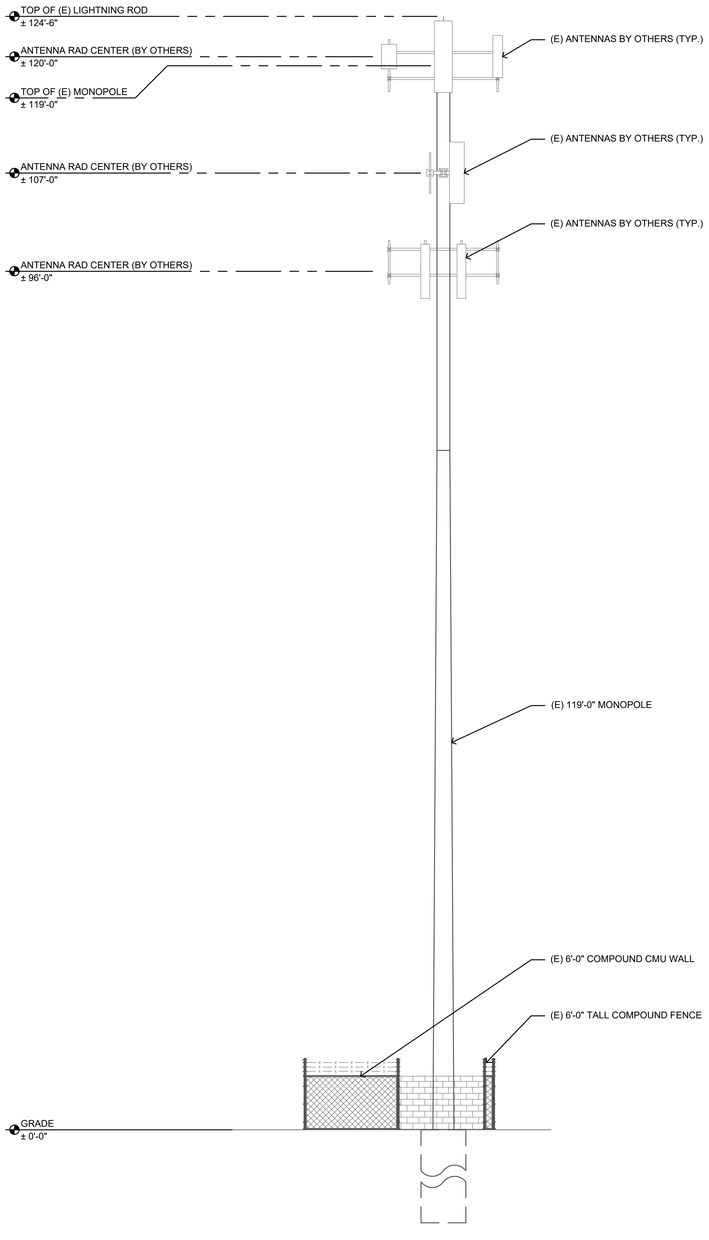
PRELIMINARY CD'S

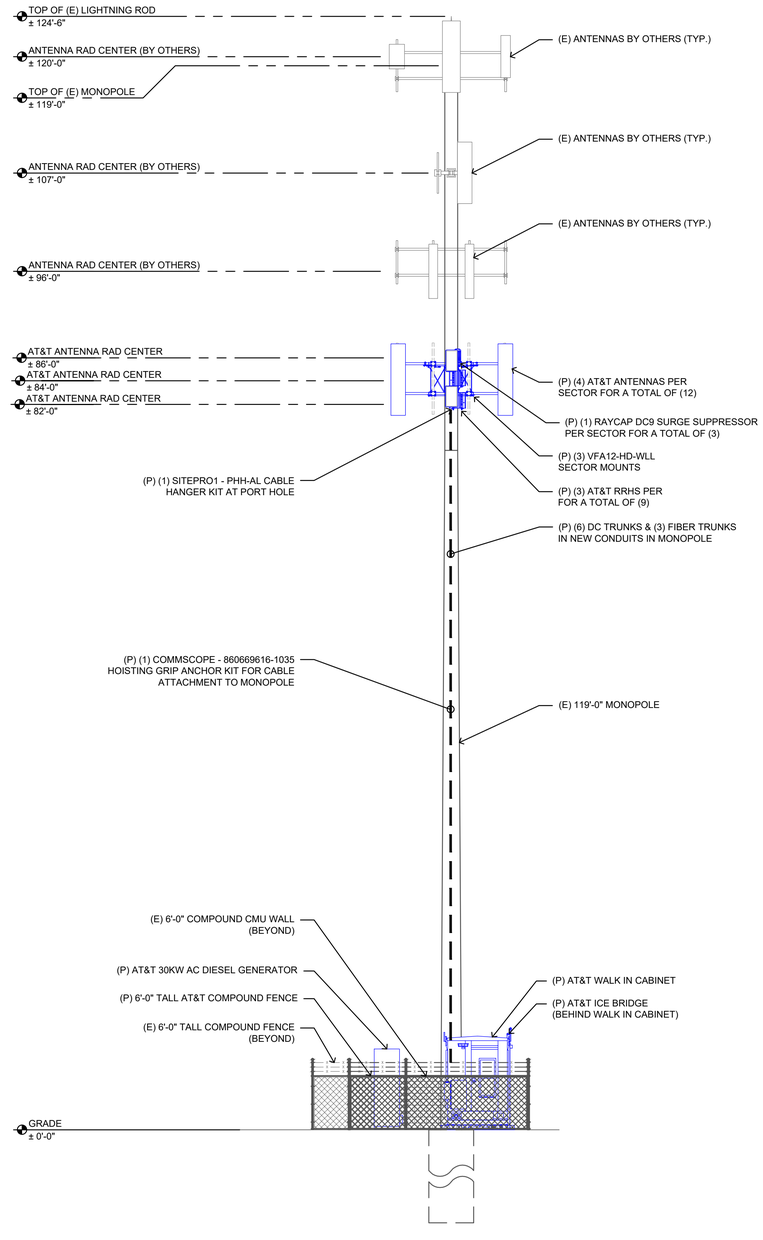
SHEET TITLE:
PROPOSED MONOPOLE NORTH - ELEVATION

SHEET NUMBER:
A-4.1



2 EXISTING WEST ELEVATION

SCALE: 4' 2' 0 4' 3/16"=1'-0" (FULL SIZE) 3/32"=1'-0" (11x17)



1 PROPOSED WEST ELEVATION

SCALE: 4' 2' 0 4' 3/16"=1'-0" (FULL SIZE) 3/32"=1'-0" (11x17)

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
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PROFESSIONAL ENGINEER LICENSED 18283 Tim Alexander STATE OF IDAHO TIM ALEXANDER
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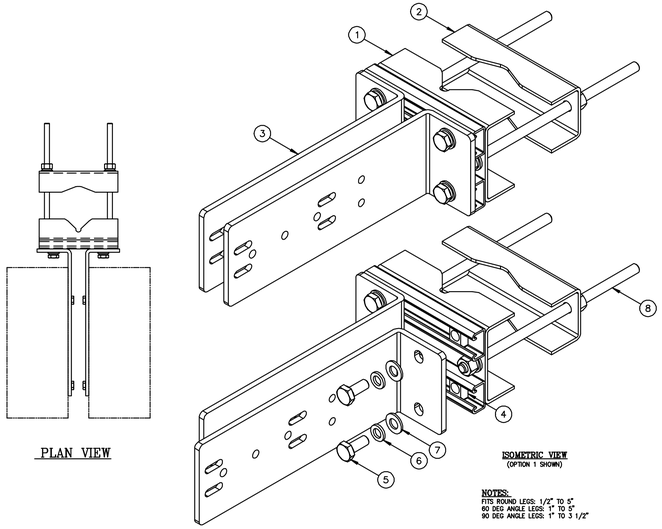
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
PROPOSED MONOPOLE WEST ELEVATION

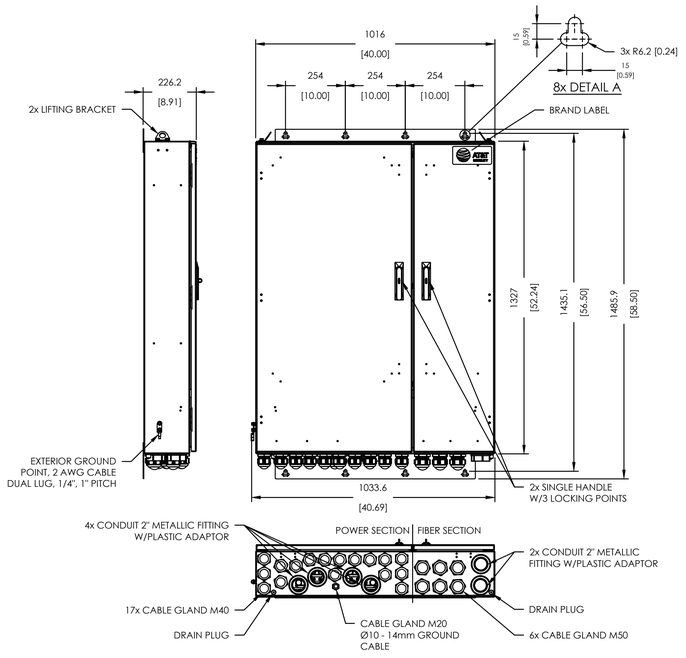
SHEET NUMBER:
A-4.2



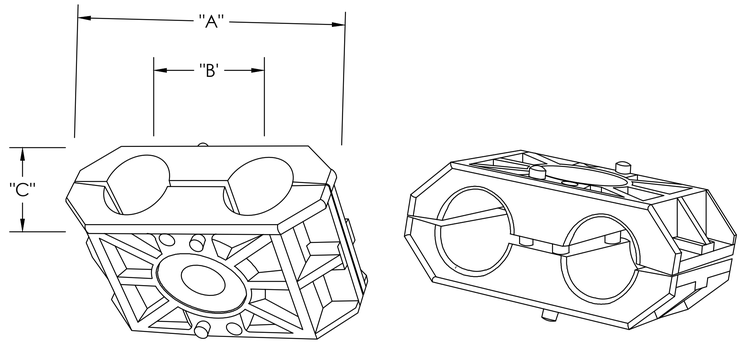
C10123105 UNIVERSAL RRU MOUNT

ITEM	QTY.	PART NO.	DESCRIPTION	WEIGHT
1.	2	CW01192	WELDMENT, FRONT CLAMP	9
2.	2	CS03080	BACK CLAMP	5
3.	4	CS03079	ANGLE, RRU MOUNT	29
4.	8	C40998382	G-STRUT SPRING NUT GN-812 1/2"-13 OR EQUAL	1
5.	8	C40112028	BOLT, 1/2 ø X 1 1/4 S.S.	1
6.	8	C40018003	1/2 ø LOCK WASHER S.S.	1
7.	8	C40020012	1/2 ø FLAT WASHER S.S.	1
8.	4	C40032007	THREADED ROD ASSEMBLY, 1/2 ø X 12 HDG	5
			TOTAL WEIGHT	52

5 DUAL MOUNTING BRACKET
NOT TO SCALE



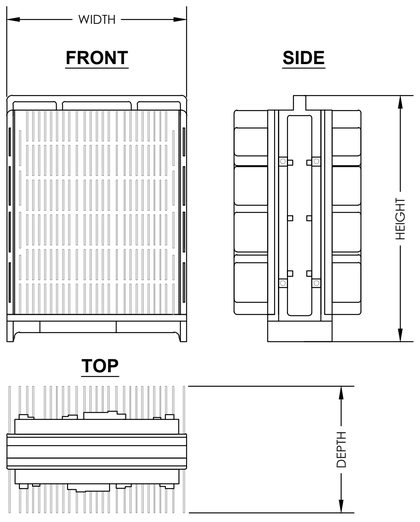
4 DC50 SURGE SUPPRESSOR DETAIL
NOT TO SCALE



PART #	CABLE SIZE & TYPE	U of M	Weight/ 10 pk	A	B	C
CXB4	Fiber Kit (4-6mm)	10 PACK	1.3 lb	2-1/2"	1-1/4"	1"
CXB14-2	1/4" Cable (6-8mm)	10 PACK	0.20 lb	1-1/4"	3/4"	5/8"
CXB38	3/8" Cables & LMR400 (10-12 mm)	10 PACK	0.30 lb	1-5/8"	1"	7/8"
CXB12	1/2" Corrugated (15.5-17.5 mm)	10 PACK	0.60 lb	2-1/4"	1-1/4"	1"
CXB78	7/8" Corrugated (27-29 mm)	10 PACK	1.0 lb	3"	2"	1-1/4"
CXB114	1-1/4" Corrugated (39-42 mm)	10 PACK	1.6 lb	4-1/8"	2-1/2"	1-7/8"
CXB158	1-5/8" Corrugated (50-54 mm)	10 PACK	2.5 lb	5"	2-3/4"	2-1/2"
CXB214	2-1/4" Corrugated (60-65 mm)	10 PACK	3.0 lb	6"	3-1/8"	2-3/4"

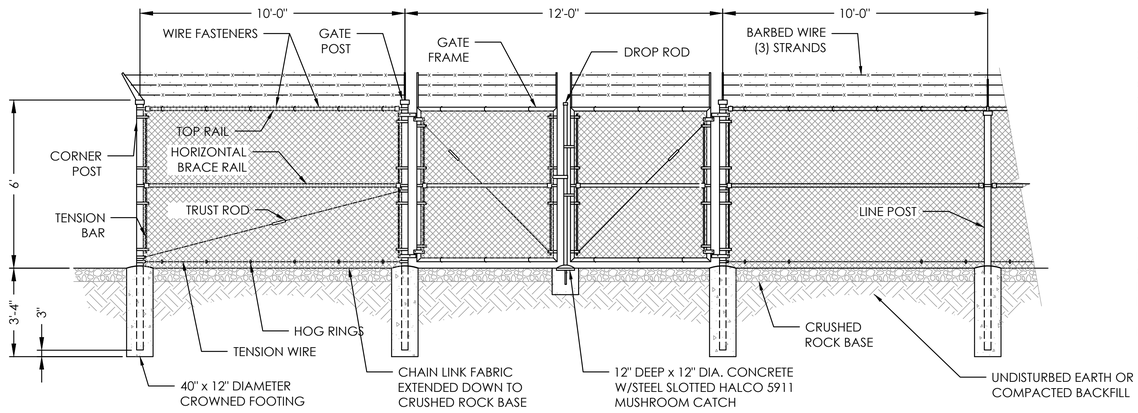
3 JUMPER ATTACHMENT/CABLE BLOCK DETAIL
NOT TO SCALE

RRH MODEL	DIMENSIONS (HXWXD)	WEIGHT(LBS)
ERICSSON 4490 B5/B12	17.5"X15.2"X6.8"	68.4
ERICSSON 4890 B25/B66	17.5"X15.1"X6.9"	69.5
ERICSSON 4415 B30	16.5"X13.5"X5.9"	46.3
ERICSSON 4478 B14	15.0"X13.2"X7.3"	59.4



2 RRH DETAILS
NOT TO SCALE

NOTES:
1. ALL ITEMS TO CONFORM TO ASTM F1083 FOR HOT DIPPED GALV. FENCING, ASTM F800 FOR GATES, ASTM A392-89 FOR FENCE FABRIC CLASS 2 GALV. AND ASTM A121-86 CLASS 3 FOR BARBED WIRE.
2. ALL PIPE TO BE SCHEDULE 40 UNLESS NOTED OTHERWISE
3. ALL ITEM TO BE GALVANIZED PER ASTM F1083
4. HOG RINGS AND WIRE FASTENERS TO BE SPACED NO MORE THAN 20" OC HORIZONTALLY AT 12" OC VERTICALLY
5. BOTTOM TENSION WIRE TO BE NO MORE THAN 4" ABOVE GRADE
6. PROVIDE STRETCHER BAR AND TENSION BANDS AT ALL GATES, GATE POSTS AND CORNER POSTS
7. PROVIDE 1.75" INSIDE DIAMETER, 17 GAGE GALVANIZED TUBE FOR TOP RAIL SPLICE WHERE REQUIRED
8. PROVIDE TURNBUCKLE OR TIGHTENER AT ALL TRUSS RODS AND TENSION WIRES
9. A FROST FREE GATE LATCH WITH CHAIN AND PADLOCK MAY BE USED INSTEAD OF A DROP ROD UPON APPROVAL FROM THE C.M.



SIZES:

CORNER POSTS:	2.875" OD
GATE POSTS:	2.875" OD
LINE POSTS:	1.9" OD, 2.875" W/ SLATS
GATE FRAME:	1.66" OD
DROP ROD:	1.375" OD
BRACE RAIL:	1.66" OD
TOP RAIL:	1.66" OD
TRUSS ROD:	3/8" DIA
TENSION ROD:	7 GAUGE
WIRE FASTENERS:	11 GAUGE
HOG RINGS:	9 GAUGE
CHAIN LINK FABRIC:	9 GAUGE, 2" MESH
PRIVACY SLATS:	6'x2" BROWN
BARBED SUPPORT:	1/4" BAR OR 12 GAUGE FOLD 2.875" OD
BARBED WIRE:	12-1/2" GAUGE W/ 4 POINT 14 GAUGE BARBS AT 5" OC

FENCE WITH BARB

1 CHAIN LINK FENCE DETAIL
NOT TO SCALE

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
A	09/16/21	PRELIMINARY CD'S
B	12/03/21	CLIENT REVISIONS
0	12/24/21	CLIENT REVISIONS
1	01/10/22	CLIENT REVISIONS
2	02/14/22	CLIENT REVISIONS
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

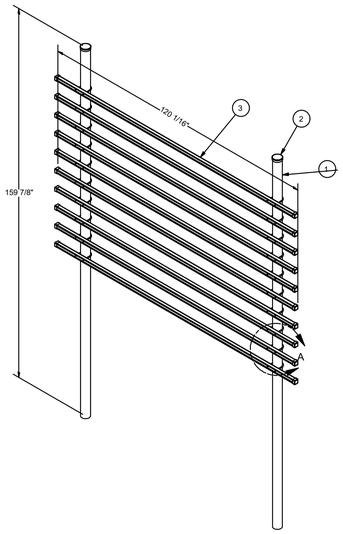
Licensor:
PROFESSIONAL ENGINEER LICENSED
18283
Tim Alexander
STATE OF IDAHO
TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

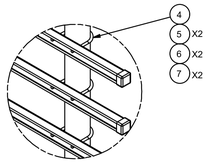
Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
DETAILS

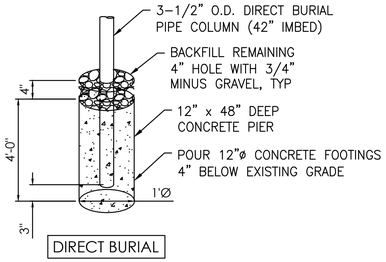
SHEET NUMBER:
A-5

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	P3160	3-1/2" X 160" SCH 40 GALVANIZED PIPE	160 in	101.25	202.50
2	2	PC312	3-1/2" FENCE POST CAP		0.59	1.17
3	10	UNT10	UNISTRUT		20.38	203.79
4	20	X-UB3312	3/8" X 3-1/2" X 4-3/4" X 2" U-BOLT (HDG.)		0.73	14.63
5	40	G38FW	3/8" HDG USS FLATWASHER		0.01	0.47
6	40	G38LW	3/8" HDG LOCKWASHER		0.01	0.27
7	40	G38NUT	3/8" HDG HEAVY 2H HEX NUT		0.03	1.35
8	20	UNICAP	UNISTRUT END CAP		0.03	0.64
				TOTAL WT. #	417.77	

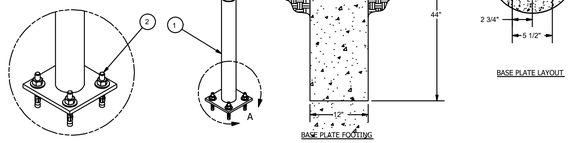




DETAIL A



DIRECT BURIAL

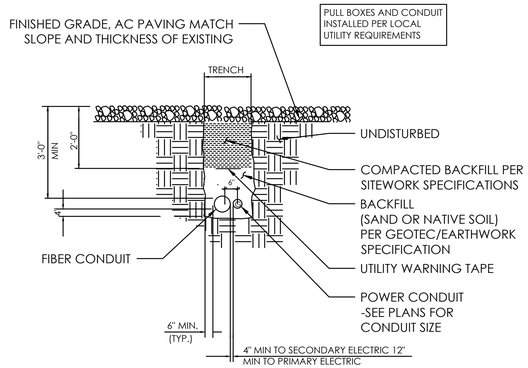


DETAIL A

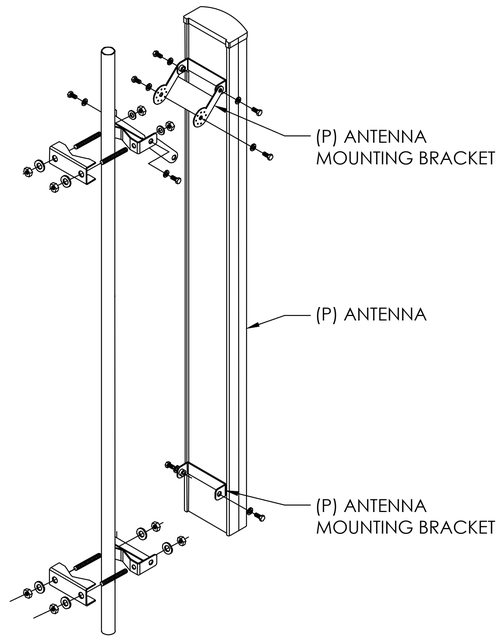
PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	UNIT WT.	NET WT.
1	1	X-SP126	BASE SHOE PLATE PIPE COLUMN	89.00	89.00
2	4	SWA585	5/8" X 5" STAINLESS WEDGE ANCHOR	0.64	2.55
				TOTAL WT. #	91.55

BASE SHOE

6 SITEPRO1 - ER105D H-FRAME DETAIL
NOT TO SCALE

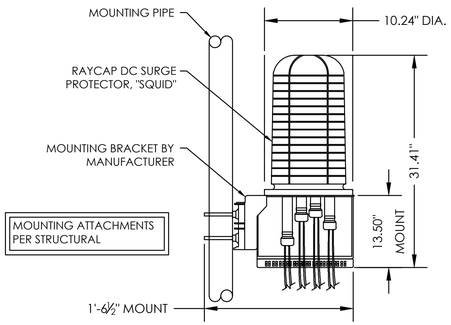


5 CONDUIT TRENCHING DETAIL
NOT TO SCALE



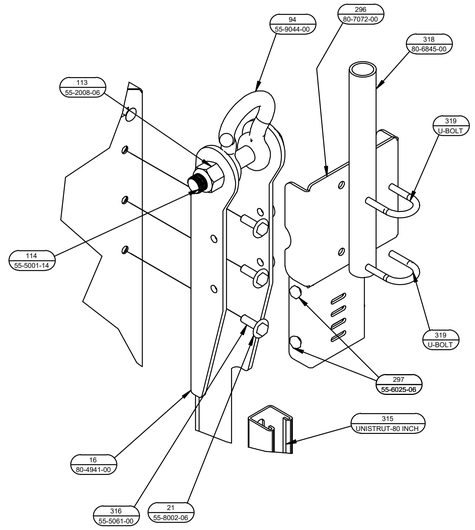
4 ANTENNA MOUNTING DETAILS
NOT TO SCALE

MANUF: RAYCAP
DESC: SURGE PROTECTOR "SQUID" (OR SIMILAR)
MODEL: DC9-48-60-24-8C-EV
WEIGHT: 26.2 LBS



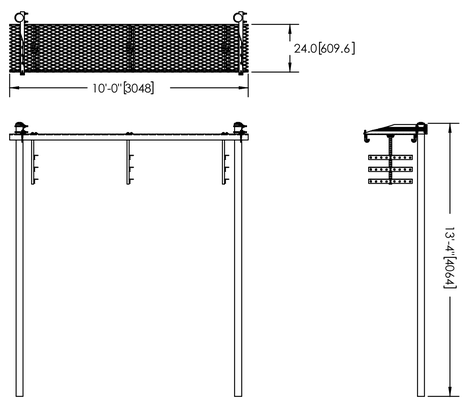
3 SURGE SUPPRESSOR DETAIL
NOT TO SCALE

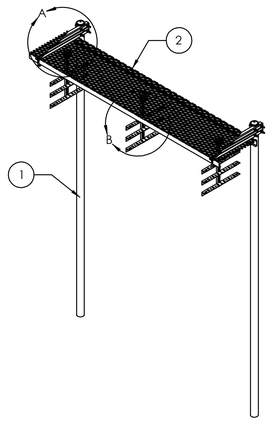
Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
16	4	80-4941-00	LIFTING EYE
21	100	55-8002-06	Washer Flat SS 3/8
94	4	55-9044-00	ANCHOR SHACKLE
113	4	55-2008-06	7/8-14 ZN NYLOCK
114	4	55-5001-14	7/8-14 X 5.00 HHCS
296	4	80-7072-00	GPS MOUNT
297	4	55-6025-06	3/8-16 X 4.5 SS HHCS
315	4	80-7070-00	PAINTED UNISTRUT
316	32	55-5061-00	HHCS ZN 3/8-16 X 1 1/4
318	2	80-6845-00	GPS PIPE MOUNT
319	4	U-BOLT	

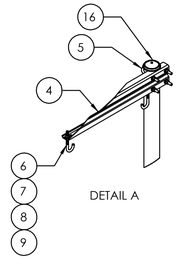


2 GPS MOUNTING DETAIL
NOT TO SCALE

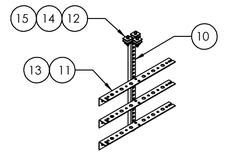
ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT
1	MF-130	Ø3.5" O.D. X 13'-4" DIRECT BURIAL PIPE COLUMN	2	101.38 LBS
2	WB-CY210	SAFETY GRATING 24" X 10'	1	111.00 LBS
3	WBK210BHK	HARDWARE KIT (ITEMS 4-16)	1	
4	WBLB243.08	24" WAVEGUIDE BRIDGE SUPPORT BRACKET	2	7.14 LBS
5	GUB-4356	1/2" X 3-5/8" X 6" GALV U-BOLT KIT	4	0.83 LBS
6	WBJB6	1/2" J-BOLT	4	0.41 LBS
7	GWF-04	1/2" GALV FLAT WASHER	4	0.01 LBS
8	GWL-04	1/2" GALV LOCK WASHER	4	0.01 LBS
9	GN-04	1/2" GALV HEX NUT	4	0.04 LBS
10	WBT243.01	VERTICAL TRAPEZE SECTION	3	2.53 LBS
11	WBT243.02	HORIZONTAL TRAPEZE SECTION	9	2.81 LBS
12	MT-387	SQUARE WASHER, 1-1/2" X 1-5/8" W/ 7/16" HOLE	18	0.12 LBS
13	GB-03105	3/8" X 1" GALV BOLT KIT	18	0.04 LBS
14	GB-03205	3/8" X 2" GALV BOLT KIT	9	0.04 LBS
15	GWF-03	3/8" GALV FLAT WASHER	9	0.01 LBS
16	PC-034	Ø3½" PIPE CAP	2	0.28 LBS







DETAIL A



DETAIL B

NOTES:
1. ALL METRIC DIMENSIONS ARE IN BRACKETS.

1 ICE BRIDGE DETAIL
NOT TO SCALE

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
A	09/16/21	PRELIMINARY CD'S
B	12/03/21	CLIENT REVISIONS
0	12/24/21	CLIENT REVISIONS
1	01/10/22	CLIENT REVISIONS
2	02/14/22	CLIENT REVISIONS
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER
SIGNED: 19 AUG 2024
EXPIRES: 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
DETAILS

SHEET NUMBER:
A-5.1

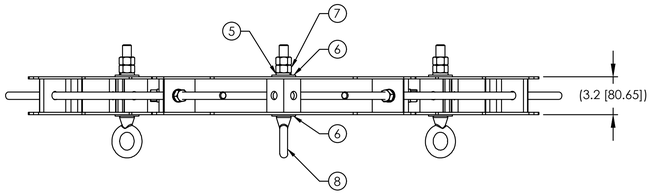
1.0 GENERAL NOTES
- 1.1 ALL METRIC DIMENSIONS ARE IN BRACKETS [X.X]
- 1.2 FOR PATENT INFO: https://www.cs-pat.com

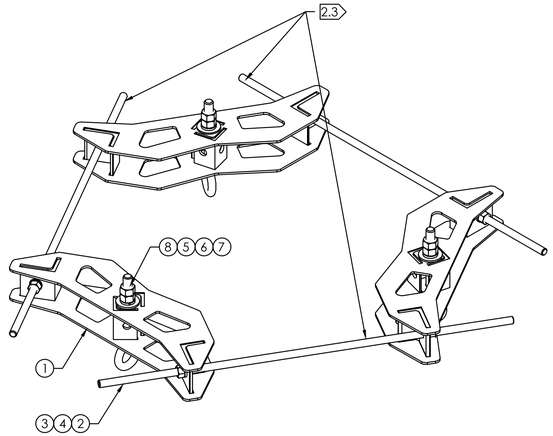
2.0 DESIGN NOTES
- 2.1 ANY HAZARDS OR OBSTRUCTIONS TO THE CLIMBING FACILITY AND SAFETY CLIMB MUST BE IDENTIFIED PRIOR TO INSTALLING THE APPURTENANCE. ADDITIONAL PRODUCTS MAY BE REQUIRED TO MAINTAIN THE INTEGRITY OF THE SAFETY CLIMB. DURING INSTALLATION, TEMPORARY AND/OR PERMANENT PRECAUTIONARY MEASURES SHOULD BE TAKEN TO PRESERVE THE CLIMBING FACILITY AND/OR SAFETY CLIMB
- 2.2 INSTALL SO AS TO NOT UNNECESSARILY OBSTRUCT THE CLIMBING PATH OR CLIMBING FACILITY
- 2.3 THREADED RODS CAN BE CUT BACK POST INSTALLATION TO PREVENT OBSTRUCTION AS PER REQUIREMENTS OF TOWER OWNER
- 2.4 REVIEWED FOR USE WITH A MINIMUM POLE DIAMETER OF 10" WITH WALL THICKNESS OF 3/16" AND A YIELD STRENGTH OF 36 KSI. FOR USE ON THINNER MATERIAL REQUIRES ADDITIONAL ENGINEERING REVIEW

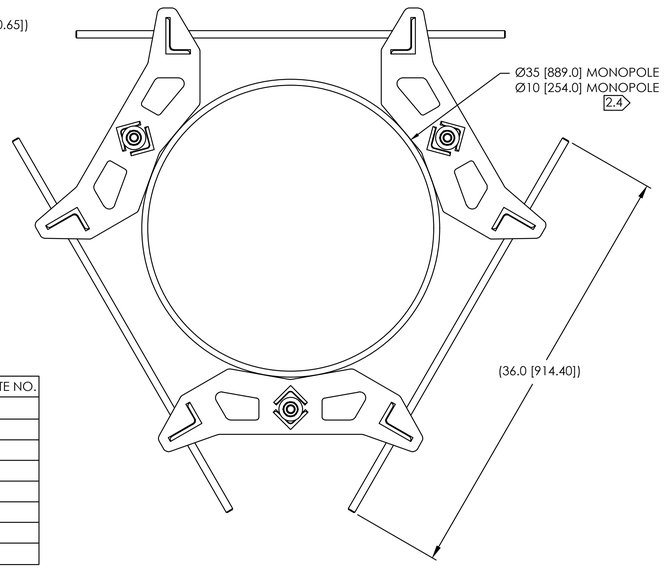
3.0 MANUFACTURING/SPECIAL REQUIREMENTS
- 3.1 TIGHTEN ALL BOLTS SECURING FLAT PLATES BY THE TURN-OF-NUT METHOD. TIGHTEN ALL U-BOLTS USING TURN-OF-NUT METHOD WITH ATTENTION TO LEAVE EQUAL DISTANCE AND EQUAL FORCE ON EACH LEG OF THE U-BOLT

4.0 TEST

5.0 PACKAGING
- 5.1 PACKAGING SHALL MEET COMMSCOPE REQUIREMENTS PER DOCUMENT IS-PL-3005
- 5.2 PRINTED DOCUMENT TO BE PLACED INSIDE POLYBAG AND THEN IN SHIPPING CONTAINER
- 5.3 EXTRA HARDWARE MAY BE SUPPLIED, BAGGED AND SHIPPED







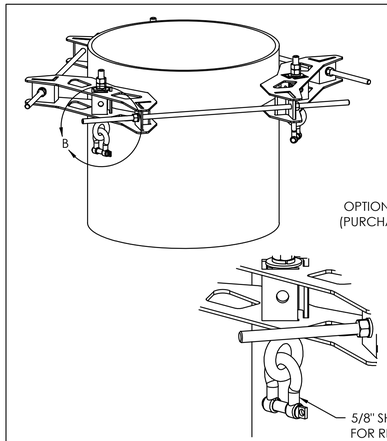
NOTE: 1 - MAXIMUM NET CABLE WEIGHT FOR STRAIGHT POLES:
- A - PER EYEBOLT = 750 LBS
- B - PER MOUNT = 2250 LBS

2 - MAXIMUM NET CABLE WEIGHT FOR TAPERED POLES:
- A - PER EYEBOLT = 1000 LBS
- B - PER MOUNT = 3000 LBS

3 - REVIEWED FOR USE WITH A MINIMUM POLE DIAMETER OF 10" WITH WALL THICKNESS OF 3/16" AND A YIELD STRENGTH OF 36 KSI. FOR USE ON THINNER MATERIAL REQUIRES ADDITIONAL ENGINEERING REVIEW

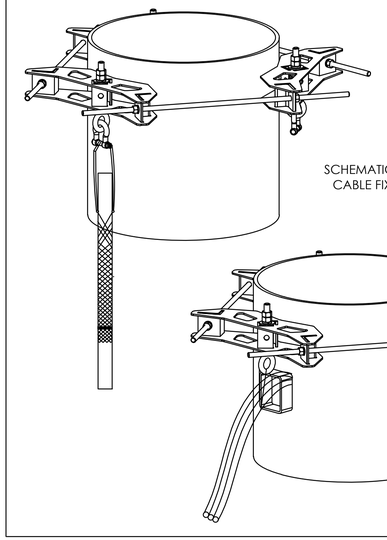
COMPONENT PART NUMBERS PROVIDED FOR ASSEMBLY PURPOSES;
INDIVIDUAL COMPONENTS MAY BE SHIPPED AS PARTS WITHIN AN INCLUDED KIT.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	WEIGHT	NOTE NO.
1	MTC8606-02-00	HG ANCHOR, MONOPOLE MOUNT WELDMENT	3	12.45 LBS	
2	MT-382-36	5/8" X 36" GALV THREADED ROD	3	3.11 LBS	
3	GN-05	5/8" GALV HEX NUT	6	0.08 LBS	
4	GWL-05	5/8" GALV LOCK WASHER	6	0.03 LBS	
5	GWL-06	3/4" GALV LOCK WASHER	3	0.04 LBS	
6	GWF-06	3/4" GALV FLAT WASHER	6	0.10 LBS	
7	GN-06	3/4" GALV HEX NUT	3	0.15 LBS	
8	9674-4	BOLT,EYE,3/4X6,STL,GALV	3	0.20 LBS	



OPTIONAL ACCESSORIES (PURCHASED SEPARATELY)

DETAIL B
SCALE 1:3



SCHEMATIC DIAGRAM OF CABLE FIXING METHOD

1 COMMSCOPE - 860669616-1035 HOISTING GRIP DETAIL
NOT TO SCALE

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
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3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

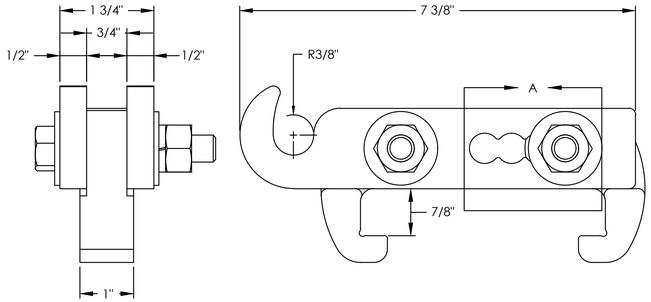
Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

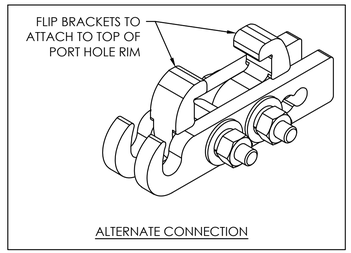
Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:

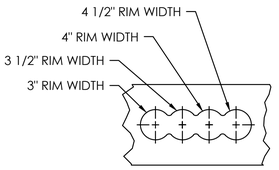
SHEET NUMBER:
A-5.2

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-HHR-HANGH	1" MILL PLATE (A572 GR50)	12 in	1.14	2.29
2	2	X-HHR-HANGL	1/2" MILL PLATE (A572 GR.50)	12 in	1.34	2.68
3	2	G1203	1/2" x 3" HDG HEX BOLT GR5 FULL THREAD	3 in	0.22	0.43
4	4	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.14
5	2	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.03
6	2	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.14
					TOTAL WT. #	5.71

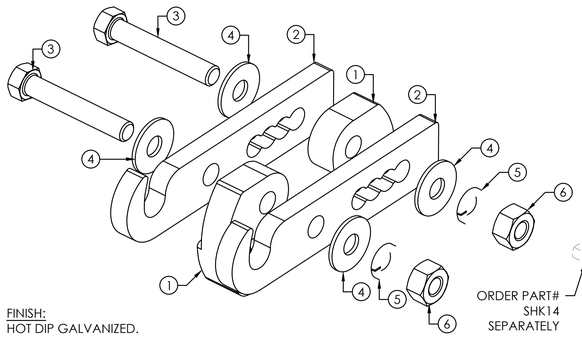




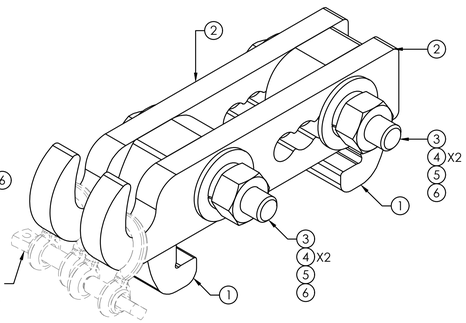
ALTERNATE CONNECTION



DETAIL A
BOLT PLACEMENT



FINISH:
HOT DIP GALVANIZED.



ORDER PART#
SHK14
SEPARATELY

1 SITEPRO1 - PHH-AL PORT HOLE HANGER KIT DETAIL
NOT TO SCALE

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
A	09/16/21	PRELIMINARY CD'S
B	12/03/21	CLIENT REVISIONS
0	12/24/21	CLIENT REVISIONS
1	01/10/22	CLIENT REVISIONS
2	02/14/22	CLIENT REVISIONS
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

Licensor:
PROFESSIONAL ENGINEER LICENSED
18283
STATE OF IDAHO
TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

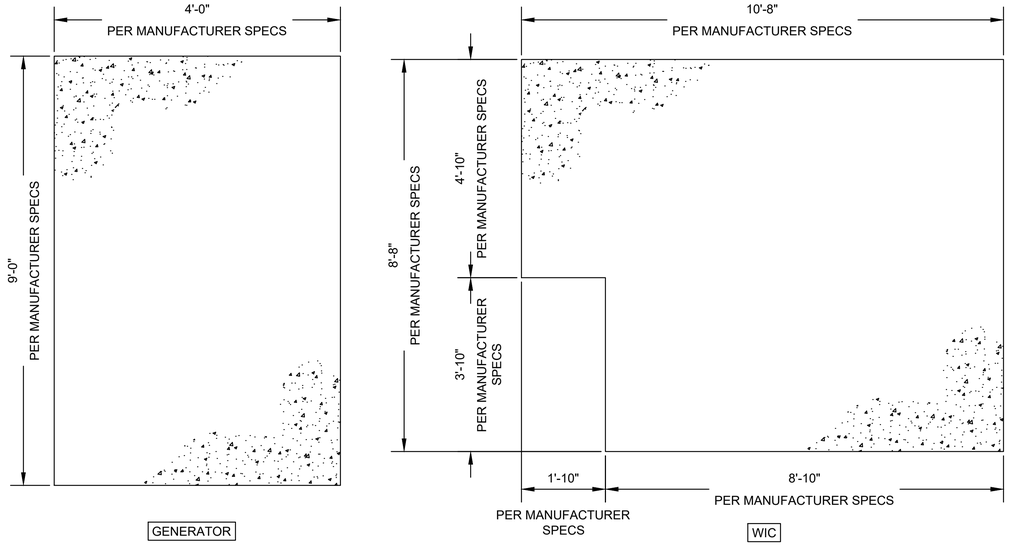
Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:

SHEET NUMBER:
A-5.3

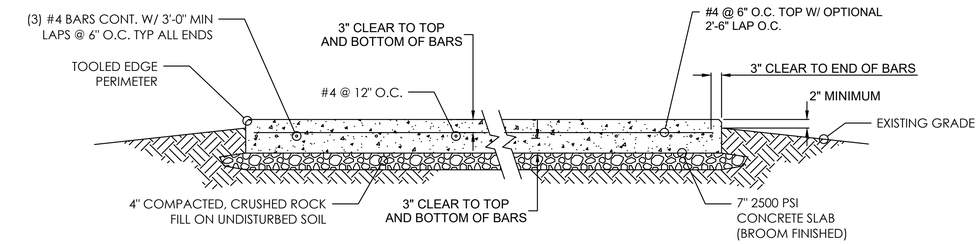
NOTES:

1. ALL DIMENSIONS OF SHELTER SHALL MATCH MANUFACTURER PROVIDED SPECIFICATIONS
2. ALL REQUIRED TIE DOWN PLATES, SHIMS, BOLTS, AND ANCHORS SHALL BE PLACED INSIDE SHELTER PRIOR TO SHIPMENT FROM MANUFACTURER
3. SLOPE GRADE AWAY FROM FOUNDATION.
4. SLAB DIMENSIONS, ORIENTATION, AND LOCATION OF STOOP TO MATCH CABINET MODEL AND DETAILS
5. GENERATOR CONCRETE PAD SHALL MATCH DETAILS AND DIMENSIONS OF THE PROVIDED GENERAC MODEL



4 FOUNDATION DETAILS
NOT TO SCALE

NOTE:
1. VERIFY GENERATOR AND OR PROPANE TANK SPECS PRIOR TO CONSTRUCTION.
2. FROST DEPTH NOT CONSIDERED PER IBC 2013 SECTION 1809.5 EXCEPTION 2 (FREE STANDING BUILDINGS WITH 400 SQUARE FEET OR LESS FOR OTHER THAN LIGHT-FRAMED CONSTRUCTION)
3. INSTALL (4) HILTI HSL-3M12 ANCHOR BOLTS WITH AN EFFECTIVE EMBEDMENT DEPTH OF 3.15" (SURFACE FLATNESS MAX ¼" IN 10'-0")
4. FIELD VERIFY EXISTING CONDITIONS.



3 FOUNDATION SECTION DETAIL
NOT TO SCALE

2 NOT USED
NOT TO SCALE

1 NOT USED
NOT TO SCALE

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
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Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 TIM ALEXANDER STATE OF IDAHO
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

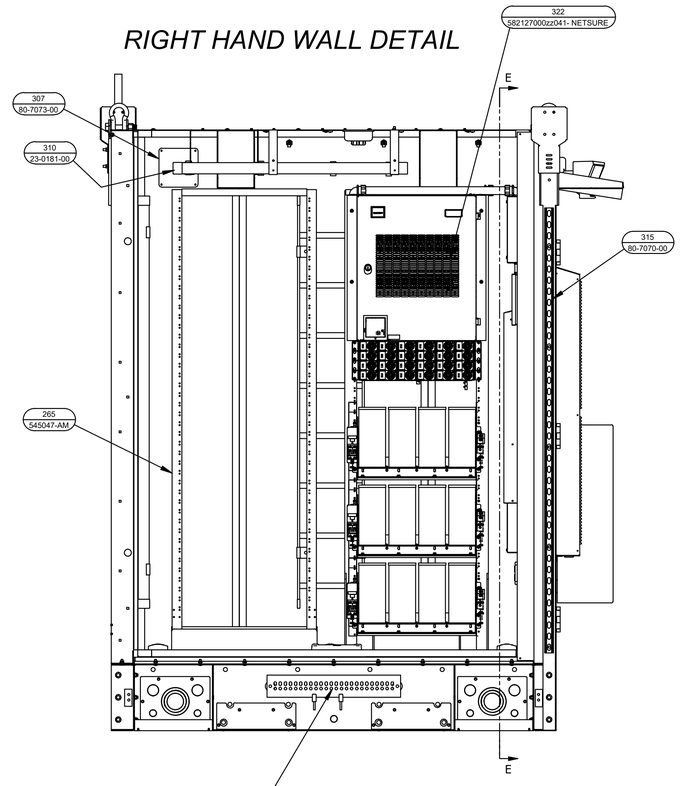
Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
STRUCTURAL PLAN & DETAILS

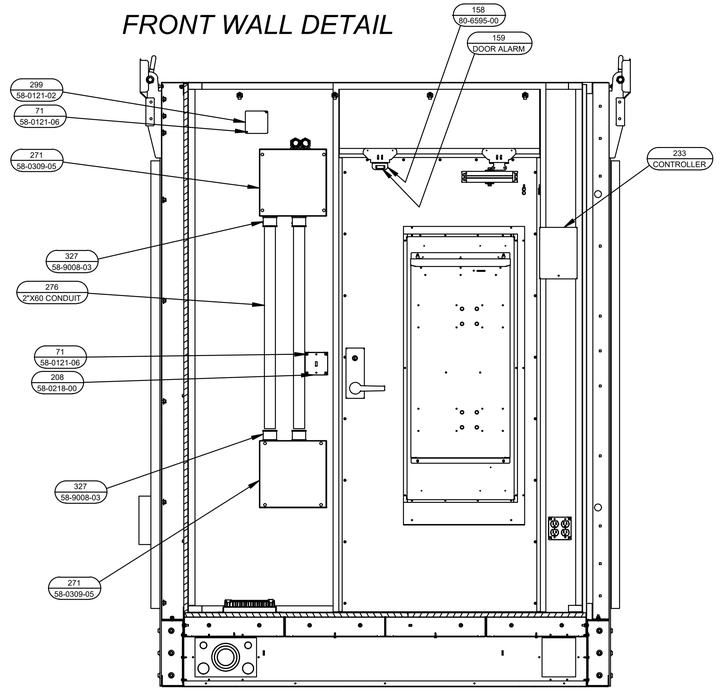
SHEET NUMBER:
S-1

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	50-2024-00	80x80 BASE
7	1	80-4919-00	SHELTER WALL PANEL
8	1	80-7228-00	SHELTER WALL PANEL
9	1	80-7223-00	SHELTER WALL PANEL
10	13	55-6010-02	CARRIAGE BOLT SS 5/16-18 X 1
11	181	55-2002-03	NUT HEX FLANGED SS 5/16
12	1	72-0624-00	LH SUB FLOOR
13	1	72-0625-00	RH SUB FLOOR
16	4	80-4941-00	LIFTING EYE
17	168	55-6010-03	CARRIAGE BOLT SS 5/16-18 X 3/4
18	9	55-2019-00	5/16-18 NUTSERT - SEALING
19	12	55-6006-06	3/8-16 x 1.25 SS HHCS
20	1	55-6006-10	3/8-16 x 1.00 SS HHCS
21	100	55-8002-06	Washer Flat SS 3/8
22	45	55-2000-03	NYLOCK NUT SS 3/8-16
24	1	72-0634-00	MELAMINE PANEL
25	1	72-0633-00	MELAMINE PANEL
28	1	72-0626-00	MELAMINE PANEL
32	1	TILE FLOOR-ATT	TILE FLOOR
39	4	55-8001-00	Washer Split Ring SS 1/4
45	2	80-7232-00	CELING PANEL
46	1	80-7235-00	SHELTER CELING PANEL
47	6	55-2033-00	NUTSERT AHS4-420-165
48	1	50-1809-00	80x80 ROOF ASSY
52	1	30-0013-02	
59	8	58-0049-05	LADDER RACK HORIZONTAL TEE
61	5	80-4879-00	LADDER RACK BRKT
71	5	58-0121-06	4S BOX, DBL GANG, 2-1/8" DEEP W/DIMPLE
76	1	80-7236-00	SHELTER CELING PANEL
79	4	556731-LIGHT	4 LED LIGHT ASSY
86	7	TRIM-1	
87	8	80-4914-00	SHELTER CORNER TRIM
88	12	TRIM-3	
89	4	TRIM-4	
94	4	55-9044-00	ANCHOR SHACKLE
98	1	80-7240-00	36" THRESHOLD
99	1	80-4896-NP	AWNING - SHELTER
105	8	55-6009-01	SCREW TEK SS #12 X 3/4
113	4	55-2008-06	7/8-14 ZN NYLOCK
114	4	55-5001-14	7/8-14 X 5.00 HHCS
120	1	72-0304-01	MELAMINE PANEL
126	4	55-8001-09	Washer Split Ring SS 3/8
132	1	58-0142-11	.25 X 2 X 14 GRD BAR
158	1	80-6595-00	DOOR ALARM BRKT
159	1	DOOR ALARM	
179	1	TRIM-16.725	
203	1	80-7233-00	SHELTER CELING PANEL
204	1	80-7234-00	SHELTER CELING PANEL
208	1	58-0218-00	LIGHT SWITCH COVER 4" SQ
209	1	80-7222-00	SHELTER WALL CORNER
211	1	80-7225-00	WALL CORNER
212	1	80-7224-00	SHELTER WALL PANEL
213	4	80-7226-00	CORNER SUPPORT
214	1	80-7227-00	WALL CORNER
217	1	80-7230-00	TOP DOOR SEAL CHNL
218	2	80-6941-00	SIDE DOOR SEAL CHNL
219	32	12-24_CAGE_NUT	12-24 CAGE NUT
220	20	55-5104-00	SCREW FHPH SS 12-24 X 1"
221	2	58-0191-14	COMP LUG 10AWG, 2 HOLE, 10 STUD, 5/8 CTR
222	4	55-6006-03	Screw HHCS SS 1/4-20 x 3/4
223	1	72-0627-00	MELAMINE HDR PANEL
224	1	72-0628-00	MELAMINE PANEL
225	1	72-0629-00	MELAMINE PANEL
226	2	72-0630-00	MELAMINE PANEL
228	4	55-2036-00	AHS4-616-150BS NUTSERT
229	1	72-0631-00	TELCO BOARD-WHITE
233	1	CONTROLLER	
236	1	58-9058-00	FOLD DOWN DESK
237	1	ECUA12ACA-AC	SLIMPAC 1
238	1	50-2017-00	36" DOOR FRAME
240	4	80-7237-00	A/C WALL SUPPORT
241	2	80-7238-00	A/C WALL SUPPORT
242	2	80-7239-00	A/C WALL SUPPORT
243	26	53-0012-00	RIVET POP SS/SS ,187 X ,126-.250 CE
244	1	50-2019-00	36" DOOR ASSEMBLY
245	1	80685	SUPPLY GRILL
246	1	80680	RETURN GRILL
247	2	58-0142-17	ROSENBERGER GRB-ATTG0424PUNI
253	1	58-0122-04	1/2" RAISED GFCI COVER 4" SQ
254	2	58-0224-07	20A RECEPT
265	2	545047-AM	
267	5	80-7217-00	ROXTEC MNT PLATE
268	2	72-0632-00	MELAMINE PANEL
269	1	2349062-LOUVER	FRAME: TOP & BOTTOM
271	2	58-0309-05	12X12X4 PULL BOX
276	2	2"X60 CONDUIT	2" EMT
277	1	EXT WALL LOUVER	
278	1	HVAC CONTROL BOX	
280	2	58-0058-02	EXT. LED MOTION LIGHT
281	12	25-0005-00	HALO STANDOFF CLAMPS - 1"
282	1	GROUND LOOP	
288	4	58-0057-02	1" inch 90 degree liquidtight non-metallic fitting
289	1	1X3 CARFLEX	
290	1	1X26 CARFLEX	
293	2	INT-EXT GRD CABLE	
296	4	80-7072-00	GPS MOUNT
297	4	55-6025-06	3/8-16 X 4.5 SS HHCS
298	4	55-2002-07	Nut Hex SS 3/8-16
299	3	58-0121-02	COVER F/4" SQ BOX
302	2	58-0264-04	ROXTEC EZENTRY 4/4
306	1	72-0635-00	MELAMINE PANEL
307	2	80-7073-00	COVER PLATE
310	2	23-0181-00	FLEXIBLE PLASTIC PLUG 1-1/2"
313	1	ALARM BLOCK-ATT	
314	3	80-7075-00	RACK BRACE
315	4	80-7070-00	PAINTED UNISTRUT
316	32	55-5061-00	HHCS ZN 3/8-16 X 1 1/4
318	2	80-6845-00	GPS PIPE MOUNT
319	4	U-BOLT	
320	4	58-0049-32	AUX CABLE RACK BRKT
321	1	SMOKE DETECTER	
322	1	582127000zz041- NETSURE	
326	1	55-9304-03	2" x 7" PIPE NIPPLE
327	4	58-9008-03	2" EMT BOX CONNECTOR
328	2	58-0271-02	2" LOCK RING
329	2	55-9383-01	2" PLASTIC PIPE BUSHING
335	9	55-6006-34	1/2-13 X 2.5 SS HHCS
337	9	55-8001-12	.50 SS LOCK WASHER
338	9	80-6847-00	1/2" ID X 2" OD SS WASHER
339	1	58-0309-04	SCE-24EL2408LP
340	7	58-0191-09	COMP LUG #2, 2 HOLE,STRNDED, 2 HOLE SHRT
341	5	58-0264-03	ROXTEC EZENTRY 16/16
343	2	80-7038-00	SIDE AC SEAL
344	1	80-7039-00	TOP AC SEAL
345	1	LOAD CENTER	
346	2	80-7035-00	LIGHT MNT PLATE
347	1	80-7036-00	WALL SLEEVE
348	2	58-0027-00	RECEPTACLE BOX GFCI W/MOUNTING EARS
349	16	55-2033-01	1/4-20 NUTSERT - CLOSED END
350	16	90-0017-00	1/4-20 x 1.00 SS SECURITY BOLT
351	16	55-9212-00	1/4" SEALING WASHER
352	24	58-0049-44	2" CABLE RACK END CAPS
353	16	58-0049-45	WALL BRKT F/2" CABLE RACK
354	4	58-0049-46	LADDER RACK 2" X 57/58" SOLID
355	2	58-0049-47	LADDER RACK 2" X 47/48" SOLID
356	1	58-0049-48	LADDER RACK 2" X 25" SOLID

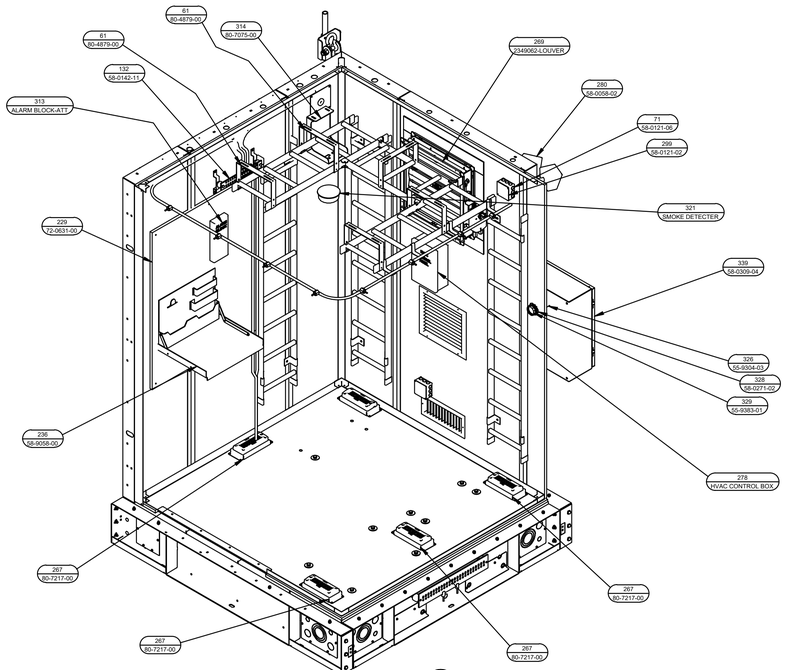
RIGHT HAND WALL DETAIL



FRONT WALL DETAIL

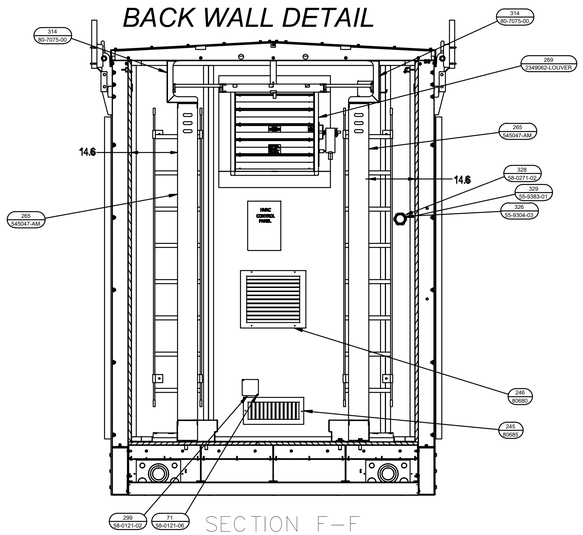


SECTION E-E



1 WIC DETAILS
NOT TO SCALE

BACK WALL DETAIL



SECTION F-F

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
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PREPARED FOR:
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A&E:
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Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 Jim Alexander STATE OF IDAHO TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
WIC DETAILS

SHEET NUMBER:
S-2

SD030 | 2.2L | 30 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

Standby Power Rating
30 kW, 38 kVA, 60 Hz

Prime Power Rating*
27 kW, 34 kVA, 60 Hz

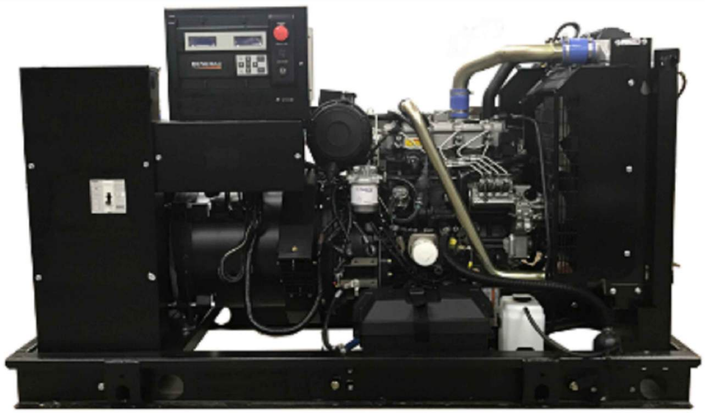

Image used for illustration purposes only

*EPA Certified Prime ratings are not available in the US or its Territories

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.

- UL2200, UL508, UL489, UL142
- CSA C22.2
- BS5514 and DIN 6271
- SAE J1349
- NFPA 37, 70, 99, 110
- NEC700, 701, 702, 708
- ISO 3046, 7637, 8528, 9001
- NEMA ICS10, MG1, 250, ICS6, AB1
- ANSI C62.41

Powering Ahead

For over 50 years, Generac has provided innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial applications under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

SD030 | 2.2L | 30 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)
- Critical Silencer (Enclosed Unit Only)
- Engine Coolant Heater

Fuel System

- Fuel Lockoff Solenoid
- Primary Fuel Filter

Cooling System

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene Glycol Antifreeze

Electrical System

- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor

ALTERNATOR SYSTEM

- UL2200 GENprotect™
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Brushless Excitation
- Sealed Bearing
- Rotor Dynamically Spin Balanced
- Amortisseur Winding (3-Phase Only)
- Full Load Capacity Alternator
- Protective Thermal Switch

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Unit Only)

ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuation Enclosures)
- Gasketed Doors
- Stamped Air-Intake Louvers
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ - Textured Polyester Powder Coat Paint

FUEL TANKS (If Selected)

- UL 142/ULC S601
- Double Wall
- Normal and Emergency Vents
- Sloped Top
- Sloped Bottom
- Factory Pressure Tested
- Rupture Basin Alarm
- Fuel Level
- Check Valve In Supply and Return Lines
- RhinoCoat™- Textured Polyester Powder Coat Paint
- Stainless Steel Hardware

CONTROL SYSTEM

Digital H Control Panel- Dual 4x20 Display

Program Functions

- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- All Phase Sensing Digital Voltage Regulator
- 2-Wire Start Capability
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/Sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus® Protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

Full System Status Display

- Power Output (kW)
- Power Factor
- kW Hours, Total, and Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency

Alarms and Warnings

- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Overspeed
- Battery Voltage
- Alarms and Warnings Time and Date Stamped
- Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

1 GENERATOR DETAILS
NOT TO SCALE

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
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8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
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Licensor:
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SIGNED: 19 AUG 2024
EXPIRES: 28 FEB 2025

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
GENERATOR DETAILS

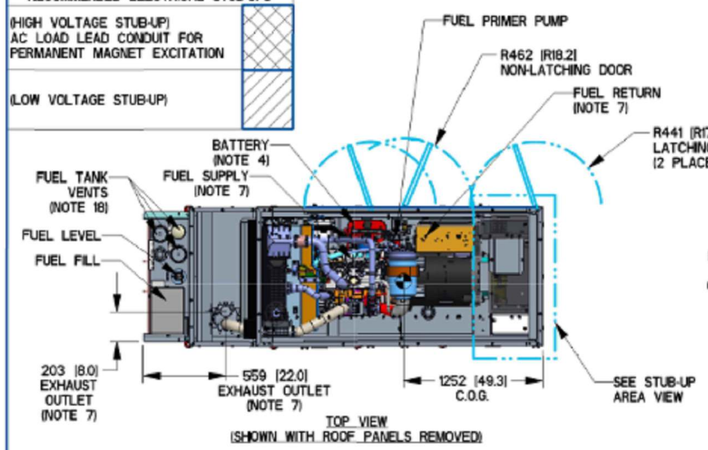
SHEET NUMBER:
S-3

SH 1/1 | REV B | WINDCHILL VERSION B.4

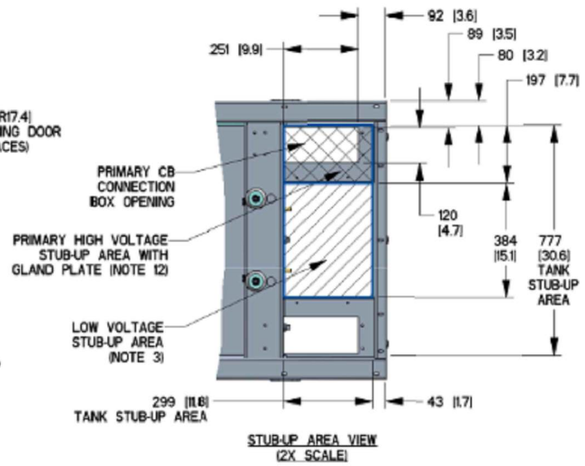
RECOMMENDED ELECTRICAL STUB-UPS

(HIGH VOLTAGE STUB-UP)
AC LOAD LEAD CONDUIT FOR PERMANENT MAGNET EXCITATION

(LOW VOLTAGE STUB-UP)

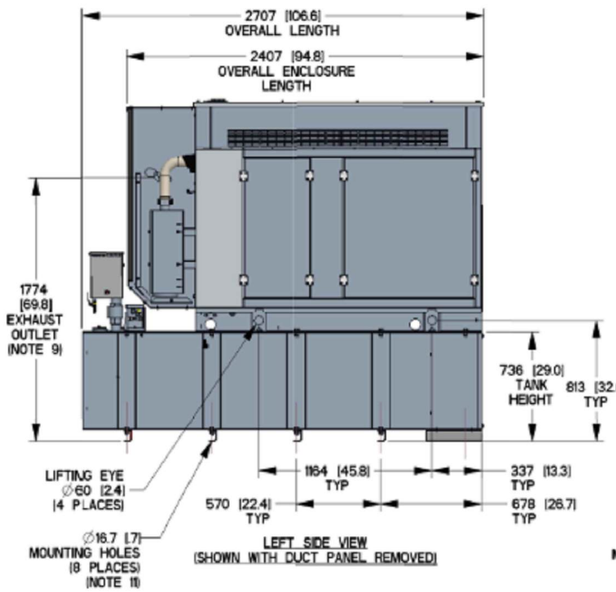


TOP VIEW
(SHOWN WITH ROOF PANELS REMOVED)

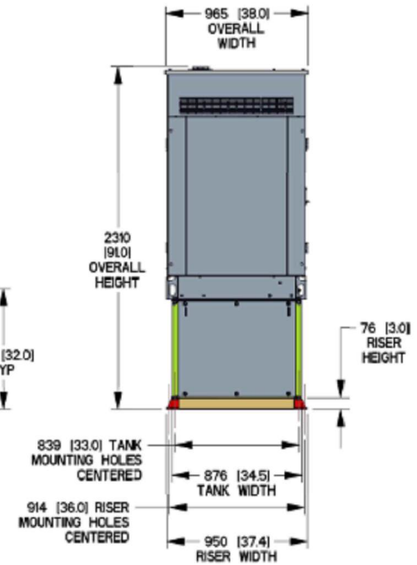


STUB-UP AREA VIEW
(2X SCALE)

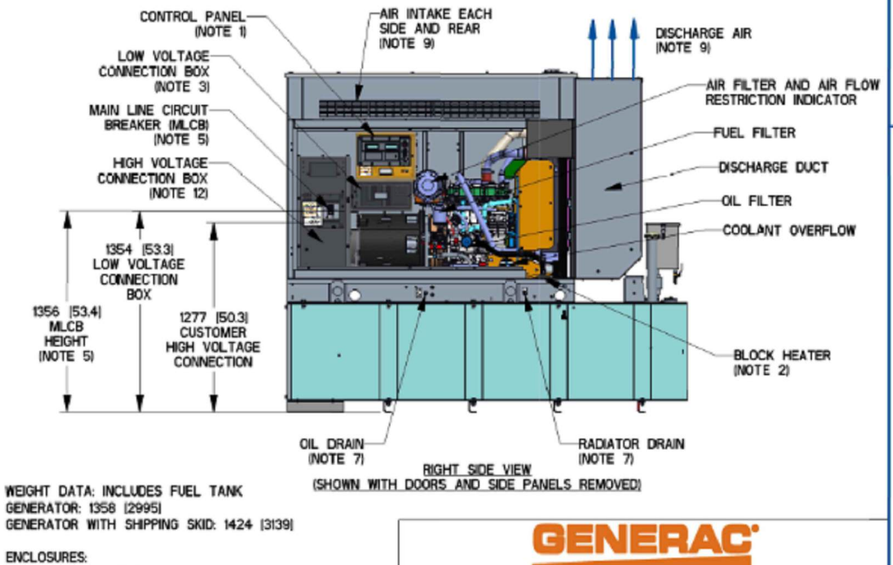
NOTES:
1. CONTROL PANEL (10A BATTERY CHARGER INSIDE)
2. 120V, 20A GFCI & 250V, 15A OUTLET
3. CONNECTION POINTS FOR CONTROL WIRES PROVIDED IN THE LOW VOLTAGE CONNECTION BOX (USE LOW VOLTAGE STUB-UP AREA)
4. BATTERY (12 VOLT NEGATIVE GROUND SYSTEM).
5. MAIN LINE CIRCUIT BREAKER (MLCB) (MLCB HEIGHT MAY VARY WITH CB SELECTION). AC LOAD LEADS CONNECT DIRECTLY TO BOTTOM OF BREAKER.
6. CENTER OF GRAVITY AND WEIGHT MAY SHIFT SLIGHTLY DUE TO UNIT OPTIONS
7. ENGINE SERVICE CONNECTIONS:
   FUEL SUPPLY : 3/8" NPT
   FUEL RETURN : 3/8" NPT
   OIL DRAIN : 1/2" NPT
   RADIATOR DRAIN : 1/2" NPT
   EXHAUST OUTLET : 2.5" I.D.
8. STUB-UPS: BASE TANK REQUIRES ALL STUB-UPS TO BE IN THE REAR TANK STUB-UP AREA.
9. GENERATOR SET MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND DISCHARGE AIR IS NOT RECIRCULATED. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
10. BOTTOM OF GENERATOR SET MUST BE CLOSED TO PREVENT PEST INTRUSION AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
11. BOLTS OR STUDS USED TO MOUNT UNIT TO PAD SHALL BE 5/8-11 GRADE 5. USE STANDARD SAE TORQUE SPECS.
12. HIGH VOLTAGE STUB-UP AREA INCLUDES THE AC LOAD LEAD CONNECTIONS TO MLCB, NEUTRAL CONNECTION AND AUXILIARY 120/240V CONNECTION.
13. 190 GALLON USEABLE CAPACITY BASETANK STANDARD WITH GENERATOR
14. 1500W 120 VAC ENGINE BLOCK HEATER WITH THREE PRONG CORD.
15. FUEL LINES ARE PLUMBED DIRECTLY TO BASE TANK
16. DOORS MUST BE ABLE TO OPEN AT LEAST 90° TO BE REMOVED.
17. GENERATOR MUST BE GROUNDED
18. 12 FOOT VENT IS OPTIONAL



LEFT SIDE VIEW
(SHOWN WITH DUCT PANEL REMOVED)



REAR VIEW



RIGHT SIDE VIEW
(SHOWN WITH DOORS AND SIDE PANELS REMOVED)

WEIGHT DATA: INCLUDES FUEL TANK
GENERATOR: 1358 [2995]
GENERATOR WITH SHIPPING SKID: 1424 [3139]

ENCLOSURES:
STEEL L2A: 231 [509]
ALUMINUM L2A: 77 [170]

WEIGHT: KG [LBS]
DIMENSIONS: MM [INCHES]

DRAWING CREATED FROM PRO/ENGINEER 3D FILE. ECO MODIFICATION TO BE APPLIED TO SOLID MODEL ONLY.

INSTALLATION DRAWING

ELECTRONICALLY APPROVED
INSIDE WINDCHILL

GENERAC

TITLE
INSTALL D2.2L G22
30KW SSS L2A Y01 EXT

ISSUE DATE:	12/18/17		
SIZE B	CAGE NO N/A	DWG NO 10000019290	REV B
SCALE 0.030	WT-KG SEE ABOVE	SHEET 1 of 1	

1 GENERATOR DETAILS
NOT TO SCALE

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
A	09/16/21	PRELIMINARY CD'S
B	12/03/21	CLIENT REVISIONS
0	12/24/21	CLIENT REVISIONS
1	01/10/22	CLIENT REVISIONS
2	02/14/22	CLIENT REVISIONS
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER
SIGNED: 19 AUG 2024
EXPIRES: 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
GENERATOR DETAILS

SHEET NUMBER:
S-4

GENERAC | INDUSTRIAL POWER

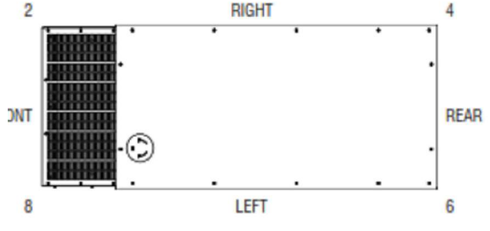
LEVEL 2 SOUND ATTENUATED ENCLOSURE
SD030 2.2L GENERAC

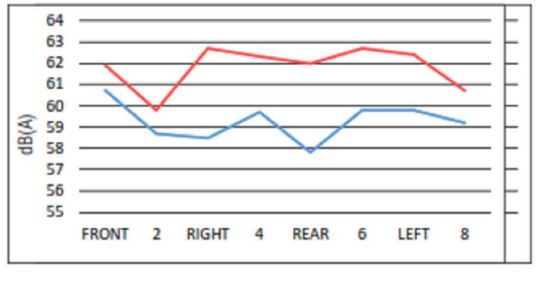
60Hz NO-LOAD, dB(A) — **DISTANCE: 7 METERS**

MICROPHONE LOCATION	OCTAVE BAND CENTER FREQUENCY (Hz)									
	31.5	63	125	250	500	1,000	2,000	4,000	8,000	dB(A)
1, FRONT	21	42	50	59	53	52	49	46	36	61
2	20	37	48	56	53	54	49	45	37	59
3, RIGHT	19	41	52	55	52	52	49	48	38	59
4	18	53	48	56	54	51	49	44	34	60
5, REAR	16	54	49	52	51	50	47	41	31	58
6	17	55	47	55	52	54	49	45	38	60
7, LEFT	21	54	50	54	53	53	50	46	38	60
8	20	46	47	52	55	55	50	44	38	59
AVERAGE	**19**	**48**	**49**	**55**	**53**	**53**	**49**	**45**	**36**	**59**

60Hz FULL-LOAD, dB(A) — **DISTANCE: 7 METERS**

MICROPHONE LOCATION	OCTAVE BAND CENTER FREQUENCY (Hz)									
	31.5	63	125	250	500	1,000	2,000	4,000	8,000	dB(A)
1, FRONT	23	54	52	60	54	52	49	46	36	62
2	21	48	49	55	55	54	49	46	38	60
3, RIGHT	20	50	59	59	54	52	50	50	37	63
4	20	59	49	58	55	52	48	46	35	62
5, REAR	21	60	51	55	54	51	47	41	31	62
6	20	60	49	58	53	53	52	46	38	63
7, LEFT	20	59	55	55	52	54	51	47	39	62
8	21	54	51	54	55	55	50	45	37	61
AVERAGE	**21**	**56**	**52**	**57**	**54**	**53**	**49**	**46**	**36**	**62**





- All positions at 23 feet (7 meters) from side faces of generator set.
- Test conducted on a 100 foot diameter asphalt surface.
- Sound pressure levels are subject to instrumentation, installation and testing conditions.
- Sound levels are ±2 dB(A)

GENERAC | INDUSTRIAL POWER

STATEMENT OF EXHAUST EMISSIONS
2020 PERKINS DIESEL FUELED GENERATOR

Generator Model:	**SD030**	EPA Certificate Number:	**LH3XL2.22TCC-007**
kW_e Rating:	**30**	CARB Certificate Number:	**Not Required**
Engine Family:	**LH3XL2.22TCC**	SCAQMD CEP Number:	**Not Required**
Engine Model:	**404D-22TAG**	Emission Standard Category:	**Tier 4 Interim**
Rated Engine Power (BHP)*:	**48.8**	Certification Type:	**Stationary Emergency CI (40 CFR Part 60 Subpart IIII)**
Fuel Consumption (gal/hr)*:	**2.77**		
Aspiration:	**Turbo/Aftercooled**		
Rated RPM:	**1800**		

*Engine Power and Fuel Consumption are declared by the Engine Manufacturer of Record and the U.S. EPA.

Emissions based on engine power of specific Engine Model.
(These values are actual composite weighted exhaust emissions results over the EPA 5-mode test cycle.)

CO	NOx + NMHC	PM	
0.72	5.08	0.116	Grams/kW-hr
0.54	3.79	0.087	Grams/bhp-hr

- The stated values are actual exhaust emission test measurements obtained from an engine representative of the type described above.
- Values based on 5mode testing are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted in accordance with prevailing EPA protocol, which is typically accepted by SCAQMD and other regional authorities.
- No emissions values provided above are to be construed as guarantees of emission levels for any given Generac generator unit.
- Generac Power Systems, Inc. reserves the right to revise this information without prior notice.
- Consult state and local regulatory agencies for specific permitting requirements.
- The emission performance data supplied by the equipment manufacturer is only one element required toward completion of the permitting and installation process. State and local regulations may vary on a case-by-case basis and local agencies must be consulted by the permit application/equipment owner prior to equipment purchase or installation. The data supplied herein by Generac Power Systems cannot be construed as a guarantee of installability of the generating set.

1 GENERATOR DETAILS
NOT TO SCALE

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
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A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
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AT&T SITE NO:	IDL02365
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DRAWN BY:	JD
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Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
GENERATOR DETAILS

SHEET NUMBER:
S-5

1. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PREFORMED UNDER THIS CONTRACT. CONTRACTOR IS RESPONSIBLE FOR ALL FIELD VERIFICATION.
2. THESE PLANS ARE DIAGRAMMATIC ONLY, AND NOT TO BE SCALED.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC. FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
4. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDER-WRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.
5. ALL CONDUIT INSTALLED SHALL BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
6. ELECTRICAL CONTRACTOR SHALL CARRY OUT HIS WORK WITH ACCORDANCE WITH ALL GOVERNING STATE, COUNTY, LOCAL CODES AND O.S.H.A.
7. ELECTRICAL CONTRACTOR SHALL SECURE ALL NECESSARY ELECTRICAL PERMITS, AND PAY ALL REQUIRED FEES.
8. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF NO LESS THAN ONE YEAR AFTER THE DATE OF JOB COMPLETION. ANY WORK, MATERIAL, OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR.
9. ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE, AND TRUE TAPE.
10. PROVIDE THE OWNER WITH ONE SET OF COMPLETE DIMENSIONS AND CIRCUITS, WITHIN 10 WORKING DAYS OF PROJECT COMPLETION. ELECTRICAL "AS BUILT" DRAWINGS, SHOWING ACTUAL LOCATION OF CONDUITS.
11. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO PROJECT MANAGER AT JOB COMPLETION.
12. USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR FOR LIGHTING FIXTURE. ALL CONDUCTORS SHALL BE COPPER.
13. THE EXTERIOR GROUND RING SHALL BE TESTED PER AT&T SPECIFICATIONS AND SHALL HAVE A RESISTANCE TO EARTH OF 5 OHMS OR LESS. IF NOT NOTIFY ENGINEER.
14. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT =CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
15. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
16. PATCH, REPAIR, AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
17. IN DRILLING HOLES INTO CONCRETE (WHETHER FOR FASTENING OR ANCHORING PURPOSES OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC.) IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND RE-BARS WILL NOT BE DRILLED INTO, CUT, OR DAMAGED UNDER ANY CIRCUMSTANCES.
18. LOCATION OF TENDONS AN RE-BARS ARE NOT DEFINITELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY, OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING STEEL TENDONS.
19. PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH APPLICABLE LOCAL BUILDING CODES. USING U.L. RATED MATERIALS.
20. ELECTRICAL CONTRACTOR IS TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOK-UP COSTS SHALL BE PAID BY THE CONTRACTOR.
21. ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND/OR CATALOG CUT-SHEETS ON ALL NON-SPECIFIED ORIGINAL MATERIALS AND EQUIPMENT, TO PROJECT MANAGER PRIOR TO COMMENCEMENT OF THE WORK.
22. UPON COMPLETION OF WORK, CONDUCT CONTINUITY AND SHORT CIRCUIT, AS WELL AS, GROUNDING TEST, GROUNDING TEST SHALL BE PREFORMED BY INDEPENDENT TESTING AGENCY, WITH WRITTEN REPORT SUBMITTED TO THE PROJECT MANAGER FOR REVIEW AND APPROVAL.
23. CLEAN PREMISES DAILY OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK PREMISES IN A COMPLETE AND UNDAMAGED CONDITION.
24. ALL EXTERIOR WALL PENETRATIONS SHALL BE SEALED WITH POLYSEAM SEALANT.
25. ALL #2 TINNED BARE COPPER DOWNLEADS TO BE PROTECTED BY 1/2" P.V.C. PIPE AND SECURED.
26. COMPRESSION FITTINGS TO BE USED ON ALL CONDUITS (NO SET SCREWS).
27. ALL #6 STRANDED COPPER WITH GREEN INSULATION TO BE ATTACHED WITH CRIMPED DOUBLE LUG, ATTACHED WITH NUTS, BOLTS AND STAR WASHERS TYPICAL AND NO-OX GREASE BETWEEN LUG AND BUS BAR.
28. ALL ABOVE GROUND CONDUIT SHALL BE RIGID GALVANIZED CONDUIT WITH WEATHERPROOF FITTINGS.

*DATE OF JOB COMPLETION SHALL BE THE DATE ON THE CONTRACTOR'S "NOTICE OF COMPLETION" SUBMITTED TO THE OWNER.

ELECTRICAL NOTES

AAV	ALTERNATE ACCESS VENDOR
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERES INTERRUPT CURRENT
AL	ALUMINUM
A/G	ABOVE GROUND
AGB	ANTENNA GROUND BAR
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
AWS	ADVANCED WIRELESS SERVICES
BATT	BATTERY
BBU	BASEBAND UNIT
BCW	BARE COPPER WIRE
BSCW	BARE STRANDED COPPER WIRE
BTCW	BARE TINNED COPPER WIRE
C	CONDUIT
CAB	CABINET
CGB	COLLECTOR GROUND BAR
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DEI	DIGITAL EXPANSION INTERFACE
DISC	DISCONNECT
EGB	EXTERIOR GROUND BAR
EMT	ELECTRICAL METALLIC TUBING
FMT	FLEXIBLE METALLIC TUBING
G	GROUND
GEN	GENERATOR
GFCI	GROUND FAULT CURRENT INTERRUPTER
GIP	GENERATOR INTERFACE PANEL
GND	GROUND
GPS	GLOBAL POSITIONING SYSTEM
GR	GROWTH (CABINET)
GRC	GALVANIZED RIGID (STEEL) CONDUIT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
IPC	IDAHO POWER COMPANY
IGB	INTERIOR GROUND BAR
IGR	INTERIOR GROUND RING (HALO)
IMC	INTERMEDIATE METALLIC CONDUIT
ISCW	INSULATED STRANDED COPPER WIRE
KAIC	KILOAMPERES INTERRUPT CURRENT
LTE	LONG TERM EVOLUTION
MGB	MAIN (OR MASTER) GROUND BAR
MIN	MINIMUM
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
N	NEUTRAL
NEC	NATIONAL ELECTRIC CODE
NID	NETWORK INTERFACE DEVICE
OC	ON CENTER
O/H	OVERHEAD
PCS	PERSONAL COMMUNICATION SERVICES
PPC	POWER PROTECTION CABINET
PRC	PRIMARY RADIO CABINET
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PWR	POWER
RAC	RIGID ALUMINUM CONDUIT
RECT	RECTIFIER
RET	REMOTE ELECTRICAL TILT
RGS	RIGID GALVANIZED STEEL
RMT	RIGID METALLIC TUBING
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
RU	RACK UNIT
SCA	SHORT CIRCUIT AMPERES
SCCR	SHORT CIRCUIT CURRENT RATING
SPD	SURGE PROTECTIVE DEVICE
S/S	STAINLESS STEEL
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
U/G	UNDERGROUND
UTP	UNSHIELDED TWISTED PAIR
VZW	VERIZON WIRELESS
WP	WEATHERPROOF
WW	WIREWAY
XFMR	TRANSFORMER

PANELBOARD
DISCONNECT SWITCH
METER
SIMPLEX RECEPTACLE
DUPLEX RECEPTACLE
QUADRUPLEX RECEPTACLE
GENERATOR OR SPECIAL RECEPTACLE
TOGGLE SWITCH, 1P
3-WAY SWITCH, 1P
RECESSED FLUORESCENT LUMINAIRE
SURFACE MOUNTED FLUORESCENT LUMINAIRE
WRAPAROUND FLUORESCENT LUMINAIRE
WALL-MOUNTED LUMINAIRE
EXIT SIGN
THERMOSTAT
SMOKE DETECTOR
HYDROGEN DETECTOR
FIRE EXTINGUISHER
PHOTOCELL

TINNED COPPER GROUND BAR
COPPER CLAD GROUND ROD
COPPER GROUND ROD WITH INSPECTION SLEEVE (TEST WELL)
MECHANICAL CONNECTION (LUG CRIMP OR C CLAMP)
COMPRESSION TYPE CONNECTION
EXOTHERMIC CONNECTION (CADWELD)
BRANCH CKT. HOMERUN TO PANEL. @ INDICATES PANEL, # INDICATES CKT. NO.
DIMMER SWITCH, 1P

AGP — A/G AC POWER
DCP — A/G DC POWER
O/H AC POWER
UGP — U/G AC POWER
AGT — A/G TELEPHONE RUN
UGF — U/G FIBER
UGT — U/G TELEPHONE RUN
HFLEX — HYBRID FLEX CABLE
GAS — GAS LINE
UGW — U/G WATER LINE

PANEL A — PANELBOARD OR SWITCHGEAR
COMBINATION METER & MAIN BREAKER
STANDALONE METER
COMBINATION MOTOR STARTER
MOTOR
FUSED DISCONNECT
GENERATOR
UNFUSED DISCONNECT
SPLICE BOX, JUNCTION BOX, OR HANDHOLE
DISCONNECT WITH BREAKER
GUTTER OR WIREWAY
FUSED SWITCH (INSIDE SWITCHBOARD)
AUTOMATIC OR MANUAL TRANSFER SWITCH
CIRCUIT BREAKER (INSIDE SWITCHGEAR)
POTENTIAL TRANSFORMER
ELECTRICAL SERVICE WEATHERHEAD
CURRENT TRANSFORMER
TELEPHONE SERVICE WEATHERHEAD
GROUND
GENERATOR PLUG
FEEDER KEY
CONDUIT ADAPTER OR COUPLING

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

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TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
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AT&T SITE NO:	IDL02365
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Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 Tim Alexander STATE OF IDAHO TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

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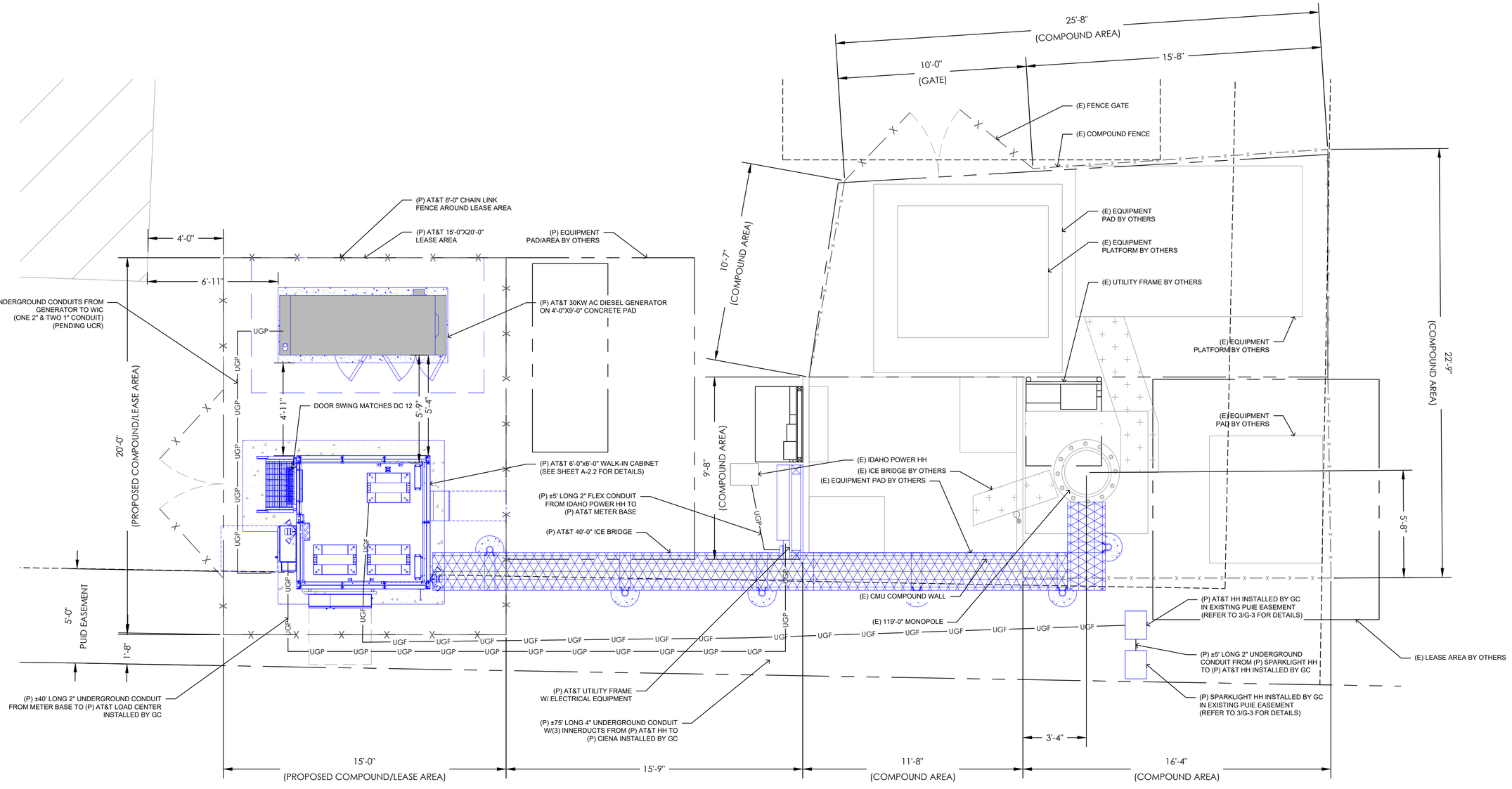
SHEET TITLE:
GENERAL ELECTRICAL/ GROUNDING NOTES

SHEET NUMBER:
E-1



1 PROPOSED UTILITY SITE PLAN

SCALE: 2' 1' 0 2' 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)

N

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
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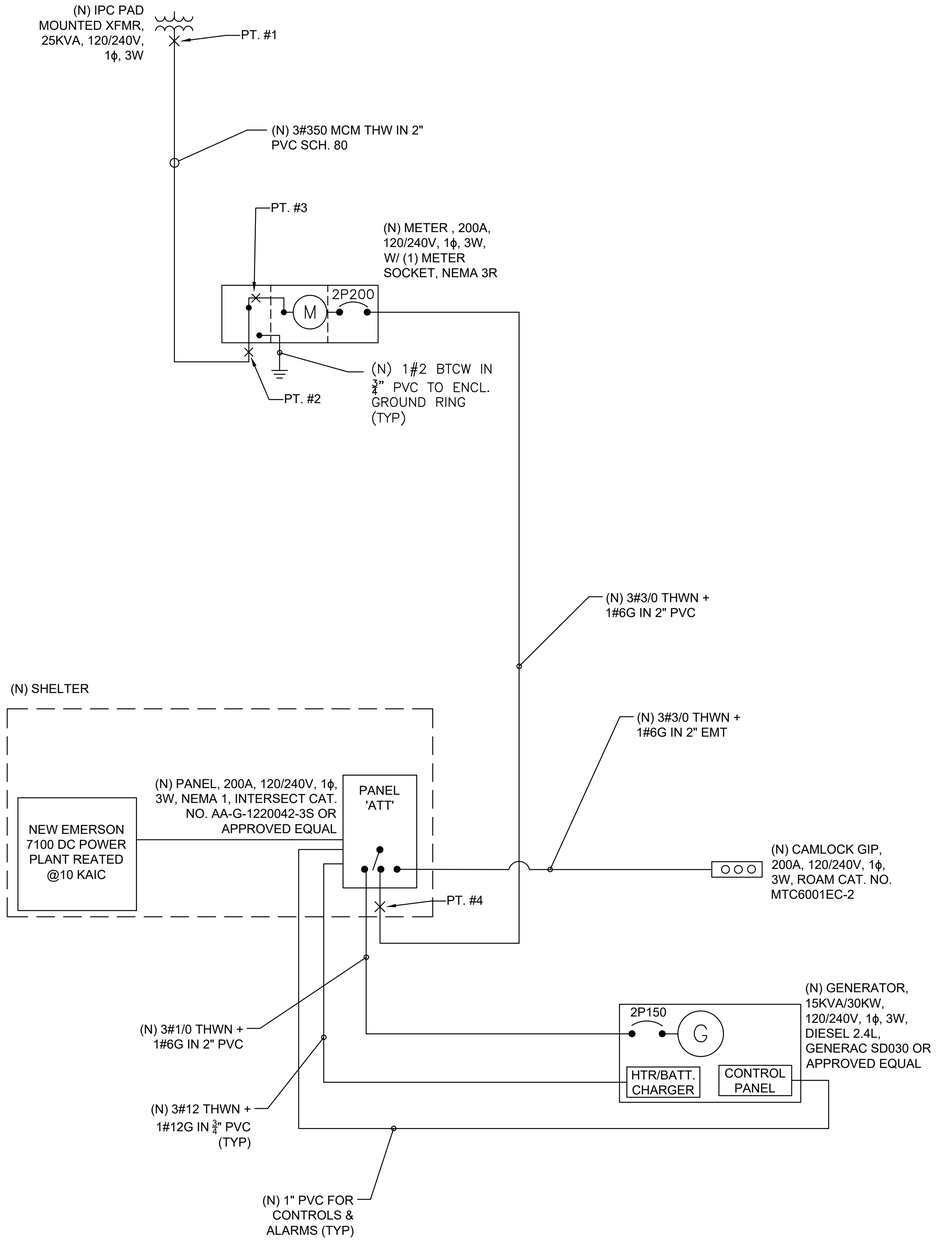
SHEET TITLE:
UTILITY SITE PLAN

SHEET NUMBER:
E-2



NOTES:

1. ACTUAL VALUES FOR FAULT CURRENT SHOWN IN DETAIL 1.

2 ONE-LINE DIAGRAM
N.T.S.

AC POWER PANEL No. 1											
120/240 VOLTS, 1-PHASE, 3-WIRE, 200											
MAIN BREAKER RATING (A) : 200							SYSTEM VOLTAGE (V) : 240				
DESCRIPTION	VA	c/nc	BKR	POSN	L1	L2	POSN	BKR	c/nc	VA	DESCRIPTION
RECTIFIER # 1	1725	c	30	1	3450		2	30	c	1725	RECTIFIER # 4
	1725	c		3		3450	4		c	1725	
RECTIFIER # 2	1725	c	30	5	3450		6	30	c	1725	RECTIFIER # 5
	1725	c		7		3450	8		c	1725	
RECTIFIER # 3	1725	c	30	9	3450		10	30	c	1725	RECTIFIER # 6
	1725	c		11		3450	12		c	1725	
RECTIFIER # 7	1725	c	30	13	1725		14	30			RECTIFIER # 10 / SPARE
	1725	c		15		1725	16				
RECTIFIER # 8 / SPARE			30	17	0		18	30			RECTIFIER # 11 / SPARE
				19		0	20				
RECTIFIER # 9 / SPARE			30	21	0		22	30			RECTIFIER # 12 / SPARE
				23		0	24				
HVAC	2122	c	25	25	2482		26	20	nc	360	EXTERIOR LIGHT
	2122	c		27		2482	28	20	nc	360	DUPLEX RECPT
GFCI	180	nc	20	29	360		30	20	c	180	GENERATOR BLOCK HTR
PHASE TOTALS (VA):					14917	14557					
CURRENT PER PHASE (A):					154	151	Amperes/phase cannot exceed main breaker rating				
PANEL TOTAL (VA):					29474		Legend: c = continuous, nc = non-continuous				

PANEL CAPACITY (kVA):	48.0	CONNECTED LOAD (kVA):	29.5
PANEL LOADING (100% non-cont. load) (kVA):	0.9		
PANEL LOADING (125% continuous load) (kVA):	35.7		
PANEL LOADING (TOTAL) (kVA):	36.6		
SPARE CAPACITY (kVA):	11.4		

NOTE:
BLOCK HEATER AND BATTERY CHARGER ARE TO BE ISOLATED AS INDEPENDENT BREAKERS AND NOT TIED TO ANY GFCI CIRCUITS

3 PANEL SCHEDULE
N.T.S.

SHORT CIRCUIT CALCULATIONS BASED UPON POINT METHOD AS ILLUSTRATED IN BUSSMAN PUBLICATION SPD-90.
FAULT VALUES SHOWN ARE FOR LINE-TO-LINE FAULT @ 208 VAC

FAULT CURRENT AT TRANSFORMER SECONDARY PER LOCAL POWER COMPANY

$I_{SC1} = V_{P\text{-}UT}/V_{S\text{-}UT} \times M_{UT} \times I_{SCP\text{-}UT} = 12175$ A

$f_1 = \frac{2 \times L \times I_{SC1(L\text{-}L)}}{C_1 \times n \times V_{L\text{-}L}} = \frac{2 \times 10 \times 12175}{22737 \times 1 \times 208} = 0.0515$

$M_1 = \frac{1}{1 + f_1} = \frac{1}{1 + 0.0515} = 0.9510$

FAULT CURRENT AT METER BANK

$I_{SC2} = M_1 \times I_{SC1} = 0.951 \times 12175 = 11579$ A

$f_2 = \frac{2 \times L \times I_{SC2(L\text{-}L)}}{C_2 \times n \times V_{L\text{-}L}} = \frac{2 \times 3 \times 11579}{36500 \times 208} = 0.0092$

$M_2 = \frac{1}{1 + f_2} = \frac{1}{1 + 0.0092} = 0.9909$

FAULT CURRENT AT METER BANK BUSBAR

$I_{SC3} = M_2 \times I_{SC2} = 0.9909 \times 11579 = 11474$ A

$f_3 = \frac{2 \times L \times I_{SC3(L\text{-}L)}}{C_3 \times n \times V_{L\text{-}L}} = \frac{2 \times 50 \times 11474}{13923 \times 1 \times 208} = 0.3962$

$M_3 = \frac{1}{1 + f_3} = \frac{1}{1 + 0.3962} = 0.7162$

FAULT CURRENT AT PANEL 'ATT'

$I_{SC4} = M_3 \times I_{SC3} = 0.7162 \times 11474 = 8218$ A

1 FAULT CALCULATIONS
N.T.S.

SITE TYPE: MONOPOLE/WIC

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
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Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
POWER ONE-LINE DIAGRAM

SHEET NUMBER:
E-3

GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE.
2. COMPLY WITH THE LATEST EDITION OF THE UNIFORM BUILDING CODE, THE REQUIREMENTS OF ALL APPLICABLE MUNICIPAL AND STATE CODES AND REGULATIONS, AND UTILITY GUIDELINES.
3. PERFORM ALL VERIFICATION, OBSERVATIONS, TESTING AND EXAMINATION OF WORK PRIOR TO THE ORDERING OF ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE CONSTRUCTION MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
4. UNDERGROUND CONDUIT SHALL BE RIGID POLYVINYL CHLORIDE CONDUIT: TYPE SCHEDULE 40 (OVERHEAD CONDUIT SHALL BE GALVANIZED RIGID CONDUIT–GRC) CONFORMING TO UL ARTICLE 651: WESTERN PLASTICS OR CARBON MANUFACTURER. COUPLINGS SHALL BE SLIP–ON SOLVENT SEALED T PIPE: SOLVENT, WESTERN TYPE COMPATIBLE WITH PVC DUCT, ALL BENDS SHALL BE 30" MINIMUM RADIUS.
5. ALL WIRING SHALL BE STRANDED COPPER WITH MINIMUM 600V INSULATION (UNLESS OTHERWISE NOTED).
6. NEUTRAL SHALL BE COLOR CODED, INSULATION SHALL BE CROSS–LINKED POLYETHYLENE.
7. CONTRACTOR TO CONTACT ALL UTILITIES FOR LOCATION OF UNDERGROUND SERVICES. SERVICE LOCATIONS TO BE CONFIRMED PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING, FILING, AND FEES IN CONJUNCTION WITH THE PROJECT.
9. THE CONTRACTOR SHALL SCHEDULE ALL NECESSARY INSPECTIONS WITH THE PROPER AUTHORITIES AND INFORM CONSTRUCTION MANAGER 24–HOURS IN ADVANCE. ALL TICKETS AND INSPECTION VERIFICATIONS WILL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE WITHIN 24–HOURS AFTER THE INSPECTION HAS TAKEN PLACE.
10. ALL EQUIPMENT, WIRING, AND MATERIALS MUST HAVE A UL LABEL.
11. ALL WORK SHALL BE DONE BY QUALIFIED AND EXPERIENCED JOURNEYMEN AND PERFORMED IN A WORKMANLIKE MANNER AND SHALL PROCEED IN AN ORDERLY MANNER SO AS NOT TO HOLD UP THE PROGRESS OF THE PROJECT.
12. THOROUGHLY TEST ALL LINES FEEDERS, EQUIPMENT, AND DEVICES WITH MAXIMUM LOADS TO ASSURE PROPER OPERATION.
13. CONDUCTOR LENGTHS SHALL BE CONTINUOUS FROM TERMINATION TO TERMINATION WITHOUT SPLICES.
14. PROVIDE PULL BOXES WHERE SHOWN AND/OR WHERE REQUIRED BY CODES AND/OR UTILITY COMPANIES.
15. ALL CONDUIT ROUGH–IN SHALL BE COORDINATED WITH THE MECHANICAL EQUIPMENT TO AVOID LOCATION CONFLICTS, CONTRACTOR SHALL VERIFY ALL LOCATIONS.
16. ALL WIRES SHALL BE TAGGED AT ALL PULL BOXES, J–BOXES, EQUIPMENT BOXES, AND CABINETS WITH APPROVED PLASTIC TAGS.
17. ALL BREAKERS IN PANEL BOXES SHALL BE IDENTIFIED WITH TYPE WRITTEN LABELS NEATLY PLACED ALONG SIDE OF THE BREAKER.
18. ALL FIRE–RATED WALL AND FLOOR PENETRATIONS ARE TO BE CAULKED AND SEALED WITH A FIRE RESISTANT CAULKING TO MAINTAIN THE INTEGRITY OF THE FIRE SEPARATION.
19. UTILIZE SONNEBORN TYPE NP–1 CAULKING FOR SEALING ALL EXTERIOR WALL PENETRATIONS.

3 NOTES
N.T.S.

5 BATTERY ROOM SIGN DETAIL
N.T.S.

MARATHON M12V180FT

DESIGNED FOR DURABILITY IN TELECOMMUNICATIONS, AND ELECTRIC UTILITY APPLICATIONS, THE GNB FRONT TERMINAL MARATHON SERIES PROVIDES HIGH PERFORMANCE AND RELIABILITY IN LONG DURATION DISCHARGE APPLICATIONS. THE LOCATION OF THE TERMINALS ON THE FRONT (VS THE TOP) OF THE BATTERY GREATLY FACILITATES THE INSTALLATION AND MAINTENANCE OF THE PRODUCT WHEN PLACED IN A CABINET ENCLOSURE OR ON A STANDARD RELAY RACK TRAY. THE MARATHON FRONT TERMINAL BATTERY SERIES HIGHLIGHTS ANOTHER EXAMPLE OF GNB'S EXTENSIVE EXPERIENCE AND WORLD WIDE LEADERSHIP IN VRLA TECHNOLOGY.

"DESIGNED IN" QUALITY MANUFACTURING

QUALITY MANUFACTURING PROCESSES FOR THE MARATHON SERIES BATTERIES INCORPORATE THE INDUSTRY'S MOST ADVANCED TECHNOLOGIES INCLUDING: AN AUTOMATED HELIUM LEAK DETACTION SYSTEM, A COMPUTERED WATER BATH FORMATION PROCESS. EACH AND EVERY UNIT IS CAPACITY TESTED.

HIGH PERFORMANCE MARATHON SERIES FEATURES:

- FLAME–RETARDANT REINFORCED CONTAINER AND COVER COMPLIANT WITH UL94 V–0, 28% L.O.I.
- INTEGRATED FLASH ARRESTER ULTRASONICALLY WELDED INTO COVER.
- PATENTED "DIAMOND SIDE–WALL" DESIGN TO MAINTAIN STRUCTURAL INTEGRITY IN HIGHER OPERATING TEMPERATURES
- HEAT SEALED CASE–TO–COVER BOND TO ENSURE A LEAK PROOF SEAL
- HIGH–COMPRESSION ABSORBENT GLASS MAT (AGM) TECHNOLOGY FOR GREATER THAN 99% RECOMBINATION EFFICIENCY
- HIGH–TIN, CALCIUM, SILVER, LEAD POSITIVE PLATE DESIGN FOR MAXIMUM SERVICE FLOAT LIFE; 10 YEAR DESIGN LIFE @ 25°C (77ØF)
- FRONT ACCESSIBLE COPPER ALLOY TERMINALS & "EASY ON/EASY OFF" POST PROTECTOR
- RELIABLE ONE–WAY, SELF–RESEALING SAFETY VENTS
- INTEGRATED CARRY HANDLES
- MULTICELL DESIGN FOR FASTER INSTALLATION AND REDUCED MAINTENANCE

APPLICATIONS:

MARATHON SERIES BATTERIES IN CORPORATE GNB'S ADVANCED VRLA TECHNOLOGY DESIGNED FOR LONG LIFE AND HIGH PERFORMANCE IN:

TELECOMMUNICATIONS

- DISTRIBUTED POWER
- PCS
- CELLULAR
- BROADBAND

ELECTRIC UTILITY

- SWITCHGEAR CONTROL POWER
- COMMUNICATIONS

2 MARATHON M12V180FT DETAILS
N.T.S.

MARATHON M12V180FT RECOMBINANT VALVE REGULATED LEAD ACID (VLRA) BATTERIES (INDOOR)

REQUIREMENT (OFC 608.1)	CODE REFERENCE	COMMENTS
SAFETY CAP	OFC 608.2.2	SAFETY VENT - 400 mb (6 psi) NOMINAL, SELF RESEALING (PATENTED).
THERMAL RUNAWAY MANAGEMENT	OFC 608.3	FLOAT VOLTAGE = 2.23 TO 2.27 VPC (2.25 RECOMMENDED) @ 25°C (77°F). POWER CABINET TO INCLUDE EMERSON SM-TEMP TEMPERATURE CONCENTRATOR PN 547490 OR EQUIVALENT AND BE CONNECTED TO BATTERY STRINGS BY TEMPERATURE PROBES (PN 556155 OR PN 552992). THIS UNIT IS TO PRECLUDE, DETECT, AND CONTROL THERMAL RUNAWAY IN ACCORDANCE WITH OFC 608.3 BY AUTOMATICALLY INCREASING OR DECREASING OUTPUT VOLTAGE AS BATTERY TEMPERATURE DECREASES OR INCREASES, RESPECTIVELY.
SPILL CONTROL	OFC 608.5.1	M12V180FT IS A VRLA SEALED BATTERY WITH IMMOBILIZED ELECTROLYTE. NO SPILL CONTROL MEASURES ARE REQUIRED.
NEUTRALIZATION	OFC 608.5.1	NEUTRALIZATION IS CONTAINED USING THE ENVIRONGUARD® HAWK SPILL CONTAINMENT SYSTEM UTILIZING UL RECOGNISED, CORROSIVE RESISTANT LINER W/ CLASS 1 FIRE RATING (NFPA101)
VENTILATION	OFC 608.6.1, 608.6.2	CONTINUOUS VENTILATION SHALL BE PROVIDED AT A RATE OF NO LESS THAN 1 CF/MIN PER SQ. FT. ENVIRONMENTAL CONTROLS HAVE BEEN SHOWN TO MEET CODE REQUIREMENTS. SEPARATE MECHANICAL PERMIT TO BE OBTAINED FOR VENTILATION SYSTEM.
SIGNAGE	OFC 608.7	CODE REQUIRED BATTERY ROOM SIGNAGE TO BE SHALL BE CLEARLY POSTED IN ALL BATTERY AREAS.
SEISMIC PROTECTION	OFC 608.8	MEETS I.B.C. SEISMIC ZONE IV REQUIREMENTS. SEISMIC ANCHORAGE CALCULATIONS BY VENDOR – DATED
SMOKE DETECTION	OFC608.9	INDOOR EQUIPMENT ROOMS ARE EQUIPPED WITH SUITABLE SMOKE DETECTION DEVICES. HYDROGEN AND SMOKE ALARMS MONITORED BY A 24-HOUR OFF-SITE AT&T DEPARTMENT. SEPARATE PERMITS SHALL BE OBTAINED FROM FIRE MARSHALL OFFICE FOR FIRE ALARM MODIFICATION AS REQUIRED.
MECHANICAL VENTALATION WITH EMERGENCY STANDBY POWER	OFC 5004.7	INSTALL 24" WIDE x 12" HIGH WEATHER PROOF COMBINATION DISCHARGE LOUVER/DAMPER WITH 24V DC MOTORIZED DAMPER ACTUATOR. DESIGN BASED ON RUSKIN MODEL ELC6375DAX OR APPROVED EQUAL. DAMPER SHALL FAIL OPEN UPON LOSS OF POWER. SEPARATE MECHANICAL PERMIT TO BE OBTAINED FOR VENTILATION SYSTEM.
HYDROGEN ALARM AND SUPERVISION	OFC 608.6.3	HYDROGEN GAS DECTECTOR MOUNTED NEAR OR ON CEILING. DETECTOR SHALL BE TWO-STAGE. WHEN AIR SURROUNDING DECTECTOR REACHES 1% HYDROGEN BY VOLUME, EXHAUST FAN SHALL ACTIVATE, AND YELLOW CAUTION LIGHT SHALL TURN ON. WHEN AIR SURROUNDING DECTECTOR REACHES 2% HYDROGEN BY VOLUME, RED WARNING LIGHT WILL FLASH AND 80 dB ALARM WILL SOUND. HYDROGEN AND SMOKE ALARMS MONITORED BY A 24-HOUR OFF-SITE AT&T DEPARTMENT. SEPARATE PERMITS SHALL BE OBTAINED FROM FIRE MARSHALL OFFICE FOR FIRE ALARM MODIFICATION AS REQUIRED.

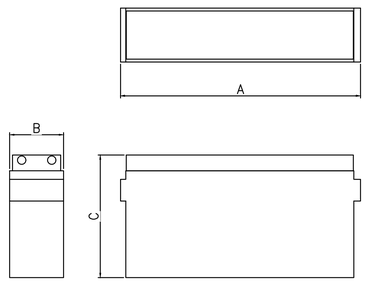
4 MARATHON M12V180FT CODE REQUIREMENTS
N.T.S.

MARATHON FRONT TERMINAL SPECIFICATIONS

MODEL NUMBER	VOLTAGE	CAPACITY (AH)		NOMINAL DIMENSIONS						NOMINAL WEIGHT	
				INCHES			MILLIMETERS				
		8 HR TO 1.75 VPC @ 25°	10 HR TO 1.8 VPC @ 20°	A	B	C	A	B	C	LBS	Kg
M12V180FT	12	180	175	22.00	4.90	12.50	559	124	318	133	60

MARATHON FRONT TERMINAL ELECTRICAL DATA

MODEL NUMBER	SHORT CIRCUIT CURRENT	INTERNAL RESISTANCE (mOhms)
M12V180FT	4147	3.0



ORTHOGRAPHIC VIEWS

FLOAT VOLTAGE & CHARGING

CONSTANT VOLTAGE CHARGING IS RECOMMENDED

RECOMMENDED FLOAT VOLTAGE: 2.27 VPC @ 25°C (77°F)

FLOAT VOLTAGE RANGE:2.25 TO 2.30 VPC @ 25°C (77°F)

EQUALIZE VOLTAGE: 2.35 VPC FOR 24 HOURS

BATTERY TYPE: M12V180FT
LEAD WEIGHT: 60.3 KG/133.0 LBS
ELECTROLYTE VOLUME:
8.19 L/2.17 GAL
ELECTROLYTE WEIGHT:
10.80 KG/23.80 LBS
SULFURIC ACID WEIGHT:
4.53 KG/9.98 LBS
SULFURIC ACID VOLUME:
2.46 L/0.65 GAL

TOTAL ELECTROLYTE PER BATTERY:
3.94 GALLONS

(20) BATTERIES X 3.94 GA =
78.8 GALLONS OF TOTAL ELECTROLYTES

1 MARATHON M12V180FT DETAILS
N.T.S.

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

REV	DATE	DESCRIPTION
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6	08/19/24	CLIENT COMMENTS

Licensor:

PROFESSIONAL ENGINEER LICENSED
18283
Tim Alexander
STATE OF IDAHO
TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

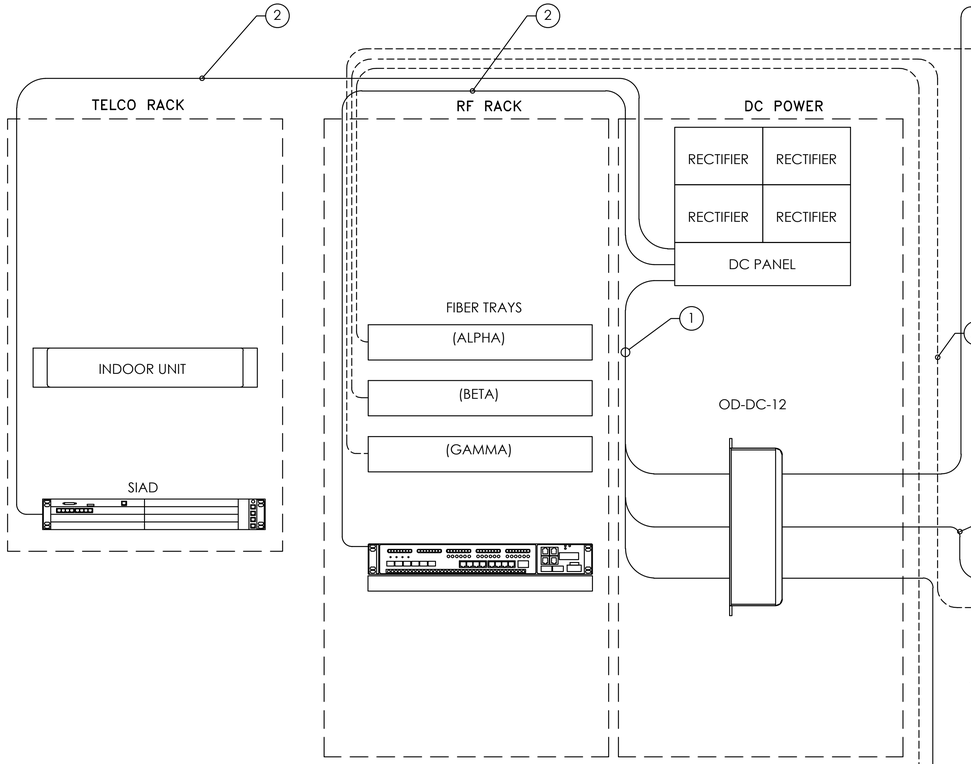
SHEET TITLE:
BATTERY DETAILS & SPECIFICATIONS

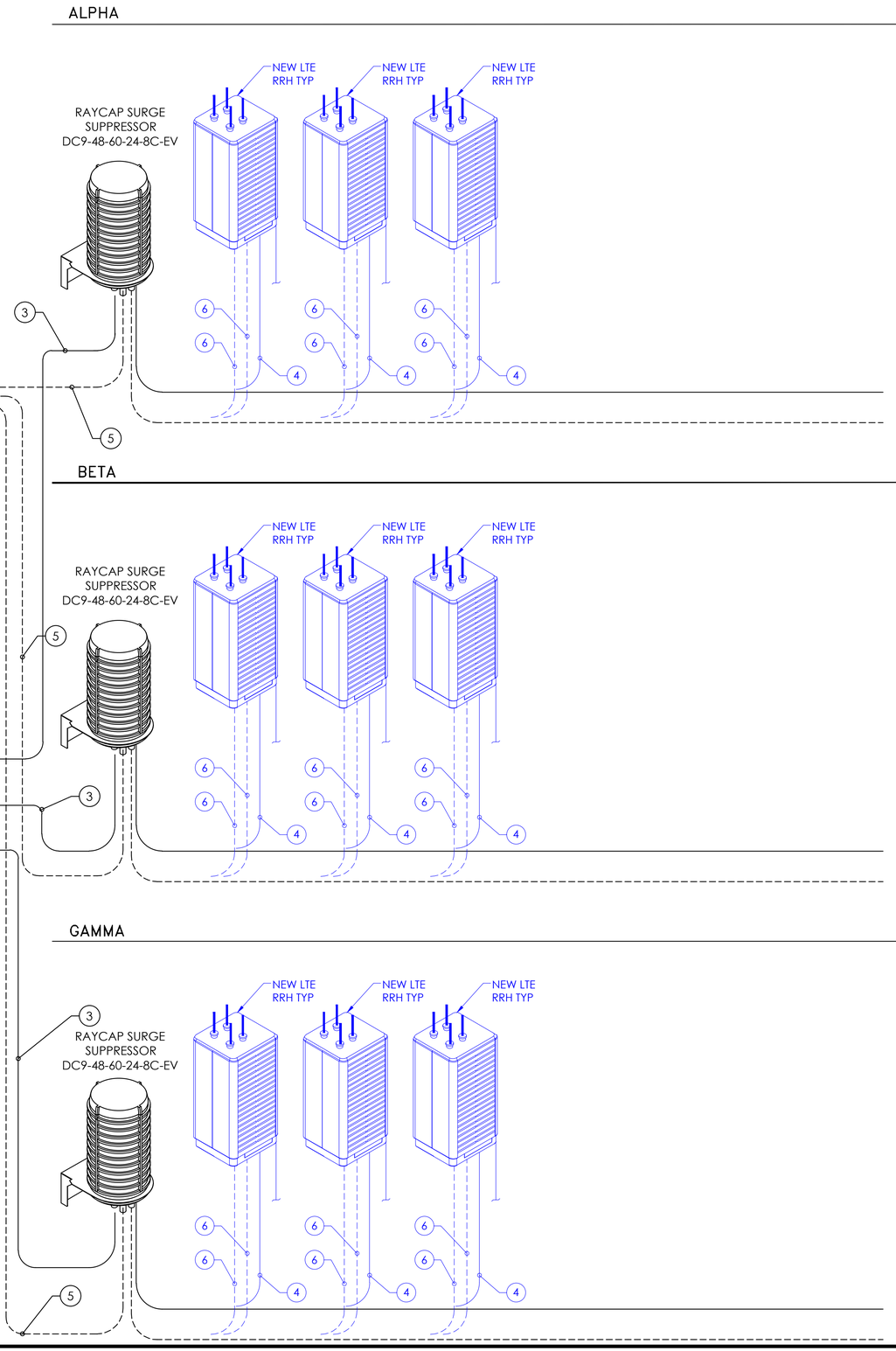
SHEET NUMBER:
E-4

CIRCUIT SCHEDULE	
1	-48VDC 50A CIRCUIT (6-AWG)
2	-48VDC 50A CIRCUIT (6-AWG)
3	3 PAIR #6-AWG DC TRUNK CABLE
4	#8-AWG DC JUMPER
5	18 PAIR FIBER OPTIC TRUNK CABLE
6	FIBER OPTIC JUMPER CABLE

NOTES:

1. REFER TO FINAL RFDS FOR RF DESIGN AND PLUMBING.
2. REFER TO FINAL RFDS FOR FINAL RADIO HEAD COUNT.
3. REFER TO EQUIPMENT LAYOUT FOR RACK LOCATION.
4. WIRE LENGTH NOT TO EXCEED 15' FROM SURGE SUPPRESSOR TO RRH.
5. RRH & SQUID DESIGN TYPICAL PER SECTOR.
6. ROUTE TO THE NEAREST GROUND BAR TYP.
7. DAISY CHAIN RRHs ONLY WHEN REQUIRED BY SPECTRUM CONSTRAINTS.





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8247 W STATE STREET
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Tower Owner:
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PREPARED FOR:
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7670 S. CHESTER ST.
CENTENNIAL, CO 80112

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PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IDAHO TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

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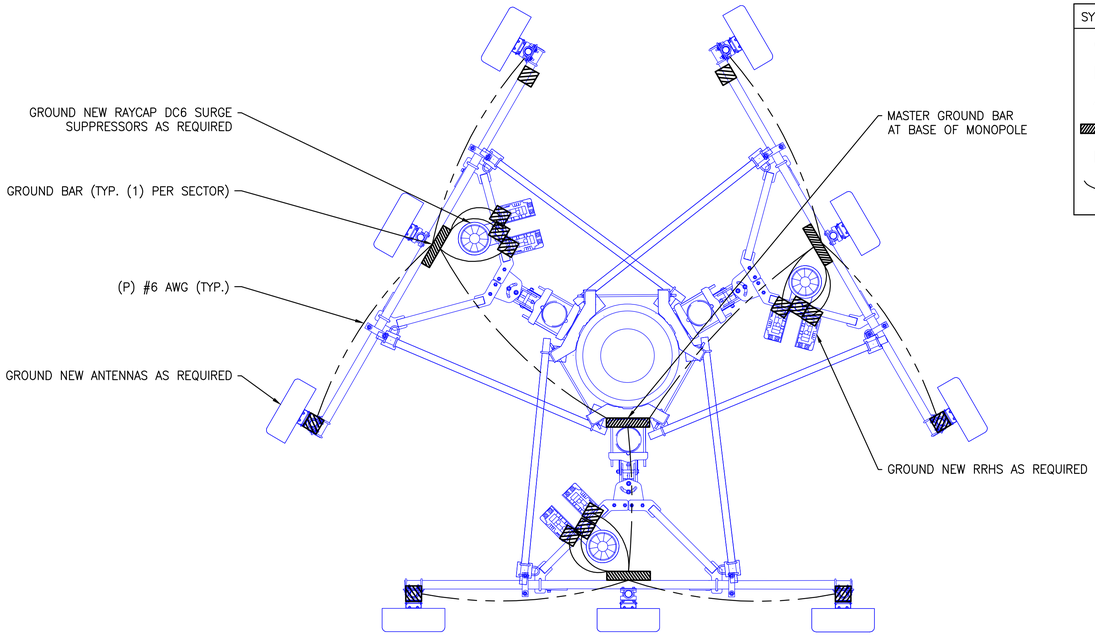
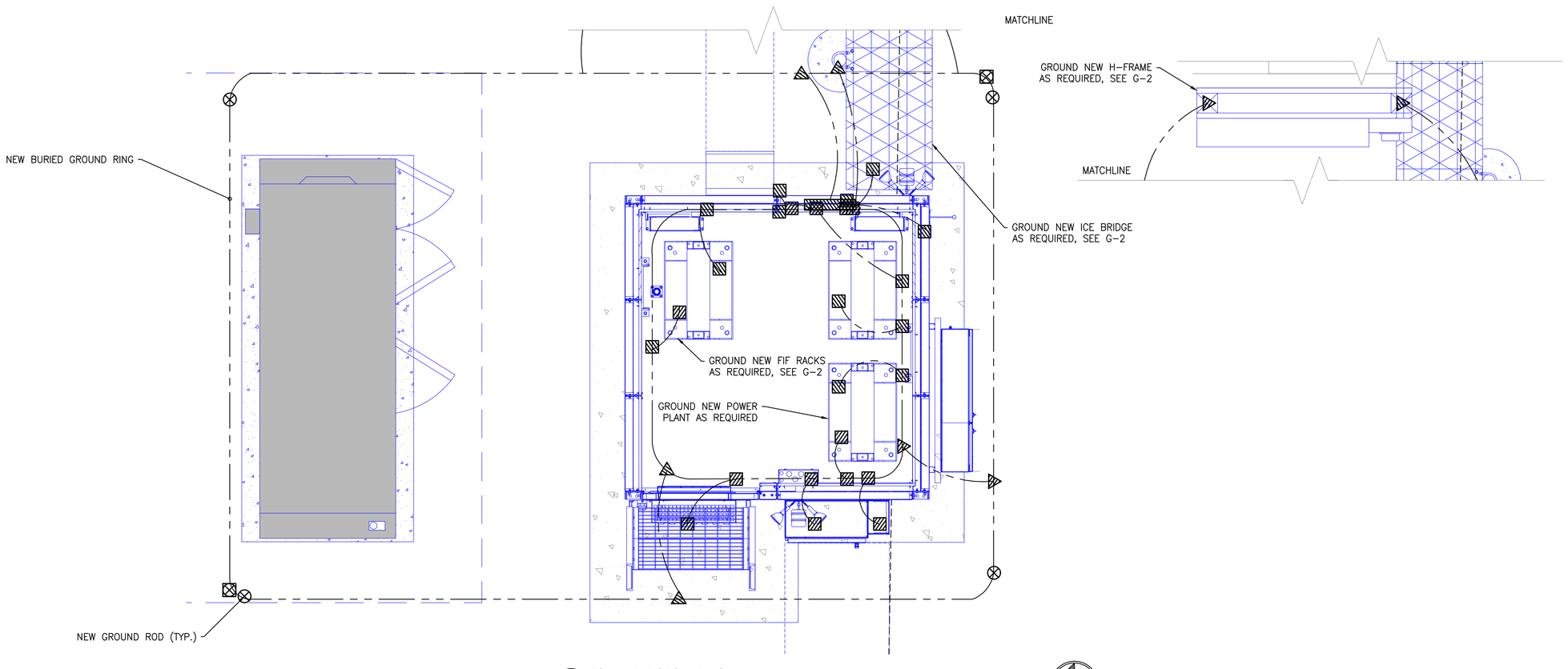
SHEET TITLE:
ELECTRICAL DC & FIBER CABLE DIAGRAM

SHEET NUMBER:
E-5



1 ANTENNA GROUNDING PLAN
SCALE: 2' 1' 0 2' 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)

N



1 EQUIPMENT GROUNDING PLAN
SCALE: 6' 0 1' 3/4"=1'-0" (FULL SIZE) 3/8"=1'-0" (11x17)

N

SITE TYPE: MONOPOLE/WIC

SYMBOL	DESCRIPTION
⊗	COPPER GROUND ROD
⊠	TEST WELL
◬	CADWELD CONNECTION
▬	GROUND BAR
▨	MECHANICAL CONNECTION
	FIELD VERIFY & TIE INTO EXISTING GROUNDING SYSTEM

GENERAL GROUNDING NOTES:

1. GROUNDING SHALL BE INSTALLED 6" BELOW FROST DEPTH OR 30" BELOW GRADE, WHICHEVER IS GREATER. CONFIRM FROST DEPTH WITH JURISDICTION.
2. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
3. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING GROUND WIRES AND CONNECT TO SURFACE MOUNTED BUS BARS. FOLLOW ANTENNA AND BTS MANUFACTURERS PRACTICES FOR GROUNDING REQUIREMENTS. GROUND COAX SHIELD AT BOTH ENDS AND EXIT FROM TOWER OR POLE USING MFR'S PRACTICES.
4. ALL GROUND CONNECTIONS SHALL BE CADWELD. ALL WIRES SHALL BE COPPER THHN/THWN. ALL GROUND WIRE SHALL BE GREEN INSULATED WIRE ABOVE GROUND.
5. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE. GROUNDING AND OTHER OPERATIONAL TESTING WILL BE WITNESSED BY AT&T REPRESENTATIVE.
6. ELECTRICAL CONTRACTOR TO PROVIDE DETAILED DESIGN OF GROUNDING SYSTEM, AND RECEIVE APPROVAL OF DESIGN BY AUTHORIZED AT&T MOBILITY REPRESENTATIVE, PRIOR TO INSTALLATION OF GROUNDING SYSTEM. PHOTO DOCUMENT ALL CADWELDS AND GROUND RING
7. NOTIFY CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.

GENERAL ROD NOTES (WHERE APPLICABLE):

1. ELECTRICAL CONTRACTOR SHALL ORDER GROUND RESISTANCE TESTING ONCE THE GROUND SYSTEM HAS BEEN INSTALLED; A QUALIFIED INDIVIDUAL, UTILIZING THE FALL OF POTENTIAL METHOD, SHOULD PERFORM THE TEST. THE REPORT WILL SHOW THE LOCATION OF THE TEST AND CONTAIN NO LESS THAN 9 TEST POINTS ALONG THE TESTING LINE, GRAPHED OUT TO SHOW THE PLATEAU.
2. 2 POINT GROUND TEST OR 3 POINT 62% TESTS WILL NOT BE ACCEPTED AS ALTERNATIVES TO THE AFOREMENTIONED GROUND TESTS. TEST SHALL BE PERFORMED WHILE THE COUNTERPOISE IS ISOLATED FROM THE A/C SYSTEM GRIDS AND EXISTING COMMUNICATIONS FACILITY.

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0	12/24/21	CLIENT REVISIONS
1	01/10/22	CLIENT REVISIONS
2	02/14/22	CLIENT REVISIONS
3	12/08/22	JDX COMMENTS
4	01/16/23	CLIENT COMMENTS
5	07/18/24	CLIENT COMMENTS
6	08/19/24	CLIENT COMMENTS

Licensor:

PROFESSIONAL ENGINEER LICENSED 18283 Tim Alexander STATE OF IDAHO TIM ALEXANDER

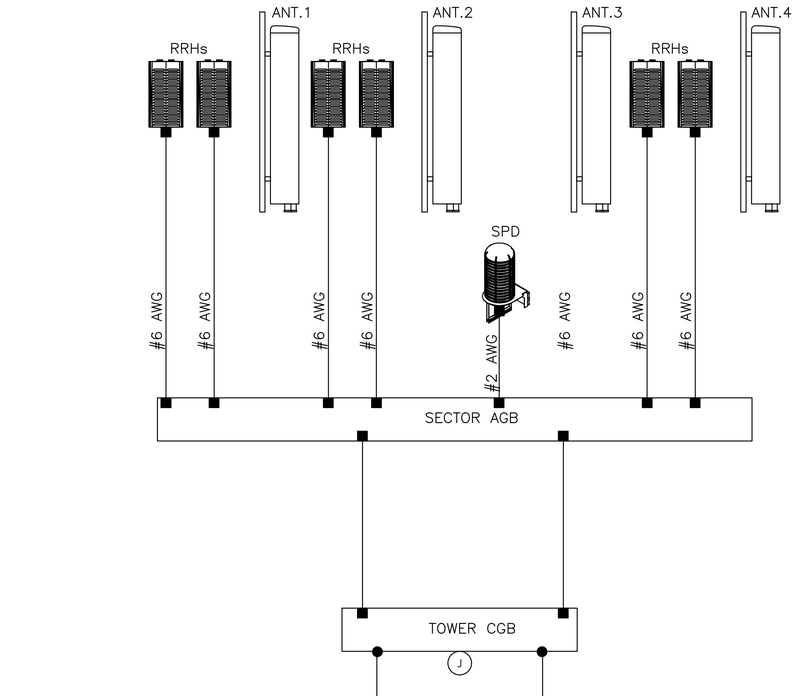
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

Issued For:
8/19/24
PRELIMINARY CD'S

SHEET TITLE:
GROUNDING PLAN, NOTES & DETAILS

SHEET NUMBER:
G-1

EACH SECTOR (TYP)



1 TYPICAL GROUNDING SCHEMATIC
1/2"=1'-0"

LEGEND

- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION
- GROUND ROD
- TEST GROUND ROD WITH INSPECTION SLEEVE

NOTES

1. GROUNDING IS SHOWN DIAGRAMMATICALLY ONLY.
2. CONTRACTOR SHALL GROUND ALL EQUIPMENT AS A COMPLETE SYSTEM. GROUNDING SHALL BE IN COMPLIANCE WITH NEC SECTION 250 AND AT&T GROUNDING AND BONDING REQUIREMENTS (ATT-TP-76416) AND MANUFACTURER'S SPECIFICATIONS.
3. ALL GROUND CONDUCTORS SHALL BE COPPER; NO ALUMINUM CONDUCTORS SHALL BE USED.

(A) EXTERIOR GROUND RING: #2 AWG SOLID COPPER, BURIED AT A DEPTH OF AT LEAST 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE AND APPROXIMATELY 24 INCHES FROM THE EXTERIOR WALL OR FOOTING. (ATT-TP-76416 2.2.3.5/7.5.1)

(B) TOWER GROUND RING: THE GROUND RING SYSTEM SHALL BE INSTALLED AROUND AN ANTENNA TOWER'S LEGS, AND/OR GUY ANCHORS. WHERE SEPARATE SYSTEMS HAVE BEEN PROVIDED FOR THE TOWER AND THE BUILDING, AT LEAST TWO BONDS SHALL BE MADE BETWEEN THE TOWER RING GROUND SYSTEM AND THE BUILDING RING GROUND SYSTEM USING MINIMUM #2 AWG SOLID COPPER CONDUCTORS. (ATT-TP-76416 7.5.1)

(C) INTERIOR GROUND RING: #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTOR EXTENDED AROUND THE PERIMETER OF THE EQUIPMENT AREA. ALL NON-TELECOMMUNICATIONS RELATED METALLIC OBJECTS FOUND WITHIN A SITE SHALL BE GROUNDED TO THE INTERIOR GROUND RING WITH #6 AWG STRANDED GREEN INSULATED CONDUCTOR. (ATT-TP-76416 7.6.4)

(D) BOND TO INTERIOR GROUND RING: #2 AWG SOLID TINNED COPPER WIRE PRIMARY BONDS SHALL BE PROVIDED AT LEAST AT FOUR POINTS ON THE INTERIOR GROUND RING, LOCATED AT THE CORNERS OF THE BUILDING. (ATT-TP-76416 7.5.2.2)

(E) GROUND ROD: UL LISTED COPPER CLAD STEEL. MINIMUM 5/8" DIAMETER BY EIGHT FEET LONG. ALL GROUND RODS MAY BE INSTALLED WITH INSPECTION SLEEVES. GROUND RODS SHALL BE DRIVEN TO THE DEPTH OF GROUND RING CONDUCTOR. (ATT-TP-76416 1.4 / 2.2.3.10)

(F) CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUCTORS. (ATT-TP-76416 7.6.7)

(G) HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CRGB MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING TWO #2 AWG STRANDED GREEN INSULATED COPPER CONDUCTORS.

(H) EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE. (ATT-TP-76416 7.6.7.2)

(J) TOWER EXIT GROUND BAR: #2 AWG SOLID TINNED COPPER BOND TO THE TOWER GROUND RING. (ATT-TP-76416 7.5.5)

(K) TELCO GROUND BAR: BOND TO BOTH CELL REFERENCE GROUND BAR AND EXTERIOR GROUND RING. (ATT-TP-76416 7.6.8)

(L) FRAME BONDING: THE BONDING POINT FOR TELECOM EQUIPMENT FRAMES SHALL BE THE GROUND BUS THAT IS NOT ISOLATED FROM THE EQUIPMENTS METAL FRAMEWORK. BOND THE FRAME GROUND BUS OR SUPPLEMENTARY CONDUCTOR TO THE "I" SECTION OF THE CELL REFERENCE GROUND BAR. (ATT-TP-76416 6.5.3 AND 7.8)

(M) INTERIOR UNIT BONDS: METAL FRAMES, CABINETS AND INDIVIDUAL METALLIC UNITS LOCATED WITH THE AREA OF THE INTERIOR GROUND RING REQUIRE A #6 AWG STRANDED GREEN INSULATED COPPER BOND TO THE INTERIOR GROUND RING. (ATT-TP-76416 7.12.3.1)

(N) FENCE AND GATE GROUNDING: METAL FENCES WITHIN 7 FEET OF THE EXTERIOR GROUND RING OR OBJECTS BONDED TO THE EXTERIOR GROUND RING SHALL BE BONDED TO THE GROUND RING WITH A #2 AWG SOLID TINNED COPPER CONDUCTOR AT AN INTERVAL NOT EXCEEDING 25 FEET. BONDS SHALL BE MADE AT EACH GATE POST AND ACROSS GATE OPENINGS. (ATT-TP-76416 7.12.2.2)

(P) EXTERIOR UNIT BONDS: METALLIC OBJECTS, EXTERNAL TO OR MOUNTED TO THE BUILDING, SHALL BE BONDED TO THE EXTERIOR GROUND RING. (ATT-TP-76416 7.12.2)

(Q) ICE BRIDGE SUPPORTS: EACH ICE BRIDGE LEG SHALL BE BONDED TO THE GROUND RING WITH #2 AWG BARE TINNED COPPER CONDUCTOR. PROVIDE EXOTHERMIC WELDS AT BOTH THE ICE BRIDGE LEG AND BURIED GROUND RING. (ATT-TP-76416 7.4.2.6)

(R) DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH A MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR (CRGB) PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11 REQUIREMENTS.

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

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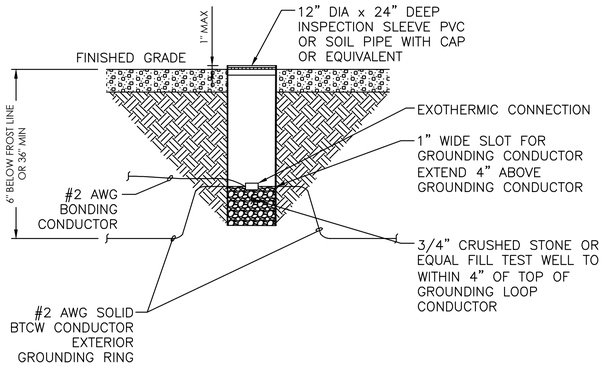
Licensor:
PROFESSIONAL ENGINEER LICENSED 18283 STATE OF IOWA TIM ALEXANDER
SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

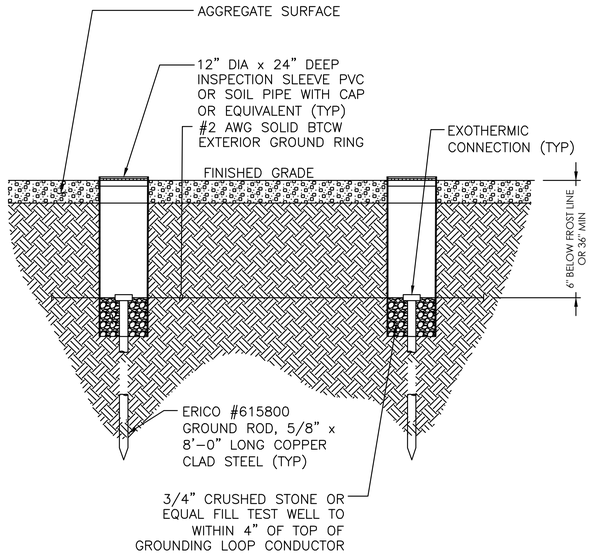
Issued For:
8/19/24
PRELIMINARY CD'S

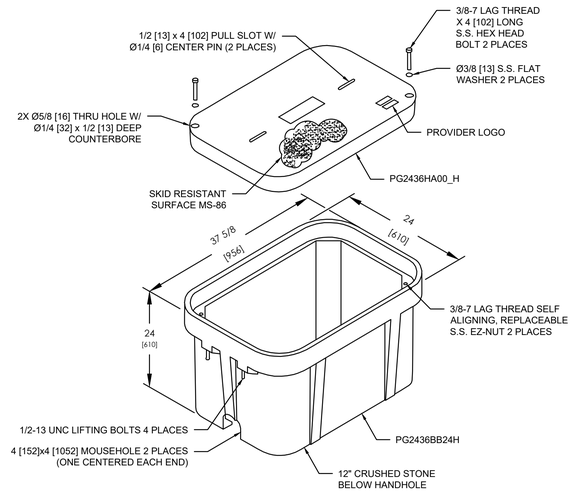
SHEET TITLE:
GROUNDING DETAILS

SHEET NUMBER:
G-2

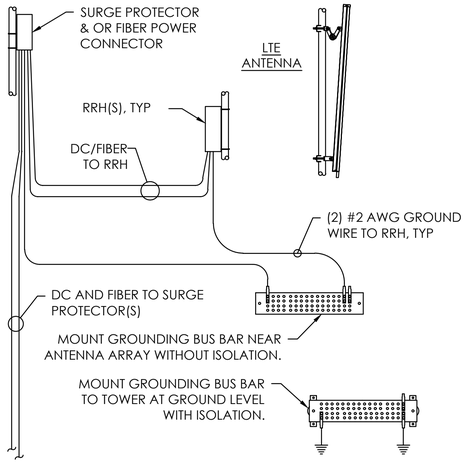


4 EXOTHERMIC WELD AND GROUND ROD WITH INSPECTION SLEEVE
N.T.S.





3 2'-0"x3'-0"x2'-0" HANDHOLE DETAILS
N.T.S.



2 GROUNDING DETAILS
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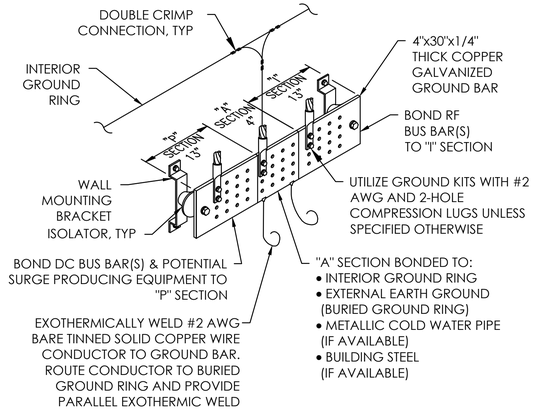
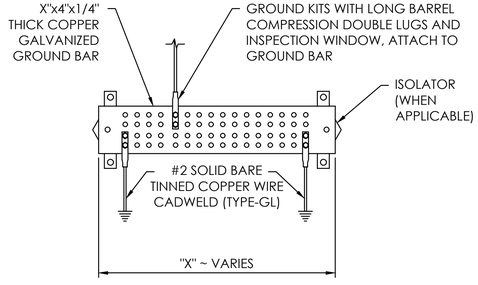
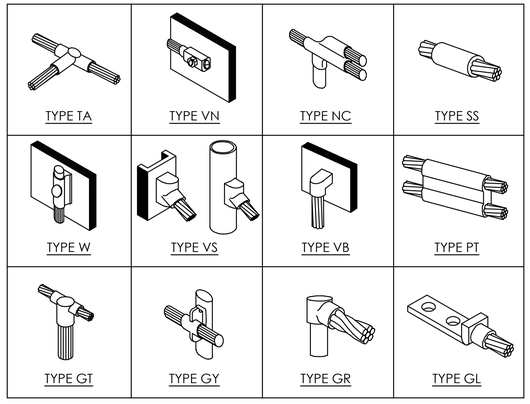


NOTE: COAT ALL MECHANICAL CONNECTIONS WITH "NO-OX" OR APPROVED.



NOTE: COAT ALL MECHANICAL CONNECTIONS WITH "NO-OX" OR APPROVED.



NOTE: CADWELD "TYPES" SHOWN ABOVE ARE EXAMPLES - CONSULT WITH PROJECT MANAGER FOR SPECIFIC TYPES OF CADWELDS TO BE USED.

1 CAD WELD EXAMPLES
N.T.S.

AT&T Site ID:
IDL02365
8247 W STATE STREET
BOISE, ID 83714

Tower Owner:
CROWN CASTLE
2055 SOUTH STEARMAN DRIVE
CHANDLER, AZ 85286

PREPARED FOR:
at&t Mobility
7670 S. CHESTER ST.
CENTENNIAL, CO 80112

A&E:
TELCYTE INFRASTRUCTURE SERVICES
3450 N HIGLEY RD - SUITE 102,
MESA, AZ 85215

AT&T SITE NO:	IDL02365
BU NO:	824322
DRAWN BY:	JD
CHECKED BY:	CM

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SIGNED, 19 AUG 2024
EXPIRES, 28 FEB 2025

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8/19/24
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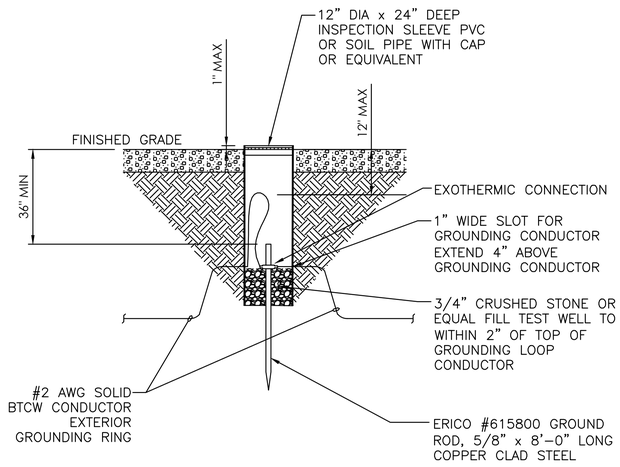
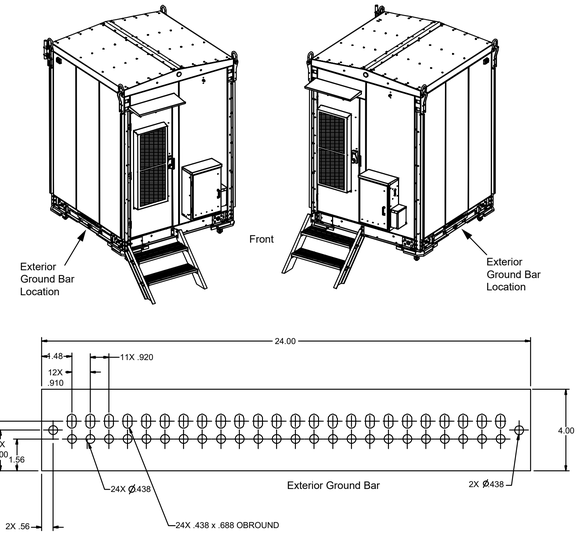
SHEET TITLE:
GROUNDING DETAILS

SHEET NUMBER:
G-3

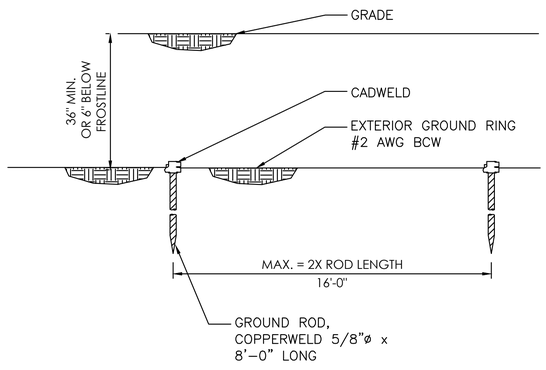


8 TEST GROUND ROD WITH INSPECTION SLEEVE
N.T.S.

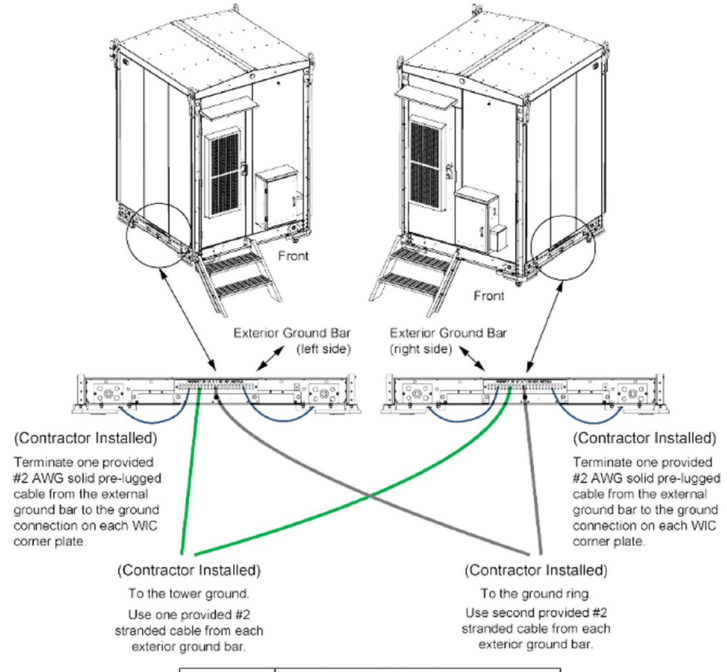


7 GROUND BAR LOCATION
N.T.S.

6 NOT USED
N.T.S.



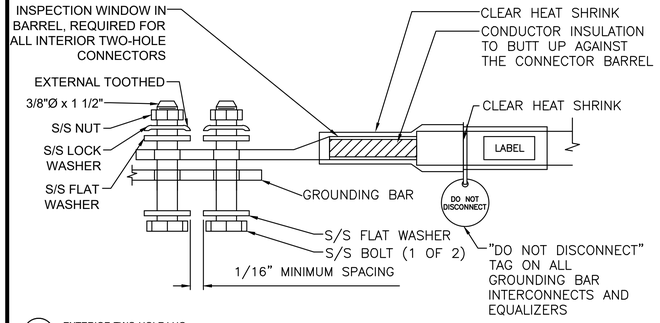
5 TYPICAL BURIED GROUND ROD
N.T.S.



Grounding Conductor Size	Minimum Bending Radius (inches)		
	(Insulated RHH/RHW)		Solid (Uninsulated)
	Recommended	Required	
6 AWG	12	2	1-1/2
4 AWG	12	3	na
2 AWG	12	3	2
1/0 AWG	12	4	na
4/0 AWG	12	4	na
750 kcmil	12	7	na

2 GROUNDING ON CONCRETE PAD
N.T.S.

4 NOT USED
N.T.S.



3 EXTERIOR TWO-HOLE LUG
N.T.S.

1 NOT USED
N.T.S.

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IDL02365
8247 W STATE STREET
BOISE, ID 83714

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SHEET NUMBER:
G-4

ADA COUNTY RECORDER Phil McGrane
BOISE IDAHO Pgs=11 LISA BATT
CROWN CASTLE USA

2020-023198
02/27/2020 08:06 AM
$40.00

Prepared by:
Robert W. Mouton, Esq.
Locke Lord LLP
601 Poydras Street, Suite 2660
New Orleans, LA 70130

Return to:
Tara Groda
Crown Castle Post-Closing Department
1220 Augusta Drive, Suite 600, Houston, TX 77057

ASSIGNMENT AND ASSUMPTION OF EASEMENT AGREEMENT

This Assignment and Assumption of Easement Agreement (this "***Assignment***") is made and entered into as of the 3 day of October, 2019, but effective as of the 31st day of October, 2019 (the "***Effective Date***") by and between **Ulysses Asset Sub II, LLC**, a Delaware limited liability company, f/k/a T6 Unison Site Management LLC, a Delaware limited liability company (the "***Assignor***"), and **Global Signal Acquisitions IV LLC**, a Delaware limited liability company (the "***Assignee***"). Assignor and Assignee are sometimes referred to herein individually as a "***Party***" and collectively referred to herein as the "***Parties***".

WHEREAS, Assignor and Assignee are parties to that certain Site Exchange Agreement dated November 7, 2016, as amended by that certain Amended and Restated Site Exchange Agreement dated as of March 6, 2017 (as the same may have been further amended from time to time, collectively, the "***Exchange Agreement***"), pursuant to, and upon the terms of which, Assignor and Assignee have agreed to assign, transfer and convey all of their respective right, title and interest in and to certain assets, including, without limitation, real property interests, to each other, and to transfer certain obligations related thereto, all as more particularly described in the Exchange Agreement; and

WHEREAS, Assignor is the grantee pursuant to that certain easement agreement described on **Exhibit A** attached hereto and by this reference incorporated herein (as the same may have been

amended, modified or assigned from time to time, collectively, the "***Easement Agreement***", and together with any hereinbelow described Net Profits Agreement, Letter Agreement and Ground Lease, as applicable, the "***Easement Documents***"), pursuant to which the grantor specified in **Exhibit A** (hereinafter, the "***Grantor***") granted and conveyed to Assignor an easement in, to, under and over a certain portion of real property owned by the Grantor (the real property owned by the Grantor, hereinafter, the "***Property***", which Property is more particularly described in **Exhibit A-1** attached hereto and by this reference incorporated herein; and such portion of the Property subject to the Easement Agreement, hereinafter, the "***Easement Area***", which Easement Area is more particularly described in **Exhibit B** attached hereto and by this reference incorporated herein); and

WHEREAS, Assignor is also the current landlord under that certain lease agreement described on **Exhibit C** attached hereto and by this reference incorporated herein (as the same may have been amended, modified or assigned from time to time, collectively, the "***Ground Lease***"), and which Ground Lease demises a portion of the Property; and

WHEREAS, Assignor is also party to that certain Net Profits Agreement dated August 19, 2010 by and between Assignor and the Grantor (as the same may have been amended, modified or assigned from time to time, collectively the "***Net Profits Agreement***");

WHEREAS, the Parties hereby desire to effect such assignments, transfers and assumptions;

NOW, THEREFORE, in consideration of the representations, warranties, covenants and agreements contained in the Exchange Agreement, the Parties hereto hereby agree as follows:

1. **Capitalized Terms**. Capitalized terms used but not defined herein shall have the meaning given to such terms in the Exchange Agreement.

2. **Assignment and Transfer of Easement Documents**. As of the Effective Date, Assignor hereby assigns and transfers unto Assignee, and Assignee hereby accepts from the Assignor, all of the right, title and interest of Assignor in, to and under the Easement Documents, upon the terms and subject to the conditions of the Exchange Agreement and the Easement Documents, respectively. Notwithstanding anything in this Assignment to the contrary, but without limiting any of the Parties' duties and obligations arising under this Assignment, this Assignment shall not constitute an assignment or transfer hereby of any right, title and interest of Assignor in, to and under an Easement Document if an attempted assignment or transfer, without the authorization of a third party thereto, would constitute a breach or violation of such Easement Document, or in any way adversely affect the rights of Assignee thereunder, but only to the extent such authorization has not been obtained. If any authorization described in the preceding sentence is not obtained, or if any attempt at an assignment, transfer or other conveyance thereof would be ineffective or would affect the rights of the Assignor thereunder so that, after the applicable Closing Date, the Assignee would not in fact receive all such rights or obtain the benefits and rights contemplated by this Assignment and the Exchange Agreement, then the

Assignee may elect to pursue certain options, as more particularly described in Section 2(c) of the Exchange Agreement.

3. <u>Assumption of Easement Documents</u>. As of the Effective Date, Assignor hereby assigns and transfers to Assignee, and Assignee assumes and agrees to keep, observe and perform all of the terms, covenants, agreements, conditions and obligations (other than Pre-Closing Liabilities), pursuant to the Easement Documents. The Assignee assumes and agrees to keep, observe and perform those terms, covenants, agreements, conditions and obligations (other than Pre-Closing Liabilities), with the same force and effect as if the Assignee instead of Assignor (or any predecessor of the Assignor) had originally signed the Easement Documents.

4. <u>Terms of Exchange Agreement Control</u>. The provisions of this Assignment are subject, in all respects, to the terms and conditions of the Exchange Agreement, including, without limitation, all of the covenants, agreements, representations, and warranties contained therein, which shall survive the execution and delivery of this Assignment to the extent provided in the Exchange Agreement. Neither the making nor the acceptance of this Assignment shall in any way supersede, modify, replace, amend, change, rescind, waive, exceed, expand, enlarge, or in any way affect the terms and conditions of the Exchange Agreement. In the event of any conflict or inconsistency between the terms and conditions of this Assignment and the terms and conditions of the Exchange Agreement, the terms and conditions of the Exchange Agreement shall control.

5. <u>Amendments</u>. This Assignment may not be amended, modified or terminated except by an instrument in writing executed by the parties to this Assignment.

6. <u>Interpretation and Construction</u>. This Assignment shall be subject to the provisions set forth in Sections 30(g) and 30(h) of the Exchange Agreement, except to the extent that any contrary or different terms are set forth herein.

7. <u>Successors and Assigns</u>. This Assignment shall inure to the benefit of and be binding upon Assignor, Assignee, and their respective successors and assigns. Except as permitted under Section 30(d) of the Exchange Agreement, no Party may transfer or assign this Assignment or any of its rights hereunder, without the prior written consent of the other Party. Notwithstanding the foregoing, a Party may assign this Assignment to an Affiliate or to a party acquiring such Party or all or substantially all of the assets of such Party, <u>provided</u>, <u>however</u>, that the terms of any such acquisition may not impair, in any substantive way, either Party's ability to perform this Assignment.

8. **Notice**. All notices must be in writing and shall be valid upon receipt when delivered by hand, by nationally recognized courier service, or by First Class United States Mail, certified, return receipt requested to the addresses set forth below:

To Assignor:	American Towers LLC Attn: Landlord Relations 10 Presidential Way Woburn, MA 01801	To Assignee:	Crown Castle USA Inc c/o Crown Castle International Corp. Attn: Senior Vice President, Corporate Development 1220 Augusta Drive, Suite 600 Houston, TX 77057
With copy to:	American Towers LLC Attn: General Counsel 116 Huntington Avenue 11th Floor Boston, MA 02116	With copy to:	Crown Castle USA Inc c/o Crown Castle International Corp. Attn: Senior Vice President and General Counsel 1220 Augusta Drive, Suite 600 Houston, TX 77057
	American Towers LLC Attn: Shawn Lanier, VP Legal 10 Presidential Way Woburn, MA 01801		

Either Party, by written notice to the other in the manner provided herein, may designate one or more different notice addresses from those set forth above. Refusal to accept delivery of any notice or the inability to deliver any notice because of a changed address for which no notice was given as required herein, shall be deemed to be receipt of any such notice.

9. **Governing Law**. Notwithstanding anything to the contrary contained in this Assignment, this Assignment shall be governed and construed in all respects in accordance with the laws of the State of New York (except to the extent the laws of the State or Commonwealth in which the Property is situated are mandatorily applicable, in which case the laws of such State or Commonwealth shall govern to the extent required), without regard to the conflicts of laws provisions of New York, or, as applicable, such State or Commonwealth. Any dispute directly related to the breach of this Assignment shall be resolved in accordance with Section 30(e) of the Exchange Agreement.

10. **Counterpart Signatures**. This Assignment may be executed in several counterparts, each of which when so executed and delivered shall be deemed an original, and all of which, when taken together, shall constitute one and the same instrument, binding on all of the Parties, even

though all Parties are not signatories to the original or the same counterpart. Furthermore, the Parties may execute and deliver this Assignment by electronic means such as .pdf or similar format. Each of the Parties agrees that the delivery of the Assignment by electronic means will have the same force and effect as delivery of original signatures and that each of the Parties may use such electronic signatures as evidence of the execution and delivery of the Assignment by all Parties to the same extent as an original signature.

11. **No Merger**. It is the intent of the Assignee that the landlord interest in the Ground Lease shall not merge with the tenant interest in the Ground Lease, notwithstanding that both leasehold interests may be held at any time by the same party.

END OF DOCUMENT – SIGNATURE PAGES TO FOLLOW

IN WITNESS WHEREOF, each Party has caused this Assignment to be executed by their respective duly authorized officers to be duly effective as of the Effective Date written above.

ASSIGNOR:

Ulysses Asset Sub II, LLC
a Delaware limited liability company

Signature: ______________________
Print Name: Shawn Lanier
Title: Vice President, US Legal

WITNESSES:

Signature: ______________________
Print Name: Kevin P. McMahon

Signature: ______________________
Print Name: Michael DiPietro

WITNESS AND ACKNOWLEDGEMENT

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF MIDDLESEX

On this 29th day of October, 2019, before me, Julie E Kaplan the undersigned Notary Public, personally appeared Shawn Lanier, Vice President – US Legal, proved to me through satisfactory evidence of identity, which was/were personally known, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she/they signed it voluntarily for its stated purpose(.).

X as Vice-President, US Legal for Ulysses Asset Sub II, LLC, a Delaware limited liability company

____
Signature of Notary Public

JULIE E. KAPLAN
Notary Public
Commonwealth of Massachusetts
My Commission Expires
June 12, 2020

____
Printed name of Notary

Place Notary Seal and/or Stamp Above My Commission Expires__________

SIGNATURES CONTINUE ON NEXT PAGE

JULIE E. KAPLAN
Notary Public
Commonwealth of Massachusetts
My Commission Expires
June 12, 2020

ASSIGNEE:

Global Signal Acquisitions IV LLC,
a Delaware limited liability company

WITNESSES:

Signature: ______________________
Print Name: R.Christopher Mooney
Title: Vice President

Signature: ______________________
Print Name: J.V. Budet

Signature: ______________________
Print Name: Caren Shaughnessy

WITNESS AND ACKNOWLEDGEMENT

STATE OF TEXAS

COUNTY OF HARRIS

This instrument was acknowledged before me on October 3 2019, by R. Christopher Mooney the VP of Global Signal Acquisitions IV LLC, a Delaware limited liability company, on behalf of said company.

TARA GRODA
Notary Public, State of Texas
Comm. Expires 02-16-2022
Notary ID 3889626

SEAL

____
Notary Public
My commission expires: 2/14/2022

Attachments:
Exhibit A: Easement Agreement
Exhibit A-1: Property
Exhibit B: Easement Area
Exhibit C: Ground Lease

EXHIBIT A

EASEMENT AGREEMENT

That certain Wireless Communication Easement and Assignment Agreement dated as of August 18, 2010, by and between Blynn Properties, L.L.C. a/k/a LLC ("Site Owner") and Treasure Valley Collision Center L.L.C. ("Joinder Party") (***"Grantor"***), as original easement grantor, and T6 Unison Site Management LLC, a Delaware limited liability company (***"T6"***), as original easement grantee, recorded on September 16, 2010, with the records of Ada County, Idaho, as Document No. 110086348, as amended by that certain First Amendment to Wireless Communication Easement and Assignment dated as of March 16, 2016, by and between the aforesaid Grantor and Ulysses Asset Sub II, LLC, a Delaware limited liability company, as grantee, and recorded on April 19, 2016, with the records of Ada County, Idaho, as Document No. 2016-032648.

EXHIBIT A-1

LEGAL DESCRIPTION OF PROPERTY

The following described premises, to-wit:

Lot 11 in Block 2 of Azalea Subdivision, according to the official plat thereof filed in Book 71 of Plats at Pages 7243 and 7244, records of Ada County, Idaho and amended by warranty deed recorded December 27, 1996 under Instrument No. 96106001.

AND BEING the same property conveyed to Treasure Valley Collision Center L.L.C., an Idaho limited liability company from Steven G. Gregory, a married man as his sole and separate property by Warranty Deed dated October 03, 2005 and recorded October 04, 2005 in Instrument No. 105148172; AND FURTHER CONVEYED to Blynn Properties, L.L.C., a limited liability company from Treasure Valley Collision Center, L.L.C. by Quitclaim Deed dated July 28, 2008 and recorded July 30, 2008 in Instrument No. 108086742.

Tax Parcel No. R0719420250

EXHIBIT B

LEGAL DESCRIPTION OF EASEMENT AREA

Communication Easement

That portion of the Property on which any Facilities exist on the date of this Agreement together with the portion of the Property leased by Site Owner under the Existing Agreements, and the portion of the Property described as follows:

COMMENCING AT THE NORTHEASTERLY CORNER OF THE PROPERTY AT THE SOUTHERLY LINE OF W. STATE STREET; THENCE SOUTH, ALONG THE EAST LINE OF SAID PROPERTY, 155.00 FEET TO T A POINT; THENCE WEST AND PERPENDICULAR TO THE LAST MENTIONED COURSE, 10.00 FEET TO THE SOUTHEASTERLY CORNER OF THE HEREIN DESCRIBED COMMUNICATION EASEMENT AND POINT OF BEGINNING; THENCE CONTINUE WEST, 60.00 FEET; THENCE NORTH AND PERPENDICULAR TO THE LAST MENTIONED COURSE, 20.00 FEET; THENCE EAST AND PERPENDICULAR TO THE LAST MENTIONED COURSE, 60.00 FEET; THENCE SOUTH AND PERPENDICULAR TO THE LAST MENTIONED COURSE, 20.00 FEET TO THE POINT OF BEGINNING; AND

AN ADDITIONAL 20.00 FEET BY 20.00 FEET ADJOINING THE WESTERLY LINE OF THE ABOVE DESCRIBED PREMISES.

Commencing at the southeast corner of said Lot 11; Thence along the south line of said Lot, N89°02'23"W, 11.14 feet; Thence N00°57'37"E, 7.10 feet; Thence N85°45'42"W, 27.30 feet; Thence N04°14'18"E, 11.80 feet; Thence N00°00'00"E, 4.56 feet (L8) to the Point of Beginning; Thence continuing N00°00'00"E, 5.85 feet (L9); Thence S88°51'23"E, 26.00 feet; Thence S01°08'37"W, 5.77 feet (L10); Thence N89°02'23"W, 25.88 to the Point of Beginning.

ACCESS AND UTILITY EASEMENTS

That portion of the Property on which any Facilities exist on the date of this Agreement or provided by Site Owner under the Existing Agreements for access and utility providers, including the following:

All rights of ingress and egress across the Property, more fully described on Exhibit "A" hereof, to and from the Communication Easement described in Exhibit B-1 hereof, providing access to a publicly dedicated roadway, including but not limited to W. State Street (hereinafter the "Access Easement"), along with the right to use said Access Easement for the development, repair, maintenance and removal of utilities providing service to the Communication Easement and the Facilities, as defined herein, and any related activities and uses.

EXHIBIT C

GROUND LEASE

1. That certain Site Lease with Option by and between Steven G. Gregory, as landlord, and VoiceStream PCS II Corporation, a Delaware corporation, as tenant, dated November 19, 2003, a memorandum of which was recorded on July 22, 2005 with the records of Ada County, Idaho as Document No. 105099836, as assigned by Steven G. Gregory to Treasure Valley Collision Center, L.L.C., an Idaho limited liability company, by that certain Assignment of Lease dated October 3, 2005 and recorded on October 5, 2005, with the records of Ada County, Idaho, as Document No. 105148893, as affected by that certain Master Prepaid Lease and Management Agreement dated November 30, 2012, in favor of CCTMO LLC, a memorandum of which was recorded on June 21, 2016, with the records of Ada County, Idaho, as Document No. 2016-054363.

2. That certain unrecorded Communication Site Lease Agreement (Ground Space) by and between Steven G. Gregory, an unmarried person, as landlord, and Clearwire LLC, a Nevada limited liability company, as tenant, dated as of September 15, 2005, as assigned by Steven G. Gregory to Treasure Valley Collision Center, L.L.C., an Idaho limited liability company, by that certain Assignment of Lease recorded on October 5, 2005, with the records of Ada County, Idaho, as Document No. 105148893.

FIRST AMENDMENT TO WIRELESS COMMUNICATION EASEMENT AND ASSIGNMENT AGREEMENT DATED MARCH 16, 2016

Prepared by and Return to:
Ulysses Asset Sub II, LLC
c/o American Tower Corporation
Attn: Land Management/Michael Abodeely, Esq.
10 Presidential Way
Woburn, MA 01801
Site No: 276123 / ID-9501
Site Name: Blynn Properties G ID
Assessor's Parcel No(s): R0719420250

Prior Recorded Easement Reference:
Document No: 110086348
State of Idaho
County of Ada

First Amendment to Wireless Communication Easement and Assignment Agreement

THIS FIRST AMENDMENT TO WIRELESS COMMUNICATION EASEMENT AND ASSIGNMENT AGREEMENT (the "***First Amendment***") is made effective as of the latter signature date hereof (the "***Effective Date***") by and between Ulysses Asset Sub II, LLC, a Delaware limited liability company, formerly known as T6 Unison Site Management, LLC (having a mailing address of c/o American Tower Corporation, 10 Presidential Way, Woburn, MA 01801) ("***Ulysses***"), Blynn Properties, LLC, an Idaho limited liability company (having a mailing address of 8247 W. State Street, Garden City, Idaho 83714) ("***Site Owner***"), and Treasure Valley Collision Center, L.L.C., an Idaho limited liability company (having a mailing address of 8247 W. State Street, Garden City, Idaho 83714) ("***Joinder Party***"). Site Owner, Joinder Party and Ulysses being collectively referred to herein as the "***Parties***" and individually as a "***Party***".

WHEREAS, Site Owner is the fee simple owner of real property located in Ada County, State of Idaho, having an address of 8247 W. State Street, Garden City, Idaho 83714, and as more particularly described on Exhibit A attached hereto (the "***Property***");

WHEREAS, Site Owner, Joinder Party and Ulysses entered into that certain Wireless Communication Easement and Assignment Agreement dated August 18, 2010 and recorded in Ada County, Idaho, Instrument No. 110086348 (the "***Agreement***"), whereby Site Owner and Joinder Party granted Ulysses and its Customers (as defined in the Agreement) certain Easements (as defined in the Agreement) over the Property (such Easements, collectively, the

"***Site***") and assigned Site Owner's and Joinder Party's interests in certain Existing Agreements (as defined in the Agreement) to Ulysses; and

WHEREAS, Ulysses, Site Owner and Joinder Party desire to enter into this Amendment to expand the Communication Easement (as defined in the Agreement) granted to Ulysses and to secure the rights necessary for Ulysses and its Customers to operate the Site.

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual covenants set forth herein and other good and valuable consideration, the receipt, adequacy, and sufficiency of which are hereby acknowledged, Site Owner, Joinder Party and Ulysses agree that the Agreement is hereby amended as follows:

1. **Recitals and Definitions**. Capitalized terms used and not otherwise defined herein shall have the same meaning as used in the Agreement. The recitals set forth above are hereby incorporated herein by this reference.

2. **Expansion of Communication Easement**.

   a. Site Owner and Ulysses desire to amend the Agreement in order to expand the Communication Easement granted to Ulysses. Site Owner and Ulysses agree and acknowledge that Exhibit B-1 to the Agreement is hereby deleted in its entirety as of the Effective Date of this Amendment and shall be replaced with Exhibit BB-1 attached hereto and incorporated herein by reference. In the event of inconsistency or discrepancy between Exhibit BB-1 attached hereto and Exhibit B-1 to the Agreement, Exhibit BB-1 shall control.

   b. Site Owner hereby grants to Ulysses and its Customers the right and privilege to enter upon the Property and/or Easements at any time to perform or cause to be performed test borings of the soil, environmental audits, sampling, tests, engineering studies and to conduct a survey of the Property and/or the Easements. Site Owner shall not unreasonably interfere with Ulysses' and/or its Customers' use of the Property in conducting these activities. Site Owner will provide Ulysses with any necessary keys or access codes to the Site if needed for ingress and egress.

3. **Rights**. Site Owner expressly confirms, ratifies, acknowledges and affirms the rights granted to Ulysses and its Customers pursuant to the Agreement to construct, maintain, repair, replace, improve, operate, and remove Facilities (as defined in the Agreement) and, notwithstanding any terms of the Agreement to the contrary, to conduct any related activities and uses to comply with the Existing Agreements, without notice to or consent of Site Owner.

4. **Additional Customers**. Site Owner and Ulysses agree to amend the right of first refusal granted by Site Owner to Ulysses. Therefore, Site Owner and Ulysses agree that the following sentence shall be included in Section 13 of the Agreement as the eight (8^{th}) sentence:

"Unison shall give Site Owner notice of its intent to acquire same within thirty (30) days of receipt of Site Owner's notice."

5. **Attorney-in-fact**. Site Owner hereby confirms, ratifies, acknowledges and affirms that pursuant to the Agreement, it irrevocably appointed Ulysses as its true and lawful attorney-in-fact, with full power of substitution and re-substitution, to apply for and obtain any and all licenses, permits, consents or approvals which may be required in connection with the use of the Easements by Ulysses and as necessary to comply with applicable laws, statutes or regulations as set forth in Section 5 of the Agreement.

6. **Site Owner Statements**. Site Owner hereby represents and warrants to Ulysses that: (i) to the extent applicable, Site Owner is duly organized, validly existing, and in good standing in the jurisdiction in which Site Owner was organized, formed, or incorporated, as applicable, and is otherwise in good standing and authorized to transact business in each other jurisdiction in which such qualifications are required; (ii) Site Owner has the full power and authority to enter into and perform its obligations under this Amendment, and, to the extent applicable, the person(s) executing this Amendment on behalf of Site Owner, have the authority to enter into and deliver this Amendment on behalf of Site Owner; (iii) no consent, authorization, order, or approval of, or filing or registration with, any governmental authority or other person or entity is required for the execution and delivery by Site Owner of this Amendment; (iv) Site Owner is the sole owner of the Property; and (v) there are no agreements, liens, encumbrances, claims, claims of lien, proceedings, or other matters (whether filed or recorded in the applicable public records or not) relating to, encumbering, asserted against, threatened against, and/or pending with respect to the Easements or any other portion of the Property which do or could (now or any time in the future) adversely impact, limit, and/or impair Ulysses' rights under the Agreement, as amended and modified by this Amendment. Site Owner hereby does and agrees to indemnify Ulysses for any damages, losses, costs, fees, expenses, or charges of any kind sustained or incurred by Ulysses as a result of the breach of the representations and warranties made herein or if any of the representations and warranties made herein prove to be untrue. The representations and warranties of Site Owner made in this Section shall survive the execution and delivery of this Amendment.

7. **Notice**. Notwithstanding anything to the contrary contained in the Agreement, the address of Ulysses for all purposes as set forth in Section 17 of the Agreement shall be as set forth below:

Ulysses: Ulysses Asset Sub II, LLC
c/o American Tower Corporation
10 Presidential Way
Woburn, MA 01801
Attn: Land Management

With a copy to:	American Towers LLC c/o American Tower Corporation 116 Huntington Avenue Boston, MA 02116 Attn: Legal Department
Site Owner:	Blynn Properties, LLC 8247 W. State Street Garden City, ID 83714

Either party may change its notice address by designating one or more different notice addresses from those set forth above, with such change being effective thirty (30) days after receipt of notice thereof. Refusal to accept delivery of any notice or the inability to deliver any notice because of a changed address for which no notice was given as required herein, shall be deemed to be receipt of any such notice.

8. **General Terms and Conditions.** (a) the Agreement, as amended by this Amendment, constitutes the entire agreement and understanding of Site Owner and Ulysses and supersedes all offers, negotiations and any other written or verbal agreements; (b) any amendments to this Amendment must be in writing and executed by both parties; (c) if any term of this Amendment is found to be void or invalid, or ineffective as to third parties such provision shall be fully severable herefrom and such invalidity shall not affect the remaining terms of the Agreement, which shall continue in full force and effect, and the Agreement shall be reformed and construed as if such invalid provision had never been contained herein, and if possible, such provisions shall be reformed to the maximum extent permitted under applicable law to render same valid, operative and enforceable to reflect the intent of the Parties as expressed herein; (d) upon the request of Ulysses, Site Owner shall execute such instruments or plats or surveys as deemed reasonably necessary to describe the Property and Building, or for recordation in the public records of the County in which the Property is located; (e) the paragraph headings of this Amendment have been inserted for convenience of reference only, and shall in no way modify or restrict the terms of the Amendment; and (f) Site Owner agrees to provide Ulysses with such certificates, permit applications, and other instruments and reasonable assurances as reasonably required to fulfill the intent of the terms hereof.

9. **Full Force and Effect; Entirety; Amendment; Successors.** Except as modified herein, the Agreement and all the easements, covenants, agreements, terms, provisions and conditions thereof remain in full force and effect and are hereby ratified and affirmed. This Amendment, together with the Agreement constitutes the entire agreement among the undersigned parties hereto. Any modification to this Amendment or the Agreement must be in writing and signed and delivered by authorized representatives of the affected parties in order to be effective. In the event of a conflict between the terms of this Amendment and the terms of the Agreement, this Amendment and the terms herein shall at all times supersede and control and any ambiguity between such conflicting terms shall be interpreted and resolved based on the terms of this Amendment. This Amendment and the Agreement shall be binding on and inure to the benefit of the parties hereto and their respective heirs, personal representatives, lessees,

successors and assigns. It is the intention of the Parties hereto that all of the various rights, obligations, restrictions and easements created herein shall run with the affected lands and shall inure to the benefit of and be binding upon all future owners and assignees of the affected lands and all persons claiming under them.

10. **Signature; Counterparts**. This Amendment may be executed in several counterparts, each of which when so executed and delivered, shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument, even though the Parties are not signatories to the same counterpart. Furthermore, the Parties may execute and deliver this Amendment by electronic means such as .pdf or similar format. Each Party agrees that the delivery of this Amendment by electronic means will have the same force and effect as delivery of original signatures and that each of the Parties may use such electronic signatures as evidence of the execution and delivery of the Amendment by all Parties to the same extent as an original signature.

11. **Governing Law**. Notwithstanding anything to the contrary contained in the Agreement and in this Amendment, the Agreement and this Amendment shall be governed by and construed in all respects in accordance with the laws of the state or commonwealth in which the Property is situated, without regard to the conflicts of laws provisions of such state or commonwealth.

12. **Joinder Party**. And now to these presents, intervenes Joinder Party, who joins with the Site Owner in entering into this Amendment and does hereby agree to be bound by all of the covenants, agreements, terms, provisions and conditions hereof and joins Site Owner in granting the Communication Easement to Ulysses as set forth in Exhibit BB-1 attached hereto.

IN WITNESS WHEREOF, Site Owner, Joinder Party and Ulysses have each executed this Amendment as of the Effective Date.

[SIGNATURES TO FOLLOW ON NEXT PAGE]

SITE OWNER:

Blynn Properties, LLC,
an Idaho limited liability company

By: _____
Name: Robert Miller
Title: owner

Date: 3-1-16

WITNESS:

Kenneth W Pierson
Print Name:

Vince Pantalone
Print Name:

STATE OF Idaho

COUNTY OF Ada

I, a Notary Public of the County and State aforesaid, certify that Robert Miller, who is the general partner/manager/member of Blynn Properties, LLC, an Idaho limited liability company, came before me this day and acknowledged the execution of the foregoing instrument.

Witness my hand and official stamp or seal, this 1st day of March, 2016.

[Affix Notary Seal]

BRIANA JOHNSON
Notary Public
State of Idaho

Notary Public
My commission expires:

July 14, 2021

[SIGNATURES CONTINUE ON NEXT PAGE]

JOINDER PARTY:

Treasure Valley Collision Center, L.L.C.,
an Idaho limited liability company

By: _____
Name: Robert Miller
Title:

Date: 3-1-16

WITNESS:

Kenneth W Pierson
Print Name:

Vince Pantalone
Print Name:

STATE OF Idaho
COUNTY OF Ada

I, a , Notary Public of the County and State aforesaid, certify that Robert Miller, who is the general partner/manager/member of Treasure Valley Collision Center, L.L.C., an Idaho limited liability company, came before me this day and acknowledged the execution of the foregoing instrument.

Witness my hand and official stamp or seal, this 1st day of March, 2016.

[Affix Notary Seal]

BRIANA JOHNSON
Notary Public
State of Idaho

Notary Public
My commission expires:
July 14, 2021

[SIGNATURES CONTINUE ON NEXT PAGE]

ULYSSES:

Ulysses Asset Sub II, LLC, a Delaware limited liability company

By: _____
Name:
Title: Edward P. Maggio, Jr.
Senior Counsel, US Tower
Date: 3/16/16

WITNESS:

_____
Print Name: Alexander Sinko

_____
Print Name: Fabian Alvarez

COMMONWEALTH OF MASSACHUSETTS)
) ss:
COUNTY OF MIDDLESEX)

On this 16 day of March, 2016, before me, the undersigned Notary Public, personally appeared Edward P. Maggio, Jr., personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person or the entity upon which the person acted, executed the instrument.

DAMEN R. NISULA
MY COMMISSION EXPIRES DEC 17 2021
COMMONWEALTH OF MASSACHUSETTS
NOTARY PUBLIC

_____
Notary Public
My Commission Expires: 12-17-2021

Exhibit A
Legal Description of Property

The following described premises, to-wit:

Lot 11 in Block 2 of Azalea Subdivision, according to the official plat thereof filed in Book 71 of Plats at Pages 7243 and 7244, records of Ada County, Idaho and amended by warranty deed recorded December 27, 1996 under Instrument No. 96106001.

AND BEING the same property conveyed to Treasure Valley Collision Center L.L.C., an Idaho limited liability company from Steven G. Gregory, a married man as his sole and separate property by Warranty Deed dated October 03, 2005 and recorded October 04, 2005 in Instrument No. 105148172; AND FURTHER CONVEYED to Blynn Properties, L.L.C., a limited liability company from Treasure Valley Collision Center, L.L.C. by Quitclaim Deed dated July 28, 2008 and recorded July 30, 2008 in Instrument No. 108086742.

Tax Parcel No. R0719420250

ATC Site #: 276123 / ID-9501
ATC Site Name: Blynn Properties G ID

Exhibit BB-1
Communication Easement

That portion of the Property on which any Facilities exist on the date of this Agreement together with the portion of the Property leased by Site Owner under the Existing Agreements, and the portion of the Property described as follows:

COMMENCING AT THE NORTHEASTERLY CORNER OF THE PROPERTY AT THE SOUTHERLY LINE OF W. STATE STREET; THENCE SOUTH, ALONG THE EAST LINE OF SAID PROPERTY, 155.00 FEET TO T A POINT; THENCE WEST AND PERPENDICULAR TO THE LAST MENTIONED COURSE, 10.00 FEET TO THE SOUTHEASTERLY CORNER OF THE HEREIN DESCRIBED COMMUNICATION EASEMENT AND POINT OF BEGINNING; THENCE CONTINUE WEST, 60.00 FEET; THENCE NORTH AND PERPENDICULAR TO THE LAST MENTIONED COURSE, 20.00 FEET; THENCE EAST AND PERPENDICULAR TO THE LAST MENTIONED COURSE, 60.00 FEET; THENCE SOUTH AND PERPENDICULAR TO THE LAST MENTIONED COURSE, 20.00 FEET TO THE POINT OF BEGINNING, AND

AN ADDITIONAL 20.00 FEET BY 20.00 FEET ADJOINING THE WESTERLY LINE OF THE ABOVE DESCRIBED PREMISES.

Commencing at the southeast corner of said Lot 11; Thence along the south line of said Lot, N89°02'25"W, 11.14 feet; Thence N00°57'37"E, 7.10 feet; Thence N85°45'42"W, 27.30 feet; Thence N01°14'18"E, 11.80 feet; Thence N00°00'00"E, 4.56 feet (L8) to the Point of Beginning; Thence continuing N00°00'00"E, 5.85 feet (L9); Thence S88°51'23"E, 26.00 feet; Thence S01°08'37"W, 5.77 feet (L10); Thence N89°02'25"W, 25.88 to the Point of Beginning.

Site Owner herein agrees that this legal description may be substituted at a later date upon presentation of a survey of the property more clearly defining the location hereof.

Agreed and Approved:

SITE OWNER:

Blynn Properties, LLC,
an Idaho limited liability company

Signature: _____
Print Name: Robert Miller
Its: owner
Date: 3-1-16

Exhibit BB-1
Communication Easement
(Continued)

JOINDER PARTY:

Treasure Valley Collision Center, L.L.C.,
an Idaho limited liability company

Signature: _____
Print Name: Robert Miller
Its: owner
Date: 3-1-16

ULYSSES:

Ulysses Asset Sub II, LLC
a Delaware limited liability company

Signature: _____
Print Name: Edward P. Maggio, Jr.
Its: Senior Counsel, US Tower
Date: 3/16/16

WIRELSS COMMUNICATION EASEMENT AND ASSIGNMENT AGREEMENT
DATED AUGUST 18, 2010

12/96
57

ADA COUNTY RECORDER J. DAVID NAVARRO AMOUNT 50.00 17
BOISE IDAHO 09/16/10 09:42 AM
DEPUTY Vicki Allen
RECORDED – REQUEST OF
Fidelity National Title

1070338

Prepared by:
Victoria M. de Lisle
Locke Lord Bissell & Liddell LLP
601 Poydras Street, Suite 2660
New Orleans, LA 70130
File: 80598624/03685

Record and Return to:
Dione Carter
Fidelity National Title Group
7130 Glen Forest Drive, Suite 300
Richmond, VA 23226
Phone: 1.804.267.2048
Fax: 1.804.267.2330
File: #11398145
Unison Site: 6316984

WIRELESS COMMUNICATION EASEMENT AND ASSIGNMENT AGREEMENT

THIS WIRELESS COMMUNICATION EASEMENT AND ASSIGNMENT AGREEMENT ("Agreement") is made as of the 17th day of August, 2010 ("Effective Date"), by and between Blynn Properties, L.L.C. a/k/a LLC, whose address is 8247 W. State Street, Garden City, Idaho 83714 ("Site Owner"), Treasure Valley Collision Center L.L.C, whose address is 8247 West State Street, Boise, Idaho 83714 ("Joinder Party"), and T6 Unison Site Management LLC, a Delaware limited liability company, whose address is P.O. Box 1951, Frederick, Maryland 21702-0951 ("Unison"). All references hereafter to "Unison", "Site Owner" and "Joinder Party" shall include their respective heirs, successors, personal representatives, lessees, licensees and assigns (Unison and Site Owner, collectively, "Parties").

RECITALS

WHEREAS, Site Owner is the owner of that certain property ("Property") located in the City of Garden City, and County of Ada in the State of Idaho, having a street address of 8247 W. State Street, Garden City, Idaho 83714, and which Property is more particularly described on Exhibit A attached hereto.

NOW, THEREFORE, for and in consideration of the sum of Ten and No/100 Dollars and other good and valuable consideration, the receipt and sufficiency of which Site Owner does hereby acknowledge and grant Unison full discharge and acquittance therefor, Site Owner and Unison agree to the following:

1. Grant of Easement.
   (a) Site Owner grants, bargains, sells, transfers and conveys to Unison:
   (i) an exclusive easement in, to, under and over the portion of the Property substantially as shown and/or described on Exhibit B-1 ("Communication Easement") for the transmission and reception of any and all wireless communication signals and the construction, maintenance, repair, replacement, improvement, operation and removal of towers, antennas, buildings, fences, gates, generators and related facilities

(collectively, "Facilities") and any related activities and uses including those necessary for Unison to comply with its obligations under the agreements listed on Exhibit C ("Existing Agreements") together with the right to enter the Property and access the Easements described below, without notice to Site Owner, twenty-four (24) hours a day, seven (7) days a week, as may be required in connection with the activities and uses described in this Agreement, and

(ii) a non-exclusive easement in, to, under and over portions of the Property substantially as shown and/or described on Exhibit B-2 ("Access and Utility Easements;" Communication Easement and Access and Utility Easements, collectively "Easements") for ingress and egress to and from the Communication Easement and a publicly dedicated roadway, and for the installation, repair, replacement, improvement, maintenance and removal of utilities providing service to the Communication Easement and the Facilities, and any related activities and uses.

(b) The Parties agree that the Communication Easement includes, without limitation, (i) the portion of the Property leased by Site Owner under the Existing Agreements, plus an additional 20.00 feet by 20.00 feet adjoining the westerly line of the area leased under the Existing Agreements and (ii) the portion of the Property upon which any Facilities are located on the Effective Date.

2. Assignment of Existing Agreements. Site Owner transfers and assigns to Unison, as of the Effective Date, all of its right, title and interest in, to and under the Existing Agreements, including without limitation, all rents, security deposits and other monies due the Site Owner specified therein. The Parties intend that this Agreement serve as an absolute assignment and transfer to Unison of all rents and other monies due the Site Owner pursuant to the Existing Agreements. Unison assumes the obligations and liabilities of Site Owner under the Existing Agreements only to the extent that such obligations and liabilities (i) are not the responsibility of the Site Owner pursuant to the terms of this Agreement; and (ii) accrue on or after the Effective Date.

3. Use of Easements. Consistent with the uses set forth in Section 1 above, Unison shall have the unrestricted right to lease, license, transfer or assign, in whole or in part, or permit the use of the Easements and/or its rights under this Agreement by any third parties including communication service providers or tower owners or operators, and any lessee or licensee under the Existing Agreements and the affiliates, agents, contractors, invitees and employees of Unison and/or Unison's present or future lessees or licensees (collectively, "Customers").

4. Term. This Agreement and the Easements shall be perpetual commencing on the Effective Date. Notwithstanding the foregoing, in the event Unison and Customers voluntarily cease to use the Easements (as defined in Section 1) for a period of more than five years (for reasons other than casualty, condemnation or Act of God), the Easements shall be deemed surrendered. Unison may surrender the Easements for any reason or at any time by giving thirty (30) days' notice to Site Owner. Upon surrender, this Agreement shall be terminated, and Unison and Site Owner shall execute and record such documents reasonably required to terminate the Easements. This Agreement may not be terminated by Site Owner.

5. Improvements; Utilities. Unison and its Customers, may, at their discretion and expense, construct such improvements in, to, under and over the Easements, consistent with the uses specified in Section 1, all of which shall be deemed part of the Facilities. The Facilities shall remain the property of Unison and its Customers, as applicable, and Site Owner shall possess no right, title or interest therein. In the event that utilities necessary to serve the Facilities cannot be installed within the Easements, Site Owner agrees to cooperate (at no cost to Site Owner) with Unison and to act reasonably and in good faith in granting Unison the right to locate such utilities on the Property without requiring the payment of additional fees. If necessary, Site Owner shall, upon Unison's request, execute and record a separate written easement with Unison or with the utility company providing the utility service to reflect such right. Site Owner hereby irrevocably constitutes and appoints Unison as its true and lawful attorney-in-fact, with full power of substitution and resubstitution, to apply for and obtain any and all licenses, permits, consents or approvals which may be required in connection with the use of the Easements by Unison and as necessary to comply with applicable laws, statutes or regulations.

6. Taxes. Site Owner acknowledges that a portion of the purchase price delivered by Unison to Site Owner is for and in consideration of the continuing obligation of Site Owner to pay, on or before the due date, all present and future real property taxes, transfer taxes, penalties, interest, roll-back or additional taxes, sales and use taxes and all other

fees and assessments, regardless of the taxing method (the "Taxes") attributable to the Property, this Agreement and the Easements. Without limiting the foregoing, except to the extent Taxes are the obligation of tenants under the Existing Agreements, Site Owner shall be solely responsible for the payment of such Taxes. Within ten (10) days of receiving a request from Unison, Site Owner shall furnish to Unison a copy of each bill for any such Taxes and evidence of Site Owner's payment of such bill. In the event that Site Owner fails to pay any Taxes when due, Unison shall have the right, but not the obligation, to pay such Taxes on behalf of Site Owner. Site Owner shall reimburse Unison for the full amount of such Taxes paid by Unison on Site Owner's behalf within five (5) business days of Site Owner's receipt of an invoice from Unison.

7. Property Maintenance and Access. Site Owner agrees to maintain the Property. Without limiting the foregoing, except to the extent maintenance is the obligation of tenants under the Existing Agreements, Site Owner shall be solely responsible for the maintenance of the Property. Site Owner agrees to provide Unison and its Customers access to and from the Easements and all other space in the Property consistent with the grant of the Easements set forth in Section 1 above, twenty-four (24) hours a day, seven (7) days a week.

8. Representations; Other Covenants of Site Owner. Site Owner represents, warrants and agrees that: (a) it is the legal owner of indefeasible and marketable title to the Property with the right, power and authority to enter into this Agreement and to grant the Easements to Unison, and any consents and authorizations required in connection with the execution and delivery of this Agreement have been obtained; (b) except for the Existing Agreements and as disclosed on Exhibit D, no leases, mortgages, deeds of trust or other encumbrances affect the Property as of the Effective Date; (c) Site Owner will comply with all governmental laws, rules and regulations applicable to the Property; (d) Site Owner has delivered to Unison true, correct and complete copies of the Existing Agreements, and, to Site Owner's best knowledge, no party is in default of any of their respective obligations under the Existing Agreements; (e) no party under the Existing Agreements has advised of any intention to exercise, nor have they exercised, any right of early termination set forth in its Existing Agreements, and further, no party has requested a reduction in the rental amount or escalator due under the Existing Agreements; (f) as of the Effective Date, Site Owner shall not, without the prior written consent of Unison, amend or modify the Existing Agreements in any respect or exercise any rights granted by Site Owner to Unison under this Agreement, including, without limitation, any and all rights and remedies of Site Owner under the Existing Agreements; (g) notwithstanding anything to the contrary in this Agreement, Site Owner shall comply with all obligations of the lessor under the Existing Agreements which relate to the use, ownership and operation of Property; and (h) Site Owner shall not use nor permit its affiliates, licensees, invitees or agents to use any portion of the Property or any other property owned or controlled by Site Owner, either directly, indirectly or by action or inaction, in a manner which in any way could result in default of the Existing Agreements or otherwise interfere with the operations of Unison and/or any Customers.

9. Environmental Covenants and Indemnity. Site Owner represents that it has not permitted or engaged in the use of, and has no knowledge of, any substance, chemical or waste (collectively "Substance") located on, under or about the Property that is identified as hazardous, toxic or dangerous in any applicable federal, state or local law or regulation. Neither Site Owner nor Unison will introduce or use any such Substance on, under or about the Property in violation of any applicable law or regulation. No underground storage tanks for petroleum or any other Substance, or underground piping or conduits, are or have previously been located on the Property, and no asbestos-containing insulation or products containing PCB or other Substances have been placed anywhere on the Property by Site Owner or, to Site Owner's knowledge, by any prior owner or user of the Property. Site Owner and Unison shall each defend, indemnify, protect and hold the other party harmless from and against all claims, costs, fines, judgments and liabilities, including attorney's fees and costs, arising out of or in connection with the presence, storage, use or disposal of any Substance on, under or about the Property caused by the acts, omissions or negligence of the indemnifying party and their respective agents, contractors and employees. The foregoing indemnity shall survive any termination of this Agreement.

10. General Indemnity. In addition to the Environmental Indemnity set forth above, Site Owner and Unison shall each indemnify, defend and hold the other harmless against any and all costs (including reasonable attorney's fees) and claims of liability or loss arising (a) due to the breach of any representation, warranty or covenant of such indemnifying party set forth herein; and (b) out of the use and/or occupancy of the Property and Easements by the indemnifying party. This indemnity shall not apply to any claims to the extent arising from the gross negligence or intentional misconduct of the indemnified party.

11. Assignment; Secured Parties. Unison has the unrestricted right to assign, mortgage or grant a security interest in all of Unison's interest in and to this Agreement and the Easements, and may assign this Agreement and the Easements to any such assignees, mortgagees or holders of security interests, including their successors and assigns ("Secured Party" or, collectively, "Secured Parties"). Site Owner agrees to notify Unison and Secured Parties (provided Unison has given Site Owner notice and contact information of Secured Parties) simultaneously of any default by Unison and give Secured Parties the same right to cure any default. If a termination, disaffirmation or rejection of this Agreement shall occur, pursuant to any laws (including any bankruptcy or insolvency laws), Site Owner will notify Secured Parties (provided Unison has given Site Owner notice and contact information of Secured Parties) promptly and Site Owner shall enter into a new easement agreement with any such Secured Party upon the same terms of this Agreement, without requiring the payment of any additional fees. If any Secured Party shall succeed to Unison's interest under this Agreement, such Secured Party shall have no obligation to cure and no liability for any defaults of Unison accruing prior to the date that such Secured Party succeeds to such interest. Site Owner will enter into modifications of this Agreement reasonably requested by any Secured Party. Site Owner hereby waives any and all lien rights it may have, statutory or otherwise, in and to the Easements and/or the Facilities or any portion thereof.

12. Estoppel Certificate. At any time during the term hereof, each party shall have the right to deliver to the other a statement of such party certifying: (i) that this Agreement is unmodified and in full force and effect (or, if there have been modifications, stating the modifications and that the modified Agreement is in full force and effect); (ii) whether or not, to the best knowledge of the responding party, the requesting party is in default in performance of any of its obligations under this Agreement, and, if so, specifying each such default; (iii) that there are no amounts due to the responding party from the requesting party; and (iv) any other information reasonably requested concerning this Agreement (the "Estoppel Certificate"). In the event the responding party fails to dispute the Estoppel Certificate by delivery to the requesting party of a notice specifying the nature and circumstances of any matter in the Estoppel Certificate that is disputed by the responding party within ten (10) days of receipt of the Estoppel Certificate, then all matters specified in the Estoppel Certificate shall be deemed true and correct, and the Estoppel Certificate shall thereafter be binding on the Parties, Secured Party or any party designated by the requesting party, and all of such parties may thereafter rely on the Estoppel Certificate as a conclusive statement of fact by the responding party as to the matters set forth therein.

13. Additional Customers. It is the intent of the Parties to encourage the addition of Customers to the Property throughout and after the term hereof. Site Owner hereby irrevocably constitutes and appoints Unison as its true and lawful attorney-in-fact, with full power of substitution and resubstitution to negotiate and consummate leases, licenses and/or other agreements of use with Customers having a duration beyond the term of this Agreement. Site Owner ratifies and acknowledges the right of Unison to enter into such agreements, and the Property and Site Owner will be bound by such agreements throughout and after the termination of this Agreement for any reason. Site Owner acknowledges that all such agreements entered into by Unison shall survive the termination of this Agreement for any reason. Site Owner agrees that it shall not, directly or indirectly, divert or solicit the business of any of Unison's Customers on behalf of itself or on behalf of any third party. Unison shall have a right of first refusal to acquire, on the same terms and conditions offered by or to a third party, any interest in the Property or any portion thereof being transferred by Site Owner for wireless communication purposes such as described in Section 1 above. Site Owner shall, prior to granting or transferring such interest, notify Unison with a copy of the offer including the price and terms thereof. The foregoing is a continuing right in favor of Unison and shall not be extinguished by Unison's exercise or non-exercise of such right on one or more occasions. Upon the grant or transfer of the Property, or any portion thereof, to a third party, Site Owner shall immediately notify Unison in writing of such grant or transfer, with the name and address of the purchaser.

14. Condemnation. In the event of any condemnation of the Easements in whole or in part, Unison shall be entitled to file claims against the condemning authority for, and to receive, the value of the portion of the Property so taken on which the Easements are located, business dislocation expenses and any other award or compensation to which Unison may be legally entitled. Site Owner hereby assigns to Unison any such claims and agrees that any claims made by Site Owner will not reduce the claims made by Unison.

15. Covenant Running with the Land. The provisions of and covenants contained in this Agreement shall run with the land and shall bind and inure to the benefit of the Parties and their respective successors, heirs and assigns.

16. Dispute Resolution.

(a) If Unison fails to perform any of its obligations under this Agreement, Site Owner agrees to notify Unison and any Secured Parties, provided Unison has given Site Owner notice and contact information of Secured Parties, in writing of any default by Unison, and to give Unison and/or any Secured Parties the right to cure any default within a period of not less than sixty (60) days from Unison's receipt of the written default notice. If Unison or any Secured Parties shall fail to cure any default in accordance with this Section, Site Owner agrees that its only remedies for such default shall be specific performance or damages. Any and all damages for which Site Owner may be compensated is limited to the actual damages of Site Owner and Unison's liability shall be limited to its interest in the Property. In the event that any dispute or claim arises that could impair the use or possession of the Facilities by Unison or its Customers, Unison shall have the right to seek injunctive relief, without the necessity of posting a bond.

(b) Except as set forth in Section 16(a), in the event of any dispute arising out of this Agreement, the following dispute resolution process shall be followed: (i) upon a party's written notice of dispute to the other party, an authorized representative of the Site Owner and Unison shall, through a good faith negotiation, attempt to settle a written resolution within thirty (30) days and (ii) if such negotiation attempts fail, the dispute shall be submitted by the parties to a mutually agreed upon arbitrator for a binding and final arbitration decision in accordance with the rules of the American Arbitration Association ("AAA") and using the Federal Rules of Evidence and Civil Procedure. In the event the parties are unable to mutually agree to an arbitrator, each party shall select their own arbitrator, and each such arbitrator shall thereafter mutually agree on a third arbitrator, and the majority decision by all such arbitrators shall be final and binding on the parties. Each party shall pay one-half of all arbitrator professional fees and the prevailing party, in any proceedings under this Section 16, shall be entitled to recover all costs incurred in connection therewith, including legal fees.

17. Notices. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed given one (1) business day after posting with a nationally recognized overnight courier service, or the earlier of receipt or ten (10) days after posting by registered or certified mail, return receipt requested, to the addresses of Site Owner and Unison set forth on the signature page. Either party may change its notice address by providing a new recipient name and address by notice as set forth in this paragraph.

18. Miscellaneous. (a) This Agreement and all Exhibits attached hereto constitute the entire agreement and understanding of Site Owner and Unison with respect to the subject matter of this Agreement, and supersedes all offers, negotiations and any other written or verbal agreements; (b) any amendments to this Agreement must be in writing and executed by both parties; (c) this Agreement is governed by the laws of the State in which the Property is located; (d) if any term of this Agreement is found to be void or invalid, such provision shall be fully severable therefrom and such invalidity shall not affect the remaining terms of this Agreement, which shall continue in full force and effect, and this Agreement shall be reformed and construed as if such invalid provision had never been contained herein, and if possible, such provisions shall be reformed to the maximum extent permitted under applicable law to render same valid, operative and enforceable to reflect the intent of the Parties as expressed herein; (e) upon the request of Unison, Site Owner shall execute a Memorandum of this Agreement and such plats or surveys as deemed reasonably necessary by Unison for recordation in the public records of the County in which the Property is located; (f) the paragraph headings of this Agreement have been inserted for convenience of reference only, and shall in no way modify or restrict the terms of this Agreement; (g) Site Owner acknowledges that Unison has not provided any legal or tax advice to Site Owner in connection with the execution of this instrument; and (h) this Agreement may be executed in any number of counterparts, each of which shall, when executed, be deemed to be an original and all of which shall be deemed to be one and the same instrument.

19. Joinder Party. And now to these presents, intervenes Treasure Valley Collision Center L.L.C., who joins with Site Owner in entering into this Agreement and does hereby agree to be bound by all of the terms hereof and joins Site Owner in granting the easement to Unison and assigns all of its right, title and interest in the Existing Agreements to Unisan in all respects.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

WITNESSES:

_____

Print Name: _____

_____

Print Name: _____

"SITE OWNER":

BLVNN PROPERTIES, L.L.C. a/k/a LLC

By: _____

Print Name: Robert Allen Miller, Jr.
a/k/a Robert A. Miller, Jr.

Title: Member

Address: 8247 W. State Street
City: Garden City
State: Idaho
Zip: 83714
Tel: 208 853 2461
Fax: NA

STATE OF IDAHO)
) ss:
COUNTY OF ADA)

On this 18th day of Aug, in the year 2010, before me (here insert the name and quality of the officer), personally appeared Robert Allen Miller, Jr. a/k/a Robert A. Miller, Jr., known or identified to me to be the Member of the limited liability company that executed the instrument or the person who executed the instrument on behalf of said limited liability company and acknowledged to me that such limited liability company executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Scott Bowen

Notary Public

Residing at Boise

My commission expires 11/14/12

SCOTT BOWEN NOTARY PUBLIC STATE OF IDAHO

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

WITNESSES:

_____
Print Name: _____

_____
Print Name: _____

"JOINDER PARTY":

Treasure Valley Collision Center L.L.C., an Idaho limited liability company

By: _____
Print Name: Robert Allen Miller, Jr.
Title: Manager

Address: 8247 West State Street
City: Boise
State: Idaho
Zip: 83714
Tel: 208 853-9461
Fax: NA

STATE OF IDAHO)
) ss.
COUNTY OF ADA)

On this 18th day of Aug, in the year 2010, before me (here insert the name and quality of the officer), personally appeared Robert Allen Miller, Jr., known or identified to me to be the manager of the limited liability company that executed the instrument or the person who executed the instrument on behalf of said limited liability company and acknowledged to me that such limited liability company executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Scott Bowen
Notary Public
Residing at Boise
My commission expires 11/14/12

SCOTT BOWEN NOTARY PUBLIC STATE OF IDAHO

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

"UNISON":

WITNESSES:

T6 UNISON SITE MANAGEMENT LLC,
a Delaware limited liability company

Print Name: TING WONG

By: _____
Name: James R. Holmes
Title: Authorized Signatory

Print Name: MAISHA SMITH

Address: P.O. Box 1951
City: Frederick
State: Maryland
Zip: 21702-0951
Tel: (646) 452-5455
Fax: (301) 360-0635

STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)

On the 9TH day of AUGUST in the year of 2010, before me, the undersigned, a Notary Public in and for said state, personally appeared James R. Holmes, Authorized Signatory of T6 Unison Site Management LLC, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the individual or the entity upon behalf of which the individual acted, executed the instrument.

WITNESS my hand and official seal.

Signature: _____
My Commission Expires: _____
Commission Number: _____

STEPHANIE NOVICK
Notary Public, State of New York
No. 01NO5035998
Qualified in New York County
Commission Expires Nov. 14, 2010

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

The following described premises, to-wit:

Lot 11 in Block 2 of Azalea Subdivision, according to the official plat thereof filed in Book 71 of Plats at Pages 7243 and 7244, records of Ada County, Idaho and amended by warranty deed recorded December 27, 1996 under Instrument No. 96106001.

AND BEING the same property conveyed to Treasure Valley Collision Center L.L.C., an Idaho limited liability company from Steven G. Gregory, a married man as his sole and separate property by Warranty Deed dated October 03, 2005 and recorded October 04, 2005 in Instrument No. 105148172; AND FURTHER CONVEYED to Blynn Properties, L.L.C., a limited liability company from Treasure Valley Collision Center, L.L.C. by Quitclaim Deed dated July 28, 2008 and recorded July 30, 2008 in Instrument No. 108086742.

Tax Parcel No. R0719420250

EXHIBIT B-1

COMMUNICATION EASEMENT

That portion of the Property on which any Facilities exist on the date of this Agreement together with the portion of the Property leased by Site Owner under the Existing Agreements, and the portion of the Property described as follows:

Commencing at the northeasterly corner of the Property at the southerly line of W. State Street; thence South, along the East line of said Property, 155.00 feet to a point; thence West and perpendicular to the last mentioned course, 10.00 feet to the southeasterly corner of the herein described Communication Easement and point of Beginning; thence continue West, 60.00 feet; thence North and perpendicular to the last mentioned course, 20.00 feet; thence East and perpendicular to the last mentioned course, 60.00 feet; thence South and perpendicular to the last mentioned course, 20.00 feet to the point of Beginning.

Site Owner herein agrees that this legal description may be substituted at a later date upon presentation of a survey of the property more clearly defining the location thereof.

Agreed and Approved:

Site Owner:

Blynn Properties, L.L.C. a/k/a LLC

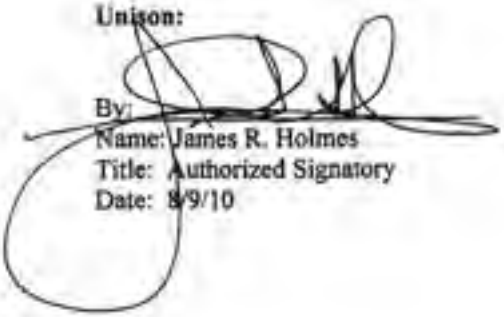
By:_____
Name: Robert Allen Miller, Jr. a/k/a Robert A. Miller, Jr.
Title: Member
Date: 8/18/2010

Joinder Party:

Treasure Valley Collision Center L.L.C.

By:_____
Name: Robert Allen Miller, Jr.
Title: Manager
Date: 8/18/2010

Unison:



By:
Name: James R. Holmes
Title: Authorized Signatory
Date: 8/9/10

EXHIBIT B-2

ACCESS AND UTILITY EASEMENTS

That portion of the Property on which any Facilities exist on the date of this Agreement or provided by Site Owner under the Existing Agreements for access and utility providers, including the following:

All rights of ingress and egress across the Property, more fully described on Exhibit "A" hereof, to and from the Communication Easement described in Exhibit B-1 hereof, providing access to a publicly dedicated roadway, including but not limited to **W. State Street** (hereinafter the "Access Easement"), along with the right to use said Access Easement for the development, repair, maintenance and removal of utilities providing service to the Communication Easement and the Facilities, as defined herein, and any related activities and uses.

Site Owner herein agrees that this legal description may be substituted at a later date upon presentation of a survey of the property more clearly defining the location thereof.

Agreed and Approved:

Site Owner:

Blynn Properties, L.L.C. a/k/a LLC/6

By:_____
Name: Robert Allen Miller, Jr. a/k/a Robert A. Miller, Jr.
Title: Member
Date: 8/13/2010

Joinder Party:

Treasure Valley Collision Center L.L.C.

By:_____
Name: Robert Allen Miller, Jr.
Title: Manager
Date: 8/13/2010

Unison:

By:
Name: James R. Holmes
Title: Authorized Signatory
Date: 8/9/10

EXHIBIT C

EXISTING AGREEMENTS

Site Owner assigns and transfers to Unison, as of the effective date herein, all of its right, title and interest in, to and under any existing lease agreements, and any amendments, transfers, modifications and/or assignments thereof, affecting any portion of the Property leased by Site Owner under any Existing Agreements, including, without limitation, the following:

1. That certain Site Lease With Option by and between Steven G. Gregory, as landlord, and VoiceStream PCS II Corporation, a Delaware corporation, as tenant, dated November 19, 2003, as assigned by Steven G. Gregory to Treasure Valley Collision Center, L.L.C., an Idaho limited liability company, by Assignment of Lease recorded on October 5, 2005 in Instrument No. 105148893.

2. That certain Communication Site Lease Agreement (Ground Space) by and between Steven G. Gregory, an unmarried person, as landlord, and Clearwire LLC, a Nevada limited liability company, as tenant, dated as of September 15, 2005, as assigned by Steven G. Gregory to Treasure Valley Collision Center, L.L.C., an Idaho limited liability company, by Assignment of Lease recorded on October 5, 2005 in Instrument No. 105148893.

Read, Agreed and Approved:

Site Owner:

Blynn Properties, L.L.C. a/k/a LLC

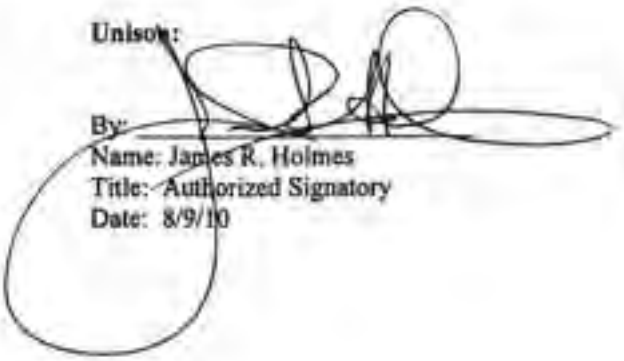
By:_____
Name: Robert Allen Miller, Jr. a/k/a Robert A. Miller, Jr.
Title: Member
Date: 8/11/2010

Joinder Party:

Treasure Valley Collision Center L.L.C.

By:_____
Name: Robert Allen Miller, Jr.
Title: Manager
Date: 8/11/2010

Unison:



By:
Name: James R. Holmes
Title: Authorized Signatory
Date: 8/9/10

EXHIBIT D

TITLE ENCUMBRANCES

1. That certain Deed of Trust by Blynn Properties, LLC to Pioneer Title Co., as Trustee for the benefit of KeyBank National Association, in the amount of $389,500.00 dated July 29, 2008 and recorded on July 30, 2008 in Document No. 108086743, together with that Assignment of Rents dated July 29, 2008 and recorded on July 30, 2008 in Instrument No. 108086745, Official Records of ADA County, Idaho, for which a Non-Disturbance Agreement has been executed in favor of Unison and recorded in Instrument No. 110086350 Official Records of Ada County, Idaho.

2. That certain Deed of Trust by Treasure Valley Collision Center L.L.C. to TitleOne Corporation, as Trustee for the benefit of Capital Matrix, Inc., in the amount of $286,000.00 dated January 8, 2007 and recorded January 29, 2007, in Document No. 107013852, as assigned by the Assignment of Deed of Trust by Capital Matrix, Inc. to the Small Business Administration, dated January 8, 2007 and recorded January 29, 2007, in Document No. 107013853, and as subordinated by that certain Subordination Agreement in favor of KeyBank National Association, dated July 10, 2008 and recorded on July 30, 2008 in Document No. 108086744, together with the UCC Financing Statement recorded on January 29, 2007 in Instrument No. 107013851, Official Records of Ada County, Idaho, for which a Non-Disturbance Agreement has been executed in favor of Unison and recorded in Instrument No. 110086351, Official Records of Ada County, Idaho.

Date: June 13, 2024

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
towersupport@btgrp.com

Subject:	**Mount Analysis - Report**	
Carrier Designation:	**AT&T Mobility Co-Locate**	
	Carrier Site Number:	IDL02365
	Carrier Site Name:	NW Boise City
	Carrier FA Number:	15201834
	Carrier Site PACE Number:	MRUTH063125
Crown Castle Designation:	**BU Number:**	824322
	Site Name:	GrdnCity_Roe
	JDE Job Number:	2110929
	Order Number:	665802, Rev.2
Engineering Firm Designation:	**B+T Group Report Designation:**	159981.002.01.0002
Site Data:	**8247 W State Street, Garden City, ID, Ada County, 83714** **Latitude 43° 40' 22.63" Longitude -116° 17' 21.27"**	
Structure Information:	**Tower Height & Type:**	**118 ft. Monopole**
	Mount Elevation:	**80 ft.**
	Mount Type:	**12.5 ft. Sector Mount**

B+T Group is pleased to submit this **"Mount Analysis - Report"** to determine the structural integrity of AT&T Mobility's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

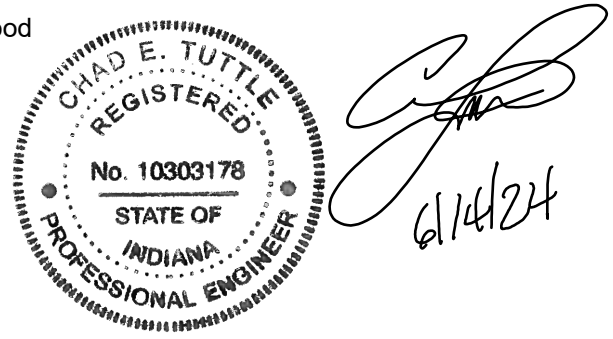
The purpose of the analysis is to determine acceptability of the mount's stress level. Based on our analysis we have determined the stress level to be:

Sector Mount (typical) **Sufficient**
***Sufficient upon completion of the recommendations listed in the Section 4.1 of this report.**

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 102 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Angela Ashwood

Respectfully submitted by: B&T Engineering, Inc.
COA: COA-1411 Expires: 03/31/2025



Chad E. Tuttle, P.E.

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1) INTRODUCTION

This is a proposed 3 - Sector 12.5' Sector Mount, designed by Commscope Part# MCG23HDXL-12M12126.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	102 mph
Exposure Category:	C
Topographic Factor at Base:	1
Topographic Factor at Mount:	1
Ice Thickness:	0 in
Wind Speed with Ice:	40 mph
Seismic S_s:	0.308
Seismic S_1:	0.111
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb.
Man Live Load at Mount Pipes:	250 lb.

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft.)	Antenna Centerline (ft.)	Number of Antennas	Manufacturer	Model/Type	Mount / Modification Details
80	82	3	Ericsson	AIR 6419 B77G	12.5' Sector Mount
	80	6	Commscope	NNH4-65C-R6-V3	
		3	Ericsson	4490 B5/B12*	
		3	Ericsson	4890 B25/B66*	
		3	Ericsson	Radio 4478 B14*	
		2	Raycap	DC9-48-60-24-PC16-EV*	
	78	3	Ericsson	AIR 6419 B77D	

*Equipment considered on the Proposed Equipment Mounting Pipes.

Table 2 - Documents Provided

Document	Remarks	Reference	Source
CCI Order	Proposed Loading	Date: 04/08/2024	Crown Castle
RFDS		Date: 03/11/2024	
BU_824322_-_App_665802_-_MRUTH063125_-_IDL02365_-_15201834_-_Scoping_Form – DE130		Date: --	
Mount Manufacturer Drawing	Commscope Part# MCG23HDXL-12M12126	Date: 10/30/2023	Commscope

3) ANALYSIS PROCEDURE

3.1) Analysis Method

RISA-3D (Version 22.0.1), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

A tool internally developed by B+T Group, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Mount Analysis* (Revision E). In addition, this analysis is in accordance with *AT&T's Mount Technical Directive – R22.0*.

Manufacturers drawing were used to create the model.

3.2) Assumptions

1. The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design, TIA Standards, and/or manufacturer's specifications.
2. The configuration of antennas, mounts, and other appurtenances are as specified in Table-1.
3. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected members unless otherwise specified in this report.
4. Mount areas and weights are determined from field measurements, standard material properties, and/or manufacturer product data.
5. Serviceability with respect to antenna twist, tilt, roll or lateral translation is not checked and is left to the carrier or tower owner to ensure conformance.
6. Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
7. The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
8. The following material grades were assumed (Unless Noted Otherwise):
   (a) Connection Bolts : ASTM A325
   (b) Steel Pipe : ASTM A53 (GR. 35)
   (c) HSS (Round) : ASTM 500 (GR. B-42)
   (d) HSS (Rectangular) : ASTM 500 (GR. B-46)
   (e) Channel : ASTM A36 (GR. 36)
   (f) Steel Solid Rod : ASTM A36 (GR. 36)
   (g) Steel Plate : ASTM A36 (GR. 36)
   (h) Steel Angle : ASTM A36 (GR. 36)
   (i) UNISTRUT : ASTM A570 (GR. 33)

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 – Mount Component Stresses vs. Capacity (Sector Mount)

Notes	Component	Centerline (ft.)	Critical Member	% Capacity	Pass / Fail
1,2,3	Antenna Mount Pipes	80	61	11.0	Pass
	Connection Pipes		66	3.7	Pass
	Face Horizontal Pipes		2	11.8	Pass
	Tieback Pipes		112	6.5	Pass
	Diagonals		125	9.0	Pass
	Connection Plates		145	10.1	Pass
	Verticals		123	11.4	Pass
	Support Arms		109	8.7	Pass
	Equipment Mount Pipes		171	5.0	Pass
4	Mount to Tower Connection		--	16.5	Pass

Structure Rating with Recommendations (max from all components) =	16.5%

Notes:
1) Capacities listed are based on recommendations listed in Sec.4.1 being installed.
2) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
3) All sectors are typical
4) See additional documentation in "Appendix D - Additional Calculations" for calculations supporting the % capacity reported.

4.1) Recommendations

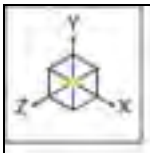
The proposed mount has sufficient capacity to support the proposed loading configuration. In order for the results of this analysis to be considered valid, the mount listed below shall be installed.

1. Commscope Part # MCG23HDXL-12M12126
2. Install (6) new SitePro1 Part# P296 (P/N: ANT.55983) or approved equal – 2” Std. x 8’-0’’ long equipment mount pipes attached to the support arms of the mount using Commscope Part# XP-2025 (P/N: ANT.54856) or approved equal crossover plates.
3. Install proposed mount pipes per requirements set by ATT-790-202-083.

No structural modifications are required at this time.

APPENDIX A

WIRE FRAME AND RENDERED MODELS



Envelope Only Solution

RISA	B+T Group	824322 - GrdnCity_Roe	SK-1
	MSP		Jun 13, 2024 at 04:57 PM
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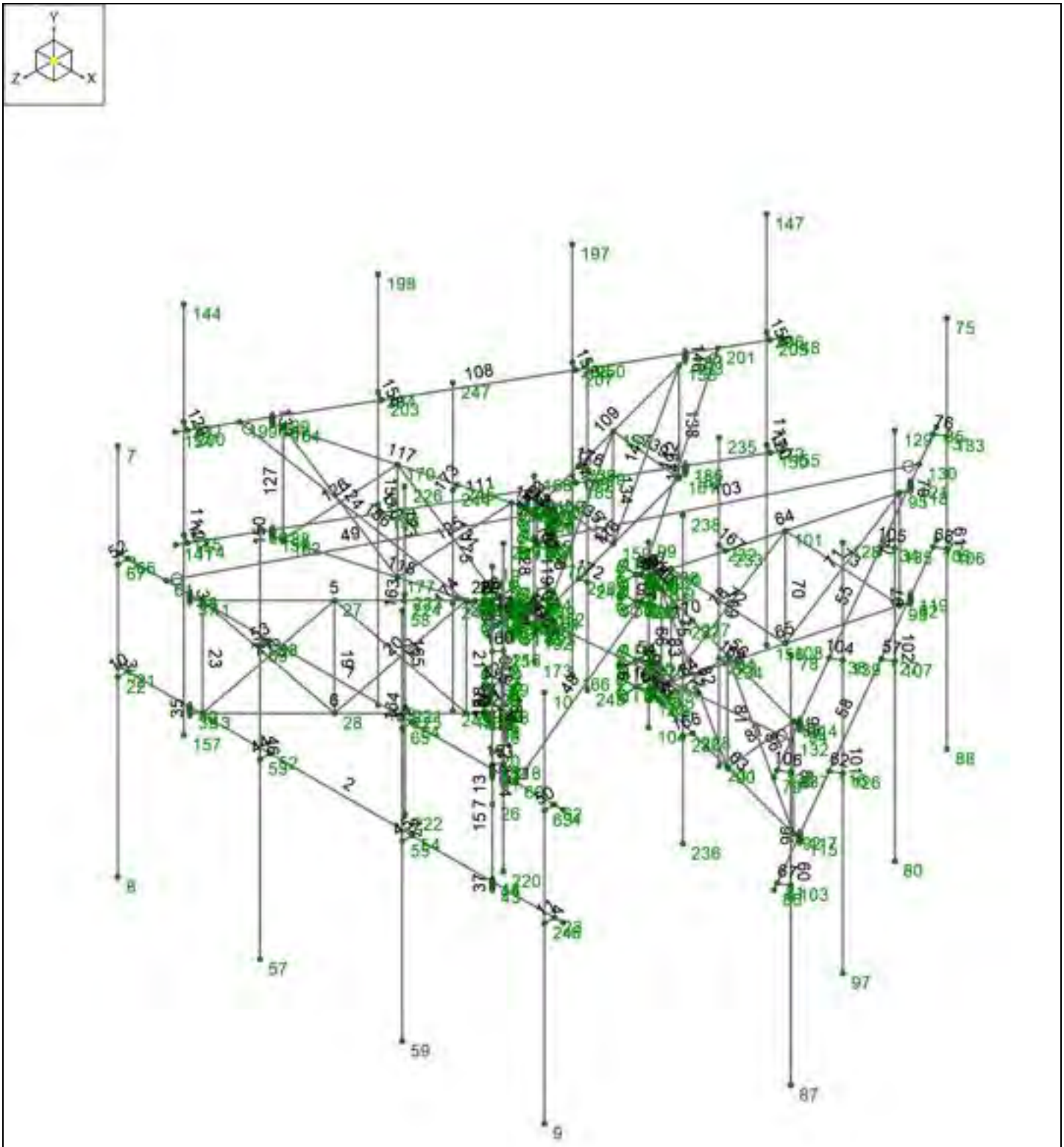

Envelope Only Solution

RISA	B+T Group	824322 - GrdnCity_Roe	SK-2
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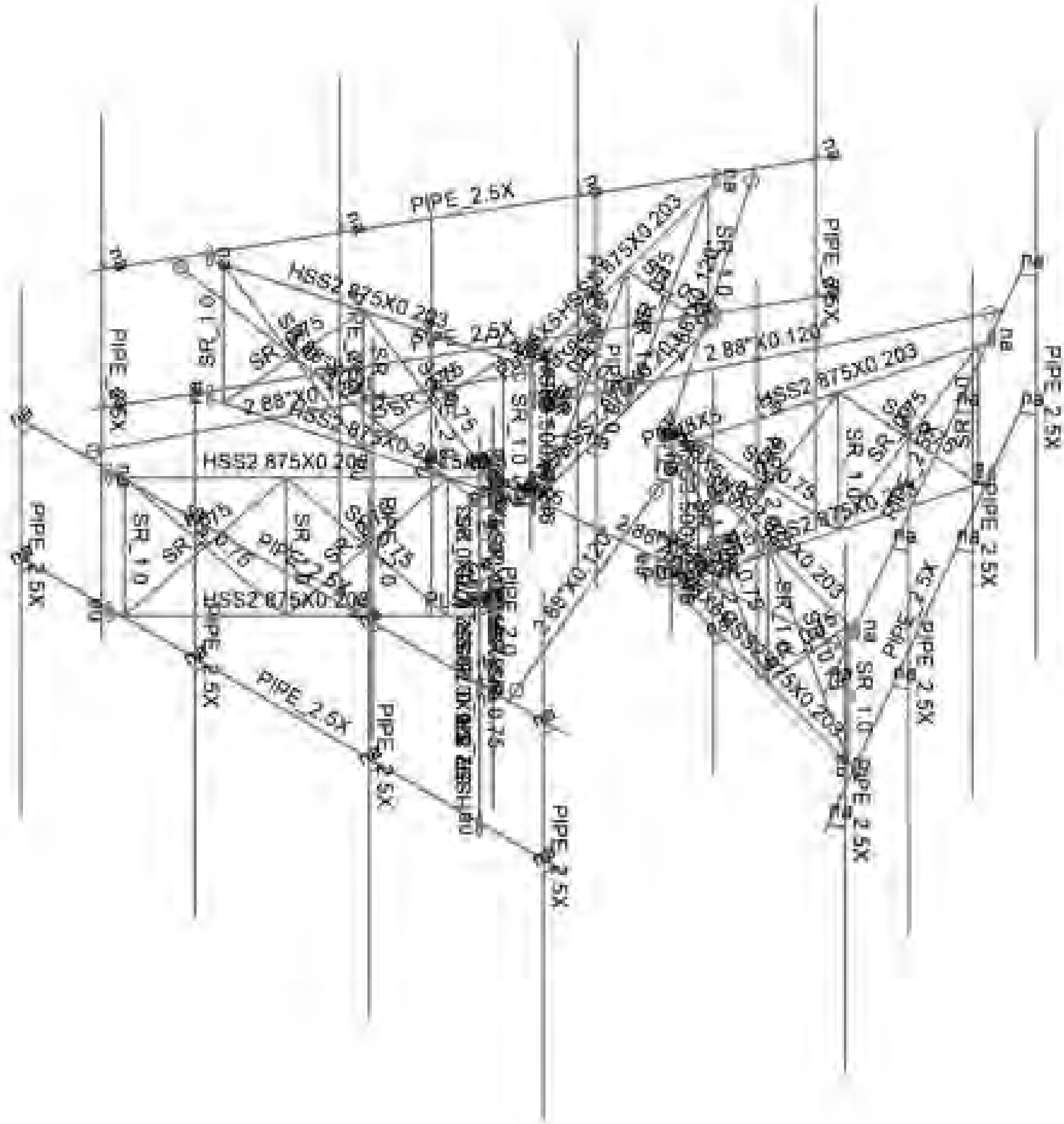

Envelope Only Solution

RISA	B+T Group	824322 - GrdnCity_Roe	SK-3
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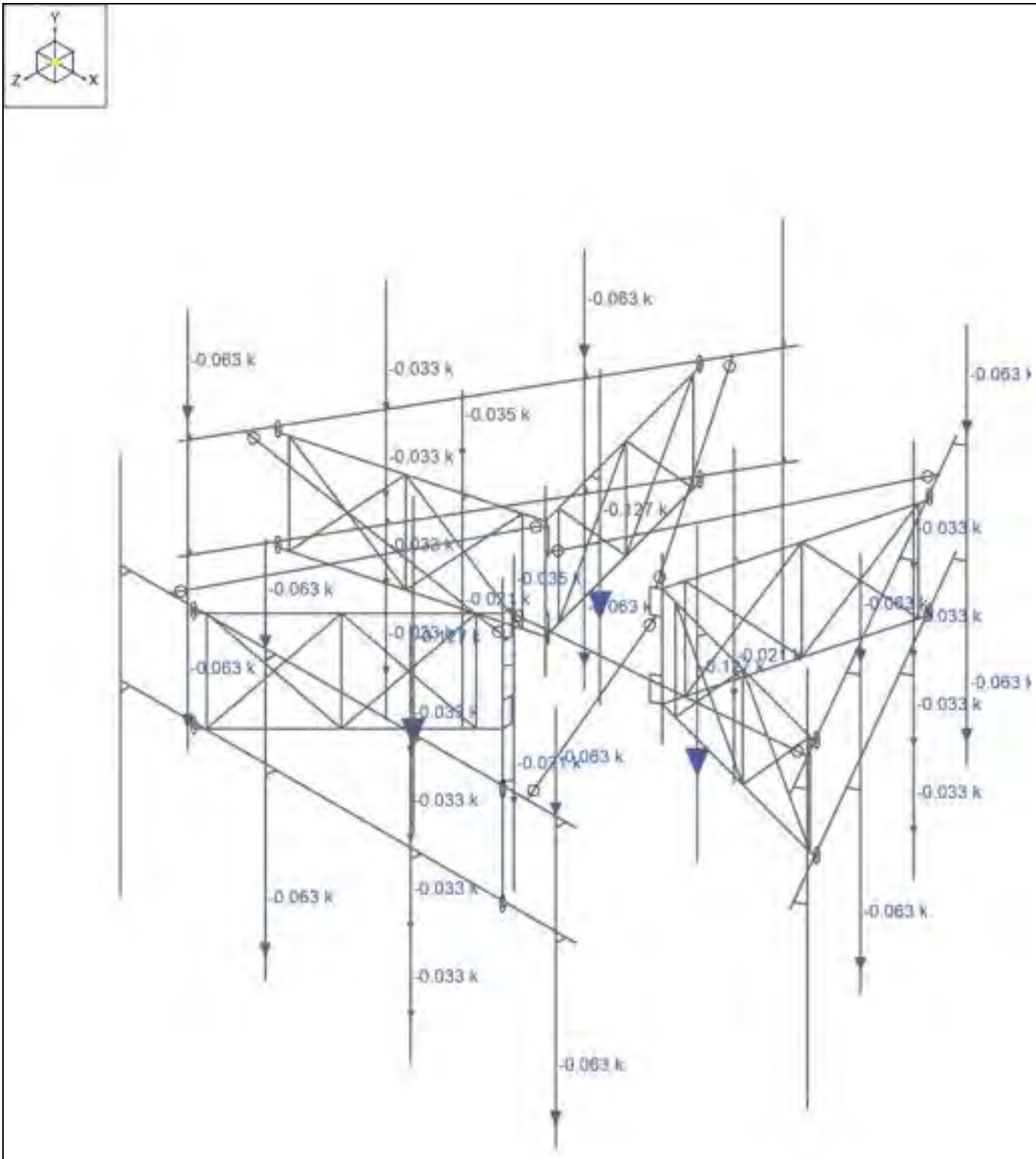

Loads: BLC 1, Dead
Envelope Only Solution

RISA	B+T Group	824322 - GrdnCity_Roe	SK-4
	MSP		Jun 13, 2024 at 04:58 PM
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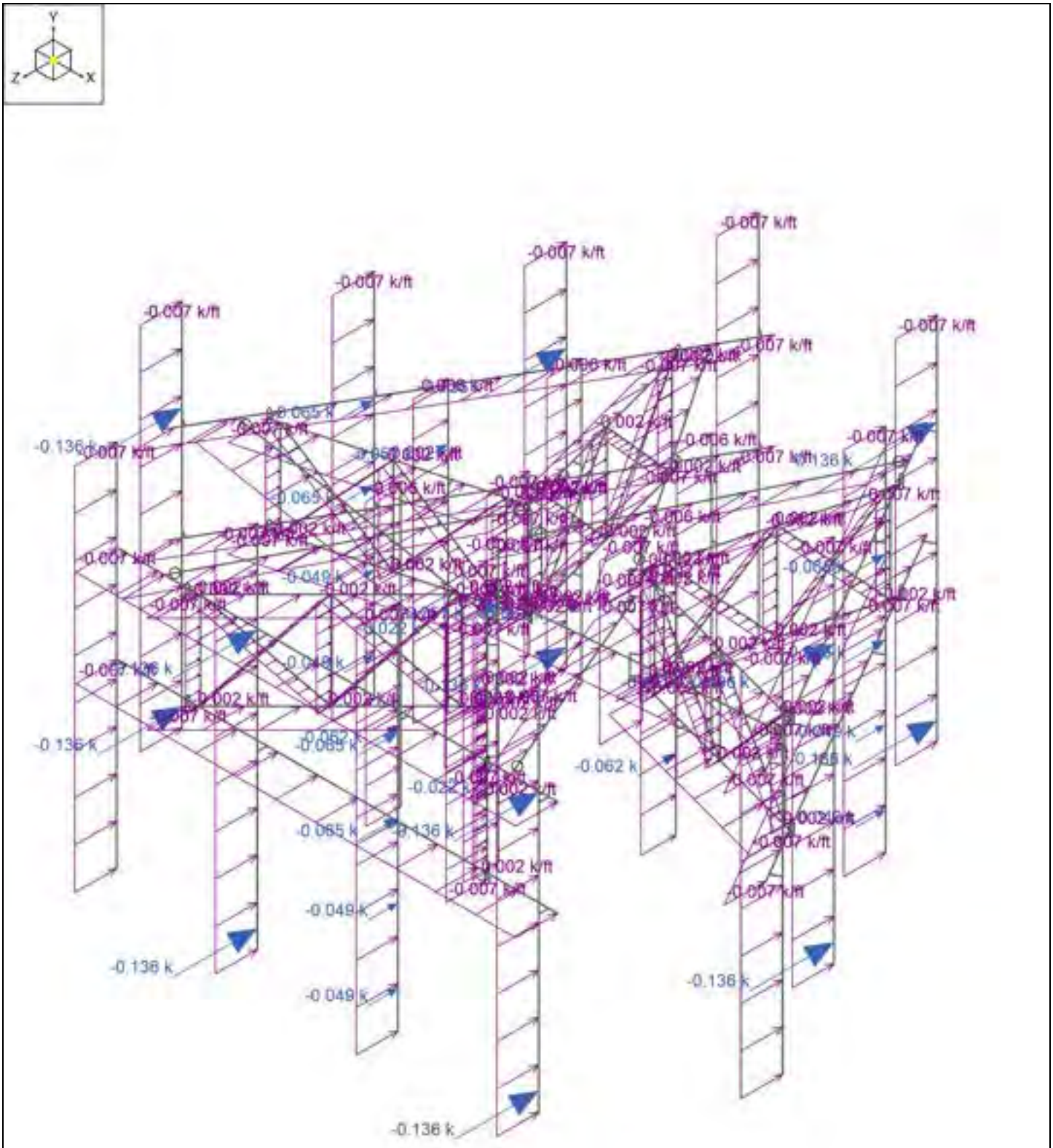

Loads: BLC 2, 0 Wind - No Ice Envelope Only Solution

RISA	B+T Group	824322 - GrdnCity_Roe	SK-5
	MSP		Jun 13, 2024 at 04:58 PM
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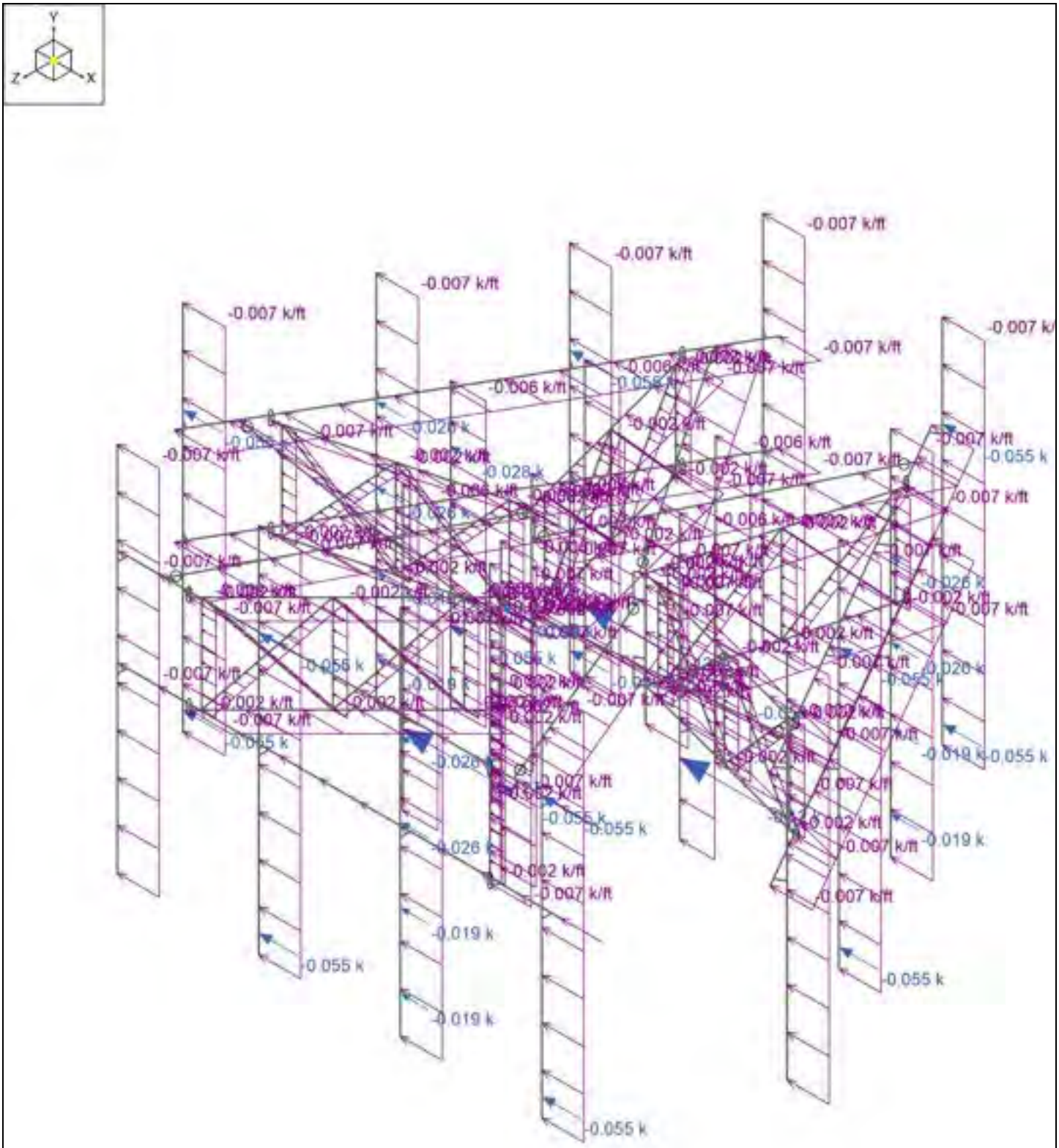

Loads: BLC 3, 90 Wind - No Ice Envelope Only Solution

RISA	B+T Group	824322 - GrdnCity_Roe	SK-6
	MSP		Jun 13, 2024 at 04:58 PM
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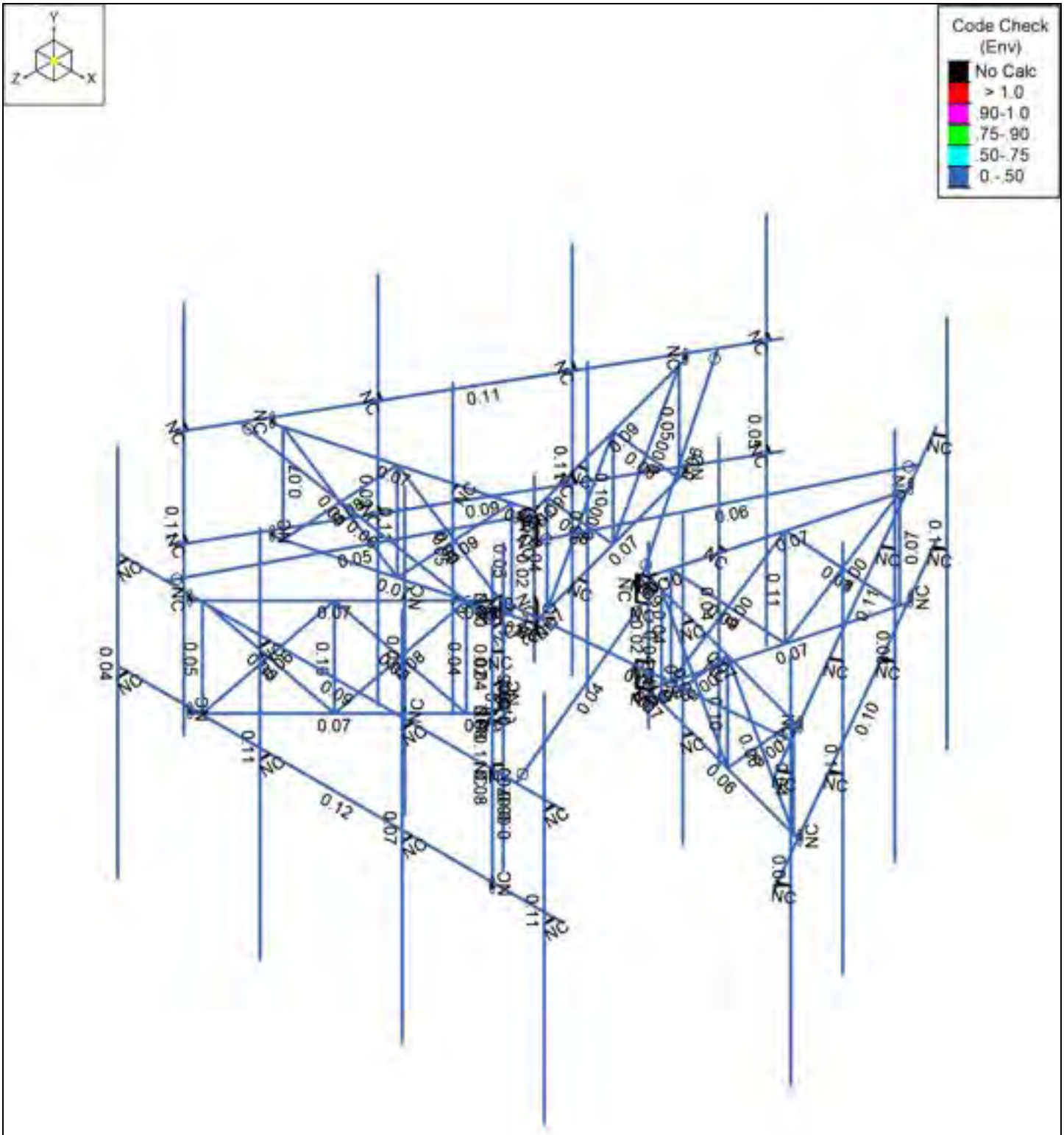

Member Code Checks Displayed (Enveloped)
Envelope Only Solution

RISA	B+T Group	824322 - GrdnCity_Roe	SK-7
	MSP		Jun 13, 2024 at 04:58 PM
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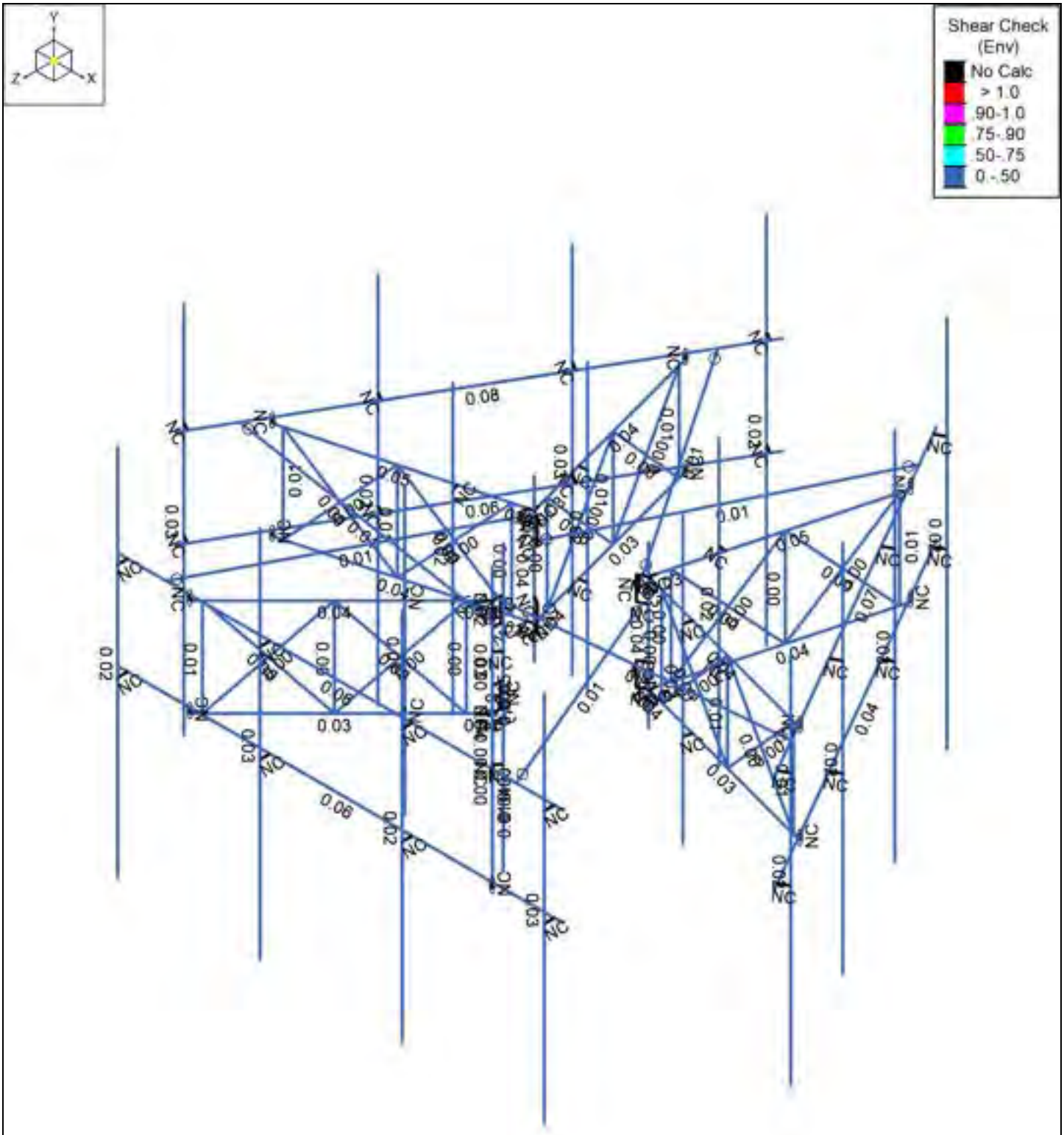


Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

APPENDIX B

SOFTWARE INPUT CALCULATIONS

ASCE Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	43.672953
Risk Category:	II	**Longitude:**	-116.289242
Soil Class:	D - Default (see Section 11.4.3)	**Elevation:**	2605.1169200304057 ft (NAVD 88)

Wind

Results:

Wind Speed	102 Vmph
10-year MRI	71 Vmph
25-year MRI	77 Vmph
50-year MRI	82 Vmph
100-year MRI	87 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Thu Jun 06 2024

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

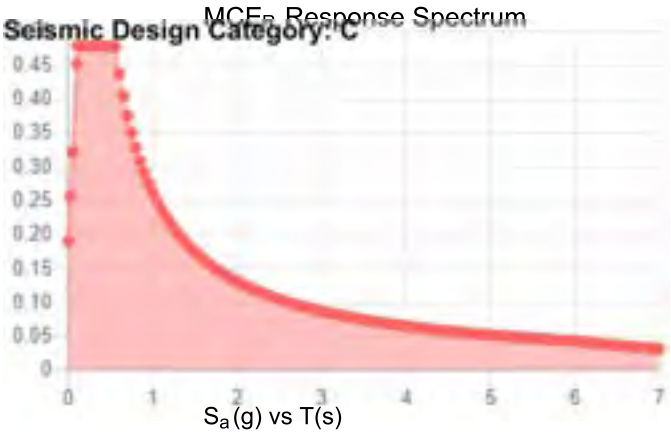
Seismic

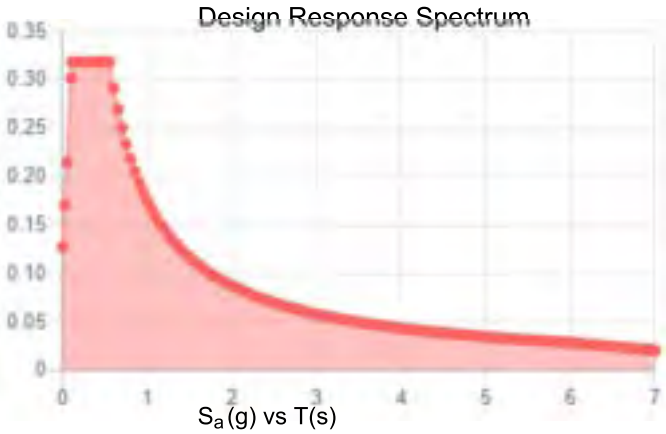
Site Soil Class: D - Default (see Section 11.4.3)

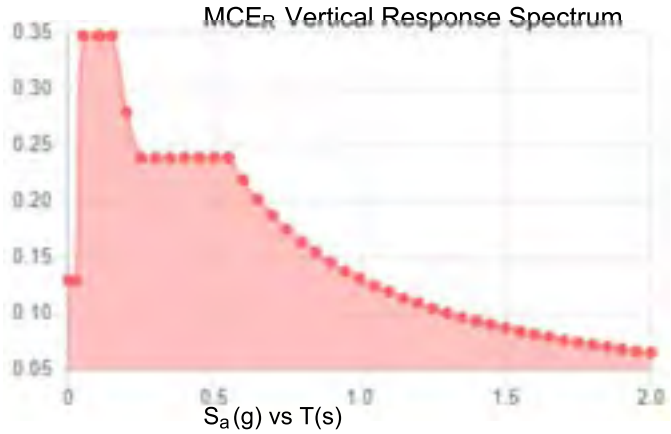
Results:

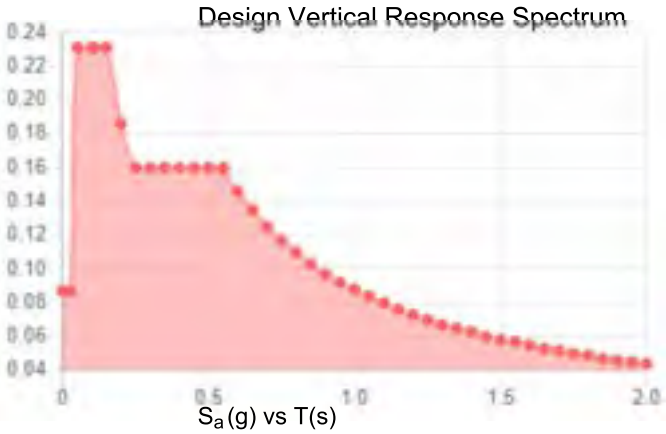
S_S :	0.308	S_{D1} :	0.175
S_1 :	0.111	T_L :	6
F_a :	1.553	PGA :	0.136
F_v :	2.379	PGA_M :	0.208
S_{MS} :	0.479	F_{PGA} :	1.527
S_{M1} :	0.263	I_e :	1
S_{DS} :	0.319	C_v :	0.905

Seismic Design Category: C









Data Accessed: Thu Jun 06 2024

Date Source:
USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	0.50 in.
Concurrent Temperature:	15 F
Gust Speed	40 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Thu Jun 06 2024

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

PROJECT	**159981.002.01.0002 - GrdnCity_Roe, KSC**
SUBJECT	**Sector Mount Analysis**
DATE	**06/13/24**

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Tower Type		:	Monopole		
Ground Elevation	z_s	:	2605	ft	[ASCE7 Hazard Tool]
Tower Height		:	118.00	ft	
Mount Elevation		:	80.00	ft	
Antenna Elevation		:	82.00	ft	
Crest Height		:	0	ft	
Risk Category		:	II		[Table 2-1]
Exposure Category		:	C		[Sec. 2.6.5.1.2]
Topography Category		:	1.00		[Sec. 2.6.6.2]
Wind Velocity	V	:	102	mph	[ASCE7 Hazard Tool]
Ice wind Velocity	V_i	:	40	mph	[ASCE7 Hazard Tool]
Service Velocity	V_s	:	30	mph	[ASCE7 Hazard Tool]
Base Ice thickness	t_i	:	0.00	in	[ASCE7 Hazard Tool]
Seismic Design Cat.		:	C		[ASCE7 Hazard Tool]
	S_S	:	0.31		
	S_1	:	0.11		
	S_{DS}	:	0.32		
	S_{D1}	:	0.18		
Gust Factor	G_h	:	1.00		[Sec. 16.6]
Pressure Coefficient	K_z	:	1.21		[Sec. 2.6.5.2]
Topography Facto	K_{zt}	:	1.00		[Sec. 2.6.6]
Elevation Factor	K_e	:	0.91		[Sec. 2.6.8]
Directionality Factor	K_d	:	0.95		[Sec. 16.6]
Shielding Factor	K_a	:	0.90		[Sec. 16.6]
Design Ice Thickness	t_{iz}	:	0.00	in	[Sec. 2.6.10]
Importance Factor	I_e	:	1		[Table 2-3]
Response Coefficient	C_s	:	0.160		[Sec. 2.7.7.1]
Amplification	A_s	:	1.711864		[Sec. 16.7]
	q_z	:	27.80	psf	

PROJECT	**159981.002.01.0002 - GrdnCity_Roe, KSC**
SUBJECT	**Sector Mount Analysis**
DATE	**06/13/24**

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Manufacturer	Model	Qty	Height (in^2)	Width (in^2)	Depth (in^2)	Weight (lbs)	C_aA_a (N) (ft^2)	C_aA_a (T) (ft^2)	C_aA_a (N) Ice (ft^2)	C_aA_a (T) Ice (ft^2)	$F_{A\,(N)}$ (k)	$F_{A\,(T)}$ (k)	$F_{A\,(N)}$ Ice (k)	$F_{A\,(T)}$ Ice (k)
COMMSCOPE	NNH4-65C-R6-V3	0.5	96.0	19.6	7.8	125.7	4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
COMMSCOPE	NNH4-65C-R6-V3	0.5					4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
ERICSSON	AIR 6419 B77G	0.5	28.0	15.8	6.7	66.2	2.32	0.94	2.32	0.94	0.06	0.03	0.01	0.00
ERICSSON	AIR 6419 B77G	0.5					2.32	0.94	2.32	0.94	0.06	0.03	0.01	0.00
ERICSSON	AIR 6419 B77D	0.5	28.2	16.1	7.3	66.2	1.74	0.69	1.74	0.69	0.05	0.02	0.01	0.00
ERICSSON	AIR 6419 B77D	0.5	28.2	16.1	7.3	66.2	1.74	0.69	1.74	0.69	0.05	0.02	0.01	0.00
COMMSCOPE	NNH4-65C-R6-V3	0.5	96.0	19.6	7.8	125.7	4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
COMMSCOPE	NNH4-65C-R6-V3	0.5					4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
ERICSSON	4490 B5/B12	1	15.1	6.8	17.5	20.8	0.85	2.20	0.85	2.20	0.02	0.06	0.00	0.01
RAYCAP	DC9-48-60-24-PC16-EV	1	16.3	16.6	8.2	34.9	2.26	1.12	2.26	1.12	0.06	0.03	0.01	0.00
ERICSSON	4890 B25/B66	1	20.6	7.0	15.7	67.2	1.22	2.70	1.22	2.70	0.03	0.07	0.00	0.01
ERICSSON	RADIO 4478 B14	1	18.1	8.3	13.4	59.4	1.25	2.02	1.25	2.02	0.03	0.05	0.00	0.01
COMMSCOPE	NNH4-65C-R6-V3	0.5	96.0	19.6	7.8	125.7	4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
COMMSCOPE	NNH4-65C-R6-V3	0.5					4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
ERICSSON	AIR 6419 B77G	0.5	28.0	15.8	6.7	66.2	2.32	0.94	2.32	0.94	0.06	0.03	0.01	0.00
ERICSSON	AIR 6419 B77G	0.5					2.32	0.94	2.32	0.94	0.06	0.03	0.01	0.00
ERICSSON	AIR 6419 B77D	0.5	28.2	16.1	7.3	66.2	1.74	0.69	1.74	0.69	0.05	0.02	0.01	0.00
ERICSSON	AIR 6419 B77D	0.5	28.2	16.1	7.3	66.2	1.74	0.69	1.74	0.69	0.05	0.02	0.01	0.00
COMMSCOPE	NNH4-65C-R6-V3	0.5	96.0	19.6	7.8	125.7	4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
COMMSCOPE	NNH4-65C-R6-V3	0.5					4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01

PROJECT	**159981.002.01.0002 - GrdnCity_Roe, KSC**
SUBJECT	**Sector Mount Analysis**
DATE	**06/13/24**

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Manufacturer	Model	Qty	Height (in^2)	Width (in^2)	Depth (in^2)	Weight (lbs)	C_aA_a (N) (ft^2)	C_aA_a (T) (ft^2)	C_aA_a (N) Ice (ft^2)	C_aA_a (T) Ice (ft^2)	$F_{A\,(N)}$ (k)	$F_{A\,(T)}$ (k)	$F_{A\,(N)}$ Ice (k)	$F_{A\,(T)}$ Ice (k)
ERICSSON	4490 B5/B12	1	15.1	6.8	17.5	20.8	0.85	2.20	0.85	2.20	0.02	0.06	0.00	0.01
RAYCAP	DC9-48-60-24-PC16-EV	1	16.3	16.6	8.2	34.9	2.26	1.12	2.26	1.12	0.06	0.03	0.01	0.00
ERICSSON	4890 B25/B66	1	20.6	7.0	15.7	67.2	1.22	2.70	1.22	2.70	0.03	0.07	0.00	0.01
ERICSSON	RADIO 4478 B14	1	18.1	8.3	13.4	59.4	1.25	2.02	1.25	2.02	0.03	0.05	0.00	0.01
COMMSCOPE	NNH4-65C-R6-V3	0.5	96.0	19.6	7.8	125.7	4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
COMMSCOPE	NNH4-65C-R6-V3	0.5					4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
ERICSSON	AIR 6419 B77G	0.5	28.0	15.8	6.7	66.2	2.32	0.94	2.32	0.94	0.06	0.03	0.01	0.00
ERICSSON	AIR 6419 B77G	0.5					2.32	0.94	2.32	0.94	0.06	0.03	0.01	0.00
ERICSSON	AIR 6419 B77D	0.5	28.2	16.1	7.3	66.2	1.74	0.69	1.74	0.69	0.05	0.02	0.01	0.00
ERICSSON	AIR 6419 B77D	0.5	28.2	16.1	7.3	66.2	1.74	0.69	1.74	0.69	0.05	0.02	0.01	0.00
COMMSCOPE	NNH4-65C-R6-V3	0.5	96.0	19.6	7.8	125.7	4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
COMMSCOPE	NNH4-65C-R6-V3	0.5					4.88	1.98	4.88	1.98	0.14	0.06	0.02	0.01
ERICSSON	4490 B5/B12	1		6.8	17.5	20.8	0.85	2.20	0.85	2.20	0.02	0.06	0.00	0.01
ERICSSON	4890 B25/B66	1	20.6	7.0	15.7	67.2	1.22	2.70	1.22	2.70	0.03	0.07	0.00	0.01
ERICSSON	RADIO 4478 B14	1	18.1	8.3	13.4	59.4	1.25	2.02	1.25	2.02	0.03	0.05	0.00	0.01

APPENDIX C

SOFTWARE ANALYSIS OUTPUT

Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	1	0	0	1.857812	
2	2	0	-2.75	1.857812	
3	3	-6.25	0.145833	6.111979	
4	4	6.25	0.145833	6.111979	
5	5	-6.25	-2.604167	6.111979	
6	6	6.25	-2.604167	6.111979	
7	7	-6	3.020833	6.394479	
8	8	-6	-7.479167	6.394479	
9	9	6	-7.479167	6.394479	
10	10	6	3.020833	6.394479	
11	11	-4.0775	0	5.935312	
12	12	-0.365	0	2.222812	
13	13	-4.0775	-2.75	5.935312	
14	14	-0.365	-2.75	2.222812	
15	15	4.0775	-2.75	5.935312	
16	16	0.365	-2.75	2.222812	
17	17	4.0775	0	5.935312	
18	18	0.365	0	2.222812	
19	19	0	0.835	1.857812	
20	20	0	-3.69	1.857812	
21	21	-6	-2.604167	6.111979	
22	22	-6	-2.604167	6.394479	
23	23	6	-2.604167	6.111979	
24	24	6	-2.604167	6.394479	
25	25	2.22125	0	4.079062	
26	26	2.22125	-2.75	4.079062	
27	27	-2.22125	0	4.079062	
28	28	-2.22125	-2.75	4.079062	
29	29	-0.243333	0	2.101146	
30	30	-0.121667	0	1.979479	
31	31	0.121667	0	1.979479	
32	32	0.243333	0	2.101146	
33	33	-0.243333	-2.75	2.101146	
34	34	-0.121667	-2.75	1.979479	
35	35	0.121667	-2.75	1.979479	
36	36	0.243333	-2.75	2.101146	
37	37	-4.254167	0	6.111979	
38	38	-4.254167	0.145833	6.111979	
39	39	-4.254167	-2.75	6.111979	
40	40	-4.254167	-2.604167	6.111979	
41	41	4.254167	0	6.111979	
42	42	4.254167	0.145833	6.111979	
43	43	4.254167	-2.75	6.111979	
44	44	4.254167	-2.604167	6.111979	
45	45	0	0	1.607812	
46	46	0	-0.666667	1.607812	
47	47	0	-0.666667	1.857812	
48	48	0	-2.75	1.607812	
49	49	0	-2.083333	1.607812	
50	50	0	-2.083333	1.857812	
51	51	0	-3.020833	1.857812	
52	52	-2	-2.604167	6.111979	
53	53	-2	-2.604167	6.394479	
54	54	2	-2.604167	6.111979	
55	55	2	-2.604167	6.394479	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
56	56	-2	3.020833	6.394479	
57	57	-2	-7.479167	6.394479	
58	58	2	3.020833	6.394479	
59	59	2	-7.479167	6.394479	
60	60	4.925	0.145833	6.111979	
61	61	-4.925	0.145833	6.111979	
62	62	6	0.145833	6.111979	
63	63	6	0.145833	6.394479	
64	64	2	0.145833	6.111979	
65	65	2	0.145833	6.394479	
66	66	-6	0.145833	6.111979	
67	67	-6	0.145833	6.394479	
68	68	-2	0.145833	6.111979	
69	69	-2	0.145833	6.394479	
70	70	0	0	0	
71	71	1.742512	-2.75	-1.427506	
72	72	2.168129	-2.604167	-8.468649	
73	73	1.775113	-2.75	-0.884373	
74	74	1.608913	0	-0.928906	
75	75	2.537781	3.020833	-8.393392	
76	76	1.608913	-2.75	-0.928906	
77	77	1.775113	0	-0.884373	
78	78	8.537781	3.020833	1.998913	
79	79	8.418129	0.145833	2.356669	
80	80	4.537781	-7.479167	-4.929291	
81	81	8.293129	-2.604167	2.140163	
82	82	3.166046	-2.75	-6.740206	
83	83	2.107512	-2.75	-0.795307	
84	84	4.643197	0	-0.115872	
85	85	2.168129	0.145833	-8.468649	
86	86	8.418129	-2.604167	2.356669	
87	87	8.537781	-7.479167	1.998913	
88	88	2.537781	-7.479167	-8.393392	
89	89	7.178881	0	0.563562	
90	90	4.643197	-2.75	-0.115872	
91	91	2.107512	0	-0.795307	
92	92	7.178881	-2.75	0.563562	
93	93	3.101381	-2.75	-6.498875	
94	94	7.420213	0	0.628227	
95	95	3.101381	0	-6.498875	
96	96	1.608913	-0.666667	-0.928906	
97	97	6.537781	-7.479167	-1.465189	
98	98	1.742512	0	-1.427506	
99	99	1.608913	0.835	-0.928906	
100	100	1.392406	0	-0.803906	
101	101	2.421947	0	-3.96319	
102	102	1.653446	0	-1.095106	
103	103	8.537781	-2.604167	1.998913	
104	104	1.608913	-3.69	-0.928906	
105	105	2.293129	-2.604167	-8.252142	
106	106	2.537781	-2.604167	-8.393392	
107	107	4.537781	-2.604167	-4.929291	
108	108	2.421947	-2.75	-3.96319	
109	109	1.941312	0	-0.83984	
110	110	1.697979	0	-1.261306	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
111	111	1.697979	-2.75	-1.261306	
112	112	1.941312	-2.75	-0.83984	
113	113	1.653446	-2.75	-1.095106	
114	114	7.420213	0.145833	0.628227	
115	115	7.420213	-2.75	0.628227	
116	116	6.293129	-2.604167	-1.323939	
117	117	7.420213	-2.604167	0.628227	
118	118	3.166046	0	-6.740206	
119	119	3.166046	-2.604167	-6.740206	
120	120	1.392406	-2.083333	-0.803906	
121	121	3.166046	0.145833	-6.740206	
122	122	1.392406	-0.666667	-0.803906	
123	123	1.608913	-3.020833	-0.928906	
124	124	1.392406	-2.75	-0.803906	
125	125	1.608913	-2.083333	-0.928906	
126	126	6.537781	-2.604167	-1.465189	
127	127	4.293129	-2.604167	-4.788041	
128	128	6.537781	3.020833	-1.465189	
129	129	4.537781	3.020833	-4.929291	
130	130	2.830629	0.145833	-7.321165	
131	131	2.293129	0.145833	-8.252142	
132	132	7.755629	0.145833	1.209185	
133	133	2.537781	0.145833	-8.393392	
134	134	4.293129	0.145833	-4.788041	
135	135	4.537781	0.145833	-4.929291	
136	136	8.293129	0.145833	2.140163	
137	137	8.537781	0.145833	1.998913	
138	138	6.293129	0.145833	-1.323939	
139	139	6.537781	0.145833	-1.465189	
140	140	-2.107512	-2.75	-0.795307	
141	141	-8.418129	-2.604167	2.356669	
142	142	-1.653446	-2.75	-1.095106	
143	143	-1.608913	0	-0.928906	
144	144	-8.537781	3.020833	1.998913	
145	145	-1.608913	-2.75	-0.928906	
146	146	-1.653446	0	-1.095106	
147	147	-2.537781	3.020833	-8.393392	
148	148	-2.168129	0.145833	-8.468649	
149	149	-6.537781	-7.479167	-1.465189	
150	150	-2.293129	-2.604167	-8.252142	
151	151	-7.420213	-2.75	0.628227	
152	152	-1.742512	-2.75	-1.427506	
153	153	-2.421947	0	-3.96319	
154	154	-8.418129	0.145833	2.356669	
155	155	-2.168129	-2.604167	-8.468649	
156	156	-2.537781	-7.479167	-8.393392	
157	157	-8.537781	-7.479167	1.998913	
158	158	-3.101381	0	-6.498875	
159	159	-2.421947	-2.75	-3.96319	
160	160	-1.742512	0	-1.427506	
161	161	-3.101381	-2.75	-6.498875	
162	162	-7.178881	-2.75	0.563562	
163	163	-3.166046	0	-6.740206	
164	164	-7.178881	0	0.563562	
165	165	-1.608913	-0.666667	-0.928906	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
166	166	-4.537781	-7.479167	-4.929291	
167	167	-2.107512	0	-0.795307	
168	168	-1.608913	0.835	-0.928906	
169	169	-1.392406	0	-0.803906	
170	170	-4.643197	0	-0.115872	
171	171	-1.775113	0	-0.884373	
172	172	-2.537781	-2.604167	-8.393392	
173	173	-1.608913	-3.69	-0.928906	
174	174	-8.293129	-2.604167	2.140163	
175	175	-8.537781	-2.604167	1.998913	
176	176	-6.537781	-2.604167	-1.465189	
177	177	-4.643197	-2.75	-0.115872	
178	178	-1.697979	0	-1.261306	
179	179	-1.941312	0	-0.83984	
180	180	-1.941312	-2.75	-0.83984	
181	181	-1.697979	-2.75	-1.261306	
182	182	-1.775113	-2.75	-0.884373	
183	183	-3.166046	0.145833	-6.740206	
184	184	-3.166046	-2.75	-6.740206	
185	185	-4.293129	-2.604167	-4.788041	
186	186	-3.166046	-2.604167	-6.740206	
187	187	-7.420213	0	0.628227	
188	188	-7.420213	-2.604167	0.628227	
189	189	-1.392406	-2.083333	-0.803906	
190	190	-7.420213	0.145833	0.628227	
191	191	-1.392406	-0.666667	-0.803906	
192	192	-1.608913	-3.020833	-0.928906	
193	193	-1.392406	-2.75	-0.803906	
194	194	-1.608913	-2.083333	-0.928906	
195	195	-4.537781	-2.604167	-4.929291	
196	196	-6.293129	-2.604167	-1.323939	
197	197	-4.537781	3.020833	-4.929291	
198	198	-6.537781	3.020833	-1.465189	
199	199	-7.755629	0.145833	1.209185	
200	200	-8.293129	0.145833	2.140163	
201	201	-2.830629	0.145833	-7.321165	
202	202	-8.537781	0.145833	1.998913	
203	203	-6.293129	0.145833	-1.323939	
204	204	-6.537781	0.145833	-1.465189	
205	205	-2.293129	0.145833	-8.252142	
206	206	-2.537781	0.145833	-8.393392	
207	207	-4.293129	0.145833	-4.788041	
208	208	-4.537781	0.145833	-4.929291	
209	209	0	0	1.732812	
210	210	0	-0.666667	1.732812	
211	211	1.50066	0	-0.866406	
212	212	1.50066	-0.666667	-0.866406	
213	213	-1.50066	0	-0.866406	
214	214	-1.50066	-0.666667	-0.866406	
215	215	1.246042	0	3.103854	
216	216	1.386812	0	2.93609	
217	217	1.246042	-2.75	3.103854	
218	218	1.386812	-2.75	2.93609	
219	219	1.386812	2.625	2.93609	
220	220	1.386812	-5.375	2.93609	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
221	221	-1.386812	-2.75	2.93609	
222	222	-1.386812	-5.375	2.93609	
223	223	-1.386812	0	2.93609	
224	224	-1.246042	0	3.103854	
225	225	-1.246042	-2.75	3.103854	
226	226	-1.386812	2.625	2.93609	
227	227	3.311037	0	-0.472824	
228	228	3.311037	-2.75	-0.472824	
229	229	1.849323	-2.75	-2.66906	
230	230	3.236135	-2.75	-0.267031	
231	231	1.849323	-5.375	-2.66906	
232	232	1.849323	0	-2.66906	
233	233	2.064996	0	-2.631031	
234	234	2.064996	-2.75	-2.631031	
235	235	1.849323	2.625	-2.66906	
236	236	3.236135	-5.375	-0.267031	
237	237	3.236135	0	-0.267031	
238	238	3.236135	2.625	-0.267031	
239	239	-2.064996	0	-2.631031	
240	240	-2.064996	-2.75	-2.631031	
241	241	-3.236135	-2.75	-0.267031	
242	242	-1.849323	-2.75	-2.66906	
243	243	-3.236135	-5.375	-0.267031	
244	244	-3.236135	0	-0.267031	
245	245	-3.311037	0	-0.472824	
246	246	-3.311037	-2.75	-0.472824	
247	247	-3.236135	2.625	-0.267031	
248	248	-1.849323	-5.375	-2.66906	
249	249	-1.849323	0	-2.66906	
250	250	-1.849323	2.625	-2.66906	

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	45	Reaction	Reaction	Reaction	Reaction	Reaction
2	46	Reaction	Reaction	Reaction	Reaction	Reaction
3	49	Reaction	Reaction	Reaction	Reaction	Reaction
4	48	Reaction	Reaction	Reaction	Reaction	Reaction
5	100	Reaction	Reaction	Reaction	Reaction	Reaction
6	120	Reaction	Reaction	Reaction	Reaction	Reaction
7	122	Reaction	Reaction	Reaction	Reaction	Reaction
8	124	Reaction	Reaction	Reaction	Reaction	Reaction
9	169	Reaction	Reaction	Reaction	Reaction	Reaction
10	189	Reaction	Reaction	Reaction	Reaction	Reaction
11	191	Reaction	Reaction	Reaction	Reaction	Reaction
12	193	Reaction	Reaction	Reaction	Reaction	Reaction

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [k/ft^{3}]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B RECT	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3

Hot Rolled Steel Properties (Continued)

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Yield [ksi]	Ry	Fu [ksi]	Rt
6	A500 Gr.C RND	29000	11154	0.3	0.65	0.527	46	1.4	62	1.3
7	A500 Gr.C RECT	29000	11154	0.3	0.65	0.527	50	1.4	62	1.3
8	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
9	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
10	A913 Gr.65	29000	11154	0.3	0.65	0.49	65	1.1	80	1.1
11	A529 Gr 50	29000	11154	0.3	0.65	0.49	50	1.5	65	1.2
12	A500 GR. C 46	29000	11154	0.3	0.65	0.49	46	1.5	62	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	Mount pipe	PIPE_2.5X	Column	Pipe	A500 GR. C 46	Typical	2.1	1.83	1.83	3.66
2	Mast pipe	HSS3.500X0.216	Column	Pipe	A500 GR. C 46	Typical	2.08	2.84	2.84	5.69
3	FACE PIPE	PIPE_2.5X	Beam	Pipe	A500 GR. C 46	Typical	2.1	1.83	1.83	3.66
4	TIE BACK	2.88"X0.120"	Beam	Pipe	A500 GR. C 46	Typical	1.04	0.993	0.993	1.985
5	standoff diagonals	SR_0.75	VBrace	BAR	A529 Gr 50	Typical	0.442	0.016	0.016	0.031
6	Mast pipe plate	PL5/8X5	Beam	RECT	A572 Gr.50	Typical	3.125	0.102	6.51	0.375
7	standoff vertical	SR_1.0	Column	BAR	A529 Gr 50	Typical	0.785	0.049	0.049	0.098
8	standoff horizontal	HSS2.875X0.203	Beam	HSS Pipe	A500 GR. C 46	Typical	1.59	1.45	1.45	2.89
9	EQ-P1	PIPE_2.0	Column	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	1	3	4		FACE PIPE	Beam	Pipe	A500 GR. C 46	Typical
2	2	5	6		FACE PIPE	Beam	Pipe	A500 GR. C 46	Typical
3	3	7	8		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
4	4	10	9		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
5	5	37	29		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
6	6	39	33		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
7	7	43	36		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
8	8	41	32		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
9	9	19	20		Mast pipe	Column	Pipe	A500 GR. C 46	Typical
10	10	22	21		RIGID	None	None	RIGID	Typical
11	11	24	23		RIGID	None	None	RIGID	Typical
12	12	25	26	75	standoff vertical	Column	BAR	A529 Gr 50	Typical
13	13	26	17		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
14	14	25	15	56.806	standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
15	15	15	17		standoff vertical	Column	BAR	A529 Gr 50	Typical
16	16	18	16		standoff vertical	Column	BAR	A529 Gr 50	Typical
17	17	16	25	303.194	standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
18	18	26	18		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
19	19	27	28		standoff vertical	Column	BAR	A529 Gr 50	Typical
20	20	28	12		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
21	21	12	14		standoff vertical	Column	BAR	A529 Gr 50	Typical
22	22	14	27		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
23	23	11	13		standoff vertical	Column	BAR	A529 Gr 50	Typical
24	24	13	27		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
25	25	11	28		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
26	26	1	31		RIGID	None	None	RIGID	Typical
27	27	2	35		RIGID	None	None	RIGID	Typical
28	28	29	30	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
29	29	30	1		RIGID	None	None	RIGID	Typical
30	30	31	32	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
31	31	33	34	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
32	32	34	2		RIGID	None	None	RIGID	Typical
33	33	35	36	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
34	34	38	37	90	RIGID	None	None	RIGID	Typical
35	35	39	40	90	RIGID	None	None	RIGID	Typical
36	36	42	41	90	RIGID	None	None	RIGID	Typical
37	37	43	44	90	RIGID	None	None	RIGID	Typical
38	38	1	45		RIGID	None	None	RIGID	Typical
39	39	47	46		RIGID	None	None	RIGID	Typical
40	40	45	46		RIGID	None	None	RIGID	Typical
41	41	2	48		RIGID	None	None	RIGID	Typical
42	42	50	49		RIGID	None	None	RIGID	Typical
43	43	48	49		RIGID	None	None	RIGID	Typical
44	44	53	52		RIGID	None	None	RIGID	Typical
45	45	55	54		RIGID	None	None	RIGID	Typical
46	46	56	57		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
47	47	58	59		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
48	48	212	60		TIE BACK	Beam	Pipe	A500 GR. C 46	Typical
49	49	213	61		TIE BACK	Beam	Pipe	A500 GR. C 46	Typical
50	50	63	62		RIGID	None	None	RIGID	Typical
51	51	65	64		RIGID	None	None	RIGID	Typical
52	52	67	66		RIGID	None	None	RIGID	Typical
53	53	69	68		RIGID	None	None	RIGID	Typical
54	54	125	120		RIGID	None	None	RIGID	Typical
55	55	79	85		FACE PIPE	Beam	Pipe	A500 GR. C 46	Typical
56	56	94	109		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
57	57	107	127		RIGID	None	None	RIGID	Typical
58	58	86	72		FACE PIPE	Beam	Pipe	A500 GR. C 46	Typical
59	59	209	132		TIE BACK	Beam	Pipe	A500 GR. C 46	Typical
60	60	78	87		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
61	61	75	88		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
62	62	126	116		RIGID	None	None	RIGID	Typical
63	63	115	112		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
64	64	118	110		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
65	65	82	111		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
66	66	99	104		Mast pipe	Column	Pipe	A500 GR. C 46	Typical
67	67	103	81		RIGID	None	None	RIGID	Typical
68	68	106	105		RIGID	None	None	RIGID	Typical
69	69	76	113		RIGID	None	None	RIGID	Typical
70	70	101	108		standoff vertical	Column	BAR	A529 Gr 50	Typical
71	71	108	95		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
72	72	108	98		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
73	73	101	93		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
74	74	93	95		standoff vertical	Column	BAR	A529 Gr 50	Typical
75	75	98	71		standoff vertical	Column	BAR	A529 Gr 50	Typical
76	76	133	131		RIGID	None	None	RIGID	Typical
77	77	100	122		RIGID	None	None	RIGID	Typical
78	78	71	101		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
79	79	121	118	90	RIGID	None	None	RIGID	Typical
80	80	109	77	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
81	81	84	90		standoff vertical	Column	BAR	A529 Gr 50	Typical
82	82	90	91		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
83	83	91	83		standoff vertical	Column	BAR	A529 Gr 50	Typical
84	84	83	84		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
85	85	89	92		standoff vertical	Column	BAR	A529 Gr 50	Typical
86	86	92	84		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
87	87	89	90		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
88	88	112	73	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
89	89	74	102		RIGID	None	None	RIGID	Typical
90	90	77	74		RIGID	None	None	RIGID	Typical
91	91	124	120		RIGID	None	None	RIGID	Typical
92	92	102	110	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
93	93	113	111	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
94	94	73	76		RIGID	None	None	RIGID	Typical
95	95	114	94	90	RIGID	None	None	RIGID	Typical
96	96	115	117	90	RIGID	None	None	RIGID	Typical
97	97	82	119	90	RIGID	None	None	RIGID	Typical
98	98	74	100		RIGID	None	None	RIGID	Typical
99	99	96	122		RIGID	None	None	RIGID	Typical
100	100	76	124		RIGID	None	None	RIGID	Typical
101	101	128	97		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
102	102	129	80		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
103	103	214	130		TIE BACK	Beam	Pipe	A500 GR. C 46	Typical
104	104	139	138		RIGID	None	None	RIGID	Typical
105	105	135	134		RIGID	None	None	RIGID	Typical
106	106	137	136		RIGID	None	None	RIGID	Typical
107	107	194	189		RIGID	None	None	RIGID	Typical
108	108	148	154		FACE PIPE	Beam	Pipe	A500 GR. C 46	Typical
109	109	163	178		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
110	110	176	196		RIGID	None	None	RIGID	Typical
111	111	155	141		FACE PIPE	Beam	Pipe	A500 GR. C 46	Typical
112	112	211	201		TIE BACK	Beam	Pipe	A500 GR. C 46	Typical
113	113	147	156		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
114	114	144	157		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
115	115	195	185		RIGID	None	None	RIGID	Typical
116	116	184	181		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
117	117	187	179		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
118	118	151	180		standoff horizontal	Beam	HSS Pipe	A500 GR. C 46	Typical
119	119	168	173		Mast pipe	Column	Pipe	A500 GR. C 46	Typical
120	120	172	150		RIGID	None	None	RIGID	Typical
121	121	175	174		RIGID	None	None	RIGID	Typical
122	122	145	182		RIGID	None	None	RIGID	Typical
123	123	170	177		standoff vertical	Column	BAR	A529 Gr 50	Typical
124	124	177	164		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
125	125	177	167		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
126	126	170	162		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
127	127	162	164		standoff vertical	Column	BAR	A529 Gr 50	Typical
128	128	167	140		standoff vertical	Column	BAR	A529 Gr 50	Typical
129	129	202	200		RIGID	None	None	RIGID	Typical
130	130	169	191		RIGID	None	None	RIGID	Typical
131	131	140	170		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
132	132	190	187	90	RIGID	None	None	RIGID	Typical
133	133	178	146	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
134	134	153	159		standoff vertical	Column	BAR	A529 Gr 50	Typical
135	135	159	160		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
136	136	160	152		standoff vertical	Column	BAR	A529 Gr 50	Typical
137	137	152	153		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
138	138	158	161		standoff vertical	Column	BAR	A529 Gr 50	Typical
139	139	161	153		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
140	140	158	159		standoff diagonals	VBrace	BAR	A529 Gr 50	Typical
141	141	181	142	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
142	142	143	171		RIGID	None	None	RIGID	Typical
143	143	146	143		RIGID	None	None	RIGID	Typical
144	144	193	189		RIGID	None	None	RIGID	Typical
145	145	171	179	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
146	146	182	180	90	Mast pipe plate	Beam	RECT	A572 Gr.50	Typical
147	147	142	145		RIGID	None	None	RIGID	Typical
148	148	183	163	90	RIGID	None	None	RIGID	Typical
149	149	184	186	90	RIGID	None	None	RIGID	Typical
150	150	151	188	90	RIGID	None	None	RIGID	Typical
151	151	143	169		RIGID	None	None	RIGID	Typical
152	152	165	191		RIGID	None	None	RIGID	Typical
153	153	145	193		RIGID	None	None	RIGID	Typical
154	154	197	166		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
155	155	198	149		Mount pipe	Column	Pipe	A500 GR. C 46	Typical
156	156	210	199		TIE BACK	Beam	Pipe	A500 GR. C 46	Typical
157	157	208	207		RIGID	None	None	RIGID	Typical
158	158	204	203		RIGID	None	None	RIGID	Typical
159	159	206	205		RIGID	None	None	RIGID	Typical
160	160	215	216		RIGID	None	None	RIGID	Typical
161	161	217	218		RIGID	None	None	RIGID	Typical
162	162	219	220		EQ-P1	Column	Pipe	A53 Gr.B	Typical
163	163	224	223		RIGID	None	None	RIGID	Typical
164	164	225	221		RIGID	None	None	RIGID	Typical
165	165	226	222		EQ-P1	Column	Pipe	A53 Gr.B	Typical
166	166	228	230		RIGID	None	None	RIGID	Typical
167	167	233	232		RIGID	None	None	RIGID	Typical
168	168	234	229		RIGID	None	None	RIGID	Typical
169	169	235	231		EQ-P1	Column	Pipe	A53 Gr.B	Typical
170	170	227	237		RIGID	None	None	RIGID	Typical
171	171	238	236		EQ-P1	Column	Pipe	A53 Gr.B	Typical
172	172	240	242		RIGID	None	None	RIGID	Typical
173	173	245	244		RIGID	None	None	RIGID	Typical
174	174	246	241		RIGID	None	None	RIGID	Typical
175	175	247	243		EQ-P1	Column	Pipe	A53 Gr.B	Typical
176	176	239	249		RIGID	None	None	RIGID	Typical
177	177	250	248		EQ-P1	Column	Pipe	A53 Gr.B	Typical

Member Advanced Data

	Label	I Release	J Release	Col-Wall Vert Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
1	1					Yes	Default	None
2	2					Yes	Default	None
3	3					Yes	** NA **	None
4	4					Yes	** NA **	None
5	5					Yes	Default	None
6	6					Yes	Default	None
7	7					Yes	Default	None
8	8					Yes	Default	None
9	9					Yes	** NA **	None
10	10					Yes	** NA **	None
11	11					Yes	** NA **	None
12	12					Yes	** NA **	None
13	13				Tension Only	Yes	** NA **	None
14	14				Tension Only	Yes	** NA **	None
15	15					Yes	** NA **	None
16	16					Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall Vert Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
17	17				Tension Only	Yes	** NA **	None
18	18				Tension Only	Yes	** NA **	None
19	19					Yes	** NA **	None
20	20				Tension Only	Yes	** NA **	None
21	21					Yes	** NA **	None
22	22				Tension Only	Yes	** NA **	None
23	23					Yes	** NA **	None
24	24				Tension Only	Yes	** NA **	None
25	25				Tension Only	Yes	** NA **	None
26	26					Yes	** NA **	None
27	27					Yes	** NA **	None
28	28					Yes	Default	None
29	29					Yes	** NA **	None
30	30					Yes	Default	None
31	31					Yes	Default	None
32	32					Yes	** NA **	None
33	33					Yes	Default	None
34	34	OOOXOO				Yes	** NA **	None
35	35		OOOXOO			Yes	** NA **	None
36	36	OOOXOO				Yes	** NA **	None
37	37		OOOXOO			Yes	** NA **	None
38	38					Yes	** NA **	None
39	39					Yes	** NA **	None
40	40					Yes	** NA **	None
41	41					Yes	** NA **	None
42	42					Yes	** NA **	None
43	43					Yes	** NA **	None
44	44					Yes	** NA **	None
45	45					Yes	** NA **	None
46	46					Yes	** NA **	None
47	47					Yes	** NA **	None
48	48	BenPIN	BenPIN			Yes	Default	None
49	49	BenPIN	BenPIN			Yes	Default	None
50	50					Yes	** NA **	None
51	51					Yes	** NA **	None
52	52					Yes	** NA **	None
53	53					Yes	** NA **	None
54	54					Yes	** NA **	None
55	55					Yes	Default	None
56	56					Yes	Default	None
57	57					Yes	** NA **	None
58	58					Yes	Default	None
59	59	BenPIN	BenPIN			Yes	Default	None
60	60					Yes	** NA **	None
61	61					Yes	** NA **	None
62	62					Yes	** NA **	None
63	63					Yes	Default	None
64	64					Yes	Default	None
65	65					Yes	Default	None
66	66					Yes	** NA **	None
67	67					Yes	** NA **	None
68	68					Yes	** NA **	None
69	69					Yes	** NA **	None
70	70					Yes	** NA **	None
71	71				Tension Only	Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall Vert Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
72	72				Tension Only	Yes	** NA **	None
73	73				Tension Only	Yes	** NA **	None
74	74					Yes	** NA **	None
75	75					Yes	** NA **	None
76	76					Yes	** NA **	None
77	77					Yes	** NA **	None
78	78				Tension Only	Yes	** NA **	None
79	79	OOOXOO				Yes	** NA **	None
80	80					Yes	Default	None
81	81					Yes	** NA **	None
82	82				Tension Only	Yes	** NA **	None
83	83					Yes	** NA **	None
84	84				Tension Only	Yes	** NA **	None
85	85					Yes	** NA **	None
86	86				Tension Only	Yes	** NA **	None
87	87				Tension Only	Yes	** NA **	None
88	88					Yes	Default	None
89	89					Yes	** NA **	None
90	90					Yes	** NA **	None
91	91					Yes	** NA **	None
92	92					Yes	Default	None
93	93					Yes	Default	None
94	94					Yes	** NA **	None
95	95	OOOXOO				Yes	** NA **	None
96	96		OOOXOO			Yes	** NA **	None
97	97		OOOXOO			Yes	** NA **	None
98	98					Yes	** NA **	None
99	99					Yes	** NA **	None
100	100					Yes	** NA **	None
101	101					Yes	** NA **	None
102	102					Yes	** NA **	None
103	103	BenPIN	BenPIN			Yes	Default	None
104	104					Yes	** NA **	None
105	105					Yes	** NA **	None
106	106					Yes	** NA **	None
107	107					Yes	** NA **	None
108	108					Yes	Default	None
109	109					Yes	Default	None
110	110					Yes	** NA **	None
111	111					Yes	Default	None
112	112	BenPIN	BenPIN			Yes	Default	None
113	113					Yes	** NA **	None
114	114					Yes	** NA **	None
115	115					Yes	** NA **	None
116	116					Yes	Default	None
117	117					Yes	Default	None
118	118					Yes	Default	None
119	119					Yes	** NA **	None
120	120					Yes	** NA **	None
121	121					Yes	** NA **	None
122	122					Yes	** NA **	None
123	123					Yes	** NA **	None
124	124				Tension Only	Yes	** NA **	None
125	125				Tension Only	Yes	** NA **	None
126	126				Tension Only	Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall Vert Release	T/C Only	Physical	Deflection Ratio Options	Seismic DR
127	127					Yes	** NA **	None
128	128					Yes	** NA **	None
129	129					Yes	** NA **	None
130	130					Yes	** NA **	None
131	131				Tension Only	Yes	** NA **	None
132	132	OOOXOO				Yes	** NA **	None
133	133					Yes	Default	None
134	134					Yes	** NA **	None
135	135				Tension Only	Yes	** NA **	None
136	136					Yes	** NA **	None
137	137				Tension Only	Yes	** NA **	None
138	138					Yes	** NA **	None
139	139				Tension Only	Yes	** NA **	None
140	140				Tension Only	Yes	** NA **	None
141	141					Yes	Default	None
142	142					Yes	** NA **	None
143	143					Yes	** NA **	None
144	144					Yes	** NA **	None
145	145					Yes	Default	None
146	146					Yes	Default	None
147	147					Yes	** NA **	None
148	148	OOOXOO				Yes	** NA **	None
149	149		OOOXOO			Yes	** NA **	None
150	150		OOOXOO			Yes	** NA **	None
151	151					Yes	** NA **	None
152	152					Yes	** NA **	None
153	153					Yes	** NA **	None
154	154					Yes	** NA **	None
155	155					Yes	** NA **	None
156	156	BenPIN	BenPIN			Yes	Default	None
157	157					Yes	** NA **	None
158	158					Yes	** NA **	None
159	159					Yes	** NA **	None
160	160					Yes	** NA **	None
161	161					Yes	** NA **	None
162	162					Yes	** NA **	None
163	163					Yes	** NA **	None
164	164					Yes	** NA **	None
165	165					Yes	** NA **	None
166	166					Yes	** NA **	None
167	167					Yes	** NA **	None
168	168					Yes	** NA **	None
169	169					Yes	** NA **	None
170	170					Yes	** NA **	None
171	171					Yes	** NA **	None
172	172					Yes	** NA **	None
173	173					Yes	** NA **	None
174	174					Yes	** NA **	None
175	175					Yes	** NA **	None
176	176					Yes	** NA **	None
177	177					Yes	** NA **	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lcomp top [ft]	Channel Conn.	a [ft]	Function
1	1	FACE PIPE	12.5	Lbyy	N/A	N/A	Lateral
2	2	FACE PIPE	12.5	Lbyy	N/A	N/A	Lateral
3	3	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
4	4	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
5	5	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
6	6	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
7	7	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
8	8	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
9	9	Mast pipe	4.525	Lbyy	N/A	N/A	Lateral
10	12	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
11	13	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
12	14	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
13	15	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
14	16	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
15	17	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
16	18	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
17	19	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
18	20	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
19	21	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
20	22	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
21	23	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
22	24	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
23	25	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
24	28	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
25	30	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
26	31	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
27	33	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
28	46	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
29	47	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
30	48	TIE BACK	7.816	Lbyy	N/A	N/A	Lateral
31	49	TIE BACK	7.775	Lbyy	N/A	N/A	Lateral
32	55	FACE PIPE	12.5	Lbyy	N/A	N/A	Lateral
33	56	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
34	58	FACE PIPE	12.5	Lbyy	N/A	N/A	Lateral
35	59	TIE BACK	7.775	Lbyy	N/A	N/A	Lateral
36	60	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
37	61	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
38	63	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
39	64	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
40	65	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
41	66	Mast pipe	4.525	Lbyy	N/A	N/A	Lateral
42	70	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
43	71	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
44	72	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
45	73	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
46	74	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
47	75	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
48	78	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
49	80	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
50	81	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
51	82	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
52	83	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
53	84	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
54	85	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
55	86	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [ft]	Lcomp top [ft]	Channel Conn.	a [ft]	Function
56	87	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
57	88	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
58	92	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
59	93	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
60	101	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
61	102	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
62	103	TIE BACK	7.816	Lbyy	N/A	N/A	Lateral
63	108	FACE PIPE	12.5	Lbyy	N/A	N/A	Lateral
64	109	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
65	111	FACE PIPE	12.5	Lbyy	N/A	N/A	Lateral
66	112	TIE BACK	7.775	Lbyy	N/A	N/A	Lateral
67	113	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
68	114	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
69	116	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
70	117	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
71	118	standoff horizontal	5.672	Lbyy	N/A	N/A	Lateral
72	119	Mast pipe	4.525	Lbyy	N/A	N/A	Lateral
73	123	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
74	124	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
75	125	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
76	126	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
77	127	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
78	128	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
79	131	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
80	133	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
81	134	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
82	135	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
83	136	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
84	137	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
85	138	standoff vertical	2.75	Lbyy	N/A	N/A	Lateral
86	139	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
87	140	standoff diagonals	3.802	Lbyy	N/A	N/A	Lateral
88	141	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
89	145	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
90	146	Mast pipe plate	0.172	Lbyy	N/A	N/A	Lateral
91	154	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
92	155	Mount pipe	10.5	Lbyy	N/A	N/A	Lateral
93	156	TIE BACK	7.816	Lbyy	N/A	N/A	Lateral
94	162	EQ-P1	8	Lbyy	N/A	N/A	Lateral
95	165	EQ-P1	8	Lbyy	N/A	N/A	Lateral
96	169	EQ-P1	8	Lbyy	N/A	N/A	Lateral
97	171	EQ-P1	8	Lbyy	N/A	N/A	Lateral
98	175	EQ-P1	8	Lbyy	N/A	N/A	Lateral
99	177	EQ-P1	8	Lbyy	N/A	N/A	Lateral

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	4	Y	-0.063	%25
2	4	Y	-0.063	%95
3	4	Y	0	0
4	4	Y	0	0
5	4	Y	0	0
6	47	Y	-0.033	%30
7	47	Y	-0.033	%50
8	47	Y	-0.033	%70

Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
9	47	Y	-0.033	%90
10	47	Y	0	0
11	46	Y	-0.063	%25
12	46	Y	-0.063	%95
13	46	Y	0	0
14	46	Y	0	0
15	46	Y	0	0
16	162	Y	-0.021	%75
17	162	Y	-0.035	%20
18	162	Y	0	0
19	162	Y	0	0
20	162	Y	0	0
21	165	Y	-0.067	%75
22	165	Y	-0.059	%75
23	165	Y	0	0
24	165	Y	0	0
25	165	Y	0	0
26	114	Y	-0.063	%25
27	114	Y	-0.063	%95
28	114	Y	0	0
29	114	Y	0	0
30	114	Y	0	0
31	155	Y	-0.033	%30
32	155	Y	-0.033	%50
33	155	Y	-0.033	%70
34	155	Y	-0.033	%90
35	155	Y	0	0
36	154	Y	-0.063	%25
37	154	Y	-0.063	%95
38	154	Y	0	0
39	154	Y	0	0
40	154	Y	0	0
41	175	Y	-0.021	%75
42	175	Y	-0.035	%20
43	175	Y	0	0
44	175	Y	0	0
45	175	Y	0	0
46	177	Y	-0.067	%75
47	177	Y	-0.059	%75
48	177	Y	0	0
49	177	Y	0	0
50	177	Y	0	0
51	61	Y	-0.063	%25
52	61	Y	-0.063	%95
53	61	Y	0	0
54	61	Y	0	0
55	61	Y	0	0
56	102	Y	-0.033	%30
57	102	Y	-0.033	%50
58	102	Y	-0.033	%70
59	102	Y	-0.033	%90
60	102	Y	0	0
61	101	Y	-0.063	%25
62	101	Y	-0.063	%95
63	101	Y	0	0

Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
64	101	Y	0	0
65	101	Y	0	0
66	169	Y	-0.021	%75
67	169	Y	0	0
68	169	Y	0	0
69	169	Y	0	0
70	169	Y	0	0
71	171	Y	-0.067	%75
72	171	Y	-0.059	%75
73	171	Y	0	0
74	171	Y	0	0
75	171	Y	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	4	Z	-0.136	%25
2	4	Z	-0.136	%95
3	4	Z	0	0
4	4	Z	0	0
5	4	Z	0	0
6	47	Z	-0.065	%30
7	47	Z	-0.065	%50
8	47	Z	-0.049	%70
9	47	Z	-0.049	%90
10	47	Z	0	0
11	46	Z	-0.136	%25
12	46	Z	-0.136	%95
13	46	Z	0	0
14	46	Z	0	0
15	46	Z	0	0
16	162	Z	-0.021	%75
17	162	Z	-0.057	%20
18	162	Z	0	0
19	162	Z	0	0
20	162	Z	0	0
21	165	Z	-0.031	%75
22	165	Z	-0.031	%75
23	165	Z	0	0
24	165	Z	0	0
25	165	Z	0	0
26	114	Z	-0.136	%25
27	114	Z	-0.136	%95
28	114	Z	0	0
29	114	Z	0	0
30	114	Z	0	0
31	155	Z	-0.065	%30
32	155	Z	-0.065	%50
33	155	Z	-0.049	%70
34	155	Z	-0.049	%90
35	155	Z	0	0
36	154	Z	-0.136	%25
37	154	Z	-0.136	%95
38	154	Z	0	0
39	154	Z	0	0
40	154	Z	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
41	175	Z	-0.021	%75
42	175	Z	-0.057	%20
43	175	Z	0	0
44	175	Z	0	0
45	175	Z	0	0
46	177	Z	-0.031	%75
47	177	Z	-0.031	%75
48	177	Z	0	0
49	177	Z	0	0
50	177	Z	0	0
51	61	Z	-0.136	%25
52	61	Z	-0.136	%95
53	61	Z	0	0
54	61	Z	0	0
55	61	Z	0	0
56	102	Z	-0.065	%30
57	102	Z	-0.065	%50
58	102	Z	-0.049	%70
59	102	Z	-0.049	%90
60	102	Z	0	0
61	101	Z	-0.136	%25
62	101	Z	-0.136	%95
63	101	Z	0	0
64	101	Z	0	0
65	101	Z	0	0
66	169	Z	-0.021	%75
67	169	Z	0	0
68	169	Z	0	0
69	169	Z	0	0
70	169	Z	0	0
71	171	Z	-0.031	%75
72	171	Z	-0.031	%75
73	171	Z	0	0
74	171	Z	0	0
75	171	Z	0	0

Member Point Loads (BLC 3 : 90 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	4	X	-0.055	%25
2	4	X	-0.055	%95
3	4	X	0	0
4	4	X	0	0
5	4	X	0	0
6	47	X	-0.026	%30
7	47	X	-0.026	%50
8	47	X	-0.019	%70
9	47	X	-0.019	%90
10	47	X	0	0
11	46	X	-0.055	%25
12	46	X	-0.055	%95
13	46	X	0	0
14	46	X	0	0
15	46	X	0	0
16	162	X	-0.055	%75
17	162	X	-0.028	%20

Member Point Loads (BLC 3 : 90 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
18	162	X	0	0
19	162	X	0	0
20	162	X	0	0
21	165	X	-0.069	%75
22	165	X	-0.051	%75
23	165	X	0	0
24	165	X	0	0
25	165	X	0	0
26	114	X	-0.055	%25
27	114	X	-0.055	%95
28	114	X	0	0
29	114	X	0	0
30	114	X	0	0
31	155	X	-0.026	%30
32	155	X	-0.026	%50
33	155	X	-0.019	%70
34	155	X	-0.019	%90
35	155	X	0	0
36	154	X	-0.055	%25
37	154	X	-0.055	%95
38	154	X	0	0
39	154	X	0	0
40	154	X	0	0
41	175	X	-0.055	%75
42	175	X	-0.028	%20
43	175	X	0	0
44	175	X	0	0
45	175	X	0	0
46	177	X	-0.069	%75
47	177	X	-0.051	%75
48	177	X	0	0
49	177	X	0	0
50	177	X	0	0
51	61	X	-0.055	%25
52	61	X	-0.055	%95
53	61	X	0	0
54	61	X	0	0
55	61	X	0	0
56	102	X	-0.026	%30
57	102	X	-0.026	%50
58	102	X	-0.019	%70
59	102	X	-0.019	%90
60	102	X	0	0
61	101	X	-0.055	%25
62	101	X	-0.055	%95
63	101	X	0	0
64	101	X	0	0
65	101	X	0	0
66	169	X	-0.055	%75
67	169	X	0	0
68	169	X	0	0
69	169	X	0	0
70	169	X	0	0
71	171	X	-0.069	%75
72	171	X	-0.051	%75

Member Point Loads (BLC 3 : 90 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
73	171	X	0	0
74	171	X	0	0
75	171	X	0	0

Member Point Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	4	Z	-0.012	%25
2	4	Z	-0.012	%95
3	4	Z	0	0
4	4	Z	0	0
5	4	Z	0	0
6	47	Z	-0.006	%30
7	47	Z	-0.006	%50
8	47	Z	-0.004	%70
9	47	Z	-0.004	%90
10	47	Z	0	0
11	46	Z	-0.012	%25
12	46	Z	-0.012	%95
13	46	Z	0	0
14	46	Z	0	0
15	46	Z	0	0
16	162	Z	-0.002	%75
17	162	Z	-0.005	%20
18	162	Z	0	0
19	162	Z	0	0
20	162	Z	0	0
21	165	Z	-0.003	%75
22	165	Z	-0.003	%75
23	165	Z	0	0
24	165	Z	0	0
25	165	Z	0	0
26	114	Z	-0.012	%25
27	114	Z	-0.012	%95
28	114	Z	0	0
29	114	Z	0	0
30	114	Z	0	0
31	155	Z	-0.006	%30
32	155	Z	-0.006	%50
33	155	Z	-0.004	%70
34	155	Z	-0.004	%90
35	155	Z	0	0
36	154	Z	-0.012	%25
37	154	Z	-0.012	%95
38	154	Z	0	0
39	154	Z	0	0
40	154	Z	0	0
41	175	Z	-0.002	%75
42	175	Z	-0.005	%20
43	175	Z	0	0
44	175	Z	0	0
45	175	Z	0	0
46	177	Z	-0.003	%75
47	177	Z	-0.003	%75
48	177	Z	0	0
49	177	Z	0	0

Member Point Loads (BLC 6 : 0 Wind - Service) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
50	177	Z	0	0
51	61	Z	-0.012	%25
52	61	Z	-0.012	%95
53	61	Z	0	0
54	61	Z	0	0
55	61	Z	0	0
56	102	Z	-0.006	%30
57	102	Z	-0.006	%50
58	102	Z	-0.004	%70
59	102	Z	-0.004	%90
60	102	Z	0	0
61	101	Z	-0.012	%25
62	101	Z	-0.012	%95
63	101	Z	0	0
64	101	Z	0	0
65	101	Z	0	0
66	169	Z	-0.002	%75
67	169	Z	0	0
68	169	Z	0	0
69	169	Z	0	0
70	169	Z	0	0
71	171	Z	-0.003	%75
72	171	Z	-0.003	%75
73	171	Z	0	0
74	171	Z	0	0
75	171	Z	0	0

Member Point Loads (BLC 7 : 90 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	4	X	-0.005	%25
2	4	X	-0.005	%95
3	4	X	0	0
4	4	X	0	0
5	4	X	0	0
6	47	X	-0.002	%30
7	47	X	-0.002	%50
8	47	X	-0.002	%70
9	47	X	-0.002	%90
10	47	X	0	0
11	46	X	-0.005	%25
12	46	X	-0.005	%95
13	46	X	0	0
14	46	X	0	0
15	46	X	0	0
16	162	X	-0.005	%75
17	162	X	-0.002	%20
18	162	X	0	0
19	162	X	0	0
20	162	X	0	0
21	165	X	-0.006	%75
22	165	X	-0.004	%75
23	165	X	0	0
24	165	X	0	0
25	165	X	0	0
26	114	X	-0.005	%25

Member Point Loads (BLC 7 : 90 Wind - Service) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
27	114	X	-0.005	%95
28	114	X	0	0
29	114	X	0	0
30	114	X	0	0
31	155	X	-0.002	%30
32	155	X	-0.002	%50
33	155	X	-0.002	%70
34	155	X	-0.002	%90
35	155	X	0	0
36	154	X	-0.005	%25
37	154	X	-0.005	%95
38	154	X	0	0
39	154	X	0	0
40	154	X	0	0
41	175	X	-0.005	%75
42	175	X	-0.002	%20
43	175	X	0	0
44	175	X	0	0
45	175	X	0	0
46	177	X	-0.006	%75
47	177	X	-0.004	%75
48	177	X	0	0
49	177	X	0	0
50	177	X	0	0
51	61	X	-0.005	%25
52	61	X	-0.005	%95
53	61	X	0	0
54	61	X	0	0
55	61	X	0	0
56	102	X	-0.002	%30
57	102	X	-0.002	%50
58	102	X	-0.002	%70
59	102	X	-0.002	%90
60	102	X	0	0
61	101	X	-0.005	%25
62	101	X	-0.005	%95
63	101	X	0	0
64	101	X	0	0
65	101	X	0	0
66	169	X	-0.005	%75
67	169	X	0	0
68	169	X	0	0
69	169	X	0	0
70	169	X	0	0
71	171	X	-0.006	%75
72	171	X	-0.004	%75
73	171	X	0	0
74	171	X	0	0
75	171	X	0	0

Member Point Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	4	Z	-0.034	%25
2	4	Z	-0.034	%95
3	4	Z	0	0

Member Point Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
4	4	Z	0	0
5	4	Z	0	0
6	47	Z	-0.018	%30
7	47	Z	-0.018	%50
8	47	Z	-0.018	%70
9	47	Z	-0.018	%90
10	47	Z	0	0
11	46	Z	-0.034	%25
12	46	Z	-0.034	%95
13	46	Z	0	0
14	46	Z	0	0
15	46	Z	0	0
16	162	Z	-0.006	%75
17	162	Z	-0.009	%20
18	162	Z	0	0
19	162	Z	0	0
20	162	Z	0	0
21	165	Z	-0.018	%75
22	165	Z	-0.016	%75
23	165	Z	0	0
24	165	Z	0	0
25	165	Z	0	0
26	114	Z	-0.034	%25
27	114	Z	-0.034	%95
28	114	Z	0	0
29	114	Z	0	0
30	114	Z	0	0
31	155	Z	-0.018	%30
32	155	Z	-0.018	%50
33	155	Z	-0.018	%70
34	155	Z	-0.018	%90
35	155	Z	0	0
36	154	Z	-0.034	%25
37	154	Z	-0.034	%95
38	154	Z	0	0
39	154	Z	0	0
40	154	Z	0	0
41	175	Z	-0.006	%75
42	175	Z	-0.009	%20
43	175	Z	0	0
44	175	Z	0	0
45	175	Z	0	0
46	177	Z	-0.018	%75
47	177	Z	-0.016	%75
48	177	Z	0	0
49	177	Z	0	0
50	177	Z	0	0
51	61	Z	-0.034	%25
52	61	Z	-0.034	%95
53	61	Z	0	0
54	61	Z	0	0
55	61	Z	0	0
56	102	Z	-0.018	%30
57	102	Z	-0.018	%50
58	102	Z	-0.018	%70

Member Point Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
59	102	Z	-0.018	%90
60	102	Z	0	0
61	101	Z	-0.034	%25
62	101	Z	-0.034	%95
63	101	Z	0	0
64	101	Z	0	0
65	101	Z	0	0
66	169	Z	-0.006	%75
67	169	Z	0	0
68	169	Z	0	0
69	169	Z	0	0
70	169	Z	0	0
71	171	Z	-0.018	%75
72	171	Z	-0.016	%75
73	171	Z	0	0
74	171	Z	0	0
75	171	Z	0	0

Member Point Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	4	X	-0.034	%25
2	4	X	-0.034	%95
3	4	X	0	0
4	4	X	0	0
5	4	X	0	0
6	47	X	-0.018	%30
7	47	X	-0.018	%50
8	47	X	-0.018	%70
9	47	X	-0.018	%90
10	47	X	0	0
11	46	X	-0.034	%25
12	46	X	-0.034	%95
13	46	X	0	0
14	46	X	0	0
15	46	X	0	0
16	162	X	-0.006	%75
17	162	X	-0.009	%20
18	162	X	0	0
19	162	X	0	0
20	162	X	0	0
21	165	X	-0.018	%75
22	165	X	-0.016	%75
23	165	X	0	0
24	165	X	0	0
25	165	X	0	0
26	114	X	-0.034	%25
27	114	X	-0.034	%95
28	114	X	0	0
29	114	X	0	0
30	114	X	0	0
31	155	X	-0.018	%30
32	155	X	-0.018	%50
33	155	X	-0.018	%70
34	155	X	-0.018	%90
35	155	X	0	0

Member Point Loads (BLC 10 : 90 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
36	154	X	-0.034	%25
37	154	X	-0.034	%95
38	154	X	0	0
39	154	X	0	0
40	154	X	0	0
41	175	X	-0.006	%75
42	175	X	-0.009	%20
43	175	X	0	0
44	175	X	0	0
45	175	X	0	0
46	177	X	-0.018	%75
47	177	X	-0.016	%75
48	177	X	0	0
49	177	X	0	0
50	177	X	0	0
51	61	X	-0.034	%25
52	61	X	-0.034	%95
53	61	X	0	0
54	61	X	0	0
55	61	X	0	0
56	102	X	-0.018	%30
57	102	X	-0.018	%50
58	102	X	-0.018	%70
59	102	X	-0.018	%90
60	102	X	0	0
61	101	X	-0.034	%25
62	101	X	-0.034	%95
63	101	X	0	0
64	101	X	0	0
65	101	X	0	0
66	169	X	-0.006	%75
67	169	X	0	0
68	169	X	0	0
69	169	X	0	0
70	169	X	0	0
71	171	X	-0.018	%75
72	171	X	-0.016	%75
73	171	X	0	0
74	171	X	0	0
75	171	X	0	0

Member Point Loads (BLC 15 : Maint LL 1)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	5	y	-0.25	%50

Member Point Loads (BLC 16 : Maint LL 2)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	6	y	-0.25	%50

Member Point Loads (BLC 17 : Maint LL 3)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	8	y	-0.25	%50

Member Point Loads (BLC 18 : Maint LL 4)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	7	y	-0.25	%50

Member Point Loads (BLC 19 : Maint LL 5)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	109	y	-0.25	%50

Member Point Loads (BLC 20 : Maint LL 6)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	116	y	-0.25	%50

Member Point Loads (BLC 21 : Maint LL 7)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	117	y	-0.25	%50

Member Point Loads (BLC 22 : Maint LL 8)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	118	y	-0.25	%50

Member Point Loads (BLC 23 : Maint LL 9)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	56	y	-0.25	%50

Member Point Loads (BLC 24 : Maint LL 10)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	63	y	-0.25	%50

Member Point Loads (BLC 25 : Maint LL 11)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	64	y	-0.25	%50

Member Point Loads (BLC 26 : Maint LL 12)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	65	y	-0.25	%50

Member Distributed Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.007	-0.007	0	%100
2	2	Z	-0.007	-0.007	0	%100
3	3	Z	-0.007	-0.007	0	%100
4	4	Z	-0.007	-0.007	0	%100
5	5	Z	-0.007	-0.007	0	%100
6	6	Z	-0.007	-0.007	0	%100
7	7	Z	-0.007	-0.007	0	%100
8	8	Z	-0.007	-0.007	0	%100
9	9	Z	-0.007	-0.007	0	%100
10	12	Z	-0.003	-0.003	0	%100
11	13	Z	-0.002	-0.002	0	%100
12	14	Z	-0.002	-0.002	0	%100
13	15	Z	-0.003	-0.003	0	%100
14	16	Z	-0.003	-0.003	0	%100
15	17	Z	-0.002	-0.002	0	%100
16	18	Z	-0.002	-0.002	0	%100
17	19	Z	-0.003	-0.003	0	%100
18	20	Z	-0.002	-0.002	0	%100
19	21	Z	-0.003	-0.003	0	%100
20	22	Z	-0.002	-0.002	0	%100
21	23	Z	-0.003	-0.003	0	%100
22	24	Z	-0.002	-0.002	0	%100
23	25	Z	-0.002	-0.002	0	%100
24	28	Z	-0.002	-0.002	0	%100
25	30	Z	-0.002	-0.002	0	%100
26	31	Z	-0.002	-0.002	0	%100
27	33	Z	-0.002	-0.002	0	%100
28	46	Z	-0.007	-0.007	0	%100
29	47	Z	-0.007	-0.007	0	%100
30	48	Z	-0.007	-0.007	0	%100
31	49	Z	-0.007	-0.007	0	%100
32	55	Z	-0.007	-0.007	0	%100
33	56	Z	-0.007	-0.007	0	%100
34	58	Z	-0.007	-0.007	0	%100
35	59	Z	-0.007	-0.007	0	%100
36	60	Z	-0.007	-0.007	0	%100
37	61	Z	-0.007	-0.007	0	%100
38	63	Z	-0.007	-0.007	0	%100
39	64	Z	-0.007	-0.007	0	%100
40	65	Z	-0.007	-0.007	0	%100
41	66	Z	-0.007	-0.007	0	%100
42	70	Z	-0.003	-0.003	0	%100
43	71	Z	-0.002	-0.002	0	%100
44	72	Z	-0.002	-0.002	0	%100
45	73	Z	-0.002	-0.002	0	%100
46	74	Z	-0.003	-0.003	0	%100
47	75	Z	-0.003	-0.003	0	%100
48	78	Z	-0.002	-0.002	0	%100
49	80	Z	-0.002	-0.002	0	%100
50	81	Z	-0.003	-0.003	0	%100
51	82	Z	-0.002	-0.002	0	%100
52	83	Z	-0.003	-0.003	0	%100
53	84	Z	-0.002	-0.002	0	%100
54	85	Z	-0.003	-0.003	0	%100
55	86	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
56	87	Z	-0.002	-0.002	0	%100
57	88	Z	-0.002	-0.002	0	%100
58	92	Z	-0.002	-0.002	0	%100
59	93	Z	-0.002	-0.002	0	%100
60	101	Z	-0.007	-0.007	0	%100
61	102	Z	-0.007	-0.007	0	%100
62	103	Z	-0.007	-0.007	0	%100
63	108	Z	-0.007	-0.007	0	%100
64	109	Z	-0.007	-0.007	0	%100
65	111	Z	-0.007	-0.007	0	%100
66	112	Z	-0.007	-0.007	0	%100
67	113	Z	-0.007	-0.007	0	%100
68	114	Z	-0.007	-0.007	0	%100
69	116	Z	-0.007	-0.007	0	%100
70	117	Z	-0.007	-0.007	0	%100
71	118	Z	-0.007	-0.007	0	%100
72	119	Z	-0.007	-0.007	0	%100
73	123	Z	-0.003	-0.003	0	%100
74	124	Z	-0.002	-0.002	0	%100
75	125	Z	-0.002	-0.002	0	%100
76	126	Z	-0.002	-0.002	0	%100
77	127	Z	-0.003	-0.003	0	%100
78	128	Z	-0.003	-0.003	0	%100
79	131	Z	-0.002	-0.002	0	%100
80	133	Z	-0.002	-0.002	0	%100
81	134	Z	-0.003	-0.003	0	%100
82	135	Z	-0.002	-0.002	0	%100
83	136	Z	-0.003	-0.003	0	%100
84	137	Z	-0.002	-0.002	0	%100
85	138	Z	-0.003	-0.003	0	%100
86	139	Z	-0.002	-0.002	0	%100
87	140	Z	-0.002	-0.002	0	%100
88	141	Z	-0.002	-0.002	0	%100
89	145	Z	-0.002	-0.002	0	%100
90	146	Z	-0.002	-0.002	0	%100
91	154	Z	-0.007	-0.007	0	%100
92	155	Z	-0.007	-0.007	0	%100
93	156	Z	-0.007	-0.007	0	%100
94	162	Z	-0.006	-0.006	0	%100
95	165	Z	-0.006	-0.006	0	%100
96	169	Z	-0.006	-0.006	0	%100
97	171	Z	-0.006	-0.006	0	%100
98	175	Z	-0.006	-0.006	0	%100
99	177	Z	-0.006	-0.006	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.007	-0.007	0	%100
2	2	X	-0.007	-0.007	0	%100
3	3	X	-0.007	-0.007	0	%100
4	4	X	-0.007	-0.007	0	%100
5	5	X	-0.007	-0.007	0	%100
6	6	X	-0.007	-0.007	0	%100
7	7	X	-0.007	-0.007	0	%100
8	8	X	-0.007	-0.007	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
9	9	X	-0.007	-0.007	0	%100
10	12	X	-0.003	-0.003	0	%100
11	13	X	-0.002	-0.002	0	%100
12	14	X	-0.002	-0.002	0	%100
13	15	X	-0.003	-0.003	0	%100
14	16	X	-0.003	-0.003	0	%100
15	17	X	-0.002	-0.002	0	%100
16	18	X	-0.002	-0.002	0	%100
17	19	X	-0.003	-0.003	0	%100
18	20	X	-0.002	-0.002	0	%100
19	21	X	-0.003	-0.003	0	%100
20	22	X	-0.002	-0.002	0	%100
21	23	X	-0.003	-0.003	0	%100
22	24	X	-0.002	-0.002	0	%100
23	25	X	-0.002	-0.002	0	%100
24	28	X	-0.002	-0.002	0	%100
25	30	X	-0.002	-0.002	0	%100
26	31	X	-0.002	-0.002	0	%100
27	33	X	-0.002	-0.002	0	%100
28	46	X	-0.007	-0.007	0	%100
29	47	X	-0.007	-0.007	0	%100
30	48	X	-0.007	-0.007	0	%100
31	49	X	-0.007	-0.007	0	%100
32	55	X	-0.007	-0.007	0	%100
33	56	X	-0.007	-0.007	0	%100
34	58	X	-0.007	-0.007	0	%100
35	59	X	-0.007	-0.007	0	%100
36	60	X	-0.007	-0.007	0	%100
37	61	X	-0.007	-0.007	0	%100
38	63	X	-0.007	-0.007	0	%100
39	64	X	-0.007	-0.007	0	%100
40	65	X	-0.007	-0.007	0	%100
41	66	X	-0.007	-0.007	0	%100
42	70	X	-0.003	-0.003	0	%100
43	71	X	-0.002	-0.002	0	%100
44	72	X	-0.002	-0.002	0	%100
45	73	X	-0.002	-0.002	0	%100
46	74	X	-0.003	-0.003	0	%100
47	75	X	-0.003	-0.003	0	%100
48	78	X	-0.002	-0.002	0	%100
49	80	X	-0.002	-0.002	0	%100
50	81	X	-0.003	-0.003	0	%100
51	82	X	-0.002	-0.002	0	%100
52	83	X	-0.003	-0.003	0	%100
53	84	X	-0.002	-0.002	0	%100
54	85	X	-0.003	-0.003	0	%100
55	86	X	-0.002	-0.002	0	%100
56	87	X	-0.002	-0.002	0	%100
57	88	X	-0.002	-0.002	0	%100
58	92	X	-0.002	-0.002	0	%100
59	93	X	-0.002	-0.002	0	%100
60	101	X	-0.007	-0.007	0	%100
61	102	X	-0.007	-0.007	0	%100
62	103	X	-0.007	-0.007	0	%100
63	108	X	-0.007	-0.007	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
64	109	X	-0.007	-0.007	0	%100
65	111	X	-0.007	-0.007	0	%100
66	112	X	-0.007	-0.007	0	%100
67	113	X	-0.007	-0.007	0	%100
68	114	X	-0.007	-0.007	0	%100
69	116	X	-0.007	-0.007	0	%100
70	117	X	-0.007	-0.007	0	%100
71	118	X	-0.007	-0.007	0	%100
72	119	X	-0.007	-0.007	0	%100
73	123	X	-0.003	-0.003	0	%100
74	124	X	-0.002	-0.002	0	%100
75	125	X	-0.002	-0.002	0	%100
76	126	X	-0.002	-0.002	0	%100
77	127	X	-0.003	-0.003	0	%100
78	128	X	-0.003	-0.003	0	%100
79	131	X	-0.002	-0.002	0	%100
80	133	X	-0.002	-0.002	0	%100
81	134	X	-0.003	-0.003	0	%100
82	135	X	-0.002	-0.002	0	%100
83	136	X	-0.003	-0.003	0	%100
84	137	X	-0.002	-0.002	0	%100
85	138	X	-0.003	-0.003	0	%100
86	139	X	-0.002	-0.002	0	%100
87	140	X	-0.002	-0.002	0	%100
88	141	X	-0.002	-0.002	0	%100
89	145	X	-0.002	-0.002	0	%100
90	146	X	-0.002	-0.002	0	%100
91	154	X	-0.007	-0.007	0	%100
92	155	X	-0.007	-0.007	0	%100
93	156	X	-0.007	-0.007	0	%100
94	162	X	-0.006	-0.006	0	%100
95	165	X	-0.006	-0.006	0	%100
96	169	X	-0.006	-0.006	0	%100
97	171	X	-0.006	-0.006	0	%100
98	175	X	-0.006	-0.006	0	%100
99	177	X	-0.006	-0.006	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.0003	-0.0003	0	%100
2	2	Z	-0.0003	-0.0003	0	%100
3	3	Z	-0.0003	-0.0003	0	%100
4	4	Z	-0.0003	-0.0003	0	%100
5	5	Z	-0.0003	-0.0003	0	%100
6	6	Z	-0.0003	-0.0003	0	%100
7	7	Z	-0.0003	-0.0003	0	%100
8	8	Z	-0.0003	-0.0003	0	%100
9	9	Z	-0.0004	-0.0004	0	%100
10	12	Z	-0.0002	-0.0002	0	%100
11	13	Z	-0.0002	-0.0002	0	%100
12	14	Z	-0.0002	-0.0002	0	%100
13	15	Z	-0.0002	-0.0002	0	%100
14	16	Z	-0.0002	-0.0002	0	%100
15	17	Z	-0.0002	-0.0002	0	%100
16	18	Z	-0.0002	-0.0002	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
17	19	Z	-0.0002	-0.0002	0	%100
18	20	Z	-0.0002	-0.0002	0	%100
19	21	Z	-0.0002	-0.0002	0	%100
20	22	Z	-0.0002	-0.0002	0	%100
21	23	Z	-0.0002	-0.0002	0	%100
22	24	Z	-0.0002	-0.0002	0	%100
23	25	Z	-0.0002	-0.0002	0	%100
24	28	Z	-0.0001	-0.0001	0	%100
25	30	Z	-0.0001	-0.0001	0	%100
26	31	Z	-0.0001	-0.0001	0	%100
27	33	Z	-0.0001	-0.0001	0	%100
28	46	Z	-0.0003	-0.0003	0	%100
29	47	Z	-0.0003	-0.0003	0	%100
30	48	Z	-0.0003	-0.0003	0	%100
31	49	Z	-0.0003	-0.0003	0	%100
32	55	Z	-0.0003	-0.0003	0	%100
33	56	Z	-0.0003	-0.0003	0	%100
34	58	Z	-0.0003	-0.0003	0	%100
35	59	Z	-0.0003	-0.0003	0	%100
36	60	Z	-0.0003	-0.0003	0	%100
37	61	Z	-0.0003	-0.0003	0	%100
38	63	Z	-0.0003	-0.0003	0	%100
39	64	Z	-0.0003	-0.0003	0	%100
40	65	Z	-0.0003	-0.0003	0	%100
41	66	Z	-0.0004	-0.0004	0	%100
42	70	Z	-0.0002	-0.0002	0	%100
43	71	Z	-0.0002	-0.0002	0	%100
44	72	Z	-0.0002	-0.0002	0	%100
45	73	Z	-0.0002	-0.0002	0	%100
46	74	Z	-0.0002	-0.0002	0	%100
47	75	Z	-0.0002	-0.0002	0	%100
48	78	Z	-0.0002	-0.0002	0	%100
49	80	Z	-0.0001	-0.0001	0	%100
50	81	Z	-0.0002	-0.0002	0	%100
51	82	Z	-0.0002	-0.0002	0	%100
52	83	Z	-0.0002	-0.0002	0	%100
53	84	Z	-0.0002	-0.0002	0	%100
54	85	Z	-0.0002	-0.0002	0	%100
55	86	Z	-0.0002	-0.0002	0	%100
56	87	Z	-0.0002	-0.0002	0	%100
57	88	Z	-0.0001	-0.0001	0	%100
58	92	Z	-0.0001	-0.0001	0	%100
59	93	Z	-0.0001	-0.0001	0	%100
60	101	Z	-0.0003	-0.0003	0	%100
61	102	Z	-0.0003	-0.0003	0	%100
62	103	Z	-0.0003	-0.0003	0	%100
63	108	Z	-0.0003	-0.0003	0	%100
64	109	Z	-0.0003	-0.0003	0	%100
65	111	Z	-0.0003	-0.0003	0	%100
66	112	Z	-0.0003	-0.0003	0	%100
67	113	Z	-0.0003	-0.0003	0	%100
68	114	Z	-0.0003	-0.0003	0	%100
69	116	Z	-0.0003	-0.0003	0	%100
70	117	Z	-0.0003	-0.0003	0	%100
71	118	Z	-0.0003	-0.0003	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
72	119	Z	-0.0004	-0.0004	0	%100
73	123	Z	-0.0002	-0.0002	0	%100
74	124	Z	-0.0002	-0.0002	0	%100
75	125	Z	-0.0002	-0.0002	0	%100
76	126	Z	-0.0002	-0.0002	0	%100
77	127	Z	-0.0002	-0.0002	0	%100
78	128	Z	-0.0002	-0.0002	0	%100
79	131	Z	-0.0002	-0.0002	0	%100
80	133	Z	-0.0001	-0.0001	0	%100
81	134	Z	-0.0002	-0.0002	0	%100
82	135	Z	-0.0002	-0.0002	0	%100
83	136	Z	-0.0002	-0.0002	0	%100
84	137	Z	-0.0002	-0.0002	0	%100
85	138	Z	-0.0002	-0.0002	0	%100
86	139	Z	-0.0002	-0.0002	0	%100
87	140	Z	-0.0002	-0.0002	0	%100
88	141	Z	-0.0001	-0.0001	0	%100
89	145	Z	-0.0001	-0.0001	0	%100
90	146	Z	-0.0001	-0.0001	0	%100
91	154	Z	-0.0003	-0.0003	0	%100
92	155	Z	-0.0003	-0.0003	0	%100
93	156	Z	-0.0003	-0.0003	0	%100
94	162	Z	-0.0003	-0.0003	0	%100
95	165	Z	-0.0003	-0.0003	0	%100
96	169	Z	-0.0003	-0.0003	0	%100
97	171	Z	-0.0003	-0.0003	0	%100
98	175	Z	-0.0003	-0.0003	0	%100
99	177	Z	-0.0003	-0.0003	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.0003	-0.0003	0	%100
2	2	X	-0.0003	-0.0003	0	%100
3	3	X	-0.0003	-0.0003	0	%100
4	4	X	-0.0003	-0.0003	0	%100
5	5	X	-0.0003	-0.0003	0	%100
6	6	X	-0.0003	-0.0003	0	%100
7	7	X	-0.0003	-0.0003	0	%100
8	8	X	-0.0003	-0.0003	0	%100
9	9	X	-0.0004	-0.0004	0	%100
10	12	X	-0.0002	-0.0002	0	%100
11	13	X	-0.0002	-0.0002	0	%100
12	14	X	-0.0002	-0.0002	0	%100
13	15	X	-0.0002	-0.0002	0	%100
14	16	X	-0.0002	-0.0002	0	%100
15	17	X	-0.0002	-0.0002	0	%100
16	18	X	-0.0002	-0.0002	0	%100
17	19	X	-0.0002	-0.0002	0	%100
18	20	X	-0.0002	-0.0002	0	%100
19	21	X	-0.0002	-0.0002	0	%100
20	22	X	-0.0002	-0.0002	0	%100
21	23	X	-0.0002	-0.0002	0	%100
22	24	X	-0.0002	-0.0002	0	%100
23	25	X	-0.0002	-0.0002	0	%100
24	28	X	-0.0001	-0.0001	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
25	30	X	-0.0001	-0.0001	0	%100
26	31	X	-0.0001	-0.0001	0	%100
27	33	X	-0.0001	-0.0001	0	%100
28	46	X	-0.0003	-0.0003	0	%100
29	47	X	-0.0003	-0.0003	0	%100
30	48	X	-0.0003	-0.0003	0	%100
31	49	X	-0.0003	-0.0003	0	%100
32	55	X	-0.0003	-0.0003	0	%100
33	56	X	-0.0003	-0.0003	0	%100
34	58	X	-0.0003	-0.0003	0	%100
35	59	X	-0.0003	-0.0003	0	%100
36	60	X	-0.0003	-0.0003	0	%100
37	61	X	-0.0003	-0.0003	0	%100
38	63	X	-0.0003	-0.0003	0	%100
39	64	X	-0.0003	-0.0003	0	%100
40	65	X	-0.0003	-0.0003	0	%100
41	66	X	-0.0004	-0.0004	0	%100
42	70	X	-0.0002	-0.0002	0	%100
43	71	X	-0.0002	-0.0002	0	%100
44	72	X	-0.0002	-0.0002	0	%100
45	73	X	-0.0002	-0.0002	0	%100
46	74	X	-0.0002	-0.0002	0	%100
47	75	X	-0.0002	-0.0002	0	%100
48	78	X	-0.0002	-0.0002	0	%100
49	80	X	-0.0001	-0.0001	0	%100
50	81	X	-0.0002	-0.0002	0	%100
51	82	X	-0.0002	-0.0002	0	%100
52	83	X	-0.0002	-0.0002	0	%100
53	84	X	-0.0002	-0.0002	0	%100
54	85	X	-0.0002	-0.0002	0	%100
55	86	X	-0.0002	-0.0002	0	%100
56	87	X	-0.0002	-0.0002	0	%100
57	88	X	-0.0001	-0.0001	0	%100
58	92	X	-0.0001	-0.0001	0	%100
59	93	X	-0.0001	-0.0001	0	%100
60	101	X	-0.0003	-0.0003	0	%100
61	102	X	-0.0003	-0.0003	0	%100
62	103	X	-0.0003	-0.0003	0	%100
63	108	X	-0.0003	-0.0003	0	%100
64	109	X	-0.0003	-0.0003	0	%100
65	111	X	-0.0003	-0.0003	0	%100
66	112	X	-0.0003	-0.0003	0	%100
67	113	X	-0.0003	-0.0003	0	%100
68	114	X	-0.0003	-0.0003	0	%100
69	116	X	-0.0003	-0.0003	0	%100
70	117	X	-0.0003	-0.0003	0	%100
71	118	X	-0.0003	-0.0003	0	%100
72	119	X	-0.0004	-0.0004	0	%100
73	123	X	-0.0002	-0.0002	0	%100
74	124	X	-0.0002	-0.0002	0	%100
75	125	X	-0.0002	-0.0002	0	%100
76	126	X	-0.0002	-0.0002	0	%100
77	127	X	-0.0002	-0.0002	0	%100
78	128	X	-0.0002	-0.0002	0	%100
79	131	X	-0.0002	-0.0002	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
80	133	X	-0.0001	-0.0001	0	%100
81	134	X	-0.0002	-0.0002	0	%100
82	135	X	-0.0002	-0.0002	0	%100
83	136	X	-0.0002	-0.0002	0	%100
84	137	X	-0.0002	-0.0002	0	%100
85	138	X	-0.0002	-0.0002	0	%100
86	139	X	-0.0002	-0.0002	0	%100
87	140	X	-0.0002	-0.0002	0	%100
88	141	X	-0.0001	-0.0001	0	%100
89	145	X	-0.0001	-0.0001	0	%100
90	146	X	-0.0001	-0.0001	0	%100
91	154	X	-0.0003	-0.0003	0	%100
92	155	X	-0.0003	-0.0003	0	%100
93	156	X	-0.0003	-0.0003	0	%100
94	162	X	-0.0003	-0.0003	0	%100
95	165	X	-0.0003	-0.0003	0	%100
96	169	X	-0.0003	-0.0003	0	%100
97	171	X	-0.0003	-0.0003	0	%100
98	175	X	-0.0003	-0.0003	0	%100
99	177	X	-0.0003	-0.0003	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.002	-0.002	0	%100
2	2	Z	-0.002	-0.002	0	%100
3	3	Z	-0.002	-0.002	0	%100
4	4	Z	-0.002	-0.002	0	%100
5	5	Z	-0.002	-0.002	0	%100
6	6	Z	-0.002	-0.002	0	%100
7	7	Z	-0.002	-0.002	0	%100
8	8	Z	-0.002	-0.002	0	%100
9	9	Z	-0.002	-0.002	0	%100
10	12	Z	-0.0007	-0.0007	0	%100
11	13	Z	-0.0006	-0.0006	0	%100
12	14	Z	-0.0006	-0.0006	0	%100
13	15	Z	-0.0007	-0.0007	0	%100
14	16	Z	-0.0007	-0.0007	0	%100
15	17	Z	-0.0006	-0.0006	0	%100
16	18	Z	-0.0006	-0.0006	0	%100
17	19	Z	-0.0007	-0.0007	0	%100
18	20	Z	-0.0006	-0.0006	0	%100
19	21	Z	-0.0007	-0.0007	0	%100
20	22	Z	-0.0006	-0.0006	0	%100
21	23	Z	-0.0007	-0.0007	0	%100
22	24	Z	-0.0006	-0.0006	0	%100
23	25	Z	-0.0006	-0.0006	0	%100
24	28	Z	-0.003	-0.003	0	%100
25	30	Z	-0.003	-0.003	0	%100
26	31	Z	-0.003	-0.003	0	%100
27	33	Z	-0.003	-0.003	0	%100
28	46	Z	-0.002	-0.002	0	%100
29	47	Z	-0.002	-0.002	0	%100
30	48	Z	-0.001	-0.001	0	%100
31	49	Z	-0.001	-0.001	0	%100
32	55	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
33	56	Z	-0.002	-0.002	0	%100
34	58	Z	-0.002	-0.002	0	%100
35	59	Z	-0.001	-0.001	0	%100
36	60	Z	-0.002	-0.002	0	%100
37	61	Z	-0.002	-0.002	0	%100
38	63	Z	-0.002	-0.002	0	%100
39	64	Z	-0.002	-0.002	0	%100
40	65	Z	-0.002	-0.002	0	%100
41	66	Z	-0.002	-0.002	0	%100
42	70	Z	-0.0007	-0.0007	0	%100
43	71	Z	-0.0006	-0.0006	0	%100
44	72	Z	-0.0006	-0.0006	0	%100
45	73	Z	-0.0006	-0.0006	0	%100
46	74	Z	-0.0007	-0.0007	0	%100
47	75	Z	-0.0007	-0.0007	0	%100
48	78	Z	-0.0006	-0.0006	0	%100
49	80	Z	-0.003	-0.003	0	%100
50	81	Z	-0.0007	-0.0007	0	%100
51	82	Z	-0.0006	-0.0006	0	%100
52	83	Z	-0.0007	-0.0007	0	%100
53	84	Z	-0.0006	-0.0006	0	%100
54	85	Z	-0.0007	-0.0007	0	%100
55	86	Z	-0.0006	-0.0006	0	%100
56	87	Z	-0.0006	-0.0006	0	%100
57	88	Z	-0.003	-0.003	0	%100
58	92	Z	-0.003	-0.003	0	%100
59	93	Z	-0.003	-0.003	0	%100
60	101	Z	-0.002	-0.002	0	%100
61	102	Z	-0.002	-0.002	0	%100
62	103	Z	-0.001	-0.001	0	%100
63	108	Z	-0.002	-0.002	0	%100
64	109	Z	-0.002	-0.002	0	%100
65	111	Z	-0.002	-0.002	0	%100
66	112	Z	-0.001	-0.001	0	%100
67	113	Z	-0.002	-0.002	0	%100
68	114	Z	-0.002	-0.002	0	%100
69	116	Z	-0.002	-0.002	0	%100
70	117	Z	-0.002	-0.002	0	%100
71	118	Z	-0.002	-0.002	0	%100
72	119	Z	-0.002	-0.002	0	%100
73	123	Z	-0.0007	-0.0007	0	%100
74	124	Z	-0.0006	-0.0006	0	%100
75	125	Z	-0.0006	-0.0006	0	%100
76	126	Z	-0.0006	-0.0006	0	%100
77	127	Z	-0.0007	-0.0007	0	%100
78	128	Z	-0.0007	-0.0007	0	%100
79	131	Z	-0.0006	-0.0006	0	%100
80	133	Z	-0.003	-0.003	0	%100
81	134	Z	-0.0007	-0.0007	0	%100
82	135	Z	-0.0006	-0.0006	0	%100
83	136	Z	-0.0007	-0.0007	0	%100
84	137	Z	-0.0006	-0.0006	0	%100
85	138	Z	-0.0007	-0.0007	0	%100
86	139	Z	-0.0006	-0.0006	0	%100
87	140	Z	-0.0006	-0.0006	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
88	141	Z	-0.003	-0.003	0	%100
89	145	Z	-0.003	-0.003	0	%100
90	146	Z	-0.003	-0.003	0	%100
91	154	Z	-0.002	-0.002	0	%100
92	155	Z	-0.002	-0.002	0	%100
93	156	Z	-0.001	-0.001	0	%100
94	162	Z	-0.001	-0.001	0	%100
95	165	Z	-0.001	-0.001	0	%100
96	169	Z	-0.001	-0.001	0	%100
97	171	Z	-0.001	-0.001	0	%100
98	175	Z	-0.001	-0.001	0	%100
99	177	Z	-0.001	-0.001	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.002	-0.002	0	%100
2	2	X	-0.002	-0.002	0	%100
3	3	X	-0.002	-0.002	0	%100
4	4	X	-0.002	-0.002	0	%100
5	5	X	-0.002	-0.002	0	%100
6	6	X	-0.002	-0.002	0	%100
7	7	X	-0.002	-0.002	0	%100
8	8	X	-0.002	-0.002	0	%100
9	9	X	-0.002	-0.002	0	%100
10	12	X	-0.0007	-0.0007	0	%100
11	13	X	-0.0006	-0.0006	0	%100
12	14	X	-0.0006	-0.0006	0	%100
13	15	X	-0.0007	-0.0007	0	%100
14	16	X	-0.0007	-0.0007	0	%100
15	17	X	-0.0006	-0.0006	0	%100
16	18	X	-0.0006	-0.0006	0	%100
17	19	X	-0.0007	-0.0007	0	%100
18	20	X	-0.0006	-0.0006	0	%100
19	21	X	-0.0007	-0.0007	0	%100
20	22	X	-0.0006	-0.0006	0	%100
21	23	X	-0.0007	-0.0007	0	%100
22	24	X	-0.0006	-0.0006	0	%100
23	25	X	-0.0006	-0.0006	0	%100
24	28	X	-0.003	-0.003	0	%100
25	30	X	-0.003	-0.003	0	%100
26	31	X	-0.003	-0.003	0	%100
27	33	X	-0.003	-0.003	0	%100
28	46	X	-0.002	-0.002	0	%100
29	47	X	-0.002	-0.002	0	%100
30	48	X	-0.001	-0.001	0	%100
31	49	X	-0.001	-0.001	0	%100
32	55	X	-0.002	-0.002	0	%100
33	56	X	-0.002	-0.002	0	%100
34	58	X	-0.002	-0.002	0	%100
35	59	X	-0.001	-0.001	0	%100
36	60	X	-0.002	-0.002	0	%100
37	61	X	-0.002	-0.002	0	%100
38	63	X	-0.002	-0.002	0	%100
39	64	X	-0.002	-0.002	0	%100
40	65	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
41	66	X	-0.002	-0.002	0	%100
42	70	X	-0.0007	-0.0007	0	%100
43	71	X	-0.0006	-0.0006	0	%100
44	72	X	-0.0006	-0.0006	0	%100
45	73	X	-0.0006	-0.0006	0	%100
46	74	X	-0.0007	-0.0007	0	%100
47	75	X	-0.0007	-0.0007	0	%100
48	78	X	-0.0006	-0.0006	0	%100
49	80	X	-0.003	-0.003	0	%100
50	81	X	-0.0007	-0.0007	0	%100
51	82	X	-0.0006	-0.0006	0	%100
52	83	X	-0.0007	-0.0007	0	%100
53	84	X	-0.0006	-0.0006	0	%100
54	85	X	-0.0007	-0.0007	0	%100
55	86	X	-0.0006	-0.0006	0	%100
56	87	X	-0.0006	-0.0006	0	%100
57	88	X	-0.003	-0.003	0	%100
58	92	X	-0.003	-0.003	0	%100
59	93	X	-0.003	-0.003	0	%100
60	101	X	-0.002	-0.002	0	%100
61	102	X	-0.002	-0.002	0	%100
62	103	X	-0.001	-0.001	0	%100
63	108	X	-0.002	-0.002	0	%100
64	109	X	-0.002	-0.002	0	%100
65	111	X	-0.002	-0.002	0	%100
66	112	X	-0.001	-0.001	0	%100
67	113	X	-0.002	-0.002	0	%100
68	114	X	-0.002	-0.002	0	%100
69	116	X	-0.002	-0.002	0	%100
70	117	X	-0.002	-0.002	0	%100
71	118	X	-0.002	-0.002	0	%100
72	119	X	-0.002	-0.002	0	%100
73	123	X	-0.0007	-0.0007	0	%100
74	124	X	-0.0006	-0.0006	0	%100
75	125	X	-0.0006	-0.0006	0	%100
76	126	X	-0.0006	-0.0006	0	%100
77	127	X	-0.0007	-0.0007	0	%100
78	128	X	-0.0007	-0.0007	0	%100
79	131	X	-0.0006	-0.0006	0	%100
80	133	X	-0.003	-0.003	0	%100
81	134	X	-0.0007	-0.0007	0	%100
82	135	X	-0.0006	-0.0006	0	%100
83	136	X	-0.0007	-0.0007	0	%100
84	137	X	-0.0006	-0.0006	0	%100
85	138	X	-0.0007	-0.0007	0	%100
86	139	X	-0.0006	-0.0006	0	%100
87	140	X	-0.0006	-0.0006	0	%100
88	141	X	-0.003	-0.003	0	%100
89	145	X	-0.003	-0.003	0	%100
90	146	X	-0.003	-0.003	0	%100
91	154	X	-0.002	-0.002	0	%100
92	155	X	-0.002	-0.002	0	%100
93	156	X	-0.001	-0.001	0	%100
94	162	X	-0.001	-0.001	0	%100
95	165	X	-0.001	-0.001	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
96	169	X	-0.001	-0.001	0	%100
97	171	X	-0.001	-0.001	0	%100
98	175	X	-0.001	-0.001	0	%100
99	177	X	-0.001	-0.001	0	%100

Node Loads and Enforced Displacements (BLC 11 : Live Load a)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	21	L	Y	-0.25
2	81	L	Y	-0.25
3	150	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 12 : Live Load b)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	52	L	Y	-0.25
2	116	L	Y	-0.25
3	185	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 13 : Live Load c)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	54	L	Y	-0.25
2	127	L	Y	-0.25
3	196	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 14 : Live Load d)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	23	L	Y	-0.25
2	105	L	Y	-0.25
3	174	L	Y	-0.25

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed
1	Dead	DL	-1		75	
2	0 Wind - No Ice	WLZ			75	99
3	90 Wind - No Ice	WLX			75	99
4	0 Wind - Ice	WLZ				
5	90 Wind - Ice	WLX				
6	0 Wind - Service	WLZ			75	99
7	90 Wind - Service	WLX			75	99
8	Ice	OL1				
9	0 Seismic	ELZ			75	99
10	90 Seismic	ELX			75	99
11	Live Load a	LL		3		
12	Live Load b	LL		3		
13	Live Load c	LL		3		
14	Live Load d	LL		3		
15	Maint LL 1	LL			1	
16	Maint LL 2	LL			1	
17	Maint LL 3	LL			1	
18	Maint LL 4	LL			1	

Basic Load Cases (Continued)

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed
19	Maint LL 5	LL			1	
20	Maint LL 6	LL			1	
21	Maint LL 7	LL			1	
22	Maint LL 8	LL			1	
23	Maint LL 9	LL			1	
24	Maint LL 10	LL			1	
25	Maint LL 11	LL			1	
26	Maint LL 12	LL			1	
27	Maint LL 13	LL				
28	Maint LL 14	LL				
29	Maint LL 15	LL				

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 Dead	Yes	Y	1	1.4						
2	1.2 D + 1.0 - 0 W	Yes	Y	1	1.2	2	1				
3	1.2 D + 1.0 - 30 W	Yes	Y	1	1.2	2	0.866	3	0.5		
4	1.2 D + 1.0 - 60 W	Yes	Y	1	1.2	3	0.866	2	0.5		
5	1.2 D + 1.0 - 90 W	Yes	Y	1	1.2	3	1				
6	1.2 D + 1.0 - 120 W	Yes	Y	1	1.2	3	0.866	2	-0.5		
7	1.2 D + 1.0 - 150 W	Yes	Y	1	1.2	2	-0.866	3	0.5		
8	1.2 D + 1.0 - 180 W	Yes	Y	1	1.2	2	-1				
9	1.2 D + 1.0 - 210 W	Yes	Y	1	1.2	2	-0.866	3	-0.5		
10	1.2 D + 1.0 - 240 W	Yes	Y	1	1.2	3	-0.866	2	-0.5		
11	1.2 D + 1.0 - 270 W	Yes	Y	1	1.2	3	-1				
12	1.2 D + 1.0 - 300 W	Yes	Y	1	1.2	3	-0.866	2	0.5		
13	1.2 D + 1.0 - 330 W	Yes	Y	1	1.2	2	0.866	3	-0.5		
14	1.2 D + 1.0 - 0 W/Ice	Yes	Y	1	1.2	4	1			8	1
15	1.2 D + 1.0 - 30 W/Ice	Yes	Y	1	1.2	4	0.866	5	0.5	8	1
16	1.2 D + 1.0 - 60 W/Ice	Yes	Y	1	1.2	5	0.866	4	0.5	8	1
17	1.2 D + 1.0 - 90 W/Ice	Yes	Y	1	1.2	5	1			8	1
18	1.2 D + 1.0 - 120 W/Ice	Yes	Y	1	1.2	5	0.866	4	-0.5	8	1
19	1.2 D + 1.0 - 150 W/Ice	Yes	Y	1	1.2	4	-0.866	5	0.5	8	1
20	1.2 D + 1.0 - 180 W/Ice	Yes	Y	1	1.2	4	-1			8	1
21	1.2 D + 1.0 - 210 W/Ice	Yes	Y	1	1.2	4	-0.866	5	-0.5	8	1
22	1.2 D + 1.0 - 240 W/Ice	Yes	Y	1	1.2	5	-0.866	4	-0.5	8	1
23	1.2 D + 1.0 - 270 W/Ice	Yes	Y	1	1.2	5	-1			8	1
24	1.2 D + 1.0 - 300 W/Ice	Yes	Y	1	1.2	5	-0.866	4	0.5	8	1
25	1.2 D + 1.0 - 330 W/Ice	Yes	Y	1	1.2	4	0.866	5	-0.5	8	1
26	1.2 D + 1.0 E - 0	Yes	Y	1	1.2	9	1				
27	1.2 D + 1.0 E - 30	Yes	Y	1	1.2	9	0.866	10	0.5		
28	1.2 D + 1.0 E - 60	Yes	Y	1	1.2	10	0.866	9	0.5		
29	1.2 D + 1.0 E - 90	Yes	Y	1	1.2	10	1				
30	1.2 D + 1.0 E - 120	Yes	Y	1	1.2	10	0.866	9	-0.5		
31	1.2 D + 1.0 E - 150	Yes	Y	1	1.2	9	-0.866	10	0.5		
32	1.2 D + 1.0 E - 180	Yes	Y	1	1.2	9	-1				
33	1.2 D + 1.0 E - 210	Yes	Y	1	1.2	9	-0.866	10	-0.5		
34	1.2 D + 1.0 E - 240	Yes	Y	1	1.2	10	-0.866	9	-0.5		
35	1.2 D + 1.0 E - 270	Yes	Y	1	1.2	10	-1				
36	1.2 D + 1.0 E - 300	Yes	Y	1	1.2	10	-0.866	9	0.5		
37	1.2 D + 1.0 E - 330	Yes	Y	1	1.2	9	0.866	10	-0.5		
38	1.2 D + 1.5 LL a + Service - 0 W	Yes	Y	1	1.2	6	1			11	1.5
39	1.2 D + 1.5 LL a + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	11	1.5
40	1.2 D + 1.5 LL a + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	11	1.5
41	1.2 D + 1.5 LL a + Service - 90 W	Yes	Y	1	1.2	7	1			11	1.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
42	1.2 D + 1.5 LL a + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	11	1.5
43	1.2 D + 1.5 LL a + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	11	1.5
44	1.2 D + 1.5 LL a + Service - 180 W	Yes	Y	1	1.2	6	-1			11	1.5
45	1.2 D + 1.5 LL a + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	11	1.5
46	1.2 D + 1.5 LL a + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	11	1.5
47	1.2 D + 1.5 LL a + Service - 270 W	Yes	Y	1	1.2	7	-1			11	1.5
48	1.2 D + 1.5 LL a + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	11	1.5
49	1.2 D + 1.5 LL a + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	11	1.5
50	1.2 D + 1.5 LL b + Service - 0 W	Yes	Y	1	1.2	6	1			12	1.5
51	1.2 D + 1.5 LL b + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	12	1.5
52	1.2 D + 1.5 LL b + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	12	1.5
53	1.2 D + 1.5 LL b + Service - 90 W	Yes	Y	1	1.2	7	1			12	1.5
54	1.2 D + 1.5 LL b + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	12	1.5
55	1.2 D + 1.5 LL b + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	12	1.5
56	1.2 D + 1.5 LL b + Service - 180 W	Yes	Y	1	1.2	6	-1			12	1.5
57	1.2 D + 1.5 LL b + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	12	1.5
58	1.2 D + 1.5 LL b + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	12	1.5
59	1.2 D + 1.5 LL b + Service - 270 W	Yes	Y	1	1.2	7	-1			12	1.5
60	1.2 D + 1.5 LL b + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	12	1.5
61	1.2 D + 1.5 LL b + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	12	1.5
62	1.2 D + 1.5 LL c + Service - 0 W	Yes	Y	1	1.2	6	1			13	1.5
63	1.2 D + 1.5 LL c + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	13	1.5
64	1.2 D + 1.5 LL c + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	13	1.5
65	1.2 D + 1.5 LL c + Service - 90 W	Yes	Y	1	1.2	7	1			13	1.5
66	1.2 D + 1.5 LL c + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	13	1.5
67	1.2 D + 1.5 LL c + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	13	1.5
68	1.2 D + 1.5 LL c + Service - 180 W	Yes	Y	1	1.2	6	-1			13	1.5
69	1.2 D + 1.5 LL c + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	13	1.5
70	1.2 D + 1.5 LL c + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	13	1.5
71	1.2 D + 1.5 LL c + Service - 270 W	Yes	Y	1	1.2	7	-1			13	1.5
72	1.2 D + 1.5 LL c + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	13	1.5
73	1.2 D + 1.5 LL c + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	13	1.5
74	1.2 D + 1.5 LL d + Service - 0 W	Yes	Y	1	1.2	6	1			14	1.5
75	1.2 D + 1.5 LL d + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	14	1.5
76	1.2 D + 1.5 LL d + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	14	1.5
77	1.2 D + 1.5 LL d + Service - 90 W	Yes	Y	1	1.2	7	1			14	1.5
78	1.2 D + 1.5 LL d + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	14	1.5
79	1.2 D + 1.5 LL d + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	14	1.5
80	1.2 D + 1.5 LL d + Service - 180 W	Yes	Y	1	1.2	6	-1			14	1.5
81	1.2 D + 1.5 LL d + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	14	1.5
82	1.2 D + 1.5 LL d + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	14	1.5
83	1.2 D + 1.5 LL d + Service - 270 W	Yes	Y	1	1.2	7	-1			14	1.5
84	1.2 D + 1.5 LL d + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	14	1.5
85	1.2 D + 1.5 LL d + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	14	1.5
86	1.2 D + 1.5 LL Maint (1)	Yes	Y	1	1.2					15	1.5
87	1.2 D + 1.5 LL Maint (2)	Yes	Y	1	1.2					16	1.5
88	1.2 D + 1.5 LL Maint (3)	Yes	Y	1	1.2					17	1.5
89	1.2 D + 1.5 LL Maint (4)	Yes	Y	1	1.2					18	1.5
90	1.2 D + 1.5 LL Maint (5)	Yes	Y	1	1.2					19	1.5
91	1.2 D + 1.5 LL Maint (6)	Yes	Y	1	1.2					20	1.5
92	1.2 D + 1.5 LL Maint (7)	Yes	Y	1	1.2					21	1.5
93	1.2 D + 1.5 LL Maint (8)	Yes	Y	1	1.2					22	1.5
94	1.2 D + 1.5 LL Maint (9)	Yes	Y	1	1.2					23	1.5
95	1.2 D + 1.5 LL Maint (10)	Yes	Y	1	1.2					24	1.5
96	1.2 D + 1.5 LL Maint (11)	Yes	Y	1	1.2					25	1.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
97	1.2 D + 1.5 LL Maint (12)	Yes	Y	1	1.2					26	1.5
98	1.2 D + 1.5 LL Maint (13)	Yes	Y	1	1.2					27	1.5
99	1.2 D + 1.5 LL Maint (14)	Yes	Y	1	1.2					28	1.5
100	1.2 D + 1.5 LL Maint (15)	Yes	Y	1	1.2					29	1.5

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	45	max	0.99	7	1.321	52	-0.967	2	-0.486	10	0	100	0.138	5
2		min	-1.553	13	1.014	10	-2.807	8	-0.679	40	0	1	-0.094	11
3	46	max	1.349	2	0.169	7	0.125	13	0.009	7	0	100	0.146	5
4		min	-1.246	8	-0.119	13	-0.123	7	-0.023	85	0	1	-0.078	11
5	49	max	0.104	47	0.01	1	0.008	2	-0.001	2	0	100	0.144	5
6		min	-0.2	77	0.009	10	-0.008	8	-0.003	8	0	1	-0.075	11
7	48	max	1.429	5	0.723	43	3.358	2	-0.288	10	0	100	0.133	5
8		min	-0.875	11	0.535	13	0.431	8	-0.389	52	0	1	-0.103	11
9	100	max	-0.364	6	1.298	56	2.122	78	0.447	9	0	100	0.621	40
10		min	-2.613	12	0.977	2	0.653	12	0.1	3	0	1	0.407	10
11	120	max	0.115	9	0.01	1	0.199	9	0.146	9	0	100	0.054	3
12		min	-0.071	3	0.009	13	-0.123	3	-0.09	3	0	1	-0.082	9
13	122	max	0.357	12	0.131	11	0.81	12	0.148	9	0	100	0.063	3
14		min	-0.403	6	-0.081	5	-0.893	6	-0.087	3	0	1	-0.084	9
15	124	max	2.538	5	0.704	46	0.492	2	0.287	9	0	100	0.36	40
16		min	0.461	11	0.526	4	-2.83	8	0.033	3	0	1	0.212	10
17	169	max	2.643	77	1.321	60	1.928	3	0.415	44	0	100	-0.338	7
18		min	1.524	11	1.013	6	-0.529	9	0.127	2	0	1	-0.638	85
19	189	max	0.112	13	0.01	1	0.111	7	0.084	7	0	100	0.046	7
20		min	-0.064	7	0.009	6	-0.194	13	-0.141	13	0	1	-0.084	13
21	191	max	0.673	3	0.161	3	1.022	9	0.094	7	0	100	0.036	43
22		min	-0.729	9	-0.111	9	-0.931	3	-0.147	13	0	1	-0.09	85
23	193	max	-0.639	5	0.725	38	0.775	2	0.265	7	0	100	-0.178	7
24		min	-2.921	11	0.515	8	-2.192	8	0.026	13	0	1	-0.384	13
25	Totals:	max	4.471	5	6.151	79	5.634	2						
26		min	-4.471	11	5.026	13	-5.634	8						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	1	PIPE_2.5X	0.088	1.953	12	0.062	1.953		12	18.374	86.94	6.107	6.107	1	H1-1b
2	2	PIPE_2.5X	0.118	10.417	8	0.061	2.083		8	18.374	86.94	6.107	6.107	1	H1-1b
3	3	PIPE_2.5X	0.045	5.578	13	0.02	2.953		6	26.041	86.94	6.107	6.107	1	H1-1b
4	4	PIPE_2.5X	0.11	5.688	8	0.029	5.578		13	26.041	86.94	6.107	6.107	1	H1-1b
5	5	HSS2.875X0.203	0.071	0	12	0.041	5.672		48	46.771	65.826	4.727	4.727	1	H1-1b
6	6	HSS2.875X0.203	0.066	4.254	11	0.034	0.236		60	46.771	65.826	4.727	4.727	1	H1-1b
7	7	HSS2.875X0.203	0.069	4.254	5	0.037	0.236		73	46.771	65.826	4.727	4.727	1	H1-1b
8	8	HSS2.875X0.203	0.057	0	5	0.046	5.672		77	46.771	65.826	4.727	4.727	1	H1-1b
9	9	HSS3.500X0.216	0.019	1.508	5	0.032	1.508		5	74.469	86.112	7.555	7.555	1	H1-1b
10	12	SR_1.0	0.113	2.75	78	0.004	2.75		12	10.183	35.343	0.589	0.589	1	H1-1b*
11	13	SR_0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
12	14	SR_0.75	0.08	0	77	0.004	3.802		13	1.686	19.88	0.249	0.249	1	H1-1b*
13	15	SR_1.0	0.057	0	4	0.005	2.75		6	10.183	35.343	0.589	0.589	1	H1-1b*
14	16	SR_1.0	0.043	0	78	0.004	2.75		5	10.183	35.343	0.589	0.589	1	H1-1b
15	17	SR_0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
16	18	SR_0.75	0.087	3.802	78	0.005	0		6	1.686	19.88	0.249	0.249	1	H1-1b*
17	19	SR_1.0	0.095	2.75	48	0.004	2.75		6	10.183	35.343	0.589	0.589	1	H1-1b*

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
18	20	SR 0.75	0.076	3.802	48	0.005	0		11	1.686	19.88	0.249	0.249	1	H1-1b*
19	21	SR 1.0	0.039	0	47	0.004	0		5	10.183	35.343	0.589	0.589	1	H1-1b
20	22	SR 0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
21	23	SR 1.0	0.045	2.75	49	0.005	0		6	10.183	35.343	0.589	0.589	1	H1-1b*
22	24	SR 0.75	0.064	3.802	48	0.004	0		3	1.686	19.88	0.249	0.249	1	H1-1b*
23	25	SR 0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
24	28	PL5/8X5	0.09	0.172	48	0.025	0	y	6	139.285	140.625	1.831	14.648	1.262	H1-1b
25	30	PL5/8X5	0.1	0	79	0.018	0	z	4	139.285	140.625	1.831	14.648	1.019	H1-1b
26	31	PL5/8X5	0.069	0.172	49	0.036	0.172	y	4	139.285	140.625	1.831	14.648	1.012	H1-1b
27	33	PL5/8X5	0.075	0	76	0.038	0	y	6	139.285	140.625	1.831	14.648	1.001	H1-1b
28	46	PIPE 2.5X	0.11	5.688	8	0.027	2.953		13	26.041	86.94	6.107	6.107	1	H1-1b
29	47	PIPE 2.5X	0.069	5.578	7	0.024	5.578		3	26.041	86.94	6.107	6.107	1	H1-1b
30	48	2.88"X0.120"	0.044	7.816	11	0.011	7.816		5	23.169	43.056	3.157	3.157	1	H1-1b*
31	49	2.88"X0.120"	0.05	7.775	6	0.011	7.775		6	23.319	43.056	3.157	3.157	1	H1-1b*
32	55	PIPE 2.5X	0.107	10.547	8	0.07	10.547		9	18.374	86.94	6.107	6.107	1	H1-1b
33	56	HSS2.875X0.203	0.066	0	4	0.041	5.672		39	46.771	65.826	4.727	4.727	1	H1-1b
34	58	PIPE 2.5X	0.101	10.547	8	0.038	2.083		12	18.374	86.94	6.107	6.107	1	H1-1b
35	59	2.88"X0.120"	0.049	7.775	9	0.013	7.775		9	23.319	43.056	3.157	3.157	1	H1-1b*
36	60	PIPE 2.5X	0.036	5.578	46	0.017	2.953		9	26.041	86.94	6.107	6.107	1	H1-1b
37	61	PIPE 2.5X	0.11	5.688	2	0.023	5.578		9	26.041	86.94	6.107	6.107	1	H1-1b
38	63	HSS2.875X0.203	0.063	4.254	3	0.034	0.236		50	46.771	65.826	4.727	4.727	1	H1-1b
39	64	HSS2.875X0.203	0.072	0	8	0.048	5.672		9	46.771	65.826	4.727	4.727	1	H1-1b
40	65	HSS2.875X0.203	0.072	4.254	9	0.036	0.236		64	46.771	65.826	4.727	4.727	1	H1-1b
41	66	HSS3.500X0.216	0.022	1.508	9	0.037	1.508		9	74.469	86.112	7.555	7.555	1	H1-1b
42	70	SR 1.0	0.113	2.75	81	0.005	2.75		3	10.183	35.343	0.589	0.589	1	H1-1b*
43	71	SR 0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
44	72	SR 0.75	0.086	3.802	81	0.004	0		9	1.686	19.88	0.249	0.249	1	H1-1b*
45	73	SR 0.75	0.081	0	81	0.003	3.802		6	1.686	19.88	0.249	0.249	1	H1-1b*
46	74	SR 1.0	0.073	0	8	0.006	2.75		9	10.183	35.343	0.589	0.589	1	H1-1b*
47	75	SR 1.0	0.042	2.75	9	0.005	2.75		9	10.183	35.343	0.589	0.589	1	H1-1b
48	78	SR 0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
49	80	PL5/8X5	0.09	0.172	38	0.029	0	y	9	139.285	140.625	1.831	14.648	1.073	H1-1b
50	81	SR 1.0	0.096	2.75	39	0.005	2.75		9	10.183	35.343	0.589	0.589	1	H1-1b*
51	82	SR 0.75	0.077	3.802	39	0.004	0		3	1.686	19.88	0.249	0.249	1	H1-1b*
52	83	SR 1.0	0.039	0	39	0.004	0		9	10.183	35.343	0.589	0.589	1	H1-1b
53	84	SR 0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
54	85	SR 1.0	0.045	2.75	41	0.006	0		9	10.183	35.343	0.589	0.589	1	H1-1b*
55	86	SR 0.75	0.064	3.802	39	0.003	0		7	1.686	19.88	0.249	0.249	1	H1-1b*
56	87	SR 0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
57	88	PL5/8X5	0.069	0.172	40	0.035	0.172	y	8	139.285	140.625	1.831	14.648	1.014	H1-1b
58	92	PL5/8X5	0.097	0	81	0.026	0.172	y	3	139.285	140.625	1.831	14.648	1.015	H1-1b
59	93	PL5/8X5	0.08	0	8	0.037	0	y	10	139.285	140.625	1.831	14.648	1.002	H1-1b
60	101	PIPE 2.5X	0.11	5.688	2	0.018	2.953		4	26.041	86.94	6.107	6.107	1	H1-1b
61	102	PIPE 2.5X	0.081	2.953	9	0.03	2.953		8	26.041	86.94	6.107	6.107	1	H1-1b
62	103	2.88"X0.120"	0.057	7.816	3	0.014	7.816		9	23.169	43.056	3.157	3.157	1	H1-1b*
63	108	PIPE 2.5X	0.111	1.953	8	0.079	1.953		8	18.374	86.94	6.107	6.107	1	H1-1b
64	109	HSS2.875X0.203	0.087	0	8	0.043	5.672		8	46.771	65.826	4.727	4.727	1	H1-1b
65	111	PIPE 2.5X	0.093	4.297	2	0.056	10.547		8	18.374	86.94	6.107	6.107	1	H1-1b
66	112	2.88"X0.120"	0.065	7.775	2	0.014	7.775		13	23.319	43.056	3.157	3.157	1	H1-1b*
67	113	PIPE 2.5X	0.048	5.578	8	0.024	2.953		2	26.041	86.94	6.107	6.107	1	H1-1b
68	114	PIPE 2.5X	0.11	5.688	8	0.031	5.578		2	26.041	86.94	6.107	6.107	1	H1-1b
69	116	HSS2.875X0.203	0.071	4.254	7	0.034	0.236		55	46.771	65.826	4.727	4.727	1	H1-1b
70	117	HSS2.875X0.203	0.074	0	13	0.047	5.672		13	46.771	65.826	4.727	4.727	1	H1-1b
71	118	HSS2.875X0.203	0.07	4.254	13	0.039	5.672		2	46.771	65.826	4.727	4.727	1	H1-1b
72	119	HSS3.500X0.216	0.022	1.508	13	0.036	1.508		13	74.469	86.112	7.555	7.555	1	H1-1b

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
73	123	SR_1.0	0.114	2.75	74	0.006	2.75		8	10.183	35.343	0.589	0.589	1	H1-1b*
74	124	SR_0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
75	125	SR_0.75	0.09	3.802	13	0.005	0		13	1.686	19.88	0.249	0.249	1	H1-1b*
76	126	SR_0.75	0.081	0	74	0.003	3.802		9	1.686	19.88	0.249	0.249	1	H1-1b*
77	127	SR_1.0	0.069	0	13	0.008	2.75		2	10.183	35.343	0.589	0.589	1	H1-1b*
78	128	SR_1.0	0.047	2.75	13	0.004	2.75		13	10.183	35.343	0.589	0.589	1	H1-1b
79	131	SR_0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
80	133	PL5/8X5	0.092	0.172	8	0.032	0	y	13	139.285	140.625	1.831	14.648	1.011	H1-1b
81	134	SR_1.0	0.096	2.75	44	0.006	2.75		2	10.183	35.343	0.589	0.589	1	H1-1b*
82	135	SR_0.75	0.077	3.802	44	0.004	0		7	1.686	19.88	0.249	0.249	1	H1-1b*
83	136	SR_1.0	0.04	2.75	7	0.005	0		13	10.183	35.343	0.589	0.589	1	H1-1b
84	137	SR_0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
85	138	SR_1.0	0.048	2.75	8	0.008	0		2	10.183	35.343	0.589	0.589	1	H1-1b
86	139	SR_0.75	0.065	3.802	44	0.003	0		10	1.686	19.88	0.249	0.249	1	H1-1b*
87	140	SR_0.75	0	3.802	100	0	3.802		100	1.686	19.88	0.249	0.249	1	H1-1a
88	141	PL5/8X5	0.072	0.172	8	0.041	0.172	y	12	139.285	140.625	1.831	14.648	1.01	H1-1b
89	145	PL5/8X5	0.101	0	13	0.018	0	z	12	139.285	140.625	1.831	14.648	1.02	H1-1b
90	146	PL5/8X5	0.083	0	13	0.042	0	y	2	139.285	140.625	1.831	14.648	1.014	H1-1b
91	154	PIPE_2.5X	0.11	5.688	8	0.029	2.953		8	26.041	86.94	6.107	6.107	1	H1-1b
92	155	PIPE_2.5X	0.087	2.953	13	0.023	2.953		13	26.041	86.94	6.107	6.107	1	H1-1b
93	156	2.88"X0.120"	0.06	7.816	7	0.014	7.816		13	23.169	43.056	3.157	3.157	1	H1-1b*
94	162	PIPE_2.0	0.042	2.583	8	0.015	5.333		5	14.916	32.13	1.872	1.872	1	H1-1b
95	165	PIPE_2.0	0.05	5.417	5	0.014	5.333		5	14.916	32.13	1.872	1.872	1	H1-1b
96	169	PIPE_2.0	0.043	5.333	9	0.018	5.333		9	14.916	32.13	1.872	1.872	1	H1-1b
97	171	PIPE_2.0	0.05	5.417	11	0.016	5.333		8	14.916	32.13	1.872	1.872	1	H1-1b
98	175	PIPE_2.0	0.046	5.333	13	0.018	5.333		13	14.916	32.13	1.872	1.872	1	H1-1b
99	177	PIPE_2.0	0.05	5.417	5	0.019	5.333		13	14.916	32.13	1.872	1.872	1	H1-1b

APPENDIX D

ADDITIONAL CALCULATIONS

PROJECT	**159981.002.01.0002 - GrdnCity_Roe, KSC**				
SUBJECT	**Sector Mount Analysis**				
DATE	**06/13/24**	PAGE	1	OF	1

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

[REF: AISC 360-05]

Reactions at Bolted Connection

Tension	:	3.358	k
Vertical Shear	:	0.723	k
Horizontal Shear	:	1.429	k
Torsion	:	0.133	k.ft
Moment from Horizontal Forces	:	0	k.ft
Moment from Vertical Forces	:	0.389	k.ft

Bolt Parameters

Bolt Grade	:	A325	
Bolt Diameter	:	0.625	in
Nominal Bolt Area	:	0.307	in^2
Bolt spacing, Horizontal	:	4.6	in
Bolt spacing, Vertical	:	4	in
Bolt edge distance, plate height	:	3.4	in
Bolt edge distance, plate width	:	2	in
Total Number of Bolts	:	4	bolts

Summary of Forces

Shear Resultant Force	:	1.60	k
Force from Horz. Moment	:	0.00	k
Force from Vert. Moment	:	1.01	k
Shear Load / Bolt	:	0.40	k
Tension Load / Bolt	:	0.84	k
Resultant from Moments / Bolt	:	0.50	k

Bolt Checks

Nominal Tensile Stress, F_{nt}	:	90.00	ksi	[AISC Table J3.2]
Available Tensile Stress, ΦR_{nt}	:	20.72	k/bolt	[Eq. J3-1]
Unity Check, Bolt Tension	:	**6.49%**		**OKAY**
Nominal Shear Stress, F_{nv}	:	54.00	ksi	[AISC Table J3.2]
Available Shear Stress, ΦR_{nv}	:	12.43	k/bolt	[Eq. J3-1]
Unity Check, Bolt Shear	:	**9.97%**		**OKAY**
Unity Check, Combined	:	**16.46%**		**OKAY**
Available Bearing Strength, ΦR_n	:	96.65	k/bolt	
Unity Check, Bolt Bearing	:	**0.41%**		**OKAY**

APPENDIX E

SUPPLEMENTAL DRAWINGS

1.0 GENERAL NOTES
- 1.1 ALL METRIC DIMENSIONS ARE IN BRACKETS [X. X]
- 1.2 FOR PATENT INFO: https://www.cs-pat.com

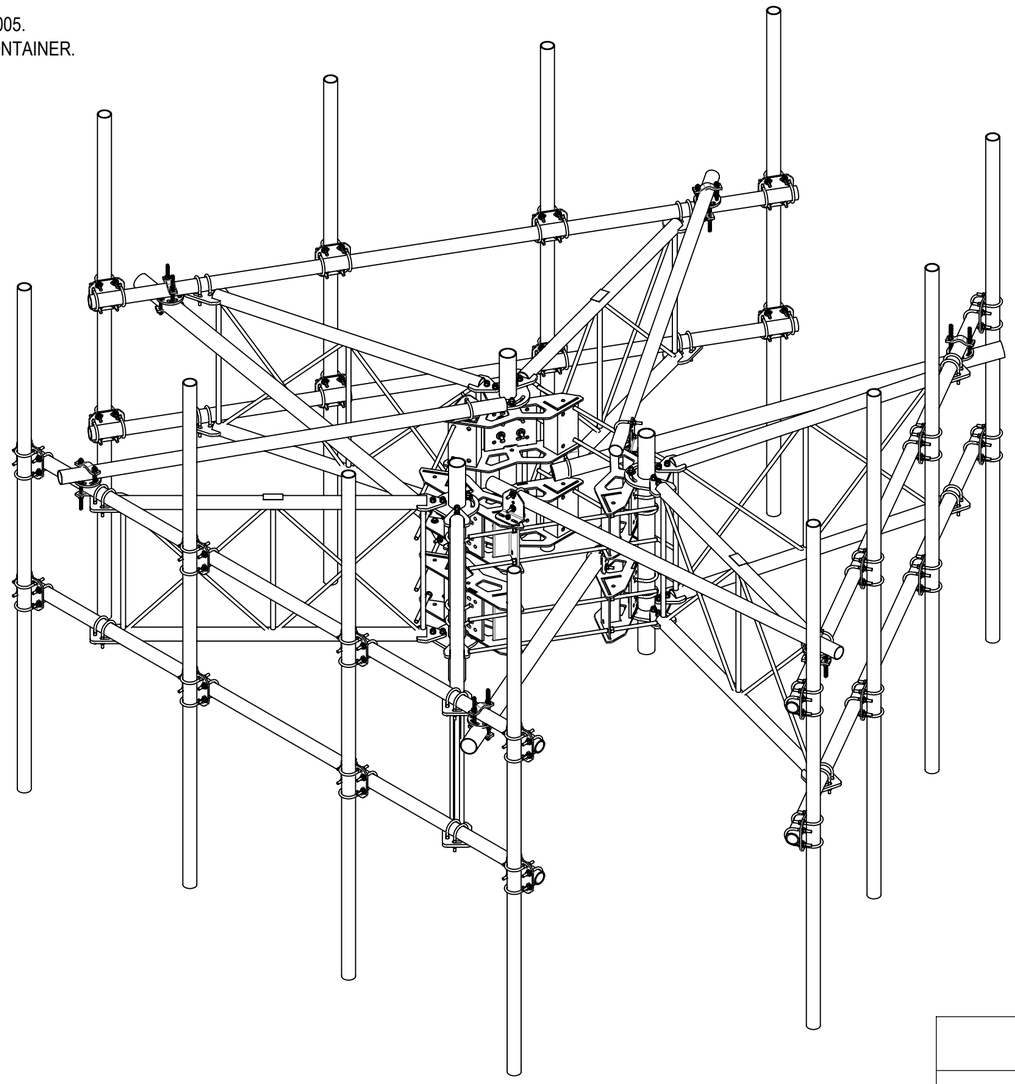
2.0 DESIGN NOTES
- 2.1 ANY HAZARDS OR OBSTRUCTIONS TO THE CLIMBING FACILITY AND SAFETY CLIMB MUST BE IDENTIFIED PRIOR TO INSTALLING THE APPURTENANCE. ADDITIONAL PRODUCTS MAY BE REQUIRED TO MAINTAIN THE INTEGRITY OF THE SAFETY CLIMB. DURING INSTALLATION, TEMPORARY AND/OR PERMANENT PRECAUTIONARY MEASURES SHOULD BE TAKEN TO PRESERVE THE CLIMBING FACILITY AND/OR SAFETY CLIMB.
- 2.2 FITS MONOPOLES 15" TO 50" OD.

3.0 MANUFACTURING/SPECIAL REQUIREMENTS
- 3.1 TIGHTEN ALL BOLTS SECURING FLAT PLATES BY THE TURN-OF-NUT METHOD. TIGHTEN ALL U-BOLTS USING TURN-OF-NUT METHOD WITH ATTENTION TO LEAVE EQUAL DISTANCE AND EQUAL FORCE ON EACH LEG OF THE U-BOLT.

4.0 TEST

5.0 PACKAGING
- 5.1 PACKAGING SHALL MEET COMMSCOPE REQUIREMENTS PER DOCUMENT IS-PL-3005.
- 5.2 PRINTED DOCUMENT TO BE PLACED INSIDE POLYBAG AND THEN IN SHIPPING CONTAINER.
- 5.3 EXTRA HARDWARE MAYBE SUPPLIED, BAGGED AND SHIPPED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	RY1002 30OCT23	



DENSITY		lbs/in³
MASS	1360.49	lbs
VOLUME	14071.03	in³
SURFACE AREA	74790.45	in²
HEIGHT	126"	
LENGTH	208"	
WIDTH	186"	

COMMSCOPE, INC. OF NORTH CAROLINA

TOLERANCES
1 PLACE .X[.X] ± 0.2[6.3]
2 PLACE .XX[.X] ± 0.12[3.0]
3 PLACE .XXX[.X] ± 0.060[1.5]
ANGLES ± 2°

SAP MATERIAL MASTER: MCG23HDXL-12M12126

FINISH

MATERIAL

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES INTERPRET PER ANSI Y 14.5M-1994

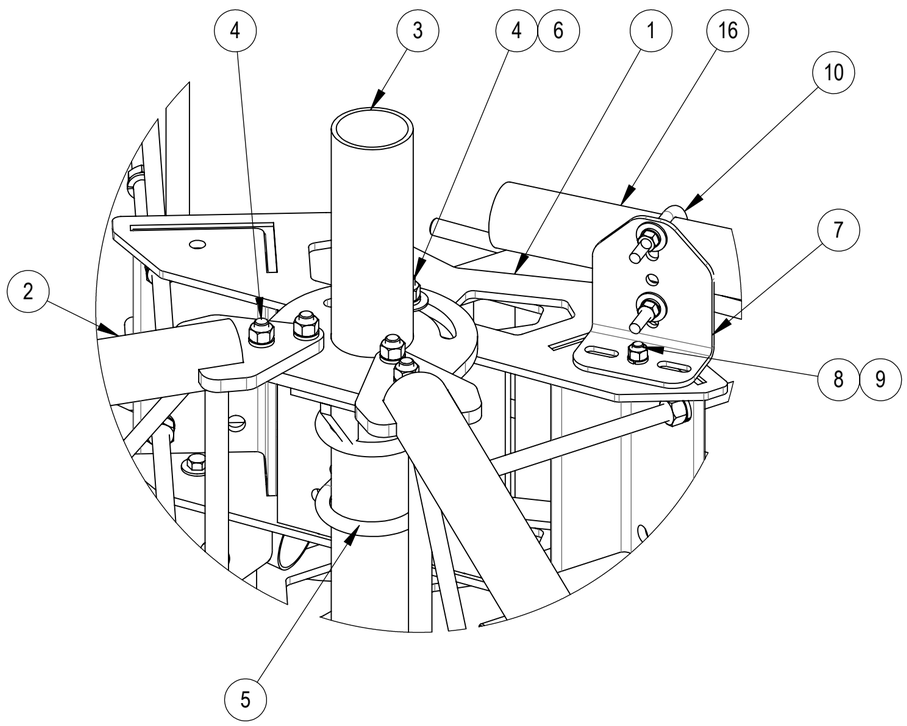
	NAME	DATE
CE	RY1002	30OCT23
RW		
AD		
RE		
ECN		

TITLE: MONO 3 SCTR FR 12' FACE,(12) 126" ANT

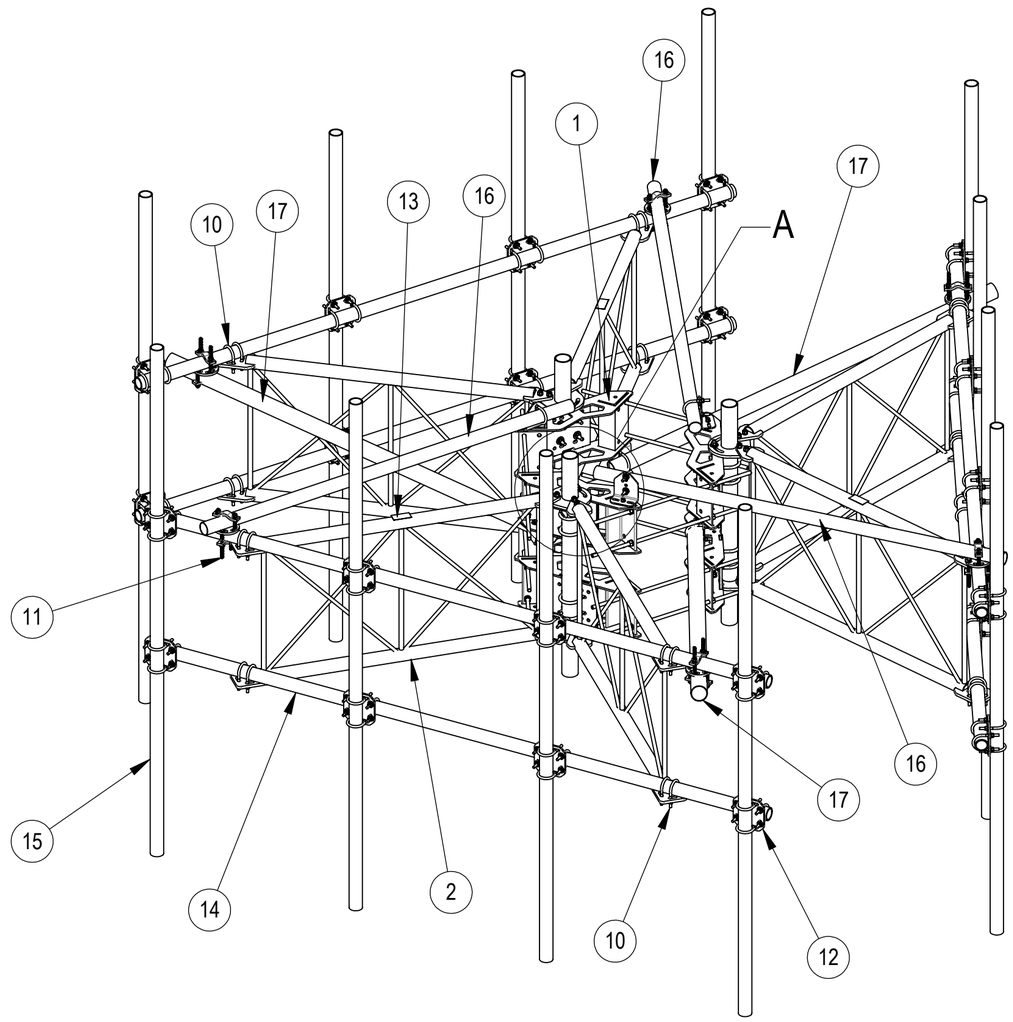
SCALE: 1:20

DOCUMENT NO.: MCG23HDXL-12M12126

SIZE	Auth Group	MODEL			DRAWING			SHEET
		VERSION	STATUS	REVISION	VERSION	STATUS	REVISION	
C		00	IW	A	00	IW	A	1 OF 3



DETAIL A
SCALE 1 : 5



COMPONENT PART NUMBERS PROVIDED FOR ASSEMBLY PURPOSES;
INDIVIDUAL COMPONENTS MAY BE SHIPPED AS PARTS WITHIN AN INCLUDED KIT.

ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT	NOTE NO.
1	MC-RM1550-3	15" - 50" OD RINGMOUNT	2	229.90 LBS	
2	SFG23180-00	ARM, STANDOFF, SFG23	6	120.07 LBS	
3	SFG2206	WELDMENT, ARM MOUNT	3	55.67 LBS	
4	GB-05225	5/8" X 2-1/4" GALV BOLT KIT	30	0.28 LBS	
5	GUB-53560	5/8" X 3-5/8" X 6" GALV U-BOLT	12	1.30 LBS	
6	GWF-05	5/8" GALV FLAT WASHER, 1.7OD	6	0.06 LBS	
7	XAU01	ANGLE, CROSSOVER, 1.9-3.5" X 1.9-3.5" OD	6	2.98 LBS	
8	GB-04145	1/2" X 1-1/2" GALV BOLT KIT	6	0.13 LBS	
9	GWF-04	1/2" GALV FLAT WASHER	6	0.04 LBS	
10	GUB-4352	1/2" X 3" X 5-1/4" GALV U-BOLT	30	0.71 LBS	
11	XP-R	CROSSOVER PLATE, ROUND, UP TO 3.5" OD	6	6.20 LBS	
12	XP-2525	CROSSOVER PLATE KIT, 2-7/8 OD X 2-7/8 OD	24	0.00 LBS	
13	SFG2350	LABEL, SFG23	3	0.03 LBS	
14	MT546150276	PIPE, 2.875"OD X 150"	6	96.11 LBS	
15	MT-546-126	PIPE, 2.875"OD X 126"	12	61.05 LBS	
16	MT54696120	PIPE, 2.875"OD X 96"	3	28.35 LBS	
17	MT54796120	3-1/2" O.D. X 96" PIPE	3	34.78 LBS	

COMMSCOPE, INC. OF NORTH CAROLINA

TITLE

SIZE	SCALE	DOCUMENT NO.			
C	1:25		DRAWING		SHEET
		VERSION	STATUS	REVISION	
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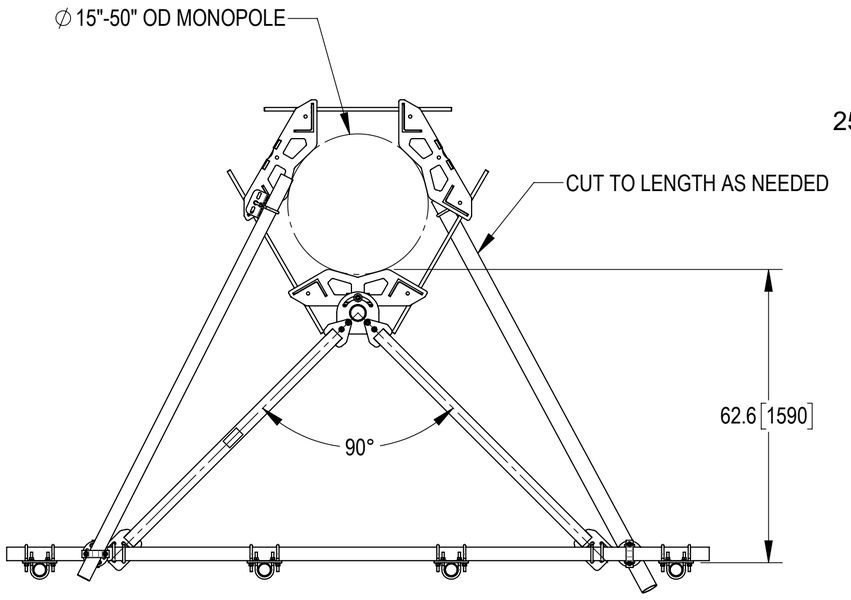
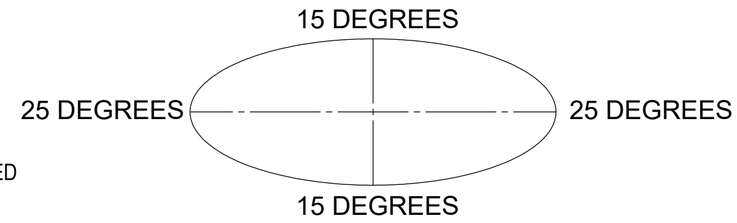
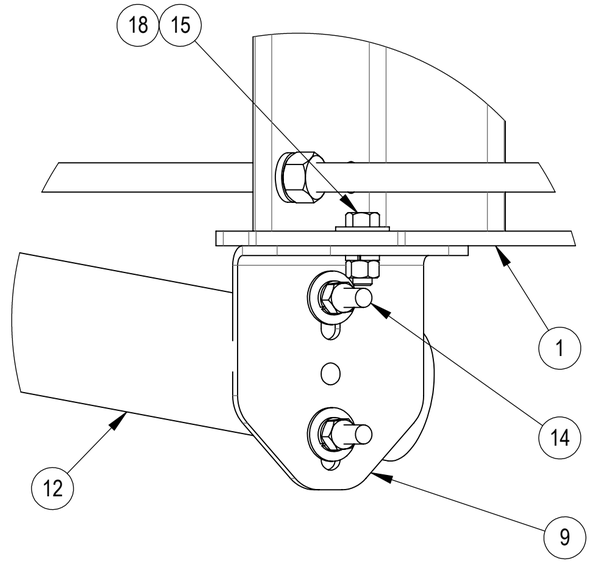


ALLOWABLE TIEBACK ANGLE

±15 DEGREES VERTICAL
±25 DEGREES HORIZONTAL





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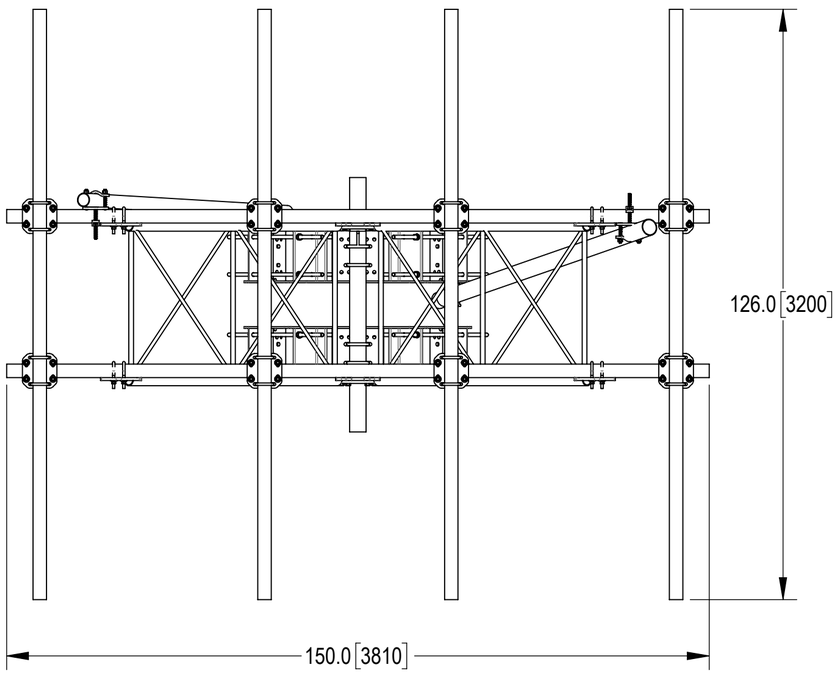

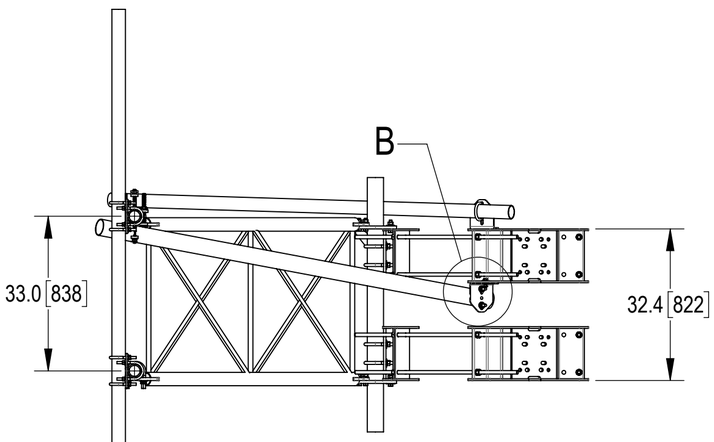

COMMSCOPE, INC. OF NORTH CAROLINA				
TITLE				
SIZE C	SCALE 1:25	DOCUMENT NO.		
		DRAWING		SHEET
		VERSION 00	STATUS IW	REVISION A	3 OF 3

Date: **June 11, 2024**

Morrison Hershfield
1455 Lincoln Parkway, Suite 500
Atlanta, GA 30346
(770) 379-8500

Subject:	**Structural Analysis Report**	
Carrier Designation:	***AT&T Mobility* Co-Locate**	
	Site Number:	IDL02365
	Site Name:	NW Boise City
	FA Number:	15201834
Crown Castle Designation:	**BU Number:**	824322
	Site Name:	GrdnCity_Roe
	JDE Job Number:	2110929
	Work Order Number:	2294676
	Order Number:	665802 Rev. 2
Engineering Firm Designation:	**Morrison Hershfield Project Number:** CN5-036R8 / 2400001	
Site Data:	**8247 W State Street, Garden City, Ada County, ID 83714** **Latitude *43° 40' 22.63"*, Longitude *-116° 17' 21.27"*** **118 Foot – EEI Monopole Tower**	

Morrison Hershfield is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC5: Proposed Equipment Configuration **Sufficient Capacity**

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 102 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Respectfully submitted by:

G. Lance Cooke, C.E. (ID License No. P-14780)
Senior Engineer

PROFESSIONAL ENGINEER - LICENSED - 14780 - STATE OF IDAHO - G LANCE COOKE
EXP 6/30/25

Digitally signed by G. Lance Cooke
Date: 2024.06.11 18:56:06+05'30'

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4) ANALYSIS RESULTS
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Base Level Drawing

7) APPENDIX C
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1) INTRODUCTION

This tower is a 118 ft Monopole tower designed by Engineered Endeavors, Inc

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	102 mph
Exposure Category:	C
Topographic Factor:	1
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
80.0	82.0	3	ericsson	AIR 6419 B77G	5 2	7/8 3/8
	80.0	6	commscope	NNH4-65C-R6-V3 w/ Mount Pipe		
		3	ericsson	4490 B5/B12		
		3	ericsson	4890 B25/B66		
		3	ericsson	RADIO 4478 B14		
		2	raycap	DC9-48-60-24-PC16-EV		
		3	Commscope	12.5' Sector Mount [# MCG23HDXL-12M12126]		
	78.0	3	ericsson	AIR 6419 B77D w/ Mount Pipe		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
120.0	120.0	4	ericsson	AIR 32 B2A/B66AA w/ Mount Pipe	5 2 1	1-5/8 1-3/8 3/4
		4	ericsson	AIR6449 B41_T-MOBILE w/ Mount Pipe		
		4	rfs celwave	APXVAALL24_43-U-NA20_TMO w/ Mount Pipe		
		4	ericsson	RRUS 4415 B25_CCIV2		
		4	ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		1	-	T-Arm Mount [TA 601-1]		
		1	-	T-Arm Mount [TA 601-3]		
107.0	107.0	3	rfs celwave	APXVBBLL20X_43-C-I20 w/ Mount Pipe	3	1-9/16
		3	samsung telecommunications	RFD01F-26A		
		3	samsung telecommunications	RRH-P4		
		1	tower mounts	T-Arm Mount [TA 702-3]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
97.0	97.0	2	raycap	RHSDC-3315-PF-48	2	1-5/8
96.0	97.0	3	ericsson	RADIO 4449 B13/B5	1	1-7/8
		3	ericsson	RADIO 8843 B2/B66A_CCIV2		
	96.0	1	-	Platform Mount [LP 602-1]		
	94.0	3	commscope	NHH-65C-R2B w/ Mount Pipe		
		3	commscope	NHHSS-65B-R2B w/ Mount Pipe		
		3	ericsson	AIR 6449 w/ Mount Pipe		
		3	ericsson	RADIO 4408		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	3489772	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	3489771	CCISITES
4-TOWER MANUFACTURER DRAWINGS	3489773	CCISITES

3.1) Analysis Method

tnxTower (version 8.2.4.3), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

3.2) Assumptions

1) Tower and structures were maintained in accordance with the TIA-222 Standard.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Morrison Hershfield should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	118 - 77.04	Pole	TP27.2x18x0.1875	1	-11.26	955.27	47.6	Pass
L2	77.04 - 48.17	Pole	TP33.18x25.9445x0.1875	2	-19.99	1168.39	87.2	Pass
L3	48.17 - 0	Pole	TP43.5x31.7745x0.25	3	-29.16	2108.03	80.9	Pass
							Summary	
						Pole (L2)	87.2	Pass
						Rating =	87.2	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	65.9	Pass
1	Base Plate		67.8	Pass
1	Base Foundation (Structure)	0	42.1	Pass
1	Base Foundation (Soil Interaction)		32.5	Pass

Structure Rating (max from all components) =	87.2%*

Notes:
1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
2) *Rating per TIA-222-H, Section 15.5.

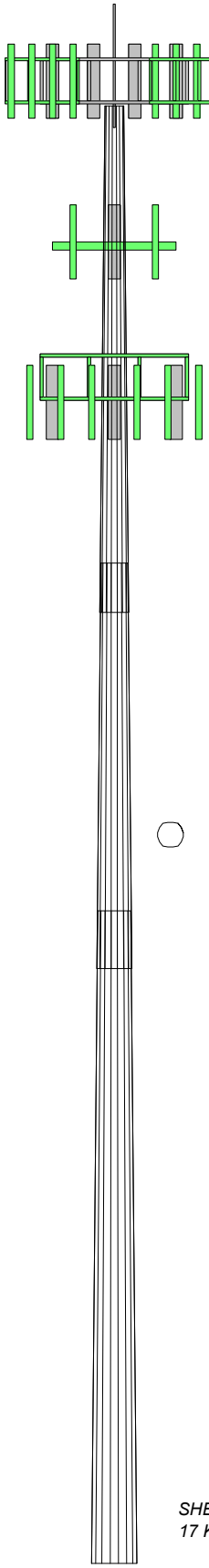
4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	40.96	18	0.1875	3.92	18.0000	27.2000		1.9
2	32.79	18	0.1875	4.67	25.9445	33.1800	A572-65	2.0
3	52.84	18	0.2500		31.7745	43.5000		5.3
								9.1



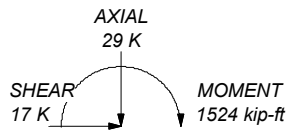
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 102 mph basic wind in accordance with the TIA-222-H Standard.
3. Deflections are based upon a 60 mph wind.
4. Tower Risk Category II.
5. Topographic Category 1 with Crest Height of 0.00 ft
6. TOWER RATING: 87.2%

ALL REACTIONS ARE FACTORED



TORQUE 3 kip-ft
REACTIONS - 102 mph WIND

MORRISON HERSHFIELD
Stantec
Consulting Engineers

Morrison Hershfield
1455 Lincoln Parkway, Suite 500
Atlanta, GA 30346
Phone: (770) 379-8500
FAX: (770) 379-8501

Job: ***CN5-036R8 / 2400001***			
Project: ***824322 / GrdnCity_Roe***			
Client: Crown Castle USA	Drawn by: PKD	App'd:	
Code: TIA-222-H	Date: 06/11/24	Scale: NTS	
Path: C:\Users\Pkumar\Desktop\PKD\CN5-036R8 SA\Analysis\CN5-036R8_BU_824322_WO_2294676.eri		Dwg No. E-1	

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

- Tower base elevation above sea level: 2605.00 ft.
- Basic wind speed of 102 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Deflections calculated using a wind speed of 60 mph.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w)$ = 0.95.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	Consider Moments - Legs		Assume Legs Pinned		Calculate Redundant Bracing Forces
	Consider Moments - Horizontals	√	Assume Rigid Index Plate		Ignore Redundant Members in FEA
	Consider Moments - Diagonals	√	Use Clear Spans For Wind Area		SR Leg Bolts Resist Compression
	Use Moment Magnification		Use Clear Spans For KL/r		All Leg Panels Have Same Allowable
√	Use Code Stress Ratios		Retension Guys To Initial Tension		Offset Girt At Foundation
√	Use Code Safety Factors - Guys	√	Bypass Mast Stability Checks	√	Consider Feed Line Torque
	Escalate Ice	√	Use Azimuth Dish Coefficients		Include Angle Block Shear Check
	Always Use Max Kz	√	Project Wind Area of Appurtenances		Use TIA-222-H Bracing Resist. Exemption
	Use Special Wind Profile	√	Alternative Appurt. EPA Calculation		Use TIA-222-H Tension Splice Exemption
	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Poles
	Leg Bolts Are At Top Of Section		Add IBC .6D+W Combination	√	Include Shear-Torsion Interaction
	Secondary Horizontal Braces Leg		Sort Capacity Reports By Component		Always Use Sub-Critical Flow
	Use Diamond Inner Bracing (4 Sided)		Triangulate Diamond Inner Bracing		Use Top Mounted Sockets
	SR Members Have Cut Ends		Treat Feed Line Bundles As Cylinder		Pole Without Linear Attachments
	SR Members Are Concentric		Ignore KL/ry For 60 Deg. Angle Legs		Pole With Shroud Or No Appurtenances
	Distribute Leg Loads As Uniform		Use ASCE 10 X-Brace Ly Rules		Outside and Inside Corner Radii Are Known

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	118.00-77.04	40.96	3.92	18	18.0000	27.2000	0.1875	0.7500	A572-65 (65 ksi)
L2	77.04-48.17	32.79	4.67	18	25.9445	33.1800	0.1875	0.7500	A572-65 (65 ksi)
L3	48.17-0.00	52.84		18	31.7745	43.5000	0.2500	1.0000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	18.2488	10.6007	424.9328	6.3234	9.1440	46.4712	850.4248	5.3013	2.8380	15.136
	27.5907	16.0758	1481.9720	9.5894	13.8176	107.2525	2965.8939	8.0394	4.4572	23.772
L2	27.1942	15.3287	1284.7927	9.1437	13.1798	97.4818	2571.2760	7.6658	4.2362	22.593

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L3	33.6629	19.6347	2700.1713	11.7123	16.8554	160.1958	5403.8956	9.8192	5.5097	29.385
	33.2784	25.0147	3140.7226	11.1912	16.1415	194.5750	6285.5778	12.5097	5.1523	20.609
	44.1325	34.3189	8110.4083	15.3537	22.0980	367.0200	16231.4884	17.1627	7.2160	28.864

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 118.00-77.04				1	1	1			
L2 77.04-48.17				1	1	1			
L3 48.17-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
Safety Line 3/8	C	No	Surface Ar (CaAa)	118.00 - 12.00	1	1	0.000 0.000	0.3750		0.22
Climbing Pegs	C	No	Surface Ar (CaAa)	118.00 - 12.00	1	1	-0.050 0.050	0.7050		1.80
**										
TYPE 3(1-9/16)	A	No	Surface Ar (CaAa)	107.00 - 8.00	3	3	0.000 0.150	1.5700		0.80
**										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
**									
HCS 6X12 4AWG(1-5/8)	A	No	No	Inside Pole	118.00 - 8.00	4	No Ice	0.00	2.40
MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	A	No	No	Inside Pole	118.00 - 8.00	1	No Ice	0.00	1.07
HCS 6X12 6AWG(1-3/8)	A	No	No	Inside Pole	118.00 - 8.00	2	No Ice	0.00	1.70
WR-VG86ST-BRD(3/4)	A	No	No	Inside Pole	118.00 - 8.00	1	No Ice	0.00	0.58
**									
HB158-1-08U8-S8J18(1-5/8)	B	No	No	Inside Pole	97.00 - 8.00	2	No Ice	0.00	1.30
**									
85096867_CCIV2(1-7/8)	B	No	No	Inside Pole	96.00 - 0.00	1	No Ice	0.00	3.20
**									
PWRT-606-S(7/8)	B	No	No	Inside Pole	80.00 - 0.00	5	No Ice	0.00	0.89
RFFT-48SM-001-XXX(3/8)	B	No	No	Inside Pole	80.00 - 0.00	2	No Ice	0.00	0.06
**									
**									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	118.00-77.04	A	0.000	0.000	14.111	0.000	0.67
		B	0.000	0.000	0.000	0.000	0.13
		C	0.000	0.000	4.424	0.000	0.08
L2	77.04-48.17	A	0.000	0.000	13.598	0.000	0.49
		B	0.000	0.000	0.000	0.000	0.30
		C	0.000	0.000	3.118	0.000	0.06
L3	48.17-0.00	A	0.000	0.000	18.920	0.000	0.69
		B	0.000	0.000	0.000	0.000	0.48
		C	0.000	0.000	3.906	0.000	0.07

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	118.00-77.04	-1.8415	-0.8132	-1.2392	-0.5472
L2	77.04-48.17	-2.3773	-1.2454	-1.5950	-0.8356
L3	48.17-0.00	-2.0957	-1.1607	-1.3644	-0.7557

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	1	Safety Line 3/8	77.04 - 118.00	1.0000	1.0000
L1	2	Climbing Pegs	77.04 - 118.00	1.0000	1.0000
L1	9	TYPE 3(1-9/16)	77.04 - 107.00	1.0000	1.0000
L2	1	Safety Line 3/8	48.17 - 77.04	1.0000	1.0000
L2	2	Climbing Pegs	48.17 - 77.04	1.0000	1.0000
L2	9	TYPE 3(1-9/16)	48.17 - 77.04	1.0000	1.0000
L3	1	Safety Line 3/8	12.00 - 48.17	1.0000	1.0000
L3	2	Climbing Pegs	12.00 - 48.17	1.0000	1.0000
L3	9	TYPE 3(1-9/16)	8.00 - 48.17	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
******									
Lightning Rod 3/4" x 7'	A	From Leg	0.00 0.00 3.25	0.0000	118.00	No Ice	0.53	0.53	0.03

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
******									
AIR 32 B2A/B66AA w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	3.76	3.15	0.19
AIR 32 B2A/B66AA w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	3.76	3.15	0.19
(2) AIR 32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	3.76	3.15	0.19
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	14.69	6.87	0.18
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	14.69	6.87	0.18
(2) APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	14.69	6.87	0.18
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	5.19	2.71	0.13
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	5.19	2.71	0.13
(2) AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	5.19	2.71	0.13
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	1.97	1.59	0.07
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	1.97	1.59	0.07
(2) RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	1.97	1.59	0.07
RRUS 4415 B25_CCIV2	A	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	1.84	0.82	0.05
RRUS 4415 B25_CCIV2	B	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	1.84	0.82	0.05
(2) RRUS 4415 B25_CCIV2	C	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	1.84	0.82	0.05
T-Arm Mount [TA 601-3]	C	None		0.0000	120.00	No Ice	12.56	12.56	0.73
T-Arm Mount [TA 601-1]	C	From Leg	2.00 0.00 0.00	0.0000	120.00	No Ice	7.97	2.50	0.24
6' x 2" Horizontal Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	1.14	0.01	0.02
6' x 2" Horizontal Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	1.14	0.01	0.02
(2) 6' x 2" Horizontal Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	1.14	0.01	0.02
4' x 2" Horizontal Face Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	0.87	0.01	0.01
4' x 2" Horizontal Face Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	0.87	0.01	0.01

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
(2) 4' x 2" Horizontal Face Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	120.00	No Ice	0.87	0.01	0.01
**									
APXVBBLL20X_43-C-I20 w/ Mount Pipe	A	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	9.99	5.59	0.12
APXVBBLL20X_43-C-I20 w/ Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	9.99	5.59	0.12
APXVBBLL20X_43-C-I20 w/ Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	9.99	5.59	0.12
RFD01F-26A	A	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	1.32	0.81	0.05
RFD01F-26A	B	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	1.32	0.81	0.05
RFD01F-26A	C	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	1.32	0.81	0.05
RRH-P4	A	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	2.74	1.79	0.06
RRH-P4	B	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	2.74	1.79	0.06
RRH-P4	C	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	2.74	1.79	0.06
6' x 2" Mount Pipe	A	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	1.43	1.43	0.02
6' x 2" Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	1.43	1.43	0.02
6' x 2" Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	107.00	No Ice	1.43	1.43	0.02
T-Arm Mount [TA 702-3]	A	None		0.0000	107.00	No Ice	4.75	4.75	0.34
**									
RHSDC-3315-PF-48	B	From Leg	4.00 0.00 0.00	0.0000	97.00	No Ice	3.71	2.19	0.03
RHSDC-3315-PF-48	C	From Leg	4.00 0.00 0.00	0.0000	97.00	No Ice	3.71	2.19	0.03
**									
NHHSS-65B-R2B w/ Mount Pipe	A	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	3.89	3.14	0.09
NHHSS-65B-R2B w/ Mount Pipe	B	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	3.89	3.14	0.09
NHHSS-65B-R2B w/ Mount Pipe	C	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	3.89	3.14	0.09
NHH-65C-R2B w/ Mount Pipe	A	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	5.56	4.47	0.08
NHH-65C-R2B w/ Mount Pipe	B	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	5.56	4.47	0.08

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
NHH-65C-R2B w/ Mount Pipe	C	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	5.56	4.47	0.08
AIR 6449 w/ Mount Pipe	A	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	5.18	2.72	0.12
AIR 6449 w/ Mount Pipe	B	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	5.18	2.72	0.12
AIR 6449 w/ Mount Pipe	C	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	5.18	2.72	0.12
RADIO 4449 B13/B5	A	From Leg	4.00 0.00 1.00	0.0000	96.00	No Ice	1.98	1.71	0.08
RADIO 4449 B13/B5	B	From Leg	4.00 0.00 1.00	0.0000	96.00	No Ice	1.98	1.71	0.08
RADIO 4449 B13/B5	C	From Leg	4.00 0.00 1.00	0.0000	96.00	No Ice	1.98	1.71	0.08
RADIO 4408	A	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	0.60	0.33	0.01
RADIO 4408	B	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	0.60	0.33	0.01
RADIO 4408	C	From Leg	4.00 0.00 -2.00	0.0000	96.00	No Ice	0.60	0.33	0.01
RADIO 8843 B2/B66A_CCIV2	A	From Leg	4.00 0.00 1.00	0.0000	96.00	No Ice	1.98	1.70	0.08
RADIO 8843 B2/B66A_CCIV2	B	From Leg	4.00 0.00 1.00	0.0000	96.00	No Ice	1.98	1.70	0.08
RADIO 8843 B2/B66A_CCIV2	C	From Leg	4.00 0.00 1.00	0.0000	96.00	No Ice	1.98	1.70	0.08
8' x 2" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	96.00	No Ice	1.90	1.90	0.03
8' x 2" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	96.00	No Ice	1.90	1.90	0.03
8' x 2" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	96.00	No Ice	1.90	1.90	0.03
3' x 2" Pipe Mount	C	From Leg	1.00 0.00 0.00	0.0000	96.00	No Ice	0.58	0.58	0.01
Platform Mount [LP 602-1] **	C	None		0.0000	96.00	No Ice	31.07	31.07	1.34
(2) NNH4-65C-R6-V3 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	9.68	5.17	0.16
(2) NNH4-65C-R6-V3 w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	9.68	5.17	0.16
(2) NNH4-65C-R6-V3 w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	9.68	5.17	0.16
AIR 6419 B77D w/ Mount Pipe	A	From Leg	4.00 0.00 -2.00	0.0000	80.00	No Ice	3.43	1.95	0.08

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
AIR 6419 B77D w/ Mount Pipe	B	From Leg	4.00 0.00 -2.00	0.0000	80.00	No Ice	3.43	1.95	0.08
AIR 6419 B77D w/ Mount Pipe	C	From Leg	4.00 0.00 -2.00	0.0000	80.00	No Ice	3.43	1.95	0.08
AIR 6419 B77G	A	From Leg	4.00 0.00 2.00	0.0000	80.00	No Ice	4.64	1.87	0.07
AIR 6419 B77G	B	From Leg	4.00 0.00 2.00	0.0000	80.00	No Ice	4.64	1.87	0.07
AIR 6419 B77G	C	From Leg	4.00 0.00 2.00	0.0000	80.00	No Ice	4.64	1.87	0.07
4490 B5/B12	A	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.20	0.85	0.02
4490 B5/B12	B	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.20	0.85	0.02
4490 B5/B12	C	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.20	0.85	0.02
4890 B25/B66	A	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.70	1.22	0.07
4890 B25/B66	B	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.70	1.22	0.07
4890 B25/B66	C	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.70	1.22	0.07
RADIO 4478 B14	A	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.02	1.25	0.06
RADIO 4478 B14	B	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.02	1.25	0.06
RADIO 4478 B14	C	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.02	1.25	0.06
DC9-48-60-24-PC16-EV	A	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.26	1.12	0.03
DC9-48-60-24-PC16-EV	B	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.26	1.12	0.03
(2) 8' x 2" Mount Pipe	A	From Leg	2.00 0.00 0.00	0.0000	80.00	No Ice	1.90	1.90	0.03
(2) 8' x 2" Mount Pipe	B	From Leg	2.00 0.00 0.00	0.0000	80.00	No Ice	1.90	1.90	0.03
(2) 8' x 2" Mount Pipe	C	From Leg	2.00 0.00 0.00	0.0000	80.00	No Ice	1.90	1.90	0.03
10'6"x2-3/8" Pipe Mount	A	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.49	2.49	0.04
10'6"x2-3/8" Pipe Mount	B	From Leg	4.00 0.00 0.00	0.0000	80.00	No Ice	2.49	2.49	0.04
10'6"x2-3/8" Pipe Mount	C	From Leg	4.00 0.00	0.0000	80.00	No Ice	2.49	2.49	0.04

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
12.5' Sector Mount [# MCG23HDXL-12M12126]	A	From Leg	0.00 2.00 0.00	0.0000	80.00	No Ice	25.38	21.09	0.80
12.5' Sector Mount [# MCG23HDXL-12M12126]	B	From Leg	0.00 2.00 0.00	0.0000	80.00	No Ice	25.38	21.09	0.80
12.5' Sector Mount [# MCG23HDXL-12M12126]	C	From Leg	0.00 2.00 0.00	0.0000	80.00	No Ice	25.38	21.09	0.80
**									
**									

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	Dead+Wind 0 deg - Service
27	Dead+Wind 30 deg - Service
28	Dead+Wind 60 deg - Service
29	Dead+Wind 90 deg - Service
30	Dead+Wind 120 deg - Service
31	Dead+Wind 150 deg - Service
32	Dead+Wind 180 deg - Service
33	Dead+Wind 210 deg - Service
34	Dead+Wind 240 deg - Service
35	Dead+Wind 270 deg - Service
36	Dead+Wind 300 deg - Service
37	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	118 - 77.04	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	24	-11.38	122.90	202.43
			Max. Mx	20	-11.29	261.45	-13.98
			Max. My	14	-11.35	15.59	-245.88
			Max. Vy	20	-9.65	261.45	-13.98
			Max. Vx	14	9.25	15.59	-245.88
			Max. Torque	12			-3.10
L2	77.04 - 48.17	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	24	-20.08	317.25	537.39
			Max. Mx	20	-20.01	664.14	-22.38
			Max. My	14	-20.06	24.08	-637.59
			Max. Vy	20	-14.96	664.14	-22.38
			Max. Vx	14	14.58	24.08	-637.59
			Max. Torque	12			-2.96
L3	48.17 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	24	-29.16	725.26	1241.19
			Max. Mx	20	-29.16	1504.89	-37.02
			Max. My	14	-29.16	38.90	-1458.92
			Max. Vy	20	-16.73	1504.89	-37.02
			Max. Vx	14	16.38	38.90	-1458.92
			Max. Torque	12			-2.96

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	20	29.18	16.70	-0.26
	Max. H_x	20	29.18	16.70	-0.26
	Max. H_z	2	29.18	-0.26	16.35
	Max. M_x	2	1453.32	-0.26	16.35
	Max. M_z	8	1495.55	-16.70	0.26
	Max. Torsion	24	2.95	8.12	14.03
	Min. Vert	25	21.89	8.12	14.03
	Min. H_x	8	29.18	-16.70	0.26
	Min. H_z	15	21.89	0.26	-16.35
	Min. M_x	14	-1458.92	0.26	-16.35
	Min. M_z	20	-1504.89	16.70	-0.26
	Min. Torsion	12	-2.95	-8.12	-14.03

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	24.32	-0.00	0.00	2.28	3.81	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	29.18	0.26	-16.35	-1453.32	-29.57	-2.38
0.9 Dead+1.0 Wind 0 deg - No Ice	21.89	0.26	-16.35	-1429.27	-30.14	-2.29
1.2 Dead+1.0 Wind 30 deg - No Ice	29.18	8.57	-14.29	-1275.21	-775.10	-1.21
0.9 Dead+1.0 Wind 30 deg - No Ice	21.89	8.57	-14.29	-1254.13	-762.90	-1.15
1.2 Dead+1.0 Wind 60 deg - No Ice	29.18	14.59	-8.40	-754.78	-1311.61	0.27

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
0.9 Dead+1.0 Wind 60 deg - No Ice	21.89	14.59	-8.40	-742.53	-1290.26	0.27
1.2 Dead+1.0 Wind 90 deg - No Ice	29.18	16.70	-0.26	-31.44	-1495.55	1.67
0.9 Dead+1.0 Wind 90 deg - No Ice	21.89	16.70	-0.26	-31.49	-1471.11	1.61
1.2 Dead+1.0 Wind 120 deg - No Ice	29.18	14.33	7.95	701.19	-1277.60	2.65
0.9 Dead+1.0 Wind 120 deg - No Ice	21.89	14.33	7.95	688.64	-1256.95	2.55
1.2 Dead+1.0 Wind 150 deg - No Ice	29.18	8.12	14.03	1246.78	-715.94	2.95
0.9 Dead+1.0 Wind 150 deg - No Ice	21.89	8.12	14.03	1224.86	-704.96	2.83
1.2 Dead+1.0 Wind 180 deg - No Ice	29.18	-0.26	16.35	1458.92	38.89	2.45
0.9 Dead+1.0 Wind 180 deg - No Ice	21.89	-0.26	16.35	1433.32	36.90	2.35
1.2 Dead+1.0 Wind 210 deg - No Ice	29.18	-8.57	14.29	1280.81	784.43	1.28
0.9 Dead+1.0 Wind 210 deg - No Ice	21.89	-8.57	14.29	1258.19	769.66	1.22
1.2 Dead+1.0 Wind 240 deg - No Ice	29.18	-14.59	8.40	760.37	1320.94	-0.27
0.9 Dead+1.0 Wind 240 deg - No Ice	21.89	-14.59	8.40	746.58	1297.03	-0.27
1.2 Dead+1.0 Wind 270 deg - No Ice	29.18	-16.70	0.26	37.01	1504.89	-1.74
0.9 Dead+1.0 Wind 270 deg - No Ice	21.89	-16.70	0.26	35.53	1477.89	-1.68
1.2 Dead+1.0 Wind 300 deg - No Ice	29.18	-14.33	-7.95	-695.62	1286.93	-2.72
0.9 Dead+1.0 Wind 300 deg - No Ice	21.89	-14.33	-7.95	-684.59	1263.72	-2.62
1.2 Dead+1.0 Wind 330 deg - No Ice	29.18	-8.12	-14.03	-1241.20	725.25	-2.95
0.9 Dead+1.0 Wind 330 deg - No Ice	21.89	-8.12	-14.03	-1220.81	711.72	-2.83
Dead+Wind 0 deg - Service	24.32	0.08	-5.33	-467.42	-7.19	-0.77
Dead+Wind 30 deg - Service	24.32	2.79	-4.66	-410.01	-247.70	-0.39
Dead+Wind 60 deg - Service	24.32	4.75	-2.74	-242.11	-420.82	0.09
Dead+Wind 90 deg - Service	24.32	5.44	-0.08	-8.73	-480.14	0.55
Dead+Wind 120 deg - Service	24.32	4.67	2.59	227.61	-409.81	0.86
Dead+Wind 150 deg - Service	24.32	2.65	4.57	403.58	-228.62	0.95
Dead+Wind 180 deg - Service	24.32	-0.08	5.33	472.02	14.85	0.78
Dead+Wind 210 deg - Service	24.32	-2.79	4.66	414.60	255.36	0.40
Dead+Wind 240 deg - Service	24.32	-4.75	2.74	246.70	428.48	-0.09
Dead+Wind 270 deg - Service	24.32	-5.44	0.08	13.31	487.80	-0.55
Dead+Wind 300 deg - Service	24.32	-4.67	-2.59	-223.03	417.47	-0.87
Dead+Wind 330 deg - Service	24.32	-2.65	-4.57	-398.99	236.28	-0.95

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
1	0.00	-24.32	0.00	0.00	24.32	-0.00	0.000%
2	0.26	-29.18	-16.35	-0.26	29.18	16.35	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
3	0.26	-21.89	-16.35	-0.26	21.89	16.35	0.000%
4	8.57	-29.18	-14.29	-8.57	29.18	14.29	0.000%
5	8.57	-21.89	-14.29	-8.57	21.89	14.29	0.000%
6	14.59	-29.18	-8.40	-14.59	29.18	8.40	0.000%
7	14.59	-21.89	-8.40	-14.59	21.89	8.40	0.000%
8	16.70	-29.18	-0.26	-16.70	29.18	0.26	0.000%
9	16.70	-21.89	-0.26	-16.70	21.89	0.26	0.000%
10	14.33	-29.18	7.95	-14.33	29.18	-7.95	0.000%
11	14.33	-21.89	7.95	-14.33	21.89	-7.95	0.000%
12	8.12	-29.18	14.03	-8.12	29.18	-14.03	0.000%
13	8.12	-21.89	14.03	-8.12	21.89	-14.03	0.000%
14	-0.26	-29.18	16.35	0.26	29.18	-16.35	0.000%
15	-0.26	-21.89	16.35	0.26	21.89	-16.35	0.000%
16	-8.57	-29.18	14.29	8.57	29.18	-14.29	0.000%
17	-8.57	-21.89	14.29	8.57	21.89	-14.29	0.000%
18	-14.59	-29.18	8.40	14.59	29.18	-8.40	0.000%
19	-14.59	-21.89	8.40	14.59	21.89	-8.40	0.000%
20	-16.70	-29.18	0.26	16.70	29.18	-0.26	0.000%
21	-16.70	-21.89	0.26	16.70	21.89	-0.26	0.000%
22	-14.33	-29.18	-7.95	14.33	29.18	7.95	0.000%
23	-14.33	-21.89	-7.95	14.33	21.89	7.95	0.000%
24	-8.12	-29.18	-14.03	8.12	29.18	14.03	0.000%
25	-8.12	-21.89	-14.03	8.12	21.89	14.03	0.000%
26	0.08	-24.32	-5.33	-0.08	24.32	5.33	0.000%
27	2.79	-24.32	-4.66	-2.79	24.32	4.66	0.000%
28	4.75	-24.32	-2.74	-4.75	24.32	2.74	0.000%
29	5.44	-24.32	-0.08	-5.44	24.32	0.08	0.000%
30	4.67	-24.32	2.59	-4.67	24.32	-2.59	0.000%
31	2.65	-24.32	4.57	-2.65	24.32	-4.57	0.000%
32	-0.08	-24.32	5.33	0.08	24.32	-5.33	0.000%
33	-2.79	-24.32	4.66	2.79	24.32	-4.66	0.000%
34	-4.75	-24.32	2.74	4.75	24.32	-2.74	0.000%
35	-5.44	-24.32	0.08	5.44	24.32	-0.08	0.000%
36	-4.67	-24.32	-2.59	4.67	24.32	2.59	0.000%
37	-2.65	-24.32	-4.57	2.65	24.32	4.57	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00001729
2	Yes	5	0.00000001	0.00044383
3	Yes	5	0.00000001	0.00020870
4	Yes	6	0.00000001	0.00036592
5	Yes	6	0.00000001	0.00012512
6	Yes	6	0.00000001	0.00038016
7	Yes	6	0.00000001	0.00012977
8	Yes	5	0.00000001	0.00022165
9	Yes	5	0.00000001	0.00010357
10	Yes	6	0.00000001	0.00037837
11	Yes	6	0.00000001	0.00013187
12	Yes	6	0.00000001	0.00030555
13	Yes	6	0.00000001	0.00010555
14	Yes	6	0.00000001	0.00008455
15	Yes	5	0.00000001	0.00048014
16	Yes	6	0.00000001	0.00040856
17	Yes	6	0.00000001	0.00013876
18	Yes	6	0.00000001	0.00040195
19	Yes	6	0.00000001	0.00013592
20	Yes	5	0.00000001	0.00081966
21	Yes	5	0.00000001	0.00038822
22	Yes	6	0.00000001	0.00031094
23	Yes	6	0.00000001	0.00010669
24	Yes	6	0.00000001	0.00037799
25	Yes	6	0.00000001	0.00013178
26	Yes	4	0.00000001	0.00082343
27	Yes	5	0.00000001	0.00014348
28	Yes	5	0.00000001	0.00015392
29	Yes	4	0.00000001	0.00058736
30	Yes	5	0.00000001	0.00018096
31	Yes	5	0.00000001	0.00011803
32	Yes	5	0.00000001	0.00007744
33	Yes	5	0.00000001	0.00018859
34	Yes	5	0.00000001	0.00017901
35	Yes	4	0.00000001	0.00084714
36	Yes	5	0.00000001	0.00011912
37	Yes	5	0.00000001	0.00018360

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	118 - 77.04	27.491	34	2.0480	0.0243
L2	80.96 - 48.17	13.074	34	1.5816	0.0083
L3	52.84 - 0	5.400	34	0.9628	0.0034

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
120.00	AIR 32 B2A/B66AA w/ Mount Pipe	34	27.491	2.0480	0.0243	21482
118.00	Lightning Rod 3/4" x 7'	34	27.491	2.0480	0.0243	21482
107.00	APXVBBLL20X_43-C-I20 w/ Mount Pipe	34	22.953	1.9393	0.0189	9764
97.00	RHSDC-3315-PF-48	34	18.953	1.8259	0.0142	5114
96.00	NHHSS-65B-R2B w/ Mount Pipe	34	18.564	1.8133	0.0138	4881
80.00	(2) NNH4-65C-R6-V3 w/ Mount Pipe	34	12.752	1.5636	0.0080	2882

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	118 - 77.04	84.226	18	6.2113	0.0752
L2	80.96 - 48.17	40.250	18	4.8648	0.0259
L3	52.84 - 0	16.648	18	2.9685	0.0107

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
120.00	AIR 32 B2A/B66AA w/ Mount Pipe	18	84.226	6.2113	0.0753	7355
118.00	Lightning Rod 3/4" x 7'	18	84.226	6.2113	0.0753	7355
107.00	APXVBBLL20X_43-C-I20 w/ Mount Pipe	18	70.406	5.9093	0.0584	3342
97.00	RHSDC-3315-PF-48	18	58.213	5.5869	0.0441	1748
96.00	NHHSS-65B-R2B w/ Mount Pipe	18	57.026	5.5504	0.0428	1668
80.00	(2) NNH4-65C-R6-V3 w/ Mount Pipe	18	39.262	4.8104	0.0250	979

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	118 - 77.04 (1)	TP27.2x18x0.1875	40.96	0.00	0.0	15.5518	-11.26	909.78	0.012
L2	77.04 - 48.17 (2)	TP33.18x25.9445x0.1875	32.79	0.00	0.0	19.0214	-19.99	1112.75	0.018
L3	48.17 - 0 (3)	TP43.5x31.7745x0.25	52.84	0.00	0.0	34.3189	-29.16	2007.65	0.015

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	118 - 77.04 (1)	TP27.2x18x0.1875	268.55	552.27	0.486	0.00	552.27	0.000
L2	77.04 - 48.17 (2)	TP33.18x25.9445x0.1875	675.65	754.69	0.895	0.00	754.69	0.000
L3	48.17 - 0 (3)	TP43.5x31.7745x0.25	1524.16	1828.22	0.834	0.00	1828.22	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	118 - 77.04 (1)	TP27.2x18x0.1875	9.81	272.94	0.036	0.27	624.61	0.000
L2	77.04 - 48.17 (2)	TP33.18x25.9445x0.1875	15.12	333.82	0.045	0.27	934.40	0.000
L3	48.17 - 0 (3)	TP43.5x31.7745x0.25	16.87	602.30	0.028	0.27	2281.27	0.000

Pole Interaction Design Data

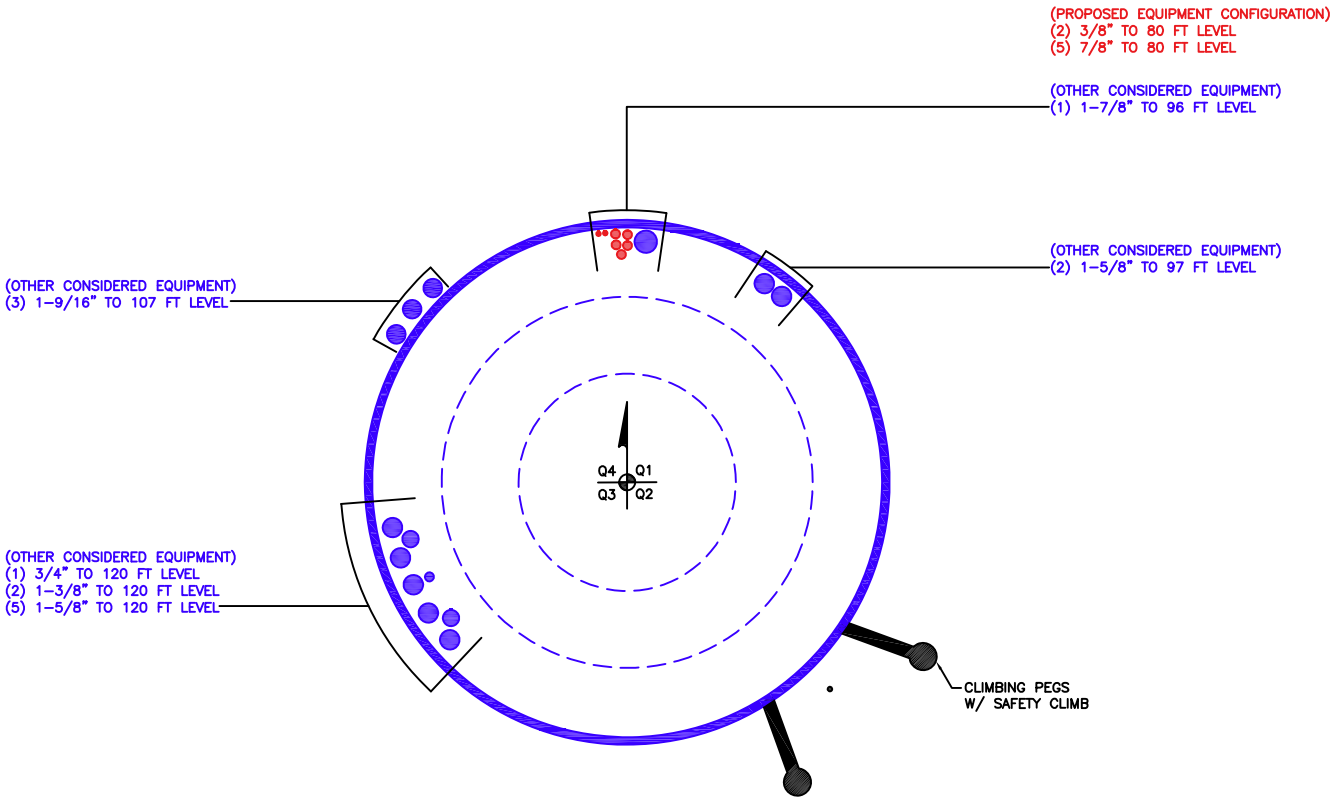
Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	118 - 77.04 (1)	0.012	0.486	0.000	0.036	0.000	0.500	1.050	
L2	77.04 - 48.17 (2)	0.018	0.895	0.000	0.045	0.000	0.915	1.050	
L3	48.17 - 0 (3)	0.015	0.834	0.000	0.028	0.000	0.849	1.050	

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	118 - 77.04	Pole	TP27.2x18x0.1875	1	-11.26	955.27	47.6	Pass
L2	77.04 - 48.17	Pole	TP33.18x25.9445x0.1875	2	-19.99	1168.39	87.2	Pass
L3	48.17 - 0	Pole	TP43.5x31.7745x0.25	3	-29.16	2108.03	80.9	Pass
							Summary	
						Pole (L2)	87.2	Pass
						RATING =	**87.2**	**Pass**

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 824322 TOWER ID:C_BASELEVEL

APPENDIX C

ADDITIONAL CALCULATIONS

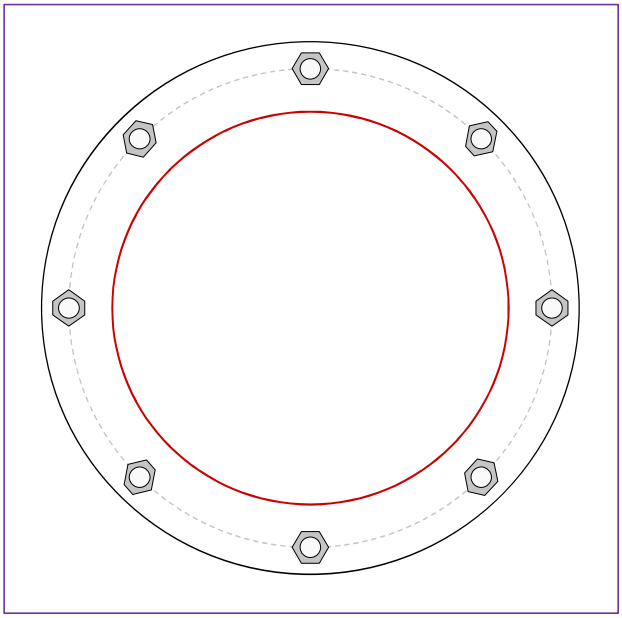
Monopole Base Plate Connection

Site Info	
BU #	824322
Site Name	GrdnCity_Roe
Order #	665802 Rev. 2

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	Yes
l_{ar} (in)	0

Applied Loads	
Moment (kip-ft)	1524.15
Axial Force (kips)	29.16
Shear Force (kips)	16.87

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(8) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 53" BC

Base Plate Data

59" OD x 1.75" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

N/A

Pole Data

43.5" x 0.25" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu_t = 168.77	ϕPn_t = 243.75	**Stress Rating**
Vu = 2.11	ϕVn = 149.1	**65.9%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	38.42	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**67.8%**	**Pass**

Drilled Pier Foundation

BU # :	824322
Site Name:	GrdnCity_Roe
Order Number:	665802 Rev. 2
TIA-222 Revison:	H
Tower Type:	Monopole

Check Limitation	
Apply TIA-222-H Section 15.5:	☑
N/A	☐
Design Options	
Input Effective Depths (else Actual):	☐
Consider non-tapered moment capacity:	☐
Check Shear along Depth of Pier:	☑
Utilize Shear-Friction Methodology:	☐
Override Critical Depth:	☐

Go to Soil Calculations

Applied Loads	Comp.	Uplift
Moment (kip-ft)	1524.15	
Axial Force (kips)	29.18	
Shear Force (kips)	16.84	

Material Properties		
Concrete Strength, f'c:	4	ksi
Rebar Strength, Fy:	60	ksi
Tie Yield Strength, Fyt:	60	ksi

Pier Design Data		
Depth	23	ft
Ext. Above Grade	1	ft
Pier Section 1		
From 1' above grade to 23' below grade		
Pier Diameter	6.5	ft
Rebar Quantity	30	
Rebar Size	8	
Clear Cover to Ties	4	in
Tie Size	5	
Tie Spacing		in

Rebar & Pier Options

Embedded Pole Inputs

Belled Pier Inputs

Analysis Results		
Soil Lateral Check	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)	5.93	-
Soil Safety Factor	3.90	-
Max Moment (kip-ft)	1608.53	-
Rating*	*32.5%*	-
Soil Vertical Check	*Compression*	*Uplift*
Skin Friction (kips)	200.78	-
End Bearing (kips)	231.45	-
Weight of Concrete (kips)	93.65	-
Total Capacity (kips)	432.24	-
Axial (kips)	122.83	-
Rating*	*27.1%*	-
Reinforced Concrete Flexure	*Compression*	*Uplift*
Critical Depth (ft from TOC)	5.81	-
Critical Moment (kip-ft)	1608.46	-
Critical Moment Capacity	3636.79	-
Rating*	*42.1%*	-
Reinforced Concrete Shear	*Compression*	*Uplift*
Critical Depth (ft from TOC)	17.83	-
Critical Shear (kip)	189.10	-
Critical Shear Capacity	569.97	-
Rating*	*31.6%*	-

Structural Foundation Rating*	**42.1%**
Soil Interaction Rating*	**32.5%**

*Rating per TIA-222-H Section 15.5

Soil Profile

Groundwater Depth	3

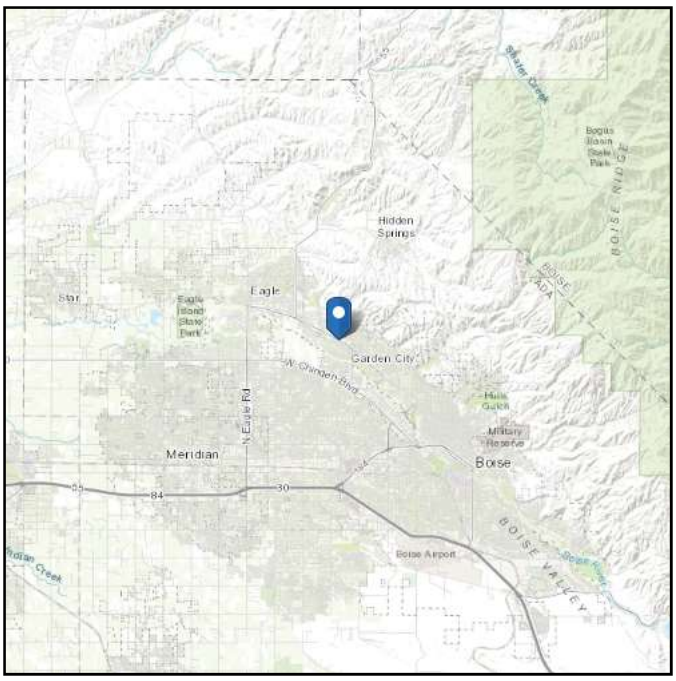
# of Layers	5

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	3	3	120	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	3	5	2	57.6	87.6	0	38	0.000	0.000	0.32	0.21			Cohesionless
3	5	10	5	57.6	87.6	0	40	0.000	0.000	0.56	0.37			Cohesionless
4	10	15	5	57.6	87.6	0	31	0.000	0.000	0.43	0.28			Cohesionless
5	15	23	8	57.6	87.6	0	40	0.000	0.000	0.94	0.62	9.3		Cohesionless

ASCE Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	43.672953
Risk Category:	II	**Longitude:**	-116.289242
Soil Class:	D - Default (see Section 11.4.3)	**Elevation:**	2605.1169200304057 ft (NAVD 88)



Wind

Results:

Wind Speed	102 Vmph
10-year MRI	71 Vmph
25-year MRI	77 Vmph
50-year MRI	82 Vmph
100-year MRI	87 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Tue Jun 11 2024

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

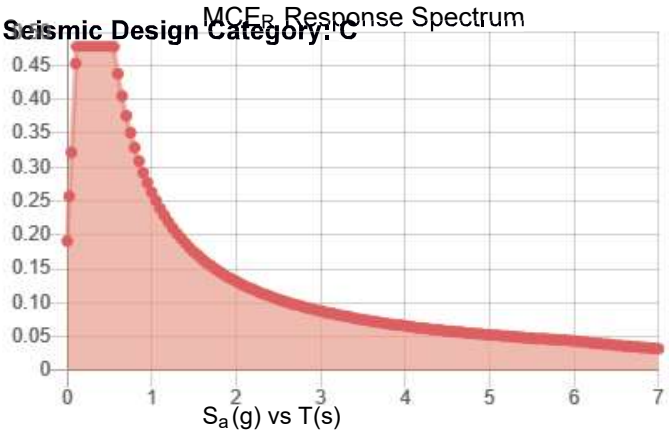
Seismic

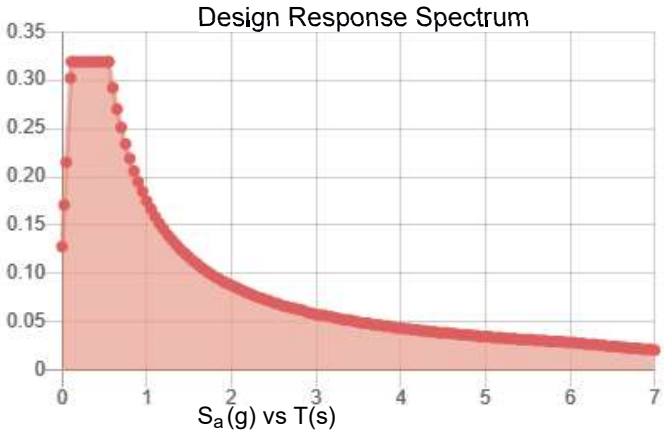
Site Soil Class: D - Default (see Section 11.4.3)

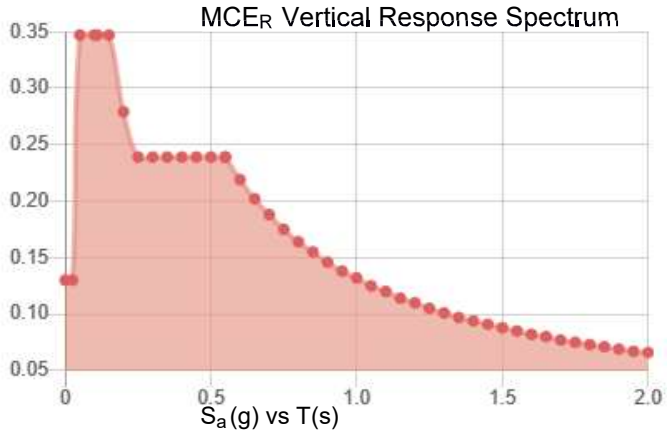
Results:

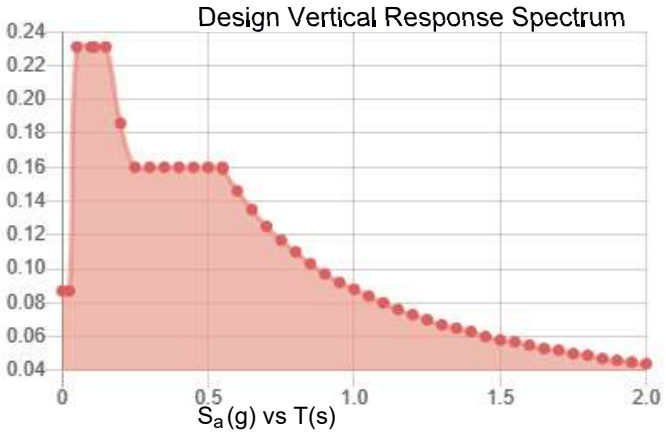
S_S :	0.308	S_{D1} :	0.175
S_1 :	0.111	T_L :	6
F_a :	1.553	PGA :	0.136
F_v :	2.379	PGA_M :	0.208
S_{MS} :	0.479	F_{PGA} :	1.527
S_{M1} :	0.263	I_e :	1
S_{DS} :	0.319	C_v :	0.905

Seismic Design Category: C









Data Accessed: Tue Jun 11 2024

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	0.50 in.
Concurrent Temperature:	15 F
Gust Speed	40 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Tue Jun 11 2024

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

ADA COUNTY RECORDER Phil McGrane
BOISE IDAHO Pgs=2 CHE FOWLER
EMPIRE TITLE LLC AN IDAHO LIMITED LIABILITY

2020-069819
06/10/2020 01:25 PM
15.00

EMPIRE
TITLE & ESCROW

5620EID TT

WARRANTY DEED

FOR VALUE RECEIVED

Blynn Properties, L.L.C., a Limited Liability Company as to Parcel 1 and Blynn Properties, LLC, an Idaho Limited Liability Company as to Parcel 2 GRANTOR(s) does(do) hereby GRANT, BARGAIN, SELL and CONVEY unto

DBB LLC , an Idaho limited liability company

GRANTEE(s), whose current address is: 9884 Stony Brook Way, Middleton, ID 83644 the following described real property in Ada County, State of ID more particularly described as follows, to wit:

SEE ATTACHED EXHIBIT A

TO HAVE AND TO HOLD the said premises, with their appurtenances unto said Grantee(s), and Grantee(s) heirs and assigns forever. And Grantor(s) does(do) hereby covenant to and with said Grantee(s) that Grantor(s) is/are the owner(s) in fee simple of said premises; that said premises are free from all encumbrances, EXCEPT those to which this conveyance is expressly made subject and those made, suffered or done by the Grantee(s); and subject to reservations, restrictions, dedications, easements, rights of way and agreements, if any, of record, and general taxes and assessments, (including irrigation and utility assessments, if any) for the current year which are not yet due and payable and the Grantor(s) will warrant and defend the same from all lawful claims whatsoever.

Dated this 10th day of June, 2020
Blynn Properties, LLC, an Idaho limited liability company as to Parcel 2 and Blynn Properties, L.L.C., an Idaho limited liability company as to Parcel 1

by:
Robert A Miller, Jr., Member

State of Idaho
County Ada

On this 10th day of June, in the year of 2020, before me the undersigned Notary Public in and for said State, personally appeared Robert A. Miller Jr. known or identified to me to be the member, of the limited liability company that executed the instrument or the person who executed the instrument on behalf of said limited liability company and acknowledged to me that such limited liability company executed the same.

Notary Public for: Idaho
Residing at: Kuna, ID
My Commission Expires: 3/29/22

TAYLER TIBBITTS
COMMISSION #67394
NOTARY PUBLIC
STATE OF IDAHO
MY COMMISSION EXPIRES 03/29/2022

TAYLER TIBBITTS
COMMISSION #67394
NOTARY PUBLIC
STATE OF IDAHO
MY COMMISSION EXPIRES 03/29/2022

EXHIBIT A

Parcel I:

Commencing at the quarter section common to Section 23 and 24, Township 4 North, Range 1 East, Boise Meridian, Ada County, Idaho, thence
South 89 degrees 37' East 1451.10 feet to an iron pin, thence
North 83 degrees 21' West 299.67 feet to an iron pin, thence
North 21 degrees 23'30" East 475.89 feet to an iron pin, thence
North 62 degrees 09' West 127.49 feet to a point, thence
North 26 degrees 22' East 286.30 feet to an iron pin, the REAL POINT OF BEGINNING, thence
North 26 degrees 22' East 326.11 feet to a point on the Southerly boundary of the real right of way of Highway No. 44 thence
North 61 degrees 98' West 159.98 feet along said right of way to an iron pin, thence
South 0 degrees 35'30" West 367.72 feet to the REAL POINT OF BEGINNING.
Except that portion conveyed to Ada County Highway District by Instrument No. 9505201 1, records of Ada County.

Parcel II:

Lot 11 in Block 2 of Azalea Subdivision, according to the plat thereof file in Book 71 of Plats at Pages 7243 and 7244, records of Ada County, Idaho and amended by Warranty Deed recorded December 17 1996 under Instrument No. 9610600l.

8247 W. State Street, Garden City, ID 83714

PHOTOS OF SUBJECT SITE
The tower is in the parking lot, with existing screening to the south


07/27/2021 13:42


07/27/2021 13:42


07/27/2021 13:41