PLANNING COMMISSION AGENDA
CITY OF PRAIRIE VILLAGE
TUESDAY, MARCH 4, 2014
7700 MISSION ROAD
7:00 P.M.

I. ROLL CALL

II. APPROVAL OF PC MINUTES - FEBRUARY 10, 2013

III. PUBLIC HEARINGS

PC2014-01 Proposed Revisions to Chapter 19.54 & 19.28
Adding a Reapplication Waiting Period
Applicant: Ron Williamson, City of Prairie Village

PC2014-02 Request for a Special Use Permit for Private School
7457 Cherokee Drive
Zoning: R-1a
Applicant: Jodie Nolen, Global Montessori Academy

IV. NON-PUBLIC HEARINGS

PC2014-105 Lot Split
5015 West 67th Street
Zoning: R-1a
Applicant: James Porter

PC2013-120 Preliminary Plat Approval
Chadwick Court
Zoning: RP-lb
Applicant: Robert Royer

This item was continued by the Planning Commission at its meeting on 2-10-14. The applicant is working out details on the storm water management and the item will be placed back on the Agenda when the information is prepared and submitted to the City. This is not a Public Hearing matter and no action is needed.

PC2014-107 Site Plan Approval with wireless antenna
7700 Mission Road
Zoning: R-la
Applicant: Chris Ross with Black & Veatch for AT&T

PC2014-108 Site Plan Approval with wireless antenna
7700 Mission Road
Zoning: R-la
Applicant: Justin Anderson with SSC for Verizon

PC2012-109 Sign Standards Approval
2220 West 75th Street
Zoning: C-0
Applicant: Stephanie Warden DDS & ALH Home Renovations

PC2012-113 Revised Site Plan for PV Shopping Center
NW Corner 71st & Mission Road
Zoning: C-2
Applicant: Kylie Stock, LegaC Properties

V. OTHER BUSINESS
Discussion of possible changes to RV regulations

VI. 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
February 10, 2014

ROLL CALL

The Planning Commission of the City of Prairie Village met in Special session on Monday, February 10, 2014, in the Municipal Building Council Chambers at 7700 Mission Road due to the weather related cancellation of the regular February 4th meeting. Chairman Ken Vaughn called the meeting to order at 7:00 p.m. with the following members present: Nancy Wallerstein, 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; Danielle Dulin, Assistant to the City Administrator; Jim Brown, Building Official and Joyce Hagen Mundy, City Clerk/Planning Commission Secretary.

APPROVAL OF MINUTES

Gregory Wolf moved the approval of the Planning Commission minutes of January 7, 2014. The motion was seconded by Randy Kronblad and passed by a vote of 4 to 0 with Nancy Wallerstein abstaining.

PUBLIC HEARINGS

Chairman Ken Vaughn noted the public hearing on the original agenda has been moved to the March 4th agenda as republication of the notice of hearing is required.

NON PUBLIC HEARINGS

PC2013-128 Site Plan Approval for Wall in Front Yard
6330 Granada

Danielle Dulin stated the applicant is requesting site plan approval to allow construction of a brick wall that is located in the front yard. The proposed brick wall will match the existing brick on the house and will have a 12′ painted wood gate for entry. The proposed wall is 4′ in height including the brick cap and 47′ 4″ in length across the existing driveway. It extends approximately 20′ past the front plane of the house, but is set back approximately 75′ from the front property line. The purpose of the wall is to create a motor court screening the garage and parked cars in the driveway from view of the street.

Nancy Vennard noted the plans show a painted brick wall; however, the existing brick columns at the entrance are not. Emily Eckles, 6330 Granada, responded all the new brick will be painted, but the two existing columns at the entrance will stay as they are.

Gregory Wolf moved the Planning Commission approve the proposed brick wall at 6330 Granada Street as presented on the plans dated October 16, 2013. The motion was seconded by Nancy Wallerstein and passed unanimously.

PC2013-08 Final Development Plan for Rezoned Property
3101 West 75th Street

Robert Royer, 7805 Mission Road, gave a power point on his final development plan showing changes that have been made including the flipping of houses on lots #3 and #6 to address the concern with the houses being too close to the curb and gutter. He also noted the homes on lots #2 and #5 have been moved slightly to the north. The architectural theme for the development will be French country following the existing character of the Mogren home. He presented pictures of different homes that could be constructed in the development under that theme.

Mr. Royer addressed the staff recommendation requesting that conditions 3, 5, 6 and 7 be removed. He did not feel the city and the tree board had the right to approve landscape within a private development. Mr. Royer felt conditions 5, 6 and 7 restricted the ability of the project to allow for customization by the individuals purchasing the homes within the overall restrictions of the covenants. Mr. Royer reviewed the covenants which had been submitted to the City Clerk earlier in the day. Commission members stated they would have preferred to have that information in their packet for review prior to the meeting.

Mr. Royer stated he will be selling the six lots to individual builders for the construction of spec homes.

Nancy Vennard questioned the allowance of various roofing materials. She stated that roofing material is a feature of uniformity in a development.

Ron Williamson noted that at previous meetings concern was expressed by the Commission on the shortened back yard. He stated this is not six regular lots being developed. It is a planned development for which several concessions were granted for a compensating better design and building materials. Staff does not feel the plans present a clear design with compensating building materials. The landscape plan has trees in the detention area and only ornamental trees - no shade trees including those abutting 75th Street.

Nancy Vennard questioned the need for an approved landscape plan on a private development. She is ok with a landscape plan for the street area along 75th Street. Mr. Williamson stated he does feel the city and tree board has the right to dictate landscape on private property.

Randy Kronblad stated he would like to see more information on the grading, including first floor elevations, noting there is only 16 feet between dwellings. He would like more than concepts on how this is going to drain. Mr. Royer replied he felt that was part of the final plat approval and stated it would be reflected on the final plat.

Nancy Vennard felt that conditions 5, 6 and 7 could be waived as requested. She does not feel the Commission should be dictating individual design. Owners of homes costing $750,000 will require appropriate quality design and building materials. She felt condition number 3 should only address the 75th Streetscape.

Randy Kronblad asked if the stormwater basin would be a grass bottom. Mr. Royer responded that it would. Mr. Kronblad asked what depth it would be. Mr. Royer replied indicating that there would be limestone cut boulders two to three feet on the north side.

Ron Williamson reviewed the Governing Body's approval of the rezoning and Preliminary Development Plan subject to the following conditions:

1. That the front yard setback be 15 feet.
2. That the rear yard setback be 20 feet.
3. That the lot coverage be 35%.
4. That the lot depth be 99 feet.
5. That a revised storm drainage plan be submitted to Public Works for their review and approval prior to the submission of the Final Plan. This will determine the size of the detention facility and how it will connect to the existing storm sewer system.
6. That the internal streets be private, and be built to City standards in terms of pavement depth and materials. The plans and specifications shall be reviewed and approved by Public Works.
7. That the applicant dedicate 10 feet of additional right-of-way for 75th Street and move the lots further south 10 feet.
8. That the plan as submitted be revised based on the requirements of the Planning Commission, be approved as the Preliminary Plan and be the basis for the preparation of the Final Plan.
9. That the property be platted prior to obtaining any building permits.
10. That the Homes Association agreement be submitted with the Final Plan guaranteeing the maintenance of the private street and stormwater detention area designated as Tract A.
11. That the existing trees and vegetation along the east and west property lines be preserved and protected during construction.
12. That a landscape plan be submitted with the Final Plan.
13. That any subdivision identification sign be submitted to the Planning Commission for approval.
14. That the applicant add the area on the east and west ends of the ends of the hammerhead cul-de-sac to Lots 3 and 6 to increase their area.
15. That the Preliminary Development Plan be revised based upon the action of the Planning Commission prior to it being submitted to the Governing Body for its consideration.
16. That the building elevation and floor plan be approved as the concept plan for the development.

The revised the Preliminary Development Plan as required by the Planning Commission and is now labeled as the Final Development Plan, dated 1-20-14.

Mr. Williamson noted the applicant has added more detail to the building elevations and labeled the materials. In reviewing the plans, staff has the following comments:

1. The Front Elevation Lots 1, 3, 4 & 6 has some good detail but the vast majority of the façade is stucco. The houses to the west in Canterbury Court also use stucco but have incorporated brick and stone to add interest and aesthetics to the facades. These will be high-end residences and the addition of masonry would improve their appearance

2. The Back Elevation Lots 1, 3, 4 & 6 is fairly plain and needs additional aesthetic treatment. The roof over the covered deck does not appear to be in proportion to the building. It needs to be lengthened. A 6 foot by 12 foot covered outdoor space does not seem to be adequate for a residence of this size.

3. The elevation for Lots 2 & 5 include stone accents on the windows and garages which helps break up the stucco facades. The comments on the Back Elevation are the same as for Lots 1, 3, 4 & 6.

4. Staff anticipated that the dwellings would use the same materials, but each dwelling would be unique in design making a cohesive yet different enclave.

5. The plans specify stone or stucco for the chimneys and Staff recommends they be stone.

The landscape plan shows a variety of trees, which is good. However, they are all ornamentals and no shade trees. There are trees in the detention area and ornamentals on 75th Street. The applicant needs to work with Staff to revise the landscape plan.

The applicant is working with the Public Works Department on the storm drainage and street design and will resolve the details prior to approval of the Final Plat.

A fence design is shown on the landscape plan.

It is the recommendation of Staff that the Planning Commission approve the Final Development Plan for Chadwick Court subject to the following conditions:

1. That the applicant obtain approval of the stormwater design and plans from Public Works prior to submitting the Final Plat.
2. That the applicant obtain approval of the private street plans and specifications prior to submitting the Final Plat.
3. That the applicant work with Staff on the tree planting and submit the landscape plan to the Tree Board for review and approval.
4. That the applicant prepare the homes association document to maintain the common areas and street and submit them with the Final Plat.
5. That the applicant use stone or brick to improve the aesthetics of the Front Elevation on Lots 1, 3, 4 & 6.

6. That the applicant design a deck cover for the Back Elevations of all the buildings that is more in scale with the dwelling.
7. That the chimneys be stone, not stucco.
8. That the applicant revise the plans if changed by the Planning Commission and submit three copies to the City for the record.

Nancy Vennard moved the Planning Commission approve the Final Development Plan for Chadwick Court subject to the following conditions:

1. That the applicant obtain approval of the stormwater design and plans from Public Works prior to submitting the Final Plat.

2. That the applicant obtain approval of the private street plans and specifications prior to submitting the Final Plat.

3. That the applicant work with Staff on the tree planting and submit a landscape plan for the area abutting 75th Street to the Tree Board for review and approval.

4. That the applicant prepare the homes association document to maintain the common areas and street and submit them with the Final Plat.

5. That the applicant revise the plans if changed by the Planning Commission and submit three copies to the City for the record.

The motion was seconded by Randy Kronblad and passed on a 5 to 0 vote.

PC2013-120 Preliminary Plat Approval
Chadwick Court

The Preliminary Plat for Chadwick Court was first submitted to the Planning Commission at its September 10, 2013 meeting. Approval of the plat has been continued as the application for rezoning was considered by the Governing Body. The Governing Body approved the RP-1b zoning and preliminary development plan on December 2, 2013 and as a result, the size of the lots changed which changed the data on the preliminary plat. The applicant has not met all subdivision requirements for the preliminary plat and staff recommends the preliminary plat be continued until the March 4, 2014 Planning Commission meeting.

Randy Kronblad moved the Planning Commission continue PC2013-120 - Preliminary Plat Approval for Chadwick Court to its March 4, 2014 meeting. The motion was seconded by Nancy Wallerstein and passed unanimously.

PC2013-127 Preliminary Plat Approval
Mission Chateau

John Petersen with Polsinelli addressed the Commission on behalf of MVS, LLC. He noted Joe Tutera was also present. Mr. Petersen stated they had received the staff report and were in agreement with the staff comments and recommendation. However, he asked for clarification on Condition #6 referencing a 15 foot sidewalk. Mr. Williamson replied Condition #6 should read, "That 30-foot platted front setback lines be shown on the plat and a 15-foot setback be shown on Lot 1 adjacent to 85th Circle.

Ron Williamson stated the proposed Preliminary Plat of Mission Chateau is a 10 lot plat that includes nine single-family lots, a public street, and one large lot for the proposed Senior Housing Community. The nine single-family lots vary in size from 17,483 sq. ft. to 30,590 sq. ft. and the average for the nine lots is 20,292 sq. ft. In the R-1A Single-Family District, the minimum lot size is 10,000 sq. ft. and all the lots exceed that minimum by a significant amount. The proposed public street, 85th Circle, is a cul-de-sac and will serve the single-family lots, as well as provide two access points for the Senior Housing Community.

STREETS
Access from Lot 10 to Mission Road will be one driveway and the plat should show access control on the rest of the Mission Road frontage. No additional right-of-way is needed for Mission Road.

The proposed cul-de-sac, 85th Circle, is approximately 1,020 feet in length. The subdivision Regulations state that cul-de-sacs shall generally not exceed 500 feet in length and loop streets are encouraged. A private loop street is provided for the Senior Housing Community approximately 240 feet from the end of the cul-de-sac. Access to this private drive needs to be a condition of approval of the plat. The cul-de-sac turnaround is required to have a minimum diameter of 80 feet to the gutter. The proposed turnaround has a right-of-way diameter of 102 feet which should be adequate to accommodate the required pavement. The proposed right-of-way width of 85th Circle is 58 feet. The applicant proposed an 8-foot wide median to be landscaped. This will also provide some screening between the single-family dwellings and the Senior Housing Community. The City does not want to maintain the median so a Home Owners Association will need to be created to provide for long term funding for maintenance.

SIDEWALKS
A sidewalk will be required on the south side of 85th Circle as well as along Mission Road. The applicant will construct the sidewalk adjacent to Lot 10 as approved on the Site Plan and will construct a sidewalk adjacent to Lot 1 on Mission Road.

Mr. Williamson noted when the previous application was submitted for the Senior Housing Community it included the entire site and pedestrian access was provided to Somerset Drive. The proposed Preliminary Plat eliminates that connection. Staff feels that consideration should be given to providing a 10-foot wide pedestrian easement along the west side of Lot 9 to provide pedestrian access.

UTILITIES
Since the site was developed as a middle school, utilities are available at the site. The applicant has worked with the various utilities and adequate capacity is available to serve the development.

STORM DRAINAGE
The applicant has prepared a preliminary Stormwater Management Plan which has been reviewed by the City's Consultant and Public Works and is consistent with the

requirements of the City's Stormwater Management code. The original Stormwater Management Plan was prepared based on the previous plan and used 8.6 acres of impervious area. The impervious area on the proposed plan is 6.35 acres not including the single-family lots.

BUILDING SETBACK LINES
Building setback lines for the Senior Housing Community buildings on Lot 10 shall be as approved on the Site Plan. Front building setback lines for Lots 1 - 9 are 30 feet and shall be shown on the plat. The side yard setback for Lot 1 adjacent to Mission Road is 15 feet and shall be shown on the plat.

TREES
Preserving existing trees and vegetation is important, particularly along the south and southwest property lines, which includes Lots 1 - 9. Landscaping on Lot 10 is addressed as part of the Site Plan.

Street trees will also be required along Mission Road, 85th Circle, and the medians. The variety, size and spacing will be subject to the approval of the Tree Board.

EXISTING IMPROVEMENTS
There are a number of existing items such as fencing, bleachers, etc. located in the single-family and 85th Circle area. All these items will need to be removed prior to recording of the Final Plat.

The applicant held a neighborhood meeting for the revised plan on October 22, 2013 and approximately 60 people were in attendance. The concerns expressed were the height of the buildings, the size, traffic, parking, and flooding, green space, compatibility with the neighborhood, density, public safety, and construction disruption.

Chairman Ken Vaughn led the Planning Commission in consideration of the following factors and conditions in reviewing a subdivision plat for approval:

1. **The size of the lots which currently abut the proposed subdivision:**
There are four single-family residential lots abutting the south property line and the average size of the four lots is 31,479 sq. ft. There are also four single-family residential lots abutting the southwest property line and the average size of those four lots is 44,512 sq. ft. which is a little larger than an acre. The average size of the combined eight single-family residential lots is 37,995 sq. ft. There are three multiple-family lots adjacent to the northwest which are 0.55 acres, 1.3 acres and 1.7 acres in area. There is one multiple-family lot of 3.3 acres adjacent to the north.

2. **The average size of lots which are within 300 feet of the proposed subdivision:**
For the purpose of this factor, only single-family lots are reported. The lots in Town and Country Estates to the southwest average 41,800 sq. ft. and the lots to the south average 37,703 sq. ft. The lots on the east side of Mission Road in Leawood Lanes average 30,100 sq. ft. The lots on the east side of Mission Road in Corinth Meadows average 13,445 sq. ft. The lots on the west side of Somerset Drive in Somerset Place

average 10,321 sq. ft. The lots that back up to those on Delmar Lane average 37,348 sq. ft.

All the single-family lots within 300 feet in Prairie Village are zoned R-1A which requires a minimum lot area of 10,000 sq. ft. The lots in Leawood are zoned R-1 Single-Family and the minimum lot area is 15,000 sq. ft. There are a variety of lot sizes in the immediate neighborhood ranging from 10,000 sq. ft. to over an acre and the quality of development has been very high regardless of the lot size.

3. **The fact that the width of the lot is more perceptive and impacts privacy more than the depth or the area of the lot:**

The R-1A Single-Family District requires a minimum lot width of 80 feet and a minimum lot depth of 125 feet. All the lots are a minimum of 125 feet in width which is well above the minimum requirement. The applicant has proposed nine single-family lots that back up to eight lots on the south and southwest property line.

4. **The likelihood that the style and cost of homes to be built today may be quite different from those which prevailed when nearby development took place:**

The trend in Prairie Village, as well as the metro area, is to build larger homes on infill lots. It therefore can be assumed that the new homes will be larger and higher priced than other existing homes in the area on similar sized lots. Many of the homes in this area were built in the 50s and 60s so the design and amenities will be significantly different. Also people want larger homes and less yard maintenance.

5. **The general character of the neighborhood relative to house sizes, aging condition of structures, street and traffic conditions, terrain, and quality of necessary utilities:**

The neighborhood is quite diverse in the size of its housing. The residences to the south and southwest were for the most part built in the late 50s and early 60s, and have the larger homes. The area on the west side of Somerset Drive was built in the mid-70s and the homes are smaller. The area east of Mission Road in Leawood was built in the late 50s and early 60s. The area to the north on the east side of Mission Road was built in the mid to late 50s. Most of the dwellings in the area are over fifty years in age. The size of the dwellings varies considerably from 1,500 sq. ft. to 6,000 sq. ft. The residences have been well maintained and many have undergone renovation to update them.

The street and traffic conditions are good. The terrain is relatively flat in this area. Utility services are readily available.

6. **The zoning and uses of nearby property:**

North: R-3 Garden Apartment District - Apartments
West: R-3 Garden Apartment District - Apartments
South: R-1A Single-Family Residential District - Single Family Dwellings and vacant
East: R-1A Single-Family Residential District - Single Family Dwellings
(Leawood) R-1 Single-Family Residential - Single Family Dwellings

7. **The extent to which the proposed subdivision will, when fully developed, adversely or favorably affect nearby property:**

The nine single-family lots adjacent to the south and southwest property lines will provide a transition from the existing single-family development to the Senior Housing Community. This should have a favorable impact on the existing adjacent residents.

8. **The relative gain to the public health, safety, and general welfare if the subdivision is denied as compared to the hardship imposed on the applicant:**

The approval of this Preliminary Plat is predicated on the approval of the Special Use Permit for the Senior Housing Community. The Special Use Permit was approved by the Governing Body for Lots and this is a logical and reasonable plat for both the neighbors and the applicant.

9. **Recommendations of the City's professional staff:**

After performing a detailed review of the proposed plat, it is the opinion of Staff that this is a good proposed use of this land and that the subdivision fits well and will be compatible with the existing neighborhood. It is the opinion of Staff that it should be approved subject to a number of conditions.

10. **The conformance of the proposed subdivision to the policies and other findings and recommendation of the City's Comprehensive Plan:**

It was not anticipated when Village Vision was proposed in 2006 that Mission Valley Middle School would be closed. As a result an amendment was prepared in 2012 to specifically address this site. The property owner, the neighbors and the community at large provided input in the development of the amendment to Village Vision. The Planning Commission held a public meeting on May 1, 2012 and recommended adoption to the Governing Body who adopted the amendment on May 21, 2012.

The recommendations of the Plan Amendment included two sections as follows:

1. **Encourage developers to obtain community input.**

The proposed developer held a number of meetings with area neighbors on the original application as well as meetings open to all residents of Prairie Village. The neighbors and the applicant have not reached consensus on many issues. The neighbors countered that it is not compatible with the existing development in that it is too large and too tall and will create traffic and flooding problems. The applicant has submitted a Stormwater Management Plan and a Traffic Impact Study and has resolved these issues from a technical perspective. Both studies have been reviewed by the City's Traffic and Stormwater Management Consultants and are acceptable. The applicant has obtained input, made plan revisions; reducing the number of units, reducing the height of the buildings, and moving the buildings further north on the site, but still has not received endorsement from the neighbors. The use proposed is a senior housing development which is one of the uses identified in the plan.

2. **Limit the uses to those allowed in the R-1A Single-Family District.**

The plan restricted the uses to those listed in the R-1A district plus those included as Conditional Use Permits and Special Use Permits. The proposal is for a senior living development which is allowed if approved as a Special Use Permit.

One of the issues the Plan listed was density. The proposed project has 310 units on 12.8 acres of land for a density of 24.2 units per acre which is about the same as the apartments and condominiums on the northwest, but much greater than the single-family dwellings to the east, south and southwest. The applicant has proposed a public street and a row of single-family lots along the south to provide a distance buffer for the adjacent single-family residences.

The proposed developer has met with the surrounding neighbors and has discussed density, access, traffic, and stormwater runoff. Although agreement has not been reached by both parties, it appears that the applicant has addressed the issues and proposed a use that is in conformance with the Comprehensive Plan Amendment, Chapter 8 Potential Redevelopment D. Mission Valley Middle School.

Village Vision also has pointed out in several areas of the plan that more housing choices should be available to the residents, particularly in the area of senior living.

The Commission reviewed the minimum standards for plat approval.

1. **No single-family lot shall have less width, depth, or area than is set out in appropriate lot size regulations for District R-1A:**

The proposed subdivision complies with these requirements. The minimum lot width in R-1A is 80'; lot depth is 125'; and the minimum lot area is 10,000 sq. ft. compared to the minimum lot width of 125'; lot depth of 127'; and the minimum lot area of 17,483 sq. ft. in Mission Chateau Subdivision. The proposed subdivision meets these minimum requirements.

2. **Lot width and area shall generally be equal to or greater than the average of the width or area of the existing lots within 300' of the proposed subdivision provided lots or tracts of greater than 25,000 sq. ft. may, if deemed reasonable by the Planning Commission, be excluded from such average:**

The average lot width is 125 feet and the average area is 20,292 sq. ft. for the nine single-family lots proposed for Mission Chateau. The average lot width is 160 feet and the average lot area is 40,153 sq. ft. for Town and Country Estates which is located adjacent to the south and southwest property lines. The average lot width is 150 feet and the average lot area is 30,100 sq. ft. for Leawood Lanes which is located on the east side of Mission Road. The average lot width is approximately 100 feet and the average lot area is 13,945 sq. ft. for Corinth Meadows which is also located on the east side of Mission Road. The average lot width is about 80 feet and the average lot area is 10,321 sq. ft. for Somerset Place which is located on the west side of Somerset Drive.

The proposed lots in Mission Chateau are larger than Somerset Place and Corinth Meadows but smaller than Town and Country Estates and Leawood Lanes. The last single-family subdivision that was platted in Prairie Village was Pine Creek at 83rd and Juniper. The average lot size for Pine Creek was 17,390 sq. ft. which is similar to Mission Chateau. These lots are more than ample to accommodate a

new dwelling that meets today's market demands. It is the recommendation of Staff that the lots in excess of 25,000 sq. ft. be excluded from the average and the proposed lots be approved as submitted.

3. **The Planning Commission may require the submittal and subsequent recording of covenants to run with the land, such covenants to include such protective restrictions as minimum house floor area, general style and height of house, maintenance of any private streets, screening, preservation of existing vegetation, time allowed for completing construction or other reasonable requirements that will tend to blend the new construction into the existing neighborhood in the shortest possible time:**

The applicant will need to prepare covenants to guarantee the maintenance of the medians on 85th Circle.

Nancy Wallerstein moved the Planning Commission approve the preliminary plat for Mission Chateau at 8500 Mission Road, Prairie Village, Kansas subject to the following conditions:

1. That the applicant provide a sidewalk on the south side of 85th Circle and the west side of Mission Road.
2. That two outbound lanes be provided for 85th Circle.
3. That the final design of 85th Circle be subject to the approval of Public Works.
4. That the applicant pay for the construction of 85th Circle and sidewalks.
5. That the applicant work with Public Works on the final design of the storm drainage system.
6. That 30-foot platted front setback lines be shown on the plat and a 15-foot setback shown on Lot 1 adjacent to 85th Circle.
7. That the applicant prepare covenants to guarantee the maintenance of the medians on 85th Circle.
8. That the applicant dedicate a 10-ft. pedestrian easement on the west side of Lot 9 to provide access to Somerset Drive.
9. That the applicant protect and preserve as much existing vegetation as possible along the property lines.
10. That all existing improvements be removed from the 85th Circle right-of-way and the nine single-family lots prior to recording the Final Plat.
11. That access control be indicated on Mission Road on the plat.
12. That the west driveway connection from the Senior Housing Community to 85th Circle be constructed at the same time as 85th Circle.

13. That engineering plans and specifications be prepared for streets, sidewalks and storm drainage and be submitted with the Final Plat.

14. That three copies of the revised Preliminary Plat, including all required changes, be submitted to the City as record copies.

The motion was seconded by Randy Kronblad and passed unanimously.

PC2014-103 Site Plan Approval
6641 Mission Road

Ron Williamson noted at its meeting on January 7, 2014, the Planning Commission continued the Site Plan approval of Village Presbyterian Church to February 4th in order for the applicant and Staff to address the cooling tower noise issue. Staff met with representatives of the applicant on January 23rd to discuss the issue. The Church has retained an Acoustical Engineer to provide solutions for the noise problem which could range from providing sound attenuation to replacing the unit. Unfortunately, only the fans can be turned on at this time of year and an accurate sound reading could not be obtained because the cooling tower would not be operating under a load. The decibel reading would probably be low. In order to allow the applicant to proceed with the project and allow enough time to test the system during warm weather under load conditions, Staff is recommending that Condition #6 of the Staff recommendation be revised to state that the noise issue will be resolved prior to the time the new addition is occupied.

Condition #4 required that a lighting plan be submitted in accordance with the outdoor lighting ordinance. Neighbors mentioned that lighting on the east side of the building was a concern. In visiting the site it did not appear that lighting on the building was an issue, but a pole on the west side of the north parking lot has two flood lights which shine on adjacent property.

Ron Williamson briefly reviewed the proposed expansion that will be located on the northwest corner of the existing building. The proposed addition will be two-story with 7,790 sq. ft. on the first floor and 6,700 sq. ft. on the second floor. The addition will include a two-story fellowship foyer, café, offices, chancel storage, elevators and restrooms. The existing steeple will be removed and replaced with a new steeple on the southwest corner of the addition. The ordinance allows a maximum height of 75 ft. The Board of Zoning Appeals has granted a variance to allow the 99 ft. for the steeple height. A new north entrance is also proposed with a portico for dropping off and picking up visitors. The north entrance will provide better access to the church from the north parking lot.

The applicant held a neighborhood meeting on November 25, 2013 in accordance with the Planning Commission Citizen Participation Policy. Four neighbors attended and the questions primarily dealt with the noise of the cooling tower, parking, storm drainage, and landscaping.

The Commission has also received communication from neighboring property owners regarding their concerns with noise and light.

Nancy Vennard noted Mr. Nearing's letter indicated that the buffering landscaping on by the cooling tower has died. Mr. Williamson responded the area surrounding the tower is very limited and it may not be able to sustain a landscape buffer. He suggested that perhaps painting the unit to match the existing color of the church would be a more successful screening option.

Nancy Wallerstein asked if there was a material that could be used to muffle the sound. Barry Rogers, representing Village Church, stated they have hired an acoustical engineer to provide solutions for the noise problem. Once this study is done, they will be able to determine the best solution to address the problem. He expects that the solution will include some type of sound barrier. Mr. Rogers stated even if the church did not go forward with this project they are committed to solving the noise issue for the neighboring property owners.

Ken Vaughn asked what would happen if they did not proceed. Mr. Williamson replied the lighting concerns would need to be corrected to be compliant with the city's current code. If the City adopts a new noise ordinance, the church would have to comply with the city's regulations.

Howard Nearing, 3704 West 67th Street, Mission Hills, gave a brief history of the problems experienced with each new addition added by the Church. However, he believes the church is diligently working to correct the current problems.

Randy Kronblad asked how long construction was estimated to take. Mr. Rogers replied one year.

Ken Vaughn confirmed with Mr. Rogers that both the noise and lighting problems would be addressed as soon as possible.

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

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

The total site is approximately 6.59 acres and provides parking on the north and south ends of the church. The proposed addition is on the west side of the existing building, between Mission Road and the existing building; therefore, it will not impact any of the parking areas. There are 268 regular spaces and 19 accessible spaces for a total of 287 spaces. The proposed plan will have 239 regular spaces and 29 accessible spaces for a total of 268 spaces. Accessible spaces require more area than regular spaces and, therefore, account for the reduction in total parking spaces. The church has a seating capacity of 951 which requires 238 parking spaces and the church will exceed that number by 30 spaces after the proposed addition is built. The church also has an agreement to use parking at Prairie School for Sunday Services.

The area where the new addition is proposed is heavily landscaped with mature trees. Most of these will be lost due to the construction of the addition. The applicant will need to submit a new detailed landscape plan for the area along Mission Road.

B. Utilities are available with adequate capacity to serve the proposed development.
The property is currently served with all utilities and the proposed improvements should not create the demand for additional utilities. No additional needs are contemplated for water and sewer services.

C. The plan provides for adequate management of stormwater runoff.
The applicant has proposed underground detention in the south part of the parking lot. The applicant has prepared a stormwater management plan for submittal to and approval by the Public Works Department, but it was received last week and has not been reviewed.

D. The plan provides for safe and easy ingress, egress and internal traffic circulation.
The ingress, egress and internal circulation will be essentially as it is now. The proposed portico is approximately 57 ft. from Mission Road, which means there is stacking for only three vehicles. This does not appear to be adequate. The applicant has agreed to restrict access from the Mission Road driveway and the portico for Sunday Services.

E. The plan is consistent with good land planning and good site engineering design principles.
The location of the proposed addition works well with the existing development of the site. The overall plan appears to be adequate and is consistent with good planning and site engineering design principles. The details of the storm water management plan need to be worked out with Public Works. The plans have not addressed outdoor lighting, and if outdoor lighting will be added or changed, it will need to conform to the City's new outdoor lighting regulation.

A detailed landscape plan needs to be provided to address landscaping along Mission Road.

F. An appropriate degree of compatibility will prevail between the architectural quality of the proposed building and the surrounding neighborhood.
The plans indicate that the materials proposed for the addition will match the existing building. The design of the new addition is compatible with the design of the existing building.

G. The plan represents an overall development pattern that is consistent with the comprehensive plan and other adopted planning policies.
One of the goals of the Village Vision is to support a high quality educational and cultural environment for the residents of Prairie Village which includes investment and upgrading of facilities. It is fortunate that the site is adequate to accommodate the proposed expansion. The proposed project is very consistent with the Comprehensive Plan.

Randy Kronblad moved the Planning Commission approve the proposed site plan for the addition to the Village Presbyterian Church at 6641 Mission Road subject to the following conditions:

1. That the applicant work with Public Works for approval of the storm water management plan.
2. That the applicant will restrict access from Mission Road and the portico for Sunday Services.
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 and specifically address lighting on the east side of the building and the area light in the north parking lot that is adjacent to Mission Road and has two flood light fixtures. The outdoor lighting plan will need to be submitted to Staff for review and approval and any required improvements be completed prior to the occupancy of the proposed addition.
5. That the landscape plan for the area adjacent to Mission Road be submitted to Staff and the Tree Board for review and approval prior to installation.
6. That the applicant prepare a study of the cooling tower noise and propose solutions which may range from replacement of the cooling tower to sound attenuation. The noise level shall not exceed 65 decibels at the property line at all times of the day or the decibel level established by the City Council. The solution shall be submitted to Staff for review and approval and improvements shall be completed prior to occupancy of the proposed addition. All new mechanical units shall be screened from adjacent streets and adjacent properties.
7. That the steeple height shall be a maximum of 99 feet as approved by the Board of Zoning Appeals.
8. That the applicant provide landscape screening for the mechanical units on the east side.

The motion was seconded by Gregory Wolf and passed unanimously.

PC2014-106 Request for Sign Standards Approval
4000 Somerset Drive - Intrust Bank

Scott Schultz with Luminous Neon presented the request from Intrust Bank for approval of sign standards to allow exterior signage for its other tenant, Continental Title Company. Intrust Bank has no sign on the building, but does have a monument sign. Continental Title Company wants to put a wall sign on the south façade. He has reviewed the staff recommended changes to the sign standards submitted and accepts them.

Ron Williamson stated that normally only one sign is permitted on a building façade, but the Planning Commission may approve more than one sign through approval of sign standards that address all the signage for a specific project.

Staff recommends that wall signs only be permitted on the south façade and that two signs be permitted; one on the west end of the front façade and one on the east end of the front façade.

Nancy Vennard moved the Planning Commission approve the Sign Standards for 4000 Somerset subject to the following conditions:

1. That the applicant change the title from "*Tenant Sign Criteria*" to "**Sign Standards.**"

2. That the applicant reword the Building Sign section as follows:

   Building Signage:
   Two wall signs shall be permitted on the south building façade. No signs shall be permitted on the east, west or north facades. Signs shall not exceed five percent (5%) of the building façade, but in no event be larger than 50 sq. ft. in area. Tenant signs shall consist of ¼" thick aluminum individual computer cut letters with mounting rails to minimize mounting penetrations in brick façade. Letters shall have a primed and painted finish. White is preferred, but not required. Color of letters and/or logos must be approved by Developer.

   All sign designs are subject to developer approval prior to installation.

3. That the applicant revise and submit the final sign standards, dated, to the City for the record copy.

The motion was seconded by Gregory Wolf and passed unanimously.

OTHER BUSINESS

Discussion of possible changes to RV regulations
Kate Gunja stated that at the December 16 meeting, the City Council heard a number of resident comments regarding recreational vehicle storage. Council directed staff to place the item on a future agenda.

At the City Council's direction, staff researched neighboring cities' restrictions regarding the parking and storage of recreational vehicles and presented them to the Council for discussion. A survey was also mailed to all of the Homes Associations in Prairie Village to inquire if they regulated the parking and storage of RVs. The City received responses from 10 HOAs.
Mrs. Gunja stated the City adopted its current Recreational Vehicle ordinance in September, 1994, and reviewed the current regulations and definitions.

RVs may be stored in an enclosed structure, or it must meet several location requirements if stored outside. The requirements are:

1. All RVs must be parked on a hard surface.
2. Not located in a required front yard (30 feet from the street)
3. Five feet away from rear lot line
4. Five feet away from side lot line.
5. In all instances, an RV must be at least 15 feet from the street.

There was extensive discussion by the City Council at the January 21 Meeting. The discussion ranged from leaving the ordinance as it currently is, to implementing further restrictions, to a complete ban. On a 6 to 2 vote, the Council requested the Planning Commission evaluate the issue and consider authorizing a public hearing. The City Council also requested that the Planning Commission give consideration to the following items:

- RVs and equipment cannot be used as storage or permanently located on the property if not in regular use
- RVs and equipment must be actively licensed and operable
- RVs and equipment must be screened
- Address storage on corner lots and visibility
- RVs and equipment must be parked on a hard surface and definition of hard surface should be refined
- RVs and equipment must not only be parked behind the front building line of their property but behind the front building line of neighboring properties directly adjacent
- Regarding temporary storage length of time – Is 72 hours within any 14 day period adequate and acceptable?

Ken Vaughn stated he felt the temporary storage length of time could be lengthened to a week within a 30 day period.

Nancy Vennard noted the vague language in the definitions "used on a regular basis". Nancy Wallerstein felt this was a knee jerk reaction by the Council to one complaint received on regulations that have been in effect for more than 20 years.

Kate Gunja provided information on the complaint that precipitated the Council direction.

Ken Vaughn expressed concern that the potential screening may be more of a nuisance than the recreational unit.

Nancy Wallerstein questioned if the existing problem would be grandfathered if the regulations were changed. Mrs. Gunja replied that she had discussed this with the City Attorney and there could be a date given in the ordinance by which all units must be in compliance. She noted the couple with the unit is looking at doing more to screen their recreational vehicle.

Ken Vaughn stated he did not feel any change was needed, except perhaps addressing the size of the units.

Kate Gunja noted in discussing this with the Chief of Police, Chief Jordan had some suggestions for changes that would make it easier for his staff to enforce.

Nancy Wallerstein suggested the Commission wait until they receive comments from Chief Jordan to take any action. Ron Williamson stated that staff will also look at the regulations and present a marked up copy of the existing chapter showing possible changes for consideration. Nancy Vennard suggested staff look at the definitions. Nancy Wallerstein noted the difficulty in enforcing what is currently in the code.

Discussion of possible changes to Noise Regulations

Danielle Dulin stated Ordinance 1326 was adopted in 1972 and established specific decibel level limitations within the City. The ordinance was included in Chapter VII until 1973 when the "Noise and Vibration Control Code" was designated as Chapter VIII. During a recodification process in 1996, Staff recommended the removal of the specific decibel levels because the City did not own the necessary equipment to read decibel levels and enforce the ordinance. The decibel levels were officially removed from the code with the adoption of the new code on December 20, 2004. The Zoning Regulations have never included decibel level limitations.

Staff reviewed noise restriction ordinances and zoning regulations for Fairway, Leawood, Lenexa, Merriam, Mission, Mission Hills, Olathe, Overland Park, and Shawnee. Each city has similar language as the Prairie Village Municipal Code, and 5 cities (Leawood, Lenexa, Merriam, Olathe, and Overland Park) have specific decibel limitations. Leawood limits the decibel level at the property line to 60 db in all districts at all times in their Development Ordinances which is separate from their municipal code, and in their Zoning Regulations, Merriam designates specific decibel levels for each use and distinguishes between continuous and instantaneous noise. In their municipal code, Lenexa, Olathe, and Overland Park include decibel level limitations per residential, commercial, and industrial use for day and night hours. A spreadsheet with specific details for each city was distributed.

If the Planning Commission is interested in reinstating decibel level limitations, Staff suggests the Planning Commission pass a motion recommending that City Council pass an ordinance to be included in Chapter VIII, Article 5 of the Municipal Code. Per its research, Staff is recommending a limitation of 65 db(A) at the property line for all uses at all times of the day. A decibel level reader can be purchased for $200-500 to enforce the ordinance.

Ken Vaughn and Randy Kronblad stated they would like to review the proposed language. Mr. Vaughn felt the limit could be lower, perhaps 60 db(A)..

Nancy Vennard asked for the current language. Mrs. Dulin restated the current code as "plainly audible to a reasonable person at the property line." Mrs. Vennard noted the noise from bands from the Harmon Park pavilion.

Danielle Dulin noted the code is looking at addressing mechanical noise. She would like to wait until spring to enable the city to get some current noise readings before she brings back a recommendation.

Nancy Wallerstein asked about the noise from the Homestead Paddle Ball courts. The City has not received any complaints. Mr. Williamson noted that noise is intermittent.

NEXT MEETING

The March 4, 2014 meeting will be held in the Council Chambers of the Municipal Building. There will also be a BZA meeting for a lot depth variance to allow for a lot split and a variance for reduced rear yard setback. Returning to the Commission will be the plat for Chadwick Court and possible changes for recreational vehicles. New applications include a Special Use Permit for a Private School in the current Cherokee Christian Church and site plan approvals for antenna changes by Verizon and AT&T on the city's cell tower.

JOINT MEETING

Kate Gunja noted that a joint meeting of the Planning Commission and City Council has been requested. Staff felt the meeting should be after the upcoming elections as there will be several new Council members. The meeting would be held during the Council Committee meeting time from 6 to 7:30. Possible dates for the meeting are Monday, May 3rd or Monday, July 21st. Suggested items for discussion are MXD developments, Special and Conditional Use Permits. Mrs. Gunja asked Commission members to let her know of other items they would like to have discussed.

ADJOURNMENT

With no further business to come before the Commission, Chairman Ken Vaughn adjourned the meeting at 8:30 p.m.

Ken Vaughn
Chairman

LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
SUBJECT: PC 2014-01 Proposed Amendment to include a Reapplication Waiting Period for Special Use Permits and Rezonings
DATE: March 4, 2014 Project #000009686

COMMENTS:

At its regular meeting on October 21, 2013, the City Council discussed amending the zoning regulations to include a reapplication waiting period for Special Use Permits and Rezonings. The discussion ranged from leaving the ordinance as it currently is to having a one-year reapplication waiting period. On a 6 to 5 vote, the Council requested the Planning Commission evaluate the issue and consider authorizing a public hearing. The Planning Commission discussed the issue at its January 7, 2014 meeting and directed Staff to advertise the matter for a public hearing and discuss the issue with other cities in Johnson County.

Staff has researched the other communities in Johnson County and the following is a summary of their requirements:

City	Zoning Reapplication Waiting Period	Special Use Permit Reapplication Waiting Period
Leawood	6 months	6 months
Olathe	1 year	1 year
Shawnee	none	none
Overland Park	6 months	none
Lenexa	1 year	none
Mission	6 months	none

The specific regulation for each community is set out in the following:

LEAWOOD:

16-5-5.3 Reapplication after Denial
In the case of denial of an application by the Planning Commission or Governing Body, the applicant must wait a period of 6 months before reapplying for approval or a new development plan or zoning change on the same property, unless approved by the Governing Body upon a showing of changed circumstances.

In conversation with the Leawood Planning Staff, it was reported that this regulation has not been used for sure in the past five (5) years and perhaps, not in the past 15 years.

OLATHE:

18.12.015 Resubmitting Applications for Plats, Rezoning and Special Use Permits
When a proposed application for rezoning, special use permit, or plat has been withdrawn by the applicant or denied by the Planning Commission or the Governing Body, the same application for the same property shall not be resubmitted for a period of one (1) year from the date of withdrawal or denial. However, an application for a different zoning classification or special use permit request can be submitted at any time. In addition, a new plat application showing major modifications and/or revisions to the withdrawn or denied plat application may be submitted at any time.

In conversation with the Olathe Planning Staff, it was reported that this regulation has not been used since Staff can remember. They do feel it is a good safeguard and may encourage applicants to initially submit a better project.

OVERLAND PARK:

18.140.460 Limitation on successive rezoning applications by landowner

A. No application for rezoning by a landowner or a landowner's agent shall be accepted if any application for substantially the same property has been filed and advertised for public hearing within the preceding 6 months.
B. For purposes of subsection A, the preceding 6-month period shall be determined as follows:
   1. If there was a final action (either approval or denial) on the prior application, the 6-month period shall run from the date of such action.
   2. If the prior application was withdrawn after being advertised for public hearing, the 6-month period shall run from the date the application was withdrawn.
C. The Director of Planning and Development Services shall determine if an application concerns "substantially the same property" as a prior application. The landowner may appeal any such determination to the Planning Commission.
D. The Governing Body may waive the limitation in this section for good cause shown.

(History: Ord. ZRR-2343 §35, 2002; ZRR-1725; ZRR-1637)

In conversation with the Overland Park Planning Staff, it was reported that it may have been used two (2) or three (3) times in the past 20 years.

LENEXA:

H. Waiting Period for Re-Application:
In the event that the Governing Body denies an application for amendment to the Zoning Map, such application shall not be resubmitted for 1 year. The Community Development Director may, by separate action, waive the 1-year waiting period, upon petition by the applicant, if the Planning Commission finds that:

1. There have been significant physical, economic, land use or other changes in the area that affect the appropriateness of the zoning of property in the area in general; or
2. There has been a significant and pertinent change to the text of the Zoning Ordinance; or
3. The new application is for a more restrictive use than the original.

In conversation with the Lenexa Planning Staff, it was reported that it was not used in the past 13 years. Applicants typically revise the application to something that is more acceptable before reapplying.

MISSION:

440.360: LIMITATION ON SUCCESSIVE REZONING APPLICATIONS BY LANDOWNER

A. No application for rezoning by a landowner or agent will be accepted if any application for substantially the same property and substantially the same development or land use has been filed and advertised for public hearing within the preceding six (6) months.
B. For purposes of Subsection (A), the preceding six (6) month period shall be determined as follows:
   1. If there was a final action (either approval or denial) on the prior application, the six (6) month period shall run from the date of such action.
   2. If the prior application was withdrawn after being advertised for public hearing, the six (6) month period shall run from the date the application was withdrawn.
C. The Public Works Director shall determine if an application concerns "substantially the same" property, development and land use as a prior application. The landowner may appeal any such determination to the Planning Commission.
D. The City Council may waive the limitation in this Section for good cause shown. (Ord. No. 1007 §16-203A.400, 1-24-01)

In conversation with the Mission Planning Staff, it was reported that they do not recall this regulation being used.

The concern with having no waiting period is that controversial applications require significant Staff, Planning Commission, and City Council time, as well as, numerous meetings for interested or affected citizens. Prairie Village has a small staff and repetitive applications take staff away from other responsibilities. Another point is that if a lawsuit is filed, a waiting period might allow adequate time for the courts to decide an issue before a new application is considered. It appears that the most common waiting period is six (6) months and that might be a good starting point. Another question is whether the reapplication waiting period applies to the same Special Use Permit or Rezoning, or if a different request is made should the waiting period not apply.

The general consensus from the five cities is that an applicant rarely reapplies for the same request. Usually the plan changes, the land use changes, or the legal description changes making it a new application. There is no compiled data to suggest it, but it could be concluded that the applicant thinks through the project more carefully and submits a better application the first time.

It should be pointed out that none of the ordinances would have prevented the immediate reapplication of Mission Chateau. The legal description and land use changed substantially, which would allow an immediate reapplication.

REZONING APPLICATIONS

For rezonings, a new Section 19.52.055 Reapplication Waiting Period would be added to Chapter 19.52 PROCEDURAL PROVISIONS. Suggested wording is as follows:

19.52.055 Reapplication Waiting Period

In the case of denial of an application by the Governing Body, the applicant must wait a period of six (6) months from the date of denial before reapplying for approval of a new development plan or zoning change unless the legal description of the property has substantially changed, the proposed land use has changed, or the application is for a more restrictive zoning district than the original.

The Governing Body may waive the waiting period for good cause shown.

SPECIAL USE PERMITS

Fewer cities have a reapplication waiting period for Special Use Permits. Since case law has determined that Special Use Permits are a change in land use and are subject to the "Golden Criteria", it would appear logical to treat them the same as rezonings.

A new Section 19.28.075 Reapplication Waiting Period would be added to Chapter 19.28 SPECIAL USE PERMITS. Suggested wording is as follows:

> 19.28.075 Reapplication Waiting Period
>
> In the case of denial of an application by the Governing Body, the applicant must wait a period of six (6) months from the date of denial before reapplying for approval of a Special Use Permit unless the legal description of the property has substantially changed or the new application is for a Special Use Permit that is a different use than the original.
>
> The Governing Body may waive the waiting period for good cause shown.

RECOMMENDATION:

It is the recommendation of Staff that the Planning Commission consider the proposed amendment along with input from the public; make revisions as it deems appropriate; and recommend the proposed amendment to the Governing Body for approval.

LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: March 4, 2014, Planning Commission Meeting Project # 000009686

Application: PC 2014-02

Request: Special Use Permit for Montessori School

Property Address: 7456 Cherokee Drive

Applicant: Global Montessori Academy

Current Zoning and Land Use: R-1B Church

Surrounding Zoning and Land Use:
North: R-1B Single-Family District – Single Family Dwellings
East: R-1B 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: Lot 21 BLK 10 Prairie Hills

Property Area: 2.84 acres

Related Case Files:
PC 2003-109 Temporary Use Permit for Summer Day Care Program
PC 2002-105 Temporary Use Permit for Summer Day Care Program
PC 1997-07 Special Use Permit for Child Care Programs
PC 1992-05 Special Use Permit for Child Care Programs
PC 1989-06 Special Use Permit for Child Care Programs

Attachments: Application, Site Plan, Photos

General Location Map

Aerial Map

COMMENTS:

Global Montessori Academy (GMA) is requesting a Special Use Permit to establish a Montessori School in a building previously occupied by the Cherokee Christian Church on the northwest corner of 75th Street and Belinder Avenue. GMA will acquire the church facility and use the classroom area for the Montessori School. GMA will rent the sanctuary for Sunday Worship. The sanctuary has a seating capacity of 299.

GMA is currently located in the Unity Temple on the Plaza and has outgrown the location. The school currently has 90 students, ages 2 - 9 years old, is expecting 110 students for the 2014-2015 school year, and estimates the capacity of the proposed site to accommodate 150 students. The school hours are from 8:30 am to 3:30 pm, but the school drop-off starts at 7:30 am and the pick-up extends to 6:00 pm. The GMA was founded as a nonprofit in 1990; however, it has been in operation since 1984. The school will accommodate preschool to sixth grade students in six classrooms initially, but seven classrooms ultimately.

The existing fenced area on the south side of the building will provide outdoor activity space for the 2 - 6 year age group. The northwest corner of the parking lot will be partitioned off with movable barriers for an outdoor play area for the elementary students. This will remove approximately 33 parking spaces, some of which will be needed for the Sunday Worship services.

The applicant held a neighborhood meeting on February 18, 2014, in accordance with the Planning Commission Citizen Participation Policy and two people attended. No concerns expressed were about the use. A summary provided by the applicant is attached.

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 proposed Montessori School classrooms will be contained within the existing building which is in compliance with the zoning regulations. The fenced play area on the south was approved as part of the day care center. The outdoor classroom area on the east side of the building adjacent to Belinder Avenue needs to be better defined, specifically regarding fencing, paved areas, equipment, etc.

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

The proposed Montessori School will use the existing building and site for its use with few external changes. Access to the school will be from the north parking lot which is adequate in size to provide for standing and parking vehicles.

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 proposed Montessori School will be using the building and site currently occupied by the church. There will be additional noise created by children using the outdoor play area on the northwest corner of the site. This may create some inconvenience for the residents to the west and north, but will be no different from other elementary schools that are located in residential neighborhoods throughout the city.

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 proposed Montessori School will accommodate approximately 150 students and will operate during normal working hours. It will use the existing building and will not have a dominant effect on the neighborhood. It is a good reuse of a church facility that is no longer viable.

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 Montessori School will use 56 spaces in the north lot, which should be more than adequate since pick-up and drop-off times vary significantly. The sanctuary has a capacity of 299 seats which requires 75 parking spaces. There are a total of 101 parking spaces on the site so it can accommodate the sanctuary at full capacity. This will require the elementary play area to be made available for parking on church meeting days.

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

Utilities are available for the proposed use. If more impervious area is created on the east side of the building, some storm drainage improvements may be needed. The applicant will need to work with Public Works Department to resolve any storm drainage issues.

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.**

All access to the Montessori School will be off Belinder Avenue into the north parking lot. Entrance will be through the north driveway and exit will be through the south driveway. Currently, Belinder Avenue has some congestion problems at the 75th Street intersection during the morning peak. This probably is due to the Belinder Elementary School to the north, and the Montessori School and Day Care Center on the southeast corner of the intersection. Staff has requested the applicant to have a traffic study performed in order to analyze existing and future traffic congestion.

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.

The proposed use will not have any hazardous or toxic materials, or obnoxious odors; however, some additional noise will be created by children using the outdoor play area in the northwest corner of the site.

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 proposed use will not require any significant changes in the exterior architecture of the existing building. The fire escape on the north end will be modified and some additional doors will be added on the east side of the building to meet code requirements.

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 and another church is located on the southeast corner of Belinder Avenue and 75th Street. Two blocks east of the site is a large office building along with other office buildings on the north side of 75th Street to State Line Road. The character of the immediate neighborhood is primarily residential with single-family dwellings and churches.

2. The zoning and uses of property nearby;

North: R-1B Single-Family District - Single Family Dwellings
East: R-1B 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-1B 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 the building can be modified to easily accommodate the proposed school. The proposed repurposing of the church for a school is a good reuse of an existing facility.

4. The extent that a change will detrimentally affect neighboring property;
The site has been used as a church since it was built in 1957 and was a quasi-public use; the proposal is to change it to another quasi-public use. Very little change is proposed to the building and site so the appearance will remain essentially as it is now. Additional traffic on Belinder Avenue may have some adverse effects on the neighborhood, particularly between 7:30 am and 8:30 am.

5. The length of time of any vacancy of the property;
The church was built in 1957 and has been occupied by a Cherokee Christian Church who will terminate their use in June.

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 proposed use will be within an existing building that will have minor exterior modifications; however, there will be some site improvements. 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 will be within an existing building with minimal exterior changes; the use will have minimal impact on the neighborhood; and the use will provide a needed service for children that is in demand in Prairie Village. It is the opinion of Staff that this is a good reuse of an existing church facility.

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 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 Global Montessori Academy 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 Global Montessori Academy Special Use Permit to the Governing Body subject to the following conditions:

1. That the Montessori School be approved for a maximum of 7 classrooms and 150 children between the ages of 2 and 9.
2. That the School be permitted to operate year round from 7:30 a.m. to 6:00 p.m. subject to the requirements of the State of Kansas
3. That drop-off and pick-up of students occur in the north parking lot.
4. That the School meet all requirements of the building and fire codes, and the State Fire Marshall.
5. That the site comply with ADA requirements.
6. If this use 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.

7. That the Special Use Permit be issued for the Montessori School for a period of five (5) years from the date of Governing Body approval and that if the applicant desires to continue the use, they shall file a new application for reconsideration by the Planning Commission and Governing Body.
8. That the applicant have a traffic analysis performed and if any changes are necessary they be incorporated in the Site Plan Approval.

Site Plan Approval
The applicant has also 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. In its consideration of the Site Plan, the Planning Commission shall address the following 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. Belinder Avenue currently backs up at 75th Street in the morning rush hour, and this use will further aggravate that problem. A traffic study needs to be 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.

RECOMMENDATION:

It is the recommendation of Staff that the Planning Commission continue the Site Plan to the April 1st meeting in order to consider the traffic study and other conditions as follows:

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.
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.

East Side

SPECIAL USE PERMIT APPLICATION

CITY OF PRAIRIE VILLAGE, KANSAS

For Office Use Only
Case No.: PC 2014-02
Filing Fees: $100
Deposit: $500

Date Advertised:
Date Notices Sent:
Public Hearing Date: 3/4/14

APPLICANT: Global Montessori Academy PHONE: 816 561 4533

ADDRESS: 770 W 47th KC, MO 64112 E-MAIL: jodie@globalmontessori.com

OWNER: Cherokee Christian (O.C.) Church PHONE: 913 362 7077

ADDRESS: 7457 Cherokee Drive. ZIP: 66208

LOCATION OF PROPERTY: 7457 Cherokee Drive

LEGAL DESCRIPTION: Prairie Hills Lot 21 BLK 10 PVC 576 371 BTAO 2672-0

ADJACENT LAND USE AND ZONING:

	Land Use	Zoning
North	Single Family Residetal	R-1B
South	" " "	R-1B
East	" " "	R-1B
West	" " "	R-1B

Present Use of Property: Place of Worship / Church

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.	✓	
2. Is so designed, located and proposed to be operated that the public health, safety, and welfare will be protected.	✓	
3. Is found to be generally compatible with the neighborhood in which it is proposed.	✓	
4. Will comply with the height and area regulations of the district in which it is proposed.	✓	
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.	✓	
6. Adequate utility, drainage, and other such necessary facilities have been or will be provided.	✓	

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

If Yes, what length of time? Indefinite

SIGNATURE: _____ DATE: 31 JAN 2014

BY: JODIE NOLEN

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

SPECIAL USE PERMIT APPLICATION
for
Global Montessori Academy

City of Prairie Village, Kansas
January 31, 2014

EXHIBIT A: Project Narrative

This year, Global Montessori Academy (GMA) will celebrate 30 years since its founding. Originally called the Plaza Light School, it occupied a single classroom in the basement of its parent organization, Unity Temple on the Plaza. For six years, it functioned as a family cooperative with parents serving as support staff. In 1990 Unity decided to close the School. A group of determined parents decided the School was too important to the community to dissolve and formed a non-profit corporation to acquire it. On September 1, 1990, the School opened its doors as the Global Montessori Academy.

GMA has grown from the original class of 18 students and one full-time teacher. The past five years the school has experienced tremendous growth. It is currently operating at full capacity, has an ever-expanding wait-list, and enjoys an excellent reputation in the community. In 2011, GMA added a third primary room for ages 3 to 6 years and an elementary class for 6 to 9 year olds with a plan to add another elementary class three years later. With no available space at Unity, our Board of Directors has spent the last three years identifying a suitable site to further develop and expand the school. After an exhaustive search, Cherokee Christian Church was found an ideal location with a gracious congregation dedicated to supporting education and leaving behind a valuable community resource.

This site, as is currently configured, will allow Global to expand to a maximum capacity of 150 students, which is well under the church's capacity of 299 attendees. The 2014-2015 student population is projected to be 110 (20 toddlers, 70 primary and 20 elementary students). The site has ample parking and easy access from both Belinder and Cherokee Drive allowing parents to park and walk their children into school. GMA's school day runs from 8:30 a.m. to 3:30 p.m. with extended care offered before and after school. Drop-off occurs between 7:30 and 8:30 a.m. each morning. Pick up is from 3:30 to 6:00 p.m. each afternoon. There will be no carpool line extending onto Belinder Street or Cherokee Drive. These factors taken together should lessen the effects additional cars have on weekday traffic patterns. Weekend traffic will be similar to current conditions. There will be periodic school functions on Saturdays and a congregation will rent the the sanctuary for Sunday worship.

The mission of Global Montessori Academy is **to provide an authentic Montessori education for young children, with a dedication to development of the whole person: intellectually, physically, emotionally, and socially.** Since 1984, thousands of children have flourished as Global students. A successful move to this site will continue this tradition to the next 30 years and beyond.

EXHIBIT B: Explanation for Responses to Standards for Special Use Permit

1. *Is deemed necessary for the public convenience at that location.*

   When searching for a new site, GMA considered several factors including proximity and demographic similarity to current location, available greenspace, site condition, and compatibility with Montessori practices. After an exhaustive search, this site was found to be as close to ideal as could be expected. It will offer a higher level of convenience to GMA families than the current location. Conversely the surrounding area will benefit significantly from additional high quality childcare.

2. *Is so designated, located and proposed to be operated that the public health, safety, and welfare will be protected.*

   Global Montessori Academy has operated for 30 years without incident at its current location. At this location the school will be fully licensed by the Kansas Department of Health and Environment to care for children from 2 to 6 years. GMA's school age program will be registered with the Kansas State Department of Education. Given the change of use from Assembly to Education GMA will make significant upgrades to meet current building safety code.

3. *Is found to be generally compatible with the neighborhood in which it is proposed.*

   There will be few substantial changes to the exterior of the building. Changes will be designed to blend into and compliment the current appearance. In accordance with Prairie Village Zoning Regulations special use permits for Private Schools are permitted in any district (Section 19.28.005).

4. *Will comply with the height and area regulations of the district in which it is proposed.*

   There will be no change in height or area made to the building, keeping it within district regulations.

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.*

   There will be no change in off-street parking or loading areas. Current screening will be maintained to protect neighboring residents from injurious effect.

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

   Most existing utilities are adequate for school use. A larger supply line will be installed to meet the added water demand of a fire sprinkler system. Changes to the site such as land and hardscaping will be minimal and cosmetic in nature. There should be no discernible change in current drainage patterns.

Application No. PC 2014-02

AFFIDAVIT

STATE OF KANSAS)
) ss.
COUNTY OF JOHNSON)

Jodie M Nolen, 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 25 day of February, 2014.

Notary Public or Planning Commission Secretary

Application No. PC 2014-02

Jodie M Nolen, being duly sworn upon his oath, deposes and states:

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 18 day of February, 2014 a public information meeting was held pursuant to the Citizen Participation Policy adopted on June 6, 2000, by the Planning Commission

3. On the 12 day of February, 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 Attached	

I certify that the foregoing is true and correct.

Jodie Nolen
Name

707 W 47th, KCMO 64112
Address

GLOBAL MONTESSORI ACADEMY

www.globalmontessori.com

707 West 47th Street • Kansas City, MO 64112 • Phone•816•561•4533 • Fax•816•561•5710

February 12, 2014

Dear neighbor,

This year, Global Montessori Academy (GMA) will celebrate 30 years since its founding. Originally called the Plaza Light School, it occupied a single classroom in the basement of its parent organization, Unity Temple on the Plaza. For six years, it functioned as a family cooperative with parents serving as support staff. In 1990 Unity decided to close the School. A group of determined parents decided the School was too important to the community to dissolve and formed a non-profit corporation to acquire it. On September 1, 1990 the school opened its doors as the Global Montessori Academy.

GMA has experienced tremendous growth from the original class of 18 students and one full-time teacher. We are currently operating at full capacity with 90 students. GMA offers one toddler class for students age 2-3, three Children's House classrooms for students age 3-6, and a lower elementary class for students in first through third grade. GMA has an excellent reputation in the community and demand for quality Montessori education continues with our ever-expanding wait-list. We are also excited to grow our elementary program to offering fourth through sixth grade in the coming years.

With no available space at Unity, our Board of Directors has spent the last three years identifying a suitable site to further develop and expand the school. After an exhaustive search, Cherokee Christian Church was found an ideal location with a gracious congregation dedicated to supporting education and leaving behind a valuable community resource.

The mission of Global Montessori Academy is to provide an authentic Montessori education for young children, with a dedication to development of the whole person: intellectually, physically, emotionally, and socially. Since 1984, thousands of children have flourished as Global students. A successful move to this site will continue this tradition to the next 30 years and beyond.

We are holding a Public Information Meeting on February 18th at 6:00 pm in the sanctuary of Cherokee Christian Church. We will discuss our plan for the property and answer any questions you might have. We hope to see you there!

Warm regards,

Jodie M. Nolen
Executive Director

Application No.: PC 2014-02

Neighborhood Meeting Summary
February 18, 2014

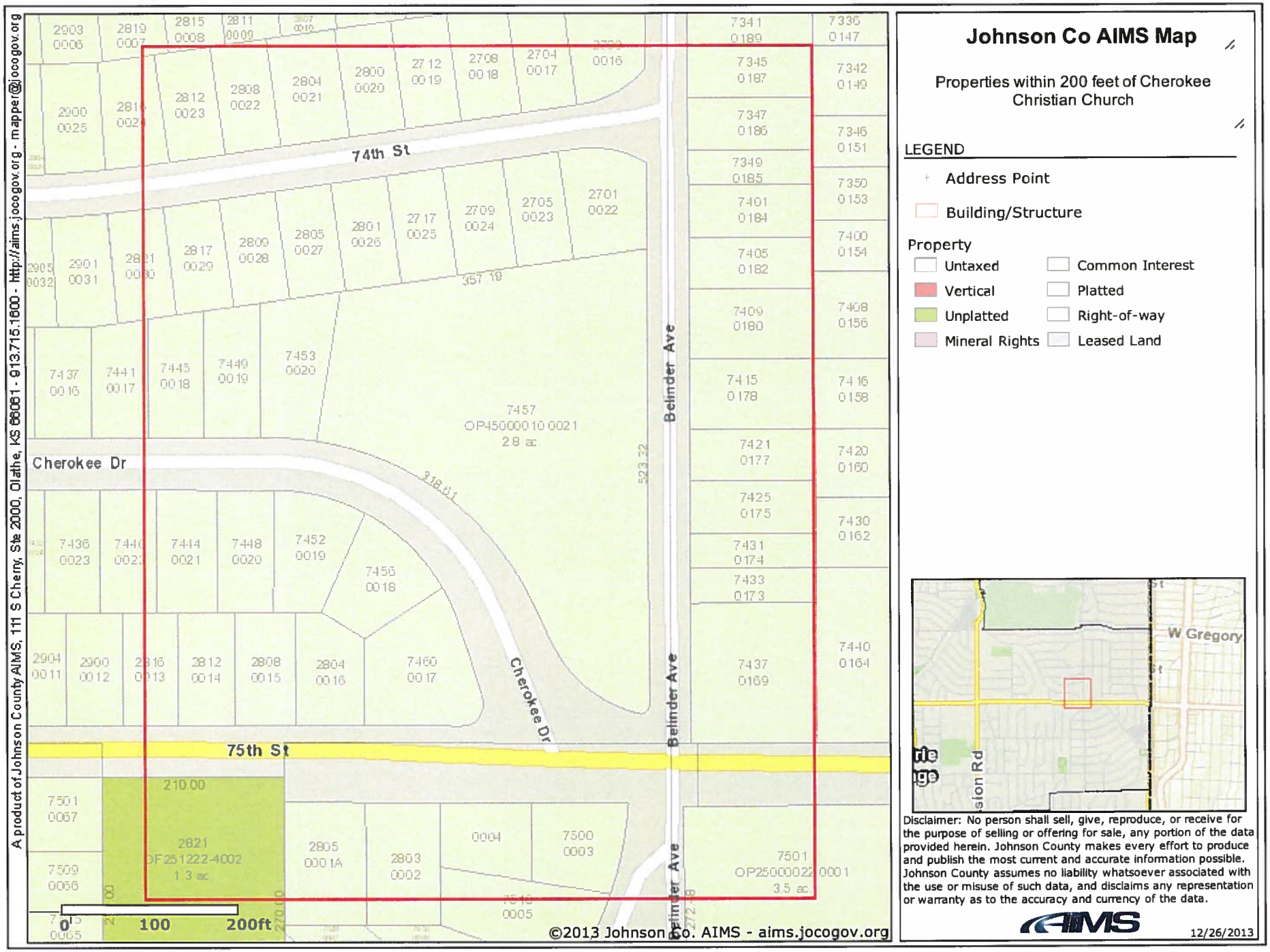
In attendance representing Global Montessori Academy and Cherokee Christian Church:

-Ben Randell, Project Manager, Global Montessori Academy
-Reverend Patricia Thompson, Minister, Cherokee Christian Church

Global Montessori Academy hosted a neighborhood meeting on Tuesday, February 10, 2014 at at 6:00 pm in the sanctuary of Cherokee Christian Church. There were two people in attendance. One person lives within 200 feet of the property. The other was the co-owner of Monarch Montessori across the street.

With such small numbers in attendance, we decided to conduct an informal discussion in the lobby near the sanctuary. The gentleman had already heard about our plan for the facility and had no further questions. He expressed his disappointment that the church was closing but was glad it would have a new owner that would care for the building. Although his children are grown and his grandkids live away, he was excited that a school would be moving to the site. He questioned why he didn't get a notice in the mail. I asked if he owns his house and he does. The address list was consulted and it was determined that his address in AIMS was not updated when he moved to his current house 2 years ago. I apologized for the mix up and explained that I had no control over the information in the system.

The other individual wanted to discuss our decision to move so close to their facility. I explained that we had conducted an extensive search for properties and several possibilities had fallen through. We had not planned on moving across the state line but when this property presented itself we could not pass it up. I assured her that we did not see Monarch Montessori as competition and hoped to develop a mutually beneficial relationship. She seemed to be glad to hear that and the conversation ended on a good note.



Johnson Co AIMS Map

Properties within 200 feet of Cherokee Christian Church

LEGEND

- Address Point
- Building/Structure

Property

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

AIMS

12/26/2013

SPECIAL USE PERMIT APPLICATION
for
Global Montessori Academy

City of Prairie Village, Kansas
January 31, 2014

EXHIBIT A: Project Narrative

This year, Global Montessori Academy (GMA) will celebrate 30 years since its founding. Originally called the Plaza Light School, it occupied a single classroom in the basement of its parent organization, Unity Temple on the Plaza. For six years, it functioned as a family cooperative with parents serving as support staff. In 1990 Unity decided to close the School. A group of determined parents decided the School was too important to the community to dissolve and formed a non-profit corporation to acquire it. On September 1, 1990, the School opened its doors as the Global Montessori Academy.

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1. *Is deemed necessary for the public convenience at that location.*

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3. *Is found to be generally compatible with the neighborhood in which it is proposed.*

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4. *Will comply with the height and area regulations of the district in which it is proposed.*

   There will be no change in height or area made to the building, keeping it within district regulations.

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.*

   There will be no change in off-street parking or loading areas. Current screening will be maintained to protect neighboring residents from injurious effect.

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

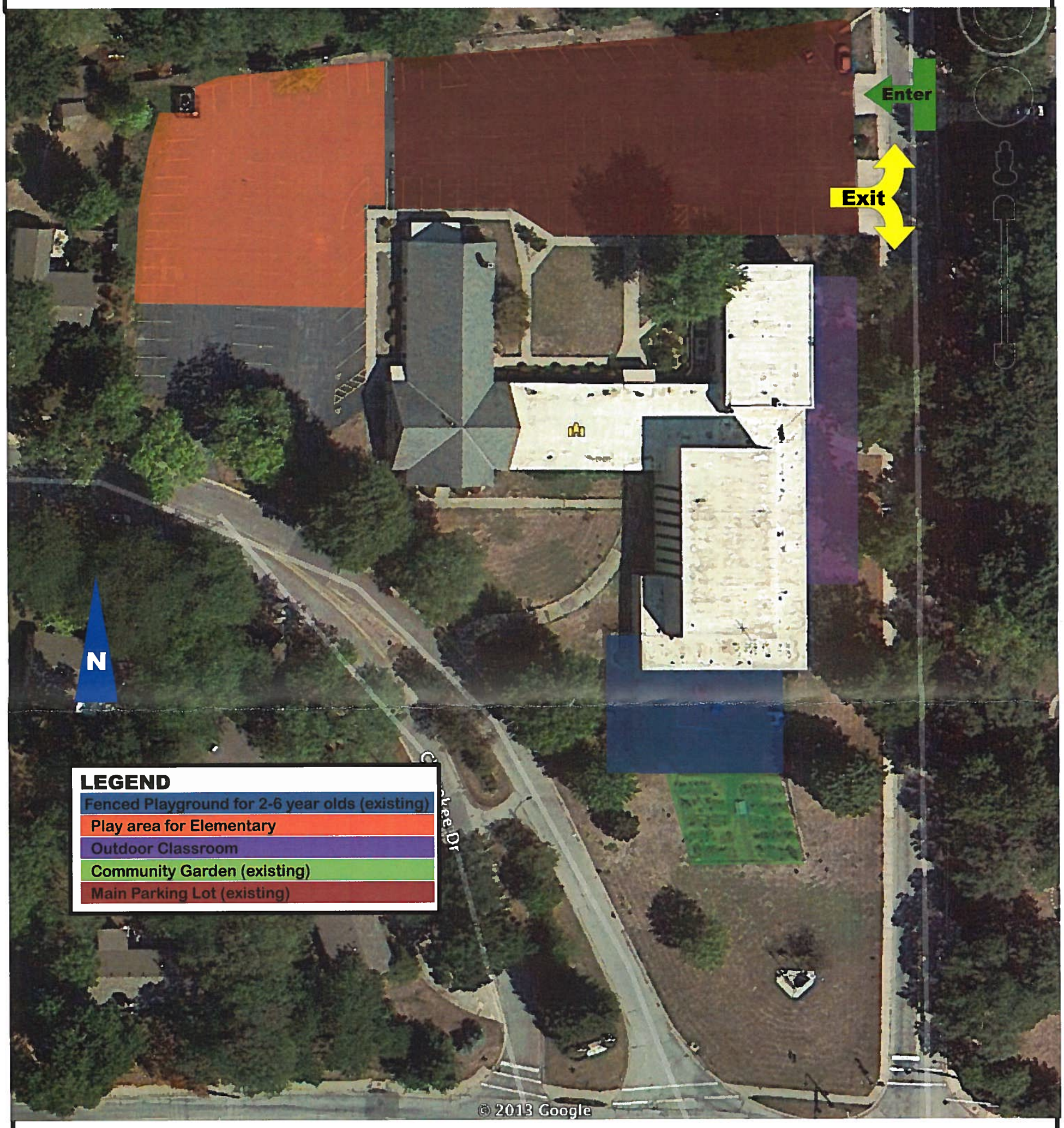
   Most existing utilities are adequate for school use. A larger supply line will be installed to meet the added water demand of a fire sprinkler system. Changes to the site such as land and hardscaping will be minimal and cosmetic in nature. There should be no discernible change in current drainage patterns.

SPECIAL USE PERMIT APPLICATION

Global Montessori Academy
7457 Cherokee Drive
City of Prairie Village, Kansas

EXHIBIT C: Site Plan

January 31, 2014



Discussion

Several features of Global Montessori Academy's site plan currently exist and require little to no explanation. The two new features are the Elementary Play Area and the Outdoor Classroom space.

Elementary Play Area

KDHE regulations require separate outdoor play areas for preschool and school age students. To satisfy this mandate, GMA will convert the North West corner of the parking lot to an Elementary Play Area. This space will be partitioned by movable barriers on the South and East and existing fence on the North and South. Ample storage will be available to obscure and protect small equipment. Larger equipment will be mobile with a dedicated storage area allowing use of the parking lot on weekends.

Outdoor Classrooms

This area will run along the Western side of the building. Perimeters will be a combination of land and hardscaping. Great care will be taken to blend the space into the wooded area along Belinder Street. Any fence deemed necessary to the design will go through the Prairie Village permitting process .

Parking and Traffic

Parents will enter and exit from Belinder. Those approaching from the West on 75th Street will turn at the light instead of making an unprotected lefthand turn onto Cherokee Drive. GMA's staggered drop-off and pick-up will reduce the number of cars to no more than 50% of enrollment capacity at a given time. During all school events the elementary play area will be converted back to parking and traffic will be one way entering from Belinder Street and exiting to Cherokee Drive thus expediting traffic from city streets and into the parking lot.

LOCHNER

STAFF REPORT

TO:	Prairie Village Planning Commission	
FROM:	Ron Williamson, FAICP, Lochner, Planning Consultant	
DATE:	March 4, 2014, Planning Commission Meeting	Project # 000009686

Application: PC 2014-105

Request: Lot Split

Property Address: 5015 W. 67th Street

Applicant: James Porter

Current Zoning and Land Use: R-1a Single-Family Residential – Single-Family Dwellings

Surrounding Zoning and Land Use:
North: R-1a Single-Family Residential – Single-Family Dwellings
East: R-1a Single-Family Residential – Single-Family Dwellings
South: R-1a Single-Family Residential – Single-Family Dwellings
West: R-1a Single-Family Residential – Single-Family Dwellings

Legal Description: Prairie Woods, Lot 4

Property Area: 33,402 sq. ft.

Related Case Files: BZA 2014-02 Variance of Lot Depth from 125 ft. to 108.9 ft.

Attachments: Drawings, Photos

General Location Map

Aerial Map

COMMENTS:

The applicant owns a large corner lot that faces on 67th St. and sides on Fonticello St.; and is proposing a lot split to sell off the south 100 ft. of the original lot. The proposed lot is only 108.9 ft. deep, where the ordinance requires a depth of 125 ft. The applicant has requested a variance of the rear yard depth so this application is predicated on the granting of the variance. If the variance is not granted, this application will need to be denied.

It should be noted that several of the large lots along Fonticello St., between 67th St. and 69th St., have either been replatted or have used the lot split procedure.

The proposed lot will be 100 ft. in width, 108.9 ft. in depth and will have 10,890 sq. ft., which is greater than the minimum of 10,000 sq. ft. required by the Zoning Ordinance. The two lots across the street are 15,000 sq. ft. each. If the lot width on Fonticello St. were increased to 135 ft. the lot would be 14,701 sq. ft., which would be similar in size to those across the street. It should be pointed out that two lots on the west side of Fonticello St., between 68th Terr. and 69th St., are only 10,160 sq. ft. which is slightly smaller than this lot.

Because the lot depth needed to be addressed by the Board of Zoning Appeals and the lot width and area need to be addressed by the Planning Commission, the applicant will need to submit the required certificate of survey for Staff review and approval based upon the final decisions of both bodies.

State statutes require that subdivision regulations provide for the issuance of building permits on platted lots divided into not more than two tracts without having to replat such lots. The subdivision regulations contain a lot split procedure and the lot split must be approved by the Planning Commission.

RECOMMENDATION:

It is the recommendation of Staff that the Planning Commission approve the lot split subject to the following conditions:

1. That the applicant increase the lot width adjacent to Fonticello St. to 135 ft. so that the lot will be similar in size to the lots directly across the street.

2. That the applicant submit a certificate of survey to Staff for their review and approval containing the following information:

    a. The location of existing buildings on the site.

    b. The dimension and location of the lots, including a metes and bounds description of each lot.

    c. The location and character of all proposed and existing public utility lines, including sewers (storm and sanitary), water, gas, telecommunications, cable TV, and power lines.

    d. Any platted building setback lines with dimensions.

    e. Indication of location of proposed or existing streets and driveways providing access to said lots.

    f. Topography (unless specifically waived by the City Planning Commission) with contour intervals not more than five feet, and including the locations of water courses, ravines , and proposed drainage systems. (Staff recommends waiver of topography)

    g. Said certificate of survey shall include the certification by a registered engineer or surveyor that the details contained on the survey are correct.

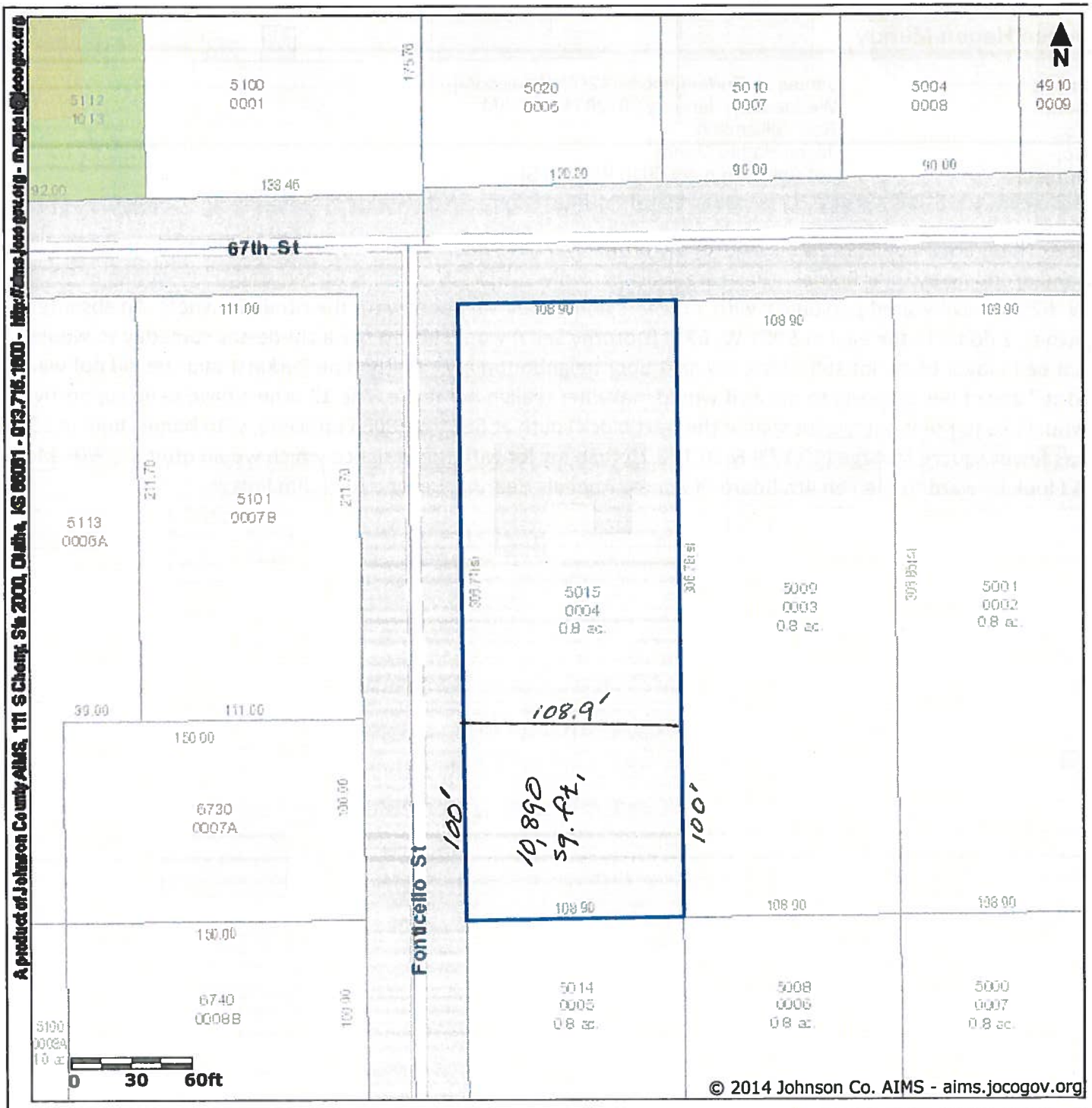
3. That the applicant record the approved lot split with the register of deeds and provide a copy of the recorded document to the Secretary of the Planning Commission.

West Side of Fonticello

West Side of Fonticello

Proposed Lot

Existing Residence



Johnson Co AIMS Map

LEGEND

Building Foot Prints

Building Courtyard

Address Point

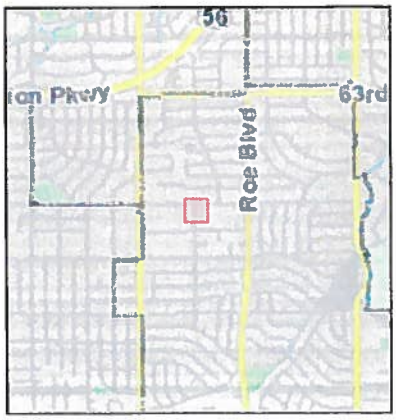
Building/Structure

Property

Untaxed Common Interest

Vertical Platted

Unplatted Right-of-way



CITY OF PRAIRIE VILLAGE
The Star of Kansas

Planning Commission Application

For Office Use Only	
Case No.:	PC 2014-105
Filing Fee:	
Deposit:	
Date Advertised:	
Date Notices Sent:	
Public Hearing Date:	3/4/14

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: James H/Molly W. Porter Phone Number (H) 913-384-6761 (C) 816-412-1524 (S) 913-461-3109

Address: 5015 W. 67th Prairie Village, Ks 66208 E-Mail jnporter42@hotmail.com

Owner: James H/Molly W. Porter Phone Number: Same as above

Address: 5015 W. 67th Prairie Village, KS Zip: 66208

Location of Property: S/E corner of 67th St. & Fonticello (5015 W. 67th)

Legal Description: Prairie Woods, Lot 4, PVC-8817

Applicant requests consideration of the following: (Describe proposal/request in detail) Requesting a variance of lot depth of 16.10 feet in order to do a lot-split.

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 Requesting a variance of lot depth for lot-split. 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. 16.10'

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.

James H. Porter Jan 3, 2014
Applicant's Signature/Date
Molly W. Porter Jan 3, 2014

James H. Porter Jan. 3, 2014
Owner's Signature/Date
Molly W. Porter Jan 3, 2014

Joyce Hagen Mundy

From: James H. Porter [jhporter42@hotmail.com]
Sent: Wednesday, January 29, 2014 9:57 AM
To: Ron Williamson
Cc: Joyce Hagen Mundy
Subject: Lot-Split Summary 5015 W. 67th St.

Ron- There are 16 owners within 200' of my property. I have been unable to reach 2 of them via phone calls aand dropping by their homes. These are William Skelly at 5112 W. 67th, & Robert and Diane young at 5004 W. 67th. I have visited personally with 7 owners and visited via phone with the other 7 owners. An absentee owner, 2 doors to the east at 5001 W. 67th (Dorothy Seitz) would like to see a cul-de-sac someday so would not be in favor of my lot-split. Also, my next door neighbor on my east (Bobbie Perkins) said she did not want to sell any of her property to me as it would make her realign her fence. The 12 others have been supportive. I would like to point out the lot split in the next block south at 6804 & 6808 Fonticello, with homes built in 1988 has fewer square footage (10,173' & 10,170.7') than my lot with the variance which would offer 10,890'. Molly & I look forward to the Feb 4th Board of Zoning Appeals Hearing. Respectfully- Jim Porter

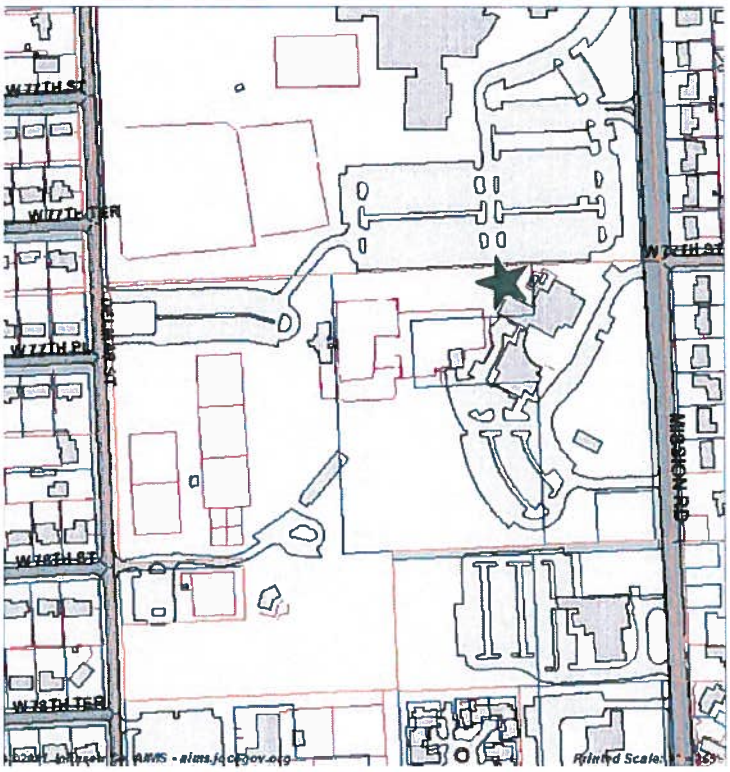
LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: March 4, 2014, Planning Commission Meeting Project # 000009686

Application:	PC 2014-107
Request:	Site Plan Approval to Replace Three Antennas on the Cell Tower
Property Address:	7700 Mission Road, City Hall
Applicant:	Black & Veatch for AT&T
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 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:

AT&T is proposing to replace three antennas and add a cable to its platform on the tower behind City Hall. The proposed antennas are to serve AT&T's LTE, Long Term Evolution Network. The existing antennas are approximately 72" in length and the new antennas will be approximately 96" in length. Each replacement antenna will add approximately 10 lbs. to the tower. The cable will be inside the tower.

Verizon is planning to add three antennas to its installation on the tower and Sprint is also planning upgrades. A structural report was prepared that included the AT&T and Verizon upgrades. The tower and base are adequate to accommodate those improvements. Sprint was not far enough along in its planning to include its improvements in the structural analysis, so a structural update will be required when Sprint submits its application.

AT&T added three antennas and an emergency generator in 2011. 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.

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 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 replacing 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.

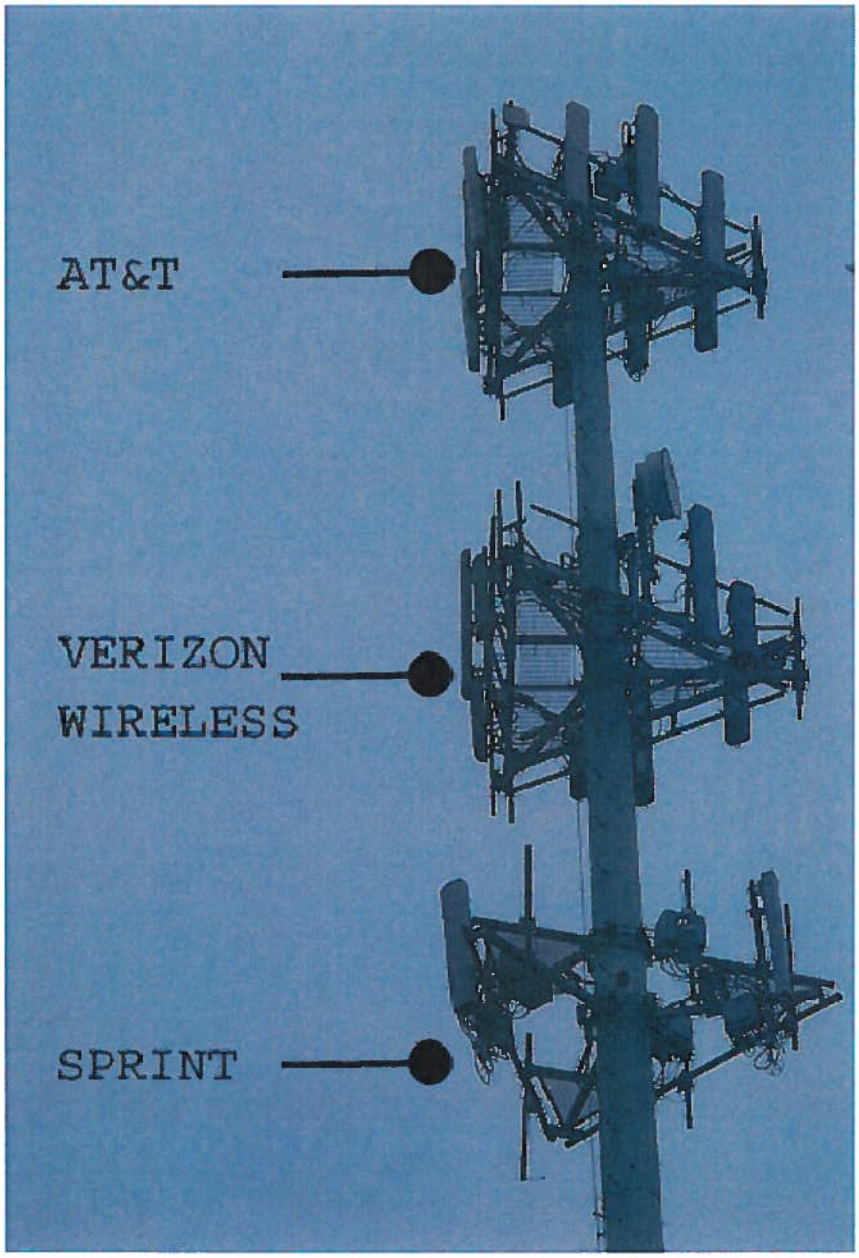
G. The plan represents an overall development pattern that is consistent with the comprehensive plan and other adopted planning policies.

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 AT&T 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.


AT&T
VERIZON
WIRELESS
SPRINT

CITY OF PRAIRIE VILLAGE

The Star of Kansas

Planning Commission Application

For Office Use Only	
Case No.:	PC2014-107
Filing Fee:	$100
Deposit:	$500
Date Advertised:	—
Date Notices Sent:	—
Public Hearing Date:	3/4/14

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: New Cingular Wireless PCS, LLC/AT&T, C/o Black & Veatch Phone Number: 913-458-4159

Address: 10950 Grandview, Bldg 34, Overland Park, KS 66210 E-Mail rossc@bv.com

Owner: City of Prairie Village Phone Number: 913-381-6464

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

Location of Property: Located at main intersection of Mission Road and W 79th Street

Legal Description: See attached Exhibit

Applicant requests consideration of the following: (Describe proposal/request in detail) AT&T is proposing to change out three (3) of the antennas located on the existing wireless telecommunications facility at 7700 Mission Road with a newer antenna model.

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 Application for Antenna Upgrade.
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.

Chris A. Ross 1-30-14
Applicant's Signature/Date

Owner's Signature/Date

SEMAAN
ENGINEERING SOLUTIONS, LLC

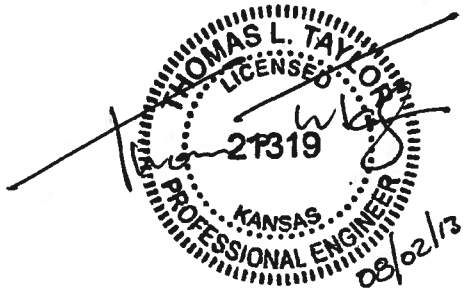
Structural Analysis Report

Prepared for:

Terra Consulting Group
600 Busse Highway
Park Ridge, IL 60068

ATTN: Mr. Adam Brown

Structure	:	**150 ft Monopole**
Proposed Carrier	:	**Verizon**
Site ID	:	**KCYC Prairie Village**
Site Location	:	**Prairie Village, KS**
County	:	**Johnson**
Date	:	**August 1, 2013**
Usage	:	**94.2%**



Semaan Engineering Solutions, LLC
1079 N. 205th Street, Elkhorn, NE 68022
Phone: 402-289-1888

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 150 ft Monopole located at Prairie Village, KS, Johnson County (site #KCYC Prairie Village). The tower original designer and manufacturer are unknown. (Additional information of the monopole from HTS mapping, dated June 25, 2013).

Analysis

The tower was analyzed using Semaan Engineering Solutions, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition. The analysis was performed in conformance with **ANSI/TIA-222 Rev G and local building codes for a basic wind speed of 90 mph no ice and 40 mph with 1" radial ice (3-second gust), Structure Classification II, Exposure B.** This is in conformance with the IBC 2009: Section 1609.1.1, Exception (5) and Section 3108.

Basic Wind Speed: 90.0 mph
Radial Ice: 40 mph w/ 1.00" ice
Code: ANSI/TIA-222 Rev G

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax (in)	Carrier
149.0	6	14" x 6.5" x 3.5" TMAs	Platform w/Rail	(12) 1 5/8" (2) 7/8" (2) .25" Black Cable (1) .38" Black Cable	AT&T Wireless
	1	15" x 14" x 2" Panel			
	6	16" x 14" x 3" TMAs			
	3	20.5" x 12" x 11.5" TMAs			
	3	800 10765			
	6	XDUO6-80-R			
136.2	1	11" x 8" x 2.5" TMAs	Pipe Mount	(1) .25" Black Cable	
	1	16" x 14" x 2" Panel			
132.7	1	7" x 4" x 1.5" Panel		(1) .25" Black Cable	
131.8	1	3 ft HP Dish	Dish Mount	(1) .38" Black Cable	
122.0	6	731DG65VTAXM	Platform w/Rail	(9) 1 5/8" (3) 7/8"	Verizon
	6	9" x 6.5" x 3.0" TMAs			
	3	BXA-70063/8CF			
105.0	9	18" x 16" x 6" TMAs	Low Profile Platform	(6) 1 1/4" (3) 7/8"	Sprint
	3	5'10" x 12" x 6" Panel			
	3	9" x 8" x 3.5" TMAs			
	3	RR65-17-02DPL2			
56.3	1	10' Omni	(1) Sidearm	(1) 1/2"	AT&T Wireless

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax (in)	Carrier
125.0	1	RCMDC-3315-PF-48	Collar Mount	(1) 1 5/8" Hybrid Cable (3) 5/8" Hybrid Cable	Verizon
	3	RRUS12			
122.0	3	BXA-171063/12	On existing Platform w/Rail		

All transmission lines are assumed running inside of pole shaft.
All new access holes shall be reinforced with welded rims that are compatible with the pole and to be sized and supplied by pole manufacturer.

Results

The existing monopole is structurally capable of supporting the existing and proposed antennas. The maximum structure usage is: 94.2%.

Pole Reactions	Original Design Reactions	Current Analysis Reactions
Moment (ft-kips)	N/A	2,455.93
Shear (kips)	N/A	22.80

The foundation was not investigated due to the lack of design drawings and documents and is not part of this analysis.

Conclusion

Based on the analysis results, the existing structure meets the requirements per the ANSI/TIA-222 Rev G standards for a basic wind speed of 90 mph no ice and 40 mph with 1" radial ice.

If you have any questions or require additional information, please call 402-289-1888.

Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

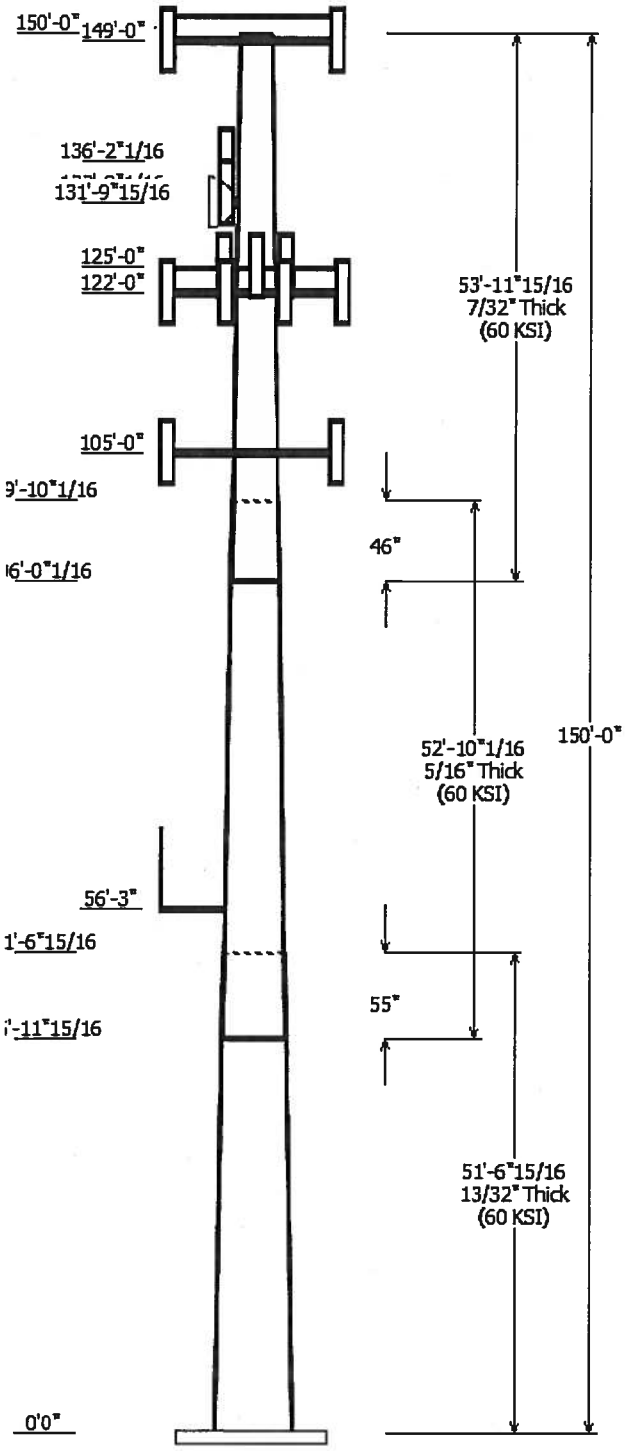
-- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.

-- Information from drawings in the possession of Semaan Engineering Solutions, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to Semaan Engineering Solutions and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and are in an un-corroded condition and have not deteriorated; and we, therefore, assume that their capacity has not significantly changed from the "as new" condition.

All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/EIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Semaan Engineering Solutions is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Job Information

Pole :	KCYC Prairie Village	Code:	ANSI/TIA-222 Rev G
Description :			
Client :	Terra Consulting Group	Struct Class :	II
Location :	Prairie Village, KS		
Shape :	12 Sides	Exposure :	B
Height :	150.00 (ft)	Topo :	1
Base Elev (ft):	0.00		
Taper:	0.18072 (in/ft)		

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	51.580	32.97	42.29	0.406		0.000	0.180727	60
2	52.840	24.87	34.42	0.313	Slip Joint	55.000	0.180727	60
3	53.997	16.25	26.00	0.219	Slip Joint	46.000	0.180727	60

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
149.000	149.000	1	15" x 14" x 2" Panel
149.000	149.000	3	20.5" x 12" x 11.5" TMAs
149.000	149.000	3	800 10765
149.000	149.000	6	14" x 6.5" x 3.5" TMAs
149.000	149.000	6	16" x 14" x 3" TMAs
149.000	149.000	6	XDUO6-80-R
149.000	150.500	1	Platform w/Rail
136.170	136.170	1	11" x 8" x 2.5" TMAs
136.170	136.170	1	16" x 14" x 2" Panel
132.670	132.670	1	7" x 4" x 1.5" Panel
131.830	131.830	1	3 ft HP Dish
125.000	125.000	1	RCMDC-3315-PF-48
125.000	125.000	1	Collar Mount
125.000	125.000	3	RRUS12
122.000	122.000	6	9" x 6.5" x 3.0" TMAs
122.000	122.000	3	BXA-171063/12
122.000	122.000	3	BXA-70063/8CF
122.000	122.000	6	731DG65VTAXM
122.000	123.500	1	Platform w/Rail
105.000	105.000	3	9" x 8" x 3.5" TMAs
105.000	105.000	9	18" x 16" x 6" TMAs
105.000	105.000	3	5'10" x 12" x 6" Panel
105.000	105.000	3	RR65-17-02DPL2
105.000	105.000	1	Low Profile Platform
56.250	61.250	1	10' Omni
56.250	56.250	1	Sidearm

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
108.0	122.0	5/8" Hybrid Cable	No
0.000	125.0	1 5/8" Hybrid	No
0.000	131.8	.38" Black Cable	No
0.000	132.6	.25" Black Cable	No
0.000	136.1	.25" Black Cable	No
0.000	149.0	.25" Black Cable	No
0.000	149.0	.38" Black Cable	No
0.000	149.0	1 5/8" Coax	No
0.000	149.0	7/8" Coax	No
0.000	56.250	1/2" Coax	No
0.000	105.0	1 1/4" Coax	No

0.000	105.0	7/8" Coax	No
0.000	122.0	1 5/8" Coax	No
0.000	122.0	7/8" Coax	No

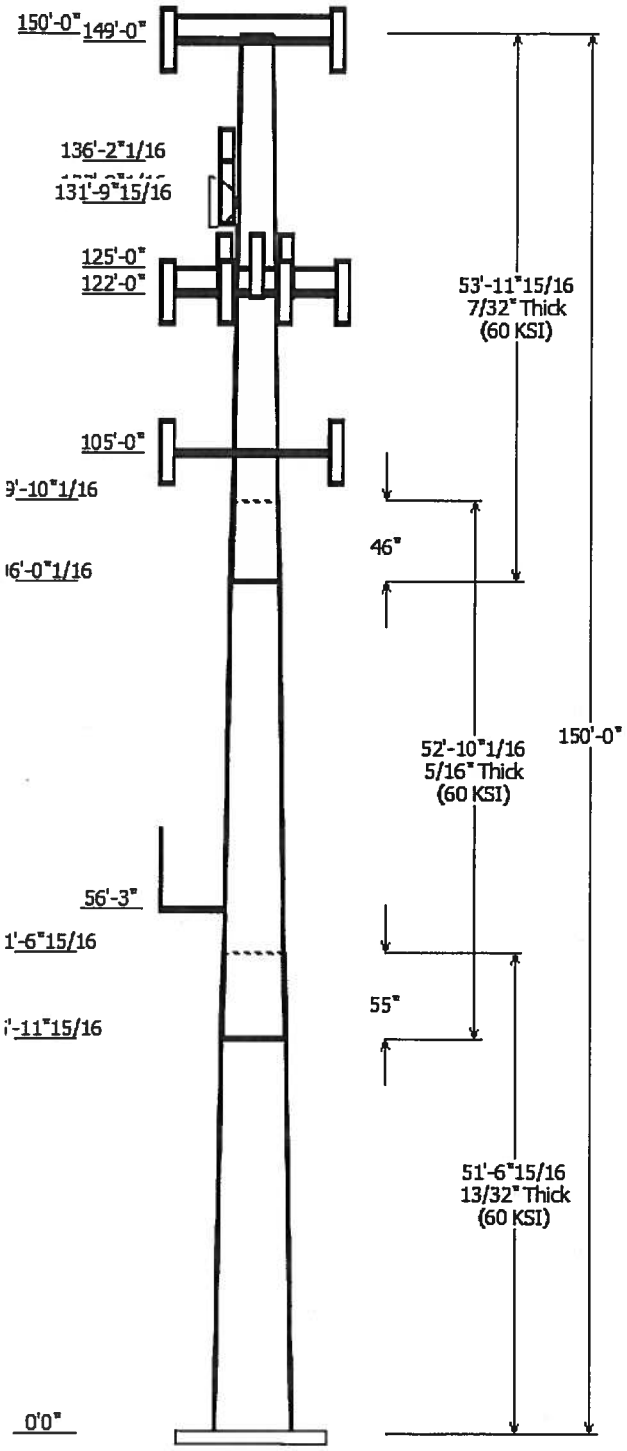
Load Cases	
1.2D + 1.6W	90.00 mph with No Ice
0.9D + 1.6W	90.00 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40.00 mph with 1.00 in Radial Ice
1.0D + 1.0W	60.00 mph Serviceability

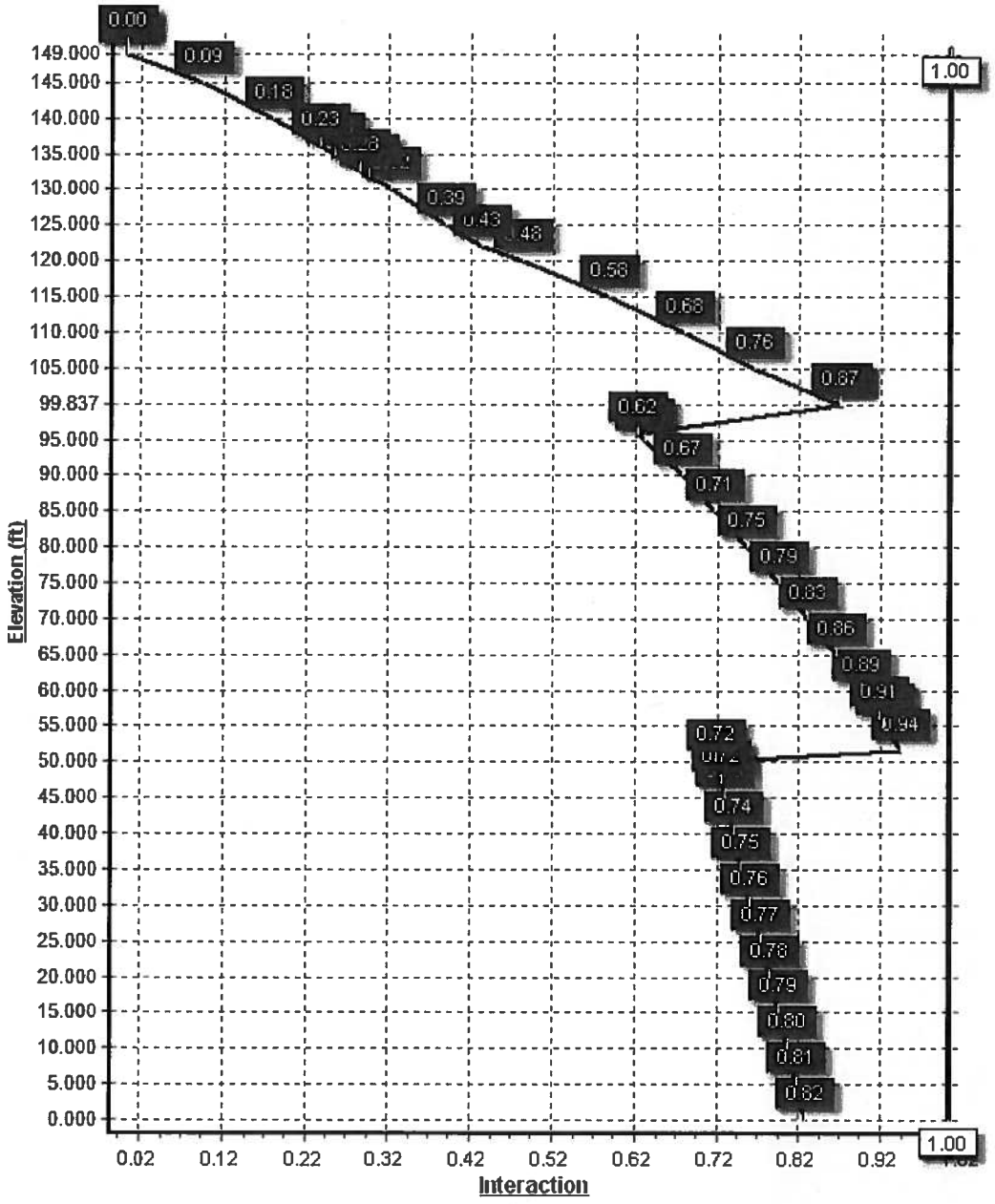
Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	2455.93	22.80	35.33
0.9D + 1.6W	2410.49	22.78	26.48
1.2D + 1.0Di + 1.0Wi	473.15	3.91	66.02
1.0D + 1.0W	675.73	6.33	29.48

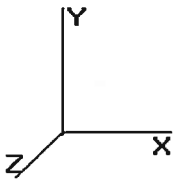
Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	131.83	32.824	2.451




Elevation (ft)
149.000
145.000
140.000
135.000
130.000
125.000
120.000
115.000
110.000
105.000
99.837
95.000
90.000
85.000
80.000
75.000
70.000
65.000
60.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction
0.00
0.09
0.18
0.23
0.39
0.43
0.48
0.58
0.68
0.76
0.87
1.00
0.62
0.67
0.71
0.75
0.79
0.83
0.86
0.89
0.91
0.94
0.72
0.74
0.75
0.76
0.77
0.78
0.79
0.80
0.81
0.82
1.00

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:10 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 1
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Shaft Section Properties

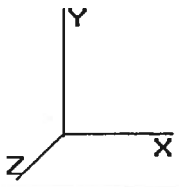
Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-12	51.580	0.4063	60		0.00	8,548	42.29	0.00	54.80	12273.7	25.75	104.11	32.97	51.58	42.60	5768.0	19.61	81.17	0.180727
2-12	52.840	0.3125	60	Slip	55.00	5,308	34.42	47.00	34.33	5099.7	27.38	110.17	24.87	99.84	24.72	1904.1	19.19	79.61	0.180727
3-12	53.997	0.2188	60	Slip	46.00	2,706	26.00	96.00	18.17	1542.2	29.71	118.90	16.25	150.00	11.29	370.4	17.76	74.29	0.180727
				Shaft Weight		16,562													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
149.00	14" x 6.5" x 3.5" TMAs	6	14.10	0.953	0.79	37.26	1.589	0.79	0.000	0.000
149.00	15" x 14" x 2" Panel	1	21.16	1.867	1.00	69.18	3.167	1.00	0.000	0.000
149.00	16" x 14" x 3" TMAs	6	31.00	2.200	0.61	104.72	2.628	0.61	0.000	0.000
149.00	20.5" x 12" x 11.5" TMAs	3	50.00	2.480	0.93	179.12	2.937	0.93	0.000	0.000
149.00	800 10765	3	51.80	8.662	0.75	333.68	10.312	0.75	0.000	0.000
149.00	Platform w/Rail	1	2500.00	35.850	1.00	7,150.80	57.290	1.00	0.000	1.500
149.00	XDUO6-80-R	6	46.00	9.054	0.78	348.75	10.583	0.78	0.000	0.000
136.17	11" x 8" x 2.5" TMAs	1	17.40	0.872	1.00	42.90	2.155	1.00	0.000	0.000
136.17	16" x 14" x 2" Panel	1	8.38	1.908	1.00	75.18	2.605	1.00	0.000	0.000
132.67	7" x 4" x 1.5" Panel	1	11.00	0.411	1.00	31.68	0.981	1.00	0.000	0.000
131.83	3 ft HP Dish	1	110.00	8.920	1.00	337.31	11.231	1.00	0.000	0.000
125.00	Collar Mount	1	250.00	5.000	1.00	1,049.72	16.425	1.00	0.000	0.000
125.00	RCMDC-3315-PF-48	1	26.90	5.730	1.00	113.69	7.924	1.00	0.000	0.000
125.00	RRUS12	3	60.00	3.150	0.72	157.28	4.823	0.72	0.000	0.000
122.00	731DG65VTAXM	6	21.00	6.067	0.77	225.14	6.771	0.77	0.000	0.000
122.00	9" x 6.5" x 3.0" TMAs	6	7.50	0.720	0.70	38.54	0.932	0.70	0.000	0.000
122.00	BXA-171063/12	3	15.00	4.791	0.84	186.49	6.432	0.84	0.000	0.000
122.00	BXA-70063/8CF	3	24.00	10.656	0.70	328.22	12.809	0.70	0.000	0.000
122.00	Platform w/Rail	1	2500.00	35.850	1.00	7,058.74	56.866	1.00	0.000	1.500
105.00	18" x 16" x 6" TMAs	9	19.00	3.250	0.68	30.21	4.911	0.68	0.000	0.000
105.00	5'10" x 12" x 6" Panel	3	30.10	9.651	0.73	285.72	9.592	0.73	0.000	0.000
105.00	9" x 8" x 3.5" TMAs	3	7.50	0.720	0.70	42.97	1.069	0.70	0.000	0.000
105.00	Low Profile Platform	1	1600.00	25.550	1.00	3,845.42	33.499	1.00	0.000	0.000
105.00	RR65-17-02DPL2	3	15.00	3.733	0.67	134.63	4.794	0.67	0.000	0.000
56.25	10' Omni	1	20.00	3.000	1.00	194.80	6.394	1.00	0.000	5.000
56.25	Sidearm	1	70.00	5.150	1.00	196.57	13.377	1.00	0.000	0.000
	Totals	75	8783.64			29,908.71			Number of Loadings :	26

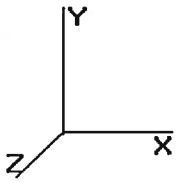
Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Exposed Width (in)	Exposed To Wind
0.00	149.00	(2) .25" Black Cable	0.00	N
0.00	149.00	(1) .38" Black Cable	0.00	N
0.00	149.00	(12) 1 5/8" Coax	0.00	N
0.00	149.00	(2) 7/8" Coax	0.00	N
0.00	136.17	(1) .25" Black Cable	0.00	N
0.00	132.67	(1) .25" Black Cable	0.00	N
0.00	131.83	(1) .38" Black Cable	0.00	N
0.00	125.00	(1) 1 5/8" Hybrid Cable	0.00	N



0.00	122.00	(9) 1 5/8" Coax	0.00	N
0.00	122.00	(3) 7/8" Coax	0.00	N
108.00	122.00	(3) 5/8" Hybrid Cable	0.00	N
0.00	105.00	(6) 1 1/4" Coax	0.00	N
0.00	105.00	(3) 7/8" Coax	0.00	N
0.00	56.25	(1) 1/2" Coax	0.00	N

Pole :	KCYC Prairie Village	Code:	ANSI/TIA-222 Rev G
Location :	Prairie Village, KS	Struct Class :	II
Height :	150.0 (ft)	Exposure Category :	B
Base Dia :	42.29 (in)	Topographic Category :	1
Top Dia :	16.25 (in)	Base Elev :	0.000 (ft)
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Segment Properties (Max Len : 5 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	S (in3)	Weight (lb)
0.00		0.4063	42.297	54.798	12,273.7	25.75	104.11	71.7	560.6	0.0
5.00		0.4063	41.393	53.616	11,496.4	25.16	101.89	72.3	536.5	922.3
10.00		0.4063	40.489	52.434	10,752.6	24.56	99.67	72.9	513.0	902.2
15.00		0.4063	39.586	51.251	10,041.7	23.97	97.44	73.5	490.1	882.0
20.00		0.4063	38.682	50.069	9,362.8	23.37	95.22	74.1	467.6	861.9
25.00		0.4063	37.778	48.887	8,715.2	22.77	92.99	74.6	445.7	841.8
30.00		0.4063	36.875	47.705	8,098.2	22.18	90.77	75.2	424.3	821.7
35.00		0.4063	35.971	46.523	7,511.0	21.58	88.54	75.6	403.4	801.6
40.00		0.4063	35.067	45.341	6,952.9	20.99	86.32	75.6	383.0	781.5
45.00		0.4063	34.164	44.159	6,423.1	20.39	84.10	75.6	363.2	761.4
47.00	Bot - Section 2	0.4063	33.803	43.687	6,219.3	20.15	83.21	75.6	355.4	298.4
50.00		0.4063	33.260	42.977	5,921.0	19.79	81.87	75.6	343.9	790.9
51.58	Top - Section 1	0.3125	33.600	33.495	4,737.2	26.67	107.52	70.9	272.4	410.9
55.00		0.3125	32.981	32.873	4,478.2	26.14	105.54	71.4	262.3	386.2
56.25		0.3125	32.756	32.646	4,385.9	25.94	104.82	71.6	258.7	139.3
60.00		0.3125	32.078	31.964	4,116.7	25.36	102.65	72.1	247.9	412.2
65.00		0.3125	31.174	31.055	3,775.3	24.59	99.76	72.9	234.0	536.1
70.00		0.3125	30.271	30.145	3,453.3	23.81	96.87	73.6	220.4	520.6
75.00		0.3125	29.367	29.236	3,150.1	23.04	93.97	74.4	207.2	505.2
80.00		0.3125	28.463	28.327	2,865.3	22.26	91.08	75.1	194.5	489.7
85.00		0.3125	27.560	27.417	2,598.1	21.49	88.19	75.6	182.1	474.2
90.00		0.3125	26.656	26.508	2,348.1	20.71	85.30	75.6	170.2	458.7
95.00		0.3125	25.752	25.599	2,114.6	19.94	82.41	75.6	158.6	443.3
96.00	Bot - Section 3	0.3125	25.571	25.416	2,069.8	19.78	81.83	75.6	156.4	87.1
99.84	Top - Section 2	0.2188	25.316	17.678	1,421.2	28.87	115.73	68.7	108.5	560.8
100.0		0.2188	25.286	17.657	1,416.2	28.83	115.59	68.8	108.2	9.8
105.0		0.2188	24.383	17.020	1,268.5	27.72	111.46	69.8	100.5	295.0
110.0		0.2188	23.479	16.384	1,131.4	26.62	107.33	70.9	93.1	284.2
115.0		0.2188	22.575	15.747	1,004.6	25.51	103.20	72.0	86.0	273.3
120.0		0.2188	21.672	15.111	887.7	24.40	99.07	73.1	79.1	262.5
122.0		0.2188	21.310	14.856	843.6	23.96	97.42	73.5	76.5	102.0
125.0		0.2188	20.768	14.474	780.2	23.30	94.94	74.1	72.6	149.7
130.0		0.2188	19.864	13.838	681.7	22.19	90.81	75.2	66.3	240.9
131.8		0.2188	19.534	13.605	647.8	21.78	89.30	75.6	64.1	85.4
132.6		0.2188	19.382	13.498	632.7	21.60	88.60	75.6	63.1	38.7
135.0		0.2188	18.961	13.201	591.9	21.08	86.68	75.6	60.3	105.8
136.1		0.2188	18.749	13.052	572.1	20.82	85.71	75.6	58.9	52.3
140.0		0.2188	18.057	12.565	510.3	19.97	82.55	75.6	54.6	166.9
145.0		0.2188	17.154	11.928	436.6	18.87	78.42	75.6	49.2	208.4
149.0		0.2188	16.431	11.419	383.1	17.98	75.11	75.6	45.0	158.9
150.0		0.2188	16.250	11.292	370.4	17.76	74.29	75.6	44.0	38.6
										16,562.4

Pole :	KCYC Prairie Village	Code:	ANSI/TIA-222 Rev G
Location :	Prairie Village, KS	Struct Class :	II
Height :	150.0 (ft)	Exposure Category :	B
Base Dia :	42.29 (in)	Topographic Category :	1
Top Dia :	16.25 (in)	Base Elev :	0.000 (ft)
Shape :	12 Sides		
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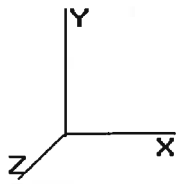


Load Case: 1.2D + 1.6W — 90.00 mph with No Ice — 29 Iterations

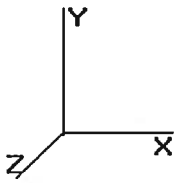
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	13.789	15.16	274.77	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	13.789	15.16	268.90	1.000	0.000	5.00	18.050	18.05	438.1	0.0	1,106.7
10.00		1.00	0.70	13.789	15.16	263.03	1.000	0.000	5.00	17.661	17.66	428.6	0.0	1,082.6
15.00		1.00	0.70	13.789	15.16	257.16	1.000	0.000	5.00	17.271	17.27	419.2	0.0	1,058.5
20.00		1.00	0.70	13.789	15.16	251.29	1.000	0.000	5.00	16.881	16.88	409.7	0.0	1,034.3
25.00		1.00	0.70	13.789	15.16	245.42	1.000	0.000	5.00	16.491	16.49	400.2	0.0	1,010.2
30.00		1.00	0.70	13.801	15.18	239.65	1.000	0.000	5.00	16.101	16.10	391.1	0.0	986.0
35.00		1.00	0.73	14.423	15.86	238.98	1.000	0.000	5.00	15.712	15.71	398.8	0.0	961.9
40.00		1.00	0.76	14.983	16.48	237.46	1.000	0.000	5.00	15.322	15.32	404.0	0.0	937.8
45.00		1.00	0.78	15.496	17.04	235.27	1.000	0.000	5.00	14.932	14.93	407.2	0.0	913.6
47.00	Bot - Section 2	1.00	0.79	15.690	17.25	234.23	1.000	0.000	2.00	5.854	5.85	161.6	0.0	358.1
50.00		1.00	0.81	15.970	17.56	232.52	1.000	0.000	3.00	8.850	8.85	248.7	0.0	949.0
51.58	Top - Section 1	1.00	0.81	16.112	17.72	231.55	1.000	0.000	1.58	4.599	4.60	130.4	0.0	493.1
55.00		1.00	0.83	16.411	18.05	233.73	1.000	0.000	3.42	9.822	9.82	283.7	0.0	463.4
56.25	Appertunance(s)	1.00	0.83	16.516	18.16	232.88	1.000	0.000	1.25	3.545	3.54	103.0	0.0	167.2
60.00		1.00	0.85	16.824	18.50	230.17	1.000	0.000	3.75	10.488	10.49	310.5	0.0	494.7
65.00		1.00	0.87	17.213	18.93	226.26	1.000	0.000	5.00	13.642	13.64	413.3	0.0	643.3
70.00		1.00	0.89	17.581	19.33	222.04	1.000	0.000	5.00	13.253	13.25	410.1	0.0	624.7
75.00		1.00	0.91	17.931	19.72	217.54	1.000	0.000	5.00	12.863	12.86	405.9	0.0	606.2
80.00		1.00	0.92	18.265	20.09	212.80	1.000	0.000	5.00	12.473	12.47	401.0	0.0	587.6
85.00		1.00	0.94	18.584	20.44	207.84	1.000	0.000	5.00	12.083	12.08	395.2	0.0	569.1
90.00		1.00	0.95	18.890	20.77	202.67	1.000	0.000	5.00	11.693	11.69	388.8	0.0	550.5
95.00		1.00	0.97	19.184	21.10	197.32	1.000	0.000	5.00	11.304	11.30	381.7	0.0	531.9
96.00	Bot - Section 3	1.00	0.97	19.242	21.16	196.23	1.000	0.000	1.00	2.221	2.22	75.2	0.0	104.5
99.84	Top - Section 2	1.00	0.98	19.458	21.40	191.98	1.000	0.000	3.83	8.487	8.49	290.6	0.0	672.9
100.0		1.00	0.98	19.467	21.41	195.17	1.000	0.000	0.16	0.357	0.36	12.2	0.0	11.8
105.0	Appertunance(s)	1.00	1.00	19.741	21.71	189.52	1.000	0.000	5.00	10.713	10.71	372.2	0.0	354.0
110.0		1.00	1.01	20.005	22.00	183.71	1.000	0.000	5.00	10.323	10.32	363.5	0.0	341.0
115.0		1.00	1.02	20.260	22.28	177.76	1.000	0.000	5.00	9.933	9.93	354.2	0.0	328.0
120.0		1.00	1.04	20.508	22.55	171.69	1.000	0.000	5.00	9.543	9.54	344.5	0.0	315.0
122.0	Appertunance(s)	1.00	1.04	20.605	22.66	169.22	1.000	0.000	2.00	3.708	3.71	134.5	0.0	122.4
125.0	Appertunance(s)	1.00	1.05	20.749	22.82	165.49	1.000	0.000	3.00	5.445	5.45	198.9	0.0	179.7
130.0		1.00	1.06	20.983	23.08	159.18	1.000	0.000	5.00	8.764	8.76	323.6	0.0	289.0
131.8	Appertunance(s)	1.00	1.06	21.067	23.17	156.84	1.000	0.000	1.83	3.110	3.11	115.3	0.0	102.5
132.6	Appertunance(s)	1.00	1.07	21.105	23.21	155.76	1.000	0.000	0.84	1.410	1.41	52.4	0.0	46.5
135.0		1.00	1.07	21.210	23.33	152.76	1.000	0.000	2.33	3.854	3.85	143.9	0.0	127.0
136.1	Appertunance(s)	1.00	1.07	21.263	23.38	151.24	1.000	0.000	1.17	1.903	1.90	71.2	0.0	62.7
140.0		1.00	1.08	21.432	23.57	146.24	1.000	0.000	3.83	6.081	6.08	229.4	0.0	200.3
145.0		1.00	1.09	21.648	23.81	139.62	1.000	0.000	5.00	7.594	7.59	289.3	0.0	250.0
149.0	Appertunance(s)	1.00	1.10	21.817	23.99	134.25	1.000	0.000	4.00	5.795	5.79	222.5	0.0	190.7
150.0		1.00	1.11	21.858	24.04	132.90	1.000	0.000	1.00	1.410	1.41	54.2	0.0	46.4
							Totals:		150.00			11,378.6	0.0	19,874.9

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:10 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 5
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 1.2D + 1.6W — 90.00 mph with No Ice — 29 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
56.25	10' Omni	1	16.923	18.615	1.00	1.00	3.00	0.000	5.000	89.35	0.00	446.77	24.00
56.25	Sidearm	1	16.516	18.168	1.00	1.00	5.15	0.000	0.000	149.70	0.00	0.00	84.00
105.0	18" x 16" x 6" TMAs	9	19.741	21.715	0.54	0.80	15.91	0.000	0.000	552.84	0.00	0.00	205.20
105.0	5'10" x 12" x 6" Pan	3	19.741	21.715	0.58	0.80	16.91	0.000	0.000	587.46	0.00	0.00	108.36
105.0	9" x 8" x 3.5" TMAs	3	19.741	21.715	0.56	0.80	1.21	0.000	0.000	42.03	0.00	0.00	27.00
105.0	Low Profile Platform	1	19.741	21.715	1.00	1.00	25.55	0.000	0.000	887.70	0.00	0.00	1,920.00
105.0	RR65-17-02DPL2	3	19.741	21.715	0.54	0.80	6.00	0.000	0.000	208.55	0.00	0.00	54.00
122.0	731DG65VTAXM	6	20.605	22.666	0.62	0.80	22.42	0.000	0.000	813.20	0.00	0.00	151.20
122.0	9" x 6.5" x 3.0" TMA	6	20.605	22.666	0.56	0.80	2.42	0.000	0.000	87.73	0.00	0.00	54.00
122.0	BXA-171063/12	3	20.605	22.666	0.67	0.80	9.66	0.000	0.000	350.28	0.00	0.00	54.00
122.0	BXA-70063/8CF	3	20.605	22.666	0.56	0.80	17.90	0.000	0.000	649.23	0.00	0.00	86.40
122.0	Platform w/Rail	1	20.677	22.745	1.00	1.00	35.85	0.000	1.500	1,304.67	0.00	1,957.00	3,000.00
125.0	Collar Mount	1	20.749	22.824	1.00	1.00	5.00	0.000	0.000	182.59	0.00	0.00	300.00
125.0	RCMDC-3315-PF-48	1	20.749	22.824	1.00	1.00	5.73	0.000	0.000	209.25	0.00	0.00	32.28
125.0	RRUS12	3	20.749	22.824	0.58	0.80	5.44	0.000	0.000	198.78	0.00	0.00	216.00
131.8	3 ft HP Dish	1	21.067	23.173	1.00	1.00	8.92	0.000	0.000	330.73	0.00	0.00	132.00
132.6	7" x 4" x 1.5" Panel	1	21.105	23.215	1.00	1.00	0.41	0.000	0.000	15.27	0.00	0.00	13.20
136.1	11" x 8" x 2.5" TMAs	1	21.263	23.389	1.00	1.00	0.87	0.000	0.000	32.63	0.00	0.00	20.88
136.1	16" x 14" x 2" Panel	1	21.263	23.389	1.00	1.00	1.91	0.000	0.000	71.40	0.00	0.00	10.06
149.0	14" x 6.5" x 3.5" TM	6	21.817	23.998	0.79	1.00	4.52	0.000	0.000	173.45	0.00	0.00	101.52
149.0	15" x 14" x 2" Panel	1	21.817	23.998	1.00	1.00	1.87	0.000	0.000	71.69	0.00	0.00	25.39
149.0	16" x 14" x 3" TMAs	6	21.817	23.998	0.61	1.00	8.05	0.000	0.000	309.18	0.00	0.00	223.20
149.0	20.5" x 12" x 11.5"	3	21.817	23.998	0.93	1.00	6.92	0.000	0.000	265.68	0.00	0.00	180.00
149.0	800 10765	3	21.817	23.998	0.75	1.00	19.49	0.000	0.000	748.35	0.00	0.00	186.48
149.0	Platform w/Rail	1	21.879	24.067	1.00	1.00	35.85	0.000	1.500	1,380.49	0.00	2,070.74	3,000.00
149.0	XDUO6-80-R	6	21.817	23.998	0.78	1.00	42.37	0.000	0.000	1,627.00	0.00	0.00	331.20
										11,339.22			10,540.37

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:10 PM
Location :	Prairie Village, KS	Struct Class : II	Page: 6
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
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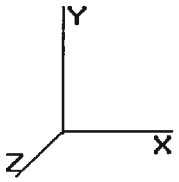


Load Case: 1.2D + 1.6W — 90.00 mph with No Ice — 29 Iterations

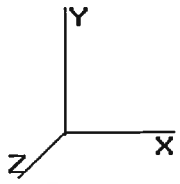
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	438.07	1,296.56	0.00	0.00
10.00	428.61	1,272.43	0.00	0.00
15.00	419.15	1,248.29	0.00	0.00
20.00	409.69	1,224.16	0.00	0.00
25.00	400.23	1,200.02	0.00	0.00
30.00	391.10	1,175.89	0.00	0.00
35.00	398.82	1,151.76	0.00	0.00
40.00	404.05	1,127.62	0.00	0.00
45.00	407.24	1,103.49	0.00	0.00
47.00	161.65	433.92	0.00	0.00
50.00	248.75	1,063.08	0.00	0.00
51.58	130.43	553.08	0.00	0.00
55.00	283.70	593.27	0.00	0.00
56.25	342.09	322.67	0.00	446.77
60.00	310.53	636.33	0.00	0.00
65.00	413.29	832.19	0.00	0.00
70.00	410.07	813.63	0.00	0.00
75.00	405.94	795.06	0.00	0.00
80.00	400.96	776.50	0.00	0.00
85.00	395.22	757.94	0.00	0.00
90.00	388.76	739.37	0.00	0.00
95.00	381.66	720.81	0.00	0.00
96.00	75.23	142.41	0.00	0.00
99.84	290.64	817.71	0.00	0.00
100.0	12.22	17.95	0.00	0.00
105.0	2,650.78	2,857.44	0.00	0.00
110.0	363.45	497.91	0.00	0.00
115.0	354.20	486.65	0.00	0.00
120.0	344.46	473.65	0.00	0.00
122.0	3,339.59	3,531.42	0.00	1,957.00
125.0	789.47	782.08	0.00	0.00
130.0	323.64	373.02	0.00	0.00
131.8	446.04	265.28	0.00	0.00
132.6	67.64	73.71	0.00	0.00
135.0	143.86	165.71	0.00	0.00
136.1	175.26	113.08	0.00	0.00
140.0	229.37	263.56	0.00	0.00
145.0	289.34	332.60	0.00	0.00
149.0	4,798.34	4,304.51	0.00	2,070.74
150.0	54.23	46.37	0.00	0.00
Totals:	22,717.78	35,383.12	0.00	4,474.51

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:10 PM
Location :	Prairie Village, KS	Struct Class : II	Page: 7
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 1.2D + 1.6W — 90.00 mph with No Ice — 29 Iterations

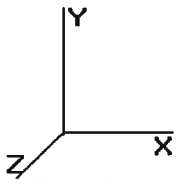
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-35.33	-22.80	0.00	-2,455.93	0.00	2,455.93	3,538.52	1,769.26	6,108.24	3,016.63	0.00	0.00	0.824
5.00	-33.92	-22.53	0.00	-2,341.91	0.00	2,341.91	3,490.01	1,745.00	5,893.29	2,910.47	0.15	-0.28	0.815
10.00	-32.54	-22.25	0.00	-2,229.26	0.00	2,229.26	3,440.27	1,720.13	5,679.96	2,805.12	0.59	-0.56	0.804
15.00	-31.19	-21.98	0.00	-2,118.00	0.00	2,118.00	3,389.30	1,694.65	5,468.40	2,700.64	1.33	-0.85	0.794
20.00	-29.86	-21.70	0.00	-2,008.11	0.00	2,008.11	3,337.11	1,668.56	5,258.73	2,597.09	2.38	-1.14	0.782
25.00	-28.56	-21.42	0.00	-1,899.61	0.00	1,899.61	3,283.69	1,641.85	5,051.11	2,494.55	3.73	-1.44	0.770
30.00	-27.28	-21.14	0.00	-1,792.50	0.00	1,792.50	3,229.05	1,614.52	4,845.65	2,393.09	5.40	-1.74	0.758
35.00	-26.03	-20.85	0.00	-1,686.79	0.00	1,686.79	3,165.44	1,582.72	4,631.20	2,287.18	7.38	-2.04	0.746
40.00	-24.81	-20.54	0.00	-1,582.55	0.00	1,582.55	3,085.01	1,542.51	4,397.56	2,171.79	9.69	-2.35	0.737
45.00	-23.65	-20.17	0.00	-1,479.88	0.00	1,479.88	3,004.58	1,502.29	4,169.96	2,059.39	12.32	-2.67	0.727
47.00	-23.17	-20.05	0.00	-1,439.60	0.00	1,439.60	2,972.46	1,486.23	4,080.76	2,015.33	13.46	-2.80	0.722
50.00	-22.07	-19.81	0.00	-1,379.38	0.00	1,379.38	2,924.15	1,462.08	3,948.41	1,949.97	15.28	-2.99	0.715
51.58	-21.46	-19.71	0.00	-1,348.08	0.00	1,348.08	2,136.33	1,068.16	2,931.28	1,447.65	16.29	-3.09	0.942
55.00	-20.83	-19.45	0.00	-1,280.67	0.00	1,280.67	2,111.83	1,055.91	2,843.36	1,404.23	18.58	-3.32	0.922
56.25	-20.46	-19.16	0.00	-1,255.91	0.00	1,255.91	2,102.73	1,051.36	2,811.35	1,388.42	19.46	-3.42	0.915
60.00	-19.73	-18.93	0.00	-1,184.04	0.00	1,184.04	2,074.97	1,037.49	2,715.73	1,341.20	22.27	-3.71	0.893
65.00	-18.80	-18.59	0.00	-1,089.37	0.00	1,089.37	2,036.89	1,018.45	2,589.31	1,278.77	26.36	-4.11	0.861
70.00	-17.90	-18.25	0.00	-996.40	0.00	996.40	1,997.58	998.79	2,464.25	1,217.00	30.87	-4.50	0.828
75.00	-17.02	-17.89	0.00	-905.17	0.00	905.17	1,957.05	978.52	2,340.67	1,155.97	35.78	-4.89	0.792
80.00	-16.16	-17.54	0.00	-815.70	0.00	815.70	1,915.29	957.64	2,218.72	1,095.74	41.11	-5.28	0.753
85.00	-15.33	-17.17	0.00	-728.02	0.00	728.02	1,865.48	932.74	2,090.90	1,032.62	46.83	-5.66	0.714
90.00	-14.53	-16.80	0.00	-642.17	0.00	642.17	1,803.62	901.81	1,953.75	964.88	52.95	-6.04	0.674
95.00	-13.79	-16.40	0.00	-558.15	0.00	558.15	1,741.75	870.87	1,821.26	899.45	59.46	-6.40	0.629
96.00	-13.61	-16.35	0.00	-541.70	0.00	541.70	1,729.33	864.67	1,795.23	886.60	60.81	-6.47	0.619
99.84	-12.79	-16.00	0.00	-479.03	0.00	479.03	1,093.63	546.82	1,132.13	559.12	66.11	-6.74	0.869
100.00	-12.71	-16.03	0.00	-476.42	0.00	476.42	1,092.90	546.45	1,130.03	558.08	66.34	-6.76	0.866
105.00	-10.10	-13.13	0.00	-396.25	0.00	396.25	1,069.91	534.95	1,066.03	526.47	73.64	-7.19	0.763
110.00	-9.57	-12.77	0.00	-330.60	0.00	330.60	1,045.68	522.84	1,002.59	495.14	81.37	-7.60	0.677
115.00	-9.06	-12.41	0.00	-266.75	0.00	266.75	1,020.23	510.12	939.83	464.15	89.51	-7.98	0.584
120.00	-8.59	-12.04	0.00	-204.70	0.00	204.70	993.56	496.78	877.90	433.56	98.02	-8.31	0.481
122.00	-5.56	-8.23	0.00	-178.67	0.00	178.67	982.54	491.27	853.40	421.46	101.52	-8.43	0.430
125.00	-4.88	-7.35	0.00	-153.97	0.00	153.97	965.65	482.83	816.94	403.46	106.85	-8.60	0.387
130.00	-4.54	-6.99	0.00	-117.21	0.00	117.21	936.52	468.26	757.09	373.90	115.96	-8.85	0.319
131.83	-4.34	-6.51	0.00	-104.42	0.00	104.42	925.68	462.84	735.59	363.28	119.36	-8.93	0.292
132.67	-4.27	-6.44	0.00	-98.95	0.00	98.95	918.41	459.20	724.01	357.56	120.93	-8.97	0.282
135.00	-4.12	-6.28	0.00	-83.94	0.00	83.94	898.23	449.11	692.37	341.93	125.31	-9.07	0.250
136.17	-4.03	-6.09	0.00	-76.60	0.00	76.60	888.09	444.05	676.74	334.22	127.53	-9.11	0.234
140.00	-3.79	-5.83	0.00	-53.27	0.00	53.27	854.92	427.46	626.84	309.58	134.86	-9.24	0.177
145.00	-3.50	-5.50	0.00	-24.12	0.00	24.12	811.61	405.81	564.58	278.83	144.56	-9.34	0.091
149.00	-0.04	-0.06	0.00	-0.06	0.00	0.06	776.96	388.48	517.11	255.38	152.37	-9.38	0.000
150.00	0.00	-0.05	0.00	0.00	0.00	0.00	768.30	384.15	505.57	249.68	154.33	-9.38	0.000

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:10 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 8
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 0.9D + 1.6W — 90.00 mph with No Ice (Reduced DL) — 29 Iterations

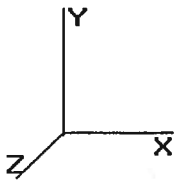
Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	13.789	15.16	274.77	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	13.789	15.16	268.90	1.000	0.000	5.00	18.050	18.05	438.1	0.0	830.0
10.00		1.00	0.70	13.789	15.16	263.03	1.000	0.000	5.00	17.661	17.66	428.6	0.0	811.9
15.00		1.00	0.70	13.789	15.16	257.16	1.000	0.000	5.00	17.271	17.27	419.2	0.0	793.8
20.00		1.00	0.70	13.789	15.16	251.29	1.000	0.000	5.00	16.881	16.88	409.7	0.0	775.7
25.00		1.00	0.70	13.789	15.16	245.42	1.000	0.000	5.00	16.491	16.49	400.2	0.0	757.6
30.00		1.00	0.70	13.801	15.18	239.65	1.000	0.000	5.00	16.101	16.10	391.1	0.0	739.5
35.00		1.00	0.73	14.423	15.86	238.98	1.000	0.000	5.00	15.712	15.71	398.8	0.0	721.4
40.00		1.00	0.76	14.983	16.48	237.46	1.000	0.000	5.00	15.322	15.32	404.0	0.0	703.3
45.00		1.00	0.78	15.496	17.04	235.27	1.000	0.000	5.00	14.932	14.93	407.2	0.0	685.2
47.00	Bot - Section 2	1.00	0.79	15.690	17.25	234.23	1.000	0.000	2.00	5.854	5.85	161.6	0.0	268.6
50.00		1.00	0.81	15.970	17.56	232.52	1.000	0.000	3.00	8.850	8.85	248.7	0.0	711.8
51.58	Top - Section 1	1.00	0.81	16.112	17.72	231.55	1.000	0.000	1.58	4.599	4.60	130.4	0.0	369.8
55.00		1.00	0.83	16.411	18.05	233.73	1.000	0.000	3.42	9.822	9.82	283.7	0.0	347.6
56.25	Appertunance(s)	1.00	0.83	16.516	18.16	232.88	1.000	0.000	1.25	3.545	3.54	103.0	0.0	125.4
60.00		1.00	0.85	16.824	18.50	230.17	1.000	0.000	3.75	10.488	10.49	310.5	0.0	371.0
65.00		1.00	0.87	17.213	18.93	226.26	1.000	0.000	5.00	13.642	13.64	413.3	0.0	482.5
70.00		1.00	0.89	17.581	19.33	222.04	1.000	0.000	5.00	13.253	13.25	410.1	0.0	468.6
75.00		1.00	0.91	17.931	19.72	217.54	1.000	0.000	5.00	12.863	12.86	405.9	0.0	454.6
80.00		1.00	0.92	18.265	20.09	212.80	1.000	0.000	5.00	12.473	12.47	401.0	0.0	440.7
85.00		1.00	0.94	18.584	20.44	207.84	1.000	0.000	5.00	12.083	12.08	395.2	0.0	426.8
90.00		1.00	0.95	18.890	20.77	202.67	1.000	0.000	5.00	11.693	11.69	388.8	0.0	412.9
95.00		1.00	0.97	19.184	21.10	197.32	1.000	0.000	5.00	11.304	11.30	381.7	0.0	398.9
96.00	Bot - Section 3	1.00	0.97	19.242	21.16	196.23	1.000	0.000	1.00	2.221	2.22	75.2	0.0	78.4
99.84	Top - Section 2	1.00	0.98	19.458	21.40	191.98	1.000	0.000	3.83	8.487	8.49	290.6	0.0	504.7
100.0		1.00	0.98	19.467	21.41	195.17	1.000	0.000	0.16	0.357	0.36	12.2	0.0	8.8
105.0	Appertunance(s)	1.00	1.00	19.741	21.71	189.52	1.000	0.000	5.00	10.713	10.71	372.2	0.0	265.5
110.0		1.00	1.01	20.005	22.00	183.71	1.000	0.000	5.00	10.323	10.32	363.5	0.0	255.8
115.0		1.00	1.02	20.260	22.28	177.76	1.000	0.000	5.00	9.933	9.93	354.2	0.0	246.0
120.0		1.00	1.04	20.508	22.55	171.69	1.000	0.000	5.00	9.543	9.54	344.5	0.0	236.3
122.0	Appertunance(s)	1.00	1.04	20.605	22.66	169.22	1.000	0.000	2.00	3.708	3.71	134.5	0.0	91.8
125.0	Appertunance(s)	1.00	1.05	20.749	22.82	165.49	1.000	0.000	3.00	5.445	5.45	198.9	0.0	134.7
130.0		1.00	1.06	20.983	23.08	159.18	1.000	0.000	5.00	8.764	8.76	323.6	0.0	216.8
131.8	Appertunance(s)	1.00	1.06	21.067	23.17	156.84	1.000	0.000	1.83	3.110	3.11	115.3	0.0	76.9
132.6	Appertunance(s)	1.00	1.07	21.105	23.21	155.76	1.000	0.000	0.84	1.410	1.41	52.4	0.0	34.9
135.0		1.00	1.07	21.210	23.33	152.76	1.000	0.000	2.33	3.854	3.85	143.9	0.0	95.3
136.1	Appertunance(s)	1.00	1.07	21.263	23.38	151.24	1.000	0.000	1.17	1.903	1.90	71.2	0.0	47.0
140.0		1.00	1.08	21.432	23.57	146.24	1.000	0.000	3.83	6.081	6.08	229.4	0.0	150.2
145.0		1.00	1.09	21.648	23.81	139.62	1.000	0.000	5.00	7.594	7.59	289.3	0.0	187.5
149.0	Appertunance(s)	1.00	1.10	21.817	23.99	134.25	1.000	0.000	4.00	5.795	5.79	222.5	0.0	143.0
150.0		1.00	1.11	21.858	24.04	132.90	1.000	0.000	1.00	1.410	1.41	54.2	0.0	34.8
						Totals:			150.00			11,378.6	0.0	14,906.2

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:10 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 9
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



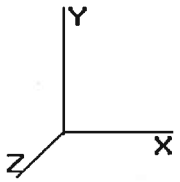
Load Case: 0.9D + 1.6W — 90.00 mph with No Ice (Reduced DL) — 29 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60
Wind Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
56.25	10' Omni	1	16.923	18.615	1.00	1.00	3.00	0.000	5.000	89.35	0.00	446.77	18.00
56.25	Sidearm	1	16.516	18.168	1.00	1.00	5.15	0.000	0.000	149.70	0.00	0.00	63.00
105.0	18" x 16" x 6" TMAs	9	19.741	21.715	0.54	0.80	15.91	0.000	0.000	552.84	0.00	0.00	153.90
105.0	5'10" x 12" x 6" Pan	3	19.741	21.715	0.58	0.80	16.91	0.000	0.000	587.46	0.00	0.00	81.27
105.0	9" x 8" x 3.5" TMAs	3	19.741	21.715	0.56	0.80	1.21	0.000	0.000	42.03	0.00	0.00	20.25
105.0	Low Profile Platform	1	19.741	21.715	1.00	1.00	25.55	0.000	0.000	887.70	0.00	0.00	1,440.00
105.0	RR65-17-02DPL2	3	19.741	21.715	0.54	0.80	6.00	0.000	0.000	208.55	0.00	0.00	40.50
122.0	731DG65VTAXM	6	20.605	22.666	0.62	0.80	22.42	0.000	0.000	813.20	0.00	0.00	113.40
122.0	9" x 6.5" x 3.0" TMA	6	20.605	22.666	0.56	0.80	2.42	0.000	0.000	87.73	0.00	0.00	40.50
122.0	BXA-171063/12	3	20.605	22.666	0.67	0.80	9.66	0.000	0.000	350.28	0.00	0.00	40.50
122.0	BXA-70063/8CF	3	20.605	22.666	0.56	0.80	17.90	0.000	0.000	649.23	0.00	0.00	64.80
122.0	Platform w/Rail	1	20.677	22.745	1.00	1.00	35.85	0.000	1.500	1,304.67	0.00	1,957.00	2,250.00
125.0	Collar Mount	1	20.749	22.824	1.00	1.00	5.00	0.000	0.000	182.59	0.00	0.00	225.00
125.0	RCMDC-3315-PF-48	1	20.749	22.824	1.00	1.00	5.73	0.000	0.000	209.25	0.00	0.00	24.21
125.0	RRUS12	3	20.749	22.824	0.58	0.80	5.44	0.000	0.000	198.78	0.00	0.00	162.00
131.8	3 ft HP Dish	1	21.067	23.173	1.00	1.00	8.92	0.000	0.000	330.73	0.00	0.00	99.00
132.6	7" x 4" x 1.5" Panel	1	21.105	23.215	1.00	1.00	0.41	0.000	0.000	15.27	0.00	0.00	9.90
136.1	11" x 8" x 2.5" TMAs	1	21.263	23.389	1.00	1.00	0.87	0.000	0.000	32.63	0.00	0.00	15.66
136.1	16" x 14" x 2" Panel	1	21.263	23.389	1.00	1.00	1.91	0.000	0.000	71.40	0.00	0.00	7.54
149.0	14" x 6.5" x 3.5" TM	6	21.817	23.998	0.79	1.00	4.52	0.000	0.000	173.45	0.00	0.00	76.14
149.0	15" x 14" x 2" Panel	1	21.817	23.998	1.00	1.00	1.87	0.000	0.000	71.69	0.00	0.00	19.04
149.0	16" x 14" x 3" TMAs	6	21.817	23.998	0.61	1.00	8.05	0.000	0.000	309.18	0.00	0.00	167.40
149.0	20.5" x 12" x 11.5"	3	21.817	23.998	0.93	1.00	6.92	0.000	0.000	265.68	0.00	0.00	135.00
149.0	800 10765	3	21.817	23.998	0.75	1.00	19.49	0.000	0.000	748.35	0.00	0.00	139.86
149.0	Platform w/Rail	1	21.879	24.067	1.00	1.00	35.85	0.000	1.500	1,380.49	0.00	2,070.74	2,250.00
149.0	XDUO6-80-R	6	21.817	23.998	0.78	1.00	42.37	0.000	0.000	1,627.00	0.00	0.00	248.40
										11,339.22			7,905.28

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:10 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 10
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 0.9D + 1.6W — 90.00 mph with No Ice (Reduced DL) — 29 Iterations

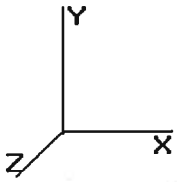
Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	438.07	972.42	0.00	0.00
10.00	428.61	954.32	0.00	0.00
15.00	419.15	936.22	0.00	0.00
20.00	409.69	918.12	0.00	0.00
25.00	400.23	900.02	0.00	0.00
30.00	391.10	881.92	0.00	0.00
35.00	398.82	863.82	0.00	0.00
40.00	404.05	845.72	0.00	0.00
45.00	407.24	827.62	0.00	0.00
47.00	161.65	325.44	0.00	0.00
50.00	248.75	797.31	0.00	0.00
51.58	130.43	414.81	0.00	0.00
55.00	283.70	444.95	0.00	0.00
56.25	342.09	242.00	0.00	446.77
60.00	310.53	477.25	0.00	0.00
65.00	413.29	624.15	0.00	0.00
70.00	410.07	610.22	0.00	0.00
75.00	405.94	596.30	0.00	0.00
80.00	400.96	582.38	0.00	0.00
85.00	395.22	568.45	0.00	0.00
90.00	388.76	554.53	0.00	0.00
95.00	381.66	540.60	0.00	0.00
96.00	75.23	106.80	0.00	0.00
99.84	290.64	613.29	0.00	0.00
100.0	12.22	13.46	0.00	0.00
105.0	2,650.78	2,143.08	0.00	0.00
110.0	363.45	373.44	0.00	0.00
115.0	354.20	364.99	0.00	0.00
120.0	344.46	355.24	0.00	0.00
122.0	3,339.59	2,648.57	0.00	1,957.00
125.0	789.47	586.56	0.00	0.00
130.0	323.64	279.77	0.00	0.00
131.8	446.04	198.96	0.00	0.00
132.6	67.64	55.28	0.00	0.00
135.0	143.86	124.28	0.00	0.00
136.1	175.26	84.81	0.00	0.00
140.0	229.37	197.67	0.00	0.00
145.0	289.34	249.45	0.00	0.00
149.0	4,798.34	3,228.38	0.00	2,070.74
150.0	54.23	34.78	0.00	0.00
Totals:	22,717.78	26,537.34	0.00	4,474.51

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:10 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 11
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 0.9D + 1.6W — 90.00 mph with No Ice (Reduced DL) — 29 Iterations

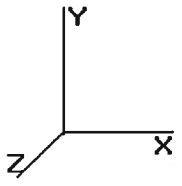
Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-26.48	-22.78	0.00	-2,410.49	0.00	2,410.49	3,538.52	1,769.26	6,108.24	3,016.63	0.00	0.00	0.807
5.00	-25.40	-22.46	0.00	-2,296.59	0.00	2,296.59	3,490.01	1,745.00	5,893.29	2,910.47	0.15	-0.27	0.797
10.00	-24.34	-22.15	0.00	-2,184.27	0.00	2,184.27	3,440.27	1,720.13	5,679.96	2,805.12	0.58	-0.55	0.786
15.00	-23.31	-21.83	0.00	-2,073.54	0.00	2,073.54	3,389.30	1,694.65	5,468.40	2,700.64	1.31	-0.83	0.775
20.00	-22.29	-21.52	0.00	-1,964.38	0.00	1,964.38	3,337.11	1,668.56	5,258.73	2,597.09	2.33	-1.12	0.763
25.00	-21.29	-21.21	0.00	-1,856.79	0.00	1,856.79	3,283.69	1,641.85	5,051.11	2,494.55	3.66	-1.41	0.751
30.00	-20.31	-20.90	0.00	-1,750.75	0.00	1,750.75	3,229.05	1,614.52	4,845.65	2,393.09	5.29	-1.70	0.738
35.00	-19.35	-20.57	0.00	-1,646.26	0.00	1,646.26	3,165.44	1,582.72	4,631.20	2,287.18	7.23	-2.00	0.726
40.00	-18.41	-20.24	0.00	-1,543.39	0.00	1,543.39	3,085.01	1,542.51	4,397.56	2,171.79	9.48	-2.30	0.717
45.00	-17.53	-19.86	0.00	-1,442.21	0.00	1,442.21	3,004.58	1,502.29	4,169.96	2,059.39	12.06	-2.61	0.706
47.00	-17.16	-19.73	0.00	-1,402.56	0.00	1,402.56	2,972.46	1,486.23	4,080.76	2,015.33	13.18	-2.73	0.702
50.00	-16.33	-19.48	0.00	-1,343.31	0.00	1,343.31	2,924.15	1,462.08	3,948.41	1,949.97	14.96	-2.92	0.695
51.58	-15.86	-19.38	0.00	-1,312.52	0.00	1,312.52	2,136.33	1,068.16	2,931.28	1,447.65	15.94	-3.02	0.914
55.00	-15.38	-19.11	0.00	-1,246.26	0.00	1,246.26	2,111.83	1,055.91	2,843.36	1,404.23	18.18	-3.24	0.895
56.25	-15.10	-18.81	0.00	-1,221.93	0.00	1,221.93	2,102.73	1,051.36	2,811.35	1,388.42	19.05	-3.34	0.888
60.00	-14.53	-18.55	0.00	-1,151.40	0.00	1,151.40	2,074.97	1,037.49	2,715.73	1,341.20	21.78	-3.63	0.866
65.00	-13.81	-18.19	0.00	-1,058.64	0.00	1,058.64	2,036.89	1,018.45	2,589.31	1,278.77	25.78	-4.01	0.835
70.00	-13.12	-17.83	0.00	-967.69	0.00	967.69	1,997.58	998.79	2,464.25	1,217.00	30.18	-4.39	0.802
75.00	-12.44	-17.46	0.00	-878.56	0.00	878.56	1,957.05	978.52	2,340.67	1,155.97	34.97	-4.77	0.767
80.00	-11.78	-17.08	0.00	-791.28	0.00	791.28	1,915.29	957.64	2,218.72	1,095.74	40.17	-5.15	0.729
85.00	-11.15	-16.71	0.00	-705.87	0.00	705.87	1,865.48	932.74	2,090.90	1,032.62	45.75	-5.52	0.690
90.00	-10.53	-16.33	0.00	-622.33	0.00	622.33	1,803.62	901.81	1,953.75	964.88	51.71	-5.88	0.651
95.00	-9.98	-15.93	0.00	-540.66	0.00	540.66	1,741.75	870.87	1,821.26	899.45	58.05	-6.23	0.607
96.00	-9.83	-15.88	0.00	-524.68	0.00	524.68	1,729.33	864.67	1,795.23	886.60	59.37	-6.31	0.598
99.84	-9.22	-15.54	0.00	-463.82	0.00	463.82	1,093.63	546.82	1,132.13	559.12	64.53	-6.57	0.839
100.00	-9.15	-15.56	0.00	-461.28	0.00	461.28	1,092.90	546.45	1,130.03	558.08	64.75	-6.58	0.836
105.00	-7.24	-12.73	0.00	-383.48	0.00	383.48	1,069.91	534.95	1,066.03	526.47	71.86	-7.00	0.736
110.00	-6.84	-12.37	0.00	-319.84	0.00	319.84	1,045.68	522.84	1,002.59	495.14	79.39	-7.40	0.653
115.00	-6.45	-12.01	0.00	-258.01	0.00	258.01	1,020.23	510.12	939.83	464.15	87.31	-7.76	0.563
120.00	-6.10	-11.64	0.00	-197.98	0.00	197.98	993.56	496.78	877.90	433.56	95.59	-8.08	0.463
122.00	-3.93	-7.97	0.00	-172.75	0.00	172.75	982.54	491.27	853.40	421.46	98.99	-8.20	0.414
125.00	-3.44	-7.11	0.00	-148.85	0.00	148.85	965.65	482.83	816.94	403.46	104.18	-8.36	0.373
130.00	-3.19	-6.76	0.00	-113.28	0.00	113.28	936.52	468.26	757.09	373.90	113.04	-8.60	0.307
131.83	-3.06	-6.29	0.00	-100.91	0.00	100.91	925.68	462.84	735.59	363.28	116.34	-8.69	0.281
132.67	-3.01	-6.22	0.00	-95.63	0.00	95.63	918.41	459.20	724.01	357.56	117.87	-8.72	0.271
135.00	-2.90	-6.06	0.00	-81.13	0.00	81.13	898.23	449.11	692.37	341.93	122.13	-8.81	0.241
136.17	-2.83	-5.88	0.00	-74.04	0.00	74.04	888.09	444.05	676.74	334.22	124.29	-8.86	0.225
140.00	-2.66	-5.63	0.00	-51.51	0.00	51.51	854.92	427.46	626.84	309.58	131.41	-8.98	0.170
145.00	-2.45	-5.31	0.00	-23.36	0.00	23.36	811.61	405.81	564.58	278.83	140.84	-9.08	0.087
149.00	-0.03	-0.06	0.00	-0.06	0.00	0.06	776.96	388.48	517.11	255.38	148.44	-9.12	0.000
150.00	0.00	-0.05	0.00	0.00	0.00	0.00	768.30	384.15	505.57	249.68	150.34	-9.12	0.000

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:10 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 12
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 1.2D + 1.0Di + 1.0Wi — 40.00 mph with 1.00 in Radial Ice — 29 Iterations

Gust Response Factor : 1.10 — Ice Dead Load Factor : 1.00 — Wind Importance Factor : 1.00

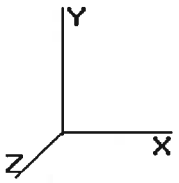
Dead Load Factor : 1.20 — Ice Importance Factor : 1.00

Wind Load Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	2.724	2.996	0.000	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	2.724	2.996	0.000	1.200	1.656	5.00	19.430	23.32	69.9	461.5	1,568.2
10.00		1.00	0.70	2.724	2.996	0.000	1.200	1.775	5.00	19.140	22.97	68.8	485.6	1,568.1
15.00		1.00	0.70	2.724	2.996	0.000	1.200	1.848	5.00	18.811	22.57	67.6	495.7	1,554.1
20.00		1.00	0.70	2.724	2.996	0.000	1.200	1.902	5.00	18.466	22.16	66.4	499.6	1,534.0
25.00		1.00	0.70	2.724	2.996	0.000	1.200	1.945	5.00	18.112	21.73	65.1	500.0	1,510.2
30.00		1.00	0.70	2.726	2.999	0.000	1.200	1.981	5.00	17.752	21.30	63.9	498.1	1,484.1
35.00		1.00	0.73	2.849	3.134	0.000	1.200	2.012	5.00	17.388	20.87	65.4	494.4	1,456.3
40.00		1.00	0.76	2.960	3.256	0.000	1.200	2.039	5.00	17.021	20.42	66.5	489.5	1,427.3
45.00		1.00	0.78	3.061	3.367	0.000	1.200	2.063	5.00	16.651	19.98	67.3	483.5	1,397.1
47.00	Bot - Section 2	1.00	0.79	3.099	3.409	0.000	1.200	2.072	2.00	6.543	7.85	26.8	192.0	550.1
50.00		1.00	0.81	3.155	3.470	0.000	1.200	2.085	3.00	9.894	11.87	41.2	291.4	1,240.5
51.58	Top - Section 1	1.00	0.81	3.183	3.501	0.000	1.200	2.091	1.58	5.150	6.18	21.6	152.6	645.7
55.00		1.00	0.83	3.242	3.566	0.000	1.200	2.105	3.42	11.022	13.23	47.2	326.8	790.2
56.25	Appertunance(s)	1.00	0.83	3.262	3.589	0.000	1.200	2.110	1.25	3.984	4.78	17.2	118.9	286.2
60.00		1.00	0.85	3.323	3.656	0.000	1.200	2.123	3.75	11.815	14.18	51.8	352.3	846.9
65.00		1.00	0.87	3.400	3.740	0.000	1.200	2.140	5.00	15.426	18.51	69.2	461.2	1,104.5
70.00		1.00	0.89	3.473	3.820	0.000	1.200	2.156	5.00	15.049	18.06	69.0	452.2	1,076.9
75.00		1.00	0.91	3.542	3.896	0.000	1.200	2.171	5.00	14.672	17.61	68.6	442.8	1,049.0
80.00		1.00	0.92	3.608	3.969	0.000	1.200	2.185	5.00	14.294	17.15	68.1	433.1	1,020.7
85.00		1.00	0.94	3.671	4.038	0.000	1.200	2.198	5.00	13.915	16.70	67.4	423.0	992.1
90.00		1.00	0.95	3.731	4.105	0.000	1.200	2.211	5.00	13.536	16.24	66.7	412.6	963.1
95.00		1.00	0.97	3.789	4.168	0.000	1.200	2.223	5.00	13.156	15.79	65.8	402.0	934.0
96.00	Bot - Section 3	1.00	0.97	3.801	4.181	0.000	1.200	2.225	1.00	2.593	3.11	13.0	80.2	184.7
99.84	Top - Section 2	1.00	0.98	3.844	4.228	0.000	1.200	2.234	3.83	9.914	11.90	50.3	305.0	977.9
100.0		1.00	0.98	3.845	4.230	0.000	1.200	2.234	0.16	0.417	0.50	2.1	13.0	24.8
105.0	Appertunance(s)	1.00	1.00	3.899	4.289	0.000	1.200	2.245	5.00	12.584	15.10	64.8	386.5	740.4
110.0		1.00	1.01	3.952	4.347	0.000	1.200	2.256	5.00	12.203	14.64	63.7	375.2	716.2
115.0		1.00	1.02	4.002	4.402	0.000	1.200	2.266	5.00	11.821	14.19	62.4	363.7	691.7
120.0		1.00	1.04	4.051	4.456	0.000	1.200	2.276	5.00	11.440	13.73	61.2	352.1	667.1
122.0	Appertunance(s)	1.00	1.04	4.070	4.477	0.000	1.200	2.279	2.00	4.468	5.36	24.0	139.0	261.3
125.0	Appertunance(s)	1.00	1.05	4.099	4.508	0.000	1.200	2.285	3.00	6.588	7.91	35.6	204.2	383.8
130.0		1.00	1.06	4.145	4.559	0.000	1.200	2.294	5.00	10.675	12.81	58.4	328.3	617.3
131.8	Appertunance(s)	1.00	1.06	4.161	4.577	0.000	1.200	2.297	1.83	3.811	4.57	20.9	118.5	221.1
132.6	Appertunance(s)	1.00	1.07	4.169	4.586	0.000	1.200	2.299	0.84	1.732	2.08	9.5	54.1	100.6
135.0		1.00	1.07	4.190	4.609	0.000	1.200	2.303	2.33	4.748	5.70	26.3	147.3	274.4
136.1	Appertunance(s)	1.00	1.07	4.200	4.620	0.000	1.200	2.305	1.17	2.353	2.82	13.0	73.3	136.0
140.0		1.00	1.08	4.233	4.657	0.000	1.200	2.311	3.83	7.556	9.07	42.2	232.8	433.1
145.0		1.00	1.09	4.276	4.704	0.000	1.200	2.319	5.00	9.527	11.43	53.8	291.5	541.6
149.0	Appertunance(s)	1.00	1.10	4.309	4.740	0.000	1.200	2.325	4.00	7.345	8.81	41.8	225.2	415.9
150.0		1.00	1.11	4.318	4.749	0.000	1.200	2.327	1.00	1.798	2.16	10.2	55.8	102.2
							Totals:		150.00			1,934.7	12,614.5	32,489.4

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:11 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 13
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 1.2D + 1.0Di + 1.0Wi — 40.00 mph with 1.00 in Radial Ice — 29 Iterations

Gust Response Factor : 1.10 — Ice Dead Load Factor : 1.00 — Wind Importance Factor : 1.00

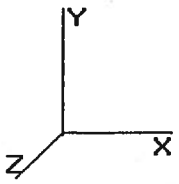
Dead Load Factor : 1.20 — Ice Importance Factor : 1.00

Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
56.25	10' Omni	1	3.343	3.677	1.00	1.00	6.39	0.000	5.000	23.51	0.00	117.57	198.80
56.25	Sidearm	1	3.262	3.589	1.00	1.00	13.38	0.000	0.000	48.01	0.00	0.00	180.57
105.0	18" x 16" x 6" TMAs	9	3.899	4.289	0.54	0.80	24.04	0.000	0.000	103.13	0.00	0.00	132.86
105.0	5'10" x 12" x 6" Pan	3	3.899	4.289	0.58	0.80	16.81	0.000	0.000	72.08	0.00	0.00	875.21
105.0	9" x 8" x 3.5" TMAs	3	3.899	4.289	0.56	0.80	1.80	0.000	0.000	7.70	0.00	0.00	133.41
105.0	Low Profile Platform	1	3.899	4.289	1.00	1.00	33.50	0.000	0.000	143.69	0.00	0.00	3,665.42
105.0	RR65-17-02DPL2	3	3.899	4.289	0.54	0.80	7.71	0.000	0.000	33.06	0.00	0.00	412.89
122.0	731DG65VTAXM	6	4.070	4.477	0.62	0.80	25.02	0.000	0.000	112.04	0.00	0.00	1,376.04
122.0	9" x 6.5" x 3.0" TMA	6	4.070	4.477	0.56	0.80	3.13	0.000	0.000	14.02	0.00	0.00	240.25
122.0	BXA-171063/12	3	4.070	4.477	0.67	0.80	12.97	0.000	0.000	58.06	0.00	0.00	568.46
122.0	BXA-70063/8CF	3	4.070	4.477	0.56	0.80	21.52	0.000	0.000	96.35	0.00	0.00	999.06
122.0	Platform w/Rail	1	4.084	4.493	1.00	1.00	56.87	0.000	1.500	255.49	0.00	383.24	6,558.74
125.0	Collar Mount	1	4.099	4.508	1.00	1.00	16.42	0.000	0.000	74.05	0.00	0.00	924.72
125.0	RCMDC-3315-PF-48	1	4.099	4.508	1.00	1.00	7.92	0.000	0.000	35.73	0.00	0.00	73.05
125.0	RRUS12	3	4.099	4.508	0.58	0.80	8.33	0.000	0.000	37.57	0.00	0.00	443.98
131.8	3 ft HP Dish	1	4.161	4.577	1.00	1.00	11.23	0.000	0.000	51.41	0.00	0.00	309.83
132.6	7" x 4" x 1.5" Panel	1	4.169	4.586	1.00	1.00	0.98	0.000	0.000	4.50	0.00	0.00	30.78
136.1	11" x 8" x 2.5" TMAs	1	4.200	4.620	1.00	1.00	2.15	0.000	0.000	9.95	0.00	0.00	40.41
136.1	16" x 14" x 2" Panel	1	4.200	4.620	1.00	1.00	2.60	0.000	0.000	12.03	0.00	0.00	76.86
149.0	14" x 6.5" x 3.5" TM	6	4.309	4.740	0.79	1.00	7.53	0.000	0.000	35.71	0.00	0.00	201.25
149.0	15" x 14" x 2" Panel	1	4.309	4.740	1.00	1.00	3.17	0.000	0.000	15.01	0.00	0.00	63.09
149.0	16" x 14" x 3" TMAs	6	4.309	4.740	0.61	1.00	9.62	0.000	0.000	45.59	0.00	0.00	665.50
149.0	20.5" x 12" x 11.5"	3	4.309	4.740	0.93	1.00	8.19	0.000	0.000	38.84	0.00	0.00	567.37
149.0	800 10765	3	4.309	4.740	0.75	1.00	23.20	0.000	0.000	109.98	0.00	0.00	1,032.12
149.0	Platform w/Rail	1	4.322	4.754	1.00	1.00	57.29	0.000	1.500	272.36	0.00	408.54	6,650.80
149.0	XDUO6-80-R	6	4.309	4.740	0.78	1.00	49.53	0.000	0.000	234.78	0.00	0.00	2,147.71
										1,944.67			28,569.18

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	
Location :	Prairie Village, KS	Struct Class : II	8/1/2013 12:58:11 PM
Height :	150.0 (ft)	Exposure Category : B	Page: 14
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 1.2D + 1.0Di + 1.0Wi — 40.00 mph with 1.00 in Radial Ice — 29 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.00

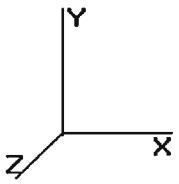
Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
Ice Importance Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	69.86	1,758.06	0.00	0.00
10.00	68.82	1,757.98	0.00	0.00
15.00	67.63	1,743.96	0.00	0.00
20.00	66.39	1,723.79	0.00	0.00
25.00	65.12	1,700.06	0.00	0.00
30.00	63.88	1,673.97	0.00	0.00
35.00	65.39	1,646.18	0.00	0.00
40.00	66.50	1,617.09	0.00	0.00
45.00	67.28	1,586.98	0.00	0.00
47.00	26.77	625.94	0.00	0.00
50.00	41.20	1,354.49	0.00	0.00
51.58	21.64	705.67	0.00	0.00
55.00	47.16	920.03	0.00	0.00
56.25	88.68	712.98	0.00	117.57
60.00	51.83	988.60	0.00	0.00
65.00	69.23	1,293.36	0.00	0.00
70.00	68.99	1,265.81	0.00	0.00
75.00	68.60	1,237.86	0.00	0.00
80.00	68.07	1,209.56	0.00	0.00
85.00	67.43	1,180.93	0.00	0.00
90.00	66.67	1,152.02	0.00	0.00
95.00	65.81	1,122.84	0.00	0.00
96.00	13.01	222.65	0.00	0.00
99.84	50.30	1,122.74	0.00	0.00
100.0	2.12	30.94	0.00	0.00
105.0	424.44	6,149.12	0.00	0.00
110.0	63.65	873.10	0.00	0.00
115.0	62.45	850.38	0.00	0.00
120.0	61.17	825.74	0.00	0.00
122.0	559.96	10,067.33	0.00	383.24
125.0	182.99	1,879.71	0.00	0.00
130.0	58.41	701.33	0.00	0.00
131.8	72.34	561.65	0.00	0.00
132.6	14.03	145.37	0.00	0.00
135.0	26.26	313.05	0.00	0.00
136.1	35.03	272.73	0.00	0.00
140.0	42.22	496.37	0.00	0.00
145.0	53.77	624.13	0.00	0.00
149.0	794.06	11,809.77	0.00	408.54
150.0	10.24	102.17	0.00	0.00
Totals:	3,879.40	66,026.45	0.00	909.34

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:11 PM
Location :	Prairie Village, KS	Struct Class : II	Page: 15
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 1.2D + 1.0Di + 1.0Wi — 40.00 mph with 1.00 in Radial Ice — 29 Iterations

Gust Response Factor : 1.10 — Ice Dead Load Factor : 1.00 — Wind Importance Factor : 1.00

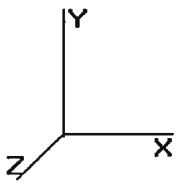
Dead Load Factor : 1.20 — Ice Importance Factor : 1.00

Wind Load Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-66.02	-3.91	0.00	-473.15	0.00	473.15	3,538.52	1,769.26	6,108.24	3,016.63	0.00	0.00	0.176
5.00	-64.26	-3.90	0.00	-453.60	0.00	453.60	3,490.01	1,745.00	5,893.29	2,910.47	0.03	-0.05	0.174
10.00	-62.50	-3.89	0.00	-434.10	0.00	434.10	3,440.27	1,720.13	5,679.96	2,805.12	0.11	-0.11	0.173
15.00	-60.75	-3.88	0.00	-414.65	0.00	414.65	3,389.30	1,694.65	5,468.40	2,700.64	0.26	-0.16	0.171
20.00	-59.03	-3.87	0.00	-395.26	0.00	395.26	3,337.11	1,668.56	5,258.73	2,597.09	0.46	-0.22	0.170
25.00	-57.32	-3.85	0.00	-375.93	0.00	375.93	3,283.69	1,641.85	5,051.11	2,494.55	0.72	-0.28	0.168
30.00	-55.64	-3.84	0.00	-356.67	0.00	356.67	3,229.05	1,614.52	4,845.65	2,393.09	1.05	-0.34	0.166
35.00	-54.00	-3.82	0.00	-337.48	0.00	337.48	3,165.44	1,582.72	4,631.20	2,287.18	1.44	-0.40	0.165
40.00	-52.37	-3.80	0.00	-318.38	0.00	318.38	3,085.01	1,542.51	4,397.56	2,171.79	1.89	-0.46	0.164
45.00	-50.79	-3.76	0.00	-299.38	0.00	299.38	3,004.58	1,502.29	4,169.96	2,059.39	2.41	-0.53	0.162
47.00	-50.16	-3.75	0.00	-291.88	0.00	291.88	2,972.46	1,486.23	4,080.76	2,015.33	2.64	-0.55	0.162
50.00	-48.80	-3.72	0.00	-280.61	0.00	280.61	2,924.15	1,462.08	3,948.41	1,949.97	3.00	-0.59	0.161
51.58	-48.09	-3.72	0.00	-274.73	0.00	274.73	2,136.33	1,068.16	2,931.28	1,447.65	3.20	-0.61	0.212
55.00	-47.17	-3.69	0.00	-261.99	0.00	261.99	2,111.83	1,055.91	2,843.36	1,404.23	3.65	-0.66	0.209
56.25	-46.46	-3.63	0.00	-257.26	0.00	257.26	2,102.73	1,051.36	2,811.35	1,388.42	3.83	-0.68	0.207
60.00	-45.47	-3.62	0.00	-243.65	0.00	243.65	2,074.97	1,037.49	2,715.73	1,341.20	4.39	-0.74	0.204
65.00	-44.17	-3.60	0.00	-225.55	0.00	225.55	2,036.89	1,018.45	2,589.31	1,278.77	5.21	-0.82	0.198
70.00	-42.90	-3.57	0.00	-207.56	0.00	207.56	1,997.58	998.79	2,464.25	1,217.00	6.11	-0.90	0.192
75.00	-41.66	-3.54	0.00	-189.71	0.00	189.71	1,957.05	978.52	2,340.67	1,155.97	7.10	-0.98	0.185
80.00	-40.44	-3.51	0.00	-172.00	0.00	172.00	1,915.29	957.64	2,218.72	1,095.74	8.17	-1.07	0.178
85.00	-39.26	-3.47	0.00	-154.46	0.00	154.46	1,865.48	932.74	2,090.90	1,032.62	9.33	-1.15	0.171
90.00	-38.10	-3.44	0.00	-137.09	0.00	137.09	1,803.62	901.81	1,953.75	964.88	10.58	-1.23	0.163
95.00	-36.98	-3.37	0.00	-119.92	0.00	119.92	1,741.75	870.87	1,821.26	899.45	11.91	-1.31	0.155
96.00	-36.76	-3.38	0.00	-116.53	0.00	116.53	1,729.33	864.67	1,795.23	886.60	12.18	-1.32	0.153
99.84	-35.63	-3.32	0.00	-103.57	0.00	103.57	1,093.63	546.82	1,132.13	559.12	13.27	-1.38	0.218
100.00	-35.60	-3.35	0.00	-103.03	0.00	103.03	1,092.90	546.45	1,130.03	558.08	13.31	-1.38	0.217
105.00	-29.46	-2.82	0.00	-86.28	0.00	86.28	1,069.91	534.95	1,066.03	526.47	14.81	-1.48	0.191
110.00	-28.58	-2.78	0.00	-72.18	0.00	72.18	1,045.68	522.84	1,002.59	495.14	16.41	-1.57	0.173
115.00	-27.73	-2.73	0.00	-58.30	0.00	58.30	1,020.23	510.12	939.83	464.15	18.09	-1.65	0.153
120.00	-26.91	-2.66	0.00	-44.66	0.00	44.66	993.56	496.78	877.90	433.56	19.86	-1.72	0.130
122.00	-16.86	-1.81	0.00	-38.95	0.00	38.95	982.54	491.27	853.40	421.46	20.58	-1.75	0.110
125.00	-14.98	-1.58	0.00	-33.52	0.00	33.52	965.65	482.83	816.94	403.46	21.69	-1.78	0.099
130.00	-14.28	-1.51	0.00	-25.61	0.00	25.61	936.52	468.26	757.09	373.90	23.59	-1.84	0.084
131.83	-13.72	-1.42	0.00	-22.85	0.00	22.85	925.68	462.84	735.59	363.28	24.30	-1.86	0.078
132.67	-13.58	-1.41	0.00	-21.66	0.00	21.66	918.41	459.20	724.01	357.56	24.62	-1.86	0.075
135.00	-13.27	-1.37	0.00	-18.38	0.00	18.38	898.23	449.11	692.37	341.93	25.54	-1.89	0.069
136.17	-13.00	-1.33	0.00	-16.77	0.00	16.77	888.09	444.05	676.74	334.22	26.00	-1.90	0.065
140.00	-12.50	-1.28	0.00	-11.66	0.00	11.66	854.92	427.46	626.84	309.58	27.54	-1.92	0.052
145.00	-11.88	-1.21	0.00	-5.26	0.00	5.26	811.61	405.81	564.58	278.83	29.56	-1.95	0.034
149.00	-0.10	-0.01	0.00	-0.01	0.00	0.01	776.96	388.48	517.11	255.38	31.20	-1.95	0.000
150.00	0.00	-0.01	0.00	0.00	0.00	0.00	768.30	384.15	505.57	249.68	31.61	-1.95	0.000

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:11 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 16
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 27 Iterations

Gust Response Factor : 1.10 — Wind Importance Factor : 1.00

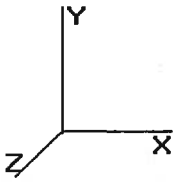
Dead Load Factor : 1.00

Wind Load Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.742	183.18	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.742	179.26	1.000	0.000	5.00	18.050	18.05	121.7	0.0	922.3
10.00		1.00	0.70	6.129	6.742	175.35	1.000	0.000	5.00	17.661	17.66	119.1	0.0	902.2
15.00		1.00	0.70	6.129	6.742	171.44	1.000	0.000	5.00	17.271	17.27	116.4	0.0	882.0
20.00		1.00	0.70	6.129	6.742	167.52	1.000	0.000	5.00	16.881	16.88	113.8	0.0	861.9
25.00		1.00	0.70	6.129	6.742	163.61	1.000	0.000	5.00	16.491	16.49	111.2	0.0	841.8
30.00		1.00	0.70	6.134	6.747	159.76	1.000	0.000	5.00	16.101	16.10	108.6	0.0	821.7
35.00		1.00	0.73	6.410	7.051	159.32	1.000	0.000	5.00	15.712	15.71	110.8	0.0	801.6
40.00		1.00	0.76	6.659	7.325	158.31	1.000	0.000	5.00	15.322	15.32	112.2	0.0	781.5
45.00		1.00	0.78	6.887	7.576	156.84	1.000	0.000	5.00	14.932	14.93	113.1	0.0	761.4
47.00	Bot - Section 2	1.00	0.79	6.973	7.670	156.15	1.000	0.000	2.00	5.854	5.85	44.9	0.0	298.4
50.00		1.00	0.81	7.098	7.807	155.01	1.000	0.000	3.00	8.850	8.85	69.1	0.0	790.9
51.58	Top - Section 1	1.00	0.81	7.161	7.877	154.36	1.000	0.000	1.58	4.599	4.60	36.2	0.0	410.9
55.00		1.00	0.83	7.294	8.023	155.82	1.000	0.000	3.42	9.822	9.82	78.8	0.0	386.2
56.25	Appertunance(s)	1.00	0.83	7.341	8.075	155.25	1.000	0.000	1.25	3.545	3.54	28.6	0.0	139.3
60.00		1.00	0.85	7.477	8.225	153.45	1.000	0.000	3.75	10.488	10.49	86.3	0.0	412.2
65.00		1.00	0.87	7.650	8.415	150.84	1.000	0.000	5.00	13.642	13.64	114.8	0.0	536.1
70.00		1.00	0.89	7.814	8.595	148.02	1.000	0.000	5.00	13.253	13.25	113.9	0.0	520.6
75.00		1.00	0.91	7.969	8.766	145.03	1.000	0.000	5.00	12.863	12.86	112.8	0.0	505.2
80.00		1.00	0.92	8.118	8.930	141.87	1.000	0.000	5.00	12.473	12.47	111.4	0.0	489.7
85.00		1.00	0.94	8.260	9.086	138.56	1.000	0.000	5.00	12.083	12.08	109.8	0.0	474.2
90.00		1.00	0.95	8.396	9.235	135.11	1.000	0.000	5.00	11.693	11.69	108.0	0.0	458.7
95.00		1.00	0.97	8.526	9.379	131.55	1.000	0.000	5.00	11.304	11.30	106.0	0.0	443.3
96.00	Bot - Section 3	1.00	0.97	8.552	9.407	130.82	1.000	0.000	1.00	2.221	2.22	20.9	0.0	87.1
99.84	Top - Section 2	1.00	0.98	8.648	9.513	127.99	1.000	0.000	3.83	8.487	8.49	80.7	0.0	560.8
100.0		1.00	0.98	8.652	9.517	130.11	1.000	0.000	0.16	0.357	0.36	3.4	0.0	9.8
105.0	Appertunance(s)	1.00	1.00	8.774	9.651	126.34	1.000	0.000	5.00	10.713	10.71	103.4	0.0	295.0
110.0		1.00	1.01	8.891	9.780	122.47	1.000	0.000	5.00	10.323	10.32	101.0	0.0	284.2
115.0		1.00	1.02	9.005	9.905	118.51	1.000	0.000	5.00	9.933	9.93	98.4	0.0	273.3
120.0		1.00	1.04	9.115	10.02	114.46	1.000	0.000	5.00	9.543	9.54	95.7	0.0	262.5
122.0	Appertunance(s)	1.00	1.04	9.158	10.07	112.81	1.000	0.000	2.00	3.708	3.71	37.4	0.0	102.0
125.0	Appertunance(s)	1.00	1.05	9.222	10.14	110.33	1.000	0.000	3.00	5.445	5.45	55.2	0.0	149.7
130.0		1.00	1.06	9.326	10.25	106.12	1.000	0.000	5.00	8.764	8.76	89.9	0.0	240.9
131.8	Appertunance(s)	1.00	1.06	9.363	10.29	104.56	1.000	0.000	1.83	3.110	3.11	32.0	0.0	85.4
132.6	Appertunance(s)	1.00	1.07	9.380	10.31	103.84	1.000	0.000	0.84	1.410	1.41	14.5	0.0	38.7
135.0		1.00	1.07	9.427	10.36	101.84	1.000	0.000	2.33	3.854	3.85	40.0	0.0	105.8
136.1	Appertunance(s)	1.00	1.07	9.450	10.39	100.83	1.000	0.000	1.17	1.903	1.90	19.8	0.0	52.3
140.0		1.00	1.08	9.525	10.47	97.495	1.000	0.000	3.83	6.081	6.08	63.7	0.0	166.9
145.0		1.00	1.09	9.621	10.58	93.081	1.000	0.000	5.00	7.594	7.59	80.4	0.0	208.4
149.0	Appertunance(s)	1.00	1.10	9.696	10.66	89.506	1.000	0.000	4.00	5.795	5.79	61.8	0.0	158.9
150.0		1.00	1.11	9.715	10.68	88.606	1.000	0.000	1.00	1.410	1.41	15.1	0.0	38.6
							Totals:		150.00			3,160.7	0.0	16,562.4

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:11 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 17
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 27 Iterations

Gust Response Factor : 1.10 — Wind Importance Factor : 1.00

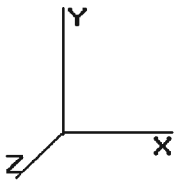
Dead Load Factor : 1.00

Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
56.25	10' Omni	1	7.521	8.274	1.00	1.00	3.00	0.000	5.000	24.82	0.00	124.10	20.00
56.25	Sidearm	1	7.341	8.075	1.00	1.00	5.15	0.000	0.000	41.58	0.00	0.00	70.00
105.0	18" x 16" x 6" TMAs	9	8.774	9.651	0.54	0.80	15.91	0.000	0.000	153.57	0.00	0.00	171.00
105.0	5'10" x 12" x 6" Pan	3	8.774	9.651	0.58	0.80	16.91	0.000	0.000	163.18	0.00	0.00	90.30
105.0	9" x 8" x 3.5" TMAs	3	8.774	9.651	0.56	0.80	1.21	0.000	0.000	11.67	0.00	0.00	22.50
105.0	Low Profile Platform	1	8.774	9.651	1.00	1.00	25.55	0.000	0.000	246.58	0.00	0.00	1,600.00
105.0	RR65-17-02DPL2	3	8.774	9.651	0.54	0.80	6.00	0.000	0.000	57.93	0.00	0.00	45.00
122.0	731DG65VTAXM	6	9.158	10.074	0.62	0.80	22.42	0.000	0.000	225.89	0.00	0.00	126.00
122.0	9" x 6.5" x 3.0" TMA	6	9.158	10.074	0.56	0.80	2.42	0.000	0.000	24.37	0.00	0.00	45.00
122.0	BXA-171063/12	3	9.158	10.074	0.67	0.80	9.66	0.000	0.000	97.30	0.00	0.00	45.00
122.0	BXA-70063/8CF	3	9.158	10.074	0.56	0.80	17.90	0.000	0.000	180.34	0.00	0.00	72.00
122.0	Platform w/Rail	1	9.190	10.109	1.00	1.00	35.85	0.000	1.500	362.41	0.00	543.61	2,500.00
125.0	Collar Mount	1	9.222	10.144	1.00	1.00	5.00	0.000	0.000	50.72	0.00	0.00	250.00
125.0	RCMDC-3315-PF-48	1	9.222	10.144	1.00	1.00	5.73	0.000	0.000	58.12	0.00	0.00	26.90
125.0	RRUS12	3	9.222	10.144	0.58	0.80	5.44	0.000	0.000	55.22	0.00	0.00	180.00
131.8	3 ft HP Dish	1	9.363	10.299	1.00	1.00	8.92	0.000	0.000	91.87	0.00	0.00	110.00
132.6	7" x 4" x 1.5" Panel	1	9.380	10.318	1.00	1.00	0.41	0.000	0.000	4.24	0.00	0.00	11.00
136.1	11" x 8" x 2.5" TMAs	1	9.450	10.395	1.00	1.00	0.87	0.000	0.000	9.06	0.00	0.00	17.40
136.1	16" x 14" x 2" Panel	1	9.450	10.395	1.00	1.00	1.91	0.000	0.000	19.83	0.00	0.00	8.38
149.0	14" x 6.5" x 3.5" TM	6	9.696	10.666	0.79	1.00	4.52	0.000	0.000	48.18	0.00	0.00	84.60
149.0	15" x 14" x 2" Panel	1	9.696	10.666	1.00	1.00	1.87	0.000	0.000	19.91	0.00	0.00	21.16
149.0	16" x 14" x 3" TMAs	6	9.696	10.666	0.61	1.00	8.05	0.000	0.000	85.88	0.00	0.00	186.00
149.0	20.5" x 12" x 11.5"	3	9.696	10.666	0.93	1.00	6.92	0.000	0.000	73.80	0.00	0.00	150.00
149.0	800 10765	3	9.696	10.666	0.75	1.00	19.49	0.000	0.000	207.87	0.00	0.00	155.40
149.0	Platform w/Rail	1	9.724	10.697	1.00	1.00	35.85	0.000	1.500	383.47	0.00	575.20	2,500.00
149.0	XDUO6-80-R	6	9.696	10.666	0.78	1.00	42.37	0.000	0.000	451.94	0.00	0.00	276.00
										3,149.78			8,783.64

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 27 Iterations

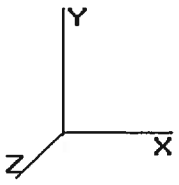
Gust Response Factor : 1.10
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	121.69	1,080.47	0.00	0.00
10.00	119.06	1,060.35	0.00	0.00
15.00	116.43	1,040.24	0.00	0.00
20.00	113.80	1,020.13	0.00	0.00
25.00	111.18	1,000.02	0.00	0.00
30.00	108.64	979.91	0.00	0.00
35.00	110.78	959.80	0.00	0.00
40.00	112.24	939.68	0.00	0.00
45.00	113.12	919.57	0.00	0.00
47.00	44.90	361.60	0.00	0.00
50.00	69.10	885.90	0.00	0.00
51.58	36.23	460.90	0.00	0.00
55.00	78.81	494.39	0.00	0.00
56.25	95.03	268.89	0.00	124.10
60.00	86.26	530.27	0.00	0.00
65.00	114.80	693.49	0.00	0.00
70.00	113.91	678.02	0.00	0.00
75.00	112.76	662.55	0.00	0.00
80.00	111.38	647.08	0.00	0.00
85.00	109.78	631.61	0.00	0.00
90.00	107.99	616.14	0.00	0.00
95.00	106.02	600.67	0.00	0.00
96.00	20.90	118.67	0.00	0.00
99.84	80.73	681.43	0.00	0.00
100.0	3.39	14.96	0.00	0.00
105.0	736.33	2,381.20	0.00	0.00
110.0	100.96	414.93	0.00	0.00
115.0	98.39	405.54	0.00	0.00
120.0	95.68	394.71	0.00	0.00
122.0	927.66	2,942.85	0.00	543.61
125.0	219.30	651.73	0.00	0.00
130.0	89.90	310.85	0.00	0.00
131.8	123.90	221.06	0.00	0.00
132.6	18.79	61.43	0.00	0.00
135.0	39.96	138.09	0.00	0.00
136.1	48.68	94.23	0.00	0.00
140.0	63.71	219.63	0.00	0.00
145.0	80.37	277.16	0.00	0.00
149.0	1,332.87	3,587.09	0.00	575.20
150.0	15.06	38.64	0.00	0.00
Totals:	6,310.49	29,485.93	0.00	1,242.92

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:11 PM
Location :	Prairie Village, KS	Struct Class : II	Page: 19
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



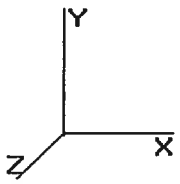
Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 27 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 1.00
Wind Load Factor : 1.00
Wind Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-29.48	-6.33	0.00	-675.73	0.00	675.73	3,538.52	1,769.26	6,108.24	3,016.63	0.00	0.00	0.232
5.00	-28.39	-6.24	0.00	-644.09	0.00	644.09	3,490.01	1,745.00	5,893.29	2,910.47	0.04	-0.08	0.229
10.00	-27.32	-6.16	0.00	-612.87	0.00	612.87	3,440.27	1,720.13	5,679.96	2,805.12	0.16	-0.15	0.226
15.00	-26.28	-6.08	0.00	-582.06	0.00	582.06	3,389.30	1,694.65	5,468.40	2,700.64	0.37	-0.23	0.223
20.00	-25.25	-5.99	0.00	-551.67	0.00	551.67	3,337.11	1,668.56	5,258.73	2,597.09	0.65	-0.31	0.220
25.00	-24.24	-5.91	0.00	-521.70	0.00	521.70	3,283.69	1,641.85	5,051.11	2,494.55	1.03	-0.40	0.217
30.00	-23.25	-5.83	0.00	-492.14	0.00	492.14	3,229.05	1,614.52	4,845.65	2,393.09	1.48	-0.48	0.213
35.00	-22.29	-5.74	0.00	-462.99	0.00	462.99	3,165.44	1,582.72	4,631.20	2,287.18	2.03	-0.56	0.209
40.00	-21.34	-5.65	0.00	-434.28	0.00	434.28	3,085.01	1,542.51	4,397.56	2,171.79	2.66	-0.65	0.207
45.00	-20.41	-5.55	0.00	-406.01	0.00	406.01	3,004.58	1,502.29	4,169.96	2,059.39	3.39	-0.73	0.204
47.00	-20.05	-5.52	0.00	-394.93	0.00	394.93	2,972.46	1,486.23	4,080.76	2,015.33	3.70	-0.77	0.203
50.00	-19.16	-5.45	0.00	-378.37	0.00	378.37	2,924.15	1,462.08	3,948.41	1,949.97	4.20	-0.82	0.201
51.58	-18.70	-5.42	0.00	-369.76	0.00	369.76	2,136.33	1,068.16	2,931.28	1,447.65	4.48	-0.85	0.264
55.00	-18.20	-5.35	0.00	-351.22	0.00	351.22	2,111.83	1,055.91	2,843.36	1,404.23	5.11	-0.91	0.259
56.25	-17.93	-5.27	0.00	-344.41	0.00	344.41	2,102.73	1,051.36	2,811.35	1,388.42	5.35	-0.94	0.257
60.00	-17.39	-5.20	0.00	-324.67	0.00	324.67	2,074.97	1,037.49	2,715.73	1,341.20	6.12	-1.02	0.250
65.00	-16.69	-5.10	0.00	-298.67	0.00	298.67	2,036.89	1,018.45	2,589.31	1,278.77	7.24	-1.13	0.242
70.00	-16.00	-5.00	0.00	-273.16	0.00	273.16	1,997.58	998.79	2,464.25	1,217.00	8.48	-1.23	0.232
75.00	-15.33	-4.91	0.00	-248.14	0.00	248.14	1,957.05	978.52	2,340.67	1,155.97	9.83	-1.34	0.223
80.00	-14.68	-4.81	0.00	-223.61	0.00	223.61	1,915.29	957.64	2,218.72	1,095.74	11.30	-1.45	0.212
85.00	-14.04	-4.71	0.00	-199.58	0.00	199.58	1,865.48	932.74	2,090.90	1,032.62	12.87	-1.55	0.201
90.00	-13.42	-4.60	0.00	-176.06	0.00	176.06	1,803.62	901.81	1,953.75	964.88	14.55	-1.66	0.190
95.00	-12.82	-4.49	0.00	-153.04	0.00	153.04	1,741.75	870.87	1,821.26	899.45	16.34	-1.76	0.178
96.00	-12.70	-4.48	0.00	-148.53	0.00	148.53	1,729.33	864.67	1,795.23	886.60	16.71	-1.78	0.175
99.84	-12.02	-4.38	0.00	-131.36	0.00	131.36	1,093.63	546.82	1,132.13	559.12	18.17	-1.85	0.246
100.00	-12.00	-4.39	0.00	-130.65	0.00	130.65	1,092.90	546.45	1,130.03	558.08	18.23	-1.85	0.245
105.00	-9.64	-3.60	0.00	-108.68	0.00	108.68	1,069.91	534.95	1,066.03	526.47	20.24	-1.97	0.215
110.00	-9.22	-3.50	0.00	-90.69	0.00	90.69	1,045.68	522.84	1,002.59	495.14	22.37	-2.09	0.192
115.00	-8.81	-3.40	0.00	-73.19	0.00	73.19	1,020.23	510.12	939.83	464.15	24.61	-2.19	0.166
120.00	-8.42	-3.30	0.00	-56.18	0.00	56.18	993.56	496.78	877.90	433.56	26.95	-2.28	0.138
122.00	-5.51	-2.26	0.00	-49.04	0.00	49.04	982.54	491.27	853.40	421.46	27.91	-2.31	0.122
125.00	-4.87	-2.02	0.00	-42.26	0.00	42.26	965.65	482.83	816.94	403.46	29.38	-2.36	0.110
130.00	-4.56	-1.92	0.00	-32.17	0.00	32.17	936.52	468.26	757.09	373.90	31.89	-2.43	0.091
131.83	-4.34	-1.79	0.00	-28.66	0.00	28.66	925.68	462.84	735.59	363.28	32.82	-2.45	0.084
132.67	-4.28	-1.77	0.00	-27.16	0.00	27.16	918.41	459.20	724.01	357.56	33.26	-2.46	0.081
135.00	-4.15	-1.72	0.00	-23.05	0.00	23.05	898.23	449.11	692.37	341.93	34.46	-2.49	0.072
136.17	-4.05	-1.67	0.00	-21.03	0.00	21.03	888.09	444.05	676.74	334.22	35.08	-2.50	0.068
140.00	-3.84	-1.60	0.00	-14.63	0.00	14.63	854.92	427.46	626.84	309.58	37.10	-2.53	0.052
145.00	-3.56	-1.51	0.00	-6.63	0.00	6.63	811.61	405.81	564.58	278.83	39.77	-2.56	0.028
149.00	-0.04	-0.02	0.00	-0.02	0.00	0.02	776.96	388.48	517.11	255.38	41.92	-2.57	0.000
150.00	0.00	-0.01	0.00	0.00	0.00	0.00	768.30	384.15	505.57	249.68	42.46	-2.57	0.000

Pole :	KCYC Prairie Village	Code: ANSI/TIA-222 Rev G	8/1/2013 12:58:11 PM
Location :	Prairie Village, KS	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 20
Base Dia :	42.29 (in)	Topographic Category : 1	
Top Dia :	16.25 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.180727 (in/ft)		



Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	22.80	0.00	35.33	0.00	0.00	2455.93	51.58	0.94
0.9D + 1.6W	22.78	0.00	26.48	0.00	0.00	2410.49	51.58	0.91
1.2D + 1.0Di + 1.0Wi	3.91	0.00	66.02	0.00	0.00	473.15	99.84	0.22
1.0D + 1.0W	6.33	0.00	29.48	0.00	0.00	675.73	51.58	0.26

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10950 GRANDVIEW DR. BUILDING #34
OVERLAND PARK, KS 66210
+1-913- 458-4159| ROSSC@BV.COM

Mr. Ron Williamson and
Planning Commission of
Prairie Village, Kansas

RE: Request Structural Engineer provide additional Clarification
From: Abbick, Katherine M. Lead Structural Engineer, Black & Veatch
Tuesday, February 18, 2014 12:00 PM

In response to a request from Prairie Village Consultant Ron Williamson, I am providing additional clarification about the differences between the September 30, 2013 analysis and the December 4, 2013 analysis which were initiated as a result of the way the applications were accepted by the landlord; and below is a description of these changes.

On September 12, 2013 we completed an analysis for this site including existing Verizon loading, existing & proposed Sprint loading, an existing unknown carrier load as well as three additional AT&T panels.

On September 30, 2013 we completed a MOD (modification), based on the loading from the September 12, 2013 analysis.

The original failing analysis was rejected because a Verizon application was accepted prior to the AT&T application.

On September 24, 2013 we completed another failing analysis which included existing & proposed Verizon loading, existing & proposed Sprint loading, an existing unknown carrier load as well as three additional AT&T Panels. This analysis was also rejected because the Sprint application was accepted AFTER the AT&T application.

On December 4, 2013 we completed a passing analysis which included existing & proposed Verizon loading, existing only Sprint loading, an existing unknown carrier loading as well as three additional AT&T Panels.

By reducing the Sprint loading (due to application process), we were able to keep the tower stress to 96.8% maximum, with no tower modification required.

Since we are doing this analysis for AT&T we will not require AT&T to complete a tower modification.

Sincerely

Kate Abbick | Lead Structural Engineer | Telecom Division
+1 913-458-6094 P | AbbickKM@BV.com

From: Abbick, Katherine M
Sent: Wednesday, January 29, 2014 9:38 AM
To: Ross, Chris; Cota, Danielle; Lynch, Michelle; Jurson, Matthew J.
Cc: Jiang, Ping(telecom); Murphy, Jeremiah B; Kaiser, Laura; Adams, Kerry J
Subject: RE: At&T Insatallati9on 7700 Mission Rd.

The changes between the September 30, 2013 analysis and the December 4, 2013 analysis were due to the way the applications were accepted by the landlord.

Verizon and their loading were to be included in the December analysis and Sprint was only to have their existing loading included. With these changes, we did not have to reinforce the tower. When Sprint goes on the tower, they might have to complete a tower MOD. I'm not certain; however it all depends on how the model is loaded and if the tower is overstressed with their proposed and future loading.

Cheers

We allow ourselves to become immersed in the tyranny of the urgent; we defer the importance in life.

Kate Abbick | Lead Structural Engineer | Telecom Division
+1 913-458-6094 P | AbbickKM@BV.com

From: Ross, Chris
Sent: Tuesday, January 28, 2014 3:55 PM
To: Abbick, Katherine M; Cota, Danielle; Lynch, Michelle; Jurson, Matthew J.
Cc: Jiang, Ping(telecom); Murphy, Jeremiah B; Kaiser, Laura; Adams, Kerry J
Subject: FW: At&T Insatallati9on 7700 Mission Rd.

Kate, here is the City's consultant (Ron W.) request, that came the day after his verbal approval. Thanks for your quick understanding and assistance, much appreciated.

Chris A. Ross | Site Acquisition Lead, Kansas
Black & Veatch | 10950 Grandview, Building 34, Overland Park, Kansas 66210
Direct **913-458-4159**
Mobile **913-232-0054**
FAX 913-458-4159 | RossC@bv.com
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From: Williamson, Ronald [mailto:rwilliamson@hwlochner.com]
Sent: Friday, January 24, 2014 2:46 PM
To: Ross, Chris
Cc: kgunja@pvkansas.com; Danielle Dulin
Subject: Re: At&T Insatallati9on 7700 Mission Rd.

Chris,

Since the September 30, 2013 Structural Analysis stated that the "existing structure is overstressed" and recommended monopole and base reinforcements and the December 3, 2013 Rigorous Structural Analysis did not identify reinforcement recommendations, the City needs a written explanation from the structural engineer explaining why the recommendations changed. Please provide that document with your application submittal.

Call me if you have any questions.

Thanks Ron

Sent from my iPad

On Jan 23, 2014, at 5:15 PM, "Ross, Chris" <RossC@bv.com> wrote:

Ron, thank you very much for meeting with me this morning, and for your Professionalism and common sense in guiding us to this point.
Sincerely,
Chris

Chris A. Ross | Site Acquisition Lead, Kansas
Black & Veatch | 10950 Grandview, Building 34, Overland Park, Kansas 66210
Direct **913-458-4159**
Mobile **913-232-0054**
FAX 913-458-4159 | RossC@bv.com
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From: Williamson, Ronald [mailto:rwilliamson@hwlochner.com]
Sent: Thursday, January 23, 2014 4:41 PM
To: Ross, Chris
Cc: Quinn Bennion (qbennion@pvkansas.com); kgunja@pvkansas.com; ddulin@pvkansas.com; Jim Brown; Joyce Hagen Mundy
Subject: At&T Insatallati9on 7700 Mission Rd.

Chris,

Based on our meeting this morning clarifying that AT&T is only replacing three antennas, all that is needed is Site Plan approval from the Planning Commission as set out in Section 19.33.055.C. The application is on the City web site and you will need to submit 14 copies of the proposed plans. The application needs to be filed with Joyce Hagen Mundy, City Clerk.

Let me know if you have any questions.

Ron

Ronald A. Williamson, FAICP
Lochner
903 E. 104th Street, Suite 800
Kansas City, MO 64131-3451
P 816.363.2696 F 816.363.0027
C 816.916.6323
rwilliamson@hwlochner.com

Subject: Request for clarification of the September Structural Analysis and the December Structural Analysis by B&V Lead Structural Engineer

PRAIRIE VILLAGE
KS5025
10000419

at&t

ANTENNA MOD
150' - MONOPOLE

ENGINEERING

2006 INTERNATIONAL BUILDING CODE OR ADOPTED CODE
2008 NATIONAL ELECTRIC CODE OR ADOPTED CODE
TIA/EIA-222-F OR ADOPTED CODE

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT CABINETS FOR AT&T'S WIRELESS TELECOMMUNICATIONS NETWORK.

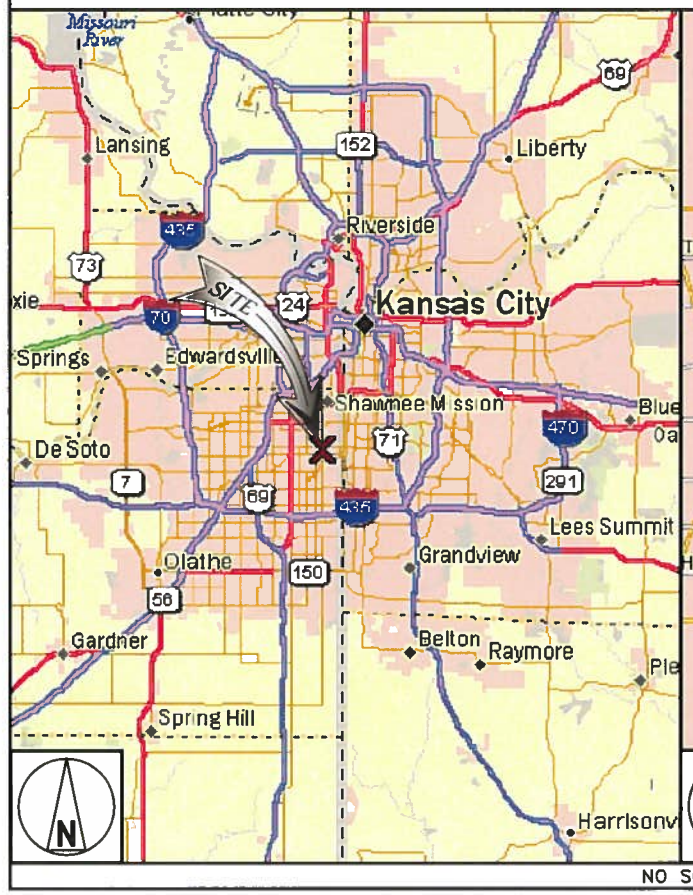
SITE INFORMATION

PROPERTY OWNER:	NA
TOWER OWNER: SITE NAME: SITE NUMBER:	CITY OF PRAIRIE VILLAGE 4445 PRAIRIE VILLAGE NA
SITE CONTACT:	NA
COUNTY:	JOHNSON
LATITUDE (NAD 83):	38° 59' 22.00" N 38.98889
LONGITUDE (NAD 83):	94° 37' 58.01" W -94.63278
ZONING JURISDICTION:	NA
ZONING DISTRICT:	NA
PARCEL #:	NA
OCCUPANCY GROUP:	U
CONSTRUCTION TYPE:	V-B
POWER COMPANY:	KCP&L
TELEPHONE COMPANY:	NA
CONSTRUCTION MANAGER:	CHAD LARSEN (913) 449-2875
SITE ACQUISITION MANAGER:	MELISSA DOYLE (952) 896-0745
RF ENGINEER:	RON HUMPHREY (314) 984-5227

CONTACT INFORMATION

ENGINEER:	BLACK & VEATCH CORPORATION 16305 SWINGLEY RIDGE ROAD SUITE 230 CHESTERFIELD, MO 63017
CONTACT:	JEREMY MURPHY
PHONE:	(913) 458-8142

VICINITY MAP



LOCAL MAP

NO SCALE

DRIVING DIRECTIONS

DIRECTIONS FROM NEAREST MAJOR INTERSECTION:

FROM I-435, TAKE EXIT 77B, GO STRAIGHT ONTO ROE AVENUE RAMP, TURN NORTH ONTO ROE AVENUE, KEEP EAST ONTO SOMERSET DRIVE, TURN NORTH ONTO MISSION ROAD, SITE WILL BE ON THE WEST.

GENERAL NOTES

THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRAINAGE; NO SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL IS REQUIRED AND NO COMMERCIAL SIGNAGE IS PROPOSED.

DRAWING INDEX

SHEET NO:	SHEET TITLE
T-1	TITLE SHEET
C-1	SITE PLAN
C-2	ELEVATIONS
C-3	ANTENNA LAYOUTS AND SCHEDULE
C-4	EQUIPMENT DETAILS
RF-1	RF CONFIGURATION
RF-2	UMTS CONFIGURATION
G-1	GROUNDING ONE-LINE ANTENNA EQUIPMENT
G-2	GROUNDING DETAILS
GN-1	LEGENDS & ABBREVIATIONS
GN-2	GENERAL CONSTRUCTION NOTES
GN-3	GENERAL ELECTRICAL NOTES

11"x17" PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

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

UNDERGROUND SERVICE ALERT
UTILITIES PROTECTION CENTER, INC.
811
48 HOURS BEFORE YOU DIG

at&t
7801 FARLEY
OVERLAND PARK, KS 66204

BLACK & VEATCH
10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO:	122041
DRAWN BY:	DEE
CHECKED BY:	KJA

REV	DATE	DESCRIPTION
0	01/10/14	ISSUED FOR CONSTRUCTION

TERRY JOHN ADAMS
LICENSED
15568
01/13/14
KANSAS
PROFESSIONAL ENGINEER

PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

1. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
2. PROPERTY LINES ARE APPROXIMATIONS ONLY.
3. ANTENNAS & MOUNTS OMITTED FOR CLARITY.

NOTES

SITE PLAN

6' 4' 2' 0 5' 10'
3/16"=1'-0"

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10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO:	122041
DRAWN BY:	DEE
CHECKED BY:	KJA

REV	DATE	DESCRIPTION
0	01/10/14	ISSUED FOR CONSTRUCTION

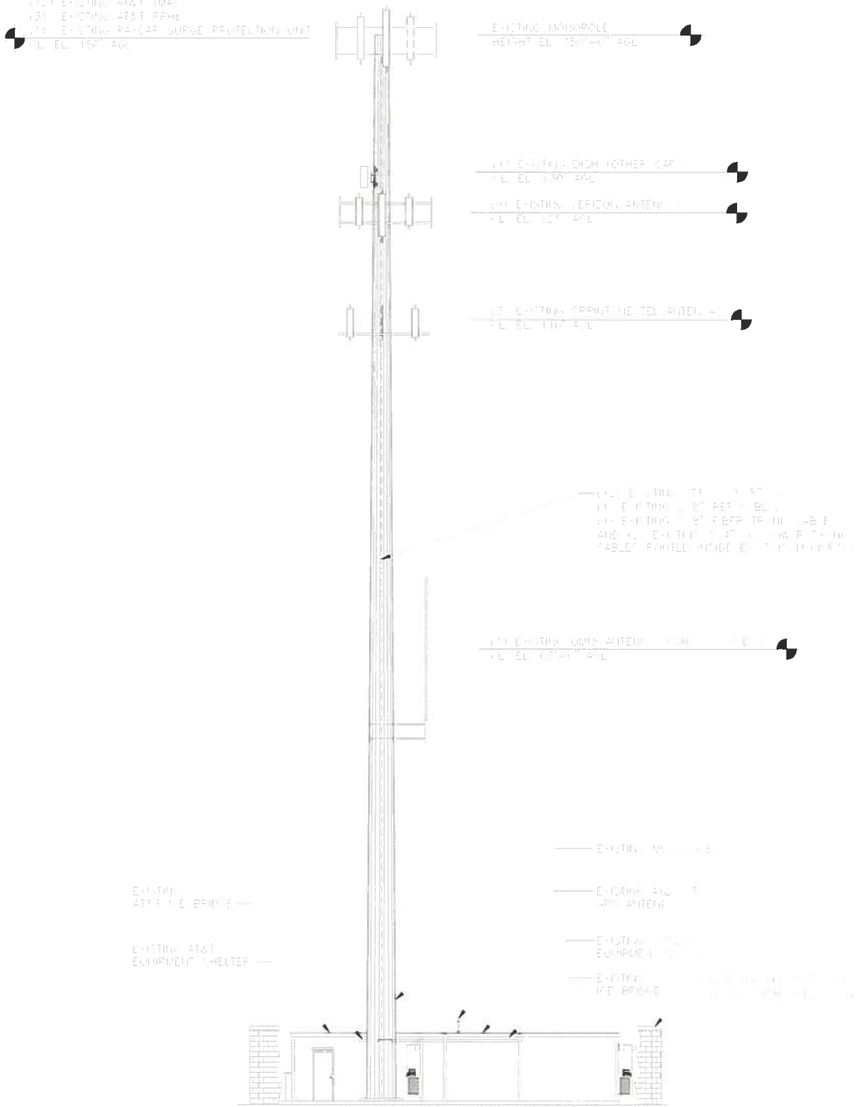
GARY JOHN ADAMS
15568
01/13/14
KANSAS
PROFESSIONAL ENGINEER

PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-1

(3) ANTENNAS TO BE REMOVED



EXISTING ELEVATION
SEE DRAWING C-1

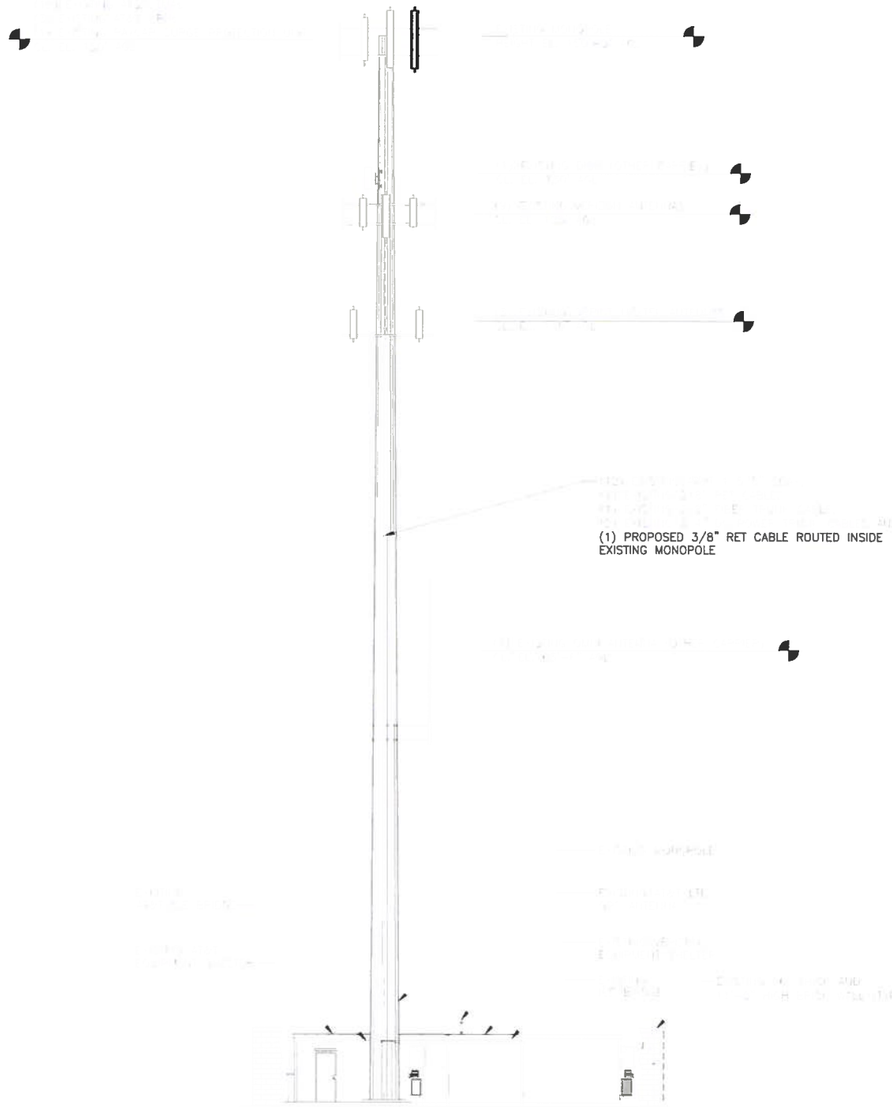
12' 8' 4' 0 10' 20'
3/32"=1'-0"

A

NOTES:

1. FENCE NOT ENTIRELY SHOWN FOR CLARITY.
2. THE PASSING STRUCTURAL ANALYSIS FOR THE EXISTING STRUCTURE WAS COMPLETED BY BLACK & VEATCH ON 12/03/2013.

(3) PROPOSED AT&T ANTENNAS



PROPOSED ELEVATION
SEE DRAWING C-1

12' 8' 4' 0 10' 20'
3/32"=1'-0"

B

at&t

7801 FARLEY
OVERLAND PARK, KS 66204

BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO:	122041
DRAWN BY:	DEE
CHECKED BY:	KJA

REV	DATE	DESCRIPTION
0	01/10/14	ISSUED FOR CONSTRUCTION

LARRY JOHN ADAMS
LICENSED
15568
01/13/14
KANSAS
PROFESSIONAL ENGINEER

PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE
ELEVATIONS

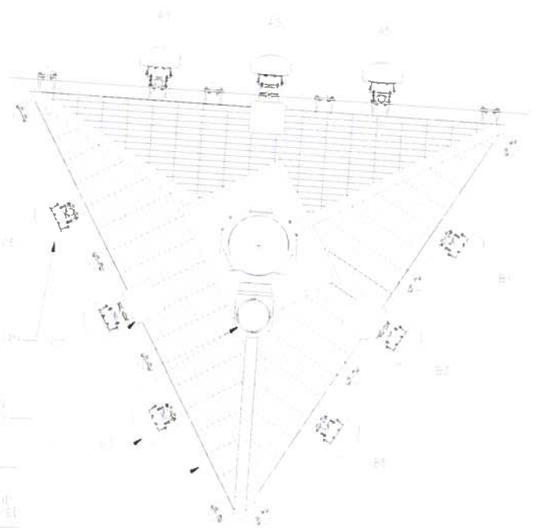
SHEET NUMBER
C-2

	EXISTING			FINAL		
SECTOR	ANTENNA MODEL NUMBER	TECHNOLOGY	AZIMUTH	ANTENNA MODEL NUMBER	TECHNOLOGY	AZIMUTH
A1	[illegible] DUO6-30-F	UMTS	4	ANDREW SBNH-1D6565C	UMTS	4
A2	–	–	–	–	–	–
A3	POWERWAVE P65-[illegible]-LH-PP	LTE	4	–	LTE	4
A4	–	–	–	–	–	–
A5	[illegible] DUO6-30-F	GSM	4	–	–	4
B1	[illegible] DUO6-30-F	UMTS	124	ANDREW SBNH-1D6565C	–	–
B2	–	–	–	–	–	–
B3	[illegible]	LTE	–	–	LTE	–
B4	–	–	–	–	–	–
B5	[illegible] DUO6-30-F	GSM	124	[illegible] DUO6-30-F	–	124
C1	[illegible] DUO6-30-F	UMTS	244	ANDREW SBNH-1D6565C	–	244
C2	–	–	–	–	–	–
C3	[illegible]	LTE	244	–	LTE	–
C4	–	–	–	–	–	–
C5	[illegible] DUO6-30-F	–	244	–	–	244

NOTES:

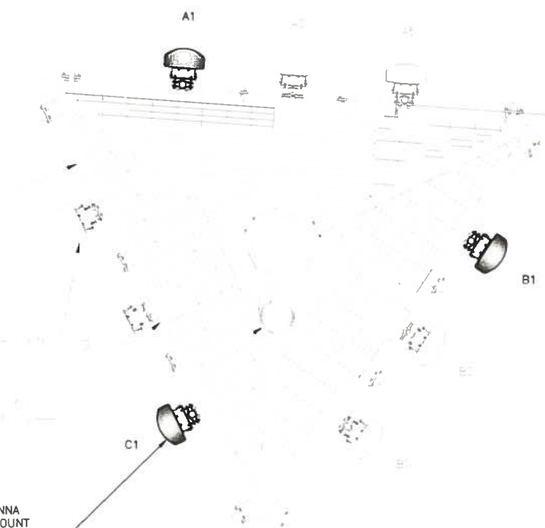
1. FENCE NOT ENTIRELY SHOWN FOR CLARITY.
2. THE PASSING STRUCTURAL ANALYSIS FOR THE EXISTING STRUCTURE WAS COMPLETED BY BLACK & VEATCH ON 12/03/2013.

ANTENNA CONFIGURATION — NO SCALE — A



N

EXISTING ANTENNA LAYOUT — NO SCALE — B



N

NOTE:
SEE ANTENNA CONFIGURATION FOR MODEL NUMBERS AND AZIMUTHS.

PROPOSED ANTENNA LAYOUT — NO SCALE — C

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BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO:	122041
DRAWN BY:	DEE
CHECKED BY:	KJA

REV	DATE	DESCRIPTION
0	01/10/14	ISSUED FOR CONSTRUCTION

LARRY JOHN ADAMS
LICENSED
15568
01/13/14
KANSAS
PROFESSIONAL ENGINEER

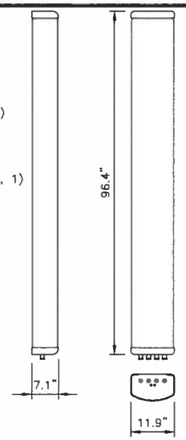
PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE
ANTENNA LAYOUTS AND SCHEDULE

SHEET NUMBER
C-3

ANDREW SBNH-1D6565C

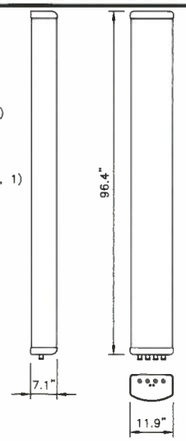
RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD.in(mm):	96.4"x11.9"x7.1" (2449x301x181mm)
WEIGHT:	60.8 lbs
CONNECTOR:	RS-485 MALE (INPUT PORT, 1)/ RS-485 FEMALE (DAISY CHAIN PORT, 1)



ALPHA SECTOR

ANDREW SBNH-1D6565C

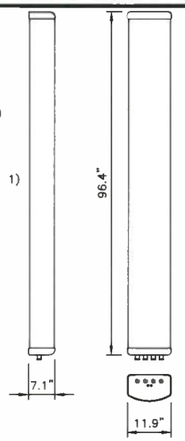
RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD.in(mm):	96.4"x11.9"x7.1" (2449x301x181mm)
WEIGHT:	60.8 lbs
CONNECTOR:	RS-485 MALE (INPUT PORT, 1)/ RS-485 FEMALE (DAISY CHAIN PORT, 1)



BETA SECTOR

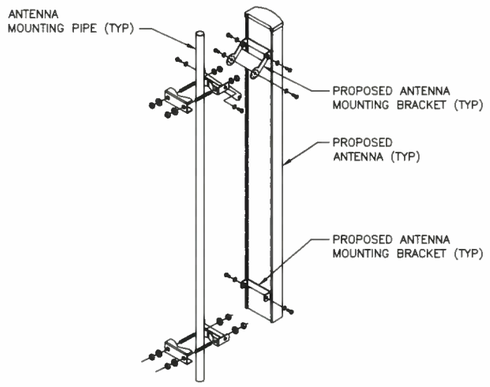
ANDREW SBNH-1D6565C

RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD.in(mm):	96.4"x11.9"x7.1" (2449x301x181mm)
WEIGHT:	60.8 lbs
CONNECTOR:	RS-485 MALE (INPUT PORT, 1)/ RS-485 FEMALE (DAISY CHAIN PORT, 1)



GAMMA SECTOR

ANTENNA SPECIFICATIONS | NO SCALE | A



ANTENNA PIPE MOUNTING DETAIL | NO SCALE | B

NOT USED | NO SCALE | C

NOT USED | NO SCALE | D

NOT USED | NO SCALE | E

NOT USED | NO SCALE | F

NOT USED | NO SCALE | G

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BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO:	122041
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REV	DATE	DESCRIPTION
0	01/10/14	ISSUED FOR CONSTRUCTION

PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE
EQUIPMENT DETAILS

SHEET NUMBER
C-4

COAXIAL ANTENNA CABLE NOTES

1. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
2. CONTRACTOR SHALL VERIFY THE DOWNTILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
3. CONTRACTOR TO CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION. REFER TO "ANTENNA SYSTEM LABELING STANDARD" ND-00027 LATEST VERSION.
4. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE WILL BE 1/2" DIA. SUPPORT JUMPERS AT A MAXIMUM OF 3'-0" INTERVALS.
5. ALL COAXIAL CABLE WILL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE STARTING AT 12" FROM THE CONNECTOR THEN AT DISTANCES NOT TO EXCEED 3'-0" OC.
6. CONTRACTOR MUST FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING THE INSTALLATION OF COAXIAL CABLES, CONNECTORS, AND ANTENNAS.
7. AT CONNECTORS; COAX SHALL BE STRAIGHT A MINIMUM OF 6" FOR 1/2" CONNECTIONS, AND A MINIMUM OF 12" FOR CONNECTIONS >1/2".
8. WEATHERPROOF ALL ANTENNA CONNECTORS WITH BUTYL TAPE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. NO BUTYL BLEEDING ALLOWED.
9. COAX SHALL NOT BE DAMAGED BY OVERBENDING. CONTRACTOR SHALL FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR MAXIMUM SINGLE BEND RADIUS.
10. CONTRACTOR SHALL INSTALL DRIP LOOPS TO PREVENT WATER MIGRATION TO THE EQUIPMENT.

TORQUE REQUIREMENTS

1. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
2. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
   A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
   B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.
3. ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB-FT (12 NM).
4. ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB-FT (58 NM).
5. ALL GROUND GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.
6. ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18-22 LB-FT (24.4 - 29.8 NM)
7. ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15-20 LB-IN (1.7 - 2.3 NM)

ANTENNA NUMBER	TECHNOLOGY	FREQUENCY	JUMPER COLOR CODE			DC TRUNK COLOR CODE		MAIN COAX COLOR CODE	ANTENNA MODEL NUMBER	AZIMUTH	DOWN TILT		RAD CENTER, AGL	TMA MODEL NUMBER	RRH/AWS RRH MODEL NUMBER	MAIN LINE COAX		DIPLEXER
			COAXIAL	FIBER	DC	700	AWS				ELECTRICAL	MECHANICAL				FEEDER	LENGTH	
A-1	UMTS	-850	R B	-	-	-	-	R B / R B W	ANDREW SBNH-1D6565C	4	5	3	150'	EXISTING	-	EXISTING	170'	EXISTING
		-1900	R B W								0							
		+850	R B Y					R B Y / R B Y W			5			EXISTING		EXISTING	170'	EXISTING
		+1900	R B Y W								0							
A-3	LTE	-700	R [illegible]	R	R [illegible]	[illegible]		-	POWERWAVE P65-17-[illegible]LH-RR	4	-	-	150'	-	**ALCATEL-LUCENT 9442 RRH2x40-07-L	*	170'	-
		700	R [illegible]														170'	-
A-5	GSM	-850	R [illegible]	-	-	-	-	R G / R G W	CCI [illegible]D06-80-F	4	-	-	150'	EXISTING	-	EXISTING	170'	EXISTING
		-1900	R G W															
		+850	R G					R G Y / R G Y W						EXISTING		EXISTING	170'	EXISTING
		+1900	R G Y W															
B-1	UMTS	-850	B B	-	-	-	-	B B / B B W	ANDREW SBNH-1D6565C	124	8	3	150'	EXISTING	-	EXISTING	170'	EXISTING
		-1900	B B W								0							
		+850	B B Y					B B Y / B B Y W			8			EXISTING		EXISTING	170'	EXISTING
		+1900	B B Y W								0							
B-3	LTE	-700	B [illegible]	B	B [illegible]	[illegible]		-	KATHREIN [illegible]	124	-	-	150'	-	**ALCATEL-LUCENT 9442 RRH2x40-07-L	*	170'	-
		700	B [illegible]														170'	-
B-5	GSM	-850	B G	-	-	-	-	B G / B G W	CCI [illegible]D06-80-F	124	-	-	150'	EXISTING	-	EXISTING	170'	EXISTING
		-1900	B G W															
		+850	B G					B G Y / B G Y W						EXISTING		EXISTING	170'	EXISTING
		+1900	B G Y W															
C-1	UMTS	-850	G B	-	-	-	-	G B / G B W	ANDREW SBNH-1D6565C	244	2	3	150'	EXISTING	-	EXISTING	170'	EXISTING
		-1900	G B W								0							
		+850	G B Y					G B Y / G B Y W			2			EXISTING		EXISTING	170'	EXISTING
		+1900	G B Y W								0							
C-3	LTE	-700	[illegible]	[illegible]	[illegible]	[illegible]		-	KATHREIN [illegible]	244	-	-	150'	-	**ALCATEL-LUCENT 9442 RRH2x40-07-L	*	170'	-
		700	[illegible]														170'	-
C-5	GSM	-850	G G	-	-	-	-	G G / G G W	CCI [illegible]D06-80-F	244	-	-	150'	EXISTING	-	EXISTING	170'	EXISTING
		-1900	G G W															
		+850	G G					G G Y / G G Y W						EXISTING		EXISTING	170'	EXISTING
		+1900	G G Y W															

RFDS VERSION: CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.

* (1) FIBER TRUNK CABLE AND (2) DC TRUNK CABLE FEEDS ALL THREE (3) LTE ANTENNAS.

** SEE ANTENNA LAYOUT SHEET FOR PLACEMENT OF THE RRH'S.

at&t
7801 FARLEY
OVERLAND PARK, KS 66204

BLACK & VEATCH
10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO:	122041
DRAWN BY:	DEE
CHECKED BY:	KJA

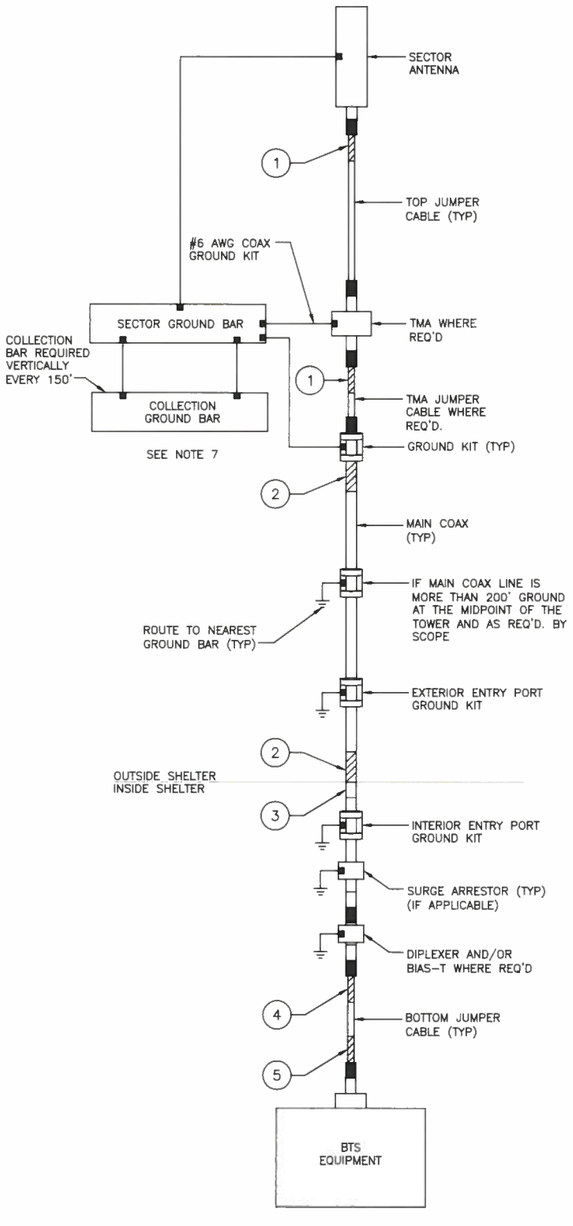
REV	DATE	DESCRIPTION
0	01/10/14	ISSUED FOR CONSTRUCTION

LARRY JOHN ADAMS
KANSAS
15568
01/13/14
PROFESSIONAL ENGINEER

PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE
RF CONFIGURATION

SHEET NUMBER



UMTS DIAGRAM

NO SCALE

NOTES

1. CABLE PORT DIAGRAM ONLY REQUIRED FOR SHELTER SITES.
2. CONTRACTOR SHALL FILL OUT THE CABLE PORT DIAGRAM UPON COAX INSTALLATION. CABLE PORT DIAGRAM WILL BE AFFIXED TO THE INTERIOR SHELTER WALL NEAR THE CABLE ENTRY PORT TO AID IN CABLE IDENTIFICATION. THE CHART IS INTENDED TO BE USED TO RECORD THE LINE AND CORRESPONDING ANTENNA POSITION ON THE TOWER AT THE TIME OF INSTALLATION.
3. ONE COMPLETED COPY PLUS (2) TWO BLANK COPIES OF THE CHART SHOULD BE POSTED IN THE SHELTER IN A PROTECTIVE PLASTIC SLEEVE.
4. SWEEP TEST EACH JUMPER AND DOCUMENT THE TEST IN ACCORDANCE WITH THE PROJECT PROCEDURES.
5. USE THIS DRAWING FOR COAX CABLE GROUNDING SPECIFICATIONS, SEE DRAWING G-1 FOR GENERAL REQUIREMENTS.
6. INSTALL DRIP LOOPS AT EVERY LOCATION WHERE WATER MAY ACCUMULATE.
7. HOME RUN GROUND LEADS ARE NOT ALLOWED ON CROWN CASTLE TOWERS. BUSS BARS ARE TO BE MECHANICALLY ATTACHED TO STEEL. CAD-WELDING IS NOT ALLOWED ON CROWN CASTLE TOWERS AND GROUNDING MUST BE ACCOMPLISHED MECHANICALLY. NO DRILLING OR MODIFICATION OF TOWER STRUCTURE STEEL IS PERMITTED.

COAX COLOR CODING & IDENTIFICATION NOTES

1. SECTOR ORIENTATION/AZIMUTH WILL VARY FROM REGION TO REGION AND IS SITE SPECIFIC. REFER TO RF REPORT FOR EACH SITE TO DETERMINE THE ANTENNA LOCATION AND FUNCTION OF EACH TOWER SECTOR FACE.
2. THE ANTENNA SYSTEM COAX SHALL BE LABELED WITH VINYL TAPE EXCEPT IN LOCATIONS WHERE ENVIRONMENTAL CONDITIONS CAUSE PHYSICAL DAMAGE, THEN PHYSICAL TAGS ARE REQUIRED.
3. THE STANDARD IS BASED ON EIGHT COLORED TAPES-RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE, AND VIOLET. THESE TAPES MUST BE 3/4" WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR CONTRACTOR ON SITE.
4. USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLE BY SECTOR AND CABLE NUMBER AS SHOWN ON "CABLE MARKING COLOR CONVENTION TABLE".
5. WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN GSM/3G AND IS-136/TDMA IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING AND TAGGING STANDARD THAT IS OUTLINED IN THE CURRENT VERSION OF ND-00027. IN THE ABSENCE OF AN EXISTING COLOR CODING AND TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
6. ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) THREE WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
7. ALL COLOR BANDS INSTALLED AT THE TOP OF THE TOWER SHALL BE A MINIMUM OF 3" WIDE, AND SHALL HAVE A MINIMUM OF 1" OF SPACE BETWEEN EACH COLOR. ALL COLOR BANDS INSTALLED AT THE BASE OF THE TOWER SHALL BE A MINIMUM OF 3/4" WIDE, AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE BETWEEN EACH COLOR.
8. ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.
9. IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE GSM TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.

CABLE MARKING TAGS

WHEN USING THE ALTERNATIVE LABELING METHOD, EACH RF CABLE SHALL BE IDENTIFIED WITH A METAL ID TAG MADE OF STAINLESS STEEL OR BRASS, THE TAG SHALL BE 1 1/2" IN DIAMETER WITH 1/4" STAMPED LETTERS AND NUMBERS INDICATING THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER. THE ID MARKING LOCATIONS SHOULD BE AS PER "CABLE MARKING LOCATIONS TABLE". THE TAG SHOULD BE ATTACHED WITH CORROSION PROOF WIRE AROUND THE CABLE AT THE SAME LOCATION AS DEFINED ABOVE. THE TAG SHOULD BE LABELED AS SHOWN ON THE "GSM, LTE AND UMTS LINE TAG" DETAIL.

ALL RF CABLE SHALL BE MARKED AS PER CABLE MARKING LOCATIONS TABLE BELOW:

CABLE MARKING LOCATIONS TABLE

NO	LOCATIONS
1	EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
2	EACH CABLE SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP OF MAIN LINE AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE SHELTER/OUTDOOR EQUIPMENT
3	EACH CABLE SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS JUST WITHIN THE SHELTER NEAR THE HATCH PLATE (ONLY INDOOR SITES)
4	EACH CABLE SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS AT THE ENTRANCE OF THE EQUIPMENT

CABLE MARKING LOCATIONS TABLE

at&t
7801 FARLEY
OVERLAND PARK, KS 66204

BLACK & VEATCH
10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

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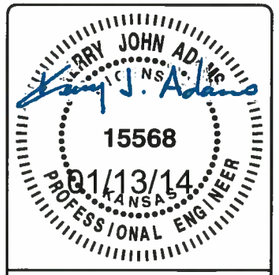
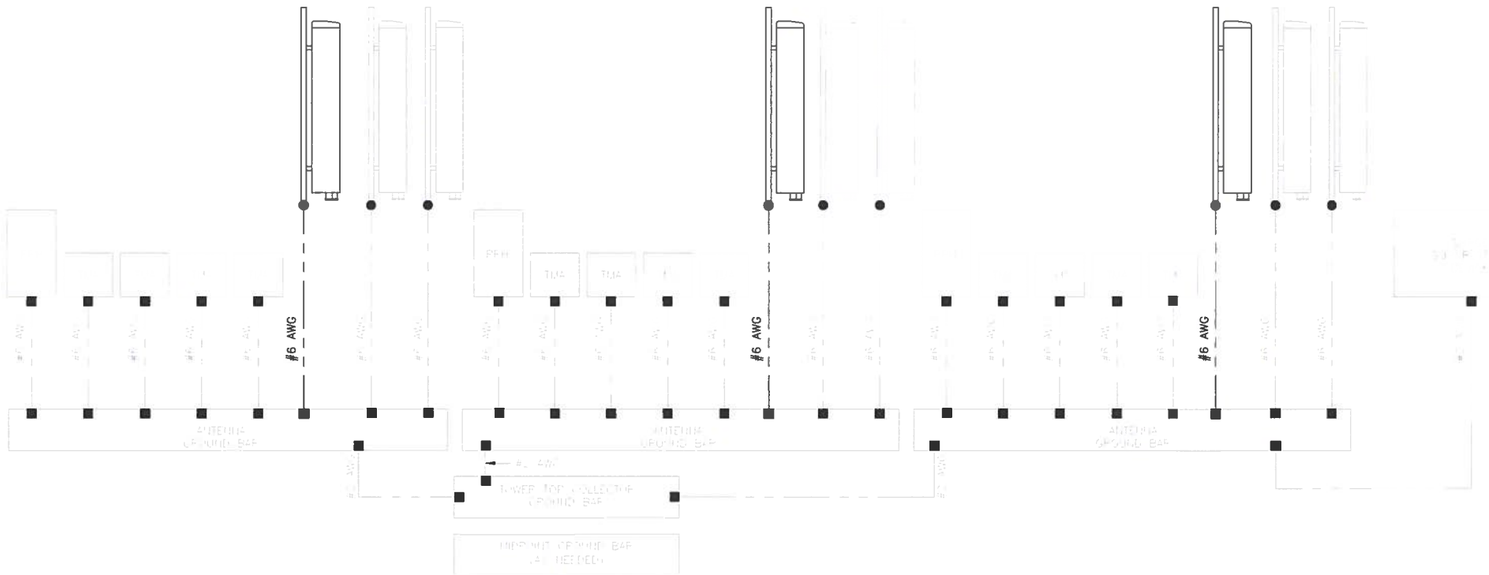


PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE
UMTS CONFIGURATION

SHEET NUMBER
RF-2



TOWER ANTENNA EQUIPMENT GROUNDING ONE-LINE

NO SCALE

A

●	EXOTHERMIC CONNECTION
■	MECHANICAL CONNECTION
	GROUND ROD
T	TEST GROUND ROD WITH INSPECTION SLEEVE

LEGEND

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

NOTES

GROUNDING KEY NOTES

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

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

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

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

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

LOCATIONS AND QUANTITIES OF REQUIRED INSPECTION WELLS ON RAWLAND SITES:
- (4) INSIDE GROUND RING TO BURIED SHELTER GROUND RING ✪ CORNERS
- (1) TELCO GROUND BAR
- (1) MAIN SERVICE ENTRANCE
- (1) COAX GROUND BAR
- (1) CELL REFERENCE BAR
- (1) TOWER TO TOWER GROUND RING
- (2) TOWER RING TO GROUND ROD

LOCATIONS AND QUANTITIES OF REQUIRED INSPECTION WELLS ON CO-LO SITES:
- (4) INSIDE GROUND RING TO BURIED SHELTER GROUND RING ✪ CORNERS
- (1) TELCO GROUND BAR
- (1) MAIN SERVICE ENTRANCE
- (1) COAX GROUND BAR
- (1) CELL REFERENCE BAR
- (2) TOWER RING TO SHELTER RING

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

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

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

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

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

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

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

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

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

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

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

at&t

7801 FARLEY
OVERLAND PARK, KS 66204

BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO:	122041
DRAWN BY:	DEE
CHECKED BY:	KJA

REV	DATE	DESCRIPTION
0	01/10/14	ISSUED FOR CONSTRUCTION

PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE

GROUNDING ONE-LINE
ANTENNA EQUIPMENT

SHEET NUMBER

G-1

NEWTON INSTRUMENT COMPANY, INC. BUTNER, N.C.			
NO	REQUIRED	PART NUMBER	DESCRIPTION
1	1	1/4"x4"x30"	SOLID GROUND BAR
2	2	A-6056	WALL MOUNTING BRACKET
3	2	3061-4	INSULATORS
4	4	3012-1	5/8"-11x1" H.H.C.S.
5	4	3015-8	5/8" LOCKWASHER

EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION

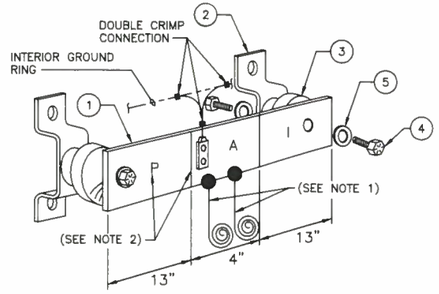
SECTION "P" – SURGE PROTECTORS
(EC) CABLE ENTRY PORTS (HATCH PLATES) (#2)
(EC) TELCO GROUND BAR (#2)
(EC) COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)
(AT&T) CELL SITE +24V POWER SUPPLY RETURN BAR (#2)
(AT&T) CELL SITE -48V POWER SUPPLY RETURN BAR (#2)
(EC) GENERATOR FRAMEWORK (IF AVAILABLE) (#2)
(AT&T) RECTIFIER FRAMES
(AT&T) ANTENNA SUPPRESSION

SECTION "A" – SURGE ABSORBERS
(EC) INTERIOR GROUND RING (#2)
(EC) EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)
(EC) METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)
(EC) BUILDING STEEL (IF AVAILABLE) (#2)

SECTION "I" – ISOLATED GROUNDING ZONE
(AT&T) ALL CELL SITE COMMUNICATIONS EQUIPMENT FRAMES

DETAIL NOTES

1. EXOTHERMICALLY WELD #2 AWG BARE TINNED SOLID COPPER CONDUCTOR TO GROUND BAR. ROUTE CONDUCTOR TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. EC SHALL PERMANENTLY MARK THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "I") WITH 1" HIGH LETTERS.
3. GROUND BAR SHALL BE ENGRAVED PER AT&T SPECIFICATIONS TO PREVENT THEFT.

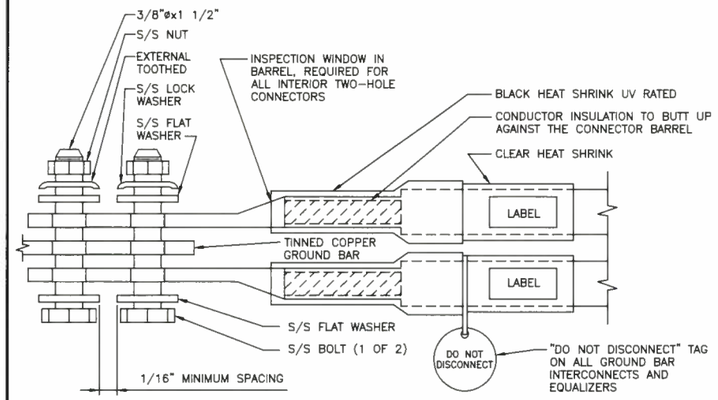


(CRGB) CELL REFERENCE GROUND BAR — NO SCALE — A

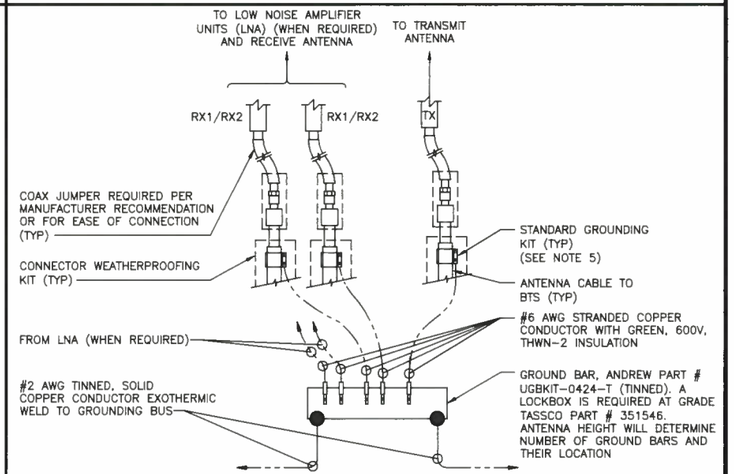
NOTES

1. EXOTHERMIC WELD (2) TWO, #2 AWG BARE TINNED SOLID COPPER CONDUCTORS TO GROUND BAR. ROUTE CONDUCTORS TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. ALL GROUND BARS SHALL BE STAMPED IN TO THE METAL "IF STOLEN DO NOT RECYCLE." THE CONTRACTOR SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "I") WITH 1" HIGH LETTERS.
3. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8 INCH DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTIOXIDANT COMPOUND BEFORE MATING.
4. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL. COAT ALL SURFACES WITH AN ANTIOXIDANT COMPOUND BEFORE MATING.
5. DO NOT INSTALL CABLE GROUNDING KIT AT A BEND AND ALWAYS DIRECT GROUNDING CONDUCTOR DOWN TO GROUNDING BUS.
6. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON THE BACK SIDE. INSTALL BLACK HEAT-SHRINKING TUBE, 600 VOLT INSULATION, ON ALL GROUNDING TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
7. SUPPLIED AND INSTALLED BY CONTRACTOR.
8. GROUND LUGS SHALL BE TWO-HOLE, LONG BARREL, AND BE SIZED FOR GROUND WIRE. DO NOT BREAK WIRE STANDS OR DEEPLY NICK GROUND WIRE WHEN CRIMPING.
9. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ADDITIONAL GROUND BAR AS REQUIRED, PROVIDING 50% SPARE CONNECTION POINTS.

NOT USED — NO SCALE — B

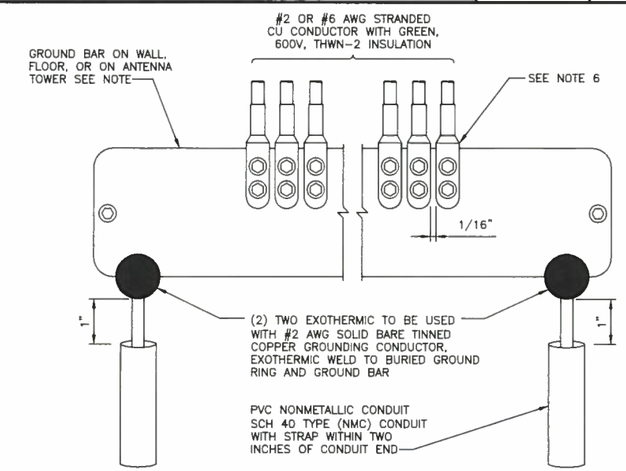


EXTERIOR TWO HOLE LUG — NO SCALE — C



ANTENNA GROUND BAR — NO SCALE — D

INSTALLATION OF GROUNDING CONDUCTOR TO GROUND BAR — NO SCALE — E



NOT USED — NO SCALE — F

NOT USED — NO SCALE — G

at&t
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TERRY JOHN ADAMS
LICENSED
15568
01/13/14
KANSAS
PROFESSIONAL ENGINEER

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KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
G-2

LEGEND

EXOTHERMIC CONNECTION

MECHANICAL CONNECTION

CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

TEST CHEMICAL ELECTROLYTIC GROUNDING SYSTEM

EXOTHERMIC WITH INSPECTION SLEEVE

GROUNDING BAR

GROUND ROD

TEST GROUND ROD WITH INSPECTION SLEEVE

SINGLE POLE SWITCH

DUPLEX RECEPTACLE

DUPLEX GFCI RECEPTACLE

FLUORESCENT LIGHTING FIXTURE
(2) TWO LAMPS 48–T8

SMOKE DETECTION (DC)

EMERGENCY LIGHTING (DC)

SECURITY LIGHT W/PHOTOCELL LITHONIA ALXW
LED–1–25A400/51K–SR4–120–PE–DDBTXD

CHAINLINK FENCE

WOOD/WROUGHT IRON FENCE

WALL STRUCTURE

LEASE AREA

PROPERTY LINE (PL)

SETBACKS

ICE BRIDGE

CABLE TRAY

WATER LINE

UNDERGROUND POWER

UNDERGROUND TELCO

OVERHEAD POWER

OVERHEAD TELCO

UNDERGROUND TELCO/POWER

ABOVE GROUND POWER

ABOVE GROUND TELCO

ABOVE GROUND TELCO/POWER

WORKPOINT

SECTION REFERENCE

DETAIL REFERENCE

ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
AC	ALTERNATING CURRENT
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERAGE INTERRUPTION CAPACITY
ALUM	ALUMINUM
ALT	ALTERNATE
ANT	ANTENNA
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BTC	BARE TINNED COPPER CONDUCTOR
BOF	BOTTOM OF FOOTING
CAB	CABINET
CANT	CANTILEVERED
CHG	CHARGING
CLG	CEILING
CLR	CLEAR
COL	COLUMN
COMM	COMMON
CONC	CONCRETE
CONSTR	CONSTRUCTION
DBL	DOUBLE
DC	DIRECT CURRENT
DEPT	DEPARTMENT
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
DWL	DOWEL
(E)	EXISTING
EA	EACH
EC	ELECTRICAL CONDUCTOR
EL	ELEVATION
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ENG	ENGINEER
EQ	EQUAL
EXP	EXPANSION
EXT	EXTERIOR
FAB	FABRICATION
FF	FINISH FLOOR
FG	FINISH GRADE
FIF	FACILITY INTERFACE FRAME
FIN	FINISH(ED)
FLR	FLOOR
FDN	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FOW	FACE OF WALL
FS	FINISH SURFACE
FT	FOOT
FTG	FOOTING
GA	GAUGE
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GLB	GLUE LAMINATED BEAM
GLV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE
HDR	HEADER
HGR	HANGER
HVAC	HEAT/VENTILATION/AIR CONDITIONING
HT	HEIGHT
IGR	INTERIOR GROUND RING
IN	INCH
INT	INTERIOR
LB(S)	POUND(S)
LF	LINEAR FEET
LTE	LONG TERM EVOLUTION
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
MTS	MANUAL TRANSFER SWITCH
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
NO.(#)	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OPNG	OPENING
(P)	PROPOSED
P/C	PRECAST CONCRETE
PCS	PERSONAL COMMUNICATION SERVICES
PCU	PRIMARY CONTROL UNIT
PRC	PRIMARY RADIO CABINET
PP	POLARIZING PRESERVING
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PWR	POWER CABINET
QTY	QUANTITY
RAD	RADIUS
RECT	RECTIFIER
REF	REFERENCE
REINF	REINFORCEMENT
REQ'D	REQUIRED
RET	REMOTE ELECTRIC TILT
RMC	RIGID METALLIC CONDUIT
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
RWY	RACEWAY
SCH	SCHEDULE
SHT	SHEET
SIAD	SMART INTEGRATED DEVICE
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
TEMP	TEMPORARY
THK	THICKNESS
TMA	TOWER MOUNTED AMPLIFIER
TN	TOE NAIL
TOA	TOP OF ANTENNA
TOC	TOP OF CURB
TOF	TOP OF FOUNDATION
TOP	TOP OF PLATE (PARAPET)
TOS	TOP OF STEEL
TOW	TOP OF WALL
TVSS	TRANSIENT VOLTAGE SUPPRESSION SYSTEM
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
UPS	UNITERRUPTIBLE POWER SYSTEM (DC POWER PLANT)
VIF	VERIFIED IN FIELD
W	WIDE
W/	WITH
WD	WOOD
W.P.	WORK POINT
WP	WEATHERPROOF
WT	WEIGHT

at&t

7801 FARLEY
OVERLAND PARK, KS 66204

BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458–2000

PROJECT NO:	122041
DRAWN BY:	DEE
CHECKED BY:	KJA

REV	DATE	DESCRIPTION
0	01/10/14	ISSUED FOR CONSTRUCTION

LARRY JOHN ADAMS
15568
01/13/14
KANSAS
PROFESSIONAL ENGINEER

PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE

LEGENDS &
ABBREVIATIONS

SHEET NUMBER

GN-1

GENERAL CONSTRUCTION NOTES:

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   GENERAL CONTRACTOR – OVERLAND CONTRACTING INC. (B&V)
   CONTRACTOR: (CONSTRUCTION)
   OWNER – AT&T
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2–A OT 2–A:10–B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE–APPROVED BY THE LOCAL JURISDICTION.
28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS–BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.
40. ALL COAXIAL CABLE INSTALLATIONS TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

ANTENNA MOUNTING

41. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/TIA–222 OR APPLICABLE LOCAL CODES.
42. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT–DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
43. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC–COATING (HOT–DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
44. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
45. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
46. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
47. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50–OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
48. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/– 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/– 0.5% AS DEFINED BY THE RFDS. REFER TO ND–00246.
49. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
50. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
51. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.
52. ANTENNAS SHALL HAVE A 4'–0" MIN CENTER TO CENTER HORIZONTAL SEPARATION.

TORQUE REQUIREMENTS

53. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
54. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
    A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
    B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.
55. ALL 8M ANTENNA HARDWARE SHALL BE TIGHTENED TO 9 LB–FT (12 NM).
56. ALL 12M ANTENNA HARDWARE SHALL BE TIGHTENED TO 43 LB–FT (58 NM).
57. ALL GROUNDING HARDWARE SHALL BE TIGHTENED UNTIL THE LOCK WASHER COLLAPSES AND THE GROUNDING HARDWARE IS NO LONGER LOOSE.
58. ALL DIN TYPE CONNECTIONS SHALL BE TIGHTENED TO 18–22 LB–FT (24.4 – 29.8 NM).
59. ALL N TYPE CONNECTIONS SHALL BE TIGHTENED TO 15–20 LB–IN (1.7 – 2.3 NM).

FIBER & POWER CABLE MOUNTING

60. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
61. THE TYPE TC–ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC–ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
62. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC–ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.

COAXIAL CABLE NOTES

63. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
62. CONTRACTOR SHALL VERIFY THE DOWN–TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
63. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION. REFER TO "ANTENNA SYSTEM LABELING STANDARD" ND–00027 LATEST VERSION.
64. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'–0".
65. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'–0" OC.
66. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
67. CONTRACTOR SHALL WEATHERPROOF ALL ANTENNA CONNECTORS WITH SELF AMALGAMATING TAPE. WEATHERPROOFING SHALL BE COMPLETED IN STRICT ACCORDANCE WITH AT&T STANDARDS.

GENERAL CABLE AND EQUIPMENT NOTES

68. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
69. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
70. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
71. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE–HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
72. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
    A. TEMPERATURE SHALL BE ABOVE 50° F.
    B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
    C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
    D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS.
73. ALL CABLES SHALL BE GROUNDED WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
    A. GROUNDING AT THE ANTENNA LEVEL.
    B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'–0", ADDITIONAL CABLE GROUNDING REQUIRED.
    C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
    D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
    E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
74. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'–0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.
75. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ANTENNA AND THE COAX CONFIGURATION IS THE CORRECT MAKE AND MODELS, PRIOR TO INSTALLATION.
76. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S SPECIFICATION & RECOMMENDATIONS.
77. ANTENNA CONTRACTOR SHALL FURNISH AND INSTALL A 12'–0" T–BOOM SECTOR ANTENNA MOUNT, IF APPLICABLE, INCLUDING ALL HARDWARE.

at&t

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BLACK & VEATCH

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PROJECT NO:	122041
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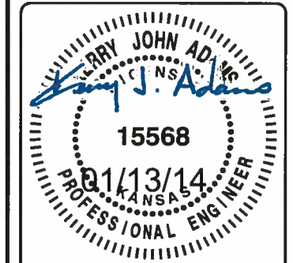


PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE

GENERAL CONSTRUCTION NOTES

SHEET NUMBER

GN-2

GENERAL ELECTRICAL NOTES:

PART 1 – GENERAL

1.1 GENERAL CONDITIONS:

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

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

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

1.2 LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES.

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

1.3 REFERENCES:

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

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

1.4 SCOPE OF WORK:

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

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

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

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

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

PART 2 – PRODUCTS

2.1 GENERAL:

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

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

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

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

2.2 MATERIALS AND EQUIPMENT:

A. CONDUIT:

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

B. CONDUCTORS AND CABLE:

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

C. DISCONNECT SWITCHES:

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

D. CHEMICAL ELECTROLYTIC GROUNDING SYSTEM:

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

E. SYSTEM GROUNDING:

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

F. OTHER MATERIALS:

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

G. PANELS AND LOAD CENTERS:

1. ALL PANEL DIRECTORIES SHALL BE TYPEWRITTEN.

PART 3 – EXECUTION

3.1 GENERAL:

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

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

3.2 LABOR AND WORKMANSHIP:

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

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

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

3.3 COORDINATION:

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

3.4 INSTALLATION:

A. CONDUIT:

1. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT AS SPECIFIED. NO CONDUIT OR TUBING OF LESS THAN 3/4 INCH TRADE SIZE.
2. PROVIDE RIGID PVC SCHEDULE 80 CONDUITS FOR ALL RISERS, RMC OTHERWISE NOTED. EMT MAY BE INSTALLED FOR EXTERIOR CONDUITS WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
3. INSTALL SCH. 40 PVC CONDUIT WITH A MINIMUM COVER OF 24" UNDER ROADWAYS, PARKING LOTS, STREETS, AND ALLEYS. CONDUIT SHALL HAVE A MINIMUM COVER OF 18" IN ALL OTHER NON-TRAFFIC APPLICATIONS (REFER TO 2008 NEC, TABLE 300.5).
4. USE GALVANIZED FLEXIBLE STEEL CONDUIT WHERE DIRECT CONNECTION TO EQUIPMENT WITH MOVEMENT, VIBRATION, OR FOR EASE OF MAINTENANCE. USE LIQUID TIGHT, FLEXIBLE METAL CONDUIT FOR OUTDOOR APPLICATIONS. INSTALL GALVANIZED FLEXIBLE STEEL CONDUIT AT ALL POINTS OF CONNECTION TO EQUIPMENT MOUNTED ON SUPPORT TO ALLOW FOR EXPANSION AND CONTRACTION.
5. A RUN OF CONDUIT BETWEEN BOXES OR EQUIPMENT SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF THREE QUARTER-BENDS. CONDUIT BEND SHALL BE MADE WITH THE UL LISTED BENDER OR FACTORY 90 DEGREE ELBOWS MAY BE USED.
6. FIELD FABRICATED CONDUITS SHALL BE CUT SQUARE WITH A CONDUIT CUTTING TOOL AND REAMED TO PROVIDE A SMOOTH INSIDE SURFACE.
7. PROVIDE INSULATED GROUNDING BUSHING FOR ALL CONDUITS.
8. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL CONDUITS DURING CONSTRUCTION. TEMPORARY OPENINGS IN THE CONDUIT SYSTEM SHALL BE PLUGGED OR CAPPED TO PREVENT ENTRANCE OF MOISTURE OR FOREIGN MATTER. CONTRACTOR SHALL REPLACE ANY CONDUITS CONTAINING FOREIGN MATERIALS THAT CANNOT BE REMOVED.
9. ALL CONDUITS SHALL BE SWABBED CLEAN BY PULLING AN APPROPRIATE SIZE MANDREL THROUGH THE CONDUIT BEFORE INSTALLATION OF CONDUCTORS OR CABLES. CONDUIT SHALL BE FREE OF DIRT AND DEBRIS.
10. INSTALL PULL STRINGS IN ALL CLEAN EMPTY CONDUITS. IDENTIFY PULL STRINGS AT EACH END.
11. INSTALL 2" HIGHLY VISIBLE AND DETECTABLE TAPE 12" ABOVE ALL UNDERGROUND CONDUITS AND CONDUCTORS.
12. CONDUITS SHALL BE INSTALLED IN SUCH A MANNER AS TO INSURE AGAINST COLLECTION OF TRAPPED CONDENSATION.
13. PROVIDE CORE DRILLING AS NECESSARY FOR PENETRATIONS TO ALLOW FOR RACEWAYS AND CABLES TO BE ROUTED THROUGH THE BUILDING. DO NOT PENETRATE STRUCTURAL MEMBERS. SLEEVES AND/OR PENETRATIONS IN FIRE RATED CONSTRUCTION SHALL BE EFFECTIVELY SEALED WITH FIRE RATED MATERIAL WHICH SHALL MAINTAIN THE FIRE RATING OF THE WALL OR STRUCTURE. FIRE STOPS AT FLOOR PENETRATIONS SHALL PREVENT PASSAGE OF WATER, SMOKE, FIRE, AND FUMES. ALL MATERIAL SHALL BE UL APPROVED FOR THIS PURPOSE.

B. CONDUCTORS AND CABLE:

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

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

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

C. DISCONNECT SWITCHES:

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

D. GROUNDING:

1. ALL METALLIC PARTS OF ELECTRICAL EQUIPMENT WHICH DO NOT CARRY CURRENT SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING MANUFACTURER, AT&T GROUNDING AND BONDING STANDARDS TP-76416, ND-00135, AND THE NATIONAL ELECTRICAL CODE.
2. PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEM INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING GROUNDING ELECTRODES, BONDING JUMPERS AND ADDITIONAL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION.
3. ALL GROUNDING CONDUCTORS SHALL PROVIDE A STRAIGHT DOWNWARD PATH TO GROUND WITH GRADUAL BEND AS REQUIRED. GROUNDING CONDUCTORS SHALL NOT BE LOOPED OR SHARPLY BENT. ROUTE GROUNDING CONNECTIONS AND CONDUCTORS TO GROUND IN THE SHORTEST AND STRAIGHTEST PATHS POSSIBLE TO MINIMIZE TRANSIENT VOLTAGE RISES.
4. BUILDINGS AND/OR NEW TOWERS GREATER THAN 75 FEET IN HEIGHT AND WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUND RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 AWG COPPER. ROOFTOP GROUND RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY). SEE STANDARD 6.3.2.2.
5. TIGHTEN GROUNDING AND BONDING CONNECTORS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES FOR CONNECTORS AND BOLTS. WHERE MANUFACTURER'S TORQUING REQUIREMENTS ARE NOT AVAILABLE, TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUE VALUES SPECIFIED IN UL TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
6. CONTRACTOR SHALL VERIFY THE LOCATIONS OF GROUNDING TIE-IN-POINTS TO THE EXISTING GROUNDING SYSTEM. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
7. ALL GROUNDING CONNECTIONS SHALL BE INSPECTED FOR TIGHTNESS. EXOTHERMIC WELDED CONNECTIONS SHALL BE APPROVED BY THE INSPECTOR HAVING JURISDICTION BEFORE BEING PERMANENTLY CONCEALED.
8. APPLY CORROSION-RESISTANCE FINISH TO FIELD CONNECTIONS AND PLACES WHERE FACTORY APPLIED PROTECTIVE COATINGS HAVE BEEN DESTROYED. USE KOPR-SHIELD ANTI-OXIDATION COMPOUND ON ALL COMPRESSION GROUNDING CONNECTIONS.
9. A SEPARATE, CONTINUOUS, INSULATED EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUITS.
10. BOND ALL INSULATED GROUNDING BUSHINGS WITH A BARE 6 AWG GROUNDING CONDUCTOR TO A GROUND BUS.
11. DIRECT BURIED GROUNDING CONDUCTORS SHALL BE INSTALLED AT A NOMINAL DEPTH OF 36" MINIMUM BELOW GRADE, OR 6" BELOW THE FROST LINE, USE THE GREATER OF THE TWO DISTANCES.
12. ALL GROUNDING CONDUCTORS EMBEDDED IN OR PENETRATING CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT.
13. THE INSTALLATION OF CHEMICAL ELECTROLYTIC GROUNDING SYSTEM IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMOVE SEALING TAPE FROM LEACHING AND BREATHER HOLES. INSTALL PROTECTIVE BOX FLUSH WITH GRADE.
14. DRIVE GROUND RODS UNTIL TOPS ARE A MINIMUM DISTANCE OF 36" DEPTH OR 6" BELOW FROST LINE, USING THE GREATER OF THE TWO DISTANCES.
15. IF COAX ON THE ICE BRIDGE IS MORE THAN 6 FT. FROM THE GROUND BAR AT THE BASE OF THE TOWER, A SECOND GROUND BAR WILL BE NEEDED AT THE END OF THE ICE BRIDGE, TO GROUND THE COAX CABLE GROUNDING KITS AND IN-LINE ARRESTORS
16. CONTRACTOR SHALL REPAIR, AND/OR REPLACE, EXISTING GROUNDING SYSTEM COMPONENTS DAMAGED DURING CONSTRUCTION AT THE CONTRACTORS EXPENSE.

3.5 ACCEPTANCE TESTING:

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

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

C. TEST PROCEDURES;

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

at&t

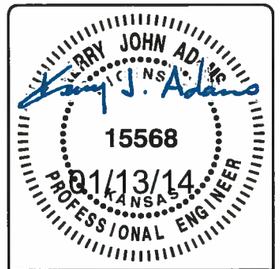
7801 FARLEY
OVERLAND PARK, KS 66204

BLACK & VEATCH

10950 GRANDVIEW DRIVE
OVERLAND PARK, KANSAS 66210
(913) 458-2000

PROJECT NO:	122041
DRAWN BY:	DEE
CHECKED BY:	KJA

REV	DATE	DESCRIPTION
0	01/10/14	ISSUED FOR CONSTRUCTION



PRAIRIE VILLAGE
KS5025
7701 MISSION ROAD
PRAIRIE VILLAGE, KS 66028
ANTENNA MOD

SHEET TITLE

GENERAL
ELECTRICAL NOTES

SHEET NUMBER

GN-3

LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: March 4, 2014, Planning Commission Meeting Project # 000009686

Application: PC 2014-108

Request: Site Plan Approval to Add Three Antennas on the Cell Tower

Property Address: 7700 Mission Road, City Hall

Applicant: Verizon Wireless

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

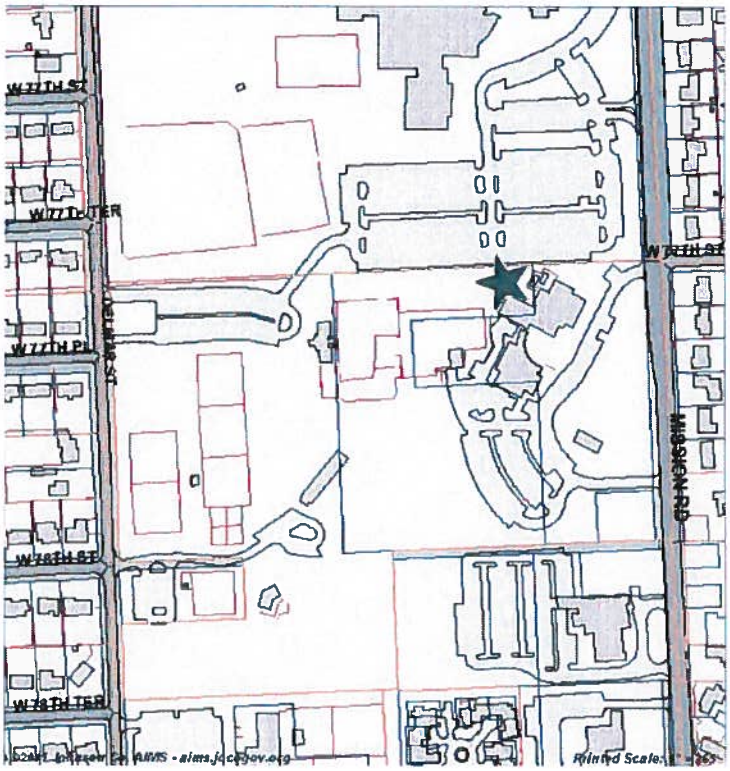
Legal Description: Prairie Village Municipal Office Complex Tract 1

Property Area: Cell Tower Compound – approximately 3,200 sq. ft., 0.07 acres
Municipal Office Complex – 16.75 acres

Related Case Files:
PC 2014-107 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:

Verizon Wireless is proposing to add three antennas to its installation on the tower behind City Hall. These antennas are approximately 72" in length and, with the support equipment, weigh about 65 pounds each. The purpose of these antennas is to provide service for the Advanced Wireless System (AWS), which is high volume data, video streaming, etc. A new fiber optic line will also be installed within the tower to service these antennas.

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.

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.

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 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.

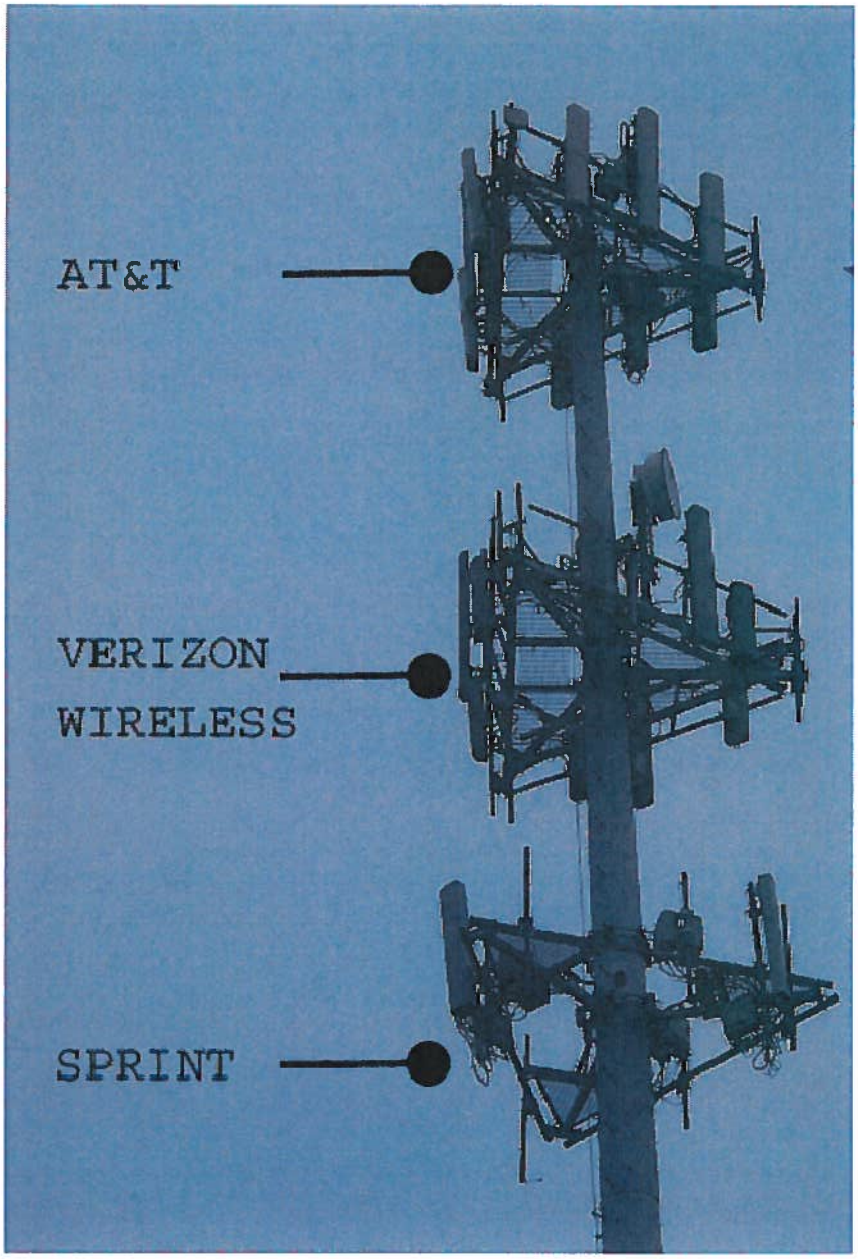
G. The plan represents an overall development pattern that is consistent with the comprehensive plan and other adopted planning policies.

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 Verizon Wireless 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.


AT&T
VERIZON
WIRELESS
SPRINT

verizonwireless

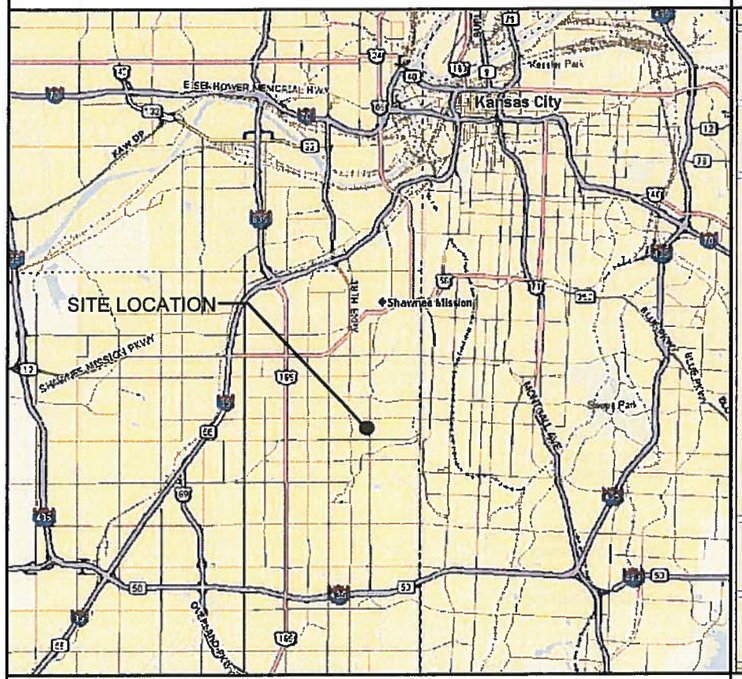
KCYC PRAIRIE VILLAGE

AWS

7700 MISSION ROAD
PRAIRIE VILLAGE, KS 66208

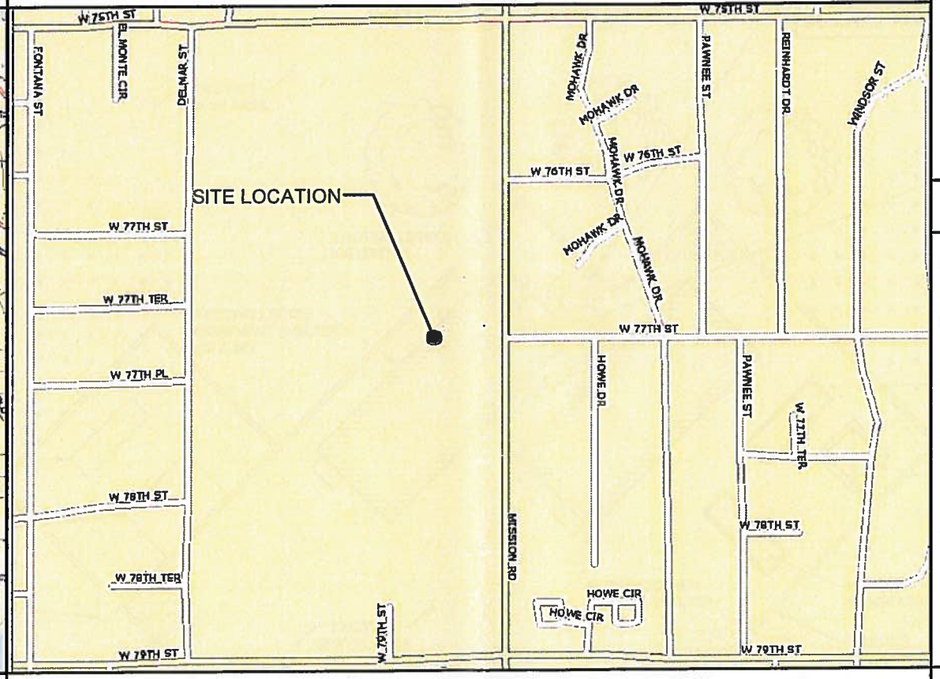
REGIONAL MAP

N.T.S.



VICINITY MAP

N.T.S.



ABBREVIATIONS

AGL	ABOVE GRADE LINE	OC	ON CENTER
AMP	AMPERE	PL	PLATE
ARCH	ARCHITECT	REQ'D	REQUIRED
BLDG	BUILDING	SF	SQUARE FEET
CL	CENTER LINE	SHT	SHEET
CONC	CONCRETE	SIM	SIMILAR
CONST	CONSTRUCTION	SPECS	SPECIFICATIONS
CONTR	CONTRACTOR	STD	STANDARD
DET	DETAIL	STL	STEEL
DIA	DIAMETER	STRUCT	STRUCTURAL
DIAG	DIAGONAL	TC	TOP OF CURB
DIM	DIMENSION	TERRA	TERRA CONSULTING GROUP, L.T.D.
DN	DOWN	TOP	TOP OF PAVING
DWG	DRAWING	TOS	TOP OF STEEL
EA	EACH	TOC	TOP OF CONCRETE
ELEC	ELECTRICAL	TYP	TYPICAL
ELEV	ELEVATOR, ELEVATION	UNO	UNLESS NOTED OTHERWISE
EQ	EQUAL		
EQUIP	EQUIPMENT		
EXIST	EXISTING		
FND	FOUNDATION		
FTG	FOOTING		
GA	GAUGE		
GALV	GALVANIZED		
GC	GENERAL CONTRACTOR		
GND	GROUND		
HT	HEIGHT		
LF	LINEAR FEET		
MIN	MINIMUM		
MISC	MISCELLANEOUS		
NTS	NOT TO SCALE		

DIRECTIONS

STARTING FROM LENEXA (9725 PFLUMM RD, LENEXA, KS 66215):

Head north on Pflumm Rd toward W 96th Terrace (0.3 mi). Take the 3rd right onto W 95th St (0.6 mi). Turn left onto the Interstate 35 N ramp to Des Moines (0.2 mi). Merge onto I-35 N (0.6 mi). Take exit 225A-225C toward 87th Street Pkwy/75th Street (0.2 mi). Take exit 225C on the left for 75th Street (2.1 mi). Turn right onto W 75th St (3.6 mi). Turn right onto Mission Rd, Destination will be on the right.

VERIZON WIRELESS DEPARTMENTAL APPROVALS

	INITIALS:	DATE:
RF ENGINEER	B.R.	8-5-13
TRANSPORT ENGINEER		
OPERATIONS MANAGER	T.L.	8-6-13
CONSTRUCTION ENGINEER	A.T.	8-8-13
CONSTRUCTION MANAGER	D.P.	8-8-13
REAL ESTATE MANAGER	M.C.	8-12-13

ADAM J. BROWN LICENSED 21097 KANSAS PROFESSIONAL ENGINEER

LESSOR / LICENSOR APPROVAL

11/25/2013

PRINTED NAME:_____ SIGNATURE:_____ DATE: _____

☐ NO CHANGES ☐ CHANGES REQUESTED, SEE COMMENTS ON PLANS

PROJECT TEAM

A&E CONSULTANT: TERRA CONSULTING GROUP, LTD
600 BUSSE HIGHWAY
PARK RIDGE, IL 60068
PHONE: (847) 698-6400
FAX: (847) 698-6401

SITE ACQUISITION: SSC, INC.
9225 INDIAN CREEK PKWY, SUITE 400
OVERLAND PARK, KS 66210
PHONE: (913) 438-7700
FAX: (913) 438-7777

STRUCTURAL: SEMAAN ENGINEERING SOLUTIONS, LLC
1079 N. 205th ST.
ELKHORN, NE 68022
PHONE: (402) 289-1888

PROJECT INFORMATION

PROJECT DESCRIPTION:	AWS
SITE NAME:	KCYC PRAIRIE VILLAGE
LOCATION #:	140622
VERIZON PROJECT #:	20130886145
SITE ADDRESS:	7700 MISSION ROAD PRAIRIE VILLAGE, KS 66208
TOWER OWNER:	CITY OF PRAIRIE VILLAGE
APPLICANT:	VERIZON WIRELESS 10740 NALL AVE., SUITE 400 OVERLAND PARK, KS 66211 (913) 344-2800
CONTACT PERSON:	NETWORK REAL ESTATE MANAGER

TOWER INFORMATION

LATITUDE:	38° 59' 20.02" N
LONGITUDE:	94° 37' 58.85" W
GROUND ELEVATION:	1040 FT A.M.S.L.
OVERALL STRUCTURE HEIGHT:	153' ± A.G.L.
TOWER HEIGHT:	151' ± A.G.L.
VZW CL HEIGHT:	122' A.G.L.

SHEET INDEX

SHEET	DESCRIPTION	REV.
T-1	TITLE SHEET	0
C-1	SITE LAYOUT	0
ANT-1	SITE ELEVATION	0
ANT-2	ANTENNA KEYS & LAYOUT	0
ANT-3	COAX ENTRY PANEL & PLUMBING DIAGRAM	0
ANT-4	SITE DETAILS	0
N-1	GENERAL NOTES & SITE PHOTOS	0

FULL SCALE PRINT IS ON 24"x36" MEDIA

verizon wireless
10740 NALL AVE,
Suite 400
Overland Park, KS 66211
Phone: 913-344-2800

TERRA CONSULTING GROUP, LTD.
600 Busse Highway
Park Ridge, IL 60068
Ph: 847/698-6400
Fax: 847/698-6401

REVISIONS

NO.	DESCRIPTION	DATE	BY
A	ISSUED FOR REVIEW	07/15/13	BB
B	ISSUED FOR LAND OWNER REVIEW	08/22/13	BB
0	ISSUED FOR CONSTRUCTION	11/25/13	AB

LOC. #140622

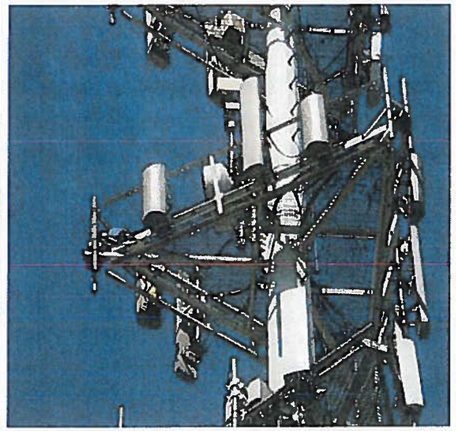
KCYC
PRAIRIE VILLAGE

7700 MISSION ROAD
PRAIRIE VILLAGE, KS 66208

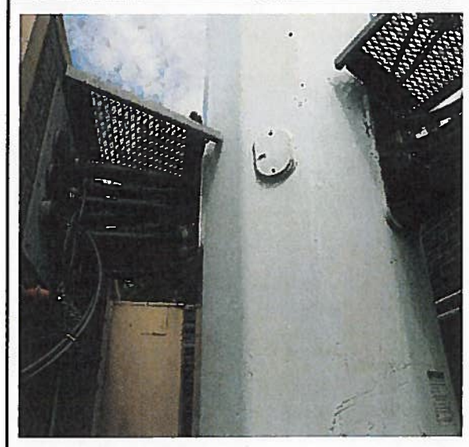
DRAWN BY:	BB
CHECKED BY:	AJB
DATE:	07/10/13
PROJECT #:	54-398

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1



1 TYPICAL LESSEE ANTENNA SECTOR



2 LESSEE COAX ROUTE ON TOWER

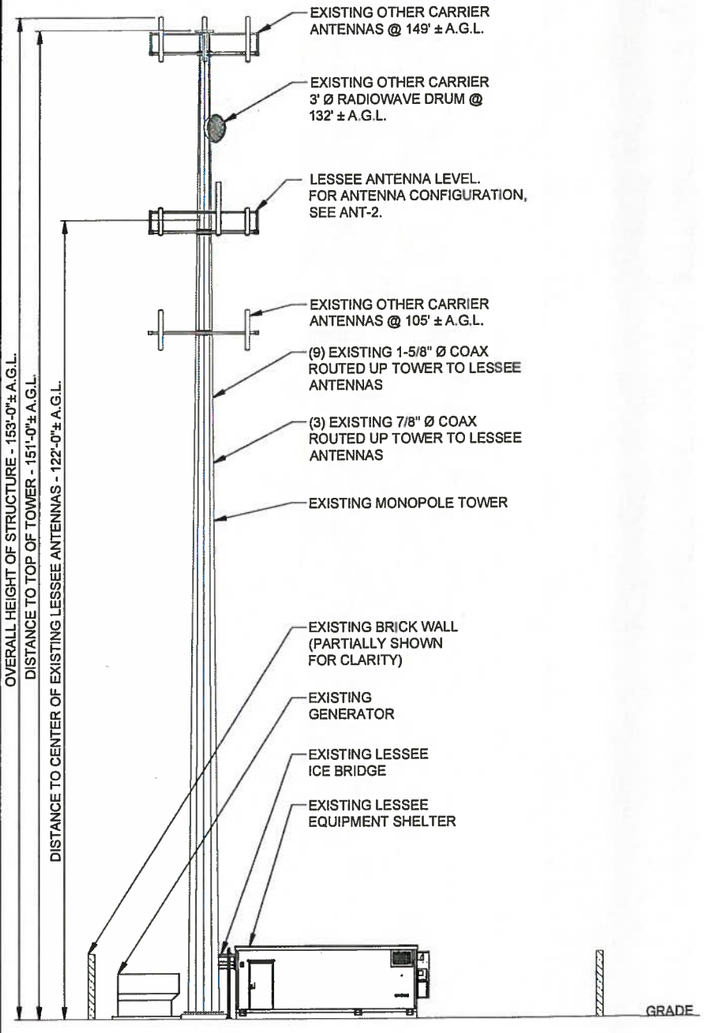
NOTES

1. THIS DRAWING IS FOR EXHIBIT AND LAYOUT PURPOSES ONLY.
2. STRUCTURAL ANALYSIS PROVIDED BY SEMAAN ENGINEERING SOLUTIONS.

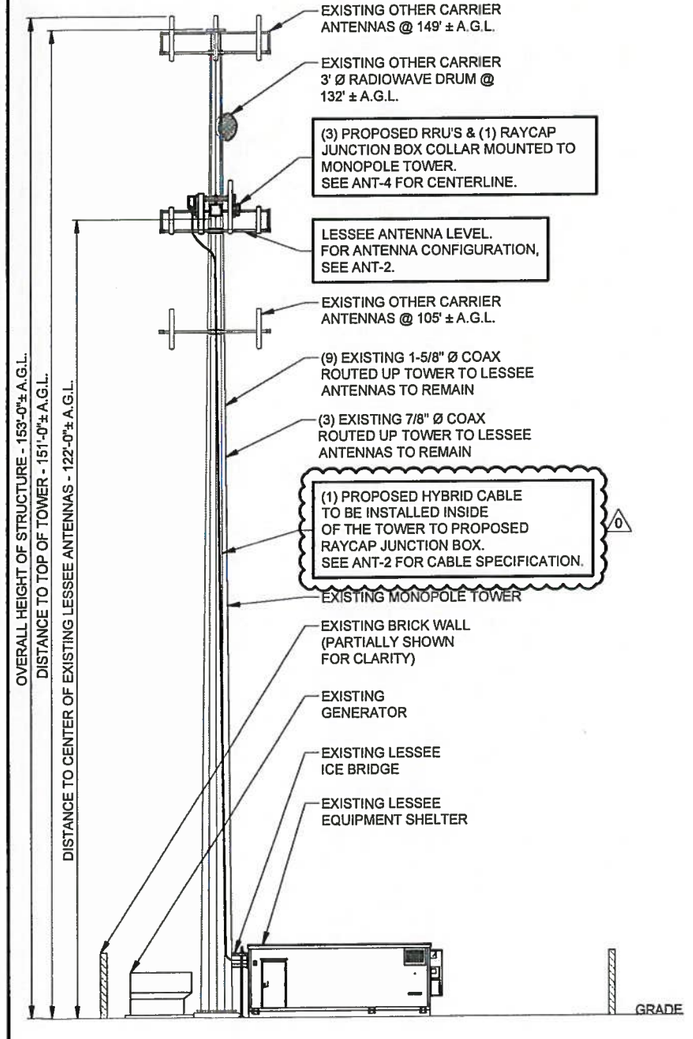
0 1/2" 1" 2"

SCALE: 3/32" = 1'-0" ±

24" x 36" PRINT IS THE FULL SCALE FORMAT. ANY SIZE OTHER THAN THAT IS AT REDUCED SCALE.



3 EXISTING SITE ELEVATION



4 PROPOSED SITE ELEVATION

verizon wireless
10740 NALL AVE,
Suite 400
Overland Park, KS 66211
Phone: 913-344-2800

TERRA CONSULTING GROUP, LTD.
600 Busse Highway
Park Ridge, IL 60068
Ph: 847/698-6400
Fax: 847/698-6401

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LOC. #140622

KCYC
PRAIRIE VILLAGE

7700 MISSION ROAD
PRAIRIE VILLAGE, KS 66208

DRAWN BY:	BB
CHECKED BY:	AJB
DATE:	07/10/13
PROJECT #:	54-398

SHEET TITLE
SITE ELEVATION

SHEET NUMBER
ANT-1

EXISTING ANTENNA KEY

	Position	Status	Antenna Centerline (ft AGL)	Antenna Make / Model	Ant. Count	Height (in)	Width (in)	Depth (in)	Weight (lbs)	Azimuth	Mech Downtilt	Electrical Downtilt	TMA Make/Model	TMA Count	Coax Make/Model	Coax Count	Coax Size	Coax Length	RRU Make/Model	RRU Count	Distribution Box Make/Model	Raycap Count	Hybrid Cable Make/Model	Hybrid Cable Count	Hybrid Cable Size	Hybrid Cable Length	Jumper Count
Mainline Cable & Distribution																											
Alpha Sector	A	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_5	1	43	13	7	21	0	2	5	ALLGON / LGP13901	1	AVA5-50A	1	7/8"	130'										
	B	existing	122'	ANTEL / BXA-70063-8CF-6-750MHZ	1	94.6	11.2	5.1	24	0	0	6	-	-	AVA7-50A	2	1-5/8"	130'									
	C	empty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
	D	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_2	1	43	13	7	21	0	2	2	ALLGON / LGP13901	1	AVA7-50A	1	1-5/8"	130'									
Beta Sector	E	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_8	1	43	13	7	21	120	2	8	ALLGON / LGP13901	1	AVA5-50A	1	7/8"	130'									
	F	existing	122'	ANTEL / BXA-70063-8CF-6-750MHZ	1	94.6	11.2	5.1	24	120	0	6	-	-	AVA7-50A	2	1-5/8"	130'									
	G	empty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
	H	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_2	1	43	13	7	21	120	2	2	ALLGON / LGP13901	1	AVA7-50A	1	1-5/8"	130'									
Gamma Sector	I	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_8	1	43	13	7	21	240	2	8	ALLGON / LGP13901	1	AVA5-50A	1	7/8"	130'									
	J	existing	122'	ANTEL / BXA-70063-8CF-6-750MHZ	1	94.6	11.2	5.1	24	240	0	6	-	-	AVA7-50A	2	1-5/8"	130'									
	K	empty	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
	L	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_2	1	43	13	7	21	240	2	2	ALLGON / LGP13901	1	AVA7-50A	1	1-5/8"	130'									
				Antenna Total	9								TMA Total	6	Coax Total	12			RRU Total	0	Distro Box Total	0	Hybrid Cable Total	0		Jumper Total	0

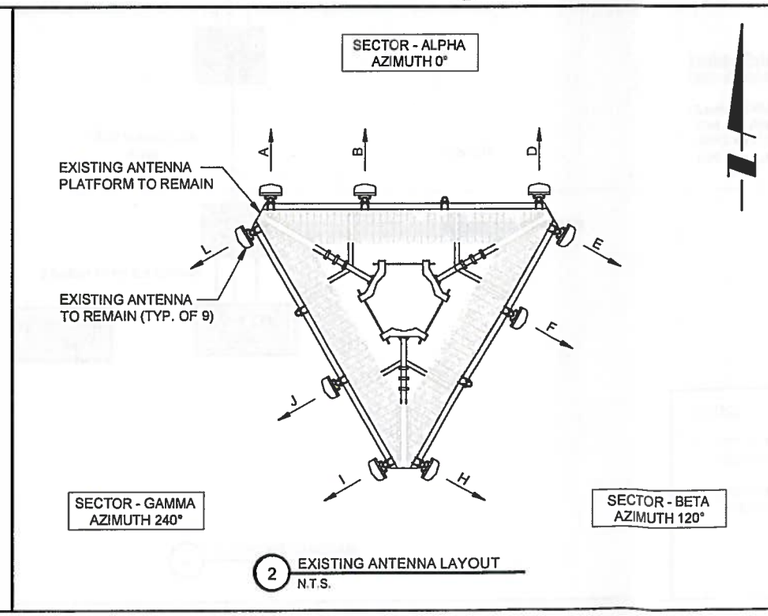
PROPOSED ANTENNA KEY

	Position	Status	Antenna Centerline (ft AGL)	Antenna Make / Model	Ant. Count	Height (in)	Width (in)	Depth (in)	Weight (lbs)	Azimuth	Mech Downtilt	Electrical Downtilt	TMA Make/Model	TMA Count	Coax Make/Model	Coax Count	Coax Size	Coax Length	RRU Make/Model	RRU Count	Distribution Box Make/Model	Raycap Count	Hybrid Cable Make/Model	Hybrid Cable Count	Hybrid Cable Size	Hybrid Cable Length	Jumper Count
Mainline Cable & Distribution																				-	Raycap / RFS DB-B1-6C-12AB-0Z	1	Hybriflex / HBF158-13U6S6-130F	1	1-5/8"	130'	-
																				-	-	-	-	-	-	-	-
																				-	-	-	-	-	-	-	-
																				-	-	-	-	-	-	-	-
Alpha Sector	A	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_5	1	43	13	7	21	0	2	5	ALLGON / LGP13901	1	AVA5-50A	1	7/8"	130'	-	-								-
	B	existing	122'	ANTEL / BXA-70063-8CF-6-750MHZ	1	94.6	11.2	5.1	24	0	0	6	-	-	AVA7-50A	2	1-5/8"	130'	-	-								-
	C	proposed	122'	ANTEL / BXA-171063-12CF-2	1	72.4	6.1	4.1	15	0	2	2	-	-	-	-	-	-	LTE AWS RRUS 12 (Band 4)	1			Hybriflex / HBF058-08U151-14F	1	5/8"	14'	2
	D	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_2	1	43	13	7	21	0	2	2	ALLGON / LGP13901	1	AVA7-50A	1	1-5/8"	130'	-	-								-
Beta Sector	E	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_8	1	43	13	7	21	120	2	8	ALLGON / LGP13901	1	AVA5-50A	1	7/8"	130'	-	-								-
	F	existing	122'	ANTEL / BXA-70063-8CF-6-750MHZ	1	94.6	11.2	5.1	24	120	0	6	-	-	AVA7-50A	2	1-5/8"	130'	-	-								-
	G	proposed	122'	ANTEL / BXA-171063-12CF-2	1	72.4	6.1	4.1	15	120	2	2	-	-	-	-	-	-	LTE AWS RRUS 12 (Band 4)	1			Hybriflex / HBF058-08U151-14F	1	5/8"	14'	2
	H	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_2	1	43	13	7	21	120	2	2	ALLGON / LGP13901	1	AVA7-50A	1	1-5/8"	130'	-	-								-
Gamma Sector	I	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_8	1	43	13	7	21	240	2	8	ALLGON / LGP13901	1	AVA5-50A	1	7/8"	130'	-	-								-
	J	existing	122'	ANTEL / BXA-70063-8CF-6-750MHZ	1	94.6	11.2	5.1	24	240	0	6	-	-	AVA7-50A	2	1-5/8"	130'	-	-								-
	K	proposed	122'	ANTEL / BXA-171063-12CF-2	1	72.4	6.1	4.1	15	240	2	2	-	-	-	-	-	-	LTE AWS RRUS 12 (Band 4)	1			Hybriflex / HBF058-08U151-14F	1	5/8"	14'	2
	L	existing	122'	DECIBEL PRODUCTS / 731DG65VTAXM_2	1	43	13	7	21	240	2	2	ALLGON / LGP13901	1	AVA7-50A	1	1-5/8"	130'	-	-								-
				Antenna Total	12								TMA Total	6	Coax Total	12			RRU Total	3	Distro Box Total	1	Hybrid Cable Total	4		Jumper Total	6

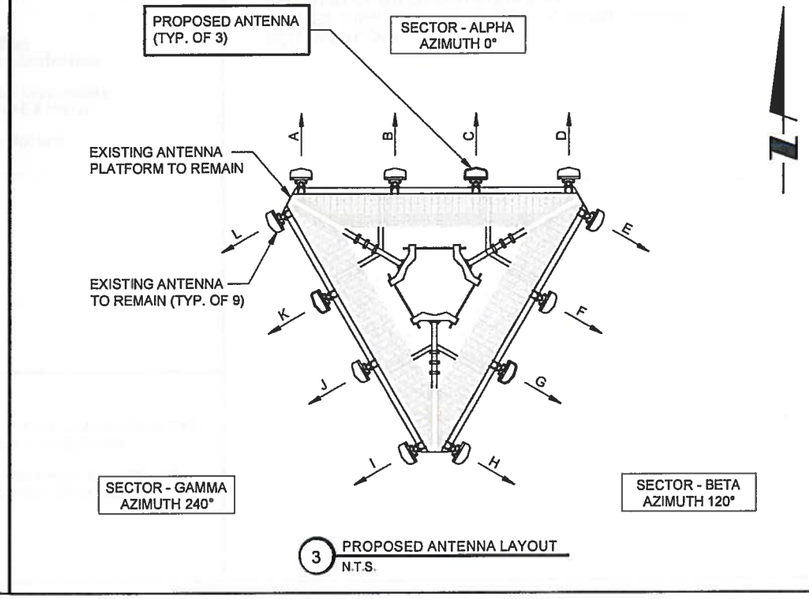
1 ANTENNA KEYS

NOTES

1. THIS DRAWING IS FOR EXHIBIT AND LAYOUT PURPOSES ONLY.
2. STRUCTURAL ANALYSIS PROVIDED BY SEMAAN ENGINEERING SOLUTIONS.
3. G.C. TO VERIFY ANTENNA TECHNOLOGIES PRIOR TO REMOVAL OF ANY ANTENNAS.
4. G.C. TO ORIENT & PLACE PROPOSED RAYCAP JUNCTION BOX CLOSEST TO HYBRID CABLE ROUTE.



2 EXISTING ANTENNA LAYOUT
N.T.S.



3 PROPOSED ANTENNA LAYOUT
N.T.S.

verizon wireless
10740 NALL AVE,
Suite 400
Overland Park, KS 66211
Phone: 913-344-2800

TERRA CONSULTING GROUP, LTD.
600 Busse Highway
Park Ridge, IL 60068
Ph: 847/698-6400
Fax: 847/698-6401

REVISIONS

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0	ISSUED FOR CONSTRUCTION	11/25/13	AB

LOC. #140622

KCYC
PRAIRIE VILLAGE

7700 MISSION ROAD
PRAIRIE VILLAGE, KS 66208

DRAWN BY:	BB
CHECKED BY:	AJB
DATE:	07/10/13
PROJECT #:	54-398

SHEET TITLE
ANTENNA
KEYS & LAYOUT

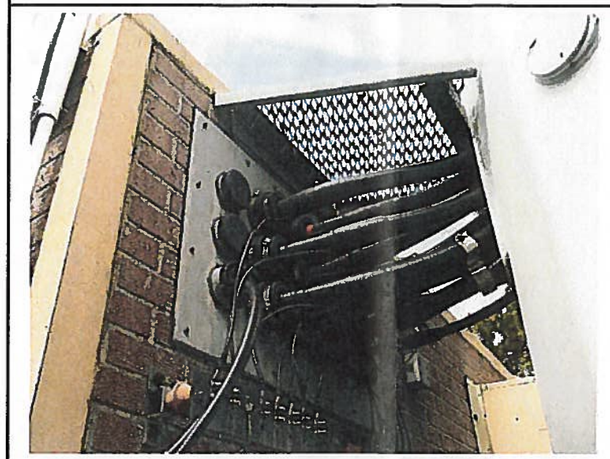
SHEET NUMBER
ANT-2

GENERAL NOTES

1. THE CONTRACTOR SHALL SUPERVISE AND DIRECT ALL WORK USING HIS OR HER BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, PROCEDURES AND SEQUENCES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE TO REVIEW THE SCOPE OF WORK AND EXISTING CONDITIONS INCLUDING, BUT NOT LIMITED TO ELECTRICAL SERVICE AND OVERALL COORDINATION.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, CONFLICTS OR OMISSIONS, ETC. SHALL BE REPORTED TO VERIZON WIRELESS BEFORE PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGE TO NEW AND EXISTING CONSTRUCTION, STRUCTURE, OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF VERIZON WIRELESS, AT THE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL SAFEGUARD THE OWNER'S PROPERTY DURING CONSTRUCTION AND SHALL REPLACE ANY DAMAGED PROPERTY OF THE OWNER TO ORIGINAL CONDITION WITH THE APPROVAL OF THE OWNER.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE SITE WHILE THE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETE.
8. ALL CONSTRUCTION WORK SHALL CONFORM TO THE I.B.C. AND ALL APPLICABLE LOCAL REGULATIONS, ORDINANCES, STATUTES AND CODES.
9. VERIZON WIRELESS SHALL OBTAIN THE CONSTRUCTION PERMIT, UNLESS JURISDICTION REQUIRES PERMIT TO BE PICKED UP BY A GENERAL CONTRACTOR. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL PERMITS, LICENSES AND INSPECTIONS NECESSARY FOR PERFORMANCE OF THE WORK AND INCLUDE THOSE IN THE COST OF THE WORK TO THE OWNER.
10. CITY APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES. THESE ARE TO BE UNDER THE CARE OF JOB SUPERINTENDENT.
11. THE CONTRACTOR SHALL PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A:10-B:C WITHIN 75 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF THE BUILD OUT AREA DURING CONSTRUCTION.
12. ANY CONNECTION FEES FOR TEMPORARY ELECTRICAL SERVICE SHALL BE PAID BY THE CONTRACTOR.
13. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY POWER. CONTRACTOR SHALL NOT USE THE VERIZON WIRELESS GENERATOR ON SITE.

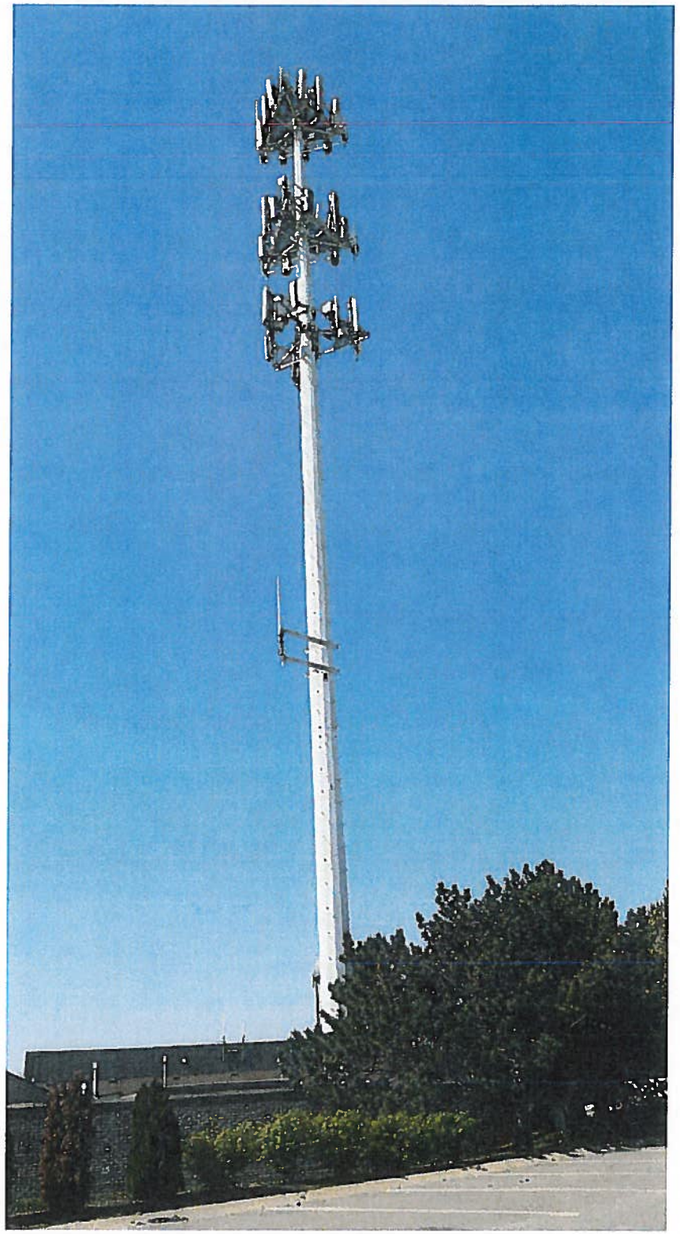
UNAVAILABLE

1 EXISTING ASR SIGN PHOTO
SCALE: N.T.S.



2 LESSEE COAX ROUTE ON ICE BRIDGE

3 LESSEE COAX ROUTE @ TOP



4 EXISTING TOWER PHOTO

verizon wireless
10740 NALL AVE,
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LOC. #140622

KCYC
PRAIRIE VILLAGE

7700 MISSION ROAD
PRAIRIE VILLAGE, KS 66208

DRAWN BY:	BB
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PROJECT #:	54-398

SHEET TITLE
GENERAL NOTES
&
SITE PHOTOS

SHEET NUMBER
N-1

LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: March 4, 2014, Planning Commission Meeting Project # 000009686

Application: PC 2012-109

Request: Approval of Revised Sign Standards

Property Address: 2200 W. 75th Street

Applicant: Stephanie Warden, DDS, PA, ALH Home Renovations

Current Zoning and Land Use: C-O Office Building District – Multi-Tenant Office

Surrounding Zoning and Land Use:
North: R-1B Single-Family District – Single Family Dwellings
East: C-O Office Building District – Multi-Tenant Office & Single Tenant Office
South: R-1B Single-Family District – Single Family Dwellings
West: C-O Office Building District – Multi-Tenant Office & Single Tenant Office

Legal Description: Granthurst E 1/2 LOT 464 & All LOTS 465 - 468

Property Area: 0.57 acres

Related Case Files: PC 2012-106 Additional Exterior Signage
PC 2007-104 Sign Standards
PC 2005-116 Monument Sign

Attachments: Application, Sign Design, Photos

General Location Map

Aerial Map

COMMENTS:

This is an application that has been on the shelf for a while and needs a resolution. The following is a brief history of the sign discussion and action for this multi-tenant building. The original monument sign was approved by the Planning Commission in October 2005, shortly after the building was renovated. No other signs were requested at that time.

In 2007, the owner requested approval of sign standards for the building. In Prairie Village, approval of Sign Standards is required for multi-tenant buildings. The owner requested signs that did not meet the sign ordinance. The owner then requested three lines of text on the monument sign and no building façade signs and the Planning Commission approved this on March 4, 2008.

The orientation of the building creates a problem with signage in relation to the entrances to the building. The building parallels 75th Street and the entrances are located on the east and west facades of the building. There is one tenant on the west end and two tenant spaces on the east end. The applicant has wanted better signage to identify where the tenants are located.

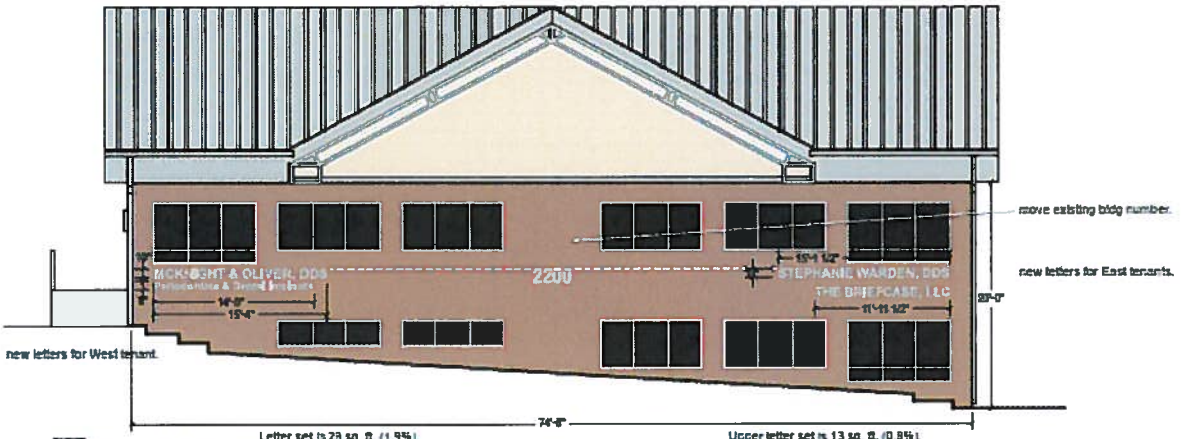
On June 5, 2012, the owner requested approval of two blade signs for the east end of the building. These blade signs are pole signs as defined in the sign ordinance and are not permitted. The signs were installed without a permit and are illegal. At that meeting, the Planning Commission directed Staff to work with the applicant and bring back some alternative proposals to the Commission.

The applicant has prepared a drawing that graphically illustrates proposed signage for the three tenants. The signs are individual flat-cut aluminum letters and will not be lighted. The sign on the west end will not exceed 28 sq. ft. and the two signs on the east end will not exceed 13 sq. ft. and 10 sq. ft., as shown on the plan.

RECOMMENDATION:

Staff has reviewed this proposal and it appears to be a reasonable solution for this particular building. If the Planning Commission approves this proposal, Staff recommends the following conditions be attached:

1. That the square footage for each sign not exceed the size that is shown on the attached drawing.
2. That the size of the sign letters be as shown on the drawing.
3. That not more than the three wall signs be permitted.
4. That no wall signs be permitted on the east, west and north facades of the building.
5. That the wall signs not be lit.
6. That the applicant revise the sign standard text and submit it to the City prior to obtaining a sign permit.
7. That the existing blade sign(s) be removed.



A South Elevation
SCALE: 1/8" = 1'-0"

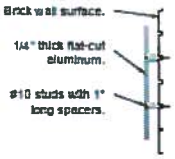
Letter set is 23 sq. ft. (1.5%).
Allowed area is 5% of building facade.
Facade is approx. 1500 sq. ft.

Upper letter set is 13 sq. ft. (0.8%).
Lower letter set is 10 sq. ft. (0.7%).

B Letter Detail
SCALE: 1/2" = 1'-0"

1/4" thick flat-cut aluminum letters, brushed aluminum paint finish. Pin-mount 1" from surface with spacers.
Arial Bold font.

C Letter Detail
SCALE: 1/2" = 1'-0"



D Letter Section
SCALE: 1 1/2" = 1'-0"

DO NOT SCALE DRAWING IF THIS MESSAGE APPEARS IN PRINT – "FIT TO PRINTABLE AREA" IS SELECTED IN PAGE SCALING


2200


2200

LOCHNER

STAFF REPORT

TO: Prairie Village Planning Commission
FROM: Ron Williamson, FAICP, Lochner, Planning Consultant
DATE: March 4, 2014, Planning Commission Meeting Project # 000009686

Application: PC 2012-113

Request: Revised Site Plan Approval for Prairie Village Shopping Center including Hen House, New Retail Building and Mission Lane

Property Address: 71st Street and Mission Road

Applicant: Lega C Properties

Current Zoning and Land Use: C-2 General Commercial District – Shopping Center

Surrounding Zoning and Land Use:
North: R-1B Single-Family District – Single Family Dwellings
East: C-0 Office Building District – Church
C-2 General Commercial District – Shopping Center
South: R-1B Single-Family District – Single Family Dwellings
West: R-1B Single-Family District – Single Family Dwellings

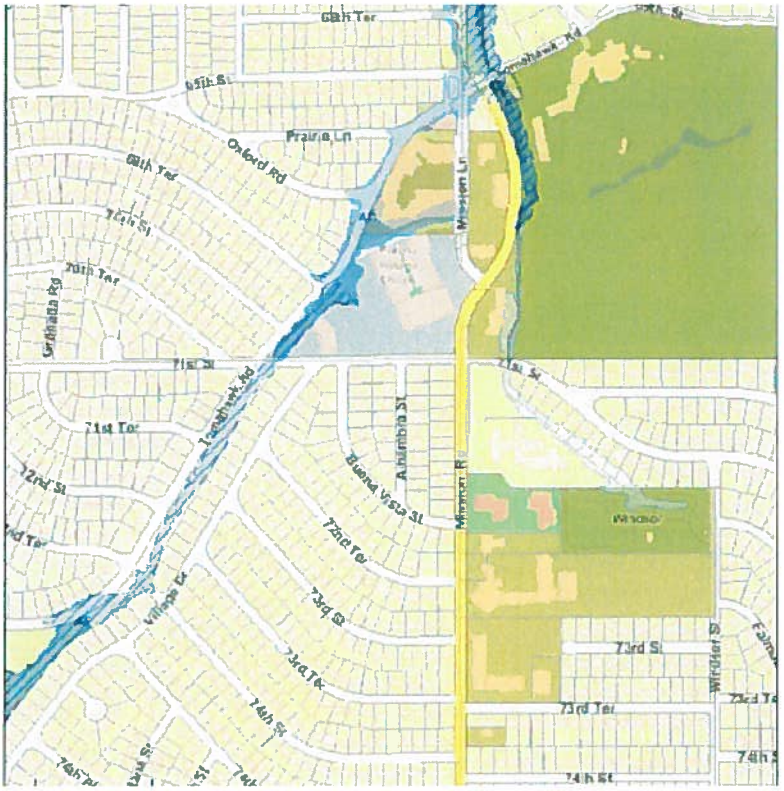
Legal Description: Metes and Bounds

Property Area: 17.4 Acres

Related Case Files:
PC 2012-119 Standees Site Plan
PC 2012-114 Prairie Village Shopping Center Plat
PC 2012-08 CUP for Drive-Thru
PC 2011-115 Site Plan Approval Story Restaurant
PC 2007-112 Site Plan Approval Cactus Grill
PC 2006-108 Amendment to Sign Standards for Macy's
PC 2000-107 Approval of Revised Sign Standards
PC 1999-105 Site Plan Approval for Bank and Restaurant

Attachments: Site Plan Drawings

General Location Map



Aerial Map

COMMENTS:

On November 6, 2012, the Planning Commission approved the Site Plan for Mission Lane, the Hen House expansion, and the New Retail Building. The shell of the new retail building is up and site work is being done as weather permits. Interior finish will be starting soon.

As more detailed plans were being developed for the Hen House expansion, some technical issues were uncovered and Hen House has decided not to expand. They do intend to make façade improvements to the building and will return to the Planning Commission for Site Plan approval when the details are prepared.

Since Hen House is not expanding, the applicant has reconsidered the Site Plan and is requesting several changes as follows:

1. The footprint for the Hen House expansion will be removed and parking will remain on the north side of the store. The number of parking spaces in that lot will increase by 39.
2. The crosswalk will be moved south to the existing Hen House entrance.
3. The entrance and exit drives to the parking lot south of 69th Terrace will change back to where they are now. The Site Plan proposed to close the drive from Mission Lane and replace it with access to 69th Terrace. This reconfiguration will result in the loss of 12 parking spaces which results in a net increase of 27 parking spaces for the Center.
4. The applicants are also relocating several trash bin enclosures. The new trash bin locations will be screened with brick walls that match the brick in the Center.

The applicant has revised the off-street parking requirements table and the counts by lot on the Parking Analysis drawing; however, there may need to be additional revisions after Staff reviews the information in more detail.

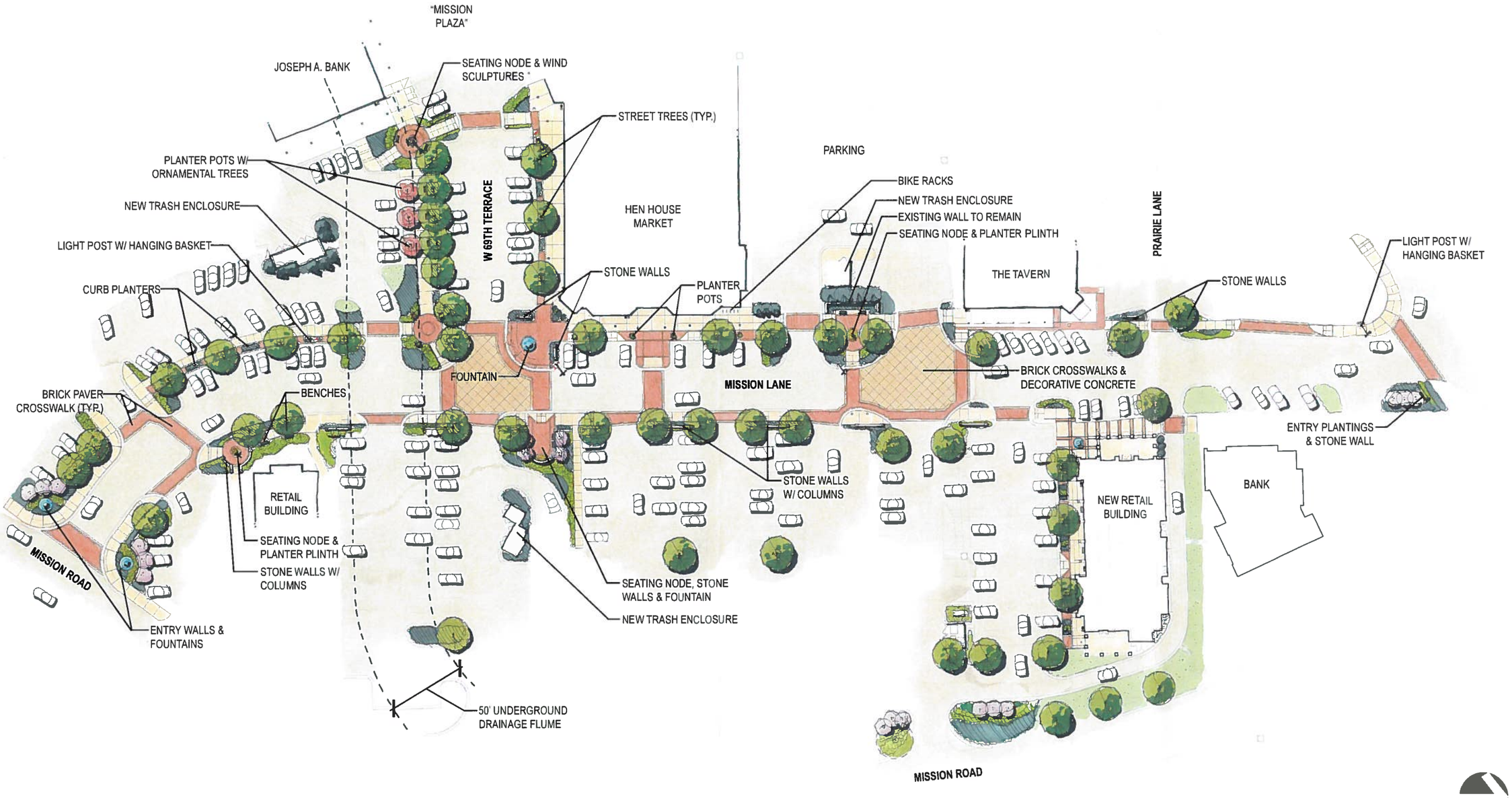
The revised Site Plan will also change the landscape plan. The revised landscape plan needs to be submitted to the Tree Board for review and approval.

RECOMMENDATION:

It is the opinion of Staff that the revised Site Plan removing the Hen House expansion and reconfiguring the parking lots will improve the traffic circulation and parking, and recommends approval subject to the following conditions:

1. That the applicant work with Staff to revise the off-street parking table and drawings for the Center, if necessary.
2. That the applicant submit the revised landscape plan to the Tree Board for review and approval.

Overall Plan



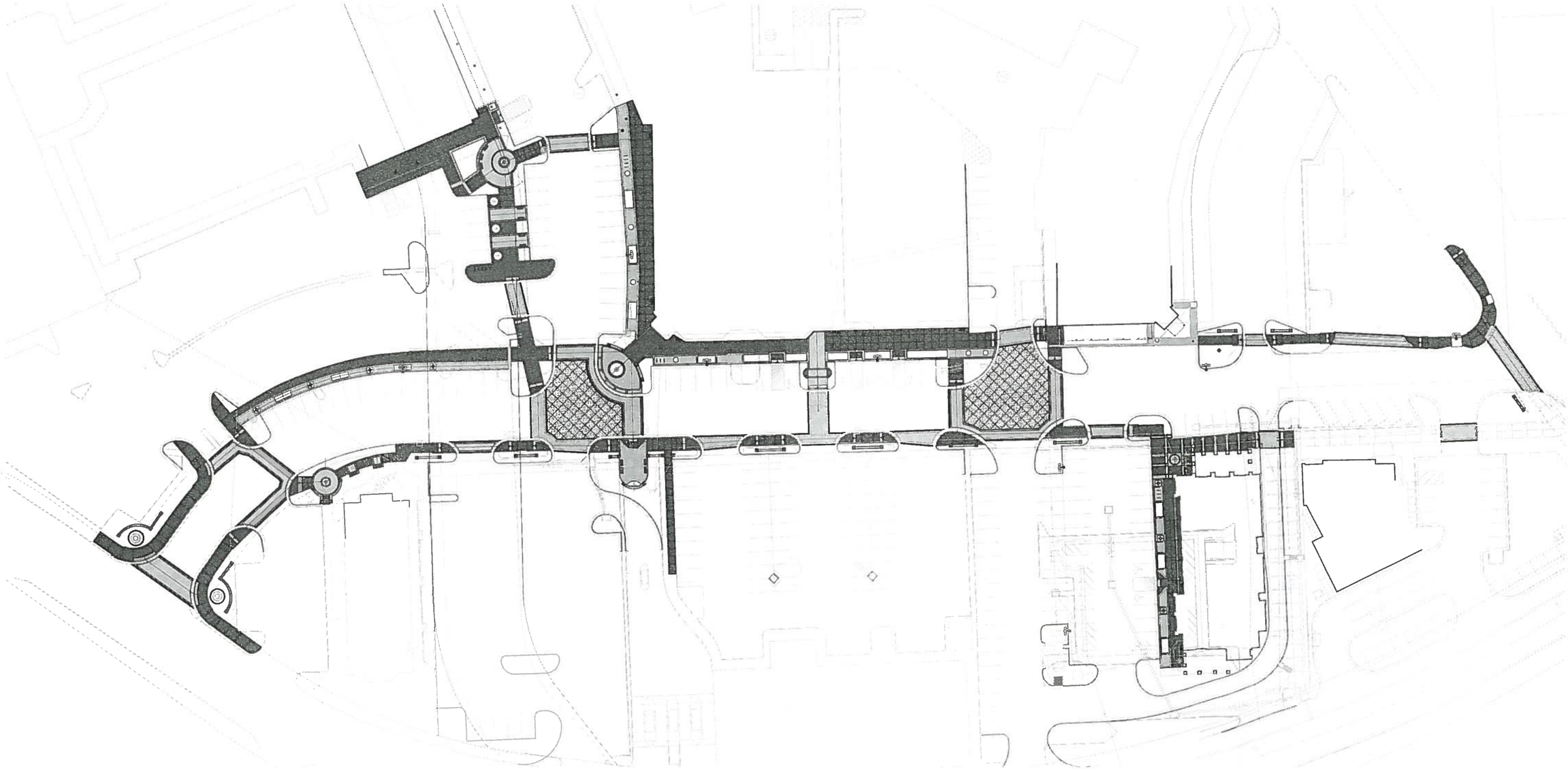
LAND3 STUDIO

hollis + miller architects

Mission Lane Streetscape

Prairie Village, Kansas • February 2014

IMPROVEMENTS PLAN



Mission Lane Hardscape
Approved Layout

ADMINISTRATION

Planning Commission Meeting: March 4, 2014

Consider proposed amendment to Recreational Vehicles and Equipment Parking and Storage

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BACKGROUND:
At the December 16 meeting, the City Council heard a number of resident comments regarding recreational vehicle storage. Council directed staff to place the item on a future agenda. This item was placed on the January 21 Committee of the Whole Meeting.

At the City Council's direction, staff researched neighboring cities' restrictions regarding the parking and storage of recreational vehicles. A copy of that information is attached.

Staff also prepared and mailed a survey to all of the Homes Associations in Prairie Village to inquire if they regulated the parking and storage of RVs. The City received responses from 10 HOAs and that information is also attached and was presented.

The City adopted its current Recreational Vehicle ordinance in September, 1994. The current ordinance reads as follows:

> Recreational vehicles and recreational equipment as defined in this chapter may be stored within an enclosed structure (which structure otherwise conforms to the zoning requirements of the City), or may be permanently parked upon the premises of the owner of such vehicle or equipment; provided, however, that, except as otherwise provided in this section, said recreational vehicles or recreational equipment shall not be permanently parked on or within any required front yard or on or within fifteen (15) feet of any street and said recreational vehicles shall not be permanently parked within five (5) feet of a rear or side property line.

The following definitions are provided in Chapter 19.38:

> "Recreational equipment" - That which an occupant or owner may desire for convenience to store on his lot, but which item is normally and principally transported for use off the lot on a trailer or other vehicle and which is not used by the very nature and utility of the item in connection with customary accessory residential uses on the lot. Included in the meaning of equipment are such large items of equipment as slide-in campers, folding tent trailers, boats, hang gliders, snow mobiles, floats, rafts and jet skis. However, it is provided that in the case of those items which are transported on trailers designed to carry more than one item, such as jet skis and snowmobiles, such trailer shall be considered as the unit of recreational equipment and the item transported shall not be so considered.

"Recreational vehicle" - Includes recreational conveyances, house trailers, trucks, trailers, pickup trucks, vans and converted vehicles. However, it is further provided that the term "recreational vehicle" shall not include the following defined vehicles: light trucks; light vans; light trucks having a slide-in camper.

RVs may be stored in an enclosed structure, or it must meet several location requirements if stored outside. The requirements are:

1. All RVs must be parked on a hard surface.
2. Not located in a required front yard (30 feet from the street)
3. Five feet away from rear lot line
4. Five feet away from side lot line.
5. In all instances, an RV must be at least 15 feet from the street.

There was extensive discussion by the City Council at the January 21 Meeting. The discussion ranged from leaving the ordinance as it currently is, to implementing further restrictions, to a complete ban. On a 6 to 2 vote, the Council requested the Planning Commission evaluate the issue and consider authorizing a public hearing. The City Council also requested that the Planning Commission give consideration to the following items:

- RVs and equipment cannot be used as storage or permanently located on the property if not in regular use
- RVs and equipment must be actively licensed and operable
- RVs and equipment must be screened
- Address storage on corner lots and visibility
- RVs and equipment must be parked on a hard surface and definition of hard surface should be refined
- RVs and equipment must not only be parked behind the front building line of their property but behind the front building line of neighboring properties directly adjacent
- Regarding temporary storage length of time – Is 72 hours within any 14 day period adequate and acceptable?

This information was reviewed and discussed at the February 10 Planning Commission Meeting. The Commission asked staff to do the following:

- Work with the Police Department on revisions to the definitions for ease of enforcement
- Look at revising the “Temporary Parking” time limit
- Review the size and mass of different recreational vehicles

Since the February 10 Meeting, the staff has worked on several items and would like input from the Planning Commission on the following:

1.) Staff is still working with the Police Department on revisions to the definitions. Through this discussion, another item that has come up is the possible movement of Chapter 19.38, Recreational Vehicles and Equipment-Parking and Storage, out of the Zoning Regulations and into the Municipal Code, possibly to Chapter XI, Public Offenses and Traffic. There is already information contained in this chapter of the Municipal Code regarding the parking of vehicles in residential driveways. In addition, after hours, officers occasionally assist with enforcement efforts regarding vehicles in driveways and it would make this information more readily accessible for the officers. Of the cities surveyed regarding recreational vehicle parking and storage, 4 of the 8 cities (Prairie Village, Leawood, Merriam and Olathe) regulate the parking and storage of RVs in their Development and Zoning Ordinances. The other cities regulate RVs in the Municipal Code in Health, Sanitation and Welfare or Traffic.

    Staff would like to receive input from the Planning Commission regarding movement from the Zoning Regulations to the Municipal Code.

2.) At the last Planning Commission Meeting, it was suggested that the Temporary Parking time limit be adjusted from "not to exceed 72 hours total within any 14 day period to "not to exceed 7 days total within any 30 day period." This would allow a resident to park their RV in their driveway for 7 consecutive days, or those days could be divided in the 30 day period.

    Staff would like further input regarding the temporary parking time limit.

3.) At the last meeting it was requested that the size and mass of different RVs be reviewed. "Illustration A" attached to this memo is from the City of Overland Park Municipal Code and provides an illustration of the different classes and types of RVs. All of the items on the illustration are currently allowed to be permanently stored on residential property in Prairie Village, subject to provisions of Chapter 19.38.

    Staff will provide additional photos, examples and dimensions of different RVs at the meeting.

Recommendation:
Staff would like input and direction regarding the three items above.

Attachment:
Illustration of different recreational vehicles

PREPARED BY:
Kate Gunja
Assistant City Administrator
Date: February 28, 2014

ILLUSTRATION A

Recreational Vehicles

Class A motor home

Class B motor home

Class C motor home

Travel Trailer

Folding Camper Trailer

Fifth-wheel Trailer

Truck Camper