

CITY OF ABILENE
PLANNING COMMISSION
AGENDA

May 5, 2020 at 4:00 p.m.
Abilene City Hall Meeting Room
419 N Broadway Ave.

Agenda Items
Call to Order.
Approval of the Agenda.
Approval of Minutes from March Meeting
Public Comments and Communications: The Planning and Zoning Director will update the Planning and Zoning Commission on any public comments he has received. Public comments must be sent to the Planning and Zoning Director by noon on Monday May 4th, 2020 at Clinton@abilenecityhall.com
1. Apply for in-text amendment to Zoning code Section 27 regarding Electronic Message Centers 2. Apply for in-text amendment to Zoning code Section 29 regarding membership of Heritage Commission 3. Conditional Use for Cell Tower 4. Critical Drainage Ordinance Review
Comments. <i>The next scheduled meeting is June 2, 2020</i>
Adjournment.



April 16, 2020

PLANNING COMMISSION - MEETING FORMAT

In order to comply with the Kansas Open Meetings Act and practice social distancing, the City of Abilene will use GoToMeeting to host its meetings.

The login information for the meeting should *only* be shared with attendees.

The **public** can view the live recording of the meeting via the City of Abilene's YouTube Channel. Visit www.AbileneCityHall.com/watchlive and then click "YouTube Channel".

PLANNING COMMISSION LOGIN

Members can join via phone or video.

- **Telephone (easiest option)**

If joining via telephone, you will be heard, but not seen on video.

You can also dial in using your phone.

United States: [+1 \(646\) 749-3122](tel:+16467493122)

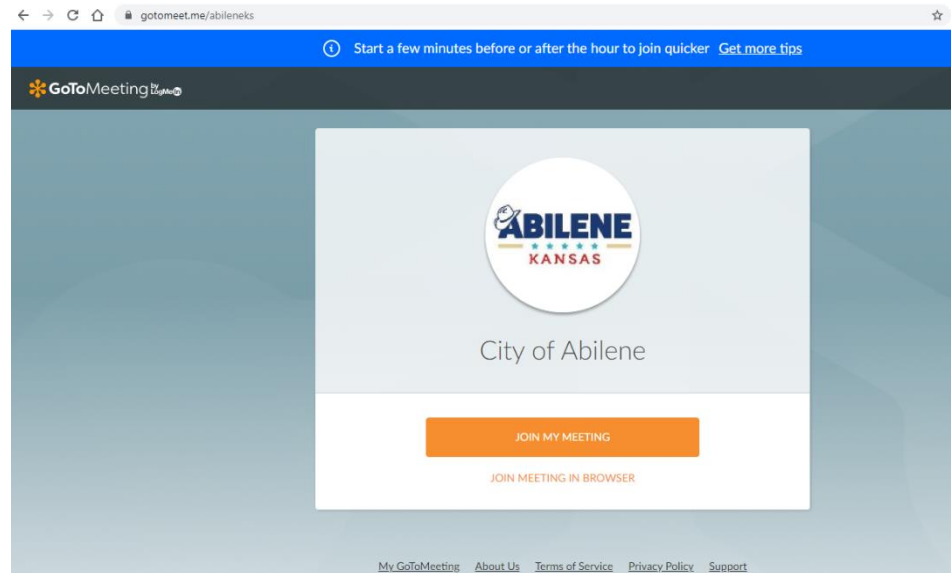
Access Code: 593-767-293

- **Computer**

Once set up for the first time, this is a lot less overwhelming. It has several steps the first time, but it gets easier.

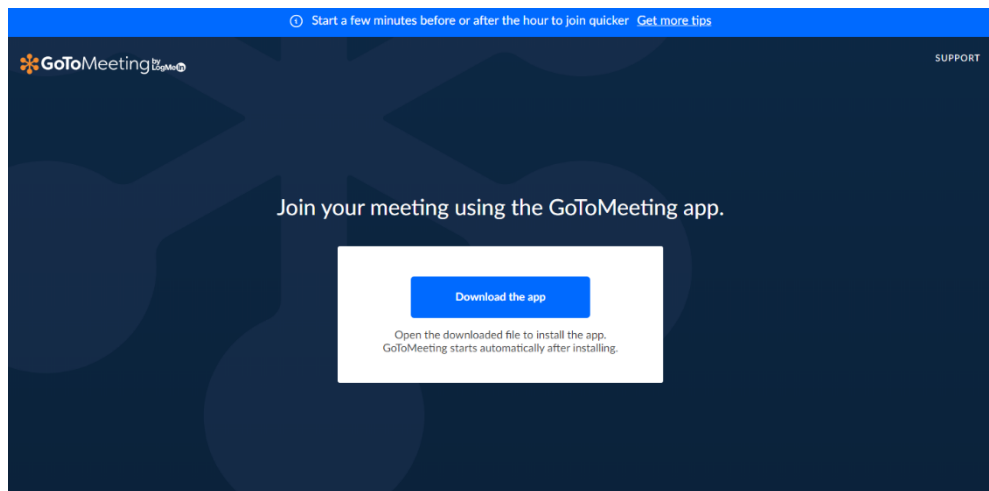
If joining via computer, please make sure you have both a camera and a microphone. If you select this option, you will be seen and heard on the live stream.

1. Go to: <https://www.gotomeet.me/AbileneKS>

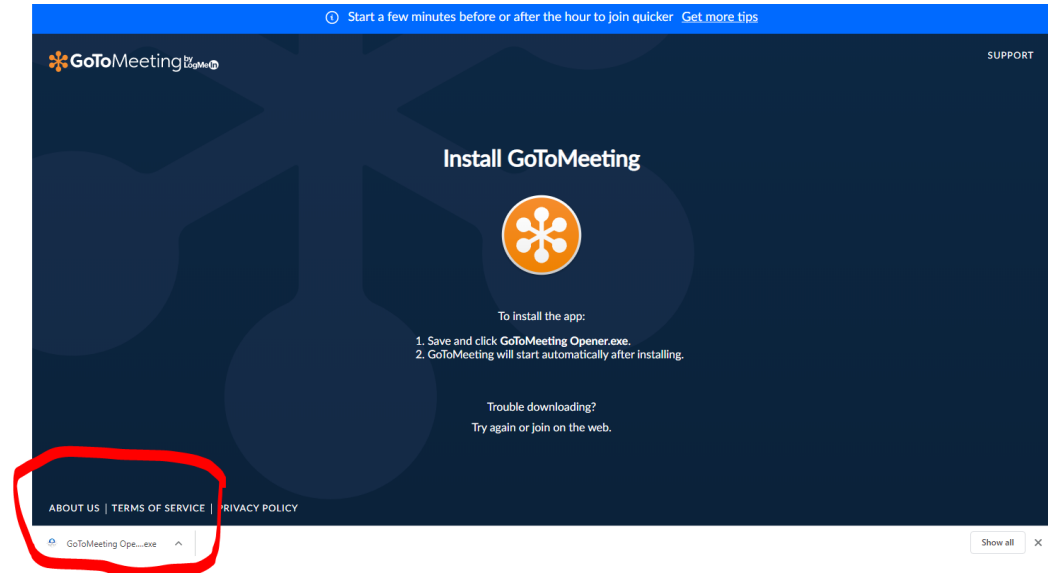


2. Click “Join My Meeting” (orange box)

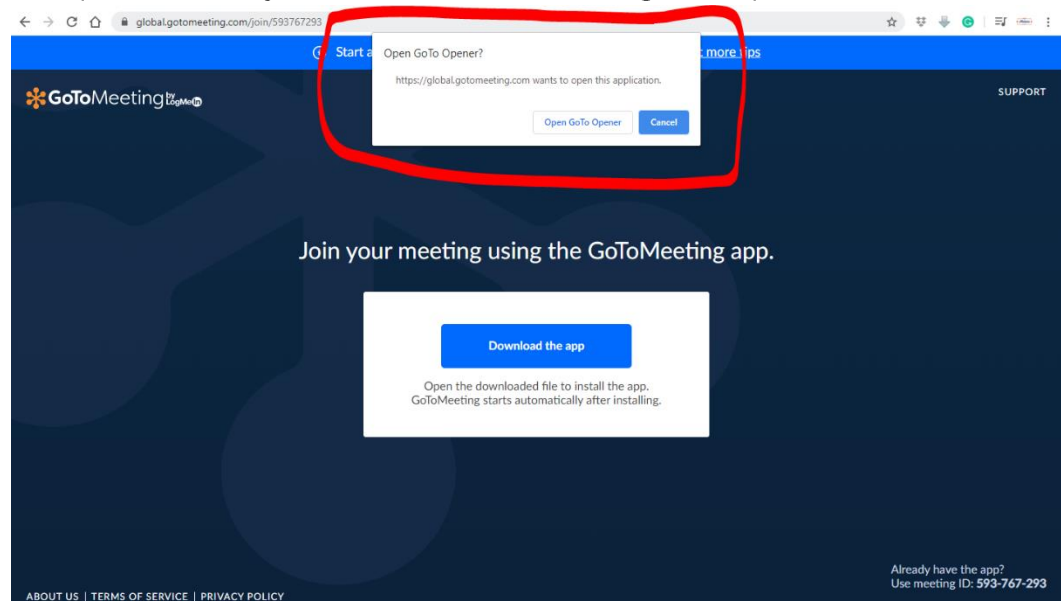
3. Click “Download the app” (blue box)



4. Install GoToMeeting

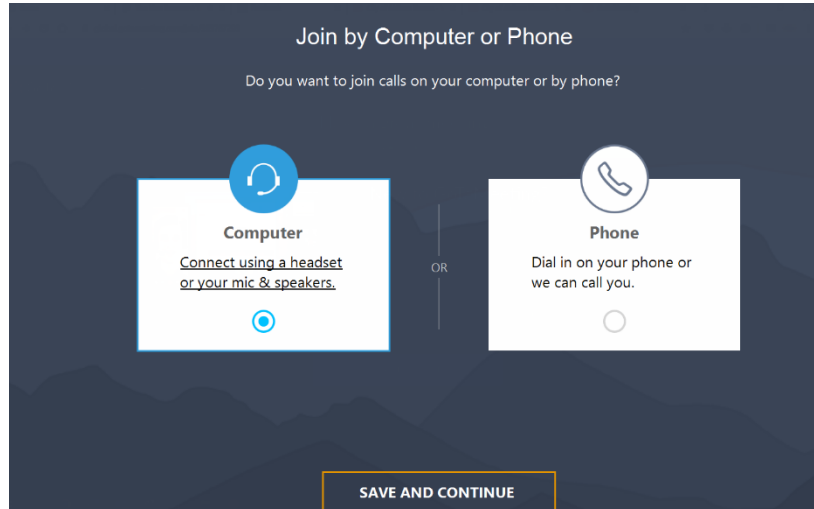


5. Click on the file that downloaded and it will install GoToMeeting on your computer and connect you to the meeting room.
6. (Alternative) If GoTo meeting does not open, repeat the steps. You will then see a popup that says "Open GoTo Opener". Click "Open GoTo Opener" and you will continue through the process.



7. You can now join the meeting. It will ask if you're joining by computer or phone (for sound).

- a. If you're joining by computer, you will need to connect using a headset or your microphone or speakers.



Every computer is different, some have these, others don't. If you don't have a microphone or speakers, that's okay. You can click "phone" and dial into the meeting so you can still hear everyone via phone but see them on your computer.

If you do have a camera and microphone, follow the prompts through the setup.

In order to protect this meeting from online hackers, you will need to enter this password for the meeting (note the capital "P" in "Password").

##meetingPassword

- b. If you don't have speakers or a microphone, you can listen and speak via phone.

Dial In by Phone

Country  United States 

Dial in now

Long distance: **+1 (646) 749-3122**

Access code: **593-767-293 #**

Your audio PIN: **167 #** 

Note: You will have your own audio PIN #

8. Click "Save and Continue"

TEST DRIVE

You can try this all before the actual meeting.

1. New to GoToMeeting? Get the app now and be ready when your first meeting starts: <https://global.gotomeeting.com/install/593767293>
2. It will install GoTo Meeting
3. You will then be prompted to enter the meeting. Use meeting name: AbileneKS and click "join".
4. You will then join the City of Abilene's meeting room.

QUESTIONS?

Please call Julie Roller Weeks – 785-263-2231 (office) or 785-210-7629 (cell) and we can walk through options.



Abilene Planning Commission Minutes
Abilene Public Library - 209 NW Fourth Street
March 3, 2020 @ 4:00 p.m.
Abilene, Kansas

Call to Order The meeting was called to order by Chair Sawyer at 4:00 pm.

Roll Call – Planning Members Present: Robin Black, Brenda Finn-Bowers, and Travis Sawyer

Absent: Rod Boyd, Jennifer Green, Michelle Stephens (2 vacant position)

Staff Present: Clinton Franey

Others Present: Chuck Scott (Dickenson County Economic Development Corp), Duane Scragg

Approval of Agenda

Agenda Approval for the March 3rd Planning Commission meeting

Motion by Planning and Zoning Member Robin Black to approve the agenda, seconded by Planning and Zoning member Finn-Bowers. Motion carried unanimously 2-0.

Approval of Minutes

Approval of minutes for the March 3, 2030 Planning Commission meeting

Planning and Zoning member Black stated that she would prefer an overview of what the discussion was, instead of just stating that there was discussion, not enough information was in the minutes for a refresher.

Motion by Planning and Zoning member Black to table the minutes, seconded by Planning and Zoning member Finn-Bowers. Motion carried unanimously 2-0.

Business

1. Public Hearing for PC 20-3 a text amendment to Section 27-4 of the zoning code to change time on Electronic Messaging Centers to 3 seconds.

Franey read the staff report. Discussion was brought up on animations, and what the definition of an animation is. Commercials were not wanted, only still images. The discussion was made on EMC's and their locations in historical, residential, districts, but all EMC's are a conditional use and are approved individually.

Duane Scragg in public comments had no problem with the three second change but did voice concerns about moving text and numbers.

Finn Bowers moved to table for a staff review. Black seconded the motion and the text amendment was tabled 2-0.

2. Changes to Heritage Commission membership requirements.

Franey Read the staff report, and the board moved to table the discussion to the next meeting. Finn-Bowers moved to table and was seconded by Black. The motion passed 2-0.

3. Free Land Policy

Franey read the staff report and recommendations of the Free land Industrial Policy. Chair Sawyer had concerns about 20 dollars an hour for four employees and voiced concern many companies could not pay that amount. Chuck Scott spoke in public comment that 20 dollars an hour was not out of line, as the land is an asset, and the city is giving it away. He also stated an average wage would not be beneficial and that it would be better to keep it at 20 dollars and hour for four individuals.

It was moved by Finn-Bowers to adopt all changes to the Industrial Free Land Policy. Robin Black seconded the motion and it passed 2-0.

Planning and Zoning member Black stated she wanted her packets printed out and available for her to pick up at city hall the Friday before the meeting.

A study session was recommended by the Planning and Zoning board, but due to Covid-19 had to be canceled.

Adjournment

Motion to adjourn the March 3, 2020 Planning Commission meeting.

Motion by Planning and Zoning member Black, seconded by Planning and Zoning member Finn-Bowers to adjourn the meeting. Motion carried unanimously 2-0. The meeting was adjourned at 5:01 p.m.

Travis Sawyer, Chair
Brenda Bowers, Vice-Chair

Clinton Franey
Director of Planning and Zoning

Memorandum

JANUARY 6, 2020

To: Jane Foltz, Interim City Manager
From: Kara Titus, Asst. to the City Manager
Subj: Electronic Media Centers

Process

In order to amend the EMCs provision in Section 27 of the zoning regulations, the Planning Commission will need to make a motion to apply for an in-text amendment. This will trigger the public hearing notice. At the public hearing, Aaron should have a draft ordinance ready to fill in specifics as determined by the Planning Commission, or if you would like to recommend exact language, it could be in a readied form. If they vote during their February meeting to make the application, then the public notice process would be complete in time for their March meeting. After their recommendation is made, the City Commission will vote to adopt it after the 14-day protest period has expired.

Background

In late 2019, we discovered that all of the Electronic Media Centers (EMCs) are out of compliance with their Conditional Use Permit (CUP) in regard to message transition timing.

Currently, nearly all eight CUPs require the message change to be "no less than 15 seconds". It has been found by staff that the average transition time of all EMCs in town is closer to five seconds. One EMC owner expressed that 15 seconds was too long, and requested it be considered to be changed.

Staff researched where the 15 second rule came from. In that research, staff found that the rules regarding EMC's was changed in 2015. The original rules (they were amended once in 2012 to address historic districts via ordinance 3205) included the 15 second rule. In 2015, Jim Kaup, who consulted the city on zoning regulation updates, recommended that EMC rules be changed from 15 seconds to 3 seconds along with some other updated prescriptive requirements, some of which were in the original ordinance. During public hearings of the new proposed zoning regulations, community members criticized the EMC rules stating they were too burdensome. So, the final Zoning Regulations gave no prescriptive rules or guidance and only required a CUP to be issued by the Planning Commission – giving them discretion to determine on a case by case scenario what the rules should be for each sign that comes before them.

Having no guidance in the code, this language resulted in staff using the old retired rules as their staff recommendation for each CUP application, which was adopted by the Planning Commission and City Commission for each application. That recommendation consistently included:

1. Only one (1) Electronic Media center per property

2. Static, non-animated messages and image only (no video)
3. Message change no less than every 15 seconds
4. Dimming device or means of glare reduction must be installed and implemented after sundown.

Further research into the 15 second condition also determined that there is no public safety caution to a transition time of less than 15 seconds. Communities across Kansas require transition times as fast as 3 seconds or as slow as 20 seconds. The U.S. Department of Transportation, Federal Highway Administration found that there is no identifiable relation between Electronic Media Signs and car crashes in their white page "Research Review of Potential Safety Effects of Electronic Billboards on Driver Attention and Distraction."

Recommendation

Seeing as it was identified by a zoning expert that our EMC rules were outdated, and currently, none of our EMCs are in compliance with the 15 second condition, staff is recommending the Planning Commission amend the zoning regulations to set new rules regarding EMCs to ensure consistency for current and future EMC applications.

The Planning Commission could adopt the original suggested language summarized by Jim Kaup below:

"Flashing and moving signs, including electronic message centers (EMCs) are dealt with in some detail [in the new zoning code]. EMCs are allowed as a conditional use, with size and illumination limits. Dimmer Controls are required and a 3- second minimum message time. Animated images are prohibited. If within 200' of a residential district, or in one, as EMC can be operated only from 6 a.m. to 10 p.m."

Or, the Planning Commission could propose their own rules. Staff do not see a need to make a recommendation on transition time, as it is not a public safety issue, but rather an aesthetic issue. Staff do recommend including in the ordinance that any amendment to the Zoning Regulations apply to all existing CUPs.

This amendment will ensure future EMCs are all given the same standards through the CUP process and allows current EMCs to operate at a quicker transition time. Whether the ordinance only grants a new transition time to the current CUPs or changes all of the conditions placed should be looked out. There are other conditions placed on each sign that may need to be reviewed further for possible amendment.

It is important to note that the 15 second condition is not in code. If an EMC application came before the Planning Commission before this ordinance was passed, the Planning Commission could choose any transition time it wanted. This ordinance sets a standard that will be guaranteed to be placed on every EMC that comes before the Commission. But as staff practice usually copies old staff practice, it could be as simple as staff creating a new practice to work from and passing an ordinance to just updated the current CUPs.



Staff Report

TO: Planning Commission
FROM: Clinton Franey, Director Planning and Zoning
SUBJ: Heritage Commission Membership Requirements
DATE: March 11, 2020

BACKGROUND:

Recently there has been some concern regarding expanding the current criteria for membership on the Heritage Commission board. Below is the current verbiage regarding membership.

29-1402. Membership: The Heritage Commission shall consist of seven (7) members, all of whom must reside within the city limits, to be appointed by the City Commission. The membership of the Commission shall include, but not be limited to, one architect, one member of the real estate profession, one city planning commissioner, one representative of the Dickinson County Historical Society, one trained historian or archaeologist, if available, and other individuals that the City Commission may wish to consider.

COMMENTS:

Departmental comments: There have been none recorded at this time.

Citizen comments: There have been no comments currently.

Heritage Commission Comments: The Heritage Commission has had members in the past express interest in being on the board but have not met the criteria. The commission recommends:

1. Change the requirement to allow membership to persons who own land in the city of Abilene, instead of all of whom reside within the city limits. Preference should be made to applicants who own historical property within the city limits but is not required.
2. Allow up to two members of the council to reside within a three-mile perimeter of the city limits of Abilene to follow the Planning and Zoning Board Language which states two members shall reside outside of the City but within three miles of the City limits (25-101).



STAFF RECOMMENDATION:

Staff recommends adopting provision one of the proposed changes to the Heritage Commission Board. Citizens living outside the City limits but owning property within City limits have a vested interest in the community.

Staff recommends not adopting provision two of proposed changes to the Heritage Commission board. The requirement for the Planning Commission membership outside the city limits is due to annexation, and other land use issues within city limits, affecting property outside city lines. Historic properties should not have any affect on land use outside the City limits, and the Heritage Commission does not regulate historic properties outside of the City limits.

ACTION:

The Planning Commission may:

1. Approve the membership requirements with the findings and conditions as stated by staff;
2. Approve the membership requirements with amendments to the findings and conditions as submitted by staff;
3. Deny the membership requirements with findings; or
4. Table the permit for additional information.

All actions require stated findings by the Planning Commission. Motions may reference the findings and conditions as stated in the staff report.

Staff Report for PC 20-5

Date: May 5, 2020

Agenda Item: PC 20-5

Subject: Request for a Conditional Use Permit to have a cellular tower in a Light Industrial District (I-1) for the property located at 507 N. Cottage Street.

Applicants: TSB Enterprises, David Wells, Wild Horse Development, Branch Communications, US Cellular.

Background

The owners, TSB Enterprises through David Wells, desire to erect a cellular phone tower. The property is zoned I-1. A Conditional Use Permit is required for all cellular and communication towers. This area is I-1 and is Light Industrial on the Future Land Use Map Zoning and Land Use.

Zoning and Land Use of Neighboring Properties

Direction	Zoning	Land Use
North	I-1	Light Industrial (Railroad)
South	I-1	Light Industrial (Kiddco Storage)
East	I-1	Light Industrial (Crown Tl Inc.)
West	I-1	Light Industrial (TSB Enterprises)

Comments:

Departmental Comments: There have been none recorded.

Citizen Comments: There have been no comments.

Staff Findings

A Cellular tower can be permitted in Light Industrial (I-1) if it meets all of the following criteria listed in Article 24 in the Abilene City Code. The requirements are listed as:

1. Whether approval of the conditional use would be consistent with the intent and purpose of, and meets the requirements of, these regulations;
2. The aesthetic impact of the proposed telecommunications tower on the surrounding neighborhood;

3. Whether the relative gain to the public health, safety and general welfare outweighs the hardship imposed upon the applicant by not granting the permit;
4. Whether the positions of the applicant and/or the opponents are substantiated by substantial competent evidence or rather generalized concerns or unsubstantiated claims are made to the Planning Commission and/or Governing Body;
5. Whether an F.C.C. license has been granted to the applicant authorizing provision of wireless services to the community and whether radio frequency emissions will comply with F.C.C. regulations;
6. Whether there is an existing tower upon which the applicant can co-locate and if so, what substantiated efforts have been made by applicant for co-location and upon what basis were any such towers deemed unacceptable by the applicant;
7. Whether the tower will adversely impact adjoining property values, present a hazard to air space, negatively impact the environment, traffic or in any other manner create negative impacts upon the neighborhood or community;
8. The recommendation of professional planning staff;
9. The expert testimony presented on behalf of and in opposition to the application; and
10. Such other factors as may be relevant to the facts and evidence presented in the application

The cellular tower use will not negatively impact the surrounding neighborhood nor the community's future master plan. There is no other cellular tower in the vicinity so provider cannot co-locate. There is residential R-3 housing in a greater area surrounding the proposed block where the tower will be built. The tower will be 105 feet tall.

Staff Recommendation

Staff recommends approval of the conditional use of this cell tower with the following conditions:

- a) All criteria for the conditional use permit must be met.
- b) All building codes be met.

Alternatives

The Planning Commission may:

1. Approve the CUP with the findings and conditions as stated by staff;
2. Approve the CUP with amendments to the findings and conditions as submitted by staff;
3. Deny the CUP with findings; or
4. Table the permit for additional information.

All actions require stated findings by the Planning Commission. Motions may reference the findings and conditions as stated in the staff report.

CITY OF ABILENE, KANSAS
DEVELOPMENT APPROVAL APPLICATION FORM

419 N. Broadway · Abilene, Kansas 67410 · Tel: (785) 263-2355 · Fax: (785) 263-2552 · www.abilenecityhall.com

INSTRUCTIONS: This Application and all required fees and information must be submitted in accordance with the Code of the City of Abilene and the City of Abilene Zoning and Subdivision Regulations. All information requested in this application must be provided and answered completely.

PART I: TO BE COMPLETED BY APPLICANT

APPLICATION INFORMATION

APPLICATION FOR (CHECK APPROPRIATE BOX):

- | | |
|--|--|
| ☐ ADMINISTRATIVE APPEAL | ☐ LOT SPLIT |
| ☐ ANNEXATION | ☐ NON-CONFORMING USE CERTIFICATE |
| ☐ CERTIFICATE OF APPROPRIATENESS | ☐ PRELIMINARY PLAT |
| ☐ COMPREHENSIVE PLAN AMENDMENT | ☐ PLANNED DEVELOPMENT |
| ☒ CONDITIONAL USE PERMIT | ☐ REPLAT |
| ☐ DEVELOPMENT CODE AMENDMENT | ☐ REZONING / ZONING MAP AMENDMENT |
| ☐ FINAL PLAT | ☐ SITE PLAN |
| ☐ HOME OCCUPATION PERMIT | ☐ VACATION (PLAT, STREET, EASEMENT) |
| ☐ LANDMARK DESIGNATION | ☐ VARIANCE |
| ☐ LOT SPLIT | |

FOR OFFICIAL USE ONLY

Appn Number: _____

Date Received: _____

Received By: _____

BRIEF DESCRIPTION OF APPLICATION PURPOSE:

US Cellulose proposes approval of a 105' monopole communications tower and accessory ground mounted equipment at 505 Cottage Ave in Abilene

APPLICANT INFORMATION

APPLICANT/AGENT (If Not Property Owner):

Name: David Wells on behalf of US Cellulose Tel: (508) 952-2040
Business Name: US Cellulose Fax: (918) 513-7774
Address: 8410 Bryn Mawr Ave, Chicago
City: Chicago State: IL Zip Code: 60631
E-mail: david@whgroupinc.com

PROPERTY OWNER (If Different from Applicant/Agent):

Name: TSB Enterprises, LLC Tel: (800) 240-9392
Business Name: Thunderstruck Bumpers Fax: ()
Address: 401 Cottage Ave
City: Abilene State: KS Zip Code: 67410
E-mail: thunderstruckinc@yahoo.com

ENGINEER/ARCHITECT/SURVEYOR:

Name: Branch Communications, LLC / James McCoy Tel: (918) 261-1875
Business Name: same Fax: ()
Address: 7355 S Lewis Ave
City: Tulsa State: OK Zip Code: 74136
E-mail: james.mccoy@branchcomm.net

PROPERTY INFORMATION

PROPERTY ADDRESS OR GENERAL LOCATION (IN RELATION TO NEAREST STREETS):

505 Cottage Ave, Abilene, KS 67410

PROPERTY TAX IDENTIFICATION

NUMBER: 0211651604028005000 / 0211151604028003000

ZONING: Existing: 1-2 Proposed: No change

LAND USE: Existing: Manufacturing Plant Proposed: Plant with cell tower

GROSS SIZE OF PLAT/LOT:

Residential: _____ Commercial: _____ Industrial: 261,500 sq ft Other: _____ Total: _____

NUMBER OF LOTS:

Residential: _____ Commercial: _____ Industrial: 3 Other: _____ Total: _____

IMPROVEMENT CHARACTERISTICS:

Number of Buildings or Structures: 1 Total Building Area: 224 sq ft

Maximum Height of Buildings or Structures: 105' Total Impervious Area: _____

EXISTING PUBLIC FACILITIES:

	Public	Private	Other (Describe)
Water Service:	☒	☐	☐
Wastewater Service:	☒	☐	☐
Roadway Access:	☒	☐	☐

FLOODPLAIN INFORMATION:

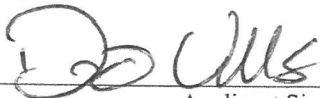
Floodway: ☐ Yes ☒ No FIRM Map-Panel Number: 200074
Floodway Fringe: ☐ Yes ☒ No Zone: _____

ARE ANY OTHER PERMITS OR DEVELOPMENT APPROVALS REQUIRED, APPLIED FOR OR RECEIVED FOR THE APPLICATION PROPERTY BY THE CITY OR ANY OTHER JURISDICTION OR AGENCY?

☐ Yes ☒ No If Yes, Describe Briefly and Attach a Copy of Each Permit, Approval or Application

APPLICANT/PROPERTY OWNER CERTIFICATION*

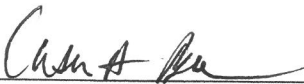
I/we acknowledge receipt of the instruction sheet explaining the method of submitting this application. I/we realize that this application cannot be processed unless it is completely filled in; is accompanied by a current abstractor's certificate as required in the instruction sheet; and is accompanied by the appropriate fee. I/we further certify that the foregoing information is true and correct to the best of our knowledge. I/we acknowledge that the City of Abilene Planning Commission, Board of Zoning Appeals or City Commission shall have authority to impose such conditions as it deems necessary in order to serve the public interest and welfare.



Applicant Signature

3-24-20

Date



Property Owner Signature

4/1/20

Date

* This Application must bear the signature(s) of the property owner(s). If an authorized agent signs on the owner's behalf, the agent shall sign his own name and attach the owner's written notarized authorization to this Application.

PART II - TO BE COMPLETED BY STAFF

DOCUMENTS TO BE SUBMITTED WITH APPLICATION**

- | | | |
|--|---|---|
| ☐ Copy of Deed | ☐ Easements and Covenants | ☐ Location Map |
| ☐ Site Plan | ☐ Preliminary Plat | ☐ Final Plat |
| ☐ Infrastructure Plans | ☐ Development Agreement | ☐ Grading and Stormwater Plans |
| ☐ Elevation Survey | ☐ Traffic Impact Study | ☐ Construction Plans |
| ☐ Performance Agreement | ☐ Proof of Notification | ☐ Utility Plans |
| ☐ Text Amendment Language | ☐ Property Owner List | ☐ Comprehensive Plan Amendment Justification |
| ☐ Annexation Boundary Map | ☐ Operating Characteristics Report | ☐ Administrative Appeal Justification |
| ☐ Variance Justification | ☐ Other _____ | |

Additional document requirements provided to applicant on _____. The applicant is advised that the application is not accepted for public review until such time as the above identified documents are submitted and a Determination of Complete Application is certified.

Name

Title

Signature

Date

**** Number of copies for submission determined by Zoning Administrator. The Zoning Administrator may request additional information as deemed necessary to properly evaluate the permit application.**

APPLICATION REVIEW

DECISION-MAKING BODY: ☐ Staff ☐ Planning Commission ☐ Board of Zoning Appeals ☐ City Commission
☐ Heritage Commission ☐ Other (specify): _____

DATE OF INITIAL HEARING(S): _____

FEE AMOUNT: \$ _____ **DATE FEE PAID:** _____

DETERMINATION OF COMPLETE APPLICATION:

I certify that the Development Approval Application and attached documents are sufficient in form and content for review and recommendation by the decision-making bodies of the City of Abilene. As such, all required notifications and hearings may proceed pursuant to City regulations and procedures. This certification does not preclude the review, recommendation and/or decision-making bodies from requesting additional information as deemed necessary to serve the public interest.

Name

Title

Signature

Date

March 11, 2020

Theresa Minogue
US Cellular Corp
2900 E. 16th Ave, Apt. 342
Denver, CO 80206

RE: Proposed 105' Sabre Monopole at Abilene DT, KS

Dear Ms. Minogue,

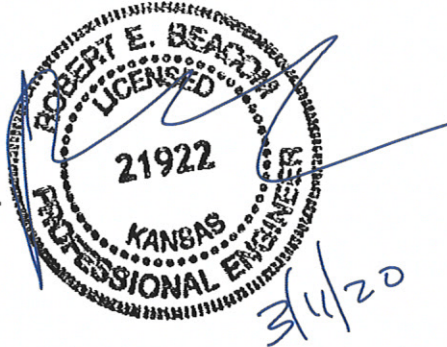
Upon receipt of order, we propose to design and supply the above referenced Sabre monopole for a Basic Wind Speed of 110 mph with no ice and 40 mph with 1.5" ice, Structure Class II, Exposure Category C, and Topographic Category 1, in accordance with the Telecommunications Industry Association Standard ANSI/TIA-222-G, "Structural Standard for Antenna Supporting Structures and Antennas".

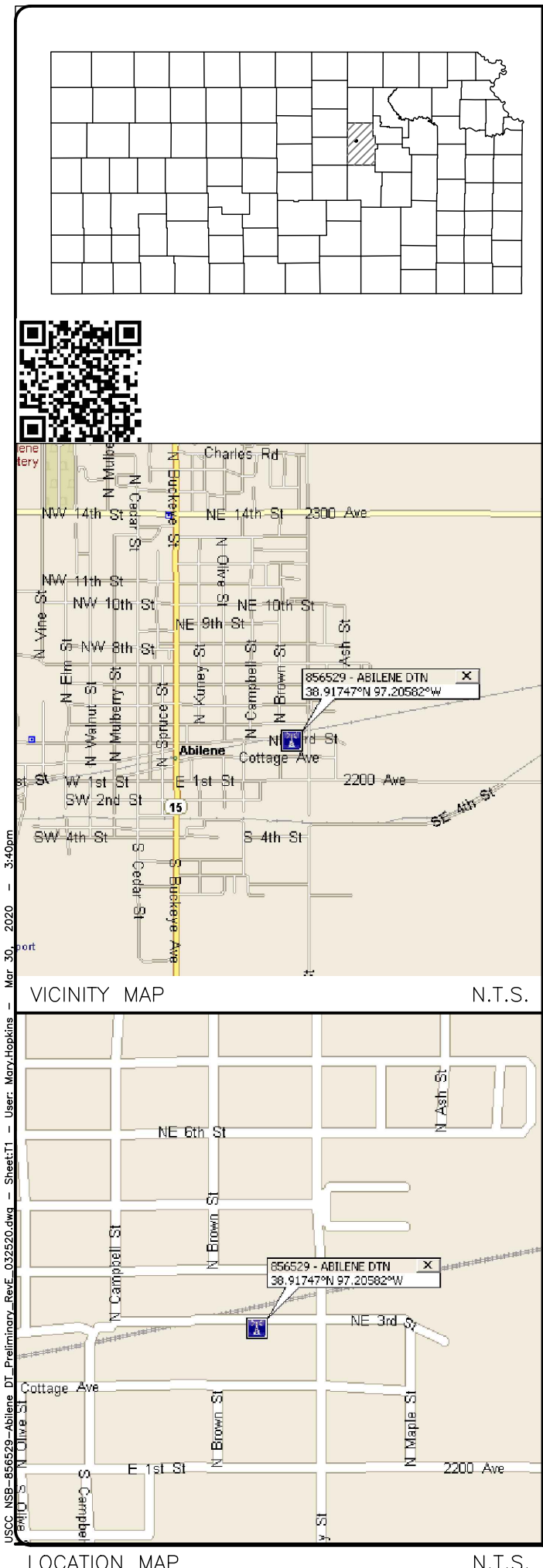
When designed according to this standard, the wind pressures and steel strength capacities include several safety factors, resulting in an overall minimum safety factor of 25%. Therefore, it is highly unlikely that the monopole will fail structurally in a wind event where the design wind speed is exceeded within the range of the built-in safety factors.

Should the wind speed increase beyond the capacity of the built-in safety factors, to the point of failure of one or more structural elements, the most likely location of the failure would be within the monopole shaft, above the base plate. Assuming that the wind pressure profile is similar to that used to design the monopole, the monopole will buckle at the location of the highest combined stress ratio within the monopole shaft. This is likely to result in the portion of the monopole above leaning over and remaining in a permanently deformed condition. *Please note that this letter only applies to the above referenced monopole designed and manufactured by Sabre Towers & Poles.* This would effectively result in a "zero fall radius" at ground level.

Sincerely,

Robert E. Beacom, P.E., S.E.
Engineering Supervisor





U.S. Cellular.

ABILENE DTN (856529)

ABILENE, KS

NSB - CONSTRUCTION DRAWINGS

PROPOSED 105'-0" MONOPOLE

SITE INFORMATION	SCOPE OF WORK	DRAWING INDEX																																																																		
SITE TYPE: MONOPOLE SITE NAME: ABILENE DTN SITE NUMBER: 856529 SITE ADDRESS: TBA ABILENE, KS 67410 COUNTY: DICKERSON COUNTY JURISDICTION: CITY OF ABILENE OCCUPANCY TYPE: UNMANNED A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. APPLICANT: U.S. CELLULAR – BROOKFIELD 3545 N. 124TH STREET BROOKFIELD, WI 53005 RANDY MATTON 262.993.3178 PROPERTY OWNER: TSB ENTERPRISES, LLC 800–240–9392 SITE COORDINATES (NAD 83): LATITUDE: N. 38.91753° LONGITUDE: W. –97.20582° GROUND ELEVATION: 1147’ (AMSL) TOWER OWNER: U.S. CELLULAR – BROOKFIELD 3545 N. 124TH STREET BROOKFIELD, WI. 53005 262.993.3178 SITE NAME: ABILENE DTN SITE NUMBER: 856529 DESIGNER: BRANCH COMMUNICATIONS, LLC 7335 SOUTH LEWIS AVE. STE. 300 TULSA, OK. 74136 CONTACT: JAMES W MCCOY PHONE: (918) 261–1875 ARCHITECT/ENGINEER: MICHAEL T. DE BOER 11884 WINDMILL LAKES DRIVE BOYNTON BEACH, FL 33473 CONTACT: MICHAEL T. DE BOER PHONE: (605) 422–1548 TELEPHONE COMPANY: KS FIBERNET 913–213–2933 POWER COMPANY: WESTAR 800–383–1183	<u>TOWER SCOPE:</u> (3) DENGYO OCT8–2LX2HX–BW65 ANTENNAS (1) 1 1/4” HYBRID LINE (1) RAYCAP RUSDC–6267–RF–48 MOUNTED ON TOWER (3) NOKIA AHL0A RRHS (TM–4T4R) (2) LMR–400 COAX LINES (3) GROUND BARS (TOWER TOP, TOWER MIDDLE, AND BASE OF TOWER) (3) RET CABLES (6) FIBER JUMPERS FROM RAYCAP TO RRHs (3) POWER JUMPERS FROM RAYCAP TO RRHs (12) PROPOSED 1/2” JUMPERS FROM RRHs TO ANTENNA <u>GROUND EQUIPMENT SCOPE:</u> (1) OUTDOOR RADIO CABINET – CHARLES CUBE–PM63912UN4 (1) OUTDOOR BATTERY CABINET – CHARLES CUBE–BB48E2XVA (1) ICE BRIDGE (1) RAYCAP RUSDC–6267–PF–48 (MOUNTED ON H–FRAME) (1) JUNCTION BOX (1) GROUND BAR ON EQUIPMENT H–FRAME (1) CAC EQUIPMENT CABINET (1) MULTI–GANG METER SERVICE RACK WITH TELCO BOX (COORDINATE WITH LOCAL UTILITY COMPANY) (4) 6’ UNISTRUTS FOR H–FRAME AND U–BOLTS FOR MOUNTING <u>MICROWAVE EQUIPMENT:</u> (1) 4’ RFS UXA4–107 MICROWAVE DISH (2) OUTDOOR UNIT (2) CNT–400 CABLE	<table><thead><tr><th>NO</th><th>DESCRIPTION</th></tr></thead><tbody><tr><td>T1</td><td>TITLE SHEET</td></tr><tr><td></td><td>SURVEY</td></tr><tr><td>GN1</td><td>GENERAL NOTES</td></tr><tr><td>GN2</td><td>GENERAL NOTES</td></tr><tr><td>GN3</td><td>GENERAL NOTES</td></tr><tr><td>C1</td><td>OVERALL SITE PLAN</td></tr><tr><td>C2</td><td>ENLARGED SITE PLAN</td></tr><tr><td>C3</td><td>EQUIPMENT LAYOUT</td></tr><tr><td>C4</td><td>TOWER ELEVATION</td></tr><tr><td>C5</td><td>CABINET DETAILS</td></tr><tr><td>C6</td><td>FOUNDATION DETAILS</td></tr><tr><td>C7</td><td>ICE BRIDGE DETAILS</td></tr><tr><td>C8</td><td>EQUIPMENT AND ANTENNA DETAILS</td></tr><tr><td>C9</td><td>ANTENNA SPECIFICATIONS</td></tr><tr><td>C10</td><td>FENCE DETAILS</td></tr><tr><td>C11</td><td>DRIVEWAY DETAILS</td></tr><tr><td>C12</td><td>LTE PLUMBING DIAGRAM</td></tr><tr><td>C13</td><td>CABLE DETAILS</td></tr><tr><td>C14</td><td>CABLE BANDING DETAILS</td></tr><tr><td>C15</td><td>CABLE BANDING DETAILS</td></tr><tr><td>C16</td><td>SIGNAGE</td></tr><tr><td>C17</td><td>CIVIL DETAILS</td></tr><tr><td>MW1</td><td>MICROWAVE DISH SPECIFICATIONS</td></tr><tr><td>MW2</td><td>MICROWAVE DISH LAYOUT</td></tr><tr><td>MW3</td><td>MICROWAVE DISH INSTALLATION DETAILS</td></tr><tr><td>E1</td><td>UTILITY ROUTING PLAN</td></tr><tr><td>E2</td><td>ELECTRICAL DETAILS</td></tr><tr><td>E3</td><td>UTILITY RACK DETAILS</td></tr><tr><td>G1</td><td>COMPOUND GROUNDING PLAN</td></tr><tr><td>G2</td><td>GROUNDING DETAILS</td></tr><tr><td>G3</td><td>GROUNDING DETAILS</td></tr><tr><td>G4</td><td>GROUNDING DETAILS</td></tr></tbody></table>	NO	DESCRIPTION	T1	TITLE SHEET		SURVEY	GN1	GENERAL NOTES	GN2	GENERAL NOTES	GN3	GENERAL NOTES	C1	OVERALL SITE PLAN	C2	ENLARGED SITE PLAN	C3	EQUIPMENT LAYOUT	C4	TOWER ELEVATION	C5	CABINET DETAILS	C6	FOUNDATION DETAILS	C7	ICE BRIDGE DETAILS	C8	EQUIPMENT AND ANTENNA DETAILS	C9	ANTENNA SPECIFICATIONS	C10	FENCE DETAILS	C11	DRIVEWAY DETAILS	C12	LTE PLUMBING DIAGRAM	C13	CABLE DETAILS	C14	CABLE BANDING DETAILS	C15	CABLE BANDING DETAILS	C16	SIGNAGE	C17	CIVIL DETAILS	MW1	MICROWAVE DISH SPECIFICATIONS	MW2	MICROWAVE DISH LAYOUT	MW3	MICROWAVE DISH INSTALLATION DETAILS	E1	UTILITY ROUTING PLAN	E2	ELECTRICAL DETAILS	E3	UTILITY RACK DETAILS	G1	COMPOUND GROUNDING PLAN	G2	GROUNDING DETAILS	G3	GROUNDING DETAILS	G4	GROUNDING DETAILS
NO	DESCRIPTION																																																																			
T1	TITLE SHEET																																																																			
	SURVEY																																																																			
GN1	GENERAL NOTES																																																																			
GN2	GENERAL NOTES																																																																			
GN3	GENERAL NOTES																																																																			
C1	OVERALL SITE PLAN																																																																			
C2	ENLARGED SITE PLAN																																																																			
C3	EQUIPMENT LAYOUT																																																																			
C4	TOWER ELEVATION																																																																			
C5	CABINET DETAILS																																																																			
C6	FOUNDATION DETAILS																																																																			
C7	ICE BRIDGE DETAILS																																																																			
C8	EQUIPMENT AND ANTENNA DETAILS																																																																			
C9	ANTENNA SPECIFICATIONS																																																																			
C10	FENCE DETAILS																																																																			
C11	DRIVEWAY DETAILS																																																																			
C12	LTE PLUMBING DIAGRAM																																																																			
C13	CABLE DETAILS																																																																			
C14	CABLE BANDING DETAILS																																																																			
C15	CABLE BANDING DETAILS																																																																			
C16	SIGNAGE																																																																			
C17	CIVIL DETAILS																																																																			
MW1	MICROWAVE DISH SPECIFICATIONS																																																																			
MW2	MICROWAVE DISH LAYOUT																																																																			
MW3	MICROWAVE DISH INSTALLATION DETAILS																																																																			
E1	UTILITY ROUTING PLAN																																																																			
E2	ELECTRICAL DETAILS																																																																			
E3	UTILITY RACK DETAILS																																																																			
G1	COMPOUND GROUNDING PLAN																																																																			
G2	GROUNDING DETAILS																																																																			
G3	GROUNDING DETAILS																																																																			
G4	GROUNDING DETAILS																																																																			
DO NOT SCALE DRAWINGS CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.																																																																				
CODE COMPLIANCE ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.																																																																				
ON SITE NUMBER CALL KANSAS ONE CALL 811 (800) 344-7233 CALL 3 WORKING DAYS BEFORE YOU DIG!																																																																				

VENDOR:

3545 N. 124TH STREET
BROOKFIELD, WI 53005

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949–4551

PRODUCED BY:

DE BOER

MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605–422–1548

SITE NAME:

ABILENE DTN

SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

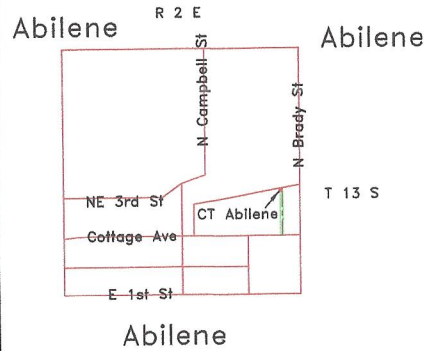
ENGINEER:

NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

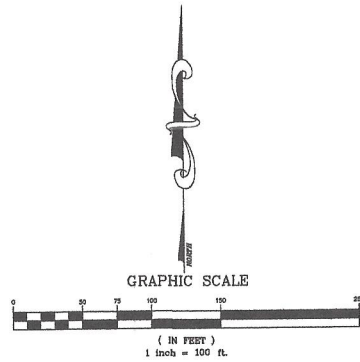
SHEET TITLE:

TITLE SHEET

SHEET NUMBER:	PROJECT #:	REVISION:
T1	856529	0
BY:	CKD BY:	
MAH	JWM	



LOCATION MAP: SCALE 1"=1000feet



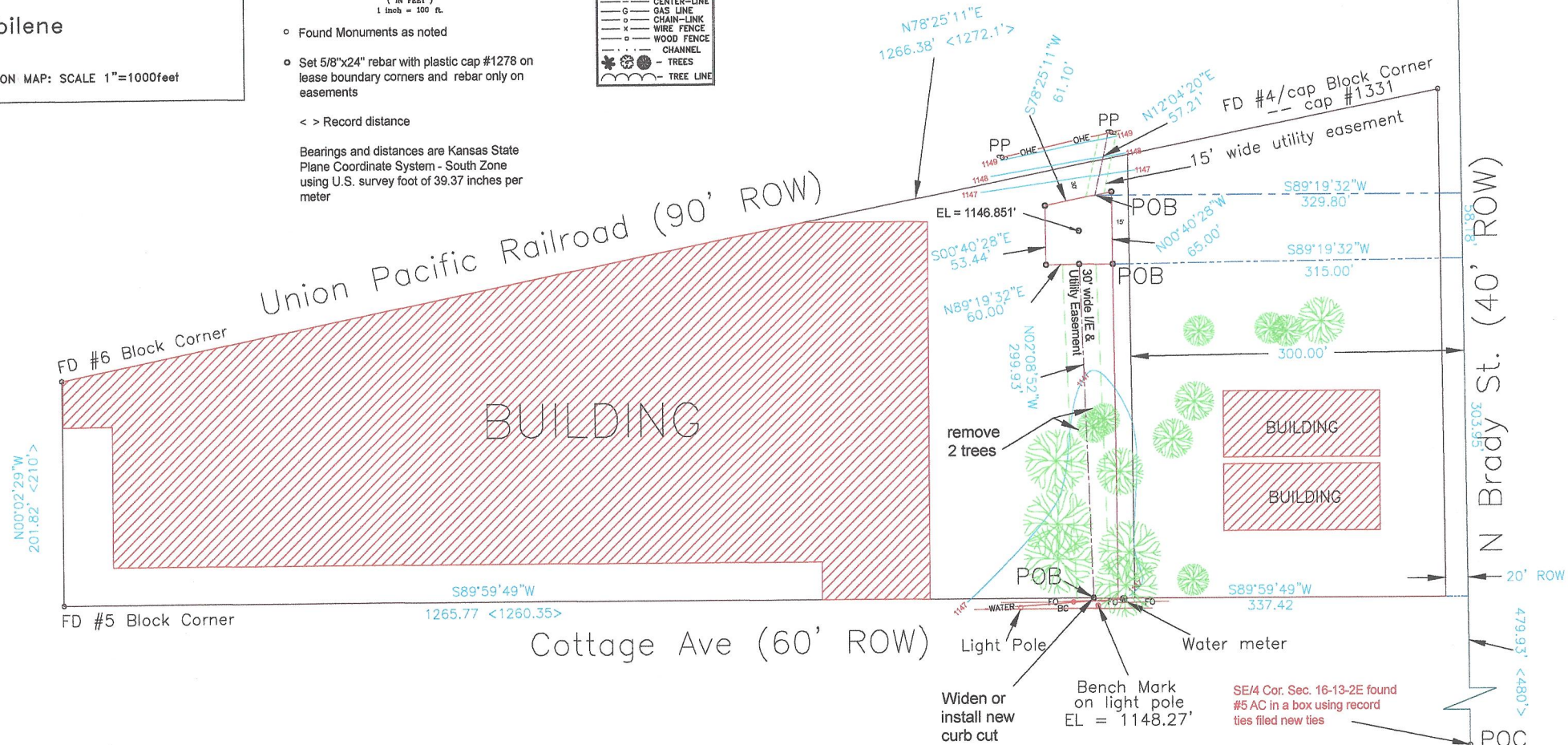
- Found Monuments as noted
- Set 5/8"x24" rebar with plastic cap #1278 on lease boundary corners and rebar only on easements
- < > Record distance

Bearings and distances are Kansas State Plane Coordinate System - South Zone using U.S. survey foot of 39.37 inches per meter

LEGEND	
○	IRON PIN
○	UTILITY POLE
○	FIRE HYD
○	WATER VALVE
○	GAS VALVE
○	WATER MTR
○	SS MANHOLE
—	ELEC. LINE
—	SEC. LINE
—	TUG
—	TEL. CABLE
—	CENTER-LINE
—	GAS LINE
—	CHAIN-LINK
—	WIRE FENCE
—	CHANNEL
—	TREES
—	TREE LINE

SITE PLAN
US CELLULAR WEST REGION
190' MONO POLE TOWER, SITE: 856529 ABILENE DTN
A PART OF SE/4 SECTION 16, TOWNSHIP 13 SOUTH,
RANGE 2 EAST, DICKINSON COUNTY, KANSAS.

E/4 Cor. Sec. 16-13-2E found
"4" in conc using record ties
filed new ties



SITE: 856529 ABILENE DTN

UTILITY STATEMENT:
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM KANSAS ONE CALL MARKINGS, FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

I HAVE REVIEWED THE SURVEYED PLAT AND CERTIFY THE PLAT TO BE IN COMPLIANCE WITH KANSAS SURVEY REQUIREMENTS.

Surveyor

Date

NOTE:

105' MONO POLE TOWER

NOTE:

CONSTRUCT 6' CHAINLINK FENCE UNDER 3 STRANDS OF BARBED WIRE AROUND SITE.

NOTE:

CONSTRUCT 12' WIDE GRAVEL DRIVE FROM NORTH EDGE OF COTTAGE AVE TO TOWER SITE

NAD 83 KANSAS NORTH
N:213738.78'
E:1538297.49'
LAT: 38°55'02.903"
LONG: 97°12'20.956"
GROUND ELEV: 1146.85'
NAVD 88

FOR: **US CELLULAR WEST REGION**
BY: **GILSON ENTERPRISES-SURVEYORS**
201 West 5th Avenue
Hutchinson, Kansas 67501
JOB LOCATION: SE/4 SECTION 16, T13S, R2E
DICKINSON COUNTY, KANSAS
BOOK NO. **SUR00218** DATE: **3/7/2019** Sheet **1 of 2**

USCC NSB-856529-Abilene DT Preliminary Rev_E_032520.dwg -- Sheet:GN1 -- User: Mary.Hopkins -- Mar 30, 2020 -- 3:40pm

GENERAL REQUIREMENTS:

1.

SITE WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. US CELLULAR STANDARD PLANS AND SPECIFICATIONS) AND THE REFERENCED STANDARDS.
- A.

ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS.
- B.

UNIFORM BUILDING CODE (UBC) BUILDING OFFICIALS AND CODE ADMINISTRATORS (BOCA) AS APPLICABLE.
- C.

AMERICAN CONCRETE INSTITUTE (ACI).
- D.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
- E.

ELECTRONICS INDUSTRIES ASSOCIATION STANDARDS (EIA/TIA-222-F) OR MOST CURRENT VERSION ADOPTED BY STATE.
- F.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
2.

WHERE CONFLICT OCCURS BETWEEN REFERENCED STANDARDS AND US CELLULAR STANDARD PLANS, THE MORE STRINGENT STANDARD SHALL APPLY.
3.

THE FACILITY IS AN UNOCCUPIED SPECIALIZED MOBILE RADIO FACILITY.
4.

PLANS ARE NOT TO BE SCALED AND ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY. UNLESS NOTED OTHERWISE THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
5.

PRIOR TO THE SUBMISSIONS OF THE BIDS, THE CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH THE FIELD CONDITIONS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER’S REPRESENTATIVE.
6.

THE CONTRACTOR SHALL RECEIVE IN WRITING, AUTHORIZATION TO PROCEED, BEFORE STARTING WORK ON ANY ITEM NOT CLEARLY IDENTIFIED BY THE CONTRACT DOCUMENTS.
7.

THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS UNLESS SPECIFICALLY NOTED OTHERWISE.
8.

THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST SKILLED PERSONNEL. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE LANDLORD’S AUTHORIZED REPRESENTATIVE.
9.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE SITE AND NOTIFY THE OWNER’S REPRESENTATIVE OF ANY DISCREPANCIES BEFORE STARTING ANY WORK.
10.

WHEN CONTRACTOR’S ACTIVITIES IMPEDE OR OBSTRUCT TRAFFIC FLOW, CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL DEVICES SIGNS, AND FLAGMEN IN ACCORDANCE WITH PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
11.

THE CONTRACTOR SHALL COORDINATE SITE ACCESS AND SECURITY WITH THE PROPERTY OWNER AND US CELLULAR PRIOR TO CONSTRUCTION.
12.

THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS SUCH AS BUT NOT LIMITED TO: PAVING, CURBS, AGRICULTURAL CROPS, DRAIN TILE, FENCES, LANDSCAPING, GALVANIZED SURFACES, ETC. AND UPON COMPLETION OF WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION.
13.

THE LOCATIONS OF UTILITIES SHOWN ON THE PLAN ARE BASED ON EXISTING RECORDS, FIELD LOCATIONS OR OWNER SUPPLIED INFORMATION AND MAY NOT BE ACCURATE. THE CONTRACTOR SHALL MARK ALL PUBLIC AND PRIVATE UTILITIES. THE CONTRACTOR SHALL CALL THE LOCAL "ONE CALL" PROVIDER A MINIMUM OF THREE BUSINESS DAYS PRIOR TO EXCAVATING TO ALLOW MEMBER UTILITIES TO LOCATE THEIR FACILITIES. THE PROPERTY OWNER SHALL BE NOTIFIED IN A SIMILAR FASHION TO ALLOW HIM TO LOCATE HIS PRIVATE UTILITIES.
14.

WHEN EXCAVATING AROUND UTILITIES, THE CONTRACTOR SHALL USE REASONABLE CARE IN LOCATING AND PROTECTING UTILITIES. US CELLULAR SHALL BE NOTIFIED IMMEDIATELY OF ANY CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED CONSTRUCTION.
15.

DAMAGE TO PUBLIC OR PRIVATE UTILITIES SHALL BE REPORTED TO US CELLULAR AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE RESULTING FROM CONTRACTOR’S NEGLIGENCE OR FAILURE TO ACT WITH DUE REGARD SHALL BE REPAIRED AT CONTRACTOR’S EXPENSE.
16.

UNLESS OTHERWISE NOTED ON THE PLANS, CONTRACTOR SHALL ASSUME ALL SURFACE FEATURES SUCH AS BUILDINGS, PAVEMENTS, LANDSCAPING FEATURES AND PLANTS ARE TO BE SAVED AND PROTECTED FROM DAMAGE.
17.

KEEP THE CONSTRUCTION SITE CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
18.

THE CONTRACTOR SHALL PROVIDE ON-SITE TRASH RECEPTACLES FOR COLLECTION OF NON-TOXIC DEBRIS. ALL TRASH SHALL BE COLLECTED ON A DAILY BASIS.

19.

ALL TOXIC AND ENVIRONMENTALLY HAZARDOUS SUBSTANCES SHALL BE USED AND DISPOSED OF IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS. UNDER NO CIRCUMSTANCES SHALL RINSING OR DUMPING OF THESE SUBSTANCES OCCUR ON-SITE. THE CONTRACTOR SHALL MAINTAIN AND SUPPLY US CELLULAR WITH AS-BUILT PLANS UPON COMPLETION OF THE PROJECT.
20.

MEANS AND METHODS OF CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, THE DESIGN AND PLACEMENT OF FORMS AND SHORING ARE THE RESPONSIBILITY OF THE CONTRACTOR.
21.

THE GENERAL CONTRACTOR SHALL COORDINATE/ASSIST DIFFERENT TRADE CONTRACTORS IN TERMS OF COORDINATION OF SITE ACCESS.
22.

ALL ARCHITECTURAL, MECHANICAL AND ELECTRICAL SYSTEM AND COMPONENTS IN THIS FACILITY SHALL BE INSTALLED TO RESIST WIND, ICE AND SNOW FORCES AS PER NATIONAL STANDARDS AND BUILDING CODES (LATEST ADOPTED EDITION)
23.

US CELLULAR WILL OBTAIN NECESSARY PERMITS AND LICENSES FROM THE FEDERAL COMMUNICATIONS COMMISSION (FCC) AND THE FEDERAL AVIATION ADMINISTRATION (FAA). UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS, CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL OTHER PERMITS NECESSARY FOR CONSTRUCTION.
24.

US CELLULAR WILL ORDER AND PAY FOR ANY NECESSARY ELECTRIC AND TELEPHONE UTILITY INSTALLATIONS TO THE POINT OF TERMINATION AS SHOWN ON THE PROJECT PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITIES.
25.

US CELLULAR WILL PROVIDE PRIMARY HORIZONTAL AND VERTICAL CONTROL FOR CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE TO CORRECTLY TRANSFER LINE AND GRADE. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL STAKING OR RE-STAKING.
26.

US CELLULAR MAY RETAIN THE SERVICES OF A TESTING LABORATORY TO PERFORM QUALITY ASSURANCE TESTING ON VARIOUS PORTIONS OF THE CONTRACTORS WORK. WHEN REQUESTED, THE CONTRACTOR SHALL INFORM THE TESTING LABORATORY AND ASSIST THEM IN COMPLETING THE TESTS.
27.

THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY UTILITIES OR FACILITIES IT DEEMS NECESSARY TO COMPLETE IT’S WORK. THIS INCLUDES BUT IS NOT LIMITED TO WATER, SEWER, POWER, TELEPHONE, HEAT, LIGHTING OR SECURITY.
28.

NOTIFY ENGINEER 2 DAYS IN ADVANCE OF INITIATING SITE CONSTRUCTION ACTIVITIES.

DEMOLITION:

19.

PERFORM DEMOLITION AND REMOVAL OF EXISTING MATERIALS OR STRUCTURES AS SHOWN ON THE PLANS AND AS SPECIFIED IN SPECIAL CONDITIONS. PROTECT EXISTING FACILITIES OR STRUCTURES THAT ARE TO REMAIN.
20.

COMPLETE DEMOLITION IN A SYSTEMATIC MANNER BEGINNING AT THE HIGHEST LEVEL.
21.

NEATLY SAW OR CUT JOINTS AT THE LIMITS OF REMOVAL; WHENEVER POSSIBLE LOCATE CUTS AT EXISTING JOINTS.
22.

PATCH AND REPAIR ANY DAMAGE SURFACES OR STRUCTURAL MEMBERS AT THE LIMITS OF REMOVAL.
23.

REMOVAL DEMOLITION DEBRIS FROM THE SITE ON A REGULAR BASIS. DISPOSE OF ALL DEBRIS OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. BURNING OF MATERIAL SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.

CLEANING AND GRUBBING:

1.

REMOVE TREES, SHRUBS, GRASS AND OTHER VEGETATION AS SHOWN ON THE PLANS TO ALLOW FOR CONSTRUCTION OF NEW CELLULAR FACILITIES.
2.

WHEN POSSIBLE, NEATLY TRIM OR CUT BACK EXISTING TREES OR VEGETATION TO ALLOW FOR CONSTRUCTION OF NEW CELLULAR FACILITIES.
3.

WHEN CLEARING TREES, PROJECT ALL SURROUNDING STRUCTURES, PAVEMENTS AND LANDSCAPING BY TOPPING, TRIMMING, AND USING GUY LINES.
4.

COMPLETELY REMOVE ALL STUMPS AND ROOTS. STUMPS AND ROOTS MAY BE REMOVED BY GRUBBING, CHIPPING OR GRINDING.
5.

DISPOSE OF ALL DEBRIS OFF-SITE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. BURNING OF MATERIALS SHALL NOT BE ALLOWED UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.

EARTHWORK:

1.

REMOVE TOPSOIL FROM BENEATH ALL PROPOSED ROADS, PARKING AREAS, BUILDINGS AND AREAS TO RECEIVE MORE THAN 6" OF FILL. STOCKPILE TOPSOIL FOR USE DURING RESTORATION.
2.

ALL TREES DESIGNATED TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION BY A 5 FOOT HIGH TREE BARRIER UTILIZING WIRE FENCING, OR PROTECTIVE SAFETY NETTING.

3.

GRADE AREAS IN ACCORDANCE WITH ELEVATIONS AND GRADES SHOWN ON THE PLANS OR AS NECESSARY IN GRADING TO PROVIDE DRAINAGE.
4.

FILL MATERIAL USED IN GRADING OPERATIONS SHALL CONSIST OF EARTH WHICH IS FREE OF DEBRIS, BOULDERS, OR ORGANIC MATERIAL. FILL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.
5.

ALL FILL SHALL BE TESTED FOR FIELD DENSITY. TESTS SHALL BE TAKEN IN EACH LIFT OF FILL AT LOCATIONS DESIGNATED BY THE OWNER’S REPRESENTATIVE.
6.

ALL FILL SHALL BE USED WHEN FILLING OR BACKFILLING BENEATH AND/OR AROUND ANY STRUCTURES, ROADS OR PARKING AREAS. SELECT FILL SHALL BE PLACED IN 9" LIFTS AND COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY. SELECT GRANULAR FILL SHALL CONSIST OF SAND, GRAVEL OR MIXTURE OF SAND AND GRAVEL FREE OF ORGANIC MATERIAL. THE MATERIAL SHALL HAVE A 2" MAXIMUM SIZE LESS THAN 10% PASSING NO. 200 SIEVE, A PLASTICITY INDEX OF 6 OR LESS, AND A UNIFORMITY COEFFICIENT OF 5 OR GREATER.
7.

ALL DISTURBED AREAS SHALL BE RESTORED AS SOON AS POSSIBLE WITH 4" TOPSOIL, SEED, FERTILIZER AND MULCH. GRASS SEED SHALL BE A SUITABLE MIX CONTAINING BOTH ANNUAL AND PERENNIAL VARIETIES OF FESCUE, RYE AND BLUEGRASS. FERTILIZER SHALL CONTAIN A MINIMUM 10% EACH OF NITROGEN, PHOSPHORIC ACID AND POTASH. MULCH SHALL BE A STRAW OR HAY MIXTURE FREE OF NOXIOUS WEED SEEDS. APPLY SEED AND FERTILIZER AS RECOMMENDED BY MANUFACTURER. MULCH SHALL BE CRIMPED AFTER APPLICATION.
8.

THE CONTRACTOR SHALL VERIFY UPON COMPLETION OF DEVELOPMENT, THE SITE IS PROPERLY STABILIZED AND ALL INDICATED SWALES AND STORMWATER FACILITIES ARE CONSTRUCTED AS INDICATED ON THE PLANS
9.

TOWER, TOWER FOUNDATIONS, MODULAR BUILDING AND ELECTRICAL AND MECHANICAL FEATURES ARE TO BE DESIGNED AND SPECIFIED BY OTHERS.

EROSION CONTROL:

1.

CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH THE MOST STRINGENT OF: PROJECT PLANS, SPECIAL PROVISIONS, APPLICABLE STATE DEPARTMENT OF NATURAL RESOURCES OR LOCAL ORDINANCES.
2.

ESTABLISH EROSION CONTROL MEASURES PRIOR TO STARTING CONSTRUCTION AND MAINTAIN THROUGHOUT CONSTRUCTION. INSPECT EROSION CONTROL MEASURES FOLLOWING EACH RAINFALL EVENT AND REPAIR AS NECESSARY.
3.

SEDIMENTATION CONTROL SHALL BE ACCOMPLISHED DURING CONSTRUCTION THROUGH THE USE OF SILT FENCING PLACED AS SHOWN ON THE ATTACHED PLANS. THE CONTROL DEVICES SHALL BE SET AT THE ONSET OF SITE GRADING TO PREVENT SILTING OF THE EXISTING STORMWATER FACILITIES.

ROAD AND PARKING AREA CONSTRUCTION:

1.

PREPARE SUBGRADE FOR ROADS AND PARKING AREAS IN ACCORDANCE WITH "EARTHWORK" SECTION.
2.

PROOF ROLL ROAD TO IDENTIFY UNSUITABLE MATERIALS. EXCAVATE UNSUITABLE MATERIAL AND DISPOSE OFFSITE. BACKFILL UNDERCUT EXCAVATION USING 3" BREAKER RUN MATERIAL. BREAKER RUN MATERIAL SHALL BE CRUSHED STONE MEETING THE FOLLOWING GRADATION:

SIEVE SIZE	% WEIGHT PASSING
3"	100
1 1/2"	0-50
3/4"	0-20
#200	0-10

3.

PLACE CRUSHED AGGREGATE BASE COURSE IN MAXIMUM OF 6" THICK LIFTS IN ACCORDANCE WITH DETAIL DRAWINGS. MOISTURE CONDITION BASE COURSE AS NECESSARY TO ACHIEVE COMPACTION. BASE COURSE SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY. BASE COURSE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS.

3" BASE COURSE	SIEVE SIZE	% WEIGHT PASSING
	3"	100
	2 1/2"	25-60
	3/4"	0-20
	3/8"	0-5

1 1/2" BASE COURSE	SIEVE SIZE	% WEIGHT PASSING
	1 1/2"	100
	1"	70-1000
	3/4"	55-95
	3/8"	30-65
	#4	25-55
	#10	15-40
	#200	0-10

4.

PLACE BASE COURSE WITH CROWN OR UNIFORM SLOPE AS NECESSARY TO PROVIDE DRAINAGE FROM THE SITE.
5.

GEOTEXTILE FABRIC SHALL BE USED IN THE EVENT OF UNSTABLE SOIL CONDITIONS. VERIFICATION OF SUCH CONDITIONS IS THE RESPONSIBILITY OF THE CONTRACTOR.

VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

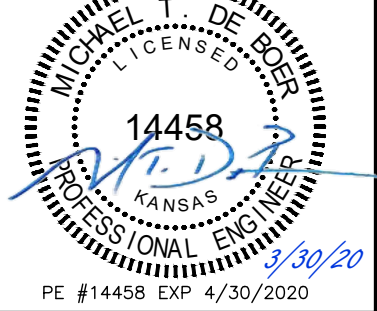
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:	PROJECT #:	REVISION:
GN1	856529	0
BY: MAH	CKD BY: JWM	

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet:GN2 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm

CONCRETE AND STEEL REINFORCEMENT:

1. CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94. CONCRETE SHALL BE 6 BAG MIX HAVING A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI, MAXIMUM AGGREGATE SIZE OF 1”, MAXIMUM WATER CEMENT RATUI IF 9,45, AIR ENTRAINMENT OF 6% +/- 1”. DEVIATIONS FROM THE MIX MUST BE APPROVED BY US CELLULR PRIOR TO USE.
2. CONCRETE CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE MOST STRINGENT OF PROJECT PLANS, SPECIAL PROVISIONS, OR THE AMERICAN CONCRETE INSTITUTE (ACI) PUBLICATIONS. CONCRETE WORK FOR TOWER FOUNDATIONS SHALL BE COMPLETED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS PROVIDED BY THE TOWER VENDOR.
3. FORM MATERIALS WILL COMPLY WITH ACI 301. PLYWOOD FORMS SHALL BE APA B-B PLYWOOD FORM CLASS I SOUND SHEETS. LUMBER SHALL BE SPRUCE-PINE-FIR SPECIES #2 OR BETTER GRADE. TUBULAR COLUMN FORMS MAY BE SPIRALLY WOUND LAMINATED FIBER MATERIAL. FORM TIES SHALL BE REMOVABLE OR SNAP-OFF METAL TYPE.
4. CONCRETE SHALL BE MADE OF CEMENT MEETING THE REQUIREMENTS OF ASTM C150, NORMAL, TYPE 1 PORTLAND. FINE AND COARSE AGGREGATES FOR CONCRETE SHALL MEET THE REQUIREMENTS OF ASTM C33.
5. PLACE, SUPPORT AND SECURE REINFORCEMENT STEEL AT LOCATIONS SHOWN ON PLANS. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH AC1 315. REBAR YIELD STRENGTH = 60,000 PSI.
6. AIR ENTRAINING ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C260; WATER REDUCING ADMIXTURES SHALL MEET THE REQUIREMENTS OF ASTM C494, TYPE A. ALL OTHER ADMIXTURES ARE PROHIBITED WITHOUT PRIOR APPROVAL BY US CELLULAR.
7. VAPOR BARRIER SHALL BE 6 MIL THICK POLYETHYLENE MEETING THE REQUIREMENTS OF ASTM D2103.
8. CURING COMPOUND SHALL MEET THE REQUIREMENTS OF ASTM C309.
9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
10. ALL CONSTRUCTION AND EXPANSION JOINTS SHALL BE INSTALLED PER THE DRAWINGS.
11. ALL EXPOSED CORNERS OF CONCRETE WORK SHALL BE CHAMFERED 3/4” UNLESS NOTED OTHERWISE.
12. ALL FORM WORK SHALL BE RIGID, TIGHT, LEVEL, PLUMB AND SUFFICIENTLY SHORED TO RESIST CONSTRUCTION LOAD CONDITIONS. COAT FORMS WITH RELEASE AGENT PRIOR TO PLACING REINFORCING STEEL.
13. PREPARE SUBGRADE FOR CONCRETE IN ACCORDANCE WITH PROJECT PLANS AND SPECIAL PROVISION. DO NOT PLACE CONCRETE ON FROZEN SUBGRADE.
14. PROVIDE US CELLULAR A MINIMUM OF 24 HRS. NOTICE PRIOR TO PLACING CONCRETE TO ALLOW FOR INSPECTION AND SCHEDULING OF TESTING.
15. UTILIZE CHUTES, TROUGHS OR CONVEYORS TO PLACE CONCRETE SO THAT HANDLING OF CONCRETE IS MINIMIZED. AVOID SEGREGATION OF THE AGGREGATE AND DISTURBING REINFORCING STEEL.
16. UNIFORMLY CONSOLIDATE CONCRETE USING HAND TOOLS OR MECHANICAL VIBRATORS. THOROUGHLY CONSOLIDATE EACH LAYER PRIOR TO PLACING SUBSEQUENT LAYERS.
17. WHEN PLACING OPERATIONS ARE TEMPORARILY SUSPENDED, THE UNFINISHED FACE OF THE POUR SHALL BE COVERED WITH WET BURLAP UNTIL PLACING OPERATIONS ARE RESUMED. WHEN PLACING OPERATIONS ARE SUSPENDED FOR MORE THAN 30 MINUTES, PROVIDE AN UNBONDED CONSTRUCTION JOINT.
18. TROWEL FINISH SURFACES UNLESS OTHERWISE DIRECTED ON THE PLANS.
19. AFTER FINAL FINISHING, PROVIDE POLYETHYLENE VAPOR BARRIER OR CURING COMPOUND TO MAINTAIN MOISTURE AND TEMPERATURE OF CONCRETE.
20. IN EXTREME WEATHER, PLACE AND CURE CONCRETE IN ACCORDANCE WITH EITHER AC1 306R-89 FOR COLD WEATHER OR ACI 305R-89 FOR HOT WEATHER.
21. WELDING OF REINFORCING STEEL ARE PROHIBITED.
22. REMOVE FORMS IN A MANNER THAT DOES NOT DAMAGE THE CONCRETE. FILL AND PATCH POCKETS OR HOLES ON EXPOSED SURFACES USING MORTAR MIXTURES.
23. PROVIDE TEST CYLINDERS AS FOLLOWS:

A. EQUIPMENT ENCLOSURE

1 CYLINDER AT 7 DAYS

1 CYLINDER AT 14 DAYS

1 CYLINDER AT 28 DAYS
24. NOTIFY ENGINEER 48 HOURS IN ADVANCE OF TOWER FOUNDATION INSTALLATION.
25. REFER TO TOWER MANUFACTURER SPECIFICATIONS REGARDING FOUNDATION REQUIREMENTS.

CHAINLINK FENCING:

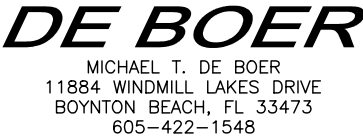
- 1.0 SCOPE:
- 1.1 THIS SECTION COVERS THE REQUIREMENTS FOR THE MATERIALS AND THE CONSTRUCTION OF SITE FENCING. SEE SITE PLAN AND DRAWINGS FOR DETAILS.
- 2.0 SPECIAL REQUIREMENTS:
- 2.1 ALL WIRE, FABRIC, FITTINGS, HARDWARE AND STEEL MEMBERS USED FOR SITE AREA FENCING SHALL BE HOT DIPPED GALVANIZED (ASTM A153) OR OTHER APPROVED NON-CORROSIVE MATERIAL AND CONFORM TO FEDERAL SPEC RR-F-191G (1-25-74)
- 2.2 ALL NON-CORROSIVE MATERIAL SHALL BE PRE-APPROVED BY THE PROJECT MANAGER.
- 2.3 ANY DAMAGE TO GALVANIZING OR NON-CORROSIVE COATING DURING CONSTRUCTION SHALL BE REPAIRED ACCORDING TO MANUFACTURER’S RECOMMENDED METHODS.
- 3.0 GATE:
- 3.1 LOCATION OF GATE SHALL CONFORM TO SITE PLAN.
- 3.2 ALL JOINTS BETWEEN TUBULAR GATE MEMBERS SHALL BE WELDED OR HEAVY FILLINGS PROVIDING RIGID AND WATERTIGHT CONNECTIONS.
- 3.3 GATE HINGES SHALL PROVIDE FOR 190 DEGREE RADIUS GATE SWING. ALL HINGE NUTS SHALL BE ON THE INSIDE AND DOUBLE-NUT TO DETER UNAUTHORIZED ENTRY.
- 3.4 BARBED WIRE GUARD SHALL BE INSTALLED ON TOP OF GATES. ADEQUATE CLEARANCE SHALL BE MAINTAINED TO ALLOW GATE OPERATION.
- 3.5 GATE SHALL BE INSTALLED PLUMB AND SHALL OPEN AND CLOSE FREELY.
- 3.6 GATE POSTS SHALL NOT SHARE A CORNER POST.
- 4.0 FENCE POSTS:
- 4.1 LOCATION OF CORNER POSTS SHALL BE DETERMINED FROM STAKES AND PROPERTY PINS INSTALLED BY THE REGISTERED LAND SURVEYOR UNDER CONTRACT FOR THE PROJECT. IF THE STAKES ARE NOT PRESENT OR DO NOT CONFORM TO THE SITE PLAN, CONSULT WITH THE PROJECT MANAGER.
- 4.2 CORNER POSTS SHALL BE SET WITHIN ONE INCH (1”) OF DIMENSIONS INDICATED ON THE SITE PLAN.
- 4.3 FENCE POSTS SHALL BE VERTICALLY PLUMB IN ALL PLANES WITHIN 1/2 INCH (1/2”).
- 4.4 LINE POSTS BETWEEN CORNER AND GATE POSTS SHALL BE EQUALLY SPACED WITH A TEN FOOT (10’) MAXIMUM SPACING. GATE POST LOCATIONS SHALL BE IN ACCORDANCE WITH SITE PLAN AND SHALL BE VERIFIED WITH THE PROJECT MANAGER.
- 4.5 ALL FOUR CORNERS POST AND BOTH GATE POSTS SHALL BE CONNECTED TO THE SITE GROUNDING SYSTEM (REFER TO GROUNDING SYSTEMS STANDARD)
- 4.6 FENCE POST OUTSIDE DIAMETER (O.D.) ARE MINIMUM SPECIFICATIONS. LARGER SIZES MAY BE SUBSTITUTED WITH APPROVAL FROM PROJECT MANAGER.
- 5.0 FABRIC:
- 5.1 FABRIC SHALL BE TENSIONED PER MANUFACTURER’S RECOMMENDATIONS TO PRESENT A NEAT APPEARANCE.
- 5.2 FABRIC SHALL BE SECURED AT CORNER AND GATE POSTS USING STRETCHER BARS AND TENSION BAND CLIPS.
- 5.3 FABRIC SHALL BE SECURED TO THE TOP RAIL AND BRACE ROADS USING THE CLIPS.

VENDOR:



BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:



SITE NAME:

ABILENE DTN

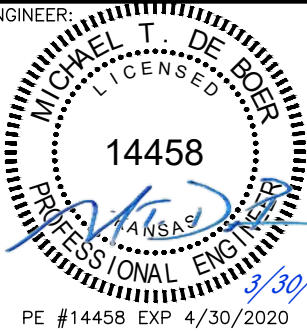
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH
SHEET TITLE:			
GENERAL NOTES			
SHEET NUMBER:		PROJECT #:	REVISION:
GN2		856529	0
BY:		CKD BY:	
MAH		JWM	

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet:GN3 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm

ELECTRICAL NOTES:

- 1.0 GENERAL:
- 1.1

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION, ETC. FOR A COMPLETE AND PROPERLY OPERATING SYSTEM ENERGIZED THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- 1.2

CONTRACTOR IS TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF PERMANENT POWER TO THE SITE.
- 1.3

CONTRACTOR SHALL OBTAIN ALL NECESSARY BUILDING PERMITS, INSPECTIONS AND APPROVALS, AND PAY ALL REQUIRED FEES PURSUANT TO THE WORK.
- 1.4

ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE NATIONAL, STATE AND LOCAL CODES, ALL COMPONENTS SHALL BE U.L. APPROVED.
- 1.5

CONTRACTOR SHALL BEFORE SUBMITTING HIS BID, VISIT THE SITE OF THE PROJECT AND BECOME FAMILIAR WITH THE CONDITIONS. NO ALLOWANCE WILL BE MADE FOR EXISTING CONDITIONS OR FAILURE OF THE CONTRACTOR TO OBSERVE THEM.
- 1.6

EXACT LOCATION OF ALL EQUIPMENT SHALL BE COORDINATED WITH OWNER AND OTHER TRADES.
- 1.7

CONTRACTOR SHALL PROVIDE ALL VERIFICATION OBSERVATION TESTS AND EXAMINE ALL WORK PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT/ENGINEER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- 1.8

ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN SAFE CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT (SEE NOTE G. FOR EXCEPTIONS). MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NBFU AND "UL" LISTED.
- 1.9

WHERE EQUIPMENT IS SPECIFIED BY MANUFACTURER AND TYPE, SUBSTITUTION SHALL ONLY BE MADE WITH THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT DETAILS OF PROPOSED MATERIALS, REASON FOR CHANGE AND CHANGE IN CONTRACT AMOUNT.
- 1.10

EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY LABELED WITH ENGRAVED PLASTIC LABELS FOR EACH PANELBOARD, PULL BOX, J-BOX, SWITCH BOX, ETC. IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
- 1.11

THESE PLANS ARE DIAGRAMMATIC ONLY AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE.
- 1.12

THE TEMPERATURE RATING ASSOCIATED WITH THE AMPACITY OF A CONDUCTOR SHALL BE SO SELECTED AND COORDINATED AS TO NOT EXCEED THE LOWEST TEMPERATURE RATING OF ANY CONNECTED TERMINATION, CONDUCTOR, OR DEVICE.
- 1.13

ALL ENCLOSURES CONTAINING THE SERVICE CONDUCTORS--SERVICE RACEWAY, CABLE ARMOR, BOXES, FITTINGS, CABINETS MUST BE EFFECTIVELY BONDED TOGETHER.
- 1.14

ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE SPECIFIED, WITH UV PROTECTION (UNLESS NOTED OTHERWISE) AT A MINIMUM DEPTH SPECIFIED BY NATIONAL STATE AND LOCAL CODES. IT IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO NOTIFY THE DIGGER HOTLINE OR OTHER SUCH NOTIFYING AGENCY FORTY EIGHT (48) HOURS PRIOR TO THE START OF DIGGING, TRENCHING, EXCAVATIONS, OR OTHER SUCH EARTH REMOVAL.
- 1.15

THE UNDERGROUND SERVICE ENTRANCE WORK MUST BE CONSTRUCTED ACCORDING TO THE LOCAL BUILDING CODE, NEC & UTILITY STANDARDS. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL UTILITY BEFORE QUOTING AND DURING THE CONSTRUCTION.

ELECTRICAL NOTES (CONTINUED):

- 2.0 MATERIALS, ELECTRICAL WIRING AND RACEWAYS
- 2.1

ALL CIRCUIT BREAKERS, FUSES, CONDUCTORS AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT TO WHICH THEY MAY BE SUBJECTED AND A MINIMUM OF 10,000 AIC RATING UNLESS SPECIFIED OTHERWISE.
- 2.2

PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLE SHALL HAVE SIERRA "WPA 8" LIFT COVER PLATES.
- 2.3

METER SOCKET AMPERAGE, VOLTAGE AND NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS AND MANUFACTURED BY SQUARE "D" COMPANY OR APPROVED EQUAL.
- 2.4

INSTALLATION OF RIGID METAL CONDUIT SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF ARTICLES 300 & 346--NEC, SHALL BE U.L. APPROVED.
- 2.5

INSTALLATION OF ELECTRICAL METALLIC TUBING (EMT) SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF ARTICLES 300 & 348--NEC, SHALL BE U.L. APPROVED.
- 2.6

INSTALLATION OF INTERMEDIATE METAL CONDUIT (IMC) SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF ARTICLES 300 & 348--NEC, SHALL BE U.L. APPROVED.
- 2.7

PLASTIC CONDUIT SHALL BE SCHEDULE 40, HIGH IMPACT, POLYVINYL CHLORIDE AND SHALL BE USED WITH UNTHREADED SOLVENT CEMENT PLASTIC CONDUIT FITTINGS, COUPLINGS SHALL HAVE A CENTER STOP TO ENSURE PROPER SEATING. CONDUIT SHALL BE MANUFACTURED BY CARLON OR ACCEPTABLE EQUAL SHALL BE IN COMPLIANCE WITH ART 300 & 347--NEC, U.L. APPROVED.
- 2.8

ALL WIRING OF ALL KINDS MUST BE INSTALLED IN CONDUIT, UNLESS OTHERWISE NOTED OR APPROVED BY THE ELECTRICAL ENGINEER.
- 2.9

ALL WIRING SHALL BE IN ACCORDANCE WITH (NEC) NATIONAL ELECTRICAL CODE OR AS INDICATED ON PLANS.
- 2.10

RACEWAYS SHALL BE STEEL GALVANIZED AND/OR PAINTED, WITH SIZE AS SPECIFIED AND IN ACCORDANCE WITH THE (NEC) NATIONAL ELECTRICAL CODE UNLESS OTHERWISE NOTED ON PLANS. ALL RACEWAYS SHALL BE APPROVED PRIOR TO INSTALLATION.
- 2.11

JUNCTION BOXES OR PULL BOXES SHALL MEET (NEC) NATIONAL ELECTRICAL CODE STANDARDS AND AS APPROVED FOR INSTALLATION OF RACEWAYS AND WIRING.
- 2.12

THE RACEWAY AND WIRING INSTALLATION SHALL BE GROUNDED PERMANENTLY AND EFFECTIVELY IN ACCORDANCE WITH ARTICLE 250 OF THE (NEC) NATIONAL ELECTRICAL CODE.
- 2.13

THE CONTRACTOR SHALL BE AWARE THAT ALL STATE AND LOCAL CODES SHALL APPLY TO THIS INSTALLATION AND MUST BE ADHERED TO.
- 3.0 SCOPE OF WORK
- 3.1

THE CONTRACTOR SHALL PROVIDE ALL ELECTRICAL WIRING AND EQUIPMENT UNLESS OTHERWISE INDICATED. MAIN COMPONENTS ARE AS FOLLOWS.

A. PROVIDE ELECTRICAL SERVICE AS INDICATED ON THE DRAWINGS.
B. PROVIDE FIBER CONDUIT WITH PULL WIRE AS INDICATED HEREIN AND ON DRAWINGS.
C. COORDINATE ELECTRICAL SERVICE WITH LOCAL POWER COMPANY.
D. COORDINATE FIBER SERVICE WITH LOCAL FIBER COMPANY.
E. INSTALL WIRE AND CONDUIT AS INDICATED. PROVIDE CABLE SUPPORTS AS INDICATED.
F. PROVIDE GROUNDING AS INDICATED.
- 3.2

ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" OR "AS-BUILT" DRAWINGS AT THE COMPLETION OF THE JOB SHOWING ACTUAL DIMENSIONS, ROUTINGS AND CIRCUITS SHALL BE PROVIDED TO CLIENT, ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO CLIENT AT JOB COMPLETION.
- 3.3

PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF ELECTRICAL WORK.
- 3.4

UPON COMPLETION OF WORK, CONDUIT CONTINUITY, SHORT CIRCUIT, AND GROUNDING FALL POTENTIAL TEST WILL BE MADE FOR APPROVAL. SUBMIT TEST REPORTS TO CLIENT. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE IN A COMPLETE AND UNDAMAGED CONDITION.
- 3.5

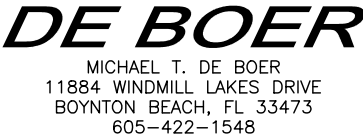
THE COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF SITE ACCEPTANCE BY CLIENT. ANY WORK MATERIAL OR EQUIPMENT FOUND TO FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AND AT THE EXPENSE OF THE CONTRACTOR.
- 3.6

THE ELECTRICAL CONTRACTOR SHALL VERIFY THE ELECTRICAL EQUIPMENT PROVIDED BY CLIENT'S SUPPLIERS.

VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

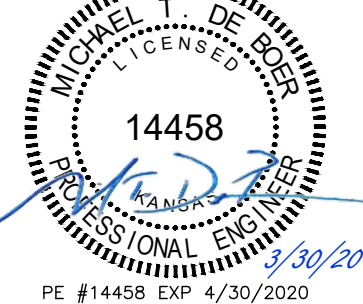
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:

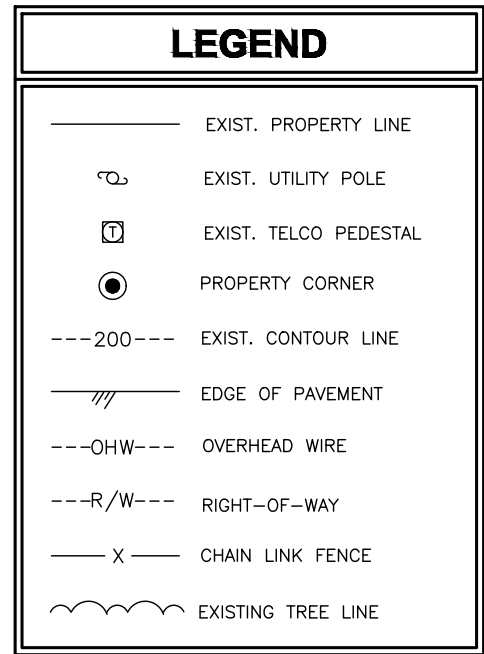
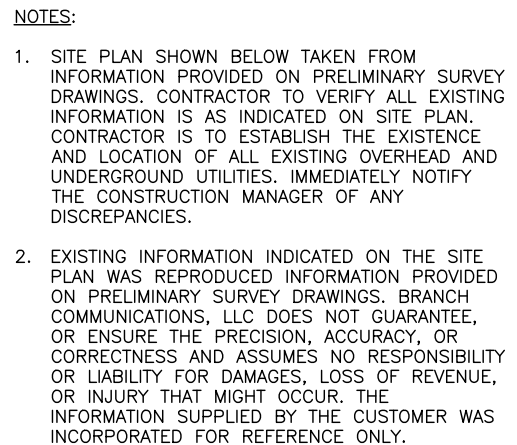


NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:	PROJECT #:	REVISION:
GN3	856529	0
BY:	CKD BY:	
MAH	JWM	



U.S. Cellular.
3545 N. 124TH STREET
BROOKFIELD, WI 53005



Branch
COMMUNICATIONS
A SOLUTIONS PROVIDER

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:
ABILENE DTN

SITE NUMBER:
856529

SITE ADDRESS:
TBA
ABILENE KS 67410

ENGINEER:

MICHAEL T. DE BOER

LICENSED

14458

PROFESSIONAL ENGINEER

KANSAS

3/30/20

PE #14458 EXP 4/30/2020

NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

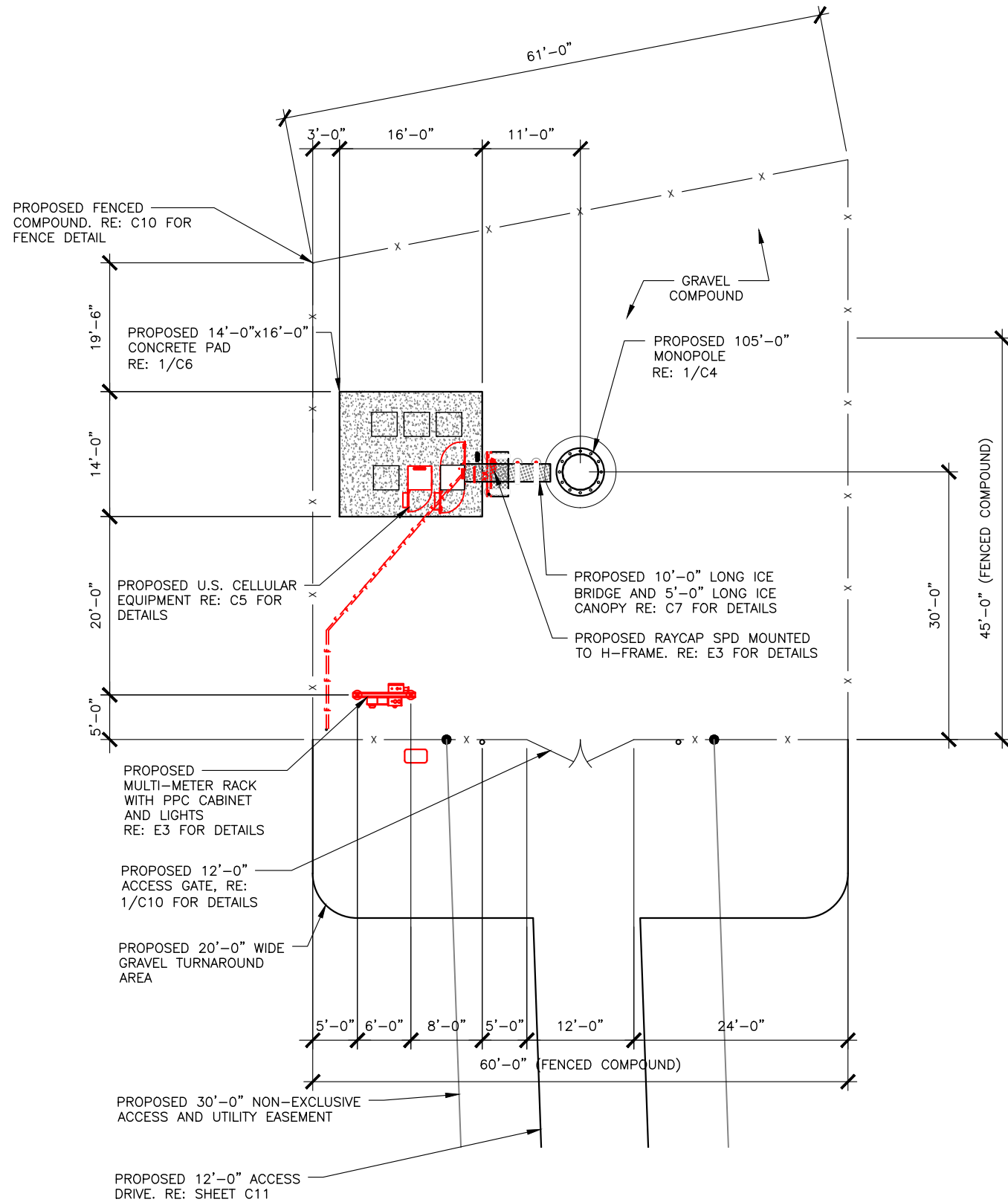
OVERALL SITE PLAN

SHEET NUMBER: PROJECT #: REVISION

C1	856529		0
	BY: MAH	CKD BY: JWM	



USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet: C2 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm



1 ENLARGE SITE PLAN

SCALE: 0' 10' 20' 40' 60'



VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

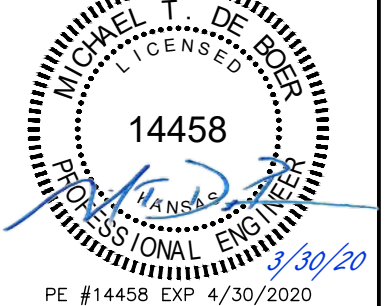
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



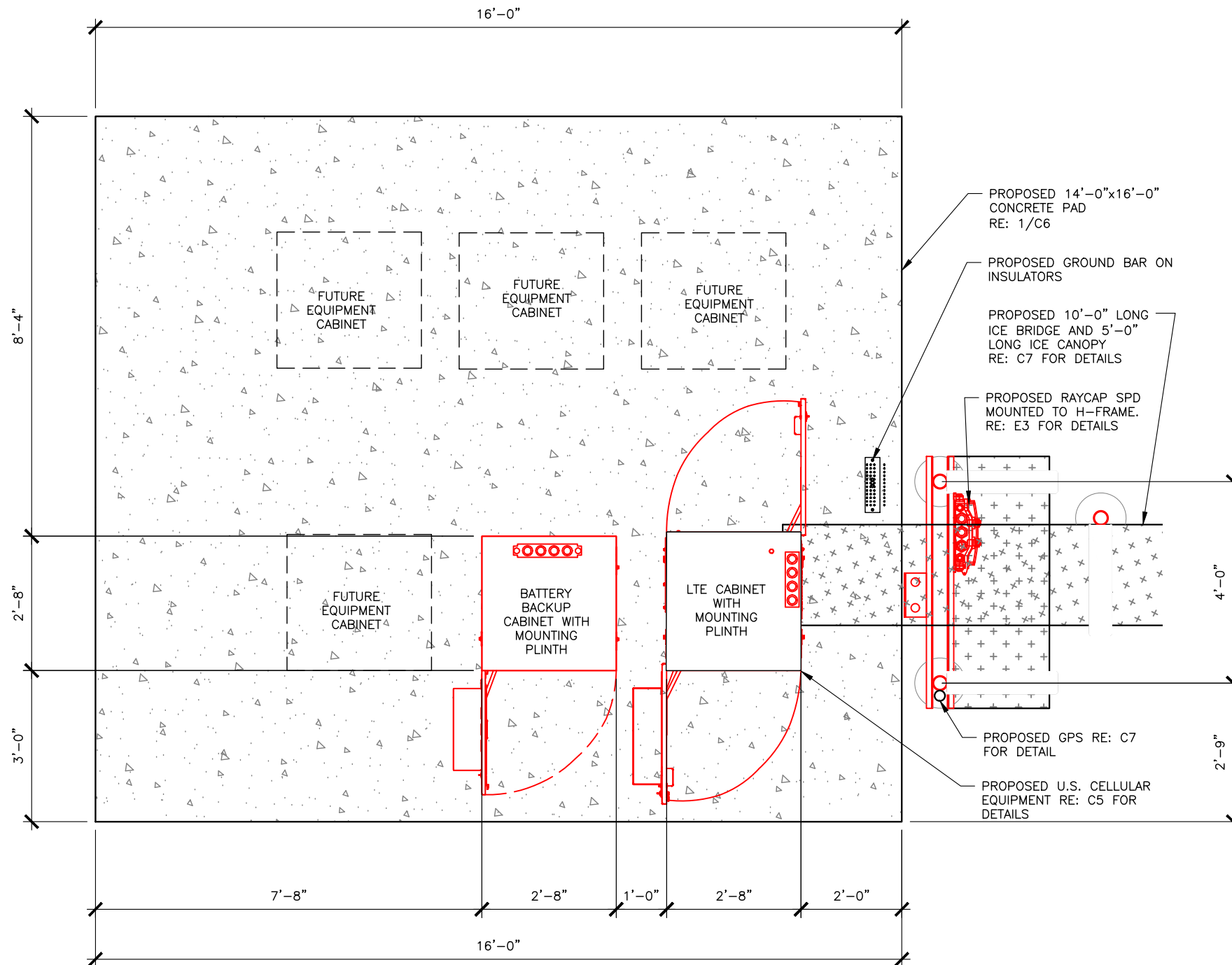
NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

ENLARGED SITE PLAN

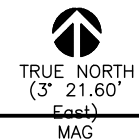
SHEET NUMBER:	PROJECT #:	REVISION:
C2	856529	0
BY: MAH	CKD BY: JWM	

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg -- Sheet: C3 -- User: Mary.Hopkins -- Mar 30, 2020 -- 3:40pm



1 ENLARGE EQUIPMENT PLAN

SCALE: 0' 1' 5' 10'



VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

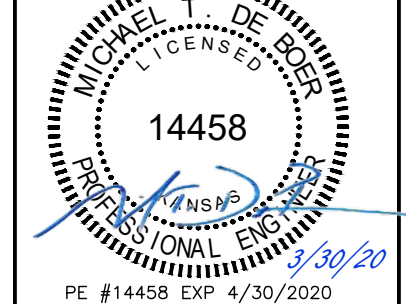
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

EQUIPMENT LAYOUT

SHEET NUMBER:	PROJECT #:	REVISION:
C3	856529	0
	BY: MAH	CKD BY: JWM

THESE DRAWINGS ARE NOT INTENDED TO REFLECT THE STRUCTURAL INTEGRITY OF THE TOWER. THE PROPOSED ANTENNAS AND TRANSMISSION LINES SHOWN ARE REPRESENTATIVE IN NATURE AND DO NOT REFLECT THE ACTUAL CONFIGURATIONS REQUIRED. THE CONTRACTOR SHALL REFER TO THE STRUCTURAL ANALYSIS OF THIS TOWER SITE FOR THE APPROVED LOCATION AND CONFIGURATION OF ALL ANTENNAS AND TRANSMISSION LINES. ALL ANTENNAS MUST BE MOUNTED AND THE TRANSMISSION LINES CONFIGURED IN STRICT ACCORDANCE WITH THE STRUCTURAL ANALYSIS. (TOWER BY OTHERS)

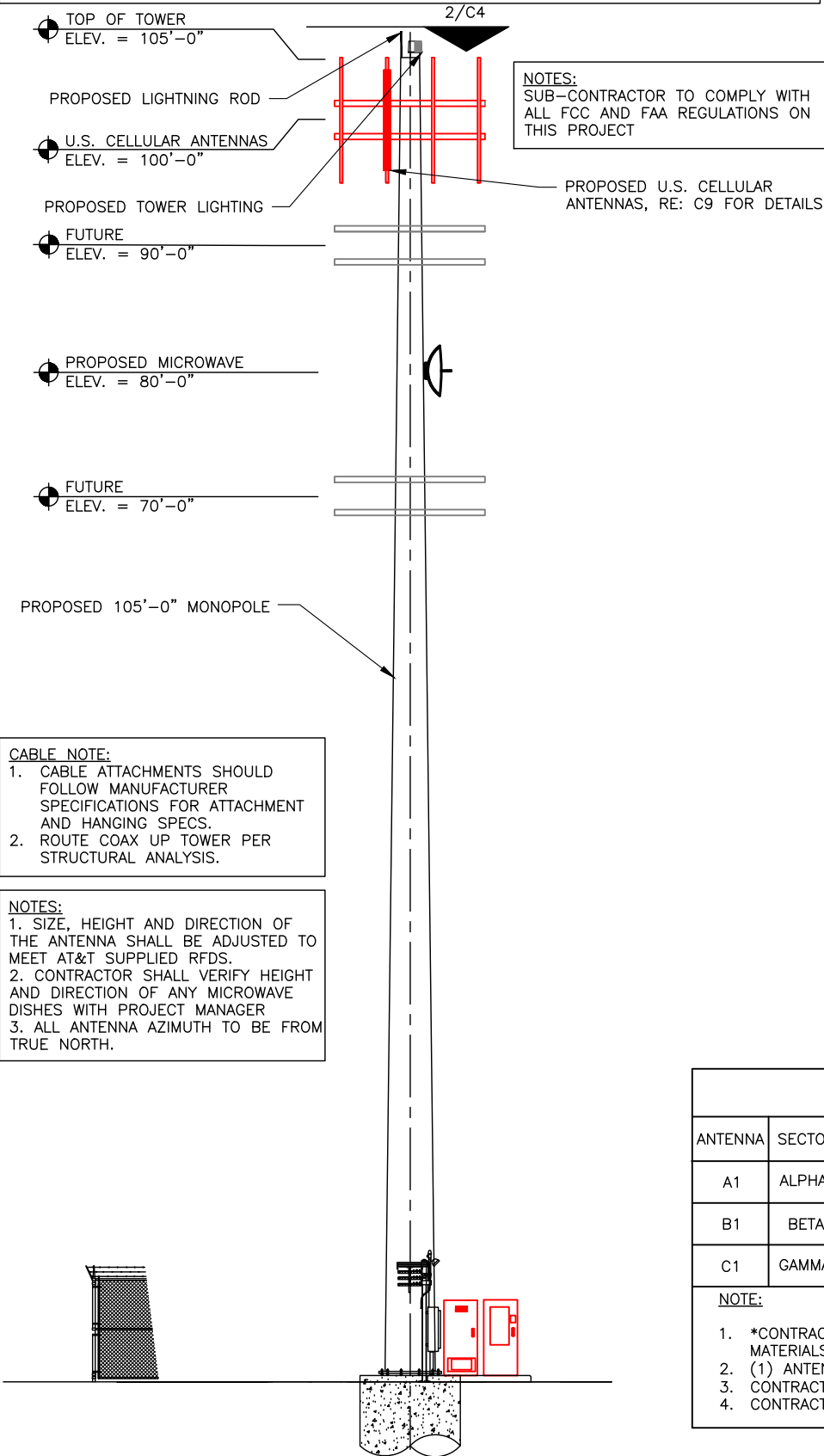
NOTES:
TOWER MANUFACTURER'S SPECS, DESIGNS, FABRICATION, AND CONCRETE FOUNDATION DESIGN WILL BE PROVIDED BY TOWER VENDOR. TOWER SHOWN ON THESE PLANS IS REPRESENTATIVE ONLY TO THE TOWER TYPE.

ANTENNA ARRAY MOUNTING HARDWARE MAY BE PROVIDED BY TOWER MANUFACTURER, CONTRACTOR TO BID SEPARATELY

GENERAL CONTRACTOR TO OBTAIN LATEST RPDS BEFORE CONSTRUCTION FOR EQUIPMENT VERIFICATION

REFER TO STRUCTURAL ANALYSIS TO DETERMINE FEEDLINE PLACEMENT

ALL STEEL SHALL BE HOT-DIPPED GALVANIZED



CABLE NOTE:
1. CABLE ATTACHMENTS SHOULD FOLLOW MANUFACTURER SPECIFICATIONS FOR ATTACHMENT AND HANGING SPECS.
2. ROUTE COAX UP TOWER PER STRUCTURAL ANALYSIS.

NOTES:
1. SIZE, HEIGHT AND DIRECTION OF THE ANTENNA SHALL BE ADJUSTED TO MEET AT&T SUPPLIED RFDS.
2. CONTRACTOR SHALL VERIFY HEIGHT AND DIRECTION OF ANY MICROWAVE DISHES WITH PROJECT MANAGER
3. ALL ANTENNA AZIMUTH TO BE FROM TRUE NORTH.

NOTES:
SUB-CONTRACTOR TO COMPLY WITH ALL FCC AND FAA REGULATIONS ON THIS PROJECT

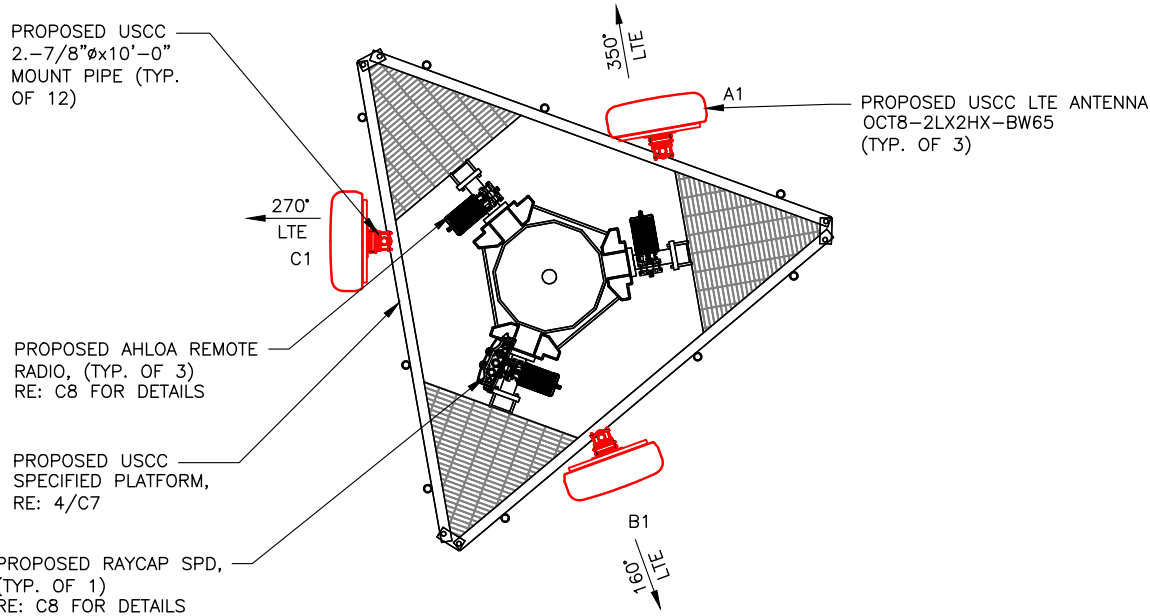
POWER JUMPER CABLE INFO			
RAYCAP SPD TO REMOTE RADIO (B71/B12)			
SECTOR	QUANTITY	LENGTH	
ALPHA SECTOR	1	16.4 FT	5 m
BETA SECTOR	1	16.4 FT	5 m
GAMMA SECTOR	1	16.4 FT	5 m
ALL SECTORS MUST HAVE SAME JUMPER LENGTHS *PREFERRED JUMPER LENGTH OF 5m (16.4') *MAXIMUM JUMPER LENGTH OF 6m (19.7')			

NOTES:
THESE DRAWINGS HAVE BEEN PREPARED TO DEPICT PROPOSED OVERALL TOWER HEIGHT DIMENSION AND SHALL NOT BE USED FOR CONSTRUCTION CONTRACTOR TO VERIFY TRUE HEIGHT WITH TAPE DROP

FIBER JUMPER CABLE INFO			
RAYCAP SPD TO REMOTE RADIO (B71/B12)			
SECTOR	QUANTITY	LENGTH	
ALPHA SECTOR	2	16.4 FT	5 m
BETA SECTOR	2	16.4 FT	5 m
GAMMA SECTOR	2	16.4 FT	5 m
ALL SECTORS MUST HAVE SAME JUMPER LENGTHS *PREFERRED JUMPER LENGTH OF 5m (16.4') *MAXIMUM JUMPER LENGTH OF 6m (19.7')			

RET JUMPER CABLE INFO			
ANTENNA TO REMOTE RADIO			
SECTOR	QUANTITY	LENGTH	
ALPHA SECTOR	1	32.8 FT	10 m
BETA SECTOR	1	32.8 FT	10 m
GAMMA SECTOR	1	32.8 FT	10 m
* STANDARD RET CABLE LENGTH OF 10 METERS; RF APPROVAL REQUIRED FOR ADDITIONAL RET CABLE LENGTHS			

COAX JUMPER CABLE INFO			
ANTENNA TO REMOTE RADIO			
SECTOR	QUANTITY	LENGTH	
ALPHA SECTOR	1	32.8 FT	10 m
BETA SECTOR	1	32.8 FT	10 m
GAMMA SECTOR	1	32.8 FT	10 m
* STANDARD RET CABLE LENGTH OF 10 METERS; RF APPROVAL REQUIRED FOR ADDITIONAL RET CABLE LENGTHS			



ANTENNA/COAX SCHEDULE											
ANTENNA	SECTOR	TECH	MANUFACTURER (MODEL#)	AZIMUTH (TRUE NORTH)	MOUNTING HEIGHT	ELECT. D-TILT	MECH. D-TILT	RRU MODEL	SURGE PROTECTION	COAX/CABLE RUN	COAX JUMPER*
A1	ALPHA	LTE	DENGYO OCT8-2LX2HX-BW65	350°	⌀ AT 100'-0"	2°	0°	(3) AHLOA TM-4T4R RRH	(1) RUSDC-6267-PF-48 RAYCAP	(1) 1 1/4" HYBRID	15'±
B1	BETA	LTE	DENGYO OCT8-2LX2HX-BW65	160°	⌀ AT 100'-0"	5°	0°				15'±
C1	GAMMA	LTE	DENGYO OCT8-2LX2HX-BW65	270°	⌀ AT 100'-0"	2°	0°				15'±
<u>NOTE:</u> 1. *CONTRACTOR SHALL FIELD VERIFY HYBRID CABLE AND COAX JUMPER LENGTHS PRIOR TO ORDERING MATERIALS. 2. (1) ANTENNA PER SECTOR FOR A TOTAL OF (3) ANTENNAS. 3. CONTRACTOR TO VERIFY AZIMUTHS PRIOR TO CONSTRUCTION. 4. CONTRACTOR TO REQUEST RF SHEET FROM CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.											

1 TOWER ELEVATION
SCALE: N.T.S.

2 TYPICAL ANTENNA AZIMUTH PLAN (TOP VIEW)
SCALE: N.T.S.



VENDOR:

U.S. Cellular.
3545 N. 124TH STREET
BROOKFIELD, WI 53005

Branch
COMMUNICATIONS
A SOLUTIONS PROVIDER

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:

ABILENE DTN

SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

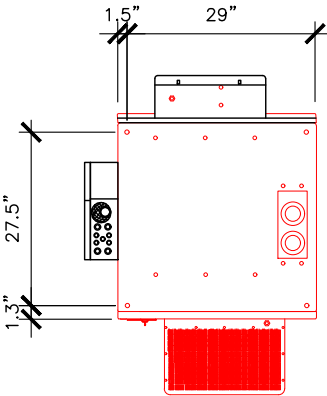
ENGINEER:

MICHAEL T. DE BOER
LICENSED
14458
PROFESSIONAL ENGINEER
PE #14458 EXP 4/30/2020

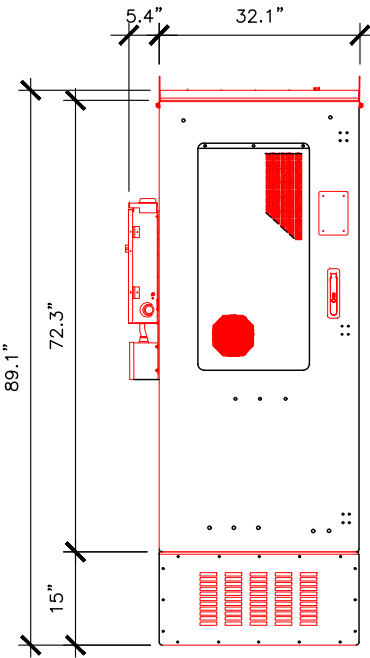
NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:
**TOWER ELEVATION,
ORIENTATION & DETAILS**
SHEET NUMBER: PROJECT #: REVISION:
C4 856529 0
BY: MAH CKD BY: JWM

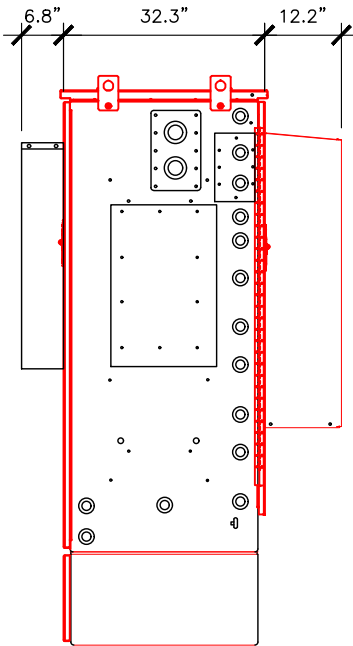
MANUFACTURER: CHARLES INDUSTRIES, LTD
MODEL: CUBE-PM63912UN4
DIMENSIONS (EXCLUDING A/C): 89.1"x32"x32" (HxWxD)
WEIGHT: APPROX. 553



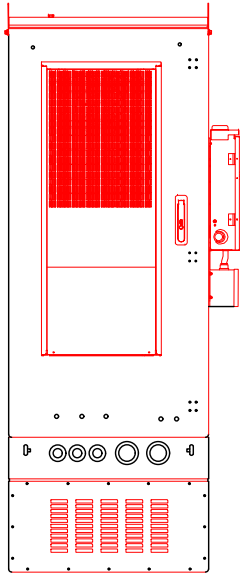
PLAN VIEW



LEFT SIDE VIEW

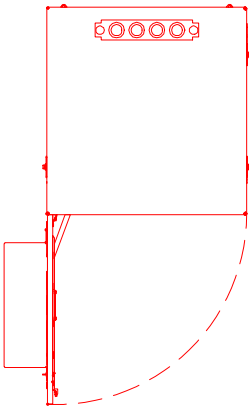


FRONT VIEW

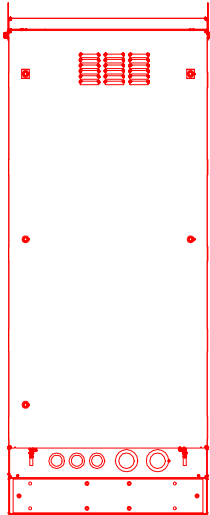


REAR VIEW

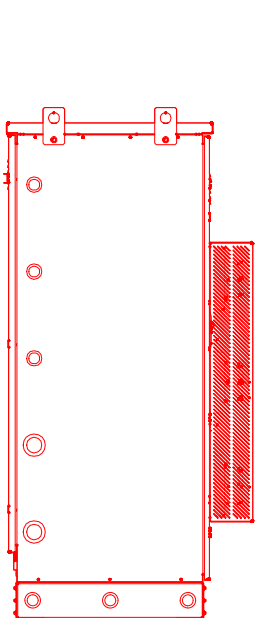
MANUFACTURER: CHARLES INDUSTRIES, LTD
MODEL: CUBE-BB48E2XVA
DIMENSIONS (EXCLUDING A/C): 74.1"x32"x32" (HxWxD)
WEIGHT: TO BE VERIFIED



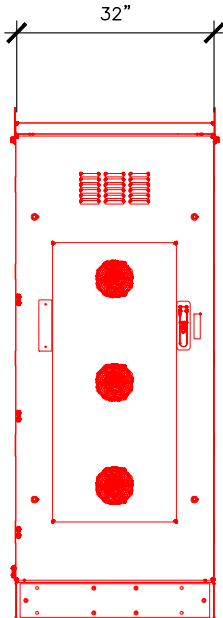
PLAN VIEW



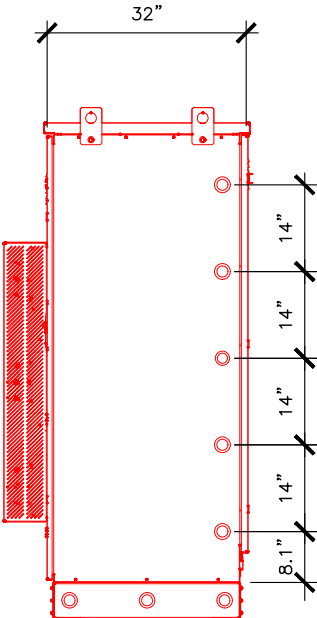
REAR VIEW



LEFT SIDE VIEW



FRONT VIEW



RIGHT SIDE VIEW

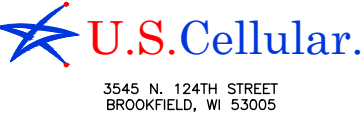
1 OUTDOOR RADIO CABINET

SCALE: 0' 1' 5'

2 OUTDOOR BATTERYCABINET

SCALE: 0' 1' 5'

VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

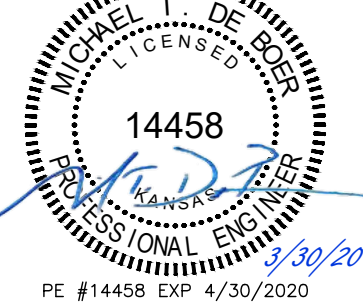
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:

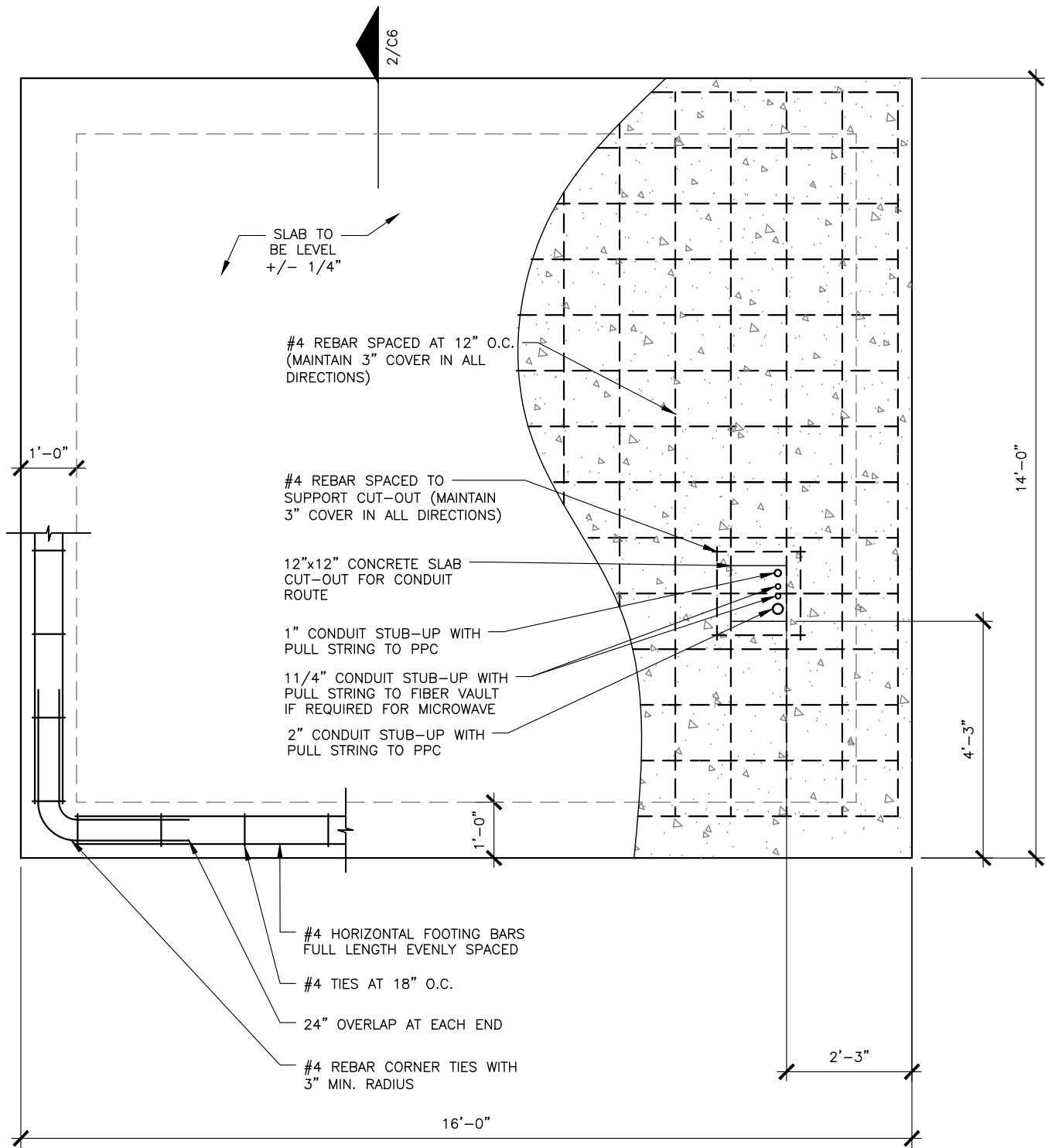


NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

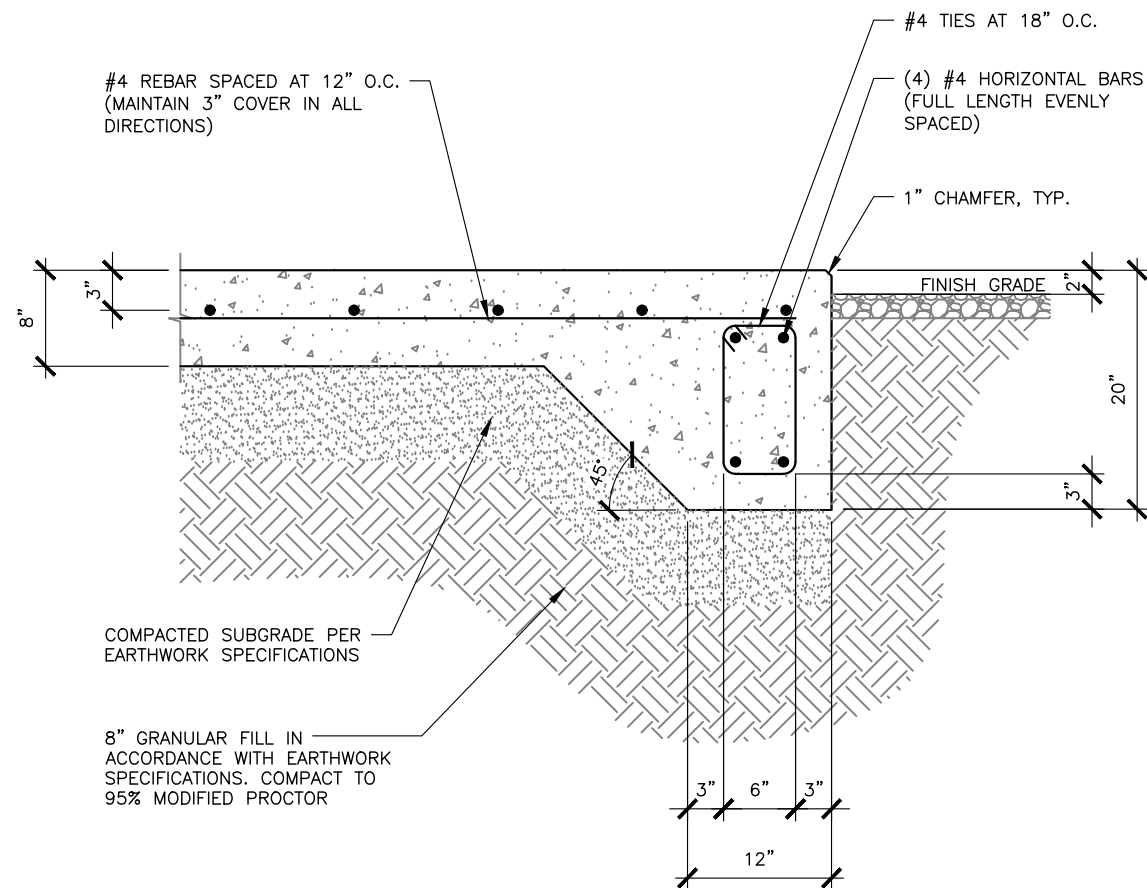
CABINET DETAILS			
SHEET NUMBER: C5		PROJECT #: 856529	REVISION: 0
BY: MAH	CKD BY: JWM		

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet: C6 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm



1 FOUNDATION PLAN

SCALE: 0' 1' 5' 10'



2 TYPICAL FOUNDATION

SCALE: 0' 1' 5' 10'

VENDOR:



PRODUCED BY:

DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:

ABILENE DTN

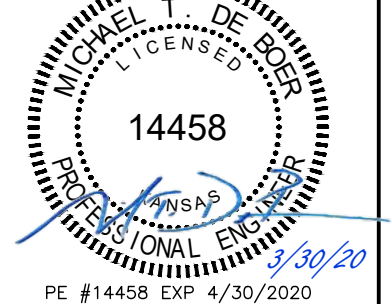
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

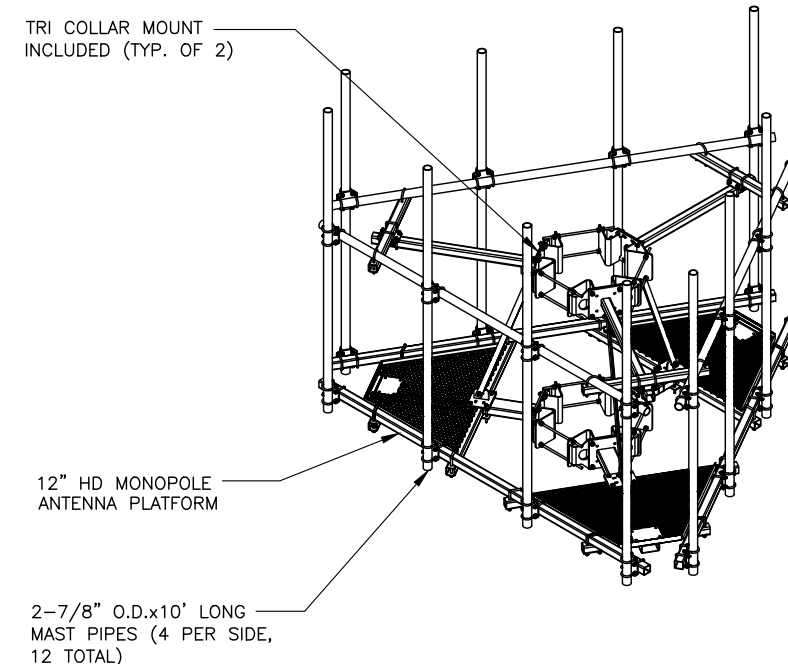
FOUNDATION DETAILS

SHEET NUMBER:	PROJECT #:	REVISION:
C6	856529	0
BY: MAH	CKD BY: JWM	

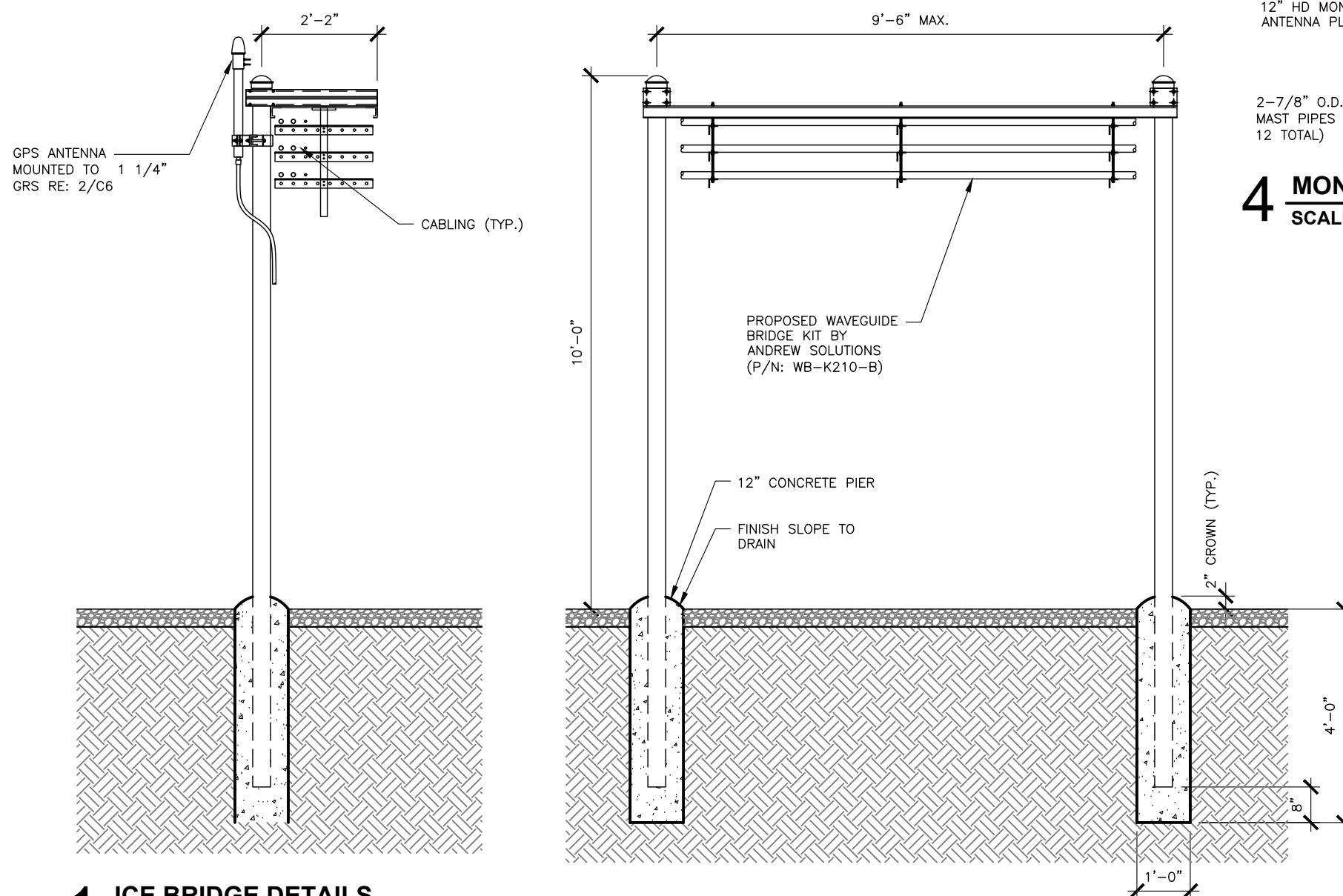


- HEAVY-DUTY UNIVERSAL SUPPORT BRACKET
- SITE PRO 1 PART UTL14
- MOUNTS TO ROUND MEMBERS (1-1/2" O.D. TO 6-1/2" O.D.)
- PUNCHED WITH 3/4" HOLES FOR SNAP-IN HANGERS AND 7/16" HOLES FOR HARDWARE
- HOT-DIP GALVANIZED
- CAN BE BOLTED DIRECTLY TO PIROD KNOCK-DOWN LEGS WITH INCLUDED HARDWARE

CONSTRUCTOR TO VERIFY POLE DIAMETER AND SUITABILITY OF PROPOSED MOUNT FOR SITE. IF AN ALTERNATIVE SOLUTION IS PROPOSED, NOTIFY ENGINEER AND OWNER PRIOR TO PROCEEDING.

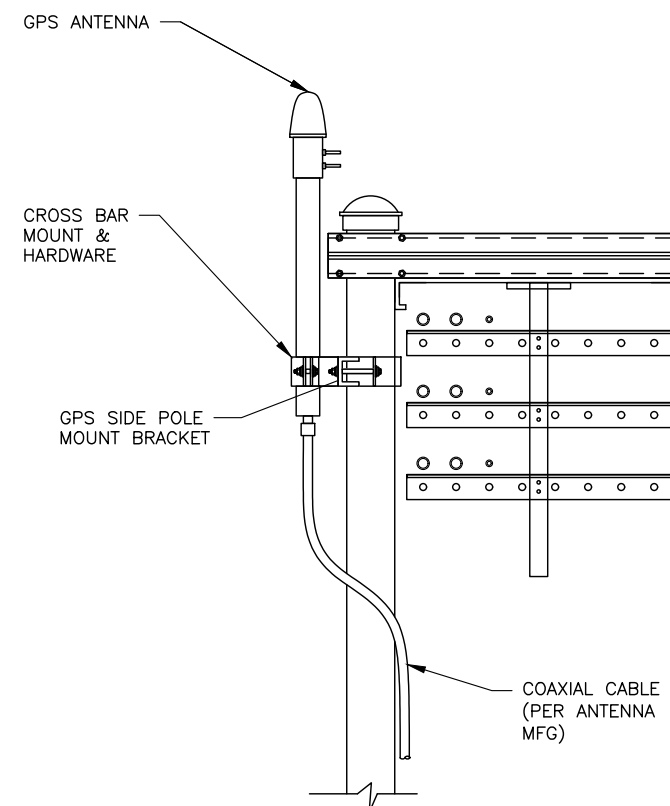


4 MONOPOLE ANTENNA PLATFORM



1 ICE BRIDGE DETAILS

SCALE: N.T.S.



2 GPS ANTENNA MOUNTING DETAIL

SCALE: N.T.S.



3545 N. 124TH STREET
BROOKFIELD, WI 53005



BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

ABILENE DTN

856529

SITE ADDRESS:
TBA
ABILENE KS 67410

ENGINEER:



3/30/20

PE #14458 EXP 4/30/2020

NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

ICE BRIDGE DETAILS

SHEET NUMBER:	PROJECT #:	REVISION
	856520	

C7

BY:	CKD B
MAH	IWM

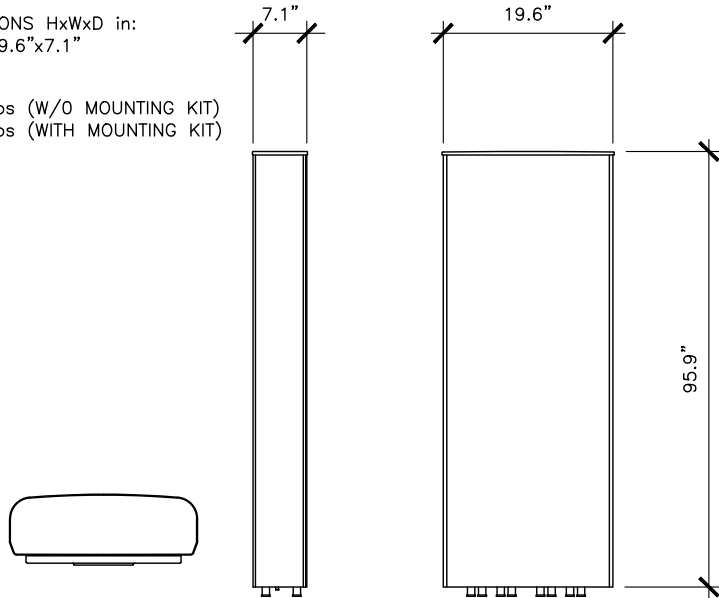
C

DENGYO OCT8-2LX2HX-BW45

RADOME MATERIAL:
ASA

DIMENSIONS HxWxD in:
95.9"x19.6"x7.1"

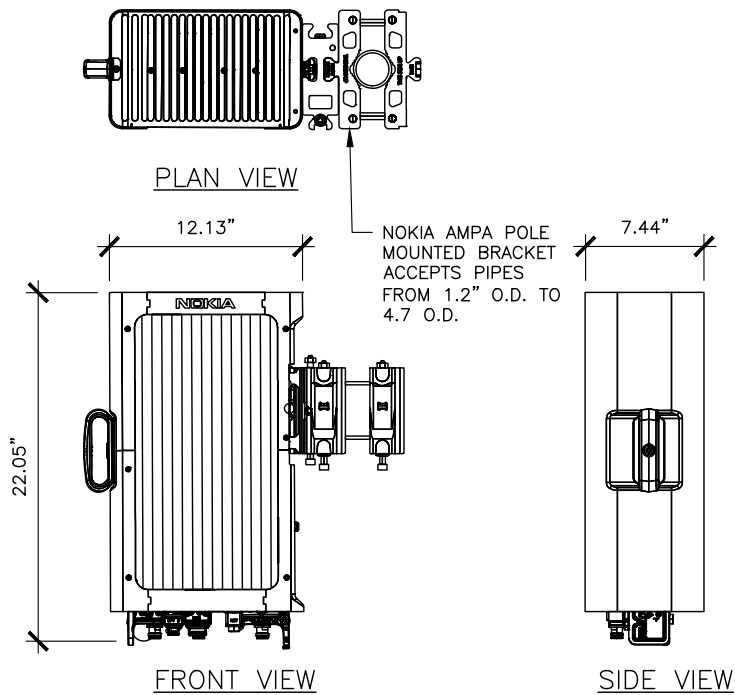
WEIGHT:
103.4 lbs (W/O MOUNTING KIT)
116.6 lbs (WITH MOUNTING KIT)



1 OCT8-2LX2HX-BW65 ANTENNA DETAIL

SCALE: N.T.S.

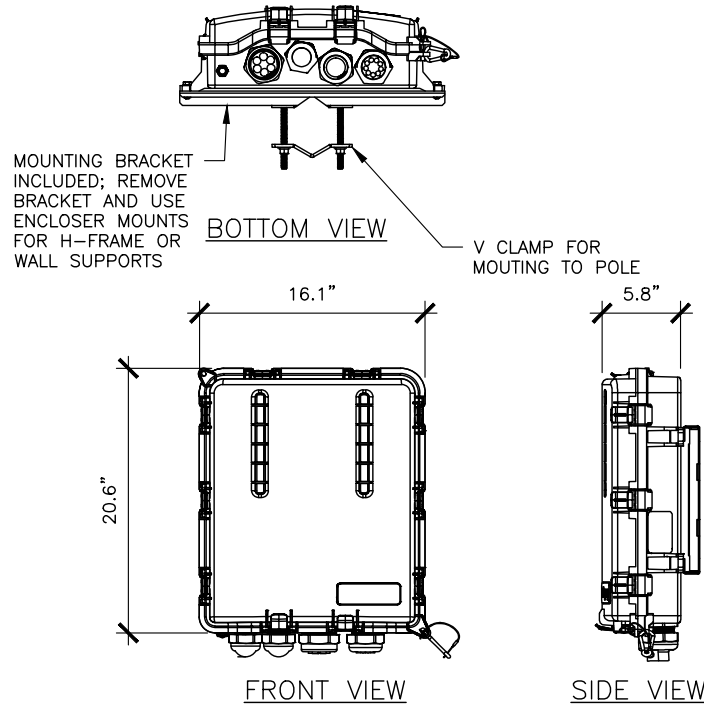
MANUFACTURER: NOKIA
MODEL: AIRSCALE DUAL RRH 4T4R B12/B71 240W (AHLOA)
DIMENSIONS: 22.05"x12.13"x7.44" (HxWxD)
WEIGHT: 83.9 LBS (WITHOUT SOLAR SHIELD)



2 REMOTE RADIO HEAD (RRH) - AHLOA

SCALE: N.T.S.

MANUFACTURER: RAYCAP
MODEL: RUSDC-6267=PF-48
DIMENSIONS: 20.6"x18.9"x5.8" (HxWxD)
WEIGHT: 19.95 LBS

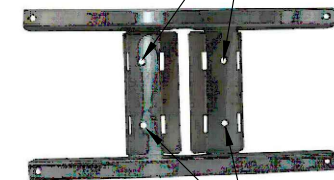


3 RAYCAP SURGE PROTECTOR DEVICE (SPD)

SCALE: N.T.S.



HOLES FOR MOUNTING
HARDWARE



HOLES FOR MOUNTING
HARDWARE

LOCK WASHER

BOLT

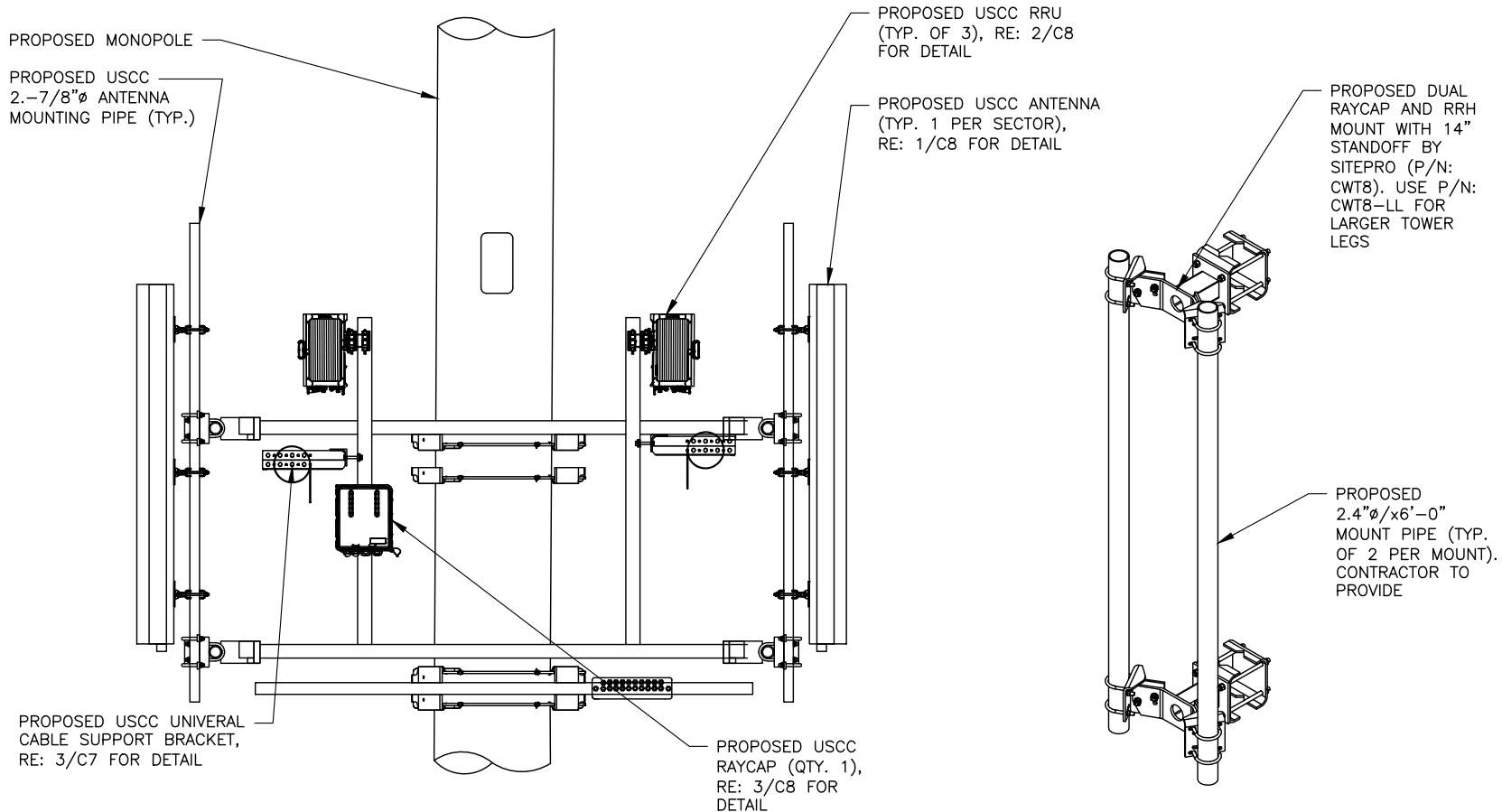
NUT

WASHER

WASHER

4 RAYCAP SURGE PROTECTOR DEVICE (SPD) MOUNT

SCALE: N.T.S.



5 ANTENNA AND EQUIPMENT MOUNTING

SCALE: N.T.S.

6 RRH MOUNT DETAIL

SCALE: N.T.S.

VENDOR:



3545 N. 124TH STREET
BROOKFIELD, WI 53005



BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER

MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:

ABILENE DTN

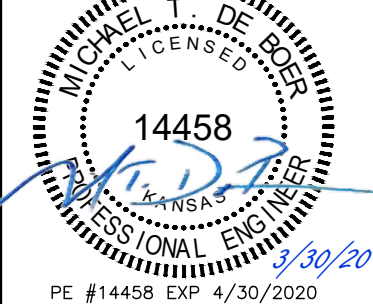
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

**ANTENNA AND
EQUIPMENT DETAILS**

SHEET NUMBER: PROJECT #: REVISION:

C8 856529 0
BY: MAH CKD BY: JWM

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet:09 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm



Base Station Antennas

Frequency Range	617-894x2 1695-2400x2
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2° - 12°x4

Type OCT8-2LX2HX-BW65

Base Station Antenna

8-ports 617-894 / 617-894 /1695-2400 /1695-2400 MHz 65°, 16 / 16 / 18 / 18 dBi, 2°-12° / 2°-12° / 2°-12° / 2°-12° Tilt Antenna With 4 Integrated RCUs.



Electrical Specifications

Frequency Range(MHz)		2x617-894			2x1695-2400		
		617-698	698-824	824-894	1695-1920	1920-2180	2300-2400
Polarization		±45°					
Horizontal 3dB Beamwidth(°)		70	65	60	66	63	58
Vertical 3dB Beamwidth(°)		10.4	9.1	8.0	5.5	5	4.3
Gain (dBi)		15.1	15.6	16.0	17.5	18.0	18.1
Electrical Downtilt		2°-12°			2°-12°		
Upper Sidelobe Suppression(dB)	First	≥16	≥16	≥16	≥16	≥16	≥16
Front-to-Back Ratio Total Power, ±30° (dB)		≥25	≥25	≥25	≥25	≥25	≥25
Cross polar ratio	Main direction(dB)	≥17	≥17	≥17	≥17	≥17	≥17
	±60° (dB)	≥7	≥7	≥7	≥7	≥7	≥7
Isolation ports		≥25 dB					
Isolation Frequency		≥30 dB					
VSWR		< 1.5					
Intermodulation IM3		< -150 dBc(2x43dBm carrier)					
Impedance		50 Ω					
Max. Power per Input (at 50°C ambient temperature)		500 W			300 W		
Lightning Protection		DC Ground					

Mechanical Specifications

Radome Material	ASA
Connector Type and Location	4,3-10x8, Bottom IRCUI in:1 x 8 pin male IRCUI out:1 x 8 pin female
Dimensions,HxWxD(mm)/(inches)	2438 x 533 x 160 / 95.9 x 21.0 x 6.3
Packing Size(mm)/(inches)	2660 x 634 x 291 / 104.7 x 25.0 x 11.5
Weight ,w/o Mounting kit(kg)/(lbs)	40 / 88.2
Weight,with Mounting kit(kg)/(lbs)	46 / 101.4
Packing Weight(kg)/(lbs)	52 / 114.7
Max. Wind Velocity(mph)	150
Mounting hardware	Φ 50 mm ~ Φ 115 mm
Operational Temperature(°C)	-40 to +65
Operational Humidity(%)	<95
Wind Load at 100mph (Frontal/lateral/Rearside(N))	1502/280/1089

This publication is issued to information only and is not to form part of any order or contract DENGYO reserves the right to changes specifications without prior notice.

1 ANTENNA SPECIFICATIONS

SCALE: N.T.S.



Base Station Antennas

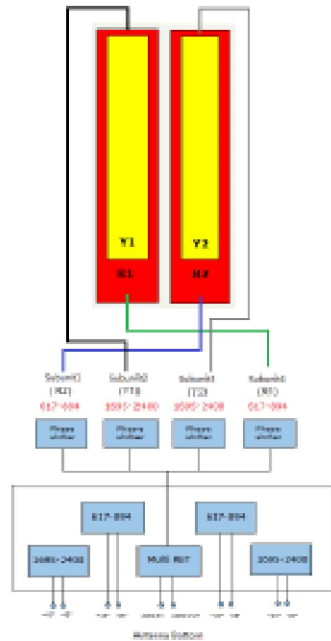
Frequency Range	617-894x2 1695-2400x2
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2° - 12°x4

Type OCT8-2LX2HX-BW65

Integrated RET Properties

Protocol	Compliant to AISG 2.0/SGPP	
Input voltage range	+10~+30VDC(pin 6)	
Power consumption	<2W(stand by),<13W(motor activated)	
Connections	AISG	2 x 8 pin connector acc. To IEC 60130-9 Acc to AISG Delay chain in:male Delay chain out:female
	Antenna	Two motor shaft(Embedded motor)
Hardware Interface	AISG	RS485A/B(pin5/pin3),Power supply(pin6), DC return(pin7)Acc to AISG
Adjustment time(full range)	40 sec(typically,depending on antenna)	
Adjustment Cycle	≥10000	
Torque Max	≥160mN.m	
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile,8/20 μs,10 Repetitions Min.@ 8kA IEC 61312-1 Annex B Current Pulse Profile, 10/350 μs,200 Repetitions Min. @ 0.8kA	

COMPREHENSIVE TILT CONFIGURATION



This publication is issued to information only and is not to form part of any order or contract DENGYO reserves the right to changes specifications without prior notice.

Copyright © 2018 DENGYO All Rights Reserved 2 / 3

OCT8-2LX2HX-BW65 Rev.1

VENDOR:



3545 N. 124TH STREET
BROOKFIELD, WI 53005



BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER

MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:

ABILENE DTN

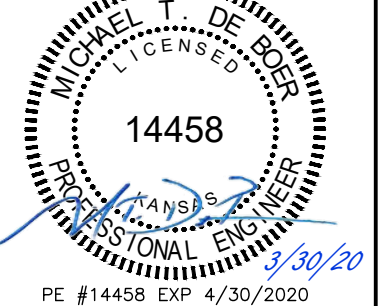
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



PE #14458 EXP 4/30/2020

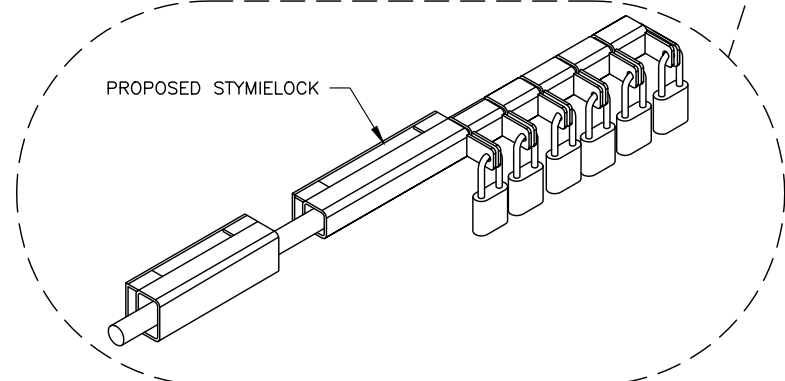
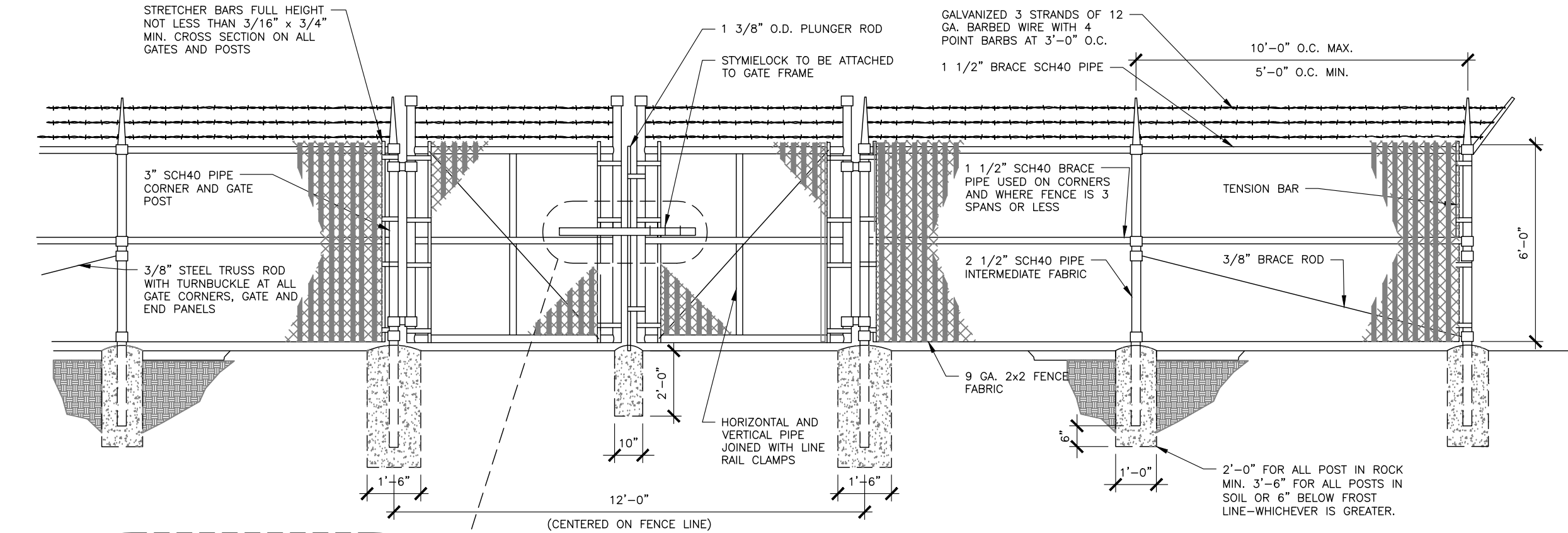
NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

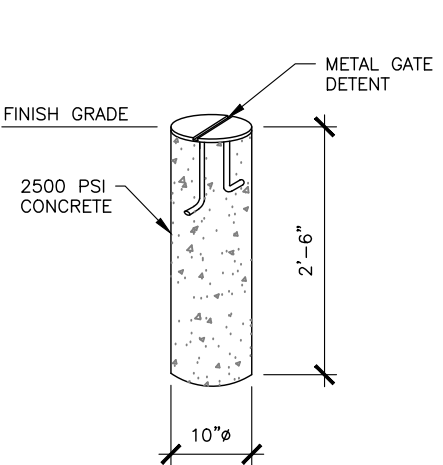
ANTENNA SPECIFICATIONS

SHEET NUMBER:	PROJECT #:	REVISION:
C9	856529	0
BY: MAH	CKD BY: JWM	

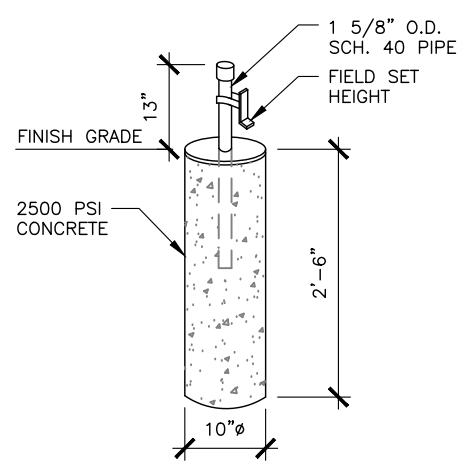
USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet C10 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm



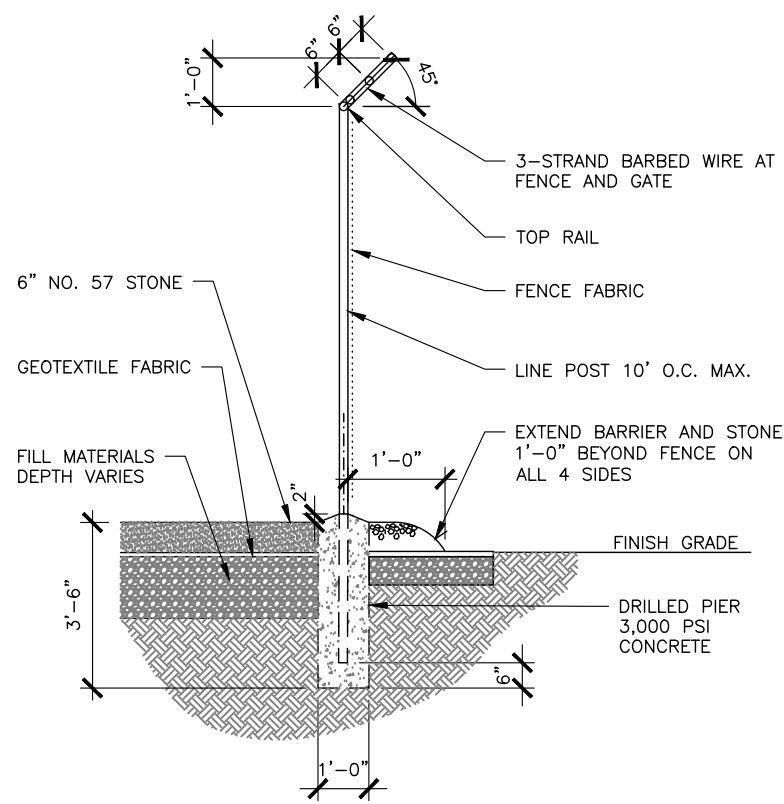
1 **TYPICAL FENCE DETAIL**
SCALE: N.T.S.



2 **GATE DETENT DETAIL**
SCALE: N.T.S.



3 **GATE STOP/KEEPER DETAIL**
SCALE: N.T.S.



4 **FENCE / BARBED WIRE ARM DETAIL**
SCALE: N.T.S.

VENDOR:

U.S. Cellular.

3545 N. 124TH STREET
BROOKFIELD, WI 53005

Branch
COMMUNICATIONS
A SOLUTIONS PROVIDER

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER

MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:
ABILENE DTN

SITE NUMBER:
856529

SITE ADDRESS:
TBA
ABILENE KS 67410

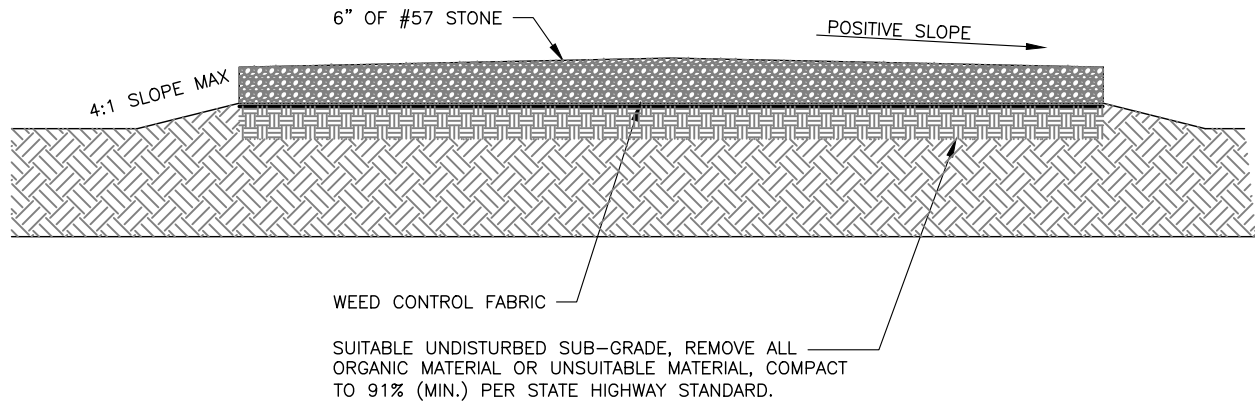
ENGINEER:

MICHAEL T. DE BOER
LICENSED
14458
PROFESSIONAL ENGINEER
KANSAS
3/30/20
PE #14458 EXP 4/30/2020

NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:
FENCE DETAILS

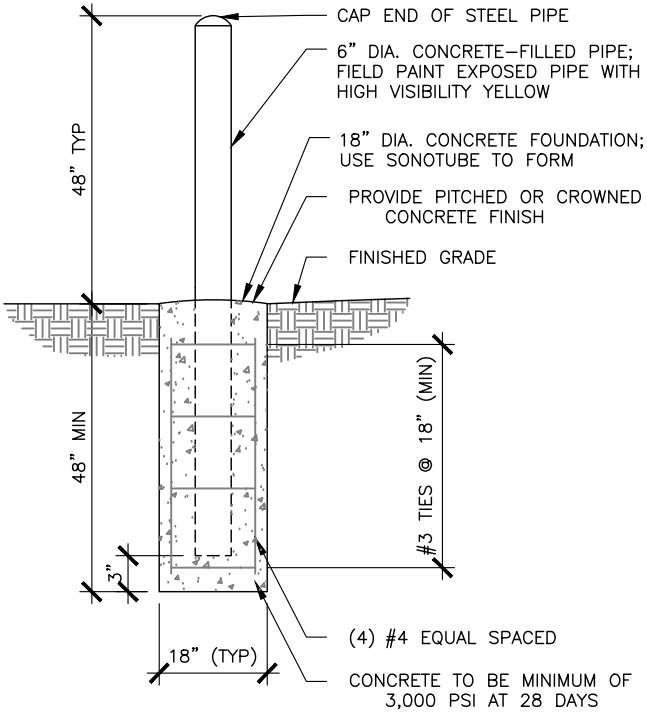
SHEET NUMBER: C10	PROJECT #: 856529 BY: MAH	REVISION: CKD BY: JWM 0
-----------------------------	---------------------------------	--------------------------------------



NOTE:
CONTRACTOR TO HAVE A BRANCH TOWERS REPRESENTATIVE VERIFY PREVENTATIVE WEED CONTROL MATERIAL HAS BEEN INSTALLED IN COMPOUND AND ACCESS ROAD PRIOR TO PLACEMENT OF ROCK AGGREGATE.

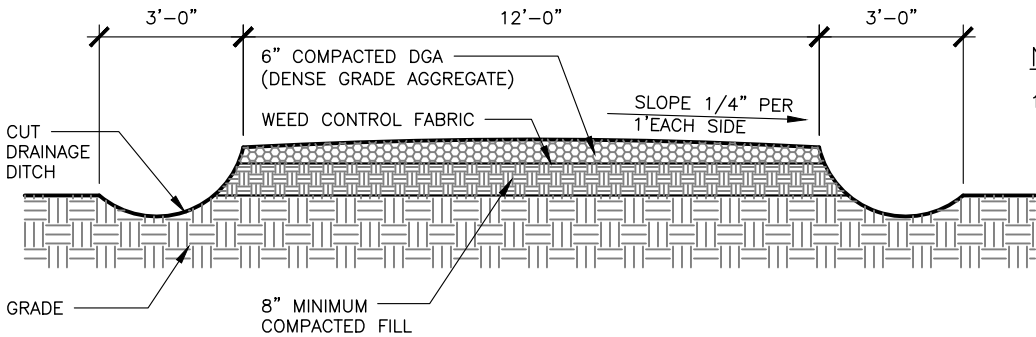
1 COMPOUND DETAIL

SCALE: N.T.S.



2 PIPE BOLLARD DETAIL

SCALE: N.T.S.



NOTE:
1. CONTRACTOR TO HAVE A BRANCH COMMUNICATIONS REPRESENTATIVE TO VERIFY PREVENTATIVE WEED CONTROL MATERIAL HAS BEEN INSTALLED IN COMPOUND AND ACCESS ROAD PRIOR TO PLACEMENT OF ROCK AGGREGATE.

3 ROAD DETAIL

SCALE: N.T.S.

VENDOR:

U.S. Cellular.

3545 N. 124TH STREET
BROOKFIELD, WI 53005

Branch
COMMUNICATIONS
A SOLUTIONS PROVIDER

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER

MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:
ABILENE DTN

SITE NUMBER:
856529

SITE ADDRESS:
TBA
ABILENE KS 67410

ENGINEER:

MICHAEL T. DE BOER
LICENSED
14458
PROFESSIONAL ENGINEER
PE #14458 EXP 4/30/2020

NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:
DRIVEWAY DETAILS

SHEET NUMBER: C11	PROJECT #: 856529 BY: MAH CKD BY: JWM	REVISION: 0
-----------------------------	--	-----------------------

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - SheetC12 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm

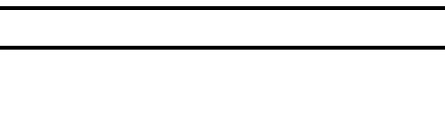
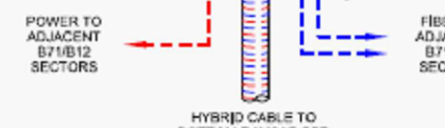
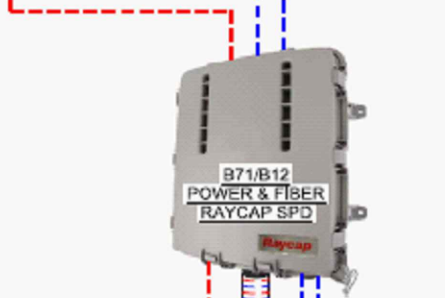
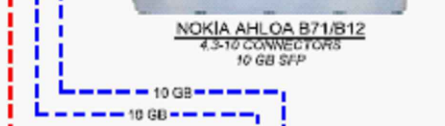
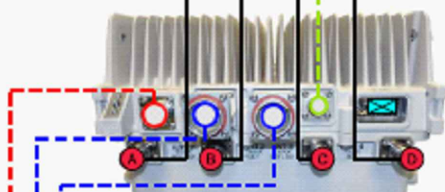
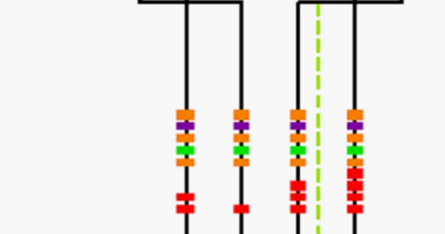


NOTES:

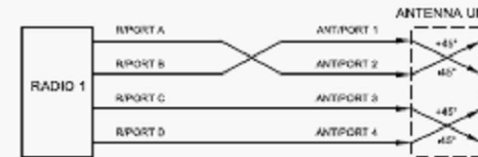
1. ALL JUMPERS BETWEEN RADIO UNITS & ANTENNAS MUST BE THE SAME LENGTH.
2. CONTRACTOR TO INSTALL WEATHERPROOF CAP ON ALL UNUSED PORTS.

NSN// B71/B12
PER SECTOR CONFIGURATION

LTE
700/800 MHz
4.3-10 CONNECTORS



ANT. TO AIRSCALE RADIO DE-CORRELATION



CABLE LEGEND

- EUPEN HYBRID CABLE
- 1/2" COAX JUMPER
- FIBER JUMPER
- POWER JUMPER
- RET JUMPER
- MID BAND PORT
- LOW BAND PORT
- WEATHERPROOF CAP

PLUMBING DIAGRAM: DX219

CONTAINS U.S. CELLULAR® CONFIDENTIAL INFORMATION, NOT FOR EXTERNAL USE OR DISCLOSURE WITHOUT PROPER AUTHORIZATION.



DATE CREATED: 06/11/2019

1 PLUMBING DETAIL
SCALE: N.T.S.

DETAIL PROVIDED BY OWNER

VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

LTE PLUMBING DIAGRAM

SHEET NUMBER:	PROJECT #:	REVISION:
C12	856529	0
BY: MAH	CKD BY: JWM	

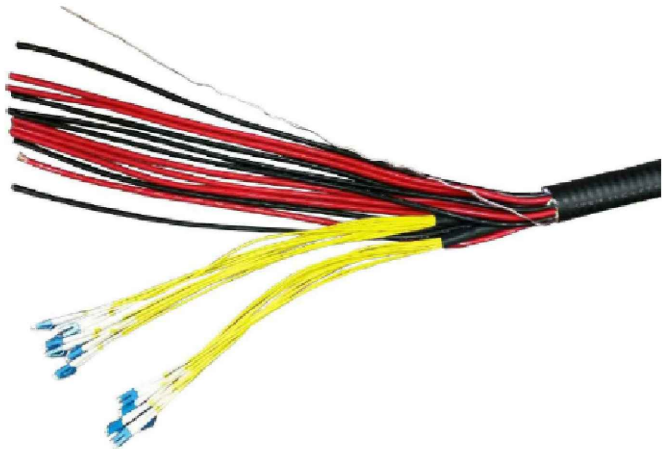
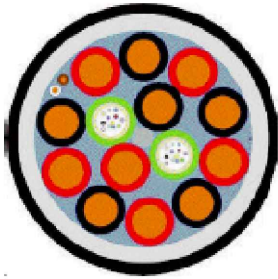
MANUFACTURER: EUPEN
MODEL: EUCAHYBRID 114-12AWG6
MINIMUM BENDING RADIUS: 360mm (14")
MAXIMUM PULLING STRENGTH: 150 daN
MAXIMUM HANGER SPACING: 1.0m
APPROX. WEIGHT: 1.55 LB/FT (2300 kg/km)

1-1/4" HYBRID FIBER OPTIC CABLE WITH 48V ENERGY FEEDER IN CORRUGATED ALUMINUM SHIELDING WITH UV RESISTANT PE JACKET

SHIPPED WITH 4" PROTECTED JACKET (2.25" O.D.) AT EACH END.

NON-ARMORED ENDS ARE 3" IN LENGTH (2"O.D.).

MAXIMUM CABLE LENGTH OF 410'.



CABLE LENGTHS: *X202

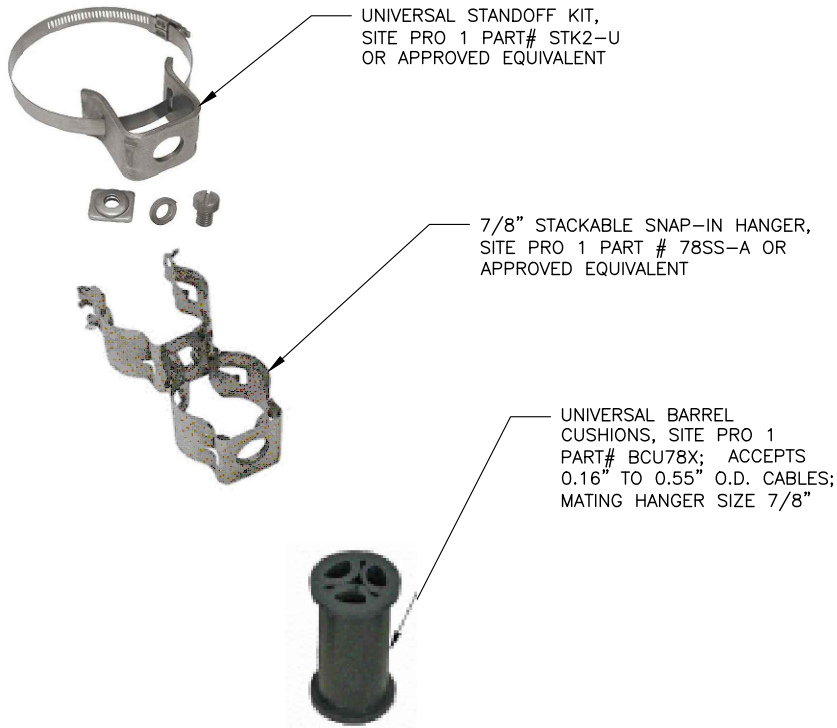
SCALE: N.T.S.

MANUFACTURER: SITE PRO 1

MODEL: STK2-U
UNIVERSAL TOWER STANDOFF KIT
FITS 1-1/2" DIA. TO 3" DIA. ROUND MEMBERS

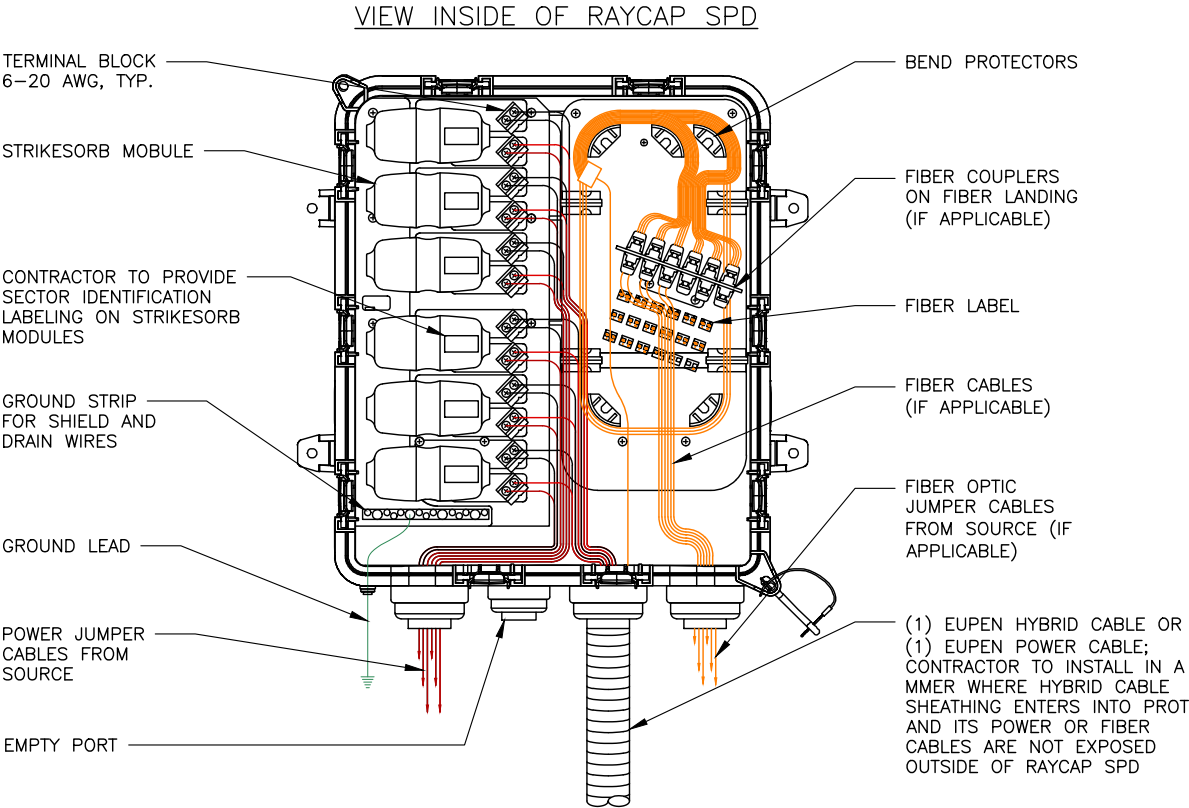
MODEL: 78SS-A
7/8" STACKABLE SNAP-IN HANGER

MODEL: 8CU78X
UNIVERSAL BARREL CUSHION
ACCEPTS 0.16" TO 0.55" O.D. CABLES
7/8" MATING HANGER



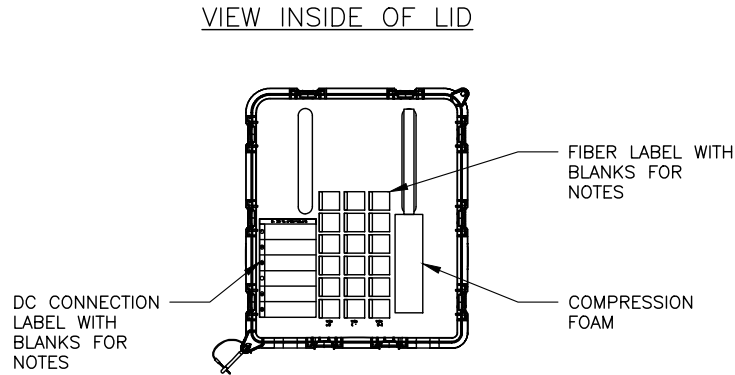
JUMPER ATTACHMENT

SCALE: N.T.S.



RAYCAP SURGER PROTECTOR DEVICE (SPD) CABLING

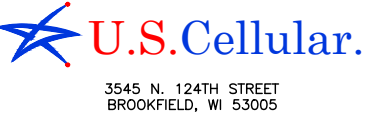
SCALE: N.T.S.



FIBER LABEL

SCALE: N.T.S.

VENDOR:



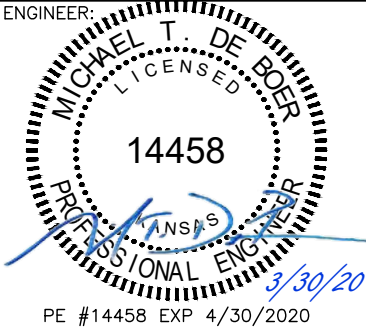
PRODUCED BY:



SITE NAME:
ABILENE DTN

SITE NUMBER:
856529

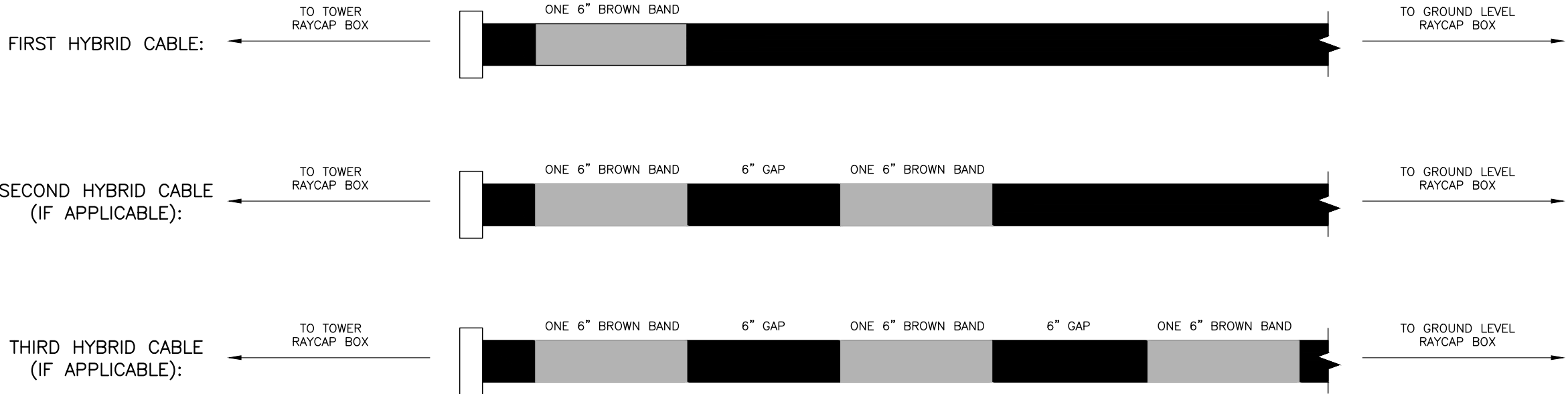
SITE ADDRESS:
TBA
ABILENE KS 67410



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

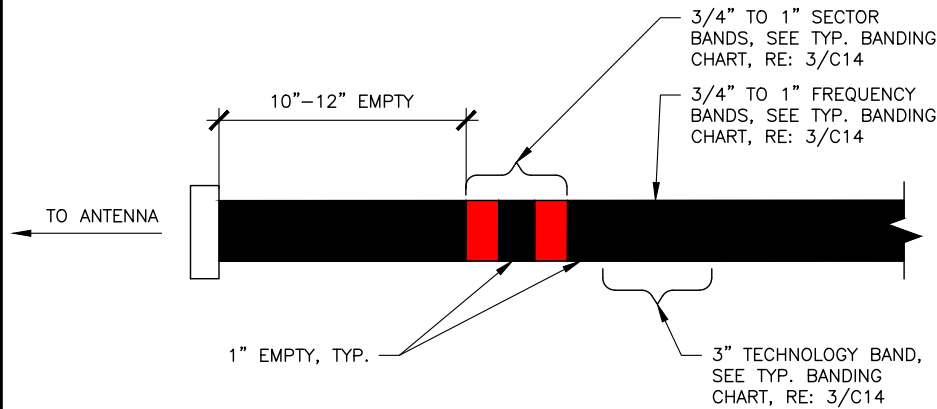
SHEET TITLE:		
CABLE DETAILS		
SHEET NUMBER:	PROJECT #:	REVISION:
C13	856529	0
BY: MAH	CKD BY: JWM	

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg -- Sheet: C14 -- User: Mary.Hopkins -- Mar 30, 2020 -- 3:40pm



1 CABLE LENGTHS: *X202

SCALE: N.T.S.



RET SECTOR BAND			
SECTOR	ASSIGNED COLOR	LINE 1	LINE 2
ALPHA	RED	(1) RED BAND	(2) RED BANDS
BETA	WHITE	(1) WHITE BAND	(2) WHITE BANDS
GAMMA	BLUE	(1) BLUE BAND	(2) BLUE BANDS

SECTOR BAND (MOST COMMON CASE: SINGLE TECHNOLOGY WITHIN THE SECTOR)					
SECTOR	ASSIGNED COLOR	LINE 1	LINE 2	LINE 3	LINE 4
ALPHA	RED	(1) RED BAND	(2) RED BANDS	(3) RED BANDS	(4) RED BANDS
BETA	WHITE	(1) WHITE BAND	(2) WHITE BANDS	(3) WHITE BANDS	(4) WHITE BANDS
GAMMA	BLUE	(1) BLUE BAND	(2) BLUE BANDS	(3) BLUE BANDS	(4) BLUE BANDS
DELTA (IF APPLICABLE)	GREEN	(1) GREEN BAND	(2) GREEN BANDS	(3) GREEN BANDS	(4) GREEN BANDS
EPSILON (IF APPLICABLE)	VIOLET	(1) VIOLET BAND	(2) VIOLET BANDS	(3) VIOLET BANDS	(4) VIOLET BANDS
ZETA (IF APPLICABLE)	BROWN	(1) BROWN BAND	(2) BROWN BANDS	(3) BROWN BANDS	(4) BROWN BANDS

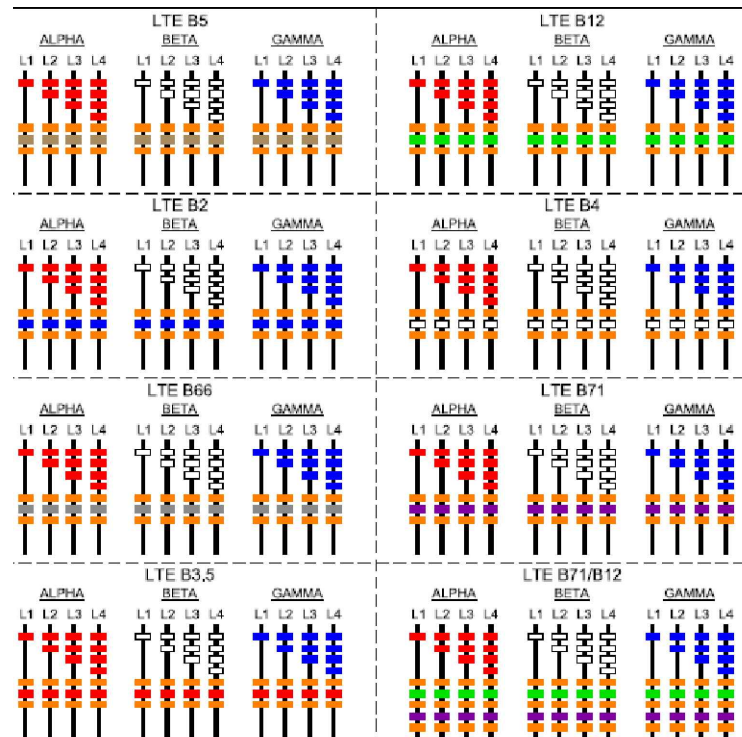
SECTOR BAND (EXCEPTION CASE: ALPHA SECTOR CDMA ON 1 & 4, LTE ON 2 & 3)					
SECTOR	ASSIGNED COLOR	LINE 1 (CDMA)	LINE 2 (LTE)	LINE 3 (LTE)	LINE 4 (CDMA)
ALPHA	RED	(1) RED BAND	(1) RED BAND	(2) RED BANDS	(2) RED BANDS

TECHNOLOGY BAND	
TECHNOLOGY	BANDING
CDMA	YELLOW
GSM	VIOLET
LTE	ORANGE

FREQUENCY BAND		
FREQUENCY	BAND	BANDING
700	B12	GREEN
800/850	B5	BROWN
1900	B2	BLUE
2100	B4	WHITE
2100	B66	GREY
600	B71	VIOLET
3.5 GHz	-	RED

NOTE:

1. REFER TO LATEST EDITION OF U.S. CELLULAR STANDARD: ST072 TO VERIFY CURRENT COLOR CODING



2 TYP. RET CABLE BANDING

SCALE: N.T.S.

3 TYP. BANDING CHART

SCALE: N.T.S.

4 TYP. COAX COLOR CODE STANDARDS

SCALE: N.T.S.

VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

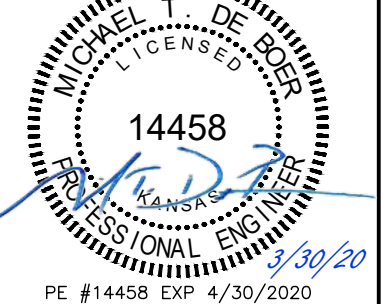
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



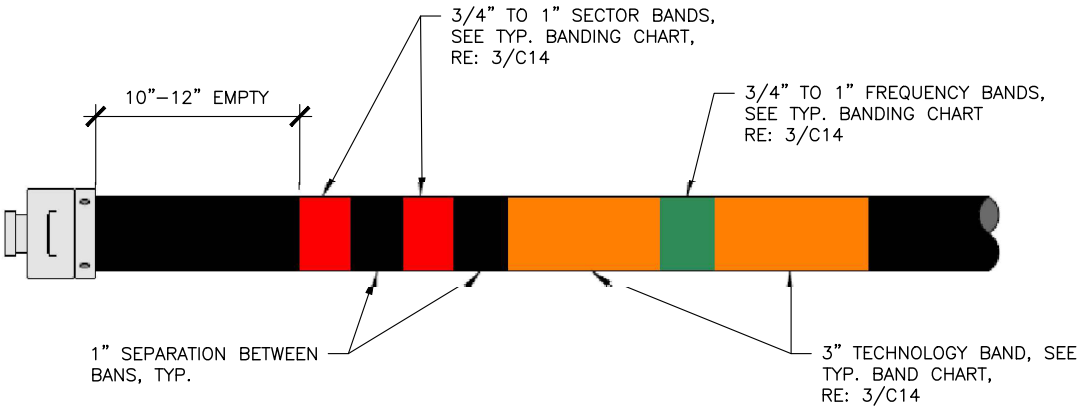
NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

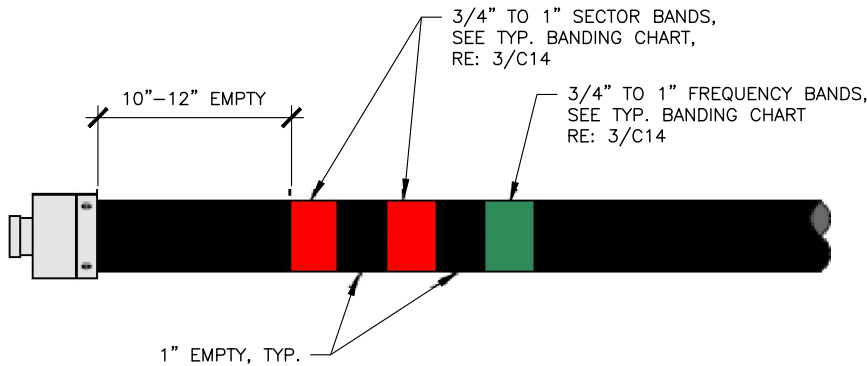
CABLE BANDING DETAILS

SHEET NUMBER:	PROJECT #:	REVISION:
C14	856529	0
BY: MAH	CKD BY: JWM	

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet: C15 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm

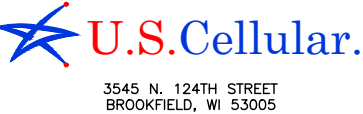


1 TYP. COAX JUMPER BANDING
SCALE: N.T.S.



2 TYP. COAX JUMPER BANDING
SCALE: N.T.S.

VENDOR:



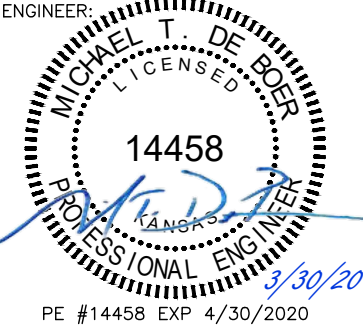
PRODUCED BY:



SITE NAME:
ABILENE DTN

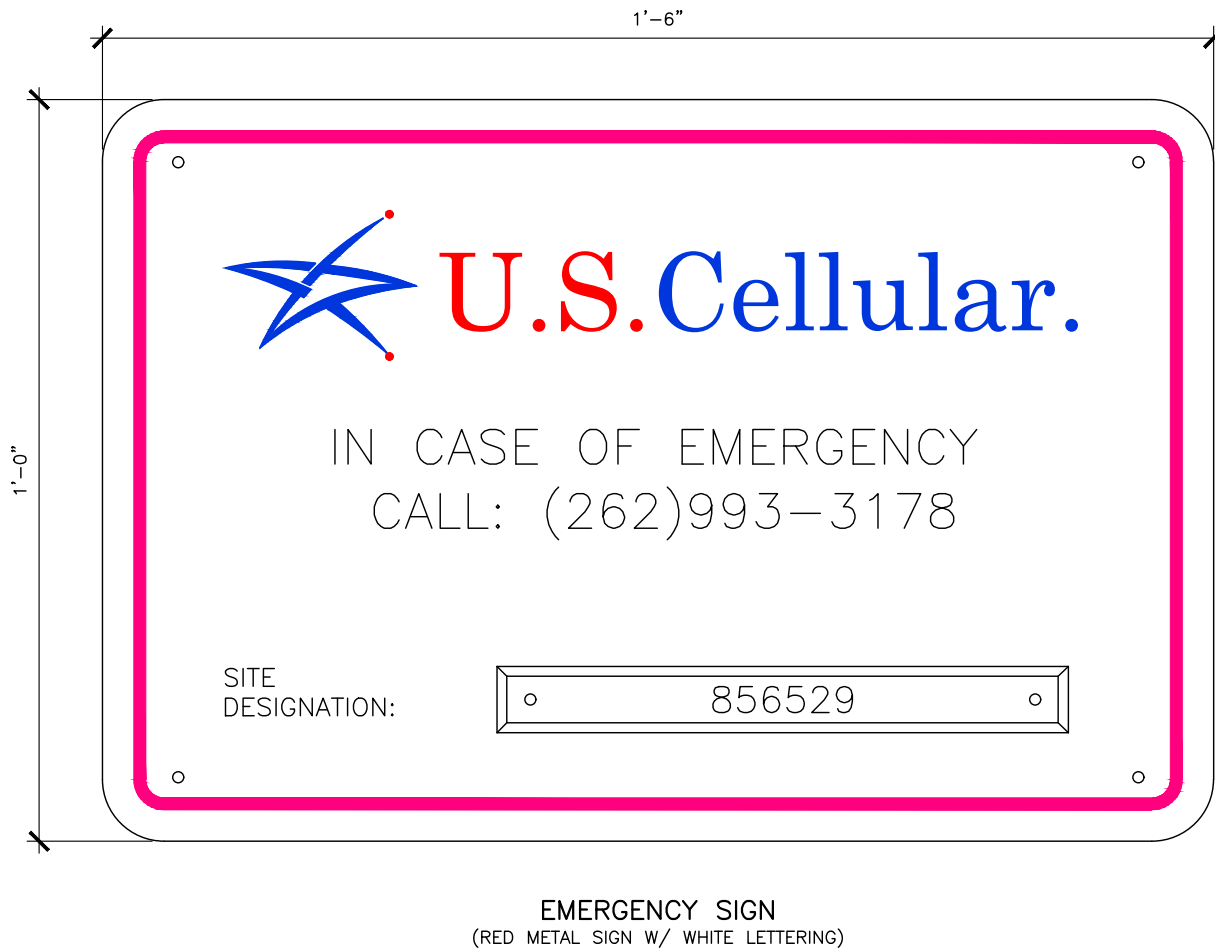
SITE NUMBER:
856529

SITE ADDRESS:
TBA
ABILENE KS 67410



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

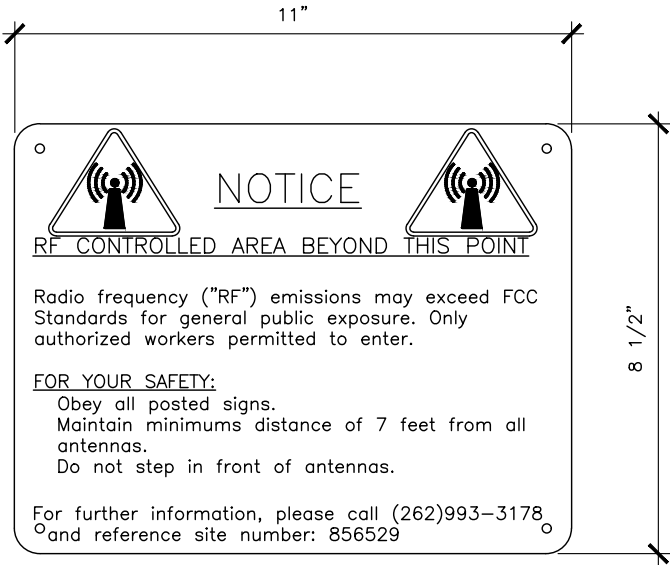
SHEET TITLE: CABLE BANDING DETAILS			
SHEET NUMBER: C15		PROJECT #: 856529	REVISION: 0
BY: MAH		CKD BY: JWM	



EMERGENCY SIGN
(RED METAL SIGN W/ WHITE LETTERING)

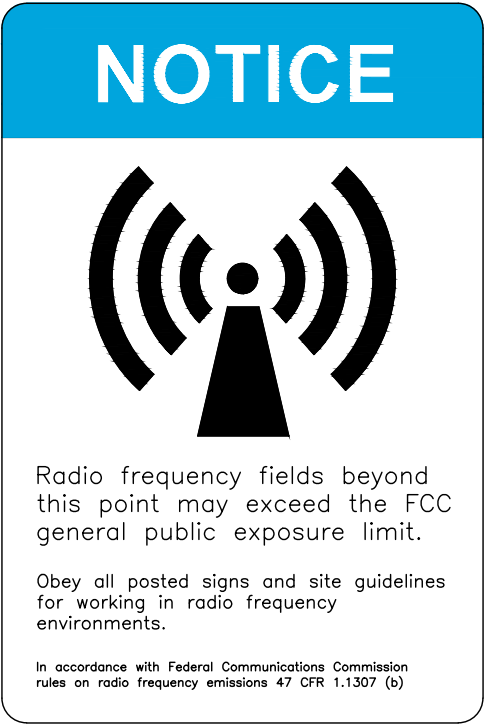
1 SIGNAGE DETAIL
SCALE: N.T.S.

NOTES:
1. SIGNS TO BE MOUNTED ON THE OUTSIDE OF ACCESS GATE TO THE EXISTING COMPOUND



RF NOTICE SIGN
(WHITE METAL SIGN W/ BLACK LETTERING)

2 SIGNAGE DETAIL
SCALE: N.T.S.



3 SIGNAGE DETAIL
SCALE: N.T.S.

VENDOR:


3545 N. 124TH STREET
BROOKFIELD, WI 53005


BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

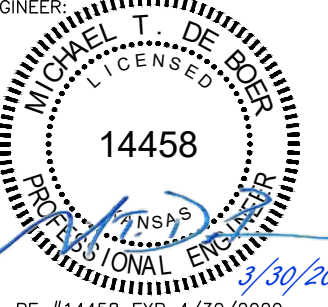
DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:
ABILENE DTN

SITE NUMBER:
856529

SITE ADDRESS:
TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:
SIGNAGE

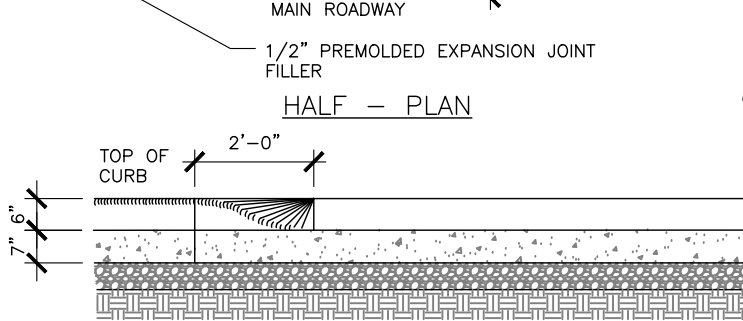
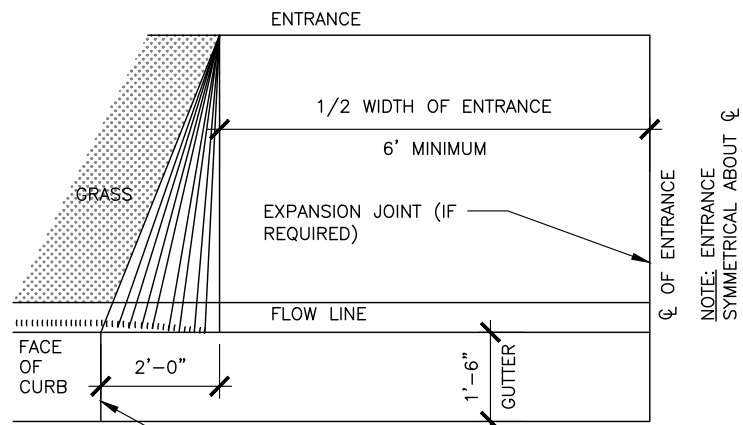
SHEET NUMBER: C16	PROJECT #: 856529 BY: MAH CKD BY: JWM	REVISION: 0
-----------------------------	--	-----------------------



4 SIGNAGE DETAIL
SCALE: N.T.S.



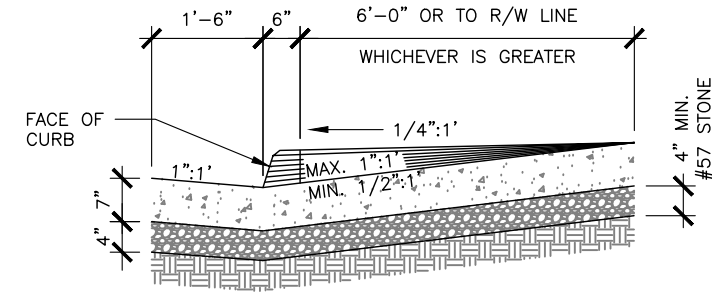
5 TOWER SIGNAGE DETAIL
SCALE: N.T.S.



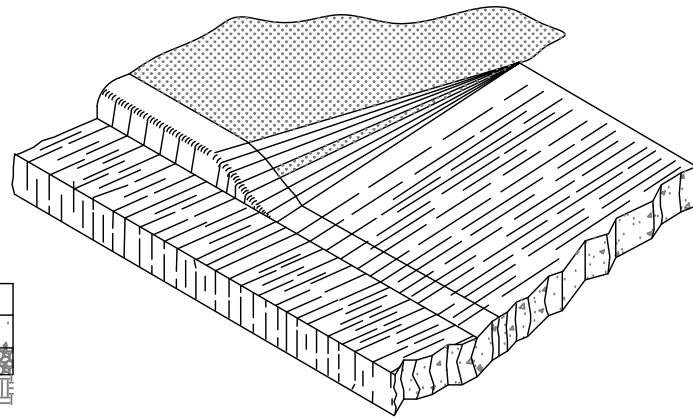
SECTION ELEVATION AT GUTTER LINE

1 STANDARD ENTRANCE APRON (AS REQUIRED)

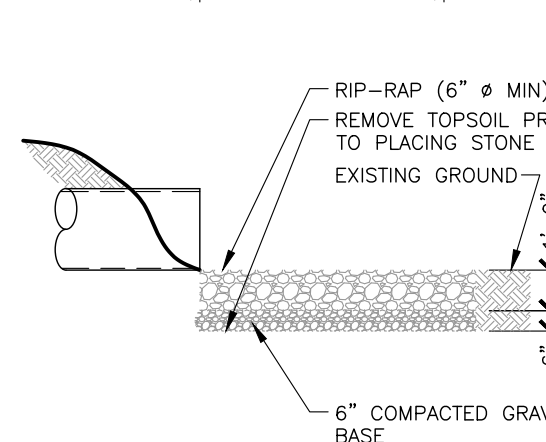
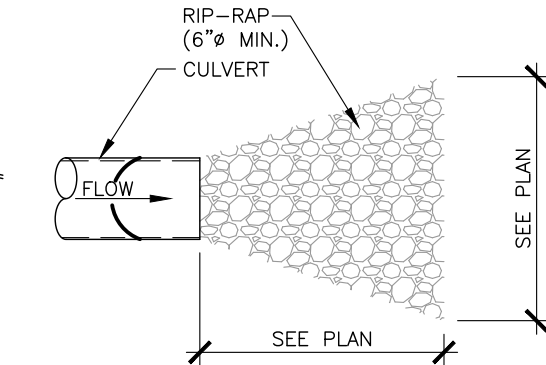
SCALE: N.T.S.



SECTION A-A

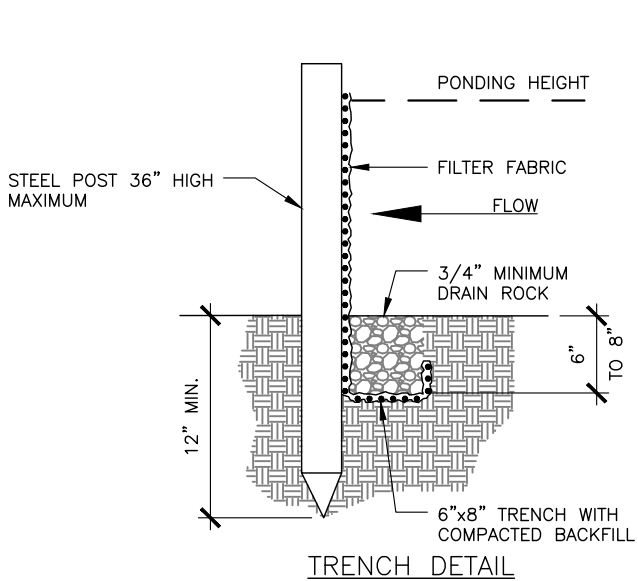
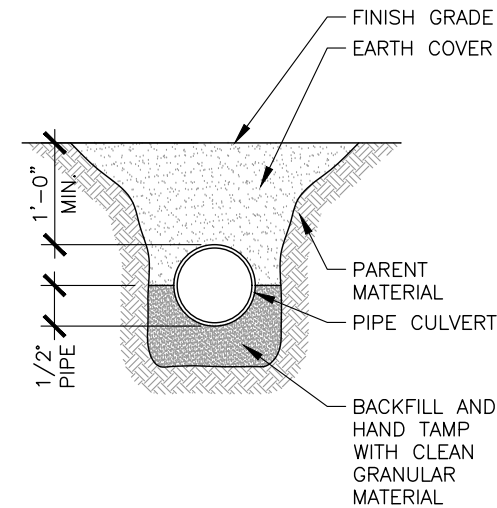


ISOMETRIC VIEW

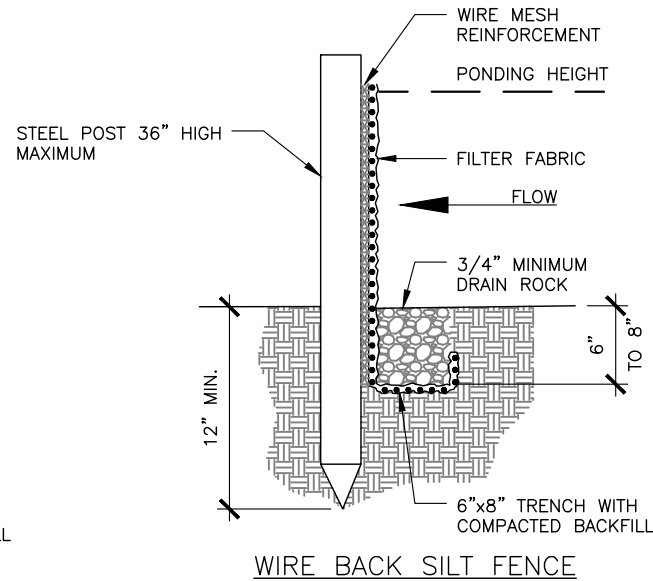


2 RIP-RAP DETAIL

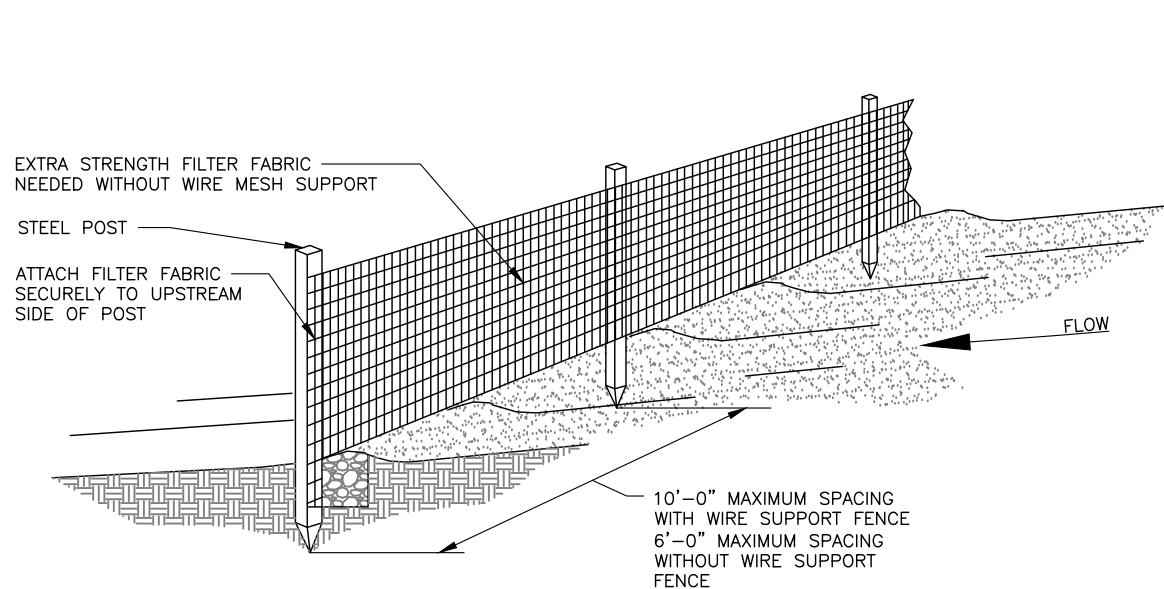
SCALE: N.T.S.



TRENCH DETAIL



WIRE BACK SILT FENCE



INSPECTION AND MAINTANCE:

1. INSPECT SILT FENCE EVERY SEVEN (7) DAYS WITHIN 24 HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2" OR MORE OF PRECIPITATION. CHECK FOR AREAS WHERE RUN-OFF HAS ERODED A CHANNEL BENEATH THE FENCE, OR WHERE THE FENCE WAS CAUSED TO SAG OR COLLAPSE BY RUNOFF OVER TOPPING THE FENCE.
2. IF THE FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY OTHER WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF THE FENCE IMMEDIATELY.
3. SEDIMENT MUST BE REMOVED WHEN IT REACHES APPROXIMATELY 1/3 OF THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED.
4. SILT FENCE SHOULD BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMP's ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHOULD BE REMOVED OR STABILIZED ON SITE. DISTURBED AREAS RESULTING FROM FENCE REMOVAL SHALL BE PERMANENTLY STABILIZED
5. SILT FENCE MUST BE INSTALLED PROPERLY TO AVOID NOTICE OF VIOLATION.

SILT FENCE INSTALLATION:

1. THE FENCE SHOULD BE PLACED ACROSS THE SLOPE ALONG A LINE OF UNIFORM ELEVATION (PERPENDICULAR TO THE DIRECTION OF THE FLOW). THE FENCE SHOULD BE LOCATED AT LEAST 10' FROM THE TOE OF STEEP SLOPES TO PROVIDE SEDIMENT STORAGE AND ACCESS FOR MAINTENANCE AND CLEAN OUT.
2. DRIVE THE 2"x2" POST AT LEAST 18" INTO THE GROUND, SPACING THEM NO FURTHER THAN 6'-0" APART.
3. POST SHOULD BE INSTALLED, WITH 1" TO 2" OF THE POST PROTRUDING ABOVE THE TOP OF THE FABRIC AND NO LESS THAN 3'-0" OF THE POST SHOULD PROTRUDE ABOVE THE GROUND. THE MINIMUM FENCE HEIGHT (HEIGHT OF FILTER ABOVE GRADE) SHALL BE 24". THE MAXIMUM FENCE HEIGHT (HEIGHT OF FILTER FABRIC ABOVE GRADE) SHALL BE 36".
4. THE FILTER FABRIC SHOULD BE PURCHASED IN A CONTINUOUS ROLL AND CUT TO LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHOULD BE WRAPPED TOGETHER ONLY AT A SUPPORT POST WITH BOTH ENDS SECURELY FASTENED TO THE POST, WITH A MINIMUM 6" OVERLAP.
5. EXTRA-STRENGTH FILTER CLOTH (50 POUND/LINEAR INCH MINIMUM TENSILE STRENGTH) SHOULD BE USED. A 2" WIDE LATHE SHALL BE STAPLED OVER THE FILTER FABRIC TO SECURELY FASTEN IT TO THE UPSLOPE SIDE OF THE POSTS. THE STAPLES USED SHOULD BE 1.5" HEAVY-DUTY WIRE STAPLES SPACED AT A MAXIMUM OF 8" OVERLAP.
6. PLACE THE BOTTOM 16" OF THE FILTER FABRIC INTO THE 12" DEEP TRENCH. EXTENDING THE REMAINING 4" TOWARDS THE UPSIDE OF THE TRENCH AND BACK FILL THE TRENCH WITH SOIL OR GRAVEL AND COMPACTED.

3 SILT FENCE DETAIL

SCALE: N.T.S.

VENDOR:

U.S.Cellular.
3545 N. 124TH STREET
BROOKFIELD, WI 53005

Branch
COMMUNICATIONS
A SOLUTIONS PROVIDER

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:

ABILENE DTN

SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:

MICHAEL T. DE BOER
LICENSED
14458
PROFESSIONAL ENGINEER
PE #14458 EXP 4/30/2020

NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

CIVIL DETAILS

SHEET NUMBER: PROJECT #: REVISION:

C17 856529 0
BY: MAH CKD BY: JWM

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg -- Sheet:MW1 -- User: Mary.Hopkins -- Mar 30, 2020 -- 3:40pm

All information contained in the present datasheet is subject to confirmation at time of ordering

Microwave Antenna, High Cross Polar Discrimination, Dual Polarized, 4 ft
10.7 - 11.7 GHz



UXA series of antennas are based on dual polarised Ultra High Performance antennas. In addition UXA antennas offer extremely high cross polar discrimination. High cross polar discrimination antennas are the optimum choice for very high capacity systems utilizing extensive frequency reuse in highly congested environments. UXA Antennas are designed for microwave systems in all common frequency ranges from 4 GHz to 23 GHz. Different options of survival windspeeds are available. This allows the use of antennas in areas where extreme wind conditions are normal. The outstanding performance is achieved by use of a special corrugated illuminator, a rigid torsion box back structure which ensures the reflector maintains its shape in the field and strict quality control during manufacture. Antennas are available in 2 ft (0.3m) to 12 ft (3.7m) diameters; 8 ft (2.4m) to 12 ft (3.7m) diameters can be ordered in split reflector configuration too. The split design provides a reduced packaging volume which minimises shipping cost. The expected degradation of the XPD is less than 2 dB due to the special method of reassembling the reflector on site. All antennas include a radome which is specially shaped (2 ft) or flexible (4 to 12 ft) to minimise its impact on the antenna's electrical characteristics.



Product Type	Point to point antennas
Frequency, GHz	10.7 - 11.7
Diameter, ft (m)	4 (1.2)
Profile	Standard
Performance	Ultra High, High Cross Polar Discrimination
Polarization	Dual
Regulatory Compliance	Standard, EN 302217, FCC
3dB beamwidth, (degrees)	1.5
Antenna Input	PDR 100
Low Band Gain, dBi	40
Mid Band Gain, dBi	40.4
High Band Gain, dBi	40.8
F/B Ratio, dB	70
XPD, dB	40
IPI, dB	45
Max VSWR / R L, dB	1.08 / 28.3

RFS The Clear Choice ®

UXA4-107BD

Print Date: 24.01.2009

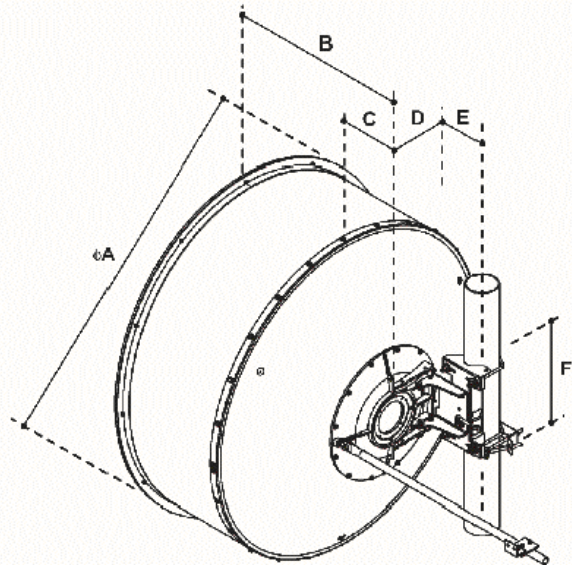
Please visit us on the internet at <http://www.rfsworld.com/>

Radio Frequency Systems

1 MICROWAVE DISH SPEDIFICATIONS

SCALE: N.T.S.

Microwave Antenna, High Cross Polar Discrimination, Dual Polarized, 4 ft
10.7 - 11.7 GHz



all dimensions in mm (in)

1313
(51.7)

816 (32.1) 248 (9.8)

365 (14.4)

115 (4.5) 365 (14.4)

includes 1 sway bar (1.35 m x Ø27 mm)

Reflector installation
NMT553-01.pdf
Feed installation
NMT557-00.pdf

Radiation pattern: (NSMA format)
UXA4-107B, 961207.txt
Radiation pattern: (PDF Format)
UXA4-107B, 961207.pdf

All information contained in the present datasheet is subject to confirmation at time of ordering

RFS The Clear Choice ™

UXA4-107BD

Print Date: 24.01.2009

Please visit us on the internet at <http://www.rfsworld.com/>

Radio Frequency Systems

VENDOR:

U.S.Cellular.
3545 N. 124TH STREET
BROOKFIELD, WI 53005

Branch
COMMUNICATIONS
A SOLUTIONS PROVIDER

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE, STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:

ABILENE DTN

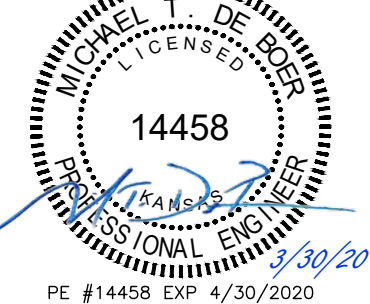
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



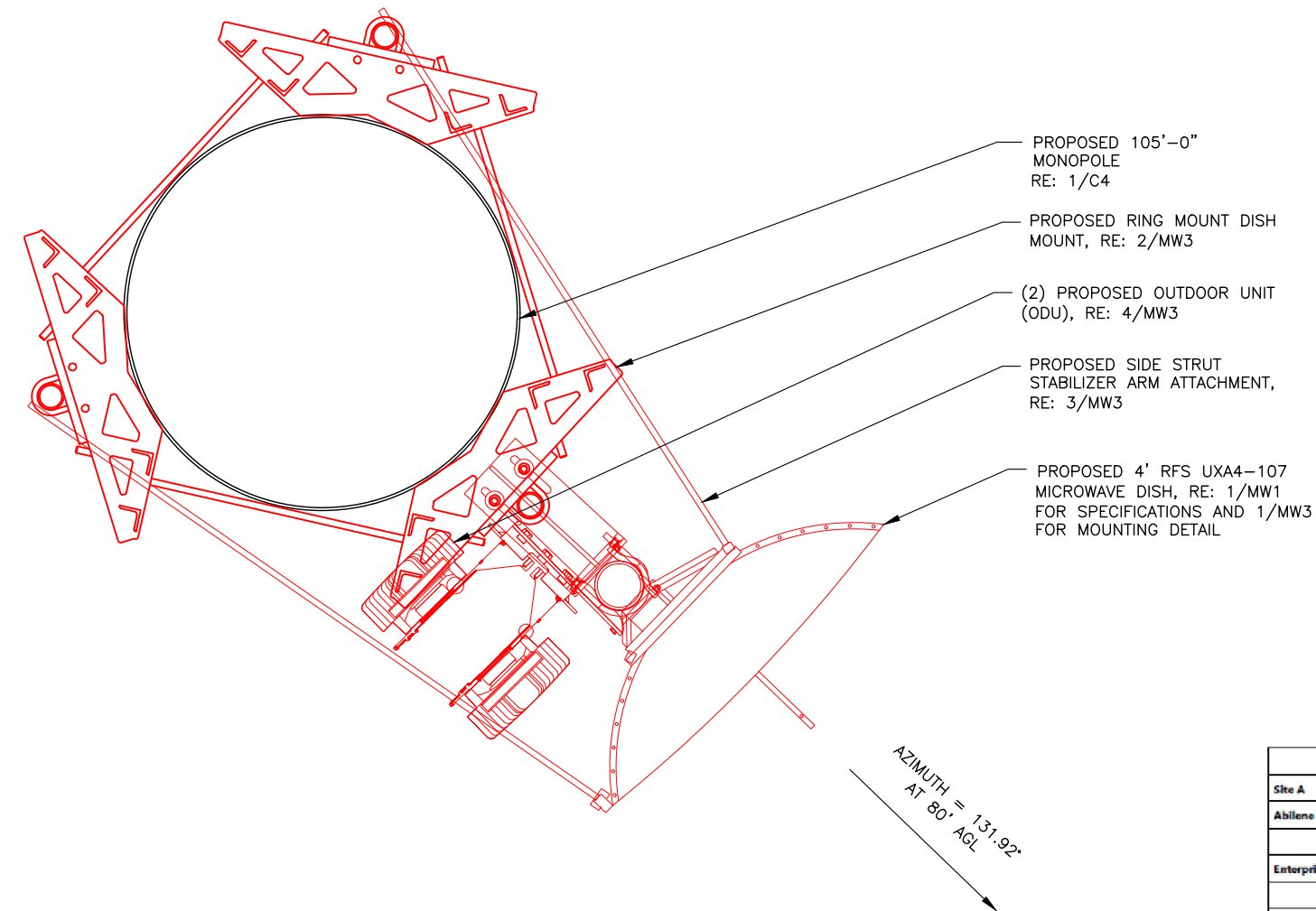
NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

**MICROWAVE DISH
SPECIFICATION**

SHEET NUMBER:	PROJECT #:	REVISION:
MW1	856529	0
BY:	CKD BY:	
MAH	JWM	

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg -- Sheet:MW2 -- User: Mary.Hopkins -- Mar 30, 2020 -- 3:40pm



1 MICROWAVE DISH LAYOUT

SCALE: N.T.S.



PATH SUMMARY											
	Antenna Information							Transmission Line Information			
	Latitude	Longitude	Azimuth	Centerline	Size	Manufacturer	Code	Length	Manufacturer	Type	To Site B
Site A	(NAD 83)	(NAD 83)	(DTN)	(ft AGL)	(ft)			(ft)			
Abilene	38 57 46.00	97 12 37.00	131.92	80	4	RFS	UXA4-107	120		IF Cabling	Enterprise
Enterprise	38 34 00.00	97 07 15.10	311.98	95	4	RFS	UXA4-107	135		IF Cabling	Abilene

CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL EQUIPMENT NOT SUPPLIED BY MICROWAVE MANUFACTURER.

2 MICROWAVE PATH DATA SHEET

SCALE: N.T.S.

VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

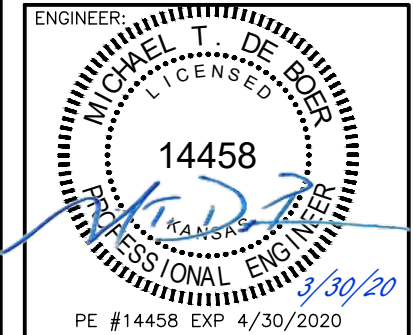
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



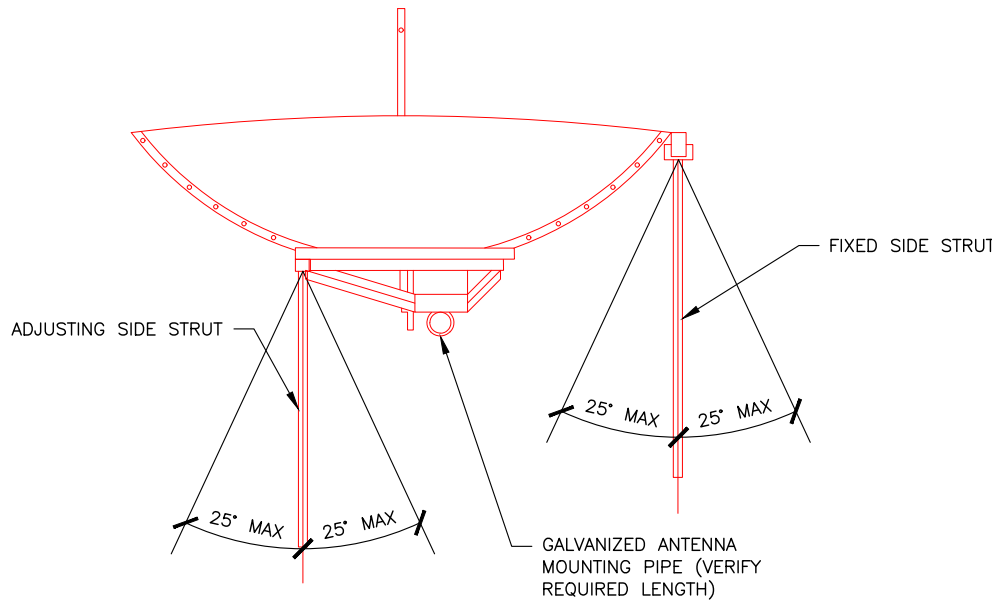
NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

MICROWAVE DISH LAYOUT

SHEET NUMBER:	PROJECT #:	REVISION:
MW2	856529	0
BY: MAH	CKD BY: JWM	

MICROWAVE DISH SIDE STRUTS TO BE CONNECTED TO ADJACENT TOWER LEGS OR LEG MOUNTED TOWER FACE SUPPORT KITS. SIDE STRUTS SHALL NOT BE CONNECTED TO SUPPORT MEMBERS LOCATED ON THE FACE OF THE TOWER.



CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL EQUIPMENT NOT SUPPLIED BY MICROWAVE MANUFACTURER.

1 MICROWAVE DISH MOUNT

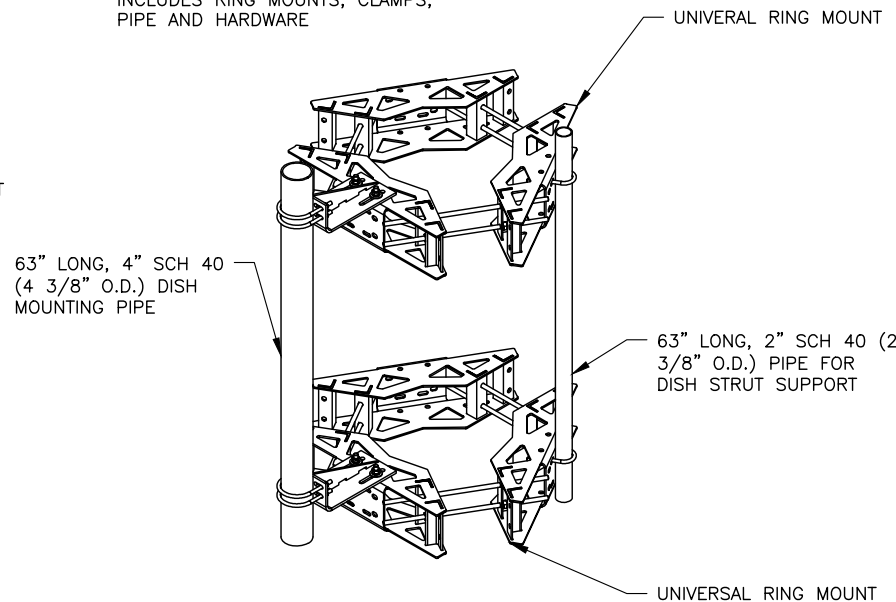
SCALE: N.T.S.

MANUFACTURER: ANDREW
MODEL: RM-DM-6

UNIVERSAL RING MOUNT WITH 63" LONGx4 1/2" O.D. MOUNTING PIPE

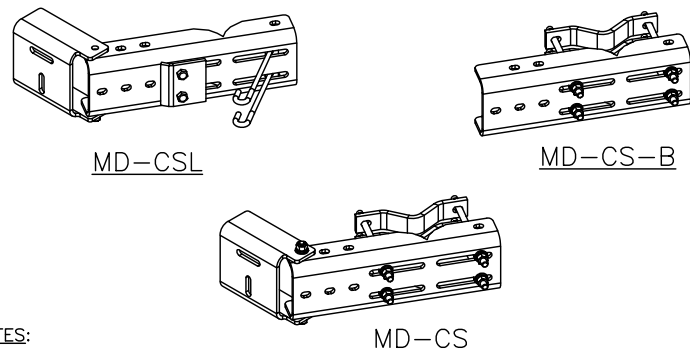
MOUNTS TO MONOPOLE 12" TO 50" DIAMETER

INCLUDES RING MOUNTS, CLAMPS, PIPE AND HARDWARE



2 RING MOUNT DISH MOUNT

SCALE: N.T.S.



NOTES:

- ANDREW TOWER LEG MICROWAVE DISH SUPPORT STRUT KITS
 - MOUNT TO STRAIGHT OR TAPERED LEGS UP TO 16" O.D., 16" 60° ANGLE LEG OR 12' 90° ANGLE LEGS. SEE PART# DESCRIPTION FOR KIT DETAILS.
 - ROUND OR 60° ANGLE LEGS UP TO 8" OR 6" 90° LEGS
 - MD-CS - FOR UP TO 3 1/2" PIPES (KIT OF 1)
 - MD-CSL - FOR UP TO 4 1/2" PIPES (KIT OF 1)
 - MD-CS-F - FACE MOUNTED UP TO 3 1/2" PIPES (KIT OF 2)
 - MD-CS-B - FACE MOUNTED (KIT OF 1)
 - ROUND OR 60° ANGLE LEGS UP TO 16" OR 12" 90° LEGS
 - MD-CS - FOR UP TO 3 1/2" PIPES (KIT OF 1)
 - MD-CSL - FOR UP TO 4 1/2" PIPES (KIT OF 1)
 - MD-CS-F - FACE MOUNTED UP TO 3 1/2" PIPES (KIT OF 2)
 - MD-CS-B - FACE MOUNTED (KIT OF 1)
- ANDREW TOWER FACE MICROWAVE DISH SUPPORT KITS
 - MOUNT TO STRAIGHT OR TAPERED LEGS UP TO 16" O.D., 16" 60° ANGLE LEG OR 12' 90° ANGLE LEGS. KITS COME WITH (2) SUPPORT BRACKETS
 - ROUND OR 60° ANGLE LEGS UP TO 8" OR 6" 90° ANGLE LEGS
 - MD-CS-6R - 6" (1.8 M) PLAIN END PIPE
 - MD-CS-8R - 8" (2.4 M) PLAIN END PIPE
 - MD-CS-10R - 10" (3.1 M) PLAIN END PIPE
 - ROUND OR 60° ANGLE LEGS UP TO 16" OR 12" 90° ANGLE LEGS
 - MD-CS-6R - 6" (1.8 M) PLAIN END PIPE
 - MD-CS-8R - 8" (2.4 M) PLAIN END PIPE
 - MD-CS-10R - 10" (3.1 M) PLAIN END PIPE

3 MICROWAVE STRUT DISH MOUNT

SCALE: N.T.S.

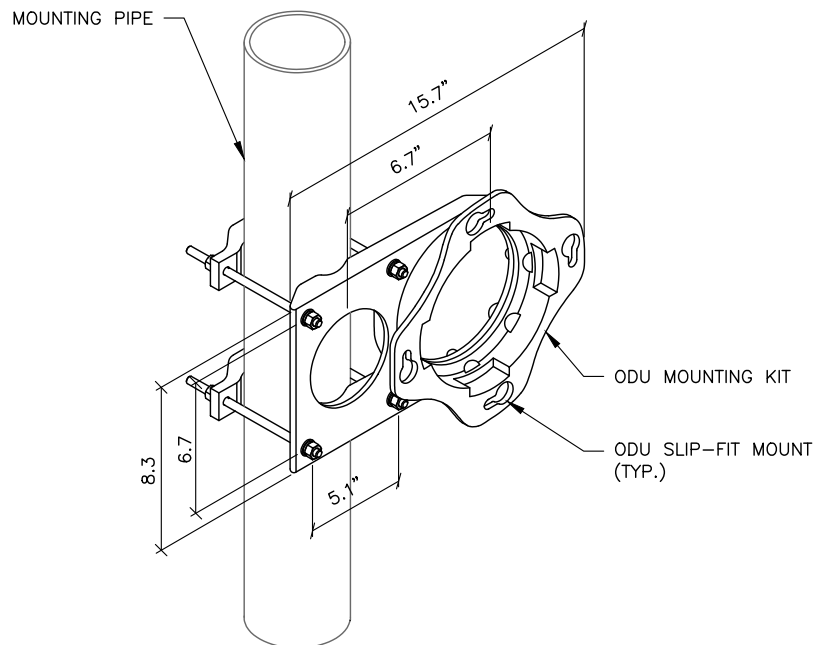
MANUFACTURER: AVIAT
MODEL: ODU 600
DIMENSIONS: 10.4"x10.4"x4.9" (HxWxD)
WEIGHT: 11 LBS



4 OUTDOOR UNIT (ODU)

SCALE: N.T.S.

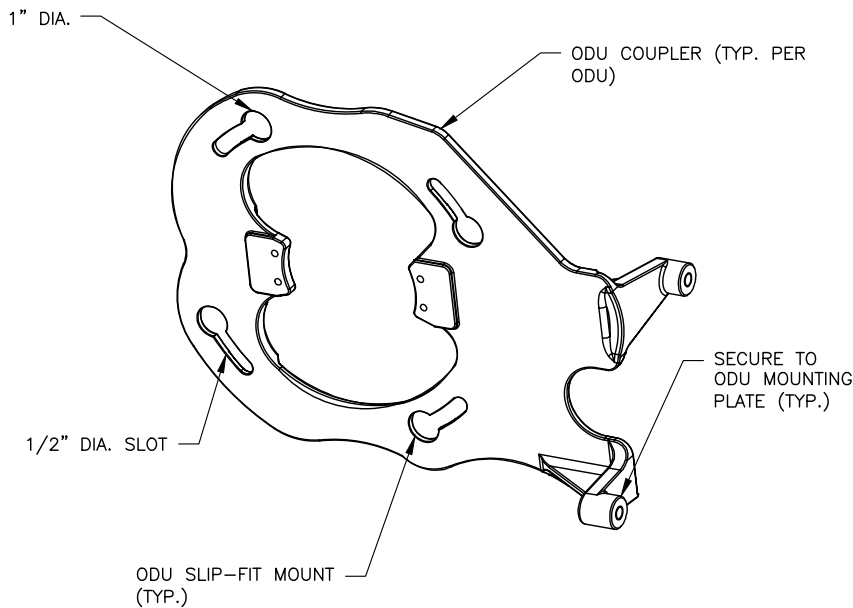
MANUFACTURER: AVIAT
MODEL: ECLIPSE POLE MOUNT (056-000000-101)



5 OUTDOOR UNIT (ODU) MOUNTING

SCALE: N.T.S.

MANUFACTURER: AVIAT
MODEL: ECLIPSE COUPLER MOUNT PLATE



5 DUAL OUTDOOR UNIT (ODU) COUPLER

SCALE: N.T.S.

VENDOR:

U.S. Cellular.
3545 N. 124TH STREET
BROOKFIELD, WI 53005

Branch
COMMUNICATIONS
A SOLUTIONS PROVIDER

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:

ABILENE DTN

SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:

MICHAEL T. DE BOER
LICENSED
14458
PROFESSIONAL ENGINEER
KANSAS
3/30/20
PE #14458 EXP 4/30/2020

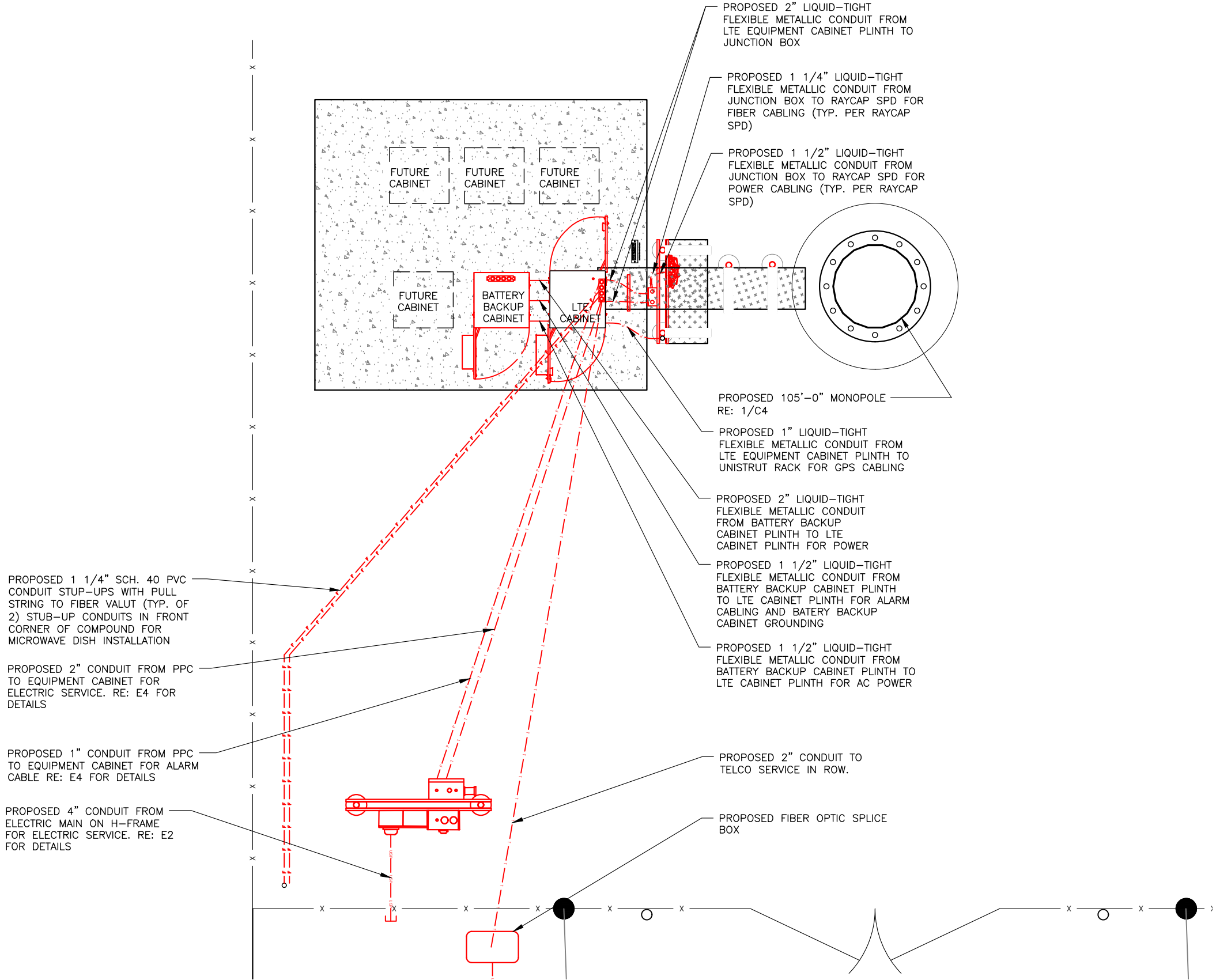
NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:
**MICROWAVE DISH
INSTALLATION DETAILS**
SHEET NUMBER: PROJECT #: REVISION:
MW3 856529 0
BY: CKD BY: JWM

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet:E1 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm

NOTES:
MASTER ELECTRICIAN TO VERIFY
SOURCES OF POWER & TELCO

NOTES:
CONTRACTOR TO ADD PULL
STRINGS TO ALL NEW CONDUITS



1 UTILITY ROUTING PLAN

SCALE: 0' 5' 10' 15' 20'



VENDOR:

U.S. Cellular.
3545 N. 124TH STREET
BROOKFIELD, WI 53005

Branch
COMMUNICATIONS
A SOLUTIONS PROVIDER

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:

ABILENE DTN

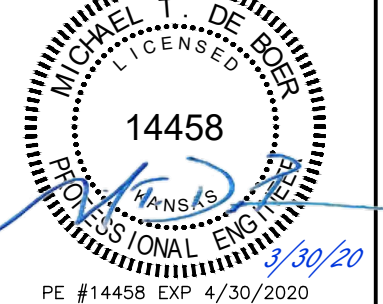
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

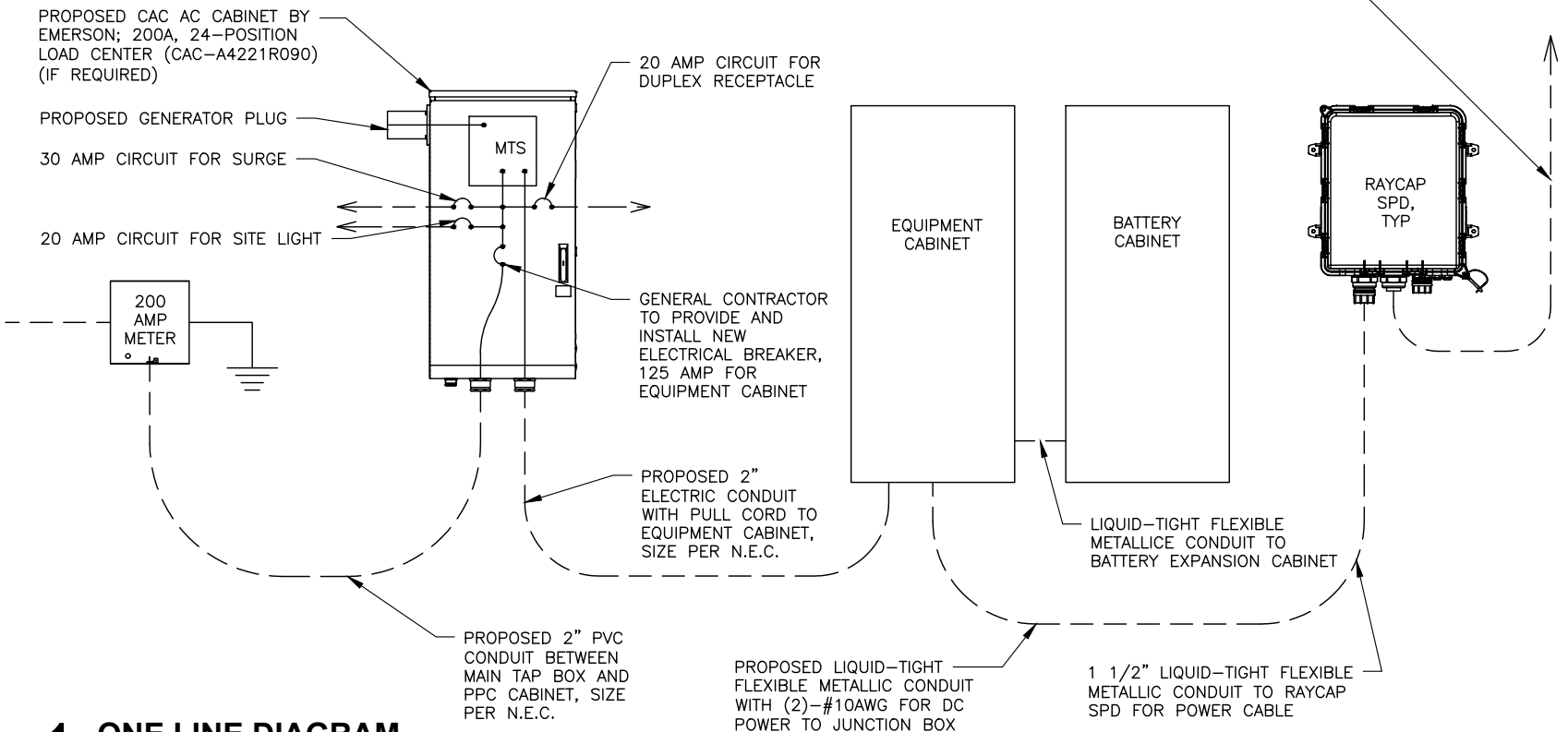
UTILITY PLAN AND DETAILS

SHEET NUMBER:	PROJECT #:	REVISION:
E1	856529	0
BY: MAH	CKD BY: JWM	

ELECTRICAL NOTES:

1. REFER TO MANUFACTURER RECOMMENDATIONS AND SPECIFICATIONS FOR INTERNAL WIRING VERIFICATION.

2. PROVIDE 100 AMP SERVICE AT ENTRANCE RATED DISCONNECT IF NOT ALREADY EXISTING. REPLACE EXISTING 200 AMP DISCONNECT WITH 100 AMP SERVICE ENTRANCE RATED DISCONNECT IF APPLICABLE.

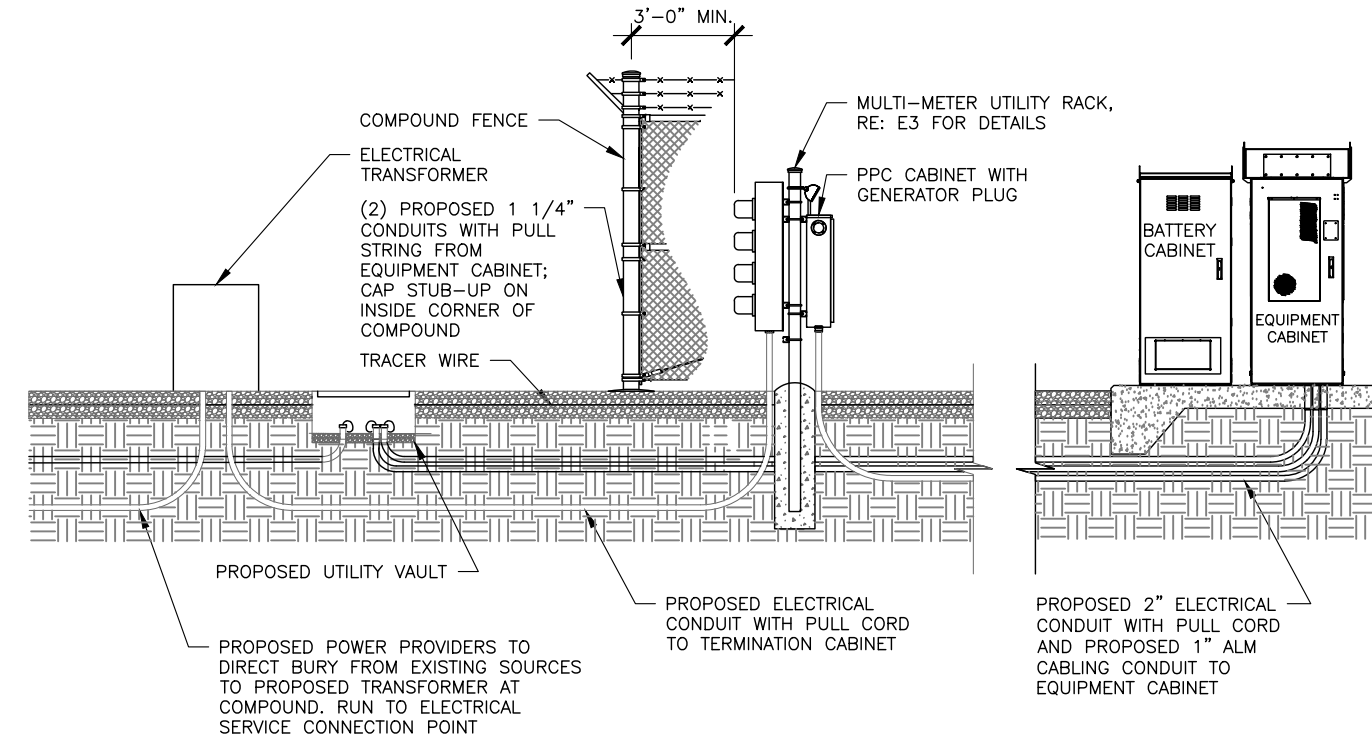


1 ONE LINE DIAGRAM
SCALE: N.T.S.

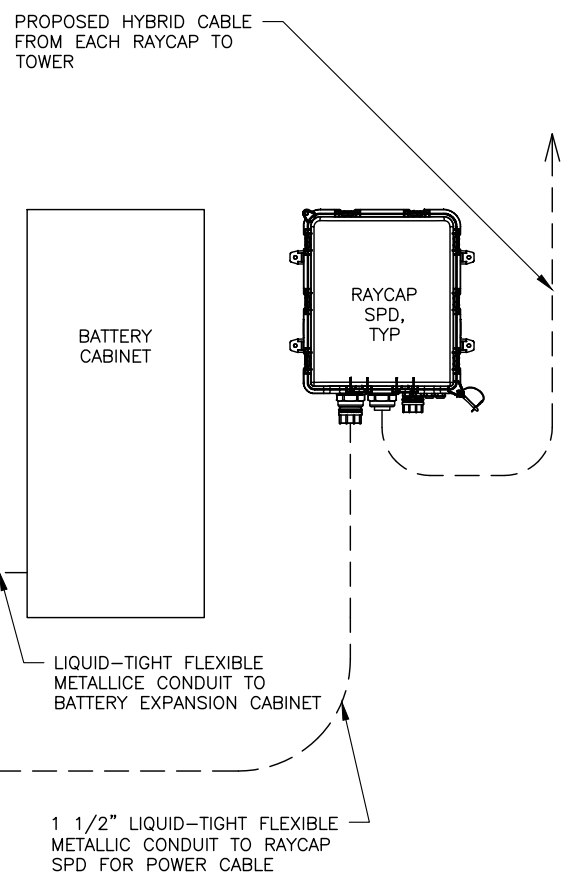
ELECTRICAL NOTES:

1. INSTALL IN ACCORDANCE WITH LOCAL CODES AND UTILITY COMPANY REQUIREMENTS.

2. ALL UNDERGROUND CONDUITS TO BE SCH. 40 PVC UNLESS OTHERWISE NOTED.

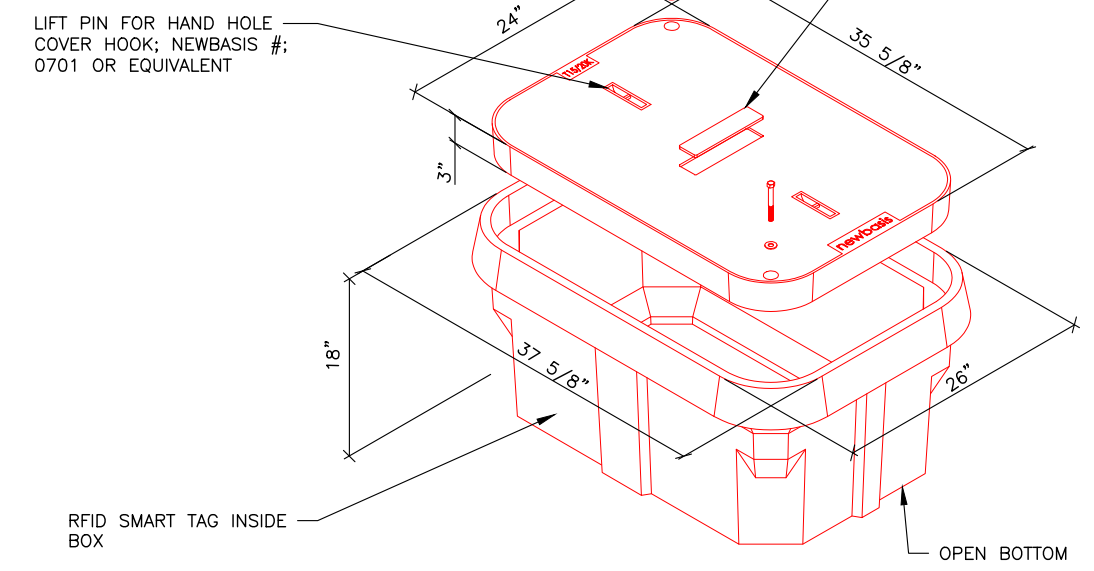


3 CONDUIT DETAILS
SCALE: N.T.S.



2 TRENCH DETAIL
SCALE: N.T.S.

MANUFACTURER: NEWBASIS
MODEL: PCA 243618
INSIDE DIMENSIONS:
33-9/16"x21-15/16"x15" (LxWxD AT LARGEST POINT)
29x17-3/8"x15" (LxWxD AT SMALLEST POINT)
LOAD RATINGS: WUC 3.6, ANSI/SCTE 77- "T15/20K,"
POLYMER CONCRETE ASSEMBLY, STRAIGHT SIDES,
NO FLOOR, SKID RESIST AND COVER



4 UTILITY VAULT
SCALE: N.T.S.

VENDOR:


3545 N. 124TH STREET
BROOKFIELD, WI 53005


BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

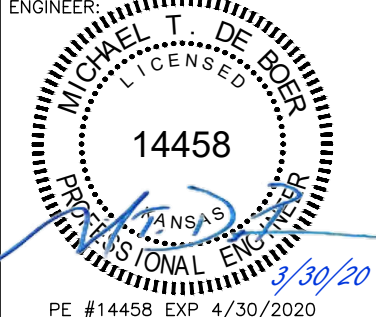
DE BOER
MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:
ABILENE DTN

SITE NUMBER:
856529

SITE ADDRESS:
TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:
ELECTRICAL DETAILS

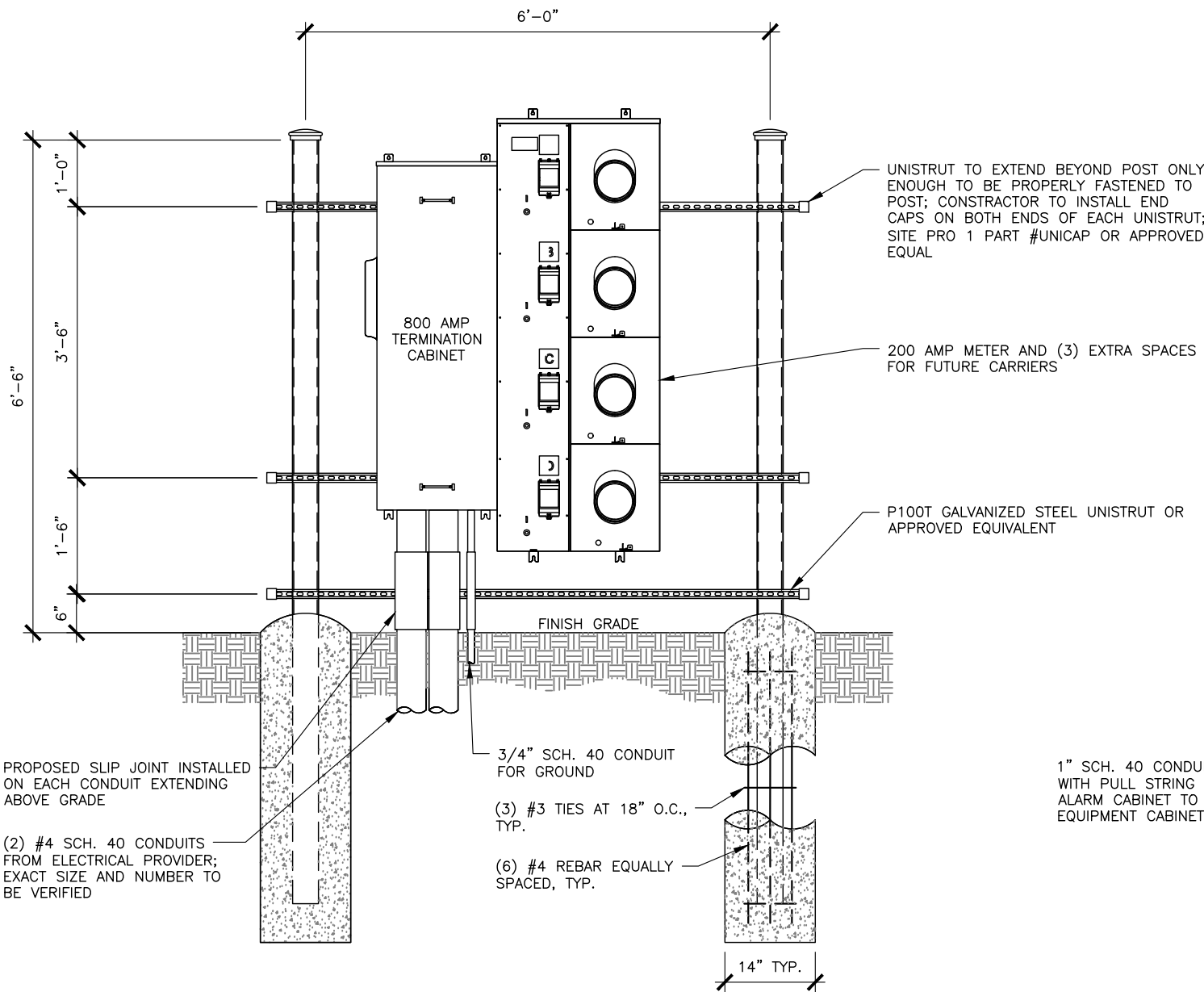
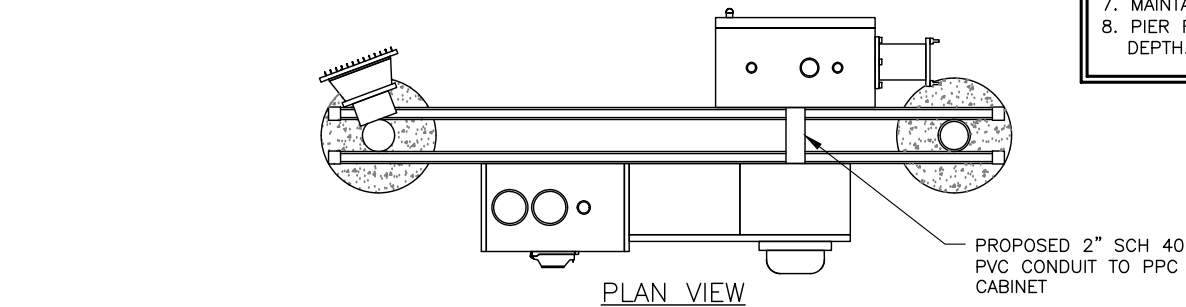
SHEET NUMBER: E2	PROJECT #: 856529 BY: MAH CKD BY: JWM	REVISION: 0
----------------------------	--	-----------------------

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet:E3 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm

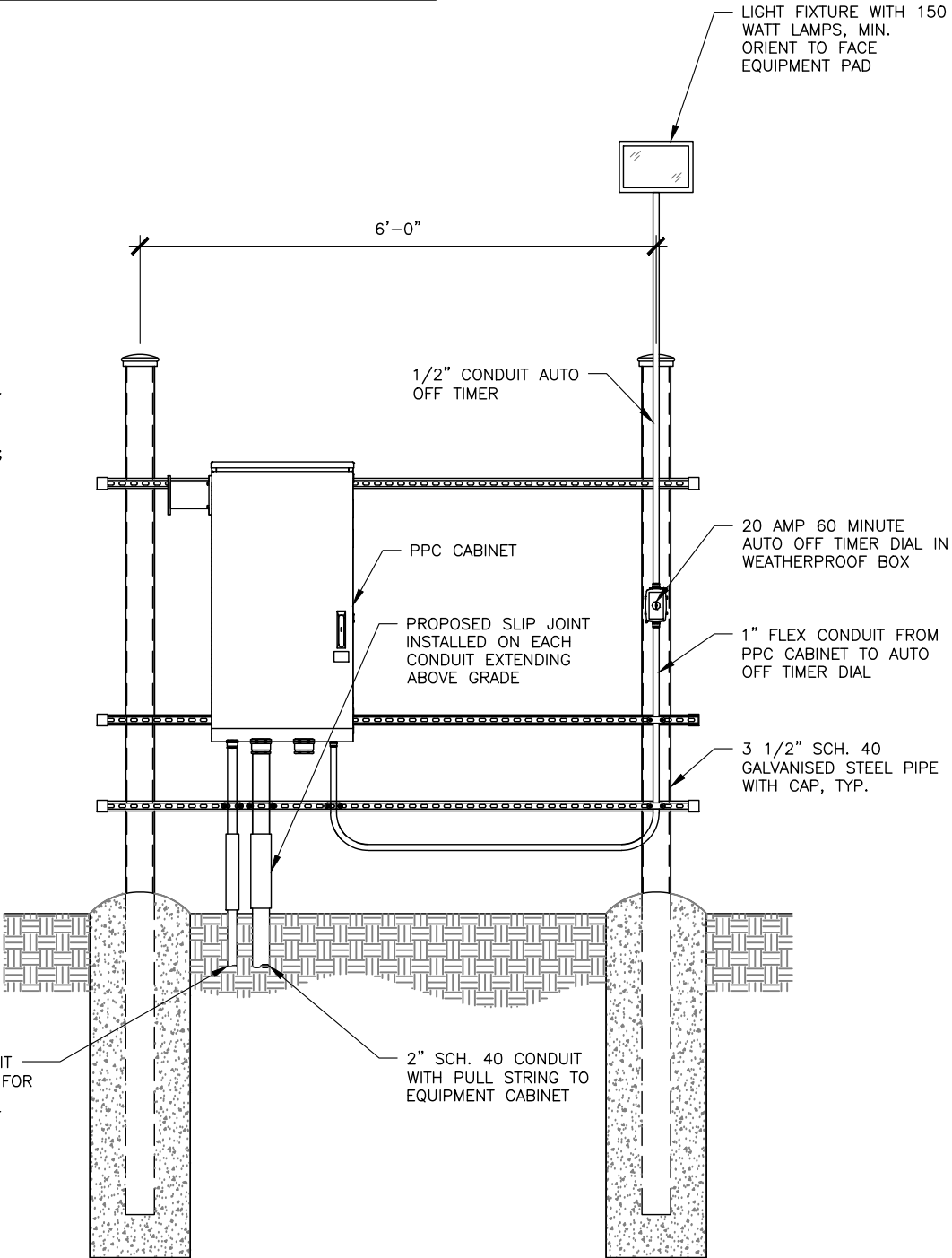
- NOTES:
1. ALL EXPOSED ELECTRICAL CONDUIT MUST BE RIGID.
 2. THREADLESS CONNECTORS ARE NOT ALLOWED.
 3. USE SQUARE "D" 200A FUSABLE DISCONNECT.
 4. EMT CONDUIT CAN ONLY BE USED INSIDE.
 5. USE ONLY COMPRESSION TYPE FITTINGS ON EMT CONDUIT.
 6. USE ONLY STRANDED CONDUCTORS FOR ALL ELECTRICAL WIRING. (EXCEPT TELCO AND THERMOSTAT).
 7. USE SCHEDULE 80 CONDUIT UNDER DRIVEWAYS AND/OR ANY VEHICLE CROSSING ARE.

- NOTES:
1. CONTRACTOR TO INSTALL PVC CONDUITS FOR SERVICE LATERAL CONNECTION TO UTILITY.
 2. CONTRACTOR TO EXTEND CONDUITS UNDERGROUND BEYOND FENCELINE TO TRANSFORMER, CAP ENDS (NO DUCT TAPE ALLOWED) AND STAKE, EQUIP WITH PULL CHORD. VERIFY REQUIREMENTS WITH UTILITY PROVIDER.
 3. CONTRACTOR TO MARK CARRIER METER SLOT AND BREAKER OR SOCKET EXTERIOR.
 4. SOD EQ METER PAK, 120/240 VAC 1 PHASE, 3 WIRE OR EQUIVALENT, VERIFY REQUIREMENTS WITH UTILITY PROVIDER.
 5. FINAL LAYOUT AND DESIGN DETERMINED BY CONTRACTOR/UTILITY, VERIFY FINAL DESIGNS WITH U.S. CELLULAR.
 6. CONCRETE FOR PIER TO BE MINIMUM OF 4000 PSI AT 28 DAYS.
 7. MAINTAIN 3" MINIMUM REBAR COVER IN ALL DIRECTIONS.
 8. PIER FOUNDATION DEPTH TO BE A MINIMUM OF 48"; DEPTH TO EXCEED LOCAL FROST DEPTH.

ELECTRICAL COMPANY NOTE:
ELECTRICAL PROVIDER SHALL COORDINATE WITH
BRANCH TOWERS CONSTRUCTION MANAGER TO
DETERMINE TOTAL AMOUNT OF AMPS THAT WILL
BE PROVIDED TO PROPOSED UTILITY RACK



FRONT VIEW - ELECTRICAL SIDE



REAR VIEW - PPC SIDE

1 MULTI-METER UTILITY RACK DETAIL

SCALE: N.T.S.

VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

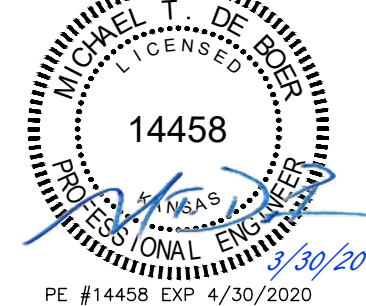
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

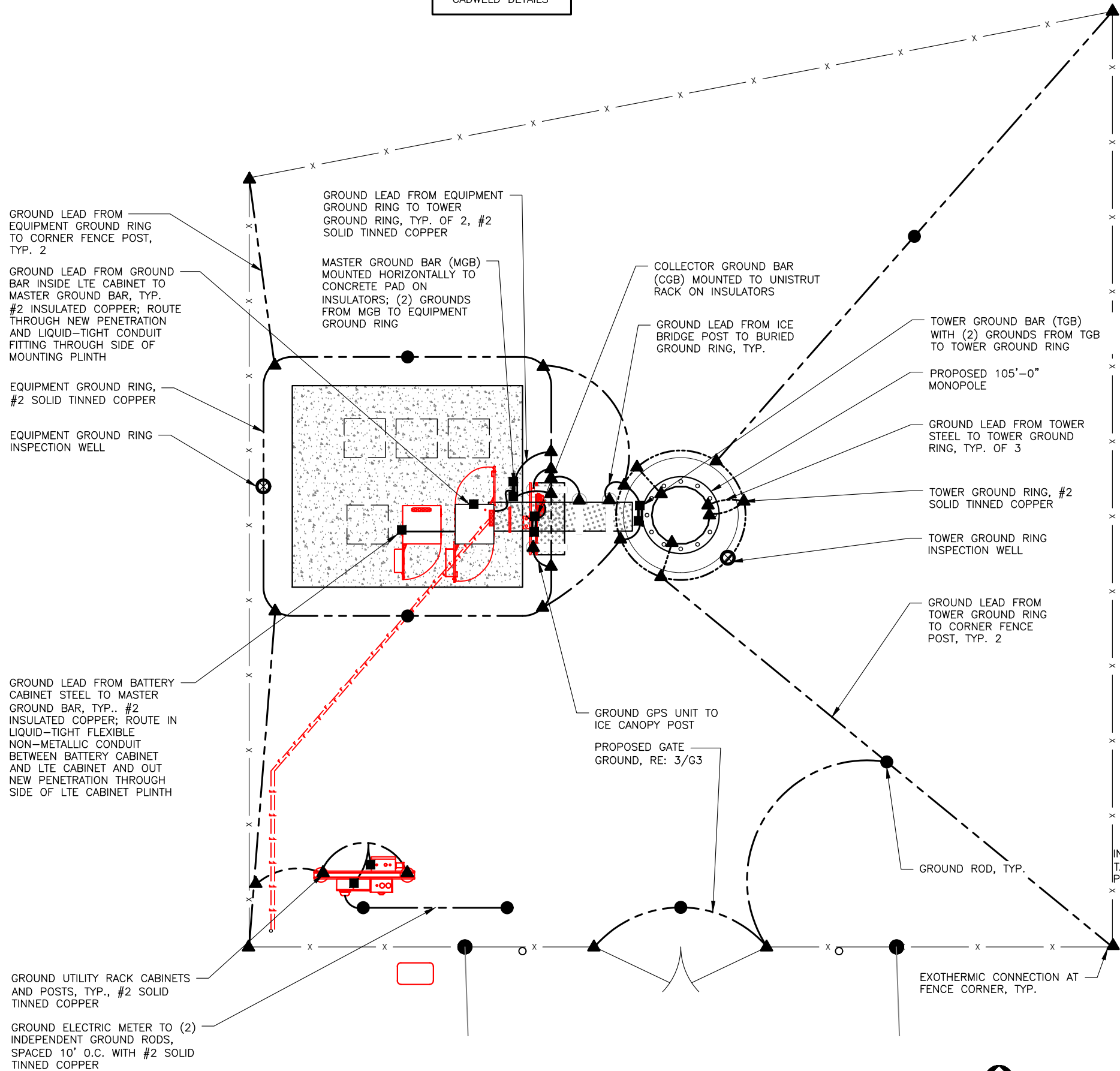
SHEET TITLE:

UTILITY RACK DETAILS

SHEET NUMBER:	PROJECT #:	REVISION:
E3	856529	0
BY:	CKD BY:	
MAH	JWM	

USCC NSB-856529-Abilene DT Preliminary Rev_E_032520.dwg - Sheet:G1 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm

RE: 5/G2 FOR TYPICAL
CADWELD DETAILS



1 COMPOUND GROUNDING PLAN

SCALE: 0' 5' 10' 20' 30'



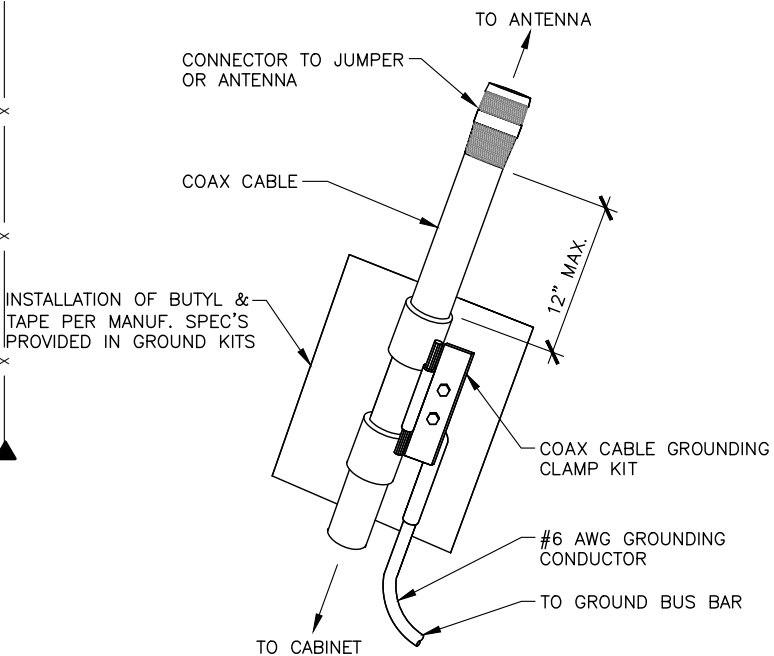
2 CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE

SCALE: N.T.S.

GROUNDING LEGEND:	
SYMBOL	DESCRIPTION
	EXOTHERMIC WELD (CADWELD)
	MECHANICAL CONNECTION
	GROUND LEAD
	GROUND INSPECTION ROD
	CHAIN LINK FENCE
	COPPER CLAD GROUND ROD (3/4" DIA.x10'-0" LONG) AT 10'-0" MAX. SPACING
	COPPER PLATE (18"x18"x.032" THICK) AT 10'-0" MAX. SPACING

GROUNDING NOTES:

1. CONTRACTOR SHALL VERIFY THAT GROUNDING ELECTRODES SHALL BE CONNECTED IN A RING USING #2 AWG BARE TINNED COPPER WIRE. THE TOP OF THE GROUND RODS AND THE RING CONDUCTOR SHALL BE 2 FEET BELOW FINISHED GRADE. GROUNDING ELECTRODES SHALL BE DRIVEN ON 15'-0" CENTERS (PROVIDE AND INSTALL AS REQUIRED PER PLAN BELOW).
2. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250.30.
3. GROUND RING CONNECTION CONDUCTORS SHALL BE OF EQUAL LENGTH, MATERIAL, AND BONDING TECHNIQUE.
4. CONTRACTOR SHALL ENSURE GROUND RING IS WITHIN 12 TO 36 INCHES OF THE EQUIPMENT PAD. PROVIDE AND INSTALL GROUNDING CONNECTIONS SHOWN BELOW AS NEEDED PER EXISTING SITE GROUNDING SYSTEM. CONTRACTOR SHALL VERIFY ALL EXISTING SITE GROUNDING CONDITIONS BEFORE STARTING WORK OR PURCHASING EQUIPMENT.
5. BOND GROUND BAR TO EXTERNAL GROUND RING WITH 1 RUN OF #2 BARE, TINNED, SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
6. ALL DOWN CONDUCTORS MUST GO DOWN.



VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

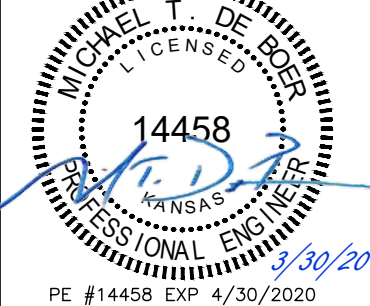
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

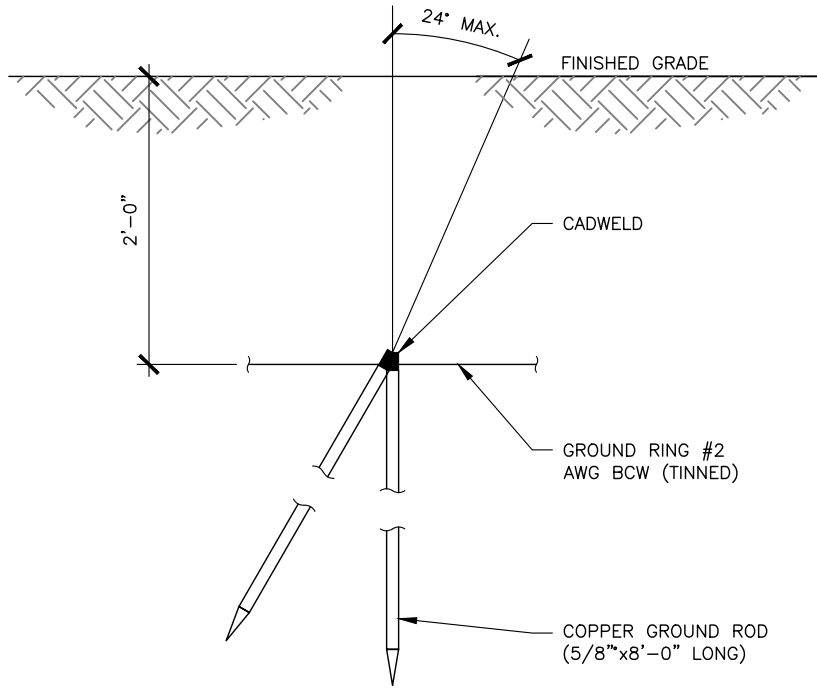
ENGINEER:



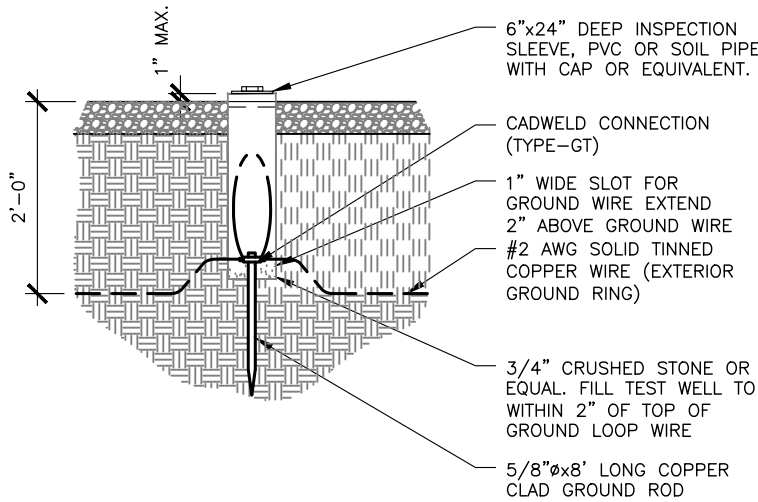
NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

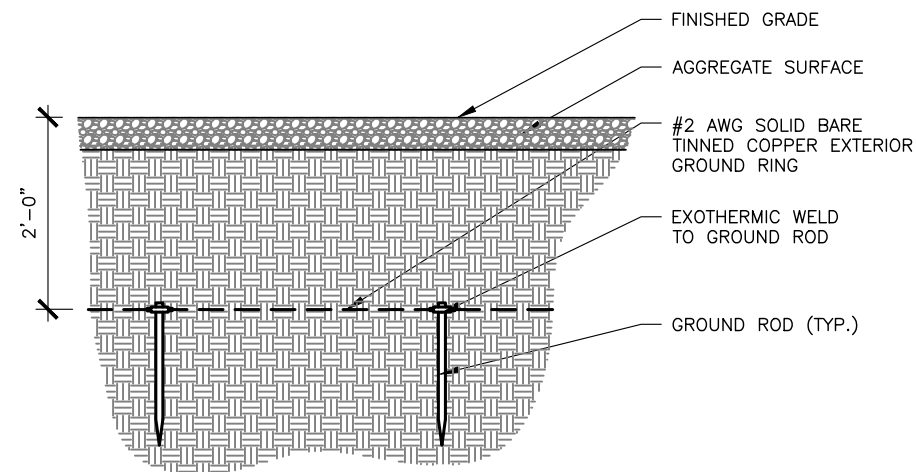
COMPOUND GROUNDING PLAN		
SHEET NUMBER: G1	PROJECT #: 856529	REVISION: 0
BY: MAH	CKD BY: JWM	



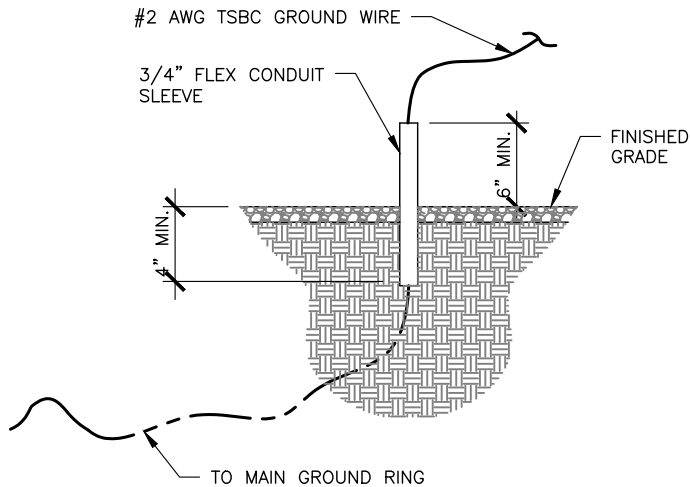
1 ANTENNA CABLE GROUNDING DETAIL
SCALE: N.T.S.



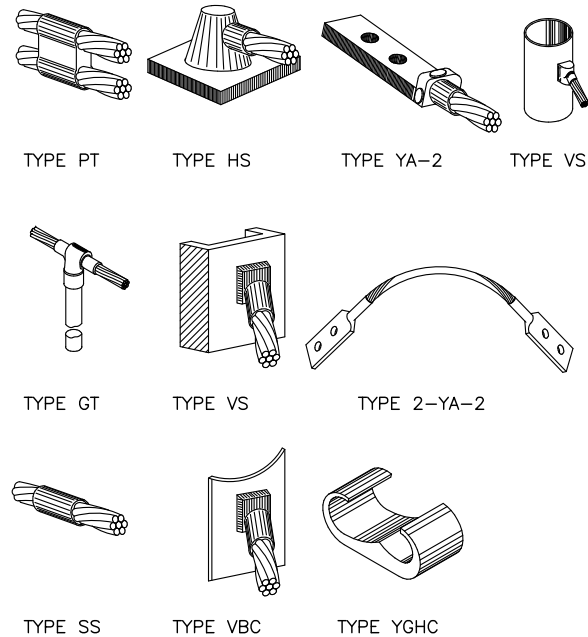
2 GROUND TEST WELL DETAIL
SCALE: N.T.S.



3 GROUND RING DETAIL
SCALE: N.T.S.



4 STUB UP DETAIL
SCALE: N.T.S.



5 TYPICAL CADWELD DETAILS
SCALE: N.T.S.

VENDOR:

U.S. Cellular.

3545 N. 124TH STREET
BROOKFIELD, WI 53005

Branch
COMMUNICATIONS
A SOLUTIONS PROVIDER

BRANCH COMMUNICATIONS
7335 SOUTH LEWIS AVE. STE 300
TULSA, OKLAHOMA 74136
(918) 949-4551

PRODUCED BY:

DE BOER

MICHAEL T. DE BOER
11884 WINDMILL LAKES DRIVE
BOYNTON BEACH, FL 33473
605-422-1548

SITE NAME:
ABILENE DTN

SITE NUMBER:
856529

SITE ADDRESS:
TBA
ABILENE KS 67410

ENGINEER:

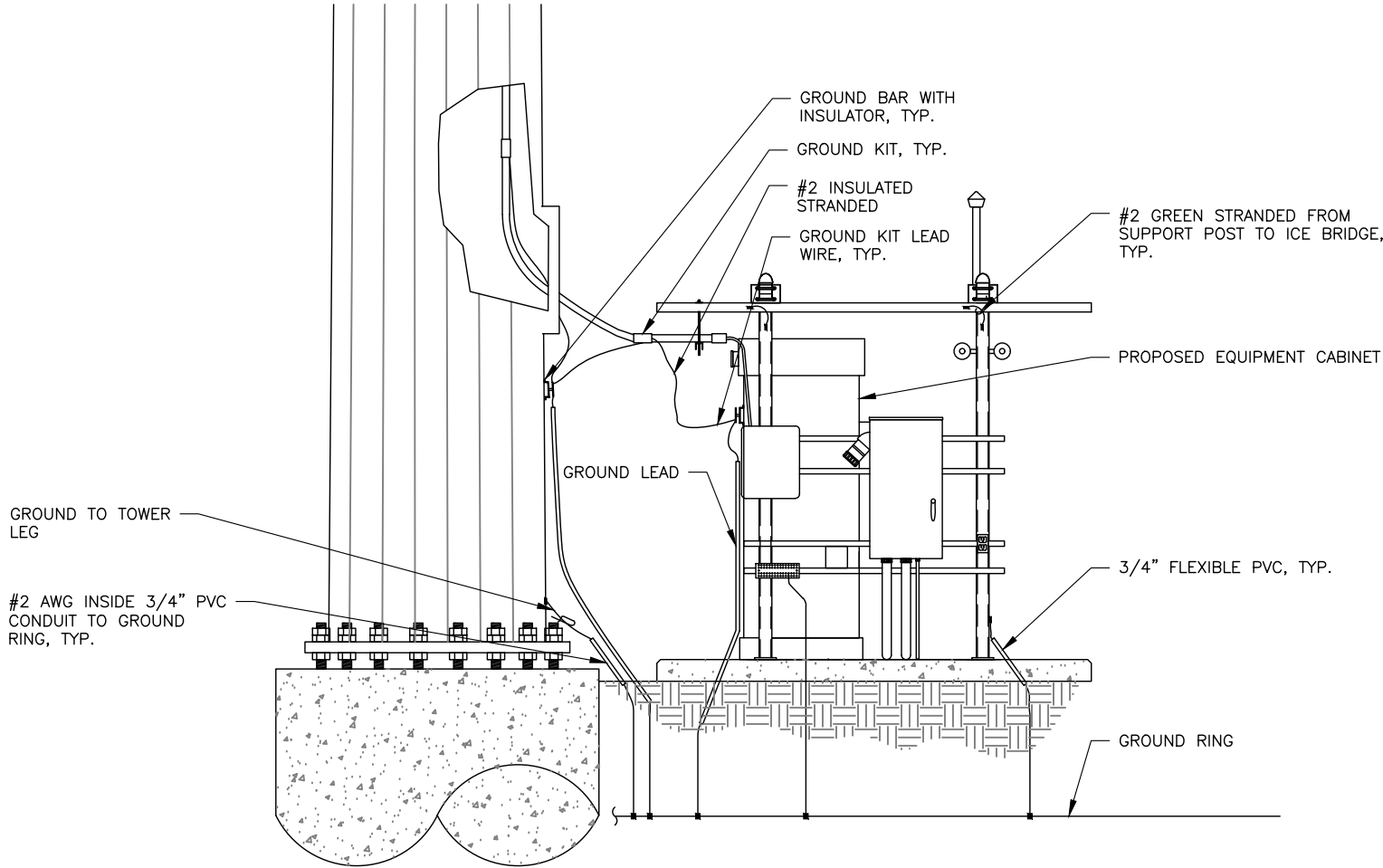
MICHAEL T. DE BOER
LICENSED
14458
PROFESSIONAL ENGINEER
KANSAS
3/30/20
PE #14458 EXP 4/30/2020

NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

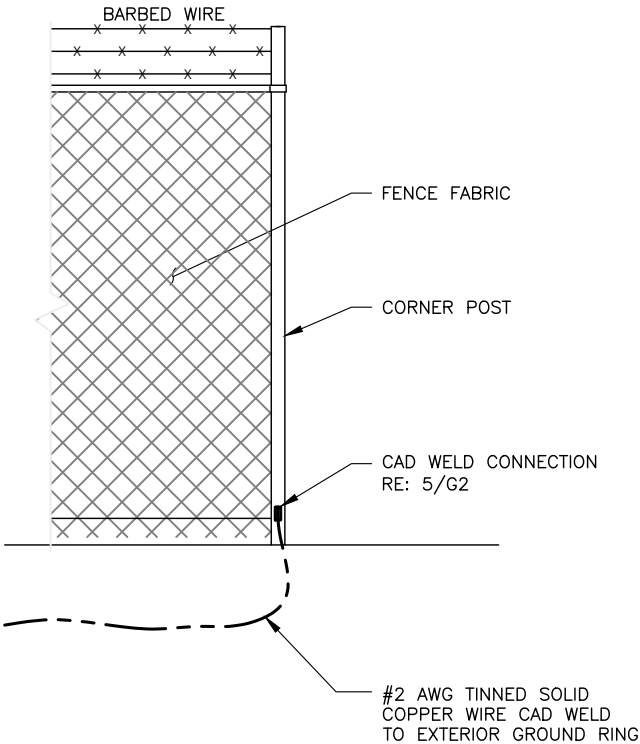
SHEET TITLE:
GROUNDING DETAILS

SHEET NUMBER: G2	PROJECT #: 856529 BY: MAH	REVISION: CKD BY: JWM	0
----------------------------	------------------------------------	-----------------------------	----------

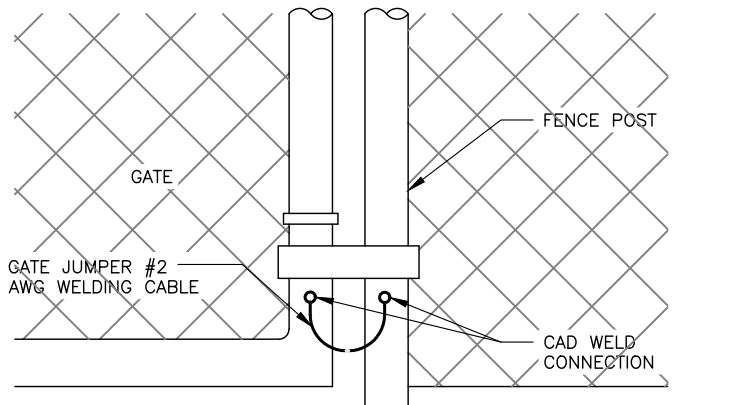
USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet:G3 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm



1 ICE BRIDGE/COAX/GROUNDING BAR ELEVATION
SCALE: N.T.S.



2 FENCE GROUNDING DETAIL
SCALE: N.T.S.



3 TYPICAL GATE GROUNDING
SCALE: N.T.S.

VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

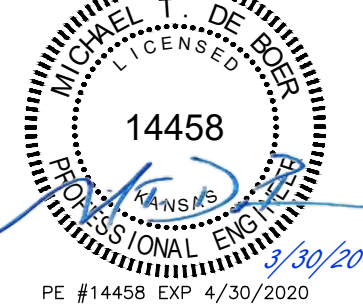
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

GROUNDING DETAILS

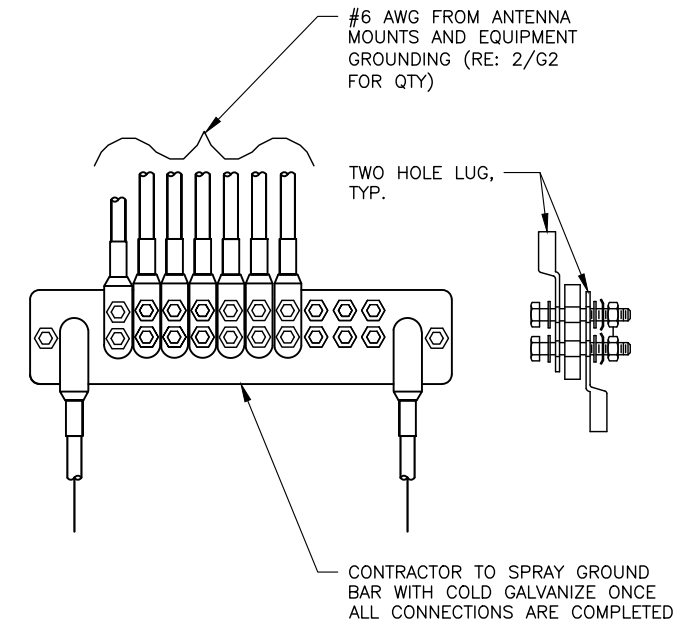
SHEET NUMBER: PROJECT #: REVISION:

G3

BY: MAH
CKD BY: JWM

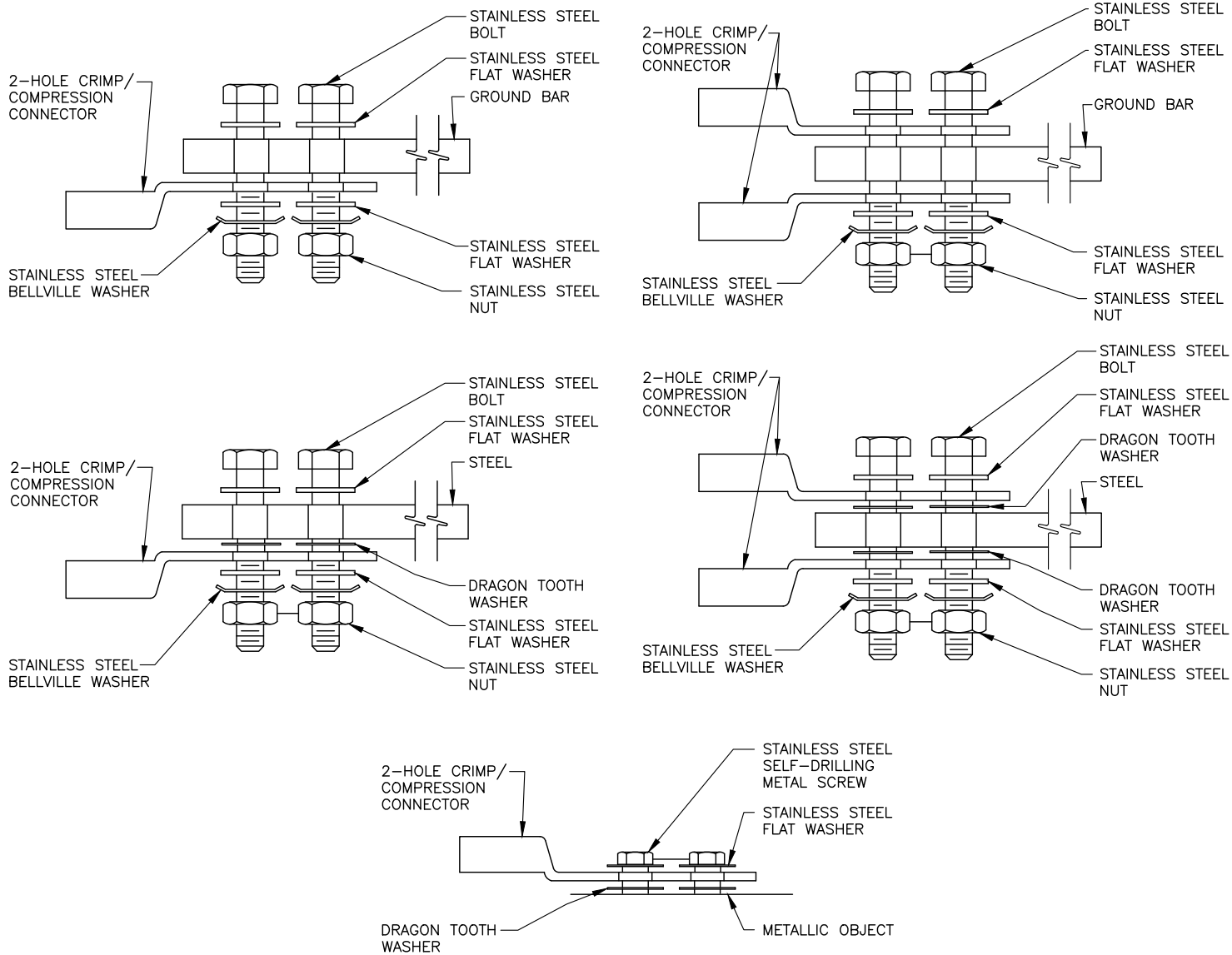
0

USCC NSB-856529-Abilene DT Preliminary RevE_032520.dwg - Sheet:G4 - User: Mary.Hopkins - Mar 30, 2020 - 3:40pm



1 GROUND BAR DETAIL

SCALE: N.T.S.

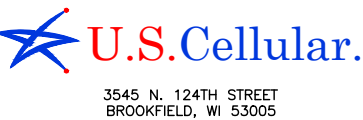


1. CHOOSE BOLT LENGTH TO ALLOW A MIN. OF THREE THREADS EXPOSED.
2. BURNISH MOUNTING SURFACE TO REMOVE PAINT IN THE AREA OF THE CONNECTOR.
3. APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE OF CONNECTOR AND WIPE OFF EXCESS COMPOUND.
4. APPLY CLEAR HEAT SHRINK OVER ENTIRE LENGTH OF LABEL FOR PROTECTION. (REFER TO CONDUCTOR LABELS SECTION.)

2 MECHANICAL CONNECTION DETAILS

SCALE: N.T.S.

VENDOR:



PRODUCED BY:



SITE NAME:

ABILENE DTN

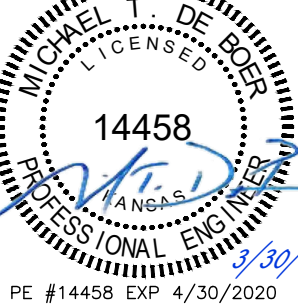
SITE NUMBER:

856529

SITE ADDRESS:

TBA
ABILENE KS 67410

ENGINEER:



NO	DATE	DESCRIPTION	BY
B	08/19/19	PRELIM ISSUE	MAH
C	11/04/19	PRELIM ISSUE	MAH
D	03/02/20	PRELIM ISSUE	MAH
E	03/25/20	PRELIM ISSUE	MAH
O	03/30/20	CONSTRUCTION ISSUE	MAH

SHEET TITLE:

GROUNDING DETAILS

SHEET NUMBER:	PROJECT #:	REVISION:
G4	856529	0
BY: MAH	CKD BY: JWM	

ORDINANCE NO. _____

AN ORDINANCE AMENDING THE ZONING REGULATIONS FOR THE CITY OF ABILENE, KANSAS TO ADD A NEW SECTION 20-14 CONCERNING THE DESIGNATION AND REGULATION OF CRITICAL DRAINAGE AREAS WITHIN THE CITY OF ABILENE, KANSAS.

BE IT ORDAINED, BY THE GOVERNING BODY OF THE CITY OF ABILENE, KANSAS:

SECTION 1. Article 20 of the Zoning Regulations for the City of Abilene, Kansas is hereby amended by adding a new Section 20-14, to read as follows:

SECTION 20-14 CRITICAL DRAINAGE AREAS

12-1401. Definitions. As used in this article, the following terms shall be defined as follows:

- (1) *Critical drainage area* is an area designated on the official zoning map of the city that is subject to periodic flooding due to stormwater ponding or sheet flow.
- (2) *Development* means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, levees, levee systems, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.
- (3) *Substantial improvement* means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the start of construction of the improvement. This term includes structures, which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:
 - (i) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or
 - (ii) Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.
- (4) *Substantial damage* means damage of any origin sustained by a structure whereby the cost of restoring the structure to pre-damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.
- (5) *Historic structure* means any structure that is: (a) listed individually in the National Register of Historic Places (a listing maintained by the department of interior) or preliminarily determined by the secretary of the interior as meeting the requirements for individual listing on the National Register; (b) certified or preliminarily determined by the secretary of the interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the secretary to qualify as a registered historic district; (c) individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the secretary of the interior; or (d) individually listed on a local inventory of historic places under a historic preservation program that has been certified either:

- (i) By an approved state program as determined by the secretary of the interior; or
- (ii) Directly by the secretary of the interior.

12-1402. Critical drainage areas. Critical drainage areas may be designated by the board of city commissioners following a report and recommendation from the planning commission. The city engineer shall identify areas that should be considered for designation as critical drainage areas. No development or substantial improvement may be undertaken within a critical drainage area without first obtaining a permit from the zoning administrator. The zoning administrator shall not approve any development which does not provide adequate drainage improvements so as not to inordinately expose the development as well as surrounding land to increased stormwater flooding. The drainage improvements shall be designed in accordance with criteria established by the city engineer. The city engineer shall review proposed drainage improvement plans and advise the zoning administrator if such plans comply with established criteria. The completion of said improvements shall be the responsibility of the applicant. This regulation shall not apply to any platted lot zoned single-family residential, regardless of size, nor any platted lot containing less than ten thousand (10,000) square feet of land area, regardless of the zoning classification.

SECTION 2. This ordinance shall be in full force and effect from and after its adoption and publication once in the official city newspaper by the following summary:

Ordinance No. ____ Summary

On _____, 2020, the City Commission passed Ordinance No. _____. The ordinance amends the zoning regulations for the City of Abilene, Kansas by adding a new section 20-14 authorizing the designation of critical drainage areas within the City of Abilene, Kansas, and authorizing the regulation of certain improvements within such designated critical drainage areas. A complete copy of the ordinance is available online at www.abilenecityhall.com or in the office of the City Clerk, 419 N. Broadway Street in Abilene, Kansas, free of charge. This summary is certified by the City's legal counsel.

APPROVED AND PASSED by the Governing Body of the City of Abilene, Kansas, this ____ day of _____, 2020.

Chris Ostermann, Mayor

Attest:

Penny L. Soukup, CMC, City Clerk

The publication summary set forth above is certified this ____ day of _____, 2020.

Aaron O. Martin, City Attorney