CITY OF MURFREESBORO BOARD OF ZONING APPEALS

Regular Meeting, May 28, 2025, at 1:00 p.m. City Hall, 111 West Vine Street, Council Chambers, 1st Floor

AGENDA

- 1. Call to order
- 2. Determination of a quorum
- 3. Public Comments
- 4. Consideration of minutes for the regular meeting on April 23, 2025
- 5. New Business

Variance Requests

a. Application Z-25-009 by Joe Swanson, Jr. on behalf of Swanson Irrevocable Family Trust, is requesting a 23-foot variance from the required 42-foot front setback in Chart 2 of the Zoning Ordinance for property located at 831 Park Avenue in a Heavy Industrial (H-I) zone. The applicant is requesting a 19-foot front setback along Park Avenue in order to construct an approximately 54 square-foot addition to an existing building. (Project Planner: Sloane Lewis)

Special Use Permit Requests

- b. Application Z-25-008 by John Hannington on behalf of Killian Deats, is requesting a special use permit in order to construct and establish an accessory apartment in a Single-Family Residential (RS-15) zone on property located at 2505 Racquet Club Drive. (Project Planner: Marc Shackelford-Rowell)
- c. Application Z-25-010 by Mr. Jacob Highland, representing SBA, is requesting to amend the conditions of approval for the existing special use permit for the existing 150-foot-tall wireless telecommunications tower on property located at 2117 North Thompson Lane in a Heavy Industrial (HI) zone. The applicant is requesting to remove the previous condition of approval that all antennae mounted to this tower are required to be of stealth construction. (Project Planner: Richard Donovan)

- 6. Staff Reports and Other Business
- 7. Adjourn

MINUTES

OF THE CITY OF MURFREESBORO

BOARD OF ZONING APPEALS

City Hall, 111 W. Vine Street, Council Chambers

April 23, 2025, 1:00 PM

Members Present: Staff Present:

Davis Young, Chair Matthew Blomeley, Asst. Planning Director

Ken Halliburton, Vice-Chair Richard Donovan, Principal Planner

Robert Batcheller Sloane Lewis, Planner

Tim Tipps Marc Shackleford-Rowell, Planner

John Tully, Assistant City Attorney

Ashley Fulghum, Recording Assistant

Members Absent:

Misty Lavender

1. Call to Order:

Chair Young called the meeting to order.

2. Determination of a quorum:

Chair Young determined that a quorum was present.

3. Public Comments:

None

4. Consideration of Minutes:

With there being no objection by any of the Board members, the minutes of the March 26, 2025 BZA meeting were approved as submitted.

5. New Business:

a. Application [Z-25-005] by Brigette Hill, requesting a special use permit in order to establish a home occupation (pediatric occupational therapy) in a Single-Family Residential (RS-15) zone on property located at 1648 Earl Court.

MURFREESBORO BOARD OF ZONING APPEALS MINUTES April 23, 2025

Mr. Richard Donovan presented the Staff Comments regarding this item, a copy of which is maintained in the permanent files of the Planning Department and is incorporated into these minutes by reference.

Mr. Tim Tipps inquired about the applicant's licensing and if the state would have to approve the site. Mr. Donovan responded that there are no approvals that he is aware of, and he will allow the applicant to speak about her licensing.

Chair Young inquired about special equipment. Mr. Donovan stated that the applicant has indicated that she will be using the same equipment that you would find in a regular backyard with children.

Ms. Brigette Hill spoke about her request and addressed the Board's questions.

Mr. Tipps asked about the quality of the equipment and the type of liability insurance the applicant has. Ms. Hill responded that she has liability insurance and believes the equipment is of good quality.

Chair Young opened the public hearing.

There being no one to speak for or against the request, Chair Young closed the public hearing.

Mr. Robert Batcheller moved to approve the special use permit subject to all recommended conditions of approval; the motion was seconded by Vice-Chair Ken Halliburton and carried by the following vote:

Aye: Robert Batcheller

Tim Tipps

Vice-Chair Ken Halliburton

Chair Davis Young

Nay: None

b. Application [Z-25-006] by John and Alice Duva, requesting a special use permit in order to construct and establish an accessory apartment in a Single-Family Residential (RS-15) zone on property located at 3251 Park Hill Road.

Ms. Sloane Lewis presented the Staff Comments regarding this item, a copy of which is maintained in the permanent files of the Planning Department and is incorporated into these minutes by reference.

Mr. John Duva and Ms. Alice Duva were present to answer questions.

Chair Young opened the public hearing.

There being no one to speak for or against the request, Chair Young closed the public hearing.

MURFREESBORO BOARD OF ZONING APPEALS MINUTES April 23, 2025

Mr. Tim Tipps moved to approve the special use permit subject to all recommended

	by the following vote:	otion was seconded by Mr. Robert Batcheller and carried
	Aye: Robert Batcheller	
	Tim Tipps	
	Vice-Chair Ken Halliburt	on
	Chair Davis Young	
	Nay: None	
6.	Staff Reports and Other Business:	
	None	
7.	Adjourn:	
	There being no further business,	Chair Young adjourned the meeting at 1:19pm.
CI	HAIRMAN	SECRETARY

MURFREESBORO BOARD OF ZONING APPEALS STAFF REPORT

MAY 28, 2025

PROJECT PLANNER: SLOANE LEWIS

Application: Z-25- 009

Location: 831 Park Avenue

Applicant: Frank Russell

Owner: Swanson Family Irrevocable Trust

Zoning: Commercial Local (CL)

Requests: A variance from the Zoning Ordinance: Chart 2 Minimum Lot Requirements, from the required 42-foot front setback along Park Avenue to a 19-foot front setback.



Overview of Request

The applicant, Joe Swanson Jr., is requesting a variance from the required front setback in the Heavy Industrial (HI) zoning district in order to construct a 6' x 10' mechanical room on the west (front) side of the existing building. The HI district requires a 42-foot front setback. The variance being requested is for the following:

1. <u>Front setback</u>: A 23-foot variance from the required 42-foot front setback along Park Avenue, resulting in a 19-foot front setback.

Below is a table of the minimum lot and setback standards for industrial uses in a HI zoning district, with the variance request in red. As demonstrated in the table, due to the required front setback for the HI district, the mechanical room would be constructed in the front setback.

Minimum lot	HI zone district	Existing lot &
standards		Variance request
Lot area	none	N/A
Width	50 ft	340 ft
Setback(s)	Front = 42'	Front (Park Ave) = 19.0'
	Side = 10	Side (north) = 0 '
	Rear = 20'	Side (south) = 134 '
		Rear = 15' (at closest point)

Existing neighborhood & lot conditions

The property, located at 831 Park Avenue, is zoned Heavy Industrial and is located southwest of the intersection of S. Church Street and Broad Street. The neighboring properties along Park Avenue are zoned Heavy Industrial and are used for a variety of industrial uses. 831 Park Avenue is currently a nonconforming lot, as the existing structure encroaches into the 42-foot front setback and the 10-foot side setback on the north side of the property. Additionally, a railroad runs along the north side of the property. The lot was created before the setback requirements in Chart 2 of the Zoning Ordinance were adopted. Neighboring properties also do not conform to the Heavy Industrial (HI) setback minimum bulk requirements.

Proposed use

The site is occupied by the Heartland Company, which operates as a fuel production facility. If approved by the BZA, the variance would allow for the construction of a mechanical room on the front of the building to house new electrical equipment installed by Middle Tennessee Electric (MTE). The upgrade is needed to support the increased power demands. MTE has stated that the equipment must be in an enclosed mechanical room. MTE has also indicated that the front location is the preferred location but does not state that the proposed route and location is the only route and location that meets MTE's requirements. However, MTE does indicate other routes and locations may be problematic.

Staff's analysis

The Heavy Industrial zoning district requires a 42-foot front setback. The building on the subject property already encroaches on this setback due to the construction of the building preceding the adoption of the setback standards in the Zoning Ordinance. The requested additional reduction in the front setback will reduce the front setback from the standard 42 feet to 19 feet along Park Avenue. While this mechanical room would be consistent with the allowed uses in the Heavy Industrial zone, staff concludes that this application does not meet all five standards required under Section 10 of the Zoning Ordinance to grant a variance.

Relevant Zoning Ordinance Section

Chart 2 – Minimum Yard Setback Requirements:

HI District Setbacks: Front - 42 feet

Side - 10 feet

Rear - 20 feet

CL Minimum Lot Width: 50 feet
CL Minimum Lot Area: None

Standards For Variances from Section 10 of the Zoning Ordinance:

The Zoning Ordinance requires that no bulk variance or other variance be granted unless the applicant establishes that the bulk or other regulations generally applicable in the zoning classification for the property for which a variance is requested impose practical difficulties that are unusual to the property and are not self-created. In addition, the applicant must also show that the bulk or other variance requested will not be unduly detrimental to other property in the vicinity of the property for which the variance is requested. To satisfy the requirements, the applicant must submit written justification that the variance requested meets all of the standards contained in the Zoning Ordinance. The applicant's letter is included in the staff report attachments.

The following is staff's analysis for each of the Standards for Variances:

(1) The requested variance(s) are due to specifically identified characteristics of the land, such as the narrowness, shallowness, shape, topography or other condition of the land, are such that compliance with one or more applicable zoning regulations would be extraordinarily and peculiarly difficult or would result in an undue hardship for the applicant:

Staff analysis: This standard is not met.

Staff does not see any characteristics on this property that are extraordinarily and peculiarly difficult that would cause undue hardship or create restrictions for the applicant. The existing lot is approximately 340 feet wide exceeding the 50 feet required by the zoning ordinance and approximately 540 feet deep at its shallowest point. Additionally, the lot is gently sloping toward a ditch in the rear or to the street and is generally rectangular in shape. The existing nonconforming structure is not sufficient to meet this standard.

(2) The requested variance(s) are due to specifically identified characteristics that are unusual to the subject land as compared to other land in the same zoning classification and in the same area:

Staff analysis: This standard is not met.

Staff does not believe that the subject land is unusual compared to surrounding Heavy Industrial zoned parcels. Neighboring properties are of similar size and shape as the subject property with multiple of the neighboring properties not meeting the front setback requirements in the Zoning Ordinance. The subject land is not unusual in any sense compared to surrounding properties.

(3) That the requested variance(s) are due to specifically identified characteristics or hardship were not created by any action or inaction of the owner or the owner's agent, not self-created:

Staff analysis: This standard is not met.

Staff believes that this standard has not been met. The need for the variance is a result of the tenant's operation. The variance appears to be self-created since the use of the tenant requires an improved power service, which in turn requires the addition of the mechanical room.

(4) That granting the requested variance will not be unduly detrimental to other land in the vicinity of the land for which the variance is requested:

Staff analysis: This standard is met.

Granting the variance would not be detrimental to other land in the area. The properties in the general area of and along Park Avenue are of similar use and the mechanical room would not be an unusual feature on the principal structure in this area.

(5) That granting the requested variance will not impair an adequate supply of light and air to adjacent properties, unreasonably increase the congestion in public streets, increase the danger of fire or otherwise endanger the public health, safety, comfort, or morals, or substantially impair the intent and purpose of the Zoning Ordinance or of the general plan for the area:

Staff analysis: This standard is met.

Granting of the variance would not impair light or create shadows on adjacent properties, will not affect air, increase congestion, danger of fire or otherwise endanger public health, safety, comfort, or impair the general area in any way. Staff believes the property meets this standard.

Staff Comments:

A variance may be approved if it meets all five standards, as required by the Zoning Ordinance. Whether the variance is approved or denied, the BZA must make specific findings of fact on each of the variance standards. If in the judgment of the BZA, any of the above standards have not been met by a preponderance of the evidence, the variance must be denied, and written findings provided stating the evidence for why the standard(s) are not met. If the BZA believes that all of the standards have been met by a preponderance of the evidence, then the variance can be approved, and written findings provided stating the evidence for why the standards are met.

The applicant will be in attendance to respond to any questions the Board may have.

Staff Recommendation:

Staff does not recommend the approval of the variance based on the application not meeting all five standards set forth by the Zoning Ordinance to approve a variance. If approved staff recommends the variance be approved with the following conditions:

Recommended Conditions of Approval:

1. BZA approval does not imply approval of the Site Plan. A site plan shall be submitted for review and approval, subject to the Murfreesboro Zoning Ordinance and Design Guidelines.

Attached Exhibits

- 1. BZA Application
- 2. Applicant Letter
- 3. Site layout
- 4. Site Photos

City of Murfreesboro BOARD OF ZONING APPEALS

Received By:

Application #:

HEARING REQUEST APPLICATION

Location/Street A	ddress: 831 Pa	rk Avenue		
Tax Map: 102C	Group:H	Parcel: 01.00	Zoning District: H-I	

E-Mail:		
Phone: 615-896-0000		
State: TN	Zip:37129	
	Phone: 6	

Property Owner: Swanson Irrevocable Fa	mily Trust	
Address: 1188 Park Avenue Phone: 615-896-0000		15-896-0000
City: Murfreesboro	State: TN	Zip:37129

n 42' to 19.9'. Total of 22.1'.
Date: 5/5/25

Receipt #:

Date:

Murfreesboro Board of Zoning Appeals



HEARING APPLICATION

AND

GENERAL INFORMATION

5.3.2025

Ben Newman, Director of Land Management & Planning 111 W. Vine Street, P.O. Box 1139 Murfreesboro, TN 37133-1139

Re: BZA Application for a variance-831 Park Avenue

Dear Mr. Newman,

Please review the following request for variance on property zoned H-I. The nature of this request is resulting from the Middle Tennessee Electric Membership Corporation (MTEMC) requiring an enclosed room to receive an increased power supply for the subject. The electricity company is stating that they want the power supply to enter the facility on the front left corner of the existing building which places this new additional structure within the front setback.

Section 10 (Variances)

(D)Procedure.

- (1) Application. The owner or a person who has a contractual interest in the land to be affected by the variance shall file an application for a variance with the Planning Department. Such application shall be accompanied by a non-refundable application fee established from time to time by the City Council. However, no application fee is required when the applicant is seeking a variance to relocate a sign because of condemnation or road construction by the city, county, state or federal government. The application shall contain the following information:
- (a) name, address, and telephone number of the applicant.

Swanson Family Irrevocable Trust – Attn. Joe Swanson Jr.

1188 Park Avenue

Murfreesboro, TN 37129

Phone number:

(b) nature and extent of the applicant's interest in the land for which a variance is requested.

The property is owned by the Swanson Family Irrevocable Trust
(c) a plot plan showing the dimensions of the land for which a variance is requested.
A drawing has been included in this variance application request.
(d) the street address and legal description of the land for which a variance is requested.
(a) the street address and legal description of the fand for which a variance is requested.
The subject property is located at 831 Park Avenue, also described as Tax Map 102C, Group H, Parcel 01.00.
(e) zoning classification of the land for which a variance is requested.
H-I
(f) a statement of the exact variance sought and section of this article from which a variance is requested.
The variance request is for a 22' reduction in the front setback. The current building is located inside the 42' front setback.
(g) a statement of the purpose for the requested variance and the intended development of land if the variance is granted.
Our request is to build a 6' x 9' mechanical room to house the incoming power supply from Middle Tennessee Electric within the front setback. The level of power needed for the tenant is requiring an upgrade in the level of service. MTE is working with the owner to provide the increased power but will need a secure room constructed on the front of the building (West Elevation) to house the connection point. The variance request is for a 22' reduction in the front setback.

(h) a vicinity map showing the land which is the site of the requested variance and all parcels of land within a
250-foot radius of the land. The vicinity map shall show any and all streets, roads or alleys, and shall indicate
the owner's name and dimensions of each parcel of land shown.

A vicinity map is included in this application

- (E) Standards for Variance. To be entitled to a variance an Applicant must be shown by substantial material evidence:
- (1) That the specifically identified characteristics of the land, such as the narrowness, shallowness, shape, topography or other condition of the land, are such that compliance with one or more applicable zoning regulations would be extraordinarily and peculiarly difficult or would result in an undue hardship for the Applicant.

The subject property is located on Park Avenue. The electric company has directed the Swanson Development team to increase power supply to meet the needs of the current tenant. The electric company has directed the owner to construct a mechanical room on the front of the building,

(2) That the specifically identified characteristics are unusual to the subject land as compared to other land in the same zoning classification and in the same area.

The unusual characteristic of this site is the request to put the mechanical building on the front of the building and inside the front setback.

(3) That the specifically identified characteristics or hardship were not created by any action or inaction of the owner or the owner's agent.

The hardship has been created by the specific request of the MTEMC.

(4) That granting the requested variance will not be unduly detrimental to other land in the vicinity of the land for which the variance is requested.

The subject building is located within an industrial area and has multiple mechanical units on the front of the building currently. The addition of the small mechanical room on the front of the building will not be detrimental to any building in proximity.

(5) That granting the requested variance will not impair an adequate supply of light and air to adjacent properties, unreasonably increase the congestion in public streets, increase the danger of fire or otherwise endanger the public health, safety, comfort, or morals, or substantially impair the intent and purpose of the Zoning Ordinance or of the general plan for the area

None of the concerns listed above will occur because of the newly constructed mechanical room. The client desires to increase power to the current building and is specifically following the directive of the MTEMC company.

A vicinity map is included in the packet.

Sincerely,

Clyde Rountree, RLA

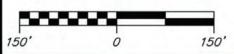
Clyde Rountree



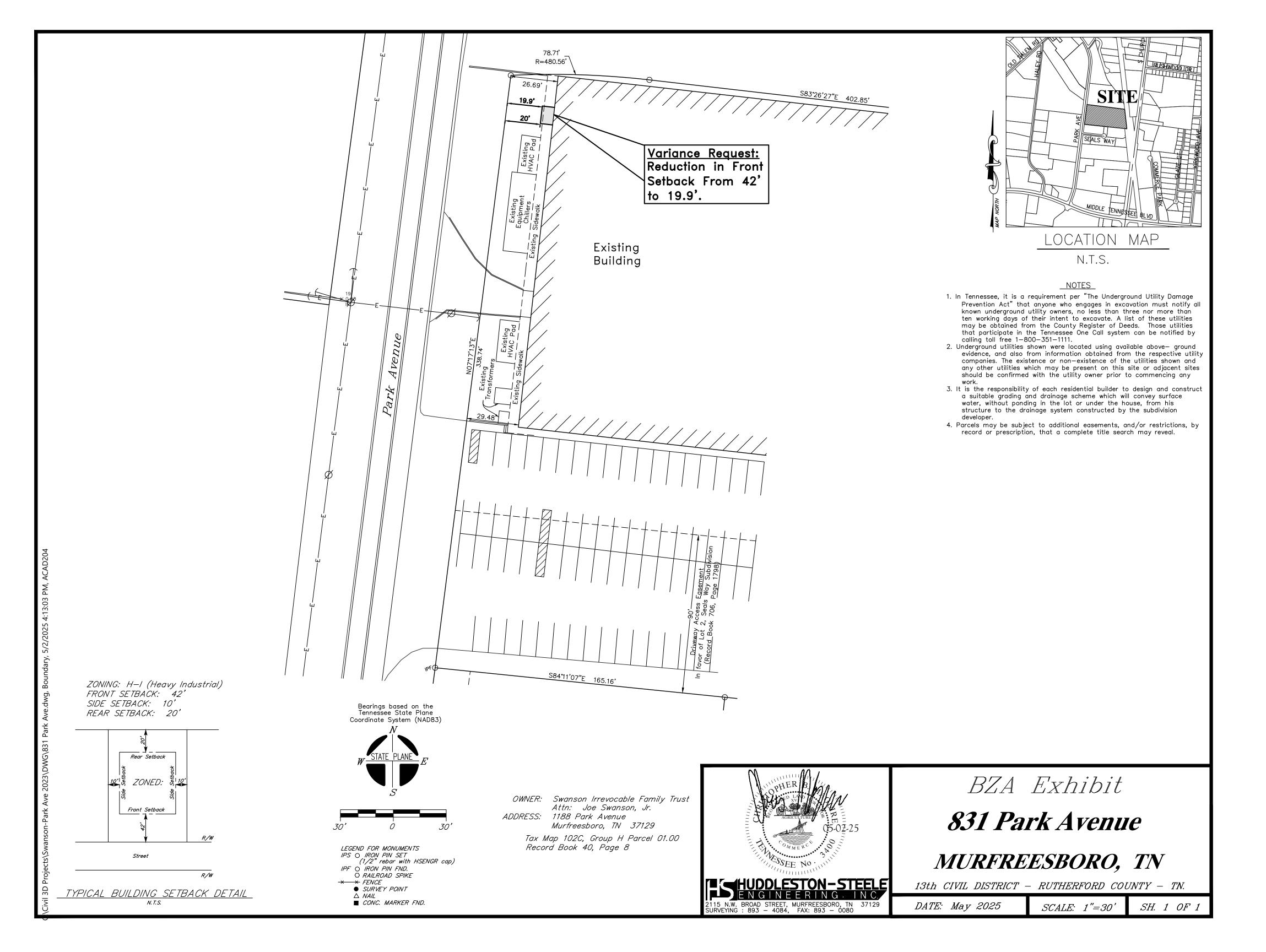
BZA EXHIBIT

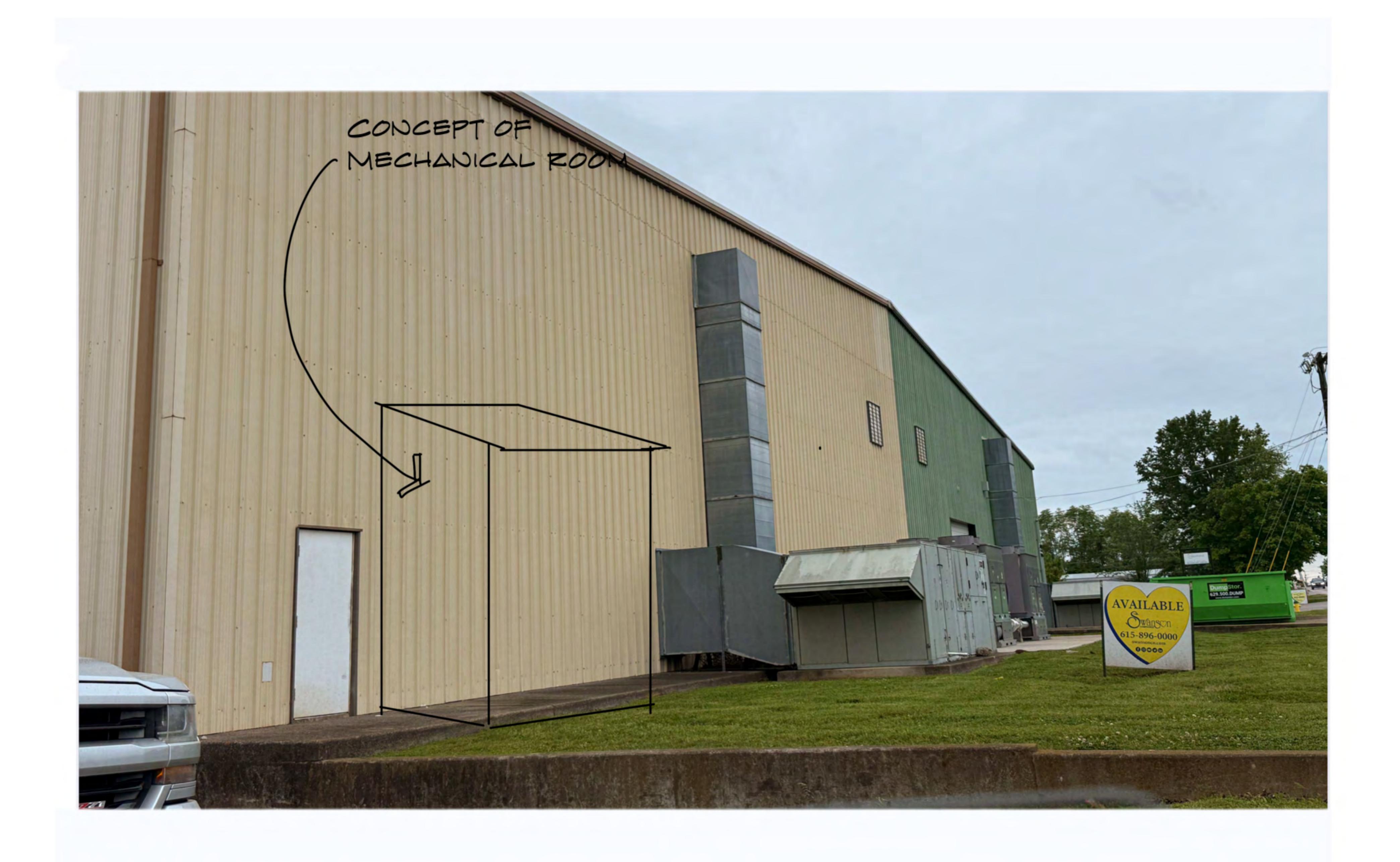


831 PARK AVENUE MURFREESBORD, TN



HUDDLESTON-STEELE
ENGINEERING, IN C.
2115 N.W. BOAD STREET, MURFREESBORD, TN 37129
SURVEYING: 893 - 4084 FAX: 893 - 0080















Per our conversation, MTE requests the initial electric design to serve 831 Park Avenue be allowed. This route alleviates the need for additional easements and does not limit access to our facilities. In addition, the proposed alternate routes create serval issues including secondary location more than 500' from existing breaker panels which could create volt drop issues for the equipment.

Please let me know if you have any questions or need additional information.

See attached electric design for reference.

Thanks,

Ben Martin

Development Engineer

Middle Tennessee Electric 810 Commercial Ct. Murfreesboro, TN 37129 Office: 615.494.1621



Energy. Service, Life.

MURFREESBORO BOARD OF ZONING APPEALS STAFF REPORT

May 28, 2025

PROJECT PLANNER: Marc Shackelford-Rowell

Application: Z-25-008

Location: 2505 Racquet Club Drive

Applicant: Killian Deats

Zoning: RS-15 (Residential Single-Family – 15,000 square feet minimum lot size)

Requests: A special use permit to construct and establish an accessory apartment.



Overview

Special Use Permit Request

The applicant, Killian Deats are requesting a special use permit (SUP) to construct and establish an accessory apartment at 2505 Racquet Club Drive for the applicants to provide housing for his in-laws who require medical care. The accessory apartment is 693 square feet and located in the rear yard of the principal structure. The property is zoned RS-15 and is in the Countryside single-family residential subdivision.

As depicted in the application site plan, the structure will be located in the rear yard of the principal structure, approximately 13 feet from the eastern (side) property line and 30 feet from the southern (rear) property line. The structure would face the interior of the rear yard of the primary structure. The proposed floor area of the accessory apartment is 693 square feet and includes a kitchen, living area, one bath, one bedroom, a laundry room, a utility room and a walk-in closet. The proposed accessory apartment will feature a covered porch for 265.13 SQFT. The proposed structure will utilize Hardie plank material, which is consistent with the existing single family home and has one exterior entrance

As proposed, the accessory apartment complies with the applicable bulk development standards:

	Zoning Ordinance	Proposed Accessory Apartment
Maximum Floor Area for accessory apartment	700 square feet	693 square feet
Maximum Building Height	35 feet	14.5 feet
Minimum Building Setbacks	 40 feet from front property line 12.5 feet from side property lines 30 feet from rear property line 	 94 feet from front property line 114 feet from left side property line 13 feet from right side property line 30 feet away from rear property line

In addition, it is recommended that the applicant be required to complete and record the standard Restriction on Use of Land document prepared by the City Attorney. This document states that the accessory apartment can only be occupied by a family member or an invited guest and cannot in any circumstances be used as rental unit. Recording it memorializes the restriction to put future buyers or owners on notice.

Relevant Zoning Ordinance Section

Chart 1 of the City of Murfreesboro Zoning Ordinance allows accessory apartments with approval of a Special Use Permit the RS-15 district. City of Murfreesboro Zoning Ordinance Section 9(D)(2)(a) sets forth Standards for Accessory Apartments in addition to the Standards of General Applicability Section 9(C). The following are also the relevant sections from the Zoning Ordinance that apply to accessory apartments:

Section 25, Temporary and Accessory Structures, Subsection E:

(1)(a): for interior lots in residential districts, detached accessory structures and uses, except fences, walls, and hedges, shall be located not less than sixty feet from the front lot line and in no event shall be closer to the front lot line than ten feet behind the front of the principal structure and not less than five feet from any side and rear lot lines. Detached accessory structures on residential lots that are closer than five feet to a principal structure shall be treated as attached structures for setback purposes whether physically attached or not; (4): no accessory structure shall exceed the height limitations of the district in which such structure is located

Section 2, Definitions:

Accessory Apartment: A secondary dwelling unit either in or added to an existing single family detached dwelling, or in a separate accessory structure on the same lot of record with its own separate exterior entry door, with provisions for cooking and food preparation (including sink and electrical outlets to accommodate kitchen appliances such as refrigerator, oven, or stove), sanitation (including toilet, sink, and shower or bathtub), and sleeping. Such a dwelling shall be accessory to the main dwelling.

The Standards of General Applicability relating to Special Use Permits and Standards for Accessory Apartments are listed below with analysis from staff on how the proposed accessory apartment meets the standards.

Standards of General Applicability with Staff Analysis:

- (1) The proposed building or use will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other matters affecting the public health, safety, and general welfare:
 - O As currently proposed, the plan for the accessory apartment complies with the minimum bulk development standards for accessory structure and accessory apartments. The structure will have adequate parking on site, and no changes to utility facilities are needed. The traffic conditions would remain the same and the proposed use would not affect the safety and general welfare of the neighborhood. Additionally, staff believes that the proposed accessory apartment will not have any adverse effect to the character of the neighborhood as the structure will be integrated in the overall design of the principal structure.
- (2) The proposed building or use will be constructed, arranged, and operated so as to be compatible with the immediate vicinity and not to interfere with the development and use of adjacent property in accordance with the applicable district regulations:
 - Staff believes this standard has been met. As depicted on the proposed plans, the principal structure and accessory apartment comply with minimum bulk development standards. The proposed accessory apartment is not a rental and is to be used for family members and would not interfere with adjacent properties or generate traffic. The accessory apartment will utilize Hardie plank siding for exterior materials.

- (3) The proposed building or use will be served adequately by essential public facilities and services such as highways, streets, parking spaces, drainage structures, refuse disposal, fire protection, water and sewers; or that the persons or agencies responsible for the establishment of the proposed use will provide adequately for such services:
 - Staff believes this standard has been met. The proposed accessory apartment will be served adequately by essential public facilities because they are currently existing and already serve the property.
- (4) The proposed building or use will not result in the destruction, loss, or damage of any feature determined by the BZA to be significant natural, scenic, or historic importance:
 - o Staff is not aware of any such features on-site that will be impacted by this use.
- (5) The proposed building or use complies with all additional standards imposed on it by the particular provision of this section authorizing such use:
 - o Additional standards for Accessory Apartment uses are listed below.

Additional Standards for Accessory Apartment Uses with Staff Analysis:

- 1.) Only one accessory apartment shall be allowed upon a lot zoned for single family purposes;
 - The applicant has confirmed that only one accessory apartment will be on the lot at 2505 Racquet Court Drive.
- 2.) Except for bona fide temporary absences, the owner(s) of the residence or lot upon or in which the accessory unit is created shall occupy at least one of the dwelling units on the premises and members of the family or their invited guests shall occupy the other dwelling unit. In no event shall either of the units be used as a rental unit to non-family members;
 - The applicant has confirmed that the owner, Killian Deats, will reside on the property in the accessory apartment located within the principal structure and the rest of the principal structure will be used by his parents. The applicant have agreed to record a Restriction on Use of Land, as recommended by the Planning Department for all accessory apartments.
- 3.) The accessory apartment shall be designed so that to the degree reasonably feasible, the appearance of the building remains that of a one-family residence. In general, any new entrances in an existing structure shall be located on the side or in the rear of the building;
 - O As depicted on the current plans, the design is compliant with the minimum bulk development standards for a principal structure, Minimum Yard Requirements and Land Use Intensity Ratios. The structure has a 94-foot front setback and 30-foot rear setback, a 114-foot left side setback, and a 13-foot right side setback. The exterior

entrance to the accessory apartment are located to the interior of the rear yard of the existing house.

- 4.) If attached to or located within the principal structure, the accessory apartment shall be designed and constructed to allow it to be part of the principal structure at such time as the use of the accessory apartment discontinues or approval of the special permit lapses;
 - O Per the attached site plan, the proposed accessory apartment is in a detached accessory structure. This standard does not apply.
- 5.) The design and size of the accessory apartment shall conform to all applicable standards in the health, building and other codes;
 - O As it is currently depicted, the accessory apartment will be 693 square feet and if approved, the applicant is required to obtain all necessary building permits to construct the accessory apartment. The applicant has confirmed that the design and construction will conform to all applicable standards in the health, building, and other codes. The structure complies with the setback requirements for detached accessory structure and will not exceed 35 feet in height. The maximum heigh of the accessory apartment will be 14.5 feet.
- 6.) The accessory apartment shall not exceed seven hundred square feet of floor area;
 - o The accessory apartment will be 693 square feet and will not exceed 700 square feet of floor area.
- 7.) The BZA may condition approval upon the special use permit lapsing at such time as the ownership of the property is transferred; and:
 - O Staff recommends that, rather than the above, the BZA instead condition approval on the recording of a Restriction on Use of Land, prepared by the City Attorney, which requires that the accessory apartment only be occupied by a family member or an invited guest and cannot in any circumstances be used as rental unit.
- 8.) The BZA may require additional standards may be met in order to assure compatibility of the proposed use with adjoining properties and to maintain the integrity of the single-family zoning district;
 - The applicant understands that the BZA may require additional standards may be met in order to ensure compatibility.

Staff Recommendation:

Staff recommends approval of the special use permit, based on the request meeting the minimum development standards of the ordinance, to allow a 693 square foot accessory apartment structure, as presented in the application documents, and with the following conditions.

Recommended Conditions of Approval:

1. The owner(s) of the property for this accessory apartment unit shall occupy at least one of the dwelling units on the premises and members of the family or their invited guests shall

- occupy the other dwelling unit. In no event shall either of the units be used as a rental unit to non-family members.
- 2. Prior to applying for building permits, the applicant shall complete and record the "Restriction on Use of Land" document prepared by the City Attorney, which shall limit the use of the accessory apartment to only what is allowed by the Zoning Ordinance.
- 3. Add an additional paved pathway from garage to accessory structure.
- 4. Separate utility meters or service connections, including, but not limited to, electricity, gas, water, or sewer, shall not be installed or requested for the accessory apartment
- 5. A separate mailbox or mail receptacle shall not be installed or designated for the accessory apartment.
- 6. The applicant shall obtain all necessary permits with the Building and Codes Department and shall comply with all code requirements.

Attached Exhibits

- A. Application
- B. Procedure form
- C. Site plan
- D. Floor plan

City of Murfreesboro BOARD OF ZONING APPEALS

HEARING REQUEST APPLICATION

Location/Street Address:

Tax Map: 10/ C Group: B Parcel: 00/80 Zoning District: RS-15

Applicant: JOHN HANNINGTON E-Mail:

Address: 2747 BAOONRUN Rd Phone:615-594-8433

City: MURFREE SOLDO, TN State: TN Zip:37129

Property Owner: KILLIAN DEMS

Address: 2505 RACQUET (JUB DR. Phone: 615) 692-8837

City: MURFREGRORD State: Til Zip: 37/28

Request: 10 BUILD A 700 54 FT BOUL ON MY DRIGHTER

BND SOM-IN-LAWS PROPERTY FOR OUR OCCUPANCY

Zoning District: R5~15

Applicant Signature: Date: 4/7/25

 Received By: AT
 Receipt #: 375754

 Application #: Z-75-00%
 Date: 5/2/25

Murfreesboro Board of Zoning Appeals



HEARING APPLICATION

AND

GENERAL INFORMATION

INTRODUCTION:

The Board of Zoning Appeals hears appeals of the requirements of the Zoning and Sign Ordinances, appeals from administrative decisions, and requests for Special Exception uses listed on Chart 1 of the Zoning Ordinance.

VARIANCES:

Required yard and height variances may be granted in accordance with Section 10 of the Zoning Ordinance in cases where the strict application of the ordinance imposes hardship or practical difficulty on the property owner due to the unusual character of the property, which makes compliance extraordinarily difficult or impossible. Financial hardships will not be considered.

Variances of the Sign Ordinance may be granted in cases where the strict application of the ordinance imposes hardship or practical difficulties as a result of unusual characteristics of the applicant's property, which make compliance extraordinarily difficult or impossible. Financial hardships will not be considered.

SPECIAL USE PERMITS:

Special use permits may be granted in accordance with Sections 8 and 9 of the Zoning Ordinance for uses specified in Chart 1 of the Zoning Ordinance.

APPEALS FROM ADMIN-ISTRATIVE DECISIONS:

The Board of Zoning Appeals has authority to hear appeals from any order, requirement, decision, or determination by any department, office, or bureau responsible for the administration of the Zoning or Sign Ordinances.

APPLICATION PROCESS:

The owner or other party having contractual interest in the affected property must file an application with the Board's secretary no later than 3:00 PM on the submittal deadline date on the official BZA Calendar.

The applicant must submit the following:

- 1. A completed application (included on this brochure).
- 2. A \$350 application fee; or in the case of a special meeting, a \$450 application fee (checks to be made payable to the City of Murfreesboro).
- Supporting materials which should include:
- For special use permits, a site plan indicating the location of all existing and proposed structures, parking spaces, access points, fences, driveways, and property lines. Home occupation requests should include a statement of the proposed hours of operation, the volume of traffic anticipated, and the nature of the

business. Day-care centers should include a statement from the Department of Human Services that such center can be licensed by the State.

- For yard variance requests, a site plan showing all existing and proposed structures, property lines, and the distance between structures and the property lines.
- For appeals from administrative decisions, a statement indicating the order, requirement, decision, or determination being appealed and a statement setting forth the applicant's argument.
- Additional information may be required at the discretion of the Board's Secretary.

MEETING TIME AND PLACE:

The **Board of Zoning Appeals** meets once a month at 1:00 PM in the Council Chambers located in the City Hall Building at 111 West Vine Street. See BZA Calendar for meeting dates.

MEMBERSHIP

Davis Young, Chairman Ken Halliburton, Vice-Chair Robert Batcheller	Misty Lavender Tim Tipps	
Robert batcheller		

STAFF

Richard Donovan, Principal Planner Teresa Stevens, Sign Administrator John Tully, Assistant City Attorney Ashley Fulghum, Recording Assistant



Board of Zoning Appeals Procedure Form

Request for Accessory Apartment

This form only pertains to special use permit requests for the Board of Zoning Appeals. The information contained in this document shall not be considered exhaustive and shall only serve to summarize the details of the special use permit request for the Board of Zoning Appeals and Planning Department staff. Additional information may be requested during the review process as determined by the zoning administrator.

Date:	04/07/2025					
Applic	ant name & tit	le: Killi	an Deats	Plan	ner name:	Tyler Holdcraft
		Addition of detached ADU with 700 Sq Ft Living Area				
Purpo						ovide medical caregive
Sectio a)	Name, addre	ss, and t	es Requiring Special telephone number of			
	Killian Deats 2505 Racquet Club Drive					
	Murfreesboro, TN 37128					
	(615) 692		FIL John Hanning	ton (615) 594-	8233	
b)	Nature and e Sole Own		applicant's ownersh	ip interest in so	ubject prop	perty
c)	Site plan to b		tted for review by Ci	ty Staff and Bo	ard of Zoni	ng Appeals
d)			f the proposed specia ub Drive, Murfreesbo			
e)	Vicinity map : five-hundred See Attack	foot ra	the property of the dius	proposed spec	ial use and	all parcels within a



Th	e property of the proposed special use shall have the following characteristics:			
The property of the proposed special use shall have the following charact Hours and days of operation Residence, normal hours				
2)	Duration of the proposed special use For duration of ownership			
3)	Number of expected patrons that will be expected to utilize the property of the proposed special use The ADU is intended for the use of In-laws/Parents occupancy (2 people)			
4)	Projected traffic that will be expected to be generated by the proposed special use No significant change or impact, existing driveway will be utilized for 1 additional ve			
wh	tentially harmful characteristics of the proposed special use for the zoning district in nich it is proposed and the manner in which the applicant proposes to eliminate or nimize them None presented			

Section 9 – Standards for Special Use Permits

Standards for General Applicability.

An applicant for a special use permit shall present evidence at the public hearing on such special permit. Please explain how you will comply with the following standards:

 that the proposed building or use will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other matters affecting the public health, safety, and general welfare;

Proposed ADU will have no significant impact or adverse effect on adjacent properties.

Existing driveway will be utilized for 1 additional handicapped equipped vehicle.

Existing services/utilities will be utilized (water, electric, sewer, gas)

Siding will match the siding of an existing addition to the residence which is brick/siding combo



	TENNESSEE
2)	that the proposed building or use will be constructed, arranged, and operated so as to
	be compatible with the immediate vicinity and not to interfere with the development
	and use of adjacent property in accordance with the applicable district regulations;
	The ADU will be used in a manner that is consistent and non-interfering with adjacent properties.
	The design will be similar to an already existing addition on the rear of the residence.
	Existing utilities and services will be utilized.
	ADU entrance/porch will be facing the backyard and not be visible from the front/street.
	Existing driveway will be utilized for 1 additional handicapped equipped vehicle.
3)	그림과 살아내면 나는 사람들은 살아보다 아이에 가장 살아가고 있어요. 이 집에 가지 않는데 그렇게 되었다면 그렇게 되었다면 하는데 그렇게 되었다면 하는데 그리고 있다면 모든데 그렇게 되었다.
	and services such as highways, streets, parking spaces, drainage structures, refuse
	disposal, fire protection, water and sewers; or that the persons or agencies responsible
	for the establishment of the proposed use will provide adequately for such services;
	The ADU will be served by all existing public facilities and services as well as the existing
	driveway for access and parking.
4)	that the proposed building or use will not result in the destruction, loss, or damage of
	any feature determined by the BZA to be of significant natural, scenic, or historic
	importance; and,
	The ADU will not have any impact upon the natural, scenic, or historic features.
5)	that the proposed building or use complies with all additional standards imposed on it
7)	by the particular provision of this section authorizing such use.
	The ADU will comply with any additional standards as listed below.
Standa	ards for (a) Accessory Apartments
Please	explain how you will comply with the following standards:
	[1] only one accessory apartment shall be allowed upon a lot zoned for single family purposes;
	There are no other ADI is on this property



[2] except for bona fide temporary absences, the owner(s) of the residence or lot upon or in which the accessory unit is created shall occupy at least one of the dwelling units on the premises and members of the family or their invited guests shall occupy the other dwelling unit. In no event shall either of the units be used as a rental unit to non-family members;

Owner intends to reside on property fulltime while the ADU will be utilized by In-laws/Parents. There is no intention of using any of the property as a rental unit.

[3] the accessory apartment shall be designed so that to the degree reasonably feasible, the appearance of the building remains that of a one-family residence. In general, any new entrances in an existing structure shall be located on the side or in the rear of the building;

The ADU will be in the backyard with the entrance/porch facing the backyard. No entrance will be visible from the front/street. The existing driveway will be used. Siding will match the existing Addition at the rear of the home.

[4] if attached to or located within the principal structure, the accessory apartment shall be designed and constructed to allow it to be part of the principal structure at such time as the use of the accessory apartment discontinues or approval of the special permit lapses;

The proposed ADU will be detached from the main residence. We have discussed Restriction of Land Use with staff and agree as a condition of approval.

[5] the design and size of the accessory apartment shall conform to all applicable standards in the health, building, and other codes;

The ADU will have 700 sq ft of living area and 265 sq ft of covered porch. All required permits will be applied for and all applicable codes will be in compliance.

[6] the accessory apartment shall not exceed seven hundred square feet of floor area; Exterior dimensions 26' 1 3/4" by 26' 6" for the living space and 26' 10" by 10' of covered porch/deck



[7] the BZA may condition approval upon the special use permit lapsing at such time as the ownership of the property is transferred; and,

The applicant has discussed Restriction of Land Use with the staff and agrees as a condition of approval. The applicant will allow rescinding of special use permit if property is sold.

[8] the BZA may require additional standards be met in order to assure compatibility of the proposed use with adjoining properties and to maintain the integrity of the single family zoning district.

The Applicant understands that the BZA may require that additional standards be met to ensure compatibility.

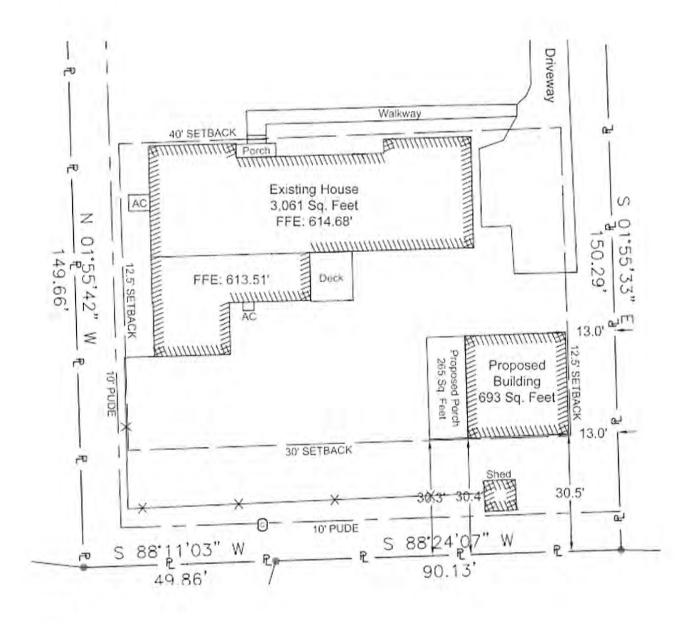
Date: 04/07/2025

Applicant signature:

Attached:

- 1) Plot Plan
- 2) Floor Plan
- 3) Elevations

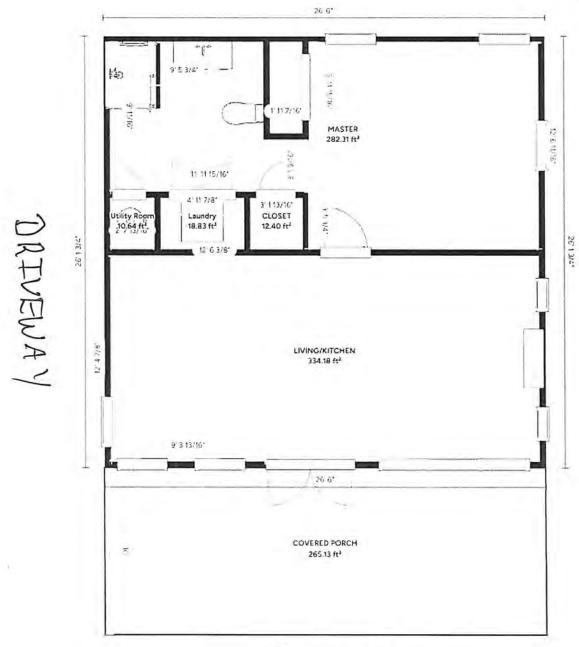
GENERAL NOTES RECEIPT COM 1. In Tennessee, it is a requirement of "The Underground Utility Damage Prevention Act" that anyone who engages in excavation must notify all underground utility owners, no loss than three nor more than ren working days of their intent to excavate. A list of these utilities may be obtained from the County Register of Deeds. Those utilities than participate in the Tennessee One Call System can be notified by calling full free 1-800-351-1111. Property Information 2501 2. Underground utilities shown were located using available above ground evidence, as well as information obtained from the respective companies. The Killian & Leanne Deats existence or nonexistence of the utilities shown or any other utilities which may be present on this site or adjacent sites should be confirmed with the utility owner prior to commencing any work. 2505 Racquet Club Drive 3. It is the responsibility of each residential builder to design and construct a suitable grading and drainage scheme which will convey surface water, without ponding in the lat or under the house, from his structure to the drainage system. Parcel 101C B 001.00 4 Parcels may be subject to additional easements and/or restrictions, by record or prescription, that a complete title search may reveal. 5 Public utility and drainage easements, where shown hereon, are intended to indicate an easement for construction, operation, and maintenance of public. DB 1926 1921 2409 Plat 5 110 ull'illes and drainage ways, including, but not limited to sandary sewers, force mains, water lines, telephone signal conduits, electric conductors, drainage pipes, Zoning: RS-15 and natural pas lines. 6. Bearings based on the Tennessee State Plane Coordinate System (NAD 83). Area: 0.48 Acres, 20,987 Sq. Feet COMPASS KORTH FLOOD INSURANCE NOTE: By graphics plotting only, this property is in ZONE X of the Flood Insurance Rate Map. Community Panet No. 4719502601 effective date of 5/9/2023, Exact designations can only be determined by an Elevation Certificate, Based on the above information, this property IS NOT in a Special Flood Hazard Area. 713 VICINITY MAR NOT TO SCALE ___ 10°W _____ 10°W _____ 10°W _____ 10°W 10°W --- 10°W -Racquet Club Drive 15" CMP 0 N 88'03'58 LEGEND These standard symbols will be found in the drawing PIRE HYDRANT IRON PIN FOUND SEWER MANHOLE O IRON PIN SET (2427) SEWER CLEANOUT -O-WATER METER LAMP POST UN-GRD CABLE 0 40' SETBACK WATER VALVE **E**UUUUUU Parch - PROPERTY LINE - MBSL George Hagglund 2501 Racquel Club Drive Parcel 101D A 029 00 **Existing House** ROAD - CTR LINE AC 3,061 Sq. Feet SAN SEWER WB 37 440 Z WATER LINE FFE: 614.68 Plat 5 110 Mary Flora McGowan 2509 Racquet Club Drive P.U.D.E. 0 Zoning: RS-15 50. FENCE Parcel 101C B 002 00 49.66 MINIMINITALITY BLDG OUTLINE 12.5' SETBA .29 DB 2262 1464 FFE: 613,51" Dack Plat 5 110 Zoning RS-15 13.0 * 265 Sq. Proposed Building 693 Sq. Feel Fuel 13.0 30' SETBACK 30.5 10' PUDE 5 88 24 S 88'11'03" W 90.13 49.86 HEREBY CERTIFY THIS IS A CATEGORY I SURVEY AND THE RATIO OF PRECISION FOR THE UNADJUSTED SURVEY IS GREATER THAN 195,000 AS SHOWN HEREON. Vincent Cardella 2409 Spaulding Circle SITE PLAN Philip Haskins Parcel 101D A 038.00 709 Penn Coun DB 600 2659 Doyle Elkins LOT 41, COUNTRYSIDE SECTION I Parcal 1010 A 037.00 Professional Land Surveyor PARCEL 101C B 001.00 DB 524 674 Zoning: RS-15 Registered in TN & AL 2505 RACQUET CLUB DRIVE, MURFREESBORO, TN 37128 13TH CIVIL DISTRICT OF RUTHERFORD COUNTY Zoning: RS-15 PREPARED FOR TYLER HOLDCRAFT DATE SCALE SHEET DRAWN BY PROJECT 4/7/2025 LOF 1 1" = 20 BKA 25121





Details:

Windows; white vinyl.
Framing will be constructed using 2x4 studs 16" oc Exterior Siding; Hardie lap siding.
Roof: Asphalt Shingle (gable roof)

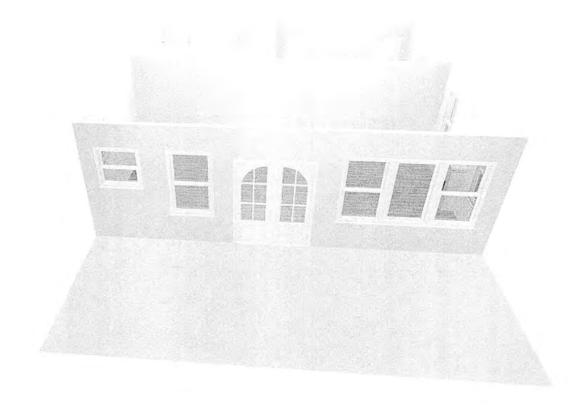


REAR YARD

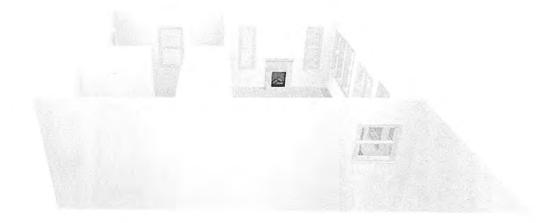


Fronk

9' Wall height



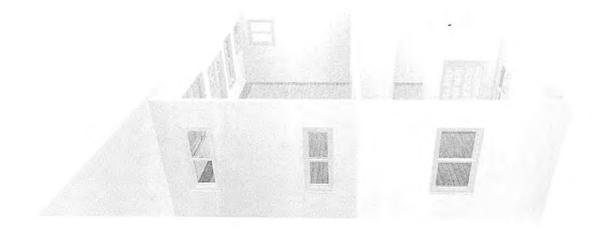
Left



Real



Right



MURFREESBORO BOARD OF ZONING APPEALS STAFF REPORT

May 28, 2025

PROJECT PLANNER: RICHARD DONOVAN

Application: Z-25-010

Location: 2117 North Thompson Lane

Applicant: Jacob Highland, representing SBA **Zoning:** Heavy Industrial District (HI) District

Requests: An amendment to the conditions of a special use permit to allow a 150-foot tall

wireless telecommunications tower



The applicant is requesting to amend the conditions of a special use permit to remove the condition that all antennae mounted to this tower are required to be of stealth construction. The Board of Zoning Appeals has issued approvals for this location in August 1999 for the original 125-foot wireless telecommunication tower and in February of 2022 for a height variance to increase the height to 150 feet. The applicant proposes to maintain the total height of the tower at 150 feet. Ninety-nine feet of the existing monopole tower will remain in place, with a 49-foot non-stealth section and a 2-foot lightning rod replacing the remaining portion. The existing tower allows for and has co-locations of three telecommunication carriers which will remain on the proposed tower. Associated ground equipment, an equipment fence enclosure (8-foot height fence), dense shrubbery for screening, and driveway access with one parking stall will remain in place with the updated tower. Any extensions of height for future equipment above 150 feet would have to be approved by the BZA with a new special use permit.

The property is an irregularly shaped lot located on the western side of N. Thompson Lane. A wireless telecommunication tower is situated in a triangular area at the northernmost portion of the site. Adjacent properties to the north and west are owned by the City of Murfreesboro, including the former General Electric site, which is zoned Heavy Industrial (HI). To the east, the property shares a boundary with Heavy Machines, which is also zoned HI. Across N. Thompson Lane, the land is zoned Commercial Highway (CH) and is occupied by a mix of uses, including auto body and auto sales businesses, retail shops, a veterinary clinic, and the Murfreesboro Fire Department Headquarters. To the south of the subject property is a Circle K convenience store with fuel pumps, also zoned Heavy Industrial (HI).

Relevant Zoning Ordinance Section

The following are the relevant sections from the Murfreesboro Zoning Ordinance that apply to wireless telecommunications towers:

Section 9(C): General Standards of Applicability

Section 9(D)(cccc): Additional Standards for Wireless communication towers and antennas Section 31 Wireless: Telecommunications Towers and Antennas

The Standards of General Applicability relating to Special Use Permits, Standards for Telecommunication Towers, and the Standards set forth in Section 31, are listed below with analysis from staff on how the proposed use meets the standards.

Standards of General Applicability with Staff analysis.

(1) The proposed building or use will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other matters affecting the public health, safety, and general welfare:

Staff has reviewed the application and associated documents and believes that this standard has been met because the site is unmanned and will provide parking on the site for regular monitoring and maintenance personnel. The required utilities are already present on the property.

(2) The proposed building or use will be constructed, arranged, and operated so as to be compatible with the immediate vicinity and not to interfere with the development and use of adjacent property in accordance with the applicable district regulations:

Staff has reviewed the application and associated documents and believes that this standard has been met because the height does not exceed that of the existing tower and the applicant is proposing to replace a portion of the tower with a non-stealth tower. This facility should not interfere with the development or use of adjacent property. The facility is unmanned and is only visited occasionally for maintenance and upkeep.

(3) The proposed buildings or use will be served adequately by essential public facilities and services such as highways, streets, parking spaces, drainage structures, refuse disposal, fire protection, water, and sewers; or that the persons or agencies responsible for the establishment of the proposed use will provide adequately for such services:

Staff has reviewed the application and associated documents and believes that this standard has been met because existing services, including utilities and parking, are provided as part of the existing facility.

(4) The proposed building or use will not result in the destruction, loss, or damage of any feature determined by the BZA to be significant natural, scenic, or historic importance:

Staff has reviewed the application and associated documents and believes that this standard has been met because no features of significant natural, or scenic importance have been identified on the subject property or in the immediate vicinity. The applicant has also included a Tennessee Historical Commission State Historic Preservation Office (SHPO) report that states the tower will not adversely affect a nearby historic property as the tower height is not being increased and that the office has no objection to proposed changes to the tower.

(5) The proposed building or use complies with all additional standards imposed on it by the particular provision of this section authorizing such use:

Staff has reviewed the application and believes that it complies with the additional standards of the Zoning Ordinance listed below.

Additional Standards for Wireless Communications Towers and Antennas with Staff Analysis.

(1) Towers shall not be located in the approach or landing zone of an airport or heliport;

Staff believes that this standard has been met as the applicant is currently operating the existing tower at 150 feet and have indicated in their analysis that the tower would not exceed the 100:1 slope surface or fail the FCC slope surface for the Murfreesboro Municipal Airport.

(2) The application for a special use permit shall be accompanied by the written recommendations of appropriate state and federal agencies;

Staff believes that this standard has been met as the applicant is currently operating the existing tower at 150 feet and have indicated in their analysis that the tower would need to exceed 200 feet before FAA approval was needed. The applicant has also included a SHPO report that states the tower will not adversely affect a nearby historic property as the tower height is not being increased and that the office has no objection to proposed changes to the tower.

(3) In the event any tower is to be equipped with hazard lights, the use of white strobe lights shall be restricted to daylight hours;

Staff believes that this standard has been met as applicant has indicated that FAA is not requiring any lighting on the tower and that none will be installed.

(4) The BZA may place restrictions on the manner (and color) in which the tower can be painted, within the parameters of applicable state and federal regulations;

Staff believes that this standard has been met as the applicant has indicated that they do not intend to paint the tower and it will be galvanized metal.

(5) The BZA may require additional standards be met in order to assure compatibility of the proposed use with adjoining properties, subject to T.C.A. §13-24-301 et seq.

Staff believes that this standard has been met as the applicant indicates that they will comply with any additional standards required by the BZA.

(6) The applicant must demonstrate compliance with Section 31(E).

Staff believes that the application complies with Section 31(E). See below.

Section 31(E) Standards

(1) Antenna-supporting structures must be set back a distance equal to its height from any property line. The City Engineer may modify the setback requirement if the applicant demonstrates that the antenna-supporting structure can withstand the wind load for the design storm event applicable to Murfreesboro as provided in the most recent version of ANSI/TIA/EIA-222, Structural Standards for Steel Antenna Towers and Antenna Support Structures, which document is hereby incorporated by reference, or if the applicant demonstrates that the fall zone of the tower is less than the tower's height.

Staff believes that this standard has been met because the existing tower is in the current location and extended to the 150 feet height under the February 2022 amendment to the special use permit.

(2) A fence not less than eight (8) feet in height from finished grade must be installed so as to enclose the base of the antenna- supporting structure and associated equipment enclosures. Access to the antenna-supporting structure must be controlled by a locked gate.

Staff believes that this standard has been met as an 8ft tall chain link fence currently encloses the base of the antenna-supporting structure and associated equipment enclosures.

(3) A landscaping and vegetative buffer shall be installed to reduce visibility from the public ROW and the surrounding properties. A natural vegetative buffer may be substituted for the buffering and landscaping requirements subject to the approval of the Development Services Division and the BZA to ensure that it is sufficient to provide the required screening.

Staff believes this standard has been met, as a mature tree line screens the site from NW Broad Street, and the site is tucked behind Heavy Machines, shielding it from North Thompson Lane.

(4) The application shall show that the FAA has approved the height of the tower and has issued any license necessary to operate the tower.

Staff believes that this standard has been met as the applicant is currently operating the existing tower at 150 feet and have indicated in their analysis that the tower would need to exceed 200 feet before FAA approval was needed.

(5) No lights, signals, or other illumination are permitted on any antenna-supporting structure or ancillary appurtenances unless the applicant demonstrates that lighting is required by the FAA or the FCC.

Staff believes that this standard has been met as the applicant has indicated that no such items are required by the FAA or FCC per their letter.

(6) Antenna-supporting structures must be designed to accommodate future collocation for at least three (3) antennae. As a condition of approval under this Section, the applicant must submit a shared use plan.

Staff believes that this standard has been met because the existing antenna support structure supports three (3) antennae and will continue to support three (3) after modification.

(7) The maximum height of respective antenna-supporting structures shall be as determined by the Board of Zoning Appeals as a part of the special use permit process. However, no special use permit shall grant authority for such a structure to exceed the maximum height requirements denoted in the Airport Overlay District regulations.

Staff believes that this standard has been met as the applicant is currently operating the existing tower at 150 feet and have indicated in their analysis that the tower would need to exceed 200 feet before FAA approval was needed.

Staff Comments

Based on the application materials and plans submitted, the 150-foot-tall telecommunications facility meets the requirements outlined in the general standards of applicability for a special use permit, the additional standards for a telecommunication tower, and the standards required by the Murfreesboro Zoning Ordinance, Wireless Telecommunications Towers and Antennas Section 31(E).

If the Board wishes to approve the requested amendment to the SUP, staff recommends the following conditions of approval be required:

RECOMMENDED CONDITIONS OF APPROVAL:

- 1. The applicant shall obtain all necessary permits and inspections for the proposed tower and associated structures.
- 2. Prior to applying for building permit, applicant shall obtain approval of a Site Plan for the proposed development to the Murfreesboro Planning Department. Improvements depicted on the approved site plan shall be constructed simultaneously with the tower, including but not limited to required fencing and landscaping.
- 3. The maximum height of the monopole and telecommunication antenna structures and all appurtenances or accessory equipment shall not exceed a total of 150 feet.
- 4. Discontinuance: In the event of discontinuance of the Telecommunication Facility, the facility owner shall comply with the requirements of City of Murfreesboro Zoning Ordinance, Chapter 31 for notification, declaration, and removal of the wireless facility.

The applicant will be in attendance to respond to any questions the Board may have.

Attached Exhibits:

- 1. Site Plan and Elevations
- 2. Application
- 3. Applicant letter
- 4. SHPO Letter
- 5. Site Specific Obstruction Evaluation Report



ANCHOR PROJECT

Site Address

2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129 (RUTHERFORD COUNTY)

SBA Site Name

SWANSON

T-MOBILE Site # 9NV1648A

T-MOBILE Site Name

THOMPSON

SBA Site #

TN01807-B-04

SCOPE OF WORK

THE SCOPE OF WORK CONSISTS OF:

- REMOVE (3) EXISTING ANTENNAS
- REMOVE (6) EXISTING TMAS
- REMOVE (1) EXISTING CANISTER MOUNT
- INSTALLATION OF (1) NEW VALMONT RMQP-4126 + PRK1245 + HRK12 LOW PROFILE PLATFORM MOUNT
- INSTALLATION OF (3) NEW ERICSSON 840590966 ANTENNAS
- INSTALLATION OF (3) NEW NOKIA AEHC ANTENNAS
- INSTALLATION OF (3) NEW NOKIA AHFIIS RRUS
- INSTALLATION OF (3) NEW NOKIA AHLOB RRUS
- REMOVAL OF (3) EXISTING COAX CABLES
 INSTALLATION OF (2) NEW HYBRID 6X24 4AWG HYBRID CABLES
- REMOVAL OF EXISTING SITE SUPPORT CABINETS ALONG WITH (2) FSMF
- BASEBANDS & (1) ESMB BASEBAND SUBMODULE REMOVAL OF ALL EXISTING RADIOS
- INSTALLATION OF (1) NEW T MOBILE DELTA HPL3 600A CABINET WITH (1) NEW ASIA BASEBAND, (2) NEW ASIL BASEBANDS, (2) NEW ABIA SUBMODULÈŚ, (3) ABII SUBMODULES, (1) NEW ABIO SUBMODULE, (2) AMIA BASEBAND SUBRACKS & (1) NEW CSR IXRE V2 (GEN2) ROUTER
- INSTALLATION OF (1) NEW T MOBILE DELTA LB3 BATTERY CABINET (4 STRINGS)

DRIVING DIRECTIONS

DRIVING DIRECTIONS FROM T-MOBILE OFFICE AT: 5209 LINBAR DRIVE SUITE 625, TN 37211

- GET ON I-24 E FROM EZELL RD 3 MIN (1.0 MI)
- CONTINUE ON I-24 E TO MURFREESBORO. TAKE EXIT 55A-B FROM I-840
- CONTINUE ON US-41 S/US-70S E TO YOUR DESTINATION 5 MIN (2.4 MI)

DESTINATION WILL BE ON THE LEFT 26 MINUTES (23.6 MILES)

PROFESSIONAL LICENSURE

I CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE REQUIREMENTS OF THE GOVERNING LOCAL BUILDING CODE.

LICENSED PROFESSIONAL EXPIRES: MM/DD/YYYY

AERIAL MAP



SITE



SHEET INDEX

NO.	SHEET DESCRIPTION									
T-1	TITLE SHEET									
A-1	COMPOUND PLAN									
A-1A	EXISTING & PROPOSED EQUIPMENT LAYOUT									
A-2	ELEVATION & DETAILS									
A-2A	EXISTING & PROPOSED ANTENNA PLANS									
A-3	ANTENNA & CABLE SCHEDULE									
A-3A	RFDS DIAGRAM									
A-4	DETAILS									
A-5 \	DETAILS									
A-6	ANTENNA MOUNT									
A-6A										
A-6B	ANTENNA MOUNT									
A-6C	ANTENNA MOUNT SPEC									
E-1	AC PANEL SCHEDULE & ONE LINE DIAGRAM									
EG-1	PROPOSED SITE GROUNDING DIAGRAM									
SP-1	GENERAL NOTES AND SPECIFICATIONS									
l										

GENERAL NOTES:

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS AT THE PROJECT SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME

FOR SITES WHERE A CRANE IS NECESSARY, THE CONTRACTOR SHALL CONFIRM AN UNOBSTRUCTED ROUTE FOR THE CRANE FROM PUBLIC ROAD TO TOWER SITE PRIOR TO CONSTRUCTION, NO AERIAL OBSTRUCTIONS UNDER FIFTEEN FEET ABOVE GRADE. INCLUDING AERIAL UTILITY LINES. ARE ALLOWED ALONG SAID CRANE ROUTE.

GC SHALL CONTACT THE A&E FIRM PRIOR TO BIDWALK AND CONSTRUCTION START TO CONFIRM THAT

PROJECT INFORMATION

Site Information:

I ATITUDE: 35 882139 (N 35° 52' 55 74") (NAD 83) LONGITUDE: -86.424083 (W 86° 25' 26.73") (NAD 83)

FCC #: 1204116

GROUND ELEVATION: ±570' (AMSL IN FEET)

ZONING:

JURISDICTION: RUTHERFORD COUNTY

TAX ID: 080-011.00-000

PROPERTY OWNER: SWANSON IRREVOCABLE FAMILY

STRUCTURE TYPE: 150'-0" STEALTH MONOPOLE POWER PROVIDER: MURFREESBORO ELECTRIC

TELCO PROVIDER: AT&T

TENANT ENTITY: T-MOBILE SOUTH LLC
12920 SOUTHEAST 38TH ST.,
BELLEVUE, WA 980061350
CONTACT: JIM FAIRCHLID
CR.SBA@T-MOBILE.COM

VENDOR: (PROJECT MANAGEMENT

SBA 9125-A SOUTHERN PINE BOULEVARD, CHARLOTTE, NC 28273 CONTACT: DEB HITCHCOCK DHITCHCOCK@SBASITE,COM

BC ARCHITECTS ENGINEERS, PLC 5661 COLUMBIA PIKE, SUITE 200 FALLS CHURCH, VA 22041 CONTACT: BRIAN M, QUINN, AIA BQUINN@BCPLC.COM

TOWER OWNER: SBA COMMUNICATIONS 8051 CONGRESS AVENUE BOCA RATON, FL 33487

CONSTRUCTION: T-MOBILE

CHAI CHAIWAN CHAITHIA.CHAIWAN@TMOBILE.COM

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 THE LATEST EDITIONS OF THE FOLLOWING CODES:

- INTERNATIONAL BUILDING CODE 2018 NATIONAL ELECTRIC CODE (NEC) 2017
- AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE
- REQUIREMENTS FOR STRUCTURAL CONCRETE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION
- TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARDS FOR STEEL TOWER AND ANTENNA
- SUPPORTING STRUCTURES TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS



Know what's below. Call before you dig.

CALL DIGGERS HOTLINE FOR UNDERGROUND UTILITIES PRIOR TO DIGGING

811 OR 1-800-382-5544

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TEL: (703) 671-6000 FAX: (703) 671-6300



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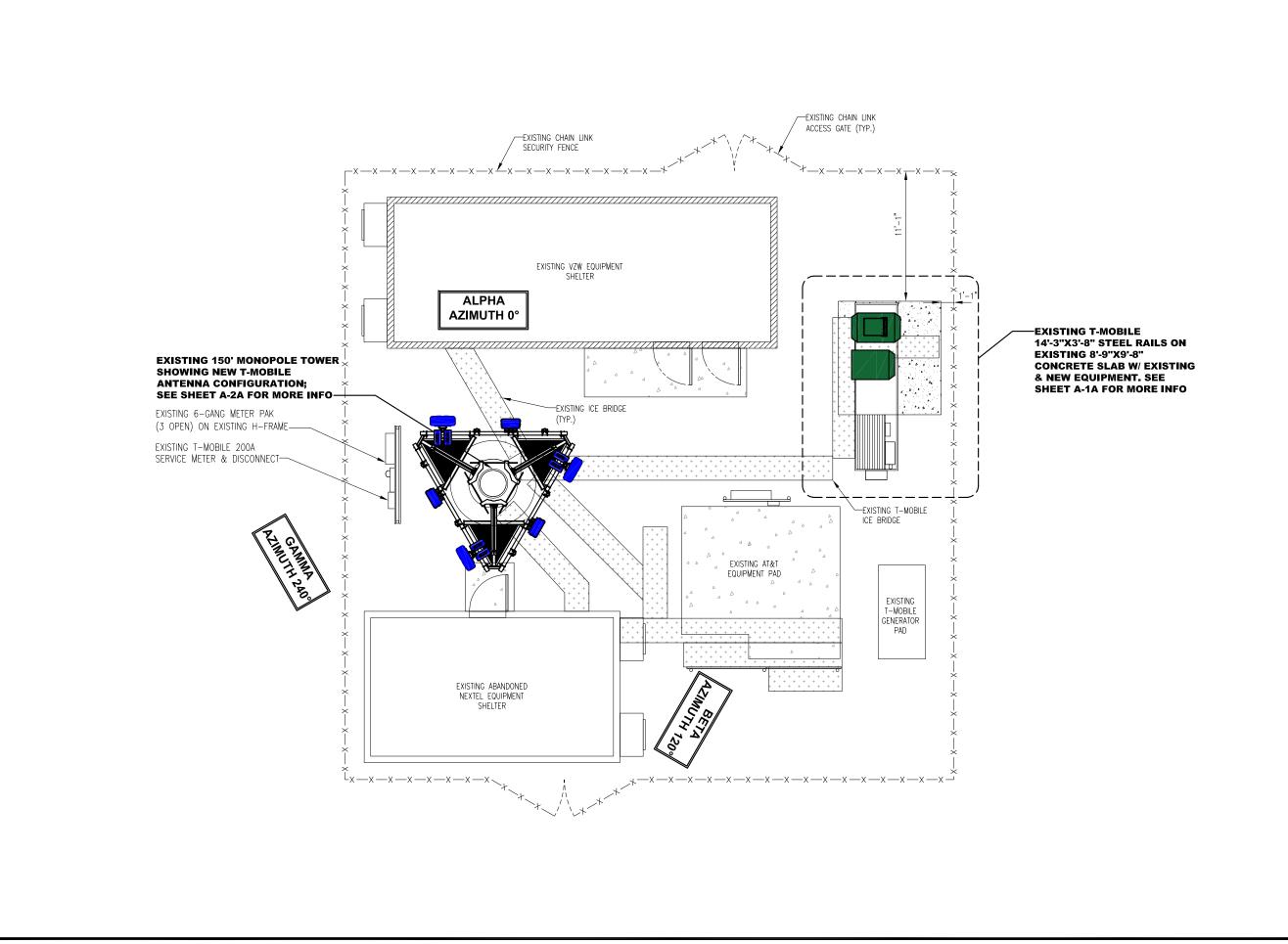


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TITLE SHEET

T-1



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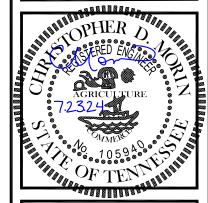
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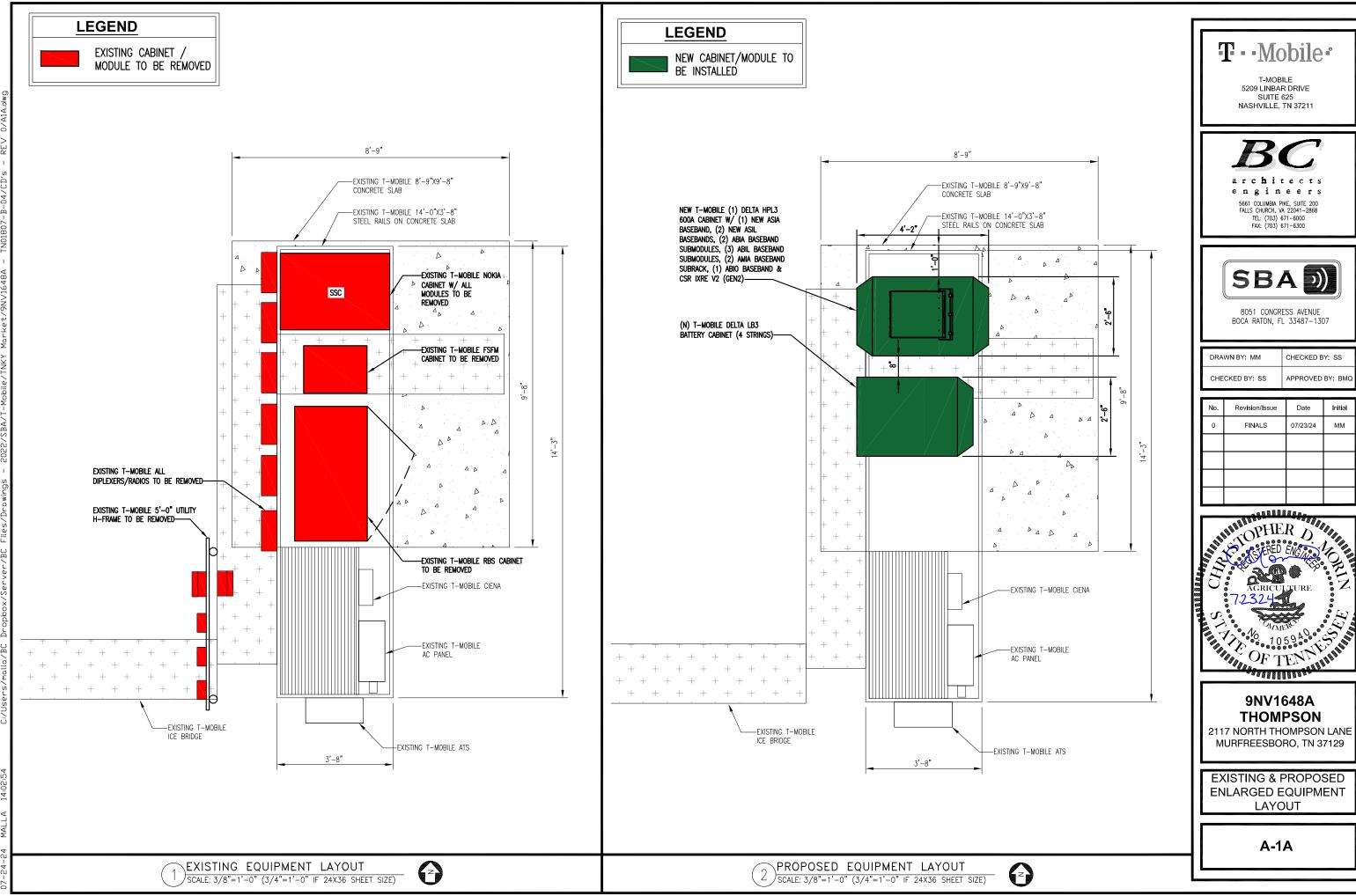


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COMPOUND PLAN

A-1



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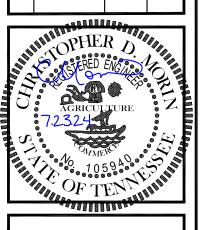
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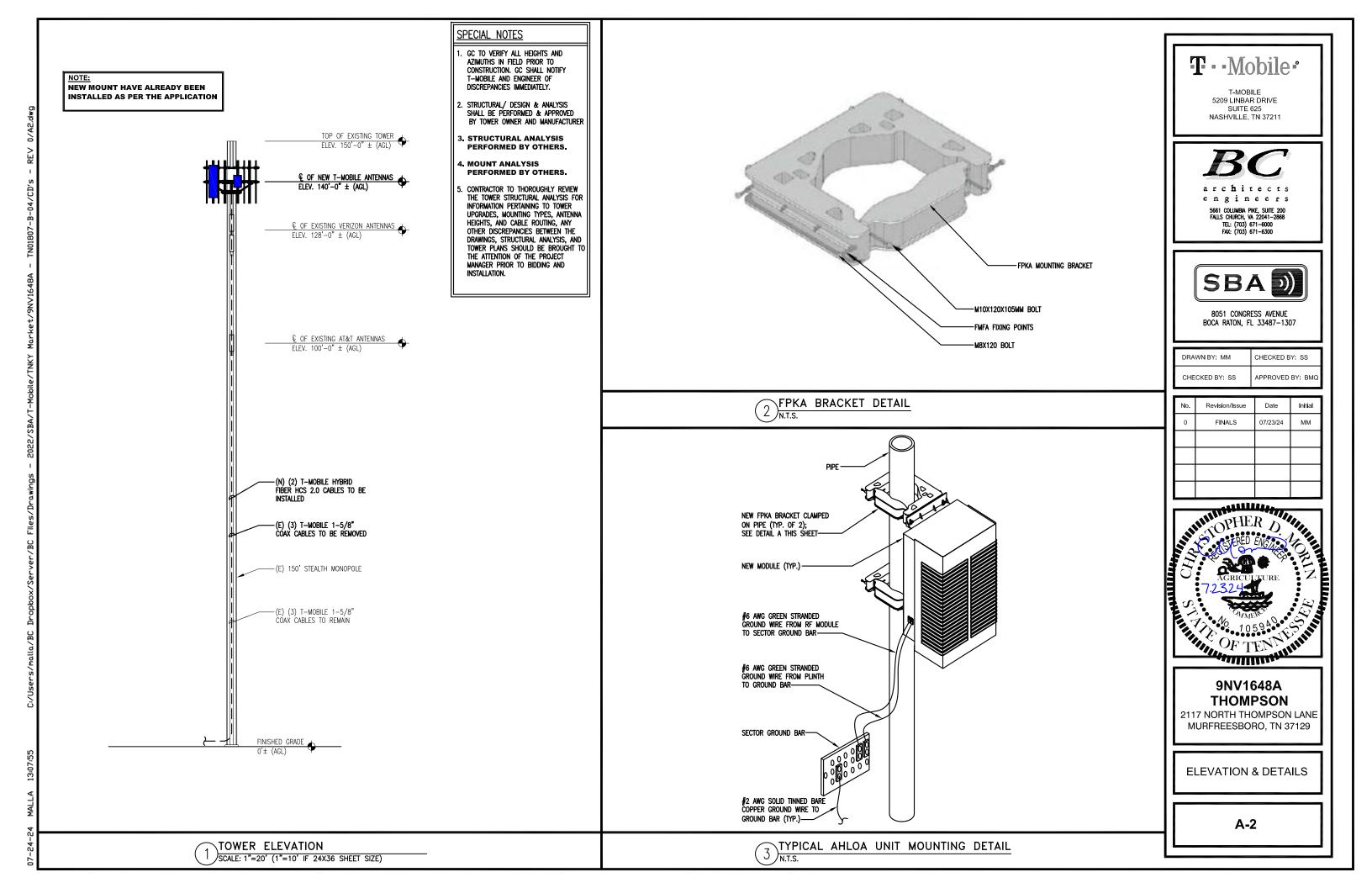
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MURFREESBORO, TN 37129

EXISTING & PROPOSED ENLARGED EQUIPMENT LAYOUT



LEGEND

NEW EQUIPMENT TO BE INSTALLED

SPECIAL NOTES:

STRUCTURAL ANALYSIS PERFORMED BY OTHERS.
MOUNT ANALYSIS PERFORMED BY OTHERS.
CONTRACTOR TO THOROUGHLY REVIEW THE TOWER & MOUNT STRUCTURAL
ANALYSIS FOR INFORMATION PERTAINING TO MOUNT UPGRADES, MOUNTING
TYPES, ANTENNA HEIGHTS, AND CABLE ROUTING, ANY OTHER DISCREPANCIES
BETWEEN THE DRAWINGS, STRUCTURAL ANALYSIS, AND TOWER PLANS SHOULD
BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO BIDDING
AND INSTALLATION.

NOTE:

NEW MOUNT HAVE ALREADY BEEN INSTALLED AS PER THE APPLICATION

ALPHA
AZIMUTH 0°

NEW AHFII TO BE INSTALLED
(TYP. 1 PER SECTOR, 3 TOTAL)

NEW AEHC (ACTIVE ANTENNA –
MASSIVE MIMO) TO BE INSTALLED
(TYP. 1 PER SECTOR)

NEW AHLOB TO BE INSTALLED
(TYP. 1 PER SECTOR)

NEW AHLOB TO BE INSTALLED
(TYP. 1 PER SECTOR, 3 TOTAL)

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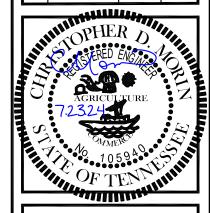
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EXISTING & PROPOSED ANTENNA PLANS

A-2A

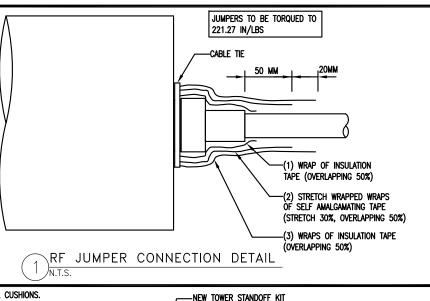
ALPHA
AZIMUTH 0°

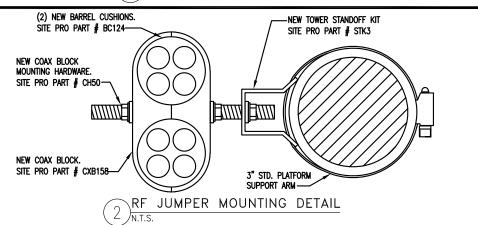
EXISTING T-MOBILE
CANISTER TO BE REMOVED

(TYP. OF 1 PER SECTOR, TOTAL 3)

EXISTING THA ANDREW
ETT19V2S12UB TO BE REMOVED
(TYP. OF 2 PER SECTOR, TOTAL 6)

	NEW AND EXISTING ANTENNA AND CABLE SCHEDULE														
SECTOR	POS.	AZIMUTH	RAD CENTER	TECHNOLOGY	ANTENNA	STATUS	RRU TYPE	STATUS	DIPLEXER/ODU	CABLE STATUS	COAX CABLE LENGTH	JUMPER LENGTH			
	A 1	0°	140'	N1900 G1900 N2100 N600	(1) ERICSSON - 840590966		(1) AHLOB	NEW				1 - 1			
ALPHA	AI	0	140	L1900 L600 L2100 L700	(OCTO)	NEW	(1) AHFII	NEW	_	(2) NEW 1.8" HCS 2.0		≤15'-0"			
ALITIA	A2	0°	140'	N2500	(1) AEHC MASSIVE MIMO	NEW	_	_	-	HYBRID CABLES TO BE INSTALLED		≤15'-0"			
	B1	120°	140'	N1900 G1900 N2100 N600	(1) ERICSSON - 840590966		(1) AHLOB	NEW							
BETA	БΊ	В1 120°	140	L1900 L600 L2100 L700	(ОСТО)	NEW	(1) AHFII	NEW	_	(3) EXISTING 1-5/8" COAX	(±170')	≤15'-0"			
BEIA	B2	120°	140'	N2500	(1) AEHC MASSIVE MIMO	NEW	_	-	-	CABLES TO BE REMOVED	(2170)	≤ 15'-0"			
	0.4	0.400	140'	N1900 G1900 N2100 N600	(1) ERICSSON - 840590966		(1) AHLOB	NEW		(3) EXISTING					
GAMMA	C1	240°	140	L1900 L600 L2100 L700	(ОСТО)	NEW	(1) AHFII	NEW	_	1-5/8" COAX CABLES TO	0	≤15'-0"			
	C2	240°	140'	N2500	(1) AEHC MASSIVE MIMO	NEW	_	_	-	REMAIN		≤15'-0"			
(*) SHARED W	(*) SHARED WITH ALL SECTORS														
IMPORTANT N	MPORTANT NOTE; PLEASE REFER TO LATEST RFDS SHEET FOR NSN CONFIGURATION, GC TO CAP ALL UNUSED PORTS.														





COAX COLOR CODING

ANTENNAS WILL BE LABELED (BACK OF ANTENNA VIEW) RIGHT TO LEFT 1-X PORTS COAX/JUMPER LINES WILL BE IDENTIFIED BY SECTOR COLOR AND BY NUMBER OF BANDS AROUND THE COAX/JUMPER

SECTOR A	RED
SECTOR B	GREEN
SECTOR C	BLUE
SECTOR D	YELLOW
SECTOR E	WHITE
SECTOR F	PURPLE
LMU	BROWN+SECTOR COLOR BANDS (1 & 2)
FIBER ID	GRAY
UNUSED COAX	PINK
MICROWAVE	ORANGE
DWE T-1'S + GPS DOWNLINK CABLE	ID W/LABEL MAKER

ANTENNA AND COAXIAL CABLE SCHEDULE

ALL ANTENNAS SHALL BE FURNISHED WITH DOWNTILT BRACKETS.
CONTRACTOR SHALL COORDINATE REQUIRED MECHANICAL DOWNTILT FOR

EACH ANTENNA WITH RF ENGINEER. ANTENNA DOWNTILT SHALL BE SET AND VERIFIED BY A SMART LEVEL. CONTRACTOR SHALL INSTALL COLOR CODE RINGS ON EACH OF THE HYBRID CABLES AND JUMPER CABLES WITH UV RESISTANT TAPE. ALL CABLE SHALL BE MARKED AT TOP AND BOTTOM WITH 2" COLOR TAPE OR STENCIL TAG. COLOR TAPE MAY BE OBTAINED FROM GRAYBAR ELECTRONICS.

FRONT OF THE ANTENNA

EXAMPLE: COAX WITH FOUR BANDS OF

SECTOR AND THE 4TH PORT OF ANTENNA

RED TAPE WILL REPRESENT ALPHA

ANTENNA #3 ANTENNA #4

XX

XX

XX

XX

ANTENNA #2

XX

XX

ANTENNA #1

XX

5209 LINBAR DRIVE

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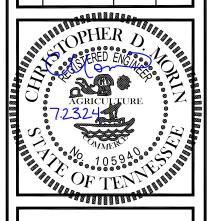
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> **ANTENNA & CABLE** SCHEDULE

> > **A-3**

TAGGING COLOR AND NOTES

Section 3 - Proposed Template Images

56791EZ_SR.jpg

Configuration 56791EZ_SR

AHLOA

700+600

HCS2.0

TowerTop

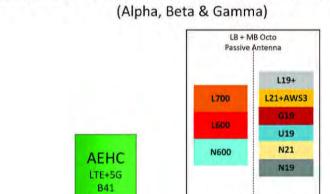
Top

HCS2.0

TowerTop

5G Airscale

* For 5G and LTE Airscale BB dimensioning refer to Fiber Port matrices.



FDD - Lowband

B12 (L700) – 5 MHz B71 (L600) – 10 MHz B71 (N600) – 15 MHz

FDD - Midband

B4/B66 (L2100) – 20 MHz B66 (AWS3) – 5MHz B66 (N2100) – 20MHz B2 (L1900) – 20 MHz B25 (L1900) – 20 MHz B25 (N1900) – 20MHz

SRAN - GSM/UMTS PCS

TDD - Band 41

L2.5(2.5GHz) – 60 MHz N41(2.5GHz) – 100MHz +2nd carrier (<=80MHz)

A AHFIG AWS+PCS N41(2.5GHz) — carrier (<=80M

Airscale1

Notes

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ar**ch**itect engineer

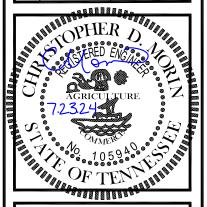
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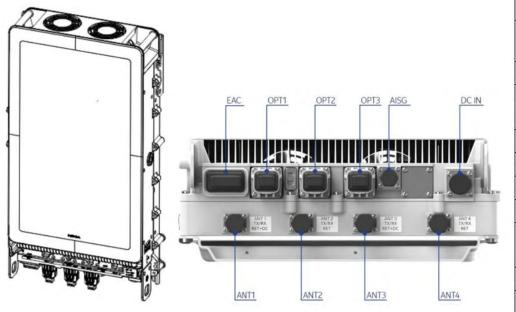
RFDS DIAGRAM

A-3A

https://rfds.internal.t-mobile.com/datasheet/printout/871e52aa-8a33-4612-a337-0730acc46ad1/51d063f4-83b3-4ee9-b162-09c7b6f0bed2



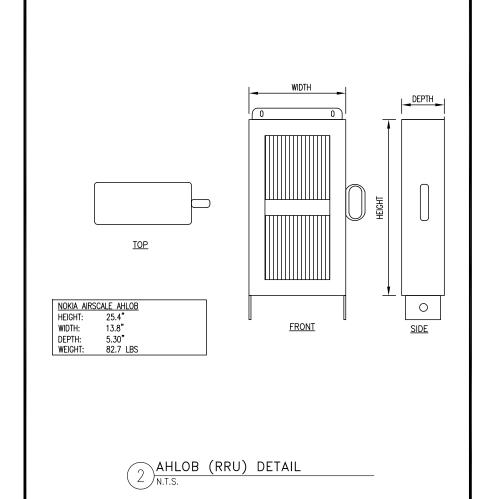
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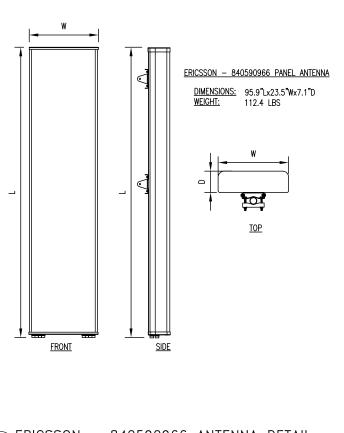


Dimension HxWxD (Core)	25.2" x 13.5" x 4.5"
Dimension HxWxD (with bracket and fan unit)	26.6" x 14.5" x 5.7"
Weight (Core Only)	70.6 lbs
Frequency Band	Band 25: DL 1930–1995MHz, UL 1850–1915MHz Band 66: DL 2110–2200MHz, UL 1710–1780MHz
Instantaneous Bandwidth	Band 25/ Band 66 – full band
Technology	LTE, 5GNR
Rx Diversity	2-Way or 4-way
TX MIMO	2TX or 4TX
RF Power Range	4x80W in any band while 4x40W in other band (4x120W Total)
RF Ports	4 ports of 4.3-10 (F)
Supporting BW	NR: 5, 10, 15, 20, 30* MHz LTE: 1.4*, 3*, 5, 10, 15, 20 MHz
	*) Not supported in current SW

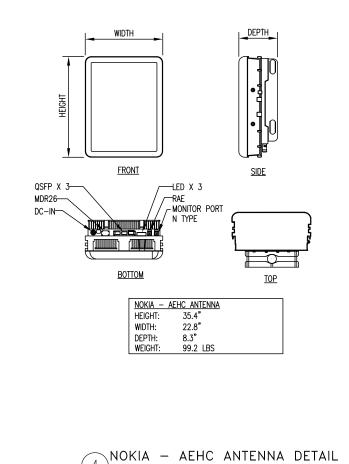
AHFII (RRU) DETAIL

N.T.S.





3 ERICSSON - 840590966 ANTENNA DETAIL N.T.S.





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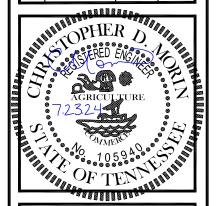
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NEW EQUIPMENT SPECIFICATIONS

A-4

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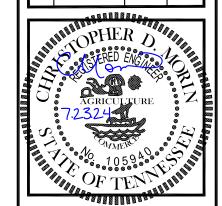
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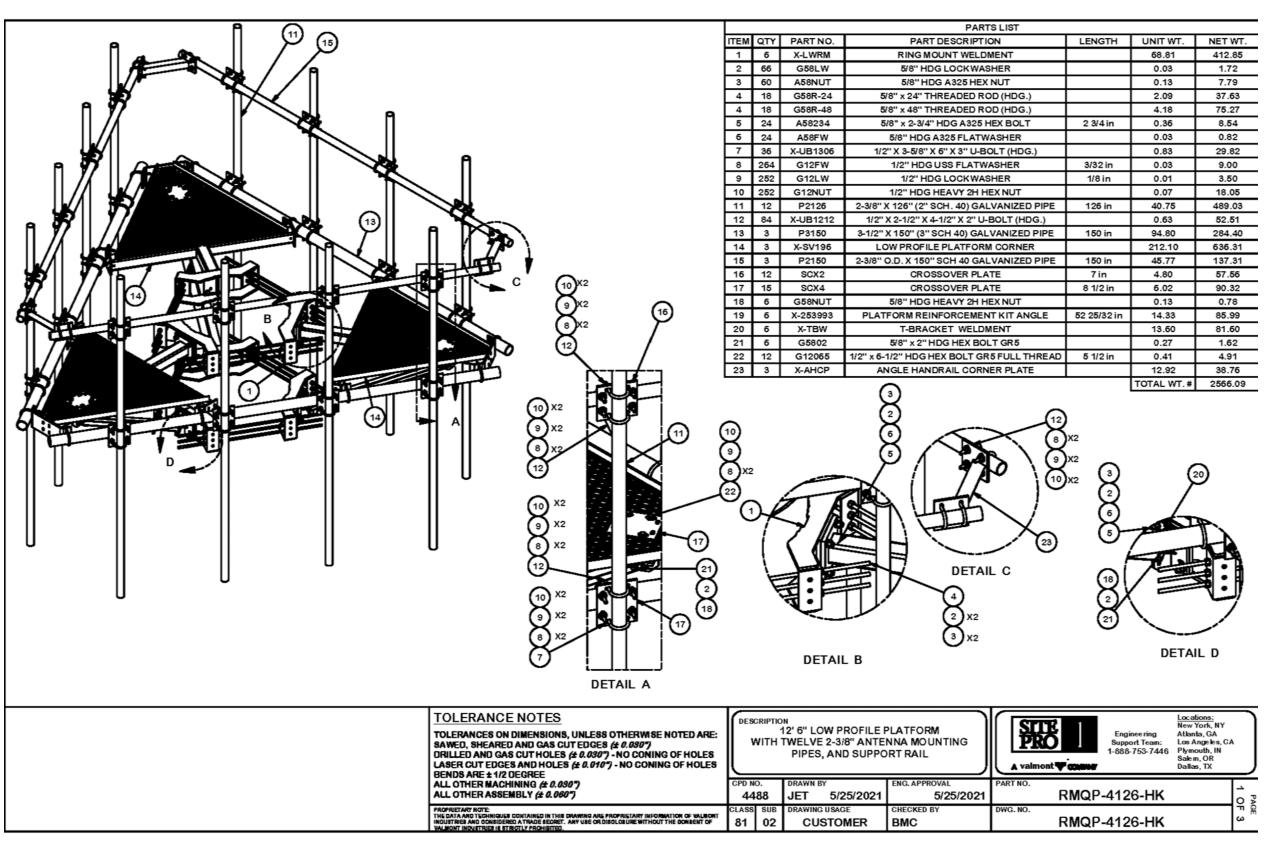
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DETAILS

A-5

DELTA HPL3 600A CABINET DETAIL

DELTA LB3 BATTERY CABINET (4 STRINGS) DETAIL



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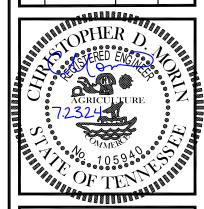
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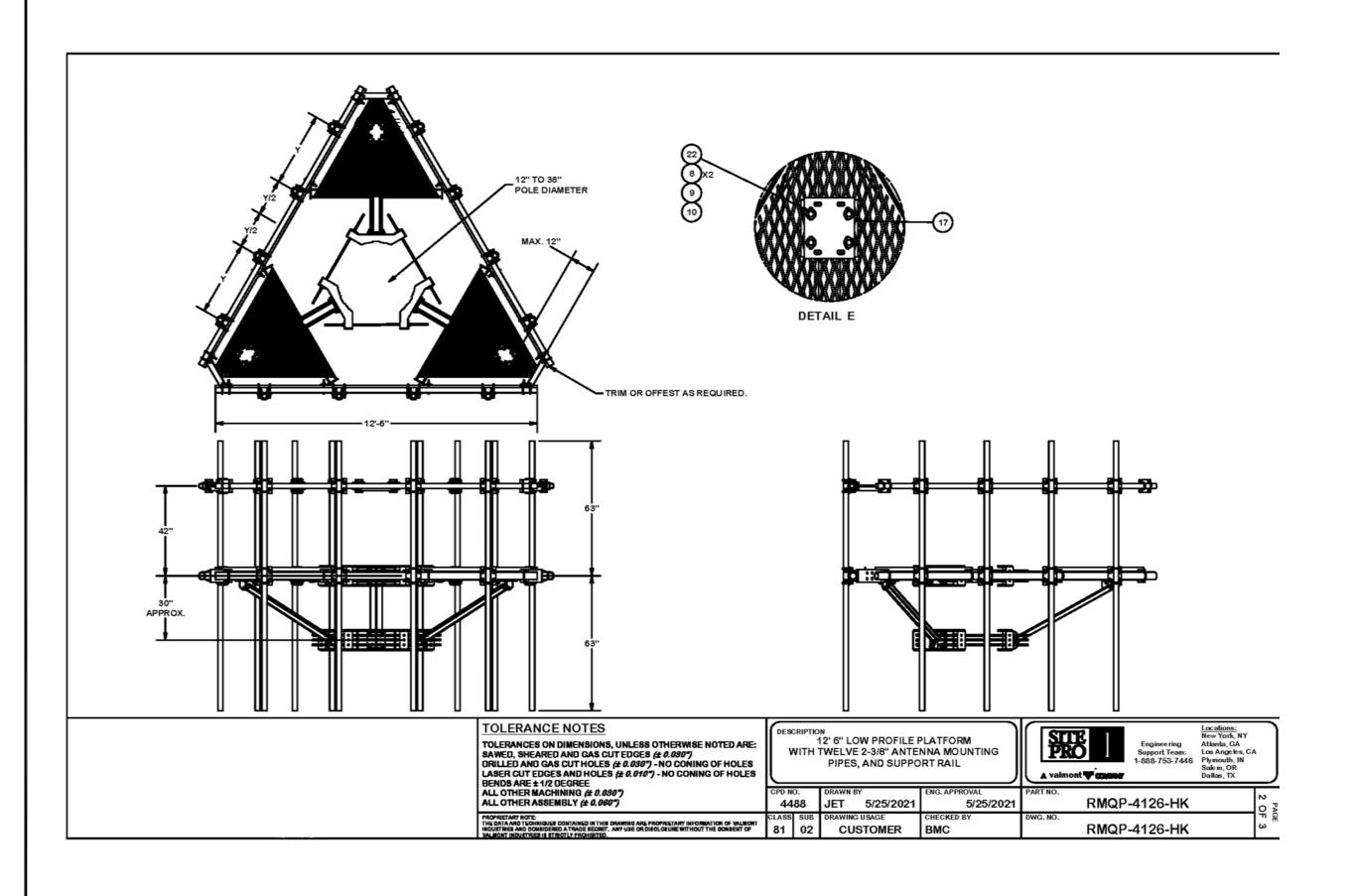


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> ANTENNA MOUNT SPEC.

> > A-6



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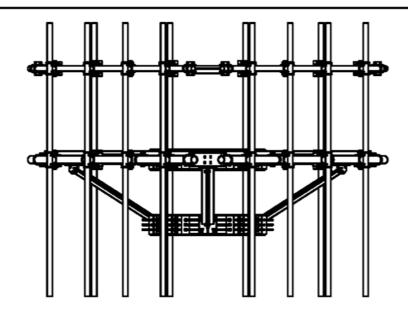


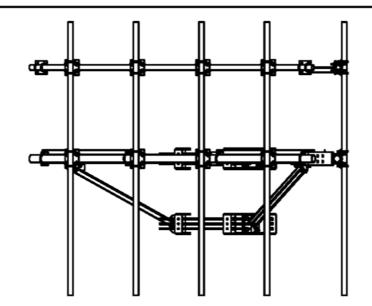
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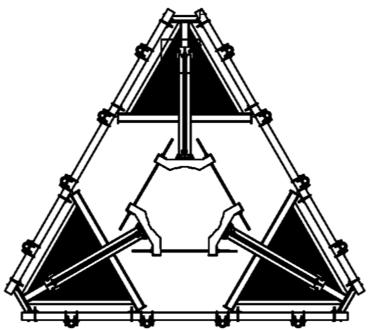
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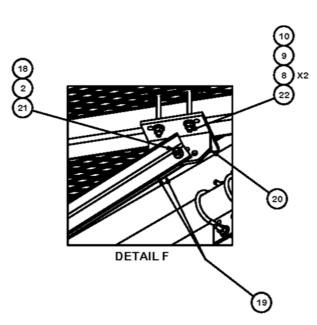
> ANTENNA MOUNT SPEC.

> > A-6A









TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE: SAWED, SHEARED AND GAS CUT EDGES & 0.030")
DRILLED AND GAS CUT HOLES & 0.030") - NO CONING OF HOLES LASER CUT EDGES AND HOLES & 0.010") - NO CONING OF HOLES BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING & 0.030")
ALL OTHER ASSEMBLY & 0.060")

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THE DATA AND TECHNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALBORT
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DESCRIPTION
12' 6" LOW PROFILE PLATFORM
WITH TWELVE 2-3/8" ANTENNA MOUNTING PIPES, AND SUPPORT RAIL

JET 5/25/2021

CUSTOMER

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5/25/2021

вмс

Engineering
Support Team:
1-888-753-7446
Plymouth, IN
Sale m, OR
Dallas, TX

Locations: New York, NY

RMQP-4126-HK RMQP-4126-HK

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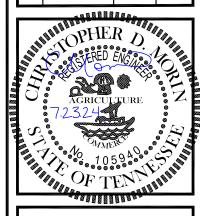
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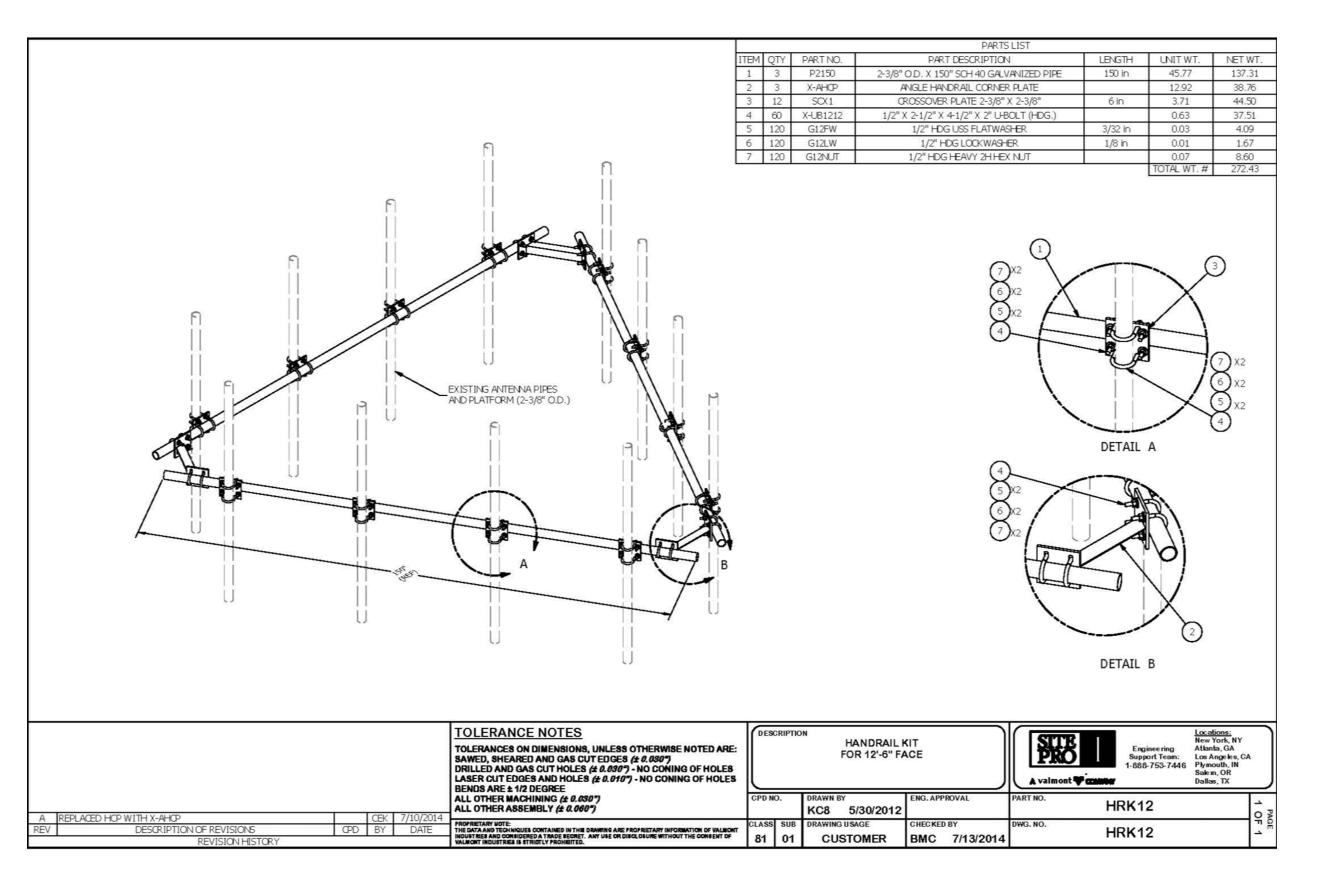


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> ANTENNA MOUNT SPEC.

> > A-6B



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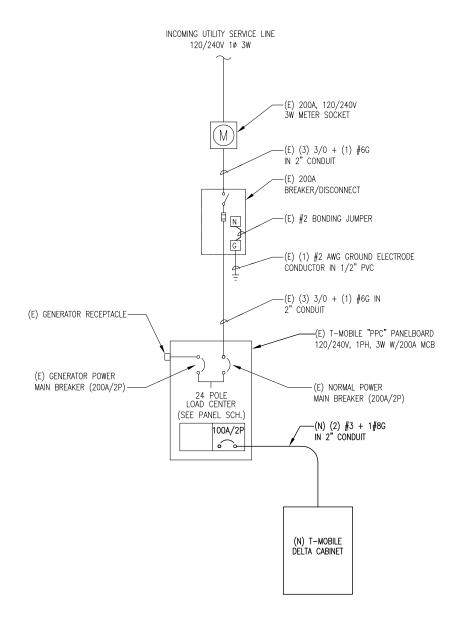


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> ANTENNA MOUNT SPEC.

> > A-6C



200	A MCB	,	Voltage:	240									
C PANEL:	SCHEDULE		1	φ3W									
Breaker Pos#	Description	State (On/Off)	Use *	Amp	Load	Phase A	Phase B	Load	Amp	State (On/Off)	Use *	Description	Breaker Pos#
1	TVSS	ON	2P	60	1	181		180	20	ON	1P	PPC GFCI	2
3	1733	ON	2	50	1		301	300	20	ON	1P	LIGHT	4
5	FCOA	OFF	2P	50		180		180	20	ON	1P	GFCI	6
7	FCOA	OFF	25	30			0		100	OFF	2P	SSC	8
9	DELTA HPL3	ON	2P	100	9600	9600			100	OFF	25	330	10
11	DELIA HPLS	ON	2P	100	9600		9900	300	20	ON	1P		12
13						300		300	20	ON	1P		14
15							0						16
17						0							18
19							0						20
21						0							22
23							0						24
		•				10261	10201		-	•			-

NEW AC LOADS ADDED

CONNECTED LOAD (KVA):	20.46		
DEMAND CALCULATIONS:			
CONTINUOUS LOAD @ 125%	1.13		
NON CONTINUOUS LOAD @ 100%	0.36		
MECHANICAL LOADS @ 125%	0.00		
EXISTING LOADS @ 125%	0.00		
NEW LOADS @ 125%	24.00		
TOTAL PANEL CAPACITY (KVA)	48.00	200.00	TOTAL PANEL CAPACITY (A)
TOTAL LOADING ON PANEL (KVA)	25.49	106.20	TOTAL LOADING ON PANEL (A)
TOTAL SPARE CAPACITY (KVA)	22.51	93.80	TOTAL SPARE CAPACITY (A)

NOTE: PANEL BOARD IS NOT OVERLOADED.



1-MOBILE 5209 LINBAR DRIVE SUITE 625 NASHVILLE, TN 37211



rchitects

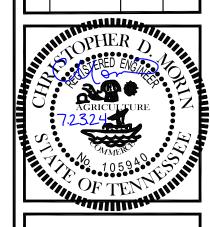
5661 COLUMBIA PIKE, SUITE 200 FALLS CHURCH, VA 22041-2868 TEL: (703) 671-6000 FAX: (703) 671-6300



8051 CONGRESS AVENUE BOCA RATON, FL 33487-1307

DRAWN BY: MM	CHECKED BY: SS
CHECKED BY: SS	APPROVED BY: BMQ

No.	Revision/Issue	Date	Initial
0	FINALS	07/23/24	ММ



9NV1648A THOMPSON

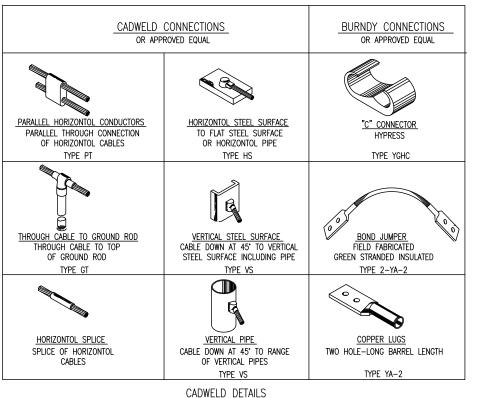
2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129

AC PANEL SCHEDULE & ONE LINE DIAGRAM

E-1

ONE LINE DIAGRAM
SCALE: N.T.S.

2 AC PANEL SCHEDULE SCALE: N.T.S.



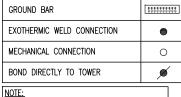
GROUNDING NOTES:

- 1.) UNDERGROUND AND OVERHEAD UTILITY LENGTHS TO BE DETERMINED FROM SITE PLAN.
- 2.) SEE ELECTRICAL SPECIFICATIONS SECTION 16000 FOR ALL ELECTRICAL AND GROUNDING INSTALLATION
- 3.) FOR ORIENTATION OF SITE LAYOUT SEE SITE PLAN, DRAWING.
- 4.) UDA CABINET FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.
- 5.) GROUND KITS PROVIDED BY OWNER SHALL BE RETROFITTED TO ACCOMMODATE 2 HOLE LUG CONNECTION AND
- 6.) CONTRACTOR RESPONSIBLE TO PROVIDE OWNER CERTIFICATION OF RESISTIVITY TESTING.
- 7.) GROUND RODS TO BE INSTALLED AT 10' CENTERS.
- 8.) ALL GROUND LEADS TO BE SLEEVED IN 34"Ø SCHEDULE 40 PVC CONDUIT AND SEALED W/ SILICON.
- 9.) GROUND BARS SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR.
- 10.) ALL BENDS IN GROUNDING SYSTEM MUST BE SMOOTH AND WELL ROUNDED AND MAINTAIN BENDING RADIUS.
- 11.) SEE SITE PLAN FOR COAXIAL ROUTING THIS SHEET IS INTENDED FOR GROUNDING CLARITY ONLY AND IS SCHEMATIC IN DETAIL.
- 12.) GROUND KITS SHALL BE INSTALLED BETWEEN 8"-18" OF ALL CONNECTORS.
- 13.) TOWER FOUNDATION DESIGN BY OWNER, INSTALLED BY CONTRACTOR.
- 14.) ADDITIONAL GROUND KITS TO BE PLACED AT 100' WHEN ANTENNA CENTERLINE IS 200' OR ABOVE.
- 15.) ALL CONDUITS TO BE SEALED W/ SILICONE TO PROVIDE A WATER TIGHT SEAL.

KEY NOTES:

- #2 SOLID, TINNED BARE COPPER GROUND WIRE FROM GROUND BAR TO GROUND RING (2 REQUIRED).
- EXISTING GROUND BAR
- #6 AWG GREEN STRANDED GROUND CU WIRE FROM DELTA HPL3 600A DC PLANT TO PLINTH
- #2 AWG SOLID TINNED BARE GROUND CU WIRE FROM GENERIC DELTA HPL3 600A DC PLANT TO GROUND RING
- #2 AWG SOLID TINNED BARE GROUND CU WIRE ROM DELTA BATTERY CABINET TO GROUND RING
- #6 AWG GREEN STRANDED GROUND CU WIRE FROM DELTA BATTERY CABINET TO PLINTH

SYMBOLS LEGEND:



EXISTING GROUNDING NOT SHOWN IN THIS DIAGRAM. GC TO VERIFY EXISTING EQUIPMENT GROUNDING IN FIELD

GC TO V.I.F. AND INSTALL ANY MISSING T-MOBILE GROUND BARS ON SITE

DELTA HPL3

600 DC

PLANT

4



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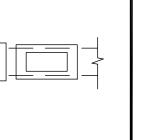
9NV1648A **THOMPSON**

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PROPOSED SITE **GROUNDING DIAGRAM**

EG-1

TYPICAL GROUNDING DIAGRAM SCALE: N.T.S



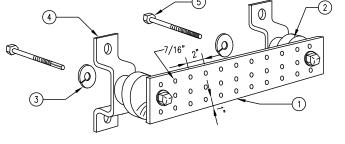
S/S NUT-

WASHER-

S/S FLAT

S/S BELLEVILLE

- 1. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING BELLEVILLES. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
- 2. FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON TOOTH WASHER BETWEEN LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.



- GROUND BAR, 4"X 20"X1/4", CONFIRM w/T-MOBILE PROJECT MANAGER THE APPROVED BUSS MFR. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
- INSULATORS, CONFIRM THE APPROVED BUSS MFR. w/T-MOBILE 5/8" LOCKWASHERS, CONFIRM w/T-MOBILE THE APPROVED BUSS MFR. (NEWTON
- INSTRUMENT CO. CAT. NO. 3015-8 OR EQUIVALENT) WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056 OR APPROVED
- EQUIVALENT (CONFIRM w/T-MOBILE THE APPROVED BUSS MFR.) 5/8-11 X 1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1 OR
- APPROVED EQUIVALENT (CONFIRM w/T-MOBILE THE APPROVED BUSS MFR.)

GROUNDING-STANDARD GROUND BAR DETAIL

SCALE: N.T.S.

INSTALLATION NOTES:

2 HOLE LUG-

#6 GRN-

PRIMARY GROUND BAR/

METAL FNCLOSURE-

HEAT SHRINK (TYP.

- SELECT BOLT LENGTH TO PROVIDE A MINIMUM OF TWO EXPOSED THREADS. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF LUG CONTACT
- AND REMOVE OXIDATION FROM OUTDOOR WEATHERED BARS.
- APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE OF LUG AND WIPE CLEAN EXCESS COMPOUND.

ANTENNA (TYP.)-

#2 AWG SOLID, TINNED

BARE CU GROUND WIRE

FROM ANTENNA PIPE TO

SECTOR GROUND BAR

-NOKIA HCS 2.0 JNUCTION

BOX ON GROUND (TYP.)

ANTENNA LEVEL GROUND LEVEL

-3/8" HEX NUT

-3/8" LOCK WASHER

-3/8"X3/4" FLAT WASHER

3/8"X1-1/4" HEX BOLT

ANTENNA PIPE

MOUNT (TYP.)-

RF MODULE (TYP.)

STRANDED GROUND

WIRE FROM MODULE TO

SECTOR GROUND BAR

(TYP.) 1)-

-EXISTING GROUND RING

#6 AWG GREEN

NOKIA HCS 2.0 JNUCTION

BOX ON TOP (TYP.)

#6 AWG GREEN STRANDED GROUND WIRE

FROM DIPLEXER TO

SECTOR GROUND BAR

SECTOR GROUND BAR

DELTA LB3

BATTERY

(5)-

USE SOLID COPPER WIRE AND MECHANICAL 2-HOLE LUG FOR ALL EXTERIOR

MECHANICAL GROUND CONNECTION

STANDARD LUG CONNECTION OF GROUND LEADS TO GROUND BAR DETAIL

-S/S FLAT WASHER

-S/S BOLT (1 OF 2)

2)SCALE: N.T.S.

GENERAL NOTES:

- OWNER FURNISHED MATERIALS, T-MOBILE "THE COMPANY" WILL PROVIDE AND THE
 CONTRACTOR WILL INSTALL.
- A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
- B. AC/TELCO INTERFACE BOX(PPC)
- C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
- D. TOWERS, MONOPOLE
- E. TOWER LIGHTING
- F. GENERATORS & LIQUID PROPANE TANK
- G. ANTENNA STANDARD BRACKETS, FRAMES, AND PIPES FOR MOUNTING.
- H. ANTENNAS (INSTALLED BY OTHERS)
- I. TRANSMISSION LINE
- J. TRANSMISSION LINE JUMPERS
- K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
- L. TRANSMISSION LINE GROUND KITS
- M. HANGERS
- N. HOISTING GRIPS
- O. BTS EQUIPMENT
 CONTRACTOR TO FURNISH AND INSTALL THE FOLLOWING:

THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUNDS STONE, CRANES, CORE DILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS,

NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR

REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND

IT IS THE RESPONSIBILITY OF T-MOBILE TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.

- 3. T-MOBILE FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE T-MOBILE WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED, INSURED, STORED, UNCRATED, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL THE APPURTENCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING UP.
- 4. ALL EQUIPMENT FURNISHED AND WORK PERFORMED UNDER THE CONTRACT DOCUMENTS SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE, UNLESS NOTED OTHERWISE. ANY FAILURE OF EQUIPMENT OR WORK DUE TO DEFECTS IN MATERIALS OR WORKMANSHIP SHALL BE CORRECTED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- 5. ALL WORK, MATERIAL, AND EQUIPMENT SHALL COMPLY WITH ALL REQUIREMENTS OF THE LATEST EDITIONS AND INTERIM AMENDMENTS OF THE NATIONAL ELECTRICAL CODE (NEC). NATIONAL ELECTRICAL SAFETY CODE, OSHA, AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES. ALL ELECTRICAL EQUIPMENT PROVIDED UNDER THIS CONTRACT SHALL BE NEW (EXCEPT WHERE OTHERWISE NOTED) AND SHALL COMPLY WITH THE REQUIREMENTS OF THE UNDERWRITERS' LABORATORIES (U.L.) AND BEAR THE U.L. LABEL.
- 5. T-MOBILE OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO THE OWNER OR HIS ARCHITECT/ENGINEER.
- THE CONTRACTOR SHALL SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS
 REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF ANY
 EXISTING STRUCTURES DURING CONSTRUCTION. FIELD VERIFY ALL EXISTING
 DIMENSIONS WHICH AFFECT THE NEW CONSTRUCTION.
- 8. THE CONTRACTOR SHALL NOT ALLOW OR CAUSE ANY OF THE WORK TO BE COVERED UP OR ENCLOSED UNTIL IT HAS BEEN INSPECTED BY THE GOVERNING AUTHORITIES. ANY WORK THAT IS ENCLOSED OR COVERED UP BEFORE SUCH INSPECTION AND TEST SHALL BE UNCOVERED AT THE CONTRACTOR'S EXPENSE; AFTER IT HAS BEEN INSPECTED, THE CONTRACTOR SHALL RESTORE THE WORK TO ITS ORIGINAL CONDITION AT HIS OWN EXPENSE.
- 9. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT/ENGINEER AND OWNER (T-MOBILE) ASSUME NO RESPONSIBILITY WHATEVER AS TO THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL SAID UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING AFFECTED UTILITIES.
- 10. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE

GENERAL NOTES (CONT'D):

PROJECT MANAGER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS OWN RISK AND EXPENSE.

- 11. CONTRACTORS SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO PAPERS, TRASH, DEBRIS, WEEDS, BRUSH, OR ANY OTHER DEPOSITS REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE PROPERLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY THE CONTRACTOR WITH LOCAL GAS, ELECTRIC, TELEPHONE, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.
- 13. DURING CONSTRUCTION, THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN THE UTILITIES OF THE BUILDING/SITE WITHOUT INTERRUPTION. SHOULD IT BE NECESSARY TO INTERRUPT ANY SERVICE OR UTILITY, THE CONTRACTOR SHALL SECURE PERMISSION IN WRITING FROM THE BUILDING/PROPERTY OWNER FOR SUCH INTERRUPTION, AT LEAST 72 HOURS IN ADVANCE. ANY INTERRUPTION SHALL BE MADE WITH A MINIMUM AMOUNT OF INCONVENIENCE TO THE BUILDING/PROPERTY OWNER AND ANY SUCH SHUTDOWN TIME SHALL BE COORDINATED WITH THE BUILDING/PROPERTY OWNER.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION.
- CONTRACTOR SHALL SUBMIT AT THE END OF THE PROJECT A COMPLETE SET OF AS BUILT DRAWINGS TO T-MOBILE'S PROJECT ENGINEER.
- GC WILL NOT START THE CONSTRUCTION UNTIL AFTER THEY RECEIVE THE PRE-CONSTRUCTION PACKAGE AND HAVE A PRE-CONSTRUCTION WALK WITH THE PROJECT MANAGER

<u>DIVISION 2 – SITE WORK:</u>

THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.

ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE PROJECT MANAGER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT LIMITED TO:

- A. FALL PROTECTION
- B. CONFINED SPACE
- C. FLECTRICAL SAFETY
- . ELECTRICAL SAFETY
 . TRENCHING AND EXCAVATION
- REMOVE FROM SITE/OWNER'S PROPERTY ALL WASTE MATERIALS, UNUSED EXCAVATED MATERIAL INCLUDING MATERIAL CLASSIFIED UNSATISFACTORY, CONTAMINATED OR DANGEROUS TRASH AND DEBRIS, AND DISPOSE OF IN A LEGAL MANNER
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF FINGINFERING.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE. FERTILIZED. SEEDED. AND COVERED WITH MULCH.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, AS REQUIRED DURING CONSTRUCTION.

CONTRACTOR IS RESPONSIBLE FOR LAYOUT AND CONSTRUCTION STAKING. CONTRACTOR SHALL ESTABLISH GRADE AND LINE STAKES PRIOR TO CONSTRUCTION

BC ARCHITECTS ENGINEERS DOES NOT GUARANTEE OR WARRANT THAT THE AFOREMENTIONED EASEMENTS ARE SUFFICIENT FOR CONSTRUCTION TRAFFIC. GC SHALL CONSULT WITH A T-MOBILE REPRESENTATIVE AND LANDLORD WITH EXACT LOGISTICS TO FACILITATE CONTRACTIBILITY OF THE SITE AND DELIVERY OF CRITICAL MATERIALS SUCH AS THE TOWER, STEEL, CONCRETE AND CRANES TO THE PROPOSEE LEASE AREA. GC SHALL RESTORE SITE TO ORIGINAL CONDITIONS AND REPLACE ANY AND ALL DISTURBED TREES OR LANDSCAPING.

BC ARCHITECTS ENGINEERS IS NOT RESPONSIBLE FOR THE MAINTENANCE AND/OR

SCOPE OF WORK FOR THESE PLANS DOES NOT INVOLVE VALUE ENGINEERING AS WELL AS MAINTAINABILITY OPERATIONS OF THE SITE, ACCESS OR UTILITIES.

<u>DIVISION 3 – CONCRETE:</u>

- MINIMUM ALLOWABLE CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI AT 28
 DAYS WHEN TESTED IN ACCORDANCE WITH THE AMERICAN SOCIETY FOR TESTING
 AND MATERIALS METHODS STANDARDS ASTM C172, ASTM C31 AND ASTM C39
 UNLESS OTHERWISE NOTED.
- CONCRETE FOR ALL FOUNDATIONS: 540 LBS PER CUBIC YARD OF CONCRETE.
 MINIMUM CEMENT CONTENT FOR 1-INCH MAXIMUM SIZE AGGREGATE, SLUMP
 RANGE 3 INCHES TO 5 INCHES, TOTAL AIR CONTENT 4 PERCENT TO 7 PERCENT BY
 VOLUME. AIR ENTRAINING ADMIXTURE REQUIRED TO CONTROL TOTAL AIR CONTENT,
 WATER REDUCING ADMIXTURE PERMITTED TO OBTAIN SLUMP OVER 3-INCHES.
- ALL CONCRETE CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI 318) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND (ACI 301) STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE.
- . REBAR SHALL BE ASTM A-615 DEFORMED TYPE WITH MINIMUM YIELD STRENGTH OF 60.000 PSI (40.000 PSI GRADE MAY BE USED FOR TIES & STIRRUPS).

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185

- DETAILING SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE OF DETAILING REINFORCED CONCRETE STRUCTURES (ACI STD-315 LATEST EDITION).
- 6. CHAMFER ALL EXPOSED EDGES OF CONCRETE 3/4".UNLESS OTHERWISE NOTED.
- REINFORCING STEEL SHALL BE ACCURATELY PLACED AND ADEQUATELY SECURED IN
 POSITION. LOCATION OF REINFORCEMENT SHALL BE INDICATED ON THE DRAWINGS
 THE FOLLOWING MINIMUM COVER (INCHES) FOR REINFORCEMENT SHALL BE
 PROVIDED. FXCFPT AS NOTED ON DRAWINGS.

MINIMUM COVER (INCHES)

CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.... 3" EXPOSED TO EARTH OR WEATHER:

#6 THROUGH #18....2"

#5 BAR AND SMALLER....1-1/2"

8. TEST

CONCRETE MATERIALS AND OPERATIONS SHALL BE TESTED AND INSPECTED BY THE ENGINEER AS THE WORK PROGRESSES. FAILURE TO DETECT ANY DEFECTIVE WORK OR MATERIAL SHALL NOT IN ANY WAY PREVENT LATER REJECTION WHEN SUCH DEFECT IS DISCOVERED NOR SHALL IT OBLIGATE THE ENGINEER FOR FINAL ACCEPTANCE

- A. FIVE CONCRETE TEST CYLINDERS SHALL BE TAKEN OF THE TOWER PIER FOUNDATION. TWO SHALL BE TESTED @ THREE DAYS, TWO @ TWENTY-EIGHT DAYS. THE FIFTH CYLINDER SHALL BE KEPT SEPARATELY, IF REQUIRED TO BE USED IN THE FUTURE.
- B. ONE ADDITIONAL TEST CYLINDER SHALL BE TAKEN DURING COLD WEATHER AND CURED ON SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS.
- C. ONE SLUMP TEST SHALL BE TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.

PLACING CONCRETE

- A. THE ENGINEER SHALL BE NOTIFIED NOT LESS THAT 24 HOURS IN ADVANCE OF CONCRETE PLACEMENT, UNLESS INSPECTION IS WAIVED IN EACH CASE, PLACING OF CONCRETE SHALL BE PERFORMED ONLY IN THE PRESENCE OF THE ENGINEER. CONCRETE SHALL NOT BE PLACED UNTIL ALL FORMWORK, EMBEDDED PARTS, STEEL REINFORCEMENT, FOUNDATION SURFACES AND JOINTS INVOLVED IN THE PLACING HAVE BEEN APPROVED, AND UNTIL FACILITIES ACCEPTABLE TO THE T-MOBILE REPRESENTATIVE HAVE BEEN PROVIDED AND MADE READY FOR ACCOMPLISHMENT OF THE WORK AS SPECIFIED. CONCRETE MAY NOT BE ORDERED FOR PLACEMENT UNTIL ALL ITEMS HAVE BEEN APPROVED AND T-MOBILE HAS PERFORMED A FINAL INSPECTION AND GIVEN APPROVAL TO START PLACEMENT IN WITTING.
- B. PLACEMENT OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301.

10. PROTECTION

- A. IMMEDIATELY AFTER PLACEMENT, THE CONTRACTOR SHALL PROTECT THE CONCRETE FROM PREMATURE DRYING, EXCESSIVELY HOT OR COLD TEMPERATURES, AND MECHANICAL INJURY. FINISHED WORK SHALL BE PROTECTED.
- B. CONCRETE SHALL BE MAINTAINED WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.
- C. ALL CONCRETE SHALL BE WATER CURED BY CONTINUOUS (NOT PERIODIC) FINE MIST SPRAYING OR SPRINKLING ALL EXPOSED SURFACES. WATER SHALL BE CLEAN AND FREE FROM ACID, ALKALI, SALTS, OIL SEDIMENT, AND ORGANIC MATTER. SUCCESSFUL CURING SHALL BE OBTAINED BY USE OF AN AMPLE WATER SUPPLY UNDER PRESSURE IN PIPES, WITH ALL NECESSARY APPLIANCES OF SPRINKLERS, AND SPRAYING DEVICES.

ELECTRICAL NOTES:

- . ELECTRICAL DESIGN SHALL BE PERFORMED BY ELECTRICAL CONTRACTOR. STRUCTURAL DESIGN SHALL BE PERFORMED BY GENERAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL ENSURE THAT ALL WORK COMPLIES WITH ALL APPLICABLE LOCAL AND STATE CODES AND NATIONAL ELECTRICAL CODE.
- ALL SUGGESTED ELECTRICAL ELEMENTS (SUCH AS BREAKER SIZES, WIRE SIZES, CONDUITS SIZES ARE FOR ZONING PURPOSES ONLY. IT IS THE RESPONSIBILITY TO OF THE ELECTRICAL CONTRACTOR TO CONFIRM COMPLIANCE WITH LOCAL ELECTRICAL CODES AND PASS ALL APPLICABLE AND NECESSARY INSPECTIONS. IN SOME EVENTS.

ELECTRICAL NOTES (CONT'D):

IT MAY BE NECESSARY TO PERFORM AN ELECTRICAL LOAD STUDY TO VERIFY THE CAPACITY OF THE EXISTING SERVICE. THIS IS NOT THE RESPONSIBILITY OF BC ARCHITECTS ENGINEERS. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

 CONTRACTOR SHALL FIELD LOCATE ALL BELOW GRADE GROUND LINES AND UTILITY LINES PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR RELOCATION OF ALL UTILITIES AND GROUND LINES THAT MAY BECOME DISTURBED OR CONFLICTING IN THE COURSE OF CONSTRUCTION.

<u>DIVISION 5 – STRUCTURAL STEEL:</u>

- DETAIL, FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE LATEST AISC MANUAL OF STEEL CONSTRUCTION (ASD), AWS D1.1, AND THE BASIC BUILDING CODE. STRUCTURAL STEEL SHALL BE AS FOLLOWS:
- A. ASTM A36, GRADE 36; ROLLED STEEL, RODS, PLATES, U-BOLTS AND ANCHOR BOLTS
- B. ASTM A325 BOLTS, BEARING TYPE
- C. ALL STEEL SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.
- 2. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.
- 3. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER, AND T- MOBILE PROJECT MANAGER IN WRITING
- TIGHTEN HIGH STRENGTH BOLTS TO A SNUG TIGHT CONDITION WHERE ALL PLIES IN A
 JOINT ARE IN FIRM CONTACT BY EITHER
- A. A FEW IMPACTS OF A IMPACT WRENCH
- B. THE FULL EFFORT OF A PERSON USING A SPUD WRENCH

WELDING

- A. ALL WELDING SHALL BE DONE BY A CERTIFIED WELDERS. CERTIFICATION DOCUMENTS SHALL BE MADE AVAILABLE FOR ENGINEER'S AND/OR OWNER'S REVIEW IF REQUESTED.
- B. WELDING ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING SHALL CONFORM TO ASTM A-233, E70 SERIES. BARE ELECTRODES AND GRANULAR FLUX USED IN THE SUBMERGED ARC PROCESS SHALL CONFORM TO AISC SPECIFICATIONS.
- C. FIELD WELDING SHALL BE DONE AS PER AWSD1.1 REQUIREMENTS VISUAL INSPECTION IS ACCEPTABLE.

5. PROTECTION

A. UPON COMPLETION OF ERECTION INSPECT ALL GALVANIZED STEEL AND PAINT ANY FIELD CUTS, WELDS, OR GALVANIZED BREAKS WITH ZINC BASED PAINT. COLOR TO MATCH THE GALVANIZING PROCESS.

<u>DIVISION 13 — SPECIAL CONSTRUCTION ANTENNA INSTALLATION</u>

.. WORK INCLUI

- A. ANTENNAS AND COAXIAL CABLES ARE FURNISHED BY T-MOBILE UNDER A
 SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION
 CONTRACTOR INTERMS OF COORDINATION AND SITE ACCESS. ERECTION
 SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL
- B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND T-MOBILE
- ${\bf C.} \quad {\bf INSTALL} \ {\bf GALVANIZED} \ {\bf STEEL} \ {\bf ANTENNA} \ {\bf MOUNTS} \ {\bf AS} \ {\bf INDICATED} \ {\bf ON} \ {\bf DRAWINGS}.$
- ${\tt D.\ \ INSTALL\ FURNISHED\ GALVANIZED\ STEEL\ OR\ ALUMINIUM\ WAVEGUIDE.}$
- E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYSER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER (FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED. FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE ROLIND AND SUBMITTED NUTHIN DISPEY OF WORKEY COMMETTION.
- F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
- G. ANTENNA AND COAXIAL CABLE GROUNDING:
 - ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS
 ARE TO BE WEATHER SEALED WITH RFS CONNECTOR/SPLICE WEATHER
 PROOFING KIT #221213 OR EQUAL.
 - 2. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).

T··Mobile

1-MOBILE 5209 LINBAR DRIVE SUITE 625 NASHVILLE, TN 37211



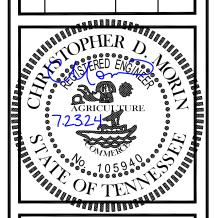
5661 COLUMBIA PIKE, SUITE 200 FALLS CHURCH, VA 22041-2868 TEL: (703) 671-6000 FAX: (703) 671-6300



8051 CONGRESS AVENUE BOCA RATON, FL 33487-1307

DRAWN BY: MM	CHECKED BY: SS		
CHECKED BY: SS	APPROVED BY: BMQ		

No.	Revision/Issue	Date	Initial
0	FINALS	07/23/24	ММ



9NV1648A THOMPSON

2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129

GENERAL NOTES & SPECIFICATIONS

SP-1

- 1. CONSTRUCTION TYPE II-B (TABLE 601)
- 2. GROUP U OCCUPANCY (SECTION 312.1 UNOCCUPIED TOWER SITE)

MODIFICATION AND DESIGN DRAWINGS FOR AN EXISTING 99' SABRE MONOPOLE TOWER W/ PROPOSED 49' SECTION

PROPOSED CARRIER: T-MOBILE

SITE: TN01807-B-SBA / SWANSON

COORDINATES (LATITUDE: 35.882149°, LONGITUDE: -86.424061°)

CONSTRUCTION CLASS

THE CONSTRUCTION PLAN FOR THIS SITE WOULD BE A MINIMUM OF A CLASS IV AND THE CONTRACTOR SHALL MAKE FINAL DETERMINATION

PLEASE NOTE THIS SET OF DRAWINGS IS FOR INSTALLATION AND ASSEMBLY ONLY. FABRICATION DETAIL DRAWINGS ARE NOT PROVIDED AND MUST BE COMPLETED BY THE STEEL FABRICATOR SELECTED. TES CAN PROVIDE THE FABRICATION DETAIL DRAWINGS FOR AN ADDITIONAL FEE.

SHEET	SHEET TITLE	REV
T-1	TITLE SHEET	0
ВОМ	BILL OF MATERIALS	0
GN-1	GENERAL NOTES	0
A-1	TOWER PROFILE	0
A-1A	ADDITIONAL DETAILS	0
A-2	MONOPOLE SECTION INSTALLATION DETAILS	0
A-3	MONOPOLE SECTION INSTALLATION DETAILS	0
A-4	MONOPOLE SECTION INSTALLATION DETAILS	0

NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE TES PROJECT NO. 154025, DATED 12/17/2024.

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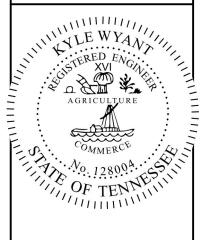


8051 CONGRESS AVENUE BOCA RATON, FL 33487 (800)-487-SITE

TES JOB NO: 154683

CUSTOMER SITE NO: TNO1807—B—SBA CUSTOMER SITE NAME: SWANSON

2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129



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HEET	NUMBER:	

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			BILL OF MATERIALS						_
UANTITY OUNTED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTIONS	LENGTH	SHEET LIST (INSTALLATION)	SHEET LIST (FABRICATE)	PIECE WEIGHT (LBS)	WEIGHT (LB)	NOTES
			MATERIAL & HARDWARE				` ,		
					<u> </u>				
					<u> </u>				
				`					
					-				
	 			-	 				
63	69	STEP BOLT	Step Bolt 5/8" Dia x 7 1/2" Long		A-2, A-3, A-4	F-C	0.0	0.0	w/ (2) Nut-LKW ea. (Galva
- 03	05	STEF BOLT	Step Boil 3/8 Diax / 1/2 Long		A-2, A-3, A-4	1-0	0.0	0.0	W/ (2) Nut-LNW ea. (Galva)
			Following Items are Non-standard Parts						
1	1	FP-24	FLANGE PLATE PL 1 1/2" X 3'-0" DIA A572-50		A-2	FP-24	278.91	278.9	GALVANIZED
1	1	MPS-24-20W	MONOPOLE SECTION WELDMENT (PIPE HSS24.000X0.375 X 20'-0") (42 KSI) A500 GR-B		A-2	MPS-24-20W	2604	2604.0	GALVANIZED
48	51		BOLT 1" X 4 3/4" A325		A-2, A-3, A-4		1.8	91.8	(1)HHN-FW GALVANIZ
3	3	PV-CMX-CG-BO	CLIMB-MAXX UNIVERSAL LOCKING WIRE ROPE GUIDE, BOLT ON		A-2, A-3, A-4				
1	1	MPS-18-20W	MONOPOLE SECTION WELDMENT (PIPE HSS18.000X0.375 X 20'-0") (42 KSI) A500 GR-B		A-3	MPS-18-20W	2004.45	2004.5	GALVANIZED
1	1	MPS-18-9W	MONOPOLE SECTION WELDMENT (PIPE HSS18.000X0.375 X 9'-0") (42 KSI) A500 GR-B		A-4	MPS-18-9W	955.50	955.5	GALVANIZED
2	3		BOLT 1" X 3 1/2" A325		A-4		1.52	4.56	(1)HHN-FW GALVANIZE
1	1	CPL-18	TOP CAP PLATE PL 3/16" X 2'-0 1/2" DIA A36		A-4	FP-18	25	25.0	GALVANIZED
1	1	T1807KT	SIX SECTOR CHAIN MOUNT KIT (KENWOOD OR EQUIV.)		A-1A				GALVANIZED
2 12	2 12	T1805KT MP-1	THREE SECTOR CHAIN MOUNT KIT (KENWOOD OR EQUIV.) 2" PST PIPE (2.375" O.D. X 0.154" THICKNESS) X 8'-0" A53, GR-B		A-1A A-1A		30.14	361.68	GALVANIZED GALVANIZED
12			CLIMBMAXX KIT - MONOPOLE (BOLT-STYLE CABLE GUIDES) - 150FT STAINLESS STEEL		A-1A A-1		30.14	361.68	GALVANIZED
1	1	C30-086-006	5/8" DIA X 6'-0" COPPER-CLAD LIGHTNING ROD (SABRE OR EQUIV.)		A-1A				
4	4		LANCO RC-300 OR HENRY 287 WHITE ACRYLIC ELASTOMERIC COATING AND SEALER OR EQUIV (GALLON)		A-1A				PROVIDED BY CONTRACT
					 				
	 			+	+				
	 			+	 				
	 		ALL APLXXXX, LPXXXX AND RLPXXXX ARE PATENTED PRODUCTS AND CANNOT BE FABRICATED BY THIRD		<u> </u>				
			PARTIES. THESE PARTS ARE AVAILABLE FROM:						
			METROSITE, LLC.						
	 		180 IND PARK BLVD COMMERCE, GA 30529						
			OFFICE: (706) 335-7045						
			FAX: (706) 335-7056						
			<u> </u>		1				
			NOTE: ALL MATERIALS, WHICH WEREN'T LISTED IN THIS SHEET, ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.						



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TES JOB NO: 154683

CUSTOMER SITE NO: TNO1807—B—SBA CUSTOMER SITE NAME: SWANSON

2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129

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GENERAL NOTES

- 1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-H, ANSI/ASSP A10.48, AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
- 2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
- 4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
- 5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER
- 6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.

FABRICATION

- 1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS. CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
- 2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINCKOTE GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

- 1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
- 2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
- 3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOLIND.
- 4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
- AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINCKOTE GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

- 1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
- 2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
- 3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
- 4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
- 5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2018 SECTION 1705.2 FOR STEEL CONSTRUCTION & TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

POST INSTALLED EPOXY INJECTED ANCHOR BOLTS:

- 1. CONCRETE MUST BE A MINIMUM OF 28 DAYS OLD.
- 2. FOLLOW MANUFACTURER'S REQUIREMENTS FOR CURE TIME VS. AMBIENT TEMPERATURE.
- DRILL HOLE TO REQUIRED DIAMETER AND DEPTH. ALL WATER, DIRT, OIL, DEBRIS, GREASE OR DUST MUST BE REMOVED FROM EACH CORE HOLE. FOLLOW MANUFACTURER'S RECOMMENDATION FOR CORRECT TYPE OF CORE BIT. AVOID DAMAGING EXISTING REINFORCING STEEL OR OTHER EMBEDDED ITEMS. NOTIFY TES ENGINEERING IF VOIDS IN THE CONCRETE, REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED. STOP CORING IMMEDIATELY IF THIS OCCURS.
- 4. A HOLE ROUGHENING DEVICE FROM EITHER HILTI OR ALLFASTENERS SHALL BE USED WITH ALL HOLES. FOLLOW ALL MANUFACTURER'S RECOMMENDED CORING AND INSTALLATION INSTRUCTIONS.
- 5. AFTER CORING AND ROUGHENING, FLUSH EACH HOLE WITH RUNNING WATER TO REMOVE ANY SLURRY OR DEBRIS. REMOVE ALL WATER FROM THE HOLE BY MECHANICAL PUMPING.
- 6. BRUSH EACH HOLE WITH AN APPROPRIATE SIZED NYLON BRUSH AND FLUSH WITH RUNNING WATER A SECOND TIME. REMOVE ALL WATER FROM THE HOLE.
- 7. AFTER THE SECOND WATER FLUSH BRUSH THE HOLE AGAIN WITH THE APPROPRIATE SIZED NYLON BRUSH.
- 8. BLOW EACH HOLE WITH COMPRESSED AIR TWO TIMES MINIMUM.
- 9. CONFIRM THAT EACH HOLE IS PROPERLY ROUGHED AND DRY.
- 10. NO EPOXY INJECTION SHALL TAKE PLACE IN RAINY CONDITIONS.
- 11. EPOXY SHOULD BE VISIBLE AT THE TOP OF THE CORE HOLE AFTER INSTALLATION.
- 12. CONTRACTOR TO SUPPLY ONE PHOTO OF EACH ROUGHED AND CLEANED HOLE IN CLOSEOUT PHOTO PACKAGE.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING a,b

	DISPOSITION OF OUTER FACE OF BOLTED PARTS			
BOLT LENGTH ^C	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 d	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS ^d	
NOT MORE THAN 4d _b	1/3 TURN	1/2 TURN	2/3 TURN	
MORE THAN 4d _b BUT NOT MORE THAN 8d _b	1/2 TURN	2/3 TURN	5/6 TURN	
MORE THAN 8d _b BUT NOT MORE THAN 12d _b	2/3 TURN	5/6 TURN	1 TURN	

O NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004 RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

- 1. HB12 HOLLO BOLT: 59 FT-LBS
- 2. HB16 HOLLO BOLT: 140 FT-LBS
- 3. HB20 HOLLO BOLT: 221 FT-LBS
- 4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

- 1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
- 2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
- CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911
 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
- 4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
- 5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
- 6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
- 7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
- 8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
- 9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
- 10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.



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TES JOB NO: 154683

CUSTOMER SITE NO:
TNO1807-B-SBA
CUSTOMER SITE NAME:
SWANSON

2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129

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^b APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

WHEN THE BOLT LENGTH EXCEEDS 12d_b, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

d BEVELED WASHER NOT USED.

TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE MONOPOLE AND

ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.

INSTALLATION NOTE:

VERTICAL ALIGNMENT IS REQUIRED FOR ALL THE SECTION PROJECTS, TOWERS OR POLES

2. TEMPORARY RELOCATION OF EXISTING EQUIPMENT AROUND THE FOUNDATION MAY BE REQUIRED DURING CONSTRUCTION.

SCOPE OF WORK

TEMPORARILY RELOCATE (3) EXISTING AMPHENOL CUUXO63X25 - PANEL ANTENNAS AT ±100'-0" ELEV. AND ASSOCIATED EQUIPMENT USING PROVIDED 3-SECTOR CHAIN MOUNT AND MOUNT PIPES (T1805KT & MP-1) BELOW NEW FLANGE AT ±99'-0" ELEV. (FINAL LOCATION TO BE DETERMINED BY AT&T) RE-ROUTE EXISTING (6) 7/8" COAX, (1) 3/4" DC, & (1) 3/8" FIBER FROM INSIDE THE POLE & INSTALL TEMPORARILY TO THE OUTSIDE OF THE POLE. SEE DETAIL 1 ON SHEET A-1A FOR AZIMUTHS.

CONTRACTOR TO COORDINATE ALL ANTENNA RELOCATION WORK WITH AT&T.

 $\langle 2 \rangle$ TEMPORARILY RELOCATE (3) EXISTING ANTEL BXA-70063-4CF-6-FP - PANEL ANTENNAS AT ±123'-0" ELEV., (3) EXISTING ANTEL BXA-171036-8CF-2-FP - PANEL ANTENNAS AT ±128'-0" ELEV. AND ASSOCIATED EQUIPMENT USING PROVIDED 6-SECTOR CHAIN MOUNT AND MOUNT PIPES (T1807KT & MP-1) BELOW NEW FLANGE AT ±99'-0" ELEV. (FINAL LOCATION TO BE DETERMINED BY VERIZON) RE-ROUTE EXISTING (6) 7/8" COAX FROM INSIDE THE POLE & INSTALL TEMPORARILY TO THE OUTSIDE OF THE POLE. SEE DETAIL 2 ON SHEET A-1A FOR AZIMUTHS.

CONTRACTOR TO COORDINATE ALL ANTENNA RELOCATION WORK WITH VERIZON.

3 TEMPORARILY RELOCATE (3) EXISTING ANDREW TMBX-6517-R2M - PANEL ANTENNAS AT ±144'-0" ELEV. AND ASSOCIATED EQUIPMENT USING PROVIDED 3-SECTOR CHAIN MOUNT AND MOUNT PIPES (T1805KT & MP-1) BELOW NEW FLANGE AT ±99'-0" ELEV. (FINAL LOCATION TO BE DETERMINED BY T-MOBILE)

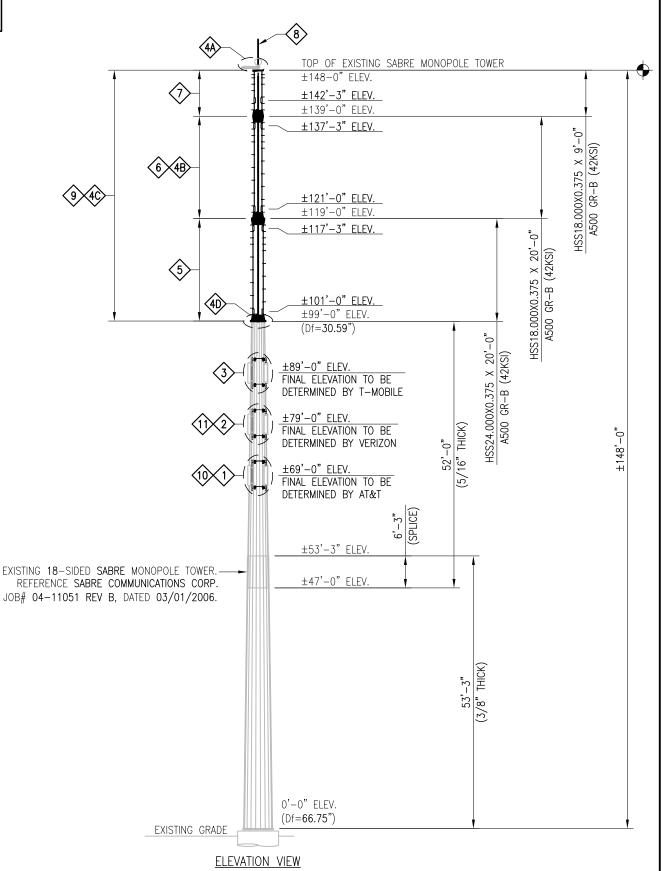
RE-ROUTE EXISTING (6) 7/8" COAX FROM INSIDE THE POLE & INSTALL TEMPORARILY TO THE OUTSIDE OF THE POLE. SEE DETAIL 3 ON SHEET A-1A FOR AZIMUTHS. CONTRACTOR TO COORDINATE ALL ANTENNA RELOCATION WORK WITH T-MOBILE.

T-MOBILE WILL BE HANDLING THEIR OWN RELOCATION WORK BACK TO THEIR ORIGINAL/NEW ELEVATION.

- 4 A. REMOVE EXISTING TOP CAP, FLAG TRUCK, & ALL ASSOCIATED HARDWARE AT $\pm 148^{\circ}-0^{\circ}$ ELEV.
 - B. REMOVE ALL EXISTING DECOMMISSIONED/ABANDONED EQUIPMENT AND MOUNTS AT ±132'-0" ELEV. & ±136'-0" ELEV. C. REMOVE EXISTING CANISTERS/SPINES FROM ±99'-0" ELEV TO ±148'-0" ELEV.
 - D. CUT AND REMOVE EXISTING INTERNAL FLANGE PLATE AT ±99'-0" ELEV. AND INSTALL NEW FIELD WELDED FLANGE PLATE (FP-24) FOR NEW MONOPOLE SECTION AT ±99'-0" ELEV. SEE SHEET A-2 FOR DETAILS.
- $\langle 5 \rangle$ install new (1) hss24.000x0.375 x 20'-0" (MPS-24-20W) section on top of existing monopole from ± 99 '-0" elev. TO ±119'-0" ELEV. SEE SHEET A-2 FOR DETAILS.
- $\langle 6 \rangle$ install new (1) HSS18.000x0.375 x 20'-0" (MPS-18-20W) extension on top of New Monopole extension from $\pm 119'-0$ " ELEV. TO $\pm 139'-0$ " ELEV. SEE SHEET A-3 FOR DETAILS.
- ⟨7⟩ INSTALL NEW (1) HSS18.000X0.375 X 9'-0" (MPS-18-9W) EXTENSION ON TOP OF NEW MONOPOLE EXTENSION FROM $\pm 139'-0"$ ELEV. TO $\pm 148'-0"$ ELEV. SEE SHEET A-4 FOR DETAILS.
- (8) INSTALL NEW LIGHTNING ROD AT TOP OF THE NEW MONOPOLE SECTION AND FIELD CUT IT DOWN IF REQUIRED TO MEET FAA HEIGHT APPROVAL. SEE DETAIL 4 ON SHEET A-1A.
- 9 INSTALL NEW PERFECT VISION SAFETY CLIMB SYSTEM (PV-CMX-SS-150-BOG-MP) TO TOP OF NEW POLE SECTION. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- (10) RELOCATE EXISTING AT&T ANTENNAS BACK TO ORIGINAL ELEVATION AT ±100'-0" ELEV. REROUTE EXISTING LINES TO INSIDE THE POLE. CONTRACTOR TO COORDINATE ALL ANTENNA RELOCATION WITH AT&T.
- $\langle 1
 angle$ relocate existing verizon antennas back to original elevation at $\pm 128'$ –0" elev. Reroute existing lines to inside THE POLE. CONTRACTOR TO COORDINATE ALL ANTENNA RELOCATION WITH VERIZON.
- (12) CONTRACTOR TO FIELD MATCH AND PAINT ALL NEW MODIFICATIONS.
- 43 APPLY FOUNDATION COATING
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.

FIELD NOTE:

CONTRACTOR TO PAINT ALL NEW MODIFICATION MEMBERS TO MATCH EXISTING TOWER COLOR.





A CONGRUEX COMPANY

1320 GREENWAY DRIVE, SUITE 600 IRVING, TX 75038 PHONE: (972) 483-0607



8051 CONGRESS AVENUE BOCA RATON, FL 33487 (800)-487-SITE

> TES JOB NO: 154683

CUSTOMER SITE NO: TN01807-B-SBA CUSTOMER SITE NAME: SWANSON

2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129

CHECKED BY: AS / IRI DESCRIPTION BY DATE LC 03/19/2 SHEET TITLE:

TOWER PROFILE

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A-1

SHEET NUMBER:

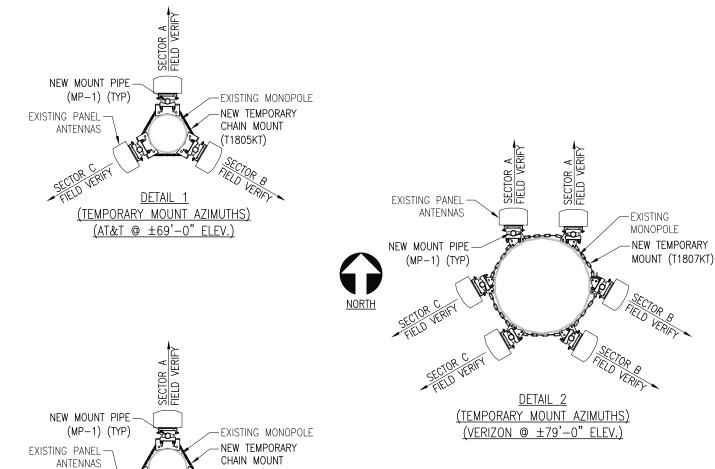
REV #:

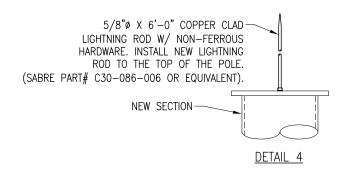


FOUNDATION PHOTO

FOUNDATION COATING NOTES:

- 1. THE COATING MATERIALS SHALL BE LANCO WHITE ACRYLIC ELASTOMERIC COATING AND SEALER, OR HYDRO ARMOR COATING.
- 2. THE COATING CAN BE PLACED AT LEAST (2) DAYS AFTER THE PLACEMENT OF THE CONCRETE FOR FOUNDATION REINFORCEMENT, AND MINIMUM (4) DAYS FOR NEW FOUNDATION CONSTRUCTION.
- 3. THE CONCRETE SURFACE SHALL BE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE COATING.
- 4. THE COATING SHALL BE APPLIED TO ALL THE SURFACES OF THE CONCRETE ABOVE THE GROUND AND 6"BELOW THE GRADE SURFACE IF APPLICABLE.
- 5. MINIMUM 30 MILS COATING IS REQUIRED.





(T1805KT)

DETAIL 3 (TEMPORARY MOUNT AZIMUTHS) $(T-MOBILE @ \pm 89'-0" ELEV.)$

TES

A CONGRUEX' COMPANY

1320 GREENWAY DRIVE, SUITE 600 IRVING, TX 75038 PHONE: (972) 483-0607



8051 CONGRESS AVENUE BOCA RATON, FL 33487 (800)-487-SITE

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2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129

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ADDITION DETAILS

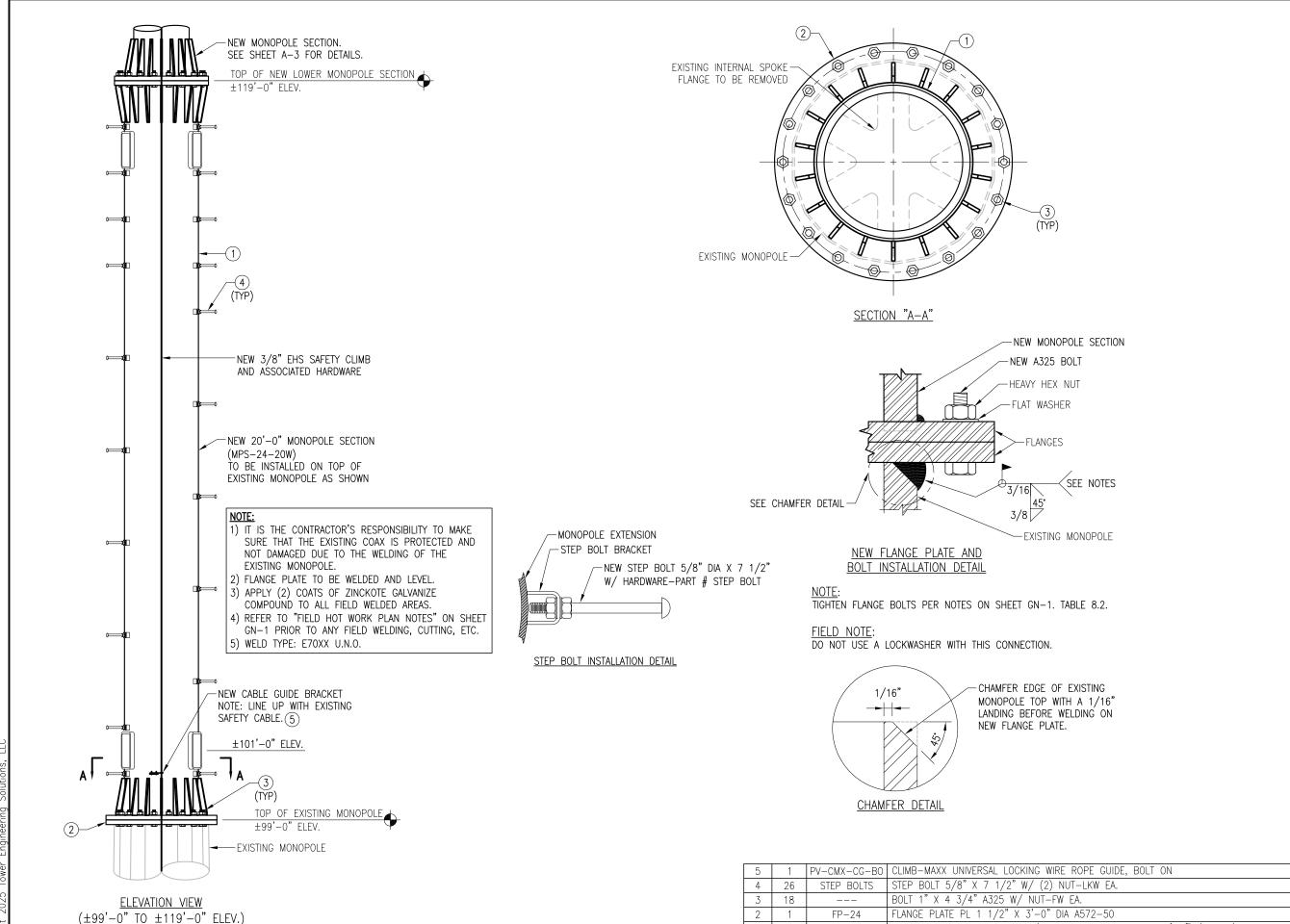
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REV #:

A-1A



ITEM

NO.

QTY.

PART NO.

XTES

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1320 GREENWAY DRIVE, SUITE 600 IRVING, TX 75038 PHONE: (972) 483-0607



8051 CONGRESS AVENUE BOCA RATON, FL 33487 (800)-487-SITE

TES JOB NO: 154683

CUSTOMER SITE NO:
TNO1807-B-SBA
CUSTOMER SITE NAME:
SWANSON

2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129

DRAWN BY: LC CHECKED BY: AS/JRL

REV. DESCRIPTION BY DATE

\(\int \) FIRST ISSUE LC 03/19/25

MONOPOLE SECTION INSTALLATION DETAILS

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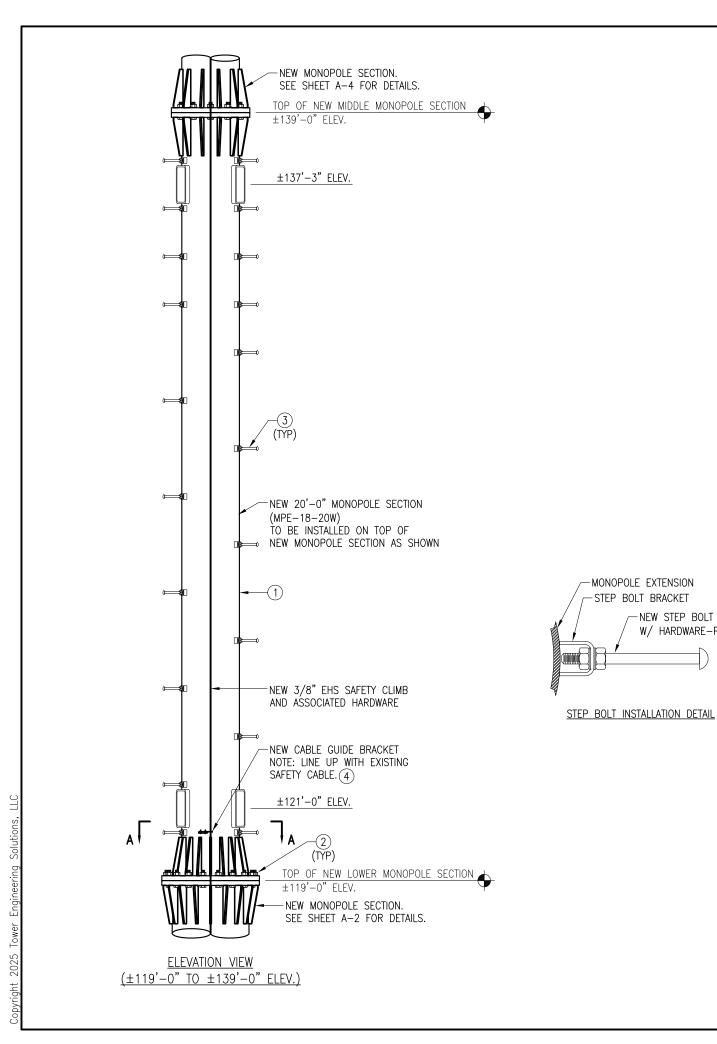
SHEET NUMBER:

MPS-24-20W MONOPOLE SECTION WELDMENT (PIPE HSS24.000X0.375 X 20'-0") (42 KSI) A500 GR-B

DESCRIPTION

REV #:

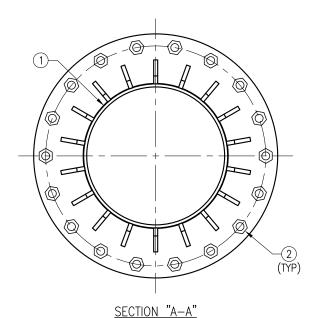
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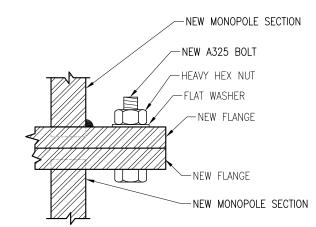


-MONOPOLE EXTENSION

-STEP BOLT BRACKET

NEW STEP BOLT 5/8" DIA X 7 1/2" W/ HARDWARE-PART # STEP BOLT





NEW FLANGE PLATE WELD AND **BOLT INSTALLATION DETAIL**

TIGHTEN FLANGE BOLTS PER NOTES ON SHEET GN-1. TABLE 8.2.

FIELD NOTE:
DO NOT USE A LOCKWASHER WITH THIS CONNECTION.

	4	1	PV-CMX-CG-B0	CLIMB-MAXX UNIVERSAL LOCKING WIRE ROPE GUIDE, BOLT ON	
	3	23 STEP BOLTS STEP BOLT 5/8" X 7 1/2" W/ (2) NUT-LKW EA.		STEP BOLT 5/8" X 7 1/2" W/ (2) NUT-LKW EA.	
ſ	2	18		BOLT 1" X 4 3/4" A325 W/ NUT-FW EA.	
	1	1	MPS-18-20W	MONOPOLE SECTION WELDMENT (PIPE HSS18.000X0.375 X 20'-0") (42 KSI) A500 GR-B	
	ITEM NO	QTY.	PART NO.	DESCRIPTION	



A CONGRUEX' COMPANY

1320 GREENWAY DRIVE, SUITE 600 IRVING, TX 75038 PHONE: (972) 483-0607



8051 CONGRESS AVENUE BOCA RATON, FL 33487 (800)-487-SITE

> TES JOB NO: 154683

CUSTOMER SITE NO: TN01807-B-SBA CUSTOMER SITE NAME: SWANSON

2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129

CHECKED BY: AS/JRL DESCRIPTION BY DATE LC 03/19/25

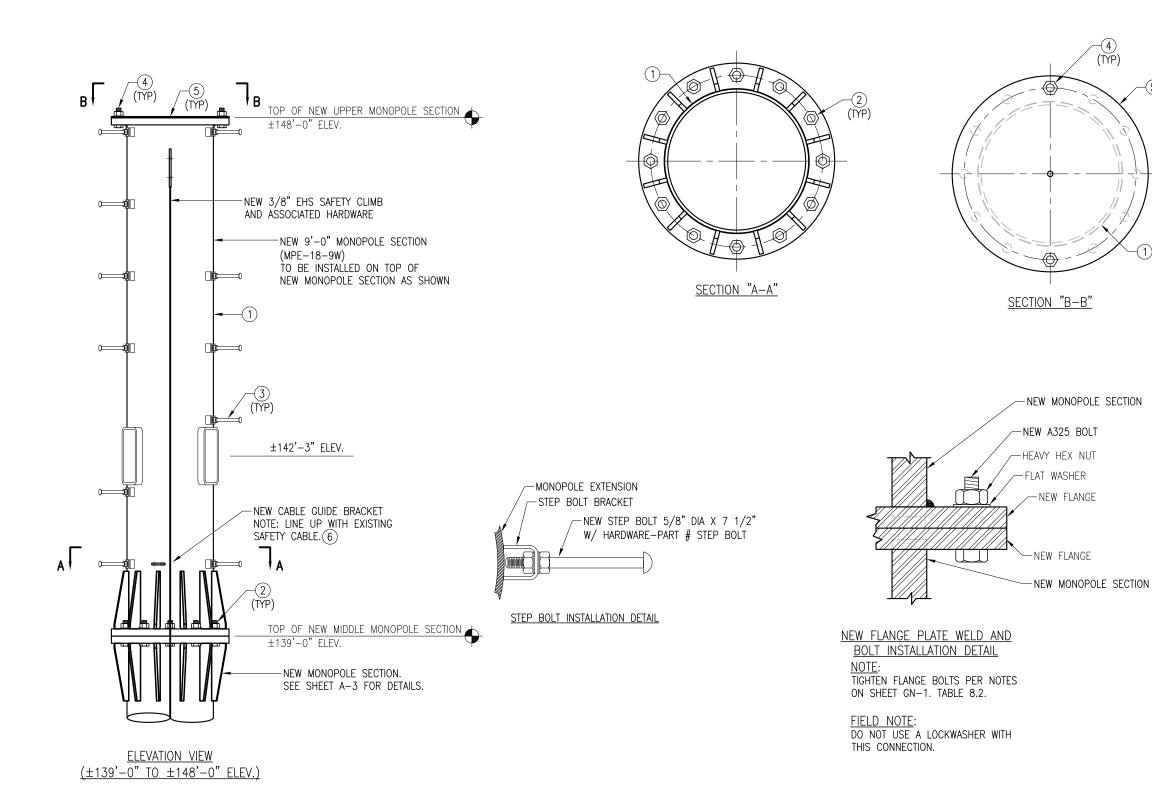
MONOPOLE SECTION INSTALLATION DETAILS

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SHEET NUMBER:

REV #:

A-3



6	1	PV-CMX-CG-BO	CLIMB-MAXX UNIVERSAL LOCKING WIRE ROPE GUIDE, BOLT ON	
5	1	CPL-18	TOP CAP PLATE PL 3/16" X 2'-0 1/2" DIA A36	
4	2		BOLT 1" X 3 1/2" A325 W/ NUT-FW EA.	
3	14	STEP BOLTS	STEP BOLT 5/8" X 7 1/2" W/ (2) NUT-LKW EA.	
2	12		BOLT 1" X 4 3/4" A325 W/ NUT-FW EA.	
1	1	MPS-18-9W	MONOPOLE SECTION WELDMENT (PIPE HSS18.000X0.375 X 9'-0") (42 KSI) A500 GR-B	
ITEM NO.	QTY.	PART NO.	DESCRIPTION	



A CONGRUEX" COMPANY

1320 GREENWAY DRIVE, SUITE 600 IRVING, TX 75038 PHONE: (972) 483-0607



8051 CONGRESS AVENUE BOCA RATON, FL 33487 (800)-487-SITE

> TES JOB NO: 154683

CUSTOMER SITE NO: TN01807-B-SBA CUSTOMER SITE NAME: SWANSON

2117 NORTH THOMPSON LANE MURFREESBORO, TN 37129

CHECKED BY: AS/JRL BY DATE DESCRIPTION ∕0\ FIRST ISSUE LC 03/19/25

MONOPOLE SECTION INSTALLATION DETAILS

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A-4

SHEET NUMBER:

REV #:

City of Murfreesboro **BOARD OF ZONING APPEALS**

HEARING REQUEST APPLICATION

Applicant: Jacob Highland E Address: 9125-A Southern Pine Blvd. City: Charlotte	E-Mail:					
City: Charlotte	_	Phone: 336-404-3093				
	S	tate: NC	Zip: ²⁸²⁷³			
Property Owner: SWANSON IRREVOCABL	E FAMILY	TRUST				
Address: 1188 Park Ave		Phone: (615) 896-0000				
City:	S	tate: TN	Zip: 37129			
Request: Unstealth existing cell tower to open a	intenna ari	ray.No change	e to tower height			
or to footprint of compound. Zoning District: H-I						
Applicant Signature: Jacob Highland Date:						

Murfreesboro Board of Zoning Appeals



INTRODUCTION:

The **Board of Zoning Appeals** hears appeals of the requirements of the Zoning and Sign Ordinances, appeals from administrative decisions, and requests for Special Exception uses listed on Chart 1 of the Zoning Ordinance.

VARIANCES:

Required yard and height variances may be granted in accordance with Section 10 of the Zoning Ordinance in cases where the strict application of the ordinance imposes hardship or practical difficulty on the property owner due to the unusual character of the property, which makes compliance extraordinarily difficult or impossible. *Financial hardships will not be considered.*

Variances of the Sign Ordinance may be granted in cases where the strict application of the ordinance imposes hardship or practical difficulties as a result of unusual characteristics of the applicant's property, which make compliance extraordinarily difficult or impossible. Financial hardships will not be considered.

SPECIAL USE PERMITS:

Special use permits may be granted in accordance with Sections 8 and 9 of the Zoning Ordinance for uses specified in Chart 1 of the Zoning Ordinance.

APPEALS FROM ADMIN-ISTRATIVE DECISIONS:

The Board of Zoning Appeals has authority to hear appeals from any order, requirement, decision, or determination by any department, office, or bureau responsible for the administration of the Zoning or Sign Ordinances.

APPLICATION PROCESS:

The owner or other party having contractual interest in the affected property must file an application with the Board's secretary no later than 3:00 PM on the submittal deadline date on the official BZA Calendar.

The applicant must submit the following:

- 1. A completed application (included on this brochure).
- 2. A \$350 application fee; or in the case of a special meeting, a \$450 application fee (checks to be made payable to the City of Murfreesboro).
- 3. Supporting materials which should include:
- -- For special use permits, a site plan indicating the location of all existing and proposed structures, parking spaces, access points, fences, driveways, and property lines. Home occupation requests should include a statement of the proposed hours of operation, the volume of traffic anticipated, and the nature of the

business. Day-care centers should include a statement from the Department of Human Services that such center can be licensed by the State.

- -- For yard variance requests, a site plan showing all existing and proposed structures, property lines, and the distance between structures and the property lines.
- -- For appeals from administrative decisions, a statement indicating the order, requirement, decision, or determination being appealed and a statement setting forth the applicant's argument.
- -- Additional information may be required at the discretion of the Board's Secretary.

MEETING TIME AND PLACE:

The **Board of Zoning Appeals** meets once a month at 1:00 PM in the Council Chambers located in the City Hall Building at 111 West Vine Street. See BZA Calendar for meeting dates.

MEMBERSHIP

Davis Young, Chairman	Misty Lavender
Ken Halliburton, Vice-Chair	Tim Tipps
Robert Batcheller	

STAFF

Richard Donovan, Principal Planner Teresa Stevens, Sign Administrator John Tully, Assistant City Attorney Ashley Fulghum, Recording Assistant





T + 704.527.0003 F + 704.527.8988

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May 5, 2025

RE: BZA Application – Compliance with Additional Standards 2117 N. Thompson Ln. Murfreesboro, TN 37129 (Site: 9NV1648A | TN01807-B-04)

To Whom This May Concern:

This letter is to inform you that SBA Communications will comply with the following standards as noted in the City of Murfeesboro, TN ordinance:

(cccc) Wireless communication towers and antennas (altogether "towers") shall be subject to the following additional standards:

[1] towers shall not be located in the approach or landing zone of an airport or heliport;

The nearest known airport is located greater than 3 miles from the site location.

[2] the application for a special use permit shall be accompanied by the written recommendations of appropriate state and federal agencies;

SHPO approval document included in email submittal.

[3] in the event any tower is to be equipped with hazard lights, the use of white strobe lights shall be restricted to daylight hours;

Not applicable. No lighting is required per FAA requirements.

[4] the BZA may place restrictions on the manner (and color) in which the tower can be painted, within the parameters of applicable state and federal regulations; and,

The tower is not currently painted. The tower will have a galvanized steel finish.

[5] the BZA may require additional standards be met in order to assure compatibility of the proposed use with adjoining properties, subject to T.C.A. §13-24-301 et seq.

- Not applicable. The proposed use will not be changing.
- (E) Standards. The standards for the establishment of all proposed wireless communications facilities are stated below. The Board of Zoning Appeals shall assure that all requirements have been met prior to the issuance of the Special Use Permit.
- (1) Antenna-supporting structures must be setback a distance equal to its height from any property line. The City Engineer may modify the setback requirement if the applicant demonstrates that the antenna-supporting structure can withstand the wind load for the design storm event applicable to Murfreesboro as provided in the most recent version of ANSI/TIA/EIA-222, Structural Standards for Steel Antenna Towers and Antenna Support Structures, which document is hereby incorporated by reference, or if the applicant demonstrates that the fall zone of the tower is less than the tower's height.
 - This is an existing tower and will comply with all setback requirements and structural standards. The
 overall height will not be increased. We will perform a TIA inspection on the tower once the upgrades
 are completed.
- (2) A fence not less than eight (8) feet in height from finished grade must be installed so as to enclose the base of the antenna- supporting structure and associated equipment enclosures. Access to the antenna-supporting structure must be controlled by a locked gate.
 - The existing fence currently installed should already meet these standards, but will be brought into compliance if found to be a lower height.
- (3) A landscaping and vegetative buffer shall be installed to reduce visibility from the public ROW and the surrounding properties. A natural vegetative buffer may be substituted for the buffering and landscaping requirements subject to the approval of the Development Services Division and the BZA to ensure that it is sufficient to provide the required screening.
 - The existing landscaping and the existing building provides adequate screening to the public ROW.
- (4) The application shall show that the FAA has approved the height of the tower and has issued any license necessary to operate the tower.
 - All necessary FAA documentation will provided by applicant.
- (5) No lights, signals, or other illumination are permitted on any antenna-supporting structure or ancillary appurtenances unless the applicant demonstrates that lighting is required by the FAA or the FCC.
 - This tower is not lit, nor is lighting required by the FAA or FCC.



- (6) Antenna-supporting structures must be designed to accommodate future collocation for at least three (3) antennae. As a condition of approval under this Section, the applicant must submit a shared use plan.
 - There are currently (3) tenants on this existing tower, and they will remain after the tower modification.
- (7) The maximum height of respective antenna-supporting structures shall be as determined by the Board of Zoning Appeals as a part of the special use permit process. However, no special use permit shall grant authority for such a structure to exceed the maximum height requirements denoted in the Airport Overlay District regulations.
 - No increase to the tower height is proposed.

Respectfully,

Jacob Highland SBA Network Services, LLC 336.404.3093



- (C) Standards of general applicability. An applicant for a special permit shall present evidence at the public hearing on such special permit, which evidence must establish. Please respond to how your use will comply with each of the following:
 - (1) that the proposed building or use will not have a substantial or undue adverse effect upon adjacent property, the character of the neighborhood, traffic conditions, parking, utility facilities, and other matters affecting the public health, safety, and general welfare:

The existing and proposed use will remain the same and should not have any adverse effects or jeopardize the character of the neighborhood. Traffic conditions, parking and utilities will not be impacted as only 1-2 vehicles will be on site at a time.

(2) that the proposed building or use will be constructed, arranged, and operated so as to be compatible with the immediate vicinity and not to interfere with the development and use of adjacent property in accordance with the applicable district regulations;

The existing and proposed use will remain the same. Development and use of adjacent properties will not be impacted.

(3) that the proposed buildings or use will be served adequately by essential public facilities and services such as highways, streets, parking spaces, drainage structures, refuse disposal, fire protection, water and sewers; or that the persons or agencies responsible for the establishment of the proposed use will provide adequately for such services;

The proposal for a full antenna array will help to improve cellular coverage in the area and support existing infrastructure.

(4) that the proposed building or use will not result in the destruction, loss, or damage of any feature determined by the BZA to be of significant natural, scenic, or historic importance; and,

The tower is in compliance with SHPO and has not been determined by the FCC to have an effect on any historic properties.

(5) that the proposed building or use complies with all additional standards imposed on it by the particular provision of this section authorizing such use.

The proposal will comply with all additional standards. There is no proposed change to the tower height or to the footprint of the existing compound.



T + 561.995.7670 F + 561.995.7626

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NPA - Collocation Compliance Statement

Site Name/#: Swanson / TN01807-B @ 2117 North Thompson Lane, Murfreesboro, TN 37129, Structure# 1

To Whom It May Concern:

In order to facilitate the collocation process for the above referenced site(s), SBA Towers, LLC ("Owner") hereby makes the following representations, that to the best of its knowledge:

The tower is a structure built for the sole or primary purpose of supporting FCC-licensed antennas and their associated facilities.

Tower construction was completed <u>after</u> March 16, 2001.

The Section 106 review process for the tower set forth in 36 CFR Part 800 and any associated environmental reviews required by the FCC have been completed.

The above referenced tower has <u>not</u> been determined by the FCC to have an effect on one or more historic properties, unless such effect has been found to be not adverse through a no adverse effect finding, or if found to be adverse or potentially adverse, has been resolved, such as through a conditional no adverse effect determination, a Memorandum of Agreement, a programmatic agreement, or otherwise in compliance with Section 106 and Subpart B of 36 CFR 800; or

The tower is **not** the subject of a pending environmental review or related proceeding before the FCC involving compliance with Section 106 of the National Historic Preservation Act; or

Owner has <u>not</u> received written or electronic notification that the FCC is in receipt of a complaint from a member of the public, a SHPO, or the Advisory Council on Historic Preservation, that the collocation has an adverse effect on one or more historic properties.

Sincerely,

By:

Name: Angie Becella

Title: Compliance Specialist

Generated: 10/29/2024

7NO1807-B



TENNESSEE HISTORICAL COMMISSION DEPARTMENT OF ENVIRONMENT AND CONSERVATION 2641 LEBANON ROAD NASHVILLE, TN 37243-0442

January 31, 2006

(615) 532-1550

Mr. James A. Duncan Terracon 5217 Linbar Drive Nashville, Tennossee, 37211

RE: FCC, CELL SITE/2115 NW BROAD STREET, MURFREESBORO, RUTHERFORD COUNTY

Dear Mr. Duncan:

In response to your request, received on Thursday, January 26, 2006, we have reviewed the documents you aubmitted regarding your proposed undertaking. Our review of and comment on your proposed undertaking are among the requirements of Section 106 of the National Historic Preservation Act. This Act requires federal agencies or applicant for federal assistance to consult with the appropriate State Historic Preservation Office before they carry out their proposed undertakings. The Advisory Council on Historic Preservation has codified proceedures for carrying out Section 106 review in 36 CFR 800. You may wish to familiarize yourself with these procedures (Federal Register, December 12, 2000, pages 77698-77739) if you are unsure about the Section 106 process. You may also find additional information concerning the Section 106 process and the Tennessee SHPO's documentation requirements at www.state.in.us/environment/hist/sect106.shtm.

Based on available information, we concur that the project as currently proposed will NOT ADVERSELY AFFECT ANY NATIONAL REGISTER OF HISTORIC PLACES-LISTED PROPERTY SO LONG AS THE FOLLOWING CONDITION (S) ARE MET:

The conditions enumerated in your letter of January 25, 2006 to this office are applied to this project.

Unless project plans change, and so long as the condition is met, this office has no objection to the implementation of this project. Should project plans change, please contact this office to determine what a dditional action, if a ny, is necessary. Questions and comments may be directed to Joe Carrison (615) 532-1550-103. Your cooperation is appreciated.

Sincerely, Hayer

Herbert L. Harper Executive Director and Deputy State Historic Preservation Officer

HLH/jyg

Laura Elston

From: TN Help <tnhelp@service-now.com>
Sent: Wednesday, September 4, 2024 11:28 AM

To: Laura Elston

Subject: Modiciations to Existing Tower at 2117 North Thompson Lane; TCNS# 283216 - Project #

SHPO0005584

Follow Up Flag: Follow up Flag Status: Flagged

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TENNESSEE HISTORICAL COMMISSION STATE HISTORIC PRESERVATION OFFICE 2941 LEBANON PIKE NASHVILLE, TENNESSEE 37243-0442 OFFICE: (615) 532-1550

www.tnhistoricalcommission.org

2024-09-04 10:27:26 CDT

Laura Elston
Trileaf Corporation
I.elston@trileaf.com

RE: Federal Communications Commission (FCC), Modifications to Existing Tower at 2117 North Thompson Lane; TCNS# 283216, Project#: SHPO0005584, Murfreesboro, Rutherford County, TN

Dear Laura Elston:

Pursuant to your request, this office has reviewed documentation concerning the above-referenced undertaking. Our review of and comment on your proposed undertaking are among the requirements of Section 106 of the National Historic Preservation Act. This Act requires federal agencies or applicants for federal assistance to consult with the appropriate State Historic Preservation Office before they carry out their proposed undertakings. The Advisory Council on Historic Preservation has codified procedures for carrying out Section 106 review in 36 CFR 800 (Federal Register, December 12, 2000, 77698-77739).

Based on the information provided, we find that the project area contains a cultural resource eligible for listing in the National Register of Historic Places. We further find that the project as currently proposed will not adversely affect this historic property as the undertaking involves changes to an existing tower and does not increase the height of that tower.

This office has no objection to the implementation of this project as currently planned. If project plans are changed or previously unevaluated archaeological resources are discovered during project construction, please contact this office to determine what further action, if any, will be necessary to comply with Section 106 of the National Historic Preservation Act. Include the Project # if you need to submit any additional information regarding this undertaking. Questions and comments may be directed to Casey Lee, who drafted this response, at Casey.Lee@tn.gov, +16152533163. We appreciate your cooperation.

Sincerely,

E. Patrick McIntyre, Jr. Executive Director and

State Historic Preservation Officer

E. Patrick M. Intyre, Jr

Ref:MSG15292873_xngwdWYGHvqmzf6wYhD

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Site Specific Obstruction Evaluation Report

Date: May 23, 2025

Study Site Name: TN 01807-B Swanson

Study Site Latitude: 35° 52' 55.74"

Study Site Longitude: 086° 25' 26.73"

Surface Elevation: 573' AMSL (Above Mean Sea Level)

Structure Height: 150' AGL (Above Ground Level)

Total Height: 723' AMSL

This study is conducted in accordance with Federal Aviation Regulations (FAR) Part 77 and the Federal Communications Commission (FCC) Rules Part 17.

This report is intended for the exclusive use of SBA Network Services, Inc and their clients in making appropriate regulatory filings and may not be reproduced in any form or manner.

Affect:

The study site is located 13,879' or 2.28 NM West from the approach end of runway 18. The study site is located 13,865' or 2.28 NM West-Northwest from the airport reference point (ARP) of Murfreesboro Municipal Airport, a public use, instrumented airport. The existing structure **would not** affect VFR flight operations at this airport.

Private use airports or heliports do not meet FAR PART 77 criteria, and the FAA would not consider them in its study of the existing structure. In the interest of flight safety SBA considers private use airports in every study. SBA found no evidence of private use airports, which affect this study site.

FAA Notice (FAR PART 77.9 (a)): The existing 150' AGL structure **does not exceed** this 200' AGL surface. FAA notice of proposed construction **is not required.**

FAR PART 77.9 (b) (1) (2) (3): The existing 150' AGL structure **does not exceed** the imaginary 100:1 slope surface or fail the FCC slope surface for the Murfreesboro Municipal Airport. FAA notice of proposed construction **is not required.**

Obstructions Standards of FAR PART 77.19, and FAR 77.17 (Ref: FAR PART 77.19 (a) (1), (2), (3), and FAR PART 77.17): The existing 150' AGL structure does not exceed obstruction standards for the Murfreesboro Municipal Airport.

AM Broadcast Station Affect: SBA found no evidence of AM Broadcast Stations that would affect the study site. FCC regulations require the responsible party to show that a new or significantly modified tower would not negatively affect an AM station (FCC13-115).

Date: 5/23/25

Study Name: TN 01807-B Swanson



Conclusion/Recommendations:

The existing 150' AGL/723' AMSL structure would not be considered an obstruction to air navigation by the FAA. FAA notice of proposed construction **is not required.** If filed, the FAA would no doubt approve such a proposal without an extended study.

Reference the above recommendation:

- FAA notice is not required. Maximum no notice height is 165' AGL/738' AMSL.
- Marking and Lighting is not required. Maximum no notice height is 200' AGL.
- Extended study is not required.
- The existing structure would not be considered a hazard to IFR flight operations.
- The existing structure is not within AM Broadcast Station interference radius. FCC regulations require the responsible party to show that a new or significantly modified tower would not negatively affect an AM station (FCC13-115).
- The existing structure would not affect flight operations at private use airports or heliports.

For questions or concerns contact Clint Papenfuss at (561) 226-9481.

Clinton T. Papenfuss SBA Airspace Analyst

Date: 5/23/25

Study Name: TN 01807-B Swanson



