

**VILLAGE OF LAKE BLUFF  
ARCHITECTURAL BOARD OF REVIEW**

**TUESDAY, AUGUST 4, 2015 – 7:00 P.M.**

**VILLAGE HALL BOARD ROOM  
40 E. CENTER AVENUE, LAKE BLUFF, ILLINOIS**

**AGENDA**

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- 1. Call to Order and Roll Call**
- 2. Consideration of the July 7, 2015 Architectural Board of Review Meeting Minutes**
- 3. Non-Agenda Items and Visitors (Public Comment Time)**  
The Architectural Board of Review Chair and Board Members allocate fifteen (15) minutes during this item for those individuals who would like the opportunity to address the Board on any matter not listed on the agenda. Each person addressing the Architectural Board of Review is asked to limit their comments to a maximum of three (3) minutes.
- 4. Consideration of a Sign Permit Application for Katie Hall Liz Mazur Photography at 36 E. Center Avenue**
- 5. A Public Hearing to Consider a Site Plan to Review a New Commercial Building at 965 Rockland Road (Lot 2 in the Target Development)**
- 6. A Public Hearing to Consider a Site Plan to Review New Equipment on the Existing Cell Tower at 45 E. Center Avenue**
- 7. Staff Report**
  - **Future Meetings to Discuss Community Character, 4 Points**
  - **Confirm Next Regular Meeting – September 1, 2015 (1<sup>st</sup> Tuesday)**
- 8. Adjournment**

The Village of Lake Bluff is subject to the requirements of the Americans with Disabilities Act of 1990. Individuals with disabilities who plan to attend this meeting and who require certain accommodations in order to allow them to observe and/or participate in this meeting, or who have questions regarding the accessibility of the meeting or the facilities, are requested to contact R. Drew Irvin at 234-0774 or TDD number 234-2153 promptly to allow the Village of Lake Bluff to make reasonable accommodations.

**VILLAGE OF LAKE BLUFF  
ARCHITECTURAL BOARD OF REVIEW  
REGULAR MEETING  
JULY 7, 2015**

**DRAFT MINUTES**

**1. Call to Order and Roll Call**

The meeting of the Architectural Board of Review (ABR) of the Village of Lake Bluff was called to order on July 7, 2015 at 7:00 p.m. in the Village Hall Board Room (40 E. Center Avenue) and the following were present.

Present:       Ed Deegan  
                  Neil Dahlmann  
                  Matthew Kerouac  
                  Carol Russ  
                  John Sorenson  
                  Bob Hunter, Chair

Absent:         Steve Rappin, Member

Also Present:  Mike Croak, Building Codes Supervisor

**2. Consideration of the June 2, 2015 ABR Meeting and June 11, 2015 ABR Meeting.**

Member Russ moved to approve the June 2, 2015 minutes as presented. Member Kerouac seconded the motion. The motion passed on a unanimous voice vote.

Member Russ moved to approve the June 11, 2015 minutes as presented. Member Dahlmann seconded the motion. The motion passed on a unanimous voice vote.

**3. Non-Agenda Items and Visitors (Public Comment Time)**

Chair Hunter stated there were no requests to address the ABR.

Chair Hunter agreed to a request to amend the order of the meeting to take agenda #5 in advance of #4. There were no objections from the ABR.

**5. A Public Hearing to Consider a Site Plan to Review the Relocation of the Front Door of Inovasi Restaurant**

Chair Hunter administered the oath to those in attendance and opened the public hearing regarding the matter.

Mr. Ron Oesterlein of Center Avenue Partners stated the proposed relocation would allow patrons easier access to the dining area when the restaurant is fully occupied. In addition, he noted the outdoor vestibule will no longer be needed.

Members Sorenson, Russ, Deegan and Dahlmann expressed their appreciation with the proposed relocation of the front door.

Member Kerouac asked if the menu box would be relocated. Mr. Oesterlein stated the menu box would not change from its current location.

Chair Hunter closed the public hearing.

Member Kerouac moved to recommended Village Board approve the proposed relocation of the main entrance to the restaurant from the corner to the façade along E. Scranton Avenue. Member Russ second the motion. The motion passed on the following roll call vote:

Ayes: Dahlmann, Deegan, Kerouac, Russ, Sorenson and Chair Hunter  
Nays: None  
Absent: Rappin

**4. A Public Hearing to Consider a Site Plan to Review Changes to Stairs, Landings and a Ramp at Sunrise Park**

Chair Hunter administered the oath to those in attendance and opened the public hearing regarding the matter.

Mr. Ron Salski, Executive Director of the Lake Bluff Park District, introduced Mr. Ray Lee, a principal at FGM Architects. Mr. Scott Larson the individual responsible for overseeing the project for the Park District.

Mr. Salski provided background information concerning the needed improvements identified for Sunrise Park. He stated the Friends of Lake Bluff Parks had agreed to raise \$50,000 to support the improvements, dependent on the result of the referendum placed on the November 2014 ballot. The referendum was approved and the intent now to move forward with the proposed improvements.

Mr. Lee stated the plan is to replace the existing stairs because the existing stairs are too steep and do not comply with code. He noted that the appearance and materials used would be similar to the existing stairs. He stated the stairs would be made out of pressure treated cedar lumber.

Mr. Lee stated the existing concrete walkway on the east side of the beach house does not meet the accessibility code for entrance to the bathroom. The plan is to raise the height of the step and widen the walkway approximately 2 ft. to allow for an accessible entranceway. The stairs leading to the beach will be replaced with the same heavy timber as the existing stairs.

Member Dahlmann expressed his satisfaction with the proposed plan for the lower stairs and his preference to have open risers.

Member Deegan expressed his satisfaction with the proposed changes to the lower stairs and stated he has no other issues with the proposed improvements.

Member Kerouac expressed his concern with the appearance that the lower stairs were squeezed between the buildings and asked if the Park District had considered moving the stairs further to the north. Mr. Lee stated that the intent was to keep the design as similar to the existing condition as possible.

Member Russ expressed her agreement with the comments from the previous ABR Members and noted the proposed design is a tremendous improvement. She inquired of the improvements for the upper stair plan specifically the risers. Mr. Lee stated the stairs would have 12” treads and 5.5” risers. Member Russ expressed her concern regarding the type of chemicals used for pressure treated wood. A discussion followed.

Member Sorenson stated the proposed plans would be a great improvement.

Chair Hunter expressed his agreement with the Commissioner’s comments.

Ms. Karen Zarse, a Lake Bluff residents asked why the ramp located on the south shelter is shorter than the ramp on the southern end of the north shelter. Mr. Lee stated currently there is a slope located at the southern end and the plan is to extend the slope to keep the area accessible for wheelchairs. He further noted if a ramp was constructed it would require handrails on both sides to comply with current regulations. A discussion ensued.

Chair Hunter closed the public hearing.

Member Russ moved to recommend the Village Board approve the proposed reconstruction of the existing stairwell leading to Sunrise Beach with the conditions the stairway is built with open risers and preservative treated wood. Member Kerouac seconded the motion. The motion passed on the following roll call vote:

Ayes: Dahlmann, Deegan, Kerouac, Russ, Sorenson and Chair Hunter  
Nays: None  
Absent: Rappin

**6. Consideration of a Sign Permit Application for Starbucks at 975 Rockland Road (In Target Store)**

Chair Hunter introduced the agenda item and invited the Petitioner to the podium.

Mr. Ernie DiFiore of Modern Signs Inc. explained that when the petitioner put the Starbucks sign up, they did not realize that they didn’t have Village approval for it.

As there were no questions or concerns from the commissioners, Member Dahlman moved to recommend the Village Board approve the request for an exemption from the Sign Code to allow a Starbucks window sign near the front entrance. Member Sorenson seconded the motion. The motion passed on the following roll call vote:

Ayes: Dahlmann, Deegan, Kerouac, Russ, Sorenson and Chair Hunter  
Nays: None  
Absent: Rappin

**7. Consideration of a Sign Permit Application for Athletico Physical Therapy at 233 S. Waukegan Road, Suite 100**

Chair Hunter introduced the agenda item and invited the Petitioner to the podium.

Ms. Karen Dodge of Municipal Resolutions addressed the ABR as a representative for South Water Signs. She stated Athletico Physical Therapy recently bought out Accelerated Physical Therapy and are seeking to replace the existing signage with the new name. The proposed signs include the following: two wall signs consisting of white illuminated channel letters with blue returns—one facing the courtyard and one facing IL Rt. 176, a window sign consisting of vinyl lettering, a door sign, and 4 tenant panels, one on each side of the two multi-tenant monument signs.

Member Russ expressed her preference to maintain the existing 18’ signage requirement for street frontage wall signs. A discussion followed.

Member Dahlmann expressed his agreement with Member Russ and inquired of the proposed mounted height for the sign. He asked if the sign located in the right window would be removed and expressed his preference to use material the same color as the building to fill the holes. Ms. Dodge stated the existing vinyl graphic window sign will be replaced with the new name and the non-smoking signs will be posted to the right of the front entrance door.

Member Dahlmann expressed his concerns regarding window signs.

Building Codes Supervisor Michael Croak stated the background on the drawing is labeled translucent and would need to be revised to opaque to comply with the sign code.

Chair Hunter expressed his preference to maintain the 18” requirements for street front signage and reduce the letters on the northern side of the building. In addition, he expressed his concern about the amount of text proposed on the window signs.

Member Kerouac expressed his agreement that the purpose of the signage is appropriate. A discussion ensued regarding the size of proposed signage and posters.

Member Kerouac moved to approve the new wall signs with the condition that the size be reduced so that the capital A is 18” and the rest of the sign is proportional and that the old holes in the mortar be filled with the same color mortar, and to approve the new tenant panels on the shopping center’s directory sign with the condition that the background be opaque. Member Russ seconded the motion. The motion passed on the following roll call vote:

Ayes: Dahlmann, Deegan, Kerouac, Russ, Sorenson and Chair Hunter  
Nays: None  
Absent: Rappin

Member Kerouac moved to approve the door signs shown on page 7 of the submission and to recommend that the Village Board deny the request for an exemption from the Sign Code and not approve the window signs shown on page 8. Member Deegan seconded the motion.

**8. Consideration of a Wayfinding Sign at Target at 975 Rockland Road**

Chair Hunter introduced the agenda item and Staff reviewed the previous discussions regarding the matter. A discussion followed.

It was the consensus of the ABR the wayfinding signage proposed by Target is unnecessary and would be ineffective in directing people to the Central Business District.

**9. A Discussion Regarding the Possibility of ABR Review of New Single Family Homes**

Chair Hunter stated at its June 2<sup>nd</sup> meeting the ABR began a discussion regarding new single family homes and among the possibilities discussed were: review of all new houses, review of speculative new homes only, review of only new infill houses (houses which replaced demolished homes), or no change to the existing code. A discussion followed.

Mr. Paul Bergman, a longtime Village resident and son of former ABR Chair Stanley Anderson, provided the ABR with background information and legislative actions pursued by his father. Mr. Bergman commented on the past and current housing developments located on Moffett Avenue and Woodland Road. He stated the neighborhood where he currently resides is not the neighborhood he bought into as most of the ranch style homes have been demolished and stated the character of Lake Bluff is being lost with the new developments. Mr. Bergman expressed his concern regarding subdivided lots and asked the Village to review its procedures regarding requests to subdivide lots, construction of dissimilar homes and the type of building material used for new homes. Lastly, he expressed his preference for the ABR to be involved with the review process for new single family homes.

A discussion concerning implementation of residential design guidelines ensued. The ABR expressed a preference to conduct a workshop with the Historic Preservation Commission (HPC) and Plan Comm. & Zoning Board of Appeals (PCZBA).

**10. Staff Report**

There was no Staff report.

**11. Adjournment**

There being no further business to consider, Member Kerouac moved to adjourn the meeting. Member Russ seconded the motion. The motion passed on a unanimous voice vote.

The meeting adjourned at 9:20 p.m.

Respectfully submitted,

Mike Croak, CBO, CBCO  
Building Codes Supervisor

# VILLAGE OF LAKE BLUFF

## Memorandum

**TO:** Chairman Hunter and Members of the Architectural Board of Review

**FROM:** Mike Croak, Building Codes Supervisor

**DATE:** July 30, 2015

**SUBJECT:** **Agenda Item #4 - Consideration of a Sign Permit Application and a Request for an Exemption from the Requirements of the Sign Code for Katie Hall Liz Mazur Photography Located at 36 E Center Avenue**

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Katie Hall Liz Mazur Photography is opening in the space that has been occupied by Reimagine Vintage. They are proposing to put a sign on the existing awning and a sign on the door.

The sign code requirement for an awning sign in the CBD reads, "the size of letters on an awning sign shall be no less than five inches and no greater than seven inches in height and shall be placed on the descending skirt only." The petitioners are requesting an exemption in order to use letters smaller than the minimum allowed so that the overall height of both rows aligns with the top and bottom of the lettering on the adjacent Twigs Florist awning sign. Since there is no "descending skirt" on the existing awning, the petitioners are requesting an exemption in order to have the lettering on the main portion of the awning. This exemption has been granted previously for tenants in this space and the adjacent florist shop.

The sign code requirement for door signs in the CBD reads, "Door signs. Such signs shall be allowed only if the door is the only available signage location...for the business." Exemptions from this requirement have been granted in the past to allow other businesses in the CBD to have door signs.

The following is a chart summarizing the measurements of the proposed signs:

Sign Code CBD	Proposed Signage
1.) One awning sign permitted per business	Complies
2.) Letters on the awning are to be between 5" & 7" tall	Exemption requested to be smaller than 5"
3.) Awning lettering shall be on descending skirt only	Exemption requested
4.) Door signage is not permitted unless it is the only available sign location	Exemption requested

The ABR has the authority to:

- Recommend the Village Board grant or deny an exemption from the Sign Code regulations for the signage as presented;
- Approve a sign permit (with conditions) that complies with all Code regulations; or
- Deny the sign permit.

Liz Mazur and Village Staff will be in attendance at Tuesday's meeting to respond to questions from the ABR. If you should have any questions regarding this matter, please feel free to contact me at 847-283-6885.

To whom this may concern:

The following are the details for the signage for 36 E. Center St. Lake Bluff for Katie Hall Photography and Liz Mazur Photography. Please also see the included scale drawings for your reference.

## Awning:

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Awning will be painted black to match neighboring store front's awning. Lettering will be outdoor vinyl decal made by Sign-A-Rama. No structural changes are being made to the awning.

**Font:** Playfair Display SC Regular

**Overall Size:** 54.5" wide x 9" high

**Top Row of names:** Letters are 3.5" tall. Width is 27.5" per name

**Bottom row:** Width is 2'9"

## Door:

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Glass will remain transparent. The white glass in the image is for illustrative purposes only so that the logos can be visibly clear for approval.

Door signage will be the specific logos/branding for Katie Hall Photography and Liz Mazur Photography and will also be vinyl decals made by Sign-A-Rama.

**Katie Hall Logo Dimensions:** 2'3" W x 6 ¾" H

**Liz Mazur Logo Dimensions:** 2' 5 ¼" W x 1' H



2-3/4 2-3/4  
KATIE HALL | LIZ MAZUR  
PHOTOGRAPHY  
2-3/4 2-3/4

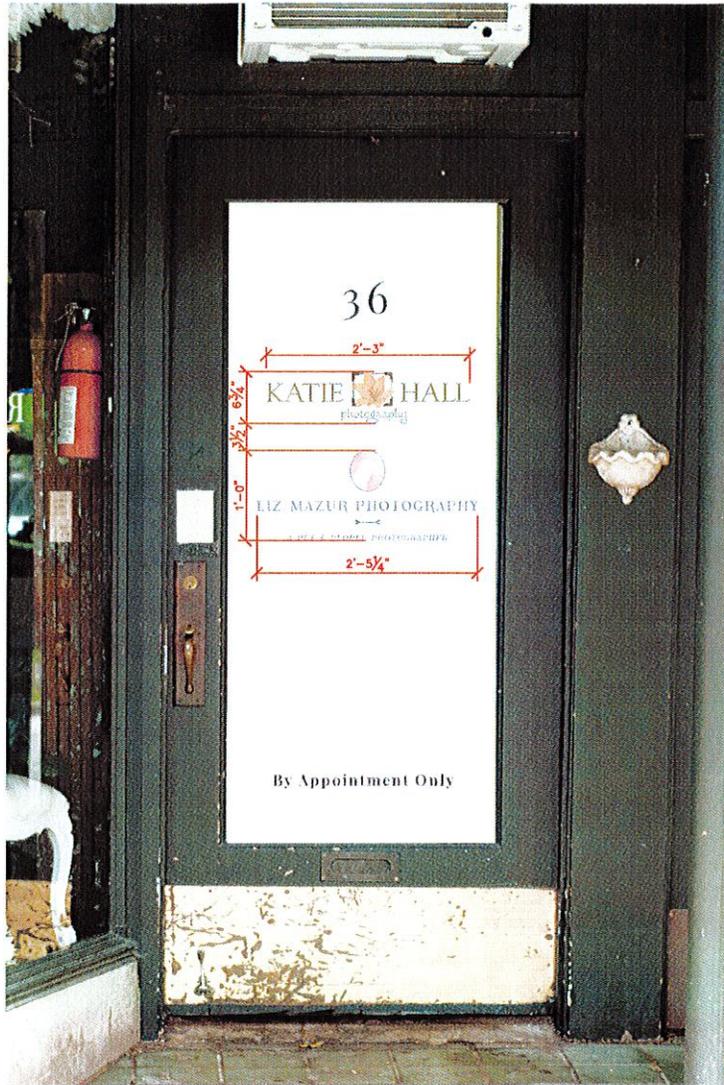
36  
REIMAGINED  
VINTAGE  
847.235.2762

1/4" 1/4" 3/4" 3/4" 1/4" 2 3/4"  
KATIE HALL | LIZ MAZUR  
PHOTOGRAPHY  
3/4" (TYP.)



36  
REIMAGINED  
VINTAGE  
847.235.2762





## VILLAGE OF LAKE BLUFF

### Memorandum

**TO:** Chairman Hunter and Members of the Architectural Board of Review

**FROM:** Mike Croak, Building Codes Supervisor

**DATE:** July 30, 2015

**SUBJECT:** **Agenda Item #5 – A Public Hearing to Consider a Site Plan to Review a New Commercial Building at 965 Rockland Road (Lot 2 in the Target Development)**

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Bruce Danly, of Oxford Real Estate Equities, LLC (petitioner), has submitted an application for site plan review for the third outlot building in the Target Development. The Development Agreement and Plat of Commercial Development anticipated a building in this location and created the approved building pad, but this is the first time a proposed building design has come to the Architectural Board of Review (ABR) for review. Prior site plans had indicated a potential future bank in this location. The currently proposed building extends farther south than that bank, made possible by fewer drive through lanes south of the building, but it is within the allowable building pad. The Development Agreement says that the Architectural Board of Review (ABR) should consider whether the proposed building is consistent with the Outlot Building Design Narrative (attached).

The proposed building design is very similar to the 945 Rockland Road (Chipotle/Potbelly) building to the east, using matching colors and materials. In site plan, there is one tree proposed on the north side of the building, two trees on the west side, a brick garbage enclosure to the southeast of the building, and a drive through lane for a freestanding (not associated with either building tenant) ATM to the south.

Signage for the two building tenants would be done according to the approved tenant sign criteria. The petitioner is requesting approval of the freestanding ATM signage consisting of the Chase name and logo as shown in the drawings. The sign code allows two wall signs since the development fronts on two streets. Therefore, the petitioner would need an exemption for the three signs shown (and possibly an exemption for a total of five signs if the petitioner proposes the same number of signs facing west as are visible in the illustration facing east).

The petitioner is attempting to obtain more detailed drawings of the ATM for the ABR's consideration.

Mr. Danly plans to discuss his intentions with respect to the landscape design with the ABR at Tuesday's meeting and then return with a detailed landscape plan at a future meeting.

### Recommendation:

It is recommended the ABR conduct a public hearing to consider the modifications to the site plan, appropriately question the Petitioner as needed, entertain public comments and questions from the petitioner and make one of the following recommendations regarding the site plan:

- Recommend that the Village Board approve the proposed site plan as presented or with conditions;
- Recommend that the Village Board deny the proposed site plan; or
- Request the petitioner to provide additional information for the ABR's consideration.

Bruce Danly, of Oxford Real Estate Equities, LLC will be in attendance at Tuesday's meeting to respond to questions from the ABR. If you should have any questions regarding this matter, please feel free to contact me at 847-283-6885.

### Attachments:

- Outlot Building Design narrative
- Proposed Drawings

### **Outlot Building Design Narrative**

Logistically, the leasing for the outlot buildings cannot begin in earnest until the Target store is fully approved and committed (because end users will not sign lease documents until after they are 100% confident that Target is moving forward). The leasing of those buildings will obviously drive the end users and each specific end user has their own design, operational, and brand characteristics which must be considered. As such the specific outlot building designs are still unknown and will not come into focus until after the PCD for the overall Target development has been finalized.

In an attempt to work around this logistical and timing dilemma, most of the critical elements for the outlot have been designed and reviewed with the PCD (such as outlot configuration, access, landscaping, hardscape/streetscape, parking, building envelope, storm water management strategy, free standing signage, etc.). Design details on these elements have been previously submitted to the Village and revised per Village comments.

In essence, all the components that we are able to “lock-in” at this point have been. This Design Narrative will serve to document shared assumptions about the future outlot building elevations.

#### ***Building Design:***

The overall architectural design style and quality for the outlot buildings will be consistent with the PCD approved Target architecture. The front of each building has hardscape/landscape features already designed as part of the PCD.

The outlot buildings will be visible from multiple sides and angles. As such, the outlot buildings will have:

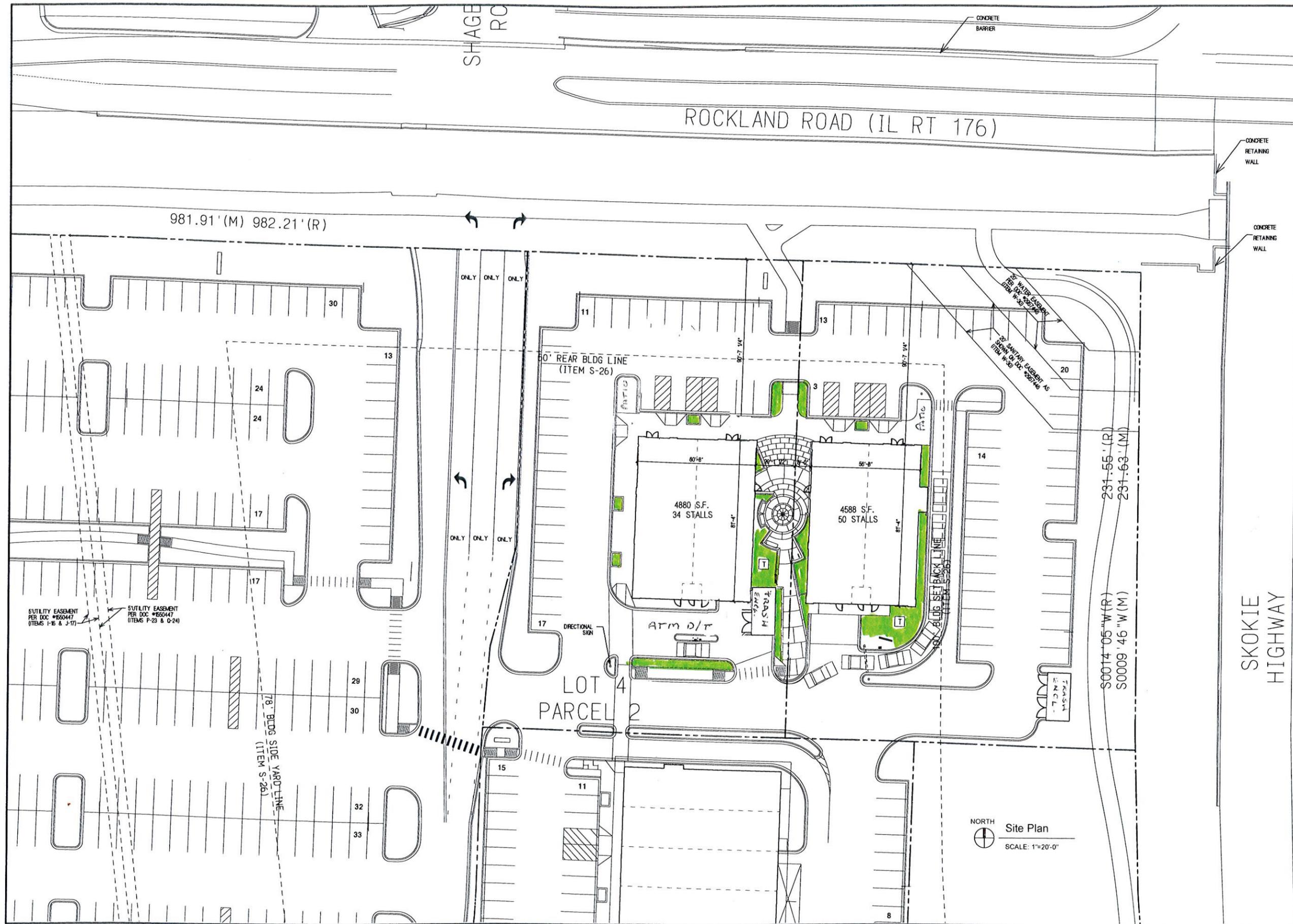
- “Four sided” architecture with the rear of each building having sufficient architectural accents and details to provide a complimentary and aesthetic elevation.
- Perimeter foundation landscaping shall be designed, reviewed and approved along with the specific end user building elevations when available.
- The parapet height of the outlot buildings won’t exceed 26 feet and any architectural accent features won’t exceed 30 feet.
- The design of all dumpster enclosures serving the outlots will utilize materials and colors matching the outlot building and the enclosure will have an opaque wooden gate.

After specific end users are defined, the outline and narrative provided above will serve as the general basis for the subsequent review of the specific outlot building elevations by the ABR and Village Board (as required during the “site plan approval” process).





LOT 2 - 965 ROCKLAND ROAD, LAKE BLUFF  
TARGET CENTER



DATE	MARCH 27, 2016
REVISIONS	04-29-16

PROPOSED COMMERCIAL DEVELOPMENT  
**ROCKLAND ROAD**  
 SUITE A, B & C  
 965 ROCKLAND ROAD  
 LAKE BLUFF, ILLINOIS

**Reitan Architects, LLC.**  
 1205 Willey Road - Suite 166 - Schaumburg, Illinois 60173  
 Ph. 847-599-1227 - FAX 847-599-0347  
 Assumed Name No. 784-004083

SHEET NAME  
 PRELIMINARY  
 SITE PLAN

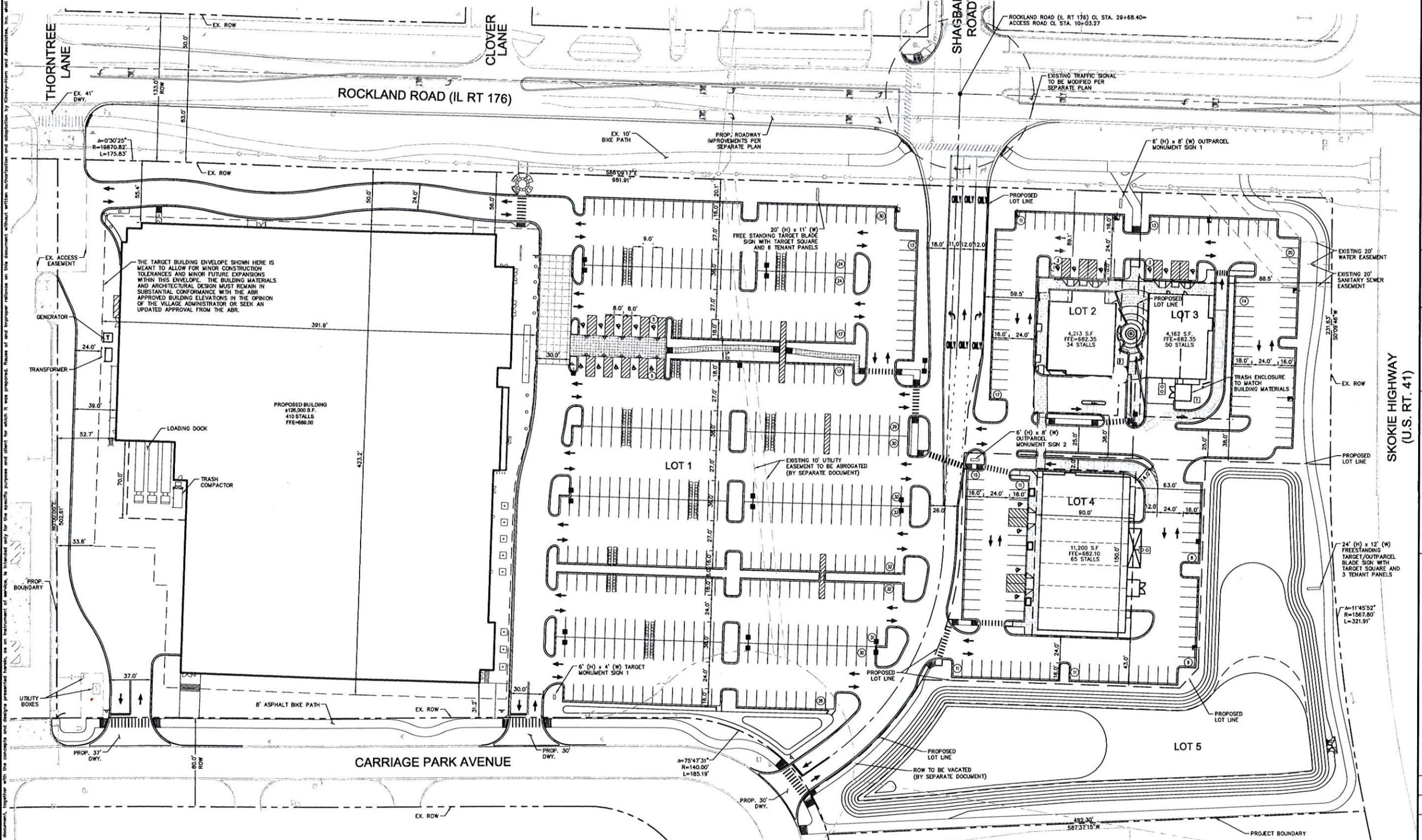
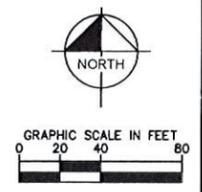
SHEET  
**SK2**  
 OF 2

PROJECT NO.  
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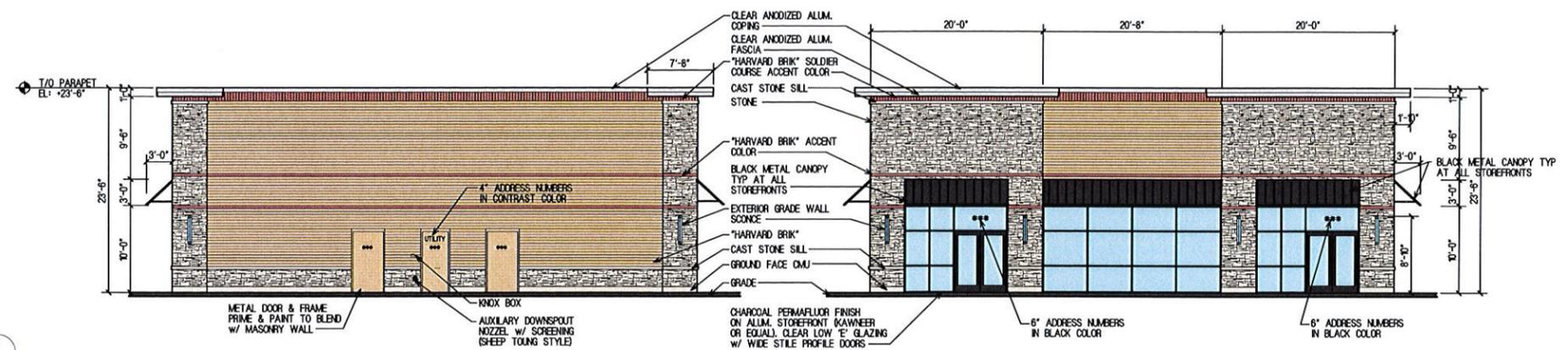
THIS IS A PRELIMINARY SITE PLAN. IT IS NOT TO BE USED FOR CONSTRUCTION. THE CLIENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE CLIENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE CLIENT SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

Drawing name: K:\026\_LSP\092727010\_Shepard\_Revelopment\092727010\_P02\092727010\_P02.dwg C2.0 Feb 14, 2014 11:44am by: lmsy@kha.com  
 This document, together with the concepts and design presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and consent by Kinley-Horn and Associates, Inc. shall be without liability to Kinley-Horn and Associates, Inc.

SITE DATA	
ZONING - SITE	L-2/PCD
NORTH	LAKE COUNTY - GC
EAST	L-2
SOUTH	L-2
WEST	L-2
LAND USE	
LAND AREA	14.05 AC
LOT 1 (RETAIL 'A')	9.37 AC
LOT 2 (BA'K)	0.79 AC
LOT 3 (RETAIL 'B')	0.87 AC
LOT 4 (RETAIL 'C')	1.07 AC
LOT 5 (STORMWATER)	1.85 AC
PARKING DATA	
PARKING PROVIDED	410 SPACES (325)
CUTLOTS	145 SPACES
TOTAL PARKING PROVIDED	559 SPACES
CART CORRALS PROVIDED	16

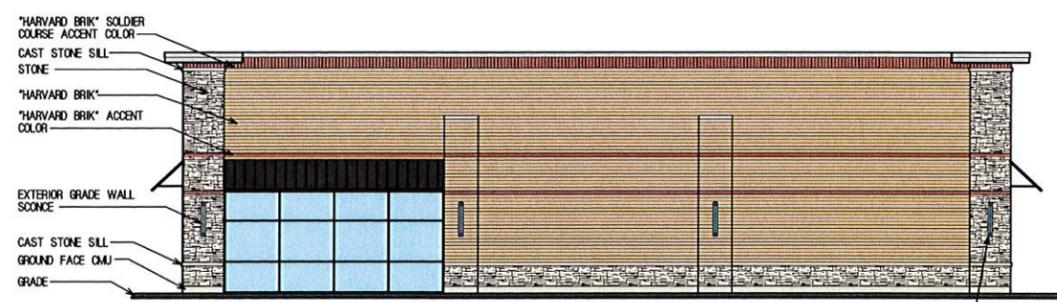


 <p> <b>Kinley-Horn and Associates, Inc.</b>        2014, Kinley-Horn and Associates, Inc.        Engineering, Planning and Environmental Consultants        1001 Warrville Road, Suite 300        Lake, IL 60532        Phone: 630-487-5550        Fax: 312-726-9449     </p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>REVISIONS</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	REVISIONS	DATE									
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<p>SCALE: AS NOTED</p> <p>DESIGNED BY: LEN</p> <p>DRAWN BY: JPM</p> <p>CHECKED BY: JAM</p>													
<p><b>OVERALL SITE AND PAVING PLAN</b></p>													
<p><b>SHEPARD REDEVELOPMENT</b>        LAKE BLUFF, ILLINOIS        931 CARRIAGE PARK AVENUE</p>													
<p>DATE: 02/11/2014        KHA PROJECT NO. 095727013        SHEET NUMBER C2.0</p>													

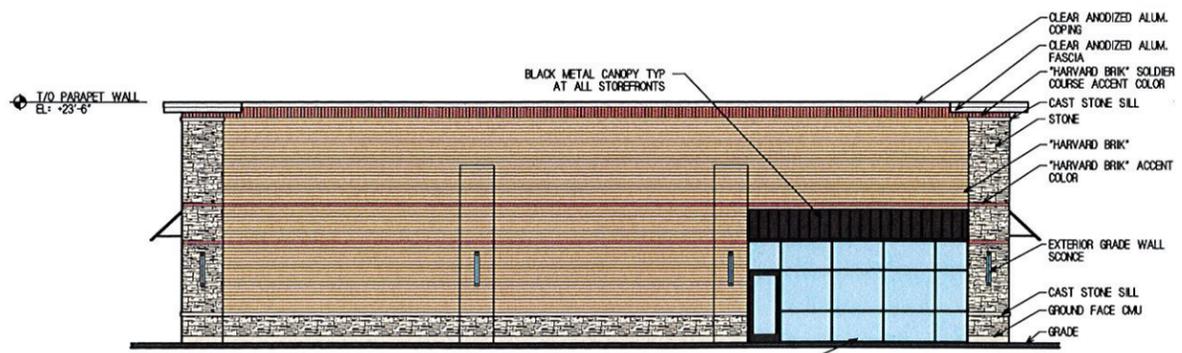


2 South Elevation  
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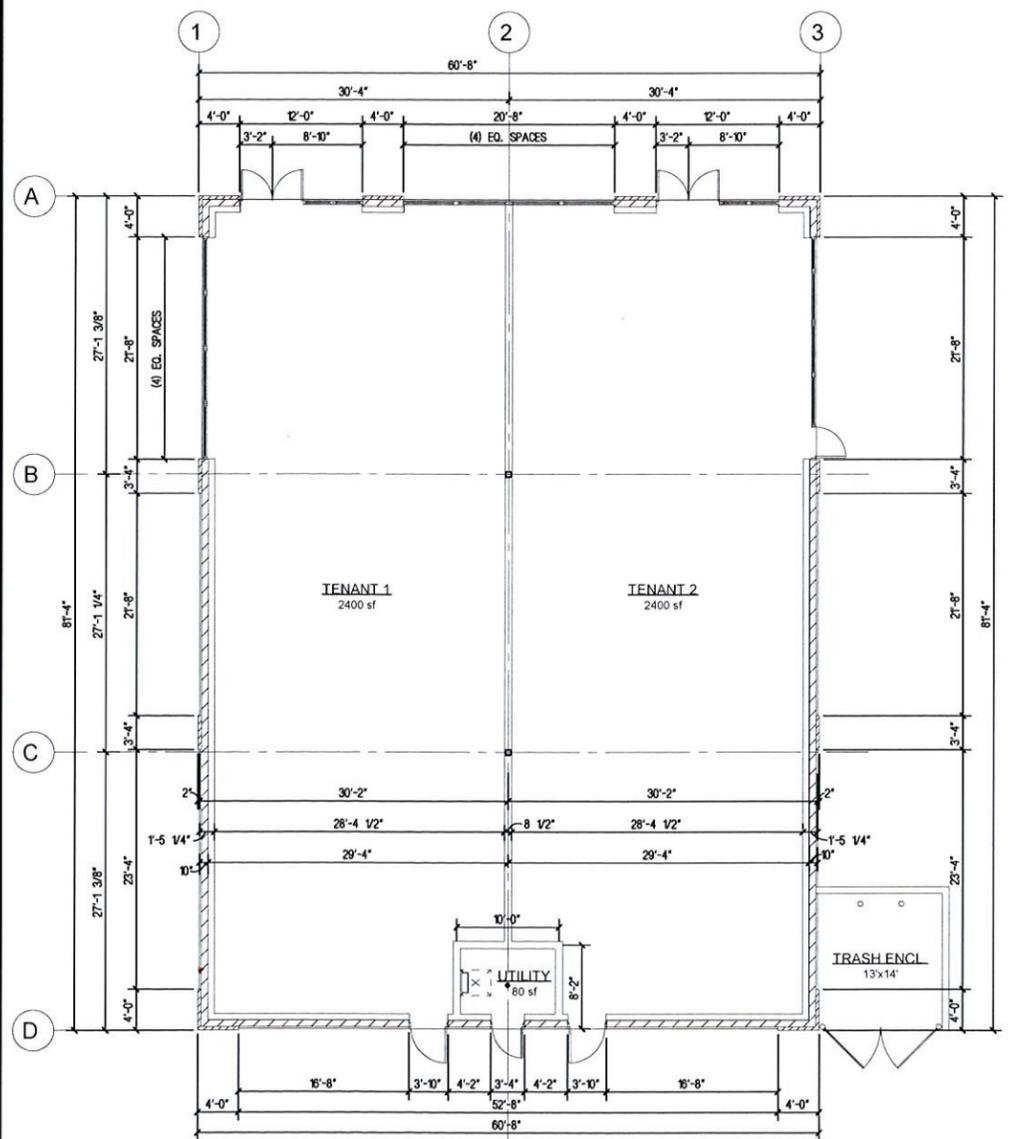
3 North Elevation  
SK1 SCALE: 1/8"=1'-0"



West  
4 East Elevation  
SK1 SCALE: 1/8"=1'-0"



East  
5 West Elevation  
SK1 SCALE: 1/8"=1'-0"



1 Preliminary Floor Plan  
SK1 SCALE: 1/8"=1'-0"

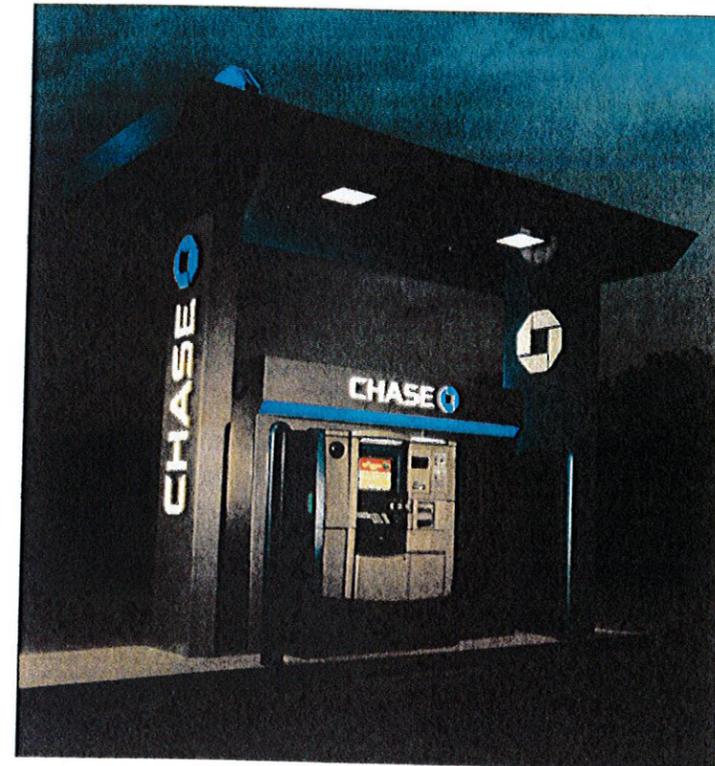
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PEBBLE BEACH
- HARVARD BRIK - ACCENT COLOR  
MESABA TIDE LIGHT
- AWNINGS - BLACK
- ALUMINUM COPING  
ZINC-COTE
- ALUMINUM STOREFRONT  
KAWNEER - PERMAFLUOR CHARCOAL
- CAST STONE & GROUND FACE CMU  
CORDOVA STONE COLOR: BUFF
- STONE PERS, LOWER WALL & FRONT WALL  
NATURAL STONE VENEERS INTERNATIONAL INC.  
CHARDONNAY

## Drive-up ATM *Canopy*

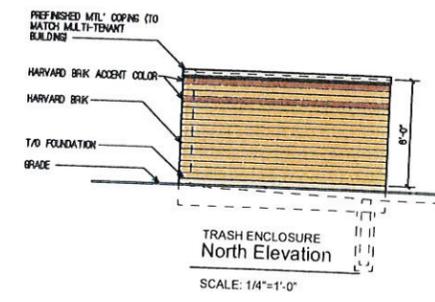
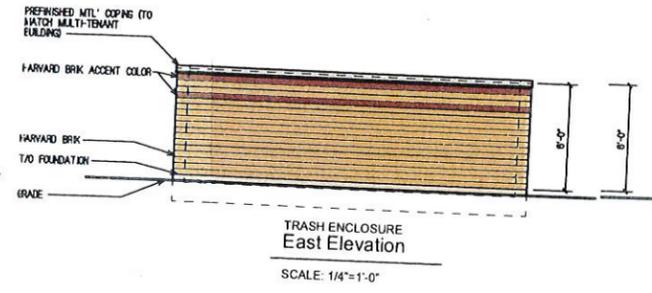
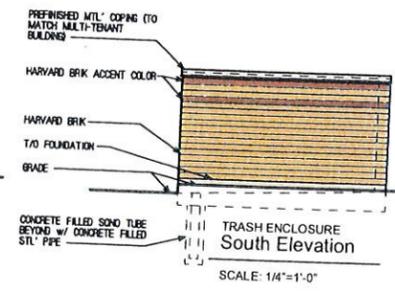
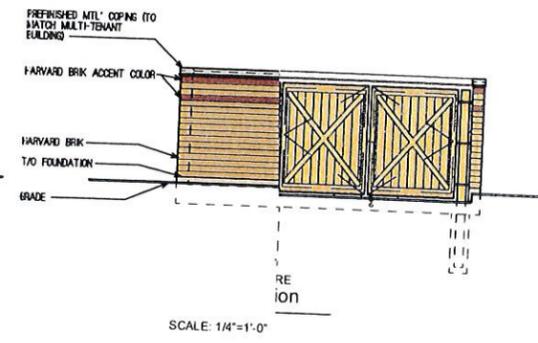


### Site Selection Criteria

- Centers positioned on high traffic corridors or with prominent daily needs generator
- 6-8 parking spaces for creation of dedicated lane
- Perimeter of parking lot or end of a parking row
- High visibility from primary road and main entrance, and/or prominent visibility within shopping center
- Turnkey solution including includes permits, site prep and construction



LOTZ  
 LAKE BLUFF  
 TRASH ENCLOSURE ELEVATION



## VILLAGE OF LAKE BLUFF

### Memorandum

**TO:** Chairman Hunter and Members of the Architectural Board of Review

**FROM:** Mike Croak, Building Codes Supervisor

**DATE:** July 30, 2015

**SUBJECT:** **Agenda Item #6 – A Public Hearing to Consider a Site Plan to Review New Equipment on the Existing Cell Tower at 45 E Center Avenue**

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Verizon Wireless has submitted an application for site plan review to replace existing antennas and install new electronics equipment on the existing cell tower at the Public Safety Building.

As shown on page A-1 of the drawings, Verizon is proposing to remove 6 antennas (labeled as item 1 on page A-1) and replace them with 6 new antennas (shown as item 7) which are very similar in appearance. They are also proposing to add box-shaped electronics equipment, including item 6, the Erikson RRU, and item 8, the Raycap overvoltage protection unit (OVP) near the antennas. Additionally, they propose a 130' cable up the outside of the tower, with brackets wrapping around the tower to hold it in place.

All items will be painted to match the existing tower.

### Recommendation:

It is recommended the ABR conduct a public hearing to consider the modifications to the site plan, appropriately question the Petitioner as needed, entertain public comments and questions from the petitioner and make one of the following recommendations regarding the site plan:

- Recommend that the Village Board approve the proposed site plan as presented or with conditions;
- Recommend that the Village Board deny the proposed site plan; or
- Request the petitioner to provide additional information for the ABR's consideration.

Mehreen Sherwani, representing Verizon Wireless, will be in attendance at Tuesday's meeting to respond to questions from the ABR. If you should have any questions regarding this matter, please feel free to contact me at 847-283-6885.

April 30, 2015

Lake Bluff  
Architectural Review Board  
40 E. Center Avenue  
Lake Bluff, IL 60044



RE: Lake Bluff – 126618. Architectural Review Board Permit Application for Verizon Equipment Upgrade to Existing Installation- 45 E. Center Avenue, Lake Bluff, IL 60044

To Whom It May Concern:

Verizon Wireless has wireless communication equipment located at the above addresses. Please find the below enclosed documents and initiate your review of the permit:

- Architectural Review Board permit application
- Thirteen (13) construction drawings
- Thirteen (13) site surveys
- Fee

Please contact me once the enclosed documents have been reviewed.

If you have any questions regarding this modification, I can be reached at (773) 275-5712 ext. 310 or via email at [mehreen.sherwani@ntpwireless.com](mailto:mehreen.sherwani@ntpwireless.com). Your assistance is appreciated.

Sincerely,



Mehreen Sherwani  
Solution Specialist, NTP Wireless



# LAKE BLUFF 2

## #081

PHASE 6 AWS PROJECT  
 LOCATION NO. 126618  
 PROJECT NO. 20141087979  
 45 EAST CENTER  
 LAKE BLUFF, IL 60044



**APPLICANT**  
 VERIZON WIRELESS  
 CANDICE DeGEORGE  
 1515 WOODFIELD RD SUITE 1000  
 SCHAUMBURG, IL 60173  
 PH: (847) 706-1789  
 EMAIL: CANDICE.DEGEORGE@VERIZONWIRELESS.COM

**ARCHITECTURAL AND ENGINEERING**  
 MAGTECH SERVICES, INC.  
 MARK ALLEN  
 1715 MAGNAVOX WAY  
 FORT WAYNE, IN 46804  
 PH: (260) 436-2668  
 EMAIL: MJA@MAGTECHSERVICES.COM

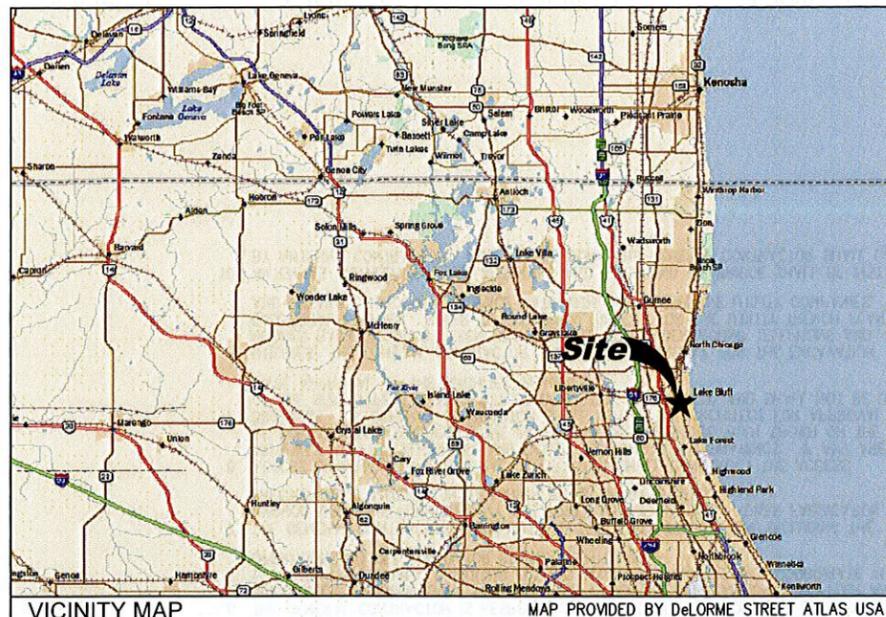
**POLICE DEPARTMENT**  
 LAKE BLUFF POLICE DEPT  
 45 E CENTER AVE  
 LAKE BLUFF, IL 60044  
 PH: (847) 234-2153

**FIRE DEPARTMENT**  
 LAKE BLUFF FIRE DEPT  
 45 E CENTER AVE  
 LAKE BLUFF, IL 60044  
 PH: (847) 234-5158

**TOWER OWNER:**  
 AT&T MOBILITY  
 930 NATIONAL PARKWAY, 4TH FLOOR  
 SCHAUMBURG, IL 60173

**SITE ACQUISITION:**  
 NTP WIRELESS  
 4619 N. RAVENSWOOD AVE SUITE 301  
 CHICAGO, IL 60640  
 PH: (773) 275-5712

**CONSULTANT TEAM**



**PROJECT DESCRIPTION**  
 REMOVE SIX (6) EXIST. PANEL ANTENNAS, AND SIX (6) DIPLEXERS ON TOWER AND IN SHELTER. THREE (3) EXIST. ANTENNAS TO REMAIN.

INSTALL SIX (6) NEW PANEL ANTENNAS, INSTALL THREE (3) RRUS AND A2 BOX, INSTALL (6) TMAs, INSTALL SIX (6) TRIPLEXERS ON ANTENNA MOUNT, INSTALL SIX (6) TRIPLEXERS INSIDE SHELTER, INSTALL ONE (1) FIBERFEED HYBRID CABLE, INSTALL (1) OVER VOLT PROTECTION ON TOWER AND (1) OVER VOLT PROTECTION BOX INSIDE SHELTER.

**SITE COORDINATES AND ELEVATION**  
 LATITUDE - N42° 16' 42.54"  
 LONGITUDE - W087° 50' 41.79"  
 GRD ELEV. - ±681' AMSL

**PROJECT DESCRIPTION**



### DRAWING INDEX

- T-1 PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX
- GN-1 GENERAL CONSTRUCTION NOTES
- C-1 EXISTING SITE PLAN
- C-2 SHELTER LAYOUT
- A-1 TOWER ELEVATION & ANTENNA LAYOUT
- A-2 EQUIPMENT CHANGE REQUEST FORM
- A-3 COMBINER CABLE DATA AND CABLE DIAGRAM
- A-4 COMPONENT INFORMATION AND DETAILS

### EX-1 PHOTO EXHIBIT ATTACHMENTS BY OTHERS

- 1-4 MOUNT ANALYSIS BY AWS CONSULTING ENG.

**TOWER ANALYSIS STATUS:** COMPLETE 03/20/15  
**TOWER ANALYSIS RESULTS:** PASS  
**STRUCTURAL CONSULTANT:** BY OTHERS (TECTONIC PN# 6500.839926)

**TOWER ANALYSIS INFORMATION**  
**MOUNT ANALYSIS STATUS:** COMPLETE 11/14/17  
**MOUNT ANALYSIS RESULTS:** PASS  
**STRUCTURAL CONSULTANT:** AWS CONSULTING ENGINEERS, LLC

**MOUNT ANALYSIS INFORMATION**

DRAWN BY: MLM

CHECKED BY: MJA

NO:	DATE:	ISSUE:
1	9/22/14	PRELIM CDs
2	11/05/14	REVISED CDs
3	11/17/14	REVISED CDs
4	12/09/14	PERMIT CDs
5	04/24/15	FINAL CDs

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**SITE NAME:**  
 LAKE BLUFF 2  
 #081

**ADDRESS:**  
 45 EAST CENTER  
 LAKE BLUFF, IL  
 60044

**SHEET TITLE:**  
 TITLE SHEET

**A&E PROJECT NO.:**  
 001-1647

**SHEET NUMBER:**  
 T-1

DO NOT SCALE DRAWINGS

## Abbreviations and Symbols

A/C	AIR CONDITIONING	N	NORTH
ADJ	ADJUSTABLE	N/A	NOT APPLICABLE
AFF	ABOVE FINISH FLOOR	NTS	NOT IN CONTRACT
APPROX	APPROXIMATELY		NOT TO SCALE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS		
AWG	AMERICAN WIRE GAUGE	O/C,O.C.	ON CENTER
		OD	OUTSIDE DIAMETER
BLDG	BUILDING	OPG	OPENING
BLK	BLOCK	OPP	OPPOSITE
BMR	BASE MOBILE RADIO	PLYWD	PLYWOOD
B/S	BUILDING STANDARD	PR	PAIR
		PROJ	PROJECT
CLG	CEILING	PROP	PROPERTY
CLR	CLEAR	PT	PRESSURE TREATED
CND,C	CONDUIT		
CONC	CONCRETE	REQ'D	REQUIRED
CONST	CONSTRUCTION	RM	ROOM
CONT	CONTINUOUS	RO	ROUGH OPENING
DBL	DOUBLE	S	SOUTH
DIA,Ø	DIAMETER	SHT	SHEET
DIAG	DIAGONAL	SIM	SIMILAR
DIM	DIMENSION	SPEC	SPECIFICATION
DN	DOWN	SS	SQUARE
DTL,DET	DETAIL	SS	STAINLESS STEEL
DWG	DRAWING	STL	STEEL
		STRUCT	STRUCTURAL
E	EAST	SUSP	SUSPENDED
EA	EACH	SV	SHEET VINYL
EL,ELEV	ELEVATION		
ELECT	ELECTRICAL	THRU	THROUGH
EQ	EQUAL	TNND	TINNED
EQUIP	EQUIPMENT	TOC	TOP OF CONCRETE
EW	EACH WAY	TOM	TOP OF MASONRY
EXIST	EXISTING	TYP	TYPICAL
EXT	EXTERIOR		
		UBC	UNIFORM BUILDING CODE
FIN	FINISH	UNO	UNLESS NOTED OTHERWISE
FLUOR	FLUORESCENT		
FLR	FLOOR		
FT	FOOT		
		VERT	VERTICAL
GA	GAUGE	VIF	VERIFY IN FIELD
GALV	GALVANIZE(D)	VT	VINYL TILE
GC	GENERAL CONTRACTOR		
GRND	GROUND	W	WEST
GWB	GYPNUM WALL BOARD	W/W	WITH WINDOW
GYP BD	GYPNUM BOARD	W/O	WITHOUT WINDOW
		WP	WATERPROOF
HARD'WD	HARDWOOD		
HORIZ	HORIZONTAL		
HR	HOUR		
HT	HEIGHT		
HVAC	HEATING, VENTING & AIR CONDITIONING		
		∠	ANGLE
ID	INSIDE DIA.	∠	AND CENTER LINE
IN	INCH	∠	PROPERTY LINE
INFO	INFORMATION	∠	AT
INSUL	INSULATION	∠	NUMBER
INT	INTERIOR	∠	
LB(S)	POUND(S)		
MAX	MAXIMUM		
MECH	MECHANICAL		
MET,MTL	METAL		
MFR	MANUFACTURER		
MGR	MANAGER		
MIN	MINIMUM		
MISC	MISCELLANEOUS		

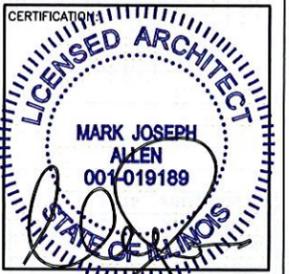
## Symbols

	REVISION		DETAIL REFERENCE
	KEY NOTE		ELEVATION REFERENCE
	ROOM NUMBER		SECTION REFERENCE
	KEYED NOTE		

## General Notes

- SCHEDULE: THE CONSTRUCTION OF THE SITE REQUIRES A CERTAIN SEQUENCE OF EVENTS TO MINIMIZE CONSTRUCTION TIME REQUIRED UNTIL AVAILABILITY OF CELLULAR TELEPHONE SERVICE.
- CONSTRUCTION STAKING: THE GENERAL CONTRACTOR SHALL CONTACT THE SURVEYOR TO SCHEDULE CONSTRUCTION STAKING. SURVEYOR TO STAKE LEASE AREA CORNERS, SHELTER CORNERS, CENTER OF THE 3 TOWER LEGS (VERIFY LEG CENTER LINE DIMENSION WITH TOWER DRAWINGS) AND CENTERLINE OF ALL ACCESS AND UTILITY EASEMENTS.
- SITE CLEARING - EXCAVATION AND FILL: ALL NEW SHELTER AND TOWER LOCATIONS SHALL BE CLEARED OF ALL TOPSOIL AND VEGETATION. CONTRACTOR SHALL USE EXCAVATED MATERIAL FROM FOUNDATION EXCAVATION AND SHALL PROVIDE, SPREAD AND COMPACT BANK RUN GRAVEL AS REQUIRED TO BRING SHELTER UP TO ELEVATIONS AS INDICATED BY THE FINAL SUB-GRADE ELEVATIONS AS SHOWN ON THE PLANS.
- EQUIPMENT SHELTER FOUNDATIONS: THE CONTRACTOR SHALL INSTALL THE EQUIPMENT SHELTER FOUNDATION AND TOWER FOUNDATION(S) INCLUDING THE ANCHOR BOLTS AS FURNISHED BY THE TOWER MANUFACTURER (TOWER FABRICATION, ERECTION, AND ANTENNA INSTALLATION SHALL BE BY OTHERS). CONTRACTOR SHALL CONTACT THE GEOTECHNICAL CONSULTANT FOR ON SITE INSPECTIONS PRIOR TO POURING CONCRETE FOR TOWER AND SHELTER FOUNDATIONS. CONCRETE CORES (THREE (3) CYLINDERS PER TRUCK) TO BE TAKEN AND TESTED BY THE CONSULTANT AND PROVIDE THREE (3) COPIES OF THE TESTING RESULTS TO THE VERIZON WIRELESS PROJECT MANAGER.
- PREFABRICATED SHELTER: THE GENERAL CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS FOR THE PROPER LIFTING OF THE SHELTER FROM THE TRANSPORT TRUCK BED TO THE FINAL POSITION ON THE CONCRETE FOUNDATION. THE SHELTER SHALL BE LIFTED INTO PLACE BY USING EIGHT (8) LIFTING EYELETS PROVIDED BY THE SHELTER MANUFACTURER. THE SHELTER MANUFACTURER REQUIRES EIGHT (8) 3/4" DIA., 15' LONG STEEL CABLES CONNECTED TO THE SPREADER BAR. IF THE SPREADER BAR IS AT LEAST TWO FEET WIDER THAN THE SHELTER, CORNER PROTECTORS WILL NOT NEED TO BE USED. THE APPROXIMATE WEIGHT OF THE SHELTER WITH THE TELEPHONE EQUIPMENT IS 72,000 LBS (REFER TO SHELTER LIFTING INSTRUCTIONS ON SHEET B-1). THE CONTRACTOR SHALL ANCHOR THE SHELTER TO THE CONCRETE SLAB WITH STEEL PLATES AND ANCHOR BOLTS PROVIDED BY THE SHELTER MANUFACTURER. THE VERIZON WIRELESS SHELTER SHALL NOT BE USED FOR THE STORAGE OF ANY MATERIALS, TOOLS, ETC. USED BY THE CONTRACTOR OR SUB-CONTRACTORS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF THE ELECTRICAL DISCONNECT, EXTERIOR LIGHT FIXTURE, DOOR CANOPIES (WITH CAULKING), MUFFLER AND LOOSE SHIP MATERIALS, INCLUDING FUELING, START UP AND TESTING (COORDINATE WITH OPERATIONS TO SET GENERATOR ROUTINE RUN DATE).
- THE GENERAL CONTRACTOR SHALL INSTALL THE TOWER FOUNDATION, INCLUDING THE ANCHOR BOLTS AS FURNISHED BY THE TOWER MANUFACTURER. TOWER FABRICATION, ERECTION, AND ANTENNA INSTALLATION SHALL BE BY OTHERS.
- ACCESS DRIVEWAY: THE GENERAL CONTRACTOR SHALL CONSTRUCT THE ACCESS DRIVEWAY PER THE ALIGNMENT AND CROSS SECTION ON THE DRAWINGS. IF ANY AREA OF CONSTRUCTION REQUIRES MORE FILL OF AGGREGATE STONE THAN SHOWN ON THE DRAWINGS, THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR APPROVAL OF THE SIZE, TYPE AND QUANTITY OF STONE/FILL NECESSARY, AND SHALL NOT BE USED UNTIL APPROVAL BY THE ARCHITECT/ENGINEER.
- UTILITIES: THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXCAVATION AND PROPER BACK FILLING OF TRENCHES REQUIRED FOR UNDERGROUND TELEPHONE AND ELECTRICAL UTILITIES. REFER TO ELECTRICAL SHEETS FOR THE UTILITY TRENCH PLAN AND DETAILS COORDINATE, SERVICE DATE WITH THE RESPECTIVE UTILITY COMPANIES.
- ANTENNAS INSTALLATION: ALL ANTENNAS AND LINES AND ICE BRIDGE SHALL BE INSTALLED BY ANTENNA CONTRACTOR. DURING THIS WORK THE GENERAL CONTRACTOR SHALL BE
- HERBICIDE: AFTER PLACEMENT AND COMPACTING OF FILL AROUND THE PREFABRICATED SHELTER AND BEFORE PLACEMENT OF LIMESTONE SURFACE, A WEED BARRIER SHALL BE PLACED AND HERBICIDE SHALL BE SPRAYED OVER ALL DISTURBED AREAS.
- TRASH REMOVAL: THE GENERAL CONTRACTOR SHALL REMOVE ALL TRASH AS CREATED BY HIMSELF AND HIS SUBCONTRACTORS AND ALSO BY OTHER CONTRACTORS INCLUDING CABLE REELS, CARDBOARD BOXES, AND PACKAGING. THE GENERAL CONTRACTOR SHALL PROVIDE A TRASH DUMPSTER (40 YARD ROLL OFF) ON THE SITE UNTIL ALL CONSTRUCTION WORK AND EQUIPMENT INSTALLATION WORK HAS BEEN COMPLETED. ALL TRASH SHALL BE REMOVED FROM THE SITE IN A TIMELY FASHION TO A LEGAL DISPOSAL AREA. FAILURE TO PROVIDE A DUMPSTER ON SITE WILL RESULT IN A \$1000.00 REDUCTION IN THE CONTRACT AMOUNT.
- FINAL CLEAN UP: UPON COMPLETION OF ALL WORK BY THE GENERAL CONTRACTOR AND ALL OTHER CONTRACTORS ON THIS PROJECT, THE GENERAL CONTRACTOR SHALL STRIP AND CLEAN THE FLOOR OF THE SHELTER, USING AN INDUSTRIAL STRIPPING MACHINE. THE FINISHED FLOOR SHALL BE CLEAN AND DUST FREE. NO SURFACE FINISHES SHALL BE APPLIED. THE GENERAL CONTRACTOR IS ALSO RESPONSIBLE FOR THE REMOVAL OF ALL EXCESS MATERIALS FROM INSIDE THE SHELTER ALONG WITH SHIPMENT OF NOTED MATERIALS BACK TO THE OWNER.
- GENERAL CONTRACTOR SHALL REQUEST DELIVERY OF VERIZON WIRELESS ANTENNAS AND MISCELLANEOUS MATERIALS WHEN READY TO RECEIVE AND INVENTORY. ANY SHORTAGES MUST BE REPORTED TO THE VERIZON WIRELESS PROJECT MANAGER WITHIN 48 HOURS OF DELIVERY. REQUEST FOR FINAL CLEAN UP WILL BE AT THE DIRECTION OF THE VERIZON WIRELESS PROJECT MANAGER.
- THE GENERAL CONTRACTOR SHALL PROVIDE AND MAINTAIN A PORTABLE TOILET ON SITE DURING THE DURATION OF THE CONSTRUCTION PROJECT.
- INDIANA PROTECTION SERVICE: CONTACT IUPS (800) 382-5544 IN INDIANA OR (800) 428-5200 OUTSIDE INDIANA AT LEAST 48 HOURS PRIOR TO DIGGING.
- THE GENERAL CONTRACTOR SHALL NOTIFY THE PROJECT ADMINISTRATOR 48 HOURS PRIOR TO POURING CONCRETE FOR SHELTER FOUNDATION.
- THE CONTRACTOR WILL, UPON BECOMING AWARE OF SUBSURFACE OR LATENT PHYSICAL CONDITIONS DIFFERING FROM THOSE DISCLOSED BY THE ORIGINAL SOIL INVESTIGATION WORK, PROMPTLY NOTIFY THE OWNER VERBALLY TO PERMIT VERIFICATION OF THE CONDITIONS, AND IN WRITING, AS TO THE NATURE OF THE DIFFERING CONDITIONS. NO CLAIM BY THE CONTRACTOR FOR ANY CONDITIONS DIFFERING FROM THOSE ANTICIPATED IN THE PLANS AND SPECIFICATIONS AND DISCLOSED BY THE STUDIES WILL BE ALLOWED UNLESS THE CONTRACTOR HAS SO NOTIFIED THE OWNER, VERBALLY AND IN WRITING, AS REQUIRED ABOVE, OF SUCH DIFFERING SUBSURFACE CONDITIONS.
- BEFORE AND DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL AS NECESSARY IN THE FORM OF SILT FENCES FOR THE SITE AND BALES AROUND ANY EXISTING MANHOLES, INLETS, OR CATCHBASINS (WHEN PRESENT) SUSCEPTIBLE TO EROSION. EROSION CONTROL MEASURES SHALL BE PERIODICALLY INSPECTED TO ENSURE PROPER FUNCTION. EROSION CONTROL SHALL BE REMOVED UPON COMPLETION OF WORK.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING PAVED, CONCRETE, OR GRAVEL PARKING AREAS AND DRIVES. CONTRACTORS SHALL PHOTOGRAPH AND VIDEOTAPE EXISTING PARKING AREAS AND DRIVES PRIOR TO CONSTRUCTION. ANY DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPLACED TO EXISTING OR BETTER CONDITION AT NO ADDITIONAL COST.
- GRADE ALL AREAS DISTURBED DURING CONSTRUCTION TO MATCH EXISTING SURROUNDINGS AFTER WORK IS COMPLETE OR AS WEATHER PERMITS WITH APPROVAL FROM THE PROPERTY OWNER.

SOME NOTES MAY NOT APPLY



DRAWN BY: MLM

CHECKED BY: MJA

NO:	DATE:	ISSUE:
1	9/22/14	PRELIM CDs
2	11/05/14	REVISED CDs
3	11/17/14	REVISED CDs
4	12/09/14	PERMIT CDs
5	04/24/15	FINAL CDs

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SITE NAME:  
LAKE BLUFF 2  
#081

ADDRESS:  
45 EAST CENTER  
LAKE BLUFF, IL  
60044

SHEET TITLE:  
GENERAL NOTES

A&E PROJECT NO.:  
001-1647

SHEET NUMBER:  
GN-1

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DRAWN BY: MLM  
CHECKED BY: MJA

NO:	DATE:	ISSUE:
1	9/22/14	PRELIM CDs
2	11/05/14	REVISED CDs
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SITE NAME:  
LAKE BLUFF 2  
#081

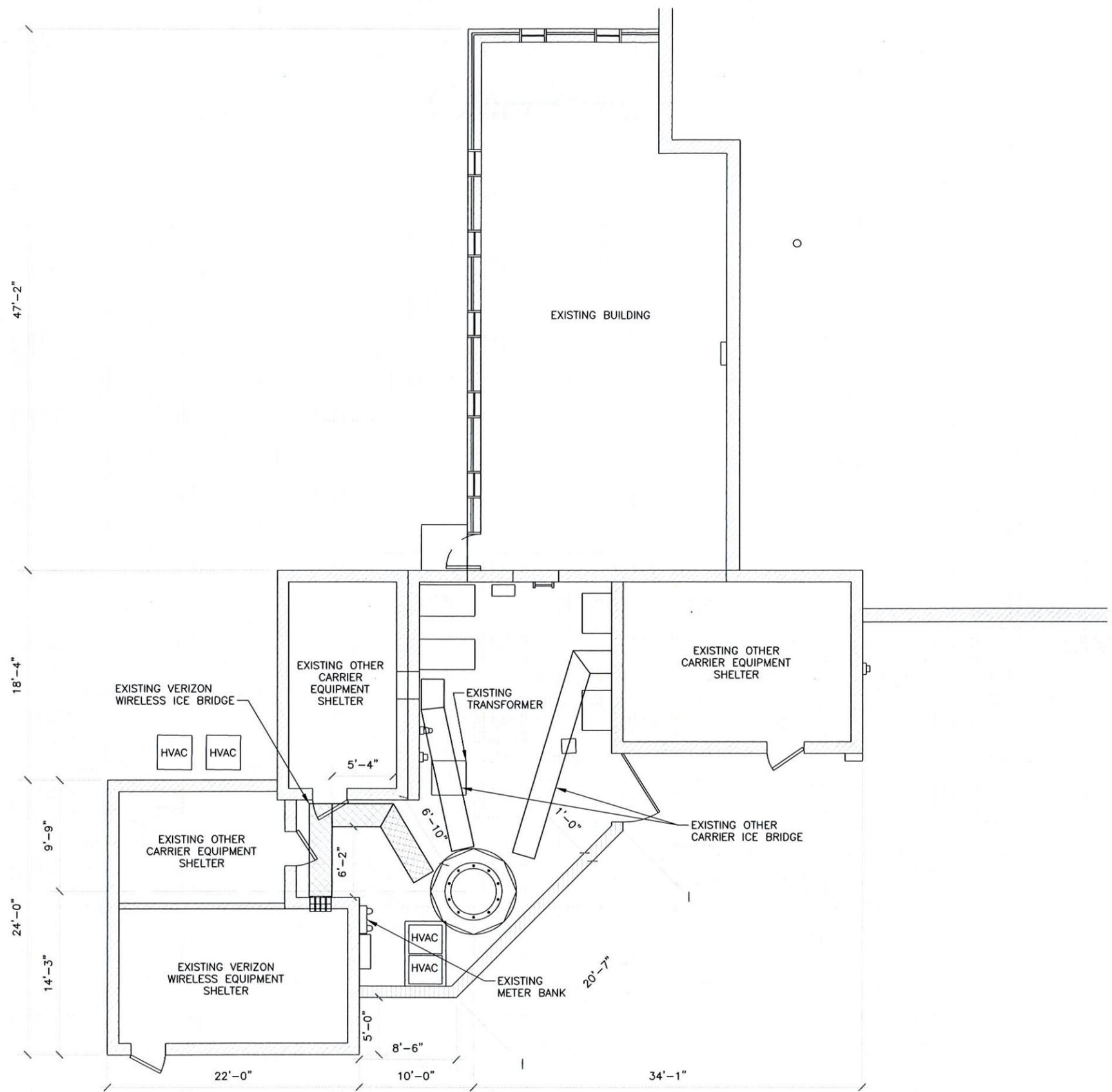
ADDRESS:  
45 EAST CENTER  
LAKE BLUFF, IL  
60044

SHEET TITLE:  
**EXISTING SITE PLAN**

A&E PROJECT NO.:  
001-1647

SHEET NUMBER:  
**C-1**

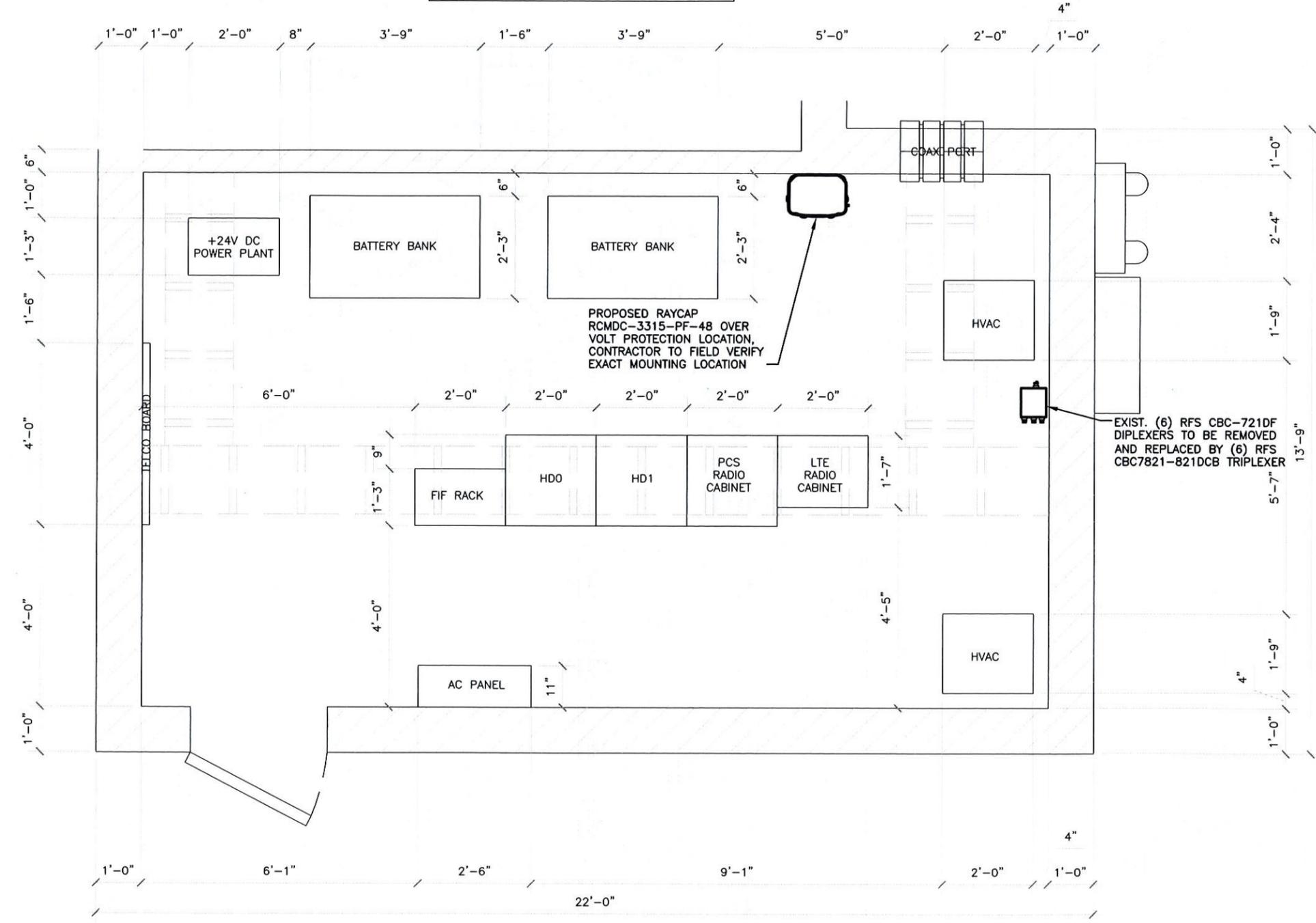
DO NOT SCALE DRAWINGS



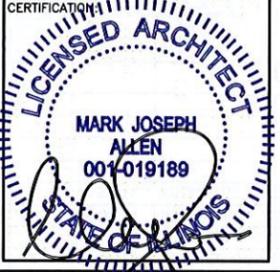
**1 EXISTING SITE PLAN**  
SCALE: 1"=10'



PHOTO OF OVP  
MOUNTING LOCATION NOT  
AVAILABLE



1 SHELTER LAYOUT  
SCALE: 3/8" = 1'-0"



DRAWN BY: MLM  
CHECKED BY: MJA

NO:	DATE:	ISSUE:
1	9/22/14	PRELIM CDs
2	11/05/14	REVISED CDs
3	11/17/14	REVISED CDs
4	12/09/14	PERMIT CDs
5	04/24/15	FINAL CDs

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SITE NAME:  
LAKE BLUFF 2  
#081

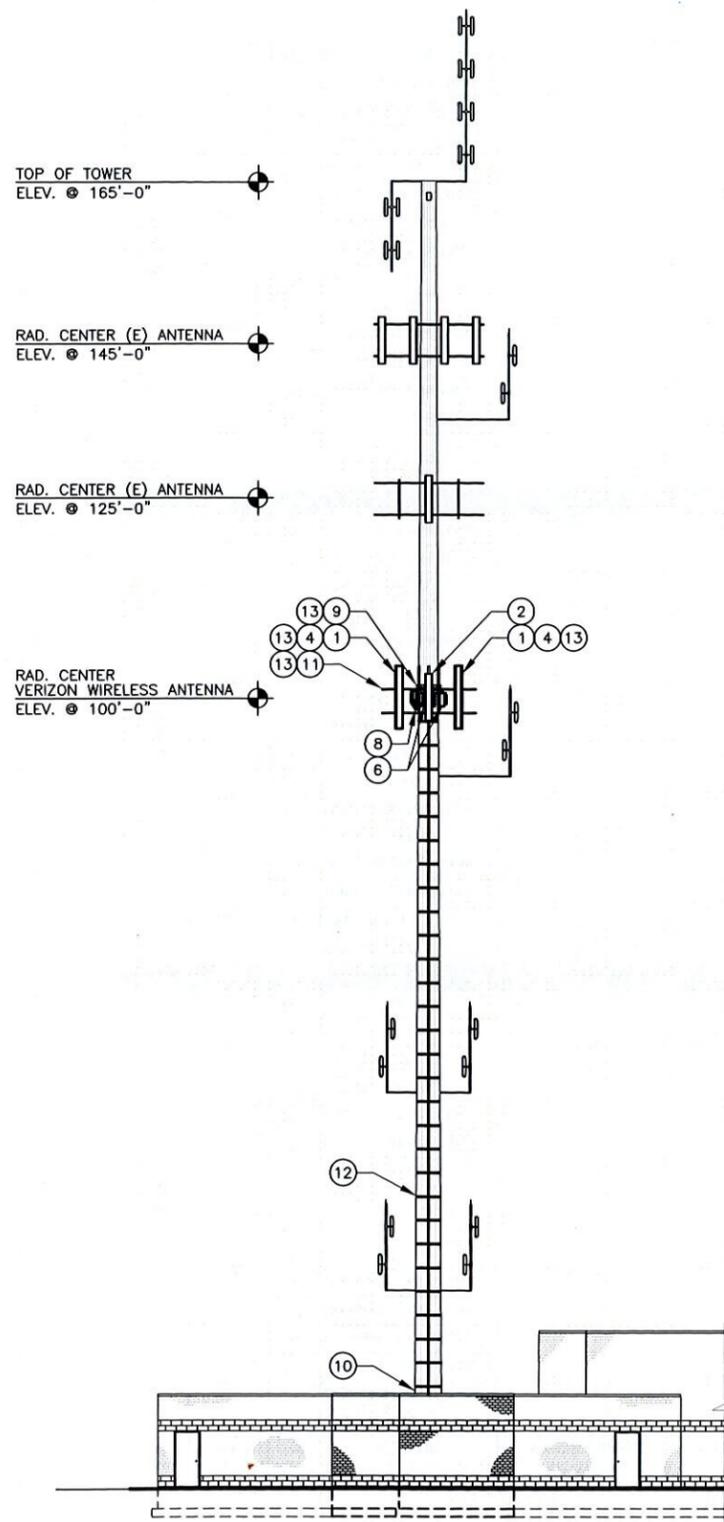
ADDRESS:  
45 EAST CENTER  
LAKE BLUFF, IL  
60044

SHEET TITLE:  
SHELTER LAYOUT

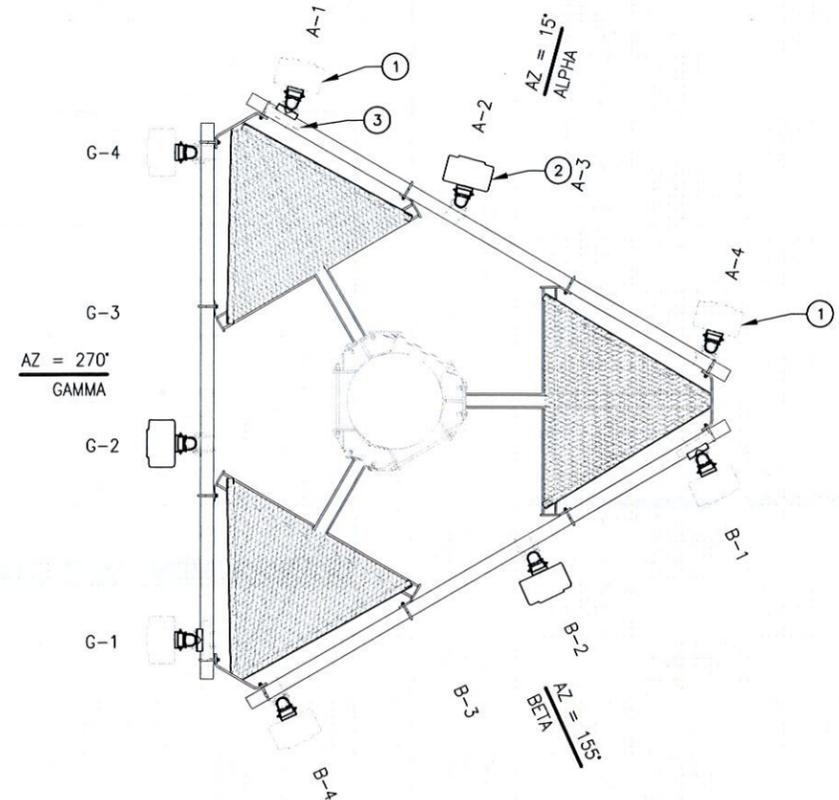
A&E PROJECT NO.:  
001-1647

SHEET NUMBER:  
C-2

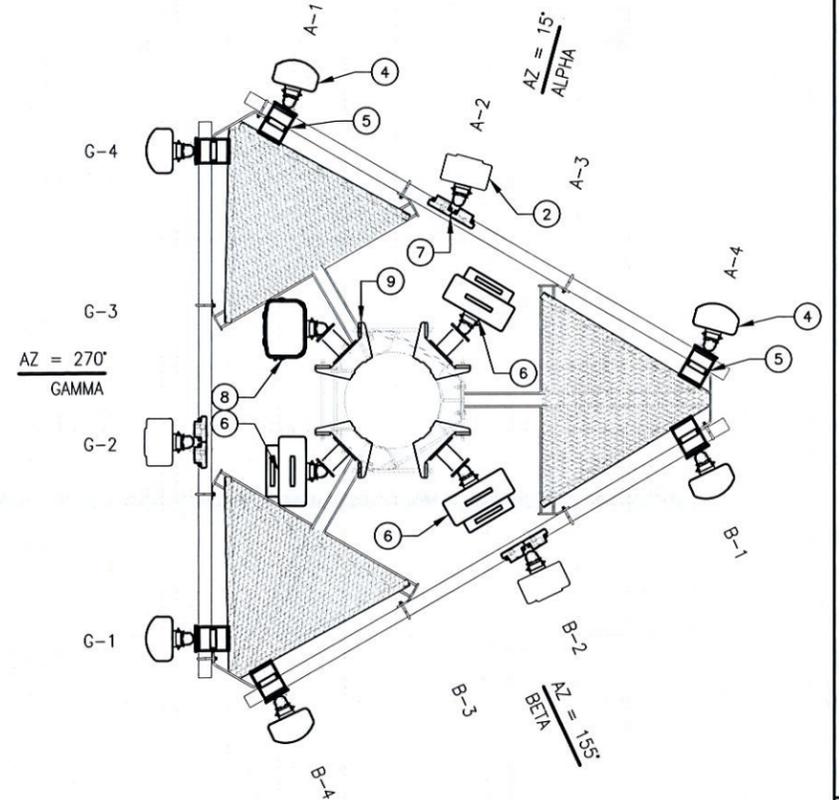
DO NOT SCALE DRAWINGS



**1 TOWER ELEVATION**  
SCALE: N.T.S.

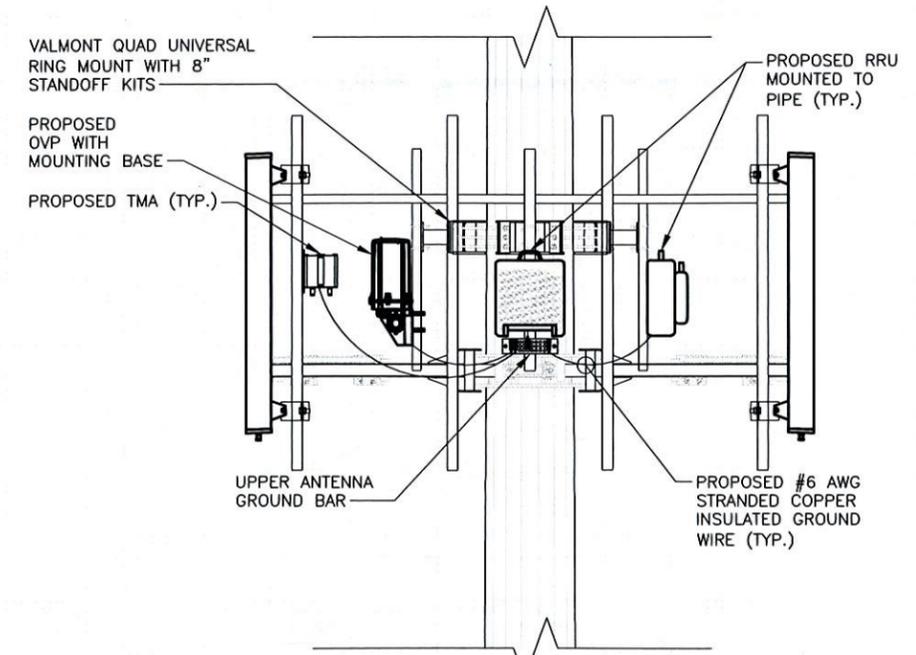


**2 EXISTING ANTENNA LAYOUT**  
SCALE: 1/4"=1'-0"

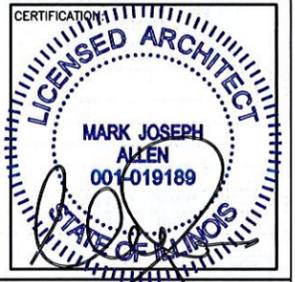


**3 PROPOSED ANTENNA LAYOUT**  
SCALE: 1/4"=1'-0"

- ALL NOTES TYPICAL TO ALL SECTORS
- EXIST. KATHREIN 800-10765 PANEL ANTENNA TO BE REMOVED
  - EXIST. KATHREIN 800-10765 PANEL ANTENNA TO REMAIN
  - EXIST. CSS DBC-7CAP DIPLEXER TO BE REMOVED
  - PROPOSED AMPHENOL CWWX063X19 PANEL ANTENNA
  - PROPOSED WESTELL AWC-TTMA-700-VG TMA
  - PROPOSED ERICSSON RRU-12-AWS WITH A2 BOX ATTACHED
  - PROPOSED CSS CBC7821-821DCB TRIPLEXER
  - PROPOSED RAYCAP RCMD-3315-PF-48 OVER VOLT PROTECTION UNIT
  - PROPOSED VALMONT QUAD UNIVERSAL RING MOUNT WITH 8" STANDOFF KITS (PN#UQB4 & (4) PN#WWM01) MOUNTED 3' ABOVE PLATFORM WITH PIPE CONNECTIONS EXTENDING 3' DOWN
  - PROPOSED 130' COMMSCOPE HFT1206-24S26 REMOTE RADIO HYBRID CABLE LINE ROUTED OUTSIDE OF MONOPOLE
  - CONTRACTOR TO INSTALL NEW HANDRAIL KIT (VALMONT PN# HRK12 OR EQUAL)
  - COMMSCOPE RM-USBG SUPPORT BRACKETS WITH SS BANDING AT 3' O.C. - INSTALL BRACKET AT LEAST 24" FROM CLIMBING PEGS
  - CONTRACTOR TO PAINT ALL NEW EQUIPMENT TO MATCH EXISTING EQUIPMENT / TOWER COLOR



**4 RRU, TMA, & OVER VOLT SURGE PROTECTOR GROUNDING DETAIL**  
SCALE: 1/4"=1'-0"



DRAWN BY: MLM  
CHECKED BY: MJA

NO:	DATE:	ISSUE:
1	9/22/14	PRELIM CDs
2	11/05/14	REVISED CDs
3	11/17/14	REVISED CDs
4	12/09/14	PERMIT CDs
5	04/24/15	FINAL CDs

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SITE NAME:  
**LAKE BLUFF 2 #081**

ADDRESS:  
**45 EAST CENTER LAKE BLUFF, IL 60044**

SHEET TITLE:  
**TOWER ELEVATION & ANTENNA LAYOUT**

A&E PROJECT NO.:  
**001-1647**

SHEET NUMBER:  
**A-1**

DO NOT SCALE DRAWINGS

**EQUIPMENT CHANGE REQUEST FORM- ECR**

Cell Name	LAKE BLUFF 2	Cell ID	81
Location Number	126618	RF Engineer	Sabhi Siddiqui/Aziz
Date of Request	9/19/2014	Address	45 E. Center Street
		Market	Elgin
		City/State/Zip	Lake Bluff, IL, 60044

**EXISTING CONFIGURATION**

Sector	Position	Antenna		Antenna Manufacturer	Antenna Model	Centerline	Azimuth	Variable Tilt	Mechanical Tilt
		Port	RF Path						
Alpha	A1	L1	CEL - RxTx0	KATHREIN	800-10765 C 5DT	100	15	5	0
		L2	CEL - RxTx1						
		H1	Unused at this time						
		H2	Unused at this time						
	A2	L1	Unused at this time	KATHREIN	800-10765 P 3DT	100	15	3	0
		L2	Unused at this time						
		H1	PCS - RxTx0						
		H2	PCS - RxTx1						
	A3	L1	Unused at this time	KATHREIN	800-10765 C 5DT	100	15	5	0
		L2	Unused at this time						
		H1	Unused at this time						
		H2	Unused at this time						
A4	L1	LTE C - RxTx0	KATHREIN	800-10765 C 5DT	100	15	5	0	
	L2	LTE C - RxTx1							
	H1	Unused at this time							
	H2	Unused at this time							
Beta	B1	L1	CEL - RxTx0	KATHREIN	800-10765 C 5DT	100	155	5	0
		L2	CEL - RxTx1						
		H1	Unused at this time						
		H2	Unused at this time						
	B2	L1	Unused at this time	KATHREIN	800-10765 P 3DT	100	155	3	0
		L2	Unused at this time						
		H1	PCS - RxTx0						
		H2	PCS - RxTx1						
	B3	L1	Unused at this time	KATHREIN	800-10765 L 4DT	100	155	4	0
		L2	Unused at this time						
		H1	Unused at this time						
		H2	Unused at this time						
B4	L1	LTE C - RxTx0	KATHREIN	800-10765 L 4DT	100	155	4	0	
	L2	LTE C - RxTx1							
	H1	Unused at this time							
	H2	Unused at this time							
GAMMA	G1	L1	CEL - RxTx0	KATHREIN	800-10765 C 5DT	100	270	5	0
		L2	CEL - RxTx1						
		H1	Unused at this time						
		H2	Unused at this time						
	G2	L1	Unused at this time	KATHREIN	800-10765 P 3DT	100	270	3	0
		L2	Unused at this time						
		H1	PCS - RxTx0						
		H2	PCS - RxTx1						
	G3	L1	Unused at this time	KATHREIN	800-10765 L 4DT	100	270	4	0
		L2	Unused at this time						
		H1	Unused at this time						
		H2	Unused at this time						
G4	L1	LTE C - RxTx0	KATHREIN	800-10765 L 4DT	100	270	4	0	
	L2	LTE C - RxTx1							
	H1	Unused at this time							
	H2	Unused at this time							

**EQUIPMENT CHANGE REQUEST FORM- ECR**

Cell Name	LAKE BLUFF 2	Cell ID	81
Location Number	126618	RF Engineer	Sabhi Siddiqui/Aziz
Date of Request	9/19/2014	Address	45 E. Center Street
		Market	Elgin-1
		City/State/Zip	Lake Bluff, IL, 60044

**PROPOSED CONFIGURATION**

Sector	Pos	Antenna		Antenna Manufacturer	Antenna Model	Antenna Serial Number	Centerline	Azimuth	Variable Tilt	Mechanical Tilt	Action
		Port	RF Path								
Alpha	A1	L1 (-45)	LTE C - RxTx0	Amphenol	CWWX063X19G00		Existing	Existing	5	0	Change-Install
		L2 (+45)	LTE C - RxTx1								
		H1 (-45)	AWS - Rx2								
		H2 (+45)	AWS - Rx3								
	A2	L1 (-45)	Unused at this time	KATHREIN	800-10765		Existing	Existing	5	0	Unchanged
		L2 (+45)	Unused at this time								
		H1 (-45)	Unused at this time								
		H2 (+45)	Unused at this time								
	A3	L1 (-45)	CEL - RxTx0	KATHREIN	800-10765		Existing	Existing	3	0	Unchanged
		L2 (+45)	CEL - RxTx1								
		H1 (-45)	PCS - RxTx0								
		H2 (+45)	PCS - RxTx1								
A4	L1 (-45)	LTE C - Rx2	Amphenol	CWWX063X19G00		Existing	Existing	5	0	Change-Install	
	L2 (+45)	LTE C - Rx3									
	H1 (-45)	AWS - RxTx0									
	H2 (+45)	AWS - RxTx1									
Beta	B1	L1 (-45)	LTE C - RxTx0	Amphenol	CWWX063X19G00		Existing	Existing	4	0	Change-Install
		L2 (+45)	LTE C - RxTx1								
		H1 (-45)	AWS - Rx2								
		H2 (+45)	AWS - Rx3								
	B2	L1 (-45)	Unused at this time	KATHREIN	800-10765		Existing	Existing	5	0	Unchanged
		L2 (+45)	Unused at this time								
		H1 (-45)	PCS - RxTx0								
		H2 (+45)	PCS - RxTx1								
	B3	L1 (-45)	CEL - RxTx0	KATHREIN	800-10765		Existing	Existing	3	0	Unchanged
		L2 (+45)	CEL - RxTx1								
		H1 (-45)	PCS - RxTx0								
		H2 (+45)	PCS - RxTx1								
B4	L1 (-45)	LTE C - Rx2	Amphenol	CWWX063X19G00		Existing	Existing	4	0	Change-Install	
	L2 (+45)	LTE C - Rx3									
	H1 (-45)	AWS - RxTx0									
	H2 (+45)	AWS - RxTx1									
GAMMA	G1	L1 (-45)	LTE C - RxTx0	Amphenol	CWWX063X19G00		Existing	Existing	4	0	Change-Install
		L2 (+45)	LTE C - RxTx1								
		H1 (-45)	AWS - Rx2								
		H2 (+45)	AWS - Rx3								
	G2	L1 (-45)	Unused at this time	KATHREIN	800-10765		Existing	Existing	5	0	Unchanged
		L2 (+45)	Unused at this time								
		H1 (-45)	PCS - RxTx0								
		H2 (+45)	PCS - RxTx1								
	G3	L1 (-45)	CEL - RxTx0	KATHREIN	800-10765		Existing	Existing	3	0	Unchanged
		L2 (+45)	CEL - RxTx1								
		H1 (-45)	PCS - RxTx0								
		H2 (+45)	PCS - RxTx1								
G4	L1 (-45)	LTE C - Rx2	Amphenol	CWWX063X19G00		Existing	Existing	4	0	Change-Install	
	L2 (+45)	LTE C - Rx3									
	H1 (-45)	AWS - RxTx0									
	H2 (+45)	AWS - RxTx1									



DRAWN BY: MLM  
CHECKED BY: MJA

NO:	DATE:	ISSUE:
1	9/22/14	PRELIM CDs
2	11/05/14	REVISED CDs
3	11/17/14	REVISED CDs
4	12/09/14	PERMIT CDs
5	04/24/15	FINAL CDs

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SITE NAME:  
LAKE BLUFF 2  
#081

ADDRESS:  
45 EAST CENTER  
LAKE BLUFF, IL  
60044

SHEET TITLE:  
EQUIPMENT CHANGE  
REQUEST FORM

A&E PROJECT NO.:  
001-1647

SHEET NUMBER:  
**A-2**

DO NOT SCALE DRAWINGS

<b>Cable Summary</b>	<b>Cable Type</b>	RFF-165M-808-418-APE
	<b>Outer Jacket</b>	MDPE
	<b>Shielding</b>	Corrugated Aluminum
	<b>Water Block</b>	Tape
	<b>Ripcord</b>	Aramid (QTY = 2)
	<b>Conductors</b>	8 x 8AWG and 4X18AWG Bunch
	<b>Fiber Cables</b>	4 x 4 SM fibers
	<b>Strength Member</b>	GRP

<b>Optical Fiber Details for Fiber Cable 1</b>	<b>Fiber type</b>	Single Mode G.652 D	
	<b>Fiber Coating Diameter</b>	0.9mm Tight Buffer	
	<b>Number of Fiber Subunits</b>	4	
	<b>Fiber count (each subunit)</b>	4	
	<b>Fiber Subunit Diameter (mm)</b>	5.07	
	<b>Max attenuation, 1310 nm</b>	0.5	dB/km
	<b>Max attenuation, 1550 nm</b>	0.5	dB/km

<b>Copper Conductor Details</b>	<b>Number, Size</b>	8 x 8awg	
	<b>DC resistance</b>	0.628 (2.06)	ohm/kft (ohm/km)

<b>Cable Details</b>	<b>Outer Diameter</b>	1.09 (27.7)	inch (mm)
	<b>Weight</b>	0.75 (1.12)	lb/ft (kg/m)
	<b>Minimum Bend Radius - loaded</b>	21.9 (555)	inch (mm)
	<b>Minimum Bend Radius - unloaded</b>	10.9 (277)	inch (mm)
	<b>Max Tensile Load - short term</b>	800 (3560)	lb (N)
	<b>Max Tensile Load - long term</b>	240 (1070)	lb (N)
	<b>Operating Temperature Range</b>	-40 to +80	°C
	<b>Installation Temperature Range</b>	-30 to +70	°C
	<b>Storage Temperature Range</b>	-40 to +80	°C
	<b>Crush resistance, FOTP-41</b>	22	N/mm
	<b>Impact resistance, FOTP-25</b>	20 impacts of 2.94 Nm	
	<b>Flexing, FOTP-104</b>	5 cycles	
	<b>Twisting, FOTP-85</b>	exceeds	

**Combiner - Cable Data**

**Existing**

Diplexer	Location	Diplexer Manufacturer	Diplexer Model	Count
	Top (Platform)	CSS	DBC-7CAP (Diplexer)	6
	Bottom (Shelter)	RFS	CBC-721DF (Diplexer)	6

Coax	Sector	Coax Manufacturer	Type	Size	Count
	Alpha	Andrew		1 5/8	4
	Beta	Andrew		1 5/8	4
	Gamma	Andrew		1 5/8	4

**Proposed**

Passive Components	Location	Manufacturer	Component Model	Count	Action
	Top (Platform)	CSS	DBC-7CAP (Diplexer)	6	Remove
	Bottom (Shelter)	RFS	CBC-721DF (Diplexer)	6	Remove
	Top (Platform)	Andrew	CBC7821-821DCB (Triplexer)	6	Install
	Top (Platform)	Westell	AWC-TTMA-700C-VG	6	Install
	Top (Platform)	Ericsson	RRUS 12 - AWS	3	Install
	Top (Platform)	Ericsson	A2	3	Install
	Top (Platform)	Raycap	RCMDC-3315-PF-48	1	Install
	Bottom (Shelter)	Raycap	RCMDC-3315-PF-48	1	Install
	Bottom (Shelter)	Andrew	CBC7821-821DCB (Triplexer)	6	Install

Coax	Sector	Coax Manufacturer	Type	Size	Count	Action
	Alpha	Andrew		1 5/8	4	Final Count
	Beta	Andrew		1 5/8	4	Final Count
	Gamma	Andrew		1 5/8	4	Final Count
	AWS	Andrew	HFT1206-24S26-XXX	1 5/8	1	Final Count

2 COMBINER CABLE DATA

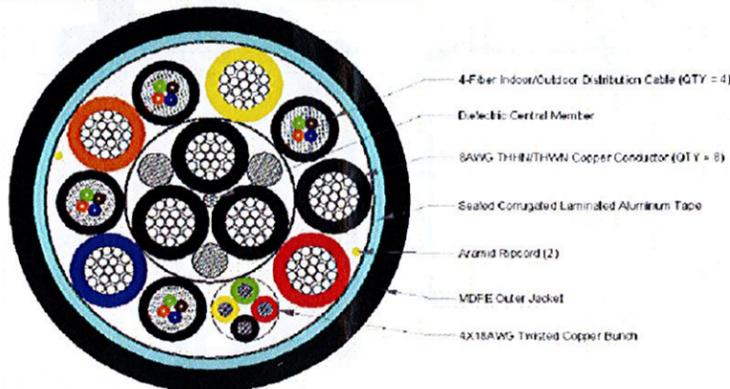
**Remote Radio Hybrid Cable**

**Cell Tower Applications**  
**Single-Cable Power and Fiber Solution**

RRH with Corrugated Aluminum Shield  
Fiber Cable: Four 4-fiber Subunits  
Copper Conductors: 8X8AWG THWN/THHN and a 4X18AWG Twisted Bunch



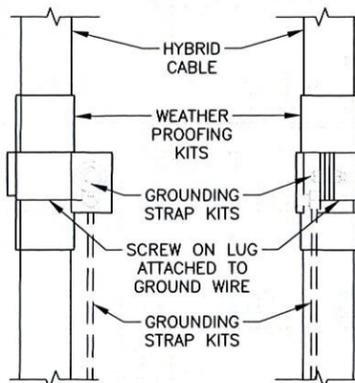
1130 CommScope Place SE  
P.O. Box 1729  
Hickory, NC 28603-1729  
(800) 462-1708  
(828) 324-2200  
Fax: (828) 328-3400  
Int'l Fax: (828) 323-4989  
www.commscope.com



1 REMOTE RADIO HYBRID CABLE

**NOTES:**

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR
- THIS DETAIL IS TYPICAL FOR EACH COAX / HYBRID CABLE WHERE IT IS SPECIFIED TO BE GROUNDED
- CABLE TO BE GROUNDED AT ANTENNA LEVEL AND PRIOR TO ENTERING SHELTER ENTRY PANEL
- CABLE ALSO TO BE GROUNDED TO GROUND BAR AT TOWER BASE IF APPLICABLE
- USE ONLY TIN PLATED GROUNDING KITS.



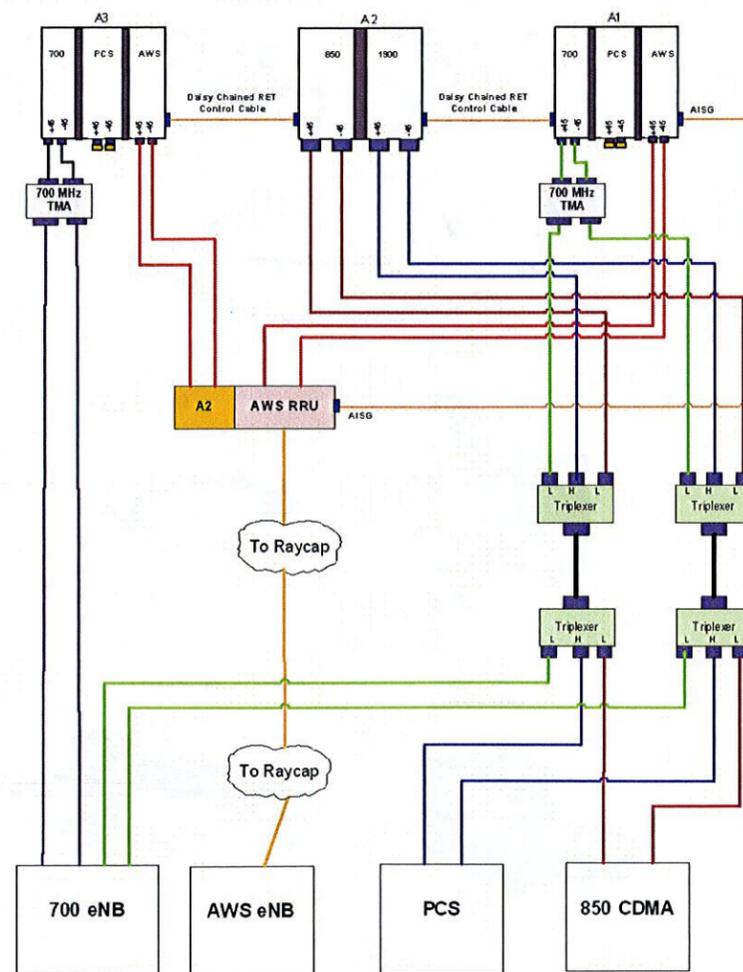
3 COAX / HYBRID CABLE GROUND KIT DETAIL  
SCALE: N.T.S.

**Notes:**

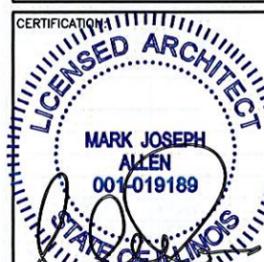
- VERIFY EACH HYBRID CABLE LENGTH, ROUTING, AND ALL MOUNTING APPURTENCES WITH OWNER PRIOR TO ORDERING.
- THE MAX HYBRID CABLE LENGTH HAS BEEN ESTIMATED AT 130 FEET WITH A CORRESPONDING CABLE DIAMETER OF 1 5/8". THIS CABLE LENGTH IS APPROXIMATE AND IS NOT TO BE USED FOR CONSTRUCTION. ACTUAL ANTENNA CABLE LENGTHS MAY VARY FROM ESTIMATED MAXIMUM LENGTH AND MUST BE VERIFIED.
- TAG ALL MAIN CABLES (LABELED 1-12 TYPICAL, VERIFY WITH VERIZON WIRELESS PROJECT MANAGER) AT THREE (3) LOCATIONS:
  - TOP OF TOWER AT ANTENNAS
  - INSIDE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT
  - OUTSIDE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT
- EACH HYBRID CABLE SHALL BE SUPPORTED WITH COLUMN GRIP (CHINESE FINGER GRIP) HUNG FROM A J-HOOK AT TOP OF TOWER, (10' ABOVE FOR LATTICE TOWER).
- EACH HYBRID CABLE SHALL BE GROUNDED AT THREE (3) LOCATIONS:
  - TOWER PLATFORM OR T-FRAME
  - TOWER BASE
  - OUTSIDE EQUIPMENT SHELTER AT THE WAVEGUIDE ENTRY PORT
- HYBRID CABLE TO BE SUPPORTED EVERY 3'-0" ON PLATFORM OR T-FRAME WITH STAINLESS STEEL HANGERS.
- HYBRID CABLE TO BE SUPPORTED EVERY 18" WITH STAINLESS STEEL HANGERS.
- ANTENNA CONTRACTOR RESPONSIBLE FOR FABRICATING ENCLOSURE JUMPERS.
- CABLES TO BE BUNDLED TO TREAT AS ONE CABLE FOR LEASE PURPOSES.

**HYBRID CABLE ESTIMATE**

RAD CENTER	100'
OVP	10'
PORT HEIGHT	-9'
ICE BRIDGE	20'
SHELTER	9'
ESTIMATED LENGTH	130'



4 PLUMBING DIAGRAM



DRAWN BY: MLM

CHECKED BY: MJA

NO:	DATE:	ISSUE:
1	9/22/14	PRELIM CDs
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SITE NAME:  
LAKE BLUFF 2  
#081

ADDRESS:  
45 EAST CENTER  
LAKE BLUFF, IL  
60044

SHEET TITLE:  
COMBINER DATA AND  
CABLE DIAGRAM

A&E PROJECT NO.:  
001-1647

SHEET NUMBER:  
A-3

DO NOT SCALE DRAWINGS

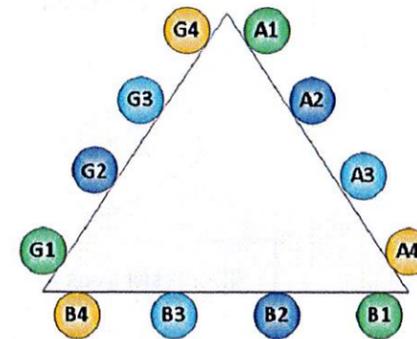
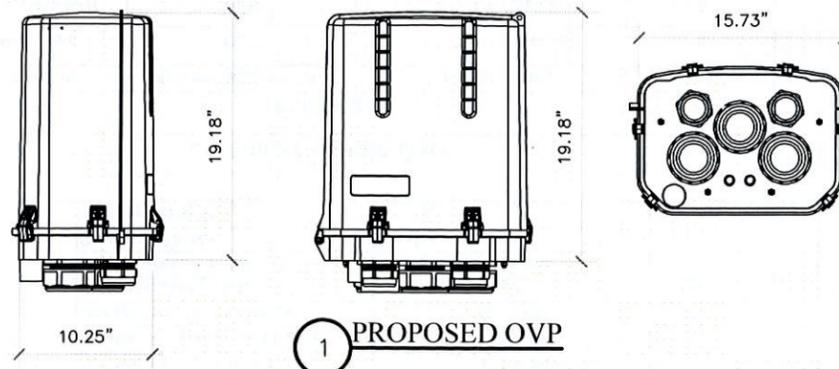
DC Surge Protection for RRH/Integrated Antenna Radio Head  
**RCMDC-4750-PF-48 • RCMDC-3315-PF-48**

Tower / Base / Rooftop / Rooftop Distribution Models

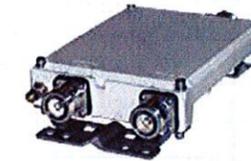


Mounting Bracket Included

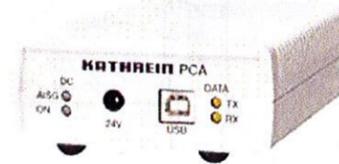
Shown with optional 90° elbow for side entry. Can be installed on left or right side of unit.



Triplexer



Diplexer



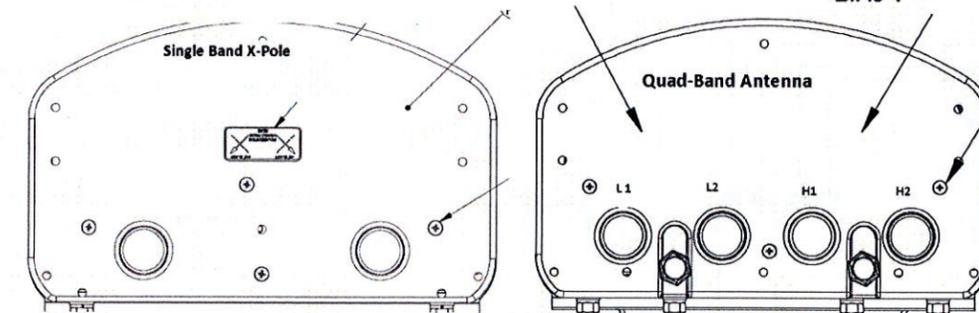
RET Portable Control Unit



RET Cable



BIAS-T



**RRUS 12**

Description	Value
Maximum nominal output power	2x10 W, 2x20 W, 2x30 W, 2x40 W, 2x50 W, and 2x60 W (subject to license handling)
Number of carriers	WCDMA and LTE: One to four carriers. GSM: One to eight carriers. (subject to license handling)
frequency(1)	1,710 to 1,785 MHz uplink 1,805 to 1,890 MHz downlink B3 for GSM, WCDMA, and LTE B4 for LTE [40MHz of Instantaneous BW] 880 to 915 MHz uplink 925 to 960 MHz downlink B8 for GSM and WCDMA
<b>Dimensions with Solar Shield and Handle and Feet</b>	
Height	518 mm 20.4 (in)
Width	470 mm 18.6 (in)
Depth	187 mm 7.4 (in)
<b>Dimensions without Solar Shield and without Handle or Feet</b>	
Height	418 mm 16.5 (in)
Width	458 mm 18.1 (in)
Depth	159 mm 6.3 (in)
Weight	
RRUS 12	26.3 kg 57.9 (lb)
Color	Gray

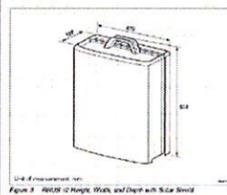
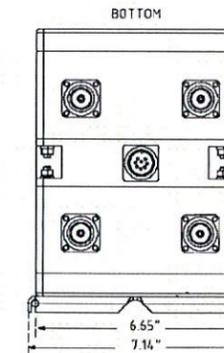
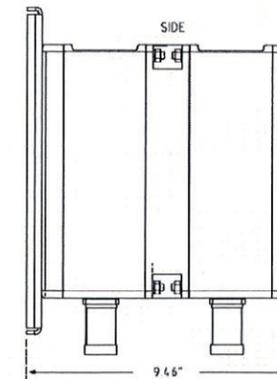
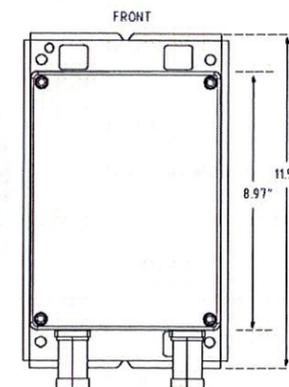


Figure 2 - RRUS 12 Height, Width, and Depth with Solar Shield

© Ericsson AB 2012 Ericsson Confidential

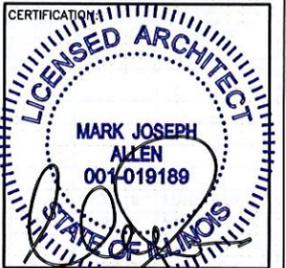
2012-12-13 ERICSSON

2 PROPOSED RRU



BWC-TTMA-700C-VG Tower Mounted Amplifier  
 Twin Variable Gain 700 MHz Upper-C TMA with  
 AISG Output

4 PROPOSED TMA



DRAWN BY: MLM

CHECKED BY: MJA

NO:	DATE:	ISSUE:
1	9/22/14	PRELIM CDs
2	11/05/14	REVISED CDs
3	11/17/14	REVISED CDs
4	12/09/14	PERMIT CDs
5	04/24/15	FINAL CDs

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SITE NAME:  
**LAKE BLUFF 2**  
**#081**

ADDRESS:  
**45 EAST CENTER**  
**LAKE BLUFF, IL**  
**60044**

SHEET TITLE:  
**COMPONENT**  
**INFORMATION AND**  
**DETAILS**

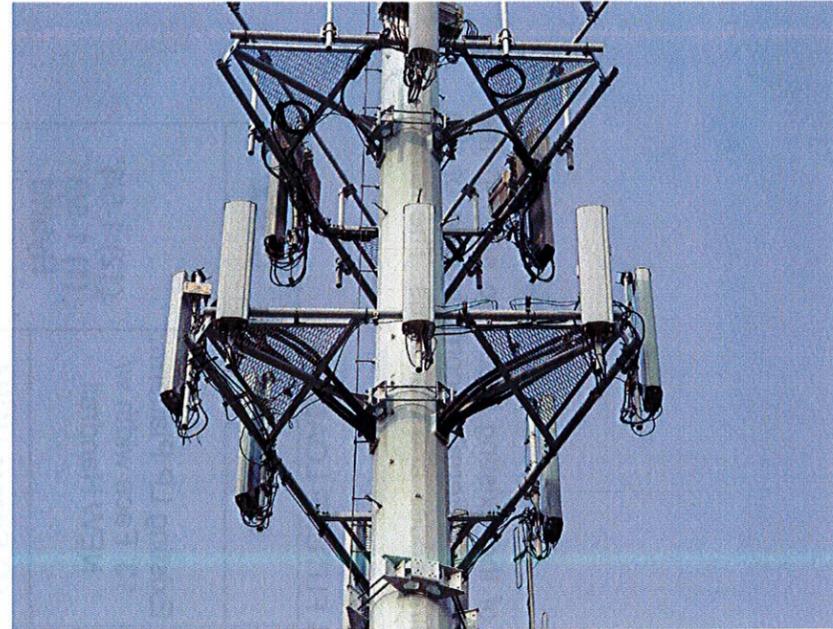
A&E PROJECT NO.:  
**001-1647**

SHEET NUMBER:  
**A-4**

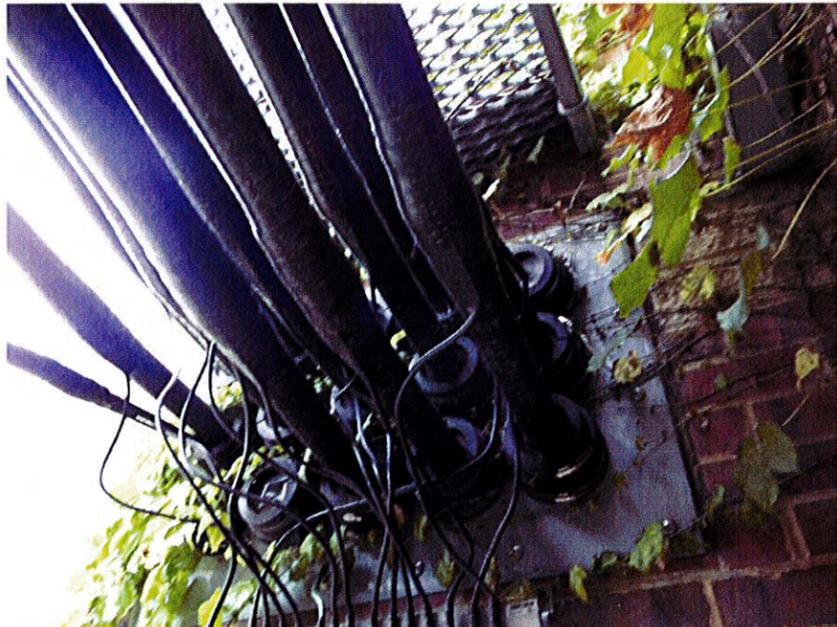
DO NOT SCALE DRAWINGS



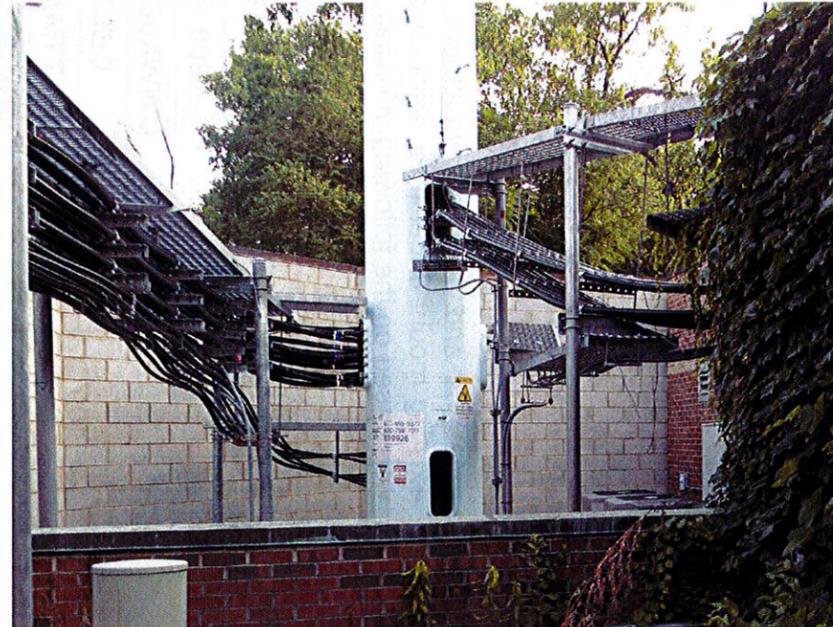
1 EQUIPMENT SHELTER VIEW



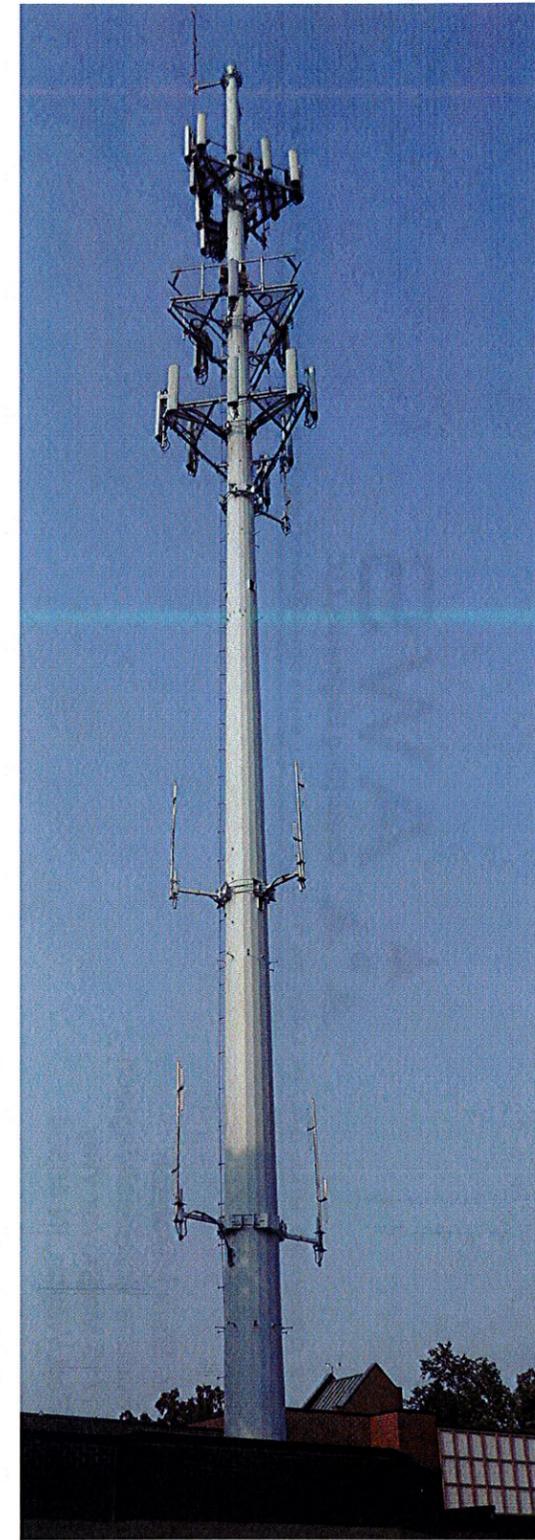
2 TYPICAL ANTENNA SECTOR VIEW



3 ENTRY PANEL VIEW



4 COAX ROUTE VIEW



5 TOWER ELEVATION VIEW



DRAWN BY: MLM  
CHECKED BY: MJA

NO:	DATE:	ISSUE:
1	9/22/14	PRELIM CDs
2	11/05/14	REVISED CDs
3	11/17/14	REVISED CDs
4	12/09/14	PERMIT CDs
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SITE NAME:  
LAKE BLUFF 2  
#081

ADDRESS:  
45 EAST CENTER  
LAKE BLUFF, IL  
60044

SHEET TITLE:  
PHOTO EXHIBIT

A&E PROJECT NO.:  
001-1647

SHEET NUMBER:  
**EX-1**

DO NOT SCALE DRAWINGS



8613 ORCHARD HILL DR., PLANO, TX 75025, EMAIL: SHRADDHA@AWSENGR.COM, PHONE: 614-260-1731

November 14, 2014

Mr. Mark Middleton  
 Fortune Wireless/Magtech  
 1715 Magnovox Way  
 Fort Wayne, IN 46804

RE: Mount Evaluation Letter  
 Project: AWS Phase 6 20141087979  
 Site Name: Lake Bluff 2  
 Site #: 81  
 Loc #: 126618  
 45 E. Center St.  
 Lake Bluff, IL 60044  
 Lake County

To Whom It May Concern,

Per your request, we have reviewed the adequacy of the existing mount to support the antennas and pertinent equipment. The purpose was to determine conformance of the existing mount under their respective governing building codes and standards. The review was based on the following information:

VERIZON EXISTING, PROPOSED & FUTURE LOADING

RAD CENTER	NO.	APPURTUNANCE	MOUNT	COAX
100'	3	800 10765	Existing LP Platform, 13' Face width w/ NEW Handrail	(12) 1-5/8" (1) 1-5/8" Hybrid
	6	CWWX063X19G00		
	6	CBC7821		
	6	AWC-TTMA-700C-VG		
	3	RRUS-12 W/ A2	(1) Sitepro UQB4	
	1	RCMDC-3315-PF-48	(4) Sitepro MM01	

\*One (1) Sitepro UQB4 Ring mounted below the existing antenna mount

- Equipment Change Request Form dated 8/22/2014
- Mount mapping sketch and photos

We checked the capacity of the mount and for compliance with the International Building code 2009 and TIA-222-G standard using a basic wind speed of 90 mph without ice. It excludes the tower itself and assumes the tower has been analyzed and found structurally adequate to support the existing and proposed loading.

**Conclusion:**

The RRU's will be mounted separately on a new Site Pro mounts as noted above. Additionally, a handrail kit shall be added to the existing platform prior to installation of any new antennas. We checked the capacity of the antenna mount with new handrail for the proposed loads and found it to be **structurally adequate**. The maximum stress level was found to be 58.1%. The antennas and mounting pipes shall be centered on the platform and the top of antennas shall not exceed the top handrail member.

We appreciate the opportunity to be of service on this project. If you have any questions or concerns regarding this analysis, please give us a call.

Sincerely,  
AMMS Consulting Engineers, LLC.

Shraddha Dharia, P.E.  
Illinois # 062-064811  
Expires: 11-30-2015



EXPIRES 11/30/16 SIGNED 11/21/14

