Wednesday, March 11, 2026
Plan Commission Regular Meeting Agenda

PUBLIC NOTICE - in accordance with the applicable statutes of the state of Illinois and Ordinances of the Village of Wheeling, notice is hereby given that the Regular Meeting of the Wheeling Plan Commission will be held in the Board Room, Wheeling Village Hall, 2 Community Boulevard, Wheeling, Illinois, at 6:30 PM, during which meeting it is anticipated there will be discussion and consideration of and, if so determined, action upon the matters contained in the following agenda:

1. **Call to Order**
2. **Pledge of Allegiance**
3. **Roll Call**
4. **Changes to the Agenda**
5. **Citizen Concerns and Comments**
6. **Consent Items**
7. **Items for Review**

   A. Docket No. PSPMAJ26-0001, Request for Major Site Plan Approval to Construct a Multi-Family Residential Building and Associated Site Improvements (268 7th Street).

   B. Docket No. PSU25-0012, Request for Special Use Approval to Permit the Operation of an Entertainment Establishment ("604 The Arena") for Hamro Investment Group, LLC (604 N. Milwaukee Avenue). **PUBLIC HEARING**

   C. Docket No. PV26-0003, Request for a Variation to Permit a Reduction in the Minimum Required Stall Length for 90-Degree Parking from 18.5 Feet to 18.0 Feet for Hamro Investment Group, LLC (604 N. Milwaukee Avenue). **PUBLIC HEARING**

   D. Docket No. PV26-0004, Request for a Variation to Permit a Reduction in the Minimum Required Drive Aisle Width for Double-Row Parking from 25 Feet to 24 Feet for Hamro Investment Group, LLC (604 N. Milwaukee Avenue). **PUBLIC HEARING**

   E. Docket No. PSPMAJ25-0001, Request for Major Site Plan and Building Appearance Approval For the Construction of an Approximately 4,977 SF Building Addition, Bulding Facade Enhancements, and Associated Site Improvements for Hamro Investment Group, LLC (604 N. Milwaukee Avenue).

8. **Approval of Minutes**

   A. Approval of Minutes of the Regular Meeting of February 11, 2026.

9. **Other Business**
10. **Adjournment**

This meeting will be televised on channels 17 and 99. If you would like to attend a Village meeting but require an auxiliary

aid such as a sign language interpreter, call 847-499-9085 AT LEAST 72 HOURS PRIOR TO THE MEETING. To view the full agenda packet, visit https://wheelingil.portal.civicclerk.com/.

MEMORANDUM

DATE: March 11, 2026
FROM: Marcy Knysz, Village Planner
SUBJECT: Docket No. PSPMAJ26-0001, Request for Major Site Plan Approval to Construct a Multi-Family Residential Building and Associated Site Improvements (268 7th Street).

RECOMMENDED ACTION: **Recommend approval of Docket No. PSPMAJ26-0001,** granting major site plan and building appearance approval, as required under Title 19, Zoning, of the Wheeling Municipal Code and Chapter 19-12, to permit the construction of a multi-family residential building and associated site improvements, located at 268 7th Street, in accordance with the Carport Detail by Home Improvements Kits.Com; Elevations (Sheets a2.3-a2.4), prepared by aMa-Architecture, last revised 12/16/2024; Engineering Plans (Sheets C.1-C.9), prepared by CIVILAND, PLCC, last revised 11/26/2024; Floor Plans (Sheets a2.5-p1.0), prepared by aMa-Architecture, last revised 12/16/2024; Landscape Plan, Sheet L-1, prepared by CIVILAND, PLCC, last revised 11/26/2024; Lighting Plan (Sheet E1), prepared by Kornacki & Associates dated 5/2/2024, last revised 10/14/2024; Project Description letter prepared by Krzysztof Gotkiewicz, dated 2/21/2026; Rendering; Site Plan (Sheet a.1.1), prepared by aMa-Architecture, last revised 12/16/2024; Stormwater Narrative, prepared by CIVILAND, PLCC, last revised 11/26/2024; Title Sheet (a1.0), prepared by aMa-Architecture, last revised 12.16/2024; and subject to the following conditions:

1. In accordance with Section 17.26 (Impact Fees) of the Village Code, the petitioner shall pay impact fees to the Village of Wheeling prior to the issuance of any building or engineering permits.

2. A cost estimate covering the cost of all landscaping plant material plus the cost of installation shall be submitted and approved by the Community Development Department. The approved amount shall be submitted in the form of a financial surety to the Community Development Department prior to the issuance of any engineering site permits or building permits.

3. All other agency permits, including but not limited to the Metropolitan Water Reclamation District of Greater Chicago (MWRD) and Illinois Environmental Protection Agency (IEPA), etc. shall be obtained prior to the issuance of any engineering site permits or building permits.

EXECUTIVE SUMMARY

GENERAL PROPERTY INFORMATION

Applicant: Krzysztof Gotkiewicz (property owner)

Address: 268 7th Street

Property size: 13,190 sq ft (131.9’ x 100’)
(Variation for lot area granted by Ord. 2895)

Building size: approx. 7,200 sq ft

Neighboring Property Land Use(s): Multi-family residential - all sides

Existing Use of Property: Vacant land

Existing Zoning: R-4, Multi-family residential

Comprehensive Plan Designation: Multi-family residential

Zoning History:

- Ordinance No. 2895, granting approval of variations related to lot area, lot width and RV parking and denying variations related to density and required parking (Docket #799).
- Ordinance No. 2793, approved 5/18/1992, granting a rezoning from R-1 to R-4 (Docket #1992-8).
- Resolution No. 93-146 (DENIED), 7/19/1993, requesting site plan approval for a 6 unit apartment building (Docket #1993-8)
- Ordinance No. 2895, approved 7/19/1993, granting variations in lot area and width, and RV parking in an R-4 district (Docket #799).
- Ordinance No. 4457, approved 9/14/2009, granting site plan and building appearance approval for a new 6-unit, 3 story apartment building (Docket #PC 09-12).
- Ordinance No. 4456, approved 9/14/2009, granting variations related to parking requirements for a new 6-unit, 3-story apartment building (Docket #2009-16).
- Ordinance No. 5688, approved October 21, 2024, granting major site plan and building appearance approval to permit construction of a multi-family residential building (Docket #PSPMAJ24-0003).
- Ordinance No. 5689, approved October 21, 2024, granting a variation to permit a reduction in the minimum number of required guest parking spaces (Docket #PV24-0015).
- Ordinance No. 5690, approved October 21, 2024, granting a variation to permit a reduction in the minimum parking setback (Docket #PV24-0016).
- Ordinance No. 5691, approved October 21, 2024, granting a variation to permit a reduction in the minimum building setback (Docket #PV24-0017).

SUMMARY OF REQUEST

The petitioner, Krzysztof Gotkiewicz (property owner), is seeking major site plan and building appearance approval to construct a new three-story, six-unit multi-family residential building on the property located at 268 7th Street. The same property was the subject of an identical proposal in 2024, which was proposed by the prior property owner, along with three zoning variations associated with the proposal.

Following the October 21, 2024 Village Board approval of four ordinances granting approval for the three-story multi-family residential development, the property was sold but construction never commenced. During the transition in ownership, the 2024 major site plan and building appearance approval expired in accordance with the Village Code. The previously approved zoning variations, however, remain valid and do not expire. Accordingly, the current property owner is seeking renewed major site plan and building appearance approval to proceed with development of the property consistent with the previously approved plans and established variations.

PROPERTY BACKGROUND

On July 19, 1993, the Village Board granted a lot area variation for the subject property. The minimum lot requirement for the R-4 Zoning District is 20,000 square feet. Ordinance No. 2895 granted approval for a variation to reduce the minimum required lot area to 13,190 square feet. Please note that a variation allowing a reduction in the lot size was also approved in 1992, but the variations relating to an increase in the maximum density and a decrease in the minimum required parking were denied. The zoning code has been modified since 1992 and the density that is currently proposed (20 units per acre) is now in compliance in the R-4 Multifamily Residential District.

To accommodate the proposed development, the previous property owner obtained the following zoning variations, which established the framework for the site layout and building configuration reflected in the current request.

- Ordinance No. 5689, approved October 21, 2024, granting a variation to permit a reduction in the minimum number of required guest parking spaces (Docket #PV24-0015).
- Ordinance No. 5690, approved October 21, 2024, granting a variation to permit a reduction in the minimum

parking setback (Docket #PV24-0016).
- Ordinance No. 5691, approved October 21, 2024, granting a variation to permit a reduction in the minimum building setback (Docket #PV24-0017).

SITE ANALYSIS

For the purposes of promoting compatible development and ensuring adequate public facilities, Site Plan review and approval is required prior to issuance of a building permit or commencing use of land, except for single and two-family residences. Site Plan review only involves the static aspects of a site – layout, parking, landscaping, fencing, etc., and not the land use or operations of a business. Major Site Plan review requires a concept review by the Village Board, a recommendation by the Commission, and a final decision by the Village Board.

The Zoning Code requires that any new buildings have a concept review by the Village Board before formal consideration by the Plan Commission, unless waived by the Village Administrator. Since the project was reviewed and approved by both the Plan Commission and Village Board in 2024, the Village Administrator waived the Concept review requirement. As this request is for Major Site Plan and Building Appearance approval, the Commission's recommendation will be forwarded to the Village Board for a final decision.

The petitioner proposes to construct a new three-story brick and frame building containing six multi-family residential units, commonly referred to as a "six-flat" apartment building. The proposed units will consist of 1 and 2 bedroom layouts. Each unit will include outdoor space, either in the form of an exterior deck (upper floors) or a patio for the ground-floor units. Primary residential access to the building will be provided from both the east and west elevations (front and rear).

The proposed site design is compatible with the surrounding neighborhood, which is developed predominantly with similar six-flat apartment buildings. However, the adjacent six-flat buildings were constructed prior to the current Village Code and therefore lack minimum setbacks, landscaping, and other site design elements that have been incorporated into this request.

The attached Site Plan proposes a building within the central portion of the site with an access drive along the north side of the building and a parking lot to the west within the rear of the site. The parking lot would include a carport providing covered parking for six vehicles, one designated space for each unit - as required by the Zoning Code. The areas to the east and south of the building would generally consist of landscaping and lawn areas. A new public sidewalk is proposed that would fill in the missing gap along 7th Street and includes a connection to the front building entrance.

Site Plan: The attached Site Plan proposes a six-flat building in the central portion of the site, fronting 7th Street, with a parking lot on the west side (rear of the subject lot). Similar to the site layout of the neighboring six-flat developments, the proposed site will include a walkway leading to the main entrance of the building from the new public sidewalk that will be installed as part of this project. The vehicular driveway will be along the north property line that will lead to the parking lot at the rear of the site. A/C units will be located south of the building and will be screened with landscaping. An exterior trash enclosure will be located in the northwest corner of the parking lot.

The proposed building complies with the 30' front yard building setback along 7th Street. Ordinance No. 5691 (approved October 21, 2024) authorized a reduction in the minimum building setback from 30' to 22'-6" along the north property line and 19'-6" along the south property line. In addition, Ordinance No. 5690 (approved October 21, 2024) authorized a reduction in the minimum parking setback from ten (10) feet to seven (7) feet along the west property line and zero (0) feet along the south property line.

Lighting: The petitioner has submitted a Lighting Plan identifying recessed light fixtures located beneath the proposed carport, two decorative light poles along the east side of the property, and one additional decorative light pole south of the building. In addition, exterior wall-mounted light fixtures are proposed on the north and west elevations of the building to provide supplemental site illumination.

Building Elevations: The attached elevations and rendering have been provided to illustrate the proposed design of the new building. The primary material of the building consists of red brick, with engineered wood siding (in cream color) as the secondary material. The proposed elevations include architectural features such as a recessed section of engineered wood siding in the central portion of the front (east) façade, a canopy over the front entry,

architectural cast stone (in limestone color) to break up the mass of brick on each facade, and the addition of patios/porches. The proposed building design reflects a more modern design, including materials and color scheme, from similar surrounding six-flat buildings that will provide an improved transition from the six-flat buildings and the single-family homes within this area. The petitioner has been asked to bring building material samples to the Plan Commission meeting.

Floor Plan: The plans for the building indicate that the first floor will be slightly different than the upper floors. The first floor will contain a one-bedroom unit and a 2-bedroom unit, while the other floors have two 2-bedroom units. The extra space on the first floor will be used for a utility room and storage area for the building. Staff has reviewed the one bedroom unit and confirmed compliance with the minimum floor area required.

Landscaping: The landscaping along the building's frontage will consist of foundation plantings (flowering shrubs and perennials), red oaks, sugar maple and a swamp white oak tree. The ground-mounted A/C units located along the side (south) elevation will be screened by shrubs and perennials, specifically forsythia and daylilies, a hackberry shrub. The rear (west) property line will have screening vegetation including viburnum and dogwood shrubs.

Trash Enclosure: A six-foot tall trash enclosure, 7' wide and 18'6' deep, will be located at the northwest corner of the property. As proposed, the trash enclosure is to be constructed of wood. However, staff recommends the use of composite material, steel posts, and a steel frame for the gate in order to provide a more durable enclosure to withstand the daily use it will experience.

Access & Parking: The development would utilize a similar access vehicular pattern as the surrounding six-flat developments with a single access point from 7th Street that extends along one side of the property to the rear parking lot.

As proposed, a total of 13 parking spaces (with 6 covered spaces) are proposed. Ordinance No. 5689 (approved October 21, 2024) authorized a reduction in the minimum number of required guest parking spaces from five (5) spaces to zero (0) spaces.

The petitioner is exempt from providing accessible parking spaces per the IL Accessibility Code because they are considered a privately owned apartment building and not a multi-story housing unit. The requirement for ADA accessible parking spaces will be confirmed during the building permit review.

While the neighboring multi-family developments do not provide covered parking, the proposed development will include a carport to provide covered parking for 6 vehicles as shown on the attached carport detail, which satisfies the minimum requirement of the Village Code. The carport will be constructed with 10' tall steel posts, pre-painted white, with pre-painted galvanized steel roofing, framing and hardware.

Parking Table:

	Code Requirement	Required	Proposed	Difference
Parking Spaces	1.7/1 bedroom 2.2/2 bedroom	13	13	0
Covered Parking Spaces	1 per unit	6	6	0
Visitor Parking Spaces*	10%, 5 spaces min	5	0	-5*

* The petitioner has received a variation to permit a reduction in the minimum number of required guest parking spaces from five (5) spaces to zero (0) spaces (Ordinance No. 5689 approved October 21, 2024).

As required by IL State Law, underground conduit will be installed on the west side of the new parking spaces to support (future) installation of electric vehicle (EV) chargers, if the owner chooses to install EV chargers.

Site Requirements: The project would require all standard Village services necessary for a residential development (sewer, water, fire protection), as well as, stormwater management requirements.

STAFF REVIEW

Fire Department Review: There are no additional comments related to the major site plan & building appearance approval

Engineering Division Review: There are no additional comments related to the major site plan & building appearance approval

Staff Recommended Action: The Plan Commission should discuss whether the trash enclosure should be constructed of a composite material with steel posts inside the enclosure and a steel frame for the gate.

Staff recommends approval of the major site plan & building appearance review, subject to the following conditions:

1. In accordance with Section 17.26 (Impact Fees) of the Village Code, the petitioner shall pay impact fees to the Village of Wheeling prior to the issuance of any building or engineering permits.

2. A cost estimate covering the cost of all landscaping plant material plus the cost of installation shall be submitted and approved by the Community Development Department. The approved amount shall be submitted in the form of a financial surety to the Community Development Department prior to the issuance of any engineering site permits or building permits.

3. All other agency permits, including but not limited to the Metropolitan Water Reclamation District of Greater Chicago (MWRD) and Illinois Environmental Protection Agency (IEPA), etc. shall be obtained prior to the issuance of any engineering site permits or building permits.

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If the Plan Commission finds that the petitioner has satisfied the requirements for the granting of a major site plan & building appearance approval, the appropriate motion would be to:

Recommend approval of Docket No. PSPMAJ26-0001, granting major site plan and building appearance approval, as required under Title 19, Zoning, of the Wheeling Municipal Code and Chapter 19-12, to permit the construction of a multi-family residential building and associated site improvements, located at 268 7th Street, in accordance with the Carport Detail by Home Improvements Kits.Com; Elevations (Sheets a2.3-a2.4), prepared by aMa-Architecture, last revised 12/16/2024; Engineering Plans (Sheets C.1-C.9), prepared by CIVILAND, PLCC, last revised 11/26/2024; Floor Plans (Sheets a2.5-p1.0), prepared by aMa-Architecture, last revised 12/16/2024; Landscape Plan, Sheet L-1, prepared by CIVILAND, PLCC, last revised 11/26/2024; Lighting Plan (Sheet E1), prepared by Kornacki & Associates dated 5/2/2024, last revised 10/14/2024; Project Description letter prepared by Krzysztof Gotkiewicz, dated 2/21/2026; Rendering; Site Plan (Sheet a.1.1), prepared by aMa-Architecture, last revised 12/16/2024; Stormwater Narrative, prepared by CIVILAND, PLCC, last revised 11/26/2024; Title Sheet (a1.0), prepared by aMa-Architecture, last revised 12.16/2024; and subject to the following conditions:

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ATTACHMENTS:

Report attachments (staff)
Carport Detail by Home Improvements Kits.Com
Elevations (Sheets a2.3-a2.4), prepared by aMa-Architecture, last revised 12/16/2024
Engineering Plans (Sheets C.1-C.9), prepared by CIVILAND, PLCC, last revised 11/26/2024
Floor Plans (Sheets a2.5-p1.0), prepared by aMa-Architecture, last revised 12/16/2024
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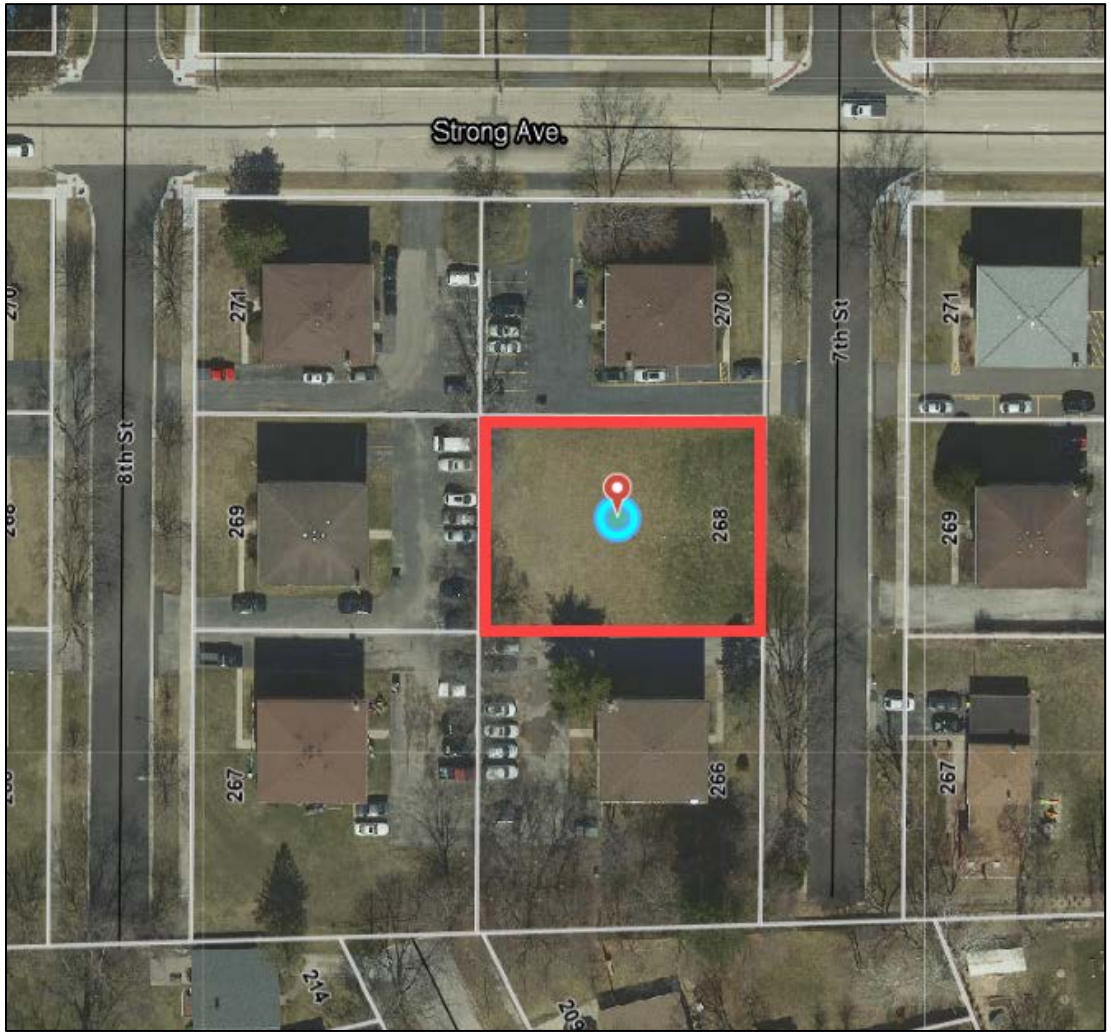
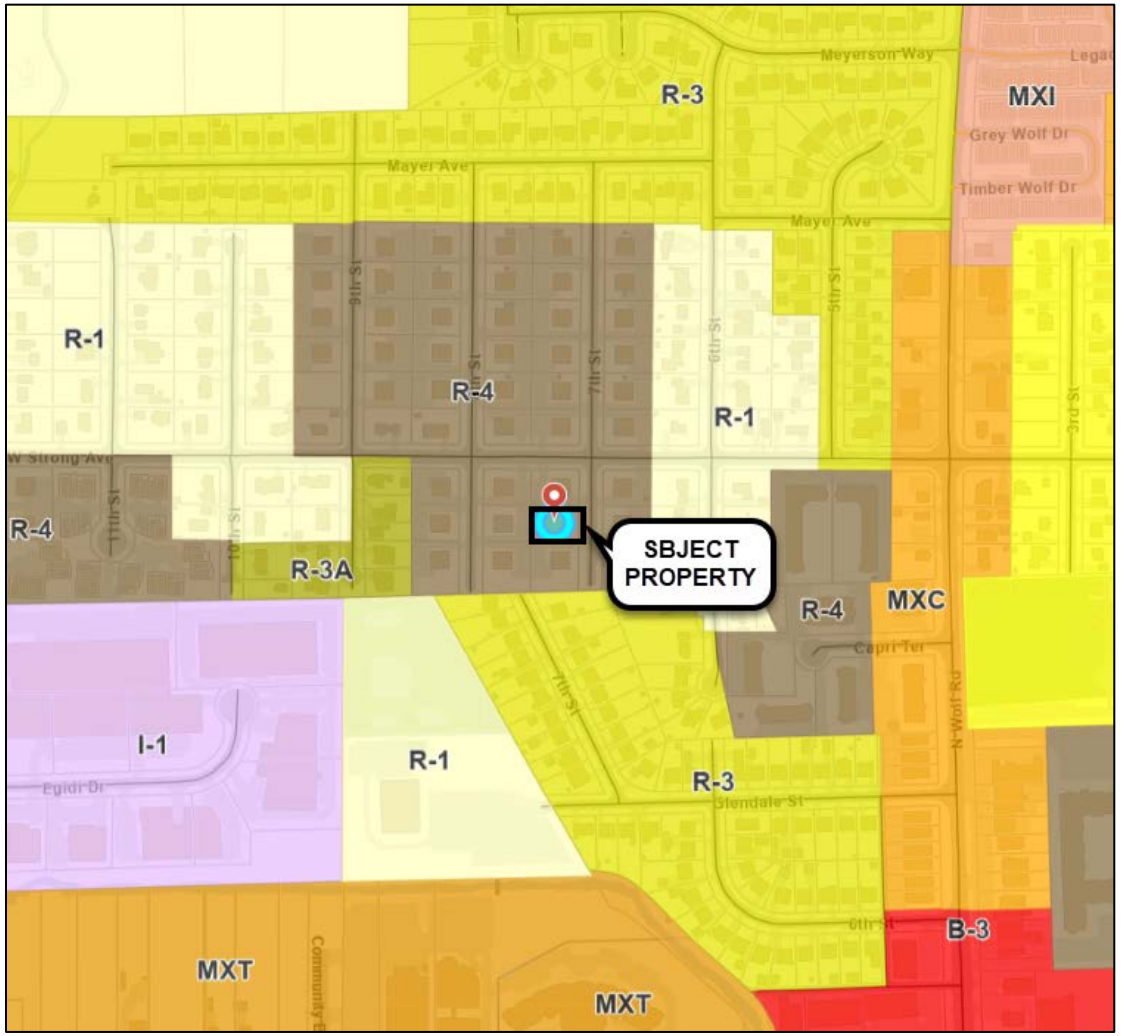


Location Map



Zoning Map



Subject Property Facing Northwest from 7th Street.



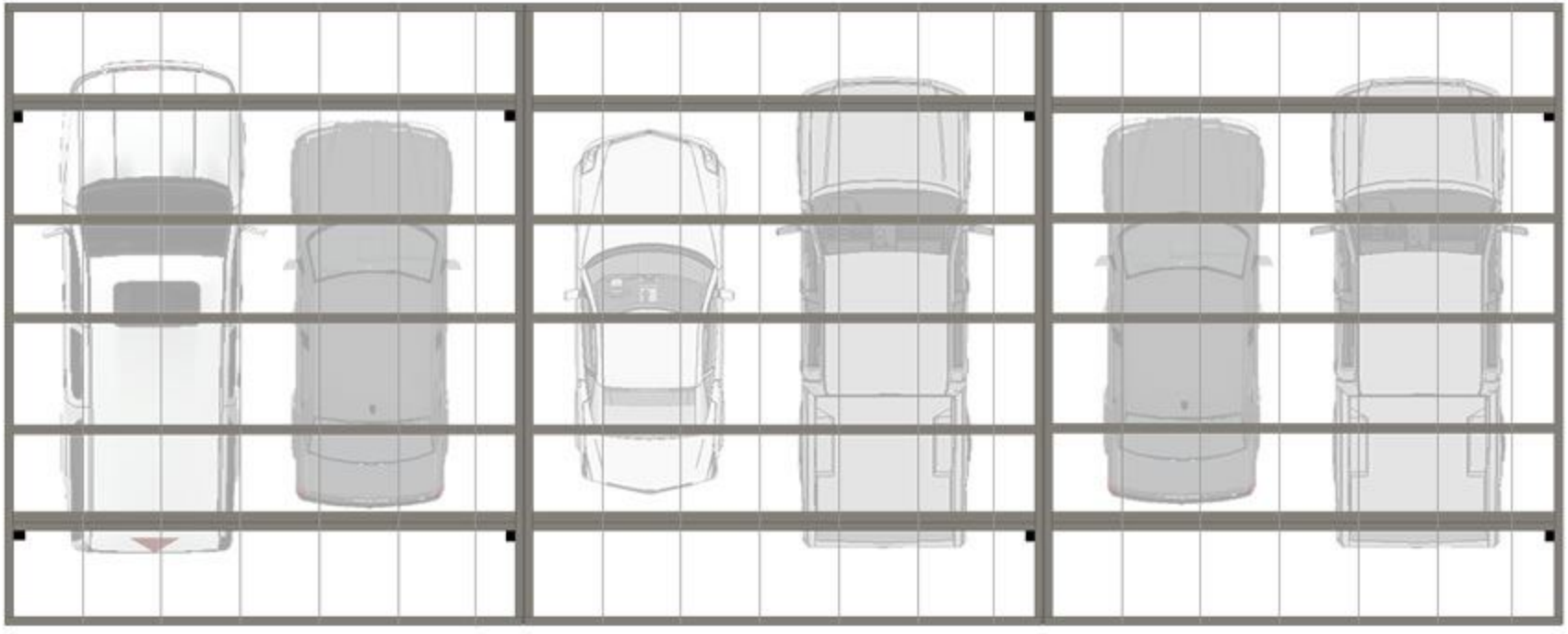


Other 6-Flats on 7th Street.





Other 6-Flats on 7th Street.



STEEL





OVERVIEW

CONTACT US

Our steel car port covers can be custom configured to achieve the desired results.

This cover is designed for 6 large vehicles. Standard carport covers are either 18' x 20' or 20' x 20'. The length on this bad boy has been extended to 24' to accommodate long trucks and provide extra protection and shade to the front and back of the vehicles. The double steel beams over the posts provide more than enough strength to handle the additional coverage area.

Your carport cover kit includes; white pre-painted galvanized steel roofing, pre-painted steel trim, screws, sealant, (8) pre-painted white 10' posts, and galvanized framing, with hardware (12' posts available). ***No welding on site is needed,*** screws and bolts are used to assemble the covers. Thus any competent handy man and his helper can accomplish the assembly task. (optional: flashing, and special hardware peculiar to your job).

Note: Steel covers can be rated for snow or wind loads. Our steel covers are not pre-engineered and you may need to get a local engineer to seal a set of plans if you are obtaining building permits.

Details:

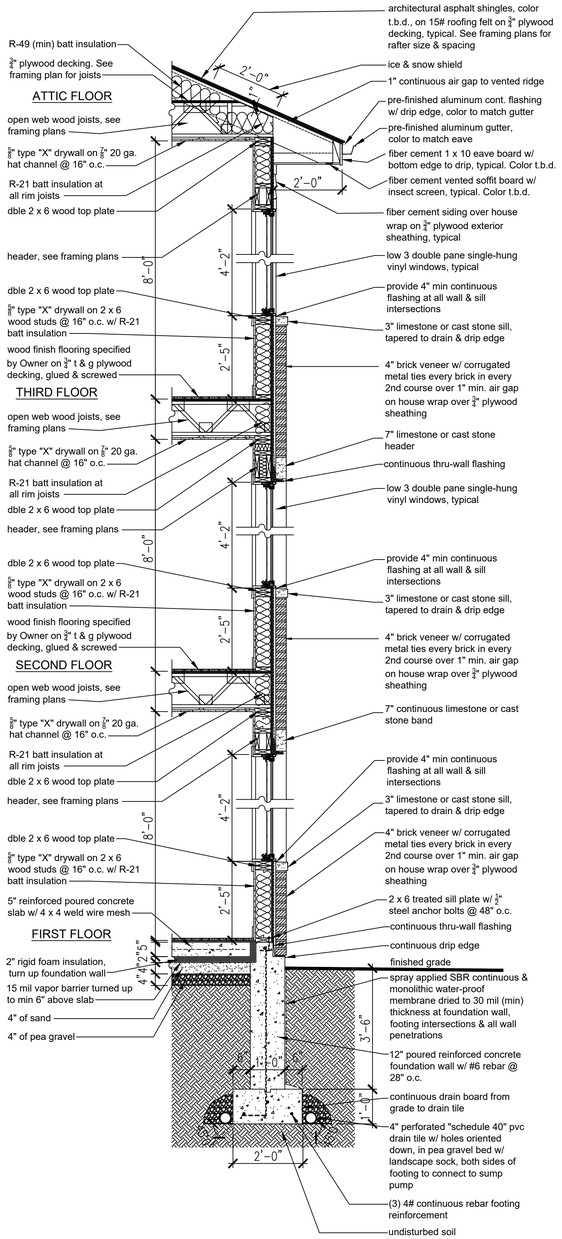
- Standard (NON-STAMPED) plans are available, custom engineering is available at an additional cost.
- Line Drawings, material lists and more specific information to your installation is sent with each order.
- The above quotations are based on estimated live load ratings of 20# to 30# per square foot and wind ratings of 80 to 100 mph.
- Your front height should have a ï¿½ï¿½ drop per foot of projection. (6" to 12" drop)
- The 10' Steel posts, need to be cemented into the ground at least 2 feet.
- Optional 8' long post with bottom brackets are available on request, for attaching to concrete at the same price as 10' post. When post are not in the ground the carport must

- Factory painted post: color white
- Galvanized 6" steel framing at 4' on center
- 3ï¿½ x 3ï¿½ x 10ï¿½ Steel Posts in white.
- (8ï¿½ post with brackets avilable on request) use for attached units only.
- Covers can be can be cut down to the exact size you need. Order the larger size than the size you need and cut it down to size on site as you build it.
- Custom sizes available just let us know what you need and we will quote it.
- Walk way covers and extentions can be added to the standard covers.

In non-snow regions, covers can span up to 14' in projection before a suport beam is needed. Covers can project past a set back beam up to 4ï¿½

Orders normally take 2 to 3 weeks to be delivered to your home or business. Technical help is available M-F, 10AM-5PM SST 1-888-814-7531

RELATED PRODUCTS



3 Typical Wall Section -Proposed

scale: $\frac{1}{4}$" = 1'-0"



2 North Elevation -Proposed

scale: $\frac{1}{4}$" = 1'-0"



1 East Elevation -Proposed

scale: $\frac{1}{4}$" = 1'-0"

aMa-Architecture
11337 S. Forrestville Ave.
Chicago, IL 60628
773.580.2331
ann@aMa-Architecture.com

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

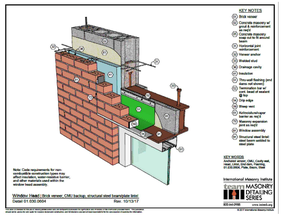
268 7th Street, Wheeling, IL 60009

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief, conform to the village of wheeling codes & ordinances

LICENSED ARCHITECT
ANN M ALSPAUGH
001(6202)34

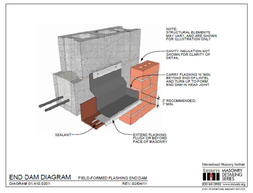
license no. 1020234
expires: 11.30.2026

issue for permit	12.16.24
drawn by: ama	exterior elevations & typ. wall section
checked by: ama	
date: 12.16.24	
rev:	a2.3



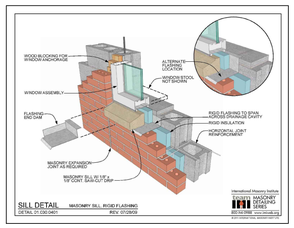
4 Typical Flashing at Steel Lintels & Brick Anchoring

scale: n.t.s.



5 End Dam Flashing

scale: n.t.s.



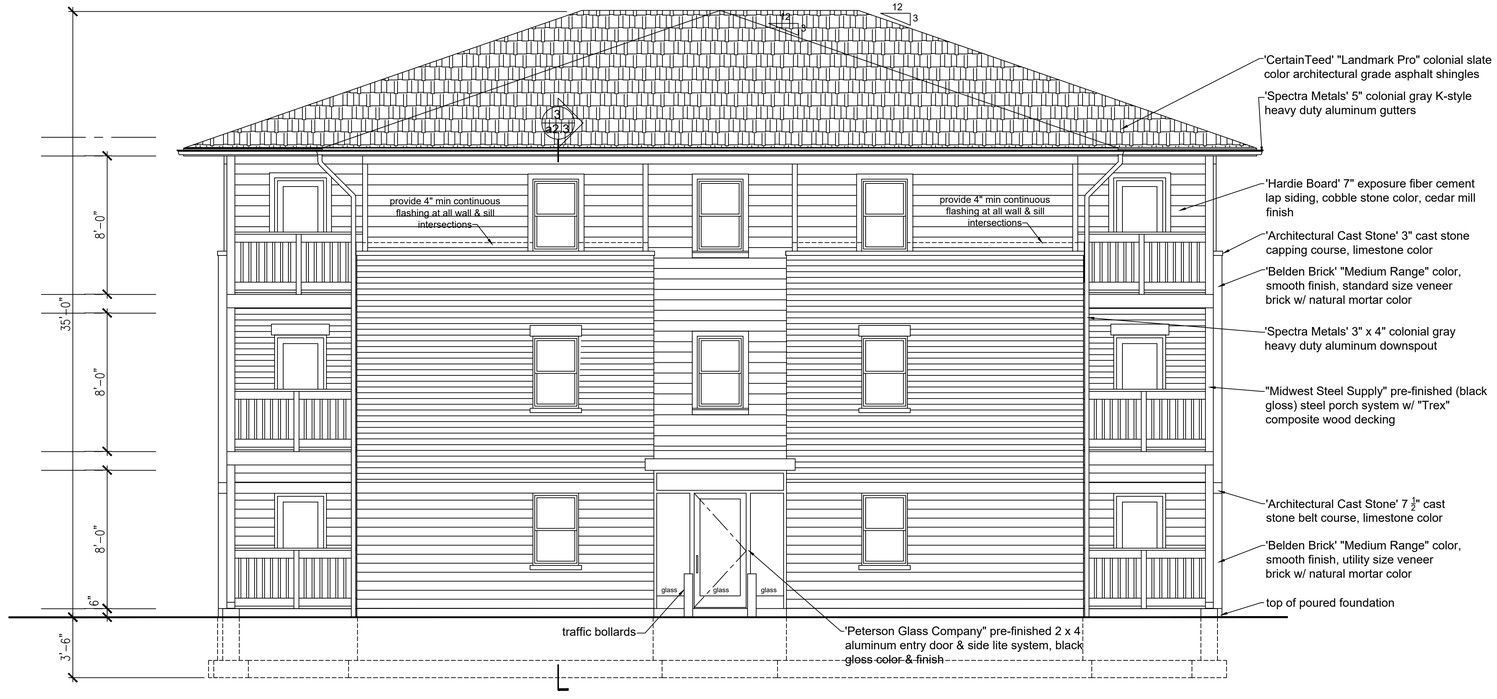
6 Sill Flashing

scale: n.t.s.



2 South Elevation -Proposed

scale: 1/4" = 1'-0"



1 West Elevation -Proposed

scale: 1/4" = 1'-0"

aMa-Architecture
11337 S. Forrestville Ave.
Chicago, IL 60628
773.580.2331
ann@aMa-Architecture.com

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

268 7th Street, Wheeling, IL 60009

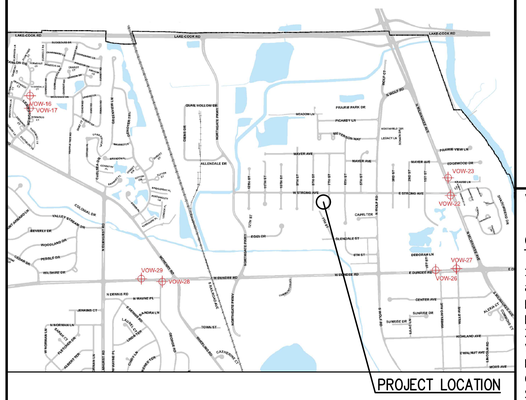
I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief, conform to the village of wheeling codes & ordinances

LICENSED ARCHITECT
ANN M ALSPAUGH
001020234

license no. 1020234
expires: 11.30.2026

issue for permit	12.16.24
drawn by: ama	exterior elevations & masonry details
checked by: ama	
date: 12.16.24	
rev:	a2.4

Proposed New 6–Unit 3–Story Apartment Building
268 7th Street, Wheeling, IL 60009



Sanitary Sewer Routing Map

STANDARD SYMBOLS

EXISTING	FEATURE	PROPOSED
BM/TBM	BENCHMARK	BM/TBM
□	CONCRETE R.O.W. MONUMENT	
	R.O.W. LINE	
	SANITARY SEWER	
◎	STORM SEWER MANHOLE	◉
○	CATCH BASIN	●
□	INLET	■
○C.O.	CLEAN OUT	○C.O.
	STORM SEWER	
	COMBINED SEWER	
◎	SANITARY SEWER MANHOLE	◉
⊠	WATER VAULT	⊠
⊗	VALVE BOX	⊗
W	WATERMAIN	W
♙	FIRE HYDRANT	♙
⊙GAS	GAS MANHOLE	⊙GAS
△GAS	GAS VALVE	△GAS
G	GAS MAIN	G
T	TELEPHONE LINES	T
□IBT	IBT BOX	□IBT
⊙IBT	IBT MANHOLE	⊙IBT
E	ELECTRIC LINES	E
⊙ELEC.	ELECTRIC MANHOLE	⊙ELEC.
⊸	UTILITY POLE	⊸
P	SIGN	P
✳	LIGHT STANDARD	✳
x x x x	FENCE	x x x x
10"Ø	TREE	
	SHRUB	
857	CONTOUR LINE	857
x 854.7	SPOT GRADE	x 857.4
	HEADWALL	
	FLARED END SECTION	
	CULVERT	
	SWALE	
◦	PROPERTY PIN	•
FH	HANDICAP RAMP	FH
RIM INV.	STORM SEWER STRUCTURE ELEVATION	RIM INV.
RIM INV.	SANITARY SEWER STRUCTURE ELEVATION	RIM INV.
M	WATER METER PIT	M

Date: Nov 26, 2024, 8:33am User ID: Sabin
File: D:\2023\268 7th Street, Wheeling\Drawings\1 Cover 268.dwg

Village of Wheeling Notes

GENERAL NOTES

1) It shall be the responsibility of the developer (owner) and the contractor to abide by, adhere to and perform all work in accordance with the requirements, specifications, standards, practices, policies and codes of the Village of Wheeling which includes but is not limited to labor, materials, procedures and safety.
2) Underground construction shall comply with the applicable ordinances and requirements of the Village of Wheeling and the Illinois Department of Transportation "Specifications for Road and Bridge Construction", latest edition, and the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition. All construction shall conform to the Illinois Recommended Standards for Sewerage Works, latest edition, published by the Illinois Environmental Protection Agency (I.E.P.A.) except for conflicts with the Metropolitan Water Reclamation District of Greater Chicago (M.W.R.D.G.C.) Sewer Permit and Manual of Procedures Ordinances. In case of a conflict the most restrictive standards and requirements shall govern.
3) All paving and excavation work shall comply with the applicable ordinances of the Village of Wheeling and the Illinois Department of Transportation "Specifications for Road and Bridge Construction" latest edition. In case of a conflict, the most restrictive standards and requirements shall govern.
4) The contractor shall field check and verify all existing utility locations, dimensions and elevations in the field prior to the commencement of construction of the improvements or proposed work. All existing utility locations on the plans have been shown based on best available information. Notify the engineer immediately if discrepancies are found.
5) Any changes, revisions or substitutions to the plans, specifications, materials, requirements or work shall be submitted to the Village Engineer, in writing, with written approval by the Village Engineer received prior to beginning said work. All materials and construction whether implicitly or explicitly stated or covered within the requirements, codes or specifications, shall be approved by the Village Engineer, prior to commencing the installation and construction.
6) The contractor must contact J.U.L.I.E. at 1-800-892-0123 at least 48 hours prior to starting work. All other agencies shall also be notified as required.
7) The contractor shall notify the Village of Wheeling Engineering Division at (847) 459-2620 and the Metropolitan Water Reclamation District of Greater Chicago (708) 588-4055 two (2) business days prior to the start of construction.
8) It shall be the responsibility of the contractor to call the Village at 847-459-2620 at least 48 hours in advance and set up the necessary and proper inspection(s) for all work to be performed.
9) One set of stamped approved plans shall be on site at all times during construction of the project.
10) It is the responsibility of the contractor to maintain and keep at the job site, an up to date set of "Record Drawings" showing all changes from the original plans. The contractor shall deliver the "Record Drawings" to the engineer at the conclusion of the project, prior to any final inspections. The engineer will transfer the information to the original plans by incorporating the Village of Wheeling As-Built requirement list and furnish the Village one (1) sets of complete "Record Drawings," and, if required, one (1) set of electronic version of the Record Drawings and Site Information at the completion of the project.
11) The location of all service connections for sanitary sewer, storm sewer and water shall be shown from the closest manhole or valve vault. All B-boxes and cleanouts must be shown with tied dimensions. The elevation of all rims and inverts shall be verified by the contractor and shown on the "Record Drawings".
12) OSHA rules, regulations and requirements shall be strictly adhered to during the execution of all work to be performed under the approved drawings.
13) The contractor shall provide video tape(s) or still pictures as required by the Village Engineer prior to the commencement of work to document existing conditions.
14) The contractor shall restore all disturbed off-site areas to at least a condition that existed prior to construction.
15) All unpaved areas of the right-of-way are to be sodded. Restore right-of-way with six (6) inches of topsoil and sod.
16) All existing field drainage tiles encountered or damaged during construction are to be restored to their original condition, properly rerouted and/or connected to the storm sewer system.
17) Storm and sanitary sewer lines shall be cleaned of all construction debris and silt prior to Village inspection.
18) All independent testing to be paid for by the developer. Testing to be conducted at the discretion of the Village.
19) All obstructions that are not approved by the Village and which currently exist in the right-of-way shall be removed, which include all rocks and boulders.
20) All septic and/or well abandonment's shall be in accordance with the requirement of the Village of Wheeling.
21) The contractor shall refer to mitigation or landscape plans for complete information regarding planting locations, wetlands, walkways, walls, and stream and pond shorelines, if applicable.
22) An iron pipe shall be found and located or set at each lot corner.
23) All elevations are based upon NAVD 88 Datum.

GENERAL UNDERGROUND UTILITY NOTES

1) All sewer construction shall conform to the approved permit plans unless revisions have been approved by the Village, as well as any and all other Agencies.
2) Trench backfill shall be provided under and within two feet (2') of all existing and proposed pavement. Concrete Curb & Gutter shall be considered a part of the existing and proposed pavement. Trench backfill material shall be CA-6, Grade 8, Crushed Limestone, virgin material unless otherwise approved.
3) All manholes and catch basin structures must be a minimum of 48" in diameter, valve vaults must be a minimum of 60" diameter, unless approved otherwise.
4) All underground construction requires CA-7, 8, 11 or 13 gravel or limestone bedding and backfill material. Bedding beneath the pipe shall be placed to a thickness equal to 1/4 of the outside diameter of the sewer pipe with a maximum thickness of 8 inches, but shall not be less than 4 inches. Bedding material shall extend to the spring line for rigid pipe or 12" above top of PVC pipe.
5) If required, all trenches shall be dewatered PRIOR to laying any pipe or jointing. Trenches shall be dewatered to maintain the water level below the base of the bedding.
6) Structures shall have a maximum of twelve inches (12") of adjustment rings with any combination up to a maximum of three (3) rings.
7) Concentric cone sections shall be used on all manholes, catch basins, vaults, etc. unless approved otherwise by the Village Engineer.
8) All storm, sanitary and watermain services to end at R.O.W. with proper termination for subdivision construction.
9) The contractor shall mark location of the ends, if necessary, of any sanitary, water, and storm services with buried 4" x 4" wood posts extending a minimum of three (3) feet out of the ground and painted red, blue, and green respectively, with appropriate signs attached stating "caution B-box do not remove until landscaping is complete."
10) A minimum ten feet (10') horizontal separation shall be maintained between watermain and sewer or drain lines unless precluded by local conditions. When the watermain is located closer than ten feet (10') horizontally or the invert of the watermain is located closer than eighteen inches (18") vertically above the crown of any sewer or drain line, then:
a. The sewer or drain line shall be constructed of pipe equivalent to watermain standards and shall be pressure tested to assure water tightness in accordance with the Illinois Environmental Protection Agency (I.E.P.A.) requirements and Sewer and the latest edition of Sewer and Water Standards.
b. When a watermain is crossing over a sewer or drain line closer than eighteen inches (18") vertically above the crown of that sewer or drain line, then that sewer or drain line shall be constructed according to the requirements listed in item "a" above.
c. If the watermain passes under a sewer or drain line, the following conditions shall be met: a vertical separation of eighteen inches (18") between the invert of the sewer or drain line and the crown of the watermain shall be maintained with support provided for the sewer or drain line(s) to prevent any moving or settling, rupture or breaking, and sewer or drain line shall be constructed as described in item 4) above.
11) The cost of all required testing of underground utilities shall be incidental to the construction cost of the same.
12) When connecting to an existing sewer main by means other than an existing wye, tee, or an existing manhole. The sewer shall be circular saw-cut by proper tools ("sewer-tap" machine or similar) and proper installation of hub-wye saddle or hub-tee saddle.
13) Sewer connections to an existing structure shall be machine cored.
14) A flexible rubber boot shall be used at all sanitary sewer manhole penetration connections with Kor-n-tee fitting.
15) Protect and/or cover all pipes and underground structures until final grading, paving and landscaping are complete.
16) For modification or repair of all sewers; addition of, or repair of, sewer clean outs, non shear couplings shall be used in connection of sewer pipes with prior approval from Village Engineering Division of the Department of Public Works.

ENGINEERING STATEMENT AND SEAL

I, SABIN OLTEANU, P.E., DULY LICENSED IN THE STATE OF ILLINOIS BY THE DEPARTMENT OF PROFESSIONAL REGULATION, DO HEREBY STATE THAT THESE PLANS HAVE BEEN PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF THEY CONFORM TO THE APPLICABLE BUILDING CODES AND ORDINANCES.

SABIN C. OLTEANU
REGISTERED No. 062-056303 STATE OF ILLINOIS PROFESSIONAL ENGINEER

SABIN C. OLTEANU
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062–056303

Signed: 11/26/2024
Expires: 11/30/2025

SITE AREA = 0.303 AC
DETENTION VOLUME = 0.093 AC–FT
STORMWATER DETENTION PER VILLAGE REQUIREMENT

Call Before You Dig JULIE ILLINOIS ONE-CALL SYSTEM

Contractor shall notify the owner, engineer, and JULIE, at 811, 48 hours in advance before performing any work.

Contact the Metropolitan Water Reclamation District of Greater Chicago 2 days before starting work.

P (708) 588-4055
E WMOJobStart@mwrd.org

SURVEY NOTES:

PRIMARY BENCHMARK:
VILLAGE OF WHEELING
CONTROL POINT: VOW-22
ELEVATION: 651.48
5/8 IN. IRON BAR WITH YELLOW
PLASTIC CAP STAMPED V.O.W.
LOCATED IN ROW, SW CORNER E STRONG & N MILWAUKEE.
NORTHING:1995334.834
EASTING:1099003.712
HORIZONTAL: NAD 83
VERTICAL: NAVD 88

SITE BENCHMARK:
TOP OF SANITARY MANHOLE
LOCATED IN THE 7TH ST. PARKWAY, JUST S OF THE SITE.
ELEVATION 646.88 (NAVD 88)

INDEX OF SHEETS

Sheet	TITLE
C–1	COVER & NOTES
C–2	MWRD GENERAL NOTES
C–3	EXISTING CONDITIONS & TOPOGRAPHY
C–4	EROSION CONTROL PLAN
C–5	OVERALL SITE PLAN
C–6	SITE GEOMETRICS
C–7	GRADING & UTILITY PLAN
C–8	VILLAGE DETAILS
C–9	UTILITY DETAILS
L–1	LANDSCAPE PLAN

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. USE THE SCALE BELOW TO MAKE MEASUREMENTS ON REDUCED PLANS.

0' 5' 10' 25'

G&D BUILDINGS LLC
GALYA GEORGIEVA
224.523.1241
gdbuildingsllc@gmail.com

CIVILAND, PLLC
DESIGN FIRM 184.008369
7017 N TRIPP AVE.
LINCOLNWOOD IL. 60712
INFO@CIVILANDLLC.COM
847.877.6900

CIVILAND PLLC REGISTERED No. 184.008369 STATE OF ILLINOIS PROFESSIONAL DESIGN FIRM

CiviLand LLC

Signed: 12/11/2023
Expires: 11/30/2025

SUBMITTALS

DATE	REMARKS
11/26/2024	PERMIT PLANS ISSUED
10/11/2024	ADJUSTED PER PLAN COMMISSION
07/23/2024	MAJOR SITE PLAN REVIEW 4
12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6–Unit Apt.
Major Site Plan & Appearance
268 7th Street
Wheeling, IL

C–1
COVER & NOTES

DESIGNED BY: SCO
PROJECT NO.: 2023–268
DATE: 09/11/2023
SCALE: 1:10
SHEET 1 OF 10

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * VILLAGE OF MORTON GROVE MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO WMOJOBSTART@MWRD.ORG).

2. THE VILLAGE OF MORTON GROVE ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS ____N/A_____ FT.

2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.

3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.

4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.

5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.

6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.

8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.

9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.

10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.

2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.

3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.

4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).

5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.

6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261,F-2620 (HEAT FUSION) ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.

10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.

11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.

13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.

14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.

15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.

16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.

17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.

18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.

3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
    a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
    b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.

6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.

7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.

9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.

10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.

11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.

12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).

13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.

15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.

16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.

19. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.

20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.

21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.

22. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

23. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

Proposed New 6–Unit 3–Story
Apartment Building
268 7th Street, Wheeling, IL 60009

C–2
MWRD GENERAL NOTES

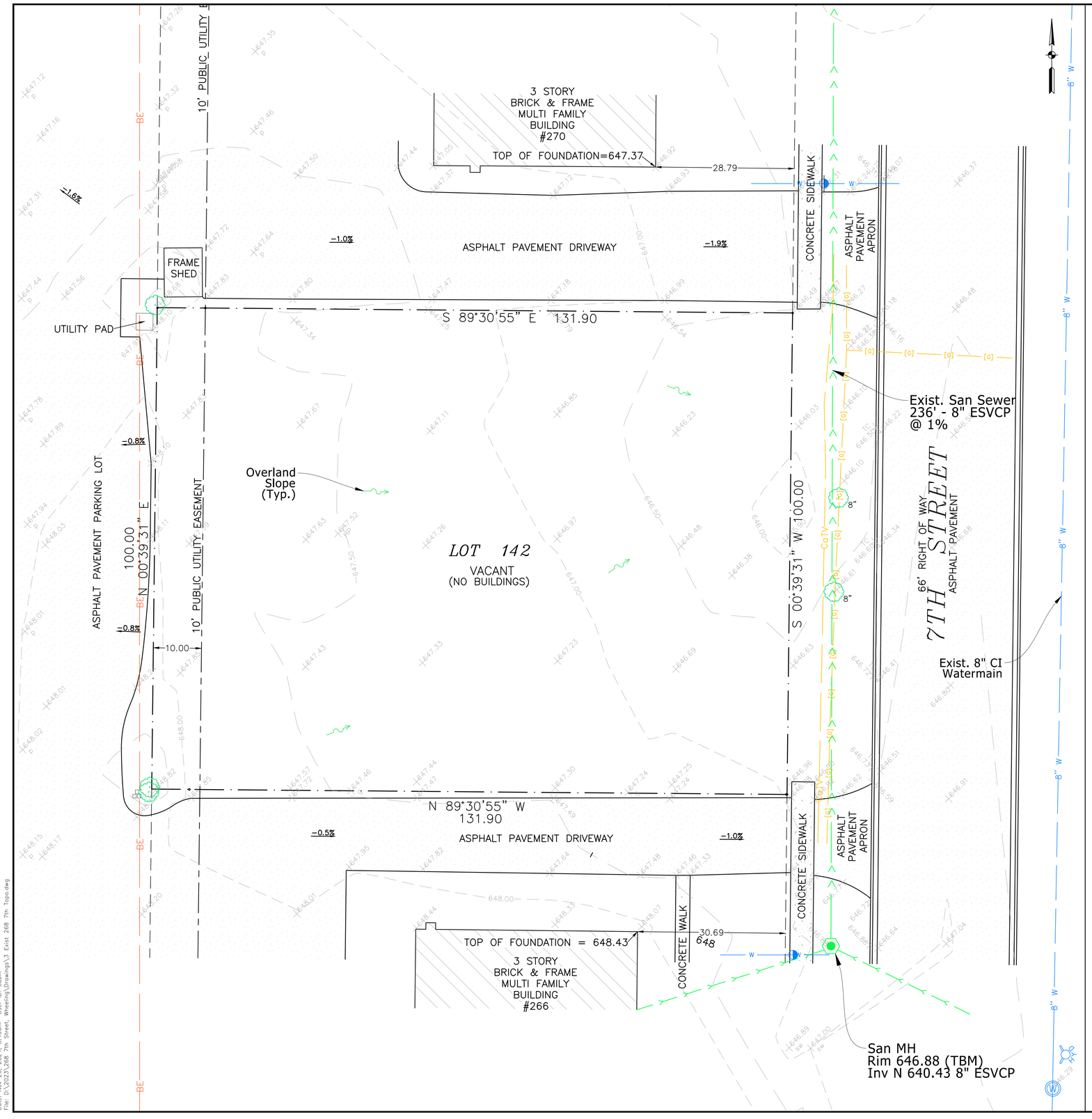
TECHNICAL GUIDANCE MANUAL

MWRD GENERAL NOTES

12/11/2023

STD. DWG. NO.18

SHEET 2 OF 10



SURVEY NOTES:

PRIMARY BENCHMARK:
VILLAGE OF WHEELING
CONTROL POINT: VOW-22
ELEVATION: 651.48
5/8 IN. IRON BAR WITH YELLOW
PLASTIC CAP STAMPED V.O.W.
LOCATED IN ROW, SW CORNER E STRONG & N MILWAUKEE.
NORTHING:1995334.834
EASTING:1099003.712
HORIZONTAL: NAD 83
VERTICAL: NAVD 88

SITE BENCHMARK:
TOP OF SANITARY MANHOLE
LOCATED IN THE 7TH ST. PARKWAY, JUST S OF THE SITE.
ELEVATION 646.88 (NAVD 88)

LOT 142 IN WILLIAM ZELOSKY'S MILWAUKEE AVENUE ADDITION TO WHEELING IN SECTION 2, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

PROPERTY LINES SHOWN HEREON ARE BASED ON TOPOGRAPHIC AND BOUNDARY SURVEY DONE BY: T.D.K. LAND SURVEYORS, INC. OF SOUTH ELGIN, IL. DATED: APRIL 19, 2023

LAND AREA = 13,190 SF OR 0.303 ACRES MORE OR LESS

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. USE THE SCALE BELOW TO MAKE MEASUREMENTS ON REDUCED PLANS.

0' 5' 10' 25'

G&D BUILDINGS LLC
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224.523.1241
gdbuildingsllc@gmail.com

CIVILAND, PLLC
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LINCOLNWOOD IL. 60712
INFO@CIVILANDLLC.COM
847.877.6900

CiviLand LLC

Signed: 12/11/2023
Expires: 11/30/2025

SUBMITTALS

DATE	REMARKS
11/26/2024	PERMIT PLANS ISSUED
10/11/2024	ADJUSTED PER PLAN COMMISSION
07/23/2024	MAJOR SITE PLAN REVIEW 4
12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6-Unit Apt.
Major Site Plan & Appearance
268 7th Street
Wheeling, IL

C-3
EXISTING CONDITIONS / TOPO

DESIGNED BY: SCO
PROJECT NO.: 2023-268
DATE: 09/11/2023
SCALE: 1:10
SHEET 3 OF 10

Date: Nov 26, 2024, 8:40am User ID: Sabin
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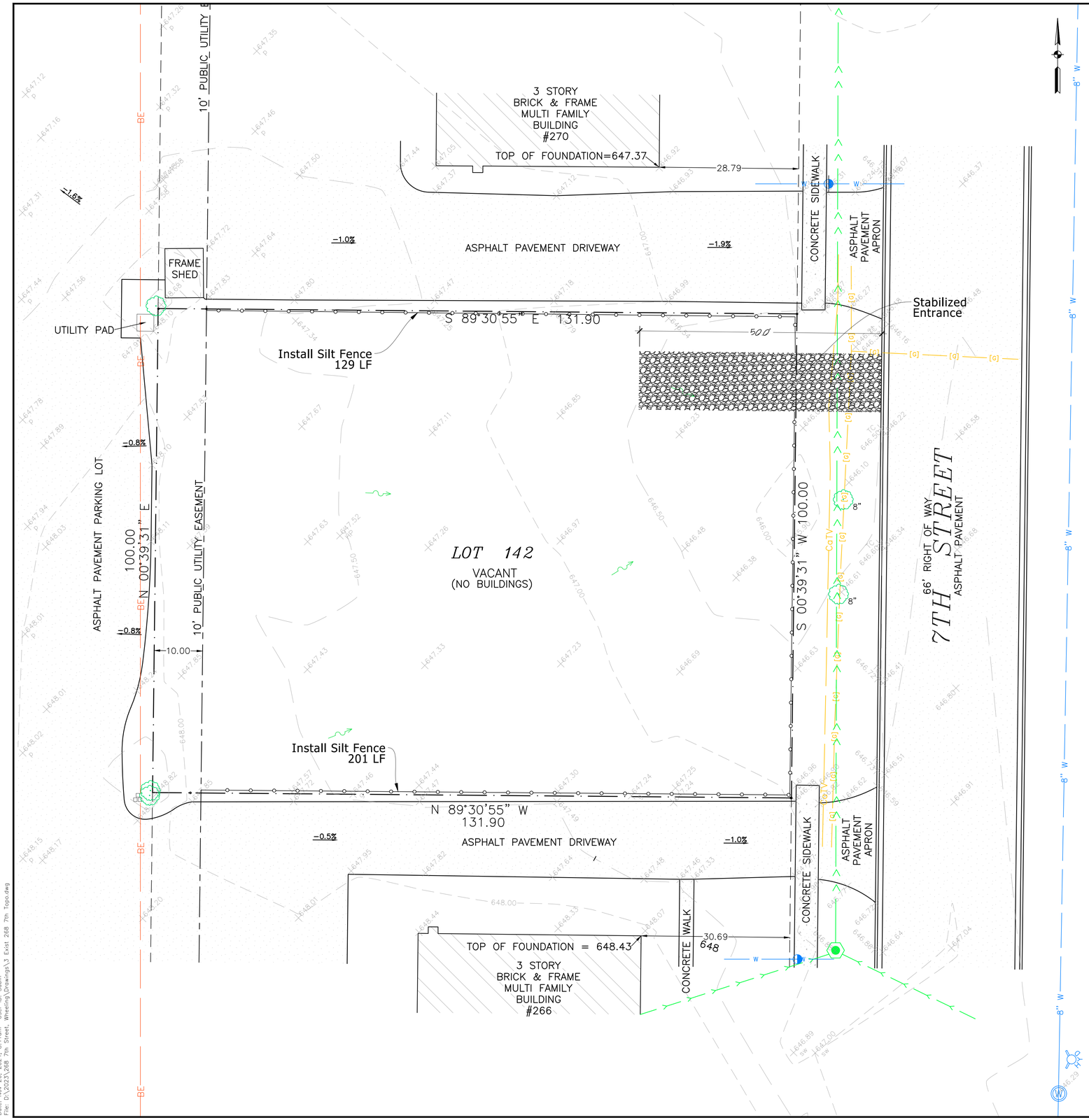

Village of Wheeling Notes

EARTHWORK / EROSION & SEDIMENTATION CONTROL NOTES

1) All construction activities that involves earthwork shall meet the National Pollutant Discharge Elimination System Phase II requirements.
2) The Contractor shall install all erosion control items prior to commencement of any work.
3) Any wetland mitigation shall begin prior to any grading work and shall be in accordance with the approved mitigation permit plan and requirements.
4) In order to protect and ensure against flooding, all top of foundations shall be set a minimum of one (1) foot above the high water level of adjacent stormwater management facilities such as retention/detention ponds.
5) The Contractor shall maintain existing positive drainage from off-site at all times during construction.
6) Within the limits of proposed grading the soil shall be compacted to not less than the following percentages of modified proctor dry density in accordance with ASTM D 1557-78:
a) Under structures, building slabs, steps, and pavements. Compact six (6) inch maximum lifts of subgrade. Backfill or fill material at 95% modified proctor dry density.
b) Under walkways. Compact six (6) inch maximum lifts of dry sub-grade, backfill, or fill material at 95% modified proctor dry density.
c) Under lawn or unpaved areas. Compact six (6) inch maximum lifts of sub-grade, backfill, or fill material at 85% modified proctor dry density.
7) All erosion control work shall comply with "Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control."
8) Stripping of vegetation, grading or other soil disturbance, especially in designated wetland areas, shall be done in a manner which will minimize soil erosion, and shall be in accordance with the approved drawings, mitigation and permit requirements.
9) The contractor shall take precautionary measures to minimize earthwork in areas where trees are to be saved as shown on the plans or determined in the field.
10) The extent of the area which is exposed and free of vegetation and the duration of its exposure shall be kept within practical limits as directed by the Village of Wheeling.
11) Sedimentation shall be retained on site. Straw bales and sediment fence shall be installed along the perimeter of all re-graded areas or as required to prevent sediment from entering and/or leaving the site.
12) Straw bales for construction of erosion control devices shall be new, firm and wire or nylon bound livestock feed grade. Each bale shall be embedded in the soil a minimum of four inches. Bales shall be securely anchored in place by stakes or rebars driven through the bales.
13) Dust produced from the site shall be kept to a minimum during dry periods by spraying water as required to the Village of Wheeling Engineering Inspector's satisfaction and is to be considered incidental.
14) All mud shall be removed from all tires before leaving the site and the roads shall be kept clean and clear of mud and debris at all times.
15) Culverts and drainage ditches shall be kept clean and clear of obstructions during the construction period.
16) Straw bales and silt fences shall be inspected frequently and maintained or replaced as required to maintain both their effectiveness and integrity. The underside of bales shall be kept in close contact with the earth below at all times to prevent water from washing beneath them.
17) Water courses and drainage swales adjacent to construction activities shall be monitored as necessary, for evidence of silt intrusion and other adverse environmental impacts. Any problems or deficiencies shall be corrected immediately upon their discovery.
18) Sod all unpaved areas of parkways, right-of-ways and front yards to rear wall of the building. Seeding may be used in other areas, particularly back yards, only with prior approval from the Village of Wheeling.
19) The Contractor shall install temporary orange fence around all trees to remain as well as wetland areas that are to be to be mitigated.

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. USE THE SCALE BELOW TO MAKE MEASUREMENTS ON REDUCED PLANS.

0' 5' 10' 25'

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LINCOLNWOOD IL. 60712
INFO@CIVILANDLLC.COM
847.877.6900

CiviLand LLC

Signed: 12/11/2023
Expires: 11/30/2025

SUBMITTALS

DATE	REMARKS
11/26/2024	PERMIT PLANS ISSUED
10/11/2024	ADJUSTED PER PLAN COMMISSION
07/23/2024	MAJOR SITE PLAN REVIEW 4
12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6-Unit Apt.
Major Site Plan & Appearance
268 7th Street
Wheeling, IL

C-4
EROSION CONTROL PLAN

DESIGNED BY: SCO
PROJECT NO.: 2023-268
DATE: 09/11/2023
SCALE: 1:10
SHEET 4 OF 10

Date: Nov 26, 2024, 8:41am User ID: Sabin
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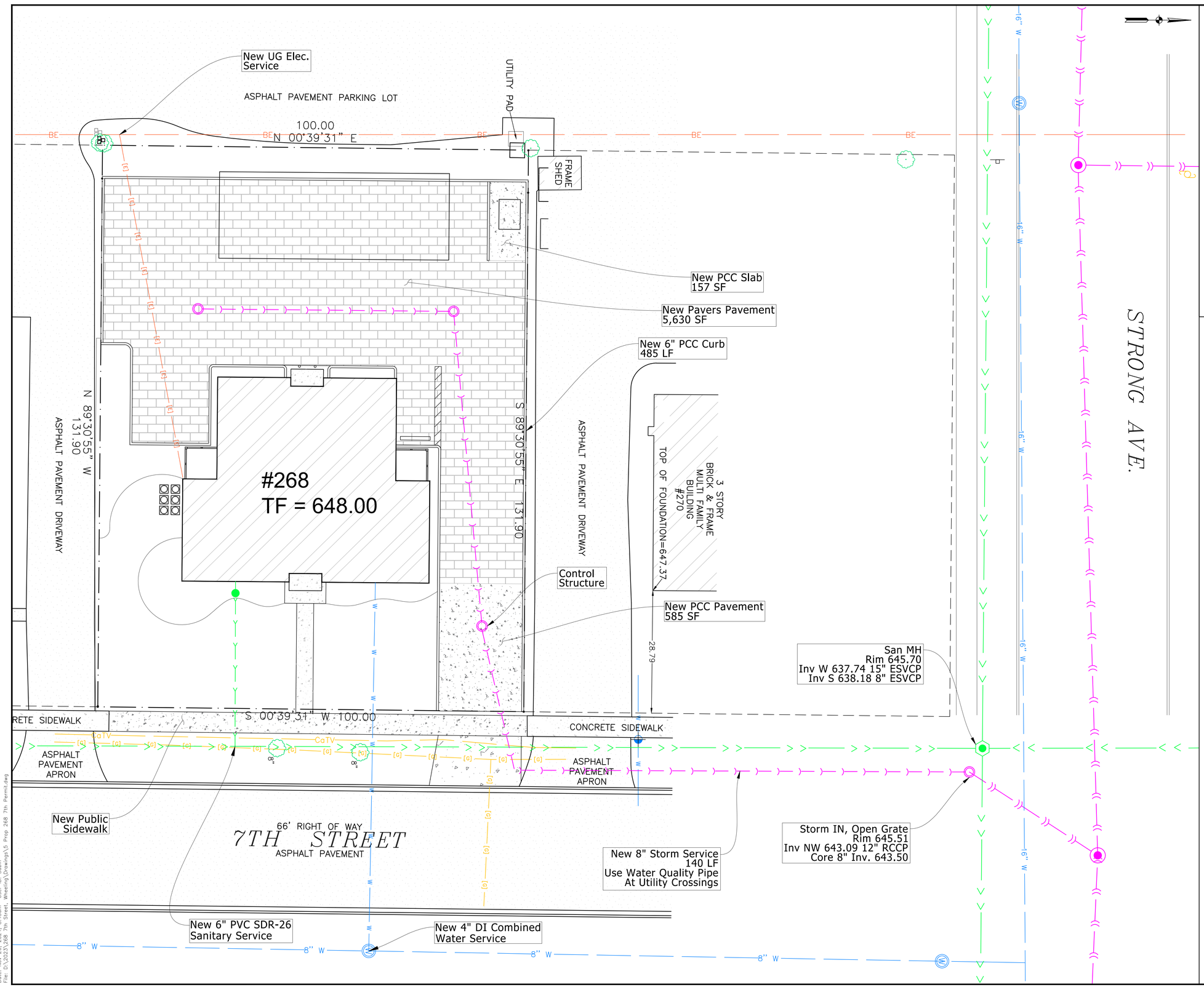

Development Area Information

Surface Type	Area (ac)	*SF*
PCC Surface (Access)	0.013	*585.00*
Pervious Pavers	0.129	*5,631.34*
Curbing	0.006	*242.50*
Roof (Building)	0.054	*2,369.33*
PCC Surfaces (Walk, Stoop, Flat)	0.008	*364.71*
Landscape	0.092	*3,997.12*
Total	0.303	*13,190.00*

Curb Length (LF) = 485.000

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12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6–Unit Apt.

Major Site Plan & Appearance
268 7th Street
Wheeling, IL

C–5
OVERALL SITE PLAN

DESIGNED BY: SCO
PROJECT NO.: 2023–268
DATE: 09/11/2023
SCALE: 1:10
SHEET 5 OF 10

Date: Nov 26, 2024, 8:43am User ID: Sabin
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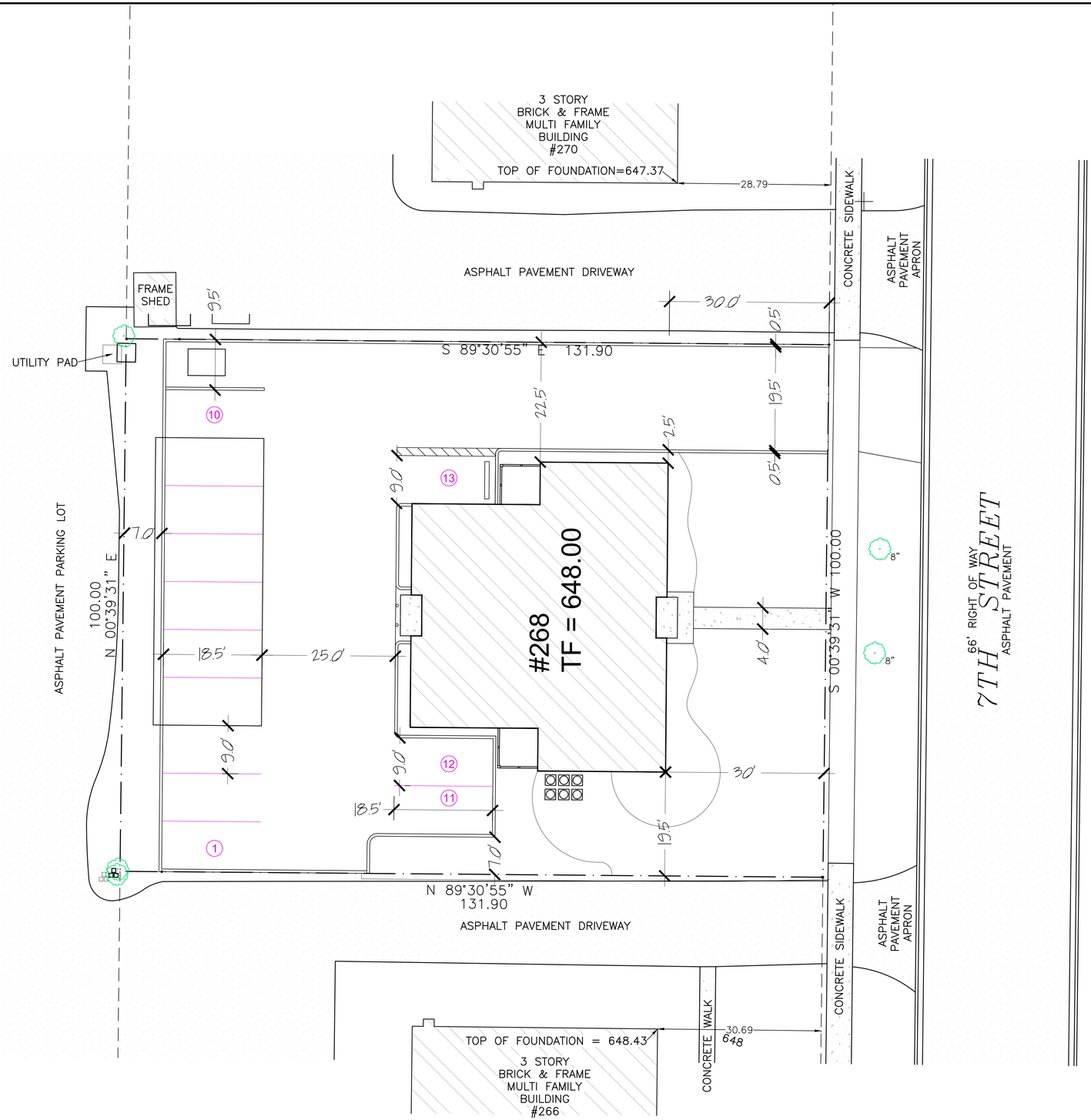

GENERAL WORK NOTES

1. Prior to the issuance of a temporary occupancy certificate, the engineering division will require as-built drawings. The design engineer should be on site when the permeable pavers are being installed to confirm the volume.
2. It is recommended that conduit be placed through the permeable paver parking lot for services such as ComEd, Nicor, ATT, Comcast, Etc.
3. Connect roof downspouts to the detention system.
4. Downspouts for the car port shall be directed onto the permeable pavers.
5. Light Poles/Parking Canopy Foundations that are placed within the parking lot/detention basin will need to be designed to account for the 2'+ of permeable stone.

LOT 142 IN WILLIAM ZELOSKY'S MILWAUKEE AVENUE ADDITION TO WHEELING IN SECTION 2, TOWNSHIP 42 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN COOK COUNTY, ILLINOIS.

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CiviLand LLC

CIVILAND PLLC REGISTERED 184.008369 STATE OF ILLINOIS PROFESSIONAL DESIGN FIRM

Signed: 12/11/2023
Expires: 11/30/2025

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12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6-Unit Apt.
Major Site Plan & Appearance
268 7th Street
Wheeling, IL

C-6
SITE GEOMETRICS

DESIGNED BY: SCO
PROJECT NO.: 2023-268
DATE: 09/11/2023
SCALE: 1:10
SHEET 6 OF 10

Date: Nov 26, 2024, 8:49am User ID: Sabin
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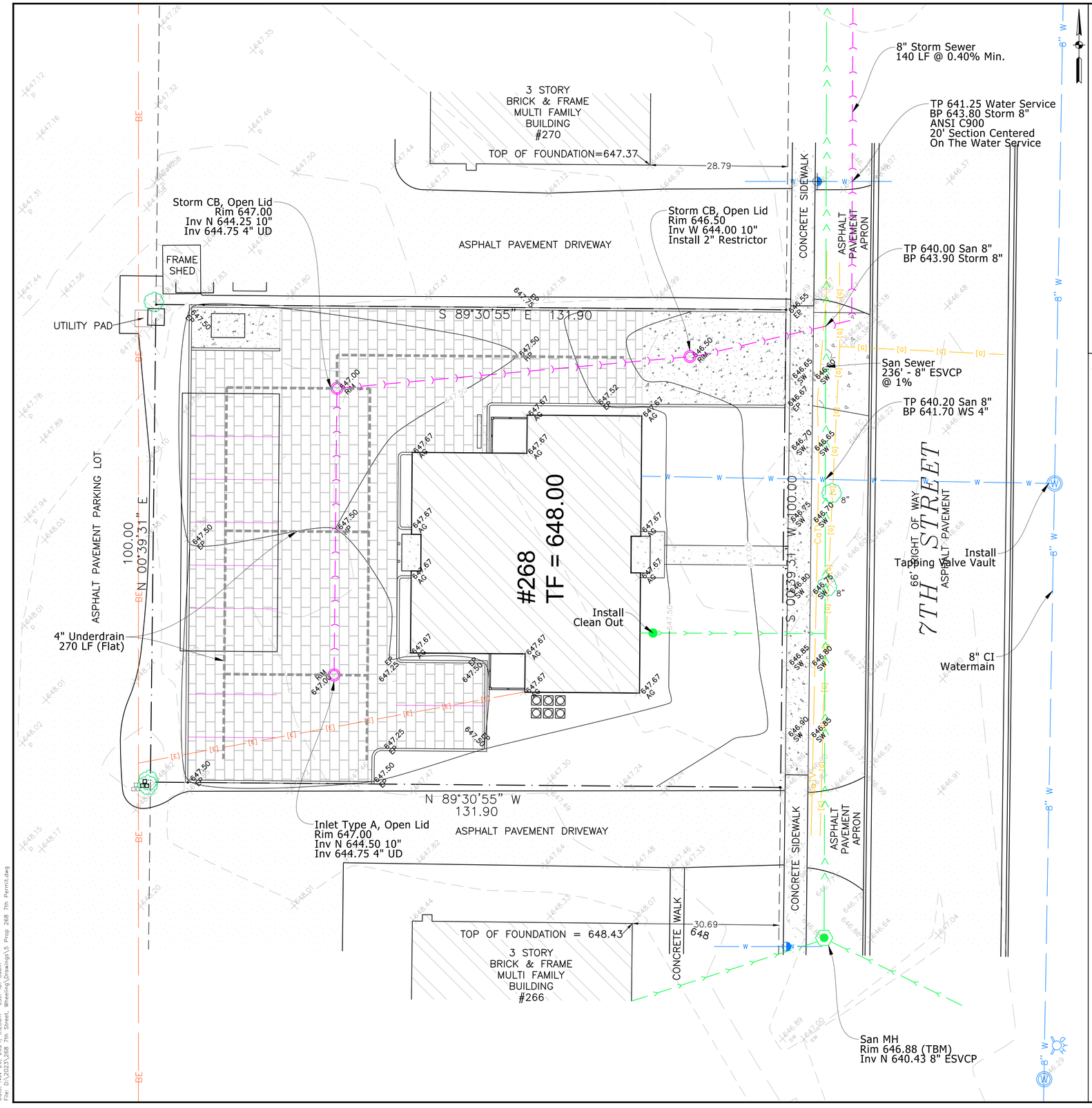

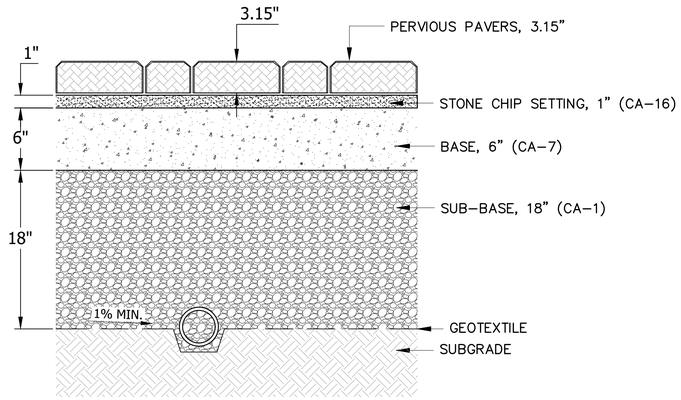

PERVIOUS PAVERS SECTION
(W/ DETENTION)

GENERAL WORK NOTES

1. CONNECT ROOF DOWNSPOUTS TO THE DETENTION SYSTEM.
2. INSTALL 2" RESTRICTOR.

	REQUIRED	PROVIDED
STORMWATER SUMMARY	(CU-FT)	(CU-FT)
DETENTION VOLUME (LOCAL)	4,051	4,257

SURVEY NOTES:

PRIMARY BENCHMARK:
VILLAGE OF WHEELING
CONTROL POINT: VOW-22
ELEVATION: 651.48
5/8 IN. IRON BAR WITH YELLOW
PLASTIC CAP STAMPED V.O.W.
LOCATED IN ROW, SW CORNER E STRONG & N MILWAUKEE.
NORTHING:1995334.834
EASTING:1099003.712
HORIZONTAL: NAD 83
VERTICAL: NAVD 88

SITE BENCHMARK:
TOP OF SANITARY MANHOLE
LOCATED IN THE 7TH ST. PARKWAY, JUST S OF THE SITE.
ELEVATION 646.88

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. USE THE SCALE BELOW TO MAKE MEASUREMENTS ON REDUCED PLANS.

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12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6-Unit Apt.
Major Site Plan & Appearance
268 7th Street
Wheeling, IL

C-7
GRADING & UTILITY PLAN

DESIGNED BY: SCO
PROJECT NO.: 2023-268
DATE: 09/11/2023
SCALE: 1:10
SHEET 7 OF 10

Date: Nov 26, 2024, 9:25am User ID: Sabin
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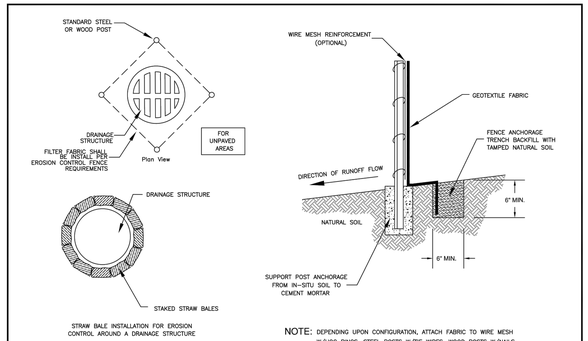
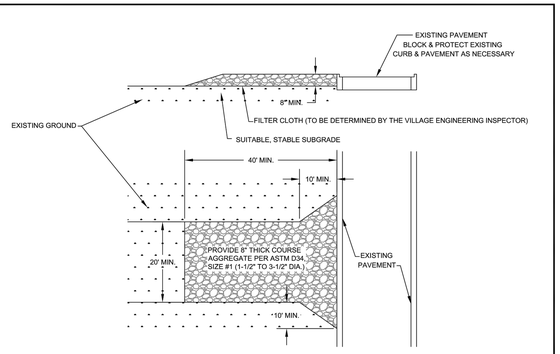


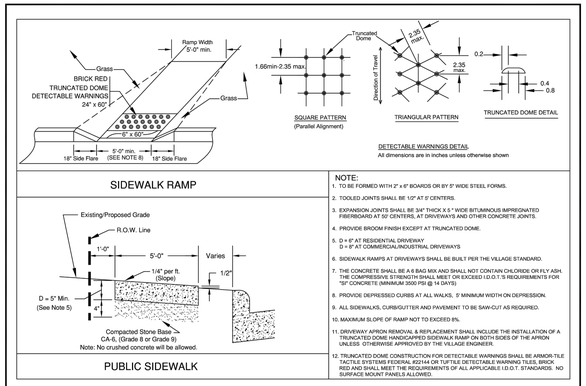
Inlet Protection Details

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

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	SILT FENCE INSTALLATION STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS / FILE LOCATION / T:\ENGINEERING\STANDARDS	REVISIONS: S.W. 05-01-00 AUTOCAD FILE; S.W. 11-07-01 PER COMMENTS; C.J.C. 01-29-08 AUTOCAD FILE; K.A.G. 12-20-16 INLET PROTECTION	DETAIL NO. ERO-2

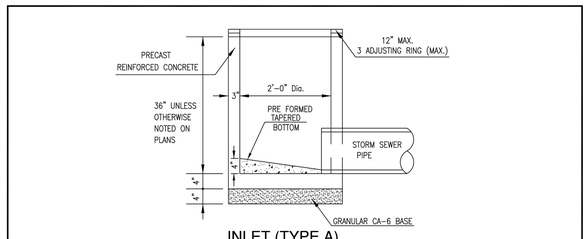


VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	TEMPORARY CONSTRUCTION ENTRANCE STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS / FILE LOCATION / T:\ENGINEERING\STANDARDS	REVISIONS: P.F. 05-16-95; C.J.C. 10-01-08 AUTOCAD FILE	DETAIL NO. ERO-4



NOTE:
1. TO BE FORMED WITH 2" x 6" BOARDS OR BY 5" WIDE STEEL FORMS.
2. TOOLED JOINTS SHALL BE 1/2" AT 5' CENTERS.
3. EXPANSION JOINTS SHALL BE 3/4" THICK X 5 " WIDE BITUMINOUS IMPREGNATED FIBERBOARD AT 50' CENTERS, AT DRIVEWAYS AND OTHER CONCRETE JOINTS.
4. PROVIDE BROOM FINISH EXCEPT AT TRUNCATED DOME.
5. D = 6" AT RESIDENTIAL DRIVEWAY
   D = 8" AT COMMERCIAL/INDUSTRIAL DRIVEWAYS
6. SIDEWALK RAMPS AT DRIVEWAYS SHALL BE BUILT PER THE VILLAGE STANDARD.
7. THE CONCRETE SHALL BE A 6 BAG MIX AND SHALL NOT CONTAIN CHLORIDE OR FLY ASH. THE COMPRESSIVE STRENGTH SHALL MEET OR EXCEED I.D.O.T.'S REQUIREMENTS FOR "SI" CONCRETE (MINIMUM 3500 PSI @ 14 DAYS).
8. PROVIDE DEPRESSED CURBS AT ALL WALKS, 5' MINIMUM WIDTH ON DEPRESSION.
9. ALL SIDEWALKS, CURB/GUTTER AND PAVEMENT TO BE SAW-CUT AS REQUIRED.
10. MAXIMUM SLOPE OF RAMP NOT TO EXCEED 8%.
11. DRIVEWAY APRON REMOVAL & REPLACEMENT SHALL INCLUDE THE INSTALLATION OF A TRUNCATED DOME HANDICAPPED SIDEWALK RAMP ON BOTH SIDES OF THE APRON UNLESS OTHERWISE APPROVED BY THE VILLAGE ENGINEER.
12. TRUNCATED DOME CONSTRUCTION FOR DETECTABLE WARNINGS SHALL BE ARMOR-TILE TACTILE SYSTEMS FEDERAL-822144 OR TUFTILE DETECTABLE WARNING TILES, BRICK RED AND SHALL MEET THE REQUIREMENTS OF ALL APPLICABLE I.D.O.T. STANDARDS. NO SURFACE MOUNT PANELS ALLOWED.

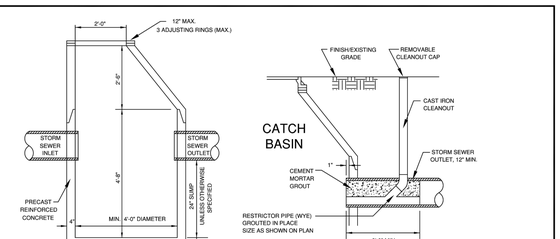
VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	PUBLIC SIDEWALK STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS / FILE LOCATION / T:\ENGINEERING\STANDARDS	REVISIONS: K.R.G. 8/11/06 AS PER T-26 M; C.J.C. 11-27-07 AUTOCAD FILE; K.A.G. 06-06-14 AS PER I.A.C.; 4-7-16 12/31/16 AUTOCAD FILE	DETAIL NO. R-3



INLET (TYPE A)

NOTE:
1. STORM SEWER PIPES IN PUBLIC RIGHT-OF-WAY SHALL BE REINFORCED CONCRETE PIPE AS PER SECTION 550 OF THE IDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
2. STORM SEWER ON PRIVATE PROPERTY MAY BE PVC–SDR26, DUCTILE IRON, OR RCCP.
3. ALL OTHER PIPE MATERIAL MUST BE APPROVED BY THE VILLAGE ENGINEER.
4. JOINTS FOR RCCP SHALL BE PREFORMED, FLEXIBLE, O–RING GASKET TYPE OR TYLOX SUPER SEAL GASKET (ASTM C–361).
5. INLET SHALL BE CONNECTED TO A STORM SEWER AFTER FLOWING THROUGH A CATCH BASIN AND SHALL NOT DISCHARGE DIRECTLY TO THE STORM SEWER.
6. MINIMUM STORM SEWER PIPE DIAMETER IS 12" UNLESS OTHERWISE APPROVED BY THE VILLAGE ENGINEER

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	INLET STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS / FILE LOCATION / T:\ENGINEERING\STANDARDS	REVISIONS: S.W. 5-17-00 AUTOCAD FILE; S.W. 9-21-01 PER COMMENTS; C.J.C. 01-29-08 AUTOCAD FILE; K.A.G. 01-04-18 ADDED NOTES	DETAIL NO. ST-1

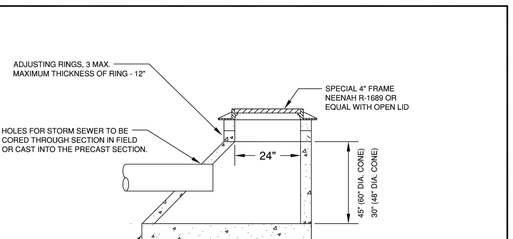


CATCH BASIN (TYPE A)

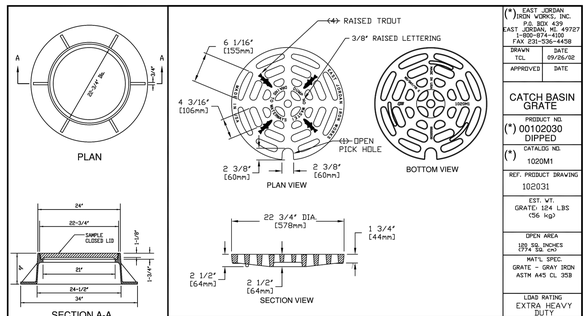
RESTRICTOR CLEANOUT DETAIL

NOTE:
1. STORM SEWER PIPES IN PUBLIC RIGHT-OF-WAY SHALL BE REINFORCED CONCRETE PIPE AS PER SECTION 550 OF THE IDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
2. STORM SEWER ON PRIVATE PROPERTY MAY BE PVC SDR–26, DUCTILE IRON, OR RCCP.
3. ALL OTHER PIPE MATERIAL MUST BE APPROVED BY THE VILLAGE ENGINEER.
4. JOINTS FOR RCCP SHALL BE PREFORMED, FLEXIBLE, O–RING GASKET TYPE OR TYLOX SUPER SEAL GASKET (ASTM C–361).
5. MINIMUM STORM SEWER PIPE DIAMETER IS 12" UNLESS OTHERWISE APPROVED BY THE VILLAGE ENGINEER

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	CATCH BASIN & RESTRICTOR CLEANOUT STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS / FILE LOCATION / T:\ENGINEERING\STANDARDS	REVISIONS: S.W. 2-29-00 AUTOCAD FILE; S.W. 2-27-03 PER COMMENTS; K.R.G. 9-11-06 AUTOCAD FILE; K.A.G. 12-11-18 SUMP DEPTH	DETAIL NO. ST-2



VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	RESTRICTED DEPTH CATCH BASIN STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS / FILE LOCATION / T:\ENGINEERING\STANDARDS	REVISIONS: P.F. 8-20-01 AUTOCAD FILE; S.W. 11-06-01 PER COMMENTS; S.W. 2-27-03 PER COMMENTS; K.R.G. 9-11-06 AUTOCAD FILE	DETAIL NO. ST-3

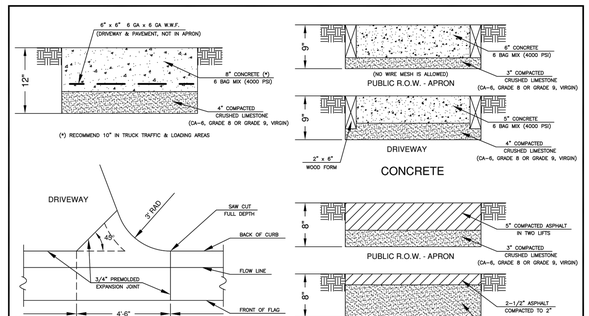


(*)	EAST JORDAN IRON WORKS, INC. P.O. BOX 439 EAST JORDAN, MI 49727 1-800-874-4100 FAX 231-536-4458
DRAWN TC	DATE 09/26/02
APPROVED	DATE
	CATCH BASIN GRATE
(*)	PRODUCT NO. 00102030 DIPPED
(*)	CATALOG NO. 1020M1
	REF. PRODUCT DRAWING 102031
	EST. WT. GRATE: 124 LBS (56 kg)
	OPEN AREA 185 SQ. INCHES 1974 Sq. cm
	MAT'L SPEC. GRATE – GRAY IRON ASTM A48 CL 35B
	LOAD RATING EXTRA HEAVY DUTY

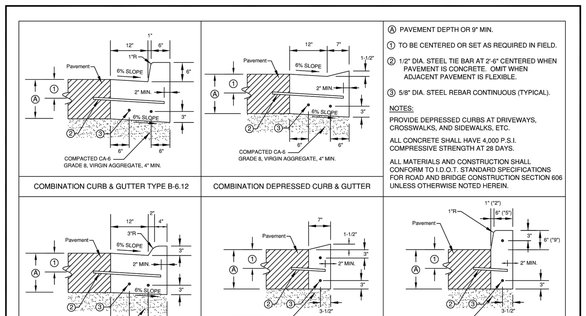
FURNISH HEAVY DUTY CASTING AS REQUIRED BY THE VILLAGE ENGINEER

(*) or NEENAH CATALOG R-2015 SHOP DRAWING NF-2015 T17

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	FRAME AND OPEN LID STORM MANHOLE STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS / FILE LOCATION / T:\ENGINEERING\STANDARDS	REVISIONS: S.W. 2-24-00 AUTOCAD FILE; S.W. 9-21-01 PER COMMENTS; S.W. 11-13-01 ADD'L PHASE III; S.W. 03-01-02 ADDING NEENAH; K.R.G. 9-11-06 AUTOCAD FILE	DETAIL NO. ST-6



VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	DRIVEWAY STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS / FILE LOCATION / T:\ENGINEERING\STANDARDS	REVISIONS: S.W. 02-09-06 REVISED PER RO; C.J.C. 11-27-07 AUTOCAD FILE; K.R.G. 12-11-08 APRON ADD, THICK; K.R.G. 03-29-10 REVISED GRADE B	DETAIL NO. R-1



Ⓐ PAVEMENT DEPTH OR 9" MIN.
① TO BE CENTERED OR SET AS REQUIRED IN FIELD.
② 1/2" DIA. STEEL TIE BAR AT 2'-6" CENTERED WHEN PAVEMENT IS CONCRETE. OMIT WHEN ADJACENT PAVEMENT IS FLEXIBLE.
③ 5/8" DIA. STEEL REBAR CONTINUOUS (TYPICAL).

NOTES:
PROVIDE DEPRESSED CURBS AT DRIVEWAYS, CROSSWALKS, AND SIDEWALKS, ETC.

ALL CONCRETE SHALL HAVE 4,000 P.S.I. COMPRESSIVE STRENGTH AT 28 DAYS.

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 606 UNLESS OTHERWISE NOTED HEREIN.

* FOR 9" CURB, THESE SHALL BE 2" & 5".

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	CURB AND GUTTER STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS / FILE LOCATION / T:\ENGINEERING\STANDARDS	REVISIONS: S.W. 06-16-00 AUTOCAD FILE; C.J.C. 11-27-07 AUTOCAD FILE; K.A.G. 11-21-18 AUTOCAD FILE	DETAIL NO. R-12

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. USE THE SCALE BELOW TO MAKE MEASUREMENTS ON REDUCED PLANS.

0' 5' 10' 25'

G&D BUILDINGS LLC
GALYA GEORGIEVA
224.523.1241
gdbuildingsllc@gmail.com

CIVILAND, PLLC
DESIGN FIRM 184.008369
7017 N TRIPP AVE.
LINCOLNWOOD IL. 60712
INFO@CIVILANDLLC.COM
847.877.6900

CivilLand LLC

Signed: 12/11/2023
Expires: 11/30/2025

SUBMITTALS

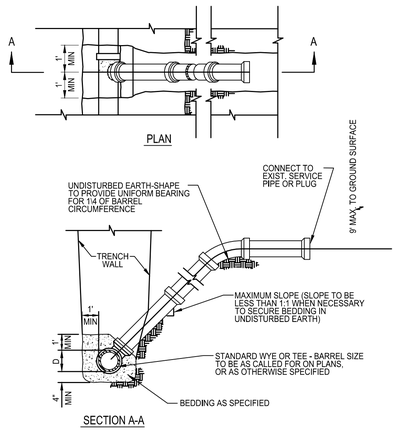
DATE	REMARKS
11/26/2024	PERMIT PLANS ISSUED
10/11/2024	ADJUSTED PER PLAN COMMISSION
07/23/2024	MAJOR SITE PLAN REVIEW 4
12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6–Unit Apt.
Major Site Plan & Appearance
268 7th Street
Wheeling, IL

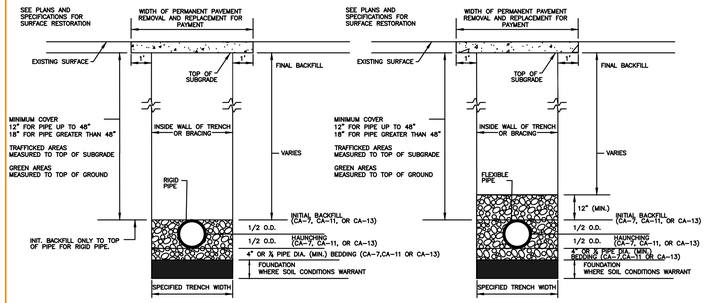
C–8
VILLAGE DETAILS

DESIGNED BY: SCO
PROJECT NO.: 2023–268
DATE: 09/11/2023
SCALE: 1:10
SHEET 8 OF 10

Date: Nov 26, 2024, 8:52am User ID: Sabin
File: D:\2023\268 7th Street, Wheeling\Drawings\268 7th DETAILS.dwg



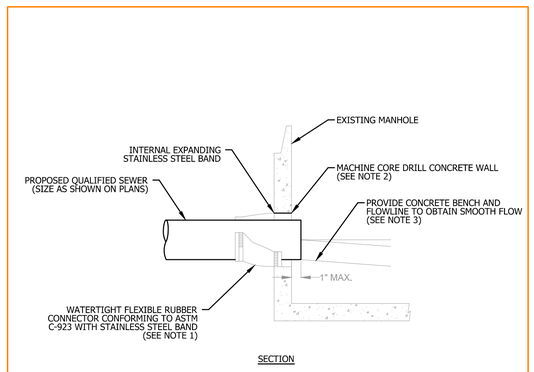
	TECHNICAL GUIDANCE MANUAL	7/1/15
	TYPICAL RISER SANITARY SERVICE LATERAL	STD. DWG. NO.38
		PAGE NO. 39



NOTES:
1. FOR QUALIFIED SEWER CONSTRUCTION ONLY.
2. SHORING, OR EQUIVALENT PROTECTIVE SYSTEM, REQUIRED FOR TRENCHES OF 5' DEPTH OR GREATER, OR AS REQUIRED BY MUNICIPALITY.

NOT TO SCALE

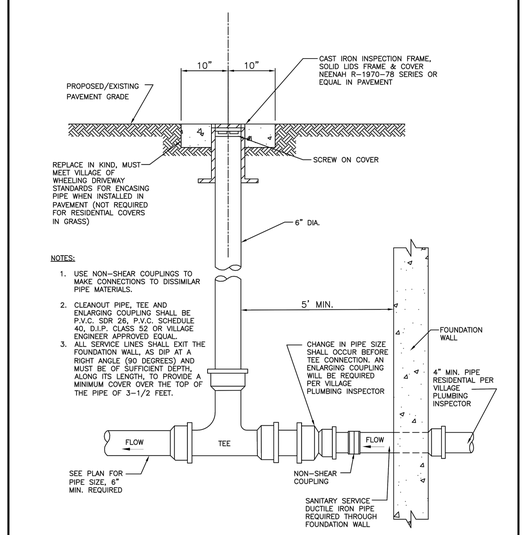
	TECHNICAL GUIDANCE MANUAL	7/1/15
	RIGID AND FLEXIBLE PIPE INSTALLATION DETAIL	STD. DWG. NO. 34
		PAGE NO. 35



NOTES:
1. RESILIENT CONNECTOR COMPLYING WITH ASTM STANDARD C-923 (MOST RECENT EDITION) SHALL BE USED.
2. MACHINE CORE/DRILL CIRCULAR OPENING IN STRUCTURE WALL. OPENING DIAMETER TO FIT THE REQUIRED RESILIENT CONNECTOR PER MANUFACTURER'S RECOMMENDATION.
3. CUT, SHAPE, AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW.
4. CLEAN EXISTING STRUCTURE AND SEWER PIPE OF ANY DIRT, CONCRETE, OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.
5. ANY DAMAGE TO THE EXISTING MANHOLE SHALL BE REPAIRED BY THE CONTRACTOR.
6. REINFORCED CONCRETE COLLAR MAY BE SUBSTITUTED FOR PIPE DIAMETERS LARGER THAN 36-INCHES.

NOT TO SCALE

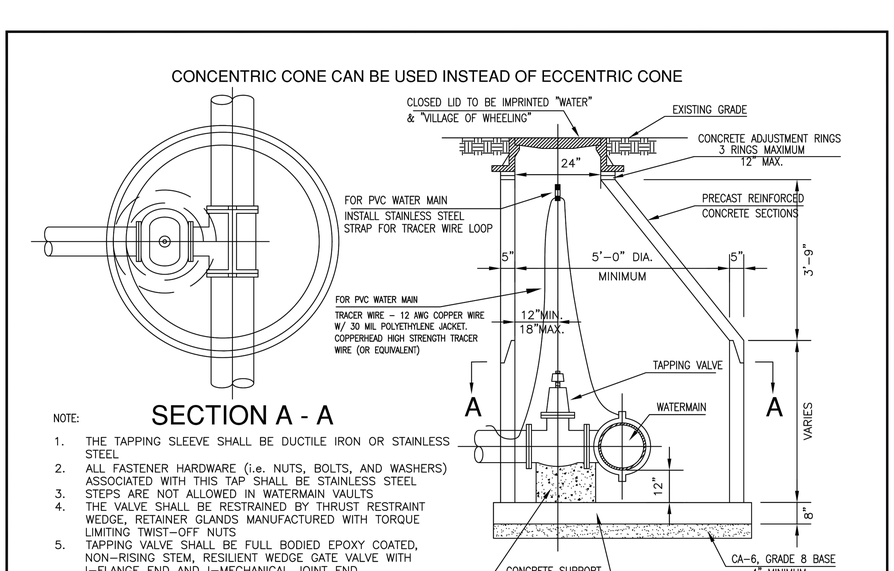
	TECHNICAL GUIDANCE MANUAL	10/02/18
	PIPE TO EXISTING MANHOLE CONNECTION DETAIL	STD. DWG. NO. 42
		PAGE NO. 43



NOTES:
1. USE NON-SHEAR COUPLINGS TO MAKE CONNECTIONS TO DISSIMILAR PIPE MATERIALS.
2. CLEANOUT PIPE, TEE AND ENLARGING COUPLING SHALL BE P.V.C. SDR 26, P.V.C. SCHEDULE 40, D.I.P. CLASS 52 OR VILLAGE ENGINEER APPROVED EQUAL.
3. ALL SERVICE LINES SHALL EXIT THE FOUNDATION WALL, AS DIP AT A RIGHT ANGLE (90 DEGREES) AND MUST BE OF SUFFICIENT DEPTH, ALONG ITS LENGTH, TO PROVIDE A MINIMUM COVER OVER THE TOP OF THE PIPE OF 3-1/2 FEET.

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	SANITARY SEWER CLEANOUT STANDARD	REVISIONS: C.J.C. 11-27-07 AUTOCAD FILE; C.J.C. 08-08-06 VILLAGE REVISIONS; K.R.G. 06-31-11 TEE REVISIONS — DETAIL NO. SAN-6

VILLAGE OF WHEELING	
SPECIFICATIONS AND DETAILS	
FILE LOCATION	
T:\ENGINEERING\STANDARDS	



NOTE:
1. THE TAPPING SLEEVE SHALL BE DUCTILE IRON OR STAINLESS STEEL
2. ALL FASTENER HARDWARE (i.e. NUTS, BOLTS, AND WASHERS) ASSOCIATED WITH THIS TAP SHALL BE STAINLESS STEEL
3. STEPS ARE NOT ALLOWED IN WATERMAIN VAULTS
4. THE VALVE SHALL BE RESTRAINED BY THRUST RESTRAINT WEDGE, RETAINER GLANDS MANUFACTURED WITH TORQUE LIMITING TWIST-OFF NUTS
5. TAPPING VALVE SHALL BE FULL BODIED EPOXY COATED, NON-RISING STEM, RESILIENT WEDGE GATE VALVE WITH I-FLANGE END AND I-MECHANICAL JOINT END
6. VALVE VAULT SHALL BE WATER-TIGHT
7. PROVIDE KOR-N-SEAL BOOTS AT ALL PENETRATIONS

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	VALVE & TAPPING VAULT STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS; FILE LOCATION T:\ENGINEERING\STANDARDS — REVISIONS: S.W. 4-12-00 AUTOCAD FILE; C.C. 03-07-07 PER COMMENTS; S.W. 08-15-08 CONCENTRIC CONE; K.A.G. 01-03-18 TRACER WIRE — DETAIL NO. W-4

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. USE THE SCALE BELOW TO MAKE MEASUREMENTS ON REDUCED PLANS.

0' 5' 10' 25'

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847.877.6900

CIVILAND ILLINOIS REGISTERED No. 184.008369 STATE OF ILLINOIS PROFESSIONAL DESIGN FIRM

CiviLand LLC

Signed: 12/11/2023
Expires: 11/30/2025

SUBMITTALS

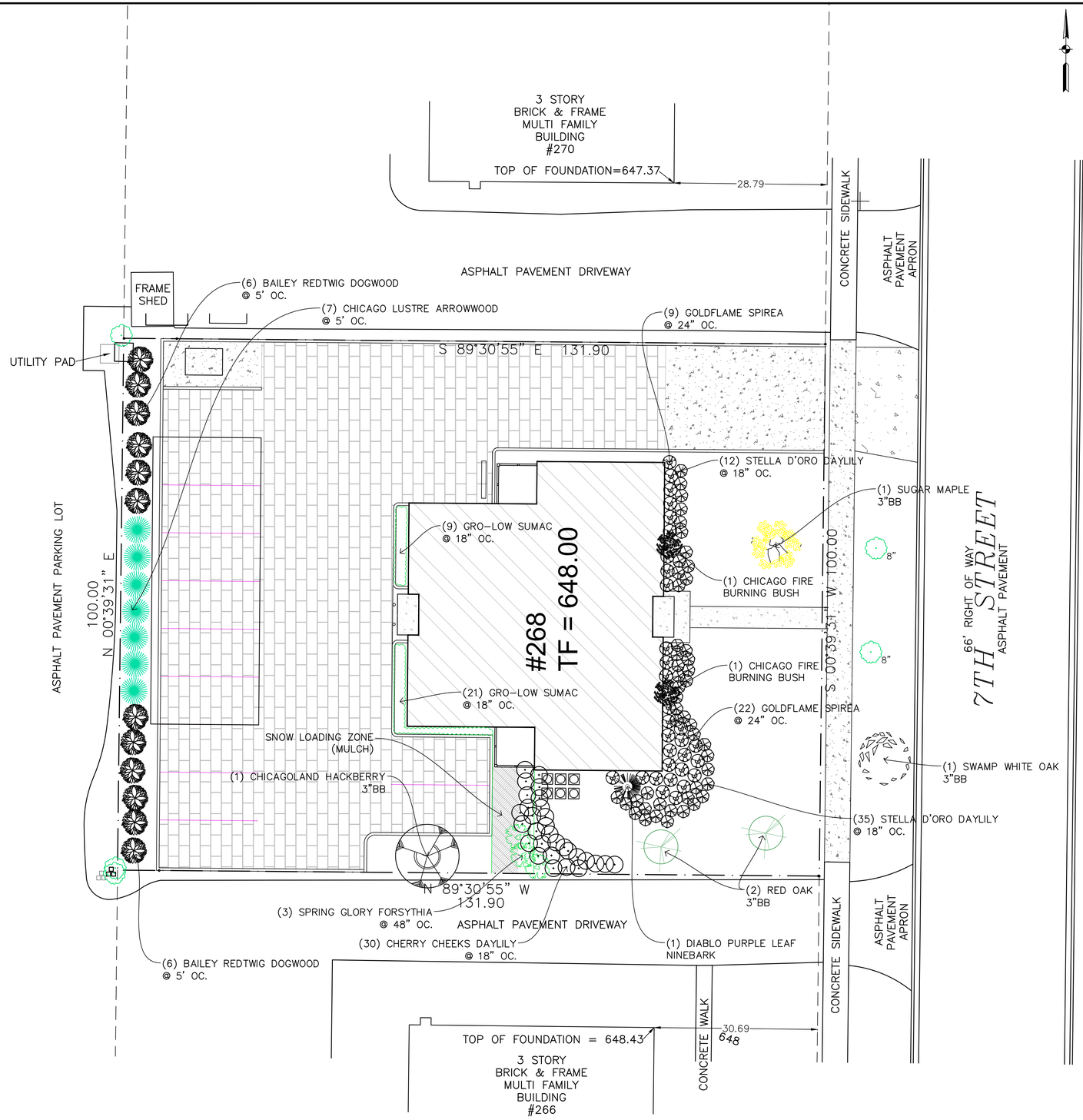
DATE	REMARKS
11/26/2024	PERMIT PLANS ISSUED
10/11/2024	ADJUSTED PER PLAN COMMISSION
07/23/2024	MAJOR SITE PLAN REVIEW 4
12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6-Unit Apt.
Major Site Plan & Appearance
268 7th Street
Wheeling, IL

C-9
UTILITY DETAILS

DESIGNED BY: SCO
PROJECT NO.: 2023-268
DATE: 09/11/2023
SCALE: 1:10
SHEET 9 OF 10

Date: Nov 26, 2024, 8:52am User ID: Sabin
File: D:\2023\268 7th Street, Wheeling\Drawings\268 7th DETAILS.dwg



SHADE TREES

QUANTITY	COMMON & BOTANICAL NAME	SIZE
1	SUGAR MAPLE *ACER SACCHARUM*	3" BB
1	CHICAGOLAND HACKBERRY *CELTIS OCCIDENTALIS CHICAGOLAND*	3" BB
1	SWAMP WHITE OAK *QUERCUS BICOLOR*	3" BB
2	NORTHERN RED OAK *QUERCUS RUBRA*	3" BB

FLOWERING SHRUBS

QUANTITY	COMMON & BOTANICAL NAME	SIZE
2	CHICAGO FIRE BURNING BUSH *Euonumus Alata Chicago Fire*	36" BB
3	SPRING GLORY FORSYTHIA *Forsythia Intermedia Spring Glory*	36" BB
1	DIABLO PURPLE LEAF NINEBARK *Psysocarpus Opulifolius Diablo*	48" BB
30	GROW-LOW AROMATIC SUMAC *Rhus Aromatica Gro-Low*	24" BB
31	GOLDFLAME SPIREA *Spirea Bumalda Goldflame*	24" BB

PERENNIALS

QUANTITY	COMMON & BOTANICAL NAME	SIZE
30	CHERRY CHEEKS DAYLILY *Hemerocallis Cherry Cheeks*	18" BB
47	STELLA D'ORO DAYLILY *Hemerocallis Stella De'Oro*	18" BB

SCREENING

QUANTITY	COMMON & BOTANICAL NAME	SIZE
12	BAILEY REDTWIG DOGWOOD *Cornus Baileyi*	5' BB
7	CHICAGO LUSTRE ARROWWOOD VIBURNUM *Viburnum Dentatum Chicago Lustre*	5' BB

NOTE: FORSYTHIA & DAYLILY ARE SALT TOLERANT. INSTALL 3" OF SHREDDED BARK WITHIN SNOW UNLOADING ZONE.

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. USE THE SCALE BELOW TO MAKE MEASUREMENTS ON REDUCED PLANS.

0' 5' 10' 25'

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CiviLand LLC

Signed: 12/11/2023
Expires: 11/30/2025

SUBMITTALS

DATE	REMARKS
11/26/2024	PERMIT PLANS ISSUED
10/11/2024	ADJUSTED PER PLAN COMMISSION
07/23/2024	MAJOR SITE PLAN REVIEW 4
12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6-Unit Apt.
Major Site Plan & Appearance
268 7th Street
Wheeling, IL

L-1
LANDSCAPE PLAN

DESIGNED BY: SCO
PROJECT NO.: 2023-268
DATE: 09/11/2023
SCALE: 1:10
SHEET 10 OF 10

PROPOSED LANDSCAPE PLAN
APARTMENT BUILDING

BERNARD ROSAUER ASSOCIATES
landscape architects – site planners
240 Dennis Lane GLENCOE, IL 60022
contact@bernardrosauerassoc.com 847.751.0388

L-1
March 20, 2024
SCALE 1":10'

Date: Nov 26, 2024, 8:48am User ID: Sabin
File: D:\2023\268 7th Street, Wheeling\Drawings\6 Prop 268 7th Permit.dwg

MINIMUM STRUCTURAL DESIGN LIVE LOADS

RESIDENTIAL UNIT:
STAIRS: 40 PSF
PORCHES, DECKS, BALCONIES & EGRESS CORRIDORS:
100 PSF UNIFORM + 10 DEAD LOAD
RAILINGS
100 PSF UNIFORM
300 LB. CONCENTRATED

Code: 2018 International Residential Code

LIVE LOADS:

Roof (snow): 25 psf

Residential: 40 PSF

Intermediate Handrail: Designed to resist a concentrated load of 50# in accordance with section 4.5.1 or ASCE 7

Handrail: 50 LB/FT or 200# concentrated load in any direction whichever produces a greater stress.

DEAD LOADS:

Partitions: 15 PSF

MEP/Framing/Deck/Misc: 15 PSF

Roofing, Ect: 15 PSF

WIND: Basic design wind speed , *risk category II*, V = 107 MPH
wind directionality factor, Kd = 0.85
surface roughness B
exposure category B
topographic factor, Kzt =1.0
gust-effect factor, G= 0.85
enclosure classification = enclosed
internal pressure coefficient, GCpi = +/- 0.18
velocity pressure exposure coefficient, Kz = 0.76
velocity pressure, qz =16.87 PSF
external pressure coefficient, Cp = 0.8
wind pressure, p = 16 PSF

RAILING LOAD CAPACITY

RAILING HORIZONTAL BEARING CAPACITY 50 LBS/ SQ. FT. TOTAL VERTICAL AND HORIZONTAL CONCENTRATED LOAD AND 200#/ LIN. FT. IN ALL DIRECTIONS.

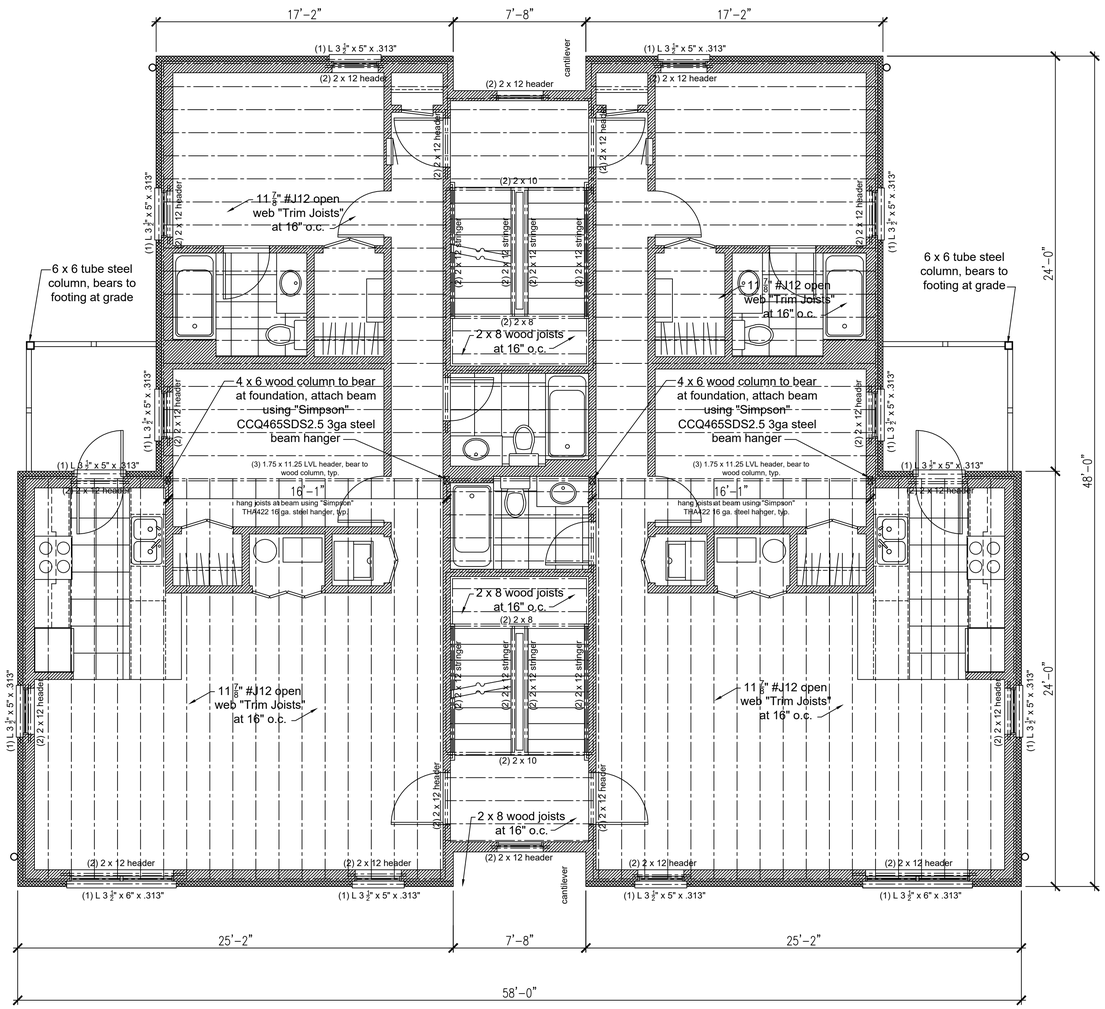
*IN ADDITION TO THE ACTUAL WEIGHTS OF ALL PERMANENTLY ATTACHED BUILDING COMPONENTS AND FINISHES, THE STRUCTURE SHALL BE DESIGNED TO SUPPORT THE CODE PRESCRIBED MINIMUM LIVE LOADS

LUMBER GRADES TO BE USED

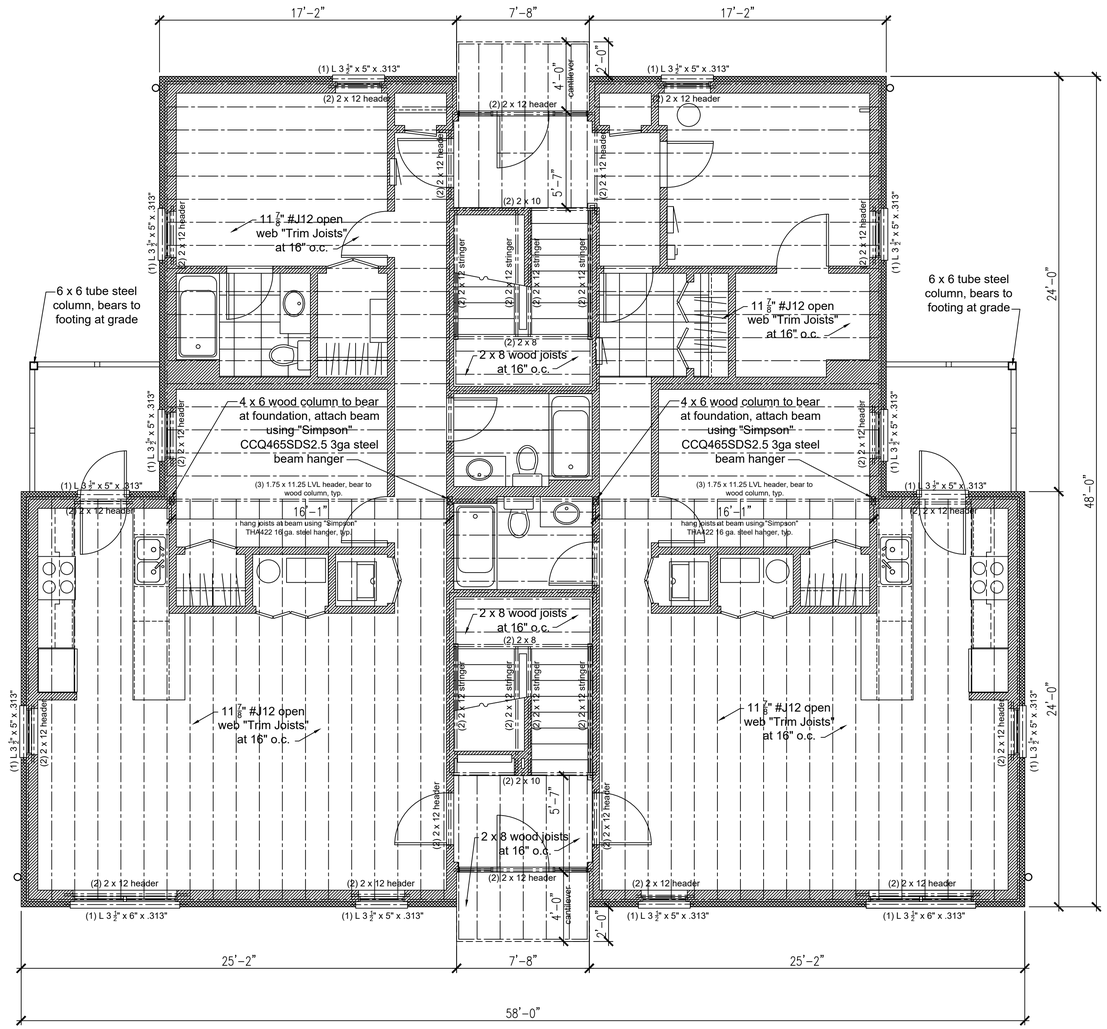
HEMFIR #1, PRESSURE TREATED USING ACQ - C, ACQ - D, CBA - A, OR CA - B PRESERVATIVE. GRADE NO.1 OR BETTER SHALL BE USED FOR COLUMNS, AND GRADE NO.2 OR BETTER SHALL BE USED FOR ALL OTHER MEMBERS.

Notes:

1. Refer to connection details & recommended metal hangers at https://trimjoist.com/technical-guide. Call or email TrimJoist at 800.844.8281 / info@trimjoist.com for further consultation.



2 Third Floor Framing Plan
scale: ¼" = 1'-0"



1 Second Floor Framing Plan
scale: ¼" = 1'-0"

aMa-Architecture
11337 S. Forrestville Ave.
Chicago, IL 60628
773.580.2331
ann@aMa-Architecture.com

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

268 7th Street, Wheeling, IL 60009

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief, conform to the village of wheeling codes & ordinances

LICENSED ARCHITECT ANN M ALSFAUGH 0016200134

license no. 1020234
expires: 11.30.2026

issue for permit	12.16.24
drawn by: ama	2nd & 3rd floor framing plans
checked by: ama	
date: 12.16.24	
rev:	a2.5

MINIMUM STRUCTURAL DESIGN LIVE LOADS

RESIDENTIAL UNIT:
STAIRS: 40 PSF
PORCHES, DECKS, BALCONIES & EGRESS CORRIDORS:
100 PSF UNIFORM + 10 DEAD LOAD
RAILINGS
100 PSF UNIFORM
300 LB. CONCENTRATED

Code: 2018 International Residential Code

LIVE LOADS:

Roof (snow): 25 psf

Residential: 40 PSF

Intermediate Handrail: Designed to resist a concentrated load of 50# in accordance with section 4.5.1 or ASCE 7

Handrail: 50 LB/FT or 200# concentrated load in any direction whichever produces a greater stress.

DEAD LOADS:

Partitions: 15 PSF

MEP/Framing/Deck/Misc: 15 PSF

Roofing, Ect: 15 PSF

WIND: Basic design wind speed , *risk category II*, V = 107 MPH
wind directionality factor, Kd = 0.85
surface roughness B
exposure category B
topographic factor, Kzt =1.0
gust-effect factor, G= 0.85
enclosure classification = enclosed
internal pressure coefficient, GCpi = +/- 0.18
velocity pressure exposure coefficient, Kz = 0.76
velocity pressure, qz =16.87 PSF
external pressure coefficient, Cp = 0.8
wind pressure, p = 16 PSF

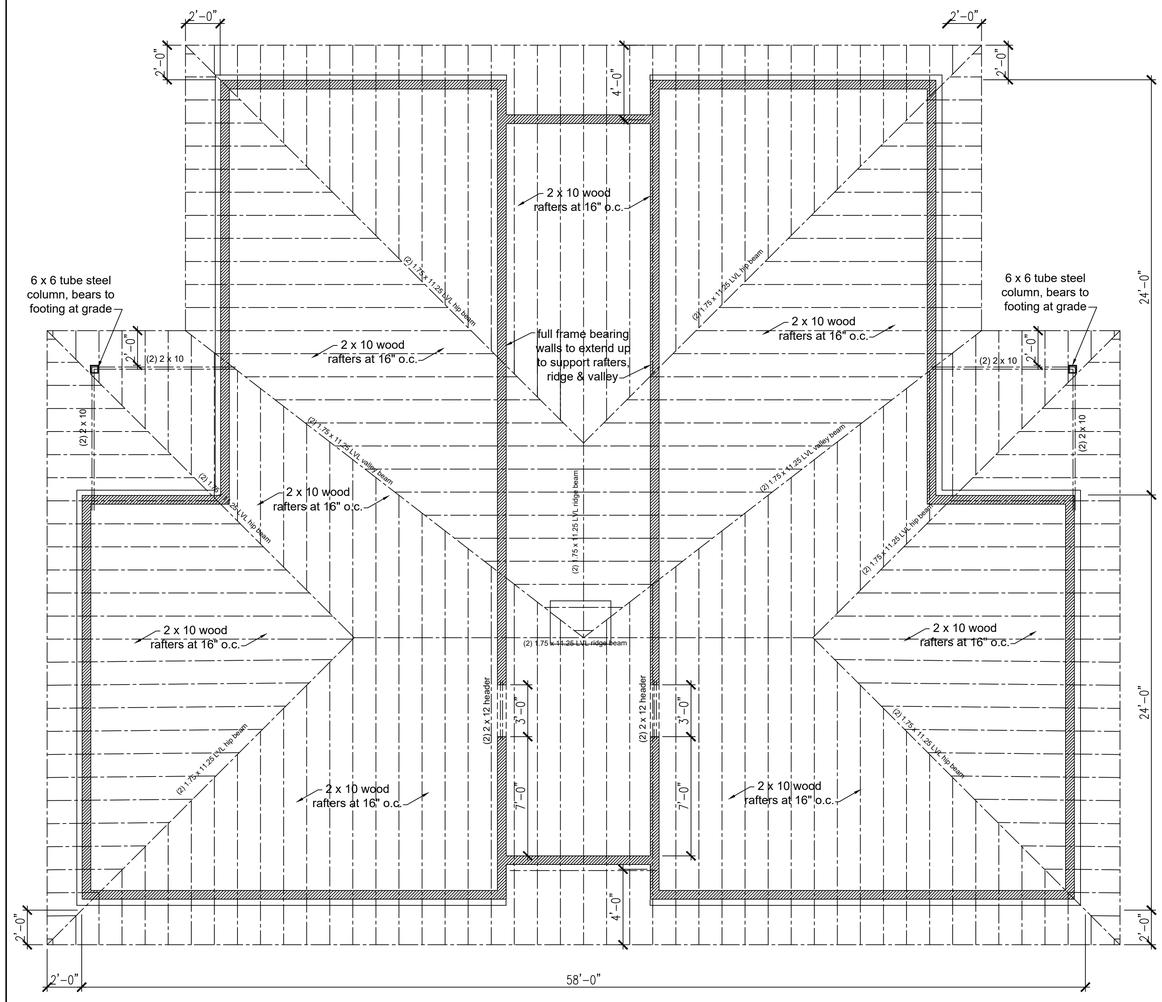
RAILING LOAD CAPACITY

RAILING HORIZONTAL BEARING CAPACITY 50 LBS/ SQ. FT. TOTAL VERTICAL AND HORIZONTAL CONCENTRATED LOAD AND 200#/ LIN. FT. IN ALL DIRECTIONS.

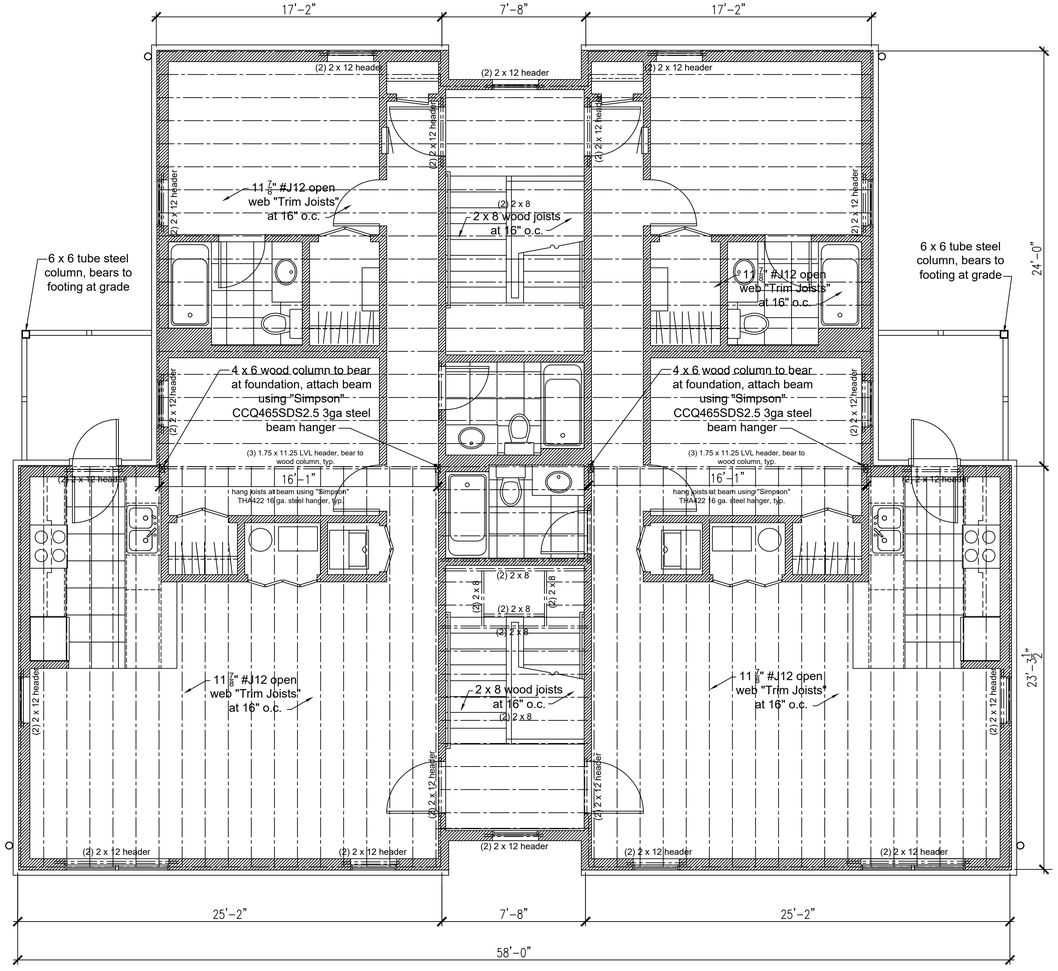
*IN ADDITION TO THE ACTUAL WEIGHTS OF ALL PERMANENTLY ATTACHED BUILDING COMPONENTS AND FINISHES, THE STRUCTURE SHALL BE DESIGNED TO SUPPORT THE CODE PRESCRIBED MINIMUM LIVE LOADS

LUMBER GRADES TO BE USED

HEMFIR #1, PRESSURE TREATED USING ACQ - C, ACQ - D, CBA - A, OR CA - B PRESERVATIVE. GRADE NO.1 OR BETTER SHALL BE USED FOR COLUMNS, AND GRADE NO.2 OR BETTER SHALL BE USED FOR ALL OTHER MEMBERS.



2 Roof Framing Plan
scale: 1/4" = 1'-0"



1 Attic Floor Framing Plan
scale: 1/4" = 1'-0"

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Chicago, IL 60628
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CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

268 7th Street, Wheeling, IL 60009

LICENSED ARCHITECT
ANN M ALSPAUGH
001020234

issue for permit	
drawn by: ama	attic floor & roof framing plans
checked by: ama	
rev:	a2.6

ELECTRICAL GENERAL CONDITIONS, SHALL BE CONSIDERED A PART OF THESE SPECIFICATIONS. INTENT OF PLANS AND SPECIFICATIONS: THE DRAWINGS, WHICH CONSTITUTE AN INTEGRAL PART OF THIS CONTRACT, SHALL SERVE AS THE WORKING PLANS. THEY INDICATE THE GENERAL LAYOUT OF THE COMPLETE

A. FIELD VERIFICATION, OF SCALED DIMENSIONS ON PLANS, IS DIRECTED SINCE ACTUAL LOCATIONS, DISTANCES AND LEVELS WILL BE GOVERNED BY ACTUAL FIELD CONDITIONS". ALL MEASUREMENTS SHALL

B. THE ELECTRICAL CONTRACTORS SHALL CHECK ARCHITECTURAL, STRUCTURAL, PLUMBING, HEATING, VENTILATION AND AIR CONDITIONING PLANS TO AVERT POSSIBLE INSTALLATION CONFLICTS. SHOULD DRASTIC CHANGES FROM ORIGINAL PLANS BE NECESSARY TO RESOLVE SUCH CONFLICT, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND SECURE WRITTEN APPROVAL AND AGREEMENT ON NECESSARY

C. DISCREPANCIES SHOWN BETWEEN PLANS, OR BETWEEN PLANS AND ACTUAL FIELD CONDITIONS, OR BETWEEN PLANS AND SPECIFICATIONS SHALL PROMPTLY BE BROUGHT TO THE ATTENTION OF THE

D. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER THE COMPLETED INSTALLATION OF SYSTEMS TO FUNCTION AS DESCRIBED. THE OMISSION OF THE EXPRESSED REFERENCE TO ANY ITEM OF LABOR AND MATERIAL NECESSARY TO COMPLY WITH PRACTICE CODES, ORDINANCES, ETC. SHALL NOT RELIEVE THE

E. THE CONTRACT DRAWINGS SERVE AS WORKING DRAWINGS FOR THE GENERAL LAYOUT OF THE VARIOUS SERVICES: HOWEVER, LAYOUT OF EQUIPMENT ACCESSORIES, SPECIALTIES SYSTEMS, AND CONDUIT RUNS ARE DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED AND DO NOT NECESSARILY INDICATE EVERY REQUIRED JUNCTION BOX, PULL BOX, CONDUIT SIZE, ETC. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL SYSTEMS COMPLETE AND OPERABLE. THE CONTRACTOR TO MAKE FIELD VERIFICATION OF ALL SERVICES, SYSTEMS, ETC. AS PART OF THE TOTAL WORK REQUIRED AND THE COST TO BE INCLUDED

ALL PERMITS, LICENSES, STAMPING, APPROVALS AND OTHER ARRANGEMENTS FOR WORK SHALL BE OBTAINED BY THE ELECTRICAL CONTRACTOR. ALL EXPENSES SHALL BE INCLUDED IN THE BASE BID. ALL ELECTRICAL WORK SHALL BE EXECUTED IN STRICT ACCORDANCE TO THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (N.E.M.A.), NATIONAL BOARD OF FIRE UNDERWRITERS (N.B.F.U.), NATIONAL ELECTRICAL CODE (N.E.C.), UNDERWRITER'S LABORATORY (U.L.), ALL ELECTRICAL ORDINANCES OF THE CITY, COUNTY AND STATE, AND ALL OTHERS APPLICABLE TO ALL CODES AND ARE OF THE MINIMUM REQUIREMENTS. THIS CONTRACTOR SHALL BRING ANY CONFLICT BETWEEN DRAWINGS, LOCAL POWER COMPANY, CODES, ETC., TO THE ATTENTION OF THE ARCHITECT AT THE TIME THE BIDS ARE SUBMITTED.

THE WORK COVERED BY THIS SPECIFICATION SHALL INCLUDE FURNISHING ALL LABOR, TOOLS, MATERIAL, EQUIPMENT AND SERVICES TO CONSTRUCT AND INSTALL THE COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE ACCOMPANYING PLANS AND AS SPECIFIED HEREIN. THIS WORK SHALL INCLUDE:
A. SERVICE ENTRANCE EQUIPMENT TO BE COPPER, INCLUDING MAIN DISTRIBUTION EQUIPMENT, METERING, TRANSFORMERS, SECONDARY DISTRIBUTION EQUIPMENT, AND FEEDERS. ALUMINUM GEAR, WIRING, ETC., IS

B. COMPLETE COPPER DISTRIBUTION SYSTEM FOR LIGHTING INCLUDING THE NECESSARY TRANSFORMERS, FEEDERS, DISTRIBUTION PANELBOARDS, BRANCH CIRCUITS, LIGHTING FIXTURES, CONTROL SWITCHES, AND

C. COMPLETE COPPER DISTRIBUTION SYSTEM FOR POWER INCLUDING THE NECESSARY TRANSFORMERS,

D. EMPTY RACEWAYS FOR THE TELEPHONE SYSTEM AND SOUND SYSTEM AS REQUIRED.

G. FURNISH AND INSTALL ALL CONDUIT AND WIRING FOR TEMPERATURE CONTROL SYSTEM. WIRING TO BE

CERTAIN LIGHTING FIXTURES AND EQUIPMENT SPECIFIED ON THE DRAWINGS WILL BE FURNISHED AND/OR INSTALLED BY OTHERS. PARTIES RESPONSIBLE FOR THIS WORK OR PORTIONS OF THIS WORK, SHALL BE AS SHOWN AND DESCRIBED ON THE DRAWINGS. VERIFY WITH ARCHITECT EXACT LIGHTING FIXTURES AND

ELECTRICAL CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIAL REQUIRED TO PROVIDE TEMPORARY LIGHT AND POWER. THE GENERAL CONTRACTOR SHALL PAY ALL CHARGES FOR ELECTRIC CURRENT USED

ELECTRICAL SERVICE AND METERS SHALL BE INSTALLED AS SHOWN ON PLANS AND SHALL CONFORM TO THE REQUIREMENTS OF SERVING UTILITY AND CODES. THE TYPE AND VOLTAGE MUST BE CHECKED WITH SERVING UTILITY AND ANY CONFLICT BETWEEN DRAWINGS AND UTILITY SHALL BE IMMEDIATELY BROUGHT

A. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL POWER AND LIGHTING PANELBOARDS AND CABINETS AS SHOWN ON THE DRAWINGS AND AS FURTHER SPECIFIED HEREIN. BUS IN ALL PANELS SHALL BE COPPER. PANELBOARDS SHALL BE MANUFACTURED BY CUTLER-HAMMER, GENERAL ELECTRIC CO., I-T-E, SQUARE D CO., OR WESTINGHOUSE. PROVIDE SWITCHES SIZED AS NEEDED WHICH ARE FUSIBLE TYPE, HORSEPOWER RATED, QUICK-MAKE/QUICK-BREAK, AND DESIGNED FOR USE WITH CURRENT LIMITING FUSES OF 100,000 AMPERE FAULT CURRENT CAPACITY OR PER CODES, BUT IN NO CASE LESS THAN 50,000

B. PANELBOARDS SHALL BE ASSEMBLED COMPLETE WITH BOLTED-IN CIRCUIT BREAKERS AND SPARE AS INDICATED. BREAKERS SHALL BE RATED FOR SERVICE VOLTAGE AS APPLICABLE AND SHALL BE EQUIPPED WITH BOTH THERMAL AND MAGNETIC TRIP ELEMENTS. CIRCUIT BREAKERS SHALL HAVE INTERRUPTING CAPACITY FOR AVAILABLE SHORT CIRCUIT, PER CODES BUT IN NO CASE SHALL BE LESS THAN 10,000 AMPERES SYMMETRICAL FOR 120/240 OR 208Y/120 VOLT SYSTEMS. FOR 480Y/277 VOLT SYSTEMS,

C. DISTRIBUTIONS PANELS SHALL BE OF THE SWITCH AND FUSE TYPE, ENCLOSED IN CODE GAUGE CABINETS WITH PROPER GUTTER SUPPORTS, HINGED DOORS AND TUMBLER LOCK-IN HANDLE. THE FUSIBLE DEVICES SHALL BE QUICK-MAKE/ QUICK-BREAK TYPE AS MANUFACTURED BY ABOVE MANUFACTURERS. DISTRIBUTION PANELBOARDS SHALL BE SIMILAR AND EQUAL TO GENERAL ELECTRIC CO. TYPE QMR. PROVIDE A LAMINATED BAKELITE NAMEPLATE ON THE FRONT OF EACH PANEL AND ONE AT EACH BRANCH

D. POWER PANELBOARDS, WITH CABINETS, SHALL BE CIRCUIT BREAKER TYPE SIMILAR AND EQUAL TO

E. LIGHTING PANELBOARDS, WITH CABINETS, SHALL BE CIRCUIT BREAKER TYPE WITH THERMO/MAGNETIC TRIP QUICK-MAKE/QUICK-BREAK AND TRIP-FREE HANDLES. FOR CIRCUITS THAT ARE NOT TO BE TURNED OFF, USE HANDLE LOCK OFF. BREAKERS FOR EITHER 120/240 OR 208Y/120 VOLT PANELS SHALL BE SIMILAR TO GENERAL ELECTRIC BOLTED-IN TYPE THQB AS FURNISHED IN LIGHTING PANELS. BREAKERS FOR 277/480 VOLT PANELS SHALL BE SIMILAR TO GENERAL ELECTRIC BOLT-IN TYPE TEY AS FURNISHED

THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL FUSIBLE AND/OR NONFUSIBLE SAFETY SWITCHES WHERE INDICATED ON THE PLANS OR REQUIRED BY CODE. SWITCHES SHALL BE OF THE POSITIVE-ACTION, QUICK-MAKE/QUICK-BREAK, TYPE WITH INTER-LOCKING COVER THAT PREVENTS OPENING DOOR WHEN THE EXTERNAL OPERATING HANDLE IS IN THE "ON" POSITION. SWITCHES OUTSIDE THE

ALL OUTLET BOXES SHALL BE STANDARD GALVANIZED STEEL TYPE. FURNISH AND INSTALL PULL BOXES AND JUNCTION BOXES WHERE NECESSARY IN THE RACEWAY SYSTEM TO FACILITATE CONDUCTOR

REQUIREMENTS OF THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE. ALL CONDUCTORS SHALL BE SOFT DRAWN COPPER AND UNLESS OTHERWISE NOTED ON THE PLANS BRANCH CIRCUIT CONDUCTORS

A. WIRE SMALLER THAN #12 SHALL BE USED FOR ANY BRANCH CIRCUIT SUPPLYING CONVENIENCE OUTLETS. BRANCH CIRCUIT WIRING SHALL BE SIZED TO LIMIT THE VOLTAGE DROP TO NATIONAL ELECTRICAL

B. RECEPTACLE CIRCUITS SHALL BE CIRCUIT BREAKER CONTROLLED AS INDICATED ON THE PLANS.
C. RECEPTACLE FOR SPECIFIC AREAS SHALL BE OF THE SIZE AND TYPE INDICATED ON THE PLANS AND

12. CONDUIT:
UNLESS OTHERWISE NOTED, CONDUIT SHALL BE EITHER ELECTRICAL METALLIC TUBING (EMT) OR RIGID STEEL. ALL APPROPRIATE REQUIREMENTS FOR RACEWAYS OF THE AUTHORITY HAVING JURISDICTION MUST BE MET. EMT TO BE USED ABOVE GRADE, WHERE PERMITTED BY CODE, EXCEPT FOR SERVICE AND IN MOIST AREAS. EMT SHALL BE THOROUGHLY PROTECTED FROM CORROSION BY ELECTRO-GALVANIZING, HOT-DIPPED GALVANIZING OR AN APPROPRIATE PLATING. RIGID STEEL CONDUIT SHALL BE USED IN GROUND BEARING FLOOR SLABS, WHERE SUBJECT TO DAMAGE, IN MOIST OR OUTDOOR AREAS, AND FOR UNDERGROUND INSTALLATIONS -- EXCEPT WHERE ANOTHER TYPE OF RACEWAY IS SPECIFIED. RIGID STEEL CONDUIT, CONDUIT BENDS, ELBOWS, COUPLINGS, AND NIPPLES SHALL BE HOT-DIPPED GALVANIZED. ALL CONDUIT JOINTS SHALL BE CUT SQUARE, THREADED, REAMED SMOOTH AND DRAWN UP TIGHT. BENDS OR OFFSETS SHALL BE MADE WITH STANDARD CONDUIT ELLS. FIELD BENDS MADE WITH AN APPROVED BENDER OR HICKEY. OR HUB-TYPE CONDUIT FITTINGS. NUMBER OF BENDS PER RUN SHALL CONFORM TO NATIONAL ELECTRICAL CODE LIMITATIONS. CONNECTIONS TO VIBRATING OR MOTORIZED EQUIPMENT SHALL BE MADE WITH HOT- DIPPED FLEXIBLE CONDUIT. IN AREAS WHERE SUCH CONNECTIONS WILL BE EXPOSED TO OIL, GREASE, WATER OR WEATHER, FLEXIBLE LIQUID TIGHT CONDUIT SHALL BE USED. CONDUIT SHALL BE SIZED AS INDICATED ON THE PLANS, OR REQUIRED BY THE NATIONAL ELECTRICAL CODE FOR NUMBER AND SIZE OF CONDUCTORS INSTALLED. MINIMUM CONDUIT SIZE SHALL BE 3/4". CONDUIT SHALL BE INSTALLED CONCEALED WHEREVER POSSIBLE, EXCEPT AS OTHERWISE INDICATED. INSTALL THE CONDUIT EXPOSED IN STOCK AREAS, BALER ROOMS, OR SIMILAR SPACES. CONDUIT SHALL BE SEPARATED BY AT LEAST TWELVE (12) INCHES FROM PARALLEL RUNS OF STEAM OR HOT WATER PIPING. CONDUITS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET, FROM OUTLETS TO CABINETS, PULL OR JUNCTION BOXES AND SHALL BE SECURED TO ALL BOXES WITH LOCKNUTS AND BUSHINGS (INSULATING TYPE) IN SUCH A MANNER THAT EACH SYSTEM SHALL BE ELECTRICALLY CONTINUOUS THROUGHOUT. CONDUIT ENDS SHALL BE CAPPED TO PREVENT ENTRANCE OF FOREIGN MATERIALS DURING CONSTRUCTION. CONDUITS SHALL BE SECURELY AND RIGIDLY SUPPORTED.

13. LIGHTING CIRCUITS:
NO WIRE SMALLER THAN #12 SHALL BE USED FOR ANY LIGHTING BRANCH CIRCUIT. BRANCH CIRCUIT WIRING SHALL BE SIZED TO LIMIT THE VOLTAGE DROP TO NATIONAL ELECTRICAL CODE REQUIREMENTS. NO 120 VOLT LIGHTING SHALL EXCEED 1500 WATTS. NO 277 VOLT LIGHTING CIRCUIT SHALL EXCEED 3600 WATTS.

14. WIRING DEVICES:
ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL WIRING DEVICES AS SHOWN ON THE DRAWINGS, AND SPECIFIED ON THE SCHEDULE SHEET. WIRING DEVICES SHALL INCLUDE ALL RECEPTACLES AND WALL SWITCHES WITH COVER PLATES.
A. SPECIAL RECEPTACLES SHALL BE AS NOTED ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL SPECIAL OUTLET BOXES THAT MAY BE REQUIRED TO ENCLOSE RECEPTACLES.
B. RECEPTACLES AND SWITCHES SHALL BE WHITE COLOR TRADITIONAL STYLE WITH FINDER GROOVE FACE, 20A RATED, SIDE WIRED, PLATED STEEL WRAP-AROUND BRIDGE, TOGGLE TYPE SWITCH OPERATORS AND THERMOPLASTIC NYLON FACE.
C. THE COLOR OF RECEPTACLES, SWITCHES AND DIMMERS SHALL BE WHITE. ALL WALL PLATES AND COVER PLATES SHALL BE WHITE .ISOLATED GROUNDING OUTLETS AND OVERPLATES SHALL BE IDENTIFIED WITH AN ORANGE TRIANGLE.

TYPE	HUBBELL	A/H	BRYANT	GE	P&S	LEV
1 P SWITCH	CSB120	1991	4901	5951	20AC1	1221
2 P SWITCH	CSB220	1992	4902	5952	20AC2	1222
3 W SWITCH	CSB320	1993	4903	5953	20AC3	1223
4 W SWITCH	CSB440	1994	4904	5954	20AC4	1224
1 P KEYSWITCH	HBL1221L	1991L	4901L	59510LG	20AC1L	1221L
1 P PILOT	HBL1221PL	1991PLR	4901PLR	59518G	20ACRPL	1221PLR
NEMA 5-20R	CBRF20	5352	5352	5362	5362	5362
NEMA 5-20R-IG	IG5362	IG5362	5362IG	5362IG	IG6300	5362IG
NEMA 5-20R-GFI	GF5352A	GF5342	GFR53FT	GFR5342	2091S	6899
NEMA 5-20R-SS	5360S	5262S	SP53LB	5362S	6362SP	5380
FACEPLATE						
THERMOPLASTIC NYLON	P or HPS SERIES	8200 SERIES	88000 SERIES	80000 SERIES	RP SERIES	

15. LIGHTING FIXTURES:
SEE ADDITIONAL SECTION ON RECESSED CEILING LIGHTING SECTION 16C. FIXTURES WITH LAMPS SHALL BE FURNISHED AS NOTED ON PLANS AND DETAILS. SEE FIXTURE SCHEDULE. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS REQUIRED TO INSTALL ALL LIGHTING FIXTURES INCLUDING THOSE FURNISHED BY OTHERS IN THE MANNER INDICATED IN THE PLANS AND DETAILS.

16. TESTING:
A. AFTER WIRES ARE IN PLACE AND CONNECTED TO DEVICES AND EQUIPMENT, THE SYSTEM SHALL BE TESTED FOR SHORTS AND GROUNDS. ALL HOT-WIRES, IF SHORTED OR GROUNDED SHALL BE REMOVED AND REPLACED IF TROUBLE IS WITHIN CIRCUIT.
B . ANY WIRING DEVICE, APPARATUS OR LIGHTING FIXTURE FURNISHED UNDER THIS CONTRACT IF GROUNDED OR SHORTED, SHALL BE REMOVED AND THE TROUBLE RECTIFIED BY REPLACING ALL DEFECTIVE PARTS OF MATERIALS AS DIRECTED

17. EXIT LIGHTS AND EMERGENCY LIGHTING SYSTEM:
FURNISH AND INSTALL A COMPLETE EMERGENCY LIGHTING AND/OR EXIT LIGHTING SYSTEM. SYSTEM AND PROVISIONS SHALL COMPLY WITH LOCAL REQUIREMENTS AND CODES.

18. TEMPERATURE CONTROL WIRING:
A. ALL CONTROL WIRING FOR MECHANICAL EQUIPMENT, INCLUDING UNIT HEATERS, CIRCULATING PUMPS, AIR CONDITIONING EQUIPMENT, AND VENTILATION FANS, WILL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.
B. THE ELECTRICAL CONTRACTOR SHALL INSTALL ALL CONDUIT AND WIRING FOR THE AIR CONDITIONING TEMPERATURE CONTROL AS DIRECTED AND SUPERVISED BY THE TEMPERATURE CONTROL CONTRACTOR.

19. EQUIPMENT CONNECTIONS:
ALL EQUIPMENT PROVIDED UNDER THIS SECTION OF THE SPECIFICATIONS OR OTHER SECTIONS OF THESE SPECIFICATIONS REQUIRING ELECTRICAL SERVICE, INCLUDING ALL EQUIPMENT FURNISHED AND INSTALLED BY OTHERS AS INDICATED ON THE ACCOMPANYING PLANS, SHALL BE COMPLETELY WIRED AND CONNECTED UNDER THIS SECTION.

20. TELEPHONE AND DATA PROVISIONS:
THE RACEWAY SYSTEM FOR COMBINATION TELEPHONE/DATA OUTLETS SHALL UTILIZE A 4" SQUARE 2-1/8" DEEP BACKBOX AND SINGLE GANG FLUSH WALL OPENING WITH A 3/4" CONDUIT STUBBED INTO THE ACCESSIBLE CEILING SPACE. TERMINATE EACH CONDUIT WITH A NYLON BUSHING. PROVIDE A RACEWAY SYSTEM OF CONDUITS, CONFIGURED FOR 4 CABLES PER OUTLET, 0.24" OD UTILIZING WIDE RADIUS BENDS AND OVERSIZED JUNCTION BOXES. THE CONDUITS SHALL TERMINATE WHERE NOTED ON THE PLANS. THE GROUPING OF CABLES SHALL BE AS FOLLOWS: MAXIMUM QUANTITY OF CABLES IN CONDUIT. PROVIDE A PULL WIRE OR ROPE IN ALL EMPTY CONDUIT.
CABLE
DIAMMETER CONDUIT TRADE SIZES

INCHES	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
.18	1	5	8	14	18	26	40	60	-	-
.22	0	4	7	12	16	22	36	50	-	-
.24	0	3	6	10	15	20	30	40	-	-
.29	0	2	3	6	7	14	17	20	-	-
.31	0	2	3	4	6	12	14	20	-	-

21. STARTERS, SWITCHES, ETC.:
ELECTRICAL CONTRACTOR SHALL INSTALL ALL STARTERS, SWITCHES, AND ELECTRICAL EQUIPMENT FURNISHED UNDER OTHER CONTRACTS AND SHALL FURNISH AND INSTALL ALL DISCONNECT SWITCHES AND ELECTRICAL THAT ARE REQUIRED FOR THE COMPLETION OF THE JOB.

22. CIRCUITING:
THE ELECTRICAL CONTRACTOR SHALL PROVIDE NECESSARY RISER DIAGRAMS, PANEL LAYOUTS, CIRCUITING AND WIRE SIZING. ARCHITECT SHALL APPROVE FINAL LAYOUTS, ETC., BEFORE ANY WORK HAS BEEN STARTED.

23. LABELING:
ALL CIRCUITS SHALL BE LABELED, CHART SHALL BE SECURELY MOUNTED ON THE INSIDE OF ELECTRIC PANEL BOX DOORS.

1. THIS CONTRACTOR SHALL REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS, INCLUDING BUT NOT NECESSARILY LIMITED TO ALL ARCHITECTURAL, ALL STRUCTURAL, ALL MECHANICAL, ALL ELECTRICAL ALL PLUMBING AND ALL MISCELLANEOUS DRAWINGS AND DOCUMENTS. THIS CONTRACTOR WILL ACKNOWLEDGE AND INCLUDE ALL IN THE SCOPE OF WORK (CONTRACT) ALL CONDITIONS PERTINENT TO THE COMPLETION OF THE ELECTRICAL WORK. THIS CONTRACTOR WILL FULLY COORDINATE ELECTRICAL WORK WITH THE INSTALLATION OF THE WORK BY ALL OTHER TRADES AND MAKE NECESSARY FIELD ADJUSTMENTS AS REQUIRED TO ACCOMMODATE THE ELECTRICAL INSTALLATION. ALL OF THE ABOVE SHALL BE INCLUDED IN THE SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.

2. THIS CONTRACTOR WILL CAREFULLY EXAMINE THE DRAWINGS AND SPECIFICATIONS, VISIT THE SITE OF THE WORK, AND FULLY INFORM HIMSELF AS TO ALL CONDITIONS AND MATTERS THAT CAN, IN ANY WAY, AFFECT THE WORK OR THE COST THEREOF. SHOULD THIS CONTRACTOR FIND DISCREPANCIES IN, OR OMISSIONS FROM THE DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS, OR BE IN DOUBT AS TO THEIR MEANING, NOTIFY THE ENGINEER AT ONCE, IN WRITING, OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND NEW WORK, AND OBTAIN CLARIFICATION PRIOR TO SUBMITTING ANY BID. LACK OF NOTIFICATION SHALL BE INTERPRETED TO INDICATE NO DISCREPANCIES OR CONFLICTIONS EXIST. ADDITIONAL COMPENSATION WILL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY WORK REQUIRED COMPLYING WITH THESE REQUIREMENTS.

3. ANY MENTION OF A SPECIFIC VOLTAGE ON A ELECTRICAL DRAWINGS SHALL NOT RELIEVE THIS CONTRACTOR OF THE RESPONSIBILITY TO VERIFY THE VOLTAGE PRIOR TO PURCHASING OR ROUGH- IN WORK. THIS CONTRACTOR SHALL SUBMIT A VOLTAGE COORDINATION FORM TO ALL CONTRACTORS AND PARTIES FURNISHING EQUIPMENT FOR VERIFICATION.

4. THIS CONTRACTOR SHALL VERIFY ALL OUTLET MOUNTING ARRANGEMENTS, HEIGHTS AND LOCATIONS PRIOR TO ROUGH IN. ANY MENTION OF A SPECIFIC MOUNTING ARRANGEMENT, HEIGHT OR LOCATION SHALL NOT RELIEVE THIS CONTRACTOR OF THE RESPONSIBILITY TO VERIFY THE SPECIFIC REQUIREMENT WITH THE EQUIPMENT FURNISHED OR THE OTHER TRADES IN THE SAME AREA. NO ADDITIONS TO THE CONTRACT SUM WILL BE PERMITTED FOR OUTLETS IN WRONG LOCATIONS, IN CONFLICT WITH OTHER WORK, ETC. THE OWNER RESERVES THE RIGHT TO RELOCATE ANY DEVICE 10'-0" PRIOR TO ROUGH IN WITH OUT ANY ADDITIONAL CHARGE BY THIS CONTRACTOR. THIS CONTRACTOR SHALL FULLY COORDINATE ELECTRICAL WORK WITH THE INSTALLATION OF WORK BY ALL OTHER TRADES AND MAKE NECESSARY FIELD ADJUSTMENTS AS REQUIRED ACCOMMODATING THE ELECTRICAL INSTALLATION. ALL OF THE ABOVE SHALL BE INCLUDED IN THE SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.

5. ALL INSTRUMENTS, APPARATUS AND EQUIPMENT SHALL BE TESTED AND PROVED TO BE ELECTRICALLY AND MECHANICALLY WITHOUT DEFECTS. THE ELECTRICAL SYSTEM SHALL BE TESTED FOR GROUNDS OR SHORTS. IF THE TROUBLE IS WITHIN THE CIRCUIT WIRING ALL SHORTED OR GROUNDED WIRES SHALL BE REPLACED AND THEN RETESTED. ALL METERS, CABLES, EQUIPMENT OR APPARATUS NECESSARY FOR MAKING ALL TESTS SHALL BE FURNISHED AND PROVIDED BY THIS CONTRACTOR.

6. UPON COMPLETION OF THE WORK, THIS CONTRACTOR SHALL REVIEW AND CHECK THE ENTIRE PORTION OF WORK, CLEAN EQUIPMENT AND DEVICES, REMOVE SURPLUS MATERIALS AND RUBBISH FROM THE OWNER'S PROPERTY, LEAVING THE WORK IN A NEAT AND CLEAN ORDER AND IN COMPLETE WORKING CONDITION. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY CARTON, DEBRIS, ETC..

7. THIS CONTRACTOR IS RESPONSIBLE FOR SCHEDULING DELIVERY, RECEIVING, UNLOADING, UNCRATING, STORING, SETTING IN PLACE, AND PROTECTING FROM DAMAGE, VANDALISM, THEFT OF WEATHER DURING CONSTRUCTION FOR ALL NEW EQUIPMENT FURNISHED BY THIS CONTRACTOR. THIS SHALL ALSO APPLY TO ITEMS FURNISHED BY THE OWNER TO THE ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL COORDINATE THE ABOVE TO MEET THE PROJECT COMPLETION DATES AS ESTABLISHED BY THE OWNER.

8. THIS CONTRACTOR UPON AWARD OF THE CONTRACT WILL IMMEDIATELY COORDINATE WITH UTILITY COMPANIES EXPEDITE ALL AGREEMENTS TO PREVENT ANY DELAY OF ENERGIZATION OF NEW SERVICES. INCLUDE ALL COSTS OF SUCH WORK IN A BASE BID.

9. THIS CONTRACTOR SHALL PAY ALL PERMIT FEES, PLAN REVIEW FEES, LICENSE FEES, INSPECTIONS AND TAXES APPLICABLE TO THIS DIVISION AND SHALL BE INCLUDED IN THE BASE BID AS PART OF THIS CONTRACT.

10. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY WIRING FOR HAND TOOLS AND CONSTRUCTION LIGHTING PER LATEST OSHA STANDARDS AND INCLUDE ALL COSTS IN THE BASE BID. THIS CONTRACTOR SHALL ESTABLISH SAFE WORKING PROCEDURES FOR THE PROTECTION OF THE WORKMEN IN ALL PHASES OF WORK, COMPLYING WITH THE APPLICABLE PROVISIONS OF ALL CITY, STATE AND FEDERAL SAFETY LAWS (OSHA).

11. THIS CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE FULL YEAR AFTER FINAL ACCEPTANCE BY THE ARCHITECT AND OWNER.

12. THIS CONTRACTOR SHALL FURNISH MARKED UP SEPIAS TO THE ARCHITECT BEFORE FINAL PAYMENT WILL BE ISSUED. THE MARKED UP SEPIAS SHALL DIAGRAMMATICALLY INDICATE THE INSTALLED CONDITION FOR ALL WORK.

13. THE ELECTRICAL INSTALLATION IS TO BE IN STRICT ACCORDANCE WITH THE APPLICABLE RULES AND REGULATIONS OF ALL LOCAL, STATE AND FEDERAL ELECTRICAL CODES AND THE LOCAL UTILITY COMPANY REQUIREMENTS OR ANY OTHER AUTHORITIES HAVING LAWFUL JURISDICTION.

14. ALL EQUIPMENT/DEVICES SHALL BE NEW AND OF FIRST QUALITY AND SHALL BE BEAR THE APPROPRIATE UL OR CSA APPROVED LABELS FOR SPECIFIC PURPOSE. ALL MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.

15. MINIMUM WIRE SIZE TO BE #12 EXCEPT FOR CONTROL WIRE. ALL WIRE SIZE #12 AWG AND SMALLER WILL BE SOLID. ALL CABLE #8 AND LARGER WILL BE STRANDED. ALL UNDERGROUND SERVICE CONDUCTORS FROM THE UTILITY COMPANY TRANSFORMER TO THE SERVICE EQUIPMENT WILL BE TYPE "RHW-USE" (CROSS-LINKED POLYETHYLENE INSULATION). ALL WIRE AND CABLE SHALL BE COPPER, 600 VOLT INSULATION WITHRATING AS FOLLOWS: "THHN" - BRANCH CIRCUIT WIRING ABOVE FINISHED FLOORS NOT SUBJECT TO MOISTURE "THWN" - BRANCH CIRCUIT WIRE IN FINISHED FLOORS OR SUBJECT TO MOISTURE "XHHW"- SUBJECT TO MOISTURE "USE-RHW" - UNDERGROUND BRANCH CIRCUIT WIRING

16. ALL 15 AND 20 AMPERE BRANCH CIRCUIT HOMERUNS 100' OR LONGER SHALL BE MINIMUM #10 AWG OR LARGER SIZED TO LIMIT VOLTAGE DROP TO CODE REQUIREMENTS.

17. NO ROMEX OR BX WILL BE PERMITTED.

18. ALL WIRE SHALL BE INSTALLED IN THINWALL, ELECTRICAL METALLIC TUBING (EMT) CONDUIT UNLESS OTHERWISE NOTED. MINIMUM SIZE SHALL BE 3/4" FOR BRANCH CIRCUIT WIRING, DROPS TO SWITCHES AND BRANCH DEVICES MAY BE 1/2" UNLESS OTHERWISE NOTED ON DRAWINGS. ALL THINWALL FITTINGS SHALL BE OF THE STEEL COMPRESSION GLAND TYPE.

19. ALL UNDERFLOOR, UNDERGROUND OR EXPOSED TO THE WEATHER CONDUIT SHALL BE HEAVYWALL GALVANIZED RIGID STEEL (GRS) MINIMUM 3/4". ALL CONDUITS 2" AND LARGER SHALL BE GALVANIZED RIGID STEEL (GRS) OR INTERMEDIATE METAL CONDUIT (IMC).

20. THIS CONTRACTOR SHALL INSTALL SIZE OF CONDUIT CALLED FOR ON DRAWINGS AND AS SCHEDULED ABOVE AND SHALL NOT REDUCE SIZE OF CONDUITS TO SUIT WIRE FILL CAPACITY.

21. THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL SLEEVES THRU WALLS AND CORING THRU FLOORS. ANY CUTTING, DRILLING OR CORING SHALL BE DONE WET TO MINIMIZE SPREAD OF DUST.

22. NO CONDUITS SHALL BE ROUTED THROUGH HVAC AIR DUCTS.

23. NO WIREWAY OR TROUGHS ARE PERMITTED UNLESS INDICATED ON THE ELECTRICAL DRAWINGS FOR A SPECIFIC USE. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL PROPERLY SIZED JUNCTION OR PULL BOXES WHERE REQUIRED.

24. NO CONDUITS SHALL BE ROUTED ON ROOF. ELECTRICAL CONTRACTOR SHALL COORDINATE ROOF PENETRATIONS WITH MECHANICAL PIPE CURBS. WHERE CONDUIT MUST BE RUN ON ROOF, IT SHALL BE RACKED WITH OTHER TRADES WHERE POSSIBLE OR PROVIDED WITH ITS OWN ROOF RACK SUPPORT SYSTEM WITH PROPER ROOF PLATE SO AS NOT TO CAUSE DAMAGE TO ROOF COVERING.

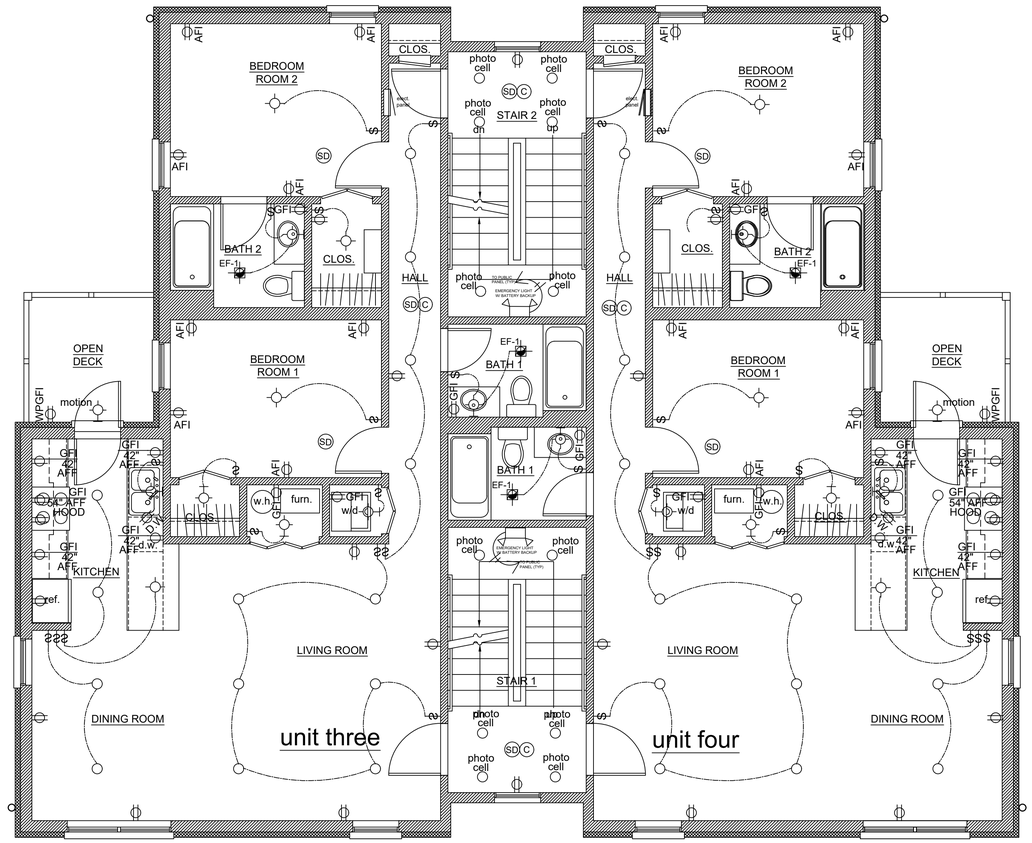
25. THE DRAWINGS MAY NOT SHOW COMPLETE OR ACCURATE DETAILS OF THE BUILDING IN EVERY RESPECT. EXACT LOCATIONS AND RELATIONS ARE TO BE DETERMINED IN THE FIELD AND SHALL BE TO THE SATISFACTION OF THE ARCHITECT. THIS CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL FIELD MEASUREMENTS.

26. ALL SUSPENDED CONDUITS SHALL BE RIDIGLY SUPPORTED FROM THE BUILDING STRUCTURE BY MEANS OF APPROVED CONDUIT HANGERS OR CLAMPS FIRMLY ANCHORED IN PLACE AND SPACED AT INTERVALS NOT TO EXCEED 10'-0". ALL EXPOSED CONDUITS SHALL BE RACKED AND PARALLEL OR PERPENDICULAR TO WALLS AND STRUCTURAL MEMBERS WITH 90o BENDS WHERE REQUIRED. PULL AND JUNCTION BOXES SHALL BE HELD TO A MINIMUM. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL RODS, ANGLES, RAILS, STRUTS, BRACE PLATES, PLATFORMS, ETC., REQUIRED FOR SUSPENSION OF SUPPORT OF CONDUIT AND EQUIPMENT AND ALL STRAPS, CLAMPS, THREADED RODS, TURNBUCKLES, ANCHORS, ETC., AND MISCELLANEOUS SPECIALTIES FOR THE ATTACHMENT OF HANGERS AND SUPPORTS TO THE STRUCTURE. ALL CONDUIT FASTENERS, STRAPS, SUPPORTS, ETC., MUST BE "BOLT-ON" GALVANIZED STEEL ON EXPOSED CONSTRUCTION. "CADDY" TYPE CLIPS WILL BE PERMITTED IN METAL STUD WALLS AND ABOVE SUSPENDED CEILINGS. ALL OF THE ABOVE ITEMS SHALL BE "UL" LISTED FOR THE USE.

27. NO HOLES OR RECESSES MAY BE CUT IN WALLS, FLOORS, CEILINGS, OR ANY PART OF THE BUILDING TO ADMIT CONDUIT OR OTHER WORK OF TH

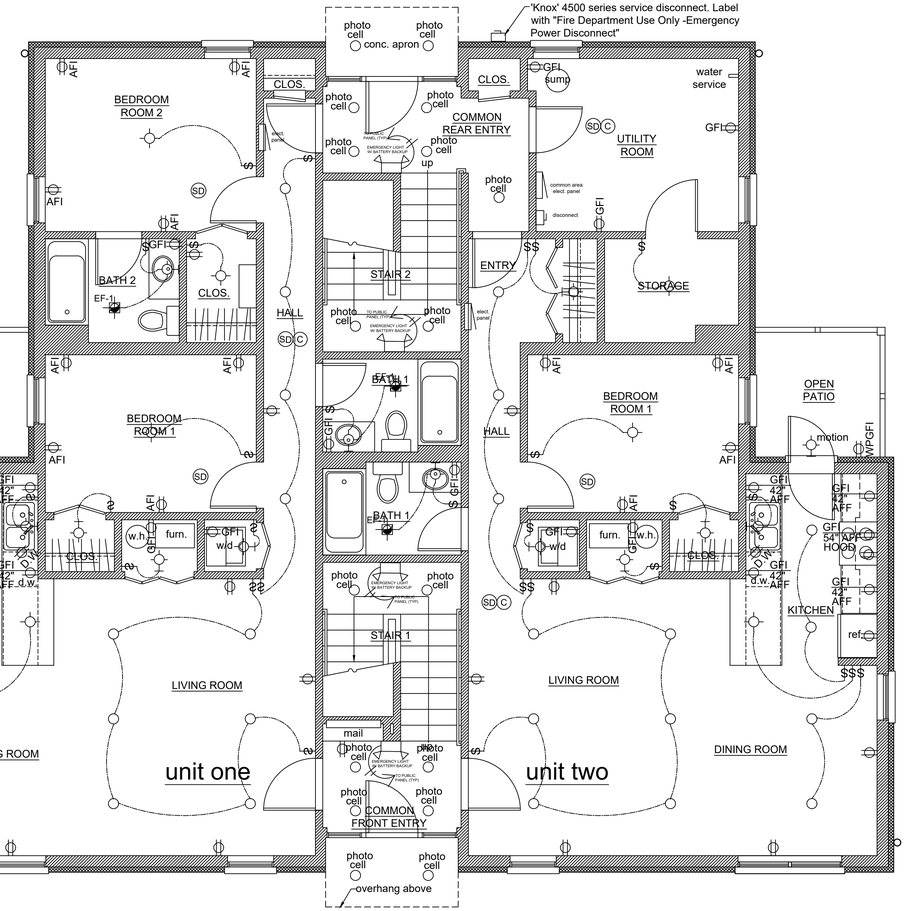
SYMBOL LEGEND

EP	PANEL BOARD W/ CIRCUIT BREAKERS	$	LIGHT SWITCH (DIMMERS T.B.D.)
	WALL MOUNT COMPACT FLUOR.		ELECTRICAL METER
	CEILING MOUNT OR PENDANT COMPACT FLUOR.		CLG. CONDUIT
	RECESSED CAN, COMPACT FLUOR.		EXHAUST FAN
	DUPLEX RECEPTACLE	SD	SMOKE DETECTOR - WITHIN 15'-0" OF ALL BEDROOMS (110V HARDWIRED)
GFI	DUPLEX RECEPTACLE W/ GROUND FAULT PROTECTION	C	CARBON MONOXIDE DETECTOR - WITHIN 40'-0" OF ALL BEDROOMS (HARDWIRED)
WPGFI	WATER PROOF DUPLEX RECEPTACLE W/ GROUND FAULT PROTECTION		



1 Second Floor Plan -Proposed

scale: $\frac{1}{4}$" = 1'-0"



1 First Floor Plan -Proposed

scale: $\frac{1}{4}$" = 1'-0"

aMa-Architecture
11337 S. Forrestville Ave.
Chicago, IL 60628
773.580.2331
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CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

268 7th Street, Wheeling, IL 60009

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief, conform to the village of wheeling codes & ordinances

LICENSED ARCHITECT
ANN M. ALSPAUGH
001020234

license no. 1020234
expires: 11.30.2026

issue for permit	12.16.24
drawn by: ama	first & second floor -power & light plan
checked by: ama	
date: 12.16.24	e2.0
rev:	

SYMBOL LEGEND

EP	PANEL BOARD W/ CIRCUIT BREAKERS	$	LIGHT SWITCH (DIMMERS T.B.D.)
	WALL MOUNT COMPACT FLUOR.		ELECTRICAL METER
	CEILING MOUNT OR PENDANT COMPACT FLUOR.		CLG. CONDUIT
	RECESSED CAN, COMPACT FLUOR.		EXHAUST FAN
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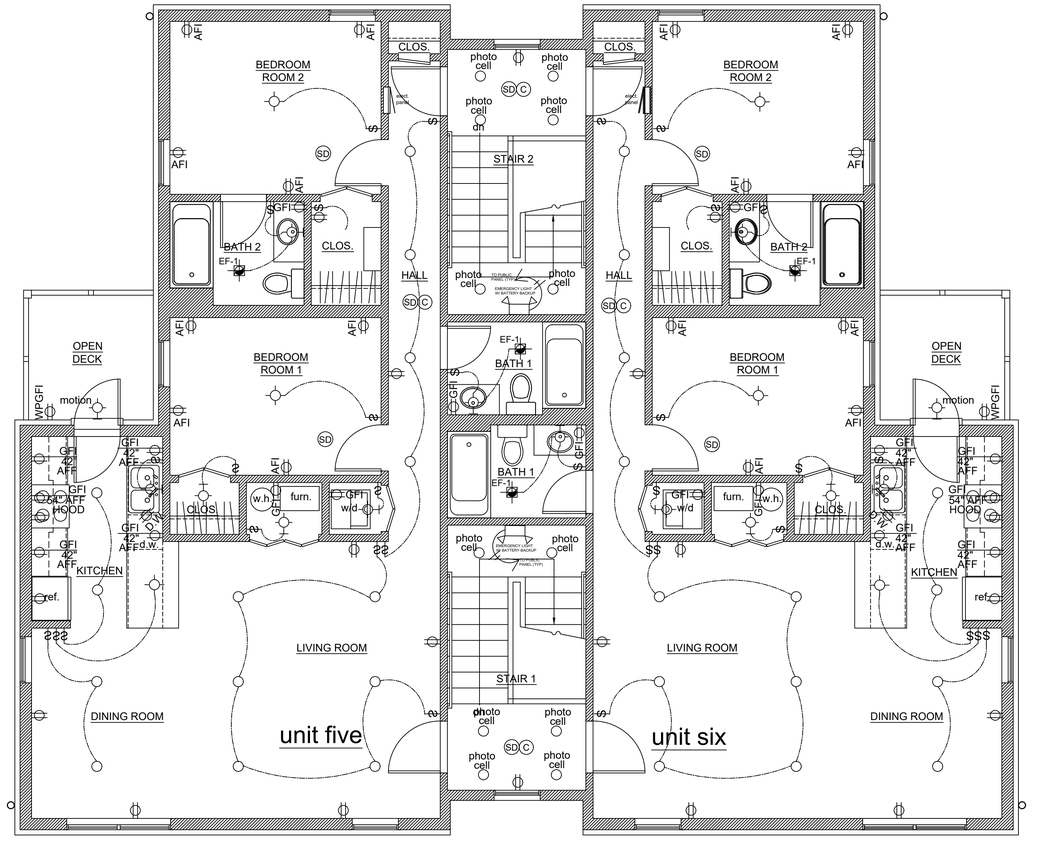

1 Third Floor Plan -Proposed
scale: 1/4" = 1'-0"

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Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

268 7th Street, Wheeling, IL 60009

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LICENSED ARCHITECT
ANN M ALSPAUGH
0012020234

license no. 1020234
expires: 11.30.2026

issue for permit	12.16.24
drawn by: ama	third floor -power & light plan
checked by: ama	
date: 12.16.24	
rev:	e2.1

LIGHT & VENTILATION SCHEDULE

ROOM NOTE	FLOOR AREA SQ. FT.	HEAT LOSS PSF	ORDINANCE REQUIREMENTS NATURAL GLASS AREA SQ. FT.	ORDINANCE REQUIREMENTS NATURAL VENT AREA SQ. FT.	ORDINANCE REQUIREMENTS MECHANICAL AIR SUPPLY CFM	ORDINANCE REQUIREMENTS MECHANICAL AIR EXH. SQ. FT.	PLAN REQUIREMENTS (ACTUAL) NATURAL LIGHT/VENT GLASS AREA SQ. FT.	PLAN REQUIREMENTS (ACTUAL) NATURAL LIGHT/VENT VENT AREA SQ. FT.	PLAN REQUIREMENTS (ACTUAL) MECHANICAL AIR SUPPLY CFM	PLAN REQUIREMENTS (ACTUAL) MECHANICAL AIR EXH. SQ. FT.	EF #	FURNACE
1ST FLR -UNIT ONE												
LIVING ROOM	242.0	9680	19.4	9.7	232.3	-	36.0	18.0	400	-	0.0	F-1
DINING ROOM	83.5	3340	6.7	3.3	80.2	-	36.0	18.0	150	-	0.0	F-1
KITCHEN	84.0	3360	-	-	80.6	-	-	-	150	-	0.0	F-1
MECH	13.2	528	-	-	-	-	-	-	-	-	0.0	F-1
BEDROOM 1	111.3	4452	8.9	4.5	106.8	-	18.0	9.0	200	-	0.0	F-1
HALL	83.4	3336	-	-	80.1	-	-	-	150	-	0.0	F-1
BATH 1	43.0	1720	-	-	41.3	-	-	-	100	65.0	0.0	F-1
BEDROOM 2	122.0	4880	9.8	4.9	117.1	-	36.0	18.0	200	-	0.0	F-1
BATH 2	44.0	1760	-	-	42.2	-	-	-	100	70	0.0	F-1
W.I.C.	24.3	972	-	-	-	-	-	-	-	-	0.0	F-1
1ST FLR -COMMON												
UTILITY	122.0	4880	-	-	117.1	-	-	-	200	-	0.0	EB
FRONT ENTRY	42.3	1692	-	-	40.6	-	-	-	100	-	0.0	EB
REAR ENTRY	70.5	2820	-	-	67.7	-	-	-	150	-	0.0	EB
1ST FLR -UNIT TWO												
LIVING ROOM	242.0	9680	19.4	9.7	232.3	-	36.0	18.0	400	-	0.0	F-2
DINING ROOM	83.5	3340	6.7	3.3	80.2	-	36.0	18.0	150	-	0.0	F-2
KITCHEN	84.0	3360	-	-	80.6	-	-	-	150	-	0.0	F-2
MECH	13.2	528	-	-	-	-	-	-	-	-	0.0	F-2
BEDROOM 1	111.3	4452	8.9	4.5	106.8	-	18.0	9.0	200	-	0.0	F-2
HALL	71.2	2848	-	-	68.4	-	-	-	150	-	0.0	F-2
BATH 1	43.0	1720	-	-	41.3	-	-	-	100	65.0	0.0	F-2
2ND FLR -UNIT THREE												
LIVING ROOM	242.0	9680	19.4	9.7	232.3	-	36.0	18.0	400	-	0.0	F-3
DINING ROOM	83.5	3340	6.7	3.3	80.2	-	36.0	18.0	150	-	0.0	F-3
KITCHEN	84.0	3360	-	-	80.6	-	-	-	150	-	0.0	F-3
MECH	13.2	528	-	-	-	-	-	-	-	-	0.0	F-3
BEDROOM 1	111.3	4452	8.9	4.5	106.8	-	18.0	9.0	200	-	0.0	F-3
HALL	83.4	3336	-	-	80.1	-	-	-	150	-	0.0	F-3
BATH 1	43.0	1720	-	-	41.3	-	-	-	100	65.0	0.0	F-3
BEDROOM 2	122.0	4880	9.8	4.9	117.1	-	36.0	18.0	200	-	0.0	F-3
BATH 2	44.0	1760	-	-	42.2	-	-	-	100	70	0.0	F-3
W.I.C.	24.3	972	-	-	-	-	-	-	-	-	0.0	F-3
2ND FLR STAIRS												
STAIR 1	122.7	4908	-	-	117.8	-	18.0	9.0	200	-	0.0	EB
STAIR 2	122.7	4908	-	-	117.8	-	18.0	9.0	200	-	0.0	EB
2ND FLR-UNIT FOUR												
LIVING ROOM	242.0	9680	19.4	9.7	232.3	-	36.0	18.0	400	-	0.0	F-4
DINING ROOM	83.5	3340	6.7	3.3	80.2	-	36.0	18.0	150	-	0.0	F-4
KITCHEN	84.0	3360	-	-	80.6	-	-	-	150	-	0.0	F-4
MECH	13.2	528	-	-	-	-	-	-	-	-	0.0	F-4
BEDROOM 1	111.3	4452	8.9	4.5	106.8	-	18.0	9.0	200	-	0.0	F-4
HALL	83.4	3336	-	-	80.1	-	-	-	150	-	0.0	F-4
BATH 1	43.0	1720	-	-	41.3	-	-	-	100	65.0	0.0	F-4
BEDROOM 2	122.0	4880	9.8	4.9	117.1	-	36.0	18.0	200	-	0.0	F-4
BATH 2	44.0	1760	-	-	42.2	-	-	-	100	70	0.0	F-4
W.I.C.	24.3	972	-	-	-	-	-	-	-	-	0.0	F-4
3RD FLR -UNIT FIVE												
LIVING ROOM	242.0	9680	19.4	9.7	232.3	-	36.0	18.0	400	-	0.0	F-5
DINING ROOM	83.5	3340	6.7	3.3	80.2	-	36.0	18.0	150	-	0.0	F-5
KITCHEN	84.0	3360	-	-	80.6	-	-	-	150	-	0.0	F-5
MECH	13.2	528	-	-	-	-	-	-	-	-	0.0	F-5
BEDROOM 1	111.3	4452	8.9	4.5	106.8	-	18.0	9.0	200	-	0.0	F-5
HALL	83.4	3336	-	-	80.1	-	-	-	150	-	0.0	F-5
BATH 1	43.0	1720	-	-	41.3	-	-	-	100	65.0	0.0	F-5
BEDROOM 2	122.0	4880	9.8	4.9	117.1	-	36.0	18.0	200	-	0.0	F-5
BATH 2	44.0	1760	-	-	42.2	-	-	-	100	70	0.0	F-5
W.I.C.	24.3	972	-	-	-	-	-	-	-	-	0.0	F-5
3RD FLR STAIRS												
STAIR 1	122.7	4908	-	-	117.8	-	18.0	9.0	200	-	0.0	EB
STAIR 2	122.7	4908	-	-	117.8	-	18.0	9.0	200	-	0.0	EB
3RD FLR -UNIT SIX												
LIVING ROOM	242.0	9680	19.4	9.7	232.3	-	36.0	18.0	400	-	0.0	F-6
DINING ROOM	83.5	3340	6.7	3.3	80.2	-	36.0	18.0	150	-	0.0	F-6
KITCHEN	84.0	3360	-	-	80.6	-	-	-	150	-	0.0	F-6
MECH	13.2	528	-	-	-	-	-	-	-	-	0.0	F-6
BEDROOM 1	111.3	4452	8.9	4.5	106.8	-	18.0	9.0	200	-	0.0	F-6
HALL	83.4	3336	-	-	80.1	-	-	-	150	-	0.0	F-6
BATH 1	43.0	1720	-	-	41.3	-	-	-	100	65.0	0.0	F-6
BEDROOM 2	122.0	4880	9.8	4.9	117.1	-	36.0	18.0	200	-	0.0	F-6
BATH 2	44.0	1760	-	-	42.2	-	-	-	100	70	0.0	F-6
W.I.C.	24.3	972	-	-	-	-	-	-	-	-	0.0	F-6

REFRIGERATION SCHEDULE

- INSTALL PRESSURE RELIEF VALVE ON HIGH PRESSURE SIDE OF SYSTEM, UPSTREAM OF ANY INTERVENING VALVES
- REMOVE EXPANSION VALVES, DEVICES & CONNECTIONS FROM AIR STREAM
- REFRIGERATION PIPING TO TO BE TYPE "K" COPPER
- ALL CONNECTIONS AND DEVICES TO BE BRAZED

MANUF.	MOD. #	No. of Compressors	Comp./ Ton		Refrig.	Wt. Ref. lbs. @ 15 ft	Remote	Location	Air Cooled	Weight
AM. STAND.	4TTM3030	F-1 = 1	3.0	21 SEER	R-22	4.19	YES	ground	YES	160 LBS.
AM. STAND.	4TTM3030	F-2 = 1	2.0	21 SEER	R-22	4.19	YES	ground	YES	160 LBS.
AM. STAND.	4TTM3030	F-3 = 1	3.0	21 SEER	R-22	4.19	YES	ground	YES	160 LBS.
AM. STAND.	4TTM3030	F-4 = 1	3.0	21 SEER	R-22	4.19	YES	ground	YES	160 LBS.
AM. STAND.	4TTM3030	F-5 = 1	3.0	21 SEER	R-22	4.19	YES	ground	YES	160 LBS.
AM. STAND.	4TTM3030	F-6 = 1	3.0	21 SEER	R-22	4.19	YES	ground	YES	160 LBS.

EXHAUST FAN SCHEDULE

EXH. FAN NO.	CAPACITY CFM	MANUF.	MODEL NO.
EF-1	65	BROAN	QTXE065
EF-2	70	BROAN	QTXE070

EQUIPMENT LIST

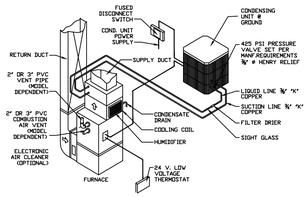
MANUF.	MOD. NO.	AFUE	OUTPUT	INPUT	AIR FLOW	REMARKS	FURN. #
AM. STANDARD		96.0	76,800	80,000	2200	1/2" DIA. GAS	F-1
AM. STANDARD		96.0	62,400	65,000	2200	1/2" DIA. GAS	F-2
AM. STANDARD		96.0	76,800	80,000	2200	1/2" DIA. GAS	F-3
AM. STANDARD		96.0	76,800	80,000	2200	1/2" DIA. GAS	F-4
AM. STANDARD		96.0	76,800	80,000	2200	1/2" DIA. GAS	F-5
AM. STANDARD		96.0	76,800	80,000	2200	1/2" DIA. GAS	F-6

GENERAL MECHANICAL NOTES:

1. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE EXTENT, GENERAL CHARACTER AND LOCATION OF THE WORK INCLUDED, WORK INDICATED, BUT HAVING MINOR DETAILS OBVIOUSLY OMITTED, SHALL BE PROVIDED, INCLUDING THESE DETAILS AT NO ADDITIONAL COST TO THE OWNER.
2. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF EQUIPMENT, PARTITIONS, WALLS AND GENERAL CONSTRUCTION.
3. ALL PERMITS, LICENSES, APPROVALS AND OTHER AGREEMENTS FOR WORK SHALL BE OBTAINED BY THE MECHANICAL CONTRACTOR AT HIS OWN EXPENSE.
4. HVAC CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY FOR THE WORK, COMPLETE AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.
5. ALL MATERIAL USED FOR THIS PROJECT SHALL BE NEW AND THE BEST OF THEIR KIND.
6. HVAC CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIAL FOR ONE (1) YEAR AFTER COMPLETION AGAINST ALL DEFECTS OF MATERIAL, EQUIPMENT AND WORKMANSHIP.
7. HVAC CONTRACTOR WILL BE HELD RESPONSIBLE FOR IDENTIFYING AND INCLUDING ANY AND ALL ITEMS NOT INDICATED IN THE DRAWINGS BUT NECESSARY FOR PROPER OPERATION OF INDICATED MECHANICAL HVAC SYSTEM.
8. HVAC CONTRACTOR SHALL NEGOTIATE A CONTRACT WITH A QUALIFIED AND CERTIFIED MEMBER OF NEBB OR AABC TO COMPLETELY BALANCE AIR SYSTEMS AS REQUIRED. CONTRACTOR SHALL SUBMIT A PROJECT CERTIFICATION GUARANTEE AND CERTIFIED BALANCE REPORT TO ARCHITECT AND ENGINEER BEFORE PROJECT FINAL ACCEPTANCE.
9. HVAC CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF ALL OTHER TRADES.
10. HVAC CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING FIELD CONDITIONS WHICH MAY HAVE AFFECT ON HIS WORK BEFORE SUBMITTING BIDS. HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF ANY MINOR INTERFERENCE, INCLUDING CONDUIT, HANGERS, ETC., AT NO ADDITIONAL COST TO OWNER.
11. VOLTAGE FOR ALL EQUIPMENT IS TO BE VERIFIED BY MECHANICAL CONTRACTOR, ANY CUTTING AND PATCHING THRU RATED WALLS SHOULD BE DONE WITH SLEEVES AND CAULK.
12. ALL FINAL POWER (LINE VOLTAGE) WIRING OF ALL EQUIPMENT WILL BE DONE BY THE ELECTRICAL CONTRACTOR.
13. ALL WORK SHALL BE IN ACCORDANCE WITH CITY OF CHICAGO CODE. THESE CODES SHALL BE FOLLOWED PROVIDING HIGHER GRADES OF MATERIAL AND WORKMANSHIP WHERE REQUIRED.
14. PROVIDE ALL TESTS AS REQUIRED BY LOCAL CODES.
15. PROVIDE ALL HOLES AND SLEEVES FOR INSTALLATION OF MECHANICAL WORK.
16. ALL NEW EQUIPMENT SHALL BE CLEANED AND ADJUSTED AS REQUIRED TO OPERATE SATISFACTORILY AND WITNESSED BY BUILDING PERSONNEL.
17. PROVIDE SPRING TYPE VIBRATION ISOLATORS FOR ALL MECHANICAL EQUIPMENT. NO FLEXIBLE CONNECTORS ARE ALLOWED BETWEEN EQUIPMENT AND DUCTWORK, OR BRANCH DUCT WORK.
18. VENTILATION CONTRACTOR SHALL PROVIDE ALL NECESSARY RISER AND DROPS IN DUCTWORK TO SATISFY FIELD CONDITIONS.
19. PROVIDE VOLUME DAMPERS, AS REQUIRED, ON ALL BRANCH TAKE-OFFS.
20. ALL DUCT TURNS, ELBOWS, ETC., SHALL BE INSTALLED WITH TURNING VANES OR SHALL BE MINIMUM 1-1/2" RADIUS ELBOW.
21. ALL FINAL DIFFUSER BALANCING SHOULD BE ACCOMPLISHED WITH MANUAL DAMPERS AT THE SPIN COLLARS. DAMPERS AT THE DIFFUSERS SHOULD BE USED FOR AIR DIRECTION CONTROL ONLY.
22. MANUAL DAMPERS SHALL BE USED FOR ALL TAKE-OFFS TO THE DIFFUSERS. IN ADDITION, EXTRACTOR DAMPERS SHOULD BE PLACED AT ALL BRANCH TAKE-OFFS AS REQUIRED IN ORDER TO PROPERLY BALANCE SYSTEM.
23. ALL NEW DUCTWORK SHALL BE PRIME FIRST QUALITY GALVANIZED STEEL SHEETS, GAUGES OF METAL SPACING, ETC., SHALL CONFORM TO TALEST EDITION OF "SMACNA" CONSTRUCTION STANDARDS FOR DUCTWORK. DUCTWORK SHALL HAVE A PRESSURE RATING OF 2" WG. POSITIVE PRESSURE.
24. COPPER TUBING MAY BE ACR OR TYPE K UNLESS THE PRESSURE EXCEEDS THE RATED CAPACITY OF THE ACR TUBING.

HVAC NOTES:

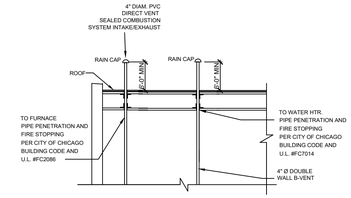
1. AIR INTAKE FOR HVAC UNITS SHALL BE 15'-0 MIN. FROM ANY EXHAUSTS AND OTHER CONTAMINANTS.
2. ALL VENTS SHALL BE TERMINATED 6'-0" ABOVE ROOF.
3. HEAT SPACE TO +70DEG.F. WHEN OUTSIDE TEMP. IS -10DEG.F.
4. ALL DUCTS SHALL BE SHEET METAL, INSULATED AND CONFORM TO VILLAGE OF WHEELING CODES.
5. FLOOR REGISTERS TO BE NO MORE THAN 9" FROM THE WALL.
6. EQUIP ALL FURNACES WITH HUMIDIFYING DEVICE.
7. USE LOCK TYPE DAMPSTERS @ SUPPLY RUNS.
8. FLUE THRU ROOF SHALL BE TYPE "B" 4" DIA.
9. FURNACE TO BE LOCATED AS PER PLAN. PROVIDE 4" DIA PVC (SCHED. 40) FOR COMBUSTION AIR DIRECTLY TO EXTERIOR.



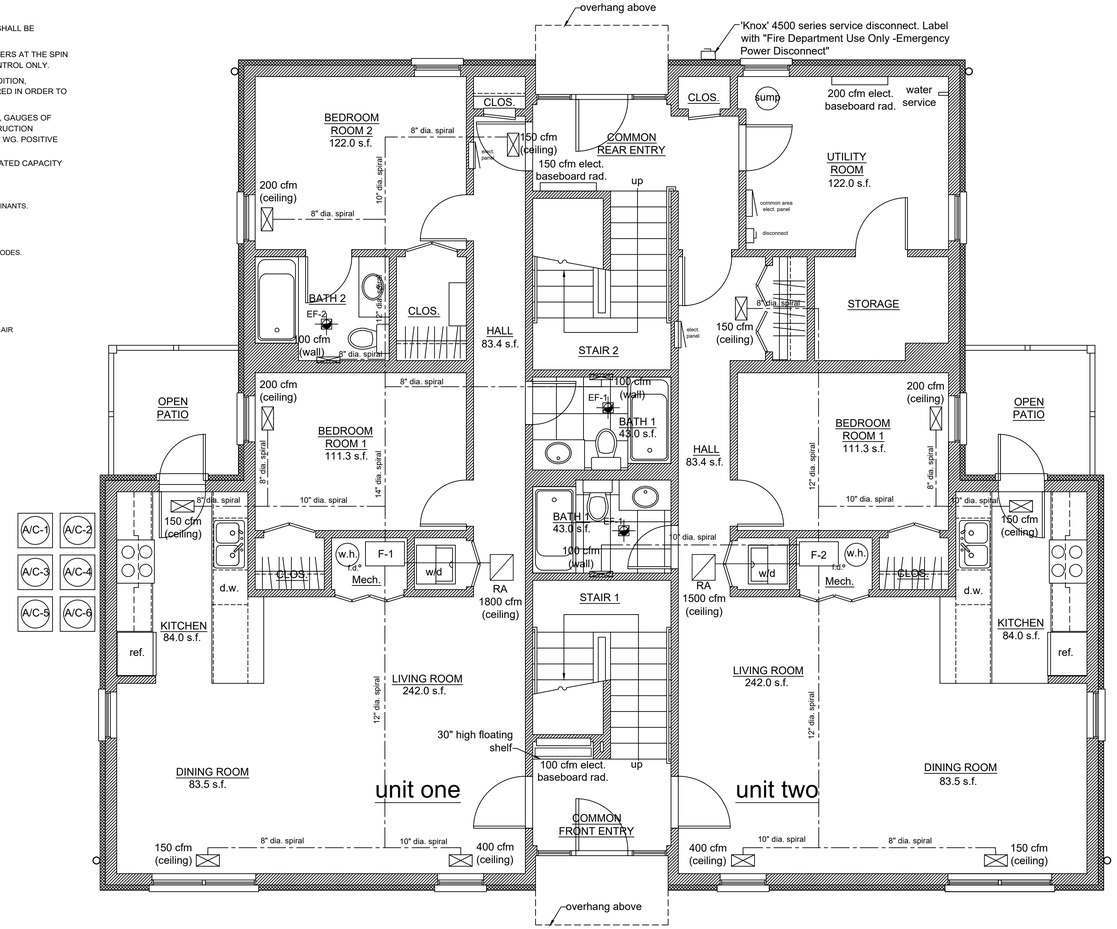
4 SPLIT-SYSTEM DIAGRAM
SCALE:N.T.S.



3 TYPICAL DUCT DETAILS
SCALE:N.T.S.



2 VENT PIPING TERMINATIONS
SCALE:N.T.S.



1 First Floor Plan -Proposed
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268 7th Street, Wheeling, IL 60009

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LICENSED ARCHITECT ANN M. ALSPAUGH 0010201234

license no. 1020234
expires: 11.30.2026

issue for permit	12.16.24
drawn by: ama	first floor HVAC plan & schedules
checked by: ama	
date: 12.16.24	
rev:	m2.0



2 Third Floor Plan -Proposed

scale: $\frac{1}{4}$" = 1'-0"

n



1 Second Floor Plan -Proposed

scale: $\frac{1}{4}$" = 1'-0"

n

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773.580.2331
ann@aMa-Architecture.com

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

268 7th Street, Wheeling, IL 60009

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief, conform to the village of wheeling codes & ordinances

LICENSED ARCHITECT
ANN M ALSPAUGH
001020234

license no. 1020234
expires: 11.30.2026

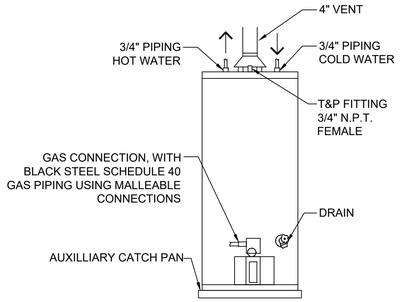
issue for permit	12.16.24
drawn by: ama	second & third floor HVAC
checked by: ama	
date: 12.16.24	
rev:	m2.1

GENERAL PLUMBING NOTES

1. ALL PLUMBING WORK TO COMPLY WITH AND TO BE EXECUTED IN STRICT ACCORDANCE WITH THE VILLAGE OF WHEELING BUILDING CODE AND THE STATE OF ILLINOIS PLUMBING REQUIREMENTS.
2. ALL PLUMBING WORK SHALL BE GUARANTEED FOR A MINIMUM OF ONE(1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE OWNER/ARCHITECT.
3. THE PLUMBING CONTRACTOR SHALL VERIFY THE SIZING AND DESIGN OF ALL PLUMBING SHOWN AND SHALL FURNISH ALL NECESSARY LABOR, MATERIALS, INSTRUMENTS AND DEVICES REQUIRED TO CAUSE THE SYSTEM TO PERFORM IN ACCORDANCE WITH THE INTENT OF THE PLANS.
4. ALL PLUMBING ROUGH-INS MUST BE INSPECTED AND APPROVED BY THE CITY OF CHICAGO. INSPECTIONS SHALL BE SCHEDULED BEFORE DRYWALL IS HUNG IN CHASE AREAS OR CONCRETE POURED AT TRENCHES. CONTRACTOR IS RESPONSIBLE FOR CALLING FOR ALL INSPECTIONS.
5. THE PLUMBING CONTRACTOR MUST TEST ALL PLUMBING FIXTURES (PRESSURE TEST THE ENTIRE SYSTEM) BEFORE THE OWNER WILL ACCEPT THE OCCUPANCY.
6. WHENEVER POSSIBLE UTILIZE EXISTING UNDERGROUND SEWER WORK. THE PLUMBING CONTRACTOR SHALL VERIFY THAT THE EXISTING STORM SEWER AND WASTE SEWER SYSTEMS ARE IN SERVICEABLE CONDITION.
7. PROVIDE FLOOR DRAINS AT ALL FURNACE AND LAUNDRY LOCATIONS AND ALL OTHER LOCATIONS NOTED ON THE DRAWINGS. FLOOR DRAINS SHALL BE MADE TO FLOW PROPERLY.
8. VALVE SHUT-OFFS ARE REQUIRED FOR EACH FIXTURE, RISER, AND BETWEEN BRANCHES.
9. ADEQUATELY SUPPORT ALL PIPING FIXTURES. PROVIDE EXPANSION LOOPS AS REQUIRED.
10. PROVIDE WATER HAMMER PREVENTION SYSTEM FOR THE WATER SUPPLY PIPING AT EACH RISER AND AT EACH FIXTURE AS REQUIRED BY THE CITY OF CHICAGO BUILDING CODE.
11. ALL SUPPLY PIPING TO BE HARD DRAWN COPPER.
12. ALL WASTE PIPING SHALL BE SCHEDULE 40 PVC.
13. ALL WASTE LINES BELOW GROUND TO BE SCHEDULE 40 PVC.
14. THE PLUMBING CONTRACTOR SHALL PROTECT ALL EXISTING FIXTURES AND FAUCETS FROM DAMAGE THROUGH THE DURATION OF CONSTRUCTION.
15. ALL EXPOSED PIPING AND/OR TRIMS SHALL BE CHROMIUM PLATED (TYPICAL).
16. ANY EXISTING PLUMBING WORK DAMAGED BY THE CONTRACTOR SHALL BE REPLACED WITH NEW AND EQUAL TO THE EXISTING WITHOUT ANY COST TO THE OWNER.
17. PROVIDE ALL CUTTING AND DRILLING TEMPLATES REQUIRED FOR THE NEW WORK. NO EXISTING OR NEW STRUCTURAL WORK TO BE CUT WITHOUT PREVIOUS APPROVAL FROM THE ARCHITECT. PATCH ALL DISTURBED EXISTING WALLS AND CEILING TO MATCH ADJACENT SURFACES.
18. INSTALL ALL NEW WORK SUBSTANTIALLY AS INDICATED ON THE DRAWINGS. SLIGHT DEVIATIONS FROM LOCATIONS OF NEW PIPING INDICATED ON THE DRAWINGS MAY BE MADE BY THE CONTRACTOR (AT NO ADDITIONAL CHARGE TO THE OWNER) IN ORDER TO CLEAR EXISTING STRUCTURAL WORK, EXISTING HVAC, EXISTING PIPING, ETC.. HOWEVER, ALL SUCH DEVIATION SHALL BE PREVIOUSLY APPROVED BY THE ARCHITECT/OWNER.
19. THE CONTRACTOR SHALL VERIFY AT THE SITE THE EXACT LOCATION, ETC., OF ALL EXISTING PIPING, HVAC, ELECTRICAL CONDUITS, STRUCTURE, ETC., PRIOR TO HIS BID PROPOSAL AND COORDINATE ALL NEW WORK WITH THE EXISTING WORK. ANY EXISTING DRAWINGS IN THE POSSESSION OF THE OWNER SHALL BE MADE AVAILABLE TO THE CONTRACTOR FOR COORDINATION. IN CASE OF ANY CONFLICTS, MISUNDERSTANDINGS, DISCREPANCIES OR OMISSIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT PRIOR TO HIS COST PROPOSAL. NO ALLOWANCE AFTER THE AWARD OF THE BID SHALL BE GRANTED FOR FAILURE TO COMPLY WITH THIS REQUIREMENT
20. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS WITH THE OWNER PERTAINING TO THE USE OF DOOR ENTRIES, WORKING HOURS, REFUSE DISPOSAL, SECURITY, INTERRUPTION OF THE BUILDING UTILITIES, AND/OR FUNCTIONS, OWNERSHIP OR SALVAGED MATERIALS AND ANY OTHER ITEMS DEEMED TO THE MUTUAL INTEREST.
21. WORK SHALL INCLUDE, BUT NOT NECESSARILY LIMITED TO PROVIDING ALL LABOR, MATERIALS, TOOLS, PERMITS, TESTS, INSPECTION FEES, TAXES, ETC., NECESSARY FOR, OR INCIDENTAL TO THE INSTALLATION OF NEW PLUMBING WORK SATISFACTORY TO THE OWNER/ARCHITECT.
22. ALL OPENINGS THROUGH WINDOWS, FLOOR, AND PARTITIONS SHALL BE PACKED WITH FIRE RATED MATERIAL "THERMO-FIBER No. CW 40". FLOOR OPENINGS ADDITIONALLY SHALL BE CAULKED WATERTIGHT WITH B-1 BUTYL WATERPROOF MASTIC SEALANT.
23. PROVIDE 24" AIR CHAMBERS AT THE TOP OF EACH MAIN RISER.
24. PROVIDE 12" AIR CHAMBERS AT EACH FIXTURE.
25. ALL COPPER PIPING TO BE TYPE 'K'.
26. INSULATE ALL EXTERIOR WALL PLUMBING & ALL PLUMBING LOCATED IN FLOORS/CEILINGS ADJACENT TO UNCONDITIONED OR EXTERIOR SPACES.
27. GREASE INTERCEPTOR SHALL CONFORM TO PDI G 101 AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
27. REFER TO SHEET A1.1 FOR ADDITIONAL NOTES.

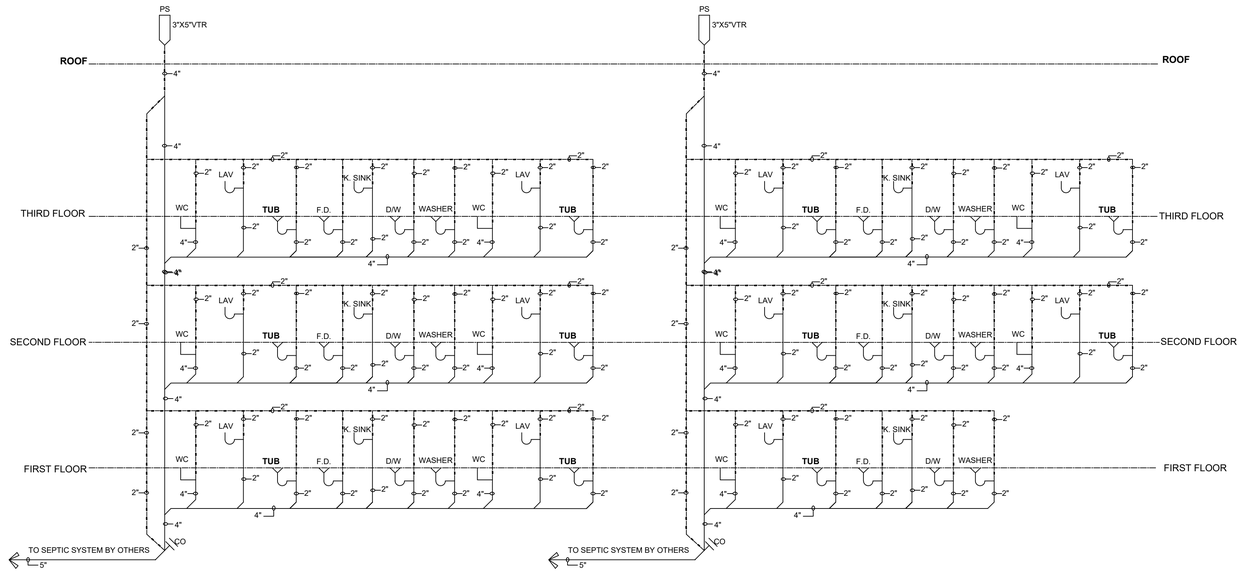
FIXTURE SCHEDULE

DESCRIPTION	MANUFACTURER	FIXTURE COUNT	FIXTURE UNITS SUPPLY	TOTAL	FIXTURE WASTE	TOTAL
TOILET	AMERICAN STANDARD OR APPROVED EQUAL	11	3 EACH	33	4 EACH	44
LAVATORY	AMERICAN STANDARD OR APPROVED EQUAL	11	1 EACH	11	1 EACH	11
BATHTUB	AMERICAN STANDARD OR APPROVED EQUAL	11	2 EACH	22	2 EACH	22
KITCHEN SINK	AMERICAN STANDARD OR APPROVED EQUAL	6	2 EACH	12	2 EACH	12
DISHWASHER	AMERICAN STANDARD OR APPROVED EQUAL	6	2 EACH	12	2 EACH	12
CLOTHES WASHER	GENERAL ELECTRIC OR APPROVED EQUAL	6	2 EACH	12	2 EACH	12
TOTAL		51	TOTAL FIXTURE UNITS	102	TOTAL SUPPLY	113

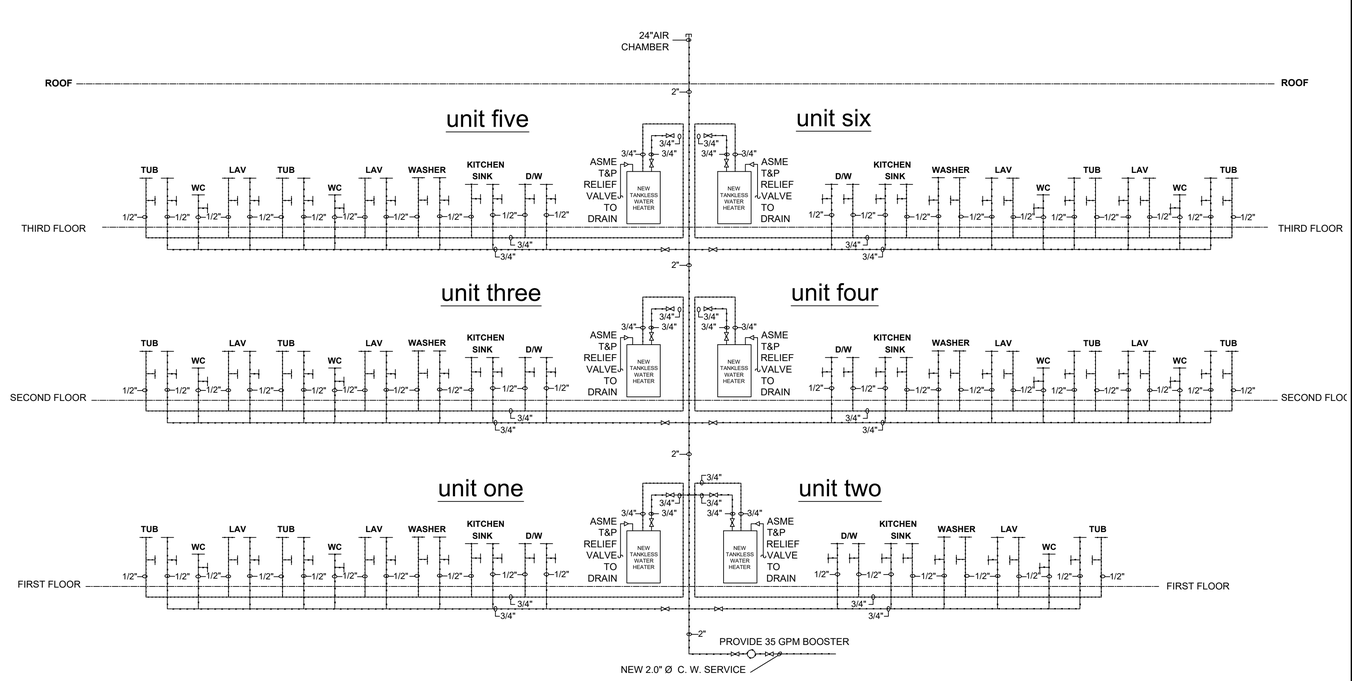


'Rheem' 40 GPM Water Heater

3 Water Heater Detail
scale: N/A



2 Waste & Vent Diagram
scale: N/A



1 Water Supply Diagram
scale: N/A

aMa-Architecture
11337 S. Forrestville Ave.
Chicago, IL 60628
773.580.2331
ann@aMa-Architecture.com

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Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

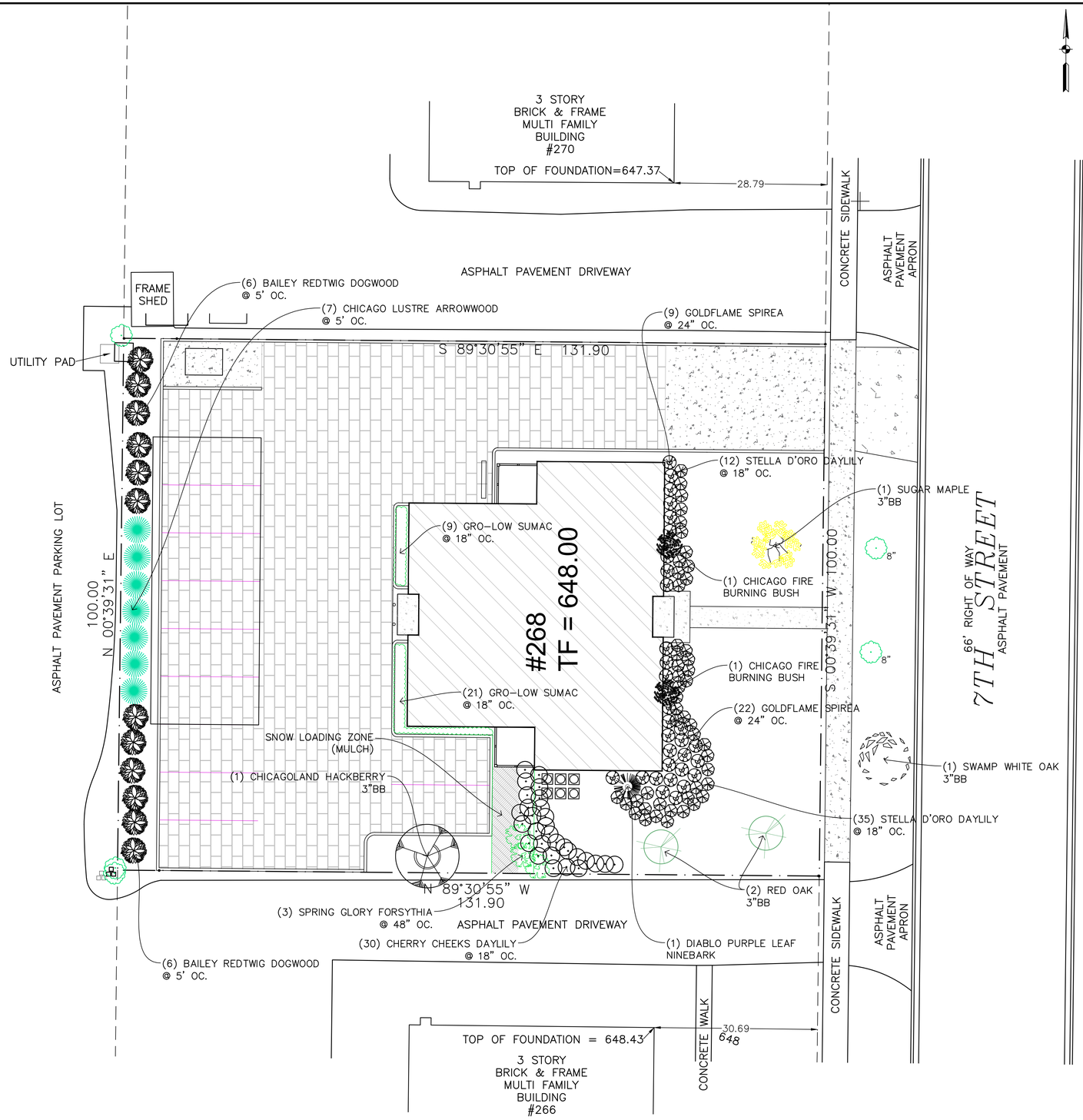
268 7th Street, Wheeling, IL 60009

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief, conform to the village of wheeling codes & ordinances

LICENSED ARCHITECT ANN M ALSPAUGH 01/1/2020/34

license no. 1020234
expires: 11.30.2026

issue for permit	12.16.24
drawn by: ama	plumbing risers & diagrams
checked by: ama	
date: 12.16.24	
rev:	p1.0



SHADE TREES

QUANTITY	COMMON & BOTANICAL NAME	SIZE
1	SUGAR MAPLE *ACER SACCHARUM*	3" BB
1	CHICAGOLAND HACKBERRY *CELTIS OCCIDENTALIS CHICAGOLAND*	3" BB
1	SWAMP WHITE OAK *QUERCUS BICOLOR*	3" BB
2	NORTHERN RED OAK *QUERCUS RUBRA*	3" BB

FLOWERING SHRUBS

QUANTITY	COMMON & BOTANICAL NAME	SIZE
2	CHICAGO FIRE BURNING BUSH *Euonumus Alata Chicago Fire*	36" BB
3	SPRING GLORY FORSYTHIA *Forsythia Intermedia Spring Glory*	36" BB
1	DIABLO PURPLE LEAF NINEBARK *Psysocarpus Opulifolius Diablo*	48" BB
30	GROW-LOW AROMATIC SUMAC *Rhus Aromatica Gro-Low*	24" BB
31	GOLDFLAME SPIREA *Spirea Bumalda Goldflame*	24" BB

PERENNIALS

QUANTITY	COMMON & BOTANICAL NAME	SIZE
30	CHERRY CHEEKS DAYLILY *Hemerocallis Cherry Cheeks*	18" BB
47	STELLA D'ORO DAYLILY *Hemerocallis Stella De'Oro*	18" BB

SCREENING

QUANTITY	COMMON & BOTANICAL NAME	SIZE
12	BAILEY REDTWIG DOGWOOD *Cornus Baileyi*	5' BB
7	CHICAGO LUSTRE ARROWWOOD VIBURNUM *Viburnum Dentatum Chicago Lustre*	5' BB

NOTE: FORSYTHIA & DAYLILY ARE SALT TOLERANT. INSTALL 3" OF SHREDDED BARK WITHIN SNOW UNLOADING ZONE.

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. USE THE SCALE BELOW TO MAKE MEASUREMENTS ON REDUCED PLANS.

0' 5' 10' 25'

G&D BUILDINGS LLC
GALYA GEORGIEVA
224.523.1241
gdbuildingsllc@gmail.com

CIVILAND, PLLC
DESIGN FIRM 184.008369
7017 N TRIPP AVE.
LINCOLNWOOD IL. 60712
INFO@CIVILANDLLC.COM
847.877.6900

CiviLand LLC

Signed: 12/11/2023
Expires: 11/30/2025

SUBMITTALS

DATE	REMARKS
11/26/2024	PERMIT PLANS ISSUED
10/11/2024	ADJUSTED PER PLAN COMMISSION
07/23/2024	MAJOR SITE PLAN REVIEW 4
12/11/2023	REVISED AS PER VILLAGE REVIEW
09/11/2023	INTERNAL COORDINATION

6-Unit Apt.
Major Site Plan & Appearance
268 7th Street
Wheeling, IL

L-1
LANDSCAPE PLAN

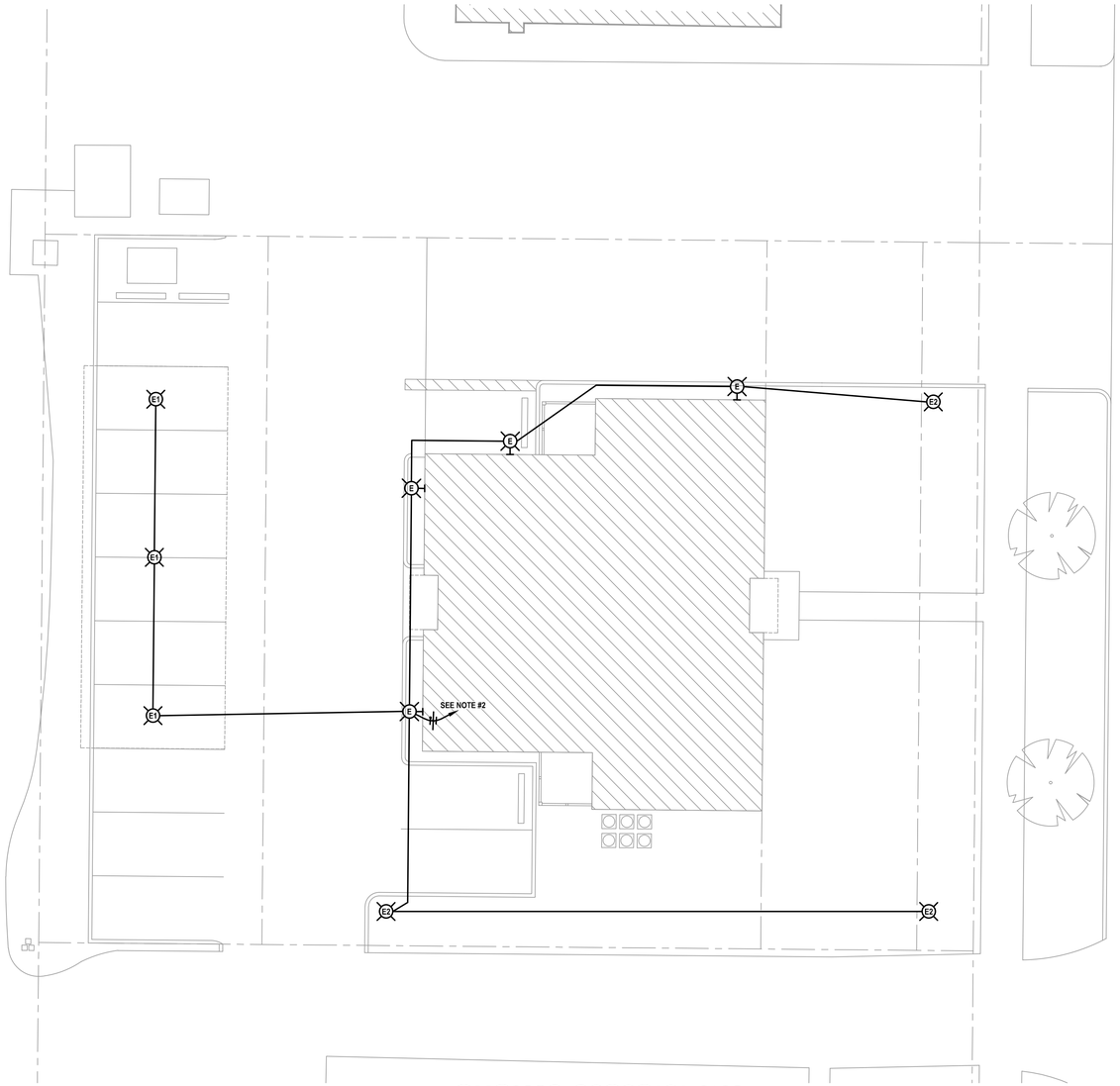
DESIGNED BY: SCO
PROJECT NO.: 2023-268
DATE: 09/11/2023
SCALE: 1:10
SHEET 10 OF 10

PROPOSED LANDSCAPE PLAN
APARTMENT BUILDING

BERNARD ROSAUER ASSOCIATES
landscape architects – site planners
240 Dennis Lane GLENCOE, IL 60022
contact@bernardrosauerassoc.com 847.751.0388

L-1
March 20, 2024
SCALE 1":10'

Date: Nov 26, 2024, 8:48am User ID: Sabin
File: D:\2023\268 7th Street, Wheeling\Drawings\5 Prop 268 7th Permit.dwg



ELECTRICAL SITE PLAN

SCALE: 1"=10'-0"

FIXTURE SCHEDULE

23153

TYPE	INPUT WATTS	VOLTS	LUMENS	COLOR TEMP	CRI 70+	CRI 80+	CRI 90+	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	BUG RATING	SHIELDING	FINISH	MOUNTING	CONTROLS INTEGRAL	CONTROLS REMOTE	SEE NOTES
E	15	120	1982	4000K		●		EXTERIOR WALL SCONCE	LITHONIA	WDGE1 LED-P2-40K-80CRI-VW-MVOLT-SRM-DBLBXD		ACRYLIC	BLACK	WALL		PHOTO ON/OFF	
E1	26	120	3669	4000K		●		CANOPY DOWNLIGHT	LITHONIA	CNY LED-P0-4K-MVOLT-DBL		ACRYLIC	BLACK	SURFACE		PHOTO ON/OFF	
E2	87	120	10595	4000K		●		POLE & LUMINAIRE	STERNBERG LIGHTING	PT-A850SRLED-24L-40-T5-MDL014-P-PE-BKT	332	POLYCARBONATE	BLACK	SEE DETAIL 1/E3		PHOTO ON/OFF	

NOTES:

1. DELETED.
2. 2 #8 THWN & 1 #8 GND. IN 3/4" C. TO LIGHTING PANEL VIA PHOTOCELL-ON, TIMECLOCK-OFF.

SYMBOLS / ABBREVIATIONS

	WALL BRACKET/WALL SCONCE FIXTURE - SEE FIXTURE SCHEDULE
	SURFACE/PENDANT FIXTURE - SEE FIXTURE SCHEDULE
	RECESSED DOWNLIGHT FIXTURE - SEE FIXTURE SCHEDULE
	POLE & LUMINAIRE(S) FIXTURE - SEE FIXTURE SCHEDULE
	SWITCHED CIRCUIT
	BRANCH CIRCUIT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT INTERRUPTER
AMP	AMPERES/AMPERAGE
AV	AUDIO VISUAL
BB	BATTERY BACKUP
BFC	BELOW FINISHED CEILING
BOL	BUILT-IN OVERLOAD
BRKR	BREAKER
BWE	BAKED WHITE ENAMEL
CBA	COLOR BY ARCHITECT
CP	CONTROL PANEL
CRCT	CIRCUIT
CTL	CONTROL
DCP	DOCK EQUIPMENT CONTROL PANEL
DISC	DISCONNECT
EC	ELECTRICAL CONTRACTOR
EM	EMERGENCY
ER	EXISTING RELOCATED
ETC	ELECTRONIC TIME CLOCK CONTROL
EX	EXISTING TO REMAIN
EXD	EXISTING TO BE DEMO'D
EXR	EXISTING TO BE RELOCATED
EWC	ELECTRIC WATER COOLER
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FLSW	FLOAT SWITCH
FPC	FIRE PROTECTION CONTRACTOR
FURN	FURNISHED
GC	GENERAL CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HOA	HAND-OFF-AUTOMATIC SWITCH
HP	HORSEPOWER
HVAC	HEATING AND VENTILATING CONTRACTOR
IG	ISOLATED GROUND
INT	INTEGRAL
IR	IN ROOM
IU	IN UNIT
JB	JUNCTION BOX
KW	KILOWATTS
LCP	LIGHTING CONTROL PANEL
LOC	LOCATION
LT	LOW TEMPERATURE
LTSW	LIGHT SWITCH
LVT	LOW VOLTAGE THERMOSTAT
MAG	MAGNETIC STARTER
MAN	MANUAL STARTER
MCA	MINIMUM CIRCUIT AMPS
MSPL	MANUAL STARTER WITH PILOT LIGHT
NL	NIGHT LIGHT
NU	NEAR UNIT
OHP	OVERHEAT PROTECTION
OS	OCCUPANCY SENSOR
OU	ON UNIT
PB	PUSH BUTTON
PC	PLUMBING CONTRACTOR
PESW	PNEUMATIC ELECTRIC SWITCH
PHOTO	PHOTOCELL
PW	PREWIRED
RC	REFRIGERATION CONTRACTOR
RCC	REFRIGERATION CONTROL CONTRACTOR
RECEPT	RECEPTACLE
SBA	SELECTED BY ARCHITECT
SC	SEPARATE CIRCUIT
SPSW	SPEED SWITCH
SS	SOFT START
ST	SHUNT TRIP
SW	SWITCH
T	LINE VOLTAGE THERMOSTAT
TBD	TO BE DETERMINED
TC	TIME CLOCK
TCC	TEMPERATURE CONTROL CONTRACTOR
TCP	TEMPERATURE CONTROL PANEL
UM	UNIT MANUFACTURER
UNO	UNLESS NOTED OTHERWISE
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
WP	WEATHER PROOF ("WHILE-IN-USE")
XFMR	TRANSFORMER

REVISIONS

DATE	DESCRIPTION
1 10/14/24	PERMIT REVIEW COMMENTS

PROJECT:

6-Unit Apt.

268 7th Street
Wheeling, IL

Corporation Registration #184.005374

KORNACKI & ASSOCIATES, INC.
Electrical Design Consultants
262-784-3323
2845 S. Moorland Rd., New Berlin, WI 53151

LICENSED PROFESSIONAL ENGINEER
DAVID B. KORNACKI
062.052986
STATE OF ILLINOIS

Date: 10/14/24
Lic. Exp.: 11/30/25

DATE ISSUED
05/02/24

PROJECT NO.
23153

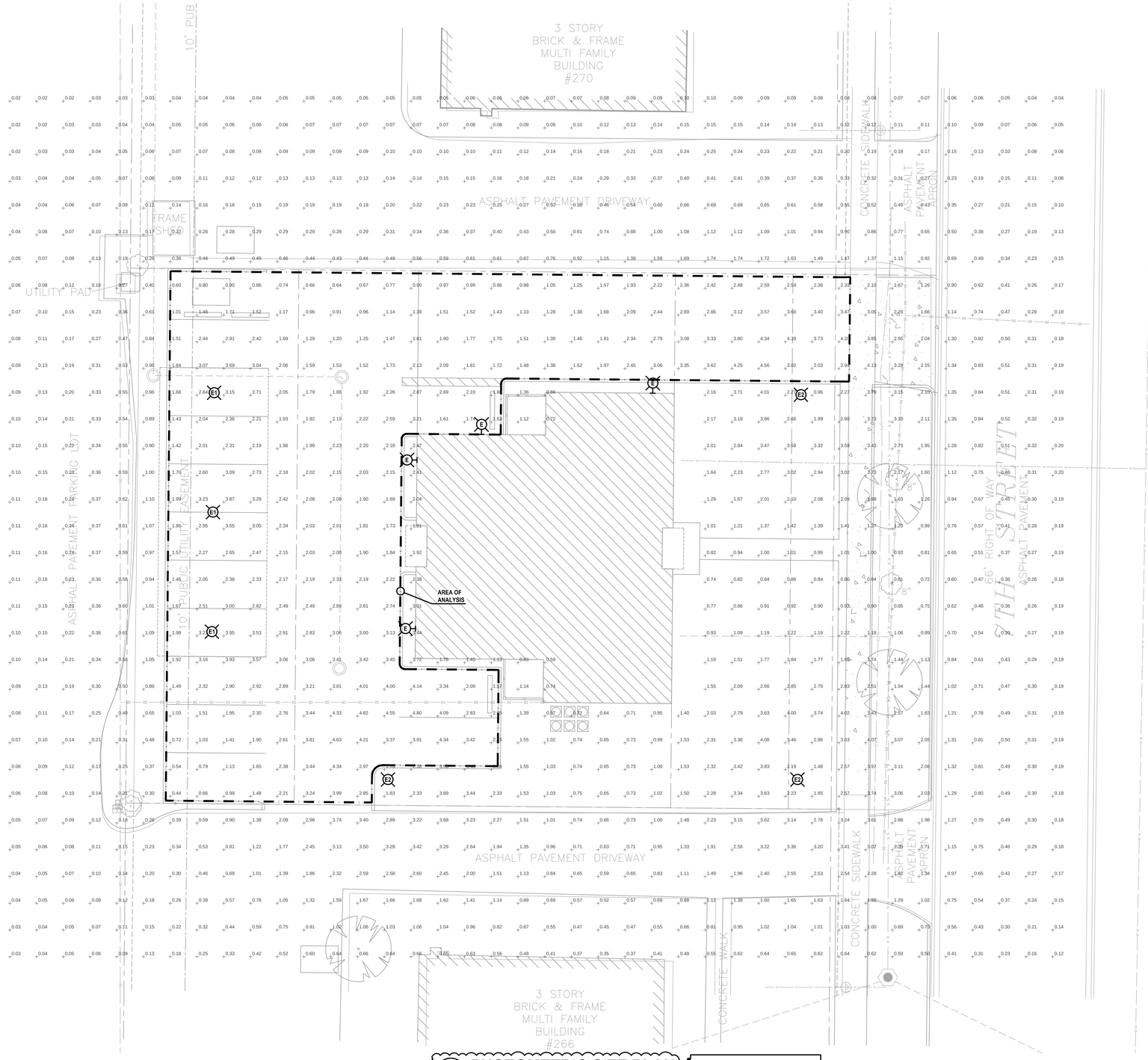
PROJECT MANAGER
D.B.K.

DRAWN BY
S.M.B.

CHECKED BY
D.B.K.

APPROVED BY
D.B.K.

SHEET NO.
E1



PHOTOMETRIC SITE PLAN

SCALE: 1"=10'-0"

LIGHTING ANALYSIS NOTES:
(PAVED AREAS ONLY)

1. AVERAGE FOOTCANDLES: 2.41
2. MAXIMUM FOOTCANDLES: 4.82
3. MINIMUM FOOTCANDLES: 0.64
4. MAXIMUM/MINIMUM RATIO: 7.5:1
5. AVERAGE/MINIMUM RATIO: 3.8:1

REVISIONS		
DATE	DESCRIPTION	
1 10/14/24	PERMIT REVIEW COMMENTS	

PROJECT:
6-Unit Apt.
268 7th Street
Wheeling, IL

Corporation Registration #184.005374

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2845 S. Moorland Rd., New Berlin, WI 53151

LICENSED PROFESSIONAL ENGINEER
DAVID B. KORNACKI
062.052986
STATE OF ILLINOIS
Date: 10/14/24
Lic. Exp.: 11/30/25

DATE ISSUED	05/02/24
PROJECT NO.	23153
PROJECT MANAGER	D.B.K.
DRAWN BY	S.M.B.
CHECKED BY	D.B.K.
APPROVED BY	D.B.K.
SHEET NO.	E2



WDGE1 LED
Architectural Wall Sconce

Catalog Number

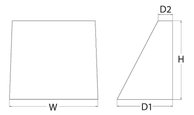
Notes

Type **E**

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1):	5.5"
Depth (D2):	1.5"
Height:	8"
Width:	9"
Weight: (without options)	9 lbs



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing true site-wide solution.

WDGE1 delivers up to 2,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. The compact size of WDGE1, with its integrated emergency battery backup option, makes it an ideal over-the-door wall-mounted lighting solution.

design select Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details

WDGE LED Family Overview

Luminaire	Optics	Standard EM, 0°C	Cold EM, -20°C	Sensor	Approximate Lumens (4000K, 80CRI)						
					P0	P1	P2	P3	P4	P5	P6
WDGE1 LED	Visual Comfort	4W		--	750	1,200	2,000	--	--	--	--
WDGE2 LED	Visual Comfort	10W	18W	Standalone / nLight	--	1,200	2,000	3,000	4,500	6,000	--
WDGE2 LED	Precision Refractive	10W	18W	Standalone / nLight	700	1,200	2,000	3,200	4,200	--	--
WDGE3 LED	Precision Refractive	15W	18W	Standalone / nLight	6,000	7,500	8,500	10,000	12,000	--	--
WDGE4 LED	Precision Refractive			Standalone / nLight	--	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE1 LED P2 40K 80CRI VF MVOLT SRM PE DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE1 LED	P0 P1 P2	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K[1] 5000K	80CRI 90CRI	VF Visual comfort forward throw VW Visual comfort wide	MVOLT 347[1]	**Shipped included** SRM Surface mounting bracket ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)[2] **Shipped separately** AWS 3/8inch Architectural wall spacer [4] PBBW Surface-mounted back box (top, left, right conduit entry) Use when there is no junction box available.[4]

Options		Finish			
E4WH	Emergency battery backup, Certified in CA Title 20 MAEDBS (4W, 0°C min)[3]	DDBXD	Dark bronze	DDBTXD	Textured dark bronze
PE	Photocell, Button Type[4]	DBLBXD	Black	DBLBXD	Textured black
DS	Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)[5]	DNATXD	Natural aluminum	DNATXD	Textured natural aluminum
DMG	0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)	DWHXD	White	DWHGXD	Textured white
BCE	Bottom conduit entry for back box (PBBW). Total of 4 entry points.	DSSXD	Sandstone	DSSTXD	Textured sandstone
DSLE	Dual Switching (1 Driver, 2 Light Engines)				
CCE	Coastal Construction[3]				

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CNY LED
LED Canopy/Ceiling Luminaire

Catalog Number

Notes

Type **E1**

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

	CNY LED P1/P2
Width:	10"
Height:	4.7"
Depth:	10"
Weight:	6.5lbs

Introduction

The CNY LED canopy luminaires are energy efficient and budget friendly, perfect for replacing up to 250W metal halide luminaires while saving up to 80% energy costs. Quick mount mechanism significantly reduces the installation time. An LED array and translucent lens create uniform and visually comfortable illumination. CNY LED luminaires are DLC Premium listed and deliver quick payback!

Ordering Information

EXAMPLE: CNY LED P1 50K MVOLT DDB

CNY LED

Series	Performance Package	Color Temperature[1]	Voltage	Finish
CNY LED	P1 4,500 lumens[1] P2 6,600 lumens	40K 4000K 50K 5000K	MVOLT 120-277V[3]	DDB Dark bronze

Accessories
Ordered and shipped separately.
CNYBCP DDB 14 Inch x 14 Inch Beauty Cover Plate

NOTES
1. P1 only available with 50K.
2. Correlated color temperature (CCT) shown is nominal per ANSI C78, 377-2008.
3. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).

FEATURES & SPECIFICATIONS

INTENDED USE
CNY LED luminaires are ideal, energy-efficient replacements for up to 250W MH canopy or ceiling luminaires. The CNY LED provides years of maintenance-free illumination for schools, malls, offices, parking areas, covered walkways and loading docks.

CONSTRUCTION
Cast-aluminum, corrosion-resistant housing with polyester powder paint for lasting durability. Castings are sealed with a one-piece gasket. Rated for outdoor installations, -40°C minimum ambient. Frosted lens is designed for uniform light distribution.

ELECTRICAL
Includes an MVOLT (120-277V) electronic driver that is 0-10V, capable of continuous dimming and ensure system power factor >90% and THD <20%. LEDs maintain 70% of light output at 50,000 or more hours of service life (L70/50,000 hours). CNY is CRI 80.

INSTALLATION
Mounts to a recessed junction box or surface mount with three conduit entry points. Can be pendant mounted with ½ NPT pendant stem provided by others. Quick mount mechanism significantly reduces installation time - no need to open the luminaire for installation.

LISTINGS
UL Listed to U.S. and Canadian safety standards for wet locations.
Tested in accordance with IESNA LM-79 and LM-80 standards.
DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. Can be used to comply with California Title 24 Part 6 High Efficacy LED light Source Requirements.

WARRANTY
Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

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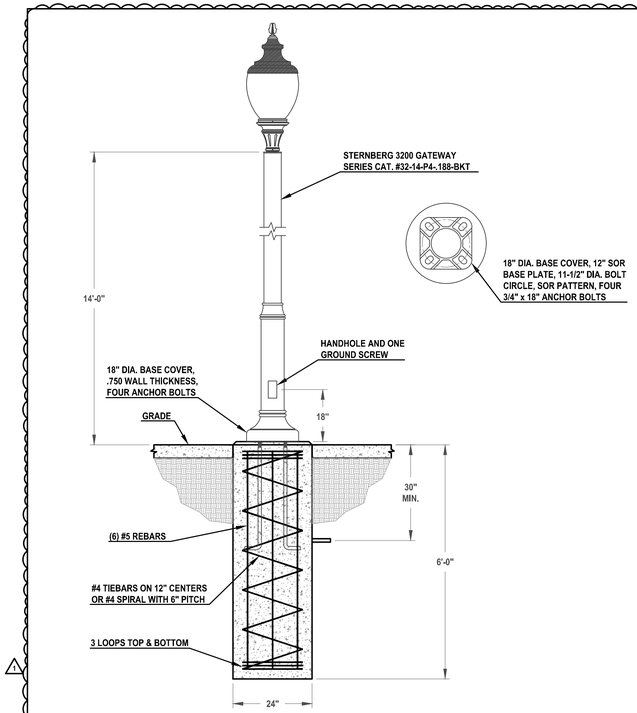


1 ELECTRICAL
FIXTURE TYPE 'E2' MOUNTING DETAIL
NOT TO SCALE

REVISIONS

DATE	DESCRIPTION
10/14/24	PERMIT REVIEW COMMENTS

PROJECT:
6-Unit Apt.
268 7th Street
Wheeling, IL

Corporation Registration #184.005374

KORNACKI & ASSOCIATES, INC.
Electrical Design Consultants
262-784-3323
2845 S. Moorland Rd., New Berlin, WI 53151

LICENSED PROFESSIONAL ENGINEER
DAVID B. KORNACKI
062.052986
STATE OF ILLINOIS
Date: 10/14/24
Lic. Exp.: 11/30/25

DATE ISSUED 05/02/24
PROJECT NO. 23153
PROJECT MANAGER D.B.K.
DRAWN BY S.M.B.
CHECKED BY D.B.K.
APPROVED BY D.B.K.
SHEET NO. **E3**

Specification Sheet **E2** Old Town A850SRLED

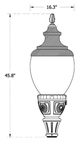
Project Name _____ Qty _____

Type _____ Catalog / Part Number _____





A850SRLED-5P



A850SRLED-990

Distribution Type


Type 2 Type 3 Type 4 Type 5

CCT - Color Temp (K)


2,700K 3,000K 3,500K 4,000K 5,000K

7 Year Warranty

IP Rating

IP 65

Certifications

Description

The A850SRLED Old Town luminaire blends form and function into a classic shape. It is supplied with a cast aluminum finial and a solid, cast aluminum roof which includes optimized heat sinks to provide maximum life and performance for the LED light sources. The acorn is sealed to the cast aluminum roof to provide a moisture free and bug-free optics chamber for the LED light source.

EPA: 1.21 (ft²) | WEIGHT: 43 LBS

Features

Mounting Configuration	**1W:** Wall Mount **1A:** 1 Arm Mount **2A:** 2 Arm Mount @ 180° **2APT:** 2 Arm @ 180° & Post Top **3APT:** 3 Arm @ 120° & Post Top **1AM:** 1 Arm Mid-Mount **450PB:** Pier Base **PT:** Post Top **1APT:** 1 Arm & Post Top **2APO:** 2 Arm Mount @ 90° **3A:** 3 Arms @ 120° **3A90:** 3 Arms @ 90° **4A:** 4 Arms @ 90° **4APT:** 4 Arm @ 90° & Post Top **2AM:** 2 Arm Mid-Mount @180°
Optional Control Receptacle	**R7:** 7-Pin control receptacle only **SRR7:** Roof Mounted 7-Pin Control Receptacle Only
Optional Control	**PE:** Twist-Lock Photocontrol (120V-277V) **PE4:** Twist-Lock Photocontrol (347V-480V) **SC:** Shorting Cap **PEC:** Electronic Button Photocontrol (120V-277V) **PEC4:** Electronic Button Photocontrol (480V)
Optional Fuse	**FHD:** Double Fuse and Holder
Optional House Side Shield	**HSS:** 120° House Side Shield **BLOC:** Back Light Optical Control
Optional Fixed Dimming Resistor Board	**FDRB:** Fixed Dimming Resistor Board

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Specification Sheet Old Town A850SRLED

Physical

Fixture	**A850SRLED:** Old Town
Fitter	**5F:** Slip fit 3" OD x 3" tall tenon/pole **7S:** Slip fit 3" OD x 4" tall tenon/pole **7A:** Slip fit 4" OD x 4" tall tenon/pole **990:** Utility-Fitter, Slip fit 3" OD x 3" tall tenon/pole **991:** Utility-Fitter, Slip fit 3" OD x 3" tall tenon/pole **992:** Utility-Fitter, Slip fit 3" OD x 3" tall tenon/pole **993:** Utility-Fitter, Slip fit 3" OD x 3" tall tenon/pole **994:** Utility-Fitter, Slip fit 4" OD x 3" tall tenon/pole **995:** Utility-Fitter, Slip fit 4" OD x 3" tall tenon/pole **8D4:** Slip fit 4" OD x 5" tall tenon/pole **8D5:** Slip fit 5" OD x 6" tall tenon/pole **8D7:** Slip fit 7" OD x 1' tall tenon/pole **OL3:** Oak-Leaf, Slip fit 3" OD x 3" tall tenon/pole **OL4:** Oak-Leaf, Slip fit 4" OD x 3" tall tenon/pole **58B:** Art-Deco, Slip fit 3" OD x 3" tall tenon/pole **C2097:** Low-Profile, Slip fit 7" OD x 1" tall tenon/pole
Optional Twist Lock Acorn	**T:** Twist-Lock Option for Acorn
Lens	**A:** Clear Textured Acrylic Acorn **P:** Clear Textured Poly Acorn
Optional Ring	**CDR:** Cast Decorative Ring, GOLD medallions **CDRP:** Cast Decorative Ring, Medallions painted to match fixture **CDRCL:** Cast Decorative Ring, custom logo medallions **PBDR:** Perforated Brass Decorative Ring, raw brass **PBDRP:** Perforated Brass Decorative Ring, painted to match fixture
Optional Receptacle	**GFI:** 120V, 15A Duplex GFI for Utility Fitter
Optional Terminal Block	**TB:** Terminal Block
Finish	**BKT:** Black Textured **WHT:** White Textured **PGT:** Park Green Textured **ABZT:** Architectural Medium Bronze Textured **DBT:** Dark Bronze Textured **VG:** Verde Green **SI:** Swedish Iron **OWGT:** Old World Gray Textured **OI:** Old Iron **RT:** Rust **WBR:** Weathered Brown **CD:** Cedar **WBK:** Weathered Black **TT:** Two Tone **CM:** Custom Match

Light Source

LED	**32L:** 32 LEDs **16L:** 16 LEDs	**24L:** 24 LEDs **12L:** 12 LEDs
CCT - Color Temp (K)	**27:** 2,700K **35:** 3,500K **50:** 5,000K	**30:** 3,000K **40:** 4,000K

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Specification Sheet Old Town A850SRLED

Distribution Type	**T2:** Type 2 **T4:** Type 4	**T3:** Type 3 **T5:** Type 5

Electrical and control

Driver	**MDL018:** 120V-277V, 180mA **MDH018:** 347V-480V, 180mA **MDL016:** 120V-277V, 160mA **MDH016:** 347V-480V, 160mA **MDL014:** 120V-277V, 140mA **MDH014:** 347V-480V, 140mA **MDL008:** 120V-277V, 80mA **MDH008:** 347V-480V, 80mA

Specifications

Available with Intellistreets® Technology	Intellistreets® is an integrated set of solutions offering the capability to see, hear, and record what's happening on your streets, through both cameras and audio sensors.
Fitter	The sand cast fitter is a heavy wall, low-copper aluminum 356 alloy for enhanced corrosion resistance and high tensile strength. It will have an 8-1/2" inside diameter opening to attach to the 8" neck of the lens. It includes 4 stainless steel Allen-head set screws for attachment. The fitter will include a one-piece ring bug gasket to resist insect penetration. **Utility Fitter:** The die-cast fitter shall be heavy wall, low-copper 360 aluminum alloy for enhanced corrosion resistance and high tensile strength. It shall have a hinged, tool-less entry door that provides open access to all components. The 900 series shall have an optional terminal block for ease of wiring, an optional Twist-Lock Photocontrol receptacle, an optional single GFCI outlet for auxiliary power needs. The top mounted driver mounting plate will provide tool-less removal from the housing using 2 finger latches. The fitter shall have a one-piece ring gasket to resist insect penetration into globe assembly. When supplied with GFCI receptacle a hole will be provided for cord and plug installation with the access door closed. When cord and plug is not in use a filler plug will be provided and shall be tethered to the fitter for easy recovery and installation. **Twist Lock Option:** The TL (Twist-Lock) fitter will have a die-cast aluminum twist-lock mechanism. The tool-less, quarter turn action allows for easy acorn/globe removal and replacement. The twist-lock mechanism is mechanically attached to the globe and is removable if the globe is broken or needs replacing.
Cast Decorative Ring	Optional cast aluminum decorative ring **(CDR)** is made up of a 2.75" tall horizontal band with vertical slots and a 3" medallion in a **GOLD** finish. Alternate medallion version painted to match fitter **(CDRP)**. Consult factory for custom logos.
Polished Brass Decorative Ring	Optional 2.25" tall perforated banding ring made of brass. Alternate version painted to match fitter **(PBDRP)**
Hardware	Includes Stainless steel hardware. Most finishes will include hardware with a Black Oxide conversion coating. Light finishes will get non-color coated hardware **(Whites and Silvers)**
Lens	Clear textured acorn offered in impact resistant DR acrylic or UV stabilized polycarbonate material. An injection molding process adds a textured surface for glare mitigation.
Serviceability	Tool-less access to the driver compartment after the acorn is removed allows for trouble free servicing of the LED Driver and Surge Suppressor.
UL Listing	UL listed per UL1598 and CSA 22.2 No. 250.0 for the United States and Canada. Suitable for Wet Locations.
Electronic Driver	The LED driver is UL recognized and will be securely mounted inside the fixture, for optimized performance and longevity. It will be supplied with a quick-disconnect electrical connector on the power supply, providing easy power connections for fixture installation and maintenance. It will have DC voltage output and be a constant current design. It runs at 50/60HZ and will have overload, overheat, and short circuit protection. It will be supplied with a supplemental line-ground, line-neutral and neutral-ground electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines. It will be a high efficiency driver with a THD less than 20% and a high-power factor greater than .9. It will be dimming capable using a 0-10V signal, consult factory for more information.
IP Rating	IP65 rated
Finish	Our 6 Stage Polyester Powder coat paint system offers a beautiful high-end finish that holds up to even the most extreme environments. Each part is inspected for quality and consistency before being released for shipment. Our system exceeds AAMA 2604, AAMA 2605, ASTM D523 and ASTM D4214 requirements.

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02/21/2026

COVER LETTER & PROJECT NARRATIVE

Project Address: 268 7th Street
Wheeling, Illinois 60009

Project: Proposed New 6-Unit, 3-Story Masonry & Frame Apartment Building

To Whom It May Concern:

On behalf of the property owner, we respectfully submit this application for review and approval of a proposed new multi-family residential development located at 268 7th Street in the Village of Wheeling.

This letter provides a comprehensive narrative of the proposed project, including background information and operational details as requested.

---

1. Project Overview

The proposal consists of the construction of a new **three-story masonry and frame residential apartment building** containing **six (6) dwelling units**. The development is designed to complement the surrounding neighborhood, which includes existing multi-family residential buildings immediately adjacent to the subject property.

Key Project Components:

- Six (6) residential apartment units
  - One (1) one-bedroom unit
  - Five (5) two-bedroom units
- Three stories in height (maximum building height: approximately 35 feet)
- Total building area: approximately 7,108 square feet
- Individual private exterior decks/patios for each unit
- Individual in-unit washer/dryer
- Individual furnace and tankless water heater per unit
- Full fire suppression sprinkler system
- Fire alarm system
- New paved driveway
- On-site parking lot
- Permeable paver stormwater management system
- New curb cut and site improvements

- Wood trash enclosure

The project has been designed in accordance with the 2018 International Building Code and all applicable State of Illinois and Village of Wheeling codes and amendments.

---

2. Background of Owner / Development Intent

The property owner is a local residential developer with experience in small- to mid-scale multi-family housing. The intent of this project is to:

- Provide high-quality rental housing in a well-established residential neighborhood.
- Replace underutilized land with a well-designed residential building.
- Maintain architectural consistency with nearby masonry and frame multi-family buildings.
- Increase housing supply without exceeding local density allowances.

The development is not a commercial business and will operate as a standard long-term residential rental property.

---

3. Nature of Proposed Land Use

The proposed use is **multi-family residential dwelling units**.

This is a permanent residential land use. No commercial activity will occur on-site. No retail, restaurant, office, or public assembly uses are proposed.

The building will function as long-term rental housing.

---

4. Operational Details

Because this is a residential apartment building, operational characteristics differ from commercial developments. The following details are provided for clarity:

Hours of Operation

- Residential use operates 24 hours per day, 7 days per week.
- There are no fixed “business hours.”

Number of Employees

- No on-site employees.
- Property management will be handled off-site.
- Maintenance services will be provided on an as-needed basis by licensed contractors.

Number of Dwelling Units

- Total Units: 6

Number of On-Site Vehicles / Parking

Based on the Village parking standards:

- Required parking spaces have been calculated in accordance with bedroom count requirements.
- The site provides the required number of parking spaces, including:
    - Standard parking stalls
    - One (1) covered accessible stall
- Total parking spaces provided: consistent with zoning code requirements.
- No commercial fleet vehicles will be stored on-site.
- Vehicles will consist solely of residents' personal passenger vehicles.

Traffic Impact

- The development is small-scale (6 units).
- Traffic generation is expected to be minimal and consistent with typical residential trip generation.
- Access is provided via the proposed driveway connection to 7th Street.

---

5. Site Design & Infrastructure

Stormwater Management

- Permeable paver system for stormwater detention.
- Engineering calculations updated in accordance with Bulletin 75 rainfall data.
- Storm sewer improvements per Village engineering review.

Utilities

- New water service
- New sanitary sewer connection
- Individual mechanical systems per unit

- Electrical service per code with emergency disconnect

Trash & Refuse

- Six-yard trash bin
- Enclosed within a 6-foot wood trash enclosure
- Collection by private waste hauler

Landscaping

- Landscape plan updated to align with site plan revisions.
- Additional trees added per review comments.
- Owner will provide irrigation plan as required by zoning code.

---

6. Building Design & Compatibility

The building incorporates:

- Belden brick veneer masonry
- Fiber cement siding (Hardie Board)
- Architectural asphalt shingles (Class A, 1-hour fire-rated)
- Cast stone accents
- Aluminum gutters and downspouts
- Black pre-finished porch system

The architectural materials and proportions are intended to match and enhance the surrounding multi-family buildings located at 266 and 270 7th Street.

---

7. Summary

This proposal represents a modest, well-designed infill residential development that:

- Complies with applicable building codes
- Meets parking and density requirements
- Provides modern residential housing
- Maintains neighborhood compatibility
- Minimizes traffic and operational impact
- Includes full life-safety systems
- Incorporates proper stormwater management

We respectfully request consideration and approval of this project. We believe it will provide a positive addition to the community and contribute to the Village’s residential housing inventory in a responsible and compatible manner.

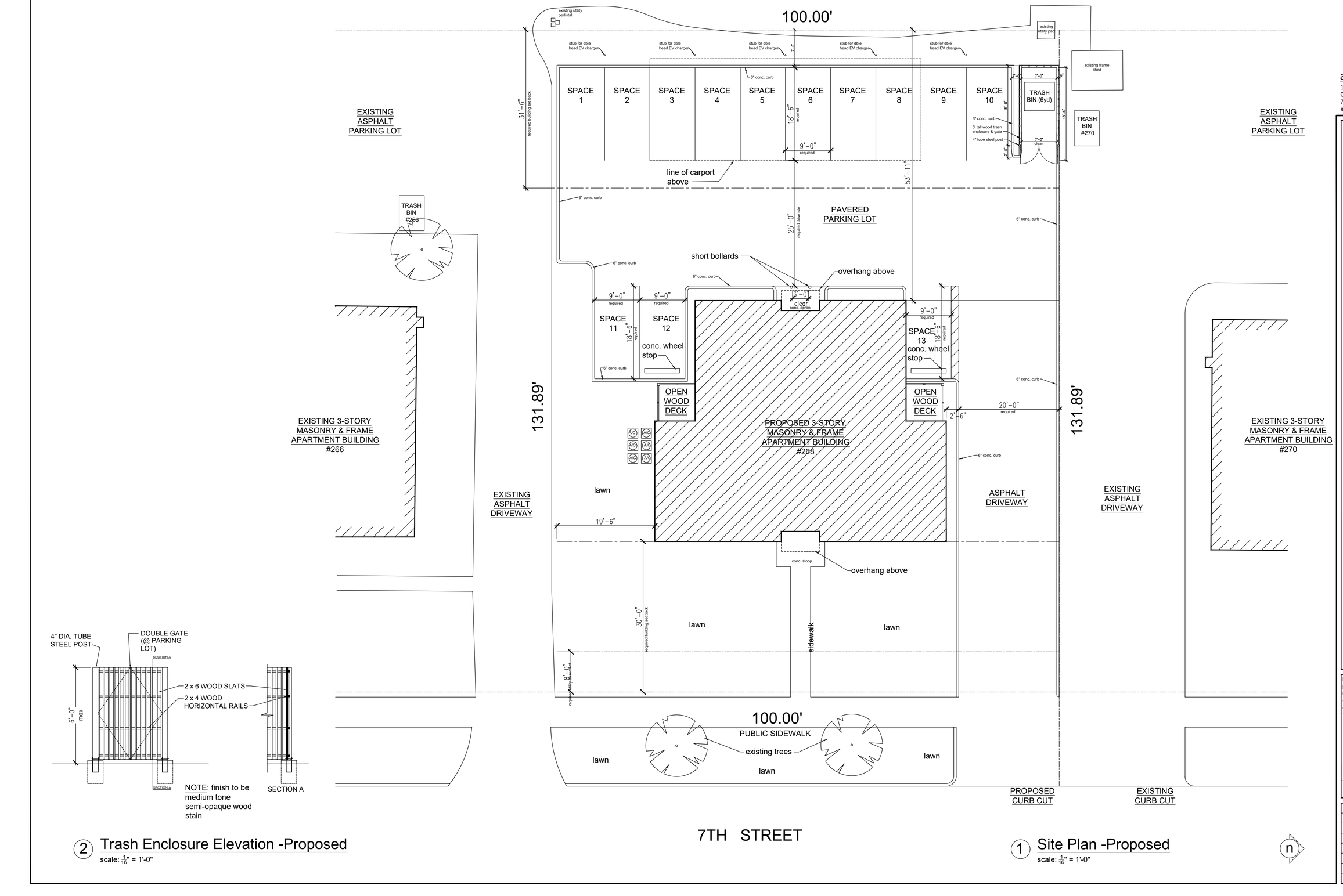
Should additional information or clarification be required, we are prepared to provide it promptly to avoid any delay in public review.

Respectfully submitted,

Krzysztof Gotkiewicz

Owner
268 7th Street
Wheeling, Illinois





2 Trash Enclosure Elevation -Proposed
scale: 1/16" = 1'-0"

1 Site Plan -Proposed
scale: 1/16" = 1'-0"

aMa-Architecture
11337 S. Forrestville Ave.
Chicago, IL 60628
773.580.2331
ann@aMa-Architecture.com

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

268 7th Street, Wheeling, IL 60009

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief, conform to the village of wheeling codes & ordinances

LICENSED ARCHITECT ANN M ALSPAUGH 001020234

license no. 1020234
expires: 11.30.2026

issue for review	12.16.24
drawn by: ama	site plan & details
checked by: ama	
date: 12.16.24	
rev:	a1.1

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Lincolnwood, IL. 60712
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info@civilandllc.com

CiviLand LLC

Design Firm 184.008369
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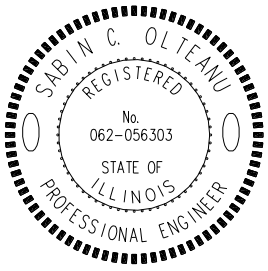
Stormwater Management Analysis And Report

Project Name: 6 Unit Apt. Development
Address: 268 7th Street
Municipality: Wheeling

September 1, 2023
Updated December 11, 2023
Revised February 7, 2024
Actualized May 16, 2024
Modified June 23, 2024
Permit November 26, 2024



Sabin Olteanu, PE

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SECTION **PAGE NO.**

1.0 PROJECT DESCRIPTION

2.0 MWRD 76-089 PERMIT REVIEW

3.0 DETENTION CALCULATIONS

4.0 SANITARY CALCULATIONS

5.0 MWRD PERMIT DETERMINATION LETTER

6.0 COST ESTIMATE SITE / LANDSCAPE

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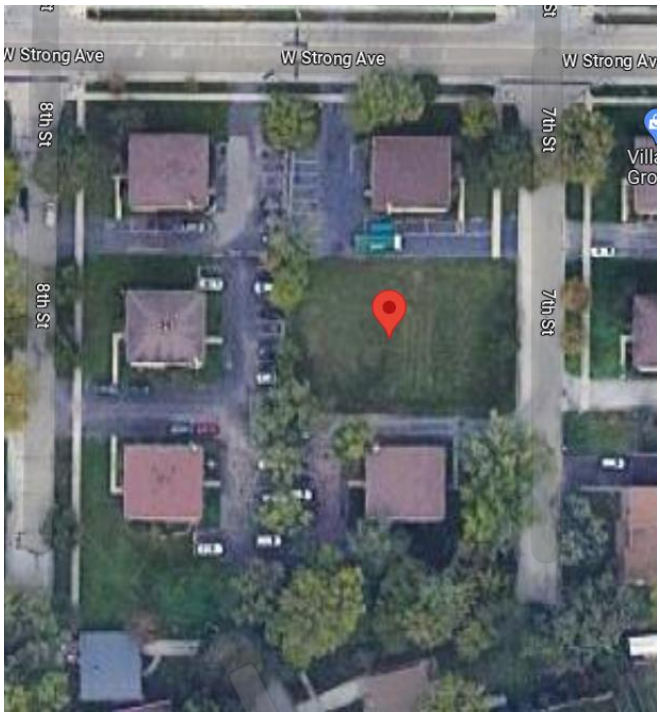
1.0 PROJECT DESCRIPTION

The proposed 6 Unit Apt. Development would consist of a building and afferent parking spaces and an access drive from 7th Street right of way; the rear area would be accessible from the neighboring paved areas from the south and north via an ingress/egress easement thus mimicking the conditions of similar existing developments just west and north of the site.
The proposed building and site configurations would integrate with the surrounding lots as the vacant lot is the only one undeveloped and being proposed with a similar function and form.



Subject Lot Aerial

As a side note some similar sites in the area seem to have a change of heart on this cross access and are blocking this common configuration, see photo below.

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Wheel stops blocking access at nearby lots.

Site infrastructure improvements (see preliminary engineering plans under separate cover) will include the construction of a sanitary service, a common water & fire service, stormwater drainage and detention facility.

2.0 MWRD 76-089 PERMIT REVIEW

As per MWRD's permit determination letter dated September 1, 2023, while an WMO permit is required for qualified sewer construction, there are no district provisions for runoff, volume control or detention as the properly holding is less than 0.5 acres.

As per review of MSDGC's permit 76-089 for 'Strong Ave. Watermain and Sanitary Sewer Ext.' there is evidence that the 0.303-acre subject site was omitted being served by a constructed stormwater detention reservoir and storage in storm sewer pipes as per Fig. 1.

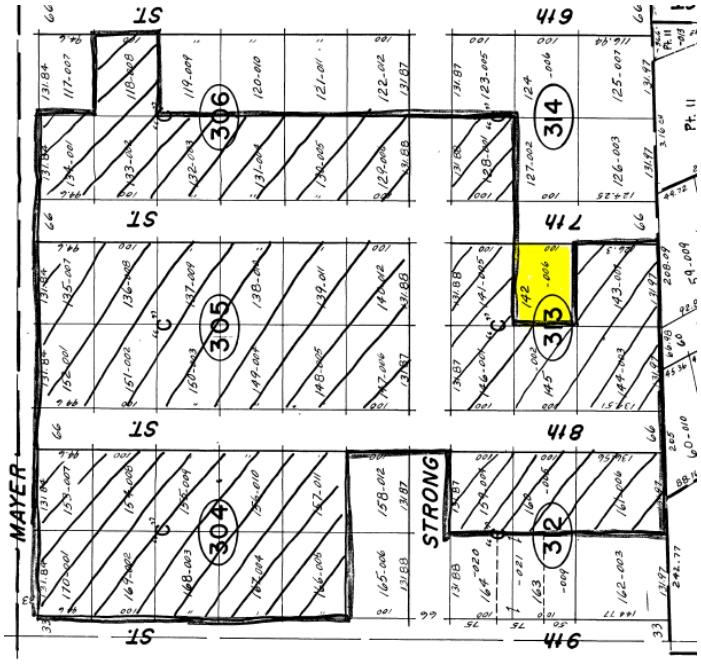

Figure 1. Subject Area showing Lot 142 omitted.

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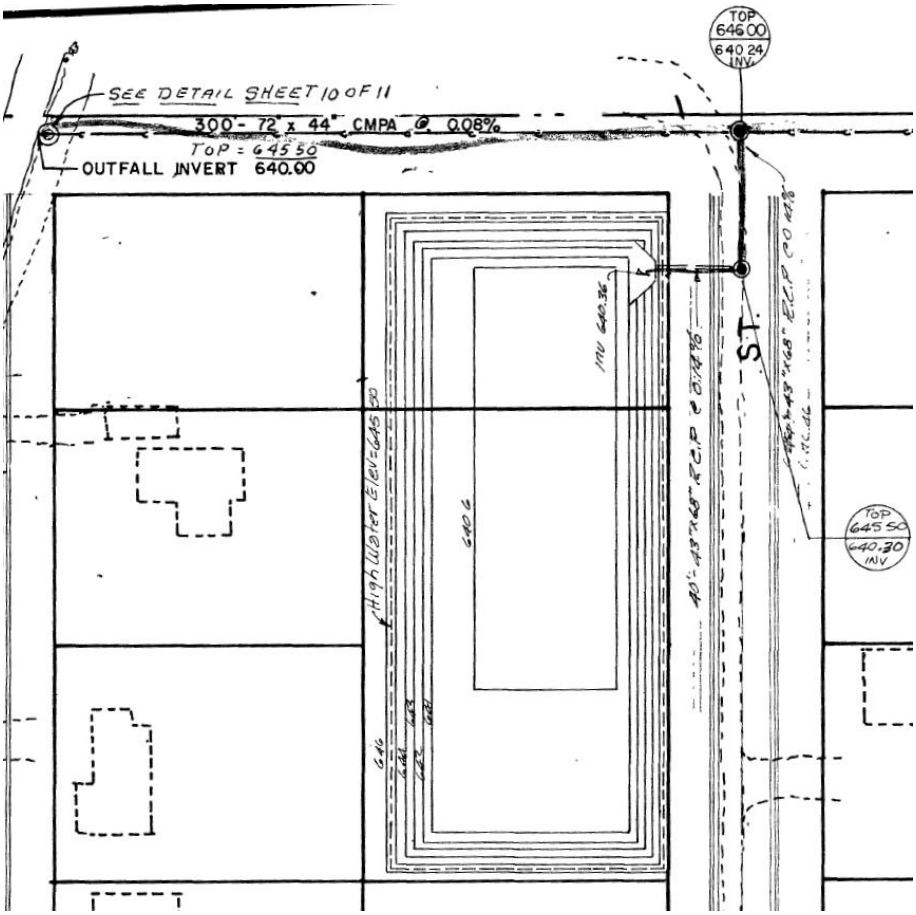
The overall private project accounted for drainage of a total area of 14.98 acres with 9.44 acres of impervious surface and provided 3.56 acre-ft of detention with an installed restrictor size of 6-inches. (MSDGC permit's Schedule A – Paragraph 7 and 8). Schedule A (Paragraph 8) also indicates that the detention was a local requirement. Schedule D (Line 11) indicates that a Village Allowable Release Rate of 0.15 cfs/acre was used - resulting in a 2.25 cfs design rate - and not the district applicable allowable release rate at the time of 4.49 cfs.
The Detention Review Sheet indicates that under MSDGC detention was not required (B, Line 7) but is provided (B, Line 8).

The constructed basin located at 11th Street, north of Strong Ave. was designed for a certain detention volume, yet the volume could not be verified. The datum indicated on plans is unclear and is pre-NAD 83 and as such a conversion should be used to lower the grades – yet the converted HWL of 645.50 would not be possible to be verified on plans, as the volume was not graded as per plans.

D. USGS DATUM USED

Note on 1975 plans as USGS DATUM USED.



1975 Design Pond (Unable to verify)

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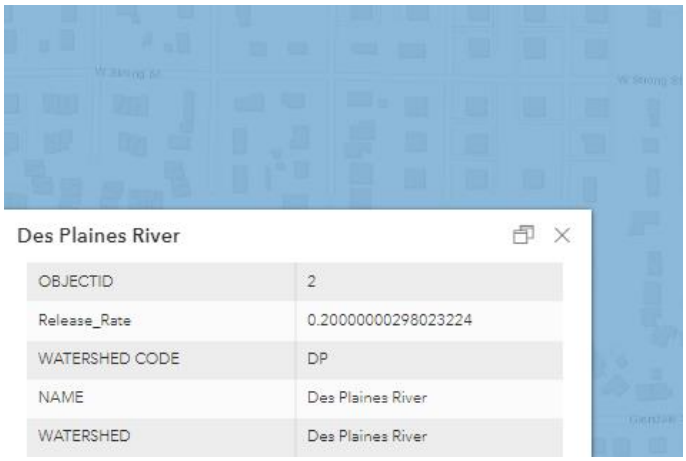
The current MWRD release rate for the Des Plaine River Watershed is 0.20 cfs/acre which is less restrictive than the 0.15 cfs/acre which was used – and this alone would create a positive balance for the constructed detention. In addition, while unclear how this affected the total detention volume provided, the storage in the pond itself was 2.85 acre-ft which was more than the 2.59 acre-ft needed. (See 'Actual Storage Volume' under the Worksheet for Detention Facility exhibit). But the 2023 verified volume was only 2.16 acre-ft.

1975 POND DESIGN VOLUME (AC.FT)	1976 AS-BUILT POND NOTED VOLUME (AC.FT)	2023 VERIFIED POND VOLUME (AC.FT)
2.59	2.85	2.16



Des Plaines River Watershed 0.2 cfs/acre

While 0.092 acres of impervious addition is proposed under this development (a 1.1% increase) the marked difference between the 0.20 cfs/acre rate required and the 0.15 cfs/acre release rate provided would have accounted for the site's development detention volume.

Development Area Information

Surface Type	Area (ac)	*SF*
PCC Surface (Access)	0.013	*585.00*
Pervious Pavers	0.129	*5,631.34*
Curbing	0.006	*242.50*
Roof (Building)	0.054	*2,369.33*
PCC Surfaces (Walk, Stoop, Flat)	0.008	*364.71*
Landscape	0.092	*3,997.12*
Total	0.303	*13,190.00*

Curb Length (LF) = 485.000

As it stands and as indicated in the MWRD permit determination letter the subject site was not and is not subject to an MWRD detention requirement and did not benefit from the village required and developer constructed stormwater detention from the 76-089 permit.

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3.0 DETENTION CALCULATIONS

Based on the finding from above a design for village required stormwater detention is proposed, see design calculations and preliminary plans. The villages restrictive rate of 0.15 cfs/acre (more restrictive than MWRD's release rate of 0.20 cfs/acre for the watershed) was used resulting in a required detention volume of 0.093 ac-ft (4,051 cu-ft). The village allowed for use of pervious pavement materials and stormwater detention in the clean gravel layer.

Impervious Areas	Proposed	C
Impervious	0.082	0.95
Semi-Impervious	0.129	0.70
Pervious	0.092	0.50
		0.707

Areas	**Acres**	**Release Rate**	
Redevelopment Area	0.303	0.15	*(Village)*
Net Allowable Release Rate (CFS)		***0.045***	

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MODIFIED RATIONAL METHOD: BULLETIN 75 RAINFALL DATA

PROJECT: 6 Unit Apt. Development **PERMIT NUMBER:**

LOCATION: 268 7th Street, Wheeling **DATE:** 11/18/2024

DEVELOPMENT INFORMTION

1. Detained Area	0.303	acres
2. Composite Runoff Coefficient	0.707	
3. Actual Release Rate	0.045	cfs

REQUIRED DETENTION VOLUME

4. Required Detention Volume	**0.093**	ac-ft

CALCULATION TABLE

Storm Duration	Rainfall Intensity (in/hr)	Inflow Rate (cfs)	Stored Rate (cfs)	Required Storage (ac-ft)	
5 min	12.36	2.65	2.60	0.018	
10 min	10.80	2.31	2.27	0.031	
15 min	9.28	1.99	1.94	0.040	
20 min	8.04	1.72	1.68	0.046	
30 min	6.34	1.36	1.31	0.054	
40 min	5.28	1.13	1.09	0.060	
50 min	4.55	0.97	0.93	0.064	
1 hr	4.03	0.86	0.82	0.068	
1.5 hr	3.03	0.65	0.60	0.075	
2 hr	2.49	0.53	0.49	0.081	
3 hr	1.83	0.39	0.35	0.086	
4 hr	1.48	0.32	0.27	0.090	
5 hr	1.25	0.27	0.22	0.092	
6 hr	1.07	0.23	0.18	0.091	
7 hr	0.96	0.21	0.16	0.093	←
8 hr	0.86	0.18	0.14	0.092	
9 hr	0.79	0.17	0.12	0.092	
10 hr	0.72	0.15	0.11	0.090	
11 hr	0.67	0.14	0.10	0.090	
12 hr	0.62	0.13	0.09	0.087	
18 hr	0.45	0.10	0.05	0.076	
24 hr	0.36	0.08	0.03	0.062	

Req. Detention	
0.093	ac-ft
4051.08	cu-ft

CIVILAND, PLLC
7011 N Tripp Ave.
Lincolnwood, IL. 60712
847.877.6900
info@civilandllc.com

CiviLand LLC

Design Firm 184.008369
www.civilandllc.com

Clean Gravel Layer

VOLUME TYPE	SURFACE AREA	DEPTH	TOP ELEV.	POROSITY	STORAGE	VOL. PROV.
V_A : COARSE AGGREGATE (CA-1)	5,631.34	0.50	647.00	0.36	$0.36XV_A$	1,013.64
V_A : COARSE AGGREGATE (CA-7)	5,631.34	1.50	646.50	0.36	$0.36XV_A$	3,040.92
			645.00	*Bottom Elev*		**4,054.56**

Pipe Storage

Pipe Length (ft)	Pipe Dia. (in)	Storage Volume (cu.ft.)
58.00	12	45.55
72.00	12	56.55
308.00	4	26.88
		128.98

Structure Info

No.	Type	Sump (ft)	HW Elev.	Inv. Elev.	Rim Elev.	Dia. (ft.)	Volume
1	CB	1.5	*646.50*	644.50	647.00	2	7.85
2	CB	1.5	*646.50*	644.25	647.00	4	34.56
3	CB	1.5	*646.50*	644.00	646.50	4	31.42
							73.83
PROVIDED DETENTION	**4257.37**	**cu-ft**					

ORIFICE DISCHARGE RATE

PROJECT: 6 Unit Apt. Development **PERMIT NUMBER:**

LOCATION: 268 7th Street, Wheeling **DATE:** 11/22/2024

RESTRICTOR INFORMTION

1. Orifice Number	1		
2. Orifice diameter, *d*	1.00	in	
3. Discharge Coefficient, C_d	0.61		
4. Invert Elevation	644.00	ft	
5. High Water Elevation, HWL	646.50	ft	
6. Tail Water Elevation	0.00	ft	

ACTUAL RELEASE RATE

6. Free Flow Actual Release Rate at HWL	**0.04**	cfs	
7. Submerged Actual Release Rate at HWL		cfs	

STAGE-DISCHARGE TABLE CONDITION (SELECT FROM DROP-DOWN)

Free-flow

STAGE-DISCHARGE TABLE

Elevation (ft)	Orifice 1 (cfs)	Orifice 2 (cfs)	Total (cfs)	
643.00	0.00		0.00	
643.50	0.00		0.00	
644.00	0.00		0.00	
644.50	0.02		0.02	
645.00	0.03		0.03	
645.50	0.03		0.03	
646.00	0.04		0.04	
646.50	0.04		0.04	HWL
647.00	0.05		0.05	
647.50	0.05		0.05	
648.00	0.05		0.05	
648.50	0.06		0.06	
649.00	0.06		0.06	

CiviLand LLC

Civiland LLC

847-877-6900
info@civilandllc.com

PROJECT 6 UNIT APT.
SUBJECT 268 7TH STREET
SHEET _____ OF _____
CALCULATED BY _____ DATE 12/11/23
CHECKED BY _____ DATE _____

ITEM		S.P. REQUIRED	
4.0 SAN. CALCS	MWRDGC SEWERAGE PERMIT APPLICATION		SCH. C

The proposed project is a multi family building - with 6 units.

Five units have 2 bedrooms and one unit has 1 bedroom. (5X2+1X1=11 BEDROOMS)

PE = 11 X 200 /100 = 22.00

Population Equivalent is a term used to evaluate the impact of waste on a treatment works or stream. One population equivalent is 100 gallons of sewage per day, containing 0.17 pounds of BOD_5 and 0.20 pounds of suspended solids. (From IEPA Division of Water Pollution Control, Permit Section Application.)

As per Title 77, Chapter I, Subchapter r, Part 905: Private Sewage Disposal Code of the Illinois Administrative Code:
Illustration A. Quantity of Sewage Flows:

TYPE OF ESTABLISHMENT	UNIT (per)	GALLONS PER DAY
MULTI-FAMILY	BEDROOM	200

SHEET TOTAL

PAY ITEM

TOTAL

Protecting Our Water Environment

Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET CHICAGO, ILLINOIS 60611-3154 312.751.5600

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Kari K. Steele
President
Patricia Theresa Flynn
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Yumeka Brown
Cameron Davis
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Eira L. Corral Sepúlveda
Mariyana T. Spyropoulos

September 1, 2023

Mr. Sabin Olteanu, P.E.
Civiland, PLLC
7017 North Tripp Avenue
Lincolnwood, IL 60712

Dear Mr. Olteanu:

Subject: Watershed Management Ordinance Permit Applicability
Multi-Family Residential Building
268 7th Street
Wheeling, IL

This is in response to your letter, dated August 21, 2023, requesting whether a Metropolitan Water Reclamation District (MWRD) Watershed Management Ordinance (WMO) permit will be required for the subject project. As described in your letter and shown on the submitted exhibit, the proposed project includes a new multi-family residential building and parking. Per your letter and electronic correspondence, dated August 22, 2023, the area of property holdings is 0.30 acre. Sanitary sewers are proposed.

Since the proposed project includes qualified sewer construction, a WMO permit will be required. §502 runoff, §503 volume control, and §504 detention provisions do not apply to multi-family residential property holdings less than 0.50 acre. Please submit a permit application, plan set, and applicable fees for our review and approval. Permit and plan documents shall be submitted electronically via our WPASS system. The procedures for electronic submissions, along with the WMO, Technical Guidance Manual, and permit forms can be found at www.mwrd.org/wmo.

This permit determination is dependent on the information provided and may change if the project scope is modified. If you have any questions, please email me at MihalacheC@mwrd.org.

Sincerely,

Constance Mihalache

Constance Mihalache, PhD, P.E.
Senior Civil Engineer

CM
cc: Patrick Horcher, Village of Wheeling
PD#140

6.0 COST ESTIMATE SITE

11/26/2024

Pay Item	Quantity	Unit	Unit for Pay	Unit Price	Unit	COST
Install Silt Fence	330	LF	330.00	$4.60	LF	$ 1,518.00
Stabilized Driveway, 6"	600	SF	11.11	$95.00	CY	$ 1,055.56
Temporary Erosion Blanket	3,781.48	SF	420.16	$2.25	SY	$ 945.37
Grading / Soil Removal	244.40	CY	24.44	$400.00	Load	$ 9,775.90
Sodding	1,570.33	SF	174.48	$10.55	SY	$ 1,840.78
6'' Topsoil	3,781.48	SF	420.16	$7.50	SY	$ 3,151.23
Site Landscaping	1.00	EACH		$15,000.00	EACH	$ 15,000.00
Conc Curb	485	LF	485.00	$25.00	FT	$ 12,125.00
C&G B-6.12 (ROW)	24	LF	24.00	$30.00	FT	$ 720.00
Prop PCC Pavement	585.00	SF	14.63	$80.00	TON	$ 1,170.00
Compacted CA-6 Base 6"	585.00	SF	65.00	$12.00	SY	$ 780.00
Pervious Pavers	5,631.34	SF	5631.34	$10.00	SF	$ 56,313.40
Clean Gravel (24")	5,631.34	SF	417.14	$56.50	CY	$ 23,568.20
PCC Sidewalk, 5" (Site)	364.71	SF	364.71	$12.50	SF	$ 4,558.88
PCC Sidewalk, 5" (ROW)	472	SF	472.00	$14.00	SF	$ 6,608.00
PCC Apron, 6"	242	SF	242.00	$15.00	SF	$ 3,630.00
Prop Storm 10" PVC Pipe	130.00	LF		$50.00	LF	$ 6,500.00
Prop Storm 8" C-900 Pipe	140.00	LF		$60.00	LF	$ 8,400.00
Prop 36" Storm CB	2	EACH		$3,000.00	EACH	$ 6,000.00
Prop. 48" Storm MH	1	EACH		$4,000.00	EACH	$ 4,000.00
Vortex Restrictor	1	EACH		$4,000.00	EACH	$ 4,000.00
4" Water Service	1	EACH		$7,500.00	EACH	$ 7,500.00
6" San. Service	1	EACH		$7,500.00	EACH	$ 7,500.00
Trench Backfill	130.00	CY		$17.00	CY	$ 2,210.00
					Total	**$ 188,870.31**
Performace Bond Needed (110%)						$ 207,757.34

6.0 LANDSCAPE COST ESTIMATE SITE *10/11/2024*

268 7TH Street

Pay Item	Quantity	Unit	Unit for Pay	Unit Price	Unit	COST
Shade Trees	5	EACH	5	$350.00	EACH	$ 1,750.00
Flowering Shrubs	67	EACH	67	$25.00	EACH	$ 1,675.00
Perennials	77	EACH	77	$15.00	EACH	$ 1,155.00
Screening	19	EACH	19	$20.00	EACH	$ 380.00
Sodding	1570	SF	174	$10.55	SY	$ 1,840.78
6'' Topsoil	77	SF	9	$50.00	SY	$ 427.78
Landscaping Installation	1	EACH	1	$5,000.00	EACH	$ 5,000.00
					Total	**$ 12,228.55**
Surety Bond Needed (110%)						$ 13,451.41

Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building

268 7th Street, Wheeling, IL 60009

scope of work

Proposed new 6-unit 3-story brick & frame building. 1 & 2 bedroom apartment units with individual washer/dryer, furnace, water and private exterior deck/patio. New paved driveway & lighted parking including (1) covered accessible parking space. Full coverage fire suppression sprinkler system and alarm system.

Lot	Required	Provided	Remarks
size	20,000 s.f.	13,190 s.f.	approved by village board ordinance #2895, passed 7/09/1993
width	125'-0" (min)	100'-0"	approved by village board ordinance #2895, passed 7/09/1993
depth	125'-0" (min)	131'-11"	
Setbacks & Height			
north	30'-0" (min)	22'-6"	need variance
east	30'-0" (min)	30'-0"	ok
south	30'-0" (min)	19'-6"	need variance
west	30'-0" (min)	53'-11"	ok
bldg. ht.	35'-0" (max)	35'-0"	ok
Density			
	20 units (max)	6 units	ok
Parking			
1-bedroom	1.7 (min)	1.7 x 1 = 2	ok
2-bedroom	2.2 (min)	2.2 x 5 = 11	ok
visitor	5.0 (min)	0	need variance
Floor Areas			
1-bedroom	675.0 sf (min)	678.8 sf	(1) proposed
2-bedroom	800.0 sf (min)	896.3 sf	(5) proposed

Statistics	
land area	131.89' x 100.0' =13,189.0 s.f
building area	2,369.3 sf x 3 floors = 7,107.9 sf
land coverage	2,369.3 sf / 13,189.0 sf = 17.96%
impervious area	6,906.26 sf / 13,189.0 sf = 52.36%
landscape area	3,914.41 sf / 13,189.0 sf = 29.68%

building codes (+ local amendments)

International Building Code 2018
International Residential Code 2018
International Fire Code 2018
International Fuel Gas Code 2018
International Mechanical Code 2018
National Electrical Code 2017 (NFPA 70)
Illinois State Plumbing Code 2014
Illinois State Energy Conservation Code 2018
Illinois Accessibility Code 2018

drawing index

a1.0 title sheet
a1.1 site plan
a1.2 general notes & specifications

a2.0 foundation & first floor plans
a2.1 second & third floor plans
a2.2 attic floor & roof plans
a2.3 exterior elevations & typical wall section
a2.4 exterior elevations & brick details
a2.5 2nd & 3rd floor framing
a2.6 attic floor & roof framing

e1.0 electrical notes & specifications
e2.0 first & second floor power & light plans
e2.1 third floor power & light plan

m2.0 first floor HVAC plan & schedules
m2.1 second & third floor HVAC plans

p1.0 plumbing risers & diagrams

Due to the fact that these plans are a limited scope contract document, the architect will not be making on-site inspections to check the quality of the work being performed. The architect will not be responsible for, nor have control over, or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and and programs in connection with the work. The architect will not be responsible for the contractors failure to carry out the work in accordance with the contract documents. The architect will not be responsible for or have control over acts or omissions of the contractor, subcontractors, or for any other persons performing any of the work.



Existing Site -Looking North-West



Proposed -Looking South-West

aMa-Architecture
11337 S. Forrestville Ave.
Chicago, IL 60628
773.580.2331
ann@aMa-Architecture.com

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH CONSTRUCTION AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS.

Proposed New 6-Unit 3-Story Masonry & Frame Apartment Building
268 7th Street, Wheeling, IL 60009

I hereby certify that these plans were prepared under my direction and to the best of my knowledge and belief, conform to the village of wheeling codes & ordinances

LICENSED ARCHITECT
ANN M ALSPAUGH
001020234

license no. 1020234
expires: 11.30.2026

issue for review	12.16.24
drawn by: ama	title sheet
checked by: ama	
date: 12.16.24	
rev:	a1.0

MEMORANDUM

DATE: March 11, 2026
FROM: Marcy Knysz, Village Planner
SUBJECT: Docket No. PSU25-0012, Request for Special Use Approval to Permit the Operation of an Entertainment Establishment ("604 The Arena") for Hamro Investment Group, LLC (604 N. Milwaukee Avenue). **PUBLIC HEARING**
RECOMMENDED ACTION: **Recommend approval of Docket No. PSU25-0012,** granting Special Use approval to permit the operation of an entertainment establishment to be known as “604 The Arena” by Hamro Investment Group, LLC, (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004) to be located at 604 N. Milwaukee Avenue, as required under Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19-10 Use Regulations, and associated sections; and in accordance with the Project Narrative prepared by Manish Chaudhary, dated 1/29/2026; Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026; Floor Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; and subject to the following conditions:

1. Special Use approval is contingent upon approval of Docket No. PV26-0003 (variation to permit a reduction in the minimum required parking stall length); Docket No. PV26-0004 (variation to permit a reduction in the minimum required drive aisle width); and Docket No. PSPMAJ25-0001 (major site plan and appearance approval for a building addition and related site improvements).

2. No construction permits of any kind shall be issued for any work to be conducted at the subject site before a shared access and parking agreement between the petitioner and the property owner of the adjacent southern Parcel Index Number 03-02-200-048-0000 (commonly addressed as 562 N. Milwaukee Avene) is submitted to the Community Development Department, allowing for the petitioner’s access and use of the surface parking facility at 562 N. Milwaukee Avenue. Upon acceptance of any shared parking agreement by the Director of Community Development, said agreement shall be executed and recorded with the Cook County Clerk’s Office.

3. The special use shall be operated in substantial compliance with the Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Engineering Plans prepared by Morris Engineeirng, Inc., last revised 1/16/2026; Landscape Plan prepared by G Studio, last revised 1/20/2026; Lighting Plan prepared by PG Enlighten, last revised 1/20/2026; and Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026 except as modified by the Plan Commission or Village Board.

EXECUTIVE SUMMARY

Docket No. PSU25-0012: Hamro Investment Group, LLC (2604 N, Chapel Hill Drive, Arlington Heights, IL 60004), property owner, is seeking special use approval to permit the operation of an entertainment establishment, for the property located at 604 N. Milwaukee Avenue, which is zoned MXC, Commercial/Residential Mixed Use, pursuant to Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19.10 Use Regulations, and associated sections.

GENERAL PROPERTY INFORMATION
Petitioner: Hamro Investment Group, LLC

Location: 604 N. Milwaukee Avenue
Property size: 66,999 sq. ft. (1.54 acres)

Building size: 8,000 sq. ft. / 4,950 sq. ft. building addition (Docket No. PSPMAJ25-0001)

Neighboring Property Land Use(s):
North: Multi-tenant Industrial/Vacant Land
West: Multi-tenant Industrial
South: Multi-tenant Industrial/Parking Lot/Old Munich Tavern

Existing Use of Property: Commercial retail space (vacant, former Buca di Beppo)

Existing Zoning: MXC, Commercial/Residential Mixed Use

Comprehensive Plan Designation: Commercial/Residential Mixed Use

Zoning History:

- Ordinance #1428, approved 6/14/1976, granting a sign variation (Docket No. 422).
- Docket No. PC-303, approved 9/22/1994, granting appearance approval of architectural, landscape, lighting and signage.
- Ordinance #2991, approved 10/3/1994, granting special use and site plan approval for a restaurant with live music for Yvette North (Docket No. 1994-28).
- Ordinance #3187, approved 1/6/1997, granting special use and suite plan approval for a restaurant with live music for Buca di Beppo (Docket No. 1996-36).
- Docket No. PC-363, approved 5/8/1997, granting appearance approval for a sign for Buca di Beppo.
- Docket No. PC-504, approved 12/9/1999, granting appearance approval for a sign for Buca Little Italy.
- Docket No. PC-541, approved 2/8/2001, granting appearance approval of a restaurant expansion and added parking.
- Docket No. SCBA-011, approved 10/11/2001, granting approval of a freestanding sign face change.
- Ordinance #1193, approved 7/10/1972, granting a rezoning from the I-1 to the B-4 Zoning District (Docket No. 304).
- Ordinance #3533, approved 2/26/2001, granting special use and site plan approval for a restaurant with live music (Docket No. 2001-7A).
- Ordinance #3534, approved 2/26/2001, granting a variation for the pavement setback (Docket No. 2001-7B).
- Ordinance #3535, approved 2/26/2001, granting a variation to permit 2 freestanding signs along Milwaukee Avenue (Docket No. 2001-7C).

SUMMARY OF REQUEST

Hamro Investment Group, LLC is requesting special use approval for the operation of an entertainment establishment to be known as “604 The Arena”, within the former Buca di Beppo (Buca) restaurant located 604 N. Milwaukee Avenue.

Associated with the special use request, the petitioner seeks additional zoning approvals for major site plan and appearance approval for a building addition and associated site improvements (Docket No. PSPMAJ25-0001) and variations associated with proposed parking lot changes (Docket No’s. PV26-0003 & PV26-0004).

SPECIAL USE ANALYSIS

A Special Use is the use of land in which, because of their unique characteristics, cannot ordinarily be allowed in a particular zoning district without consideration of their impact upon neighboring land uses and would not be detrimental to the public health, safety or general welfare. After review of the Standards summarized in this staff report, the Commission may impose reasonable restrictions that make the special use more compatible for the zoning district in which it is located, which may include conditions related to site plan aspects to mitigate adverse effects.

The proposed “604 The Arena” entertainment establishment would repurpose the existing Buca restaurant building

to provide a new venue offering a full-service restaurant with outdoor dining, a bar area, video gaming terminals, virtual reality (VR) gaming stations, an arcade area, cricket simulators and golf simulators.

The proposed hours of operation are identified as Monday through Thursday from 11:00 AM to 10:00 PM, and Friday through Saturday from 11:00 AM to 12:00 AM. The petitioner anticipates employing approximately 35 to 40 full-time employees, as outlined in the submitted Project Description Letter.

To accommodate the proposed entertainment establishment's uses, a 4,977 square-foot addition would be constructed to the west of the existing building. To support the additional floor area and associated increase in occupancy, the parking lot would also be expanded at the northwest corner of the property, as fully detailed in the staff report for Docket No. PSPMAJ25-0001. In 2001, Buca acquired the property directly south of the restaurant parcel (562 N. Milwaukee Avenue) to increase available parking. The petitioner does not own the southern parking lot parcel and is currently securing a parking agreement with the owner to use the parking lot consistent with the prior ownership of Buca. As a result, staff has included a condition of approval that no construction permits of any kind shall be issued until a shared parking agreement amongst both property owners is submitted and approved by the Director of Community Development.

The proposed entertainment venue use is consistent with the MXC, Commercial/Residential Mixed Use Zoning District and the Comprehensive Land Use designation of Commercial/Residential Mixed Use for the subject site.

Standards for Special Use: The petitioner has submitted the following responses to the standards for special use. (Any staff comments follow the petitioner's response)

1. **State why the Special Use is necessary for the public convenience at the proposed location.**
   Petitioner: The proposed Cricket Sports & Family Entertainment Center is necessary and desirable to serve the public convenience and general welfare of the Village of Wheeling by providing a unique, family-oriented recreational facility not currently available in the area. It will offer immersive cricket simulators, virtual reality gaming, and flexible event spaces, allowing residents to enjoy healthy, interactive entertainment locally. The project will create approximately 20–30 local jobs, increase foot traffic for surrounding businesses, expand the local tax base, and revitalize a long-vacant commercial property in support of Wheeling's economic development and quality-of-life goals.

   Staff: The proposed location within the MXC, Commercial/Residential Mixed Use Zoning District permits entertainment establishments subject to the granting of a Special Use. Given its location within an existing commercial building and in proximity to other commercial and residential uses, the proposed use is consistent with the mixed-use intent of the MXC District.

2. **State how the Special Use will not alter the essential character of the area in which it is to be located.**
   Petitioner: The proposed Cricket Sports & Family Entertainment Center will operate in a safe, responsible, and family-oriented manner and will not be detrimental to the health, safety, morals, or general welfare of the surrounding area or the Village. All activities will be conducted indoors with controlled hours, on-site management, and appropriate security, ensuring that noise, lighting, and operations do not impact neighboring properties. The facility will comply with all applicable building, fire, and life-safety codes, and parking and traffic will be accommodated within the existing site. By reusing and improving a vacant commercial property, the project will enhance the area's appearance and support stable or improved property values.

   Staff: The use will be commercial in nature and is consistent with the intent of the MXC District. The proposed use will not alter the essential character of the area, as the use maintains the commercial nature of the site.

3. **State how the location and size of the Special Use, the nature and intensity of the operation involved in or conducted with it, the size of the site in relation to it, and the location of the site with respect to streets giving access to it will be in harmony with and not impede the normal, appropriate and orderly development of the district in which it is to be located and the development of surrounding properties.**
   Petitioner: The proposed Cricket Sports & Family Entertainment Center will not interfere with the normal and orderly development of surrounding properties permitted within the district. The use is compatible with existing commercial and entertainment uses in the area and will operate within an existing building using established infrastructure and parking. By revitalizing an underutilized commercial property, the project will complement surrounding development and support continued investment without limiting future development opportunities for nearby properties.

Staff: The proposed entertainment establishment is consistent with the mixed-use character intended by the MXC District. The intensity of the operation is comparable to other service and recreational uses permitted within the district through special use approval. The special use will not interfere with the normal or orderly development of adjacent commercial properties and will operate in harmony with surrounding land uses.

4. **State how the location, nature and height of buildings, walls and fences, and the nature and extent of the landscaping on the site shall be such that the use will not hinder or discourage the appropriate development and use of adjacent land and buildings, or will not impair the value thereof.**
   Petitioner: The proposed Cricket Sports & Family Entertainment Center will be adequately served by existing streets, utilities, drainage, and refuse services already in place for the commercial site. No new or expanded public infrastructure will be required. Police and fire services will continue to serve the property, and the facility will comply with all applicable building, fire, and life-safety codes. The proposed use will not place an undue burden on municipal services or public facilities.

   Staff: The proposed site improvements, including façade changes and added landscaping, will enhance the subject site and continue the site's consistency with the commercial character of the corridor. The proposed use is not expected to hinder or discourage the appropriate development or use of adjacent properties, nor impair surrounding property values.

5. **State how the parking areas will be of adequate size for the particular use, properly located and suitably screened from adjacent residential uses, entrance and exit drives shall be laid out so as to prevent traffic hazards and nuisances and the development will not cause traffic congestion.**
   Petitioner: The proposed Cricket Sports & Family Entertainment Center will not cause undue traffic congestion or direct significant traffic through residential streets. The facility will be served by existing access points and adequately sized parking areas designed for safe entry, exit, and circulation. Driveways and parking areas will be properly laid out to prevent traffic hazards, minimize congestion, and avoid creating nuisance for neighboring properties. Traffic generated by the facility is consistent with typical commercial and entertainment uses in the area and can be accommodated safely within the existing street network.

   Staff: As identified, the proposed use will generate an increase in required on-site parking spaces, which will not be sufficiently provided for on the subject site. However, the adjacent parking lot immediately to the south was constructed by the prior property owner with the intent to provide expanded parking needs. As the petitioner does not own the southern parking lot, it is necessary and essential that both property owners develop a shared parking agreement to satisfy Village parking requirements. As a result, staff has included a condition of approval that the proposed use cannot occur through the withholding of any construction permits until a shared parking agreement is submitted and approved by the Director of Community Development.

6. **State how the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulation in that zone.**
   Petitioner: The proposed Cricket Sports & Family Entertainment Center will fully comply with all regulations and stipulations for its use. The facility will meet all applicable zoning requirements, building codes, fire and life-safety codes, and accessibility standards. Any specific requirements tied to entertainment or recreational uses, including occupancy limits and safety protocols for simulators and VR equipment, will be strictly followed. There are no known exceptions to the regulations, and the project will ensure ongoing compliance through professional management and regular inspections.

   Staff: The proposed use is consistent with the MXC, Commercial/Residential Mixed Use Zoning District and the Comprehensive Land Use designation of Commercial/Residential Mixed Use.

STAFF REVIEW

Fire Department Review: No outstanding comments from the Fire Department.

Engineering Division Review: No outstanding comments from the Engineering Division.

Staff Recommended Action: Staff recommends approval of the special use, subject to the following conditions:

1. Special Use approval is contingent upon approval of Docket No. PV26-0003 (variation to permit a reduction in the minimum required parking stall length); Docket No. PV26-0004 (variation to permit a reduction in the

minimum required drive aisle width); and Docket No. PSPMAJ25-0001 (major site plan and appearance approval for a building addition and related site improvements).

2. No construction permits of any kind shall be issued for any work to be conducted at the subject site before a shared access and parking agreement between the petitioner and the property owner of the adjacent southern Parcel Index Number 03-02-200-048-0000 (commonly addressed as 562 N. Milwaukee Avenue) is submitted to the Community Development Department, allowing for the petitioner's access and use of the surface parking facility at 562 N. Milwaukee Avenue. Upon acceptance of any shared parking agreement by the Director of Community Development, said agreement shall be executed and recorded with the Cook County Clerk's Office.

3. The special use shall be operated in substantial compliance with the Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Engineering Plans prepared by Morris Engineering, Inc., last revised 1/16/2026; Landscape Plan prepared by G Studio, last revised 1/20/2026; Lighting Plan prepared by PG Enlighten, last revised 1/20/2026; and Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026 except as modified by the Plan Commission or Village Board.

******

If the Plan Commission finds that the petitioner has satisfied the requirements for the granting of a special use, the appropriate motion would be to:

Recommend approval of Docket No. PSU25-0012, granting Special Use approval to permit the operation of an entertainment establishment to be known as "604 The Arena" by Hamro Investment Group, LLC, (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004) to be located at 604 N. Milwaukee Avenue, as required under Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19-10 Use Regulations, and associated sections; and in accordance with the Project Narrative prepared by Manish Chaudhary, dated 1/29/2026; Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026; Floor Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; and subject to the following conditions:

1. Special Use approval is contingent upon approval of Docket No. PV26-0003 (variation to permit a reduction in the minimum required parking stall length); Docket No. PV26-0004 (variation to permit a reduction in the minimum required drive aisle width); and Docket No. PSPMAJ25-0001 (major site plan and appearance approval for a building addition and related site improvements).

2. No construction permits of any kind shall be issued for any work to be conducted at the subject site before a shared access and parking agreement between the petitioner and the property owner of the adjacent southern Parcel Index Number 03-02-200-048-0000 (commonly addressed as 562 N. Milwaukee Avenue) is submitted to the Community Development Department, allowing for the petitioner's access and use of the surface parking facility at 562 N. Milwaukee Avenue. Upon acceptance of any shared parking agreement by the Director of Community Development, said agreement shall be executed and recorded with the Cook County Clerk's Office.

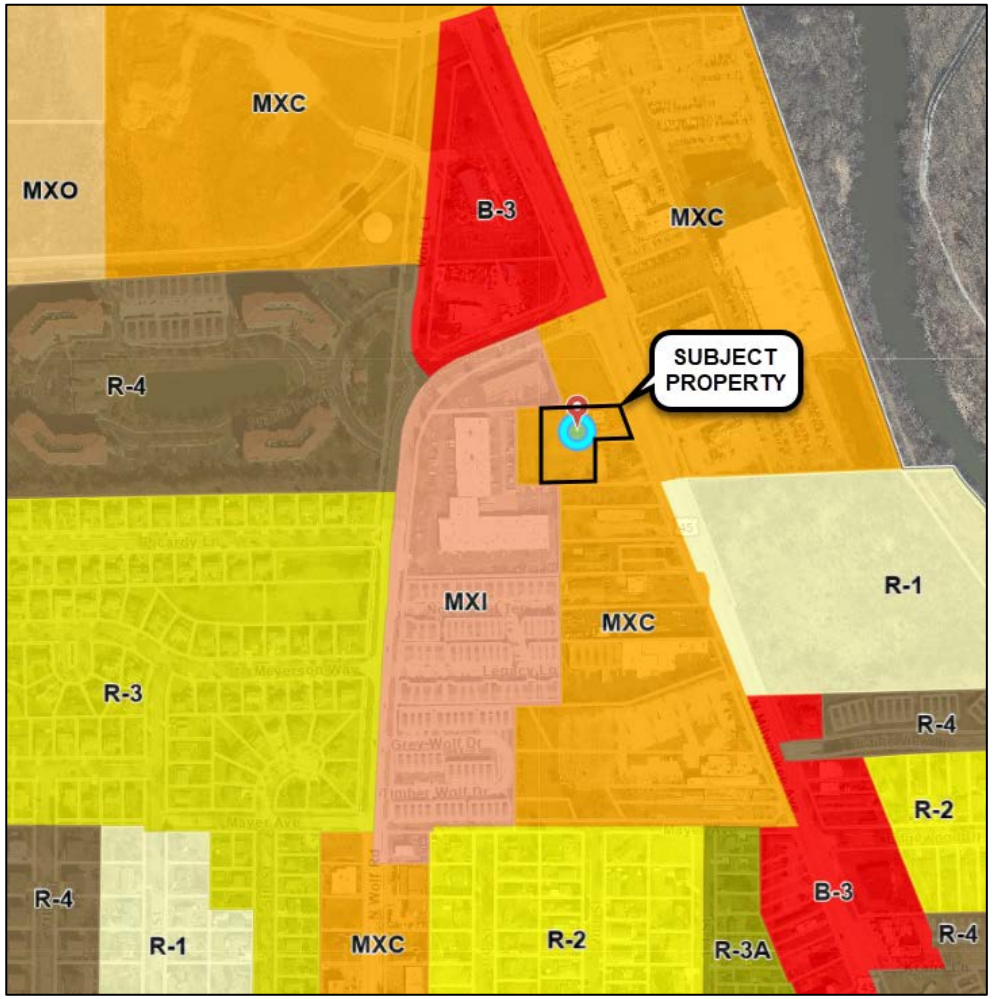
3. The special use shall be operated in substantial compliance with the Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Engineering Plans prepared by Morris Engineering, Inc., last revised 1/16/2026; Landscape Plan prepared by G Studio, last revised 1/20/2026; Lighting Plan prepared by PG Enlighten, last revised 1/20/2026; and Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026 except as modified by the Plan Commission or Village Board.

ATTACHMENTS:

Attachments to Staff Report (Staff)
Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026
Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026
Floor Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026



Location Map



Zoning Map



South Façade of Existing Building



North Façade of Existing Building



Entrance Drive off Milwaukee Avenue



Existing Parking Lot



Existing Parking Lot Island



Existing Trees Along West Property Line



North Side of Building

HAMRO INVESTMENT GROUP
1/29/2026

Village of Wheeling
Community Development Department
Zoning Board of Appeals
2 Community Boulevard
Wheeling, IL 60090

Subject: – Zoning Board Approval Request for 604 Milwaukee Ave

Dear Members of the Wheeling Zoning Board of Appeals,

I respectfully submit this letter and project narrative on behalf of **HAMRO INVESTMENT GROUP** in support of our request for zoning board approval to redevelop the **currently vacant lot at 604 Milwaukee Ave** into a vibrant, family-friendly sports and entertainment center featuring the **only cricket simulator in Illinois and only the second of its kind in the United States**.

Overview of Proposal

We propose to transform this underutilized property into a dynamic mixed-use venue offering:

- The **only cricket simulation bays in Illinois**, a signature attraction for cricket enthusiasts and families across the region
- Gulf Simulation
- Casual dining restaurant and full-service bar
- VR gaming zones
- Arcade and kids' play area
- Adult gaming lounge with ID check and supervision

Our project will help **revitalize Milwaukee Avenue** by activating a vacant site with an engaging, modern facility that meets community needs for entertainment, dining, and social gathering.

Background and Community Benefit

Today, 604 Milwaukee Ave is a vacant lot generating no sales tax, jobs, or visual appeal for the corridor. Our project will convert it into an **active, attractive, and tax-generating community asset**.

Key benefits include:

- **Unique destination:** The first and only cricket simulation center in Illinois (and only the second in the USA), delivering a signature draw that distinguishes Wheeling from neighboring suburbs.
- **Local job creation:** 30-35 full-time equivalent jobs, spanning hospitality, culinary, entertainment, and management roles.
- **Economic impact:** New sales tax revenue and increased visitor foot traffic supporting nearby businesses.
- **Neighborhood enhancement:** Professional landscaping, lighting, signage, and a modern building façade to improve the area's visual character.
- **Community engagement:** Opportunities for leagues, kids' parties, corporate team-building, and family events.

HAMRO INVESTMENT GROUP is committed to hiring locally, sourcing from nearby vendors where possible, and supporting Wheeling's economic growth and vibrancy.

Operational Details

Hours of Operation:

- Sunday–Thursday: 11:00 AM – 10:00 PM
- Friday–Saturday: 11:00 AM – 12:00 AM

Staffing Plan:

We plan for 30–40 staff on-site daily, ~35–40 FTE overall.

Department / Area	Roles / Functions	Estimated FTE
Cricket and Gulf Simulator Bays	Operators / Attendants	4-5
VR Zone	VR Tech / Game Attendants	2-3
Arcade & Kids Zone	Supervisors / Technicians	2-3
Adult Gaming Section	Attendants / Cashiers	2-3

Group Party in dining Hall	Event Coordinators + Support Staff	3-4
Restaurant & Kitchen	Head Chef, Cooks, Dish, Prep	4-5
Front-of-House (FOH)	Servers, Bartenders, Hosts	4-5
Reception / Front Desk	Booking Agents / Customer Service	2-3
Cleaning & Maintenance	Janitorial / Equipment Cleaning	3–4
Management/Admin	General Manager, Assistant Managers	3–4
Marketing & social media	Promotions & Events (PT/FT)	1–2
Security	Evening Doorman / Outsourced Option	1–2

Number of Seats

- Restaurant/Casual Dining: 80 occupants
- Bar Area: 26 occupants
- Small dining area 20 occupants
- Gaming/Arcade/VR/Billiards: variable/active use seating

Parking and Site Improvements

Parking Provided:

- 87 on-site parking spaces (new layout)
- 24 new offsite parking spaces to the south (secured via formal agreement)
- **Total available parking:** 111 spaces
- 11 dedicated bicycle parking spaces

Parking Demand Calculations:

- Casual Dining: 80 occupants / (3 seats per space) = ~27 spaces
- Small dining Room (existing): 20 occupants / (3 seats per space) = ~7 spaces
- Bar: 26 occupants / (3 seats per space) = ~9 spaces
- Gaming Room: 6 seats / (3 seats per space) = 2 spaces
- Arcade: 9 seats / (3 seats per space) = 3 spaces
- VR Rooms (similar to golf driving range): 2 spaces (1 per room)
- VR Stations: 2 spaces (3 seats per space)
- Gulf Simulation : 2 spaces (2 spaces/table)

- Cricket Simulators (Similar to bowling lanes): 16 spaces (4 spaces/lane)
- Employees: ~20 spaces (1 per employee)

Total calculated need: 90 spaces—fully met by our proposed layout.

Site Improvements:

- New landscaping, lighting, signage, and building facade
- Clearly marked ADA-compliant entrances and paths
- Bike parking and pedestrian-friendly design

Nature of Proposed Land Use

We are requesting zoning board approval for **mixed-use commercial entertainment and restaurant** use at 604 Milwaukee Ave.

This proposed use aligns with Wheeling's goals to:

- Revitalize vacant, non-productive lots
- Increase local employment opportunities
- Enhance family-friendly destination options
- Support corridor beautification and economic development

Our design will ensure responsible operations with controlled noise, accessible facilities, ample parking, and strong integration with the existing neighborhood.

Conclusion

Approval of this project will allow the Village of Wheeling to gain:

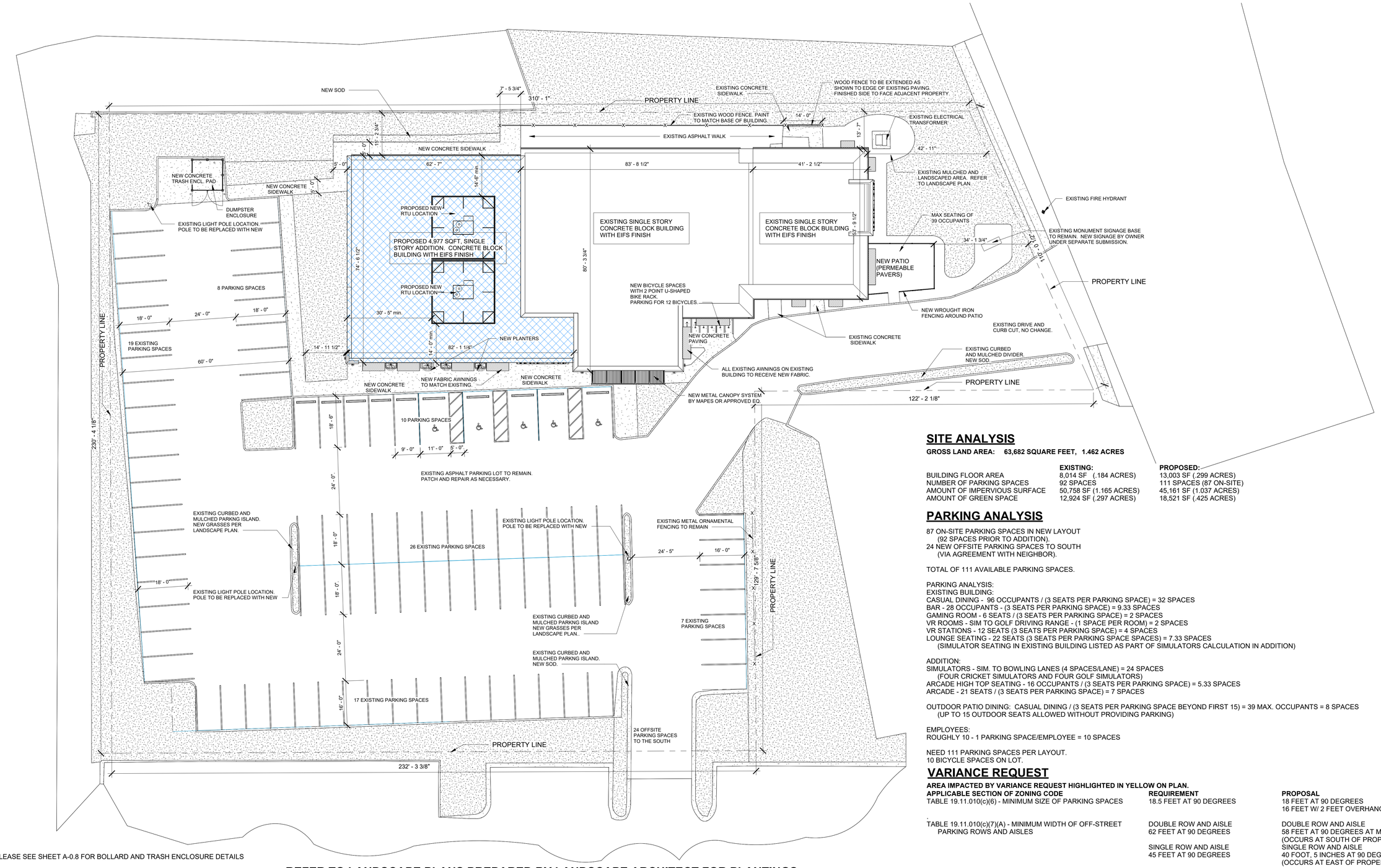
- Activation of a vacant lot into a productive, attractive asset
- Illinois' first and only cricket simulator—a true regional draw
- Dozens of local jobs in a wide range of roles
- New sales tax revenue and support for nearby businesses
- A visually appealing, modern, family-friendly entertainment and dining venue

Thank you for your time and consideration of this proposal. We are happy to provide any additional details, answer questions, or present to the Board in person.

Sincerely,

Manish Chaudhary
Managing Partner
HAMRO INVESTMENT GROUP

PROPOSED SITE PLAN



*PLEASE SEE SHEET A-0.8 FOR BOLLARD AND TRASH ENCLOSURE DETAILS

1 / A-0.5 Level 1 - PROPOSED SITE DIAGRAM
1/16" = 1'-0"

SITE ANALYSIS

GROSS LAND AREA: 63,682 SQUARE FEET, 1.462 ACRES

	EXISTING:	PROPOSED:
BUILDING FLOOR AREA	8,014 SF (.184 ACRES)	13,003 SF (.299 ACRES)
NUMBER OF PARKING SPACES	92 SPACES	111 SPACES (87 ON-SITE)
AMOUNT OF IMPERVIOUS SURFACE	50,758 SF (1.165 ACRES)	45,161 SF (1.037 ACRES)
AMOUNT OF GREEN SPACE	12,924 SF (.297 ACRES)	18,521 SF (.425 ACRES)

PARKING ANALYSIS

87 ON-SITE PARKING SPACES IN NEW LAYOUT
(92 SPACES PRIOR TO ADDITION).
24 NEW OFFSITE PARKING SPACES TO SOUTH
(VIA AGREEMENT WITH NEIGHBOR).

TOTAL OF 111 AVAILABLE PARKING SPACES.

PARKING ANALYSIS:
EXISTING BUILDING:
CASUAL DINING - 96 OCCUPANTS / (3 SEATS PER PARKING SPACE) = 32 SPACES
BAR - 28 OCCUPANTS - (3 SEATS PER PARKING SPACE) = 9.33 SPACES
GAMING ROOM - 6 SEATS / (3 SEATS PER PARKING SPACE) = 2 SPACES
VR ROOMS - SIM TO GOLF DRIVING RANGE - (1 SPACE PER ROOM) = 2 SPACES
VR STATIONS - 12 SEATS (3 SEATS PER PARKING SPACE) = 4 SPACES
LOUNGE SEATING - 22 SEATS (3 SEATS PER PARKING SPACE SPACES) = 7.33 SPACES
(SIMULATOR SEATING IN EXISTING BUILDING LISTED AS PART OF SIMULATORS CALCULATION IN ADDITION)

ADDITION:
SIMULATORS - SIM. TO BOWLING LANES (4 SPACES/LANE) = 24 SPACES
(FOUR CRICKET SIMULATORS AND FOUR GOLF SIMULATORS)
ARCADE HIGH TOP SEATING - 16 OCCUPANTS / (3 SEATS PER PARKING SPACE) = 5.33 SPACES
ARCADE - 21 SEATS / (3 SEATS PER PARKING SPACE) = 7 SPACES

OUTDOOR PATIO DINING: CASUAL DINING / (3 SEATS PER PARKING SPACE BEYOND FIRST 15) = 39 MAX. OCCUPANTS = 8 SPACES
(UP TO 15 OUTDOOR SEATS ALLOWED WITHOUT PROVIDING PARKING)

EMPLOYEES:
ROUGHLY 10 - 1 PARKING SPACE/EMPLOYEE = 10 SPACES

NEED 111 PARKING SPACES PER LAYOUT.
10 BICYCLE SPACES ON LOT.

VARIANCE REQUEST

AREA IMPACTED BY VARIANCE REQUEST HIGHLIGHTED IN YELLOW ON PLAN.

APPLICABLE SECTION OF ZONING CODE	REQUIREMENT	PROPOSAL
TABLE 19.11.010(c)(6) - MINIMUM SIZE OF PARKING SPACES	18.5 FEET AT 90 DEGREES	18 FEET AT 90 DEGREES 16 FEET W/ 2 FEET OVERHANG AT 90 DEGREES
TABLE 19.11.010(c)(7)(A) - MINIMUM WIDTH OF OFF-STREET PARKING ROWS AND AISLES	DOUBLE ROW AND AISLE 62 FEET AT 90 DEGREES	DOUBLE ROW AND AISLE 58 FEET AT 90 DEGREES AT MINIMUM (OCCURS AT SOUTH OF PROPERTY W/ 2 FOOT OVERHANG)
	SINGLE ROW AND AISLE 45 FEET AT 90 DEGREES	SINGLE ROW AND AISLE 40 FOOT, 5 INCHES AT 90 DEGREES (OCCURS AT EAST OF PROPERTY W/ 2 FOOT OVERHANG)

REFER TO LANDSCAPE PLANS PREPARED BY LANDSCAPE ARCHITECT FOR PLANTINGS.

CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
PROPOSED SITE PLAN
1/16" = 1'-0"
JANUARY 27TH, 2026

© COPYRIGHT 2026 AKA

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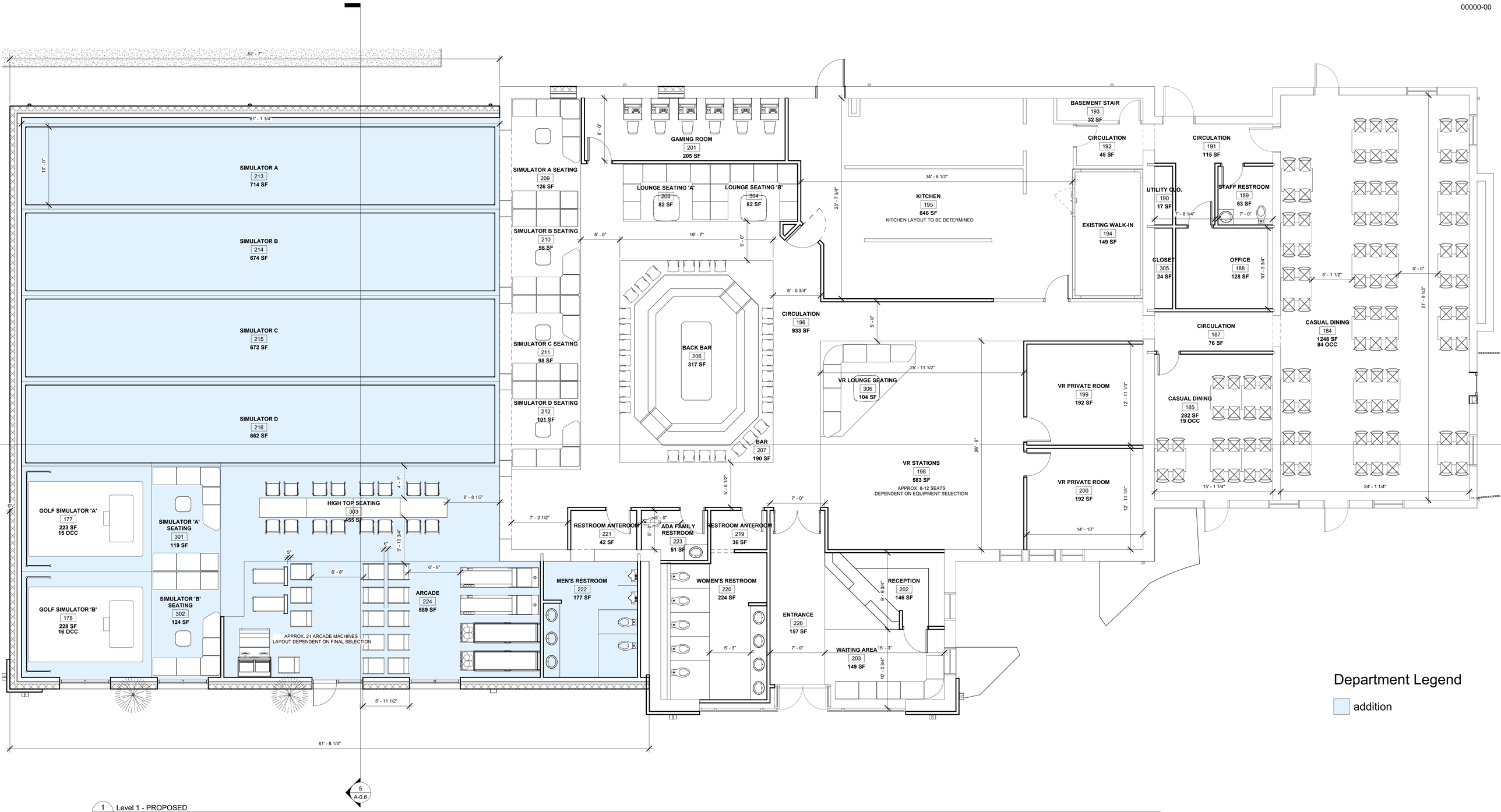
FINAL REVIEW	4/18/25

aka atul karkhanis architects, ltd.
Commercial • Educational • Residential • Healthcare
2514 WEST PETERSON AVENUE
CHICAGO, IL 60659
PHONE: 773.508.5533 FAX: 773.508.5757
www.akarchitects.com

1ST FLOOR SCHEMATIC DESIGN PLAN



1 / A-0.3 Level 1 - PROPOSED
3/16" = 1'-0"

5 / A-0.6

Department Legend

addition

CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
1ST FLOOR SCHEMATIC DESIGN PLAN
3/16" = 1'-0"
JANUARY 21ST, 2026

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N

FINAL REVIEW	4/18/25

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www.akarchitects.com

MEMORANDUM

DATE: March 11, 2026
FROM: Marcy Knysz, Village Planner
SUBJECT: Docket No. PV26-0003, Request for a Variation to Permit a Reduction in the Minimum Required Stall Length for 90-Degree Parking from 18.5 Feet to 18.0 Feet for Hamro Investment Group, LLC (604 N. Milwaukee Avenue). **PUBLIC HEARING**
RECOMMENDED ACTION: **Recommend approval of Docket No. PV26-0003** granting a variation from Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19.11.010, Off-Street Parking and Loading, and associated sections, to permit a reduction in the minimum required stall length for 90-degree parking from 18.5 feet to 18.0 feet for Hamro Investment Group, LLC (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004), located at 604 N. Milwaukee Avenue in accordance with the Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026; Engineering Plans prepared by Morris Engineeirng, Inc., last revised 1/16/2026; and subject to the following condition:

1. Approval of the variance is contingent upon approval of Docket No. PSU25-0012 (special use approval to permit the operation of an entertainment establishment); Docket No. PV26-0004 (variation to permit a reduction in the minimum required drive aisle width) and Docket No. PSPMAJ25-0001 (major site plan and building appearance approval for the construction of a building addition and associated site improvements).

EXECUTIVE SUMMARY

Docket No. PV26-0003: Hamro Investment Group, LLC (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004), property owner, is seeking a variation to permit a reduction in the minimum required stall length for 90-degree parking from 18.5 feet to 18.0 feet for the property located at 604 N. Milwaukee Avenue, as required in Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19-10 Use Regulations, and associated sections.

GENERAL PROPERTY INFORMATION
Petitioner: Hamro Investment Group, LLC

Location: 604 N. Milwaukee Avenue

Property size: 66,999 sq. ft. (1.54 acres)

Building size: 8,000 sq. ft. / 4,950 sq. ft. building addition (Docket No. PSPMAJ25-0001)

Neighboring Property Land Use(s):
North: Multi-tenant Industrial/Vacant Land
West: Multi-tenant Industrial
South: Multi-tenant Industrial/Parking Lot/Old Munich Tavern

Existing Use of Property: Commercial retail space (vacant, former Buca di Beppo)

Existing Zoning: MXC, Commercial/Residential Mixed Use

Comprehensive Plan Designation: Commercial/Residential Mixed Use

Zoning History:

- Ordinance #1428, approved 6/14/1976, granting a sign variation (Docket No. 422).
- Docket No. PC-303, approved 9/22/1994, granting appearance approval of architectural, landscape, lighting and signage.
- Ordinance #2991, approved 10/3/1994, granting special use and site plan approval for a restaurant with live music for Yvette North (Docket No. 1994-28).
- Ordinance #3187, approved 1/6/1997, granting special use and suite plan approval for a restaurant with live music for Buca di Beppo (Docket No. 1996-36).
- Docket No. PC-363, approved 5/8/1997, granting appearance approval for a sign for Buca di Beppo.
- Docket No. PC-504, approved 12/9/1999, granting appearance approval for a sign for Buca Little Italy.
- Docket No. PC-541, approved 2/8/2001, granting appearance approval of a restaurant expansion and added parking.
- Docket No. SCBA-011, approved 10/11/2001, granting approval of a freestanding sign face change.
- Ordinance #1193, approved 7/10/1972, granting a rezoning from the I-1 to the B-4 Zoning District (Docket No. 304).
- Ordinance #3533, approved 2/26/2001, granting special use and site plan approval for a restaurant with live music (Docket No. 2001-7A).
- Ordinance #3534, approved 2/26/2001, granting a variation for the pavement setback (Docket No. 2001-7B).
- Ordinance #3535, approved 2/26/2001, granting a variation to permit 2 freestanding signs along Milwaukee Avenue (Docket No. 2001-7C).

SUMMARY OF REQUEST

Hamro Investment Group, LLC is requesting a variation to reduce the minimum required parking stall length from 18.5 feet to 18.0 feet for the property located at 604 N. Milwaukee Avenue. The requested variation is associated with the redevelopment of the site for “604 The Arena”, a proposed entertainment establishment.

The petitioner is also seeking special use approval to permit the operation of an entertainment establishment (Docket No. PSU25-0012), as well as a variation to permit a reduction in the minimum required drive aisle width (Docket No. PV26-0004). In addition, the petitioner is requesting major site plan & appearance approval to construct a building addition and comprehensive façade renovations (Docket No. PSPMAJ25-0001).

VARIANCE

A variation is to grant relief from the literal requirements of the zoning ordinance when unique circumstances, applicable to the property, deprive it from enjoying privileges commonly enjoyed by other properties in the same zoning district. After review of the Standards summarized in this staff report, the Commission must find beyond a reasonable doubt that all of the standards are met.

As detailed in Docket No. PSPMAJ25-0001, the petitioner is seeking to repurpose the existing one-story restaurant building formerly occupied by Buca di Beppo for the “604 The Arena” entertainment establishment. The project includes the construction of a 4,977 sq. ft. building addition to provide additional floor area and increase in occupancy.

Due to the expansion of the building, the existing parking lot will also be expanded at the northwest corner of the property. The new parking lot is designed to align with existing conditions to allow a cohesive blending between the existing parking area and the proposed expanded parking lot. As the existing parking lot utilizes the (industry standard) 9’ x 18’ parking stall dimensions, strict compliance with the minimum 18.5 foot parking stall length would create irregularities in parking stall sizes and require a comprehensive reconfiguration of the entire parking lot. Accordingly, the petitioner is requesting a variation to reduce the minimum required parking stall length from 18.5 feet to 18.0 feet within the proposed parking expansion area.

Standards for Variation: Following are the petitioner's responses to the standards for variation for the variance request. (Any staff comments follow the petitioner’s response)

1. **State how the particular physical surroundings, shape, or topographical condition of the specific property involved would result in a practical difficulty or particular hardship upon or for the owner,**

lessee or occupant, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out.

Petitioner: The owner is trying to do the adaptive reuse of existing building. The parking spaces as indicated are existing and any changes made to it will impact the usability of the site. Changing the parking space size will create unnecessary hardship to the owner.

Staff: The subject property is developed with an existing commercial building and parking lot that were constructed under prior Code standards. The proposed parking expansion area is located at the northwest corner of the site and is constrained by the existing building footprint, internal drive aisles, and existing parking stall sizes. The variance request is not based on convenience, rather on maintaining functional parking and circulation while accommodating adaptive reuse and building improvements.

2. **Indicate how the hardship is due to unique circumstances that do not generally apply to the other properties or uses.**

Petitioner: Existing parking layout is unique to the existing building.

Staff: The petitioner's hardship relates to the current dimensional standards of the existing parking lot, which is constrained by an existing structure and previously established access points. These constraints are specific to the subject property and are not generally applicable to other properties within the zoning district, particularly those that are vacant, newly developed, or not limited by an existing building and parking configuration.

3. **Describe how the alleged difficulty or hardship has not been created by any person presently having an interest in the property.**

Petitioner: Parking lot and parking spaces were previously in use until the existing company went out of business. The parking lot conditions are not caused by the applicant, nor by any person still having an interest in the property.

Staff: The existing parking lot configuration was established under prior ownership and has historically functioned in its current layout. The request to reduce the parking stall depth by 0.5 feet arises from existing site constraints and is not the result of actions taken by the current owner.

4. **State how the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone.**

Petitioner: Increasing the size of parking spaces will impact the total parking spaces available and negatively impact a reasonable return.

Staff: The requested variance would enable the subject property to be reasonably reused without reducing the total number of parking spaces that can be accommodated on the site.

5. **State how the granting of the variation will not alter the essential character of the locality.**

Petitioner: Granting the requested variance of parking space size reduction will not alter the essential character of the locality.

Staff: The requested variation involves a reduction of 0.5 feet in the required depth of 90-degree parking stalls within the expanded parking area. The modification does not alter the proposed land use, building footprint, architectural character, or overall site design in a manner that would be perceptible from the public right-of-way. Accordingly, the variation will not alter the essential character of the locality.

6. **Describe how the proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets, or increase the danger of**

fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood.

Petitioner: The proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood.

Staff: The proposed reduction in stall length will not materially affect internal site circulation or access to the public right-of-way and therefore, the proposed variation will not be detrimental to the public health, safety, or general welfare of the community.

STAFF REVIEW

Fire Department Review: No comments related to the Special Use.

Engineering Division Review: No comments related to the Special Use.

Staff Recommended Action: Staff recommends approval of the variance request subject to the following condition:

1. Approval of the variance is contingent upon approval of Docket No. PSU25-0012 (special use approval to permit the operation of an entertainment establishment); Docket No. PV26-0004 (variation to permit a reduction in the minimum required drive aisle width) and Docket No. PSPMAJ25-0001 (major site plan and building appearance approval for the construction of a building addition and associated site improvements).

****

If the Plan Commission finds that the petitioner has satisfied the requirements for the granting of a variation, the appropriate motion would be to:

Recommend approval of Docket No. PV26-0003 granting a variation from Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19.11.010, Off-Street Parking and Loading, and associated sections, to permit a reduction in the minimum required stall length for 90-degree parking from 18.5 feet to 18.0 feet for Hamro Investment Group, LLC (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004), located at 604 N. Milwaukee Avenue in accordance with the Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026; Engineering Plans prepared by Morris Engineering, Inc., last revised 1/16/2026; and subject to the following condition:

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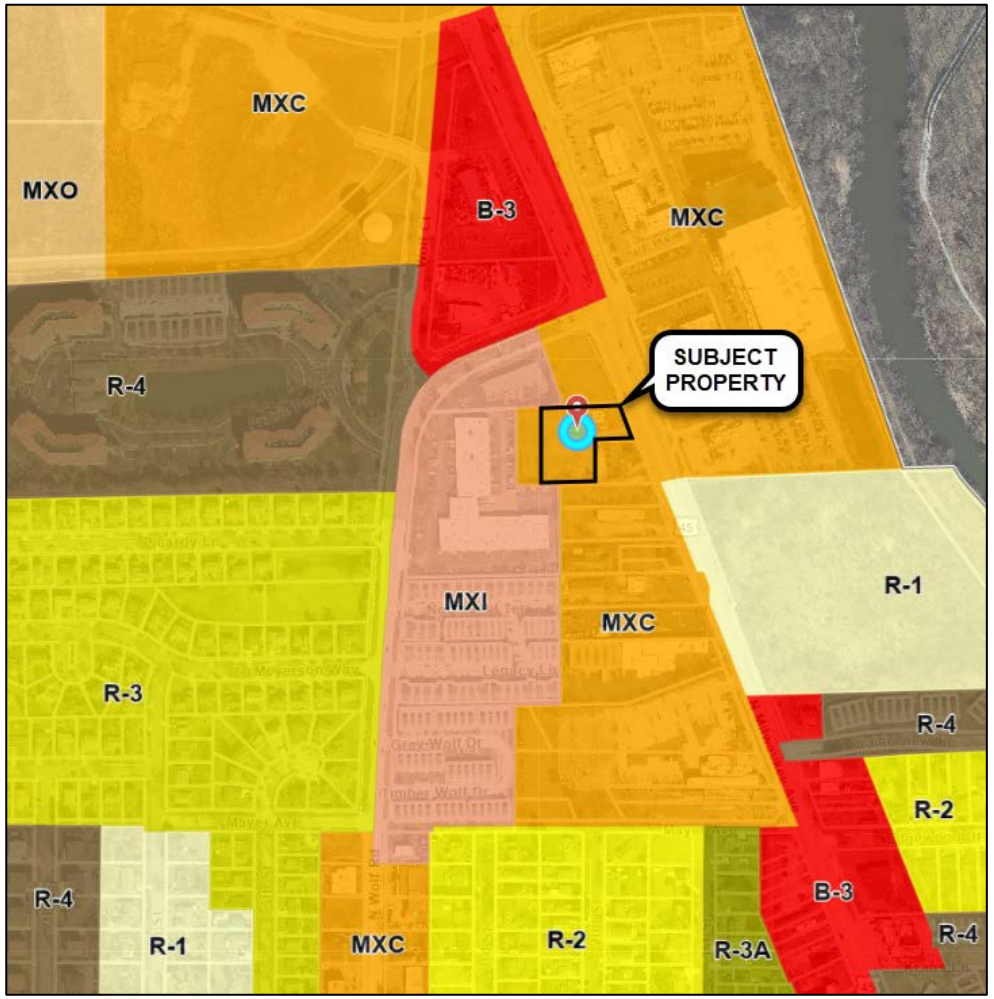
Location Map



Zoning Map



South Façade of Existing Building



North Façade of Existing Building



Entrance Drive off Milwaukee Avenue



Existing Parking Lot



Existing Parking Lot Island



Existing Trees Along West Property Line



North Side of Building

HAMRO INVESTMENT GROUP
1/29/2026

Village of Wheeling
Community Development Department
Zoning Board of Appeals
2 Community Boulevard
Wheeling, IL 60090

Subject: – Zoning Board Approval Request for 604 Milwaukee Ave

Dear Members of the Wheeling Zoning Board of Appeals,

I respectfully submit this letter and project narrative on behalf of **HAMRO INVESTMENT GROUP** in support of our request for zoning board approval to redevelop the **currently vacant lot at 604 Milwaukee Ave** into a vibrant, family-friendly sports and entertainment center featuring the **only cricket simulator in Illinois and only the second of its kind in the United States**.

Overview of Proposal

We propose to transform this underutilized property into a dynamic mixed-use venue offering:

- The **only cricket simulation bays in Illinois**, a signature attraction for cricket enthusiasts and families across the region
- Gulf Simulation
- Casual dining restaurant and full-service bar
- VR gaming zones
- Arcade and kids' play area
- Adult gaming lounge with ID check and supervision

Our project will help **revitalize Milwaukee Avenue** by activating a vacant site with an engaging, modern facility that meets community needs for entertainment, dining, and social gathering.

Background and Community Benefit

Today, 604 Milwaukee Ave is a vacant lot generating no sales tax, jobs, or visual appeal for the corridor. Our project will convert it into an **active, attractive, and tax-generating community asset**.

Key benefits include:

- **Unique destination:** The first and only cricket simulation center in Illinois (and only the second in the USA), delivering a signature draw that distinguishes Wheeling from neighboring suburbs.
- **Local job creation:** 30-35 full-time equivalent jobs, spanning hospitality, culinary, entertainment, and management roles.
- **Economic impact:** New sales tax revenue and increased visitor foot traffic supporting nearby businesses.
- **Neighborhood enhancement:** Professional landscaping, lighting, signage, and a modern building façade to improve the area's visual character.
- **Community engagement:** Opportunities for leagues, kids' parties, corporate team-building, and family events.

HAMRO INVESTMENT GROUP is committed to hiring locally, sourcing from nearby vendors where possible, and supporting Wheeling's economic growth and vibrancy.

Operational Details

Hours of Operation:

- Sunday–Thursday: 11:00 AM – 10:00 PM
- Friday–Saturday: 11:00 AM – 12:00 AM

Staffing Plan:

We plan for 30–40 staff on-site daily, ~35–40 FTE overall.

Department / Area	Roles / Functions	Estimated FTE
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VR Zone	VR Tech / Game Attendants	2-3
Arcade & Kids Zone	Supervisors / Technicians	2-3
Adult Gaming Section	Attendants / Cashiers	2-3

Group Party in dining Hall	Event Coordinators + Support Staff	3-4
Restaurant & Kitchen	Head Chef, Cooks, Dish, Prep	4-5
Front-of-House (FOH)	Servers, Bartenders, Hosts	4-5
Reception / Front Desk	Booking Agents / Customer Service	2-3
Cleaning & Maintenance	Janitorial / Equipment Cleaning	3–4
Management/Admin	General Manager, Assistant Managers	3–4
Marketing & social media	Promotions & Events (PT/FT)	1–2
Security	Evening Doorman / Outsourced Option	1–2

Number of Seats

- Restaurant/Casual Dining: 80 occupants
- Bar Area: 26 occupants
- Small dining area 20 occupants
- Gaming/Arcade/VR/Billiards: variable/active use seating

Parking and Site Improvements

Parking Provided:

- 87 on-site parking spaces (new layout)
- 24 new offsite parking spaces to the south (secured via formal agreement)
- **Total available parking:** 111 spaces
- 11 dedicated bicycle parking spaces

Parking Demand Calculations:

- Casual Dining: 80 occupants / (3 seats per space) = ~27 spaces
- Small dining Room (existing): 20 occupants / (3 seats per space) = ~7 spaces
- Bar: 26 occupants / (3 seats per space) = ~9 spaces
- Gaming Room: 6 seats / (3 seats per space) = 2 spaces
- Arcade: 9 seats / (3 seats per space) = 3 spaces
- VR Rooms (similar to golf driving range): 2 spaces (1 per room)
- VR Stations: 2 spaces (3 seats per space)
- Gulf Simulation : 2 spaces (2 spaces/table)

- Cricket Simulators (Similar to bowling lanes): 16 spaces (4 spaces/lane)
- Employees: ~20 spaces (1 per employee)

Total calculated need: 90 spaces—fully met by our proposed layout.

Site Improvements:

- New landscaping, lighting, signage, and building facade
- Clearly marked ADA-compliant entrances and paths
- Bike parking and pedestrian-friendly design

Nature of Proposed Land Use

We are requesting zoning board approval for **mixed-use commercial entertainment and restaurant** use at 604 Milwaukee Ave.

This proposed use aligns with Wheeling's goals to:

- Revitalize vacant, non-productive lots
- Increase local employment opportunities
- Enhance family-friendly destination options
- Support corridor beautification and economic development

Our design will ensure responsible operations with controlled noise, accessible facilities, ample parking, and strong integration with the existing neighborhood.

Conclusion

Approval of this project will allow the Village of Wheeling to gain:

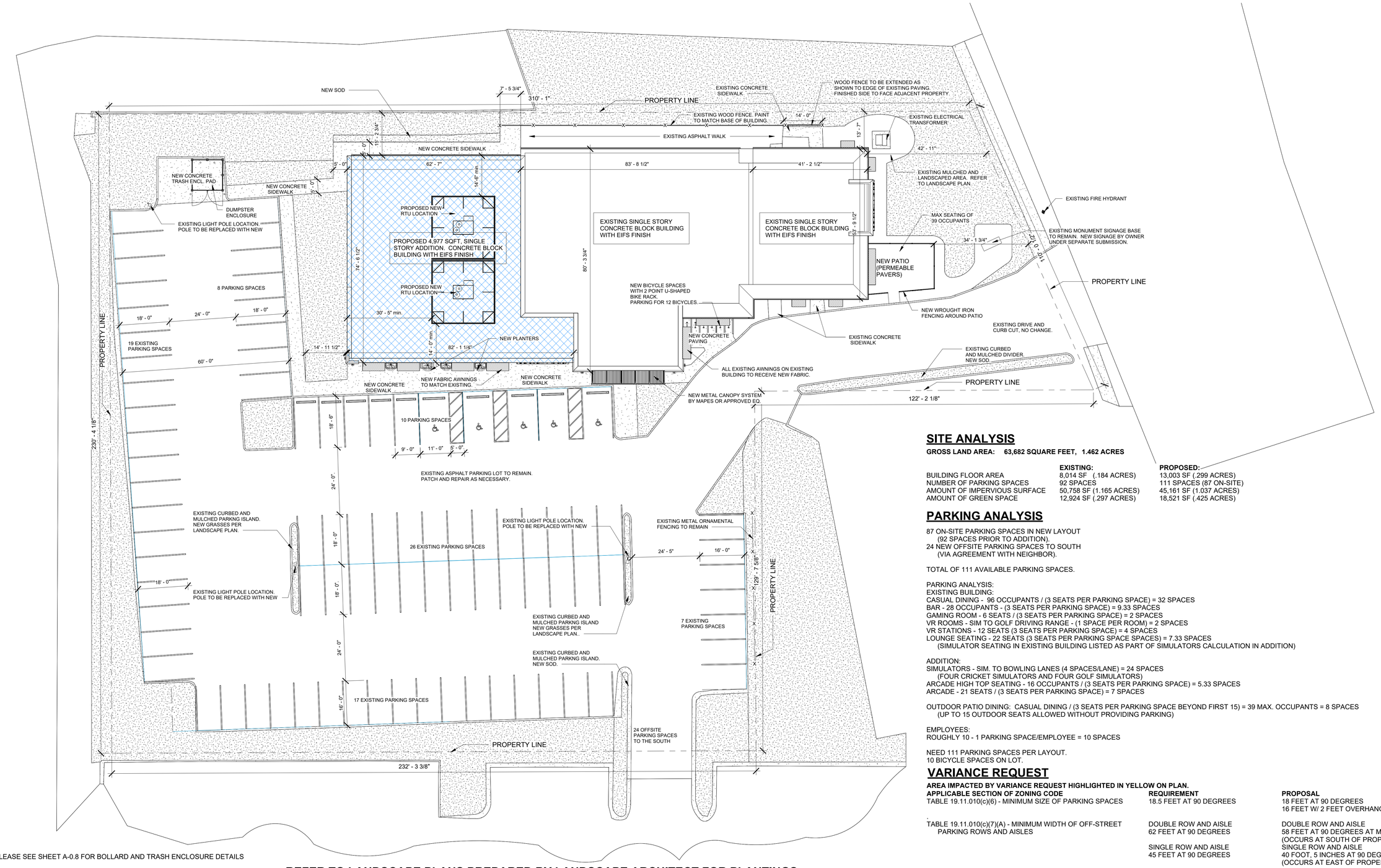
- Activation of a vacant lot into a productive, attractive asset
- Illinois' first and only cricket simulator—a true regional draw
- Dozens of local jobs in a wide range of roles
- New sales tax revenue and support for nearby businesses
- A visually appealing, modern, family-friendly entertainment and dining venue

Thank you for your time and consideration of this proposal. We are happy to provide any additional details, answer questions, or present to the Board in person.

Sincerely,

Manish Chaudhary
Managing Partner
HAMRO INVESTMENT GROUP

PROPOSED SITE PLAN



*PLEASE SEE SHEET A-0.8 FOR BOLLARD AND TRASH ENCLOSURE DETAILS

1 / A-0.5 Level 1 - PROPOSED SITE DIAGRAM
1/16" = 1'-0"

SITE ANALYSIS

GROSS LAND AREA: 63,682 SQUARE FEET, 1.462 ACRES

	EXISTING:	PROPOSED:
BUILDING FLOOR AREA	8,014 SF (.184 ACRES)	13,003 SF (.299 ACRES)
NUMBER OF PARKING SPACES	92 SPACES	111 SPACES (87 ON-SITE)
AMOUNT OF IMPERVIOUS SURFACE	50,758 SF (1.165 ACRES)	45,161 SF (1.037 ACRES)
AMOUNT OF GREEN SPACE	12,924 SF (.297 ACRES)	18,521 SF (.425 ACRES)

PARKING ANALYSIS

87 ON-SITE PARKING SPACES IN NEW LAYOUT
(92 SPACES PRIOR TO ADDITION).
24 NEW OFFSITE PARKING SPACES TO SOUTH
(VIA AGREEMENT WITH NEIGHBOR).

TOTAL OF 111 AVAILABLE PARKING SPACES.

PARKING ANALYSIS:
EXISTING BUILDING:
CASUAL DINING - 96 OCCUPANTS / (3 SEATS PER PARKING SPACE) = 32 SPACES
BAR - 28 OCCUPANTS - (3 SEATS PER PARKING SPACE) = 9.33 SPACES
GAMING ROOM - 6 SEATS / (3 SEATS PER PARKING SPACE) = 2 SPACES
VR ROOMS - SIM TO GOLF DRIVING RANGE - (1 SPACE PER ROOM) = 2 SPACES
VR STATIONS - 12 SEATS (3 SEATS PER PARKING SPACE) = 4 SPACES
LOUNGE SEATING - 22 SEATS (3 SEATS PER PARKING SPACE SPACES) = 7.33 SPACES
(SIMULATOR SEATING IN EXISTING BUILDING LISTED AS PART OF SIMULATORS CALCULATION IN ADDITION)

ADDITION:
SIMULATORS - SIM. TO BOWLING LANES (4 SPACES/LANE) = 24 SPACES
(FOUR CRICKET SIMULATORS AND FOUR GOLF SIMULATORS)
ARCADE HIGH TOP SEATING - 16 OCCUPANTS / (3 SEATS PER PARKING SPACE) = 5.33 SPACES
ARCADE - 21 SEATS / (3 SEATS PER PARKING SPACE) = 7 SPACES

OUTDOOR PATIO DINING: CASUAL DINING / (3 SEATS PER PARKING SPACE BEYOND FIRST 15) = 39 MAX. OCCUPANTS = 8 SPACES
(UP TO 15 OUTDOOR SEATS ALLOWED WITHOUT PROVIDING PARKING)

EMPLOYEES:
ROUGHLY 10 - 1 PARKING SPACE/EMPLOYEE = 10 SPACES

NEED 111 PARKING SPACES PER LAYOUT.
10 BICYCLE SPACES ON LOT.

VARIANCE REQUEST

AREA IMPACTED BY VARIANCE REQUEST HIGHLIGHTED IN YELLOW ON PLAN.

APPLICABLE SECTION OF ZONING CODE	REQUIREMENT	PROPOSAL
TABLE 19.11.010(c)(6) - MINIMUM SIZE OF PARKING SPACES	18.5 FEET AT 90 DEGREES	18 FEET AT 90 DEGREES 16 FEET W/ 2 FEET OVERHANG AT 90 DEGREES
TABLE 19.11.010(c)(7)(A) - MINIMUM WIDTH OF OFF-STREET PARKING ROWS AND AISLES	DOUBLE ROW AND AISLE 62 FEET AT 90 DEGREES	DOUBLE ROW AND AISLE 58 FEET AT 90 DEGREES AT MINIMUM (OCCURS AT SOUTH OF PROPERTY W/ 2 FOOT OVERHANG)
	SINGLE ROW AND AISLE 45 FEET AT 90 DEGREES	SINGLE ROW AND AISLE 40 FOOT, 5 INCHES AT 90 DEGREES (OCCURS AT EAST OF PROPERTY W/ 2 FOOT OVERHANG)

REFER TO LANDSCAPE PLANS PREPARED BY LANDSCAPE ARCHITECT FOR PLANTINGS.

CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
PROPOSED SITE PLAN
1/16" = 1'-0"
JANUARY 27TH, 2026

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N

FINAL REVIEW	4/18/25

aka atul karkhanis architects, ltd.
Commercial • Educational • Residential • Healthcare
2514 WEST PETERSON AVENUE
CHICAGO, IL 60659
PHONE: 773.508.5533 FAX: 773.508.5757
www.akarchitects.com

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

LEGEND

EXISTING		PROPOSED
	MANHOLE	
	CATCH BASIN	
	INLET	
	CLEANOUT	
	FLARED END SECTION	
	WATER VALVE BOX	
	BUFFALO BOX (B.BOX)	
	WATER VALVE & VAULT	
	FIRE HYDRANT	
	WELL	
G	GAS VALVE	GV
	GAS METER	
T	COMMUNICATION CANISTER	T
	COMMUNICATION HANDHOLE	
	COMMUNICATION MANHOLE	
E	ELECTRIC CANISTER	E
	ELECTRIC HANDHOLE	
	ELECTRIC MANHOLE	
	ELECTRIC METER	
	TRAFFIC SIGNAL	
	TRAFFIC HANDHOLE	
SB	TRAFFIC CONTROL BOX	SB
	UTILITY POLE	
	UTILITY POLE W/ LIGHT	
	STREET LIGHT	
	STREET SIGN	
	BORING LOCATION	
	MAILBOX	
+ 699.5	SPOT ELEVATIONS	+699.74
	PROPERTY LINE	
	ADJACENT PROPERTY LINE	
	EASEMENT LINE	
	SETBACK LINE	
	RIGHT OF WAY LINE	
	STORM SEWER LINE	
	SANITARY SEWER LINE	
W	WATERMAIN LINE	W
UG	UNDERGROUND GAS LINE	UG
UT	UNDERGROUND COMM. LINE	UT
UE	UNDERGROUND ELECTRIC	UE
OH	OVERHEAD UTILITY	OH
	FENCE LINE	
	GUARDRAIL LINE	
	CONTOUR LINE	

	DECIDUOUS TREE
	EVERGREEN TREE
	OVERLAND FLOOD ROUTE
	DRAINAGE ROUTE
	DOWNSPOUT
	SILT FENCE LINE
	INLET SILT PROTECTION
	COIR LOG SILT PROTECTION
	DEPRESSED CURB
	SOIL EROSION GEOTEXTILE PROTECTION
	CONCRETE
	BRICK
	ASPHALT
	BUILDING
	GRAVEL
	STONE

SOURCE BENCHMARK

GEODETIC SURVEY MONUMENT (GPS)
DESIGNATION LD017
PID DM3894
STATE/COUNTRY IL/LAKE
COUNTRY US
USGS QUAD WHEELING (2018)

DESCRIPTION: DESCRIBED BY PATRICK ENGINEERING INCORPORATED 2010 THE STATION IS LOCATED ABOUT 6.3 MI WEST-SOUTHWEST OF HIGHLAND PARK, 6.0 MI NORTH-NORTHEAST OF ARLINGTON HEIGHTS AND 1.7 MI NORTH-NORTHEAST OF WHEELING. OWNERSHIP--ROAD RIGHT-OF-WAY.

THE DISK IS SET IN THE TOP OF THE EAST END OF THE SOUTH ABUTMENT OF THE US HIGHWAY 45/STATE ROAD 21 BRIDGE NO. 049-0194) OVER APTAKISIC CREEK, 8 FT EAST OF THE BACK OF CURB FOR NORTH BOUND US HIGHWAY 45/STATE ROAD 21, 2 FT ABOVE GRADE OF SIDEWALK.
STATION RECOVERY (2014)
RECOVERY NOTE BY ILLINOIS DEPARTMENT OF TRANSPORTATION 2014 (MAW) RECOVERED IN GOOD CONDITION.

NAVD88 ELEVATION: 650.71

SITE BENCHMARK #1

SOUTHWEST BOLT FLANGE ON HYDRANT APPROXIMATELY 37 FEET SOUTHEAST AND 9 FEET NORTHEAST FROM THE NORTHEAST PROPERTY CORNER.

ELEVATION = 649.56

SITE BENCHMARK #2

SOUTHEAST BOLT FLANGE ON HYDRANT APPROXIMATELY 4 FEET SOUTH AND 7 FEET EAST FROM THE NORTHWEST PROPERTY CORNER.

ELEVATION = 648.70



PROJECT LOCATION MAP

PREPARED FOR

PRAJESH PARAJULI
711 Arizona Pass
Elk Grove Village, Il 60007
pparajuli@gmail.com
847-420-131

Know what's below. Call before you dig.

NOTICE TO CONTRACTORS

EXISTING UTILITIES

WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF OVERHEAD AND/OR UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. THE ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR VERACITY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL PUBLIC AND PRIVATE UTILITY COMPANIES WHICH MAY HAVE OVERHEAD OR UNDERGROUND FACILITIES IN THE AREA BEFORE CONSTRUCTION BEGINS. (SEE SPECIFICATIONS)

ENGINEER'S CERTIFICATION

STATE OF ILLINOIS)
SS.
COUNTY OF DuPAGE)

I, KAROLIS KOZYS, A REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY MORRIS ENGINEERING, INC. 515 WARRENVILLE ROAD, LISLE, ILLINOIS, 60532 UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. I FURTHER STATE THAT THE PROPOSED IMPROVEMENTS WILL NOT CAUSE PONDING OR FLOODING ON THE PROPERTY OR ADJACENT PROPERTIES.

DATED THIS 16 TH DAY OF JANUARY , A.D. 2026.

ILLINOIS REGISTERED PROFESSIONAL ENGINEER NO. 062-066736
MY REGISTRATION EXPIRES ON NOVEMBER 30, 2027

KAROLIS KOZYS 062-066736 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

INDEX OF SHEETS

1. COVER SHEET
2. MWRD NOTES
3. GENERAL NOTES
4. EXISTING CONDITIONS
5. EROSION AND DEMOLITION PLAN
6. GRADING PLAN
7. SITE PLAN
8. UTILITY PLAN
9.-11. DETAILS

	DATE	
1	8/28/2025	REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026	REVISED PER VILLAGE OF WHEELING, IL.
5		
6		

COVER SHEET

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

BUILDING INFRASTRUCTURE, IMPROVEMENTS BETTER LIFE!

FIELD CREW:	PW
DRAWN BY:	NG
CHECKED BY:	ARS
APPROVED BY:	EF
DATE:	05/15/2025
SCALE: HORIZ	–
VERT	–

SHEET **1** OF 11 SHEETS

PROJ # 25-02-2003

1/16/2026 11:34:16 AM
I:\2025\25-02\25-02-2003 - 604 Milwaukee Ave, Wheeling\Engineering\Plans\REV 4\25-02-2003 REV_4 SITE-23x34 2026-01-16.dwg

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * VILLAGE OF _____ MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO WMOJOBSTART@MWRD.ORG).

2. THE VILLAGE OF _____ ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS _____ FT.

2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.

3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.

4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.

5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.

6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.

8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.

9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.

10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.

2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.

3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.

4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).

5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.

6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261,F-2620 (HEAT FUSION) ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.

10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.

11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.

13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.

14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.

15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.

16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.

17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.

18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.

3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
    a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
    b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.

6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.

7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.

9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.

10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.

11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.

12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).

13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.

15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.

16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.

19. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.

20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.

21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.

22. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

23. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

TECHNICAL GUIDANCE MANUAL

10/13/2022

MWRD GENERAL NOTES

STD. DWG. NO.18

PAGE NO. 19

DATE		
1	8/28/2025	REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
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GENERAL NOTES

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

FIELD CREW: PW
DRAWN BY: NG
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GENERAL NOTES

1. ALL EARTHWORK, GRADING, UTILITIES, AND STREET IMPROVEMENTS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, AND ALL REVISIONS THERETO.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND HEALTHFUL WORKING CONDITIONS IN ACCORDANCE WITH SECTION 107 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION THROUGHOUT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

3. SOIL EROSION AND SEDIMENTATION CONTROL PRACTICES AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE URBAN COMMITTEE OF THE ASSOCIATION OF ILLINOIS SOIL AND WATER CONSERVATION DISTRICTS' PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL IN ILLINOIS AND ALL REVISIONS THERETO AND IN ACCORDANCE WITH THE DETAILS ON THE PLANS.

4. THE CONTRACTOR SHALL BE AWARE OF POTENTIAL CONFLICTS WITH EXISTING UTILITIES AS INDICATED ON THE PLANS. THE CONTRACTOR SHALL EXCAVATE AROUND UTILITIES TO DETERMINE ELEVATIONS BEFORE BEGINNING CONSTRUCTION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING EACH OF THE UTILITY COMPANIES BEFORE ANY WORK COMMENCES. ALL UTILITIES SHALL BE STAKED PRIOR TO CONSTRUCTION.

6. THE OWNER WILL FURNISH THE CONTRACTOR WITH LINES, GRADES AND ELEVATIONS NECESSARY TO THE PROPER PROSECUTION AND CONTROL OF THE WORK ONCE.

7. THE CONTRACTOR SHALL GIVE THE ENGINEER AT LEAST SEVENTY-TWO (72) HOURS NOTICE FOR ANY STAKING TO BE DONE. EACH OF THE VARIOUS ITEMS OF WORK COVERED BY THIS CONTRACT WILL BE STAKED ONCE. ADDITIONAL STAKING REQUIRED DUE TO THE CONTRACTOR'S NEGLIGENCE IN PRESERVING THE STAKES SHALL BE PAID FOR BY THE CONTRACTOR AT THE CURRENT HOURLY RATE.

8. THE CONTRACTOR SHALL INFORM THE ENGINEER AND THE VILLAGE OF WHEELING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

   8.1. TELEPHONE NUMBERS: MORRIS ENGINEERING - (630) 271-0770
   8.2. WHEELING CONTACT INFORMATION
   PUBLIC WORKS - 847-279-6900

9. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS AND SPECIFICATIONS AND SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES THAT THE CONTRACTOR DISCOVERS DURING THE BIDDING PERIOD. SAID DISCREPANCIES WILL BE CLARIFIED BY THE ENGINEER TO THE BEST OF HIS ABILITY PRIOR TO RECEIPT OF BIDS. THE ENGINEER WILL BE UNRECEPTIVE TO CLAIMS FOR ADDITIONAL COMPENSATION FOR WORK ITEMS BECAUSE OF CONTRACTOR'S LACK OF COMPLIANCE WITH THIS REQUIREMENT.

10. THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY LATENT DISCREPANCIES THAT THE CONTRACTOR DISCOVERS DURING THE CONSTRUCTION PROCESS. THE ENGINEER WILL BE UNRECEPTIVE TO CLAIMS FOR ADDITIONAL COMPENSATION FOR WORK PERFORMED TO CORRECT A LATENT CONDITION NOT BROUGHT TO THE ATTENTION OF THE ENGINEER.

11. THE CONTRACTOR RESPONSIBLE FOR DRAINAGE IMPROVEMENTS (UNDERGROUND STRUCTURES AND CONDUITS) SHALL DISPOSE OF ALL SURPLUS EXCAVATED MATERIAL FROM TRENCHES OR STRUCTURE EXCAVATIONS AND SHALL DEPOSIT SAID SURPLUS MATERIALS ON THE SITE IN ACCORDANCE WITH THE GRADING PLAN OR AS DIRECTED BY THE ENGINEER.

12. THE CONTRACTOR SHALL NOT PLACE ANY EXCAVATED MATERIAL UPON ANY TOPSOIL. THE TOPSOIL SHALL BE REMOVED FROM ALL AREAS TO BE FILLED AND SHALL BE STOCKPILED IN AREAS AS DIRECTED BY THE ENGINEER.

13. THE CONTRACTOR SHALL NOT DISCHARGE INTO STREAMS, PONDS, WETLANDS OR ITS TRIBUTARIES ANY MOTOR OIL, TRANSMISSION FLUID, LUBRICANTS OR ANY OTHER PETROLEUM DISTILLATES, ANY PETROLEUM DISTILLATES DISCHARGED ON THE GROUND SURFACE SHALL BE PROMPTLY AND PROPERLY REMOVED PRIOR TO THE RESUMPTION OF ANY WORK ON THE PROJECT.

14. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING FIELD TILES. ANY FIELD TILES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS SOLE EXPENSE. INVESTIGATION SHALL BE MADE TO INSURE THAT FIELD TILES DO NOT CONVEY OFF SITE WATER. TILES THAT CONVEY OFF SITE WATER SHALL BE REROUTED THROUGH THE SITE. TILES THAT DO NOT CONVEY OFF SITE WATER SHALL BE ABANDONED IN AN APPROPRIATE MANNER APPROVED BY THE CITY. FIELD TILES WITHIN A RIGHT-OF-WAY SHALL BE REMOVED AND BACKFILLED WITH CA-6 COMPACTED IN EIGHT INCH LIFTS TO THE BOTTOM OF THE ROADWAY BASE. EXISTING FIELD TILES SHALL BE REMOVED BY SLIT TRENCHING.

15. THE CONTRACTOR RESPONSIBLE FOR DRAINAGE IMPROVEMENTS SHALL BE RESPONSIBLE TO PLACE ALL FIRE HYDRANTS, FRAMES AND LIDS OR GRATES, AND ALL GRATES FOR MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS AT THE ELEVATIONS SHOWN AND SPECIFIED ON THE PLANS. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR SAID ADJUSTMENT AND THE COST OF SAID ADJUSTMENT SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS DRAINAGE STRUCTURES MENTIONED ABOVE.

16. ALL MANHOLES SHALL HAVE CONCRETE INVERTS CONFORMING TO THE SHAPE OF THE PIPE. CONCRETE INVERTS SHALL BE PLACED IN THE FIELD AND THE COST OF CONCRETE INVERTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE VARIOUS INLETS AND MANHOLES.

17. WHERE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, EXISTING DRAINAGE STRUCTURES AND SYSTEMS SHALL BE CLEANED OF DEBRIS AND PATCHED AS NECESSARY TO ASSURE INTEGRITY OF THE STRUCTURE. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR STRUCTURES AND CONTRACT UNIT PRICE PER LINEAL FOOT FOR SYSTEMS WHICH SHALL BE PAYMENT IN FULL FOR CLEANING, PATCHING, REMOVAL AND DISPOSAL OF DEBRIS AND DIRT. DRAINAGE STRUCTURES AND SYSTEMS CONSTRUCTED AS PART OF THIS PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS EXPENSE UNTIL FINAL ACCEPTANCE BY THE OWNER OR MUNICIPALITY.

18. THE CONTRACTOR SHALL KEEP PUBLIC STREET PAVEMENTS CLEAN OF DIRT AND DEBRIS AND, WHEN NECESSARY, SHALL ON A DAILY BASIS CLEAN THE PAVEMENT OF SUCH DIRT AND DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS.

19. THE CONTRACTOR SHALL PROVIDE PIPE BEDDING IN ACCORDANCE WITH THE DETAIL ON THE PLANS. THE COST OF THE BEDDING SHALL BE INCLUDED IN THE UNIT PRICE PER LINEAL FOOT OF THE VARIOUS SIZES OF STORM SEWER. NO ADDITIONAL COMPENSATION WILL BE MADE FOR PIPE BEDDING.

20. THE CONTRACTOR SHALL PLACE TOPSOIL AT A 6" MINIMUM DEPTH AND SEED OR SOD ALL AREAS DESIGNATED BY THE ENGINEER.

GENERAL NOTES (CONT.)

21. THE CONTRACTOR SHALL EXAMINE THE DRAINAGE PATTERNS SHOWN ON THE PLANS AND MAKE CERTAIN THAT ALL OVERFLOW POINT ELEVATIONS AND CROSS SECTIONS ARE CONSTRUCTED STRICTLY IN ACCORDANCE WITH THOSE SHOWN ON THE PLANS.

22. ALL CONSTRUCTION SHALL CONFORM WITH THE PERMIT PLANS AND REVISIONS THERETO APPROVED BY THE CITY AND UTILITIES COMPANIES.

23. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY WORK IN THE RIGHT OF WAY OR EASEMENTS TO LOCATE UTILITIES, AND CONTACT THE OWNER'S REPRESENTATIVE SHOULD PUBLIC UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS.

24. ALL WORK HEREIN PROPOSED SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, THE MUNICIPALITY, AND ALL PERTINENT LAWS, DIRECTIVES, ORDINANCES AND THE LIKE SHALL BE CONSIDERED TO BE A PART OF THESE SPECIFICATIONS.

25. THE VILLAGE OF WHEELING DETAILS SUPERSEDE ALL OTHERS.

26. ALL NEW CURB THAT MEETS EXISTING CURB WILL HAVE THREE DRILLED AND GROUTED #5 REINFORCING BARS OR EXPANSION TIE ANCHORS, 5/8" DIAMETER FOR EACH NEW CURB ADJACENT TO EXISTING CURB.

27. FOR STRUCTURE ADJUSTMENT - MINIMUM OF 6" (2 @ 3") ADJUSTING RINGS (10" MAX) CONCRETE RINGS WILL BE 3" MINIMUM. RUBBER CAN BE 1" - 3" AND MUST BE USED FOR TOP ADJUSTING RING IN PAVED AREAS. "EJIW INTRA-RISER RUBBER COMPOSITE ADJUSTMENT RISERS" OR APPROVED EQUAL.

28. ADD AN INTERNAL/EXTERNAL ADAPTOR SEAL ON THE ADJUSTED SANITARY MANHOLE. THE "I/E A" SEAL STOPS INFLOW BETWEEN THE MANHOLE FRAME AND THE TOP ADJUSTING RING AND IT ALSO SEALS THE MANHOLE CHIMNEY FROM THE FRAME TO THE CORBEL. ONE VENDOR OF THIS SEAL IS ADAPTOR INC.

29. THE DEVELOPER IS REQUIRED TO HAVE A GEOTECHNICAL ENGINEER ON-SITE TO MONITOR EARTHWORK AND THE GRADING ACTIVITY, IN ORDER TO IDENTIFY UNSUITABLE SOILS FOR REMOVAL FROM THE SITE. A NOTE TO THIS EFFECT MUST BE ADDED TO THE PLANS, AND A LETTER COMMITTING TO THIS REQUIREMENT MUST BE PROVIDED BY THE DEVELOPER. IN ADDITION, DAILY REPORTS AND COPIES OF ALL GEOTECHNICAL TESTING (TESTING AND FREQUENCY IN ACCORDANCE WITH THE IDOT STATE SPECIFICATIONS) MUST BE SUBMITTED TO THE CITY OF JOLIET ONCE THE ROADWAYS HAVE BEEN COMPLETED.

30. DETECTABLE WARNING PLATES SHALL BE EAST JORDAN, POWDER COATED BRICK RED.

EXCAVATION

ALL SITE CLEARING, EXCAVATION, GRADING, COMPACTION, SUBGRADE PREPARATION, BASE COURSE, SURFACE COURSE, PCC CURB AND GUTTER AND SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS, LATEST EDITION.

EARTHWORK UNDER THIS CONTRACT SHALL INCLUDE THE FOLLOWING:

A. REMOVAL OF EXISTING VEGETATION WITHIN CONSTRUCTION LIMITS FROM THE SITE.
B. PROTECTION OF CERTAIN TREES AS DIRECTED BY THE OWNER'S REPRESENTATIVE WITH APPROVED FENCING.
C. STRIPPING OF ALL TOPSOIL AND OTHER UNSUITABLE MATERIALS FROM BUILDING AND/OR PAVEMENT AREAS AND REMOVAL FROM SITE OF ALL EXCESS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE REQUIREMENTS OF ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL ORDINANCES. THE COST OF ALL WORK NECESSARY TO MEET THESE REQUIREMENTS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT, AND NO SEPARATE PAYMENT WILL BE MADE.

THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF PROPER COMPACTION CANNOT BE OBTAINED SO THAT THE OWNER'S REPRESENTATIVE MAY DETERMINE WHAT REMEDIAL MEASURES MAY BE NEEDED.

EXISTING SEWER AND WATERMAIN TRENCHES UNDER DRIVEWAYS IN PARKWAYS SHALL BE EXCAVATED TO THE TOP OF PIPE AND BACKFILLED WITH COMPACTED TRENCH BACKFILL.

EXISTING GRAVEL COMPACTION TO BE TESTED OR SOIL BORINGS TO BE MADE TO VERIFY SUITABILITY OF EXISTING GRAVEL AS SUBGRADE.

PROJECT SPECIFICATIONS AND GENERAL CONSTRUCTION NOTES

THE PROJECT SECIFICATIONS AND GENERAL CONSTRUCTION NOTES SHALL INCLUDE THE FOLLOWING PROVISIONS:

1. ALL ON-SITE AND OFF-SITE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "VILLAGE OF WHEELING";
2. PERMITS SHALL BE OBTAINED FROM ALL OUTSIDE GOVERNMENTAL AGENCIES HAVING JURISDICTION;
3. ALL STRUCTURE ADJUSTEMENTS SHALL BE ACCOMPLISHED IN CONFORMANCE WITH THE MOST RECENT CITY STANDARD;
4. EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE EITHER INTEGRATED INTO THE SITE DRAINAGE SYSTEM, REMOVED OR PLUGGED IN A MANNER DEEMED APPROPRIATE BY THE CITY ENGINEER;
5. THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL ADJUSTMENTS BEFORE AND AFTER FINAL INSPECTION, PRIOR TO FINAL ACCEPTANCE BY THE CITY OF JOLIET;
6. THE CITY MUST HAVE FORTY-EIGHT (48) HOURS NOTICE PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITY;
7. THE TESTING AND STERILIZATION OF ALL NEW WATER DISTRIBUTION FACILITIES SHALL BE COMPLETED PRIOR TO MAKING WATER SERVICE TAPS BY AN OUTSIDE TESTING SERVICE;
8. MATERIAL SPECIFICATIONS COMPLY WITH CITY STANDARDS AND INCLUDE:
   A. PAVING BASE MATERIALS
   B. PAVING SURFACE MATERIALS
   C. CONCRETE MATERIALS
   D. PIPE MATERIALS.
9. DUST CONTROL - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF EXCESSIVE DUST BY WATERING DURING THE CONSTRUCTION PERIOD UNTIL THE ROAD PAVEMENT IS INSTALLED BY THE PAVING CONTRACTOR. THE REQUIREMENT FOR DUST CONTROL SHALL BE AS DIRECTED BY THE LOCAL APPROVING AUTHORITIES OR THE ENGINEER, AND SUCH DUST CONTROL (IF REQUIRED) SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
10. PERSON RESPONSIBLE FOR MAINTENANCE OF EROSION CONTROL STRUCTURES AND MEASURES, DURING AND AFTER DEVELOPMENT:

_____

STORM SEWER NOTES

- STORM SEWER JOINTS MUST BE FLEXIBLE GASKET O-RINGS PER ASTM C361, ASTM C433, AND ASTM C1619.
- CITY REQUIRES SUBMISSION OF RECORDED VIDEO INSPECTIONS OF ALL PUBLIC STORM SEWER.
- FOR CLOSED LID STRUCTURES, FRAME AND COVER SHALL BE EMBOSSED WITH "STORM".
- WHEN UTILITY STRUCTURE ADJUSTMENT IS NECESSARY, A MINIMUM OF TWO ADJUSTING RINGS (MIN 6" ADJUSTING HEIGHT) AND MAXIMUM OF THREE RINGS (MAX 10" ADJUSTING HEIGHT). NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, TOP RING SHOULD BE RUBBER. USE ONE (1) EJIW INFRA-RISER RUBBER COMPOSITE.

MAINTENANCE/INSTALLATION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

THESE ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN THE EROSION AND SEDIMENT CONTROL MEASURES ON-SITE:

- ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR MORE.
- ALL EROSION CONTROL MEASURES WILL BE MAINTAINED. IF REPAIR IS NECESSARY, IT WILL BE STARTED WITHIN 24 HOURS OF REPORT.
- ACCUMULATING SEDIMENT ALONG THE SILT FENCE WILL BE REMOVED WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
- SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, ACCURACY OF INSTALLATION, AND TO SEE THAT THE POSTS ARE FIRMLY IN THE GROUND.
- TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED.
- A DESIGNATED PERSON WILL BE RESPONSIBLE FOR CONDUCTING INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

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WHEELING, ILLINOIS

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OF 11 SHEETS

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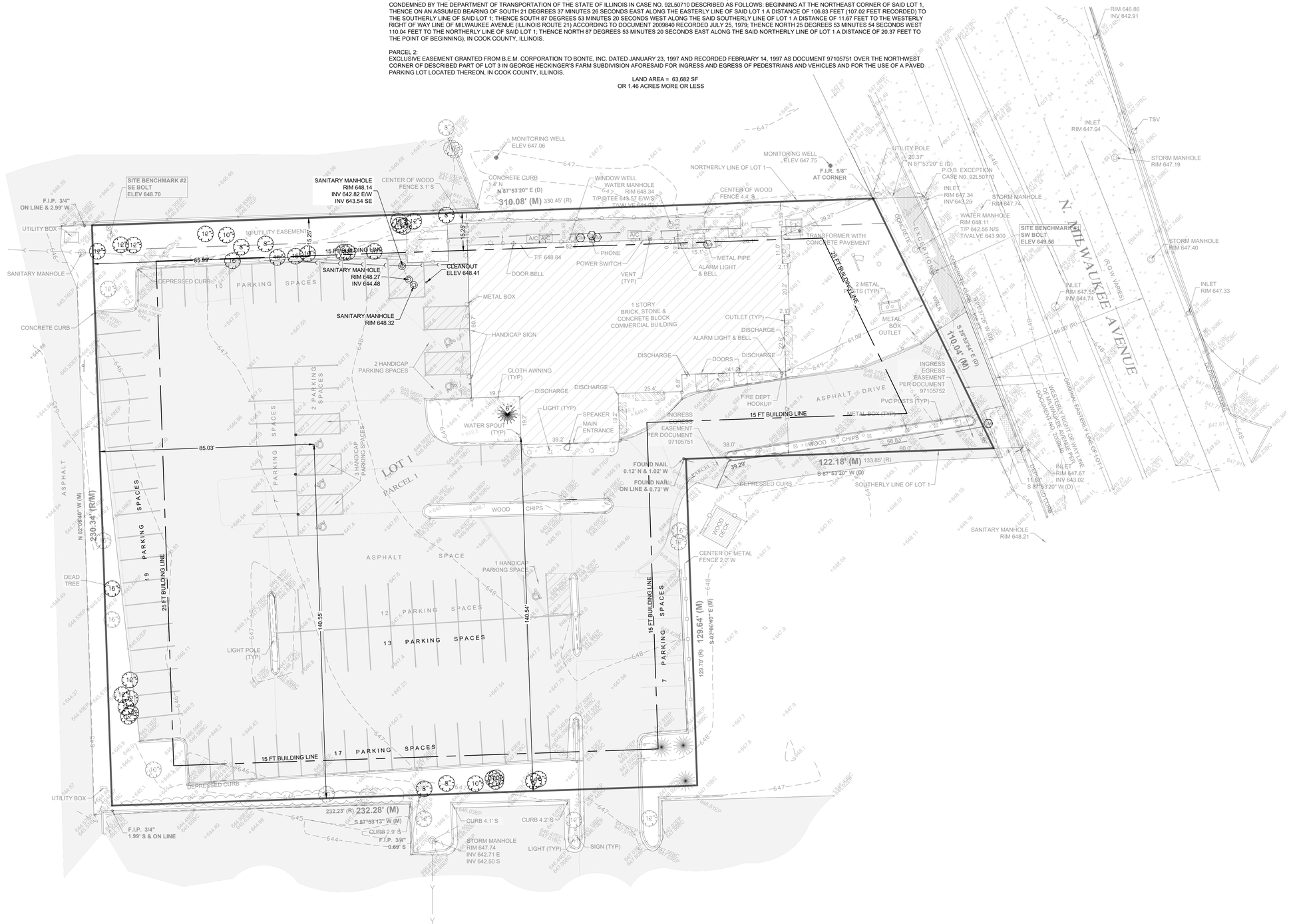
EXISTING CONDITIONS PLAN

PARCEL 1:
LOT 1 IN H. S. H. PROPERTIES RESUBDIVISION OF PART OF LOT 3 IN GEORGE HECKINGER'S FARM SUBDIVISION AND PART OF LOT 5 IN OWNERS SUBDIVISION ALL IN SECTIONS 2 AND 3, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 31, 1972 AS DOCUMENT 21919892. EXCEPT FOR THAT PART OF LOT 1 CONDEMNED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS IN CASE NO. 92L50710 DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 1, THENCE ON AN ASSUMED BEARING OF SOUTH 21 DEGREES 37 MINUTES 26 SECONDS EAST ALONG THE EASTERLY LINE OF SAID LOT 1 A DISTANCE OF 106.83 FEET (107.02 FEET RECORDED) TO THE SOUTHERLY LINE OF SAID LOT 1; THENCE SOUTH 87 DEGREES 53 MINUTES 20 SECONDS WEST ALONG THE SAID SOUTHERLY LINE OF LOT 1 A DISTANCE OF 11.67 FEET TO THE WESTERLY RIGHT OF WAY LINE OF MILWAUKEE AVENUE (ILLINOIS ROUTE 21) ACCORDING TO DOCUMENT 2009840 RECORDED JULY 25, 1979; THENCE NORTH 25 DEGREES 53 MINUTES 54 SECONDS WEST 110.04 FEET TO THE NORTHERLY LINE OF SAID LOT 1; THENCE NORTH 87 DEGREES 53 MINUTES 20 SECONDS EAST ALONG THE SAID NORTHERLY LINE OF LOT 1 A DISTANCE OF 20.37 FEET TO THE POINT OF BEGINNING), IN COOK COUNTY, ILLINOIS.

PARCEL 2:
EXCLUSIVE EASEMENT GRANTED FROM B.E.M. CORPORATION TO BONTE, INC. DATED JANUARY 23, 1997 AND RECORDED FEBRUARY 14, 1997 AS DOCUMENT 97105751 OVER THE NORTHWEST CORNER OF DESCRIBED PART OF LOT 3 IN GEORGE HECKINGER'S FARM SUBDIVISION AFORESAID FOR INGRESS AND EGRESS OF PEDESTRIANS AND VEHICLES AND FOR THE USE OF A PAVED PARKING LOT LOCATED THEREON, IN COOK COUNTY, ILLINOIS.

LAND AREA = 63,682 SF
OR 1.46 ACRES MORE OR LESS



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EXISTING CONDITIONS PLAN

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WHEELING, ILLINOIS

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DATE:	05/15/2025
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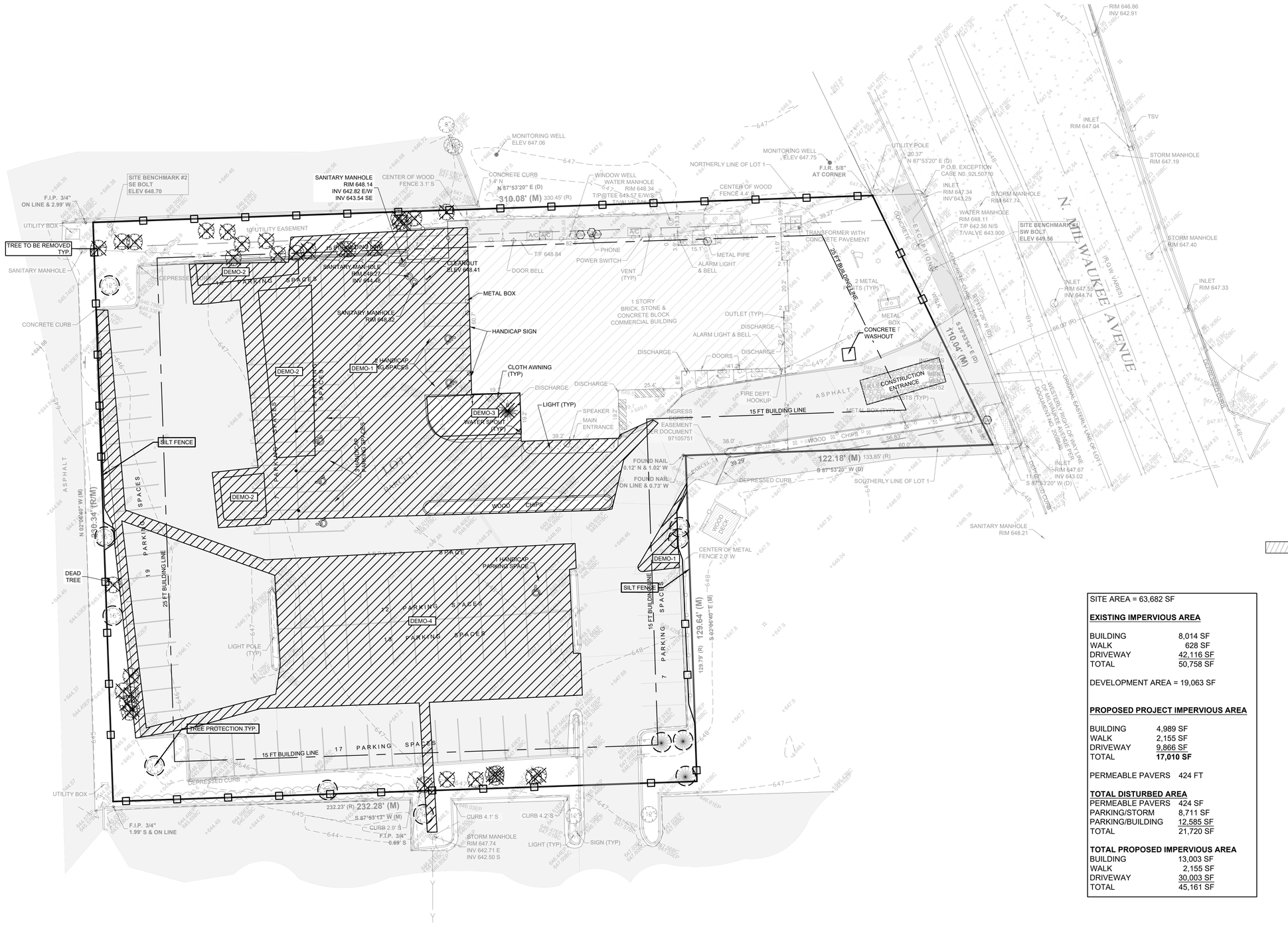
DEMOLITION AND EROSION CONTROL PLAN



DEMO-1 REMOVED PARKING AREA
DEMO-2 REMOVE EXITING PARKING AREA TO LANDSCAPING ISLAND
DEMO-3 EXISTING LANDSCAPING ISLAND TO NEW BUILDING
DEMO-4 REMOVE AND REPLACED ASPHALT AREA

SITE AREA = 63,682 SF

EXISTING IMPERVIOUS AREA

BUILDING	8,014 SF
WALK	628 SF
DRIVEWAY	42,116 SF
TOTAL	50,758 SF

DEVELOPMENT AREA = 19,063 SF

PROPOSED PROJECT IMPERVIOUS AREA

BUILDING	4,989 SF
WALK	2,155 SF
DRIVEWAY	9,866 SF
TOTAL	**17,010 SF**

PERMEABLE PAVERS 424 FT

TOTAL DISTURBED AREA

PERMEABLE PAVERS	424 SF
PARKING/STORM	8,711 SF
PARKING/BUILDING	12,585 SF
TOTAL	21,720 SF

TOTAL PROPOSED IMPERVIOUS AREA

BUILDING	13,003 SF
WALK	2,155 SF
DRIVEWAY	30,003 SF
TOTAL	45,161 SF

20' 10' 0 20'

	DATE	
1	8/28/2025	REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026	REVISED PER VILLAGE OF WHEELING, IL.
5		
6		

DEMOLITION AND EROSION CONTROL PLAN

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

BETTER INFRASTRUCTURE BETTER ENVIRONMENTS BETTER LIFE!

FIELD CREW: PW
DRAWN BY: NG
CHECKED BY: ARS
APPROVED BY: EF
DATE: 05/15/2025
SCALE: HORIZ 1"=20'
VERT –

SHEET
5
OF 11 SHEETS

PROJ # 25-02-2003

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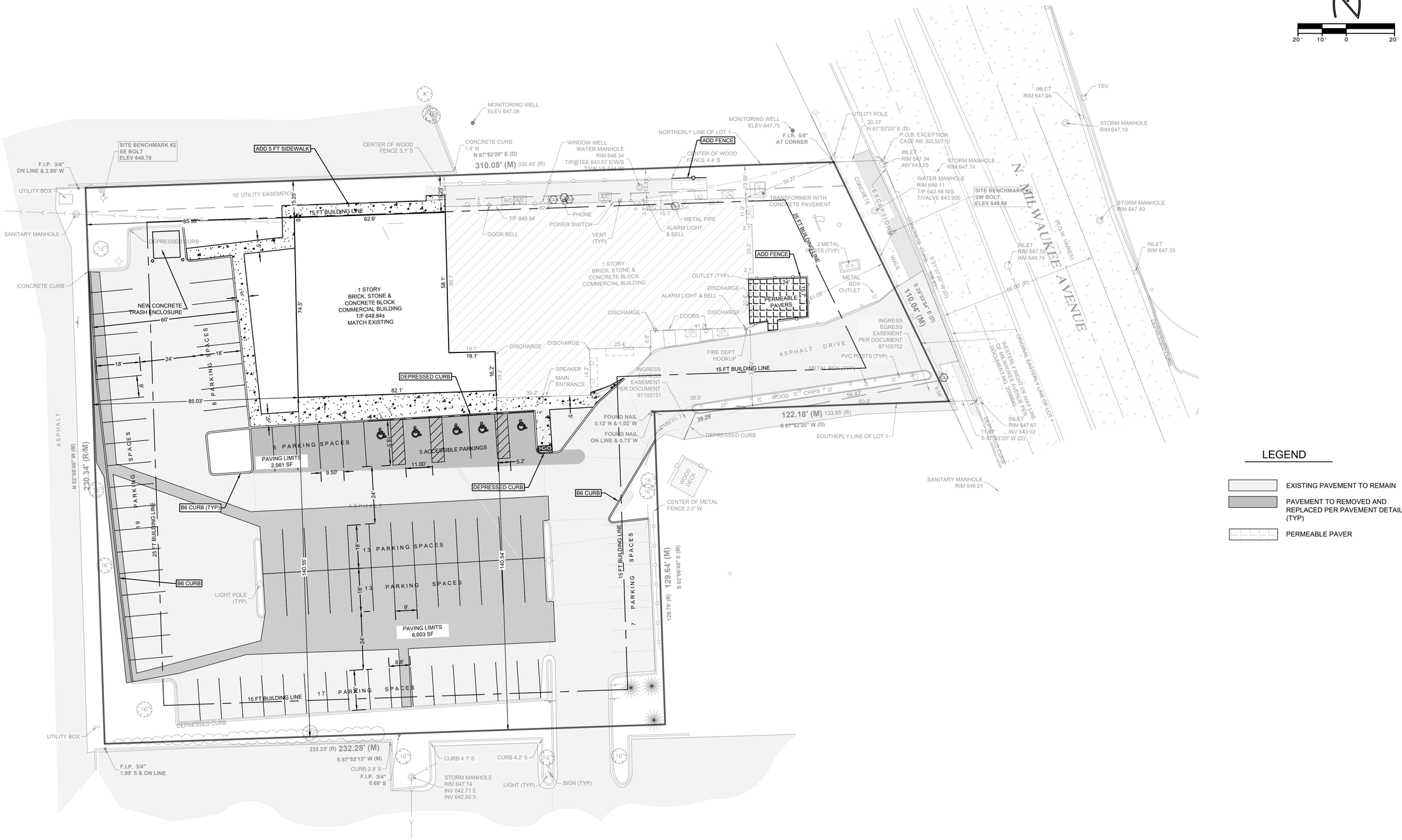
GEOMETRIC PLAN



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SHEET **6** OF 11 SHEETS

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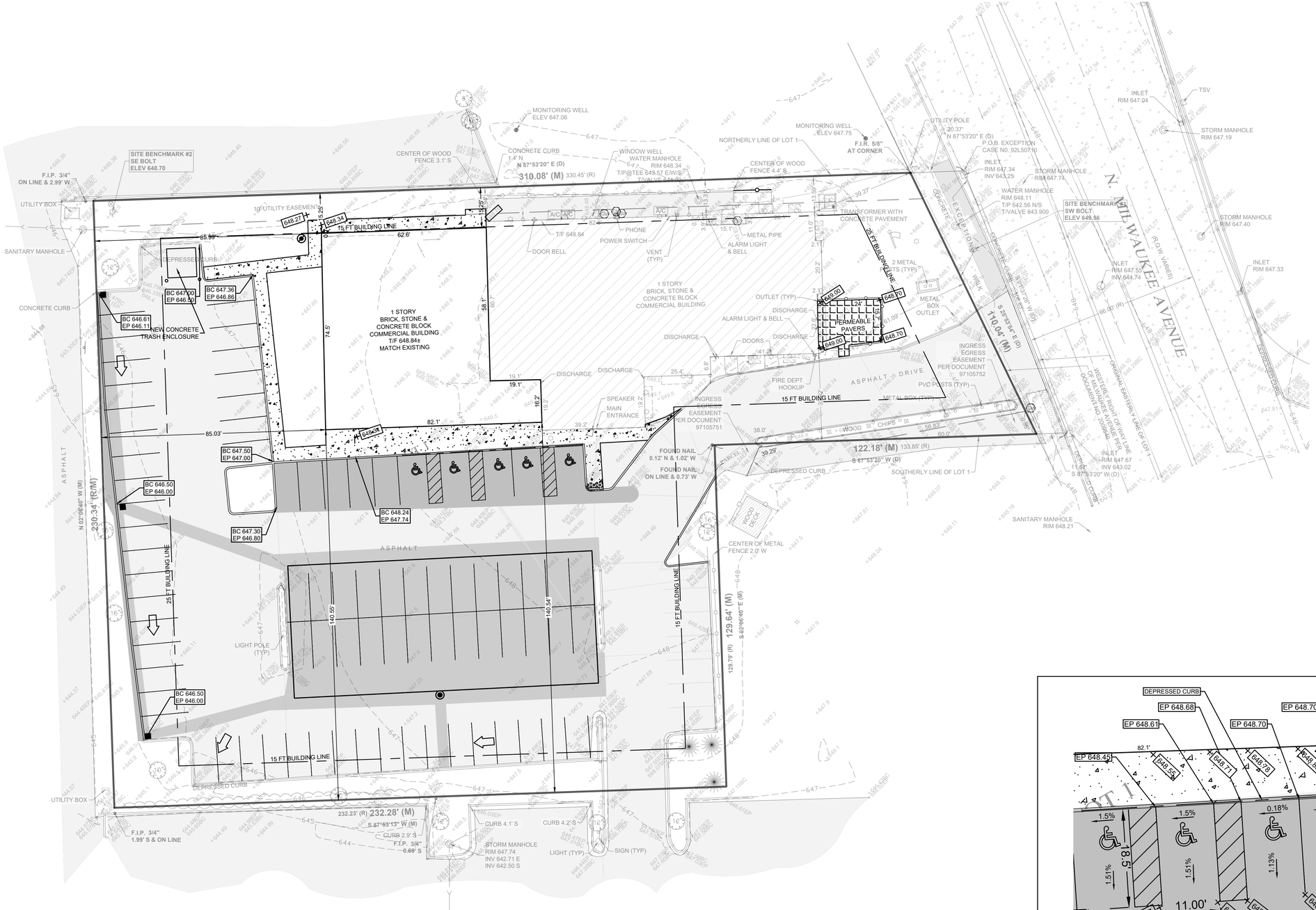
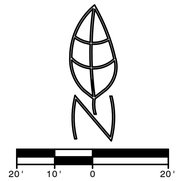
SITE GRADING PLAN





LEGEND

- EXISTING PAVEMENT TO REMAIN
- PAVEMENT TO REMOVED AND REPLACED PER PAVEMENT DETAIL (TYP)
- PERMEABLE PAVER

SITE AREA = 63,682 SF

EXISTING IMPERVIOUS AREA

BUILDING	8,014 SF
WALK	628 SF
DRIVEWAY	42,116 SF
TOTAL	50,758 SF

DEVELOPMENT AREA = 19,063 SF

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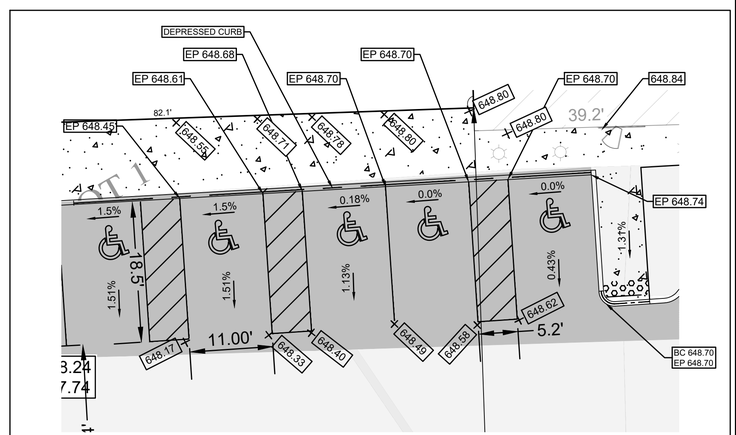

HANDICAP SPACES
SCALE 1":10'

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6	

GRADING PLAN

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WHEELING, ILLINOIS

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BETTER INFRASTRUCTURE | BETTER ENVIRONMENTS | BETTER LIFE!

FIELD CREW:	PW
DRAWN BY:	NG
CHECKED BY:	ARS
APPROVED BY:	EF
DATE:	05/15/2025
SCALE:	HORIZ 1"=20'
	VERT –

SHEET
7
OF 11 SHEETS

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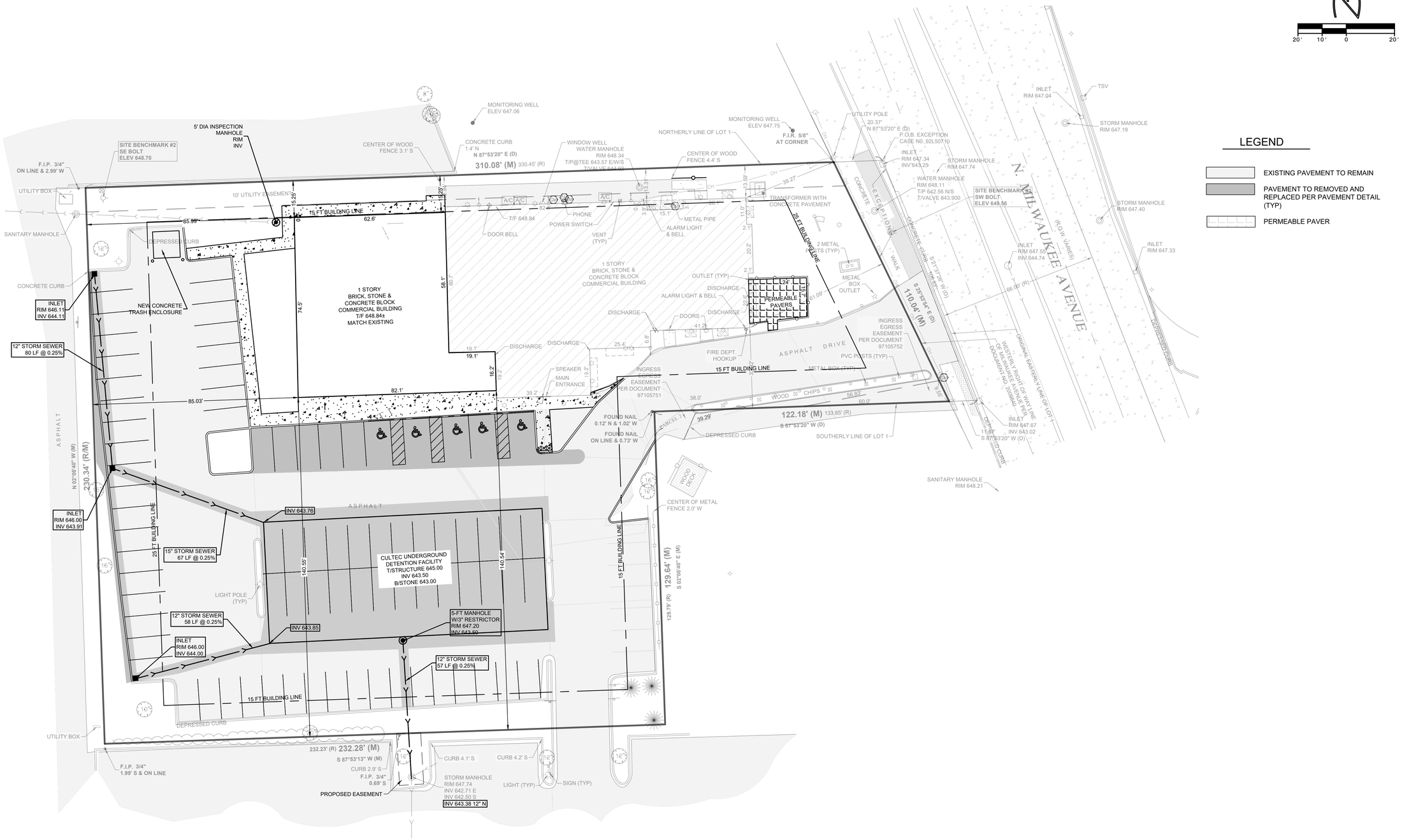
UTILITY PLAN



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UTILITY PLAN

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CHECKED BY:	ARS
APPROVED BY:	EF
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SCALE:	HORIZ 1"=20'
	VERT –

SHEET **8** OF 11 SHEETS

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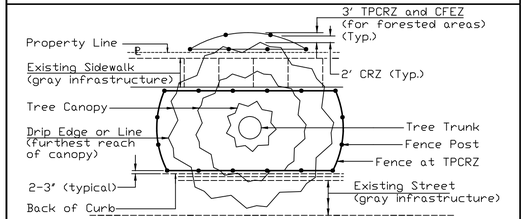
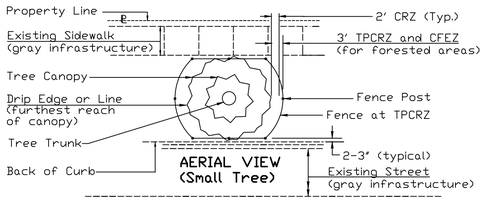
TREE PROTECTION - FENCING
(Highly Urbanized Areas)



AERIAL VIEW
(Large Tree)



AERIAL VIEW
(Small Tree)

Notes:

1. Call J.U.L.I.E. (800-892-0123) for the location of existing utilities 48 hours prior to commencement of work.
2. The CRZ is located 2' from the farthest outreaching branch (drip edge) or the distance as determined by the ISA trunk diameter method or whichever is greater.
3. On sides of the tree not constricted by gray infrastructure, the fence shall be located 1 foot from the Critical Root Zone (CRZ) of the protected tree, thus creating the Tree Protection Critical Root Zone (TPCRZ). The Critical Forest Edge Zone (CFEZ), for forested areas, shall also be located at the TPCRZ.

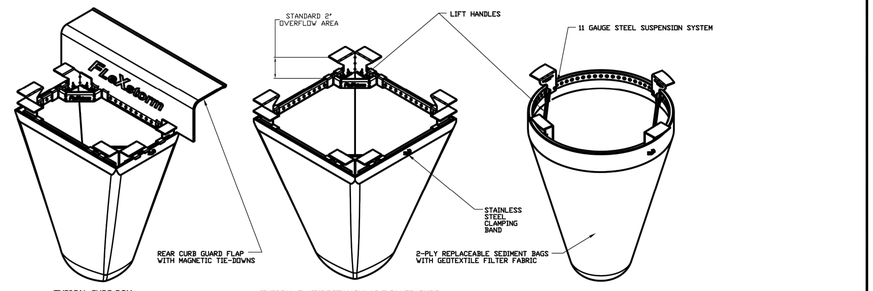
REFERENCE		STANDARD DWG. NO.
Project		IUM-690-B
Designed ____ Date ____		SHEET 1 OF 2
Checked ____ Date ____		DATE 09-14-2017
Approved ____ Date ____		

TREE PROTECTION - FENCING
(Highly Urbanized Areas)

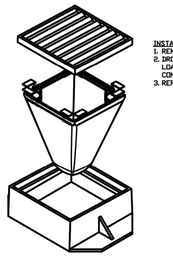
Notes: (cont.)

4. On sides of the tree where there is gray infrastructure conflict the fence shall be 3 to 4 inches from the structure. Where the structure is a sidewalk and the CRZ goes beyond the sidewalk to the adjoining greenspace, the Tree Protection Fencing shall continue to the CRZ without impeding the flow of the traffic of the sidewalk.
5. Fence Posts shall be either 6' steel posts @ 1.33Lbs./Ft. or 2" x 2" nominal wood posts.
6. A chain link fence with Construction Specification Chain Link Fence IUM 91 or better (as approved by the local Forester per local ordinances singularly or in tandem with the project Engineer) shall be used. Fencing shall be a minimum height of 4'. Metal posts shall be placed 6' on center (OC) and fencing is securely anchored to the ground.
7. Outside the TPCRZ, erosion and sediment control measures shall be installed to prevent sediment reaching the TPCRZ. These measures shall extend out from the fence 10' and shall be continuous around the perimeter of the fence. These measures include, but are not limited to vegetative filter strip, rolled excelsior blankets and woodchip mulch with a 3" to 5" depth. Other methods may be used if approved by the Professional Forester, Certified Arborist or Horticulturalist. Installation shall cause no disturbance to soils.

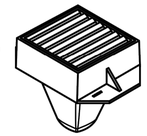
REFERENCE		STANDARD DWG. NO.
Project		IUM-690-B
Designed ____ Date ____		SHEET 2 OF 2
Checked ____ Date ____		DATE 09-14-2017
Approved ____ Date ____		



IPP *FLEX*storm Inlet Filter Specifications			
Material Property	*Test Method*	*Value (min ave)*	
> Inner Filter Bag Specs (2 ft² min vol)		Non-Woven	Woven Mono
Grab Tensile	ASTM D 4632	100 lbs	200 lbs
Puncture Strength	ASTM D 4833	65 lbs	90 lbs
Trapezoidal Tear	ASTM D 4533	45 lbs	75 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs	90%
App Open Size (AOS)	ASTM D 4751	70 sieve (.212 mm)	40 sieve (.425 mm)
Permittivity	ASTM D 4491	2.0 /sec	2.1/sec
Water Flow Rate	ASTM D 4491	145 gpm/sqft	145 gpm/sqft
> Polyester Outer Reinforcement Bag Specifications			
Weight	ASTM D 3776	4.55 oz/sqyd +/- 15%	
Thickness	ASTM D 1777	.040 +/- .005	
> Frame Construction			
A36 Structural Steel; 11 Guage; Zinc Plated	ASTM A 576	*Tensile Strength > 58,000 psi; Yield Strength > 36,000 psi*	



INSTALLATION:
1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE



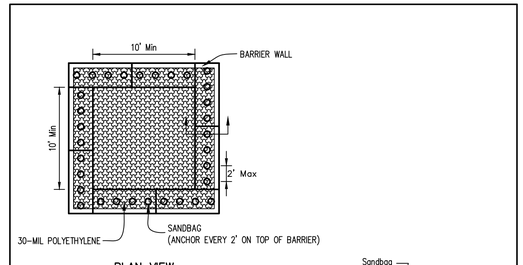
OR VILLAGE OF WHEELING APPROVED EQUAL

DRAWN ANDRIANO		ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC 1635 TONNE RD ELK GROVE, IL WWW.INLETFILTERS.COM (847) 732-0690 PH (847) 364-5262 FX SALES@INLETFILTERS.COM	
CHECKED			
QA			
PPG			
APPROVED			
		SIZE C	DWG NO IPP_FLEXSTORM_SPECS
		SCALE	SHEET 1 OF 1

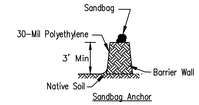
VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

INLET AND FILTER PROTECTION STANDARD

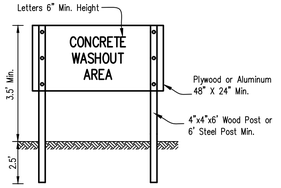
VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
	S.W.	01-30-03 AUTOCAD FILE	
FILE LOCATION	C.J.C.	11-27-07 AUTOCAD FILE	ERO-1
T:\ENGINEERING\STANDARDS			



PLAN VIEW



BARRIER WALL ANCHOR SECTION



SIGN DETAIL

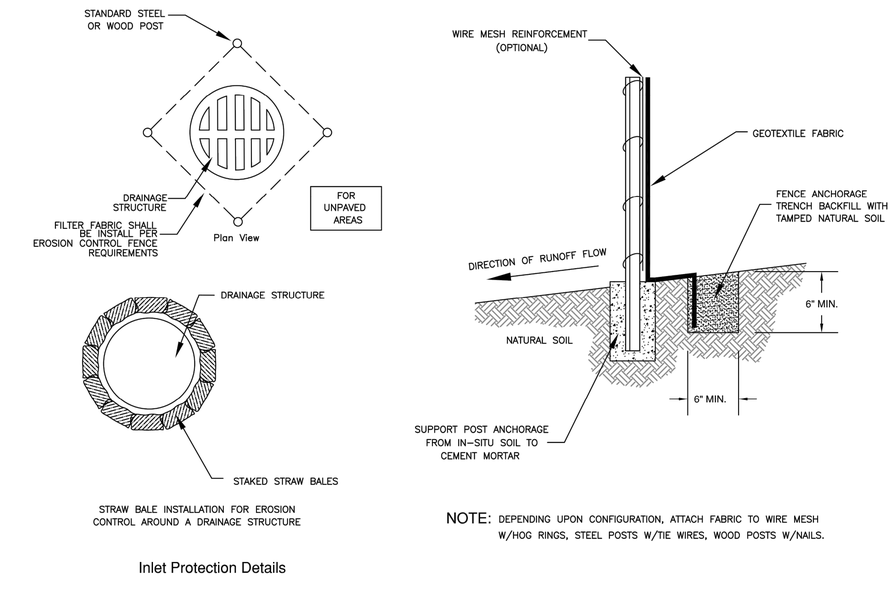
NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

4" = 1'-0"	No. Date	By
	8/28/2025	NG

TEMPORARY CONCRETE WASHOUT FACILITY - BARRIER WALL

	Date
Designed	
Drawn B. JOHNSON	6/08
Checked	
Approved	



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

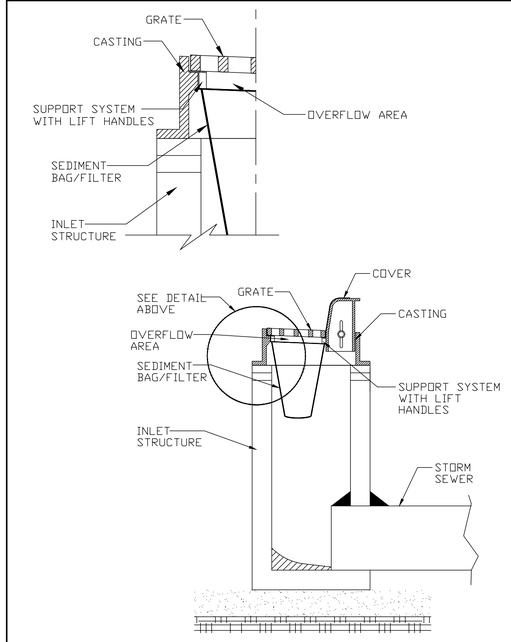
Inlet Protection Details

VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

SILT FENCE INSTALLATION STANDARD

VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
	S.W.	05-01-00 AUTOCAD FILE	
FILE LOCATION	S.W.	11-07-01 PER COMMENTS	ERO-2
T:\ENGINEERING\STANDARDS	C.J.C.	01-29-08 AUTOCAD FILE	
	K.A.G.	12-20-16 INLET PROTECTION	

INLET PROTECTION - PAVED AREAS
DROP-IN PROTECTION



REFERENCE		STANDARD DWG. NO.
Project		IUM-561D
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 01-11-11
Approved ____ Date ____		

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DETAIL SHEET

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WHEELING, ILLINOIS

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VERT	–

SHEET
9
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COMPOSITE RUNOFF COEFFICIENT (*C*)

PROJECT: 604 N Milwaukee **PERMIT NUMBER:**

LOCATION: Wheeling **DATE:** 6/16/2025

TYPE OF AREA (SELECT WITH DROP-DOWN)

___ DETAINED AREA ___ MAJOR STORMWATER SYSTEM

___ UNRESTRICTED AREA ___ OTHER:

___ UPSTREAM AREA

CONDITION (SELECT WITH DROP-DOWN)

___ PROPOSED CONDITION ___ EXISTING CONDITION

RUNOFF COEFFICIENT

Surface Description	C	Area (acres)	Product (C)(Area)
impervious	0.95	0.39	0.37
pervious	0.50	0.05	0.02
TOTALS:		0.44	0.39

COMPOSITE RUNOFF COEFFICIENT

Composite C = Total Product / Total Area = 0.39 / 0.44 → Composite C = **0.90**

4/7/2022

MODIFIED RATIONAL METHOD: BULLETIN 75 RAINFALL DATA

PROJECT: 604 N Milwaukee **PERMIT NUMBER:**

LOCATION: Wheeling **DATE:** 6/16/2025

DEVELOPMENT INFORMTION

1. Detained Area	0.440	acres
2. Composite Runoff Coefficient	0.900	
3. Actual Release Rate	0.060	cfs

REQUIRED DETENTION VOLUME

4. Required Detention Volume	**0.188**	ac-ft

CALCULATION TABLE

Storm Duration	Rainfall Intensity (in/hr)	Inflow Rate (cfs)	Stored Rate (cfs)	Required Storage (ac-ft)	
5 min	12.36	4.89	4.83	0.033	
10 min	10.80	4.28	4.22	0.058	
15 min	9.28	3.67	3.61	0.075	
20 min	8.04	3.18	3.12	0.086	
30 min	6.34	2.51	2.45	0.101	
40 min	5.28	2.09	2.03	0.112	
50 min	4.55	1.80	1.74	0.120	
1 hr	4.03	1.60	1.54	0.127	
1.5 hr	3.03	1.20	1.14	0.141	
2 hr	2.49	0.99	0.93	0.153	
3 hr	1.83	0.72	0.66	0.165	
4 hr	1.48	0.59	0.53	0.174	
5 hr	1.25	0.50	0.44	0.180	
6 hr	1.07	0.42	0.36	0.180	
7 hr	0.96	0.38	0.32	0.185	
8 hr	0.86	0.34	0.28	0.185	
9 hr	0.79	0.31	0.25	0.188	←
10 hr	0.72	0.29	0.23	0.186	
11 hr	0.67	0.27	0.21	0.187	
12 hr	0.62	0.25	0.19	0.185	
18 hr	0.45	0.18	0.12	0.174	
24 hr	0.36	0.14	0.08	0.161	

4/7/2022

ORIFICE DISCHARGE RATE

PROJECT: 604 N Milwaukee **PERMIT NUMBER:**

LOCATION: Wheeling **DATE:** 6/16/2025

RESTRICTOR INFORMTION

1. Orifice Number			
2. Orifice diameter, *d*	3.00	in	
3. Discharge Coefficient, C_d	0.61		
4. Invert Elevation	643.50	ft	
5. High Water Elevation, HWL	645.00	ft	
6. Tail Water Elevation		ft	

ACTUAL RELEASE RATE

6. Free Flow Actual Release Rate at HWL	**0.28**	cfs	
7. Submerged Actual Release Rate at HWL		cfs	

STAGE-DISCHARGE TABLE CONDITION (SELECT FROM DROP-DOWN)

Free-flow

STAGE-DISCHARGE TABLE

Elevation (ft)	Orifice 1 (cfs)	Orifice 2 (cfs)	Total (cfs)	
643.50	0.00		0.00	
644.00	0.15		0.15	
645.00	0.28		0.28	HWL

4/7/2022

CULTEC StormGenie

USER INPUTS

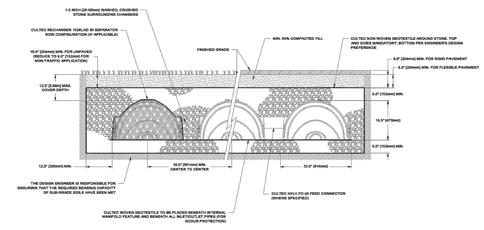
Project Name:	
Engineer:	eric foytik
Project Location:	
Measurement Type:	Imperial
Chamber Model:	Recharger 150XLHD
Required Storage Volume:	8016 cf
Available Length:	117 ft
Available Width:	84 ft
Stone Above Chambers:	6 in
Stone Below Chambers:	6 in
Base Stone Elevation:	643 ft
Stone Porosity:	36%
Maximum Allowable Finished Grade	657.04 ft
Minimum Allowable Finished Grade	646.21 ft
Outlet Control Structure:	Yes

RESULTS

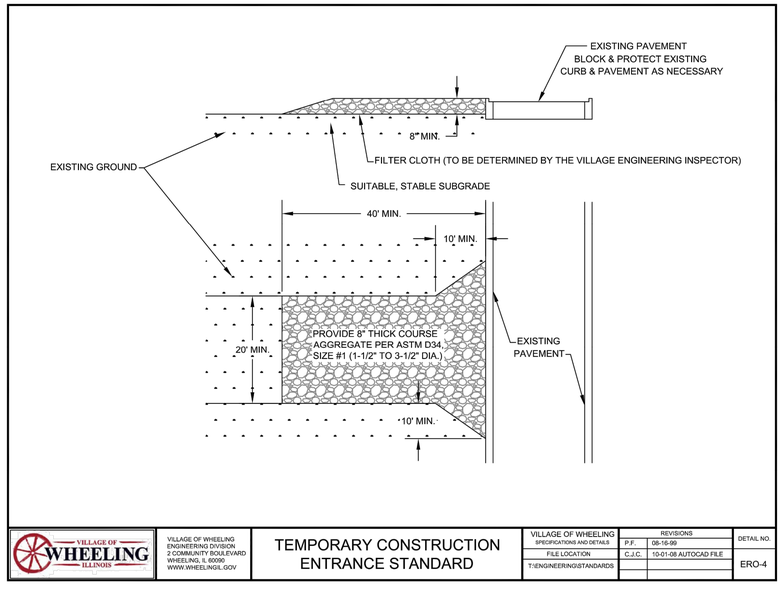
Installed Storage Volume:	8054.16 cf
Storage Volume Per Chamber:	27.16 cf
Chamber Rows:	15
Maximum Length:	115.50 ft
Maximum Width:	50.25 ft
Approx. Bed Area Required:	5703.94 sf

SYSTEM COMPONENTS - NOT FOR CONSTRUCTION

Number of Chambers Required:	162
Number of End Caps Required:	30
Number of Feed Connectors Required:	26
Amount of Stone Required:	373 cy
Volume of Excavation (Not Including Fill):	537 cy
Non-woven Geotextile Required:	1955 sy
Woven Geotextile Required (Beneath Internal Manifold):	111 ft
Woven Geotextile Required (Separator Row):	128 ft
Total Woven Geotextile Required:	238 ft



www.cultec.com



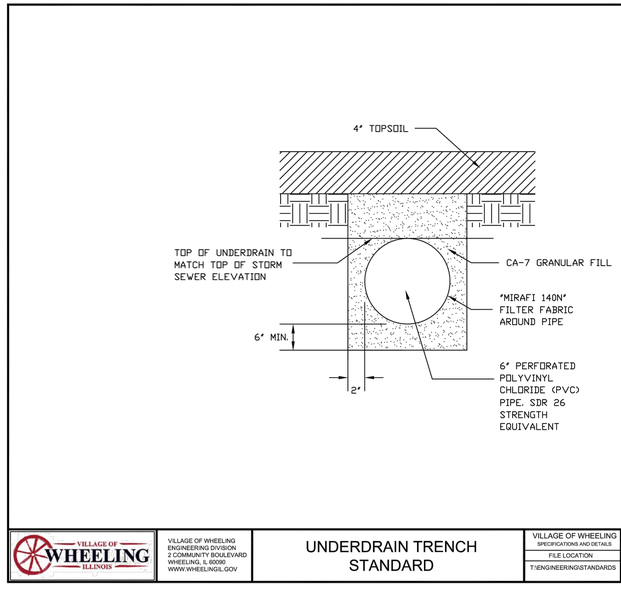
VILLAGE OF WHEELING ILLINOIS

VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

TEMPORARY CONSTRUCTION ENTRANCE STANDARD

VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	P.F.	08-16-99
FILE LOCATION	C.J.C.	10-01-08 AUTOCAD FILE
T:\ENGINEERING\STANDARDS		

DETAIL NO. ERO-4



VILLAGE OF WHEELING ILLINOIS

VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

UNDERDRAIN TRENCH STANDARD

VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	S.W.	5-17-00 AUTOCAD FILE
FILE LOCATION	S.W.	11-08-01 PER COMMENTS
T:\ENGINEERING\STANDARDS	K.R.G.	9-11-06 AUTOCAD FILE

DETAIL NO. ST-9

DATE	
1	8/28/2025 REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026 REVISED PER VILLAGE OF WHEELING, IL.
5	
6	

DETAIL SHEET

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

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FIELD CREW: PW
DRAWN BY: NG
CHECKED BY: ARS
APPROVED BY: EF
DATE: 05/15/2025
SCALE: HORIZ –
VERT –

SHEET **10** OF 11 SHEETS

PROJ # 25-02-2003

1/16/2026 11:34:16 AM
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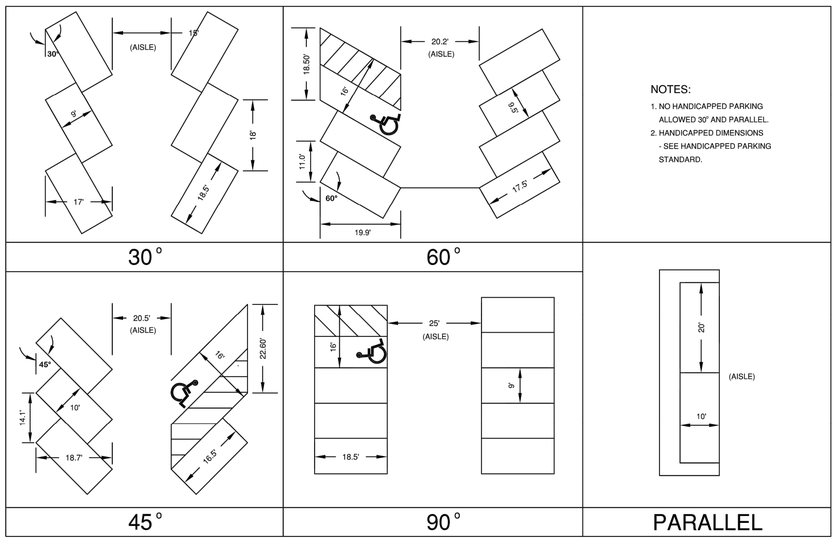
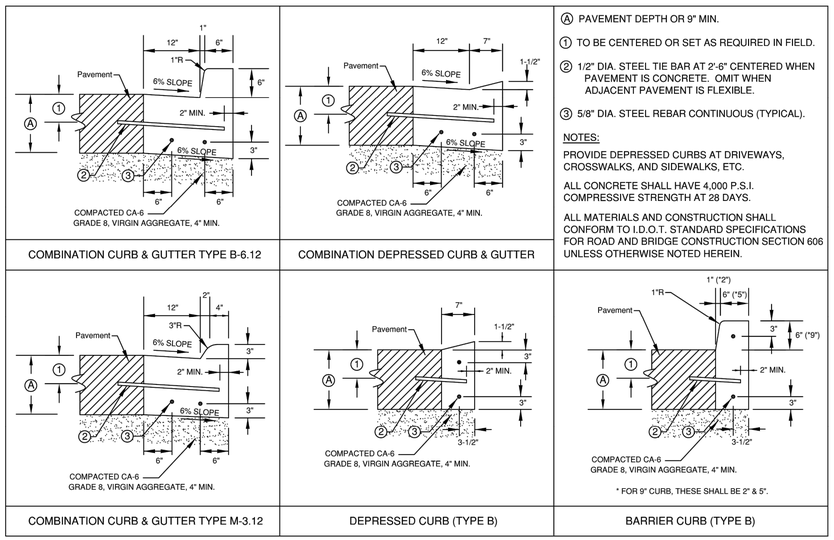


VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	PARKING STALL STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
			S.W.	06-01-00 AUTOCAD FILE	R-7
		FILE LOCATION	C.J.C.	11-27-07 AUTOCAD FILE	
		T:\ENGINEERING\STANDARDS	K.A.G	01-12-16 AUTOCAD FILE	



VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	CURB AND GUTTER STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
			S.W.	06-16-00 AUTOCAD FILE	R-12
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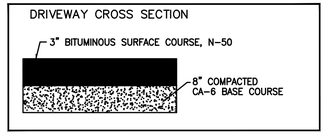

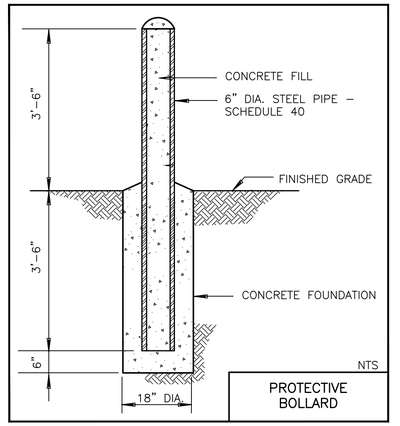

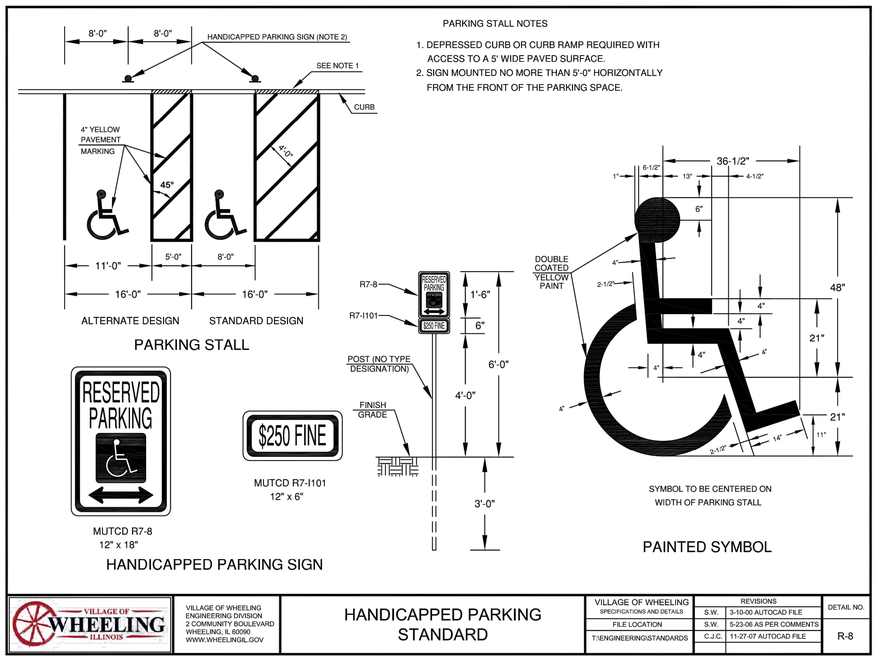

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			S.W.	3-10-00 AUTOCAD FILE	R-8
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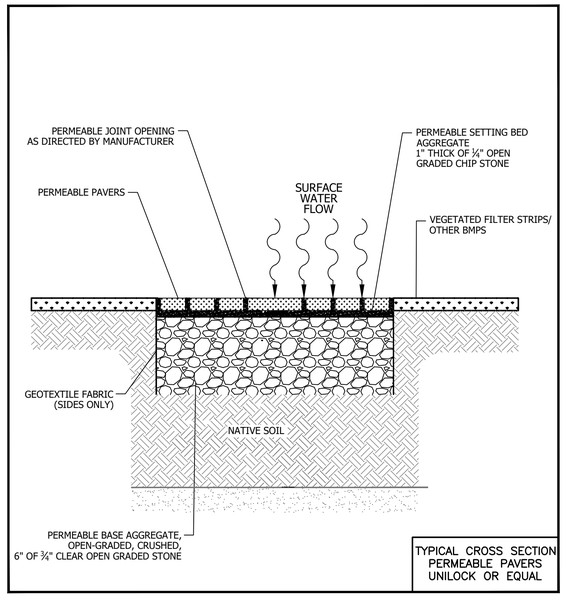
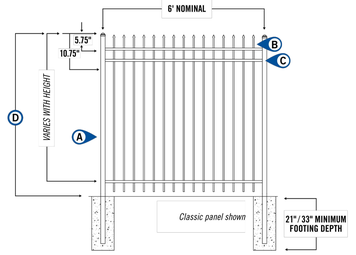


ECHELON® | 2 & 3-RAIL OPTIONS | 4" AIR-SPACE

STANDARD BOTTOM & FLUSH BOTTOM OPTIONS AVAILABLE



- Ⓐ 2"sq x .060" wall POSTS
- Ⓑ 0.590"sq x .050" wall PICKETS
- Ⓒ 1.125"w x 1"h *(0.072" side / 0.055" top)* ForeRunner™ RAILS
- Ⓓ 4', 4½', 5' & 6' PANEL HEIGHTS

ECHELON® | 3-RAIL PANELS | 4" AIR SPACE

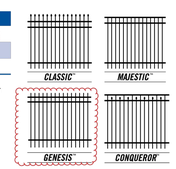
STANDARD BOTTOM | 6' PANEL LENGTH *(71.5" actual width)* **| 15 PICKETS PER PANEL | 24 PANELS PER PALLET**

PANEL	ITEM NUMBER	WEIGHT	STOCKING
4'	A0☒⊗3466	13 lbs	CB MB GB
5'	A0☒⊗3586	15 lbs	CB MB GB
6'	A0☒⊗3706	17 lbs	CB MB GB

☒ = ***FENCE STYLES AVAILABLE*** | C = Classic M = Majestic G = Genesis R = Conqueror

⊗ = ***COLOR OPTIONS AVAILABLE*** | B = Black N = Bronze W = White

⊘ = ***NON-STOCKED PRODUCT***
For details, see Ameristar's Sales Policy in the catalog guide.



DATE	
1	8/28/2025 REVISED PER VILLAGE OF WHEELING, IL
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3	12/16/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026 REVISED PER VILLAGE OF WHEELING, IL
5	
6	

DETAIL SHEET

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

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FIELD CREW:	PW
DRAWN BY:	NG
CHECKED BY:	ARS
APPROVED BY:	EF
DATE:	05/15/2025
SCALE:	HORIZ –
	VERT –

SHEET **11** OF 11 SHEETS

PROJ # 25-02-2003

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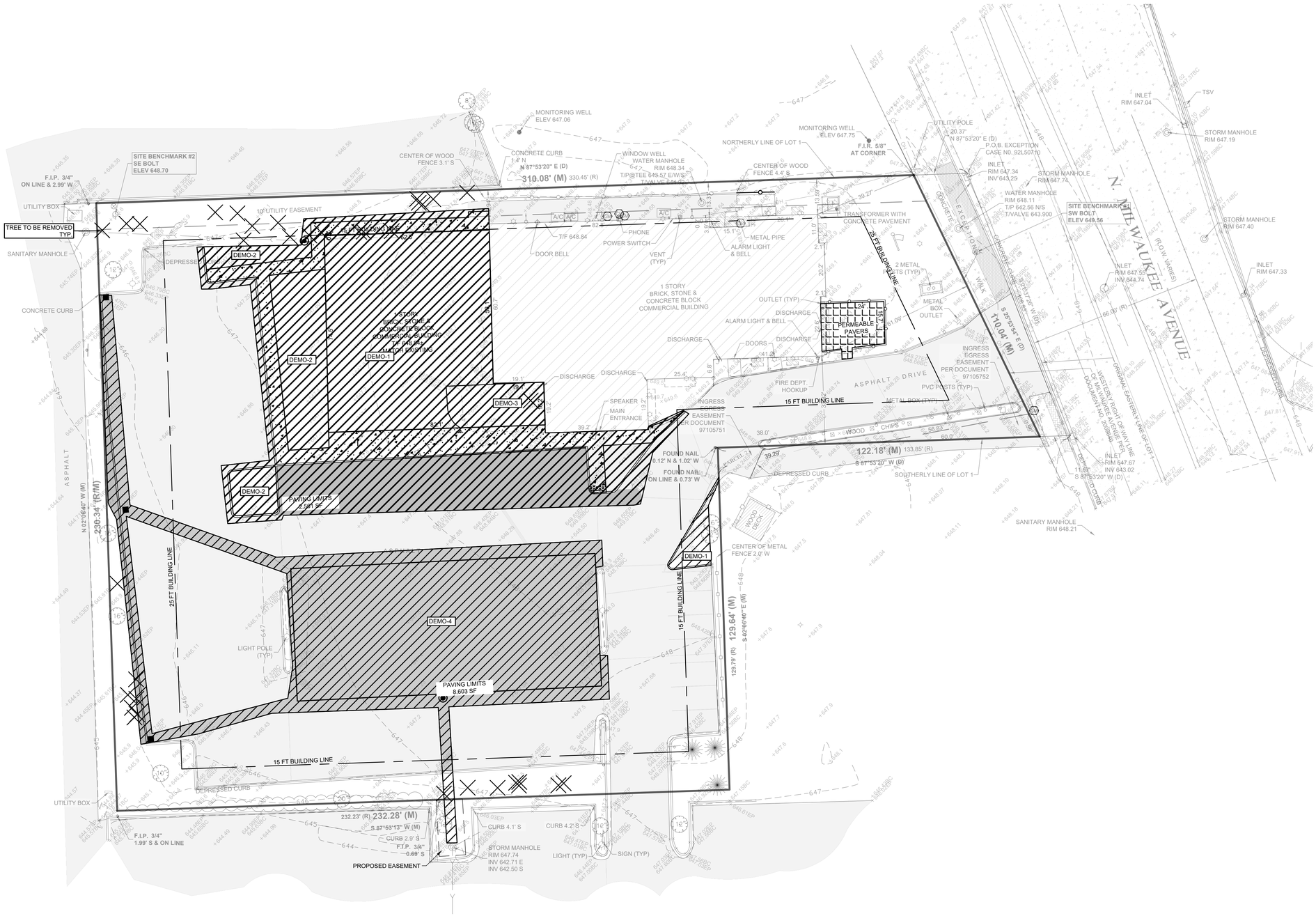
SITE GRADING PLAN



SITE AREA = 63,682 SF	
EXISTING IMPERVIOUS AREA	
BUILDING	8,014 SF
WALK	628 SF
DRIVEWAY	42,116 SF
TOTAL	50,758 SF
DEVELOPMENT AREA = 19,063 SF	
PROPOSED IMPERVIOUS AREA	
BUILDING	4,989 SF
WALK	2,246 SF
DRIVEWAY	9,866 SF
TOTAL	**17,101 SF**
PERMEABLE PAVERS	424 FT
TOTAL DISTURBED AREA	
PERMEABLE PAVERS	424 SF
PARKING/STORM	8,711 SF
PARKING.BUILDING	12,585 SF
TOTAL	21,720 SF

NO.	DATE	
1	8/28/2025	REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026	REVISED PER VILLAGE OF WHEELING, IL.
5		
6		

DISTURBED AREA EXHIBIT

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
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FIELD CREW:	PW
DRAWN BY:	NG
CHECKED BY:	ARS
APPROVED BY:	EF
DATE:	05/15/2025
SCALE:	HORIZ 1"=20'
	VERT –

SHEET
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OF____SHEETS

PROJ # 25-02-2003

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MEMORANDUM

DATE: March 11, 2026
FROM: Marcy Knysz, Village Planner
SUBJECT: Docket No. PV26-0004, Request for a Variation to Permit a Reduction in the Minimum Required Drive Aisle Width for Double-Row Parking from 25 Feet to 24 Feet for Hamro Investment Group, LLC (604 N. Milwaukee Avenue). **PUBLIC HEARING**
RECOMMENDED ACTION: **Recommend approval of Docket No. PV26-0004** granting a variation from Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19.11.010, Off-Street Parking and Loading, and associated sections, to permit a reduction in the minimum required drive aisle width for double-row parking from 25 feet to 24 feet for Hamro Investment Group, LLC (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004), located at 604 N. Milwaukee Avenue in accordance with the Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026; Engineering Plans prepared by Morris Engineeirng, Inc., last revised 1/16/2026; and subject to the following condition:

1. Approval of the variance is contingent upon approval of Docket No. PSU25-0012 (special use approval to permit the operation of an entertainment establishment); Docket No. PV26-0003 (variation to permit a reduction in the minimum required stall) and Docket No. PSPMAJ25-0001 (major site plan and building appearance approval for the construction of a building addition and associated site improvements).

EXECUTIVE SUMMARY

Docket No. PV26-0004: Hamro Investment Group, LLC (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004), property owner, is seeking a variation to permit a reduction in the minimum required drive aisle width for double-row parking from 25 feet to 24 feet, for the property located at 604 N. Milwaukee Avenue, as required in Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19.11.010, Off-Street Parking and Loading, and associated sections.

GENERAL PROPERTY INFORMATION

Petitioner: Hamro Investment Group, LLC

Location: 604 N. Milwaukee Avenue

Property size: 66,999 sq. ft. (1.54 acres)

Building size: 8,000 sq. ft. / 4,950 sq. ft. building addition (Docket No. PSPMAJ25-0001)

Neighboring Property Land Use(s):
North: Multi-tenant Industrial/Vacant Land
West: Multi-tenant Industrial
South: Multi-tenant Industrial/Parking Lot/Old Munich Tavern

Existing Use of Property: Commercial retail space (vacant, former Buca di Beppo)

Existing Zoning: MXC, Commercial/Residential Mixed Use

Comprehensive Plan Designation: Commercial/Residential Mixed Use

Zoning History:

- Ordinance #1428, approved 6/14/1976, granting a sign variation (Docket No. 422).
- Docket No. PC-303, approved 9/22/1994, granting appearance approval of architectural, landscape, lighting and signage.
- Ordinance #2991, approved 10/3/1994, granting special use and site plan approval for a restaurant with live music for Yvette North (Docket No. 1994-28).
- Ordinance #3187, approved 1/6/1997, granting special use and suite plan approval for a restaurant with live music for Buca di Beppo (Docket No. 1996-36).
- Docket No. PC-363, approved 5/8/1997, granting appearance approval for a sign for Buca di Beppo.
- Docket No. PC-504, approved 12/9/1999, granting appearance approval for a sign for Buca Little Italy.
- Docket No. PC-541, approved 2/8/2001, granting appearance approval of a restaurant expansion and added parking.
- Docket No. SCBA-011, approved 10/11/2001, granting approval of a freestanding sign face change.
- Ordinance #1193, approved 7/10/1972, granting a rezoning from the I-1 to the B-4 Zoning District (Docket No. 304).
- Ordinance #3533, approved 2/26/2001, granting special use and site plan approval for a restaurant with live music (Docket No. 2001-7A).
- Ordinance #3534, approved 2/26/2001, granting a variation for the pavement setback (Docket No. 2001-7B).
- Ordinance #3535, approved 2/26/2001, granting a variation to permit 2 freestanding signs along Milwaukee Avenue (Docket No. 2001-7C).

SUMMARY OF REQUEST

Hamro Investment Group, LLC is requesting a variation to reduce the minimum required drive aisle width from 25 feet to 24 feet for the property located at 604 N. Milwaukee Avenue. The requested variation is associated with the redevelopment of the site for “604 The Arena”, a proposed entertainment establishment.

The petitioner is also seeking special use approval to permit the operation of an entertainment establishment (Docket No. PSU25-0012), as well as a variation to permit a reduction in the minimum required stall length (Docket No. PV26-0003). In addition, the petitioner is requesting major site plan & appearance approval to construct a building addition and comprehensive façade renovations (Docket No. PSPMAJ25-0001).

VARIANCE

A variation is to grant relief from the literal requirements of the zoning ordinance when unique circumstances, applicable to the property, deprive it from enjoying privileges commonly enjoyed by other properties in the same zoning district. After review of the Standards summarized in this staff report, the Commission must find beyond a reasonable doubt that all of the standards are met.

As detailed in Docket No. PSPMAJ25-0001, the petitioner is seeking to repurpose the existing one-story restaurant building formerly occupied by Buca di Beppo for the “604 The Arena” entertainment establishment. The project includes the construction of a 4,977 sq. ft. building addition to provide additional floor area and increase in occupancy.

Due to the expansion of the building, the existing parking lot will also be expanded at the northwest corner of the property. The new parking lot is designed to align with existing conditions to allow a cohesive blending between the existing parking area and the proposed expanded parking lot. As the existing parking lot utilizes the (industry standard) 24’ wide drive aisle for two-way traffic, strict compliance with the minimum 25-foot drive aisle width would create irregularities in parking lot dimensions and require a comprehensive reconfiguration of the entire parking lot. Accordingly, the petitioner is requesting a variation to reduce the minimum required drive aisle width for double-row parking from 25 feet to 24 feet within the proposed parking expansion area.

Standards for Variation: Following are the petitioner's responses to the standards for variation for the variance request. (Any staff comments follow the petitioner’s response)

1. **State how the particular physical surroundings, shape, or topographical condition of the specific property involved would result in a practical difficulty or particular hardship upon or for the owner,**

lessee or occupant, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out.

Petitioner: The owner is trying to do the adaptive reuse of existing building. The aisles as indicated are existing and any changes made to it will impact the usability of the site. Changing the aisle size will create unnecessary hardship to the owner.

Staff: The subject property is developed with an existing commercial building and parking lot that were constructed under prior Code standards. The proposed parking expansion area is located at the northwest corner of the site and is constrained by the existing building footprint, internal drive aisles, and perimeter property boundaries. The variance is not based solely on convenience, rather on maintaining functional parking and circulation while accommodating adaptive reuse and building improvements.

2. **Indicate how the hardship is due to unique circumstances that do not generally apply to the other properties or uses.**

Petitioner: The existing drive aisle layout is unique to the existing building due to the existing site layout.

Staff: The petitioner's hardship relates to the current dimensional standards of the existing parking lot, which is constrained by an existing structure and previously established access points. These constraints are specific to the subject property and are not generally applicable to other properties within the zoning district, particularly those that are vacant, newly developed, or not limited by an existing building and parking configuration.

3. **Describe how the alleged difficulty or hardship has not been created by any person presently having an interest in the property.**

Petitioner: Parking lot and aisles were previously in use until the existing company went out of business. The parking lot conditions are not caused by the applicant, nor by any person still having an interest in the property.

Staff: The existing parking lot configuration was established under prior ownership and has historically functioned in its current layout. The request to reduce the width of the drive aisle by 1 foot arises from existing site constraints and is not the result of actions taken by the current owner.

4. **State how the property in question cannot yield a reasonable return if permitted to be used only under the conditions allowed by the regulations in that zone.**

Petitioner: Increasing the size of parking aisles will impact the total number of parking spaces available and negatively impact a reasonable return.

Staff: The requested variance would enable the subject property to be reasonably reused without significant reconfiguration of the entire parking field.

5. **State how the granting of the variation will not alter the essential character of the locality.**

Petitioner: Granting the requested variance of parking aisle size reduction will not alter the essential character of the locality.

Staff: The requested variation involves a reduction in the minimum required drive aisle width by one foot within the expanded parking area. The modification does not alter the proposed land use, building footprint, architectural character, or overall site design in a manner that would be perceptible from the public right-of-way. Accordingly, the variation will not alter the essential character of the locality.

6. **Describe how the proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets, or increase the danger of**

fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood.

Petitioner: The proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood.

Staff: The proposed reduction in drive aisle width will not materially affect internal site circulation or access to the public right-of-way and therefore, the proposed variation will not be detrimental to the public health, safety, or general welfare of the community.

STAFF REVIEW

Fire Department Review: No comments related to the Special Use.

Engineering Division Review: No comments related to the Special Use.

Staff Recommended Action: Staff recommends approval of the variance request subject to the following condition:

1. Approval of the variance is contingent upon approval of Docket No. PSU25-0012 (special use approval to permit the operation of an entertainment establishment); Docket No. PV26-0003 (variation to permit a reduction in the minimum required stall length) and Docket No. PSPMAJ25-0001 (major site plan and building appearance approval for the construction of a building addition and associated site improvements).

****

If the Plan Commission finds that the petitioner has satisfied the requirements for the granting of a variation, the appropriate motion would be to:

Recommend approval of Docket No. PV26-0004granting a variation from Title 19, Zoning, of the Wheeling Municipal Code, Chapter 19.11.010, Off-Street Parking and Loading, and associated sections, to permit a reduction in the minimum required drive aisle width for double-row parking from 25 feet to 24 feet for Hamro Investment Group, LLC (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004), located at 604 N. Milwaukee Avenue in accordance with the Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026; Engineering Plans prepared by Morris Engineeirng, Inc., last revised 1/16/2026; and subject to the following condition:

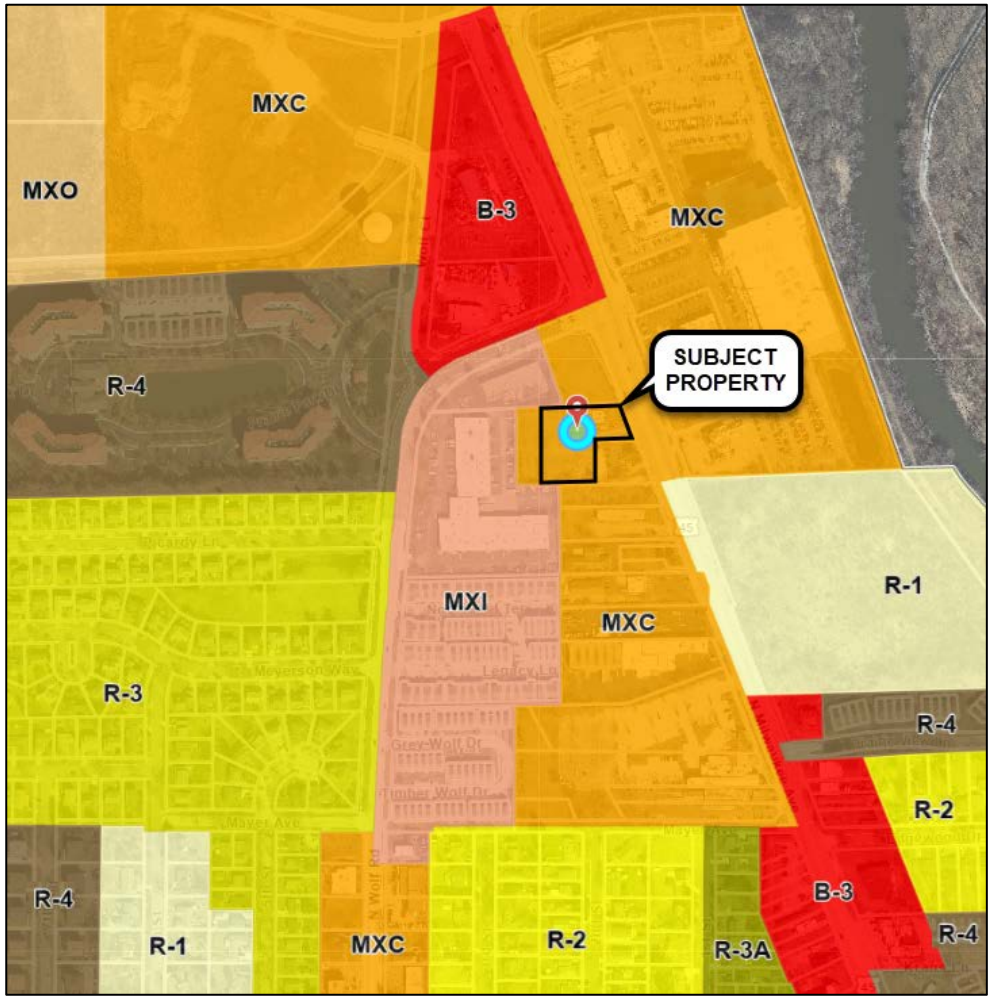
1. Approval of the variance is contingent upon approval of Docket No. PSU25-0012 (special use approval to permit the operation of an entertainment establishment); Docket No. PV26-0003 (variation to permit a reduction in the minimum required stall) and Docket No. PSPMAJ25-0001 (major site plan and building appearance approval for the construction of a building addition and associated site improvements).

ATTACHMENTS:

Attachments to Staff Report (Staff)
Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026
Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026
Engineering Plans prepared by Morris Engineering, Inc., last revised 1/16/2026



Location Map



Zoning Map



South Façade of Existing Building



North Façade of Existing Building



Entrance Drive off Milwaukee Avenue



Existing Parking Lot



Existing Parking Lot Island



Existing Trees Along West Property Line



North Side of Building

HAMRO INVESTMENT GROUP
1/29/2026

Village of Wheeling
Community Development Department
Zoning Board of Appeals
2 Community Boulevard
Wheeling, IL 60090

Subject: – Zoning Board Approval Request for 604 Milwaukee Ave

Dear Members of the Wheeling Zoning Board of Appeals,

I respectfully submit this letter and project narrative on behalf of **HAMRO INVESTMENT GROUP** in support of our request for zoning board approval to redevelop the **currently vacant lot at 604 Milwaukee Ave** into a vibrant, family-friendly sports and entertainment center featuring the **only cricket simulator in Illinois and only the second of its kind in the United States**.

Overview of Proposal

We propose to transform this underutilized property into a dynamic mixed-use venue offering:

- The **only cricket simulation bays in Illinois**, a signature attraction for cricket enthusiasts and families across the region
- Gulf Simulation
- Casual dining restaurant and full-service bar
- VR gaming zones
- Arcade and kids' play area
- Adult gaming lounge with ID check and supervision

Our project will help **revitalize Milwaukee Avenue** by activating a vacant site with an engaging, modern facility that meets community needs for entertainment, dining, and social gathering.

Background and Community Benefit

Today, 604 Milwaukee Ave is a vacant lot generating no sales tax, jobs, or visual appeal for the corridor. Our project will convert it into an **active, attractive, and tax-generating community asset**.

Key benefits include:

- **Unique destination:** The first and only cricket simulation center in Illinois (and only the second in the USA), delivering a signature draw that distinguishes Wheeling from neighboring suburbs.
- **Local job creation:** 30-35 full-time equivalent jobs, spanning hospitality, culinary, entertainment, and management roles.
- **Economic impact:** New sales tax revenue and increased visitor foot traffic supporting nearby businesses.
- **Neighborhood enhancement:** Professional landscaping, lighting, signage, and a modern building façade to improve the area's visual character.
- **Community engagement:** Opportunities for leagues, kids' parties, corporate team-building, and family events.

HAMRO INVESTMENT GROUP is committed to hiring locally, sourcing from nearby vendors where possible, and supporting Wheeling's economic growth and vibrancy.

Operational Details

Hours of Operation:

- Sunday–Thursday: 11:00 AM – 10:00 PM
- Friday–Saturday: 11:00 AM – 12:00 AM

Staffing Plan:

We plan for 30–40 staff on-site daily, ~35–40 FTE overall.

Department / Area	Roles / Functions	Estimated FTE
Cricket and Gulf Simulator Bays	Operators / Attendants	4-5
VR Zone	VR Tech / Game Attendants	2-3
Arcade & Kids Zone	Supervisors / Technicians	2-3
Adult Gaming Section	Attendants / Cashiers	2-3

Group Party in dining Hall	Event Coordinators + Support Staff	3-4
Restaurant & Kitchen	Head Chef, Cooks, Dish, Prep	4-5
Front-of-House (FOH)	Servers, Bartenders, Hosts	4-5
Reception / Front Desk	Booking Agents / Customer Service	2-3
Cleaning & Maintenance	Janitorial / Equipment Cleaning	3–4
Management/Admin	General Manager, Assistant Managers	3–4
Marketing & social media	Promotions & Events (PT/FT)	1–2
Security	Evening Doorman / Outsourced Option	1–2

Number of Seats

- Restaurant/Casual Dining: 80 occupants
- Bar Area: 26 occupants
- Small dining area 20 occupants
- Gaming/Arcade/VR/Billiards: variable/active use seating

Parking and Site Improvements

Parking Provided:

- 87 on-site parking spaces (new layout)
- 24 new offsite parking spaces to the south (secured via formal agreement)
- **Total available parking:** 111 spaces
- 11 dedicated bicycle parking spaces

Parking Demand Calculations:

- Casual Dining: 80 occupants / (3 seats per space) = ~27 spaces
- Small dining Room (existing): 20 occupants / (3 seats per space) = ~7 spaces
- Bar: 26 occupants / (3 seats per space) = ~9 spaces
- Gaming Room: 6 seats / (3 seats per space) = 2 spaces
- Arcade: 9 seats / (3 seats per space) = 3 spaces
- VR Rooms (similar to golf driving range): 2 spaces (1 per room)
- VR Stations: 2 spaces (3 seats per space)
- Gulf Simulation : 2 spaces (2 spaces/table)

- Cricket Simulators (Similar to bowling lanes): 16 spaces (4 spaces/lane)
- Employees: ~20 spaces (1 per employee)

Total calculated need: 90 spaces—fully met by our proposed layout.

Site Improvements:

- New landscaping, lighting, signage, and building facade
- Clearly marked ADA-compliant entrances and paths
- Bike parking and pedestrian-friendly design

Nature of Proposed Land Use

We are requesting zoning board approval for **mixed-use commercial entertainment and restaurant** use at 604 Milwaukee Ave.

This proposed use aligns with Wheeling's goals to:

- Revitalize vacant, non-productive lots
- Increase local employment opportunities
- Enhance family-friendly destination options
- Support corridor beautification and economic development

Our design will ensure responsible operations with controlled noise, accessible facilities, ample parking, and strong integration with the existing neighborhood.

Conclusion

Approval of this project will allow the Village of Wheeling to gain:

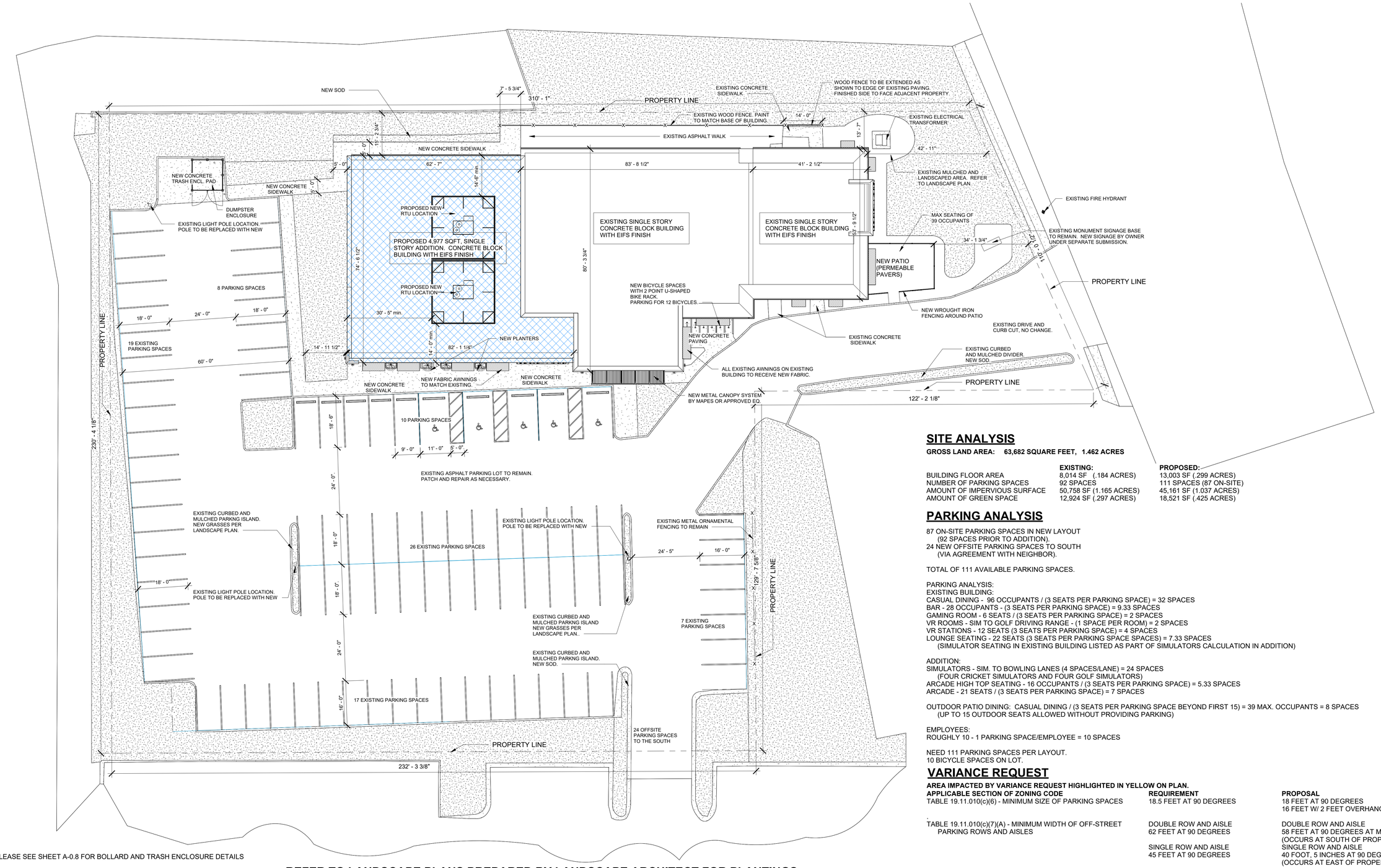
- Activation of a vacant lot into a productive, attractive asset
- Illinois' first and only cricket simulator—a true regional draw
- Dozens of local jobs in a wide range of roles
- New sales tax revenue and support for nearby businesses
- A visually appealing, modern, family-friendly entertainment and dining venue

Thank you for your time and consideration of this proposal. We are happy to provide any additional details, answer questions, or present to the Board in person.

Sincerely,

Manish Chaudhary
Managing Partner
HAMRO INVESTMENT GROUP

PROPOSED SITE PLAN



*PLEASE SEE SHEET A-0.8 FOR BOLLARD AND TRASH ENCLOSURE DETAILS

1 / A-0.5 Level 1 - PROPOSED SITE DIAGRAM
1/16" = 1'-0"

REFER TO LANDSCAPE PLANS PREPARED BY LANDSCAPE ARCHITECT FOR PLANTINGS.

SITE ANALYSIS

GROSS LAND AREA: 63,682 SQUARE FEET, 1.462 ACRES

	EXISTING:	PROPOSED:
BUILDING FLOOR AREA	8,014 SF (.184 ACRES)	13,003 SF (.299 ACRES)
NUMBER OF PARKING SPACES	92 SPACES	111 SPACES (87 ON-SITE)
AMOUNT OF IMPERVIOUS SURFACE	50,758 SF (1.165 ACRES)	45,161 SF (1.037 ACRES)
AMOUNT OF GREEN SPACE	12,924 SF (.297 ACRES)	18,521 SF (.425 ACRES)

PARKING ANALYSIS

87 ON-SITE PARKING SPACES IN NEW LAYOUT
(92 SPACES PRIOR TO ADDITION).
24 NEW OFFSITE PARKING SPACES TO SOUTH
(VIA AGREEMENT WITH NEIGHBOR).

TOTAL OF 111 AVAILABLE PARKING SPACES.

PARKING ANALYSIS:
EXISTING BUILDING:
CASUAL DINING - 96 OCCUPANTS / (3 SEATS PER PARKING SPACE) = 32 SPACES
BAR - 28 OCCUPANTS - (3 SEATS PER PARKING SPACE) = 9.33 SPACES
GAMING ROOM - 6 SEATS / (3 SEATS PER PARKING SPACE) = 2 SPACES
VR ROOMS - SIM TO GOLF DRIVING RANGE - (1 SPACE PER ROOM) = 2 SPACES
VR STATIONS - 12 SEATS (3 SEATS PER PARKING SPACE) = 4 SPACES
LOUNGE SEATING - 22 SEATS (3 SEATS PER PARKING SPACE SPACES) = 7.33 SPACES
(SIMULATOR SEATING IN EXISTING BUILDING LISTED AS PART OF SIMULATORS CALCULATION IN ADDITION)

ADDITION:
SIMULATORS - SIM. TO BOWLING LANES (4 SPACES/LANE) = 24 SPACES
(FOUR CRICKET SIMULATORS AND FOUR GOLF SIMULATORS)
ARCADE HIGH TOP SEATING - 16 OCCUPANTS / (3 SEATS PER PARKING SPACE) = 5.33 SPACES
ARCADE - 21 SEATS / (3 SEATS PER PARKING SPACE) = 7 SPACES

OUTDOOR PATIO DINING: CASUAL DINING / (3 SEATS PER PARKING SPACE BEYOND FIRST 15) = 39 MAX. OCCUPANTS = 8 SPACES
(UP TO 15 OUTDOOR SEATS ALLOWED WITHOUT PROVIDING PARKING)

EMPLOYEES:
ROUGHLY 10 - 1 PARKING SPACE/EMPLOYEE = 10 SPACES

NEED 111 PARKING SPACES PER LAYOUT.
10 BICYCLE SPACES ON LOT.

VARIANCE REQUEST

AREA IMPACTED BY VARIANCE REQUEST HIGHLIGHTED IN YELLOW ON PLAN.

APPLICABLE SECTION OF ZONING CODE	REQUIREMENT	PROPOSAL
TABLE 19.11.010(c)(6) - MINIMUM SIZE OF PARKING SPACES	18.5 FEET AT 90 DEGREES	18 FEET AT 90 DEGREES 16 FEET W/ 2 FEET OVERHANG AT 90 DEGREES
TABLE 19.11.010(c)(7)(A) - MINIMUM WIDTH OF OFF-STREET PARKING ROWS AND AISLES	DOUBLE ROW AND AISLE 62 FEET AT 90 DEGREES	DOUBLE ROW AND AISLE 58 FEET AT 90 DEGREES AT MINIMUM (OCCURS AT SOUTH OF PROPERTY W/ 2 FOOT OVERHANG)
	SINGLE ROW AND AISLE 45 FEET AT 90 DEGREES	SINGLE ROW AND AISLE 40 FOOT, 5 INCHES AT 90 DEGREES (OCCURS AT EAST OF PROPERTY W/ 2 FOOT OVERHANG)

CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
PROPOSED SITE PLAN
1/16" = 1'-0"
JANUARY 27TH, 2026

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N

FINAL REVIEW	4/18/25

aka atul karkhanis architects, ltd.
Commercial • Educational • Residential • Healthcare

2514 WEST PETERSON AVENUE
CHICAGO, IL 60659
PHONE: 773.508.5533 FAX: 773.508.5757
www.akarchitects.com

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

LEGEND

EXISTING		PROPOSED
	MANHOLE	
	CATCH BASIN	
	INLET	
	CLEANOUT	
	FLARED END SECTION	
	WATER VALVE BOX	
	BUFFALO BOX (B.BOX)	
	WATER VALVE & VAULT	
	FIRE HYDRANT	
	WELL	
G	GAS VALVE	GV
GM	GAS METER	GM
T	COMMUNICATION CANISTER	T
T	COMMUNICATION HANDHOLE	T
T	COMMUNICATION MANHOLE	T
E	ELECTRIC CANISTER	E
E	ELECTRIC HANDHOLE	E
E	ELECTRIC MANHOLE	E
EM	ELECTRIC METER	EM
	TRAFFIC SIGNAL	
	TRAFFIC HANDHOLE	
SB	TRAFFIC CONTROL BOX	SB
	UTILITY POLE	
	UTILITY POLE W/ LIGHT	
	STREET LIGHT	
	STREET SIGN	
	BORING LOCATION	
	MAILBOX	
+ 699.5	SPOT ELEVATIONS	+699.74
	PROPERTY LINE	
	ADJACENT PROPERTY LINE	
	EASEMENT LINE	
	SETBACK LINE	
	RIGHT OF WAY LINE	
	STORM SEWER LINE	
	SANITARY SEWER LINE	
W	WATERMAIN LINE	W
UG	UNDERGROUND GAS LINE	UG
UT	UNDERGROUND COMM. LINE	UT
UE	UNDERGROUND ELECTRIC	UE
OH	OVERHEAD UTILITY	OH
	FENCE LINE	
	GUARDRAIL LINE	
	CONTOUR LINE	

	DECIDUOUS TREE
	EVERGREEN TREE
	OVERLAND FLOOD ROUTE
	DRAINAGE ROUTE
	DOWNSPOUT
	SILT FENCE LINE
	INLET SILT PROTECTION
	COIR LOG SILT PROTECTION
	DEPRESSED CURB
	SOIL EROSION GEOTEXTILE PROTECTION
	CONCRETE
	BRICK
	ASPHALT
	BUILDING
	GRAVEL
	STONE

SOURCE BENCHMARK

GEODETIC SURVEY MONUMENT (GPS)
DESIGNATION LD017
PID DM3894
STATE/COUNTRY IL/LAKE
COUNTRY US
USGS QUAD WHEELING (2018)

DESCRIPTION: DESCRIBED BY PATRICK ENGINEERING INCORPORATED 2010 THE STATION IS LOCATED ABOUT 6.3 MI WEST-SOUTHWEST OF HIGHLAND PARK, 6.0 MI NORTH-NORTHEAST OF ARLINGTON HEIGHTS AND 1.7 MI NORTH-NORTHEAST OF WHEELING. OWNERSHIP--ROAD RIGHT-OF-WAY.

THE DISK IS SET IN THE TOP OF THE EAST END OF THE SOUTH ABUTMENT OF THE US HIGHWAY 45/STATE ROAD 21 BRIDGE NO. 049-0194) OVER APTAKISIC CREEK, 8 FT EAST OF THE BACK OF CURB FOR NORTH BOUND US HIGHWAY 45/STATE ROAD 21, 2 FT ABOVE GRADE OF SIDEWALK.
STATION RECOVERY (2014)
RECOVERY NOTE BY ILLINOIS DEPARTMENT OF TRANSPORTATION 2014 (MAW) RECOVERED IN GOOD CONDITION.

NAVD88 ELEVATION: 650.71

SITE BENCHMARK #1

SOUTHWEST BOLT FLANGE ON HYDRANT APPROXIMATELY 37 FEET SOUTHEAST AND 9 FEET NORTHEAST FROM THE NORTHEAST PROPERTY CORNER.

ELEVATION = 649.56

SITE BENCHMARK #2

SOUTHEAST BOLT FLANGE ON HYDRANT APPROXIMATELY 4 FEET SOUTH AND 7 FEET EAST FROM THE NORTHWEST PROPERTY CORNER.

ELEVATION = 648.70



PROJECT LOCATION MAP

PREPARED FOR

PRAJESH PARAJULI
711 Arizona Pass
Elk Grove Village, Il 60007
pparajuli@gmail.com
847-420-131

INDEX OF SHEETS

1. COVER SHEET
2. MWRD NOTES
3. GENERAL NOTES
4. EXISTING CONDITIONS
5. EROSION AND DEMOLITION PLAN
6. GRADING PLAN
7. SITE PLAN
8. UTILITY PLAN
9.-11. DETAILS

Know what's below. Call before you dig.

NOTICE TO CONTRACTORS

EXISTING UTILITIES

WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF OVERHEAD AND/OR UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. THE ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR VERACITY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL PUBLIC AND PRIVATE UTILITY COMPANIES WHICH MAY HAVE OVERHEAD OR UNDERGROUND FACILITIES IN THE AREA BEFORE CONSTRUCTION BEGINS. (SEE SPECIFICATIONS)

ENGINEER'S CERTIFICATION

STATE OF ILLINOIS)
SS.
COUNTY OF DuPAGE)

I, KAROLIS KOZYS, A REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY MORRIS ENGINEERING, INC. 515 WARRENVILLE ROAD, LISLE, ILLINOIS, 60532 UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. I FURTHER STATE THAT THE PROPOSED IMPROVEMENTS WILL NOT CAUSE PONDING OR FLOODING ON THE PROPERTY OR ADJACENT PROPERTIES.

DATED THIS 16 TH DAY OF JANUARY, A.D. 2026.

ILLINOIS REGISTERED PROFESSIONAL ENGINEER NO. 062-066736
MY REGISTRATION EXPIRES ON NOVEMBER 30, 2027

KAROLIS KOZYS
062-066736
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS

DATE	
1	8/28/2025 REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026 REVISED PER VILLAGE OF WHEELING, IL.
5	
6	

COVER SHEET

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

BUILDING INFRASTRUCTURE, ENVIRONMENTS BETTER LIFE!

FIELD CREW: PW
DRAWN BY: NG
CHECKED BY: ARS
APPROVED BY: EF
DATE: 05/15/2025
SCALE: HORIZ –
VERT –

SHEET 1 OF 11 SHEETS

PROJ # 25-02-2003

1/16/2026 11:34:16 AM
I:\2025\25-02\25-02-2003 - 604 Milwaukee Ave, Wheeling\Engineering\Plans\REV 4\25-02-2003 REV_4 SITE-23x34 2026-01-16.dwg

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * VILLAGE OF _____ MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO WMOJOBSTART@MWRD.ORG).

2. THE VILLAGE OF _____ ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS _____ FT.

2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.

3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.

4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.

5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.

6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.

8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.

9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.

10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.

2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.

3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.

4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).

5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.

6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261,F-2620 (HEAT FUSION) ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.

10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.

11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.

13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.

14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.

15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.

16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.

17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.

18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.

3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
    a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
    b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.

6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.

7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.

9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.

10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.

11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.

12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).

13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.

15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.

16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.

19. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.

20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.

21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.

22. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

23. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

TECHNICAL GUIDANCE MANUAL

10/13/2022

MWRD GENERAL NOTES

STD. DWG. NO.18

PAGE NO. 19

DATE	
1	8/28/2025 REVISED PER VILLAGE OF WHEELING, IL.
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5	
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GENERAL NOTES

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

FIELD CREW: PW
DRAWN BY: NG
CHECKED BY: ARS
APPROVED BY: EF
DATE: 05/15/2025
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OF 11 SHEETS

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GENERAL NOTES

1. ALL EARTHWORK, GRADING, UTILITIES, AND STREET IMPROVEMENTS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, AND ALL REVISIONS THERETO.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND HEALTHFUL WORKING CONDITIONS IN ACCORDANCE WITH SECTION 107 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION THROUGHOUT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

3. SOIL EROSION AND SEDIMENTATION CONTROL PRACTICES AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE URBAN COMMITTEE OF THE ASSOCIATION OF ILLINOIS SOIL AND WATER CONSERVATION DISTRICTS' PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL IN ILLINOIS AND ALL REVISIONS THERETO AND IN ACCORDANCE WITH THE DETAILS ON THE PLANS.

4. THE CONTRACTOR SHALL BE AWARE OF POTENTIAL CONFLICTS WITH EXISTING UTILITIES AS INDICATED ON THE PLANS. THE CONTRACTOR SHALL EXCAVATE AROUND UTILITIES TO DETERMINE ELEVATIONS BEFORE BEGINNING CONSTRUCTION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING EACH OF THE UTILITY COMPANIES BEFORE ANY WORK COMMENCES. ALL UTILITIES SHALL BE STAKED PRIOR TO CONSTRUCTION.

6. THE OWNER WILL FURNISH THE CONTRACTOR WITH LINES, GRADES AND ELEVATIONS NECESSARY TO THE PROPER PROSECUTION AND CONTROL OF THE WORK ONCE.

7. THE CONTRACTOR SHALL GIVE THE ENGINEER AT LEAST SEVENTY-TWO (72) HOURS NOTICE FOR ANY STAKING TO BE DONE. EACH OF THE VARIOUS ITEMS OF WORK COVERED BY THIS CONTRACT WILL BE STAKED ONCE. ADDITIONAL STAKING REQUIRED DUE TO THE CONTRACTOR'S NEGLIGENCE IN PRESERVING THE STAKES SHALL BE PAID FOR BY THE CONTRACTOR AT THE CURRENT HOURLY RATE.

8. THE CONTRACTOR SHALL INFORM THE ENGINEER AND THE VILLAGE OF WHEELING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

   8.1. TELEPHONE NUMBERS: MORRIS ENGINEERING - (630) 271-0770
   8.2. WHEELING CONTACT INFORMATION
   PUBLIC WORKS - 847-279-6900

9. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS AND SPECIFICATIONS AND SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES THAT THE CONTRACTOR DISCOVERS DURING THE BIDDING PERIOD. SAID DISCREPANCIES WILL BE CLARIFIED BY THE ENGINEER TO THE BEST OF HIS ABILITY PRIOR TO RECEIPT OF BIDS. THE ENGINEER WILL BE UNRECEPTIVE TO CLAIMS FOR ADDITIONAL COMPENSATION FOR WORK ITEMS BECAUSE OF CONTRACTOR'S LACK OF COMPLIANCE WITH THIS REQUIREMENT.

10. THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY LATENT DISCREPANCIES THAT THE CONTRACTOR DISCOVERS DURING THE CONSTRUCTION PROCESS. THE ENGINEER WILL BE UNRECEPTIVE TO CLAIMS FOR ADDITIONAL COMPENSATION FOR WORK PERFORMED TO CORRECT A LATENT CONDITION NOT BROUGHT TO THE ATTENTION OF THE ENGINEER.

11. THE CONTRACTOR RESPONSIBLE FOR DRAINAGE IMPROVEMENTS (UNDERGROUND STRUCTURES AND CONDUITS) SHALL DISPOSE OF ALL SURPLUS EXCAVATED MATERIAL FROM TRENCHES OR STRUCTURE EXCAVATIONS AND SHALL DEPOSIT SAID SURPLUS MATERIALS ON THE SITE IN ACCORDANCE WITH THE GRADING PLAN OR AS DIRECTED BY THE ENGINEER.

12. THE CONTRACTOR SHALL NOT PLACE ANY EXCAVATED MATERIAL UPON ANY TOPSOIL. THE TOPSOIL SHALL BE REMOVED FROM ALL AREAS TO BE FILLED AND SHALL BE STOCKPILED IN AREAS AS DIRECTED BY THE ENGINEER.

13. THE CONTRACTOR SHALL NOT DISCHARGE INTO STREAMS, PONDS, WETLANDS OR ITS TRIBUTARIES ANY MOTOR OIL, TRANSMISSION FLUID, LUBRICANTS OR ANY OTHER PETROLEUM DISTILLATES, ANY PETROLEUM DISTILLATES DISCHARGED ON THE GROUND SURFACE SHALL BE PROMPTLY AND PROPERLY REMOVED PRIOR TO THE RESUMPTION OF ANY WORK ON THE PROJECT.

14. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING FIELD TILES. ANY FIELD TILES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS SOLE EXPENSE. INVESTIGATION SHALL BE MADE TO INSURE THAT FIELD TILES DO NOT CONVEY OFF SITE WATER. TILES THAT CONVEY OFF SITE WATER SHALL BE REROUTED THROUGH THE SITE. TILES THAT DO NOT CONVEY OFF SITE WATER SHALL BE ABANDONED IN AN APPROPRIATE MANNER APPROVED BY THE CITY. FIELD TILES WITHIN A RIGHT-OF-WAY SHALL BE REMOVED AND BACKFILLED WITH CA-6 COMPACTED IN EIGHT INCH LIFTS TO THE BOTTOM OF THE ROADWAY BASE. EXISTING FIELD TILES SHALL BE REMOVED BY SLIT TRENCHING.

15. THE CONTRACTOR RESPONSIBLE FOR DRAINAGE IMPROVEMENTS SHALL BE RESPONSIBLE TO PLACE ALL FIRE HYDRANTS, FRAMES AND LIDS OR GRATES, AND ALL GRATES FOR MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS AT THE ELEVATIONS SHOWN AND SPECIFIED ON THE PLANS. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR SAID ADJUSTMENT AND THE COST OF SAID ADJUSTMENT SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS DRAINAGE STRUCTURES MENTIONED ABOVE.

16. ALL MANHOLES SHALL HAVE CONCRETE INVERTS CONFORMING TO THE SHAPE OF THE PIPE. CONCRETE INVERTS SHALL BE PLACED IN THE FIELD AND THE COST OF CONCRETE INVERTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE VARIOUS INLETS AND MANHOLES.

17. WHERE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, EXISTING DRAINAGE STRUCTURES AND SYSTEMS SHALL BE CLEANED OF DEBRIS AND PATCHED AS NECESSARY TO ASSURE INTEGRITY OF THE STRUCTURE. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR STRUCTURES AND CONTRACT UNIT PRICE PER LINEAL FOOT FOR SYSTEMS WHICH SHALL BE PAYMENT IN FULL FOR CLEANING, PATCHING, REMOVAL AND DISPOSAL OF DEBRIS AND DIRT. DRAINAGE STRUCTURES AND SYSTEMS CONSTRUCTED AS PART OF THIS PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS EXPENSE UNTIL FINAL ACCEPTANCE BY THE OWNER OR MUNICIPALITY.

18. THE CONTRACTOR SHALL KEEP PUBLIC STREET PAVEMENTS CLEAN OF DIRT AND DEBRIS AND, WHEN NECESSARY, SHALL ON A DAILY BASIS CLEAN THE PAVEMENT OF SUCH DIRT AND DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS.

19. THE CONTRACTOR SHALL PROVIDE PIPE BEDDING IN ACCORDANCE WITH THE DETAIL ON THE PLANS. THE COST OF THE BEDDING SHALL BE INCLUDED IN THE UNIT PRICE PER LINEAL FOOT OF THE VARIOUS SIZES OF STORM SEWER. NO ADDITIONAL COMPENSATION WILL BE MADE FOR PIPE BEDDING.

20. THE CONTRACTOR SHALL PLACE TOPSOIL AT A 6" MINIMUM DEPTH AND SEED OR SOD ALL AREAS DESIGNATED BY THE ENGINEER.

GENERAL NOTES (CONT.)

21. THE CONTRACTOR SHALL EXAMINE THE DRAINAGE PATTERNS SHOWN ON THE PLANS AND MAKE CERTAIN THAT ALL OVERFLOW POINT ELEVATIONS AND CROSS SECTIONS ARE CONSTRUCTED STRICTLY IN ACCORDANCE WITH THOSE SHOWN ON THE PLANS.

22. ALL CONSTRUCTION SHALL CONFORM WITH THE PERMIT PLANS AND REVISIONS THERETO APPROVED BY THE CITY AND UTILITIES COMPANIES.

23. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY WORK IN THE RIGHT OF WAY OR EASEMENTS TO LOCATE UTILITIES, AND CONTACT THE OWNER'S REPRESENTATIVE SHOULD PUBLIC UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS.

24. ALL WORK HEREIN PROPOSED SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, THE MUNICIPALITY, AND ALL PERTINENT LAWS, DIRECTIVES, ORDINANCES AND THE LIKE SHALL BE CONSIDERED TO BE A PART OF THESE SPECIFICATIONS.

25. THE VILLAGE OF WHEELING DETAILS SUPERSEDE ALL OTHERS.

26. ALL NEW CURB THAT MEETS EXISTING CURB WILL HAVE THREE DRILLED AND GROUTED #5 REINFORCING BARS OR EXPANSION TIE ANCHORS, 5/8" DIAMETER FOR EACH NEW CURB ADJACENT TO EXISTING CURB.

27. FOR STRUCTURE ADJUSTMENT - MINIMUM OF 6" (2 @ 3") ADJUSTING RINGS (10" MAX) CONCRETE RINGS WILL BE 3" MINIMUM. RUBBER CAN BE 1" - 3" AND MUST BE USED FOR TOP ADJUSTING RING IN PAVED AREAS. "EJIW INTRA-RISER RUBBER COMPOSITE ADJUSTMENT RISERS" OR APPROVED EQUAL.

28. ADD AN INTERNAL/EXTERNAL ADAPTOR SEAL ON THE ADJUSTED SANITARY MANHOLE. THE "I/E A" SEAL STOPS INFLOW BETWEEN THE MANHOLE FRAME AND THE TOP ADJUSTING RING AND IT ALSO SEALS THE MANHOLE CHIMNEY FROM THE FRAME TO THE CORBEL. ONE VENDOR OF THIS SEAL IS ADAPTOR INC.

29. THE DEVELOPER IS REQUIRED TO HAVE A GEOTECHNICAL ENGINEER ON-SITE TO MONITOR EARTHWORK AND THE GRADING ACTIVITY, IN ORDER TO IDENTIFY UNSUITABLE SOILS FOR REMOVAL FROM THE SITE. A NOTE TO THIS EFFECT MUST BE ADDED TO THE PLANS, AND A LETTER COMMITTING TO THIS REQUIREMENT MUST BE PROVIDED BY THE DEVELOPER. IN ADDITION, DAILY REPORTS AND COPIES OF ALL GEOTECHNICAL TESTING (TESTING AND FREQUENCY IN ACCORDANCE WITH THE IDOT STATE SPECIFICATIONS) MUST BE SUBMITTED TO THE CITY OF JOLIET ONCE THE ROADWAYS HAVE BEEN COMPLETED.

30. DETECTABLE WARNING PLATES SHALL BE EAST JORDAN, POWDER COATED BRICK RED.

EXCAVATION

ALL SITE CLEARING, EXCAVATION, GRADING, COMPACTION, SUBGRADE PREPARATION, BASE COURSE, SURFACE COURSE, PCC CURB AND GUTTER AND SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS, LATEST EDITION.

EARTHWORK UNDER THIS CONTRACT SHALL INCLUDE THE FOLLOWING:

A. REMOVAL OF EXISTING VEGETATION WITHIN CONSTRUCTION LIMITS FROM THE SITE.
B. PROTECTION OF CERTAIN TREES AS DIRECTED BY THE OWNER'S REPRESENTATIVE WITH APPROVED FENCING.
C. STRIPPING OF ALL TOPSOIL AND OTHER UNSUITABLE MATERIALS FROM BUILDING AND/OR PAVEMENT AREAS AND REMOVAL FROM SITE OF ALL EXCESS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE REQUIREMENTS OF ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL ORDINANCES. THE COST OF ALL WORK NECESSARY TO MEET THESE REQUIREMENTS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT, AND NO SEPARATE PAYMENT WILL BE MADE.

THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF PROPER COMPACTION CANNOT BE OBTAINED SO THAT THE OWNER'S REPRESENTATIVE MAY DETERMINE WHAT REMEDIAL MEASURES MAY BE NEEDED.

EXISTING SEWER AND WATERMAIN TRENCHES UNDER DRIVEWAYS IN PARKWAYS SHALL BE EXCAVATED TO THE TOP OF PIPE AND BACKFILLED WITH COMPACTED TRENCH BACKFILL.

EXISTING GRAVEL COMPACTION TO BE TESTED OR SOIL BORINGS TO BE MADE TO VERIFY SUITABILITY OF EXISTING GRAVEL AS SUBGRADE.

PROJECT SPECIFICATIONS AND GENERAL CONSTRUCTION NOTES

THE PROJECT SECIFICATIONS AND GENERAL CONSTRUCTION NOTES SHALL INCLUDE THE FOLLOWING PROVISIONS:

1. ALL ON-SITE AND OFF-SITE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "VILLAGE OF WHEELING";
2. PERMITS SHALL BE OBTAINED FROM ALL OUTSIDE GOVERNMENTAL AGENCIES HAVING JURISDICTION;
3. ALL STRUCTURE ADJUSTEMENTS SHALL BE ACCOMPLISHED IN CONFORMANCE WITH THE MOST RECENT CITY STANDARD;
4. EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE EITHER INTEGRATED INTO THE SITE DRAINAGE SYSTEM, REMOVED OR PLUGGED IN A MANNER DEEMED APPROPRIATE BY THE CITY ENGINEER;
5. THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL ADJUSTMENTS BEFORE AND AFTER FINAL INSPECTION, PRIOR TO FINAL ACCEPTANCE BY THE CITY OF JOLIET;
6. THE CITY MUST HAVE FORTY-EIGHT (48) HOURS NOTICE PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITY;
7. THE TESTING AND STERILIZATION OF ALL NEW WATER DISTRIBUTION FACILITIES SHALL BE COMPLETED PRIOR TO MAKING WATER SERVICE TAPS BY AN OUTSIDE TESTING SERVICE;
8. MATERIAL SPECIFICATIONS COMPLY WITH CITY STANDARDS AND INCLUDE:
   A. PAVING BASE MATERIALS
   B. PAVING SURFACE MATERIALS
   C. CONCRETE MATERIALS
   D. PIPE MATERIALS.
9. DUST CONTROL - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF EXCESSIVE DUST BY WATERING DURING THE CONSTRUCTION PERIOD UNTIL THE ROAD PAVEMENT IS INSTALLED BY THE PAVING CONTRACTOR. THE REQUIREMENT FOR DUST CONTROL SHALL BE AS DIRECTED BY THE LOCAL APPROVING AUTHORITIES OR THE ENGINEER, AND SUCH DUST CONTROL (IF REQUIRED) SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
10. PERSON RESPONSIBLE FOR MAINTENANCE OF EROSION CONTROL STRUCTURES AND MEASURES, DURING AND AFTER DEVELOPMENT:

_____

STORM SEWER NOTES

- STORM SEWER JOINTS MUST BE FLEXIBLE GASKET O-RINGS PER ASTM C361, ASTM C433, AND ASTM C1619.
- CITY REQUIRES SUBMISSION OF RECORDED VIDEO INSPECTIONS OF ALL PUBLIC STORM SEWER.
- FOR CLOSED LID STRUCTURES, FRAME AND COVER SHALL BE EMBOSSED WITH "STORM".
- WHEN UTILITY STRUCTURE ADJUSTMENT IS NECESSARY, A MINIMUM OF TWO ADJUSTING RINGS (MIN 6" ADJUSTING HEIGHT) AND MAXIMUM OF THREE RINGS (MAX 10" ADJUSTING HEIGHT). NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, TOP RING SHOULD BE RUBBER. USE ONE (1) EJIW INFRA-RISER RUBBER COMPOSITE.

MAINTENANCE/INSTALLATION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

THESE ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN THE EROSION AND SEDIMENT CONTROL MEASURES ON-SITE:

- ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR MORE.
- ALL EROSION CONTROL MEASURES WILL BE MAINTAINED. IF REPAIR IS NECESSARY, IT WILL BE STARTED WITHIN 24 HOURS OF REPORT.
- ACCUMULATING SEDIMENT ALONG THE SILT FENCE WILL BE REMOVED WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
- SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, ACCURACY OF INSTALLATION, AND TO SEE THAT THE POSTS ARE FIRMLY IN THE GROUND.
- TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED.
- A DESIGNATED PERSON WILL BE RESPONSIBLE FOR CONDUCTING INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

	DATE	
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GENERAL NOTES

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WHEELING, ILLINOIS

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Land Surveying
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WE ENGINEER INFRASTRUCTURE TO LIFT ENVIRONMENTS BETTER LIFE!

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OF 11 SHEETS

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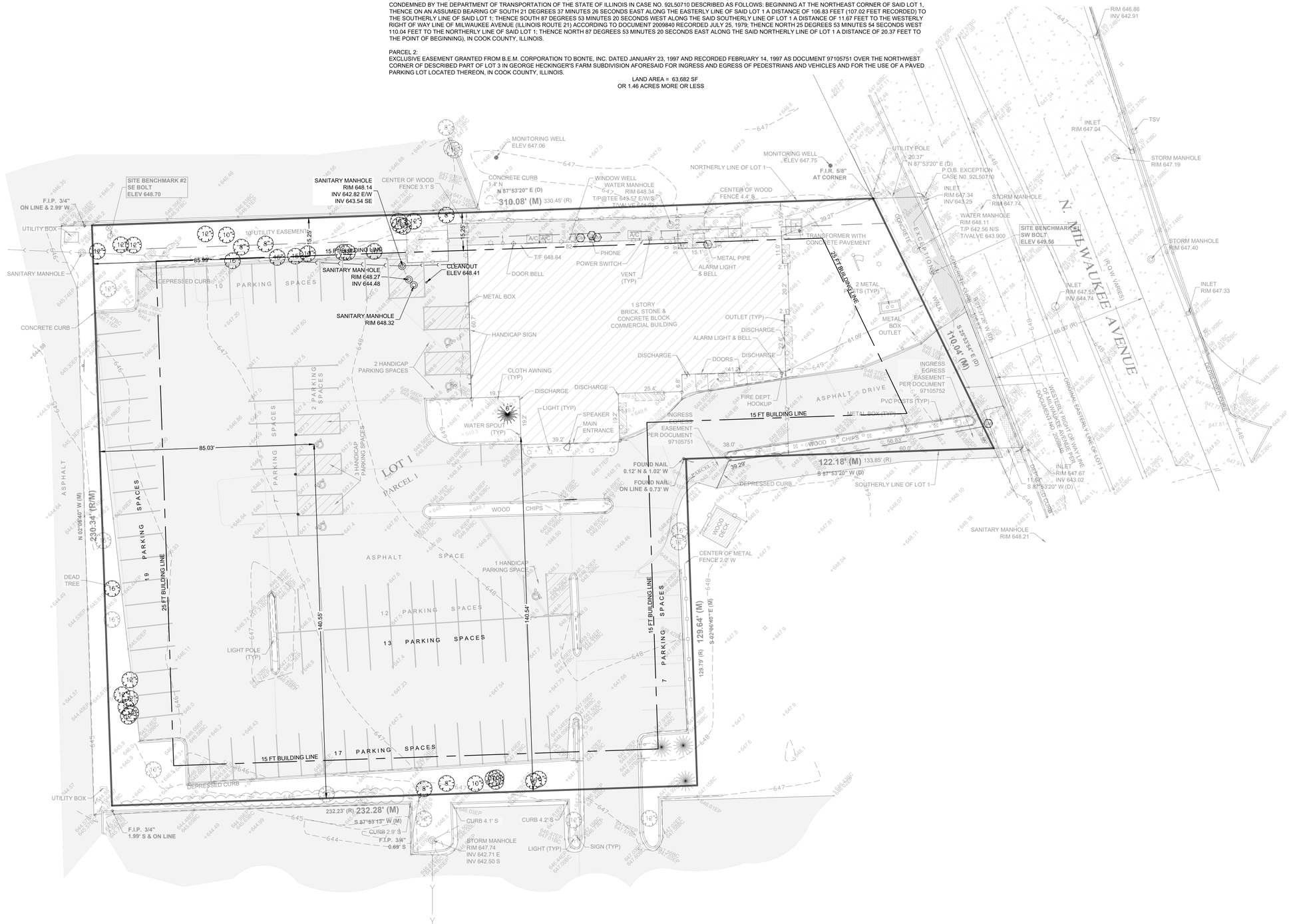
EXISTING CONDITIONS PLAN

PARCEL 1:
LOT 1 IN H. S. H. PROPERTIES RESUBDIVISION OF PART OF LOT 3 IN GEORGE HECKINGER'S FARM SUBDIVISION AND PART OF LOT 5 IN OWNERS SUBDIVISION ALL IN SECTIONS 2 AND 3, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 31, 1972 AS DOCUMENT 21919892. EXCEPT FOR THAT PART OF LOT 1 CONDEMNED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS IN CASE NO. 92L50710 DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 1, THENCE ON AN ASSUMED BEARING OF SOUTH 21 DEGREES 37 MINUTES 26 SECONDS EAST ALONG THE EASTERLY LINE OF SAID LOT 1 A DISTANCE OF 106.83 FEET (107.02 FEET RECORDED) TO THE SOUTHERLY LINE OF SAID LOT 1; THENCE SOUTH 87 DEGREES 53 MINUTES 20 SECONDS WEST ALONG THE SAID SOUTHERLY LINE OF LOT 1 A DISTANCE OF 11.67 FEET TO THE WESTERLY RIGHT OF WAY LINE OF MILWAUKEE AVENUE (ILLINOIS ROUTE 21) ACCORDING TO DOCUMENT 2009840 RECORDED JULY 25, 1979; THENCE NORTH 25 DEGREES 53 MINUTES 54 SECONDS WEST 110.04 FEET TO THE NORTHERLY LINE OF SAID LOT 1; THENCE NORTH 87 DEGREES 53 MINUTES 20 SECONDS EAST ALONG THE SAID NORTHERLY LINE OF LOT 1 A DISTANCE OF 20.37 FEET TO THE POINT OF BEGINNING), IN COOK COUNTY, ILLINOIS.

PARCEL 2:
EXCLUSIVE EASEMENT GRANTED FROM B.E.M. CORPORATION TO BONTE, INC. DATED JANUARY 23, 1997 AND RECORDED FEBRUARY 14, 1997 AS DOCUMENT 97105751 OVER THE NORTHWEST CORNER OF DESCRIBED PART OF LOT 3 IN GEORGE HECKINGER'S FARM SUBDIVISION AFORESAID FOR INGRESS AND EGRESS OF PEDESTRIANS AND VEHICLES AND FOR THE USE OF A PAVED PARKING LOT LOCATED THEREON, IN COOK COUNTY, ILLINOIS.

LAND AREA = 63,682 SF
OR 1.46 ACRES MORE OR LESS



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EXISTING CONDITIONS PLAN

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WHEELING, ILLINOIS

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Civil Engineering • Consulting
Land Surveying
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DRAWN BY:	NG
CHECKED BY:	ARS
APPROVED BY:	EF
DATE:	05/15/2025
SCALE:	HORIZ 1"=20'
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OF 11 SHEETS

PROJ # 25-02-2003

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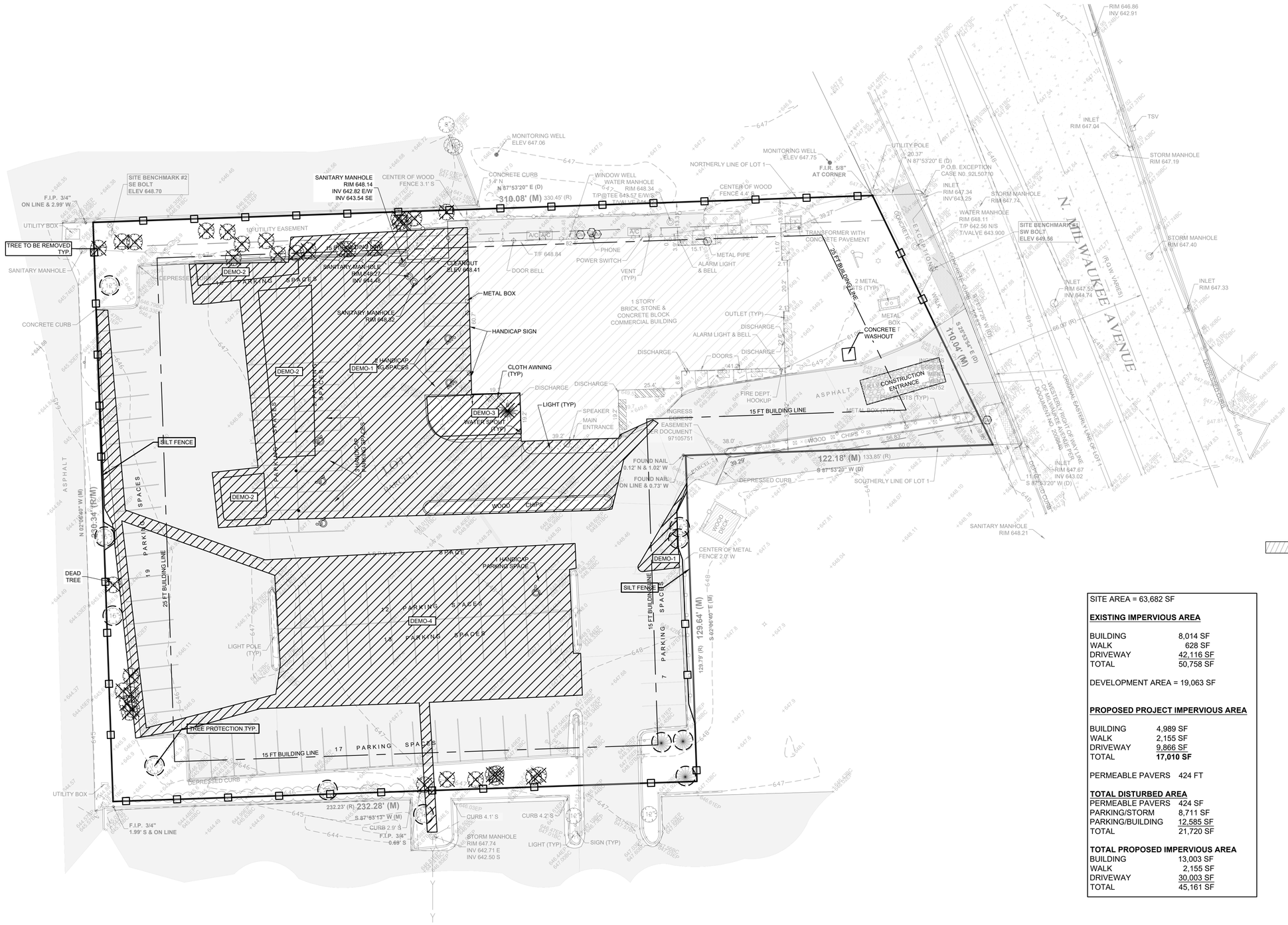
DEMOLITION AND EROSION CONTROL PLAN



DEMO-1 REMOVED PARKING AREA
DEMO-2 REMOVE EXITING PARKING AREA TO LANDSCAPING ISLAND
DEMO-3 EXISTING LANDSCAPING ISLAND TO NEW BUILDING
DEMO-4 REMOVE AND REPLACED ASPHALT AREA

SITE AREA = 63,682 SF

EXISTING IMPERVIOUS AREA

BUILDING	8,014 SF
WALK	628 SF
DRIVEWAY	42,116 SF
TOTAL	50,758 SF

DEVELOPMENT AREA = 19,063 SF

PROPOSED PROJECT IMPERVIOUS AREA

BUILDING	4,989 SF
WALK	2,155 SF
DRIVEWAY	9,866 SF
TOTAL	**17,010 SF**

PERMEABLE PAVERS 424 FT

TOTAL DISTURBED AREA

PERMEABLE PAVERS	424 SF
PARKING/STORM	8,711 SF
PARKING/BUILDING	12,585 SF
TOTAL	21,720 SF

TOTAL PROPOSED IMPERVIOUS AREA

BUILDING	13,003 SF
WALK	2,155 SF
DRIVEWAY	30,003 SF
TOTAL	45,161 SF

	DATE	
1	8/28/2025	REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026	REVISED PER VILLAGE OF WHEELING, IL.
5		
6		

DEMOLITION AND EROSION CONTROL PLAN

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

BETTER INFRASTRUCTURE. BETTER ENVIRONMENTS. BETTER LIFE!

FIELD CREW:	PW
DRAWN BY:	NG
CHECKED BY:	ARS
APPROVED BY:	EF
DATE:	05/15/2025
SCALE:	HORIZ 1"=20'
	VERT –

SHEET
5
OF 11 SHEETS

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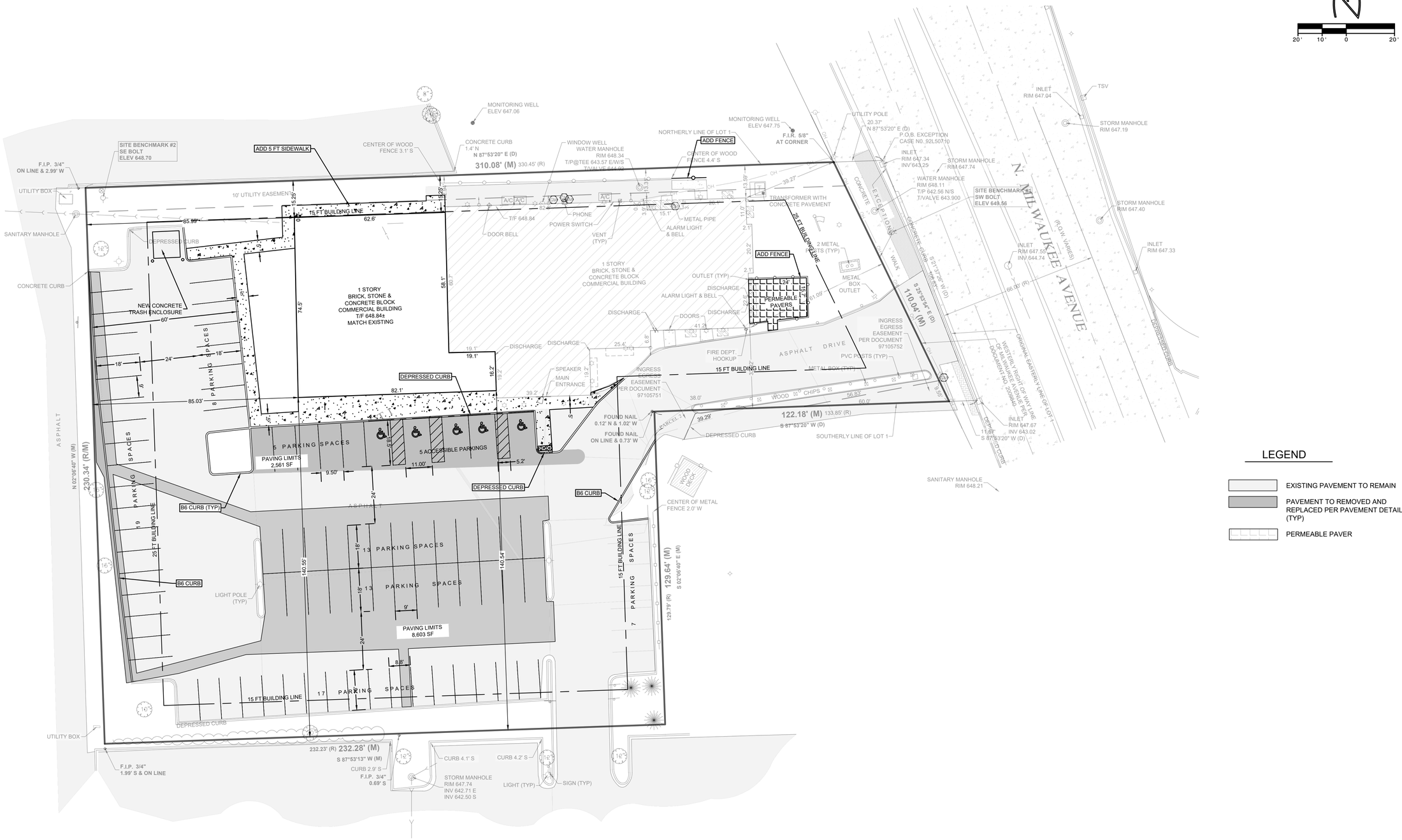
GEOMETRIC PLAN



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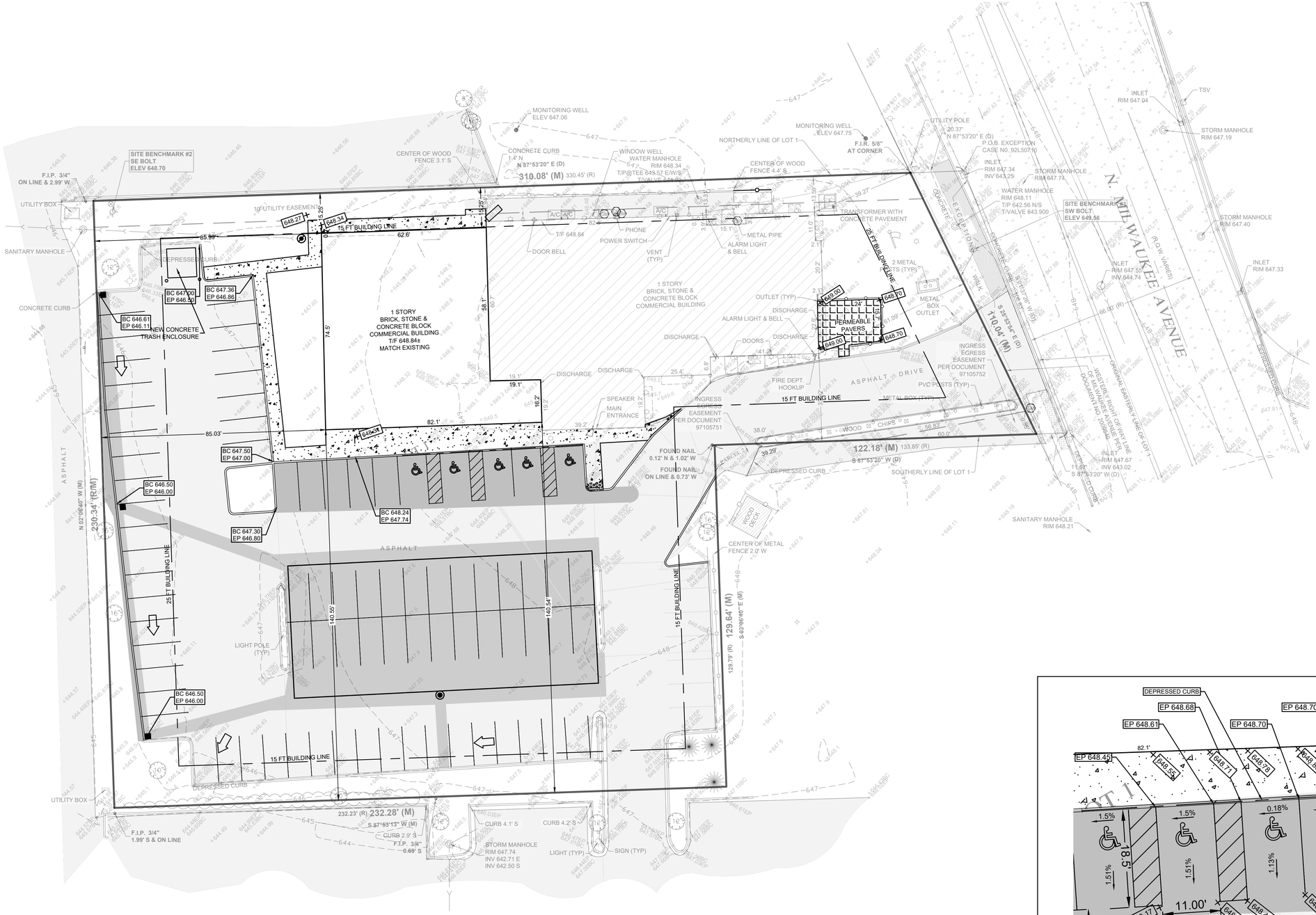
SITE GRADING PLAN



20' 10' 0 20'

LEGEND

- EXISTING PAVEMENT TO REMAIN
- PAVEMENT TO REMOVED AND REPLACED PER PAVEMENT DETAIL (TYP)
- PERMEABLE PAVER

SITE AREA = 63,682 SF

EXISTING IMPERVIOUS AREA

BUILDING	8,014 SF
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DRIVEWAY	42,116 SF
TOTAL	50,758 SF

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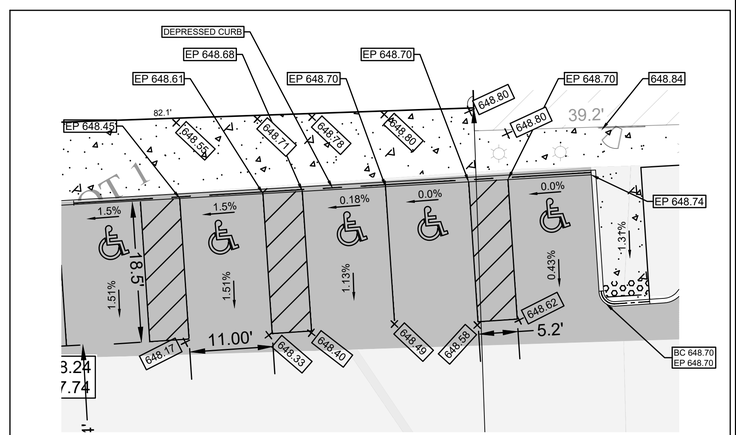

HANDICAP SPACES
SCALE 1":10'

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GRADING PLAN

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BETTER INFRASTRUCTURE
BETTER ENVIRONMENTS
BETTER LIFE!

FIELD CREW:	PW
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CHECKED BY:	ARS
APPROVED BY:	EF
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	VERT –

SHEET
7
OF 11 SHEETS

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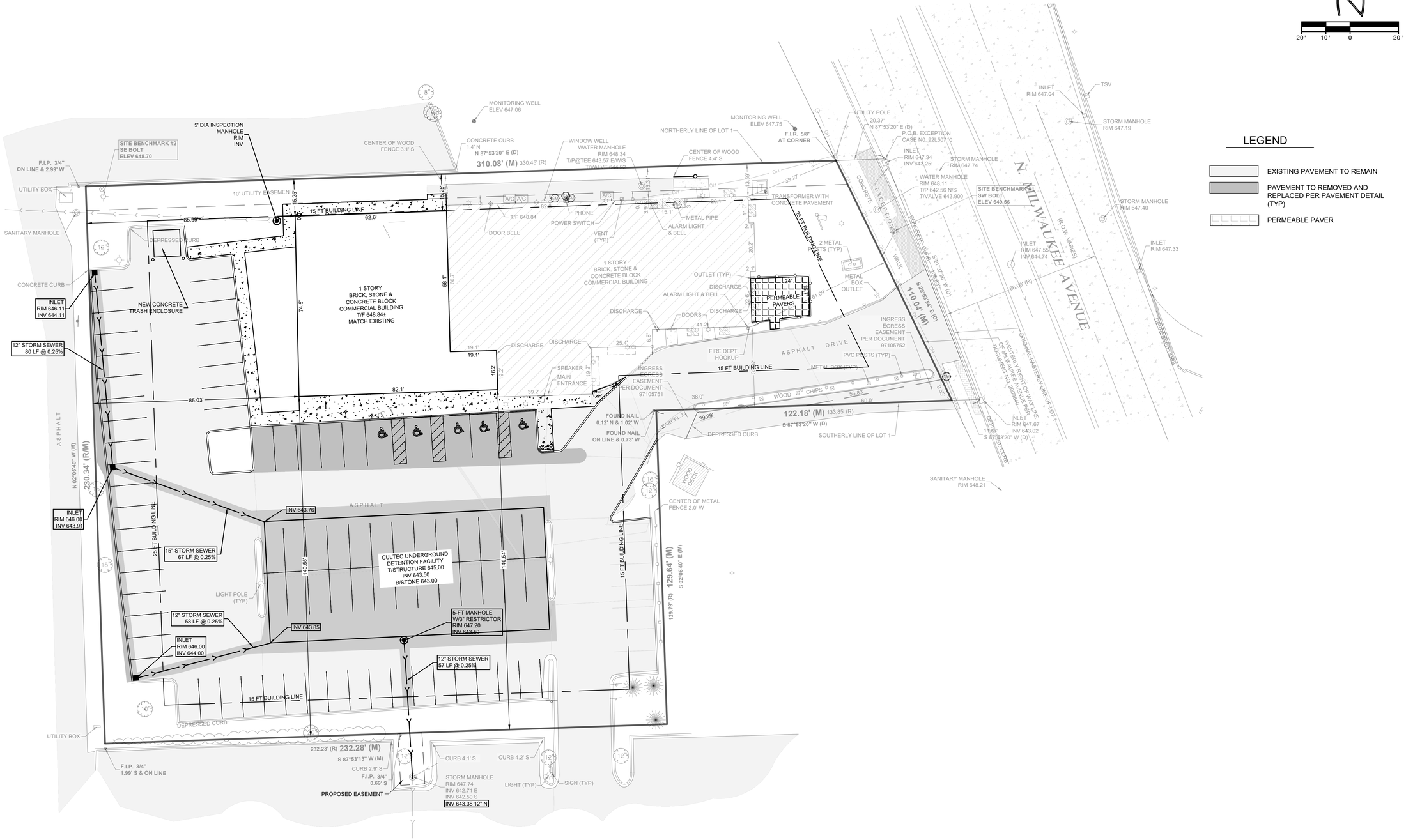
UTILITY PLAN



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UTILITY PLAN

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SHEET **8** OF 11 SHEETS

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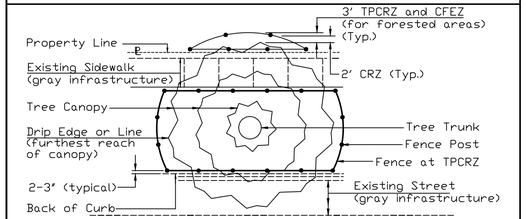
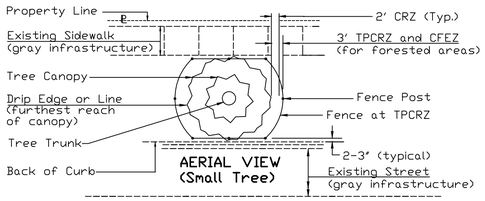
TREE PROTECTION - FENCING
(Highly Urbanized Areas)



AERIAL VIEW
(Large Tree)



AERIAL VIEW
(Small Tree)

Notes:

1. Call J.U.L.I.E. (800-892-0123) for the location of existing utilities 48 hours prior to commencement of work.
2. The CRZ is located 2' from the farthest outreaching branch (drip edge) or the distance as determined by the ISA trunk diameter method or whichever is greater.
3. On sides of the tree not constricted by gray infrastructure, the fence shall be located 1 foot from the Critical Root Zone (CRZ) of the protected tree, thus creating the Tree Protection Critical Root Zone (TPCRZ). The Critical Forest Edge Zone (CFEZ), for forested areas, shall also be located at the TPCRZ.

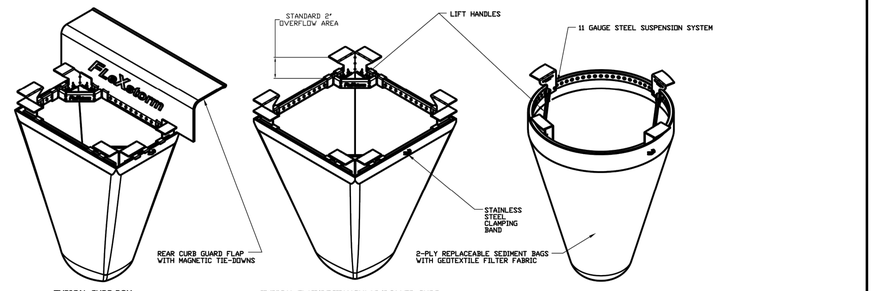
REFERENCE		STANDARD DWG. NO.
Project		IUM-690-B
Designed ____ Date ____		SHEET 1 OF 2
Checked ____ Date ____		DATE 09-14-2017
Approved ____ Date ____		

TREE PROTECTION - FENCING
(Highly Urbanized Areas)

Notes: (cont.)

4. On sides of the tree where there is gray infrastructure conflict the fence shall be 3 to 4 inches from the structure. Where the structure is a sidewalk and the CRZ goes beyond the sidewalk to the adjoining greenspace, the Tree Protection Fencing shall continue to the CRZ without impeding the flow of the traffic of the sidewalk.
5. Fence Posts shall be either 6' steel posts @ 1.33Lbs./Ft. or 2" x 2" nominal wood posts.
6. A chain link fence with Construction Specification Chain Link Fence IUM 91 or better (as approved by the local Forester per local ordinances singularly or in tandem with the project Engineer) shall be used. Fencing shall be a minimum height of 4'. Metal posts shall be placed 6' on center (OC) and fencing is securely anchored to the ground.
7. Outside the TPCRZ, erosion and sediment control measures shall be installed to prevent sediment reaching the TPCRZ. These measures shall extend out from the fence 10' and shall be continuous around the perimeter of the fence. These measures include, but are not limited to vegetative filter strip, rolled excelsior blankets and woodchip mulch with a 3" to 5" depth. Other methods may be used if approved by the Professional Forester, Certified Arborist or Horticulturalist. Installation shall cause no disturbance to soils.

REFERENCE		STANDARD DWG. NO.
Project		IUM-690-B
Designed ____ Date ____		SHEET 2 OF 2
Checked ____ Date ____		DATE 09-14-2017
Approved ____ Date ____		

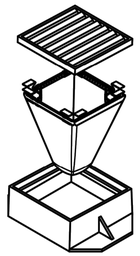


TYPICAL CURB BOX INLET FILTER

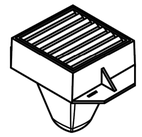
TYPICAL FLAT/RECTANGULAR/ROLLED CURB INLET FILTER

TYPICAL ROUND INLET FILTER

IPP *FLEX*storm Inlet Filter Specifications			
Material Property	*Test Method*	*Value (min ave)*	
> Inner Filter Bag Specs (2 ft² min vol)		Non-Woven	Woven Mono
Grab Tensile	ASTM D 4632	100 lbs	200 lbs
Puncture Strength	ASTM D 4833	65 lbs	90 lbs
Trapezoidal Tear	ASTM D 4533	45 lbs	75 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs	90%
App Open Size (AOS)	ASTM D 4751	70 sieve (.212 mm)	40 sieve (.425 mm)
Permittivity	ASTM D 4491	2.0 /sec	2.1/sec
Water Flow Rate	ASTM D 4491	145 gpm/sqft	145 gpm/sqft
> Polyester Outer Reinforcement Bag Specifications			
Weight	ASTM D 3776	4.55 oz/sqyd +/- 15%	
Thickness	ASTM D 1777	.040 +/- .005	
> Frame Construction			
A36 Structural Steel; 11 Guage; Zinc Plated	ASTM A 576	*Tensile Strength > 58,000 psi; Yield Strength > 36,000 psi*	



INSTALLATION:
1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE



OR VILLAGE OF WHEELING APPROVED EQUAL

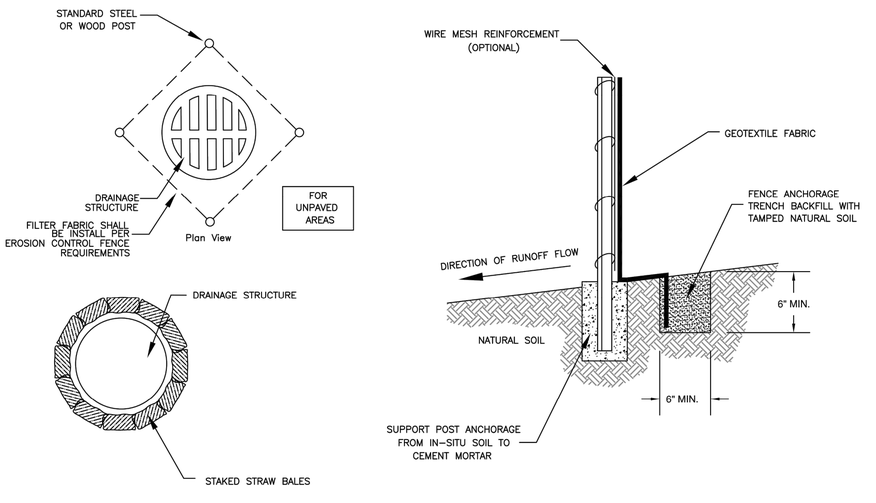
DRAWN ANDRIANO		ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC 1635 TONNE RD ELK GROVE, IL WWW.INLETFILTERS.COM (847) 732-0690 PH (847) 364-5262 FX SALES@INLETFILTERS.COM	
CHECKED			
QA			
PPG			
APPROVED			
		SIZE C	DWG NO IPP_FLEXSTORM_SPECS
		SCALE	SHEET 1 OF 1

VILLAGE OF WHEELING
ILLINOIS

VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

INLET AND FILTER PROTECTION STANDARD

VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
	S.W.	01-30-03 AUTOCAD FILE	ERO-1
FILE LOCATION	C.J.C.	11-27-07 AUTOCAD FILE	
T:\ENGINEERING\STANDARDS			



STRAW BALE INSTALLATION FOR EROSION CONTROL AROUND A DRAINAGE STRUCTURE

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

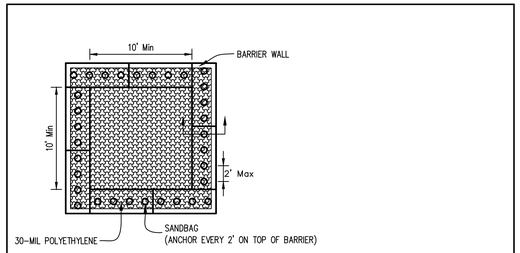
Inlet Protection Details

VILLAGE OF WHEELING
ILLINOIS

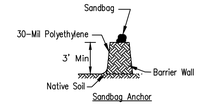
VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

SILT FENCE INSTALLATION STANDARD

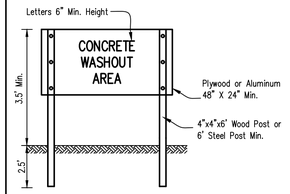
VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
	S.W.	05-01-00 AUTOCAD FILE	ERO-2
FILE LOCATION	S.W.	11-07-01 PER COMMENTS	
T:\ENGINEERING\STANDARDS	C.J.C.	01-29-08 AUTOCAD FILE	
	K.A.G.	12-20-16 INLET PROTECTION	



PLAN VIEW



BARRIER WALL ANCHOR SECTION



SIGN DETAIL

NOTES:

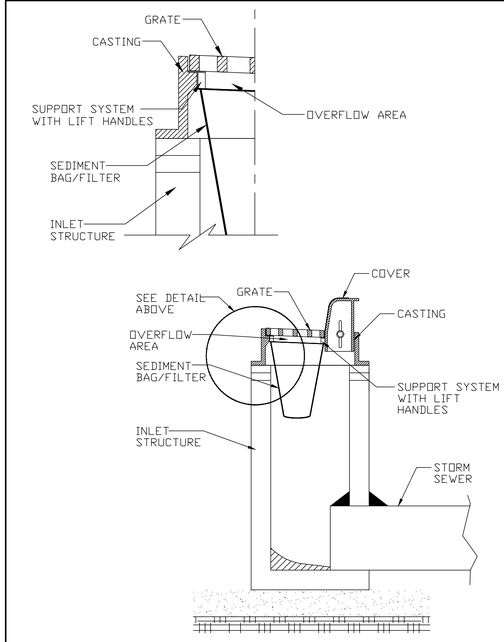
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

8" x 11" Sheet	No.	Revision	Date

TEMPORARY CONCRETE WASHOUT FACILITY - BARRIER WALL

Designed		Date
Drawn	B. JOHNSON	6/08
Checked		
Approved		

INLET PROTECTION - PAVED AREAS
DROP-IN PROTECTION



REFERENCE		STANDARD DWG. NO.
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Approved ____ Date ____		

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DETAIL SHEET

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WHEELING, ILLINOIS

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SHEET **9** OF 11 SHEETS

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COMPOSITE RUNOFF COEFFICIENT (*C*)

PROJECT: 604 N Milwaukee **PERMIT NUMBER:**

LOCATION: Wheeling **DATE:** 6/16/2025

TYPE OF AREA (SELECT WITH DROP-DOWN)

___ DETAINED AREA ___ MAJOR STORMWATER SYSTEM

___ UNRESTRICTED AREA ___ OTHER:

___ UPSTREAM AREA

CONDITION (SELECT WITH DROP-DOWN)

___ PROPOSED CONDITION ___ EXISTING CONDITION

RUNOFF COEFFICIENT

Surface Description	C	Area (acres)	Product (C)(Area)
impervious	0.95	0.39	0.37
pervious	0.50	0.05	0.02
TOTALS:		0.44	0.39

COMPOSITE RUNOFF COEFFICIENT

Composite C = Total Product / Total Area = 0.39 / 0.44 → Composite C = **0.90**

4/7/2022

MODIFIED RATIONAL METHOD: BULLETIN 75 RAINFALL DATA

PROJECT: 604 N Milwaukee **PERMIT NUMBER:**

LOCATION: Wheeling **DATE:** 6/16/2025

DEVELOPMENT INFORMTION

1. Detained Area	0.440	acres
2. Composite Runoff Coefficient	0.900	
3. Actual Release Rate	0.060	cfs

REQUIRED DETENTION VOLUME

4. Required Detention Volume	**0.188**	ac-ft

CALCULATION TABLE

Storm Duration	Rainfall Intensity (in/hr)	Inflow Rate (cfs)	Stored Rate (cfs)	Required Storage (ac-ft)	
5 min	12.36	4.89	4.83	0.033	
10 min	10.80	4.28	4.22	0.058	
15 min	9.28	3.67	3.61	0.075	
20 min	8.04	3.18	3.12	0.086	
30 min	6.34	2.51	2.45	0.101	
40 min	5.28	2.09	2.03	0.112	
50 min	4.55	1.80	1.74	0.120	
1 hr	4.03	1.60	1.54	0.127	
1.5 hr	3.03	1.20	1.14	0.141	
2 hr	2.49	0.99	0.93	0.153	
3 hr	1.83	0.72	0.66	0.165	
4 hr	1.48	0.59	0.53	0.174	
5 hr	1.25	0.50	0.44	0.180	
6 hr	1.07	0.42	0.36	0.180	
7 hr	0.96	0.38	0.32	0.185	
8 hr	0.86	0.34	0.28	0.185	
9 hr	0.79	0.31	0.25	0.188	←
10 hr	0.72	0.29	0.23	0.186	
11 hr	0.67	0.27	0.21	0.187	
12 hr	0.62	0.25	0.19	0.185	
18 hr	0.45	0.18	0.12	0.174	
24 hr	0.36	0.14	0.08	0.161	

4/7/2022

ORIFICE DISCHARGE RATE

PROJECT: 604 N Milwaukee **PERMIT NUMBER:**

LOCATION: Wheeling **DATE:** 6/16/2025

RESTRICTOR INFORMTION

1. Orifice Number			
2. Orifice diameter, *d*	3.00	in	
3. Discharge Coefficient, C_d	0.61		
4. Invert Elevation	643.50	ft	
5. High Water Elevation, HWL	645.00	ft	
6. Tail Water Elevation		ft	

ACTUAL RELEASE RATE

6. Free Flow Actual Release Rate at HWL	**0.28**	cfs	
7. Submerged Actual Release Rate at HWL		cfs	

STAGE-DISCHARGE TABLE CONDITION (SELECT FROM DROP-DOWN)

Free-flow

STAGE-DISCHARGE TABLE

Elevation (ft)	Orifice 1 (cfs)	Orifice 2 (cfs)	Total (cfs)	
643.50	0.00		0.00	
644.00	0.15		0.15	
645.00	0.28		0.28	HWL

4/7/2022

CULTEC StormGenie

USER INPUTS

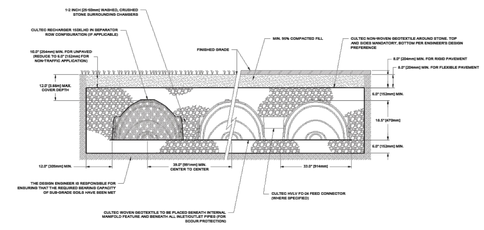
Project Name:	
Engineer:	eric foytik
Project Location:	
Measurement Type:	Imperial
Chamber Model:	Recharger 150XLHD
Required Storage Volume:	8016 cf
Available Length:	117 ft
Available Width:	84 ft
Stone Above Chambers:	6 in
Stone Below Chambers:	6 in
Base Stone Elevation:	643 ft
Stone Porosity:	36%
Maximum Allowable Finished Grade	657.04 ft
Minimum Allowable Finished Grade	646.21 ft
Outlet Control Structure:	Yes

RESULTS

Installed Storage Volume:	8054.16 cf
Storage Volume Per Chamber:	27.16 cf
Chamber Rows:	15
Maximum Length:	115.50 ft
Maximum Width:	50.25 ft
Approx. Bed Area Required:	5703.94 sf

SYSTEM COMPONENTS - NOT FOR CONSTRUCTION

Number of Chambers Required:	162
Number of End Caps Required:	30
Number of Feed Connectors Required:	26
Amount of Stone Required:	373 cy
Volume of Excavation (Not Including Fill):	537 cy
Non-woven Geotextile Required:	1955 sy
Woven Geotextile Required (Beneath Internal Manifold):	111 ft
Woven Geotextile Required (Separator Row):	128 ft
Total Woven Geotextile Required:	238 ft



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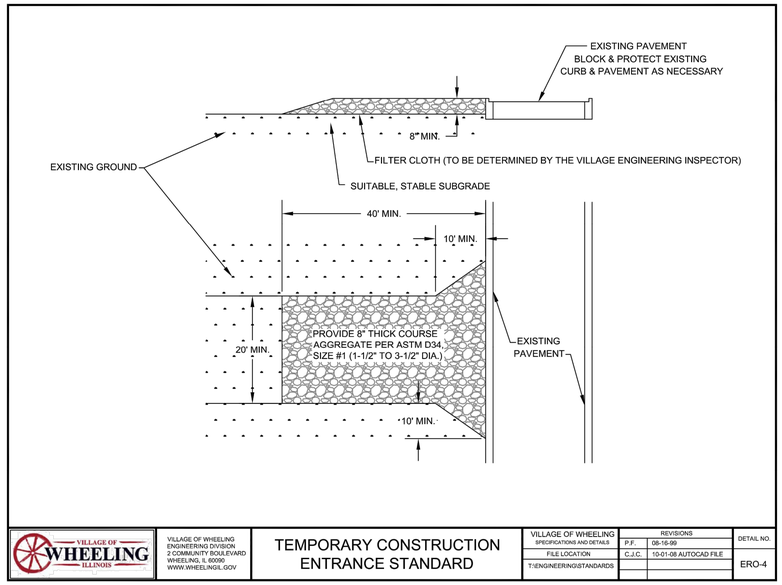

VILLAGE OF WHEELING ILLINOIS

VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

TEMPORARY CONSTRUCTION ENTRANCE STANDARD

VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
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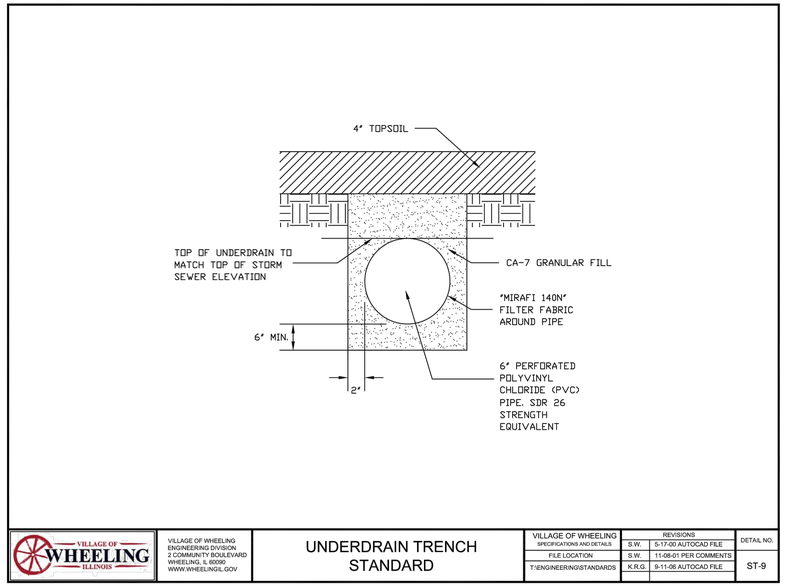

VILLAGE OF WHEELING ILLINOIS

VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

UNDERDRAIN TRENCH STANDARD

VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
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FILE LOCATION	S.W.	11-08-01 PER COMMENTS	
T:\ENGINEERING\STANDARDS	K.R.G.	9-11-06 AUTOCAD FILE	

DATE	
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2	11/11/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026 REVISED PER VILLAGE OF WHEELING, IL.
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6	

DETAIL SHEET

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

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FIELD CREW:	PW
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SCALE:	HORIZ –
	VERT –

SHEET **10** OF 11 SHEETS

PROJ # 25-02-2003

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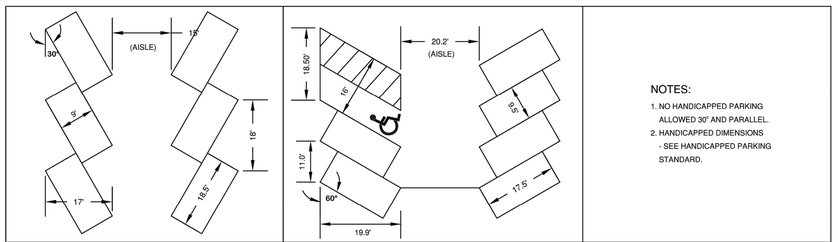

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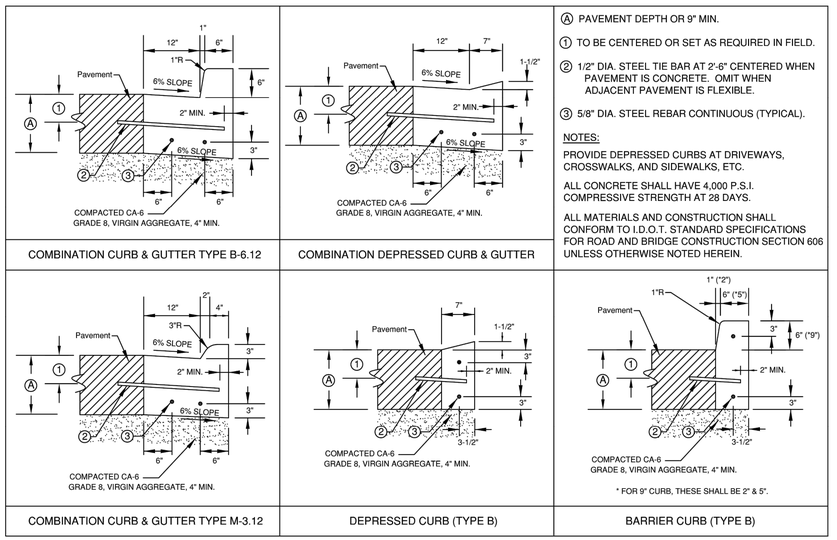

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	CURB AND GUTTER STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
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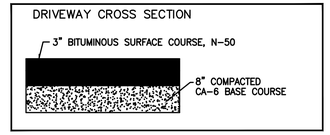

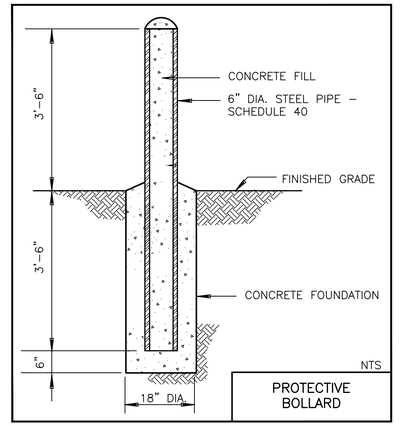

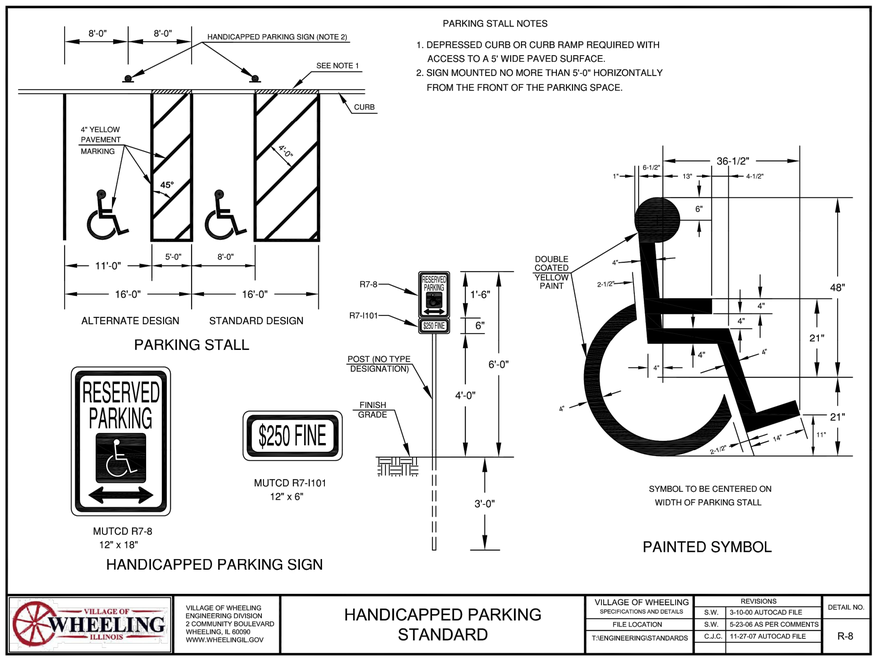

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				S.W.	3-10-00 AUTOCAD FILE	R-8
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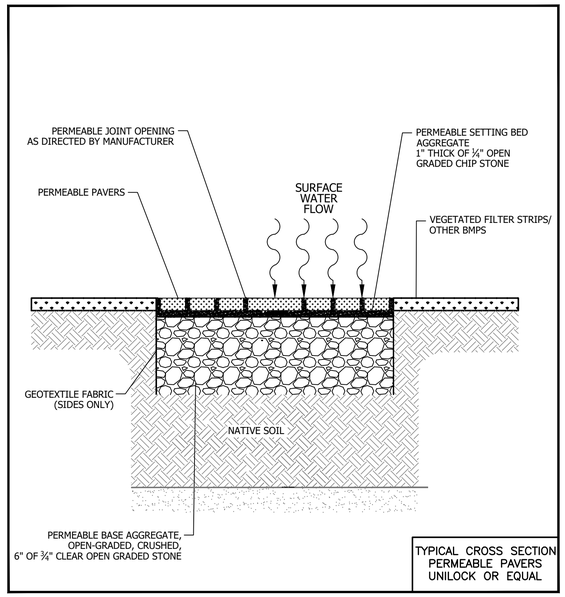

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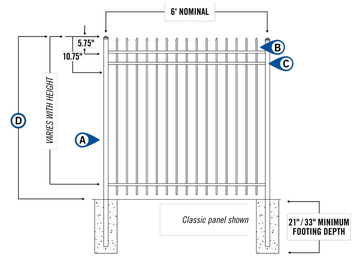
STANDARD BOTTOM & FLUSH BOTTOM OPTIONS AVAILABLE



- Ⓐ 2"sq x .060" wall POSTS
- Ⓑ 0.590"sq x .050" wall PICKETS
- Ⓒ 1.125"w x 1"h *(0.072" side / 0.055" top)* ForeRunner™ RAILS
- Ⓓ 4', 4½', 5' & 6' PANEL HEIGHTS

ECHELON® | 3-RAIL PANELS | 4" AIR SPACE

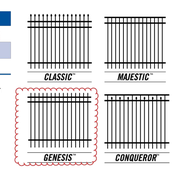
STANDARD BOTTOM | 6' PANEL LENGTH *(71.5" actual width)* **| 15 PICKETS PER PANEL | 24 PANELS PER PALLET**

PANEL	ITEM NUMBER	WEIGHT	STOCKING
4'	A0☒⊘3466	13 lbs	C<u>B</u> M<u>B</u> G<u>B</u>
5'	A0☒⊘3586	15 lbs	C<u>B</u> M<u>B</u> G<u>B</u>
6'	A0☒⊘3706	17 lbs	C<u>B</u> M<u>B</u> G<u>B</u>

☒ = ***FENCE STYLES AVAILABLE*** | C = Classic M = Majestic G = Genesis R = Conqueror

⊘ = ***COLOR OPTIONS AVAILABLE*** | B = Black N = Bronze W = White

⃠ = ***NON-STOCKED PRODUCT***
For details, see Ameristar's Sales Policy in the catalog guide.



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DETAIL SHEET

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
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SHEET **11** OF 11 SHEETS

PROJ # 25-02-2003

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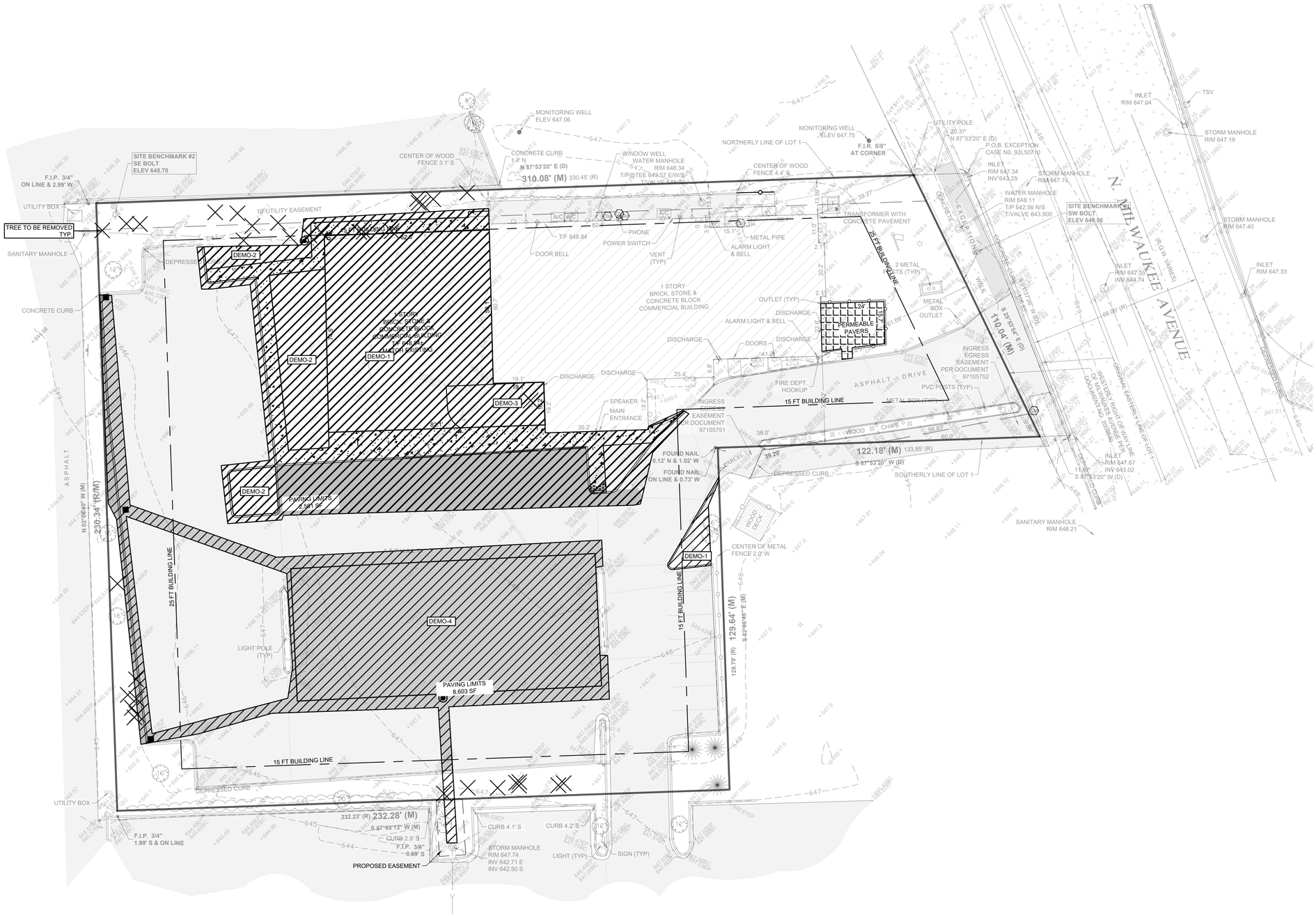
SITE GRADING PLAN



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4	01/16/2026 REVISED PER VILLAGE OF WHEELING, IL.
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DISTURBED AREA EXHIBIT

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

SITE AREA = 63,682 SF

EXISTING IMPERVIOUS AREA

BUILDING	8,014 SF
WALK	628 SF
DRIVEWAY	42,116 SF
TOTAL	50,758 SF

DEVELOPMENT AREA = 19,063 SF

PROPOSED IMPERVIOUS AREA

BUILDING	4,989 SF
WALK	2,246 SF
DRIVEWAY	9,866 SF
TOTAL	**17,101 SF**
PERMEABLE PAVERS	424 FT

TOTAL DISTURBED AREA

PERMEABLE PAVERS	424 SF
PARKING/STORM	8,711 SF
PARKING.BUILDING	12,585 SF
TOTAL	21,720 SF

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
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DATE: 05/15/2025
SCALE: HORIZ 1"=20'
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SHEET 1 OF ____ SHEETS

PROJ # 25-02-2003

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MEMORANDUM

DATE: March 11, 2026
FROM: Marcy Knysz, Village Planner
SUBJECT: Docket No. PSPMAJ25-0001, Request for Major Site Plan and Building Appearance Approval For the Construction of an Approximately 4,977 SF Building Addition, Bulding Facade Enhancements, and Associated Site Improvements for Hamro Investment Group, LLC (604 N. Milwaukee Avenue).

RECOMMENDED ACTION: **Recommend Approval of Docket No. PSPMAJ25-0001,** granting major site plan and building appearance approval for the construction of an approximately 4,977 sq. ft. building addition, building façade enhancements, and associated site improvements, for Hamro Investment Group, LLC, (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004) for the property located at 604 N. Milwaukee Avenue, as required under Title 19, Zoning, of the Wheeling Municipal Code and Chapter 19-12, in accordance with the Building Materials Board prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; Canopy System Specification Sheet by Mapes; Elevations prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; Engineering Plans prepared by Morris Engineering, Inc., last revised 1/16/2026; Existing Conditions Photos prepared by the petitioner, dated 1/21/2026; Landscape Plan prepared by G Studio, last revised 1/20/2026; Lighting Plan prepared by PG Enlighten, last revised 1/20/2026; Permeable Paver Specification Sheet by Unilock; Product Specification Sheets for the Wall Base and Sill; Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Rooftop Screen Detail prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; Site Details prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026; and subject to the following conditions:

1. Major site plan and building appearance approval is contingent upon approval of Docket No. PSU25-0012 (special use approval to permit the operation of an entertainment establishment); Docket No. PV26-0003 (variation to permit a reduction in the minimum required stall length); and Docket No. PV26-0004 (variation to permit a reduction in the minimum required drive aisle width).

2. The site improvements shall be constructed, maintained, and operated in substantial compliance with the Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Engineering Plans prepared by Morris Engineeirng, Inc., last revised 1/16/2026; Landscape Plan prepared by G Studio, last revised 1/20/2026; Lighting Plan prepared by PG Enlighten, last revised 1/20/2026; and Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026 except as modified by the Plan Commission or Village Board.

3. A building permit must be obtained from the Community Development Department prior to commencing any construction on the building addition or demolition of the site.

4. A completed Application for Wheeling Business License for the new business shall be submitted to the Community Development Department prior to the commencement of operations.

5. The maximum number of outdoor seats shall be limited to 39 seats, unless additional shared parking spaces are secured.

6. No construction permits of any kind shall be issued for any work to be conducted at the subject site before a shared access and parking agreement between the

petitioner and the property owner of the adjacent southern Parcel Index Number 03-02-200-048-0000 (commonly addressed as 562 N. Milwaukee Avene) is submitted to the Community Development Department, allowing for the petitioner's access and use of the surface parking facility at 562 N. Milwaukee Avenue. Upon acceptance of any shared parking agreement by the Director of Community Development, said agreement shall be executed and recorded with the Cook County Clerk's Office.

7. The parking lot shall be resurfaced within one (1) year of issuance of a Temporary Certificate of Occupancy or Final Certificate of Occupancy, whichever is issued first.

8. The outdoor space located west of the trash enclosure shall not be used for outdoor storage of materials, including boxes and/or pallets.

9. A Wheeling Sign Permit shall be required prior to the installation of any exterior signage at the subject property, subject to the requirements of Title 21 (Signs).

10. The proposed fence section addition on the north side of the building shall match the existing fence in material and design and shall have the finished side facing north.

11. All outdoor furniture shall be commercial grade, weather resistant, and suitable for year-round outdoor conditions.

12. Plantings shall be maintained year round in the four (4) planters along the building's south elevation.

13. The sidewalk proposed as part of this development shall be constructed of concrete in accordance with the Village's standard construction details.

14. The following items shall be submitted with the building permit application:

    a. The final size and location of the rooftop unit (RTU) enclosures. The enclosures shall match the new Pearl Gray EIFS finish on the building façade.
    b. A detail of the proposed bicycle rack(s), including specifications demonstrating compliance with Village Code requirements.
    c. The Landscape Plan shall include suitable landscape plantings within the entrance island along Milwaukee Avenue, excluding mulch, stone, or similar.
    d. Construction ready irrigation plans.

EXECUTIVE SUMMARY

GENERAL PROPERTY INFORMATION

Petitioner: Hamro Investment Group, LLC

Location: 604 N. Milwaukee Avenue

Property size: 66,999 sq. ft. (1.54 acres)

Building size: 8,000 sq. ft. / 4,950 sq. ft. building addition

Neighboring Property Land Use(s):
North: Multi-tenant Industrial/Vacant Land
West: Multi-tenant Industrial
South: Multi-tenant Industrial/Parking Lot/Old Munich Tavern

Existing Use of Property: Commercial retail space (vacant, former Buca di Beppo)

Existing Zoning: MXC, Commercial/Residential Mixed Use

Comprehensive Plan Designation: Commercial/Residential Mixed Use

Zoning History:

- Ordinance #1428, approved 6/14/1976, granting a sign variation (Docket No. 422).
- Docket No. PC-303, approved 9/22/1994, granting appearance approval of architectural, landscape, lighting and signage.
- Ordinance #2991, approved 10/3/1994, granting special use and site plan approval for a restaurant with live music for Yvette North (Docket No. 1994-28).
- Ordinance #3187, approved 1/6/1997, granting special use and suite plan approval for a restaurant with live music for Buca di Beppo (Docket No. 1996-36).
- Docket No. PC-363, approved 5/8/1997, granting appearance approval for a sign for Buca di Beppo.
- Docket No. PC-504, approved 12/9/1999, granting appearance approval for a sign for Buca Little Italy.
- Docket No. PC-541, approved 2/8/2001, granting appearance approval of a restaurant expansion and added parking.
- Docket No. SCBA-011, approved 10/11/2001, granting approval of a freestanding sign face change.
- Ordinance #1193, approved 7/10/1972, granting a rezoning from the I-1 to the B-4 Zoning District (Docket No. 304).
- Ordinance #3533, approved 2/26/2001, granting special use and site plan approval for a restaurant with live music (Docket No. 2001-7A).
- Ordinance #3534, approved 2/26/2001, granting a variation for the pavement setback (Docket No. 2001-7B).
- Ordinance #3535, approved 2/26/2001, granting a variation to permit 2 freestanding signs along Milwaukee Avenue (Docket No. 2001-7C).

SUMMARY OF REQUEST

The petitioner is seeking major site plan and building appearance approval to construct a building addition and undertake comprehensive façade renovations to the former Buca di Beppo (Buca) restaurant building at 604 N. Milwaukee Avenue. The proposed improvements are associated with the proposed “604 The Arena” indoor entertainment establishment which requires special use approval (Docket No. PSU25-0012). The project includes architectural enhancements to the primary entrance, expansion of the building footprint, exterior material upgrades, installation of new canopies, rooftop mechanical screening, and associated site improvements. Since the project consists of the construction of an addition to a principal structure that is greater than 1,000 sq. ft., major site plan and building appearance approval is required.

The petitioner is also seeking variations associated with the proposed parking lot at the northwest corner of the property (Docket No’s. PV26-0003 & PV26-0004).

SITE ANALYSIS

For the purposes of promoting compatible development and ensuring adequate public facilities, Site Plan and Building Appearance review and approval is required prior to issuance of a building permit or commencing use of land, except for single and two-family residences. Site Plan review only involves the static aspects of a site – layout, parking, landscaping, fencing, etc., and not the land use or operations of a business.

The Zoning Code requires that additions to a principal structure that are greater than 1,000 sq. ft. have a concept review by the Village Board before being reviewed by the Plan Commission, unless waived by the Village Administrator. The petitioner presented the Concept Review to the Village Board on May 5, 2025. As this request is for major site plan and building appearance approval, the Commission’s recommendation will be forwarded to the Village Board for a final decision.

Site Plan

The proposed 4,977 sq. ft. building addition will be located west of the existing restaurant building. As stated in the attached Project Description Letter, the proposed additional space is intended to be used for cricket simulator lanes, golf simulator terminals and an arcade.

To support the additional floor area and associated increase in occupancy, the existing parking lot will be expanded at the northwest corner of the property. Due to site constraints and the configuration of the existing parking lot, the

petitioner is seeking two zoning variations to align new parking dimensions with existing conditions. Specifically, a reduction to the minimum parking stall length from 18.5 feet to 18.0 feet (Docket No. PV26-0003) and a reduction to the minimum drive aisle width from 25 feet to 24 feet (Docket No. PV26-0004). The requested reductions will match the existing parking lot's geometry and allow a cohesive blending between the existing parking lot and the proposed expanded parking area.

As part of the parking lot expansion, curb and gutter will be installed along the west property line where none currently exists. The installation of curb and gutter will improve site drainage, clearly define the edge of pavement, and enhance overall site functionality and compliance with Village engineering standards.

Outdoor Dining Area: A new outdoor dining area is proposed on the east side of the building that will provide a maximum capacity of 39 seats. The patio will be constructed with a Unilock permeable paver system per the attached product specifications sheet. The outdoor dining area will be enclosed by a new 4-foot tall black, three-rail wrought iron fence (Echelon, Genesis style), as depicted on Sheet 11 of the Engineering Plans.

Trash Enclosure: A new trash enclosure will be constructed within the expanded parking lot area as the current enclosure will be removed due to the building addition. The enclosure will consist of a black steel frame with 6' tall slate gray PVC plank infill panels designed to complement the Pearl Gray EIFS of the principal structure. The enclosure will be protected by four (4) six-inch diameter concrete-filled steel bollards with yellow safety covers.

Bicycle Racks: Bicycle parking will be provided along the south elevation, just east of the main customer entrance, which will accommodate twelve bicycles. The former restaurant did not provide any dedicated bicycle parking. Per the Bicycle Parking Regulations of the Zoning Code, the minimum bike parking requirements shall be met for any portion of a building addition. As a result, a minimum of four bicycle parking spaces are required (based on 36 parking spaces required for the building addition). The type of proposed bicycle racks is not consistently identified across the plan sets; therefore, staff is requesting a detailed product specification for the proposed bicycle rack(s) be submitted at the time of building permit application for review and approval.

Building Elevations
A full refinish of the exterior is proposed to transition the former restaurant to the entertainment venue, which the proposed materials and color scheme are identified on the attached Building Materials Board sheet. The original building and prior expansion were primarily finished with EIFS and are permitted to remain as existing, which will be repainted in Pearl Gray color. The existing (fiberglass) faux stone panels will be removed and replaced with new thin-stone wall panels in a dark charcoal color. The transition between the stone base wall and EIFS will be completed with chiseled "Coronado Stone" sills in a charcoal color. The main customer entrance will be enhanced through removal and raising of the existing parapet to create a more prominent architectural feature, along with the installation of a new metal canopy system. The existing storefront systems will remain, with select repainting of framing to coordinate with the updated material palette. Existing gutters and downspouts will remain in place and will be repainted to match the renovated façade.

The proposed building addition will modify the roofline and parapet configuration to create a more cohesive and articulated façade between the existing building and addition. Parapet heights range from approximately 14 feet 6 inches to 15 feet 2 inches, and new metal coping is proposed. The addition is designed to integrate the existing massing and will utilize the same Pearl Gray finish and thin-stone base treatment to ensure architectural continuity. A durable Tuff II acrylic base coating is proposed along the bottom four inches of the building to protect foundation insulation.

On the north elevation (the rear of the building), the majority of the EIFS will be painted black and will not include the thin-stone base treatment. However, the northeastern portion of the façade, which is visible from Milwaukee Avenue, will be upgraded to match the remainder of the building.

The existing false stone monolith on the east façade will remain and will be repainted to coordinate with the new thin-stone material.

All existing green and white striped fabric awnings will be removed and replaced with new Sunbrella fabric awnings in a bright blue color, as depicted in the submitted color renderings and identified in the Building Materials Board sheet.

The wall signage shown on the attached Proposed Elevations are for illustration purposes and final sign design will

be submitted at a later time. In addition, the two stone entry columns located on either side of the entrance drive off Milwaukee Avenue will be removed during construction.

Landscaping
The proposed landscaping plan would retain significant existing landscaping along the perimeter of the site while introducing new plantings to support the expanded parking area, new patio, and building addition. New canopy trees, ornamental trees, evergreen shrubs, perennials, and ornamental grasses are distributed throughout the site, particularly within parking lot islands, along the west property line adjacent to the addition, and around the new patio and entrance areas. Foundation plantings are proposed along the building façade. The Plant Schedule identifies a mix of species including *Pinus, Picea, Liriodendron, Tilia, Amelanchier, Gymnocladus, Celtis, Cercis*, and *Liquidambar* for canopy and ornamental trees, along with *Viburnum, Physocarpus, Itea, Juniperus, Taxus*, and *Hydrangea* shrubs. Perennials and grasses include *Allium, Carex, Andropogon, Schizachyrium, Rudbeckia, Calamagrostis, Iris*, and *Liriope*.

In addition, four decorative planters are proposed along the south façade of the new addition. The planter detail specifies “Brisbane planters” (48" x 24" x 32") in light grey to be planted with seasonal plantings as indicated on Sheet L2 of the Landscape Plans. A ground-mounted transformer is currently located northwest of the existing building. Additional landscaping will be installed to supplement the existing plantings surrounding the transformer to enhance screening and improve the overall appearance of the mechanical equipment area.

The Landscape Plan further identifies new sod areas to replace disturbed lawn areas and to restore parking lot islands impacted by construction. The Landscape Plan does not specify planting conditions within the main entrance island along Milwaukee Avenue, which over the years has been neglected. Although the Site Plan identifies new sod to be planted in this area, it has been demonstrated that sod is not sustainable and should be replaced with suitable landscape plantings (excluding mulch, stone, or similar). As a result, staff has included a condition requiring that the Landscape Plan be updated to include suitable landscape plantings within the entrance island.

A Tree Preservation Plan detail within the Landscape Plan identifies the existing canopy, evergreen trees, select deciduous trees and shrubs scheduled for removal where necessary to accommodate construction. Tree protection measures include installation of high-visibility fencing at the drip line during construction.

Irrigation is proposed with drip irrigation for shrub and perennial beds and lawn sprinkler irrigation for turf areas. Final irrigation layout and mechanical details will be required at the time of building permit application.

Mechanical Units
The project includes installation of new rooftop mechanical units (RTUs) associated with the building addition, along with proper screening methods. As shown on the Roof Enclosure Details sheet, rooftop screening will be achieved with “CityScapes 52-inch Vertical Style Envisor” screen system. The screen enclosure consists of vertically ribbed metal panels designed to fully screen rooftop mechanical units from view. The submitted section detail indicates a screen height of approximately 56 inches above the roof surface, with the overall height varying depending on the final RTU configuration. Final screen dimensions and layout will be determined based on the specific equipment sizes and spacing at the time of permit.

Sight line diagrams are included on the Elevation Drawings to demonstrate the proposed screening will effectively conceal the rooftop equipment from the adjacent public right-of-way and surrounding properties.

Fencing
The existing wood fence located along the north property line does not fully screen the building from Milwaukee Avenue, resulting in a visible gap as seen from Milwaukee Avenue. To address this condition, the petitioner has worked with staff to install approximately 14 linear feet of additional wood fencing to match the existing fence in material, height and design, thereby creating a continuous screen along the north property line. Staff has included a condition that the finished side of the fence shall face north, although the finished side of the existing fence faces inward.

Lighting
The lighting plan provides a comprehensive upgrade to both site and building-mounted lighting to support the expanded building footprint and expanded parking area. The lighting design is depicted on the submitted Photometric Plan, Lighting Specification Sheets and Site Details Sheet. The plan includes replacement of existing light poles at their current locations with new fixtures and the installation of additional pole-mounted lighting to

adequately illuminate the expanded northwest parking area. The proposed light poles will be 25 feet tall with a 2-foot concrete base.

In addition to pole lighting, the plan includes decorative wall-mounted sconce fixtures, wall packs and canopy lighting. These fixtures are intended to illuminate pedestrian walkways, building entrances, and the new patio area.

Parking
There are 87 existing on-site parking spaces, in addition to 53 spaces located in the adjacent lot to the south at 562 N. Milwaukee Avenue. In 2001, Buca acquired the vacant property at 562 N. Milwaukee Avenue, directly to the south, and redeveloped the property into a 53-space parking lot with an internal connection to the main Buca property and right-in/right-out access onto Milwaukee Avenue. Although both parcels were owned and operated as a single development, they remained as two separate parcels. The petitioner has purchased the main Buca parcel, but is not the owner of the separate southern parking lot.

The Village's off-street parking standards require a total of 110 parking spaces for the proposed entertainment venue. Since the subject site currently provides 87 spaces, a 23 space deficiency results. The petitioner is in the process of developing an access and parking agreement with the adjacent property owner to utilize off-site parking to satisfy the remaining parking requirement, consistent with the prior restaurant use. As an agreement has not been completed as of this report, staff has included a condition stating that no construction permits of any kind shall be issued until an access and parking agreement is submitted and approved by the Director of Community Development, to be subsequently executed and recorded.

Parking Summary Table

Use	Parking Requirement	# of Spaces Required
Restaurant	1 space per 3 seats	32
Outdoor Dining	1 space per 2 seats beyond first 15	8
Bar	1 space per 3 seats	9
Gaming Room	1 space per 3 seats	2
VR Rooms (similar to golf driving range)	1 space per room	2
VR Stations	1 space per 3 seats	4
Lounge Seating	1 space per 3 seats	7
Simulators (similar to bowling lanes)	4 spaces per lane	24
Arcade High Top Seating	1 space per 3 seats	5
Arcade	1 space per 3 seats	7
Employees	1 space per employee on shift	10
	REQUIRED PARKING SPACES	**110**
	PARKING SPACES PROVIDED	**87**
	PARKING SPACES DEFICIENT	**-23**
	PARKING SPACES ON 562 N. MILWAUKEE AVE	**53**

STAFF REVIEW
Fire Department Review: There are no comments at this time. The Fire Department will conduct an additional review during the building permit review.

Engineering Division Review: Comments from the Engineering Division have been incorporated into the conditions of approval.

Staff Recommended Actions: Staff recommends approval of this request, subject to the following conditions:

1. Major site plan and building appearance approval is contingent upon approval of Docket No. PSU25-0012 (special use approval to permit the operation of an entertainment establishment); Docket No. PV26-0003 (variation to permit a reduction in the minimum required stall length); and Docket No. PV26-0004 (variation to permit a reduction in the minimum required drive aisle width).

2. The site improvements shall be constructed, maintained, and operated in substantial compliance with the Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Engineering Plans prepared by

Morris Engineering, Inc., last revised 1/16/2026; Landscape Plan prepared by G Studio, last revised 1/20/2026; Lighting Plan prepared by PG Enlighten, last revised 1/20/2026; and Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026 except as modified by the Plan Commission or Village Board.

3. A building permit must be obtained from the Community Development Department prior to commencing any construction on the building addition or demolition of the site.

4. A completed Application for Wheeling Business License for the new business shall be submitted to the Community Development Department prior to the commencement of operations.

5. The maximum number of outdoor seats shall be limited to 39 seats, unless additional shared parking spaces are secured.

6. No construction permits of any kind shall be issued for any work to be conducted at the subject site before a shared access and parking agreement between the petitioner and the property owner of the adjacent southern Parcel Index Number 03-02-200-048-0000 (commonly addressed as 562 N. Milwaukee Avenue) is submitted to the Community Development Department, allowing for the petitioner's access and use of the surface parking facility at 562 N. Milwaukee Avenue. Upon acceptance of any shared parking agreement by the Director of Community Development, said agreement shall be executed and recorded with the Cook County Clerk's Office.

7. The parking lot shall be resurfaced within one (1) year of issuance of a Temporary Certificate of Occupancy or Final Certificate of Occupancy, whichever is issued first.

8. The outdoor space located west of the trash enclosure shall not be used for outdoor storage of materials, including boxes and/or pallets.

9. A Wheeling Sign Permit shall be required prior to the installation of any exterior signage at the subject property, subject to the requirements of Title 21 (Signs).

10. The proposed fence section addition on the north side of the building shall match the existing fence in material and design and shall have the finished side facing north.

11. All outdoor furniture shall be commercial grade, weather resistant, and suitable for year-round outdoor conditions.

12. Plantings shall be maintained year round in the four (4) planters along the building's south elevation.

13. The sidewalk proposed as part of this development shall be constructed of concrete in accordance with the Village's standard construction details.

14. The following items shall be submitted with the building permit application:

a. The final size and location of the rooftop unit (RTU) enclosures. The enclosures shall match the new Pearl Gray EIFS finish on the building façade.
b. A detail of the proposed bicycle rack(s), including specifications demonstrating compliance with Village Code requirements.
c. The Landscape Plan shall include suitable landscape plantings within the entrance island along Milwaukee Avenue, excluding mulch, stone, or similar.
d. Construction ready irrigation plans.

******

If the Plan Commission finds that the petitioner has satisfied the requirements for the granting of major site plan and building appearance approval, the appropriate motion would be to:

Recommend Approval of Docket No. PSPMAJ25-0001, granting major site plan and building appearance approval for the construction of an approximately 4,977 sq. ft. building addition, building façade enhancements, and associated site improvements, for Hamro Investment Group, LLC, (2604 N. Chapel Hill Drive, Arlington Heights, IL 60004) for the property located at 604 N. Milwaukee Avenue, as required under Title 19, Zoning, of the Wheeling

Municipal Code and Chapter 19-12, in accordance with the Building Materials Board prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; Canopy System Specification Sheet by Mapes; Elevations prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; Engineering Plans prepared by Morris Engineering, Inc., last revised 1/16/2026; Existing Conditions Photos prepared by the petitioner, dated 1/21/2026; Landscape Plan prepared by G Studio, last revised 1/20/2026; Lighting Plan prepared by PG Enlighten, last revised 1/20/2026; Permeable Paver Specification Sheet by Unilock; Product Specification Sheets for the Wall Base and Sill; Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026; Rooftop Screen Detail prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; Site Details prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026; Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026; and subject to the following conditions:

1. Major site plan and building appearance approval is contingent upon approval of Docket No. PSU25-0012 (special use approval to permit the operation of an entertainment establishment); Docket No. PV26-0003 (variation to permit a reduction in the minimum required stall length); and Docket No. PV26-0004 (variation to permit a reduction in the minimum required drive aisle width).

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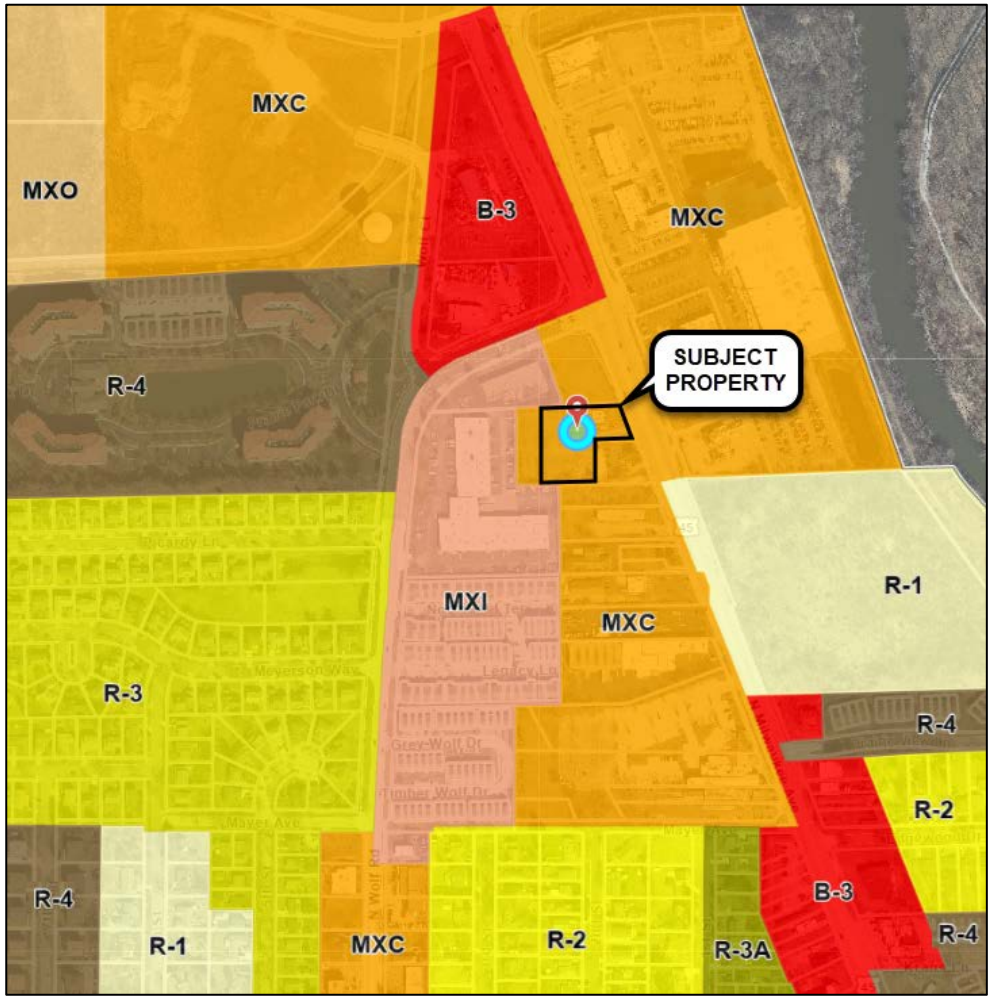
b. A detail of the proposed bicycle rack(s), including specifications demonstrating compliance with Village Code requirements.
c. The Landscape Plan shall include suitable landscape plantings within the entrance island along Milwaukee Avenue, excluding mulch, stone, or similar.
d. Construction ready irrigation plans.

ATTACHMENTS:

Attachments to Staff Report (Staff)
Building Materials Board prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026
Canopy System Specification Sheet by Mapes
Elevations prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026
Engineering Plans prepared by Morris Engineering, Inc., last revised 1/16/2026
Existing Conditions Photos prepared by the petitioner, dated 1/21/2026
Landscape Plan prepared by G Studio, last revised 1/20/2026
Lighting Plan prepared by PG Enlighten, last revised 1/20/2026
Permeable Paver Specification Sheet by Unilock
Product Specification Sheets for the Wall Base and Sill
Project Description Letter prepared by Manish Chaudhary, dated 1/29/2026
Rooftop Screen Detail prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026
Site Details prepared by Atul Karkhanis Architects, Ltd., last revised 1/21/2026
Site Plan prepared by Atul Karkhanis Architects, Ltd., last revised 1/27/2026



Location Map



Zoning Map



South Façade of Existing Building



North Façade of Existing Building



Entrance Drive off Milwaukee Avenue



Existing Parking Lot



Existing Parking Lot Island



Existing Trees Along West Property Line



North Side of Building





CHISELED STONE SILL - CORONADO STONE
CHARCOAL COLOR

SHERWIN WILLIAMS PAINT
SW 7069 - IRON ORE
TO BE USED ON FRONT MONOLITH.

METAL FINISH - BLACK
TO BE USED ON NEW STOREFRONT
FRAMES. NEW & EXIST. COPINGS, TRIMS.

AWNING FINISH -
SUNBRELLA SHADE (PACIFIC BLUE)
TO BE USED ON NEW AND EXISTING AWNINGS.

THIN STONE FINISH - ELDORADO STONE
MOUNTAIN LEDGE PANELS - BOW VALLEY WESTERN



EIFS FINISH - DRYVIT #531 (PEARL GRAY)
TO BE USED ON NEW AND EXISTING FIELD COLOR EIFS.

EIFS FINISH - DRYVIT #152 (ANTHRACITE COAL)
TO BE USED ON BACK OF BUILDING

CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
BUILDING MATERIALS BOARD

JANUARY 21ST, 2026

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FINAL REVIEW	4/18/25

aka atul karkhanis architects, ltd.
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CANOPY SYSTEM

- MAPES - Super Lumideck
  - Product Brochure
  - Sample Technical Drawings

2514 W. Peterson Ave, Chicago, IL 60659-4109 • tel: 773.508.5533 • fax: 773.508.5757 • afoster@akarchitects.com • www.akarchitects.com

mapes
ARCHITECTURAL CANOPIES
UNRIVALED.

SUPER LUMIDECK





ALL–WEATHER CANOPIES. AND WE MEAN ALL–WEATHER.

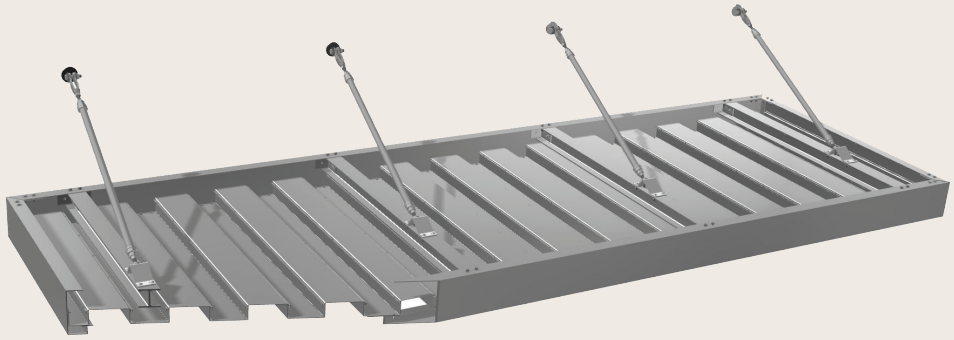
The Super Lumideck canopy is an all-extruded, pre-engineered canopy designed for high-load architectural applications. The square, corrugated deck provides long-term strength and durability. A variety of different fascia profiles and attachment methods deliver the ultimate in design versatility, while keeping installation simple and straight forward. Compared to the alternatives, Mapes aluminum, non-rusting finish and high-quality extruded materials offer superior longevity, while meeting all local code requirements for snow and wind loads.

For more details, please visit mapes.com

SUPER LUMIDECK
TECHNICAL DATA

All-extruded Aluminum (T6 – 6063)
Fascia .125”
Decking .078”
Deflection rating L/180
Maximum Projection
10’ w/ hanger rod supports
5’ w/ cantilever supports

Note: Engineered stamped calcs available in all 50 states



CANOPY DETAILS

Finishes		Warranty		Application
Mapes Standard Finishes	Clear Anodized, White Baked Enamel, & Bronze Baked Enamel	1 year	Meets AAMA 2603 specifications	Factory applied
2-Coat Kynar*	25 stock colors w/ unlimited custom matching options	10 years	70% Fluoropolymer meets AAMA 2605 specifications	Professionally applied & cured by certified finisher

*Additional lead times and costs associated w/ premium paints & custom color matching

FEATURES

- 2 ¾” square corrugated decking
- High-load capacity
- Pre-engineered
- All-extruded Aluminum
- Rust & maintenance free
- Custom details & colors
- Pre-assembly options

APPLICATIONS

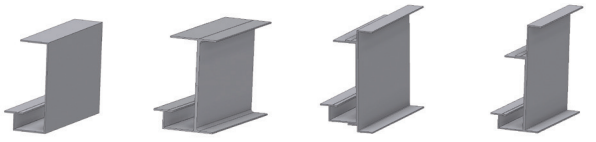
- Retail branding
- Shopping centers
- Storefronts
- Office buildings
- Door & window covers

DECK OPTIONS

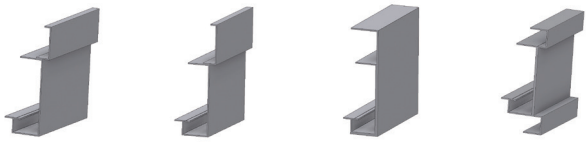


2 3/4”

FASCIA OPTIONS

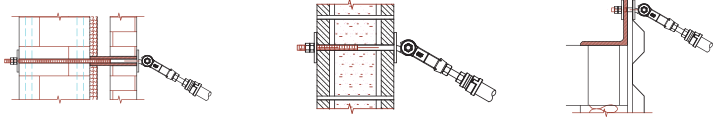


8” J | 8” C-CHANNEL | 10” C-CHANNEL | 12” C-CHANNEL



8” J WITH 3” EXTENSION | 8” J WITH 4” EXTENSION | 12” SMOOTH FACE | CUSTOM

WALL MOUNT DETAILS

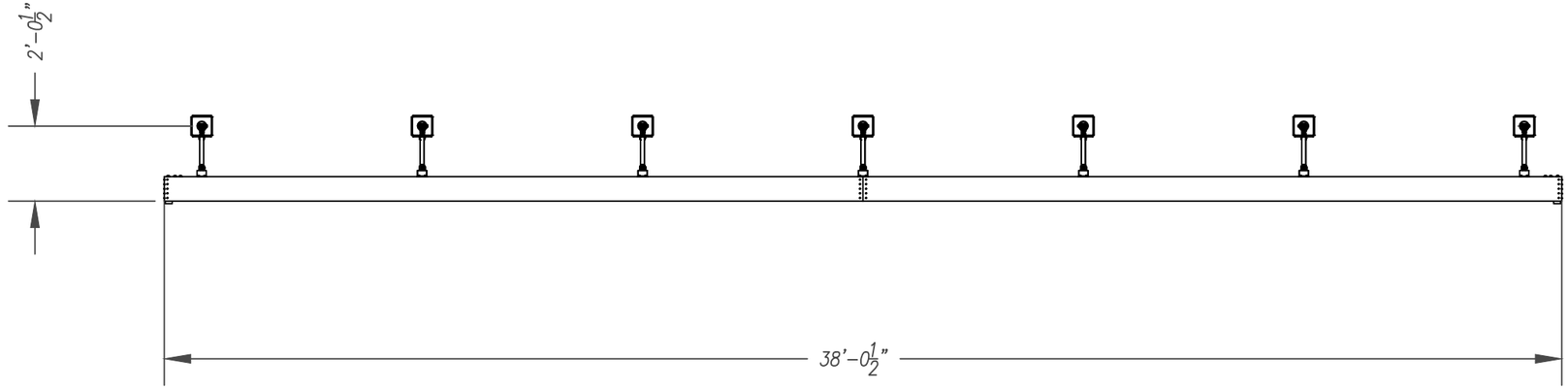


BRICK/BLOCK WITH THRU BOLT AND COMPRESSION SLEEVE | CMU WITH THRU BOLT | METAL BUILDING

MAPES ARCHITECTURAL CANOPIES
7748 North 56th Street, Lincoln, NE 68514 **Phone:** 888-273-1132 **Fax:** 877-455-6572 mapes.com

M#### - SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

MAPES CANOPIES / LINCOLN, NE



Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

7748 N. 56th St.
Lincoln, NE. 68514-9724
Ph: (888) 273-1132
Fx: (877) 455-6572
email: cad@mapes.com

Proposed for:
MAPES CANOPIES ( )
LINCOLN, NE

Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####	sheet: 01
Dec. 3, 19	of 7

c:\users\bwelch\desktop\website - 12.3.19\super lumideck

General Notes:

1. MAPES ARCHITECTURAL CANOPIES REQUIRES ONE (1) SET OF CORRECTED DRAWINGS TO REVISE APPROVAL DRAWINGS, OR AN APPROVED SET OF DRAWINGS IN ORDER TO FABRICATE ORDER
2. ORDERS REQUIRING ENGINEERING WILL "ONLY" BE FABRICATED "AFTER" DRAWINGS ARE APPROVED
3. VERIFY ALL CANOPY AND FIELD DIMENSIONS PRIOR TO RELEASING FOR FABRICATION
4. ALL ORDERS NOT APPROVED FOR PRODUCTION WITHIN 90 DAYS OF PURCHASE ORDER ARE SUBJECT TO A REVIEW OF PRICING
5. ALL FASTENER HOLES NOT OTHERWISE NOTED ARE TO BE FIELD DRILLED
6. ALL FASTENERS NOT OTHERWISE NOTED ARE STAINLESS STEEL OR ALUMINUM
7. ADEQUACY OF WALL AND BUILDING STRUCTURE MUST BE CERTIFIED BY BUILDINGS ENGINEER OF RECORD
8. WALL SYSTEMS W/ EIFS, BRICK VENEER OR METAL PANEL EXTERIOR DESIGN TYPICALLY REQUIRE COMPRESSION SPACERS TO PREVENT CRUSHING, SUPPLIED BY MAPES
9. IF NEEDED, MAPES SUPPLIES 1026 DOM TUBING FOR COMPRESSION SPACERS. THE TUBING WILL BE SUPPLIED IN 24" LENGTHS TO BE CUT DOWN IN THE FIELD AS NEEDED. ENOUGH TUBING WILL BE SENT FOR 6" PER ANCHOR POINT UNLESS OTHERWISE NOTED. IT'S INTENT IS ONLY TO SPAN THROUGH ANY NON-STRUCTURAL EXTERIOR CLADDING.
10. MAPES SUPPLIES ALL HARDWARE NEEDED TO ANCHOR CANOPY TO STRUCTURE. ALL STRUCTURE BEARING LOAD OF CANOPY ANCHORS IS TO BE DESIGNED, ENGINEERED, AND SUPPLIED BY OTHERS.

Project Notes:

1. SUPER LUMIDECK CANOPY
2. 38'-0 1/2"X3' PROJ (1)
3. 1" HANGER PIPE
4. 2 3/4" EXTRUDED DECKING (PERP)
5. 8" FASCIA
6. FASCIA DRAIN W/ DRAIN STUBS

Drawing Schedule

Page #	Description
01	Cover
02	General Information
03	Canopy Plan
04	Section AA
05	Section BB
06	Section CC
07	Detail a

Design Notes:

1. FINISH SHALL BE TWO COAT KYNAR
2. COLOR SHALL BE (CHOSEN FROM MAPES STD SMOOTH COLOR CHART)
3. COUNTER FLASHING AND SEALANT, BY CANOPY INSTALLER
4. SURROUND WALL ANCHORS WITH WATER TIGHT SEALANT
5. EMBED ALL WALL ANCHOR WASHERS IN SEALANT TO PROVIDE WATERTIGHT SEAL AT WALL
6. TO ENSURE PROPER DRAINAGE, INSTALL CANOPY WITH POSITIVE CAMBER
7. MAPES RECOMMENDS (1) DRAIN HOLE MINIMUM PER EVERY 20 LINEAR FEET OF FASCIA
8. INTERMEDIATE RIVETS 4'-0" O.C. MAX.
9. FIELD DRILL DRAIN HOLES IN FASCIA @ DESIRED LOCATIONS

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

7748 N. 56th St.
Lincoln, NE. 68514-9724
Ph: (888) 273-1132
Fx: (877) 455-6572
email: cad@mapes.com

Proposed for:
MAPES CANOPIES ( )
LINCOLN, NE

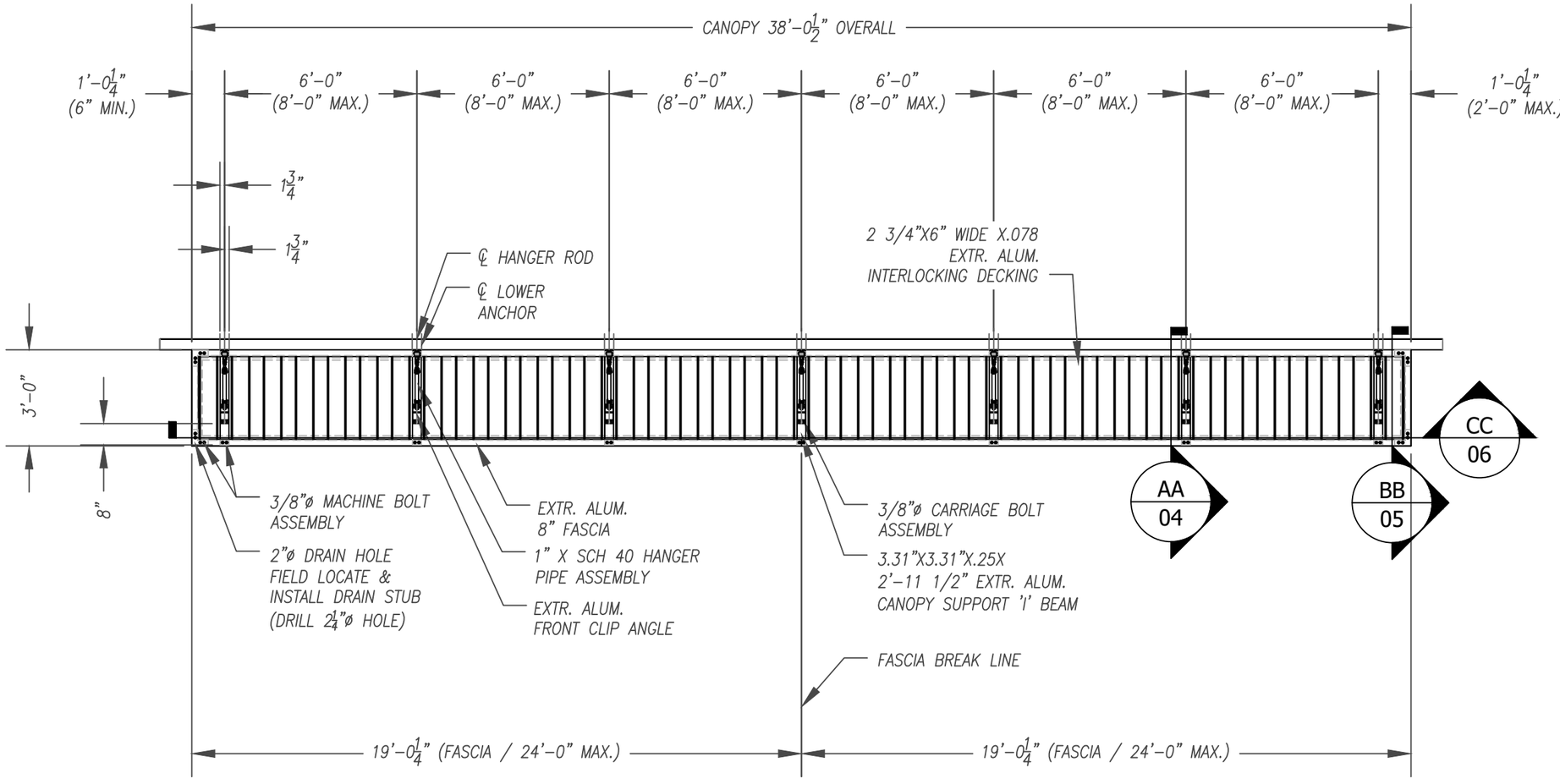
Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####

Dec. 3, 19

sheet: 02 of 7



1 CANOPY PLAN

Scale: 1/4" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

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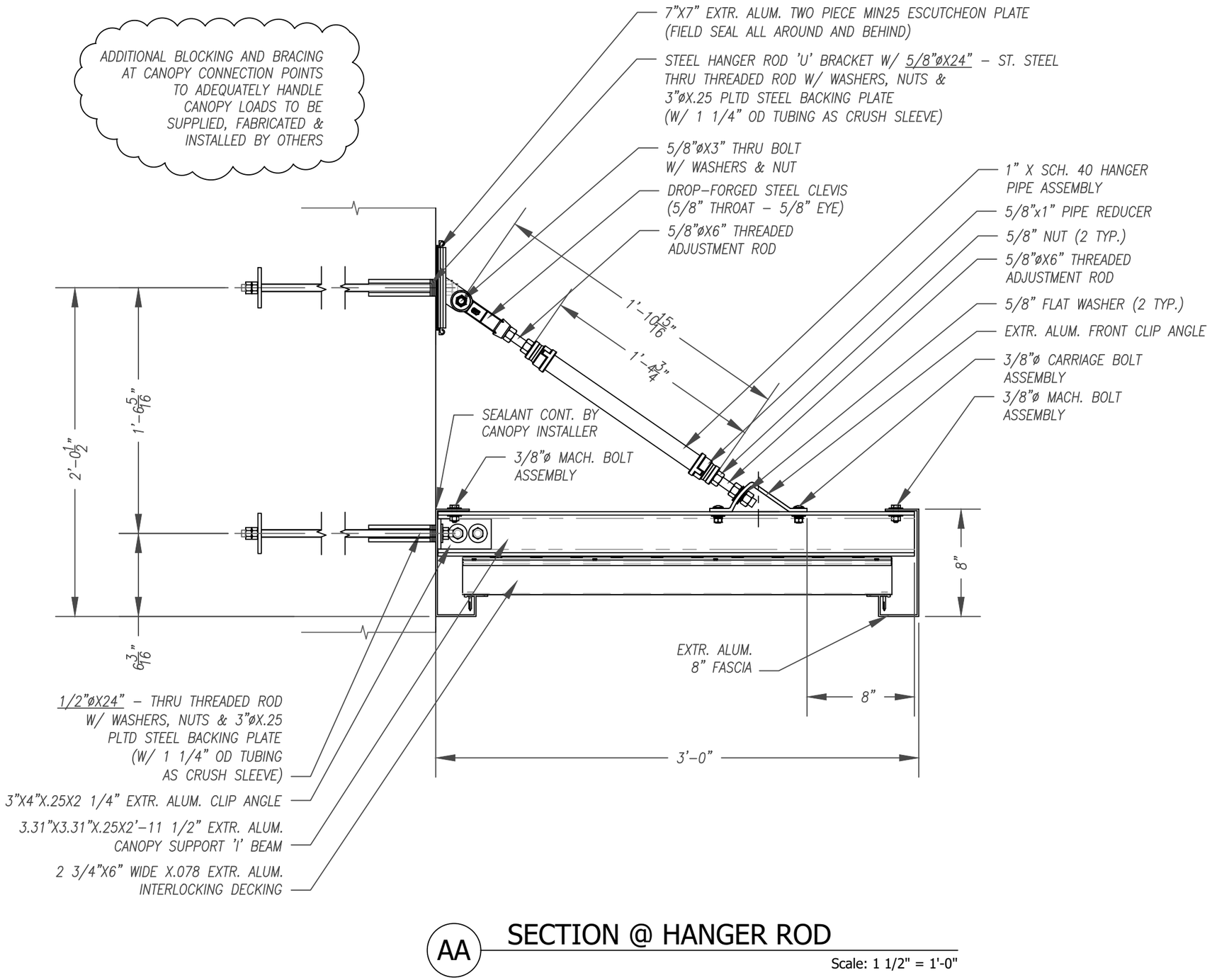
PO # dtd
MQ # Rep:

M####	sheet: 03
Dec. 3, 19	
1/4" = 1'-0"	of 7



AA SECTION @ HANGER ROD

Scale: 1 1/2" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

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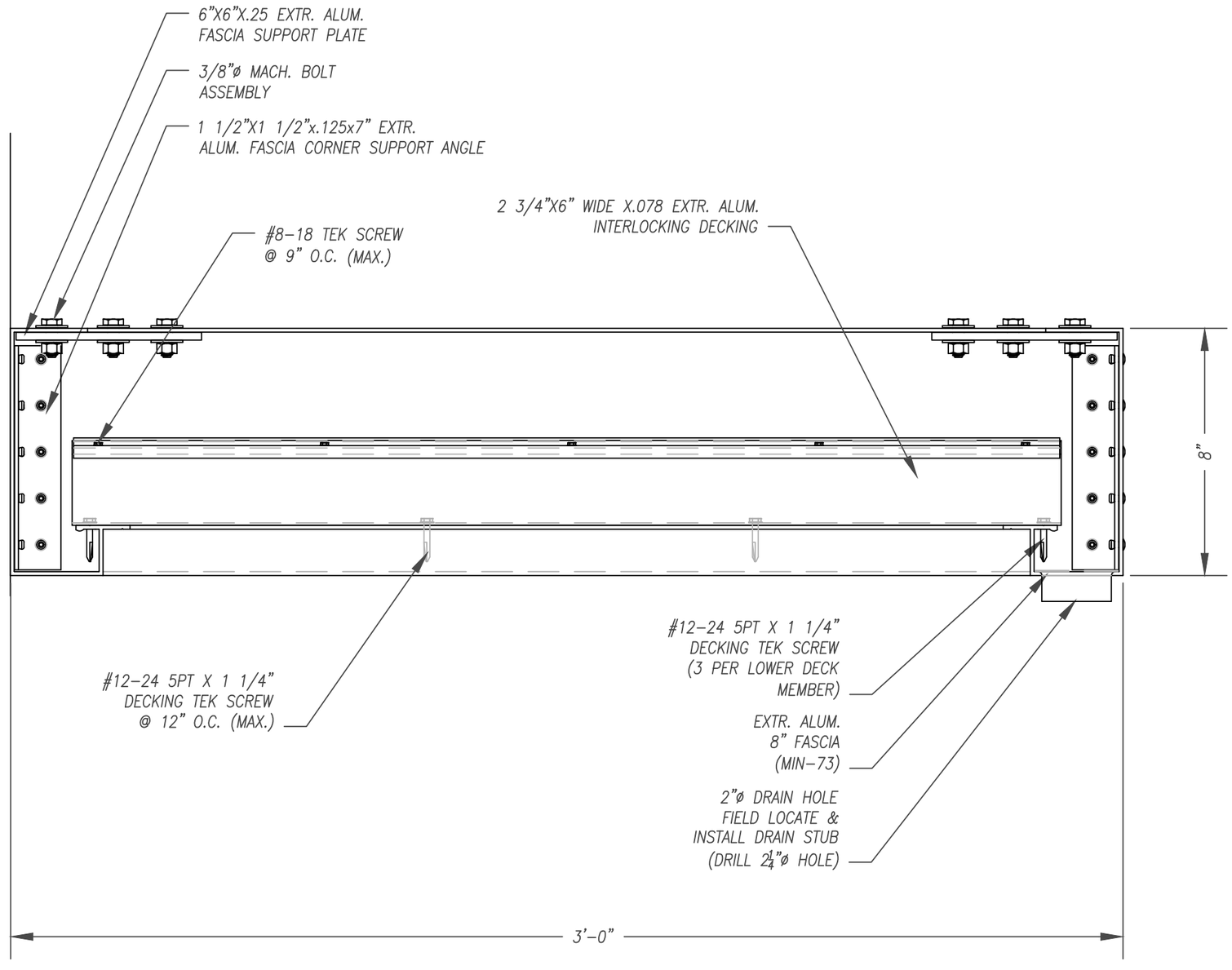
LINCOLN, NE

Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####	sheet: 04
Dec. 3, 19	
1 1/2" = 1'-0"	of 7



BB SECTION @ END CANOPY

Scale: 3" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

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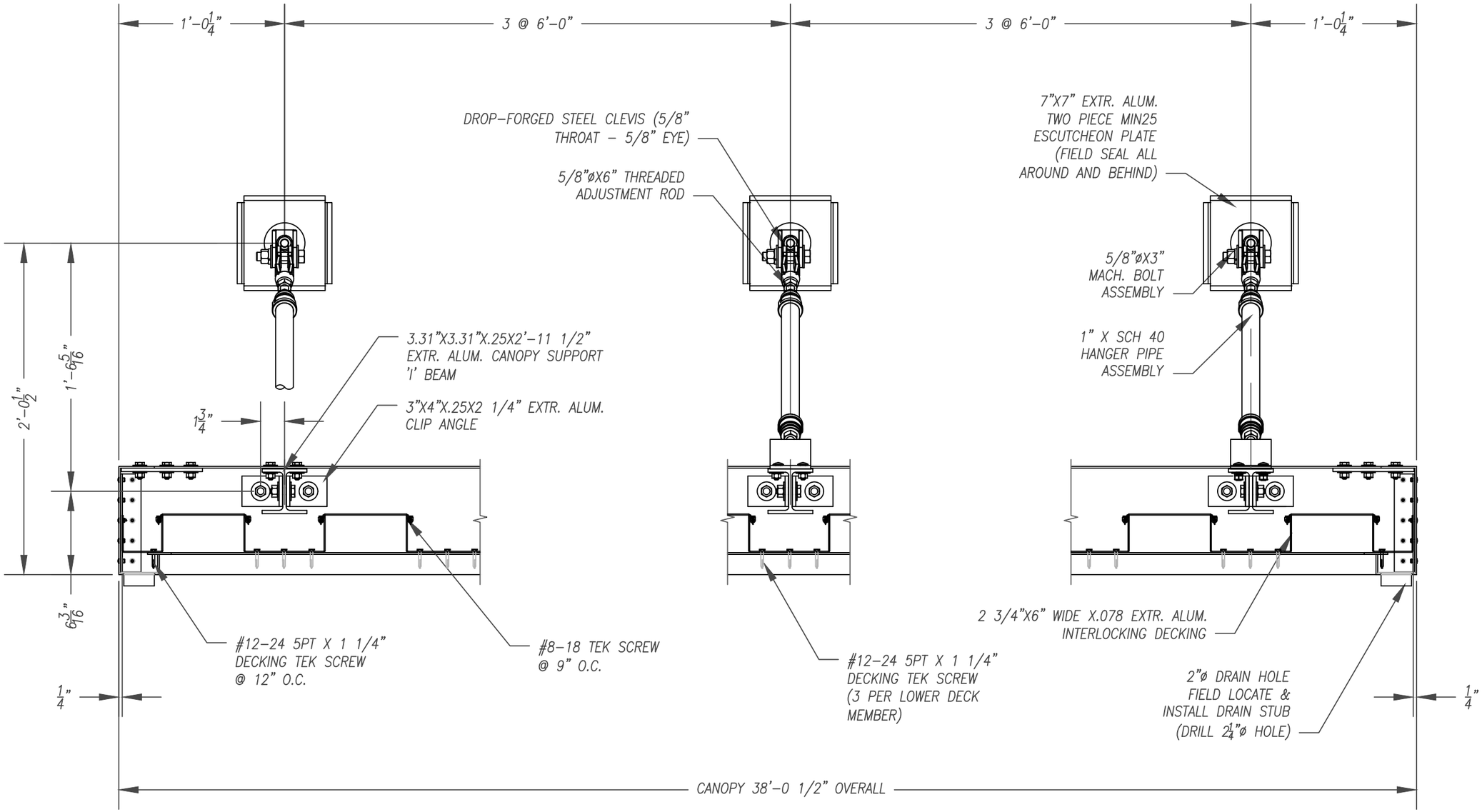
Proposed for:
MAPES CANOPIES ( )
LINCOLN, NE

Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####	sheet: 05
Dec. 3, 19	
3" = 1'-0"	of 7



CC TRANSVERSE SECTION

Scale: 1 1/2" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

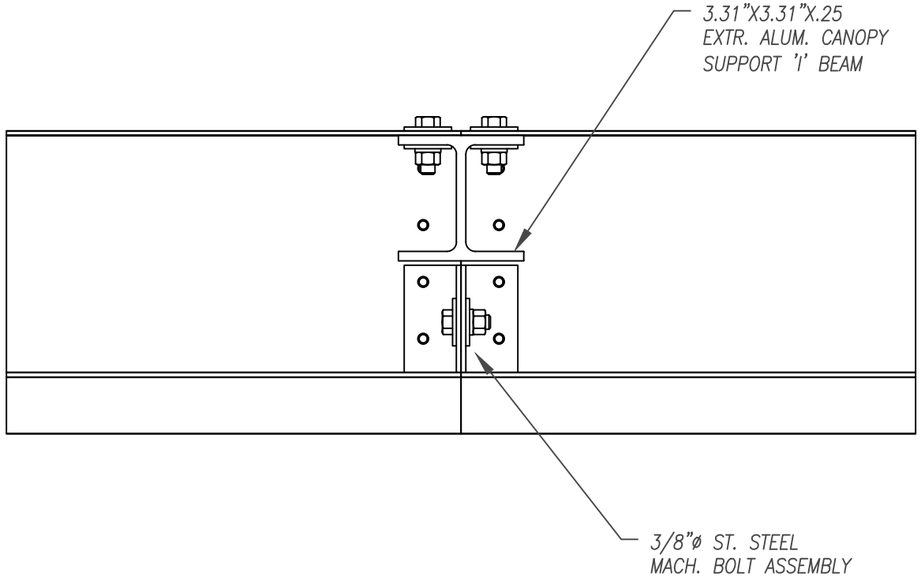
7748 N. 56th St.
Lincoln, NE. 68514-9724
Ph: (888) 273-1132
Fx: (877) 455-6572
email: cad@mapes.com

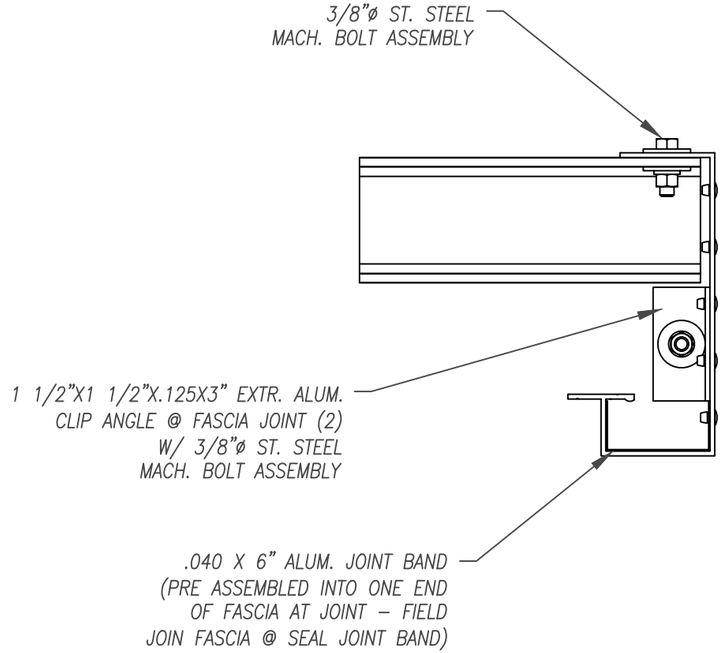
Proposed for:
MAPES CANOPIES ( )
LINCOLN, NE

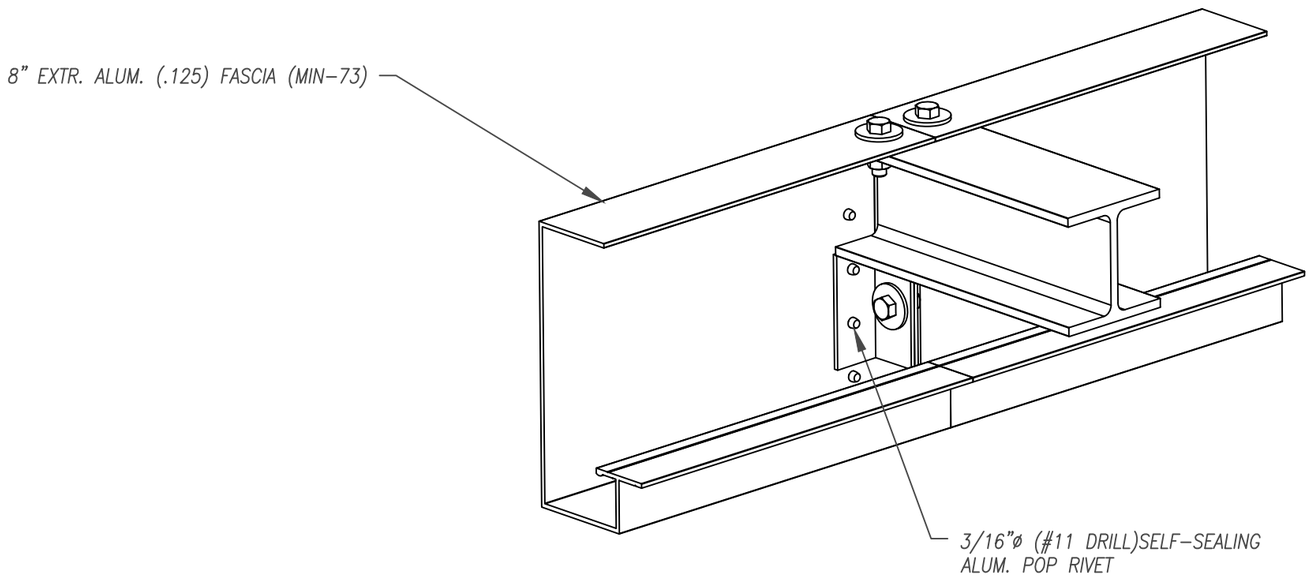
Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####	sheet: 06
Dec. 3, 19	
1 1/2" = 1'-0"	of 7







a FASCIA JOINT DETAIL

Scale: 3" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

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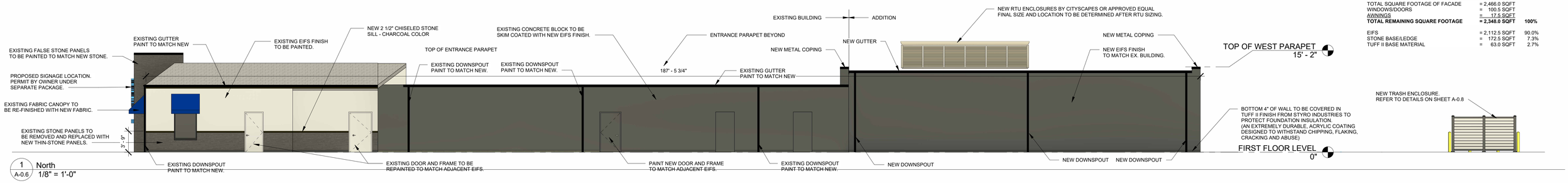
PO # dtd
MQ # Rep:

	sheet: 07
Dec. 3, 19	
3" = 1'-0"	of 7

PROPOSED ELEVATIONS

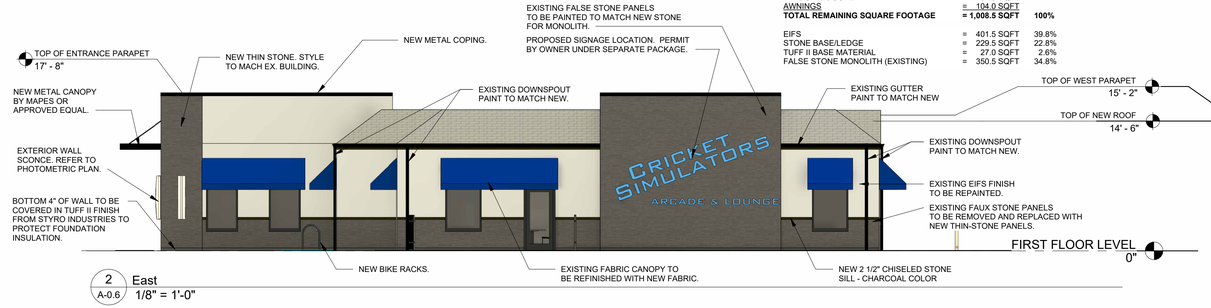
00000-00



1 A-0.6 North
1/8" = 1'-0"

BUILDING MATERIALS - NORTH ELEVATION

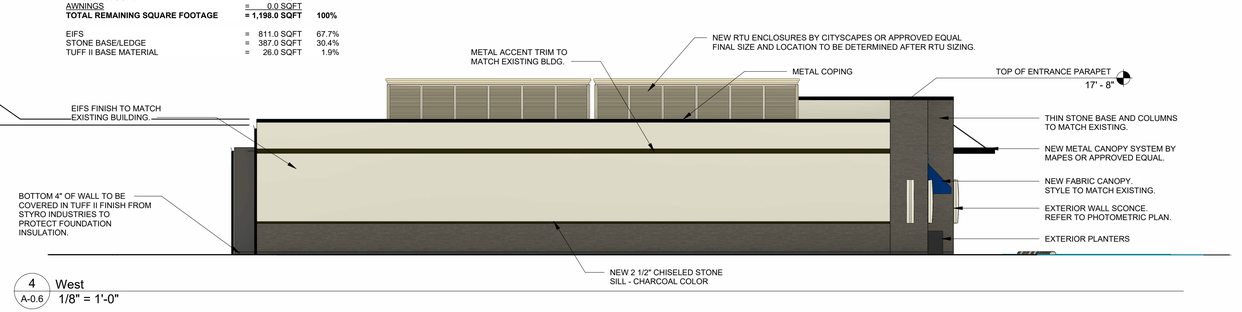
TOTAL SQUARE FOOTAGE OF FACADE	= 2,466.0 SQFT	
WINDOWS/DOORS	= 100.5 SQFT	
AWNINGS	= 17.5 SQFT	
TOTAL REMAINING SQUARE FOOTAGE	**= 2,348.0 SQFT**	**100%**
EIFS	= 2,112.5 SQFT	90.0%
STONE BASE/LEDGE	= 172.5 SQFT	7.3%
TUFF II BASE MATERIAL	= 63.0 SQFT	2.7%



2 A-0.6 East
1/8" = 1'-0"

BUILDING MATERIALS - EAST ELEVATION
ONLY MAIN ENTRY CHANGED - REST EXISTING MATERIALS

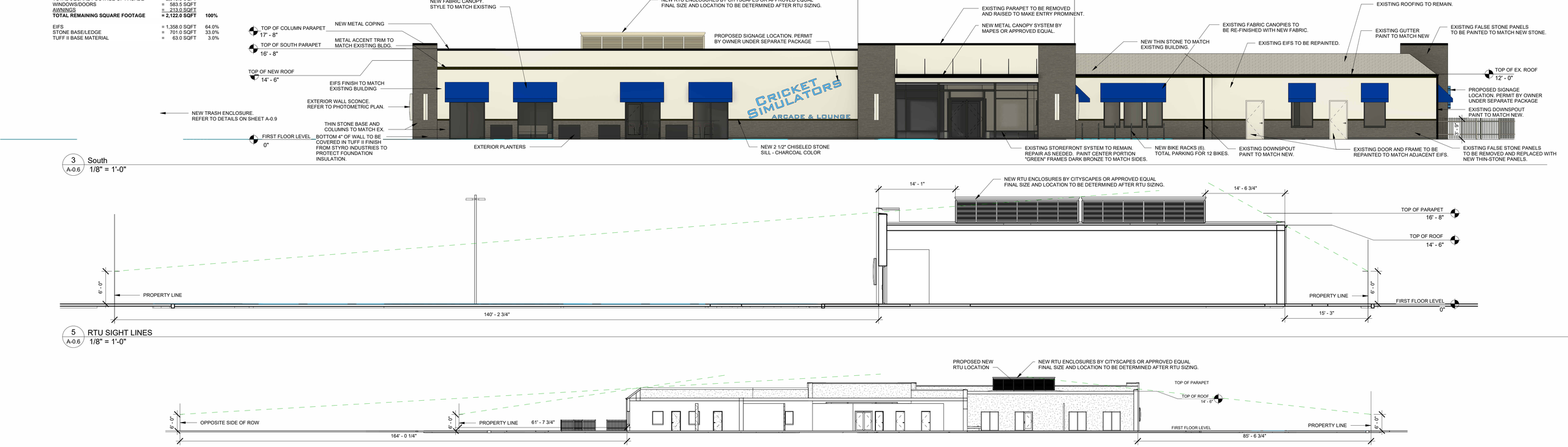
TOTAL SQUARE FOOTAGE OF FACADE	= 1,206.5 SQFT	
WINDOWS/DOORS	= 94.0 SQFT	
AWNINGS	= 104.0 SQFT	
TOTAL REMAINING SQUARE FOOTAGE	**= 1,008.5 SQFT**	**100%**
EIFS	= 401.5 SQFT	39.8%
STONE BASE/LEDGE	= 229.5 SQFT	22.8%
TUFF II BASE MATERIAL	= 27.0 SQFT	2.6%
FALSE STONE MONOLITH (EXISTING)	= 350.5 SQFT	34.8%



4 A-0.6 West
1/8" = 1'-0"

BUILDING MATERIALS - WEST ELEVATION

TOTAL SQUARE FOOTAGE OF FACADE	= 1,198.0 SQFT	
WINDOWS/DOORS	= 0.0 SQFT	
AWNINGS	= 0.0 SQFT	
TOTAL REMAINING SQUARE FOOTAGE	**= 1,198.0 SQFT**	**100%**
EIFS	= 811.0 SQFT	67.7%
STONE BASE/LEDGE	= 387.0 SQFT	30.4%
TUFF II BASE MATERIAL	= 26.0 SQFT	1.9%



3 A-0.6 South
1/8" = 1'-0"

BUILDING MATERIALS - SOUTH ELEVATION

TOTAL SQUARE FOOTAGE OF FACADE	= 2,918.5 SQFT	
WINDOWS/DOORS	= 583.5 SQFT	
AWNINGS	= 213.0 SQFT	
TOTAL REMAINING SQUARE FOOTAGE	**= 2,122.0 SQFT**	**100%**
EIFS	= 1,358.0 SQFT	64.0%
STONE BASE/LEDGE	= 701.0 SQFT	33.0%
TUFF II BASE MATERIAL	= 63.0 SQFT	3.0%

5 A-0.6 RTU SIGHT LINES
1/8" = 1'-0"

6 A-0.6 RTU SIGHT LINES2
1/16" = 1'-0"

CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
PROPOSED ELEVATIONS
As indicated
JANUARY 21ST, 2026

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FINAL REVIEW	4/18/25

aka atul karkhanis architects, ltd.
Commercial • Educational • Residential • Healthcare
2514 WEST PETERSON AVENUE
CHICAGO, IL 60659
PHONE: 773.508.5533 FAX: 773.508.5757
www.akarchitects.com

















CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
EXISTING SITE CONDITIONS

JANUARY 21ST, 2026

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604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

LEGEND

EXISTING		PROPOSED
	MANHOLE	
	CATCH BASIN	
	INLET	
	CLEANOUT	
	FLARED END SECTION	
	WATER VALVE BOX	
	BUFFALO BOX (B.BOX)	
	WATER VALVE & VAULT	
	FIRE HYDRANT	
	WELL	
G	GAS VALVE	GV
	GAS METER	
T	COMMUNICATION CANISTER	T
	COMMUNICATION HANDHOLE	
	COMMUNICATION MANHOLE	
E	ELECTRIC CANISTER	E
	ELECTRIC HANDHOLE	
	ELECTRIC MANHOLE	
	ELECTRIC METER	
	TRAFFIC SIGNAL	
	TRAFFIC HANDHOLE	
SB	TRAFFIC CONTROL BOX	SB
	UTILITY POLE	
	UTILITY POLE W/ LIGHT	
	STREET LIGHT	
	STREET SIGN	
	BORING LOCATION	
	MAILBOX	
+ 699.5	SPOT ELEVATIONS	+699.74
	PROPERTY LINE	
	ADJACENT PROPERTY LINE	
	EASEMENT LINE	
	SETBACK LINE	
	RIGHT OF WAY LINE	
	STORM SEWER LINE	
	SANITARY SEWER LINE	
W	WATERMAIN LINE	W
UG	UNDERGROUND GAS LINE	UG
UT	UNDERGROUND COMM. LINE	UT
UE	UNDERGROUND ELECTRIC	UE
OH	OVERHEAD UTILITY	OH
	FENCE LINE	
	GUARDRAIL LINE	
	CONTOUR LINE	

	DECIDUOUS TREE
	EVERGREEN TREE
	OVERLAND FLOOD ROUTE
	DRAINAGE ROUTE
	DOWNSPOUT
	SILT FENCE LINE
	INLET SILT PROTECTION
	COIR LOG SILT PROTECTION
	DEPRESSED CURB
	SOIL EROSION GEOTEXTILE PROTECTION
	CONCRETE
	BRICK
	ASPHALT
	BUILDING
	GRAVEL
	STONE

SOURCE BENCHMARK

GEODETIC SURVEY MONUMENT (GPS)
DESIGNATION LD017
PID DM3894
STATE/COUNTRY IL/LAKE
COUNTRY US
USGS QUAD WHEELING (2018)

DESCRIPTION: DESCRIBED BY PATRICK ENGINEERING INCORPORATED 2010 THE STATION IS LOCATED ABOUT 6.3 MI WEST-SOUTHWEST OF HIGHLAND PARK, 6.0 MI NORTH-NORTHEAST OF ARLINGTON HEIGHTS AND 1.7 MI NORTH-NORTHEAST OF WHEELING. OWNERSHIP--ROAD RIGHT-OF-WAY.

THE DISK IS SET IN THE TOP OF THE EAST END OF THE SOUTH ABUTMENT OF THE US HIGHWAY 45/STATE ROAD 21 BRIDGE NO. 049-0194) OVER APTAKISIC CREEK, 8 FT EAST OF THE BACK OF CURB FOR NORTH BOUND US HIGHWAY 45/STATE ROAD 21, 2 FT ABOVE GRADE OF SIDEWALK.
STATION RECOVERY (2014)
RECOVERY NOTE BY ILLINOIS DEPARTMENT OF TRANSPORTATION 2014 (MAW) RECOVERED IN GOOD CONDITION.

NAVD88 ELEVATION: 650.71

SITE BENCHMARK #1

SOUTHWEST BOLT FLANGE ON HYDRANT APPROXIMATELY 37 FEET SOUTHEAST AND 9 FEET NORTHEAST FROM THE NORTHEAST PROPERTY CORNER.

ELEVATION = 649.56

SITE BENCHMARK #2

SOUTHEAST BOLT FLANGE ON HYDRANT APPROXIMATELY 4 FEET SOUTH AND 7 FEET EAST FROM THE NORTHWEST PROPERTY CORNER.

ELEVATION = 648.70



PROJECT LOCATION MAP

PREPARED FOR

PRAJESH PARAJULI
711 Arizona Pass
Elk Grove Village, Il 60007
pparajuli@gmail.com
847-420-131

INDEX OF SHEETS

1. COVER SHEET
2. MWRD NOTES
3. GENERAL NOTES
4. EXISTING CONDITIONS
5. EROSION AND DEMOLITION PLAN
6. GRADING PLAN
7. SITE PLAN
8. UTILITY PLAN
9.-11. DETAILS

Know what's below. Call before you dig.

NOTICE TO CONTRACTORS

EXISTING UTILITIES

WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF OVERHEAD AND/OR UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. THE ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR VERACITY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL PUBLIC AND PRIVATE UTILITY COMPANIES WHICH MAY HAVE OVERHEAD OR UNDERGROUND FACILITIES IN THE AREA BEFORE CONSTRUCTION BEGINS. (SEE SPECIFICATIONS)

ENGINEER'S CERTIFICATION

STATE OF ILLINOIS)
SS.
COUNTY OF DuPAGE)

I, KAROLIS KOZYS, A REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY MORRIS ENGINEERING, INC. 515 WARRENVILLE ROAD, LISLE, ILLINOIS, 60532 UNDER MY PERSONAL DIRECTION. THIS TECHNICAL SUBMISSION IS INTENDED TO BE USED AS AN INTEGRAL PART OF AND IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. I FURTHER STATE THAT THE PROPOSED IMPROVEMENTS WILL NOT CAUSE PONDING OR FLOODING ON THE PROPERTY OR ADJACENT PROPERTIES.

DATED THIS 16 TH DAY OF JANUARY , A.D. 2026.

ILLINOIS REGISTERED PROFESSIONAL ENGINEER NO. 062-066736
MY REGISTRATION EXPIRES ON NOVEMBER 30, 2027

KAROLIS KOZYS 062-066736 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

DATE	
1	8/28/2025 REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026 REVISED PER VILLAGE OF WHEELING, IL.
5	
6	

COVER SHEET

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

BUILDING INFRASTRUCTURE. IMPROVING ENVIRONMENTS. BETTER LIFE!

FIELD CREW: PW
DRAWN BY: NG
CHECKED BY: ARS
APPROVED BY: EF
DATE: 05/15/2025
SCALE: HORIZ –
VERT –

SHEET 1 OF 11 SHEETS

PROJ # 25-02-2003

1/16/2026 11:34:16 AM
I:\2025\25-02\25-02-2003 - 604 Milwaukee Ave, Wheeling\Engineering\Plans\REV 4\25-02-2003 REV_4 SITE-23x34 2026-01-16.dwg

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * VILLAGE OF _____ MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055 OR SEND EMAIL NOTIFICATION WITH PROJECT NAME, LOCATION AND PERMIT NUMBER TO WMOJOBSTART@MWRD.ORG).

2. THE VILLAGE OF _____ ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS _____ FT.

2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.

3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.

4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.

5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.

6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.

8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.

9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.

10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.

2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.

3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.

4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).

5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.

6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261,F-2620 (HEAT FUSION) ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.

10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.

11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.

13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.

14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.

15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.

16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.

17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.

18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.

3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
    a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
    b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.

6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.

7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.

9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.

10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.

11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.

12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).

13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.

15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.

16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.

19. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.

20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.

21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.

22. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

23. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

TECHNICAL GUIDANCE MANUAL

10/13/2022

MWRD GENERAL NOTES

STD. DWG. NO.18

PAGE NO. 19

DATE		
1	8/28/2025	REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026	REVISED PER VILLAGE OF WHEELING, IL.
5		
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GENERAL NOTES

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

FIELD CREW: PW
DRAWN BY: NG
CHECKED BY: ARS
APPROVED BY: EF
DATE: 05/15/2025
SCALE: HORIZ –
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GENERAL NOTES

1. ALL EARTHWORK, GRADING, UTILITIES, AND STREET IMPROVEMENTS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, AND ALL REVISIONS THERETO.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND HEALTHFUL WORKING CONDITIONS IN ACCORDANCE WITH SECTION 107 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION THROUGHOUT THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

3. SOIL EROSION AND SEDIMENTATION CONTROL PRACTICES AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE URBAN COMMITTEE OF THE ASSOCIATION OF ILLINOIS SOIL AND WATER CONSERVATION DISTRICTS' PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL IN ILLINOIS AND ALL REVISIONS THERETO AND IN ACCORDANCE WITH THE DETAILS ON THE PLANS.

4. THE CONTRACTOR SHALL BE AWARE OF POTENTIAL CONFLICTS WITH EXISTING UTILITIES AS INDICATED ON THE PLANS. THE CONTRACTOR SHALL EXCAVATE AROUND UTILITIES TO DETERMINE ELEVATIONS BEFORE BEGINNING CONSTRUCTION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING EACH OF THE UTILITY COMPANIES BEFORE ANY WORK COMMENCES. ALL UTILITIES SHALL BE STAKED PRIOR TO CONSTRUCTION.

6. THE OWNER WILL FURNISH THE CONTRACTOR WITH LINES, GRADES AND ELEVATIONS NECESSARY TO THE PROPER PROSECUTION AND CONTROL OF THE WORK ONCE.

7. THE CONTRACTOR SHALL GIVE THE ENGINEER AT LEAST SEVENTY-TWO (72) HOURS NOTICE FOR ANY STAKING TO BE DONE. EACH OF THE VARIOUS ITEMS OF WORK COVERED BY THIS CONTRACT WILL BE STAKED ONCE. ADDITIONAL STAKING REQUIRED DUE TO THE CONTRACTOR'S NEGLIGENCE IN PRESERVING THE STAKES SHALL BE PAID FOR BY THE CONTRACTOR AT THE CURRENT HOURLY RATE.

8. THE CONTRACTOR SHALL INFORM THE ENGINEER AND THE VILLAGE OF WHEELING AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

   8.1. TELEPHONE NUMBERS: MORRIS ENGINEERING - (630) 271-0770
   8.2. WHEELING CONTACT INFORMATION
   PUBLIC WORKS - 847-279-6900

9. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS AND SPECIFICATIONS AND SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES THAT THE CONTRACTOR DISCOVERS DURING THE BIDDING PERIOD. SAID DISCREPANCIES WILL BE CLARIFIED BY THE ENGINEER TO THE BEST OF HIS ABILITY PRIOR TO RECEIPT OF BIDS. THE ENGINEER WILL BE UNRECEPTIVE TO CLAIMS FOR ADDITIONAL COMPENSATION FOR WORK ITEMS BECAUSE OF CONTRACTOR'S LACK OF COMPLIANCE WITH THIS REQUIREMENT.

10. THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY LATENT DISCREPANCIES THAT THE CONTRACTOR DISCOVERS DURING THE CONSTRUCTION PROCESS. THE ENGINEER WILL BE UNRECEPTIVE TO CLAIMS FOR ADDITIONAL COMPENSATION FOR WORK PERFORMED TO CORRECT A LATENT CONDITION NOT BROUGHT TO THE ATTENTION OF THE ENGINEER.

11. THE CONTRACTOR RESPONSIBLE FOR DRAINAGE IMPROVEMENTS (UNDERGROUND STRUCTURES AND CONDUITS) SHALL DISPOSE OF ALL SURPLUS EXCAVATED MATERIAL FROM TRENCHES OR STRUCTURE EXCAVATIONS AND SHALL DEPOSIT SAID SURPLUS MATERIALS ON THE SITE IN ACCORDANCE WITH THE GRADING PLAN OR AS DIRECTED BY THE ENGINEER.

12. THE CONTRACTOR SHALL NOT PLACE ANY EXCAVATED MATERIAL UPON ANY TOPSOIL. THE TOPSOIL SHALL BE REMOVED FROM ALL AREAS TO BE FILLED AND SHALL BE STOCKPILED IN AREAS AS DIRECTED BY THE ENGINEER.

13. THE CONTRACTOR SHALL NOT DISCHARGE INTO STREAMS, PONDS, WETLANDS OR ITS TRIBUTARIES ANY MOTOR OIL, TRANSMISSION FLUID, LUBRICANTS OR ANY OTHER PETROLEUM DISTILLATES, ANY PETROLEUM DISTILLATES DISCHARGED ON THE GROUND SURFACE SHALL BE PROMPTLY AND PROPERLY REMOVED PRIOR TO THE RESUMPTION OF ANY WORK ON THE PROJECT.

14. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING FIELD TILES. ANY FIELD TILES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS SOLE EXPENSE. INVESTIGATION SHALL BE MADE TO INSURE THAT FIELD TILES DO NOT CONVEY OFF SITE WATER. TILES THAT CONVEY OFF SITE WATER SHALL BE REROUTED THROUGH THE SITE. TILES THAT DO NOT CONVEY OFF SITE WATER SHALL BE ABANDONED IN AN APPROPRIATE MANNER APPROVED BY THE CITY. FIELD TILES WITHIN A RIGHT-OF-WAY SHALL BE REMOVED AND BACKFILLED WITH CA-6 COMPACTED IN EIGHT INCH LIFTS TO THE BOTTOM OF THE ROADWAY BASE. EXISTING FIELD TILES SHALL BE REMOVED BY SLIT TRENCHING.

15. THE CONTRACTOR RESPONSIBLE FOR DRAINAGE IMPROVEMENTS SHALL BE RESPONSIBLE TO PLACE ALL FIRE HYDRANTS, FRAMES AND LIDS OR GRATES, AND ALL GRATES FOR MANHOLES, CATCH BASINS, INLETS AND VALVE VAULTS AT THE ELEVATIONS SHOWN AND SPECIFIED ON THE PLANS. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR SAID ADJUSTMENT AND THE COST OF SAID ADJUSTMENT SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS DRAINAGE STRUCTURES MENTIONED ABOVE.

16. ALL MANHOLES SHALL HAVE CONCRETE INVERTS CONFORMING TO THE SHAPE OF THE PIPE. CONCRETE INVERTS SHALL BE PLACED IN THE FIELD AND THE COST OF CONCRETE INVERTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE VARIOUS INLETS AND MANHOLES.

17. WHERE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, EXISTING DRAINAGE STRUCTURES AND SYSTEMS SHALL BE CLEANED OF DEBRIS AND PATCHED AS NECESSARY TO ASSURE INTEGRITY OF THE STRUCTURE. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR STRUCTURES AND CONTRACT UNIT PRICE PER LINEAL FOOT FOR SYSTEMS WHICH SHALL BE PAYMENT IN FULL FOR CLEANING, PATCHING, REMOVAL AND DISPOSAL OF DEBRIS AND DIRT. DRAINAGE STRUCTURES AND SYSTEMS CONSTRUCTED AS PART OF THIS PROJECT SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS EXPENSE UNTIL FINAL ACCEPTANCE BY THE OWNER OR MUNICIPALITY.

18. THE CONTRACTOR SHALL KEEP PUBLIC STREET PAVEMENTS CLEAN OF DIRT AND DEBRIS AND, WHEN NECESSARY, SHALL ON A DAILY BASIS CLEAN THE PAVEMENT OF SUCH DIRT AND DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS.

19. THE CONTRACTOR SHALL PROVIDE PIPE BEDDING IN ACCORDANCE WITH THE DETAIL ON THE PLANS. THE COST OF THE BEDDING SHALL BE INCLUDED IN THE UNIT PRICE PER LINEAL FOOT OF THE VARIOUS SIZES OF STORM SEWER. NO ADDITIONAL COMPENSATION WILL BE MADE FOR PIPE BEDDING.

20. THE CONTRACTOR SHALL PLACE TOPSOIL AT A 6" MINIMUM DEPTH AND SEED OR SOD ALL AREAS DESIGNATED BY THE ENGINEER.

GENERAL NOTES (CONT.)

21. THE CONTRACTOR SHALL EXAMINE THE DRAINAGE PATTERNS SHOWN ON THE PLANS AND MAKE CERTAIN THAT ALL OVERFLOW POINT ELEVATIONS AND CROSS SECTIONS ARE CONSTRUCTED STRICTLY IN ACCORDANCE WITH THOSE SHOWN ON THE PLANS.

22. ALL CONSTRUCTION SHALL CONFORM WITH THE PERMIT PLANS AND REVISIONS THERETO APPROVED BY THE CITY AND UTILITIES COMPANIES.

23. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) PRIOR TO ANY WORK IN THE RIGHT OF WAY OR EASEMENTS TO LOCATE UTILITIES, AND CONTACT THE OWNER'S REPRESENTATIVE SHOULD PUBLIC UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS.

24. ALL WORK HEREIN PROPOSED SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, THE MUNICIPALITY, AND ALL PERTINENT LAWS, DIRECTIVES, ORDINANCES AND THE LIKE SHALL BE CONSIDERED TO BE A PART OF THESE SPECIFICATIONS.

25. THE VILLAGE OF WHEELING DETAILS SUPERSEDE ALL OTHERS.

26. ALL NEW CURB THAT MEETS EXISTING CURB WILL HAVE THREE DRILLED AND GROUTED #5 REINFORCING BARS OR EXPANSION TIE ANCHORS, 5/8" DIAMETER FOR EACH NEW CURB ADJACENT TO EXISTING CURB.

27. FOR STRUCTURE ADJUSTMENT - MINIMUM OF 6" (2 @ 3") ADJUSTING RINGS (10" MAX) CONCRETE RINGS WILL BE 3" MINIMUM. RUBBER CAN BE 1" - 3" AND MUST BE USED FOR TOP ADJUSTING RING IN PAVED AREAS. "EJIW INTRA-RISER RUBBER COMPOSITE ADJUSTMENT RISERS" OR APPROVED EQUAL.

28. ADD AN INTERNAL/EXTERNAL ADAPTOR SEAL ON THE ADJUSTED SANITARY MANHOLE. THE "I/E A" SEAL STOPS INFLOW BETWEEN THE MANHOLE FRAME AND THE TOP ADJUSTING RING AND IT ALSO SEALS THE MANHOLE CHIMNEY FROM THE FRAME TO THE CORBEL. ONE VENDOR OF THIS SEAL IS ADAPTOR INC.

29. THE DEVELOPER IS REQUIRED TO HAVE A GEOTECHNICAL ENGINEER ON-SITE TO MONITOR EARTHWORK AND THE GRADING ACTIVITY, IN ORDER TO IDENTIFY UNSUITABLE SOILS FOR REMOVAL FROM THE SITE. A NOTE TO THIS EFFECT MUST BE ADDED TO THE PLANS, AND A LETTER COMMITTING TO THIS REQUIREMENT MUST BE PROVIDED BY THE DEVELOPER. IN ADDITION, DAILY REPORTS AND COPIES OF ALL GEOTECHNICAL TESTING (TESTING AND FREQUENCY IN ACCORDANCE WITH THE IDOT STATE SPECIFICATIONS) MUST BE SUBMITTED TO THE CITY OF JOLIET ONCE THE ROADWAYS HAVE BEEN COMPLETED.

30. DETECTABLE WARNING PLATES SHALL BE EAST JORDAN, POWDER COATED BRICK RED.

EXCAVATION

ALL SITE CLEARING, EXCAVATION, GRADING, COMPACTION, SUBGRADE PREPARATION, BASE COURSE, SURFACE COURSE, PCC CURB AND GUTTER AND SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS, LATEST EDITION.

EARTHWORK UNDER THIS CONTRACT SHALL INCLUDE THE FOLLOWING:

A. REMOVAL OF EXISTING VEGETATION WITHIN CONSTRUCTION LIMITS FROM THE SITE.
B. PROTECTION OF CERTAIN TREES AS DIRECTED BY THE OWNER'S REPRESENTATIVE WITH APPROVED FENCING.
C. STRIPPING OF ALL TOPSOIL AND OTHER UNSUITABLE MATERIALS FROM BUILDING AND/OR PAVEMENT AREAS AND REMOVAL FROM SITE OF ALL EXCESS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING THE REQUIREMENTS OF ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL ORDINANCES. THE COST OF ALL WORK NECESSARY TO MEET THESE REQUIREMENTS SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT, AND NO SEPARATE PAYMENT WILL BE MADE.

THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF PROPER COMPACTION CANNOT BE OBTAINED SO THAT THE OWNER'S REPRESENTATIVE MAY DETERMINE WHAT REMEDIAL MEASURES MAY BE NEEDED.

EXISTING SEWER AND WATERMAIN TRENCHES UNDER DRIVEWAYS IN PARKWAYS SHALL BE EXCAVATED TO THE TOP OF PIPE AND BACKFILLED WITH COMPACTED TRENCH BACKFILL.

EXISTING GRAVEL COMPACTION TO BE TESTED OR SOIL BORINGS TO BE MADE TO VERIFY SUITABILITY OF EXISTING GRAVEL AS SUBGRADE.

PROJECT SPECIFICATIONS AND GENERAL CONSTRUCTION NOTES

THE PROJECT SECIFICATIONS AND GENERAL CONSTRUCTION NOTES SHALL INCLUDE THE FOLLOWING PROVISIONS:

1. ALL ON-SITE AND OFF-SITE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "VILLAGE OF WHEELING";
2. PERMITS SHALL BE OBTAINED FROM ALL OUTSIDE GOVERNMENTAL AGENCIES HAVING JURISDICTION;
3. ALL STRUCTURE ADJUSTEMENTS SHALL BE ACCOMPLISHED IN CONFORMANCE WITH THE MOST RECENT CITY STANDARD;
4. EXISTING FIELD TILES ENCOUNTERED DURING CONSTRUCTION SHALL BE EITHER INTEGRATED INTO THE SITE DRAINAGE SYSTEM, REMOVED OR PLUGGED IN A MANNER DEEMED APPROPRIATE BY THE CITY ENGINEER;
5. THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL ADJUSTMENTS BEFORE AND AFTER FINAL INSPECTION, PRIOR TO FINAL ACCEPTANCE BY THE CITY OF JOLIET;
6. THE CITY MUST HAVE FORTY-EIGHT (48) HOURS NOTICE PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITY;
7. THE TESTING AND STERILIZATION OF ALL NEW WATER DISTRIBUTION FACILITIES SHALL BE COMPLETED PRIOR TO MAKING WATER SERVICE TAPS BY AN OUTSIDE TESTING SERVICE;
8. MATERIAL SPECIFICATIONS COMPLY WITH CITY STANDARDS AND INCLUDE:
   A. PAVING BASE MATERIALS
   B. PAVING SURFACE MATERIALS
   C. CONCRETE MATERIALS
   D. PIPE MATERIALS.
9. DUST CONTROL - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF EXCESSIVE DUST BY WATERING DURING THE CONSTRUCTION PERIOD UNTIL THE ROAD PAVEMENT IS INSTALLED BY THE PAVING CONTRACTOR. THE REQUIREMENT FOR DUST CONTROL SHALL BE AS DIRECTED BY THE LOCAL APPROVING AUTHORITIES OR THE ENGINEER, AND SUCH DUST CONTROL (IF REQUIRED) SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
10. PERSON RESPONSIBLE FOR MAINTENANCE OF EROSION CONTROL STRUCTURES AND MEASURES, DURING AND AFTER DEVELOPMENT:

_____

STORM SEWER NOTES

- STORM SEWER JOINTS MUST BE FLEXIBLE GASKET O-RINGS PER ASTM C361, ASTM C433, AND ASTM C1619.
- CITY REQUIRES SUBMISSION OF RECORDED VIDEO INSPECTIONS OF ALL PUBLIC STORM SEWER.
- FOR CLOSED LID STRUCTURES, FRAME AND COVER SHALL BE EMBOSSED WITH "STORM".
- WHEN UTILITY STRUCTURE ADJUSTMENT IS NECESSARY, A MINIMUM OF TWO ADJUSTING RINGS (MIN 6" ADJUSTING HEIGHT) AND MAXIMUM OF THREE RINGS (MAX 10" ADJUSTING HEIGHT). NO 1" OR 2" CONCRETE RINGS ARE ALLOWED. UNDER PAVED AREAS, TOP RING SHOULD BE RUBBER. USE ONE (1) EJIW INFRA-RISER RUBBER COMPOSITE.

MAINTENANCE/INSTALLATION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

THESE ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN THE EROSION AND SEDIMENT CONTROL MEASURES ON-SITE:

- ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5" OR MORE.
- ALL EROSION CONTROL MEASURES WILL BE MAINTAINED. IF REPAIR IS NECESSARY, IT WILL BE STARTED WITHIN 24 HOURS OF REPORT.
- ACCUMULATING SEDIMENT ALONG THE SILT FENCE WILL BE REMOVED WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
- SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, ACCURACY OF INSTALLATION, AND TO SEE THAT THE POSTS ARE FIRMLY IN THE GROUND.
- TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
- A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM TO BE COMPLETED BY THE INSPECTOR IS ATTACHED.
- A DESIGNATED PERSON WILL BE RESPONSIBLE FOR CONDUCTING INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

	DATE	
1	8/28/2025	REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025	REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026	REVISED PER VILLAGE OF WHEELING, IL.
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GENERAL NOTES

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

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SHEET
3
OF 11 SHEETS

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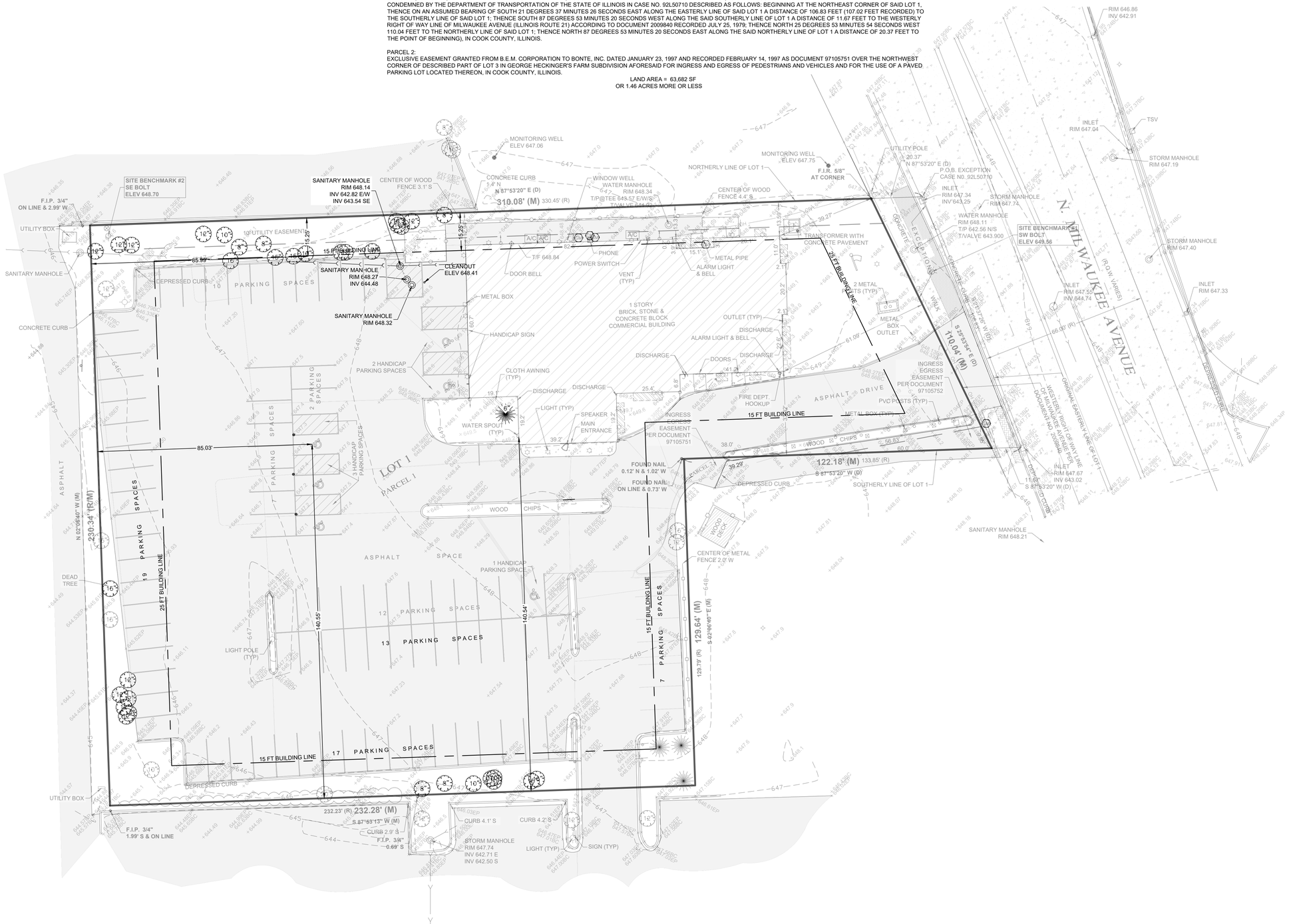
EXISTING CONDITIONS PLAN

PARCEL 1:
LOT 1 IN H. S. H. PROPERTIES RESUBDIVISION OF PART OF LOT 3 IN GEORGE HECKINGER'S FARM SUBDIVISION AND PART OF LOT 5 IN OWNERS SUBDIVISION ALL IN SECTIONS 2 AND 3, TOWNSHIP 42 NORTH, RANGE 11, EAST OF THE THIRD PRINCIPAL MERIDIAN, ACCORDING TO THE PLAT THEREOF RECORDED MAY 31, 1972 AS DOCUMENT 21919892. EXCEPT FOR THAT PART OF LOT 1 CONDEMNED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS IN CASE NO. 92L50710 DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 1, THENCE ON AN ASSUMED BEARING OF SOUTH 21 DEGREES 37 MINUTES 26 SECONDS EAST ALONG THE EASTERLY LINE OF SAID LOT 1 A DISTANCE OF 106.83 FEET (107.02 FEET RECORDED) TO THE SOUTHERLY LINE OF SAID LOT 1; THENCE SOUTH 87 DEGREES 53 MINUTES 20 SECONDS WEST ALONG THE SAID SOUTHERLY LINE OF LOT 1 A DISTANCE OF 11.67 FEET TO THE WESTERLY RIGHT OF WAY LINE OF MILWAUKEE AVENUE (ILLINOIS ROUTE 21) ACCORDING TO DOCUMENT 2009840 RECORDED JULY 25, 1979; THENCE NORTH 25 DEGREES 53 MINUTES 54 SECONDS WEST 110.04 FEET TO THE NORTHERLY LINE OF SAID LOT 1; THENCE NORTH 87 DEGREES 53 MINUTES 20 SECONDS EAST ALONG THE SAID NORTHERLY LINE OF LOT 1 A DISTANCE OF 20.37 FEET TO THE POINT OF BEGINNING), IN COOK COUNTY, ILLINOIS.

PARCEL 2:
EXCLUSIVE EASEMENT GRANTED FROM B.E.M. CORPORATION TO BONTE, INC. DATED JANUARY 23, 1997 AND RECORDED FEBRUARY 14, 1997 AS DOCUMENT 97105751 OVER THE NORTHWEST CORNER OF DESCRIBED PART OF LOT 3 IN GEORGE HECKINGER'S FARM SUBDIVISION AFORESAID FOR INGRESS AND EGRESS OF PEDESTRIANS AND VEHICLES AND FOR THE USE OF A PAVED PARKING LOT LOCATED THEREON, IN COOK COUNTY, ILLINOIS.

LAND AREA = 63,682 SF
OR 1.46 ACRES MORE OR LESS



DATE	
1	8/28/2025 REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026 REVISED PER VILLAGE OF WHEELING, IL.
5	
6	

EXISTING CONDITIONS PLAN

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
Website: www.ecivil.com

MEI BETTER INFRASTRUCTURE BETTER ENVIRONMENTS BETTER LIFE!

FIELD CREW:	PW
DRAWN BY:	NG
CHECKED BY:	ARS
APPROVED BY:	EF
DATE:	05/15/2025
SCALE:	HORIZ 1"=20'
	VERT –

SHEET
4
OF 11 SHEETS

PROJ # 25-02-2003

1/16/2026 11:34:16 AM
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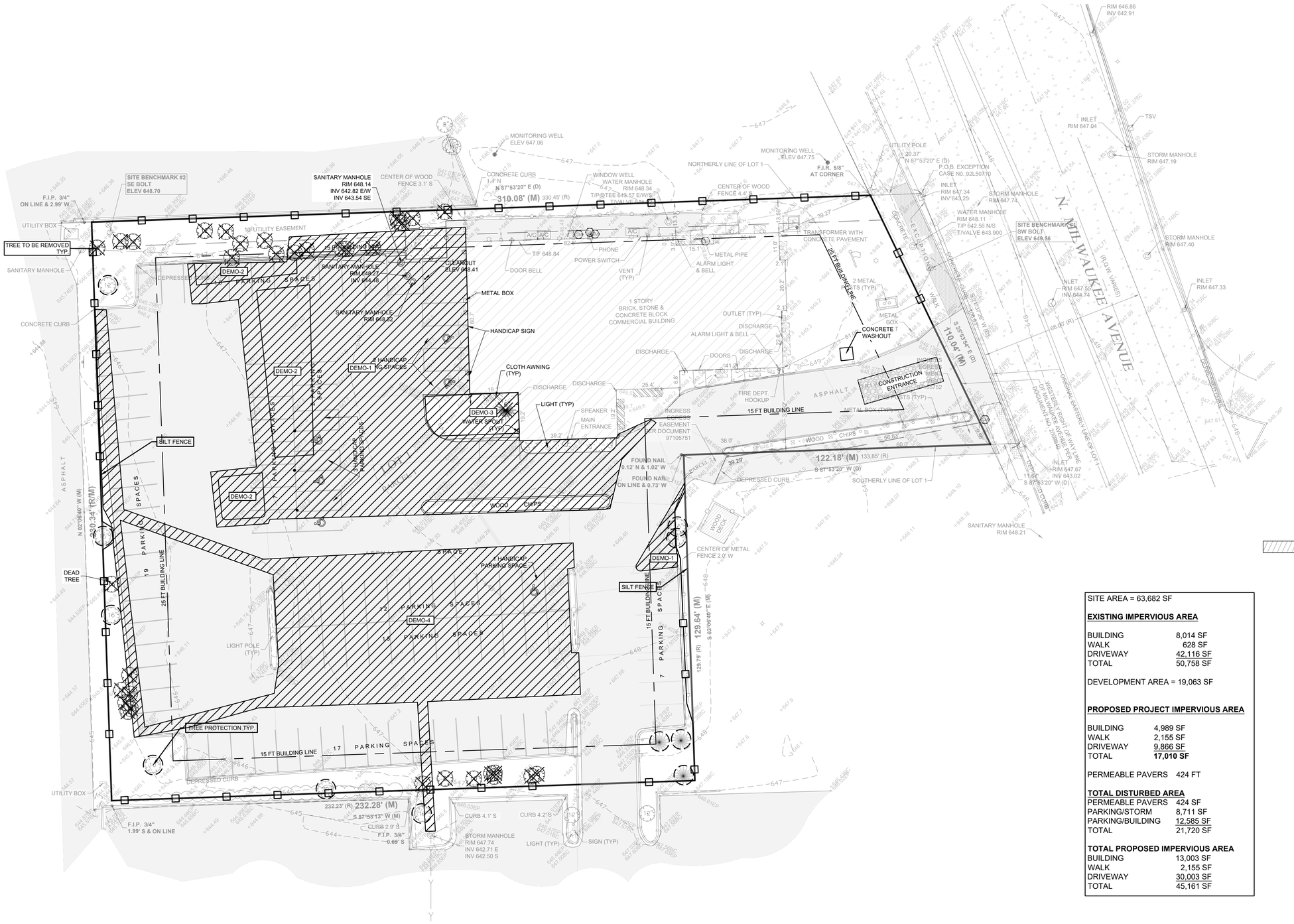
DEMOLITION AND EROSION CONTROL PLAN



	DEMO-1 REMOVED PARKING AREA
	DEMO-2 REMOVE EXITING PARKING AREA TO LANDSCAPING ISLAND
	DEMO-3 EXISTING LANDSCAPING ISLAND TO NEW BUILDING
	DEMO-4 REMOVE AND REPLACED ASPHALT AREA

SITE AREA = 63,682 SF

EXISTING IMPERVIOUS AREA

BUILDING	8,014 SF
WALK	628 SF
DRIVEWAY	42,116 SF
TOTAL	50,758 SF

DEVELOPMENT AREA = 19,063 SF

PROPOSED PROJECT IMPERVIOUS AREA

BUILDING	4,989 SF
WALK	2,155 SF
DRIVEWAY	9,866 SF
TOTAL	**17,010 SF**

PERMEABLE PAVERS 424 FT

TOTAL DISTURBED AREA

PERMEABLE PAVERS	424 SF
PARKING/STORM	8,711 SF
PARKING/BUILDING	12,585 SF
TOTAL	21,720 SF

TOTAL PROPOSED IMPERVIOUS AREA

BUILDING	13,003 SF
WALK	2,155 SF
DRIVEWAY	30,003 SF
TOTAL	45,161 SF

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5		
6		

DEMOLITION AND EROSION CONTROL PLAN

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WHEELING, ILLINOIS

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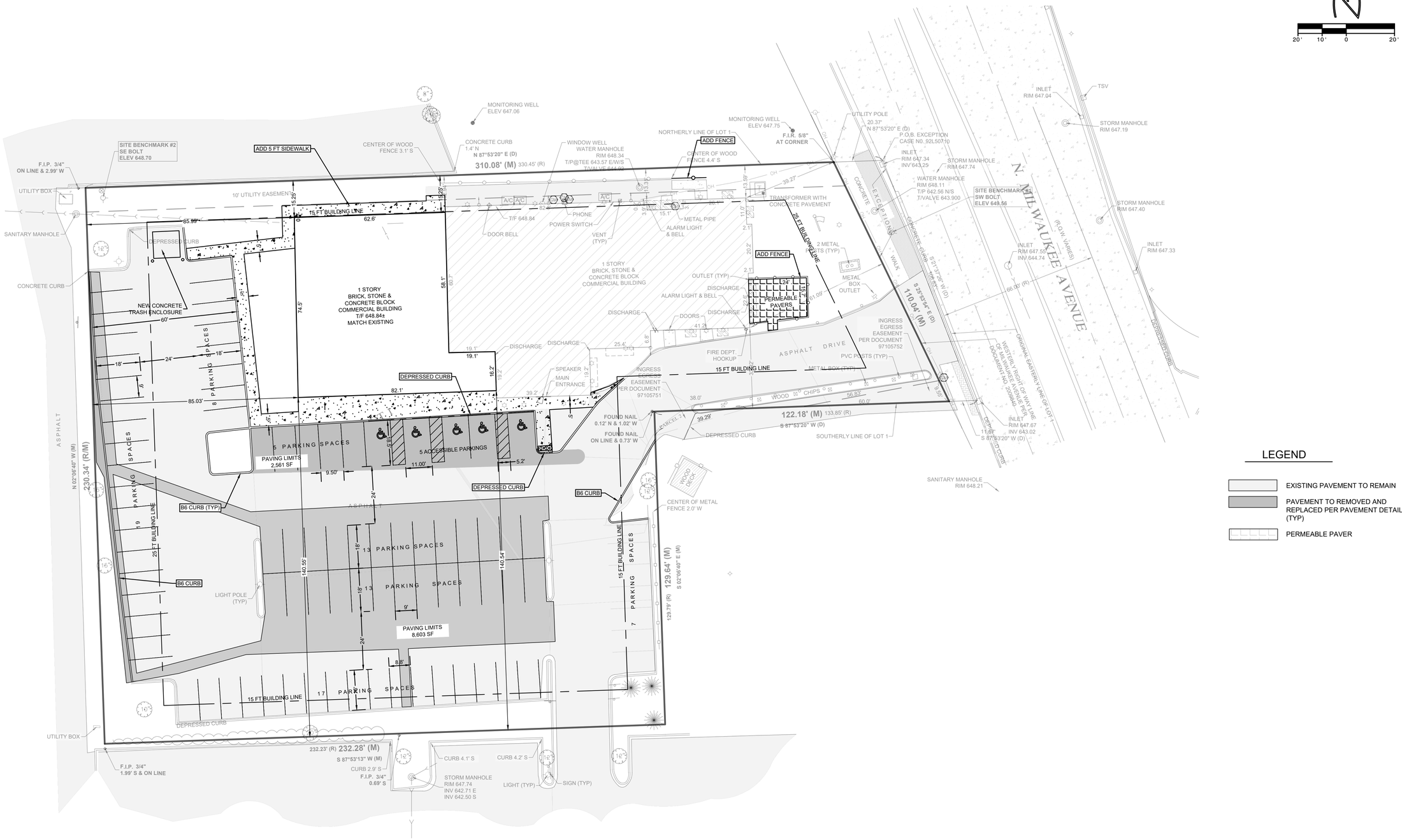
GEOMETRIC PLAN



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GEOMETRIC PLAN

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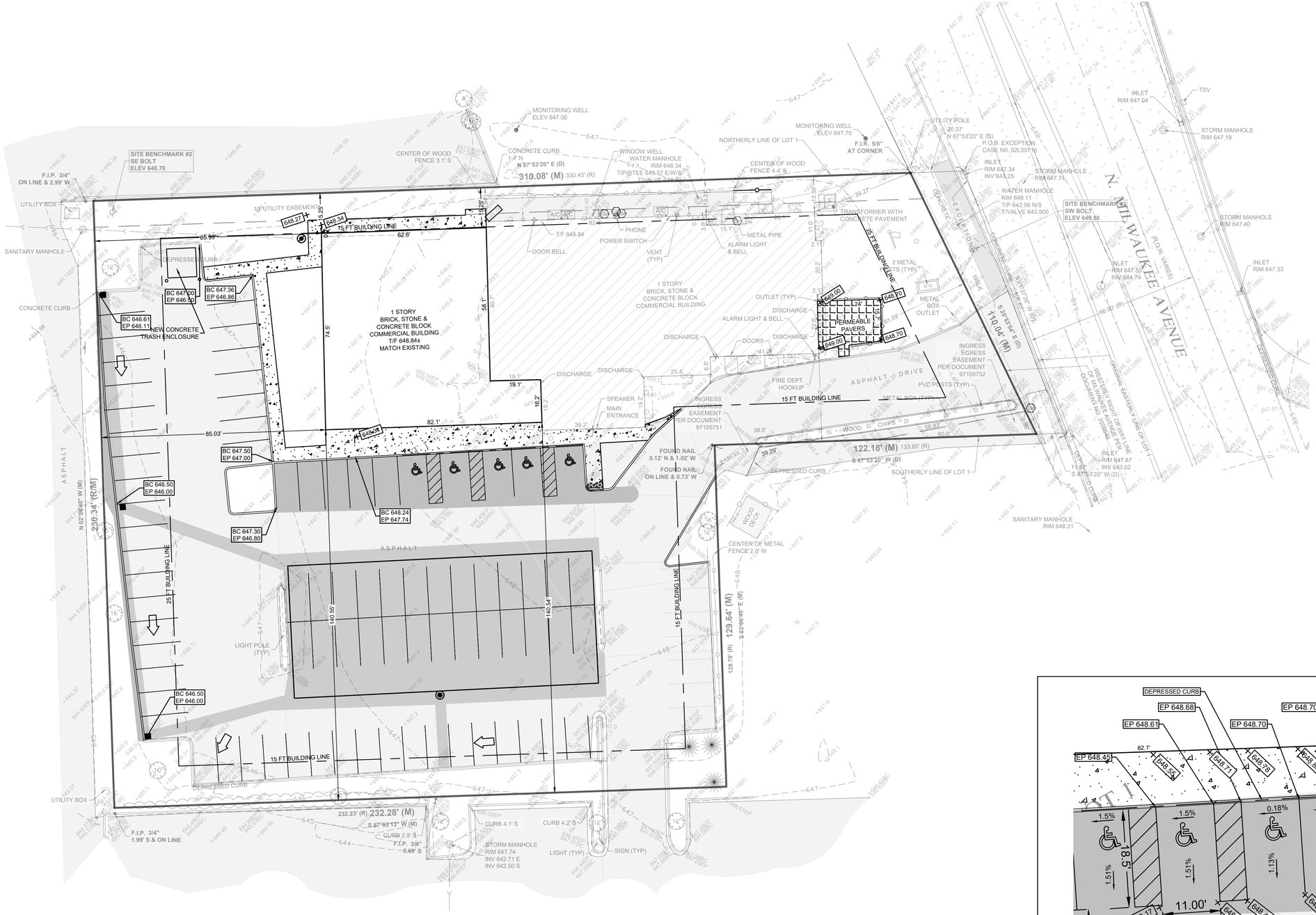
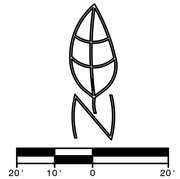
SITE GRADING PLAN





LEGEND

- EXISTING PAVEMENT TO REMAIN
- PAVEMENT TO REMOVED AND REPLACED PER PAVEMENT DETAIL (TYP)
- PERMEABLE PAVER

SITE AREA = 63,682 SF

EXISTING IMPERVIOUS AREA

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DRIVEWAY	42,116 SF
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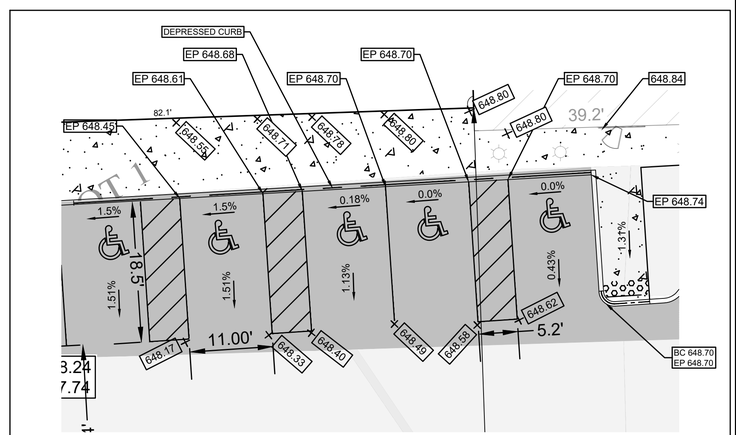

HANDICAP SPACES
SCALE 1":10'

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GRADING PLAN

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WHEELING, ILLINOIS

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BETTER INFRASTRUCTURE
BETTER ENVIRONMENTS
BETTER LIFE!

FIELD CREW:	PW
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APPROVED BY:	EF
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	VERT –

SHEET
7
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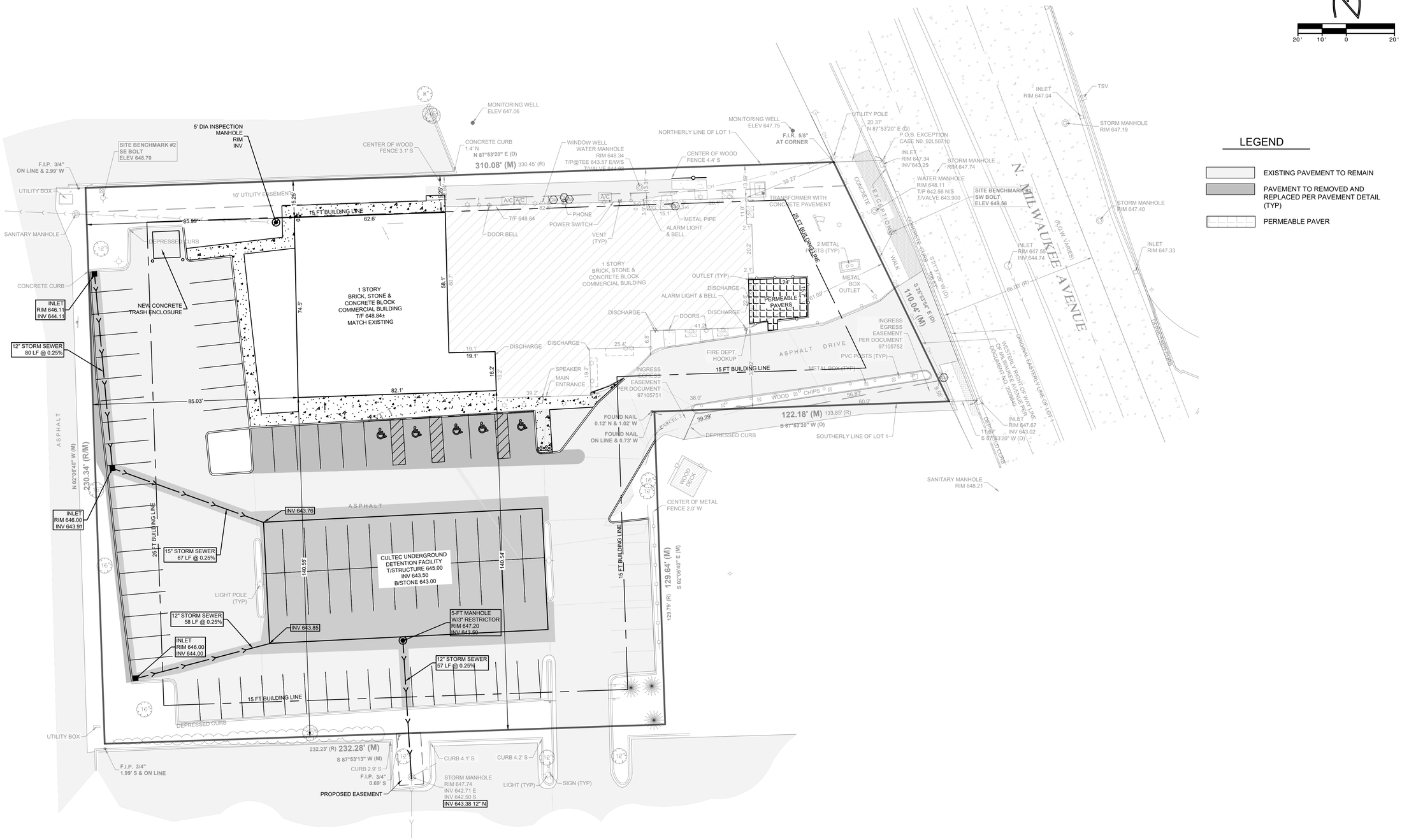
UTILITY PLAN



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01/16/2026	4	REVISED PER VILLAGE OF WHEELING, IL.
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	6	

UTILITY PLAN

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

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Civil Engineering • Consulting
Land Surveying
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	VERT –

SHEET **8** OF 11 SHEETS

PROJ # 25-02-2003

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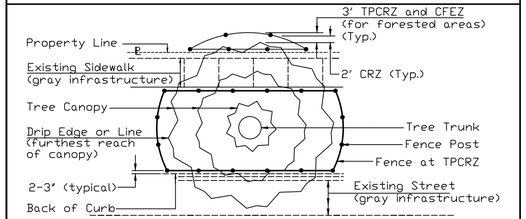
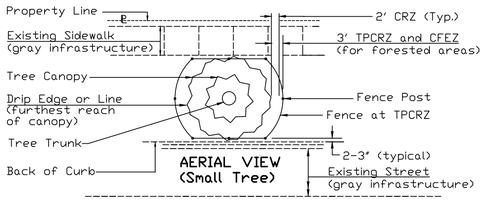
TREE PROTECTION - FENCING
(Highly Urbanized Areas)



AERIAL VIEW
(Large Tree)



AERIAL VIEW
(Small Tree)

Notes:

1. Call J.U.L.I.E. (800-892-0123) for the location of existing utilities 48 hours prior to commencement of work.
2. The CRZ is located 2' from the farthest outreaching branch (drip edge) or the distance as determined by the ISA trunk diameter method or whichever is greater.
3. On sides of the tree not constricted by gray infrastructure, the fence shall be located 1 foot from the Critical Root Zone (CRZ) of the protected tree, thus creating the Tree Protection Critical Root Zone (TPCRZ). The Critical Forest Edge Zone (CFEZ), for forested areas, shall also be located at the TPCRZ.

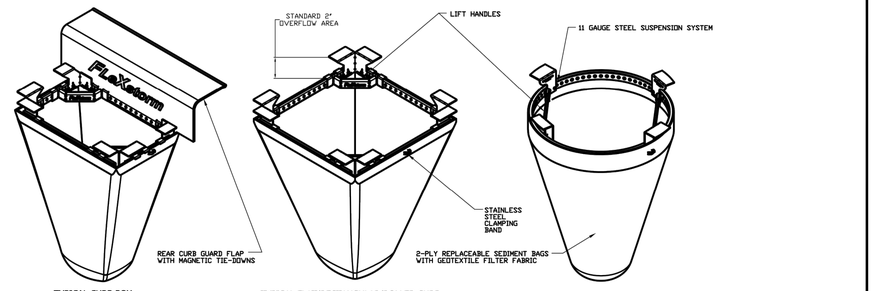
REFERENCE		STANDARD DWG. NO.
Project		IUM-690-B
Designed ____ Date ____		SHEET 1 OF 2
Checked ____ Date ____		DATE 09-14-2017
Approved ____ Date ____		

TREE PROTECTION - FENCING
(Highly Urbanized Areas)

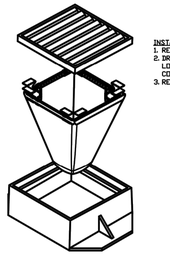
Notes: (cont.)

4. On sides of the tree where there is gray infrastructure conflict the fence shall be 3 to 4 inches from the structure. Where the structure is a sidewalk and the CRZ goes beyond the sidewalk to the adjoining greenspace, the Tree Protection Fencing shall continue to the CRZ without impeding the flow of the traffic of the sidewalk.
5. Fence Posts shall be either 6' steel posts @ 1.33Lbs./Ft. or 2" x 2" nominal wood posts.
6. A chain link fence with Construction Specification Chain Link Fence IUM 91 or better (as approved by the local Forester per local ordinances singularly or in tandem with the project Engineer) shall be used. Fencing shall be a minimum height of 4'. Metal posts shall be placed 6' on center (OC) and fencing is securely anchored to the ground.
7. Outside the TPCRZ, erosion and sediment control measures shall be installed to prevent sediment reaching the TPCRZ. These measures shall extend out from the fence 10' and shall be continuous around the perimeter of the fence. These measures include, but are not limited to vegetative filter strip, rolled excelsior blankets and woodchip mulch with a 3" to 5" depth. Other methods may be used if approved by the Professional Forester, Certified Arborist or Horticulturalist. Installation shall cause no disturbance to soils.

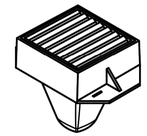
REFERENCE		STANDARD DWG. NO.
Project		IUM-690-B
Designed ____ Date ____		SHEET 2 OF 2
Checked ____ Date ____		DATE 09-14-2017
Approved ____ Date ____		



IPP *FLEX*storm Inlet Filter Specifications			
Material Property	*Test Method*	*Value (min ave)*	
> Inner Filter Bag Specs (2 ft² min vol)		Non-Woven	Woven Mono
Grab Tensile	ASTM D 4632	100 lbs	200 lbs
Puncture Strength	ASTM D 4833	65 lbs	90 lbs
Trapezoidal Tear	ASTM D 4533	45 lbs	75 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs	90%
App Open Size (AOS)	ASTM D 4751	70 sieve (.212 mm)	40 sieve (.425 mm)
Permittivity	ASTM D 4491	2.0 /sec	2.1/sec
Water Flow Rate	ASTM D 4491	145 gpm/sqft	145 gpm/sqft
> Polyester Outer Reinforcement Bag Specifications			
Weight	ASTM D 3776	4.55 oz/sqyd +/- 15%	
Thickness	ASTM D 1777	.040 +/- .005	
> Frame Construction			
A36 Structural Steel; 11 Guage; Zinc Plated	ASTM A 576	*Tensile Strength > 58,000 psi; Yield Strength > 36,000 psi*	



INSTALLATION:
1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE



OR VILLAGE OF WHEELING APPROVED EQUAL

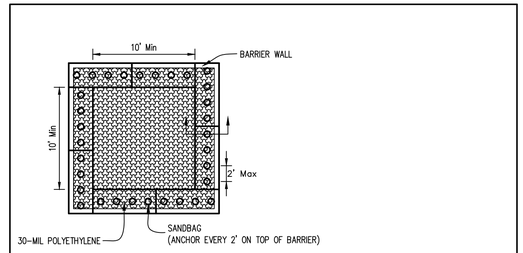
DRAWN ANDRIANO		ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC 1635 TONNE RD ELK GROVE, IL WWW.INLETFILTERS.COM (847) 732-0690 PH (847) 364-5262 FX SALES@INLETFILTERS.COM	
CHECKED			
QA			
PPG			
APPROVED			
		SIZE C	DWG NO IPP_FLEXSTORM_SPECS
		SCALE	SHEET 1 OF 1

VILLAGE OF WHEELING
ILLINOIS

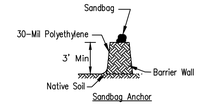
VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

INLET AND FILTER PROTECTION STANDARD

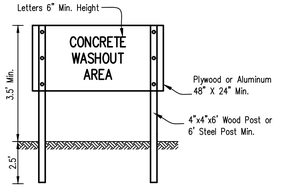
VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
	S.W.	01-30-03 AUTOCAD FILE	ERO-1
FILE LOCATION	C.J.C.	11-27-07 AUTOCAD FILE	
T:\ENGINEERING\STANDARDS			



PLAN VIEW



BARRIER WALL ANCHOR SECTION



SIGN DETAIL

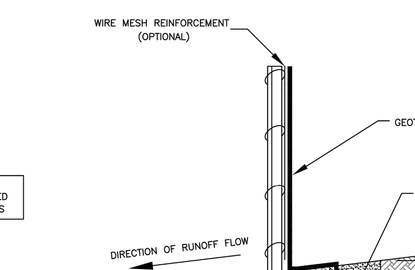
NOTES:

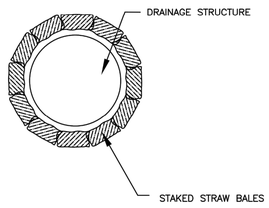
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

1" IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE	No.	Date	By	Description

TEMPORARY CONCRETE WASHOUT FACILITY - BARRIER WALL

	Date
Designed	
Drawn B. JOHNSON	6/08
Checked	
Approved	





STRAW BALE INSTALLATION FOR EROSION CONTROL AROUND A DRAINAGE STRUCTURE

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

Inlet Protection Details

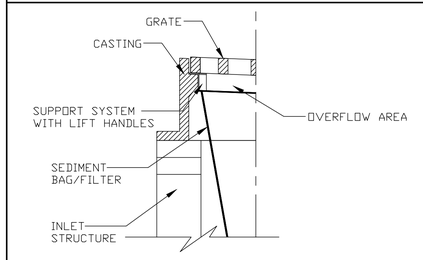
VILLAGE OF WHEELING
ILLINOIS

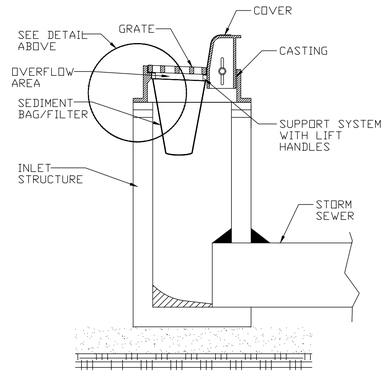
VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

SILT FENCE INSTALLATION STANDARD

VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
	S.W.	05-01-00 AUTOCAD FILE	ERO-2
FILE LOCATION	S.W.	11-07-01 PER COMMENTS	
T:\ENGINEERING\STANDARDS	C.J.C.	01-29-08 AUTOCAD FILE	
	K.A.G.	12-20-16 INLET PROTECTION	

INLET PROTECTION - PAVED AREAS
DROP-IN PROTECTION





REFERENCE		STANDARD DWG. NO.
Project		IUM-561D
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 01-11-11
Approved ____ Date ____		

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DETAIL SHEET

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WHEELING, ILLINOIS

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PROJ # 25-02-2003

1/16/2026 11:34:16 AM
I:\2025\25-02-2003 - 604 Milwaukee Ave. Wheeling\Engineering\Plans\REV 4\25-02-2003 REV_4 SITE-22x34 2026-01-16.dwg

COMPOSITE RUNOFF COEFFICIENT (*C*)

PROJECT: 604 N Milwaukee **PERMIT NUMBER:**

LOCATION: Wheeling **DATE:** 6/16/2025

TYPE OF AREA (SELECT WITH DROP-DOWN)

___ DETAINED AREA ___ MAJOR STORMWATER SYSTEM

___ UNRESTRICTED AREA ___ OTHER:

___ UPSTREAM AREA

CONDITION (SELECT WITH DROP-DOWN)

___ PROPOSED CONDITION ___ EXISTING CONDITION

RUNOFF COEFFICIENT

Surface Description	C	Area (acres)	Product (C)(Area)
impervious	0.95	0.39	0.37
pervious	0.50	0.05	0.02
TOTALS:		0.44	0.39

COMPOSITE RUNOFF COEFFICIENT

Composite C = Total Product / Total Area = 0.39 / 0.44 → Composite C = **0.90**

4/7/2022

MODIFIED RATIONAL METHOD: BULLETIN 75 RAINFALL DATA

PROJECT: 604 N Milwaukee **PERMIT NUMBER:**

LOCATION: Wheeling **DATE:** 6/16/2025

DEVELOPMENT INFORMTION

1. Detained Area	0.440	acres
2. Composite Runoff Coefficient	0.900	
3. Actual Release Rate	0.060	cfs

REQUIRED DETENTION VOLUME

4. Required Detention Volume	**0.188**	ac-ft

CALCULATION TABLE

Storm Duration	Rainfall Intensity (in/hr)	Inflow Rate (cfs)	Stored Rate (cfs)	Required Storage (ac-ft)	
5 min	12.36	4.89	4.83	0.033	
10 min	10.80	4.28	4.22	0.058	
15 min	9.28	3.67	3.61	0.075	
20 min	8.04	3.18	3.12	0.086	
30 min	6.34	2.51	2.45	0.101	
40 min	5.28	2.09	2.03	0.112	
50 min	4.55	1.80	1.74	0.120	
1 hr	4.03	1.60	1.54	0.127	
1.5 hr	3.03	1.20	1.14	0.141	
2 hr	2.49	0.99	0.93	0.153	
3 hr	1.83	0.72	0.66	0.165	
4 hr	1.48	0.59	0.53	0.174	
5 hr	1.25	0.50	0.44	0.180	
6 hr	1.07	0.42	0.36	0.180	
7 hr	0.96	0.38	0.32	0.185	
8 hr	0.86	0.34	0.28	0.185	
9 hr	0.79	0.31	0.25	0.188	←
10 hr	0.72	0.29	0.23	0.186	
11 hr	0.67	0.27	0.21	0.187	
12 hr	0.62	0.25	0.19	0.185	
18 hr	0.45	0.18	0.12	0.174	
24 hr	0.36	0.14	0.08	0.161	

4/7/2022

ORIFICE DISCHARGE RATE

PROJECT: 604 N Milwaukee **PERMIT NUMBER:**

LOCATION: Wheeling **DATE:** 6/16/2025

RESTRICTOR INFORMTION

1. Orifice Number			
2. Orifice diameter, *d*	3.00	in	
3. Discharge Coefficient, C_d	0.61		
4. Invert Elevation	643.50	ft	
5. High Water Elevation, HWL	645.00	ft	
6. Tail Water Elevation		ft	

ACTUAL RELEASE RATE

6. Free Flow Actual Release Rate at HWL	**0.28**	cfs	
7. Submerged Actual Release Rate at HWL		cfs	

STAGE-DISCHARGE TABLE CONDITION (SELECT FROM DROP-DOWN)

Free-flow

STAGE-DISCHARGE TABLE

Elevation (ft)	Orifice 1 (cfs)	Orifice 2 (cfs)	Total (cfs)	
643.50	0.00		0.00	
644.00	0.15		0.15	
645.00	0.28		0.28	HWL

4/7/2022

CULTEC StormGenie

USER INPUTS

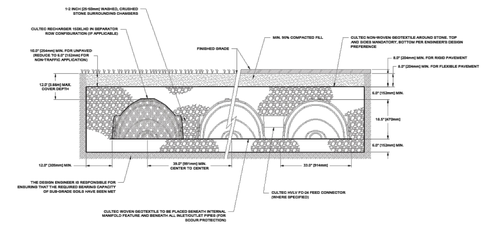
Project Name:	
Engineer:	eric foytik
Project Location:	
Measurement Type:	Imperial
Chamber Model:	Recharger 150XLHD
Required Storage Volume:	8016 cf
Available Length:	117 ft
Available Width:	84 ft
Stone Above Chambers:	6 in
Stone Below Chambers:	6 in
Base Stone Elevation:	643 ft
Stone Porosity:	36%
Maximum Allowable Finished Grade	657.04 ft
Minimum Allowable Finished Grade	646.21 ft
Outlet Control Structure:	Yes

RESULTS

Installed Storage Volume:	8054.16 cf
Storage Volume Per Chamber:	27.16 cf
Chamber Rows:	15
Maximum Length:	115.50 ft
Maximum Width:	50.25 ft
Approx. Bed Area Required:	5703.94 sf

SYSTEM COMPONENTS - NOT FOR CONSTRUCTION

Number of Chambers Required:	162
Number of End Caps Required:	30
Number of Feed Connectors Required:	26
Amount of Stone Required:	373 cy
Volume of Excavation (Not Including Fill):	537 cy
Non-woven Geotextile Required:	1955 sy
Woven Geotextile Required (Beneath Internal Manifold):	111 ft
Woven Geotextile Required (Separator Row):	128 ft
Total Woven Geotextile Required:	238 ft



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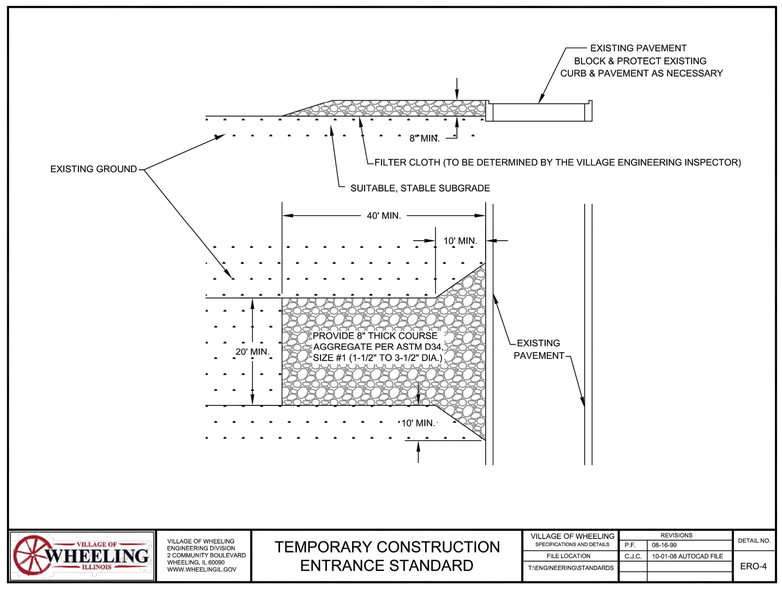
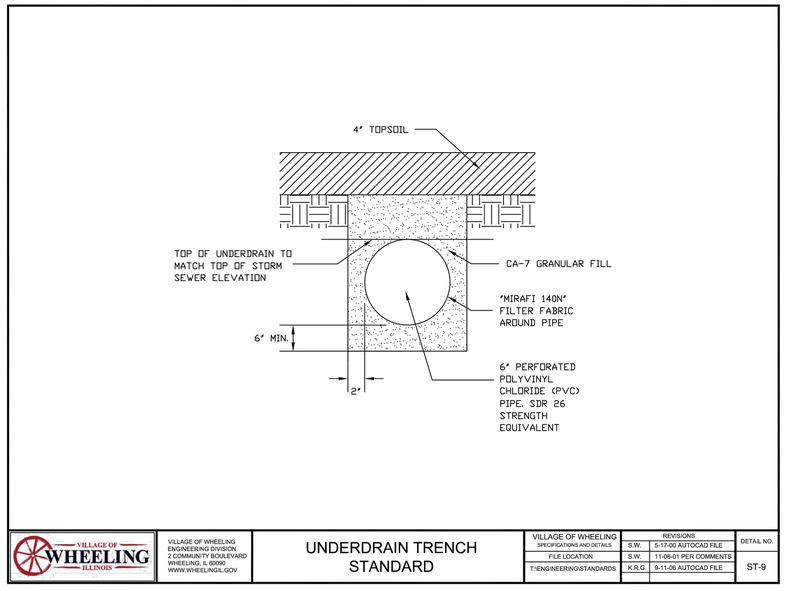


VILLAGE OF WHEELING ILLINOIS

VILLAGE OF WHEELING
ENGINEERING DIVISION
2 COMMUNITY BOULEVARD
WHEELING, IL 60090
WWW.WHEELINGIL.GOV

TEMPORARY CONSTRUCTION ENTRANCE STANDARD

VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
FILE LOCATION	P.F.	08-16-99	ERO-4
T:\ENGINEERING\STANDARDS	C.J.C.	10-01-08 AUTOCAD FILE	



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WHEELING, IL 60090
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UNDERDRAIN TRENCH STANDARD

VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
FILE LOCATION	S.W.	5-17-00 AUTOCAD FILE	ST-9
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	K.R.G.	9-11-06 AUTOCAD FILE	

DATE	
1	8/28/2025 REVISED PER VILLAGE OF WHEELING, IL.
2	11/11/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
3	12/16/2025 REVISED PER VILLAGE OF WHEELING COMMENTS.
4	01/16/2026 REVISED PER VILLAGE OF WHEELING, IL.
5	
6	

DETAIL SHEET

604 N. MILWAUKEE AVENUE
WHEELING, ILLINOIS

Morris Engineering, Inc.
Civil Engineering • Consulting
Land Surveying
515 Warrenville Road, Lisle, IL 60532
Phone: (630) 271-0770
Survey: (630) 271-0599
FAX: (630) 271-0774
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SCALE:	HORIZ –
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SHEET **10** OF 11 SHEETS

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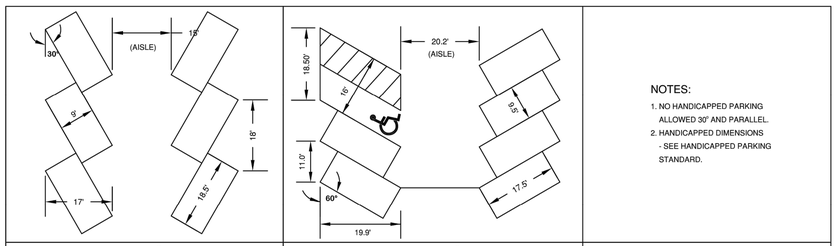

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	PARKING STALL STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
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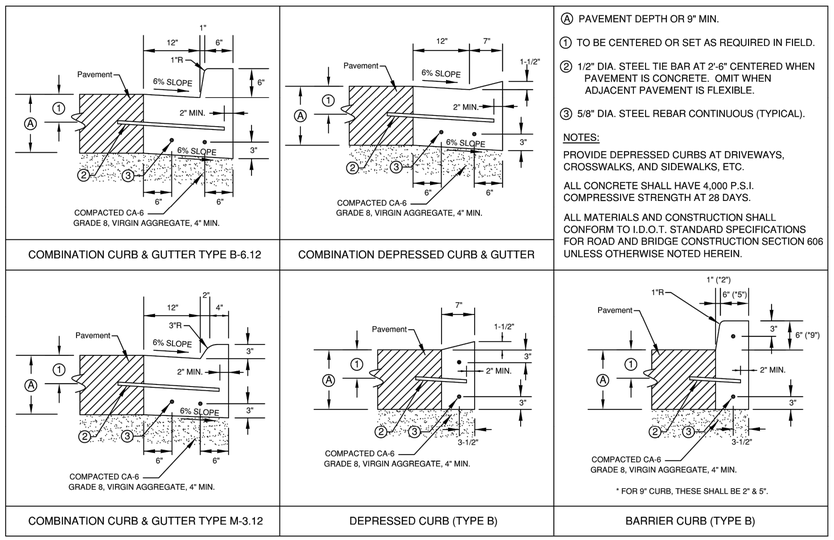

VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	CURB AND GUTTER STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
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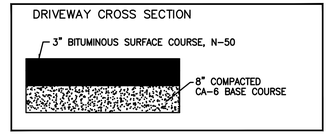
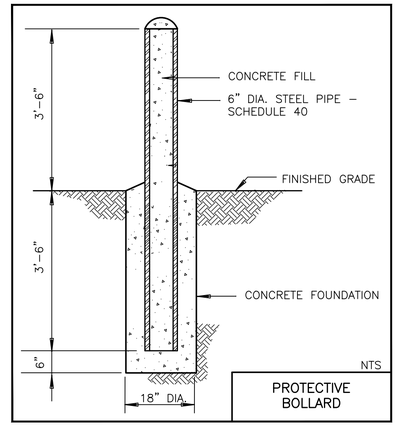
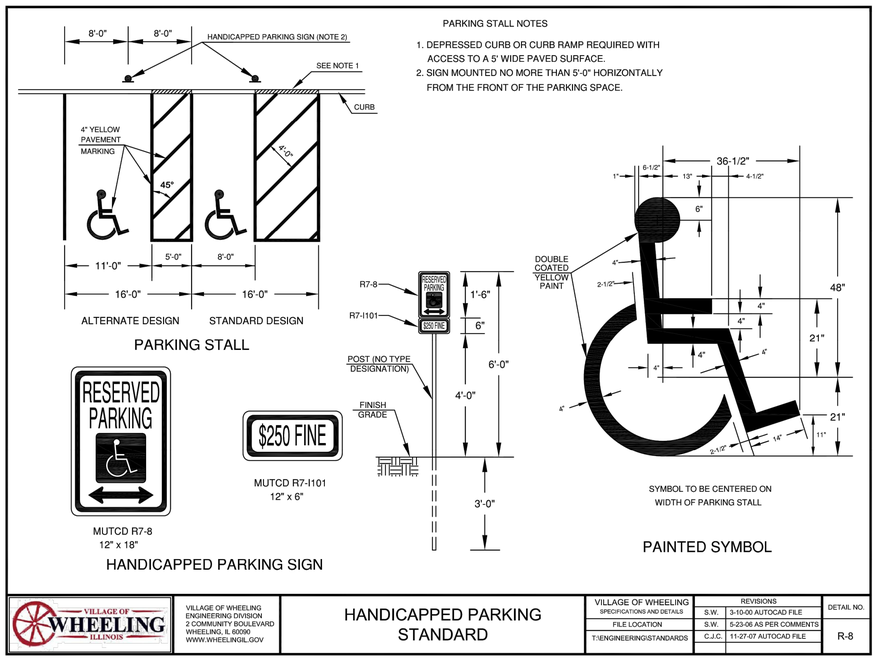
			T:\ENGINEERING\STANDARDS	K.A.G	11-21-16 AUTOCAD FILE	







VILLAGE OF WHEELING ILLINOIS	VILLAGE OF WHEELING ENGINEERING DIVISION 2 COMMUNITY BOULEVARD WHEELING, IL 60090 WWW.WHEELINGIL.GOV	HANDICAPPED PARKING STANDARD	VILLAGE OF WHEELING SPECIFICATIONS AND DETAILS	REVISIONS		DETAIL NO.
				S.W.	3-10-00 AUTOCAD FILE	R-8
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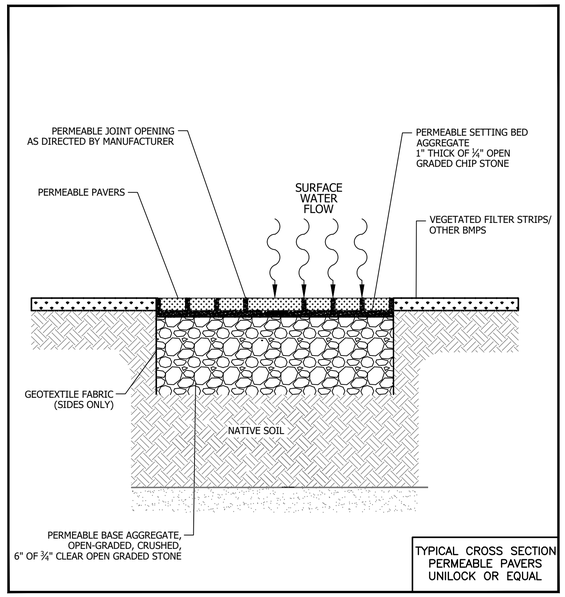

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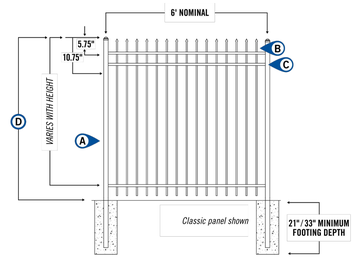
STANDARD BOTTOM & FLUSH BOTTOM OPTIONS AVAILABLE



- Ⓐ 2"sq x .060" wall POSTS
- Ⓑ 0.590"sq x .050" wall PICKETS
- Ⓒ 1.125"w x 1"h *(0.072" side / 0.055" top)* ForeRunner™ RAILS
- Ⓓ 4', 4½', 5' & 6' PANEL HEIGHTS

ECHELON® | 3-RAIL PANELS | 4" AIR SPACE

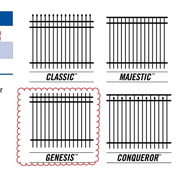
STANDARD BOTTOM | 6' PANEL LENGTH *(71.5" actual width)* **| 15 PICKETS PER PANEL | 24 PANELS PER PALLET**

PANEL	ITEM NUMBER	WEIGHT	STOCKING
4'	A0☒⊗3466	13 lbs	CB MB GB
5'	A0☒⊗3586	15 lbs	CB MB GB
6'	A0☒⊗3706	17 lbs	CB MB GB

☒ = ***FENCE STYLES AVAILABLE*** | C = Classic M = Majestic G = Genesis R = Conqueror

⊗ = ***COLOR OPTIONS AVAILABLE*** | B = Black N = Bronze W = White

⊘ = ***NON-STOCKED PRODUCT***
For details, see Ameristar's Sales Policy in the catalog guide.



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SHEET **11** OF 11 SHEETS

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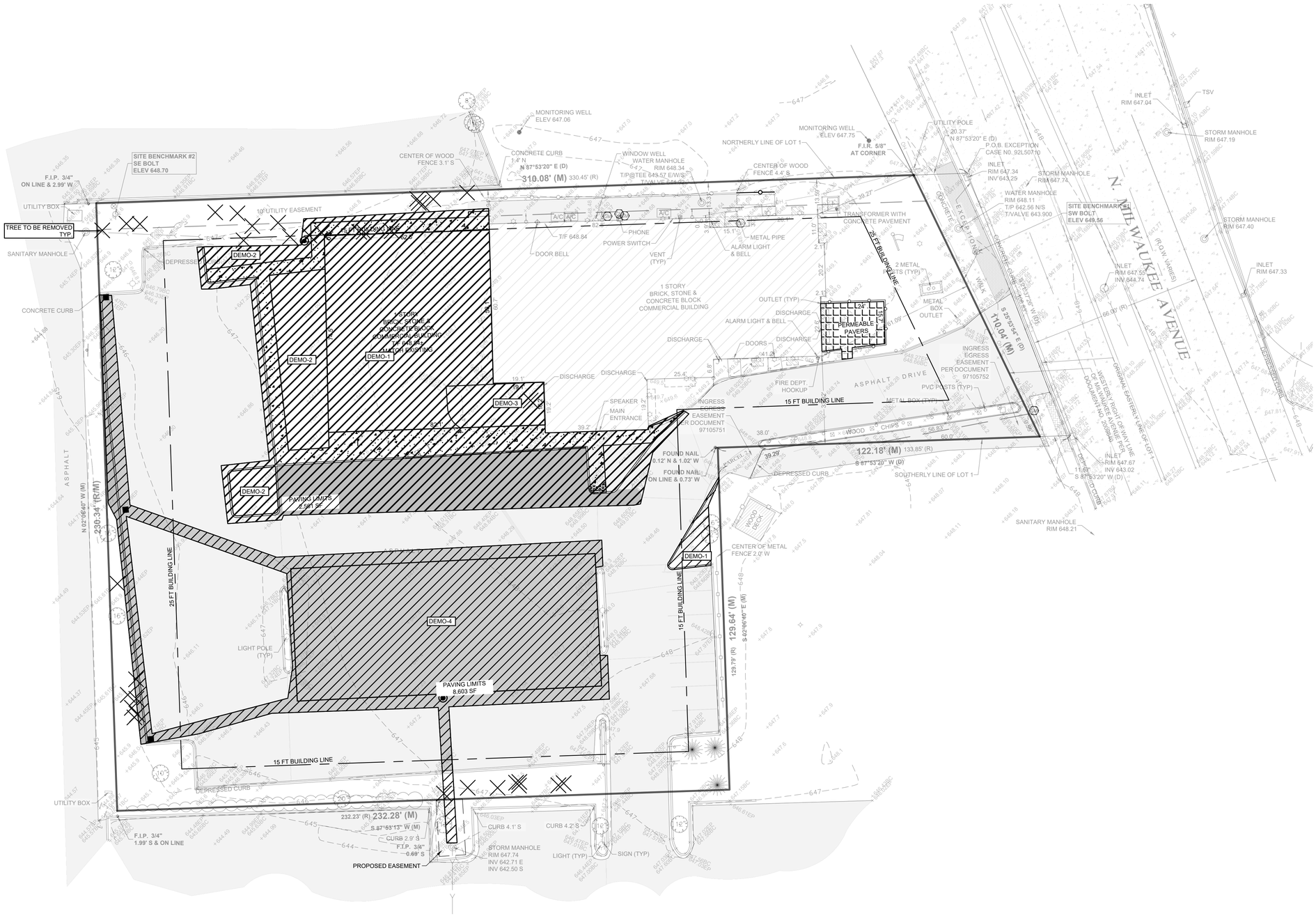
SITE GRADING PLAN



SITE AREA = 63,682 SF

EXISTING IMPERVIOUS AREA

BUILDING	8,014 SF
WALK	628 SF
DRIVEWAY	42,116 SF
TOTAL	50,758 SF

DEVELOPMENT AREA = 19,063 SF

PROPOSED IMPERVIOUS AREA

BUILDING	4,989 SF
WALK	2,246 SF
DRIVEWAY	9,866 SF
TOTAL	**17,101 SF**

PERMEABLE PAVERS 424 FT

TOTAL DISTURBED AREA

PERMEABLE PAVERS	424 SF
PARKING/STORM	8,711 SF
PARKING.BUILDING	12,585 SF
TOTAL	21,720 SF

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DISTURBED AREA EXHIBIT

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WHEELING, ILLINOIS

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Land Surveying
515 Warrenville Road, Lisle, IL 60532
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SHEET
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OF____SHEETS

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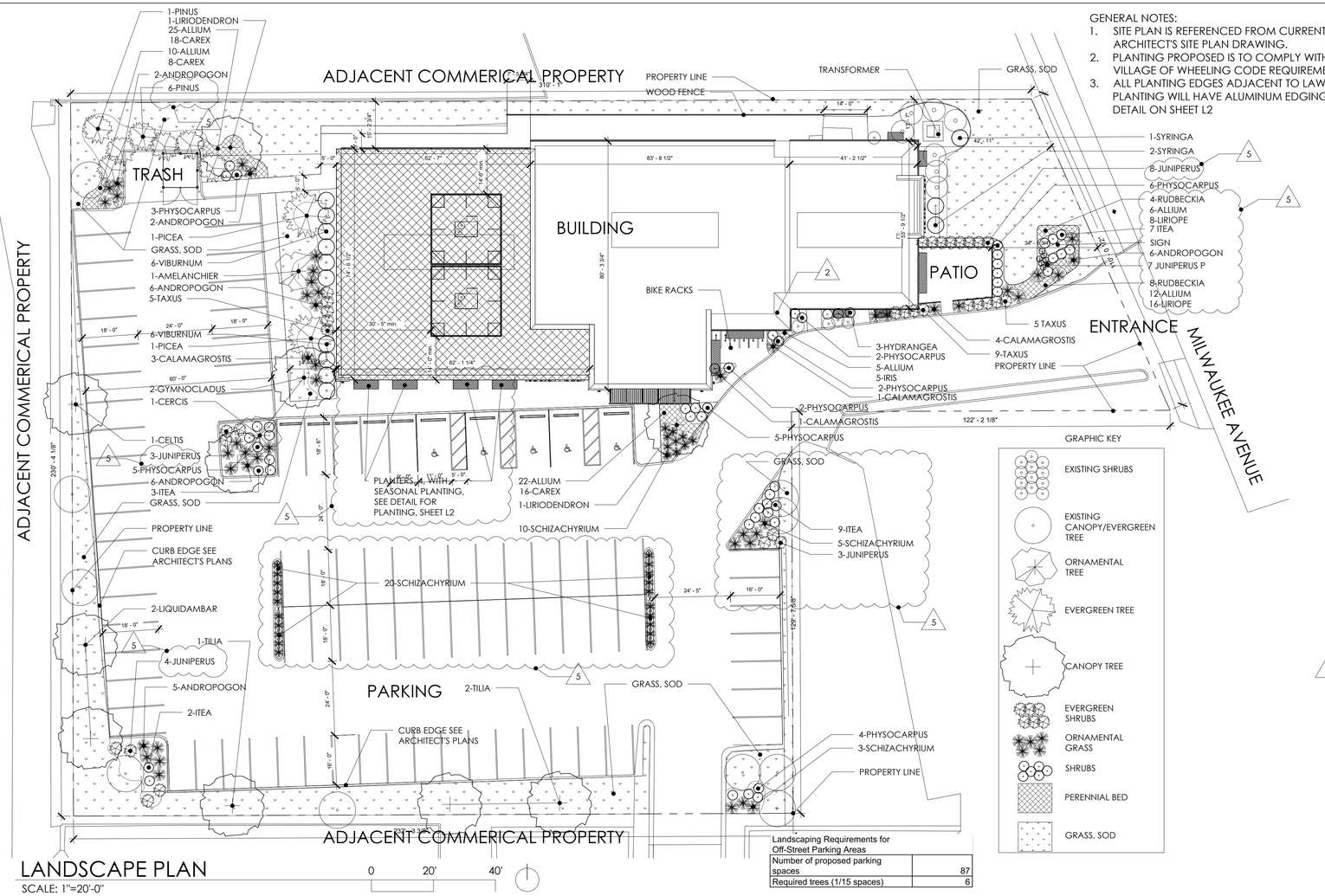


GENERAL NOTES:

1. SITE PLAN IS REFERENCED FROM CURRENT ARCHITECT'S SITE PLAN DRAWING.
2. PLANTING PROPOSED IS TO COMPLY WITH VILLAGE OF WHEELING CODE REQUIREMENTS.
3. ALL PLANTING EDGES ADJACENT TO LAWN OR PLANTING WILL HAVE ALUMINUM EDGING, SEE DETAIL ON SHEET L2

Landscaping Requirements for Off-Street Parking Areas

Number of proposed parking spaces	87
Required trees (1/15 spaces)	6

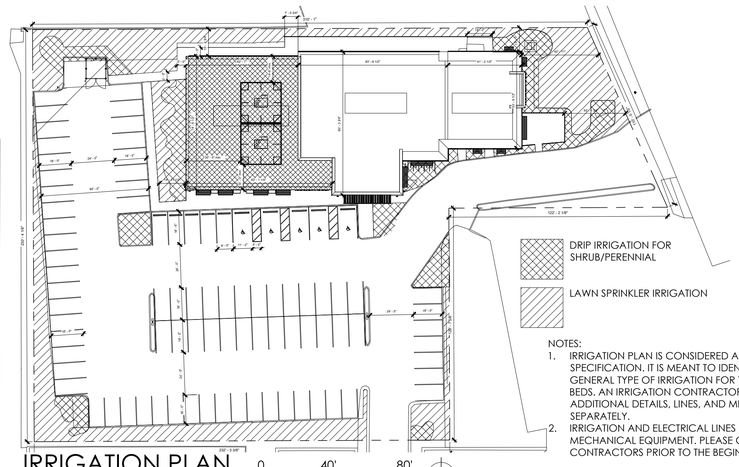
LANDSCAPE PLAN

SCALE: 1"=20'-0"

Code	Botanical Name	Common Name	Total*	Size	Condition	Notes
	Shade Trees		**10**			
CELTIS	Celtis occidentalis	Hackberry	1	3" cal.	B&B	
GYMNOCLADUS	Gymnocladus dioica	Kentucky Coffeetree	2	3" cal.	B&B	
LIQUIDAMBAR	Liquidambar syraciflua	Sweetgum	2	3" cal.	B&B	
LIRIODENDRON	Liriodendron tulipifera	Tulip Tree	2	3" cal.	B&B	
TILIA	Tilia americana 'Redmond'	Redmond Linden	3	3" cal.	B&B	
	Evergreen Trees		**9**			
PICEA	Picea glauca	White Spruce	2	6 foot height	B&B	
PINUS	Pinus strobus	Eastern White Pine	7	6 foot height	B&B	
	Ornamental Trees		**2**			
AMELANCHIER	Amelanchier laevis 'Cumulus'	Cumulus Allegheny Serviceberry	1	2" cal.	B&B	Multi-stemmed
CERCIS	Cercis canadensis	Eastern Redbud	1	2" cal.	B&B	
	Deciduous Shrubs		**68**			
HYDRANGEA	Hydrangea arborescens 'Annabelle'	Annabelle Smooth Hydrangea	3	24" height	B&B	
ITEA	Itea virginica	Virginia Sweetspire	21	24" height	B&B	
PHYSOCARPUS	Physocarpus opulifolius	Common Ninebark	29	24" height	B&B	
SYRINGA P	Syringa patula 'Miss Kim'	Miss Kim Lilac	3	24" height	B&B	
VIBURNUM B	Viburnum prunifolium	Black Haw Viburnum	12	24" height	B&B	
	Evergreen Shrubs		**44**			
JUNIPERUS	Juniperus virginiana 'Grey Owl'	Grey Owl Eastern Red-cedar	18	24" height	B&B	
JUNIPERUS P	Juniperus procumbens 'Nana'	Dwarf Japanese Garden Juniper	7	12" height	B&B	
TAXUS	Taxus x media densiformis	Dense Yew	19	24" height	B&B	
	Perennials		**154**			
ALLIUM	Allium cernuum	Nodding Onion	96		1 gallon	Install 18" on center
IRIS	Iris versicolor	Blue Flag Iris	5		1 gallon	Install 18" on center
LIRIOPE	Liriope muscari	Lilyturf	24		1 gallon	Install 18" on center
RUDBECKIA	Rudbeckia hirta	Black-eyed Susan	29		1 gallon	Install 18" on center
	Grasses		**130**			
ANDROPOGON	Andropogon gardenii	Big Bluestem	27	24" height	5 gallon	
CALAMAGROSTIS	Calamagrostis x acutifolia 'Karl Foerster'	Feather Reed Grass	9	24" height	5 gallon	
CAREX	Carex pensylvanica	Pennsylvania Sedge	56		1 gallon	shorter grass for groundcover
SCHIZACHYRIUM	Schizachyrium scoparium	Little Bluestem	38	24" height	5 gallon	

*Planting summarizes the planting plan on L1 and the planters on L2.

PLANT SCHEDULE

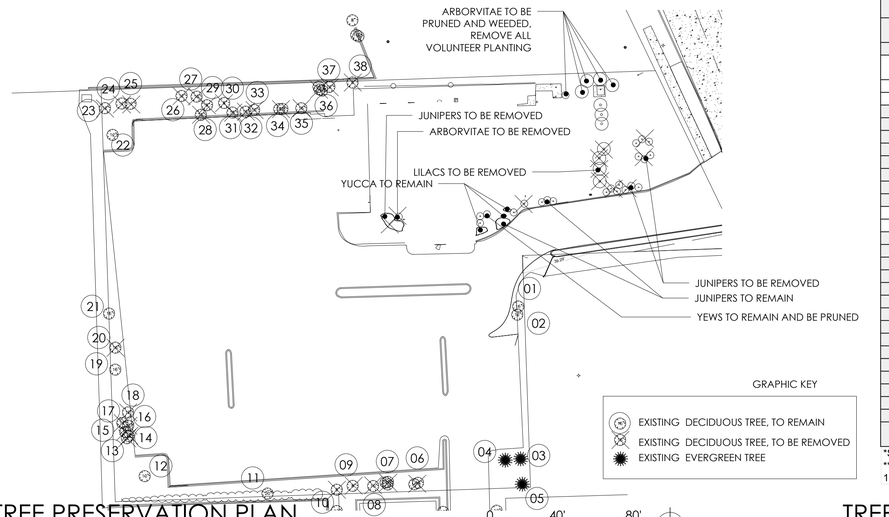


NOTES:

1. IRRIGATION PLAN IS CONSIDERED A PERFORMANCE SPECIFICATION. IT IS MEANT TO IDENTIFY THE GENERAL TYPE OF IRRIGATION FOR THE LANDSCAPE BEDS. AN IRRIGATION CONTRACTOR WILL PROVIDE ADDITIONAL DETAILS, LINES, AND MECHANICALS SEPARATELY.
2. IRRIGATION AND ELECTRICAL LINES FOR MECHANICAL EQUIPMENT. PLEASE COORDINATE CONTRACTORS PRIOR TO THE BEGINNING OF WORK.

IRRIGATION PLAN

SCALE: 1"=40'-0"



TREE PRESERVATION PLAN

SCALE: 1"=40'-0"

Code	Species	Common Name	Size: DBH*	Cond.**	Disposition	Notes
1	*Ulmus*	Elm	16	3	REMAIN	Invasive variety
2	*Ulmus*	Elm	12	3	REMAIN	Invasive variety
3	*Picea*	Spruce	10	1	REMAIN	
4	*Picea*	Spruce	9	1	REMAIN	
5	*Picea*	Spruce	10	1	REMAIN	
6	*Molus*	Mulberry	20	3	REMOVED	Invasive, multistemmed
7	*Molus*	Mulberry	22	2	REMOVED	Invasive, multistemmed
8	*Acer negundo*	Boxelder	20	4	REMOVED	Invasive, multistemmed
9	*Acer negundo*	Boxelder	8	4	REMOVED	Invasive
10	*Acer negundo*	Boxelder	8	3	REMAIN	Invasive, multistemmed
11	*Acer*	Maple	22	2	REMAIN	
12	*Fraxinus*	Ash	10	3	REMAIN	
13	*Populus*	Cottonwood	11	3	REMOVED	Invasive
14	*Populus*	Cottonwood	12	3	REMOVED	Invasive
15	*Populus*	Cottonwood	10	3	REMOVED	Invasive
16	*Populus*	Cottonwood	12	3	REMOVED	Invasive
17	*Populus*	Cottonwood	9	3	REMOVED	Invasive
18	*Populus*	Cottonwood	15	3	REMOVED	Invasive
19	*Populus*	Cottonwood	16	3	REMAIN	Invasive
20	*Populus*	Cottonwood	15	4	REMOVED	Invasive
21	*Populus*	Cottonwood	21	3	REMAIN	Invasive
22	*Fraxinus*	Ash	9	3	REMAIN	
23	*Acer negundo*	Buckthorn	8	4	REMOVED	Invasive
24	*Acer negundo*	Buckthorn	12	4	REMOVED	Invasive
25	*Acer negundo*	Buckthorn	8	4	REMOVED	Invasive
26	*Acer negundo*	Buckthorn	12	3	REMOVED	Invasive
27	*Acer negundo*	Buckthorn	10	4	REMOVED	Invasive
28	*Populus*	Cottonwood	15	2	REMOVED	Invasive
29	*Acer negundo*	Buckthorn	8	3	REMOVED	Invasive
30	*Ulmus*	Elm	8	3	REMOVED	Invasive variety
31	*Populus*	Cottonwood	15	2	REMOVED	Invasive
32	*Populus*	Cottonwood	15	5	REMOVED	Invasive
33	*Molus*	Mulberry	10	3	REMOVED	Invasive
34	*Molus*	Mulberry	24	4	REMOVED	Invasive
35	*Ulmus*	Elm	15	4	REMOVED	
36	*Acer negundo*	Boxelder	30	4	REMOVED	Invasive
37	*Acer negundo*	Boxelder	12	4	REMOVED	Invasive
38	*Acer negundo*	Boxelder	8	4	REMOVED	Invasive, multistemmed

*Sizes and location are based field survey and observation.
**Cond. (Condition) is a qualitative value associated with the health of the tree:
1-great, 2-good, 3-adequate, 4-declining, 5-dead/dying

TREE PRESERVATION MATRIX

LICENSED LANDSCAPE ARCHITECT
GARY W. LEHMAN
157-001193
STATE OF ILLINOIS

ISSUE	DATE	REVISIONS
1	05-29-25	PERMIT REVIEW PLANS
2	06-13-25	PERMIT REVIEW PLANS
3	06-06-25	PERMIT REVIEW PLANS
4	01-20-25	PERMIT REVIEW PLANS
5		PERMIT REVIEW PLANS

PROJECT STAFF

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LANDSCAPE PLANS

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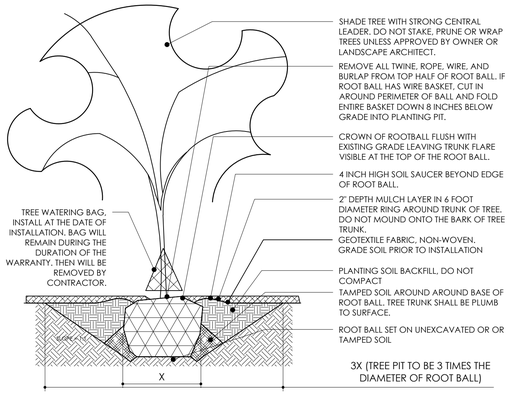
PROJECT NO.: 25024
ISSUE DATE: JAN. 20, 2026
SCALE:
SHEET NUMBER
L1



DECIDUOUS TREE DETAIL

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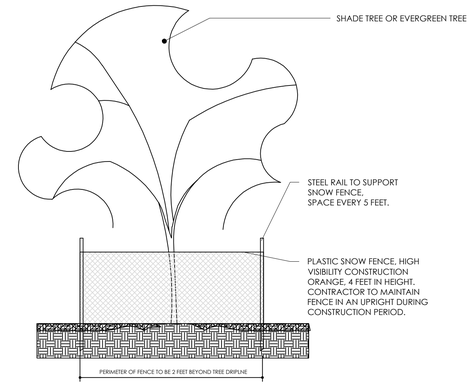
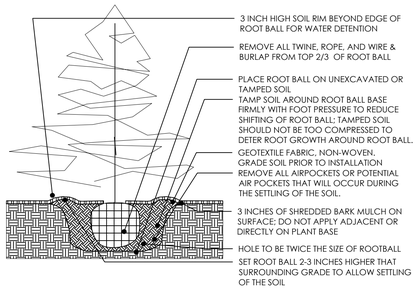


TREE PRESERVATION DETAIL

SCALE: 1/4"=1'-0"



EVERGREEN TREE DETAIL

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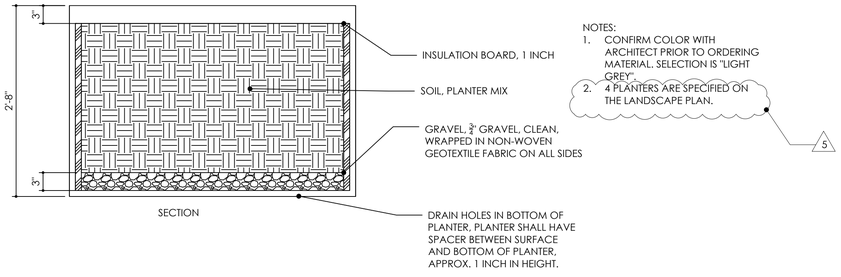

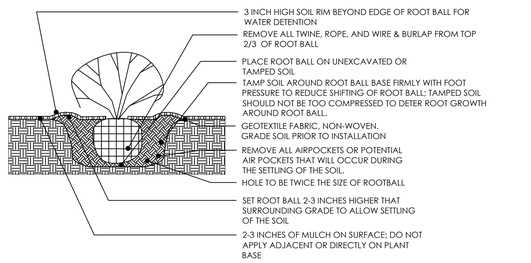

SHRUB DETAIL

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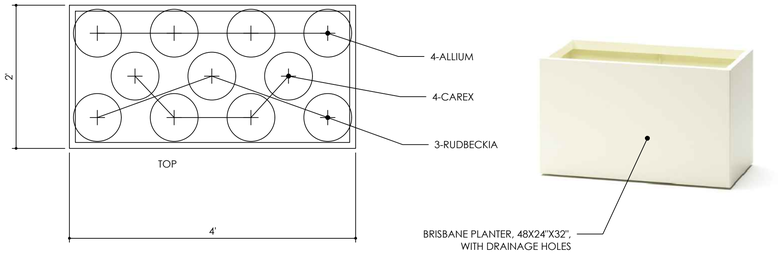
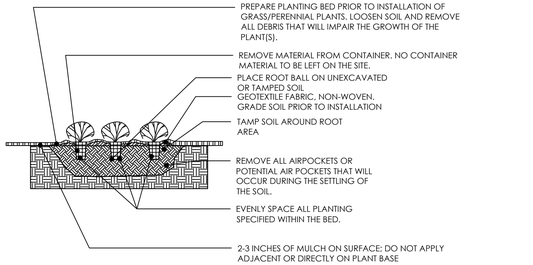


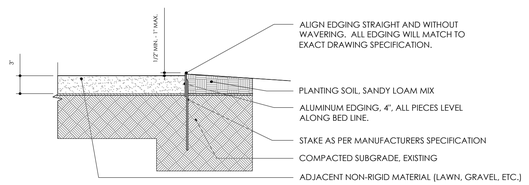
PLANTER DETAIL

SCALE: 1"=1'-0"



PERENNIAL AND ORNAMENTAL GRASS DETAIL

SCALE: 1/4"=1'-0"



EDGING DETAIL

SCALE: 1"=1'-0"

LICENSED LANDSCAPE ARCHITECT
GARY W. LEHMAN
157-001193
STATE OF ILLINOIS

REVISIONS		DATE
PERMIT REVIEW PLANS	1	05-29-25
PERMIT REVIEW PLANS	2	06-19-25
PERMIT REVIEW PLANS	3	06-06-25
PERMIT REVIEW PLANS	4	07-20-25
PERMIT REVIEW PLANS	5	

PROJECT STAFF		ISSUE
PROJECT MANAGER:	G. LEHMAN RLA	
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LANDSCAPE PLANS

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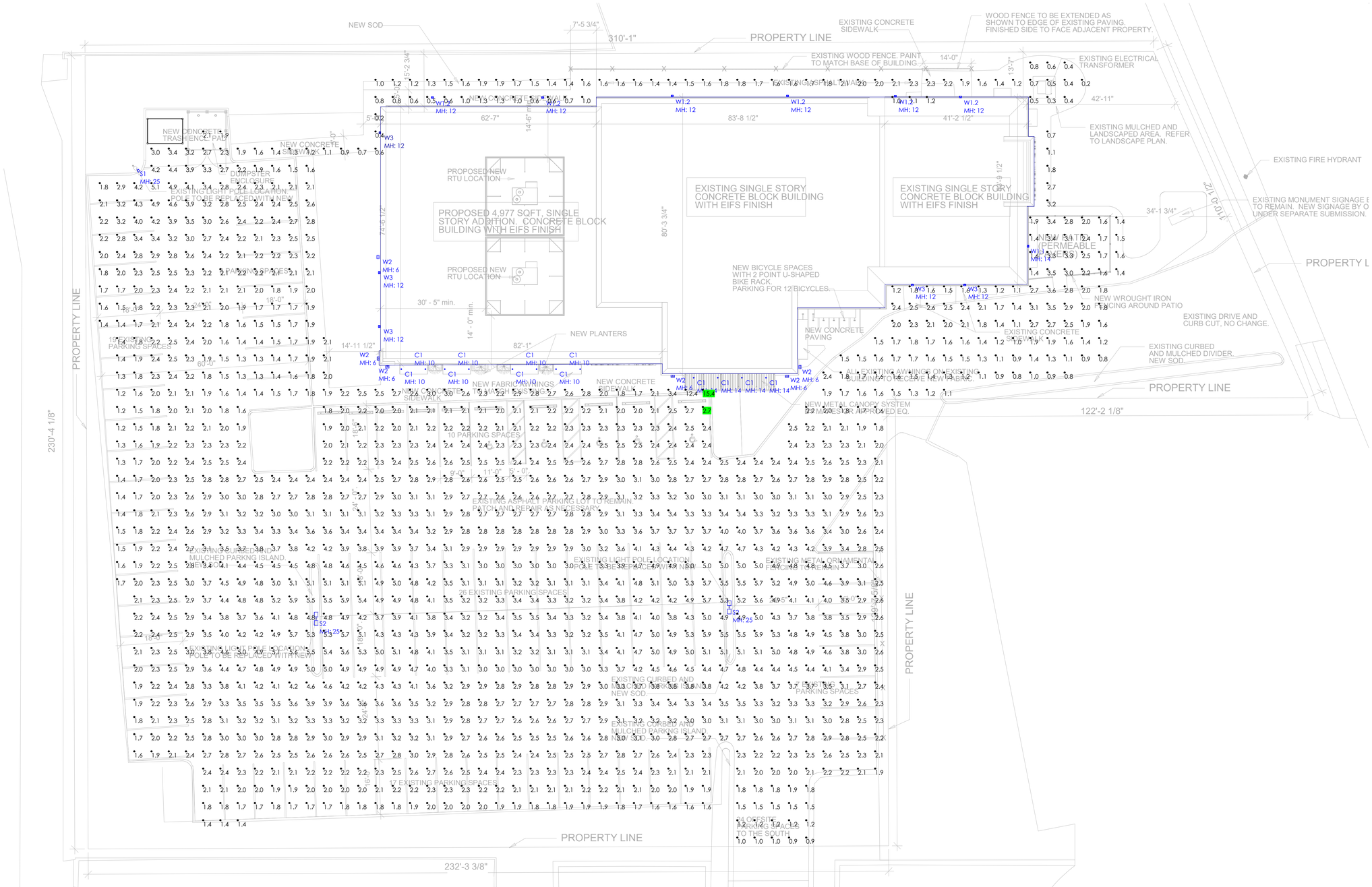
PROJECT NO.: 25024

ISSUE DATE: JAN. 20, 2026

SCALE:

SHEET NUMBER

L2



Scale: 1 inch= 14 Ft.

Calculation Summary									
Label	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Max/Min**	**Avg/Min**	**Calc Plane Ht**	**UG**
FULL AREA_Planar	Illuminance	Fc	2.76	15.4	0.2	77.00	13.80	0	5.70

Luminaire Schedule - Part numbers are provided by the manufacturer and are only intended to be used as a reference to output and optics used.

Symbol	Qty	Tag	Manufacturer	Description	Arrangement	Luminaire Lumens	Arr. Lum. Lumens	Luminaire Watts	Arr. Watts	LLF
	12	C1	PRESCOLITE	LFR-4RD-M-20L35K8NR-DM1_LFR-4RD-T-CL-S	Single	1866	1866	15.22	15.22	0.900
	1	S1	BEACON PRODUCTS	RAR1-160L-135-4K-4F	Single	17300	17300	141.4	141.4	0.900
	2	S2	BEACON	RAR2-108L-250-4K7-4W	Back-Back	29912	59824	247.48	494.96	0.900
	1	W1.1	EXO	RWL1-48L-45-4K7-4W-U	Single	5704	5704	46.5	46.5	0.900
	6	W1.2	EXO	RWL1-48L-10-4K7-3-U	Single	1355	1355	10.1	10.1	0.900
	6	W2	ALVA LIGHT	TESS-30-Slotted	Single	1042	1042	22.15	22.15	0.900
	5	W3	EXO	RWL1-48L-10-4K7-4W-U	Single	1336	1336	10.1	10.1	0.900

NOTES

- PG-ENLIGHTEN IS NEITHER LICENSED NOR INSURED TO DETERMINE CODE COMPLIANCE. CODE COMPLIANCE REVIEW BY OTHERS.
- ANY VARIANCE FROM REFLECTANCE VALUES, OBSTRUCTIONS, LIGHT LOSS FACTORS OR DIMENSIONAL DATA WILL AFFECT THE ACTUAL LIGHT LEVELS OBTAINED.
- THIS ANALYSIS IS A MATHEMATICAL MODEL AND CAN BE ONLY AS ACCURATE AS IS PERMITTED BY THE THIRD-PARTY SOFTWARE AND THE IES STANDARDS USED.
- FIXTURE TYPES AND QUANTITIES MAY CHANGE BASED ON UNKNOWN OBSTRUCTIONS OR FIELD CONDITIONS. THESE CHANGES MAY RESULT IN AN INCREASED QUANTITY OF FIXTURES.
- FIXTURE TYPES AND QUANTITIES BASED ON PROVIDED LAYOUT AND DRAWINGS ARE FOR REFERENCE ONLY. TYPES AND QUANTITIES MAY CHANGE WITH FUTURE REVISIONS.
- CALCULATION GRID VALUES 10'-0" O.C.

PG enlighten

DRAWN BY: Lisa Bernacchi lisa.bernacchi@pg-enlighten.com 847.228.1199

PG CONTACT: Kyle Hiskey kyle.hiskey@pg-enlighten.com 773.675.7955

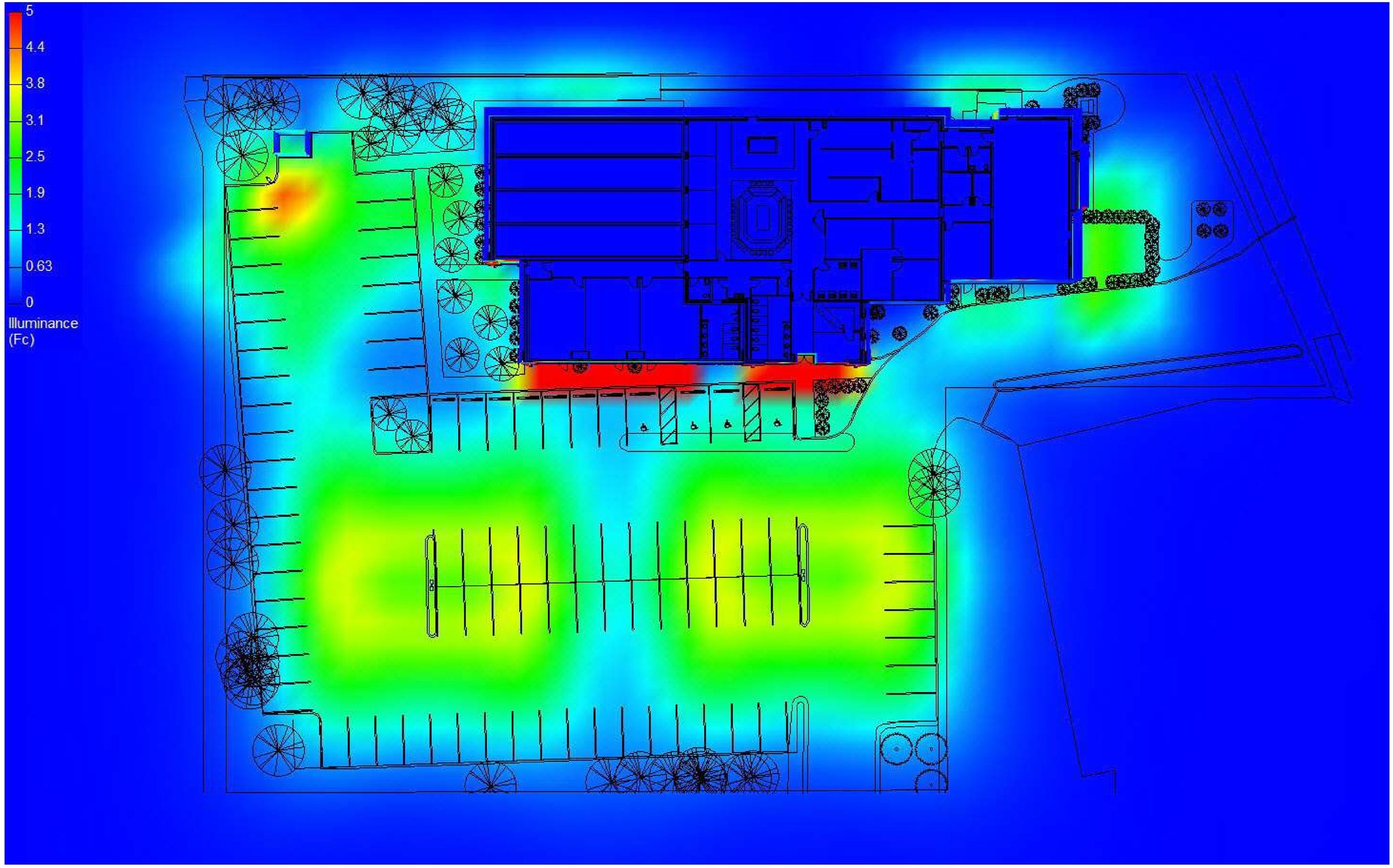
REVISIONS		
4	GENERAL REVS	01/22/26
2	GENERAL REVS	01/16/26
3	GENERAL REVS	01/20/26

PROJECT NAME: 604 N. MILWAUKEE AVE - WHEELING, ILLINOIS

CLIENT NAME: Atul Karkhanis Architects

Date:1/22/2026

Page 1 of 2



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CALCULATION GRID VALUES 10'-0" O.C.

enlighten

PROJECT NAME:
604 N. MILWAUKEE AVE - WHEELING, ILLINOIS

CLIENT NAME:
Atul Karkhanis Architects

REVISIONS		
4	01/22/26	GENERAL REVS
2	01/16/26	GENERAL REVS
3	01/20/26	GENERAL REVS

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DRAWN BY:
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lisa.bernacchi@pg-enlighten.com
847.228.1199

Date:1/22/2026

Page 2 of 2

SITE LIGHTING

C1 - PRESCOLITE
LFR-4RD-M-20L35K8-NR-DM1-CP/LFR-4RD-BT-CL-S
S1 - BEACON
RAR-1-160L-70-4K7-4F-UNV-BLT-BC
S2 - BEACON
RAR-1-160L-70-4K7-4F-UNVBLT-BC
DOUBLE HEAD 180DEGREE
W1.1 - EXO
RWL1-48L-35-4K7-4W-UNV-BLT
W1.2 - EXO
RWL1-48L-35-4K7-3-UNV-BLT
W2 - ALVA
TESS SLOTTED-30-BLK-3500

2514 W. Peterson Ave, Chicago, IL 60659-4109 • tel: 773.508.5533 • fax: 773.508.5757 • afoster@akarchitects.com • www.akarchitects.com

prescolite

LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LITEFRAME 2.0



FEATURES

- 4" LED downlight delivering 1000–6000 lumens
- Direct Install from below ceiling for New Construction or Remodel applications
- Optional housing accessories available
- Five beam distributions
- 2700K–5000K, 80+ and 90+ CRI (2 SDCM)
- Dimming protocols include 0–10V, Phase (Forward/Reverse), DALI, DMX, and Lutron EcoSystem
- NX Lighting Controls wired and wireless controls capability available

C US WET LOCATION IP65

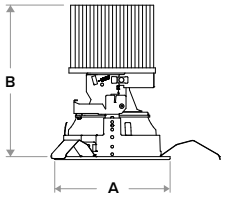
With CL Lens Option

SERVICE PROGRAMS

STOCK QS10

CONTROLS TECHNOLOGY

NX WIRELESS NX WIRED



Typical Dimensions and Weights			
Lumen Package	"A" Diameter Inches (mm)	"B" Height Inches (mm)	Weight lbs (kg)
10L - 30L	5.37 (136)	5.45 (138)	4 (1.8)
35L - 60L	5.37 (136)	7.03 (179)	4.3 (1.9)

See DIMENSIONS section for complete details

SPECIFICATIONS

CONSTRUCTION

- Standard Fixture Module designed for Non-IC, Direct Install construction
- Optional Non-IC frame or IC housing available with pre-installed bar hangers
- Die cast aluminum fixture module support ring with spring steel clips for secure mounting to ceiling
- Driver J-Box can be installed and accessed from below the ceiling as direct install or easily snap on to optional housing frame/enclosure
- Light Engine connections use plenum rated (CMP) cable

OPTICS

- High purity spun aluminum reflector, self-flanged
- 57° visual cutoff to source image and 31° cutoff to source
- Specular or Semi-Specular anodized or White painted cone reflector finish/colors
- Painted flange options in White or Black
- Optional clear lens trim for wet location applications
- Wide Angle and Soft Focus lens filter/clip accessories available

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long LED life: L90 at >50,000 hours (TM-21)

ELECTRICAL (CONTINUED)

- Universal voltage 120–277V driver, 347V optional
- UL Class 2, inherent short circuit and overload protection
- Flicker-free dimming options in a wide range of protocols from 1% to <0.1% performance
- 0–10V, Phase (Forward/Reverse), DALI, DMX, and Lutron EcoSystem options
- NX Lighting Controls provides options for standalone and networked functionality with wired or wireless connectivity for NX system deployments
- Integral and remote emergency battery options available

INSTALLATION

- Accommodates ceiling thickness from 0.50" to 2.50"
- Fixture Module including driver fully accessible from above or below the ceiling
- 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation types.)

CERTIFICATIONS

- cCSAus certified to UL 1598
- For ≥50L: Marked spacing required 36" fixture center to center; 18" fixture center to building member; 0.5" above fixture

CERTIFICATIONS (CONTINUED)

- Suitable for wet locations, covered ceiling when used with CL lens trim; all other configurations, suitable for damp locations
- CL Lens option: IP65 rated (room side) when properly installed per installation instructions
- EM/EMR: Certified under UL 924 standard for emergency lighting and power equipment
- EM/EMR: Emergency battery packs are California Energy Commission (CEC) Title 20 Compliant
- Approved for 8 (4 in/4 out) No. 12AWG conductors rated for 90°C through wiring

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	1000–6000
Wattage Range	8–54
Efficacy Range (LPW)	105–135
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	66–450 (120V)

*Based on Specular, 35K, 80 CRI

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prescolite

DATE: | LOCATION: CANOPY LIGHTING

TYPE: | PROJECT:

CATALOG #:

LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

Gray Shading = Service Program STOCK QS10 Limit of 150 Luminaries

ORDERING GUIDE

Example: LFR–4RD–M–10L35K8–WD–DM1 / LFR–4RD–T–S / LFR-4RD-H

CATALOG #

FIXTURE MODULE

LFR-4RD-M –

Ap/Shp/Funct	Lumen Output	CCT	CRI	– Distribution	Driver Options	Control Options	Voltage	– Module Options
LFR-4RD-M 4" Round Downlight Fixture Module for Direct Install	**10L** 1000	**27K** 2700K	**8** 80+	**VNR** Very Narrow (17°/0.3 SC)	**DM1** 0–10V Dimming to 1%	**NX Lighting Controls**	*Standard 120–277V*	**CP** Chicago Plenum [5,6]
(Non-IC frame or IC housing available under Housing Options below)	**15L** 1500	**30K** 3000K	**9** 90+	**NR** Narrow (26°/0.4 SC)	**DM01** 0–10V Dimming to < 1% [2]	Networked Wireless	**34** 347V [4]	**EM** 6W Emergency Battery Pack (CEC Title 20 Compliant) with integral test switch and indicator light [6]
	20L 2000	**35K** 3500K		**MD** Medium (34°/0.6 SC)	**PDM** Phase (Forward/ Reverse) Dimming to 1% [2]	**NXW** NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [3]		**EMR** 6W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light [6]
	25L 2500	**40K** 4000K		**WD** Wide (49°/0.7 SC)	**DMX** DMX with RDM dimming to < 0.1% [2]	Networked Wired		**DTS** Device Transfer Switch with Dimming Bypass [6,7]
	30L 3000	**50K** 5000K		**XW** Extra Wide (65°/1.0 SC) [12]	**DALI** DALI Dimming to 1% [2]	**NXE** NX Wired Dual RJ45 SmartPORTS, without Sensor [3]		
	35L 3500				**EDM** Lutron Hi-Lume EcoSystem Dimming to 1% [2]			
	40L 4000							
	50L 5000 [1]							
	60L 6000 [1]							

TRIM (Ships separately)

LFR-4RD-T –

Aperture/Shape/Function	– Distribution	Reflector Finish/Color	Flange Color Options	Lens Options	Lower Trim Options
LFR-4RD-T 4" Round Downlight Trim Assembly	*Standard NR, MD, WD, XW*	**S** Specular [12]	*Standard matches reflector color*	*Standard no lens*	**EM** Pre-punched reflector for EM integral test switch and indicator [9]
	VNR Very Narrow	**SS** Semi-Specular	**WT** White Flange [8]	**CL** Clear Lens (Wet listed) [9]	**FM** Flush Mount Mud-In Ring [13]
		WC Painted White Cone and Flange	**BT** Black Flange		

HOUSING OPTIONS (Ships separately)

	Aperture/Shape/Function	
☐	**LFR-4RD-H**	4" Housing Frame, New Construction, Non-IC
☐	**LFR-4RD-H-IC**	4" Housing Enclosure, New Construction, IC Rated [10,11]

	Accessories	
☐	**SFL4**	Soft Focus Lens and Clip, 4" Round
☐	**WAL4**	Wide Angle 80° Lens and Clip, 4" Round
☐	**LiteGear**	LiteGear® Inverter, 125VA–250VA
☐	**LPS Series**	LightPower Micro-Inverter, 20VA–55VA
☐	**LF-FMR4-R**	Flush Mount Mud-in Ring, 4" [13]
☐	**LF-MOR4-R-WH**	Metal Oversized Ring, 4" Round, White (8.3" outside diameter)
☐	**LFR-SCA4-__**	Sloped Ceiling Adapter, 4" White [14]

Notes:

1 50L and 60L require marked spacing. See line art for more details.
2 DM01, PDM, DMX, DALI available up to 50L. EDM available 15L–40L.
3 NX requires DM1 driver option.
4 347V requires DM1 driver option; available 10L–40L; not available with Controls, DTS, EM, EMR.
5 CP not available with PDM, DMX, or Controls.
6 Module options not available in combination.
7 DTS available with DM1, DM01, or DALI.
8 WT not needed for WC.
9 CL lens and EM trim options not available in combination.
10 IC available up to 35L; 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation types.)
11 IC Housing not for use in combination with Controls or with Module Options CP, EM, EMR, DTS.
12 XW distribution is not available for Specular (S) reflector finish.
13 Flush Mount Flange (FM) requires FMR accessory (sold separately).
14 Specify slope angle 5°–35° in 5° increments. Not available with EM or FM options.

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

NX LIGHTING CONTROLS

	Control Option Ordering Logic & Description		Control Option Functionality								Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming		
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	–	–	✓	✓	✓		NXRM2-H
NX Wired	NXE	NX Wired Dual RJ45 SmartPORTS, without Sensor	✓	✓	✓	–	–	✓	✓	✓[1]		NXDSP

1 Requires NXBTC, order separately.

NX LIGHTING CONTROLS APP



The NX Lighting Controls App is a free to use mobile application for programming both an NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enabled luminaires and program your NX system settings.

Android

Apple iOS

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

PERFORMANCE DATA TABLE

Performance data shown is 3500K 80+CRI with Specular reflector except Extra Wide distribution which is Semi-Specular.

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
10L	1000	Very Narrow	979	7.6	129
		Narrow	1023	7.6	135
		Medium	997	7.6	131
		Wide	995	7.6	131
		Extra Wide	947	7.6	125
15L	1500	Very Narrow	1471	11.8	125
		Narrow	1536	11.8	130
		Medium	1498	11.8	127
		Wide	1494	11.8	127
		Extra Wide	1422	11.8	121
20L	2000	Very Narrow	1937	15.2	127
		Narrow	1982	15.3	130
		Medium	1933	15.3	127
		Wide	1928	15.3	126
		Extra Wide	1835	15.2	121
25L	2500	Very Narrow	2465	20.9	118
		Narrow	2574	20.9	123
		Medium	2510	20.9	120
		Wide	2504	20.9	120
		Extra Wide	2384	20.9	114
30L	3000	Very Narrow	2938	26.0	113
		Narrow	3068	26.0	118
		Medium	2992	26.0	115
		Wide	2985	26.0	115
		Extra Wide	2842	26.0	109
35L	3500	Very Narrow	3571	29.4	121
		Narrow	3729	29.4	127
		Medium	3637	29.4	124
		Wide	3628	29.4	123
		Extra Wide	3454	29.4	117
40L	4000	Very Narrow	3982	32.9	121
		Narrow	4157	32.9	126
		Medium	4055	32.9	123
		Wide	4045	32.9	123
		Extra Wide	3851	32.9	117
50L	5000	Very Narrow	4844	42.0	115
		Narrow	5058	42.0	120
		Medium	4933	42.0	117
		Wide	4921	42.0	117
		Extra Wide	4684	42.0	112
60L	6000	Very Narrow	5778	53.4	108
		Narrow	6033	53.4	113
		Medium	5884	53.4	110
		Wide	5870	53.4	110
		Extra Wide	5588	53.4	105

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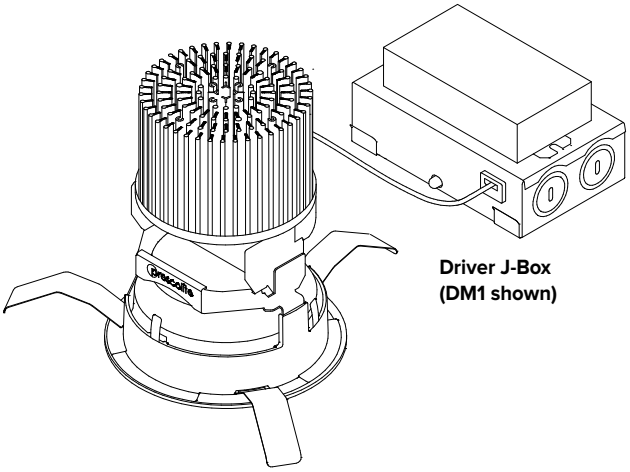
LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DIMENSIONS

LFR-4RD-M

Fixture Module consists of Light Engine and Driver J-Box assemblies.
Overall dimensions for each are dependent upon configuration selected.
See the following pages for details.



Driver J-Box (DM1 shown)

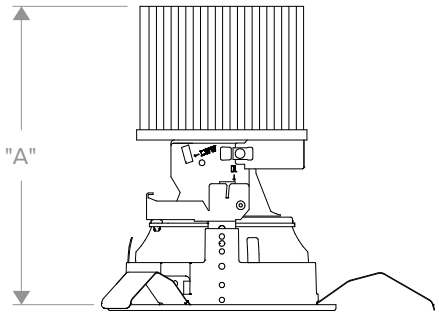
Light Engine with Trim assembly installed

DIMENSIONAL DATA		
APERTURE		ø4.00" (101.6mm)
OVERALL		Ø5.37" (136.5mm)
FLANGE WIDTH	Standard	0.69" (17.5mm)
	Flush Mount	0.19" (4.8mm)
FLANGE TO FLANGE	Standard	Ø5.37" (136.6mm)
	Flush Mount	Ø4.38" (111.2mm)
CEILING CUTOUT	Standard	Ø4.75" (120.7mm)
	Flush Mount	Ø4.88" (123.9mm)
CEILING THICKNESS		0.50" – 2.50" (12.7 – 63.5mm)

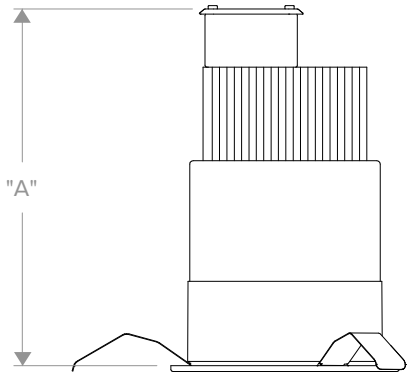
LFR-4RD LIGHT ENGINE

OVERALL LIGHT ENGINE HEIGHT "A" *				
LUMEN PACKAGE	FIXTURE MODULE	BEAM DISTRIBUTION		
		VNR	NR / MD/ WD	XW
10L–30L	STANDARD	6.24" (158.5mm)	5.45" (138.5mm)	5.1" (129.5mm)
	CP	9.22" (324.1mm)	8.43" (214.0mm)	8.08" (205.1mm)
35L–60L	STANDARD	7.82" (198.6mm)	7.03" (178.6mm)	6.68" (169.7mm)
	CP	9.22" (234.1mm)	8.43" (214.0mm)	8.08" (205.1mm)

* Note: Add ½" minimum plenum clearance above overall Light Engine Height.
** For ≥50L: Marked spacing required 36" fixture center to center; 18" fixture center to building member; 0.5" above fixture.
*** Non-IC rating requires 3" from insulation and combustible materials.



Side View Standard



Side View CP – Chicago Plenum

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LFR-4RD
LITEFRAME 4" ROUND DOWNLIGHT

DATE:	LOCATION:
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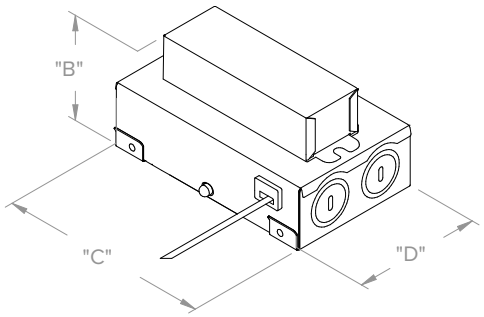
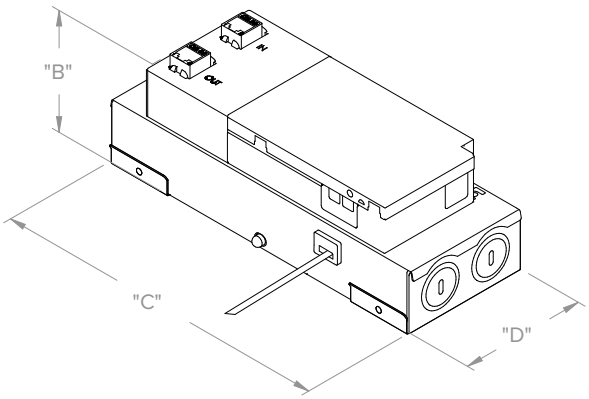
DIMENSIONS CONTINUED

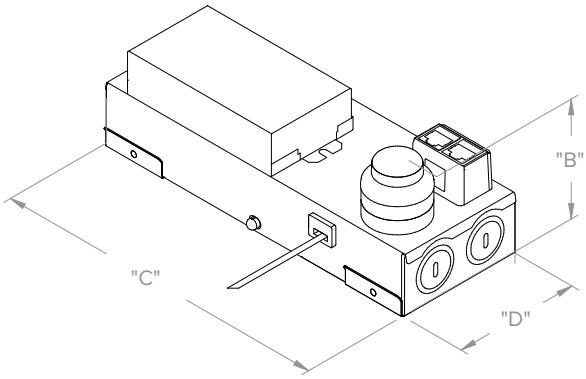
DRIVER J-BOX



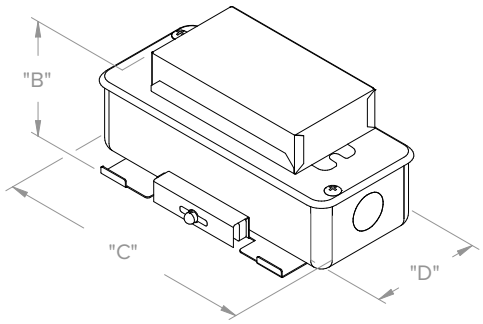
DM1 / DM01 / PDM / DALI



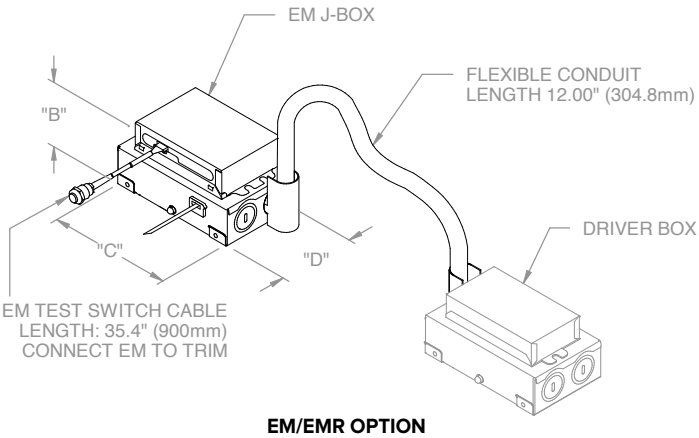
DMX



NX CONTROLS OPTION



CP



EM/EMR OPTION

EM/EMR Driver J-Box Conduit (provided) connects to Driver J-Box
(see Driver J-Box for additional details)

OVERALL DRIVER J-BOX DIMENSIONS (ALL LUMEN OUTPUTS)				
DRIVER/ CONTROLS OPTIONS	"B" (HEIGHT)	"C" (LENGTH)	"D" (WIDTH)	MINIMUM J-BOX PLENUM CLEARANCE
DM1 / DM01 / PDM / DALI	2.67" (67.8mm)	5.34" (135.6mm)	3.23" (82.0mm)	3.50" (88.9mm)
DMX	3.07" (78.0mm)	8.68" (220.5mm)	3.23" (82.0mm)	5.00" (127.0mm)
NX	3.02" (76.7mm)	8.68" (220.5mm)	3.23" (82.0mm)	6.00" (152.4mm)
EM/EMR	2.73" (69.3mm)	5.34" (135.6mm)	3.23" (82.0mm)	4.00" (101.6mm)
CP	1.89" (73.4mm)	6.50" (165.1mm)	2.72" (69.1mm)	5.00" (127mm)

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DATE: LOCATION:

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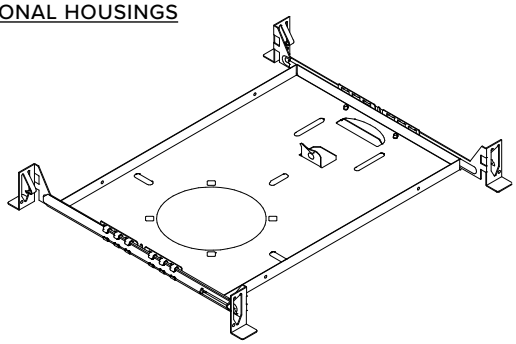
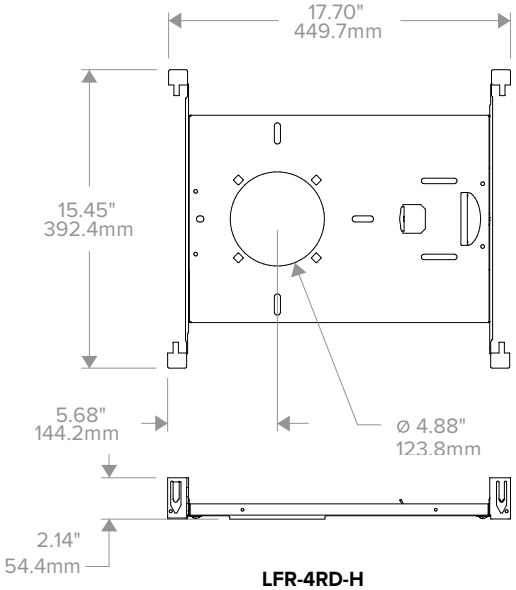
CATALOG #:

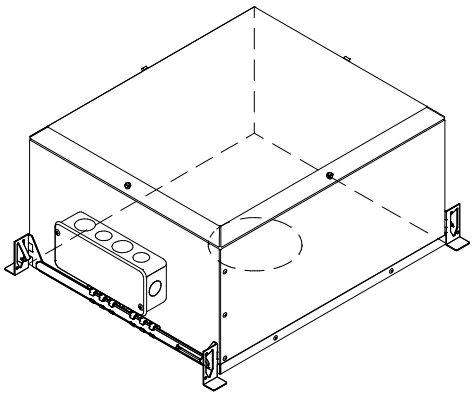
DIMENSIONS CONTINUED

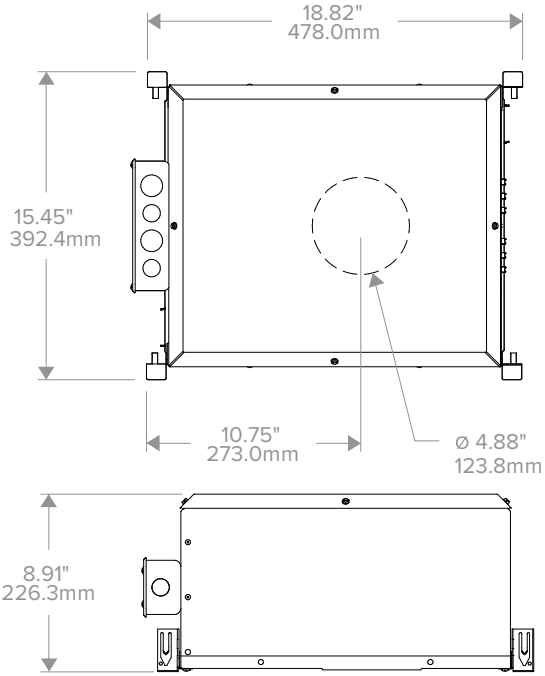
OPTIONAL HOUSINGS



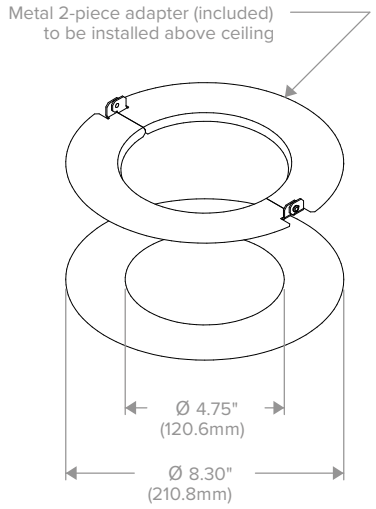


LFR-4RD-H
NON-IC HOUSING FRAME

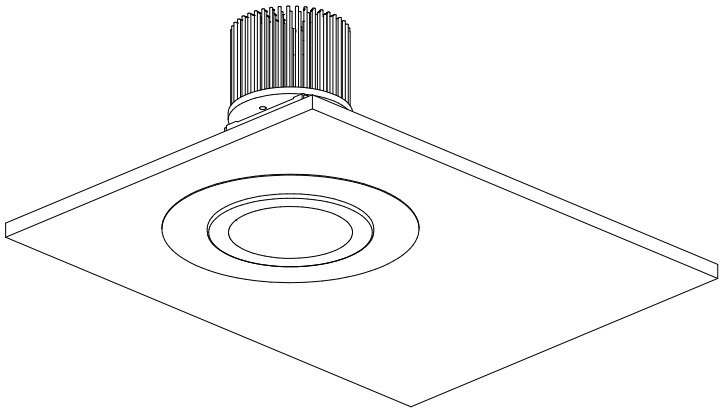




LFR-4RD-H-IC
IC HOUSING
Not for use with CP Shroud



ROUND LF-MOR4-R
METAL OVERSIZED RING
(See LF-MOR Installation Instruction for more details)



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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

PHOTOMETRY

LFR-4RD-M-20L35K8VNR-DM1 / LFR-4RD-T-VNR-S

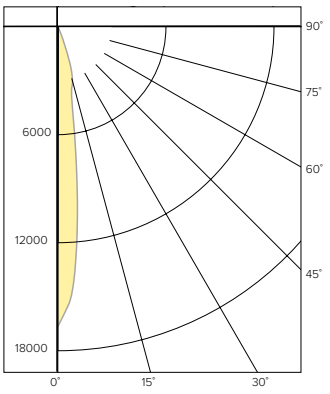
LUMINAIRE DATA

Test No.	**21.001652**
Description	**2000 lm, Very Narrow, 3500K, 80 CRI**
Delivered Lumens	**1937**
Watts	**15.2W**
Efficacy	**127**
Mounting	**Recessed**
Spacing Criterion	**0.3**
Beam Angle (FWHM)	**15**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1932	99.8
0-60	1936	99.9
0-90	1937	100.0
0-180	1937	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	16778
5	12300
15	3246
25	139
35	7
45	3
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	523
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

LFR-4RD-M-20L35K8NR-DM1 / LFR-4RD-T-S

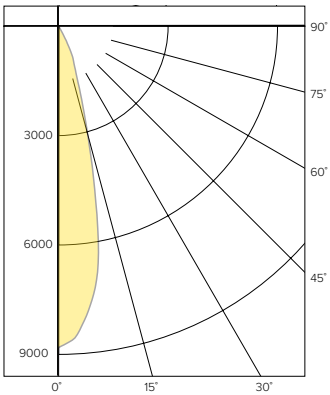
LUMINAIRE DATA

Test No.	**21.00574**
Description	**2000 lm, Narrow, 3500K, 80 CRI**
Delivered Lumens	**1982**
Watts	**15.3W**
Efficacy	**130**
Mounting	**Recessed**
Spacing Criterion	**0.4**
Beam Angle (FWHM)	**26**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1978	99.3
0-60	1981	100.0
0-90	1982	100.0
0-180	1982	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	8819
5	8106
15	3103
25	858
35	7
45	2
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	349
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

LFR-4RD-M-20L35K8MD-DM1 / LFR-4RD-T-S

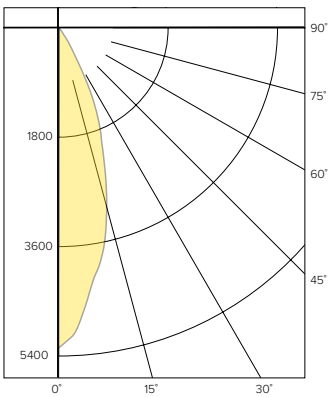
LUMINAIRE DATA

Test No.	**21.00585**
Description	**2000 lm, Medium, 3500K, 80 CRI**
Delivered Lumens	**1933**
Watts	**15.3W**
Efficacy	**127**
Mounting	**Recessed**
Spacing Criterion	**0.6**
Beam Angle (FWHM)	**34**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1928	99.8
0-60	1931	99.9
0-90	1933	100.0
0-180	1933	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	5267
5	4677
15	3033
25	1352
35	55
45	3
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	523
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

PHOTOMETRY CONTINUED

LFR-4RD-M-20L35K8WD-DM1 / LFR-4RD-T-S

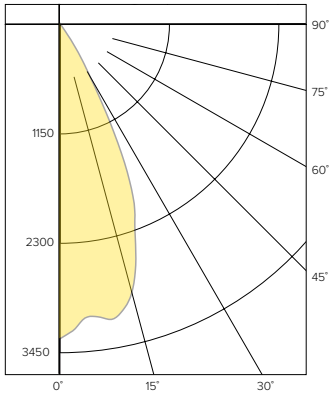
LUMINAIRE DATA

Test No.	**21.00577**
Description	**2000 lm, Wide, 3500K, 80 CRI**
Delivered Lumens	**1928**
Watts	**15.3W**
Efficacy	**126**
Mounting	**Recessed**
Spacing Criterion	**0.7**
Beam Angle (FWHM)	**49**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1922	99.7
0-60	1927	99.9
0-90	1928	100.0
0-180	1928	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	3329
5	3118
15	2946
25	1625
35	117
45	4
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	698
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

LFR-4RD-M-20L35K8XW-DM1 / LFR-4RD-T-SS

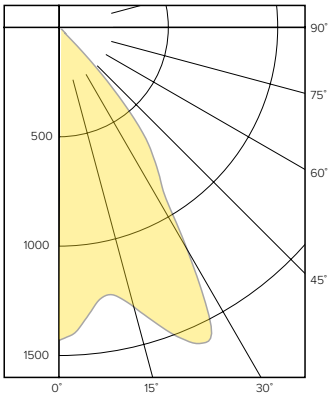
LUMINAIRE DATA

Test No.	**21.01456**
Description	**2000 lm, Extra Wide, 3500K, 80 CRI**
Delivered Lumens	**1835**
Watts	**15.2W**
Efficacy	**121**
Mounting	**Recessed**
Spacing Criterion	**1.0**
Beam Angle (FWHM)	**65**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1686	91.9
0-60	1826	99.5
0-90	1835	100.00
0-180	1835	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1431
5	1345
15	1323
25	1589
35	781
45	80
55	16
65	6
75	2
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	13955
55°	3441
65°	1751
75°	953
85°	0

*Candela/Square Meter

LUMEN MULTIPLIER

Option	27K8	30K8	35K8	40K8	50K8	27K9	30K9	35K9	40K9	50K9
Multiplier	0.93	0.96	1.00	1.01	1.03	0.78	0.82	0.85	0.87	0.89

Photometrics are published below at a nominal 3500 Kelvin, 80+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

LENS OPTION / LENS FILTER ACCESSORY MULTIPLIER (Based on Clear Specular)

Option	CL (Clear Lens)	SFL4 (Soft Focus Accessory)	WAL4 (Wide Angle Accessory)
Multiplier	0.95	0.96	0.83

Multiply lumen/lens multipliers to calculate applicable combinations. Example: 30K8 with Clear Lens option (CL) = 0.96 x 0.95 = **0.91**

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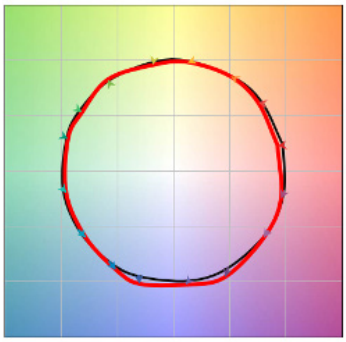
LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

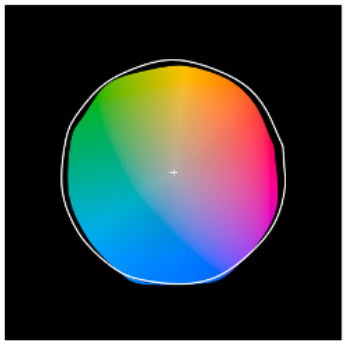
TM-30 DATA

COLOR VECTOR GRAPHIC 3500K, 90 CRI



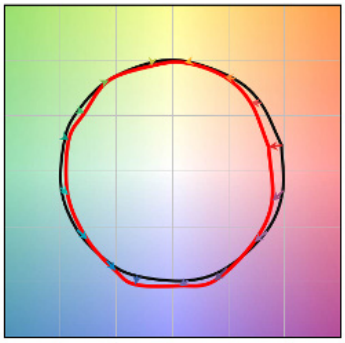
Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 90 CRI



TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R_f	85	90
R_g	95	99
CCT (K)	3422	3416
D_{uv}	-0.0008	-0.0019
x	0.4089	0.408
y	0.3906	0.3877
CIE R_a	85	93
CIE R_9	16	66

COLOR VECTOR GRAPHIC 3500K, 80 CRI



Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 80 CRI



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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ELECTRICAL DATA

DRIVER DATA		
Input Voltage	120-277 V	347 V
Input Frequency	50/60 Hz	50/60 Hz
Power Factor	≥0.90	≥0.90
THD	<20%	<20%
EMI Filtering (FCC 47 CFR Part 15)	Class A	Class A

* Values for DM1 option shown, values for other dimming options may vary.

ADDITIONAL INFORMATION

Dimming Compatibility

For more details and recommended dimmer list, see Dimming Compatibility Information on currentlighting.com/prescolite.

DMX

See instruction sheet on currentlighting.com/prescolite for connection & installation information.

Central Inverters

For full fixture output in back-up mode, we recommend you visit currentlighting.com/dual-lite.com for your Central Lighting Inverter options. Please contact your local Current representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

Lumen Output in Emergency Mode

To determine the lumen output in emergency mode, multiply the battery pack wattage by the fixture lumens per watt (LPW).
For example, 6W x 120 LPW = 720 lumens in emergency mode.

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BEACON
design . performance . technology

RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

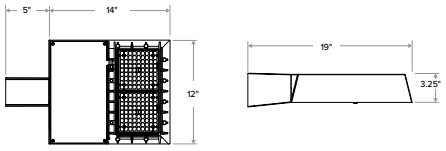
TYPE: PROJECT:

CATALOG #:

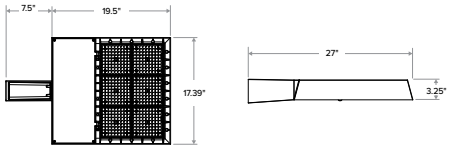
MICRO STRIKE | OPTICS STRIKE



RAR1



RAR2



FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as retail, commercial and campus parking lots
- Featuring Strike and Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Compact and lightweight design with low EPA
- 3G rated for high vibration applications including bridges and overpasses
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™ and 7-Pin with networked controls
- Best in class surge protection available

c UL us | IP66 | DLC LISTED | DLC LISTED PREMIUM | BAA | TAA | DARKSKY APPROVED

CONTROL TECHNOLOGY

NX CONNECT | NX WIRELESS

SERVICE PROGRAMS

STOCK QS10

	Weight	EPA at 0°
RAR1	13.5 lbs / 6.1 kg	.45ft.^{2} / .13m^2
RAR2	24 lbs / 10.9 kg	.55ft.^{2} / .17m^2

SPECIFICATIONS

CONSTRUCTION

- Rectilinear form mimics the traditional shoebox form factor keeping a similar but updated style and appearance, ideal for retrofit applications
- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 80, 160, 320 or 480 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI) CCT
- Zero uplight at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Standard square arm mount, compatible with B3 drill pattern
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option or accessory for square and round poles.
- Knuckle arm fitter option available for 2-3/8" OD tenon. Max tilt of 60 degrees with 4 degree adjustable increments. (Restrictions apply for 7-pin options)

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40˚C to 40˚C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised

CONTROLS

- Photo control, occupancy sensor and wireless available for complete on/off and dimming control
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- 0- 10 V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations on this page are DLC Qualified. Refer to www.designlights.org for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40˚C ambient temperatures
- 3G rated for ANSI C136.31 high vibration applications
- Fixture is IP66 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) and Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions (link to https://www.currentlighting.com/resources/america-solutions)

WARRANTY

- 5 year limited warranty
- See HLI Standard Warranty for additional information

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RATIO Series
AREA/SITE LIGHTER MICRO STRIKE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 luminaires QS10

MICRO STRIKE OPTICS - ORDERING GUIDE

Example: RAR1-80L-25-3K7-2-UNV-ASQ-BL-NXW-BC

CATALOG #

ORDERING INFORMATION

Series		# LEDs - Wattage		CCT/CRI		Distribution		Optics Rotation		Voltage	
RAR1	Ratio Area Size 1 - Micro Strike	80L-25	25W - 3,000 Lumens	3K7	3000K, 70 CRI	2	IES TYPE II	Blank for no rotation		UNV	Universal 120-277V
		80L-39	39W -5,200 Lumens	4K7	4000K, 70 CRI	3	IES TYPE III	L	Optic rotation left	120	120V
		80L-50	50W - 6,000 Lumens	5K7	5000K, 70 CRI	4W	IES TYPE IV	R	Optic rotation right	208	208V
		160L-70	70W - 9,000 Lumens			4F	IES TYPE IV Forward			240	240V
		160L-100	100W - 12,000 Lumens			5QW	IES TYPE V			277	277V
		160L-115	115W - 15,000 Lumens							347	347V
		160L-135	135W - 18,000 Lumens							480	480V
RAR2	Ratio Area Size 2 - Micro Strike	320L-110	110W - 15,000 Lumens								
		320L-140	140W - 18,000 Lumens								
		320L-165	165W - 21,000 Lumens								
		480L-185	185W - 24,000 Lumens								
		480L-210	210W - 27,000 Lumens								
		480L-240	240W - 30,000 Lumens								
		480L-255	255W - 36,000 Lumens								
		480L-295	295W - 42,000 Lumens								
		480L-340	340W - 48,000 Lumens								

Mounting	
ASQ	Arm mount for square pole/flat surface
ASQU	Universal arm mount for square pole, S2 Drill pattern. Does not include round pole adaptor
Mounting Round Poles	
A_	Arm mount for round pole[1] B3 drill pattern
A_U	Universal arm mount for round pole[1]
Mounting Other	
WB	Wall bracket
MAF	Mast arm fitter for 2-3/8" OD horizontal arm
K	Knuckle

Color	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Brone Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured
Color Option	
CC	Custom Color

Control Options Network	
NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [6,7]
Control Options Other	
SCP_F	Programmable occupancy sensor [3,4]
7PR	7-Pin twist lock receptacle
7PR-SC	7-Pin receptacle with shorting cap
7PR-MD40F	Low voltage sensor for 7PR
7PR-TL	7-Pin PCR with photocontrol
ADD	AutoDim Timer Based Dimming
ADT	AutoDim Time of Day Dimming
BTS-14F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]
BTS-40F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]
BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]

Options	
BC	Backlight control
F	Fusing [5]
TB	Terminal block
2PF	2 power feed with 2 drivers[2]

Notes:
1 Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
2 Not available with 25, 50, 255, 295 & 340W configurations
3 At least one SCPREMOTE required to program SCP motion sensor
4 Replace "_" with 8F or 40F lens
5 Must specify voltage
6 Networked Controls cannot be combined with other control options
7 Not available with 2PF option
8 BTS and BTSO available for 70 Watts or higher and only on 120-277 voltage

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RATIO Series

AREA/SITE LIGHTER STRIKE

STRIKE OPTIC - ORDERING GUIDE

Example: RAR1-36L-39-3K7-2-UNV-ASQ-BLT-NXW-BC

CATALOG #

ORDERING INFORMATION

Series

RAR1	Ratio Area Size 1 - Strike Optics
RAR2	Ratio Area Size 2 - Strike Optics

LEDs - Wattage

36L-39	39W - 5,000 Lumens
36L-55	55W - 7,000 Lumens
36L-85	85W - 10,000 Lumens
36L-105	105W - 12,000 Lumens
36L-120	120W - 13,000 Lumens
72L-115	115W - 14,000 Lumens
72L-145	145W - 17,000 Lumens
72L-180	180W - 20,000 Lumens
72L-210	210W - 24,000 Lumens
72L-240	240W - 26,000 Lumens
108L-215	215W - 27,000 Lumens
108L-250	250W - 30,000 Lumens
108L-280	280W - 33,000 Lumens
108L-325	325W - 37,000 Lumens
108L-365	365W - 40,000 Lumens

CCT/CRI

3K7	3000K, 70 CRI
4K7	4000K, 70 CRI
5K7	5000K, 70 CRI
3K8	3000K, 80 CRI
4K8	4000K, 80 CRI
5K8	5000K, 80 CRI

Distribution

FR	Auto Front Row
2	Type 2
3	Type 3
4F	Type 4 Forward
4W	Type 4 Wide
5QN	Type 5 Square Narrow
5QW	Type 5 Square Wide
5QM	Type 5 Square Medium
5W	Type 5 Wide (Round)
5RW	Type 5 Rectangular
C	Corner Optic
TC	Tennis Court Optic

Optics Rotation

	Blank for no rotation
L	Optic rotation left
R	Optic rotation right

Voltage

UNV	Universal 120-277V
120	120V
208	208V
240	240V
277	277V
347	347V
480	480V

Mounting

ASQ	Arm mount for square pole/flat surface
ASQU	Universal arm mount for square pole, S2 Drill pattern. Does not include round pole adaptor

Mounting Round Poles

A_	Arm mount for round pole[1] B3 drill pattern
A_U	Universal arm mount for round pole[1]

Mounting Other

WB	Wall bracket
MAF	Mast arm fitter for 2-3/8" OD horizontal arm
K	Knuckle

Color

BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Brone Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured

Color Option

CC	Custom Color

Control Options Network

NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [6,7]

Control Options Other

SCP_F	Programmable occupancy sensor [3,4]
7PR	7-Pin twist lock receptacle
7PR-SC	7-Pin receptacle with shorting cap
7PR-MD40F	Low voltage sensor for 7PR
7PR-TL	7-Pin PCR with photocontrol
ADD	AutoDim Timer Based Dimming
ADT	AutoDim Time of Day Dimming
BTS-14F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]
BTS-40F	Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]
BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]

Options

BC	Backlight control
F	Fusing [5]
TB	Terminal block
2PF	2 power feed with 2 drivers[2]

Notes:

1 Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole

2 Not available with 25, 50, 255, 295 & 340W configurations

3 At least one SCPREMOTE required to program SCP motion sensor

4 Replace "_" with 8F or 40F lens

5 Must specify voltage

6 Networked Controls cannot be combined with other control options

7 Not available with 2PF option

8 BTS and BTSO available for 50 Watts or higher and only on 120-277 voltage

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RATIO Wall

RWL1/RWL2 LED WALLPACK

DATE: | LOCATION:

TYPE: | PROJECT:

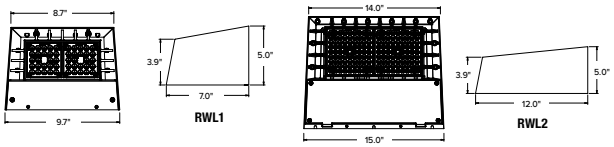
CATALOG #:

MICROSTRIKE | OPTICS STRIKE

FEATURES

- Low profile LED wall luminaire with a variety of IES distributions for lighting applications such as retail, commercial and industrial building mount
- Featuring Strike and Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™, LightGRID+ and 7-Pin with networked controls
- Battery Backup options available for emergency code compliance
- Quick-mount adapter allows easy installation/maintenance
- 347V and 480V versions for industrial applications and Canada





CONTROL TECHNOLOGY

CONNECT WIRED WIRELESS LIGHTGRID+

SERVICE PROGRAM

QS10

	Weight
RWL1	6.5 lbs / 2.95 kg
RWL2	16.5 lbs / 7.48 kg

SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish
- Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 48 or 160 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI/80 CRI) CCT
- Zero uplight distributions
- LED optics provide IES type II, III and IV distributions. Type II only available in RWL2 configurations

INSTALLATION

- Quick-mount adapter provides easy installation to wall or to recessed junction boxes (4" square junction box)
- Designed for direct j-box mount.
- Integral back box contains 1/2" conduit hubs
- Integral backbox provided as standard with selection of some options

ELECTRICAL

- 120V-277V universal voltage 50/60Hz 0-10V dimming drivers
- 347V and 480V dimmable driver option for all wattages above 35W
- Ambient operating temperature -40˚C to 40˚C
- Driver RoHS and IP66

ELECTRICAL (CONTINUED)

- 10kV Surge Protector optional
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion
- Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options can not be included in one same fixture.
- Dimming drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than 6" standard.

CONTROLS

- Photo control, occupancy sensor and wireless available for complete on/off and dimming control
- Button photocontrol is suitable for 120-277V operation
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor LightGRID+ available with in fixture wireless control module, features dimming and occupancy sensor
- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress
- Battery Backup suitable for operating temperatures -25˚C to 40˚C. RWL1 battery is 12.5W RWL2 battery is 18W

CONTROLS (CONTINUED)

- Dual Driver and Dual Power Feed options creates product configuration with 2 internal drivers for code compliance
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application.
- LightGRID+ available with in fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

CERTIFICATIONS

- Certified to UL 1598 and CSA 22.2#250.0-24 for wet locations
- IP65 rated housing
- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations listed in this document are DLC® qualified. Refer to http://www.designlights.org for the most up-to-date list.
- Emergency battery backup options are California Energy Commission (CEC) Title 20 Compliant
- Meets IDA requirements using 3K CCT configuration at 0 degrees or tilt

WARRANTY

- 5 year limited warranty

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W1.1, W1.2, W3

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Wall

RWL1/RWL2 LED WALLPACK

Gray Shading = Service Program Limit of 15 luminaires QS10

ORDERING GUIDE

Example: RWL1–48L-10–3K7–2–UNV–BLS–E

CATALOG #

Series		# LEDs - Wattage		CCT/CRI		Distribution		Voltage		Color	
RWL1	Micro Strike Optics	48L-10	1,000 Lumens	3K7	3000K, 70 CRI	2	IES TYPE II	UNV	120-277V	BLT	Black Matte Textured
		48L-15	2,000 Lumens	4K7	4000K, 70 CRI	3	IES TYPE III	120	120V	BLS	Black Gloss Smooth
		48L-20	2,500 Lumens [5, 6]	5K7	5000K, 70 CRI	4F	IES TYPE IV Forward	208	208V	DBT	Dark Bronze Matte Textured
		48L-25	3,500 Lumens	3K8	3000K, 80 CRI	4W	IES TYPE IV Wide	240	240V	DBS	Dark Bronze Gloss Smooth
		48L-35	4,500 Lumens	4K8	4000K, 80 CRI			277	277V	GTT	Graphite Matte Textured
		48L-45	5,500 Lumens [5, 6]	5K8	5000K, 80 CRI			347	347V	LGS	Light Grey Gloss Smooth
RWL2	Micro Strike Optics	160L-45	6,500 Lumens					480	480V	LGT	Light Grey Matte Textured
		160L-50	7,500 Lumens							PSS	Platinum Silver Smooth
		160L-65	9,500 Lumens							WHT	White Matte Textured
		160L-80	11,000 Lumens							WHS	White Gloss Smooth
		160L-95	13,000 Lumens							VGT	Verde Green Textured
		160L-115	15,000 Lumens							**Color Option**	
		160L-135	17,500 Lumens							CC	Custom Color
		160L-155	19,500 Lumens								
RWL2	Strike Optics	36L-39	5,500 Lumens, Strike								
		36L-55	7,500 Lumens, Strike								
		36L-85	10,000 Lumens, Strike								
		36L-105	12,500 Lumens, Strike								
		36L-120	14,000 Lumens, Strike								

Control Options Network	
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [2, 7, 12]
NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [2, 7, 12]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [2, 7, 12]
WIR	LightGRID+ In-Fixture Module [2, 9]
Stand Alone Sensors	
SCP-8F	Remote control programmable line voltage sensor [4, 5, 6, 8]
SCP-20F	Remote control programmable line voltage sensor [4, 5, 6, 8]
BTS-14F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor [1, 2, 5, 7, 8]
BTS-40F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor [1, 2, 5, 7, 8]
BTSO-12F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor, up to 12' mounting height [1, 2, 5, 7, 8]
Control Options	
7PR_	7-Pin Receptacle [8, 9]

Distribution	
F	Fusing [4]
E	Emergency Battery Backup [3, 8, 9]
EH	Emergency Battery w/ Heater Option [3, 8, 9]
2DR	Dual Driver [3, 9, 10]
2PF	Dual Power Feed [3, 9, 10]
PC	Button Photocontrol [5, 6, 11]
SP	10kA Surge Protector [11]

Notes:

1 Not available in RWL1
2 Cannot be combined with E, EH, 2DR, 2PF due to space constraints
3 Cannot be combined with Controls due to space constraints
4 Must specify voltage
5 Not available in 347V
6 Not available in 480V
7 Available in 480V in 95W, 115W, 155W only
8 Cannot be combined with 2DR or 2PF
9 Located in integral backbox which will be automatically added to the fixture if selected
10 Not available in RWL1-48L in 10W, 15W, or 20W
11 SP and PC cannot be combined due to space constraints
12 SP and PC cannot be combined due to space constraints
* Based on space limitations, some options may not be combined. Consult Factory.

CONTROLS

Control Options	
Standalone	
SCPREMOTE	Order at least one per project location to program and control

ACCESSORIES AND REPLACEMENT PARTS - MADE TO ORDER

	Catalog Number	Description
☐	WP-BB-XXX	Accessory for conduit entry [1]

Notes:

1 replace "xxx" with color option

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Wall

RWL1/RWL2 LED WALLPACK

CONTROLS FUNCTIONALITY

OUTDOOR LIGHTING CONTROLS OPTIONS

LIGHTGRID+ NX LIGHTING CONTROLS MOBILE APP

	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height		
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	–	–	✓	✓	✓	–		NXRM2-H
NX Wireless	NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	16ft		NXSMP2-LMO
NX Wireless	NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	40ft		NXSMP2-HMO
LightGRID+	WIR	LightGRID+ In-Fixture Module	✓	–	✓	–	–	✓	✓	Gateway	–		WIR
Independent	BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	12ft		BTSMP-OMNI-O
Independent	BTS-14F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	14ft		BTSMP-LMO
Independent	BTS-40F	Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	40ft		BTSMP-HMO

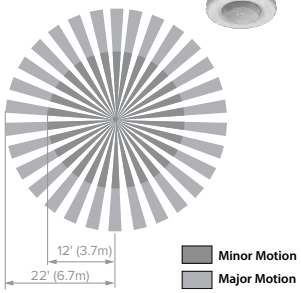
DEFAULT SETTINGS

NX Wireless	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	15 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	0%
Daylight Sensor	Disabled
Bluetooth	Enabled
2.4GHz Wireless Mesh	On
"Passcode Factory Passcode: HubbN3T!"	Enabled

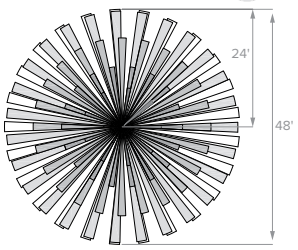
Stand Alone	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	8 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	50%
Daylight Sensor	Disabled

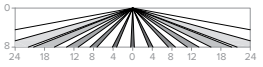
NX WIRELESS COVERAGE PATTERNS

NXSMP2-OMNI



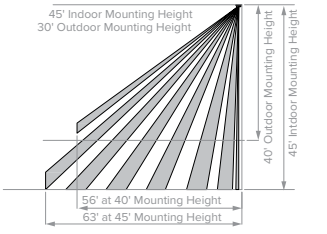
NXSMP2-LMO





Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

NXSMP2-HMO



Sensor Lens Coverage and Detection Patterns
When Mounted at 40ft and 45ft with Standard Lens

NX LIGHTING CONTROLS FREE APP



The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminiares and program NX system settings.

Apple App: https://apps.apple.com/us/app/nx-lighting-controls/id962112904

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&gl=US

Apple App

Google Play

CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)

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RATIO Wall

RWL1/RWL2 LED WALLPACK

DATE: LOCATION:

TYPE: PROJECT:

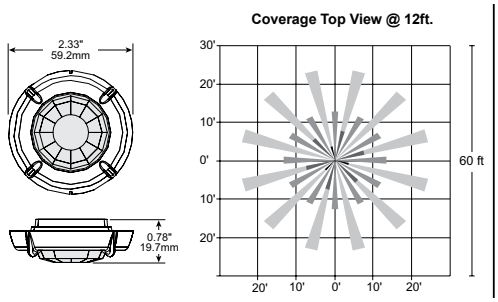
CATALOG #:

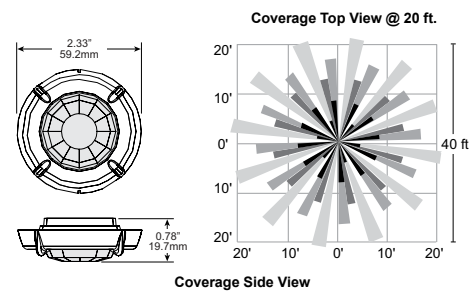
OUTDOOR LIGHTING CONTROLS OPTIONS

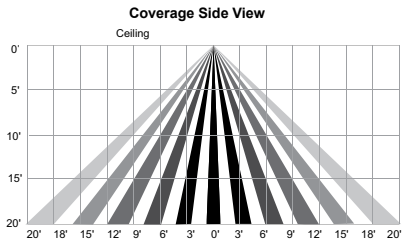
CONTROLS FUNCTIONALITY

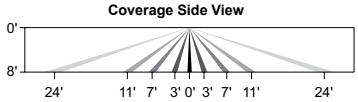
	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
Independent	SCP_F	Sensor Control Programmable, sensor range, reference product specification for height selections	–	–	–	✓	✓	✓	✓	–	8ft or 40ft	SCP_F
	7PR	7-Pin Receptacle	–	–	Paired with external control	–	Paired with external control	–	Paired with external control	–	–	7PR

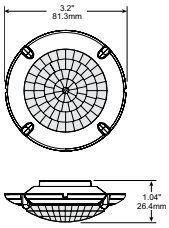
COVERAGE PATTERNS FOR SCP_F

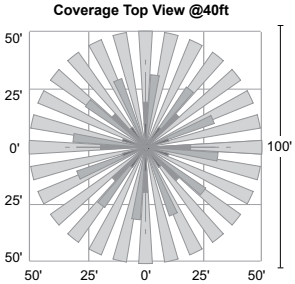


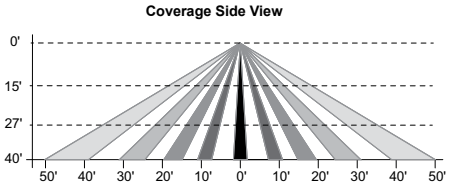












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RATIO Wall

RWL1/RWL2 LED WALLPACK

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

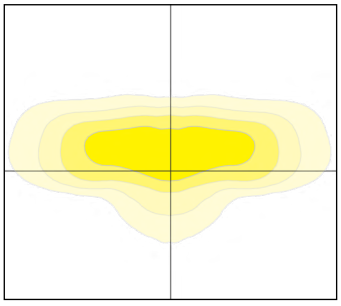
ELECTRICAL DATA: STRIKE

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RWL2	39	120	0.38	45.1
		208	0.22	
		240	0.19	
		277	0.16	
		347	0.13	
		480	0.09	
	55	120	0.53	63.1
		208	0.30	
		240	0.26	
		277	0.23	
		347	0.18	
		480	0.13	
	85	120	0.73	88.0
		208	0.42	
		240	0.37	
		277	0.32	
		347	0.25	
		480	0.18	
	105	120	0.93	111.7
		208	0.54	
		240	0.47	
		277	0.40	
		347	0.32	
		480	0.23	
	120	120	1.05	126.2
		208	0.61	
		240	0.53	
		277	0.46	
		347	0.36	
		480	0.26	

PHOTOMETRY

Mounting Height: 30ft

Type 2



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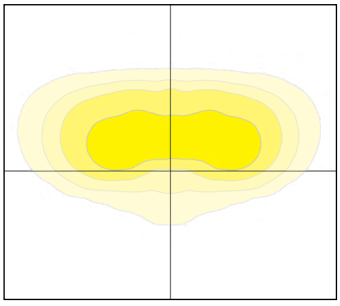

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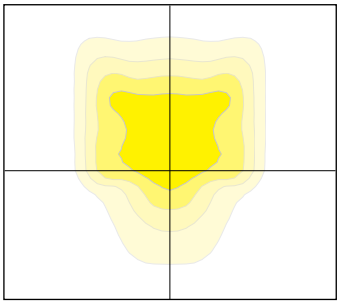
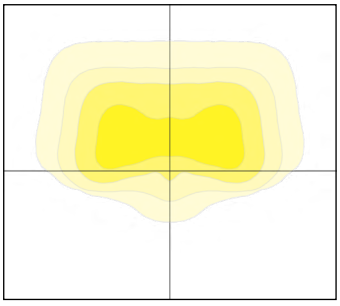


Type 4W



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RATIO Wall

RWL1/RWL2 LED WALLPACK

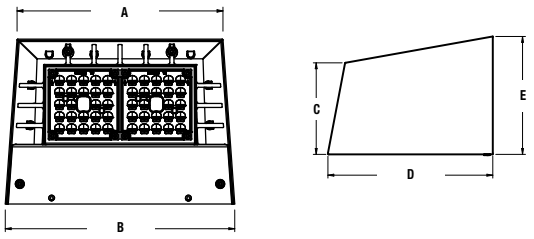
DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

DIMENSIONS

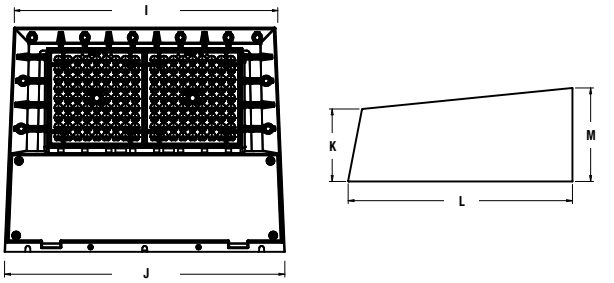
RWL1



A	B	C	D	E
8.7"	9.7"	3.9"	7.0"	5.0"
221mm	246mm	99mm	178mm	127mm

Weight
6.5 lbs (2.95 kgs)

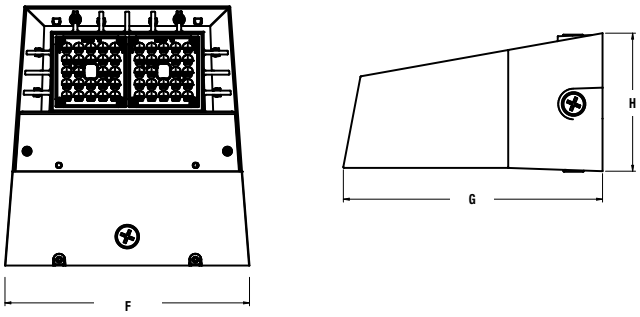
RWL2



I	J	K	L	M
14.0"	15.0"	3.9"	12.0"	5.0"
356mm	381mm	99mm	305mm	127mm

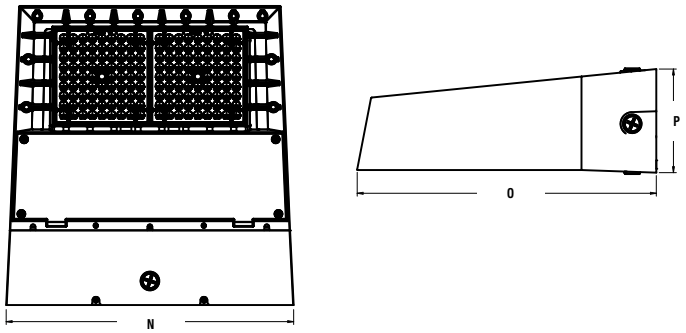
Weight
16.5 lbs (7.48 kgs)

RWL1 with Integral Back Box



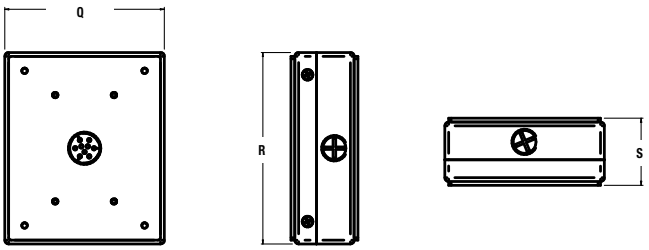
F	G	H
10.4"	11.0"	5.9"
264mm	279mm	150mm

RWL2 with Integral Back Box



N	O	P
15.4"	16.0"	5.5"
391mm	406mm	140mm

Back Box Accessory



Q	R	S
4.9"	5.9"	2.1"
124mm	150mm	53mm

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DATE: LOCATION:

TYPE: PROJECT:

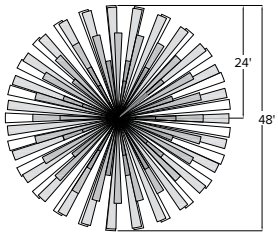
CATALOG #:

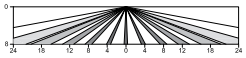
RATIO Wall

RWL1/RWL2 LED WALLPACK

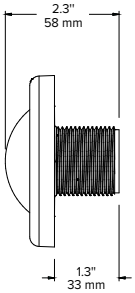
ADDITIONAL INFORMATION

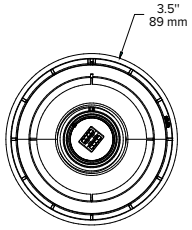
NXSP-14F



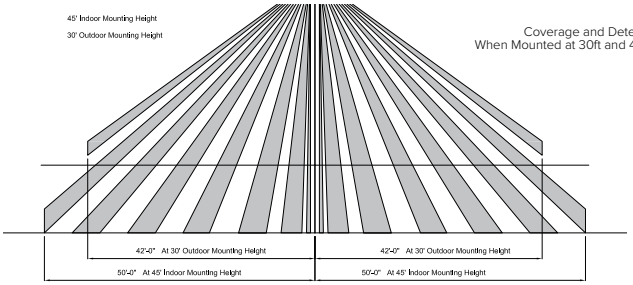


Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

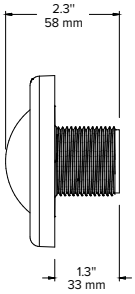


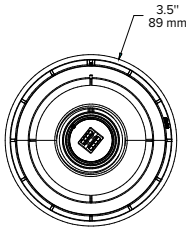


NXSP-40F

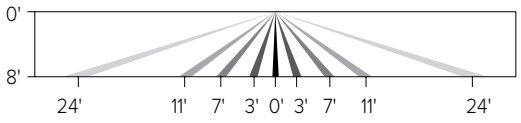


Coverage and Detection Patterns
When Mounted at 30ft and 45ft with Standard Lens

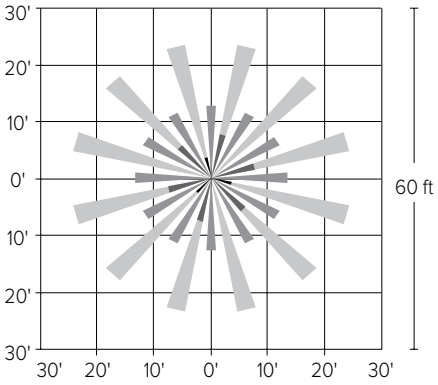


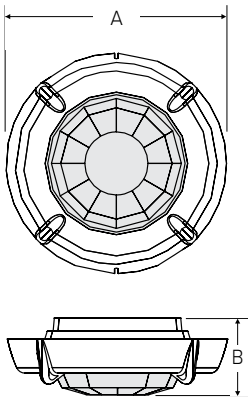


SCP-8F



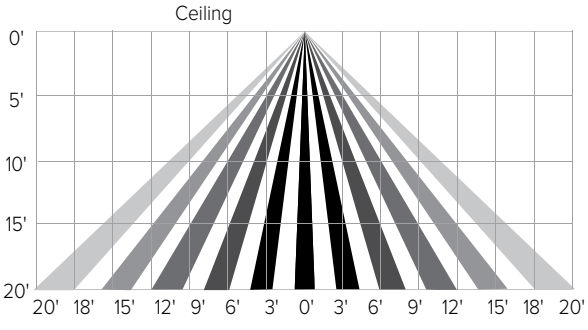


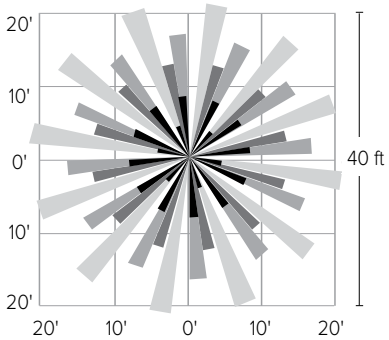


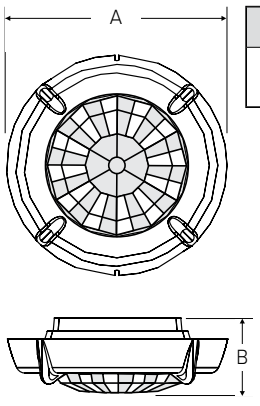


A	B
2.3" (59mm)	.8" (20mm)

SCP-2OF







A	B
2.3" (59mm)	.8" (20mm)

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Series

AREA/SITE LIGHTER

OUTDOOR LIGHTING CONTROLS OPTIONS

CONTROLS FUNCTIONALITY

	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height		
NX Wireless	NXOFM2-1R1D-UNV	NX 7-Pin Twist-Lock® with NX Networked Wireless Radio, Integral Automatic Dimming Photocell, Integral Single Pole Relay with Dimming, and Bluetooth Programming	✓	✓	✓	Paired with external control	✓	✓	✓	✓	–		NXOFM2-1R1D-UNV
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	–	–	✓	✓	✓	–		NXRM2-H
NX Wireless	NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	16ft		NXSMP2-LMO
NX Wireless	NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	40ft		NXSMP2-HMO
Independent	BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	12ft		BTSMP-OMNI-O
Independent	BTS-14F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	14ft		BTSMP-LMO
Independent	BTS-40F	Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	40ft		BTSMP-HMO

DEFAULT SETTINGS

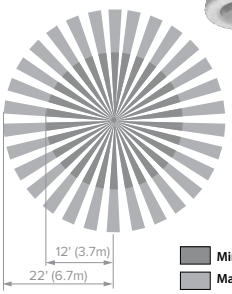
NX Wireless	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	15 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	0%
Daylight Sensor	Disabled
Bluetooth	Enabled
2.4GHz Wireless Mesh	On
"Passcode Factory Passcode: HubbN3T!"	Enabled

Stand Alone	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	8 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	50%
Daylight Sensor	Disabled

NX WIRELESS COVERAGE PATTERNS

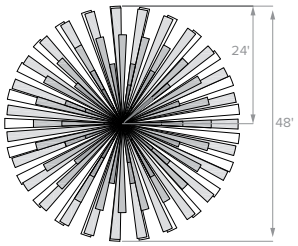
NXSMP2-OMNI

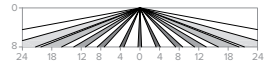




NXSMP2-LMO



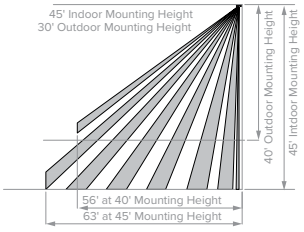




Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

NXSMP2-HMO





Sensor Lens Coverage and Detection Patterns
When Mounted at 40ft and 45ft with Standard Lens

NX LIGHTING CONTROLS FREE APP



The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminiares and program NX system settings.

Apple App: https://apps.apple.com/us/app/nx-lighting-controls/id962112904

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&gl=US

Apple App

Google Play

CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)

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RATIO Series

AREA/SITE LIGHTER

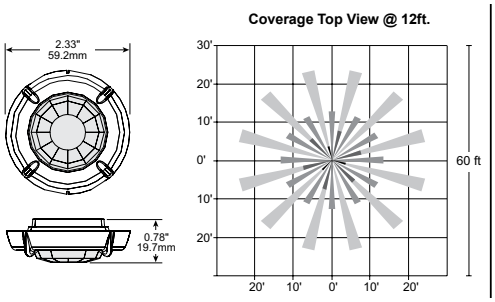
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

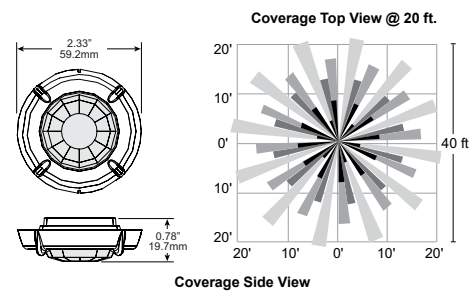
OUTDOOR LIGHTING CONTROLS OPTIONS

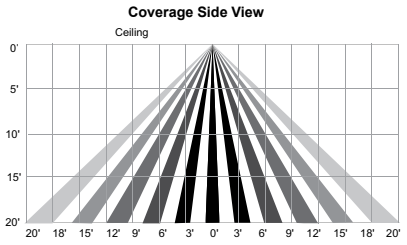
CONTROLS FUNCTIONALITY

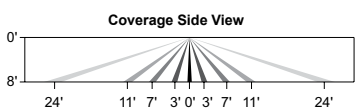
	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
Independent	SCP_F	Sensor Control Programmable, sensor range, reference product specification for height selections	–	–	–	✓	✓	✓	✓	–	8ft or 20ft	SCP_F
	ADD	AutoDIM Timer Based Dimming	–	–	✓	–	–	–	✓	–	–	ADD
	ADT	AutoDIM Time of Day Dimming	–	–	✓	–	–	–	✓	–	–	ADT
	7PR	7-Pin Receptacle	–	–	Paired with external control	–	Paired with external control	–	Paired with external control	–	–	7PR
	7PR-SC	7-Pin Receptacle with shorting cap	–	–	–	–	–	–	–	–	–	7PR-SC
	7PR-TL	7-Pin with photocontrol	–	–	–	–	✓	–	✓	–	–	7PR-TL

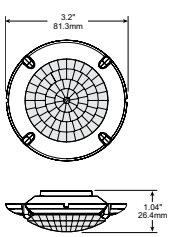
COVERAGE PATTERNS FOR SCP_F

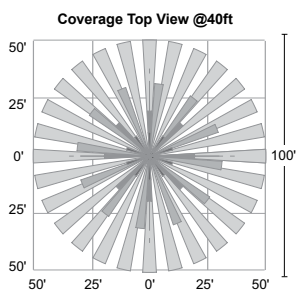


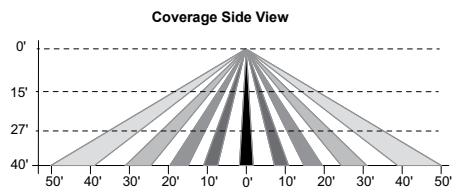












PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

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DATE: LOCATION:

TYPE: PROJECT:

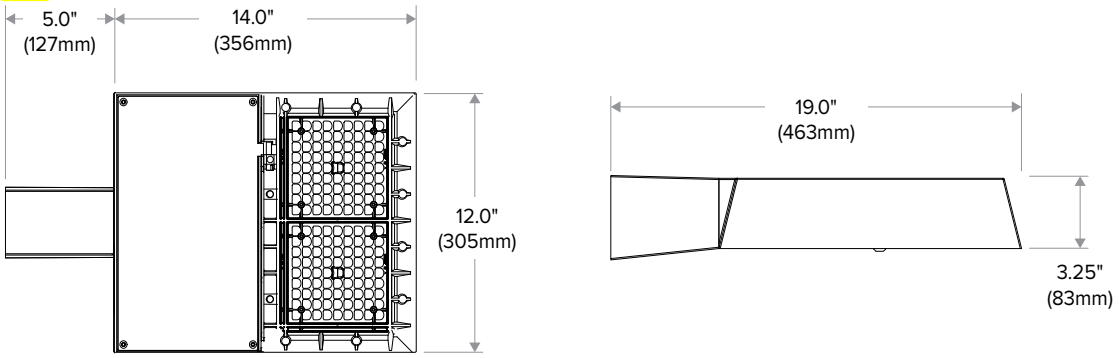
CATALOG #:

RATIO Series

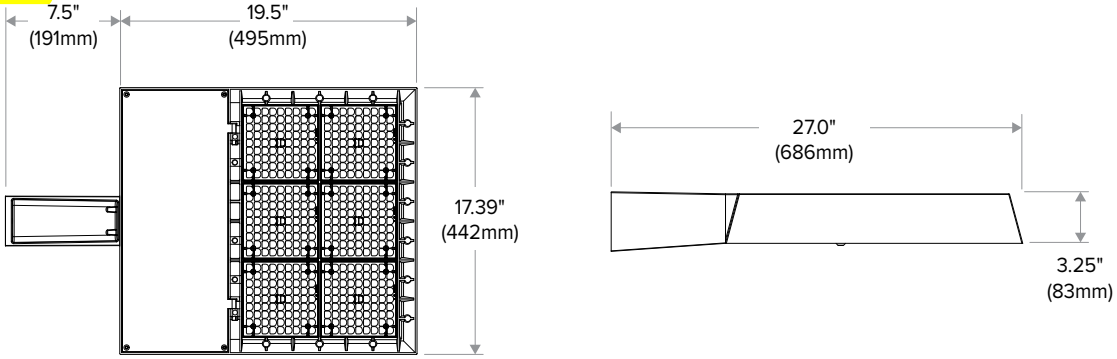
AREA/SITE LIGHTER

DIMENSIONS

RAR1

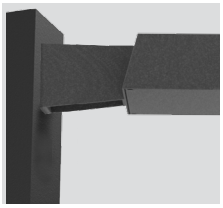


RAR2

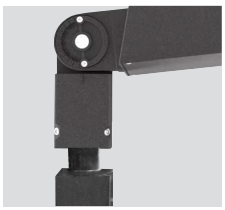


ADDITIONAL INFORMATION

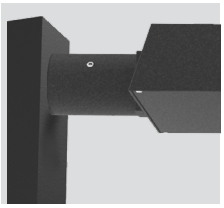
MOUNTING



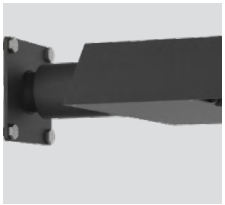
Arm Mount – ASQ: Fixture ships with integral arm for ease of installation.



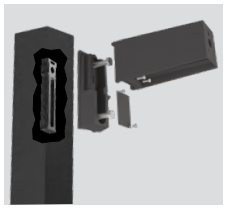
Knuckle – Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes.



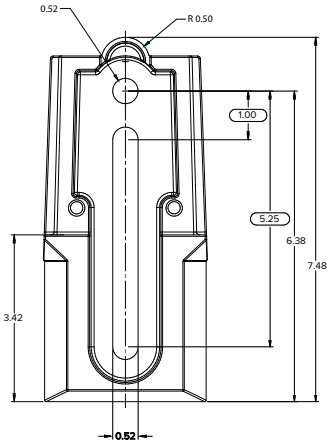
MAF – Fits 2-3/8" OD arms Roadway applications.



Wall Mount – Wall mount bracket designed for building mount applications.



Universal Mounting – Universal mounting block for ease of installation. Compatible with drill patterns from 2.5" to 4.5" and S2 and B3 drill patterns



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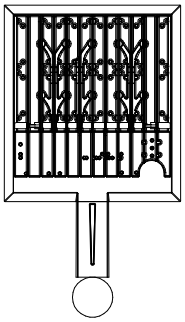
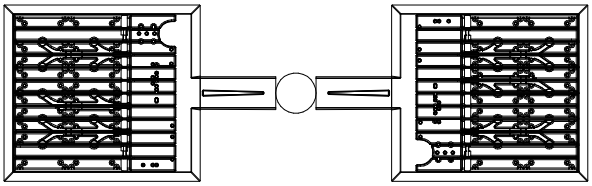
RATIO Series

AREA/SITE LIGHTER

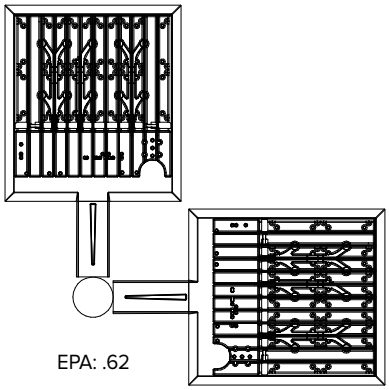
EPA (RAR1)



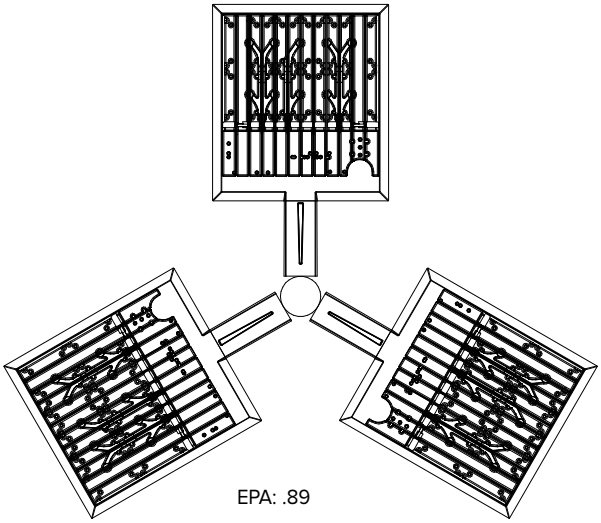
EPA Knuckle Mount 0 degrees: .43
EPA Knuckle Mount 30 degrees: .55
EPA Arm Mount: 0 degrees .45



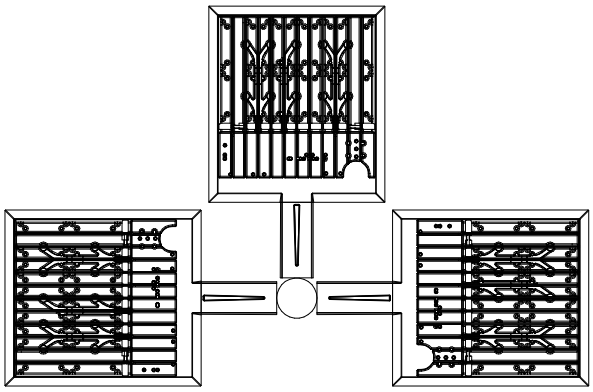
EPA: .99



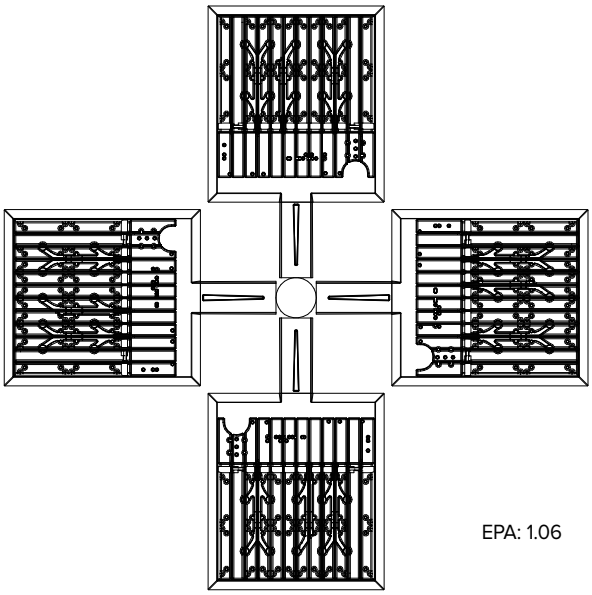
EPA: .62



EPA: .89



EPA: .99



EPA: 1.06

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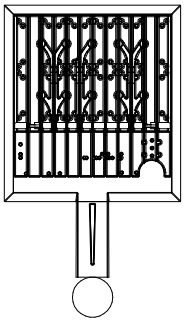
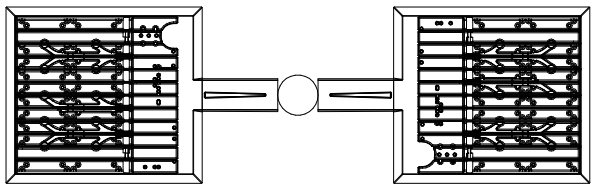
RATIO Series

AREA/SITE LIGHTER

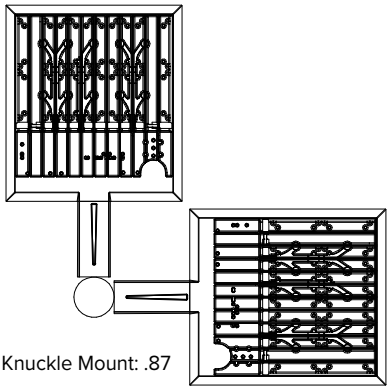
EPA (RAR2)



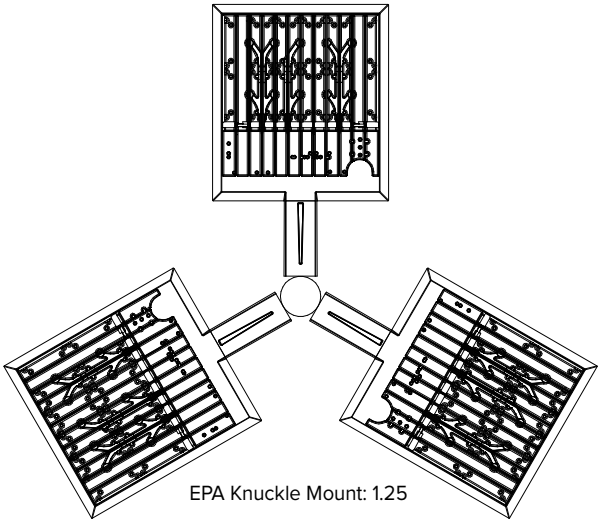
EPA Knuckle Mount: .52
EPA Arm Mount: .55



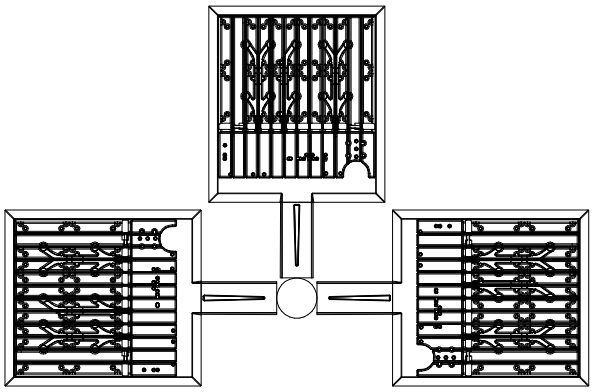
EPA: 1.486



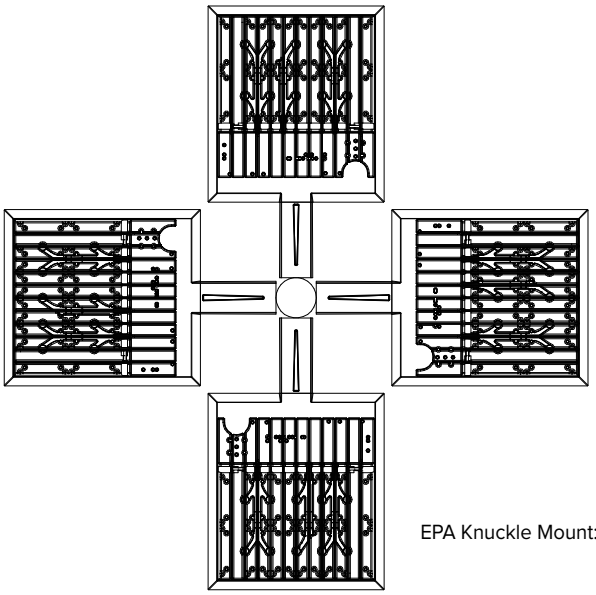
EPA Knuckle Mount: .87



EPA Knuckle Mount: 1.25



EPA Knuckle Mount: 1.41



EPA Knuckle Mount: 1.56

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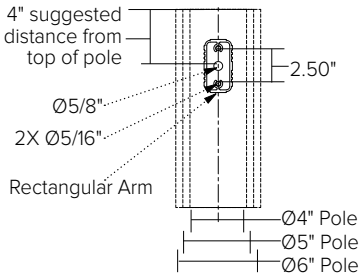
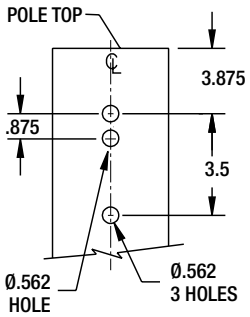
ADDITIONAL INFORMATION (CONT'D)

ARM MOUNT (ASQ)
Compatible with Pole drill pattern B3



UNIVERSAL MOUNTING (ASQU)
Compatible with pole drill pattern S2



PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	Delay 0-9 Hours	R6

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	12-6 AM and 9-11P	R6

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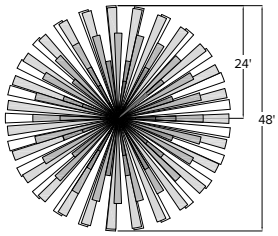
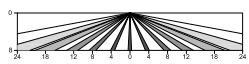
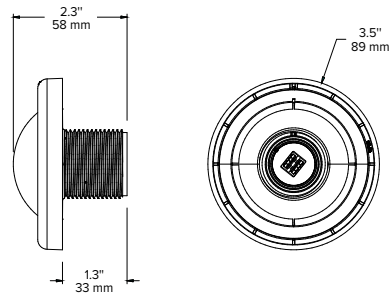
ADDITIONAL INFORMATION (CONT'D)

NXSP-14F

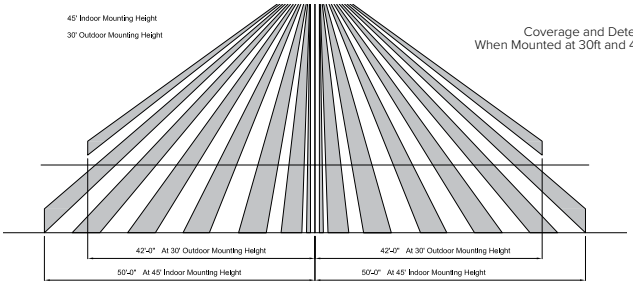




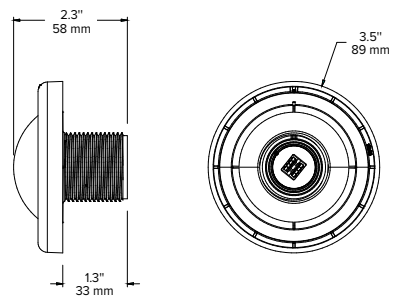
Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens



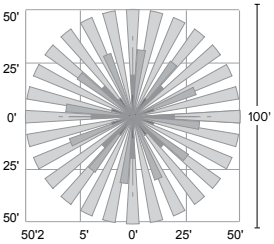
NXSP-30F

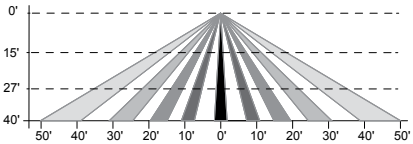


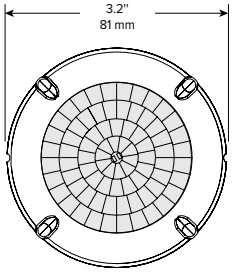
Coverage and Detection Patterns
When Mounted at 30ft and 45ft with Standard Lens

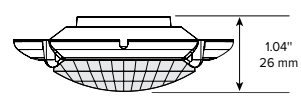


SCP-40F









RAR1 EPA

RAR-1	
EPA at 0˚	EPA at 30˚
.45ft.^{2} .13m^2	.56ft.^{2} .17m^2

RAR2 EPA

RAR-2	
EPA at 0˚	EPA at 30˚
.55ft.^{2} .17m^2	1.48ft.^{2} .45m^2

SHIPPING

Catalog Number	G.W(kg)/ CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
RAR1	15 (6.8)	20.75 (52.7)	15.125 (38.4)	6.9375 (17.6)
RAR2	19 (8.6)	25 (63.5)	15.125 (38.4)	6.9375 (17.6)

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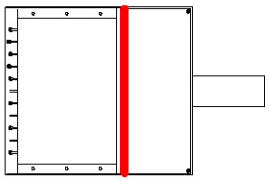
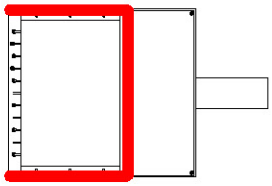
ADDITIONAL INFORMATION (CONT'D)

RATIO HOUSE SIDE SHIELD

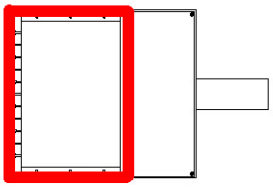
RARx HSS-90-B-xx



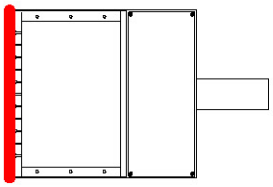
RARx HSS-270-BSS-xx



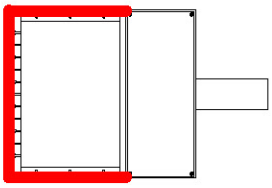
RARx HSS-360-xx



RARx HSS-90-F-xx

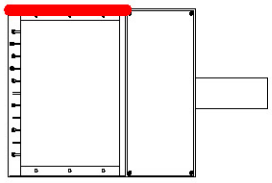


RARx HSS-270-FSS-xx

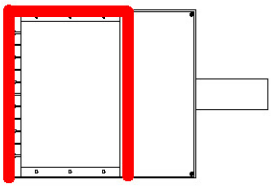


Note: Not to be used with Ocupancy Sensors as the shield may block the light to the sensor

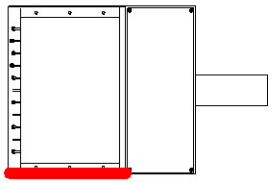
RARx HSS-90-S-xx



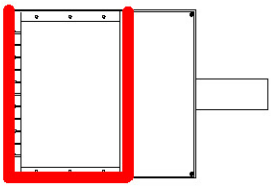
RARx HSS-270-FSB-xx



RARx HSS-90-S-xx



RARx HSS-270-FSB-xx



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EXO
OUTDOOR LIGHTING

SSSH Series Poles

SQUARE STRAIGHT STEEL

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

SPECIFICATIONS

CONSTRUCTION

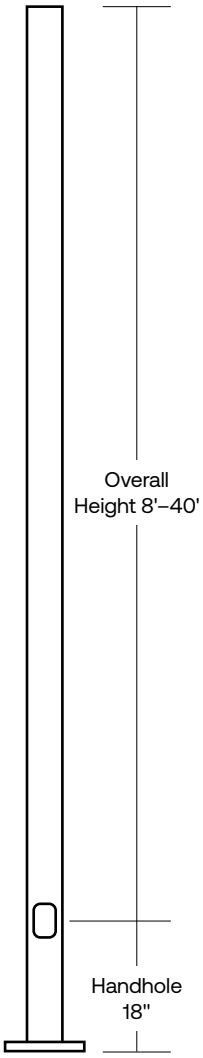
- Shaft: One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM-A500, Grade B); Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- Base cover: Two-piece square aluminum base cover included standard
- Pole cap: Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- Hand hole: Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- Anchor bolts: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling
  - Anchor bolt part numbers: 3/4 x 30 x 3 — TAB-30-M38
1 x 36 x 4 — TAB-36-M38
- Super Durable polyester-TGIC powder coat finish with nominal 3.0 mil thickness. Meets or exceeds AAMA 2604 standards.

INSTALLATION

- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

WAREHOUSE 'STOCKED' POLES:

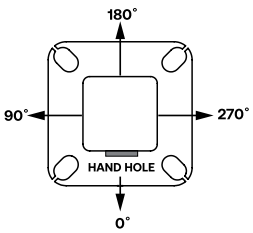
- SSSH20-40A-4-HV-DB-WPO and SSSH25-40A-4-HV-DB-WPO (Pole only, must order kit SSSHSTK4KIT for anchor bolts and cap)
- The HV designation in the above catalog numbers is a combination of the S2 pattern and the B3 pattern



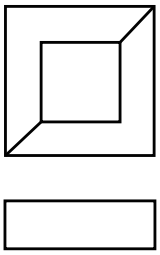
SERVICE PROGRAMS

QS10

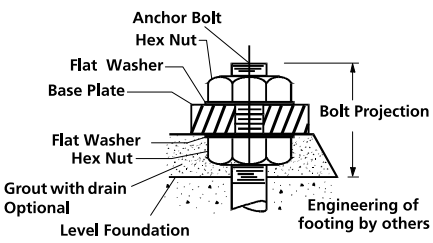
BASE



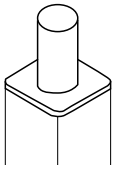
BASE COVER



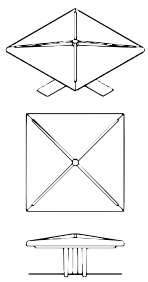
BASE DETAIL



TENON



POLE CAP



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EXO OUTDOOR LIGHTING

SSSH Series Poles

SQUARE STRAIGHT STEEL

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 poles QS10

ORDERING INFORMATION

Example: SSSH25–40A–2L–S2–DBT–UL

SSSH –

Series	Height	Shaft	Thickness	Mounting	Drill Pattern	Finish	Options
SSSH Square Straight Steel Pole EXO	Reference page 3 Ordering matrix	Reference page 3 Ordering matrix	Reference page 3 Ordering matrix A - .125" Wall B - .188" Wall C - .250" Wall	1 Single arm mount 2 Two fixtures at 180° 2L Two fixtures at 90° 3T Three fixtures at 90° 4 Four fixtures at 90° TA Tenon (2.38" OD x 4" Tall) TB Tenon (2.88" OD x 4" Tall) TC Tenon (3.5" OD x 6" Tall) TR[1] Removable Tenon (2.38" x 4") OT Open Top (includes pole cap)	B3 2 bolt (2-1/2" spacing), Ratio S2 2 bolt (3-1/2" spacing) UDP Universal Drill Pattern	BLT Black Matte Textured BLS Black Gloss Smooth DBT Dark Bronze Matte Textured DBS Dark Bronze Gloss Smooth GTT Graphite Matte Textured LGT Light Grey Matte Textured LGS Light Grey Gloss Smooth PSS Platinum Silver Smooth WHT White Matte Textured WHS White Gloss Smooth VGT Verde Green Textured **Color Option** CC Custom Color[2]	GFI[3] 20 Amp GFCI Receptacle and Cover EHH[3] Extra Handhole C05[3] .5" Coupling C07[3] .75" Coupling C20[3] 2" Coupling MPB[3] Mid-pole Luminaire Bracket VM1[4] Mode vibration dampener VM2[5] 2nd mode vibration dampener LAB Less Anchor Bolts UL[6] UL Certified

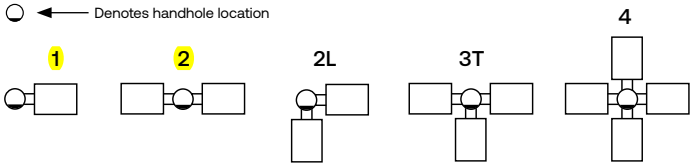
Accessories (Order Separately)

	Part Number	Description
☐	A81999-0001	Field-installed 2nd mode vibration dampener - VM2S08
☐	A81999-0005	Field-installed 2nd mode vibration dampener - VM2S10
☐	A81999-0004	Field-installed 2nd mode vibration dampener - VM2S12
☐	A81999-0003	Field-installed 2nd mode vibration dampener - VM2S14
☐	A81999-0007	Field-installed 2nd mode vibration dampener - VM2S16
☐	A81999-0006	Field-installed 2nd mode vibration dampener - VM2S18
☐	A81999-0002	Field-installed 2nd mode vibration dampener - VM2S20
☐	A81999-0009	Field-installed 2nd mode vibration dampener - VM2S24
☐	A81999-0008	Field-installed 2nd mode vibration dampener - VM2S25
☐	SSSHSTK4KIT	Pole Cap and anchor bolt kit

1 Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: SSS-H-25-40-A-1-S2-TR-DB.
2 Custom colors available; RAL number preferable
3 Specify option location using logic found on page 3 (Option Orientation).
4 VM1 recommended on poles 20' and taller with EPA of less than 1.
5 There will be a weld witness mark on the side of the pole with the Factory installed VM2
6 UL not available with tenon on pole

MOUNTING ORIENTATION

Denotes handhole location



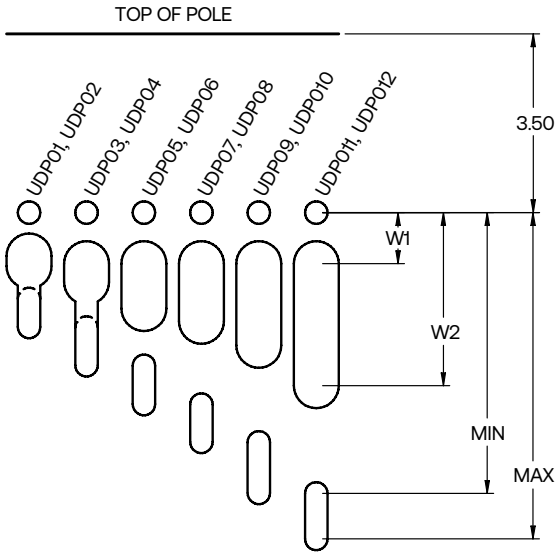
STOCKED POLE ORDERING LOGIC

Catalog #	Description
SSSH20-40A-4-HV-DB-WPO	Square Steel pole, 20', 4' square cross-section, 1/8" wall thickness, Dark Bronze Matte Textured paint. Pole only, no anchor bolts, base cover or pole cap included.
SSSH25-40A-4-HV-DB-WPO	Square Steel pole, 25', 4' square cross-section, 1/8" wall thickness, Dark Bronze Matte Textured paint. Pole only, no anchor bolts, base cover or pole cap included.
SSSHSTK4KIT	Stock kit includes anchor bolts, template, base cover and plastic pole cap. Must be ordered separately from pole.

Note: the HV drill pattern is a combination of the S2 pattern and B3 pattern.

DRILL PATTERNS

UNIVERSAL DRILL PATTERN (UDP)



Two Bolt Mounting with Center Wireway						
Mounting Hardware	Universal Mounting Patterns					
⅜" or less	UDP01	UDP03	UDP05	UDP07	UDP09	UDP011
7/16" to ½"	UDP02	UDP04	UDP06	UDP08	UDP010	UDP012
"Min" Attachment Dimension	1.69	2.25	3.00	3.76	4.50	5.50
"Max" Attachment Dimension	2.24	2.99	3.75	4.49	5.49	6.00
W1 (Wireway min)	0.85	1.00	1.00	1.00	1.00	1.00
W2 (Wireway max)	1.05	1.36	1.88	2.13	2.60	3.00

UDP to accommodate 3rd Party Luminaires. Current Brands only utilize exact drill patterns as published.

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EXO OUTDOOR LIGHTING

SSSH Series Poles

SQUARE STRAIGHT STEEL

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 poles QS10

ORDERING INFORMATION (CONTINUED)

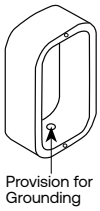
CATALOG NUMBER	HEIGHT		NOMINAL SHAFT DIMENSIONS	WALL THICKNESS	BOLT CIRCLE (SUGGESTED)	BOLT CIRCLE (RANGE)	BASE PLATE SQUARE	ANCHOR BOLT SIZE	BOLT PROJECTION	POLE WEIGHT (LBS)
	FEET	METERS								
SSSH10-40A	10	3.0	4" square	0.125"	9"	8" - 10"	9"	3/4" x 30" x 3"	3.5	77
SSSH12-40A	12	3.7	4" square	0.125"	9"	8" - 10"	9"	3/4" x 30" x 3"	3.5	90
SSSH14-40A	14	4.3	4" square	0.125"	9"	8" - 10"	9"	3/4" x 30" x 3"	3.5	103
SSSH16-40A	16	4.9	4" square	0.125"	9"	8" - 10"	9"	3/4" x 30" x 3"	3.5	116
SSSH18-40A	18	5.5	4" square	0.125"	9"	8" - 10"	9"	3/4" x 30" x 3"	3.5	129
SSSH20-40A	20	6.1	4" square	0.125"	9"	8" - 10"	9"	3/4" x 30" x 3"	3.5	142
SSSH25-40A	25	7.6	4" square	0.125"	9"	8" - 10"	9"	3/4" x 30" x 3"	3.5	175
SSSH14-40B	14	4.3	4" square	.188"	11"	10" - 12"	10.50"	3/4" x 30" x 3"	3.5	152
SSSH16-40B	16	4.9	4" square	.188"	11"	10" - 12"	10.50"	3/4" x 30" x 3"	3.5	171
SSSH18-40B	18	5.5	4" square	.188"	11"	10" - 12"	10.50"	3/4" x 30" x 3"	3.5	190
SSSH20-40B	20	6.1	4" square	.188"	11"	10" - 12"	10.50"	3/4" x 30" x 3"	3.5	209
SSSH25-40B	25	7.6	4" square	.188"	11"	10" - 12"	10.50"	3/4" x 30" x 3"	3.5	257
SSSH30-40B	30	9.1	4" square	.188"	11"	10" - 12"	10.50"	3/4" x 30" x 3"	3.5	304
SSSH16-50B	16	4.9	5" square	.188"	11"	10.25" - 13.25"	11.50"	1" x 36" x 4"	4.5	219
SSSH18-50B	18	5.5	5" square	.188"	11"	10.25" - 13.25"	11.50"	1" x 36" x 4"	4.5	243
SSSH20-50B	20	6.1	5" square	.188"	11"	10.25" - 13.25"	11.50"	1" x 36" x 4"	4.5	267
SSSH25-50B	25	7.6	5" square	.188"	11"	10.25" - 13.25"	11.50"	1" x 36" x 4"	4.5	327
SSSH30-50B	30	9.1	5" square	.188"	11"	10.25" - 13.25"	11.50"	1" x 36" x 4"	4.5	387
SSSH25-50C	25	7.6	5" square	.25"	11"	10.25" - 13.25"	11.50"	1" x 36" x 4"	4.5	427
SSSH30-50C	30	9.1	5" square	.25"	11"	10.25" - 13.25"	11.50"	1" x 36" x 4"	4.5	507
SSSH20-60B	20	6.1	6" square	.188"	12"	11.00" - 13.25"	12.25"	1" x 36" x 4"	5.0	329
SSSH25-60B	25	7.6	6" square	.188"	12"	11.00" - 13.25"	12.25"	1" x 36" x 4"	5.0	404
SSSH30-60B	30	9.1	6" square	.188"	12"	11.00" - 13.25"	12.25"	1" x 36" x 4"	5.0	479
SSSH35-60B	35	10.7	6" square	.188"	12"	11.00" - 13.25"	12.25"	1" x 36" x 4"	5.0	554
SSSH40-60B	40	12.2	6" square	.188"	12"	11.00" - 13.25"	12.25"	1" x 36" x 4"	5.0	629

Notes:

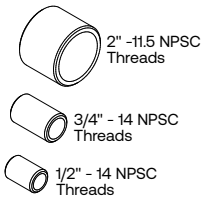
- Factory supplied template must be used when setting anchor bolts. Current will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.
- For more information about pole vibration and vibration dampeners, please consult factory.
- Unwrap poles immediately upon receipt to avoid condensation build up and possible corrosion.

[1] There will be a weld witness mark on the side of the pole with the Factory installed VM2.

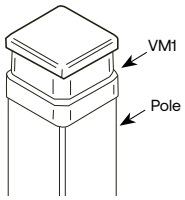
EHH
Extra handhole



C05 / C07 / C20
Coupling



VM1
1st mode vibration dampener



Field Installed Pole Top dampener designed to reduce pole top deflection or sway. VM1 is recommended for pole systems 25' and taller with a total EPA of 1.0 or less.

VM2[1]
2nd mode vibration dampener



Factory installed, internal dampener designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

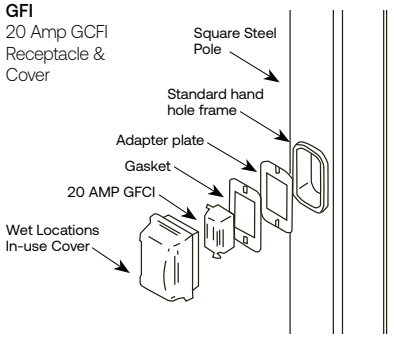
VM2SXX
Field-installed 2nd mode vibration dampener



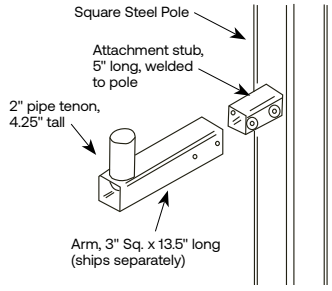
VM2S08 – 8'
VM2S12 – 12'
VM2S16 – 16'
VM2S20 – 20'
VM2S24 – 24'

Field installed, internal dampener designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

GFI
20 Amp GCFI Receptacle & Cover



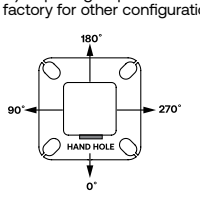
MPB
Mid Pole Bracket

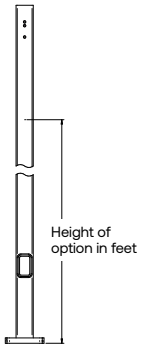


Option Orientation

Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet).

Example: Option C05 should be ordered as: SSSH20-40A-TA-DB-C05-0-15 (.5" coupling on the handhole side of pole, 15' up from the pole base) 1' spacing required between option. Consult factory for other configurations.





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EXO
OUTDOOR LIGHTING

SSSH Series Poles

SQUARE STRAIGHT STEEL

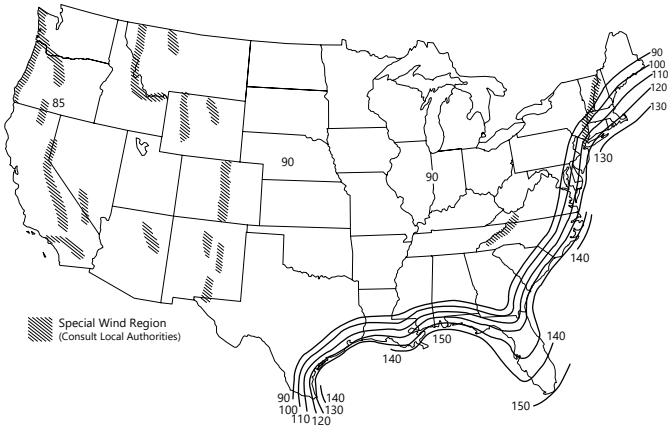
DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

WIND MAPS

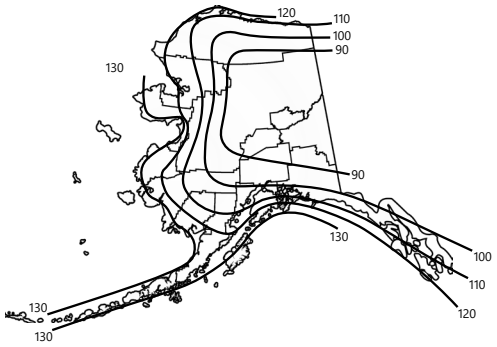
ASCE/SEI 7-22 WIND MAP



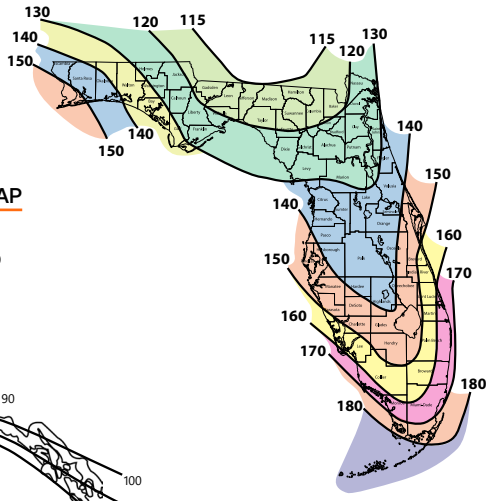
HAWAII – 105 mph
PUERTO RICO – 145 mph

*Printed with permission from ASCE
**AASHTO LRFDLTS-1

ALASKA REGION WIND MAP



FLORIDA REGION WIND MAP



Florida region wind map above is based upon 3-second gust winds and the 2017 Florida Building Code.

ASCE 7-22 wind map EPA Load Rating - 3 second gust wind speeds (Use for all locations except Florida)										
Catalog Number	100	110	115	120	130	140	150	160	170	180
SSSH10-40A	25	25	25	25	25	22.4	19	16.3	14.3	12.5
SSSH12-40A	25	23.8	21.6	19.6	16	13.5	11.4	9.5	7.8	6.9
SSSH14-40A	24.5	19.5	17.54	15.8	12.9	10.3	8.4	6.9	5.6	4.7
SSSH16-40A	18.7	14.9	13	11.8	9.5	7.8	5.8	4.5	3.8	2.8
SSSH18-40A	15.7	11.9	10.7	9.4	7.3	5.6	4	3.1	2	1.2
SSSH20-40A	12.8	9.6	8.5	7.4	5.4	3.82.8	1.6	0.9	NR	NR
SSSH25-40A	7	4.6	3.6	2.7	1.5	NR	NR	NR	NR	NR
SSSH14-40B	25	22.1	19.7	17.9	14.6	12	10	8.3	6.9	5.6
SSSH16-40B	21.5	16.8	15.2	13.4	10.4	8.7	6.9	5.8	4.4	3.7
SSSH18-40B	17.9	13.9	12.4	11	8.4	6.6	5.3	4.1	3	2
SSSH20-40B	15.1	11.4	10.1	8.8	6.7	5	3.4	2.5	1.5	NR
SSSH25-40B	8.4	5.8	4.7	3.9	2.4	1.1	NR	NR	NR	NR
SSSH30-40B	4.5	2.2	1.1	NR	NR	NR	NR	NR	NR	NR
SSSH16-50B	25	25	25	25	22.2	18.1	15.2	12.7	10.6	8.9
SSSH18-50B	25	25	25	22.6	18	14.8	12.1	9.8	7.6	6.5
SSSH20-50B	25	23.8	21.2	18.9	14.8	11.9	9.5	7.5	5.8	4.4
SSSH25-50B	18.7	14.2	12.2	10.5	7.5	5.4	3.6	1.9	0.9	NR
SSSH30-50B	12.2	8.3	6.6	5.2	2.9	1.1	NR	NR	NR	NR
SSSH25-50C	19	14.1	12	10.3	7.7	5.4	3.5	2.1	0.9	NR
SSSH30-50C	12.2	8.3	6.5	5.2	2.9	1.1	NR	NR	NR	NR
SSSH20-60B	25	22	19.4	17.1	13.4	10	7.6	5.6	3.9	2.6
SSSH25-60B	16.8	12	10.2	8.5	5.6	3.2	1.6	NR	NR	NR
SSSH30-60B	9.7	5.8	4.2	2.7	1.4	NR	NR	NR	NR	NR
SSSH35-60B	4.9	1.4	NR	NR	NR	NR	NR	NR	NR	NR
SSSH40-60B	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds (Use for Florida only)								
Catalog Number	115	120	130	140	150	160	170	180
SSSH10-40A	25.0	25.0	25.0	25.0	21.4	18.4	15.9	13.9
SSSH12-40A	25.0	25.0	23.6	19.8	16.7	14.2	12.1	10.4
SSSH14-40A	25.0	23.1	19.0	15.7	13.1	10.9	9.1	7.6
SSSH16-40A	20.8	18.7	15.2	12.3	10.1	8.2	6.7	5.4
SSSH18-40A	16.8	15.0	11.9	9.4	7.5	5.9	4.5	3.4
SSSH20-40A	13.6	11.9	9.2	7.1	5.3	3.9	2.7	1.7
SSSH25-40A	7.4	6.2	4.1	2.5	1.1	NR	NR	NR
SSSH14-40B	25.0	23.6	19.4	16.1	13.4	11.2	9.4	7.8
SSSH16-40B	21.4	19.2	15.6	12.7	10.4	8.5	6.9	5.6
SSSH18-40B	17.2	15.4	12.2	9.7	7.7	6.1	4.7	3.6
SSSH20-40B	13.9	12.3	9.5	7.3	5.5	4.1	2.9	1.9
SSSH25-40B	7.7	6.4	4.3	2.6	1.3	NR	NR	NR
SSSH30-40B	3.2	2.1	NR	NR	NR	NR	NR	NR
SSSH16-50B	25.0	25.0	25.0	25.0	25.0	21.4	18.2	15.5
SSSH18-50B	25.0	25.0	25.0	24.4	20.4	17.0	14.2	11.9
SSSH20-50B	25.0	25.0	24.4	19.9	1 6.3	13.4	11.0	8.9
SSSH25-50B	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1
SSSH30-50B	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR
SSSH25-50C	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1
SSSH30-50C	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR
SSSH20-60B	25.0	25.0	25.0	21.9	17.8	14.5	11.7	9.4
SSSH25-60B	23.8	20.9	16.1	12.3	9.2	6.6	4.5	2.8
SSSH30-60B	14.6	12.3	8.4	5.3	2.8	0.8	NR	NR
SSSH35-60B	7.5	5.6	2.4	NR	NR	NR	NR	NR
SSSH40-60B	1.8	NR	NR	NR	NR	NR	NR	NR

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SSSH Series Poles

SQUARE STRAIGHT STEEL

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

NOTES

Wind-speed Website disclaimer:
Current has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third party website provides a useful starting point for analyzing wind conditions, Current has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Current does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. http://windspeed.atcouncil.org

- Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-22 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide; Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings. Consult Current Lighting's Pole Vibration Application Guide for environmental risk factors and design considerations.
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

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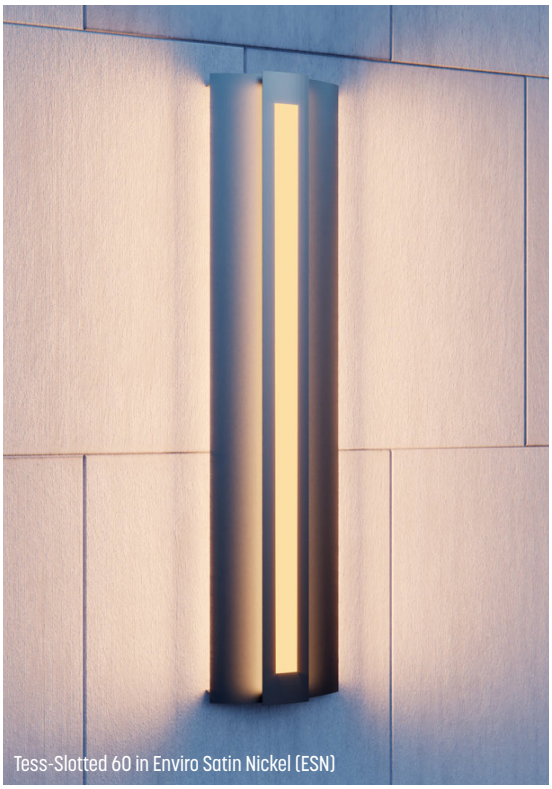
TESS-SLOTTED

ARCHITECTURAL SCALE, WET-LISTED EXTERIOR WALL SCONCE

alva



Tess-Slotted 60 in Enviro Satin Nickel (ESN)


Tess-Slotted 60 in Enviro Satin Nickel (ESN)

ADA COMPLIANT | TITLE 24 | 10YR WARRANTY | INTERTEK ETL LISTED US

APPLICATIONS	Direct/Indirect grazing luminaire for exterior/interior use: flanking doors, on columns, on building facades, between windows, and elevator lobbies. Suitable for marine environments.
SIZES	• 12″ W x 30″ H x 4″ D, 15 lbs • 12″ W x 45″ H x 4″ D, 22 lbs • 12″ W x 60″ H x 4″ D, 32 lbs • 12″ W x 90″ H x 4″ D, 42 lbs
MOUNTING	• J-Box 3.0 or 4.0 at center or end of fixture • Steel mounting system with mounting plate and cover with rubber gaskets between the junction box and mounting plate • Can be mounted vertically or horizontally
SPECIFICATIONS	• IP66 Rated May be Power Washed at High Pressure (100kPa at distance of 3m) • 120-277V input • Title 24 Compliant • ADA Compliant • 100,000+ hours rated life time • 10 Year Limited Warranty (excludes shade)
LAMPING	• Integrated Proprietary ALVA LED Light Module • 80 CRI minimum, 85 CRI typical • 3000K or 3500K standard • Tess-Slotted 30 23 watts, 1041 delivered lumens • Tess-Slotted 45 29 watts, 1363 delivered lumens • Tess-Slotted 60 37 watts, 1739 delivered lumens • Tess-Slotted 90 58 watts, 2726 delivered lumens • 0-10V Dimming (100-10%)
CONSTRUCTION	Fixture shell (shade): Heavy gauge aluminum with industrial powder coat finish and high impact acrylic

TESS-SLOTTED

ARCHITECTURAL SCALE, WET-LISTED EXTERIOR WALL SCONCE

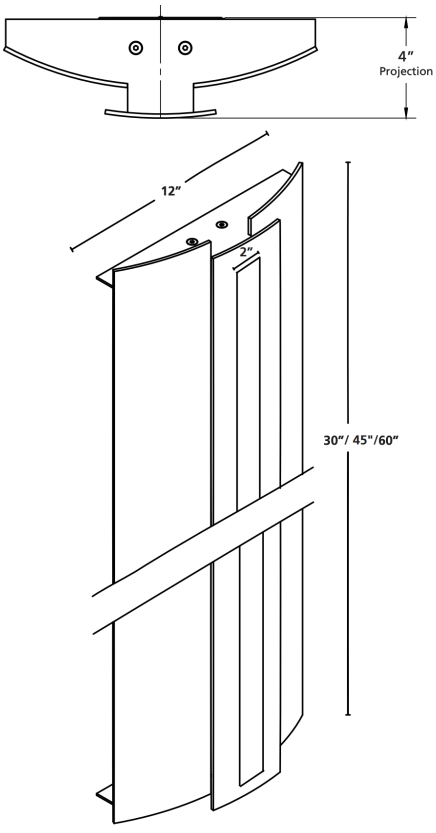
alva

W2



Tess-Slotted 60 in Enviro Satin Nickel (ESN)

DIMENSIONS



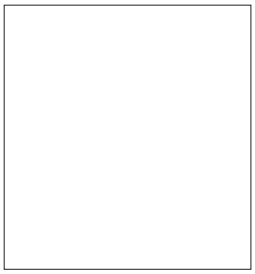
METAL POWDER COAT FINISH OPTIONS



ESN - Enviro Satin Nickel



EOB - Enviro Oil-Rubbed Bronze



WHT - White



BLK - Black



GR - Graphite



DB - Dark Bronze

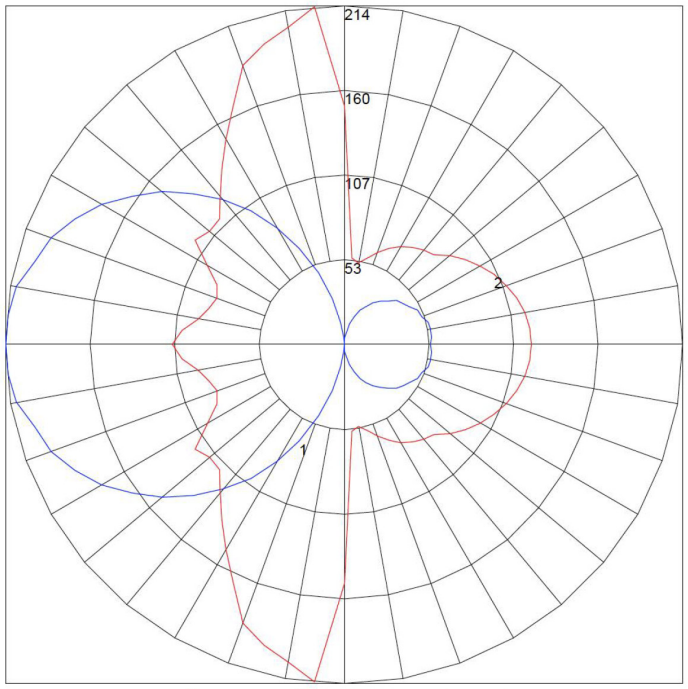
TESS-SLOTTED

ARCHITECTURAL SCALE, WET-LISTED EXTERIOR WALL SCONCE

alva



Tess-Slotted 60 in Enviro Satin Nickel (ESN)



Maximum Candela = 213.55 Located At Horizontal Angle = 95, Vertical Angle = 90
1 - Vertical Plane Through Horizontal Angles (95 - 275) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (90) (Through Max. Cd.)

PHOTOMETRIC & ELECTRICAL TEST RESULTS (TESS-SLOTTED30)

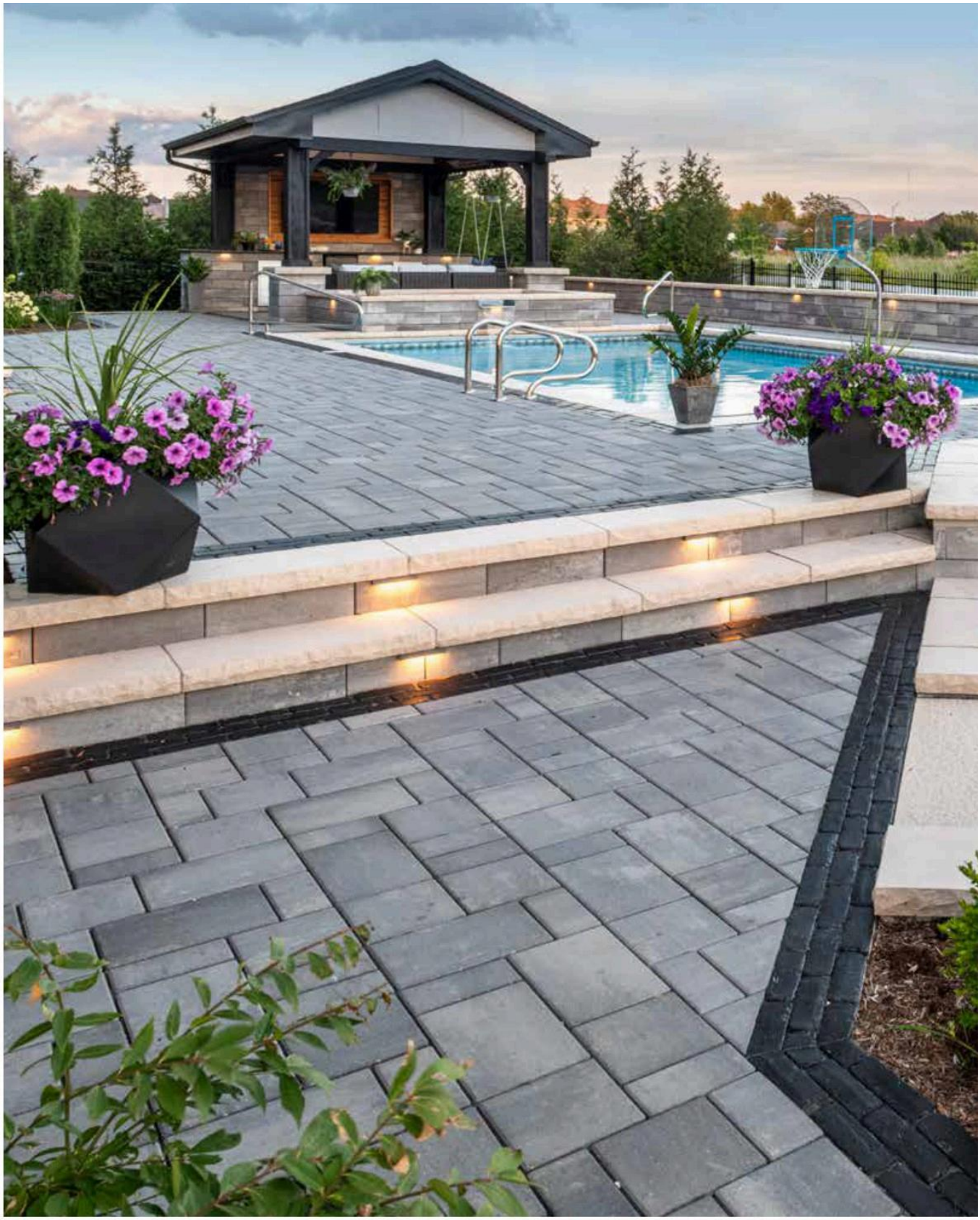
- Total Lumens: 1041.60
- Efficacy: 47.02
- Input Voltage (VAC/60Hz): 119.96
- Input Current (Amp): 0.1860
- Input Power (W): 22.15
- Input Power Factor: 0.9932
- Current ATHD (%): 8.7%

ORDER CODE:

TESS-SLOTTED			
MODEL	**LENGTH**	**METAL TRIM**	**CCT**
	30 30″	*POWDER COAT FINISH OPTIONS*	**3000** 3000K
	45 45″	**ESN** Enviro Satin Nickel	**3500** 3500K
	60 60″	**EOB** Enviro Oil-Rubbed Bronze	
	90 90″	**GR** Graphite	
		DB Dark Bronze	
		WHT White	
		BLK Black	

PERMEABLE PAVERS

- UNILOCK - Treo Smooth Pavers
- Product Brochure



Color selection should be chosen from actual samples.

Granite with Copthorne® (Basalt) accent and U-Cara® Smooth (Granite Fusion) with Ledgestone™ (Buff) coping

Treo® Smooth

PROPOSED PAVER



GRANITE



RIVER

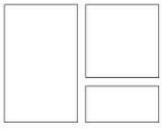


SIERRA



TUSCANY

3 UNIT RANDOM BUNDLE PERMEABLE DRIVE FRIENDLY



Large Rectangle	Square	Small Rectangle
8⅞ x 13⅜ x 2⅜"	8⅞ x 8⅞ x 2⅜"	4½ x 8⅞ x 2⅜"
225 x 337.5 x 60mm	225 x 225 x 60mm	112.5 x 225 x 60mm

FINISHES

- Eldorado Stone - Wall Base
  - Product Brochure
- Coronado Stone - Sill
  - Product Brochure

STONE THAT STIRS



ELDORADO STONE

THE START OF SOMETHING BEAUTIFUL™


MOUNTAIN LEDGE
IN DURANGO®

MOUNTAIN LEDGE

Achieve a contemporary look with warmth and texture, in a variety of versatile earth tones. Incremental heights facilitate selection and reduce installation costs.


EASTERN REGION
ASHEVILLE


EASTERN REGION
CHARLESTON


DURANGO®


EASTERN REGION
LEXINGTON


SIERRA®


YUKON

MOUNTAIN LEDGE PANELS

These precast panels of Eldorado's Mountain Ledge stones facilitate the ease of installation where larger stones are needed for a greater expanse or height.



Mountain Ledge Panels quickly install with a 5" height and varying stone lengths. The rustic surface textures and random stone heights create a highly authentic appearance.


WESTERN REGION
BOW VALLEY


PIONEER


RUSSET®


SILVERTON®


WHISKEY CREEK®


MOUNTAIN
LEDGE PANELS
IN SILVERTON®

Built by Cascade West Development Inc. Photography courtesy Exposio Photography.

CORONADO®

The Leader in Manufactured Stone, Brick and Tile Products



Architectural Accessories

Wall & Post Caps



FLAGSTONE WALL CAP - BROWNSTONE



CHISELED STONE POST CAP - LOMPOC



FLAGSTONE POST CAP
(LOMPOC)
20" x 20", 28" x 28", 30" x 30"
EDGE THICKNESS: 3½"



FLAGSTONE WALL CAP
(LIGHT GREY)
9" x 18", 12" x 24", 14" x 24", 18" x 24"
EDGE THICKNESS: 2½"



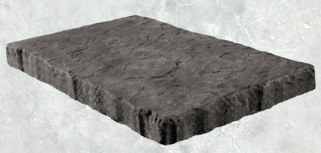
CHISELED STONE POST CAP
(BROWNSTONE)
16" x 16", 18" x 18", 20" x 26", 21" x 21"
24" x 24", 28" x 28", 30" x 30", 32" x 32"
36" x 36", 38" x 38", 42" x 42"
EDGE THICKNESS: 3½"
PEAK HEIGHT: VARIES DEPENDING ON SIZE



CHISELED STONE WALL CAP
(CREAM)
8" x 24", 10" x 18", 12" x 18"
14" x 18", 16" x 24", 18" x 24"
EDGE THICKNESS: 2"
PEAK HEIGHT: 3½"



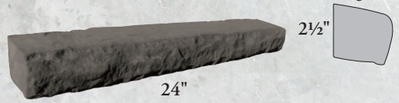
SNAPPED EDGE POST CAP
(BUFF)
24" x 24"
EDGE THICKNESS: 1¾"



SNAPPED EDGE WALL CAP
(CHARCOAL)
12" x 24", 14" x 24"
EDGE THICKNESS: 1¾"

Moldings & Sills

CHISELED STONE SILL
(CHARCOAL)



BELLA TERRA SILL
(ROMAN)



600 SERIES SILL
(BROWNSTONE)



900 SERIES SILL
(#2 GREY)





CHISELED STONE SILL - LIGHT GREY



BELLA TERRA SILL - ROMAN

Lintels

SPLIT STONE LINTEL
(LOMPOC)

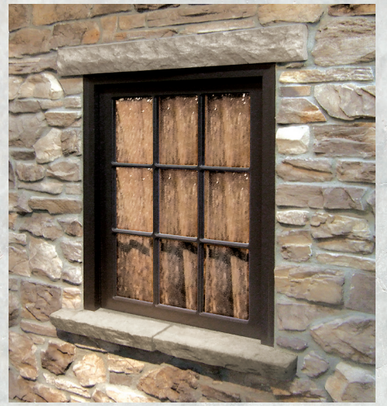


SPLIT STONE LINTEL
(BROWNSTONE)



CHISELED STONE LINTEL
(LIGHT GREY)





CHISELED STONE LINTEL - GULF SANDS (ABOVE)
SPLIT STONE SILL - GULF SANDS (BELOW)

Mantels

CHISELED STONE MANTEL
(BUFF)



CHISELED STONE CORBEL
(BUFF)
SOLD SEPARATELY

FLAGSTONE MANTEL
(BROWNSTONE)

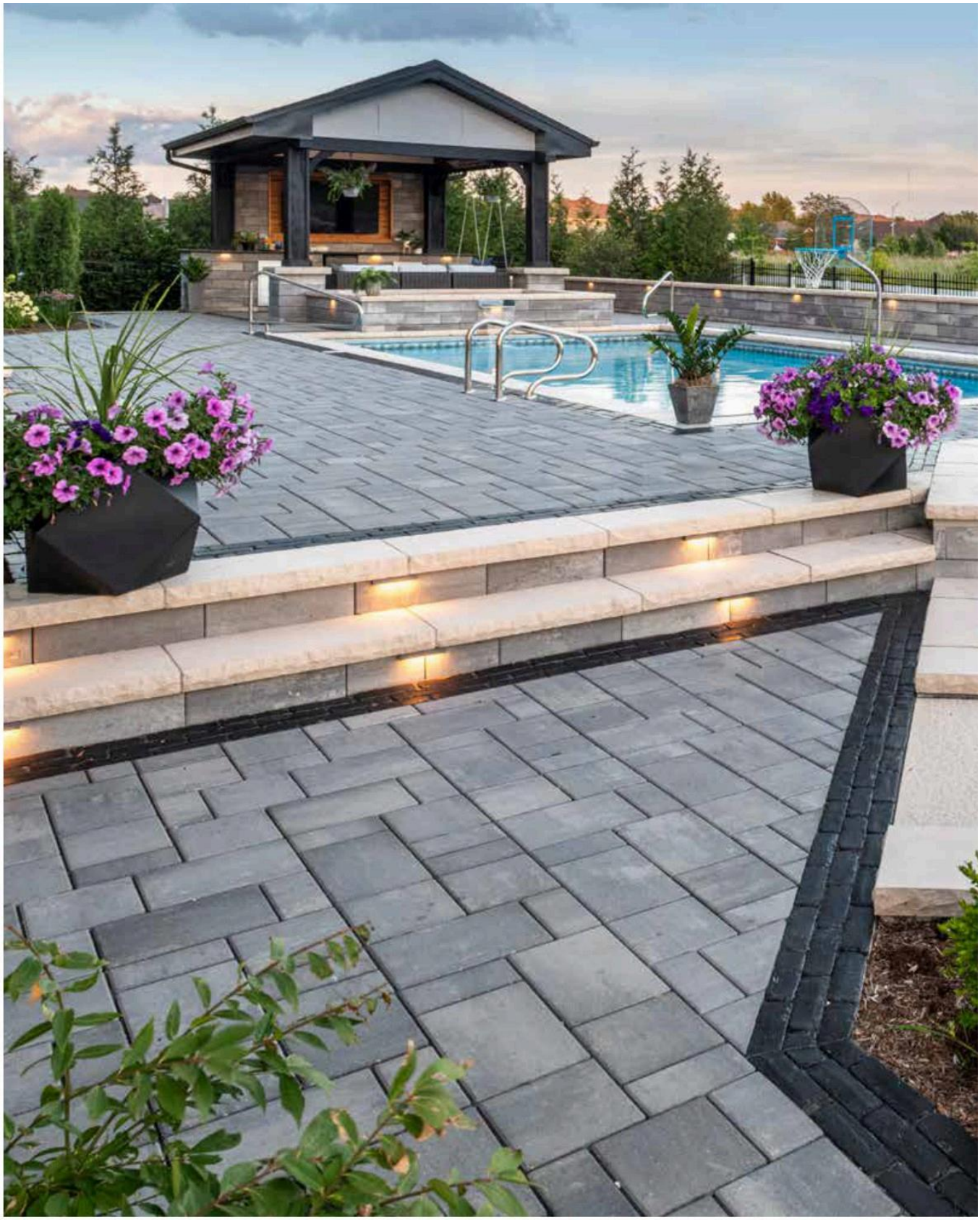




CHISELED STONE MANTEL - BUFF

PERMEABLE PAVERS

- UNILOCK - Treo Smooth Pavers
- Product Brochure



Color selection should be chosen from actual samples.

Granite with Copthorne® (Basalt) accent and U-Cara® Smooth (Granite Fusion) with Ledgestone™ (Buff) coping

Treo® Smooth

PROPOSED PAVER



GRANITE



RIVER

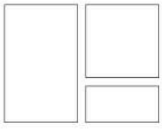


SIERRA



TUSCANY

3 UNIT RANDOM BUNDLE PERMEABLE DRIVE FRIENDLY



Large Rectangle	Square	Small Rectangle
8⅞ x 13⅜ x 2⅜"	8⅞ x 8⅞ x 2⅜"	4½ x 8⅞ x 2⅜"
225 x 337.5 x 60mm	225 x 225 x 60mm	112.5 x 225 x 60mm

CANOPY SYSTEM

- MAPES - Super Lumideck
  - Product Brochure
  - Sample Technical Drawings

2514 W. Peterson Ave, Chicago, IL 60659-4109 • tel: 773.508.5533 • fax: 773.508.5757 • afoster@akarchitects.com • www.akarchitects.com

mapes
ARCHITECTURAL CANOPIES
UNRIVALED.

SUPER LUMIDECK





ALL–WEATHER CANOPIES. AND WE MEAN ALL–WEATHER.

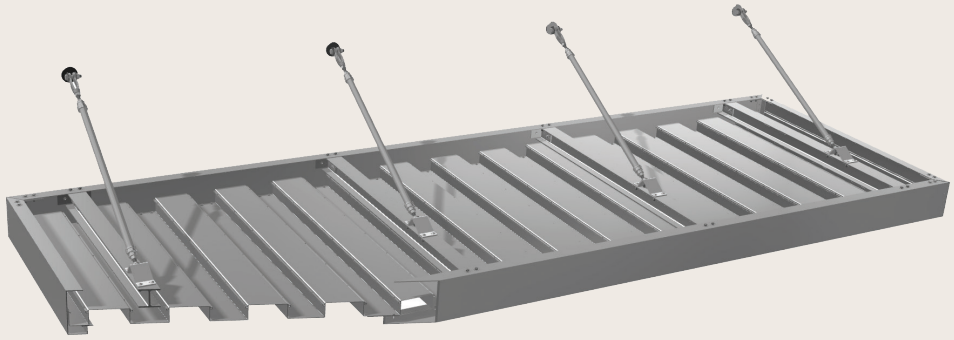
The Super Lumideck canopy is an all-extruded, pre-engineered canopy designed for high-load architectural applications. The square, corrugated deck provides long-term strength and durability. A variety of different fascia profiles and attachment methods deliver the ultimate in design versatility, while keeping installation simple and straight forward. Compared to the alternatives, Mapes aluminum, non-rusting finish and high-quality extruded materials offer superior longevity, while meeting all local code requirements for snow and wind loads.

For more details, please visit mapes.com

SUPER LUMIDECK
TECHNICAL DATA

All-extruded Aluminum (T6 – 6063)
Fascia .125”
Decking .078”
Deflection rating L/180
Maximum Projection
10’ w/ hanger rod supports
5’ w/ cantilever supports

Note: Engineered stamped calcs available in all 50 states



CANOPY DETAILS

Finishes		Warranty		Application
Mapes Standard Finishes	Clear Anodized, White Baked Enamel, & Bronze Baked Enamel	1 year	Meets AAMA 2603 specifications	Factory applied
2-Coat Kynar*	25 stock colors w/ unlimited custom matching options	10 years	70% Fluoropolymer meets AAMA 2605 specifications	Professionally applied & cured by certified finisher

*Additional lead times and costs associated w/ premium paints & custom color matching

FEATURES

- 2 ¾” square corrugated decking
- High-load capacity
- Pre-engineered
- All-extruded Aluminum
- Rust & maintenance free
- Custom details & colors
- Pre-assembly options

APPLICATIONS

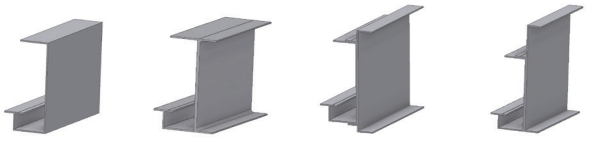
- Retail branding
- Shopping centers
- Storefronts
- Office buildings
- Door & window covers

DECK OPTIONS

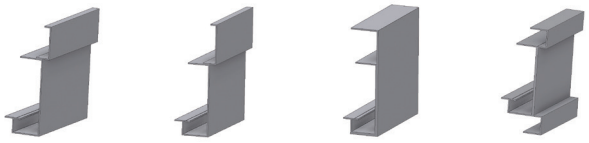


2 3/4”

FASCIA OPTIONS

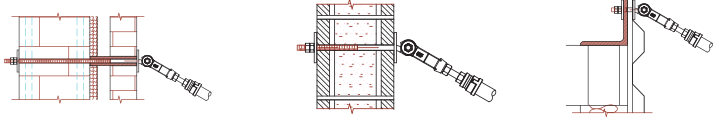


8” J | 8” C-CHANNEL | 10” C-CHANNEL | 12” C-CHANNEL



8” J WITH 3” EXTENSION | 8” J WITH 4” EXTENSION | 12” SMOOTH FACE | CUSTOM

WALL MOUNT DETAILS

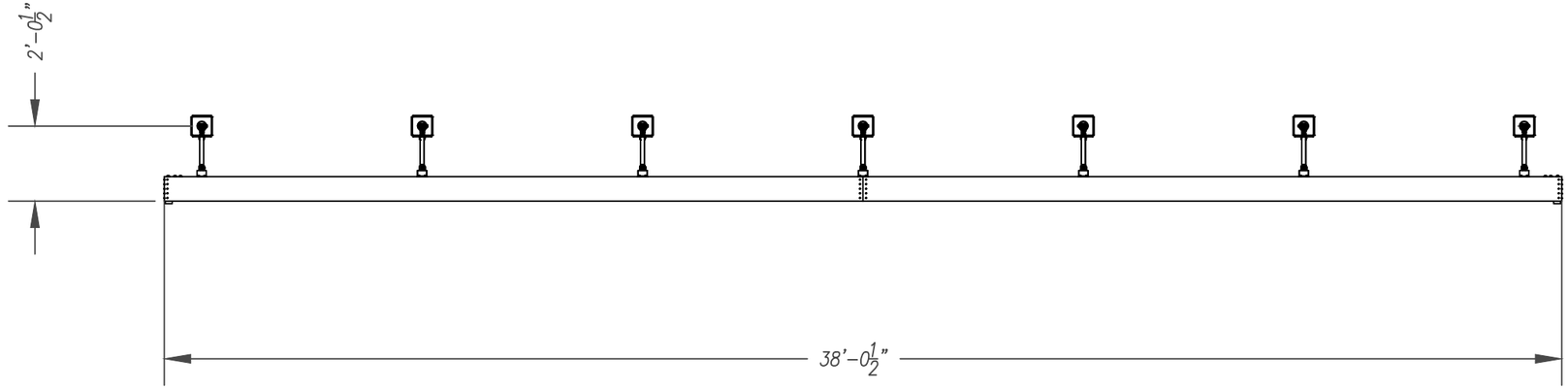


BRICK/BLOCK WITH THRU BOLT AND COMPRESSION SLEEVE | CMU WITH THRU BOLT | METAL BUILDING

MAPES ARCHITECTURAL CANOPIES
7748 North 56th Street, Lincoln, NE 68514 **Phone:** 888-273-1132 **Fax:** 877-455-6572 mapes.com

M#### - SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

MAPES CANOPIES / LINCOLN, NE



Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

7748 N. 56th St.
Lincoln, NE. 68514-9724
Ph: (888) 273-1132
Fx: (877) 455-6572
email: cad@mapes.com

Proposed for:
MAPES CANOPIES ( )
LINCOLN, NE

Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####	sheet: 01
Dec. 3, 19	of 7

c:\users\bwelch\desktop\website - 12.3.19\super lumideck

General Notes:

1. MAPES ARCHITECTURAL CANOPIES REQUIRES ONE (1) SET OF CORRECTED DRAWINGS TO REVISE APPROVAL DRAWINGS, OR AN APPROVED SET OF DRAWINGS IN ORDER TO FABRICATE ORDER
2. ORDERS REQUIRING ENGINEERING WILL "ONLY" BE FABRICATED "AFTER" DRAWINGS ARE APPROVED
3. VERIFY ALL CANOPY AND FIELD DIMENSIONS PRIOR TO RELEASING FOR FABRICATION
4. ALL ORDERS NOT APPROVED FOR PRODUCTION WITHIN 90 DAYS OF PURCHASE ORDER ARE SUBJECT TO A REVIEW OF PRICING
5. ALL FASTENER HOLES NOT OTHERWISE NOTED ARE TO BE FIELD DRILLED
6. ALL FASTENERS NOT OTHERWISE NOTED ARE STAINLESS STEEL OR ALUMINUM
7. ADEQUACY OF WALL AND BUILDING STRUCTURE MUST BE CERTIFIED BY BUILDINGS ENGINEER OF RECORD
8. WALL SYSTEMS W/ EIFS, BRICK VENEER OR METAL PANEL EXTERIOR DESIGN TYPICALLY REQUIRE COMPRESSION SPACERS TO PREVENT CRUSHING, SUPPLIED BY MAPES
9. IF NEEDED, MAPES SUPPLIES 1026 DOM TUBING FOR COMPRESSION SPACERS. THE TUBING WILL BE SUPPLIED IN 24" LENGTHS TO BE CUT DOWN IN THE FIELD AS NEEDED. ENOUGH TUBING WILL BE SENT FOR 6" PER ANCHOR POINT UNLESS OTHERWISE NOTED. IT'S INTENT IS ONLY TO SPAN THROUGH ANY NON-STRUCTURAL EXTERIOR CLADDING.
10. MAPES SUPPLIES ALL HARDWARE NEEDED TO ANCHOR CANOPY TO STRUCTURE. ALL STRUCTURE BEARING LOAD OF CANOPY ANCHORS IS TO BE DESIGNED, ENGINEERED, AND SUPPLIED BY OTHERS.

Project Notes:

1. SUPER LUMIDECK CANOPY
2. 38'-0 1/2"X3' PROJ (1)
3. 1" HANGER PIPE
4. 2 3/4" EXTRUDED DECKING (PERP)
5. 8" FASCIA
6. FASCIA DRAIN W/ DRAIN STUBS

Drawing Schedule

Page #	Description
01	Cover
02	General Information
03	Canopy Plan
04	Section AA
05	Section BB
06	Section CC
07	Detail a

Design Notes:

1. FINISH SHALL BE TWO COAT KYNAR
2. COLOR SHALL BE (CHOSEN FROM MAPES STD SMOOTH COLOR CHART)
3. COUNTER FLASHING AND SEALANT, BY CANOPY INSTALLER
4. SURROUND WALL ANCHORS WITH WATER TIGHT SEALANT
5. EMBED ALL WALL ANCHOR WASHERS IN SEALANT TO PROVIDE WATERTIGHT SEAL AT WALL
6. TO ENSURE PROPER DRAINAGE, INSTALL CANOPY WITH POSITIVE CAMBER
7. MAPES RECOMMENDS (1) DRAIN HOLE MINIMUM PER EVERY 20 LINEAR FEET OF FASCIA
8. INTERMEDIATE RIVETS 4'-0" O.C. MAX.
9. FIELD DRILL DRAIN HOLES IN FASCIA @ DESIRED LOCATIONS

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

7748 N. 56th St.
Lincoln, NE. 68514-9724
Ph: (888) 273-1132
Fx: (877) 455-6572
email: cad@mapes.com

Proposed for:
MAPES CANOPIES ( )
LINCOLN, NE

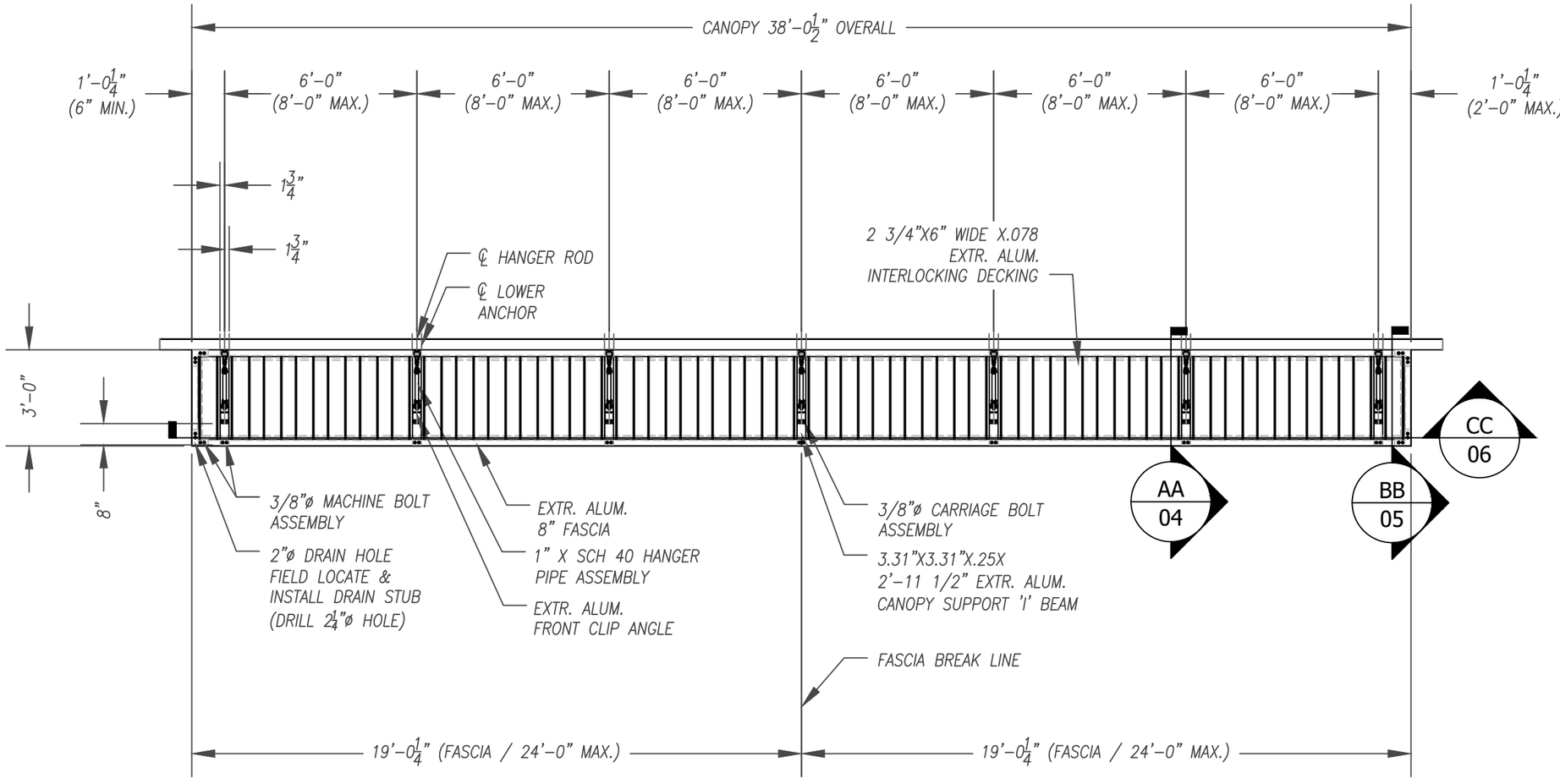
Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####

Dec. 3, 19

sheet: 02 of 7



1 CANOPY PLAN

Scale: 1/4" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

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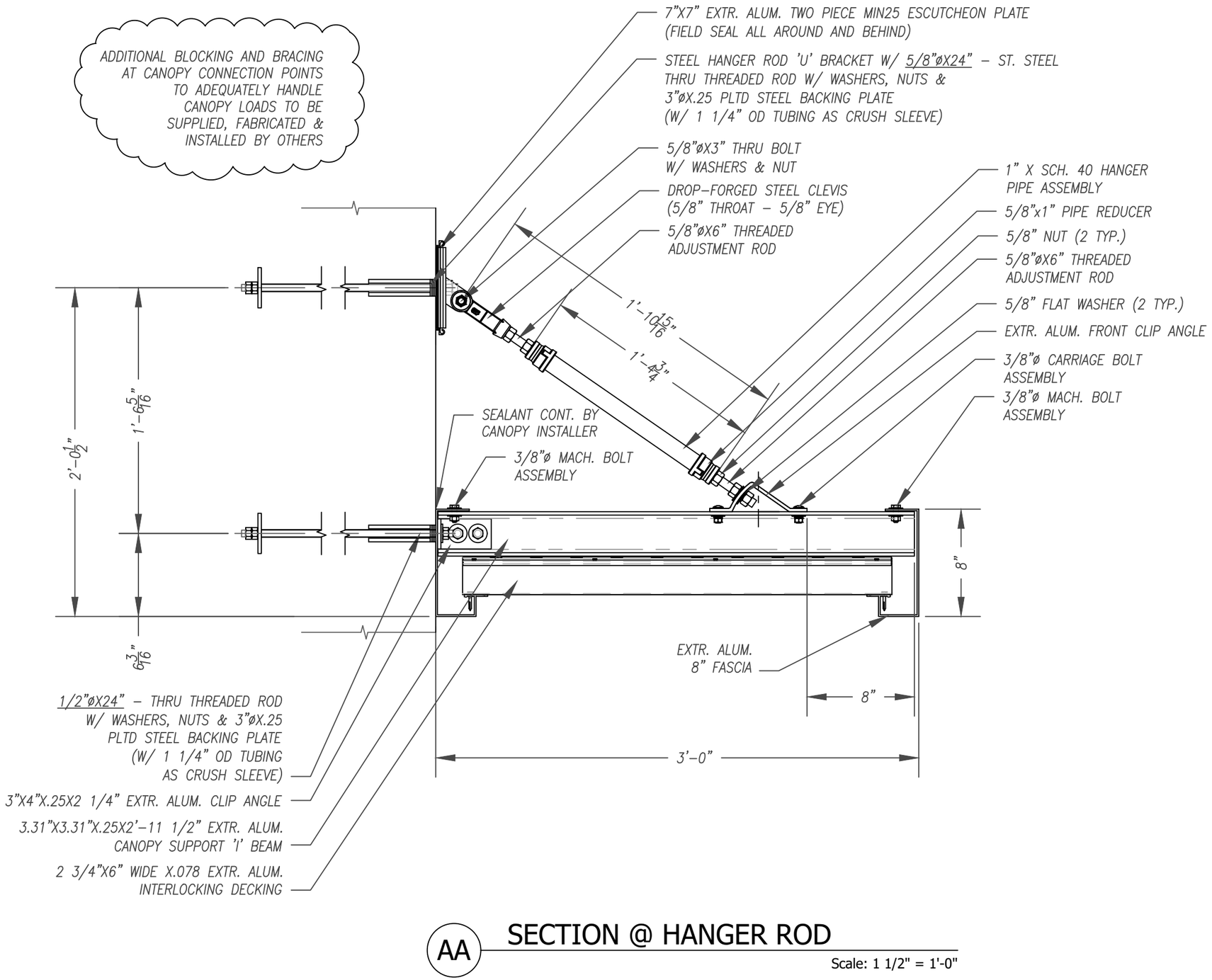
PO # dtd
MQ # Rep:

M####	sheet: 03
Dec. 3, 19	
1/4" = 1'-0"	of 7



AA SECTION @ HANGER ROD

Scale: 1 1/2" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

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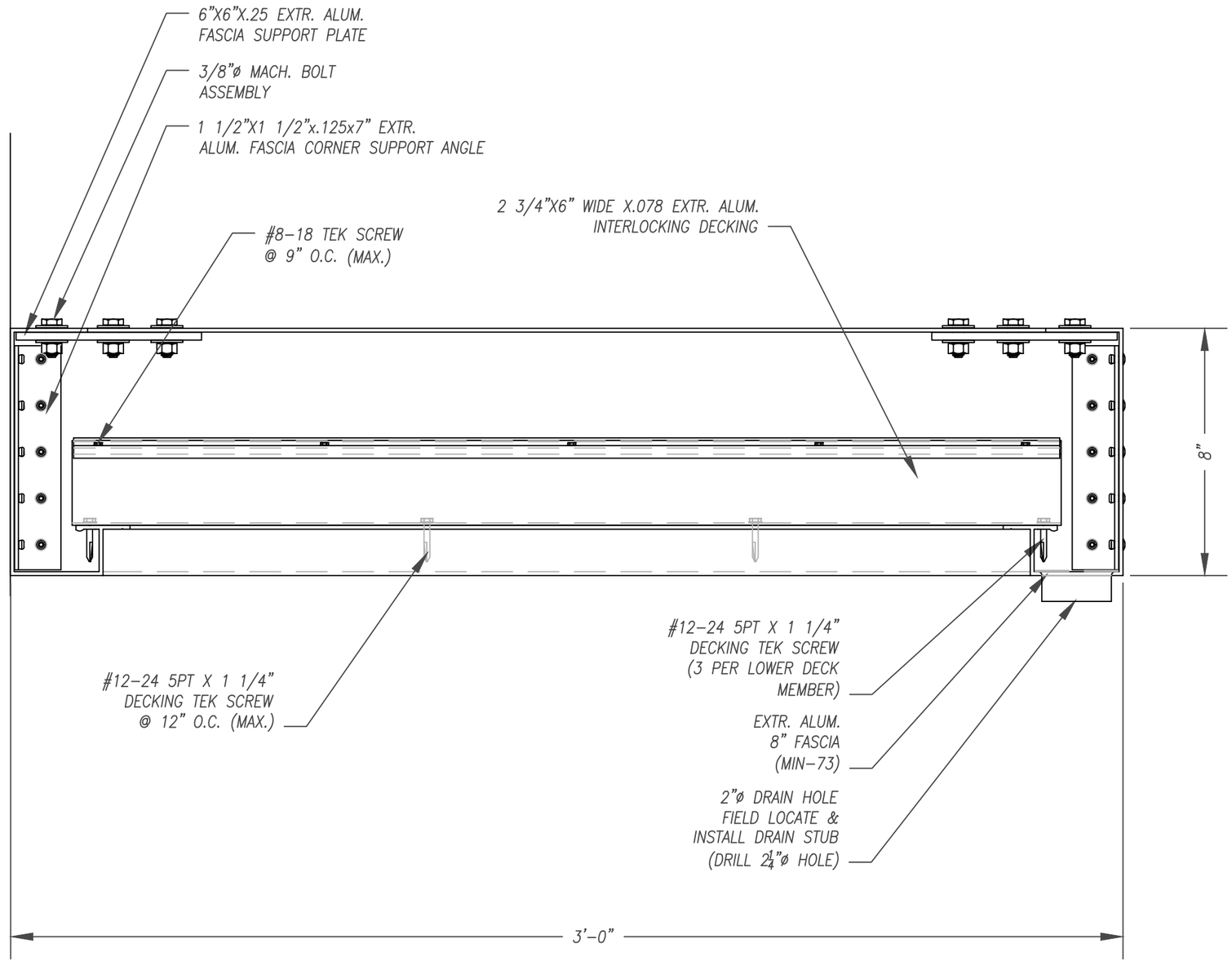
MAPES CANOPIES ( )
LINCOLN, NE

Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####	sheet: 04
Dec. 3, 19	
1 1/2" = 1'-0"	of 7



BB SECTION @ END CANOPY

Scale: 3" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

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Lincoln, NE. 68514-9724
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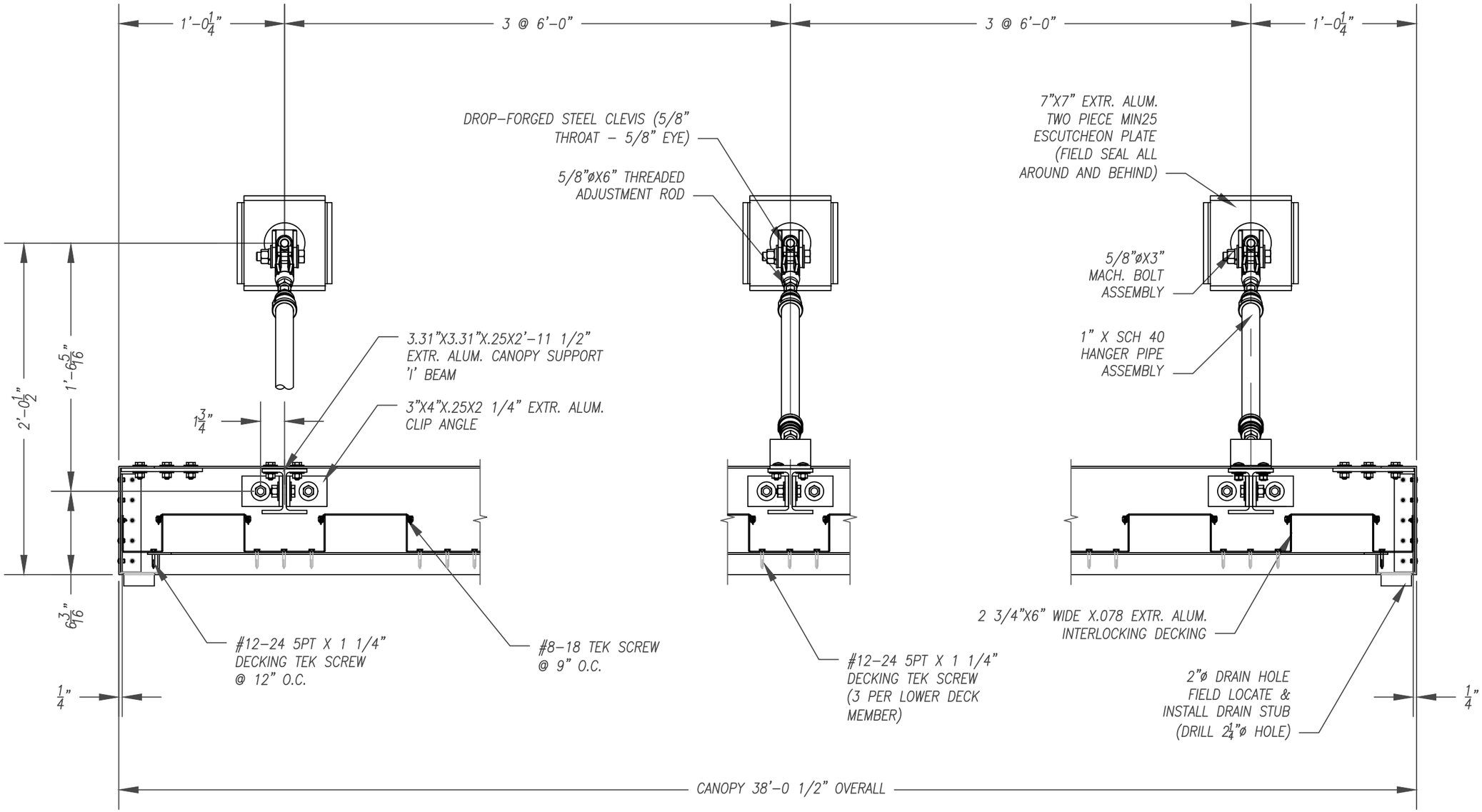
email: cad@mapes.com

Proposed for:
MAPES CANOPIES ( )
LINCOLN, NE

Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####	sheet: 05
Dec. 3, 19	
3" = 1'-0"	of 7



CC TRANSVERSE SECTION

Scale: 1 1/2" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

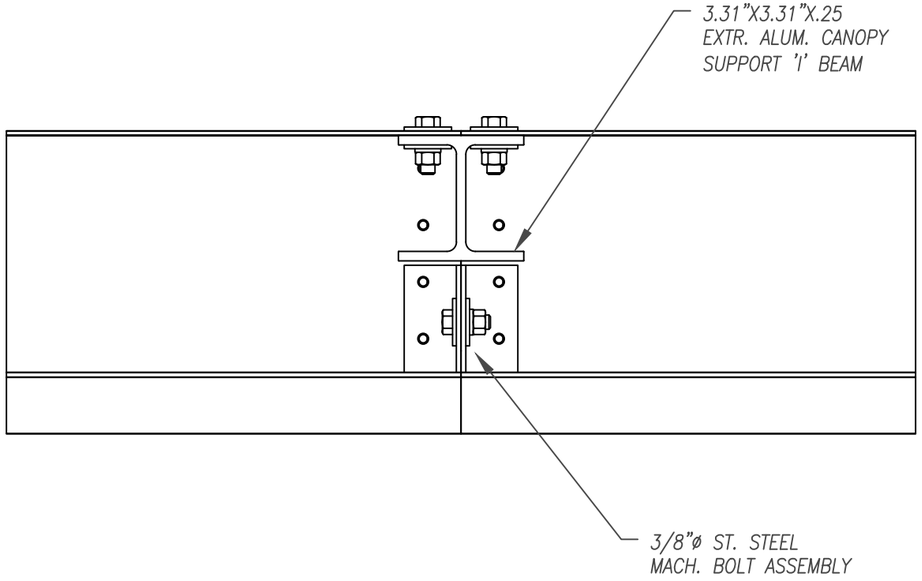
7748 N. 56th St.
Lincoln, NE. 68514-9724
Ph: (888) 273-1132
Fx: (877) 455-6572
email: cad@mapes.com

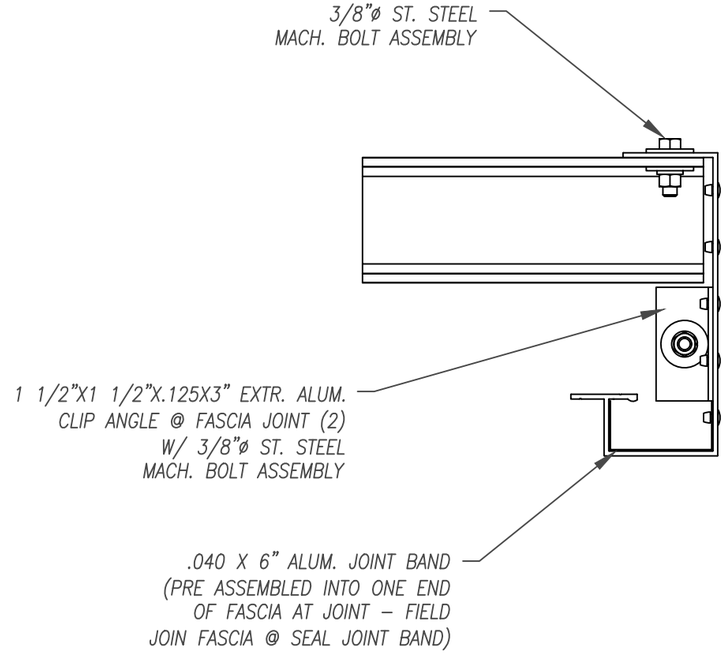
Proposed for:
MAPES CANOPIES ( )
LINCOLN, NE

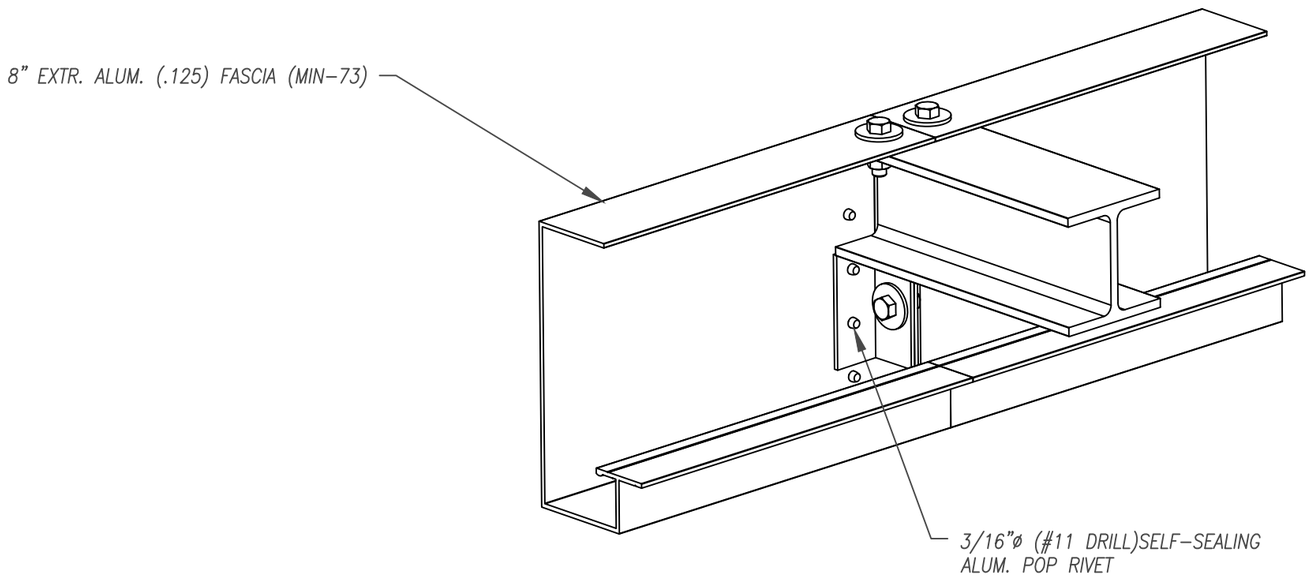
Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

M####	sheet: 06
Dec. 3, 19	
1 1/2" = 1'-0"	of 7







a FASCIA JOINT DETAIL

Scale: 3" = 1'-0"

Canopy Type:

Architect:

Drawn:	12/3/2019	BJW

Mapes Architectural Canopies

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Proposed for:
MAPES CANOPIES ( )
LINCOLN, NE

Job Name:
SUPER LUMIDECK HANGER ROD CANOPY / 2 3/4" CORRUGATED DECK

PO # dtd
MQ # Rep:

	sheet: 07
Dec. 3, 19	
3" = 1'-0"	of 7

SITE LIGHTING

- C1 - PRESCOLITE - LFR-4RD-M-20L35K8NR-DM1_LFR-4RD-T-CL-S
    - Spec Sheet
- S1/S2 - BEACON - RAR-1-160L-70-4K7-4F-BC
    - Product Line Brochure
    - Spec Sheet
- W1.1/W1.2 - EXO - RWL1-48L-35-4K7-4W-U / RWL1-48L-35-4K7-3-U
    - Spec Sheet
    - (product brochure same as S1/S2 fixture above)
- W2 - ALVA LIGHT - TESS-30-SLOTTED
    - Spec Sheet

2514 W. Peterson Ave, Chicago, IL 60659-4109 • tel: 773.508.5533 • fax: 773.508.5757 • afoster@akarchitects.com • www.akarchitects.com

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LITEFRAME 2.0



FEATURES

- 4" LED downlight delivering 1000–6000 lumens
- Direct Install from below ceiling for New Construction or Remodel applications
- Optional housing accessories available
- Five beam distributions
- 2700K–5000K, 80+ and 90+ CRI (2 SDCM)
- Dimming protocols include 0–10V, Phase (Forward/Reverse), DALI, DMX, and Lutron EcoSystem
- NX Lighting Controls wired and wireless controls capability available

C US WET LOCATION IP65

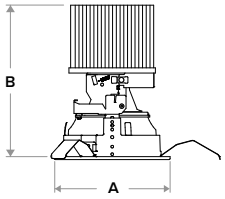
With CL Lens Option

SERVICE PROGRAMS

STOCK QS10

CONTROLS TECHNOLOGY

NX WIRELESS NX WIRED



Typical Dimensions and Weights			
Lumen Package	"A" Diameter Inches (mm)	"B" Height Inches (mm)	Weight lbs (kg)
10L - 30L	5.37 (136)	5.45 (138)	4 (1.8)
35L - 60L	5.37 (136)	7.03 (179)	4.3 (1.9)

See DIMENSIONS section for complete details

SPECIFICATIONS

CONSTRUCTION

- Standard Fixture Module designed for Non-IC, Direct Install construction
- Optional Non-IC frame or IC housing available with pre-installed bar hangers
- Die cast aluminum fixture module support ring with spring steel clips for secure mounting to ceiling
- Driver J-Box can be installed and accessed from below the ceiling as direct install or easily snap on to optional housing frame/enclosure
- Light Engine connections use plenum rated (CMP) cable

OPTICS

- High purity spun aluminum reflector, self-flanged
- 57° visual cutoff to source image and 31° cutoff to source
- Specular or Semi-Specular anodized or White painted cone reflector finish/colors
- Painted flange options in White or Black
- Optional clear lens trim for wet location applications
- Wide Angle and Soft Focus lens filter/clip accessories available

ELECTRICAL

- Chip-on-board LED with 2 SDCM
- Multiple CCTs, 80+ or 90+ CRI
- Long LED life: L90 at >50,000 hours (TM-21)

ELECTRICAL (CONTINUED)

- Universal voltage 120–277V driver, 347V optional
- UL Class 2, inherent short circuit and overload protection
- Flicker-free dimming options in a wide range of protocols from 1% to <0.1% performance
- 0–10V, Phase (Forward/Reverse), DALI, DMX, and Lutron EcoSystem options
- NX Lighting Controls provides options for standalone and networked functionality with wired or wireless connectivity for NX system deployments
- Integral and remote emergency battery options available

INSTALLATION

- Accommodates ceiling thickness from 0.50" to 2.50"
- Fixture Module including driver fully accessible from above or below the ceiling
- 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation types.)

CERTIFICATIONS

- cCSAus certified to UL 1598
- For ≥50L: Marked spacing required 36" fixture center to center; 18" fixture center to building member; 0.5" above fixture

CERTIFICATIONS (CONTINUED)

- Suitable for wet locations, covered ceiling when used with CL lens trim; all other configurations, suitable for damp locations
- CL Lens option: IP65 rated (room side) when properly installed per installation instructions
- EM/EMR: Certified under UL 924 standard for emergency lighting and power equipment
- EM/EMR: Emergency battery packs are California Energy Commission (CEC) Title 20 Compliant
- Approved for 8 (4 in/4 out) No. 12AWG conductors rated for 90°C through wiring

WARRANTY

- 5 year warranty

KEY DATA	
Lumen Range	1000–6000
Wattage Range	8–54
Efficacy Range (LPW)	105–135
Reported Life (Hours)	L90 / >50,000
Input Current (mA)	66–450 (120V)

*Based on Specular, 35K, 80 CRI

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

Gray Shading = Service Program STOCK QS10 Limit of 150 Luminaries

ORDERING GUIDE

Example: LFR–4RD–M–10L35K8–WD–DM1 / LFR–4RD–T–S / LFR-4RD-H

CATALOG #

FIXTURE MODULE

LFR-4RD-M –

Ap/Shp/Funct	Lumen Output	CCT	CRI	Distribution	Driver Options	Control Options	Voltage	Module Options
LFR-4RD-M 4" Round Downlight Fixture Module for Direct Install *(Non-IC frame or IC housing available under Housing Options below)*	**10L** 1000 **15L** 1500 **20L** 2000 **25L** 2500 **30L** 3000 **35L** 3500 **40L** 4000 **50L** 5000[1] **60L** 6000[1]	**27K** 2700K **30K** 3000K **35K** 3500K **40K** 4000K **50K** 5000K	**8** 80+ **9** 90+	**VNR** Very Narrow (17°/0.3 SC) **NR** Narrow (26°/0.4 SC) **MD** Medium (34°/0.6 SC) **WD** Wide (49°/0.7 SC) **XW** Extra Wide (65°/1.0 SC)[12]	**DM1** 0–10V Dimming to 1% **DM01** 0–10V Dimming to < 1%[2] **PDM** Phase (Forward/Reverse) Dimming to 1%[2] **DMX** DMX with RDM dimming to < 0.1%[2] **DALI** DALI Dimming to 1%[2] **EDM** Lutron Hi-Lume EcoSystem Dimming to 1%[2]	**NX Lighting Controls** Networked Wireless **NXW** NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor[3] Networked Wired **NXE** NX Wired Dual RJ45 SmartPORTS, without Sensor[3]	*Standard 120–277V* **34** 347V[4]	**CP** Chicago Plenum[5,6] **EM** 6W Emergency Battery Pack (CEC Title 20 Compliant) with integral test switch and indicator light[6] **EMR** 6W Emergency Battery Pack (CEC Title 20 Compliant) with remote test switch and indicator light[6] **DTS** Device Transfer Switch with Dimming Bypass[6,7]

TRIM (Ships separately)

LFR-4RD-T –

Aperture/Shape/Function	Distribution	Reflector Finish/Color	Flange Color Options	Lens Options	Lower Trim Options
LFR-4RD-T 4" Round Downlight Trim Assembly	*Standard NR, MD, WD, XW* **VNR** Very Narrow	**S** Specular[12] **SS** Semi-Specular **WC** Painted White Cone and Flange	*Standard matches reflector color* **WT** White Flange[8] **BT** Black Flange	*Standard no lens* **CL** Clear Lens (Wet listed)[9]	**EM** Pre-punched reflector for EM integral test switch and indicator[9] **FM** Flush Mount Mud-In Ring[13]

HOUSING OPTIONS (Ships separately)

Aperture/Shape/Function	
☐ **LFR-4RD-H**	4" Housing Frame, New Construction, Non-IC
☐ **LFR-4RD-H-IC**	4" Housing Enclosure, New Construction, IC Rated[10,11]

Accessories	
☐ **SFL4**	Soft Focus Lens and Clip, 4" Round
☐ **WAL4**	Wide Angle 80° Lens and Clip, 4" Round
☐ **LiteGear**	LiteGear® Inverter, 125VA–250VA
☐ **LPS Series**	LightPower Micro-Inverter, 20VA–55VA
☐ **LF-FMR4-R**	Flush Mount Mud-in Ring, 4"[13]
☐ **LF-MOR4-R-WH**	Metal Oversized Ring, 4" Round, White (8.3" outside diameter)
☐ **LFR-SCA4-__**	Sloped Ceiling Adapter, 4" White[14]

Notes:

1 50L and 60L require marked spacing. See line art for more details.
2 DM01, PDM, DMX, DALI available up to 50L. EDM available 15L–40L.
3 NX requires DM1 driver option.
4 347V requires DM1 driver option; available 10L–40L; not available with Controls, DTS, EM, EMR.
5 CP not available with PDM, DMX, or Controls.
6 Module options not available in combination.
7 DTS available with DM1, DM01, or DALI.
8 WT not needed for WC.
9 CL lens and EM trim options not available in combination.
10 IC available up to 35L; 10L Fixture Modules are inherently protected IC without the use of IC housing enclosure. (IC housing is still recommended when using loose-fill or spray foam insulation types.)
11 IC Housing not for use in combination with Controls or with Module Options CP, EM, EMR, DTS.
12 XW distribution is not available for Specular (S) reflector finish.
13 Flush Mount Flange (FM) requires FMR accessory (sold separately).
14 Specify slope angle 5°–35° in 5° increments. Not available with EM or FM options.

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

NX LIGHTING CONTROLS

	Control Option Ordering Logic & Description		Control Option Functionality								Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming		
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	–	–	✓	✓	✓		NXRM2-H
NX Wired	NXE	NX Wired Dual RJ45 SmartPORTS, without Sensor	✓	✓	✓	–	–	✓	✓	✓[1]		NXDSP

1 Requires NXBTC, order separately.

NX LIGHTING CONTROLS APP



The NX Lighting Controls App is a free to use mobile application for programming both an NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enabled luminaires and program your NX system settings.

Android

Apple iOS

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

PERFORMANCE DATA TABLE

Performance data shown is 3500K 80+CRI with Specular reflector except Extra Wide distribution which is Semi-Specular.

Lumen Package	Nominal Lumens	Distribution	Delivered Lumens	Watts	LPW
10L	1000	Very Narrow	979	7.6	129
		Narrow	1023	7.6	135
		Medium	997	7.6	131
		Wide	995	7.6	131
		Extra Wide	947	7.6	125
15L	1500	Very Narrow	1471	11.8	125
		Narrow	1536	11.8	130
		Medium	1498	11.8	127
		Wide	1494	11.8	127
		Extra Wide	1422	11.8	121
20L	2000	Very Narrow	1937	15.2	127
		Narrow	1982	15.3	130
		Medium	1933	15.3	127
		Wide	1928	15.3	126
		Extra Wide	1835	15.2	121
25L	2500	Very Narrow	2465	20.9	118
		Narrow	2574	20.9	123
		Medium	2510	20.9	120
		Wide	2504	20.9	120
		Extra Wide	2384	20.9	114
30L	3000	Very Narrow	2938	26.0	113
		Narrow	3068	26.0	118
		Medium	2992	26.0	115
		Wide	2985	26.0	115
		Extra Wide	2842	26.0	109
35L	3500	Very Narrow	3571	29.4	121
		Narrow	3729	29.4	127
		Medium	3637	29.4	124
		Wide	3628	29.4	123
		Extra Wide	3454	29.4	117
40L	4000	Very Narrow	3982	32.9	121
		Narrow	4157	32.9	126
		Medium	4055	32.9	123
		Wide	4045	32.9	123
		Extra Wide	3851	32.9	117
50L	5000	Very Narrow	4844	42.0	115
		Narrow	5058	42.0	120
		Medium	4933	42.0	117
		Wide	4921	42.0	117
		Extra Wide	4684	42.0	112
60L	6000	Very Narrow	5778	53.4	108
		Narrow	6033	53.4	113
		Medium	5884	53.4	110
		Wide	5870	53.4	110
		Extra Wide	5588	53.4	105

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DATE: LOCATION:

TYPE: PROJECT:

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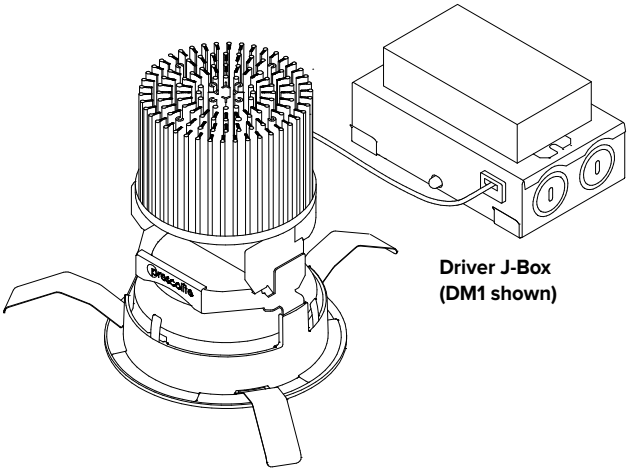
LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DIMENSIONS

LFR-4RD-M

Fixture Module consists of Light Engine and Driver J-Box assemblies.
Overall dimensions for each are dependent upon configuration selected.
See the following pages for details.



Driver J-Box (DM1 shown)

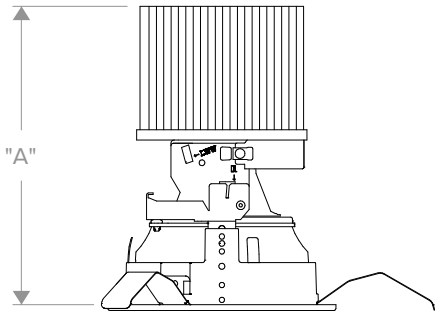
Light Engine with Trim assembly installed

DIMENSIONAL DATA		
APERTURE		ø4.00" (101.6mm)
OVERALL		Ø5.37" (136.5mm)
FLANGE WIDTH	Standard	0.69" (17.5mm)
	Flush Mount	0.19" (4.8mm)
FLANGE TO FLANGE	Standard	Ø5.37" (136.6mm)
	Flush Mount	Ø4.38" (111.2mm)
CEILING CUTOUT	Standard	Ø4.75" (120.7mm)
	Flush Mount	Ø4.88" (123.9mm)
CEILING THICKNESS		0.50" – 2.50" (12.7 – 63.5mm)

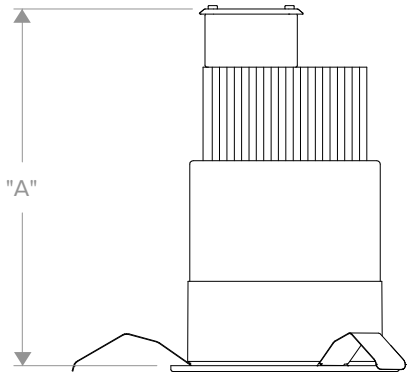
LFR-4RD LIGHT ENGINE

OVERALL LIGHT ENGINE HEIGHT "A" *				
LUMEN PACKAGE	FIXTURE MODULE	BEAM DISTRIBUTION		
		VNR	NR / MD/ WD	XW
10L–30L	STANDARD	6.24" (158.5mm)	5.45" (138.5mm)	5.1" (129.5mm)
	CP	9.22" (324.1mm)	8.43" (214.0mm)	8.08" (205.1mm)
35L–60L	STANDARD	7.82" (198.6mm)	7.03" (178.6mm)	6.68" (169.7mm)
	CP	9.22" (234.1mm)	8.43" (214.0mm)	8.08" (205.1mm)

* Note: Add ½" minimum plenum clearance above overall Light Engine Height.
** For ≥50L: Marked spacing required 36" fixture center to center; 18" fixture center to building member; 0.5" above fixture.
*** Non-IC rating requires 3" from insulation and combustible materials.



Side View Standard



Side View CP – Chicago Plenum

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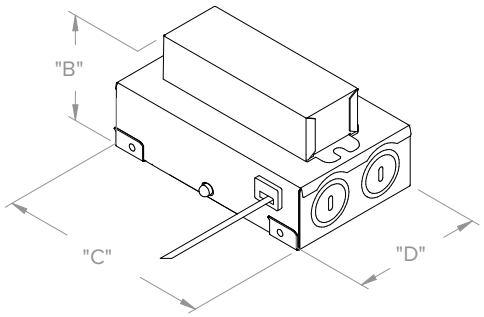
LFR-4RD

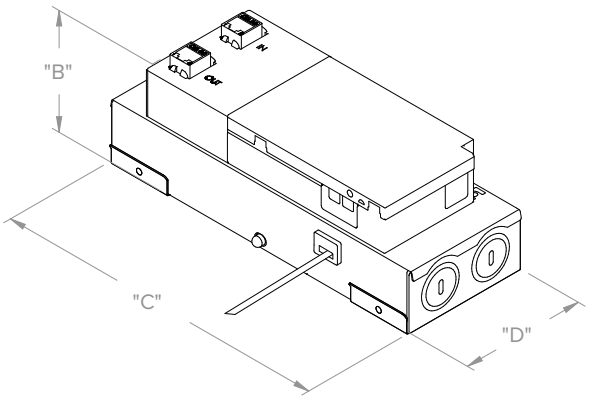
LITEFRAME 4" ROUND DOWNLIGHT

DIMENSIONS CONTINUED

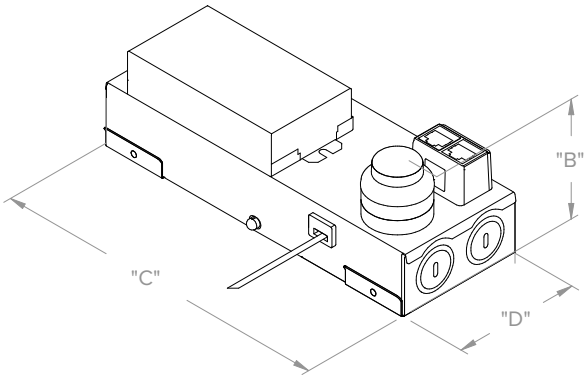
DRIVER J-BOX



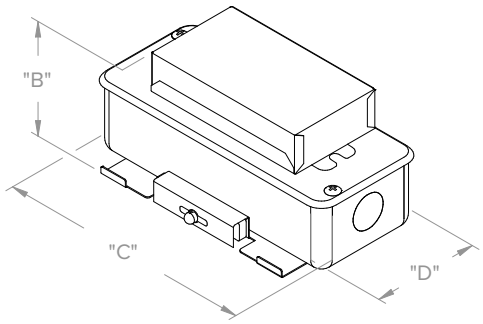
DM1 / DM01 / PDM / DALI



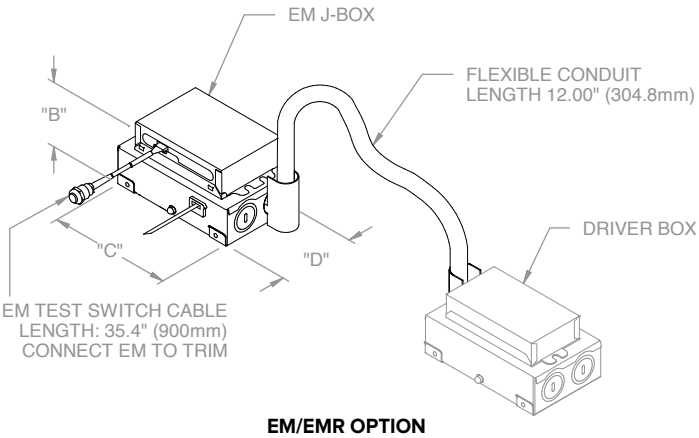
DMX



NX CONTROLS OPTION



CP



EM/EMR OPTION

EM/EMR Driver J-Box Conduit (provided) connects to Driver J-Box
(see Driver J-Box for additional details)

OVERALL DRIVER J-BOX DIMENSIONS (ALL LUMEN OUTPUTS)				
DRIVER/ CONTROLS OPTIONS	"B" (HEIGHT)	"C" (LENGTH)	"D" (WIDTH)	MINIMUM J-BOX PLENUM CLEARANCE
DM1 / DM01 / PDM / DALI	2.67" (67.8mm)	5.34" (135.6mm)	3.23" (82.0mm)	3.50" (88.9mm)
DMX	3.07" (78.0mm)	8.68" (220.5mm)	3.23" (82.0mm)	5.00" (127.0mm)
NX	3.02" (76.7mm)	8.68" (220.5mm)	3.23" (82.0mm)	6.00" (152.4mm)
EM/EMR	2.73" (69.3mm)	5.34" (135.6mm)	3.23" (82.0mm)	4.00" (101.6mm)
CP	1.89" (73.4mm)	6.50" (165.1mm)	2.72" (69.1mm)	5.00" (127mm)

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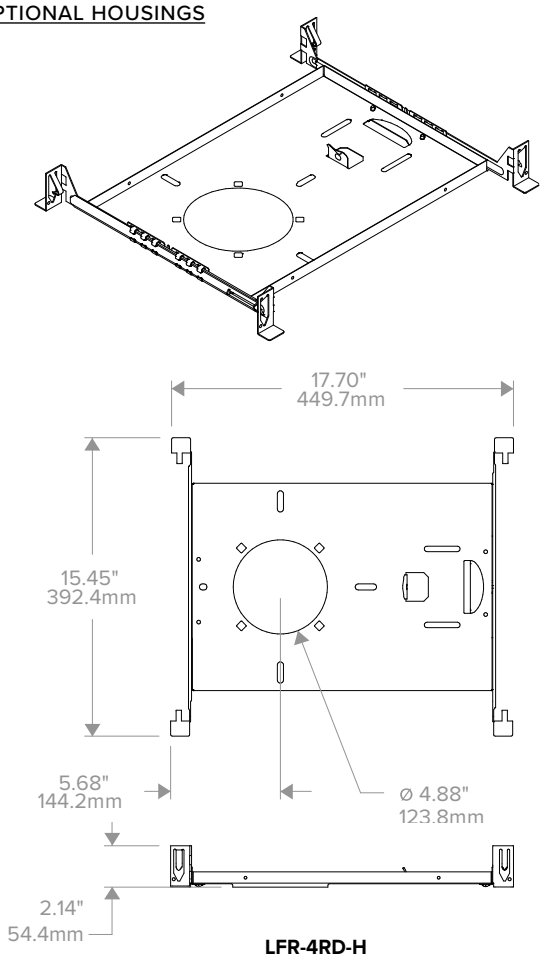
LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

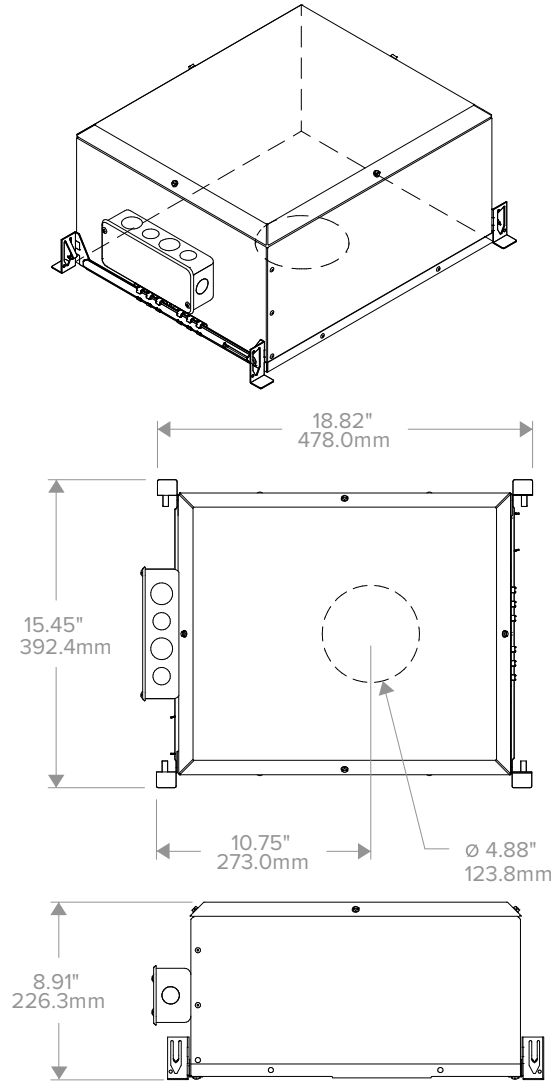
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

DIMENSIONS CONTINUED

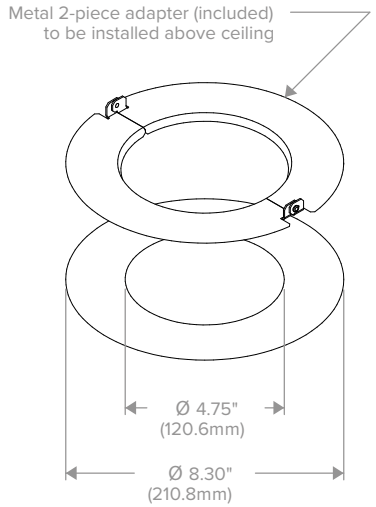
OPTIONAL HOUSINGS



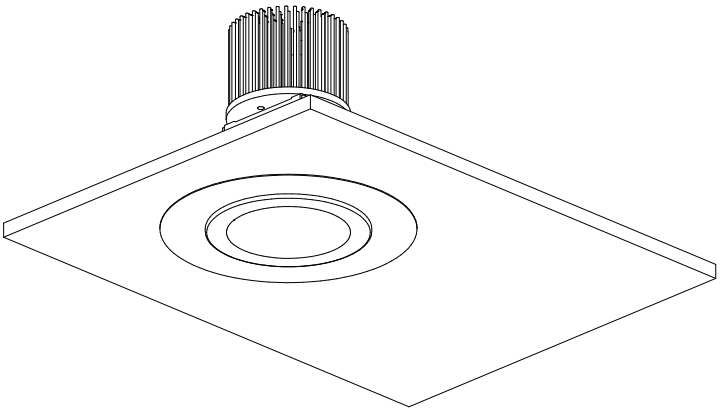
LFR-4RD-H
NON-IC HOUSING FRAME



LFR-4RD-H-IC
IC HOUSING
Not for use with CP Shroud



ROUND LF-MOR4-R
METAL OVERSIZED RING
(See LF-MOR Installation Instruction for more details)



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DATE: LOCATION:

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LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

PHOTOMETRY

LFR-4RD-M-20L35K8VNR-DM1 / LFR-4RD-T-VNR-S

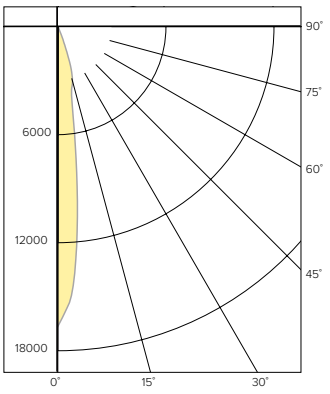
LUMINAIRE DATA

Test No.	**21.001652**
Description	**2000 lm, Very Narrow, 3500K, 80 CRI**
Delivered Lumens	**1937**
Watts	**15.2W**
Efficacy	**127**
Mounting	**Recessed**
Spacing Criterion	**0.3**
Beam Angle (FWHM)	**15**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1932	99.8
0-60	1936	99.9
0-90	1937	100.0
0-180	1937	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	16778
5	12300
15	3246
25	139
35	7
45	3
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	523
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

LFR-4RD-M-20L35K8NR-DM1 / LFR-4RD-T-S

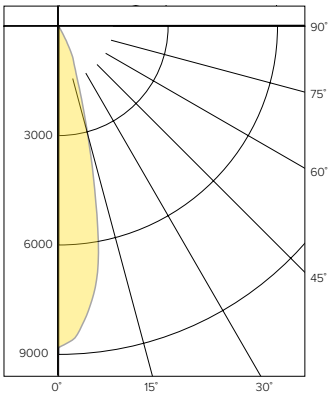
LUMINAIRE DATA

Test No.	**21.00574**
Description	**2000 lm, Narrow, 3500K, 80 CRI**
Delivered Lumens	**1982**
Watts	**15.3W**
Efficacy	**130**
Mounting	**Recessed**
Spacing Criterion	**0.4**
Beam Angle (FWHM)	**26**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1978	99.3
0-60	1981	100.0
0-90	1982	100.0
0-180	1982	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	8819
5	8106
15	3103
25	858
35	7
45	2
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	349
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

LFR-4RD-M-20L35K8MD-DM1 / LFR-4RD-T-S

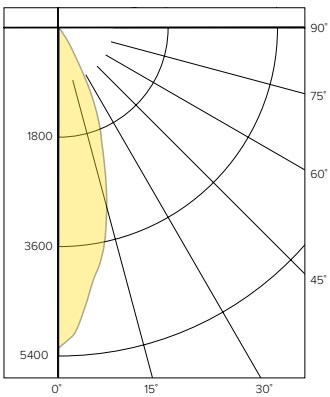
LUMINAIRE DATA

Test No.	**21.00585**
Description	**2000 lm, Medium, 3500K, 80 CRI**
Delivered Lumens	**1933**
Watts	**15.3W**
Efficacy	**127**
Mounting	**Recessed**
Spacing Criterion	**0.6**
Beam Angle (FWHM)	**34**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1928	99.8
0-60	1931	99.9
0-90	1933	100.0
0-180	1933	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	5267
5	4677
15	3033
25	1352
35	55
45	3
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	523
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

PHOTOMETRY CONTINUED

LFR-4RD-M-20L35K8WD-DM1 / LFR-4RD-T-S

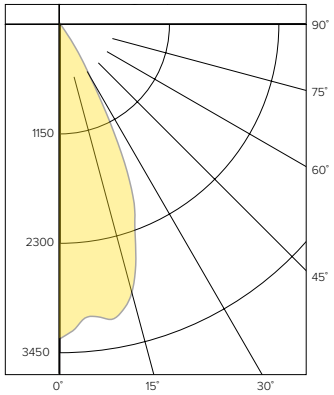
LUMINAIRE DATA

Test No.	**21.00577**
Description	**2000 lm, Wide, 3500K, 80 CRI**
Delivered Lumens	**1928**
Watts	**15.3W**
Efficacy	**126**
Mounting	**Recessed**
Spacing Criterion	**0.7**
Beam Angle (FWHM)	**49**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1922	99.7
0-60	1927	99.9
0-90	1928	100.0
0-180	1928	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	3329
5	3118
15	2946
25	1625
35	117
45	4
55	1
65	1
75	0
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	698
55°	215
65°	292
75°	0
85°	0

*Candela/Square Meter

LFR-4RD-M-20L35K8XW-DM1 / LFR-4RD-T-SS

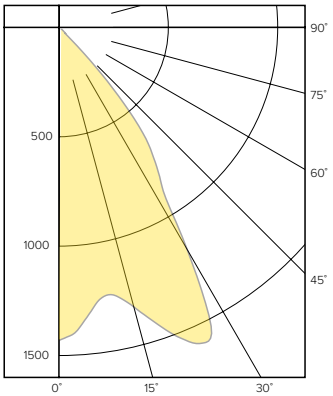
LUMINAIRE DATA

Test No.	**21.01456**
Description	**2000 lm, Extra Wide, 3500K, 80 CRI**
Delivered Lumens	**1835**
Watts	**15.2W**
Efficacy	**121**
Mounting	**Recessed**
Spacing Criterion	**1.0**
Beam Angle (FWHM)	**65**

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-40	1686	91.9
0-60	1826	99.5
0-90	1835	100.00
0-180	1835	100.0

POLAR GRAPH



CANDELA DISTRIBUTION

Degree	Candela
0	1431
5	1345
15	1323
25	1589
35	781
45	80
55	16
65	6
75	2
85	0
90	0

LUMINANCE DATA*

Vertical Angle	Average
45°	13955
55°	3441
65°	1751
75°	953
85°	0

*Candela/Square Meter

LUMEN MULTIPLIER

Option	27K8	30K8	35K8	40K8	50K8	27K9	30K9	35K9	40K9	50K9
Multiplier	0.93	0.96	1.00	1.01	1.03	0.78	0.82	0.85	0.87	0.89

Photometrics are published below at a nominal 3500 Kelvin, 80+ CRI. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

LENS OPTION / LENS FILTER ACCESSORY MULTIPLIER (Based on Clear Specular)

Option	CL (Clear Lens)	SFL4 (Soft Focus Accessory)	WAL4 (Wide Angle Accessory)
Multiplier	0.95	0.96	0.83

Multiply lumen/lens multipliers to calculate applicable combinations. Example: 30K8 with Clear Lens option (CL) = 0.96 x 0.95 = **0.91**

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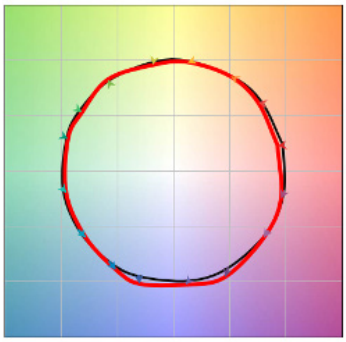
LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

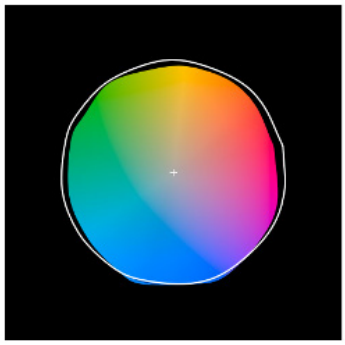
TM-30 DATA

COLOR VECTOR GRAPHIC 3500K, 90 CRI



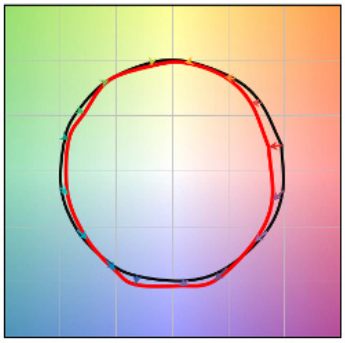
Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 90 CRI



TEST RESULTS - 3500K		
Value	80+ CRI	90+ CRI
R_f	85	90
R_g	95	99
CCT (K)	3422	3416
D_{UV}	-0.0008	-0.0019
x	0.4089	0.408
y	0.3906	0.3877
CIE R_a	85	93
CIE R_g	16	66

COLOR VECTOR GRAPHIC 3500K, 80 CRI



Reference Illuminant — Test Source

COLOR DISTORTION GRAPHIC 3500K, 80 CRI



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prescolite

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LFR-4RD

LITEFRAME 4" ROUND DOWNLIGHT

ELECTRICAL DATA

DRIVER DATA		
Input Voltage	120-277 V	347 V
Input Frequency	50/60 Hz	50/60 Hz
Power Factor	≥0.90	≥0.90
THD	<20%	<20%
EMI Filtering (FCC 47 CFR Part 15)	Class A	Class A

* Values for DM1 option shown, values for other dimming options may vary.

ADDITIONAL INFORMATION

Dimming Compatibility

For more details and recommended dimmer list, see Dimming Compatibility Information on currentlighting.com/prescolite.

DMX

See instruction sheet on currentlighting.com/prescolite for connection & installation information.

Central Inverters

For full fixture output in back-up mode, we recommend you visit currentlighting.com/dual-lite.com for your Central Lighting Inverter options. Please contact your local Current representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

Lumen Output in Emergency Mode

To determine the lumen output in emergency mode, multiply the battery pack wattage by the fixture lumens per watt (LPW). For example, 6W x 120 LPW = 720 lumens in emergency mode.

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BEACON
design . performance . technology

RATIO Outdoor Luminaire Family



Current

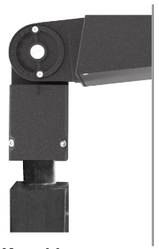
RATIO AREA/SITE

Beacon's Ratio area/site family is available in a variety of outputs allowing you to customize your lighting design to meet application requirements. With a new spin on a classic rectilinear form, Ratio brings the traditional shoebox aesthetic into the next generation of LED lighting. Ratio features a dense optical array which provides reduced pixilation and increased visual comfort without compromising performance. Designed for sustained, long-term performance with advanced thermal management, an elegantly simple heat sink and industry leading surge protection.

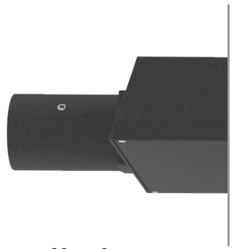




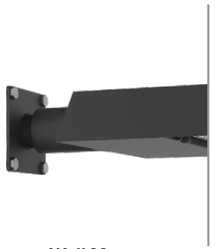
VERSATILE Mounting



Knuckle



Mast Arm



Wall Mount



Universal mounting block for ease of installation. Compatible with drill patterns from 2.5" to 4.5"

Universal Mounting

Size	RAR1-80L	RAR1-160L	RAR2-320L	RAR2-480L	RAR3-720L
Lumens	3,000–6,000	9,000–18,000	15,000–21,000	24,000–48,000	55,000–80,000
Watts	25/50W	70–135W	110–165W	185–340W	375–575W
LPW	140	144	155	147	150
Mounting	Arm, Mast Arm, Knuckle, Wall	Arm, Mast Arm, Knuckle, Wall	Arm, Mast Arm, Knuckle, Wall	Arm, Mast Arm, Knuckle, Wall	Arm, Mast Arm, Knuckle, Wall
CCT	3K, 4K, 5K	3K, 4K, 5K	3K, 4K, 5K	3K, 4K, 5K	3K, 4K, 5K
Distributions	2, 3, 4W, 4F, 5QW	2, 3, 4W, 4F, 5QW	2, 3, 4W, 4F, 5QW	2, 3, 4W, 4F, 5QW	2, 3, 4W, 4F, 5QW
IP Rating	IP66	IP66	IP66	IP66	IP66
Legacy Equivalence	100–175W	175–400W	250–400W	400–750W	1,000–1,500W

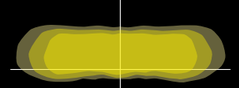
RATIO AREA/SITE – Performance

IES comparison

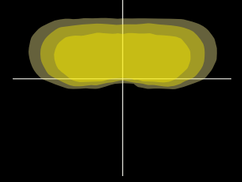
The Ratio is available with four distinct distribution patterns to illuminate a variety of applications. Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues. This outstanding optic control simplifies layouts and installations, reducing pole count, energy consumption, lowers installation costs and improves visual acuity.

	Parking Area									
	Illuminance (Fc)					Output				
Luminaire	Minimum	Average	Maximum	Avg/Min	Max/ Min	Watts	Lumens	Pole Spacing	# Of Poles	Total Watts
RAR-2-480L-210-4K7-4W @ 25' MH	1.4	3.0	6.6	2.1	4.7	210	27,000	130'	4	840
Typical Area/Site Luminaire @ 25' MH	1.0	2.9	8.3	2.9	8.3	215	27,524	100'	6	1,290

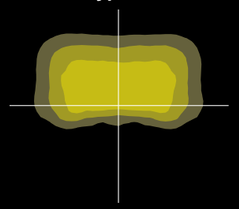
Type 2



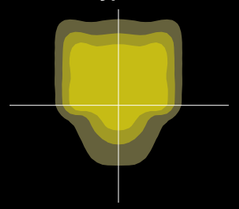
Type 3



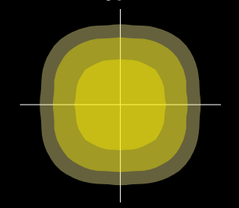
Type 4W



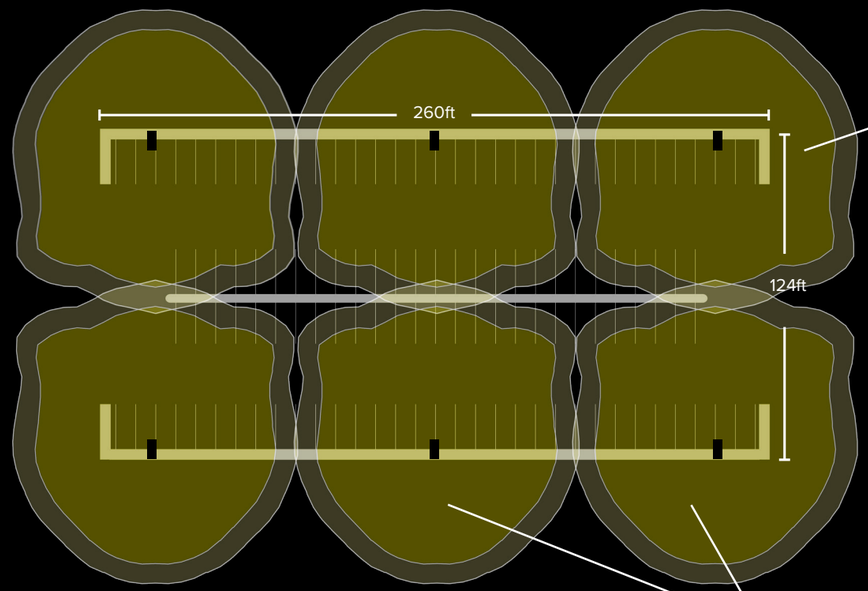
Type 4F



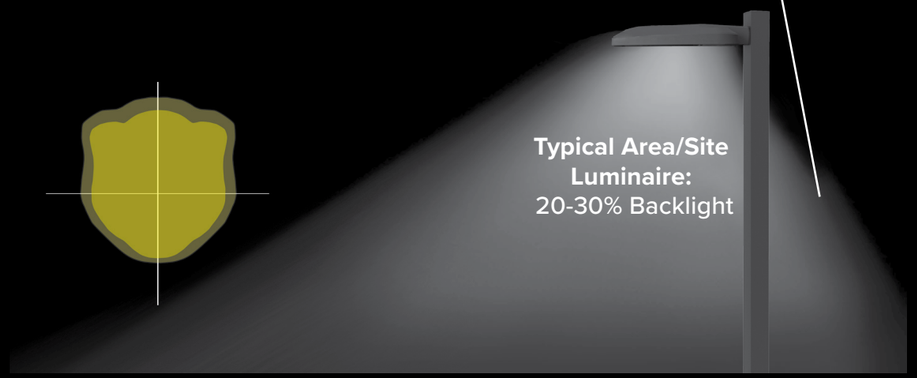
Type 5



Typical Area/Site Luminaire
Type 4 Distribution

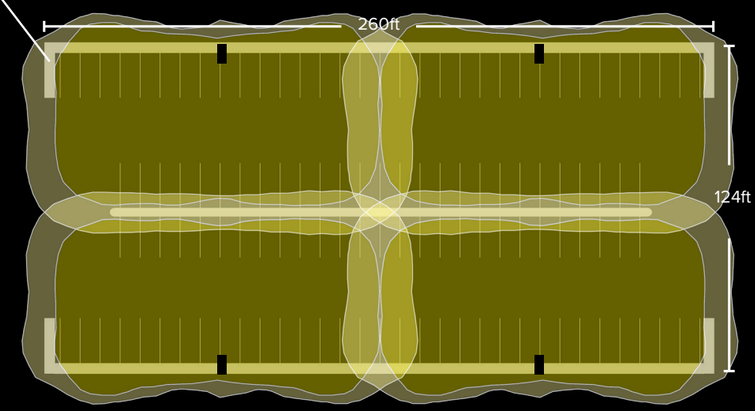


Poor backlight control



Reduce fixture and pole count, improved uniformity, higher overall footcandles

Ratio
Type 4 Distribution



Backlight Cutoff

Micro Strike Optics maximize target illumination and uniformity while minimizing backlight.



RATIO Flood





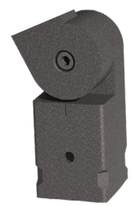
Visor
RFL4 – RFL5



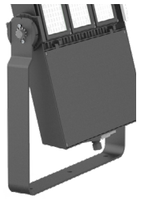
Louver
RFL4 – RFL5



Trunnion Mount
RFL4 – RFL5



Knuckle Mount
RFL4 – RFL5



Yoke Mount
RAR3 Only



Knuckle Mount
RFL2 – RFL3



Trunnion Mount
RFL2 – RFL3

Beacon Lighting's Ratio flood series is available in four sizes as well as a variety of outputs allowing you to customize your lighting design to meet application requirements.

The Ratio flood series was designed in cohesion with the site/area products to provide a sleek yet timeless product family to be used throughout a site. Ratio features a dense optical array which provides reduced pixelation and increased visual comfort without compromising performance.

Designed for sustained, long-term performance with advanced thermal management and elegantly simple heat sink and industry leading surge protection. Scalable sizes, multiple beam spreads and interchangeable mountings make this an extremely versatile product family.

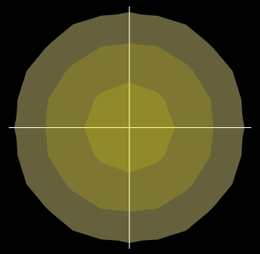


Size	RFL2	RFL3	RFL4	RFL5	RAR3-540L
Lumens	3,500	5,000/7,000	12,000/15,000	18,000/25,000/30,000	35,000–65,000
Watts	25W	40/50W	95/120W	130/190/265W	235-480W
LPW	132	139	140	149	144
Mounting	Knuckle, Trunnion	Knuckle, Trunnion	Knuckle, Trunnion	Knuckle, Trunnion	Knuckle, Trunnion, Yoke
CCT	3K, 4K, 5K	3K, 4K, 5K	3K, 4K, 5K	3K, 4K, 5K	3K, 4K, 5K
Distributions	N, M, W	N, M, W	N, M, W	N, M, W	N, M, W
IP Rating	IP66	IP66	IP66	IP66	IP66
Legacy Equivalence	100-150W	175-250W	250-400W	750W-1000W	1,000W–1,500W

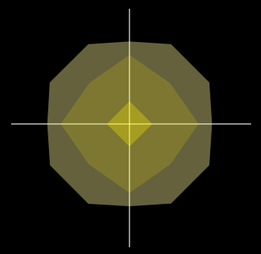
RATIO Flood – Performance

IES Distributions

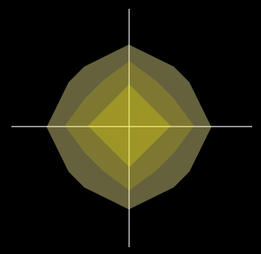
The Ratio flood series is available in three NEMA distribution patterns utilizing Micro Strike Optics for optimal performance.



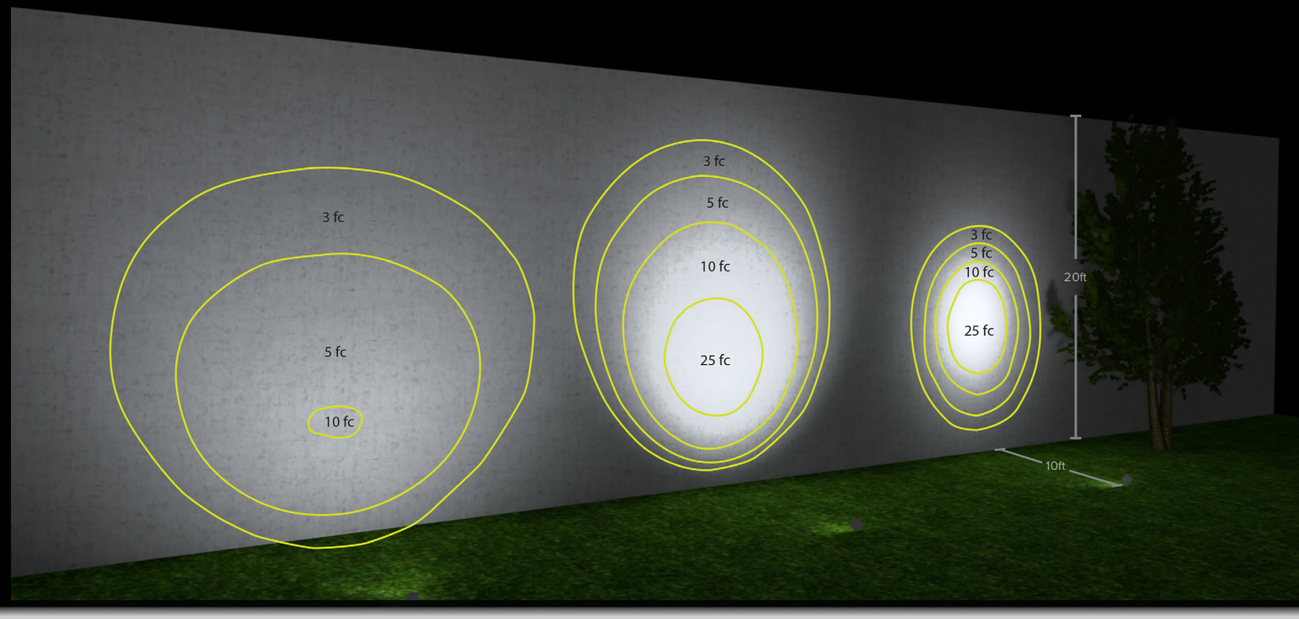
NEMA 6X6



NEMA 4X4



NEMA 2X2



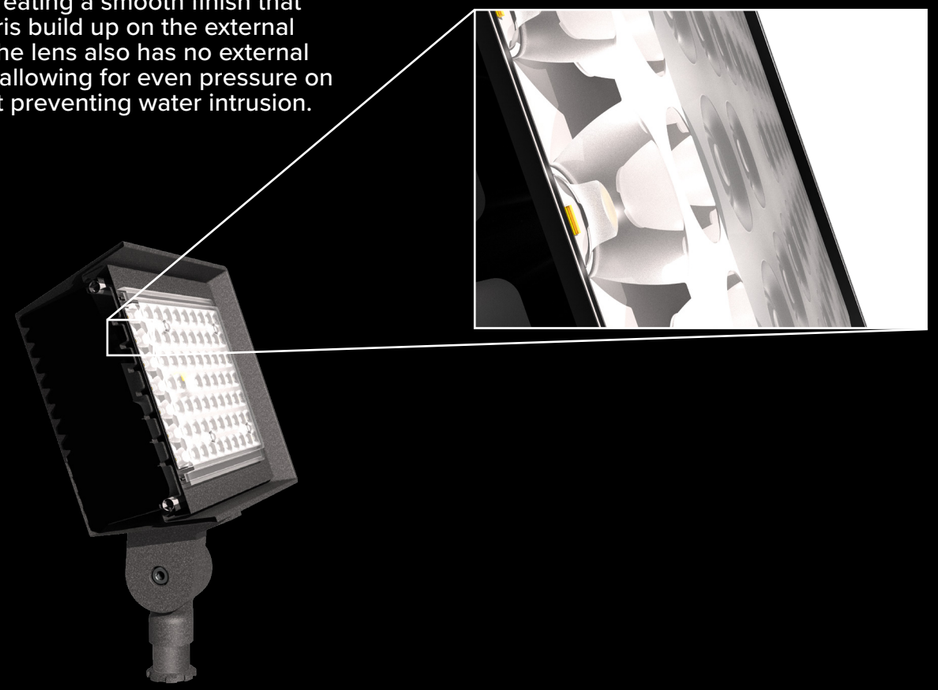
Superior design

The Ratio flood series was specifically designed to shed water. The vented housing, in addition to cooling the fixture, also eliminates the ability for water to build up anywhere on the luminaire surface.



Optical excellence

All optical geometry is on the inside of the lens creating a smooth finish that limits debris build up on the external surface. The lens also has no external hardware allowing for even pressure on the gasket preventing water intrusion.



RATIO Wall and Family

Beacon's Ratio family has been expanded to include two wall products in addition to the existing three area luminaires and four flood luminaires. The expansive Ratio family contains a variety of outputs allowing you to customize your lighting design to meet application requirements.

With a new spin on a classic rectilinear form, Ratio Wall brings a traditional luminaire aesthetic into the next generation of wall packs from Beacon. Ratio Wall features a dense optical array which provides reduced pixelation and increased visual comfort without compromising performance. It is designed for sustained, long-term performance with advanced thermal management, an elegantly simple heat sink and industry leading surge protection.



Size	RWL1	RWL2
Lumens	1,000–5,000	6,000–19,500
Watts	10–45	45–155
LPW	136	148
CCT	3K, 4K, 5K	3K, 4K, 5K
Distributions	3, 4W	2, 3, 4W, 4F
IP Rating	IP65	IP65
Legacy Equivalence	42W–175W	175W–400W

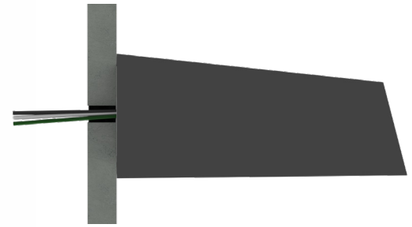
Installation

Ratio Wall was designed with mounting flexibility in mind. Between the standard housing, the back box accessory, and the integral back box this luminaire makes installation easy.

Standard Fixture



Wiring connections made in junction box

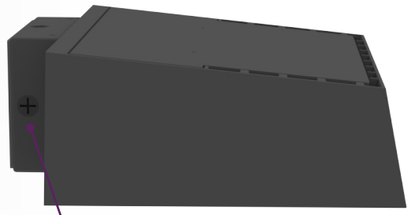


Wiring connection made in fixture

Back Box Accessory

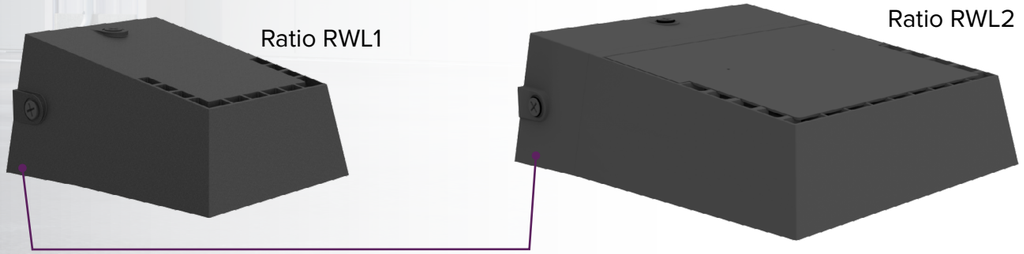


Allows fixture to mount to corrugated surfaces



Provides four locations for conduit entry

Integral Back Box



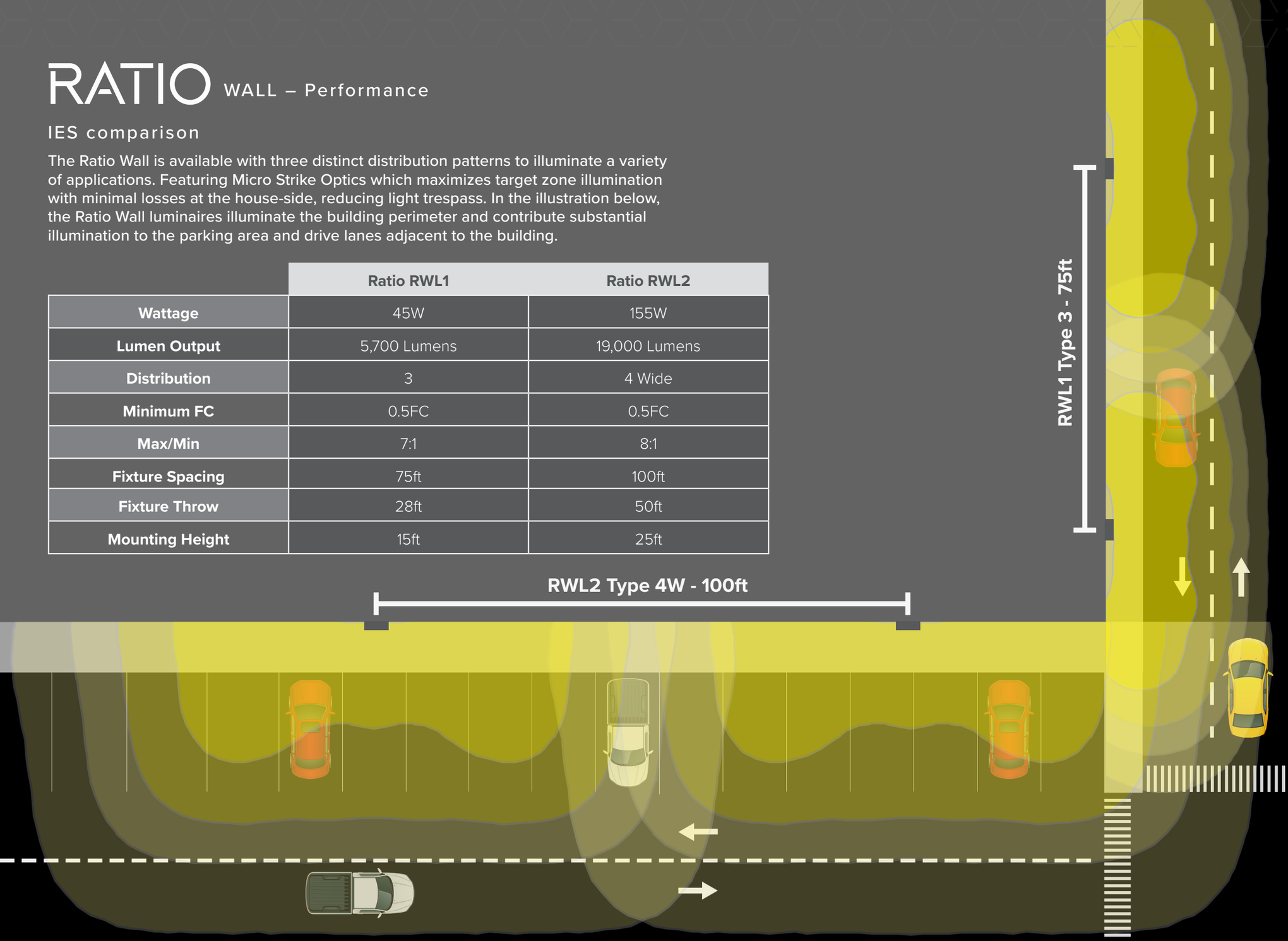
Integral back box provides a smooth transition to the standard housing and provides four locations for conduit entry. This option is required for some control and battery options

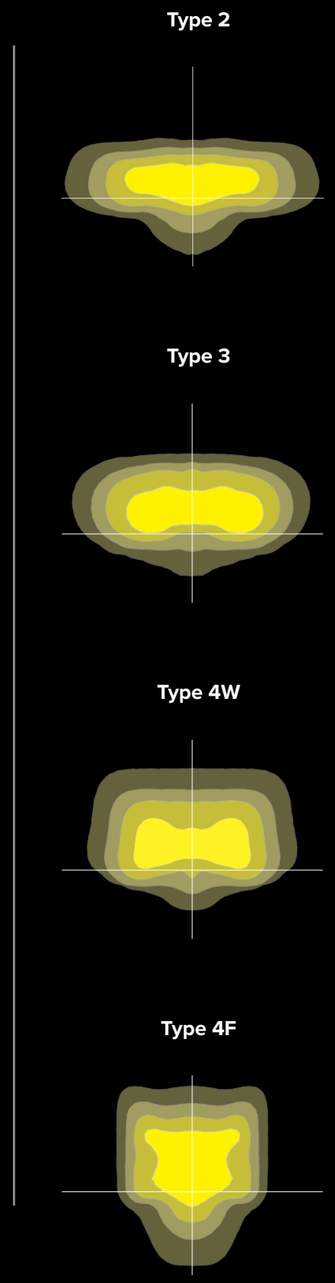
RATIO WALL – Performance

IES comparison

The Ratio Wall is available with three distinct distribution patterns to illuminate a variety of applications. Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass. In the illustration below, the Ratio Wall luminaires illuminate the building perimeter and contribute substantial illumination to the parking area and drive lanes adjacent to the building.

	Ratio RWL1	Ratio RWL2
Wattage	45W	155W
Lumen Output	5,700 Lumens	19,000 Lumens
Distribution	3	4 Wide
Minimum FC	0.5FC	0.5FC
Max/Min	7:1	8:1
Fixture Spacing	75ft	100ft
Fixture Throw	28ft	50ft
Mounting Height	15ft	25ft



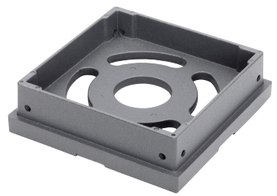


RATIO Bollard

This bollard is the perfect compliment to the rectilinear Ratio family with its clean lines and low glare appearance. High performing optical distributions also add to the consistency across all the Ratio products. The Ratio Bollard is suitable for a variety of applications and it is available in multiple heights and has a field rotatable base plate.







Field rotatable base plate



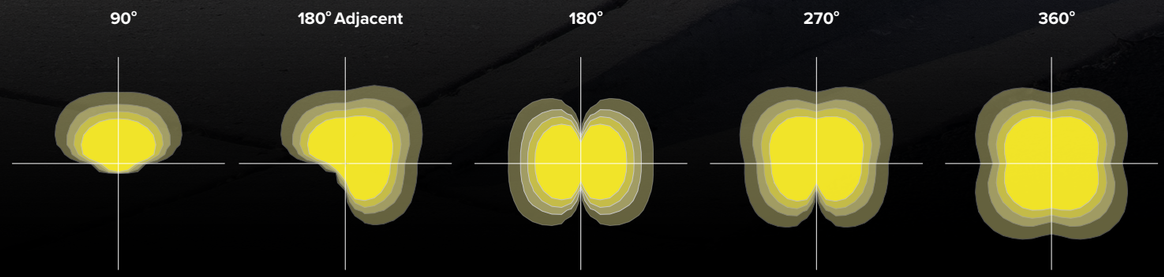
Configurations	RBD-14L-7	RBD-28L-15	RBD-28L-15	RBD-42L-23	RBD-56L-30
Lumens	750	1,500	1,500	2,250	3,000
Watts	7W	15W	15W	23W	30W
Distribution	90°	180° opposing	180° adjacent	270°	360°

RATIO

Bollard - Performance



The Ratio Bollard has a unique optical design that provides great distribution flexibility in a full cutoff design. Each side of the bollard has it's own LED board so you can choose to illuminate any section, giving you light in 90 degree increments. This creates perfect distributions for open plazas, seating areas and sidewalks, no matter which way the path may lead.



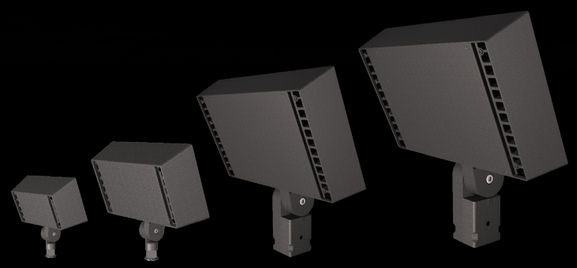
RATIO COMPREHENSIVE SOLUTIONS

Beacon Lighting provides comprehensive and coordinated solutions for a variety of exterior applications. A full line of luminaires are available with complementing shapes and styles that proportionally scale and add balance to the outdoor environment. Quality construction and industry leading performance complete the package. Control options featuring photocontrols, occupancy controls and NX Distributed Intelligence™ enable optimum energy savings and customization.

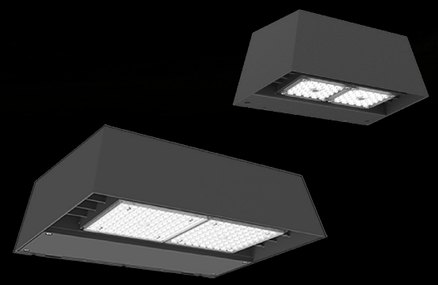
AREA/SITE



Flood



Wall



Bollard



RATIO VISUAL COMFORT

Ratio’s unique optical design combines visual uniformity with the precise distribution of a TIR optic. Five times the luminous surface area provides optimal light distribution plus visual comfort.

Competitor Optic (COB)



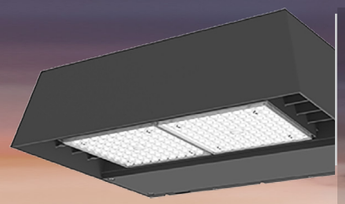


Micro Strike Optics





	Competitor Optic (COB)	Micro Strike Optics
Approximate Luminous Surface Area	10in^2	50in^2
Approximate Total Lumen Output	10,000	10,000
Lumens per inch^2	1,000	200



Ratio Wall

Designed for optimal visual comfort and maximum performance, the low optics versions provide excellent illumination and uniformity with zero LED pixelation.

RATIO INTEGRATED CONTROLS

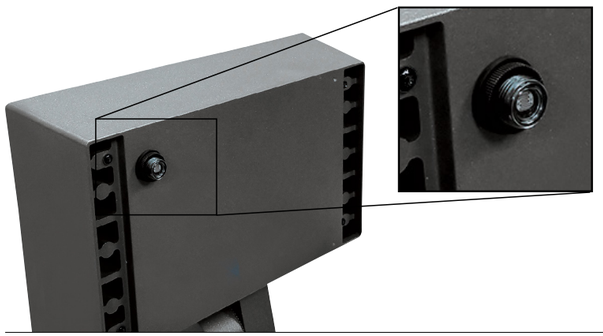
Controls in every applications save energy, extend luminaire life and allow customizable solutions.
Scalable control solutions are available cross the entire Ratio family

STANDALONE CONTROLS functionality

Occupancy Sensor
- Individual fixture control
- Dims product when space is not occupied



Photocontrol
- Individual fixture control
- Turns fixture on when sun sets





Integrated CONTROLS

NX LIGHTING CONTROLS™

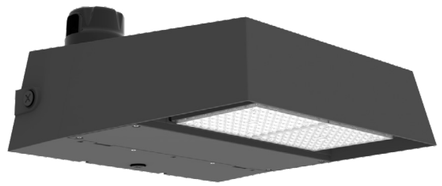
NX Distributed Intelligence™ platform delivers a lighting control solution capable of seamlessly connecting exterior and interior applications.

- Standalone or networked fixture control
- Astronomical time schedules
- BACnet building networking
- Connects with indoor wired, wireless or hybrid networks
- Wireless setup via app
- Occupancy Sensor option dims product when space is not occupied



7-Pin Receptacle
- Compatible with 3-pin, 5-pin or 7-pin photocontrols
- Turns fixture on when sun sets, off when sun rises
- Wireless networked solution
- For use with a variety of control platforms

*Additional accessories required.





RATIO AREA/SITE Ordering information

STOCK ORDERING INFORMATION ORDERING EXAMPLE: RAR1-100-4K-4

CATALOG DESCRIPTION	LUMENS	WATTAGE	LED COUNT	CCT/CRI	VOLTAGE	DISTRIBUTION	MOUNTING	FINISH
RAR1-100-4K-3	12,000	100W	160L	4000K/70CRI	120-277V	Type 4 Wide	Square Arm	Bronze
RAR1-100-4K-4	12,000	100W	160L	4000K/70CRI	120-277V	Type 4 Wide	Square Arm	Bronze
RAR1-135-4K-3	18,000	135W	160L	4000K/70CRI	120-277V	Type 4 Wide	Square Arm	Bronze
RAR1-135-4K-4	18,000	135W	160L	4000K/70CRI	120-277V	Type 4 Wide	Square Arm	Bronze
RAR2-165-4K-3	21,000	165W	320L	4000K/70CRI	120-277V	Type 4 Wide	Square Arm	Bronze
RAR2-165-4K-4	21,000	165W	320L	4000K/70CRI	120-277V	Type 4 Wide	Square Arm	Bronze

ORDERING INFORMATION ORDERING EXAMPLE: RFL2-80L-3K7-FR-UNV-ASQ-BL-NXWE-BC

SERIES	# LEDS WATTAGE		CCT/CRI	DISTRIBUTION	OPTICS ROTATION	VOLTAGE	MOUNTING SQUARE POLES
RAR1 Ratio Area Size 1	**80L-25**	25W - 3,000 Lumens	**3K7** 3000K, 70 CRI	**2** TYPE 2	Blank for no rotation	**UNV** Universal 120-277V	**ASQ** Arm mount for square pole/ flat surface
	80L-50	50W - 6,000 Lumens	**4K7** 4000K, 70 CRI	**3** TYPE 3	**L** Optic rotation left	**347** 347V	**ASQU** Universal Arm mount for square pole/flat surface
	160L-70	70W - 9,000 Lumens	**5K7** 5000K, 70 CRI	**4W** TYPE 4	**R** Optic rotation right	**480** 480V	**MOUNTING ROUND POLES**
	160L-100	100W - 12,000 Lumens		**4F** TYPE 4 Forward			**A_**[1] Arm mount for round pole
	160L-115	115W - 15,000 Lumens		**5QW** TYPE 5			**A_U**[1] Universal arm mount for round point
	160L-135	135W - 18,000 Lumens					**MOUNTING OTHER**
RAR2 Ratio Area Size 2	**320L-110**	110W - 15,000 Lumens					**WB** Wall bracket
	320L-140	140W - 18,000 Lumens					**MAF** Mast Arm Fitter for 2-3/8" OD horizontal arm
	320L-165	165W - 21,000 Lumens					**K** Knuckle
	480L-185	185W - 24,000 Lumens					
	480L-210	210W - 27,000 Lumens					
	480L-240	240W - 30,000 Lumens					
	480L-255	255W - 36,000 Lumens					
	480L-295	295W - 42,000 Lumens					
	480L-340	340W - 48,000 Lumens					

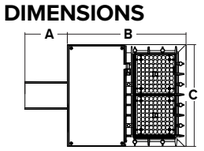
COLOR	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Brone Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
LGT	Light Grey Matte Textured
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured
Color Option	
CC	Custom Color

CONTROL OPTIONS NETWORK	
NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [5,6,7]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [5,6,7]
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [6,7]
CONTROL OPTIONS OTHER	
SCP-40F[4]	Programmable occupancy sensor
7PR	7-Pin twist lock receptacle
7PR-SC	7-Pin receptacle with shorting cap
7PR-MD40F	Low voltage sensor for 7PR
7PR-TL	7-Pin PCR with photocontrol

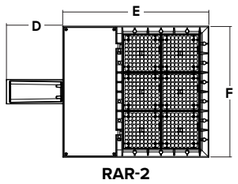
OPTIONS	
BC	Backlight control
F	Fusing (must specify voltage)
TB	Terminal Block
2PF[3]	2 power feed with 2 drivers

Notes:
1. Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
2. Replace "_" with "14" for up to 14' mounting height, "30F" for 15-30' mounting height
3. Not available with 80 LED versions
4. At least one SCPREMOTE required to program SCP motion sensor
5. Items with a grey background can be done as a custom order. Contact brand representative for more information
6. Networked Controls cannot be combined with other control options
7. Not available with 2PF option

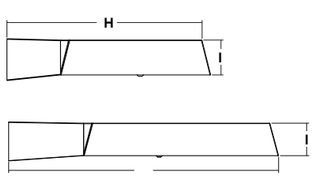
DIMENSIONS



RAR-1



RAR-2



A	B	C	D	E	F	G	H	I	RAR-1 EPA@0˚	RAR-2 EPA@0˚	RAR-1 EPA@30˚	RAR-2 EPA@30˚
5.0"	14.0"	12.0"	7.5"	19.5"	17.39"	27.0"	18.2"	3.25"	.45 ft.^{2}	.55 ft.^{2}	.56 ft.^{2}	1.48 ft.^{2}
127mm	355.6mm	304.8mm	190.5mm	495.3mm	441.7mm	685.8mm	462.8mm	82.5mm	.13 m^2	.17 m^2	.17 m^2	.45 m^2

Weight

RAR-1	13.5 lbs (6.12 kgs)
RAR-2	24.0 lbs (10.8 kgs)

STOCK ACCESSORIES/REPLACEMENT PARTS - Order Separately

Catalog Number	Description
RARRPA3DB	Round pole adapter 3.5" TO 4.13"
RARA3UDB	Universal mount for square pole or round pole 3.5" to 4.13"

ACCESSORIES/REPLACEMENT PARTS - Order Separately

Catalog Number	Description
RAR-ASQU-XX	Universal arm mount for square pole/flat surface
RAR-A_U-XX	Universal arm mount for round poles
RAR-RPA_-XX	Round pole adapter
TPLBARA3	Twin parallel luminaire bracket
SETAVP	4" square pole top tenon adapter, 2 3/8" OD slipfitter
RETAVP	4" round pole top tenon adapter; 2 3/8" OD slipfitter for max. Four fixtures (90˚); order 4" round pole adapters separately
SPIKE	Bird Deterrent
RARWB-XX	Wall Bracket - use with Mast Arm Fitter

[1] Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole

CONTROLS ACCESSORIES - Order Separately

Catalog Number	Description
SCPREMOTE	Order at least one per project location to program and control
WIR-RME-L	wiSCAPE™ external control node; use with 7PR
NXOFM-1R1D-UNV	NX external control node; use with 7PR

MOUNTING



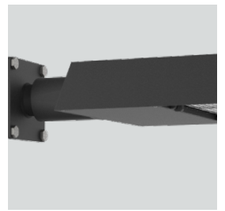
Arm Mount – Fixture ships with integral arm for ease of installation. Compatible with Hubbell Outdoor B3 drill pattern.



MAF – Fits 2-3/8" OD arms Roadway applications.



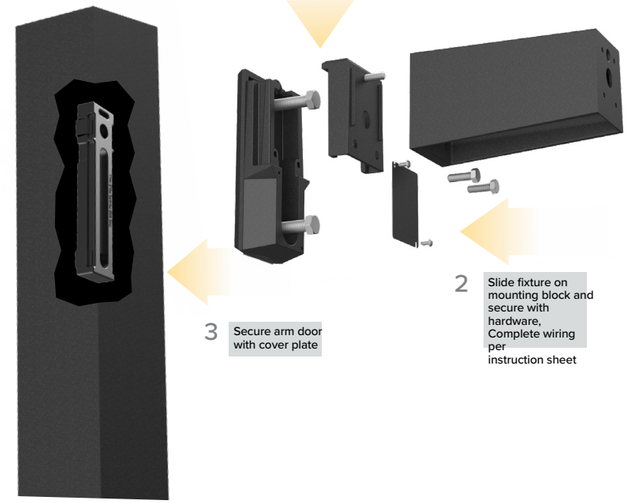
Knuckle – Knuckle mount 15˚ aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes.



Wall Mount – Wall mount bracket designed for building mount applications.

UNIVERSAL MOUNTING BLOCK

Universal mounting block for ease of installation. Compatible with drill patterns from 2.5" to 4.5"



Finish options



BL Black Textured



DB Dark Bronze Textured



GYS Gray Smooth



GT Graphite Textured



PS Platinum Silver Smooth

WH White Textured

RATIO AREA/SITE Ordering information

ORDERING INFORMATION ORDERING EXAMPLE: RAR3–720L-375–3K7–4W–ASQ–UNV–BLT–SWP–F

Series	
RAR3	Ratio Area Size 3

# LEDs - Wattage	
720L-375	55,000 Lumens
720L-415	60,000 Lumens
720L-455	65,000 Lumens
720L-495	70,000 Lumens
720L-535	75,000 Lumens
720L-575	80,000 Lumens
540L-235	35,000 Lumens
540L-270	40,000 Lumens
540L-315	45,000 Lumens
540L-355	50,000 Lumens
540L-390	55,000 Lumens
540L-435	60,000 Lumens
540L-480	65,000 Lumens

CCT/CRI	
3K7	3000K, 70 CRI
4K7	4000K, 70 CRI
5K7	5000K, 70 CRI
3K8	3000K, 80 CRI
4K8	4000K, 80 CRI
5K8	5000K, 80 CRI

Distribution	
2	IES TYPE 2
3	IES TYPE 3
4W	IES TYPE 4
4F	IES TYPE 4 Forward
5QW	IES TYPE 5
N	Narrow, 2x2
M	Medium Flood, 4x4
W	Wide Flood, 6x6

Mounting	
ASQ	Arm mount for square pole/flat surface
A3	Arm mount for 3" round pole
A4	Arm mount for 4" round pole
A5	Arm mount for 5" round pole
MAF	Mast arm fitter for 2-3/8" OD
WB	Wall bracket
K	Knuckle
K	Knuckle
Y	Yoke
T	Trunnion

Optic Rotation	
	Blank for no rotation
L	Optic rotation left
R	Optic rotation right

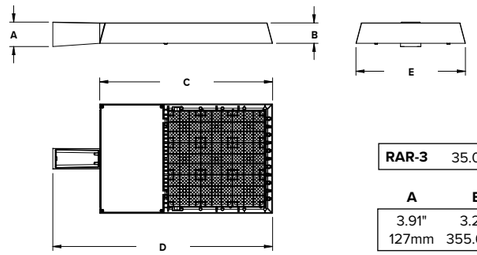
Voltage	
UNV	120-277V
120	120V
208	208V
240	240V
277	277V
347	347V
480	480V

Color	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Brone Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
LGT	Light Grey Matte Textured
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured
Color Option	
CC	Custom Color

Control Options Network	
NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7,8]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7,8]
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [7,8]
WIR	Wireless Controls, wiSCAPE
Stand Alone Sensors	
SCP-_F	Remote control programable line voltage sensor (Wattstopper FSP-211B, 221B; all voltages)[3,5]
WSPD_	Bluetooth WASP[3,5]
Control Options	
7PR	7-Pin Receptacle[3]
7PR-SC	7-Pin receptacle with shorting cap[3]
7PR-MD40F	Low voltage sensor and 7-Pin Receptacle[3]
7PR-TL	7-Pin PCR with photocontrol
PC	Button Photocontrol[4]
ADD	AutoDim timer based dimming
ADT	AutoDim time of day dimming

Options	
BC	Backlight control
F	Fusing (must specify voltage)
TB	Terminal block

DIMENSIONS



Notes:
1. Works with external networked photosensor
2. wiSCAPE Gateway required for system programming
3. Control option not available with yoke or trunnion mounting
4. Not available with 480V
5. Replace "_" with "14" for up to 14' mounting height, "40" for up to 40' mounting height
6. Items with a grey background can be done as a custom order. Contact brand representative for more information
7. Networked Controls cannot be combined with other control options
8. Not available with 2PF option

Weight

RAR-3	35.0 lbs (15.88 kgs)

A	B	C	D	E	RAR3 EPA@0°	RAR3 EPA@30°	RAR3 EPA@60°
3.91"	3.25"	27.62"	35.12"	17.5"	1.1 ft^2	2.6 ft^2	4.1 ft^2
127mm	355.6mm	304.8mm	190.5mm	495.3mm	.10 m^2	.24 m^2	.38 m^2

Finish options



BL Black Textured



DB Dark Bronze Textured



GYS Gray Smooth



GT Graphite Textured



PS Platinum Silver Smooth

WH White Textured

STOCK ACCESSORIES/REPLACEMENT PARTS - Order Separately

Catalog Number	Description
RARRPA3DB	Round pole adapter 3.5" TO 4.13"

ACCESSORIES/REPLACEMENT PARTS - Order Separately

Catalog Number	Description
RAR-RPA_-XX	Round pole adapter
TPLBARA3	Twin parallel luminaire bracket
SETAVP	4" square pole top tenon adapter, 2 3/8" OD slipfitter
RETAVP	4" round pole top tenon adapter; 2 3/8" OD slipfitter for max. Four fixtures (90°); order 4" round pole adapters separately
SPIKE	Bird Deterrent
RARWB-XX	Wall Bracket - use with Mast Arm Fitter

[1] Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole

House Side Shield Accessories	
RAR3 HSS-90-B-XXX	House Side Shield Back 90°
RAR3 HSS-90-F-XXX	House Side Shield Front 90 deg
RAR3 HSS-90-S-XXX	House Side Shield Side 90 deg
RAR3 HSS-270-BSS-XXX	House Side Shield Back, Side & Side 270 deg
RAR3 HSS-270-FSS-XXX	House Side Shield Front, Side & Side 270 deg
RAR3 HSS-270-FSB-XXX	House Side Shield Front, Side & Back 270 deg
RAR3 HSS-360-XXX	House Side Shield 360 deg

Replace XXX with notation for desired finish color. Refer to page 8 for shield images.

CONTROLS ACCESSORIES - Order Separately

Catalog Number	Description
SCPREMOTE	Order at least one per project location to program and control
WIR-RME-L	wiSCAPE™ external control node; use with 7PR
NXOFM-1R1D-UNV	NX external control node; use with 7PR

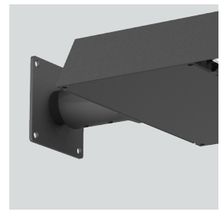
MOUNTING



Arm Mount – Fixture ships with integral arm for ease of installation. Compatible with Hubbell Outdoor B3 drill pattern. Available on Area configurations.



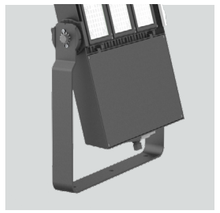
MAF – Fits 2-3/8" OD arms Roadway applications. Available on Area configurations.



Wall Mount – Wall mount bracket designed for building mount applications. Available on Area configurations.



Knuckle – Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes. Available on Area and Flood configurations.



Yoke – For mounting directly to flat surfaces or crossarms. Available on flood configurations.



Trunnion – For mounting directly to flat surfaces or crossarms. Available on flood configurations.

RATIO FLOOD Ordering information

STOCK ORDERING INFORMATION

CATALOG DESCRIPTION	MOUNTING	DISTRIBUTION	WATTAGE	VOLTAGE	CCT	LUMENS	LPW	WEIGHT LBS. (KG)	FINISH
RFL2-25-4K	Knuckle	Wide	26	120-277V	4000K	3267	126	3.7 (1.68)	Bronze
RFL2-25-5K	Knuckle	Wide	26	120-277V	5000K	3283	126	3.7 (1.68)	Bronze
RFL3-40-4K	Knuckle	Wide	34	120-277V	4000K	4804	141	5.5 (2.5)	Bronze
RFL3-40-5K	Knuckle	Wide	34	120-277V	5000K	4827	142	5.5 (2.5)	Bronze
RFL3-50-4K*	Knuckle	Wide	50	120-277V	4000K	6823	132	5.5 (2.5)	Bronze
RFL3-50-5K*	Knuckle	Wide	50	120-277V	5000K	6655	129	5.5 (2.5)	Bronze

ORDERING INFORMATION ORDERING EXAMPLE: RFL2-44-25-4K7-M-UNV-K-DB

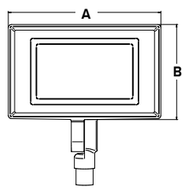
SERIES	# LEDS	WATTS	CCT/CRI	DISTRIBUTION	VOLTAGE	MOUNTING	COLOR	CONTROL OPTIONS
RFL2 Ratio Flood Size 2	**44** 44 LEDs	**25** 3,000 lm	**3K7** 3000K, 70 CRI	**N** Narrow, 2x2	**UNV** Universal 120-277	**K** Knuckle	**BLT** Black Matte Textured	**PC** Button Photocontrol
RFL3 Ratio Flood Size 3	**90** 90 LEDs	**40** 5,000 lm	**4K7** 4000K, 70 CRI	**M** Medium Flood, 4x4			**BLS** Black Gloss Smooth	
		50 7,000 lm	**5K7** 5000K, 70 CRI	**W** Wide Flood, 6x6			**DBT** Dark Bronze Matte Textured	
							DBS Dark Brone Gloss Smooth	
							GTT Graphite Matte Textured	
							LGS Light Grey Gloss Smooth	
							LGT Light Grey Matte Textured	
							PSS Platinum Silver Smooth	
							WHT White Matte Textured	
							WHS White Gloss Smooth	
							VGT Verde Green Textured	
							Color Option	
							CC Custom Color	

ACCESSORIES/REPLACEMENT PARTS - Order Separately

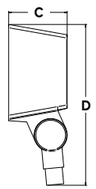
Catalog Number	Description
☐ **S-302**	Slipfits 1 1/2" or 2" pipe (1.9" OD or 2 3/8" OD) with 1/2" N.P.S.M. hub; Gray
☐ **S-302-M51**	Slipfits 1 1/2" or 2" pipe (1.9" OD or 2 3/8" OD) with 1/2" N.P.S.M. hub; Bronze
☐ **S-302-M52**	Slipfits 1 1/2" or 2" pipe (1.9" OD or 2 3/8" OD) with 1/2" N.P.S.M. hub; White
☐ **TRN-XX**[1]	Trunnion adapter for 1/2" threaded knuckle mount

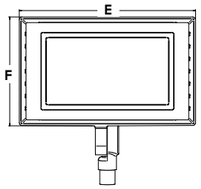
[1] Specify finish color to match fixture, e.g. DB - Bronze.

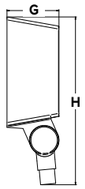
DIMENSIONS



RFL2







RFL3

A	B	C	D	E
7.5" 191mm	4.7" 119mm	2.9" 74mm	7.9" 201mm	9.8" 249mm

Weight	
RFL2	3.7 lbs (1.68 kgs)
RFL3	5.5 lbs (2.50 kgs)

F	G	H	RFL2 EPA(Front/Side)	RFL3 EPA(Front/Side)
6.0" 152mm	2.9" 74mm	9.3" 236mm	0.34ft² / 0.17ft²	0.97ft² / 0.20ft²

STOCK ORDERING INFORMATION

CATALOG DESCRIPTION	MOUNTING	DISTRIBUTION	WATTAGE	VOLTAGE	CCT	LUMENS	LPW	WEIGHT LBS. (KG)	FINISH
RFL4-120-5K-K**	Knuckle	Wide	124W	120-277V	5000K	14432	116	16.0 (7.26)	Bronze
RFL4-120-4K-K**	Knuckle	Wide	124W	120-277V	4000K	14360	116	16.0 (7.26)	Bronze
RFL5-265-5K-K**	Knuckle	Wide	266W	120-277V	5000K	30649	115	25.7 (11.66)	Bronze
RFL5-265-4K-K**	Knuckle	Wide	266W	120-277V	4000K	30496	115	25.7 (11.66)	Bronze
TRN-RFL – Trunnion Kit									

**Also available with Trunnion

ORDERING INFORMATION ORDERING EXAMPLE: RFL4-176-95-4KL-M-UNV-K-GYS

SERIES	# LEDS	WATTS	CCT/CRI	DISTRIBUTION	VOLTAGE	MOUNTING	COLOR
RFL4 Ratio Flood Size 4	**176** 176 LEDs	**95** 12,000 lm	**3K7** 3000K, 70 CRI	**N** Narrow, 2x2	**UNV** Universal 120-277	**K** Knuckle	**BLT** Black Matte Textured
RFL5 Ratio Flood Size 5	**360** 360 LEDs	**120** 15,000 lm	**4K7** 4000K, 70 CRI	**M** Medium Flood, 4x4	**120** 120V	**T** Trunnion	**BLS** Black Gloss Smooth
		130 18,000 lm	**5K7** 5000K, 70 CRI	**W** Wide Flood, 6x6	**208** 208V		**DBT** Dark Bronze Matte Textured
		190 25,000 lm			**240** 240V		**DBS** Dark Brone Gloss Smooth
		265 30,000 lm			**277** 277V		**GTT** Graphite Matte Textured
					347 347V		**LGS** Light Grey Gloss Smooth
					480 480V		**LGT** Light Grey Matte Textured
							PSS Platinum Silver Smooth
							WHT White Matte Textured
							WHS White Gloss Smooth
							VGT Verde Green Textured
							Color Option
							CC Custom Color

CONTROL OPTIONS		OPTIONS	
SCP-_F[2]	Programmable occupancy sensor	**SP**	Surge Protector
7PR	7-Pin twist lock receptacle	**F**	Fusing
7PR-SC	7-Pin receptacle with shorting cap		
7PR-MD_F[2]	Low voltage sensor for 7PR		
7PR-TL	7-Pin PCR with photocontrol		

[1] Replace "__" with "14" for up to 14' mounting height, "30F" for 15-30' mounting height
[2] Replace "__" with "8" for up to 8' mounting height, "40F" for 9-40' mounting height

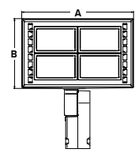
See specification sheet for complete ordering information.

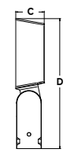
ACCESSORIES/REPLACEMENT PARTS - Order Separately

Catalog Number	Description
☐ **RFL4-TV**	Top Visor - RFL4
☐ **RFL4-FL**	Louver - RFL4
☐ **RFL5-TV**	Top Visor - RFL5
☐ **RFL5-FL**	Louver - RFL5

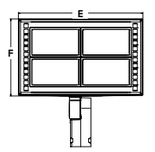
See www.HubbellLighting.com for mounting bracket information.

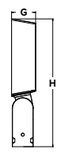
DIMENSIONS





RFL4





RFL5

A	B	C	D	E
13.8" 351mm	8.6" 218mm	3.5" 89mm	16.0" 406mm	18.1" 460mm

Weight	
RFL4	16 lbs (7.26 kgs)
RFL5	25.7 lbs (11.66 kgs)

F	G	H	RFL4 EPA(Front/Side)	RFL5 EPA(Front/Side)
11.2" 152mm	3.5" 89mm	18.6" 472mm	1.24ft² / 0.43ft²	2.00ft² / 0.50ft²

RATIO WALL Ordering information

STOCK ORDERING EXAMPLE: RWL-48L-25-4K-3

CATALOG DESCRIPTION	LUMENS	WATTAGE	LED COUNT	CCT/CRI	VOLTAGE	DISTRIBUTION	FINISH
RWL-48L-25-4K-3	3500lm	25	48L	4000K/70CRI	120-277V	Type 3	Dark Bronze Textured
RWL-48L-25-4K-4W	3500lm	25	48L	4000K/70CRI	120-277V	Type 4 Wide	Dark Bronze Textured
RWL-48L-45-4K-3	5500lm	45	48L	4000K/70CRI	120-277V	Type 3	Dark Bronze Textured
RWL-48L-45-4K-4W	5500lm	45	48L	4000K/70CRI	120-277V	Type 4 Wide	Dark Bronze Textured

ORDERING INFORMATION ORDERING EXAMPLE: RWL1–48L-10–3K7-3–UNV–BLT–E

Series		# LEDs - Wattage		CCT/CRI		Distribution		Voltage		Color	
RWL1	Ratio Wall 1	**48L-10**	1,000 Lumens[4]	**3K7**	3000K, 70 CRI	**2**	IES TYPE 2[1]	**UNV**	120-277V	**BLT**	Black Matte Textured
		48L-15	2,000 Lumens[4]	**4K7**	4000K, 70 CRI	**3**	IES TYPE 3	**120**	120V	**BLS**	Black Gloss Smooth
		48L-20	2,500 Lumens[4]	**5K7**	5000K, 70 CRI	**4W**	IES TYPE 4 WIDE	**208**	208V	**DBT**	Dark Bronze Matte Textured
		48L-25	3,500 Lumens[4]					**240**	240V	**DBS**	Dark Bronze Gloss Smooth
		48L-35	4,500 Lumens			**4F**	IES TYPE 4 FORWARD[1]	**277**	277V	**GTT**	Graphite Matte Textured
		48L-45	5,500 Lumens[4]					**347**	347V	**LGS**	Light Grey Gloss Smooth
RWL2	Ratio Wall 2	**160L-45**	6,500 Lumens					**480**	480V	**LGT**	Light Grey Matte Textured
		160L-50	7,500 Lumens							**PSS**	Platinum Silver Smooth
		160L-65	9,500 Lumens							**WHT**	White Matte Textured
		160L-80	11,000 Lumens							**WHS**	White Gloss Smooth
		160L-95	13,000 Lumens							**VGT**	Verde Green Textured
		160L-115	15,000 Lumens							**Color Option**	
		160L-135	17,500 Lumens							**CC**	Custom Color
		160L-155	19,500 Lumens								

Control Options Network	
NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [4,5,6]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [4,5,6]
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [4,5,6]
WIR	Wireless Controls, wiSCAPE™ [2,6]
Stand Alone Sensors	
SCP-8F	Remote control programmable line voltage sensor[3,8]
SCP-20F	Remote control programmable line voltage sensor[3,8]
Control Options	
7PR_	7-Pin Receptacle[6]

Options	
F	Fusing (must specify voltage)
E	Emergency Battery Backup[7]
EH	Emergency Battery w/ Heater Option[7]
2DR	Dual Driver[4,6]
2PF	Dual Power Feed[4,6]
PC	Photocontrol

Notes:
1 Only available with RWL2
2 wiSCAPE Gateway required for system programming
3 Specific voltage selection is required
4 Items with a grey background can be done as a custom order. Contact brand representative for more information
5 Networked Controls cannot be combined with other control options
6 Not available with 2PF option
7 This item is located in the integral backbox for RWL1 configurations only.
8 Not available with 480V

Finish options



BLT Black Matte Textured | **BLS** Black Gloss Smooth | **DBT** Dark Bronze Matte Textured | **DBS** Dark Bronze Gloss Smooth | **LGS** Light Gray Gloss Smooth | **LGT** Light Gray Matte Textured

GTT Graphite Matte Textured | **PSS** Platinum Silver Smooth | **WHT** White Matte Textured | **WHS** White Gloss Textured | **VGT** Verde Green Textured

ACCESSORIES - Order Separately

Catalog Number	Description
☐ **WP-BB-XXX**	Accessory for conduit entry[1]

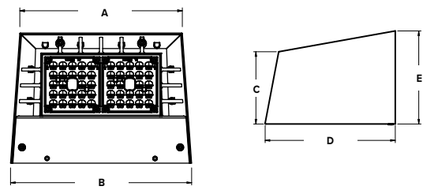
Notes:
1 Replace "XXX" with color option

CONTROLS ACCESSORIES - Order Separately

Catalog Number	Description
☐ **SCPREMOTE**	Order at least one per project location to program and control

DIMENSIONS

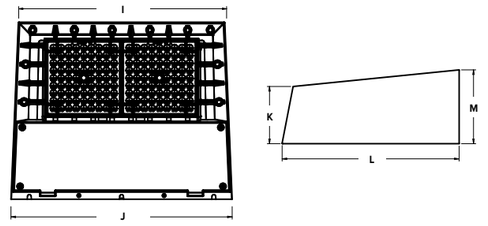
RWL1



A	B	C	D	E
8.7"	9.7"	3.9"	7.0"	5.0"
221mm	246mm	99mm	178mm	127mm

Weight 6.5 lbs (2.95 kgs)

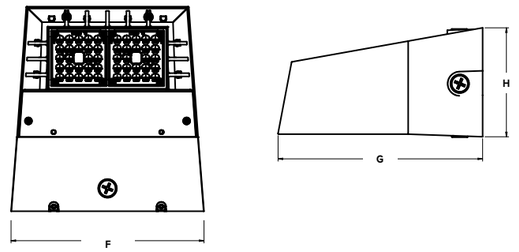
RWL2



I	J	K	L	M
14.0"	15.0"	3.9"	12.0"	5.0"
356mm	381mm	99mm	305mm	127mm

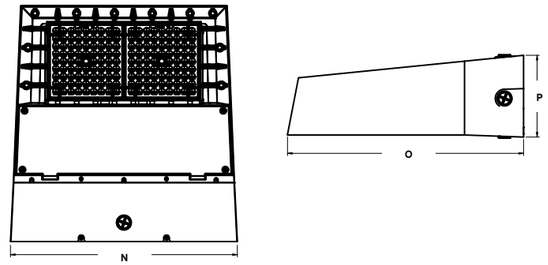
Weight 16.5 lbs (7.48 kgs)

RWL1 with Integral Back Box



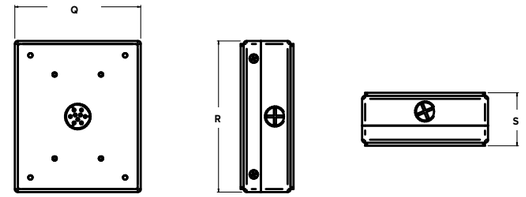
F	G	H
10.4"	11.0"	5.9"
264mm	279mm	150mm

RWL2 with Integral Back Box



N	O	P
15.4"	16.0"	5.5"
391mm	406mm	140mm

Back Box Accessory



Q	R	S
4.9"	5.9"	2.1"
124mm	150mm	53mm

RATIO Bollard Ordering information

ORDERING INFORMATION ORDERING EXAMPLE: RBD-56L-30-UNV-360-3K7-DBT

Model		# LEDs Wattage		Voltage		Distribution		CCT/CRI		Heights	
RBD	Ratio Bollard	**14L-7**	750 lumens	**UNV**	Universal 120–277	**90**	90 Degree Beam	**3K7**	3000K, 70 CRI	**24**	24" High
		28L-15	1500 lumens	**120**	120V	**180A**	180 Degree Adjacent Beam	**4K7**	4000K, 70 CRI	**30**	30" High
		42L-23	2250 lumens	**208**	208V	**180**	180 Degree Opposing Beam	**5K7**	5000K, 70 CRI	**36**	36" High
		56L-30	3000 lumens	**240**	240V	**270**	270 Degree Beam			**42**	42" High
				277	277V	**360**	360 Degree Beam				
				347	347V						
				480	480V						

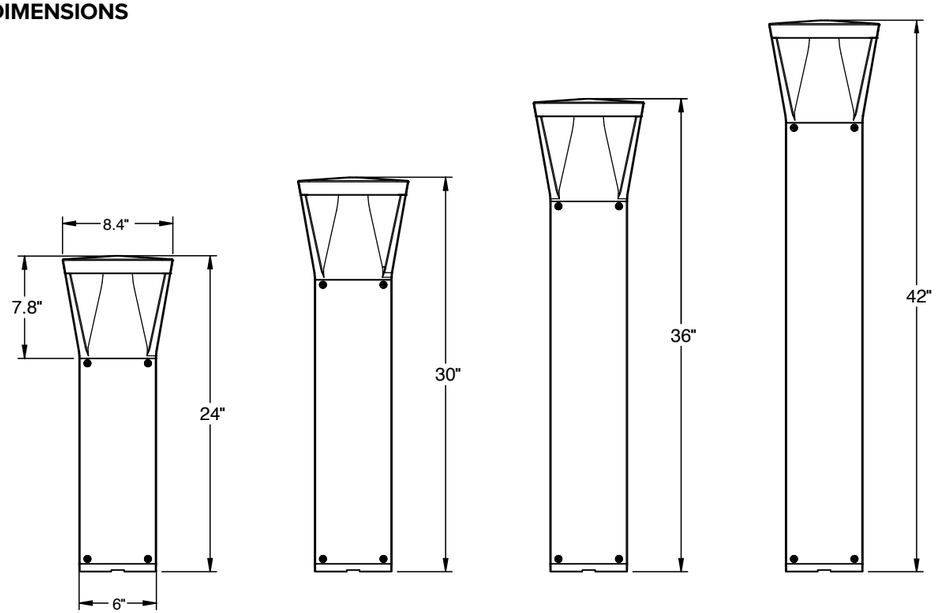
Color	
BLT	Black Matte Textured
DBT	Dark Bronze Matte Textured
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
VGT	Verde Green Textured
LEG	Legacy Colors
Color Option	
CC	Custom Color

Options	
F	Fusing (specify voltage)
PC[1]	Photocontrol
CGF	Costal Grade Finish

1 PC option only compatible with 120-277V

Items with a grey background can be done as a custom order. Contact brand representative for more information

DIMENSIONS





Current

Current Lighting Solutions, LLC
701 Millennium Blvd.
Greenville, SC 29607

currentlighting.com/beacon

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Rev. 01/05/2023
Ratio_Family brochure_R02

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RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

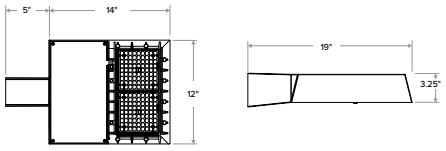
MICRO STRIKE | OPTICS STRIKE



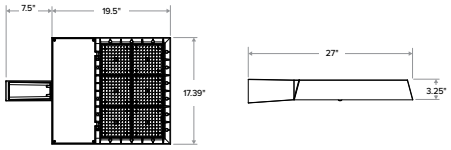
FEATURES

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as retail, commercial and campus parking lots
- Featuring Strike and Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Compact and lightweight design with low EPA
- 3G rated for high vibration applications including bridges and overpasses
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™ and 7-Pin with networked controls
- Best in class surge protection available

RAR1



RAR2



	Weight	EPA at 0°
RAR1	13.5 lbs / 6.1 kg	.45ft.^{2} / .13m^2
RAR2	24 lbs / 10.9 kg	.55ft.^{2} / .17m^2

CONTROL TECHNOLOGY

NX CONNECT NX WIRELESS

SERVICE PROGRAMS

STOCK QS10

SPECIFICATIONS

CONSTRUCTION

- Rectilinear form mimics the traditional shoebox form factor keeping a similar but updated style and appearance, ideal for retrofit applications
- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 80, 160, 320 or 480 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI) CCT
- Zero uplight at 0 degrees of tilt
- Field rotatable optics

INSTALLATION

- Standard square arm mount, compatible with B3 drill pattern
- Optional universal mounting block for ease of installation during retrofit applications. Available as an option or accessory for square and round poles.
- Knuckle arm fitter option available for 2-3/8" OD tenon. Max tilt of 60 degrees with 4 degree adjustable increments. (Restrictions apply for 7-pin options)

ELECTRICAL

- Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz
- Ambient operating temperature -40˚C to 40˚C
- Drivers have greater than 90% power factor and less than 20% THD
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- Field replaceable surge protection device provides 20kA protection meeting ANSI/IEEE C62.41.2 Category C High and Surge Location Category C3; Automatically takes fixture off-line for protection when device is compromised

CONTROLS

- Photo control, occupancy sensor and wireless available for complete on/off and dimming control
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- 0- 10 V Dimming Drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6" standard
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor

CERTIFICATIONS

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations on this page are DLC Qualified. Refer to www.designlights.org for the most up-to-date list.
- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations and 40˚C ambient temperatures
- 3G rated for ANSI C136.31 high vibration applications
- Fixture is IP66 rated
- Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
- This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) and Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions (link to https://www.currentlighting.com/resources/america-solutions)

WARRANTY

- 5 year limited warranty
- See HLI Standard Warranty for additional information

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RATIO Series

AREA/SITE LIGHTER MICRO STRIKE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 luminaires QS10

MICRO STRIKE OPTICS - ORDERING GUIDE

Example: RAR1-80L-25-3K7-2-UNV-ASQ-BL-NXW-BC

CATALOG #

ORDERING INFORMATION

Series		# LEDs - Wattage		CCT/CRI		Distribution		Optics Rotation		Voltage	
RAR1	Ratio Area Size 1 - Micro Strike	**80L-25**	25W - 3,000 Lumens	**3K7**	3000K, 70 CRI	**2**	IES TYPE II	Blank for no rotation		**UNV**	Universal 120-277V
		80L-39	39W -5,200 Lumens	**4K7**	4000K, 70 CRI	**3**	IES TYPE III	**L**	Optic rotation left	**120**	120V
		80L-50	50W - 6,000 Lumens	**5K7**	5000K, 70 CRI	**4W**	IES TYPE IV	**R**	Optic rotation right	**208**	208V
		160L-70	70W - 9,000 Lumens			**4F**	IES TYPE IV Forward			**240**	240V
		160L-100	100W - 12,000 Lumens			**5QW**	IES TYPE V			**277**	277V
		160L-115	115W - 15,000 Lumens							**347**	347V
		160L-135	135W - 18,000 Lumens							**480**	480V
RAR2	Ratio Area Size 2 - Micro Strike	**320L-110**	110W - 15,000 Lumens								
		320L-140	140W - 18,000 Lumens								
		320L-165	165W - 21,000 Lumens								
		480L-185	185W - 24,000 Lumens								
		480L-210	210W - 27,000 Lumens								
		480L-240	240W - 30,000 Lumens								
		480L-255	255W - 36,000 Lumens								
		480L-295	295W - 42,000 Lumens								
		480L-340	340W - 48,000 Lumens								

Mounting	
ASQ	Arm mount for square pole/flat surface
ASQU	Universal arm mount for square pole, S2 Drill pattern. Does not include round pole adaptor
Mounting Round Poles	
A_	Arm mount for round pole[1] B3 drill pattern
A_U	Universal arm mount for round pole[1]
Mounting Other	
WB	Wall bracket
MAF	Mast arm fitter for 2-3/8" OD horizontal arm
K	Knuckle

Color	
BLT	Black Matte Textured
BLS	Black Gloss Smooth
DBT	Dark Bronze Matte Textured
DBS	Dark Brone Gloss Smooth
GTT	Graphite Matte Textured
LGS	Light Grey Gloss Smooth
PSS	Platinum Silver Smooth
WHT	White Matte Textured
WHS	White Gloss Smooth
VGT	Verde Green Textured
Color Option	
CC	Custom Color

Control Options Network	
NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [6,7]
Control Options Other	
SCP_F	Programmable occupancy sensor [3,4]
7PR	7-Pin twist lock receptacle
7PR-SC	7-Pin receptacle with shorting cap
7PR-MD40F	Low voltage sensor for 7PR
7PR-TL	7-Pin PCR with photocontrol
ADD	AutoDim Timer Based Dimming
ADT	AutoDim Time of Day Dimming
BTS-14F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]
BTS-40F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]
BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]

Options	
BC	Backlight control
F	Fusing [5]
TB	Terminal block
2PF	2 power feed with 2 drivers[2]

Notes:

1 Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole

2 Not available with 25, 50, 255, 295 & 340W configurations

3 At least one SCPREMOTE required to program SCP motion sensor

4 Replace "_" with 8F or 40F lens

5 Must specify voltage

6 Networked Controls cannot be combined with other control options

7 Not available with 2PF option

8 BTS and BTSO available for 70 Watts or higher and only on 120-277 voltage

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RATIO Series
AREA/SITE LIGHTER STRIKE

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

STRIKE OPTIC - ORDERING GUIDE

Example: RAR1-36L-39-3K7-2-UNV-ASQ-BLT-NXW-BC

CATALOG #

ORDERING INFORMATION

Series		# LEDs - Wattage		CCT/CRI		Distribution		Optics Rotation		Voltage	
RAR1	Ratio Area Size 1 - Strike Optics	**36L-39**	39W - 5,000 Lumens	**3K7**	3000K, 70 CRI	**FR**	Auto Front Row	Blank for no rotation		**UNV**	Universal 120-277V
		36L-55	55W - 7,000 Lumens	**4K7**	4000K, 70 CRI	**2**	Type 2	**L**	Optic rotation left	**120**	120V
		36L-85	85W - 10,000 Lumens	**5K7**	5000K, 70 CRI	**3**	Type 3	**R**	Optic rotation right	**208**	208V
		36L-105	105W - 12,000 Lumens	**3K8**	3000K, 80 CRI	**4F**	Type 4 Forward			**240**	240V
		36L-120	120W - 13,000 Lumens	**4K8**	4000K, 80 CRI	**4W**	Type 4 Wide			**277**	277V
		72L-115	115W - 14,000 Lumens	**5K8**	5000K, 80 CRI	**5QN**	Type 5 Square Narrow			**347**	347V
		72L-145	145W - 17,000 Lumens			**5QW**	Type 5 Square Wide			**480**	480V
RAR2	Ratio Area Size 2 - Strike Optics	**72L-180**	180W - 20,000 Lumens			**5QM**	Type 5 Square Medium				
		72L-210	210W - 24,000 Lumens			**5W**	Type 5 Wide (Round)				
		72L-240	240W - 26,000 Lumens			**5RW**	Type 5 Rectangular				
		108L-215	215W - 27,000 Lumens			**C**	Corner Optic				
		108L-250	250W - 30,000 Lumens			**TC**	Tennis Court Optic				
		108L-280	280W - 33,000 Lumens								
		108L-325	325W - 37,000 Lumens								
		108L-365	365W - 40,000 Lumens								

Mounting		Color		Control Options Network		Options	
ASQ	Arm mount for square pole/flat surface	**BLT**	Black Matte Textured	**NXWS16F**	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]	**BC**	Backlight control
ASQU	Universal arm mount for square pole, S2 Drill pattern. Does not include round pole adaptor	**BLS**	Black Gloss Smooth	**NXWS40F**	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [6,7]	**F**	Fusing [5]
Mounting Round Poles		**DBT**	Dark Bronze Matte Textured	**NXW**	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [6,7]	**TB**	Terminal block
A_	Arm mount for round pole[1] B3 drill pattern	**DBS**	Dark Brone Gloss Smooth	**Control Options Other**		**2PF**	2 power feed with 2 drivers[2]
A_U	Universal arm mount for round pole[1]	**GTT**	Graphite Matte Textured	**SCP_F**	Programmable occupancy sensor [3,4]		
Mounting Other		**LGS**	Light Grey Gloss Smooth	**7PR**	7-Pin twist lock receptacle		
WB	Wall bracket	**PSS**	Platinum Silver Smooth	**7PR-SC**	7-Pin receptacle with shorting cap		
MAF	Mast arm fitter for 2-3/8" OD horizontal arm	**WHT**	White Matte Textured	**7PR-MD40F**	Low voltage sensor for 7PR		
K	Knuckle	**WHS**	White Gloss Smooth	**7PR-TL**	7-Pin PCR with photocontrol		
		VGT	Verde Green Textured	**ADD**	AutoDim Timer Based Dimming		
		Color Option		**ADT**	AutoDim Time of Day Dimming		
		CC	Custom Color	**BTS-14F**	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]		
				BTS-40F	Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]		
				BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens [8]		

Notes:
1 Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
2 Not available with 25, 50, 255, 295 & 340W configurations
3 At least one SCPREMOTE required to program SCP motion sensor
4 Replace "_" with 8F or 40F lens
5 Must specify voltage
6 Networked Controls cannot be combined with other control options
7 Not available with 2PF option
8 BTS and BTSO available for 50 Watts or higher and only on 120-277 voltage

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RATIO Wall

RWL1/RWL2 LED WALLPACK

DATE: | LOCATION:

TYPE: | PROJECT:

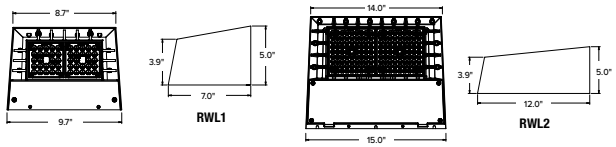
CATALOG #:

MICROSTRIKE | OPTICS STRIKE

FEATURES

- Low profile LED wall luminaire with a variety of IES distributions for lighting applications such as retail, commercial and industrial building mount
- Featuring Strike and Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass issues
- Visual comfort standard
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™, LightGRID+ and 7-Pin with networked controls
- Battery Backup options available for emergency code compliance
- Quick-mount adapter allows easy installation/maintenance
- 347V and 480V versions for industrial applications and Canada





CONTROL TECHNOLOGY

CONNECT WIRED WIRELESS LIGHTGRID+

SERVICE PROGRAM

QS10

	Weight
RWL1	6.5 lbs / 2.95 kg
RWL2	16.5 lbs / 7.48 kg

SPECIFICATIONS

CONSTRUCTION

- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish
- Powder paint finish provides durability in outdoor environments. Tested to meet 1000 hour salt spray rating

OPTICS

- Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical performance
- 48 or 160 midpower LEDs
- 3000K, 4000K or 5000K (70 CRI/80 CRI) CCT
- Zero uplight distributions
- LED optics provide IES type II, III and IV distributions. Type II only available in RWL2 configurations

INSTALLATION

- Quick-mount adapter provides easy installation to wall or to recessed junction boxes (4" square junction box)
- Designed for direct j-box mount.
- Integral back box contains 1/2" conduit hubs
- Integral backbox provided as standard with selection of some options

ELECTRICAL

- 120V-277V universal voltage 50/60Hz 0-10V dimming drivers
- 347V and 480V dimmable driver option for all wattages above 35W
- Ambient operating temperature -40˚C to 40˚C
- Driver RoHS and IP66

ELECTRICAL (CONTINUED)

- 10kV Surge Protector optional
- Drivers have greater than .90 power factor and less than 20% Total Harmonic Distortion
- Dual Driver option provides 2 drivers within luminaire but only one set of leads exiting the luminaire, where Dual Power Feed provides two drivers which can be wired independently as two sets of leads are extended from the luminaire. Both options can not be included in one same fixture.
- Dimming drivers are standard and dimming leads are extended out of the luminaire unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than 6" standard.

CONTROLS

- Photo control, occupancy sensor and wireless available for complete on/off and dimming control
- Button photocontrol is suitable for 120-277V operation
- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules (control accessories sold separately)
- NX Distributed Intelligence™ available with in fixture wireless control module, features dimming and occupancy sensor LightGRID+ available with in fixture wireless control module, features dimming and occupancy sensor
- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress
- Battery Backup suitable for operating temperatures -25˚C to 40˚C. RWL1 battery is 12.5W RWL2 battery is 18W

CONTROLS (CONTINUED)

- Dual Driver and Dual Power Feed options creates product configuration with 2 internal drivers for code compliance
- Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application.
- LightGRID+ available with in fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

CERTIFICATIONS

- Certified to UL 1598 and CSA 22.2#250.0-24 for wet locations
- IP65 rated housing
- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. Not all product variations listed in this document are DLC® qualified. Refer to http://www.designlights.org for the most up-to-date list.
- Emergency battery backup options are California Energy Commission (CEC) Title 20 Compliant
- Meets IDA requirements using 3K CCT configuration at 0 degrees or tilt

WARRANTY

- 5 year limited warranty

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RATIO Wall

RWL1/RWL2 LED WALLPACK

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

Gray Shading = Service Program Limit of 15 luminaires QS10

ORDERING GUIDE

Example: RWL1–48L-10–3K7–2–UNV–BLS–E

CATALOG # _____ – _____ – _____ – _____ – _____ – _____ – _____

Series		# LEDs - Wattage		CCT/CRI		Distribution		Voltage		Color	
RWL1	Micro Strike Optics	**48L-10**	1,000 Lumens	**3K7**	3000K, 70 CRI	**2**	IES TYPE II	**UNV**	120-277V	**BLT**	Black Matte Textured
		48L-15	2,000 Lumens	**4K7**	4000K, 70 CRI	**3**	IES TYPE III	**120**	120V	**BLS**	Black Gloss Smooth
		48L-20	2,500 Lumens [5, 6]	**5K7**	5000K, 70 CRI	**4F**	IES TYPE IV Forward	**208**	208V	**DBT**	Dark Bronze Matte Textured
		48L-25	3,500 Lumens	**3K8**	3000K, 80 CRI	**4W**	IES TYPE IV Wide	**240**	240V	**DBS**	Dark Bronze Gloss Smooth
		48L-35	4,500 Lumens	**4K8**	4000K, 80 CRI			**277**	277V	**GTT**	Graphite Matte Textured
		48L-45	5,500 Lumens [5, 6]	**5K8**	5000K, 80 CRI			**347**	347V	**LGS**	Light Grey Gloss Smooth
RWL2	Micro Strike Optics	**160L-45**	6,500 Lumens					**480**	480V	**LGT**	Light Grey Matte Textured
		160L-50	7,500 Lumens							**PSS**	Platinum Silver Smooth
		160L-65	9,500 Lumens							**WHT**	White Matte Textured
		160L-80	11,000 Lumens							**WHS**	White Gloss Smooth
		160L-95	13,000 Lumens							**VGT**	Verde Green Textured
		160L-115	15,000 Lumens							**Color Option**	
		160L-135	17,500 Lumens							**CC**	Custom Color
		160L-155	19,500 Lumens								
RWL2	Strike Optics	**36L-39**	5,500 Lumens, Strike								
		36L-55	7,500 Lumens, Strike								
		36L-85	10,000 Lumens, Strike								
		36L-105	12,500 Lumens, Strike								
		36L-120	14,000 Lumens, Strike								

_____ – _____

Control Options Network	
NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor [2, 7, 12]
NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [2, 7, 12]
NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming [2, 7, 12]
WIR	LightGRID+ In-Fixture Module [2, 9]
Stand Alone Sensors	
SCP-8F	Remote control programmable line voltage sensor [4, 5, 6, 8]
SCP-20F	Remote control programmable line voltage sensor [4, 5, 6, 8]
BTS-14F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor [1, 2, 5, 7, 8]
BTS-40F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor [1, 2, 5, 7, 8]
BTSO-12F	Bluetooth® Programmable, PIR Occupancy/Daylight Sensor, up to 12' mounting height [1, 2, 5, 7, 8]
Control Options	
7PR_	7-Pin Receptacle [8, 9]

Distribution	
F	Fusing [4]
E	Emergency Battery Backup [3, 8, 9]
EH	Emergency Battery w/ Heater Option [3, 8, 9]
2DR	Dual Driver [3, 9, 10]
2PF	Dual Power Feed [3, 9, 10]
PC	Button Photocontrol [5, 6, 11]
SP	10kA Surge Protector [11]

Notes:

1 Not available in RWL1
2 Cannot be combined with E, EH, 2DR, 2PF due to space constraints
3 Cannot be combined with Controls due to space constraints
4 Must specify voltage
5 Not available in 347V
6 Not available in 480V
7 Available in 480V in 95W, 115W, 155W only
8 Cannot be combined with 2DR or 2PF
9 Located in integral backbox which will be automatically added to the fixture if selected
10 Not available in RWL1-48L in 10W, 15W, or 20W
11 SP and PC cannot be combined due to space constraints
12 SP and PC cannot be combined due to space constraints
* Based on space limitations, some options may not be combined. Consult Factory.

CONTROLS

Control Options	
Standalone	
SCPREMOTE	Order at least one per project location to program and control

ACCESSORIES AND REPLACEMENT PARTS - MADE TO ORDER

	Catalog Number	Description
☐	**WP-BB-XXX**	Accessory for conduit entry [1]

Notes:

1 replace "xxx" with color option

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Wall

RWL1/RWL2 LED WALLPACK

CONTROLS FUNCTIONALITY

OUTDOOR LIGHTING CONTROLS OPTIONS

LIGHTGRID+ NX LIGHTING CONTROLS MOBILE APP

	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height		
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	–	–	✓	✓	✓	–		NXRM2-H
	NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	16ft		NXSMP2-LMO
	NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	40ft		NXSMP2-HMO
LightGRID+	WIR	LightGRID+ In-Fixture Module	✓	–	✓	–	–	✓	✓	Gateway	–		WIR
Independent	BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	12ft		BTSMP-OMNI-O
	BTS-14F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	14ft		BTSMP-LMO
	BTS-40F	Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	40ft		BTSMP-HMO

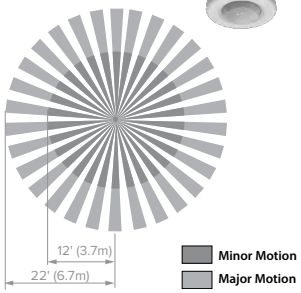
DEFAULT SETTINGS

NX Wireless	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	15 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	0%
Daylight Sensor	Disabled
Bluetooth	Enabled
2.4GHz Wireless Mesh	On
"Passcode Factory Passcode: HubbN3T!"	Enabled

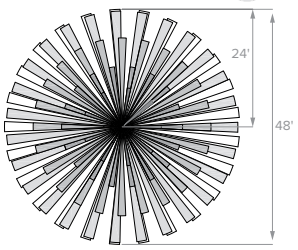
Stand Alone	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	8 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	50%
Daylight Sensor	Disabled

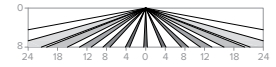
NX WIRELESS COVERAGE PATTERNS

NXSMP2-OMNI



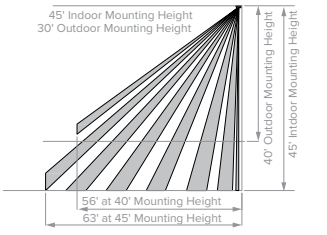
NXSMP2-LMO





Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

NXSMP2-HMO



Sensor Lens Coverage and Detection Patterns
When Mounted at 40ft and 45ft with Standard Lens

NX LIGHTING CONTROLS FREE APP



The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminiares and program NX system settings.

Apple App: https://apps.apple.com/us/app/nx-lighting-controls/id962112904

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&gl=US

Apple App

Google Play

CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Wall

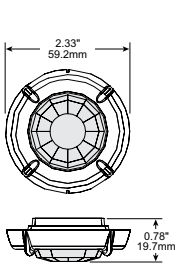
RWL1/RWL2 LED WALLPACK

OUTDOOR LIGHTING CONTROLS OPTIONS

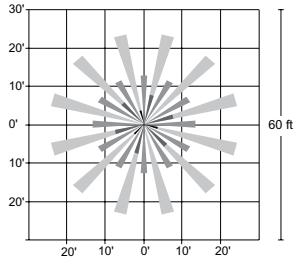
CONTROLS FUNCTIONALITY

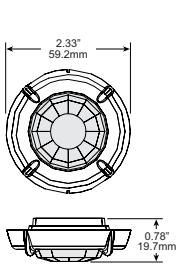
	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
Independent	SCP_F	Sensor Control Programmable, sensor range, reference product specification for height selections	–	–	–	✓	✓	✓	✓	–	8ft or 40ft	SCP_F
	7PR	7-Pin Receptacle	–	–	Paired with external control	–	Paired with external control	–	Paired with external control	–	–	7PR

COVERAGE PATTERNS FOR SCP_F

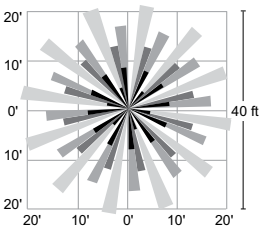


Coverage Top View @ 12ft.

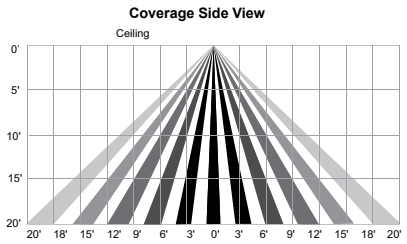




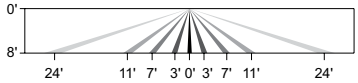
Coverage Top View @ 20 ft.

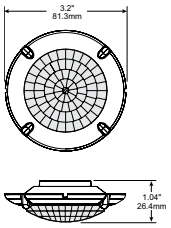


Coverage Side View

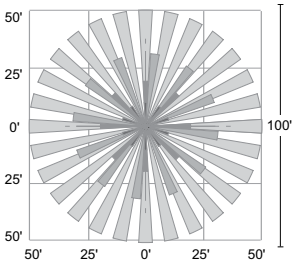


Coverage Side View

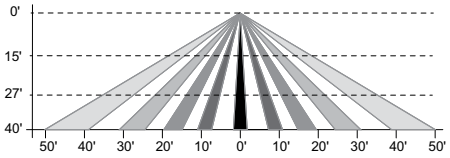




Coverage Top View @40ft



Coverage Side View



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RATIO Wall

RWL1/RWL2 LED WALLPACK

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

PERFORMANCE DATA: MICROSTRIKE

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RWL1	10	10.1	3	1362	135	0	0	1	1355	134	0	0	1	1303	129	0	0	1
			4W	1343	133	0	0	1	1336	132	0	0	1	1285	127	0	0	1
	15	14.5	3	1972	136	1	0	1	1962	135	1	0	1	1887	130	1	0	1
			4W	1945	134	0	0	1	1935	133	0	0	1	1861	128	0	0	1
	20	19.9	3	2722	137	1	0	1	2709	136	1	0	1	2605	131	1	0	1
			4W	2685	135	1	0	1	2672	134	1	0	1	2569	129	1	0	1
	25	28.0	3	3749	134	1	0	1	3732	133	1	0	1	3588	128	1	0	1
			4W	3698	132	1	0	1	3680	131	1	0	1	3538	126	1	0	1
	35	36.9	3	4751	129	1	0	2	4728	128	1	0	2	4546	123	1	0	1
			4W	4685	127	1	0	2	4663	126	1	0	2	4483	121	1	0	2
	45	46.5	3	5812	125	1	0	2	5784	124	1	0	2	5562	120	1	0	2
			4W	5731	123	1	0	2	5704	123	1	0	2	5485	118	1	0	2
RWL2	45	46.1	2	6701	145	1	0	2	6668	145	1	0	2	6412	139	1	0	2
			3	6812	148	1	0	2	6780	147	1	0	2	6519	141	1	0	2
			4W	6678	145	1	0	2	6646	144	1	0	2	6390	139	1	0	2
	50	54.0	2	7747	143	1	0	2	7710	143	1	0	2	7413	137	1	0	2
			3	7876	146	1	0	2	7838	145	1	0	2	7537	140	1	0	2
			4W	7720	143	1	0	2	7683	142	1	0	2	7388	137	1	0	2
	65	67.2	2	9539	142	1	0	2	9494	141	1	0	2	9129	136	1	0	2
			3	9699	144	2	0	2	9652	144	2	0	2	9281	138	2	0	2
			4W	9507	141	2	0	2	9461	141	2	0	2	9097	135	2	0	2
	80	80.8	2	11228	139	2	0	2	11174	138	2	0	2	10745	133	2	0	2
			3	11416	141	2	0	2	11361	141	2	0	2	10924	135	2	0	2
			4W	11190	138	2	0	2	11136	138	2	0	2	10708	133	2	0	2
	95	93.2	2	13148	141	2	0	2	13085	140	2	0	2	12582	135	2	0	2
			3	13368	143	2	0	2	13304	143	2	0	2	12792	137	2	0	2
			4W	13103	141	2	0	2	13040	140	2	0	2	12539	135	2	0	2
	115	109.8	2	15102	138	2	0	3	15030	137	2	0	3	14452	132	2	0	3
			3	15354	140	2	0	3	15281	139	2	0	3	14693	134	2	0	3
			4W	15050	137	2	0	3	14978	136	2	0	3	14402	131	2	0	3
	135	137.1	2	17533	128	2	0	3	17449	127	2	0	3	16778	122	2	0	3
			3	17826	130	2	0	3	17740	129	2	0	3	17058	124	2	0	3
			4W	17473	127	2	0	3	17389	127	2	0	3	16720	122	2	0	3
	155	156.8	2	19495	124	2	0	3	19402	124	2	0	3	18656	119	2	0	3
			3	19821	126	2	0	3	19726	126	2	0	3	18967	121	2	0	3
			4W	19542	125	2	0	3	19448	124	2	0	3	18700	119	2	0	3

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RATIO Wall

RWL1/RWL2 LED WALLPACK

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

PERFORMANCE DATA: STRIKE

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 70 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RWL2	39	45.1	2	5618	125	1	0	1	5723	127	1	0	1	5251	116	1	0	1
			3	5644	125	1	0	2	5749	127	1	0	2	5274	117	1	0	2
			4F	5662	126	1	0	2	5768	128	1	0	2	5291	117	1	0	2
			4W	5652	125	1	0	2	5757	128	1	0	2	5282	117	1	0	2
	55	63.1	2	7458	118	1	0	2	7659	121	1	0	2	6970	110	1	0	2
			3	7552	120	1	0	2	7694	122	1	0	2	7058	112	1	0	2
			4F	7577	120	1	0	2	7718	122	1	0	2	7081	112	1	0	2
			4W	7564	120	1	0	3	7705	122	1	0	3	7069	112	1	0	3
	85	88.0	2	10121	115	2	0	2	10311	117	2	0	2	9459	107	2	0	2
			3	10167	116	1	0	3	10357	118	1	0	3	9502	108	1	0	3
			4F	10200	116	1	0	2	10390	118	1	0	2	9532	108	1	0	2
			4W	10182	116	1	0	3	10372	118	1	0	3	9516	108	1	0	3
	105	111.7	2	12022	108	2	0	2	12247	110	2	0	2	11235	101	2	0	2
			3	12075	108	2	0	3	12301	110	2	0	3	11285	101	2	0	3
			4F	12115	108	1	0	3	12341	110	1	0	3	11322	101	1	0	2
			4W	12093	108	2	0	3	12319	110	2	0	3	11302	101	1	0	3
	120	126.2	2	12889	102	2	0	2	13130	104	2	0	2	12046	95	2	0	2
			3	12947	103	2	0	3	13189	105	2	0	3	12100	96	2	0	3
			4F	12989	103	1	0	3	13232	105	1	0	3	12139	96	1	0	3
			4W	12966	103	2	0	3	13208	105	2	0	3	12118	96	1	0	3

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RATIO Wall

RWL1/RWL2 LED WALLPACK

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98
50°C	122°F	0.97

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

PROJECTED LUMEN MAINTENANCE

	OPERATING HOURS		
Ambient Temp.	0	25,000	TM-21-22 60,000
25°C / 77°F	1.00	0.91	0.83
40°C / 104°F	0.99	0.90	0.82

Lumen maintenance values calculated per TM-21 using six times the LM-80 test time for the LED and in-situ thermal testing of the luminaire.

MULTIPLIER

Micro Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	–	0.841	–
3000K	0.977	0.861	0.647
3500K	–	0.900	–
4000K	1	0.926	0.699
5000K	1	0.937	0.791

Strike Lumen Multiplier			
CCT	70CRI	80CRI	90CRI
2700K	0.900	0.810	0.62
3000K	0.933	0.853	0.659
3500K	0.959	0.894	0.711
4000K	1.000	0.900	0.732
5000K	1.000	0.900	0.732
Monochromatic Amber Multiplier			
Amber	See Amber Spec Sheet		

ELECTRICAL DATA: MICROSTRIKE

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RWL1	10	120	0.08	10.1
		208	0.05	
		240	0.04	
		277	0.04	
		347	0.03	
		480	0.02	
	15	120	0.12	14.5
		208	0.07	
		240	0.06	
		277	0.05	
		347	0.04	
		480	0.03	
	20	120	0.17	19.9
		208	0.10	
		240	0.08	
		277	0.07	
		347	0.06	
		480	0.04	
	25	120	0.23	28.0
		208	0.13	
		240	0.12	
		277	0.10	
		347	0.08	
		480	0.06	
	35	120	0.31	36.9
		208	0.18	
		240	0.15	
		277	0.13	
		347	0.11	
		480	0.08	
	45	120	0.39	46.5
		208	0.22	
		240	0.19	
		277	0.17	
		347	0.13	
		480	0.10	

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RWL2	45	120	0.38	46.1
		208	0.22	
		240	0.19	
		277	0.17	
		347	0.13	
		480	0.10	
	50	120	0.45	54.0
		208	0.26	
		240	0.23	
		277	0.19	
		347	0.16	
		480	0.11	
	65	120	0.56	67.2
		208	0.32	
		240	0.28	
		277	0.24	
		347	0.19	
		480	0.14	
	80	120	0.67	80.8
		208	0.39	
		240	0.34	
		277	0.29	
		347	0.23	
		480	0.17	
	95	120	0.78	93.2
		208	0.45	
		240	0.39	
		277	0.34	
		347	0.27	
		480	0.19	
	115	120	0.92	109.8
		208	0.53	
		240	0.46	
		277	0.40	
		347	0.32	
		480	0.23	
	135	120	1.14	137.1
		208	0.66	
		240	0.57	
		277	0.49	
		347	0.40	
		480	0.29	
	155	120	1.31	156.8
		208	0.75	
		240	0.65	
		277	0.57	
		347	0.45	
		480	0.33	

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RATIO Wall

RWL1/RWL2 LED WALLPACK

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

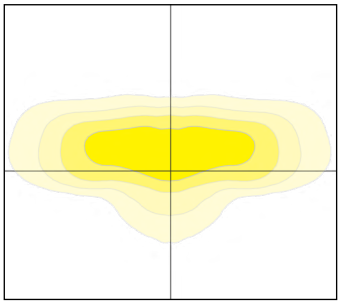
ELECTRICAL DATA: STRIKE

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RWL2	39	120	0.38	45.1
		208	0.22	
		240	0.19	
		277	0.16	
		347	0.13	
		480	0.09	
	55	120	0.53	63.1
		208	0.30	
		240	0.26	
		277	0.23	
		347	0.18	
		480	0.13	
	85	120	0.73	88.0
		208	0.42	
		240	0.37	
		277	0.32	
		347	0.25	
		480	0.18	
	105	120	0.93	111.7
		208	0.54	
		240	0.47	
		277	0.40	
		347	0.32	
		480	0.23	
	120	120	1.05	126.2
		208	0.61	
		240	0.53	
		277	0.46	
		347	0.36	
		480	0.26	

PHOTOMETRY

Mounting Height: 30ft

Type 2



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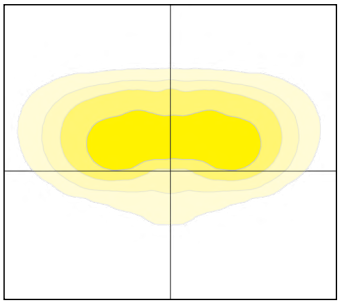

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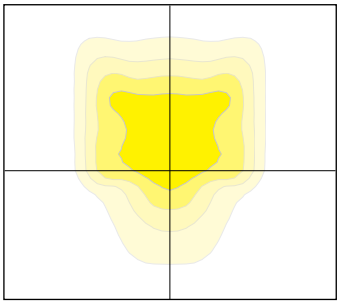
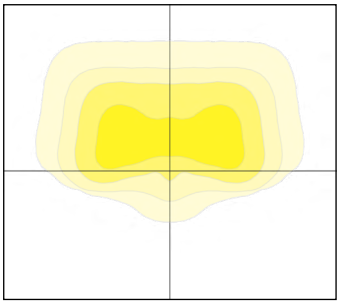


Type 4W



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RATIO Wall

RWL1/RWL2 LED WALLPACK

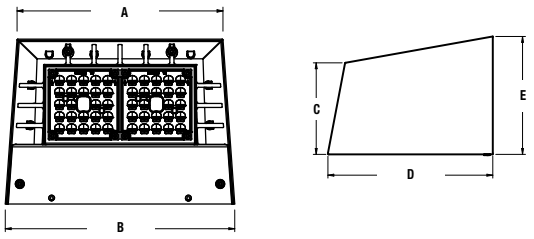
DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

DIMENSIONS

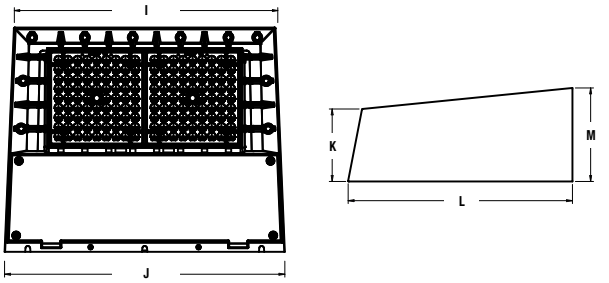
RWL1



A	B	C	D	E
8.7"	9.7"	3.9"	7.0"	5.0"
221mm	246mm	99mm	178mm	127mm

Weight
6.5 lbs (2.95 kgs)

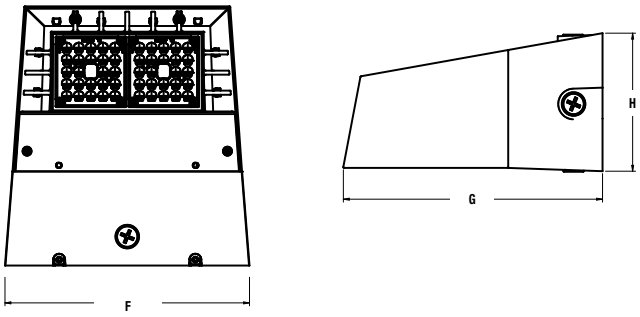
RWL2



I	J	K	L	M
14.0"	15.0"	3.9"	12.0"	5.0"
356mm	381mm	99mm	305mm	127mm

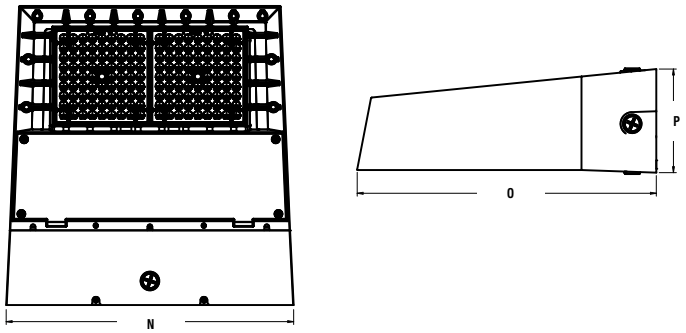
Weight
16.5 lbs (7.48 kgs)

RWL1 with Integral Back Box



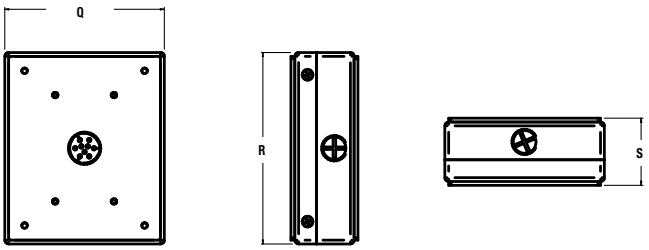
F	G	H
10.4"	11.0"	5.9"
264mm	279mm	150mm

RWL2 with Integral Back Box



N	O	P
15.4"	16.0"	5.5"
391mm	406mm	140mm

Back Box Accessory



Q	R	S
4.9"	5.9"	2.1"
124mm	150mm	53mm

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RATIO Wall

RWL1/RWL2 LED WALLPACK

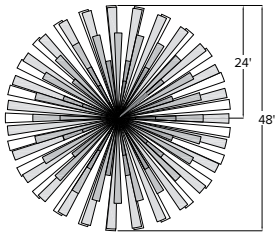
DATE: LOCATION:

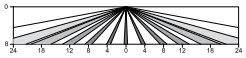
TYPE: PROJECT:

CATALOG #:

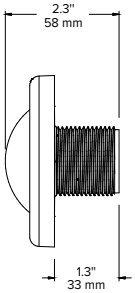
ADDITIONAL INFORMATION

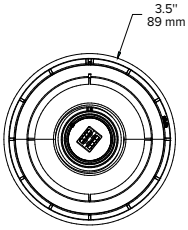
NXSP-14F



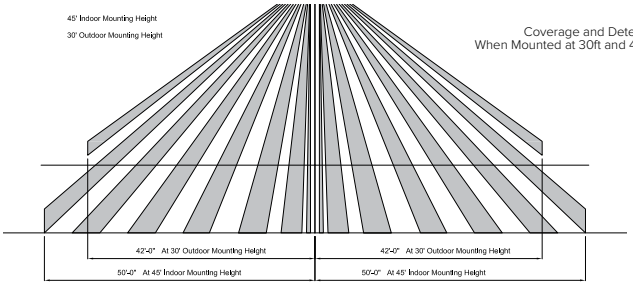


Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

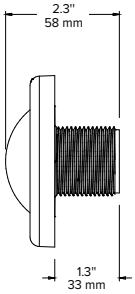


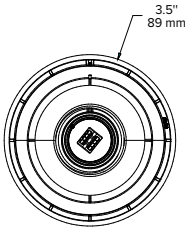


NXSP-40F

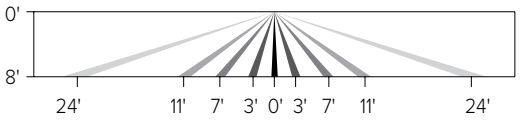


Coverage and Detection Patterns
When Mounted at 30ft and 45ft with Standard Lens

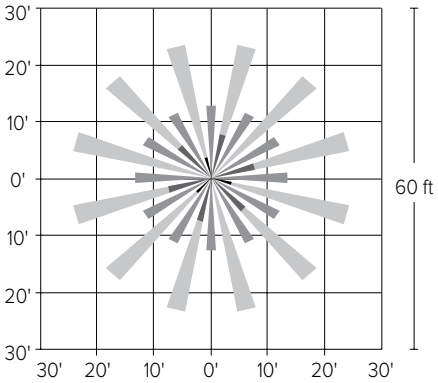


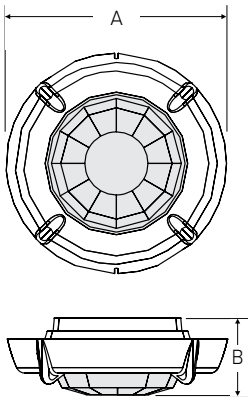


SCP-8F



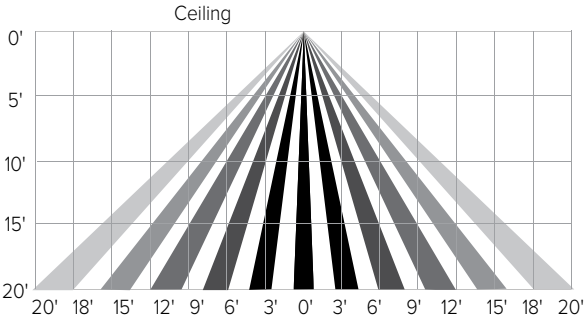


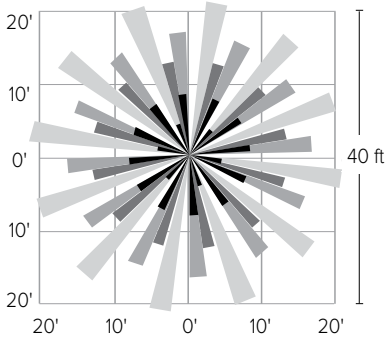


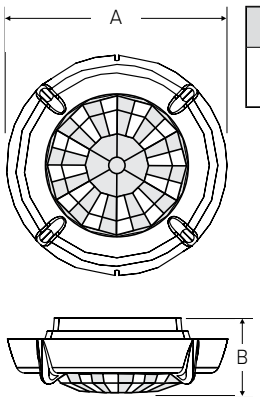


A	B
2.3" (59mm)	.8" (20mm)

SCP-2OF







A	B
2.3" (59mm)	.8" (20mm)

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Series

AREA/SITE LIGHTER

OUTDOOR LIGHTING CONTROLS OPTIONS

CONTROLS FUNCTIONALITY

	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components	
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height		
NX Wireless	NXOFM2-1R1D-UNV	NX 7-Pin Twist-Lock® with NX Networked Wireless Radio, Integral Automatic Dimming Photocell, Integral Single Pole Relay with Dimming, and Bluetooth Programming	✓	✓	✓	Paired with external control	✓	✓	✓	✓	–		NXOFM2-1R1D-UNV
NX Wireless	NXW	NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor	✓	✓	✓	–	–	✓	✓	✓	–		NXRM2-H
NX Wireless	NXWS16F	NX Networked Wireless Enabled Integral NXSMP2-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	16ft		NXSMP2-LMO
NX Wireless	NXWS40F	NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming	✓	✓	✓	✓	✓	✓	✓	✓	40ft		NXSMP2-HMO
Independent	BTSO-12F	Bluetooth® Programmable, BTSMP-OMNI-O PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	12ft		BTSMP-OMNI-O
Independent	BTS-14F	Bluetooth® Programmable, BTSMP-LMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	14ft		BTSMP-LMO
Independent	BTS-40F	Bluetooth® Programmable, BTSMP-HMO PIR Occupancy Sensor with Automatic Dimming Photocell and 360° Lens	–	–	–	✓	✓	✓	✓	✓	40ft		BTSMP-HMO

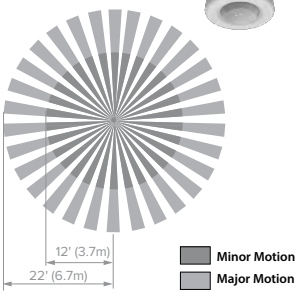
DEFAULT SETTINGS

NX Wireless	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	15 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	0%
Daylight Sensor	Disabled
Bluetooth	Enabled
2.4GHz Wireless Mesh	On
"Passcode Factory Passcode: HubbN3T!"	Enabled

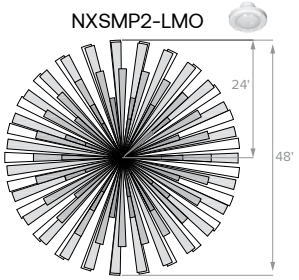
Stand Alone	
Occupancy Sensor	Enabled
Occupancy Sensor Sensitivity	7
Occupancy Sensor Timeout	8 Minutes
Occupied Dim Level	100%
Unoccupied Dim Level	50%
Daylight Sensor	Disabled

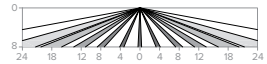
NX WIRELESS COVERAGE PATTERNS

NXSMP2-OMNI



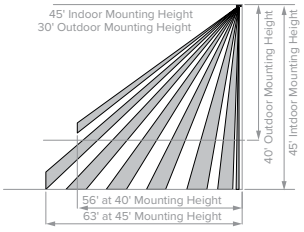
NXSMP2-LMO





Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

NXSMP2-HMO



Sensor Lens Coverage and Detection Patterns
When Mounted at 40ft and 45ft with Standard Lens

NX LIGHTING CONTROLS FREE APP



The NX Lighting Controls App is free to use mobile application for programming both NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enable luminiares and program NX system settings.

Apple App: https://apps.apple.com/us/app/nx-lighting-controls/id962112904

Google Play: https://play.google.com/store/apps/details?id=io.cordova.NXBTR&hl=en_US&gl=US

Apple App

Google Play

CONTROLS TECH SUPPORT 800-888-8006 (7:00 AM - 7:00 PM)

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RATIO Series

AREA/SITE LIGHTER

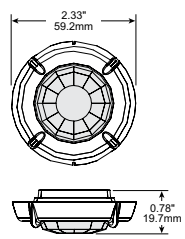
DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

OUTDOOR LIGHTING CONTROLS OPTIONS

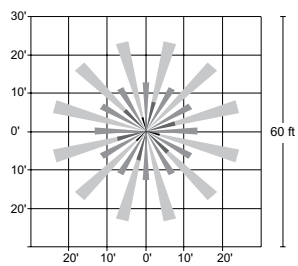
CONTROLS FUNCTIONALITY

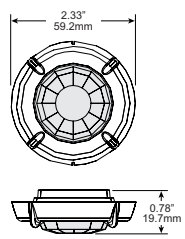
	Control Option Ordering Logic & Description		Control Option Functionality									Control Option Components
			Networkable	Grouping	Scheduling	Occupancy/ Motion	Daylight Harvesting	0-10V Dimming	On/Off Control	Bluetooth App Programming	Sensor Height	
Independent	SCP_F	Sensor Control Programmable, sensor range, reference product specification for height selections	–	–	–	✓	✓	✓	✓	–	8ft or 20ft	SCP_F
	ADD	AutoDIM Timer Based Dimming	–	–	✓	–	–	–	✓	–	–	ADD
	ADT	AutoDIM Time of Day Dimming	–	–	✓	–	–	–	✓	–	–	ADT
	7PR	7-Pin Receptacle	–	–	Paired with external control	–	Paired with external control	–	Paired with external control	–	–	7PR
	7PR-SC	7-Pin Receptacle with shorting cap	–	–	–	–	–	–	–	–	–	7PR-SC
	7PR-TL	7-Pin with photocontrol	–	–	–	–	✓	–	✓	–	–	7PR-TL

COVERAGE PATTERNS FOR SCP_F

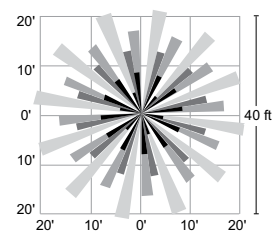


Coverage Top View @ 12ft.

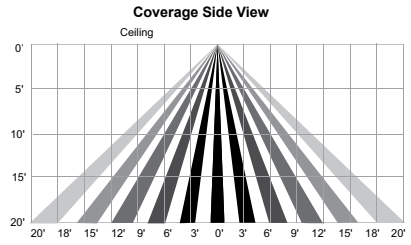




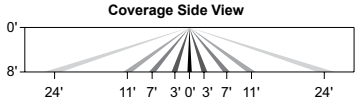
Coverage Top View @ 20 ft.

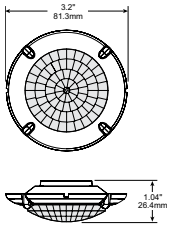


Coverage Side View

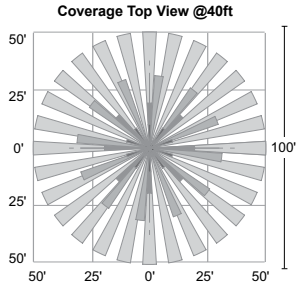


Coverage Side View

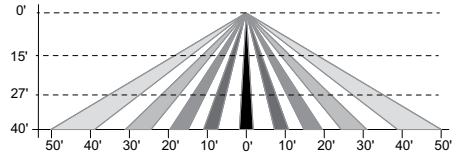




Coverage Top View @40ft



Coverage Side View



PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6 - Delay 6 hours
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50% brightness
Auto-Dim Return	Delay 0-9 Hours	R6 - Return to full output after 6 hours

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6 - Dim at 6PM
Auto-Dim Brightness	10-100% Brightness	5 - Dim to 50%
Auto-Dim Return	12-6 AM and 9-11P	R6 - Return to full output at 6AM

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RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

STOCK ORDERING INFORMATION

Catalog Number	Lumens	Wattage	LED Count	CCT/CRI	Voltage	Distribution	Mounting	Finish
RAR1-100-4K-3	12,000	100W	160L	4000K/70CRI	120-277V	Type 3	Square Arm	Bronze
RAR1-100-4K-4W	12,000	100W	160L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze
RAR1-135-4K-3	18,000	135W	160L	4000K/70CRI	120-277V	Type 3	Square Arm	Bronze
RAR1-135-4K-4W	18,000	135W	160L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze
RAR2-165-4K-3	21,000	165W	320L	4000K/70CRI	120-277V	Type 3	Square Arm	Bronze
RAR2-165-4K-4W	21,000	165W	320L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze

POLE COMBOS

Catalog Number	Pole	Single or Double Head	Fixture	Lumens	Wattage	Distribution	CCT/CRI	Mounting	Finish
RAR1-100-4K7-3-S20	**20' Square Straight Steel**	Single Head	**RAR1-100-4K-3**	12,000	100W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR1-100-4K7-4W-S20	**20' Square Straight Steel**	Single Head	**RAR1-100-4K-4W**	12,000	100W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR1-100-4K7-3-S20-2X	**20' Square Straight Steel**	Double Head (180°)	**RAR1-100-4K-3**	12,000	100W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR1-100-4K7-4W-S20-2X	**20' Square Straight Steel**	Double Head (180°)	**RAR1-100-4K-4W**	12,000	100W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR1-100-4K7-3-S25	**25' Square Straight Steel**	Single Head	**RAR1-100-4K-3**	12,000	100W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR1-100-4K7-4W-S25	**25' Square Straight Steel**	Single Head	**RAR1-100-4K-4W**	12,000	100W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR1-100-4K7-3-S25-2X	**25' Square Straight Steel**	Double Head (180°)	**RAR1-100-4K-3**	12,000	100W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR1-100-4K7-4W-S25-2X	**25' Square Straight Steel**	Double Head (180°)	**RAR1-100-4K-4W**	12,000	100W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR1-135-4K7-3-S20	**20' Square Straight Steel**	Single Head	**RAR1-135-4K-3**	18,000	135W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR1-135-4K7-4W-S20	**20' Square Straight Steel**	Single Head	**RAR1-135-4K-4W**	18,000	135W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR1-135-4K7-3-S20-2X	**20' Square Straight Steel**	Double Head (180°)	**RAR1-135-4K-3**	18,000	135W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR1-135-4K7-4W-S20-2X	**20' Square Straight Steel**	Double Head (180°)	**RAR1-135-4K-4W**	18,000	135W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR1-135-4K7-3-S25	**25' Square Straight Steel**	Single Head	**RAR1-135-4K-3**	18,000	135W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR1-135-4K7-4W-S25	**25' Square Straight Steel**	Single Head	**RAR1-135-4K-4W**	18,000	135W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR1-135-4K7-3-S25-2X	**25' Square Straight Steel**	Double Head (180°)	**RAR1-135-4K-3**	18,000	135W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR1-135-4K7-4W-S25-2X	**25' Square Straight Steel**	Double Head (180°)	**RAR1-135-4K-4W**	18,000	135W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR2-165-4K7-3-S20	**20' Square Straight Steel**	Single Head	**RAR2-165-4K-3**	21,000	165W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR2-165-4K7-4W-S20	**20' Square Straight Steel**	Single Head	**RAR2-165-4K-4W**	21,000	165W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR2-165-4K7-3-S20-2X	**20' Square Straight Steel**	Double Head (180°)	**RAR2-165-4K-3**	21,000	165W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR2-165-4K7-4W-S20-2X	**20' Square Straight Steel**	Double Head (180°)	**RAR2-165-4K-4W**	21,000	165W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR2-165-4K7-3-S25	**25' Square Straight Steel**	Single Head	**RAR2-165-4K-3**	21,000	165W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR2-165-4K7-4W-S25	**25' Square Straight Steel**	Single Head	**RAR2-165-4K-4W**	21,000	165W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
RAR2-165-4K7-3-S25-2X	**25' Square Straight Steel**	Double Head (180°)	**RAR2-165-4K-3**	21,000	165W	Type 3	4000K/70CRI	Square Arm	Dark Bronze
RAR2-165-4K7-4W-S25-2X	**25' Square Straight Steel**	Double Head (180°)	**RAR2-165-4K-4W**	21,000	165W	Type 4W	4000K/70CRI	Square Arm	Dark Bronze
SSSH-20-40-STK	**20' Square Straight Steel**	Pole Only	Not Included						
SSSH-25-40-STK	**25' Square Straight Steel**	Pole Only	Not Included						
SSSH-STK-4-KIT		Kit Only	Not Included						

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CONTROLS

Control Options	
Standalone	
SCPREMOTE	Order at least one per project location to program and control
Networked – Wireless	
WIR-RME-L	LightGRID+ External Fixture Module[1,2]
NX Networked – Wireless	
NXOFM-1R1D-UNV	NX Wireless, Daylight Harvesting, BLE, 7 pin twisted lock

Notes:
1 Works with external networked photosensor
2 LightGRID+ Gateway required for system programming

OPTIONS AND ACCESSORIES - STOCK (ORDERED SEPARATELY)

	Catalog Number	Description
☐	**RARRPA3DB**	Round pole adapter 3.5" to 4.13" for ASQ arm, 3.5" to 4.13" OD pole, dark bronze finish
☐	**RARA3UDB**	Universal mount for square pole or round pole 3.5" to 4.13", dark bronze finish
☐	**ACC-O-RAR-ST1-SHLD-BC-36L**	Back Light Control for RAR1 Strike 36L
☐	**ACC-O-RAR-ST2-SHLD-BC-72L**	Back Light Control for RAR2 Strike 72L
☐	**ACC-O-RAR-ST2-SHLD-BC-108L**	Back Light Control for RAR2 Strike 108L
☐	**ACC-O-RAR-ST3-SHLD-BC-162L**	Back Light Control for RAR3 Strike 162L
☐	**ACC-O-RAR1-SHLD-BC-80L-X** [1]	Back Light Control for RAR1 Micro Strike 80L
☐	**ACC-O-RAR1-SHLD-BC-160L-X** [1]	Back Light Control for RAR1 Micro Strike 160L
☐	**ACC-O-RAR2-SHLD-BC-320L-X** [1]	Back Light Control for RAR2 Micro Strike 320L
☐	**ACC-O-RAR2-SHLD-BC-480L-X** [1]	Back Light Control for RAR2 Micro Strike 480L
☐	**ACC-O-RAR3-SHLD-BC-720L-X** [1]	Back Light Control for RAR3 Micro Strike 720L

1 Replace X with distibution type ("2" for Type 2, "3" for Type 3, "4F" for Type 4F, Type "4W" for Type 4W)

ACCESSORIES AND REPLACEMENT PARTS - MADE TO ORDER

	Catalog Number	Description
☐	**RAR–ASQU–XX**	Universal arm mount for square pole/flat surface[2]
☐	**RAR–A_U-XX**	Universal arm mount for round poles[1,2]
☐	**RAR–RPA_–XX**	Round pole adapter[1, 2]
☐	**SETAVP-XX**	4" square pole top tenon adapter, 2 3/8" OD slipfitter[2]
☐	**RETAVP-XX**	4" round pole top tenon adapter; 2 3/8" OD slipfitter for max. Four fixtures (90o); order 4" round pole adapters separately[2]
☐	**BIRD–SPIKE–3**	Ratio size 1 bird deterrent/spikes
☐	**BIRD–SPIKE–4**	Ratio size 2 bird deterrent/spikes
☐	**RARWB–XX**	Wall bracket - use with Mast Arm Fitter or Knuckle[2]

1 Replace "_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
2 Replace "XX" with desired color/paint finish

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DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

RATIO Series

AREA/SITE LIGHTER MICRO STRIKE

PERFORMANCE DATA - MICRO STRIKE

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR1	25	25.4	2	3438	135	1	0	1	3445	136	1	0	1	3240	128	1	0	1
			3	3460	136	1	0	1	3467	136	1	0	1	3260	128	1	0	1
			4W	3406	134	1	0	1	3412	134	1	0	1	3209	126	1	0	1
			5QW	3483	137	2	0	1	3490	137	2	0	1	3282	129	2	0	1
	39	39	2	5263	139	1	0	2	5273	139	1	0	2	4960	131	1	0	2
			3	5297	139	1	0	2	5308	140	1	0	2	4991	131	1	0	2
			4W	5200	137	1	0	2	5210	137	1	0	2	4900	129	1	0	2
			5QW	5333	140	3	0	1	5344	141	3	0	1	5025	132	3	0	1
	50	49.8	2	6310	127	1	0	2	6323	127	1	0	2	5946	120	1	0	2
			3	6349	128	1	0	2	6362	128	1	0	2	5983	120	1	0	2
			4W	6233	125	1	0	2	6245	126	1	0	2	5873	118	1	0	2
			5QW	6392	129	3	0	1	6405	129	3	0	1	6023	121	3	0	1
	70	68.4	2	9486	139	1	0	2	9505	139	1	0	2	8938	131	1	0	2
			3	9544	140	1	0	2	9563	140	1	0	2	8993	131	1	0	2
			4W	9395	137	1	0	2	9414	138	1	0	2	8853	129	1	0	2
			5QW	9608	140	4	0	2	9628	141	4	0	2	9054	132	4	0	2
	100	90.0	2	11976	133	2	0	2	12000	133	2	0	2	11285	125	2	0	2
			3	12050	134	2	0	2	12074	134	2	0	2	11354	126	2	0	2
			4W	11861	132	2	0	2	11885	132	2	0	2	11177	124	2	0	2
			5QW	12131	135	4	0	2	12155	135	4	0	2	11431	127	4	0	2
	115	109.7	2	15572	142	2	0	2	15494	141	2	0	2	14871	136	2	0	2
			3	15833	144	2	0	2	15754	144	2	0	2	15121	138	2	0	2
			4W	15281	139	2	0	3	15205	139	2	0	3	14623	133	2	0	3
			5QW	15732	143	4	0	2	15653	143	4	0	2	15024	137	4	0	2
	135	133.3	2	17971	135	3	0	3	17881	134	3	0	3	17163	129	3	0	3
			3	18272	137	2	0	2	18181	136	2	0	2	17450	131	2	0	2
			4W	17635	132	2	0	3	17547	132	2	0	3	16876	127	2	0	3
			5QW	18156	136	4	0	2	18065	136	4	0	2	17339	130	4	0	2
RAR2 Performance Data on next page																		

* Lumen values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

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PERFORMANCE DATA - MICROSTRIKE (CONT'D)

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR2	110	100.3	2	15326	153	2	0	3	15357	153	2	0	3	14442	144	2	0	3
			3	15421	154	2	0	3	15452	154	2	0	3	14531	145	2	0	3
			4W	15180	151	2	0	2	15210	152	2	0	2	14304	143	2	0	2
			5QW	15525	155	4	0	2	15556	155	4	0	2	14629	146	4	0	2
	140	133.2	2	19395	146	2	0	3	19434	146	2	0	3	18276	137	2	0	3
			3	19515	147	2	0	3	19554	147	2	0	3	18389	138	2	0	3
			4W	19210	144	2	0	3	19248	145	2	0	3	18101	136	2	0	3
			5QW	19647	148	5	0	3	19686	148	5	0	3	18513	139	5	0	3
	165	153.6	2	21651	141	3	0	3	21695	141	3	0	3	20402	133	3	0	3
			3	21785	142	3	0	3	21828	142	3	0	3	20527	134	3	0	3
			4W	21444	140	3	0	3	21487	140	3	0	3	20206	132	3	0	3
			5QW	21932	143	5	0	3	21976	143	5	0	3	20666	135	5	0	3
	185	174.5	2	26046	149	3	0	3	26098	150	3	0	3	24543	141	3	0	3
			3	26207	150	3	0	3	26259	150	3	0	3	24694	142	3	0	3
			4W	25797	148	3	0	4	25849	148	3	0	4	24308	139	3	0	4
			5QW	26384	151	5	0	3	26437	152	5	0	3	24861	143	5	0	3
	210	198.2	2	28848	145	3	0	4	28906	146	3	0	4	27184	137	3	0	4
			3	29027	146	3	0	4	29085	147	3	0	4	27351	138	3	0	4
			4W	28572	144	3	0	4	28630	144	3	0	4	26924	136	3	0	4
			5QW	29222	147	5	0	4	29281	148	5	0	4	27536	139	5	0	4
	240	226.9	2	32087	141	3	0	4	32151	142	3	0	4	30235	133	3	0	4
			3	32285	142	3	0	4	32350	143	3	0	4	30422	134	3	0	4
			4W	31780	140	3	0	4	31844	140	3	0	4	29946	132	3	0	4
			5QW	32503	143	5	0	4	32568	144	5	0	4	30627	135	5	0	4
	255	257.0	2	37040	144	3	0	4	36854	143	3	0	4	35373	138	3	0	4
			3	37660	147	3	0	4	37472	146	3	0	4	35966	140	3	0	4
			4W	36347	141	3	0	5	36166	140	3	0	5	34782	135	3	0	5
			5QW	37420	146	5	0	4	37233	145	5	0	4	35736	139	5	0	4
	295	294.0	2	41733	142	3	0	4	41524	141	3	0	4	39855	136	3	0	4
			3	42432	144	3	0	4	42220	144	3	0	4	40523	138	3	0	4
			4W	40953	139	3	0	5	40748	139	3	0	5	39190	133	3	0	5
			5QW	42162	143	5	0	4	41951	143	5	0	4	40264	137	5	0	4
	340	347.1	2	48392	139	4	0	5	48150	139	4	0	5	46215	133	4	0	5
			3	49203	142	3	0	4	48957	141	3	0	4	46989	135	3	0	4
			4W	47488	137	4	0	5	47261	136	4	0	5	45443	131	4	0	5
			5QW	48889	141	5	0	5	48645	140	5	0	5	46689	135	5	0	5

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RATIO Series

AREA/SITE LIGHTER

PERFORMANCE DATA - STRIKE OPTIC

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR1	39	39.1	2	5385	138	1	0	1	5369	137	1	0	1	5079	130	1	0	1
			3	5331	136	1	0	2	5315	136	1	0	2	5028	129	1	0	2
			4F	5413	138	1	0	2	5396	137	1	0	2	5105	130	1	0	2
			4W	5341	137	1	0	2	5325	136	1	0	2	5037	129	1	0	2
			5QM	5508	140	2	0	1	5492	140	2	0	1	5195	132	2	0	1
			5QN	5512	140	2	0	0	5495	140	2	0	0	5198	132	2	0	0
			5QW	5118	131	3	0	2	5102	130	3	0	2	4827	123	3	0	2
			5RW	5390	138	3	0	3	5374	137	3	0	3	5084	130	3	0	3
			5W	5350	137	3	0	1	5334	136	3	0	1	5046	129	3	0	1
			C	5002	120	1	0	2	5002	120	1	0	2	5002	128	1	0	2
			FR	5547	141	1	0	1	5530	141	1	0	1	5231	133	1	0	1
			TC	5498	140	1	0	1	5481	140	1	0	1	5185	132	1	0	1
	55	56.8	2	7350	129	1	0	2	7329	129	1	0	2	6933	122	1	0	2
			3	7276	128	1	0	2	7255	128	1	0	2	6863	121	1	0	2
			4F	7388	130	1	0	2	7366	130	1	0	2	6968	123	1	0	2
			4W	7290	128	1	0	3	7269	128	1	0	3	6876	121	1	0	2
			5QM	7519	132	3	0	1	7496	132	3	0	1	7092	125	3	0	1
			5QN	7523	132	3	0	0	7501	132	3	0	0	7096	125	3	0	0
			5QW	6986	123	3	0	2	6965	123	3	0	2	6589	116	3	0	2
			5RW	7358	130	3	0	3	7336	129	3	0	3	6940	122	3	0	3
			5W	7303	129	3	0	2	7281	128	3	0	2	6888	121	3	0	2
			C	6828	113	1	0	2	6828	113	1	0	2	6828	120	1	0	2
			FR	7571	133	1	0	1	7548	133	1	0	1	7141	126	1	0	1
			TC	7504	132	1	0	1	7482	132	1	0	1	7078	125	1	0	1
	85	83.6	2	10081	121	2	0	2	10051	120	2	0	2	9508	114	2	0	2
			3	9979	119	2	0	2	9949	119	2	0	2	9412	113	1	0	2
			4F	10132	121	1	0	2	10102	121	1	0	2	9557	114	1	0	2
			4W	9998	120	1	0	3	9968	119	1	0	3	9430	113	1	0	3
			5QM	10312	123	3	0	1	10281	123	3	0	1	9726	116	3	0	1
			5QN	10318	123	3	0	0	10287	123	3	0	0	9732	116	3	0	0
			5QW	9580	115	4	0	3	9552	114	4	0	3	9036	108	4	0	3
			5RW	10090	121	4	0	4	10060	120	4	0	4	9517	114	3	0	3
			5W	10016	120	4	0	2	9986	119	4	0	2	9447	113	3	0	2
			C	9364	105	2	0	2	9364	105	2	0	2	9364	112	2	0	2
			FR	10383	124	1	0	1	10352	124	1	0	1	9793	117	1	0	1
			TC	10291	123	1	0	1	10261	123	1	0	1	9707	116	1	0	1

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RATIO Series

AREA/SITE LIGHTER

PERFORMANCE DATA - STRIKE OPTIC (CONT'D)

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR1	105	108.2	2	12321	114	2	0	2	12284	114	2	0	2	11621	107	2	0	2
			3	12197	113	2	0	3	12160	112	2	0	3	11504	106	2	0	3
			4F	12384	114	1	0	3	12347	114	1	0	3	11680	108	1	0	2
			4W	12220	113	2	0	3	12183	113	2	0	3	11526	107	1	0	3
			5QM	12603	116	3	0	2	12565	116	3	0	2	11887	110	3	0	2
			5QN	12611	117	3	0	0	12573	116	3	0	0	11894	110	3	0	0
			5QW	11709	108	4	0	3	11674	108	4	0	3	11044	102	4	0	3
			5RW	12333	114	4	0	4	12296	114	4	0	4	11632	108	4	0	4
			5W	12241	113	4	0	2	12205	113	4	0	2	11546	107	4	0	2
			C	11445	99	2	0	2	11445	99	2	0	2	11445	106	2	0	2
			FR	12690	117	1	0	1	12653	117	1	0	1	11969	111	1	0	1
			TC	12578	116	1	0	2	12541	116	1	0	2	11864	110	1	0	2
	120	120.9	2	13398	111	2	0	2	13358	110	2	0	2	12636	105	2	0	2
			3	13263	110	2	0	3	13223	109	2	0	3	12509	103	2	0	3
			4F	13467	111	1	0	3	13426	111	1	0	3	12701	105	1	0	3
			4W	13288	110	2	0	3	13248	110	2	0	3	12533	104	2	0	3
			5QM	13705	113	3	0	2	13664	113	3	0	2	12926	107	3	0	2
			5QN	13713	113	4	0	0	13672	113	4	0	0	12934	107	3	0	0
			5QW	12733	105	4	0	3	12695	105	4	0	3	12009	99	4	0	3
			5RW	13411	111	4	0	4	13371	111	4	0	4	12649	105	4	0	4
			5W	13312	110	4	0	2	13272	110	4	0	2	12555	104	4	0	2
			C	12446	96	2	0	2	12446	96	2	0	2	12446	103	2	0	2
			FR	13800	114	1	0	1	13758	114	1	0	1	13016	108	1	0	1
			TC	13678	113	1	0	2	13637	113	1	0	2	12901	107	1	0	2

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RATIO Series

AREA/SITE LIGHTER

PERFORMANCE DATA - STRIKE OPTIC (CONT'D)

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR2	115	112.1	2	14701	131	2	0	2	14657	131	2	0	2	13866	124	2	0	2
			3	14553	130	2	0	3	14509	129	2	0	3	13726	122	2	0	3
			4F	14776	132	1	0	3	14732	131	1	0	3	13937	124	1	0	3
			4W	14581	130	2	0	3	14537	130	2	0	3	13752	123	2	0	3
			5QM	15038	134	3	0	2	14993	134	3	0	2	14183	127	3	0	2
			5QN	15047	134	4	0	0	15002	134	4	0	0	14192	127	4	0	0
			5QW	13971	125	4	0	3	13929	124	4	0	3	13177	118	4	0	3
			5RW	14715	131	4	0	4	14671	131	4	0	4	13879	124	4	0	4
			5W	14606	130	4	0	2	14563	130	4	0	2	13776	123	4	0	2
			C	14571	130	2	0	3	14571	130	2	0	3	13656	122	2	0	3
			FR	15142	135	2	0	1	15097	135	2	0	1	14282	127	1	0	1
			TC	15008	134	2	0	2	14963	133	2	0	2	14155	126	1	0	2
	145	141.2	2	17797	126	3	0	3	17744	126	3	0	3	16786	119	3	0	3
			3	17618	125	2	0	3	17565	124	2	0	3	16617	118	2	0	3
			4F	17889	127	2	0	3	17835	126	2	0	3	16872	119	2	0	3
			4W	17652	125	2	0	4	17599	125	2	0	4	16649	118	2	0	4
			5QM	18205	129	4	0	2	18151	129	4	0	2	17170	122	4	0	2
			5QN	18216	129	4	0	0	18162	129	4	0	0	17181	122	4	0	0
			5QW	16914	120	4	0	3	16863	119	4	0	3	15953	113	4	0	3
			5RW	17815	126	4	0	4	17761	126	4	0	4	16802	119	4	0	4
			5W	17683	125	4	0	2	17630	125	4	0	2	16678	118	4	0	2
			C	17640	125	3	0	3	17640	125	3	0	3	16532	117	3	0	3
			FR	18331	130	2	0	2	18276	129	2	0	2	17290	122	2	0	2
			TC	18169	129	2	0	2	18115	128	2	0	2	17137	121	2	0	2
	180	177.0	2	21314	120	3	0	3	21250	120	3	0	3	20102	114	3	0	3
			3	21099	119	3	0	4	21036	119	3	0	4	19900	112	3	0	4
			4F	21423	121	2	0	4	21359	121	2	0	4	20206	114	2	0	4
			4W	21139	119	2	0	4	21076	119	2	0	4	19938	113	2	0	4
			5QM	21802	123	4	0	2	21737	123	4	0	2	20563	116	4	0	2
			5QN	21815	123	4	0	0	21750	123	4	0	0	20575	116	4	0	0
			5QW	20256	114	5	0	4	20195	114	5	0	4	19104	108	5	0	3
			5RW	21334	121	5	0	5	21271	120	5	0	5	20122	114	5	0	5
			5W	21176	120	5	0	3	21113	119	5	0	3	19973	113	5	0	3
			C	21125	119	3	0	4	21125	119	3	0	4	19799	112	3	0	4
			FR	21953	124	2	0	2	21888	124	2	0	2	20706	117	2	0	2
			TC	21759	123	2	0	2	21694	123	2	0	2	20523	116	2	0	2

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RATIO Series

AREA/SITE LIGHTER

PERFORMANCE DATA - STRIKE OPTIC (CONT'D)

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR2	210	217.3	2	24102	111	3	0	3	24030	111	3	0	3	22732	105	3	0	3
			3	23859	110	3	0	4	23788	109	3	0	4	22503	104	3	0	4
			4F	24226	111	2	0	4	24153	111	2	0	4	22849	105	2	0	4
			4W	23905	110	3	0	5	23833	110	3	0	5	22546	104	2	0	4
			5QM	24654	113	4	0	2	24581	113	4	0	2	23253	107	4	0	2
			5QN	24669	114	5	0	1	24595	113	5	0	1	23267	107	5	0	0
			5QW	22905	105	5	0	4	22837	105	5	0	4	21604	99	5	0	4
			5RW	24126	111	5	0	5	24053	111	5	0	5	22754	105	5	0	5
			5W	23947	110	5	0	3	23875	110	5	0	3	22586	104	5	0	3
			C	23889	110	3	0	4	23889	110	3	0	4	22389	103	3	0	4
			FR	24825	114	2	0	2	24751	114	2	0	2	23414	108	2	0	2
			TC	24606	113	2	0	2	24532	113	2	0	2	23207	107	2	0	2
	240	238.6	2	26781	112	3	0	4	26701	112	3	0	4	25259	106	3	0	3
			3	26511	111	3	0	4	26432	111	3	0	4	25005	105	3	0	4
			4F	26918	113	2	0	4	26838	112	2	0	4	25389	106	2	0	4
			4W	26562	111	3	0	5	26483	111	3	0	5	25053	105	3	0	5
			5QM	27395	115	4	0	2	27313	114	4	0	2	25838	108	4	0	2
			5QN	27411	115	5	0	1	27329	115	5	0	1	25853	108	5	0	1
			5QW	25451	107	5	0	4	25375	106	5	0	4	24005	101	5	0	4
			5RW	26807	112	5	0	5	26727	112	5	0	5	25284	106	5	0	5
			5W	26609	112	5	0	3	26529	111	5	0	3	25097	105	5	0	3
			C	26544	111	3	0	4	26544	111	3	0	4	24878	104	3	0	4
			FR	27585	116	2	0	2	27502	115	2	0	2	26017	109	2	0	2
			TC	27341	115	2	0	2	27259	114	2	0	2	25787	108	2	0	2
	215	215.0	2	26697	124	3	0	4	26617	124	3	0	4	25180	117	3	0	3
			3	26428	123	3	0	4	26349	123	3	0	4	24926	116	3	0	4
			4F	26834	125	2	0	4	26754	124	2	0	4	25309	118	2	0	4
			4W	26479	123	3	0	5	26400	123	3	0	5	24974	116	3	0	5
			5QM	27309	127	4	0	2	27227	127	4	0	2	25757	120	4	0	2
			5QN	27325	127	5	0	1	27243	127	5	0	1	25772	120	5	0	1
			5QW	25372	118	5	0	4	25296	118	5	0	4	23930	111	5	0	4
			5RW	26723	124	5	0	5	26643	124	5	0	5	25204	117	5	0	5
			5W	26525	123	5	0	3	26446	123	5	0	3	25018	116	5	0	3
			C	26461	123	3	0	4	26461	123	3	0	4	24799	115	3	0	4
			FR	27498	128	2	0	2	27416	128	2	0	2	25935	121	2	0	2
			TC	27255	127	2	0	2	27174	126	2	0	2	25706	120	2	0	2

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RATIO Series

AREA/SITE LIGHTER

PERFORMANCE DATA - STRIKE OPTIC (CONT'D)

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR2	250	247.5	2	30249	122	3	0	4	30159	122	3	0	4	28530	115	3	0	4
			3	29944	121	3	0	4	29855	121	3	0	4	28243	114	3	0	4
			4F	30404	123	2	0	5	30313	122	2	0	5	28676	116	2	0	5
			4W	30002	121	3	0	5	29912	121	3	0	5	28297	114	3	0	5
			5QM	30942	125	5	0	3	30849	125	5	0	3	29184	118	5	0	2
			5QN	30961	125	5	0	1	30868	125	5	0	1	29201	118	5	0	1
			5QW	28747	116	5	0	4	28661	116	5	0	4	27113	110	5	0	4
			5RW	30278	122	5	0	5	30188	122	5	0	5	28558	115	5	0	5
			5W	30054	121	5	0	4	29964	121	5	0	4	28346	115	5	0	3
			C	29982	121	3	0	4	29982	121	3	0	4	28099	114	3	0	4
			FR	31157	126	2	0	2	31063	126	2	0	2	29386	119	2	0	2
			TC	30881	125	3	0	3	30789	124	3	0	3	29126	118	3	0	2
	280	274.6	2	32729	119	3	0	4	32631	119	3	0	4	30869	112	3	0	4
			3	32400	118	3	0	5	32303	118	3	0	5	30558	111	3	0	5
			4F	32897	120	2	0	5	32799	119	2	0	5	31028	113	2	0	5
			4W	32462	118	3	0	5	32365	118	3	0	5	30617	112	3	0	5
			5QM	33479	122	5	0	3	33379	122	5	0	3	31577	115	5	0	3
			5QN	33499	122	5	0	1	33399	122	5	0	1	31596	115	5	0	1
			5QW	31104	113	5	0	5	31011	113	5	0	5	29337	107	5	0	4
			5RW	32761	119	5	0	5	32663	119	5	0	5	30899	113	5	0	5
			5W	32519	118	5	0	4	32421	118	5	0	4	30671	112	5	0	4
			C	32440	118	3	0	5	32440	118	3	0	5	30403	111	3	0	5
			FR	33711	123	2	0	2	33610	122	2	0	2	31795	116	2	0	2
			TC	33413	122	3	0	3	33313	121	3	0	3	31515	115	3	0	3
	325	325.0	2	36969	114	3	0	4	36858	113	3	0	4	34868	107	3	0	4
			3	36597	113	3	0	5	36487	112	3	0	5	34517	106	3	0	5
			4F	37159	114	3	0	5	37047	114	3	0	5	35047	108	3	0	5
			4W	36667	113	3	0	5	36557	112	3	0	5	34583	106	3	0	5
			5QM	37816	116	5	0	3	37703	116	5	0	3	35667	110	5	0	3
			5QN	37839	116	5	0	1	37726	116	5	0	1	35688	110	5	0	1
			5QW	35133	108	5	0	5	35028	108	5	0	5	33137	102	5	0	5
			5RW	37005	114	5	0	5	36894	114	5	0	5	34902	107	5	0	5
			5W	36731	113	5	0	4	36621	113	5	0	4	34643	107	5	0	4
			C	36642	113	3	0	5	36642	113	3	0	5	34341	106	3	0	5
			FR	38078	117	3	0	2	37964	117	3	0	2	35914	111	3	0	2
			TC	37742	116	3	0	3	37629	116	3	0	3	35597	110	3	0	3

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PERFORMANCE DATA - STRIKE OPTIC (CONT'D)

Description	Nominal Wattage	System Watts	Dist. Type	5K (5000K NOMINAL 70 CRI)					4K (4000K NOMINAL 70 CRI)					3K (3000K NOMINAL 80 CRI)				
				Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
RAR2	365	357.7	2	40171	112	3	0	4	40051	112	3	0	4	37888	106	3	0	4
			3	39767	111	3	0	5	39648	111	3	0	5	37507	105	3	0	5
			4F	40377	113	3	0	5	40257	113	3	0	5	38083	106	3	0	5
			4W	39843	111	3	0	5	39724	111	3	0	5	37579	105	3	0	5
			5QM	41092	115	5	0	3	40969	115	5	0	3	38756	108	5	0	3
			5QN	41117	115	5	0	1	40994	115	5	0	1	38780	108	5	0	1
			5QW	38177	107	5	0	5	38063	106	5	0	5	36007	101	5	0	5
			5RW	40210	112	5	0	5	40090	112	5	0	5	37925	106	5	0	5
			5W	39913	112	5	0	4	39793	111	5	0	4	37644	105	5	0	4
			C	39816	111	3	0	5	39816	111	3	0	5	37316	104	3	0	5
			FR	41377	116	3	0	2	41253	115	3	0	2	39025	109	3	0	2
			TC	41011	115	3	0	3	40888	114	3	0	3	38680	108	3	0	3

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RATIO Series

AREA/SITE LIGHTER

DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

ELECTRICAL DATA - MICROSTRIKE OPTICS

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RAR1	25	120	0.21	25.4
		208	0.12	
		240	0.11	
		277	0.09	
	39	120	0.32	38.0
		208	0.18	
		240	0.16	
		277	0.14	
		347	0.11	
		480	0.08	
	50	120	0.42	49.8
		208	0.24	
		240	0.21	
		277	0.18	
	70	120	0.57	68.4
		208	0.33	
		240	0.29	
		277	0.25	
	100	120	0.75	90.0
		208	0.43	
		240	0.38	
		277	0.32	
	115	120	0.91	109.7
		208	0.53	
		240	0.46	
		277	0.40	
		347	0.32	
		480	0.23	
	135	120	1.11	133.3
		208	0.64	
		240	0.56	
		277	0.48	
		347	0.38	
		480	0.28	

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
RAR2	110	120	0.84	100.3
		208	0.48	
		240	0.42	
		277	0.36	
	140	120	1.11	133.2
		208	0.64	
		240	0.56	
		277	0.48	
	165	120	1.28	153.6
		208	0.74	
		240	0.64	
		277	0.55	
	185	120	1.45	174.5
		208	0.84	
		240	0.73	
		277	0.63	
	210	120	1.65	198.3
		208	0.95	
		240	0.83	
		277	0.72	
	240	120	1.89	226.9
		208	1.09	
		240	0.95	
		277	0.82	
	255	120	2.14	257.0
		208	1.24	
		240	1.07	
		277	0.93	
		347	0.74	
		480	0.54	
	295	120	2.45	294.0
		208	1.41	
		240	1.23	
		277	1.06	
		347	0.85	
		480	0.61	
	340	120	2.89	347.1
		208	1.67	
		240	1.45	
		277	1.25	
		347	1.00	
		480	0.72	

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RATIO Series

AREA/SITE LIGHTER

ELECTRICAL DATA - STRIKE OPTICS

# OF LEDS	Nominal Wattage	Input Voltage	Oper. Current (Amps)	System Power (Watts)
36	39	120	0.326	39.1
		208	0.188	
		240	0.163	
		277	0.141	
		347	0.113	
		480	0.081	
	55	120	0.473	56.8
		208	0.273	
		240	0.237	
		277	0.205	
		347	0.164	
		480	0.118	
	85	120	0.697	83.6
		208	0.402	
		240	0.348	
		277	0.302	
		347	0.241	
		480	0.174	
	105	120	0.902	108.2
		208	0.520	
		240	0.451	
		277	0.391	
		347	0.312	
		480	0.225	
	120	120	1.008	120.9
		208	0.581	
		240	0.504	
		277	0.436	
		347	0.348	
		480	0.252	
72L	115	120	0.934	112.1
		208	0.539	
		240	0.467	
		277	0.405	
		347	0.323	
		480	0.234	
	145	120	1.177	141.2
		208	0.679	
		240	0.588	
		277	0.510	
		347	0.407	
		480	0.294	
	180	120	1.475	177.0
		208	0.851	
		240	0.738	
		277	0.639	
		347	0.510	
		480	0.369	
	210	120	1.811	217.3
		208	1.045	
		240	0.905	
		277	0.784	
		347	0.626	
		480	0.453	
	240	120	1.988	238.6
		208	1.147	
		240	0.994	
		277	0.861	
		347	0.688	
		480	0.497	
108L	215	120	1.792	215.0
		208	1.034	
		240	0.896	
		277	0.776	
		347	0.620	
		480	0.448	
	250	120	2.063	247.5
		208	1.190	
		240	1.031	
		277	0.894	
		347	0.713	
		480	0.516	
	280	120	2.288	274.6
		208	1.320	
		240	1.144	
		277	0.991	
		347	0.791	
		480	0.572	
	325	120	2.708	325.0
		208	1.563	
		240	1.354	
		277	1.173	
		347	0.937	
		480	0.677	
	365	120	2.981	357.7
		208	1.720	
		240	1.490	
		277	1.291	
		347	1.031	
		480	0.745	

PROJECTED LUMEN MAINTENANCE

Ambient Temperature	OPERATING HOURS					
	0	25,000	TM-21-11 L90 36,000	50,000	100,000	L70 (Hours)
25°C / 77°F	1.00	0.97	0.95	0.93	0.86	238,000
40°C / 104°F	0.99	0.96	0.95	0.93	0.85	225,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

Micro Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	–	0.841	–
3000K	0.977	0.861	0.647
3500K	–	0.900	–
4000K	1	0.926	0.699
5000K	1	0.937	0.791
AP-Amber Phosphor Converted Multiplier			
Amber	0.710		

Ambient Temperature		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.01
20°C	68°F	1.00
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Strike Lumen Multiplier			
CCT	70 CRI	80 CRI	90 CRI
2700K	0.9	0.81	0.62
3000K	0.933	0.853	0.659
3500K	0.959	0.894	0.711
4000K	1	0.9	0.732
5000K	1	0.9	0.732
Monochromatic Amber Multiplier			
Amber	See Amber Spec Sheet		

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DATE: LOCATION:

TYPE: PROJECT:

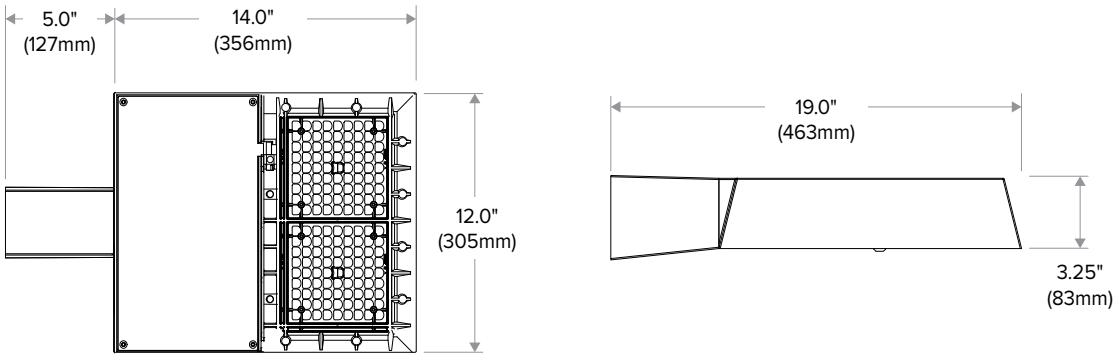
CATALOG #:

RATIO Series

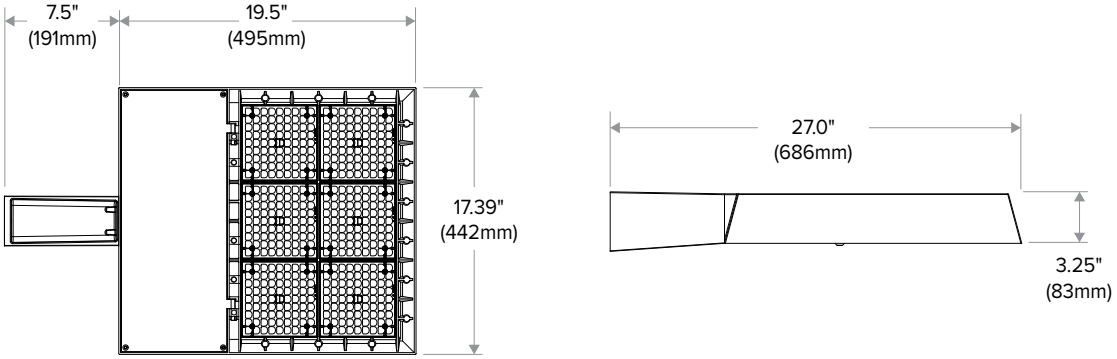
AREA/SITE LIGHTER

DIMENSIONS

RAR1

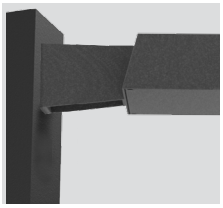


RAR2

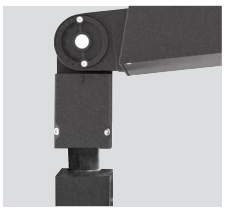


ADDITIONAL INFORMATION

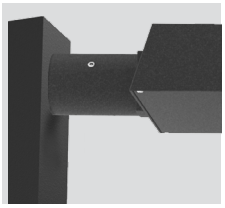
MOUNTING



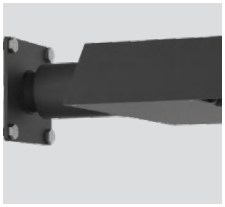
Arm Mount – ASQ: Fixture ships with integral arm for ease of installation.



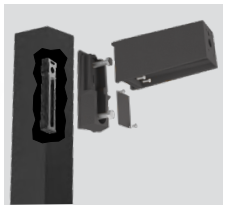
Knuckle – Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes.



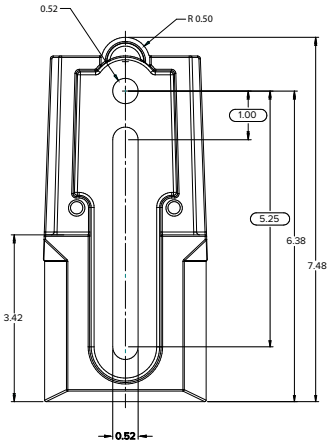
MAF – Fits 2-3/8" OD arms Roadway applications.



Wall Mount – Wall mount bracket designed for building mount applications.



Universal Mounting – Universal mounting block for ease of installation. Compatible with drill patterns from 2.5" to 4.5" and S2 and B3 drill patterns



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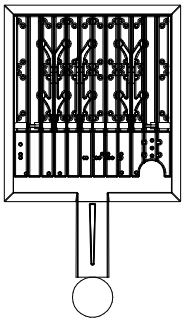
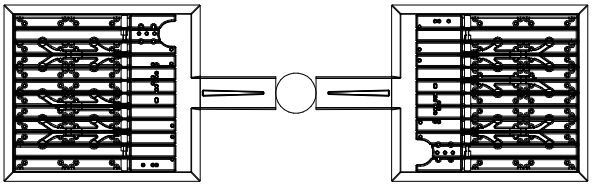
RATIO Series

AREA/SITE LIGHTER

EPA (RAR1)



EPA Knuckle Mount 0 degrees: .43
EPA Knuckle Mount 30 degrees: .55
EPA Arm Mount: 0 degrees .45



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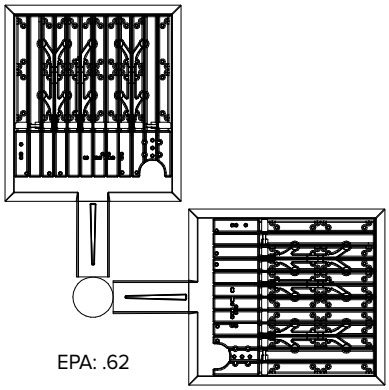

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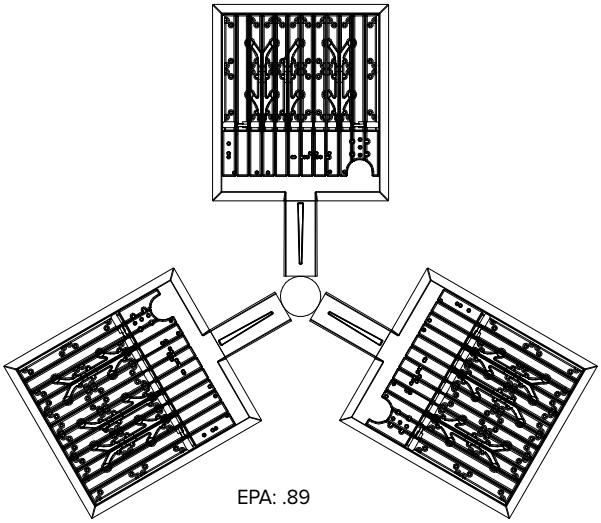

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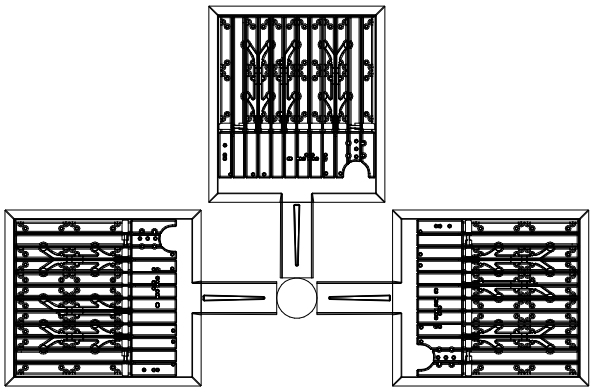

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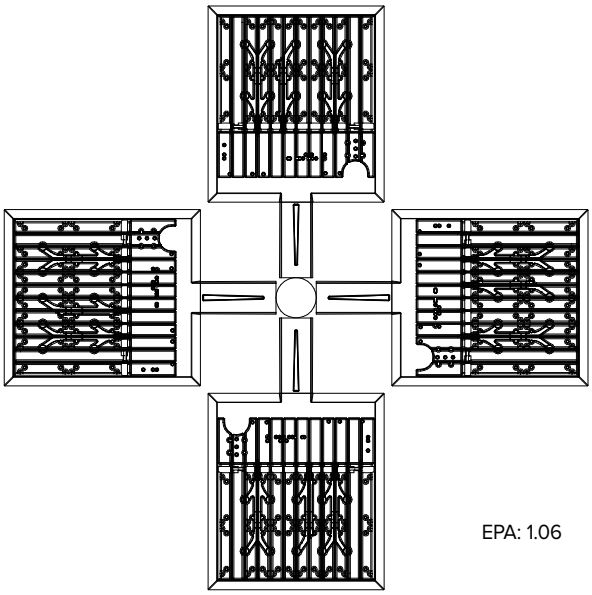

EPA: 1.06

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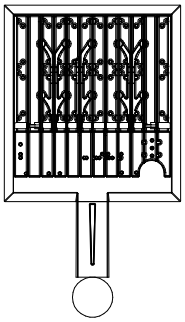
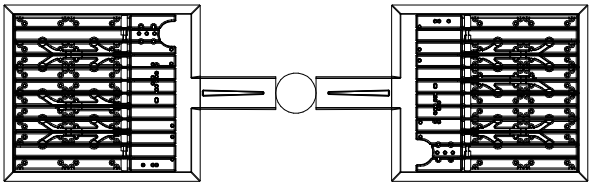
RATIO Series

AREA/SITE LIGHTER

EPA (RAR2)



EPA Knuckle Mount: .52
EPA Arm Mount: .55



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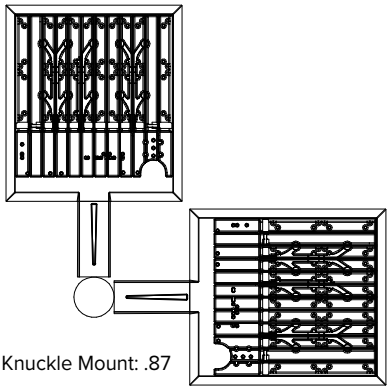
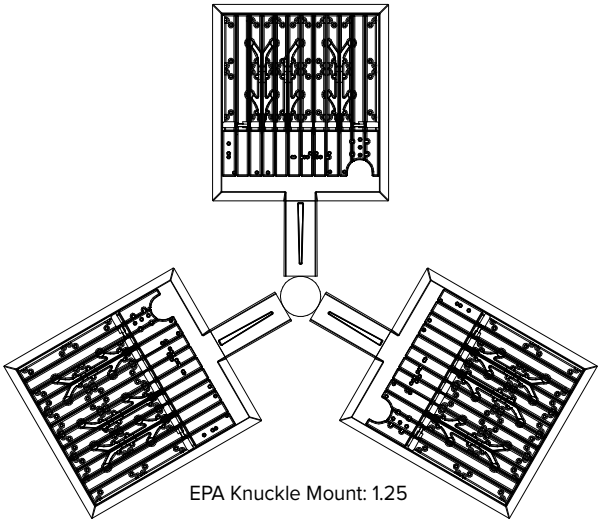
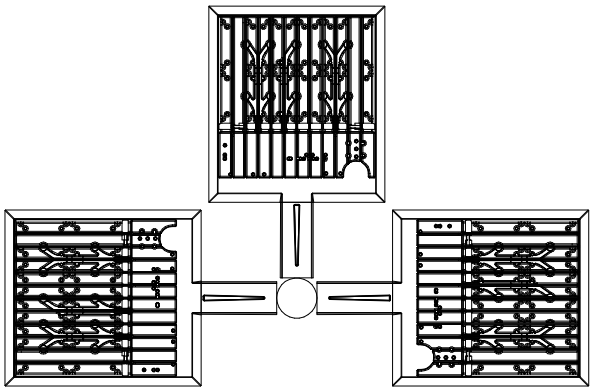


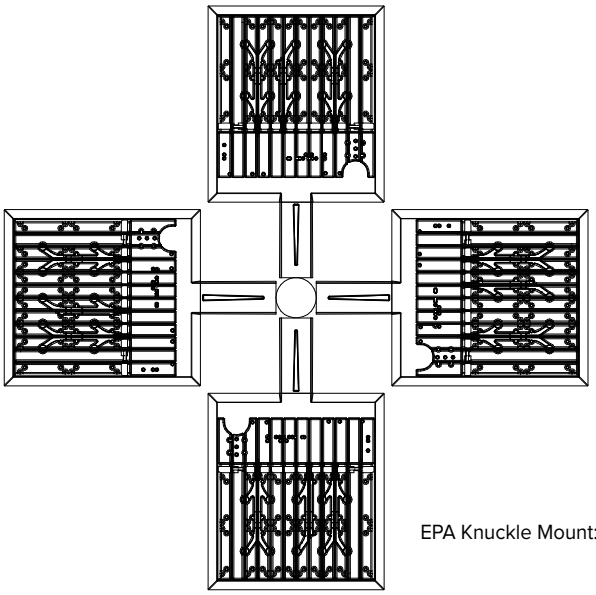
EPA Knuckle Mount: .87



EPA Knuckle Mount: 1.25



EPA Knuckle Mount: 1.41



EPA Knuckle Mount: 1.56

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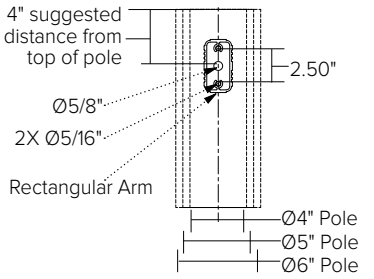
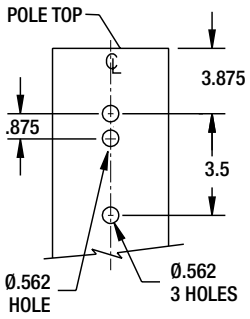
ADDITIONAL INFORMATION (CONT'D)

ARM MOUNT (ASQ)
Compatible with Pole drill pattern B3



UNIVERSAL MOUNTING (ASQU)
Compatible with pole drill pattern S2



PROGRAMMED CONTROLS

ADD-AutoDim Timer Based Options

- Light delay options from 1-9 hours after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1-9 hours after the light has been dimmed previously.

EX: ADD-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	1-9 Hours	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	Delay 0-9 Hours	R6

ADT-AutoDim Time of Day Based Option

- Light delay options from 1AM-9PM after the light is turned on to dim the light by 10-100%. To return the luminaire to its original light level there are dim return options from 1AM-9PM after the light has been dimmed previously.

EX: ADT-6-5-R6

ADD Control Options	Configurations Choices	Example Choice Picked
Auto-Dim Options	12-3 AM and 6-11 PM	6
Auto-Dim Brightness	0-9% Brightness	5
Auto-Dim Return	12-6 AM and 9-11P	R6

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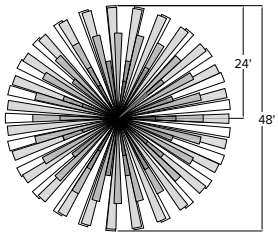
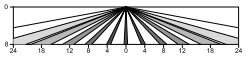
RATIO Series

AREA/SITE LIGHTER

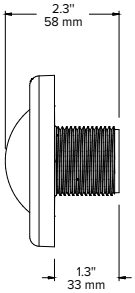
ADDITIONAL INFORMATION (CONT'D)

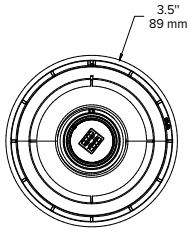
NXSP-14F



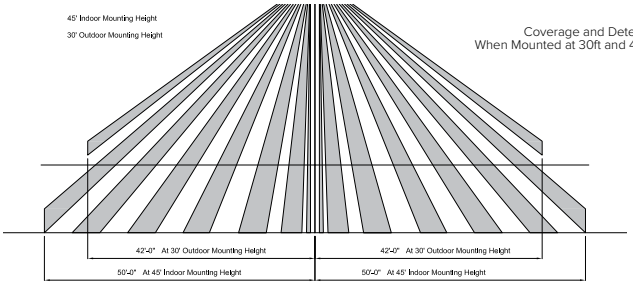


Sensor Lens Coverage and Detection Patterns
When Mounted at 8ft with Low Mount Lens

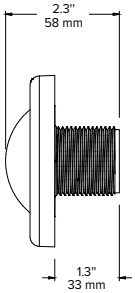


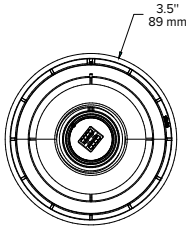


NXSP-30F

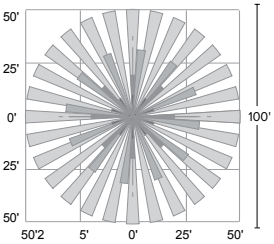


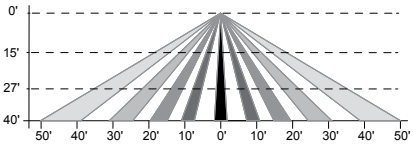
Coverage and Detection Patterns
When Mounted at 30ft and 45ft with Standard Lens

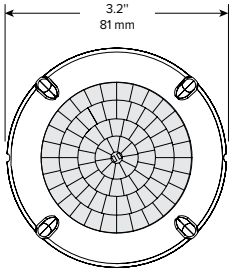


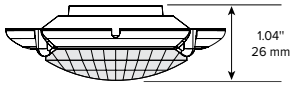


SCP-40F









RAR1 EPA

RAR-1	
EPA at 0˚	EPA at 30˚
.45ft.^{2} .13m^2	.56ft.^{2} .17m^2

RAR2 EPA

RAR-2	
EPA at 0˚	EPA at 30˚
.55ft.^{2} .17m^2	1.48ft.^{2} .45m^2

SHIPPING

Catalog Number	G.W(kg)/ CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
RAR1	15 (6.8)	20.75 (52.7)	15.125 (38.4)	6.9375 (17.6)
RAR2	19 (8.6)	25 (63.5)	15.125 (38.4)	6.9375 (17.6)

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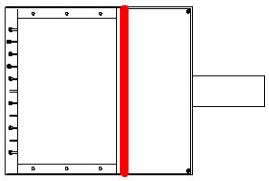
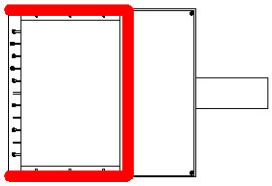
ADDITIONAL INFORMATION (CONT'D)

RATIO HOUSE SIDE SHIELD

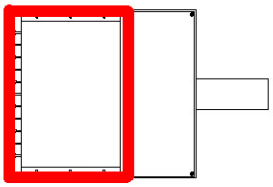
RARx HSS-90-B-xx



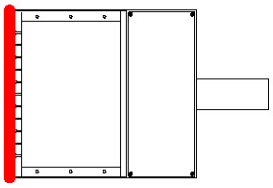
RARx HSS-270-BSS-xx



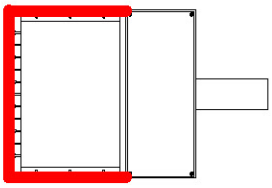
RARx HSS-360-xx



RARx HSS-90-F-xx

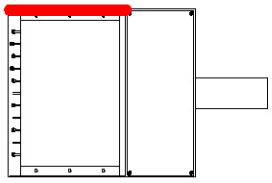


RARx HSS-270-FSS-xx

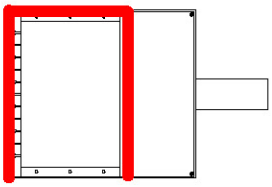


Note: Not to be used with Ocupancy Sensors as the shield may block the light to the sensor

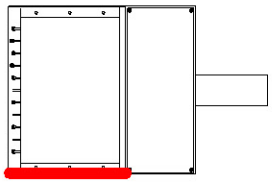
RARx HSS-90-S-xx



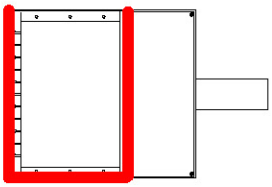
RARx HSS-270-FSB-xx



RARx HSS-90-S-xx



RARx HSS-270-FSB-xx



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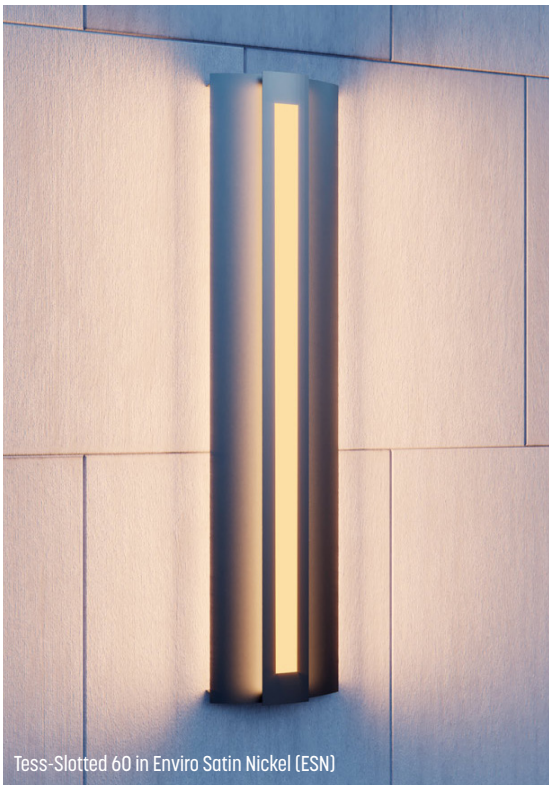
TESS-SLOTTED

ARCHITECTURAL SCALE, WET-LISTED EXTERIOR WALL SCONCE

alva



Tess-Slotted 60 in Enviro Satin Nickel (ESN)


Tess-Slotted 60 in Enviro Satin Nickel (ESN)

ADA COMPLIANT | TITLE 24 | 10YR WARRANTY | ETL LISTED

APPLICATIONS	Direct/Indirect grazing luminaire for exterior/interior use: flanking doors, on columns, on building facades, between windows, and elevator lobbies. Suitable for marine environments.
SIZES	• 12″ W x 30″ H x 4″ D, 15 lbs • 12″ W x 45″ H x 4″ D, 22 lbs • 12″ W x 60″ H x 4″ D, 32 lbs • 12″ W x 90″ H x 4″ D, 42 lbs
MOUNTING	• J-Box 3.0 or 4.0 at center or end of fixture • Steel mounting system with mounting plate and cover with rubber gaskets between the junction box and mounting plate • Can be mounted vertically or horizontally
SPECIFICATIONS	• IP66 Rated May be Power Washed at High Pressure (100kPa at distance of 3m) • 120-277V input • Title 24 Compliant • ADA Compliant • 100,000+ hours rated life time • 10 Year Limited Warranty (excludes shade)
LAMPING	• Integrated Proprietary ALVA LED Light Module • 80 CRI minimum, 85 CRI typical • 3000K or 3500K standard • Tess-Slotted 30 23 watts, 1041 delivered lumens • Tess-Slotted 45 29 watts, 1363 delivered lumens • Tess-Slotted 60 37 watts, 1739 delivered lumens • Tess-Slotted 90 58 watts, 2726 delivered lumens • 0-10V Dimming (100-10%)
CONSTRUCTION	Fixture shell (shade): Heavy gauge aluminum with industrial powder coat finish and high impact acrylic

TESS-SLOTTED

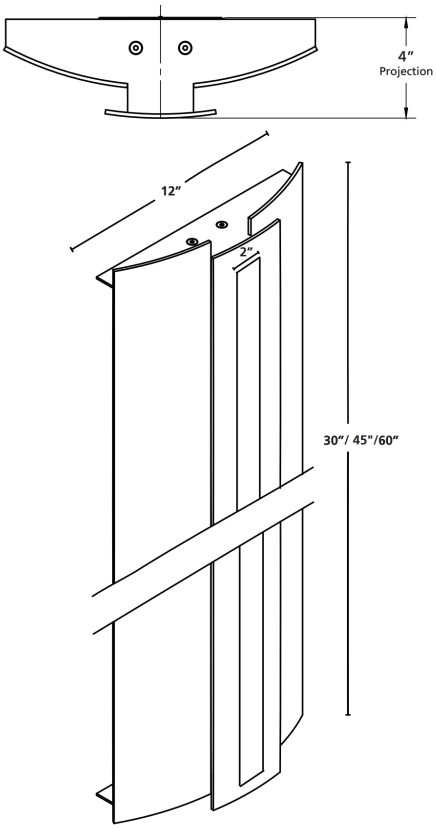
ARCHITECTURAL SCALE, WET-LISTED EXTERIOR WALL SCONCE

alva



Tess-Slotted 60 in Enviro Satin Nickel (ESN)

DIMENSIONS



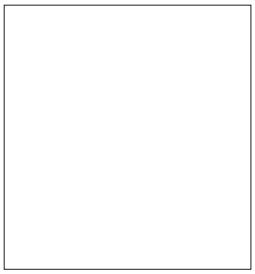
METAL POWDER COAT FINISH OPTIONS



ESN - Enviro Satin Nickel



EOB - Enviro Oil-Rubbed Bronze



WHT - White



BLK - Black



GR - Graphite



DB - Dark Bronze

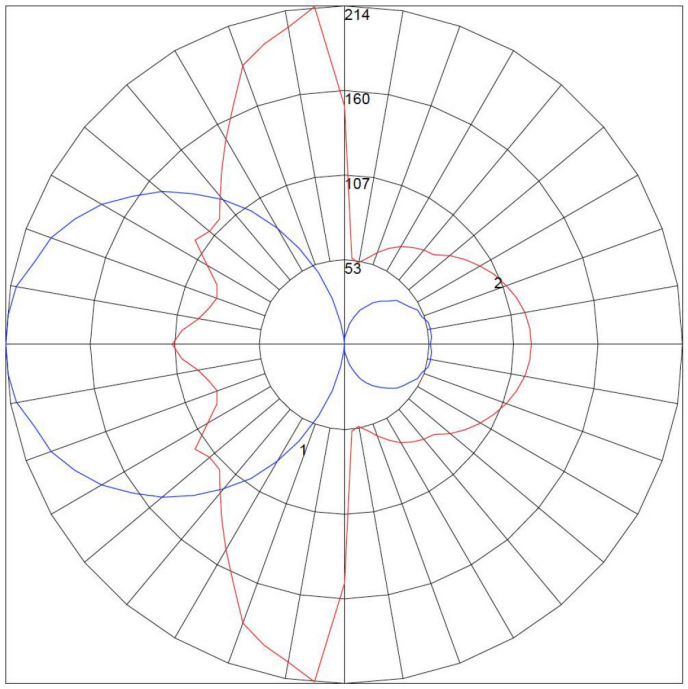
TESS-SLOTTED

ARCHITECTURAL SCALE, WET-LISTED EXTERIOR WALL SCONCE

alva



Tess-Slotted 60 in Enviro Satin Nickel (ESN)



Maximum Candela = 213.55 Located At Horizontal Angle = 95, Vertical Angle = 90
1 - Vertical Plane Through Horizontal Angles (95 - 275) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (90) (Through Max. Cd.)

PHOTOMETRIC & ELECTRICAL TEST RESULTS (TESS-SLOTTED30)

- Total Lumens: 1041.60
- Efficacy: 47.02
- Input Voltage (VAC/60Hz): 119.96
- Input Current (Amp): 0.1860
- Input Power (W): 22.15
- Input Power Factor: 0.9932
- Current ATHD (%): 8.7%

ORDER CODE:

TESS-SLOTTED			
MODEL	**LENGTH**	**METAL TRIM**	**CCT**
	30 30″	*POWDER COAT FINISH OPTIONS*	**3000** 3000K
	45 45″	**ESN** Enviro Satin Nickel	**3500** 3500K
	60 60″	**EOB** Enviro Oil-Rubbed Bronze	
	90 90″	**GR** Graphite	
		DB Dark Bronze	
		WHT White	
		BLK Black	

HAMRO INVESTMENT GROUP
1/29/2026

Village of Wheeling
Community Development Department
Zoning Board of Appeals
2 Community Boulevard
Wheeling, IL 60090

Subject: – Zoning Board Approval Request for 604 Milwaukee Ave

Dear Members of the Wheeling Zoning Board of Appeals,

I respectfully submit this letter and project narrative on behalf of **HAMRO INVESTMENT GROUP** in support of our request for zoning board approval to redevelop the **currently vacant lot at 604 Milwaukee Ave** into a vibrant, family-friendly sports and entertainment center featuring the **only cricket simulator in Illinois and only the second of its kind in the United States**.

Overview of Proposal

We propose to transform this underutilized property into a dynamic mixed-use venue offering:

- The **only cricket simulation bays in Illinois**, a signature attraction for cricket enthusiasts and families across the region
- Gulf Simulation
- Casual dining restaurant and full-service bar
- VR gaming zones
- Arcade and kids' play area
- Adult gaming lounge with ID check and supervision

Our project will help **revitalize Milwaukee Avenue** by activating a vacant site with an engaging, modern facility that meets community needs for entertainment, dining, and social gathering.

Background and Community Benefit

Today, 604 Milwaukee Ave is a vacant lot generating no sales tax, jobs, or visual appeal for the corridor. Our project will convert it into an **active, attractive, and tax-generating community asset**.

Key benefits include:

- **Unique destination:** The first and only cricket simulation center in Illinois (and only the second in the USA), delivering a signature draw that distinguishes Wheeling from neighboring suburbs.
- **Local job creation:** 30-35 full-time equivalent jobs, spanning hospitality, culinary, entertainment, and management roles.
- **Economic impact:** New sales tax revenue and increased visitor foot traffic supporting nearby businesses.
- **Neighborhood enhancement:** Professional landscaping, lighting, signage, and a modern building façade to improve the area's visual character.
- **Community engagement:** Opportunities for leagues, kids' parties, corporate team-building, and family events.

HAMRO INVESTMENT GROUP is committed to hiring locally, sourcing from nearby vendors where possible, and supporting Wheeling's economic growth and vibrancy.

Operational Details

Hours of Operation:

- Sunday–Thursday: 11:00 AM – 10:00 PM
- Friday–Saturday: 11:00 AM – 12:00 AM

Staffing Plan:

We plan for 30–40 staff on-site daily, ~35–40 FTE overall.

Department / Area	Roles / Functions	Estimated FTE
Cricket and Gulf Simulator Bays	Operators / Attendants	4-5
VR Zone	VR Tech / Game Attendants	2-3
Arcade & Kids Zone	Supervisors / Technicians	2-3
Adult Gaming Section	Attendants / Cashiers	2-3

Group Party in dining Hall	Event Coordinators + Support Staff	3-4
Restaurant & Kitchen	Head Chef, Cooks, Dish, Prep	4-5
Front-of-House (FOH)	Servers, Bartenders, Hosts	4-5
Reception / Front Desk	Booking Agents / Customer Service	2-3
Cleaning & Maintenance	Janitorial / Equipment Cleaning	3–4
Management/Admin	General Manager, Assistant Managers	3–4
Marketing & social media	Promotions & Events (PT/FT)	1–2
Security	Evening Doorman / Outsourced Option	1–2

Number of Seats

- Restaurant/Casual Dining: 80 occupants
- Bar Area: 26 occupants
- Small dining area 20 occupants
- Gaming/Arcade/VR/Billiards: variable/active use seating

Parking and Site Improvements

Parking Provided:

- 87 on-site parking spaces (new layout)
- 24 new offsite parking spaces to the south (secured via formal agreement)
- **Total available parking:** 111 spaces
- 11 dedicated bicycle parking spaces

Parking Demand Calculations:

- Casual Dining: 80 occupants / (3 seats per space) = ~27 spaces
- Small dining Room (existing): 20 occupants / (3 seats per space) = ~7 spaces
- Bar: 26 occupants / (3 seats per space) = ~9 spaces
- Gaming Room: 6 seats / (3 seats per space) = 2 spaces
- Arcade: 9 seats / (3 seats per space) = 3 spaces
- VR Rooms (similar to golf driving range): 2 spaces (1 per room)
- VR Stations: 2 spaces (3 seats per space)
- Gulf Simulation : 2 spaces (2 spaces/table)

- Cricket Simulators (Similar to bowling lanes): 16 spaces (4 spaces/lane)
- Employees: ~20 spaces (1 per employee)

Total calculated need: 90 spaces—fully met by our proposed layout.

Site Improvements:

- New landscaping, lighting, signage, and building facade
- Clearly marked ADA-compliant entrances and paths
- Bike parking and pedestrian-friendly design

Nature of Proposed Land Use

We are requesting zoning board approval for **mixed-use commercial entertainment and restaurant** use at 604 Milwaukee Ave.

This proposed use aligns with Wheeling's goals to:

- Revitalize vacant, non-productive lots
- Increase local employment opportunities
- Enhance family-friendly destination options
- Support corridor beautification and economic development

Our design will ensure responsible operations with controlled noise, accessible facilities, ample parking, and strong integration with the existing neighborhood.

Conclusion

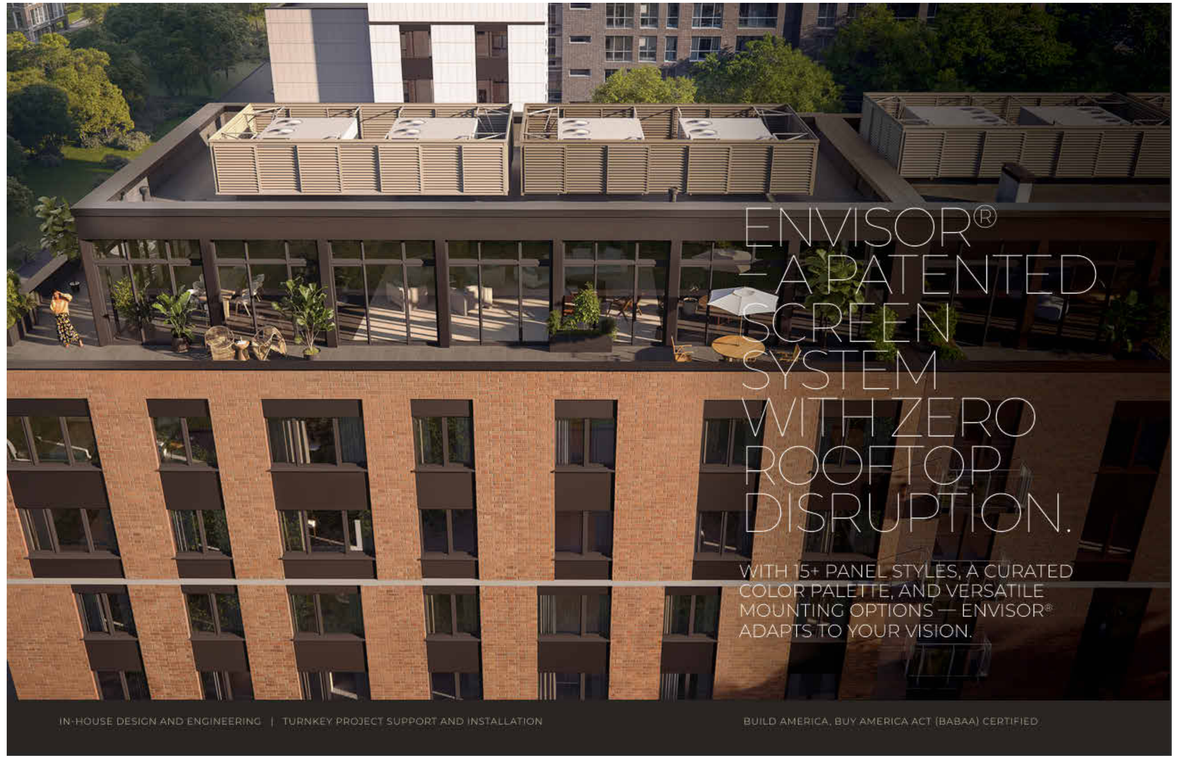
Approval of this project will allow the Village of Wheeling to gain:

- Activation of a vacant lot into a productive, attractive asset
- Illinois' first and only cricket simulator—a true regional draw
- Dozens of local jobs in a wide range of roles
- New sales tax revenue and support for nearby businesses
- A visually appealing, modern, family-friendly entertainment and dining venue

Thank you for your time and consideration of this proposal. We are happy to provide any additional details, answer questions, or present to the Board in person.

Sincerely,

Manish Chaudhary
Managing Partner
HAMRO INVESTMENT GROUP





MULTIPLE PANEL PROFILES. ONE SYSTEM.

From Idea to Installation

CUSTOM-ENGINEERED AND DELIVERED

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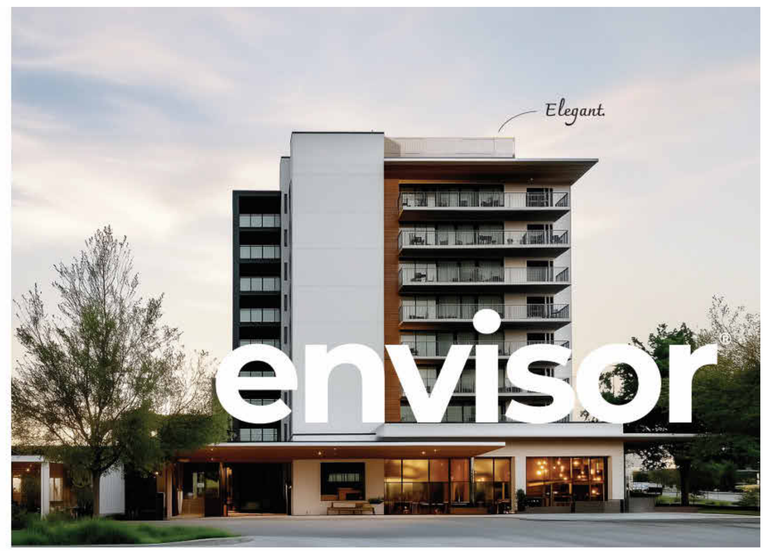
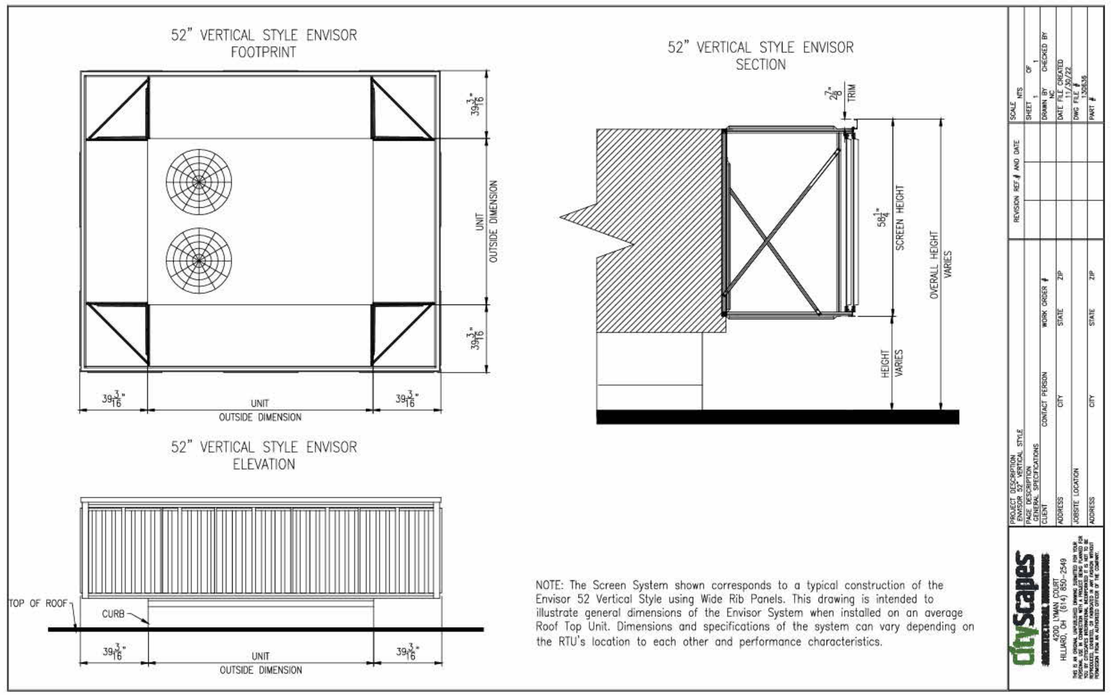
- TAILORED ENGINEERING
- PRECISION IN-HOUSE MANUFACTURING
- ORGANIZED, READY-TO-INSTALL SHIPMENTS
- OPTIONAL PROFESSIONAL INSTALLATION
- FULL PROJECT SUPPORT THROUGHOUT



THOUGHTFULLY CRAFTED OPTIONS, FULLY TAILORED TO YOUR SPECS



UNIT ATTACHED | UNIT ATTACHED - STACKED | POST MOUNTED SOLUTIONS

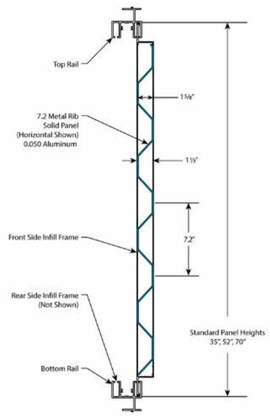




HORIZONTAL 7.2 RIB METAL INFILL SPECS

- Frames are 6063 extruded aluminum
- .063 Powder-coated aluminum
- Sherwin Williams 4000 series powder-coat components

7.2 RIB METAL INFILL CROSS SECTION



SHADOW GRAY

CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
ROOF ENCLOSURE DETAILS

JANUARY 21ST, 2026

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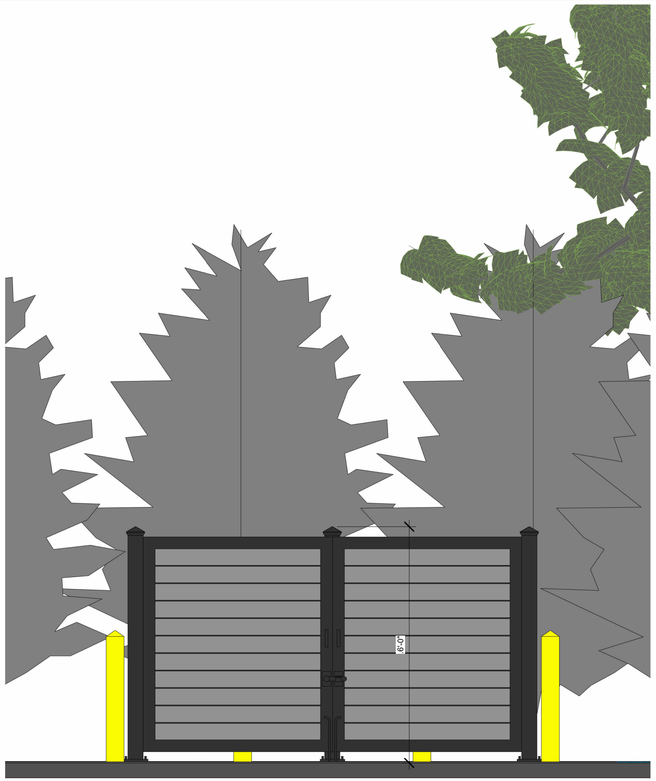
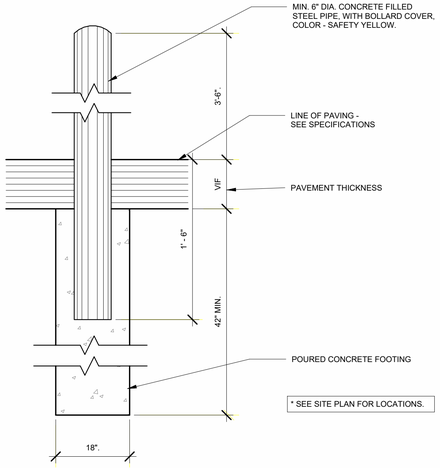
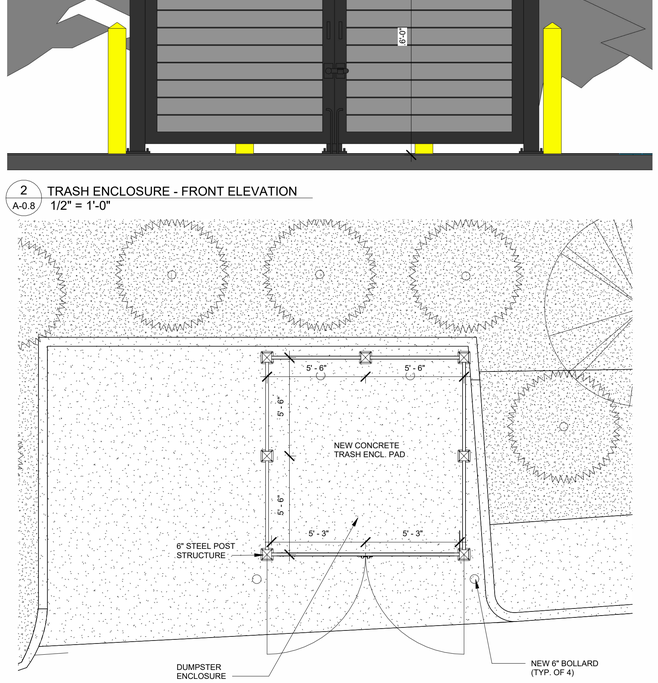


2 A-0.8 TRASH ENCLOSURE - FRONT ELEVATION
1/2" = 1'-0"

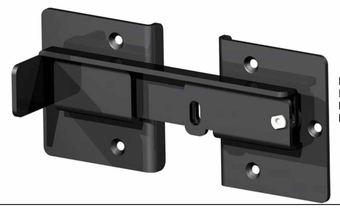


1 A-0.8 BOLLARD DETAIL
1 1/2" = 1'-0"

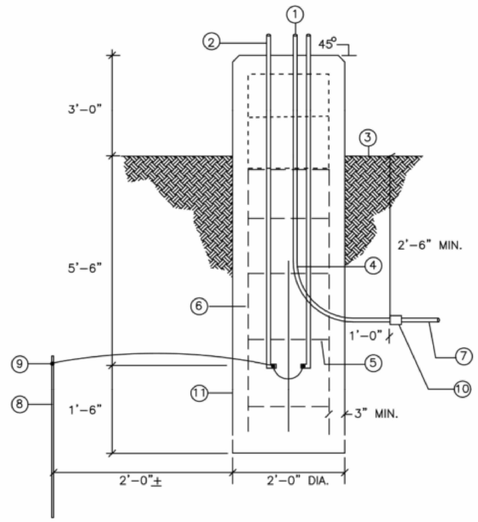
- PVC PLANK INFILL PANELS SLATE GRAY TO COMPLEMENT EIFS OF MAIN BUILDING.
- BLACK STEEL FRAME.



3 A-0.8 DUMPSTER ENCLOSURE
1/4" = 1'-0"



FLIP LATCH MECHANISM FROM NATIONWIDE INDUSTRIES (OR APPROVED EQUAL). FOR DUMPSTER ENCLOSURE.
MODEL #WI-DGFL.



1. CONDUIT BUSHINGS
2. ANCHOR BOLTS (INSTALLED PER MANUFACTURER'S RECOMMENDATIONS)
3. FINISHED GRADE
4. GALVANIZED RIGID CONDUITS (NUMBER AS REQUIRED – SEE PLANS)
5. #3 TIE HOOPS
6. (8)#6 VERTICAL REINFOR–CING BARS
7. PVC CONDUIT
8. COPPERWELD GROUND ROD 3/4" DIA. – 10' LONG
9. EXOTHERMIC WELD CONNECTIONS AND #6 BARE COPPER WIRE
10. PVC ADAPTER
11. CONCRETE BASE (3500 psi)

NOTES:
1. CONCRETE SHALL BE 3500PSI.
2. REINFORCING BARS SHALL BE OF NEW BILLET STEEL (ASTM A615) HAVING Fy=60,000 PSI AND DEFORMED (ASTM A307)
3. HOLE FOR THE FOUNDATION SHALL BE AUGERED.

LIGHT POLE BASE DETAIL



Size	RWL1	RWL2
Lumens	1,000–5,000	6,000–19,500
Watts	10–45	45–155
LPW	136	148
CCT	3K, 4K, 5K	3K, 4K, 5K
Distributions	III, IV	II, III, IV
IP Rating	IP65	IP65
Legacy Equivalence	42W–175W	175W–400W

EXO OUTDOOR LIGHTING

SSSH Series Poles
SQUARE STRAIGHT STEEL

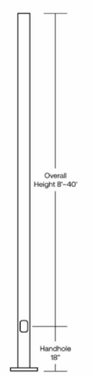
DATE: | LOCATION:
TYPE: | PROJECT:
CATALOG #:

SPECIFICATIONS

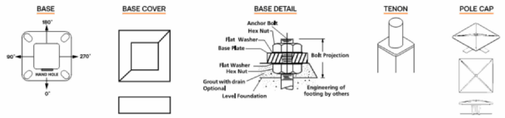
CONSTRUCTION
- Shaft: One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM-A500, Grade B), Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- Base cover: Two-piece square aluminum base cover included standard
- Pole cap: Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- Hand hole: Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- Anchor bolts: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling
  - Anchor bolt part numbers: 3/4 x 30 x 3 — TAB-30-M38
    1 x 36 x 4 — TAB-36-M38
- Super Durable polyester-TGIC powder coat finish with nominal 3.0 mil thickness. Meets or exceeds AAMA 2604 standards.

INSTALLATION
- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

WAREHOUSE 'STOCKED' POLES:
- SSSH20-40A-4-HV-DB-WPO and SSSH25-40A-4-HV-DB-WPO (Pole only, must order kit SSSHSTK4KIT for anchor bolts and cap)
- The HV designation in the above catalog numbers is a combination of the S2 pattern and the B3 pattern



SERVICE PROGRAMS
QS10



Current

currentlighting.com/exo

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Page 1 of 5
(Rev 09/17/25)
EXO_SSS-H-Poles_spec_R12





ADA | TITLE 24 | 10YR | ETL

APPLICATIONS	Direct/Indirect grazing luminaire for exterior/interior use: flanking doors, on columns, on building facades, between windows, and elevator lobbies. Suitable for marine environments.
SIZES	• 12" W x 20" H x 4" D, 15 lbs • 12" W x 45" H x 4" D, 22 lbs • 12" W x 60" H x 4" D, 32 lbs • 12" W x 90" H x 4" D, 42 lbs
MOUNTING	• J-Box 3.0 or 4.0 ct center or end of fixture • Steel mounting system with mounting plate and cover with rubber gaskets between the junction box and mounting plate • Can be mounted vertically or horizontally
SPECIFICATIONS	• IP66 Rated May be Power Washed at High-Pressure (100kPa at distance of 3m) • 120-277V input • Title 24 Compliant • ADA Compliant • 100,000+ hours rated life time • 10 Year Limited Warranty (excludes shade)
LAMPING	• Integrated Proprietary ALVA LED Light Module • 80 CRI minimum, 85 CRI typical • 3000K or 3500K standard • Tess-Slotted 30 23 watts, 1041 delivered lumens • Tess-Slotted 45 29 watts, 1363 delivered lumens • Tess-Slotted 60 37 watts, 1739 delivered lumens • Tess-Slotted 90 58 watts, 2726 delivered lumens • 0-10V Dimming (100-10%)
CONSTRUCTION	Fixture shell (cheek): Heavy gauge aluminum with industrial powder coat finish and high impact acrylic

ALVALIGHT.COM P: 510 993 0898

SPECIFICATIONS SUBJECT TO CHANGE, REVISED 07.2023

CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
SITE DETAILS
As indicated
JANUARY 21ST, 2026

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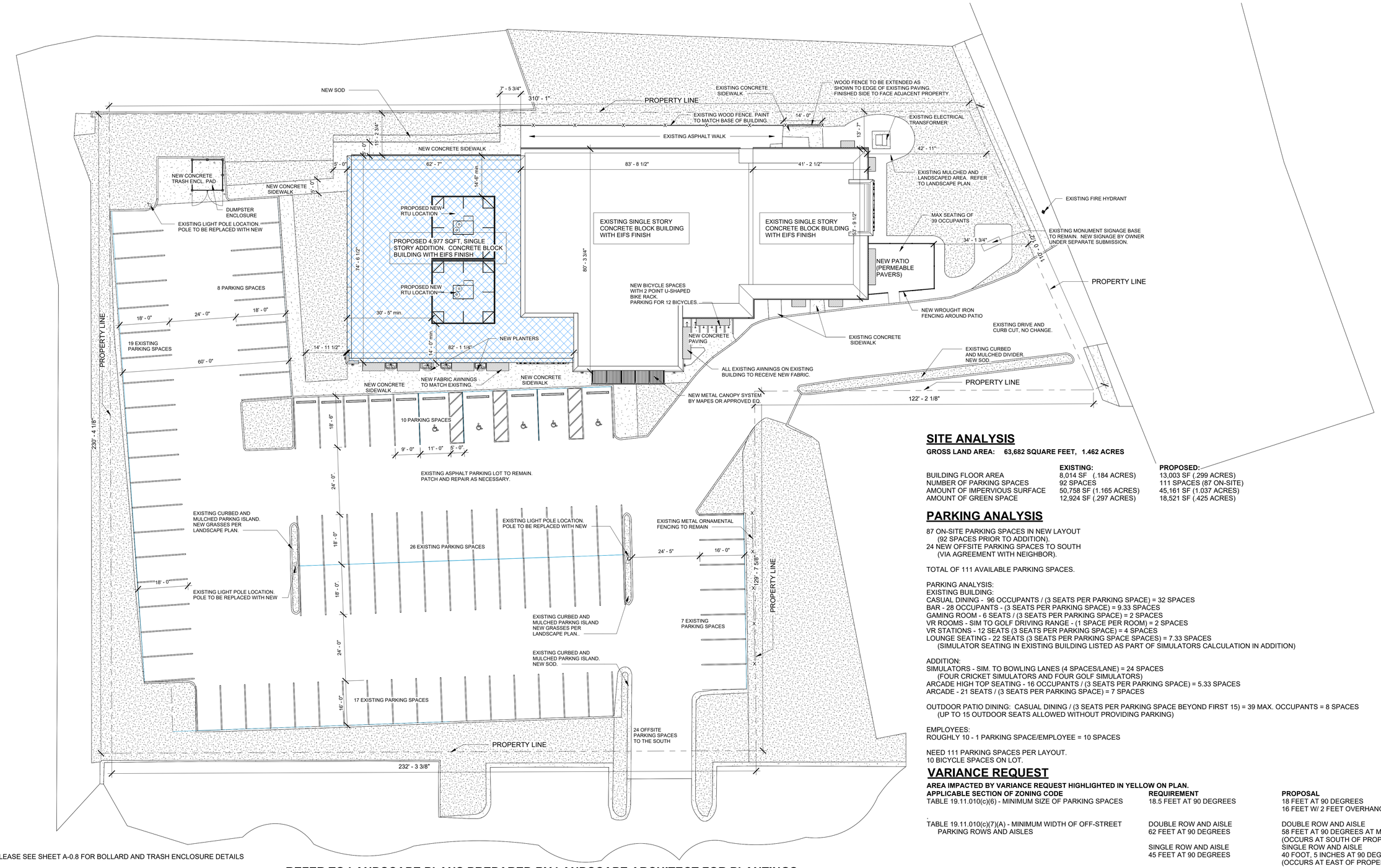
PROPOSED SITE PLAN



*PLEASE SEE SHEET A-0.8 FOR BOLLARD AND TRASH ENCLOSURE DETAILS

1 / A-0.5 Level 1 - PROPOSED SITE DIAGRAM
1/16" = 1'-0"

REFER TO LANDSCAPE PLANS PREPARED BY LANDSCAPE ARCHITECT FOR PLANTINGS.

SITE ANALYSIS

GROSS LAND AREA: 63,682 SQUARE FEET, 1.462 ACRES

	EXISTING:	PROPOSED:
BUILDING FLOOR AREA	8,014 SF (.184 ACRES)	13,003 SF (.299 ACRES)
NUMBER OF PARKING SPACES	92 SPACES	111 SPACES (87 ON-SITE)
AMOUNT OF IMPERVIOUS SURFACE	50,758 SF (1.165 ACRES)	45,161 SF (1.037 ACRES)
AMOUNT OF GREEN SPACE	12,924 SF (.297 ACRES)	18,521 SF (.425 ACRES)

PARKING ANALYSIS

87 ON-SITE PARKING SPACES IN NEW LAYOUT
(92 SPACES PRIOR TO ADDITION).
24 NEW OFFSITE PARKING SPACES TO SOUTH
(VIA AGREEMENT WITH NEIGHBOR).

TOTAL OF 111 AVAILABLE PARKING SPACES.

PARKING ANALYSIS:
EXISTING BUILDING:
CASUAL DINING - 96 OCCUPANTS / (3 SEATS PER PARKING SPACE) = 32 SPACES
BAR - 28 OCCUPANTS - (3 SEATS PER PARKING SPACE) = 9.33 SPACES
GAMING ROOM - 6 SEATS / (3 SEATS PER PARKING SPACE) = 2 SPACES
VR ROOMS - SIM TO GOLF DRIVING RANGE - (1 SPACE PER ROOM) = 2 SPACES
VR STATIONS - 12 SEATS (3 SEATS PER PARKING SPACE) = 4 SPACES
LOUNGE SEATING - 22 SEATS (3 SEATS PER PARKING SPACE SPACES) = 7.33 SPACES
(SIMULATOR SEATING IN EXISTING BUILDING LISTED AS PART OF SIMULATORS CALCULATION IN ADDITION)

ADDITION:
SIMULATORS - SIM. TO BOWLING LANES (4 SPACES/LANE) = 24 SPACES
(FOUR CRICKET SIMULATORS AND FOUR GOLF SIMULATORS)
ARCADE HIGH TOP SEATING - 16 OCCUPANTS / (3 SEATS PER PARKING SPACE) = 5.33 SPACES
ARCADE - 21 SEATS / (3 SEATS PER PARKING SPACE) = 7 SPACES

OUTDOOR PATIO DINING: CASUAL DINING / (3 SEATS PER PARKING SPACE BEYOND FIRST 15) = 39 MAX. OCCUPANTS = 8 SPACES
(UP TO 15 OUTDOOR SEATS ALLOWED WITHOUT PROVIDING PARKING)

EMPLOYEES:
ROUGHLY 10 - 1 PARKING SPACE/EMPLOYEE = 10 SPACES

NEED 111 PARKING SPACES PER LAYOUT.
10 BICYCLE SPACES ON LOT.

VARIANCE REQUEST

AREA IMPACTED BY VARIANCE REQUEST HIGHLIGHTED IN YELLOW ON PLAN.

APPLICABLE SECTION OF ZONING CODE	REQUIREMENT	PROPOSAL
TABLE 19.11.010(c)(6) - MINIMUM SIZE OF PARKING SPACES	18.5 FEET AT 90 DEGREES	18 FEET AT 90 DEGREES 16 FEET W/ 2 FEET OVERHANG AT 90 DEGREES
TABLE 19.11.010(c)(7)(A) - MINIMUM WIDTH OF OFF-STREET PARKING ROWS AND AISLES	DOUBLE ROW AND AISLE 62 FEET AT 90 DEGREES	DOUBLE ROW AND AISLE 58 FEET AT 90 DEGREES AT MINIMUM (OCCURS AT SOUTH OF PROPERTY W/ 2 FOOT OVERHANG)
	SINGLE ROW AND AISLE 45 FEET AT 90 DEGREES	SINGLE ROW AND AISLE 40 FOOT, 5 INCHES AT 90 DEGREES (OCCURS AT EAST OF PROPERTY W/ 2 FOOT OVERHANG)

CRICKET SIMULATOR
604 N. MILWAUKEE
WHEELING, IL 60070
PROPOSED SITE PLAN
1/16" = 1'-0"
JANUARY 27TH, 2026

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Meeting Minutes
Wednesday, February 11, 2026
Wheeling Plan Commission Regular Meeting
Board Room, Wheeling Village Hall, 2 Community Boulevard, Wheeling, Illinois
6:30 p.m.

DRAFT

1. CALL TO ORDER

Chairman Johnson called the meeting to order at 6:30 p.m. on February 11, 2026.

2. PLEDGE OF ALLEGIANCE

Everyone stood for the Pledge of Allegiance.

3. ROLL CALL

Present were Commissioners Karl, Riles, Hyken, Myer, Sprague, and Chairman Johnson. Commission Smart was absent with prior notice Also present was Village Planner Marcy Knysz and Village Attorney Mallory Milluzzi.

4. CHANGES TO AGENDA – None

5. CITIZENS' CONCERNS AND COMMENTS – None

6. CONSENT ITEMS – None

7. ITEMS FOR REVIEW

7A. Docket No.: PSUBFP26-0001
Applicant: The Holdings, LLC
Address: 2812 & 2822 Jackson Drive
Request: Request for Final Plat Approval for a 4-Lot Subdivision

Ms. Knysz read the three conditions:

1. Developer impact fees shall be submitted to the Village of Wheeling pursuant to Chapter 17.26 - Impact Fees prior to consideration by the Village Board.

2. Village permits shall not be issued until the Final Plat of 2812 Jackson Drive Resubdivision is submitted by the Village of Wheeling to the Cook County Clerk's Office for recording.

3. Village permits shall not be issued until the petitioner has provided the required contribution to the Village's sidewalk fund in satisfaction with the Village Engineer.

Mr. Steve Goodman was present on behalf of the petitioner. He reported that nothing had changed other than the addition of the side-yard setbacks to the final plat.

The Commissioners had no questions.

MOTION: Commissioner Myer moved, seconded by Commissioner Hyken, to Recommend approval of Docket No. PSUBFP26-0001, granting Final Plat Approval under Title 17, Planning Subdivisions and Developments as shown on the Final Plat of 2812 Jackson Drive Resubdivision prepared by RE Allen and Associates, LTD., last revised 1/29/2026, for the property located at 2812 & 2822 Jackson Drive, Wheeling, Illinois, subject to the following conditions:

1. Developer impact fees shall be submitted to the Village of Wheeling pursuant to Chapter 17.26 - Impact Fees prior to consideration by the Village Board.

2. Village permits shall not be issued until the Final Plat of 2812 Jackson Drive Resubdivision is submitted by the Village of Wheeling to the Cook County Clerk's Office for recording.

3. Village permits shall not be issued until the petitioner has provided the required contribution to the Village's sidewalk fund in satisfaction with the Village Engineer.

On the roll call, the vote was as follows:

AYES: Commissioners Hyken, Johnson, Karl, Sprague, Myer, Riles
NAYS: None
ABSENT: Commissioner Smart
ABSTAIN: None

There being six affirmative votes, the motion was approved.

7B. Docket No.: PSPMIN25-0025
Applicant: Apex Window Werks
Address: 111 Marquardt Drive
Request: Request for Minor Site Plan Approval for the Installation of Electric Vehicle (EV) Charging Stations

Ms. Knysz reported that Apex Window Werks had temporary EV charging stations installed throughout the parking lot. They would be removed and replaced with the permanent EV charging stations.

Ms. Knysz read the proposed conditions:

1. Prior to installation of any electric vehicle (EV) charging stations of this approval,

DRAFT

the petitioner shall obtain all required Village permits and shall remove all existing electric vehicle (EV) charging equipment installed without permits, including chargers mounted on the building and chargers attached to guard rails.

2. A detail for the concrete bollard shall be provided with the permit application.

3. The abandoned semi-trailer currently located at the southeast corner of the property shall be removed no later than March 1, 2026.

4. All materials currently being stored within parking spaces along the south property line shall be removed no later than March 1, 2026.

5. Parking in the driveways in front of the roll up doors on the north side of the building is prohibited.

Irina Kryuchkov, Project Manager for Apex Window Werks, stepped to the podium.

It was asked if the conditions could be met by March 1st. Irina Kryuchkov stated that they were working on it and thinks they would be done by March 1st. She stated that her only concern related to the materials in the back.

The Commissioners and Ms. Knysz agreed to extend the deadline to April 1st.

Mikhail Kabayeu from Gerus Inc. stated he was the electrical contractor who would install the chargers. Mr. Kabayeu, asked if the safety bollards for the charger had to be solid concrete. Ms. Knysz confirmed that the fill would be concrete, but the bollard itself could be steel. She asked for the specifications so that their engineers could review them.

It was asked whether it was open only to employees or also to the public. It was confirmed that it was for private use only.

The Commissioners had no further questions.

MOTION: Commissioner Myer moved, seconded by Commissioner Hyken, to approve Docket No. PSPMIN25-0025, granting minor site plan and appearance approval for the installation of electric vehicle (EV) charging stations for the property located at 111 Marquardt Drive, as required under Title 19, Zoning, of the Wheeling Municipal Code and Chapter 19-12, and associated sections, in accordance with the Petitioner's Project Description Letter prepared by Irina Kryuchkov, dated 9/23/2025, Site Plan prepared by Grid Studio, last revised 1/22/2026, and subject to the following conditions:

1. Prior to installation of any electric vehicle (EV) charging stations of this approval, the petitioner shall obtain all required Village permits and shall remove all existing

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electric vehicle (EV) charging equipment installed without permits, including chargers mounted on the building and chargers attached to guard rails.

2. A detail for the concrete bollard shall be provided with the permit application.

3. The abandoned semi-trailer currently located at the southeast corner of the property shall be removed no later than April 1, 2026.

4. All materials currently being stored within parking spaces along the south property line shall be removed no later than April 1, 2026.

5. Parking in the driveways in front of the roll up doors on the north side of the building is prohibited.

On the roll call, the vote was as follows:

AYES: Commissioners Hyken, Johnson, Karl, Sprague, Myer, Riles
NAYS: None
ABSENT: Commissioner Smart
ABSTAIN: None

There being six affirmative votes, the motion was approved.

8. APPROVAL OF MINUTES

MOTION: Commissioner Karl moved, seconded by Commissioner Riles, to approve the Minutes of the Regular Meeting of January 14, 2026 (including the Findings of Fact for Docket No. PSU25-0024).

On the roll call, the vote was as follows:

AYES: Commissioners Hyken, Johnson, Karl, Sprague, Riles
NAYS: None
ABSENT: Commissioner Smart
ABSTAIN: Commissioner Myer

There being five affirmative votes, the motion was approved.

9. OTHER BUSINESS

It was noted that the next meeting might be canceled.

It was announced that there was an upcoming sneak peek on March 2nd at Finn McCool's.

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10. ADJOURNMENT

MOTION: Commissioner Myer moved, seconded by Commissioner Hyken, to adjourn the meeting at 6:41 p.m. The motion was approved by a voice vote.

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