



**AGENDA FOR REGULAR MEETING  
VILLAGE OF TINLEY PARK  
PLAN COMMISSION  
August 20, 2015 – 7:30 P.M.  
Council Chambers  
Village Hall – 16250 S. Oak Park Avenue**

**Regular Meeting Called to Order**

**Roll Call Taken**

**Communications**

**Approval of Minutes:** Minutes of the August 6, 2015 Regular Meeting

**Item #1**

**Public Hearing**

**NATIONAL VETERINARY ASSOCIATES – 7613 159<sup>th</sup> STREET –  
SPECIAL USE PERMIT APPROVAL**

Consider a proposal from Dr. Roger Hagenberg, on behalf of National Veterinary Associates, for a Special Use Permit to allow the operation of an animal hospital and kennel for patients at 7613 159<sup>th</sup> Street in the B-3 General Business and Commercial Zoning District.

**Item #2**

**Public Hearing**

**AETNA DEVELOPMENT – 7201 191<sup>st</sup> STREET – REZONING, SITE  
PLAN APPROVAL, AND PLAT APPROVAL**

Consider a proposal from George Hanus, on behalf of the Webster Property Group, LLC, for the Rezoning (Map Amendment) of a 1.96 acre property located at 7201 191<sup>st</sup> Street from R-1 Single-Family Residential Zoning District to B-3 General Business and Commercial Zoning District. The Petitioner is also seeking Site Plan Approval for the construction of a 16,722 square foot multi-tenant retail structure and related site improvements. Additionally, the Petitioner seeks Plat Approval for a plat granting cross-access easements for future development.

**Item #3**

**Public Hearing**

**SBA – 16640 66<sup>th</sup> AVENUE – SPECIAL USE PERMIT APPROVAL**

Consider a proposal from Jim Auld, on behalf of Verizon Wireless and the Village of Tinley Park, for a Special Use Permit to increase the height of an existing monopole beyond one hundred feet (100') in height in the R-1, Single-Family Residential Zoning District. The existing monopole personal wireless tower located at 16640 66<sup>th</sup> Avenue is proposed to be extended from an existing elevation of sixty feet (60') to one hundred and four feet (104').

**Item #4**

**Public Hearing (Open and Table)**

**TEXT AMENDMENTS TO SECTION XII (LEGACY CODE) OF THE TINLEY PARK ZONING ORDINANCE AND REZONING CERTAIN PROPERTIES RELATIVE TO THE LEGACY CODE ZONING DISTRICTS – VILLAGE OF TINLEY PARK**

**Item #5**

**TINLEY PARK CORPORATE CENTER – 18801 OAK PARK AVENUE & 18604 RIDGELAND AVENUE – SPECIAL USE PERMIT FOR A SUBSTANTIAL DEVIATION TO AMEND THE FIRST INDUSTRIAL PLANNED UNIT DEVELOPMENT AND FINAL PLANNED UNIT DEVELOPMENT PLAT APPROVAL**

Consider a proposal from Dan Shapiro, on behalf of FR/Cal I-80 Tinley Park, LLC, for a Special Use Permit for a Substantial Deviation to amend the existing First Industrial Realty Trust Planned Unit Development (PUD) and to approve the Final Planned Unit Development Plat of Subdivision for the Tinley Park Corporate Center.

**Item #6**

**SPEEDWAY – 18460 80<sup>th</sup> AVENUE & 8045 185<sup>th</sup> STREET – REZONING, PLAT APPROVAL, SPECIAL USE PERMIT FOR A SUBSTANTIAL DEVIATION FROM THE TINLEY CROSSINGS CORPORATE CENTER PLANNED UNIT DEVELOPMENT WITH EXCEPTIONS, AND SITE PLAN APPROVAL**

Consider a proposal from Melanie Fuoss, on behalf of Speedway, for the following:

1. A Rezoning (Map Amendment) upon annexation of a 1.51 acre property located at 8045 185<sup>th</sup> Street from R-1 Single-Family Residential Zoning District to M-1 General Manufacturing Zoning District within the Tinley Crossings Corporate Center Planned Unit Development;
2. Plat Approval for a Plat of Consolidation for the three (3) parcels that comprise the Speedway gas station and car wash;
3. A Special Use Permit for a Substantial Deviation to the existing Tinley Crossings Corporate Center Planned Unit Development (PUD) with exceptions from the regulations of the M-1 Zoning District and the Urban Design Overlay District regarding lot area, lot depth, and front yard setback requirements; and
4. Site Plan Approval for the expansion of the existing Speedway gas station and related site improvements.

**Item #7**

**UNION SQUARE – NORTHWEST & SOUTHWEST CORNERS OF 179<sup>th</sup> STREET AND OAK PARK AVENUE – SITE PLAN APPROVAL**

Consider a proposal from Kevin and Mike Halleran for Site Plan Approval for property located at the northwest and southwest corners of 179<sup>th</sup> Street and Oak

Park Avenue (PIN # 28-31-105-033-0000 & 28-31-301-050-0000) and within the NG Neighborhood General Zoning District and the Village's Legacy District. The Petitioners are proposing four (4) residential multi-family structures with a total of seventeen (17) townhome/row-house style units.

**Adjourn Meeting**

## **ORDER OF PUBLIC HEARING**

- a. Opening of Public Hearing
- b. Swearing in Petitioner, Objectors and Interested Persons
- c. Confirmation of notices being published and mailed in accordance with State law and Village Code/Zoning Ordinance requirements
- d. Petitioner presentation
  - i. Cross examination
  - ii Questions by Public Body
- e. Objectors presentation(s)
  - i. Cross examination
  - ii Questions by Public Body
- f. Interested Persons presentation(s)
  - i. Cross examination
  - ii. Questions by Public Body
  - iii. Rebuttal
- g. Village staff presentation
  - i. Cross examination
  - ii. Questions by Public Body
  - iii. Rebuttal
- h. Petitioner Rebuttal (if any)
- i. Final questions by Public Body
- j. Closing remarks by Petitioner, Objectors, Interested Persons, and Village Staff
- k. Close or continuation of public hearing

## **PUBLIC HEARING REMINDERS**

- All public hearings of a Public Body are meetings as defined by the Illinois Open Meetings Act (5 ILCS 120/1 et seq.).
- Prior to the commencement of the public hearing, the Chair will determine whether there are any Objectors or other Interested Persons and if an attorney represents any Objector, group of Objectors or Interested Persons.
- All individuals desiring to participate in the public hearing process shall sign in/register with Village staff prior to the public hearing.
- All individuals desiring to participate in the public hearing process must participate in a swearing of an oath.
- The Chair may impose reasonable limitations on evidence or testimony presented by persons and parties, such as barring repetitious, irrelevant or immaterial testimony.
- The Chair may take such actions as are required to maintain an orderly and civil hearing.



**MINUTES OF THE PLAN COMMISSION**  
**VILLAGE OF TINLEY PARK,**  
**COOK AND WILL COUNTIES, ILLINOIS**  
**AUGUST 6, 2015**

The regular meeting of the Plan Commission was held in the Council Chambers of Village Hall on August 6, 2015 at 7:32 p.m.

**ROLL CALL**

Plan Commissioners: Jeff Ficaro  
Tom Mahoney  
Bob McClellan  
Maureen McLeod  
Mark Moylan  
Bill Reidy  
Rita Walker, Chairman

Absent Plan Commissioner(s): Art Pierce

Village Officials and Staff: Amy Connolly, Planning Director  
Paula Wallrich, Deputy Planning Director  
Debra Kotas, Commission Secretary

**CALL TO ORDER**

Plan Commission Chairman Walker called to the meeting to order at 7:32 p.m.

**APPROVAL OF MINUTES**

Minutes of the July 2, 2015 Plan Commission Meeting were presented for approval. A motion was made by COMMISSIONER MAHONEY seconded by COMMISSIONER FICARO to approve the Minutes as presented.

THE MOTION WAS APPROVED UNANIMOUSLY by voice call. PLAN COMMISSION CHAIRMAN WALKER declared the motion approved.

**TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES**  
**FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION**  
**SUBJECT: MINUTES OF THE AUGUST 6, 2015 MEETING**

ITEM #1: PUBLIC HEARING  
DREAMLAND ACADEMY INC. – 7777 159<sup>TH</sup> STREET – SPECIAL USE PERMIT APPROVAL

Consider a proposal from Zuzanna Gaj, representing Dreamland Academy Inc., for a Special Use Permit for a daycare center at 7777 159<sup>th</sup> Street. The daycare center is within an existing building that also contains an insurance agent and orthodontist. A portion of the building will be remodeled for the daycare center and a required outside play area will be established. The subject property is zoned B-3 (General Business and Commercial).

Present were the following:

Plan Commissioners:	Jeff Ficaro Tom Mahoney Bob McClellan Maureen McLeod Mark Moylan Bill Reidy Rita Walker, Chairman
Absent Plan Commissioner(s):	Art Pierce
Village Officials and Staff:	Amy Connolly, Planning Director Paula Wallrich, Deputy Planning Director Debra Kotas, Commission Secretary
Guest(s):	Zuzanna Gaj, Director, Dreamland Academy Marie Manny, Property Owner Kendall Lynchey, Attorney

CHAIRMAN WALKER opened the Public Hearing at 7:32 p.m. requesting anyone present who wished to give testimony, comment, engage in cross-examination or ask questions during the Hearing stand and be sworn in.

Village Staff provided confirmation that appropriate notice regarding the Public Hearing was published in the local newspaper in accordance with State law and Village requirements.

ZUZANNA GAJ, Director of Dreamland Academy Inc., presented the request for a Special Use Permit to open a daycare center at 7777 W. 159<sup>th</sup> Street.

MS. GAJ reported they have been operating a home-based daycare center in Hickory Hills, IL since 2011 that has been at full capacity since 2013 with an existing waiting list. She stated they have selected the Tinley Park location to expand their business due to the Village's recognition for "best place to raise children" and also its convenient access for commuting parents. She noted the hours of operation will be Monday through Friday from 6:00 a.m.-6:00 p.m. with a staff of 4 full-time employees including 2 full-time teachers. She proceeded to show the floor plan that includes two (2) classrooms with an outdoor play area in the rear of the building.

MARIE MANNY, Property Owner, addressed the following open items identified by Staff:

1. Provide a cross-access easement at the east property line;
2. Provide a public sidewalk easement and agreement with the Village;  
MS. MANNY reported their attorney has prepared the aforementioned easement agreements that have been submitted to the Village for review.
3. Provide a screen along the south property line;  
MS. MANNY reported the existing chain link fence will be removed and replaced with a 6' solid wood fence.
4. Improve the condition of the parking lot;  
MS. MANNY noted the parking lot requires seal coating, crack filling and re-striping, however, weather conditions earlier this year delayed these improvements, but assured these improvements will be completed prior to occupancy.
5. Determine building material for the fence;  
MS. MANNY reported the fence will construct a 6' wood fence.
6. Formalize a landscape plan that will keep the spirit of the Landscape Ordinance since this is an existing site.  
MS. MANNY reported plantings will begin in the Fall according to the landscape plan approved by the Village.
7. Proposed signage on the existing ground sign;  
MS. MANNY reported a colored sign noting the Dreamland Academy Inc. name will be added to the ground sign along with the existing tenants.

In conclusion, MS. MANNY added that she has spoke with the existing businesses at the location, an orthodontist and insurance agent, who indicated they are welcoming to the daycare center.

PAULA WALLRICH, Deputy Planning Director, presented the Staff report. She showed an aerial photograph of the site indicating the 5,400 square foot building that is divided into 3 separate tenant spaces having 2 existing tenants. She confirmed the Property Owner's attorney has provided the cross access and public sidewalk easement agreements that have been reviewed by the Village Attorney. She noted the fence will be a welcome improvement and act as a barrier between the properties.

MS. WALLRICH reviewed the landscape plan noting the existing landscape with planned improvements primarily along the frontage, noting it meets the intent of the Village Ordinance with regards to bufferyards. Per concerns expressed at the last meeting regarding lighting, she confirmed the site has adequate lighting including several decorative lights, ROW lights, pole lights in the rear of the building with a wall mounted light at every entrance. She confirmed bollards are being installed per Fire Department and DCFS requirements.

With regards to outstanding items, MS. WALLRICH reported all have been satisfied except for the fence, parking lot improvements and Fire Department requirements, that will be part of the condition of the Special Use.

SERGIO GABRIEL, 7720 W. 159<sup>th</sup> Place, and his mother, ALVEA ZUNIDA, spoke against the proposed daycare center at that location due to the proximity of their townhome. They stated their townhome is directly south of the planned daycare center and expressed concerns regarding the children becoming noisy when they are outside in the playground area.

MS. GAJ stated they limit the amount of children outside at a given time to no more than sixteen (16) children with scheduled outside play time at 10:00 a.m. She reported that teachers are present to monitor the children. She noted they are installing a 6' solid wood fence that should mitigate the noise.

It was noted that a formal meeting between the Petitioner, Staff and Plan Commissioners was not held due to a lack of open items.

COMMISSIONER MCLEOD inquired about scheduled DCFS inspections at the daycare center. MS. GAJ stated the inspections conducted by DCFS, the Health Department and Fire Marshall are random but typically conducted every 6 months.

COMMISSIONER MCCLELLAN inquired about security. MS. GAJ stated the buildings doors are locked at all times with intercoms at each door. She noted that carbon monoxide detectors, a fire sprinkler system, and smoke detectors are being installed. She reported security cameras are also being installed that will record activity during operating hours with the recordings being retained for a 1-year period.

The following Findings of Fact were presented by the Assigned Commissioners, COMMISSIONER FICARO and COMMISSIONER REIDY regarding the Special Use Permit to allow the operation of a daycare at 7777 159<sup>th</sup> Street. :

- A. That the establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare.

With no further questions, COMMISSIONER FICARO summarized that the Petitioner will receive certification from DCFS to operate a daycare center with specific hours of operation, adequate lighting is present on the site, and a solid 6' wood fence would be installed along the south property line.

- B. That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor will it substantially diminish and impair property values within the neighborhood.

COMMISSIONER FICARO confirmed the Applicant will provide a solid 6' wood screen along the south property line which will act as a buffer to the residential property to the south.

- C. That the establishment of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.

There were no further questions or comments.

- D. That adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided.

COMMISSIONER FICARO noted that 159<sup>th</sup> is recognized as a major commercial corridor with a four lane cross-section and that all utilities and drainage issues are reviewed by the Village Engineer. COMMISSIONER REIDY stated there will be no major changes to the existing site.

- E. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

COMMISSIONER FICARO noted that there is an established pointed of access from 159<sup>th</sup> Street that is designed to minimize traffic congestion. COMMISSIONER REIDY stated there will be no major changes to the existing site and the sidewalk easement has been addressed.

F. That the Special Use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the Village Board pursuant to the recommendation of the Plan Commission.

COMMISSIONER FICARO noted that no variances are requested as part of this review.

G. The extent to which the Special Use contributes directly or indirectly to the economic development of the community as a whole.

COMMISSIONER REIDY noted this is an existing commercial property, therefore, there should be no change in the economic picture of the neighborhood or surrounding area. CHAIRMAN WALKER added the daycare center will be providing an added service to the community. COMMISSIONER FICARO noted improvements to the structure, site and landscaping.

COMMISSIONER FICARO made motion to grant Site Plan Approval for the proposed property located at 7777 159th Street. Additionally, he recommended that the Village Board grant the Applicants, Zuzanna Gaj and Margaret Kudlik of Dreamland Academy, Inc., a Special Use Permit to allow a day care center and adopt Findings of Fact submitted by the Applicant and Findings of Fact proposed by Village Staff and the Plan Commission at this meeting.

The Plan Commission recommends the Special Use Permit with the following conditions, which can be satisfied prior to issuance of a Certificate of Occupancy:

1. Approval and recording of the cross access and public sidewalk easements;
2. Installation of Bollards protecting the playground fence;
3. Improvement of the parking lot;
4. Construction and maintenance of the fence along the rear property line;
5. Meet all Fire Department requirements.

The Motion was seconded by COMMISSIONER REIDY.

AYE: Plan Commissioners Jeff Ficaro, Tom Mahoney, Bob McClellan, Maureen McLeod, Mark Moylan, Bill Reidy, and Chairman Rita Walker

NAY: None

ABSENT: Plan Commissioner Art Pierce

THE MOTION WAS APPROVED UNANIMOUSLY by voice vote. PLAN COMMISSION CHAIRMAN WALKER declared the Motion approved.

A motion was made by COMMISSIONER MCLELLAN, seconded by COMMISSIONER MAHONEY to close the Public Hearing at 8:04 p.m. THE MOTION WAS APPROVED UNANIMOUSLY by voice call. PLAN COMMISSION CHAIRMAN WALKER declared the motion approved.

**TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES**  
**FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION**  
**SUBJECT: MINUTES OF THE AUGUST 6, 2015 MEETING**  
**ITEM #2: NATIONAL VETERINARY ASSOCIATES – 7613 159<sup>TH</sup> STREET – SPECIAL USE PERMIT APPROVAL**

Consider a proposal from Dr. Roger Hagenberg, on behalf of National Veterinary Associates, for a Special Use Permit to allow the operation of an animal hospital and kennel at 7613 159<sup>th</sup> Street in the B-3 Zoning District (General Business and Commercial).

Present were the following:

Plan Commissioners:

Jeff Ficaro  
Tom Mahoney  
Bob McClellan  
Maureen McLeod  
Mark Moylan  
Bill Reidy  
Rita Walker, Chairman

Absent Plan Commissioner(s):

Art Pierce

Village Officials and Staff:

Amy Connolly, Planning Director  
Paula Wallrich, Deputy Planning Director  
Debra Kotas, Commission Secretary

Guest(s):

Jean and Roger Hagenberg  
Terry Becker  
George Robinson, National Veterinary Associates

JEAN HAGENBERG introduced her husband, DR. ROGER HAGENBERG, owner of Bremen Animal Hospital, and business partner, DR. TERRY BECKER, who are selling the business to National Veterinary Associates. Per Staff recommendations, she presented plans for parking lot improvements including resurfacing, restriping and ADA parking space compliance. She also reported plumbing improvements will be done including hot water heater and flexible pipe converted to hard pipe. She thanked PAULA WALLRICH, Deputy Planning Director, for her assistance in developing a landscape plan that meets Village requirements.

DR. GEORGE ROBINSON, Midwest Director for National Veterinary Associates, explained they are veterinary consolidators who purchase well-respected veterinary hospitals. He explained the clinic will remain Bremen Animal Hospital with no changes to service, only ownership. He stated there is no branding with the existing name and sign remaining the same.

PAULA WALLRICH, Deputy Planning Director, presented the Staff report. She showed an aerial photograph of the site commenting it is a well kept, well manicured facility noting the green space on the east and north sides, and explaining the difficulty of applying current code requirements to an existing site. She showed surrounding zoning that includes B-3 with multi-family residential to the south noting the solid wood fence providing a barrier from their

property to the residential area. She confirmed the parking lot improvements noting the amount of parking spaces is adequate. She explained aisle width difficulty in the past with people hitting the landscape wall. She reported wheel guards were installed, however, this narrowed the aisle width that is required at twenty-six feet (26'). She reported these wheel guards were removed with the majority of the aisle width now meeting Ordinance requirements. She confirmed landscape improvements including additional landscape for the sign and street trees being added.

In conclusion, MS. WALLRICH reported there are no outstanding items to address.

CHAIRMAN WALKER stated this will be presented for public hearing at the next scheduled meeting of the Plan Commission.

DRAFT

**TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES**

**FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION**

**SUBJECT: MINUTES OF THE AUGUST 6, 2015 MEETING**

**ITEM #3: CHASE BANK FINAL PLAT OF SUBDIVISION – 17157 HARLEM AVENUE – FINAL PLAT APPROVAL**

Consider recommending the Village Board grant approval for the Final Plat of Subdivision, including easements, created by T.K.D. Land Surveyors, Inc. with a revision date of 07/02/2015 for the Jewel/Osco subdivision, located at 17157 Harlem Avenue in the B-3 Zoning District (General Business and Commercial).

Present were the following:

Plan Commissioners: Jeff Ficarò  
Tom Mahoney  
Bob McClellan  
Maureen McLeod  
Mark Moylan  
Bill Reidy  
Rita Walker, Chairman

Absent Plan Commissioner(s): Art Pierce

Village Officials and Staff: Amy Connolly, Planning Director  
Paula Wallrich, Deputy Planning Director  
Debra Kotas, Commission Secretary

Guest(s): Brian Krause

BRIAN KRAUSE, representing Tinley Park Commons LLC, requested approval for a Final Plat of Subdivision for Chase Bank. He explained they are seeking to obtain an individual PIN. He reported an easement has been added with all outstanding changes have been addressed.

AMY CONNOLLY, Planning Director, presented the Staff report. She explained Chase Bank was approved in 2011, however, the final plat was never recorded. She explained this will create an outlot in the Jewel/Osco shopping center that Chase Bank will own and maintain. She further explained easements and access points have been created. She reported this has been reviewed by both the Village Attorney and Village Engineer and found to be in compliance with Village Ordinances.

There being no question or comments, COMMISSIONER FICARO made motion to recommend the Village Board grant approval for the Final Plat of Subdivision, including easements for ingress/egress, parking and public utilities, created by T.K.D. Land Surveyors, Inc. with a revision date of 07/02/15 for the Jewel/Osco subdivision, located at 17157 Harlem Avenue in the B-3 Zoning District (General Business and Commercial).

The Motion was seconded by COMMISSIONER REIDY.

AYE: Plan Commissioners Jeff Ficaro, Tom Mahoney, Bob McClellan, Maureen McLeod, Mark Moylan, Bill Reidy, and Chairman Rita Walker

NAY: None

ABSENT: Plan Commissioner Art Pierce

THE MOTION WAS APPROVED UNANIMOUSLY by voice vote. PLAN COMMISSION CHAIRMAN WALKER declared the Motion approved.

DRAFT

**TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES**

**FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION**

**SUBJECT: MINUTES OF THE AUGUST 6, 2015 MEETING**

**ITEM #4: AETNA DEVELOPMENT – 7201 191<sup>ST</sup> STREET – REZONING AND SITE PLAN APPROVAL**

Consider a proposal from George Hanus, on behalf of the Webster Property Group LLC, for a Rezoning (Map Amendment) of a 1.96 acre property located at 7201 191<sup>st</sup> Street from R-1 Single Family Residential Zoning District to B-3 (General Business and Commercial).

Present were the following:

Plan Commissioners:

Jeff Ficarò  
Tom Mahoney  
Bob McClellan  
Maureen McLeod  
Mark Moylan  
Bill Reidy  
Rita Walker, Chairman

Absent Plan Commissioner(s):

Art Pierce

Village Officials and Staff:

Amy Connolly, Planning Director  
Paula Wallrich, Deputy Planning Director  
Debra Kotas, Commission Secretary

Guest(s):

Peter Pocijewski

PETER POCIEJEWSKI of KMA & Associates Architects, representing Aetna Development, is seeking rezoning for a 1.96 acre parcel located at the corner of 191<sup>st</sup> Street and Harlem Avenue from R-1 to B-3 along with site plan approval. He began by thanking Staff for their efforts since drastic changes were made to the original site plan to better comply with the Overlay District Ordinance that included placing the building closer to the street and corner to give a more pedestrian friendly streetscape.

MR. POCIEJEWSKI presented plans for a 16,722 square foot, 1-story building currently planned with 7 tenant spaces, with two (2) right-in/right-out curb cuts off of Harlem Avenue and 191<sup>st</sup> streets, and sufficient parking located on the west side of the building for approximately 118 vehicles. He showed renderings of the building with features that include clear glass storefronts, a sidewalk in the front of the building storefronts, bike rack for 9 bikes at the north end of the site, and a fully enclosed masonry trash enclosure. He reviewed the revised architecture and elevations, per Staff recommendations, that include standing seam awnings, masonry columns, scaled storefronts and 22' tall parapets to hide any rooftop HVAC equipment. He proceeded to review the lighting plan and landscape plan, both meeting Village Ordinance requirements, that includes cash-in-lieu payment for street trees that cannot be planted in the right of way.

PAULA WALLRICH, Deputy Planning Director, presented the Staff report. She confirmed KMA & Associates has been cooperative regarding Staff recommendations with this site located within the Urban Overlay District. She explained the site was annexed in 2010 and zoned R-1, therefore, the project requires rezoning to the B-3 to which the Petitioner has met all requirements with no variances being requested.

MS. WALLRICH proceeded to review the site plan that includes a 16,722 square foot multi-tenant building. She explained the topography of the site includes 7'-8' slopes resulting in difficulty with land balancing. She reported Aetna Development also owns the property to the south that will provide the fill for land balancing to level the northeast corner of the property that will meet the road elevation; she noted retaining walls were proposed for the west and south property edges. She reported Staff and Petitioner are working on a Development Agreement pertaining to burying the utility lines on 191<sup>st</sup> Street. She also reported a temporary curb cut will be installed on 191<sup>st</sup> Street until cross access is provided at which time the right-out egress will be removed, that will also be addressed in the Development Agreement.

Referring to the Active Transportation Plan, MS. WALLRICH stated a 10' wide asphalt bike trail is planned on both 191<sup>st</sup> Street and Harlem Avenue. Referring to the Urban Overlay Plan, she stated there is adequate pedestrian circulation with direct access from the sidewalk in the hopes of encouraging walking and/or biking to and from the site.

MS. WALLRICH confirmed the lighting plan meets all Village Ordinance requirements and the landscape plan meets the integrity of the Village Ordinance regarding bufferyards. Staff has suggested incorporating the required street trees inside the sidewalk for framing of the doorways and softening of the façade instead of cash-in-lieu payments. She reported significant changes to the architecture from the original plan. She displayed the proposed building materials, however, has suggested warmer colors for the mortar, cut stone and stone sills. She reported initial concerns regarding the visibility of the HVAC equipment; however, the Architect has verified that the parapets are high enough to screen the HVAC units.

MS. WALLRICH expressed concerns with the proposed multi-tenant ground mounted sign including their location which may violated the Village's policy to protect site vision triangles. Staff has suggested a ground sign with only the name of the center and wall-mounted signs on the building.

MS. WALLRICH proceeded to review the outstanding items:

1. Burial of utility lines along 191<sup>st</sup> Street;
2. Elimination of the Right-out egress lane on 191<sup>st</sup> Street;
3. Platting of cross access easement to south and west;
4. Landscape plan denoting the street trees;
5. Signage;
6. Minor engineering issues.

COMMISSIONER MOYLAN inquired about the stop light slightly west of Harlem Avenue on 191<sup>st</sup> Street near the Brookside Glen Marketplace and possibly connecting the subject property to that intersection. Using the aerial photograph, it was determined the Brookside Marketplace entrance is too far west with the area and the land to the south of the entrance is in the flood way and unbuildable. GREG CRESTO of Manhard Consulting further explained the drainage issues with areas surrounding the proposed site.

CHAIRMAN WALKER assigned COMMISSIONER MCCLELLAN and COMMISSIONER REIDY to a work session with Staff and Petitioner to address any open items.

**TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES**  
**FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION**  
**SUBJECT: MINUTES OF THE AUGUST 6, 2015 MEETING**  
**ITEM #5: SBA – 16640 66<sup>TH</sup> AVENUE – SPECIAL USE PERMIT APPROVAL**

Consider a proposal from Jim Auld, on behalf of Verizon Wireless and the Village of Tinley Park, for a Special Use Permit to increase the height of the existing monopole beyond 100' in the R-1 Single Family Residential Zoning District. The existing monopole personal wireless tower located at 16640 66<sup>th</sup> Avenue is proposed to be extended from an existing elevation of 60' to 104'.

Present were the following:

Plan Commissioners:	Jeff Ficaro Tom Mahoney Bob McClellan Maureen McLeod Mark Moylan Bill Reidy Rita Walker, Chairman
Absent Plan Commissioner(s):	Art Pierce
Village Officials and Staff:	Amy Connolly, Planning Director Paula Wallrich, Deputy Planning Director Debra Kotas, Commission Secretary
Guest(s):	Jim Auld

JIM AULD, representing SBA Communications, who owns the tower and lease rights to the site, made a presentation. He noted that the Village of Tinley Park owns the property and is co-applicant.. He stated there is an existing 60' monopole that was built for Nextel/Sprint and they are seeking to extend the monopole to 95' with an additional 9' for lightning rod and antenna bringing it to an overall height of 104'.

MR. AULD reported SBA Communications received a request from Verizon to co-locate on the existing structure to offer additional coverage and capacity in the area. Also at that time, MR. AULD reported the Village of Tinley Park expressed interest in installing an antenna for their use.

MR. AULD reviewed existing Verizon sites and coverage that indicate the need for increased capacity at that particular location. He reported the new site will also reduce the offload burden from other Verizon sites. He stated the equipment shelter for Verizon will be made of a masonry material that will match the existing Sprint structure and that the entire compound will be fenced with a 6' vinyl fence to match the existing fence.

PAULA WALLRICH, Deputy Planning Director, presented the Staff report. She showed a photograph of the existing site located at the northwest corner of 167<sup>th</sup> and 66<sup>th</sup> Street which is Village-owned property that includes the monopole, Sprint equipment shed, 2 water tanks and a pump station. She noted the existing shed is in need of repair including paint to which the Petitioner has agreed to paint.

MS. WALLRICH reviewed Ordinance requirements that a preferred location for wireless facilities is on an existing tower on Village-owned property, therefore, the proposed improvements meet the location preferences established in the Ordinance, however, the Ordinance also establishes a maximum height of 100' thereby requiring Special Use approval.

MS. WALLRICH reported Max Machuta, the Village's Technology Consultant, has verified this has been an area identified as having deficiencies in RF coverage and the height elevation proposed by SBA will meet the needs of Verizon and the Village. She also reported there will be a cost savings to the Village by eliminating the current telephone land line network.

MS. WALLRICH indicated the fall zone of the tower is within the property except on the east side that falls into the public sidewalk.

MS. WALLRICH addressed the building material for the new equipment shed stating that the Commission has requested brick material for previous cell tower equipment shelters. She noted however that only a small portion of the 11' shed would be visible above the 6' vinyl fence and 8' landscaping. She also noted that the existing equipment Sprint shed is not constructed of brick. MS. WALLRICH stated that she prefers 8' tall Arborvitae be specified for the planting for additional screening. Regarding lighting, Staff is requesting a wall mounted light at a height of 6' or below so that it would not be seen from outside the fenced area.

Discussion took place regarding the Applicant's request to construct an ice bridge that protects the large cables. She reported the ice bridge, if approved, would be screened by the proposed shelter, fence and landscaping.

MS. WALLRICH reviewed the following open items:

1. Painting of the eaves;
2. Limits of the asphalt;
3. Gate or sidewalk on the south side of the shelter;
4. Building material for the shelter;
5. Ensure wall mounted light is not seen from outside of the fence;
6. Ice bridge;
7. Arborvitae plantings close in height to existing evergreen screen;
8. Non-combustible shelter construction.
9. Outstanding Public Works and Engineering comments.

In conclusion, MS. WALLRICH reported due to administrative errors at SBA, the monopole extension was installed prior to any approvals and without a permit, however, antennas were erected therefore the tower is not operational.

COMMISSIONER MAHONEY inquired if additional space would be available on the proposed tower to accommodate other carriers. MR. AULD stated there is insufficient space for additional carriers at the proposed height. He commented that Verizon had researched other locations, however, the proposed site is the optimal location. MS. WALLRICH confirmed it is also the best site for the Village.

CHAIRMAN WALKER assigned COMMISSIONER MAHONEY and COMMISSIONER REIDY to a work session with Staff and Petitioner to address the open items.

**TO: VILLAGE OF TINLEY PARK PRESIDENT AND BOARD OF TRUSTEES**

**FROM: VILLAGE OF TINLEY PARK PLAN COMMISSION**

**SUBJECT: MINUTES OF THE AUGUST 6, 2015 MEETING**

**ITEM #6: TEXT AMENDMENTS TO SECTION XII (LEGACY CODE) OF THE TINLEY PARK ZONING ORDINANCE AND REZONING CERTAIN PROPERTIES RELATIVE TO THE LEGACY CODE ZONING DISTRICTS – VILLAGE OF TINLEY PARK**

Consider recommending that the Village Board grant approval to an Ordinance to amend Section XII (Legacy Code) of the Tinley Park Zoning Ordinance by the following:

- a. Changing figure 2.A.2 and 2.A.6 to read “Street Level Commercial Allowed” from “Street Level Commercial Required” within the Neighborhood Flex and Downtown Core Character Districts;
- b. Changing Section 3.F.11.d (*Landscaping – Properties Adjacent to Non-Legacy Code Areas*) adding required bufferyards between parking lots and Non-Legacy Code areas;
- c. Clarifying that the zoning for the parcel addressed 17533 S. Oak Park Avenue is Downtown Core (DC) for the entire parcel and amending tables 1.G.1, 2.A.1, 2.A.2, and 2.A.7 to clearly delineate the extent of the DC Zone any other table showing a the Legacy Code Boundary line;
- d. Correcting scribes’ errors in the legal descriptions of several zoning districts at the time of rezoning;
- e. Amending Table 3.A.2 (Use Table) to the following:
  - i. Deleting “Package liquor stores” from the list of special uses and adding “Package liquor stores” to the list of prohibited uses,
  - ii. Deleting the words “and used” from the “Automobile and custom van sales (new and used)” special use entry,
  - iii. Adding “Automobile and custom van sales (used)” to the list of prohibited uses,
  - iv. Adding “Tobacco, hookah, cigarette, cigar, e-cigarette, and vapor sales establishments, and any related on-site consumption, as a primary use” and “medical marijuana dispensing facility” to the list of prohibited uses.
- f. Amending Section 4.E (Sign Regulations), Table 4.1 (Sign regulations) for Hanging – Freestanding signs.

Present were the following:

Plan Commissioners:

Jeff Ficaro  
Tom Mahoney  
Bob McClellan  
Maureen McLeod  
Mark Moylan  
Bill Reidy  
Rita Walker, Chairman

Absent Plan Commissioner(s):

Art Pierce

Village Officials and Staff:

Amy Connolly, Planning Director  
Paula Wallrich, Deputy Planning Director

Jacob Vandenberg, Trustee  
Debra Kotas, Commission Secretary

AMY CONNOLLY, Planning Director, presented the following proposed amendments to the 2011 Legacy Code for Downtown:

- Deleting the term “Street Level Commercial *Required*” and replacing it with “Street Level Commercial *Allowed*” in both the Downtown Core and Neighborhood Flex Districts.
- Due to a an error when adopting the zoning map, only ½ (western portion) of a full parcel located at 17533 Oak Park Avenue (First Midwest Bank) was zoned Downtown Core with the other ½ (eastern portion) zoned B-4. Requesting the entire parcel be zoned as Downtown Core.
- Limit the number of package liquor stores by deleting “Package liquor stores” from the list of special uses and adding “Package liquor stores” to the list of prohibited uses and determine what constitutes a package liquor store.
- In an effort for less automobile dealers and more residential on Oak Park Avenue, keep “Automobile and custom van sales (new)” and move “Automobile and custom van sales (used)” to the list of prohibited uses.
- In an effort to prohibit tobacco consumption, add “Tobacco, hookah, cigarette, cigar, e-cigarette, and vapor sales establishments, and any related on-site consumption, as a primary use” and “medical marijuana dispensing facility” to the list of prohibited uses.
- Due to a recent project containing a parking lot adjacent to a non-Legacy Code zoned parcel, amend the Code to read in its entirety as follows:
  - “A bufferyard is required between an alley and a parcel located outside of the Legacy Code Area and/or between the rear of any property that has a surface parking lot and a parcel outside of the Legacy Code Area. The minimum standard shall be a minimum bufferyard of 5’.”
- Correct scrivener’s errors in the legal descriptions in several parcels.
- Encourage more quaint and simple signs, allow an increase the maximum sign face area and maximum height of Hanging – Freestanding signs and changing lighting and location requirements of said signs.

CHAIRMAN WALKER assigned COMMISSIONER PIERCE and COMMISSIONER REIDY to review the recommendations and work with Staff.

#### **ADJOURNMENT**

There being no further business, a motion was made by COMMISSIONER FICARO seconded by COMMISSIONER REIDY to adjourn the regular meeting of the Plan Commission of August 6, 2015 at 9:52 p.m. THE MOTION WAS UNANIMOUSLY APPROVED by voice call. PLAN COMMISSION CHAIRMAN WALKER declared the meeting ADJOURNED.



# PLAN COMMISSION STAFF REPORT

AUGUST 20, 2015

## NATIONAL VETERINARY ASSOCIATES-BREMEN ANIMAL HOSPITAL- 7613 159<sup>TH</sup> Street

### Applicant

Dr. Roger Hagenberg

### Property Location

7613 159<sup>th</sup> Street

### Parcel Size

17,500SF ±

.4 ac ±

### Zoning

B-3

### Approval Sought

Site Plan

Special Use for a Veterinary  
Clinic

### Requested Action

Assign two Commissioners  
to meet with the Applicant  
in a Work Session.

### Project Planner

Paula J. Wallrich, AICP

Deputy Planning Director

### REVISIONS ARE NOTED IN RED EXECUTIVE SUMMARY



The Bremen Animal Hospital has been operating from their location at 7613 159<sup>th</sup> Street for over 46 years. Dr. Roger Hagenberg and Dr. Terry Becker, Veterinarians for the hospital, recently entered into a contract to sell their business to National Veterinary Associates (NVA). Per Section X.J.6 of the Village Zoning Ordinance, the approval of a Special Use *“does not run with the land or constitute a covenant running with the land”* and shall expire automatically if there is change in ownership. Animal hospitals, kennels and pounds require a Special Use in the B-3 Zoning District; therefore with the proposed change of ownership the property requires site plan and Special Use approval.

As part of the Site Plan review, Staff has inspected the existing building placement, parking configuration and landscaping. The Applicant has agreed to remedy all outstanding items identified during staff review. The attached plans indicate the parking lot has been improved with a new seal coat and has been re-striped bringing the ADA parking spaces into compliance. Encroachments into the drive aisle have been removed, bringing it into minimum width requirements.

A landscape plan has been submitted that meets the intent of the landscape ordinance with bufferyards provided on the north and east property lines. No new lighting or signage is proposed.

## EXISTING SITE

The subject property is located at 7613 159<sup>th</sup> Street. The property has full access from 159<sup>th</sup> Street and includes a 2,190 SF one-story structure with associated parking. The structure meets the bulk regulations and setbacks for the B-3 Zoning District. The parking area has been paved to the west and south property lines, which is consistent with properties in the immediate vicinity. A wood fence borders the south property line.



## COMPLIANCE WITH THE COMPREHENSIVE PLAN

The Village of Tinley Park Comprehensive Plan (2000) identifies this site as commercial; therefore, the proposed development is in accord with the Village's Comprehensive Plan.

## PROPOSED USE

The Applicant, Dr. Roger Hagenberg, is in the process of selling the property and business to National Veterinary Associates (NVA). Bremen Animal Hospital has operated from this location since 1969; Dr. Hagenberg and his partner Dr. Terry Becker, will continue to operate the clinic after the sale until such time as NVA elects to assume operational responsibilities. There will be no change in service with the change in ownership; the doctors will continue to provide outpatient and inpatient medical and surgical care for pets as well as boarding for patients. The clinic has no outdoor dog runs and does not advertise for kenneling of animals.

## ZONING & NEARBY LAND USES

The subject property is zoned B-3; animal hospitals, kennels and pounds are identified as a Special Use in this district. The properties to the east and west are also zoned for commercial use in the B-3 District. The property to the south is zoned R-5 with multi-family residential uses. The properties north across 159<sup>th</sup> Street are in the Village of Orland Park. The Applicant has provided Findings of Fact (attached) which will be submitted as part of the public record during the Public Hearing. Staff will provide recommended Findings of Fact at the Public Hearing. The Plan Commission may place conditions on the Special Use which are specifically and uniquely attributable to the mitigation of the perceived impact of the proposed use.



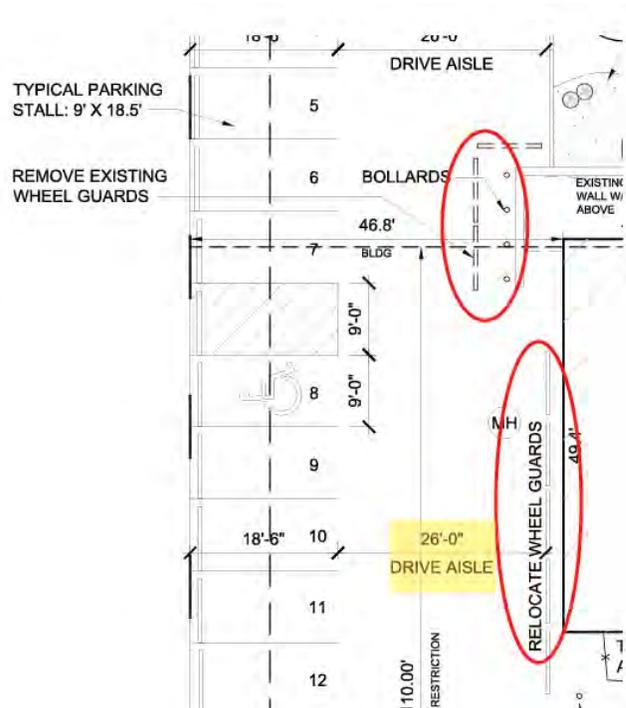
## GENERAL SITE PLAN REVIEW

### Parking

Perpendicular parking borders the west property line. The Applicant has resurfaced the parking lot and restriped the pavement for compliance with the ADA. As part of the restriping the Applicant provided six (6) additional spaces at the southeast corner of the property for a total of 23 parking spaces, inclusive of one (1) accessible parking space.

Parking requirements for Veterinary Clinics are not specifically defined in the Zoning Ordinance, however medical or dental offices are required to provide “two spaces for each office, examination room, or treatment room, plus one space for each employee.” There are three (3) examination rooms, one (1) office, and one (1) surgery room in the clinic; there will be a maximum of eight (8) employees at any given time. Using the medical office requirement as a guide, the parking requirement would be 18 spaces; the proposed parking therefore meets code. The Applicant states that the current parking supply meets the demand for the clinic. Employees are instructed to park at the rear of the property.

The existing drive aisle is encumbered by several wheel guards placed on the property. The Applicant uses the wheel guards to prevent patrons from backing into the building or the low brick wall at the entrance. The placement of the wheel guards reduces the drive aisle below Code requirements especially at the entrance to the building where it is reduced to approximately 18’. The Applicant has agreed to remove the wheel guards at the entrance to the building (adjacent to the low brick wall) and use bollards as a means to protect the wall, thereby increasing the width of the aisle. The wheel guards south of the building entrance will also be moved east to meet the 26’ wide drive aisle requirement.



### LANDSCAPE ARCHITECTURE

There are several existing trees and shrubs on the property; credit toward landscape requirements has been provided for these. Due to property constraints a bufferyard along the west and south property line is not possible. The bufferyards proposed for the north and east property lines meet Ordinance requirements. Currently there is a significant amount of stone in the foundation landscape; this will be removed to meet the ordinance limits of 20%. Due to inadequate parkway width, street trees will not be required on the property.

### FINDINGS OF FACT

Staff has provided the following Findings of Fact for your review; the Applicant’s Findings of Fact were previously provided. The Commission is encouraged to review both sets of Findings and make them part of the official minutes as written or make amendments as necessary. The Commission may elect to read them at the Public Hearing or, after discussion of the Findings, enter them into the record as written or amended.

Special Use Permit

*A Special Use Permit to allow the operation of an Animal Hospital and Kennel for patients at 7613 159<sup>th</sup> Street in the B-3 General Business and Commercial Zoning District.*

**A. That the establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare.**

- The Applicant will continue to operate the Animal Hospital and Kennel in the same manner it has operated for over 45 years in this location;
- The Animal Hospital will be operated under the supervision of Board certified Veterinarians under the ownership of National Veterinary Associates, one of the leading private owners of veterinary hospitals in the United States owning over 225 animal hospitals in 39 states.
- A solid 6' fence is erected along the south border of the property separating the commercial use from residential uses.
- The existing building and site have been inspected by Village Building, Planning, Engineering, Public Works, Landscape, Police and Fire personnel who have provided review and approval of improvements to the site that are in compliance to Village Code.
- No additional lighting will be installed.
- The parking lot has been seal coated and restriped in compliance with ADA.
- Additional landscaping has been proposed in compliance with Village ordinance.

**B. That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor will it substantially diminish and impair property values within the neighborhood.**

- The Applicant has provided a solid 6' wood screen along the south property line which will act as a buffer to the residential property to the south.
- No additional lighting has been proposed to the site.
- Additional landscaping has been proposed in compliance with Village ordinance.
- The parking lot has been seal coated and restriped in compliance with ADA.

**C. That the establishment of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.**

- The surrounding area is fully developed; with the proposed improvements the neighborhood will realize a positive improvement to the area.
- The Applicant will continue to operate the Animal Hospital and Kennel in the same manner it has operated for over 45 years in this location;
- Adequate parking has been provided.

**D. That adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided.**

- The subject property is located on 159<sup>th</sup> Street which is recognized as a major commercial corridor.

- The adjacent right-of-way (159<sup>th</sup> Street) is improved as an arterial roadway with a four lane cross section with turn lanes which will provide adequate access to the site.
- The facility will continue to operate at the same capacity as it has for the past 45 years.
- As part of the review process all utilities and drainage issues are reviewed by Staff with appropriate recommendations and requirements made to the Applicant.

**E. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.**

- Access to the site is an established full ingress /egress entry point from 159<sup>th</sup> Street which is recognized as a major commercial arterial roadway, improved with a 4-lane cross-section.
- The Hospital has operated with the current configuration for over 45 years without major incident.

**F. That the Special Use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the Village Board pursuant to the recommendation of the Plan Commission.**

- No variances are requested as part of this review. The intent of the Landscape Ordinance, lighting and parking lot standards have been met.

**G. The extent to which the Special Use contributes directly or indirectly to the economic development of the community as a whole.**

- This approval of the special use permit will result in improvements to the structure, site and landscaping which represents an increase in value for the property which may enhance the value of adjacent property.
- The granting of a Special Use will allow the existing uses to continue at this location.

**RECOMMENDATION/RECOMMENDED MOTION**

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**If the Plan Commission wishes to take action, an appropriate wording of the motion would read:**

“...make a motion to grant Site Plan Approval for the proposed property located at 7613 159<sup>th</sup> Street.

Additionally, we recommend that the Village Board grant the Applicant, Mr. George Hanus, on behalf of and adopt Findings of Fact submitted by the Applicant and by Village Staff as amended by the Plan Commission at this meeting.

The Plan Commission recommends the Special Use Permit with the following conditions, which can be satisfied prior to issuance of a Certificate of Occupancy:

1. Installation of the approved Landscape Plan by October 1, 2015; *and*
2. *[...any other conditions as suggested by the Plan Commission.]*

## GENERAL NOTES

PLANT MATERIAL SHALL BE NURSERY GROWN AND BE EITHER BALLED AND BURLAPPED OR CONTAINER GROWN. SIZES AND SPREADS IN PLANT LIST REPRESENT MINIMUM REQUIREMENTS. SIZE AND GRADING STANDARDS OF PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF ANSI Z60.1 AMERICAN STANDARD IF NURSERY STOCK, BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

ANY MATERIAL WITH DAMAGED OR CROOKED/DISFIGURED LEADERS, BARK ABRASION, SUNSCALD, INSECT DAMAGE, ETC. ARE NOT ACCEPTABLE AND WILL BE REJECTED. TREES WITH MULTIPLE LEADERS SHALL BE REJECTED UNLESS CALLED FOR IN THE PLANT LIST AS MULTILEM OR CLUMP. GRADING SHALL PROVIDE SLOPE WHICH ARE SMOOTH AND CONTINUOUS. POSITIVE DRAINAGE SHALL BE PROVIDED IN ALL AREAS.

QUANTITY LISTS ARE SUPPLIED AS A CONVENIENCE. HOWEVER, THE CONTRACTOR SHOULD VERIFY ALL QUANTITIES. THE DRAWINGS SHALL TAKE PRECEDENCE OVER THE LISTS.

ALL PLANT SPECIES SPECIFIED ARE SUBJECT TO AVAILABILITY. MATERIAL SHORTAGES IN THE PLANT SPECIES LISTED SHALL BE REPLACED WITH EQUIVALENTS. ALL SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.

CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. CALL "UTILITY" (JOINT UTILITY LOCATION FOR EXCAVATORS) 1-800-882-4123.

CONTRACTOR SHALL REPORT ANY DISCREPANCIES IN THE FIELD TO THE LANDSCAPE ARCHITECT AND/OR OWNER.

PLANT SYMBOLS ILLUSTRATED ON THIS PLAN ARE A GRAPHIC REPRESENTATION OF PROPOSED PLANT MATERIAL TYPES AND ARE INTENDED TO PROVIDE FOR VISUAL CLARITY. HOWEVER, THE SYMBOLS DO NOT NECESSARILY REPRESENT ACTUAL PLANT SPREAD AT THE TIME OF INSTALLATION.

ALL PERENNIAL, ORNAMENTAL GRASS, GROUNDCOVER AND ANNUAL BEDS SHALL BE TOPDRESSED WITH A MINIMUM OF THREE INCHES (3") OF MUSHROOM COMPOST. THE TOPDRESSING SHALL BE WORKED INTO THE SOIL TO A MINIMUM DEPTH OF NINE INCHES (9") BY THE USE OF A CULTIVATING MECHANISM. UPON COMPLETION, PERENNIALS AND ORNAMENTAL GRASSES SHALL BE MULCHED WITH AN ADDITIONAL TWO INCH (2") LAYER OF SHREDED WOOD LAYER OF MUSHROOM COMPOST.

ALL OTHER PLANTING BEDS AND TREE SAUCERS SHALL BE MULCHED WITH A MINIMUM OF THREE INCHES (3") OF SHREDED WOOD MULCH.

ALL BED LINES AND TREE SAUCERS SHALL REQUIRE A HAND SPADE EDGE BETWEEN LAWN AND MULCHED AREAS.

PLANTING BEDS ADJACENT TO BUILDING SHALL BE MULCHED IN THEIR ENTIRETY TO THE BUILDING FOUNDATION.

ALL SOD SHALL BE OF SALT TOLERANT SPECIES WITH A MINERAL BASE.

ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE (1) YEAR FROM THE DATE OF ACCEPTANCE.

## PLANT REQUIREMENT CALCULATIONS

159th STREET  
25' BUFFERYARD 'C'

54.25' DIVIDED BY 100 = .5425 PLANT MULTIPLIER

54.25' BUFFERYARD 'C'

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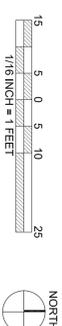
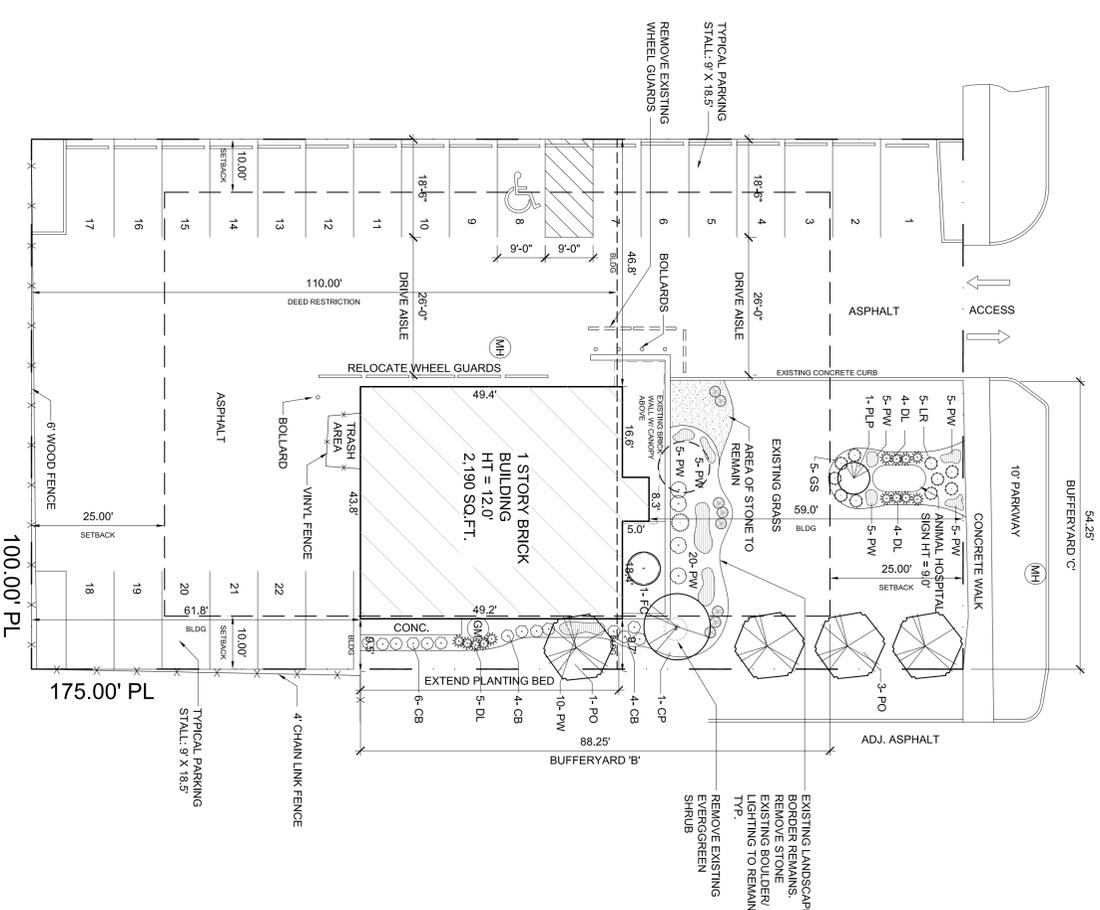
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54.25' BUFFERYARD 'C'

54.25' DIVIDED BY 100 = .5425 PLANT MULTIPLIER

54.25' BUFFERYARD 'C'

## 159th STREET



## SITE AND LANDSCAPE PLAN

SCALE: 1/16" = 1'-0"

PROJECT NAME:  
PROJECT ADDRESS:  
DRAWING TITLE:

**NATIONAL VETERINARY ASSOCIATES, INC.**  
7613 159th STREET, TINLEY PARK, IL 60477  
**SITE AND LANDSCAPE PLAN**

ISSUED FOR:  
REVIEW:  
DATE:  
DRAWN BY:

07.23.2015  
WS

**ELEMENTS ARCHITECTURAL GROUP, INC**  
205 SUPERIOR STREET OAK PARK, IL 60302  
www.elementsarchitects.com 708.848.4750

VERIFY THAT THESE PLANS  
DIRECT SUPERVISION AND TO  
CONFORM TO THE BUILDING  
CODES OF THE CITY OF  
CHICAGO

**WALTER SCHULTZ**  
REGISTERED ARCHITECT  
STATE OF ILLINOIS  
LICENSE # 001-019492

**L-1**



# PLAN COMMISSION STAFF REPORT

AUGUST 20, 2015

## AETNA RETAIL

7201 191<sup>st</sup> Street

**REVISIONS ARE NOTED IN RED**

### Applicant

Mr. George Hanus,  
Aetna Development

### Property Location

7201 191<sup>st</sup>

### Parcel Size

85,415 SF ±  
1.96 ac ±

### Zoning

R-1

### Approval Sought

Site Plan,  
Rezoning from R-1 to B-3  
(General Business and  
Commercial),  
Plat approval granting  
cross access easements

### Requested Action

Assign two Commissioners  
to meet with the Applicant  
in a Work Session.

### Project Planner

Paula J. Wallrich, AICP  
Deputy Planning Director



## EXECUTIVE SUMMARY

The Applicant, Mr. George Hanus of Aetna Development, seeks approval for the rezoning of a 1.96 acre vacant parcel located at the southwest corner of Harlem Avenue and 191<sup>st</sup> Street. The property was zoned R-1 upon its annexation in 2010. The Applicant is requesting rezoning to B-3, General Business and Commercial Zoning District, for purposes of constructing a 16,722 SF multi-tenant retail structure. The property is located in the Urban Overlay District. A national furniture retailer is the only tenant identified by the Applicant at this time. The Comprehensive Plan identifies the property as commercial.

The project meets all Zoning District requirements; therefore the development will only require a Site Plan review by the Commission in addition to the rezoning application. Cross-access easements have also been provided; the Commission will have a plat of easement presented for their approval. The Applicant has revised earlier submittals in response to Staff comments which reduced their proposal of two (2) structures to one (1) structure located adjacent to Harlem Avenue. This is consistent with the Overlay District's design intent to allow the architecture to dominate the streetscape rather than parking fields. The proposed architecture meets masonry requirements and benefits from the additional signage allowances provided for structures that provide greater than 50% transparency on facades facing parking fields. Landscaping issues have been primarily resolved with some minor plant choice issues that are highlighted later in the report; however Staff believes the proposed plan generally meets the overall design intent of the Landscape Ordinance.

The Applicant is working with Staff to finalize a Development Agreement which will resolve outstanding Site Plan related issues dealing with access on 191<sup>st</sup> Street and the burial of utility lines. Staff is recommending the Site Plan approval be conditioned upon approval of the Development Agreement by the Village Board.

## PLAN COMMISSIONER'S WORKSHOP

Commissioner's Reidy and McClellan were the appointed as the Commissioner's for the Aetna workshop. Staff identified several open items for discussion as noted below. The results of the discussion are noted in italics:

1. Planting of street trees along frontage of building. *Staff recommended that the street trees that cannot be planted in the right-of-way be planted along the 191<sup>st</sup> and Harlem Avenue building facades. The Applicant provided a proposal that addressed staff's concern to provide some plant material with greater height in these areas that did not interfere with potential door openings.*



In addition staff requested an additional tree at the south side of the building. The Applicant will provide a cash-in-lieu of payment for the remaining street trees. This will be handled in the Development Agreement.



2. Ground mounted sign. *There was considerable discussion regarding the design of the ground mounted sign. The Applicant provided a design of a metal routed sign which only illuminated the letters. Staff expressed concern over being able to read a sign with eight (8) different panels at the speeds of vehicles traveling adjacent roadways. It was noted that along Harlem there are wall signs that are easily read from the roadway. Commissioner McClellan expressed his support for an attractive stone monument sign that provided a name for the center but not individual tenants. Both Commissioners expressed concern over the signs blocking vision for ingress and egress. The Applicant stated that he had conducted vision triangle studies and the proposed locations met those requirements. Staff recommended a compromise that would allow the proposed ground mounted sign but limit the number of tenants to four (4). She also recommended eliminating the sign at the southern end of the property along Harlem in favor of a sign at the northeast corner of the property that could be seen from all directions at the intersection. She recommended the names of the tenants be placed on that sign as metal pinned letters with uplighting in a landscaped bed. The Applicant will take the recommendations back to the Petitioner and provide a response prior to the meeting.*
3. Stone color. *The Applicant agreed to soften the cool gray color proposed for the stone sill and base of columns and will provide a sample of a warm beige at the meeting.*

**SUMMARY OF OPEN ITEMS**

OPEN ITEM	SUGGESTED RESOLUTION
1. Coordinate burial of utility lines along 191st with property development to the west.	<i>Will be addressed in Development Agreement</i>
2. Due to engineering concerns the right-out egress lane on 191 <sup>st</sup> Street will be eliminated upon provision of cross access to the west or south.	<i>Will be addressed in Development Agreement</i>
3. Cross -access easement will need to be platted to west and south properties.	<i>Applicant will provide</i>
4. Information on HVAC units and parapet is needed to determine adequate screening from public view. An architectural detail of trash enclosures has not been provided.	<i>Applicant has verified that HVAC will not be visible from public right-of-way. Details have been provided for trash enclosures.</i>
5. Minor landscape design and plant choice issues need to be addressed; location of street trees needs to be determined and conflict between cross access easement and trees must be resolved.	<i>Applicant will submit revised Landscape Plan; A cash in lieu payment for the balance of the street trees will be addressed in the Development Agreement.</i>
6. The location and design of the ground mounted sign should be addressed.	<i>Applicant will provide proposal for Commission discussion.</i>
7. Engineering concerns have been identified and must be addressed prior to final engineering approval.	<i>Final engineering will be required prior to issuance of a building permit.</i>

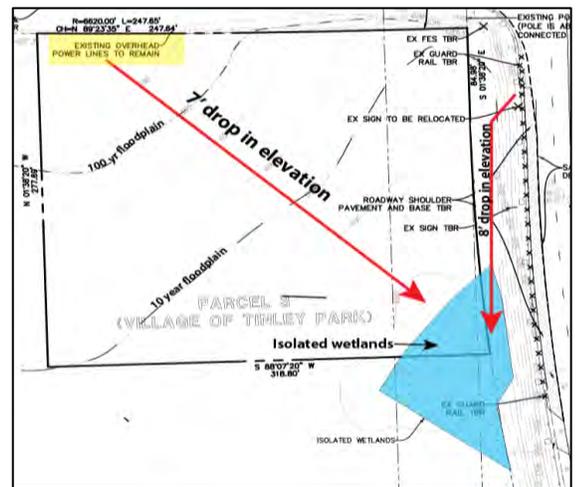
**EXISTING SITE**



The subject property is an undeveloped 1.96 acre parcel located just south of Brookside Marketplace Shopping Center at the southwest corner of 191<sup>st</sup> and Harlem Avenue. The property slopes over 7' from the northwest corner to the southeast corner where it drains into an isolated wetland. The northeast corner of the property is approximately 6-7' below the grade of adjacent roadways.

The property is encumbered with 100 year and 10 year floodplain contours. A drainage ditch runs through the adjacent parcel to the west. Overhead power lines border the north property lines obscuring clean sight lines to the property. The Will County Department of Transportation has jurisdiction of 191<sup>st</sup> Avenue; Illinois Department of Transportation controls Harlem Avenue. Both roadways have four-lane cross sections; 191<sup>st</sup> Street has double turn lanes. 191<sup>st</sup> Street has a non-mountable median; Harlem Avenue has a mountable median.

The Applicant owns a parcel south of the subject parcel (approximately 6 acres) which will provide the fill for land balancing the site and raising the grade, especially at the northeast corner of the parcel. Per the proposed mass grading plan the northeast corner of the property will be



filled five (5) feet or greater to an elevation approximately equal to the adjacent roadways, thus improving visibility to the site. To accommodate the leveling of the site, two (2) retaining walls have been proposed; one along the west property line and the other along the south property line. Each wall will be approximately five (5) feet in height. **Stormwater will be detained on site per ordinance requirements. The proposal includes underground detention.**

**PROPOSED USE & COMPLIANCE WITH THE COMPREHENSIVE PLAN**

The Applicant proposes to construct a 16,722 S.F. multi-tenant retail structure. There are seven tenant spaces defined, however the Applicant has stated that he wishes to maintain flexibility with the tenant spaces to accommodate the market. A national furniture retailer is the only tenant identified at this time.

The Village of Tinley Park Comprehensive Plan (2000) identifies this site as commercial; therefore, the proposed development is in accord with the Village’s Comprehensive Plan.

**ZONING & NEARBY LAND USES**

The subject property was zoned R-1, Single-Family Residential, upon annexation. The Applicant is requesting rezoning of the property to B-3, General Business and Commercial District. The property is located in the Urban Overlay District (UOD) and must therefore respect the guidelines of that District regulating site planning, architecture, parking, signage and circulation.

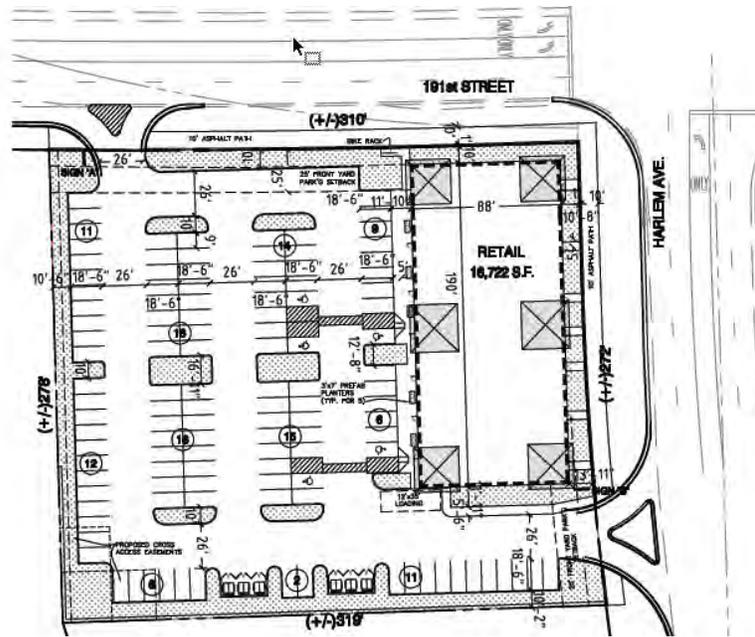
The intent of the Urban Overlay District is to create development patterns that accommodate the automobile, but are primarily designed to promote non-motorized and public transportation movements to, within, and among properties.

The proposed site plan meets the setback requirements of the Urban Overlay District and minimum lot size requirements of the B-3 Zoning District. It also meets the design regulations regarding architecture, site plan and access with the exception as noted below under ‘circulation’. The property to the west and south are zoned R-1, which is the zoning classification assigned upon annexation. The properties to the north and east are zoned B-3 PUD.



<b>B-3 GENERAL BUSINESS AND COMMERCIAL</b>		
<b>VILLAGE REGULATION</b>	<b>DIMENSION REQUIRED</b>	<b>PETITIONER’S DIMENSION (consolidated parcel)</b>
Maximum Building Height	35’	29.75’’
Lot Area Minimum	7,500 SF	85,415 SF
Lot Width Minimum	60’	272’
Lot Depth Minimum	125’	310’
<b>URBAN DESIGN OVERLAY DISTRICT</b>		
Building Front Yard Setback	20’ max	10.66’
Building Side Yard Setback	10’ Min	72’
Building Rear Yard Setback	10’ Min	210’
Parking Front Yard Setback	25’ Min	25’
Parking Side Yard Setback	10’ Min	10.16’
Parking Rear Yard Setback	0’ Min	10.5’

**GENERAL SITE PLAN REVIEW**



OVERHEAD UTILITY LINES

The overhead utility lines along 191<sup>st</sup> Street obscure views onto the site. The Applicant has agreed to the burial of these lines however Staff has recommended that the Applicant work with the property to the west to coordinate the burial of the lines when that property develops. This issue will be addressed in the Development Agreement which is currently being drafted.

***Open Item #1: Coordinate burial of utility lines along 191<sup>st</sup> with property development to the west. This will be addressed in the Development Agreement.***

SETBACKS

Per the Overlay District design parameters the proposed structure has been sited along Harlem Avenue with over 1/3 of the length of the property, excluding driveways, occupied by the façade of the building. As a corner parcel, there are two (2) front yards; each has been provided with a front yard setback less than the prescribed 20' maximum. The side and rear yard setbacks are also in conformance. Parking has met the front, side and rear yard setbacks as well.

Building Setbacks		
Front Yard	20' max	<b>A</b>
Side Yard	10' min	<b>B</b>
Rear Yard	10' min	<b>C</b>
Parking Setbacks		
Front Yard	25' min	<b>D</b>
Side Yard	10' min	<b>E</b>
Rear Yard	0'	<b>F</b>
Outdoor Dining Setbacks		
All Yards	5'	
Accessory Structures		
Front Yard	20' max	
Side Yard	5'	
Rear Yard	5'	

PARKING/CIRCULATION

The proposed parking lot meets Ordinance dimension requirements for the parking stalls and drive aisles. Without a defined end user a retail parking ratio of 1/150 SF has been applied resulting in a requirement of 112 parking spaces; 118 spaces have been provided. Per Staff's request, the Applicant has limited access to right-in/right-out (R-I/R-O) on both frontages. The access on 191<sup>st</sup> has been located at the far western property due to concerns identified by the Village's consulting engineer who is not recommending access on 191<sup>st</sup> Street. Northbound egress from the site at 191<sup>st</sup> Street requires a merge across four (4) lanes of traffic with storage bays for dual left turn lanes at 420' (the subject property has only a 310' frontage on 191<sup>st</sup> Street). The Applicant has agreed to eliminate the egress

on 191<sup>st</sup> Street once cross-access to the west or south is provided. This issue will be finalized in the Development Agreement.

***Open Item #2: Due to engineering concerns the right-out egress lane on 191<sup>st</sup> Street will be eliminated upon provision of cross access to the west or south. This will be addressed in the Development Agreement.***

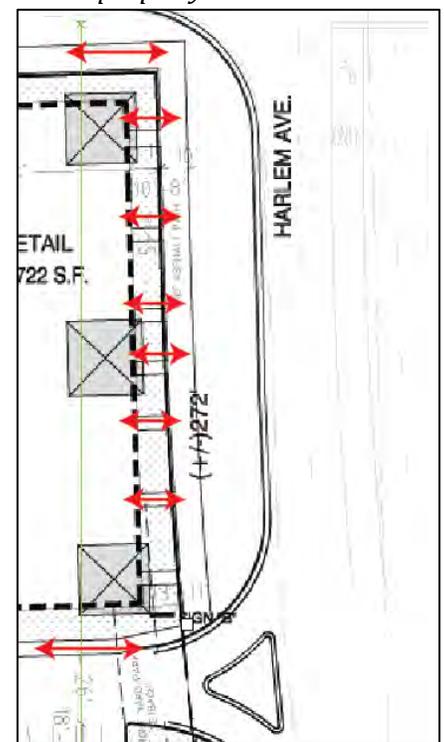
Cross access easements will be provided at the southwest corner of the property for the adjacent properties to the south and west. These easements will be platted and made a matter of record upon final approval by the Village Board.

***Open Item #3: Cross -access easement will need to be platted to west and south properties. Applicant will provide a plat of easement.***

The Overlay District also states “each site must provide opportunities for the public to bike, walk, drive, or take public transportation to, among, and within the development while minimizing the conflicts between the these methods..” It states further “non-motorized transportation improvements shall be completed on and around the property as outlined in the Village’s Active Transportation Plan, as amended.”

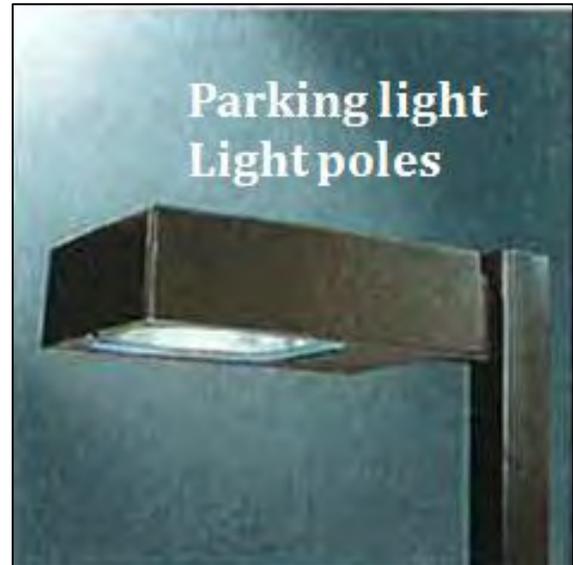
The Active Transportation Plan adopted in 2012 identifies Class I Multiuse Trails (10’ asphalt) on both ROW frontages. The Applicant has provided 10’ wide asphalt bike trails on both 191<sup>st</sup> Street and Harlem Avenue. The path on 191<sup>st</sup> will be installed after the utility lines are buried; a cash-in-lieu payment will be paid as part of the Development Agreement. In addition, a bike rack has been provided at the north end of the project.

Per the Urban Overlay District, direct access must be provided into the buildings from public sidewalks via a walkway. In addition each development shall include an approved pedestrian circulation system (sidewalks, pavement striping, etc.) that provides pedestrian linkages to and from public transportation, among buildings, among parking lots and buildings, and among adjacent uses. The Applicant has complied with this requirement and has provided sidewalks to each tenant space. It is unclear at this time whether these storefronts (on Harlem) will be utilized. If they are not used, signage on this façade is reduced by 25%. This will need to be analyzed as the tenant spaces are leased.



**LIGHTING**

There are six (6) pole lights in the main parking lot, and two (2) at the entrance off of Harlem. The parking lot lights are metal halide and are mounted on 27.5 foot poles. There are also wall mounted lights provided on all sides of the building; ten (10) on both the east and west facades, four (4) on the north and south facades. The photometric plan meets the Village requirement of .5 foot candles at the property line. Cut sheets are provided for the parking light lighting as well as the wall lighting for the new structure.



## ARCHITECTURE



East and West Facades

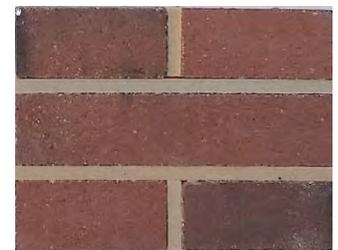


North Facade



South Facade

The Applicant has worked closed with Staff to develop an attractive masonry multi-tenant retail center which provides architectural interest on all four sides. The tower elements have stone accents, brackets and stone medallions to provide architectural interest. The middle tower unit has been provided with a clerestory window with obscured glass which provides a perception of depth to the tower. A variation in height has been provided with the tower elements (that are each four sided); the middle element is taller and establishes an architectural hierarchy for the dominant east and west facades. The standing seam canopies provide articulation on all four sides and a color break from the solid masonry walls. The color rendering does not adequately depict the coloration of the brick which provides attractive subtle color modulations. A material board will be presented at the Plan Commission meeting.



All four elevations meet the masonry requirements; the percentage of windows on all four sides exceeds 50% and therefore additional wall signage will be allowed (discussed under signage).

The Applicant has stated that the HVAC units will be completely screened from public view on all four sides of the structure. Staff has requested details on the height of the units and the height of the parapet walls to verify that the units are adequately screened.

The trash enclosures are enclosed by 6' brick walls with solid wood gates. Staff has requested an architectural detail be provided for review.

***Open Item #4: Information on HVAC units and parapet is needed to determine adequate screening from public view. An architectural detail of trash enclosures has not been provided. Applicant has provided documentation regarding the visibility of the HVAC units and the trash enclosures.***

## LANDSCAPING

The intent of the Village's Landscape Ordinance is to utilize landscape materials to enhance proposed development, soften the impact of parking areas, provide a buffer between land uses, and create an overall quality aesthetic for the site. Bufferyards are required on all property edges per Village Ordinance. The Overlay District setbacks limit the width of the bufferyards; however the intent of the ordinance must still be met. Landscape requirements for minimum parking lot landscape coverage as well as screening and foundation plantings must also be addressed.

Staff has worked with the Applicant on the Landscape Plan and several revisions have provided plans more in compliance with the intent of the Landscape Ordinance. Per Staff's request additional plantings have been provided around the foundation along with increased evergreen plant material for screening purposes. Two (2) interior parking lot landscape islands have been provided that are 17' in width exceeding ordinance width requirements of 10'. This allows for the planting of two (2) trees and a variety of ground cover, ornamental grasses and shrubbery.

The Landscape Ordinance allows for the planting of 50% of the required bufferyard when adjacent to a vacant parcel, therefore the west and south property lines have provided landscape material at this level. Street trees may be compromised along these major commercial corridors, therefore Staff has encouraged the Applicant to plant the required number of street trees (24) on private property rather than the right-of-way. Discussions continue with the Applicant regarding the appropriate location for these trees. Additional trees along the building façade is suggested. Staff has also expressed some concern regarding the potential conflict between the future cross access easements and planting of trees.

LOCATION	REQUIRED BUF YD WIDTH	PROPOSED BUF YD WIDTH	BUF YD LENGTH	REQ'D UNITS	PRO-VIDED UNITS	DEFICIT	COMMENT
East Property Line	C/10'	10'	47'	3 CT 1 US 10 SH	3 CT 1 US 39 SH	0 CT 0 US +29 SH	
West Property Line	C/10'	10'	278'	7 CT 3 US 28 SH	7 CT 3 US 35 SH	0 CT 0 US +7 SH	½ requirement due to adjacent vacancy
North Property Line	C/10'	10'	175'	9 CT 4 US 35 SH	9 CT 4 US 38 SH	0 CT 0 US +3SH	
South	C/10'	10'	298'	7 CT	7 CT	0 CT	½

Property Line				3 US	3 US	0 US	requirement due to adjacent vacancy
				30 SH	81 SH	+51 SH	
Prkwy				24 CT	0 CT	-24 CT	Proposed off ROW
<b>TOTAL</b>						<b>-24 CT</b>	
						<b>-0 US</b>	
						<b>+90 SH</b>	

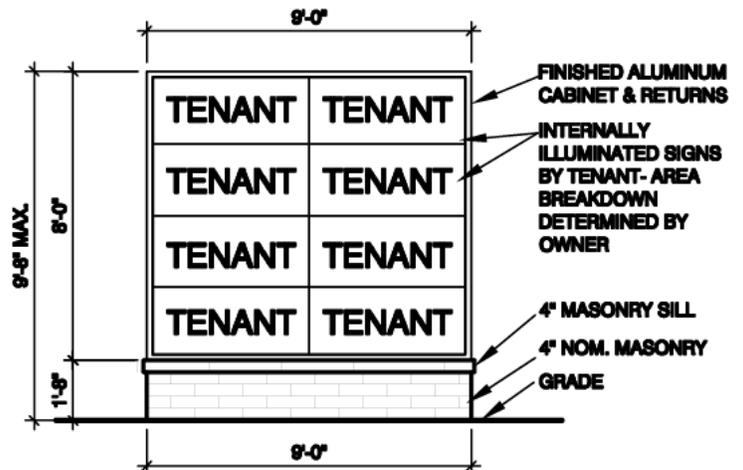
CT= Canopy Tree  
 US= Understory Tree  
 SH=Shrubs  
 EV=Evergreen

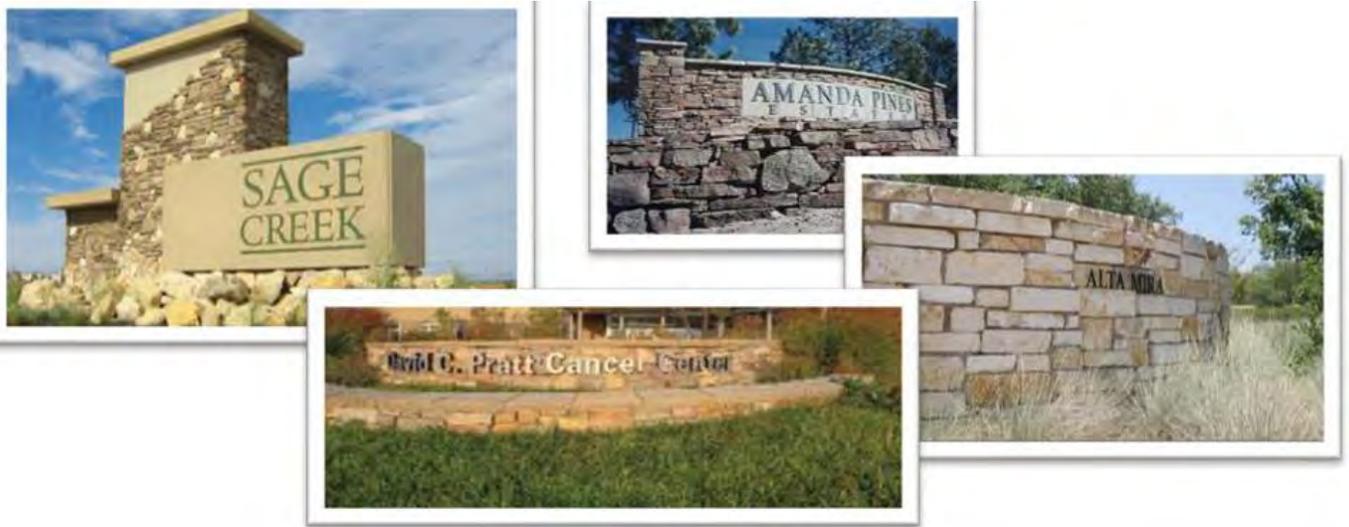
***Open Item #5: Minor landscape design and plant choice issues need to be addressed; location of street trees needs to be determined and conflict between cross access easement and trees must be resolved. Applicant will provide a revised landscape plan. A cash in lieu payment for the balance of the street trees will be addressed in the Development Agreement.***

**SIGNAGE**

The Applicant has provided a ‘Unified Sign Plan’ for their future tenants. No formal sign submittal has been provided since the tenants are unknown. The merit of a Unified Sign Plan is the consistency in design and materials for the signs it provides. Staff applauds this initiative and encourages the Applicant to support attractive one color signs or minimize the number of colors allowed in the wall signs. Some of the Unified Sign Plan conflicts with Village Sign regulations; however the Plan also notes that final Village approval is required on all signs. The Unified Sign Plan is not part of the review approval for this project.

The ground mounted sign is proposed as a 9’8” internally illuminated box sign with 8 individual sign panels. Staff has expressed concern about the design of the ground mounted sign and suggests either eliminating the ground mounted sign or install a ground sign with just the name of the center as depicted below. This is a high traffic corner with 4-lane cross sections in both directions. The advantage of the Urban Overlay District is locating the buildings closer to the street where wall signage is easily read. The ground mounted sign as proposed may be difficult to read at only 24” in height per panel. In addition, the proposed location on the site plan conflicts with line of sight regulations in the Village Code requiring a minimum 10’ setback.





The Urban Overlay District provides some sign incentives if 50% or greater of the building elevation is transparent. The proposed structures exceed the 50% threshold on all four sides of the building and therefore the façade facing the parking will be allowed equal signage to that provided on the Harlem Avenue façade. In addition, if the east façade entrances are operational, wall signage can be provided at 100% of the allowable area, otherwise a 25% reduction in area is imposed.

***Open Item #6: The location and design of the ground mounted sign should be addressed. This remains an open item for discussion at the meeting.***

## **STAFF REVIEW: ENGINEERING**

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The Village Engineer has provided a list of concerns to the Applicant. Final engineering approval will be required prior to issuance of a Building Permit. Engineering concerns which impact the site plan are listed below:

1. Street light poles need to be relocated along 191<sup>st</sup> Street. This work must be in accordance with Village standards and detailed plans submitted during final engineering. The Village does not allow splicing.
2. Much of this site is in floodplain, a CLOMR must be received from FEMA prior to any construction on the site.
3. The 10 foot sidewalk along 191<sup>st</sup> Street will be provided at a later date per the development agreement; however, all the work to prepare for this path including street light relocation and grading must be done at the time of this retail development.
4. The stormwater management and compensatory storage calculations appear to meet Village standards. Full review and comment will be during final engineering when all calculations are received. Agreements/arrangements with the Park District for use of their land as well as maintenance agreements must be received and reviewed by the Village prior to issuing any permits.
5. Retaining walls must be designed and calculations signed and sealed by an Illinois structural engineer provided.

***Open Item #7: Engineering concerns have been identified and must be addressed prior to final engineering approval. Final engineering approval will be required prior to issuance of a building permit.***

## **STAFF REVIEW: FIRE DEPARTMENT**

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All Fire Department items have been addressed.

## FINDINGS OF FACT

Staff has provided the following Findings of Fact to assist in your review. The Commission may elect to read them at the Public Hearing or, after discussion of the Findings, enter them into the record as written or amended.

### **Rezoning (Map Amendment) from R-1 Single Family Residential to B-3 General Business and Commercial District**

#### **1. The proposed zoning is consistent with the existing uses in the area.**

The predominant land uses in the area are commercial or undeveloped with agricultural uses on the property pending market opportunities for development. The Comprehensive Plan identifies this parcel as commercial. It is located at a major commercial intersection (191<sup>st</sup> Street and Harlem Avenue), south of Interstate 80. A large commercial development (Brookside Marketplace) is located immediately to the north of the property, a car dealership, outdoor music venue and large gaming and entertainment facility are located to the east. The property to the south and west are dominated by floodplain; residential uses are located beyond the floodplain to the southwest. Properties along Harlem Avenue have developed with commercial uses. The proposed commercial zoning is consistent with the dominant and planned uses in the area.



#### **2. The proposed zoning is compatible with present zoning in the area.**

The property was annexed in 2010 and zoned R-1 Single Family Residential upon annexation. The B-3 General Business and Commercial District is the appropriate commercial zoning designation due to the size and development potential of the parcel. The zoning to the north and east are zoned B-3. The parcel immediately to the south was zoned R-1 upon annexation; rezoning will not occur until a development proposal for that property is submitted to the Village. The property to the west is unincorporated Will County. Zoning beyond the surrounding flood plain is zoned R-2. The proposed zoning is compatible with the present zoning in the area which is also zoned B-3 or is buffered with undeveloped property encumbered with floodplain.

#### **3. The existing zoning is not suitable for the property or its surrounding area.**

The R-1 zoning district, as the most restrictive zoning district, is considered a 'holding' district when property is annexed to the Village. Rezoning is considered once a development proposal is submitted for consideration by the Village. The proximity of this parcel to major commercial corridors and existing commercial development, as well as its limited size, make it unsuitable for Single-Family Development. The R-1 zoning district has a 20,000 SF minimum per dwelling unit; the subject parcel is 1.96 acres in size. If the property were to be developed under the R-1 zoning district it would require variances from the Zoning Ordinance and would be negatively impacted by the existing uses and adjacency to large commercial roadways.

#### **3. The proposed zoning is consistent with the trend of development in the area.**

The development of this parcel as B-3 in the Urban Design Overlay District is consistent with the trend established by Brookside Marketplace. The location and proximity to major commercial road systems make this property a highly marketable piece of property for commercial uses.

**4. There is a need for the proposed rezoning.**

The subject site is not likely to be developed as it is currently zoned due to its limited size and existing topography which contribute to a development cost that exceeds market feasibility for residential development.

**RECOMMENDATION/RECOMMENDED MOTION**

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**If the Plan Commission wishes to take action, an appropriate wording of the motion would read:**

“...make a motion to grant Site Plan Approval for the proposed property located at 7201 191<sup>st</sup> Street. Conditions?”

Additionally, we recommend that the Village Board grant the Applicant, Webster Property Group, a Rezoning (Map Amendment ) from R-1 Single Family Residential to B-3 General Business and Commercial to allow the new construction of a 16,722 SF multi-tenant retail structure at 7201 191<sup>st</sup> Street. Findings of Fact submitted by Village Staff, as amended by the Plan Commission are submitted as part of the record for this meeting.

The Plan Commission further recommends approval of the Plat of Easement, prepared by Manhard Consulting

**LIST OF REVIEWED PLANS**

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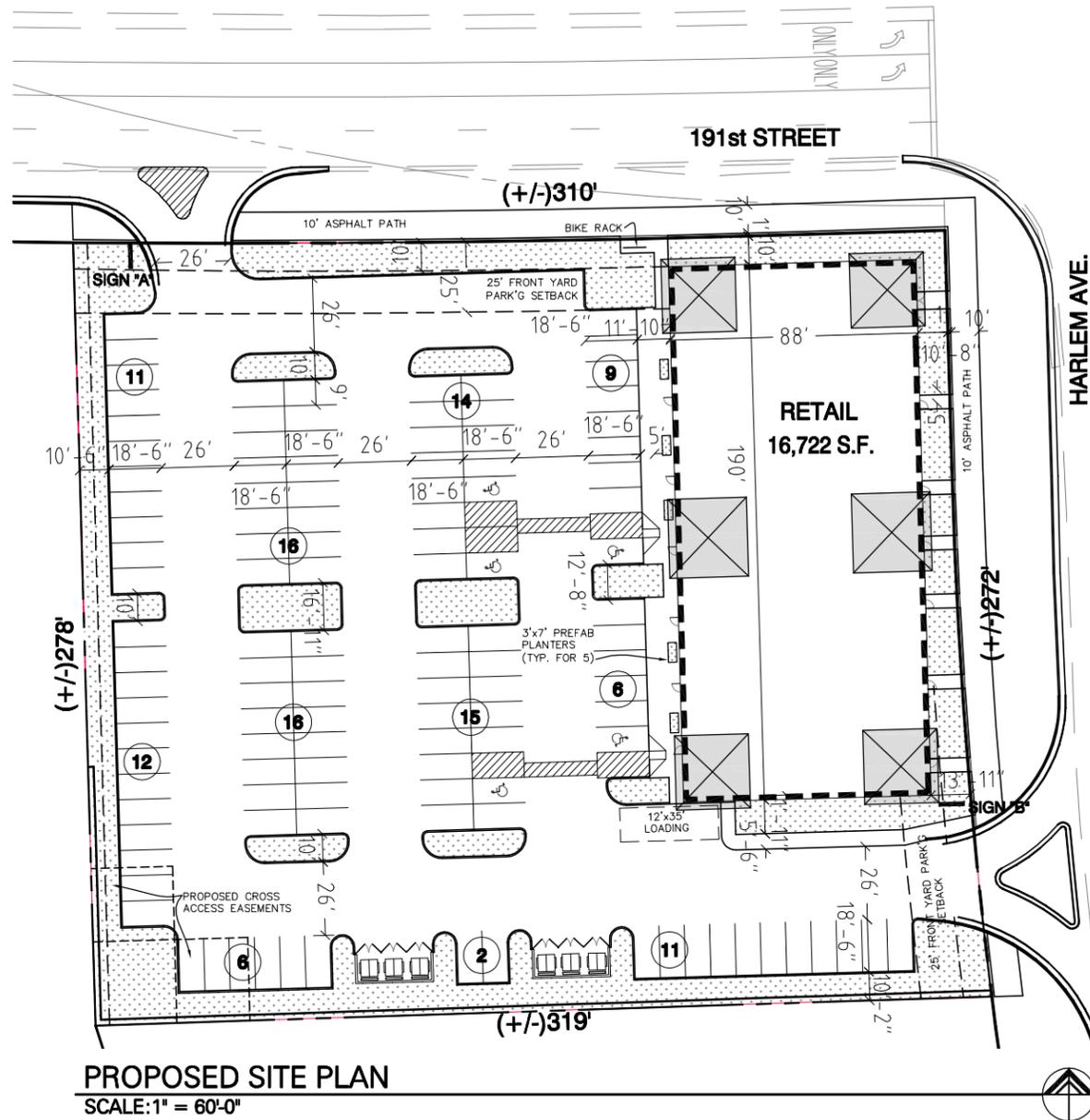
**Aetna Retail Development – 191<sup>st</sup> & Harlem Ave.  
LIST OF SUBMITTED PLANS  
RECEIVED JULY 23, 2015**

	<b>Submitted Sheet Name</b>	<b>Prepared By</b>	<b>Date On Sheet</b>
1	Letter of Transmittal	KMA	07/22/15
1 of 6	Unified Sign Plan	KMA	06/26/15
2 of 6	Unified Sign Plan	KMA	06/26/15
3 of 6	Unified Sign Plan	KMA	06/26/15
4 of 6	Unified Sign Plan	KMA	06/26/15
5 of 6	Unified Sign Plan	KMA	06/26/15
6 of 6	Unified Sign Plan	KMA	06/26/15
1A	Preliminary Floor Plan	KMA	06/26/15
2	Elevations	KMA	06/26/15
3	Landscape Development Plan	KMA	07/16/15
4	Landscape Details	KMA	07/16/15
5	Photometric Plan	KMA (COOPER)	05/13/15
1 of 14	Title Sheet	MANHARD	07/16/15

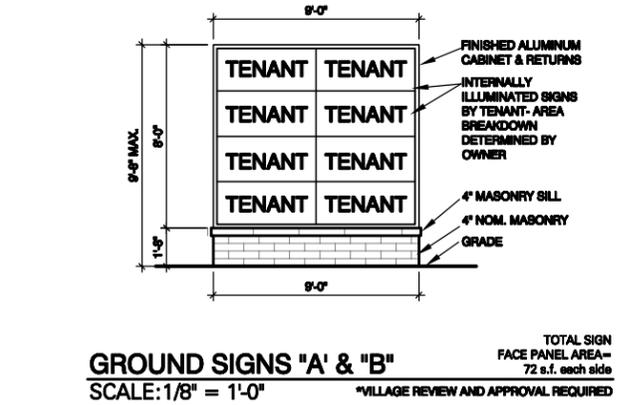
2 of 14	Existing Conditions and Demolition Plan	MANHARD	05/14/15
3 of 14	Site Dimensional and Paving Plan	MANHARD	07/16/15
4 of 14	Mass Grading Plan - Overall	MANHARD	07/16/15
5 of 14	Mass Grading Plan – Oak Park Ave.	MANHARD	05/14/15
6 of 14	Grading Plan	MANHARD	07/16/15
7 of 14	Utility Plan	MANHARD	07/16/15
8 of 14	Offsite Utility Plan	MANHARD	07/16/15
9 of 14	Soil Erosion and Sediment Control Plan	MANHARD	07/16/15
10 of 14	Soil Erosion and Sediment Control Plan Oak Park Avenue Lots	MANHARD	05/14/15
11 of 14	Soil Erosion and Sediment Control Details	MANHARD	05/14/15
12 of 14	Construction Details	MANHARD	05/14/15
13 of 14	Construction Details	MANHARD	05/14/15
14 of 14	Construction Specifications	MANHARD	05/14/15
1 of 5	Lighting Cut Sheet	COOPER	02/24/15
2 of 5	Mounting Configurations	COOPER	02/24/15
3 of 5	Ordering Information	COOPER	02/24/15
4 of 5	Features and Specifications	LITHONIA	
5 of 5	WSR Metal Halide, High Pressure Sodium Wall Mounted	LITHONIA	

*KMA*      *KMA & Associates*  
*MANHARD*   *Manhard Consulting Ltd*

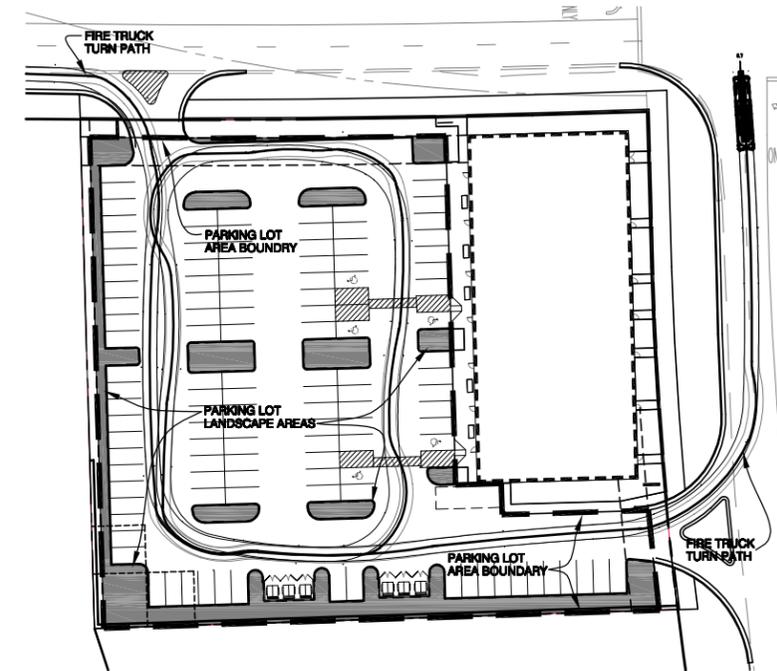
*COOPER*   *Cooper Lighting*  
*LITHONIA*   *Lithonia Lighting*



**PROPOSED SITE PLAN**  
SCALE: 1" = 60'-0"



**GROUND SIGNS 'A' & 'B'**  
SCALE: 1/8" = 1'-0"  
TOTAL SIGN FACE PANEL AREA = 72 s.f. each side  
\*VILLAGE REVIEW AND APPROVAL REQUIRED

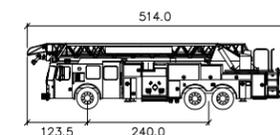


**PARKING LOT LANDSCAPE AREAS AND FIRE TRUCK TURN DIAGRAM**  
SCALE: 1" = 100'-0"  
SEE ZONING & SITE DATA FOR MORE INFORMATION

**ZONING & SITE DATA**

PROPOSED BUILDING	SITE AREA (ACRES / S.F.)	LOT COVERAGE (50% MAX.)	GREENSPACE (% / S.F.)	LANDSCAPE AREA (10% MIN. PUD)	PARKING LOT AREA	PARKING LOT LANDSCAPE AREA (15% MIN.)	F.A.R. (B3) (1.0 MAX.)	PROPOSED BLDG AREA (S.F.)	OVERALL BUILD'G SIZE	PARKING (1/150) REQ'D / PROVD	ADA PARKING REQ'D / PROVD
Retail	1.96 / 85,415	20.2%	19.4% / 16,588	19.4% / 16,588	57,744	16% / 9,281	.20	16,722	190' x 88'	111 / 118	5 / 5

- Requirements based on Urban Design Overlay District (UD-1) & B3. General UD-1 yard setbacks = Bldg FY / 0'-20', Prkg FY / 25', SY / 10', Bldg RY / 10' & Prkg RY / 0'.
- Greenspace area includes general landscape areas.
- Landscape area includes areas not covered by bldgs., structures, paving, or impervious surface.
- Parking Lot Area includes entire site area within the boundary lines of the lot, excluding required min. bufferyards, building area, walkways or areas not adjacent to parking.
- Parking Lot Landscape Area includes all landscape areas within the boundary lines of the lot, excluding required min. bufferyards, foundation planting areas or landscaping not adjacent to parking.



Smeal Aerial RM 105ft  
inches  
Width : 100.0  
Track : 95.0  
Lock to Lock Time : 6.0  
Steering Angle : 32.0

**PROPOSED RETAIL**

S.W.C. 191st STREET & HARLEM AVENUE  
TINLEY PARK, WILL COUNTY, ILLINOIS

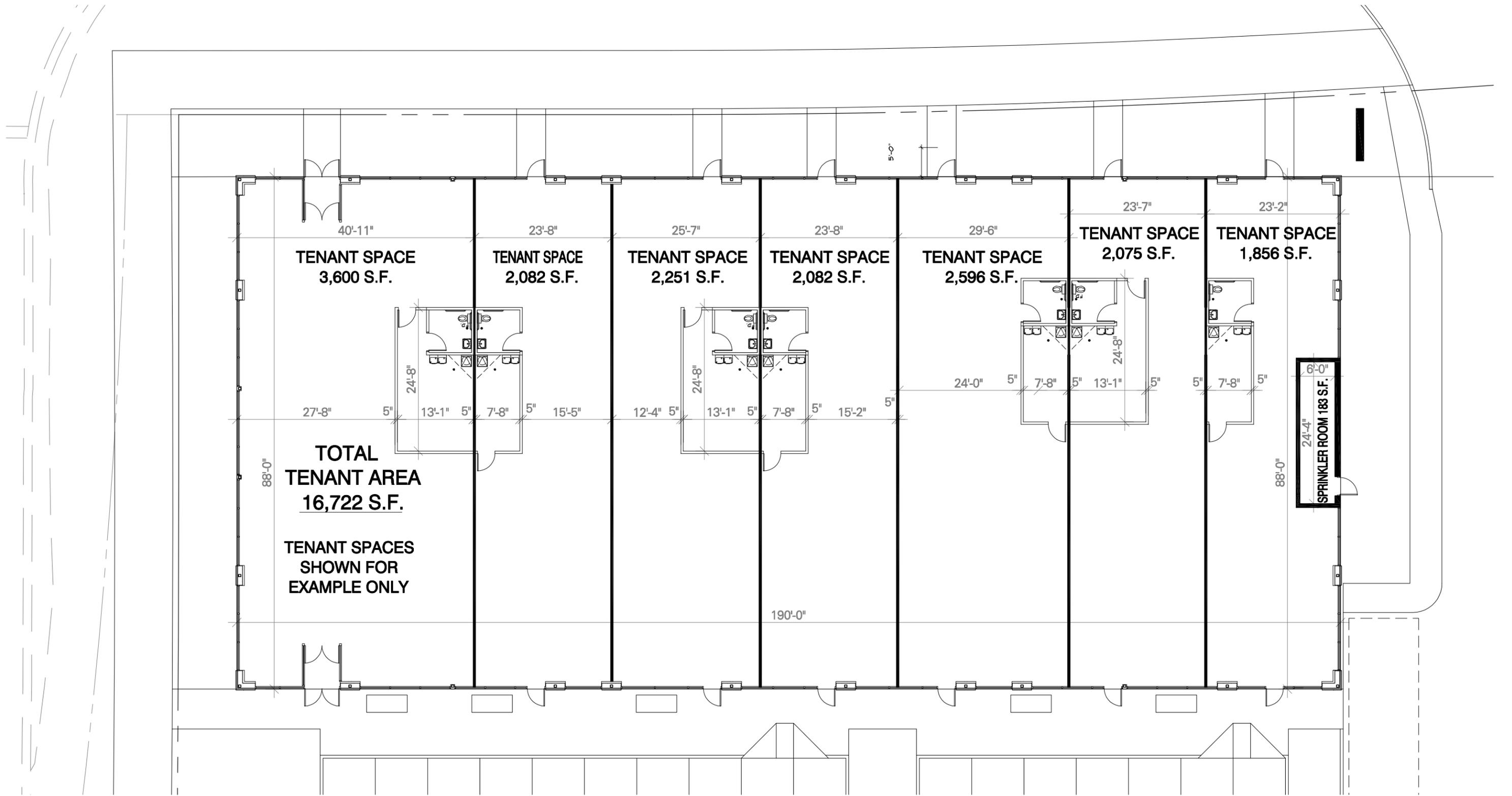
**AETNA DEVELOPMENT CORPORATION**

200 W. MADISON STREET  
CHICAGO, ILLINOIS

**KMA & ASSOCIATES, INC. ARCHITECTS**

1161 LAKE COOK ROAD  
DEERFIELD, ILLINOIS





PRELIMINARY FLOOR PLAN  
SCALE: 1/16" = 1'-0"



KMA PROJECT No. 0503

6/26/15

# PROPOSED RETAIL

S.W.C. 191st STREET & HARLEM AVENUE  
TINLEY PARK, WILL COUNTY, ILLINOIS

## AETNA DEVELOPMENT CORPORATION

200 W. MADISON STREET  
CHICAGO, ILLINOIS

## KMA & ASSOCIATES, INC. ARCHITECTS

1161 LAKE COOK ROAD  
DEERFIELD, ILLINOIS



1A



\*BUILDING SIGNAGE WILL BE PURSUANT TO VILLAGE CODE

KMA PROJECT No. 0503

ELEV 7 6/26/15

# PROPOSED RETAIL

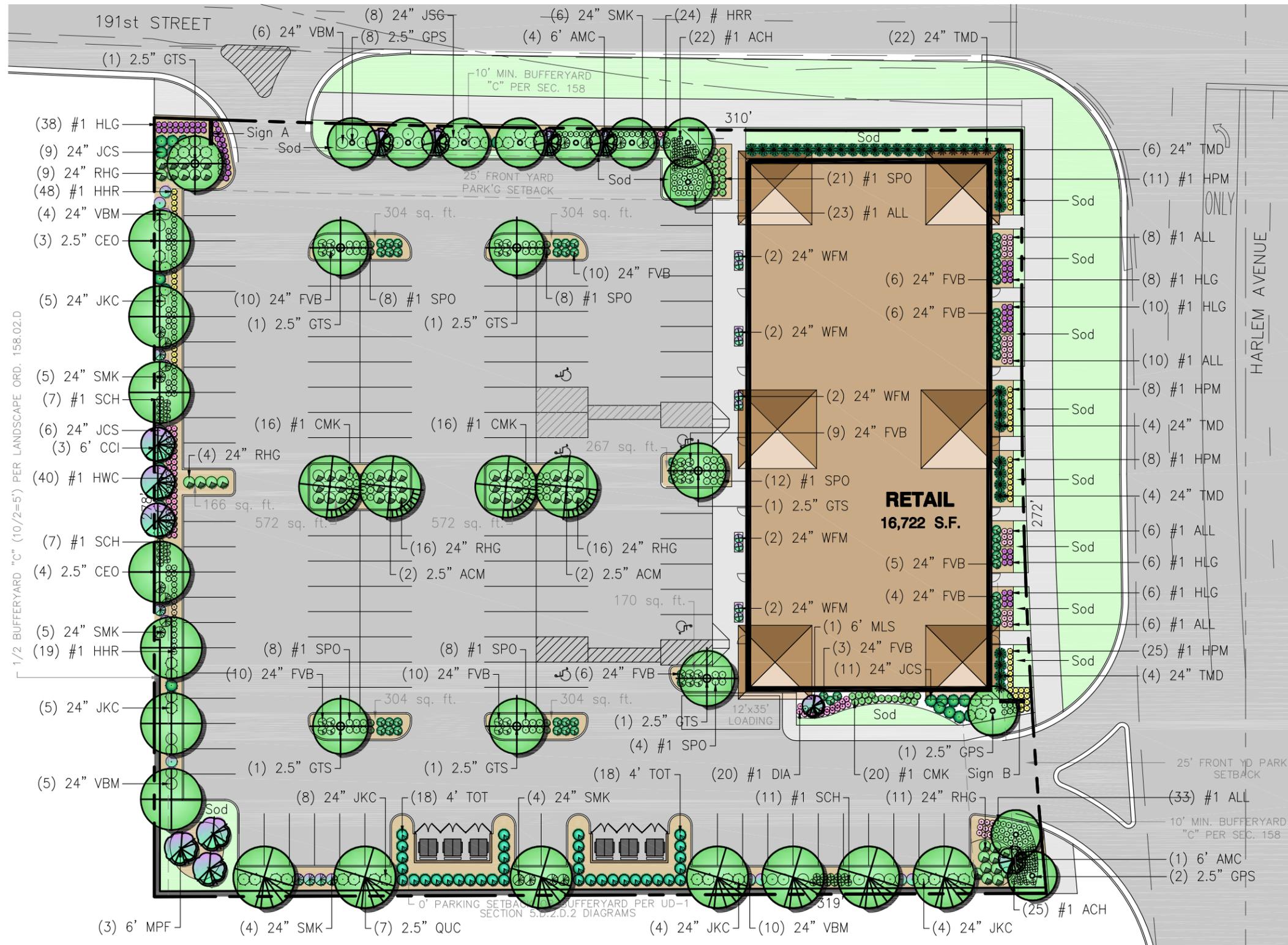
S.W.C. 191st STREET & HARLEM AVENUE  
TINLEY PARK, WILL COUNTY, ILLINOIS

## AETNA DEVELOPMENT CORPORATION

200 W. MADISON STREET  
CHICAGO, ILLINOIS

## KMA & ASSOCIATES, INC. ARCHITECTS

1161 LAKE COOK ROAD  
DEERFIELD, ILLINOIS



**Plant List**

Shade Trees	Key	Qty.	Size	Botanical Name	Common Name	Remarks	Plant Spacing
ACM	4	2.5"	Acer miyabei 'Morton'	State Street Miyabe Maple	BB	NA	
CEO	7	2.5"	Celtis occidentalis 'Prairie Pride'	Prairie Pride Common Hackberry	BB	NA	
GPS	11	2.5"	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	BB	NA	
GTS	7	2.5"	Gleditsia triacanthos var. inermis 'Skyline'	Skyline Thornless Honeylocust	BB	NA	
QUC	7	2.5"	Quercus muehlenbergii	Chinkapin Oak	BB	NA	

Ornamental Trees	Key	Qty.	Size	Botanical Name	Common Name	Remarks	Plant Spacing
AMC	5	6'	Amelanchier canadensis	Shadblow Serviceberry	BB/Clump	NA	
CCI	3	6'	Crataegus crusgalli var. inermis	Thornless Cockspur Hawthorn	BB/Clump	NA	
MLS	1	6'	Malus sargentii	Sargent Crabapple	BB/Clump	NA	
MPF	3	6'	Malus 'Prairie Fire'	Prairie Fire Crabapple	BB/Clump	NA	

Shrubs	Key	Qty.	Size	Botanical Name	Common Name	Remarks	Plant Spacing
FVB	79	24"	Forsythia viridissima 'Bronxensis'	Bronx Dwarf Forsythia	BB	36"	
JCS	26	24"	Juniperus chinensis var. sargentii	Sargent Juniper	BB	48"	
JKC	26	24"	Juniperus chinensis 'Kallay's Compact'	Kallay's Compact Juniper	BB	48"	
JSG	8	24"	Juniperus chinensis 'Sea Green'	Sea Green Juniper	BB	48"	
RHG	56	24"	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	BB	48"	
SMK	24	24"	Syringa patula 'Miss Kim'	Miss Kim Dwarf Lilac	BB	48"	
TMD	40	24"	Taxus x media 'Densiformis'	Dense Yew	BB	48"	
TOT	36	4'	Thuja occidentalis 'Technyii'	Mission Arborvitae	BB	48"	
VBM	25	24"	Viburnum dentatum 'Christom'	Blue Muffin Arrowwood Viburnum	BB	48"	
WFM	10	24"	Weigela florida 'Minuet'	Minuet Weigela	BB	30"	

Perennials and Ornamental Grasses	Key	Qty.	Size	Botanical Name	Common Name	Remarks	Plant Spacing
ACH	47	#1	Achillea 'Moonshine'	Moonshine Yarrow	Container	24"	
ALL	86	#1	Allium 'Summer Beauty'	Summer Beauty Allium	Container	24"	
CMK	52	#1	Calamagrostis acutiflora 'Karl Foerster'	Feather Reed Grass	Container	30"	
DIA	20	#1	Dianthus gratianopolitanus 'Firewitch'	Firewitch Cheddar Pinks	Container	24"	
HRR	67	#1	Hemerocallis 'Happy Returns'	Happy Returns Daylily	Container	24"	
HLG	68	#1	Hemerocallis 'Little Grapette'	Little Grapette Daylily	Container	24"	
HPM	52	#1	Hemerocallis 'Pardon Me'	Pardon Me Daylily	Container	24"	
HRR	24	#1	Hemerocallis 'Rosey Returns'	Rosey Returns Daylily	Container	24"	
HWC	40	#1	Hemerocallis 'Little Wine Cup'	Little Wine Cup Daylily	Container	24"	
SCH	25	#1	Schizachyrium scoparium	Little Bluestem	Container	30"	
SPO	69	#1	Sporobolus heterolepis	Prairie Dropseed	Container	30"	

**LANDSCAPE DEVELOPMENT PLAN**

SCALE: 1" = 40'



KMA JOB No. 0503 SITE 17D 7/16/15

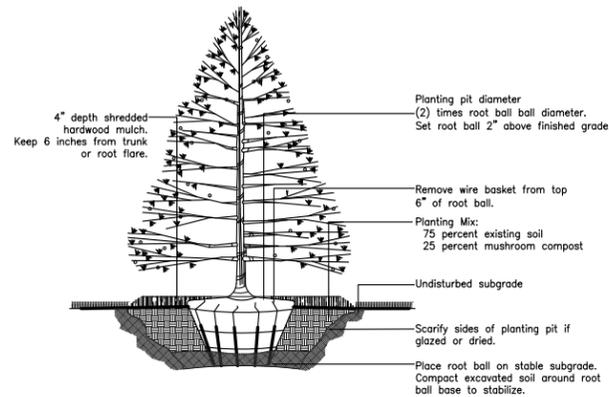
**PROPOSED RETAIL DEVELOPMENT**

S.W.C. 191st STREET & HARLEM AVENUE  
TINLEY PARK, ILLINOIS

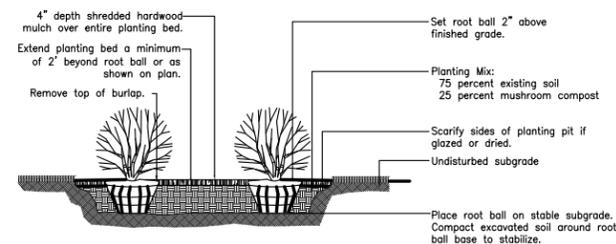
**AETNA DEVELOPMENT CORPORATION**  
200 W. MADISON STREET, SUITE 4200  
CHICAGO, ILLINOIS 60606  
(312) 332-4172

**DAVID R. McCALLUM ASSOCIATES, INC.**  
350 NORTH MILWAUKEE AVENUE  
LIBERTYVILLE, ILLINOIS 60048  
(847) 362-0209

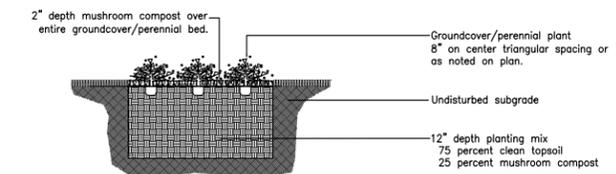




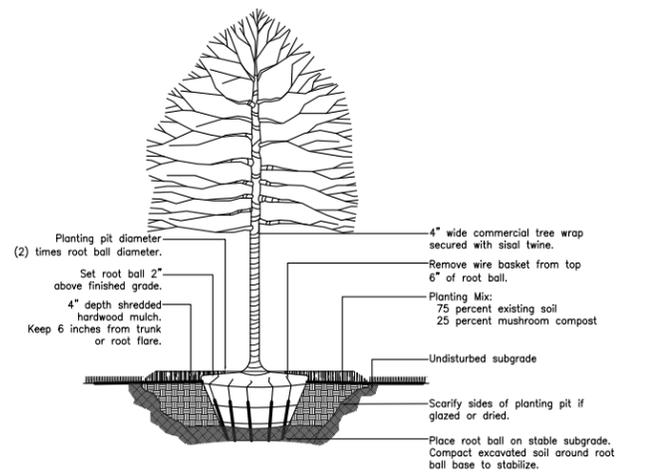
Detail  
Evergreen Tree Planting



Detail  
Shrub Planting



Detail  
Groundcover/Perennial Planting



Detail  
Deciduous Tree Planting

**Plant List**

Shade Trees	Key	Qty.	Size	Botanical Name	Common Name	Remarks	Plant Spacing
ACM	4	2.5"	Acer miyabei 'Morton'	State Street Miyabe Maple	BB	NA	
CEO	7	2.5"	Celtis occidentalis 'Prairie Pride'	Prairie Pride Common Hackberry	BB	NA	
GPS	11	2.5"	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	BB	NA	
GTS	7	2.5"	Gleditsia triacanthos var. inermis 'Skyline'	Skyline Thornless Honeylocust	BB	NA	
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SPO	69	#1	Sporobolus heterolepis	Prairie Dropseed	Container	30"	

**Landscape Calculations**

Bufferyards

East : Bufferyard "C" per Sec. 158 (10' width)  
Retail Building : Not Applicable per Urban Design Overlay District  
73' - 26' entrance/exit = 47'

	Required	Proposed
Canopy trees	3	3
Understory trees	1	1
Shrubs	10	39
Ornamental grasses/Perennials	0	170

West : 1/2 Bufferyard "C" per Sec. 158.02.D (10' width/2 = 5' width) - 278'

	Required	Proposed
Canopy trees	7	7
Understory trees	3	3
Shrubs	28	35
Ornamental grasses/Perennials	0	121

North/191st Street : Bufferyard "C" per Sec. 158 (10' width)  
211' - 10' west overlap - 26' entrance/exit = 175'

	Required	Proposed
Canopy trees	9	9
Understory trees	4	4
Shrubs	35	38
Ornamental grasses/Perennials	0	128

South : 1/2 Bufferyard "C" per Sec. 158.02.D (10' width/2 = 5')  
319' - 10' west overlap - 10' east overlap = 299'

	Required	Proposed
Canopy trees	7	7
Understory trees	3	3
Shrubs	30	81
Ornamental grasses/Perennials	0	11

Interior Lot

Foundation - Retail Building  
88' (191st Street)  
0' Building Setback or Foundation  
Landscaping per Urban Design Overlay District Sec. 5.D.2.D.2 Table  
Required  
None per UD-1  
Proposed  
88' x 10' width

Foundation - Retail Building  
0' Building Setback or Foundation  
190' (Harlem Avenue)  
Landscaping per Urban Design Overlay District Sec. 5.D.2.D.2 Table  
Required  
None per UD-1  
Proposed  
190' x 10' - 13'11" width

(1) tree / 10,000 square feet lot area  
85,415 square feet lot area  
Required  
9 trees  
Proposed  
10 canopy trees  
1 understory tree

Parkway

191st Street (Will County) - 310'  
(1) tree / 25' frontage  
Required  
13  
Proposed  
Off-Site T.B.D.

Harlem Avenue (IDOT) - 272'  
(1) tree / 25' frontage  
Required  
11  
Proposed  
Off-Site T.B.D.

Parking Lot (57,744 square feet)

15% of parking lot shall be covered by landscaping  
See KMA Site Plan, Parking Lot Landscape Area Diagram + Zoning/Site Data for additional  
detailed info + calculations

Landscaping area  
Required  
8662 square feet  
Proposed  
9302 square feet

North/191st Street  
West  
Screen to 30" height  
Screen to 30" height  
Proposed  
Screened with Shrubs, Grasses & Perennials  
Screened with Shrubs, Grasses & Perennials

South  
Screen to 30" height  
Screen to 30" height  
Proposed  
Screened with Shrubs & Grasses  
Screened with Shrubs & Perennials

East/Harlem Avenue  
Screen to 30" height  
Proposed  
Screened with Shrubs & Perennials

**LANDSCAPE DETAILS**

**PROPOSED RETAIL DEVELOPMENT**

S.W.C. 191st STREET & HARLEM AVENUE  
TINLEY PARK, ILLINOIS

**AETNA DEVELOPMENT CORPORATION**  
200 W. MADISON STREET, SUITE 4200  
CHICAGO, ILLINOIS 60606  
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**KMA JOB No. 0503 SITE 17D 7/16/15**

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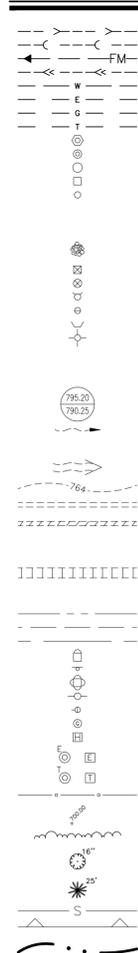


# Proposed Improvements for 191ST AND HARLEM RETAIL DEVELOPMENT

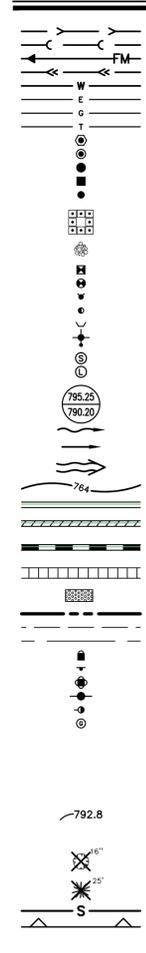
SWC 191ST STREET & HARLEM AVENUE  
VILLAGE OF TINLEY PARK, ILLINOIS

## STANDARD SYMBOLS

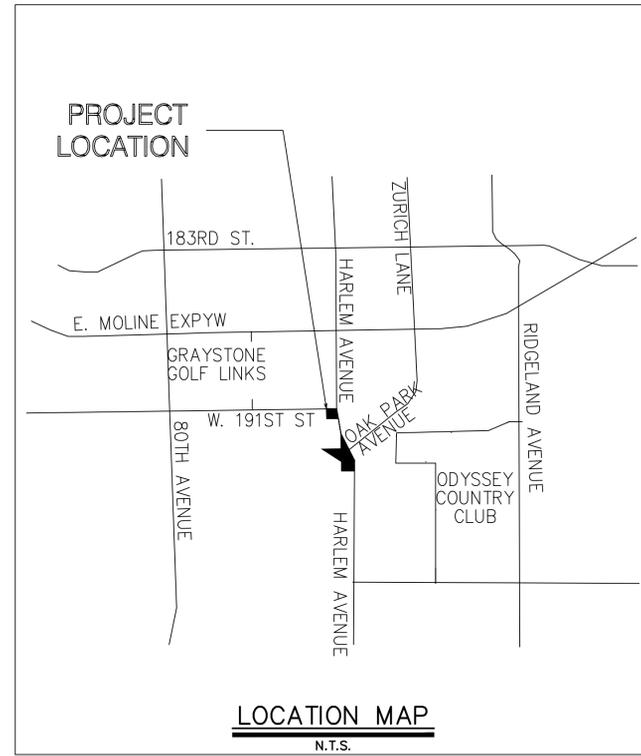
### EXISTING



### PROPOSED



- STORM SEWER
- SANITARY SEWER
- FORCE MAIN
- DRAINTILE
- WATER MAIN
- ELECTRIC
- GAS
- TELEPHONE
- SANITARY MANHOLE
- STORM MANHOLE
- CATCH BASIN
- STORM INLET
- CLEANOUT
- HAY BALES
- RIP RAP
- VALVE IN VAULT
- VALVE IN BOX
- FIRE HYDRANT
- BUFFALO BOX
- FLARED END SECTION
- STREET LIGHT
- SUMMIT
- LOW POINT
- RIM ELEVATION
- INVERT ELEVATION
- DITCH OR SWALE
- DIRECTION OF FLOW
- OVERFLOW RELIEF SWALE
- 1 FOOT CONTOURS
- CURB AND GUTTER
- DEPRESSED CURB AND GUTTER
- REVERSE CURB AND GUTTER
- SIDEWALK
- DETECTABLE WARNINGS
- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- MAIL BOX
- SIGN
- TRAFFIC SIGNAL
- POWER POLE
- GUY WIRE
- GAS VALVE
- HANDHOLE
- ELECTRICAL EQUIPMENT
- TELEPHONE EQUIPMENT
- CHAIN-LINK FENCE
- SPOT ELEVATION
- BRUSH/TREE LINE
- DECIDUOUS TREE WITH TRUNK DIA. IN INCHES (TBR)
- CONIFEROUS TREE WITH HEIGHT IN FEET (TBR)
- SILT FENCE
- RETAINING WALL
- WETLAND



## INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	EXISTING CONDITIONS AND DEMOLITION PLAN
3	SITE DIMENSIONAL AND PAVING PLAN
4	MASS GRADING PLAN - OVERALL
5	MASS GRADING PLAN- OAK PARK AVE.
6	GRADING PLAN
7	UTILITY PLAN
8	OFFSITE SANITARY SEWER IMPROVEMENTS
9	SOIL EROSION AND SEDIMENT CONTROL PLAN
10	SOIL EROSIONS AND SEDIMENT CONTROL PLAN - OAK PARK AVE. LOTS
11	SOIL EROSION AND SEDIMENT CONTROL DETAILS
12	CONSTRUCTION DETAILS
13	CONSTRUCTION DETAILS
14	CONSTRUCTION SPECIFICATIONS

## ABBREVIATIONS

- |        |                              |        |                                |          |                                      |
|--------|------------------------------|--------|--------------------------------|----------|--------------------------------------|
| ADJ    | ADJUST                       | F/L    | FLOW LINE                      | PVT      | POINT OF VERTICAL TANGENCY           |
| AGG.   | AGGREGATE                    | FM     | FORCE MAIN                     | P        | PAVEMENT                             |
| ARCH   | ARCHITECT                    | G      | GROUND                         | P.U.D.E. | PUBLIC UTILITY AND DRAINAGE EASEMENT |
| B.A.M. | BITUMINOUS AGGREGATE MIXTURE | G/F    | GAS AT FOUNDATION              | R        | RADIUS                               |
| B-B    | BACK TO BACK                 | G/WALL | GRADE AT WALL                  | R.O.W.   | RIGHT-OF-WAY                         |
| B/P    | BOTTOM OF PIPE               | GM     | GENERAL MERCHANDISE            | RCP      | REINFORCED CONCRETE PIPE             |
| B/W    | BACK OF WALK                 | GR     | GROCERY                        | REM      | REMOVAL                              |
| B-BOX  | BUFFALO BOX                  | GR     | GUY WIRE                       | REV      | REVERSE                              |
| BT     | BITUMINOUS                   | HDWL   | HEADWALL                       | RR       | RAILROAD                             |
| BM     | BENCHMARK                    | HH     | HANDHOLE                       | RT       | RIGHT                                |
| B.O.   | BY OTHERS                    | HHL    | HIGH WATER LEVEL               | SAN      | SANITARY                             |
| C.E.   | COMMERCIAL ENTRANCE          | HYD.   | HYDRANT                        | SF       | SQUARE FOOT                          |
| CB     | CATCH BASIN                  | INL    | INLET                          | SHLD.    | SHOULDER                             |
| CL     | CENTERLINE                   | INV.   | INVERT                         | SL       | STREET LIGHT                         |
| CLD    | CLOSED LID                   | IP     | IRON PIPE                      | SMH      | SANITARY MANHOLE                     |
| CMP    | CORRUGATED METAL PIPE        | IP     | IRON PIPE                      | ST       | STATION                              |
| CNTRL  | CONTROL                      | MAX.   | MAXIMUM                        | STD      | STANDARD                             |
| C.O.   | CLEANOUT                     | MB     | MAILBOX                        | SW       | SIDEWALK                             |
| CONC.  | CONCRETE                     | M/E    | MEET EXISTING                  | SY       | SQUARE YARDS                         |
| CY     | CUBIC YARD                   | M/H    | MANHOLE                        | TBR      | TO BE REMOVED                        |
| D      | DITCH                        | MIN.   | MINIMUM                        | T        | TELEPHONE                            |
| DIA.   | DIAMETER                     | NWL    | NORMAL WATER LEVEL             | T-A      | TYPE A                               |
| DIP    | DUCTILE IRON PIPE            | OLID   | OPEN LID                       | T/C      | TOP OF CURB                          |
| DIWM   | DUCTILE IRON WATER MAIN      | P.E.   | PRIVATE ENTRANCE               | T/F      | TOP OF FOUNDATION                    |
| DS     | DOWNSPOUT                    | PC     | POINT OF CURVE                 | T/P      | TOP OF PIPE                          |
| DT     | DRAIN TILE                   | PCC    | POINT OF COMPOUND CURVE        | T/W      | TOP OF WALK                          |
| E      | ELECTRIC                     | PGL    | PROFILE GRADE LINE             | T/WALL   | TOP OF WALL                          |
| E-E    | EDGE TO EDGE                 | PI     | POINT OF INTERSECTION          | TEMP     | TEMPORARY                            |
| ELEV.  | ELEVATION                    | PL     | PROPERTY LINE                  | TRANS    | TRANSFORMER                          |
| E/P    | EDGE OF PAVEMENT             | PP     | PROPOSED                       | V.B.     | VALVE BOX                            |
| EX     | EXISTING                     | PT     | POINT OF TANGENCY              | VCP      | VITRIFIED CLAY PIPE                  |
| F.E.   | FIELD ENTRANCE               | POL    | POLYETHYLENE PIPE              | V.V.     | VALVE VAULT                          |
| F-F    | FACE TO FACE                 | PVC    | POINT OF VERTICAL CURVE        | WL       | WATER LEVEL                          |
| F.F.   | FINISHED FLOOR               | PVI    | POINT OF VERTICAL INTERSECTION | WM       | WATER MAIN                           |
| FES    | FLARED END SECTION           |        |                                |          |                                      |



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Construction Managers • Environmental Scientists • Landscape Architects • Planners

AEINA DEVELOPMENT  
200 WEST MADISON STREET, SUITE 4200  
CHICAGO, ILLINOIS 60606

UTILITY CONTACTS	
<b>ELECTRIC</b> COMED X X ( ) CONTACT:	<b>WATER</b> VILLAGE OF TINLEY PARK 16250 S. OAK PARK AVE. TINLEY PARK, IL 60477 (708) 444-5500 CONTACT: THOMAS KOPANSKI
<b>GAS</b> NICOR 90 FINLEY ROAD GLEN ELLYN, IL (815) 272-9276 CONTACT: TIFFANY WICKS	<b>TELEPHONE</b> AT&T 65 W. WEBSTER ST. JOLIET, IL 60432 (815)727-0327 CONTACT: CURT LUINS
<b>SEWER</b> VILLAGE OF TINLEY PARK 16250 S. OAK PARK AVE. TINLEY PARK, IL 60477 (708) 444-5500 CONTACT: THOMAS KOPANSKI	

- NOTES:**
1. THE TOPOGRAPHY SURVEY FOR THIS PROJECT IS BASED ON A FIELD SURVEY PREPARED BY SPACECO, INC. AND WAS PERFORMED ON NOVEMBER 9, 2006. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY MANHARD CONSULTING AND THE CLIENT IN WRITING OF ANY DIFFERING CONDITIONS.



MANHARD CONSULTING, LTD. IS NOT RESPONSIBLE FOR THE SAFETY OF ANY PARTY AT OR ON THE CONSTRUCTION SITE. SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND ANY OTHER PERSON OR ENTITY PERFORMING WORK OR SERVICES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR THE JOB SITE SAFETY OF PERSONS ENGAGED IN THE WORK OR THE MEANS OR METHODS OF CONSTRUCTION.

DATE	REVISIONS
7-16-15	REVISED PER VILLAGE REVIEW
5-14-15	REVISED PER VILLAGE REVIEW

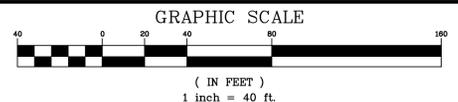
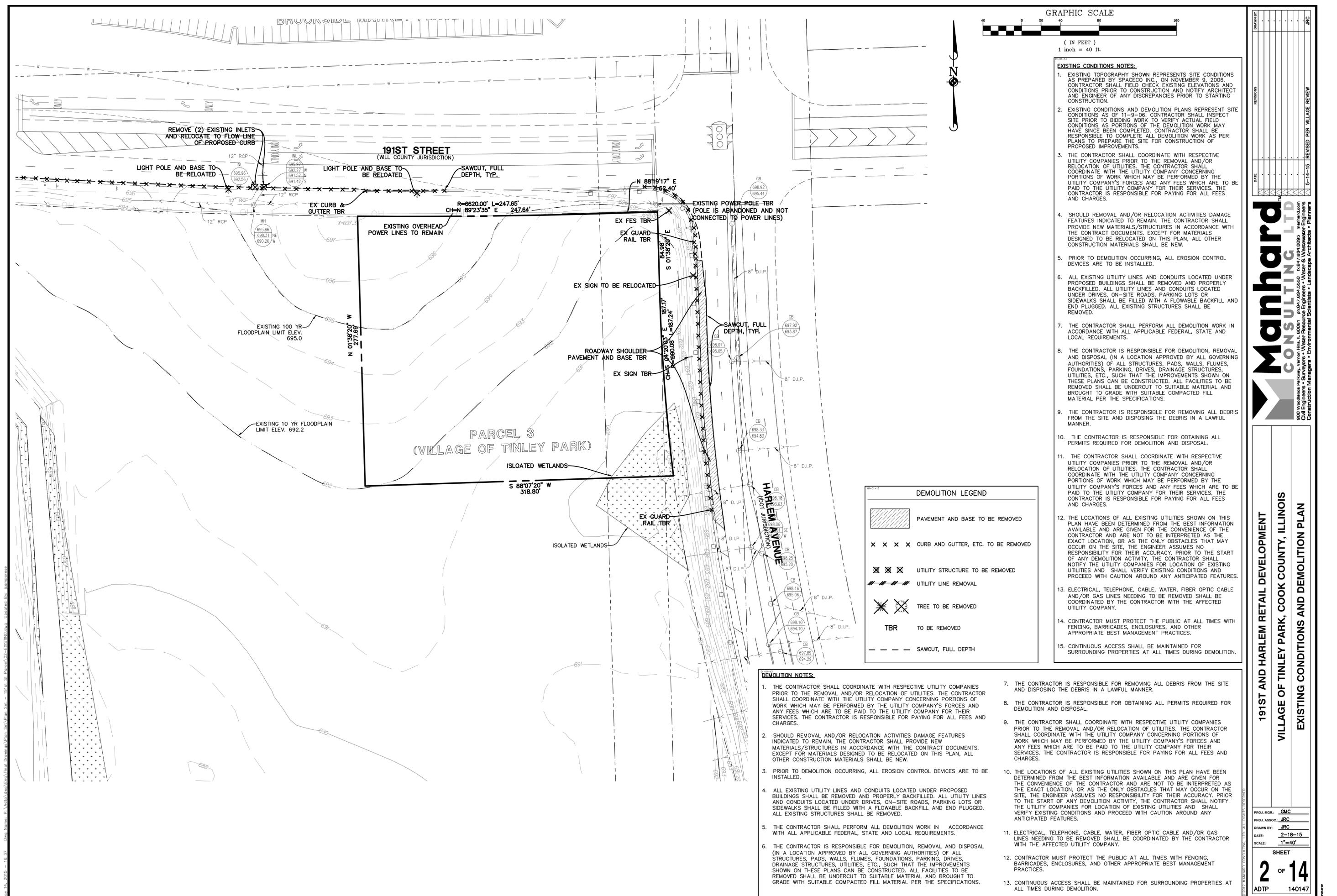
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191ST AND HARLEM RETAIL DEVELOPMENT  
VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS  
TITLE SHEET

PROJ. MGR.: GMC  
PROJ. ASSOC.: JRC  
DRAWN BY: JRC  
DATE: 2-18-15  
SCALE: N.T.S.

SHEET  
**1** OF **14**  
ADTP 140147

July 16, 2015 14:37 Das Name: s:\Metro\Man\191st\191st\_SWC\_Village\191st\_SWC\_Village.dwg Updated By: jrc



- EXISTING CONDITIONS NOTES:**
- EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY SPACECO INC., ON NOVEMBER 9, 2006. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION.
  - EXISTING CONDITIONS AND DEMOLITION PLANS REPRESENT SITE CONDITIONS AS OF 11-9-06. CONTRACTOR SHALL INSPECT SITE PRIOR TO BIDDING WORK TO VERIFY ACTUAL FIELD CONDITIONS AS PORTIONS OF THE DEMOLITION WORK MAY HAVE SINCE BEEN COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE ALL DEMOLITION WORK AS PER PLANS TO PREPARE THE SITE FOR CONSTRUCTION OF PROPOSED IMPROVEMENTS.
  - THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING FOR ALL FEES AND CHARGES.
  - SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE FEATURES INDICATED TO REMAIN, THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. EXCEPT FOR MATERIALS DESIGNED TO BE RELOCATED ON THIS PLAN, ALL OTHER CONSTRUCTION MATERIALS SHALL BE NEW.
  - PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
  - ALL EXISTING UTILITY LINES AND CONDUITS LOCATED UNDER PROPOSED BUILDINGS SHALL BE REMOVED AND PROPERLY BACKFILLED. ALL UTILITY LINES AND CONDUITS LOCATED UNDER DRIVES, ON-SITE ROADS, PARKING LOTS OR SIDEWALKS SHALL BE FILLED WITH A FLOWABLE BACKFILL AND END PLUGGED. ALL EXISTING STRUCTURES SHALL BE REMOVED.
  - THE CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS.
  - THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THESE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
  - THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER.
  - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
  - THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING FOR ALL FEES AND CHARGES.
  - THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR AND ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR LOCATION OF EXISTING UTILITIES AND SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES.
  - ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED SHALL BE COORDINATED BY THE CONTRACTOR WITH THE AFFECTED UTILITY COMPANY.
  - CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES.
  - CONTINUOUS ACCESS SHALL BE MAINTAINED FOR SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION.

**DEMOLITION LEGEND**

	PAVEMENT AND BASE TO BE REMOVED
	CURB AND GUTTER, ETC. TO BE REMOVED
	UTILITY STRUCTURE TO BE REMOVED
	UTILITY LINE REMOVAL
	TREE TO BE REMOVED
	TO BE REMOVED
	SAWCUT, FULL DEPTH

- DEMOLITION NOTES:**
- THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING FOR ALL FEES AND CHARGES.
  - SHOULD REMOVAL AND/OR RELOCATION ACTIVITIES DAMAGE FEATURES INDICATED TO REMAIN, THE CONTRACTOR SHALL PROVIDE NEW MATERIALS/STRUCTURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. EXCEPT FOR MATERIALS DESIGNED TO BE RELOCATED ON THIS PLAN, ALL OTHER CONSTRUCTION MATERIALS SHALL BE NEW.
  - PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED.
  - ALL EXISTING UTILITY LINES AND CONDUITS LOCATED UNDER PROPOSED BUILDINGS SHALL BE REMOVED AND PROPERLY BACKFILLED. ALL UTILITY LINES AND CONDUITS LOCATED UNDER DRIVES, ON-SITE ROADS, PARKING LOTS OR SIDEWALKS SHALL BE FILLED WITH A FLOWABLE BACKFILL AND END PLUGGED. ALL EXISTING STRUCTURES SHALL BE REMOVED.
  - THE CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS.
  - THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THESE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
  - THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER.
  - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
  - THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING FOR ALL FEES AND CHARGES.
  - THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR AND ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR LOCATION OF EXISTING UTILITIES AND SHALL VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES.
  - ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED SHALL BE COORDINATED BY THE CONTRACTOR WITH THE AFFECTED UTILITY COMPANY.
  - CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, AND OTHER APPROPRIATE BEST MANAGEMENT PRACTICES.
  - CONTINUOUS ACCESS SHALL BE MAINTAINED FOR SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION.

DATE	
REVISIONS	
NO.	DESCRIPTION
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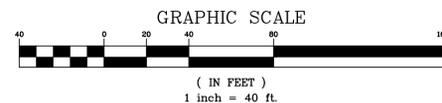
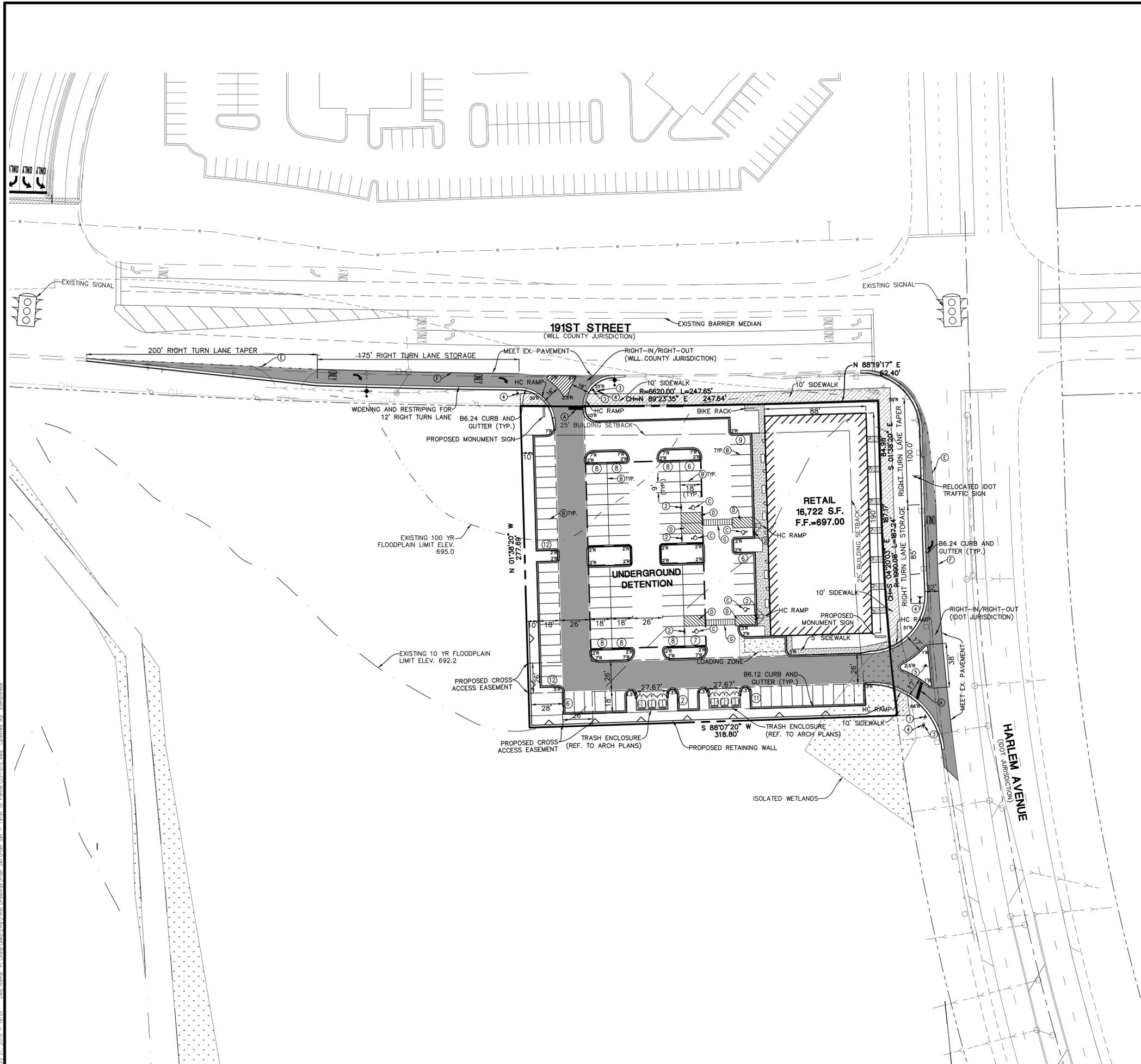
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**191ST AND HARLEM RETAIL DEVELOPMENT**  
**VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS**  
**EXISTING CONDITIONS AND DEMOLITION PLAN**

PROJ. MGR.: GMC  
 PROJ. ASSOC.: JRC  
 DRAWN BY: JRC  
 DATE: 2-18-15  
 SCALE: 1"=40'

SHEET  
**2 OF 14**  
 ADTP 140147

Date: 02/18/2015 16:37  
 User: JRC  
 Path: C:\Users\jrc\Documents\191st and Harlem Retail Development\191st and Harlem Retail Development.dwg  
 Updated By: JRC



SITE DATA	
SITE AREA	1.96 ACRES
PARKING PROVIDED	114 SPACES
HANDICAP PROVIDED	5 SPACES
TOTAL PARKING PROVIDED	119 SPACES
PARKING RATIO	6.90 SPACES/1000 S.F.

- SITE DIMENSIONAL AND PAVING NOTES:**
- ALL DIMENSIONS ARE FACE OF CURB TO FACE OF CURB OR BUILDING FOUNDATION UNLESS NOTED OTHERWISE.
  - ALL PROPOSED CURB AND GUTTER SHALL BE B6.12 UNLESS OTHERWISE NOTED.
  - ALL CURB RADI SHALL BE 3' MEASURED TO FACE OF CURB UNLESS NOTED OTHERWISE.
  - TIE ALL PROPOSED CURB AND GUTTER TO EXISTING CURB AND GUTTER WITH 2-#4 BARS x 18" LONG DOWELED INTO EXISTING.
  - BUILDING DIMENSIONS AND ADJACENT PARKING HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
  - IMPROVEMENTS ADJACENT TO BUILDING, SUCH AS TRUCK DOCK, RETAINING WALLS, SIDEWALKS, CURBING, FENCES, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, AND TRANSFORMERS ETC. HAVE BE SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS AND DETAILS.
  - LOCATION OF PRIVATE SIDEWALKS SHALL BE COORDINATED WITH PROPOSED DOORWAY. CONTRACTOR TO VERIFY ACTUAL BUILDING PLAN LOCATIONS WITH ARCHITECT/DEVELOPER PRIOR TO CONSTRUCTING THE SIDEWALKS.
  - ALL ROADWAY AND PARKING LOT SIGNAGE, STRIPING, SYMBOLS, ETC. SHALL BE IN ACCORDANCE WITH LATEST JURISDICTIONAL GOVERNMENTAL ENTITY DETAILS.
  - SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
  - DEPRESS CURB & GUTTER AT ALL SIDEWALK AND PATH LOCATIONS FOR HANDICAP ACCESS AS PER FEDERAL AND STATE STANDARDS.
  - THE CONTRACTOR SHALL CONTACT JULL.I.E. (1-800-892-0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.

PAVEMENT LEGEND	
	<b>STANDARD DUTY PAVEMENT</b> 1 1/2" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50 2 1/4" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50 8" AGGREGATE BASE COURSE, TYPE B
	<b>HEAVY DUTY PAVEMENT</b> 2 1/4" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50 2 1/4" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50 12" AGGREGATE BASE COURSE, TYPE B
	<b>CONCRETE PAVEMENT</b> 8" CONCRETE PAVEMENT W/ 6 X 6 W1.4 WWF 4" COMPACTED AGGREGATE BASE, TYPE B
	<b>BIKE PATH ASPHALT</b> 1 1/2" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50 1 1/2" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50 6" AGGREGATE BASE COURSE, TYPE B
	<b>SIDEWALK</b> 4" PORTLAND CEMENT CONCRETE 4" COMPACTED AGGREGATE BASE COURSE, TYPE B

PAVEMENT MARKING LEGEND	
(A)	24" WHITE STOP BAR
(B)	4" YELLOW LINE
(C)	HANDICAP PARKING SYMBOLS AND PAVEMENT MARKINGS (PER LATEST IL ADA STANDARDS)
(D)	4" YELLOW DIAGONAL AT 45° SPACED 2' O.C.
(E)	4" WHITE (30' SKIP-10' DASH)
(F)	4" SOLID WHITE
(G)	PEDESTRIAN CROSSWALK WITH 6" WHITE SOLID STRIPING PARALLEL TO DIRECTION OF TRAFFIC SPACED 2' O.C. WITH 8" WHITE SOLID STRIPE PERPENDICULAR ON BOTH ENDS UNLESS NOTED OTHERWISE

SIGN LEGEND	
(1)	R1-1 STOP SIGN
(2)	R7-8 HANDICAP PARKING SIGN
(3)	R5-1 DO NOT ENTER
(4)	R3-5 RIGHT TURN ONLY
(5)	R3-2 NO LEFT TURN

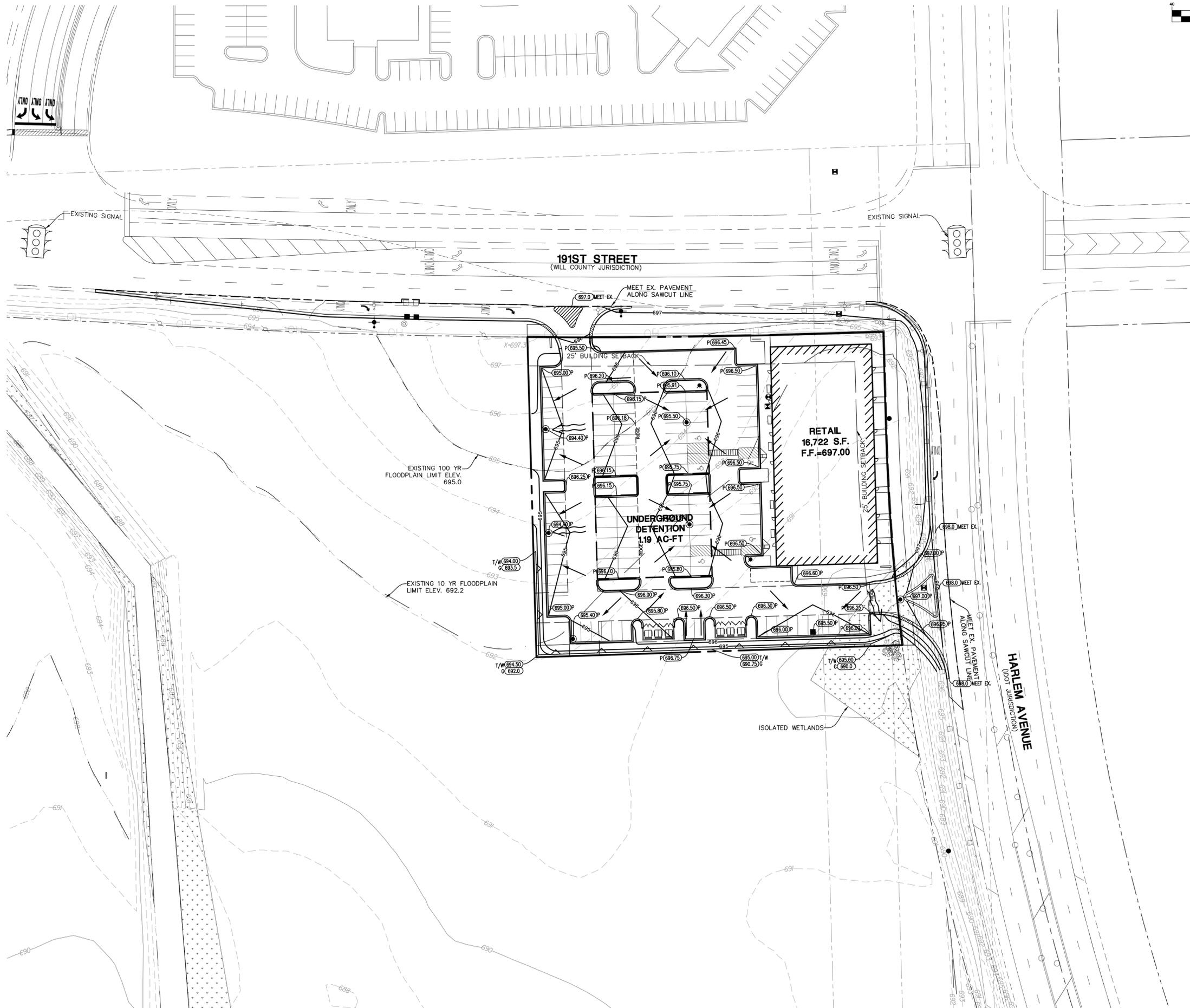
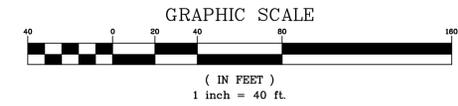
DATE	REVISIONS
2-18-15	REVISED PER VILLAGE REVIEW
5-14-15	REVISED PER VILLAGE REVIEW

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**191ST AND HARLEM RETAIL DEVELOPMENT**  
**VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS**  
**SITE DIMENSIONAL AND PAVING PLAN**







- GRADING NOTES:**
1. RETAINING WALL DESIGN TO BE PROVIDED BY OTHERS.
  2. PAVEMENT SLOPES THROUGH HANDICAP ACCESSIBLE PARKING AREAS SHALL BE 2.00% MAXIMUM IN ANY DIRECTION.
  3. ALL HANDICAP RAMPS SHALL BE CONSTRUCTED WITH A MAXIMUM CROSS SLOPE OF 2.00% OR LESS.
  4. MEET EXISTING GRADE AT PROPERTY LIMITS UNLESS NOTED OTHERWISE.
  5. CONTRACTOR SHALL REFER TO THE SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS FOR CONSTRUCTION SCHEDULING AND EROSION CONTROL MEASURES TO BE INSTALLED PRIOR TO BEGINNING GRADING OPERATIONS.
  6. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.
  7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
  8. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
  9. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 6 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH GOVERNING SPECIFICATIONS UNTIL A HEALTHY STAND OF VEGETATION IS OBTAINED.
  10. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY SPACECO, INC. ON NOVEMBER 9, 2006. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION. IF THE CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY, AT THEIR EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR TO THE OWNER FOR REVIEW.

NO.	DATE	REVISIONS
1	2-18-15	REVISED PER VILLAGE REVIEW
2	3-14-15	REVISED PER VILLAGE REVIEW

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191ST AND HARLEM RETAIL DEVELOPMENT  
 VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS  
 GRADING PLAN

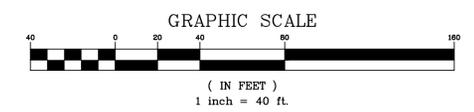
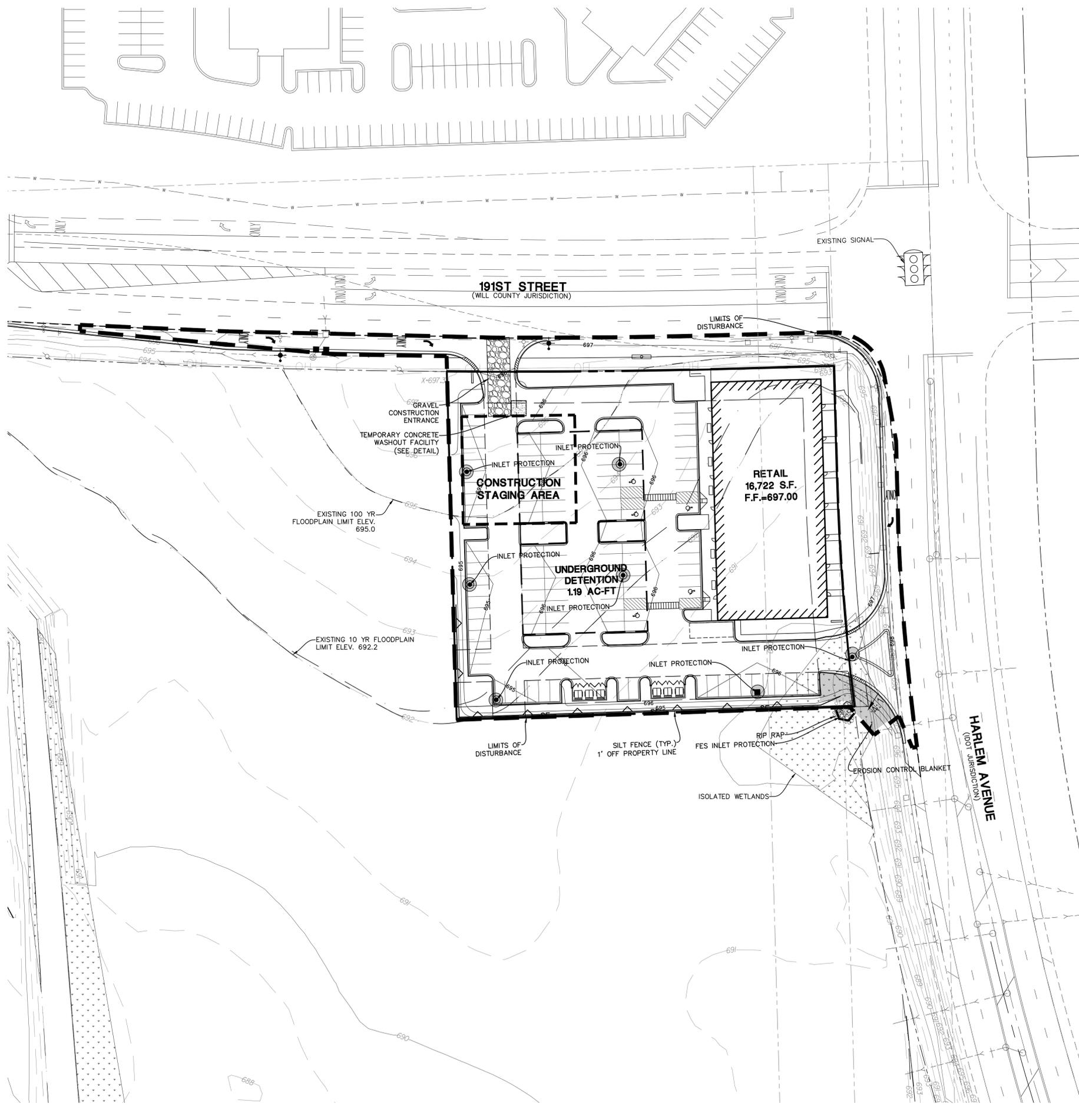
PROJ. NO.:	GMC
PROJ. ASSOC.:	JRC
DRAWN BY:	JRC
DATE:	2-18-15
SCALE:	1"=40'
SHEET	6 OF 14
ADTP	140147

Date Plotted: 2/18/2015 14:22 Data Name: D:\MultiMedia\Proj\191st\Drawings\191st\191st\_Site\_Plan.dwg User: jrc Updated By: jrc

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**SOIL EROSION AND SEDIMENTATION CONTROL GENERAL NOTES:**

- ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "ILLINOIS URBAN MANUAL".
- MAINTENANCE AND REPLACEMENT OF EROSION CONTROL ITEMS, WHEN DIRECTED BY THE OWNER, SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF SAID MEASURES SHALL BE MADE IMMEDIATELY.
- INSTALL ALL PERIMETER SILT FENCING PRIOR TO ANY CLEARING OR GRADING. ON-SITE SEDIMENT CONTROL MEASURES AS SHOWN AND SPECIFIED BY THIS EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE CONSTRUCTED AND FUNCTIONAL PRIOR TO INITIATING CLEARING, GRADING, STRIPPING, EXCAVATION OR FILLING ACTIVITIES ON THE SITE.
- STORM WATERS FALLING ON THE ENTIRE SITE SHALL BE DIVERTED INTO THE DETENTION BASIN, PRIOR TO BEGINNING MASS EXCAVATION, THE CONTRACTOR SHALL CONSTRUCT DITCHES, SWALES, SEDIMENTATION TRAPS AND SILTATION CONTROL MEASURES AS REQUIRED TO INTERCEPT SURFACE WATERS BEFORE THEY FLOW ONTO ADJACENT PROPERTY AND CONVEY THEM TO THE DETENTION BASIN.
- DISTURBED AREA SHALL BE STABILIZED BY SEEDING AT A MINIMUM, WITHIN SEVEN (7) DAYS OF COMPLETION OF DISTURBANCE UNLESS THE AREA WILL BE DISTURBED WITHIN FOURTEEN (14) DAYS AND GRASS SOWING AS NECESSARY TO RE-ESTABLISH VEGETATION FOR CONTROL OF SILTATION AND SOIL EROSION.
- TEMPORARY SEED MIXTURE SHALL BE APPLIED AT 64 LBS./ACRE.
- INLET PROTECTION SHALL BE INSTALLED UNDER THE GRATING OF EACH DRAINAGE STRUCTURE.
- TOPSOIL STOCKPILES SHALL BE SEEDDED WITHIN SEVEN (7) CALENDAR DAYS OF COMPLETION FOR EROSION CONTROL UNLESS THEY WILL BE DISTURBED WITHIN FOURTEEN (14) CALENDAR DAYS. ALL SOIL STORAGE PILES SHALL BE PROTECTED FROM EROSION WITH SILT FENCE ON THE DOWN SLOPE SIDE OF THE PILES.
- DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
- WATER PUMPED DURING CONSTRUCTION OPERATION SHALL BE FILTERED.
- DUST CONTROL SHALL BE PERFORMED ON A DAILY BASIS USING WATER DISPERSED FROM A TRUCK MOUNTED TANK WITH STANDARD DISCHARGE HEADER TO PROVIDE A UNIFORM RATE OF APPLICATION.
- TEMPORARY GRAVEL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED, ADJUSTED OR RELOCATED AS NECESSARY TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC ROADWAYS. ANY SEDIMENT REACHING A PUBLIC ROAD SHALL BE REMOVED BY SHOVELING OR STREET CLEANING BEFORE THE END OF EACH WORKING DAY.
- ANY LOOSE MATERIAL THAT IS DEPOSITED IN THE FLOW LINE OF ANY GUTTER OR DRAINAGE STRUCTURE DURING CONSTRUCTION OPERATIONS SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY.
- OVERLAND FLOW SHALL BE DIRECTED TO THE DETENTION BASIN PRIOR TO LEAVING THE SITE.
- THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE CLIENT OR OTHER JURISDICTIONAL GOVERNMENTAL ENTITIES.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL JURISDICTIONAL GOVERNMENTAL AGENCY REQUIREMENTS WITHIN 30 DAYS OF FINAL STABILIZATION.

**LEGEND**

- SF — SF TEMPORARY SILT FENCE (PERIMETER EROSION BARRIER)
- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN DS 75) (SEEDING PER LANDSCAPE PLAN)
- TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- TEMPORARY STORM STRUCTURE PROTECTION
- PAVEMENT DRAINAGE FLOW
- LIMITS OF DISTURBANCE/CONSTRUCTION
- FES PROTECTION
- RIP RAP

**CONSTRUCTION SEQUENCE:**

- INSTALL SILT FENCE AT LOCATIONS AS INDICATED ON THE PLANS.
- PROVIDE STABILIZED CONSTRUCTION ENTRANCE.
- CONSTRUCT TEMPORARY SEDIMENT TRAPS AND/OR BASINS.
- STRIP EXISTING TOPSOIL FROM PROPOSED STORMWATER MANAGEMENT AREAS AND STOCKPILE WHERE SHOWN ON PLANS.
- PROVIDE SILT FENCE AROUND THE BASE OF THE STOCKPILES.
- CONSTRUCT STORMWATER MANAGEMENT (DETENTION) FACILITIES TO SUB-GRADE AND INSTALL OUTLET PIPES.
- COMPLETE TOPSOIL PLACEMENT AND PERMANENT SEEDING AND SODDING OF STORMWATER MANAGEMENT FACILITIES.
- CUT AND FILL SITE TO PLAN SUB-GRADE.
- CONSTRUCT UNDERGROUND IMPROVEMENTS, I.E. SANITARY SEWER WATERMAIN AND STORM SEWER\*\*, ETC.
- CONSTRUCT PAVEMENT IMPROVEMENTS PER PLAN.
- COMPLETE CONSTRUCTION OF SITE WITH PERMANENT STABILIZATION.
- REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
- \*\* INSTALL INLET PROTECTION AROUND DRAINAGE STRUCTURES AS CONSTRUCTED.

**SOIL PROTECTION CHART**

STABILIZATION CHART	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDINGS	A											
DORMANT SEEDINGS	B											
TEMPORARY SEEDINGS	C											
SODDING	E											
MULCHING	F											

A — KENTUCKY BLUEGRASS 30 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 30 LBS./AC.  
 B — KENTUCKY BLUEGRASS 135 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 45 LBS./AC. 2 TONS STRAW MULCH PER ACRE  
 C — SPRING OATS 100 LBS./AC.  
 D — WHEAT OR CEREAL RYE  
 E — SOD (NURSERY GROWN KENTUCKY BLUEGRASS)  
 F — STRAW MULCH 2 TONS PER ACRE

\*\* IRRIGATION NEEDED DURING JUNE, JULY AND SEPTEMBER  
 \*\* IRRIGATION NEEDED FOR 2-3 WEEKS AFTER SODDING

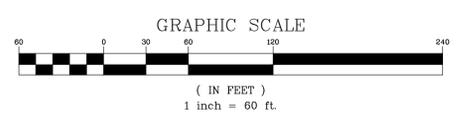
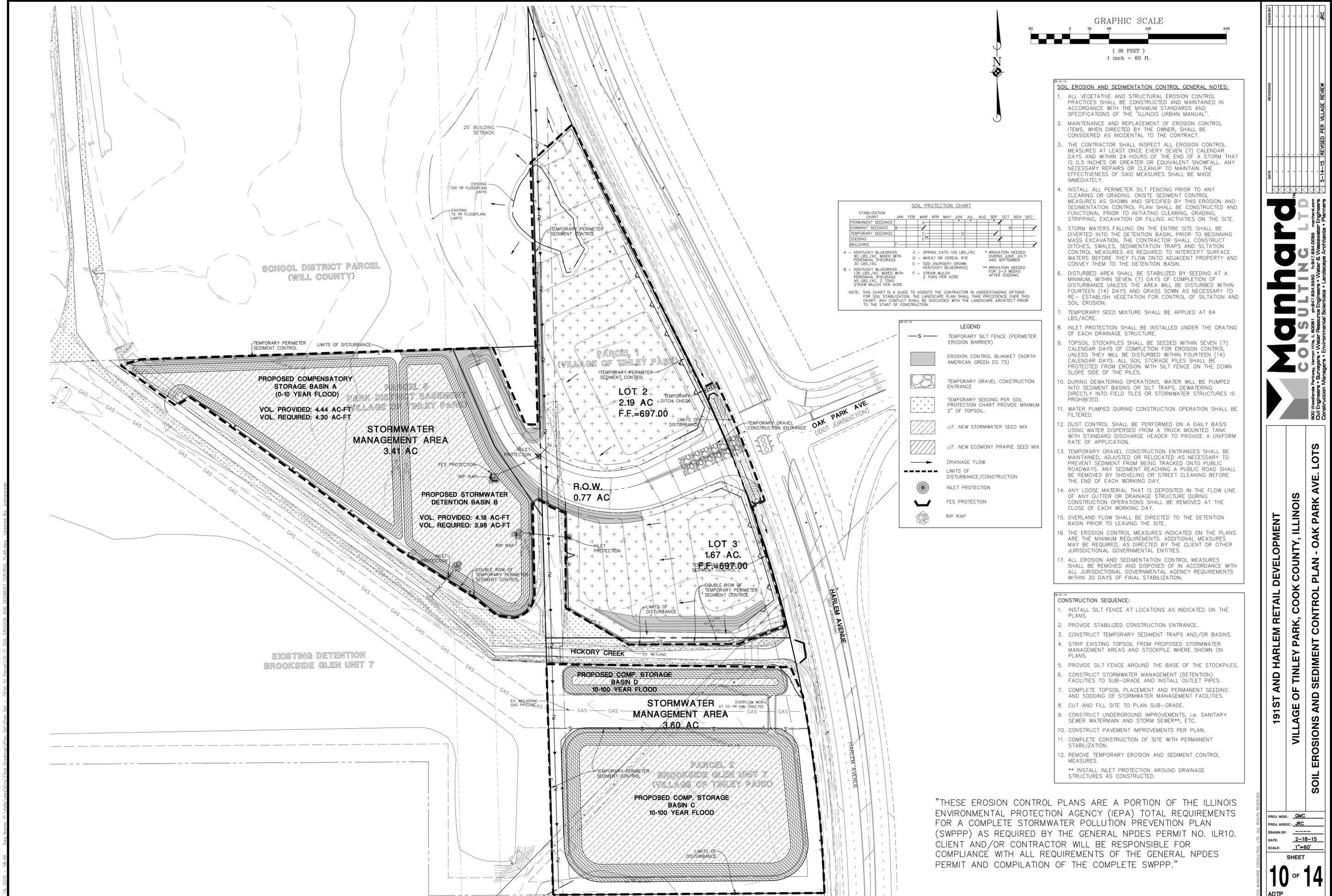
NOTE: THIS CHART IS A GUIDE TO ASSIST THE CONTRACTOR IN UNDERSTANDING OPTIONS FOR SOIL STABILIZATION. THE LANDSCAPE PLAN SHALL TAKE PRECEDENCE OVER THIS CHART. ANY CONFLICT SHALL BE DISCUSSED WITH THE LANDSCAPE ARCHITECT PRIOR TO THE START OF CONSTRUCTION.

DATE	REVISIONS
7-16-15	REVISED PER VILLAGE REVIEW
5-14-15	REVISED PER VILLAGE REVIEW

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191ST AND HARLEM RETAIL DEVELOPMENT  
 VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS  
 SOIL EROSION AND SEDIMENT CONTROL PLAN



**SOIL PROTECTION CHART**

STABILIZATION CHART	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDINGS		A										
DORMANT SEEDINGS	B											
TEMPORARY SEEDINGS			C			D						
SODDING				E								
MULCHING				F								

A - KENTUCKY BLUEGRASS 90 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 30 LBS./AC.  
 B - KENTUCKY BLUEGRASS 155 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 45 LBS./AC. 2 TONS STRAW MULCH PER ACRE  
 C - SPRING OATS 100 LBS./AC.  
 D - WHEAT OR CEREAL RYE  
 E - SOO (NURSERY GROWN KENTUCKY BLUEGRASS)  
 F - STRAW MULCH 2 TONS PER ACRE

\* IRRIGATION NEEDED DURING JUNE, JULY AND SEPTEMBER  
 \*\* IRRIGATION NEEDED FOR 2-3 WEEKS AFTER SODDING

NOTE: THIS CHART IS A GUIDE TO ASSIST THE CONTRACTOR IN UNDERSTANDING OPTIONS FOR SOIL STABILIZATION. THE LANDSCAPE PLAN SHALL TAKE PRECEDENCE OVER THIS CHART. ANY CONFLICT SHALL BE DISCUSSED WITH THE LANDSCAPE ARCHITECT PRIOR TO THE START OF CONSTRUCTION.

**LEGEND**

- S — TEMPORARY SILT FENCE (PERIMETER EROSION BARRIER)
- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN DS 75)
- TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- TEMPORARY SEEDING PER SOIL PROTECTION CHART PROVIDE MINIMUM 2" OF TOPSOIL
- J.F. NEW STORMWATER SEED MIX
- J.F. NEW ECONOMY PRAIRIE SEED MIX
- DRAINAGE FLOW
- - - LIMITS OF DISTURBANCE/CONSTRUCTION
- INLET PROTECTION
- ⌋ FES PROTECTION
- ⊗ RIP RAP

- SOIL EROSION AND SEDIMENTATION CONTROL GENERAL NOTES:**
- ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "ILLINOIS URBAN MANUAL".
  - MAINTENANCE AND REPLACEMENT OF EROSION CONTROL ITEMS, WHEN DIRECTED BY THE OWNER, SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
  - THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF SAID MEASURES SHALL BE MADE IMMEDIATELY.
  - INSTALL ALL PERIMETER SILT FENCING PRIOR TO ANY CLEARING OR GRADING. ON-SITE SEDIMENT CONTROL MEASURES AS SHOWN AND SPECIFIED BY THIS EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE CONSTRUCTED AND FUNCTIONAL PRIOR TO INITIATING CLEARING, GRADING, STRIPPING, EXCAVATION OR FILLING ACTIVITIES ON THE SITE.
  - STORM WATERS FALLING ON THE ENTIRE SITE SHALL BE DIVERTED INTO THE DETENTION BASIN. PRIOR TO BEGINNING MASS EXCAVATION, THE CONTRACTOR SHALL CONSTRUCT DITCHES, SWALES, SEDIMENTATION TRAPS AND SILTATION CONTROL MEASURES AS REQUIRED TO INTERCEPT SURFACE WATERS BEFORE THEY FLOW ONTO ADJACENT PROPERTY AND CONVEY THEM TO THE DETENTION BASIN.
  - DISTURBED AREA SHALL BE STABILIZED BY SEEDING AT A MINIMUM, WITHIN SEVEN (7) DAYS OF COMPLETION OF DISTURBANCE UNLESS THE AREA WILL BE DISTURBED WITHIN FOURTEEN (14) DAYS AND GRASS SOWN AS NECESSARY TO RE-ESTABLISH VEGETATION FOR CONTROL OF SILTATION AND SOIL EROSION.
  - TEMPORARY SEED MIXTURE SHALL BE APPLIED AT 64 LBS./ACRE.
  - INLET PROTECTION SHALL BE INSTALLED UNDER THE GRATING OF EACH DRAINAGE STRUCTURE.
  - TOPSOIL STOCKPILES SHALL BE SEEDDED WITHIN SEVEN (7) CALENDAR DAYS OF COMPLETION FOR EROSION CONTROL UNLESS THEY WILL BE DISTURBED WITHIN FOURTEEN (14) CALENDAR DAYS. ALL SOIL STORAGE PILES SHALL BE PROTECTED FROM EROSION WITH SILT FENCE ON THE DOWN SLOPE SIDE OF THE PILES.
  - DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS OR SILT TRAPS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
  - WATER PUMPED DURING CONSTRUCTION OPERATION SHALL BE FILTERED.
  - DUST CONTROL SHALL BE PERFORMED ON A DAILY BASIS USING WATER DISPERSED FROM A TRUCK MOUNTED TANK WITH STANDARD DISCHARGE HEADER TO PROVIDE A UNIFORM RATE OF APPLICATION.
  - TEMPORARY GRAVEL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED, ADJUSTED OR RELOCATED AS NECESSARY TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC ROADWAYS. ANY SEDIMENT REACHING A PUBLIC ROAD SHALL BE REMOVED BY SHOVELING OR STREET CLEANING BEFORE THE END OF EACH WORKING DAY.
  - ANY LOOSE MATERIAL THAT IS DEPOSITED IN THE FLOW LINE OF ANY GUTTER OR DRAINAGE STRUCTURE DURING CONSTRUCTION OPERATIONS SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY.
  - OVERLAND FLOW SHALL BE DIRECTED TO THE DETENTION BASIN PRIOR TO LEAVING THE SITE.
  - THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE CLIENT OR OTHER JURISDICTIONAL GOVERNMENTAL ENTITIES.
  - ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL JURISDICTIONAL GOVERNMENTAL AGENCY REQUIREMENTS WITHIN 30 DAYS OF FINAL STABILIZATION.

- CONSTRUCTION SEQUENCE:**
- INSTALL SILT FENCE AT LOCATIONS AS INDICATED ON THE PLANS.
  - PROVIDE STABILIZED CONSTRUCTION ENTRANCE.
  - CONSTRUCT TEMPORARY SEDIMENT TRAPS AND/OR BASINS.
  - STRIP EXISTING TOPSOIL FROM PROPOSED STORMWATER MANAGEMENT AREAS AND STOCKPILE WHERE SHOWN ON PLANS.
  - PROVIDE SILT FENCE AROUND THE BASE OF THE STOCKPILES.
  - CONSTRUCT STORMWATER MANAGEMENT (DETENTION) FACILITIES TO SUB-GRADE AND INSTALL OUTLET PIPES.
  - COMPLETE TOPSOIL PLACEMENT AND PERMANENT SEEDING AND SODDING OF STORMWATER MANAGEMENT FACILITIES.
  - CUT AND FILL SITE TO PLAN SUB-GRADE.
  - CONSTRUCT UNDERGROUND IMPROVEMENTS, I.E. SANITARY SEWER WATERMAIN AND STORM SEWER\*\*, ETC.
  - CONSTRUCT PAVEMENT IMPROVEMENTS PER PLAN.
  - COMPLETE CONSTRUCTION OF SITE WITH PERMANENT STABILIZATION.
  - REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
  - \*\* INSTALL INLET PROTECTION AROUND DRAINAGE STRUCTURES AS CONSTRUCTED.

"THESE EROSION CONTROL PLANS ARE A PORTION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) TOTAL REQUIREMENTS FOR A COMPLETE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE GENERAL NPDES PERMIT NO. ILR10. CLIENT AND/OR CONTRACTOR WILL BE RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL NPDES PERMIT AND COMPILATION OF THE COMPLETE SWPPP."

**Manhard CONSULTING LTD.**  
 800 Woodlawn Parkway, Vernon Hills, IL 60061 PH: 847.634.0050 FAX: 847.634.0050 manhard.com  
 Civil Engineers • Surveyors • Water-Resource Engineers • Water & Wastewater Engineers  
 Construction Managers • Environmental Scientists • Landscape Architects • Planners

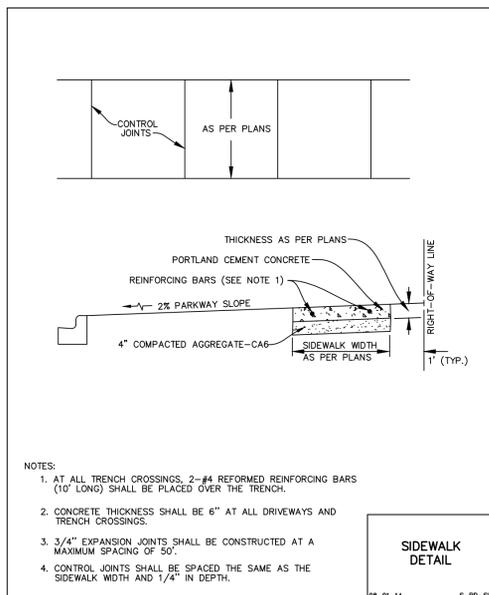
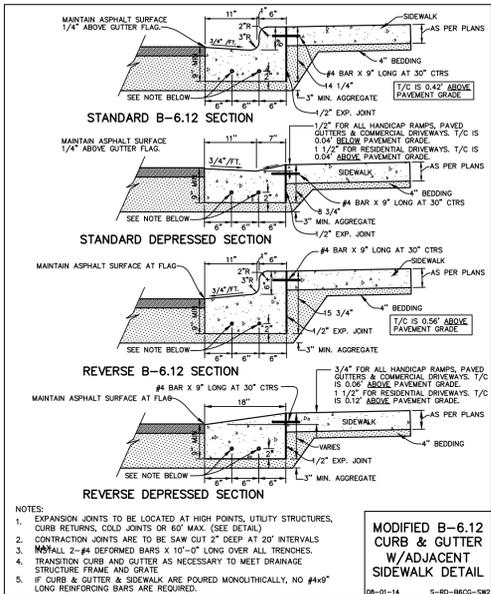
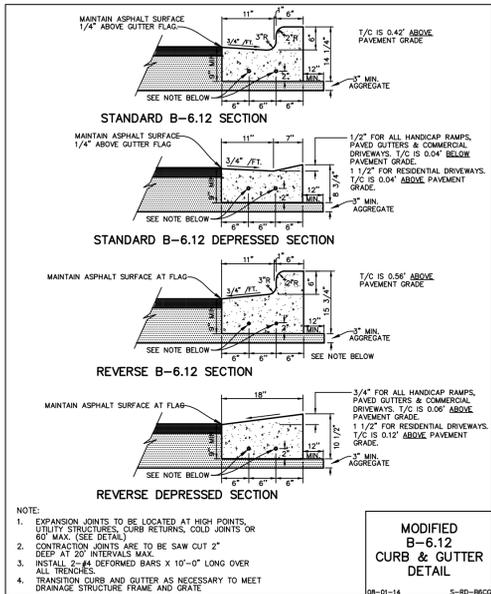
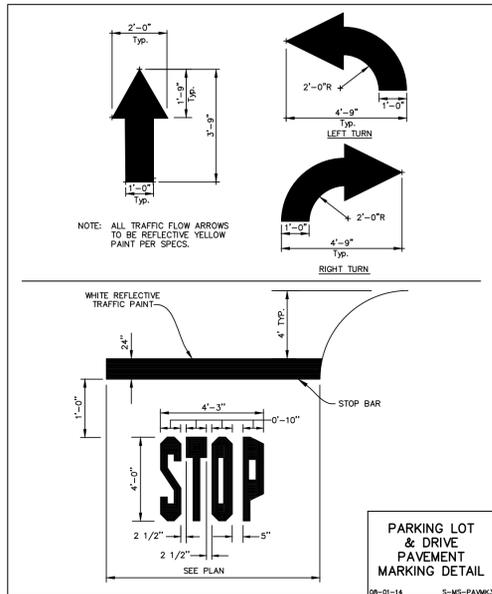
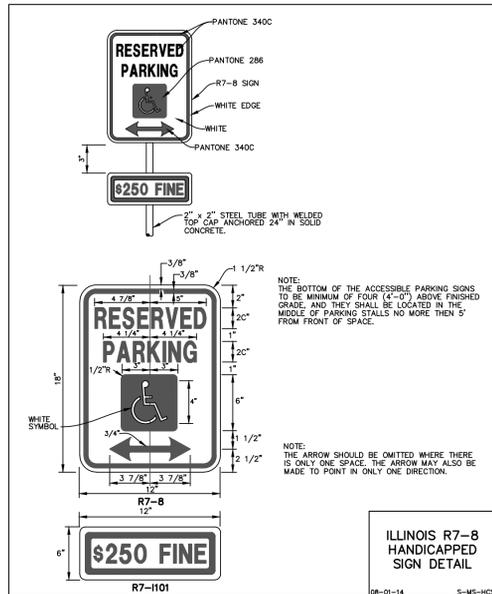
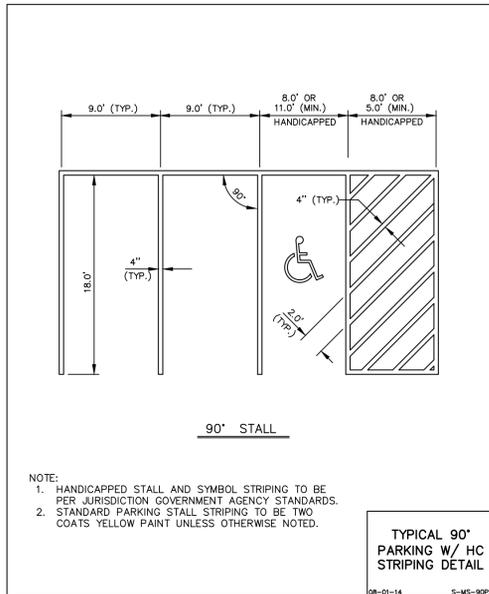
**191ST AND HARLEM RETAIL DEVELOPMENT**  
**VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS**  
**SOIL EROSIONS AND SEDIMENT CONTROL PLAN - OAK PARK AVE. LOTS**

PROJ. MGR.: GMC  
 PROJ. ASSOC.: JRC  
 DRAWN BY: JRC  
 DATE: 2-18-15  
 SCALE: 1"=60'

**10 OF 14**  
 ADTP

REVISIONS  
 DATE  
 5-14-15 REVISED PER VILLAGE REVIEW



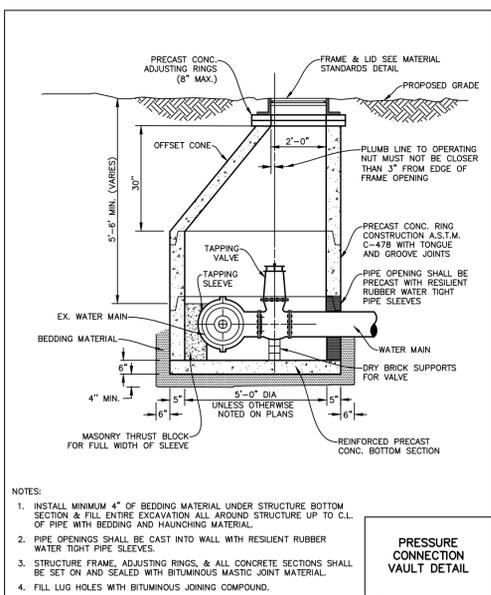
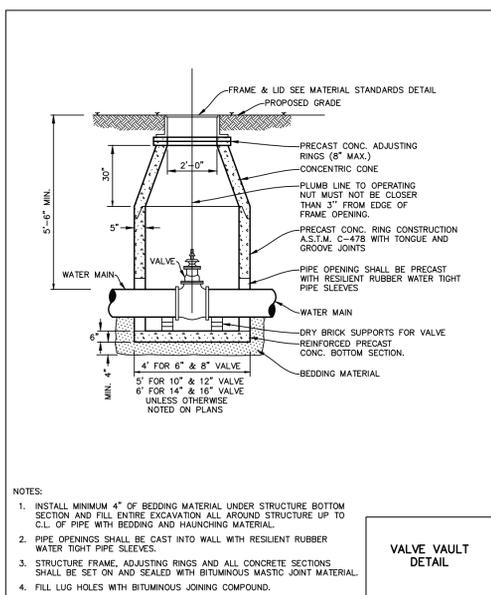
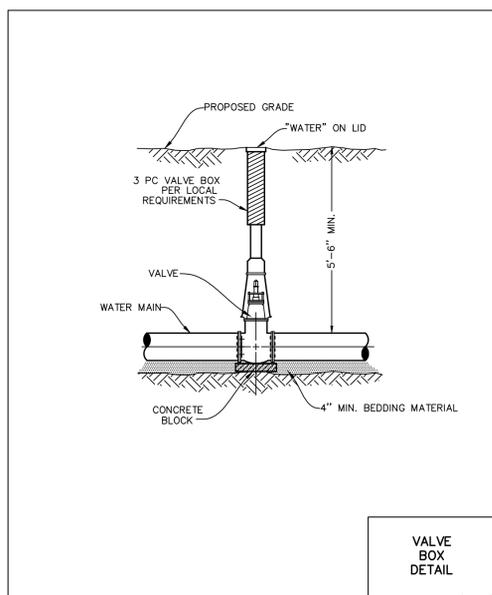
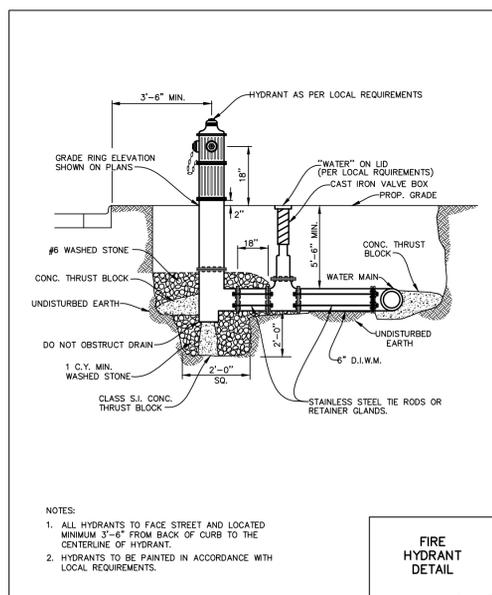
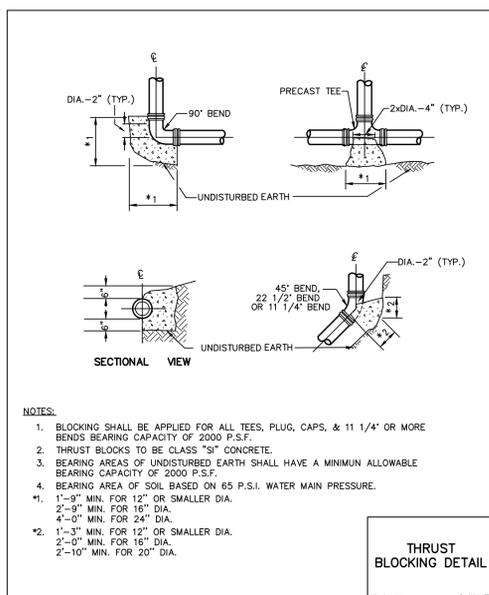
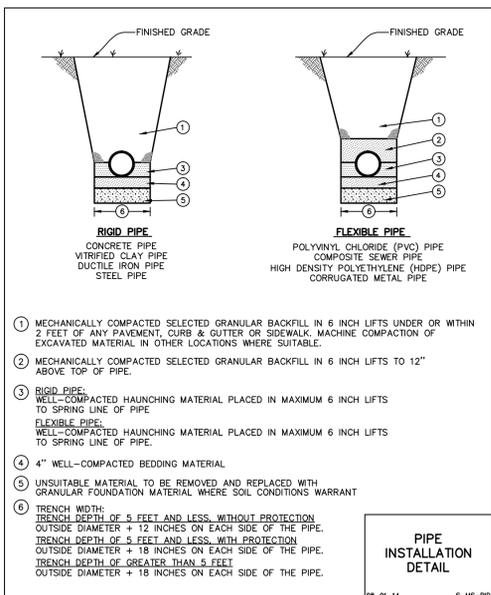
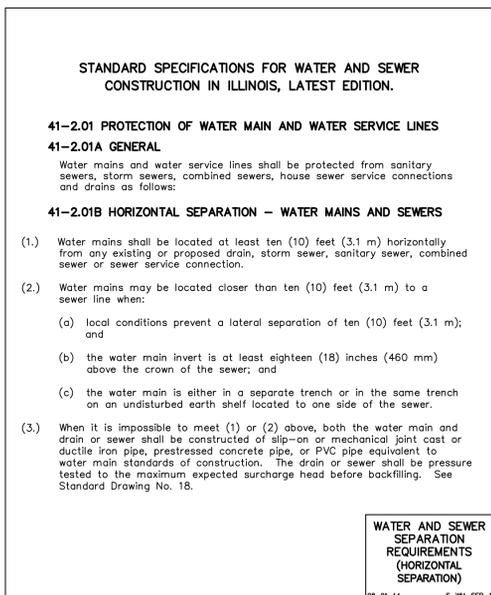
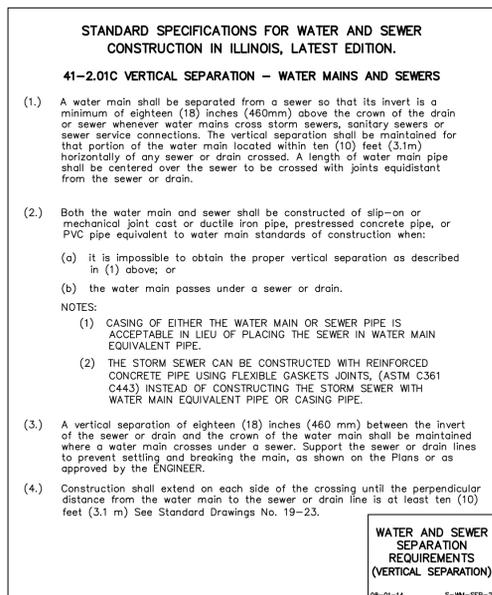


ITEM	BRAND	PRODUCT
FIRE HYDRANTS (TRAFFIC MODEL)	MUELLER SUPER CENTURION WATEROUS PACER	A-423 WB-67
GATE VALVES (SPECIFY SIZE NON-RISING STEM, 2" NUT, M.J., OPEN LEFT)	MUELLER (SIZE) AMERICAN FLOW CONTROL	A-2360-SOL SERIES 2500
VALVE BOXES (SPECIFY SIZE)	EAST JORDAN TYLER/UNION	SCREW ADJUSTING EXTENSION TYPE
CURB STOPS (SPECIFY SIZE)	MUELLER FORD	300 BALL VALVE BALL VALVE
CORPORATION VALVE (SPECIFY SIZE)	MUELLER FORD	H-15000 FB500 (AWWA/CC THREAD)
MANHOLES/CATCHBASINS/INLETS (SELF-SEALING LID WITH PROPER UTILITY MARKINGS)	NEENAH CLOSED LID OPEN LID #1 SWALES AND DITCHES	R-1772 R-2502 C R-4340 B
CURB FRAME & GRATES (BICYCLE SAFE)	NEENAH ROLL/MOUNTABLE CURB B6.12 CURB	R-3501-D2A R-3281A R-3281-AL
WATER SERVICE SADDLES (ALL SERVICE SADDLES SHALL BE DOUBLE STRAP, BRONZE, NYLON COATED OR STAINLESS STEEL)	MUELLER FORD SMITH-BLAIR 3/4" & 1"	DR25 FS 303 # 317
B-BOX (AT LEAST 1 1/4" TOP SECTION) ARCH PATTERN PLUG STYLE LID	FORD MUELLER	EA2 CURB BOX

\*1 WHEREVER STORMWATER COULD POSSIBLY ENTER STORM STRUCTURE

**MATERIAL STANDARDS**

08-01-14 S-MS-MATL



191ST AND HARLEM RETAIL DEVELOPMENT  
 VILLAGE OF TINLEY PARK, COOK COUNTY, ILLINOIS  
 CONSTRUCTION DETAILS

PROJ. MGR.: GMC  
 PROJ. ASSOC.: JRC  
 DRAWN BY: JRC  
 DATE: 2-18-15  
 SCALE: N.T.S.  
 SHEET  
 12 OF 14  
 ADTP 140147

Manhard CONSULTING LTD.  
 800 Woodlawn Parkway, Vernon Hills, IL 60061  
 PH: 847.634.9500 FAX: 847.634.0085  
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 Construction Managers • Environmental Scientists • Landscape Architects • Planners

DATE: \_\_\_\_\_  
 REVISIONS: \_\_\_\_\_  
 JRC



MANHARD CONSULTING, LTD. STANDARD SPECIFICATIONS

GENERAL CONDITIONS CONTRACTOR acknowledges and agrees that the use and reliance of these Plans and Specifications is sufficient consideration for CONTRACTOR'S covenants stated herein.

DEFINITION OF TERMS

- a. "CLIENT" shall mean Aetna Development Corporation... b. "ENGINEER" shall mean Manhard Consulting, Ltd... c. "PLANS and SPECIFICATIONS" shall mean the Civil Engineering PLANS and SPECIFICATIONS prepared by the ENGINEER... d. "CONTRACTOR" shall mean any person or entity performing any work described in the PLANS and SPECIFICATIONS... e. "JURISDICTIONAL GOVERNMENTAL ENTITY" shall mean any municipal, county, state or federal unit of government...

INTENT OF THE PLANS AND SPECIFICATIONS

The intention of the PLANS and SPECIFICATIONS is to set forth certain requirements of performance, type of equipment and structures, and standards of materials and construction. They may also identify labor and materials, equipment and transportation necessary for the proper execution of the work but are not intended to be infinitely determined so as to include minor items obviously required as part of the work.

INTERPRETATION OF PLANS AND SPECIFICATIONS

a. The CLIENT and/or CONTRACTOR shall promptly report any errors or ambiguities in the PLANS and SPECIFICATIONS to the ENGINEER. Questions as to meaning of PLANS and SPECIFICATIONS shall be interpreted by the ENGINEER, whose decision shall be final and binding on all parties concerned.

GOVERNING PROPOSES

All works herein proposed shall be completed in accordance with all requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, and all such pertinent laws, directives, rules and regulations. If a discrepancy is noted between the PLANS and SPECIFICATIONS and requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, the CLIENT and/or the CONTRACTOR shall immediately notify the ENGINEER in writing.

LOCATION OF UNDERGROUND FACILITIES AND UTILITIES

When the PLANS and SPECIFICATIONS include information pertaining to the location of existing underground facilities and utilities (including but not limited to water mains, sanitary sewers, storm sewers, electric, telephone, gas and cable TV lines), such information represents only the opinion of the ENGINEER as to the approximate location and elevation of such facilities and utilities. At the locations wherein detailed positions of these facilities and utilities become necessary to the new construction, including all points of connection, the CONTRACTOR shall furnish all labor and tools to verify or definitely establish the precise location, elevation and size and material (if appropriate) of the facilities and utilities.

UNITS AND MEASUREMENTS

It shall be the CONTRACTOR'S responsibility to verify all Utility Companies of the intentions to begin construction and to verify the actual location of all such facilities and utilities. The CONTRACTOR shall also obtain from the respective Utility Companies the working schedules for removing or adjusting these facilities.

UNITS AND MEASUREMENTS

The PLANS have been prepared by the ENGINEER based on the assumption that all soils on the project are suitable to support the proposed improvements shown. The CLIENT and/or CONTRACTOR shall immediately notify the ENGINEER if he discovers or encounters an obstruction that prevents the installation of the improvement according to the line and grades shown on the PLANS.

PROTECTION OF TREES

All trees that are not to be removed shall be protected from damage. Trees shall not be removed unless requested to do so in writing by the CLIENT.

NOTIFICATION OF OWNERS OF FACILITIES AND UTILITIES

The CONTRACTOR shall notify all applicable Jurisdictional Governmental Entities or utility companies, i.e., water, sewer, electric, telephone, gas and cable TV prior to beginning any construction so that said entity or company can establish the location and elevation of underground pipes, conduits or cables adjoining or crossing proposed construction.

TRAFFIC CONTROL

The CONTRACTOR shall provide when required by any JURISDICTIONAL GOVERNMENTAL ENTITY, all signs, equipment, and personnel necessary to provide for safe and efficient traffic flow in all areas where the work will interrupt, interfere or cause to change in any form, the conditions of traffic flow that existed prior to the commencement of any portions of the work. The CLIENT may, at his discretion, require the CONTRACTOR to furnish traffic control under these or other circumstances where it is necessary for the protection of life and property. Emergency vehicle access shall be maintained at all times. Unless authorized by the CLIENT or CLIENT'S construction representative, all existing access points shall be maintained at all times throughout the construction. The need for traffic control shall be anticipated by the CLIENT.

WORK AREA

The CONTRACTOR, his agents and employees and their employees and all equipment, machinery and vehicles shall confine their work within the boundaries of the project or work area specified by the Client. The CONTRACTOR shall be solely liable for damage caused by him or his agents and employees and their equipment, machinery and vehicles on adjacent property or areas outside designated work areas.

UTILITY POLES

It shall be the responsibility of the CONTRACTOR to arrange for the relocation or bracing of existing utility poles that may be within the working limits of this contract. It is expressly understood that all work and costs connected with the maintenance of these utility poles, their temporary relocations, etc., shall be the responsibility of the CLIENT or the CONTRACTOR.

RESTORATION

It is the intent of these SPECIFICATIONS that clean-up and final restoration shall be performed immediately upon completion of each phase of the work, both inside and outside the Project, or when so directed by the CLIENT so that these areas will be restored as nearly as possible to their original condition or better, and shall include but not be limited to, restoration of maintained lawns and rights-of-way, roadways, driveways, sidewalks, ditches, bushes, hedges, trees, shrubs, fences, mailboxes, sewers, drain tiles, water mains, etc.

CLEANING UP

The CONTRACTOR shall at all times keep the premises free from accumulations of waste material and rubbish caused by his employees or work, and at the completion of the work he shall remove all his rubbish, tools, scaffolding and surplus materials and shall leave his work "broom clean" or its equivalent, unless more exactly specified.

ROAD CLEANING

The CONTRACTOR shall maintain roadways adjoining the project site free from mud and debris at all times. If mud and/or debris is carried onto the roadways from vehicles entering onto the highway from either the CONTRACTOR'S trucks, his employees' vehicles, or his material suppliers, the CONTRACTOR shall immediately remove said mud and/or debris.

SAFETY AND PROTECTION

The CONTRACTOR shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during the performance of the work. This responsibility shall not be limited to normal working hours. The CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR'S duties and responsibilities for safety and for protection of the work shall continue until the work is completed and the CLIENT has notified the CONTRACTOR that the work is acceptable. The duties of the ENGINEER do not include review of the adequacy of either the CONTRACTOR'S or the general public's safety in, on, or near the construction site.

HOLD HARMLESS

To the fullest extent permitted by law, any CONTRACTOR, material supplier or other entity by use of these plans and specifications hereby waives any right of contribution and agrees to indemnify, defend, save and hold harmless the CLIENT and ENGINEER and its agents, employees and consultants from and against all claims, damages, losses and expenses, including but not limited to, attorneys' fees arising out of or resulting from any claim or action in connection with the performance of any work, pursuant to or with respect to these plans and specifications. However, this indemnity shall not be construed to indemnify ENGINEER, its consultants, agents or employees against its own negligence.

Claims, damages, losses and expenses as these words are used in the Agreement shall mean, but not be limited to: (1) injury or damage occurring by reason of the failure of or use of any kind of rigging, blocking, scaffolding or any and all other kind of equipment, whether or not the same be owned, furnished or loaned by any party or entity, including any contractor; (2) all attorneys' fees and costs incurred in bringing an action to enforce the provisions of this indemnity; (3) costs in any way expended by the indemnified party and its employees, at its usual rates plus costs or travel, long distance telephone and reproduction of documents and drawings; (4) consequential damages.

In any and all claims against the CLIENT or ENGINEER or any of their agents, employees and consultants by any party, including any employee of the CONTRACTOR or any Subcontractor, anytime directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount of type of damages, compensation or benefits payable by or for the CONTRACTOR or any Subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts or any insurance maintained by the CONTRACTOR or any Subcontractor or any other party.

INSURANCE

Any party relying or relying on these plans, including any contractor, material supplier, or other entity shall obtain, (prior to commencing any major general public liability insurance insuring against all damages and claims for any bodily injuries, death or property damage arising out of any work, including the construction work provided for in these plans, and shall name the CLIENT and ENGINEER and its consultants, agents and representatives as additional insureds on such insurance policy, provided that any party relying on these plans having obligations to maintain specific insurance as required by any agreement with CLIENT or any CONTRACTOR or ENGINEER shall provide evidence and certificates of insurance as required by such contract or agreement. Such insurance must contain a clause stating that the insurance is primary coverage for ENGINEER and ENGINEER'S other applicable coverage is considered secondary. This insurance shall insure against a limit any liability of any party providing work or services or providing materials.

THIRD PARTY BENEFICIARY

Manhard Consulting, Ltd., the ENGINEER, is intended to be a third party beneficiary of this willing agreement and requirement. Note: These Specifications are for Northern Illinois.

DETAILED SPECIFICATIONS

I. DEMOLITION

The CONTRACTOR shall coordinate with respective utility companies prior to the removal and/or relocation of utilities. The CONTRACTOR shall coordinate with the utility company concerning portions of work which may be performed by the Utility Company's forces and any fees which are to be paid to the utility company for their services. The CONTRACTOR is responsible for paying for all fees and charges.

Should removal and/or relocation activities damage features indicated to remain, the CONTRACTOR shall provide new materials/structures in accordance with the contract documents. Except for materials designed to be relocated on the job, all other construction materials shall be new.

Prior to demolition occurring, all erosion control devices are to be installed.

All existing utility lines and conduits located under proposed buildings shall be removed and properly backfilled. All utility lines and conduits located under drives, on-site parking, roads or sidewalks shall be filled with a flowable backfill and plugged. All existing structures shall be removed.

E. CONTRACTOR shall perform all demolition work in accordance with all applicable Federal, State and local government requirements.

F. The CONTRACTOR is responsible for demolition, removal and disposal in a location approved by all JURISDICTIONAL GOVERNMENTAL ENTITIES of all structures, piers, walls, fences, foundations, road, parking lots, drives, drainage structures, utilities, etc., such that the improvements shown on these plans can be constructed. All facilities to be removed shall be undisturbed to suitable material and brought to grade with suitable compacted fill material per the specifications.

G. The CONTRACTOR is responsible for removing all debris from the site and disposing the debris in a lawful manner.

H. The CONTRACTOR is responsible for obtaining all permits required for demolition and approval.

I. Electrical, telephone, cable, water, fiber optic cable and/or gas lines needing to be removed shall be coordinated by the CONTRACTOR with the affected utility company.

J. CONTRACTOR must protect the public at all times with fencing, barricades, enclosures, and other appropriate best management practices.

K. Continuous access shall be maintained for surrounding properties at all times during demolition.

L. All fire access lanes within the project area shall remain in service, clean of debris, and accessible for use by emergency vehicles.

M. The CONTRACTOR shall coordinate water main work with the Fire Department and the JURISDICTIONAL GOVERNMENTAL ENTITY to plan the proposed improvements and to ensure adequate fire protection is consistently available to the facility and site throughout this specific work and through all phases of construction. CONTRACTOR shall be responsible for any required water main shut offs with the JURISDICTIONAL GOVERNMENTAL ENTITY during construction.

costs associated with water main shut offs will be the responsibility of the CONTRACTOR and no extra compensation will be provide.

N. CONTRACTOR shall maintain all existing parking areas, sidewalks, drives, etc. clear and free from any construction activity and/or material to ensure easy and safe pedestrian and vehicular traffic to and from the site. CONTRACTOR shall coordinate/pack all construction activity within proximity of the building and utility interruptions with the facility manager to minimize disturbance and inconvenience to facility operations.

O. CONTRACTOR may limit saw-cut and pavement removal to only those areas where it is required as shown on these construction plans, however if any damage is caused on any of the surrounding pavement, etc. the CONTRACTOR shall be responsible for its removal and repair.

P. Any existing wells encountered shall be exposed and sealed 3' below proposed finish grade by the CONTRACTOR in accordance with Section 920.120 (latest edition) of the Illinois Water Well Construction Code, Department of Public Health, and all applicable local rules and regulations.

Q. Any existing septic tanks and grease traps encountered shall have all liquids and solids removed and disposed of by a licensed commercial hauler in accordance with applicable JURISDICTIONAL GOVERNMENTAL ENTITY regulations, and the tanks and grease traps shall then be filled with suitable materials or removed from the site and disposed of by the CONTRACTOR.

R. Voids left by any item removed under any proposed building, pavement, walk, etc. or within 24" thereof shall be filled and compacted with suitable materials by the CONTRACTOR.

S. The CONTRACTOR shall be responsible for the disconnection of utility services to the existing buildings prior to demolition of the buildings.

T. Any material containing asbestos found within existing structures shall be removed from the site and disposed of off-site by the CONTRACTOR in accordance with County, State and Federal regulations.

U. CONTRACTOR shall develop and implement a daily program of dust control and shall submit and obtain JURISDICTIONAL GOVERNMENTAL ENTITY approval of dust control procedures prior to demolition of any structures. Modification of dust control procedures shall be performed by the CONTRACTOR to the satisfaction of the JURISDICTIONAL GOVERNMENTAL ENTITY as requested.

V. The CONTRACTOR shall coordinate all demolition with the JURISDICTIONAL GOVERNMENTAL ENTITY and CLIENT to ensure protection and maintenance of sanitary sewer and water utilities as necessary and to provide stormwater conveyance until new facilities are constructed, tested and placed into operation.

W. The locations of all existing utilities shown on this plan have been determined from the best information available and are given for the convenience of the CONTRACTOR and are not to be interpreted as the exact location, or as the only obstacles that may occur on the site. The ENGINEER assumes no responsibility for their accuracy. Prior to the start of any demolition activity, the CONTRACTOR shall notify the utility companies for location of existing utilities and shall verify existing conditions and proceed with caution around any anticipated features.

X. The CONTRACTOR is responsible for removing the existing irrigation system in the areas of proposed improvements. The contractor shall cap the existing irrigation system and remain open until such that the remaining system shall continue to function properly.

Y. The parking lot shall be completed in sections so that it does not interrupt the facility operations. The CONTRACTOR shall coordinate with the construction manager for work to be performed.

II. EARTHWORK

A. STANDARDS

This work shall be completed in conformance with the applicable sections of the Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois, latest edition except as modified below.

B. SOIL BORING DATA

Copies of soils of soil boring and reports, if such borings were taken by the CLIENT in the vicinity of the proposed construction site, should be made available by the CLIENT to the CONTRACTOR. These borings are presented for whatever purpose the CONTRACTOR chooses to make of them. The CONTRACTOR makes no warranty regarding the number, location, spacing or depth of borings taken, nor of the accuracy or reliability of the information given in the results thereof.

Further, the ENGINEER does not assume responsibility for the possibility that during construction, the soil and groundwater condition may be different than indicated. Neither does the ENGINEER assume responsibility for variations of soil and groundwater at location between borings. The CONTRACTOR is required to make its own borings, explorations and observations to determine soil and groundwater conditions.

C. EARTHWORK CALCULATIONS AND CROSS SECTIONS

The CONTRACTOR understands that any earthwork calculations, quantities or cross sections that have been furnished by the ENGINEER are for information only. The CONTRACTOR shall verify the quantity of the work provided by the CLIENT or ENGINEER whatsoever as to their sufficiency or accuracy. CONTRACTOR warrants that he has performed his own subsurface investigations as necessary and his own calculations and cross sections to determine site soil conditions and earthwork volumes. The ENGINEER makes no representation or guarantee regarding earthwork quantities or that the earthwork for this project will be adequate under the varying field conditions, changing soil types, allowable construction to tolerances and construction methods that are beyond the control of the ENGINEER.

D. CLEARING, GRUBBING AND TREE REMOVAL

The site shall be cleared, grubbed, and trees and stumps removed where designated on the PLANS. Trees designated to remain shall be protected from damage.

E. TOPSOIL STRIPPING

Upon completion of demolition, clearing, grubbing and tree removal, all topsoil shall be stripped from under all buildings and pavements areas, and other areas necessary to complete the work. Topsoil stripped shall be placed in stockpiles in locations as designated by the CLIENT.

F. TOPSOIL SPREAD

Upon completion of roadway and/or parking lot improvements and installation of underground utilities a minimum of four inches (4") of topsoil shall be respread over all unpaved areas that have been disturbed by earthwork construction, except building pads and other designated areas, which shall be kept free from topsoil.

G. SEEDING

Upon completion of topsoil spread, the CONTRACTOR shall apply seed and fertilizer to all respread areas in accordance with IDOT standards or as designated on landscape drawings and specifications provided by the CLIENT.

H. SODDING

Upon completion of topsoil spread, the CONTRACTOR shall install sod to all areas designated on the plans or as designated on the landscape drawings and specifications provided by the CLIENT.

I. EXCAVATION AND EMBANKMENT

Upon completion of topsoil stripping, all excavation and embankments shall be completed as shown on the PLANS. All suitable excavated materials shall be hauled, placed (moisture conditioned if necessary) and compacted in the embankment areas. The CONTRACTOR shall include all dewatering, temporary ditching and culverts necessary to complete the excavation and embankment.

Specifically included in the scope of Excavation and Embankment is grading and shaping of all cut or fill areas including swales and ditches, handling of topsoil, etc., and all work required to provide positive drainage at the end of each working day and upon completion of a section.

The CONTRACTOR shall be responsible for the excavation of all swales and ditches and for the excavation or filling of the roads, building pads and parking lots within the work limits to lines & grades shown on the plans. He shall be responsible for obtaining compaction in accordance with the minimum values listed in the table below for all embankments unless more stringent values are listed in the soils report, and to use any method approved by the CLIENT necessary to obtain this compaction (i.e., soil fabric or any undercutting that may be required).

Table with 4 columns: Percent Compaction Standard, Pavement & Floor Slabs, Grass Areas, and other categories.

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reinforced concrete flat top section shall be used, and Valve Vaults shall have concentric cones. Only concrete adjustment rings will be permitted where necessary and shall be limited to two adjustment rings totaling not more than 8" in height. All manholes and catch basin steps shall be copolymer polypropylene with continuous 1/2" steel reinforcement as manufactured by MA industries, or approved equal.

AUERBORING AND CASING

Casing pipe shall be welded steel pipe, installed where shown on the PLANS. The carrier pipe shall be securely blocked and banded and sanitary and storm sewers shall maintain the specified gradient. Upon installing the carrier pipe the ends shall be sealed with hydraulic cement.

AUGER (OPEN BORE)

The CONTRACTOR shall auger (open bore) where noted on PLANS.

HORIZONTAL AND VERTICAL SEPARATION OF WATER AND SEWER MAINS

Horizontal and vertical separation of water and sewer mains shall be in accordance with Standard Specifications for Water and Sewer Construction in Illinois Section 41-2.01A and 41-2.01B and Standard Drawing 18, 19, 20, 21, 22, 23 and 24.

STRUCTURE ADJUSTMENTS

Structures shall be adjusted to the finished grade as shown on PLANS.

B. SANITARY SEWERS AND APPURTENANCES

SANITARY SEWER PIPE

Sanitary sewer pipe including building services, shall conform to the following:

- (1) Polyvinyl Chloride (PVC) Sewer Pipe shall conform to ASTM D3034 (4-inch thru 15-inch) or ASTM F679 (18-inch thru 48-inch) minimum SDR 26 with flexible elastomeric seal gasket gasketed joints conforming to ASTM D3212 and F477.
- (2) Ductile Iron Sewer Pipe shall conform to ANSII/AWWA C151/A21.5.1 Class 500, cement lined with push on type joints conforming to ANSII/AWWA C11/A21.11.
- (3) Extra Strength Clay Sewer Pipe shall conform with ASTM Specification C700 (glazed) with ASTM D1784 type joints conforming to Clove NO-BEL (ESVCP), with flexible gasket meeting ASTM C425 (MWRD only).

Sanitary sewers shall include bedding and backfilling.

MANHOLES

Manholes shall be constructed in conformance with Section IIA Manholes, etc. above. The concrete base and bottom section shall be constructed of precast reinforced concrete monolithically cast sections including benches, pipe connection and invert flow lines. Manhole frame and lids shall be Neenah R-1772 or approved equal, with lids imprinted "SANITARY", with recessed pick holes. Manhole joints between adjustment rings and frames and between manhole sections shall be set on preformed plastic gasket consisting of a homogeneous blend of refined hydrocarbon resins and plasticizing compounds reinforced with inert mineral filler to provide a water tight seal. All pipe connection openings shall be precast with resilient rubber watertight pipe sleeves. A 10" elastomeric band (chime seal) shall be installed extending from the manhole top to the manhole frame as shown on detail. Manholes shall include steps, frame & grate, bedding, and trench backfill.

FOUNDATION, BEDDING AND HAUNCHING

Foundation, Bedding and Haunching shall be wet coarse aggregate or moist fine aggregate in accordance with the above standards and placed as shown on the detail.

TESTING

Sanitary sewers shall be air tested and tested for deflection in accordance with the requirements of Section 31-1.12 TESTING AND INSPECTION FOR ACCEPTANCE OF SANITARY SEWERS" of the Standard Specifications for Water and Sewer Construction in Illinois or the JURISDICTIONAL GOVERNMENTAL ENTITY, whichever is more restrictive. In addition, a televised inspection of the completed



**DESCRIPTION**

The Lumark Tribute luminaire is the most versatile, functionally designed, universally adaptable outdoor luminaire available. The Tribute luminaire brings outstanding performance to walkways, parking lots, roadways, loading docks, building areas and any security lighting application. U.L. listed and CSA certified for wet locations.

<b>Catalog #</b>		<b>Type</b>	
<b>Project</b>			
<b>Comments</b>		<b>Date</b>	
<b>Prepared by</b>			

**SPECIFICATION FEATURES**

**Construction**

Rugged, one-piece, die-cast aluminum housing and door frame. One-piece silicone gasket protects the optical chamber from performance degrading contaminants. One stainless steel spring latch and two stainless hinges allow tool-less opening and removal of door frame.

**Electrical**

Ballast and related electrical componentry are hard mounted to die-cast housing for optimal heat transfer and operating efficiency. Optional swing-down galvanized steel power tray with integral handle and quick disconnects allows tray to be completely removed from housing providing ample room for fixture installation and maintenance.

**Reflector**

Choice of nine high efficiency optical distributions, including five segmented optical systems constructed of premium 95% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs or other means of attachment which may cause streaking in the light distribution. Optical modules are field rotatable in 90° increments and offered standard with mogul-base lampholders for High Pressure Sodium and 200-400W Metal Halide assemblies or medium-base lampholders for Metal Halide 150W and below.

**Mounting**

Extruded 8" aluminum arm features internal bolt guides for easy positioning of fixture during installation to pole or wall surface. Standard single carton packaging of housing, square pole arm and round pole adapter allow for consolidated product arrival to site. Optional internal mast arm mount accepts a 1-1/4" to 2-3/8" O.D. horizontal tenon, while a four-bolt clamping mechanism secures fixture. Cast-in leveling guides provide +/-5° vertical leveling adjustment.

**Finish**

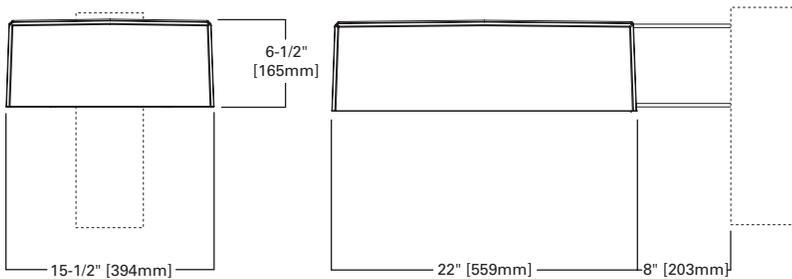
Housing and arm finished in a five-stage premium TGIC bronze polyester powder coat paint. Optional colors include black, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.



**TR TRIBUTE**

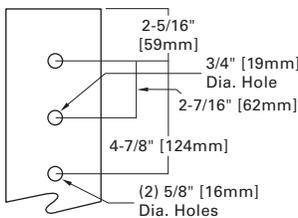
**70 - 400W**  
**High Pressure Sodium**  
**Metal Halide**  
**Pulse Start Metal Halide**  
**AREA/SITE LUMINAIRE**

**DIMENSIONS**

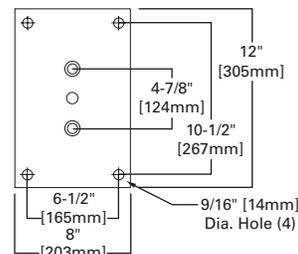


**DRILLING PATTERNS**

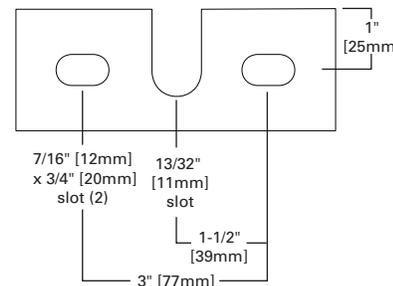
**TYPE "M"**



**WALL MOUNT (MA1219-XX)**



**TRUNNION MOUNT**



**TECHNICAL DATA**

UL Wet Locations Listed  
 CSA Certified  
 EISA Compliant ©

**ENERGY DATA**

**Hi-Reactance Ballast Input Watts**

70W HPS HPF (95 Watts)  
 100W HPS HPF (130 Watts)  
 150W HPS HPF (190 Watts)  
 150W MP HPF (185 Watts)

**CWI Ballast Input Watts**

250W HPS HPF (300 Watts)

**CWA Ballast Input Watts**

175W MH HPF (210 Watts)  
 200W MP HPF (227 Watts) ©  
 200W HPS HPF (250 Watts)  
 250W MH HPF (295 Watts)  
 250W MP HPF (283 Watts) ©  
 320W MP HPF (365 Watts) ©  
 350W MP HPF (397 Watts) ©  
 400W MP HPF (452 Watts) ©  
 400W MH HPF (455 Watts)  
 400W HPS HPF (465 Watts)

**EPA DATA**

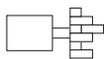
**Effective Projected Area:** (Sq. Ft.)  
 Single w/Arm: 1.59  
 Single w/o Arm: 1.19

**SHIPPING DATA**

**Approximate Net Weight:**  
 39 lbs. (17.73 kgs.)

**MOUNTING CONFIGURATIONS**

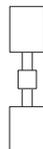
**Wall Mount**



**Arm Mount Single**  
EPA: 1.59



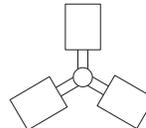
**Arm Mount 2@180°**  
EPA: 3.18



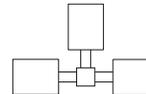
**Arm Mount 2@90°**  
EPA: 2.63



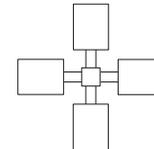
**Arm Mount 3@120°**  
(Round Pole Only)  
EPA: 3.87



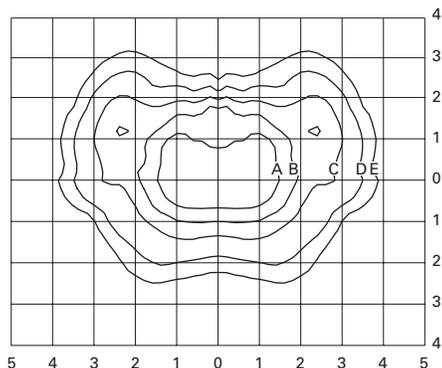
**Arm Mount 3@90°**  
EPA: 4.02



**Arm Mount 4@90°**  
EPA: 5.25



**PHOTOMETRICS**

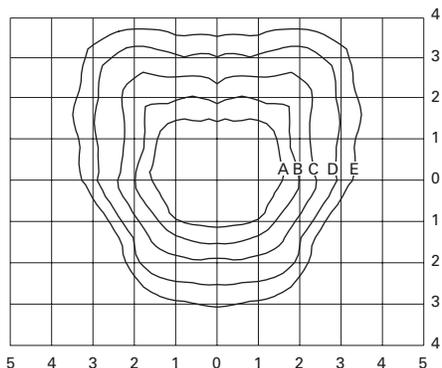


**MPTR-3S-320**  
320—Watt MP  
30,000—Lumen Clear Lamp  
Type III Segmented

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.34	0.13	0.06

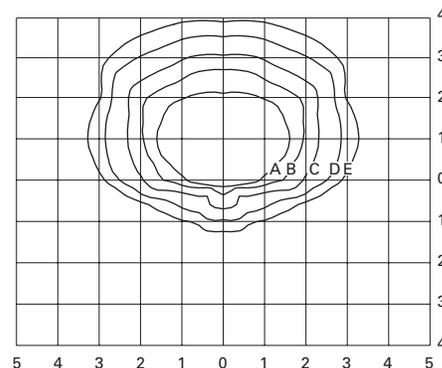


**MPTR-4S-400**  
400—Watt MP  
40,000—Lumen Clear Lamp  
Type IV Segmented

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.34	0.13	0.06



**MPTR-SL-400**  
400—Watt MP  
40,000—Lumen Clear Lamp  
Spill Light Eliminator

**Footcandle Table**

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.34	0.13	0.06

## ORDERING INFORMATION

Sample Number: MPTR-SL-400-MT-LL

Lamp Type	Series <sup>1</sup>	Distribution	Lamp Wattage <sup>2</sup>	Voltage <sup>5</sup>
<b>MP=</b> Pulse Start Metal Halide <b>MH=</b> Metal Halide <b>HP=</b> High Pressure Sodium	<b>TR=</b> Tribute	<b>2F=</b> Type II Formed <b>2S=</b> Type II Segmented <b>3F=</b> Type III Formed <b>3S=</b> Type III Segmented <b>4F=</b> Type IV Formed <b>4S=</b> Type IV Segmented <b>5F=</b> Type V Formed <b>5S=</b> Type V Segmented <b>SL=</b> Spill Light Eliminator	<b>Pulse Start Metal Halide</b> <b>70=</b> 70W <b>100=</b> 100W <b>150=</b> 150W <b>200=</b> 200W <b>250=250W</b> <b>320=</b> 320W <b>350=</b> 350W <b>400=</b> 400W <sup>3</sup>  <b>Metal Halide</b> <b>175=</b> 175W <sup>4</sup> <b>250=</b> 250W <sup>4</sup> <b>400=</b> 400W <sup>3,4</sup>  <b>High Pressure Sodium</b> <b>70=</b> 70W <b>100=</b> 100W <b>150=</b> 150W <b>250=</b> 250W <b>400=</b> 400W <sup>3</sup>	<b>120V=</b> 120V <b>208V=</b> 208V <b>240V=</b> 240V <b>277V=</b> 277V <b>347V=</b> 347V <sup>6</sup> <b>480V=</b> 480V <b>DT=</b> Dual-Tap <b>MT=</b> Multi-Tap wired 277V <b>TT=</b> Triple-Tap wired 347V <sup>6</sup> <b>5T=</b> 5-Tap wired 480V <sup>5</sup>
Options (Add as Suffix)		Color	Accessories (Order Separately) <sup>10</sup>	
<b>F1=</b> Single Fuse (120, 277 or 347V. Must Specify Voltage) <b>F2=</b> Double Fuse (208, 240 or 480V. Must Specify Voltage) <b>Q=</b> Quartz Restrike (Hot Strike Only) <sup>7</sup> <b>EM=</b> Quartz Restrike with Delay Relay (Quartz Lamp Strikes at both Hot and Cold Starts) <sup>7</sup> <b>EM/SC=</b> Emergency Separate Circuit <sup>7</sup> <b>LL=</b> Lamp Included <b>S=</b> 1-1/4" - 2-3/8" Internal Mast Arm Mount <b>TM=</b> Trunnion Mount <b>CEC=</b> California Title 20 Compliant Ballast (Applies to 200-320W and 400W MP Only) <b>PT=</b> Electrical Power Tray <b>PER=</b> NEMA Twistlock Photocontrol Receptacle <b>PC=</b> Button Type Photocontrol <sup>8</sup> <b>HS=</b> House Side Cutoff <sup>9</sup> <b>LA=</b> Less Arm (Order Mounting Separately)		<b>BZ=</b> Bronze (Standard) <b>BK=</b> Black <b>AP=</b> Grey <b>WH=</b> White <b>DP=</b> Dark Platinum <b>GM=</b> Graphite Metallic	<b>MA1201-XX=</b> Direct Wall Mount Kit <sup>1</sup> <b>MA1218-XX=</b> Direct Mount for Pole <sup>1</sup> <b>MA1219-XX=</b> Wall Mounting Plate <b>OA1090-XX=</b> Adjustable Slipfitter Arm for Tenon Mount 2-3/8" O.D. Tenon <sup>1</sup> <b>MA1221-XX=</b> External House Side Shield Kit - EPA 0.38 <b>MA1222=</b> House Side Shield Kit for 2S/3S <b>MA1223=</b> House Side Shield Kit for 4S <b>MA1224=</b> House Side Shield Kit for 2F/3F <b>MA1225=</b> House Side Shield Kit for 4F <b>MA1010-XX=</b> Single Tenon Adapter for 3-1/2" O.D. Tenon <b>MA1011-XX=</b> 2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon <b>MA1012-XX=</b> 3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon <b>MA1013-XX=</b> 4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon <b>MA1014-XX=</b> 2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon <b>MA1015-XX=</b> 2 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon <b>MA1016-XX=</b> 3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon <b>MA1017-XX=</b> Single Tenon Adapter for 2-3/8" O.D. Tenon <b>MA1018-XX=</b> 2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon <b>MA1019-XX=</b> 3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon <b>MA1045-XX=</b> 4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon <b>MA1048-XX=</b> 2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon <b>MA1049-XX=</b> 3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon <b>TR/VS=</b> Field Installed Vandal Shield <sup>11</sup> <b>OA/RA1013=</b> Photocontrol Shorting Cap <b>OA/RA1016=</b> NEMA Photocontrol - Multi-Tap <b>OA/RA1027=</b> NEMA Photocontrol - 480V <b>OA/RA1201=</b> NEMA Photocontrol - 347V	

## Notes:

- 8" Arm and pole adapter included with fixture. Specify less arm "LA" option when mounting accessory is ordered separately.
- 150W and below in pulse start metal halide are medium-base sockets. All other wattages are mogul-base.
- Requires reduced envelope lamp.
- 175W, 250W and 400W metal halide available in non-U.S. markets only.
- Products also available in non-US voltages and 50Hz for international markets. Consult your Eaton's Cooper Lighting business representative for availability and ordering information. 5T only available in 400W metal halide.
- 88% efficient EISA Compliant pulse start metal halide fixtures not available in 347V or Triple-Tap voltages.
- Quartz options not available with SL optics.
- Specify 120V, 208V, 240V or 277V only.
- House side shield not available on 5S, 5F or SL optics.
- Replace XX with color designation.
- Not available with spill light eliminator or house side shield.

## STOCK SAMPLE NUMBER (LAMP INCLUDED)

Sample Number: MPTR2340

Lamp Type	Series <sup>2</sup>	Distribution	Lamp Wattage
<b>MP=</b> Pulse Start Metal Halide <b>HP=</b> High Pressure Sodium <sup>2</sup>	<b>TR=</b> Tribute	<b>23=</b> Type II /III Formed	<b>15=</b> 150W <b>25=</b> 250W <b>32=</b> 320W <b>40=</b> 400W

## Notes:

- Available in 150, 250 and 400W. Refer to In Stock Guide for availability.

## VOLTAGE CHART

<b>DT=</b> Dual-Tap	120/277V (Wired 277V)
<b>MT=</b> Multi-Tap	120/208/240/277V (Wired 277V)
<b>TT=</b> Triple-Tap	120/277/347V (Wired 347V)
<b>5T=</b> 5-Tap	120/208/240/277/480V (Wired 480V)

## WATTAGE CHART

Lamp Type	Wattage
Pulse Start Metal Halide	70, 100, 150, 250, 320, 350, 400W
Metal Halide	175, 250, 400W
High Pressure Sodium	70, 100, 150, 250, 400W

## FEATURES & SPECIFICATIONS

**INTENDED USE** — For building- and wall-mounted applications.

**CONSTRUCTION** — Rugged, die-cast, single-piece aluminum housing. Die-cast door frame has a 1/8" thick tempered glass lens. Door frame is fully gasketed with one-piece solid silicone.

Finish: Standard finish is textured dark bronze (DDBT) corrosion-resistant polyester powder finish. Additional architectural colors are available. Striping is also available.

**OPTICS** — Segmented reflectors for superior uniformity and control. Reflectors are interchangeable. Three full cutoff downlight distributions available: FT (forward throw), MD (medium throw) and WT (wide throw). Six uplight distributions available: FTU (forward throw, 10% up), MDU (medium throw, 10% up), WTU (wide throw, 10% up) and MDU5 (up/down medium throw, 50% up 50% down), WTUP (pencil beam) and WTUC (column beam).

**ELECTRICAL** — Ballast: 50W-150W utilizes a high reactance, high power factor ballast. Metal halide 150W and below are standard with pulse-start technology. 355 utilizes a reactance high power factor ballast. 175W utilizes a constant-wattage auto transformer ballast. CSA, NOM or INTL required for probe start shipments outside of the US for 175M. Not available 175M SCWA. Ceramic metal halide lamps are recommended for use in applications where superior color rendition, lumen maintenance and longer lamp life are desired.

Quick disconnect plug easily disconnects reflector from ballast. Ballasts are 100% factory-tested.

Socket: Porcelain, medium-base socket with copper alloy, nickel-plated screw shell and center contact. UL listed 660W, 600V 4KV pulse rated.

**INSTALLATION** — Universal mounting mechanism with integral mounting support allows fixture to hinge down. Bubble level provides correct alignment with every installation.

**LISTINGS** — UL Listed (standard). CSA Certified (see Options). Suitable for wet locations (damp location listed in lens-up orientation). WLU option offers wet location listing in up orientation (see Options). IP65 rated. 25°C ambient. ELED: U.S. Patent No. 7,737,640.

Note: Specifications subject to change without notice.

**WARRANTY** — 1-year limited warranty. Complete warranty terms located at [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

Note: Specifications subject to change without notice.



Catalog Number
Notes
Type

### Decorative Wall-Mounted Lighting



# WSR

METAL HALIDE: 50W-175W  
HIGH PRESSURE SODIUM: 35W-150W

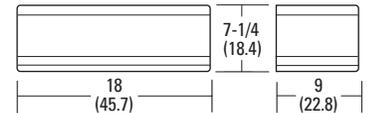
#### Specifications

Length: 18 (45.7)

Depth: 9 (22.8)

Overall Height: 7-1/4 (18.4)

\*Weight: 30 (13.6 kg)



All dimensions are inches (centimeters) unless otherwise indicated.

\*Weight as configured in example below.

### ORDERING INFORMATION For shortest lead times, configure product using **standard options (shown in bold)**.

**Example: WSR 100M FT 120 LPI**

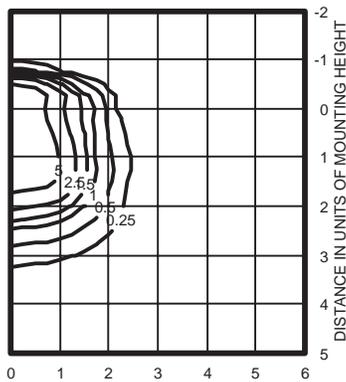
WSR											
Series	Wattage			Distribution		Uplight color options <sup>5</sup>		Voltage	Ballast		Mounting
WSR	<b>High pressure sodium</b>	<b>Metal halide</b>	<b>Ceramic metal halide</b>	<b>Downlight distributions</b>	<b>Up/down distributions</b>		BLUE Blue	<b>120</b> 208 <sup>6</sup> 240 <sup>6</sup> <b>277</b> <b>347</b> <b>TB<sup>7</sup></b> 23050HZ <sup>8</sup>	<b>(blank)</b> Magnetic ballast	<b>(blank)</b> Surface mount <i>Shipped separately<sup>10</sup></i> BBW Surface mount back box UT5 Uplight 5 degrees	
	35S <sup>1</sup>	50M	50MHC	<b>FT</b> Forward throw	FTU Forward throw with 10% uplight	GRN Green	CWI Constant wattage isolated				
	50S	<b>70M</b>	70MHC	<b>MD</b> Medium throw (coated lamp std.)	<b>MDU</b> Medium throw with 10% uplight (coated lamp std.)	RED Red	Super CSA pulse start ballast <sup>9</sup>				
	70S	<b>100M</b>	100MHC	<b>WT</b> Wide throw	WTU Wide throw with 10% uplight	YEL Yellow					
	100S	<b>150M</b>	150MHC		<b>MDU5</b> Up/down medium throw with 50% uplight and 50% downlight (coated lamp std.)						
	150S	175M <sup>2</sup>	150MHC		WTUP Pencil beam <sup>3,4</sup>						
					WTUC Column beam <sup>3,4</sup>						

Options				Finish <sup>19</sup>		Lamp <sup>21</sup>		
<b>Shipped installed in fixture</b>				ELED Emergency LED secondary source battery pack with time delay (-4°F min. operating temperature) <sup>13</sup>	QRS Quartz restrike system <sup>14,17</sup>	Shipped separately <sup>2</sup>	<b>(blank)</b> Dark bronze, textured	LPI Lamp included
SF Single fuse (120, 277, 347V) <sup>11</sup>	DF Double fuse (208, 240V) <sup>11</sup>	DC12 Emergency circuit 12-volt (35W lamp included) <sup>12</sup>	2ELED Emergency LED secondary source (two modules) battery pack with time delay (-4°F min. operating temperature) <sup>13</sup>				UCS Uplight component shield <sup>16</sup>	
2DC12 Emergency circuit 12-volt (two 35W lamps included) <sup>12</sup>	DC2012 Emergency circuit 12-volt (20W lamp included) <sup>12</sup>	2DC2012 Emergency circuit 12-volt (two 20W lamps included) <sup>12</sup>	DFL Diffusing lens	WLU Wet location door for up orientation	VG Vandal guard	<b>DNAT</b> Natural aluminum, textured	L/LP Less lamp	
			EC Emergency circuit <sup>14,15</sup>	CSA CSA certified		<b>DWHG</b> White, textured		
			IBS Internal backlight shield <sup>16</sup>	NOM NOM certified <sup>8</sup>		<b>DBLB</b> Black, textured		
			<b>PE</b> Photoelectric cell-button type (n/a TB) <sup>3</sup>	INTL International shipment for 175M		CRT Non-stick protective coating <sup>20</sup>		
						<b>Super Durable Finishes</b>		
						DDBXD Dark bronze		
						DBLXD Black		
						DNAXD Natural aluminum		
						DWHXD White		
						DDBTXD Textured dark bronze		
						DBLBXD Textured black		
						DNATXD Textured natural aluminum		
						DWHGXD Textured white		

# WSR Metal Halide, High Pressure Sodium Wall Mounted

## WSR 150MHC FT LTL11336P

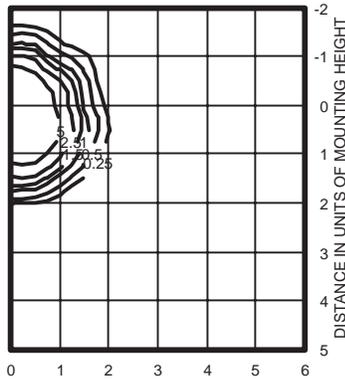
ISOILLUMINANCE PLOT (Footcandle)



150W pulse start metal halide lamp, horizontal lamp orientation Footcandle values based on 12' mounting height, 14000 rated lumens.  
Luminaire Efficiency: 55.6%

## WSR 150MHC MD LTL11335P

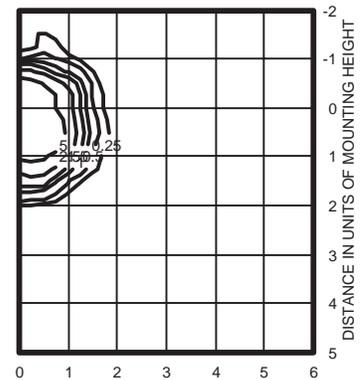
ISOILLUMINANCE PLOT (Footcandle)



150W pulse start metal halide lamp, horizontal lamp orientation Footcandle values based on 12' mounting height, 12500 rated lumens.  
Luminaire Efficiency: 55.3%

## WSR 150MHC MDU5 LTL11310P

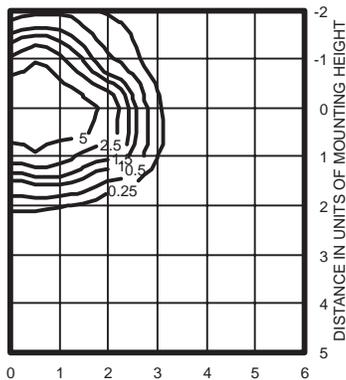
ISOILLUMINANCE PLOT (Footcandle)



150W pulse start metal halide lamp, horizontal lamp orientation Footcandle values based on 12' mounting height, 12500 rated lumens.  
Luminaire Efficiency: 77.1%

## WSR 150MHC WT LTL11337P

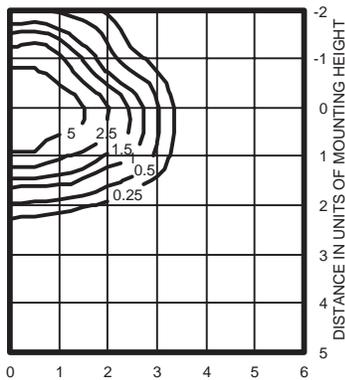
ISOILLUMINANCE PLOT (Footcandle)



150W pulse start metal halide lamp, horizontal lamp orientation Footcandle values based on 12' mounting height, 14000 rated lumens.  
Luminaire Efficiency: 68.1%

## WSR 150MHC WTU LTL11312P

ISOILLUMINANCE PLOT (Footcandle)



150W pulse start metal halide lamp, horizontal lamp orientation Footcandle values based on 12' mounting height, 14000 rated lumens.  
Luminaire Efficiency: 69.7%

### Notes

- 1 120V only.
- 2 These wattages do not comply with California Title 20 regulations.
- 3 Must be ordered with fixture; cannot be field installed.
- 4 Available with WT (wide throw) distribution only.
- 5 Available with WTUC and WTUP only.
- 6 Must specify CWI for use in Canada.
- 7 Optional multi-tap ballast (120, 208, 240, 277V); (120, 277, 347V in Canada).
- 8 Consult factory for available wattages.
- 9 Available with 150M or 150MHC only.
- 10 May be ordered as an accessory with prefix "WS". Must specify finish.
- 11 Not available with DC options.
- 12 Not available with ELED, SF, DF, EC or QRS.
- 13 Maximum wattage 100M, 70S. Not available with QRS, DC or EC. Must specify 120V or 277V.
- 14 Maximum allowable wattage lamp included.
- 15 Not available with ELED, QRS or DCs.
- 16 Not available with medium throw (MD, MDU, MDU5) distributions.
- 17 Not available with ELED, EC or DCs.
- 18 Used with FTU and WTU distributions to conceal internal electrical components.
- 19 See [www.lithonia.com/archcolors](http://www.lithonia.com/archcolors) for additional color options.
- 20 Black finish only.
- 21 Must be specified. L/LP N/A with MHC.

### Emergency Option Lamp Compatibility

Lamp options # of lamps/watt- age	DC12	2DC12	DC2012	2DC2012	EC	ELED	2ELED
35S	■	■	■	■	■	■	■
50S	■	■	■	■	■	■	■
70S	■	■	■	■	■	■	■
100S	■	■	■	■	■	■	■
150S	■	■	■	■	■	■	■
50M	■	■	■	■	■	■	■
70M	■	■	■	■	■	■	■
100M	■	■	■	■	■	■	■
150M	■	■	■	■	■	■	■
175M	■	■	■	■	■	■	■

Lamp	Initial lumens	Mounting height			
		10'	12'	14'	16'
<b>Metal halide</b>					
50W MH	3,900	0.43	0.30	0.22	0.17
70W MH	5,500	0.62	0.43	0.31	0.24
100W MH	8,500	0.95	0.66	0.48	0.37
150W MH	12,500	1.41	0.98	0.72	0.55
175W MH	12,800	1.44	1.0	0.73	0.56
<b>High pressure sodium</b>					
35W HPS	2,250	0.26	0.18	0.13	0.10
50W HPS	4,000	0.45	0.31	0.23	0.17
70W HPS	6,400	0.72	0.50	0.37	0.28
100W HPS	9,500	1.07	0.74	0.54	0.41
150W HPS	16,000	1.80	1.25	0.91	0.70

PREPARED FOR:  
AETNA DEVELOPMENT  
200 WEST MADISON STREET, SUITE 1200  
CHICAGO, ILLINOIS 60606

CURRENT P.I.N.:  
19-09-12-200-012

# PLAT OF SURVEY

## PARCEL 3

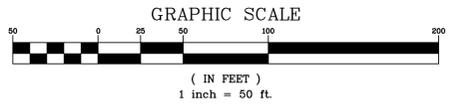
THAT PART OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 12, IN TOWNSHIP 35 NORTH, AND IN RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE POINT OF INTERSECTION OF THE NORTH LINE OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 12, AFORESAID WITH A LINE 140.00 FEET WEST OF AND PARALLEL WITH THE EAST LINE OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 12; THENCE SOUTH ALONG SAID PARALLEL LINE 150.28 FEET; THENCE EAST PARALLEL WITH SAID NORTH LINE 60 FEET; THENCE SOUTH PARALLEL WITH SAID EAST LINE 95.53 FEET; THENCE SOUTHEASTERLY ALONG THE ARC OF CIRCLE OF 1990.08 FEET RADIUS, CONVEX TO THE SOUTHWEST AND TANGENT TO THE LAST DESCRIBED PARALLEL LINE TO THE POINT OF INTERSECTION WITH A LINE 433 FEET SOUTH OF AND PARALLEL WITH SAID NORTH LINE OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 12, AFORESAID; THENCE WEST ALONG SAID PARALLEL LINE TO THE POINT OF INTERSECTION WITH A LINE 390.00 FEET WEST OF AND PARALLEL WITH THE EAST LINE OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 12, AFORESAID; THENCE NORTH ALONG SAID PARALLEL LINE TO A POINT ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 12, AFORESAID; THENCE EAST ALONG SAID NORTH LINE TO THE POINT OF BEGINNING, EXCEPT THAT PART CONVEYED TO THE COUNTY OF WILL FOR HIGHWAY PURPOSES BY DEED DATED AUGUST 5, 1971 AS DOCUMENT NO. R71-32454, ALL IN WILL COUNTY, ILLINOIS.

EXCEPTING THEREFROM THE FOLLOWING DESCRIBED PROPERTY:

THAT PART OF THE NORTHEAST QUARTER OF SECTION 12, TOWNSHIP 35 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID NORTHEAST QUARTER; THENCE ON AN ASSUMED BEARING OF SOUTH 89 DEGREES 38 MINUTES 55 SECONDS WEST, A DISTANCE OF 390.00 FEET TO THE WEST LINE OF THE EAST 390.00 FEET OF SAID NORTHEAST QUARTER; THENCE SOUTH 00 DEGREES 08 MINUTES 25 SECONDS EAST ALONG SAID WEST LINE, A DISTANCE OF 104.56 FEET (104.90 FEET PER DOCUMENT R71-32454) TO THE SOUTHERLY LINE OF DEDICATION AS SHOWN IN DOCUMENT R71-32454 AND THE POINT OF BEGINNING; THENCE FOLLOWING THE COURSE ALONG SAID SOUTHERLY LINE OF DEDICATION; THENCE SOUTHEASTERLY ALONG A NON-TANGENT ARC HAVING A RADIUS OF 1178.916 FEET, AN ARC LENGTH OF 314.39 FEET (314.65 FEET PER DOCUMENT R71-32454) AND A CHORD BEARING OF SOUTH 81 DEGREES 37 MINUTES 14 SECONDS EAST TO THE WEST LINE OF THE EAST 80.00 FEET OF SAID NORTHEAST QUARTER; THENCE SOUTH 00 DEGREES 08 MINUTES 25 SECONDS EAST, ALONG SAID WEST LINE, A DISTANCE OF 8.88 FEET; THENCE SOUTH 89 DEGREES 50 MINUTES 52 SECONDS WEST, A DISTANCE OF 62.77 FEET TO A TANGENT ARC; THENCE WESTERLY ALONG AN ARC HAVING A RADIUS OF 6620.00 FEET, AN ARC LENGTH OF 247.29 FEET, AND A CHORD BEARING OF NORTH 89 DEGREES 04 MINUTES 56 SECONDS WEST, TO THE WEST LINE OF THE EAST 390.00 FEET OF SAID NORTHEAST QUARTER; THENCE NORTH 00 DEGREES 08 MINUTES 25 SECONDS WEST ALONG SAID WEST LINE, A DISTANCE OF 50.76 FEET TO THE POINT OF BEGINNING, IN WILL COUNTY, ILLINOIS.



## BASIS OF BEARINGS

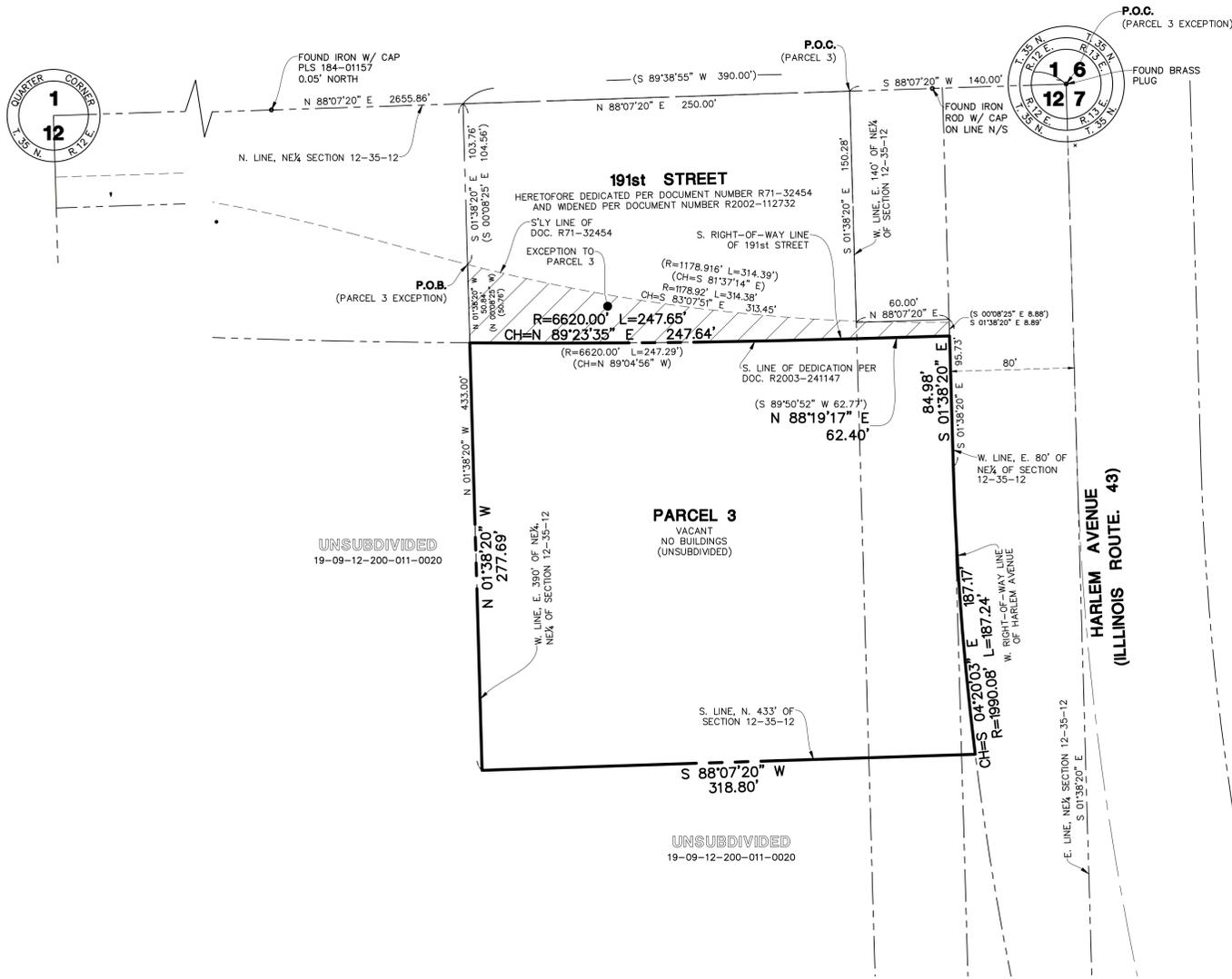
BEARINGS ARE BASED UPON THE ILLINOIS STATE PLANE COORDINATE SYSTEM OF 1983, EAST ZONE, ADJUSTED TO GROUND VALUES, AS ESTABLISHED BY REAL TIME KINEMATIC (RTK) GPS METHODS

## LEGEND

- = EX. PROPERTY LINE
- = EX. SECTION LINE
- - - = EX. EASEMENT LINE
- (0.00) = RECORD DIMENSION
- 0.00 = LOT DIMENSION
- N,S,W,E = NORTH, SOUTH, WEST, EAST
- P.O.C. = POINT OF COMMENCEMENT
- P.O.B. = POINT OF BEGINNING

## SURVEYED AREA

PARCEL 1: 234,739 SQUARE FEET (5.389 ACRES ±)  
PARCEL 2: 111,617 SQUARE FEET (2.562 ACRES ±)  
PARCEL 3: 85,411 SQUARE FEET (1.961 ACRES ±)  
TOTAL: 431,767 SQUARE FEET (9.912 ACRES ±)



### GENERAL NOTES:

1. THIS SURVEY IS SUBJECT TO MATTERS OF TITLE WHICH MAY BE REVEALED BY A CURRENT TITLE REPORT.
2. DISTANCES ARE MARKED IN FEET AND DECIMAL PLACES THEREOF.
3. NO DIMENSION SHALL BE ASSUMED BY SCALE MEASUREMENT HEREON.
4. THERE MAY BE ADDITIONAL TERMS, POWERS, PROVISIONS AND LIMITATIONS CONTAINED IN AN ABSTRACT DEED, LOCAL ORDINANCES, DEEDS, TRUSTS, COVENANTS OR OTHER INSTRUMENTS OF RECORD.
5. COMPARE ALL POINTS BEFORE BUILDING BY SAME AND IMMEDIATELY REPORT ANY DISCREPANCIES.

SHEET <b>1</b> OF <b>2</b> ADTP	PROJ. MGR.: <b>WWW</b> PROJ. ASSOC.: <b>SJP</b> DRAWN BY: <b>LWD</b> DATE: <b>02/13/15</b> SCALE: <b>1" = 50'</b>	<b>SOUTHWEST CORNER OF 191st STREET &amp; HARLEM AVENUE</b>  <b>TINLEY PARK, IL</b>  <b>PLAT OF SURVEY</b>	<p><b>Manhard</b> CONSULTING LTD</p> <p>700 Springer Drive, Lombard, IL 60148 ph: 830.881.8800 fx: 830.881.8885 manhard.com                  Civil Engineers • Surveyors • Water Resource Engineers • Water &amp; Wastewater Engineers                  Construction Managers • Environmental Scientists • Landscape Architects • Planners</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>REVISIONS</th> <th>DRAWN BY</th> </tr> </thead> <tbody> <tr> <td>02/18/15</td> <td>REVISED HARLEM ROW LINE</td> <td>WWW</td> </tr> </tbody> </table>	DATE	REVISIONS	DRAWN BY	02/18/15	REVISED HARLEM ROW LINE	WWW
DATE	REVISIONS	DRAWN BY								
02/18/15	REVISED HARLEM ROW LINE	WWW								

PREPARED FOR:  
AETHA DEVELOPMENT  
200 WEST MADISON STREET, SUITE 4200  
CHICAGO, ILLINOIS 60606

# PLAT OF SURVEY



## BASIS OF BEARINGS

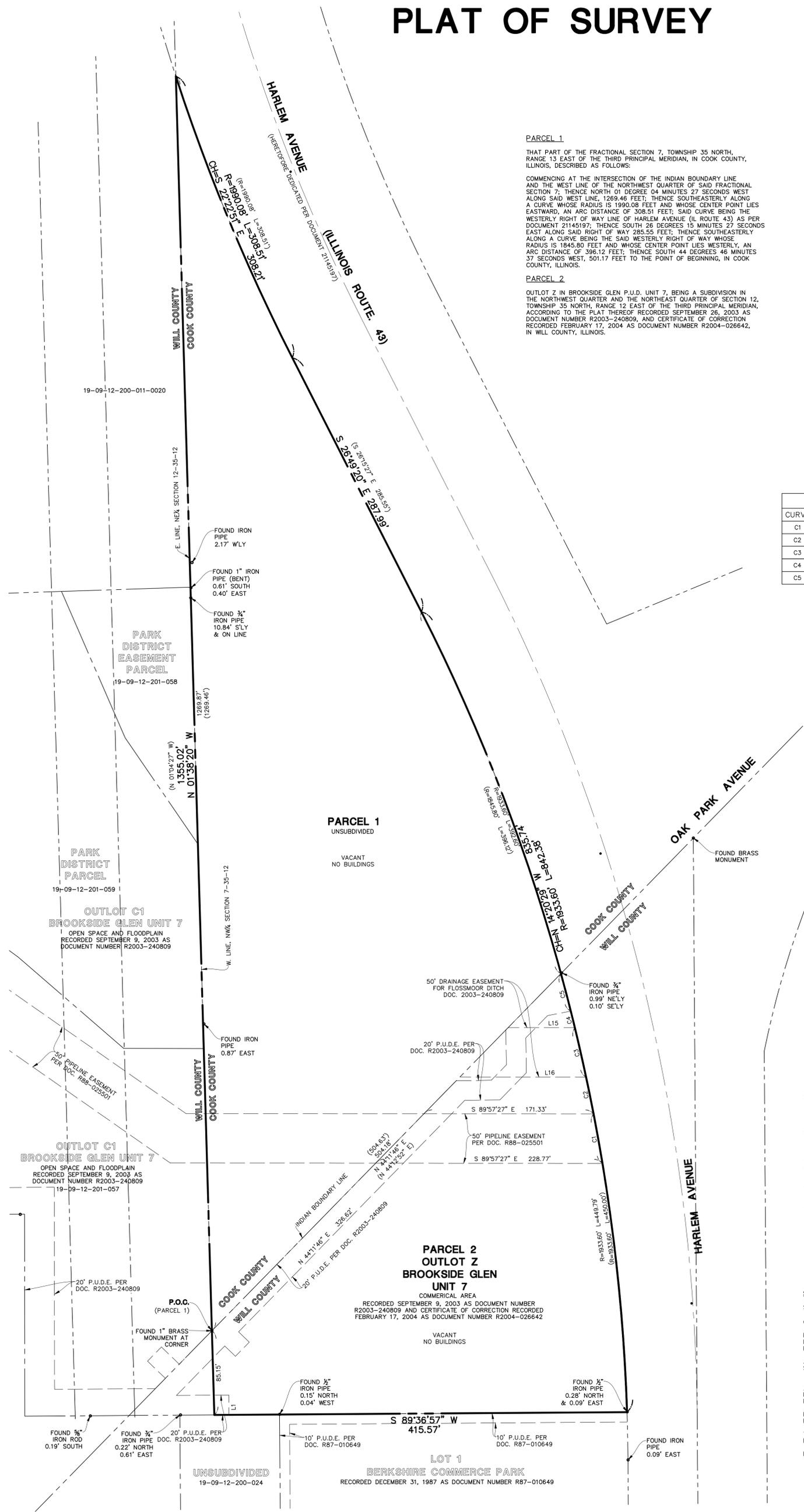
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- P.O.C. = POINT OF COMMENCEMENT
- P.O.B. = POINT OF BEGINNING
- P.U.D.E. = PUBLIC UTILITY & DRAINAGE EASEMENT

CURVE TABLE				
CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	1933.60'	50.80'	N10°06'57"W	50.80'
C2	1933.60'	38.03'	N11°25'54"W	38.03'
C3	1933.60'	51.28'	N12°45'17"W	51.27'
C4	1933.60'	17.16'	N13°46'07"W	17.16'
C5	1933.60'	39.35'	N14°36'21"W	39.34'

LINE TABLE		
LINE	BEARING	LENGTH
L1	S00°23'03"E	20.00'
L15	S89°57'27"E	67.18'
L16	S89°57'27"E	127.08'



- GENERAL NOTES:**
- THIS SURVEY IS SUBJECT TO MATTERS OF TITLE WHICH MAY BE REVEALED BY A CURRENT TITLE REPORT.
  - DISTANCES ARE MARKED IN FEET AND DECIMAL PLACES THEREOF.
  - NO DIMENSION SHALL BE ASSUMED BY SCALE MEASUREMENT HEREON.
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  - COMPARE ALL POINTS BEFORE BUILDING BY SAME AND IMMEDIATELY REPORT ANY DISCREPANCIES.
  - CURVE AND LINE TABLES BASED ON MEASURED COORDINATE SYSTEM.

**SURVEYORS CERTIFICATE**

STATE OF ILLINOIS )  
                          )SS  
COUNTY OF DUPAGE)

I, WILLIAM W. WRIGHT, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT THIS PLAT AND THE SURVEY UPON WHICH IT IS BASED HAS BEEN PREPARED FOR THE USES AND PURPOSES HEREIN SET FORTH.

ALL DIMENSIONS ARE GIVEN IN FEET AND DECIMALS THEREOF, GIVEN UNDER MY HAND AND SEAL THIS 13th DAY OF FEBRUARY, A.D. 2015.

**FOR REVIEW ONLY**

ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3502  
LICENSE EXPIRES NOVEMBER 30, 2016

DESIGN FIRM PROFESSIONAL LICENSE NO. 184003350  
LICENSE EXPIRES APRIL 30, 2015

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

DATE OF FIELD SURVEY: FEBRUARY 11, 2015



SHEET <b>2 OF 2</b> ADTP	PROJ. MGR.: <b>WWW</b>	<b>SOUTHWEST CORNER OF 191st STREET &amp; HARLEM AVENUE</b> <b>TINLEY PARK, IL</b> <b>PLAT OF SURVEY</b>
	PROJ. ASSOC.: <b>SJP</b>	
	DRAWN BY: <b>LWD</b>	
	DATE: <b>02/12/15</b>	
SCALE: <b>1" = 50'</b>		

**Manhard CONSULTING LTD**

700 Springer Drive, Lombard, IL 60114 • ph: 830.881.8800 • f: 830.881.8866 • manhard.com  
Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers  
Construction Managers • Environmental Scientists • Landscape Architects • Planners

DATE	REVISIONS	DRAWN BY
02/18/15	REVISED HARLEM ROW LINE	WWW



# PLAN COMMISSION STAFF REPORT

JULY 2, 2015

## AETNA RETAIL

7201 191<sup>st</sup> Street

### Applicant

Mr. George Hanus,  
Aetna Development

### Property Location

7201 191<sup>st</sup>

### Parcel Size

85,415 SF ±  
1.96 ac ±

### Zoning

R-1

### Approval Sought

Site Plan,  
Rezoning from R-1 to B-3  
(General Business and  
Commercial),  
Plat approval granting  
cross access easements

### Requested Action

Assign two Commissioners  
to meet with the Applicant  
in a Work Session.

### Project Planner

Paula J. Wallrich, AICP  
Deputy Planning Director



## EXECUTIVE SUMMARY

The Applicant, Mr. George Hanus of Aetna Development, seeks approval for the rezoning of a 1.96 acre vacant parcel located at the southwest corner of Harlem Avenue and 191<sup>st</sup> Street. The property was zoned R-1 upon its annexation in 2010. The Applicant is requesting rezoning to B-3, General Business and Commercial Zoning District, for purposes of constructing a 16,722 SF multi-tenant retail structure. The property is located in the Urban Overlay District. A national furniture retailer is the only tenant identified by the Applicant at this time. The Comprehensive Plan identifies the property as commercial.

The project meets all Zoning District requirements; therefore the development will only require a Site Plan review by the Commission in addition to the rezoning application. Cross-access easements have also been provided; the Commission will have a plat of easement presented for their approval. The Applicant has revised earlier submittals in response to Staff comments which reduced their proposal of two (2) structures to one (1) structure located adjacent to Harlem Avenue. This is consistent with the Overlay District's design intent to allow the architecture to dominate the streetscape rather than parking fields. The proposed architecture meets masonry requirements and benefits from the additional signage allowances provided for structures that provide greater than 50% transparency on facades facing parking fields. Landscaping issues have been primarily resolved with some minor plant choice issues that are highlighted later in the report; however Staff believes the proposed plan generally meets the overall design intent of the Landscape Ordinance.

The Applicant is working with Staff to finalize a Development Agreement which will resolve outstanding Site Plan related issues dealing with access on 191<sup>st</sup> Street and the burial of utility lines. Staff is recommending the Site Plan approval be conditioned upon approval of the Development Agreement by the Village Board.

**SUMMARY OF OPEN ITEMS**

OPEN ITEM	SUGGESTED RESOLUTION
1. Coordinate burial of utility lines along 191st with property development to the west.	Address in Development Agreement
2. Due to engineering concerns the right-out egress lane on 191 <sup>st</sup> Street will be eliminated upon provision of cross access to the west or south.	Development Agreement will outline the elimination of the egress on 191 <sup>st</sup> Street once cross access is obtained.
3. Cross -access easement will need to be platted to west and south properties.	Provide plat of easement for cross access.
4. Information on HVAC units and parapet is needed to determine adequate screening from public view. An architectural detail of trash enclosures has not been provided.	Provide information on HVAC and trash enclosures.
5. Minor landscape design and plant choice issues need to be addressed; location of street trees needs to be determined and conflict between cross access easement and trees must be resolved.	Revise Landscape Plan
6. The location and design of the ground mounted sign should be addressed.	Revise Site Plan for 10' sign setback; eliminate or redesign ground sign.
7. Engineering concerns have been identified and must be addressed prior to final engineering approval.	Submit revised engineering.

**EXISTING SITE**



The subject property is an undeveloped 1.96 acre parcel located just south of Brookside Marketplace Shopping Center at the southwest corner of 191<sup>st</sup> and Harlem Avenue. The property slopes over 7' from the northwest corner to the southeast corner where it drains into an isolated wetland. The northeast corner of the property is approximately 6-7' below the grade of adjacent roadways.

The property is encumbered with 100 year and 10 year floodplain contours. A drainage ditch runs through the adjacent parcel to the west. Overhead power lines border the north property lines obscuring clean sight lines to the property. The Will County Department of Transportation has jurisdiction of 191<sup>st</sup> Avenue; Illinois Department of Transportation controls Harlem Avenue. Both roadways have four-lane cross sections; 191<sup>st</sup> Street has double turn lanes. 191<sup>st</sup> Street has a non-mountable median; Harlem Avenue has a mountable median.

The Applicant owns a parcel south of the subject parcel (approximately 6 acres) which will provide the fill for land balancing the site and raising the grade, especially at the northeast corner of the parcel. Per the proposed mass grading plan the northeast corner of the property will be



filled five (5) feet or greater to an elevation approximately equal to the adjacent roadways, thus improving visibility to the site. To accommodate the leveling of the site, two (2) retaining walls have been proposed; one along the west property line and the other along the south property line. Each wall will be approximately five (5) feet in height.

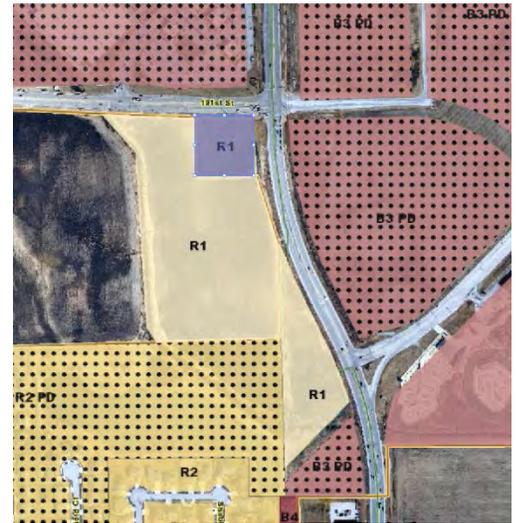
### PROPOSED USE & COMPLIANCE WITH THE COMPREHENSIVE PLAN

The Applicant proposes to construct a 16,722 S.F. multi-tenant retail structure. There are seven tenant spaces defined, however the Applicant has stated that he wishes to maintain flexibility with the tenant spaces to accommodate the market. A national furniture retailer is the only tenant identified at this time.

The Village of Tinley Park Comprehensive Plan (2000) identifies this site as commercial; therefore, the proposed development is in accord with the Village’s Comprehensive Plan.

### ZONING & NEARBY LAND USES

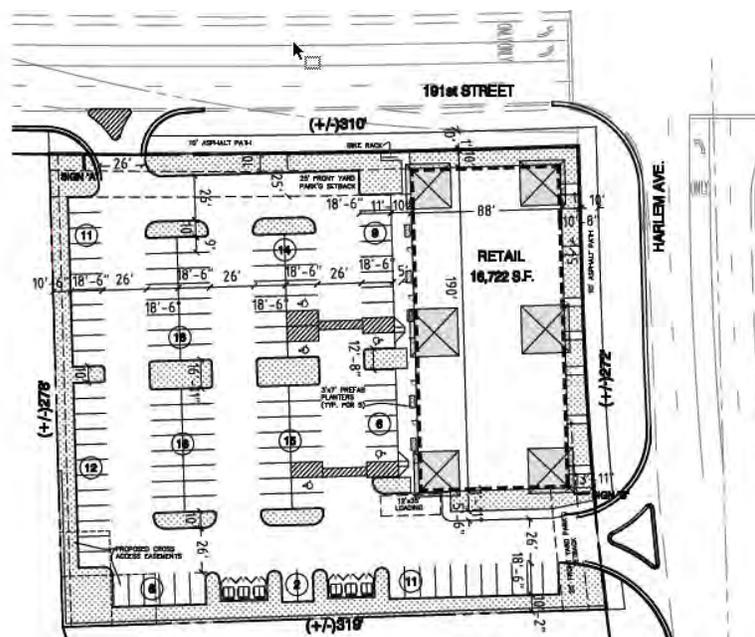
The subject property was zoned R-1, Single-Family Residential, upon annexation. The Applicant is requesting rezoning of the property to B-3, General Business and Commercial District. The property is located in the Urban Overlay District (UOD) and must therefore respect the guidelines of that District regulating site planning, architecture, parking, signage and circulation.



The intent of the Urban Overlay District is to create development patterns that accommodate the automobile, but are primarily designed to promote non-motorized and public transportation movements to, within, and among properties.

The proposed site plan meets the setback requirements of the Urban Overlay District and minimum lot size requirements of the B-3 Zoning District. It also meets the design regulations regarding architecture, site plan and access with the exception as noted below under ‘circulation’. The property to the west and south are zoned R-1, which is the zoning classification assigned upon annexation. The properties to the north and east are zoned B-3 PUD.

### GENERAL SITE PLAN REVIEW



**OVERHEAD UTILITY LINES**

The overhead utility lines along 191<sup>st</sup> Street obscure views onto the site. The Applicant has agreed to the burial of these lines however Staff has recommended that the Applicant work with the property to the west to coordinate the burial of the lines when that property develops. This issue will be addressed in the Development Agreement which is currently being drafted.

***Open Item #1: Coordinate burial of utility lines along 191<sup>st</sup> with property development to the west.***

**SETBACKS**

Per the Overlay District design parameters the proposed structure has been sited along Harlem Avenue with over 1/3 of the length of the property, excluding driveways, occupied by the façade of the building. As a corner parcel, there are two (2) front yards; each has been provided with a front yard setback less than the prescribed 20’ maximum. The side and rear yard setbacks are also in conformance. Parking has met the front, side and rear yard setbacks as well.

Building Setbacks		
Front Yard	20’ max	Ⓐ
Side Yard	10’ min	Ⓑ
Rear Yard	10’ min	Ⓒ
Parking Setbacks		
Front Yard	25’ min	Ⓓ
Side Yard	10’ min	Ⓔ
Rear Yard	0’	Ⓕ
Outdoor Dining Setbacks		
All Yards	5’	
Accessory Structures		
Front Yard	20’ max	
Side Yard	5’	
Rear Yard	5’	

**PARKING/CIRCULATION**

The proposed parking lot meets Ordinance dimension requirements for the parking stalls and drive aisles. Without a defined end user a retail parking ratio of 1/150 SF has been applied resulting in a requirement of 112 parking spaces; 118 spaces have been provided. Per Staff’s request, the Applicant has limited access to right-in/right-out (R-I/R-O) on both frontages. The access on 191<sup>st</sup> has been located at the far western property due to concerns identified by the Village’s consulting engineer who is not recommending access on 191<sup>st</sup> Street. Northbound egress from the site at 191<sup>st</sup> Street requires a merge across four (4) lanes of traffic with storage bays for dual left turn lanes at 420’ (the subject property has only a 310’ frontage on 191<sup>st</sup> Street). The Applicant has agreed to eliminate the egress on 191<sup>st</sup> Street once cross-access to the west or south is provided. This issue will be finalized in the Development Agreement.

***Open Item #2: Due to engineering concerns the right-out egress lane on 191<sup>st</sup> Street will be eliminated upon provision of cross access to the west or south which will be legitimized through a Development Agreement.***

Cross access easements will be provided at the southwest corner of the property for the adjacent properties to the south and west. These easements will be platted and made a matter of record upon final approval by the Village Board.



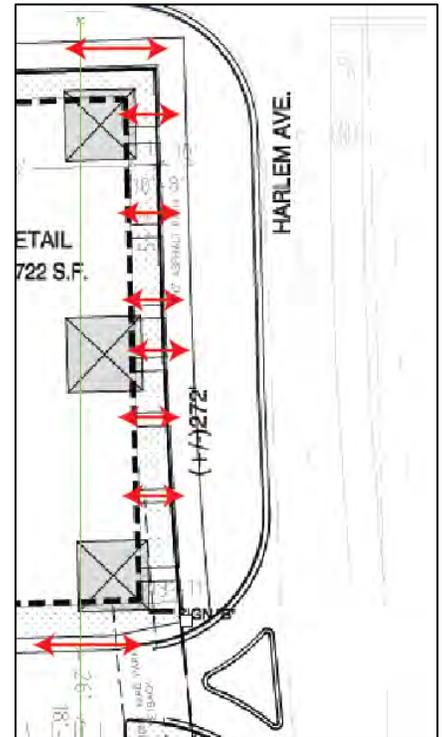
***Open Item #3: Cross -access easement will need to be platted to west and south properties.***

The Overlay District also states “each site must provide opportunities for the public to bike, walk, drive, or take public transportation to, among, and within the development while minimizing the conflicts between the these methods..” It states further “non-

motorized transportation improvements shall be completed on and around the property as outlined in the Village’s Active Transportation Plan, as amended.”

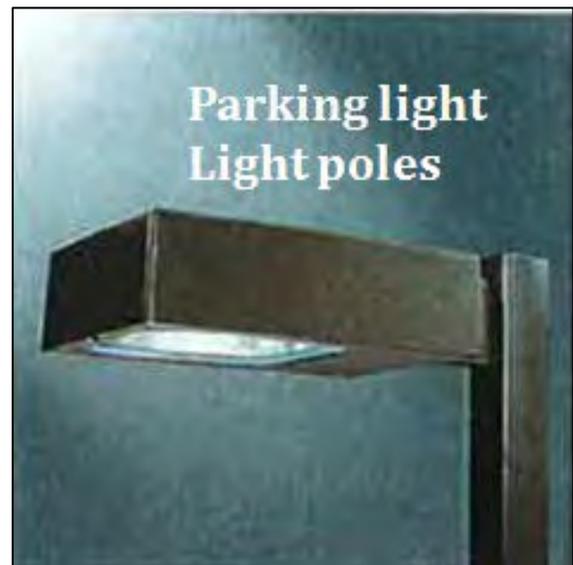
The Active Transportation Plan adopted in 2012 identifies Class I Multiuse Trails (10’ asphalt) on both ROW frontages. The Applicant has provided 10’ wide asphalt bike trails on both 191<sup>st</sup> Street and Harlem Avenue. The path on 191<sup>st</sup> will be installed after the utility lines are buried; a cash-in-lieu payment will be paid as part of the Development Agreement. In addition, a bike rack has been provided at the north end of the project.

Per the Urban Overlay District, direct access must be provided into the buildings from public sidewalks via a walkway. In addition each development shall include an approved pedestrian circulation system (sidewalks, pavement striping, etc.) that provides pedestrian linkages to and from public transportation, among buildings, among parking lots and buildings, and among adjacent uses. The Applicant has complied with this requirement and has provided sidewalks to each tenant space. It is unclear at this time whether these storefronts (on Harlem) will be utilized. If they are not used, signage on this façade is reduced by 25%. This will need to be analyzed as the tenant spaces are leased.



**LIGHTING**

There are six (6) pole lights in the main parking lot, and two (2) at the entrance off of Harlem. The parking lot lights are metal halide and are mounted on 27.5 foot poles. There are also wall mounted lights provided on all sides of the building; ten (10) on both the east and west facades, four (4) on the north and south facades. The photometric plan meets the Village requirement of .5 foot candles at the property line. Cut sheets are provided for the parking light lighting as well as the wall lighting for the new structure.



## ARCHITECTURE



East and West Facades



North Facade



South Facade

The Applicant has worked closed with Staff to develop an attractive masonry multi-tenant retail center which provides architectural interest on all four sides. The tower elements have stone accents, brackets and stone medallions to provide architectural interest. The middle tower unit has been provided with a clerestory window with obscured glass which provides a perception of depth to the tower. A variation in height has been provided with the tower elements (that are each four sided); the middle element is taller and establishes an architectural hierarchy for the dominant east and west facades. The standing seam canopies provide articulation on all four sides and a color break from the solid masonry walls. The color rendering does not adequately depict the coloration of the brick which provides attractive subtle color modulations. A material board will be presented at the Plan Commission meeting.



All four elevations meet the masonry requirements; the percentage of windows on all four sides exceeds 50% and therefore additional wall signage will be allowed (discussed under signage).

The Applicant has stated that the HVAC units will be completely screened from public view on all four sides of the structure. Staff has requested details on the height of the units and the height of the parapet walls to verify that the units are adequately screened.

The trash enclosures are enclosed by 6' brick walls with solid wood gates. Staff has requested an architectural detail be provided for review.

***Open Item #4: Information on HVAC units and parapet is needed to determine adequate screening from public view. An architectural detail of trash enclosures has not been provided.***

## LANDSCAPING

The intent of the Village's Landscape Ordinance is to utilize landscape materials to enhance proposed development, soften the impact of parking areas, provide a buffer between land uses, and create an overall quality aesthetic for the site. Bufferyards are required on all property edges per Village Ordinance. The Overlay District setbacks limit the width of the bufferyards; however the intent of the ordinance must still be met. Landscape requirements for minimum parking lot landscape coverage as well as screening and foundation plantings must also be addressed.

Staff has worked with the Applicant on the Landscape Plan and several revisions have provided plans more in compliance with the intent of the Landscape Ordinance. Per Staff’s request additional plantings have been provided around the foundation along with increased evergreen plant material for screening purposes. Two (2) interior parking lot landscape islands have been provided that are 17’ in width exceeding ordinance width requirements of 10’. This allows for the planting of two (2) trees and a variety of ground cover, ornamental grasses and shrubbery.

The Landscape Ordinance allows for the planting of 50% of the required bufferyard when adjacent to a vacant parcel, therefore the west and south property lines have provided landscape material at this level. Street trees may be compromised along these major commercial corridors, therefore Staff has encouraged the Applicant to plant the required number of street trees (24) on private property rather than the right-of-way. Discussions continue with the Applicant regarding the appropriate location for these trees. Additional trees along the building façade is suggested. Staff has also expressed some concern regarding the potential conflict between the future cross access easements and planting of trees.

LOCATION	REQUIRED BUF YD WIDTH	PROPOSED BUF YD WIDTH	BUF YD LENGTH	REQ'D UNITS	PRO-VIDED UNITS	DEFICIT	COMMENT
East Property Line	C/10'	10'	47'	3 CT 1 US 10 SH	3 CT 1 US 39 SH	0 CT 0 US +29 SH	
West Property Line	C/10'	10'	278'	7 CT 3 US 28 SH	7 CT 3 US 35 SH	0 CT 0 US +7 SH	½ requirement due to adjacent vacancy
North Property Line	C/10'	10'	175'	9 CT 4 US 35 SH	9 CT 4 US 38 SH	0 CT 0 US +3SH	
South Property Line	C/10'	10'	298'	7 CT 3 US 30 SH	7 CT 3 US 81 SH	0 CT 0 US +51 SH	½ requirement due to adjacent vacancy
Prkwy				24 CT	0 CT	-24 CT	Proposed off ROW
<b>TOTAL</b>						<b>-24 CT</b> <b>-0 US</b> <b>+90 SH</b>	

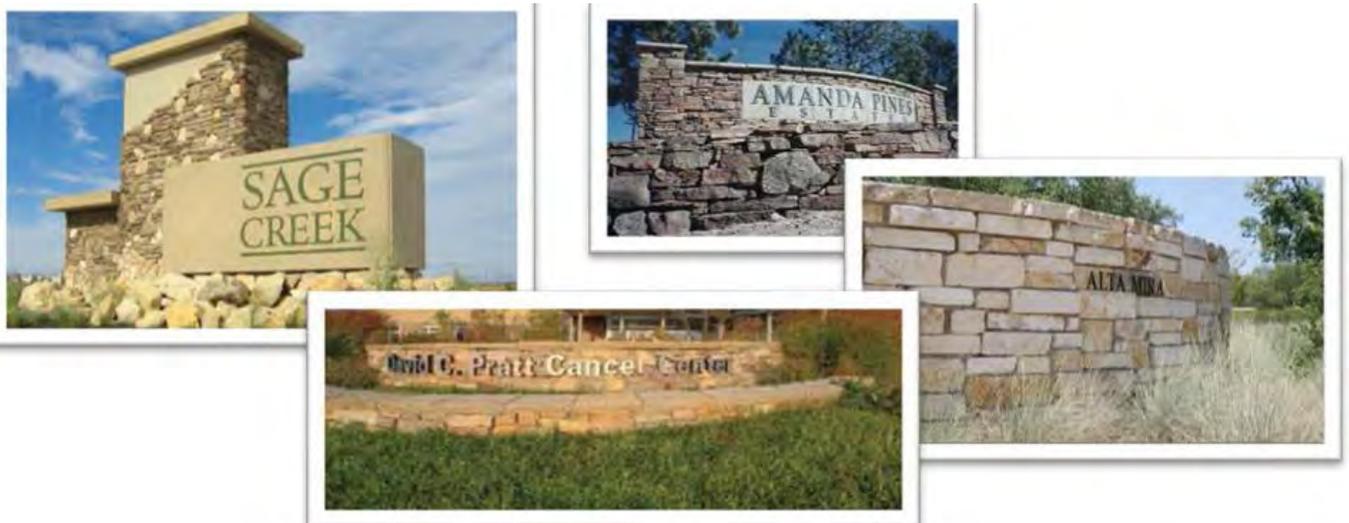
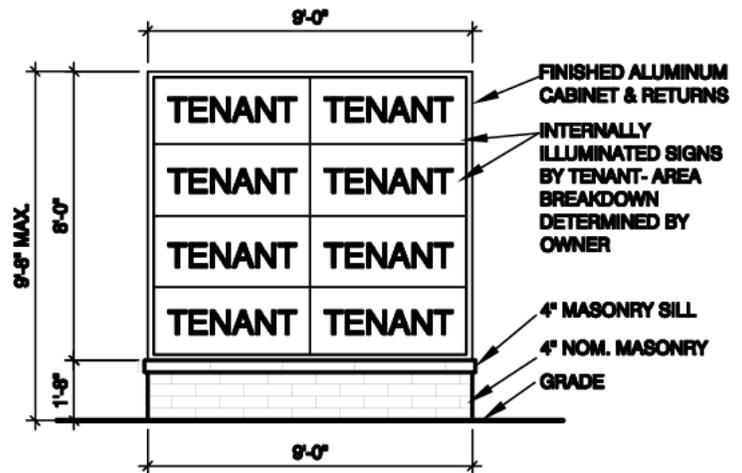
CT= Canopy Tree  
 US= Understory Tree  
 SH=Shrubs  
 EV=Evergreen

***Open Item #5: Minor landscape design and plant choice issues need to be addressed; location of street trees needs to be determined and conflict between cross access easement and trees must be resolved.***

## SIGNAGE

The Applicant has provided a ‘Unified Sign Plan’ for their future tenants. No formal sign submittal has been provided since the tenants are unknown. The merit of a Unified Sign Plan is the consistency in design and materials for the signs it provides. Staff applauds this initiative and encourages the Applicant to support attractive one color signs or minimize the number of colors allowed in the wall signs. Some of the Unified Sign Plan conflicts with Village Sign regulations; however the Plan also notes that final Village approval is required on all signs. The Unified Sign Plan is not part of the review approval for this project.

The ground mounted sign is proposed as a 9’8” internally illuminated box sign with 8 individual sign panels. Staff has expressed concern about the design of the ground mounted sign and suggests either eliminating the ground mounted sign or install a ground sign with just the name of the center as depicted below. This is a high traffic corner with 4-lane cross sections in both directions. The advantage of the Urban Overlay District is locating the buildings closer to the street where wall signage is easily read. The ground mounted sign as proposed may be difficult to read at only 24” in height per panel. In addition, the proposed location on the site plan conflicts with line of sight regulations in the Village Code requiring a minimum 10’ setback.



The Urban Overlay District provides some sign incentives if 50% or greater of the building elevation is transparent. The proposed structures exceed the 50% threshold on all four sides of the building and therefore the façade facing the parking will be allowed equal signage to that provided on the Harlem Avenue façade. In addition, if the east façade entrances are operational, wall signage can be provided at 100% of the allowable area, otherwise a 25% reduction in area is imposed.

**Open Item #6: The location and design of the ground mounted sign should be addressed.**

## **STAFF REVIEW: ENGINEERING**

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The Village Engineer has provided a list of concerns to the Applicant. Final engineering approval will be required prior to issuance of a Building Permit. Engineering concerns which impact the site plan are listed below:

1. Street light poles need to be relocated along 191<sup>st</sup> Street. This work must be in accordance with Village standards and detailed plans submitted during final engineering. The Village does not allow splicing.
2. Much of this site is in floodplain, a CLOMR must be received from FEMA prior to any construction on the site.
3. The 10 foot sidewalk along 191<sup>st</sup> Street will be provided at a later date per the development agreement; however, all the work to prepare for this path including street light relocation and grading must be done at the time of this retail development.
4. The stormwater management and compensatory storage calculations appear to meet Village standards. Full review and comment will be during final engineering when all calculations are received. Agreements/arrangements with the Park District for use of their land as well as maintenance agreements must be received and reviewed by the Village prior to issuing any permits.
5. Retaining walls must be designed and calculations signed and sealed by an Illinois structural engineer provided.

***Open Item #7: Engineering concerns have been identified and must be addressed prior to final engineering approval.***

## **STAFF REVIEW: FIRE DEPARTMENT**

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All Fire Department items have been addressed.

## **RECOMMENDATION/RECOMMENDED MOTION**

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Assign two Commissioners to meet with the Applicant in a work session with Staff.

**LIST OF REVIEWED PLANS**

**Aetna Retail Development – 191<sup>st</sup> & Harlem Ave.  
LIST OF SUBMITTED PLANS**

Submitted Sheet Name		Prepared By	Date On Sheet
1	Letter of Transmittal	KMA	07/22/15
1 of 6	Unified Sign Plan	KMA	06/26/15
2 of 6	Unified Sign Plan	KMA	06/26/15
3 of 6	Unified Sign Plan	KMA	06/26/15
4 of 6	Unified Sign Plan	KMA	06/26/15
5 of 6	Unified Sign Plan	KMA	06/26/15
6 of 6	Unified Sign Plan	KMA	06/26/15
1A	Preliminary Floor Plan	KMA	06/26/15
2	Elevations	KMA	06/26/15
3	Landscape Development Plan	KMA	07/16/15
4	Landscape Details	KMA	07/16/15
5	Photometric Plan	KMA (COOPER)	05/13/15
1 of 14	Title Sheet	MANHARD	07/16/15
2 of 14	Existing Conditions and Demolition Plan	MANHARD	05/14/15
3 of 14	Site Dimensional and Paving Plan	MANHARD	07/16/15
4 of 14	Mass Grading Plan - Overall	MANHARD	07/16/15
5 of 14	Mass Grading Plan – Oak Park Ave.	MANHARD	05/14/15
6 of 14	Grading Plan	MANHARD	07/16/15
7 of 14	Utility Plan	MANHARD	07/16/15
8 of 14	Offsite Utility Plan	MANHARD	07/16/15
9 of 14	Soil Erosion and Sediment Control Plan	MANHARD	07/16/15
10 of 14	Soil Erosion and Sediment Control Plan Oak Park Avenue Lots	MANHARD	05/14/15
11 of 14	Soil Erosion and Sediment Control Details	MANHARD	05/14/15
12 of 14	Construction Details	MANHARD	05/14/15
13 of 14	Construction Details	MANHARD	05/14/15
14 of 14	Construction Specifications	MANHARD	05/14/15
1 of 5	Lighting Cut Sheet	COOPER	02/24/15
2 of 5	Mounting Configurations	COOPER	02/24/15
3 of 5	Ordering Information	COOPER	02/24/15
4 of 5	Features and Specifications	LITHONIA	
5 of 5	WSR Metal Halide, High Pressure Sodium Wall Mounted	LITHONIA	

KMA      KMA & Associates  
MANHARD    Manhard Consulting Ltd

COOPER    Cooper Lighting  
LITHONIA    Lithonia Lighting

**KMA & ASSOCIATES, INC ARCHITECTS**1141 LAKE COOK ROAD  
DEERFIELD, ILLINOIS  
(847) 945-6869SUITE F  
60015  
Fax (847) 945-0284

## LETTER OF TRANSMITTAL

DATE: 7/24/15	JOB NO.: 0503
RE Aetna Development	
Proposed Retail Development	
SWC 191 <sup>st</sup> Street and Harlem Avenue	
Tinley Park, Will County, IL	

To:

**Paula Wallrich**  
**Planning Department**  
**Village of Tinley Park**  
**16250 S. Oak Park Avenue**  
**Tinley Park, Illinois 60477**

WE ARE SENDING YOU  Attached  Under separate cover via UPS the following items:

COPIES	DATE	NO.	DESCRIPTION
15	5/13/15		Photometric Site Lighting Plan & Pole/Base Detail – Sheet 5 – 11x17 B&W <i>(Previously submitted, reviewed &amp; accepted as compliant with Village 5/28/15)</i>
4	5/13/15		Photometric Site Lighting Plan & Pole/Base Detail – Sheet 5 – 24x36 B&W <i>(Previously submitted, reviewed &amp; accepted as compliant with Village 5/28/15)</i>
15	3/12/15		Lighting Product Sheets – 5 Sheets - 8.5x11 Color <i>(Previously submitted &amp; reviewed 3/23/15 without comment)</i>

## REMARKS

**Attached are the additional documents requested. We hope to keep moving forward and that the large amount of resources, paperwork & information submitted and reviewed, is finite.**

**Thank you for all your efforts during this process.**

**Please contact us with any questions or requests for additional copies.**

COPY TO: A. Connolly, G. Hanus, J. Hanus, A. Ragona, T. Richard, J. Murphey,

D. Mangurten, M. Wiegel, D. McCallum

SIGNED: Peter Pocijowski



# PLAN COMMISSION STAFF REPORT

AUGUST 20, 2015

## CELLULAR TOWER, VERIZON- 16640 S. 66<sup>TH</sup> STREET CO-APPLICANT- VILLAGE OF TINLEY PARK

### Applicant

Jim Auld, on behalf of  
Verizon Wireless  
Personal  
Communications, LC.

Village of Tinley Park

### Property Location

16640 66<sup>th</sup> Street.

### Parcel Size

3 acres ±

### Zoning

R-1, Single-Family  
Residential

### Approval Sought

Site Plan &  
Special Use

### Requested Action

Assign two Commissioners  
to meet with the Applicant  
in a Work Session.

### Project Planner

Paula J. Wallrich, AICP  
Deputy Planning Director

### **REVISIONS ARE NOTED IN RED** **EXECUTIVE SUMMARY**

Verizon has requested to co-locate their antennas on the existing 60' monopole cellular tower owned by SBA. The tower is located at 16640 S. 66<sup>th</sup> Street, on approximately 3 acres of property owned by the Village of Tinley Park. In addition to the 12 antennas requested by Verizon, the Village will also locate antenna for public safety purposes and for use by the SCADA system (Supervisory Control and Data Acquisition software system for real time data on the Village's water utility system). The Village is a co-applicant with Verizon.



The co-location of these antennas will require an extension of the existing tower to an overall height of 104'. The Verizon towers will be located at an elevation of 85' A.G.L., the Village's antenna will be located at 95' A.G.L. and the lightning rod will extend to the full height of the antenna at 104'. The maximum height for cellular towers is 100' unless specifically approved by grant of a Special Use Permit. The Village's consultant Max Machuta, MSC Municipal Services, has analyzed the coverage maps provided by Verizon and has determined that their requested antenna location would "ensure maximum coverage in a confined area" for Verizon users. The area targeted has a high residential population with limited coverage from Verizon's system for vehicle and in-house residential services.

Mr. Machuta's analysis for the SCADA antenna's reported that the Village has been investigating this area for antenna installation for over three years and that currently the Village's SCADA system is unreliable and expensive using the telephone landline network. He states that the installation of SCADA antenna at this location will fulfill the needs of the Village and improve the connections for the SCADA system at a cost savings to the Village.

As part of the proposed improvements a 250 SF equipment shelter will be constructed, the 6' PVC fence will be extended to completely enclose the new and the existing shelter, and additional landscaping will be provided to mitigate the impact of the proposed improvements.

Due to some administrative errors at SBA, the monopole extension was installed prior to any approvals and without a permit. There are no antennas erected, therefore the tower is not operational. Only the pole infrastructure is in place. It reflects the height of the proposed tower extension, absent the antennas.

## PLAN COMMISSIONER'S WORKSHOP

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Commissioner's Reidy and Mahoney were assigned to review open items for this project. Due to scheduling conflicts Commissioner Mahoney emailed his concerns to Staff for discussion at the meeting. Mr. Mahoney expressed concern regarding the ice bridge and requested information defending the proposal as the only construction alternative. He also expressed concern for the project starting without a permit. Mr. Mahoney requested a Verizon representative attend the public hearing to testify that this is a proven location necessary to improve their service. Jim Auld, representative for SBA, was present at the meeting. The following issues were discussed:

1. Painting of the eaves- what color? *Mr. Auld responded that the eaves have already been painted. He provided a photograph indicating that have been painted beige (which is the color recommended by Commissioner Reidy.)*
2. Limits of the asphalt needs to be indicate on plan. *Applicant agreed to extend limits of asphalt to fence line so that everything inside the fence is paved.*
3. Replace fence with landscaping on the south side of the Sprint shelter. *Applicant stated that due to the various access and utility easements on the property that it will be difficult to extend the fence along the south side of Sprint shelter. He further stated that it may compromise access to the shelter. The Applicant requested extending 8-10' tall Arborvitae along the entire south side of the Sprint shelter. Commissioner Reidy supported this proposal and a revised landscape plan will be submitted.*
4. Building material for the shelter. *Previous cell tower installations have provide brick faced equipment shelters. The Applicant is requesting a pebble aggregate finish consistent with the existing shelter on site (Sprint) that would be non-combustible and meet Building and Fire Department requirements/recommendations. It was noted that the Village Ordinance states that the shelter should be architecturally compatible with the surrounding buildings. Commissioner Reidy was comfortable with the aggregate exterior noting that it was consistent with the existing shelter on site and would be screened by a 6' fence and 8-10' evergreen landscaping.*
5. Ensure wall mounted light is not seen from outside of the fence. *Staff had noted the request to mount the light at an elevation less than the height of the fence (6') so that it would not be seen from outside the fence area. Mr. Auld noted that the shelters are prefabricated with the lights already mounted at 9'±. He noted that the light has a shield so that light only shines in a downward direction. Commissioner Reidy noted that the landscaping provides additional screening and would most likely not been seen from the roadway.*
6. Ice bridge. *Staff noted that previous cell tower installations have been required to bury cable connections between the shelter and tower rather than use an ice bridge. Mr. Auld proposed a modified ice bridge that would extend from the shelter 30" then run along the ground to the tower where it is raised to another partial ice bridge 30" in length. He noted that the cable running along the ground would also have an 'ice bridge' albeit only 6" off the ground. He noted that the cable and ice bridge that run along the ground encumber the utility of the space around the base of the tower and may become problematic in accessing the Village's equipment area. Staff discussed the aesthetics of the bridge and the desire to screen it from public view. It was noted that the Sprint facility used an ice bridge as well as the Village when they install their equipment. Staff stated that both the Sprint and the Village's ice bridges would be shorter than the one Verizon would need. There was considerable discussion regarding the ability to screen the ice bridge and it was decided that the partial ice bridge, as proposed by Verizon, would meet the intent of prior approvals,*

*yet recognize the unique situation of the subject site that already has an ice bridge and has the ability to screen the two 30" sections of the proposed modified ice bridge with the existing and proposed shelters, fence and landscaping.*

- 7. Arborvitae plantings close in height to existing evergreen screen. *The Applicant agreed to install 10' Arborvitae if possible, but no less than 8' in height.*

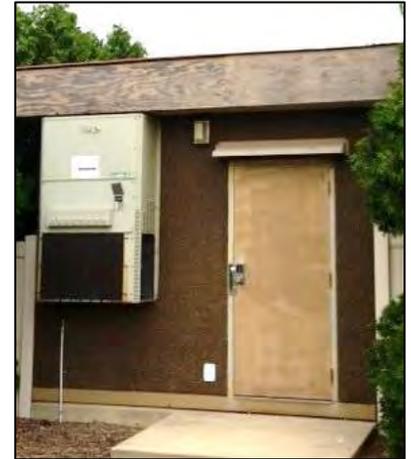
**SUMMARY OF OPEN ITEMS**

OPEN ITEM	SUGGESTED RESOLUTION
1. The Applicant has agreed to paint the eaves however has not specified a color.	The eaves have been painted beige.
2. The proposed plans do not indicate the limits of asphalt.	Plans will be revised to indicate all areas within the fence will be paved.
3. Staff questions whether a gate or sidewalk is needed on the south side of the proposed fence surrounding the Sprint facility.	Applicant will revise the landscape plan to indicate a solid evergreen fence along the south side of the Sprint shelter.
4. Conflicting information has been provided regarding the exterior of the proposed equipment shelter	Applicant will match existing shelter with a pebble aggregate non-combustible finish
5. Provide Photometrics or install the wall mounted light at a height lower than the adjacent fence.	Prefabricated shelter includes light already mounted at 9'
6. The Applicant has requested the use of an ice bridge.	Applicant will provide a modified ice bridge as proposed in current plans
7. Arborvitae plantings should be installed at 8' to match existing evergreen screen. Additional Arborvitae required along the south edge of the Sprint shelter and the southeast corner of the proposed Verizon shelter to complete the screen.	Applicant will revise landscape plan.
8. Shelter is required to be non-combustible construction.	Shelter will have a non-combustible aggregate finish
9. Outstanding Public Works and Engineering items must be addressed prior to issuance of a building permit.	Staff recommends making this a condition of the special use.

**EXISTING SITE**



The subject property is located at the northwest corner of 66<sup>th</sup> Avenue and 167<sup>th</sup> Street; it is owned by the Village and is occupied by two water tanks, a pump station, an existing 60' cellular tower, and equipment shed owned by Sprint Wireless. A 6' vinyl fence encloses the majority of the tower and equipment shed with evergreen plant material provided as a screen immediately adjacent to the fence. Additional landscaping has been planted on the site as depicted in the aerial; however some plant material no longer exists as shown with the red 'X'. The existing Sprint equipment shed (13' x 20') has a flat roof with an exposed aggregate exterior. The eaves of the shed are in need of painting. Sheet C-1 of the proposed plans indicates they will be painted; color unspecified.



The facility is accessed by a 13' wide asphalt drive from 66<sup>th</sup> Avenue. A concrete walk connects the south entrance of the Sprint equipment shed with the access drive.

**Open Item #1: The Applicant has agreed to paint the eaves however has not specified a color. The eaves have been painted beige.**

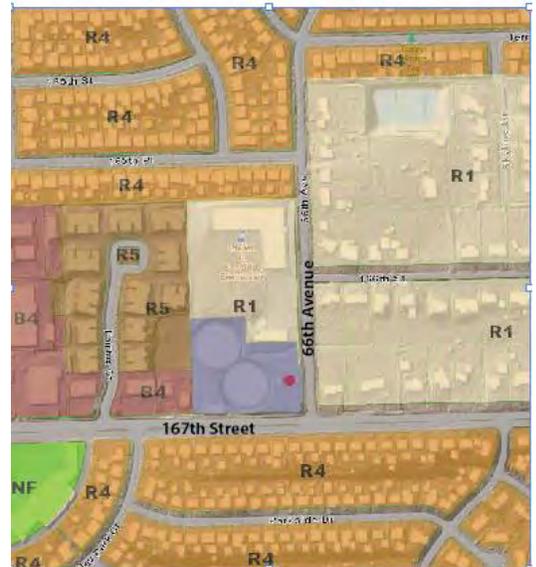
### ZONING & NEARBY LAND USES

The subject property is zoned R-1. The property is a corner lot with front yards on both 66<sup>th</sup> Avenue and 167<sup>th</sup> Street; the front yard setback is 40 feet. The proposed improvements meet the front yard setback requirements.

The property is bounded by Sandidge Elementary School property to the north; the school is currently vacant however there is a storage garage that is occupied at the south end of the school property. Single family detached residential property is located to the east and south, multi-family to the northwest and commercial office immediately to the west.

Per Section III.V.1. of the Village Zoning Ordinance, the preferred location for personal wireless service facilities is on an existing freestanding tower on Village owned property; therefore the proposed improvements meet the location preferences established in the Ordinance.

The Village ordinance establishes a maximum height for a freestanding tower of 100'. If the proposed height exceeds 100', a Special Use is required. Applications for Special Use approval of a personal wireless facility must demonstrate that the facility does not exceed the minimum height required to function satisfactorily. Per Section III.V.2. "Under any circumstances, personal wireless facilities shall not exceed the maximum height of one hundred (100) feet unless the Applicant can demonstrate that the elevation of the tower antenna(s) is the minimum height require to function satisfactorily." The Applicant has provided information supporting the requested height of the extended tower which is discussed in greater detail in the following section. In addition, the Village's consultant, Max Machuta of Municipal Services, has provided an analysis the Applicant's data, also discussed below..



The Applicant's Findings of Fact is attached for the Commission's review. Staff will also provide findings in accordance with the Special Use Standards Section X, J. 5. a-g. established in the Zoning Ordinance in the next Staff report.

## STATEMENT OF PURPOSE AND PROOF OF NEED

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Verizon has approached the Village in an effort to address coverage deficiencies in the vicinity of 167<sup>th</sup> Street. Due to a high consumer demand for continued and improved wireless service, Verizon has investigated opportunities to expand their network in Tinley Park. Increased demands for wireless voice and data services dictated the need to provide capacity relief of existing sites in the area. The collocation of the Verizon equipment on the SBA tower will improve both 'in building' and 'in vehicle' coverage for the area. Verizon provided the attached 'Propagation Map Analyses' that graphically demonstrates the need for the SBA site.

The first map "With-out Proposed N Tinley Site", shows current coverage. The color coding is on a progressive scale going from *Un-Reliable* coverage (white), to *Marginal* (red) to *Reliable On-Street* (yellow), *Un-Reliable In-Vehicle* (light green), to *Reliable In-Vehicle* (dark green) to *Un-Reliable In-Residence* (light blue) and then *Reliable In-Residence* (dark blue) coverage. Areas of dark blue that indicate *Reliable In-Residence* coverage also imply reliable in-vehicle and on-street coverage.

The propagation map indicates that current coverage without the proposed site is mostly light green indicating *Un-Reliable In-Vehicle* coverage. The goal for Verizon is to provide the area with most dark blue *Reliable In-Residence* coverage as possible. The second propagation map "With N Proposed Tinley Site", indicates an improved coverage converting a significant amount of the service area to dark blue *Reliable In-Residence* coverage.

Verizon's proposal includes a 25 foot tower extension to allow for the placement of their antennas at the 85 foot level. They have stated that collocating at a height of 85 provides for a larger area of desired increased *Reliable In-Residence* and *Reliable In-Vehicle* coverage in the area. Without the extension, the next elevation available for Verizon's antennas on the SBA tower would be at a lower elevation, at the 50 feet level. The last map compares coverage between the two elevation levels, with the 85' elevation indicating greater coverage which meet their needs to provide capacity offload to surrounding sites.

The Village's Technology Consultant, Max Macuta, has reviewed the pre and post simulation exhibits and has verified Verizon's need for locating antennas at 95' A.G.L. to ensure maximum coverage in a confined area. (Report is attached) Mr. Machuta has stated that the area targeted by Verizon has a high residential population with limited coverage from Verizon's system to vehicle and in-house residential services. As part of Machuta's analysis he compared the coverage studies with those issued by AT&T in September of 2014 and found them to be comparable with similar coverage indications.

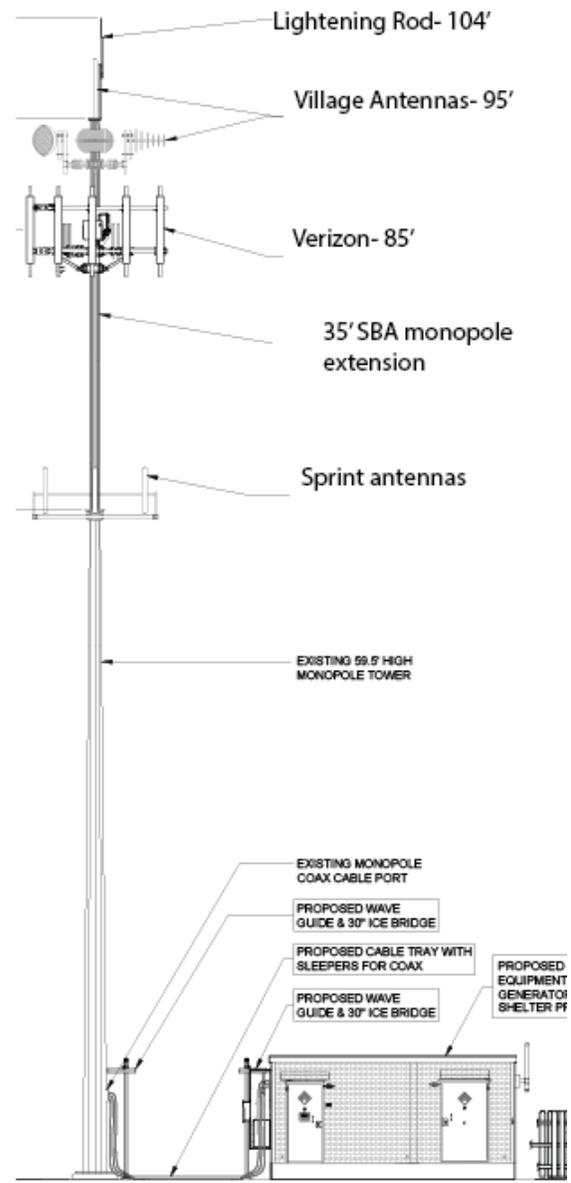
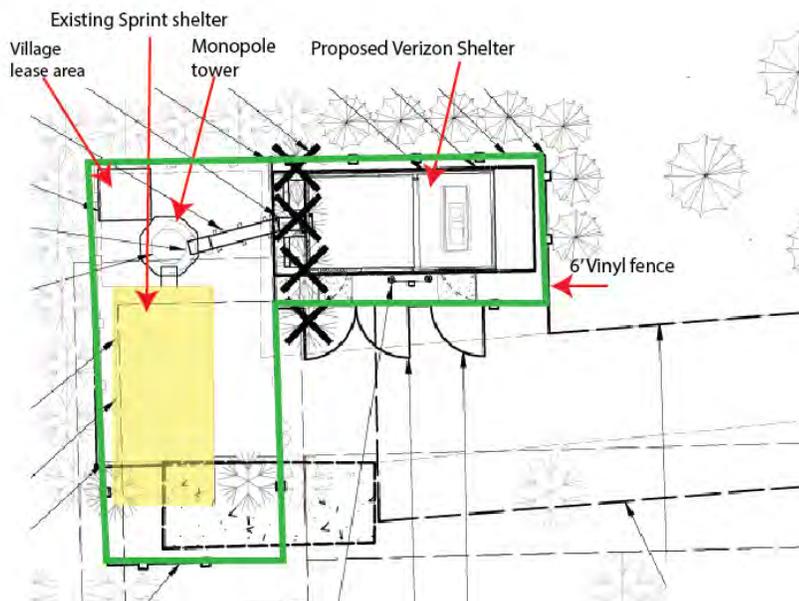
The request to extend the tower to 95' where Verizon would place the antenna RAD centers at 85' which Machuta states is essential to ensure maximum coverage in a confined area. The total structure height with all appurtenances would be 104' to include a lightning rod suitable to protect the structure and surrounding objects. The increased height allows SBA to maximize on future growth and prevent another tower from being built in close proximity.

Due to unreliable and expensive SCADA monitoring over telephone networks the Village has studied the 167<sup>th</sup> area in an effort to install a tower for their SCADA system. In 2014 the Village investigated the possibility of locating on the 60' SBA tower but found that the current height of 60' was inadequate for the SCADA system needs. In February of 2015, the Village was approached by SBA to increase the current structure height of the monopole located at 16640 66<sup>th</sup> Street from 60' to 95'. Upon receiving this information the Village approached SBA to potentially collocate on the structure with the increased height. The proposed height of 95' is adequate for the Village's needs as long as the Village is granted permission to place their antennas above all other equipment located on the tower, (except the lightning rod). The coverage analysis performed by the Village for SCADA and microwave implementation indicates a

minimum height requirement of 94'; therefore the Village has proposed to install a 10' long antenna on the same tower as Verizon at an elevation of 95', with a lightning rod above that resulting in an overall height of 104'.

In a phone conversation with Village Utility Staff it was stated that the new antenna will allow for improved communication with the master radio site at the Village's Edgewater walk lift station and Central Avenue Meter vault which would allow for the elimination of two leased phone lines. The high-speed microwave radio antenna will connect to the Post 2 Village pump station eliminating another phone line for an estimated total savings to the Village of approximately \$5,800.00 annually. In addition to the savings there will be increased reliability and redundancy of the Village's SCADA system.

## GENERAL SITE PLAN REVIEW



The proposed plans indicate the construction of a 11'6" x 21'9" equipment shelter to be located northeast of the existing Sprint shelter. Access is taken on the south side of the shelter to the asphalt access drive from 66<sup>th</sup> Avenue. The shelter will be completely enclosed by a 6' vinyl fence that will match the design and color of the existing fence. Two gates are provided along the side of the fence. Landscaping is also provided along the exterior of the fence. A concrete foundation will be poured for the new equipment shelter and the remaining lease area will be paved with asphalt to match existing asphalt grades. The proposed plans do not indicate the limits of the asphalt; Staff recommends all areas within the fence enclosure be paved.

***Open Item #2: The proposed plans do not indicate the limits of asphalt. Applicant will revise plans to indicate all area inside fence will be paved.***

The Village of Tinley will be utilizing a 6' x 6' concrete pad located in the northwest corner of the enclosed area to place their equipment cabinet. The cabinet is less in size than 3' x 5' and will therefore be screened by the 6' fence.

### MONOPOLE

The Applicant is proposing to provide an extension to the existing monopole to provide co-location for 12 sprint antennas at an elevation of 85' A.G.L. The antennas will be mounted on a triangular array with four (4) antennas mounted on each side of the triangle. The Village of Tinley is proposing to mount their SCADA and Public Safety antennas on a 10' monopole extension at an elevation of 95' A.G.L. A lightning rod will be erecting at the top of the monopole at an elevation of 104' A.G.L.

With the 104' extension the fall zone for the antenna is still primarily within the Village property with an exception of a small area or the public sidewalk on the east side of the property.



The closest residential structure is 180' to the east; the residential structures to the south are 270', the school garage is 130'. The water tanks are the closest structure and they fall within the 104' fall zone at approximately 60' from the tower.

### SCREENING

The existing fence does not completely enclose the south side of the Sprint equipment shed; the entrance to the shed is visible from 167<sup>th</sup> Street. Per Staff's recommendation the Applicant will extend the fence to completely enclose the Sprint equipment shelter thus improving the view from 167<sup>th</sup> Street. The Verizon equipment shelter will also be completely enclosed by a matching 6' vinyl fence.

Staff has questioned whether an additional gate or sidewalk will need to be provided to the south side of the Sprint equipment shed. If this is required the plans will need to be amended to illustrate these improvements.



**Open Item #3:** Staff questions whether a gate or sidewalk is needed on the south side of the proposed fence surrounding the Sprint facility. Applicant will provide solid evergreen landscaping along the south side of the Sprint facility.

## ARCHITECTURE

The Applicant has proposed an 11'6" x 21'9" equipment shelter to be located northeast of the existing Sprint Shelter on a 20' x 13' ground lease area. It is proposed with a flat roof consistent with the roof on the Sprint shelter. Conflicting information has been provided by the Applicant regarding the proposed equipment shelter. The plans indicate the shelter will be faced with brick (Sheets C-1, C-2, B-2 and Ant-1), however correspondence with the SBA representative indicates a pebble aggregate finish as indicated in the submitted photo. The shelter is approximately 11.5' in height, therefore a portion will be visible above the fence (landscaping may exceed that height eventually). The existing Sprint shelter has an aggregate finish; recent cell tower equipment shelter approvals provided brick exteriors.



**Open Item #4:** Conflicting information has been provided regarding the exterior of the proposed equipment shelter. Applicant will provide an aggregate exterior finish consistent with exiting facility.

## LIGHTING

There are three (3) wall mount lights proposed on the shelter. Two (2) are on the south façade and one (1) on the north façade. Neither of these façades directly face residential property. The light is designed to shed light in a downward direction and is operated by a photocell. No photometrics have been provided, however the fence will provide some screening of the light fixture. The light is proposed to be mounted at a height of approximately 9' from the ground elevation. Staff recommends the light fixture be mounted on the structure at a height of 6' or less. PICTURE

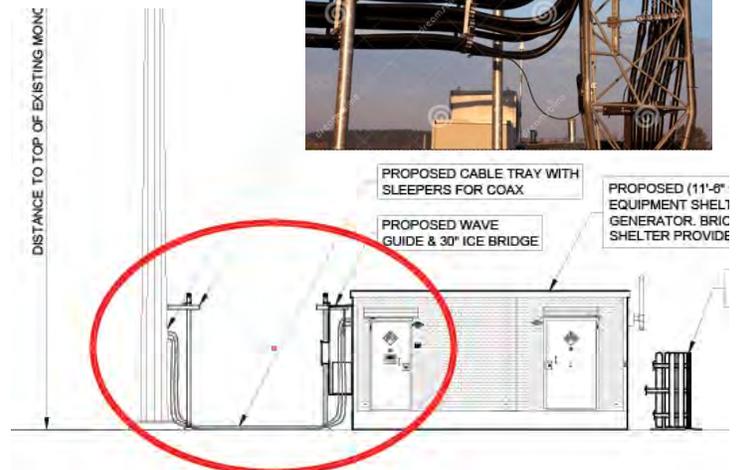


**Open Item #5:** Provide Photometrics or install the wall mounted light at an height lower than the adjacent fence. Wall mounted light will be installed at a height of approximately 9' on the prefabricated shelter.

Large coax cables provide the connection between the tower and the equipment shed. A common practice to convey those cables is via an ice bridge that spans the space between the tower and the shelter. The ice bridge protects the cable as it exits the shelter and extends to the tower. These bridges are typically the height of the shelter, or in this case at approximately 11' above grade.



In previous wireless facility reviews the Commission has requested the cables be buried so they are not visible from public view. Staff expressed this concern to the Applicant and in response they provided a partial bridge which extends 30" from the shelter and then traverses on the ground to the tower where it is raised to a partial ice bridge again 30" in length. The existing Sprint facility has an ice bridge however their shelter is closer to the tower and therefore the

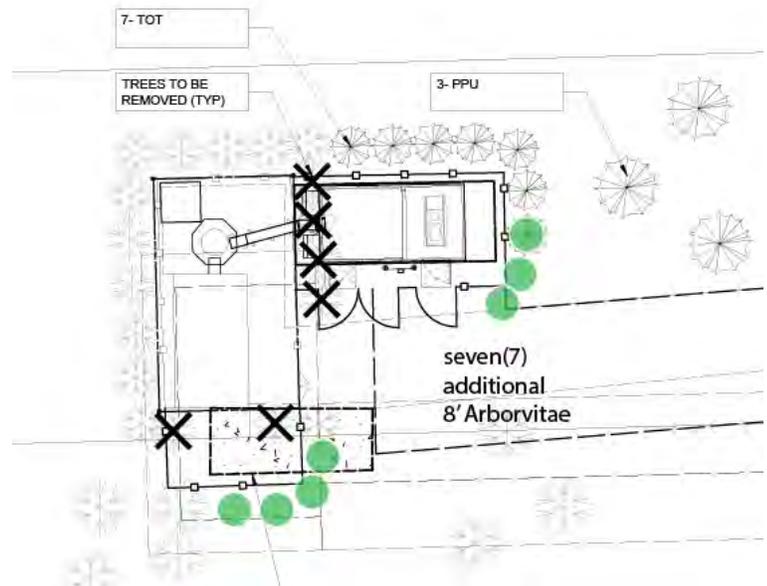


bridge is only a few feet long. An ice bridge, if approved, would be screened by the proposed shelter from 66<sup>th</sup> Avenue, and partially screened from 167<sup>th</sup> Street by the existing shelter, fence and landscaping. The Applicant has requested the Commission consider the use of an ice bridge in this location.

***Open Item #6: The Applicant has requested the use of an ice bridge. Applicant will provide a modified ice bridge as illustrated above.***

## LANDSCAPING

The Applicant has also proposed extending the existing evergreen screen around the fence. The existing Arborvitae are approximately 8'-10' in height. The Landscape Plan indicates planting 6' Arborvitae; Staff recommends increasing installation height to 8'. In addition, due to the expansion of the fence around the Sprint equipment shelter, two (2) of the Arborvitae will be enclosed inside of the fence and are scheduled to be removed. Staff is recommending the evergreen screen continue along the outside of the fence on the south side of the Sprint facility (green circles on diagram). In addition, three (3) additional Arborvitae will need to be planted at the southeast corner of the proposed shelter to complete the screening.



In addition, there have been several trees that have died on the property that provided additional screening of the site. The proposed Landscape Plan provides additional four 8' Spruce to be planted; three (3) will be on the east side of the property serving as additional buffer to the residential areas and one (1) will replace a dead Spruce surrounding the water tanks.

***Open Item #7: Arborvitae plantings should be installed at 8' to match existing evergreen screen. Additional Arborvitae required along the south edge of the Sprint shelter and the southeast corner of the proposed Verizon shelter to complete the screen. Applicant will revise landscape plan as requested.***

## STAFF REVIEW: BUILDING DEPARTMENT /FIRE DEPARTMENT

Both the Building and Fire Department stated that the shelter is required to be non-combustible construction. As discussed under Architecture, staff is recommending further discussion on the building's exterior.

***Open Item #8: Shelter is required to be non-combustible construction. Applicant will provide a non-combustible shelter with an aggregate finish.***

## STAFF REVIEW: ENGINEERING

The Village Engineer and Public Works Department provided a list of concerns to the Applicant. Final engineering approval will be required prior to issuance of a Building Permit. The Applicant has addressed the majority of the requests made by the Public Works Department. They are requesting a small ice bridge to run from the tower to the location of their equipment cabinet in the northwest corner and that all locations of Village services need to be approved on site by Public Works prior to building installation and pouring of concrete. Inspection notice from Public Works requires 48 hours in advance.

A few questions from the Village's engineer also remain :

1. Can a portion of the proposed access and utility easements as shown be combined with the existing so as to not tie up more land?
2. The proposed privacy fence has a 2 inch or 3 inch gap maximum from finished grade to the bottom rail of the fence. Please show how this fence does or does not impede drainage.

***Open Item #9: Outstanding Public Works and Engineering items must be addressed prior to issuance of a building permit. Staff recommends making this a condition of the Special Use.***

## **FINDINGS OF FACT**

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Staff has provided the following Findings of Fact for your review; the Applicant's Findings of Fact were previously provided. The Commission is encouraged to review both sets of Findings and make them part of the official minutes. The Commission may elect to read them at the Public Hearing or, after discussion of the Findings, enter them into the record as written or amended.

### Special Use Permit

*A proposal from Jim Auld, on behalf of Verizon Wireless, and the Village of Tinley Park as co-applicant, for a Special Use Permit to allow the increase in height of an existing monopole beyond 100' in the R-1, Single Family Residential Zoning District.*

**A. That the establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare.**

- The fall zone for the extended monopole is wholly within the subject property except for a small portion of the public sidewalk on the east side of the property.
- The monopole and equipment shelter will be enclosed by a 6' solid vinyl fence and evergreen landscape material.
- The fence enclosure will be secured with a locked gate and the shelter will also be secured and locked.
- Climbing pegs on the monopole will be removed after the antennas are installed.
- Lighting on the equipment shelter will be installed at a height less than 6'.
- The proposed equipment shelter and site improvements have been reviewed by Village Building, Planning, Engineering, Public Works, Landscape, Police and Fire personnel who have considered and approved the proposed improvements in compliance with Village Code.
- Additional landscaping has been proposed on the site to mitigate the proposed improvements.
- The proposed co-location may eliminate the need for additional cell towers in the area.
- The ability to locate the Village SCADA antennas on the tower will improve the reliability of the communication between relevant Village facilities.
- The addition of additional cell antennas on the tower will improve the coverage for that carrier in the area.

**B. That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor will it substantially diminish and impair property values within the neighborhood.**

- The Applicant will provide a solid 6' vinyl fence and evergreen landscaping around the proposed equipment shelter.
- Additional landscaping has been provided on site to soften the impact of additional site improvements.
- The Applicant has agreed to paint the eaves of the existing equipment facility which will improve the appearance of the facility.
- The generator has been located inside the equipment shelter.
- Existing plant material that is dead or compromised will be replaced.
- The fall zone for the extended monopole is wholly within the subject property except for a small portion of the public sidewalk on the east side of the property.

**C. That the establishment of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.**

- The surrounding area is fully developed.
- The site has operated with an existing 60' personal wireless monopole.
- The cell site is screened by a 6' fence and evergreen landscaping.

**D. That adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided.**

- The subject property has operated as a cell tower site and has satisfactorily utilized the existing road system.
- As part of the review process all utilities and drainage issues are reviewed by Staff with appropriate recommendations and requirements made to the Applicant.
- The site is unmanned and will be visited only a few times a month.
- A paved access drive exists on the site with access off of 66<sup>th</sup> Avenue.

**E. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.**

- Access to the site is from an established full ingress /egress from 66<sup>th</sup> Avenue.
- The site is unmanned and will be visited only a few times a month.

**F. That the Special Use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the Village Board pursuant to the recommendation of the Plan Commission.**

- The pole exceeds the maximum height limitations and requires a special use review as part of the approval process. The proposed improvement conform to the intent of all other aspects of Village Ordinances.

**G. The extent to which the Special Use contributes directly or indirectly to the economic development of the community as a whole.**

- The approval of the special use permit will result in improved Village service for the SCADA system and cost savings by eliminating the dedicated phone lines that were used in the pact.
- The addition of additional cell antennas on the tower will improve the coverage for that carrier in the area which may improve the ability for increase business in the area..
- The landscape improvements will improve the overall aesthetics of the site which indirectly improves the economic development of the community of Tinley Park.

**RECOMMENDATION/RECOMMENDED MOTION**

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**If the Plan Commission wishes to take action, an appropriate wording of the motion would read:**

“...make a motion to grant Site Plan Approval for the proposed property located at 16640 66<sup>th</sup> Avenue.

Additionally, we recommend that the Village Board grant the Applicants, Verizon Wireless and the Village of Tinley Park, adopt Findings of Fact submitted by the Applicant and by Village Staff as amended by the Plan Commission at this meeting.

The Plan Commission recommends the Special Use Permit with the following conditions, which can be satisfied prior to issuance of a Certificate of Occupancy:

1. Staff approval of a Landscape Plan;
2. Installation of the approved Landscape Plan by October 1, 2015;
3. Final Engineering approval; *and*
4. *[...any other conditions as suggested by the Plan Commission.]*

**LIST OF REVIEWED PLANS**

**SBA – 6640 W. 167<sup>th</sup> St.  
LIST OF SUBMITTED PLANS  
Received July 20, 2015**

<b>Submitted Sheet Name</b>	<b>Prepared By</b>	<b>Date On Sheet</b>
T-1 Title Sheet	Terra	07/02/2015
LP Location Plan	Terra	07/02/2015
C-1 Enlarged Site Plan	Terra	07/02/2015
C-2 Equipment Enclosure Foundation Plan	Terra	07/02/2015
C-3 Fence Details	Terra	07/02/2015
C-4 Fence Details	Terra	07/02/2015
C-5 Fence Details	Terra	07/02/2015
ANT-1 Site Elevation	Terra	07/02/2015
ANT-2 Antenna Information	Terra	07/02/2015
ANT-3 Antenna Mounting Details	Terra	07/02/2015
ANT-4 Antenna Mounting Details	Terra	07/02/2015
B-1 Equipment Enclosure Plan & Section	Terra	07/02/2015
B-2 Equipment Enclosure Elevations	Terra	07/02/2015
E-1 Utility Routing Plan	Terra	07/15/2015
E-2 Site Grounding Plan	Terra	07/02/2015
E-3 Electrical and Grounding Details	Terra	07/02/2015
E-4 Electrical and Grounding Details	Terra	07/15/2015
SP-1 Specifications	Terra	07/02/2015
SP-2 Specifications	Terra	07/02/2015
L-1 Landscape Plan	Terra	07/02/2015
L-1 Plat of Survey of Lease Area and Easement	ASM	11/25/2014
L-2 Plat of Survey of Lease Area and Easement	ASM	11/25/2014

*Terra Terra Consulting Group, Ltd.  
ASM ASM Consultants, Inc.*

**FINDINGS OF FACT**  
**SPECIAL USE PERMIT – (Including Planned Developments)**  
**PURSUANT TO THE VILLAGE OF TINLEY PARK ZONING ORDINANCE**

Section X.J. of the Village of Tinley Park Zoning Ordinance requires that no Special Use be recommended by the Plan Commission unless the Commission finds that all of the following statements, A-G listed below, are true and supported by facts. Petitioners must respond to and confirm each and every one of the following findings by providing the facts supporting such findings. The statements made on this sheet will be made part of the official public record and will be discussed in detail during the Plan Commission meetings and will be provided to any interested party requesting a copy.

Please provide factual evidence that the proposed Special Use meets the statements below and use as much space as needed to provide evidence.

- A. That the establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare.**

Our facility will be harmonious and appropriate with the surrounding area, be adequately served by essential services, not create additional pressure on public services, not cause traffic congestion, and not be detrimental to the general welfare.

- B. That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood.**

The site is designed to be harmonious with the surrounding area. The Tower is already existing and the increase in height to accommodate an additional wireless carrier will prevent the need for an additional tower in the immediate area.

- C. That the establishment of the Special Use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.**

The tower and facility are already existing the expansion of the ground compound and tower height will not impede any future development or improvement of surrounding properties.

- D. That adequate utilities, access roads, drainage, and/or other necessary facilities have been or are being provided.**

The site is not occupied, does not require water, sanitary or waste removal services. The existing utilities and access roads and drainage are sufficient for the proposed expansion.

- E. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.**

The site is unmanned and will be visited only a few times per month for routine maintenance, it will not materially affect traffic near the site.

- F. That the Special Use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the Village Board pursuant to the recommendation of the Plan Commission.**

The telecommunications facility is already existing. The proposed expansion is to accommodate an additional wireless carrier to prevent the need for another tower within the immediate vicinity and conforms to the applicable regulations of the district.

- G. The extent to which the Special Use contributes directly or indirectly to the economic development of the community as a whole.**

Verizon Wireless operates one of the broadest coverage in the wireless industry, providing modern voice and data transmission capabilities, including photo, internet, email and text each from a single point-source device. The proposed special use contributes indirectly to the economic development of the community by improving the wireless coverage network for residents, commuters and businesses in the area.

**CONSULTANT TEAM**

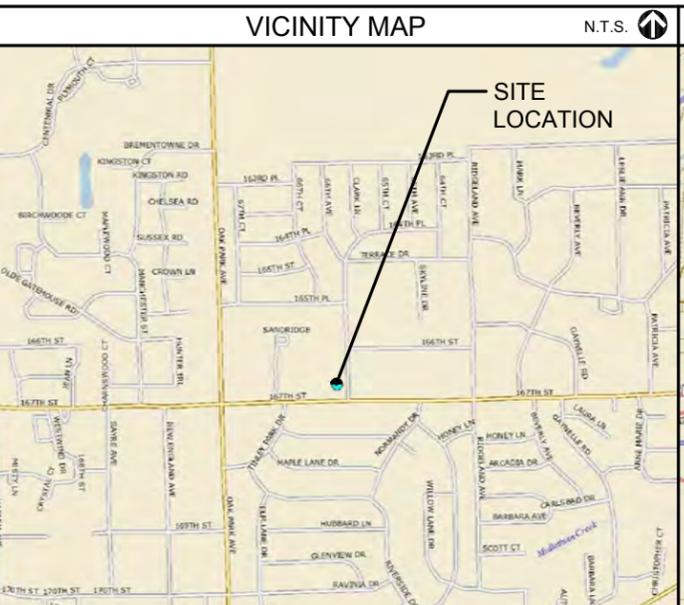
PROJECT CONSULTANT: TERRA CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
(847) 698-6400

SURVEYOR: ASM CONSULTANTS, INC.  
P.O. BOX 7  
PLANO, IL 60545  
(630) 273-2500

**PROJECT TYPE:**  
PROPOSED LESSEE ANTENNAS TO BE MOUNTED ON EXISTING MONOPOLE TOWER WITH PROPOSED 11'-6" x 23'-4 1/2" EQUIPMENT ENCLOSURE AT BASE.

**SITE COORDINATES:**  
LATITUDE: 41° 35' 18.26" N (FROM SURVEY)  
LONGITUDE: 87° 46' 49.25" W (FROM SURVEY)  
ELEVATION: ±712' (FROM SURVEY)

**DRIVING DIRECTIONS:**  
FROM LESSEE OFFICE: HEAD EAST ON E WOODFIELD RD TOWARD MALL DR. TURN RIGHT ONTO W FRONTAGE RD. TAKE THE I-290 E RAMP TO CHICAGO. MERGE ONTO I-290 E. TAKE EXIT 15A FOR I-294 SOUTH TOLLWAY TOWARD INDIANA. MERGE ONTO I-294 S. TAKE THE EXIT ONTO I-55 N. TAKE EXIT 279A TO MERGE ONTO US-45 S/S LAGRANGE RD AND CONTINUE TO FOLLOW US-45 S/S LAGRANGE R. TURN LEFT ONTO 167TH ST. DESTINATION WILL BE ON THE LEFT.



**APPROVALS**

REAL ESTATE: \_\_\_\_\_

RF: \_\_\_\_\_

CONSTRUCTION: \_\_\_\_\_

OPERATIONS: \_\_\_\_\_

EQUIPMENT ENGINEERING: \_\_\_\_\_

**EQUIPMENT ENCLOSURE:**

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS



# CHICAGO SMSA

limited partnership

CHICAGO SMSA LIMITED PARTNERSHIP  
d/b/a VERIZON WIRELESS  
1515 WOODFIELD ROAD, SUITE 1400  
SCHAUMBURG, ILLINOIS 60173  
PHONE: (847) 619-5397 FAX: (847) 706-7415

**LOCATION NUMBER: 278659**  
**SITE NAME: N. TINLEY**  
**SBA SITE NUMBER: IL46494-A**  
**SBA SITE NAME: N. TINLEY**  
**6640 W. 167TH ST**  
**TINLEY PARK, IL 60477**



NOTE:  
ALL ELECTRICAL SHALL BE IN COMPLIANCE WITH 2005 NATIONAL ELECTRIC CODE AND TINLEY PARK AMENDED CODES.

**PROJECT INFORMATION**

P.I.N. #:	28-19-401-014-0000
ADDRESS:	6640 167TH ST TINLEY PARK, IL 60477
UTILITIES: POWER: COMED	FIBER PROVIDER: AT&T
JURISDICTION: VILLAGE OF TINLEY	JIM DELLAMANO (815) 727 8017
OCCUPANCY: UNINHABITED	
ZONING: R-1	
CONSTRUCTION TYPE: CO LO	
TOWER OWNER: SBA STEEL, LLC 5900 BROKEN SOUND PKWY BOCA RATON, FL	
CONTACT PERSON: KENT MEIER (414) 788-1133	
APPLICANT: VERIZON WIRELESS PERSONAL COMMUNICATIONS LP d/b/a VERIZON WIRELESS 1515 WOODFIELD ROAD, SUITE 1400 SCHAUMBURG, IL 60173 (920) 841-1263	
CONSTRUCTION MANAGER: MIKE EISENMENGER (847) 732-6053	
REAL ESTATE MANAGER: DANNY PEREZ (847) 706-1765	

SHEET	DRAWING INDEX	REVISION
T-1	TITLE SHEET	7,
LP	LOCATION PLAN	-
C-1	ENGINEERING SITE PLAN	6,7,8
C-2	GRADING PLAN	7,
C-3	EQUIPMENT ENCLOSURE FOUNDATION PLAN	7,
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1 OF 2	SITE SURVEY	-
2 OF 2	SITE SURVEY	-
-	-	-

**REVISIONS**

NO	DESCRIPTION	DATE	BY
1	ISSUED FOR REVIEW	09/05/14	BTE
2	ISSUED FOR REVIEW	11/05/14	JJR
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6	UPDATE PER FIBER COORDINATION	02/20/15	MT
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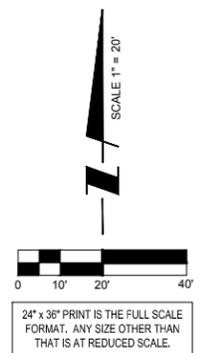
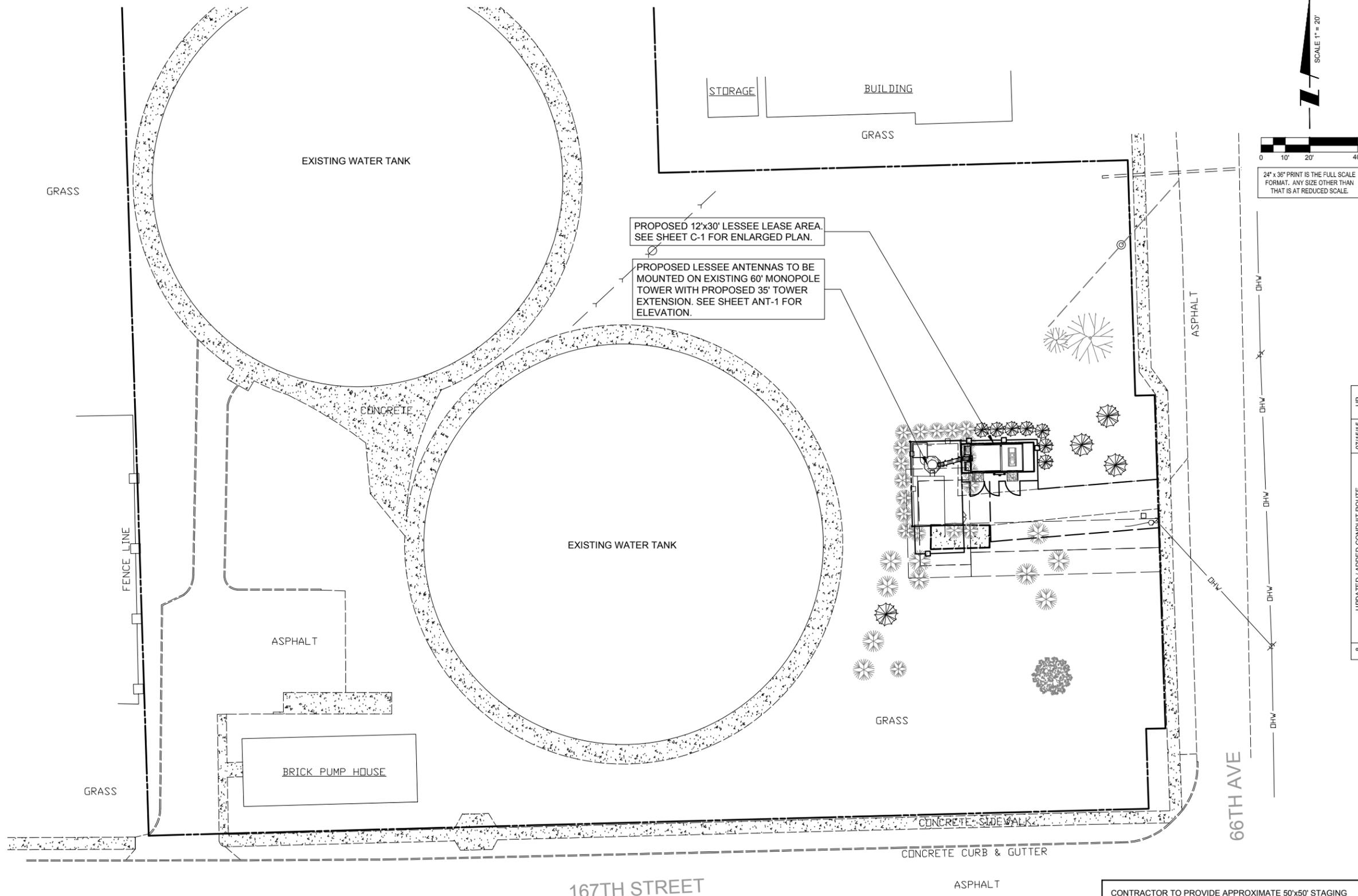
**LOC. 278659**  
**SBA #IL46494-A**

**N. TINLEY**

6640 W. 167TH ST.  
TINLEY PARK, IL 60477

DRAWN BY:	BTE
CHECKED BY:	TAZ
DATE:	09/05/14
PROJECT #:	76-029
SHEET TITLE TITLE SHEET	
SHEET NUMBER <b>T-1</b>	





PROPOSED 12'x30' LESSEE LEASE AREA. SEE SHEET C-1 FOR ENLARGED PLAN.

PROPOSED LESSEE ANTENNAS TO BE MOUNTED ON EXISTING 60' MONOPOLE TOWER WITH PROPOSED 35' TOWER EXTENSION. SEE SHEET ANT-1 FOR ELEVATION.

REVISIONS	
NO.	DESCRIPTION
1	ISSUED FOR REVIEW
2	ISSUED FOR REVIEW
3	UPDATE TOWER OWNER INFORMATION
4	ISSUED FOR PERMITTING
5	UPDATE TOWER HEIGHT / ANTENNAS
6	UPDATE PER FIBER COORDINATION
7	UPDATE PER COMMENTS
8	UPDATE / ADDED CONDUIT ROUTE
9	REVISED COAX ROUTE

**CHICAGO SMSA**  
*limited partnership*  
 d/b/a VERIZON WIRELESS



LOC. 278659  
 SBA #IL46494-A  
 N. TINLEY  
 6640 W. 167TH ST.  
 TINLEY PARK, IL 60477

DRAWN BY: BTE  
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 DATE: 09/05/14  
 PROJECT #: 76-029

SHEET TITLE  
 LOCATION PLAN  
 SHEET NUMBER  
**LP**



**SURVEY PERFORMED BY:**  
**Advanced Surveying & Mapping**  
 Telephone (630) 273-2500  
 Fax (630) 273-2600  
 E-MAIL asmc@advct.com

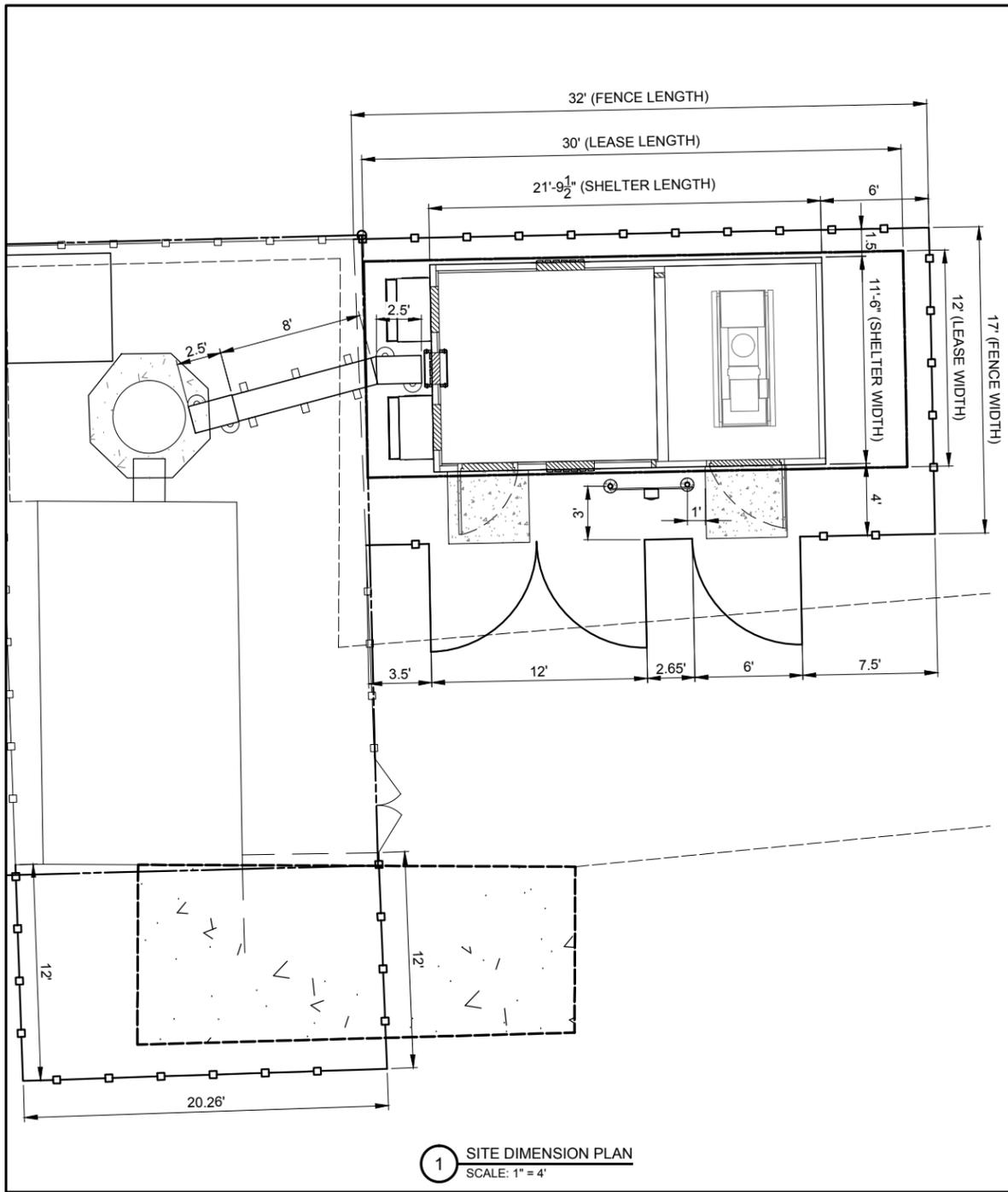
**1 LOCATION PLAN**  
 SCALE: 1" = 20'

CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING PAVEMENT. CONTRACTOR SHALL PHOTOGRAPH AND VIDEOTAPE EXISTING PAVEMENT PRIOR TO CONSTRUCTION. ANY DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPLACED TO EXISTING OR BETTER CONDITION AT NO ADDITIONAL COST.

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 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 SOIL STUDIES WILL BE ALLOWED UNLESS THE CONTRACTOR HAS SO NOTIFIED THE OWNER, VERBALLY AND IN WRITING, AS REQUIRED ABOVE, OF SUCH DIFFERING SUBSURFACE CONDITIONS.

CONTRACTOR TO PROVIDE APPROXIMATE 50'x50' STAGING AREA AND TEMPORARY ROAD. CONTRACTOR SHALL COORDINATE WITH ANTENNA CONTRACTOR, A STAGING AREA AND TEMPORARY ROAD THAT IS ACCEPTABLE TO THE OWNER. STAGING AREA AND TEMPORARY ROAD SHALL BE RESTORED TO EXISTING CONDITIONS AS NECESSARY UPON COMPLETION OF THE PROJECT.

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 SUSCEPTIBLE TO EROSION. EROSION CONTROL MEASURES SHALL BE PERIODICALLY INSPECTED TO ENSURE PROPER FUNCTION. EROSION CONTROL SHALL BE REMOVED UPON COMPLETION OF WORK.



1 SITE DIMENSION PLAN  
SCALE: 1" = 4'

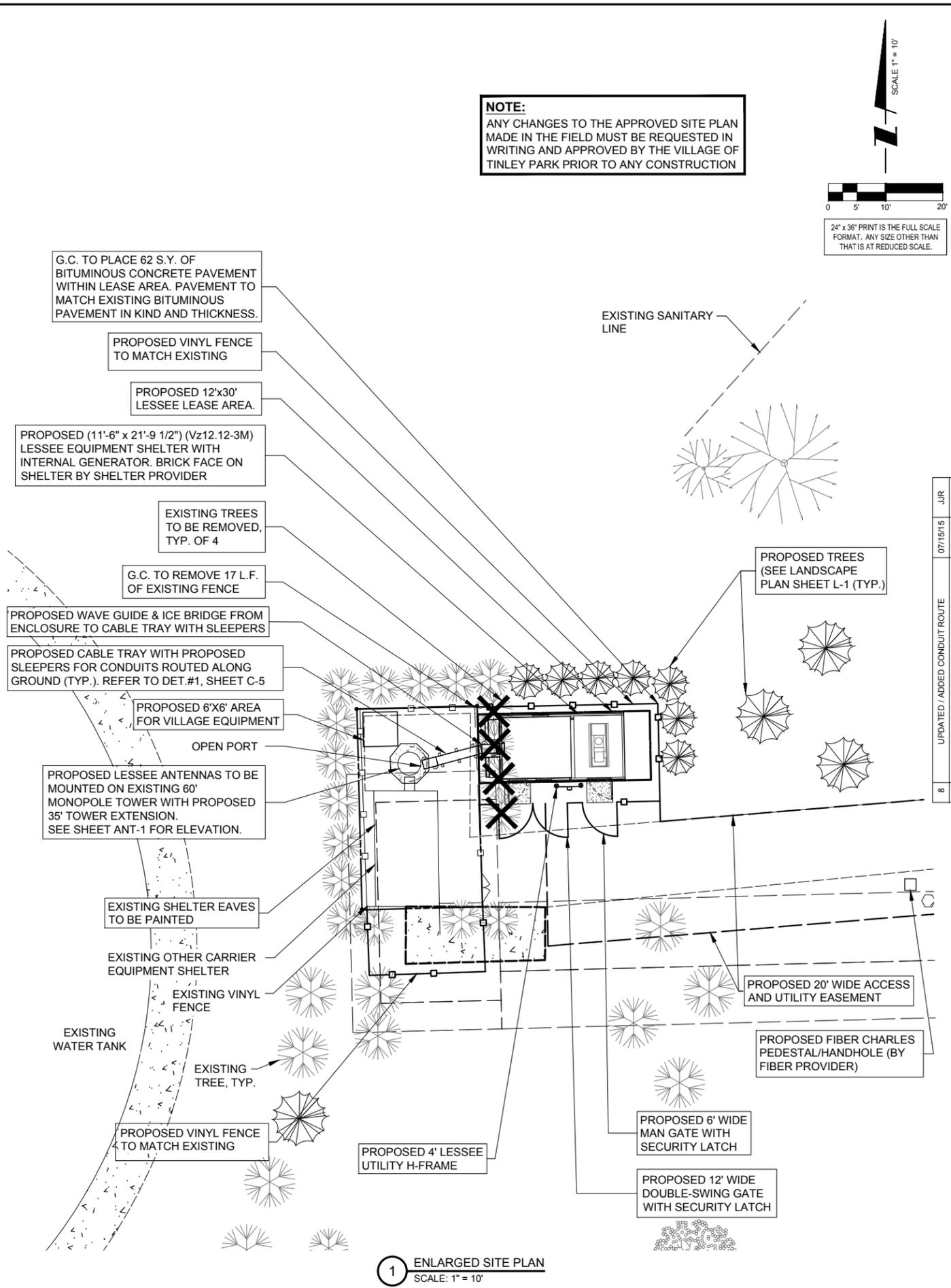
OPERATES 24 HOURS  
A DAY 365 DAYS A YEAR



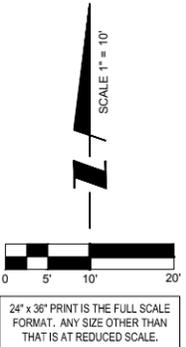
SURVEY PERFORMED BY:

**Advanced Surveying & Mapping**

Telephone (630) 273-2500  
Fax (630) 273-2600  
E-MAIL [asmc@advct.com](mailto:asmc@advct.com)



**NOTE:**  
ANY CHANGES TO THE APPROVED SITE PLAN MADE IN THE FIELD MUST BE REQUESTED IN WRITING AND APPROVED BY THE VILLAGE OF TINLEY PARK PRIOR TO ANY CONSTRUCTION



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

REVISED COAX ROUTE		JJR	JJR
8	UPDATED / ADDED CONDUIT ROUTE	07/15/15	JJR
7	REVISED COAX ROUTE	07/02/15	JJR

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**N. TINLEY**

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TINLEY PARK, IL 60477

DRAWN BY:	BTE
CHECKED BY:	TAZ
DATE:	09/05/14
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SHEET TITLE  
**ENLARGED SITE PLAN**

SHEET NUMBER

**C-1**

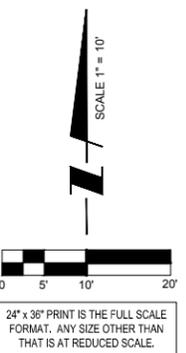
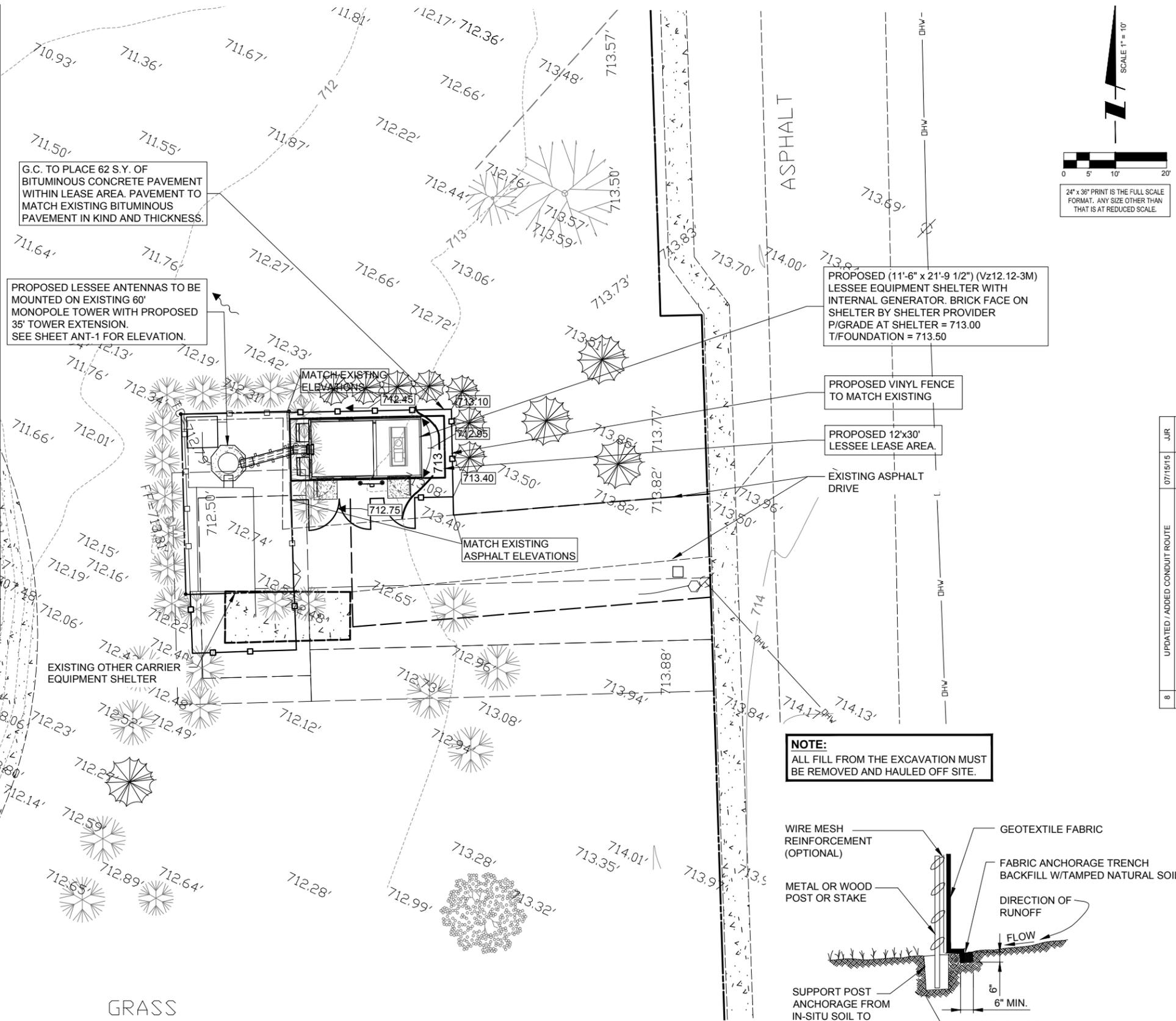
1 ENLARGED SITE PLAN  
SCALE: 1" = 10'

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS

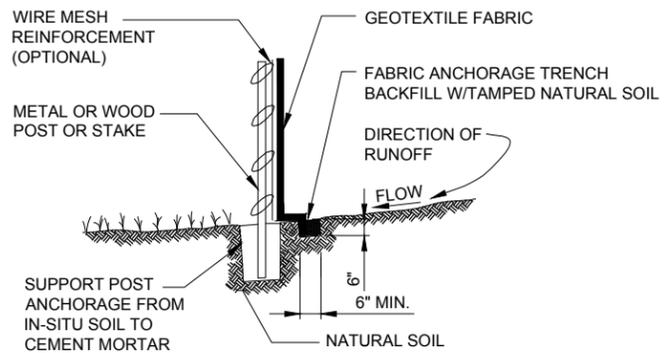


**EROSION CONTROL NOTES:**

1. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER TO MINIMIZE EROSION. AREAS OF THE DEVELOPMENT SITE THAT ARE NOT GRADED SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC OR OTHER DISTURBANCE UNTIL FINAL SEEDING IS PERFORMED.
2. PROPERTIES AND CHANNELS ADJOINING THE DEVELOPMENT SITE SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION.
3. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
4. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE.
5. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE. (E.G., SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURES).
6. ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
7. SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD-PRONE AREA OR DESIGNATED BUFFER OF SURFACE WATERS.
8. THE CONTRACTOR SHALL PROVIDE ADEQUATE RECEPTACLES FOR THE DEPOSITION OF ALL CONSTRUCTION MATERIAL DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS. THE CONTRACTOR SHALL NOT CAUSE OR PERMIT THE DUMPING, DEPOSITING, DROPPING, THROWING, DISCARDING OR LEAVING OF CONSTRUCTION MATERIAL DEBRIS UPON OR ONTO ANY DEVELOPMENT SITE, CHANNEL, OR SURFACE WATERS. THE CONTRACTOR SHALL MAINTAIN THE DEVELOPMENT SITE FREE OF CONSTRUCTION MATERIAL DEBRIS.
9. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN AN EFFECTIVE WORKING CONDITION.



**NOTE:**  
ALL FILL FROM THE EXCAVATION MUST BE REMOVED AND HAULED OFF SITE.



**NOTE:**  
DEPENDING UPON CONFIGURATION, ATTACH FABRIC TO WIRE MESH W/HOG RINGS, STEEL POSTS W/ TIE WIRES, WOOD POSTS W/ NAILS.

REVISED COAX ROUTE		JJR	JJR
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7	REVISED COAX ROUTE	07/02/15	

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	UPDATE PER COMMENTS	JJR	03/09/15

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS

**TERRA**  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-599-6400  
FAX: 847-599-6401

LOC. 278659  
SBA #IL46494-A

N. TINLEY

6640 W. 167TH ST.  
TINLEY PARK, IL 60477

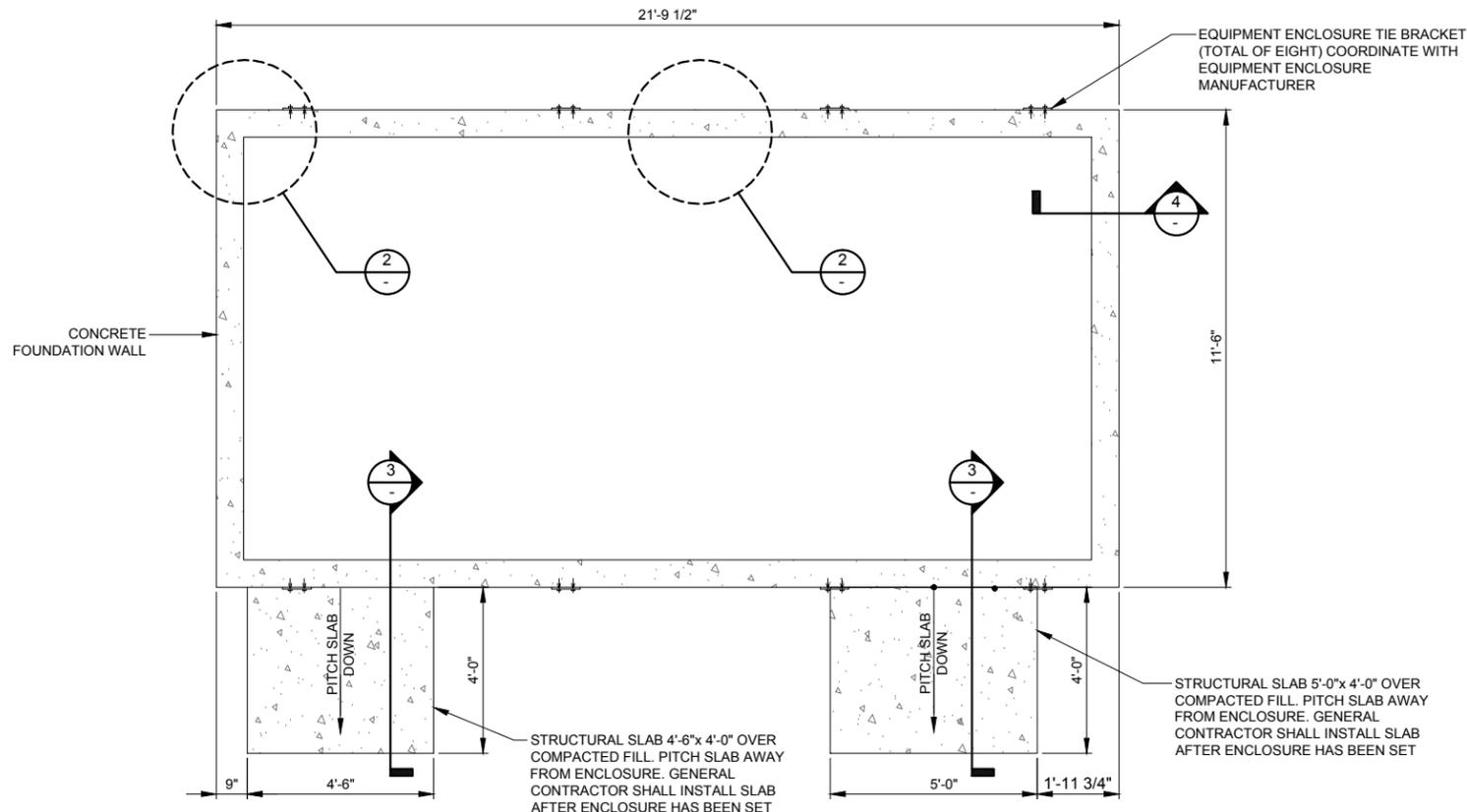
DRAWN BY:	BTE
CHECKED BY:	TAZ
DATE:	09/05/14
PROJECT #:	76-029

SHEET TITLE  
SITE GRADING PLAN  
(SHEET 1 OF 1)

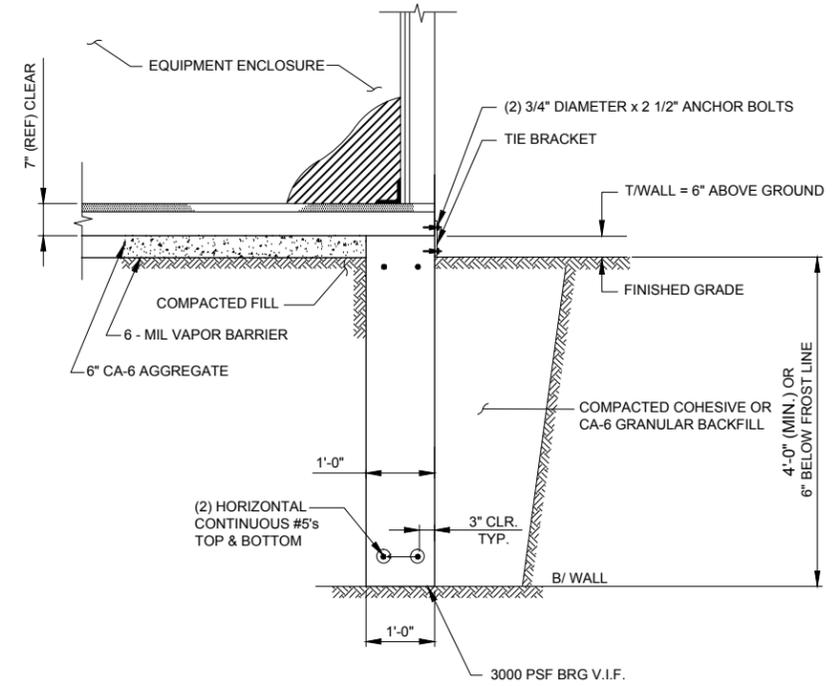
SHEET NUMBER  
**C-2**



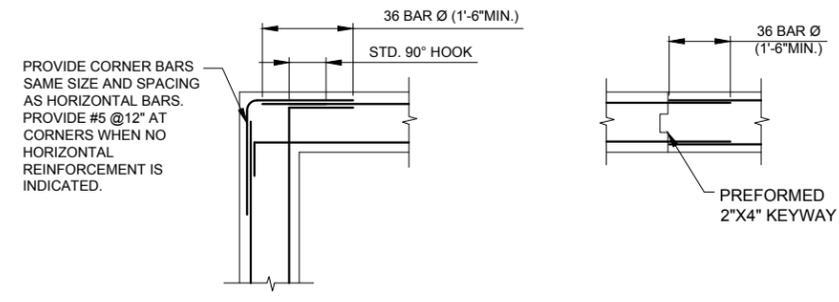
**SURVEY PERFORMED BY:**  
**Advanced Surveying & Mapping**  
Telephone (630) 273-2500  
Fax (630) 273-2600  
E-MAIL [asmc@advct.com](mailto:asmc@advct.com)



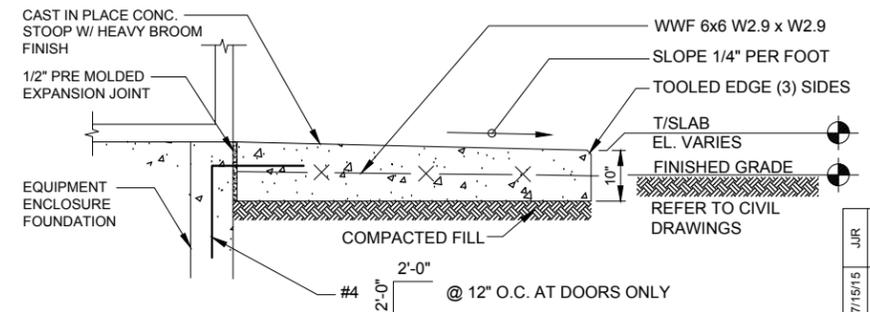
**1** EQUIPMENT ENCLOSURE FOUNDATION PLAN  
N.T.S.



**4** FOUNDATION WALL SECTION  
N.T.S.



**2** CONCRETE WALL REINFORCEMENT DETAILS  
N.T.S.



**3** STOOP DETAIL  
N.T.S.

**A. EQUIPMENT ENCLOSURE FOUNDATION**

- REFER TO CIVIL DRAWINGS FOR ORIENTATION OF THE FOUNDATIONS.
- EQUIPMENT ENCLOSURE FOUNDATION IS DESIGNED FOR THE FOLLOWING LOADS:  
ENCLOSURE DEAD LOAD: 70,000 LBS.  
ROOF LIVE LOAD: 105 PSF  
FLOOR LIVE LOAD: 150 PSF
- THE CONTRACTOR SHALL NOTIFY THE CLIENT'S GEOTECHNICAL ENGINEER TO COORDINATE HAVING A FIELD REPRESENTATIVE ON SITE FOR TESTING AND INSPECTION.
- FOOTINGS SHALL BEAR ON VIRGIN SOIL OR COMPACTED FILL MATERIAL CAPABLE OF SUPPORTING A MINIMUM SOIL BEARING PRESSURE OF 3000 PSF.
- SUBGRADE PREPARATION:  
A. REMOVE ALL SOILS CONTAINING TOPSOIL, ORGANIC MATERIALS, AND/OR FILL MATERIALS FROM WITHIN AREA OF ENCLOSURE FOUNDATION.  
B. PROOF ROLL RESULTING SUBGRADE WITH A HEAVILY LOADED SINGLE AXLE ROLLER OR SIMILAR VEHICLE. (20 TON LOAD). CONTRACTOR SHALL UNDERCUT AND REPLACE WITH ENGINEERED FILL. ALL LOOSE SOFT OR UNSTABLE AREAS REVEALED DURING PROOFROLLING AS DIRECTED BY THE TESTING AGENCY. CONTRACTOR SHALL INCLUDE ANTICIPATED UNDERCUT AND REPLACEMENT AS INDICATED IN THE GEOTECHNICAL REPORT AS PART OF THE BID.  
C. BACKFILL AND COMPACT THE AREA WITHIN THE BUILDING FOUNDATION. BETWEEN RESULTANT SUBGRADE AND FOUNDATION WALL WITH APPROVED GRANULAR MATERIAL.
- FOUNDATION WALLS SHALL BE BACKFILLED EVENLY ON EACH SIDE OF THE WALL OR WALLS SHALL BE ADEQUATELY BRACED BY THE CONTRACTOR UNTIL FLOOR SLAB HAS BEEN PLACED AND CURED FOR 72 HOURS MINIMUM.
- ENCLOSURE SHALL NOT BE SET UNTIL FLOOR SLAB HAS BEEN CURED FOR 72 HOURS MINIMUM.
- CONTRACTOR TO ENSURE FOUNDATION / SLAB ARE POURED TO MEET FLATNESS LEVEL TOLERANCES AS INDICATED IN ACI 4.5.6 AND 4.5.7.

**B. EQUIPMENT ENCLOSURE**

THE EQUIPMENT ENCLOSURE IS A PRE-FABRICATED BUILDING MANUFACTURED BY FIBREBOND, MINDEN, LOUISIANA.  
THE EQUIPMENT ENCLOSURE BUILDING SHALL BE FURNISHED AND INSTALLED BY THE OWNER UNDER SEPARATE CONTRACT PER THE OWNER AND MANUFACTURER SPECIFICATIONS.

**C. CONCRETE NOTES**

- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 AND ACI 301, LATEST EDITION. THESE DOCUMENTS SHALL BE AVAILABLE IN THE FIELD OFFICE.
- EXCEPT WHERE OTHERWISE INDICATED, CONCRETE SHALL BE NORMAL WEIGHT AND WITH MINIMUM 28-DAY COMPRESSIVE STRENGTHS OF  $F_c = 3000$  PSI. ALL EXTERIOR EXPOSED CONCRETE SHALL BE AIR ENTRAINED.
- REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.

**NOTE:**  
LOCALIZED AREAS OF SOFT OR LOOSE MATERIALS MAY BE ENCOUNTERED AT THE PROPOSED BEARING ELEVATION. THE SOILS MAY REQUIRE COMPACTION USING A PLATE COMPACTOR IN THE FOOTING TRENCH IF FIELD CONDITIONS INDICATE LOOSE GRANULAR SOILS. THE SOILS MAY REQUIRE REMOVAL AND REPLACEMENT WITH AN APPROVED ENGINEERED FILL. FOUNDATION DEPTH AND OVER DIG REQUIREMENTS SHALL BE VERIFIED WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND INCLUDED IN THE BID BEFORE CONSTRUCTION. THE EVALUATION OF THE SUB GRADE AND SELECTION OF FILL MATERIALS SHALL BE MONITORED AND TESTED BY A QUALIFIED REPRESENTATIVE OF THE SOILS ENGINEER.

8	UPDATED / ADDED CONDUIT ROUTE	JJR	07/15/15
7	REVISED COAX ROUTE	JJR	07/02/15

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5	UPDATE PER FIBER COORDINATION	5	UPDATE PER FIBER COORDINATION	01/28/15	JJR
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				03/09/15	JJR

LOC. 278659  
SBA #IL46494-A

N. TINLEY

6640 W. 167TH ST.  
TINLEY PARK, IL 60477

DRAWN BY:	BTE
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SHEET TITLE  
EQUIPMENT  
ENCLOSURE  
FOUNDATION PLAN

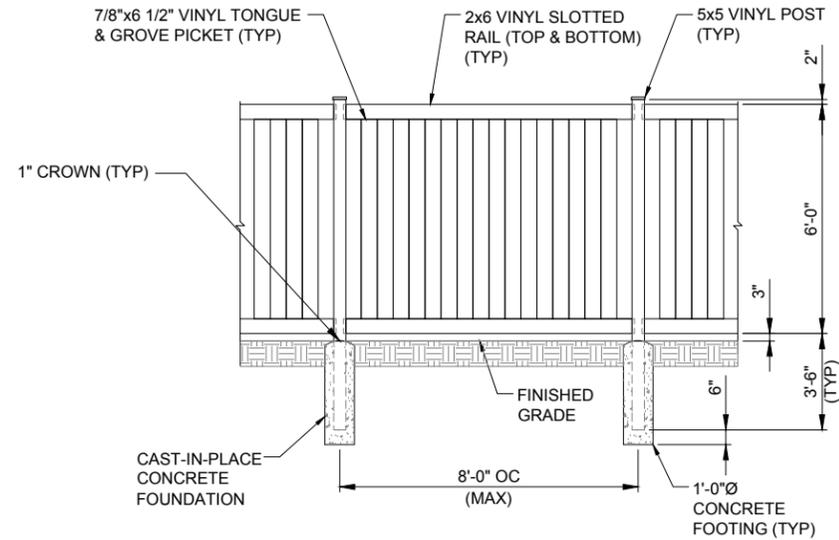
SHEET NUMBER  
**C-3**

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS

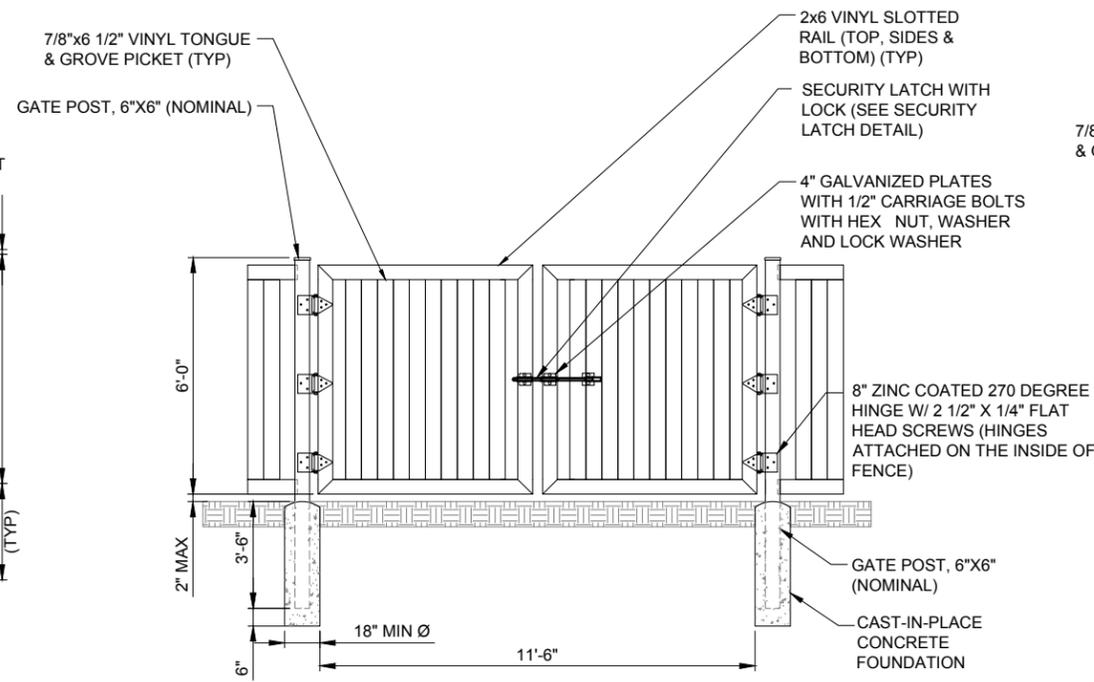
**TERRA**  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
TEL: 847-599-5400  
FAX: 847-599-5401

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A DAY 365 DAYS A YEAR  
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ILLINOIS  
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48 HOURS BEFORE  
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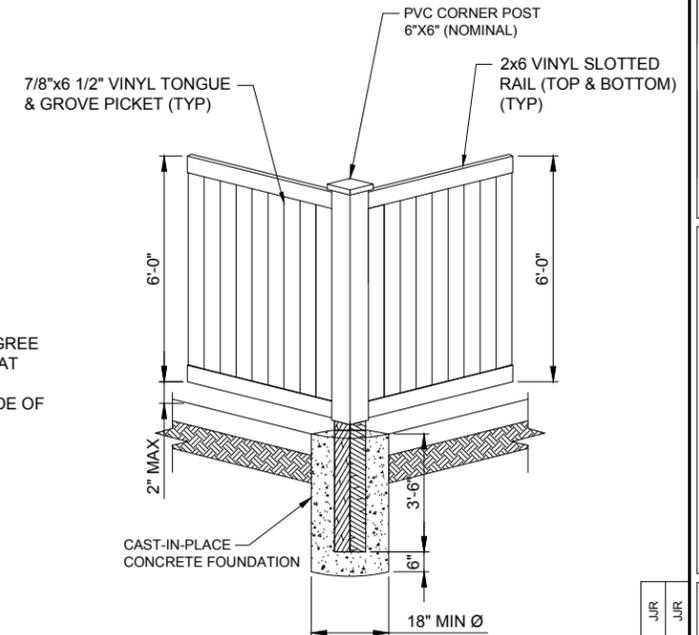
CONTRACTOR TO PROVIDE A 12"x12" CUT-OUT IN THE VINYL FENCING OPPOSITE THE METER LOCATION FOR METER READING. FRAME OUT THE CUT-OUT WITH VINYL 2x4's ON INSIDE OF FENCE PRIOR TO MAKING PENETRATION.



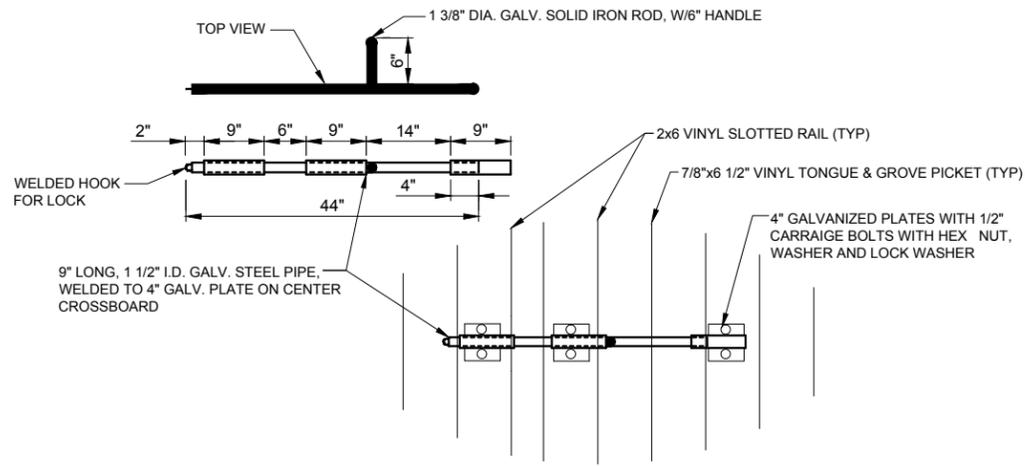
1 PVC POST N.T.S.



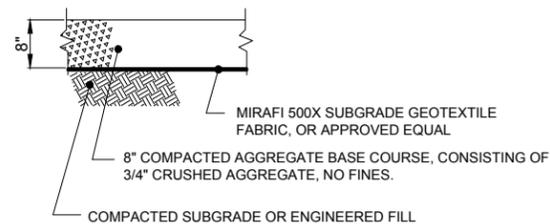
2 12'-0" DOUBLE SWING GATE N.T.S.



3 CORNER POST N.T.S.



4 SECURITY LATCH N.T.S.



5 AGGREGATE CROSS-SECTION N.T.S.

GENERAL NOTES

- REFER TO THE PROJECT MANUAL FOR ADDITIONAL INFORMATION AND REQUIREMENTS RELATED TO CONSTRUCTION.
- THE OWNER HAS CAUSED A GEOTECHNICAL EXPLORATION TO BE PERFORMED AT THE SITE.
- THE CONTRACTOR SHALL NOTIFY THE CLIENT'S GEOTECHNICAL ENGINEER TO COORDINATE HAVING A FIELD REPRESENTATIVE ON SITE FOR TESTING AND INSPECTION.

COPIES OF THE REPORT ARE ISSUED TO THE CONTRACTOR FOR CONVENIENCE ONLY. THE REPORT IS NOT A PART OF THE CONTRACT DOCUMENTS. NEITHER THE OWNER NOR THE ENGINEER/ARCHITECT GUARANTEE THE ACCURACY OR VALIDITY OF THE DATA CONTAINED THEREIN, NOR DO THEY ASSUME ANY RESPONSIBILITY FOR THE CONTRACTOR'S USE OR INTERPRETATION OF THE DATA CONTAINED THEREIN.

GEOTEXTILE PARAMETERS		
PROPERTY	MINIMUM VALUE (a)	TEST METHOD
GRAB STRENGTH	180 LBS.	ASTM D-4632-91
PUNCTURE STRENGTH	75 LBS.	ASTM D-4833-88
BURST STRENGTH	290 LBS.	ASTM D-3786
TRAPEZOIDAL TEAR	50 LBS.	ASTM D-4571-87

(a) ALL VALUES REPRESENT MINIMUM ROLL VALUES

NOTES:  
THE FABRIC SHOULD BE PLACED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. INTERSECTIONS OF SHEETS MUST BE SEWN OR SUFFICIENTLY OVERLAPPED (AT LEAST 24 INCHES) OR AS SPECIFIED BY THE MANUFACTURER. THE GEOTEXTILE SHEETS SHOULD ALSO BE PLACED TAUT TO REDUCE WRINKLES OR FOLDS. CARE MUST BE EXERCISED TO PREVENT PHYSICAL DAMAGE OF THE GEOTEXTILE PRIOR TO, DURING AND AFTER INSTALLATION. UTILITIES SHOULD BE INSTALLED BEFORE PLACING THE FABRIC.



REVISED COAX ROUTE		REVISED CONDUIT ROUTE	
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TINLEY PARK, IL 60477

DRAWN BY:	BTE
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DATE:	09/05/14
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SHEET TITLE  
FENCE DETAILS

SHEET NUMBER

C-4

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS

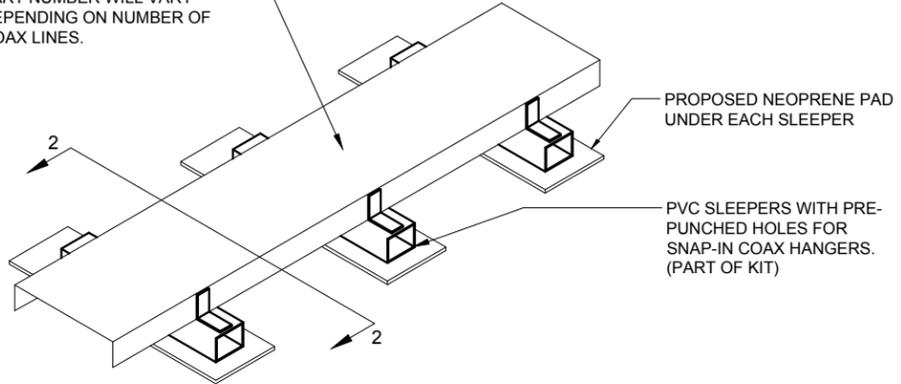


BRIDGE KIT P/N	# OF COAX LINES	BRIDGE WIDTH
B1542-11	4	11-1/2"
B1543	8	1'-9 1/2"
B1595	12	2'-9"
B3098	16	1'-9 1/2"

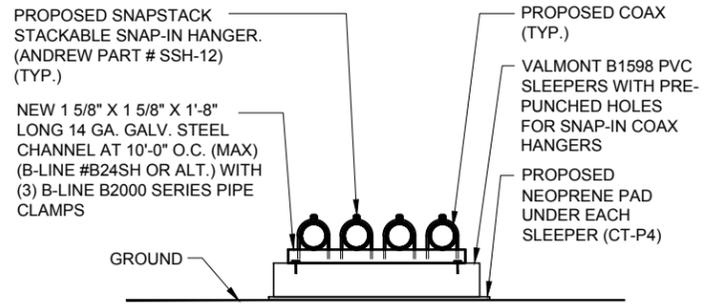
NOTE:  
AT TURNS USE MICROFLECT  
ADJUSTABLE SPLICES FOR 0°  
TO 45° BENDS AND 45° TO 90°  
BENDS

- NOTE:
- CONTRACTOR TO SUPPLY SUFFICIENT SLACK AT BOTH ENDS OF CABLE TRAY. CABLE TRAY SHOULD BE ABLE TO BE TEMPORARILY SHIFTED FOR MAINTENANCE.
  - IF CABLE BRIDGE REQUIRES TEMPORARY RELOCATION (DUE TO MAINTENANCE) REMOVE THE BRIDGE COVER TO EASE THE MOVEMENT OF THE NON-PENETRATING SLEEPERS.

MICROFLECT COAX BRIDGE KIT (NON-PENETRATING INSTALLATION) BRIDGE KIT PART NUMBER WILL VARY DEPENDING ON NUMBER OF COAX LINES.



**1** GROUND MOUNTED COAX COVER  
SCALE: N.T.S.



**2** GROUND MOUNTED COAX SUPPORT  
SCALE: N.T.S.

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NO.	DESCRIPTION	DATE	BY
8	UPDATED / ADDED CONDUIT ROUTE	07/15/15	JJR
7	REVISED COAX ROUTE	07/02/15	JJR

LOC. 278659  
SBA #IL46494-A  
  
N. TINLEY  
  
6640 W. 167TH ST.  
TINLEY PARK, IL 60477

DRAWN BY:	BTE
CHECKED BY:	TAZ
DATE:	09/05/14
PROJECT #:	76-029

SHEET TITLE  
SITE DETAILS

SHEET NUMBER  
**C-5**

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS

**TERRA**  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
TEL: 847-599-5400  
FAX: 847-599-5401

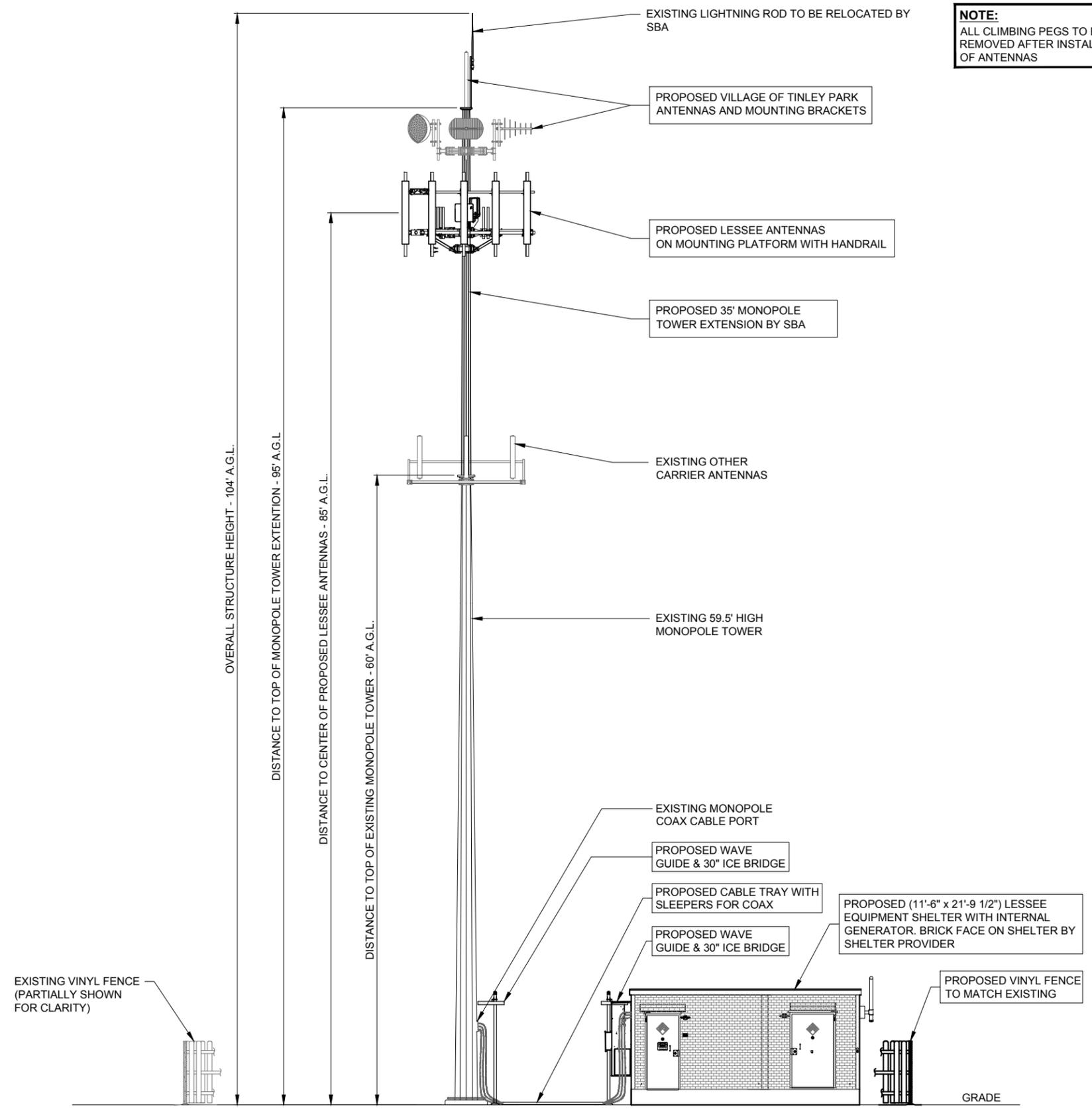
OPERATES 24 HOURS  
A DAY 365 DAYS A YEAR  
**Call Before You Dig**  
**JULIE**  
ILLINOIS  
ONE CALL SYSTEM  
CALL JULIE TOLL FREE  
1(800) 892-0123  
48 HOURS BEFORE  
YOU DIG



SCALE: 3/16" = 1'

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

**NOTE:**  
ALL CLIMBING PEGS TO BE REMOVED AFTER INSTALLATION OF ANTENNAS



1 EAST ELEVATION  
SCALE: 3/16" = 1'-0"

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS



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1	ISSUED FOR REVIEW	09/05/14	BTE
2	ISSUED FOR REVIEW	11/05/14	JJR
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6	UPDATE PER FIBER COORDINATION	02/20/15	MT
	UPDATE PER COMMENTS	03/09/15	JJR

LOC. 278659  
SBA #IL46494-A

N. TINLEY

6640 W. 167TH ST.  
TINLEY PARK, IL 60477

DRAWN BY:	BTE
CHECKED BY:	TAZ
DATE:	09/05/14
PROJECT #:	76-029

SHEET TITLE  
**SITE ELEVATION**

SHEET NUMBER  
**ANT-1**

**EQUIPMENT CHANGE REQUEST FORM- ECR**

Cell Name		N Tinley		RF Engineer		R. Vaturro		Cell ID		366	
Location Number		278659		Market		HH		Address		6640 W 167th St	
Date of Request		11/24/2014						City/State/Zip		Tinley Park, IL, 60477	
PROPOSED CONFIGURATION											
Sector	Pole	Antenna				Configuration			Option-A2		
		Port	RF Path	Antenna Manufacturer	Antenna Model	Antenna Serial Number	Controllino	Azimuth	Variable Tilt	Mechanical Tilt	Action
Alpha	A1	L1 (-45)	LTE C - RxTx0	ANDREW	SBNHH1D05A_POR11 (-45)_000	R5	20	0	2		Change-Install
		L2 (+45)	LTE C - RxTx1								
		H1 (+45)	PCS Future - RxTx0								
		H2 (+45)	PCS Future - RxTx1								
	A2	H3 (+45)	AWS - RxTx0								
		H4 (+45)	AWS - RxTx1								
		L1 (-45)	Unused at this time								
		L2 (+45)	Unused at this time								
	A3	H1 (+45)	PCS Future - RxTx1	ANDREW	SBNHH1D05A_POR11 (-45)_000	R5	20	0	2		Change-Install
		H2 (+45)	PCS Future - RxTx0								
		H3 (+45)	AWS - RxTx0								
		H4 (+45)	AWS - RxTx1								
	A4	L1 (-45)	Unused at this time								
		L2 (+45)	Unused at this time								
		H1 (+45)	Unused at this time								
		H2 (+45)	Unused at this time								
Beta	B1	L1 (-45)	LTE C - RxTx0	ANDREW	SBNHH1D05A_POR11 (-45)_000	R5	140	0	1		Change-Install
		L2 (+45)	LTE C - RxTx1								
		H1 (+45)	PCS Future - RxTx0								
		H2 (+45)	PCS Future - RxTx1								
	B2	H3 (+45)	AWS - RxTx0								
		H4 (+45)	AWS - RxTx1								
		L1 (-45)	Unused at this time								
		L2 (+45)	Unused at this time								
	B3	H1 (+45)	PCS Future - RxTx1	ANDREW	SBNHH1D05A_POR11 (-45)_000	R5	140	0	1		Change-Install
		H2 (+45)	PCS Future - RxTx0								
		H3 (+45)	AWS - RxTx0								
		H4 (+45)	AWS - RxTx1								
	B4	L1 (-45)	Unused at this time								
		L2 (+45)	Unused at this time								
		H1 (+45)	Unused at this time								
		H2 (+45)	Unused at this time								
Gamma	G1	L1 (-45)	LTE C - RxTx0	ANDREW	SBNHH1D05A_POR11 (-45)_000T 0225	R5	25%	0	3		Change-Install
		L2 (+45)	LTE C - RxTx1								
		H1 (+45)	PCS Future - RxTx0								
		H2 (+45)	PCS Future - RxTx1								
	G2	H3 (+45)	AWS - RxTx0								
		H4 (+45)	AWS - RxTx1								
		L1 (-45)	Unused at this time								
		L2 (+45)	Unused at this time								
	G3	H1 (+45)	PCS Future - RxTx1	ANDREW	SBNHH1D05A_POR11 (-45)_000T 0225	R5	25%	0	3		Change-Install
		H2 (+45)	PCS Future - RxTx0								
		H3 (+45)	AWS - RxTx0								
		H4 (+45)	AWS - RxTx1								
	G4	L1 (-45)	Unused at this time								
		L2 (+45)	Unused at this time								
		H1 (+45)	Unused at this time								
		H2 (+45)	Unused at this time								

Comments

PPC CONNECTORS ONLY

1 PROPOSED ANTENNA CONFIGURATION  
N.T.S.

ESTIMATED MAIN LINE HYBRID LENGTH			
ANTENNA CENTERLINE (±)	ICE BRIDGE LENGTH (±)	SHELTER (±)	TOTAL (±)
85'	18'	15'	118'

Combiner - Cable Data

Existing			
Diplexer	Location	Diplexer Manufacturer	Diplexer Model
	Top (Platform)		
	Bottom (Shelter)		

Coax	Sector	Coax Manufacturer	Type	Size	Count
	Alpha				
	Beta				
	Gamma				

Proposed				
Location	Manufacturer	Component Model	Count	Action
Top (Platform)				
Bottom (Shelter)				
Top (Platform)	Ericsson	RRU12	3	Install
Top (Platform)	Ericsson	RRU12 (PCS)	3	Do Not Install - Lease ONLY
Top (Platform)	Westell	700 TMA	6	Install
Top (Platform)	Ericsson	RUS01 B4 (PCS A2 BOX)	3	Do Not Install - Lease ONLY
Top (Platform)	Ericsson	RUS02 B2 (A2 BOX)	3	Install
Top (Platform)	Raycap	RCMDC-3315-PF-48	1	Install
Bottom (Shelter)	Raycap	RCMDC-3315-PF-48	1	Install

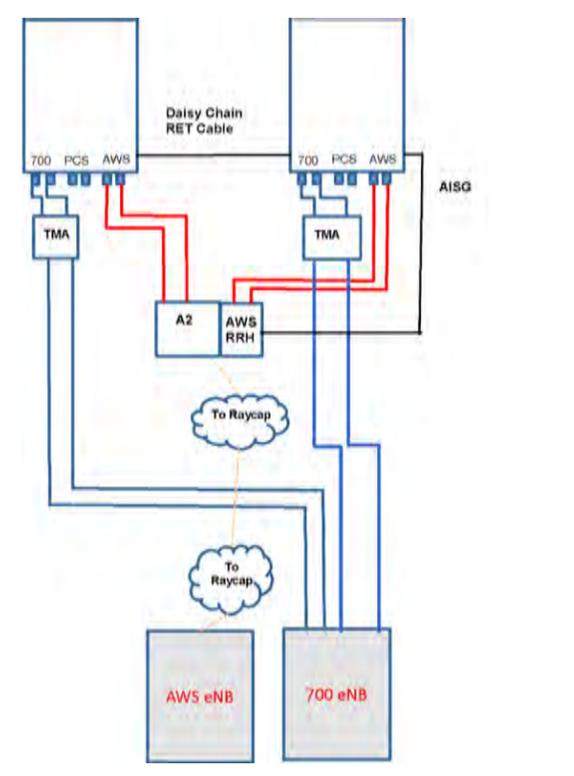
  

Coax	Sector	Coax Manufacturer	Type	Size	Count	Action
	Alpha	ANDREW		1 5/8	4	Install
	Beta	ANDREW		1 5/8	4	Install
	Gamma	ANDREW		1 5/8	4	Install
	AWS	Andrew	HF11206-24S25-300X	1 5/8	1	Install

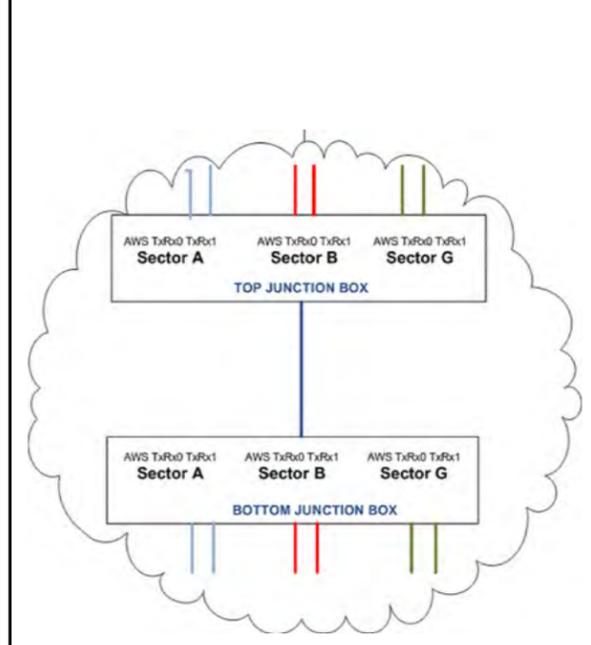
Comments

NOTE: BUNDLE CABLES TO TREAT AS ONE CABLE FOR LEASE PURPOSES

2 COMBINER CABLE DATA INFORMATION  
N.T.S.



3 CABLE DIAGRAM  
N.T.S.



4 CABLE DIAGRAM @ JUNCTION BOX  
N.T.S.

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LOC. 278659  
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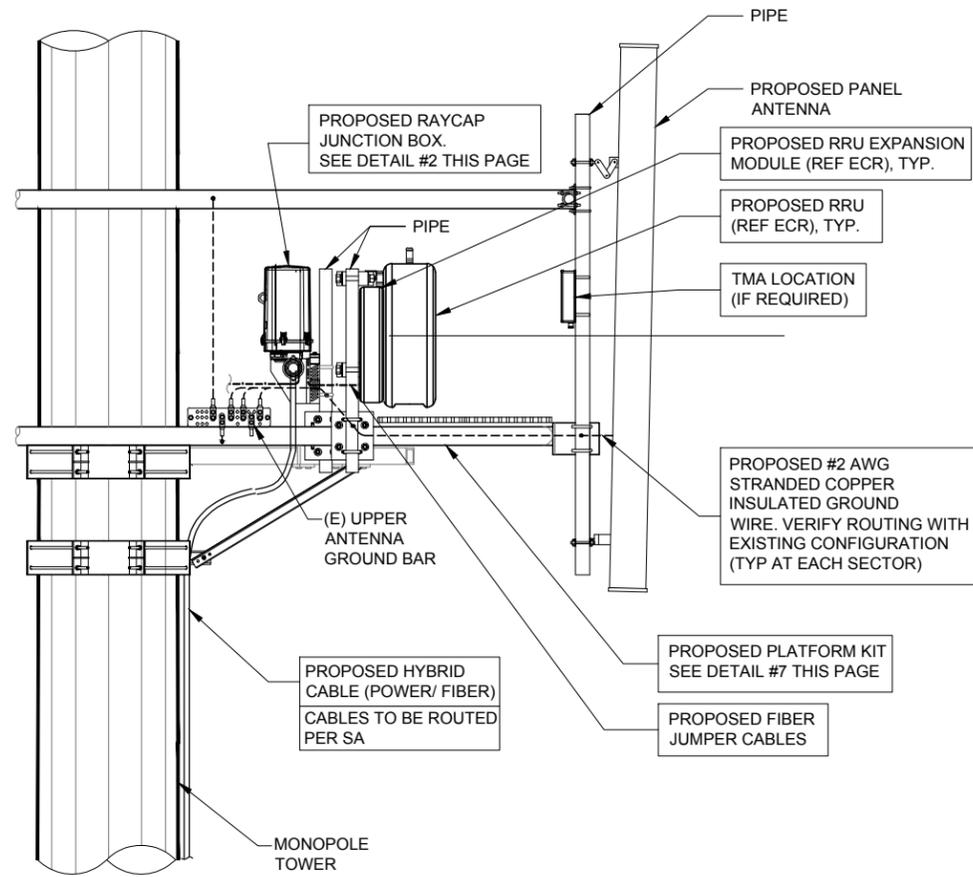
DRAWN BY: BTE  
CHECKED BY: TAZ  
DATE: 09/05/14  
PROJECT #: 76-029

SHEET TITLE  
ANTENNA INFORMATION

SHEET NUMBER  
**ANT-2**

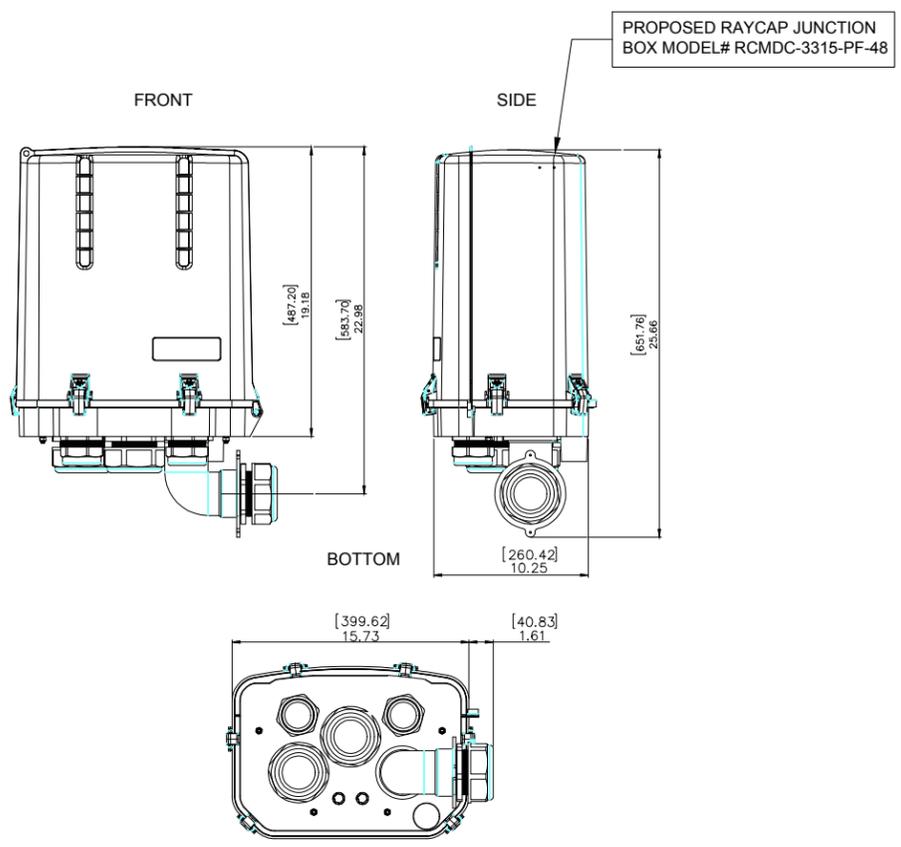
**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS



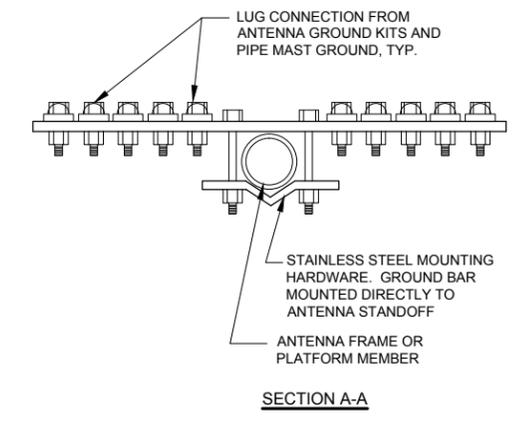


**1 ANTENNA, RRU & RAYCAP JUNCTION BOX MOUNTING DETAIL**  
SCALE: N.T.S.

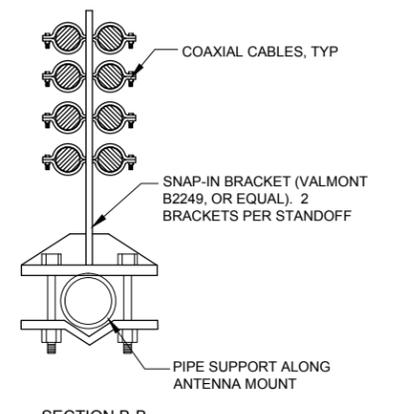
SPECIFICATIONS DC SURGE PROTECTION FOR RRU/INTEGRATED ANTENNA RADIO HEAD [mm]  
 APPLICATION: TOWER / BASE / ROOFTOP / ROOFTOP DISTRIBUTION MODELS INCHES  
 WEIGHT: 32LBS (14.51 KG)



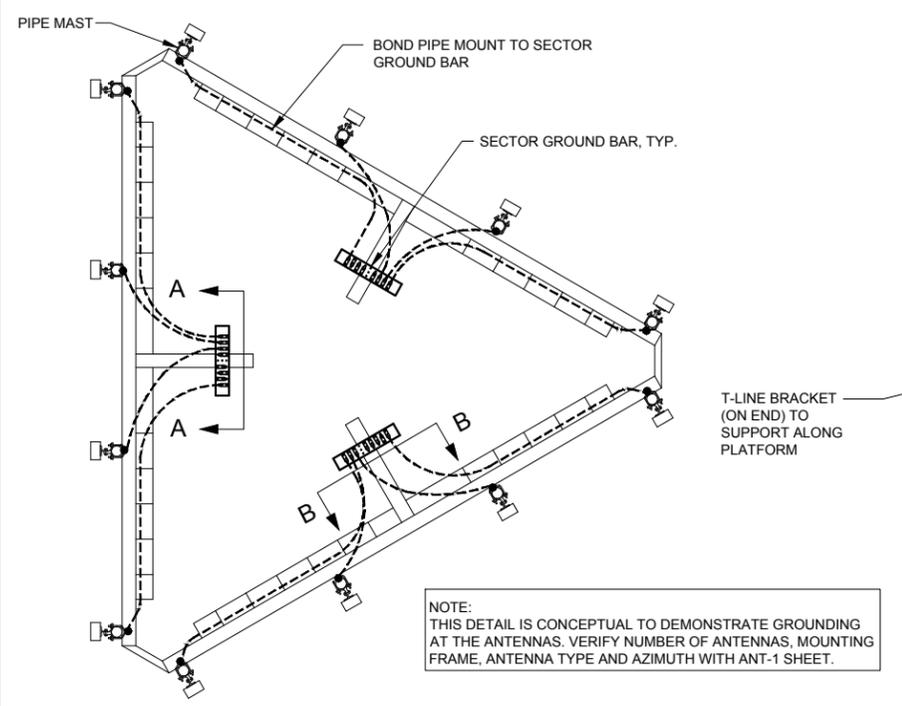
**2 RAYCAP JUNCTION BOX DETAIL**  
SCALE: N.T.S.



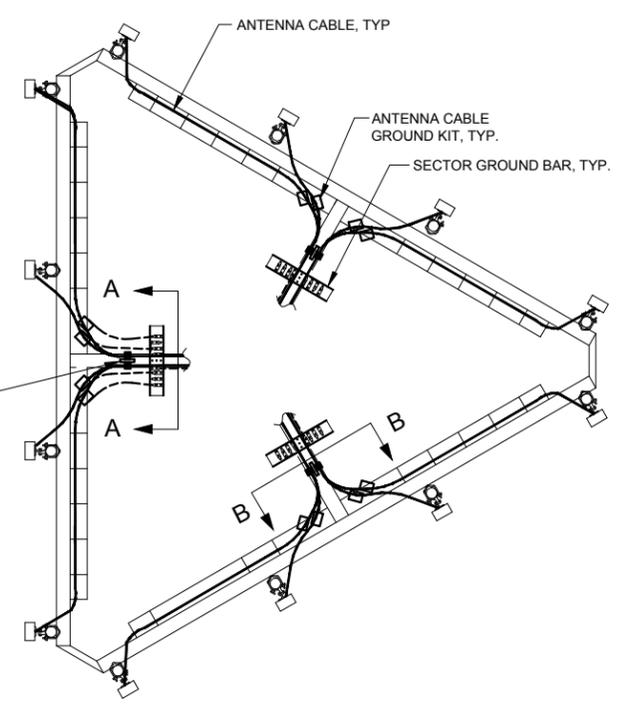
**3 GROUND BAR AT SECTOR**  
N.T.S.



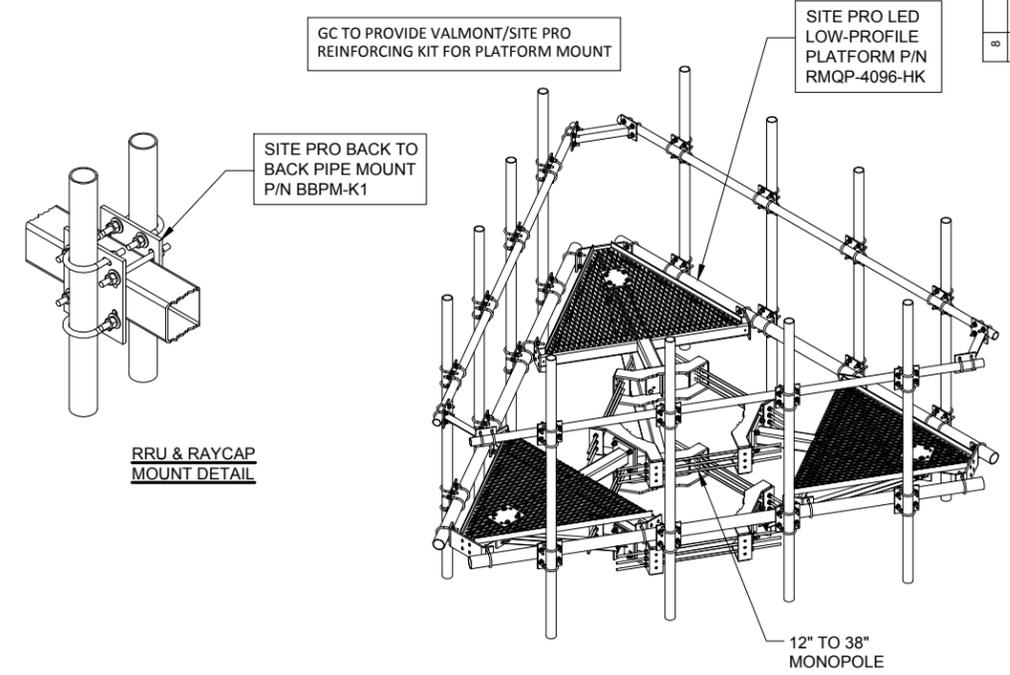
**4 SNAP-IN BRACKET AT ANTENNA MOUNT**  
N.T.S.



**5 PIPE MAST GROUNDING AT ANTENNA ELEVATION**  
N.T.S.



**6 ANTENNA CABLE GROUNDING AT ANTENNA ELEVATION**  
N.T.S.



**7 LED LO-PROFILE PLATFORM DETAIL**  
SCALE: N.T.S.

REVISIONS		JJR	JJR
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	UPDATE PER COMMENTS	03/09/15	JJR

**CHICAGO SMSA**  
 limited partnership  
 d/b/a VERIZON WIRELESS



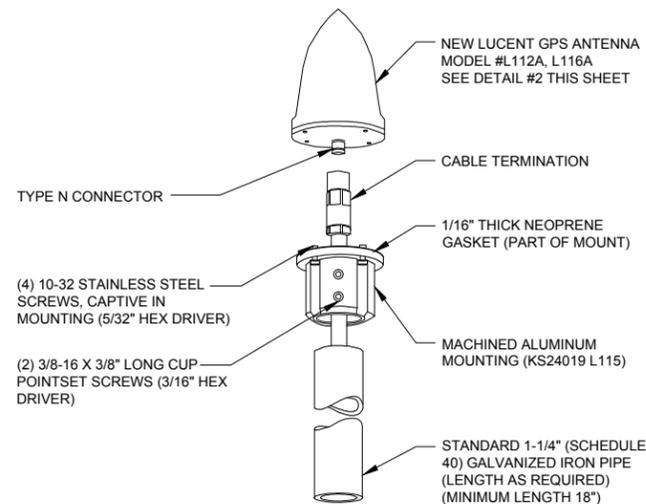
LOC. 278659  
 SBA #IL46494-A  
 N. TINLEY  
 6640 W. 167TH ST.  
 TINLEY PARK, IL 60477

DRAWN BY: BTE  
 CHECKED BY: TAZ  
 DATE: 09/05/14  
 PROJECT #: 76-029

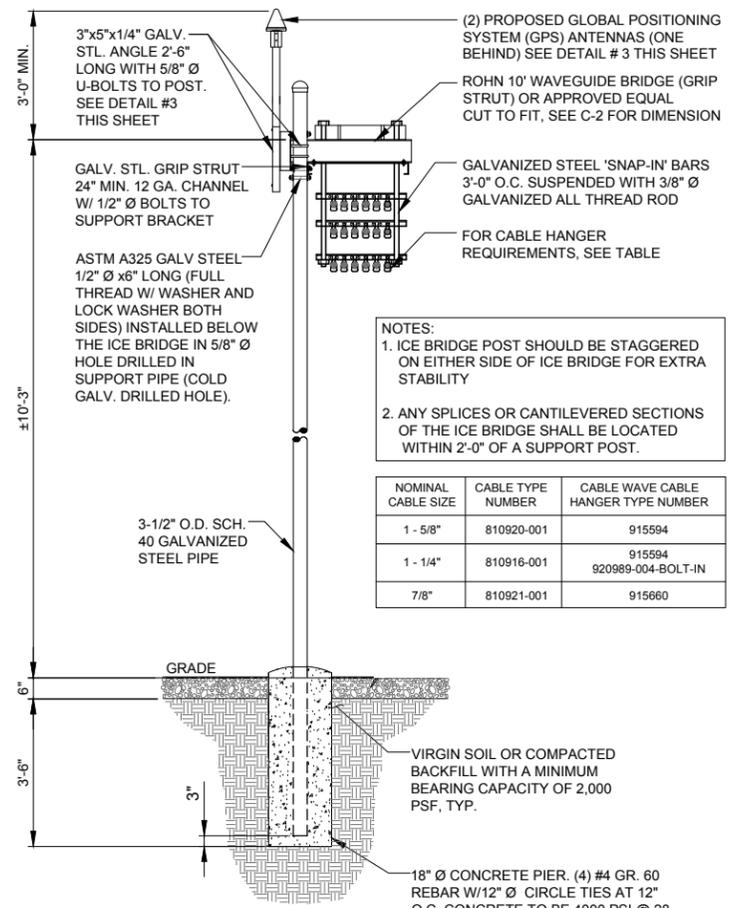
SHEET TITLE  
 ANTENNA MOUNTING DETAILS

SHEET NUMBER  
**ANT-3**

NOTE:  
INSTALL EACH GPS ON THE  
CLOSEST ICE BRIDGE POSTS TO  
SHELTER (TYP. AT 2 LOCATIONS).



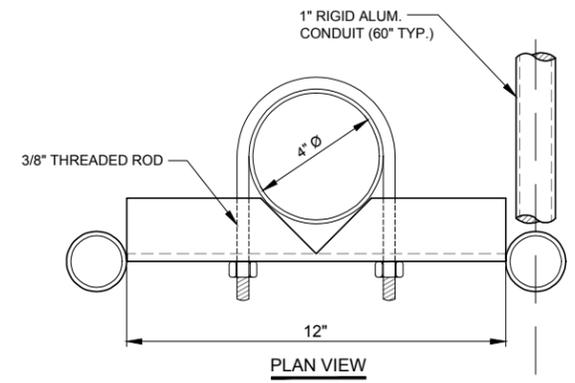
1 TYPICAL GPS DETAIL  
N.T.S.



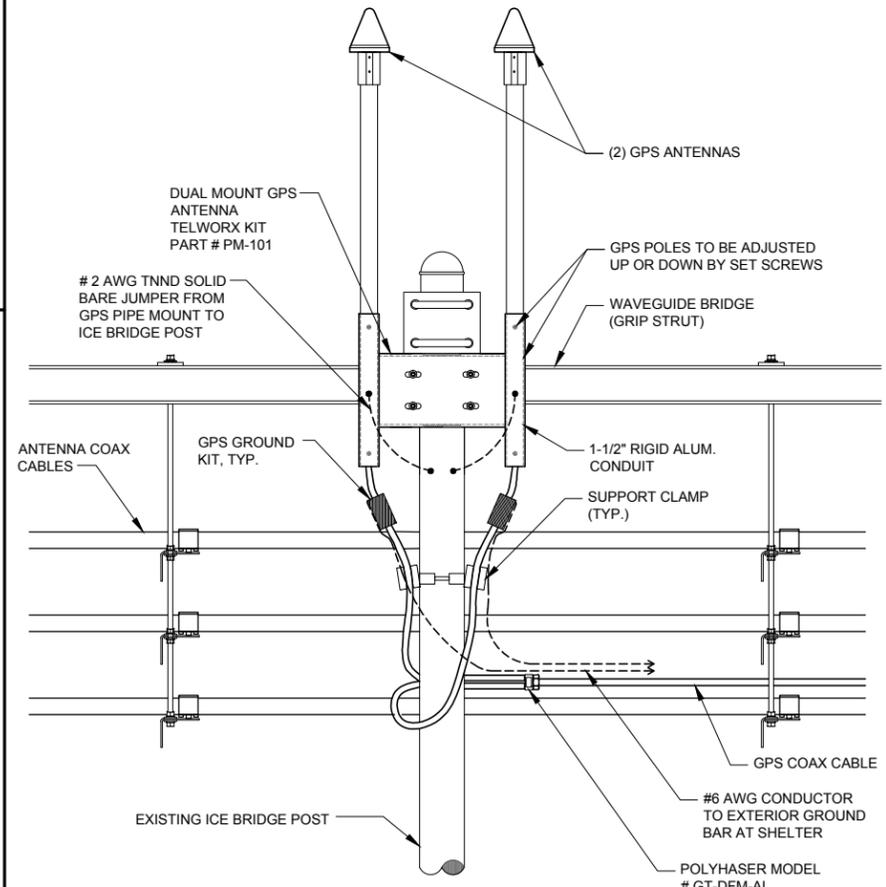
NOTES:  
1. ICE BRIDGE POST SHOULD BE STAGGERED  
ON EITHER SIDE OF ICE BRIDGE FOR EXTRA  
STABILITY  
2. ANY SPLICES OR CANTILEVERED SECTIONS  
OF THE ICE BRIDGE SHALL BE LOCATED  
WITHIN 2'-0\"/>

NOMINAL CABLE SIZE	CABLE TYPE NUMBER	CABLE WAVE CABLE HANGER TYPE NUMBER
1 - 5/8"	810920-001	915594
1 - 1/4"	810916-001	915594 920989-004-BOLT-IN
7/8"	810921-001	915660

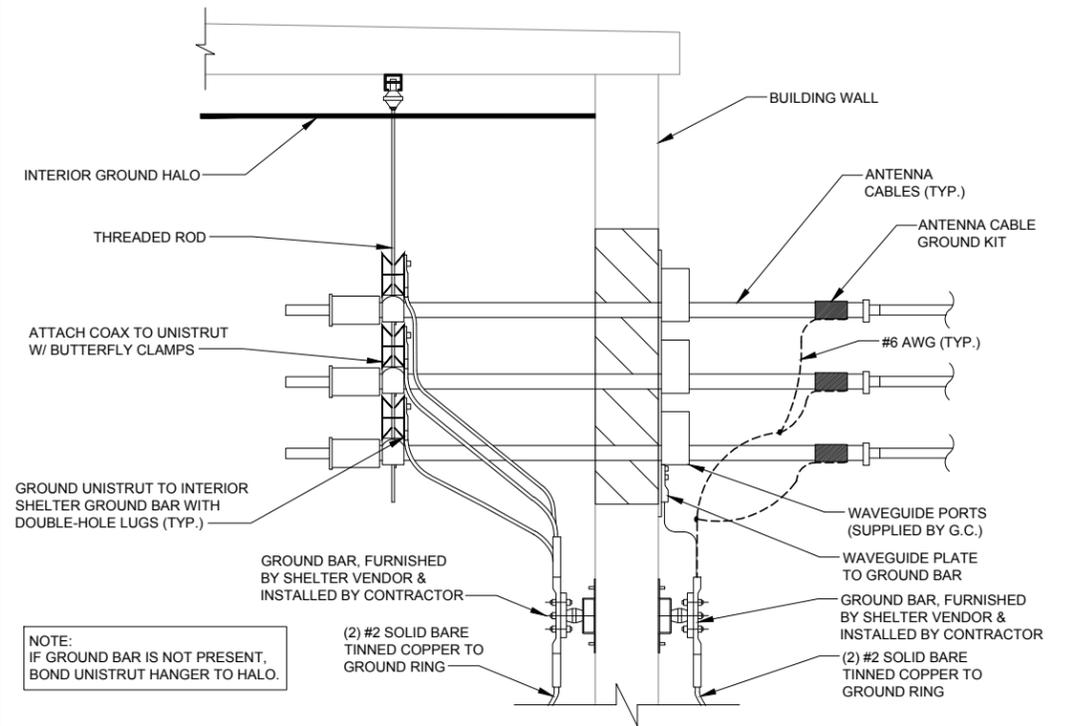
2 ICE BRIDGE DETAIL  
N.T.S.



PLAN VIEW

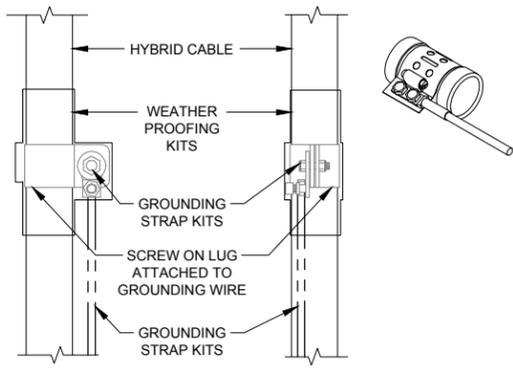


3 GPS MOUNTING DETAIL  
N.T.S.



4 ENCLOSURE ENTRY PANEL GROUNDING DETAIL  
N.T.S.

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



5 COAX/ HYBRID GROUND KIT DETAIL  
N.T.S.

REVISIONS		JJR	JJR
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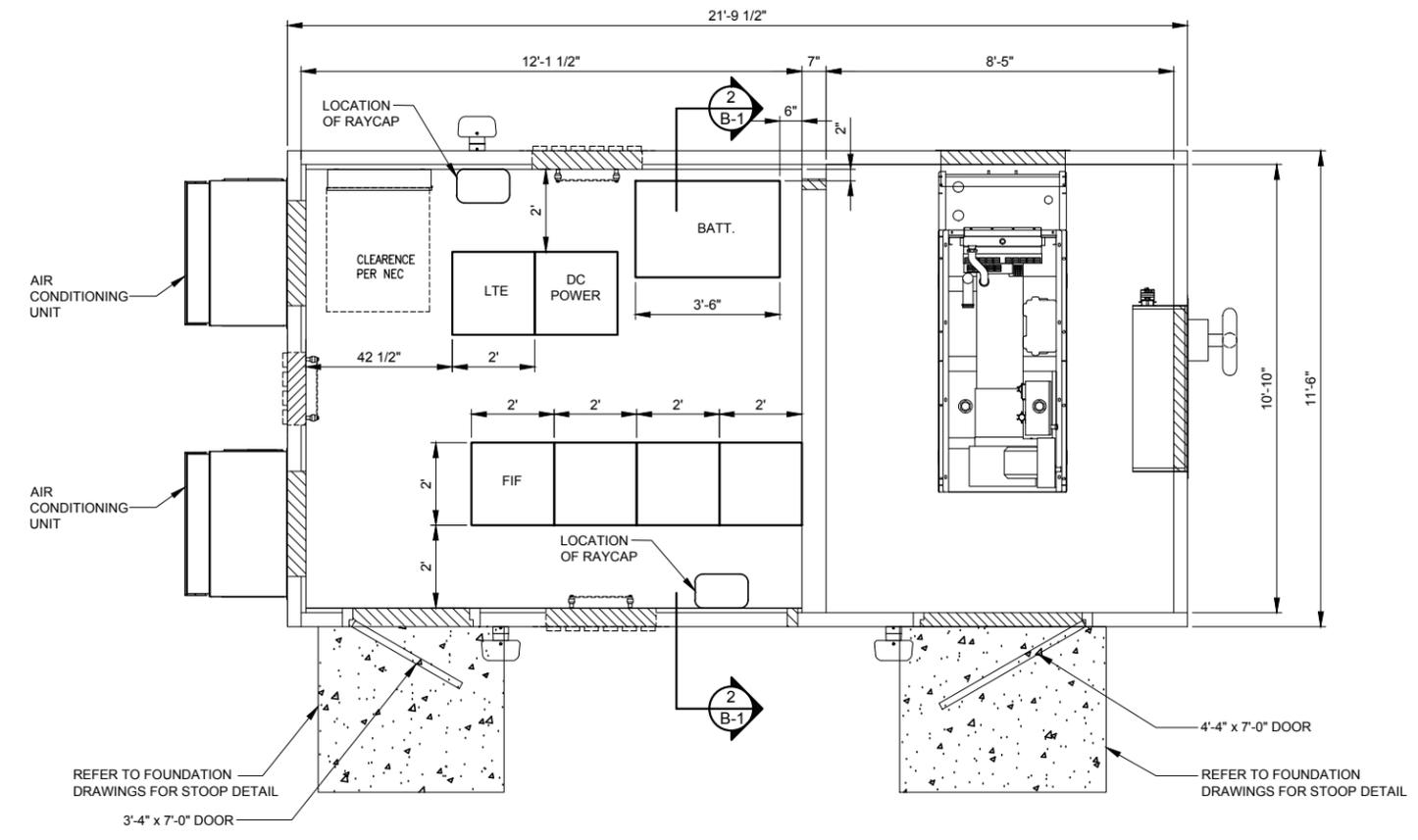
SHEET TITLE  
ANTENNA  
MOUNTING  
DETAILS

SHEET NUMBER

**ANT-4**

**CHICAGO  
SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS



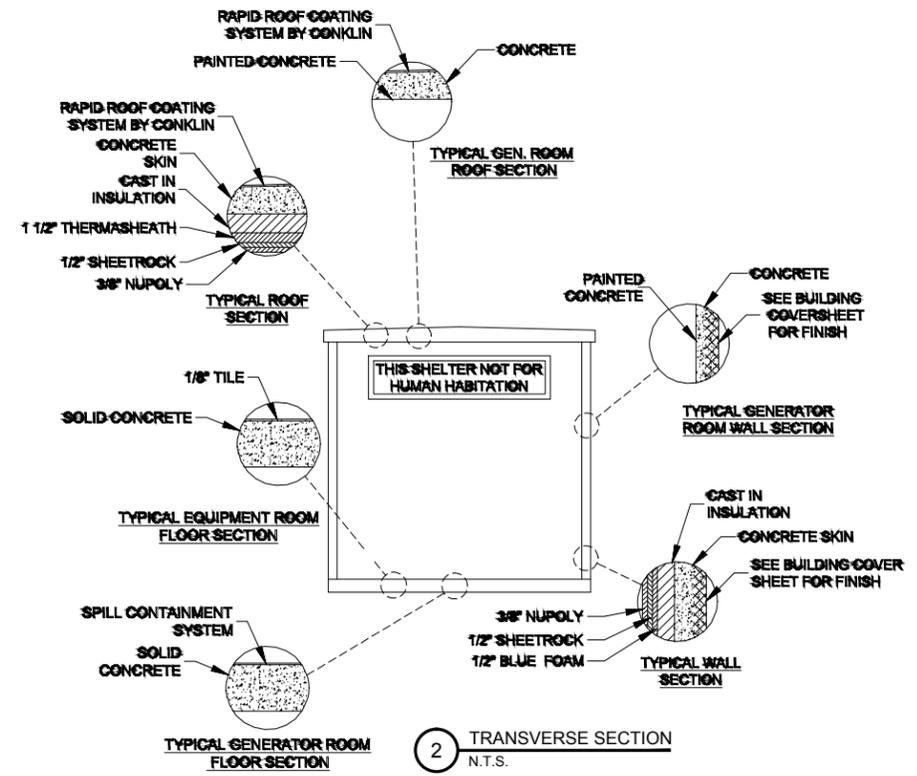


NOTE:  
 GENERAL CONTRACTOR IS RESPONSIBLE FOR  
 INSTALLING ALL EXTERIOR ATTACHMENTS FOR  
 GENERATOR (HOODS, MUFFLER, VENT, FILL, ETC.)

**1 FLOOR PLAN-EQUIPMENT ENCLOSURE**  
 SCALE: 1/2" = 1'-0"

**VENTILATION NOTES:**

- AIR CONDITIONING IS PROVIDED BY A BARD WALL MOUNTED SELF-CONTAINED ENERGY EFFICIENT COOLING SYSTEM, MODEL # WA602-A05EX2X1.5 TON, 120/240 VOLT, 30 AMP, SINGLE PHASE, 57,500 BTUH COOLING CAPACITY, 10.20 SEER, 24" DIA. FAN, 2600 CFM WITH FILTER
- ELECTRIC HEAT IS PROVIDED BY 5 KW, 18,840 BTUH, 240 VOLT, SINGLE PHASE HEAT STRIP, WITHIN BARD UNIT LISTED ABOVE.



**2 TRANSVERSE SECTION**  
 N.T.S.

ROOM PURPOSE	AREA	VENTILATION				REMARKS
		NATURAL		MECHANICAL		
		ACTUAL	REQUIRED	ACTUAL	REQUIRED	
WIRELESS TELEPHONE EQUIPMENT ENCLOSURE (NON-INHABITED)	225.21 S.F.	0 CFM	0 CFM	2600 CFM	0 CFM	SEE NOTE 1.

**NOTES:**

- EQUIPMENT ENCLOSURE IS PRE MANUFACTURED. THIS SHEET IS PROVIDED AS GUIDE ONLY. REFER TO ACTUAL DRAWINGS BY SHELTER MANUFACTURE FOR FULL BUILDING PLANS.
- EPS BOARD INSULATION IS LISTED TO HAVE A FLAME SPREAD OF 25 OR LESS AND SMOKE DEVELOPED OF 450 OR LESS WITH A MAXIMUM THICKNESS OF 2 INCHES AT 1 PCF DENSITY. POLYISOCYANURATE FOAM INSULATION HAS BEEN TESTED TO A MAXIMUM THICKNESS OF 3 INCHES AT 1.9 PCF AND HAS A FLAME SPREAD OF 25 AND A SMOKE PRODUCT OF 395.
- INTERIOR PANELING IS LISTED TO HAVE A FLAMESPREAD OF 200 OR LESS.
- THIS ENCLOSURE IS CLASSIFIED AS USE GROUP S-2, TYPE 5B CONSTRUCTION; AND IS IN COMPLIANCE WITH 2003 INTERNATIONAL BUILDING CODE, 2003 INTERNATIONAL MECHANICAL CODE, 2002 NEC AND ILLINOIS ASHRAE 90.1.
- DESIGN CRITERIA  
 WIND LOAD = 125 MPH FLOOR DEAD LOAD = 35 PSF  
 ROOF LIVE LOAD = 105 PSF WALL DEAD LOAD = 35 PSF  
 FLOOR LIVE LOAD = 150 PSF SNOW LOAD = 80 PSF  
 ROOF DEAD LOAD = 45 PSF SEISMIC EXPOSURE GROUP = III
- $F_c' = 5000$  PSI @ 28 DAYS (EQUIPMENT ENCLOSURE)
- ENCLOSURE AND ASSOCIATED EQUIPMENT IS PROVIDED BY OWNER UNDER SEPARATE CONTRACT. EQUIPMENT ENCLOSURE INFORMATION INDICATED HEREIN IS PROVIDED FOR REFERENCE ONLY AND IS TAKEN FROM MANUFACTURER'S AVAILABLE DATA. REFER TO CIVIL, STRUCTURAL AND ELECTRICAL DRAWINGS FOR WORK TO BE PERFORMED UNDER THIS CONTRACT.
- PRIOR TO PROJECT CLOSE OUT AND SHELTER INSTALLATION, THE GENERAL CONTRACTOR IS TO CLEAN THE SHELTER FLOOR AND APPLY A STATIC-FREE WAX TO THE FLOORS.

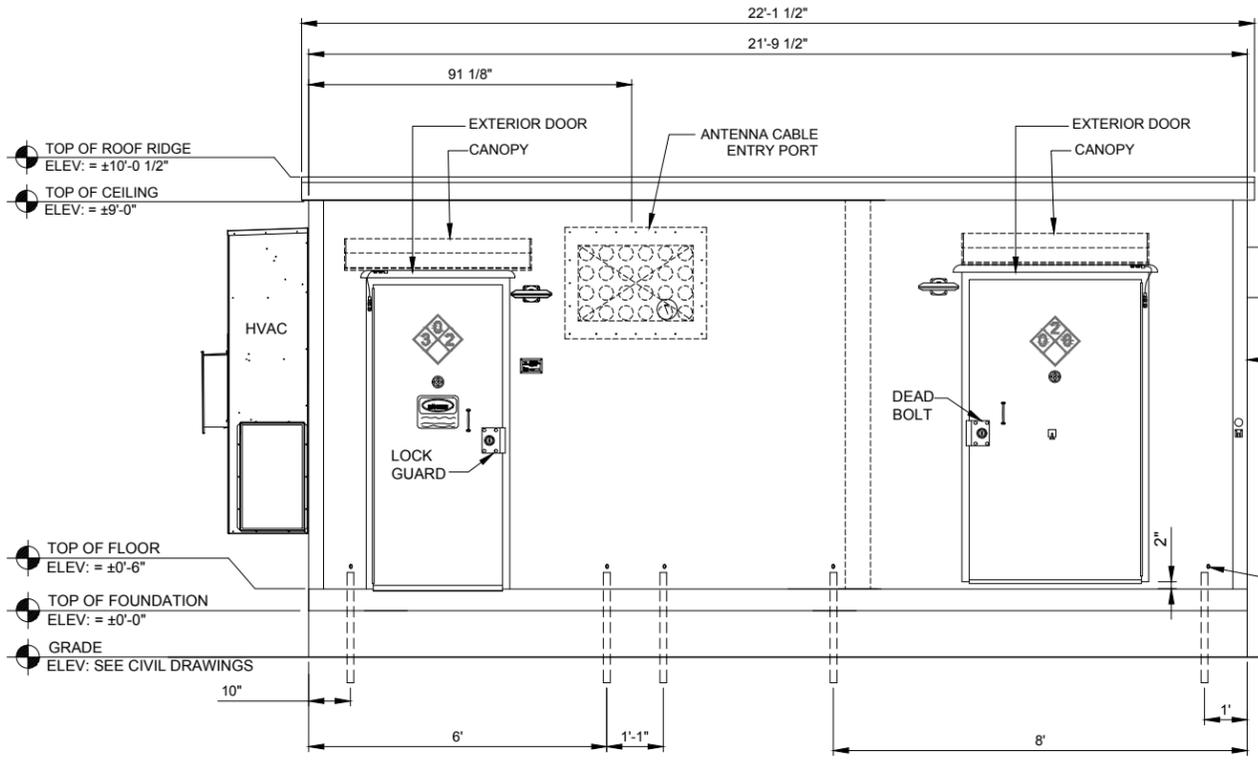
REVISIONS	
NO.	DESCRIPTION
1	ISSUED FOR REVIEW
2	ISSUED FOR REVIEW
3	UPDATE TOWER OWNER INFORMATION
4	ISSUED FOR PERMITTING
5	UPDATE TOWER HEIGHT / ANTENNAS
6	UPDATE PER FIBER COORDINATION
	UPDATE PER COMMENTS

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SHEET TITLE  
**EQUIPMENT ENCLOSURE PLAN & SECTION**

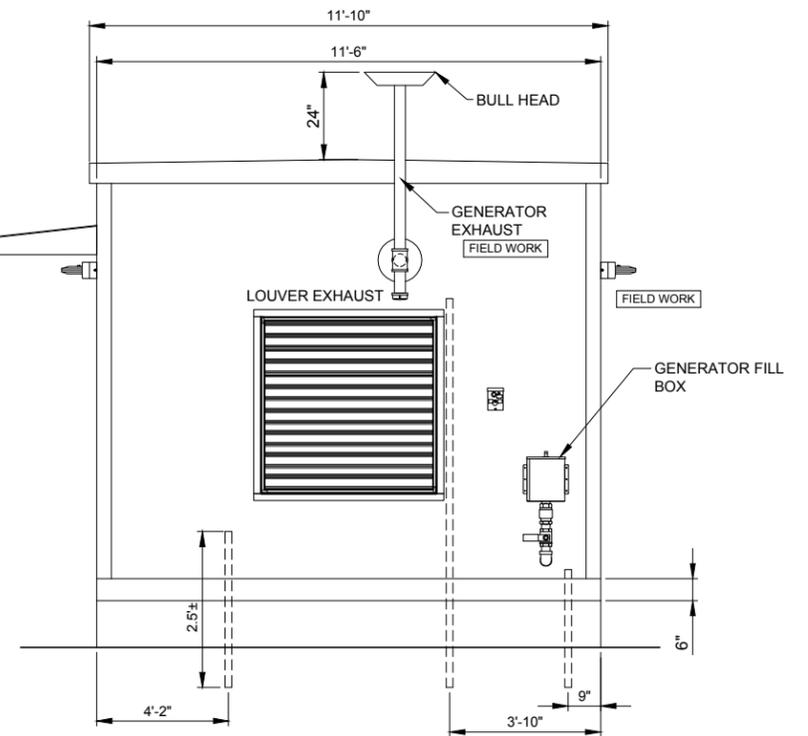
SHEET NUMBER  
**B-1**



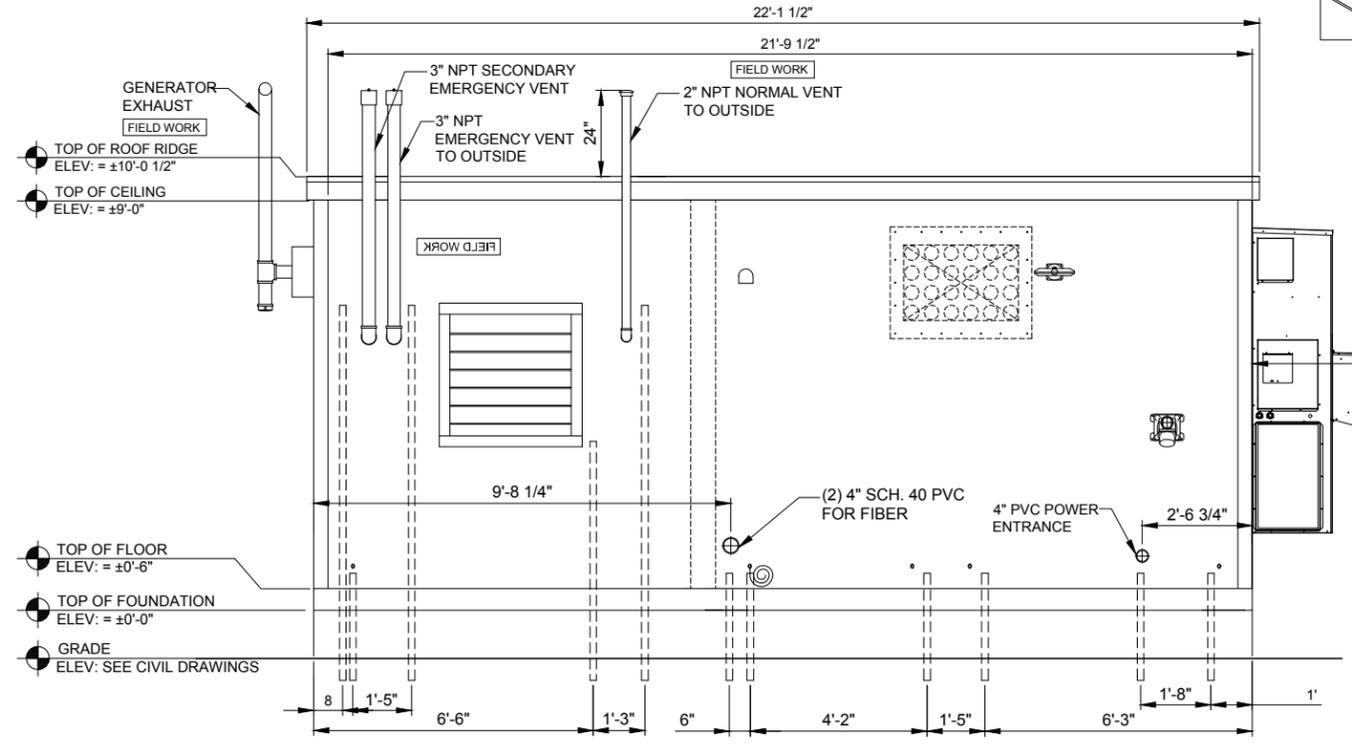
**1** ELEVATION-EQUIPMENT ENCLOSURE  
 SCALE: 1/2" = 1'-0"

**NOTE:**  
 ALL SHELTER LIGHTS  
 TO BE SHIELDED

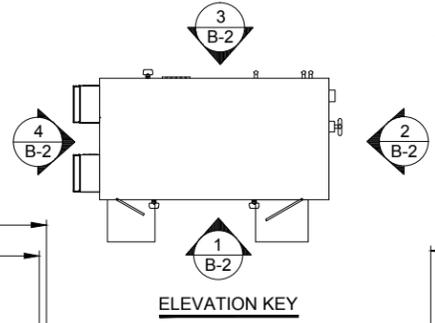
**NOTE:**  
 SHELTER REQUIRES  
 BRICK FACE



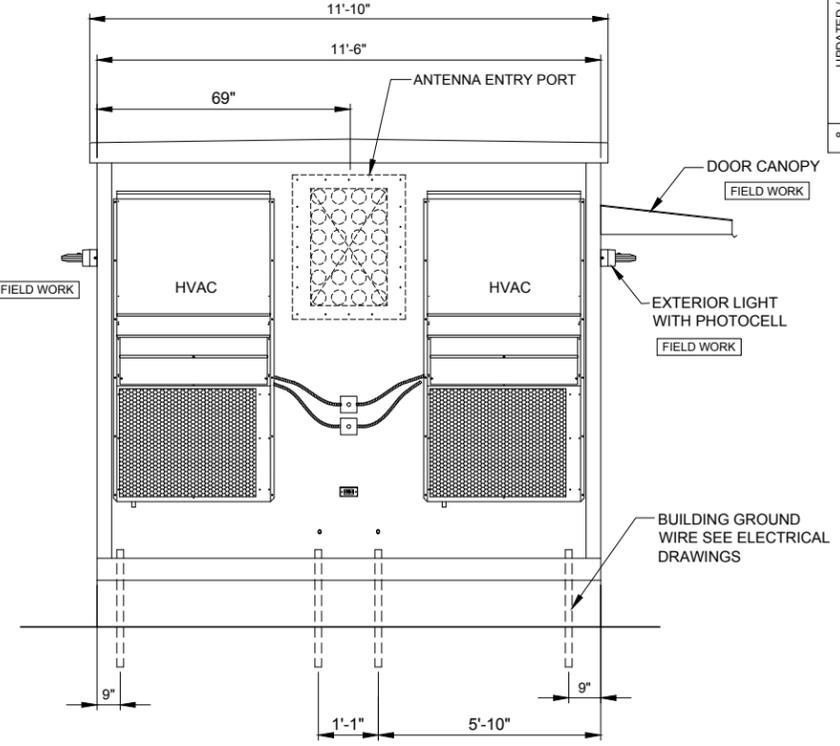
**2** ELEVATION-EQUIPMENT ENCLOSURE  
 SCALE: 1/2" = 1'-0"



**3** ELEVATION-EQUIPMENT ENCLOSURE  
 SCALE: 1/2" = 1'-0"



**ELEVATION KEY**



**4** ELEVATION-EQUIPMENT ENCLOSURE  
 SCALE: 1/2" = 1'-0"

REVISIONS	
NO.	DESCRIPTION
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6	UPDATE PER COMMENTS

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6	UPDATE PER COMMENTS	02/20/15	MT
		03/09/15	JJR

NO.	DESCRIPTION	DATE	BY
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PROJECT #:	76-029

SHEET TITLE  
 EQUIPMENT  
 ENCLOSURE  
 ELEVATIONS  
 SHEET NUMBER  
**B-2**

**UTILITY NOTES:**

**WORK INCLUDES:**

THESE NOTES AND ACCOMPANYING DRAWINGS COMPLEMENT THE PROVISIONS AND INSTALLATIONS BY THE ELECTRICAL CONTRACTOR, OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE ELECTRICAL WORK COMPLETE IN CONNECTION WITH THIS VERIZON WIRELESS SITE AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. THE PROVISIONS, INSTALLATION, AND CONNECTION OF A GROUNDING ELECTRODE SYSTEM COMPLETE WITH A BUILDING AND SECONDARY GROUNDING, CELLULAR TELEPHONE COMMUNICATIONS TOWER AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
2. THE PROVISION AND INSTALLATION OF AN OVERHEAD ELECTRICAL SERVICE OR UNDERGROUND ELECTRICAL SERVICE AND ALL ASSOCIATED WIRE AND CONDUIT AS REQUIRED AND/OR INDICATED ON PLANS.
3. THE PROVISION, INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL TELEPHONE SERVICE.
4. THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUCTORS, CONDUITS, METER SOCKET, AND CONNECTIONS TO THE SERVICE EQUIPMENT WITHIN THE ENCLOSURE.
5. TWO INCH (2") AND THREE INCH (3") DIAMETER PVC CONDUITS SCHEDULE 40.
6. ALL PVC CONDUITS SHOULD BE LEFT WITH NYLON PULL CORD FOR FUTURE USE.
7. EXCAVATION, TRENCHING, AND BACKFILLING FOR CONDUIT(S), CABLE(S), AND EXTERNAL GROUNDING SYSTEM.

**CODES, PERMITS, AND FEES:**

1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL, AND THE DESIGN, PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE VARIOUS APPLICABLE STANDARD SPECIFICATIONS OF THE FOLLOWING AUTHORITIES:

N.E.C.	NATIONAL ELECTRIC CODE
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E.	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
U.L.	UNDERWRITERS LABORATORIES, INC.
N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION

**RACEWAYS AND WIRING:**

1. WIRING OF EVERY KIND MUST BE INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ENGINEER.
2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
3. RACEWAYS SHALL BE GALVANIZED STEEL, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, UNLESS OTHERWISE NOTED. ALL RACEWAYS SHALL BE APPROVED FOR THE INSTALLATION.
4. PULL OR JUNCTION BOXES SHALL BE PROVIDED AS REQUIRED TO FACILITATE INSTALLATION OF RACEWAYS AND WIRING. PROVIDE JUNCTION AND PULLBOXES FOR CONDUIT RUNS WITH MORE THAN (360) DEGREES OF BENDS.
5. PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
6. ELECTRICAL PANELBOARD SHALL BE FURNISHED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
7. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUNDING BUSHING.

**GENERAL NOTES:**

SEE DETAILS AND SCHEDULES ON DRAWINGS AND SPECIFICATIONS FOR MEANING OF ABBREVIATIONS AND ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO ENGINEER BEFORE SUBMITTING BID. ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WIRE DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

**COORDINATION WITH UTILITY COMPANY:**

THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM, INCLUDING TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, IF REQUIRED, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY SERVICE, ETC. PRIOR TO SUBMITTING BID TO INCLUDE ALL LABOR AND MATERIALS. THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID ANY OPTIONAL OR EXCESS FACILITY CHARGES ASSOCIATED WITH PROVIDING ELECTRICAL SERVICE FROM LOCAL UTILITY COMPANY. VERIFY BEFORE BIDDING TO INCLUDE ALL COSTS. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVER CURRENT PROTECTION DEVICES IN DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM LOCAL UTILITY COMPANY. ALL GROUNDING RODS PROVIDED BY THE POWER OR TELEPHONE UTILITY COMPANIES MUST BE TIED INTO THE MAIN EXTERNAL GROUND RING.

**UTILITY CONTACTS:**

POWER: COMED

FIBER: AT&T  
JAMES DELLAMANO  
815-727-8017

LEONARD ANDERSON  
708-235-2346

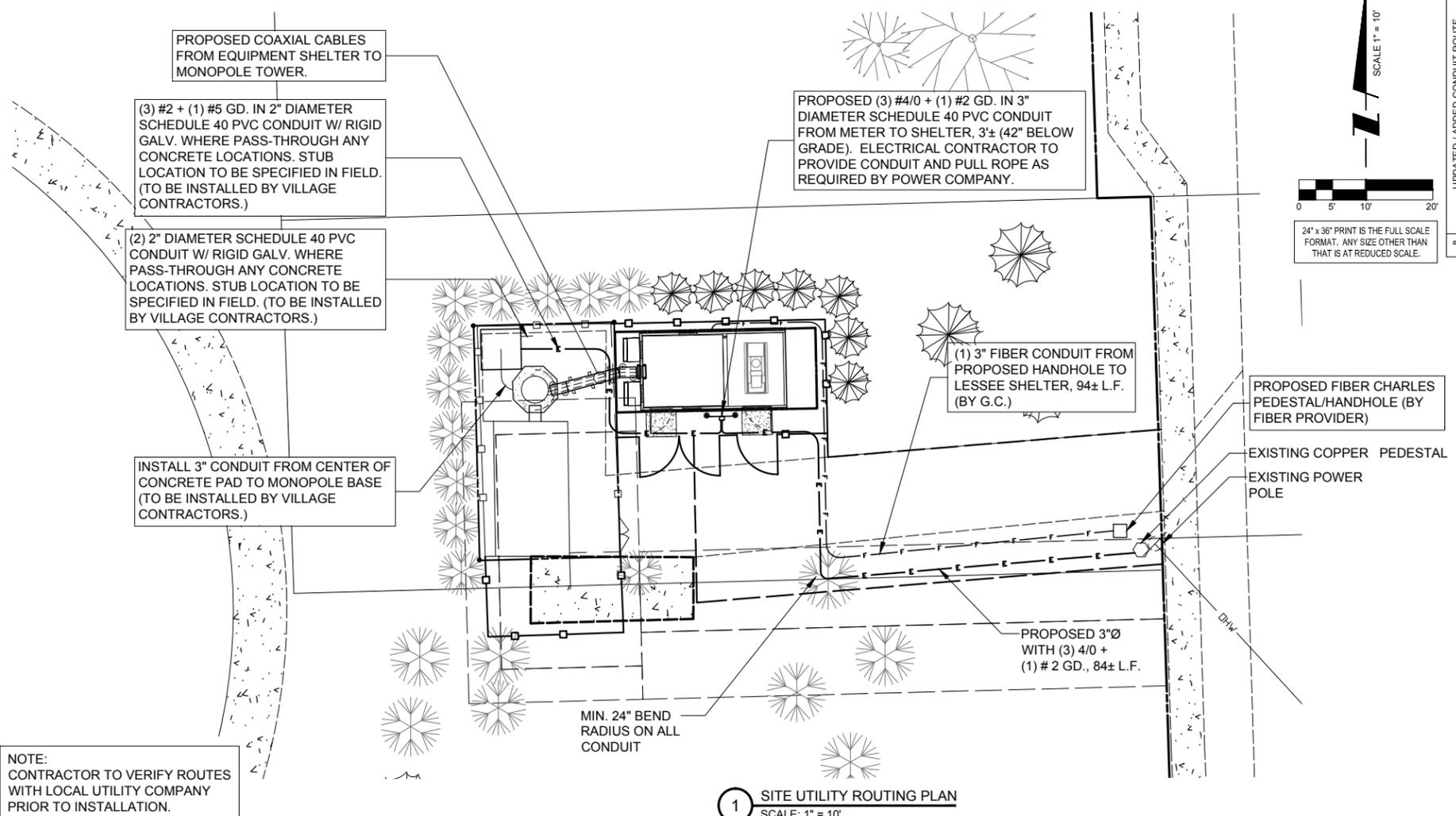
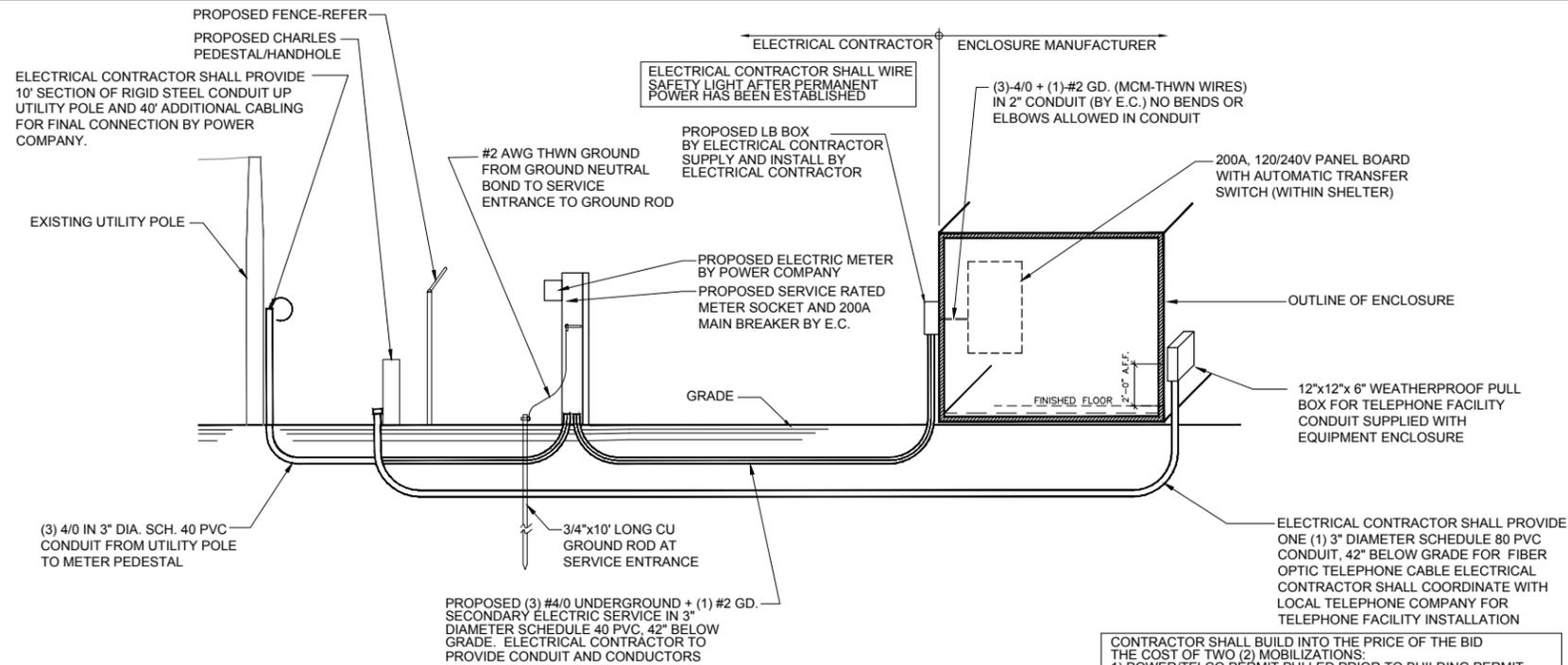
FOR CONTINUATION AND CONNECTION OF ELECTRIC AND TELEPHONE SERVICE. COORDINATE WITH ELECTRIC AND PHONE COMPANY

ELECTRICAL CONTRACTOR SHALL COORDINATE WITH POWER COMPANY FOR ENTRY INTO FENCED AREA BY EITHER MAILING A KEY TO A SLAVE LOCKED CHAIN AT THE FENCE GATE OR CALLING AND LEAVING A COMBINATION.

OPERATES 24 HOURS  
A DAY 365 DAYS A YEAR



CALL JULIE TOLL FREE  
1(800) 892-0123  
48 HOURS BEFORE  
YOU DIG



REVISED CONDUIT ROUTE		JJR	JJR
UPDATED / ADDED CONDUIT ROUTE		07/15/15	07/02/15
NO	DESCRIPTION	BY	DATE
1	ISSUED FOR REVIEW	BTE	09/05/14
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	UPDATE PER COMMENTS	JJR	03/09/15

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS



LOC. 278659  
SBA #IL46494-A  
**N. TINLEY**  
6640 W. 167TH ST.  
TINLEY PARK, IL 60477

DRAWN BY: BTE  
CHECKED BY: TAZ  
DATE: 09/05/14  
PROJECT #: 76-029

SHEET TITLE  
**UTILITY ROUTING PLAN**  
SHEET NUMBER  
**E-1**

**GROUNDING ELECTRODE SYSTEM NOTES:**

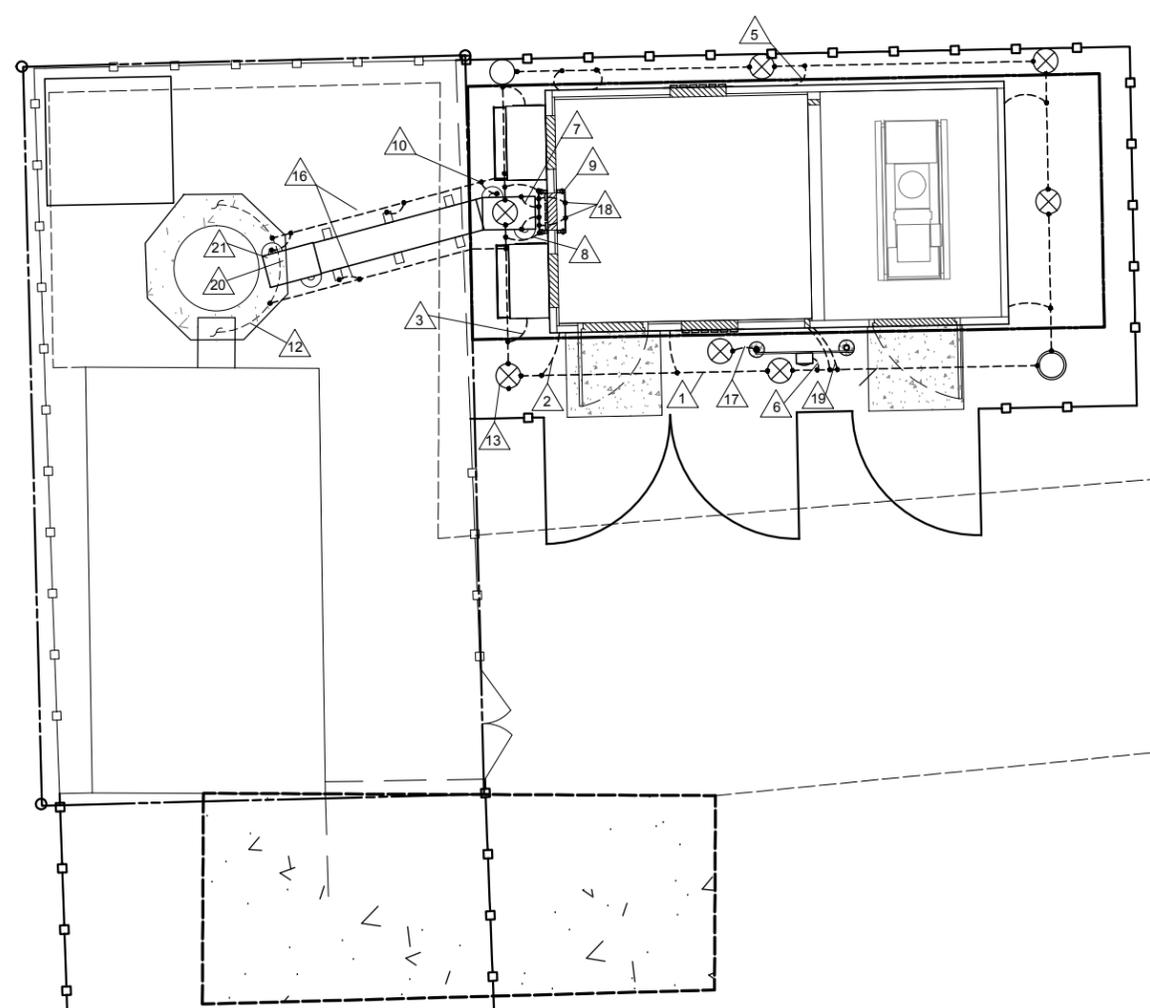
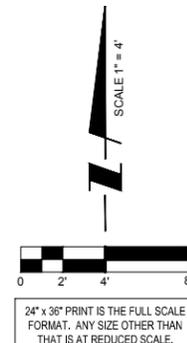
1. ALL GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC PROCESS CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, ETC. ALL CABLE TO GROUND RODS, GROUND RODS SPLICES AND LIGHTNING PROTECTION SYSTEM AS INDICATED. GROUND FOUNDATION ONLY AS INDICATED BY PM. ALL MATERIALS USED (MOLDS, WELDING, METAL, TOOLS, ETC.) SHALL BE BY EXOTHERMIC PROCESS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES. GROUND CONDUCTOR SHALL HAVE A MINIMUM 24" BENDING RADIUS.
2. ALL EXOTHERMIC CONNECTIONS ON GALVANIZED SURFACES SHALL BE CLEANED THOROUGHLY AND COLORED TO MATCH SURFACE WITH (2) TWO COATS OF SHERWIN-WILLIAMS GALVITE (WHITE) PAINT B50W3 (OR EQUAL) OR SHERWIN-WILLIAMS SILVERBRITE (ALUMINUM) B59S11 (OR EQUAL).
3. ALL ELECTRICAL & MECHANICAL GROUND CONNECTIONS SHALL HAVE ANTI-OXIDANT COMPOUND APPLIED TO CONNECTION

LEGEND	
SYMBOL	DESCRIPTION
⊗	5/8" DIAMETER X 10'-0" LONG COPPER CLAD GROUND ROD (HARGER-5810)
○	5/8" DIAMETER X 10'-0" LONG COPPER CLAD GROUND ROD WITH INSPECTION WELL
----	#2 AWG TNNI SOLID BARE COPPER WIRE MINIMUM 42" BELOW GRADE (HARGER-L2)
---UE---	UNDERGROUND ELECTRICAL
---UT---	UNDERGROUND TELEPHONE
---F---	UNDERGROUND FIBER
●	EXOTHERMIC WELD
—OE—	OVERHEAD ELECTRICAL SERVICE
—OT—	OVERHEAD TELEPHONE SERVICE

4. FENCE/GATE: GROUND FENCE POSTS WITHIN 6 FEET OF ENCLOSURE AND 25 FEET OF TOWER AS INDICATED ON DRAWINGS. GROUND EACH GATE POST AND CORNER POST. GROUND CONNECTIONS TO FENCE POSTS SHALL BE MADE BY THE EXOTHERMIC PROCESS AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES. ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY THE EXOTHERMIC PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.
5. AFTER INSTALLATION OF THE CANOPY AT THE DOOR, GC/EC IS TO BOND THE CANOPY TO THE DOOR FRAME WITH A #2 CONDUCTOR. USE DOUBLE-LUG CONNECTION. PREP AND PAINT SURFACE TO MATCH AFTER INSTALLATION.
6. UTILITY COMPANY COORDINATION: ELECTRICAL CONTRACTOR SHALL CONFIRM THAT ALL WORK IS IN ACCORDANCE WITH THE RULES OF THE LOCAL UTILITY COMPANY BEFORE SUBMITTING THE BID. THE CONTRACTOR SHALL CHECK WITH THE UTILITY COMPANIES SUPPLYING SERVICE TO THIS PROJECT AND SHALL DETERMINE FROM THEM ALL EQUIPMENT AND CHARGES WHICH THEY WILL REQUIRE AND SHALL INCLUDE THE COST IN THE BID.
7. GROUND TEST: GROUND TESTS SHALL BE PERFORMED AS REQUIRED BY LESSEE STANDARD PROCEDURES. GROUND GRID RESISTANCE SHALL NOT EXCEED 5 OHMS.
8. CONTRACTOR SHALL SUBMIT THE GROUND RESISTANCE TEST REPORT AS FOLLOWS:
  1. ONE (1) COPY TO OWNER REPRESENTATIVE
  2. ONE (1) COPY TO ENGINEER
  3. ONE (1) COPY TO KEEP INSIDE EQUIPMENT ENCLOSURE

**TYPICAL KEYED GROUNDING NOTES**

1. #2 AWG TNNI SOLID BARE COPPER CONDUCTOR 42" BELOW GRADE (TYPICAL) MINIMUM 24" BENDING RADIUS
2. ENCLOSURE GROUND (TYP.) IN 1/2" DIAMETER SCHEDULE 40 PVC CONDUIT
3. GROUND EQUIPMENT ENCLOSURE HVAC WITH MECHANICAL CLAMP (SEE DETAIL, SHEET E-3)
4. MAINTAIN TWO FOOT DISTANCE OFF OF STRUCTURES.
5. GROUND TELEPHONE SERVICE ENTRANCE (SEE DETAIL, SHEET E-3)
6. ELECTRIC METER AND ELECTRIC SERVICE GROUNDING (SEE DETAIL SHEET E-4), COORDINATE ALTERNATE WITH PM
7. GROUND COAXIAL ANTENNA CABLES TO GROUND BAR BY ANTENNA CONTRACTOR TERMINATE CABLES 1'-0" FROM ENCLOSURE AND INSTALL LIGHTNING SURGE ARRESTORS ON EACH CABLE GROUND.
8. EXOTHERMICALLY WELD COPPER GROUND BAR TAIL TO EXTERIOR HALO GROUND RING (EXOTHERMIC CONNECTION TYPE TA) BY ANTENNA CONTRACTOR. FINAL CONNECTION BY ELECTRICAL CONTRACTOR.
9. 4"x20"x1/4" TNNI INSULATED COPPER GROUND BAR, NON ISOLATED WITH 10.0' LONG #2 AWG TNNI SOLID COPPER WIRE WELDED TAILS (HARGER GBIT 14420VW)
10. GROUND CABLE WAVEGUIDE BRIDGE (TYP.) BY ELECTRICAL CONTRACTOR.
11. GROUND ANTENNA CABLES TO GROUND BAR AT ANTENNA ELEVATION OF TOWER. GROUND BASE GROUND BAR TO GROUND HALO.
12. EXISTING TOWER GROUND RING
13. 5/8" DIAMETER X 10'-0" LONG COPPER CLAD GROUND ROD (HARGER-5810) (SEE DETAIL, SHEET E-3) WITH EXOTHERMIC CONNECTION
14. GROUND CHAIN LINK FENCE (TYPICAL) EXOTHERMIC CONNECTION (TYPE VS) GROUND FENCE POSTS WITHIN 6 FEET OF ENCLOSURE AND 25 FEET OF TOWER. (SEE DETAIL, SHEET E-3.)
15. GATE JUMPERS (SEE DETAIL, SHEET E-4)
16. BOND EXISTING TOWER GROUND RING TO PROPOSED GROUND RING WITH #2 AWG TNNI SOLID COPPER CONDUCTOR IN 2 LOCATIONS.
17. BOND SERVICE DISCONNECT TO GROUND ROD AND EQUIPMENT GROUND RING (SEE DETAIL, SHEET E-4)
18. TWO #2 LEADS FROM THE EGR TO THE MGB LOCATED IN THE SHELTER. CADWELD AT EGR AND DOUBLE HOLE LUGS IN SHELTER.
19. ELECTRIC SERVICE ENTRY GROUND
20. 4"x20"x1/4" TNNI INSULATED COPPER GROUND BAR, NON-ISOLATED, WITH 10.0' LONG #2 AWG TNNI SOLID COPPER WIRE WELDED TAILS (HARGER GBIT 14420VW)
21. GROUND ANTENNA CABLES TO GROUND BAR AT ANTENNA ELEVATION OF TOWER. GROUND BASE GROUND BAR TO GROUND HALO.
22. RE-BAR GROUND (UFER GROUND). #2 FROM BOTTOM RE-BAR TO GROUND RING.



**1 SITE GROUNDING PLAN**  
SCALE: 1" = 4'

NOTE:  
SEE GROUNDING DETAILS  
ON SHEETS E-3 & E-4

REVISED COAX ROUTE		JJR	JJR
NO.	DESCRIPTION	DATE	BY
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6	UPDATE PER FIBER COORDINATION	02/20/15	MT
	UPDATE PER COMMENTS	03/09/15	JJR

**LOC. 278659**  
**SBA #IL46494-A**

**N. TINLEY**

6640 W. 167TH ST.  
TINLEY PARK, IL 60477

DRAWN BY:	BTE
CHECKED BY:	TAZ
DATE:	09/05/14
PROJECT #:	76-029

SHEET TITLE  
**SITE GROUNDING PLAN**

SHEET NUMBER  
**E-2**

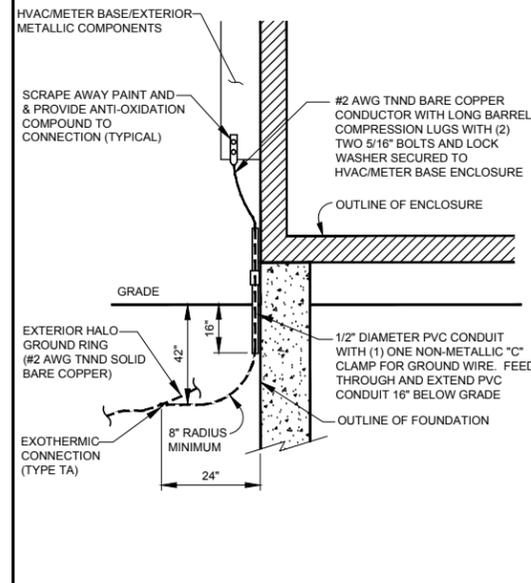
**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS



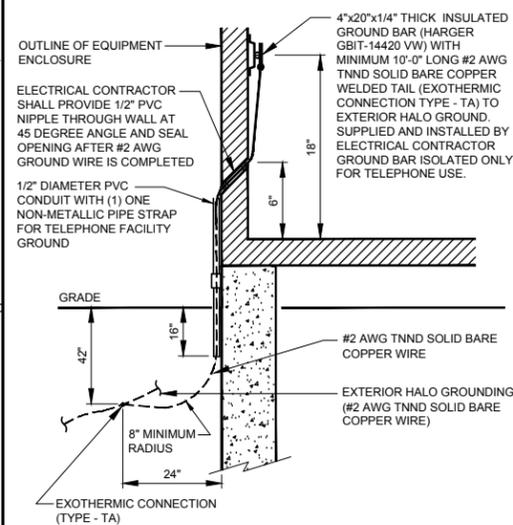
1 NOT USED  
N.T.S.

2 TELEPHONE SERVICE ENTRANCE  
N.T.S.

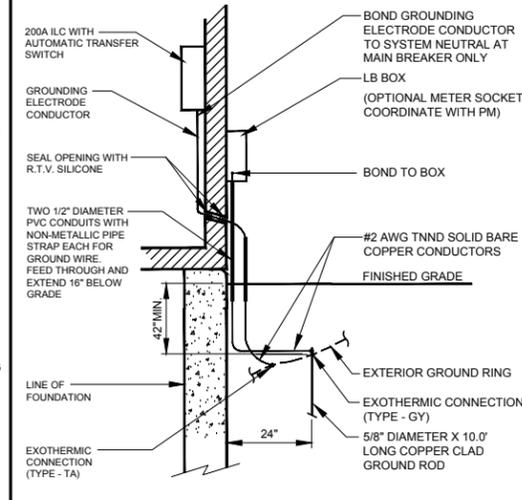
3 UNDERGROUND ELEC. SERVICE DETAIL  
N.T.S.



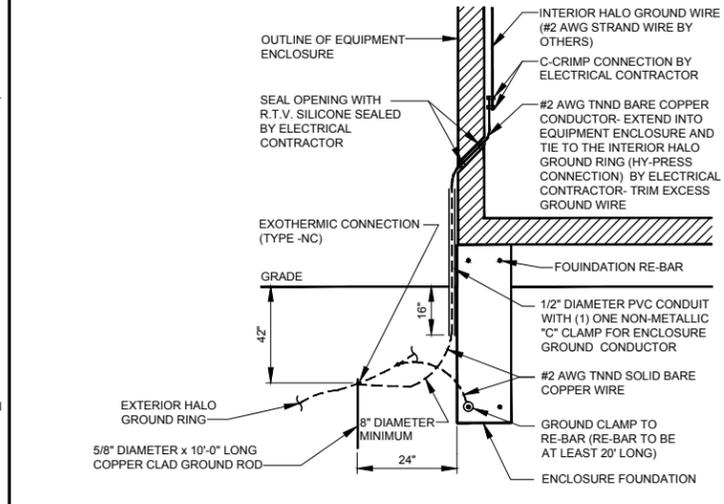
4 HVAC/METER BASE/METALLIC COMPONENTS GROUNDING DETAIL  
N.T.S.



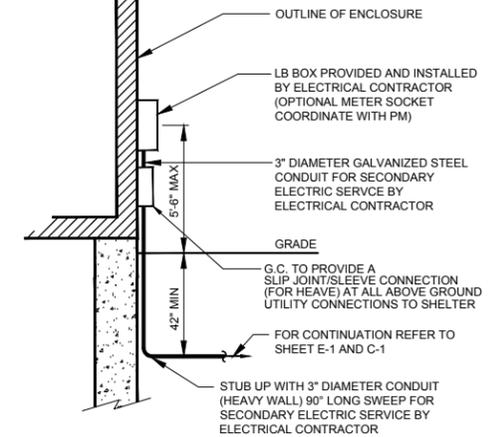
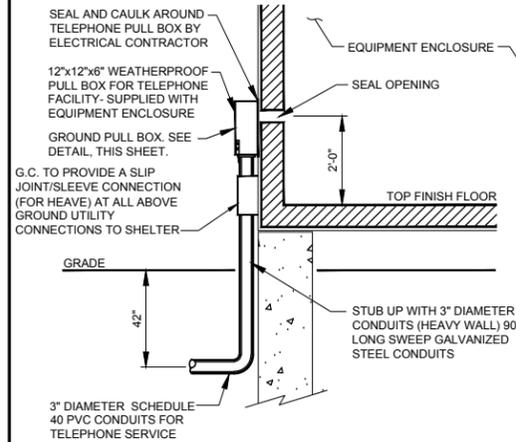
5 TELCO FACILITY GROUND  
N.T.S.



6 ELECTRIC SERVICE GROUNDING DETAIL  
N.T.S.



7 ENCLOSURE GROUNDING DETAIL  
N.T.S.



NO.	DESCRIPTION	DATE	BY
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	UPDATE PER COMMENTS	03/09/15	JJR

LOC. 278659  
SBA #IL46494-A

N. TINLEY

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TINLEY PARK, IL 60477

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PROJECT #: 76-029

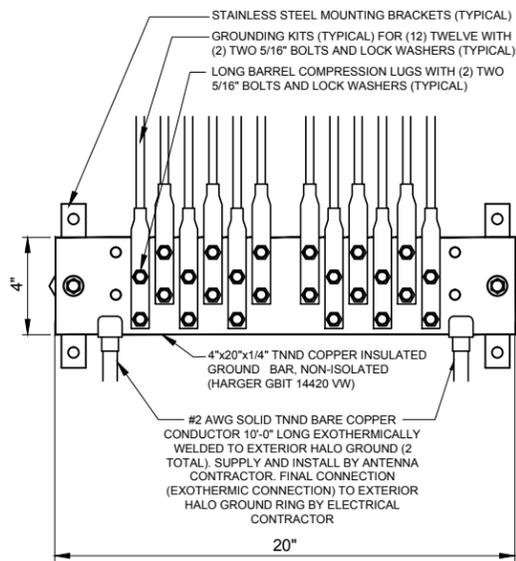
SHEET TITLE  
ELECTRICAL AND  
GROUNDING DETAILS

SHEET NUMBER

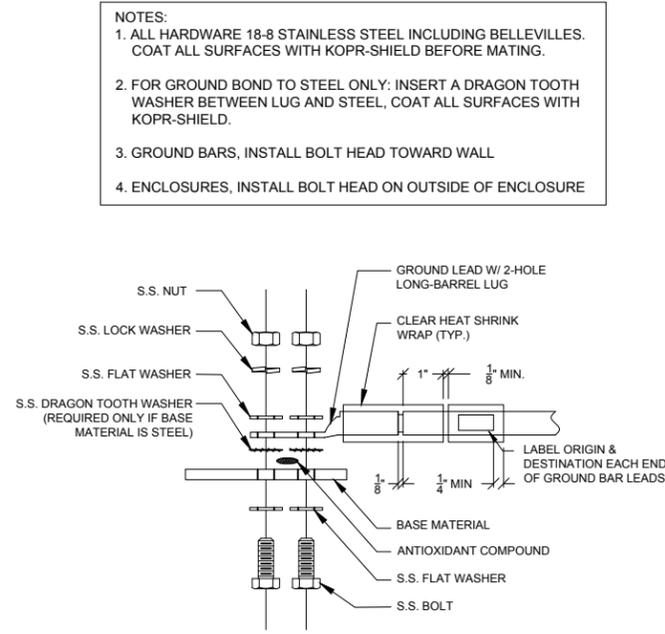
E-3

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS

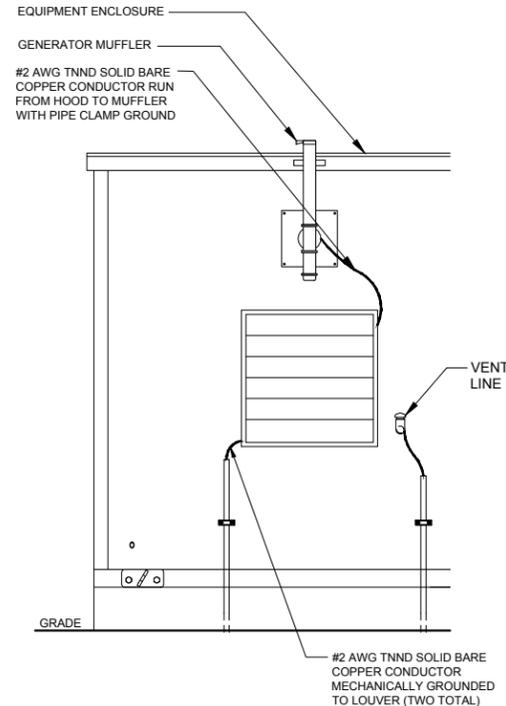
**TERRA**  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
TEL: 847-599-5400  
FAX: 847-599-5401



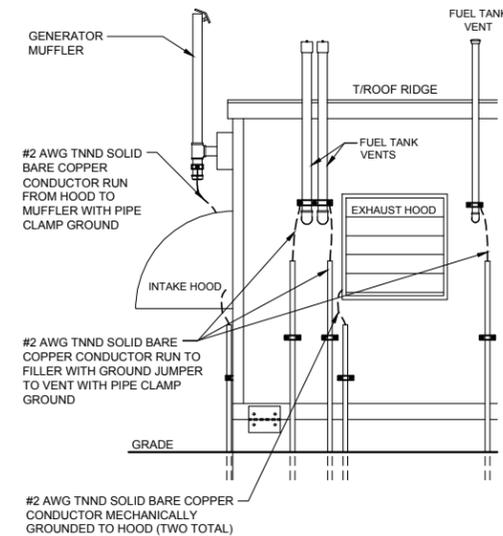
1 EXTERIOR GROUND BAR DETAIL  
N.T.S.



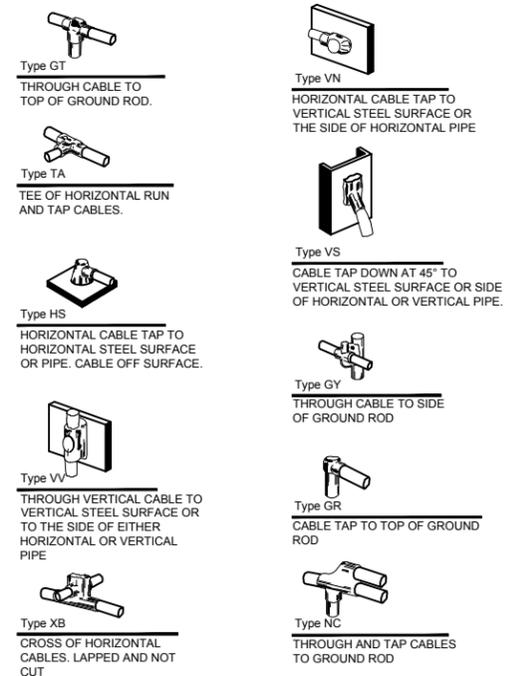
2 GROUND LIG INSTALLATION DETAIL  
N.T.S.



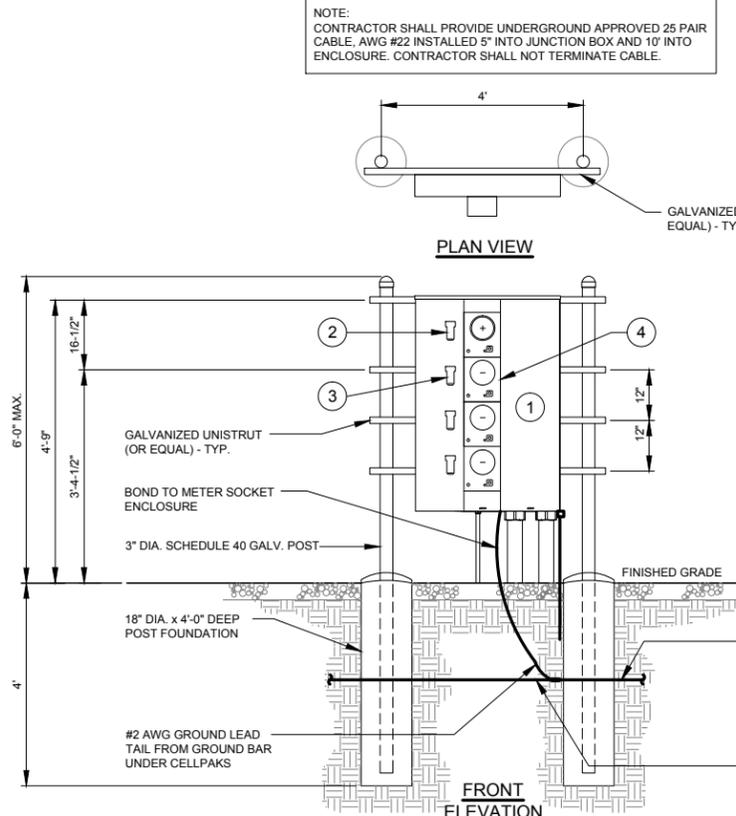
3 EQUIPMENT ENCLOSURE GROUNDING  
N.T.S.



4 EQUIPMENT ENCLOSURE GROUNDING  
N.T.S.

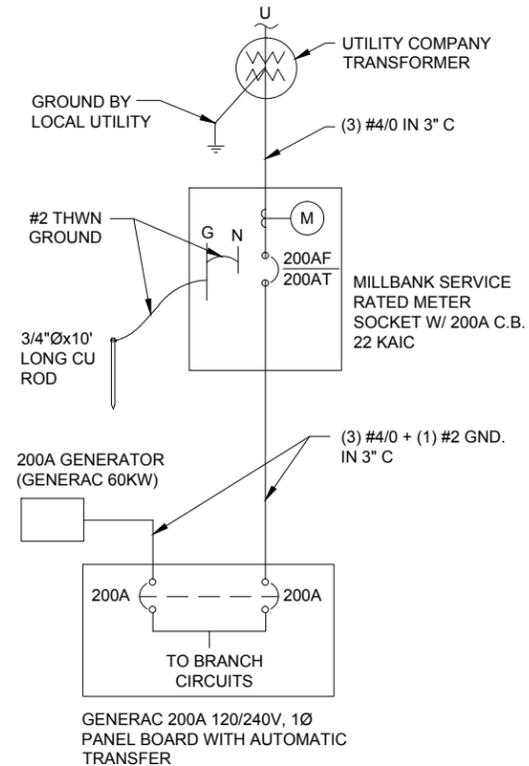


5 EXOTHERMIC WELD DETAILS  
EXOTHERMIC AND HARGER ULTRAWELD OR APPROVED EQUAL



6 H-FRAME WITH METER / TELCO BOXES  
N.T.S.

- 1 800A, 120/240V, 1 PHASE, 3 WIRE, 4 POSITION METERING CENTER (200A MAX CIRCUIT BREAKER) (SQUARE D METER PAK OR EQUAL)
- 2 125A TENANT SERVICE DISCONNECT (SQUARE D OR EQUAL)
- 3 100A TENANT SERVICE DISCONNECT BREAKER (INSTALLED BY VILLAGE CONTRACTOR)
- 4 ALLOCATED LOCATION SPECIFIED FOR VILLAGE USE. 100A 120/240V, 1 PHASE 3 WIRE. (INSTALLED BY VILLAGE CONTRACTOR)



7 SINGLE LINE DIAGRAM  
N.T.S.

NO.	DESCRIPTION	DATE	BY
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REVISIONS			
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DATE:	09/05/14
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SHEET TITLE  
ELECTRICAL AND  
GROUNDING DETAILS

SHEET NUMBER  
**E-4**

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS

**TERRA**  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-599-5400  
FAX: 847-599-5401

GENERAL

THE CONSTRUCTION DOCUMENT DRAWINGS ARE INTERRELATED. WHEN PERFORMING THE WORK, EACH CONTRACTOR MUST REFER TO ALL DRAWINGS. COORDINATION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

DIVISION 1: GENERAL REQUIREMENTS SECTION 01700 - PROJECT CLOSEOUT

PART 1 - GENERAL

- A. OBTAIN AND SUBMIT RELEASES ENABLING THE OWNER UNRESTRICTED USE OF THE WORK AND ACCESS TO SERVICES AND UTILITIES; INCLUDE OCCUPANCY PERMITS, OPERATING CERTIFICATES AND SIMILAR RELEASES.
B. SUBMIT RECORD DRAWINGS, DAMAGE OR SETTLEMENT SURVEY, PROPERTY SURVEY, AND SIMILAR FINAL RECORD INFORMATION.
C. COMPLETE FINAL CLEAN UP REQUIREMENTS, INCLUDING TOUCH-UP PAINTING. TOUCH UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES.

PART 2 - FINAL CLEANING

- 1. COMPLETE THE FOLLOWING CLEANING OPERATIONS BEFORE REQUESTING INSPECTION FOR CERTIFICATION OF COMPLETION.
A. CLEAN THE PROJECT SITE, YARD AND GROUNDS, IN AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, INCLUDING LANDSCAPE DEVELOPMENT AREAS, OF RUBBISH, WASTE MATERIALS, LITTER AND FOREIGN SUBSTANCES. SWEEP PAVED AREAS BROOM CLEAN. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS, RAKE GROUNDS THAT ARE NEITHER PLANTED NOR PAVED, TO A SMOOTH EVEN-TEXTURED SURFACE.
B. REMOVE TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY AND SURPLUS MATERIAL FROM THE SITE.
C. REMOVE SNOW AND ICE TO PROVIDE SAFE ACCESS TO THE SITE AND EQUIPMENT ENCLOSURES.
D. CLEAN EXPOSED EXTERIOR AND INTERIOR HARD-SURFACED FINISHES TO A DIRT-FREE CONDITION, FREE OF STAINS, FILMS AND SIMILAR FOREIGN SUBSTANCES. AVOID DISTURBING NATURAL WEATHERING OF EXTERIOR SURFACES.
E. REMOVE DEBRIS FROM LIMITED ACCESS SPACES, INCLUDING ROOFS, EQUIPMENT ENCLOSURE, MANHOLES, AND SIMILAR SPACES.
F. REMOVE LABELS THAT ARE NOT PERMANENT LABELS.
G. TOUCH-UP AND OTHERWISE REPAIR AND RESTORE MARRED EXPOSED FINISHES AND SURFACES. REPLACE FINISHES AND SURFACES THAT CAN NOT BE SATISFACTORILY REPAIRED OR RESTORED, OR THAT SHOW EVIDENCE OF REPAIR OR RESTORATION. DO NOT PAINT OVER "UL" AND SIMILAR LABELS, INCLUDING ELECTRICAL NAME PLATES.
H. LEAVE THE PROJECT CLEAN AND READY FOR OCCUPANCY.
I. DUST-OFF ALL EQUIPMENT, INCLUDING BATTERY PACKS, WITHIN EQUIPMENT ENCLOSURE.
J. WASH AND WAX FLOOR WITHIN EQUIPMENT ENCLOSURE.
2. REMOVAL OF PROTECTION: REMOVE TEMPORARY PROTECTION AND FACILITIES INSTALLED DURING CONSTRUCTION TO PROTECT PREVIOUSLY COMPLETED INSTALLATIONS DURING THE REMAINDER OF THE CONSTRUCTION PERIOD.

DIVISION 2: SITE WORK SECTION 02200 - EARTHWORK AND DRAINAGE

PART 1 - GENERAL

- 1. WORK INCLUDED: SEE SITE PLAN.
2. DESCRIPTIONS ACCESS DRIVE W/ TURNAROUND AREA, LEASE AREA, AND IF APPLICABLE UNDERGROUND UTILITY EASEMENTS ARE TO BE CONSTRUCTED TO PROVIDE A WELL DRAINED, EASILY MAINTAINED, EVEN SURFACE FOR MATERIAL AND EQUIPMENT DELIVERIES AND MAINTENANCE PERSONNEL ACCESS.
3. QUALITY ASSURANCE
A. APPLY SOIL STERILIZER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (AS NEEDED).
B. APPLY AND MAINTAIN GRASS SEED AS RECOMMENDED BY THE SEED PRODUCER (IF REQUIRED).
C. PLACE AND MAINTAIN VEGETATION LANDSCAPING, IF INCLUDED WITHIN THE CONTRACT, AS RECOMMENDED BY NURSERY INDUSTRY STANDARDS.
4. SEQUENCING
A. CONFIRM SURVEY STAKES AND SET ELEVATION STAKES PRIOR TO ANY CONSTRUCTION.
B. COMPLETELY GRUB THE ACCESS DRIVE W/ TURNAROUND, UNDERGROUND UTILITY EASEMENTS, (IF APPLICABLE) AND LEASE AREA PRIOR TO FOUNDATION CONSTRUCTION, PLACEMENT OF BACKFILL AND SUB-BASE MATERIAL.
C. CONSTRUCT TEMPORARY CONSTRUCTION AREA ALONG ACCESS DRIVE.
D. BRING THE LEASE AREA AND ACCESS DRIVE W/ TURNAROUND TO BASE COURSE ELEVATION PRIOR TO INSTALLING FOUNDATION.
E. APPLY SOIL STERILIZER PRIOR TO PLACING BASE MATERIALS.
F. GRADE, SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED BY CONSTRUCTION (INCLUDING UNDERGROUND UTILITY EASEMENTS) IMMEDIATELY AFTER BRINGING LEASE AREA AND ACCESS DRIVE W/ TURNAROUND TO BASE COURSE ELEVATION, WATER TO ENSURE GROWTH.
G. REMOVE GRAVEL FROM TEMPORARY CONSTRUCTION ZONE TO AN AUTHORIZED AREA OR AS DIRECTED BY PROJECT MANAGER.
H. AFTER APPLICATIONS OF FINAL SURFACES, APPLY SOIL STERILIZER TO STONE SURFACES.
5. SUBMITTALS
A. BEFORE CONSTRUCTION
IF LANDSCAPING IS APPLICABLE TO THE CONTRACT, SUBMIT TWO COPIES OF THE LANDSCAPE PLAN UNDER NURSERY LETTERHEAD, IF A LANDSCAPE ALLOWANCE WAS INCLUDED IN THE CONTRACT, PROVIDE AN ITEMIZED LISTING OF PROPOSED COSTS ON NURSERY LETTERHEAD (REFER TO PLANS FOR LANDSCAPING REQUIREMENTS).
B. AFTER CONSTRUCTION
1. MANUFACTURER'S DESCRIPTION OF PRODUCT AND WARRANTY STATEMENT ON SOIL STERILIZED.
2. MANUFACTURER'S DESCRIPTION OF PRODUCT ON GRASS SEED AND FERTILIZER
3. LANDSCAPING WARRANTY STATEMENT.
6. WARRANTY
A. IN ADDITION TO THE WARRANTY ON ALL CONSTRUCTION COVERED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPAIR ALL DAMAGE AND RESTORE AREA AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE AT SITE AND SURROUNDINGS.
B. SOIL STERILIZATION APPLICATION TO GUARANTEE VEGETATION FREE ROAD AND SITE AREAS FOR ONE YEAR FROM DATE OF FINAL INSPECTION.
C. DISTURBED AREAS WILL REFLECT GROWTH OF NEW GRASS COVER PRIOR TO FINAL INSPECTION.
D. LANDSCAPING, IF INCLUDED WITHIN THE SCOPE OF THE CONTRACT, WILL BE GUARANTEED FOR ONE YEAR FROM DATE OF FINAL INSPECTION.

PART 2 - PRODUCTS

- 1. MATERIALS
A. SOIL STERILIZER SHALL BE EPA-REGISTERED, PRE-EMERGENCE LIQUID:

TOTAL KILL PRODUCT 910 EPA 10292-7 PHASAR CORPORATION P.O. BOX 5123 DEARBORN, MI 48128 (313) 563-8000

AMBUSH HERBICIDE EPA REGISTERED FRAMAR INDUSTRIAL PRODUCTS 1435 MORRIS AVE. UNION, NJ 07083 (800) 526-4924

- B. ROAD AND SITE MATERIALS SHALL CONFORM TO IDOT SPECIFICATIONS FILL MATERIAL (UNLESS OTHERWISE NOTED) - ACCEPTABLE SELECT FILL SHALL BE IN ACCORDANCE WITH STATE DEPARTMENT OF HIGHWAY AND TRANSPORTATION STANDARD SPECIFICATIONS.
C. SOIL STABILIZER FABRIC SHALL BE MIRAFI - 500X.

PART 3 - EXECUTION

- 1. INSPECTIONS LOCAL BUILDING INSPECTORS SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, UNLESS OTHERWISE SPECIFIED BY JURISDICTION.
2. PREPARATION
A. CLEAR TREES, BRUSH AND DEBRIS FROM LEASE AREA, ACCESS DRIVE W/ TURN-AROUND AND UNDER GROUND UTILITY EASEMENTS AS REQUIRED FOR CONSTRUCTION.
B. PRIOR TO OTHER EXCAVATION AND CONSTRUCTION, GRUB ORGANIC MATERIAL TO A MINIMUM OF SIX INCHES (6") BELOW GRADE.
C. UNLESS OTHERWISE INSTRUCTED BY LESSEE, TRANSPORT ALL REMOVED TREES, BRUSH AND DEBRIS FROM THE PROPERTY TO AN AUTHORIZED LANDFILL.
D. PRIOR TO PLACEMENT OF FILL OR BASE MATERIALS, ROLL THE SOIL.
E. WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, LINE THE AREAS WITH STABILIZER MAT PRIOR TO PLACEMENT OF FILL OR BASE MATERIAL.
3. INSTALLATION
A. GRADE OR FILL THE LEASE AREA AND ACCESS DRIVE W/ TURNAROUND AS REQUIRED IN ORDER THAT UPON DISTRIBUTION OF SPOILS, RESULTING FROM EXCAVATIONS, THE RESULTING GRADE WILL CORRESPOND WITH SAID SUB-BASE COURSE. ELEVATIONS ARE TO BE CALCULATED FROM BENCHMARK, FINISHED GRADES, OR INDICATED SLOPES.
B. CLEAR EXCESS SPOILS, IF ANY, FROM JOB SITE AND DO NOT SPREAD BEYOND THE LIMITS OF PROJECT AREA UNLESS AUTHORIZED BY PROJECT MANAGER AND AGREED TO BY LANDOWNER.
C. BRING THE ACCESS DRIVE W/ TURNAROUND TO BASE COURSE ELEVATION TO FACILITATE CONSTRUCTION AND OBSERVATION DURING CONSTRUCTION OF THE SITE.
D. AVOID CREATING DEPRESSIONS WHERE WATER MAY POND.
E. THE CONTRACT SHALL INCLUDE GRADING, BANKING, AND DITCHING, UNLESS OTHERWISE INDICATED.
F. WHEN IMPROVING AN EXISTING ACCESS DRIVE, GRADE THE EXISTING DRIVE TO REMOVE ANY ORGANIC MATTER AND SMOOTH THE SURFACE BEFORE PLACING FILL OR STONE.
G. PLACE FILL OR STONE IN SIX INCH (6") MAXIMUM LIFTS, AND COMPACT BEFORE PLACING NEXT LIFT.
H. THE TOP SURFACE COURSE, SHALL EXTEND A MINIMUM OF ONE FOOT (1') BEYOND THE SITE FENCE (UNLESS OTHERWISE NOTED) AND SHALL COVER THE AREA AS INDICATED.
I. APPLY RIPRAP TO THE SIDE SLOPES OF ALL FENCED SITE AREAS, PARKING AREAS, AND ALL OTHER SLOPES GREATER THAN 2:1.
J. APPLY RIPRAP TO THE SIDES OF DITCHES OR DRAINAGE SWALES.
K. RIPRAP ENTIRE DITCH FOR SIX FEET (6') IN ALL DIRECTIONS AT CULVERT OPENINGS.
L. APPLY SEED, FERTILIZER, AND STRAW COVER TO ALL OTHER DISTURBED AREAS, DITCHES, AND DRAINAGE SWALES, NOT OTHERWISE RIPRAPPED.
M. UNDER NO CIRCUMSTANCES WILL DITCHES, SWALES, OR CULVERTS BE PLACED SO THAT THEY DIRECT WATER TOWARDS, OR PERMIT STANDING WATER IMMEDIATELY ADJACENT TO SHELTER OR EQUIPMENT. IF DESIGNS OR ELEVATIONS ARE IN CONFLICT WITH THIS, ADVISE CONSTRUCTION MANAGER IMMEDIATELY.
N. IN DITCHES WITH SLOPES GREATER THAN 10%, MOUND DIVERSIONARY HEADWALLS IN THE DITCH AT CULVERT ENTRANCES. POSITION THE HEADWALL AT AN ANGLE NO GREATER THAN 60° OFF THE DITCH LINE. RIPRAP THE UPSTREAM SIDE OF THE HEADWALL AS WELL AS THE DITCH FOR SIX FEET (6') ABOVE THE CULVERT ENTRANCE.
O. APPLY SEED AND FERTILIZER TO SURFACE CONDITIONS WHICH WILL ENCOURAGE ROOTING. RAKE AREAS TO BE SEED TO EVEN THE SURFACE AND LOOSEN THE SOIL.
P. SOW SEED IN TWO DIRECTIONS IN TWICE THE QUANTITY RECOMMENDED BY THE SEED PRODUCER.
Q. ENSURE GROWTH OF SEEDS AND LANDSCAPED AREAS, BY WATERING, UP TO THE POINT OF RELEASE FROM THE CONTRACT. CONTINUE TO REWORK THE BARE AREAS UNTIL COMPLETE COVERAGE IS OBTAINED.
4. FIELD QUALITY CONTROL
COMPACT SOILS TO MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-1557. AREAS OF SETTLEMENT WILL BE EXCAVATED AND REFILLED AT CONTRACTOR'S EXPENSE. INDICATE PERCENTAGE OF COMPACTION ACHIEVED ON AS-BUILT DRAWINGS.
5. PROTECTION
A. PROTECT SEEDS FROM EROSION BY SPREADING STRAW TO A UNIFORM LOOSE DEPTH OF 1-2 INCHES, STAKE AND TIE DOWN AS REQUIRED. USE OF EROSION CONTROL MESH OR MULCH NET WILL BE AN ACCEPTABLE ALTERNATE.
B. ALL TREES PLACED IN CONJUNCTION WITH A LANDSCAPE CONTRACT WILL BE WRAPPED, TIED WITH HOSE PROTECTED WIRE, AND SECURED TO 2" X 2" X 4'-0" WOODEN STAKES EXTENDING TWO- FEET INTO THE GROUND ON FOUR SIDES OF THE TREE.
C. PROTECT ALL EXPOSED AREAS AGAINST WASHOUTS AND SOIL EROSION. PLACE STRAW BALES AT THE INLET APPROACH TO ALL NEW OR EXISTING CULVERTS. WHERE THE SITE OR ROAD AREAS HAVE BEEN ELEVATED IMMEDIATELY ADJACENT TO THE RAIL LINE, STAKE EROSION CONTROL FABRIC FULL LENGTH IN THE SWALE TO PREVENT CONTAMINATION OF THE RAIL BALLAST. ALL EROSION CONTROL METHODS SHALL CONFORM TO APPLICABLE BUILDING CODE REQUIREMENTS.

SECTION 02830 - FENCING AND GATE(S)

PART 1 - GENERAL

- 1. WORK INCLUDED SEE PLAN FOR SITE AND LOCATION OF FENCE AND GATE(S).
2. QUALITY ASSURANCE ALL STEEL MATERIALS UTILIZED IN CONJUNCTION WITH THIS SPECIFICATION WILL BE GALVANIZED OR STAINLESS STEEL. WEIGHT OF ZINC COATING ON THE FABRIC SHALL NOT BE LESS THAN 12 OUNCES PER SQUARE FOOT OF MATERIAL COVERED. POSTS SHALL BE HOT-DIPPED IN GRADE 'E' ZINC, 18 OUNCES PER SQUARE FOOT.
3. SEQUENCING IF THE SITE AREA HAS BEEN BROUGHT UP TO SURFACE COURSE ELEVATION (PRIOR TO THE FENCE CONSTRUCTION), FENCE POST EXCAVATION SPOILS MUST BE CONTROLLED TO PRECLUDE CONTAMINATION OF SAID SURFACE COURSE.

4. SUBMITTALS

- A. MANUFACTURER'S DESCRIPTIVE LITERATURE.
B. CERTIFICATE OR STATEMENT OF COMPLIANCE WITH THE SPECIFICATIONS.

PART 2 - PRODUCTS

- 1. FENCE MATERIAL
A. ALL FABRIC WIRE, RAILS, HARDWARE, AND OTHER STEEL MATERIALS SHALL BE HOT-DIPPED GALVANIZED.
B. FABRIC SHALL BE SEVEN-FOOT (7') HIGH OR TO MATCH EXISTING FENCE TWO-INCH CHAIN LINK MESH OF NO. 9 GAUGE (0.148") WIRE. THE FABRIC SHALL HAVE A KNUCKLED FINISH FOR THE TOP SELVAGES. FABRIC SHALL CONFORM TO THE SPECIFICATIONS OF ASTM A-392 CLASS 1.
C. BARBED WIRE SHALL BE DOUBLE-STRAND, 12-1/2 GAUGE TWISTED WIRE, WITH 14-GAUGE, 4-POINT ROUND BARBS SPACED ON FIVE-INCH CENTERS.
D. ALL POSTS SHALL BE SCHEDULE - 40 MECHANICAL SERVICE PIPE AND SHALL BE TYPE 1 ASTM A-128 AND OF THE FOLLOWING DIAMETER
LINE 2" SCHEDULE 40 (2 3/8" O.D.)
CORNER 3" SCHEDULE 40 (3 1/2" O.D.)
GATE 3" SCHEDULE 40 (3 1/2" O.D.)
E. GATE POSTS SHALL BE EXTENDED 12 INCHES, INCLUDING DOME CAP, TO PROVIDE FOR ATTACHMENT OF BARBED WIRE.
F. ALL TOP AND BRACE RAILS SHALL BE 1/2 DIAMETER SCHEDULE - 40 MECHANICAL-SERVICE PIPE.
G. GATE FRAMES AND BRACES SHALL BE 1.90 INCH DIAMETER SCHEDULE 40 MECHANICAL-SERVICE PIPE. FRAMES SHALL HAVE WELDED CORNERS.
H. GATE FRAMES SHALL HAVE A FULL-HEIGHT VERTICAL BRACE, AND A FULL-WIDTH HORIZONTAL BRACE, SECURED IN PLACE BY USE OF GATE BRACE CLAMPS.
I. GATE HINGES SHALL BE MERCHANTS METAL MODEL 64386 HINGE ADAPTER WITH MODEL 6409, 188-DEGREE ATTACHMENT.
J. THE GUIDE (LATCH ASSEMBLY) SHALL BE HEAVY INDUSTRIAL DOUBLE GATE LATCH. SEE DETAIL.
K. LATCHES AND STOPS SHALL BE PROVIDED FOR ALL GATES.
L. PLUNGER ROD COMPLETE WITH RECEPTOR TO BE PROVIDED AT THE INACTIVE LEAF OF ALL DOUBLE GATE INSTALLATIONS.
M. ALL STOPS SHALL HAVE KEEPERS CAPABLE OF HOLDING THE GATE LEAF IN THE OPEN POSITION
N. A NO. 7 GAUGE ZINC COATED TENSION WIRE SHALL BE USED AT THE BOTTOM OF THE FABRIC, TERMINATED WITH BAND CLIPS AT CORNER AND GATE POSTS.
O. A SIX-INCH BY 1/2-INCH DIAMETER EYEBOLT TO HOLD TENSION WIRE SHALL BE PLACED AT LINE POSTS.
P. STRETCHER BARS SHALL BE 3/16-INCH BY 3/4-INCH OR HAVE EQUIVALENT CROSS-SECTIONAL AREA.
Q. ALL CORNER GATE AND PANELS SHALL HAVE A 3/8-INCH TRUSS ROD WITH TURNBUCKLES.
R. ALL POSTS EXCEPT GATE POSTS SHALL HAVE A COMBINATION CAP AND BARBED WIRE SUPPORTING ARM. GATE POSTS SHALL HAVE A DOME CAP.
S. OTHER HARDWARE INCLUDES BUT MAY NOT BE LIMITED TO TIE CLIPS, BAND CLIPS AND TENSION BAND CLIPS.
T. BARBED WIRE GATE GUARDS SHALL BE FITTED WITH DOME CAPS.
U. BARBED WIRE SUPPORT ARMS SHALL BE PRESSED STEEL COMPLETE WITH SET BOLT AND LOCK WIRE IN THE ARM.
V. ALL CAPS SHALL BE MALLEABLE IRON, DOME OR ACORN SHAPED AS REQUIRED BY PIPE SIZE.
W. WHERE THE USE OF CERTICORINA HAS BEEN SPECIFIED, 24-INCH DIAMETERS COIL BARBED TAPE, STAINLESS STEEL, CYCLONE FENCE MODEL GBP TO TYPE III SHALL BE FURNISHED. IT SHALL BE SUPPORTED ABOVE THE TOP RAIL BY USE OF SIX(6) WIRE BARBED WIRE ARMS POSITIONED ATOP EACH LINE/CORNER POST.

PART 3 - EXECUTION

- 1. INSPECTION TO CONFIRM PROPER DEPTH AND DIAMETER OF POST HOLE EXCAVATIONS. ALL POST HOLES WILL BE EXCAVATED AS PER CONSTRUCTION DOCUMENTS.
2. INSTALLATION
A. FOUNDATIONS SHALL HAVE A MINIMUM SIX INCH (6") CONCRETE COVER UNDER POST.
B. ALL FENCE POSTS SHALL BE VERTICALLY PLUMB ; ONE QUARTER INCH (1/4")
C. AT CORNER POSTS, GATE POSTS, AND SIDES OF GATE FRAME, FABRIC SHALL BE ATTACHED WITH STRETCHER AND TENSION BAND-CLIPS AT FIFTEEN(15) INCH INTERVALS.
D. AT LINE POSTS, FABRIC SHALL BE ATTACHED WITH BAND-CLIPS AT FIFTEEN INCH (15") INTERVALS.
E. FABRIC SHALL BE ATTACHED TO BRACE RAILS, TENSION WIRE AND TRUSS RODS WITH TIE-CLIPS AT TWO FOOT (2') INTERVALS.
F. A MAXIMUM GAP OF ONE INCH WILL BE PERMITTED BETWEEN THE CHAIN LINE FABRIC AND THE FINAL GRADE.
G. GATE SHALL BE INSTALLED SO LOCKS ARE ACCESSIBLE FROM BOTH SIDES.
H. GATE HINGE BOLTS SHALL HAVE THEIR THREADS PEENED OR WELDED TO PREVENT UNAUTHORIZED REMOVAL.
I. CONCRETE TO BE A MINIMUM OF 4,000 PSI AT 7 DAYS. CEMENT SHALL EXCEED ASTM C150, TYPE IIIA.
3. PROTECTION UPON COMPLETION OF ERECTION, INSPECT FENCE MATERIAL AND PAINT FIELD CUTS OR GALVANIZING BREAKS WITH ZINC-BASED PAINT, COLOR TO MATCH THE GALVANIZED METAL.

APPLICABLE STANDARDS

Table with 2 columns: Standard Number and Description. Includes ASTM-A120, ASTM-A123, ASTM-A153, ASTM-A392, ASTM-A491, and ASTM-A525.

ASTM-A570 SPECIFICATION FOR HOT-ROLLED CARBON STEEL SHEET AND STRIP. STRUCTURAL QUALITY.
ASTM-A535 SPECIFICATION FOR ALUMINUM COATED STEEL BARBED WIRE.
FEDERAL SPECIFICATION RR-F-191- FENCING, WIRE AND POST METAL (AND GATES, CHAIN LINK FENCE FABRIC, AND ACCESSORIES)

DIVISION 3: CONCRETE

SECTION 03000 - BASIC CONCRETE MATERIALS AND METHODS

PART 1 - GENERAL

- 1. WORK INCLUDED FORMWORK, REINFORCEMENT, ACCESSORIES, CAST-IN-PLACE CONCRETE, FINISHING, AND CURING.
2. INSPECTIONS
A. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING BUILDING DEPARTMENT INSPECTIONS REQUIRED FOR HIS SCOPE OF WORK.
B. ALL REINFORCING STEEL SHALL BE INSPECTED AND APPROVED BY THE LESSEE'S CONSTRUCTION MANAGER PRIOR TO PLACEMENT OF CONCRETE.
C. THE LESSEE'S CONSTRUCTION MANAGER SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS.
3. QUALITY ASSURANCE
A. CONSTRUCT AND ERECT CONCRETE FORMWORK IN ACCORDANCE WITH ACI 301 AND ACI 318.
B. PERFORM CONCRETE REINFORCING WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ASTM A184.
C. PERFORM CAST-IN-PLACE CONCRETE WORK IN ACCORDANCE WITH ACI 301, ACI 318, AND ACI 117-90.
D. OPEN FOUNDATION TRENCHES SHALL BE INSPECTED BY MES PRIOR TO CONCRETE INSTALLATION.
4. SUBMITTALS SUBMIT CONCRETE MIX AND REINFORCING STEEL SHOP DRAWINGS FOR APPROVAL BY LESSEE CONSTRUCTION MANAGER/ENGINEER. THE SHOP DRAWINGS SHALL BE SUBMITTED IN THE FORM OF TWO (2) CONCRETE MIX DESIGN INFORMATION SHEETS AND TWO (2) BLUELINE DRAWINGS FOR REINFORCING STEEL.

PART 2 - PRODUCTS

- 1. REINFORCEMENT MATERIALS
A. REINFORCEMENT STEEL, ASTM A615, 60 ksi YIELD GRADE, DEFORMED BILLET STEEL BARS, PLAIN FINISH.
B. WELDED STEEL WIRE FABRIC ASTM A185 PLAIN TYPE, IN FLAT SHEETS, PLAIN FINISH.
C. CHAIRS, BOLSTERS, BAR SUPPORTS, SPACERS. SIZED AND SHAPED FOR SUPPORTS OF REINFORCING.
D. FABRICATE CONCRETE REINFORCING IN ACCORDANCE WITH ACI 315, ACI 318, ASTM A184
2. CONCRETE MATERIALS
A. CEMENT: ASTM C150, PORTLAND TYPE
B. FINE AND COURSE AGGREGATES: ASTM C33 - MAXIMUM SIZE OF CONCRETE AGGREGATE SHALL NOT EXCEED ; ONE INCH (1") SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR ONE-THIRD (1/3) CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING.
C. WATER: CLEAN AND NOT DETRIMENTAL TO CONCRETE
D. AIR ENTRAINING ADMIXTURE: ASTM C260
E. BONDING AGENT: LATEX EMULSION FOR BONDING NEW TO OLD CONCRETE AS MANUFACTURED BY DAYTON SUPERIOR.
F. NON-SHRINK GROUT: PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICISING AGENTS.
3. CONCRETE MIX
A. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE A.C.I. REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
B. MIX AND DELIVER CONCRETE IN ACCORDANCE WITH ASTM C94, ALT. 3.
C. PROPORTIONS OF CONCRETE MATERIALS SHALL BE SUITABLE FOR THE INSTALLATION METHOD UTILIZED AND SHALL RESULT IN DURABLE CONCRETE FOR LOCAL ANTICIPATED AGGRESSIVE ACTIONS. THE DURABILITY REQUIREMENTS OF ACI 318 CHAPTER 4 SHALL BE SATISFIED BASED ON THE CONDITIONS EXPECTED AT THE SITE. PROVIDE CONCRETE AS FOLLOWS:
1. COMPRESSIVE STRENGTH: 4000 psi AT 7 DAYS. SEE SHEET S-1 FOR CAISSON CONCRETE COMPRESSIVE STRENGTH
2. SLUMP: 3 INCHES

PART 3 - EXECUTION

- 1. INSERTS, EMBEDDED COMPONENTS AND OPENINGS
A. THE CONTRACTOR SHALL COORDINATE AND CROSS-CHECK ARCHITECTURAL, BUILDING & ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, AND OTHER ITEMS RELATED TO CONCRETE WORK AND SHALL ASSUME FULL RESPONSIBILITY FOR THE PROPER LOCATION BEFORE PLACING CONCRETE.
B. PROVIDE FORMED OPENINGS WHERE REQUIRED FOR WORK TO BE EMBEDDED IN AND PASSING THROUGH CONCRETE MEMBERS.
C. COORDINATE WORK OF OTHER SECTIONS IN FORMING AND SETTING OPENING, SLOTS, RECESSES, CHASES, SLEEVES, BOLTS, ANCHORS, AND OTHER INSERTS.
D. INSTALL CONCRETE ACCESSORIES STRAIGHT, LEVEL AND PLUMB.
2. REINFORCEMENT PLACEMENT
A. PLACE REINFORCEMENT, SUPPORTED AND SECURED AGAINST DISPLACEMENT.
B. ENSURE REINFORCING IS CLEAN, FREE OF LOOSE SCALE, DIRT, OR OTHER FOREIGN COATINGS.
C. WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
D. MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE THREE INCHES (3") UNLESS OTHERWISE NOTED.
E. CONCRETE COVER FROM TOP OF FOUNDATION TO ENDS OF VERTICAL REINFORCEMENT SHALL NOT EXCEED THREE INCHES (3") NOR BE LESS THAN TWO INCHES (2").
3. PLACING CONCRETE
A. VIBRATE ALL CONCRETE.
B. ALL CONCRETE WORK SHALL ADHERE TO THE LATEST A.C.I. STANDARDS FOR WINTER POURING AND CURING PROCEDURES IF SEASONAL CONDITIONS APPLY
4. CURING
A. AFTER PLACEMENT, PROTECT CONCRETE FROM PREMATURE DRYING.
B. MAINTAIN CONCRETE WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.
5. PROVIDE HAND RUBBED SMOOTH FINISH TO ALL EXPOSED VERTICAL FORMED CONCRETE SURFACES.
6. FIELD QUALITY CONTROL
A. SUBMIT THREE (3) CONCRETE TEST CYLINDERS - TAKEN FOR EVERY 15 CUBIC YARD OR LESS. SUBMIT CONCRETE TESTS TO THE PROJECT MANAGER IN ACCORDANCE WITH ASTM C-31 AND C-39.
B. SUBMIT ONE (1) ADDITIONAL TEST CYLINDER - TAKEN DURING COLD WEATHER POURS, AND CURED ON JOB SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS.
C. SUBMIT ONE (1) SLUMP TEST - TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.
7. DEFECTIVE CONCRETE MODIFY OR REPLACE CONCRETE NOT CONFORMING TO REQUIRED LINES, DETAILS OR ELEVATIONS AT COST OF GC, AS DIRECTED BY ARCHITECT/ENGINEER.

Table with columns: NO, DESCRIPTION, DATE, BY, BTE, JLR, JLR, JLR, JLR, JLR, JLR. Includes rows for ISSUED FOR REVIEW, ISSUED FOR PERMITTING, and UPDATE PER COMMENTS.

LOC. 278659 SBA #IL46494-A N. TINLEY 6640 W. 167TH ST. TINLEY PARK, IL 60477

Table with columns: DRAWN BY, CHECKED BY, DATE, PROJECT #. Values: BTE, TAZ, 09/05/14, 76-029

SHEET TITLE SPECIFICATIONS

SHEET NUMBER SP-1

CHICAGO SMSA limited partnership db/a VERIZON WIRELESS



DIVISION 5: METALS

SECTION 05000 - METALS

PART 1 - GENERAL

- SECTION INCLUDES:  
STRUCTURAL STEEL FRAMING MEMBERS, BASE PLATES, PLATES, BARS AND GROUTING UNDER BASE PLATES.
- SUBMITTALS:  
SHOP DRAWINGS: INDICATE SIZES, SPACING, AND LOCATIONS OF STRUCTURAL MEMBERS, OPENINGS, CONNECTIONS, CAMBERS, LOADS, AND WELDED SECTIONS.
- QUALITY ASSURANCE
  - FABRICATE STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
  - PERFORM DESIGN UNDER DIRECT SUPERVISION OF A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE.

PART 2 - PRODUCTS

- MATERIALS:
  - STRUCTURAL STEEL MEMBERS: ASTM A572, GRADE 50
  - STRUCTURAL TUBING: ASTM A500, GRADE B
  - PIPE: ASTM A53, TYPE E OR S, GRADE B
  - BOLTS, NUTS, AND WASHERS: ASTM A325
  - ANCHOR BOLTS: ASTM A307
  - WELDING MATERIALS: AWS D1.1, TYPE REQUIRED FOR MATERIALS BEING WELDED
  - GROUT: NON-SHRINK TYPE, PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICIZING ADDITIVES, CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 7000 psi AT 28 DAYS.
  - SHOP AND TOUCH-UP PRIMER: SSPC 15, TYPE 1, RED OXIDE
  - TOUCH-UP PRIMER FOR GALV. SURFACES: ZINC RICH TYPE
- FABRICATION:  
CONTINUOUSLY SEAL JOINTED MEMBERS BY CONTINUOUS WELDS. GRIND EXPOSED WELDS SMOOTH.
- FINISH:
  - PREPARE STRUCTURAL COMPONENT SURFACES IN ACCORDANCE WITH SSPC SP-1 TO SP-10 PROCEDURES.
  - STRUCTURAL STEEL MEMBERS SHALL BE HOT DIPPED GALVANIZED.

PART 3 - EXECUTION

- EXAMINATION AND PREPARATION:  
VERIFY THAT THE FIELD CONDITIONS ARE ACCEPTABLE.
- ERECTION:
  - ALLOW FOR ERECTION LOADS. PROVIDE TEMPORARY BRACING TO MAINTAIN FRAMING IN ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRIDGING AND BRACING.
  - FIELD WELD COMPONENTS INDICATED ON SHOP DRAWINGS.
  - DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER.
  - AFTER ERECTION, TOUCH-UP WELDS, ABRASIONS, AND SURFACES NOT SHOP PRIMED OR GALVANIZED WITH TOUCH-UP PRIMERS AS SPECIFIED UNDER SECTION 05000-METALS, PART 2 - PRODUCTS, H & I. SURFACES TO BE IN CONTACT WITH CONCRETE NOT INCLUDED.
- FIELD QUALITY CONTROL:  
FIELD INSPECTION OF MEMBERS, CONNECTIONS, WELDS AND TORQUING.

DIVISION 16: ELECTRICAL

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

- CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND STARTING THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ANY DISCREPANCIES OR CONFLICTING INFORMATION.
- ELECTRICAL PLANS, DETAILS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN GOOD WORKING CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED "J" WHERE APPLICABLE. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, NBFU AND "UL" LISTED.
- ALL CONDUIT SHALL HAVE A PULL CORD.
- PROVIDE PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY UBC, NEC AND ALL APPLICABLE CODES.
- PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE SIERRA #WPD-8 LIFT COVERPLATES.

SECTION 16400 - SERVICE AND DISTRIBUTION

- WIRE AND CABLE CONDUCTORS SHALL BE COPPER, 600V, TYPE THHN OR THWN, WITH A MIN. SIZE OF #12 AWG, COLOR CODED. ALL RECTIFIER DROPS SHALL BE STRANDED TO ACCEPT CRIMP CONNECTORS.
- ALL CHEMICAL GROUND RODS SHALL BE "UL" APPROVED.
- METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY MILBANK OR APPROVED EQUAL, AND SHALL BE UTILITY COMPANY APPROVED.
- CONDUIT:
  - RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH GALVANIZED ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
  - ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTING SHALL BE GLAND RING COMPRESSION TYPE.
  - FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE. ALL FLEXIBLE CONDUITS SHALL HAVE FULL LENGTH GROUND WIRE.
  - ALL UNDERGROUND CONDUIT SHALL BE AS NOTED ON THE DRAWINGS AT A MINIMUM DEPTH OF 42" BELOW GRADE. IT IS REQUIRED AND WILL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO NOTIFY J.U.L.I.E. AT 1-800-892-0123 OR OTHER SUCH NOTIFYING AGENCY FORTY-EIGHT (48) HOURS PRIOR TO DIGGING.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS ARE TO BE PAID BY THE CONTRACTOR.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS WITH WHITE ON BLUE BACKGROUND LETTERING (MINIMUM LETTER HEIGHT SHALL BE ONE FORTH INCH (1/4"). NAMEPLATES SHALL BE FASTENED WITH STAINLESS STEEL SCREWS, NOT ADHESIVE.
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS BY AN INDEPENDENT TESTING SERVICE ENGAGED BY THE CONTRACTOR SHALL BE SUBMITTED FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- GROUNDING ELECTRODE SYSTEM
  - PREPARATION
    - SURFACE PREPARATION:  
ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING AGENT APPLIED PRIOR TO INSTALLATION.
    - GROUND BAR PREPARATION:  
ALL COPPER GROUND BARS SHALL BE CLEANED, POLISHED AND A NON-OXIDIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED.
    - SLEEVES:  
ALL GROUNDING CONDUCTORS SHALL RUN THROUGH PVC SLEEVES WHEREVER CONDUCTORS RUN THROUGH WALLS, FLOORS OR CEILINGS. IF CONDUCTORS MUST RUN THROUGH EMT, BOTH ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
  - GROUND BARS
    - ALL GROUND BARS SHALL BE ONE FORTH INCH (1/4") THICK TINNED COPPER PLATE AND OF SIZE INDICATED ON DRAWINGS.
    - ALL CONNECTIONS TO THE GROUND BAR SHALL OBSERVE THE FOLLOWING SEQUENCE:
      - BOLT-HEAD
      - 2-HOLE LUG
      - TINNED COPPER BUSS BAR
      - STAR WASHER
      - NUT
  - EXTERNAL CONNECTIONS
    - ALL BURIED GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, TEES, CROSSES, ETC. ALL CABLE TO GROUND RODS, GROUND ROD SPLICES AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS INDICATED. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY "CADWELD" AND INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES.
    - ALL ABOVE GRADE GROUNDING AND BONDING CONDUCTORS SHALL BE CONNECTED BY TWO HOLE CRIMP TYPE (COMPRESSION) CONNECTIONS (EXCEPT FOR THE ACEG AND GROUND ROD) MECHANICAL CONNECTIONS, FITTINGS OR CONNECTIONS THAT DEPEND SOLELY ON SOLDER SHALL NOT BE USED. ALL CABLE TO CABLE CONNECTIONS SHALL BE HIGH PRESSURE DOUBLE CRIMP TYPE CONNECTIONS. CONNECTIONS TO STRUCTURAL STEEL SHALL BE EXOTHERMIC WELDS.
  - GROUND RODS
    - ALL GROUND RODS SHALL BE 5/8-INCH DIAMETER X 10'-0" LONG "COPPERWELD" OR APPROVED EQUAL, OF THE NUMBER AND LOCATIONS INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED EARTH.
  - GROUND CONDUCTORS
    - ALL GROUND CONDUCTORS SHALL BE STANDARD TINNED SOLID BARE COPPER ANNEALED, AND OF SIZE INDICATED ON DRAWINGS UNLESS NOTED OTHERWISE.
  - LUGS
    - LUGS SHALL BE 2-HOLE, LONG BARREL, STRAND COPPER UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS. LUGS SHALL BE THOMAS AND BETTS SERIES #548\_\_BE OR EQUIVALENT
 

A.	535 MCM DLO	54880BE
B.	262 MCM DLO	54872BE
C.	#1/0 DLO	54862BE
D.	#4/0 THWN AND BARE	54866BE
E.	#2/0 THWN	54862BE
F.	#2 THHN	54207BE
G.	#6 DLO	54205BE
    - WHEN THE DIRECTION OF THE CONDUCTOR MUST CHANGE, IT SHALL BE DONE GRADUALLY. THE CURVATURE OF THE TURN SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING CHART:
 

GROUNDING CONDUCTOR SIZE	MINIMUM BENDING RADIUS TO INSIDE EDGE
NO. 6 AWG TO NO. 4 AWG	6 INCHES
NO. 2 AWG TO NO. 1/0 AWG	8 INCHES
NO. 2/0 AWG TO 4/0 MCM	12 INCHES
250 MCM TO 750 MCM	24 INCHES

G. GROUND RING

- THE EXTERNAL GROUND RING ENCIROGLING THE TOWER (IF APPLICABLE) AND BETWEEN THE EQUIPMENT SHELTER PLATFORM ANCHORS SHALL BE MINIMUM NO. 2 A.W.G. SOLID TINNED BARE COPPER CONDUCTOR IN DIRECT CONTACT WITH THE EARTH AT THE DEPTH INDICATED ON THE DRAWINGS. CONDUCTOR BENDS SHALL HAVE A MINIMUM BENDING RADIUS OF EIGHT INCHES (8").
- ALL EXTERNAL GROUND RINGS ARE TO BE JOINED TOGETHER AND ALL CONNECTIONS MUST BE CADWELDED. NO LUGS OR CLAMPS WILL BE ACCEPTED.

H. FENCE/GATE

- GROUND EACH GATE POST, CORNER POST AND GATE AS INDICATED ON DRAWING GROUND CONNECTIONS TO FENCE POSTS AND ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY EXOTHERMIC WELD PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES, AND SPRAYED WITH COLD-GALVANIZED PAINT.

9. I.E.E.E. FALL POTENTIAL TESTS

A. FOR RAW LAND SITE

- GROUND TESTS SHALL BE PERFORMED AS INDICATED ON DRAWINGS. A BIDDLE GROUND OHMER OR THE METHOD OF USING TWO AUXILIARY GROUND RODS (AS DESCRIBED IN I.E.E.E. STANDARDS NO. 81-1983, PART 1) MAY BE USED. THE I.E.E.E. METHOD REQUIRES THE USE OF AN A.C. TEST CURRENT. THE AUXILIARY TEST RODS MUST BE SUFFICIENTLY FAR AWAY FROM THE ROD UNDER TEST SO THAT THE REGIONS IN WHICH THEIR RESISTANCE IS LOCALIZED DO NOT OVERLAP. THE TEST POINT WILL BE THE GROUND ROD AND WILL CONSIST OF THE THREE POINT FALL OF POTENTIAL MEGGER TEST METHOD, USING THE BIDDLE NULL-BALANCE EARTH TESTER (MEGGER #250220-2 OR EQUIVALENT)
- CONTRACTOR TO CONDUCT GROUND RESISTANCE TEST IN THE FORMAT AS FOLLOWS:

B. EQUIPMENT PAD

- FIRST TEST - SHALL BE WITH FOUR GROUND RODS INSTALLED, ONE AT EACH CORNER OF THE PAD BUT NOT CONNECTED TO THE MAIN GROUNDING BUS. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL FOUR GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL FOUR RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.
- SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

C. TOWER

- FIRST TEST - SHALL BE WITH THREE GROUND RODS INSTALLED (MINIMUM), EQUALLY SPACED AROUND THE TOWER FOUNDATION, BUT NOT CONNECTED TO THE SHELTER PAD EXTERNAL GROUND RING. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL THREE GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED. IF ANY INDIVIDUAL ROD TESTS 25 OHMS OR MORE, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT THE ROD CAN BE DRIVEN DEEPER UNTIL ALL THREE (3) RODS HAVE A RESISTANCE OF 10 OHMS OR LESS ON A DRY DAY.
- SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHOULD BE NOTIFIED SO THAT EITHER ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

D. EQUIPMENT PAD AND TOWER

- AFTER THE EQUIPMENT PAD AND TOWER GROUND RESISTANCE TEST IS COMPLETED, CONTRACTOR SHALL TIE EQUIPMENT PAD EXTERNAL GROUND RING AND TOWER EXTERNAL GROUND RING TOGETHER. AFTER FIRST AND SECOND TEST ALL CONNECTIONS MUST BE MADE USING EXOTHERMIC WELD. NO LUGS OR CLAMPS WILL BE ACCEPTED.
- AFTER ALL THE EXTERNAL GROUND RINGS ARE TIED TOGETHER, COMPLETE A MEGGER CHECK OF THE GROUND SYSTEM SHOULD BE DONE. THE MAXIMUM ALLOWABLE LEADING IS 5 OHMS TO GROUND.

10. GROUNDING RESISTANCE TEST REPORT

UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS WITH AUXILIARY POTENTIAL ELECTRODES AT 5 FEET AND 10 FEET INTERVALS UNTIL THE AVERAGE RESISTANCE STARTS INCREASING AND ALSO NOTE THAT 10-15 PHOTOS MUST BE TAKEN TO PROOF ENTIRE EXTERNAL GROUND RING SYSTEM BEFORE BACKFILL. TWO (2) SETS OF TEST DOCUMENTS ARE OF THE INDEPENDENT TESTING SERVICE TO BE BOUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

SECTION 16503 - POLES, POSTS, AND STANDARDS (SINGLE MAST AND SELF SUPPORTING TOWERS)

1. GENERAL

- LIGHTNING ROD AND EXTENSION PIPE INCLUDING ALL APPURTENANCES, TO BE FURNISHED BY OWNER, IF REQUIRED.
- PROVIDE TEMPORARY LIGHTING FOR TOWER AS PER FAA REGULATIONS DURING CONSTRUCTION, IF REQUIRED.
- GROUNDING:  
GROUND TOWER WITH A MINIMUM OF #2 AWG TINNED SOLID BARE COPPER CONDUCTOR CADWELDED TO TOWER BASE PLATE. TWO (2) GROUNDING LEADS PER TOWER BASE PLATE.  
NO EXOTHERMIC WELDS SHALL BE ATTACHED DIRECTLY TO THE MONOPOLE TOWER SHAFT.

SECTION 16745 - TELECOMMUNICATIONS WIRING COMPONENTS (COAXIAL ANTENNA CABLE)

1. GENERAL

- ALL MATERIALS, PRODUCTS OR PROCEDURES INCORPORATED INTO WORK SHALL BE NEW AND OF STANDARD COMMERCIAL QUALITY.
- CERTAIN MATERIALS AND PRODUCTS WILL BE SUPPLIED BY THE OWNER (REFER TO GENERAL CONDITIONS FOR THE LIST OF OWNER FURNISHED EQUIPMENT, MATERIALS AND SUPPLIES FOR THESE ITEMS). THE CONTRACTOR IS RESPONSIBLE FOR PICKUP AND DELIVERY OF ALL SUCH MATERIALS
- ALL OTHER MATERIALS AND PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR.

2. MATERIALS:

A. COAXIAL CABLE:

- INSTALL COAXIAL CABLE AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS WITH COAXIAL CABLES SUPPORTED AT NO MORE THAN 3'-0" O.C. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE FEET (3') IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.
- ALL COAX RUN LENGTHS GREATER THAN 175 FEET SHALL BE 1-5/8", ALL COAX. RUN LENGTH BETWEEN 101 FEET AND 174 FEET SHALL BE 1-1/4", AND IN LENGTH LESS THAN OR EQUAL TO 100 FEET SHALL BE 7/8".

3. ANTENNA AND COAXIAL CABLE GROUNDING

- ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

4. COAXIAL CABLE IDENTIFICATION

- TO PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLING, PLASTIC TAGS SHALL BE USED AT THE FOLLOWING LOCATIONS:
  - FIRST LOCATION IS AT THE END OF THE COAX NEAREST THE ANTENNA (WHERE THE COAXIAL CABLE AND JUMPER ARE CONNECTED).
  - SECOND LOCATION IS INSIDE THE EQUIPMENT SHELTER NEAR THE WAVEGUIDE ENTRY PORT.
- USE ANDREW CABLE TIES (PT.# 27290) TO SECURE IDENTIFICATION TAGS.

5. TESTING

LESSEE SHALL PROVIDE AN INDEPENDENT TESTING AGENCY TO PERFORM THE COAXIAL SWEEP TEST & REPORT. THE CONTRACTOR IS TO PROVIDE ONE CLIMBER / QUALIFIED PERSONNEL TO ASSIST IN ANY REPAIRS AND WEATHERPROOFING ONCE THE TEST IS COMPLETE. THE CONTRACTOR IS TO PROVIDE LESSEE WITH A MINIMUM OF 48 HOURS NOTICE PRIOR TO THE TIME OF THE SWEEP TEST.

REVISED COAX ROUTE		JUR	JUR
8	UPDATED / ADDED CONDUIT ROUTE	07/15/15	07/02/15
REVISIONS			
NO	DESCRIPTION	DATE	BY
1	ISSUED FOR REVIEW	09/05/14	BTE
2	ISSUED FOR REVIEW	11/05/14	JJR
3	UPDATE TOWER OWNER INFORMATION	11/17/14	JJR
4	ISSUED FOR PERMITTING	12/08/14	JJR
5	UPDATE TOWER HEIGHT / ANTENNAS	01/28/15	JJR
6	UPDATE PER FIBER COORDINATION	02/20/15	MT
	UPDATE PER COMMENTS	03/09/15	JJR

LOC. 278659  
SBA #IL46494-A

N. TINLEY

6640 W. 167TH ST.  
TINLEY PARK, IL 60477

DRAWN BY:	BTE
CHECKED BY:	TAZ
DATE:	09/05/14
PROJECT #:	76-029

SHEET TITLE  
SPECIFICATIONS

SHEET NUMBER

SP-2

**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS

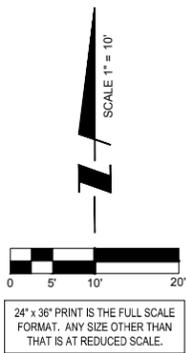
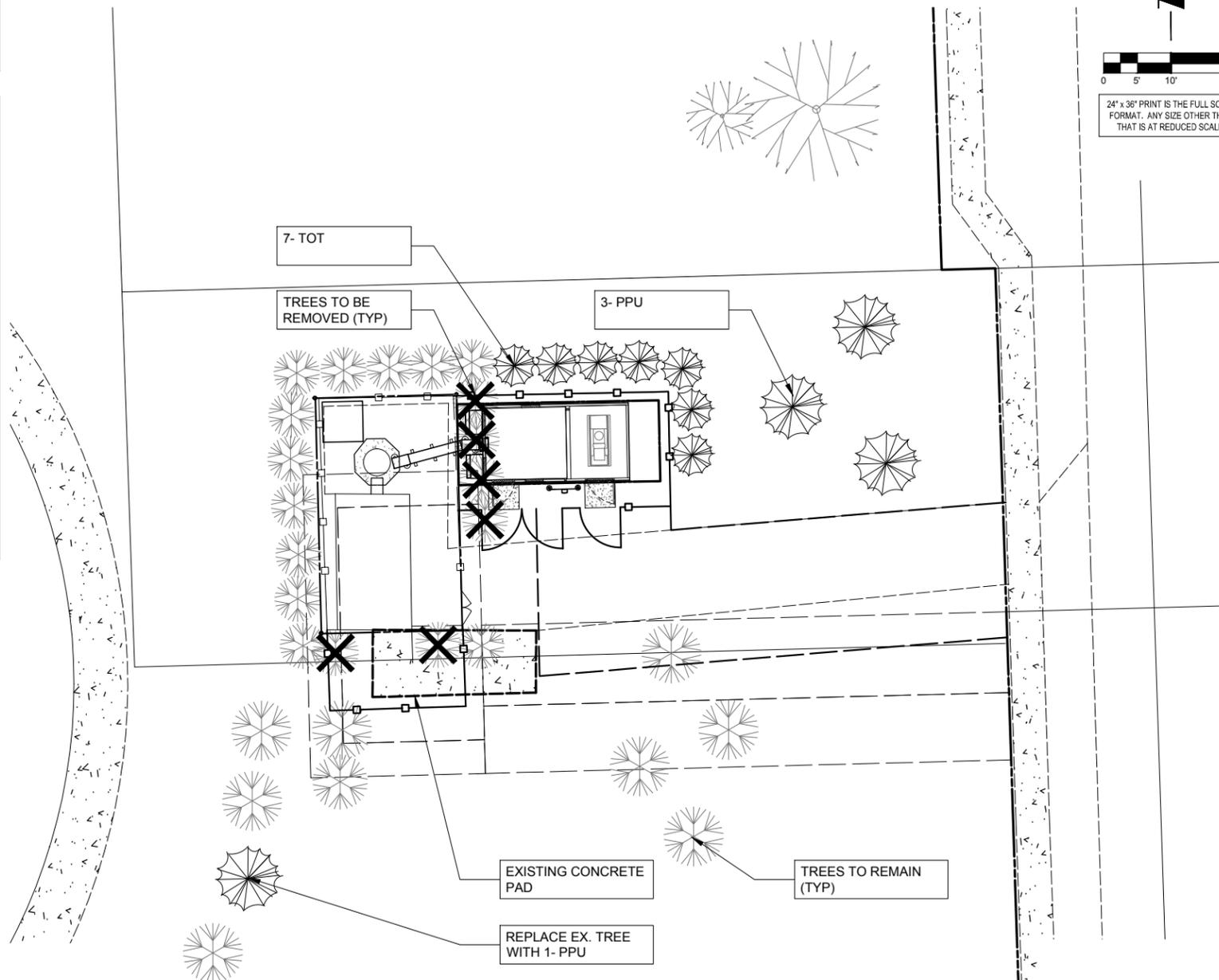
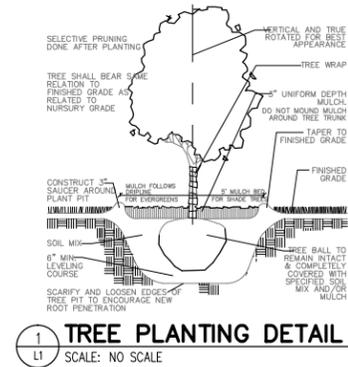


**PLANT LIST**

QTY.	SYM.	BOTANICAL NAME	COMMON NAME	SIZE	NOTE
EVERGREEN TREES					
4	PPU	PICEA PUNGENS	COLORADO SPRUCE	8' HT.BB	
7	THC	THUJA OCCIDENTALIS 'TECHNY'	TECHNY ARBORVITAE	6' HT.BB	

**GENERAL CONSTRUCTION NOTES**

1. REQUIRED LANDSCAPE MATERIAL SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS AND BE STAKED, WRAPPED, WATERED AND MULCHED PER ORDINANCE.
2. BEFORE ANY EXCAVATION ON THE SITE, CALL TO LOCATE ANY EXISTING UTILITIES ON THE SITE. THE CONTRACTOR SHALL FAMILIARIZE HIM/HERSELF WITH THE LOCATIONS OF ALL BURIED UTILITIES IN THE AREAS OF WORK BEFORE STARTING OPERATIONS. THE CONTRACTOR SHALL BE LIABLE FOR THE COST OF REPAIRING OR REPLACING ANY BURIED CONDUITS, CABLES OR PIPING DAMAGED DURING THE INSTALLATION OF THIS WORK.
3. ALL REQUIRED LANDSCAPE MATERIAL INDICATED ON THE APPROVED PLANS WILL BE REQUIRED TO BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT AND MUST BE REPLACED SHOULD IT DIE.
4. ALL PLANT MATERIAL SHALL HAVE A ONE YEAR GUARANTEE FROM SUBSTANTIAL COMPLETION AS DETERMINED BY THE LANDSCAPE ARCHITECT, AND SHALL BE REPLACED SHOULD IT DIE WITHIN THAT PERIOD.
5. PROTECT STRUCTURES, SIDEWALKS, PAVEMENTS AND UTILITIES TO REMAIN FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUTS AND OTHER HAZARDS CAUSED BY SITE IMPROVEMENT OPERATIONS.
6. CAREFULLY MAINTAIN PRESENT GRADE AT BASE OF ALL EXISTING TREES TO REMAIN. PREVENT ANY DISTURBANCE OF EXISTING TREES INCLUDING ROOT ZONES. USE TREE PROTECTION BARRICADES WHERE INDICATED. PROTECT EXISTING TREES TO REMAIN AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, BRUISING OF BARK OR SMOTHERING OF TREES. DRIVING, PARKING, DUMPING, STOCKPILING AND/OR STORAGE OF VEHICLES, EQUIPMENT, SUPPLIES, MATERIALS OR DEBRIS ON TOP THE ROOT ZONES AND/OR WITHIN THE DRIPLINE OF EXISTING TREES OR OTHER PLANT MATERIAL TO REMAIN IS STRICTLY PROHIBITED.
7. THE CONTRACTOR AT ALL TIMES SHALL KEEP THE PREMISES ON WHICH WORK IS BEING DONE, CLEAR OF RUBBISH AND DEBRIS. ALL PAVEMENT AND DEBRIS REMOVED FROM THE SITE SHALL BE DISPOSED OF LEGALLY.
8. ALL WORK AND OPERATIONS SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND ORDINANCES.



REVISED COAX ROUTE		JR	JR
8	UPDATED / ADDED CONDUIT ROUTE	07/15/15	
7	REVISED COAX ROUTE		07/02/15

REVISIONS		BY	DATE
1	ISSUED FOR REVIEW	BTE	09/05/14
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**CHICAGO SMSA**  
limited partnership  
d/b/a VERIZON WIRELESS



LOC. 278659  
SBA #IL46494-A

N. TINLEY

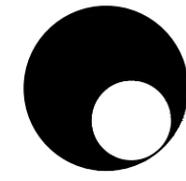
6640 W. 167TH ST.  
TINLEY PARK, IL 60477

DRAWN BY:	BTE
CHECKED BY:	TAZ
DATE:	09/05/14
PROJECT #:	76-029

SHEET TITLE  
**LANDSCAPE PLAN**

SHEET NUMBER  
**L-1**

OPERATES 24 HOURS  
A DAY 365 DAYS A YEAR  
**Call Before You Dig**  
**JULIE**  
ILLINOIS ONE CALL SYSTEM  
CALL JULIE TOLL FREE  
1(800) 892-0123  
48 HOURS BEFORE YOU DIG



**K M Talty DESIGN**  
Winnetka, Illinois  
847.612.5154  
Landscape Architecture

### LEGEND

	Light Post		Found Section Corner Monument
	Telephone Pedestal		Found or Set Monument
	Fence		Found or Set Cut Cross
	Railroad Tracks	59.75'	Measured
	Centerline	(60.00')	Record
	Section Line	DOC. NO.	Document Number
	Building	A & U	Access & Utility
	Point of Commencement		PROPOSED Access Easement
	Point of Beginning		PROPOSED Utility Easement
			Lease Site Area

### LOCATION MAP

NOT TO SCALE

### SURVEY NOTES

EASEMENTS AND SETBACKS SHOWN HEREON ARE BASED UPON THE RECORDED SUBDIVISION PLAT UNLESS NOTED OTHERWISE.

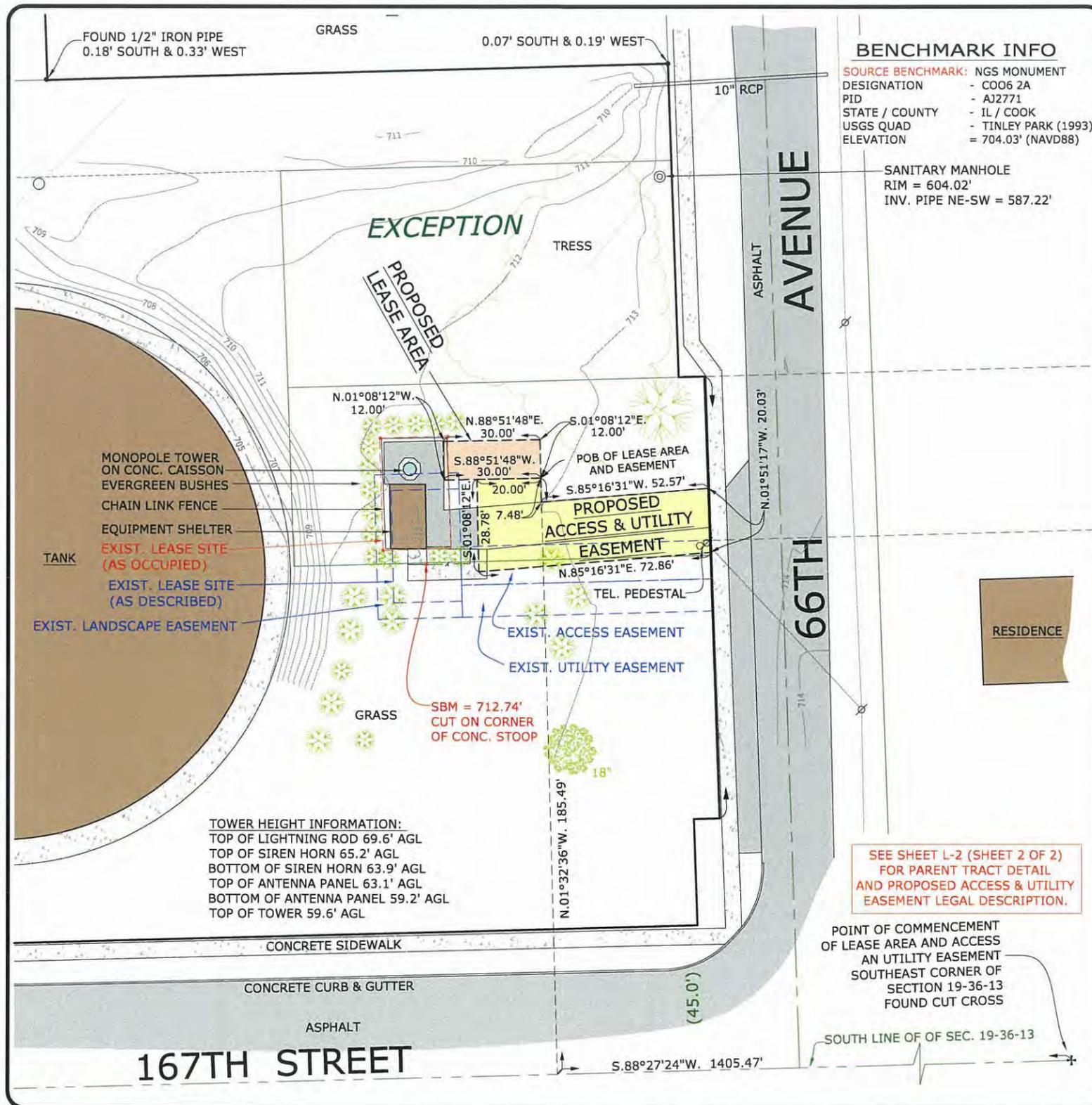
THE SURVEYOR EXPRESSES NO OPINION AS TO THE ACCURACY OF ANY UNDERGROUND UTILITIES WHEN NOT READILY VISIBLE FROM THE SURFACE. IT IS RECOMMENDED THAT THE APPROPRIATE GOVERNMENTAL AGENCY, MUNICIPALITY AND/OR UTILITY COMPANY BE CONTACTED FOR VERIFICATION.

THE PERMANENT PARCEL INDEX NUMBER FOR THE PROPERTY ENCUMBERED BY THE LEASE SITE AND EASEMENT HEREON IS 28-19-401-014.

THE FLOOD INSURANCE RATE MAP SHOWS THAT THE PROPERTY DESCRIBED HEREON IS FALLING WITHIN ZONE "X", ACCORDING TO THE COMMUNITY PANEL NUMBER 170169 0709 j, VILLAGE OF TINLEY PARK, MAP NUMBER 17031C0709J, COOK COUNTY, ILLINOIS AND INCORPORATED AREAS, MAP REVISED AUGUST 19, 2008. ZONE "X" IS AREA DETERMINED TO BE OUTSIDE THE 0.2 % ANNUAL CHANCE FLOODPLAIN.

THERE WAS 6"-8" OF SNOW COVER, PILED UP TO 48", AT THE TIME OF THE FIELD SURVEY.

EASEMENTS AND SERVITUDES SHOWN HEREON ARE BASED UPON A TITLE COMMITMENT ISSUED BY CHICAGO TITLE INSURANCE COMPANY, AND IDENTIFIED AS FILE ORDER NO.: 1401 008961311 D1, WITH AN EFFECTIVE DATE OF JANUARY 24, 2014.



### BASIS OF BEARING

BEARINGS SHOWN HEREON ARE BASED ON ILLINOIS STATE PLANE, EAST ZONE, NAD83 (2011)

MEAN MAGNETIC DECLINATION OBTAINED FROM U.S.G.S. 7 1/2 MINUTE SERIES MAP TINLEY PARK QUADRANGLE STATE OF ILLINOIS

LATITUDE: N 41°35'18.26"  
 LONGITUDE: W 087°46'49.25"  
 AT PROPOSED CENTERLINE OF TOWER  
 COMPLIES WITH F.A.A. 1/A ACCURACY REQUIREMENTS

SCALE : 1" = 40'

11" X 17" PRINT IS THE FULL SCALE FORMAT OF THIS SURVEY. ANY OTHER SIZE IS AT AN ADJUSTED SCALE.

UTM GRID AND 1993 MAGNETIC NORTH DECLINATION AT CENTER OF QUAD MAP

### PROPOSED LEASE AREA LEGAL DESCRIPTION:

A PARCEL OF LAND FOR LEASE AREA PURPOSES, BEING A PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 19, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, FURTHER DESCRIBED AS FOLLOWS;

COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES 27 MINUTES 24 SECONDS WEST ALONG THE SOUTH LINE OF SAID SECTION 19, A DISTANCE OF 1405.47 FEET; THENCE NORTH 01 DEGREES 32 MINUTES 36 SECONDS WEST, PERPENDICULAR TO THE LAST DESCRIBED COURSE, 185.49 FEET FOR A POINT OF BEGINNING; THENCE SOUTH 88 DEGREES 51 MINUTES 48 SECONDS WEST, 30.00 FEET; THENCE NORTH 01 DEGREES 08 MINUTES 12 SECONDS WEST, PERPENDICULAR TO THE LAST DESCRIBED COURSE, 12.00 FEET; THENCE NORTH 88 DEGREES 51 MINUTES 48 SECONDS EAST PERPENDICULAR TO THE LAST DESCRIBED COURSE, 30.00 FEET; THENCE SOUTH 01 DEGREES 08 MINUTES 12 SECONDS EAST, 12.00 FEET TO THE POINT OF BEGINNING.

SAID PARCEL CONTAINS 360.0 SQUARE FEET.

### SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS }  
 COUNTY OF KENDALL } SS

I, CHARLES S. MARSHALL, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THE PLAT SHOWN HEREON, BEING COMPLETED IN THE FIELD ON 2/21/2014 IS A CORRECT REPRESENTATION OF A SURVEY PERFORMED AT AND UNDER MY DIRECTION.

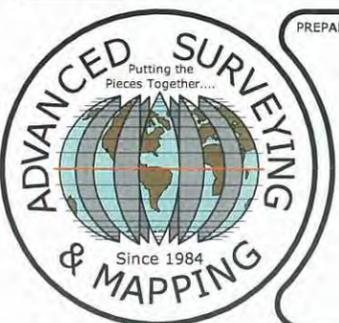
THIS SURVEY MEETS THE MINIMUM TECHNICAL STANDARDS FOR LAND BOUNDARY SURVEYS SET FORTH BY ILLINOIS STATE LAW.

ALL DIMENSIONS ARE IN FEET AND DECIMAL PARTS THEREOF.

GIVEN UNDER MY HAND AND SEAL THIS 25TH DAY OF NOVEMBER, A.D. 2014.

CHARLES S. MARSHALL  
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3377  
 LICENSE EXPIRES 11/30/2014

NO.	DATE	REVISION
1.	2/21/2014	FIELD SURVEY COMPLETED
3.	9/20/2014	FINAL SURVEY COMPLETED
4.	11/25/2014	REVISED LEASE AREA & EASEMENT PER CLIENT



PREPARED BY:

# ASMO

ASM Consultants, Inc.  
 PO Box 7, Plano, IL 60545  
 Tel (630) 273-2500 Fax (630) 273-2600  
 advanced@advct.com  
 Professional Design Firm #184-006014 expires 4/30/2015

## PLAT OF SURVEY OF LEASE AREA AND EASEMENT

PREPARED FOR:

# Chicago SMSA

CHICAGO SMSA LIMITED PARTNERSHIP  
 d/b/a VERIZON WIRELESS  
 1515 WOODFIELD ROAD, SUITE 1400  
 SCHAUMBURG, ILLINOIS 60173  
 PHONE: 847-619-5397 FAX: 847-706-7415

**TERRA**  
 Consulting Group, LTD.  
 600 Busse Highway  
 Park Ridge, IL 60068  
 (847) 698-6400

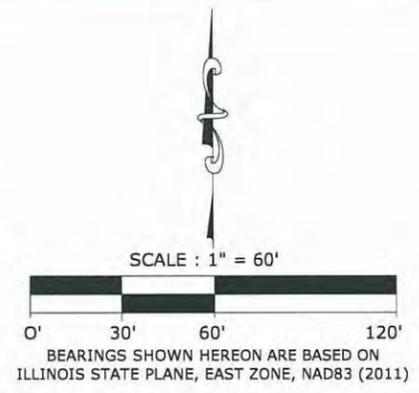
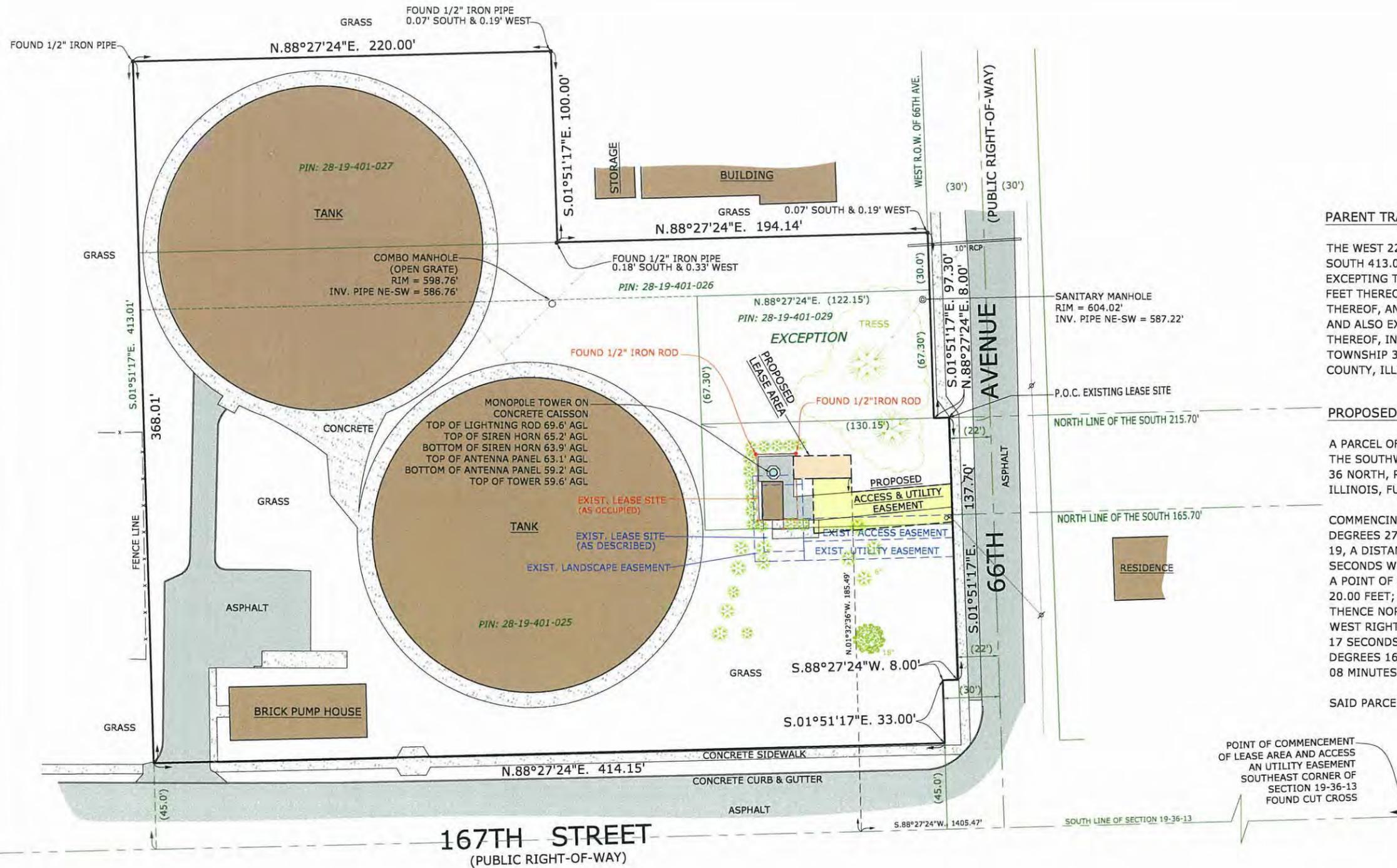
SITE DESIGNATION INFORMATION:

**N. TINLEY**  
 Location No.: 278659  
 Project No.: 20130970193  
 6640 W. 167th Street  
 Tinley Park, IL 60477

DRAWN BY: DL  
 CHECKED BY: CSM

PROJECT NO. 720289A

L-1



**PARENT TRACT:**

THE WEST 220.00 FEET OF THE EAST 444.54 FEET OF THE NORTH 100.00 FEET OF THE SOUTH 413.00 FEET, AND THE EAST 444.54 FEET OF THE SOUTH 313.00 FEET, EXCEPTING THE NORTH 67.30 FEET OF THE SOUTH 283.00 FEET OF THE EAST 152.15 FEET THEREOF, AND ALSO EXCEPTING THE EAST 22 FEET OF THE SOUTH 215.15 FEET THEREOF, AND ALSO EXCEPTING THE EAST 30 FEET OF THE NORTH 30 FEET THEREOF, AND ALSO EXCEPTING THE WEST 8 FEET OF THE EAST 30 FEET OF THE SOUTH 80 FEET THEREOF, IN THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 19, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

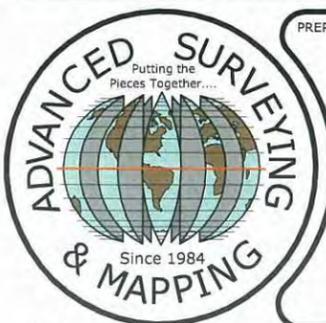
**PROPOSED ACCESS & UTILITY EASEMENT LEGAL DESCRIPTION:**

A PARCEL OF LAND FOR ACCESS & UTILITY EASEMENT PURPOSES, BEING A PART OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 19, TOWNSHIP 36 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS, FURTHER DESCRIBED AS FOLLOWS;

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES 27 MINUTES 24 SECONDS WEST ALONG THE SOUTH LINE OF SAID SECTION 19, A DISTANCE OF 1405.47 FEET; THENCE NORTH 01 DEGREES 32 MINUTES 36 SECONDS WEST PERPENDICULAR TO THE LAST DESCRIBED COURSE, 185.49 FEET FOR A POINT OF BEGINNING; THENCE SOUTH 88 DEGREES 51 MINUTES 48 SECONDS WEST, 20.00 FEET; THENCE SOUTH 01 DEGREES 08 MINUTES 12 SECONDS EAST, 28.78 FEET; THENCE NORTH 85 DEGREES 16 MINUTES 31 SECONDS EAST, 72.86 FEET TO THE WEST RIGHT-OF-WAY LINE OF 66TH AVENUE; THENCE NORTH 01 DEGREES 51 MINUTES 17 SECONDS WEST ALONG SAID RIGHT-OF WAY LINE, 20.03 FEET; THENCE SOUTH 85 DEGREES 16 MINUTES 31 SECONDS WEST, 52.57 FEET; THENCE NORTH 01 DEGREES 08 MINUTES 12 SECONDS WEST, 7.48 FEET TO THE POINT OF BEGINNING.

SAID PARCEL CONTAINS 1,616.9 SQUARE FEET.

POINT OF COMMENCEMENT OF LEASE AREA AND ACCESS AN UTILITY EASEMENT SOUTHEAST CORNER OF SECTION 19-36-13 FOUND CUT CROSS



PREPARED BY:

**ASMO**  
 ASM Consultants, Inc.  
 PO Box 7, Plano, IL 60545  
 Tel (630) 273-2500 Fax (630) 273-2600  
 advanced@advct.com  
 Professional Design Firm #184-006014 expires 4/30/2015

**PLAT OF SURVEY OF LEASE AREA AND EASEMENT**

PREPARED FOR:

**Chicago SMSA**  
 CHICAGO SMSA LIMITED PARTNERSHIP  
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SITE DESIGNATION INFORMATION:

**N. TINLEY**  
 Location No.: 278659  
 Project No.: 20130970193  
 6640 W. 167th Street  
 Tinley Park, IL 60477

DRAWN BY: PS  
 CHECKED BY: CSM

PROJECT NO.  
**720289A**

**L-2**



2682 Garfield Road North, Site 22, Traverse City, MI 49686  
(231) 409-4111 Fax (231) 929-4580

June 1, 2015

To: Ms. Paula Wallrich, Deputy Planning Director  
Plan Commission  
Village of Tinley Park

Re: Plan Commission Analysis for SBA Site (Post 1) 167<sup>th</sup> Street, Tower Extension  
Application for "Special Use Permit" for Village use

Dear Ms. Wallrich:

MSC is providing our analysis for the SBA Site located at 167<sup>th</sup> Street for an extension to an existing tower. MSC performs the following services in reference to analysis for "Special Use Permits" and "Zoning Ordinance" compliance:

**Analysis Services for SBA Site located at 167<sup>th</sup> Street (Post 1) "Village Use"**

MSC reviewed the application and coverage maps for compliance to existing zoning rules. Verizon has within their application demonstrated a need for an additional tower site located in the vicinity of 167<sup>th</sup> Street. The area targeted has a high residential population with limited coverage from Verizon's system at present to vehicle and in-house residential services.

The Village has studied the 167<sup>th</sup> Street area to install a tower for the last (3) years. Today the Village is experiencing unreliable and expensive SCADA monitoring and controlling services over the current telephone network. The Village must move forward to alleviate this critical issue. In 2014 Public Works approached the Village Leaders to install a 100' SS tower at the location called Post 1. There was an existing 60 tower at this location for possible use. MSC studied the existing structure and found that the current height of 60' was inadequate for the SCADA system needs.

In February of 2015 the Village was approached by SBA to increase the current structure height from 60' to 95'. Upon receiving this information the Village approached SBA to potentially collocate on the structure with the increased height. The Village then dismissed the need for another 100' tower in the same location.

The proposed height of 95' is adequate for the Village's needs as long as the Village is granted permission to place their antennas above all other equipment located on the tower, (except the lightning rod). The coverage analysis performed by the Village for SCADA and Microwave implementation indicates a minimum height requirement of 94'

With Plan Commission approval the Village would install a 10' long antenna on the top of the proposed tower and within the total height request of 104'.

Please advise should you require further information or clarification.

Max Machuta, Village Technology Consultant



2682 Garfield Road North, Site 22, Traverse City, MI 49686  
(231) 409-4111 Fax (231) 929-4580

June 1, 2015

To: Ms. Paula Wallrich, Deputy Planning Director  
Plan Commission  
Village of Tinley Park

Re: Plan Commission Analysis for Verizon Site (Post 1) 167<sup>th</sup> Street, Tower Extension  
Application for "Special Use Permit"

Dear Ms. Wallrich:

MSC is providing our analysis for the Verizon Site located at 167<sup>th</sup> Street for an extension to an existing tower. MSC performs the following services in reference to analysis for "Special Use Permits" and "Zoning Ordinance" compliance:

**Analysis Services for Verizon Site located at 167<sup>th</sup> Street (Post 1)**

MSC reviewed the application and coverage maps for compliance to existing zoning rules.

Verizon has within their application demonstrated a need for an additional tower site located in the vicinity of 167<sup>th</sup> Street. The area targeted has a high residential population with limited coverage from Verizon's system at present to vehicle and in-house residential services.

The coverage studies are commensurate with those issued by ATT in September 2014 and bare similar coverage indications. The area of 167<sup>th</sup> Street would allow Verizon to offer a quality level of service for in-vehicle and in-house use.

The request to extend the tower to 95' where Verizon would place the antenna RAD centers at 85' is essential to ensure maximum coverage in a confined area. The total structure height with all appurtenances would be 104' to include a lightning rod suitable to protect the structure and surrounding objects.

The increased height allows the tower owners to maximize on future growth thus allowing an additional carrier to prevent another tower being built in close proximity.

Please advise should you require further information or clarification.

Max Machuta, Village Technology Consultant



# N Tinley

## Pre & Post Simulations



## Proposed N TINLEY Site Summary

The area under consideration is needed to provide capacity relief to the neighboring cell sites. In addition, the new site will improve in-building and in-vehicle coverage for the area.

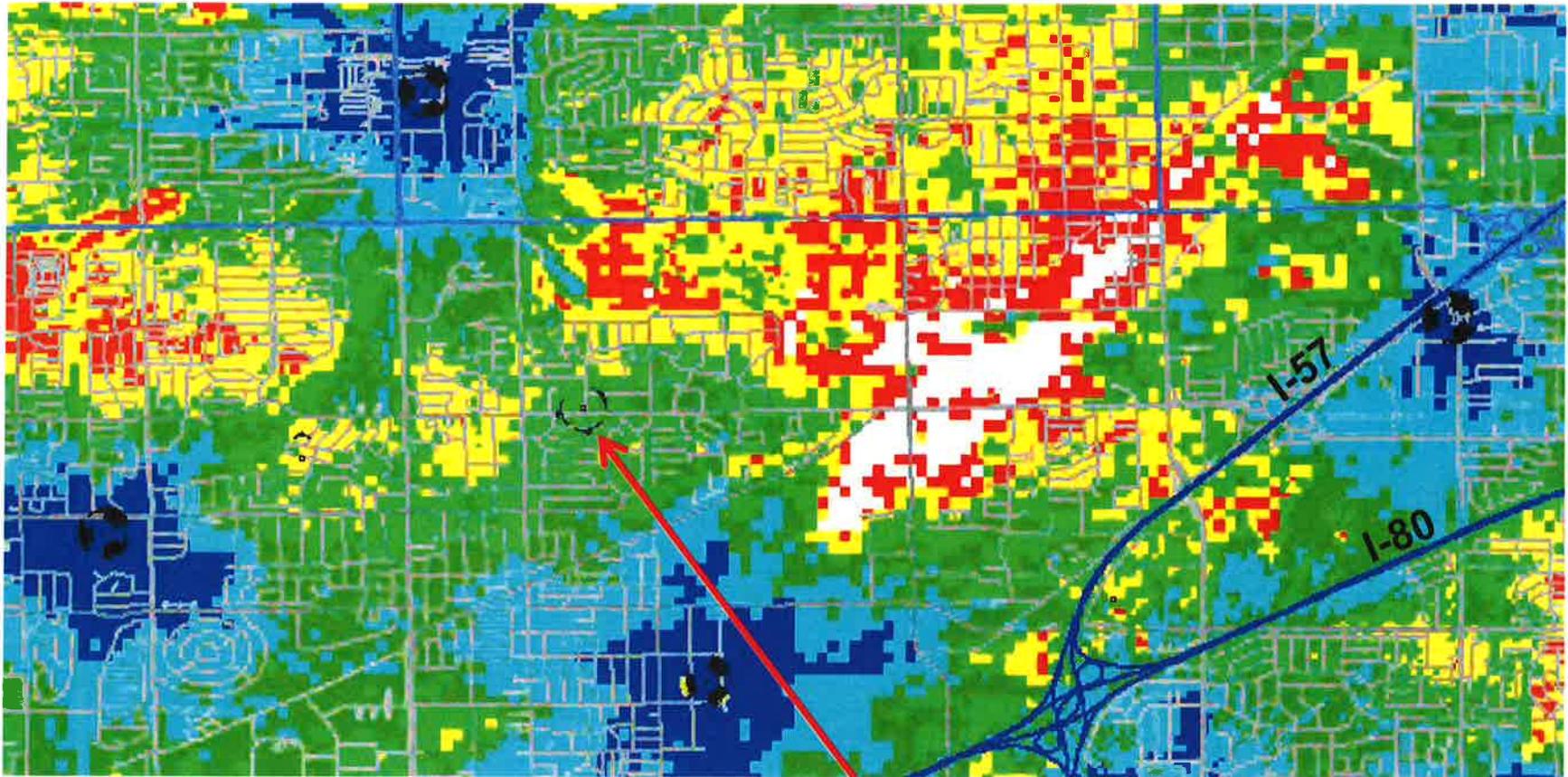
The primary objectives of this site are:

1. Capacity offload to the neighboring sectors serving the area.
2. Improved capacity for the daily commuters and local businesses /residences.
3. Improve reliable in-building coverage for the area.

- Coverage plots generated at 700 MHz



# With-out Proposed N Tinley Site



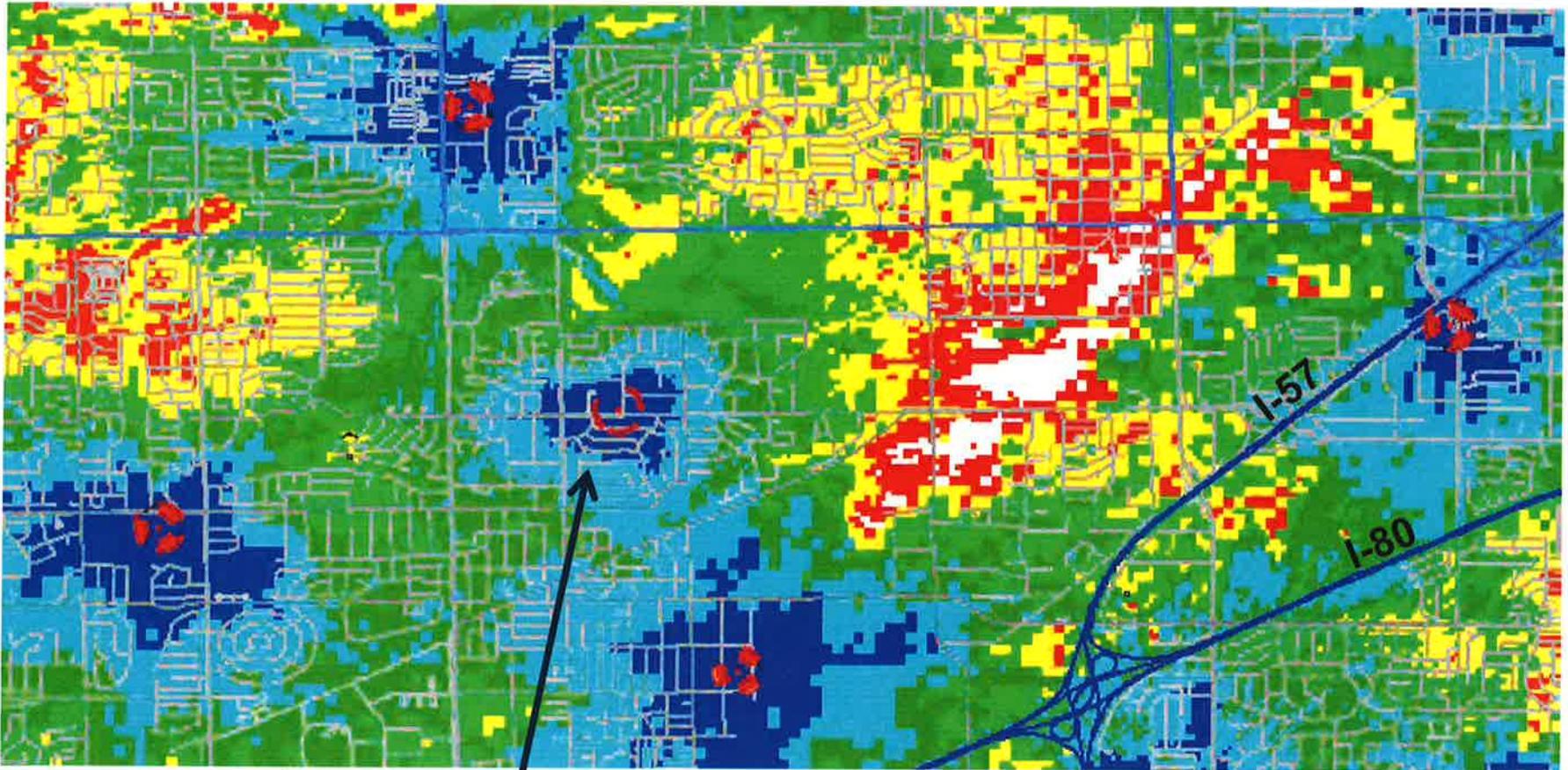
Reliable In-Residence
Un-Reliable In-Residence
Reliable In-Vehicle
Un-Reliable In-Vehicle
Reliable On-Street
Marginal Coverage

All of the surrounding Sites are targeted for capacity offload

Proposed new site location



# With N Proposed Tinley Site

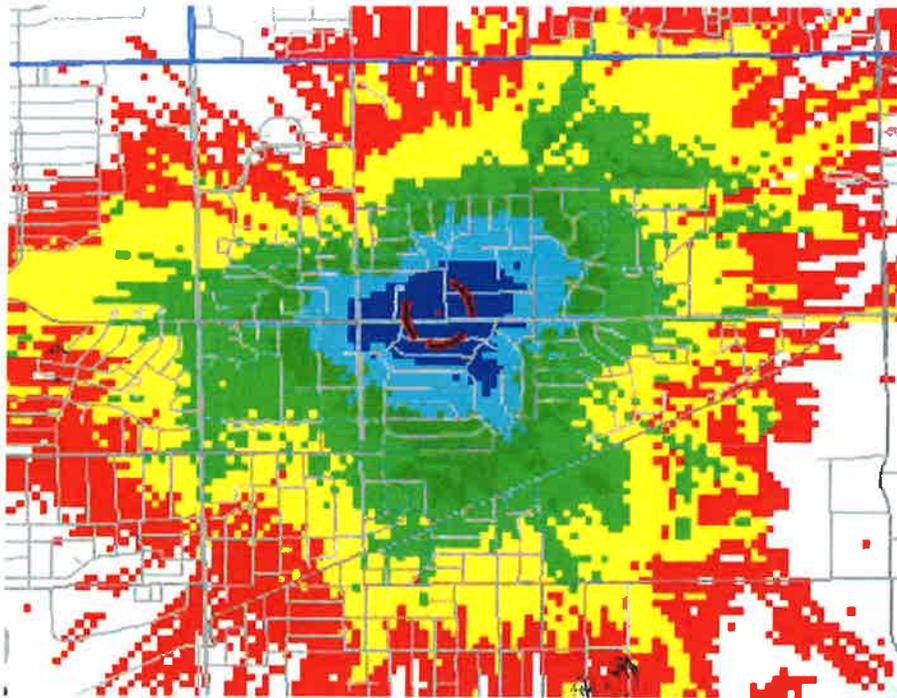


Reliable In-Residence
Un-Reliable In-Residence
Reliable In-Vehicle
Un-Reliable In-Vehicle
Reliable On-Street
Marginal Coverage

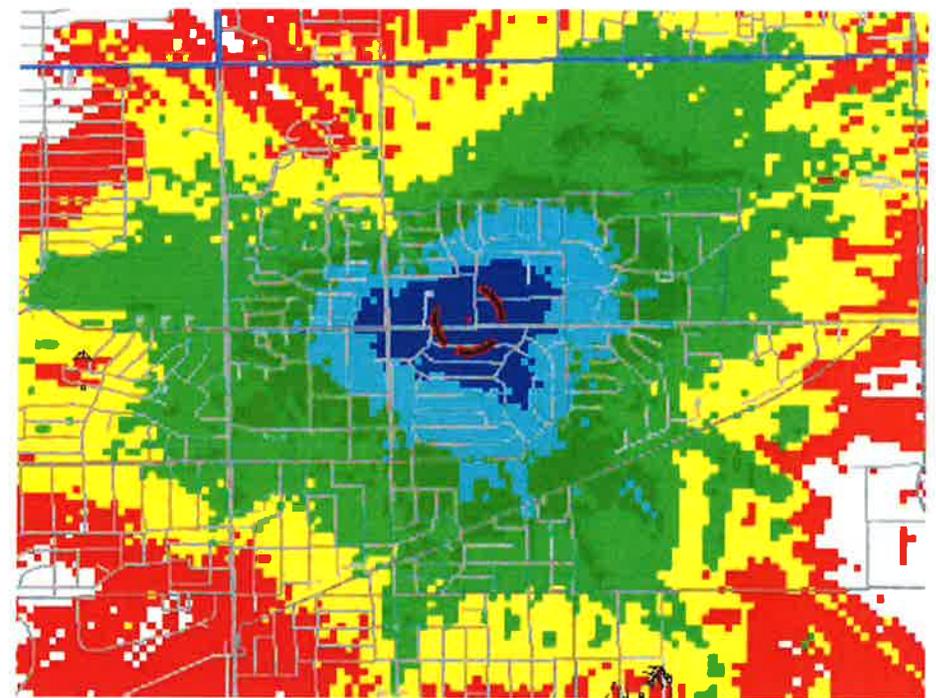
Proposed new site location



## Site Propagation at 85' vs. 50'



50' CL



85' CL

Reliable In-Residence
Un-Reliable In-Residence
Reliable In-Vehicle
Un-Reliable In-Vehicle
Reliable On-Street
Marginal Coverage

The cell at an 85' CL enables in-building and in-vehicle coverage to be improved for a larger coverage area. An 85' CL provides the necessary coverage area needed to provide capacity offload to the surrounding sites

## FEATURES & SPECIFICATIONS

### INTENDED USE

Provides maintenance-free general illumination for outdoor use in commercial applications such as retail, education, multi-unit housing and storage. Ideal for lighting building facades, parking areas, walkways, garages, loading areas and any other outdoor space requiring reliable safety and security.

### CONSTRUCTION

Sturdy weather-resistant aluminum housing with a bronze finish, standard unless otherwise noted. A clear polycarbonate lens protects the optics from moisture, dirt and other contaminants.

Fixture is maintenance-free.

### OPTICS

8 high performance 5470K LEDs are powered by a multi-volt (120V-277V) LED driver that uses 26.45 input watts and provides 1,436 delivered lumens. 50,000 hour average LED life means no lamp replacement.

See Lighting Facts label on page 2 for performance details.

### ELECTRICAL

Operating temperature -40°C to 40°C.

Adjustable Dusk-to-dawn, multi-volt photocell standard automatically turns light on at dusk and off at dawn for convenience and energy savings.

Photocell can be disabled by rotating the photocell cover.

6KV surge protection standard.

### INSTALLATION

Surface or recessed mount. A universal junction box is included standard.

All mounting hardware included.

### LISTINGS

UL Certified to US safety standards. Optional (120V) C-UL Certified to Canadian safety standards. Wet location listed.

Tested in accordance with IESNA LM-79 and LM-80 standards.

### WARRANTY

Five-year limited warranty.

Full warranty terms located at [www.AcuityBrands.com/CustomerResources/Terms\\_and\\_Conditions.aspx](http://www.AcuityBrands.com/CustomerResources/Terms_and_Conditions.aspx).

NOTE: Specifications are subject to change without notice.

Catalog Number
Notes
Type

Outdoor General Purpose

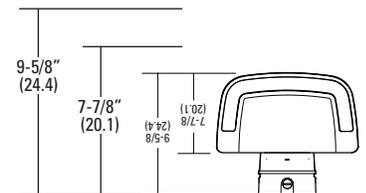
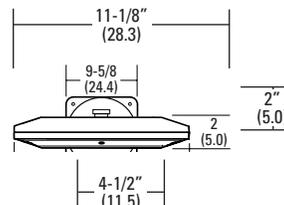
# OLW14

LED WALL PACK



### Dimensions

All dimensions are inches (centimeters)



### ORDERING INFORMATION

For shortest lead times, configure products using **bolded options**.

**Example: OLW14**

Series	Color Temperature (CCT)	Voltage	Features	Finish
<b>OLW14</b>	<b>(blank)</b> 5700K <sup>1</sup>	<b>(blank)</b> MVOLT (120V-277V) 120 120 Volt (available in white only)	<b>(blank)</b> MVOLT photocell included CUL PE Canadian-approved 120V photocell	<b>(blank)</b> Bronze WH White

**Accessories:** Order as separate catalog number.

FCOS M24 Full cutoff shield  
FCOS WH M24 Full cutoff shield, white

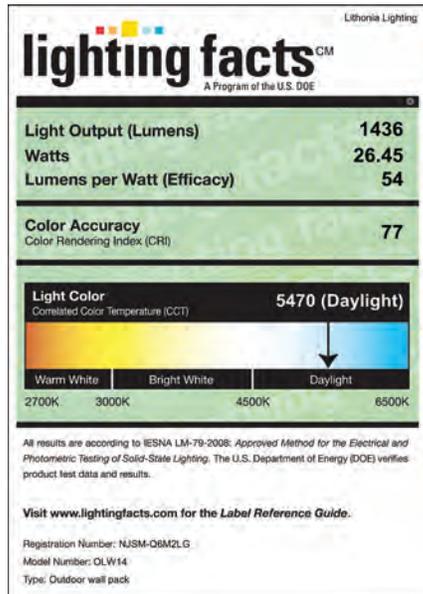
### Notes

1 Correlated Color Temperature (CCT) shown is nominal per ANSI C78.377-2008.

# LED Wall Pack

## PHOTOMETRICS

Full photometric data report available within 2 weeks from request. Consult factory.  
Tested in accordance with IESNA LM-79 and LM-80 standards.



## FEATURES & SPECIFICATIONS

### INTENDED USE

Provides maintenance-free general illumination for outdoor use in commercial applications such as retail, education, multi-unit housing and storage. Ideal for lighting building facades, parking areas, walkways, garages, loading areas and any other outdoor space requiring reliable safety and security.

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Fixture is maintenance-free.

### OPTICS

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6KV surge protection standard.

### INSTALLATION

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NOTE: Specifications are subject to change without notice.

Catalog Number
Notes
Type

Outdoor General Purpose

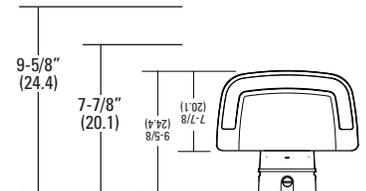
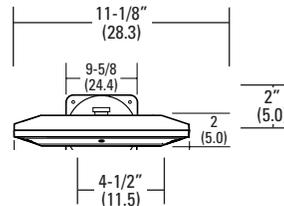
# OLW14

LED WALL PACK



### Dimensions

All dimensions are inches (centimeters)



### ORDERING INFORMATION

For shortest lead times, configure products using **bolded options**.

**Example:** OLW14

Series	Color Temperature (CCT)	Voltage	Features	Finish
<b>OLW14</b> 1400 lumen LED wall pack	<b>(blank)</b> 5700K <sup>1</sup>	<b>(blank)</b> MVOLT (120V-277V) 120 120 Volt (available in white only)	<b>(blank)</b> MVOLT photocell included CUL PE Canadian-approved 120V photocell	<b>(blank)</b> Bronze WH White

**Accessories:** Order as separate catalog number.

FCOS M24	Full cutoff shield
FCOS WH M24	Full cutoff shield, white

### Notes

1 Correlated Color Temperature (CCT) shown is nominal per ANSI C78.377-2008.

# LED Wall Pack

## PHOTOMETRICS

Full photometric data report available within 2 weeks from request. Consult factory.  
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