PLANNING COMMISSION AGENDA
CITY OF PRAIRIE VILLAGE
TUESDAY, MAY 6, 2014
7700 MISSION ROAD
7:00 P.M.

I. ROLL CALL

II. INTRODUCTION OF NEW COMMISSION MEMBERS

III. APPROVAL OF PC MINUTES - APRIL 1, 2014

IV. ELECTION OF OFFICERS

V. PUBLIC HEARINGS

PC2014-03 Renewal of Special Use Permit for a DayCare Program
4805 West 67th Street
Zoning: R-la
Applicant: Kansas City Autism Training Center

VI. NON-PUBLIC HEARINGS

PC2014-110 Temporary Use Permit for a Summer Camp
4801 West 79th Street
Zoning: R-1a
Applicant: Children's Mercy South

PC2014-111 Site Plan Approval for Wireless Communication Antenna
7700 Mission Road
Zoning: R-1a
Applicant: Selective Site Consultants for Sprint

PC2014-112 Site Plan Approval for Wireless Communication Antenna
7231 Mission Road
Zoning: R-1a
Applicant: Selective Site Consultants for Sprint

PC2014-113 Site Plan Approval for Wireless Communication Antenna
9011 Roe Avenue
Zoning: R-1a
Applicant: Global Signal Acquisition for Sprint

PC2013-103 Revised Sign Standards - First National Bank Building
4200 West 83rd Street
Zoning: C-2
Applicant: Scott Schultz, Luminous Neon

VII. OTHER BUSINESS

VIII. ADJOURNMENT

Plans available at City Hall if applicable
If you cannot be present, comments can be made by e-mail to
Cityclerk@Pvkansas.com

***Any Commission members having a conflict of interest, shall acknowledge that conflict prior to the hearing of an application, shall not participate in the hearing or discussion, shall not vote on the issue and shall vacate their position at the table until the conclusion of the hearing.**

PLANNING COMMISSION MINUTES
April 1, 2014

ROLL CALL

The Planning Commission of the City of Prairie Village met in regular session on Tuesday, April 1, 2014, in the Municipal Building Council Chambers at 7700 Mission Road. Chairman Ken Vaughn called the meeting to order at 7:00 p.m. with the following members present: Nancy Wallerstein, Bob Lindeblad, Gregory Wolf; Randy Kronblad and Nancy Vennard.

The following persons were present in their advisory capacity to the Planning Commission: Ron Williamson, City Planning Consultant; Kate Gunja, Assistant City Administrator; Jim Brown, Building Official and Joyce Hagen Mundy, City Clerk/Planning Commission Secretary.

APPROVAL OF MINUTES

Nancy Vennard moved the approval of the Planning Commission minutes of March 4, 2014. The motion was seconded by Nancy Wallerstein and passed unanimously.

PUBLIC HEARINGS

There were no public hearings.

NON PUBLIC HEARINGS

PC2014-02 Request for Special Use Permit for Private School
7457 Cherokee

Brian Gordon, Executive Director of Global Montessori Academy, reported that the requested traffic study was completed. He has been in communication with Mr. Williamson and is in agreement with the staff recommendation.

Mr. Williamson noted there are several schools in the area and traffic backs up on southbound Belinder Avenue. The applicant has prepared a Traffic Impact Study which concludes that trips generated by GMA will not significantly impact the intersection.

The trip generation for private schools was taken from the ITE Manual. Private schools generate a high volume of traffic and because this school is relocating from the Plaza, it may generate more trips than a typical private school. Therefore, Staff recommends that the Site Plan be approved with a condition that the operation will be evaluated during the school year and adjustments may be required to accommodate the traffic. This could include the dedication of right-of-way on Belinder Avenue to construct a turn lane. Also, GMA needs to work with the Police Department to prepare a traffic flow plan that will be communicated to the parents.

The applicant proposed to install moveable barriers on the east and south boundaries of the elementary school play area. It is important that the barriers remain moveable in the event traffic needs to use Cherokee Drive for access.

The applicant submitted a Site Plan for approval by the Planning Commission. Since the proposed use is within an existing building, a detailed Site Plan was not required; however, the applicant needs to submit more detail for the proposed outdoor classroom area on the east side of the building.

Chairman Ken Vaughn led the Commission in the following consideration of the Site Plan criteria:

A. The site is capable of accommodating the buildings, parking areas, and drives with the appropriate open space and landscape.

The proposed Montessori School will be within an existing structure and parking and access will be accommodated within the existing north parking lot.

B. Utilities are available with adequate capacity to serve the proposed development.

This site is currently served by utilities and they should be adequate to serve the proposed use.

C. The plan provides for adequate management of stormwater runoff.

No changes in the existing site are proposed and therefore stormwater runoff will not be affected.

D. The plan provides for safe ingress/egress and internal traffic circulation.

The existing parking area on the north side will provide adequate ingress/egress for the proposed use. Currently the parents park and walk children in, at drop-off, and out, at pick-up. GMA plans to continue this procedure. Belinder Avenue currently backs up at 75th Street in the morning rush hour and this use will further aggravate that problem. A Traffic Impact Study has been prepared to address this issue.

E. The plan is consistent with good land planning and site engineering design principles.

The site is consistent with good land planning and design.

F. An appropriate degree of compatibility will prevail between the architectural quality of the proposed building and the surrounding neighborhood.

It is not proposed to change the external appearance of the building except for some minor items; however, some site changes are proposed.

G. The plan represents an overall development pattern that is consistent with Village Vision and other adopted planning policies.

One of the primary objectives of Village Vision is to encourage reinvestment in the community to maintain the quality of life in Prairie Village. The proposed Montessori School is an amenity that sets Prairie Village apart from other competing communities in the metropolitan area. This application for approval of the Montessori School is

consistent with Village Vision in encouraging reinvestment; providing multiple uses in existing buildings and making better use of underutilized facilities.

Ken Vaughn noted the outdoor lighting condition. Mr. Williamson stated as there are no exterior changes being made to the existing building, this will address any existing lighting that may not be in compliance. The fire and building codes for this different use of the building are being addressed by the Fire Department and the Building Official. Mr. Vaughn stated this is a wonderful reuse of this building.

Nancy Wallerstein noted the close proximity of the operating hours for the proposed school and Belinder Elementary School and expressed some concern with traffic congestion. Mr. Gordon responded that the school caters to working families and that approximately half of its students arrive early and stay until after 4 o'clock.

Ron Williamson replied the main problem with stack generally occurs in the morning hours and if this occurs the school will need to work with the Police Department to address it.

Gregory Wolf moved the Planning Commission approve the Site Plan for the Global Montessori School at 7457 Cherokee Drive subject to the following conditions:

1. That any outdoor lighting installed shall be in accordance with the lighting ordinance.
2. That the applicant meet all requirements of the building and fire codes.
3. That the applicant submit a more detailed Site Plan for the proposed outdoor classroom to be reviewed and approved by Staff.
4. That any proposed modifications to the exterior of the building, including doors, etc., be subject to the review and approval of Staff for architectural compatibility.
5. That the conclusions and recommendations of the Traffic Impact Study be accepted at this time which states that the proposed school will not significantly impact the intersections. However, traffic will be monitored by the Police and Public Works Departments during the school year and if traffic does become an issue, the applicant will work with City Staff to implement a solution. One possibility may be the dedication of additional right-of-way for Belinder Avenue to construct a turn lane at the 75th Street intersection.
6. That the barriers for the elementary school play area be moveable in case access is needed from Cherokee Drive.
7. That the applicant work with the Police Department to prepare a traffic flow plan to be communicated to the people that will be dropping off and picking up students.

The motion was seconded by Randy Kronblad and passed unanimously.

PC2014-109 Site Plan Approval for Exterior Seating
Einstein Brothers Bagels
6970 Mission Road

Kylie Stock with Lega C Properties addressed the Commission on behalf of Einstein Bagel who is locating in the space previously occupied by Dolce Bakery and Starbucks,

and proposes to have an outdoor seating area. Einstein Bagel has reviewed the staff recommendation and is in agreement with the conditions of approval.

Ron Williamson stated the proposed outdoor seating area includes three four-top tables under the canopy and one four-top table on each end of the canopy. This is approximately 300 sq. ft. The distance between the columns and the curb is 60". In order to meet ADA accessibility through this area, an unobstructed walkway of 48" must be maintained and the distance between the face of the wall and the columns is 12'. Vehicle overhang could be 24" which reduces the accessible walkway to 36". The applicant proposes to place the tables closer to the building and maintain a 36" wide walkway adjacent to the columns. This would increase the outdoor space in the Center from 7,780 sq. ft. to 8,080 sq. ft. and would increase the Center sq. ft. from 301,886 to 302,186.

The square footage of Village Center has been agreed upon between the City and the owners. The off-street parking requirement for mixed office/commercial centers over 300,000 square feet is 3.5 spaces per 1,000 square feet. The addition of 300 sq. ft. for the outdoor seating area will increase the required parking from 1,057 spaces to 1,058 spaces. The Center provides 1,160 spaces and has an excess of 102 spaces. Based on the agreed upon parking calculation method, the applicant will need to submit a floor plan indicating the amount of area designated as storage and the Center will need to update the square footage chart, indicating the change in storage area and patio area. The Handicap Parking sign will need to be relocated because it is within the 36" walkway. It could easily be moved to the brick column. Also, the two existing planters will need to be located where they do not encroach into the 36" walkway on either side of the column.

Chairman Ken Vaughn led the Commission in review of the follow criteria:

A. The site is capable of accommodating the building, parking areas and drives with appropriate open space and landscape.

The site is capable of accommodating the seating area provided an ADA accessible walkway is available. The walkway between the curb and the building columns is only 60" and with vehicle overhang it would be reduced to 36". The 48" width allows for a wheelchair and a pedestrian to pass. The applicant is proposing a minimum 36" walkway width on the north side of the columns and will meet the requirement.

B. Utilities are available with adequate capacity to serve the proposed development.

Utilities are currently in place serving the Prairie Village Center and are adequate to serve this minor expansion for outdoor seating.

C. The plan provides for adequate management of stormwater runoff.

There will be no increase in impervious surface so stormwater is not an issue.

D. The plan provides for safe and easy ingress, egress, and internal traffic circulation.
The proposed site will utilize existing driveways and the general circulation of the Center will not be changed. Adequate pedestrian accessibility will need to be maintained between the columns and the parking lot, and the columns and the building façade.

E. The plan is consistent with good land planning and good site engineering design principles.
The addition of outdoor seating will help create a more vibrant atmosphere for the Center and is consistent with good land planning practices. The primary site design issue is the need to maintain a minimum 36" walkway for ADA accessibility on both sides of the columns.

F. An appropriate degree of compatibility will prevail between the architectural quality of the proposed building and the surrounding neighborhood.
No changes are proposed to the building façade. The brick columns and other features will remain as they are now.

G. The plan represents an overall development pattern that is consistent with the comprehensive plan and other adopted planning policies.
One of the principles of the Village Vision was to focus on redevelopment and reinvestment in the community. These issues have become primary goals for the City and this project represents a step in that direction. This is the opportunity to enhance and intensify the use of the building that will generate additional revenues for the City.

Bob Lindeblad moved the Planning Commission approve the proposed site plan for Einstein Bagel's outdoor seating area, 6970 Mission Road, subject to the following conditions:

1. That all lighting used to illuminate the outdoor area be installed in such a way as to not create any glare off the site and be in conjunction with the outdoor lighting regulations.
2. That a minimum 36" wide accessible walkway be maintained on both sides of the columns.
3. That the Handicap Parking sign be relocated and the planters be moved so that they do not encroach into the 36" walkway.
4. That the square footage chart and drawings for Prairie Village Center be updated and submitted to the City in order to determine the appropriate square footage for the parking requirement.

The motion was seconded by Nancy Wallerstein and passed unanimously.

OTHER BUSINESS

Information on permitted uses in R-1a
Ron Williamson briefly reviewed information that had been distributed to the City Council and discussed with them on March 3, 2014. The Council requested information on what was allowed in Prairie Village in Single Family Residential Districts compared to other Johnson County cities. The intent was to determine whether there are uses that

should be removed and/or moved to a different process. The MXD discussion was primarily a review to determine if it met the projected needs of the future.

Mr. Williamson noted that when the Conditional Use Permit was included in the State Statutes, it was envisioned to be a separate procedure from Special Use Permits. However, case law has determined over the years that Conditional Use Permits and Special Use Permits are used interchangeably and should follow the same procedures. Therefore, after further analysis, the Conditional Use Chapter should be eliminate and the list of uses wither transferred to Special Use Permits, Site Plan review or Staff review.

NEXT MEETING

The filing deadline for the May 6th meeting is Friday, April 4th. To date an application for renewal of the Special Use Permit for KCATC located in the Faith Lutheran Church facility has been submitted as well as a temporary use permit request for a summer camp program operating out the Kansas City Christian School. We anticipate taking action on the Preliminary and Final Plat for Chadwick Court at the May meeting and consideration of an application by Sprint for wireless antenna on the tower at 7700 Mission Road..

ADJOURNMENT

With no further business to come before the Commission, Chairman Ken Vaughn adjourned the meeting at 7:18 p.m.

Ken Vaughn
Chairman

LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: May 6, 2014, Planning Commission Meeting Project # 000009686

Application:	PC 2014-03
Request:	Renewal of Special Use Permit for KcATC Child Care Center
Property Address:	Faith Lutheran Church, 4805 W. 67th Street
Applicant:	Kansas City Autism Training Center (KcATC)
Current Zoning and Land Use:	R-1A Single-Family Residential District - Church
Surrounding Zoning and Land Use:	**North:** R-1A Single-Family District – Single Family Dwellings **East:** R-1A Single-Family District – Single Family Dwellings **South:** R-1A Single-Family District – Single Family Dwellings **West:** R-1B Single-Family District – Single Family Dwellings
Legal Description:	Metes and Bounds
Property Area:	2.97 acres
Related Case Files:	PC 2011-02 Special Use Permit for KcATC Child Care Center PC 2008-02 Special Use Permit for T-Mobile PC 2008-05 Special Use Permit for T-Mobile
Attachments:	Application, Site Plan, Project Photos

General Location Map

Aerial Map

COMMENTS:

The Kansas City Autism Training Center (KcATC) is requesting renewal of the Special Use Permit to operate a child care center in the Faith Lutheran Church located at 4805 W. 67th Street. KcATC plans to provide care for up to 60 children between the ages of 2-1/2 to 12. The center will operate year around Monday - Friday, 7:30 am to 5:30 pm. The center will be closed holidays; and spring, summer and winter breaks. The projected enrollment includes 18 children diagnosed with autism receiving one-on-one therapy and 42 non-autistic children enrolled in the preschool.

The original Special Use Permit was considered and recommended for approval by the Planning Commission on May 3, 2011, and approved by the Governing Body on May 16, 2011, subject to the following conditions:

1. That the child care center be approved for a maximum of 50 children and be contained within the existing building and courtyard as presented by the applicant.
2. That the child care center be permitted to operate year-round from 7:00 am to 6:00 pm subject to the licensing requirements by the Kansas Department of Health and Environment.
3. That the Special Use Permit be issued for the child care center for a period of three years from the date of City Council approval and that if the applicant desires to continue the use after that time period expires, they shall file a new application for reconsideration by the Planning Commission and City Council.
4. If this permit is found not to be in compliance with the terms of the approval of the Special Use Permit, it will become null and void within 90 days of notification of noncompliance unless noncompliance is corrected.

KcATC will provide professional, research-based interventions and training for children with a pervasive developmental disorder and their families. This center will also provide education to parents, educators, therapists and other direct service providers in the Kansas City area.

A recent study indicates that one (1) out of every 110 children born has autism, and that if a child is born with autism; there is a higher chance that siblings will also be autistic. Unfortunately, autism seems to be increasing and facilities need to be established to provide the proper care and training.

According to the plans submitted, the child care center occupies two floors of the education wing of the church. Four classrooms, an office, and a storage room are used on the ground floor and four rooms are used on the first floor. There is an existing courtyard that is accessed from the ground floor that serves as the outdoor exercise and play area. The courtyard is bound by the building on the east, west and south sides and a wall and fence complete the enclosure on the north side.

A neighborhood meeting was not required since no one appeared at the original approval.

There has been a court decision that Special Use Permits are in reality a change in use and should be considered in the same manner as a zoning change is considered using the "Golden Factors". The Special Use Permit ordinance has factors for consideration

similar but not identical to the "Golden Factors" and therefore, both sets of factors will be presented.

The Planning Commission shall make findings of fact to support its recommendation to approve, conditionally approve, or disapprove this Special Use Permit. In making its decision, consideration should be given to any of the following factors that are relevant to the request:

FACTORS FOR CONSIDERATION SPECIFIC TO SPECIAL USE PERMITS:

1. **The proposed special use complies with all applicable provisions of these regulations including intensity of use regulations, yard regulations, and use limitations.**

The child care program is contained within an existing building and fenced playground which is in compliance with the zoning regulations.

2. **The proposed special use at the specified location will not adversely affect the welfare or convenience of the public.**

The child care program will be an asset to the community because it will provide a much needed service for taking care of children with pervasive developmental disorders. Continued approval of this location will allow the expansion of a much needed service.

3. **The proposed special use will not cause substantial injury to the value of other property in the neighborhood in which it is to be located.**

The child care center is located within an existing structure and will not create any problems for the adjacent property in the neighborhood. The City has not received any complaints on the use since it started operation.

4. **The location and size of the special use, the nature and intensity of the operation involved in or conducted in connection with it, and the location of the site with respect to streets giving access to it, are such that this special use will not dominate the immediate neighborhood so as to hinder development and use of neighboring property in accordance with the applicable zoning district regulations. In determining whether the special use will so dominate the immediate neighborhood, consideration shall be given to: a) the location, size and nature of the height of the building, structures, walls and fences on the site; and b) the nature and extent of landscaping and screening on the site.**

The child care center is within an existing building and no new construction will occur. Therefore, the use will not have a dominating effect on the existing neighborhood.

5. **Off-street parking and loading areas will be provided in accordance with standards set forth in these regulations and said areas shall be screened from adjoining residential uses and located so as to protect such residential uses from any injurious affect.**

The child care center uses the existing off-street parking and loading areas adjacent to Roe Avenue that are currently being provided by the church. The child care center will not be operating at the same time as other events at the church and should not create a conflict. The parking lot is large and should easily accommodate the traffic and parking needs.

6. **Adequate utility, drainage and other necessary utilities have been or will be provided.**

Since this use occupies an existing facility, utility services are already provided.

7. **Adequate access roads or entrance and exit drives will be provided and shall be so designed to prevent hazards and to minimize traffic congestion in public streets and alleys.**

Adequate entrance and exit drives currently exist off Roe Avenue and the child care center utilizes the existing infrastructure that is already in place.

8. **Adjoining properties and the general public will be adequately protected from any hazardous or toxic materials, hazardous manufacturing processes, obnoxious odors, or unnecessary intrusive noises.**

This particular use does not have any hazardous materials, processes, odors or intrusive noises that accompany it.

9. **Architectural style and exterior materials are compatible with such styles and materials used in the neighborhood in which the proposed structure is to be built or located.**

The special use has not required any changes in the exterior architecture or style of the existing building.

GOLDEN FACTORS FOR CONSIDERATION:

1. **The character of the neighborhood;**

The neighborhood is predominantly single-family dwellings to the north, south, east, and west. The existing property is a church.

2. **The zoning and uses of property nearby;**

North: R-1A Single-Family District - Single Family Dwellings
East: R-1A Single-Family District - Single Family Dwellings
South: R-1A Single-Family District - Single Family Dwellings
West: R-1B Single-Family District - Single Family Dwellings

3. **The suitability of the property for the uses to which it has been restricted under its existing zoning;**

The property is zoned R-1A Single-Family Residential District which permits single-family dwellings, churches, schools, public building, parks, group homes and other uses that may be permitted either as a conditional use or special use. The property has a variety of uses available and it can accommodate uses that complement the primary use as a church.

4. **The extent that a change will detrimentally affect neighboring property;**

The use has been in existence for approximately two years and has not created any detrimental neighborhood issues. The renewal request is for 60 students; an increase of 10 students.

5. **The length of time of any vacancy of the property;**

The church was built in 1961 and, to our knowledge, has never been vacant.

6. The relative gain to public health, safety and welfare by destruction of value of the applicant's property as compared to the hardship on other individual landowners;

The project is within an existing building that will not have any exterior modifications. The applicant will be able to better utilize the property and no hardship will be created for adjacent property owners.

7. City staff recommendations;

The use has been in operation for approximately two years with no complaints; the use is within an existing building with no exterior changes; the use will have minimal impact on the neighborhood; and the use provides a needed service for preschool children that is in demand in Prairie Village. It is recommended that it be approved for five years so that it can be reevaluated to be sure that it does not adversely affect the neighborhood.

8. Conformance with the Comprehensive Plan.

One of the primary objectives of Village Vision is to encourage reinvestment in the community to maintain the quality of life in Prairie Village. The child care center is an amenity that will improve quality of life in Prairie Village and help make it a desirable location for young families. This application for renewal of the Special Use Permit of the child care center is consistent with Village Vision in encouraging reinvestment; providing multiple uses in existing buildings and making better use of underutilized facilities.

RECOMMENDATIONS:

It is the recommendation of Staff that the Planning Commission find favorably on both sets of factors and recommend approval of the KcATC Child Care Center at 4805 W. 67th Street to the Governing Body subject to the following conditions:

1. That the child care center be approved for a maximum of 60 children and be contained within the existing building and courtyard as presented by the applicant.
2. That the child care center be permitted to operate year-round from 7:00 am to 6:00 pm subject to the licensing requirements by the Kansas Department of Health and Environment.
3. That the Special Use Permit be issued for the child care center for a period of five (5) years from the date of Governing Body approval and that if the applicant desires to continue the use after that time period expires, they shall file a new application for reconsideration by the Planning Commission and Governing Body.
4. That the child care center be in compliance with all state and local code requirements.
5. If this permit is found not to be in compliance with the terms of the approval of the Special Use Permit, it will become null and void within 90 days of notification of noncompliance unless noncompliance is corrected.

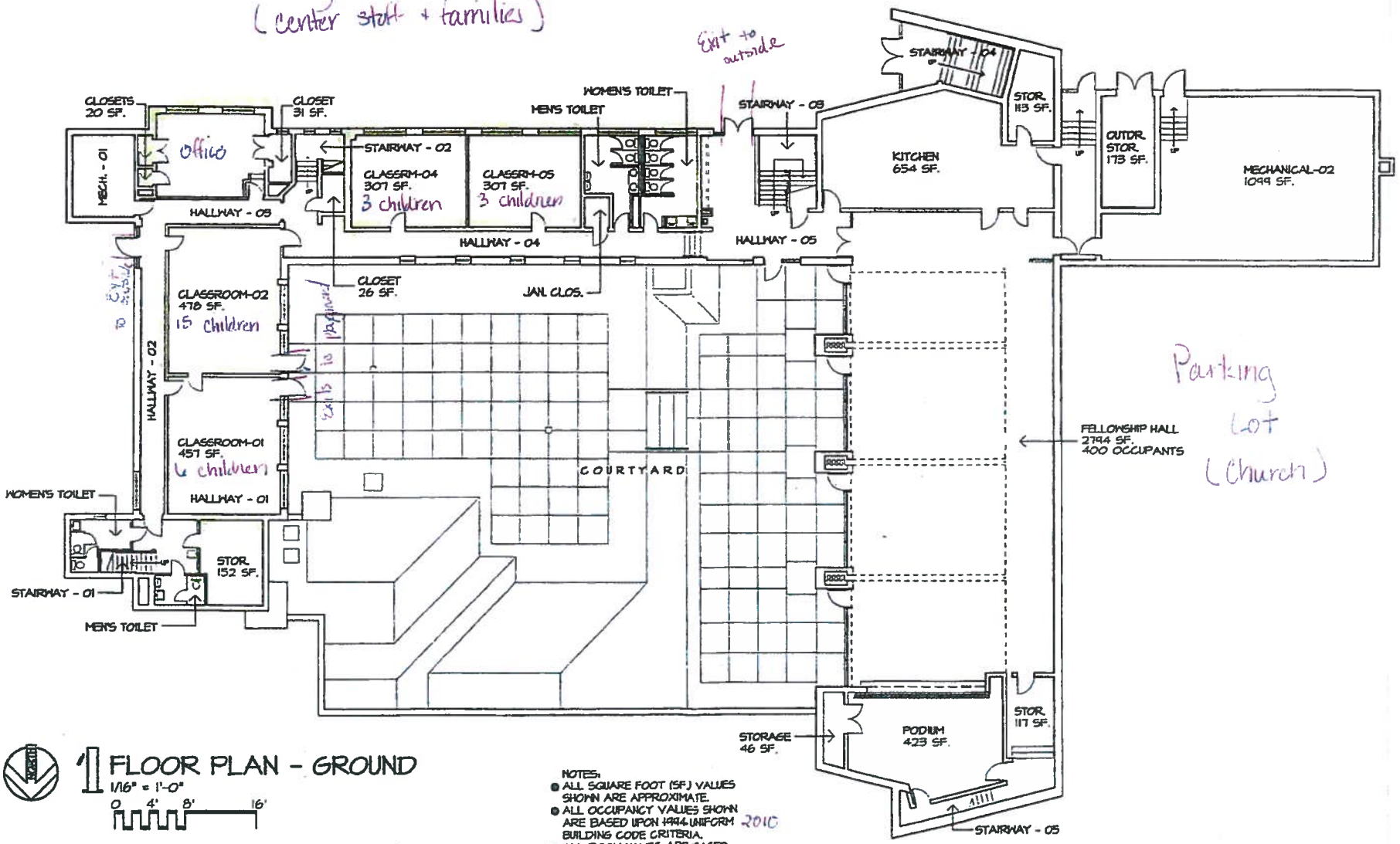
Site Plan Approval

Since the use is entirely contained within an existing building and courtyard, and no physical changes are proposed to the exterior of the building or site, site plan approval is not necessary.

Courtyard Playground

Classroom Area

Parking Lot
(center staff + families)



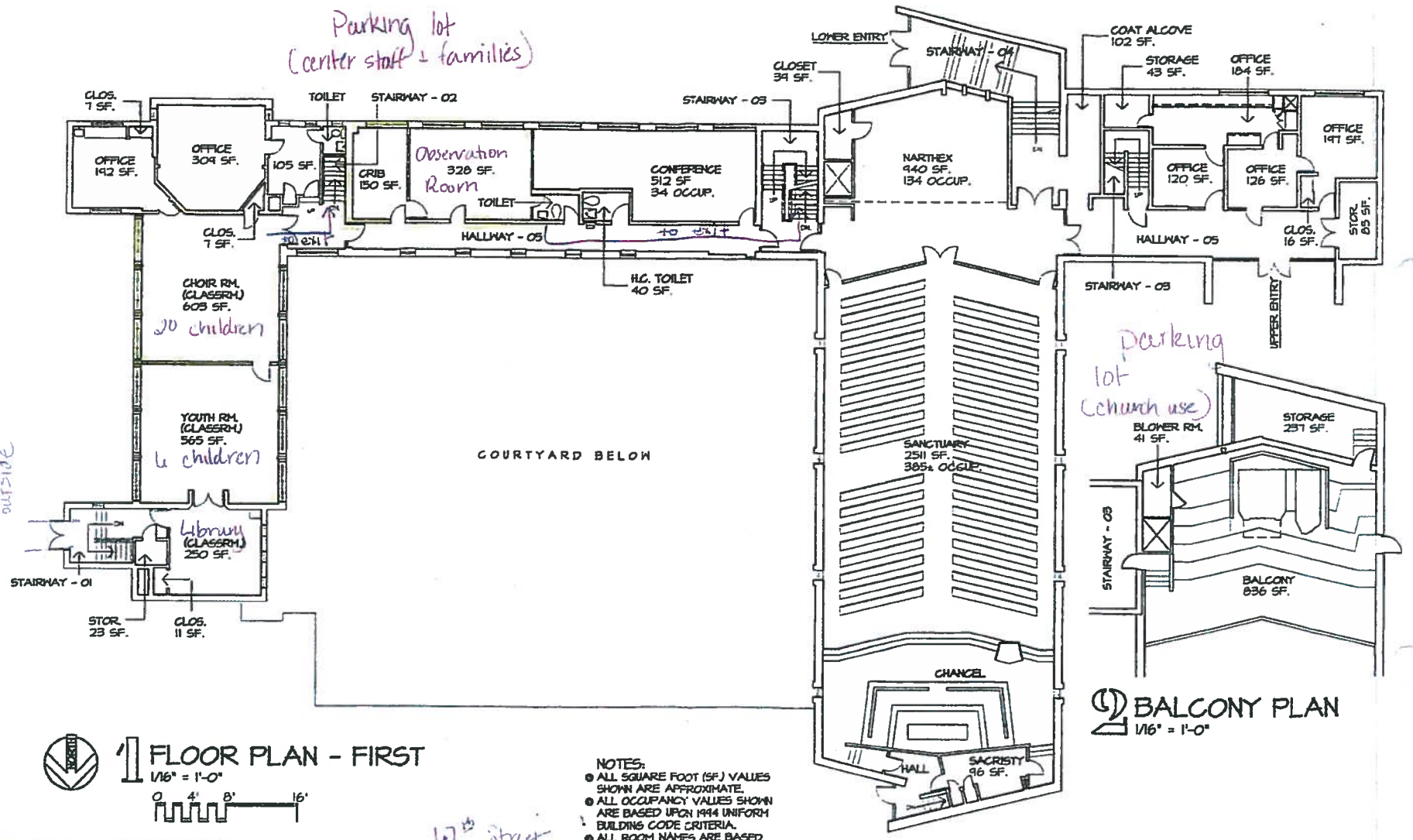
1 FLOOR PLAN - GROUND

1/16" = 1'-0"

0 4' 8' 16'

NOTES:
- ALL SQUARE FOOT (SF.) VALUES SHOWN ARE APPROXIMATE.
- ALL OCCUPANCY VALUES SHOWN ARE BASED UPON 1994 UNIFORM BUILDING CODE CRITERIA. 2010
- ALL ROOM NAMES ARE BASED UPON CURRENT SPACE USAGE.

FAITH LUTHERAN CHURCH PRAIRIE VILLAGE, KS


Parking lot (center staff + families)
CLOS. 7 SF.
OFFICE 142 SF.
OFFICE 309 SF.
105 SF.
TOILET
STAIRWAY - 02
CRIB 150 SF.
Observation 328 SF. Room
TOILET
CONFERENCE 512 SF 34 OCCUP.
STAIRWAY - 03
CLOSET 34 SF.
LOWER ENTRY
STAIRWAY - 04
NARTHEX 940 SF. 134 OCCUP.
COAT ALCOVE 102 SF.
STORAGE 43 SF.
OFFICE 184 SF.
OFFICE 197 SF.
OFFICE 120 SF.
OFFICE 126 SF.
STOR. 85 SF.
CLOS. 16 SF.
HALLWAY - 05
CLOS. 7 SF.
to exit
to exit
HALLWAY - 05
H.C. TOILET 40 SF.
CHOIR RM. (CLASSRM.) 608 SF.
20 children
YOUTH RM. (CLASSRM.) 565 SF.
14 children
COURTYARD BELOW
SANCTUARY 2511 SF. 385± OCCUP.
STAIRWAY - 03
UPPER ENTRY
Parking lot (church use)
BLOWER RM. 41 SF.
STORAGE 237 SF.
STAIRWAY - 03
BALCONY 836 SF.
Library (CLASSRM.) 250 SF.
STAIRWAY - 01
STOR. 23 SF.
CLOS. 11 SF.
CHANCEL
HALL
SACRISTY 96 SF.
1 FLOOR PLAN - FIRST
1/16" = 1'-0"
0 4' 8' 16'
2 BALCONY PLAN
1/16" = 1'-0"
NOTES:
• ALL SQUARE FOOT (SF.) VALUES SHOWN ARE APPROXIMATE.
• ALL OCCUPANCY VALUES SHOWN ARE BASED UPON 1994 UNIFORM BUILDING CODE CRITERIA.
• ALL ROOM NAMES ARE BASED UPON CURRENT SPACE USAGE.

SPECIAL USE PERMIT APPLICATION

CITY OF PRAIRIE VILLAGE, KANSAS

For Office Use Only
Case No.: PC2014-03
Filing Fees: $25
Deposit: $500

Date Advertised: 4/8/14
Date Notices Sent: 4/11/14
Public Hearing Date: 5/6/14

APPLICANT: Kansas City Autism Training Center, Inc. PHONE: 913-432-5454

ADDRESS: 4805 West 67th St., Prairie Village, KS 66208 E-MAIL: ron@kcatc.net

OWNER: Ron Johnson, Executive Director PHONE: 913-432-5454

ADDRESS: 4805 West 67th St., Prairie Village, KS ZIP: 66208

LOCATION OF PROPERTY: 4805 West 67th St., Prairie Village, KS 66208

LEGAL DESCRIPTION: Faith Evangelical Lutheran Church, Inc.

ADJACENT LAND USE AND ZONING:

	Land Use	Zoning
North	Residential	R-1A
South	Residential	R-1A
East	Residential	R-1B
West	Residential	R-1A

Present Use of Property: Church/ Child Care Center

Please complete both pages of the form and return to:
Planning Commission Secretary
City of Prairie Village
7700 Mission Road
Prairie Village, KS 66208

Does the proposed special use meet the following standards? If yes, attach a separate Sheet explaining why.

	Yes	No
1. Is deemed necessary for the public convenience at that location.	X	
2. Is so designed, located and proposed to be operated that the public health, safety, and welfare will be protected.	X	
3. Is found to be generally compatible with the neighborhood in which it is proposed.	X	
4. Will comply with the height and area regulations of the district in which it is proposed.	X	
5. Off-street parking and loading areas will be provided in accordance with the standards set forth in the zoning regulations, and such areas will be screened from adjoining residential uses and located so as to protect such residential use from any injurious effect.	X	
6. Adequate utility, drainage, and other such necessary facilities have been or will be provided.	X	

Should this special use be valid only for a specific time period? Yes____ No X

If Yes, what length of time? _____

SIGNATURE: Ronald L Johnson DATE: 3/25/14

BY: Ronald L Johnson

TITLE: Executive Director

Attachments Required:

- Site plan showing existing and proposed structures on the property in questions, and adjacent property, off-street parking, driveways, and other information.
- Certified list of property owners

Application No. PC 2014-03

Ronald L. Johnson, being duly sworn upon his oath, deposes and states:
Kansas City Autism Training Center, Inc. Executive Director

1. I am the (owner of) (attorney for) (agent of) the property described in the attached notice upon which an application has been filed before the Planning Commission of the City of Prairie Village, Kansas.

2. On the _____ day of N/A, 20__ a public information meeting was held pursuant to the Citizen Participation Policy adopted on June 6, 2000, by the Planning Commission

3. On the 11 day of April, 2014, I did comply with notification requirements to landowners as stated Section 19.28.020, of the Prairie Village Zoning Regulations and notified in letter by certified mail all owners of land located within 200 feet of the described real property. Notice was mailed to the following:

Name	Address
See Certified Mail Receipts and spreadsheet list.	

I certify that the foregoing is true and correct.

Ronald L. Johnson

Name
4805 West 67th Street
Prairie Village, KS 66208
Address

Application No. PC 2014-03

AFFIDAVIT

STATE OF KANSAS)
) ss.
COUNTY OF JOHNSON)

Lyle Niedens
President Faith Evangelical Lutheran Church
, being duly sworn upon his oath, disposes and states:

That he is the (owner) (attorney for) (agent of) the tract of land for which the application was filed. That in accordance with Section 19.28.025 of the Prairie Village Zoning Regulations, the applicant placed and maintained a sign, furnished by the City, on that tract of land. Said sign was a minimum of two feet above the ground line and within five feet of the street right-of-way line in a central position of the tract of land and had no visual obstruction thereto.

(Owner/Attorney for/Agent of)

Subscribed and sworn to before me this 21st day of April, 2014.

KIM HARRINGTON
Notary Public, State of Kansas
My Appointment Expires
8/4/2015

Notary Public or Planning Commission Secretary

Carolyn	Novinger	4608 W 67th St
Ravi	Dasari	4700 W 67th St
Aleta	Cress	4700 W 68th St
Michael and Terri	Dunn	4708 W 67th St
Troy Sackett	Janet Moore	4712 W 68th St
Leo	Goertz Trustee	4716 W 67th St
Harold	Neptune Trustee	4722 W 68th St
Patrick	Ink	4800 W 67th St
William and Bette	Tiernan	4806 W 67th St
John	Faerber	4806 W 68th St
Loredana	Molteni Trustee	4809 W 67th St
Ronald Reed	Catherine Crichton-Reed	4810 W 67th St
Christopher and Jane	Wooldridge	4810 W 68th St
Gina	Robinson	4820 W 68th St
Curtis	Catenhauser	4821 W 67th St
Sarah Shouse	Jeff Koenigs	6619 Hodges Dr
Larry and Jackie	Kamin	6701 Roe Ave
Brian and Jennifer	Egan	6705 Roe Ave
Benjamin and Marla	Washburn	6711 Roe Ave
Cynthia	Anderson Trustee	6719 Roe Ave
Karen	Miller	6725 Roe Ave
Christopher and Allyson	Gray	6731 Roe Ave
Thompson Real Estate		6735 Roe Ave
A1A Property LLC		6739 Roe Ave
Jay	Julian	6740 Roe Ave
Tina	Brennan	6743 Roe Ave

CarolynNovinger
4608W 67th St
Prairie Village,Kansas 66208

Ravi Dasari
4700W 67th St
Prairie Village,Kansas 66208

Aleta Cress
4951 Westwood Ter
Kansas City MO 64112

Michael and TerriDunn
4708W 67th St
Prairie Village,Kansas 66208

Troy Sackett Janet Moore
4712W 68th St
Prairie Village,Kansas 66208

Leo Goertz Trustee
4716W 67th St
Prairie Village,Kansas 66208

Harold Neptune Trustee
4722W 68th St
Prairie Village,Kansas 66208

Patrick Ink
17 Pipes Loop
Covington LA 70435

William and Bette Tiernan
4806W 67th St
Prairie Village,Kansas 66208

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Prairie Village,Kansas 66208

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Prairie Village,Kansas 66208

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Prairie Village,Kansas 66208

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Prairie Village,Kansas 66208

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6731Roe Ave
Prairie Village,Kansas 66208

Thompson Real Estate
6735Roe Ave
Prairie Village,Kansas 66208

A1A Property LLC
~~6739Roe Ave~~
~~Prairie Village,Kansas 66208~~
1010 Westloop PL
Manhattan KS
66502.

Jay Julian
6740Roe Ave
Prairie Village,Kansas 66208

Tina Brennan
12850 Pembroke Cir
Leawood KS 66209

4805 W 67th St 200 Ft Buffer

LEGEND

- Address Point
- Building/Structure

Property

- Untaxed
- Vertical
- Unplatted
- Mineral Rights
- Common Interest
- Platted
- Right-of-way
- Leased Land

LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: May 6, 2014, Planning Commission Meeting Project # 000009686

Application: PC 2014-110

Request: Temporary Use Permit for an ADHD Summer Treatment Program

Property Address: 4801 W. 79th Street

Applicant: Children's Mercy South

Current Zoning and Land Use: R-1A Single-Family District – Kansas City Christian School

Surrounding Zoning and Land Use:
North: R-1B Single-Family District – Single Family Dwellings
East: R-1A Single-Family District – Single Family Dwellings
South: R-1A Single-Family District – Single Family Dwellings
West: R-1A Single-Family District – Single Family Dwellings

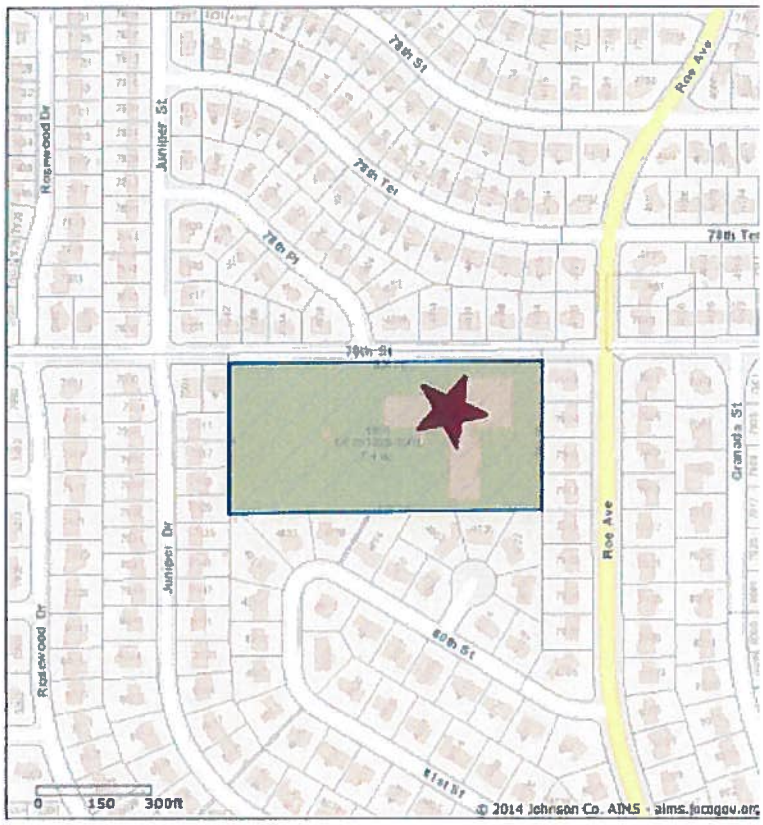
Legal Description: Metes and Bounds

Property Area: 7.44 acres

Related Case Files: N/A

Attachments: Application

General Location Map



Aerial Map

COMMENTS:

Children's Mercy South is proposing to provide an eight-week Summer Treatment Program for approximately 40 children with ADHD. The program is proposed to be held at the Kansas City Christian School from June 2, 2014 to July 25, 2014. The hours of operation will be 7:30 am to 5:30 pm; Monday, Tuesday, Wednesday, and Friday. The program will use three classrooms, the cafeteria, the gymnasium, and the outdoor playgrounds. The proposed Summer Treatment Program will use the existing building, parking lots, and outdoor areas and there will be no changes made to the property. Therefore, no site plan was required.

Since the short-term use is for more than 30 days, it requires Planning Commission approval.

The Planning Commission may approve the temporary use permit provided that the application meets the following:

1. **The applicant shall submit in written form a complete description of the proposed use, including drawings of proposed physical improvements, estimated accumulation of automobiles and persons, hours of operation, length of time requested, and other characteristics and effects on the neighborhood.**

   The applicant has provided a detailed description of the proposed operation, as follows:

   The applicant has submitted a two-page description of the program and stated on the application that it will be provided from 7:30 am to 5:30 pm; Monday, Tuesday, Wednesday, and Friday from June 2nd until July 25th. There will be no external changes to the facility or grounds so it should have no adverse effects on the neighborhood. This provides needed service for the community and is a good use of a facility that would remain unused for the summer.

2. **If approved, a specific time period shall be determined and a short-term permit shall not be operated longer than the period stipulated in the permit.**

   The applicant has requested that the short-term use be approved for the period from June 2, 2014 to July 25, 2014, and that would be the maximum time of operation that would be permitted.

3. **Upon cessation of the short-term permit, all materials and equipment shall be promptly removed and the property restored to its normal condition. If after giving full consideration to the effect of the requested short-term permit on the neighborhood and the community, the Planning Commission deems the request reasonable, the permit for the short-term use may be approved. Conditions of operations, provision for surety bond, and other reasonable safeguards may be written into the permit. Such permit may be approved in any zoning district.**

   There will be no external changes to the building and grounds; therefore, no adverse effects on the adjacent neighborhood.

RECOMMENDATION:

It is the recommendation of Staff that the Planning Commission approve the temporary use permit for an ADHD Summer Treatment Program at 4801 W. 79th Street subject to the following conditions:

1. That the temporary use permit for the ADHD Summer Treatment Program be approved for a period from June 2, 2014 to July 25, 2014.
2. That the hours of operation shall be from 7:30 am to 5:30 pm on Monday, Tuesday, Wednesday, and Friday.
3. That the Summer Treatment Program use the existing building, parking, driveways, and playgrounds and will make no external changes to the property.
4. That the applicant properly maintain the exterior area of the property and will leave it in an acceptable condition when the program ends on July 25th.

TEMPORARY USE PERMIT APPLICATION
City of Prairie Village, Kansas

Date: 3/26/14

Name 2014 ADHD Summer Treatment Program

Organization Childrens Mercy South Phone 913-696-5740

Address 5520 College Blvd City / State / Zip Overland Park, KS 66211

Is the organization (check all that apply):

__✓__ Non-profit _____ Civic _____ Incorporated

_____ Authorized to do business in the State of Kansas

USE: _____ Sale / activity _____ Trade show _____ Street Fair

_____ Exposition _____ Promotional venture / entertainment

Please give a complete description of proposed use: 8 week Summer Day Treatment Program for Children with ADHD

Location: Kansas City Christian School, Prairie Village Campus
4801 West 79th St, Prairie Village, KS 66208

Attach any descriptive materials such as plans, maps or size dimensions, etc. to better illustrate the proposed use. We will be using 3 classrooms, the cafeteria, the gymnasium and outdoor playgrounds.

Please indicate what types of signs, flags or other devices will be used to attract attention:

NONE

Hours of Operation: 7:30-5:30 Mon, Tues, Wed, Friday (am pm) 7:30 AM - 8pm Thursday

Estimated accumulation of automobiles 23-25 and persons _____ 40 campers, 20 Counselors, 2 teachers, 2-3 psychologists.

Other characteristics and effects on neighborhood: NONE

Period requested from: Camp runs from Mon. June 2 to Fri, July 25

Training week for 20 Counselors & 4 psychologists is Tu, May 27 to Fri, May 30

Submitted by: Ann Applyard, RN
(signature of applicant)

See reverse for conditions of approval

Amount received _____ **Date** _____ **Rec'd by** _____

Check to follow.

WHAT DOES A TYPICAL DAY AT STP LOOK LIKE?

Day spends two hours daily in classrooms conducted by special educators. These specialists carry out behavior modification programs designed to treat children's problems in a classroom context. The remainder of each day consists of recreational group activities that implement a variety of treatment components.

QUESTIONS?

For more information regarding Children's Mercy Summer Treatment Program please visit www.childrensmercy.org/adhdstp

BEST CHILDREN'S HOSPITALS U.S.News WORLD REPORT RANKED ALL SPECIALTIES 2013-14

FOR MORE INFORMATION CALL:

The Children's Mercy Summer Treatment Program
Phone: (913) 696-5748

CLASSES HELD AT:

Kansas City Christian School
Prairie Village Campus
4801 West 79th Street
Prairie Village, KS 66208

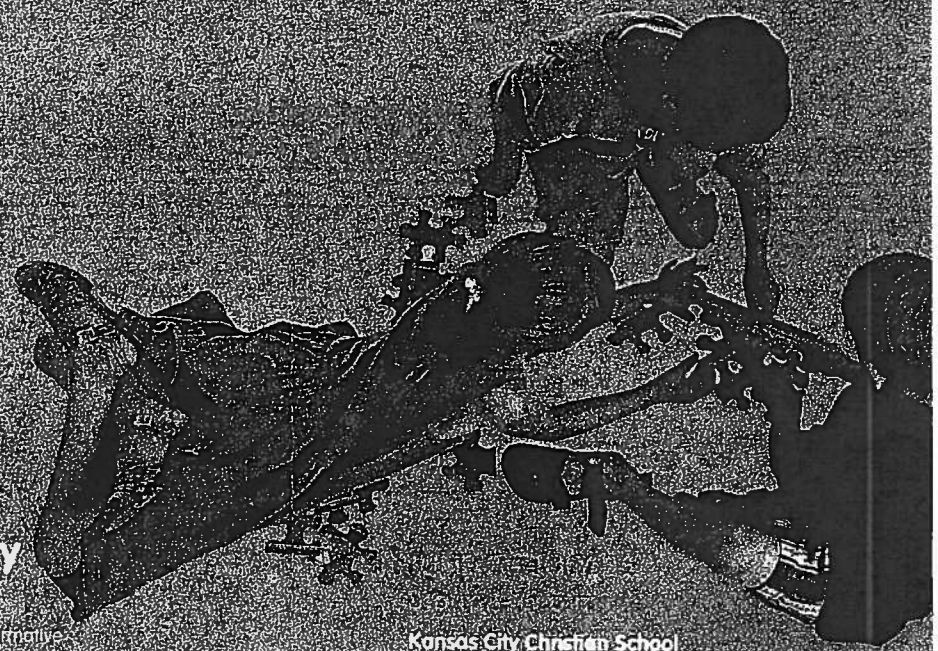
ChildrensMercy.org/adhdstp

Children's Mercy
KANSAS CITY

Children's Mercy is an equal opportunity/affirmative action employer and a United Way agency. 02/14

Children's Mercy
KANSAS CITY

SUMMER TREATMENT PROGRAM



Kansas City Christian School
Prairie Village Campus, Prairie Village, Kan.

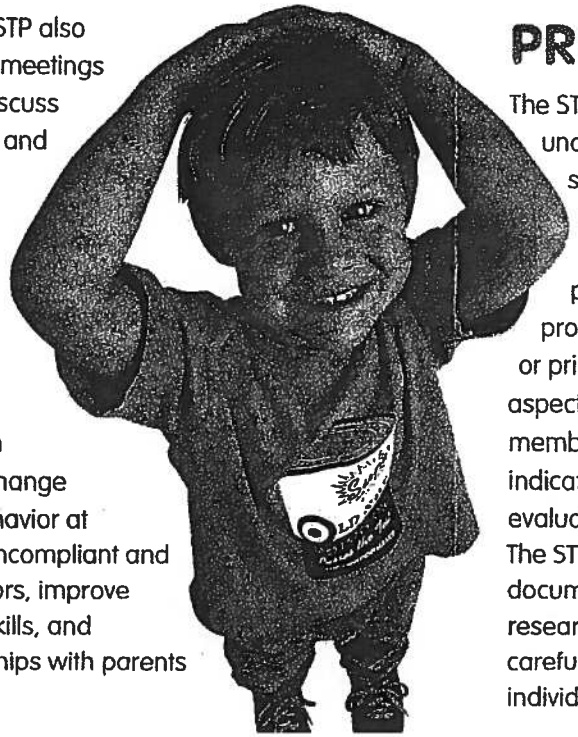
WHAT IS THE SUMMER TREATMENT PROGRAM (STP)?

For Kids

Something more than medication to help improve an ADHD child's behavior. Children's Mercy Summer Treatment Program (STP) is an eight-week, therapeutic day camp designed for children with Attention Deficit Hyperactivity Disorder and related problems. STP offers an award-winning comprehensive treatment that is tailored to each child's behavioral, emotional and learning difficulties. While the Children's Mercy STP is highly structured and emphasizes treatment, most children enjoy the program tremendously, as they would any summer camp.

For Parents

Children's Mercy STP also provides evening meetings with parents to discuss ADHD treatments and give parents the tools to extend the gains from STP to the child's natural environment. The sessions help parents work with their children to change unacceptable behavior at home, reduce noncompliant and disruptive behaviors, improve homework task skills, and improve relationships with parents and siblings.



HOW WILL STP HELP?

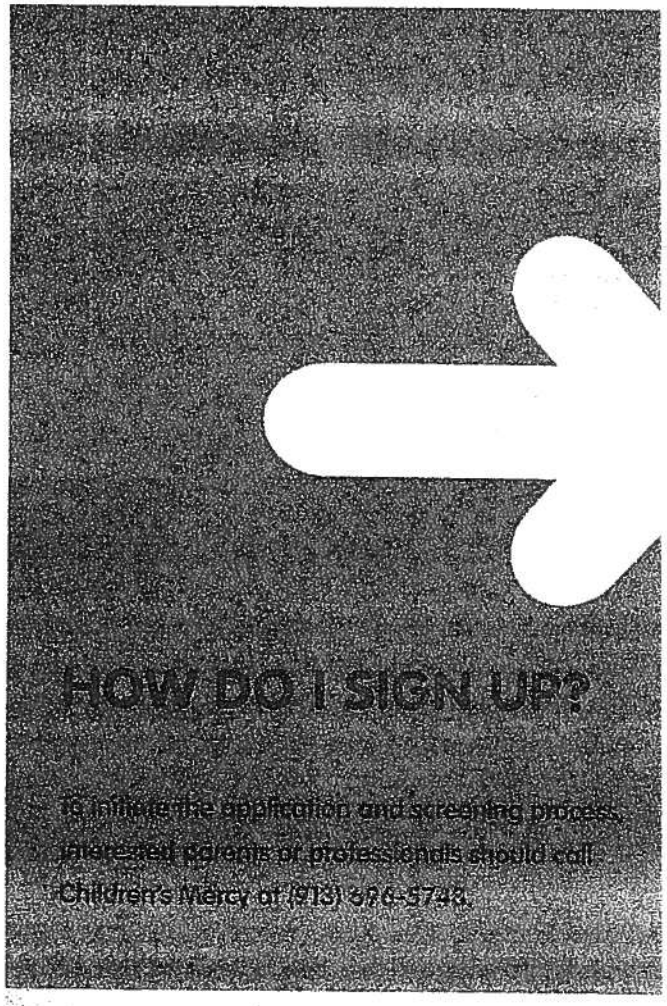
STP will help to develop the child's problem-solving and social skills, and help the child gain the social awareness necessary to enable him or her to get along better with other children. The camp will develop the child's abilities to follow through with instructions and complete tasks. STP will also improve the child's learning skills and academic performance as well as the child's self-esteem. STP will help to teach parents how to develop, reinforce, and maintain these positive changes.

WHO IS ELIGIBLE?

Children ages 6-13 are eligible to participate in the program with enrollment limited to those who meet certain criteria. Referrals can be made by school personnel, mental health professionals, physicians or parents.

PROGRAM STAFF

The STP is implemented by highly-trained, undergraduate paraprofessional therapists, students pursuing advanced degrees in psychology, and educational specialists. Doctoral level psychologists supervise the psychosocial and behavioral aspects of the program, while developmental pediatricians and/or primary care physicians supervise the medical aspects of the program. In general, there are five staff members for every group of 15 children. If medically indicated, the Children's Mercy STP staff will also evaluate the effectiveness of the child's medication. The STP uses only treatments that have been well-documented and shown to be effective through research. However, our program staff continues to carefully evaluate treatment effectiveness, both at the individual level and for the program as a whole.



HOW DO I SIGN UP?

To initiate the application and screening process, interested parents or professionals should call Children's Mercy at (913) 696-5743.

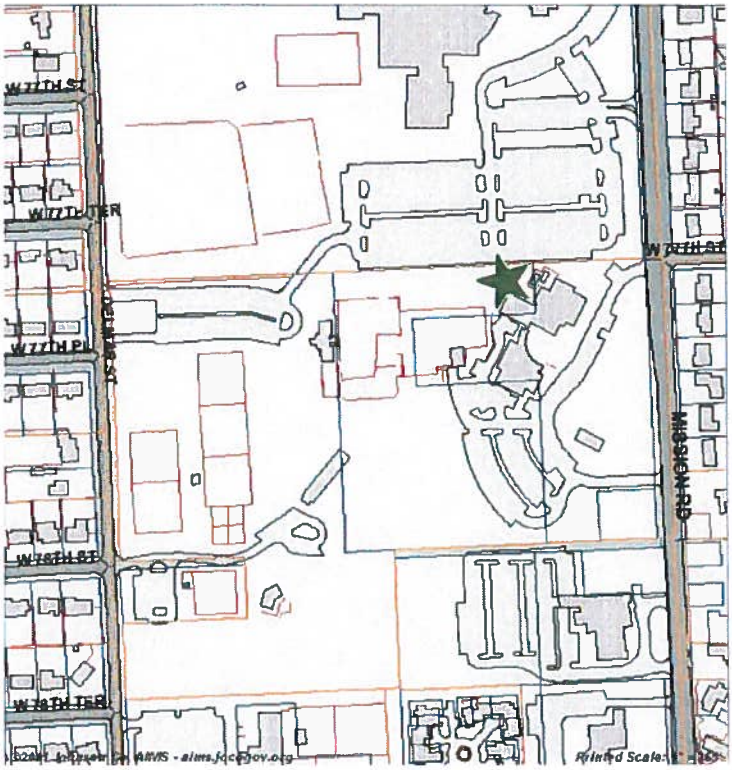
LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: May 6, 2014, Planning Commission Meeting Project # 000009686

Application:	PC 2014-111
Request:	Site Plan Approval to Add Three Antennas on the Cell Tower
Property Address:	7700 Mission Road, City Hall
Applicant:	Sprint
Current Zoning and Land Use:	R-1A Municipal Office Complex
Surrounding Zoning and Land Use:	**North:** R-1A Single-Family District – SM East High School **East:** R-1A Single-Family District – Single Family Dwellings **South:** R-1A Single-Family District – Church **West:** R-1A Single-Family District – Single Family Dwellings
Legal Description:	Prairie Village Municipal Office Complex Tract 1
Property Area:	Cell Tower Compound – approximately 3,200 sq. ft., 0.07 acres Municipal Office Complex – 16.75 acres
Related Case Files:	PC 2014-108 Site Plan Approval for Verizon Wireless PC 2014-107 Site Plan Approval for AT&T PC 2011-114 Site Plan Approval for AT&T PC 2009-17 Special Use Permit Renewal for Sprint PC 2006-19 Special Use Permit Renewal for Cingular Wireless PC 2005-115 Final Plat Municipal Office Complex PC 2004-09 Special Use Permit for Sprint PC 2001-05 Special Use Permit for AT&T PC 2000-05 Special Use Permit for General Dynamics for Metricom PC 1997-04 Special Use Permit to Replace Tower
Attachments:	Application, Site Plan, Project Photos

General Location Map



Aerial Map

STAFF COMMENTS:

Sprint is requesting approval to add three new antenna panels and a fiber optic cable to upgrade its communications network for higher capacity and speed. Sprint also proposes to remove some existing equipment boxes and install new equipment within existing cabinets. It should be noted that the three existing equipment cabinets have been removed. The fiber optic cable will be inside the tower. Currently Sprint is at the 110' elevation on the tower and has only three panel antennas. The new antennas will be approximately 13" wide by 64" long. The antennas and the supporting equipment will add approximately 120 lbs. for each location; for a total of about 360 lbs.

A structural analysis has been prepared and states that the monopole or tower is structurally capable of supporting the existing and proposed antennas, their mounting equipment, and the coaxial and fiber optic cable inside the tower. The structural report varied from the AT&T structural report and the difference is that the earlier report over-estimated the size of the Sprint panels.

In October 2009, the Planning Commission approved the Special Use Permit Renewal for this tower and the approval was based on the new Wireless Communications Ordinance. Changes in the installation for carriers are required to be submitted to the Planning Commission for site plan review and approval. The Planning Commission approved similar upgrades for AT&T and Verizon Wireless in March.

Since no neighbors have appeared at previous neighborhood meetings and the changes were not major, the applicant was not required to hold a neighborhood meeting.

The Planning Commission shall give consideration to the following criteria in approving or disapproving a site plan:

A. **The site is capable of accommodating the building, parking areas and drives with appropriate open space and landscape.**

   The proposed improvements will occur on the existing tower which according to the structural report is adequate to accommodate the proposed improvements.

B. **Utilities are available with adequate capacity to serve the proposed development.**

   Adequate utilities are available to serve this location.

C. **The plan provides for adequate management of stormwater runoff.**

   No additional impervious area will be created because all improvements will be on the tower.

D. **The plan provides for safe and easy ingress, egress, and internal traffic circulation.**

   The site utilizes the existing driveway and parking lot for circulation that currently serves it and no changes are proposed.

E. **The plan is consistent with good land planning and good site engineering design principles.**

   The applicant has prepared a structural analysis and the tower is sufficient to carry the additional load.

F. **An appropriate degree of compatibility will prevail between the architectural quality of the proposed building and the surrounding neighborhood.**

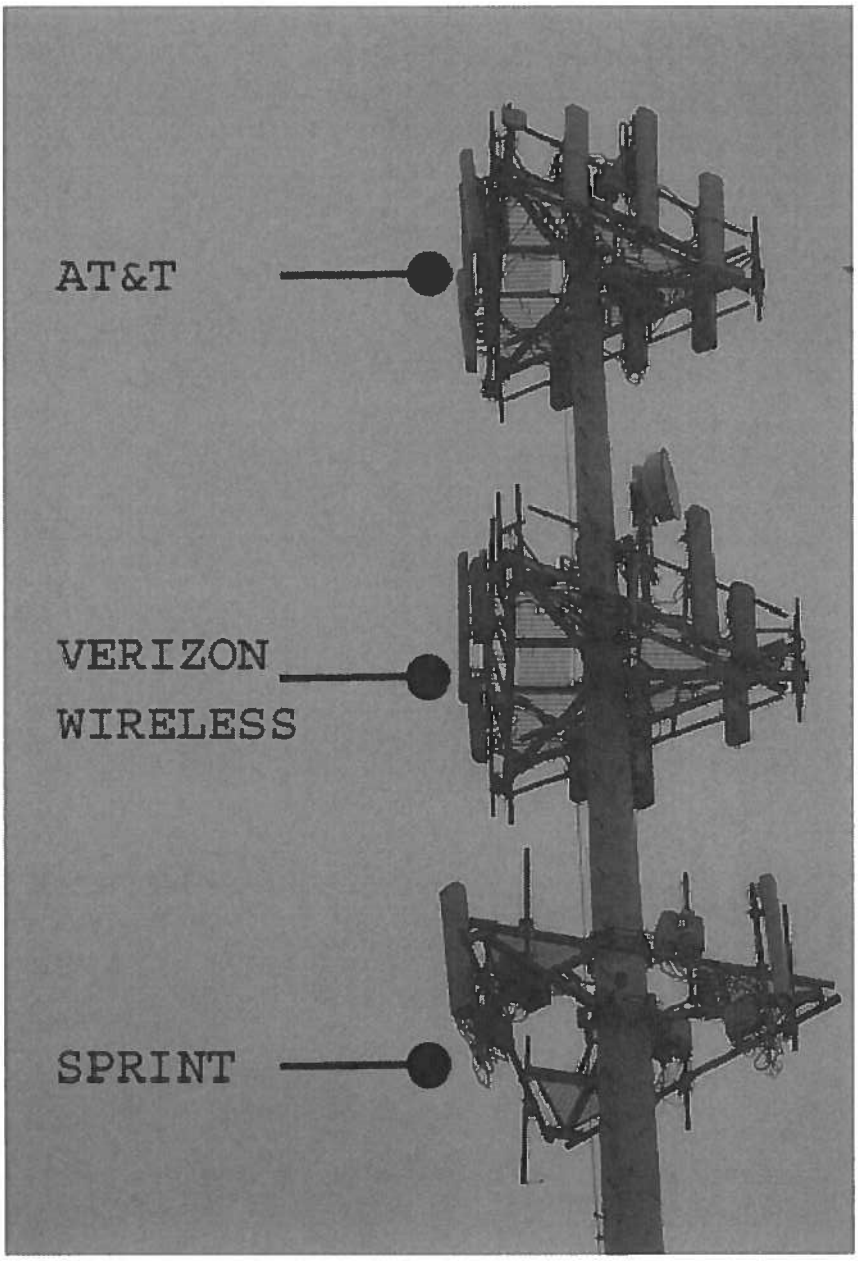
The tower has been at this location for more than twenty years and the proposed installation consists of adding three antennas, which is a minor improvement compared to the size of the tower. The tower is located in the Municipal Complex and has very little impact on surrounding residential areas.

G. **The plan represents an overall development pattern that is consistent with the comprehensive plan and other adopted planning policies.**

Wireless communications are not specifically addressed in Village Vision. Generally it falls into maintaining and improving infrastructure.

RECOMMENDATION:
It is the recommendation of Staff that the Planning Commission approve the proposed site plan for Sprint subject to the following conditions:

1. That the antennas be installed as shown on the proposed site plan.
2. That all wiring be contained inside the tower.
3. That the new equipment be installed in the existing cabinets.


AT&T
VERIZON
WIRELESS
SPRINT

CITY OF PRAIRIE VILLAGE
The Star of Kansas

Planning Commission Application

For Office Use Only	
Case No.:	PC 2014-111
Filing Fee:	
Deposit:	
Date Advertised:	
Date Notices Sent:	
Public Hearing Date:	5/6/14

Please complete this form and return with Information requested to:

Assistant City Administrator
City of Prairie Village
7700 Mission Rd.
Prairie Village, KS 66208

Applicant: Vicki Poje - SSC Phone Number: 913-432-7700

Address: 9900 W. 109th 300, Overland Park, Ks 66210 E-Mail vpoje@ssc.us.com

Owner: City of Prairie Village Phone Number:

Address: 7700 Mission Road, Prairie Village, Ks Zip: 66208

Location of Property: 7700 Mission Rd, Prairie Village, Ks

Legal Description: See attached

Applicant requests consideration of the following: (Describe proposal/request in detail) Adding additional antennas to existing tower and adding one cabinet to ground equipment

AGREEMENT TO PAY EXPENSES

APPLICANT intends to file an application with the PRAIRIE VILLAGE PLANNING COMMISSION or the PRAIRIE VILLAGE BOARD OF ZONING APPEALS of the CITY OF PRAIRIE VILLAGE, KANSAS (City) for_____.
As a result of the filing of said application, CITY may incur certain expenses, such as publication costs, consulting fees, attorney fees and court reporter fees.

APPLICANT hereby agrees to be responsible for and to CITY for all cost incurred by CITY as a result of said application. Said costs shall be paid within ten (10) days of receipt of any bill submitted by CITY to APPLICANT. It is understood that no requests granted by CITY or any of its commissions will be effective until all costs have been paid. Costs will be owing whether or not APPLICANT obtains the relief requested in the application.

Vicki Poje
Applicant's Signature/Date

Owner's Signature/Date

EXHIBIT B

DESCRIPTION OF SPRINT PCS' COMMUNICATION FACILITY
AND USE OF SPRINT PCS' PORTION OF PREMISES

The Sprint PCS' portion of Premises is defined as follows:

A TRACT OF LAND LOCATED IN THE SOUTHEAST QUARTER OF SECTION 21, TOWNSHIP 12 SOUTH, RANGE 25 EAST, IN PRAIRIE VILLAGE, JOHNSON COUNTY, KANSAS MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 02° 20' 39" WEST ALONG THE EAST LINE OF SAID SOUTHEAST QUARTER A DISTANCE OF 1297.69 FEET; THENCE SOUTH 87° 39' 21" WEST LEAVING SAID EAST LINE A DISTANCE OF 309.05 FEET TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE DESCRIBED; THENCE SOUTH 27° 39' 15" WEST A DISTANCE OF 25.00 FEET; THENCE NORTH 62° 20' 45" WEST A DISTANCE OF 20.00 FEET; THENCE NORTH 27° 39' 15" WEST A DISTANCE OF 25.00 FEET; THENCE SOUTH 62° 20' 45" A DISTANCE OF 20.00 FEET TO THE POINT OF BEGINNING. CONTAINS 500 SQUARE FEET OR 0.011 ACRES MORE OR LESS.

The location and orientation of Tenant's space on the Tower and space on the ground for Tenant's equipment compound are as follows:

- Space at approximately the 110-foot elevation for three (3) EMS Model RR65-17-02DPL2 panel antennas measuring 48" x 8" x 2.5" (Height x Width x Depth) to be flush mounted to the monopole, along with three (3) coaxial cables measuring 1 ¼ inches in diameter.
- Ground space totaling approximately 500 square feet to the west southwest of, and immediately adjacent to, the existing equipment compound, as more particularly described above as the Sprint PCS Portion of Premises, for the installation of up to six (6) equipment cabinets measuring approximately 6' x 3.5' x 2.5' (Height x Width x Depth).

All of the above-mentioned ground space, antennas and related equipment are more particularly described on the attached Architectural Drawings dated October 14, 2004 labeled as Sprint, Site Name: Prairie Village City Monopole, Site Number KC60XC727-C, Colocation-Monopole, containing the following Sheet Numbers: T-1, LS-1, C-1, A-1 through A-5 inclusive, E-1 through E-5 inclusive, and GN-1 through GN-2 inclusive.

Owners Initials PLS
Sprint PCS Initials:

TOWER ANALYSIS REPORT

Sprint

KC60XC727, Prairie Village City Monopole

SSC # KS-0394-A

March 7, 2014

SSC Inc.

9900 W. 109th St., Suite 300, Overland Park, KS, 66210
Ph: (913) 438-7700 Fax: (913) 438-7777

serve solve communicate

TABLE OF CONTENTS

GENERAL TOWER INFORMATION

Date:	March 7, 2014
Site Name:	Prairie Village City Monopole
Site Location:	Prairie Village, Johnson County, KS
Site Number:	KC60XC727
Proposed Carrier:	Sprint
Tower Height:	150'
Tower Type:	Monopole
Tower Manufacturer:	Valmont
Design Standard:	TIA-222-G
Structural Classification:	II
Wind Loading:	90 mph w/o ice
Wind and Ice Loading:	40 mph w/ 1.00" ice
Serviceability Criteria:	60 mph w/o ice
Exposure Category:	B
Topographic Category:	1
Seismic Criteria:	$S_s = 0.13$
SSC Project Number:	SSC # KS-0394-A

Introduction

Selective Site Consultants, Inc. (SSC) has performed a structural analysis for the referenced existing communication tower. The purpose of this analysis is to determine the overall stability and structural adequacy of the existing structure to accommodate the proposed changed condition in accordance with TIA-222-G.

Source of Data

Our analysis is based on information regarding the tower structure and contained in original tower drawings by Valmont (Order No. 10578-91) dated September 13, 1991. Existing antenna information was obtained from a rigorous structural analysis report from Black & Veatch (Project # 122041) dated December 3, 2013 and current photos. Proposed antenna information is obtained from a POR sheet, dated February 2014 and constructing drawings by SSC, dated February 21, 2014.

This analysis assumes the monopole is fabricated from A572 Gr. 65 ksi steel and the base plate is fabricated from A871 Gr. 60 ksi steel. Anchor Bolts are assumed as A615 Gr. 75 ksi. All other steel assumed to be 36 ksi.

A rigorous structural analysis was performed utilizing tnxTower Version 6.1 software. The calculations were performed in accordance with TIA-222-G 'Structural Standard for Antenna Supporting Structures and Antennas'. The tower was analyzed for TIA-222-G specified load combinations, with the specified loads, as reproduced in General Tower Information of this report. Structural Classification, Exposure Category, and Topographic Category are also listed General Tower Information of this report. Topographic Category and the height of topographic features were estimated from USGS Quadrangle maps. This analysis considers wind from all specified directions. See the Appendix B for structural calculations.

Antenna and Transmission Line Loading

Our understanding of the antenna and transmission line loading conditions is shown below.

Antenna Status	Qty	Antenna Vender	Antenna Type	CL Elev. Ant./Mount	Mount	Azimuth	Feed Line
Existing (AT&T)	3	CSS	XDUO6-80-R w/ (12) TMAs	150'/150'	Platform w/ Handrails	Sectored	(12) 1-5/8" Coax, (2) 3/8" RET Cable, (1) 3/8" Fiber Cable, & (2) 3/4" DC Cables
	1	Powerwave	P65-17-XLH-RR w/ (1) RRH				
	1	Kathrein	800 10765 w/ (1) RRH				
	1	Kathrein	800 10766 w/ (1) Dist. Box & (1) RRH				
	3	Andrew	SBNH-1D6565C				

Antenna and Transmission Line Loading, continued

Antenna Status	Qty	Antenna Vender	Antenna Type	CL Elev. Ant./Mount	Mount	Azimuth	Feed Line
Existing	1	Unknown	12" x 12" Panel Antenna	150'/150'	Same as above	Unknown	(1) 1/2" Coax
Existing	1	Andrew	HP 3	130'/130'	Pipe Mount	Unknown	(1) 1-3/32" Coax
Existing	1	Raycap	Dist. Box & (3) RRUs	125'/125'	Ring Mount	Unknown	(10) 1-5/8" Coax & (3) 7/8" Coax
Existing (VZW)	6	Decibel	731DG65VTAXM w/ (6) TMAs	123'/123'	Platform w/ Handrails	Sectored	
	3	Amphenol	BXA-70063-8CF-6			Sectored	
	3	Amphenol	BXA-171063-12CF-2			Sectored	
Existing (Sprint)	3	RFS	APXVERR18-C w/ (3) Dist. Boxes & (12) RRUs	109'/109'	Low-Profile Platform	Sectored	(1) 1-5/8" Hybrid Cable
Proposed (Sprint)	3	Commscope	TTTT65AP-1XR w/ (3) RRHs			Sectored	(1) 5/8" Fiber Cables
Existing	1	Unknown	20' Omni	64'/54'	Standoff Mount	N/A	(1) 3/8" Coax

Notes:
1. In addition to the above listed antennas, the tower was analyzed with a lightning rod at elevation 150'.
2. All feed lines are assumed to be located inside of the monopole.

Structural Analysis of Tower Results

The analysis of the existing tower with the proposed loadings installed indicates no member overstressing according to TIA-222-G Structural Standard. Results of the analysis are shown in the following table and calculations may be found in Appendix B:

Tower Section	Max % Allowable Stress
Pole Steel (150'-95.6667')	80.1
Pole Steel (95.6667'-46.75')	85.5
Pole Steel (46.75'-0')	94.8
Base Plate	73.5
Anchor Rods	64.0

Foundation Analysis Results

An analysis was performed on the existing foundation with reactions corresponding to the proposed factored loading. Existing foundation information was obtained from a foundation investigation from FDH Engineering, dated May 11, 2011 contained in a Black & Veatch analysis dated December 3, 2013, and analyzed using geotechnical information from Terracon Consultants (Project # 02105210), dated October 20, 2010. Assuming the original foundation was properly installed per the noted drawings, the existing foundation can be considered adequate for the proposed loading condition.

Recommendations

It is our conclusion that the tower as analyzed **does comply** with TIA-222-G Structural Standards under the proposed loading condition.

If the existing loading conditions are different or change from those analyzed, this report shall be deemed obsolete and further investigation will be required.

If you have any questions or comments, please do not hesitate to call.

Sincerely,

Tyler Monnett, E.I.T.

Tyler Monnett, E.I.T.

APPENDIX A

General Conditions

Please note that SSC makes no warranties, expressed or implied in connection with this report and disclaims any liability arising from original design, material, fabrication and erection deficiencies for this tower.

It is the responsibility of the Client to ensure that information provided by the Client to SSC and used in this analysis is correct. This information is assumed correct unless notified otherwise by the Client.

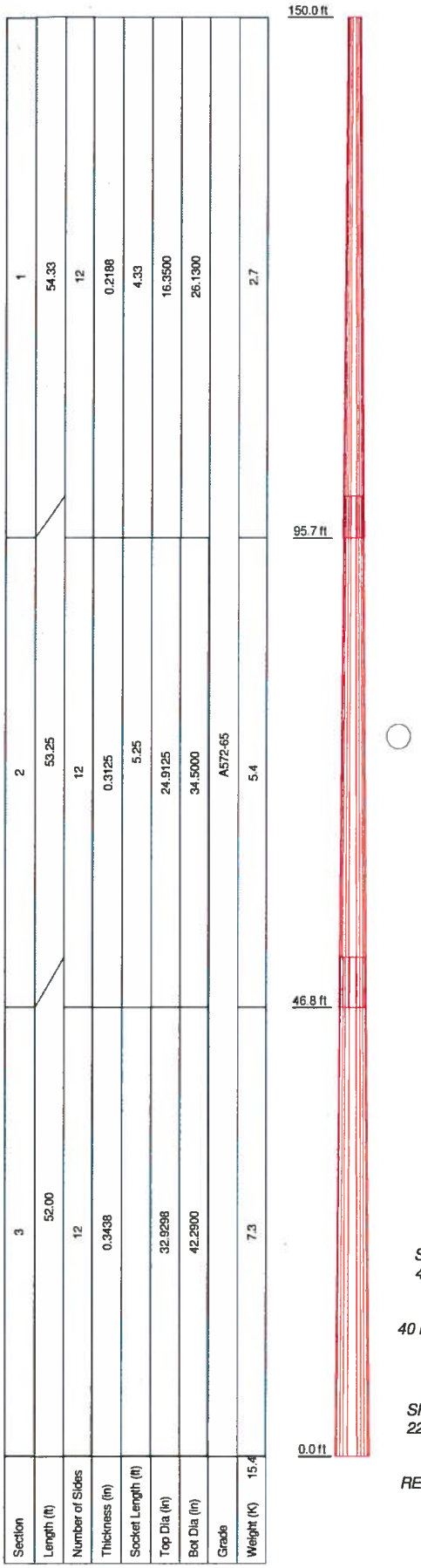
This analysis assumes the tower steel is in its original state with no deterioration due to improper erection procedures or field modifications and does not consider fabrication quality. The recommendations, conclusions, and opinions contained in this report pertain only to the analysis of the tower structure and the load carrying capacity of its members.

This analysis assumes any suggested modifications are installed as recommended and is not intended to address temporary conditions of the tower as modifications are being performed. It is strongly recommended that the Installer of any tower modification thoroughly assess installation procedures and how temporary conditions present while modifications are being performed influence tower members. Installer is responsible for sequence of operation and any required temporary bracing or strengthening of tower during modification operations. SSC is not responsible for the conclusions, opinion, or recommendations made by others based on the information we supply.

APPENDIX B

Structural Calculations and Diagrams

Existing Tower with Proposed Loading



Section	1	2	3
Length (ft)	54.33	53.25	52.00
Number of Sides	12	12	12
Thickness (in)	0.2188	0.3125	0.3438
Socket Length (ft)	4.33	5.25	
Top Dia (in)	16.3500	24.9125	32.9298
Bot Dia (in)	26.1300	34.5000	42.2900
Grade		A572-65	
Weight (K)	2.7	5.4	7.3

15.4

ALL REACTIONS ARE FACTORED

AXIAL 64 K

SHEAR 4 K *MOMENT 549 kip-ft*

TORQUE 1 kip-ft
40 mph WIND - 1.0000 in ICE

AXIAL 32 K

SHEAR 22 K *MOMENT 2398 kip-ft*

TORQUE 2 kip-ft
REACTIONS - 90 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod	150	(2) TMA	123
PiROD 12' Platform w / handrails	150	(2) TMA	123
XDUO6-80-R	150	BXA-70063-8CF-EDIN-X	123
XDUO6-80-R	150	BXA-70063-8CF-EDIN-X	123
XDUO6-80-R	150	BXA-70063-8CF-EDIN-X	123
(4) TMA	150	BXA-171063-12CF-EDIN-X	123
(4) TMA	150	BXA-171063-12CF-EDIN-X	123
(4) TMA	150	BXA-171063-12CF-EDIN-X	123
P65-17-XLH-RR w/ Pipe Mount	150	PiROD 12' Platform w / handrails	123
9442 RRH2X40-07-L	150	APXVERR18-C	109
800 10765	150	APXVERR18-C	109
9442 RRH2X40-07-L	150	APXVERR18-C	109
800 10766	150	(2) RRUS	109
DC6-48-60-18-8F	150	(2) RRUS	109
9442 RRH2X40-07-L	150	(2) RRUS	109
SBNH-1D6565C	150	(2) RRUS A2 Module	109
SBNH-1D6565C	150	(2) RRUS A2 Module	109
SBNH-1D6565C	150	(2) RRUS A2 Module	109
12"x12"	150	DC6-48-60-18-8F	109
Pipe Mount [PM 601-1]	130	DC6-48-60-18-8F	109
3' Dish w/o Radome	130	DC6-48-60-18-8F	109
DC6-48-60-18-8F	125	TTTT65AP-1XR	109
RRUS	125	TTTT65AP-1XR	109
RRUS	125	TTTT65AP-1XR	109
RRUS	125	FZHJ-RRH	109
Side Arm Mount [SO 102-1]	125	FZHJ-RRH	109
(2) 731DG65VTAXM	123	FZHJ-RRH	109
(2) 731DG65VTAXM	123	Platform Mount [LP 303-1]	109
(2) 731DG65VTAXM	123	3" Dia 20' Omni	64
(2) TMA	123		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

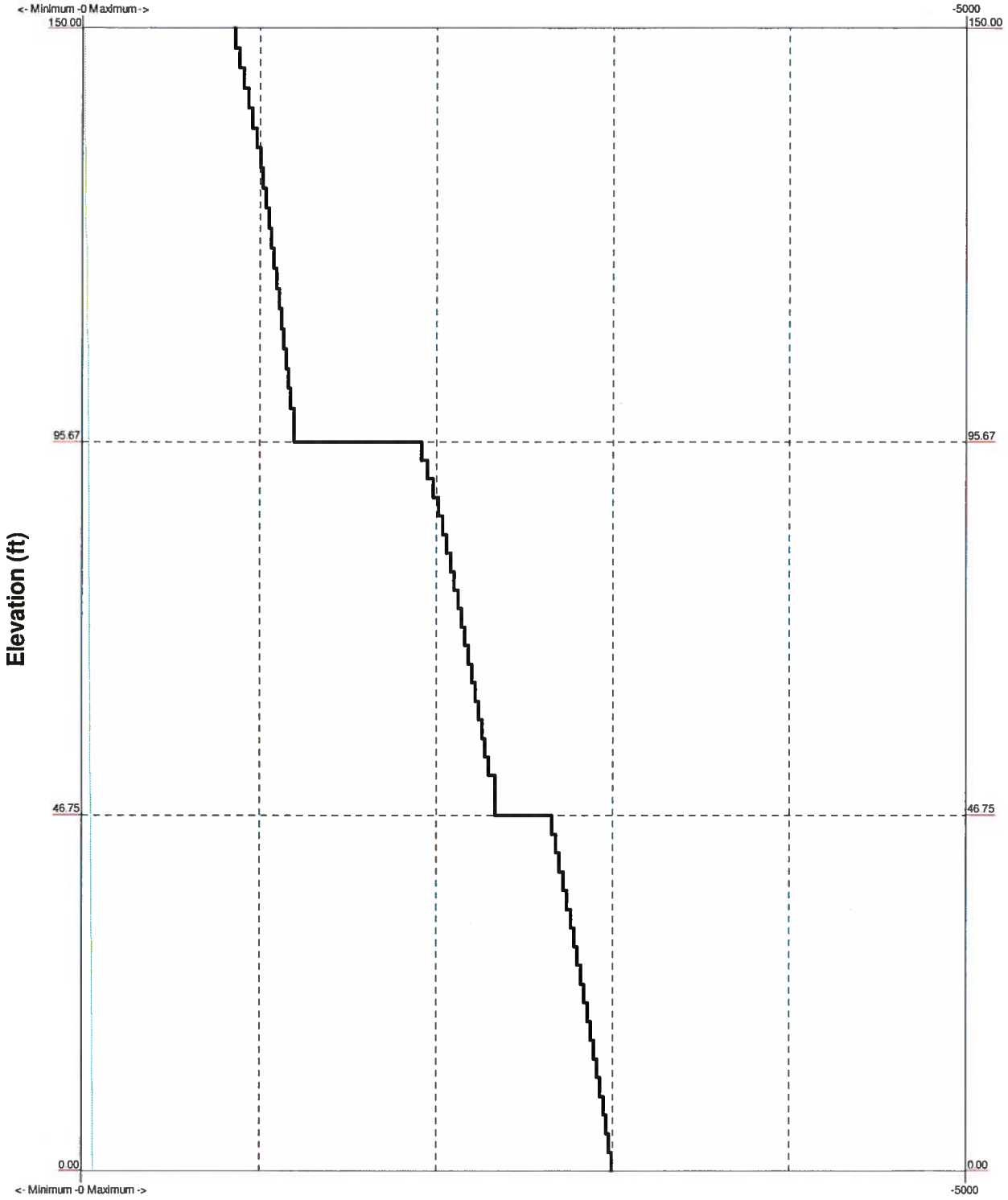
1. Tower is located in Johnson County, Kansas.
2. Tower designed for Exposure B to the TIA-222-G Standard.
3. Tower designed for a 90 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 40 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 94.8%

SSC
9900 W 109th St #300
Overland Park, KS 66210
Phone: (913) 438-7700
FAX:

Job: KS-0394-A			
Project: Prairie Village City Monopole			
Client: Sprint	Drawn by: Brennan Sedlacek		App'd:
Code: TIA-222-G	Date: 03/07/14		Scale: NTS
Path: O:\Tower Analysis\KS-0394\KS-0394-A\tnx Analysis\KS-0394-A.eri			Dwg No. E-1

TIA-222-G - 90 mph/40 mph 1.0000 in Ice Exposure B

Leg Capacity ——— **Leg Compression (K)**



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Job: KS-0394-A			
Project: Prairie Village City Monopole			
Client: Sprint	Drawn by: Brennan Sedlacek		App'd:
Code: TIA-222-G	Date: 03/07/14		Scale: NTS
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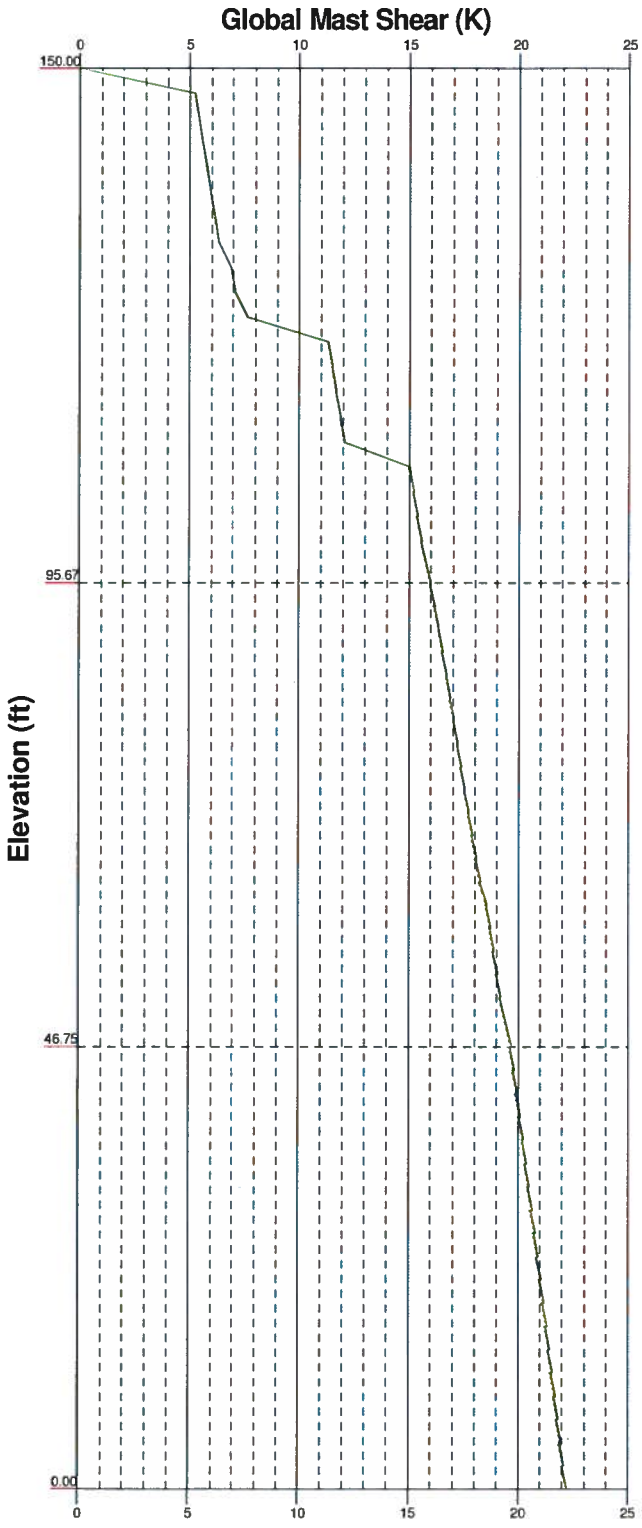
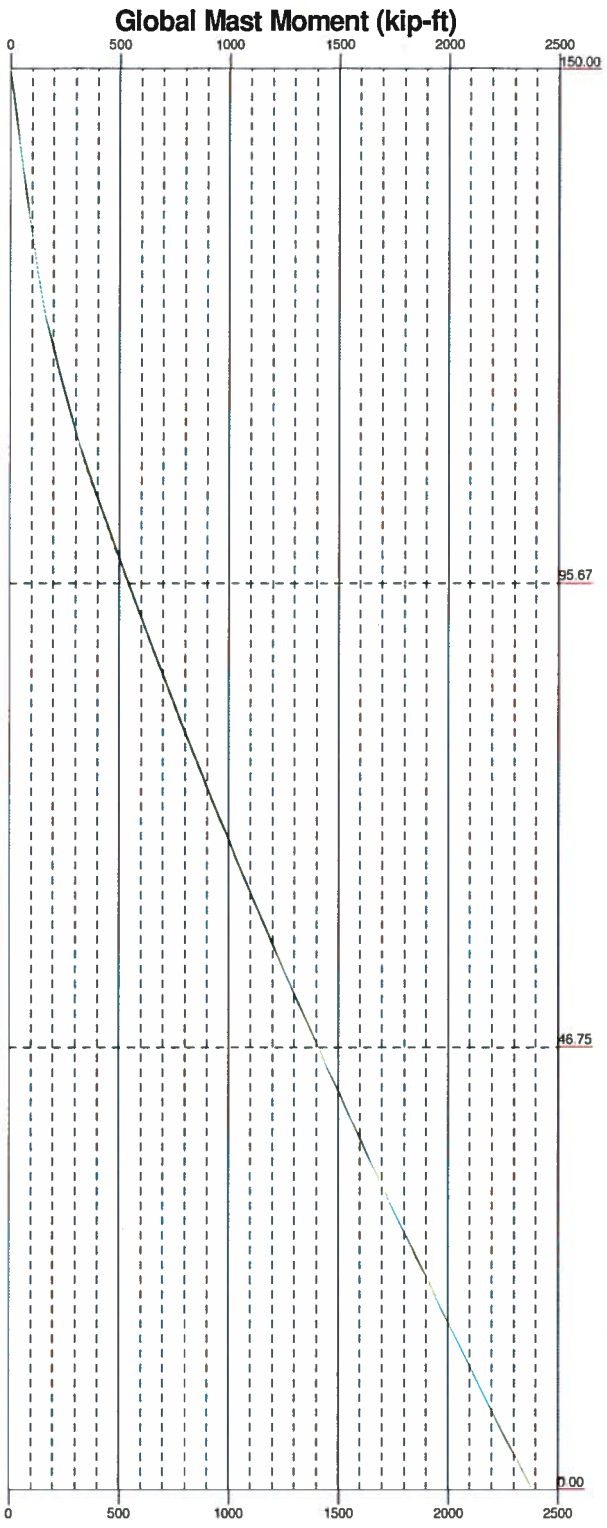
TIA-222-G - 90 mph/40 mph 1.0000 in Ice Exposure B

Maximum Values

Vx Vz Mx Mz





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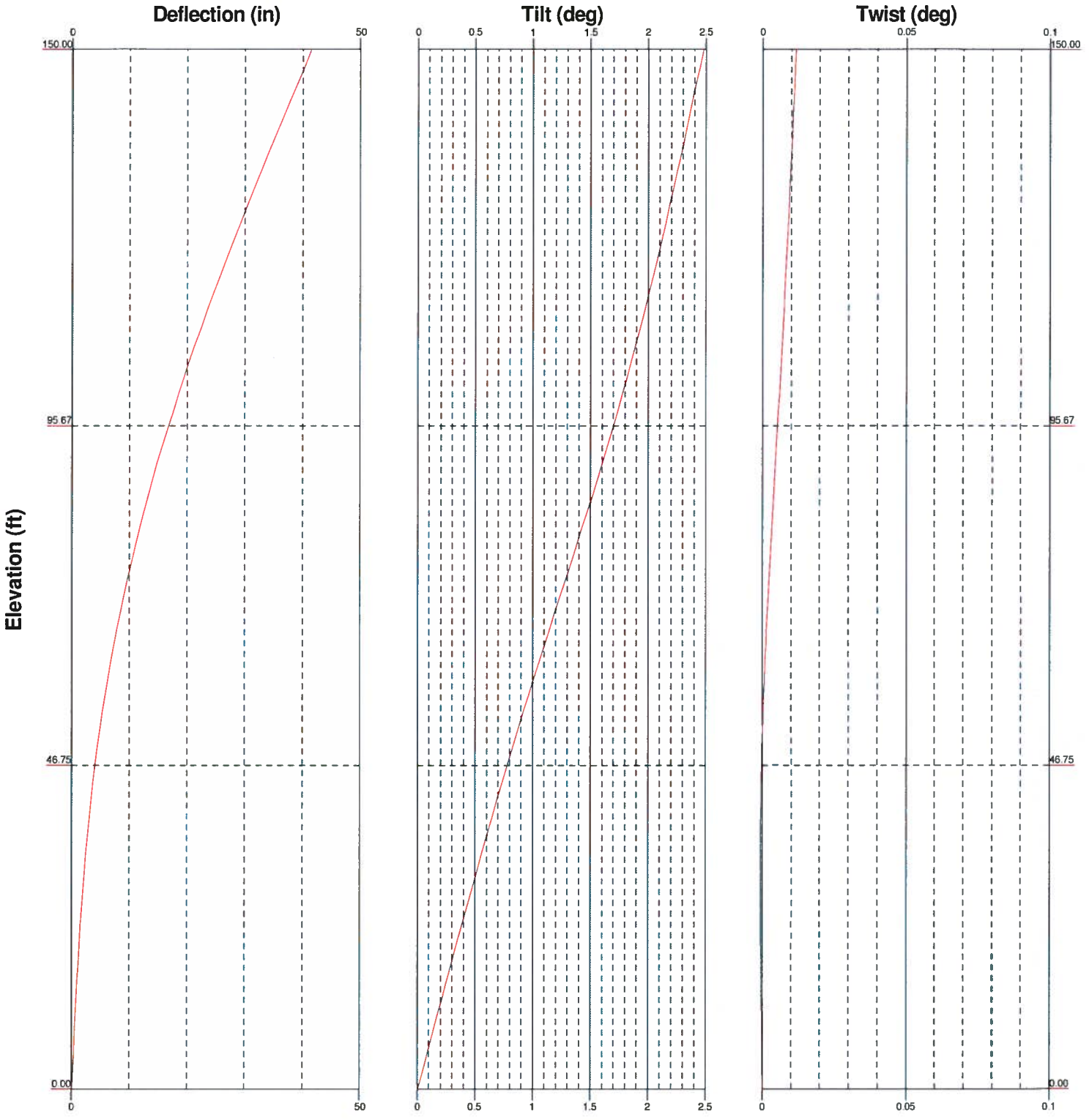
Phone: (913) 438-7700
FAX:

Job: KS-0394-A			
Project: Prairie Village City Monopole			
Client: Sprint	Drawn by: Brennan Sedlacek		App'd:
Code: TIA-222-G	Date: 03/07/14		Scale: NTS
Path: O:\Tower Analysis\KS-0394\KS-0394-A\tnx Analysis\KS-0394-A.eri			Dwg No. E-4

TIA-222-G - Service - 60 mph

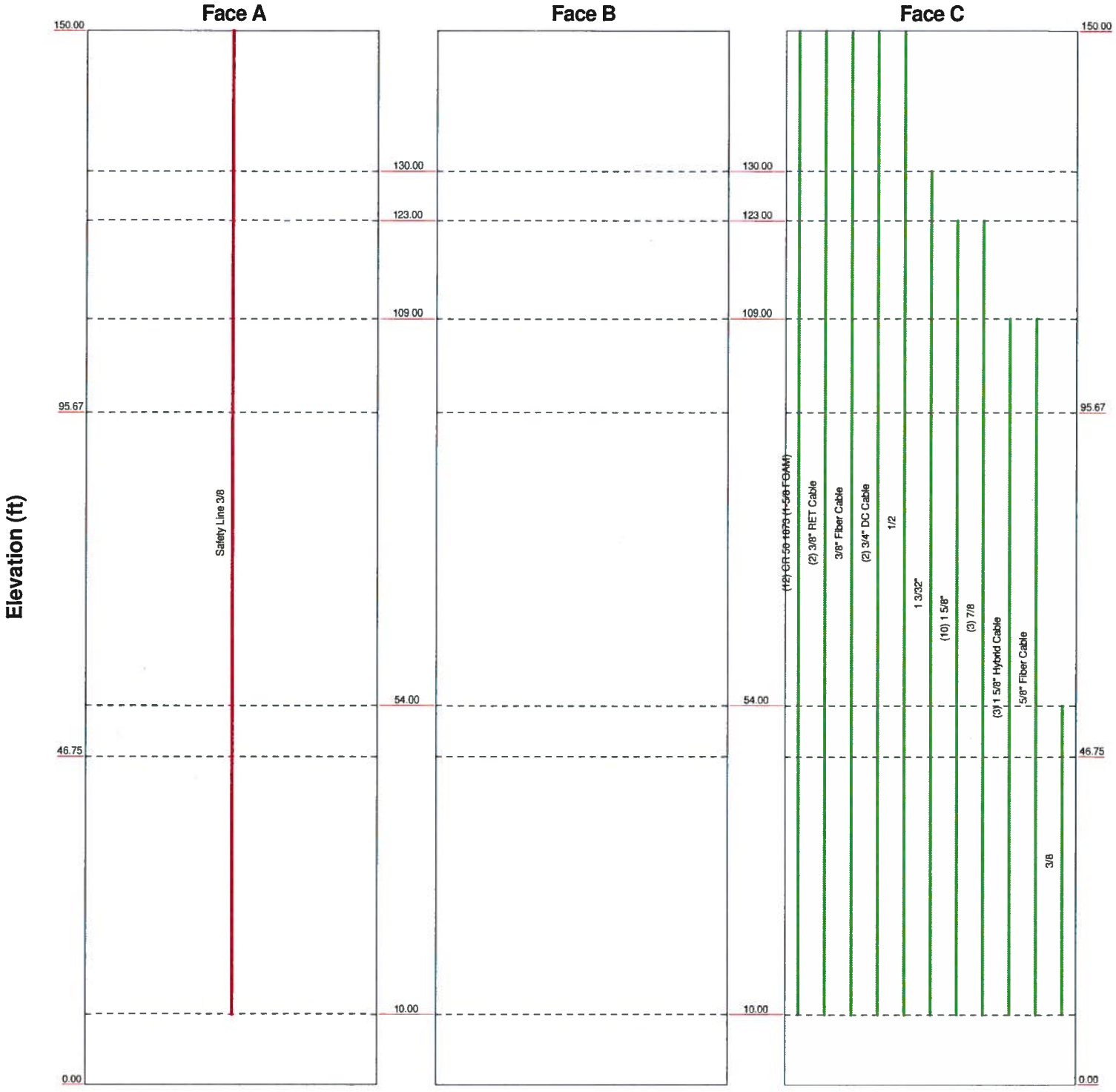
Maximum Values



SSC 9900 W 109th St #300 Overland Park, KS 66210 Phone: (913) 438-7700 FAX:	Job: KS-0394-A		
	Project: Prairie Village City Monopole		
	Client: Sprint	Drawn by: Brennan Sedlacek	App'd:
	Code: TIA-222-G	Date: 03/07/14	Scale: NTS
	Path: O:\Tower Analysis\KS-0394\KS-0394-A\tnx Analysis\KS-0394-A.eri		Dwg No. E-5

Feed Line Distribution Chart
0' - 150'

Round | Flat | App In Face | App Out Face | Truss Leg



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9900 W 109th St #300
Overland Park, KS 66210
Phone: (913) 438-7700
FAX:

Job: KS-0394-A			
Project: Prairie Village City Monopole			
Client: Sprint	Drawn by: Brennan Sedlacek		App'd:
Code: TIA-222-G	Date: 03/07/14		Scale: NTS
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tnxTower	Job	Page
	KS-0394-A	1 of 15
SSC 9900 W 109th St #300 Overland Park, KS 66210 Phone: (913) 438-7700 FAX:	Project Prairie Village City Monopole	Date 07:55:09 03/07/14
	Client Sprint	Designed by Brennan Sedlacek

Tower Input Data

There is a pole section.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

Tower is located in Johnson County, Kansas.
Basic wind speed of 90 mph.
Structure Class II.
Exposure Category B.
Topographic Category 1.
Crest Height 0.00 ft.
Nominal ice thickness of 1.0000 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 40 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

	Consider Moments - Legs		Distribute Leg Loads As Uniform		Treat Feedline Bundles As Cylinder
	Consider Moments - Horizontals		Assume Legs Pinned		Use ASCE 10 X-Brace Ly Rules
	Consider Moments - Diagonals	√	Assume Rigid Index Plate		Calculate Redundant Bracing Forces
	Use Moment Magnification	√	Use Clear Spans For Wind Area		Ignore Redundant Members in FEA
√	Use Code Stress Ratios		Use Clear Spans For KL/r		SR Leg Bolts Resist Compression
√	Use Code Safety Factors - Guys		Retension Guys To Initial Tension		All Leg Panels Have Same Allowable
	Escalate Ice	√	Bypass Mast Stability Checks		Offset Girt At Foundation
	Always Use Max Kz	√	Use Azimuth Dish Coefficients	√	Consider Feedline Torque
	Use Special Wind Profile	√	Project Wind Area of Appurt.		Include Angle Block Shear Check
√	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Poles
	Leg Bolts Are At Top Of Section		SR Members Have Cut Ends		Include Shear-Torsion Interaction
	Secondary Horizontal Braces Leg		Sort Capacity Reports By Component		Always Use Sub-Critical Flow
	Use Diamond Inner Bracing (4 Sided)		Triangulate Diamond Inner Bracing		Use Top Mounted Sockets
	Add IBC .6D+W Combination		Use TIA-222-G Tension Splice Capacity Exemption		

Tapered Pole Section Geometry

Section	*Elevation*	*Section Length*	*Splice Length*	*Number of Sides*	*Top Diameter*	*Bottom Diameter*	*Wall Thickness*	*Bend Radius*	*Pole Grade*
	ft	*ft*	*ft*		*in*	*in*	*in*	*in*	
L1	150.00-95.67	54.33	4.33	12	16.3500	26.1300	0.2188	4.0000	A572-65 (65 ksi)
L2	95.67-46.75	53.25	5.25	12	24.9125	34.5000	0.3125	4.0000	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L3	46.75-0.00	52.00		12	32.9298	42.2900	0.3438	4.0000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	16.9268	11.3624	377.3931	5.7750	8.4693	44.5601	764.7007	5.5923	3.7956	17.351
	27.0518	18.2512	1564.0656	9.2762	13.5353	115.5542	3169.2210	8.9827	6.4166	29.333
L2	26.5990	24.7538	1912.0408	8.8068	12.9047	148.1665	3874.3131	12.1830	5.8391	18.685
	35.7170	34.4012	5132.0854	12.2391	17.8710	287.1739	10398.9964	16.9312	8.4085	26.907
L3	35.0698	36.0686	4888.5251	11.6658	17.0576	286.5891	9905.4772	17.7519	7.9039	22.993
	43.7818	46.4293	10427.1099	15.0168	21.9062	475.9886	21128.1516	22.8511	10.4125	30.291

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
L1 150.00-95.67				1	1	1		
L2 95.67-46.75				1	1	1		
L3 46.75-0.00				1	1	1		

Monopole Base Plate Data

Base Plate Data	
Base plate is square	
Base plate is grouted	√
Anchor bolt grade	A615-75
Anchor bolt size	2.2500 in
Number of bolts	12
Embedment length	96.0000 in
f'_c	3 ksi
Grout space	2.5000 in
Base plate grade	A633-60
Base plate thickness	2.5000 in
Bolt circle diameter	50.2800 in
Outer diameter	56.2800 in
Inner diameter	24.0000 in
Base plate type	Plain Plate

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
Safety Line 3/8	A	Surface Ar (CaAa)	150.00 - 10.00	1	1	0.000 0.000	0.3750		0.22

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
CR 50 1873 (1-5/8 FOAM)	C	No	Inside Pole	150.00 - 10.00	12	No Ice	0.00	0.83
						1/2" Ice	0.00	0.83
						1" Ice	0.00	0.83
3/8" RET Cable	C	No	Inside Pole	150.00 - 10.00	2	No Ice	0.00	0.54
						1/2" Ice	0.00	0.54
						1" Ice	0.00	0.54
3/8" Fiber Cable	C	No	Inside Pole	150.00 - 10.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
						1" Ice	0.00	0.00
3/4" DC Cable	C	No	Inside Pole	150.00 - 10.00	2	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
						1" Ice	0.00	0.00
1/2	C	No	Inside Pole	150.00 - 10.00	1	No Ice	0.00	0.25
						1/2" Ice	0.00	0.25
						1" Ice	0.00	0.25
*								
1 3/32"	C	No	Inside Pole	130.00 - 10.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
						1" Ice	0.00	0.00
1 5/8"	C	No	Inside Pole	123.00 - 10.00	10	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
						1" Ice	0.00	1.04
7/8	C	No	Inside Pole	123.00 - 10.00	3	No Ice	0.00	0.54
						1/2" Ice	0.00	0.54
						1" Ice	0.00	0.54
**								
1 5/8" Hybrid Cable	C	No	Inside Pole	109.00 - 10.00	3	No Ice	0.00	1.04
						1/2" Ice	0.00	1.04
						1" Ice	0.00	1.04
5/8" Fiber Cable	C	No	Inside Pole	109.00 - 10.00	1	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
						1" Ice	0.00	0.00
***								
3/8	C	No	Inside Pole	54.00 - 10.00	1	No Ice	0.00	0.40
						1/2" Ice	0.00	0.40
						1" Ice	0.00	0.40

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	150.00-95.67	A	0.000	0.000	2.037	0.000	0.01
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.98
L2	95.67-46.75	A	0.000	0.000	1.834	0.000	0.01
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	1.30
L3	46.75-0.00	A	0.000	0.000	1.378	0.000	0.01
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.99

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	150.00-95.67	A	2.278	0.000	0.000	26.790	0.000	0.41
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.98
L2	95.67-46.75	A	2.158	0.000	0.000	24.119	0.000	0.37
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	1.30
L3	46.75-0.00	A	1.927	0.000	0.000	17.240	0.000	0.25
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.99

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	150.00-95.67	-0.0469	-0.0271	-0.4265	-0.2462
L2	95.67-46.75	-0.0470	-0.0271	-0.4688	-0.2707
L3	46.75-0.00	-0.0362	-0.0209	-0.3735	-0.2157

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	1	Safety Line 3/8	95.67 - 150.00	1.0000	1.0000
L2	1	Safety Line 3/8	46.75 - 95.67	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Lightning Rod	A	From Leg	0.00 0.00 2.00	0.0000	150.00	No Ice 1/2" Ice 1" Ice	0.25 0.66 0.97	0.25 0.66 0.97	0.03 0.03 0.04
*									
PiROD 12' Platform w /	A	From Leg	0.00	0.0000	150.00	No Ice	26.30	26.30	1.92

tnxTower	Job: KS-0394-A	Page: 5 of 15
SSC 9900 W 109th St #300 Overland Park, KS 66210 Phone: (913) 438-7700 FAX:	Project: Prairie Village City Monopole	Date: 07:55:09 03/07/14
	Client: Sprint	Designed by: Brennan Sedlacek

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
handrails			0.00			1/2" Ice	35.60	35.60	2.34
			1.50			1" Ice	44.90	44.90	2.76
XDUO6-80-R	A	From Leg	3.00	0.0000	150.00	No Ice	9.05	5.57	0.05
			0.00			1/2" Ice	9.62	6.04	0.10
			0.00			1" Ice	10.20	6.51	0.16
XDUO6-80-R	B	From Leg	3.00	0.0000	150.00	No Ice	9.05	5.57	0.05
			0.00			1/2" Ice	9.62	6.04	0.10
			0.00			1" Ice	10.20	6.51	0.16
XDUO6-80-R	C	From Leg	3.00	0.0000	150.00	No Ice	9.05	5.57	0.05
			0.00			1/2" Ice	9.62	6.04	0.10
			0.00			1" Ice	10.20	6.51	0.16
(4) TMA	A	From Leg	3.00	0.0000	150.00	No Ice	1.69	0.85	0.02
			0.00			1/2" Ice	1.87	0.98	0.03
			0.00			1" Ice	2.05	1.13	0.05
(4) TMA	B	From Leg	3.00	0.0000	150.00	No Ice	1.69	0.85	0.02
			0.00			1/2" Ice	1.87	0.98	0.03
			0.00			1" Ice	2.05	1.13	0.05
(4) TMA	C	From Leg	3.00	0.0000	150.00	No Ice	1.69	0.85	0.02
			0.00			1/2" Ice	1.87	0.98	0.03
			0.00			1" Ice	2.05	1.13	0.05
P65-17-XLH-RR w/ Pipe Mount	A	From Leg	3.00	0.0000	150.00	No Ice	11.47	8.58	0.10
			0.00			1/2" Ice	12.08	9.94	0.18
			0.00			1" Ice	12.71	11.08	0.27
9442 RRH2X40-07-L	A	From Leg	3.00	0.0000	150.00	No Ice	2.12	1.77	0.06
			0.00			1/2" Ice	2.32	1.97	0.08
			0.00			1" Ice	2.54	2.17	0.10
800 10765	B	From Leg	3.00	0.0000	150.00	No Ice	8.66	4.99	0.05
			0.00			1/2" Ice	9.23	5.46	0.10
			0.00			1" Ice	9.81	5.93	0.16
9442 RRH2X40-07-L	B	From Leg	3.00	0.0000	150.00	No Ice	2.12	1.77	0.06
			0.00			1/2" Ice	2.32	1.97	0.08
			0.00			1" Ice	2.54	2.17	0.10
800 10766	C	From Leg	3.00	0.0000	150.00	No Ice	11.31	6.80	0.06
			0.00			1/2" Ice	11.93	7.38	0.12
			0.00			1" Ice	12.55	7.98	0.19
DC6-48-60-18-8F	C	From Leg	3.00	0.0000	150.00	No Ice	1.47	1.47	0.02
			0.00			1/2" Ice	1.67	1.67	0.04
			0.00			1" Ice	1.88	1.88	0.06
9442 RRH2X40-07-L	B	From Leg	3.00	0.0000	150.00	No Ice	2.12	1.77	0.06
			0.00			1/2" Ice	2.32	1.97	0.08
			0.00			1" Ice	2.54	2.17	0.10
SBNH-1D6565C	A	From Leg	3.00	0.0000	150.00	No Ice	11.45	7.70	0.07
			0.00			1/2" Ice	12.06	8.29	0.13
			0.00			1" Ice	12.69	8.89	0.21
SBNH-1D6565C	B	From Leg	3.00	0.0000	150.00	No Ice	11.45	7.70	0.07
			0.00			1/2" Ice	12.06	8.29	0.13
			0.00			1" Ice	12.69	8.89	0.21
SBNH-1D6565C	C	From Leg	3.00	0.0000	150.00	No Ice	11.45	7.70	0.07
			0.00			1/2" Ice	12.06	8.29	0.13
			0.00			1" Ice	12.69	8.89	0.21
12"x12"	C	From Leg	3.00	0.0000	150.00	No Ice	1.40	1.40	0.03
			0.00			1/2" Ice	1.56	1.56	0.05
			0.00			1" Ice	1.73	1.73	0.06
**									
Pipe Mount [PM 601-1]	A	From Leg	0.00	0.0000	130.00	No Ice	3.00	0.90	0.07
			0.00			1/2" Ice	3.74	1.12	0.08
			1.50			1" Ice	4.48	1.34	0.09

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
***									
Side Arm Mount [SO 102-1]	A	From Leg	0.00	0.0000	125.00	No Ice	1.50	1.50	0.03
			0.00			1/2" Ice	1.74	1.75	0.04
			0.00			1" Ice	1.98	2.00	0.04
DC6-48-60-18-8F	B	From Leg	1.00	0.0000	125.00	No Ice	1.47	1.47	0.02
			0.00			1/2" Ice	1.67	1.67	0.04
			0.00			1" Ice	1.88	1.88	0.06
RRUS	A	From Leg	1.00	0.0000	125.00	No Ice	3.79	1.51	0.06
			0.00			1/2" Ice	4.05	1.69	0.08
			0.00			1" Ice	4.32	1.89	0.11
RRUS	B	From Leg	1.00	0.0000	125.00	No Ice	3.79	1.51	0.06
			0.00			1/2" Ice	4.05	1.69	0.08
			0.00			1" Ice	4.32	1.89	0.11
RRUS	C	From Leg	1.00	0.0000	125.00	No Ice	3.79	1.51	0.06
			0.00			1/2" Ice	4.05	1.69	0.08
			0.00			1" Ice	4.32	1.89	0.11
****									
PiROD 12' Platform w / handrails	A	From Leg	0.00	0.0000	123.00	No Ice	26.30	26.30	1.92
			0.00			1/2" Ice	35.60	35.60	2.34
			1.50			1" Ice	44.90	44.90	2.76
(2) 731DG65VTAXM	A	From Leg	2.50	0.0000	123.00	No Ice	6.07	3.27	0.02
			0.00			1/2" Ice	6.47	3.63	0.06
			0.00			1" Ice	6.87	4.00	0.10
(2) 731DG65VTAXM	B	From Leg	2.50	0.0000	123.00	No Ice	6.07	3.27	0.02
			0.00			1/2" Ice	6.47	3.63	0.06
			0.00			1" Ice	6.87	4.00	0.10
(2) 731DG65VTAXM	C	From Leg	2.50	0.0000	123.00	No Ice	6.07	3.27	0.02
			0.00			1/2" Ice	6.47	3.63	0.06
			0.00			1" Ice	6.87	4.00	0.10
(2) TMA	A	From Leg	2.50	0.0000	123.00	No Ice	1.69	0.85	0.02
			0.00			1/2" Ice	1.87	0.98	0.03
			0.00			1" Ice	2.05	1.13	0.05
(2) TMA	B	From Leg	2.50	0.0000	123.00	No Ice	1.69	0.85	0.02
			0.00			1/2" Ice	1.87	0.98	0.03
			0.00			1" Ice	2.05	1.13	0.05
(2) TMA	C	From Leg	2.50	0.0000	123.00	No Ice	1.69	0.85	0.02
			0.00			1/2" Ice	1.87	0.98	0.03
			0.00			1" Ice	2.05	1.13	0.05
BXA-70063-8CF-EDIN-X	A	From Leg	2.50	0.0000	123.00	No Ice	10.67	6.07	0.02
			0.00			1/2" Ice	11.27	6.64	0.08
			0.00			1" Ice	11.89	7.22	0.14
BXA-70063-8CF-EDIN-X	B	From Leg	2.50	0.0000	123.00	No Ice	10.67	6.07	0.02
			0.00			1/2" Ice	11.27	6.64	0.08
			0.00			1" Ice	11.89	7.22	0.14
BXA-70063-8CF-EDIN-X	C	From Leg	2.50	0.0000	123.00	No Ice	10.67	6.07	0.02
			0.00			1/2" Ice	11.27	6.64	0.08
			0.00			1" Ice	11.89	7.22	0.14
BXA-171063-12CF-EDIN-X	A	From Leg	2.50	0.0000	123.00	No Ice	4.79	3.62	0.02
			0.00			1/2" Ice	5.24	4.06	0.04
			0.00			1" Ice	5.70	4.50	0.08
BXA-171063-12CF-EDIN-X	B	From Leg	2.50	0.0000	123.00	No Ice	4.79	3.62	0.02
			0.00			1/2" Ice	5.24	4.06	0.04
			0.00			1" Ice	5.70	4.50	0.08
BXA-171063-12CF-EDIN-X	C	From Leg	2.50	0.0000	123.00	No Ice	4.79	3.62	0.02
			0.00			1/2" Ice	5.24	4.06	0.04
			0.00			1" Ice	5.70	4.50	0.08
*****									

tnxTower	Job: KS-0394-A	Page: 7 of 15
SSC 9900 W 109th St #300 Overland Park, KS 66210 Phone: (913) 438-7700 FAX:	Project: Prairie Village City Monopole	Date: 07:55:09 03/07/14
	Client: Sprint	Designed by: Brennan Sedlacek

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Platform Mount [LP 303-1]	A	From Leg	0.00	0.0000	109.00	No Ice	14.66	14.66	1.25
			0.00			1/2" Ice	18.87	18.87	1.48
			1.50			1" Ice	23.08	23.08	1.71
APXVERR18-C	A	From Leg	2.50	0.0000	109.00	No Ice	8.26	5.28	0.06
			0.00			1/2" Ice	8.81	5.74	0.11
			0.00			1" Ice	9.36	6.20	0.16
APXVERR18-C	B	From Leg	2.50	0.0000	109.00	No Ice	8.26	5.28	0.06
			0.00			1/2" Ice	8.81	5.74	0.11
			0.00			1" Ice	9.36	6.20	0.16
APXVERR18-C	C	From Leg	2.50	0.0000	109.00	No Ice	8.26	5.28	0.06
			0.00			1/2" Ice	8.81	5.74	0.11
			0.00			1" Ice	9.36	6.20	0.16
(2) RRUS	A	From Leg	2.50	0.0000	109.00	No Ice	3.79	1.51	0.06
			0.00			1/2" Ice	4.05	1.69	0.08
			0.00			1" Ice	4.32	1.89	0.11
(2) RRUS	B	From Leg	2.50	0.0000	109.00	No Ice	3.79	1.51	0.06
			0.00			1/2" Ice	4.05	1.69	0.08
			0.00			1" Ice	4.32	1.89	0.11
(2) RRUS	C	From Leg	2.50	0.0000	109.00	No Ice	3.79	1.51	0.06
			0.00			1/2" Ice	4.05	1.69	0.08
			0.00			1" Ice	4.32	1.89	0.11
(2) RRUS A2 Module	A	From Leg	2.50	0.0000	109.00	No Ice	1.87	0.42	0.02
			0.00			1/2" Ice	2.05	0.53	0.03
			0.00			1" Ice	2.24	0.65	0.04
(2) RRUS A2 Module	B	From Leg	2.50	0.0000	109.00	No Ice	1.87	0.42	0.02
			0.00			1/2" Ice	2.05	0.53	0.03
			0.00			1" Ice	2.24	0.65	0.04
(2) RRUS A2 Module	C	From Leg	2.50	0.0000	109.00	No Ice	1.87	0.42	0.02
			0.00			1/2" Ice	2.05	0.53	0.03
			0.00			1" Ice	2.24	0.65	0.04
DC6-48-60-18-8F	A	From Leg	2.50	0.0000	109.00	No Ice	1.47	1.47	0.02
			0.00			1/2" Ice	1.67	1.67	0.04
			0.00			1" Ice	1.88	1.88	0.06
DC6-48-60-18-8F	B	From Leg	2.50	0.0000	109.00	No Ice	1.47	1.47	0.02
			0.00			1/2" Ice	1.67	1.67	0.04
			0.00			1" Ice	1.88	1.88	0.06
DC6-48-60-18-8F	C	From Leg	2.50	0.0000	109.00	No Ice	1.47	1.47	0.02
			0.00			1/2" Ice	1.67	1.67	0.04
			0.00			1" Ice	1.88	1.88	0.06
TTTT65AP-1XR	A	From Leg	2.50	0.0000	109.00	No Ice	7.37	3.48	0.03
			0.00			1/2" Ice	7.87	3.88	0.07
			0.00			1" Ice	8.37	4.28	0.12
TTTT65AP-1XR	B	From Leg	2.50	0.0000	109.00	No Ice	7.37	3.48	0.03
			0.00			1/2" Ice	7.87	3.88	0.07
			0.00			1" Ice	8.37	4.28	0.12
TTTT65AP-1XR	C	From Leg	2.50	0.0000	109.00	No Ice	7.37	3.48	0.03
			0.00			1/2" Ice	7.87	3.88	0.07
			0.00			1" Ice	8.37	4.28	0.12
FZHJ-RRH	A	From Leg	2.50	0.0000	109.00	No Ice	1.47	1.18	0.06
			0.00			1/2" Ice	1.65	1.34	0.07
			0.00			1" Ice	1.83	1.50	0.09
FZHJ-RRH	B	From Leg	2.50	0.0000	109.00	No Ice	1.47	1.18	0.06
			0.00			1/2" Ice	1.65	1.34	0.07
			0.00			1" Ice	1.83	1.50	0.09
FZHJ-RRH	C	From Leg	2.50	0.0000	109.00	No Ice	1.47	1.18	0.06
			0.00			1/2" Ice	1.65	1.34	0.07
			0.00			1" Ice	1.83	1.50	0.09

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
******									
3" Dia 20' Omni	C	None		0.0000	64.00	No Ice	4.00	4.00	0.06
						1/2" Ice	6.00	6.00	0.10
						1" Ice	8.00	8.00	0.14

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
3' Dish w/o Radome	C	Paraboloid w/o Radome	From Leg	1.00 / 0.00	0.0000		130.00	3.00	No Ice	7.07	0.05
				0.00					1/2" Ice	7.47	0.12
				0.00					1" Ice	7.86	0.19

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp

Comb. No.	Description
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	150 - 95.6667	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-34.43	0.82	11.51
			Max. Mx	8	-11.62	-469.88	12.48
			Max. My	2	-11.62	-11.65	473.07
			Max. Vy	8	15.59	-469.88	12.48
			Max. Vx	2	-15.55	-11.65	473.07
			Max. Torque	8			2.41
L2	95.6667 - 46.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.03	1.40	13.46
			Max. Mx	8	-19.91	-1305.28	24.07
			Max. My	2	-19.91	-29.71	1306.56
			Max. Vy	8	19.20	-1305.28	24.07
			Max. Vx	2	-19.16	-29.71	1306.56
			Max. Torque	8			2.40
L3	46.75 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.64	1.86	14.26
			Max. Mx	8	-31.89	-2385.64	35.76
			Max. My	2	-31.89	-48.39	2384.79
			Max. Vy	8	22.22	-2385.64	35.76
			Max. Vx	2	-22.18	-48.39	2384.79
			Max. Torque	8			2.38

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	27	63.64	-0.05	4.21
	Max. H_x	20	31.92	22.05	-0.01
	Max. H_z	2	31.92	-0.34	22.13
	Max. M_x	2	2384.79	-0.34	22.13
	Max. M_z	8	2385.64	-22.17	0.21
	Max. Torsion	8	2.37	-22.17	0.21
	Min. Vert	5	23.94	-11.27	19.13
	Min. H_x	8	31.92	-22.17	0.21
	Min. H_z	14	31.92	0.05	-22.03
	Min. M_x	14	-2358.15	0.05	-22.03
	Min. M_z	20	-2368.42	22.05	-0.01
	Min. Torsion	20	-2.06	22.05	-0.01

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	26.60	0.00	-0.00	-4.88	-0.13	0.00
1.2 Dead+1.6 Wind 0 deg - No Ice	31.92	0.34	-22.13	-2384.79	-48.39	-0.05
0.9 Dead+1.6 Wind 0 deg - No Ice	23.94	0.34	-22.13	-2337.85	-47.35	-0.06
1.2 Dead+1.6 Wind 30 deg - No Ice	31.92	11.27	-19.13	-2060.87	-1218.71	-1.12
0.9 Dead+1.6 Wind 30 deg - No Ice	23.94	11.27	-19.13	-2020.11	-1195.41	-1.11
1.2 Dead+1.6 Wind 60 deg - No Ice	31.92	19.25	-11.14	-1205.07	-2073.12	-2.01
0.9 Dead+1.6 Wind 60 deg - No Ice	23.94	19.25	-11.14	-1180.58	-2033.57	-1.99
1.2 Dead+1.6 Wind 90 deg - No Ice	31.92	22.17	-0.21	-35.76	-2385.64	-2.37
0.9 Dead+1.6 Wind 90 deg - No Ice	23.94	22.17	-0.21	-33.50	-2340.13	-2.34
1.2 Dead+1.6 Wind 120 deg - No Ice	31.92	19.31	10.77	1141.78	-2080.48	-1.97
0.9 Dead+1.6 Wind 120 deg - No Ice	23.94	19.31	10.77	1121.62	-2040.76	-1.93
1.2 Dead+1.6 Wind 150 deg - No Ice	31.92	10.95	19.01	2032.64	-1174.32	-0.90
0.9 Dead+1.6 Wind 150 deg - No Ice	23.94	10.95	19.01	1995.45	-1151.90	-0.87
1.2 Dead+1.6 Wind 180 deg - No Ice	31.92	-0.05	22.03	2358.15	6.32	0.33
0.9 Dead+1.6 Wind 180 deg - No Ice	23.94	-0.05	22.03	2314.76	6.24	0.34
1.2 Dead+1.6 Wind 210 deg - No Ice	31.92	-11.04	19.12	2048.31	1185.98	1.44
0.9 Dead+1.6 Wind 210 deg - No Ice	23.94	-11.04	19.12	2010.81	1163.42	1.43
1.2 Dead+1.6 Wind 240 deg - No Ice	31.92	-19.14	11.07	1184.25	2057.25	2.02
0.9 Dead+1.6 Wind 240 deg - No Ice	23.94	-19.14	11.07	1163.21	2018.08	2.00
1.2 Dead+1.6 Wind 270 deg - No Ice	31.92	-22.05	0.01	-3.79	2368.42	2.06

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
0.9 Dead+1.6 Wind 270 deg - No Ice	23.94	-22.05	0.01	-2.20	2323.34	2.02
1.2 Dead+1.6 Wind 300 deg - No Ice	31.92	-19.06	-10.97	-1182.34	2046.38	1.68
0.9 Dead+1.6 Wind 300 deg - No Ice	23.94	-19.06	-10.97	-1158.30	2007.44	1.65
1.2 Dead+1.6 Wind 330 deg - No Ice	31.92	-10.96	-19.01	-2044.01	1174.69	0.89
0.9 Dead+1.6 Wind 330 deg - No Ice	23.94	-10.96	-19.01	-2003.58	1152.37	0.86
1.2 Dead+1.0 Ice+1.0 Temp	63.64	-0.00	-0.00	-14.26	1.86	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	63.64	0.05	-4.21	-548.99	-6.62	-0.00
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	63.64	2.14	-3.64	-476.37	-270.89	-0.38
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+I.0 Temp	63.64	3.66	-2.11	-283.27	-463.97	-0.68
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	63.64	4.22	-0.03	-19.48	-534.63	-0.80
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	63.64	3.67	2.06	245.72	-465.38	-0.68
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	63.64	2.09	3.62	444.94	-263.15	-0.35
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	63.64	-0.01	4.19	517.74	2.89	0.05
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	63.64	-2.10	3.64	447.64	268.80	0.44
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	63.64	-3.64	2.10	253.08	464.87	0.68
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	63.64	-4.20	0.00	-14.03	535.30	0.75
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	63.64	-3.63	-2.09	-279.40	463.05	0.63
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	63.64	-2.09	-3.62	-473.43	267.00	0.36
Dead+Wind 0 deg - Service	26.60	0.09	-5.50	-590.77	-12.00	-0.02
Dead+Wind 30 deg - Service	26.60	2.80	-4.75	-511.03	-300.24	-0.29
Dead+Wind 60 deg - Service	26.60	4.79	-2.77	-300.26	-510.69	-0.51
Dead+Wind 90 deg - Service	26.60	5.51	-0.05	-12.25	-587.62	-0.60
Dead+Wind 120 deg - Service	26.60	4.80	2.68	277.75	-512.46	-0.50
Dead+Wind 150 deg - Service	26.60	2.72	4.73	497.09	-289.27	-0.22
Dead+Wind 180 deg - Service	26.60	-0.01	5.47	577.26	1.47	0.09
Dead+Wind 210 deg - Service	26.60	-2.74	4.75	500.98	291.98	0.37
Dead+Wind 240 deg - Service	26.60	-4.76	2.75	288.20	506.56	0.51
Dead+Wind 270 deg - Service	26.60	-5.48	0.00	-4.39	583.17	0.52
Dead+Wind 300 deg - Service	26.60	-4.74	-2.73	-294.62	503.86	0.42
Dead+Wind 330 deg - Service	26.60	-2.72	-4.72	-506.81	289.19	0.22

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
1	0.00	-26.60	0.00	0.00	26.60	0.00	0.000%
2	0.34	-31.92	-22.13	-0.34	31.92	22.13	0.000%
3	0.34	-23.94	-22.13	-0.34	23.94	22.13	0.000%
4	11.27	-31.92	-19.13	-11.27	31.92	19.13	0.000%
5	11.27	-23.94	-19.13	-11.27	23.94	19.13	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
6	19.25	-31.92	-11.14	-19.25	31.92	11.14	0.000%
7	19.25	-23.94	-11.14	-19.25	23.94	11.14	0.000%
8	22.17	-31.92	-0.21	-22.17	31.92	0.21	0.000%
9	22.17	-23.94	-0.21	-22.17	23.94	0.21	0.000%
10	19.31	-31.92	10.77	-19.31	31.92	-10.77	0.000%
11	19.31	-23.94	10.77	-19.31	23.94	-10.77	0.000%
12	10.95	-31.92	19.01	-10.95	31.92	-19.01	0.000%
13	10.95	-23.94	19.01	-10.95	23.94	-19.01	0.000%
14	-0.05	-31.92	22.03	0.05	31.92	-22.03	0.000%
15	-0.05	-23.94	22.03	0.05	23.94	-22.03	0.000%
16	-11.04	-31.92	19.12	11.04	31.92	-19.12	0.000%
17	-11.04	-23.94	19.12	11.04	23.94	-19.12	0.000%
18	-19.14	-31.92	11.07	19.14	31.92	-11.07	0.000%
19	-19.14	-23.94	11.07	19.14	23.94	-11.07	0.000%
20	-22.05	-31.92	0.01	22.05	31.92	-0.01	0.000%
21	-22.05	-23.94	0.01	22.05	23.94	-0.01	0.000%
22	-19.06	-31.92	-10.97	19.06	31.92	10.97	0.000%
23	-19.06	-23.94	-10.97	19.06	23.94	10.97	0.000%
24	-10.96	-31.92	-19.01	10.96	31.92	19.01	0.000%
25	-10.96	-23.94	-19.01	10.96	23.94	19.01	0.000%
26	0.00	-63.64	0.00	0.00	63.64	0.00	0.000%
27	0.05	-63.64	-4.21	-0.05	63.64	4.21	0.000%
28	2.14	-63.64	-3.64	-2.14	63.64	3.64	0.000%
29	3.66	-63.64	-2.11	-3.66	63.64	2.11	0.000%
30	4.22	-63.64	-0.03	-4.22	63.64	0.03	0.000%
31	3.67	-63.64	2.06	-3.67	63.64	-2.06	0.000%
32	2.09	-63.64	3.62	-2.09	63.64	-3.62	0.000%
33	-0.01	-63.64	4.19	0.01	63.64	-4.19	0.000%
34	-2.10	-63.64	3.64	2.10	63.64	-3.64	0.000%
35	-3.64	-63.64	2.10	3.64	63.64	-2.10	0.000%
36	-4.20	-63.64	0.00	4.20	63.64	-0.00	0.000%
37	-3.63	-63.64	-2.09	3.63	63.64	2.09	0.000%
38	-2.09	-63.64	-3.62	2.09	63.64	3.62	0.000%
39	0.09	-26.60	-5.50	-0.09	26.60	5.50	0.000%
40	2.80	-26.60	-4.75	-2.80	26.60	4.75	0.000%
41	4.79	-26.60	-2.77	-4.79	26.60	2.77	0.000%
42	5.51	-26.60	-0.05	-5.51	26.60	0.05	0.000%
43	4.80	-26.60	2.68	-4.80	26.60	-2.68	0.000%
44	2.72	-26.60	4.73	-2.72	26.60	-4.73	0.000%
45	-0.01	-26.60	5.47	0.01	26.60	-5.47	0.000%
46	-2.74	-26.60	4.75	2.74	26.60	-4.75	0.000%
47	-4.76	-26.60	2.75	4.76	26.60	-2.75	0.000%
48	-5.48	-26.60	0.00	5.48	26.60	-0.00	0.000%
49	-4.74	-26.60	-2.73	4.74	26.60	2.73	0.000%
50	-2.72	-26.60	-4.72	2.72	26.60	4.72	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	5	0.00000001	0.00040075
3	Yes	5	0.00000001	0.00017125
4	Yes	6	0.00000001	0.00056007
5	Yes	6	0.00000001	0.00016192
6	Yes	6	0.00000001	0.00058927

7	Yes	6	0.00000001	0.00017260
8	Yes	5	0.00000001	0.00077945
9	Yes	5	0.00000001	0.00033540
10	Yes	6	0.00000001	0.00052858
11	Yes	6	0.00000001	0.00015516
12	Yes	6	0.00000001	0.00055599
13	Yes	6	0.00000001	0.00016492
14	Yes	5	0.00000001	0.00012213
15	Yes	5	0.00000001	0.00005445
16	Yes	6	0.00000001	0.00056877
17	Yes	6	0.00000001	0.00016832
18	Yes	6	0.00000001	0.00053718
19	Yes	6	0.00000001	0.00015677
20	Yes	5	0.00000001	0.00045008
21	Yes	5	0.00000001	0.00019173
22	Yes	6	0.00000001	0.00057285
23	Yes	6	0.00000001	0.00016913
24	Yes	6	0.00000001	0.00054534
25	Yes	6	0.00000001	0.00015996
26	Yes	5	0.00000001	0.00006263
27	Yes	6	0.00015835	0.00031014
28	Yes	6	0.00015740	0.00051446
29	Yes	6	0.00015710	0.00054847
30	Yes	6	0.00015776	0.00031707
31	Yes	6	0.00015679	0.00042932
32	Yes	6	0.00015639	0.00045373
33	Yes	6	0.00015703	0.00027816
34	Yes	6	0.00015636	0.00046844
35	Yes	6	0.00015678	0.00044060
36	Yes	6	0.00015782	0.00031366
37	Yes	6	0.00015719	0.00054138
38	Yes	6	0.00015749	0.00050696
39	Yes	4	0.00000001	0.00050347
40	Yes	5	0.00000001	0.00014298
41	Yes	5	0.00000001	0.00016520
42	Yes	4	0.00000001	0.00071370
43	Yes	5	0.00000001	0.00011778
44	Yes	5	0.00000001	0.00013612
45	Yes	4	0.00000001	0.00046156
46	Yes	5	0.00000001	0.00014412
47	Yes	5	0.00000001	0.00012185
48	Yes	4	0.00000001	0.00062509
49	Yes	5	0.00000001	0.00015458
50	Yes	5	0.00000001	0.00013475

Base Plate Design Data

Plate Thickness	*Number of Anchor Bolts*	*Anchor Bolt Size*	*Actual Allowable Ratio Bolt Tension*	*Actual Allowable Ratio Concrete Stress*	*Actual Allowable Ratio Plate Stress*	*Actual Allowable Ratio Stiffener Stress*	*Controlling Condition*	*Critical Ratio*
			K	*ksi*	*ksi*	*ksi*		
in		*in*						
2.5000	12	2.2500	143.76	2.250	35.230		Conc fc	0.74
			223.65	3.060	54.000			✔
			0.64	0.74	0.65			

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	150 - 95.6667 (1)	TP26.13x16.35x0.2188	54.33	0.00	0.0	17.7018	-11.61	1175.20	0.010
L2	95.6667 - 46.75 (2)	TP34.5x24.9125x0.3125	53.25	0.00	0.0	33.4500	-19.90	2295.58	0.009
L3	46.75 - 0 (3)	TP42.29x32.9298x0.3438	52.00	0.00	0.0	46.4293	-31.88	2995.16	0.011

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	150 - 95.6667 (1)	TP26.13x16.35x0.2188	474.97	601.22	0.790	0.00	601.22	0.000
L2	95.6667 - 46.75 (2)	TP34.5x24.9125x0.3125	1313.80	1552.37	0.846	0.00	1552.37	0.000
L3	46.75 - 0 (3)	TP42.29x32.9298x0.3438	2397.93	2558.84	0.937	0.00	2558.84	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	150 - 95.6667 (1)	TP26.13x16.35x0.2188	15.63	587.60	0.027	1.13	1219.09	0.001
L2	95.6667 - 46.75 (2)	TP34.5x24.9125x0.3125	19.28	1147.79	0.017	2.02	3147.72	0.001
L3	46.75 - 0 (3)	TP42.29x32.9298x0.3438	22.29	1497.58	0.015	2.01	5188.53	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	150 - 95.6667 (1)	0.010	0.790	0.000	0.027	0.001	0.801 ✔	1.000	4.8.2 ✔
L2	95.6667 - 46.75 (2)	0.009	0.846	0.000	0.017	0.001	0.855 ✔	1.000	4.8.2 ✔

tnxTower	Job	Page
	KS-0394-A	15 of 15
SSC 9900 W 109th St #300 Overland Park, KS 66210 Phone: (913) 438-7700 FAX:	Project Prairie Village City Monopole	Date 07:55:09 03/07/14
	Client Sprint	Designed by Brennan Sedlacek

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L3	46.75 - 0 (3)	0.011	0.937	0.000	0.015	0.000	0.948 ✔	1.000	4.8.2 ✔

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	150 - 95.6667	Pole	TP26.13x16.35x0.2188	1	-11.61	1175.20	80.1	Pass
L2	95.6667 - 46.75	Pole	TP34.5x24.9125x0.3125	2	-19.90	2295.58	85.5	Pass
L3	46.75 - 0	Pole	TP42.29x32.9298x0.3438	3	-31.88	2995.16	94.8	Pass
							Summary	
						Pole (L3)	94.8	Pass
						Base Plate	73.5	Pass
						RATING =	**94.8**	**Pass**

Sprint

PROJECT: 2.5 EQUIPMENT DEPLOYMENT

SITE NAME: PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE: KC60XC727

SITE ADDRESS: 7700 MISSION ROAD
PRAIRIE VILLAGE, KS 66208

SITE TYPE: 150'-0" MONOPOLE

KEVIN VANMAELE LICENSED 22105 KANSAS PROFESSIONAL ENGINEER

SHELTON KEISLING LICENSED 13654 KANSAS PROFESSIONAL ENGINEER

SITE INFORMATION

PROPERTY OWNER:
CITY OF PRAIRIE VILLAGE

LATITUDE (NAD83):
38° 59' 21.9978" N
38.989444°

LONGITUDE (NAD83):
94° 37' 53.0034" W
-94.63139°

COUNTY:
JOHNSON, KS

ZONING JURISDICTION:
CITY OF PRAIRIE VILLAGE

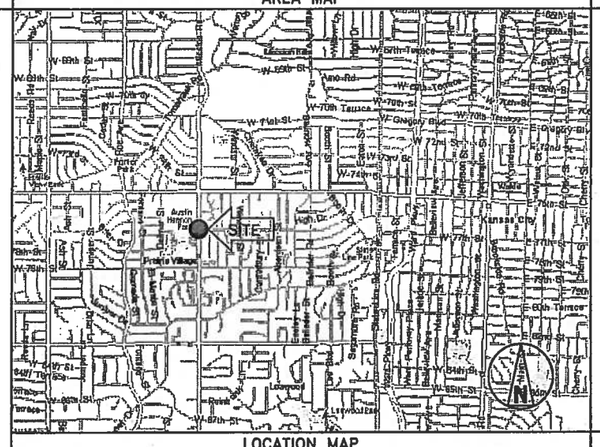
ZONING DISTRICT:
R-1A

POWER COMPANY:
KCP&L

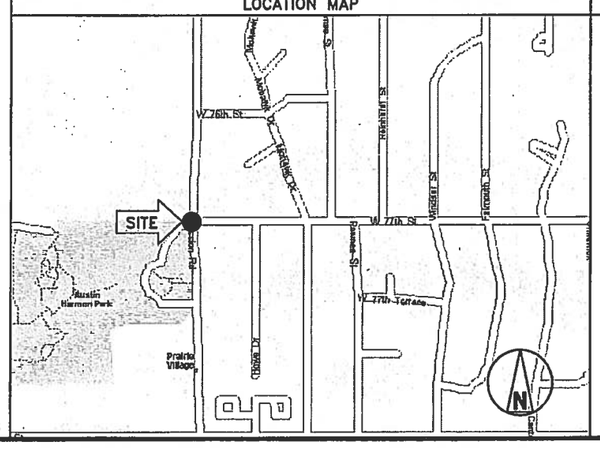
AAV PROVIDER:
AT&T

SPRINT CM:

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

- INSTALL (1) UADU BBU KIT IN MMBS CABINET
- INSTALL (4) BATTERIES IN POWER CABINET
- INSTALL (3) PANEL ANTENNAS
- INSTALL (3) RRUS
- INSTALL (3) RF FILTERS
- INSTALL (27) JUMPERS
- INSTALL (1) FIBER ONLY CABLE

APPLICABLE CODES

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

1. INTERNATIONAL BUILDING CODE
2. INTERNATIONAL MECHANICAL CODE
3. ANSI/TIA-222 STRUCTURAL STANDARD
4. NFPA 780 – LIGHTNING PROTECTION CODE
5. UNIFORM PLUMBING CODE
6. NATIONAL ELECTRICAL CODE

811 Know what's below. Call before you dig. www.call811.com

DRAWING INDEX

SHEET NO:	SHEET TITLE	REV	ENGINEER
T-1	TITLE SHEET	0	SC/E
SP-1	SPECIFICATIONS	0	SC
SP-2	SPECIFICATIONS	0	SC
A-1	EQUIPMENT PLAN	0	SC
A-2	TOWER ELEVATION & CABLE PLAN	0	SC
A-3	ANTENNA LAYOUT & MOUNTING DETAILS	0	SC
A-4	RF DATA SHEET & EQUIPMENT INFORMATION	0	SC
A-5	EQUIPMENT DETAILS	0	SC
A-6	EQUIPMENT DETAILS	0	SC
E-1	GROUNDING PLAN	0	E
E-2	GROUNDING DETAILS	0	E
E-3	DC POWER & DISTRIBUTION	0	E

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

SSC
9900 West 109th Street, Suite 300
Overland Park, Kansas 66210
Phone: 913-438-7700 Fax: 913-338-1777

OEM:

ENGINEERING LICENSE:

STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

MLO MICHAEL L. OWENS
16917 STRUCTURAL/CIVIL SC

KV KEVIN VANMAELE
22105 STRUCTURAL/CIVIL SC

REJ ROBERT E. JENSEN
16098 STRUCTURAL/CIVIL SC

TMS TERRANCE M. SUPER
9250 ELECTRICAL E

SDK SHELTON D. KEISLING
13654 ELECTRICAL E

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/12/14	TJD	0

SITE NAME: PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE: KC60XC727

SITE ADDRESS: 7700 MISSION ROAD PRAIRIE VILLAGE, KS 66208

SHEET DESCRIPTION: TITLE SHEET

SHEET NUMBER: T-1

THESE OUTLINE SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

SECTION 01 100 – SCOPE OF WORK

THE WORK:
SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF.

PRECEDENCE:
SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE.

SITE FAMILIARITY:
CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

ON-SITE SUPERVISION:
THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE:
THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

A. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. PROVIDE ALL MATERIALS AND LABOR AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

B. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK.DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

C. MARK THE FIELD SET OF DRAWINGS IN RED, DOCUMENTING ANY CHANGES FROM THE CONSTRUCTION DOCUMENTS.

METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION:
CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN THE FOLLOWING INSTALLATION AND COMMISSIONING MOPS.

A. TOP HAT
B. HOW TO INSTALL A NEW CABINET
C. BASE BAND UNIT IN EXISTING UNIT
D. INSTALLATION OF BATTERIES
E. INSTALLATION OF HYBRID CABLE
F. INSTALLATION OF RRU'S
G. CABLING
H. TS-0200 REV 4 – ANTENNA LINE ACCEPTANCE STANDARDS
I. SPRINT CELL SITE ENGINEERING NOTICE – EN 2012-001, REV 1.
J. COMMISSIONING MOPS

SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT

COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DRAWINGS.

CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT TO ENSURE IT IS PROTECTED AND HANDLED PROPERLY THROUGHOUT THE CONSTRUCTION DURATION.

CONTRACTOR RESPONSIBLE FOR RECEIPT OF SPRINT FURNISHED EQUIPMENT AT CELL SITE OR CONTRACTORS LOCATION. CONTRACTOR TO COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.

SECTION 01 300 – CELL SITE CONSTRUCTION CO.

NOTICE TO PROCEED:
NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF WORK ORDER.

SITE CLEANLINESS:
CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

SECTION 01 400 – SUBMITTALS & TESTS

ALTERNATES:
AT THE COMPANY'S REQUEST, ANY ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFIED SHALL BE SUBMITTED TO SPRINTS CONSTRUCTION MANAGER FOR APPROVAL. SPRINT WILL REVIEW AND APPROVE ONLY THOSE REQUESTS MADE IN WRITING. NO VERBAL APPROVALS WILL BE CONSIDERED.

TESTS AND INSPECTIONS:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.

B. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. COAX SWEEPS AND FIBER TESTS PER TS-0200 REV 4 ANTENNA LINE ACCEPTANCE STANDARDS.
2. AGL, AZIMUTH AND DOWNTILT PROVIDE AN AUTOMATED REPORT UPLOADED TO SITERRA USING A COMMERCIAL MADE-FOR THE PURPOSE ELECTRONIC ANTENNA ALIGNMENT TOOL (AAT). INSTALLED AZIMUTH, CENTERLINE AND DOWNTILT MUST CONFORM WITH RF CONFIGURATION DATA
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.
4. ALL TESTING REQUIRED BY APPLICABLE INSTALLATION MOPS.

C. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING;

1. AZIMUTH, DOWNTILT, AGL FROM SUNSIGHT INSTRUMENTS – ANTENNALIGN ALIGNMENT TOOL (AAT)
2. SWEEP AND FIBER TESTS
3. SCANABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
4. ALL AVAILABLE JURISDICTIONAL INFORMATION
5. PDF SCAN OF REDLINES PRODUCED IN FIELD
6. A PDF SCAN OF REDLINE MARK-UPS SUITABLE FOR USE IN ELECTRONIC AS-BUILT DRAWING PRODUCTION
7. LIEN WAIVERS
8. FINAL PAYMENT APPLICATION
9. REQUIRED FINAL CONSTRUCTION PHOTOS
10. CONSTRUCTION AND COMMISSIONING CHECKLIST COMPLETE WITH NO DEFICIENT ITEMS
11. ALL POST NTP TASKS INCLUDING DOCUMENT UPLOADS COMPLETED IN SITERRA (SPRINTS DOCUMENT REPOSITORY OF RECORD).
12. CLOSEOUT PHOTOGRAPHS:

a PROVIDE PHOTOGRAPHS OF FINAL PROJECT PER THE FOLLOWING LIST. ADDITIONAL PHOTOGRAPHS MAY BE REQUIRED TO SUPPORT ACCEPTANCE PROCESSES

(i) BACK MAIN HYBRID CABLE ROUTE (MINIMUM TWO PHOTOS)
(ii) OF EACH ANTENNA AND RRU
(iii) MANUFACTURERS NAME TAG FOR ALL SERIALIZED EQUIPMENT
(iv) PULL AND DISTRIBUTION BOXES INTERMEDIATE BETWEEN RRU'S AND MMBS (DOOR OPEN)
(v) MMBS CABINET WITH DOOR OPEN SHOWING MODIFICATIONS
(vi) POWER CABINET, DOORS OPEN, BATTERIES INSTALLED
(vii) BREAK OUT CYLINDERS
(viii) ASR SIGNAGE FOR SPRINT OWNED TOWERS
(ix) RADIATION EXPOSURE WARNING SIGNS
(x) PHOTOGRAPH FROM EACH SECTOR FROM APPROXIMATELY RAD CENTER OF ANY NEW ANTENNA AT HORIZON.

b LOAD PHOTOS TO SITERRA PROJECT LIBRARY I5. IN I5 CREATE NEW CATEGORY; 2.5 DEPLOYMENT, AND SECTION; PERMANENT CONSTRUCTION. LABEL PHOTOS WITH SITE CASCADE AND VIEW BEING DEPICTED. CAMERAS USED TO TAKE PHOTOGRAPHS SHALL GPS ENABLED SUCH THAT THE GPS COORDINATES ARE INCLUDED IN THE PHOTO MEDIA-FILE INFORMATION.

COMMISSIONING:
PERFORM ALL COMMISSIONING AS REQUIRED BY APPLICABLE MOPS

INTEGRATION:
PERFORM ALL INTEGRATION ACTIVITIES AS REQUIRED BY APPLICABLE MOPS

SECTION 09 900 – PAINTING

QUALITY ASSURANCE:

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. COMPLY WITH ALL ENVIRONMENTAL REGULATIONS FOR VOLATILE ORGANIC COMPOUNDS.

MATERIALS:

A. MANUFACTURERS: BENJAMIN MOORE, ICI DEVOE COATINGS, PPG, SHERWIN WILLIAMS OR APPROVED EQUAL. PROVIDE PREMIUM GRADE, PROFESSIONAL-QUALITY PRODUCTS FOR COATING SYSTEMS

PAINT SCHEDULE:

A. EXTERIOR ANTENNAE AND ANTENNA MOUNTING HARDWARE: ONE COAT OF PRIMER AND TWO FINISH COATS. PAINT FOR ANTENNAE SHALL BE NON-METALLIC BASED AND CONTAIN NO METALLIC PARTICLES. PROVIDE COLORS AND PATTERNS AS REQUIRED TO MASK APPEARANCE OF ANTENNAE ON ADJACENT BUILDING SURFACES AND AS ACCEPTABLE TO THE OWNER. REFER TO ANTENNA MANUFACTURER'S INSTRUCTIONS WHENEVER POSSIBLE.

B. WATER TANKS: TOUCH UP – PREPARE SURFACES TO BE REPAIRED. FOLLOW INDUSTRY STANDARDS AND REQUIREMENTS OF OWNER TO MATCH EXISTING COATING AND FINISH.

1. INSPECT SURFACES, REPORT UNSATISFACTORY CONDITIONS IN WRITING; BEGINNING WORK MEANS ACCEPTANCE OF SUBSTRATE.
2. COMPLY WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR PREPARATION, PRIMING AND COATING WORK. COORDINATE WITH WORK OF OTHER SECTIONS.
3. MATCH APPROVED MOCK-UPS FOR COLOR, TEXTURE, AND PATTERN. RE-COAT OR REMOVE AND REPLACE WORK WHICH DOES NOT MATCH OR SHOWS LOSS OF ADHESION.
4. CLEAN UP, TOUCH UP AND PROTECT WORK.

TOUCHUP PAINTING:

1. GALVANIZING DAMAGE AND ALL BOLTS AND NUTS SHALL BE TOUCHED UP AFTER TOWER ERECTION WITH "GALVANOX," "DRY GALV," OR "ZINC-IT."
2. FIELD TOUCHUP PAINT SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. ALL METAL COMPONENTS SHALL BE HANDLED WITH CARE TO PREVENT DAMAGE TO THE COMPONENTS, THEIR PRESERVATIVE TREATMENT, OR THEIR PROTECTIVE COATINGS.

SECTION 11 700 – ANTENNA ASSEMBLY, REMOTE RADIO UNITS AND CABLE INSTALLATION

SUMMARY:
THIS SECTION SPECIFIES INSTALLATION OF ANTENNAS, RRU'S, AND CABLE EQUIPMENT, INSTALLATION, AND TESTING OF COAXIAL FIBER CABLE.

ANTENNAS AND RRU'S:
THE NUMBER AND TYPE OF ANTENNAS AND RRU'S TO BE INSTALLED IS DETAILED ON THE CONSTRUCTION DRAWINGS.

HYBRID CABLE:
HYBRID CABLE WILL BE DC/FIBER AND FURNISHED FOR INSTALLATION AT EACH SITE. CABLE SHALL BE INSTALLED PER THE CONSTRUCTION DRAWINGS AND THE APPLICABLE MANUFACTURER'S REQUIREMENTS.

JUMPERS AND CONNECTORS:
FURNISH AND INSTALL 1/2" COAX JUMPER CABLES BETWEEN THE RRU'S AND ANTENNAS. JUMPERS SHALL BE TYPE LDF 4, FLC 12-50, CR 540, OR FXL 540. SUPER-FLEX CABLES ARE NOT ACCEPTABLE. JUMPERS BETWEEN THE RRU'S AND ANTENNAS OR TOWER TOP AMPLIFIERS SHALL CONSIST OF 1/2 INCH FOAM DIELECTRIC, OUTDOOR RATED COAXIAL CABLE, MIN LENGTH FOR JUMPER SHALL BE 10'-0".

MISCELLANEOUS:
INSTALL SPLITTERS, COMBINERS, FILTERS PER RF DATA SHEET, FURNISHED BY SPRINT.

ANTENNA INSTALLATION:
THE CONTRACTOR SHALL ASSEMBLE ALL ANTENNAS ONSITE IN ACCORDANCE WITH THE INSTRUCTIONS SUPPLIED BY THE MANUFACTURER. ANTENNA HEIGHT, AZIMUTH, AND FEED ORIENTATION INFORMATION SHALL BE A DESIGNATED ON THE CONSTRUCTION DRAWINGS.

A. THE CONTRACTOR SHALL POSITION THE ANTENNA ON TOWER PIPE MOUNTS SO THAT THE BOTTOM STRUT IS LEVEL. THE PIPE MOUNTS SHALL BE PLUMB TO WITHIN 1 DEGREE.

B. ANTENNA MOUNTING REQUIREMENTS: PROVIDE ANTENNA MOUNTING HARDWARE AS INDICATED ON THE DRAWINGS.

HYBRID CABLES INSTALLATION:

A. THE CONTRACTOR SHALL ROUTE, TEST, AND INSTALL ALL CABLES AS INDICATED ON THE CONSTRUCTION DRAWINGS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

B. THE INSTALLED RADIUS OF THE CABLES SHALL NOT BE LESS THAN THE MANUFACTURER'S SPECIFICATIONS FOR BENDING RADII.

C. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE CABLES DURING HANDLING AND INSTALLATION.

1. FASTENING MAIN HYBRID CABLES: ALL CABLES SHALL BE PERMANENTLY FASTENED TO THE COAX LADDER AT 4'-0" OC USING NON-MAGNETIC STAINLESS STEEL CLIPS.
2. FASTENING INDIVIDUAL FIBER AND DC CABLES ABOVE BREAKOUT ENCLOSURE (MEDUSA), WITHIN THE MMBS CABINET AND ANY INTERMEDIATE DISTRIBUTION BOXES:
   a. FIBER: SUPPORT FIBER BUNDLES USING ½" VELCRO STRAPS OF THE REQUIRED LENGTH @ 18" OC. STRAPS SHALL BE UV, OIL AND WATER RESISTANT AND SUITABLE FOR INDUSTRIAL INSTALLATIONS AS MANUFACTURED BY TEXTOL OR APPROVED EQUAL.
   b. DC: SUPPORT DC BUNDLES WITH ZIP TIES OF THE ADEQUATE LENGTH. ZIP TIES TO BE UV STABILIZED, BLACK NYLON, WITH TENSILE STRENGTH AT 12,000 PSI AS MANUFACTURED BY NELCO PRODUCTS OR EQUAL.
3. FASTENING JUMPERS: SECURE JUMPERS TO THE SIDE ARMS OR HEAD FRAMES USING STAINLESS STEEL TIE WRAPS OR STAINLESS STEEL BUTTERFLY CLIPS.
4. CABLE INSTALLATION:
   a. INSPECT CABLE PRIOR TO USE FOR SHIPPING DAMAGE, NOTIFY THE CONSTRUCTION MANAGER.
   b. CABLE ROUTING: CABLE INSTALLATION SHALL BE PLANNED TO ENSURE THAT THE LINES WILL BE PROPERLY ROUTED IN THE CABLE ENVELOP AS INDICATED ON THE DRAWINGS. AVOID TWISTING AND CROSSOVERS.
   c. HOIST CABLE USING PROPER HOISTING GRIPS. DO NOT EXCEED MANUFACTURES RECOMMENDED MAXIMUM BEND RADIUS.

PLANS PREPARED FOR:

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6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

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PROFESSIONAL ENGINEER

ENGINEERING LICENSE:

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PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

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TMS TERRANCE M. SUPER
9250 ELECTRICAL E

SDK SHELTON D. KEISLING
13654 ELECTRICAL E

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/12/14	TJD	0

SITE NAME:
PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE:
KC60XC727

SITE ADDRESS:
7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

SHEET DESCRIPTION:
SPECIFICATIONS

SHEET NUMBER:
SP-1

CONTINUE FROM SP-1

5. GROUNDING OF TRANSMISSION LINES: ALL TRANSMISSION LINES SHALL BE GROUNDED AS INDICATED ON DRAWINGS.

8. HYBRID CABLE COLOR CODING: ALL COLOR CODING SHALL BE AS REQUIRED IN TS 0200 REV 4.

7. HYBRID CABLE LABELING: INDIVIDUAL HYBRID AND DC BUNDLES SHALL BE LABELED ALPHA-NUMERICALLY ACCORDING TO SPRINT CELL SITE ENGINEERING NOTICE – EN 2012-001, REV 1

WEATHERPROOFING EXTERIOR CONNECTORS AND HYBRID CABLE GROUND KITS:

A. ALL FIBER & COAX CONNECTORS AND GROUND KITS SHALL BE WEATHERPROOFED.

B. WEATHERPROOFED USING ONE OF THE FOLLOWING METHODS. ALL INSTALLATIONS MUST BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.

1. COLD SHRINK: ENCOMPASS CONNECTOR IN COLD SHRINK TUBING AND PROVIDE A DOUBLE WRAP OF 2" ELECTRICAL TAPE EXTENDING 2" BEYOND TUBING. PROVIDE 3M COLD SHRINK CXS SERIES OR EQUAL.

2. SELF-AMALGAMATING TAPE: CLEAN SURFACES. APPLY A DOUBLE WRAP OF SELF-AMALGAMATING TAPE 2" BEYOND CONNECTOR. APPLY A SECOND WRAP OF SELF-AMALGAMATING TAPE IN OPPOSITE DIRECTION. APPLY DOUBLE WRAP OF 2" WIDE ELECTRICAL TAPE EXTENDING 2" BEYOND THE SELF-AMALGAMATING TAPE.

3. 3M SLIM LOCK CLOSURE 716: SUBSTITUTIONS WILL NOT BE ALLOWED.

4. OPEN FLAME ON JOB SITE IS NOT ACCEPTABLE

SECTION 11 800 – INSTALLATION OF MULTIMODAL BASE STATIONS (MMBS) AND RELATED EQUIPMENT

SUMMARY:

A. THIS SECTION SPECIFIES MMBS CABINETS, POWER CABINETS, AND INTERNAL EQUIPMENT INCLUDING BY NOT LIMITED TO RECTIFIERS, POWER DISTRIBUTION UNITS, BASE BAND UNITS, SURGE ARRESTORS, BATTERIES, AND SIMILAR EQUIPMENT FURNISHED BY THE COMPANY FOR INSTALLATION BY THE CONTRACTOR (OFCI).

B. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MISCELLANEOUS MATERIALS AND PROVIDE ALL LABOR REQUIRED FOR INSTALLATION EQUIPMENT IN EXISTING CABINET OR NEW CABINET AS SHOWN ON DRAWINGS AND AS REQUIRE BY THE APPLICABLE INSTALLATION MOPS.

C. COMPLY WITH MANUFACTURERS INSTALLATION AND START-UP REQUIREMENTS

DC CIRCUIT BREAKER LABELING

A. LABEL CIRCUIT BREAKERS ACCORDING TO SPRINT CELL SITE ENGINEERING NOTICE – EN 2012-001, REV 1.

SECTION 26 100 – BASIC ELECTRICAL REQUIREMENTS

SUMMARY:
THIS SECTION SPECIFIES BASIC ELECTRICAL REQUIREMENTS FOR SYSTEMS AND COMPONENTS.

QUALITY ASSURANCE:

A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.

B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.

C. MATERIALS AND EQUIPMENT: ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

SUPPORTING DEVICES:

A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.

B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.

C. MATERIALS AND EQUIPMENT:
ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

SUPPORTING DEVICES:

A. MANUFACTURED STRUCTURAL SUPPORT MATERIALS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING:

1. ALLIED TUBE AND CONDUIT
2. B-LINE SYSTEM
3. SUNISTRUT DIVERSIFIED PRODUCTS
4. THOMAS & BETTS

B. FASTENERS: TYPES, MATERIALS, AND CONSTRUCTION FEATURES AS FOLLOWS:

1. EXPANSION ANCHORS: CARBON STEEL WEDGE OR SLEEVE TYPE.
2. POWER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL, DESIGNED SPECIFICALLY FOR THE INTENDED SERVICE.
3. FASTEN BY MEANS OF WOOD SCREWS ON WOOD.
4. TOGGLE BOLTS ON HOLLOW MASONRY UNITS.
5. CONCRETE INSERTS OR EXPANSION BOLTS ON CONCRETE OR SOLID MASONRY.
6. MACHINE SCREWS, WELDED THREADED STUDS, OR SPRING-TENSION CLAMPS ON STEEL.
7. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE SHALL NOT BE PERMITTED.
8. DO NOT WELD CONDUIT, PIPE STRAPS, OR ITEMS OTHER THAN THREADED STUDS TO STEEL STRUCTURES.
9. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, USE SHEET METAL SCREWS.

SUPPORTING DEVICES:

A. INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC.

B. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER TRADES.

C. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE STRUCTURE IN ACCORDANCE WITH THE FOLLOWING:

D. ENSURE THAT THE LOAD APPLIED BY ANY FASTENER DOES NOT EXCEED 25 PERCENT OF THE PROOF TEST LOAD.

E. USE VIBRATION AND SHOCK-RESISTANT FASTENERS FOR ATTACHMENTS TO CONCRETE SLABS.

ELECTRICAL IDENTIFICATION:

A. UPDATE AND PROVIDE TYPED CIRCUIT BREAKER SCHEDULES IN THE MOUNTING BRACKET, INSIDE DOORS OF AC PANEL BOARDS WITH ANY CHANGES MADE TO THE AC SYSTEM.

B. BRANCH CIRCUITS FEEDING AVIATION OBSTRUCTION LIGHTING EQUIPMENT SHALL BE CLEARLY IDENTIFIED AS SUCH AT THE BRANCH CIRCUIT PANELBOARD.

SECTION 26 200 – ELECTRICAL MATERIALS AND EQUIPMENT

CONDUIT:

A. RIGID GALVANIZED STEEL (RGS) CONDUIT SHALL BE USED FOR EXTERIOR LOCATIONS ABOVE GROUND AND IN UNFINISHED INTERIOR LOCATIONS AND FOR ENCASED RUNS IN CONCRETE. RIGID CONDUIT AND FITTINGS SHALL BE STEEL, COATED WITH ZINC EXTERIOR AND INTERIOR BY THE HOT DIP GALVANIZING PROCESS. CONDUIT SHALL BE PRODUCED TO ANSI SPECIFICATIONS C80.1, FEDERAL SPECIFICATION WW-C-581 AND SHALL BE LISTED WITH THE UNDERWRITERS' LABORATORIES. FITTINGS SHALL BE THREADED – SET SCREW OR COMPRESSION FITTINGS WILL NOT BE ACCEPTABLE. RGS CONDUITS SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND.

B. UNDERGROUND CONDUIT SHALL BE POLYVINYLCHLORIDE (PVC) SUITABLE FOR DIRECT BURIAL AS APPLICABLE. JOINTS SHALL BE BELLED, AND FLUSH SOLVENT WELDED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE CARLON ELECTRICAL PRODUCTS OR APPROVED EQUAL.

C. TRANSITIONS BETWEEN PVC AND RIGID (RGS) SHALL BE MADE WITH PVC COATED METALLIC LONG SWEEP RADIUS ELBOWS.

D. EMT OR RIGID GALVANIZED STEEL CONDUIT MAY BE USED IN FINISHED SPACES CONCEALED IN WALLS AND CEILINGS. EMT SHALL BE MILD STEEL, ELECTRICALLY WELDED, ELECTRO-GALVANIZED OR HOT-DIPPED GALVANIZED AND PRODUCED TO ANSI SPECIFICATION C80.3, FEDERAL SPECIFICATION WW-C-563, AND SHALL BE UL LISTED. EMT SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND, OR APPROVED EQUAL. FITTINGS SHALL BE METALLIC COMPRESSION. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE.

E. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR FINAL CONNECTION TO EQUIPMENT. FITTINGS SHALL BE METALLIC GLAND TYPE COMPRESSION FITTINGS, MAINTAINING THE INTEGRITY OF CONDUIT SYSTEM. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL NOT EXCEED 6-FEET. LFMC SHALL BE PROTECTED AND SUPPORTED AS REQUIRE BY NEC. MANUFACTURERS OF FLEXIBLE CONDUITS SHALL BE CAROL, ANACONDA METAL HOSE OR UNIVERSAL METAL HOSE, OR APPROVED EQUAL.

F. MINIMUM SIZE CONDUIT SHALL BE 3/4 INCH (21MM).

HUBS AND BOXES:

A. AT ENTRANCES TO CABINETS OR OTHER EQUIPMENT NOT HAVING INTEGRAL THREADED HUBS PROVIDE METALLIC THREADED HUBS OF THE SIZE AND CONFIGURATION REQUIRED. HUB SHALL INCLUDE LOCKNUT AND NEOPRENE O-RING SEAL. PROVIDE IMPACT RESISTANT 105 DEGREE C PLASTIC BUSHINGS TO PROTECT CABLE INSULATION.

B. CABLE TERMINATION FITTINGS FOR CONDUIT

1. CABLE TERMINATORS FOR RGS CONDUITS SHALL BE TYPE CRC BY O-Z/GEDNEY OR EQUAL.
2. CABLE TERMINATORS FOR LFMC SHALL BE ETCO – CL2075; OR MADE FOR THE PURPOSE PRODUCTS BY ROXTEC.

C. EXTERIOR PULL BOXES AND PULL BOXES IN INTERIOR INDUSTRIAL AREAS SHALL BE PLATED CAST ALLOY, HEAVY DUTY, WEATHERPROOF, DUST PROOF, WITH GASKET, PLATED IRON ALLOY COVER AND STAINLESS STEEL COVER SCREWS, CROUSE-HINDS WAB SERIES OR EQUAL.

D. CONDUIT OUTLET BODIES SHALL BE PLATED CAST ALLOY WITH SIMILAR GASKETED COVERS. OUTLET BODIES SHALL BE OF THE CONFIGURATION AND SIZE SUITABLE FOR THE APPLICATION. PROVIDE CROUSE-HINDS FORM 8 OR EQUAL.

E. MANUFACTURER FOR BOXES AND COVERS SHALL BE HOFFMAN, SQUARE "D", CROUSE-HINDS, COOPER, ADALET, APPLETON, O-Z GEDNEY, RACO, OR APPROVED EQUAL.

SUPPLEMENTAL GROUNDING SYSTEM

A. FURNISH AND INSTALL A SUPPLEMENTAL GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS. SUPPORT SYSTEM WITH NON-MAGNETIC STAINLESS STEEL CLIPS WITH RUBBER GROMMETS. GROUNDING CONNECTORS SHALL BE TINNED COPPER WIRE, SIZES AS INDICATED ON THE DRAWINGS. PROVIDE STRANDED OR SOLID BARE OR INSULATED CONDUCTORS AS INDICATED.

B. SUPPLEMENTAL GROUNDING SYSTEM: ALL CONNECTIONS TO BE MADE WITH CAD WELDS, EXCEPT AT EQUIPMENT USE LUGS OR OTHER AVAILABLE GROUNDING MEANS AS REQUIRED BY MANUFACTURER; AT GROUND BARS USE TWO HOLE SPADES WITH NO OX.

C. STOLEN GROUND-BARS: IN THE EVENT OF STOLEN GROUND BARS, CONTACT SPRINT CM FOR REPLACEMENT INSTRUCTION USING THREADED ROD KITS.

EXISTING STRUCTURE:

A. EXISTING EXPOSED WIRING AND ALL EXPOSED OUTLETS, RECEPTACLES, SWITCHES, DEVICES, BOXES, AND OTHER EQUIPMENT THAT ARE NOT TO BE UTILIZED IN THE COMPLETED PROJECT SHALL BE REMOVED OR DE-ENERGIZED AND CAPPED IN THE WALL, CEILING, OR FLOOR SO THAT THEY ARE CONCEALED AND SAFE. WALL, CEILING, OR FLOOR SHALL BE PATCHED TO MATCH THE ADJACENT CONSTRUCTION.

CONDUIT AND CONDUCTOR INSTALLATION:

A. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

B. CONDUCTORS SHALL BE PULLED IN ACCORDANCE WITH ACCEPTED GOOD PRACTICE.

PLANS PREPARED FOR:

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PLANS PREPARED BY:

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KEVIN L. VANMAELE LICENSED
22105
KANSAS
PROFESSIONAL ENGINEER

ENGINEERING LICENSES:

STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

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REJ ROBERT E. JENSEN
16096 STRUCTURAL/CIVIL SC

TMS TERRANCE M. SUPER
9250 ELECTRICAL E

SDK SHELTON D. KEISLING
13654 ELECTRICAL E

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/12/14	TJD	0

SITE NAME:

PRAIRIE VILLAGE
CITY MONOPOLE

SITE CASCADE:

KC60XC727

SITE ADDRESS:

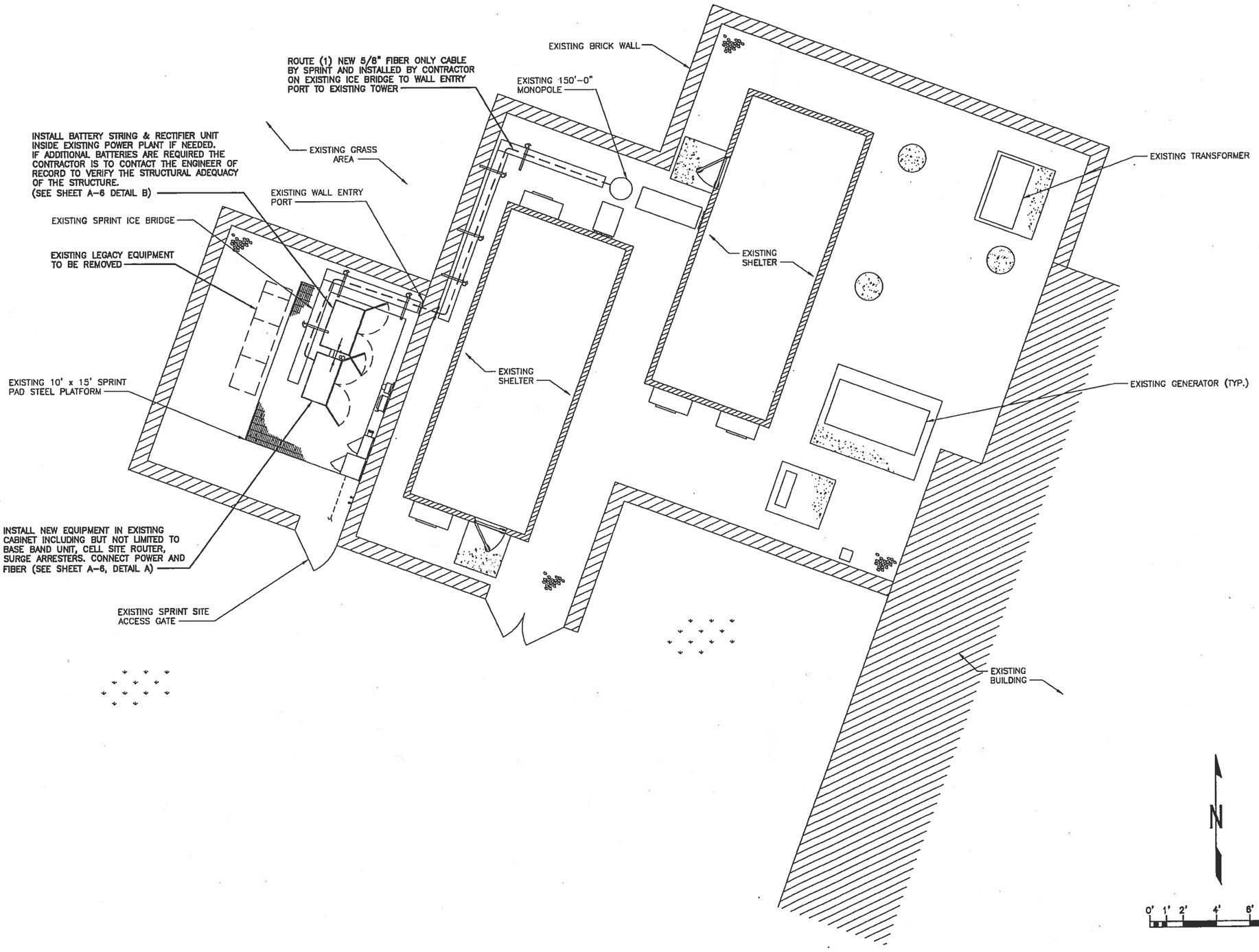
7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

SHEET DESCRIPTION:

SPECIFICATIONS

SHEET NUMBER:

SP-2



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KEVIN VANMAELE LICENSED 22105 KANSAS PROFESSIONAL ENGINEER

OEM:

ENGINEERING LICENSE:

STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

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KV KEVIN VANMAELE
22105 STRUCTURAL/CIVIL SC

REJ ROBERT E. JENSEN
16098 STRUCTURAL/CIVIL SC

TMS TERRANCE M. SUPER
9250 ELECTRICAL E

SDK SHELTON D. KEISLING
13684 ELECTRICAL E

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/12/14	TJD	0

SITE NAME:

PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE:

KC60XC727

SITE ADDRESS:

7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

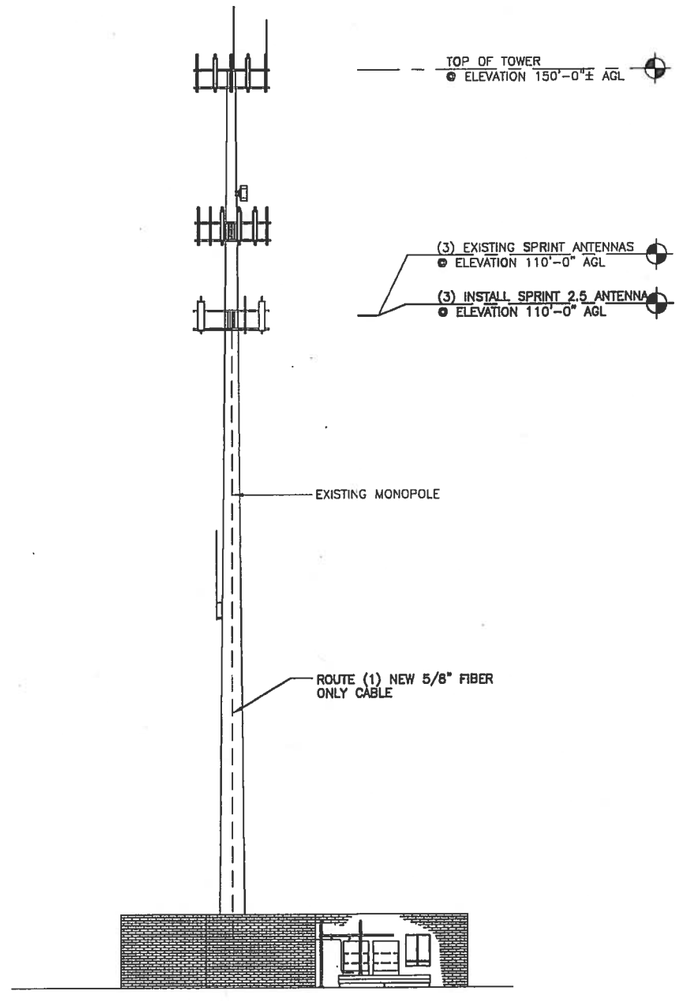
SHEET DESCRIPTION:

EQUIPMENT PLAN

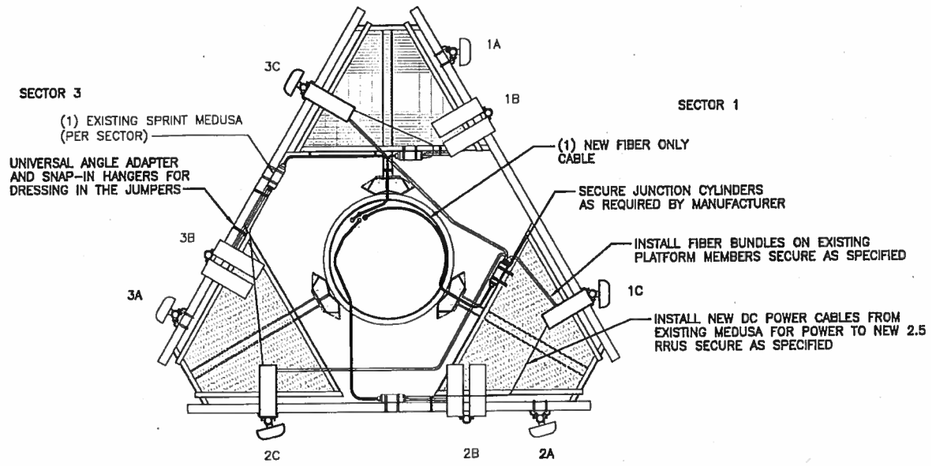
SHEET NUMBER:

A-1

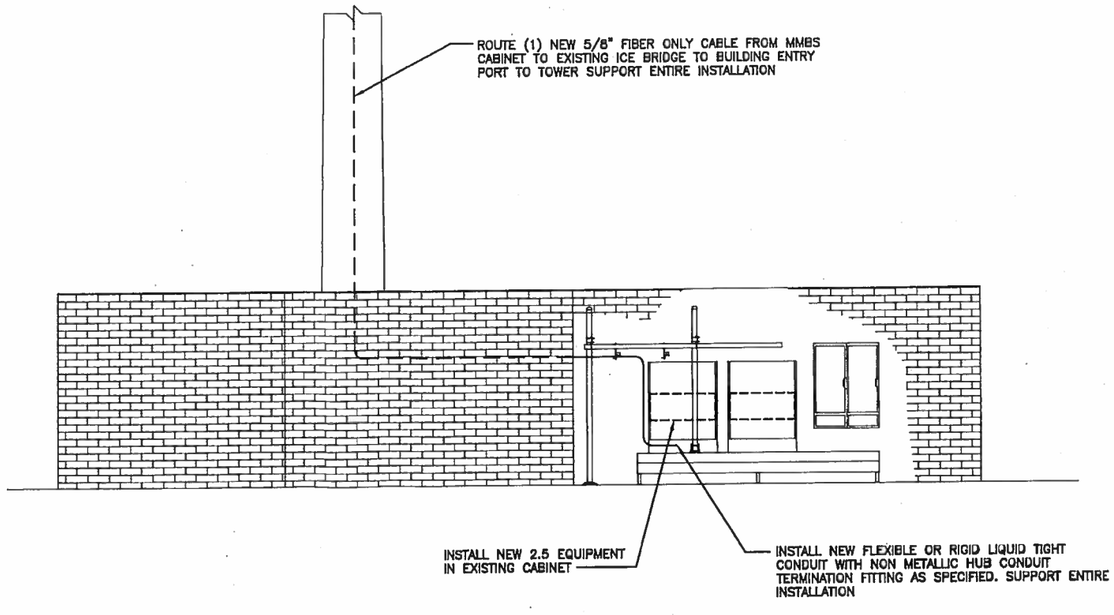
STRUCTURAL TOWER ANALYSIS HAS BEEN PERFORMED BY SSC CO. REPORT DATED 03/07/14. CONTRACTOR SHALL OBTAIN A COPY OF THIS REPORT AND SHALL FOLLOW ALL REPORT RECOMMENDATIONS.



SITE ELEVATION | NO SCALE | C



TYPICAL FIBER ONLY CABLE PLAN | NO SCALE | A



CABLE ROUTE FROM CABINET | NO SCALE | B

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PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

MLO MICHAEL L. OWENS 16917 STRUCTURAL/CIVIL SC
KV KEVIN VANMAELE 22105 STRUCTURAL/CIVIL SC
REJ ROBERT E. JENSEN 16098 STRUCTURAL/CIVIL SC
TMS TERRANCE M. SUPER 9250 ELECTRICAL E
SDK SHELTON D. KEISLING 13654 ELECTRICAL E

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/12/14	TJD	0

SITE NAME:

PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE:

KC60XC727

SITE ADDRESS:

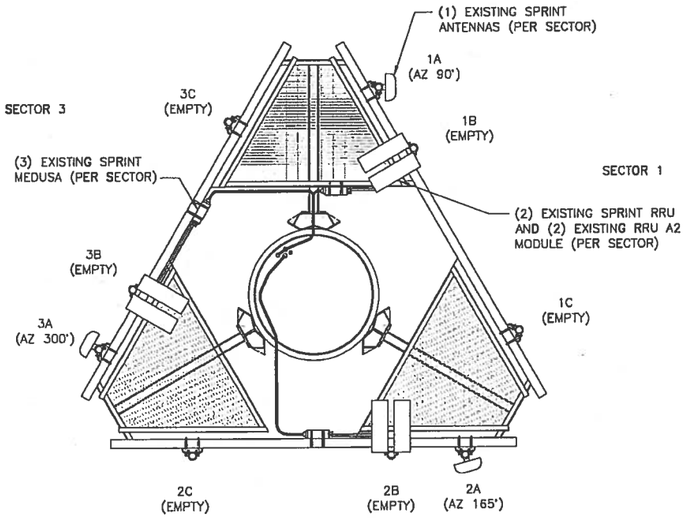
7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

SHEET DESCRIPTION:

TOWER ELEVATION & CABLE PLAN

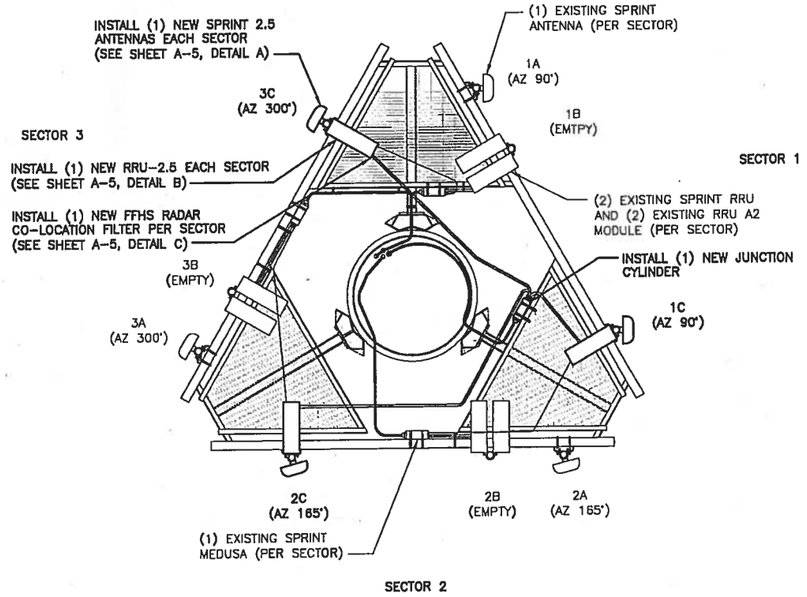
SHEET NUMBER:

A-2



0° = TRUE NORTH

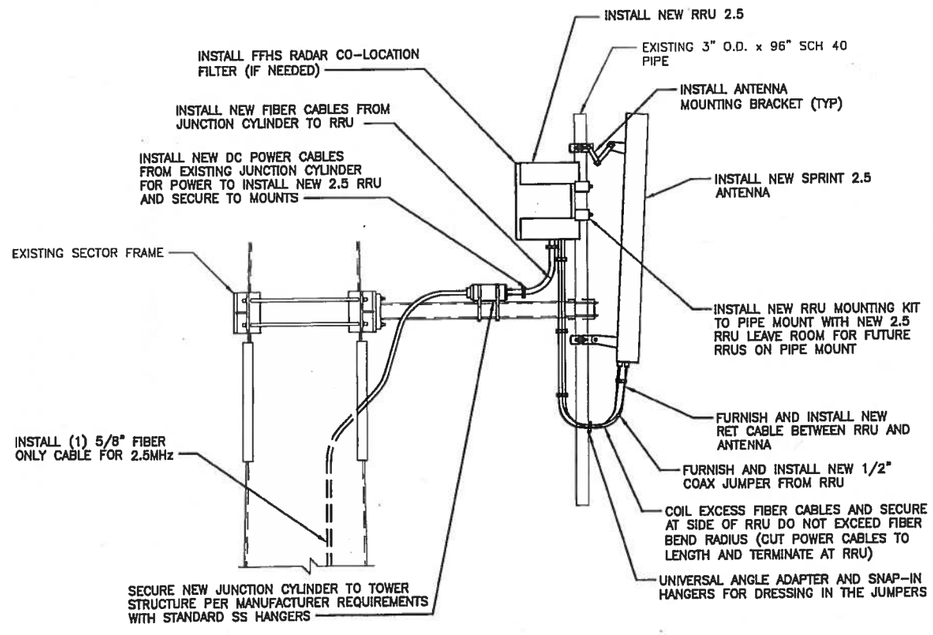
EXISTING ANTENNA AND RRU LAYOUT @ 110' | NO SCALE | C



0° = TRUE NORTH

FINAL ANTENNA AND RRU LAYOUT @ 110' | NO SCALE | A

DETAIL NOT USED | NO SCALE | D



2.5 GHz ANTENNA MOUNTING DETAILS | NO SCALE | B

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

SSC
9900 West 109th Street, Suite 300
Overland Park, Kansas 66210
Phone: 913-438-7700, Fax: 913-438-7777

KEVIN VANMAELE LICENSED 22105 KANSAS PROFESSIONAL ENGINEER

ENGINEERING LICENSE:
STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

MLO MICHAEL L. OWENS 16917 STRUCTURAL/CIVIL SC
KV KEVIN VANMAELE 22105 STRUCTURAL/CIVIL SC
REJ ROBERT E. JENSEN 16098 STRUCTURAL/CIVIL SC
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SITE NAME:
PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE:
KC60XC727

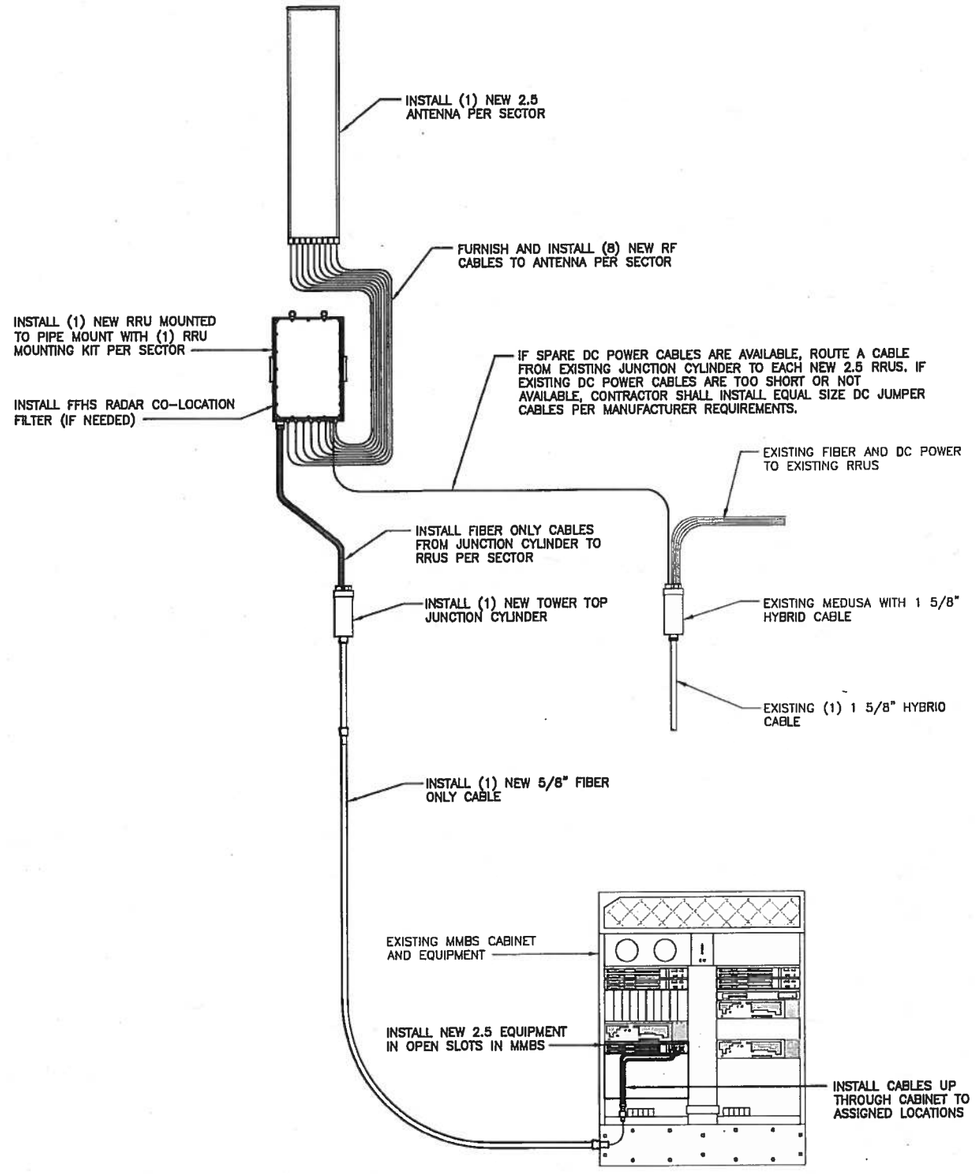
SITE ADDRESS:
7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

SHEET DESCRIPTION:
ANTENNA LAYOUT & MOUNTING DETAILS

SHEET NUMBER:
A-3

INSTALLED ANTENNA SCHEDULE

SECTOR	MODEL NUMBER	ANTENNA MANUFACTURER	SURGE PROTECTOR	NUMBER OF FIBER ONLY CABLES	AZIMUTH	RAD CENTER	ELECT D-TILT	MECH D-TILT	RRU MODEL	RRU MANUFACTURER	FILTER MODEL	FILTER MANUFACTURER	JUMPER SIZE	JUMPER QTY	JUMPER LENGTH
1	TYDA-252718DER4-65P	COMMSCOPE	2 PER SECTOR	SHARED CABLE ALL SECTORS	90°	110'	-2	0	FZHJ (AKA FZHE++)	NSN	FFHS	NSN	1/2	9	8 FEET
2	TYDA-252718DER4-65P	COMMSCOPE	2 PER SECTOR		165°	110'	-2	0	FZHJ (AKA FZHE++)	NSN	FFHS	NSN	1/2	9	8 FEET
3	TYDA-252718DER4-65P	COMMSCOPE	2 PER SECTOR		300°	110'	-2	0	FZHJ (AKA FZHE++)	NSN	FFHS	NSN	1/2	9	8 FEET



2500MHz COLOR CODE							
2500MHz #1 CAL CABLE-SECTOR	CABLE	FIRST RING	SECOND RING	THIRD RING	FORTH RING	FIFTH RING	SIXTH RING
1 ALPHA	1	YELLOW	BLACK	YELLOW	WHITE	BLACK	BLACK
2 BETA	2	YELLOW	YELLOW	BLACK	YELLOW	WHITE	BLACK
3 GAMMA	3	YELLOW	YELLOW	YELLOW	BLACK	YELLOW	WHITE
2500MHz #2 CAL CABLE-SECTOR	CABLE	FIRST RING	SECOND RING	THIRD RING	FORTH RING	FIFTH RING	SIXTH RING
1 ALPHA	1	YELLOW	BLACK	YELLOW	PURPLE	BLACK	BLACK
2 BETA	2	YELLOW	YELLOW	BLACK	YELLOW	PURPLE	BLACK
3 GAMMA	3	YELLOW	YELLOW	YELLOW	BLACK	YELLOW	PURPLE

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

SSC
8900 West 109th Street, Suite 300
Overland Park, Kansas 66210
Phone: (913) 338-7780 Fax: (913) 438-7777

OEM:

KEVIN VANMAELE LICENSED 22105 KANSAS PROFESSIONAL ENGINEER

ENGINEERING LICENSE:

STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

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REJ ROBERT E. JENSEN 16096 STRUCTURAL/CIVIL SC
TMS TERRANCE M. SUPER 9250 ELECTRICAL E
SDK SHELTON D. KEISLING 13654 ELECTRICAL E

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REVISIONS:

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ISSUED FOR REVIEW	03/12/14	TJD	0

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PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE:

KC60XC727

SITE ADDRESS:

7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

SHEET DESCRIPTION:

RF DATA SHEET & EQUIPMENT INFORMATION

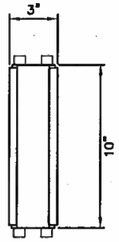
SHEET NUMBER:

A-4

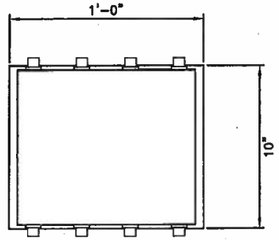
2.5 FILTER

NO SCALE

C



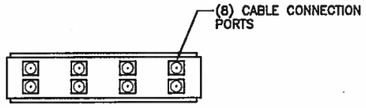
SIDE VIEW



FRONT VIEW

NSN FZHJ – RRH

DIMENSIONS, HxWxD.in(mm): 10"x12"x3"
WEIGHT: 15.5 lbs



PLAN VIEW

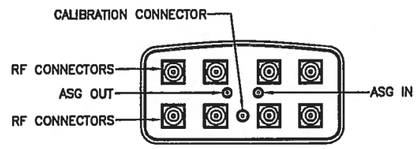
2.5 ANTENNA

NO SCALE

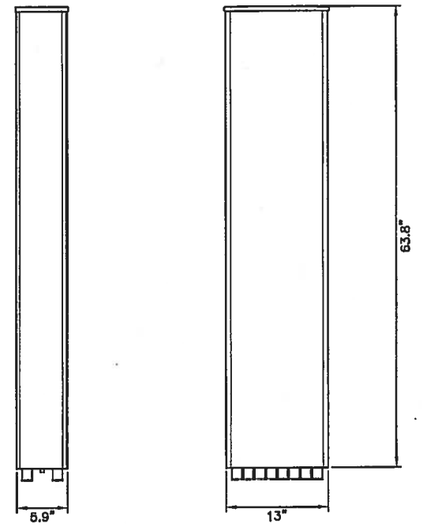
A

COMMSCOPE TTTT65AP-1XR

RADOME MATERIAL: UPVC
RADOME COLOR: LIGHT GRAY
DIMENSIONS, HxWxD.in(mm): 63.8"x13"x5.9" (1620x330x150mm)
WEIGHT: 54 lbs
CONNECTORS: 8x4.1/9.5 mini DIN-Female+1xN-Female



PLAN VIEW



DETAIL NOT USED

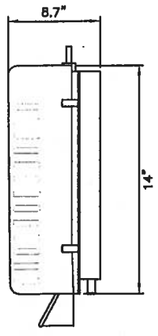
NO SCALE

D

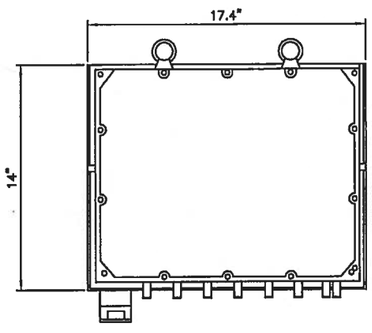
2.5 RRUS

NO SCALE

B



SIDE VIEW



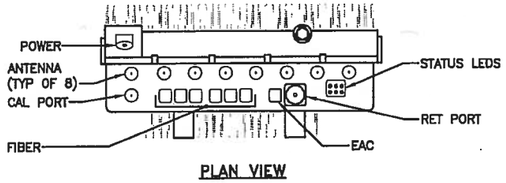
FRONT VIEW

NSN FZHJ – RRH

DIMENSIONS, HxWxD.in(mm): 8.7"x17.4"x14"
WEIGHT: 51 lbs

NOTES

COMPLY WITH MANUFACTURER'S INSTRUCTIONS TO ENSURE THAT ALL RRU'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRU PACKAGES IN THE RAIN



PLAN VIEW

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

SSC
9900 West 109th Street, Suite 300
Overland Park, Kansas 66210
Phone: 913-438-7700 Fax: 913-438-7777

OEM:

KEVIN VANMAELE LICENSED 22105 KANSAS PROFESSIONAL ENGINEER

ENGINEERING LICENSE:

STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

MLO MICHAEL L. OWENS
16917 STRUCTURAL/CIVIL SC

KV KEVIN VANMAELE
22105 STRUCTURAL/CIVIL SC

REJ ROBERT E. JENSEN
16098 STRUCTURAL/CIVIL SC

TNS TERRANCE N. SUPER
9250 ELECTRICAL E

SDK SHELTON D. KEISLING
13654 ELECTRICAL E

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/12/14	TJD	0

SITE NAME:

PRAIRIE VILLAGE
CITY MONOPOLE

SITE CASCADE:

KC60XC727

SITE ADDRESS:

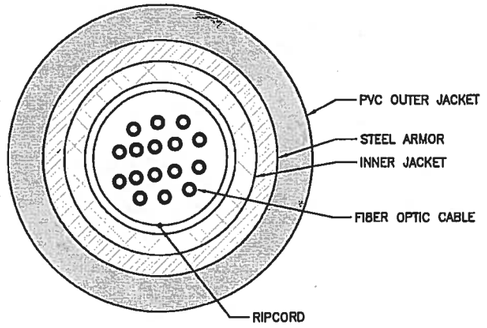
7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

SHEET DESCRIPTION:

EQUIPMENT DETAILS

SHEET NUMBER:

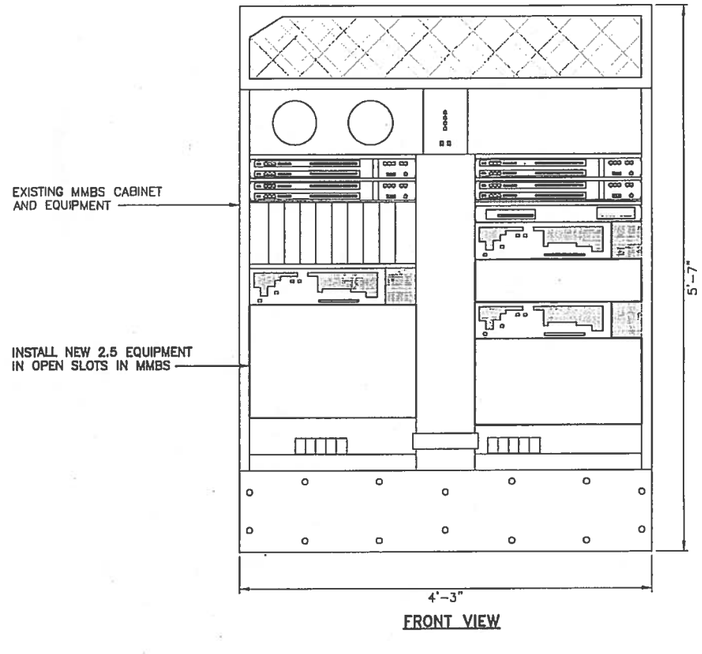
A-5



NOTE: CABLE CROSS-SECTION NOT DRAWN TO SCALE

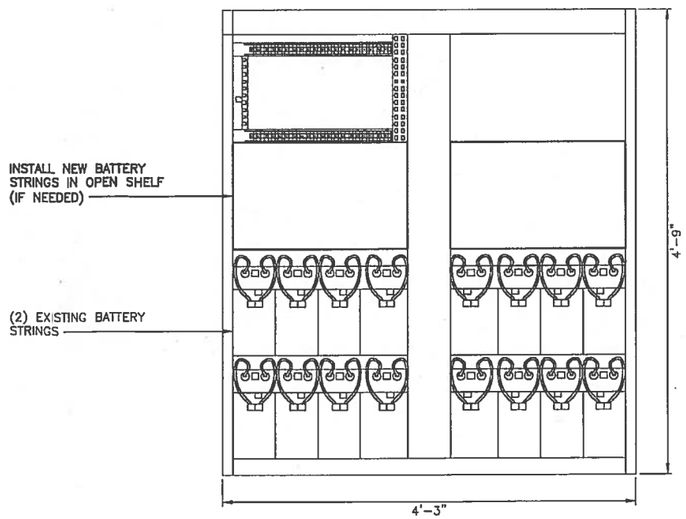
CABLE CONSTRUCTION		
ARMOR	STEEL TAPE	
FIBER CABLES	FIBER TYPE	OS2 BEND- INSENSITIVE LOW
	WATER-PEAK SINGLE MODE	G.657.A1
	FIBER COUNT	16
	FIBER OD	0.010" (0.25 mm)
	NORMAL DIAMETER	0.315" (8 mm)
	JACKET	LOW-SMOKE ZERO-HALOGEN
OUTER JACKET	MATERIAL	PVC-UV RESISTANT
	COLOR	BLACK
	NOMINAL WALL	0.065" (1.7 mm)
	NOMINAL OD	.644" (16.10 mm)
	RIPCORD UNDER JACKET	
	ULTC TC-OF	
	FT-4 (FIBER)	
OTHER CHARACTERISTICS		
	BENDING RADIUS	14 INCHES
	OPERATING TEMP. (FIBER)	-40°C TO 70°C
	STORAGE TEMP. (FIBER)	-40°C TO 75°C
	INSTALLATION TEMP. (FIBER)	-30°C TO 60°C
	MAXIMUM LONG TERM LOAD (FIBER)	800 N (180 LBF)
	MAXIMUM SHORT TERM LOAD (FIBER)	2700 N (600 LBF)
	ESTIMATED CABLE WEIGHT	0.25 LBS/FT

FIBER ONLY CABLE | NO SCALE | C



FRONT VIEW

EXISTING RACK WITH 2.5 EQUIPMENT | NO SCALE | A



FRONT VIEW

EXISTING POWER PLANT | NO SCALE | B

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

SSC

9900 West 109th Street, Suite 300
Overland Park, Kansas 66210
Phone: 913-438-7700 Fax: 913-438-7777

OEM:

KEVIN VANMAELE LICENSED 22105 KANSAS PROFESSIONAL ENGINEER

ENGINEERING DISCIPLINE:

STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

MLO MICHAEL L. OWENS
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22105 STRUCTURAL/CIVIL SC

REJ ROBERT E. JENSEN
16096 STRUCTURAL/CIVIL SC

TMS TERRANCE M. SUPER
9250 ELECTRICAL E

SDK SHELTON D. KEISLING
13654 ELECTRICAL E

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/12/14	TJD	0

SITE NAME:

PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE:

KC60XC727

SITE ADDRESS:

7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

SHEET DESCRIPTION:

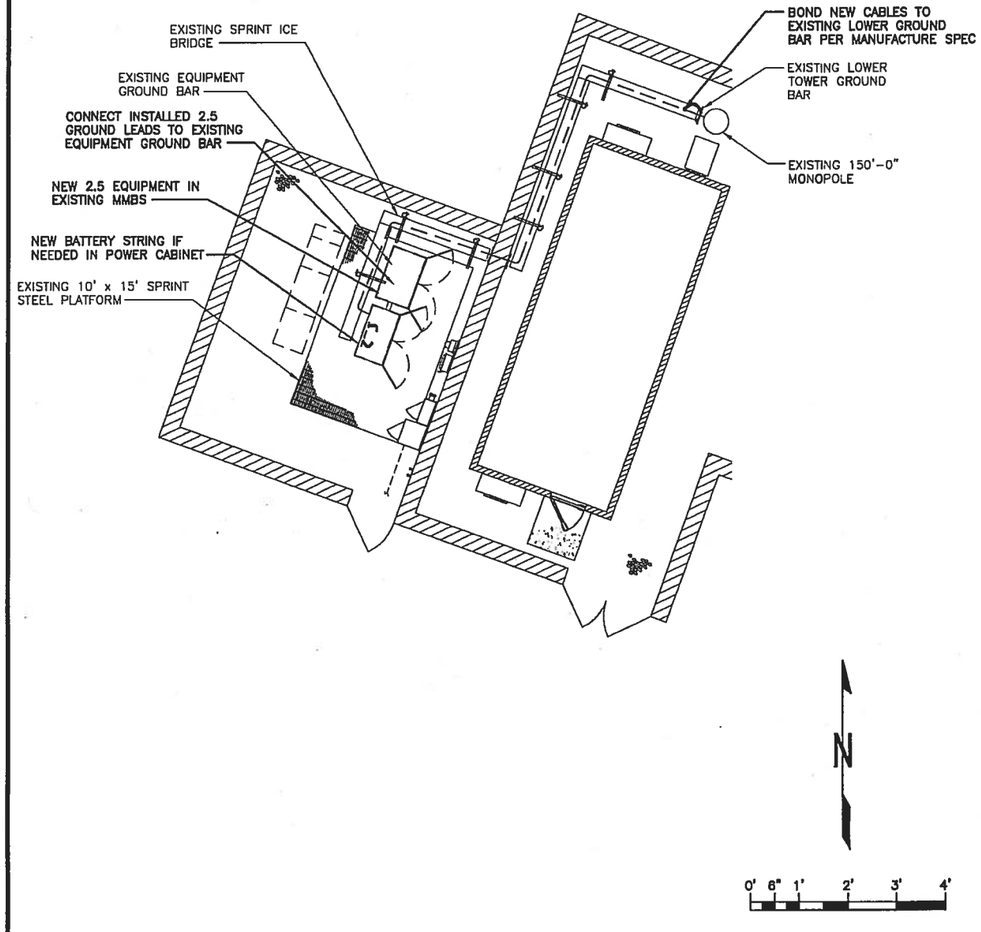
EQUIPMENT DETAILS

SHEET NUMBER:

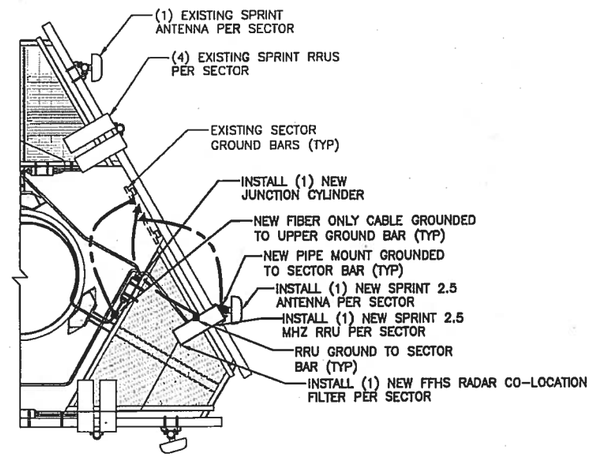
A-6

LEGEND:

- EXISTING GROUND RING
- (EXOTHERMIC WELD)
- MECHANICAL CONNECTION
- GROUND ROD



EQUIPMENT GROUNDING PLAN | NO SCALE | C



ANTENNA GROUNDING PLAN (TYP) | NO SCALE | A

DETAIL NOT USED | NO SCALE | B

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

SSC

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Overland Park, Kansas 66210
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OEM:

SHELTON D. KEISLING LICENSED 13654 KANSAS PROFESSIONAL ENGINEER

ENGINEERING LICENSE:

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PE CERTIFICATE OF AUTHORIZATION #E-571

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PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE:

KC60XC727

SITE ADDRESS:

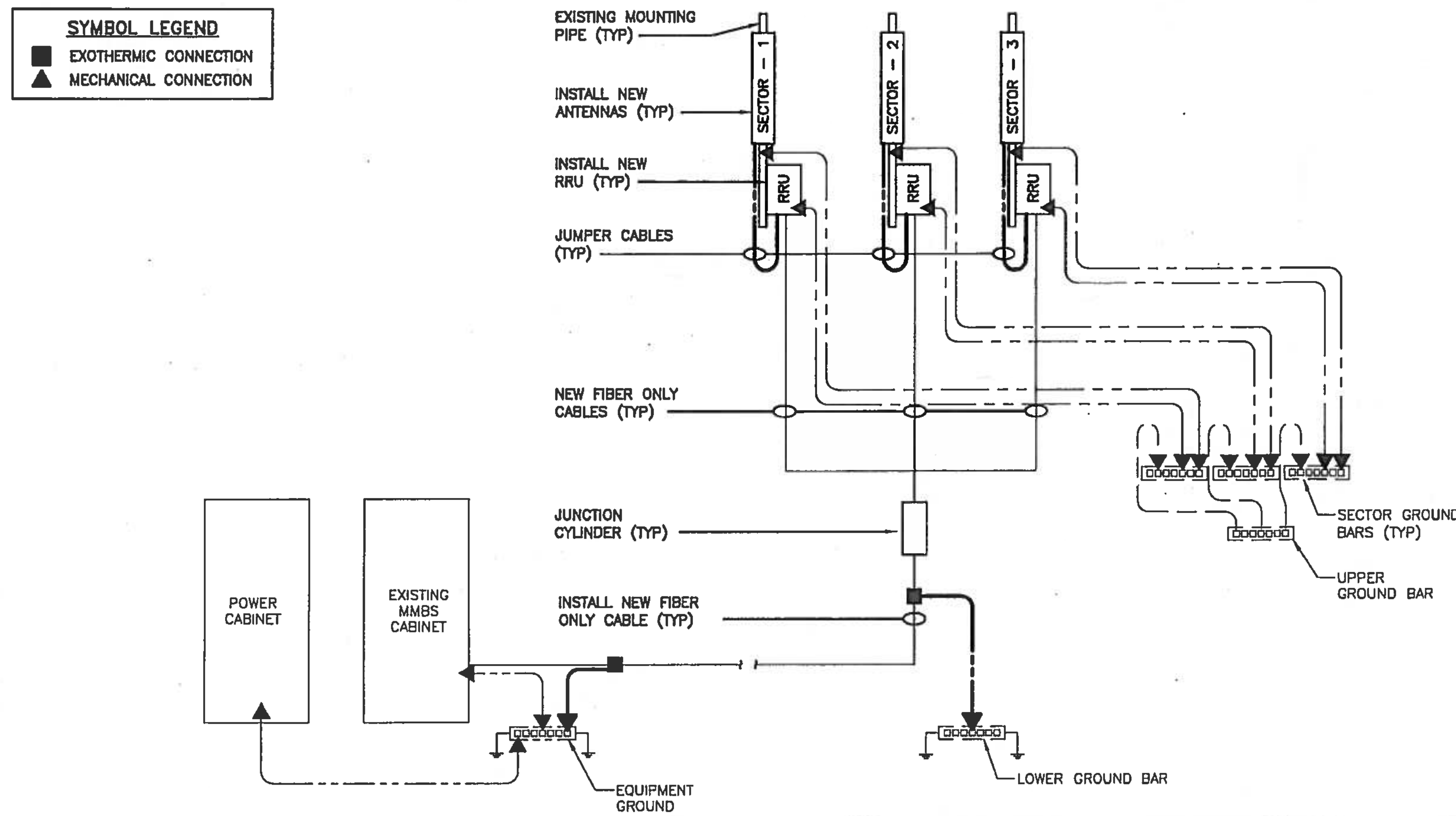
7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

SHEET DESCRIPTION:

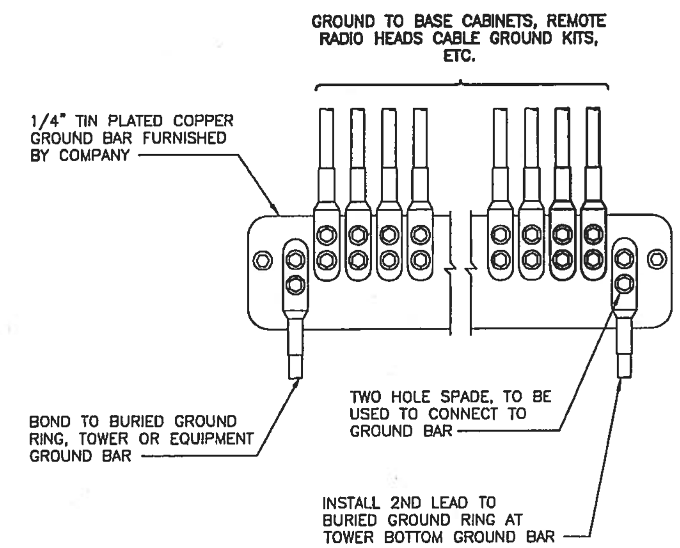
GROUNDING DETAILS

SHEET NUMBER:

E-1



TYPICAL GROUNDING RISER DIAGRAM | NO SCALE | C

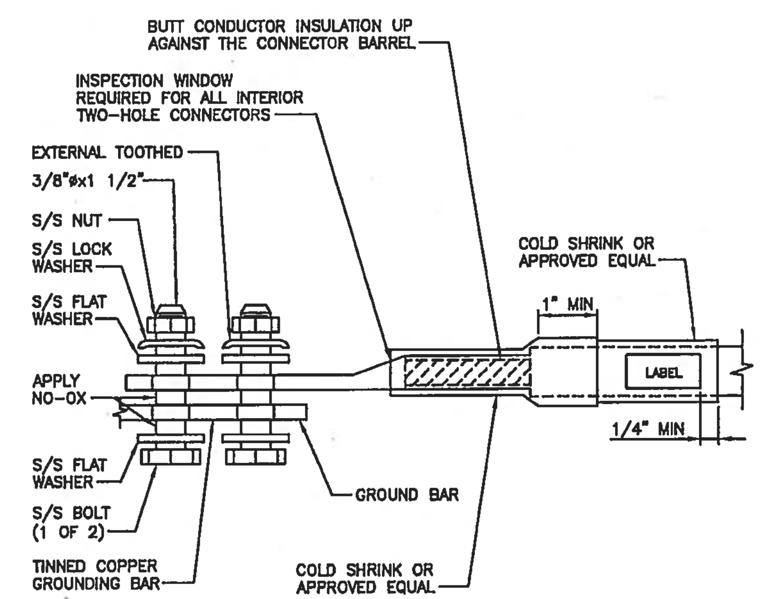


NOTES

1. APPLY NO-OX TO LUG AND BAR CONTACT SURFACE. DO NOT COAT INLINE LUG.
2. IF STOLEN GROUND BARS ARE ENCOUNTERED, CONTACT SPRINT CM FOR REPLACEMENT THREADED ROD KIT.

2-HOLE SPADE CONNECTIONS AT GROUND BARS | NO SCALE | A

DETAIL NOT USED | NO SCALE | D



TWO HOLE LUG | NO SCALE | B

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

SSC
9900 West 109th Street, Suite 300
Overland Park, Kansas 66210
Phone: 913-438-7700 Fax: 913-438-7777

SEAL: SHELTON D. KEISLING 13654 KANSAS PROFESSIONAL ENGINEER

ENGINEERING LICENSE:

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PE CERTIFICATE OF AUTHORIZATION #E-571

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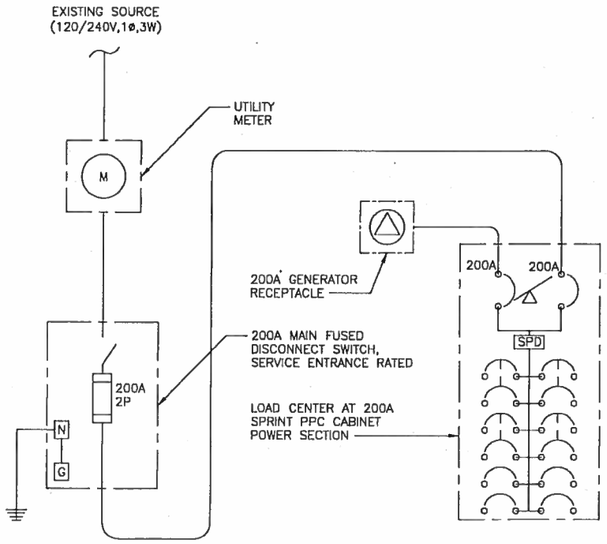
66208

SHEET DESCRIPTION:

GROUNDING DETAILS

SHEET NUMBER:

E-2



EXISTING PPC CIRCUIT BREAKER LOAD CENTER

SITE NUMBER:	KC60XC727			PHASE:		SINGLE		WIRE:	3
VOLTAGE:	240V/120			BUS RATING:		225 AMPS		AIC:	10KAIC
MAIN BREAKER:	200 AMP			NEUTRAL BAR:		YES		GROUND BAR:	TBD
				SERVICE ENTRANCE:		YES/NO			
CKT	LOAD DESCRIPTION	BREAKER AMPS	BREAKER POLES	PHASE A VA	PHASE B VA	BREAKER POLES	BREAKER AMPS	LOAD DESCRIPTION	CKT
1	UNKNOWN	---	---	N/A		---	---	UNKNOWN	2
3	UNKNOWN	---	---		N/A	---	---	UNKNOWN	4
5	UNKNOWN	---	---	N/A		---	---	UNKNOWN	6
7	UNKNOWN	---	---		N/A	---	---	UNKNOWN	8
9	UNKNOWN	---	---	N/A		---	---	UNKNOWN	10
11	UNKNOWN	---	---		N/A	---	---	UNKNOWN	12
13	UNKNOWN	---	---	---		---	---	UNKNOWN	14
15	UNKNOWN	---	---		---	---	---	UNKNOWN	16
17	UNKNOWN	---	---	---		---	---	UNKNOWN	18
19	UNKNOWN	---	---		---	---	---	UNKNOWN	20
21	UNKNOWN	---	---	---		---	---	UNKNOWN	22
23	UNKNOWN	---	---		---	---	---	UNKNOWN	24
				0	0	TOTAL KVA	0.00	TOTAL CONNECTED LOAD	
						AMPS	0.00		

- CONTRACTOR SHALL VERIFY LOADS AND BREAKER SIZES AND CORRECT ON AS-BUILT DRAWINGS
- NO PHOTOS OF INSIDE PPC

EXISTING ELECTRICAL ONE-LINE DIAGRAM & LOAD CENTER — NO SCALE — A

DC POWER CONVERTERS & RECTIFIERS DATA SHEET

Sprint Cascade: KC60XC727
Location Name: PRAIRIE VILLAGE CITY MONOPOLE
Date Completed: 10/1/2013

Power Distribution Unit / Converters

Nameplate Information

Manufacturer: Ericsson
Model No.: BMG 980 336/6
Serial No.: N/A

PDU / Converter Information

PDU / Converter #	Volt Rating, VDC (24 or 48)	Mfr Part #		Amp Reading, (if possible)	Mfr Serial # (If Possible)
1	48	BMG 980 336/6			XO51645748
2	48	BMG 980 336/6			XO51633137
3	48	BMG 980 336/6			XO51626316
4	48	BMG 980 336/6			XO51448461
5	48	BMG 980 336/6			XO51525644
6	48	BMG 980 336/6			XO51444094
7	48	BMG 980 336/6			XO51525595
8					
9					
10					

Rectifiers

Nameplate Information

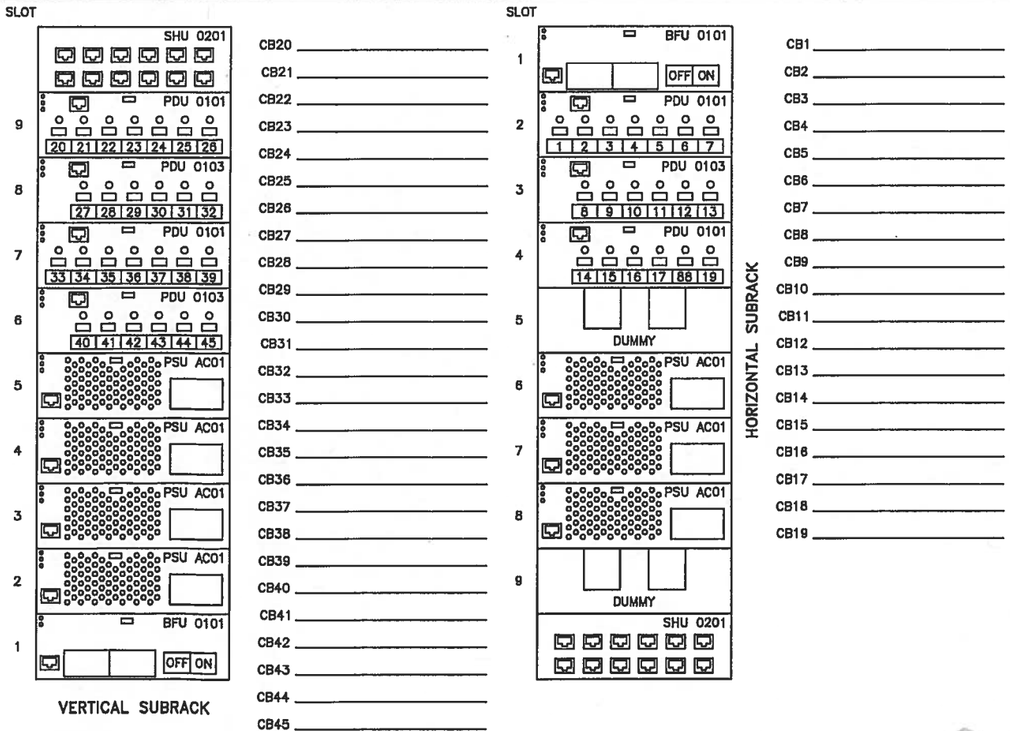
Manufacturer: Ericsson
Model No.: BML 161 174/1
Serial No.: N/A

Rectifier Information

Voltage READING, VDC:	54
Number of existing rectifiers:	7
How many rectifier shelves are there?:	2
Is there room for another rectifier shelf if required? (Yes/No)	YES
How many open slots are there for more rectifiers?:	1
Is there a 1-hole or 2 hole lug to tap onto existing bus bar?:	NEITHER

1-hole
2-hole
Neither
Both
Other

CONTRACTOR TO FIELD VERIFY ALL DC CONNECTIONS AND LOCATIONS. SO THEY CAN BE CALLED OUT AND LABELED.



EXISTING DC DISTRIBUTION — NO SCALE — B

PLANS PREPARED FOR:

Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

SSC
9900 West 109th Street, Suite 300
Overland Park, Kansas 66210
Phone: 913-438-7700 Fax: 913-438-7777

ENGINEERING LICENSE:

STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:

MLO MICHAEL L. OWENS
16917 STRUCTURAL/CIVIL SC

KV KEVIN VANMAELE
22105 STRUCTURAL/CIVIL SC

REJ ROBERT E. JENSEN
16098 STRUCTURAL/CIVIL SC

TWS TERRANCE W. SUPER
9250 ELECTRICAL E

SOK SHELTON D. KEISLING
13654 ELECTRICAL E

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/12/14	TJD	0

SITE NAME:

PRAIRIE VILLAGE CITY MONOPOLE

SITE CASCADE:

KC60XC727

SITE ADDRESS:

7700 MISSION ROAD
PRAIRIE VILLAGE, KS
66208

SHEET DESCRIPTION:

DC POWER & DISTRIBUTION

SHEET NUMBER:

E-3

LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: May 6, 2014, Planning Commission Meeting Project # 000009686

Application: PC 2014-112

Request: Site Plan Approval to Add Three New Antennas and Remove Equipment Cabinets

Property Address: 7231 Mission Road (St. Ann's Church)

Applicant: Spring

Current Zoning and Land Use: R-1B Single-Family Residential District – Church

Surrounding Zoning and Land Use:
North: R-1B Single-Family District – Windsor Park
RP-3 Planned Garden Apartment District - Apartments
East: R-1B Single-Family District – Single Family Dwellings
South: R-1B Single-Family District – Single Family Dwellings
C-O Office Building District - Offices
West: R-1B Single-Family District – Single Family Dwellings

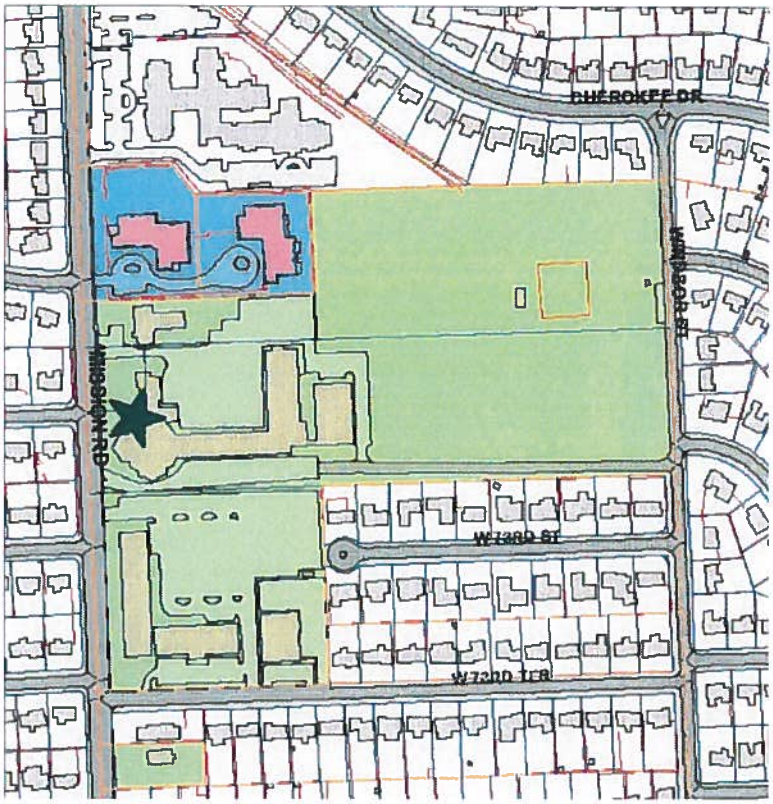
Legal Description: Metes and Bounds – Unplatted

Property Area: 9.70 acres

Related Case Files:
PC 2011-122 Site Plan Approval for Sprint
PC 2010-113 Monument Sign Approval – Windsor Street
PC 2009-209 Site Plan Approval for Clearwire
PC 2007-120 Monument Sign Approval
PC 2006-11 Special Use Permit Renewal Sprint/Nextel
PC 2001-06 Special Use Permit for Nextel
PC 96-06 Conditional Use Permit for Sprint
PC 87-104 Site Plan Approval for Church Expansion

Attachments: Application, Site Plan, Project Photos

General Location Map



Aerial Map

STAFF COMMENTS:

Sprint is requesting Site Plan Approval to add three antenna panels to the tower at St. Ann's Church and remove three equipment boxes. Currently there are three antenna panels located on the stone panels of the steeple. All the antennas on the brick portion of the steeple have been removed.

In December 2011, the Planning Commission approved the replacement of three antennas and the addition of three new antennas. At that time there were 12 antennas on the steeple. All but three of those antennas have been removed. The brick portion of the steeple has been repaired more satisfactorily than the stone panels. The stone panels need to be cleaned and repaired where the antennas have been removed. At that time, the three equipment cabinets were to be removed within 12 months. The equipment cabinets need to be removed so that adequate space is available in the equipment compound to provide space for other providers.

The applicant has submitted a structural report concluding that the steeple is adequate to support the load of the existing and proposed installation. Actually, the number of antennas and supporting equipment will be less than it was in 2011.

In 1996, the Planning Commission approved a Conditional Use Permit for Sprint on the St. Ann's steeple/tower with the equipment boxes contained within a brick wall extending from the building. In 2001, a Special Use Permit was approved for Nextel. Nextel and Sprint merged and a renewal of the Special Use Permit was approved for Sprint/Nextel in 2006. In 2009 a Site Plan was approved for a Clearwire installation under the new Wireless Communications Ordinance. St. Ann's Church is a stealth wireless communication installation and therefore, under the new ordinance, only requires Site Plan Approval.

Since this is a minor change in the installation, the applicant was not required to hold a neighborhood meeting.

The Planning Commission shall give consideration to the following criteria in approving or disapproving a site plan:

A. **The site is capable of accommodating the building, parking areas and drives with appropriate open space and landscape.**

   The capability of the site to accommodate the equipment compound was addressed in the previous approval of the Conditional Use and Special Use Permits.

B. **Utilities are available with adequate capacity to serve the proposed development.**

   Adequate utilities are available to serve this location.

C. **The plan provides for adequate management of stormwater runoff.**

   The amount of impervious area will not be changed and, therefore, will not have an impact on stormwater runoff.

D. **The plan provides for safe and easy ingress, egress, and internal traffic circulation.**

   The site utilizes the existing driveway and parking lot for circulation that currently serves it and no changes are proposed.

E. **The plan is consistent with good land planning and good site engineering design principles.**

This is a stealth installation and the details of the overall design of the equipment compound and antennas were worked out on the approval of the Conditional Use Permit and subsequent Special Use Permits.

F. **An appropriate degree of compatibility will prevail between the architectural quality of the proposed building and the surrounding neighborhood.**

This is a stealth installation and the antennas have a very minor impact on the appearance of the church steeple. The equipment cabinets have been incorporated into a brick walled area that is attached to the building and it is not noticeable from the street. The installation has been incorporated into the steeple in a manner so that its visual impact is minimal. The brick and stone surfaces of the steeple need to be cleaned and repaired where the antennas have been removed to improve the appearance.

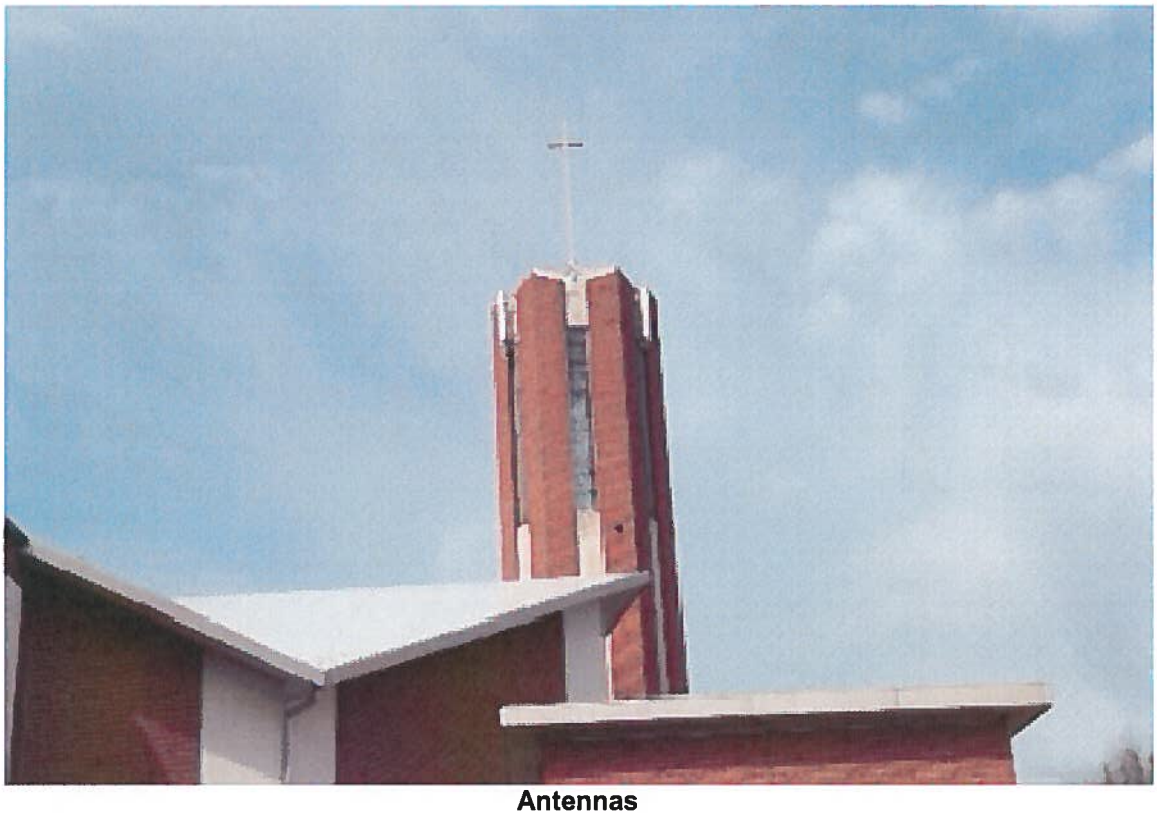
G. **The plan represents an overall development pattern that is consistent with the comprehensive plan and other adopted planning policies.**

Wireless communications are not specifically addressed in Village Vision. Generally it falls into maintaining and improving infrastructure.

RECOMMENDATION:

It is the recommendation of Staff that the Planning Commission approve the proposed site plan for Sprint subject to the following conditions:

1. That the antennas be installed as shown on the proposed site plan.
2. That all wiring be contained inside the church steeple.
3. That all equipment and wiring shall be below the screening wall.
4. That the three existing equipment cabinets shall be removed immediately.
5. That the applicant clean and repair the surfaces where the antennas have been removed and restore the surfaces to the original condition.
6. That the new antennas shall be painted a color that blends with the brick and stone on the church steeple so that their visibility is minimized.



Antennas

Antennas

Equipment Compound

CITY OF PRAIRIE VILLAGE
The Star of Kansas

Planning Commission Application

For Office Use Only	
Case No.:	PC 2014-112
Filing Fee:	
Deposit:	
Date Advertised:	
Date Notices Sent:	
Public Hearing Date:	5/6/14

Please complete this form and return with Information requested to:

Assistant City Administrator
City of Prairie Village
7700 Mission Rd.
Prairie Village, KS 66208

Applicant: SSL, agent for Sprint Phone Number: 913.438.7700

Address: 9900 W. 109th St., #300, OPKS 66210 E-Mail janderson@ssc.us.com

Owner: Roman Cathdic Archdiocese Phone Number: 913.362.3843

Address: 7231 Mission Rd. Zip: 66208

Location of Property: 7231 Mission Rd.

Legal Description: See Attached

Applicant requests consideration of the following: (Describe proposal/request in detail) Removal of equipment cabinet, removal of 3 antennas, change 3 antennas and add fiber cable + remote radio unit (behind antennas)

AGREEMENT TO PAY EXPENSES

APPLICANT intends to file an application with the PRAIRIE VILLAGE PLANNING COMMISSION or the PRAIRIE VILLAGE BOARD OF ZONING APPEALS of the CITY OF PRAIRIE VILLAGE, KANSAS (City) for Site Plan for a wireless communication facility.
As a result of the filing of said application, CITY may incur certain expenses, such as publication costs, consulting fees, attorney fees and court reporter fees.

APPLICANT hereby agrees to be responsible for and to CITY for all cost incurred by CITY as a result of said application. Said costs shall be paid within ten (10) days of receipt of any bill submitted by CITY to APPLICANT. It is understood that no requests granted by CITY or any of its commissions will be effective until all costs have been paid. Costs will be owing whether or not APPLICANT obtains the relief requested in the application.

Applicant's Signature/Date

Owner's Signature/Date

February 14, 2014

Attn: Hazel D. Mauro
Real Estate Manager
Sprint Corporation
6220 Sprint Parkway
Overland Park, KS 66251

Re: Sprint Site Name: KC03XC182, St Anns Church
Site Address: 7231 Mission Road, Prairie Village, KS 66208
Structure: Existing Church Steeple

Dear Ms. Mauro,

As requested, Selective Site Consultants, Inc. (SSC) has reviewed documents regarding the subject site in order to assess its structural capability to support the proposed antenna loadings. Documents reviewed include Fullerton Engineering Consultants final drawings dated 01-18-12, Fullerton Engineering Consultants structural letter dated 02-13-12, Fullerton Engineering Consultants structural analysis dated 09-23-11, Fullerton Engineering Consultants mapping report dated 09-16-11, AMF Electrical Contractors Rev 1 drawings dated 09-08-13 and current photos.

FINAL SPRINT LOADING CONFIGURATION

E/P[1]	Qty[2]	Manufacturer	Appurtenance Model	Dimensions (HxWxD, Wt)	CL Elev	Azimuth
P	1	Tongyu	TYDA-252718DER4-65P	63.8"x13.0"x5.9" 54.0#	75'	60°, 180°, 300°
P	1	NSN	FZHJ RRU	14.0"x17.4"x8.7" 51.0#	75'	60°, 180°, 300°
P	1	NSN	FFHS Filter	10"x12"x3" 15.5#	75'	60°, 180°, 300°
E	1	RFS	APXVERR18-C	72.0"x11.8"x7.0" 62.5#	75'	60°, 180°, 300°
E	1	Ericsson	800 MHz RRUs 11	17.8"x17.0"x9.2" 54.0#	75'	60°, 180°, 300°
E	2	Ericsson	1900 MHz RRUs 11	17.8"x17.0"x7.2" 44.0#	75'	60°, 180°, 300°

Notes:
1. P = Proposed , E = Existing
2. Quantity equals the number of antennas at each azimuth listed

MOUNTING CONFIGURATION

The proposed antennas are to be mounted on existing pipe mounts attached to the side of the church steeple.

9900 WEST 109TH STREET, SUITE 300
OVERLAND PARK, KANSAS 66210
p 913.438.7700
f 913.438.7777
ssc.us.com

STRUCTURE ANALYSIS

The structure is a brick façade steeple with a roof elevation of 84'-6". The proposed appurtenances will be located below the top of the steeple roof at a centerline elevation of 75'. The proposed antennas will be mounted on the outside of the steeple and will be within the projected surface area of the steeple. Therefore, the antennas will not produce significant additional wind load to the steeple structure. The other appurtenances will be mounted on the inside of the steeple and will not produce any wind load to the structure. The gravity loads of all the appurtenances will be insignificant when compared to the other loads on the steeple.

CONCLUSION

Assuming that the existing structure was built per all applicable codes and adequately supports the existing loads, it is the opinion of SSC that the existing structure will be adequate to support the proposed Sprint installation.

Thank you, and please feel free to contact us if you require further information.

Sincerely,

Nick Kufeldt, P.E.

Nick Kufeldt, P.E.

Sprint

PROJECT: 2.5 EQUIPMENT DEPLOYMENT

SITE NAME: ST. ANN'S CHURCH

SITE CASCADE: KC03XC182

SITE ADDRESS: 7231 MISSION ROAD
PRAIRIE VILLAGE, KS 66208

SITE TYPE: ROOFTOP

SITE INFORMATION

PROPERTY OWNER:
THE ROMAN CATHOLIC ARCHDIOCESE OK
KANSAS CITY IN KANSAS
7231 MISSION ROAD
PRAIRIE VILLAGE, KS 66208

LATITUDE (NAD83):
38° 59' 49.9194" N
38.9972°

LONGITUDE (NAD83):
94° 37' 99.94" W
-94.63000°

COUNTY:
JOHNSON

ZONING JURISDICTION:
N/A

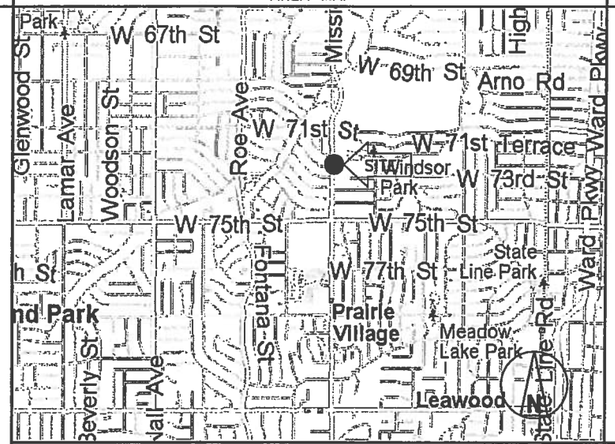
ZONING DISTRICT:
PRAIRIE VILLAGE, KS

POWER COMPANY:
KCP&L

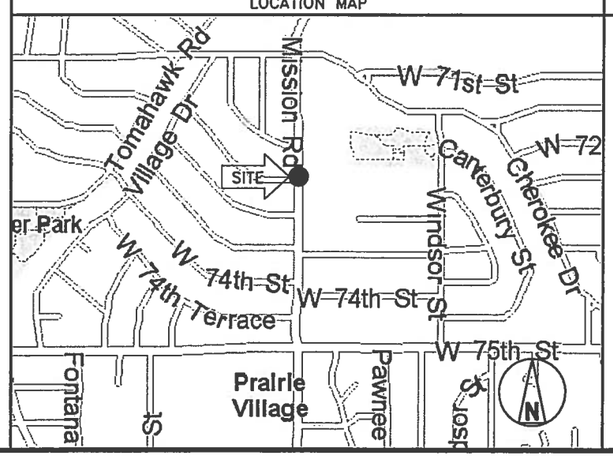
AAV PROVIDER:
TWC

SPRINT CM:

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

- INSTALL (1) NEW FSIH BBU KIT IN EXISTING N.V. CABINET
- INSTALL (1) NEW .867" 48 COUNT FIBER ONLY CABLE
- INSTALL (3) NEW 2.5 FZHJ RRUS
- INSTALL (36) NEW JUMPERS
- INSTALL (6) RET & CALIBRATION CABLES (2) PER SECTOR
- INSTALL (3) NEW 2.5 PANEL ANTENNAS

APPLICABLE CODES

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

1. INTERNATIONAL BUILDING CODE
2. INTERNATIONAL MECHANICAL CODE
3. ANSI/TIA-222 STRUCTURAL STANDARD
4. NFPA 780 – LIGHTNING PROTECTION CODE
5. UNIFORM PLUMBING CODE
6. NATIONAL ELECTRICAL CODE

811 Know what's below. Call before you dig. www.call811.com

DRAWING INDEX

SHEET NO:	SHEET TITLE	REV	ENGINEER
T-1	TITLE SHEET	0	SC/E
SP-1	SPECIFICATIONS	0	SC
SP-2	SPECIFICATIONS	0	SC
A-1	EQUIPMENT PLAN	0	SC
A-2	TOWER ELEVATION & CABLE PLAN	0	SC
A-3	ANTENNA LAYOUT & MOUNTING DETAILS	0	SC
A-4	RF DATA SHEET & EQUIPMENT INFORMATION	0	SC
A-5	EQUIPMENT DETAILS	0	SC
A-6	EQUIPMENT DETAILS	0	SC
E-1	GROUNDING PLAN	0	E
E-2	GROUNDING DETAILS	0	E
E-3	DC POWER & DISTRIBUTION	0	E

PLANS PREPARED FOR:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:
SSC
9900 West 109th Street, Suite 300
Overland Park, Kansas 66210
Phone: 913-438-7700 Fax: 913-438-7777

OEM:

ENGINEERING LICENSE:
STATE OF MISSOURI
PE CERTIFICATE OF AUTHORIZATION #001640

MLO MICHAEL L. OWENS
E-29058 STRUCTURAL/CIVIL SC

KV KEVIN VANMAELE
E-21561 STRUCTURAL/CIVIL SC

REJ ROBERT E. JENSEN
E-28974 STRUCTURAL/CIVIL SC

TMS TERRANCE M. SUPER
E-18521 ELECTRICAL E

SDK SHELTON D. KEISLING
E-27323 ELECTRICAL E

DEK DAVE E. KASPER
E-18063 ELECTRICAL E

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
90% ISSUED FOR PERMIT	03/10/14	KSJ	0

SITE NAME: ST. ANN'S CHURCH

SITE CASCADE: KC03XC182

SITE ADDRESS: 7231 MISSION ROAD
PRAIRIE VILLAGE, KANSAS
66208

SHEET DESCRIPTION: TITLE SHEET

SHEET NUMBER: T-1

THESE OUTLINE SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

SECTION 01 100 – SCOPE OF WORK

THE WORK:
SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF.

PRECEDENCE:
SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE.

SITE FAMILIARITY:
CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

ON-SITE SUPERVISION:
THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE:
THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

A. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. PROVIDE ALL MATERIALS AND LABOR AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

B. CONTRACTOR SHALL NOTIFY SPRINT CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK.DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

C. MARK THE FIELD SET OF DRAWINGS IN RED, DOCUMENTING ANY CHANGES FROM THE CONSTRUCTION DOCUMENTS.

METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION:
CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN THE FOLLOWING INSTALLATION AND COMMISSIONING MOPS.

A. TOP HAT
B. HOW TO INSTALL A NEW CABINET
C. BASE BAND UNIT IN EXISTING UNIT
D. INSTALLATION OF BATTERIES
E. INSTALLATION OF HYBRID CABLE
F. INSTALLATION OF RRU'S
G. CABLING
H. TS-0200 REV 4 – ANTENNA LINE ACCEPTANCE STANDARDS
I. SPRINT CELL SITE ENGINEERING NOTICE – EN 2012-001, REV 1.
J. COMMISSIONING MOPS

SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT

COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DRAWINGS.

CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT TO ENSURE IT IS PROTECTED AND HANDLED PROPERLY THROUGHOUT THE CONSTRUCTION DURATION.

CONTRACTOR RESPONSIBLE FOR RECEIPT OF SPRINT FURNISHED EQUIPMENT AT CELL SITE OR CONTRACTORS LOCATION. CONTRACTOR TO COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.

SECTION 01 300 – CELL SITE CONSTRUCTION CO.

NOTICE TO PROCEED:
NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF WORK ORDER.

SITE CLEANLINESS:
CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

SECTION 01 400 – SUBMITTALS & TESTS

ALTERNATES:
AT THE COMPANY'S REQUEST, ANY ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFIED SHALL BE SUBMITTED TO SPRINTS CONSTRUCTION MANAGER FOR APPROVAL. SPRINT WILL REVIEW AND APPROVE ONLY THOSE REQUESTS MADE IN WRITING. NO VERBAL APPROVALS WILL BE CONSIDERED,

TESTS AND INSPECTIONS:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.

B. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. COAX SWEEPS AND FIBER TESTS PER TS-D200 REV 4 ANTENNA LINE ACCEPTANCE STANDARDS.
2. AGL, AZIMUTH AND DOWNTILT PROVIDE AN AUTOMATED REPORT UPLOADED TO SITERRA USING A COMMERCIAL MADE-FOR THE PURPOSE ELECTRONIC ANTENNA ALIGNMENT TOOL (AAT). INSTALLED AZIMUTH, CENTERLINE AND DOWNTILT MUST CONFORM WITH RF CONFIGURATION DATA
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.
4. ALL TESTING REQUIRED BY APPLICABLE INSTALLATION MOPS.

C. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING;

1. AZIMUTH, DOWNTILT, AGL FROM SUNSIGHT INSTRUMENTS – ANTENNALIGN ALIGNMENT TOOL (AAT)
2. SWEEP AND FIBER TESTS
3. SCANABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
4. ALL AVAILABLE JURISDICTIONAL INFORMATION
5. PDF SCAN OF REDLINES PRODUCED IN FIELD
6. A PDF SCAN OF REDLINE MARK-UPS SUITABLE FOR USE IN ELECTRONIC AS-BUILT DRAWING PRODUCTION
7. LIEN WAIVERS
8. FINAL PAYMENT APPLICATION
9. REQUIRED FINAL CONSTRUCTION PHOTOS
10. CONSTRUCTION AND COMMISSIONING CHECKLIST COMPLETE WITH NO DEFICIENT ITEMS
11. ALL POST NTP TASKS INCLUDING DOCUMENT UPLOADS COMPLETED IN SITERRA (SPRINTS DOCUMENT REPOSITORY OF RECORD).
12. CLOSEOUT PHOTOGRAPHS:

a PROVIDE PHOTOGRAPHS OF FINAL PROJECT PER THE FOLLOWING LIST. ADDITIONAL PHOTOGRAPHS MAY BE REQUIRED TO SUPPORT ACCEPTANCE PROCESSES

(i) BACK MAIN HYBRID CABLE ROUTE (MINIMUM TWO PHOTOS)

(ii) OF EACH ANTENNA AND RRU

(iii) MANUFACTURERS NAME TAG FOR ALL SERIALIZED EQUIPMENT

(iv) PULL AND DISTRIBUTION BOXES INTERMEDIATE BETWEEN RRU'S AND MMBS (DOOR OPEN)

(v) MMBS CABINET WITH DOOR OPEN SHOWING MODIFICATIONS

(vi) POWER CABINET, DOORS OPEN, BATTERIES INSTALLED

(vii) BREAK OUT CYLINDERS

(viii) ASR SIGNAGE FOR SPRINT OWNED TOWERS

(ix) RADIATION EXPOSURE WARNING SIGNS

(x) PHOTOGRAPH FROM EACH SECTOR FROM APPROXIMATELY RAD CENTER OF ANY NEW ANTENNA AT HORIZON.

b LOAD PHOTOS TO SITERRA PROJECT LIBRARY I5. IN I5 CREATE NEW CATEGORY; 2.5 DEPLOYMENT, AND SECTION; PERMANENT CONSTRUCTION. LABEL PHOTOS WITH SITE CASCADE AND VIEW BEING DEPICTED. CAMERAS USED TO TAKE PHOTOGRAPHS SHALL GPS ENABLED SUCH THAT THE GPS COORDINATES ARE INCLUDED IN THE PHOTO MEDIA-FILE INFORMATION.

COMMISSIONING:
PERFORM ALL COMMISSIONING AS REQUIRED BY APPLICABLE MOPS

INTEGRATION:
PERFORM ALL INTEGRATION ACTIVITIES AS REQUIRED BY APPLICABLE MOPS

SECTION 09 900 – PAINTING

QUALITY ASSURANCE:

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS OF ACCEPTABLE MANUFACTURERS WHICH HAVE BEEN IN SATISFACTORY USE IN SIMILAR SERVICE FOR THREE YEARS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. COMPLY WITH ALL ENVIRONMENTAL REGULATIONS FOR VOLATILE ORGANIC COMPOUNDS.

MATERIALS:

A. MANUFACTURERS: BENJAMIN MOORE, ICI DEVOE COATINGS, PPG, SHERWIN WILLIAMS OR APPROVED EQUAL. PROVIDE PREMIUM GRADE, PROFESSIONAL-QUALITY PRODUCTS FOR COATING SYSTEMS

PAINT SCHEDULE:

A. EXTERIOR ANTENNAE AND ANTENNA MOUNTING HARDWARE: ONE COAT OF PRIMER AND TWO FINISH COATS. PAINT FOR ANTENNAE SHALL BE NON-METALLIC BASED AND CONTAIN NO METALLIC PARTICLES. PROVIDE COLORS AND PATTERNS AS REQUIRED TO MASK APPEARANCE OF ANTENNAE ON ADJACENT BUILDING SURFACES AND AS ACCEPTABLE TO THE OWNER. REFER TO ANTENNA MANUFACTURER'S INSTRUCTIONS WHENEVER POSSIBLE.

B. WATER TANKS: TOUCH UP – PREPARE SURFACES TO BE REPAIRED. FOLLOW INDUSTRY STANDARDS AND REQUIREMENTS OF OWNER TO MATCH EXISTING COATING AND FINISH.

1. INSPECT SURFACES, REPORT UNSATISFACTORY CONDITIONS IN WRITING; BEGINNING WORK MEANS ACCEPTANCE OF SUBSTRATE.
2. COMPLY WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR PREPARATION, PRIMING AND COATING WORK. COORDINATE WITH WORK OF OTHER SECTIONS.
3. MATCH APPROVED MOCK-UPS FOR COLOR, TEXTURE, AND PATTERN. RE-COAT OR REMOVE AND REPLACE WORK WHICH DOES NOT MATCH OR SHOWS LOSS OF ADHESION.
4. CLEAN UP, TOUCH UP AND PROTECT WORK.

TOUCHUP PAINTING:

1. GALVANIZING DAMAGE AND ALL BOLTS AND NUTS SHALL BE TOUCHED UP AFTER TOWER ERECTION WITH "GALVANOX," "DRY GALV," OR "ZINC-IT."
2. FIELD TOUCHUP PAINT SHALL BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. ALL METAL COMPONENTS SHALL BE HANDLED WITH CARE TO PREVENT DAMAGE TO THE COMPONENTS, THEIR PRESERVATIVE TREATMENT, OR THEIR PROTECTIVE COATINGS.

SECTION 11 700 – ANTENNA ASSEMBLY, REMOTE RADIO UNITS AND CABLE INSTALLATION

SUMMARY:
THIS SECTION SPECIFIES INSTALLATION OF ANTENNAS, RRU'S, AND CABLE EQUIPMENT, INSTALLATION, AND TESTING OF COAXIAL FIBER CABLE.

ANTENNAS AND RRU'S:
THE NUMBER AND TYPE OF ANTENNAS AND RRU'S TO BE INSTALLED IS DETAILED ON THE CONSTRUCTION DRAWINGS.

HYBRID CABLE:
HYBRID CABLE WILL BE DC/FIBER AND FURNISHED FOR INSTALLATION AT EACH SITE. CABLE SHALL BE INSTALLED PER THE CONSTRUCTION DRAWINGS AND THE APPLICABLE MANUFACTURER'S REQUIREMENTS.

JUMPERS AND CONNECTORS:
FURNISH AND INSTALL 1/2" COAX JUMPER CABLES BETWEEN THE RRU'S AND ANTENNAS. JUMPERS SHALL BE TYPE LDF 4, FLC 12-50, CR 540, OR FXL 540. SUPER-FLEX CABLES ARE NOT ACCEPTABLE. JUMPERS BETWEEN THE RRU'S AND ANTENNAS OR TOWER TOP AMPLIFIERS SHALL CONSIST OF 1/2 INCH FOAM DIELECTRIC, OUTDOOR RATED COAXIAL CABLE, MIN LENGTH FOR JUMPER SHALL BE 10'-0".

MISCELLANEOUS:
INSTALL SPLITTERS, COMBINERS, FILTERS PER RF DATA SHEET, FURNISHED BY SPRINT.

ANTENNA INSTALLATION:
THE CONTRACTOR SHALL ASSEMBLE ALL ANTENNAS ONSITE IN ACCORDANCE WITH THE INSTRUCTIONS SUPPLIED BY THE MANUFACTURER. ANTENNA HEIGHT, AZIMUTH, AND FEED ORIENTATION INFORMATION SHALL BE A DESIGNATED ON THE CONSTRUCTION DRAWINGS.

A. THE CONTRACTOR SHALL POSITION THE ANTENNA ON TOWER PIPE MOUNTS SO THAT THE BOTTOM STRUT IS LEVEL. THE PIPE MOUNTS SHALL BE PLUMB TO WITHIN 1 DEGREE.

B. ANTENNA MOUNTING REQUIREMENTS: PROVIDE ANTENNA MOUNTING HARDWARE AS INDICATED ON THE DRAWINGS.

HYBRID CABLES INSTALLATION:

A. THE CONTRACTOR SHALL ROUTE, TEST, AND INSTALL ALL CABLES AS INDICATED ON THE CONSTRUCTION DRAWINGS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

B. THE INSTALLED RADIUS OF THE CABLES SHALL NOT BE LESS THAN THE MANUFACTURER'S SPECIFICATIONS FOR BENDING RADII.

C. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE CABLES DURING HANDLING AND INSTALLATION.

1. FASTENING MAIN HYBRID CABLES: ALL CABLES SHALL BE PERMANENTLY FASTENED TO THE COAX LADDER AT 4'-0" OC USING NON-MAGNETIC STAINLESS STEEL CLIPS.
2. FASTENING INDIVIDUAL FIBER AND DC CABLES ABOVE BREAKOUT ENCLOSURE (MEDUSA), WITHIN THE MMBS CABINET AND ANY INTERMEDIATE DISTRIBUTION BOXES:
   a. FIBER: SUPPORT FIBER BUNDLES USING ½" VELCRO STRAPS OF THE REQUIRED LENGTH @ 18" OC. STRAPS SHALL BE UV, OIL AND WATER RESISTANT AND SUITABLE FOR INDUSTRIAL INSTALLATIONS AS MANUFACTURED BY TEXTOL OR APPROVED EQUAL.
   b. DC: SUPPORT DC BUNDLES WITH ZIP TIES OF THE ADEQUATE LENGTH. ZIP TIES TO BE UV STABILIZED, BLACK NYLON, WITH TENSILE STRENGTH AT 12,000 PSI AS MANUFACTURED BY NELCO PRODUCTS OR EQUAL.
3. FASTENING JUMPERS: SECURE JUMPERS TO THE SIDE ARMS OR HEAD FRAMES USING STAINLESS STEEL TIE WRAPS OR STAINLESS STEEL BUTTERFLY CLIPS.
4. CABLE INSTALLATION:
   a. INSPECT CABLE PRIOR TO USE FOR SHIPPING DAMAGE, NOTIFY THE CONSTRUCTION MANAGER.
   b. CABLE ROUTING: CABLE INSTALLATION SHALL BE PLANNED TO ENSURE THAT THE LINES WILL BE PROPERLY ROUTED IN THE CABLE ENVELOP AS INDICATED ON THE DRAWINGS. AVOID TWISTING AND CROSSOVERS.
   c. HOIST CABLE USING PROPER HOISTING GRIPS. DO NOT EXCEED MANUFACTURES RECOMMENDED MAXIMUM BEND RADIUS.

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DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
90% ISSUED FOR PERMIT	03/10/14	KSJ	0

SITE NAME:
ST. ANN'S CHURCH

SITE CASCADE:
KC03XC182

SITE ADDRESS:
7231 MISSION ROAD
PRAIRIE VILLAGE, KANSAS
66208

SHEET DESCRIPTION:
SPECIFICATIONS

SHEET NUMBER:
SP-1

CONTINUE FROM SP-1

5. GROUNDING OF TRANSMISSION LINES: ALL TRANSMISSION LINES SHALL BE GROUNDED AS INDICATED ON DRAWINGS.
6. HYBRID CABLE COLOR CODING: ALL COLOR CODING SHALL BE AS REQUIRED IN TS 0200 REV 4.
7. HYBRID CABLE LABELING: INDIVIDUAL HYBRID AND DC BUNDLES SHALL BE LABELED ALPHA-NUMERICALLY ACCORDING TO SPRINT CELL SITE ENGINEERING NOTICE – EN 2012-001, REV 1

WEATHERPROOFING EXTERIOR CONNECTORS AND HYBRID CABLE GROUND KITS:

A. ALL FIBER & COAX CONNECTORS AND GROUND KITS SHALL BE WEATHERPROOFED.

B. WEATHERPROOFED USING ONE OF THE FOLLOWING METHODS. ALL INSTALLATIONS MUST BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.

1. COLD SHRINK: ENCOMPASS CONNECTOR IN COLD SHRINK TUBING AND PROVIDE A DOUBLE WRAP OF 2" ELECTRICAL TAPE EXTENDING 2" BEYOND TUBING. PROVIDE 3M COLD SHRINK CXS SERIES OR EQUAL.
2. SELF-AMALGAMATING TAPE: CLEAN SURFACES. APPLY A DOUBLE WRAP OF SELF-AMALGAMATING TAPE 2" BEYOND CONNECTOR. APPLY A SECOND WRAP OF SELF-AMALGAMATING TAPE IN OPPOSITE DIRECTION. APPLY DOUBLE WRAP OF 2" WIDE ELECTRICAL TAPE EXTENDING 2" BEYOND THE SELF-AMALGAMATING TAPE.
3. 3M SLIM LOCK CLOSURE 716: SUBSTITUTIONS WILL NOT BE ALLOWED.
4. OPEN FLAME ON JOB SITE IS NOT ACCEPTABLE

SECTION 11 800 – INSTALLATION OF MULTIMODAL BASE STATIONS (MMBS) AND RELATED EQUIPMENT

SUMMARY:

A. THIS SECTION SPECIFIES MMBS CABINETS, POWER CABINETS, AND INTERNAL EQUIPMENT INCLUDING BY NOT LIMITED TO RECTIFIERS, POWER DISTRIBUTION UNITS, BASE BAND UNITS, SURGE ARRESTORS, BATTERIES, AND SIMILAR EQUIPMENT FURNISHED BY THE COMPANY FOR INSTALLATION BY THE CONTRACTOR (OFCI).

B. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MISCELLANEOUS MATERIALS AND PROVIDE ALL LABOR REQUIRED FOR INSTALLATION EQUIPMENT IN EXISTING CABINET OR NEW CABINET AS SHOWN ON DRAWINGS AND AS REQUIRE BY THE APPLICABLE INSTALLATION MOPS.

C. COMPLY WITH MANUFACTURERS INSTALLATION AND START-UP REQUIREMENTS

DC CIRCUIT BREAKER LABELING

A. LABEL CIRCUIT BREAKERS ACCORDING TO SPRINT CELL SITE ENGINEERING NOTICE – EN 2012-001, REV 1.

SECTION 26 100 – BASIC ELECTRICAL REQUIREMENTS

SUMMARY:
THIS SECTION SPECIFIES BASIC ELECTRICAL REQUIREMENTS FOR SYSTEMS AND COMPONENTS.

QUALITY ASSURANCE:

A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.

B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.

C. MATERIALS AND EQUIPMENT: ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

SUPPORTING DEVICES:

A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.

B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.

C. MATERIALS AND EQUIPMENT:
ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

SUPPORTING DEVICES:

A. MANUFACTURED STRUCTURAL SUPPORT MATERIALS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING:

1. ALLIED TUBE AND CONDUIT
2. B-LINE SYSTEM
3. SUNISTRUT DIVERSIFIED PRODUCTS
4. THOMAS & BETTS

B. FASTENERS: TYPES, MATERIALS, AND CONSTRUCTION FEATURES AS FOLLOWS:

1. EXPANSION ANCHORS: CARBON STEEL WEDGE OR SLEEVE TYPE.
2. POWER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL, DESIGNED SPECIFICALLY FOR THE INTENDED SERVICE.
3. FASTEN BY MEANS OF WOOD SCREWS ON WOOD.
4. TOGGLE BOLTS ON HOLLOW MASONRY UNITS.
5. CONCRETE INSERTS OR EXPANSION BOLTS ON CONCRETE OR SOLID MASONRY.
6. MACHINE SCREWS, WELDED THREADED STUDS, OR SPRING-TENSION CLAMPS ON STEEL.
7. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE SHALL NOT BE PERMITTED.
8. DO NOT WELD CONDUIT, PIPE STRAPS, OR ITEMS OTHER THAN THREADED STUDS TO STEEL STRUCTURES.
9. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, USE SHEET METAL SCREWS.

SUPPORTING DEVICES:

A. INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC.

B. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER TRADES.

C. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE STRUCTURE IN ACCORDANCE WITH THE FOLLOWING:

D. ENSURE THAT THE LOAD APPLIED BY ANY FASTENER DOES NOT EXCEED 25 PERCENT OF THE PROOF TEST LOAD.

E. USE VIBRATION AND SHOCK-RESISTANT FASTENERS FOR ATTACHMENTS TO CONCRETE SLABS.

ELECTRICAL IDENTIFICATION:

A. UPDATE AND PROVIDE TYPED CIRCUIT BREAKER SCHEDULES IN THE MOUNTING BRACKET, INSIDE DOORS OF AC PANEL BOARDS WITH ANY CHANGES MADE TO THE AC SYSTEM.

B. BRANCH CIRCUITS FEEDING AVIATION OBSTRUCTION LIGHTING EQUIPMENT SHALL BE CLEARLY IDENTIFIED AS SUCH AT THE BRANCH CIRCUIT PANELBOARD.

SECTION 26 200 – ELECTRICAL MATERIALS AND EQUIPMENT

CONDUIT:

A. RIGID GALVANIZED STEEL (RGS) CONDUIT SHALL BE USED FOR EXTERIOR LOCATIONS ABOVE GROUND AND IN UNFINISHED INTERIOR LOCATIONS AND FOR ENCASED RUNS IN CONCRETE. RIGID CONDUIT AND FITTINGS SHALL BE STEEL, COATED WITH ZINC EXTERIOR AND INTERIOR BY THE HOT DIP GALVANIZING PROCESS. CONDUIT SHALL BE PRODUCED TO ANSI SPECIFICATIONS C80.1, FEDERAL SPECIFICATION WW-C-581 AND SHALL BE LISTED WITH THE UNDERWRITERS' LABORATORIES. FITTINGS SHALL BE THREADED – SET SCREW OR COMPRESSION FITTINGS WILL NOT BE ACCEPTABLE. RGS CONDUITS SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND.

B. UNDERGROUND CONDUIT SHALL BE POLYVINYLCHLORIDE (PVC) SUITABLE FOR DIRECT BURIAL AS APPLICABLE. JOINTS SHALL BE BELLED, AND FLUSH SOLVENT WELDED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE CARLON ELECTRICAL PRODUCTS OR APPROVED EQUAL.

C. TRANSITIONS BETWEEN PVC AND RIGID (RGS) SHALL BE MADE WITH PVC COATED METALLIC LONG SWEEP RADIUS ELBOWS.

D. EMT OR RIGID GALVANIZED STEEL CONDUIT MAY BE USED IN FINISHED SPACES CONCEALED IN WALLS AND CEILINGS. EMT SHALL BE MILD STEEL, ELECTRICALLY WELDED, ELECTRO-GALVANIZED OR HOT-DIPPED GALVANIZED AND PRODUCED TO ANSI SPECIFICATION C80.3, FEDERAL SPECIFICATION WW-C-563, AND SHALL BE UL LISTED. EMT SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND, OR APPROVED EQUAL. FITTINGS SHALL BE METALLIC COMPRESSION. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE.

E. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR FINAL CONNECTION TO EQUIPMENT. FITTINGS SHALL BE METALLIC GLAND TYPE COMPRESSION FITTINGS, MAINTAINING THE INTEGRITY OF CONDUIT SYSTEM. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL NOT EXCEED 6-FEET. LFMC SHALL BE PROTECTED AND SUPPORTED AS REQUIRE BY NEC. MANUFACTURERS OF FLEXIBLE CONDUITS SHALL BE CAROL, ANACONDA METAL HOSE OR UNIVERSAL METAL HOSE, OR APPROVED EQUAL.

F. MINIMUM SIZE CONDUIT SHALL BE 3/4 INCH (21MM).

HUBS AND BOXES:

A. AT ENTRANCES TO CABINETS OR OTHER EQUIPMENT NOT HAVING INTEGRAL THREADED HUBS PROVIDE METALLIC THREADED HUBS OF THE SIZE AND CONFIGURATION REQUIRED. HUB SHALL INCLUDE LOCKNUT AND NEOPRENE O-RING SEAL. PROVIDE IMPACT RESISTANT 105 DEGREE C PLASTIC BUSHINGS TO PROTECT CABLE INSULATION.

B. CABLE TERMINATION FITTINGS FOR CONDUIT

1. CABLE TERMINATORS FOR RGS CONDUITS SHALL BE TYPE CRC BY O-Z/GEDNEY OR EQUAL.
2. CABLE TERMINATORS FOR LFMC SHALL BE ETCO – CL2075; OR MADE FOR THE PURPOSE PRODUCTS BY ROXTEC.

C. EXTERIOR PULL BOXES AND PULL BOXES IN INTERIOR INDUSTRIAL AREAS SHALL BE PLATED CAST ALLOY, HEAVY DUTY, WEATHERPROOF, DUST PROOF, WITH GASKET, PLATED IRON ALLOY COVER AND STAINLESS STEEL COVER SCREWS, CROUSE-HINDS WAB SERIES OR EQUAL.

D. CONDUIT OUTLET BODIES SHALL BE PLATED CAST ALLOY WITH SIMILAR GASKETED COVERS. OUTLET BODIES SHALL BE OF THE CONFIGURATION AND SIZE SUITABLE FOR THE APPLICATION. PROVIDE CROUSE-HINDS FORM 8 OR EQUAL.

E. MANUFACTURER FOR BOXES AND COVERS SHALL BE HOFFMAN, SQUARE "D", CROUSE-HINDS, COOPER, ADALET, APPLETON, O-Z GEDNEY, RACO, OR APPROVED EQUAL.

SUPPLEMENTAL GROUNDING SYSTEM

A. FURNISH AND INSTALL A SUPPLEMENTAL GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS. SUPPORT SYSTEM WITH NON-MAGNETIC STAINLESS STEEL CLIPS WITH RUBBER GROMMETS. GROUNDING CONNECTORS SHALL BE TINNED COPPER WIRE, SIZES AS INDICATED ON THE DRAWINGS. PROVIDE STRANDED OR SOLID BARE OR INSULATED CONDUCTORS AS INDICATED.

B. SUPPLEMENTAL GROUNDING SYSTEM: ALL CONNECTIONS TO BE MADE WITH CAD WELDS, EXCEPT AT EQUIPMENT USE LUGS OR OTHER AVAILABLE GROUNDING MEANS AS REQUIRED BY MANUFACTURER; AT GROUND BARS USE TWO HOLE SPADES WITH NO OX.

C. STOLEN GROUND-BARS: IN THE EVENT OF STOLEN GROUND BARS, CONTACT SPRINT CM FOR REPLACEMENT INSTRUCTION USING THREADED ROD KITS.

EXISTING STRUCTURE:

A. EXISTING EXPOSED WIRING AND ALL EXPOSED OUTLETS, RECEPTACLES, SWITCHES, DEVICES, BOXES, AND OTHER EQUIPMENT THAT ARE NOT TO BE UTILIZED IN THE COMPLETED PROJECT SHALL BE REMOVED OR DE-ENERGIZED AND CAPPED IN THE WALL, CEILING, OR FLOOR SO THAT THEY ARE CONCEALED AND SAFE. WALL, CEILING, OR FLOOR SHALL BE PATCHED TO MATCH THE ADJACENT CONSTRUCTION.

CONDUIT AND CONDUCTOR INSTALLATION:

A. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

B. CONDUCTORS SHALL BE PULLED IN ACCORDANCE WITH ACCEPTED GOOD PRACTICE.

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DEK DAVE E. KASPER
E-18063 ELECTRICAL E

REVISIONS:

DESCRIPTION	DATE	BY	REV
90% ISSUED FOR PERMIT	03/10/14	KSJ	0

SITE NAME:

ST. ANN'S CHURCH

SITE CASCADE:

KC03XC182

SITE ADDRESS:

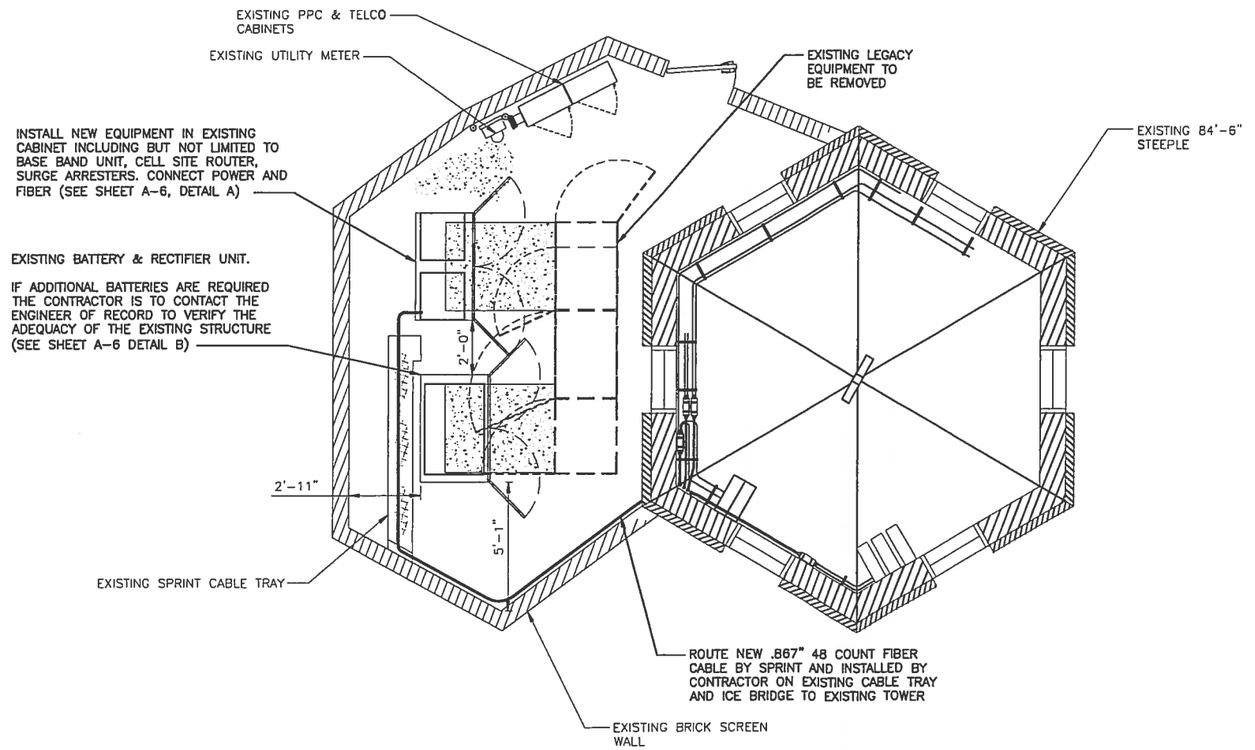
7231 MISSION ROAD
PRAIRIE VILLAGE, KANSAS
66208

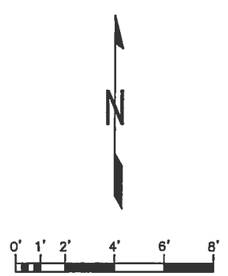
SHEET DESCRIPTION:

SPECIFICATIONS

SHEET NUMBER:

SP-2





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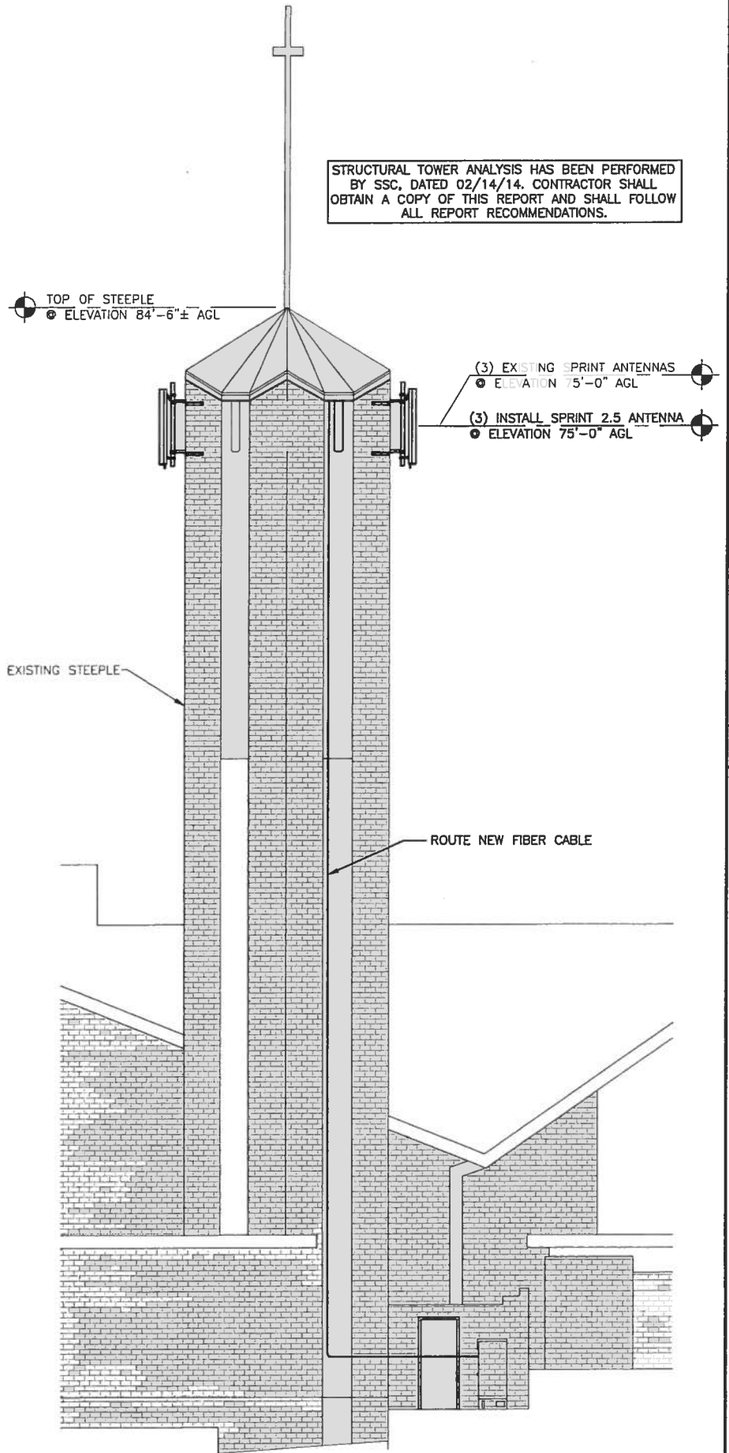
66208

SHEET DESCRIPTION:

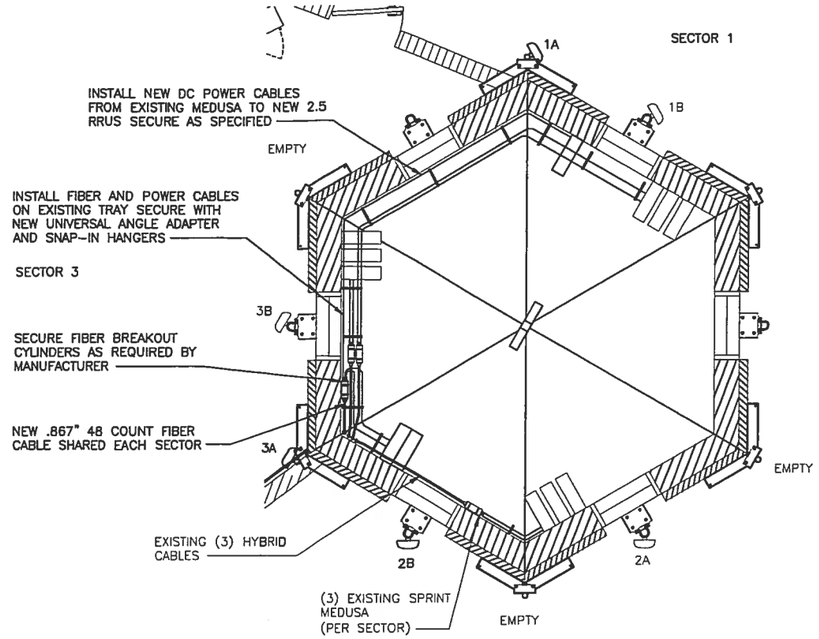
EQUIPMENT PLAN

SHEET NUMBER:

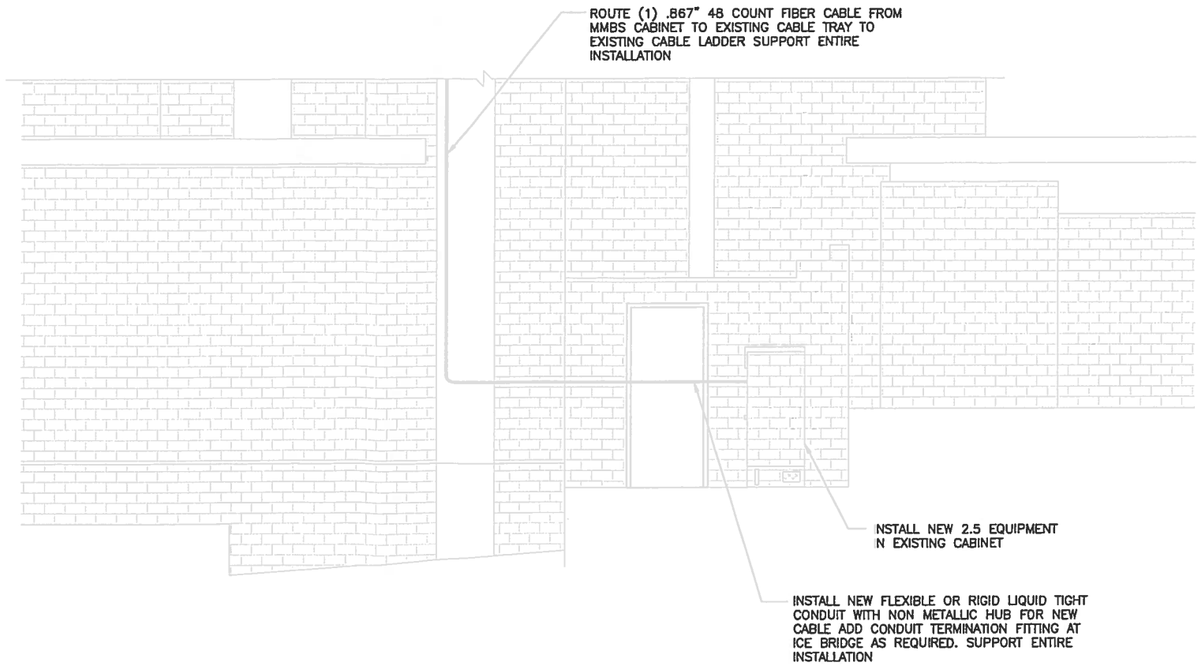
A-1



SITE ELEVATION | NO SCALE | C



TYPICAL FIBER ONLY CABLE PLAN | NO SCALE | A



CABLE ROUTE FROM CABINET | NO SCALE | B

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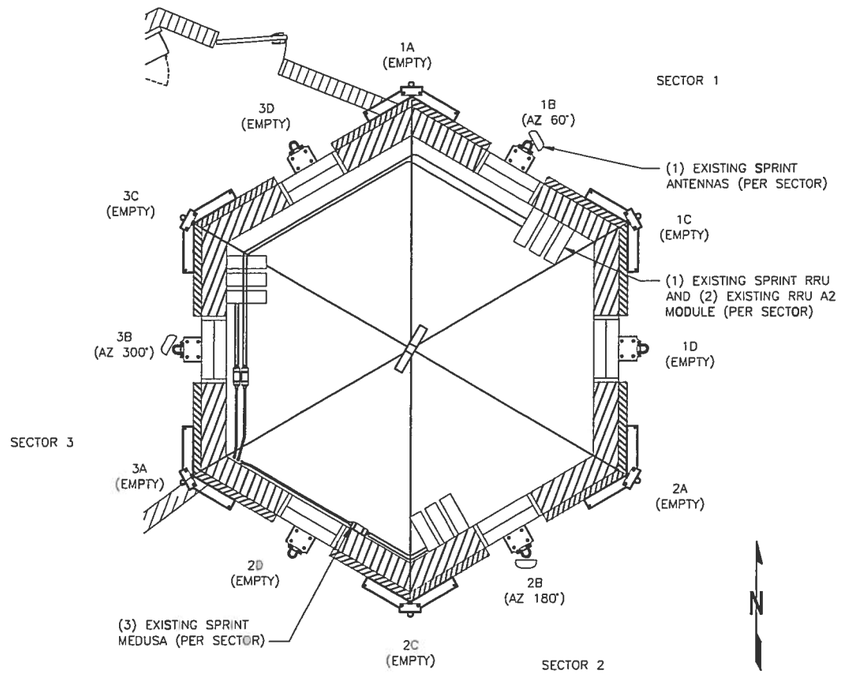
66208

SHEET DESCRIPTION:

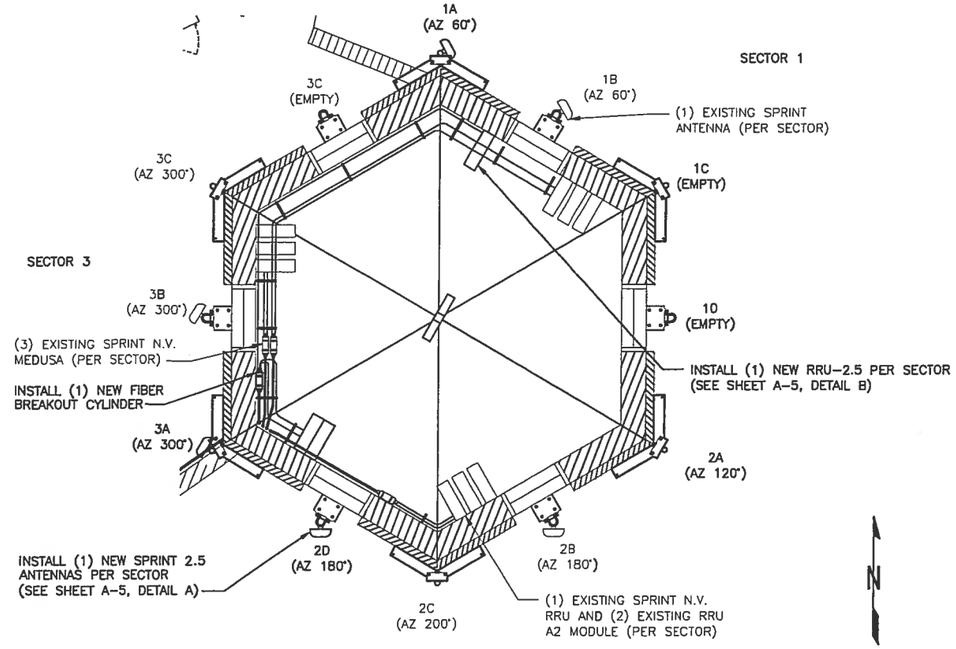
TOWER ELEVATION & CABLE PLAN

SHEET NUMBER:

A-2

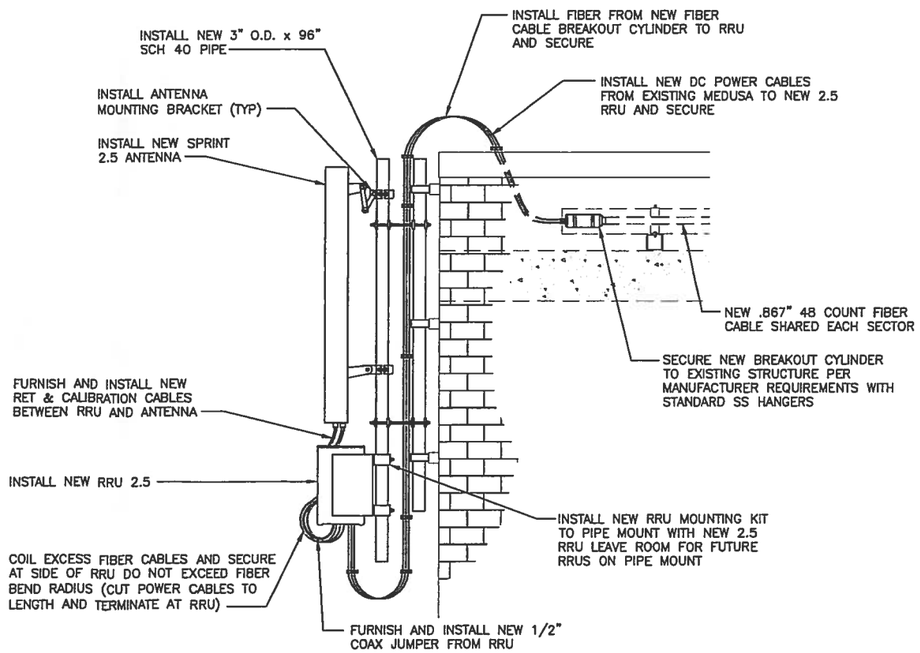


EXISTING ANTENNA AND RRU LAYOUT @ 75'	NO SCALE	C



FINAL ANTENNA AND RRU LAYOUT @ 75'	NO SCALE	A

DETAIL NOT USED	NO SCALE	D



2.5 MHz ANTENNA MOUNTING DETAILS	NO SCALE	B

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SHEET DESCRIPTION:

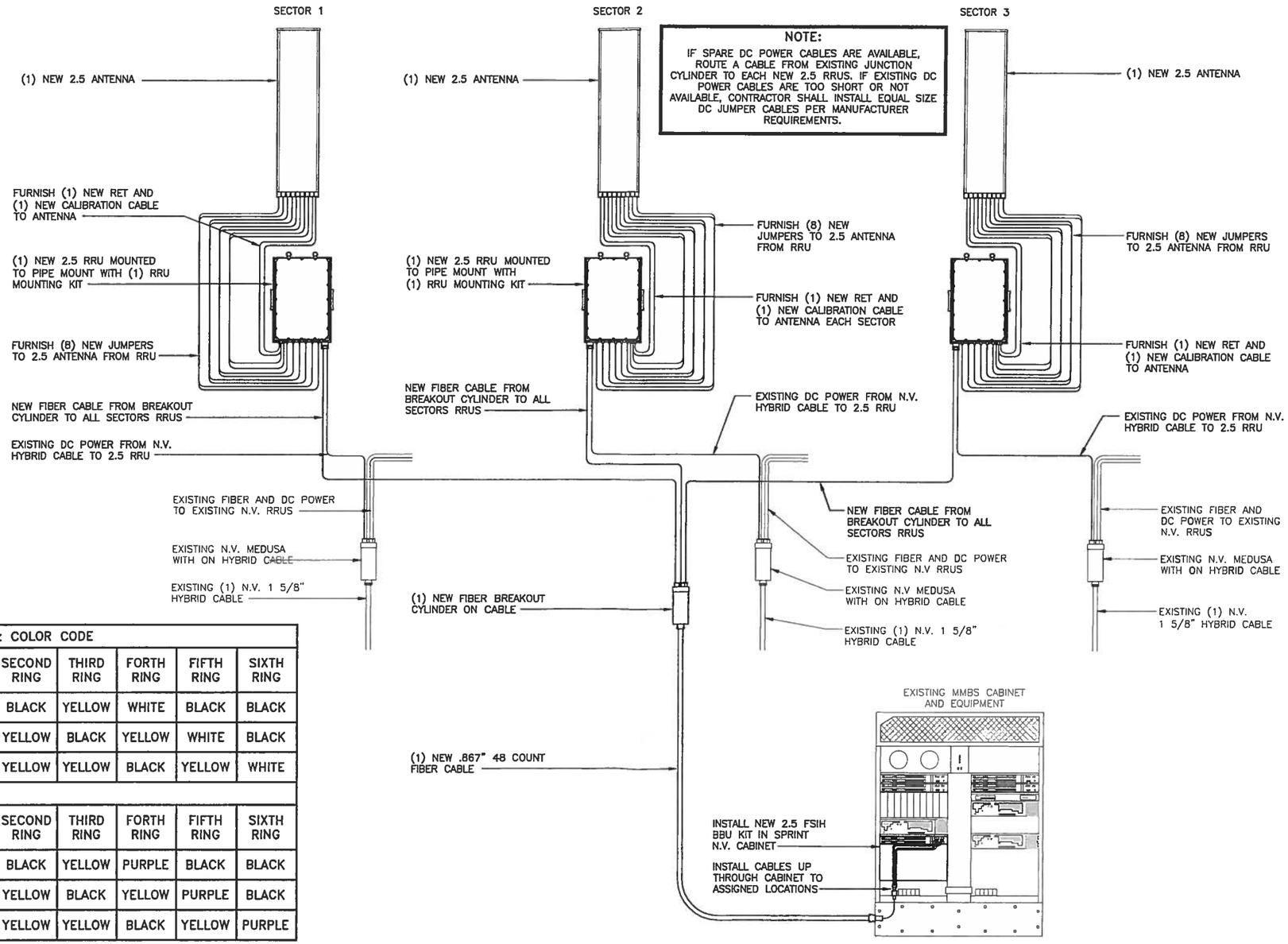
ANTENNA LAYOUT
& MOUNTING DETAILS

SHEET NUMBER:

A-3

INSTALLED ANTENNA SCHEDULE

SECTOR	MODEL NUMBER	ANTENNA MANUFACTURER	NUMBER OF FIBER ONLY CABLES	AZIMUTH	RAD CENTER	ELECT D-TILT	MECH D-TILT	RRU MODEL	RRU MANUFACTURER	FILTER MODEL	FILTER MANUFACTURER	JUMPER SIZE	JUMPER QTY	JUMPER LENGTH
1	TTTT65AP-1XR	COMMSCOPE	SHARED NEW .867" 48 COUNT FIBER CABLE ALL SECTORS	60°	75'	-2	0	FZHJ (AKA FZHE++)	NSN	FFHS	NSN	1/2	9	8 FEET
1	EXISTING SPRINT N.V.	-	EXISTING N.V. HYBRID	180°	75'	-	-	SPRINT N.V. RRUS	-	-	-	-	-	-
2	TTTT65AP-1XR	COMMSCOPE	SHARED NEW .867" 48 COUNT FIBER CABLE ALL SECTORS	300°	75'	-2	0	FZHJ (AKA FZHE++)	NSN	FFHS	NSN	1/2	9	8 FEET
2	EXISTING SPRINT N.V.	-	EXISTING N.V. HYBRID	60°	75'	-	-	SPRINT N.V. RRUS	-	-	-	-	-	-
3	TTTT65AP-1XR	COMMSCOPE	SHARED NEW .867" 48 COUNT FIBER CABLE ALL SECTORS	180°	75'	-2	0	FZHJ (AKA FZHE++)	NSN	FFHS	NSN	1/2	9	8 FEET
3	EXISTING SPRINT N.V.	-	EXISTING N.V. HYBRID	300°	75'	-	-	SPRINT N.V. RRUS	-	-	-	-	-	-



NOTE:
IF SPARE DC POWER CABLES ARE AVAILABLE, ROUTE A CABLE FROM EXISTING JUNCTION CYLINDER TO EACH NEW 2.5 RRUS. IF EXISTING DC POWER CABLES ARE TOO SHORT OR NOT AVAILABLE, CONTRACTOR SHALL INSTALL EQUAL SIZE DC JUMPER CABLES PER MANUFACTURER REQUIREMENTS.

2500MHz COLOR CODE

2500MHz #1 CAL CABLE-SECTOR	CABLE	FIRST RING	SECOND RING	THIRD RING	FORTH RING	FIFTH RING	SIXTH RING
1 ALPHA	1	YELLOW	BLACK	YELLOW	WHITE	BLACK	BLACK
2 BETA	2	YELLOW	YELLOW	BLACK	YELLOW	WHITE	BLACK
3 GAMMA	3	YELLOW	YELLOW	YELLOW	BLACK	YELLOW	WHITE

2500MHz #2 CAL CABLE-SECTOR	CABLE	FIRST RING	SECOND RING	THIRD RING	FORTH RING	FIFTH RING	SIXTH RING
1 ALPHA	1	YELLOW	BLACK	YELLOW	PURPLE	BLACK	BLACK
2 BETA	2	YELLOW	YELLOW	BLACK	YELLOW	PURPLE	BLACK
3 GAMMA	3	YELLOW	YELLOW	YELLOW	BLACK	YELLOW	PURPLE

PLANS PREPARED FOR:

Sprint

6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED BY:

SSC

9900 West 109th Street, Suite 300
Overland Park, Kansas 66210
Phone: 913-438-7700 Fax: 913-438-7777

OEM:

ENGINEERING LICENSE:

STATE OF MISSOURI
PE CERTIFICATE OF AUTHORIZATION #001640

MLO MICHAEL L. OWENS
E-29058 STRUCTURAL/CIVIL SC

KV KEVIN VANMAELE
E-21561 STRUCTURAL/CIVIL SC

REJ ROBERT E. JENSEN
E-28974 STRUCTURAL/CIVIL SC

TMS TERRANCE M. SUPER
E-18521 ELECTRICAL E

SDK SHELTON D. KEISLING
E-27323 ELECTRICAL E

DEK DAVE E. KASPER
E-18063 ELECTRICAL E

DRAWING NOTICE:

REVISIONS:

DESCRIPTION	DATE	BY	REV
90% ISSUED FOR PERMIT	03/10/14	KSJ	0

SITE NAME:

ST. ANN'S CHURCH

SITE CASCADE:

KC03XC182

SITE ADDRESS:

7231 MISSION ROAD
PRAIRIE VILLAGE, KANSAS
66208

SHEET DESCRIPTION:

RF DATA SHEET & EQUIPMENT INFORMATION

SHEET NUMBER:

A-4

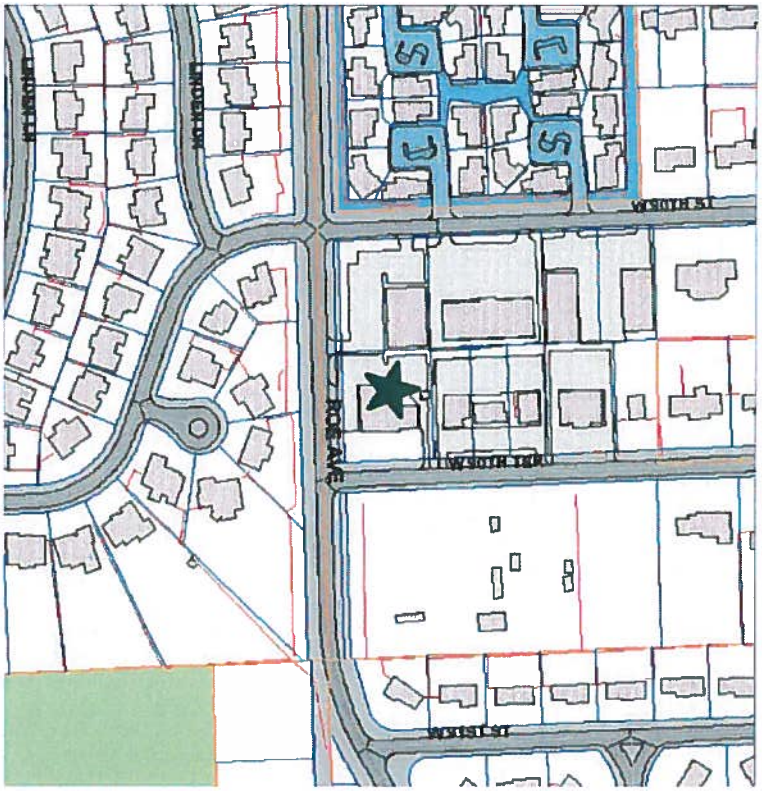
LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: May 6, 2014, Planning Commission Meeting Project # 000009686

Application:	PC 2014-113
Request:	Site Plan Approval to add three antennas, a fiber optic cable and install new equipment in the existing equipment cabinets
Property Address:	9011 Roe Avenue, Fire Station
Applicant:	Global Signal Acquisition for Sprint
Current Zoning and Land Use:	C-1 Restricted Business District – Fire Station
Surrounding Zoning and Land Use:	**North:** C-2 General Business District - Offices **East:** C-1 Restricted Business District – KCP&L Substation **South:** R-1A Single-Family District - Church **West:** R-1A Single-Family District – Single Family Dwelling
Legal Description:	Lot 11 Blk 7 Somerset Acres West
Property Area:	0.73 Acres
Related Case Files:	PC 2013-110 Site Plan Approval for Sprint PC 2011-121 Site Plan Approval for Sprint PC 2009-16 Special Use Permit for Clearwire PC 2004-10 Special Use Permit for Cingular Wireless (now AT&T) PC 1996- 06 Conditional Use Permit for Sprint Wireless
Attachments:	Application, Site Plan, Project Photos

General Location Map



Aerial Map

STAFF COMMENTS:

Sprint is requesting Site Plan Approval to add three antennas, install a fiber optic cable, and install new equipment in the existing equipment boxes. Sprint submitted an application PC 2013-110 to replace three antennas and replace three equipment boxes with two. This was approved by the Planning Commission. Sprint is consolidating its multiple network technologies into one new network called Network Vision. Network Vision will provide faster data speeds, better signal strength, fewer dropped calls and improved voice quality.

The conditions of approval for PC 2013-110 were as follows:

1. That the antennas be installed as shown on the proposed site plan.
2. That all wiring be contained inside the tower.
3. That the three existing cabinets shall be removed immediately after the operation of the new cabinets has been approved, but in no event longer than 12 months from the date of Planning Commission approval of this application. The applicant shall notify the City when the existing cabinets are removed.
4. That the applicant prepare a structural analysis of the tower to confirm that it is sufficient to carry the additional load.
5. That the applicant replace the existing wood fence with an eight foot tall fence to screen the equipment boxes. Plans for the fence shall be submitted to Staff for review and approval prior to obtaining a permit.

Based on the plans submitted with this application, Sprint has complied with all the conditions.

This monopole was approved in 1996 and at that time approval was by Conditional Use Permit. The monopole was approved for a height of 100 feet and Sprint antennas are on the top. In 2004, a Special Use Permit was granted to Cingular (now AT&T) to install antennas at the 90 foot elevation along with equipment cabinets in the compound at the base of the antenna. In 2009, a Special Use Permit was granted to Clearwire to install antennas and equipment cabinets. Sprint is a major shareholder in Clearwire and the Clearwire antennas were installed as a modification to the Sprint antennas at the top of the tower. The three new antennas which are approximately 13" wide and 64" long will be installed in existing canisters that are already on the pole. The fiber optic cable will be within the pole.

Subsequent to the application in 2011, a new Federal law was passed that requires all local governments to approve any request for replacement of transmission equipment on an existing wireless tower or base station (we call this the equipment compound) provided the request does not substantially change the physical dimensions of the tower or base station.

It is the opinion of Staff that the request does not substantially change the installation and should be approved. The law does not say that local government may not require an application to be filed or that reasonable conditions could be required as part of the approval.

Since no neighbors have appeared at previous neighborhood meetings and the changes were not major, the applicant was not required to hold a neighborhood meeting.

The Planning Commission shall give consideration to the following criteria in approving or disapproving a site plan:

A. **The site is capable of accommodating the building, parking areas and drives with appropriate open space and landscape.**

The capability of the site to accommodate the equipment compound was addressed in the approval of the Special Use Permit. The proposed improvements will occur on the existing tower and within the existing equipment compound.

B. **Utilities are available with adequate capacity to serve the proposed development.**

Adequate utilities are available to serve this location.

C. **The plan provides for adequate management of stormwater runoff.**

No additional impervious area will be created and therefore a stormwater management plan is not required.

D. **The plan provides for safe and easy ingress, egress, and internal traffic circulation.**

The site utilizes the existing driveway and parking lot for circulation that currently serves it and no changes are proposed.

E. **The plan is consistent with good land planning and good site engineering design principles.**

The details of the overall design of the equipment compound were worked out on the approval of the Conditional Use Permit. The applicant has submitted a structural analysis to confirm that the tower has sufficient capacity to carry the existing and proposed load.

F. **An appropriate degree of compatibility will prevail between the architectural quality of the proposed building and the surrounding neighborhood.**

The tower has been at this location for approximately eighteen years. The tower is located at the Fire Station in a commercial area and has very little impact on surrounding residential areas. All the equipment will be located within the equipment compound. The existing ice bridge will be used. The wiring will be inside the tower. An eight-foot high fence has been installed to provide better screening of the equipment compound.

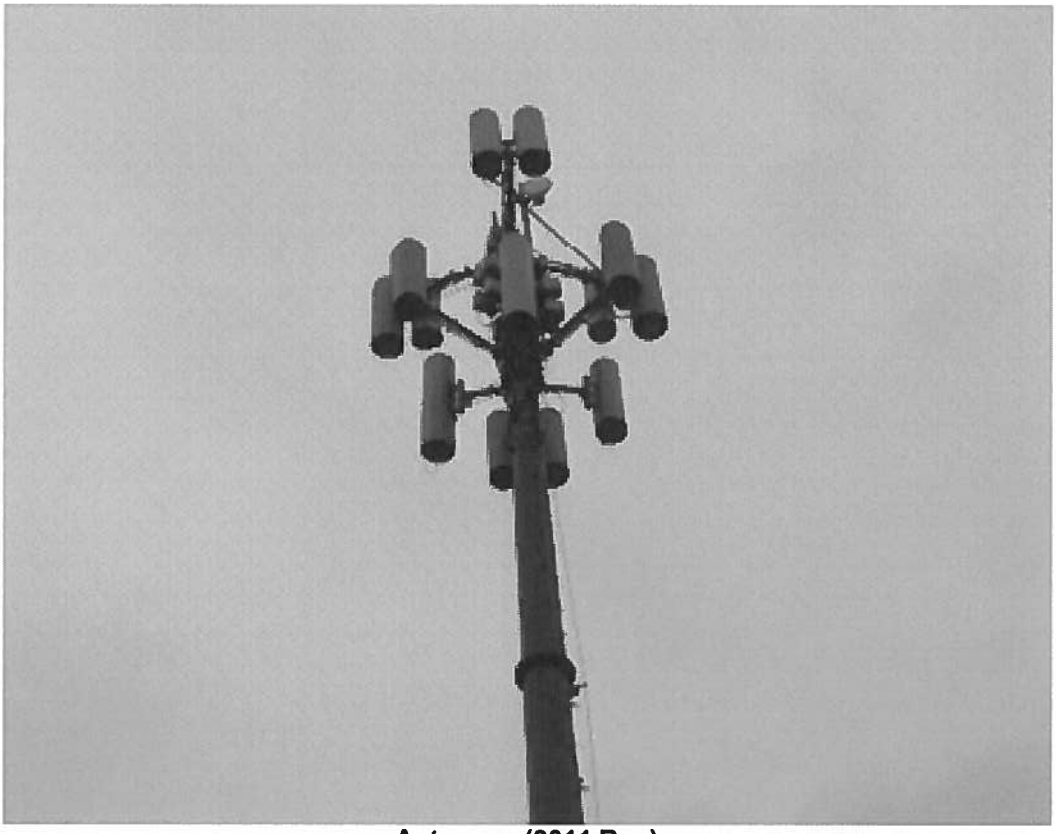
G. **The plan represents an overall development pattern that is consistent with the comprehensive plan and other adopted planning policies.**

Wireless communications are not specifically addressed in Village Vision. Generally it falls into maintaining and improving infrastructure.

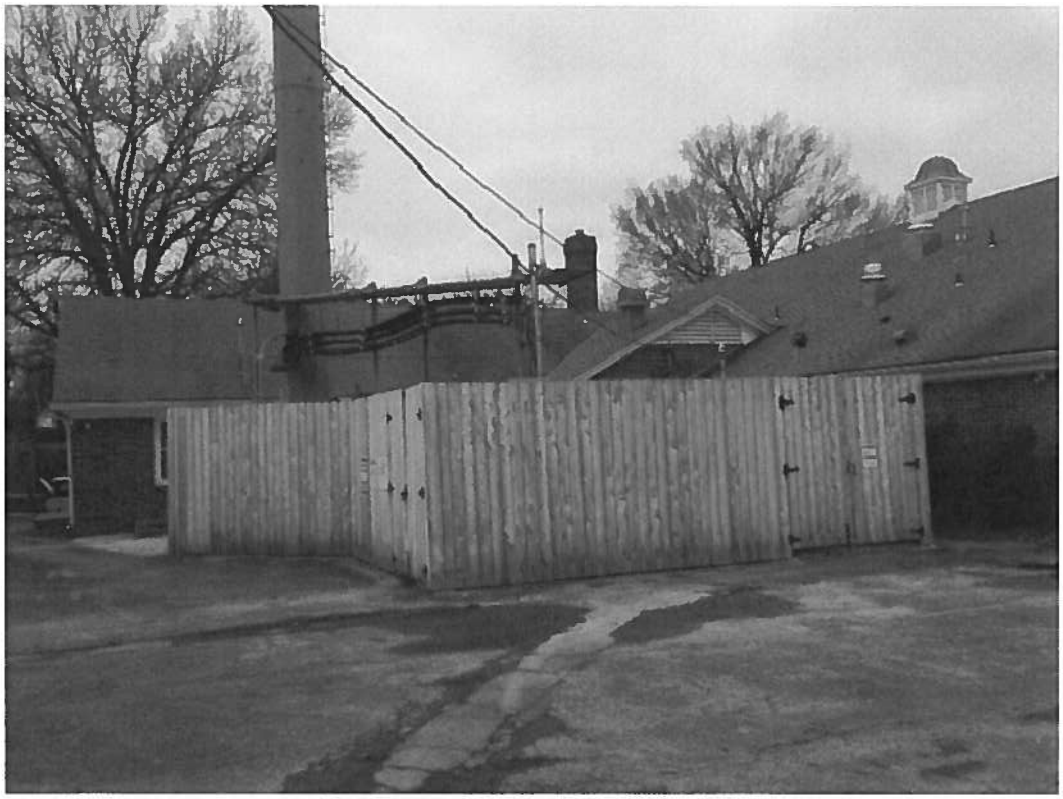
RECOMMENDATION:

It is the recommendation of Staff that the Planning Commission approve this site plan for Sprint subject to the following conditions:

1. That the antennas be installed as shown on the proposed plan.
2. That all wiring be contained inside the tower.



Antennas (9011 Roe)



Equipment Compound (9011 Roe)

SPECIAL USE PERMIT APPLICATION

CITY OF PRAIRIE VILLAGE, KANSAS

For Office Use Only
Case No.: PC2014-113
Filing Fees: $100
Deposit: $500

Date Advertised: _____
Date Notices Sent: _____
Public Hearing Date: _____

APPLICANT: Global Signal Aquisition PHONE: 704-416-2315

ADDRESS: 11 Grandview Cir. Canonsburg, PA 15317 E-MAIL: amanda.rak@crowncastle.com

OWNER: " " PHONE: _____

ADDRESS: _____ ZIP: _____

LOCATION OF PROPERTY: 9011 Roe Ave Prairie Village, KS

LEGAL DESCRIPTION: " See attached "

ADJACENT LAND USE AND ZONING:

	Land Use	Zoning
North		
South		
East		
West		

Present Use of Property: U Cell Tower

Please complete both pages of the form and return to:
Planning Commission Secretary
City of Prairie Village
7700 Mission Road
Prairie Village, KS 66208

Does the proposed special use meet the following standards? If yes, attach a separate Sheet explaining why.

	Yes	No
1. Is deemed necessary for the public convenience at that location.	X	
2. Is so designed, located and proposed to be operated that the public health, safety, and welfare will be protected.	X	
3. Is found to be generally compatible with the neighborhood in which it is proposed.	X	
4. Will comply with the height and area regulations of the district in which it is proposed.	X	
5. Off-street parking and loading areas will be provided in accordance with the standards set forth in the zoning regulations, and such areas will be screened from adjoining residential uses and located so as to protect such residential use from any injurious effect.	X	
6. Adequate utility, drainage, and other such necessary facilities have been or will be provided.	X	

Should this special use be valid only for a specific time period? Yes____ No +

If Yes, what length of time? _____

SIGNATURE: Amanda Rok DATE: 4/8/14

BY: Amanda Rok

TITLE: Real Estate Specialist

Attachments Required:

- Site plan showing existing and proposed structures on the property in questions, and adjacent property, off-street parking, driveways, and other information.
- Certified list of property owners

+ Already an existing tower, we are just adding equipment. Will not affect the tower height or ground space.

Version 2.0

EXHIBIT A

Site Name Prairie Village Fire Station **PCS Site Agreement** **Site I.D.** KC03XC183-1

Site Description

Site situated in the City of Prairie Village, County of Johnson, State of Kansas, commonly described as follows:

Legal Description:

A TRACT OF LAND BEING PART OF LOT 11, BLOCK 7, SOMERSET ACRES WEST, PRAIRIE VILLAGE, JOHNSON COUNTY, KANSAS, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID LOT 11; THENCE S 02°53'40" E ALONG THE EAST RIGHT-OF-WAY OF ROE AVENUE A DISTANCE OF 35.00 FEET; THENCE N 88°06'20" E A DISTANCE OF 95.08 FEET; THENCE S 01°53'40" E A DISTANCE OF 25.25 FEET TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE DESCRIBED; THENCE S 90°00'00" E A DISTANCE OF 23.00 FEET; THENCE S 00°00'00" W A DISTANCE OF 13.89 FEET; THENCE S 49°49'39" E A DISTANCE OF 12.34 FEET; THENCE S 40°10'21" W A DISTANCE OF 10.00 FEET; THENCE N 49°49'39" W A DISTANCE OF 22.46 FEET; THENCE N 90°00'00" W A DISTANCE OF 8.81 FEET; THENCE N 00°00'00" E A DISTANCE OF 15.00 FEET TO THE POINT OF BEGINNING. CONTAINS 511 SQUARE FEET MORE OR LESS.

Sketch of Site:

(See Attached)

Owner Initials _____

SSLP Initials _____

Date: **February 21, 2014**

Randy Wofford
Crown Castle
11 Grandview Circle
Canonsburg, PA 15317

AW Solutions Inc.
300 Crown Oak Centre Dr
Longwood, FL 32750
(407) 260-0231

Subject: **Structural Analysis Report**

Carrier Designation:	***Sprint PCS* Co-Locate**	Scenario 2.5B
	Carrier Site Number:	KC03XC183
	Carrier Site Name:	PRAIRIE VILLAGE FIRE STATION
Crown Castle Designation:	**Crown Castle BU Number:**	877791
	Crown Castle Site Name:	PRAIRIE VILLAGE FIRE STATION
	Crown Castle JDE Job Number:	253359
	Crown Castle Work Order Number:	711157
	Crown Castle Application Number:	208948 Rev. 7
Engineering Firm Designation:	**AW Solutions Inc. Project Number:**	877791
Site Data:	**9011 ROE AVE., PRAIRIE VILLAGE, Johnson County, KS** **Latitude *38° 57' 55.25"*, Longitude *-94° 38' 20.76"*** **97 Foot - Monopole** Tower	

Dear Randy Wofford,

AW Solutions Inc. is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 618677, in accordance with application 208948, revision 7.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC5: Installed + Proposed Equipment **Sufficient Capacity**
Note: See Table I and Table II for the proposed and existing/reserved loading, respectively.

This analysis has been performed in accordance with the 2012 International Building Code based upon an ultimate 3-second gust wind speed of 115 mph converted to a nominal 3-second gust wind speed of 89 mph per section 1609.3.1 as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category B with a maximum topographic factor, Kzt, of 1.0 and Risk Category II were used in this analysis.

All modifications and equipment proposed in this report shall be installed in accordance with the attached drawings for the determined available structural capacity to be effective.

We at *AW Solutions Inc.* appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects please give us a call.

Structural analysis prepared by: Michael Brown

Respectfully submitted by:

Emmanuel Poulin, PE
VP of Engineering

tnxTower Report - version 6.1.4.1

EMMANUEL POULIN LICENSED 16180 KANSAS PROFESSIONAL ENGINEER 2/21/14

RECEIVED
APR 11 2014
By

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 97 ft Monopole tower designed by ENGINEERED ENDEAVORS, INC. in July of 1996. The tower was originally designed for a wind speed of 80 mph per TIA/EIA-222-E.

2) ANALYSIS CRITERIA

The structural analysis was performed for this tower in accordance with the requirements of TIA-222-G Structural Standards for Steel Antenna Towers and Antenna Supporting Structures using a 3-second gust wind speed of 89 mph with no ice, 40 mph with 1 inch ice thickness and 60 mph under service loads, exposure category B with topographic category 1 and crest height of 0 feet.

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
97.0	100.0	6	ericsson	800MHZ SMR FILTER	1	5/8	1
		3	ericsson	RRUS 31 B25			
		3	nokia	FZHJ-RRH			
		3	tongyu communication	TYDA-252718DER4-65P w/ Mount Pipe			
	97.0	1	tower mounts	Side Arm Mount [SO 309-3]			
94.0	94.0	3	ericsson	RRUS-11 800MHz w/ Mount Pipe	-	-	1

Notes:
1) Proposed Equipment

Table 2 - Existing and Reserved Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
97.0	104.0	1	andrew	VHLP2-18	2 6 3	1/2 3/8 1-1/4	1
		1	andrew	VHLP2-23			
		2	dragonwave	HORIZON DUO			
	100.0	3	argus technologies	LLPX310R-V1 w/ Mount Pipe			
		3	motorola	WAP 450			
		9	rfs celwave	ACU-A20-N			
		3	rfs celwave	APXVERR18-C w/ Mount Pipe			
	97.0	1	tower mounts	Side Arm Mount [SO 702-3]			
94.0	95.0	6	ericsson	RRUS 11	-	-	2
	94.0	1	tower mounts	Side Arm Mount [SO 309-3]	-	-	1
	93.0	6	ericsson	RRUS 11	-	-	2
90.0	90.0	6	kathrein	800 10121 w/ Mount Pipe	1 2 12 1	5/16 3/4 1-5/8 3/8	1
		6	powerwave technologies	TT08-19DB111-001			
		2	tower mounts	Side Arm Mount [SO 702-3]			
	88.0	3	alcatel lucent	RRH2x40-07-L			
		1	kathrein	800 10766 w/ Mount Pipe			
		1	powerwave technologies	P65-16-XLH-RR w/ Mount Pipe			
		1	powerwave technologies	P65-17-XLH-RR w/ Mount Pipe			
		1	raycap	DC6-48-60-18-8F			

Notes:
1) Existing Equipment
2) Equipment To Be Removed

Table 3 - Design Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
97	97	12	scala	AP17-11900	-	-
80	80	12	scala	AP17-11900	-	-

3) ANALYSIS PROCEDURE

Table 4 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	Terracon, Inc.	2094236	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	EEI	1474657	CCISITES
4-TOWER MANUFACTURER DRAWINGS	EEI	1548504	CCISITES

3.1) Analysis Method

tnxTower (version 6.1.4.1), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built in accordance with the manufacturer's specifications.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. AW Solutions Inc. should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 5 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	97 - 60.25	Pole	TP24.625x15x0.2188	1	-9.41	1156.28	53.9	Pass
L2	60.25 - 26.0312	Pole	TP33.5938x24.625x0.2813	2	-13.40	1935.06	49.0	Pass
L3	26.0312 - 0	Pole	TP39.5x31.7994x0.3125	3	-19.38	2508.79	50.0	Pass
							Summary	
						Pole (L1)	53.9	Pass
						Rating =	53.9	Pass

Table 6 - Tower Component Stresses vs. Capacity - LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	49.5	Pass
1	Base Plate	0	49.7	Pass
1	Base Foundation	0	32.2	Pass
1	Flange Plate	60	35.9	Pass

Structure Rating (max from all components) =	53.9%

Notes:
1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the existing and proposed loads. No modifications are required at this time.

Sprint

PROJECT:	2.5 EQUIPMENT DEPLOYMENT
SITE NAME:	PRAIRIE VILLAGE FIRE STATION
SITE CASCADE:	KC03XC183
SITE NUMBER:	CROWN CASTLE SITE ID: 877791
SITE ADDRESS:	9011 ROE AVENUE PRAIRIE VILLAGE , KANSAS 66208
SITE TYPE:	97'-0" MONOPOLE

SITE INFORMATION

PROPERTY OWNER:
CROWN CASTLE
1001 CRAIG ROAD, SUITE 445
ST. LOUIS, MO 63146
PHONE:

LATITUDE (NAD83):
38° 57' 55.25" N
38.965347°

LONGITUDE (NAD83):
94° 38' 20.76" W
-94.6391°

COUNTY:
JOHNSON

ZONING JURISDICTION:
KANSAS CITY, KS

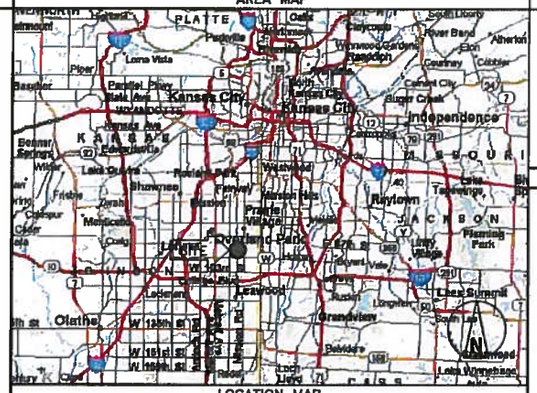
ZONING DISTRICT:

POWER COMPANY:
KANSAS CITY POWER AND LIGHT

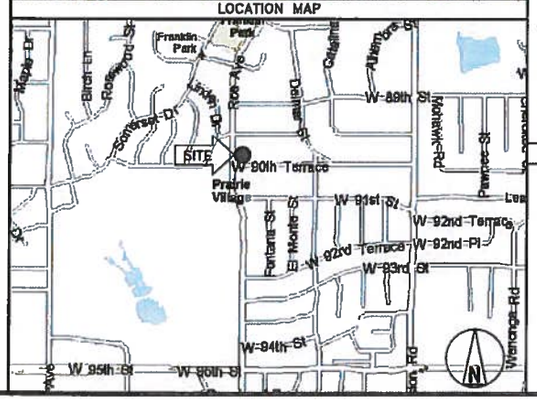
AAV PROVIDER:
AT&T

SPRINT CM:
NAME:
PHONE:
E-MAIL:

AREA MAP



LOCATION MAP



PROJECT DESCRIPTION

- INSTALL (2) 2.5 EQUIPMENT IN EXISTING CABINET
- INSTALL (3) PANEL ANTENNAS
- INSTALL (3) RRUS
- INSTALL (27) JUMPERS
- INSTALL (1) FIBER ONLY CABLE

APPROVALS

SPRINT REPRESENTATIVE	DATE
SPRINT RF ENGINEERING	DATE
SITE OWNER	DATE
SPRINT CONSTRUCTION MANAGER	DATE

THE ABOVE PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

APPLICABLE CODES

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

1. INTERNATIONAL BUILDING CODE
2. INTERNATIONAL MECHANICAL CODE
3. ANSI/TIA-222 STRUCTURAL STANDARD
4. NFPA 780 – LIGHTNING PROTECTION CODE
5. UNIFORM PLUMBING CODE
6. NATIONAL ELECTRICAL CODE

811 Know what's below. Call before you dig. www.oat811.com

DRAWING INDEX

SHEET NO:	SHEET TITLE	REV	ENGINEER
T-1	TITLE SHEET	0	SC/E
SP-1	SPRINT SPECIFICATIONS	0	SC/E
SP-2	SPRINT SPECIFICATIONS	0	SC/E
A-1	SITE PLAN	0	SC
A-2	TOWER ELEVATION & CABLE PLAN	0	SC
A-3	ANTENNA LAYOUT & MOUNTING DETAILS	0	SC
A-4	RF DATA & COLOR CODES	0	SC
A-5	EQUIPMENT DETAILS	0	SC
A-6	EQUIPMENT DETAILS	0	SC
E-1	GROUNDING & ELECTRICAL PLAN	0	E
E-2	GROUNDING DETAILS	0	E
E-3	DC POWER & DISTRIBUTION	0	E

ROBERT E. JENSEN LICENSED 16096 KANSAS PROFESSIONAL ENGINEER 4/1/14

SHELTON D. KESLING LICENSED 13654 KANSAS PROFESSIONAL ENGINEER 4-1-14

APPLICANT:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED FOR:
CROWN CASTLE
1001 CRAIG ROAD, SUITE 445
ST LOUIS, MISSOURI 63146
OFFICE 314.569.3713
FAX 314.569.3643

PLANS PREPARED BY:
SSC
721 Emerson Road, Suite 475
St. Louis, Missouri 63141
Phone: 314-993-1010
Fax: 913-438-7777

ENGINEERING LICENSE:
STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER	PE #	DISCIPLINE:
MJO MICHAEL L OWENS	16917	STRUCTURAL/CIVIL SC
KV KEVIN VANHAELE	22165	STRUCTURAL/CIVIL SC
RJ ROBERT E. JENSEN	16096	STRUCTURAL/CIVIL SC
TLS TERRANCE M. SUPER	8280	ELECTRICAL E
SDK SHELTON D. KESLING	13654	ELECTRICAL E

MLA DRAWING NOTICE:
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SUBMITTALS

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/19/14	DSH	A
ISSUED FOR PERMITTING	03/24/14	MJO	B

MLA SITE NAME & NUMBER:
PRAIRIE VILLAGE FIRE STATION 877791

APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE FIRE STATION KC03XC183

SITE ADDRESS:
9011 ROE AVENUE PRAIRIE VILLAGE, KANSAS 66208

SHEET DESCRIPTION:
TITLE SHEET

SSC #:

SHEET NUMBER:
T-1

RECEIVED APR 11 2014 By

THESE OUTLINE SPECIFICATIONS IN CONJUNCTION WITH THE SPRINT STANDARD CONSTRUCTION SPECIFICATIONS, INCLUDING CONTRACT DOCUMENTS AND THE CONSTRUCTION DRAWINGS DESCRIBE THE WORK TO BE PERFORMED BY THE CONTRACTOR.

SECTION 01 100 – SCOPE OF WORK

THE WORK:
SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF.

PRECEDENCE:
SHOULD CONFLICTS OCCUR BETWEEN THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES INCLUDING THE STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES AND THE CONSTRUCTION DRAWINGS, INFORMATION ON THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE.

SITE FAMILIARITY:
CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

ON-SITE SUPERVISION:
THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE:
THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF STAMPED CONSTRUCTION DRAWINGS AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.

A. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. PROVIDE ALL MATERIALS AND LABOR AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

B. CONTRACTOR SHALL NOTIFY SPRINT AND CROWN CASTLE CONSTRUCTION MANAGER OF ANY VARIATIONS PRIOR TO PROCEEDING WITH THE WORK. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS NOTED OTHERWISE. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

C. MARK THE FIELD SET OF DRAWINGS IN RED, DOCUMENTING ANY CHANGES FROM THE CONSTRUCTION DOCUMENTS.

METHODS OF PROCEDURE (MOPS) FOR CONSTRUCTION:
CONTRACTOR SHALL PERFORM WORK AS DESCRIBED IN

A. COAX COLOR CODING SWEEPS AND FIBER TESTING TS-0200 AND EL-0568

B. CABLE LABELING EN-2012-00

C. APPLICABLE INSTALLATION MOPS IDENTIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS

SECTION 01 200 – COMPANY FURNISHED MATERIAL AND EQUIPMENT

COMPANY FURNISHED MATERIAL AND EQUIPMENT IS IDENTIFIED ON THE RF DATA SHEET IN THE CONSTRUCTION DRAWINGS.

CONTRACTOR IS RESPONSIBLE FOR SPRINT PROVIDED MATERIAL AND EQUIPMENT TO ENSURE IT IS PROTECTED AND HANDLED PROPERLY THROUGHOUT THE CONSTRUCTION DURATION.

CONTRACTOR RESPONSIBLE FOR RECEIPT OF SPRINT FURNISHED EQUIPMENT AT CELL SITE OR CONTRACTORS LOCATION. CONTRACTOR TO COMPLETE SHIPPING AND RECEIPT DOCUMENTATION IN ACCORDANCE WITH COMPANY PRACTICE.

SECTION 01 300 – CELL SITE CONSTRUCTION

NOTICE TO PROCEED:
NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED AND THE ISSUANCE OF WORK ORDER.

SITE CLEANLINESS:
CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH DAILY. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.

SECTION 01 400 – SUBMITTALS & TESTS

ALTERNATES:
AT THE COMPANY'S REQUEST, ANY ALTERNATIVES TO THE MATERIALS OR METHODS SPECIFIED SHALL BE SUBMITTED TO SPRINTS CONSTRUCTION MANAGER FOR APPROVAL. SPRINT WILL REVIEW AND APPROVE ONLY THOSE REQUESTS MADE IN WRITING. NO VERBAL APPROVALS WILL BE CONSIDERED.

TESTS AND INSPECTIONS:

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.

B. CONTRACTOR SHALL ACCOMPLISH TESTING INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. COAX SWEEPS AND FIBER TESTS PER TS-0200 REV 4 ANTENNA LINE ACCEPTANCE STANDARDS.
2. AGL, AZIMUTH AND DOWNTILT PROVIDE AN AUTOMATED REPORT UPLOADED TO SITERRA USING A COMMERCIAL MADE-FOR THE PURPOSE ELECTRONIC ANTENNA ALIGNMENT TOOL (AAT). INSTALLED AZIMUTH, CENTERLINE AND DOWNTILT MUST CONFORM WITH RF CONFIGURATION DATA
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL CORRECTIONS TO ANY WORK IDENTIFIED AS UNACCEPTABLE IN SITE INSPECTION ACTIVITIES AND/OR AS A RESULT OF TESTING.
4. ALL TESTING REQUIRED BY APPLICABLE INSTALLATION MOPS.

C. REQUIRED CLOSEOUT DOCUMENTATION INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING;

1. AZIMUTH, DOWNTILT, AGL FROM SUNSIGHT INSTRUMENTS – ANTENNALIGN ALIGNMENT TOOL (AAT)
2. SWEEP AND FIBER TESTS
3. SCALABLE BARCODE PHOTOGRAPHS OF TOWER TOP AND INACCESSIBLE SERIALIZED EQUIPMENT
4. ALL AVAILABLE JURISDICTIONAL PERMIT AND OCCUPANCY INFORMATION
5. PDF SCAN OF REDLINES PRODUCED IN FIELD
6. A PDF SCAN OF REDLINE MARK-UPS SUITABLE FOR USE IN ELECTRONIC AS-BUILT DRAWING PRODUCTION
7. LIEN WAIVERS
8. FINAL PAYMENT APPLICATION
9. REQUIRED FINAL CONSTRUCTION PHOTOS
10. CONSTRUCTION AND COMMISSIONING CHECKLIST COMPLETE WITH NO DEFICIENT ITEMS
11. APPLICABLE POST NTP TASKS INCLUDING DOCUMENT UPLOADS COMPLETED IN SITERRA (SPRINTS DOCUMENT REPOSITORY OF RECORD).
12. CLOSEOUT PHOTOGRAPHS AND CLOSEOUT CHECKLIST: SPRINT WILL PROVIDE SEPARATE GUIDANCE

SECTION 11 700 – ANTENNA ASSEMBLY, REMOTE RADIO UNITS AND CABLE INSTALLATION

SUMMARY:
THIS SECTION SPECIFIES INSTALLATION OF ANTENNAS, RRU'S, AND CABLE EQUIPMENT, INSTALLATION, AND TESTING OF COAXIAL FIBER CABLE.

ANTENNAS AND RRU'S:
THE NUMBER AND TYPE OF ANTENNAS AND RRU'S TO BE INSTALLED IS DETAILED ON THE CONSTRUCTION DRAWINGS.

FIBER CABLE:
CABLE WILL BE FIBER AND FURNISHED FOR INSTALLATION AT EACH SITE. CABLE SHALL BE INSTALLED PER THE CONSTRUCTION DRAWINGS AND THE APPLICABLE MANUFACTURER'S REQUIREMENTS.

JUMPERS AND CONNECTORS:
FURNISH AND INSTALL 1/2" COAX JUMPER CABLES BETWEEN THE RRU'S AND ANTENNAS. JUMPERS SHALL BE TYPE LOF 4, FLC 12-50, CR 540, OR FXL 540. SUPER-FLEX CABLES ARE NOT ACCEPTABLE. JUMPERS BETWEEN THE RRU'S AND ANTENNAS OR TOWER TOP AMPLIFIERS SHALL CONSIST OF 1/2 INCH FOAM DIELECTRIC, OUTDOOR RATED COAXIAL CABLE, MIN LENGTH FOR JUMPER SHALL BE 10'-0".

REMOTE ELECTRICAL TILT (RET) CABLES: A/E TO

MISCELLANEOUS:
INSTALL SPLITTERS, COMBINERS, FILTERS PER RF DATA SHEET, FURNISHED BY SPRINT.

ANTENNA INSTALLATION:
THE CONTRACTOR SHALL ASSEMBLE ALL ANTENNAS ONSITE IN ACCORDANCE WITH THE INSTRUCTIONS SUPPLIED BY THE MANUFACTURER. ANTENNA HEIGHT, AZIMUTH, AND FEED ORIENTATION INFORMATION SHALL BE A DESIGNATED ON THE CONSTRUCTION DRAWINGS.

A. THE CONTRACTOR SHALL POSITION THE ANTENNA ON TOWER PIPE MOUNTS SO THAT THE BOTTOM STRUT IS LEVEL. THE PIPE MOUNTS SHALL BE PLUMB TO WITHIN 1 DEGREE.

B. ANTENNA MOUNTING REQUIREMENTS: PROVIDE ANTENNA MOUNTING HARDWARE AS INDICATED ON THE DRAWINGS.

FIBER CABLE INSTALLATION:

A. THE CONTRACTOR SHALL ROUTE, TEST, AND INSTALL ALL CABLES AS INDICATED ON THE CONSTRUCTION DRAWINGS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

B. THE INSTALLED RADIUS OF THE CABLES SHALL NOT BE LESS THAN THE MANUFACTURER'S SPECIFICATIONS FOR BENDING RADII.

C. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE CABLES DURING HANDLING AND INSTALLATION.

1. FASTENING MAIN FIBER CABLES: ALL CABLES SHALL BE INSTALLED INSIDE MONOPOLE WITH CABLE SUPPORT GRIPS AS REQUIRED BY THE MANUFACTURER.
2. FASTENING INDIVIDUAL FIBER AND DC CABLES ABOVE BREAKOUT ENCLOSURE (MEDUSA), WITHIN THE MMBS CABINET AND ANY INTERMEDIATE DISTRIBUTION BOXES:
   a. FIBER: SUPPORT FIBER BUNDLES USING ½" VELCRO STRAPS OF THE REQUIRED LENGTH @ 18" OC. STRAPS SHALL BE UV, OIL AND WATER RESISTANT AND SUITABLE FOR INDUSTRIAL INSTALLATIONS AS MANUFACTURED BY TEXTOL OR APPROVED EQUAL.
   b. DC: SUPPORT DC BUNDLES WITH ZIP TIES OF THE ADEQUATE LENGTH. ZIP TIES TO BE UV STABILIZED, BLACK NYLON, WITH TENSILE STRENGTH AT 12,000 PSI AS MANUFACTURED BY NELCO PRODUCTS OR EQUAL.
3. FASTENING JUMPERS: SECURE JUMPERS TO THE SIDE ARMS OR HEAD FRAMES USING STAINLESS STEEL TIE WRAPS OR STAINLESS STEEL BUTTERFLY CLIPS.
4. CABLE INSTALLATION:
   a. INSPECT CABLE PRIOR TO USE FOR SHIPPING DAMAGE, NOTIFY THE CONSTRUCTION MANAGER IF DAMAGE IS PRESENT.
   b. CABLE ROUTING: CABLE INSTALLATION SHALL BE PLANNED TO ENSURE THAT THE LINES WILL BE PROPERLY ROUTED IN THE CABLE ENVELOP AS INDICATED ON THE DRAWINGS. AVOID TWISTING AND CROSSOVERS.
   c. HOIST CABLE USING PROPER HOISTING GRIPS. DO NOT EXCEED MANUFACTURER'S RECOMMENDED MAXIMUM BEND RADIUS.

ROBERT E. JENSEN LICENSED 16096 KANSAS PROFESSIONAL ENGINEER 4/1/14

SHELTON D. KEISLING LICENSED 13654 KANSAS PROFESSIONAL ENGINEER 4-1-14

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STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-971

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MLA DRAWING NOTICE:

SUBMITTALS

DESCRIPTION	DATE	BY	REV
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ISSUED FOR PERMITTING	03/31/14	MJD	0

MLA SITE NAME & NUMBER:
PRAIRIE VILLAGE
FIRE STATION
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66208

SHEET DESCRIPTION:
SPRINT SPECIFICATIONS

SSC #:

SHEET NUMBER:
SP-1

CONTINUE FROM SP-1

5. GROUNDING OF TRANSMISSION LINES: ALL TRANSMISSION LINES SHALL BE GROUNDED AS INDICATED ON DRAWINGS.

6. CABLE COLOR CODING: ALL COLOR CODING SHALL BE AS REQUIRED IN TS 0200 REV 4.

7. CABLE LABELING: INDIVIDUAL FIBER AND DC BUNDLES SHALL BE LABELED ALPHA-NUMERICALLY ACCORDING TO SPRINT CELL SITE ENGINEERING NOTICE – EN 2012-001, REV 1

WEATHERPROOFING EXTERIOR CONNECTORS AND FIBER CABLE GROUND KITS:

A. ALL FIBER & COAX CONNECTORS AND GROUND KITS SHALL BE WEATHERPROOFED.

B. WEATHERPROOFED USING ONE OF THE FOLLOWING METHODS. ALL INSTALLATIONS MUST BE DONE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND INDUSTRY BEST PRACTICES.

1. COLD SHRINK: ENCOMPASS CONNECTOR IN COLD SHRINK TUBING AND PROVIDE A DOUBLE WRAP OF 2" ELECTRICAL TAPE EXTENDING 2" BEYOND TUBING. PROVIDE 3M COLD SHRINK CXS SERIES OR EQUAL.
2. SELF-AMALGAMATING TAPE: CLEAN SURFACES. APPLY A DOUBLE WRAP OF SELF-AMALGAMATING TAPE 2" BEYOND CONNECTOR. APPLY A SECOND WRAP OF SELF-AMALGAMATING TAPE IN OPPOSITE DIRECTION. APPLY DOUBLE WRAP OF 2" WIDE ELECTRICAL TAPE EXTENDING 2" BEYOND THE SELF-AMALGAMATING TAPE.
3. 3M SLIM LOCK CLOSURE 716: SUBSTITUTIONS WILL NOT BE ALLOWED.
4. OPEN FLAME ON JOB SITE IS NOT ACCEPTABLE

SECTION 11 800 – INSTALLATION OF MULTIMODAL BASE STATIONS (MMBS) AND RELATED EQUIPMENT

SUMMARY:

A. THIS SECTION SPECIFIES MMBS CABINETS, POWER CABINETS, AND INTERNAL EQUIPMENT INCLUDING BY NOT LIMITED TO RECTIFIERS, POWER DISTRIBUTION UNITS, BASE BAND UNITS, SURGE ARRESTORS, BATTERIES, AND SIMILAR EQUIPMENT FURNISHED BY THE COMPANY FOR INSTALLATION BY THE CONTRACTOR (OFCI).

B. CONTRACTOR SHALL PROVIDE AND INSTALL ALL MISCELLANEOUS MATERIALS AND PROVIDE ALL LABOR REQUIRED FOR INSTALLATION EQUIPMENT IN EXISTING CABINET OR NEW CABINET AS SHOWN ON DRAWINGS AND AS REQUIRE BY THE APPLICABLE INSTALLATION MOPS.

C. COMPLY WITH MANUFACTURERS INSTALLATION AND START-UP REQUIREMENTS

DC CIRCUIT BREAKER LABELING

A. NEW DC CIRCUIT IS REQUIRED IN MMBS CABINET SHALL BE CLEARLY IDENTIFIED AS TO RRU BEING SERVICED

SECTION 26 100 – BASIC ELECTRICAL REQUIREMENTS

SUMMARY:
THIS SECTION SPECIFIES BASIC ELECTRICAL REQUIREMENTS FOR SYSTEMS AND COMPONENTS.

QUALITY ASSURANCE:

A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.

B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.

C. MATERIALS AND EQUIPMENT: ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

SUPPORTING DEVICES:

A. ALL EQUIPMENT FURNISHED UNDER DIVISION 26 SHALL CARRY UL LABELS AND LISTINGS WHERE SUCH LABELS AND LISTINGS ARE AVAILABLE IN THE INDUSTRY.

B. MANUFACTURERS OF EQUIPMENT SHALL HAVE A MINIMUM OF THREE YEARS EXPERIENCE WITH THEIR EQUIPMENT INSTALLED AND OPERATING IN THE FIELD IN A USE SIMILAR TO THE PROPOSED USE FOR THIS PROJECT.

C. MATERIALS AND EQUIPMENT:
ALL MATERIALS AND EQUIPMENT SPECIFIED IN DIVISION 26 OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL BE NEW, OF THE BEST QUALITY AND DESIGN, AND FREE FROM DEFECTS

SUPPORTING DEVICES:

A. MANUFACTURED STRUCTURAL SUPPORT MATERIALS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY THE FOLLOWING:

1. ALLIED TUBE AND CONDUIT
2. B-LINE SYSTEM
3. SUNISTRUT DIVERSIFIED PRODUCTS
4. THOMAS & BETTS

B. FASTENERS: TYPES, MATERIALS, AND CONSTRUCTION FEATURES AS FOLLOWS:

1. POWER-DRIVEN THREADED STUDS: HEAT-TREATED STEEL, DESIGNED SPECIFICALLY FOR THE INTENDED SERVICE.
2. FASTEN BY MEANS OF WOOD SCREWS ON WOOD.
3. TOGGLE BOLTS ON HOLLOW MASONRY UNITS.
4. HILTI EPOXY ANCHORS AR REQUIRED ON CROWN CASTLE SITES ON CONCRETE OR SOLID MASONRY.
5. MACHINE SCREWS, WELDED THREADED STUDS, OR SPRING-TENSION CLAMPS ON STEEL.
6. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE SHALL NOT BE PERMITTED.
7. IN PARTITIONS OF LIGHT STEEL CONSTRUCTION, USE SHEET METAL SCREWS.

SUPPORTING DEVICES:

A. INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH NEC.

B. COORDINATE WITH THE BUILDING STRUCTURAL SYSTEM AND WITH OTHER TRADES.

C. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE STRUCTURE IN ACCORDANCE WITH THE FOLLOWING:

D. ENSURE THAT THE LOAD APPLIED BY ANY FASTENER DOES NOT EXCEED 25 PERCENT OF THE PROOF TEST LOAD.

E. USE VIBRATION AND SHOCK-RESISTANT FASTENERS FOR ATTACHMENTS TO CONCRETE SLABS.

ELECTRICAL IDENTIFICATION:

A. UPDATE AND PROVIDE TYPED CIRCUIT BREAKER SCHEDULES IN THE MOUNTING BRACKET, INSIDE DOORS OF AC PANEL BOARDS WITH ANY CHANGES MADE TO THE AC SYSTEM.

B. BRANCH CIRCUITS FEEDING AVIATION OBSTRUCTION LIGHTING EQUIPMENT SHALL BE CLEARLY IDENTIFIED AS SUCH AT THE BRANCH CIRCUIT PANELBOARD.

SECTION 26 200 – ELECTRICAL MATERIALS AND EQUIPMENT

CONDUIT:

A. RIGID GALVANIZED STEEL (RGS) CONDUIT SHALL BE USED FOR EXTERIOR LOCATIONS ABOVE GROUND AND IN UNFINISHED INTERIOR LOCATIONS AND FOR ENCASED RUNS IN CONCRETE. RIGID CONDUIT AND FITTINGS SHALL BE STEEL, COATED WITH ZINC EXTERIOR AND INTERIOR BY THE HOT DIP GALVANIZING PROCESS. CONDUIT SHALL BE PRODUCED TO ANSI SPECIFICATIONS C80.1, FEDERAL SPECIFICATION WW-C-581 AND SHALL BE LISTED WITH THE UNDERWRITERS' LABORATORIES. FITTINGS SHALL BE THREADED – SET SCREW OR COMPRESSION FITTINGS WILL NOT BE ACCEPTABLE. RGS CONDUITS SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND.

B. UNDERGROUND CONDUIT SHALL BE POLYVINYLCHLORIDE (PVC) SUITABLE FOR DIRECT BURIAL AS APPLICABLE. JOINTS SHALL BE BELLED, AND FLUSH SOLVENT WELDED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE CARLON ELECTRICAL PRODUCTS OR APPROVED EQUAL.

C. TRANSITIONS BETWEEN PVC AND RIGID (RGS) SHALL BE MADE WITH PVC COATED METALLIC LONG SWEEP RADIUS ELBOWS.

D. EMT OR RIGID GALVANIZED STEEL CONDUIT MAY BE USED IN FINISHED SPACES CONCEALED IN WALLS AND CEILINGS. EMT SHALL BE MILD STEEL, ELECTRICALLY WELDED, ELECTRO-GALVANIZED OR HOT-DIPPED GALVANIZED AND PRODUCED TO ANSI SPECIFICATION C80.3, FEDERAL SPECIFICATION WW-C-563, AND SHALL BE UL LISTED. EMT SHALL BE MANUFACTURED BY ALLIED, REPUBLIC OR WHEATLAND, OR APPROVED EQUAL. FITTINGS SHALL BE METALLIC COMPRESSION. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE.

E. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT SHALL BE USED FOR FINAL CONNECTION TO EQUIPMENT. FITTINGS SHALL BE METALLIC GLAND TYPE COMPRESSION FITTINGS, MAINTAINING THE INTEGRITY OF CONDUIT SYSTEM. SET SCREW CONNECTIONS SHALL NOT BE ACCEPTABLE. MAXIMUM LENGTH OF FLEXIBLE CONDUIT SHALL NOT EXCEED 6-FEET. LFMC SHALL BE PROTECTED AND SUPPORTED AS REQUIRE BY NEC. MANUFACTURERS OF FLEXIBLE CONDUITS SHALL BE CAROL, ANACONDA METAL HOSE OR UNIVERSAL METAL HOSE, OR APPROVED EQUAL.

F. MINIMUM SIZE CONDUIT SHALL BE 3/4 INCH (21MM).

HUBS AND BOXES:

A. AT ENTRANCES TO CABINETS OR OTHER EQUIPMENT NOT HAVING INTEGRAL THREADED HUBS PROVIDE METALLIC THREADED HUBS OF THE SIZE AND CONFIGURATION REQUIRED. HUB SHALL INCLUDE LOCKNUT AND NEOPRENE O-RING SEAL. PROVIDE IMPACT RESISTANT 105 DEGREE C PLASTIC BUSHINGS TO PROTECT CABLE INSULATION.

B. CABLE TERMINATION FITTINGS FOR CONDUIT

1. CABLE TERMINATORS FOR RGS CONDUITS SHALL BE TYPE CRC BY O-Z/GEDNEY OR EQUAL BY ROX TEC.
2. CABLE TERMINATORS FOR LFMC SHALL BE ETCO – CL2075; OR MADE FOR THE PURPOSE PRODUCTS BY ROXTEC.

C. EXTERIOR PULL BOXES AND PULL BOXES IN INTERIOR INDUSTRIAL AREAS SHALL BE PLATED CAST ALLOY, HEAVY DUTY, WEATHERPROOF, DUST PROOF, WITH GASKET, PLATED IRON ALLOY COVER AND STAINLESS STEEL COVER SCREWS, CROUSE-HINDS WAB SERIES OR EQUAL.

D. CONDUIT OUTLET BODIES SHALL BE PLATED CAST ALLOY WITH SIMILAR GASKETED COVERS. OUTLET BODIES SHALL BE OF THE CONFIGURATION AND SIZE SUITABLE FOR THE APPLICATION. PROVIDE CROUSE-HINDS FORM 8 OR EQUAL.

E. MANUFACTURER FOR BOXES AND COVERS SHALL BE HOFFMAN, SQUARE "D", CROUSE-HINDS, COOPER, ADALET, APPLETON, O-Z GEDNEY, RACO, OR APPROVED EQUAL.

SUPPLEMENTAL GROUNDING SYSTEM

A. FURNISH AND INSTALL A SUPPLEMENTAL GROUNDING SYSTEM TO THE EXTENT INDICATED ON THE DRAWINGS. SUPPORT SYSTEM WITH NON-MAGNETIC STAINLESS STEEL CLIPS WITH RUBBER GROMMETS. GROUNDING CONNECTORS SHALL BE TINNED COPPER WIRE, SIZES AS INDICATED ON THE DRAWINGS. PROVIDE STRANDED OR SOLID BARE OR INSULATED CONDUCTORS EXCEPTED AS OTHERWISE NOTED.

B. SUPPLEMENTAL GROUNDING SYSTEM: ALL CONNECTIONS TO BE MADE WITH CAD WELDS, EXCEPT AT EQUIPMENT USE LUGS OR OTHER AVAILABLE GROUNDING MEANS AS REQUIRED BY MANUFACTURER; AT GROUND BARS USE TWO HOLE SPADES WITH NO OX.

C. STOLEN GROUND-BARS: IN THE EVENT OF STOLEN GROUND BARS, CONTACT SPRINT CM FOR REPLACEMENT INSTRUCTION USING THREADED ROD KITS.

D. ALL GROUNDING THAT TRANSITIONS FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 TINNED SOLID IN 3/4" LIQUID TIGHT CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT THE EXPOSED END OF THE LIQUID TIGHT CONDUIT MUST BE SEALED WITH SILICONE CAULK (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

E. ALL INSTALLED GROUNDS ARE TO ACHIEVE 5OHMS OR LESS RESISTANCE.

EXISTING STRUCTURE:

A. EXISTING EXPOSED WIRING AND ALL EXPOSED OUTLETS, RECEPTACLES, SWITCHES, DEVICES, BOXES, AND OTHER EQUIPMENT THAT ARE NOT TO BE UTILIZED IN THE COMPLETED PROJECT SHALL BE REMOVED OR DE-ENERGIZED AND CAPPED IN THE WALL, CEILING, OR FLOOR SO THAT THEY ARE CONCEALED AND SAFE. WALL, CEILING, OR FLOOR SHALL BE PATCHED TO MATCH THE ADJACENT CONSTRUCTION.

CONDUIT AND CONDUCTOR INSTALLATION:

A. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISHED GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

B. CONDUCTORS SHALL BE PULLED IN ACCORDANCE WITH ACCEPTED GOOD PRACTICE.

C. ALL CONDUITS THAT ARE INSTALLED ARE TO HAVE METERED MULE TAPE PULL CORD INSTALLED.

D. SCHED. 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWES/90'S AND ON ALL CONDUIT ABOVE GRADE THAT IS PVC. IF THESE COMMENTS ARE NEEDED THEN THERE NEEDS TO BE DETAILS SOMEWHERE IN THIS CD WHICH SHOW THE CROWN CASTLE TRENCHING STANDARDS INCLUDING THE 6" WIDE METALLIC LOCATOR'S TAPE BURIED AT 12" BELOW FINISHED GRADE.

ROBERT E. JENSEN LICENSED 16096 KANSAS PROFESSIONAL ENGINEER 4/1/14

SHELTON D. KESSLING LICENSED 13654 KANSAS PROFESSIONAL ENGINEER 4-1-14

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CROWN CASTLE

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KV	KEVIN VALMAELE	22105	STRUCTURAL/CIVIL	SC
REJ	ROBERT E. JENSEN	16096	STRUCTURAL/CIVIL	SC
TMS	TERRANCE M. SUPER	8250	ELECTRICAL	E
SDK	SHELTON D. KESSLING	13654	ELECTRICAL	E

MLA DRAWING NOTICE:

SUBMITTALS

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/19/14	DSH	A
ISSUED FOR PERMITTING	03/31/14	MJO	0

MLA SITE NAME & NUMBER:
PRAIRIE VILLAGE FIRE STATION 877791

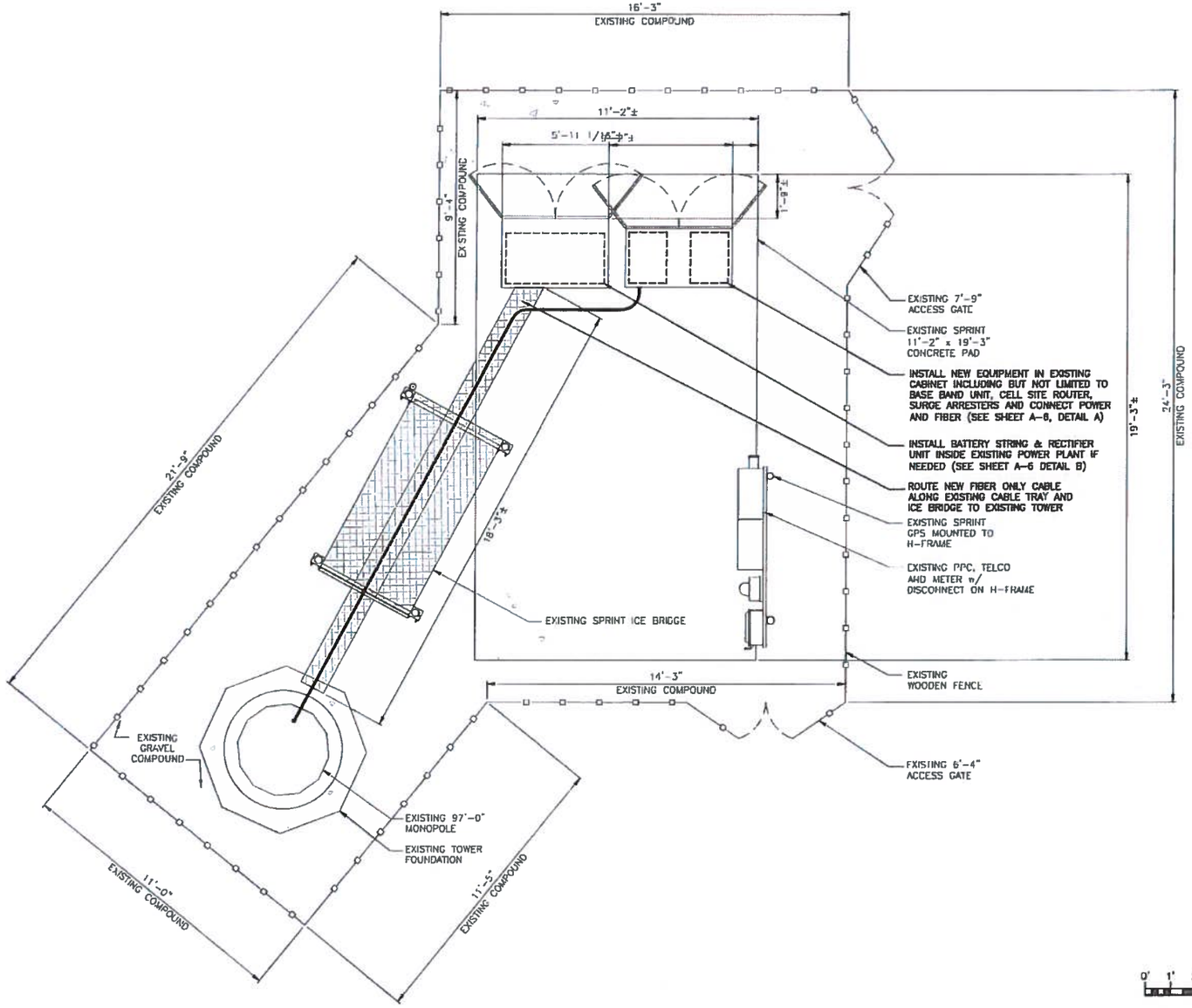
APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE FIRE STATION KC03XC183

SITE ADDRESS:
9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS 66208

SHEET DESCRIPTION:
SPRINT SPECIFICATIONS

SSC #:

SHEET NUMBER:
SP-2



ROBERT E. JENSEN
LICENSED
16096
KANSAS
PROFESSIONAL ENGINEER

APPLICANT:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED FOR:
CROWN CASTLE
1501 CRAIG ROAD, SUITE 403
ST LOUIS, MISSOURI 63146
OFFICE: 314.569.3713
FAX: 314.569.3848

PLANS PREPARED BY:
721 Emerson Road, Suite 475
St. Louis, Missouri 63141
Phone: 314-993-1010
Fax: 913-438-7777
SSC

ENGINEERING LICENSE:
STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:		PE #:	DISCIPLINE:	
MLO	MICHAEL L. OWENS	16917	STRUCTURAL/CIVIL	SC
KV	KEVIN VANMAELE	22165	STRUCTURAL/CIVIL	SC
REJ	ROBERT E. JENSEN	16096	STRUCTURAL/CIVIL	SC
TLS	TERRANCE M. SUPER	9256	ELECTRICAL	E
SDK	SHELTON D. KEISLING	13654	ELECTRICAL	E

MLA DRAWING NOTICE:

SUBMITTALS

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ISSUED FOR PERMITTING	03/31/14	MJD	0

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PRAIRIE VILLAGE
FIRE STATION
877791

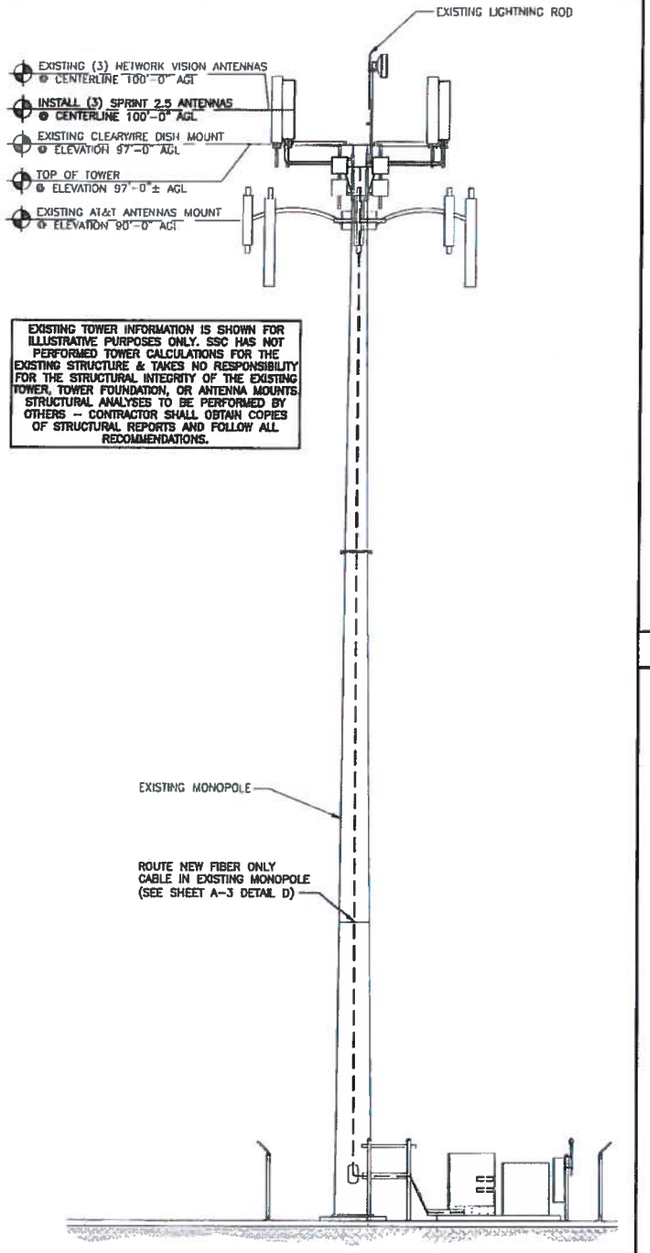
APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE
FIRE STATION
KC03XC183

SITE ADDRESS:
9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS
66208

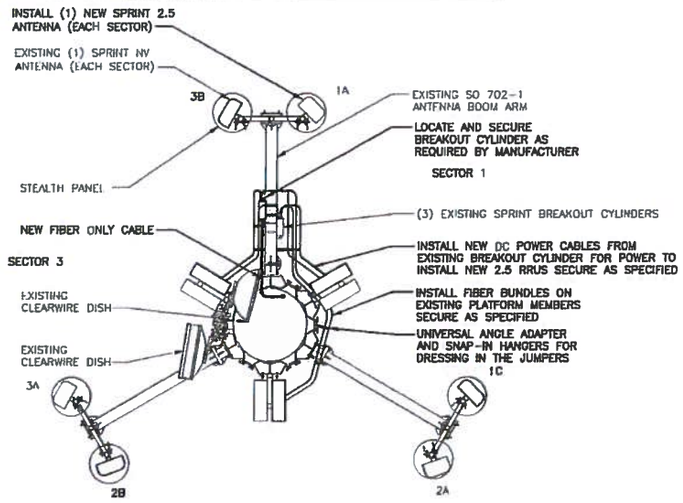
SHEET DESCRIPTION:
SITE PLAN

SSC #:

SHEET NUMBER:
A-1

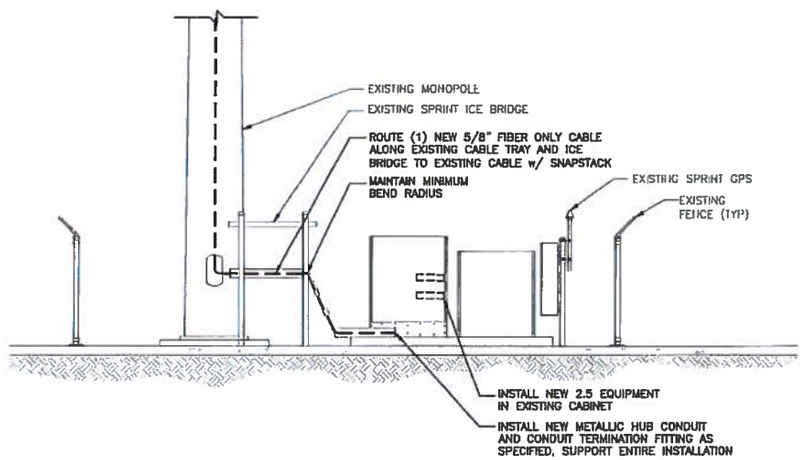


SITE ELEVATION | NO SCALE | C



SECTOR 2

TYPICAL CABLE DETAIL | NO SCALE | A



CABLE ROUTE FROM CABINET | NO SCALE | B

ROBERT E. JENSEN
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APPLICANT:
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6580 Sprint Parkway
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ENGINEERING LICENSE:

STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:		PE #:	DISCIPLINE:	
MLO	MICHAEL L. OWENS	18917	STRUCTURAL/CIVIL	SC
KV	KEVIN VARMAELS	22185	STRUCTURAL/CIVIL	SC
REJ	ROBERT E. JENSEN	16096	STRUCTURAL/CIVIL	SC
TMS	TERRANCE M. SUPER	9209	ELECTRICAL	E
SDK	SHELTON D. KEISLING	13654	ELECTRICAL	E

MLA DRAWING NOTICE:

SUBMITTALS

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APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE FIRE STATION KC03XC183

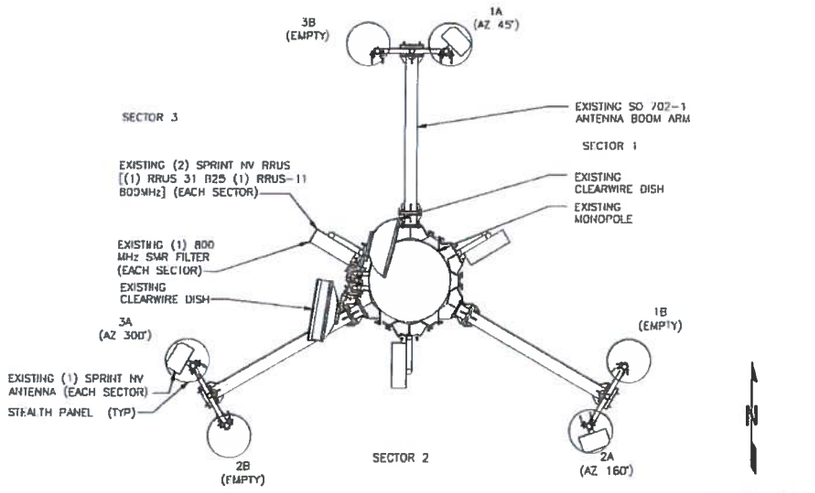
SITE ADDRESS:
9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS 66208

SHEET DESCRIPTION:
TOWER ELEVATION & CABLE PLAN

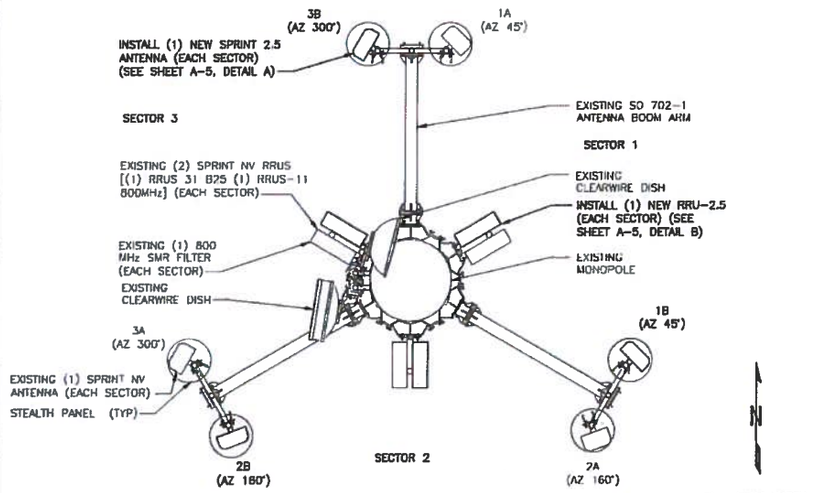
SSC #:

SHEET NUMBER:
A-2

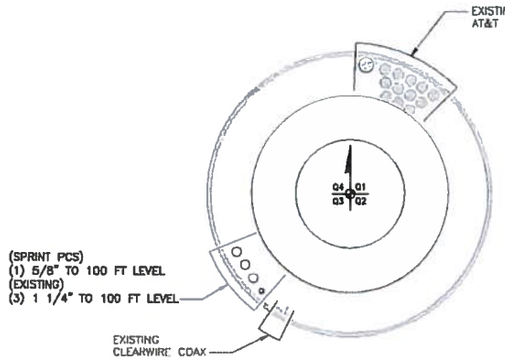
NOTE
RRUS11–1900 TO BE REMOVED AND REPLACED WITH RRU 31–B25 (EACH SECTOR) BY OTHERS (ERICSSON) PRIOR TO SPRINT 2.5 INSTALLATION. ALSO, IF APPLICABLE THE COMBINERS AND FILTERS AS REQUIRED IN THE POR/RRU SWAP FILE.



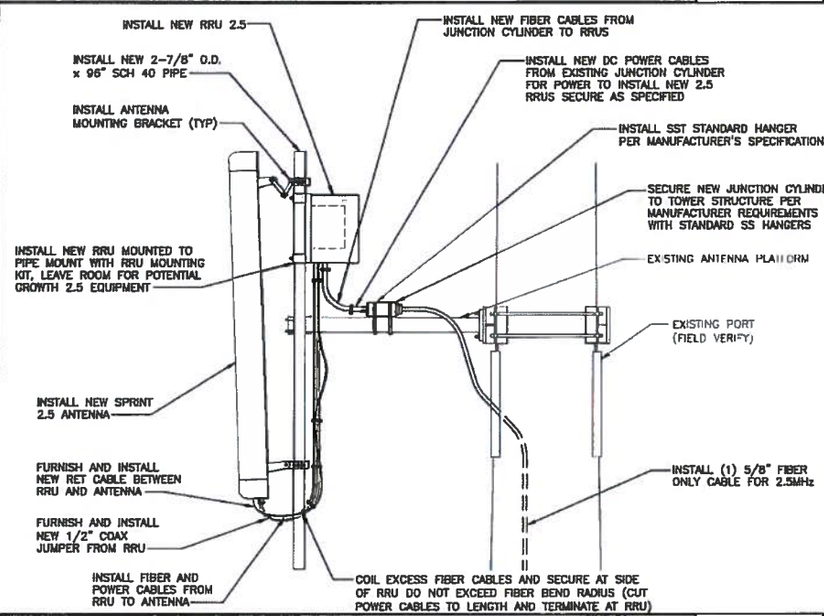
EXISTING ANTENNA & RRU LAYOUT | NO SCALE | C



FINAL ANTENNA & RRU LAYOUT | NO SCALE | A



BASE LEVEL DETAIL | NO SCALE | D



ANTENNA, RRU & JUNCTION MOUNTING DETAILS | NO SCALE | B

ROBERT E. JENSEN
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PROFESSIONAL ENGINEER

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SSC

ENGINEERING LICENSE:
STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-671

ENGINEER:		PE #:	DISCIPLINE:	
MLO	MICHAEL L. OWENS	16917	STRUCTURAL/CIVIL	SC
KV	KEVIN VAZMAESUE	22105	STRUCTURAL/CIVIL	SC
REJ	ROBERT E. JENSEN	16096	STRUCTURAL/CIVIL	SC
TLS	TERRANCE M. SUPER	9250	ELECTRICAL	E
SDK	SHELTON D. KEISLING	13854	ELECTRICAL	E

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SUBMITTALS

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ISSUED FOR PERMITTING	03/31/14	MJO	0

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PRAIRIE VILLAGE
FIRE STATION
877791

APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE
FIRE STATION
KC03XC183

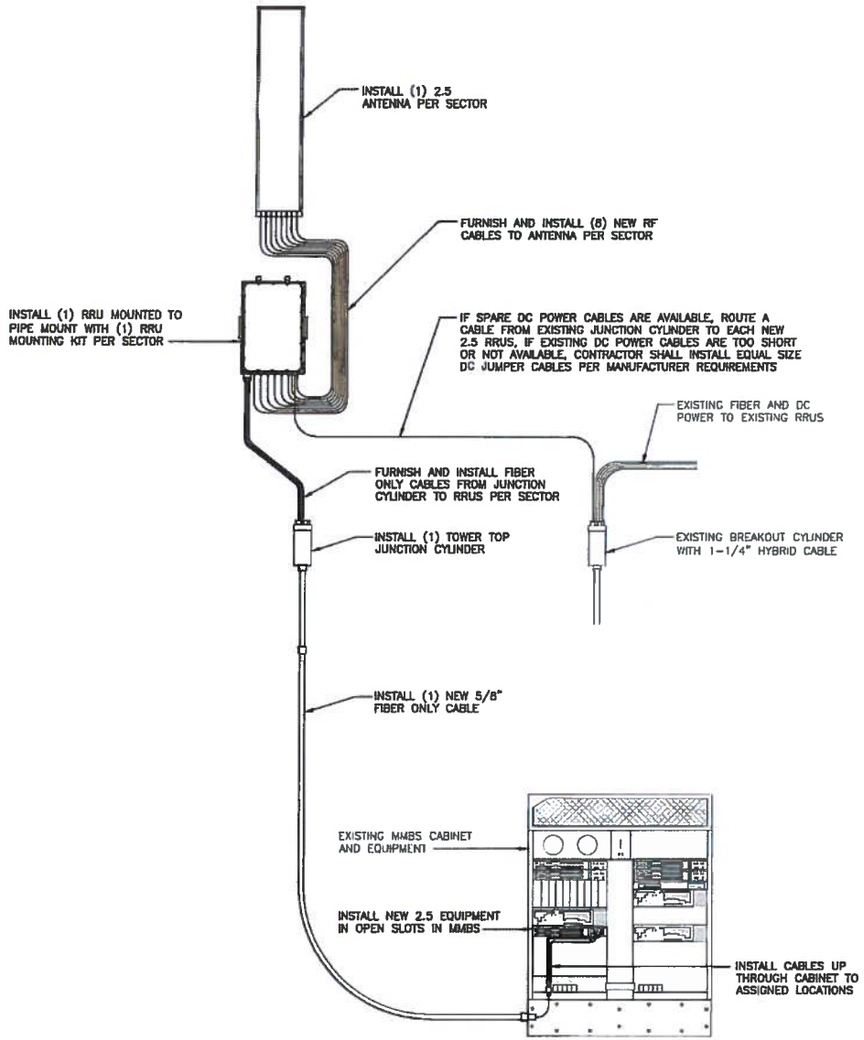
SITE ADDRESS:
9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS
66208

SHEET DESCRIPTION:
ANTENNA LAYOUT &
MOUNTING DETAILS

SSC #:

SHEET NUMBER:
A-3

PROPOSED ANTENNA SCHEDULE													
SECTOR	MODEL NUMBER	ANTENNA MANUFACTURER	SURGE PROTECTOR	NUMBER OF FIBER CABLES	AZIMUTH	RAD CENTER	ELECT D-TILT	MECH D-TILT	RRU MODEL	RRU MANUFACTURER	RADAR FILTER	JUMPER SIZE	JUMPER QTY	JUMPER LENGTH
1	TYDA-252718DER4-65P	TONGYU COMMUNICATION	2 PER SECTOR	1 TOTAL	45'	100'	-2	0	FZHJ	NSN	-	1/2	8	8 FEET
2	TYDA-252718DER4-65P	TONGYU COMMUNICATION	2 PER SECTOR	-	180'	100'	-2	0	FZHJ	NSN	-	1/2	8	8 FEET
3	TYDA-252718DER4-65P	TONGYU COMMUNICATION	2 PER SECTOR	-	300'	100'	-2	0	FZHJ	NSN	-	1/2	8	8 FEET



2500MHz COLOR CODE							
2500MHz #1 CAL CABLE-SECTOR	CABLE	FIRST RING	SECOND RING	THIRD RING	FORTH RING	FIFTH RING	SIXTH RING
1 ALPHA	1	YELLOW	BLACK	YELLOW	WHITE	BLACK	BLACK
2 BETA	2	YELLOW	YELLOW	BLACK	YELLOW	WHITE	BLACK
3 GAMMA	3	YELLOW	YELLOW	YELLOW	BLACK	YELLOW	WHITE
2500MHz #2 CAL CABLE-SECTOR	CABLE	FIRST RING	SECOND RING	THIRD RING	FORTH RING	FIFTH RING	SIXTH RING
1 ALPHA	1	YELLOW	BLACK	YELLOW	PURPLE	BLACK	BLACK
2 BETA	2	YELLOW	YELLOW	BLACK	YELLOW	PURPLE	BLACK
3 GAMMA	3	YELLOW	YELLOW	YELLOW	BLACK	YELLOW	PURPLE

ROBERT E. JENSEN
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Fax: 913-438-7777
SSC

ENGINEERING LICENSE:
STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:		PE #:	DISCIPLINE:	
JJLO	MICHAEL L. OWENS	16917	STRUCTURAL/CIVIL	SC
KV	KEVIN VANSAELLE	22105	STRUCTURAL/CIVIL	SC
REJ	ROBERT E. JENSEN	16098	STRUCTURAL/CIVIL	SC
TLS	TERRANCE M. SUPER	9258	ELECTRICAL	E
SDK	SHELTON D. KESSLER	13854	ELECTRICAL	E

M.L.A. DRAWING NOTICE:

SUBMITTALS

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/19/14	DSH	A
ISSUED FOR PERMITTING	03/31/14	MJO	0

M.L.A. SITE NAME & NUMBER:
PRAIRIE VILLAGE
FIRE STATION
877791

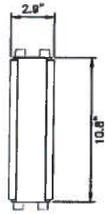
APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE
FIRE STATION
KC03XC183

SITE ADDRESS:
9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS
66208

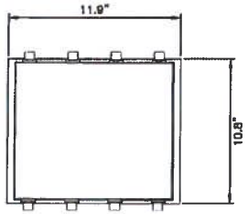
SHEET DESCRIPTION:
RF DATA &
COLOR CODES

SSC #:

SHEET NUMBER:
A-4



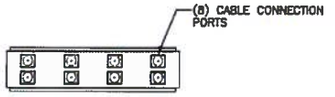
SIDE VIEW



FRONT VIEW

NSN RADAR CO-LOCATION FILTER

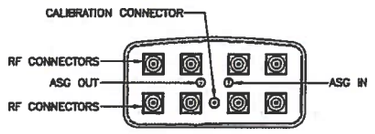
DIMENSIONS, HxWxD.in(mm): 10.8"x11.9"x2.9"
WEIGHT: 17.41 lbs



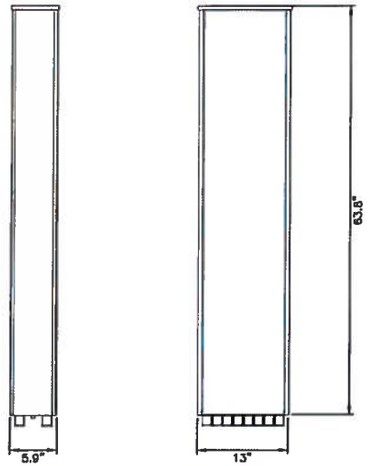
2.5 RADAR FILTER | NO SCALE | C

TONGYU TYDA-252718DER4-65P

RADOME MATERIAL:	UPVC
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD.in(mm):	63.8"x13"x5.9" (1620x330x150mm)
WEIGHT:	54 lbs
CONNECTORS:	8x4.1/9.5 mini DIN-Female+1xN-Female

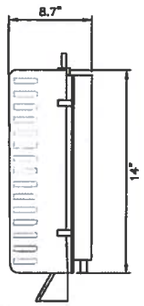


PLAN VIEW

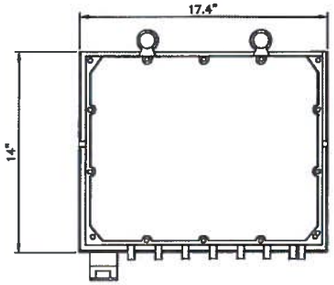


2.5 ANTENNA | NO SCALE | A

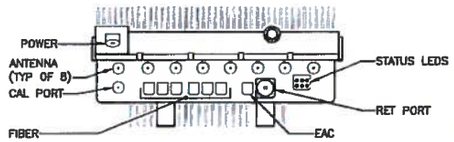
DETAIL NOT USED | NO SCALE | D



SIDE VIEW



FRONT VIEW



PLAN VIEW

NOTES

COMPLY WITH MANUFACTURER'S INSTRUCTIONS TO ENSURE THAT ALL RRU'S RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING. DO NOT OPEN RRU PACKAGES IN THE RAIN

2.5 RRUS | NO SCALE | B

ROBERT E. JENSEN LICENSED 16096 KANSAS PROFESSIONAL ENGINEER

APPLICANT:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED FOR:
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1201 CRAIG ROAD, SUITE 449
ST LOUIS, MISSOURI 63146
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FAX 314.569.2640

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Fax: 913-438-7777
SSC

ENGINEERING LICENSE:
STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-671

	ENGINEER:	PE #:	DISCIPLINE:	
MLO	MICHAEL L. OWENS	19917	STRUCTURAL/CIVIL	SC
KV	KEVIN VANMAELE	22105	STRUCTURAL/CIVIL	SC
REJ	ROBERT E. JENSEN	16096	STRUCTURAL/CIVIL	SC
TLR	TERRANCE M. RUPER	9258	ELECTRICAL	E
SDK	SHELTON D. KOEHLER	13634	ELECTRICAL	E

MLA DRAWING NOTICE:

SUBMITTALS

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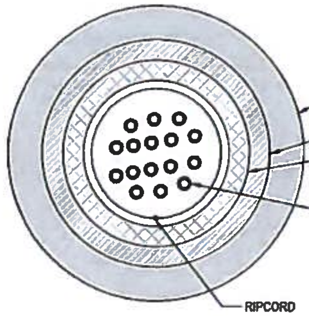
APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE FIRE STATION KC03XC183

SITE ADDRESS:
9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS 66208

SHEET DESCRIPTION:
EQUIPMENT DETAILS

SSC #:

SHEET NUMBER:
A-5



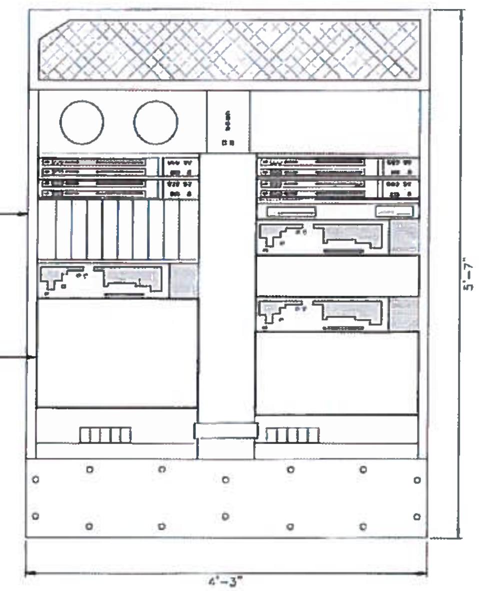
NOTE: CABLE CROSS-SECTION NOT DRAWN TO SCALE

CABLE CONSTRUCTION		
ARMOR	STEEL TAPE	
FIBER CABLES	FIBER TYPE	OS2 BEND- INSENSITIVE LOW
	WATER-PEAK SINGLE MODE	G.657.A1
	FIBER COUNT	16
	FIBER OD	0.010" (0.25 mm)
	NORMAL DIAMETER	0.315" (8 mm)
	JACKET	LOW-SMOKE ZERO-HALOGEN
OUTER JACKET	MATERIAL	PVC-UV RESISTANT
	COLOR	BLACK
	NOMINAL WALL	0.065" (1.7 mm)
	NOMINAL OD	.644" (16.10 mm)
	RIPCORD UNDER JACKET	
	ULTC TC-OF	
	FT-4 (FIBER)	
OTHER CHARACTERISTICS		
	BENDING RADIUS	14 INCHES
	OPERATING TEMP. (FIBER)	-40°C TO 70°C
	STORAGE TEMP. (FIBER)	-40°C TO 75°C
	INSTALLATION TEMP. (FIBER)	-30°C TO 60°C
	MAXIMUM LONG TERM LOAD (FIBER)	800 N (180 LBF)
	MAXIMUM SHORT TERM LOAD (FIBER)	2700 N (600 LBF)
	ESTIMATED CABLE WEIGHT	0.25 LBS/FT

FIBER ONLY CABLE X-SECTION AND DATA | NO SCALE | C

EXISTING MMBS CABINET AND EQUIPMENT TO BE REPLACED IF NEEDED

INSTALL NEW 2.5 EQUIPMENT IN OPEN SLOTS IN MMBS

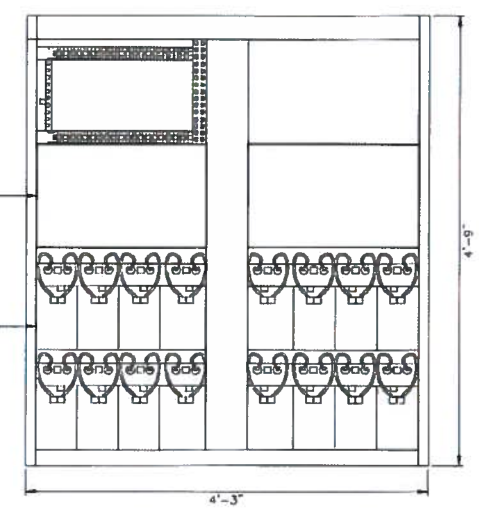


FRONT VIEW

EXISTING BBU WITH 2.5 EQUIPMENT | NO SCALE | A

INSTALL NEW BATTERY STRINGS IN OPEN SHELF (IF NEEDED)

(2) EXISTING BATTERY STRINGS



FRONT VIEW

2.5 POWER CABINET | NO SCALE | B

ROBERT E. JENSEN
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16096
KANSAS
PROFESSIONAL ENGINEER

APPLICANT:

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PLANS PREPARED FOR:

CROWN CASTLE

PLANS PREPARED BY:

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Phone: 314-993-1010
Fax: 913-438-7777

ENGINEERING LICENSE:

STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-671

ENGINEER:		PE #:	DISCIPLINE:	
MLO	MICHAEL L. OWENS	16917	STRUCTURAL/CIVIL	SC
KV	KEVIN VANBAELE	22165	STRUCTURAL/CIVIL	SC
REJ	ROBERT E. JENSEN	16096	STRUCTURAL/CIVIL	SC
TUS	TERRANCE M. SUPER	9256	ELECTRICAL	E
SDK	SHELTON D. KEISLING	13654	ELECTRICAL	E

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PRAIRIE VILLAGE FIRE STATION 877791

APPLICANT SITE NAME & NUMBER:

PRAIRIE VILLAGE FIRE STATION KC03XC183

SITE ADDRESS:

9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS 66208

SHEET DESCRIPTION:

EQUIPMENT DETAILS

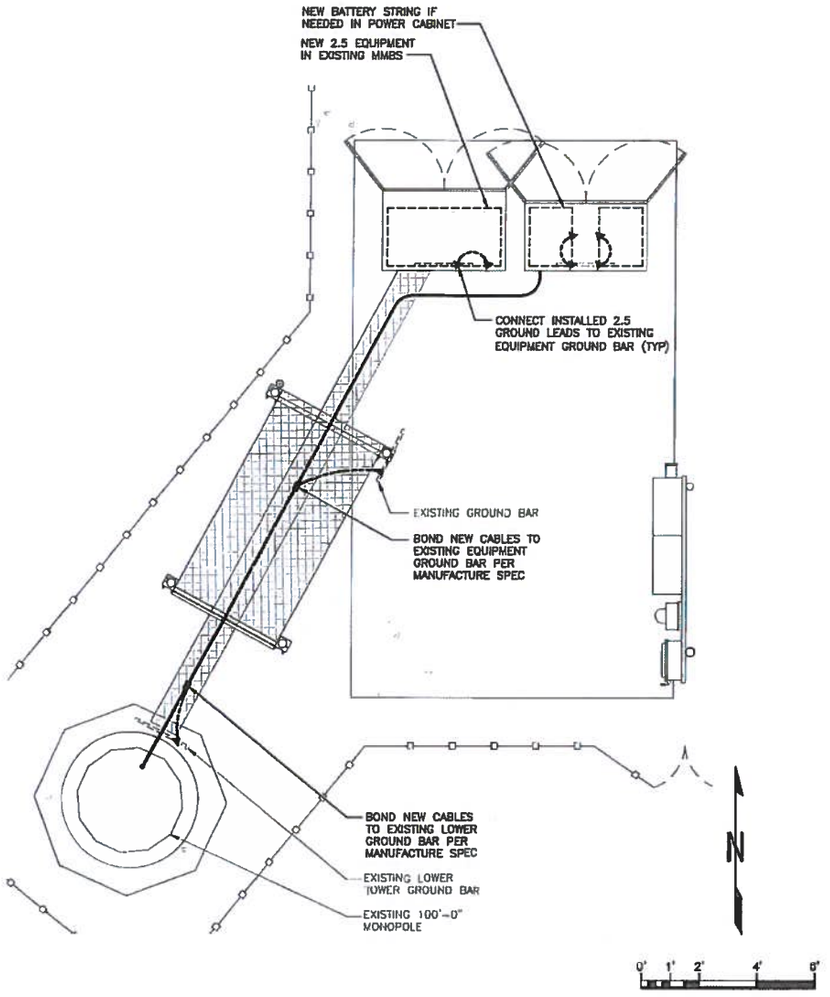
SSC #:

SHEET NUMBER:

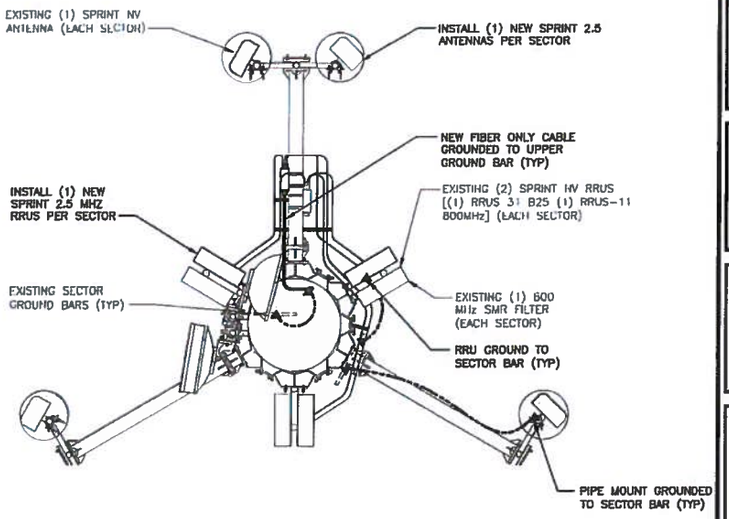
A-6

LEGEND:

- EXISTING GROUND RING
- CADWELD CONNECTION (EXOTHERMIC WELD)
- MECHANICAL CONNECTION
- GROUND ROD



EQUIPMENT GROUNDING PLAN | C



NOTE
CADWELDING ON CROWN CASTLE TOWERS IS NOT ALLOWED

ANTENNA GROUNDING PLAN (TYP) | NO SCALE | A

DETAIL NOT USED | NO SCALE | B

SHELTON D. KEISLING
LICENSED
13654
KANSAS
PROFESSIONAL ENGINEER
4-1-14

APPLICANT:
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6580 Sprint Parkway
Overland Park, Kansas 66251

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Fax: 913-438-7777

ENGINEERING LICENSE:
STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION: PE-971

ENGINEER		PE #:	DISCIPLINE:	
MLO	MICHAEL L. OWEN	16917	STRUCTURAL/CIVIL	SC
KV	KEVIN VAUMAKLE	22105	STRUCTURAL/CIVIL	SC
REJ	ROBERT E. JEISEN	16008	STRUCTURAL/CIVIL	SC
TMB	TERRANCE M. BUPER	9250	ELECTRICAL	E
SDK	SHELTON D. KEISLING	13654	ELECTRICAL	E

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SUBMITTALS

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/18/14	DSH	A
ISSUED FOR PERMITTING	03/31/14	MAD	0

MLA SITE NAME & NUMBER:
PRAIRIE VILLAGE
FIRE STATION
877791

APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE
FIRE STATION
KC03XC183

SITE ADDRESS:
9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS
66208

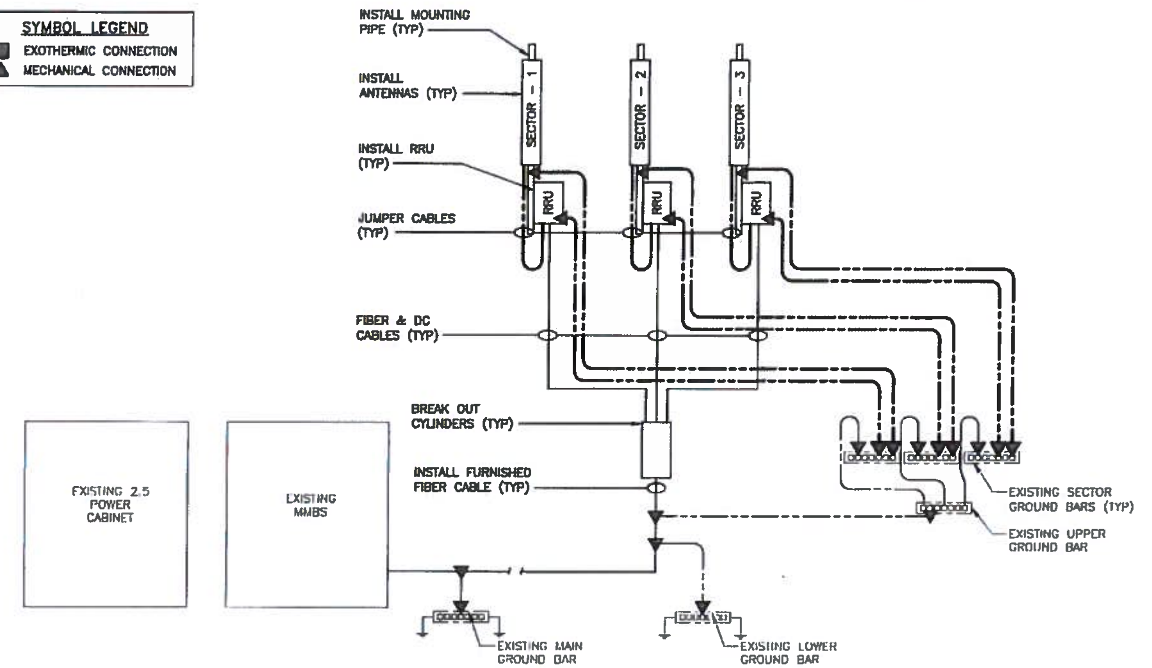
SHEET DESCRIPTION:
GROUNDING &
ELECTRICAL PLAN

SSC #:

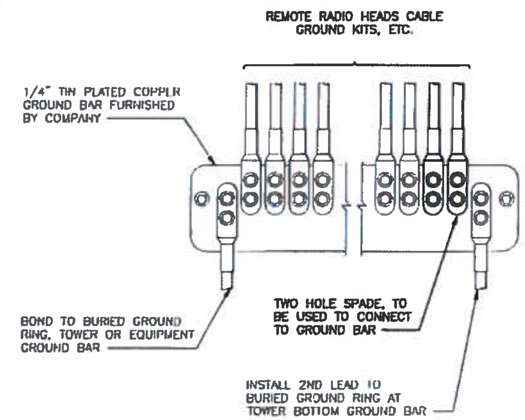
SHEET NUMBER:
E-1

GROUNDING RISER DIAGRAM — NO SCALE — C

SYMBOL LEGEND
- ■ EXOTHERMIC CONNECTION
- ▲ MECHANICAL CONNECTION

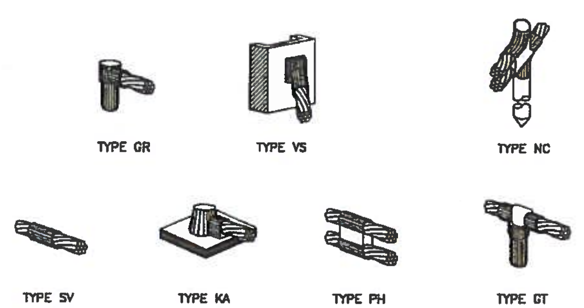


2–HOLE SPADE CONNECTIONS AT LOWER GROUND BARS — NO SCALE — A



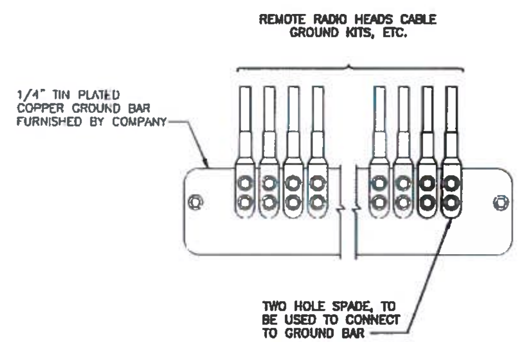
NOTES
1. APPLY NO–OX TO LUG AND BAR CONTACT SURFACE. DO NOT COAT INLINE LUG.
2. IF STOLEN GROUND BARS ARE ENCOUNTERED, CONTACT SPRINT CM FOR REPLACEMENT THREADED ROD KIT.

EXOTHERMIC WELDS — NO SCALE — E



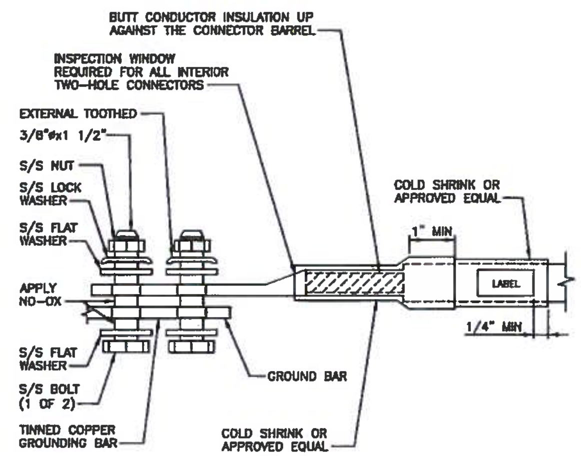
NOTES
1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. TYPE NC AND TYPE GT CADWELD MOLD TYPES ARE TO BE USED FOR GROUND ROD WELDS ONLY.

2–HOLE SPADE CONNECTIONS AT UPPER GROUND BARS — NO SCALE — D



NOTES
1. APPLY NO–OX TO LUG AND BAR CONTACT SURFACE. DO NOT COAT INLINE LUG.
2. IF STOLEN GROUND BARS ARE ENCOUNTERED, CONTACT SPRINT CM FOR REPLACEMENT THREADED ROD KIT.

TWO HOLE LUG — NO SCALE — B



SHELTON D. KEISLING 13654 KANSAS PROFESSIONAL ENGINEER 4-1-14

APPLICANT:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED FOR:
CROWN CASTLE

PLANS PREPARED BY:
SSC
721 Emerson Road, Suite 475
St. Louis, Missouri 63141
Phone: 314-993-1010
Fax: 913-438-7777

ENGINEERING LICENSE:
STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:		PE #:	DISCIPLINE:	
MLO	MICHAEL L. OWENS	16817	STRUCTURAL/CIVIL	SC
KV	KEVIN VANMAELE	22165	STRUCTURAL/CIVIL	SC
REJ	ROBERT E. JENSEN	16088	STRUCTURAL/CIVIL	SC
TMS	TERRANCE M. SUPER	8250	ELECTRICAL	E
SDK	SHELTON D. KEISLING	13654	ELECTRICAL	E

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SUBMITTALS

DESCRIPTION	DATE	BY	REV
ISSUED FOR REVIEW	03/19/14	DSH	A
ISSUED FOR PERMITTING	03/31/14	MJO	0

MLA SITE NAME & NUMBER:
PRAIRIE VILLAGE FIRE STATION 877791

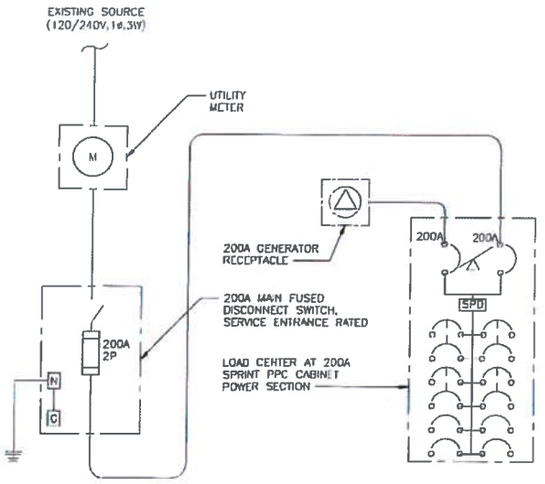
APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE FIRE STATION KC03XC183

SITE ADDRESS:
9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS 66208

SHEET DESCRIPTION:
GROUNDING DETAILS

SSC #:

SHEET NUMBER:
E-2



EXISTING PPC CIRCUIT BREAKER LOAD CENTER

SITE NUMBER:		KC03XC183		PHASE:		SINGLE		WIRE:	3
VOLTAGE:		240V/120		BUS RATING:		225 AMPS		AIC:	TBD
MAIN BREAKER:		200 AMP		NEUTRAL BAR:		YES		GROUND BAR:	TBD
				SERVICE ENTRANCE:		YES/NO			
CKT	LOAD DESCRIPTION	BREAKER AMPS	BREAKER POLES	PHASE A VA	PHASE B VA	BREAKER POLES	BREAKER AMPS	LOAD DESCRIPTION	CKT
1	UNKNOWN	---	2	N/A		2	---	UNKNOWN	7
2	---	---	---		N/A	---	---	---	8
3	UNKNOWN	---	2	N/A		2	---	UNKNOWN	9
4	---	---	---		N/A	---	---	---	10
5	UNKNOWN	---	1	N/A		1	---	UNKNOWN	11
6	UNKNOWN	---	1		N/A	1	---	UNKNOWN	12
				0	0	TOTAL KVA	0.00	TOTAL CONNECTED LOAD	
						AMPS	0.00		

PHOTO OF CIRCUIT BREAKER UNCLEAR.

EXISTING ELECTRICAL ONE-LINE DIAGRAM & LOAD CENTER | NO SCALE | A

DC POWER CONVERTERS & RECTIFIERS DATA SHEET

Sprint Cascade: KC03XC183
Location Name: PRAIRIE VILLAGE FIRE STATION

Date Completed: 9/25/2013

Power Distribution Unit / Converters

Nameplate Information

Manufacturer: N/A
Model No.: N/A
Serial No.: N/A

PDU / Converter Information

PDU / Converter #	Volt Rating, VDC (24 or 48)	Mfr Part #		Amp Reading, (if possible)	Mfr Serial # (If Possible)
1	48	EMG 980 336/2	NA	NA	C941348434
2	48	EMG 980 336/6	NA	NA	X051573298
3	NA	NA	NA	NA	X051573138
4	NA	NA	NA	NA	C941339681
5	NA	NA	NA	NA	X051682572
6	NA	NA	NA	NA	C941339736
7	NA	NA	NA	NA	X051678172
8	NA	NA	NA	NA	NA
9	NA	NA	NA	NA	NA
10	NA	NA	NA	NA	NA

Rectifiers

Nameplate Information

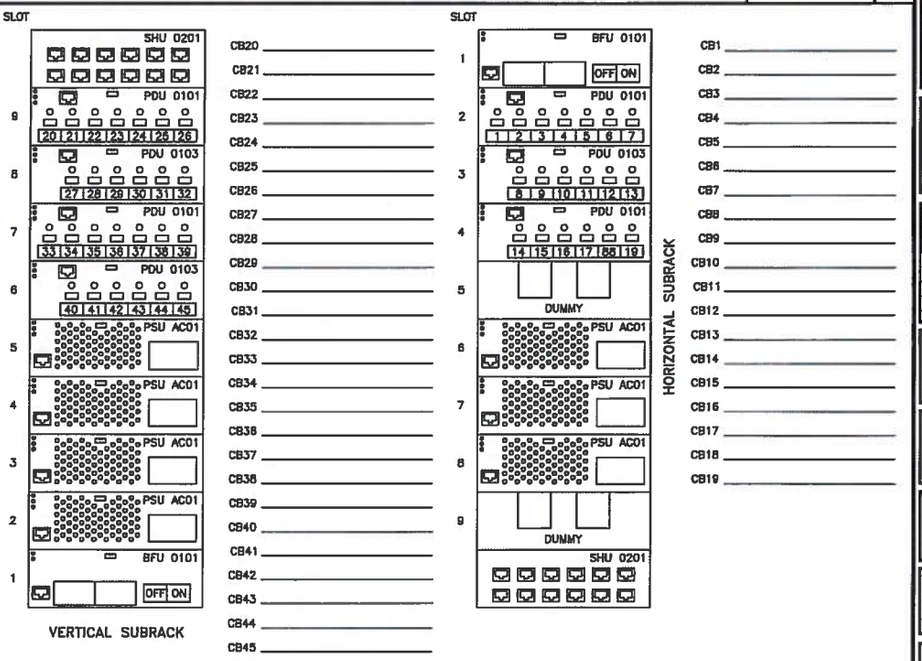
Manufacturer: N/A
Model No.: N/A
Serial No.: N/A

Rectifier Information

Voltage READING, VDC:	N/A
Number of existing rectifiers:	7
How many rectifier shelves are there?:	2
Is there room for another rectifier shelf if required? (Yes/No):	YES
How many open slots are there for more rectifiers?:	2
Is there a 1-hole or 2-hole lug to tap onto existing bus bar?:	NEITHER

1-hole
2-hole
Neither
Both
Other

CONTRACTOR TO FIELD VERIFY ALL DC CONNECTIONS AND LOCATIONS. SO THEY CAN BE CALLED OUT AND LABELED.



EXISTING DC DISTRIBUTION | NO SCALE | B

SHELTON D. KEISLING LICENSED 13654 KANSAS PROFESSIONAL ENGINEER

APPLICANT:
Sprint
6580 Sprint Parkway
Overland Park, Kansas 66251

PLANS PREPARED FOR:
CROWN CASTLE
1001 CRAIG ROAD, SUITE 400
ST LOUIS, MISSOURI 63146
OFFICE 314.569.2715
FAX 314.569.2648

PLANS PREPARED BY:
721 Emerson Road, Suite 475
St. Louis, Missouri 63141
Phone: 314-993-1010
Fax: 913 438-7777
SSC

ENGINEERING LICENSE:
STATE OF KANSAS
PE CERTIFICATE OF AUTHORIZATION #E-571

ENGINEER:	PE #:	DISCIPLINE:	
MJO MICHAEL L. OWENS	16917	STRUCTURAL/CIVIL	SC
KV KEVIN VANDAELE	22185	STRUCTURAL/CIVIL	SC
REJ ROBERT E. JEHRICH	16098	STRUCTURAL/CIVIL	SC
TJJS TERRANCE M. SUPER	9250	ELECTRICAL	E
SDK SHELTON D. KEISLING	13654	ELECTRICAL	E

SUBMITTALS

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APPLICANT SITE NAME & NUMBER:
PRAIRIE VILLAGE FIRE STATION KC03XC183

SITE ADDRESS:
9011 ROE AVENUE
PRAIRIE VILLAGE, KANSAS 66208

SHEET DESCRIPTION:
DC POWER & DISTRIBUTION

SSC #:

SHEET NUMBER:
E-3

LOCHNER

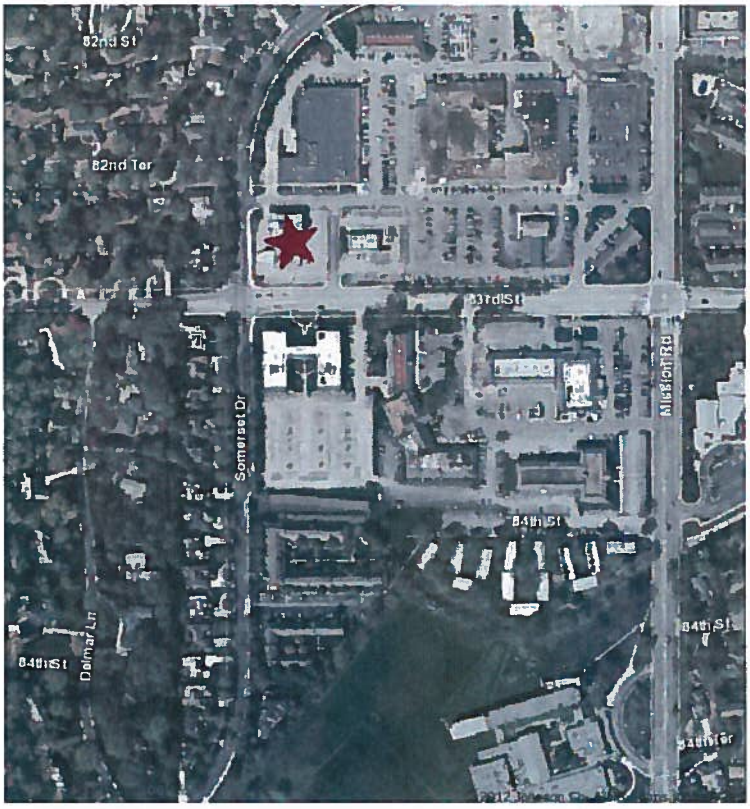
STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: May 6, 2014, Planning Commission Meeting Project # 000009686

Application:	PC 2013-103
Request:	Amendment of Sign Standards
Property Address:	4200 W. 83rd Street
Applicant:	Luminous Signs for First National Bank
Current Zoning and Land Use:	C-2 General Business District – Bank/Office Building
Surrounding Zoning and Land Use:	**North:** C-2 General Business District – Corinth Square **East:** C-2 General Business District – Corinth Square **South:** C-0 Office Building District – Office Building **West:** R-2 Two-Family Residential District – Duplexes
Legal Description:	Lot 2 Corinth Square North
Property Area:	0.95 Acres
Related Case Files:	PC 2013-103 Approval of Sign Standards and Monument Sign PC 2011-116 Approval of Sign Standards for Corinth Square PC 2011-117 Preliminary and Final Plat Approval PC 2006-112 Amendment to Sign Standards
Attachments:	Application, Drawings, Proposed Sign Standards

General Location Map

Aerial Map



COMMENTS:

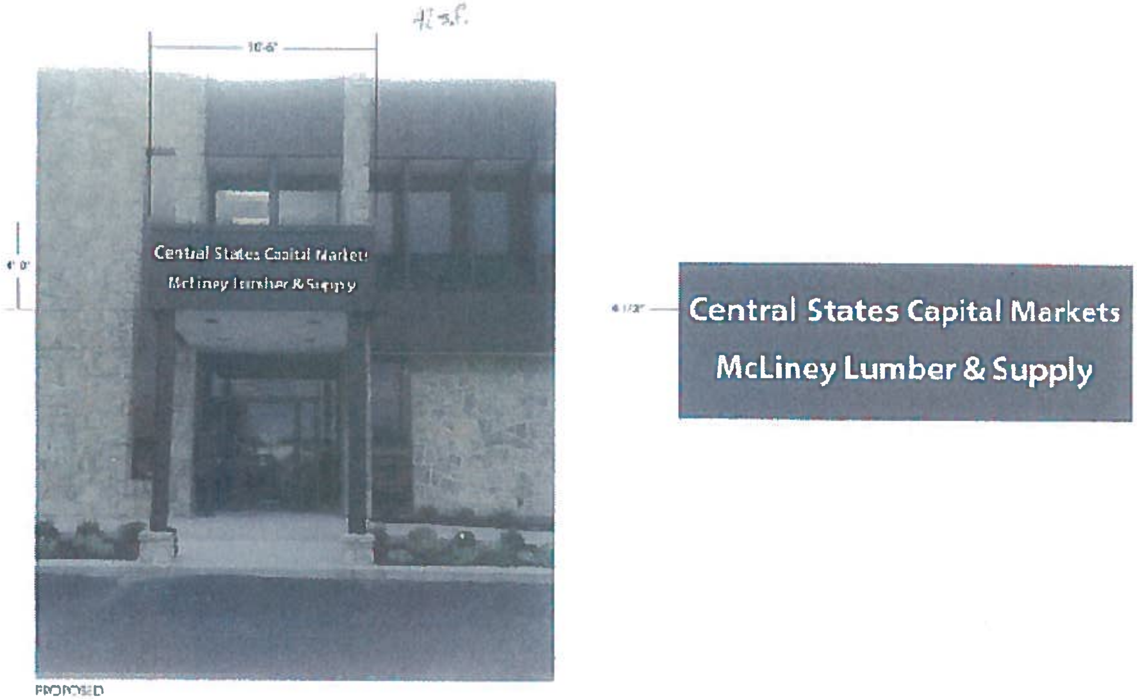
At its regular meeting on January 8, 2013, the Planning Commission approved sign standards and a monument sign for the First National Bank building. There are two other tenants in the building and the sign standards included a provision to place the names of these businesses on the stone wall on the east façade of the building. The applicant is requesting an amendment to move the tenant signs from the wall to the face of the canopy on the east façade of the building. The signs would be lettering only with no logos as were shown on the original approval.

It is the opinion of Staff that this is a more attractive solution and is more compatible with the other building signage.

RECOMMENDATION:

It is the recommendation of Staff that the Planning Commission approve the sign amendment for the First National Bank as described in the text and displayed on the attached graphic subject to the applicant submitting of the revised final sign standards to the City prior to obtaining a sign permit.

East Building Façade



SPECIFICATIONS:
- FURNISH AND INSTALL (1) SET EACH OF CENTRAL STATES CAPITAL MARKETS AND MCLINEY LUMBER & SUPPLY FLAT CUT OUT LETTERS
- 1/4" ALUMINUM LETTERS PAINTED WHITE AND STUD MOUNTED TO RIBBED FASCIA

CUSTOMER:	CENTRAL STATES CAPITOL MARKETS	DATE:	11/20/13
NAME:	CASEY MCLINEY	DESIGN NO:	SS-0769E
LOCATION:	4200 W 83RD PRAIRIE VILLAGE, KS 66208	ARTIST:	JH
PHONE:		SCALE	3/8" = 1'
APPROVED:		DATE:	

LUMINOUS NEON INC. ART & SIGN SYSTEMS

Proposed Amendment

Approved January 8, 2013

Tenant Sign Criteria

First National Bank of Prairie Village

And Secondary Tenants

AMENDMENT

Designated sign area for secondary tenants:

East elevation Common Entrance-

Tenant A occupies the first floor office space. Tenant B occupies the second floor office space. Both share a common entrance. The designated sign area for both tenants will be on the entrance canopy and will be shared equally. (See exhibit A)

Secondary tenants shall each be allowed one primary identification sign located within the designated sign area. The sign will consist of individual letters constructed of ¼" computer cut aluminum letters. Letters will be primed and painted white. Letters to be mounted to raised rib facia above entrance as shown in exhibit A. The combined sign area shall not exceed 5% of the total combined less space.

CITY OF PRAIRIE VILLAGE

The Star of Kansas

Planning Commission Application

For Office Use Only	
Case No.:	PC2013-103
Filing Fee:	100
Deposit:	Bill
Date Advertised:	
Date Notices Sent:	
Public Hearing Date:	

Please complete this form and return with Information requested to:

Assistant City Administrator
City of Prairie Village
7700 Mission Rd.
Prairie Village, KS 66208

Applicant: Scott Schultz Phone Number: 913 780 3330

Address: 1255 N Winchester E-Mail sschultz@luminousneon.com

Owner: Casey McLinsey Phone Number: _____

Address: 4200 W. 83rd Zip: 66208

Location of Property: Corinth SC

Legal Description: _____

Applicant requests consideration of the following: (Describe proposal/request in detail) Sign Standards Amendment

_____

AGREEMENT TO PAY EXPENSES

APPLICANT intends to file an application with the PRAIRIE VILLAGE PLANNING COMMISSION or the PRAIRIE VILLAGE BOARD OF ZONING APPEALS of the CITY OF PRAIRIE VILLAGE, KANSAS (City) for Sign Standards amendment.
As a result of the filing of said application, CITY may incur certain expenses, such as publication costs, consulting fees, attorney fees and court reporter fees.

APPLICANT hereby agrees to be responsible for and to CITY for all cost incurred by CITY as a result of said application. Said costs shall be paid within ten (10) days of receipt of any bill submitted by CITY to APPLICANT. It is understood that no requests granted by CITY or any of its commissions will be effective until all costs have been paid. Costs will be owing whether or not APPLICANT obtains the relief requested in the application.

Scott Schultz
Applicant's Signature/Date

Casey McLinsey
Owner's Signature/Date

2. That new drives along Mission Road be designed to prohibit left turns and the design is approved by Public Works.
3. That the applicant use materials similar to those being used on the existing building and submit a material palette to Staff for approval.
4. That an outdoor lighting plan be submitted in accordance with Section 19.34.050 Outdoor Lighting of the Zoning Ordinance if applicable.
5. That the monument sign relocation plans be submitted to Staff for review and approval.
6. That the landscape plan be submitted to the Tree Board for review and approval prior to installation.
7. That all new mechanical units be screened from adjacent streets and properties.
8. That landscape islands be provided in the large parking area subject to review and approval of Staff.
9. That the applicant plat the property and that the plat be completed prior to occupancy of the new expansion.
10. That the site plan for the school expansion is approved subject to the approval of the Special Use Permit for the school. If the Special Use Permit is not approved by the Governing Body, the site plan shall be redrawn and resubmitted to the City removing the proposed school expansion.

The motion was seconded by Nancy Wallerstein and passed by a 7 - 0 vote.

PC2013-103 Monument Sign Approval - First National Bank
4200 West 83rd Street

Fred Stieg, with Luminous Neon, addressed the Commission presenting First National Bank located on the northeast corner of the 83rd and Somerset. This property was previously part of Corinth Square, Shopping Center, but is now under new ownership. The new owner is seeking approval for a monument sign and revised sign standards. A new monument sign was distributed to the Commission at the beginning of the meeting without the time & temperature feature on the original submittal. Mr. Steig stated the applicant has reviewed and accepts the staff comments and recommendation.

Nancy Vennard asked how far the proposed monument sign was from the intersection. Ron Williamson replied the plan is not clear and needs to be revised indicating that the sign will be setback 12 feet from the back of the curb from both 83rd Street and Somerset. It also must be on private property.

The proposed sign will be placed diagonally at the corner of 83rd and Somerset Drive and will be double faced. The sign will be five feet in height. The sign face will be 104" x 26" which is 19.5 square feet meeting the city's code. The base of the sign will be made of the same stone as used on the building and the sign will be an aluminum cabinet with the sign base widened so that it matches the edges of the sign. The sign will be internally illuminated.

Nancy Wallerstein asked if there were other monument signs in the City that were back lit. Staff replied there are internally lit signs for UMB, Missouri Bank, Corinth Square and elsewhere.

Ron Williamson noted the temporary sign at this location will need to be removed. The applicant has submitted a landscape plan for the base of the sign identifying specific plant material and that condition #4 of the staff recommendation should be removed. The Commission members acknowledged the colorful landscape plan presented.

Bob Lindeblad moved the Planning Commission approve the revised monument sign presented subject to the following conditions:

1. That the site plan be clarified that the sign will setback 12' from the back of the curb of both 83rd Street and Somerset Drive.
2. That the base of the sign be widened to the same width of the sign.
3. That the applicant remove the temporary sign when the monument sign installation is complete.

The motion was seconded by Gregory Wolf and passed by a 7 - 0 vote.

Ron Williamson noted this property is still operating under the sign standards for the Corinth Square Shopping Center which it was previously part of. New sign standards have been submitted for the building which will be used for a bank and offices.

The Planning Commission may, in the process of approving sign standards, approve deviations for the standard requirements as follows, provided said deviations will provide an equal or better development, adjacent properties will not be adversely impacted, and the spirit and intent of regulation will not be violated by granting of the deviation:

1. One sign may be permitted per façade with no requirement that the tenant has direct outside entrance or that the sign be adjacent to its space.

2. That text not be restricted on monument signs provided the sign is designed and built primarily of brick, stone and masonry, complements the building and does not include a case or enclosed cabinet design.

PROPOSED BUILDING SIGNAGE

In paragraph 2, only one sign is permitted per facade by ordinance, not one sign per tenant. The word fascia should be changed to facade to be compatible with the Sign Ordinance. One facade sign would be permitted on each facade of the building.

In paragraph 3, the maximum size of the sign permitted is 5% of the area of the facade but shall not exceed 50 square feet.

In paragraph 5, only one sign is permitted per facade not per tenant.

The building does not have a sign band and the drawings need to be submitted to identify where the signs will be placed on the building.

MONUMENT SIGNS

In paragraph 1, four wall signs are permitted. In the second sentence, it should state, "The area of the monument sign...."

In the second paragraph, the electronic time and temperature display needs to be deleted because the ordinance only permits a time and temperature display on the wall of the building.

Bob Lindeblad moved the Planning Commission approve the revised sign standards with the following changes recommended by staff:

1. Building Signage Section
    a. Change the text to one sign per facade.
    b. Change the word fascia to facade.
    c. Change the maximum size of the sign to 5% of the area of the facade but not exceeding 50 square feet.
    d. Submit drawings identifying where the signs will be placed on the building.
2. Monument Signs Section
    a. Paragraph 1, four wall signs are permitted. Add "the area of".
    b. Delete the second paragraph.

Subject to the review and approval by staff. The motion was seconded by Dirk Schafer and passed by a 7 - 0 vote.

OTHER BUSINESS

Direction from City Council to set a Public Hearing on Countryside East Conservation Overlay District

Dennis Enslinger stated the City Council adopted the proposed ordinance revision (Chapter 19.25) allowing for the establishing of Neighborhood Conservation Overlay Districts at its meeting on Monday, December 17, 2012. At that meeting they also directed the Planning Commission to set a public hearing for the consideration of the establishment of the Countryside East Neighborhood Overlay District.

Mr. Enslinger distributed the proposed Countryside East Neighborhood Overlay District final proposal to the Commission noting the only difference from the previous information given to the Commission was the inclusion of the legal description of all the properties within the district and a map.

Nancy Wallerstein moved the Planning Commission authorize a public hearing on Tuesday, February 5th for consideration of the establishment of the Countryside East Neighborhood Overlay District pursuant to Chapter 19.25 of the Prairie Village Municipal Code. The motion was seconded by Gregory Wolf and passed by a 7 - 0 vote.

Next Meeting

The February 5th meeting of the Planning Commission will be held at the Indian Hills Middle School. The agenda items will include the public hearing for the Country East Neighborhood Overlay District, the continued application PC2013-101 for site plan approval at 8825 & 8839 Roe Avenue and approval of a plat for the St. Ann's Church and School property. The meeting will be followed by a worksession with the development team for the former Mission Valley School property. This will be a

Tenant Sign Criteria
First National Bank of Prairie Village
And secondary tenants
Prairie Village, KS

The objective of the following sign criteria is to provide standards and specifications that assure consistent quality, size variety and placement for tenant signs on the First National Bank of Prairie Village Building. These criteria are also intended to achieve the highest standard of excellence in environmental graphic communication. *Use of logos is encouraged but will ultimately be subject to review and final approval of Property owner.*

BUILDING SIGNAGE

New building signs are limited to either halo illuminated reverse channel individual letter and/or contour logo or pan channel individual letter and/or contour logo sets with plexiglas faces. Signs to be mounted to existing facia wall or existing rock wall surface.

One (1) facade sign allowed per elevation within tenant's leased space with a maximum of four (4) signs. A wall sign will be allowed when a facade application is not available. Sign copy shall be the business name and logo in the tenants preferred font style. Business name to be as it is shown on their lease.

All signage is to be located on tenants leased space only and shall fit within the allowed fascia area to which it is attached. Signage area shall not exceed five (5) percent of the total area of the tenants leased elevation upon which it is placed as allowed by Prairie Village sign codes and regulations.

Signage area shall be computed as the smallest rectangular figure that can encompass all of the letters, words, logos or symbols. All spacing within any lettering, logos or symbols shall be counted as part of the sign's square footage.

- Internally illuminated pan channel letters/logos shall have plexiglas faces not more than 3/16" thick with applied vinyl or colored plexiglas faces. The Property Owner has no specifications regarding color of trim cap or returns, as long as whatever is used is complimentary to the signage, has 1" trim cap (min.), a letter depth of 4" minimum and LED illumination.
- Halo illuminated reverse channel letters shall be fabricated of aluminum with a clear lexan backing, a minimum depth of 3"and white LED illumination. Other halo illumination colors may be allowed on an individual basis only and with prior approval by the Property Owner and city. Signage to be space mounted 1 ½" off the fascia or wall.
- All mounting attachments shall be sleeved and painted to match the background panel coloring on which it is attached. Metal letters shall be fabricated using full welded construction, with all welds ground smooth so as not to be visible. All penetrations of the building structure that are required for sign installation must be neatly sealed in watertight condition and match the façade.
- Junction boxes, wires, transformers, conduits, supports, any visible fasteners and other equipment shall be concealed from public view.
- Clear plexiglas faces are not allowed. Exposed bulbs or exposed neon signs are not allowed.
- **ALL LED COMPONENTS MUST BE CLASS 2 LOW VOLTAGE, MUST MEET ALL APPLICABLE ELECTRICAL AND BUILDING CODES AND MUST HAVE A UL LABEL.**
- Note: The usage of time clocks for sign illumination is required, and lighting of signs shall be at the hours specified by Developer.

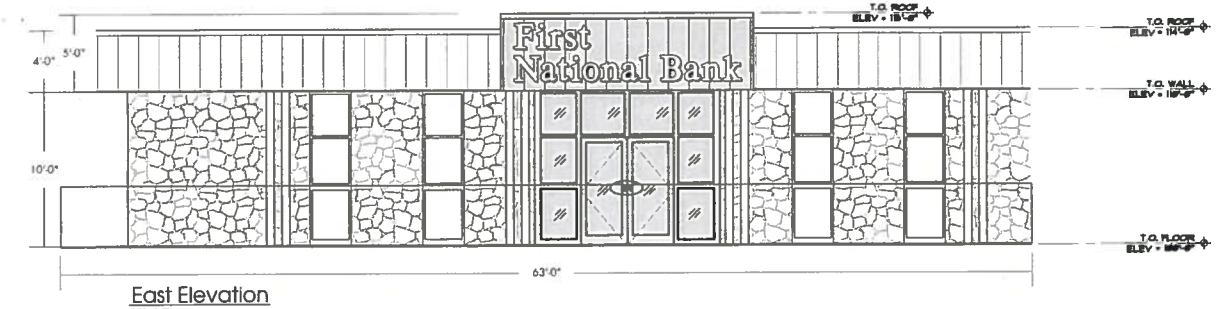
DIRECTIONAL SIGNS

Directional signs and way finding (drive-thru lane open/closed) signs are allowed but subject to the approval of the Property Owner and City of Prairie Village Planning Staff.

MONUMENT SIGNS

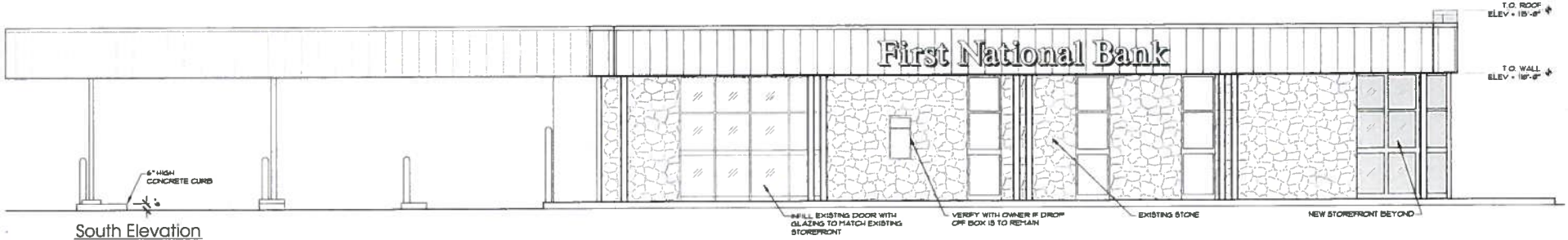
The tenant will be allowed one (1) free standing monument sign identifying the name of the business. The monument sign is limited to 20 sq. ft. and 5' overall height and shall be required to meet all set back requirements.

The First National Bank monument sign at the Southwest corner of the property will include an electronic Time and Temperature Display as shown in Exhibit A.



East Elevation
1/8" = 1'-0"

32.76 SQ FT



South Elevation
1/8" = 1'-0"

44.08 SQ FT

SPECIFICATIONS:

- FURNISH AND INSTALL (2) SETS OF INTERNALLY-ILLUMINATED PAN CHANNEL LETTERS
- LETTERS-WHITE FACES WITH BLACK TRIM CAPS AND RETURNS, ILLUMINATES WITH WHITE LEDS
- INSTALLS FLUSH MOUNTED ON RAISED RIB METAL FACIA OVER PLYWOOD BACKING

CUSTOMER:	FIRST NATIONAL BANK OF PV	**DATE:**	1/7/13
NAME:	**MICHAEL MASON**	**DESIGN NO:**	SS-10305r4B
LOCATION:	4200 W 83RD ST CORINTH SQUARE SC PRAIRIE VILLAGE, KS 66208	**ARTIST:**	JH
		SCALE:	1/4" = 1'
APPROVED:		**DATE:**	

LUMINOUS Neon Inc
ART & SIGN SYSTEMS

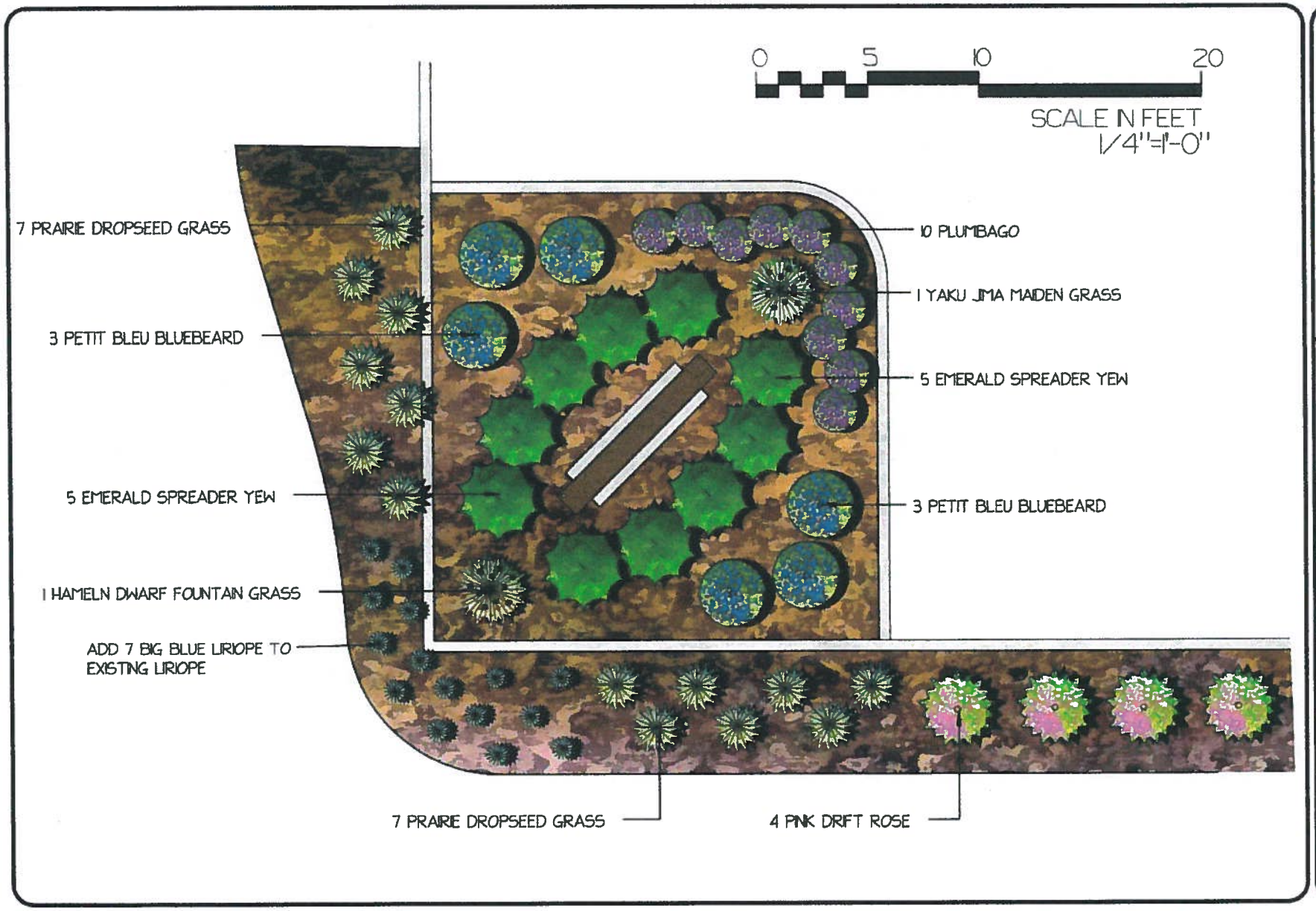
PROPOSED

SPECIFICATIONS:

- FURNISH AND INSTALL (1) DOUBLE-FACED, INTERNALLY-ILLUMINATED MONUMENT SIGN LOCATED AT SW CORNER OF PROPERTY (83RD AND SOMMERSET)
- ALUMINUM CABINET PAINTED SW7020 BLACK FOX. COPY ROUTED AND BACKED WITH WHITE PLEX.
- 2/14" H BEIGE VINYL COPY APPLIED TO, 1/4" THICK ALUMINUM PANEL PAINTED SW7020 BLACK FOX AND STUD MOUNTED FLUSH STONE.
- INSTALLS ON STONE BASE BY OTHERS AND CONCRET MOWPAD.
- EXISTING FOOTING TO BE REMOVED. PROVIDE ALL NEW FOOTING AND BASE. LANDSCAPE PLAN REQUIRED.

CUSTOMER:	FIRST NATIONAL BANK OF PV	**DATE:**	1/6/13
NAME:	**MICHAEL MASON**	**DESIGN NO:**	SS-10305-1r7
LOCATION:	4200 W 83RD ST CORINTH SQUARE SC PRAIRIE VILLAGE, KS 66208	**ARTIST:**	JH
		SCALE:	3/4" = 1'
APPROVED:		**DATE:**	

LUMINOUS NEON INC
ART & SIGN SYSTEMS



ASPEN
LAWN & LANDSCAPE
1265 N. Winchester
Olathe, KS 66061
(913) 829-6135

First National Bank–Prairie Village

4200 W 83rd St, Prairie Village, KS 66208

SCALE 1/4"-0"
DATE 1/2/203
DRAWING L1