

VILLAGE OF GERMANTOWN
N112 W17001 MEQUON ROAD
GERMANTOWN, WI 53022

MEETING:	PLAN COMMISSION
DATE AND TIME:	<u>MONDAY, DECEMBER 14, 2015 6:30 p.m.</u>
LOCATION:	Germantown Village Hall Board Room

- I. **CALL TO ORDER:** This meeting has been given public notice in accordance with Wisconsin Statutes, Section 19.83 and 19.84 in such form that will apprise the general public and news media of subject matter that is intended for discussion and action.
- II. **ROLL CALL**
- III. **PUBLIC INPUT**
- IV. **APPROVAL OF MINUTES:** November 9, 2015
- V. **NEW BUSINESS:**
 - A. Cambridge Major Laboratories – W132 N10550 Grant Drive. Site Plan Review/Action for a 15,000 Gallon Storage Tank.
 - B. JBJ Development for Heritage Place Joint Venture, MCB Investments and Land15, LLC 23.7-Acres on Main Street (approximately N116 W16200) East of Lake Park East Condominiums and West of Oakwood Village Condominiums. Site and Sign Plan Review/Action for a 172-Unit Multi-Family Residential Development (Saxony Village).
- VI. **ANNOUNCEMENTS**
- VII. **ADJOURNMENT**

The next Plan Commission Meeting will be on January 11, 2016 at 6:30 p.m.

UPON REASONABLE NOTICE, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information or to request this service please contact the Village Clerk at (262)250-4740 at least 2 days prior to the meeting. Notice is given that a majority of the Village Board may attend this meeting to gather information about an item over which they have decision making responsibility. This may constitute a meeting of the Village Board per State ex rel. Badke v. Greendale Village Board, even though the Village Board will not take formal action at this meeting.

SITE PLAN REVIEW

12/14/15 Plan Commission Meeting

Cambridge Major Laboratories

Village Planner Report

Germantown, Wisconsin

Summary

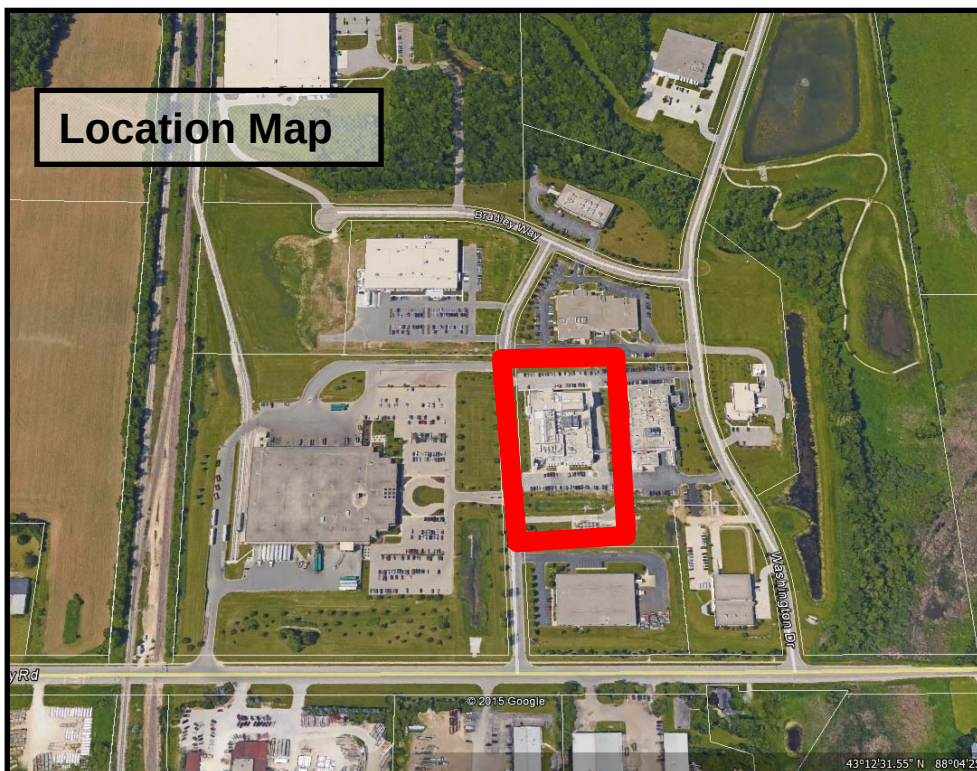
Cambridge Major Laboratories is seeking approval of a site development and building plan for a 15,000 gal aboveground storage tank at the Grant Drive facility located at W130 N10550 Grant Drive in the Germantown Business Park.

Property Location: W130 N10550 Grant Drive (Germantown Business Park)

**Applicant/
Property Owners:** Cambridge Major Laboratories, Inc.
W130 N10550 Grant Drive
Germantown, WI 53022

Current Zoning: M-1: Limited Industrial Zoning District

Adjacent Land Uses		Zoning
North	Industrial	M-1
South	Industrial	M-1
East	Industrial	M-1
West	Industrial	M-1



Background

Cambridge Major Laboratories (CML) is seeking approval of a site development and building plan for one (1) 15,000 gal aboveground storage tank at the Grant Drive facility located at W130 N10550 Grant Drive in the Germantown Business Park.

Proposal

CML proposes to install a 15,000 gal storage tank for the bulk storage of liquid nitrogen and a vaporizer unit that will be in addition to the existing 13,000 gal liquid nitrogen tank, process tank and vaporizers located at the southwest corner of the building (see enclosed application). Liquid nitrogen is an inert, non-flammable chemical used in the production of various pharmaceuticals at extremely low temperatures beyond the point of simple refrigeration (i.e. cryogenic). The project includes replacing the existing concrete pad with a slightly larger and more structurally sound concrete pad to support the new and existing tanks in the existing courtyard adjacent to the building. An existing chain link security fence will be relocated and replaced with a similar fence along with seven (7) 6" dia. X 4'6" high concrete bollards between the fenced area and existing sidewalk/parking lot (see enclosed plans). Drainage for the pad area will continue to be provided via a 6" storm sewer connected to the existing sewer in Grant Drive. The new 15,000 gal nitrogen tank will be painted white.

As detailed in the support material, the current volume of liquid nitrogen storage provided is inadequate. Additional tank storage is needed to maintain an adequate supply of both liquid and gaseous nitrogen at all times to ensure continuous and efficient production, and, allows an extended (6 hour) time period for re-supply deliveries.

Staff Analysis

The proposal does not include an extension of the existing "wing wall" that was installed when the existing storage tanks and vaporizer unit were first installed back in 2008. At that time, and in an effort to conceal the tanks from the public view, a 44' high "wing wall" was added at the southwest corner of the building. The wall extends 32' feet out (south) from the corner of the building with a return wall extending another 12' feet to the east. The wall is constructed of the same pre-cast concrete panel as the main building with painted steel louvers (to promote air circulation) inset into the wall panel on the west side facing Grant Drive.

As explained in detail in the supporting documents, the existing wing wall is/has been somewhat detrimental to current operations. The wall blocks or reduces the amount of air flow and sunlight that, in turn, negatively affects the vaporization process. Inadequate vaporization results in an "ice ball" effect on the vaporizers and reduces efficiency (see enclosed photos). Further, extending the screen wall may conflict with National Fire Protection Association (NFPA) regulations by creating an inhalation "courtyard hazard" to employees, suppliers and other personnel who may be working in the enclosed area.

As discussed above, the wing wall was first introduced in an effort to conceal the view of the tanks and other equipment from the public view. The building was designed and constructed prior to the need for these tanks in this relative location; and so, the wing

wall was proposed to address the visibility issue in the best way possible. Now, with the apparent need for more liquid nitrogen storage, the question of relocating the tanks and other equipment to a place that is not so visible needs to be asked. Although the CML facility has continued to expand, including the addition of other aboveground storage tanks, those tanks have been located either behind the buildings or screened.

In this case, the applicant indicates that the because the liquid nitrogen is used for production processes that occur within an area of the building close to where these tanks are located, and, given the rapid vaporization process, the nitrogen tanks need to be located as close to the processing equipment as possible. Re-locating these tanks to another, more secluded or visibly buffered area of the CML campus with longer distribution lines would reduce efficiency.

Finally, the applicant indicates that existing landscaping along Grant Drive provides some visible buffering of the storage tank courtyard. However, there is little room for any additional landscaping that would effectively buffer the expanded courtyard without further affecting operational conditions.

The Fire Department recommends approval of the facility as proposed.

Village Planner Recommendation

APPROVE the site development and building plans for the addition of one (1) 15,000 gal liquid nitrogen storage tank, vaporizer unit and associated distribution lines and equipment, security fencing and bollards at the southwest corner of the building as proposed subject to the following conditions:

1. State approval of and a Village building permit for the concrete pad and tank installation is required.

SITE DEVELOPMENT, BUILDING PLAN & SIGN REVIEW

12/14/15 Plan Commission Meeting

Saxony Village / Heritage Place Joint Venture

Village Planner Report

Germantown, Wisconsin

Summary

Scott Bence, JBJ Development and agent for Heritage Place Joint Venture, MCB Investments LLC and Land 15 LLC, property owners, has submitted site development, building and sign plans for a proposed 172-unit multi-family apartment community called "Saxony Village" on a 22.73 acre parcel located at approximately N116 W16200 Main Street.

Property Location: N116 W16200 Main Street (south of Main Street @ Park Avenue)

Applicant/

Property Owners: Scott Bence, JBJ Development, Agent
Heritage Place Joint Venture LLC
MCB Investments LLC
Jacobus Energy LLC
W178 N9912 Rivercrest Drive, Germantown, WI

Current Zoning: Rm-2: Multi-family Residential & B-3: General Business

Adjacent Land Uses		Zoning
North	Commercial	B-3
South	Multi-family Residential	Rm-2/PDD
East	Multi-family Residential	Rm-2/PDD
West	Multi-family Residential	Rm-2/Rm-3



Background (Update)

On September 21, the Village Board denied the Rm-2 rezoning and Planned Development District (PDD) applications that were originally filed for this development proposal and recommended for approval by the Plan Commission (August 10, 2015). As a result, the two small parcels (2.2 acres) located adjacent to Main Street were not rezoned from B-3 to Rm-2 as requested. The parcels were, however, subject of a quit claim deed “property line adjustment” that detached 1.16 acres of land from the small B-3 parcels to the larger 21.56-acre Rm-2 parcel. As a result, the site area for the Saxony Village development proposal is reduced to 22.73 acres. Although the size of the parcels has changed slightly, the B-3 and Rm-2 zoning district lines have not. Consequently, only the Rm-2 parcel and the 21.56 net acres can be used for determining the maximum number of dwelling units (DU’s) that can be developed on the Rm-2 parcel. As a result, the number of proposed dwelling units has been reduced from the original number of 190 to the current proposed 172 DU’s (up to 8 DU’s per net acre are allowed in the Rm-2 District).

Changes to the development proposal as a result of the Village denying the rezoning and creation of the proposed Planned Development District (PDD) for the area include:

- Reduction in total dwelling units from 190 to 172 DU’s;
- Increase in number of buildings from five (5) to six (6) buildings;
- Reduction to maximum building height/mass from 3 stories to 2 stories;
- Deletion of the 2-acre area reserved for a regional storm water management basin in the southeast corner of the site;
- Deletion of the 24-stall public parking lot in the northwest corner of the site adjacent to Main Street;
- Reduction in the length of the proposed pedestrian trails running through the development and in the number of connection points to adjacent parcels and the existing public sidewalks

What hasn’t changed is the fact that, as shown on the site plan, the 22.73-acre parcel contains a large area of wetland (7.9 acres) that bisects the property from north to south. Running through and within the wetland is an unnamed, intermittent stream and associated floodplain (1.6 acres) that meanders north to southwest through the property into the Lake Park ponds. As was the case with the original plan alternatives, a primary feature of the development proposal is the planned construction of a private driveway/road and internal parking areas designed and oriented in a boulevard-like manner that will provides access to/from adjacent public streets (Main Street and Hilbert Lane). However, as was discussed back in August, the connection to Hilbert Lane will require replacement of an existing culvert over the intermittent stream and filling of approximately 5,350 sqft (.12 acres) of wetland.

As was presented to and recommended for approval by the Plan Commission back in August, the Developer has prepared a mitigation plan for the planned wetland fill and other wetland buffer grading impacts as part of the Developer’s conditional use permit (CUP) application that has not yet been considered by the Village Board. The Developer has also submitted (but not yet received approval of) the “Waterway General Permit”

applications (a.k.a. "Chapter 30 permits") required by the Department of Natural Resources (DNR) and U.S. Army Corp of Engineers (ACOE) for the proposed 5,350 sqft wetland fill, engineer-designed culvert replacement, and the four (4) storm water basins proposed to be located within 500 feet of the stream. (NOTE: pending action by the Plan Commission on the site development plans and by the DNR/ACOE on the required waterway permits, the Village Board will need to consider and take final action regarding the Developer's CUP application to disturb/develop portions within the 25' wetland setback area).

Proposal

At this time, Scott Bence, JBJ Development and agent for the property owners, has submitted detailed site development and building plans for a proposed 172-unit, multi-family apartment community called "Saxony Village" on a 22.73 acre parcel located south of Main Street.

As previously discussed, the maximum number of dwelling units permitted in the Rm-2 Zoning District is 8 DU's per net acre. In this case, only 21.56 net acres out of the total 22.73 acre parcel can be used for determining development units (only 21.56 acres are in the Rm-2 District; the remaining 1.16+ acres are in the B-3 District).

[NOTE: timing of the Saxony Village submittal was such that the recent Village code amendments that define "net acre" to exclude wetlands, floodplains, etc. from the calculation of development units do not affect this proposal].

As presented in the detailed site development and building plans, the Saxony Village development proposal includes the following features:

- (6) 2-story buildings (w/ elevators & underground parking in Building #1 to #5)
- 172 total dwelling units, including:
 - o Efficiency units, 1, 2 & 3-bedroom units
 - o Size ranging from 450 to 1,287 sqft per unit w/ private patio/balconies
- 2,500 sqft private clubhouse (w/ leasing office, community room & storage)
- 1,500 sqft accessory maintenance building
- Pedestrian system w/ 8' wide asphalt-paved pathways within and around the open space connecting parking areas and leading to sidewalks along Main Street & Hilbert Lane
- 459 total private parking stalls (>2 per DU w/ 254 stalls enclosed)
- 16.48 acres (72.5%) of open space (includes 7.9 acres of wetland & floodplain)
- On-site storm water basins (4)
- Vehicle & pedestrian access to Main Street & Hilbert Drive

Building Architecture and Materials

As presented in the Developer's narrative description of the development, the development is intended to be "...a new kind of upscale apartment choice" for Germantown residents. The architecture is contemporary with an urban flair with the following features and materials:

Buildings #1 to #5: (See color renderings)

- 2-story buildings w/ flat roof (elevators & underground & surface parking)
- 26-38 apartment units per building
- Efficiency, 1, 2 and 3-bedroom units w/ private patios balconies (aluminum railing systems)
- Fiber cement panels, fiber cement lap siding & brick walls & trims
- Brick & cast stone accents

Building #6 (only):

- 2-story buildings w/ pitched roof (stairs & surface garage parking)
- 12-units
- 1, 2 and 3-bedroom units w/ private patios & balconies (aluminum railing systems)
- Aluminum siding & brick walls
- Asphalt shingles

Access & Parking

Access to the development will be provided by two (2) access driveways and internal road connecting to Main Street and Hilbert Lane. The driveway/road connection to Main Street will be via an access easement granted by/through the two small B-3-zoned parcels. As discussed previously, the connection to Hilbert Lane will require replacement of an existing culvert over the intermittent stream. A separate driveway to/from the 12-unit building (Building #6) in the southeast corner of the site will also connect to Hilbert Lane. Paved pedestrian trails and sidewalks will be constructed throughout the development as shown with connections to the existing sidewalks along Main Street and Hilbert Lane.

The main driveway/road is designed and oriented in a boulevard-like manner connecting to the various parking areas, including surface parking adjacent to the six buildings and underground parking. The driveways and surface parking areas will contain curb & gutter. A total of 459 parking stalls are proposed (463 noted on the site plan) with 205 surface stalls, two 10-stall garages (serving the 12-unit building in the southeast corner) and 234 underground stalls under the five (5) other buildings.

Utilities.

Public water and sanitary sewer lines will be extended and installed with connections to the existing water and sanitary sewer service lines. A 15" sanitary sewer will be installed along the west side of the site to an existing interceptor sewer running along the south side of the site. This sewer is being installed to by-pass an existing section of sewer in Main Street that is currently experiencing problems. Additional 6" and 8" sewer from five buildings will connect via the boulevard to the new 15" sewer. A 6" sewer will connect Building #6 directly into the interceptor along the south. Water main is being installed through the development via the boulevard to complete a loop connection Hilbert Lane and Castle Drive (to the west).

Storm Water Management.

Out of the total 22.73 acres, 271,915 sqft (27.5%) of impervious surfaces will be developed between buildings (11%) and paved surfaces (17%) leaving 72.5% of open space. On-site storm sewer and swales will be installed throughout the development to convey post-development, on-site run-off to one of three (3) new on-site storm basins located on the south side of the property adjacent to (but not in) the lower wetland areas in the central portion of the site. Preliminary storm water management plans have been determined accepted and indicate the storm water management plan is feasible subject to final approval by MMSD, DNR and the Village.

Landscaping.

Detailed landscaping plans indicate a significant amount of plantings comprised of evergreen and deciduous trees, shrubs, ornamental grasses and perennials to be installed throughout the development, including: the driveway entrances, within the boulevard medians and "Village square", within the parking areas, around the perimeter of the developed area, monument signs and foundation plantings along the prominently visible facades of the buildings. As discussed as part of the CUP for the proposed encroachments into the 25' wetland setback areas, 1.55 acres of mitigation area adjacent to the wetlands will be enhanced with "wetland friendly" native plantings to enhance erosion control and protection around the wetlands.

Lighting.

External lighting using LED lamps and cut-off fixtures will be provided throughout the development, including:

- twenty-two (22) 112W pole-mounted LED luminaires mounted at a height of 16' on 14' decorative aluminum light poles (2' concrete base) located in the parking areas, driveways and boulevard;
- Seven (7) 112W pole-mounted LED luminaires mounted at a height of 16' on 16' decorative aluminum light poles (flush mount) located along the driveways;
- Sixteen (16) 1W 42" high bollards located along the pedestrian paths and main building entrances;
- Twenty-three (23) 25W wall-mounted luminaires located at the underground parking entrances and surface garages;
- Four (4) 26W ground-mounted flood lights located at the monument signs.

Signage.

Two (2) monument signs are proposed; one each at the driveway entrances to Main Street and Hilbert Lane. The monument signs are comprised of decorative brick walls and piers with cast stone accents and 10" metal lettering. Lighting and landscaping for the monument signs are described above.

Staff Comments

As presented above, the entire site is designated on the Village's 2020 Land Use Plan map as "Village Mixed Use" where the larger, undeveloped parcels such as this are encouraged to develop with high-quality, higher-density residential uses that would further support the commercial uses along Main Street. Further, the adjacent land on all three sides south of Main Street are already zoned for and developed with Rm-2 and Rm-3 multi-family land uses. The proposed Saxony Village development is consistent with the 2020 LUP and compatible and comparable with the surrounding neighborhood development.

The Village Engineer has provided comments and recommendations concerning the proposed development in a December 8, 2015 memo (copy attached). The Engineer has identified a number of items with regard to the various preliminary plans, including: grading, storm water, sanitary sewer, water main, etc. These items will need to be addressed if/when the proposed development moves forward and as part of further detailed plans submitted to the Village, MMSD and the DNR.

The Fire Department has provided the following comments that the Developer has agreed to provide or address in revised and/or additional detailed plans:

- Fire protection equipment panels and FDC locations to be approved by GFD inspection;
- GFD approved stand pipes shall be provided in each building stairway on every floor in lieu of providing full paved road access around the buildings

As discussed previously, there continue to be development issues and/or restrictions that affect this property due to the existing "brownfield" parcels located near the project entrance at Main Street. According to the DNR, the former Oil Co. and CMC Heartland Partners parcels (i.e. the B-3 zoned parcels), have "continuing obligation" requirements that apply to the owners if/when re-development of these parcels is proposed. Although both parcels have had soil remediation activities conducted to the point of having been issued "closure letters" by the DNR, residual groundwater and soil contamination needs to be assessed with appropriate soil management and vapor mitigation plans prepared and approved by the DNR. The Village will not issue any development permits for any construction activities unless and until written confirmation and/or approval has been received from the DNR indicating that all of the continuing obligations have been met (or will be as a result of the approved remediation activities and/or improvements).

Village Planner Recommendation

APPROVE the site development, building and sign plans for the proposed 172-unit Saxony Village development subject to the following conditions:

1. All items and requirements recommended by the Public Works Department/Village Engineer in the December 8, 2015 review memos shall be addressed as part of additional and/or revised detailed construction plans prior to commencement of construction. Final approval for all utility plans, including the need for a developer's agreement with the Village, shall be approved prior to commencement of construction.
2. Approval is subject to Village Board approval of a conditional use permit (CUP) for the proposed development within the Village's 25' wetland setback. In the event CUP approval is not granted, revised site development plans must be submitted for further review and consideration by the Plan Commission.
3. Approval is subject to the DNR and/or ACOE granting approval of the Waterway General permits necessary for the proposed culvert replacement, wetland fill, and storm water basin construction.
4. Approval is subject to the DNR granting approval of the required soil management, vapor mitigation and any other remediation plans, measures, improvements and/or other "continuing obligations" required under the "closure letters" issued for the former Jacobus Oil Co. and CMC Heartland Partners parcels.
5. The Developer shall provide the following as required by the Fire Department: Fire protection equipment panels and FDC locations to be approved by GFD inspection; GFD-approved stand pipes in each building stairway on every floor in lieu of providing full paved road access around the buildings.
6. State-approved building plans shall be provided with all building permit applications for all of the six buildings (excluding the detached accessory maintenance building and garages that will only require Village-approved plans).



Engineering Department Memorandum

To : Jeffrey W. Retzlaff, AICP, Community Development Director

From : Brionne R. Bischke, P.E., Village Engineer

Date : December 8, 2015

Re : Saxony Village – Main Street. Site Plan Review

The Village DPW/Engineering Dept. offers the Plan Commission the following conditions that **must** be satisfied before approval of a Village building permit application:

A) GRADING & EROSION CONTROL:

- 1) This draft version submitted is preliminary. Its rationale at this stage of plan development seems feasible and appropriate so far. The final version must be submitted to the Village before applying for permits from other agencies (excluding the Wisconsin DNR Chapter 30 permit).

B) STORM SEWER, ROOF DRAINS & LATERALS:

- 1) This draft version submitted is preliminary. Its rationale at this stage of plan development seems feasible and appropriate so far. The final version must be submitted to the Village before applying for MMSD and Wisconsin DSPS utility-related permits.

C) SANITARY SEWER & LATERALS:

- 1) This draft version submitted is preliminary. Its rationale at this stage of plan development seems feasible and appropriate so far. The final version must be submitted to the Village before applying for MMSD and Wisconsin DSPS utility-related permits.
- 2) Proceed with the Germantown Wastewater Utility's requested relay as authorized by the Public Works & Highway Committee during their December 1, 2015 meeting. The Germantown Wastewater Utility thanks the developer for working with staff to improve public services for the Main St. corridor.

D) WATER MAIN & LATERALS:

- 1) This draft version submitted is preliminary. Its rationale at this stage of plan development seems feasible and appropriate so far. The final version must be submitted to the Village before applying for MMSD, Wisconsin DNR, and Wisconsin DSPS utility-related permits.
- 2) Proceed with the Germantown Water Utility's requested extensions as authorized by the Public Works & Highway Committee during their December 1, 2015 meeting. The Germantown Water Utility thanks the developer for working with staff to improve public services for the Main St. corridor.

E) STORMWATER MANAGEMENT:

- 1) This draft version submitted is preliminary. Its rationale at this stage of plan development seems feasible and appropriate so far. Post-development runoff volume has been reduced to pre-development runoff volumes during the critical time period, slightly decreasing existing flooding risk to down-gradient properties. The final version must be submitted to the Village before applying for MMSD and Wisconsin DNR approval.
- 2) There are a few minor flow and volume correlations between the narrative's summary tables and the HydroCAD models themselves that can be easily remedied.
- 3) There are a few basin and pond naming correlations within the WinSLAMM model that can be easily remedied.

F) ROADWAYS, DRIVEWAYS & PARKING LOTS:

- 1) This draft version submitted is preliminary. Its rationale at this stage of plan development seems feasible and appropriate so far. The final version must be submitted to the Village.

G) WISCONSIN PROFESSIONAL ENGINEER SEAL & SIGNATURE:

- 1) Wisconsin Professional Engineer seals and signatures will be required for drawings and reports.

H) VILLAGE DESIGN, DRAFTING & CONSTRUCTION STANDARDS & SPECIFICATIONS

- 1) Include a note that requires contractor conformance with these Village standards and specifications, and including their locations on the Village's web page:
 - a) Section 3.0: Grading and Erosion Control Requirements:
<http://www.village.germantown.wi.us/DocumentCenter/View/74>
 - b) Section 4.0: Storm Water Conveyance System Requirements:
<http://www.village.germantown.wi.us/DocumentCenter/View/75>
 - c) Section 5.0: Sanitary Sewer System Requirements:
<http://www.village.germantown.wi.us/DocumentCenter/View/76>
 - d) Section 6.0: Water Distribution System Requirements:
<http://www.village.germantown.wi.us/DocumentCenter/View/77>
 - e) Section 7.0: Storm Water Management Requirements:
<http://www.village.germantown.wi.us/DocumentCenter/View/78>
 - f) Section 8.0: Roadway Requirements:
<http://www.village.germantown.wi.us/DocumentCenter/View/79>

I) PERMITS:

- 1) Village Engineering Dept.: Driveway permit; Work in ROW permit
- 2) Village Inspection Dept.: Erosion Control permit
- 3) MMSD: Storm Water Management permit; Sanitary Sewer Extension permit
- 4) Wisconsin DNR: WPDES Construction NOI permit; Chapter 30 permit; Water Main Extension permit
- 5) Wisconsin DSPS: Exterior private sanitary, storm and water utilities permit
- 6) Wisconsin & Southern Railroad: Culvert permit

J) Developer's Agreement

- 1) Proceed with the cost-share authorized by the Public Works & Highway Committee during their December 1, 2015 meeting for the Germantown Wastewater Utility's requested relay and the Germantown's Water Utility's requested extensions.
- 2) Contact Larry Ratayczak, P.E., Director of Public Works, for preparing the Agreement and Letter-of-Credit.



Site Plan Review:

On behalf of Heritage Place Joint Venture, J.B.J. Development is pleased to introduce an exciting new multi-family community known as Saxony Village. Located in the heart of Germantown's historic downtown, Saxony Village will be comprised of six buildings, totaling one-hundred and seventy-two apartment units including, underground parking, surface garages, a club house, and pedestrian trails. Saxony Village will bring an entirely new kind of upscale apartment choice for both new and existing Germantown residents. Designed with a more urban flair in mind, it will be the perfect complement to the Village's long range Main Street Master Plan.

The proposed development site is located on the south side of Main Street, just south of the Wisconsin and Southern Railroad. The parcel is zoned RM-2 Multi-family.

The conceptual design of Saxony Village has been created in such a way to be responsive to market conditions. Saxony Village provides much needed new housing options within the Village of Germantown. Saxony Village will offer a variety of unit styles including: studios, one bedroom, two bedroom, and three bedroom units with underground parking, private balconies, and on-site management. In addition, the outdoor spaces formed between the new structures will provide areas for leisure, walking, and acres of green spaces. The development will be supported by municipal services. Stormwater management will be provided on site.

Saxony Village

Germantown, Wisconsin

AG PROJECT NUMBER: 150501
DATE: 15 OCT 2015

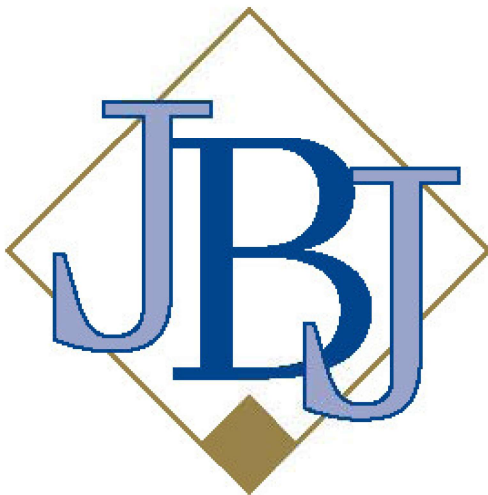
CIVIL ENGINEER
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262.754.8888*

LANDSCAPE ARCHITECT
Nelson Landscaping
*PO Box 823
Waukesha, WI 53187-0823*

GENERAL CONTRACTOR
J.B.J. DEVELOPMENT
*W178N9912 Rivercrest Drive, Ste. 101
Germantown, WI 53022*

OWNER
Heritage Place Joint Venture

SITE PLAN REVIEW



J.B.J. Development
W178N9912 Rivercrest Drive, Ste. 101
Germantown, WI 53022
262-255-1800
www.jbjcompanies.com



PLAT OF SURVEY WITH TOPOGRAPHIC INFORMATION

CLIENT
Pinnacle Engineering Group & JBI Companies, Inc.

SITE ADDRESS
Village of Germantown, Washington County, Wisconsin.

BASIS OF BEARINGS
Bearings are referenced to the West line of Southeast 1/4 of Section 22-9-20, which is assumed to bear South 01°58'25" East.

LAND AREA
The Land Area of Parcel I is 989,925 square feet or 22.7256 acres.
The Land Area of Parcel II is 22,443 square feet or 0.5152 acres.
The Land Area of Parcel III is 22,985 square feet or 0.5276 acres.
The Total Land Area of site is 1,035,353 square feet or 23.7684 acres.
The Floodplain Area on site is 70,000 square feet or 1.6 acres.
The Wetlands Area on site is 344,000 square feet or 7.9 acres.

LEGAL DESCRIPTION

Parcel I:
That part of Outlot Three (3) in Assessor's Plat of the Village of Germantown, Northwest 1/4 of the Southeast 1/4 of Section 22, Town 9 North of Range 20 East, Washington County, Wisconsin, described as follows, viz:
Commencing at the center of said Section 22; thence South 88°33'42" West along the North line of the Southwest 1/4 of said Section, 135.00 feet to a point; thence South 01°58'28" East along the East line of Squire Drive, 240.00 feet to the point of beginning of the land to be described; thence North 88°33'14" East, 135.00 feet to a point on the North-South line of said Section; thence North 88°37'44" East, 371.13 feet to a point, said point being the Southeast corner of Certified Survey Map No. 2386; thence South 01°24'56" East, 12.49 feet to a point; thence South 63°30'56" East, 213.52 feet to a point; thence North 26°29'04" East, 150.00 feet to a point; thence South 63°30'56" East 274.54 feet to a point; thence North 26°29'04" East, 60.00 feet to a point; thence South 63°30'56" East, 60.00 feet to a point; thence North 26°29'04" East, 60.00 feet to a point in the Southwesterly right of way line of the Chicago, Milwaukee, St. Paul and Pacific Railroad; thence South 63°30'56" East along said right of way line, 383.50 feet to a point; thence South 01°56'58" East, 878.04 feet to the Southeast corner of the Northwest 1/4 of the Southeast 1/4 of said Section 22; thence South 88°35'23" West, 1208.33 feet to a point on the East line of Squire Drive, said point being 110.00 feet North 88°35'23" East of the Southwest corner of the Northwest 1/4 of the Southeast 1/4 of said Section 22; thence North 01°58'28" West, 113.97 feet to a point; thence Northwesterly, 384.07 feet along the arc of a curve whose center lies to the West whose radius is 1186.28 and whose chord bears North 11°14'58" West, 382.39 feet to a point; thence North 20°31'28" West, 458.55 feet to a point; thence North 14°49'57" West, 188.40 feet to the point of beginning; EXCEPTING THEREFROM the following described real estate:

LEGAL DESCRIPTION (continued)

Commencing at the Northwest corner of said Southeast 1/4 Section; thence South 01°58'28" East along the West line of said Southeast 1/4 Section, 240.00 feet to the point of beginning of the land to be described; thence North 88°37'44" East along the South line of Certified Survey Map No. 2386 and parallel with the North line of said 1/4 Section, 271.13 feet to a point; thence South 01°24'56" East, 12.49 feet to a point; thence South 63°30'56" East, 85.00 feet to a point; thence South 00°54'18" East, 880.31 feet to a point; thence North 89°09'27" West 320.90 feet to a point in the East line of Squire Drive; thence Northwesterly along said East line, 330.28 feet on the arc of a curve whose center lies to the Southwest, whose radius is 1186.28 and whose chord bears North 12°31'24" West, 329.22 feet to a point; thence North 20°31'28" West along said East line, 458.55 feet to a point; thence North 14°49'57" West along said East line and parallel with the North line of said Southwest 1/4 Section, 135.00 feet to the point of beginning.
Note: The above excepted parcel is also known as Buildings 24, 26, 27, 28, 29 and 31 in Lake Park Extension, a recorded condominium; and Parcel 1 of Certified Survey Map No. 3501, recorded in the Washington County Registry on January 25, 1990 in Volume 21 of Certified Surveys on pages 168-172, as Document No. 554789.
TOGETHER WITH:
That part of Outlot Five in Assessor's Plat of the Village of Germantown, Northwest 1/4 of the Southeast 1/4 of Section 22, Town 9 North, Range 20 East, Washington County, Wisconsin, described as follows:
Commencing at the center of said Section 22, said point being South 88°37'57" West 2638.00 feet from the Northeast corner of said 1/4 Section; thence North 88°37'57" East along said North line 216.98 feet to a point; thence South 63°30'53" East along the Southwesterly line of said Outlot 5 a distance 389.49 feet to the point of beginning of lands hereinafter described; thence North 26°29'07" East 100.15 feet to a point on the Southwesterly line of lands described in Document No. 465242; thence South 63°30'53" East along said Southwesterly line 351.38 feet to a point; thence North 26°29'07" East along said Southwesterly line 20.00 feet to a point on the Southwesterly line of the Wisconsin & Southern Railroad lands; thence South 63°30'53" East along said Southwesterly line 3.62 feet to a point on the Southwesterly line of said Outlot 5; thence South 26°29'07" West along said Southwesterly line 120.15 feet to a point on the Southwesterly line of said Outlot 5; thence North 63°30'53" West along said Southwesterly line 355.00 feet to the point of beginning.
ALSO TOGETHER WITH:
That part of Outlot Three and Outlot Four in Assessor's Plat of the Village of Germantown, Northwest 1/4 of the Southeast 1/4 of Section 22, Town 9 North, Range 20 East, Washington County, Wisconsin, bounded and described as follows:
Commencing at the center of said Section 22, said point being South 88°37'57" West 2638.00 feet from the Northeast corner of said 1/4 Section; thence North 88°37'57" East along said North line 216.98 feet to a point; thence South 63°30'53" East along said Southwesterly line of Outlot 5 in said Assessor's Plat 370.02 feet to the point of beginning of lands hereinafter described; thence continuing South 63°30'53" East along said Southwesterly line 100.00 feet to a point; thence South 26°29'07" West 150.00 feet to a point; thence North 63°30'53" West 100.00 feet to a point; thence North 26°29'07" East 150.00 feet to the point of beginning.

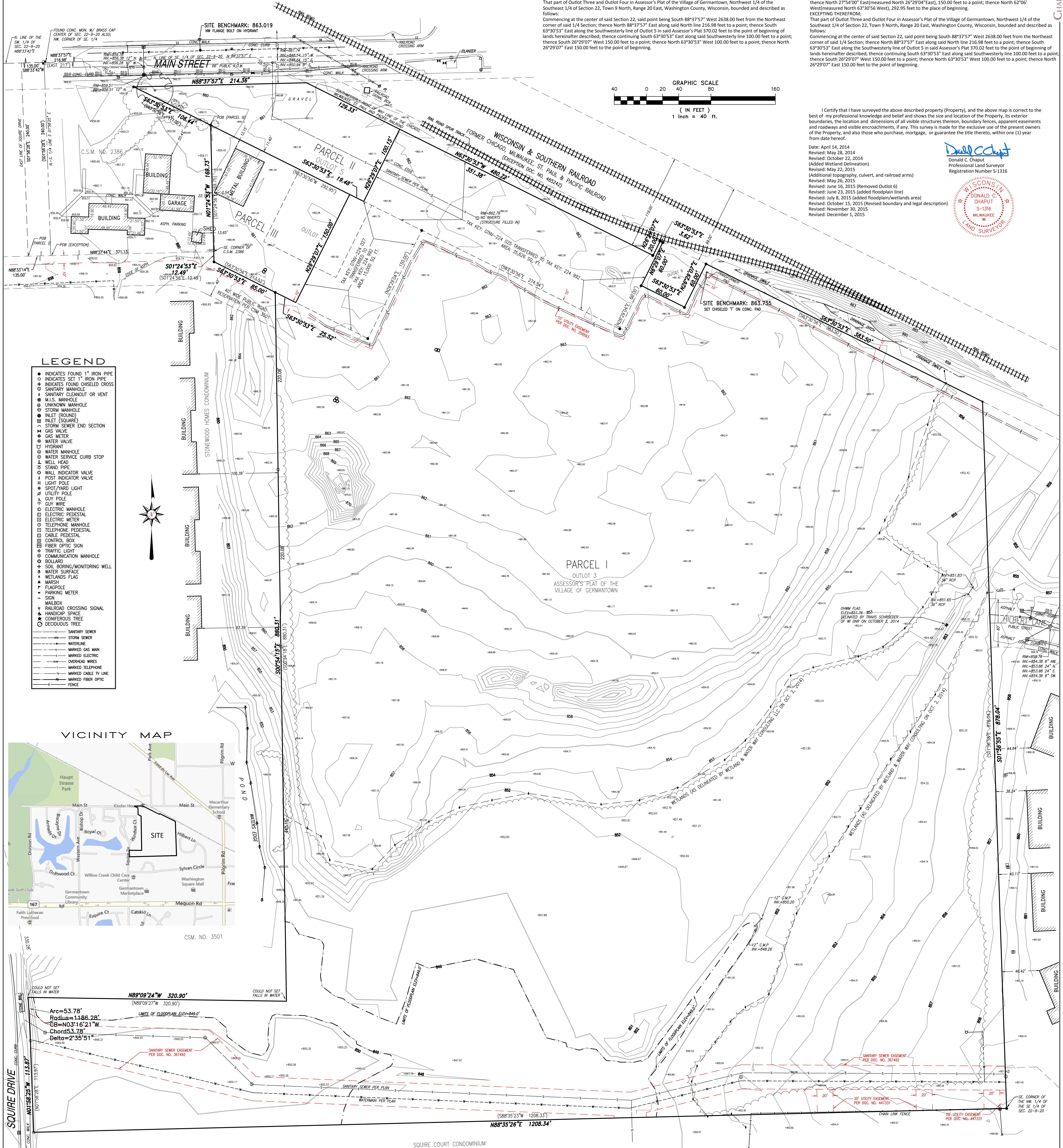
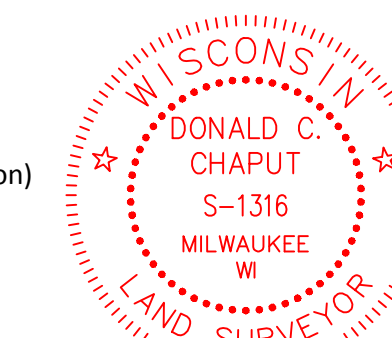
LEGAL DESCRIPTION (continued)

Parcel II:
Outlot 5 of Assessor's Plat of the Northwest 1/4 of the Southeast 1/4 of Section 22, Town 9 North, Range 20 East, in the Village of Germantown, County of Washington, State of Wisconsin.
Except that part taken in Award of Damages recorded as Document No. 465242.
ALSO EXCEPTING THEREFROM:
That part of Outlot Five in Assessor's Plat of the Village of Germantown, Northwest 1/4 of the Southeast 1/4 of Section 22, Town 9 North, Range 20 East, Washington County, Wisconsin, described as follows:
Commencing at the center of said Section 22, said point being South 88°37'57" West 2638.00 feet from the Northeast corner of said 1/4 Section; thence North 88°37'57" East along said North line 216.98 feet to a point; thence South 63°30'53" East along the Southwesterly line of said Outlot 5 a distance 389.49 feet to the point of beginning of lands hereinafter described; thence North 26°29'07" East 100.15 feet to a point on the Southwesterly line of lands described in Document No. 465242; thence South 63°30'53" East along said Southwesterly line 351.38 feet to a point; thence North 26°29'07" East along said Southwesterly line 20.00 feet to a point on the Southwesterly line of the Wisconsin & Southern Railroad lands; thence South 63°30'53" East along said Southwesterly line 3.62 feet to a point on the Southwesterly line of said Outlot 5; thence South 26°29'07" West along said Southwesterly line 120.15 feet to a point on the Southwesterly line of said Outlot 5; thence North 63°30'53" West along said Southwesterly line 355.00 feet to the point of beginning.
Parcel III:
All of Outlot Four (4) and that part of Outlot Three (3), all in Assessor's Plat of the Village of Germantown, Northwest 1/4 of the Southeast 1/4 of Section 22, Township 9 North of Range 20 East, Washington County, Wisconsin, bounded and described as follows:
Commencing at the center of said Section 22, Town 9 North of Range 20 East; thence east along the North line of said Southeast 1/4 Section and on the center line of Main Street 217 feet; thence South 62°06' East (measured South 01°24'56" East), 169.75 feet to a point; thence South 62°06' East (measured South 63°30'56" East), 213.52 feet to a point; thence North 27°54'00" East (measured North 26°29'04" East), 150.00 feet to a point; thence North 62°06' West (measured North 63°30'56" West), 292.95 feet to the place of beginning.
That part of Outlot Three and Outlot Four in Assessor's Plat of the Village of Germantown, Northwest 1/4 of the Southeast 1/4 of Section 22, Town 9 North, Range 20 East, Washington County, Wisconsin, bounded and described as follows:
Commencing at the center of said Section 22, said point being South 88°37'57" West 2638.00 feet from the Northeast corner of said 1/4 Section; thence North 88°37'57" East along said North line 216.98 feet to a point; thence South 63°30'53" East along the Southwesterly line of Outlot 5 in said Assessor's Plat 370.02 feet to the point of beginning of lands hereinafter described; thence continuing South 63°30'53" East along said Southwesterly line 100.00 feet to a point; thence South 26°29'07" West 150.00 feet to a point; thence North 63°30'53" West 100.00 feet to a point; thence North 26°29'07" East 150.00 feet to the point of beginning.

I certify that I have surveyed the above described property (Property), and the above map is correct to the best of my professional knowledge and belief and shows the size and location of the Property, its exterior boundaries, the location and dimensions of all visible structures thereon, boundary fences, apparent easements and roadways and visible encroachments, if any. This survey is made for the exclusive use of the present owners of the Property, and also those who purchase, mortgage, or guarantee the title thereto, within one (1) year from date hereof.

Date: April 14, 2014
Revised: May 28, 2014
Revised: October 22, 2014
(Added Wetland Delineation)
Revised: May 22, 2015
(Additional topography, culvert, and railroad arms)
Revised: June 16, 2015 (Removed Outlot 6)
Revised: June 23, 2015 (added floodplain line)
Revised: July 8, 2015 (added floodplain/wetlands area)
Revised: October 15, 2015 (Revised boundary and legal description)
Revised: November 30, 2015
Revised: December 1, 2015

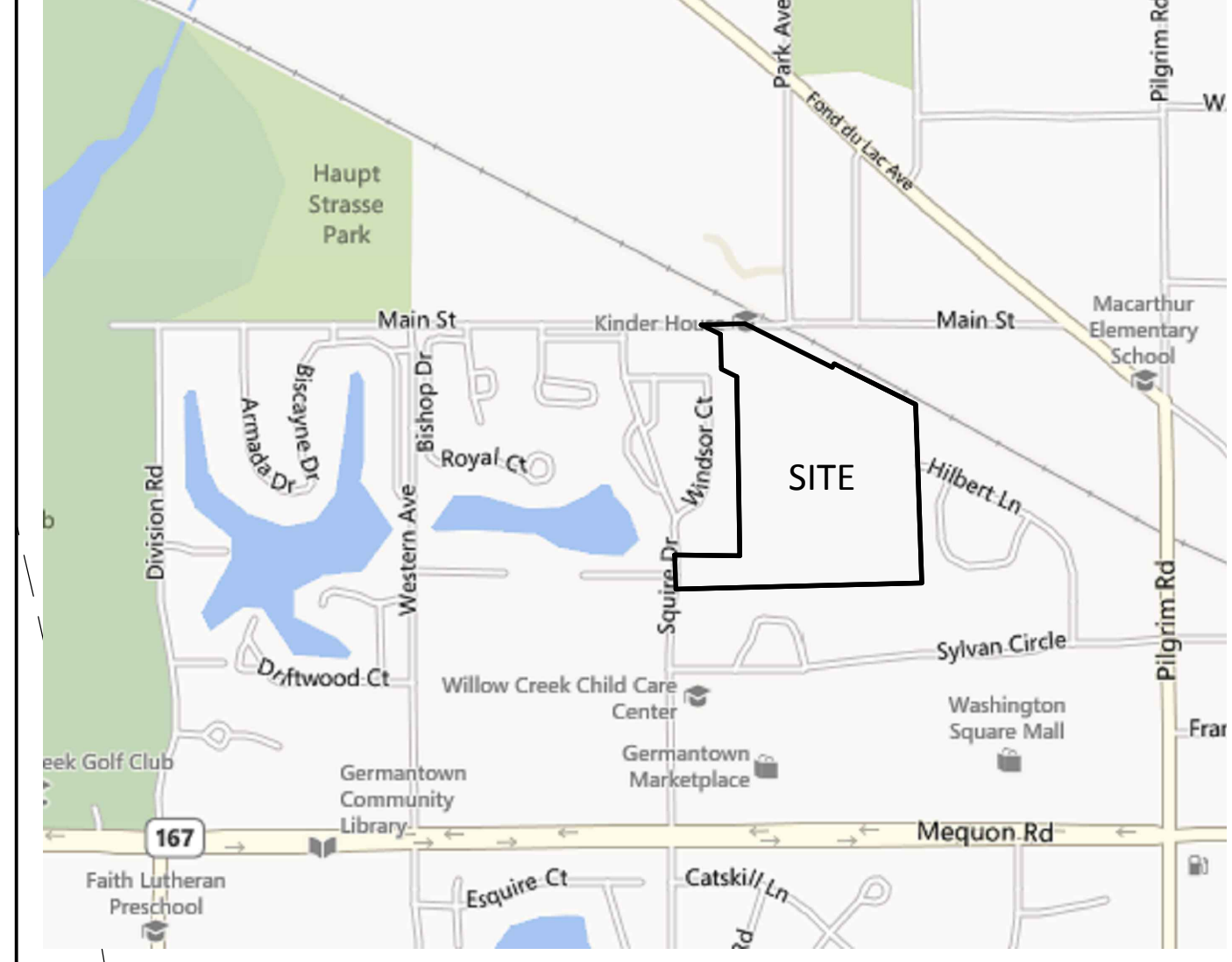
Donald C. Chaput
Professional Land Surveyor
Registration Number S-1316



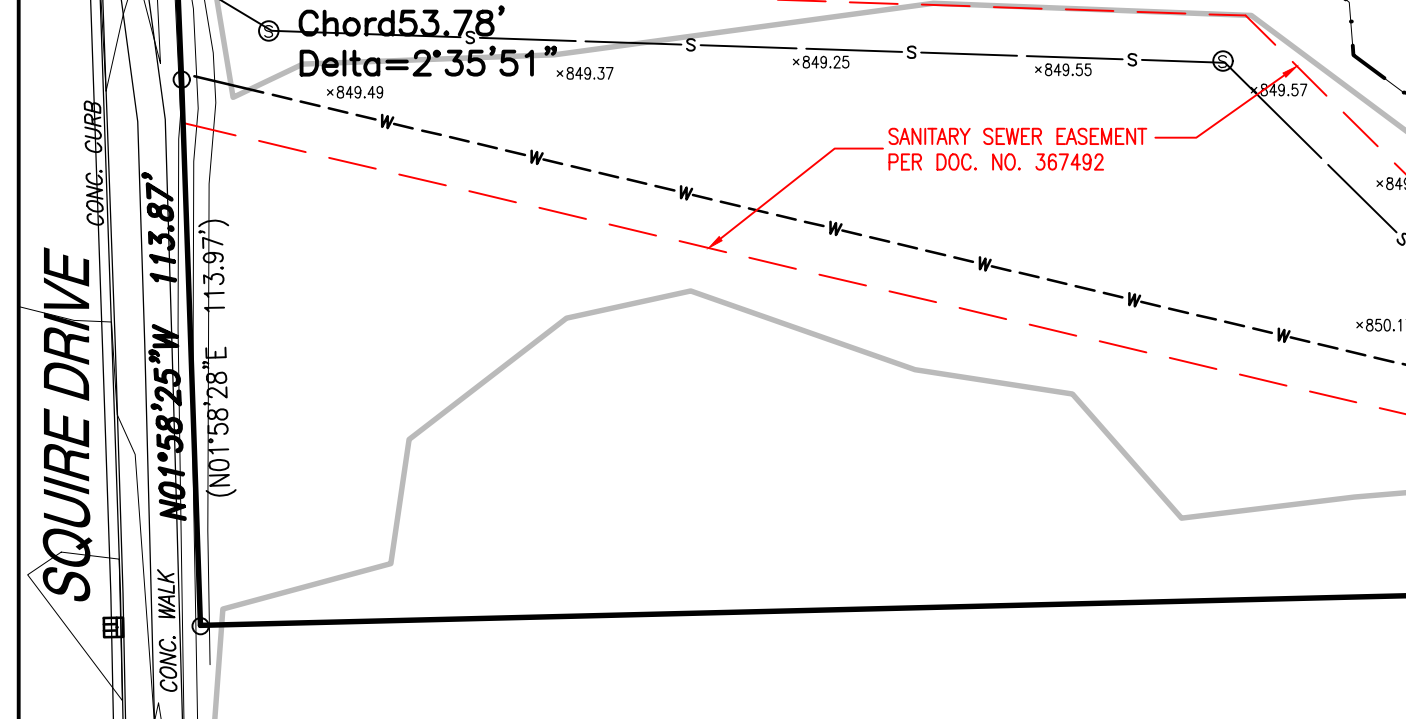
LEGEND

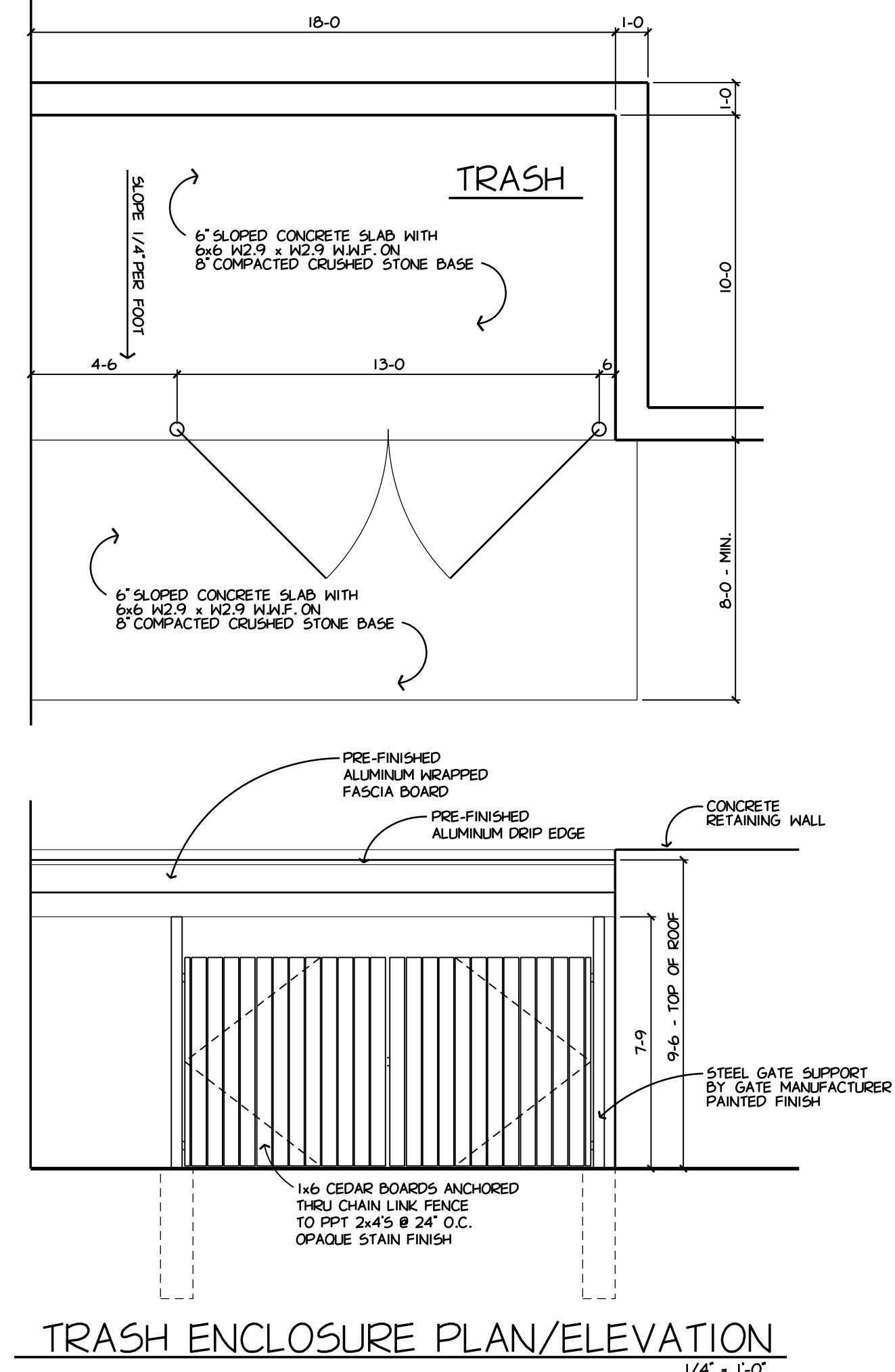
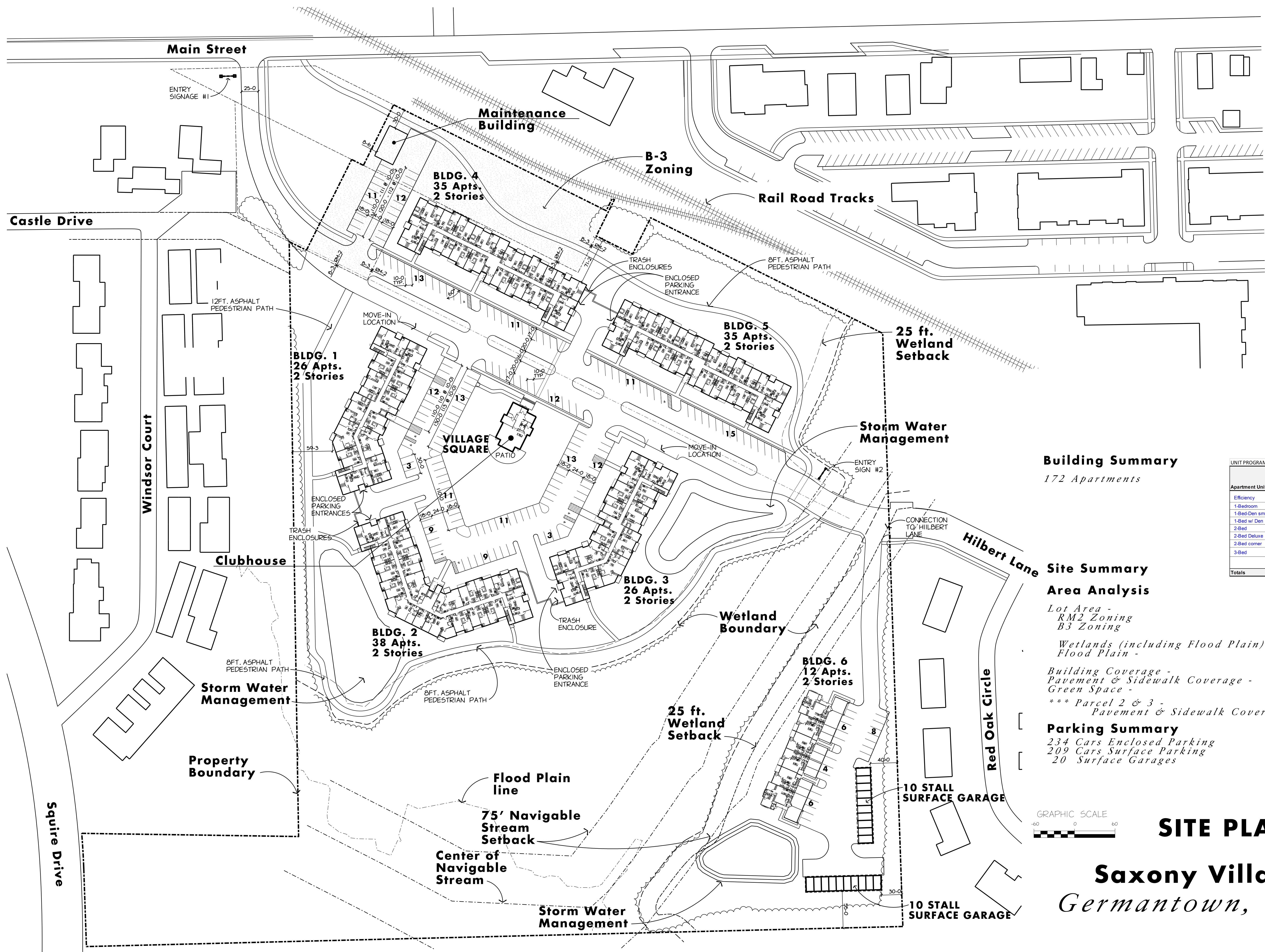
- INDICATES FOUND 1" IRON PIPE
- INDICATES SET 1" IRON PIPE
- ✕ INDICATES FOUND CHISELED CROSS
- SANITARY MANHOLE
- SANITARY CLEANOUT OR VENT
- M.S. MANHOLE
- UNKNOWN MANHOLE
- STORM MANHOLE
- INLET (ROUND)
- INLET (SQUARE)
- STORM SEWER END SECTION
- GAS VALVE
- GAS METER
- WATER VALVE
- HYDRANT
- WATER MANHOLE
- WATER SERVICE CURB STOP
- WELL HEAD
- STAND PIPE
- WALL INDICATOR VALVE
- POST INDICATOR VALVE
- LIGHT POLE
- SPOT/YARD LIGHT
- UTILITY POLE
- GUY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRIC PEDESTAL
- ELECTRIC METER
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- CONTROL BOX
- FIBER OPTIC SIGN
- TRAFFIC LIGHT
- COMMUNICATION MANHOLE
- BOLLARD
- SOIL BORING/MONITORING WELL
- WATER SURFACE
- WETLANDS FLAG
- MARSH
- FLAGPOLE
- PARKING METER
- SIGN
- MAILBOX
- RAILROAD CROSSING SIGNAL
- HANDICAP SPACE
- CONIFEROUS TREE
- DECIDUOUS TREE
- SANITARY SEWER
- STORM SEWER
- WATERLINE
- MARKED GAS MAIN
- MARKED ELECTRIC
- OVERHEAD WIRES
- MARKED TELEPHONE
- MARKED CABLE TV LINE
- MARKED FIBER OPTIC
- FENCE

VICINITY MAP



CSM. NO. 3501





Building Summary
172 Apartments

UNIT PROGRAM					
Apartment Units:	Total # of Units	Unit Square Footage	Patio / Balcony SF	Gross Square Footage w/o Balcony	Gross Square Footage w/ Balcony
Efficiency	12	448	0	5,378	5,378
1-Bedroom	72	780	52	56,160	59,904
1-Bed-Den small	4	1,041	72	4,164	4,452
1-Bed w/ Den	4	1,096	72	4,384	4,872
2-Bed	34	1,096	63	37,230	39,372
2-Bed Deluxe	8	1,127	63	9,016	9,820
2-Bed corner	8	1,293	68	10,344	10,888
3-Bed	30	1,287	85	38,810	41,160
Totals	172			165,284	175,344

Site Summary
Area Analysis

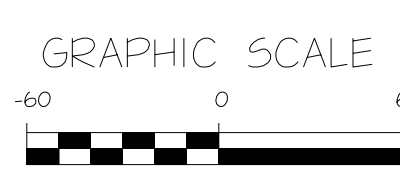
Lot Area - 989,925 sqft (22.7256 acres)
RM2 Zoning 939,299 sqft (21.5633 acres) 100%
B3 Zoning 50,626sqft (1.1622 acres)

Wetlands (including Flood Plain) 7.9 acres
Flood Plain - 1.6 acres

Building Coverage - 106,919 sqft 11.3%
Pavement & Sidewalk Coverage - 164,996 sqft 17.4%
Green Space - 667,519 sqft 70.2%

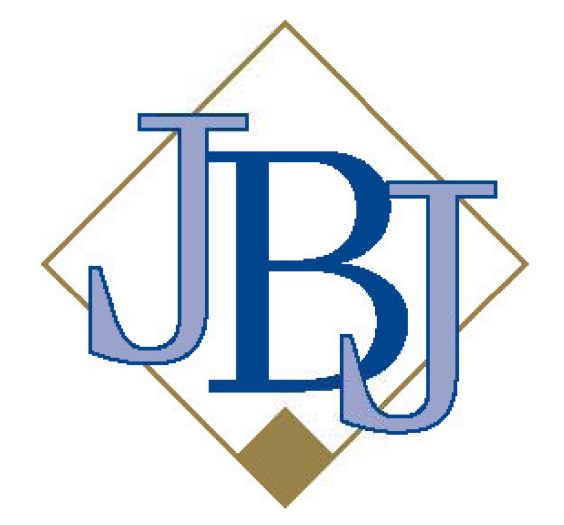
*** Parcel 2 & 3 -
Pavement & Sidewalk Coverage - 10,451 sqft 1.1%

Parking Summary
234 Cars Enclosed Parking
209 Cars Surface Parking
20 Surface Garages



SITE PLAN

Saxony Village
Germantown, WI



J.B.J. Development
W178N9912 Rivercrest Drive, Ste. 101
Germantown, WI 53022
262-255-1800
www.jbjcompanies.com



02 December 2015



LANDSCAPE INC.

Post Office Box 823
Waukesha, WI 53187-0823
262-549-6111
262-549-9229
www.nelsonlandscape.com

Sheet Title:
LANDSCAPE PLAN

Project:
SAXONY VILLAGE
GERMANTOWN, WI

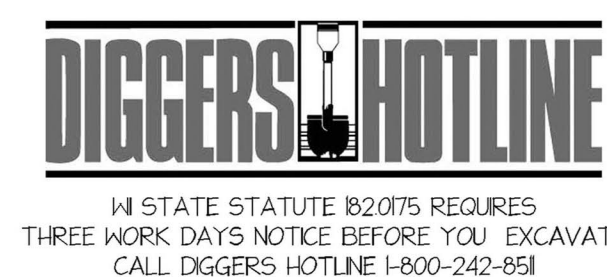
Client:
JBJ CONSTRUCTION
(A DIVISION OF JBJ COMPANIES)
W178 N9912 RIVERCREST DR., SUITE 101
GERMANTOWN, WI 53022
PHONE: (262) 255-1800
FAX: (262) 255-2234
Plan Notes:

Designed By: C. J. N.
Drawn By: C. J. N.
Date: 10-15-15
Revisions: 12-02-15

Notice:
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This plan is subject to final on-site conditions and may be modified to account for unforeseen obstacles, other changes, or site modifications that were not made known at the time of preparation dated on this plan.



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• Residential • Commercial • Design/Build

Sheet #: L100 Page 1 of 4



Sheet Title:

Project:

Client:

Plan Notes:

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LANDSCAPE INC.

Post Office Box 823
Waukesha, WI 53187-0823
☎ 262-549-6111
☎ 262-549-9229
🌐 www.nelsonlandscape.com

Sheet Title:

LANDSCAPE PLAN-
SOUTH

Project:

SAXONY VILLAGE
GERMANTOWN, WI

Client:

JBJ CONSTRUCTION
(A DIVISION OF JBJ COMPANIES)
W178 N9912 RIVERCREST DR., SUITE 101
GERMANTOWN, WI 53022
PHONE: (262) 255-1800
FAX: (262) 255-2234

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Designed By: C. J. N.
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GRAPHICAL SCALE (FEET)

0 1" = 40' 80'



WI STATE STATUTE §2075 REQUIRES
THREE WORK DAYS NOTICE BEFORE YOU EXCAVATE
CALL DIGGERS HOTLINE 1-800-242-6511

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Sheet #: L300 Page 3 of 4

Planting Notes:

1) CONTRACTOR SHALL VERIFY LOCATION OF ALL ON-SITE UTILITIES PRIOR TO COMMENCING ANY WORK ON-SITE. WISCONSIN STATUTE 182.0175 REQUIRES THREE WORK DAYS NOTICE BEFORE YOU EXCAVATE. CALL DIGGER'S HOTLINE AT 1-800-242-8511.

2) SUPPLY AND INSTALL ALL WISCONSIN GROWN NURSERY STOCK. GUARANTEE ALL STOCK FOR A PERIOD OF ONE YEAR. ALL PLANTING MATERIAL IS TO MEET AMERICAN STANDARDS FOR NURSERY STOCK ANSI Z60.1-2004. ALL PLANT MATERIAL IS TO BE PLANTED IMMEDIATELY AFTER ARRIVAL AND UNLOADING ON SITE. PLANT TYPES, SIZES, AND QUANTITIES ARE ACCORDING TO THE PROPOSED PLANS. IF ANY DISCREPANCIES ARE PRESENT BETWEEN PLANT LEGEND AND GRAPHIC DEPICTION, GRAPHICALLY DEPICTED QUANTITIES SHALL HOLD PRECEDENCE.

3) ACTUAL LOCATIONS OF PLANT MATERIAL ARE SUBJECT TO FINAL SITE LAYOUT AND CONDITIONS AND MAY BE ADJUSTED ACCORDINGLY.

4) GUY AND STAKE ALL LARGE TREES AND EVERGREENS.

5) ALL PLANTS ARE TO BE BACKFILLED WITH IMPORTED SCREENED TOPSOIL AND IS TO BE FREE OF ROOTS, ROCKS LARGER THAN 1" IN DIAMETER, SUBSOIL DEBRIS, AND WEEDS.

6) OPEN AND REMOVE THE TOP BURLAP AND TWINE OR STRING FROM ALL BALLED AND BURLAPED PLANTS AND SET ALL PLANTS AT FINISHED GRADE.

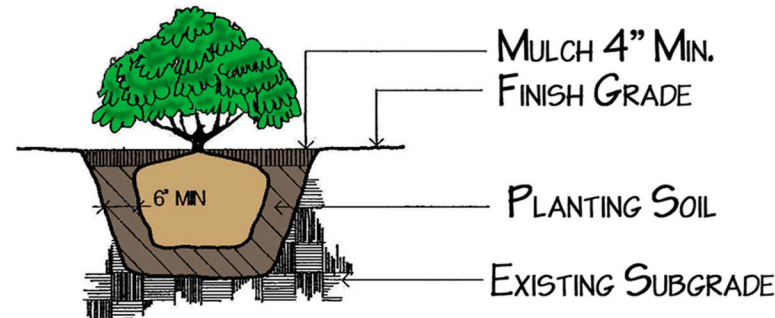
7) SUPPLY AND INSTALL 3" OF #1 WASHED STONE IN ALL PLANTING BEDS. INSTALL A COMMERCIAL GRADE, NON-WOVEN WEED BARRIER LANDSCAPE FABRIC WITH 1'-0" LAP JOINTS AND SECURED WITH STEEL STAPLES PRIOR TO PLACING STONE. SPREAD STONE MULCH EVENLY.

8) SUPPLY AND INSTALL 3'-4" OF SHREDED HARDWOOD MULCH 1" FAST THE DRIP LINE OF ALL INDIVIDUAL TREES. DO NOT PLACE MULCH AGAINST TRUNK OF TREE.

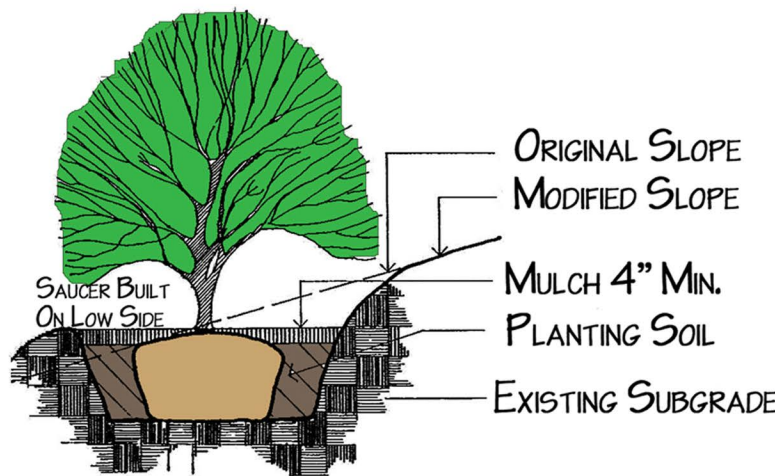
9) ALL TURF AREAS ARE TO BE FINISHED AND SEEDED WITH EITHER NELSON LANDSCAPE'S CUSTOM BLENDED SEED FOR LAWNS. SOW ALL SEED AT THE RECOMMENDED MANUFACTURER'S RATE. APPLY A STARTER FERTILIZER ACCORDING TO MANUFACTURER'S RECOMMENDED APPLICATION RATE. COVER ALL SEEDED AREAS WITH A CLEAN OAT STRAW. ANY AREAS WHERE POTENTIAL EROSION IS A CONCERN DUE TO WIND, WATER, OR SLOPE SHALL BE COVERED WITH STRAW EROSION CONTROL BLANKETS. NORTH AMERICAN GREEN D5-75 OR APPROVED EQUAL.

10) SUPPLY AND INSTALL 'BULLET EDGE' PAVERS MANUFACTURED BY PAVELOC INDUSTRIES IN ALL PLANTING BEDS THAT ADJOIN TURF AREAS ACCORDING TO THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

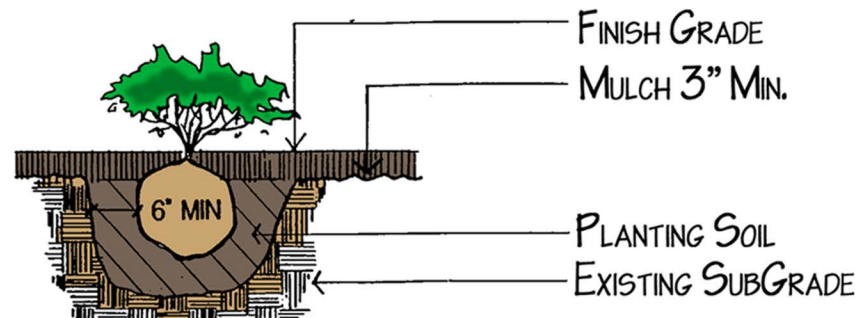
Qty	Botanical Name	Common Name	Size/Condition
Trees			
4	Amelanchier x grandiflora 'Autumn Brilliance'	AUTUMN BRILLIANCE APPLE SERVICEBERRY	8-10'/b. b.
9	Acer 'nirxhei' Morton'	STATE STREET MYABE MAPLE	2 1/2-3'/b. b.
6	Carpinus caroliniana var. virginiana	AMERICAN HORNBEAM	2 1/2-3'/b. b.
6	Ginkgo biloba 'Princeton Sentry'	PRINCETON SENTRY MADENHAIR TREE	2 1/2-3'/b. b.
6	Gymnocladus dioica	KENTUCKY COFFEE TREE	2 1/2-3'/b. b.
6	Juniperus x pfitzeriana 'Hetzl'	HETZ BLUE JUNPER	5-6'/b. b.
2	Malus sargentii 'TINA'	TINA FLOWERING CRABAPPLE	2'/b. b.
6	Malus transitoria 'Schmidtcutleaf'	GOLDEN RAINDROPS CUTLEAF CRABAPPLE	2 1/2-3'/b. b.
2	Picea abies	NORWAY SPRUCE	7-8'/b. b.
6	Pyrus calleryana 'Cleveland Select'	CLEVELAND SELECT CALLERY PEAR	2 1/2-3'/b. b.
2	Picea glauca	WHITE SPRUCE	7-8'/b. b.
6	Picea glauca var. densata	BLACK HILLS SPRUCE	7-8'/b. b.
3	Picea pungens	COLORADO GREEN SPRUCE	7-8'/b. b.
3	Picea pungens f. glauca	COLORADO BLUE SPRUCE	7-8'/b. b.
3	Pinus sylvestris	SCOTCH PINE	7-8'/b. b.
2	Syringa reticulata	JAPANESE TREE LILAC	2 1/2-3'/b. b.
2	Syringa reticulata 'Ivory Silk'	IVORY SILK JAPANESE TREE LILAC	2 1/2-3'/b. b.
8	Tilia cordata 'Holk'	SUMMER SPRITE LINDEN	2 1/2-3'/b. b.
4	Toxodum distichum	BALDCYPRESS	2 1/2-3'/b. b.
4	Ulmus x 'Morton Glossy'	TRUMPH ELM	2 1/2-3'/b. b.
Shrubs			
64	Aronia melanocarpa 'Morton'	IROQUOIS BEAUTY BLACK BERRIED ARONIA	18-24'/cont.
6	Buxus 'Green Velvet'	GREEN VELVET BOXWOOD	18-24'/b. b.
8	Cornus stolonifera 'Allmans Compact'	ALLMANS COMPACT DOGWOOD	18-24'/cont.
11	Diervilla lonicera	BUSH HONEYSUCKLE	18-24'/cont.
38	Diervilla sessilifolia 'Cool Splash'	COOL SPLASH BUSH HONEYSUCKLE	18-24'/cont.
30	Euonymus alatus 'Compactus'	DWARF BURNING BUSH	24-30'/b. b.
25	Hydrangea paniculata 'Jone'	LITTLE LIME HYDRANGEA	18-24'/cont.
20	Picea abies 'Pumila Nigra'	PUMILA NGRA NORWAY SPRUCE	18-24'/cont.
7	Potentilla fruticosa 'Pink Beauty'	PINK BEAUTY POTENTILLA	18-24'/cont.
16	Pinus mugo 'Compacta'	COMPACTA MUGO PINE	18-24'/cont.
21	Physocarpus opulifolius 'Danna May'	LITTLE DEVL NNEBARK	24-30'/cont.
12	Rhus aromatica 'Gro-low'	GRO-LOW FRAGRANT SUMAC	18-24'/cont.
10	Rosa rugosa 'Frau Dagmar Hartup'	FRAU DAGMAR HASTRUP JAPANESE ROSE	18'/cont.
2	Spiraea betulifolia 'Tor'	TOR SPIREA	18-24'/cont.
30	Taxus x media 'Everlow'	EVERLOW YEW	18-24'/cont.
4	Thuja occidentalis 'Little Giant'	LITTLE GIANT ARBORVITAE	18-24'/cont.
Ornamental Grasses			
15	Calamagrostis x acutiflora 'Karl Foerster'	KARL FOERSTER FEATHER REED GRASS	#1 cont.
8	Deschampsia caespitosa 'Schottland'	SCOTLAND TUFTED HAIR GRASS	#1 cont.
18	Panicum virgatum 'Prairie Sky'	PRAIRIE SKY SWITCH GRASS	#1 cont.
52	Sporobolus heterolepis	PRAIRIE DROPSEED GRASS	#1 cont.
Perennials and Annuals			
44	Achillea millefolium 'Pomegranate', PP20763	POMEGRANATE YARROW	#1 cont.
12	Hemerocallis 'Prairie Blue Eyes'	PRAIRIE BLUE EYES DAYLILY	#1 cont.
32	Hemerocallis x 'Swirling Water'	SWIRLING WATER DAYLILY	#1 cont.
64	Heuchera micrantha 'Palace Purple'	PALACE PURPLE CORAL BELLS	#1 cont.
6	Iris germanica	TALL BEARDED IRIS	#1 cont.
24	Nepeta x faassenii 'Walkers Low'	WALKERS LOW CATMINT	#1 cont.
158	Penstemon digitalis 'Husker Red'	HUSKER RED PENSTEMON	#1 cont.
12	Rudbeckia fulgida 'Goldsturm'	GOLDSTURM BLACK-EYED SUSAN	#1 cont.
72	Sedum 'Autumn Joy'	AUTUMN JOY SEDUM	#1 cont.



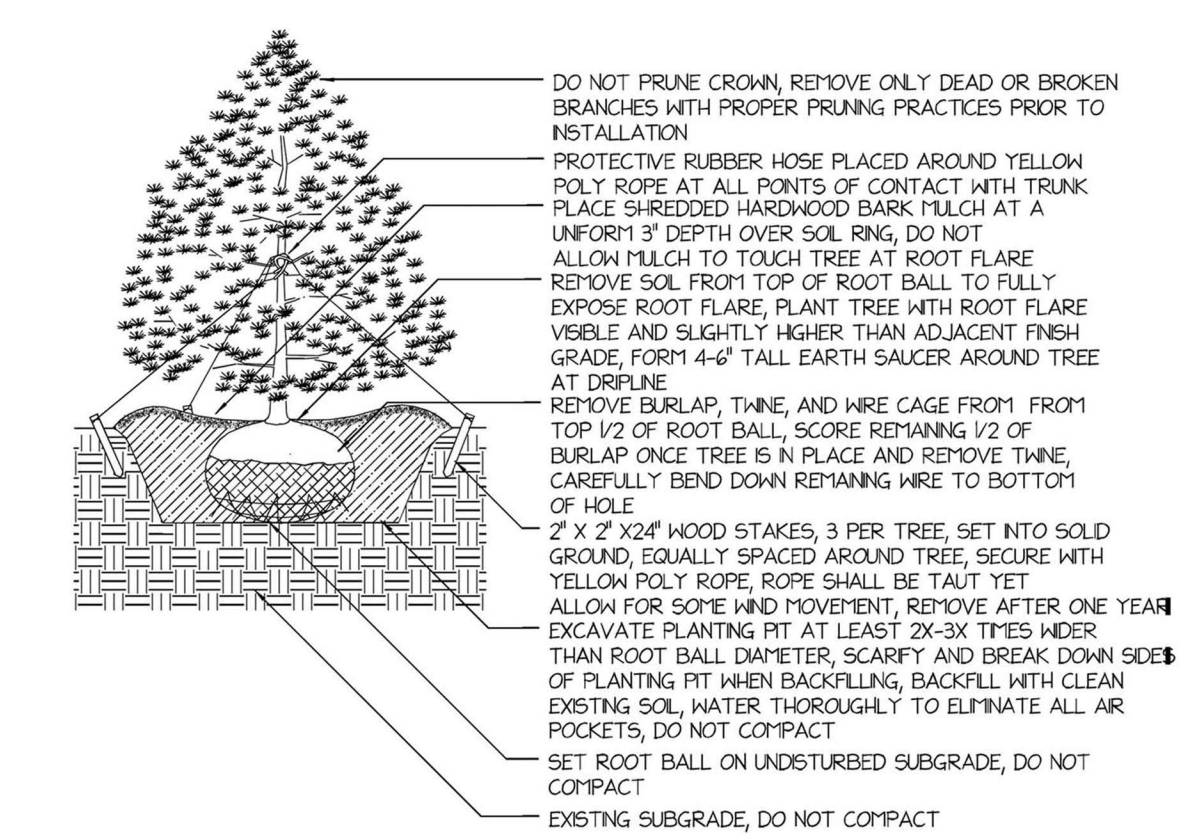
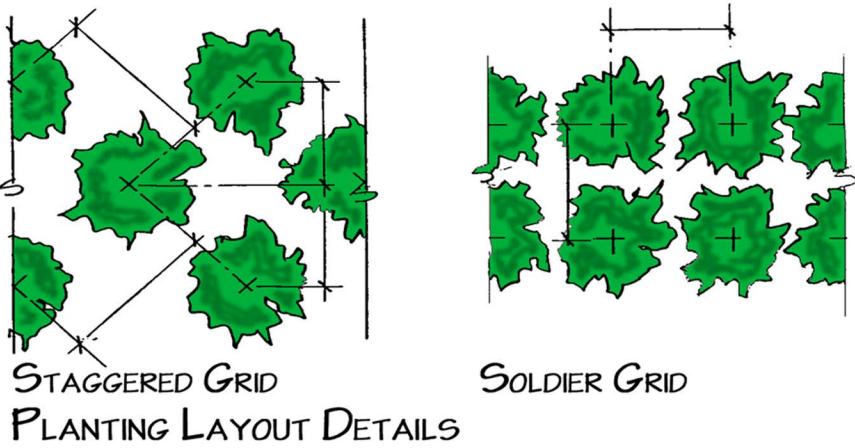
SHRUB PLANTING DETAIL



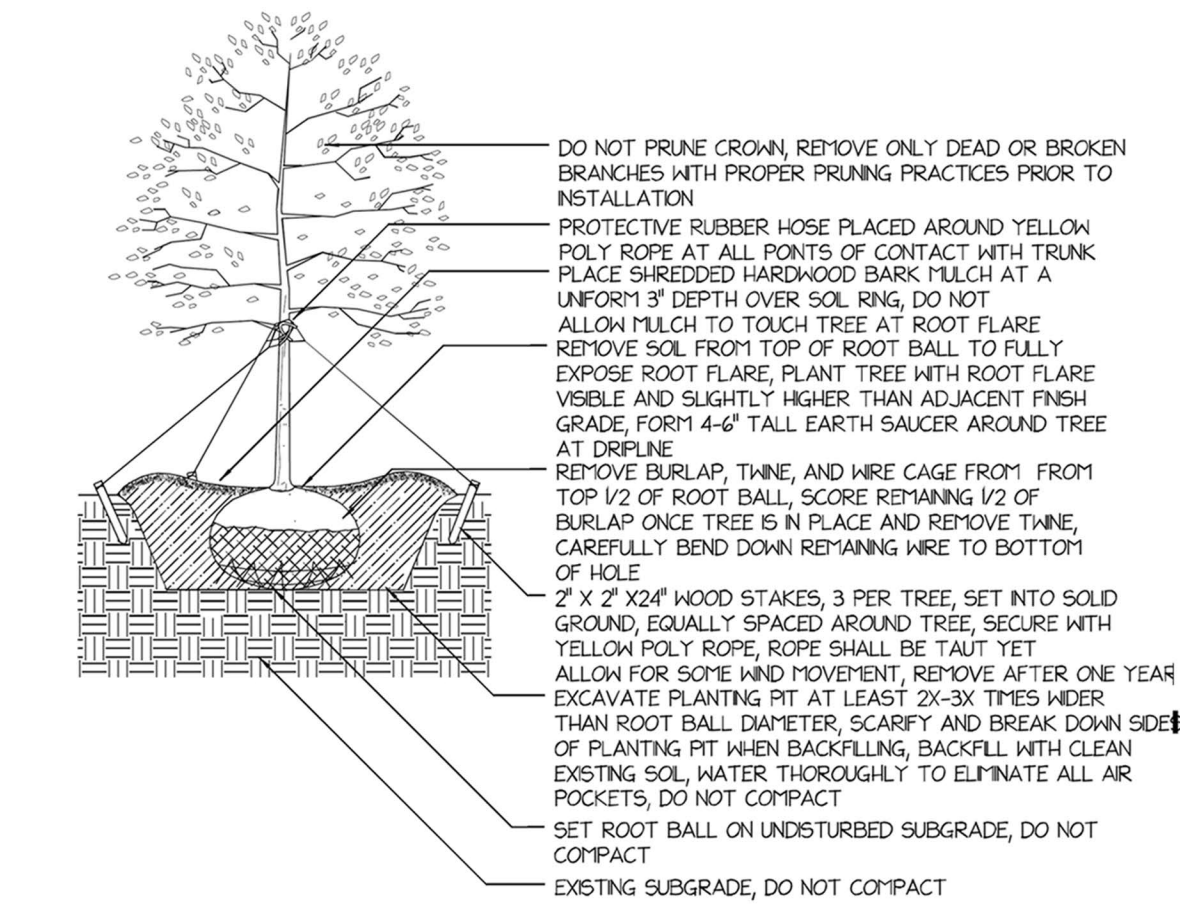
TREE & SHRUB SLOPE PLANTING DETAIL



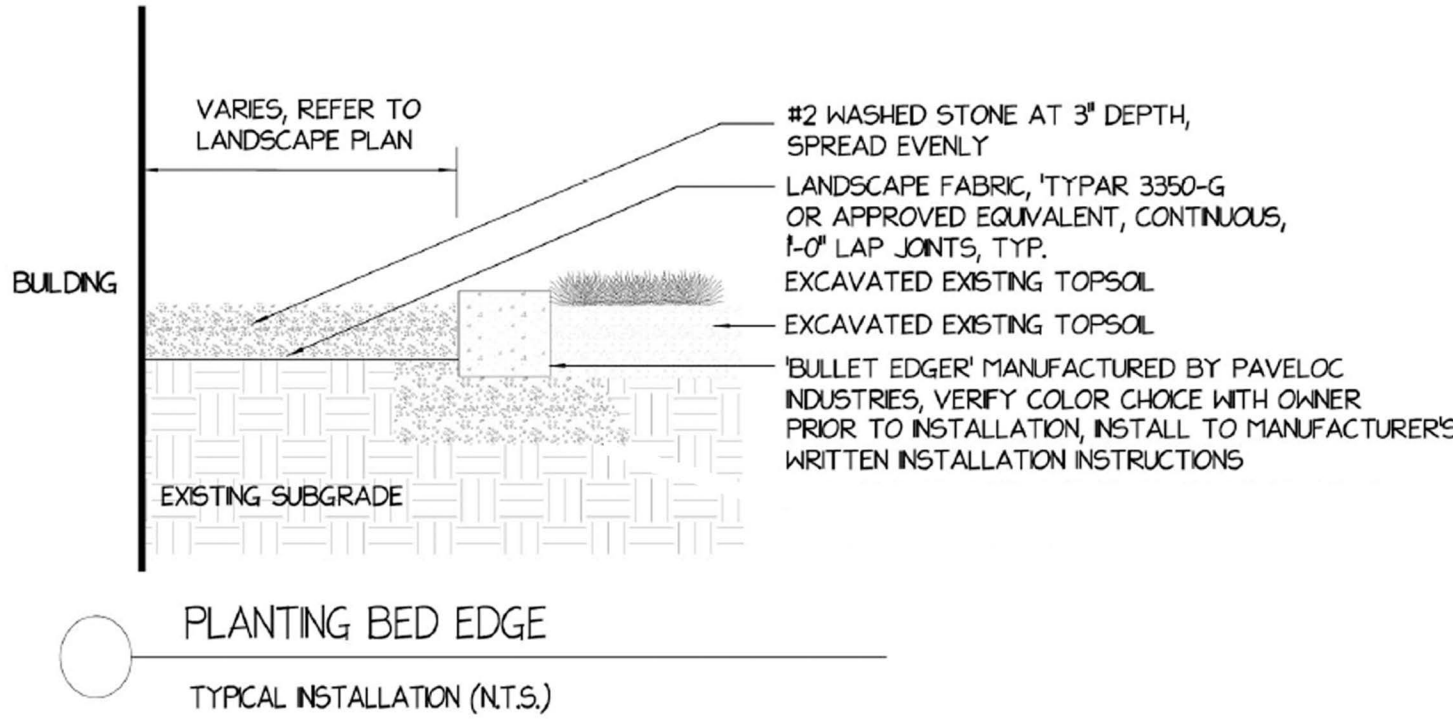
GROUND COVER PLANTING DETAIL



CONIFEROUS TREE PLANTING DETAIL
TYPICAL INSTALLATION- NOT TO SCALE



DECIDUOUS TREE PLANTING DETAIL
TYPICAL INSTALLATION- NOT TO SCALE



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Sheet Title:

LANDSCAPE NOTES & DETAILS

Project:

SAXONY VILLAGE GERMANTOWN, WI

Client:

JBJ CONSTRUCTION
(A DIVISION OF JBJ COMPANIES)
W178 N9912 RIVERCREST DR., SUITE 101
GERMANTOWN, WI 53022
PHONE: (262) 255-1800
FAX: (262) 255-2234

Plan Notes:

Designed By: C. J. N.
Drawn By: C. J. N.
Date: 10-15-15
Revisions: 12-02-15

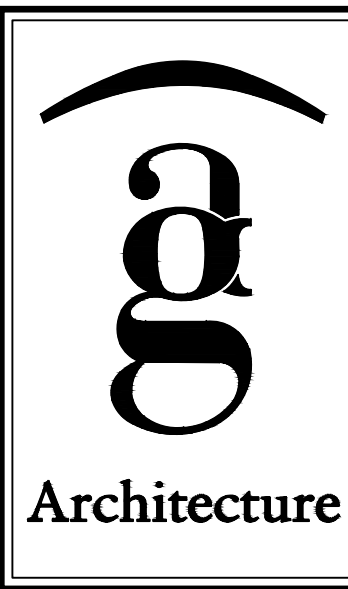
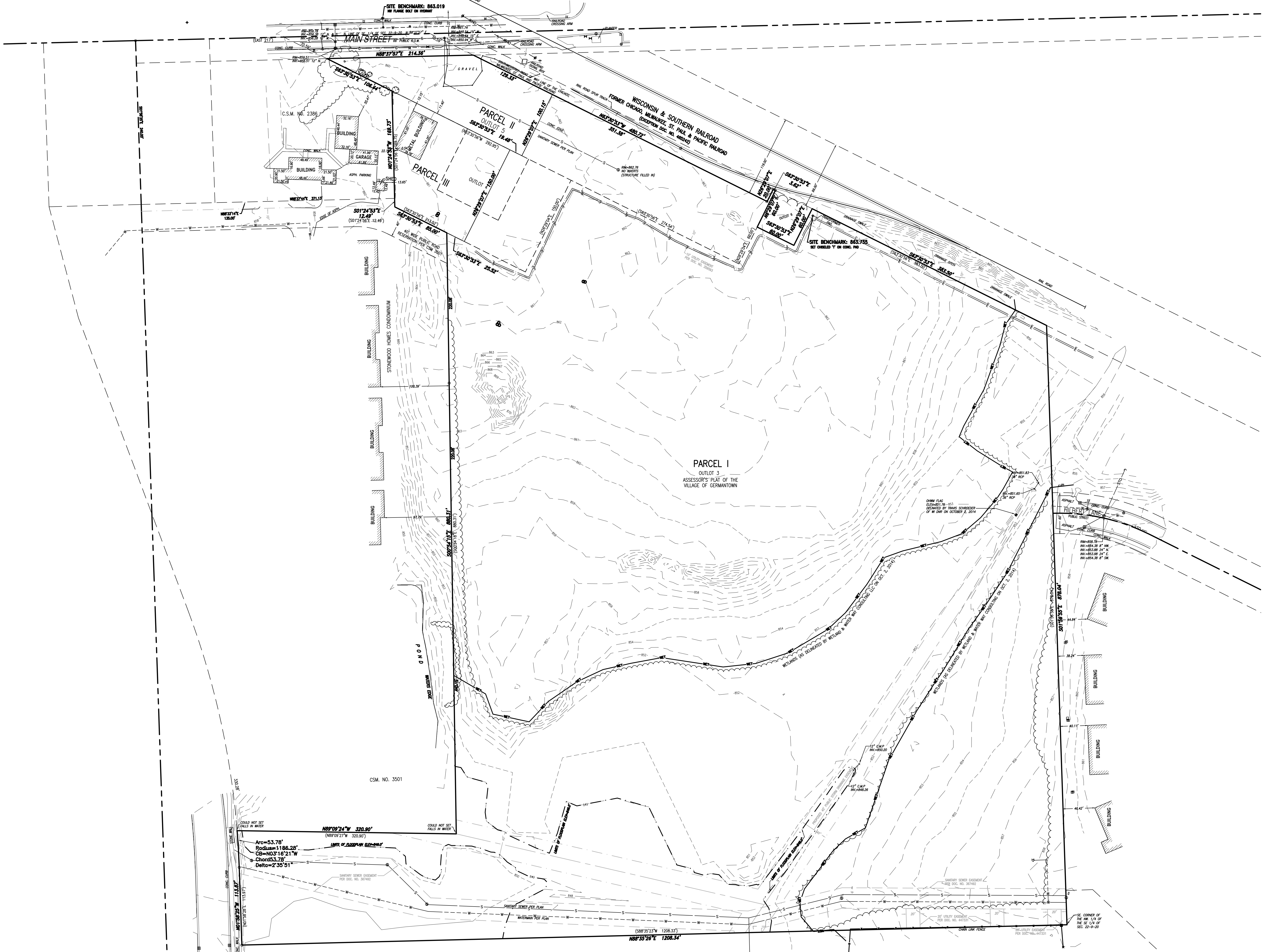
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This plan is subject to final on-site conditions and may be modified to account for unforeseen obstacles, other changes, or site modifications that were not made known at the time of preparation dated on this plan.





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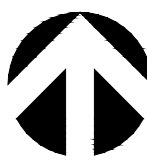
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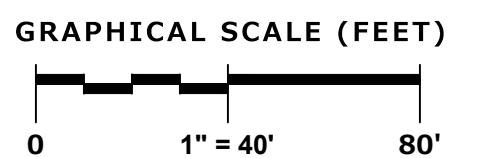
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GRAPHICAL SCALE (FEET)
0 1" = 60' 120'

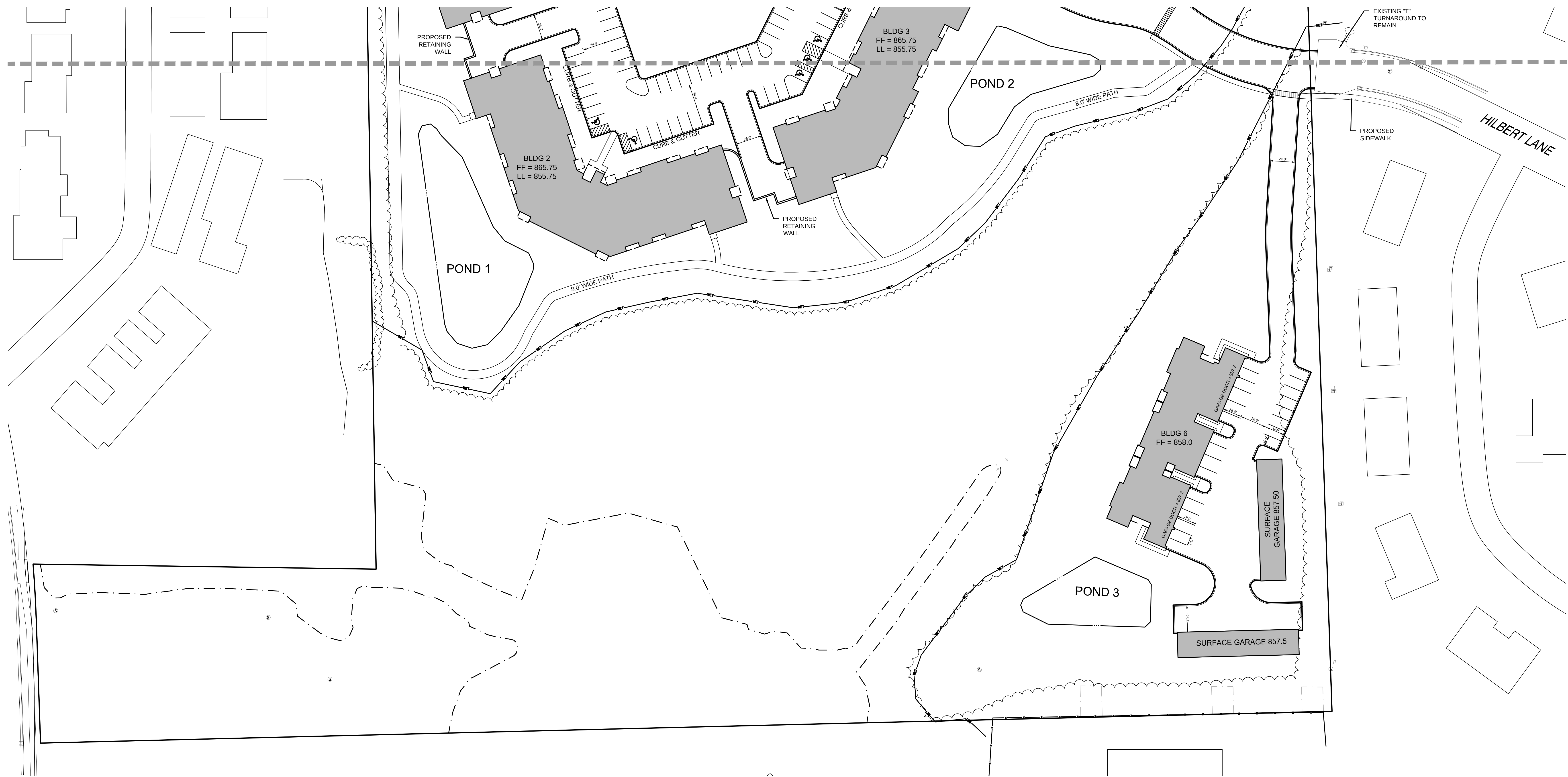


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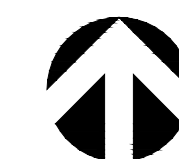
C-1



SITE PLAN - NORTH



GRAPHICAL SCALE (FEET)
0 1" = 40' 80'



SITE PLAN - SOUTH

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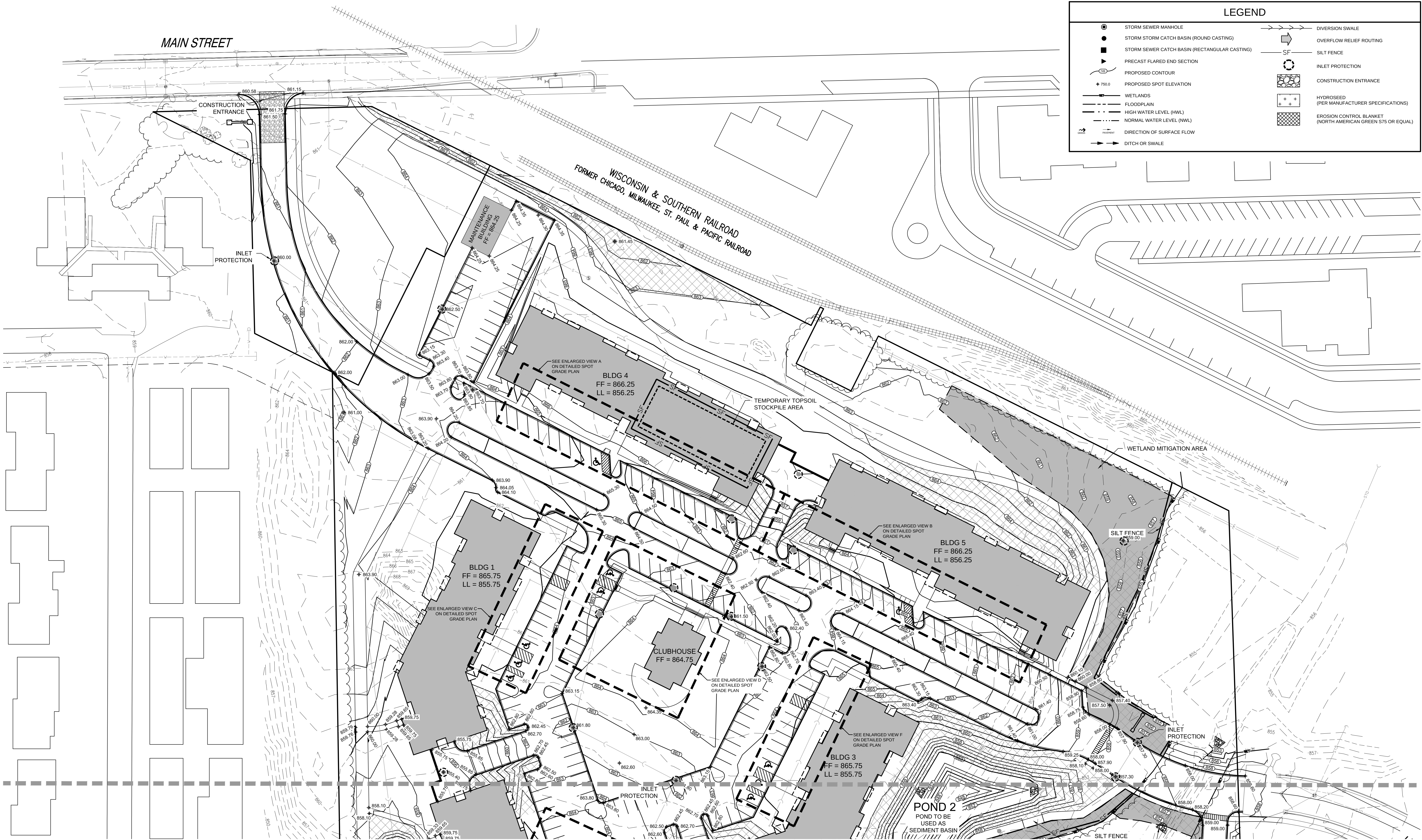
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Germantown

Saxony Village

Wisconsin



GRADING & EROSION CONTROL PLAN - NORTH

C-4

Wisconsin
Saxony Village
Germantown

aa
Architecture

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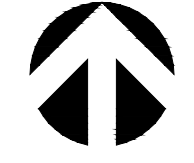
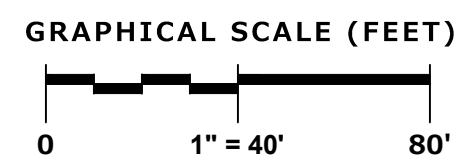
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C-5



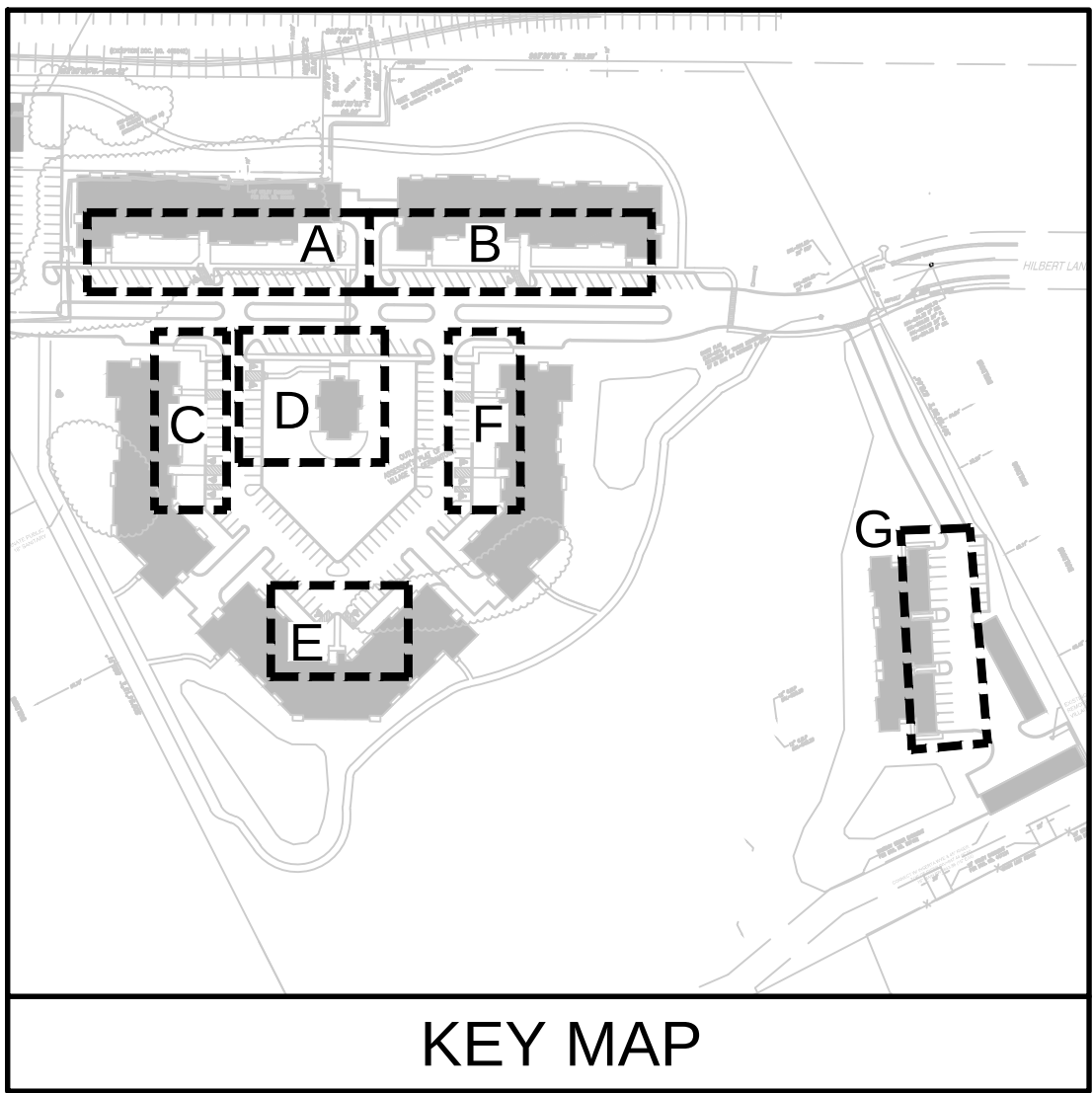
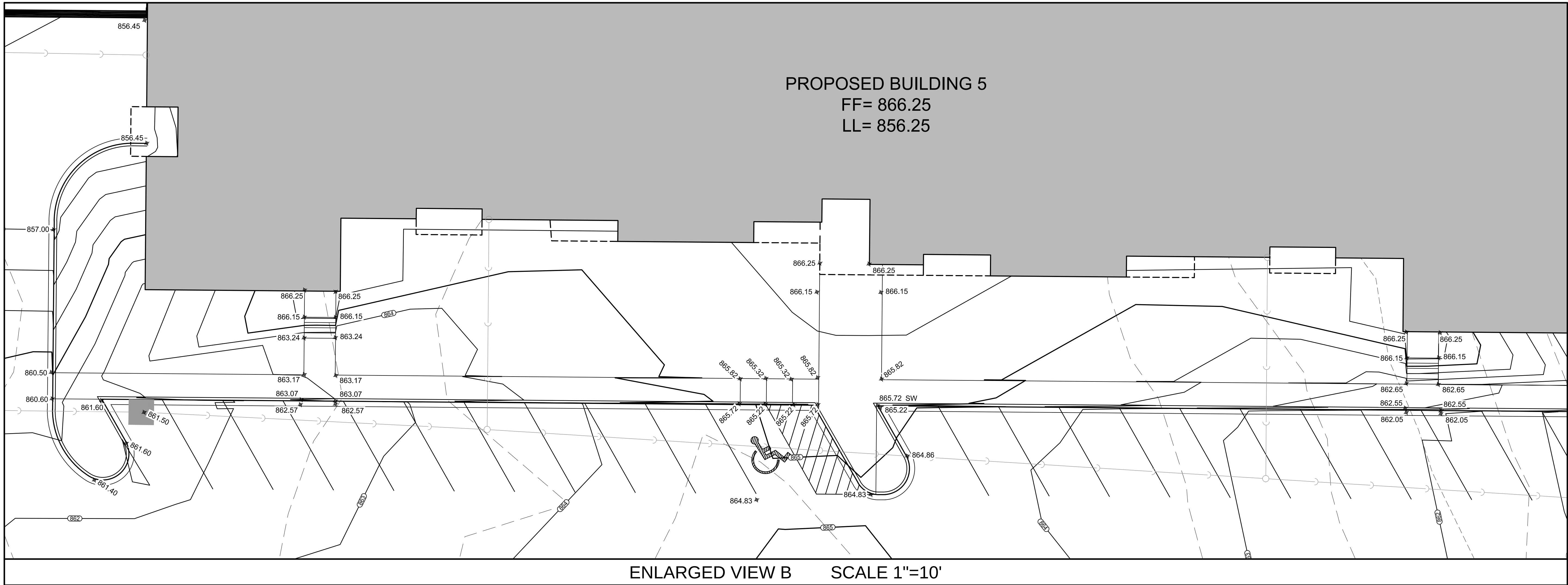
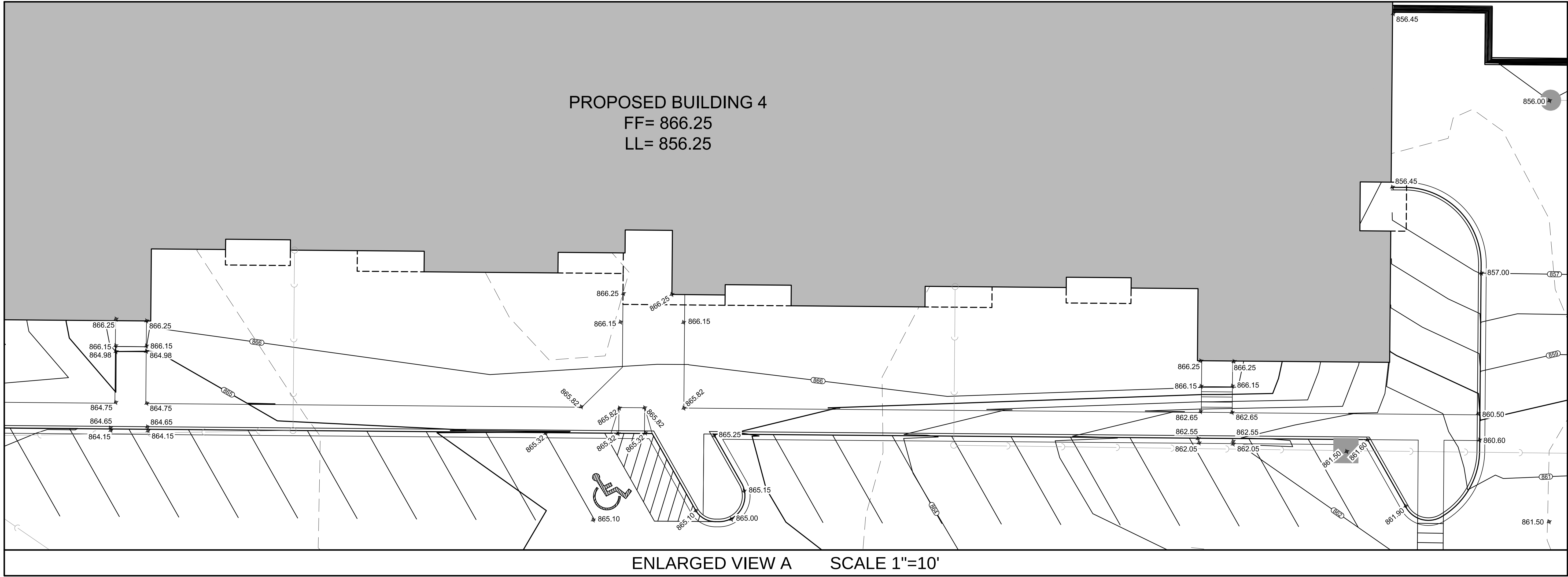
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Saxony Village
Germantown

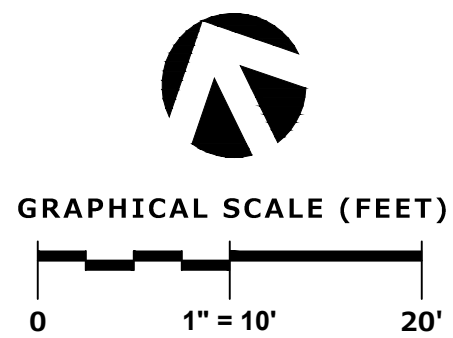
Saxony Village

Wisconsin



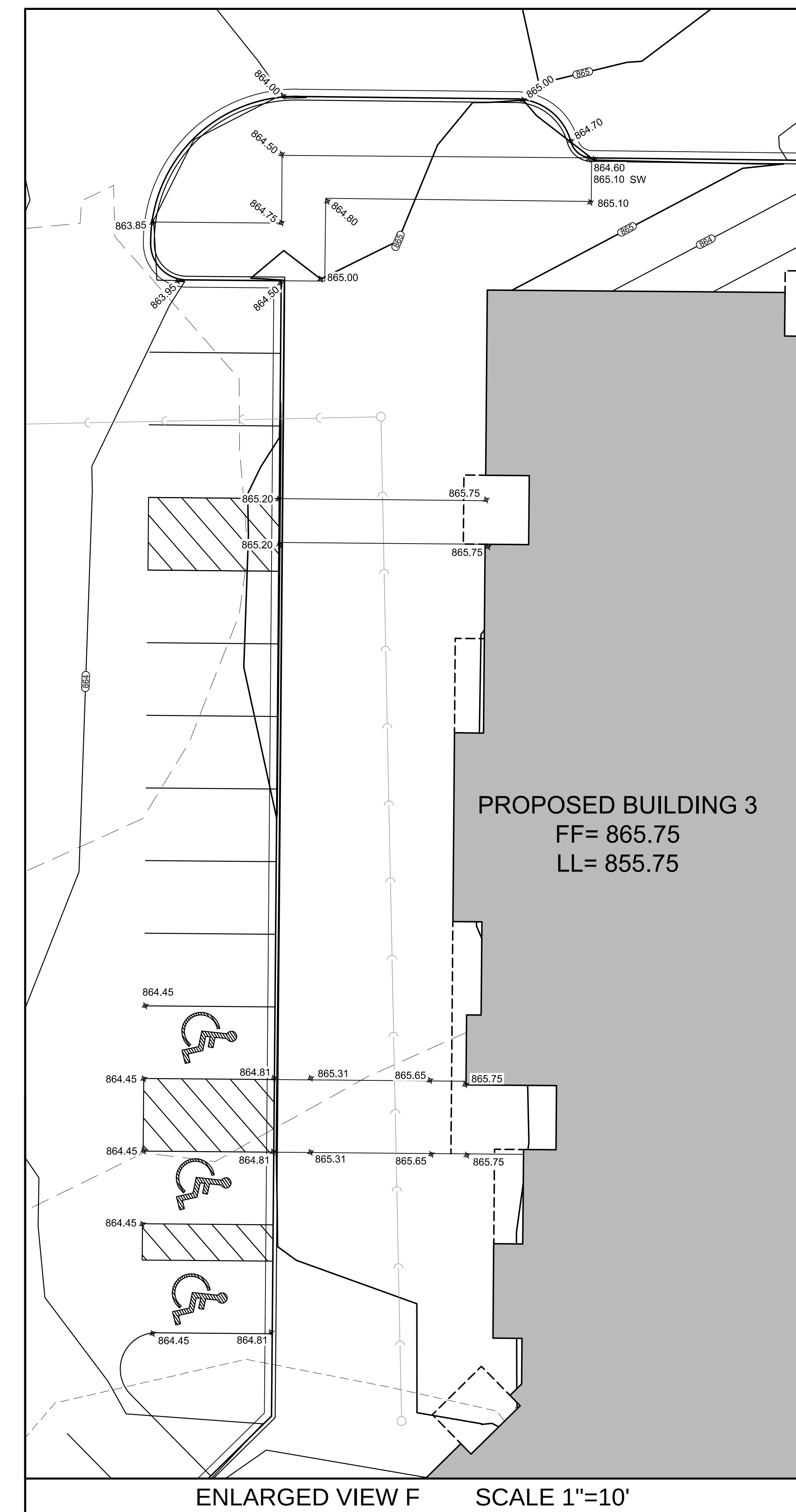
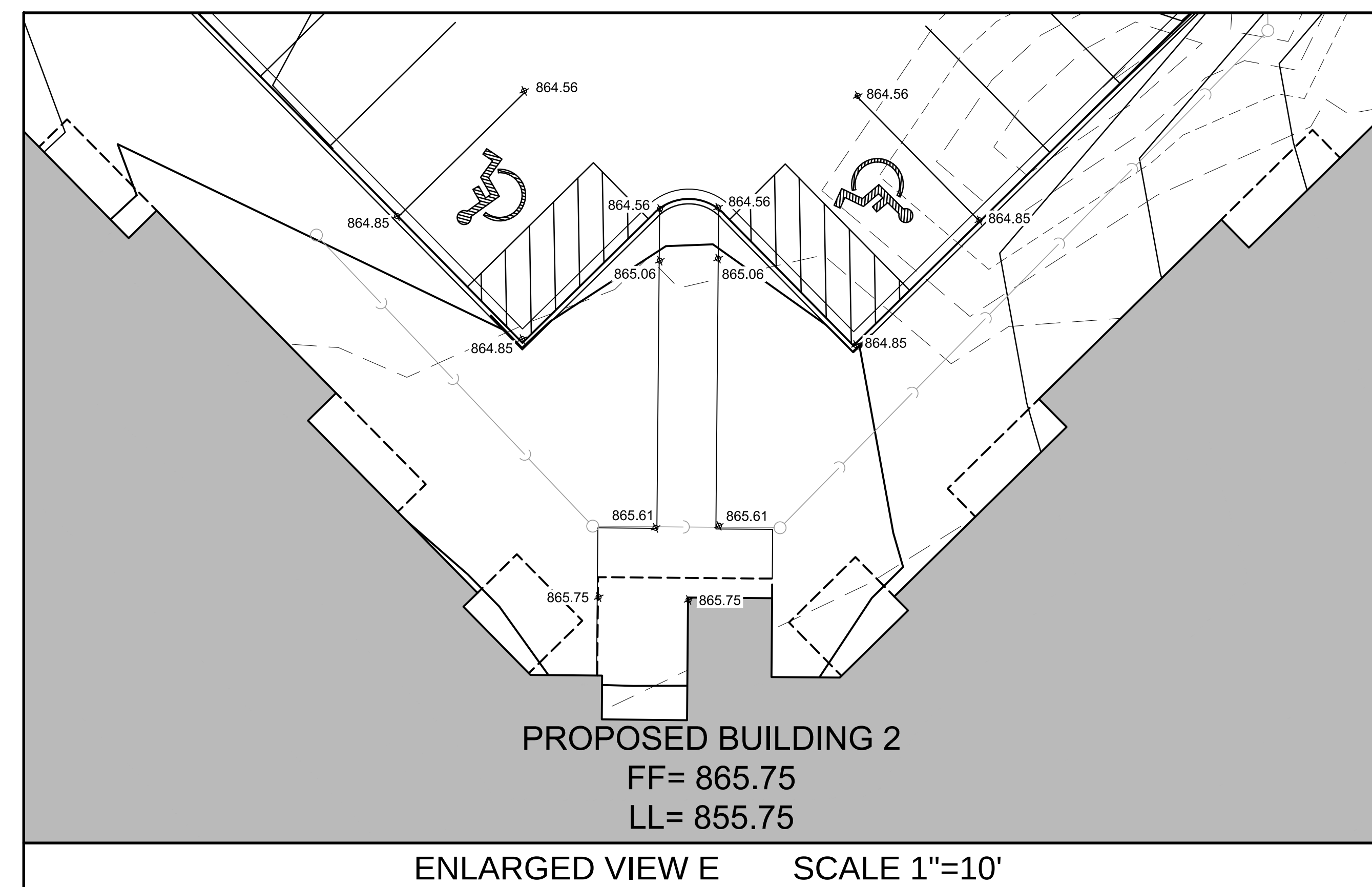
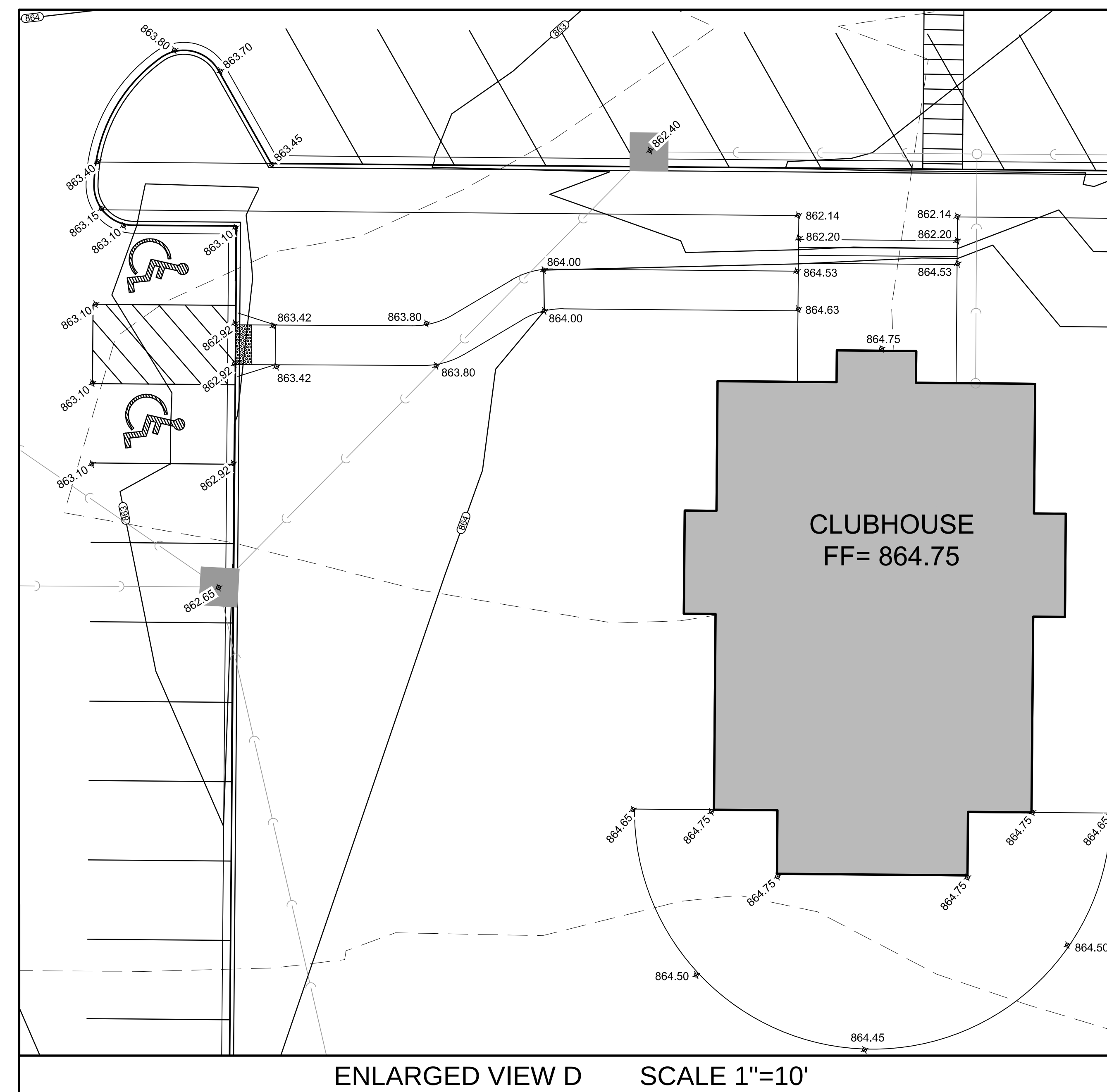
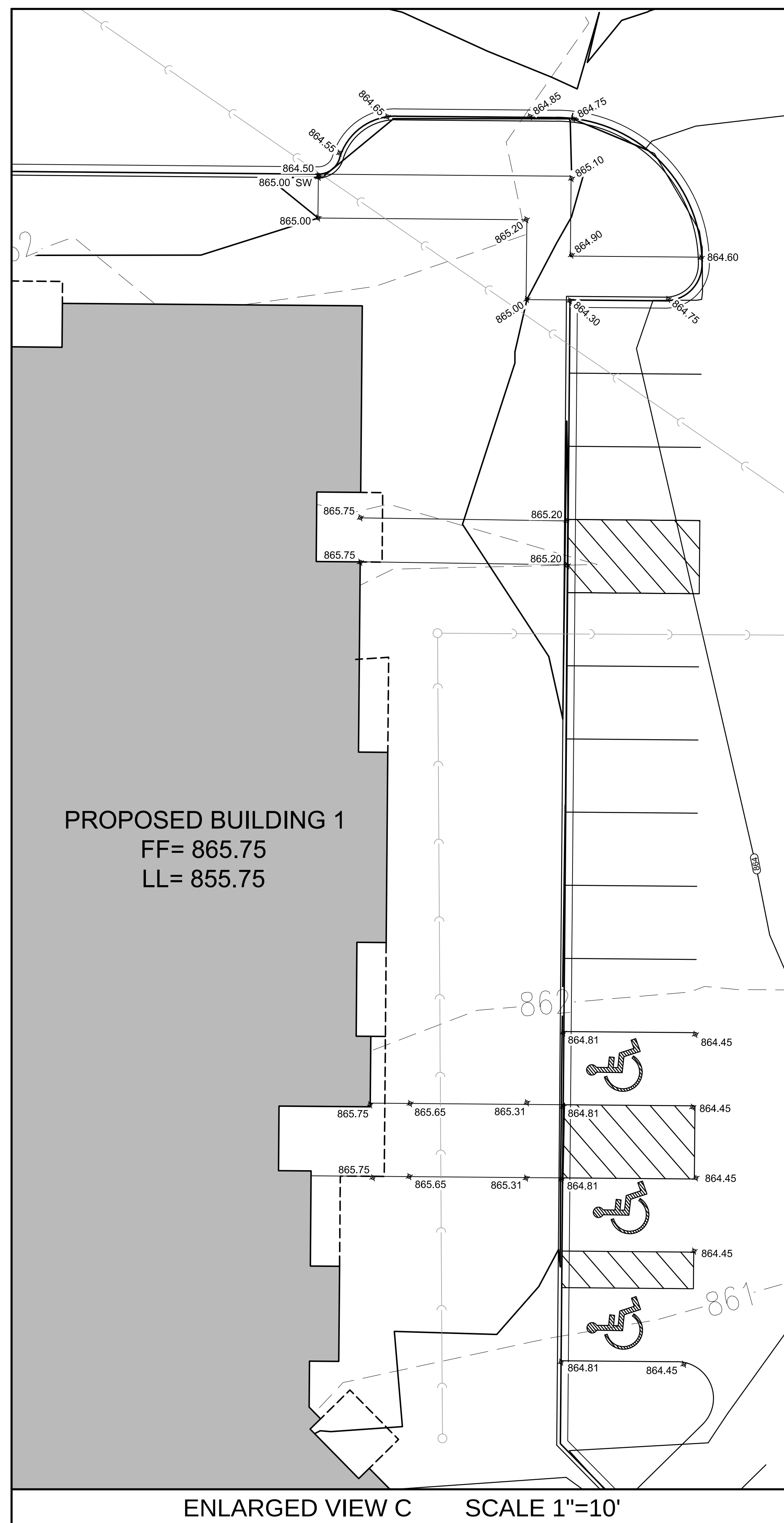
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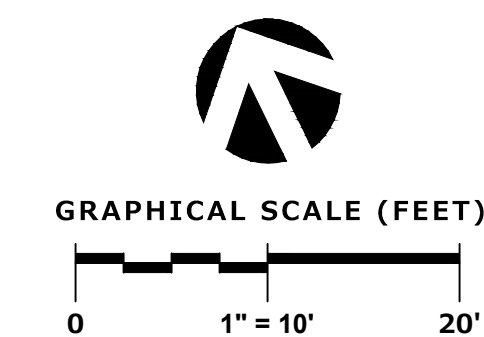
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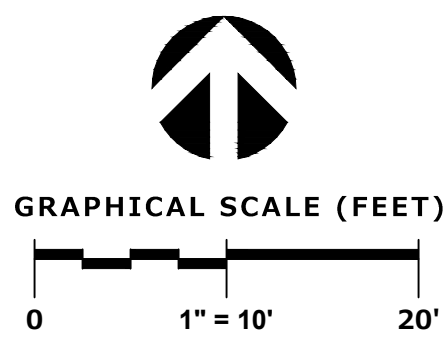
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ENLARGED VIEW G SCALE 1"=10'



DETAILED SPOT GRADE PLAN

C-8



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2	

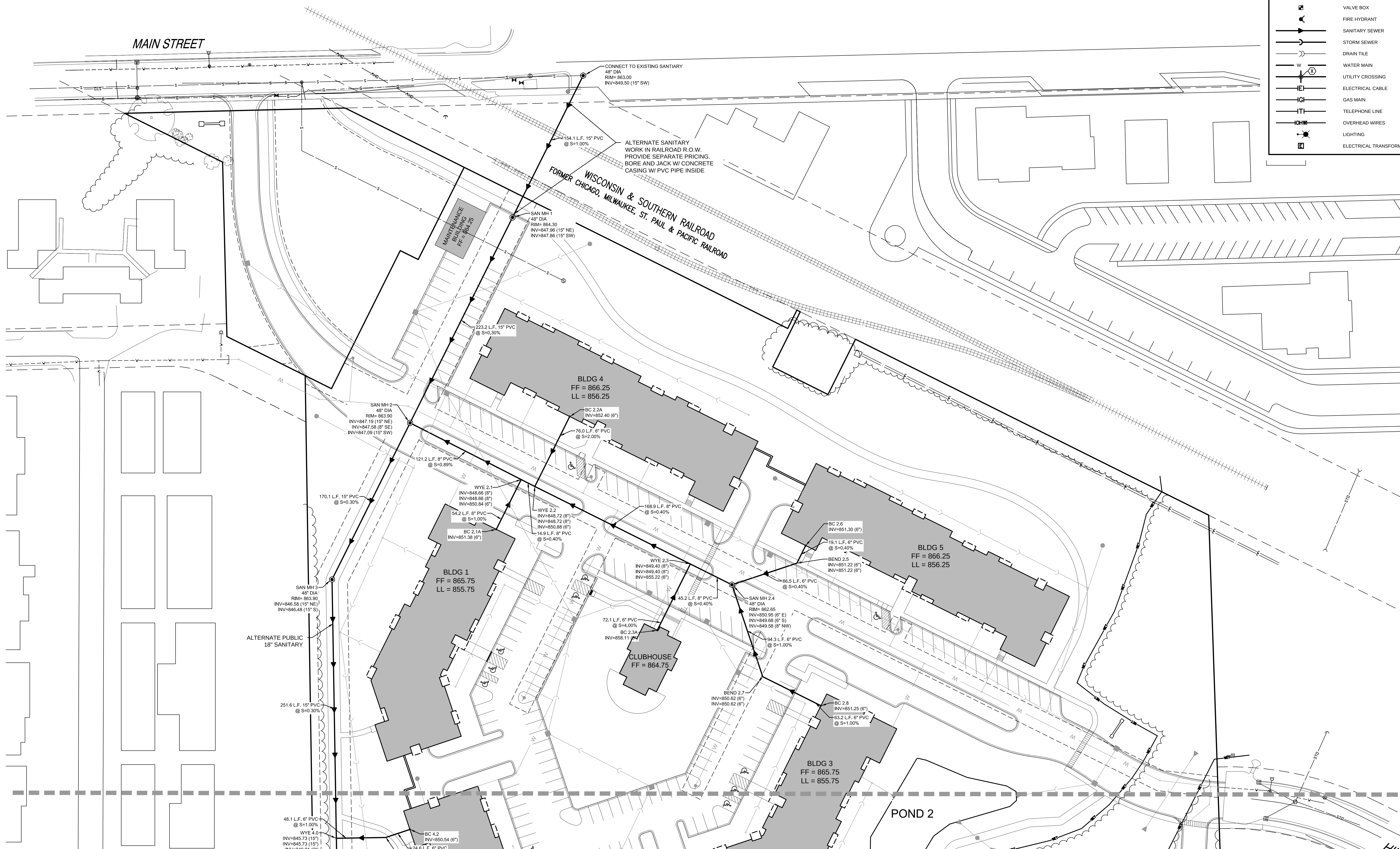
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LEGEND	
	SANITARY SEWER MANHOLE
	STORM SEWER MANHOLE
	CATCH BASIN (ROUND CASTING)
	CATCH BASIN (RECTANGULAR CASTING)
	PRECAST CONCRETE FLARED END SECTION
	VALVE BOX
	FIRE HYDRANT
	SANITARY SEWER
	STORM SEWER
	DRAIN TILE
	WATER MAIN
	UTILITY CROSSING
	ELECTRICAL CABLE
	GAS MAIN
	TELEPHONE LINE
	OVERHEAD WIRES
	LIGHTING
	ELECTRICAL TRANSFORMER OR PEDESTAL

Saxony Village

Germantown

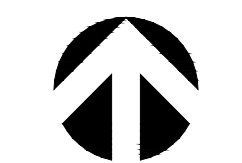
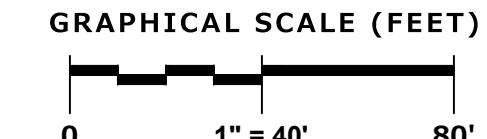
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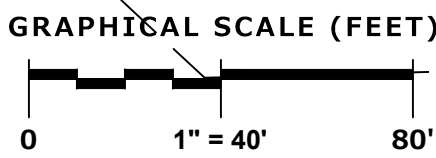
LEGEND			
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	STORM SEWER MANHOLE		WATER MAIN
	CATCH BASIN (ROUND CASTING)		UTILITY CROSSING
	CATCH BASIN (RECTANGULAR CASTING)		ELECTRICAL CABLE
	PRECAST CONCRETE FLARED END SECTION		GAS MAIN
	VALVE BOX		TELEPHONE LINE
	FIRE HYDRANT		OVERHEAD WIRES
	SANITARY SEWER		LIGHTING
	STORM SEWER		ELECTRICAL TRANSFORMER OR PEDESTAL

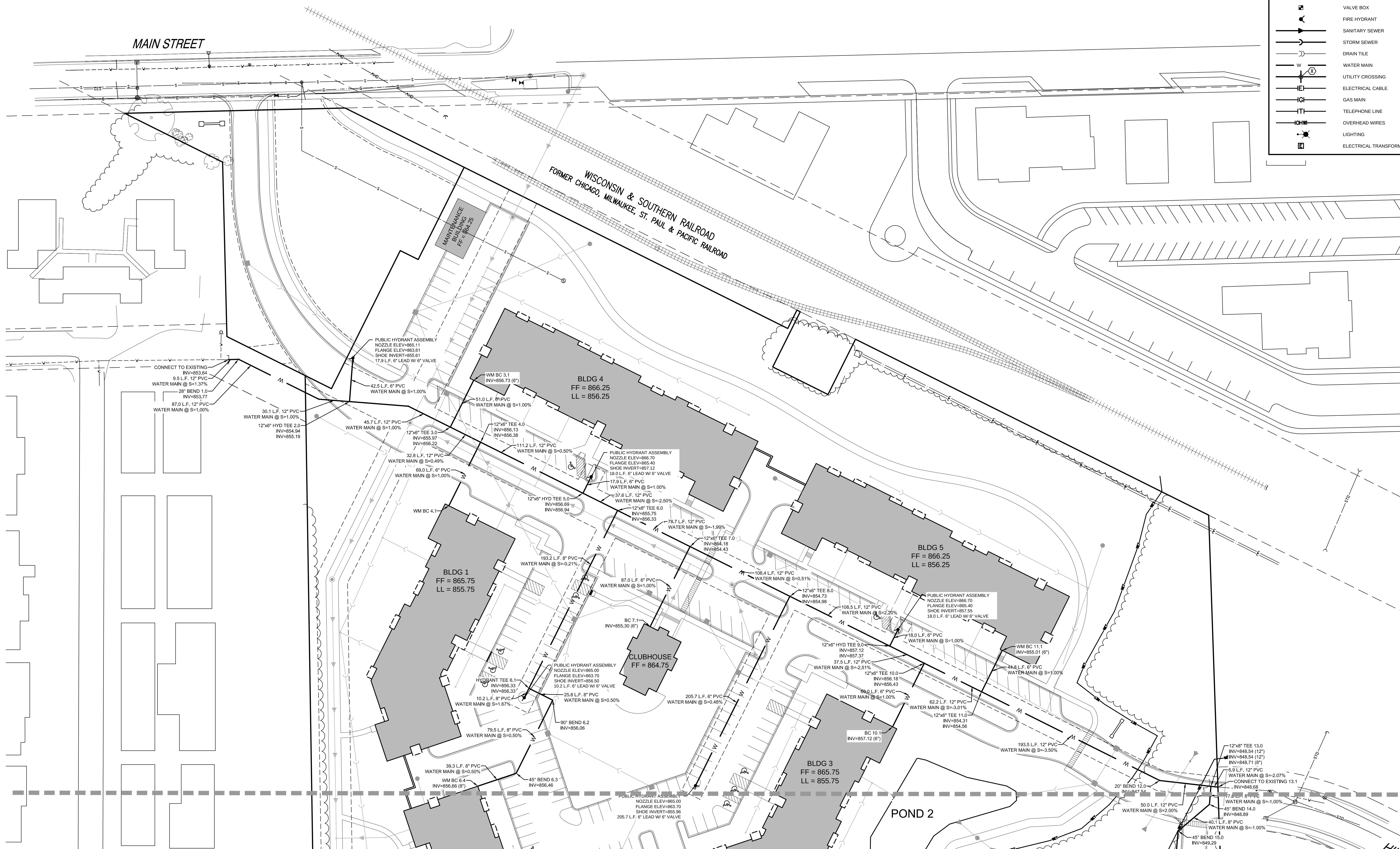


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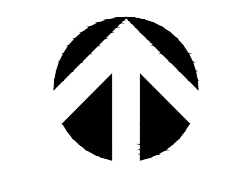
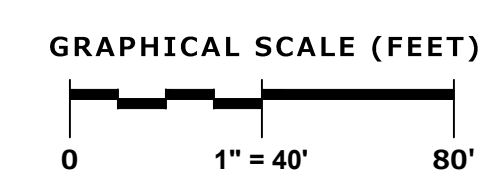


LEGEND	
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	STORM SEWER MANHOLE
	CATCH BASIN (ROUND CASTING)
	CATCH BASIN (RECTANGULAR CASTING)
	PRECAST CONCRETE FLARED END SECTION
	VALVE BOX
	FIRE HYDRANT
	SANITARY SEWER
	STORM SEWER
	DRAIN TILE
	WATER MAIN
	UTILITY CROSSING
	ELECTRICAL CABLE
	GAS MAIN
	TELEPHONE LINE
	OVERHEAD WIRES
	LIGHTING
	ELECTRICAL TRANSFORMER OR PEDESTAL



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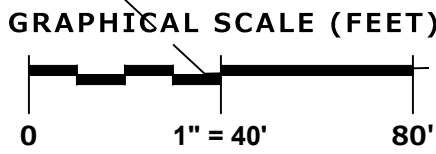
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	STORM SEWER MANHOLE		WATER MAIN
	CATCH BASIN (ROUND CASTING)		UTILITY CROSSING
	CATCH BASIN (RECTANGULAR CASTING)		ELECTRICAL CABLE
	PRECAST CONCRETE FLARED END SECTION		GAS MAIN
	VALVE BOX		TELEPHONE LINE
	FIRE HYDRANT		OVERHEAD WIRES
	SANITARY SEWER		LIGHTING
	STORM SEWER		ELECTRICAL TRANSFORMER OR PEDESTAL



WATER MAIN PLAN - SOUTH

C-12



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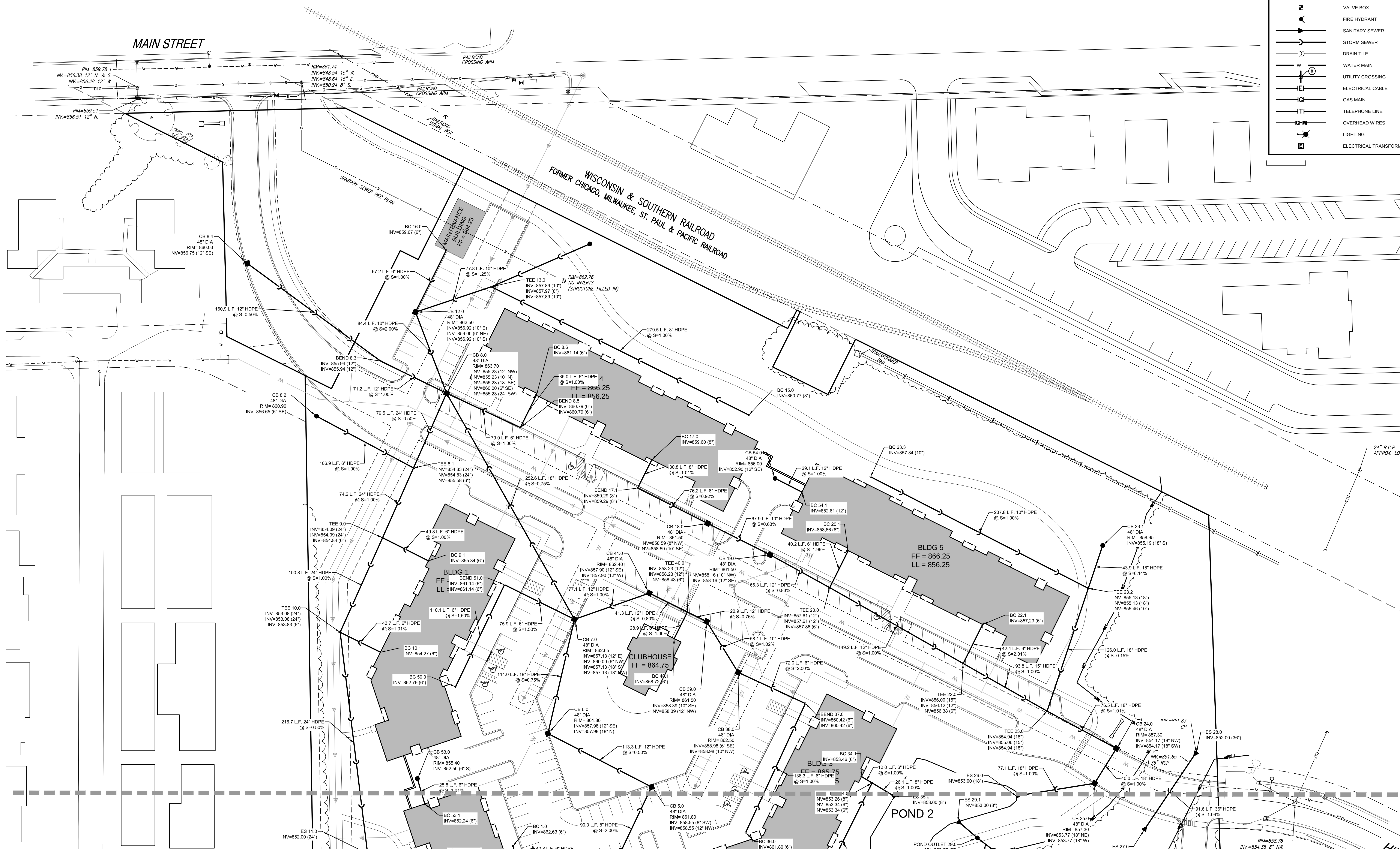
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Germantown

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LEGEND	
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	STORM SEWER MANHOLE
	CATCH BASIN (ROUND CASTING)
	CATCH BASIN (RECTANGULAR CASTING)
	PRECAST CONCRETE FLARED END SECTION
	VALVE BOX
	FIRE HYDRANT
	SANITARY SEWER
	STORM SEWER
	DRAIN TILE
	WATER MAIN
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	ELECTRICAL TRANSFORMER OR PEDESTAL

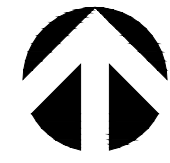
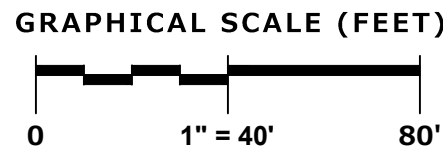


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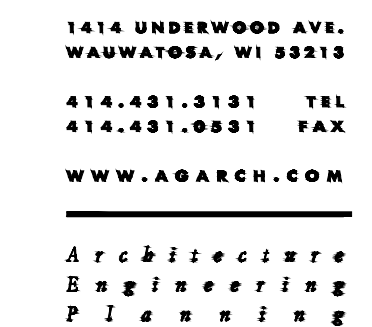
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STORM SEWER PLAN - NORTH

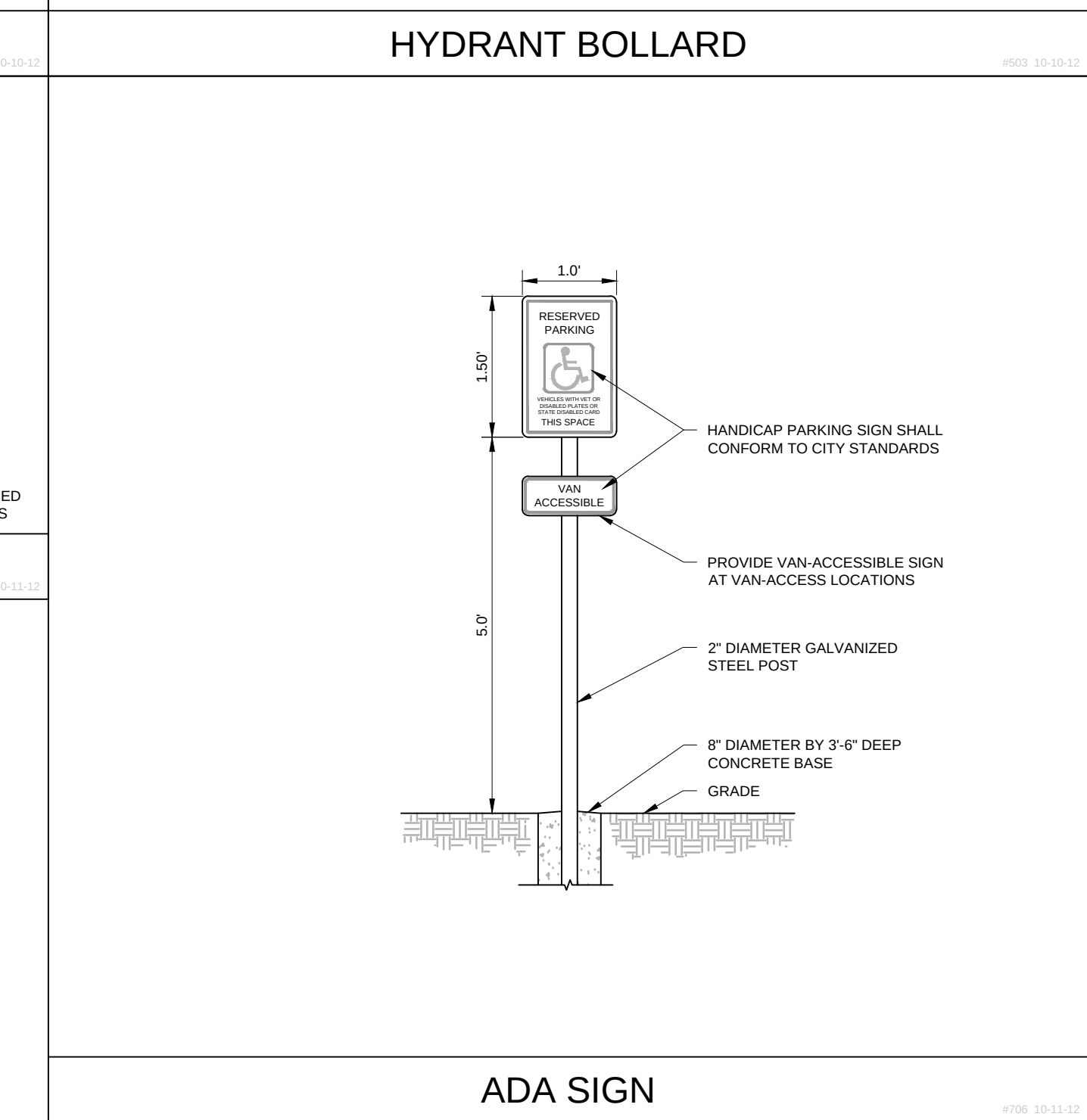
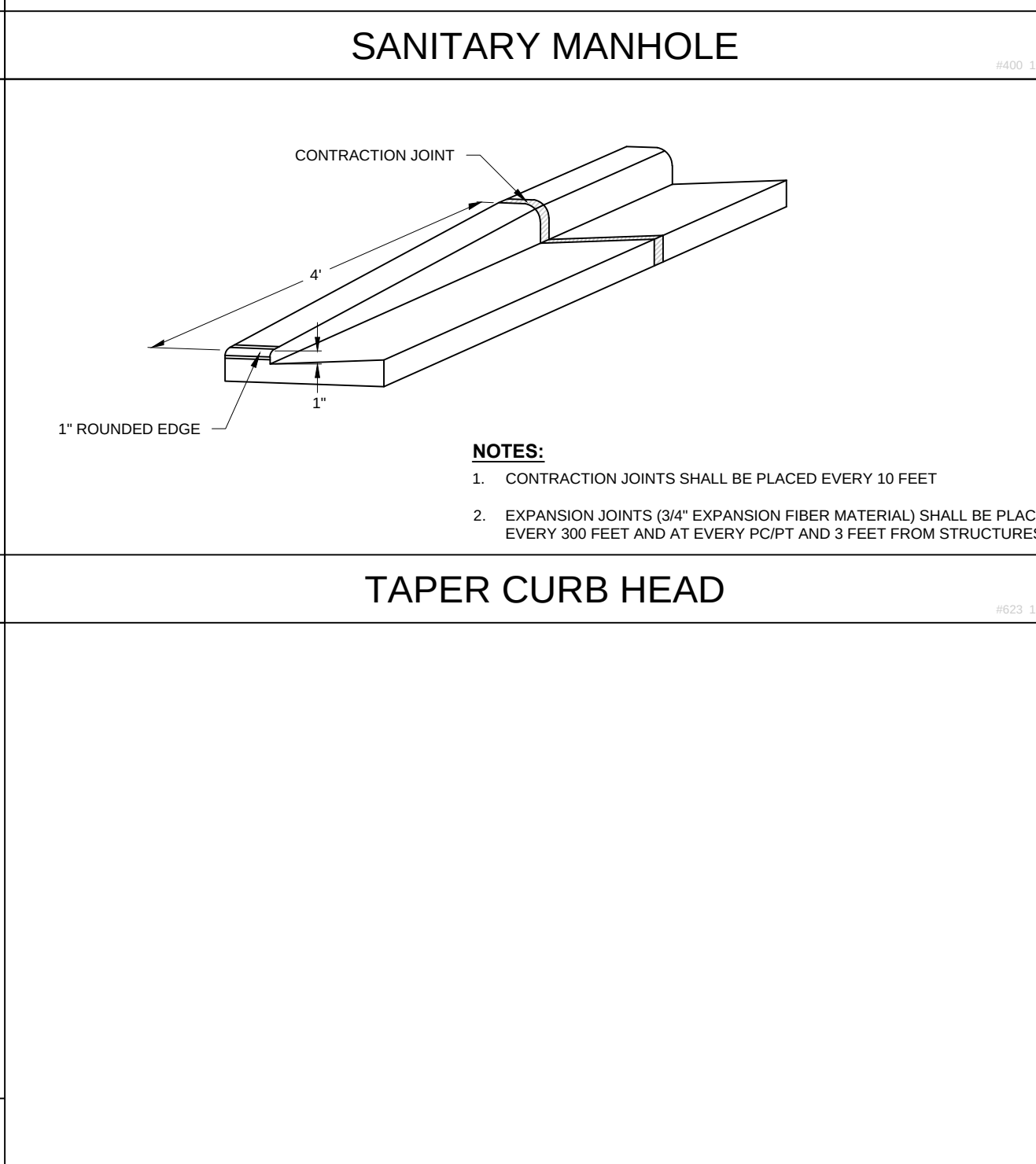
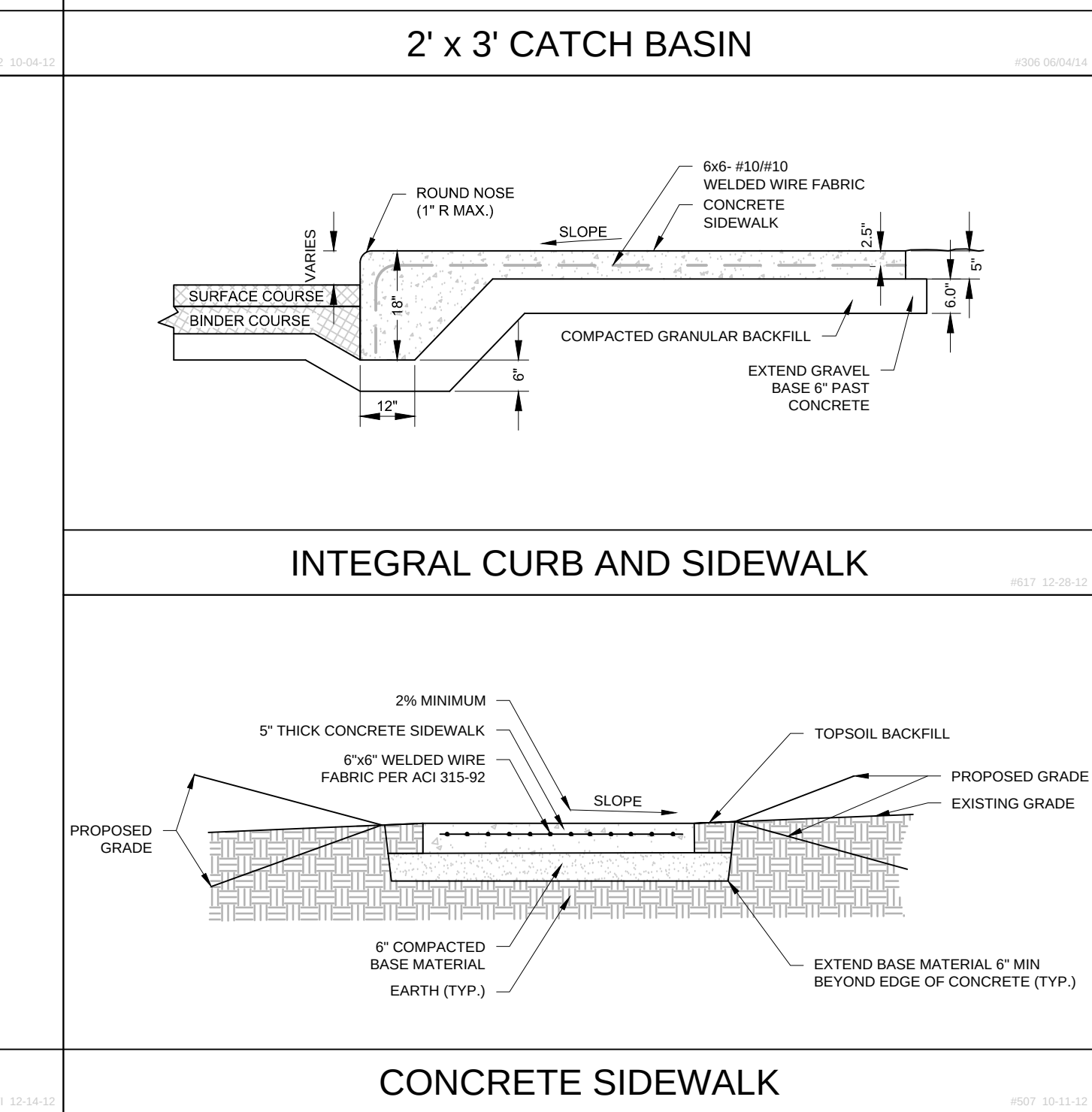
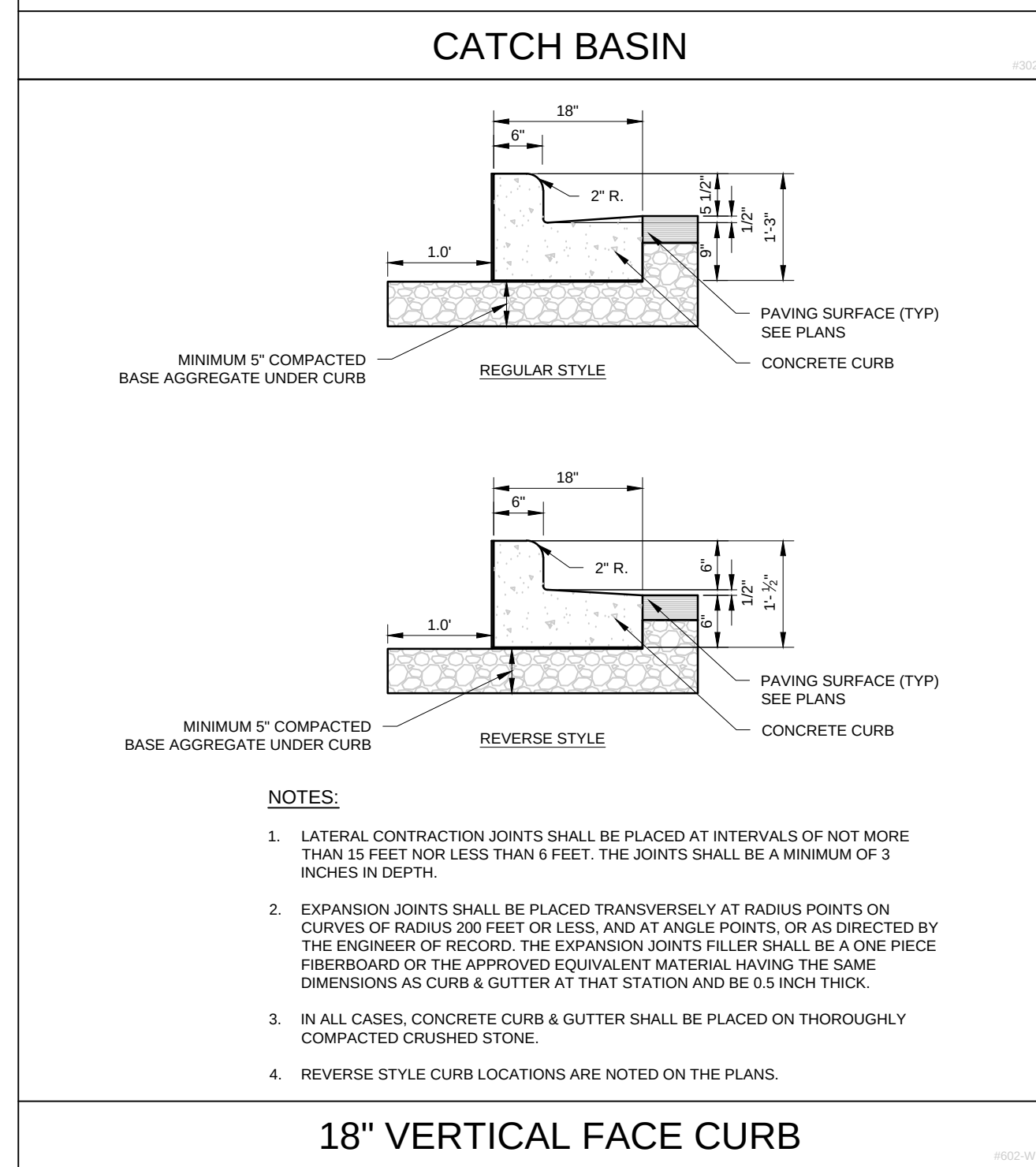
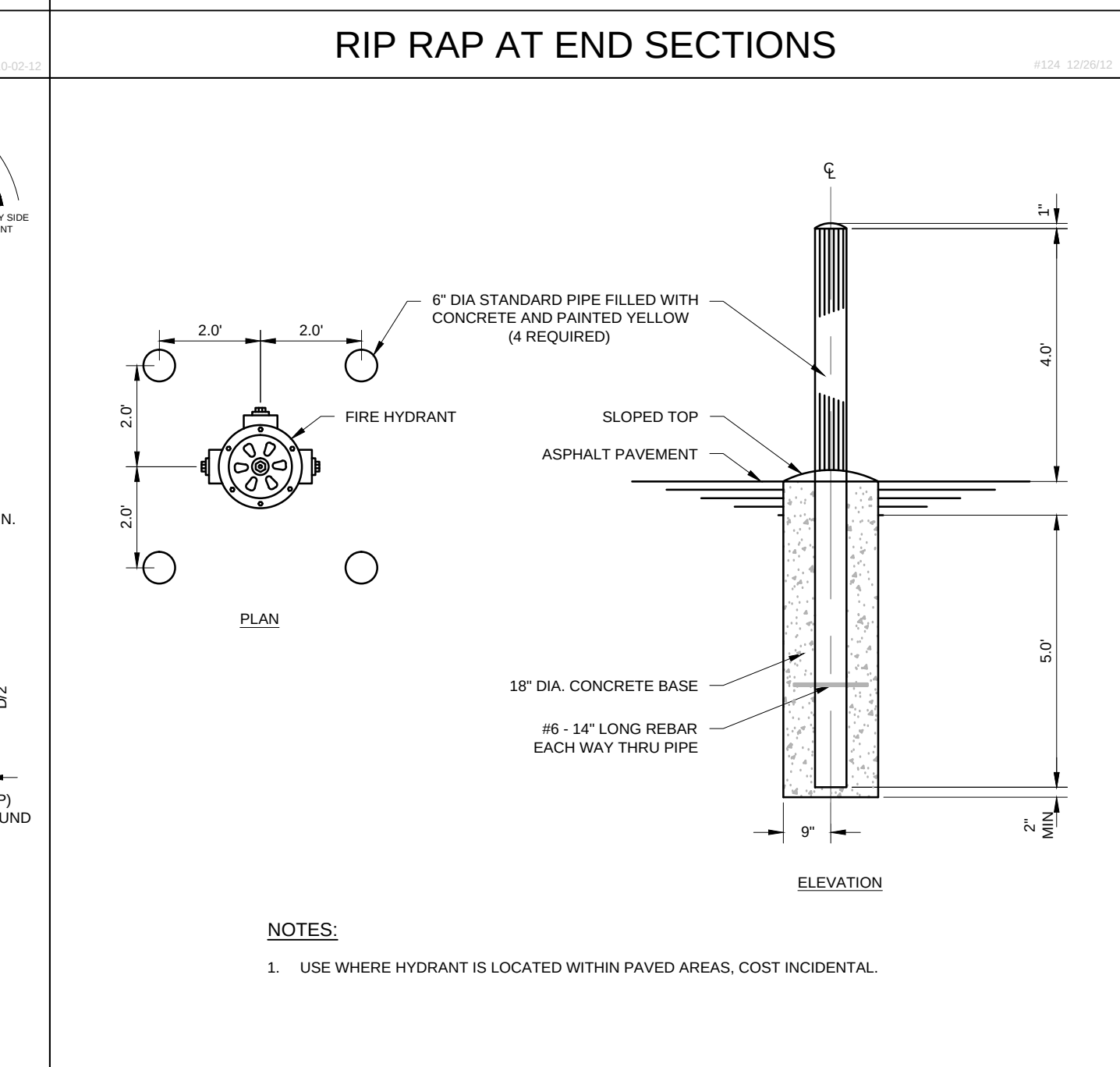
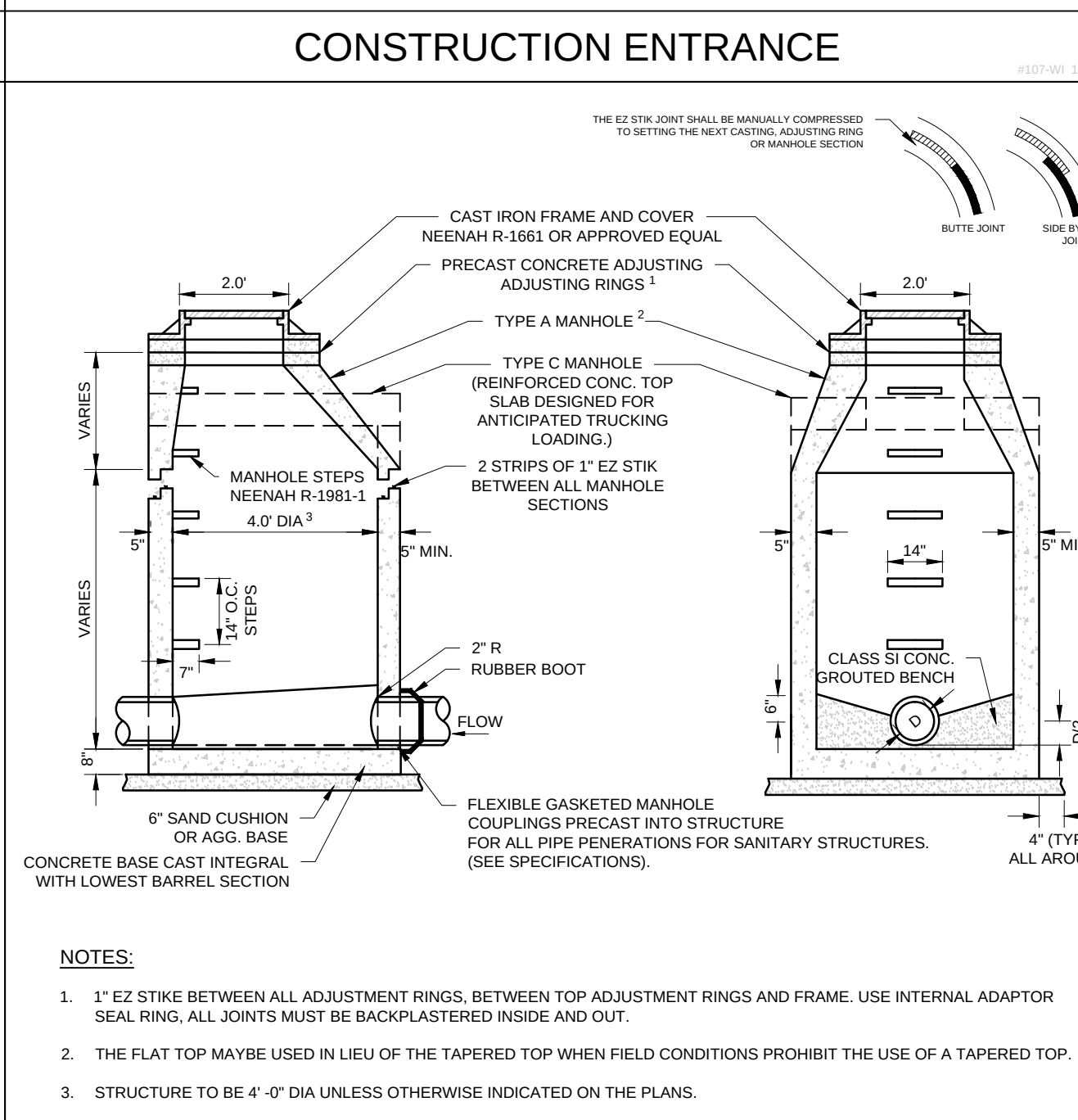
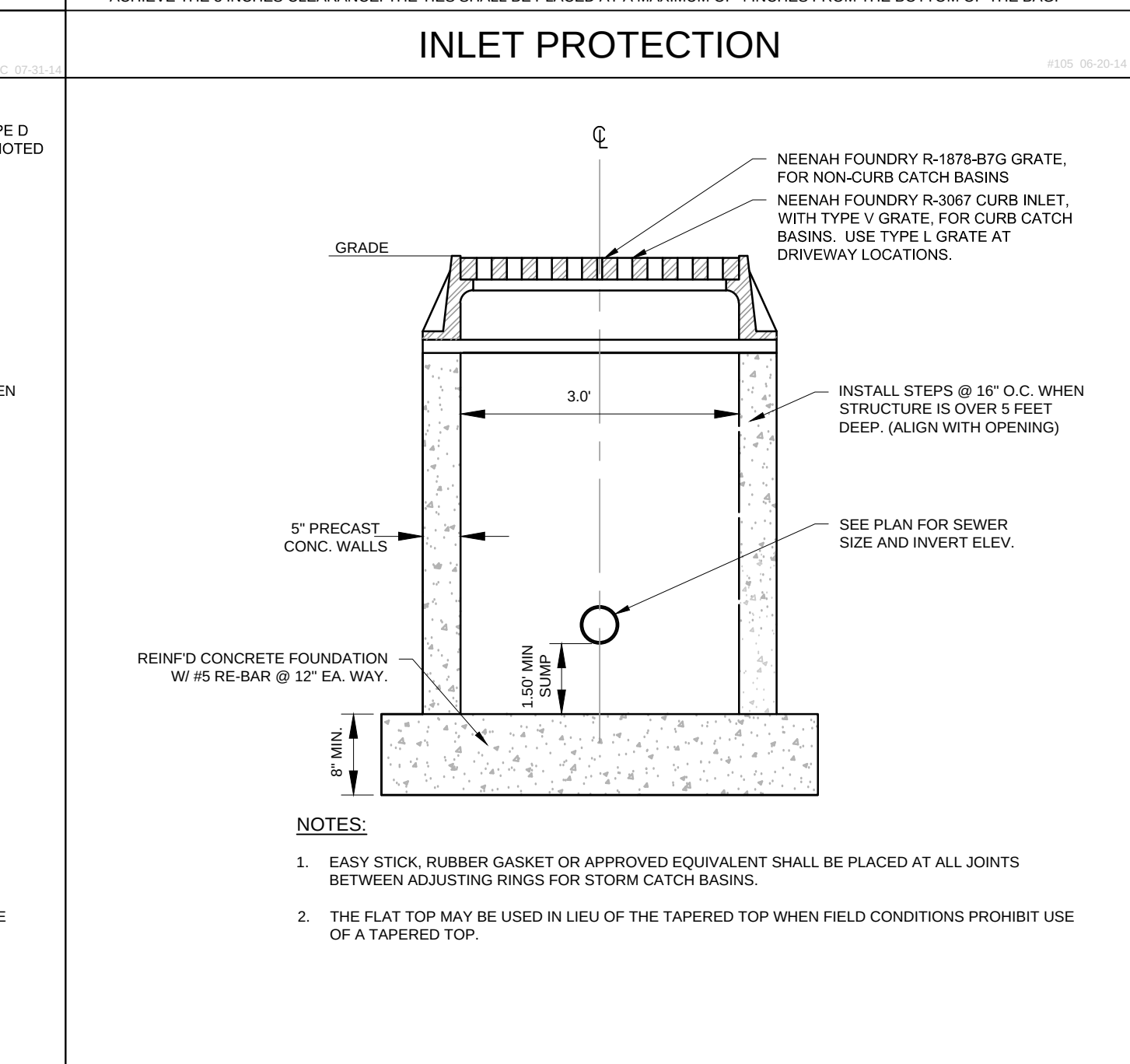
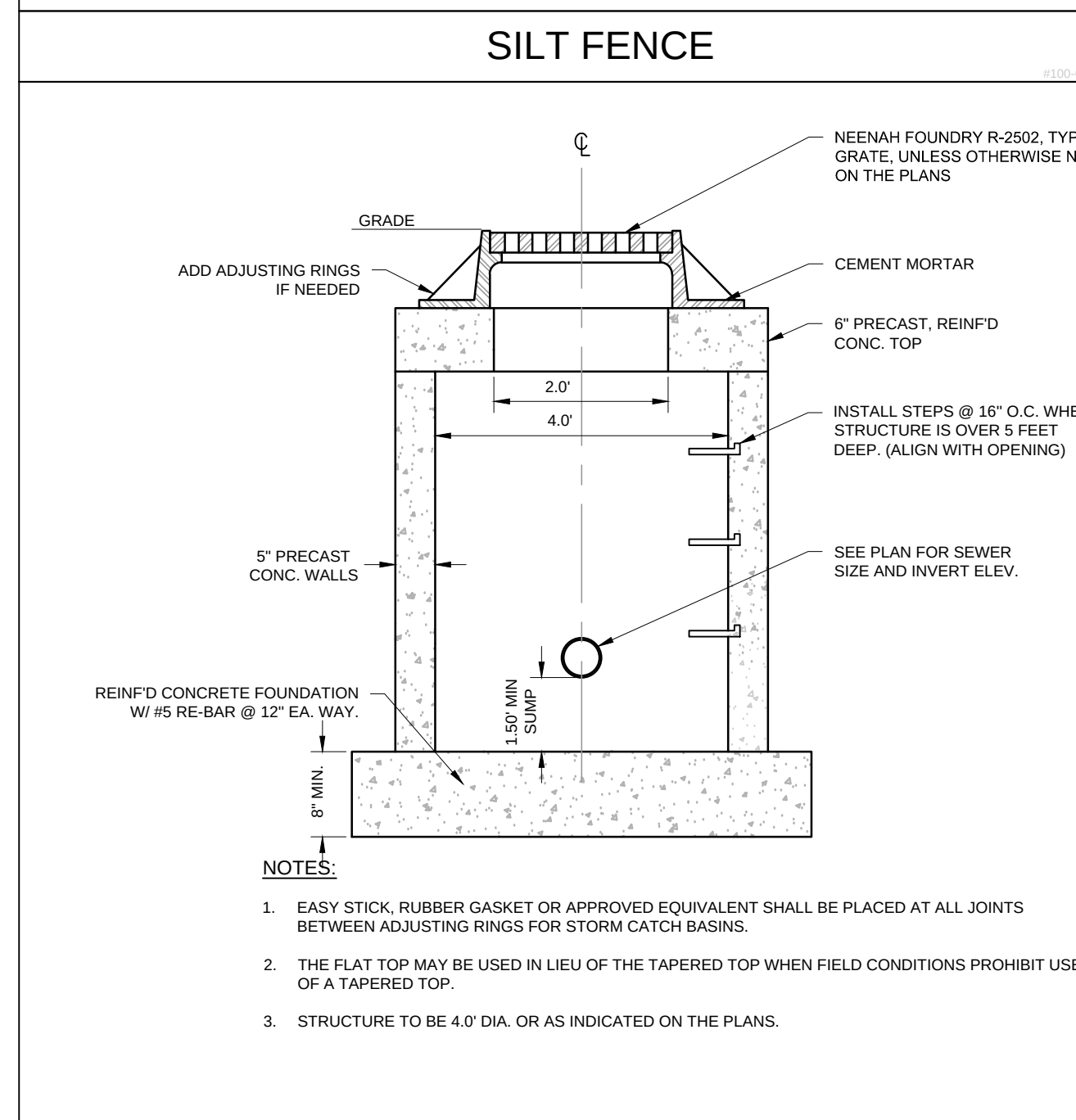
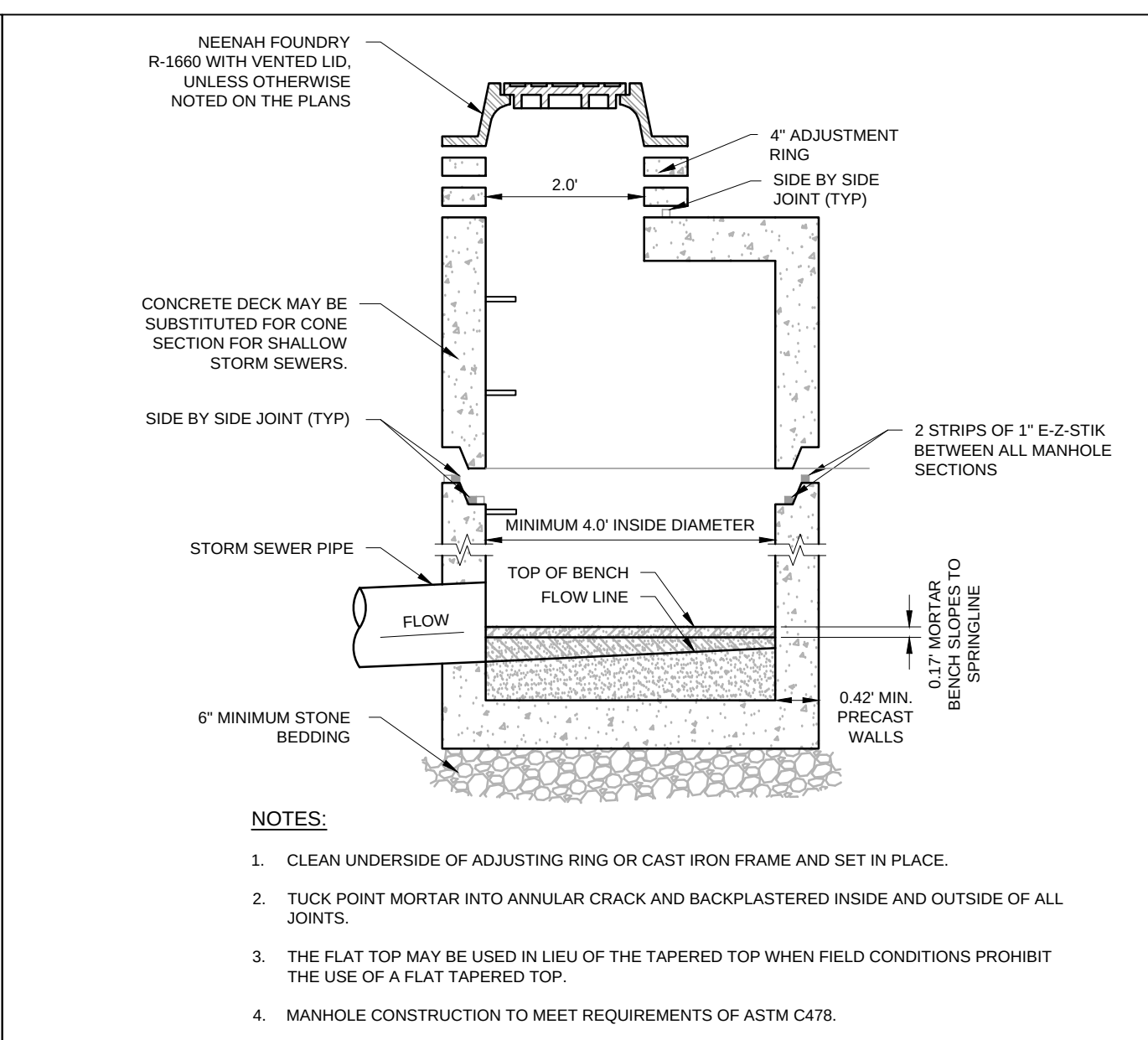
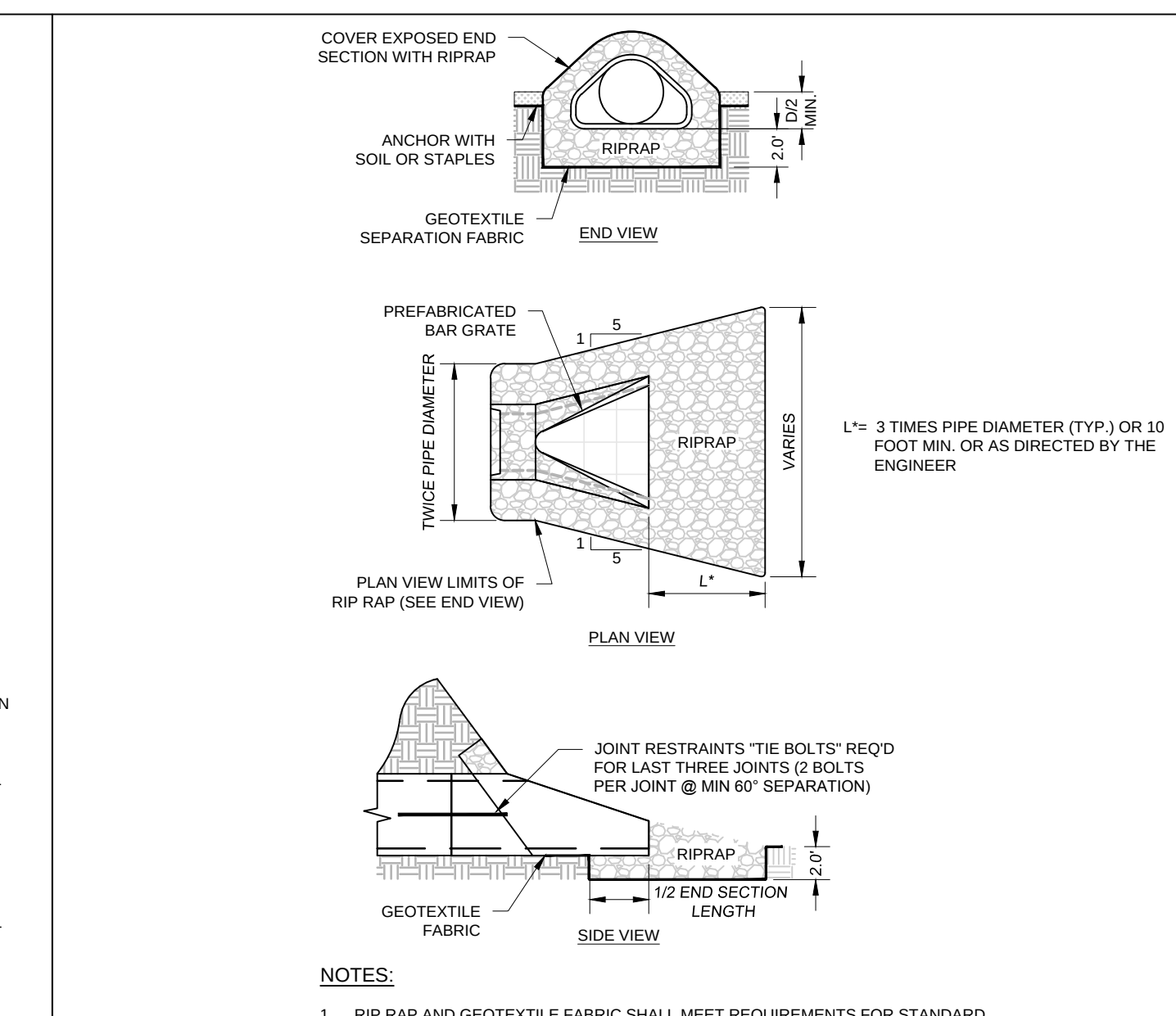
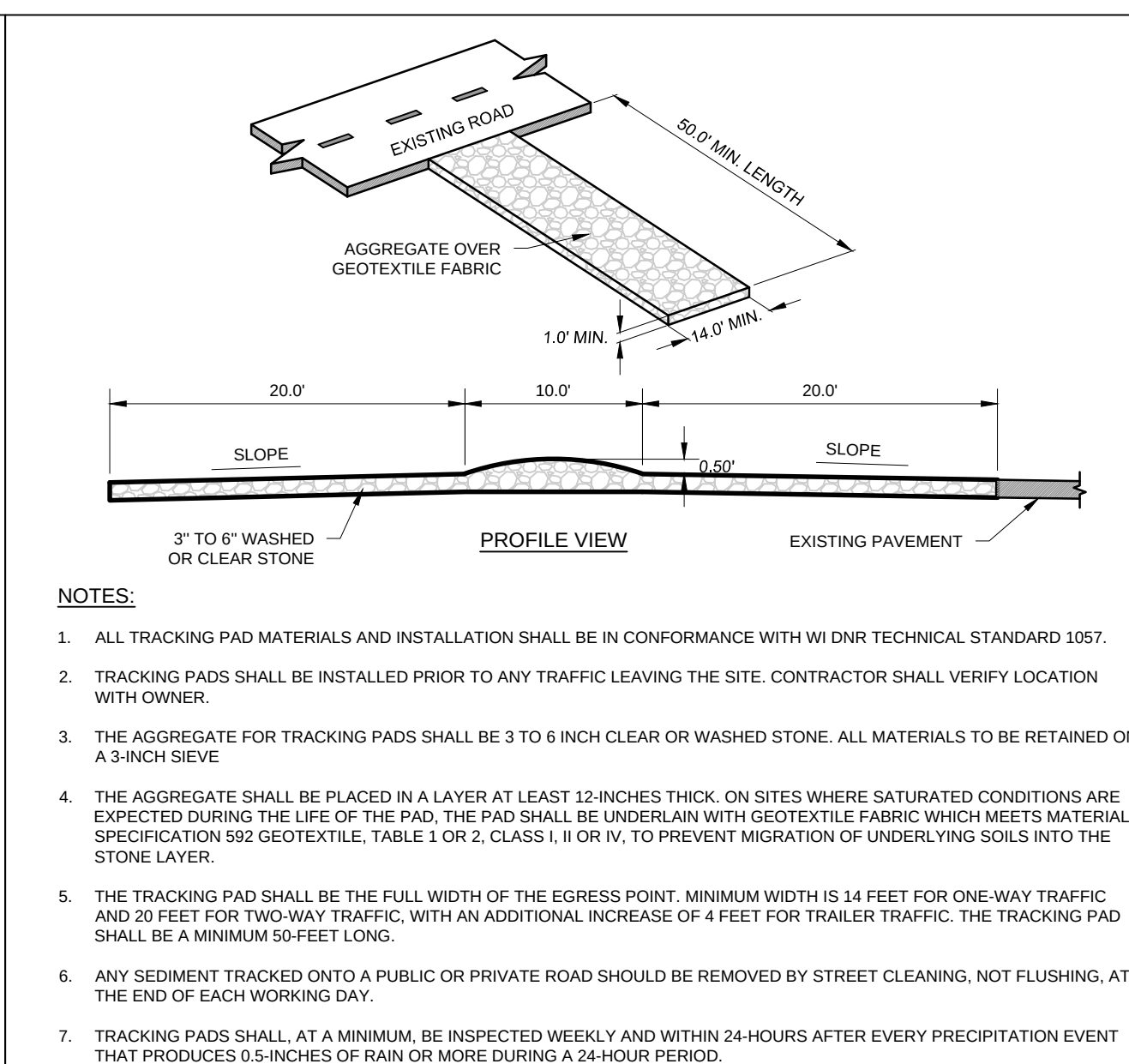
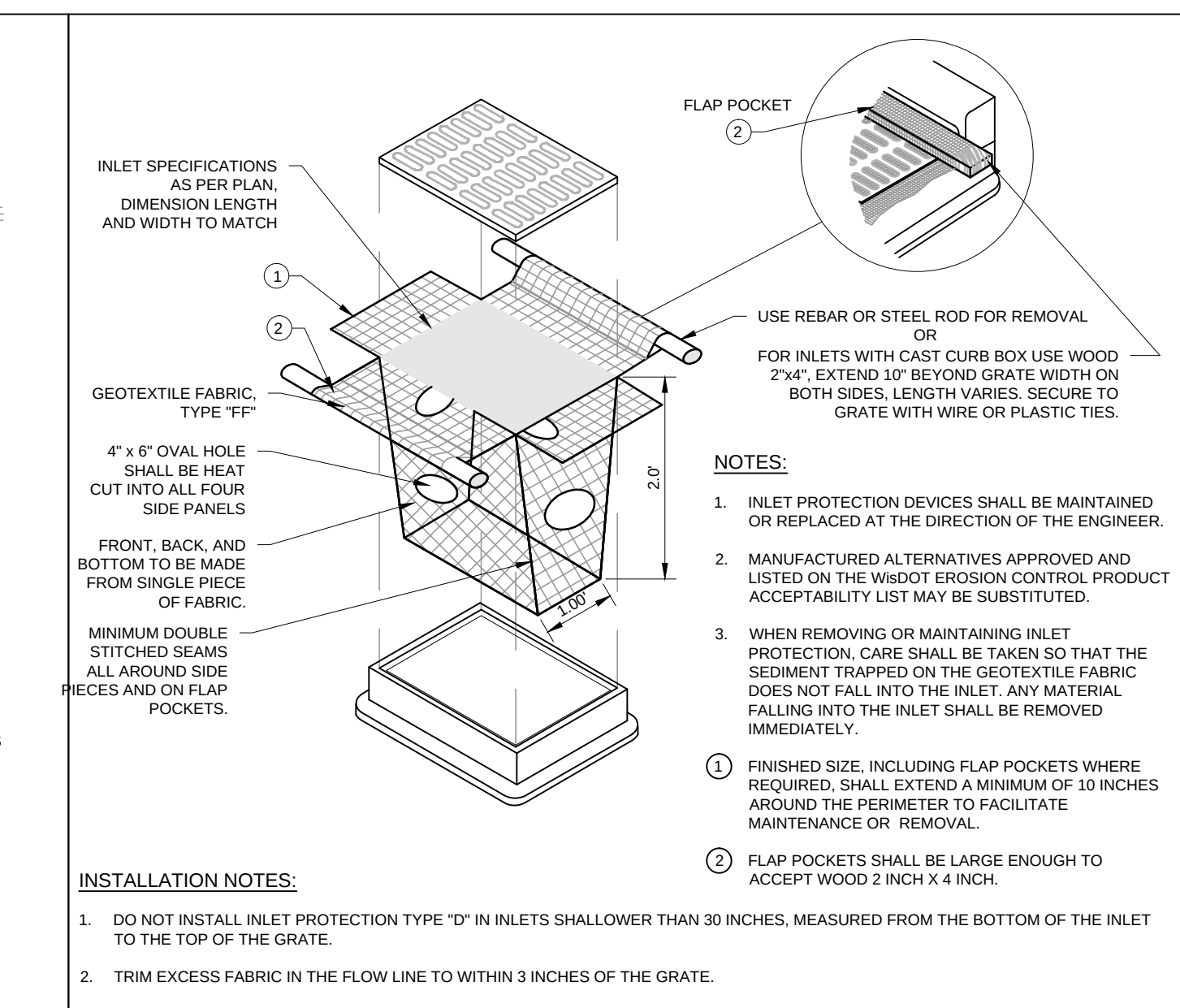
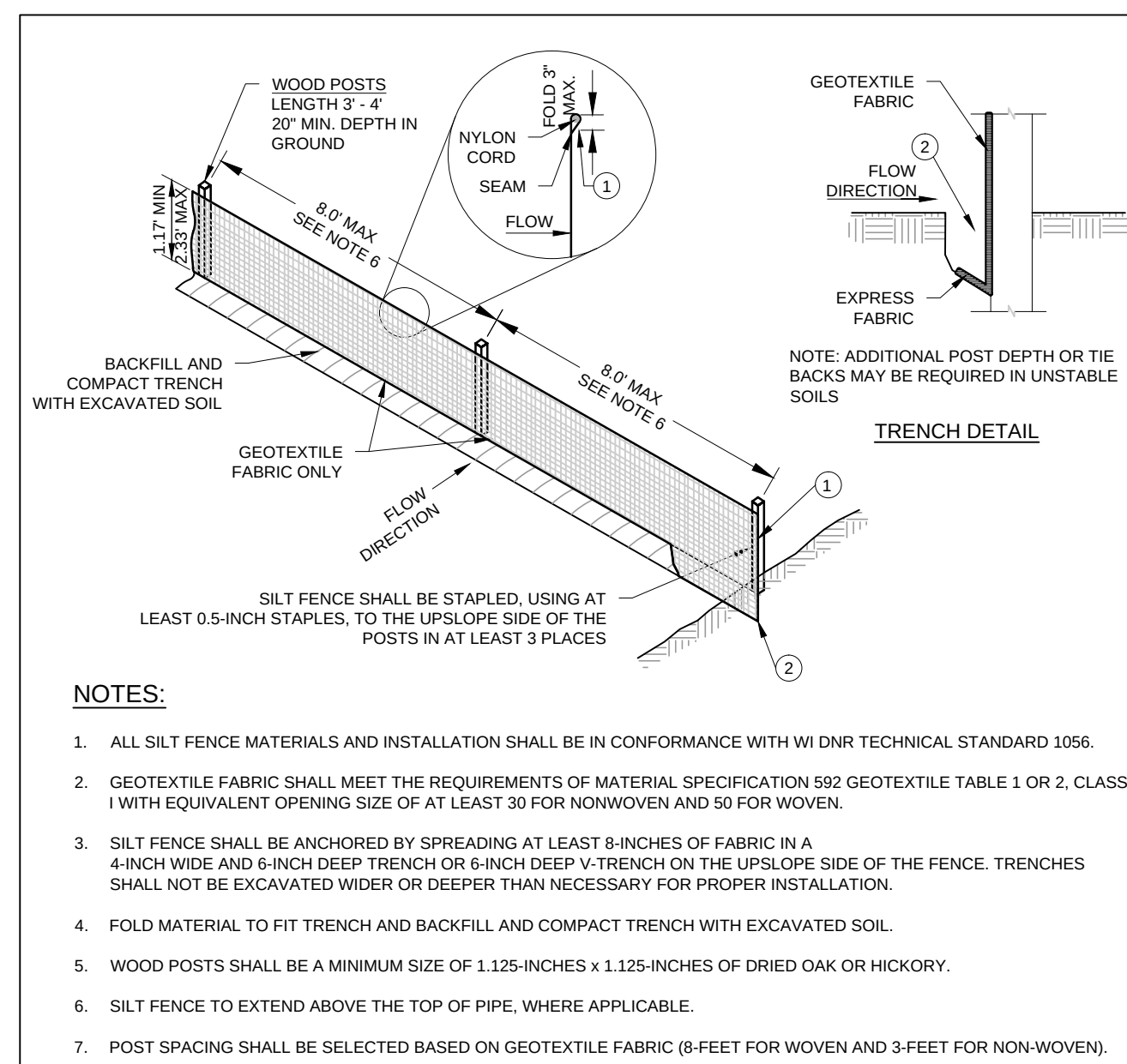


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150501

PROJECT AREA





THE PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED ACCORDING TO THE WISCONSIN D.O.T. STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION, THE STANDARD SPECIFICATIONS FOR SEWER & WATER IN WISCONSIN, AND WISCONSIN ADMINISTRATIVE CODE, SPE 360, 382-383, AND THE LOCAL ORDINANCES AND SPECIFICATIONS.

THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR EXECUTION OF THE WORK. THE CONTRACTOR SHALL CONDUCT HIS WORK ACCORDING TO THE REQUIREMENTS OF THE PERMITS.

THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE MUNICIPALITY FORTY- EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION.

THE MUNICIPALITY SHALL HAVE THE RIGHT TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION OF THE PUBLIC PORTIONS OF THE WORK. THE OWNER SHALL HAVE THE RIGHT TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION OF ALL PRIVATE PORTIONS OF THE WORK.

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

SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL UTILITY INFORMATION SHOWN ON THE PLANS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL DIGGER'S HOTLINE AT 1-800-242-8511 TO NOTIFY THE UTILITIES OF HIS INTENTIONS, AND TO REQUEST FIELD STAKING OF EXISTING UTILITIES.

SOIL FENCE AND OTHER EROSION CONTROL FACILITIES MUST BE INSTALLED PRIOR TO CONSTRUCTION OR ANY OTHER LAND DISTURBING ACTIVITY. FOLLOW THE SEQUENCE OF CONSTRUCTION ON THE EROSION CONTROL PLAN FOR MORE DETAILS. INSPECTIONS SHALL BE MADE WEEKLY OR AFTER EVERY RAINFALL OF 0.5" OR MORE. REPAIRS SHALL BE MADE IMMEDIATELY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION CONTROL FACILITIES ONCE THE THREAT OF EROSION HAS PASSED WITH THE APPROVAL OF THE GOVERNING AGENCY.

ANY ADJACENT PROPERTIES OR ROAD RIGHT-OF-WAYS WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE RESTORED BY THE CONTRACTOR.

TRASH AND DEBRIS SHALL BE NOT BE ALLOWED TO ACCUMULATE ON THIS SITE AND THE SITE SHALL BE CLEAN UPON COMPLETION OF WORK.

THE OWNER SHALL HAVE THE RIGHT TO HAVE ALL MATERIALS USED IN CONSTRUCTION TESTED FOR COMPLIANCE WITH THESE SPECIFICATIONS.

THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE COMPUTATIONS OF ALL GRADING AND FOR ACTUAL LAND BALANCE, INCLUDING UTILITY TRENCH SPOIL. THE CONTRACTOR SHALL IMPORT OR EXPORT MATERIAL AS NECESSARY TO MAINTAIN THE PROPOSED ELEVATIONS AND TO MAINTAIN THE PROPOSED SLOPES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND SHALL COORDINATE WITH OWNER.

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING SOIL CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. A GEOTECHNICAL REPORT MAY BE AVAILABLE FROM THE OWNER.

SITE SHALL BE CLEARED TO THE LIMITS SHOWN ON THE PLANS. REMOVE VEGETATION FROM THE SITE. BURNING IS NOT PERMITTED. PROTECT TREES AND OTHER FEATURES FROM DAMAGE WITH FENCING. STOCKPILES SHALL NOT BE LOCATED CLOSER THAN 25' TO A DRAINAGE STRUCTURE OR FEATURE AND SHALL BE SURROUNDED WITH SILT FENCE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING COMPACTING AND FILL PLACEMENT IN THE FIELD. THE GEOTECHNICAL ENGINEER MAY SUPERCEDE THESE SPECIFICATIONS IF THERE IS GOOD CAUSE TO DO SO. AN EXPLANATION MUST BE SUBMITTED TO THE ENGINEER AND OWNER.

IF NO GEOTECHNICAL RECOMMENDATION IS AVAILABLE, THEN THE FOLLOWING SPECIFICATIONS SHALL APPLY. ALL FILL SHALL BE CONSIDERED STRUCTURAL FILL AND SHALL BE SPECIFIED IN ACCORDANCE WITH THE FOLLOWING. THE COMPACTED FILL SUPERGRADE SHALL CONSIST OF AND SHALL BE UNDERLAIN BY SUITABLE BEARING MATERIALS, FREE OF ALL ORGANIC, FROZEN OR OTHER DELETERIOUS MATERIAL AND INSPECTED AND APPROVED BY THE RESIDENT GEOTECHNICAL ENGINEER.

PREPARATION OF THE SUBGRADE, AFTER STRIPPING, SHALL CONSIST OF PROOF-ROLLING TO DETECT UNSTABLE AREAS THAT MIGHT BE UNDERCUT, AND COMPACTING THE SCARIFIED SURFACE TO THE SAME MINIMUM DENSITY INDICATED BELOW.

THE SUBGRADE SHALL BE PROOF-ROLLED TO A MINIMUM OF 10% MOISTURE AND SHALL HAVE A MAXIMUM LIQUID LIMIT (ASTM D-4253) AND PLASTICITY INDEX (ASTM D-424) IF 10 AND 10. RESPECTIVELY.

SPECIFICALLY TESTED AND FOUND TO HAVE LOW EXPANSIVE PROPERTIES AND APPROVED BY AN EXPERIENCED SOILS ENGINEER. THE TOP TWELVE (12) INCHES OF COMPACTED FILL SHOULD HAVE A MAXIMUM THREE (3) INCH PARTICLE DIAMETER AND ALL UNDERLYING COMPACTED FILL A MAXIMUM SIX (6) INCH PARTICLE DIAMETER UNLESS SPECIFICALLY APPROVED BY AN EXPERIENCED SOILS ENGINEER. ALL FILL MATERIAL MUST BE TESTED AND APPROVED UNDER THE DIRECTION AND SUPERVISION OF THE ENGINEER PRIOR TO PLACEMENT. IF THE FILL IS TO PROVIDE NONPROST SUSCEPTIBLE CHARACTERISTICS, IT MUST BE CLASSIFIED AS A CLEAN GW, GP, SW OR SP PER UNITED SOIL CLASSIFICATION SYSTEM (ASTM D-2487) FOR STRUCTURAL FILL. THE DENSITY OF THE STRUCTURAL COMPACTED FILL AND SCARIFIED SUBGRADE AND GRADES SHALL NOT BE LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST (ASTM D-1557). THE DENSITY OF THE SUBGRADE SHALL BE 95 PERCENT OF THE MAXIMUM DRY DENSITY OF THE SUBGRADE. THE DENSITY OF THE SUBGRADE SHALL BE 95 PERCENT OF THE MAXIMUM DRY DENSITY OF THE SUBGRADE. THE DENSITY OF THE SUBGRADE SHALL BE 95 PERCENT OF THE MAXIMUM DRY DENSITY OF THE SUBGRADE.

THE MOISTURE CONTENT OF COHESIVE SOIL SHALL NOT VARY BY MORE THAN -1 TO +3 PERCENT AND GRANULAR SOIL 1/3 PERCENT OF OPTIMUM WHEN PLACED AND COMPACTED OR RECOMPACTED, UNLESS SPECIFICALLY APPROVED BY THE SOILS ENGINEER TAKING INTO CONSIDERATION THE TYPE OF MATERIALS AND COMPACTATION EQUIPMENT BEING USED. THE COMPACTATION EQUIPMENT SHOULD CONSIST OF SUITABLE MECHANICAL EQUIPMENT SPECIFICALLY DESIGNED FOR SOIL COMPACTATION. THE EQUIPMENT SHOULD BE CAPABLE OF APPLYING A MINIMUM OF 1000 PSI OF PRESSURE TO THE SUBGRADE. THE EQUIPMENT SHOULD BE CAPABLE OF APPLYING A MINIMUM OF 1000 PSI OF PRESSURE TO THE SUBGRADE.

HARROWING OR PULVERIZING MAY BE NECESSARY TO REDUCE THE MOISTURE CONTENT TO A SATISFACTORY VALUE. AFTER WHICH IT SHALL BE COMPACTED. THE FINISHED SUBGRADE AREAS OF THE SITE SHALL BE COMPACTED TO 100 PERCENT OF THE STANDARD PROCTOR (ASTM D-398) MAXIMUM DENSITY.

NO FILL SHALL BE PLACED ON A WET OR SOFT SUBGRADE. THE SUBGRADE SHALL BE PROOF-ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER BEFORE ANY MATERIAL IS PLACED.

MINIMUM TOLERANCES ARE: -1" FOR LANDSCAPE AREAS AND +1/2" FOR ALL PAVEMENT AND BUILDING AREAS.

TOPSOIL SHALL BE FREE OF DELETERIOUS MATERIALS, ROOTS, OLD VEGETATION, ROCKS OVER 2" DIAMETER AND SHALL NOT BE EXCESSIVELY CLAYEY IN NATURE. NO CLUMPS LARGER THAN 4" ARE ACCEPTABLE. TOPSOIL MAY BE AMENDED AS NEEDED WITH SAND OR COMPOST TO ELIMINATE WHEN SPREAD.

THE CONTRACTOR SHALL MAINTAIN SITE DRAINAGE THROUGHOUT CONSTRUCTION. THIS MAY INCLUDE THE EXCAVATION OF TEMPORARY DITCHES OR PUMPING TO ALLEViate WATER PONDING. ANY DRAINAGE SHALL NOT GO DIRECTLY TO STREAMS, CREEKS, WETLANDS OR OTHER ENVIRONMENTALLY SENSITIVE AREAS WITHOUT BEING TREATED FIRST. A DIRT BAG OR OTHER DRAINAGE TREATMENT DEVICE MAY BE USED TO CAPTURE SEDIMENT FROM THE PUMPED WATER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND SHALL COORDINATE WITH THE REQUIREMENT OF THE MUNICIPALITY OR OTHER APPROPRIATE GOVERNMENT AGENCIES. IN THE EVENT THIS OCCURS, THE ROADWAYS SHALL BE POWER SUPPLIED IMMEDIATELY AND ALL SEDIMENT REMOVED FROM DOWNSTREAM FACILITIES.

MATting SHALL BE AS FOLLOWS:

- CLASS I: SHORT TERM DURATION (MINIMUM OF 6 MONTHS)
 - 1. TYPE A: USE ON ERODIBLE SLOPES 2.5:1 OR FLATTER
 - 2. URBAN, TYPE B: DOUBLE NETTED PRODUCT ON ERODIBLE SLOPES 2:1 OR FLATTER
- CLASS I, URBAN: SHORT TERM DURATION (MIN. OF 6 MONTHS), LIGHT DUTY, ORGANIC EROSION CONTROL MAT FOR AREAS WHERE MOVING MAY BE ACCOMPLISHED WITHIN TOW WEEKS AFTER INSTALLATION
 - 1. URBAN, TYPE A: USE ON ERODIBLE SOILS WITH SLOPES 4:1 OR FLATTER
 - 2. URBAN, TYPE B: DOUBLE NETTED PRODUCT FOR USE ON SLOPES 2.5:1 OR FLATTER
- CLASS II: LONG TERM DURATION (3 YEARS OR GREATER), ORGANIC EROSIONAL CONTROL, REVEGETATION MAT
 - 1. TYPE A: JUSTE FIBER ONLY FOR USE ON SLOPES 2:1 OR FLATTER FOR SOD REINFORCEMENT
 - 2. TYPE B: FOR USE ON SLOPES 2:1 OR GREATER MADE WITH PLASTIC OR BIODEGRADABLE NET
 - 3. TYPE C: A WOVEN MAT OF 100% ORGANIC FIBERS FOR USE ON SLOPES 2:1 OR FLATTER AND IN ENVIRONMENTALLY SENSITIVE AREAS WHERE PLASTIC NETTING IS INAPPROPRIATE
- CLASS III: PERMANENT 100% SYNTHETIC ECRM OR TRM, EITHER A SOIL STABILIZER TYPE A OR CLASS I, TYPE A OR B EROSION MAT MUST BE PLACED OVER THE SOIL FILLED TRM
 - 1. TYPE A: ECRM FOR USE ON SLOPES 2:1 OR FLATTER
 - 2. TYPE B OR C: TRM FOR USE ON SLOPES 2:1 OR FLATTER
 - 3. TYPE D: TRM FOR USE ON SLOPES 1:1 OR FLATTER

CLASS I: SHORT TERM DURATION (MINIMUM OF 6 MONTHS), LIGHT DUTY, ORGANIC ECRM WITH PLASTIC OR BIODEGRADABLE NETTING

- 1. TYPE A: ONLY SUITABLE FOR SLOPE APPLICATIONS, NOT CHANNEL APPLICATIONS
- 2. TYPE B: DOUBLE NETTED PRODUCT FOR USE IN CHANNELS WHERE THE CALCULATED (DESIGN) SHEAR STRESS IS 1.5 LBS/FT² OR LESS

CLASS II: LONG TERM DURATION (3 YEARS OR GREATER), ORGANIC ECRM

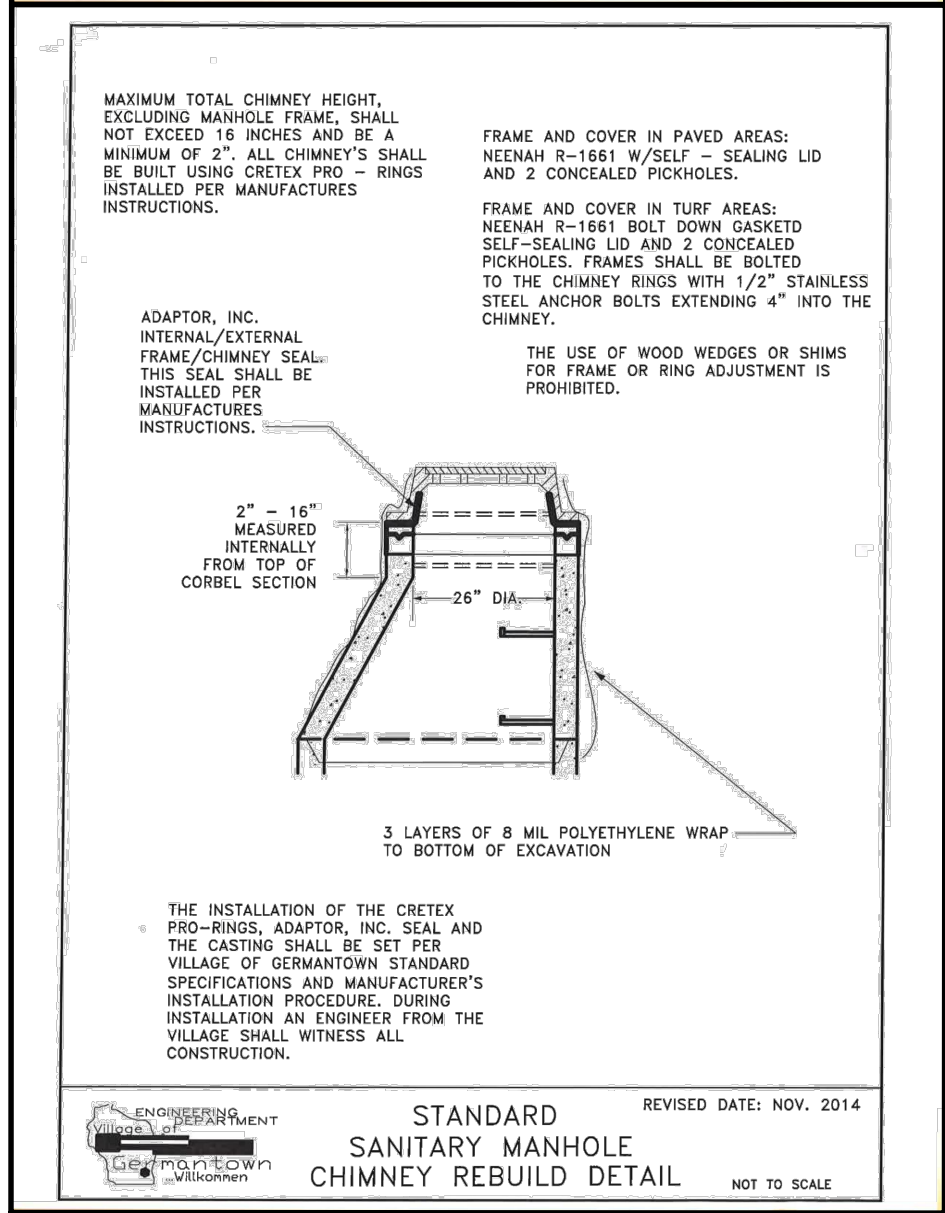
- 1. TYPE A: JUTE FIBER ONLY FOR USE IN CHANNELS TO REINFORCE SOD
- 2. TYPE B: FOR USE IN CHANNELS WHERE THE CALCULATED (DESIGN) SHEAR STRESS IS 2.0 LBS/FT² OR LESS. MADE WITH PLASTIC OR BIODEGRADABLE MAT
- 3. TYPE C: WOVEN MAT OF 100% ORGANIC MATERIAL FOR USE IN CHANNELS WHERE THE CALCULATED (DESIGN) SHEAR STRESS IS 2.0 LBS/FT² OR LESS. APPLICABLE FOR USE IN ENVIRONMENTALLY SENSITIVE AREAS WHERE PLASTIC NETTING IS INAPPROPRIATE

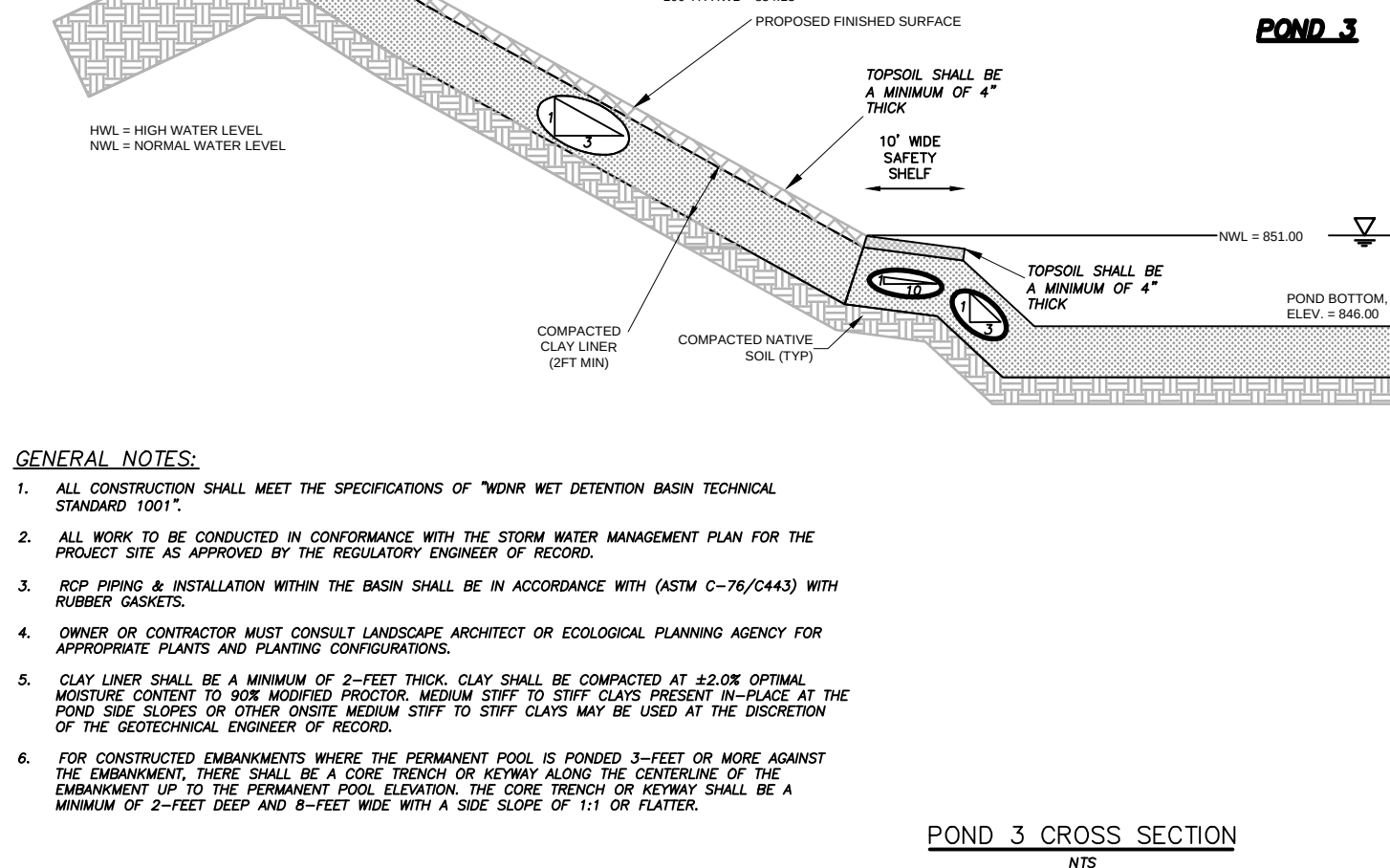
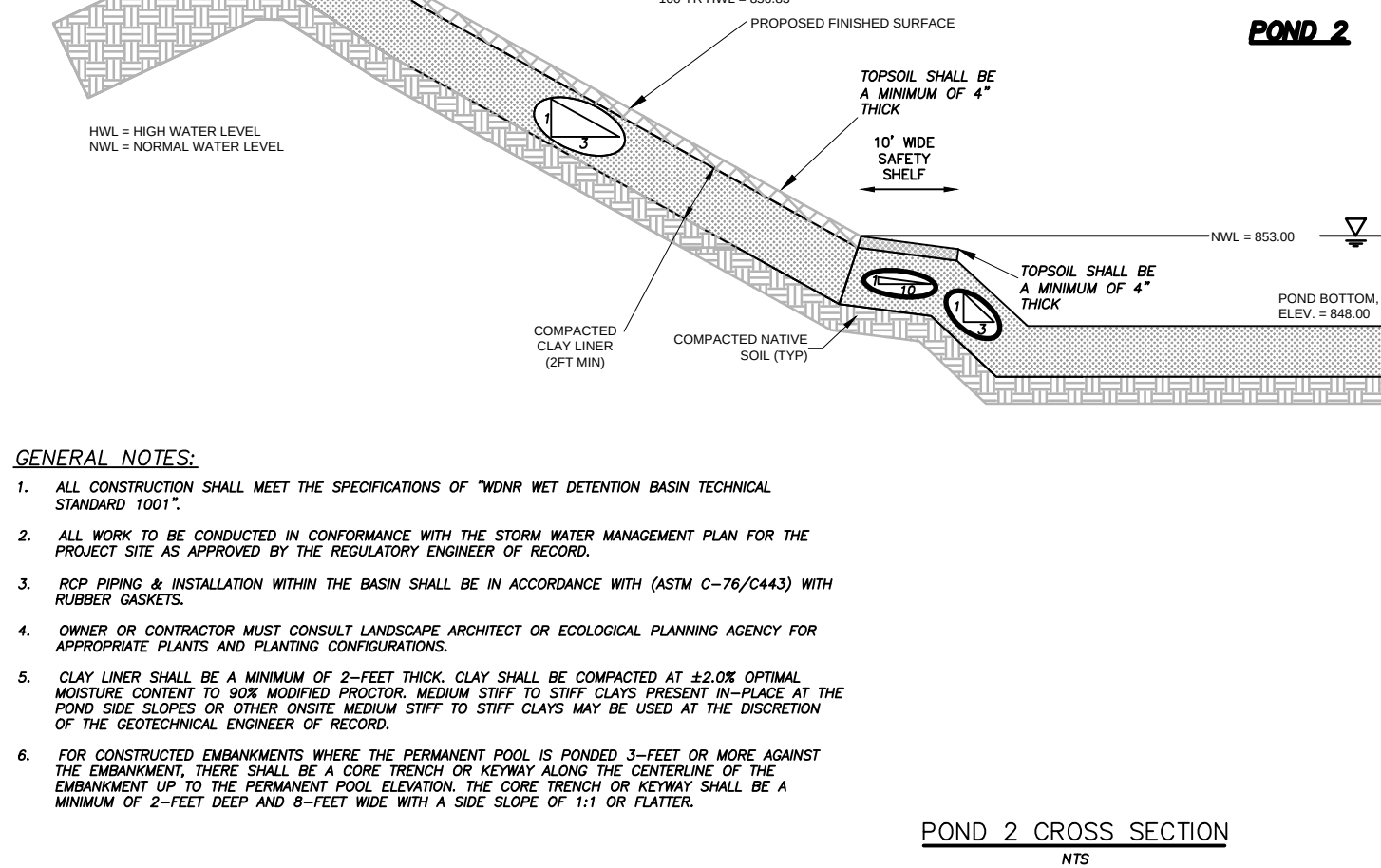
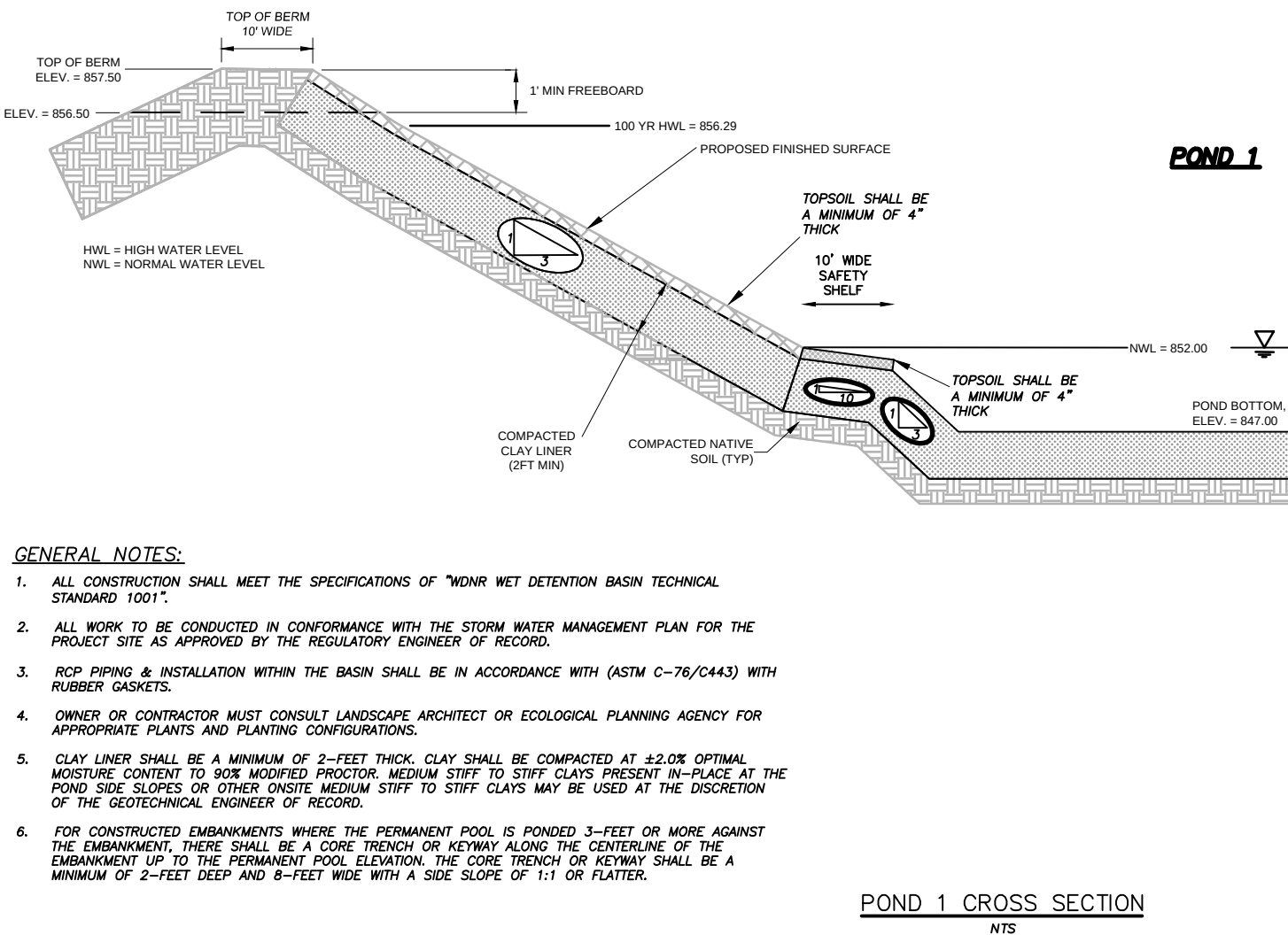
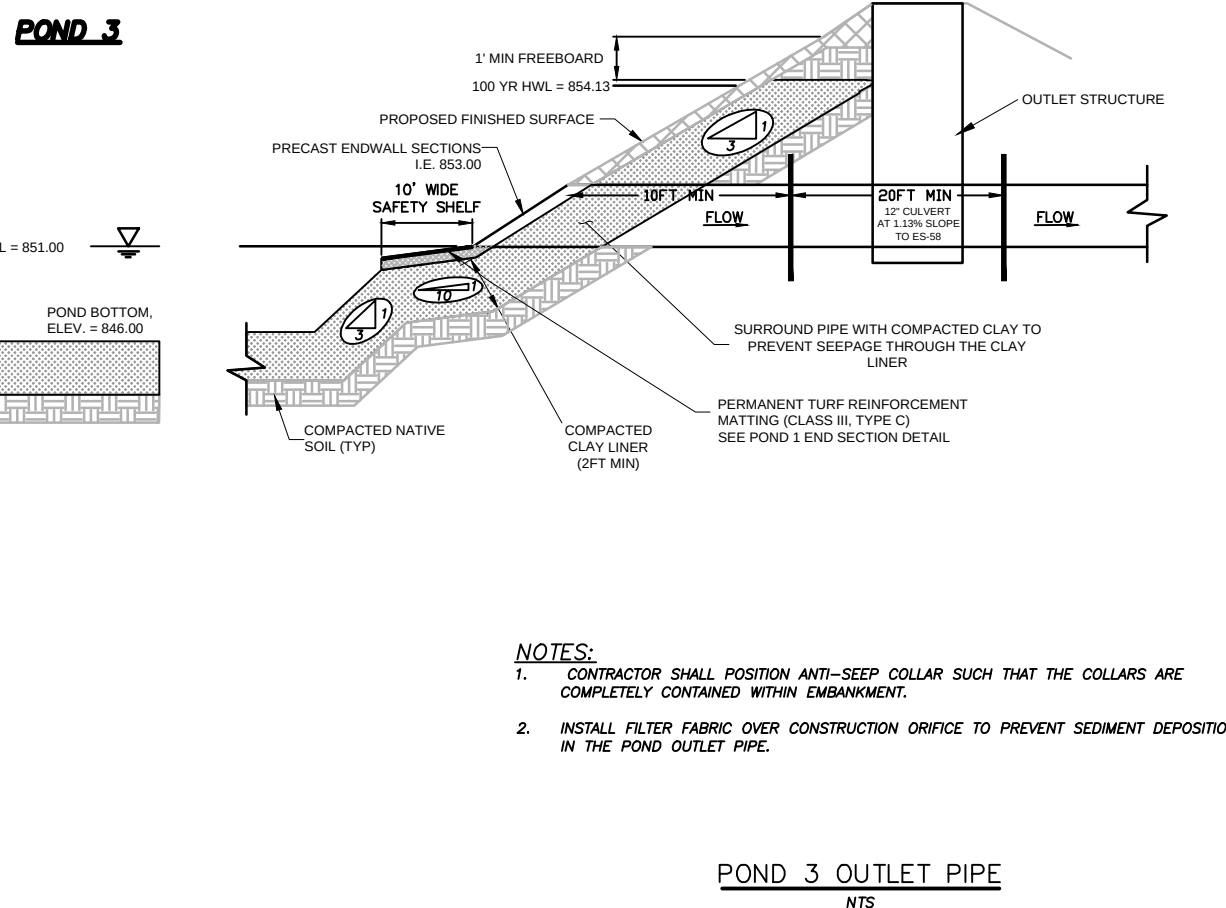
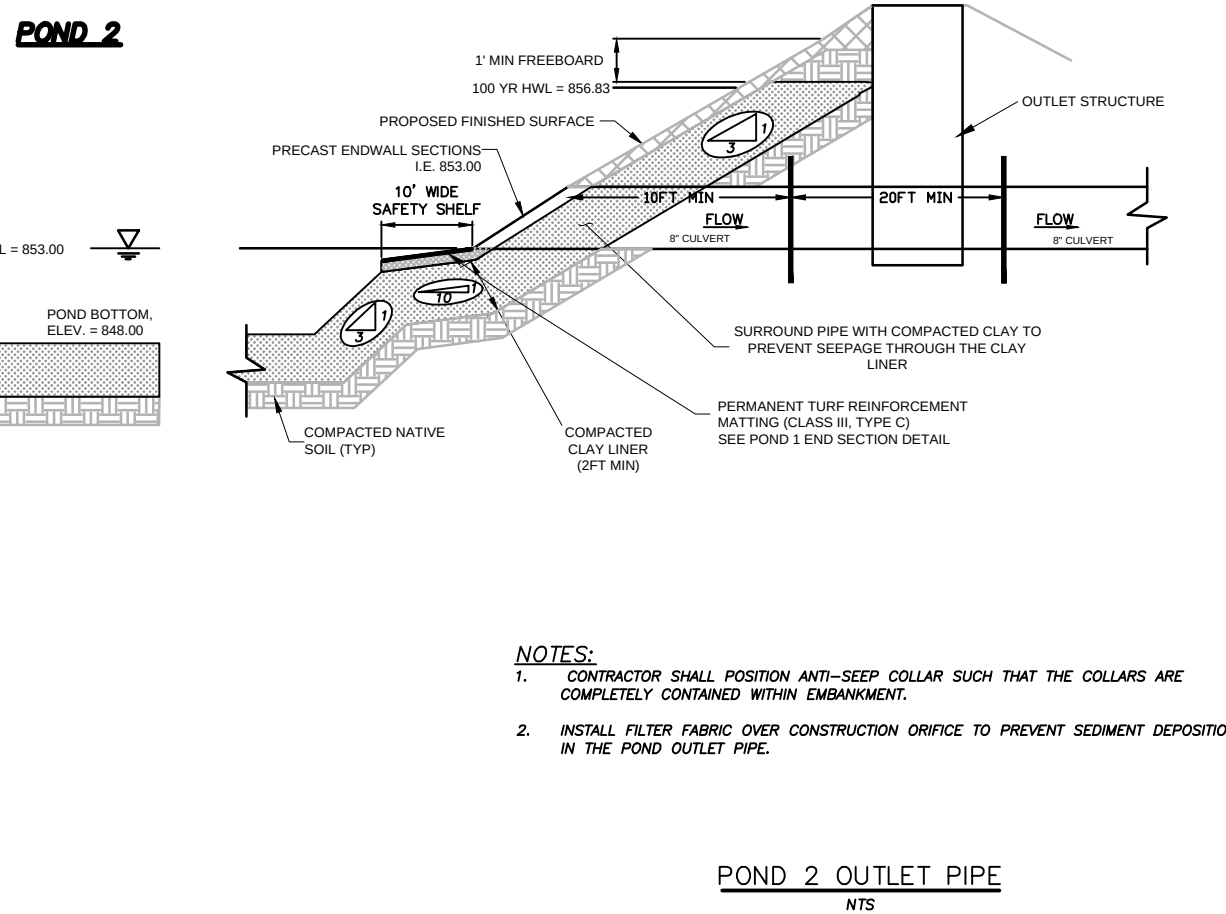
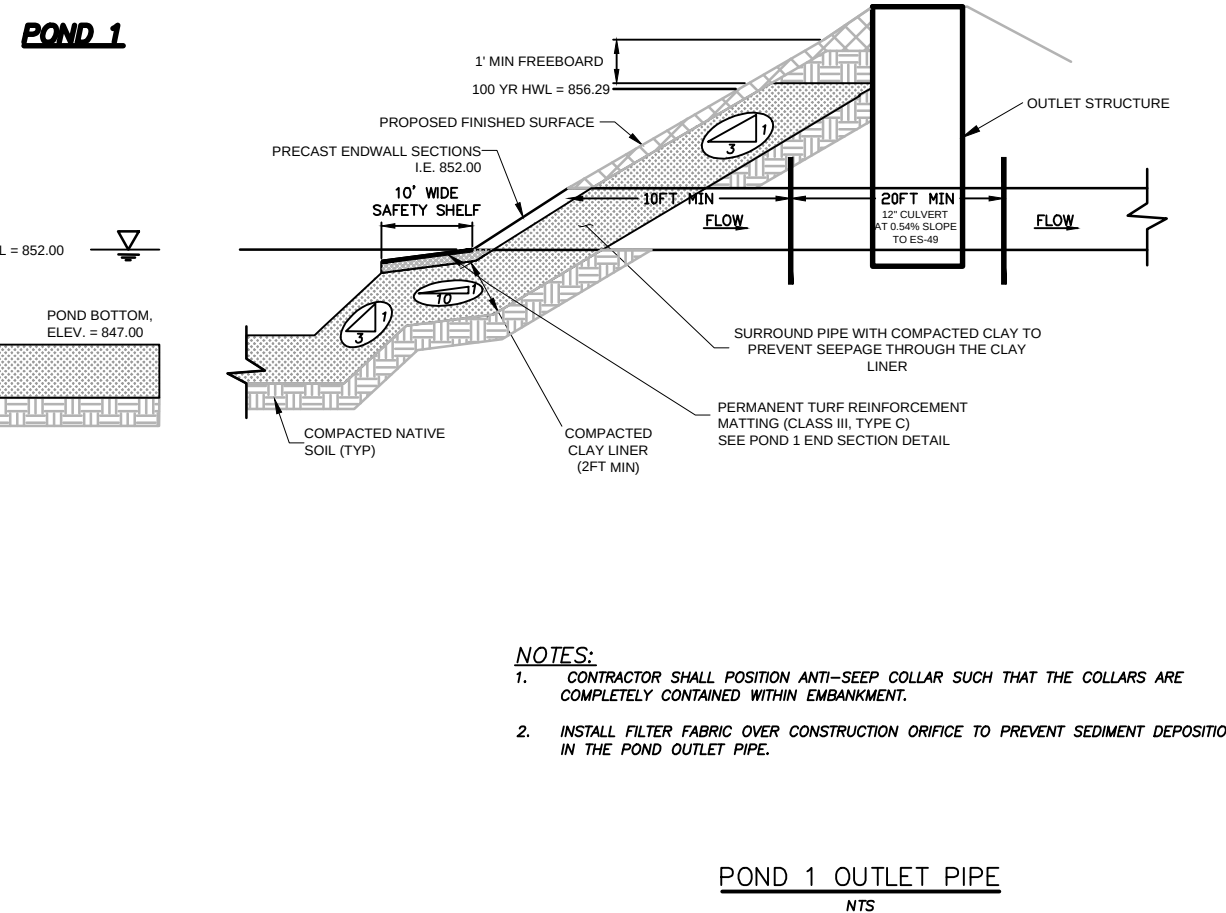
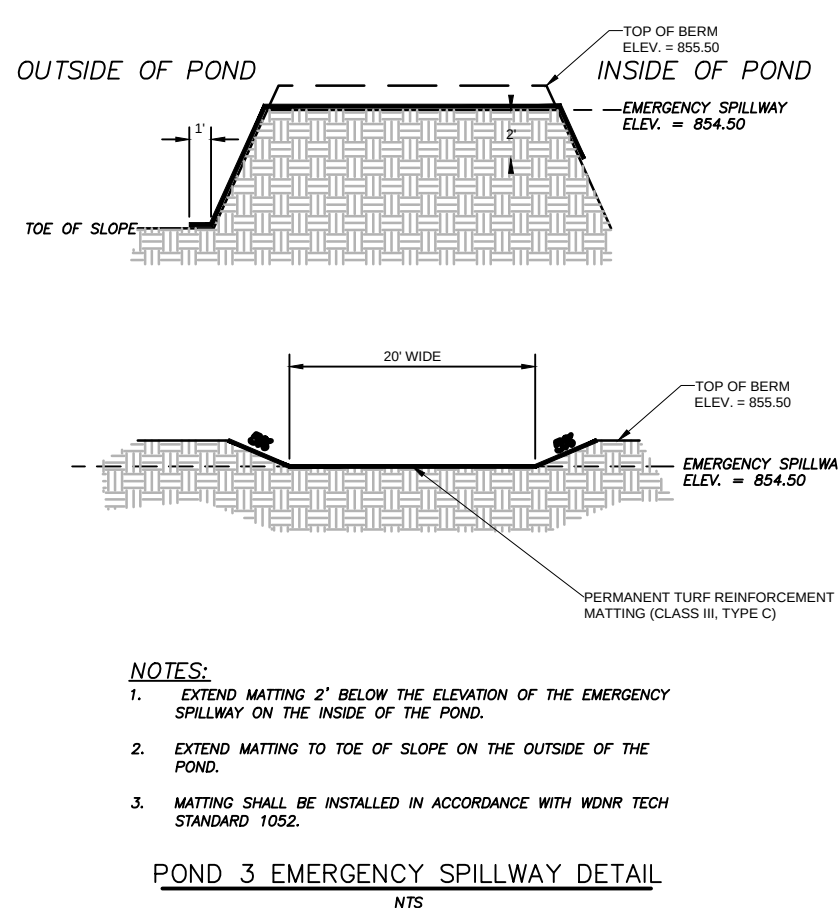
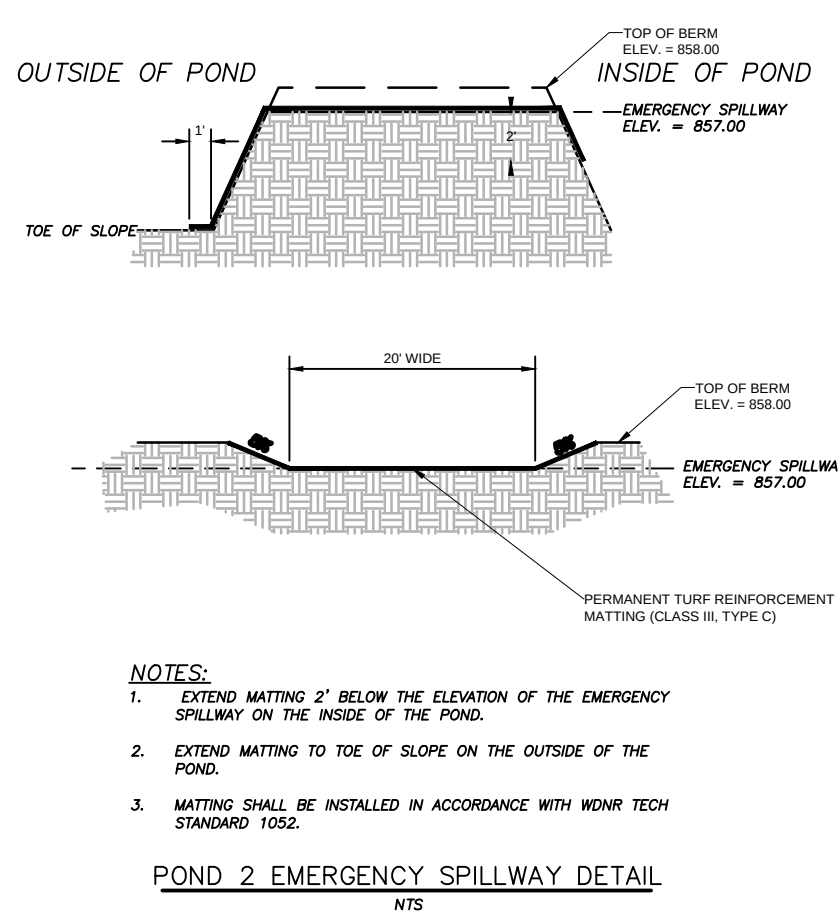
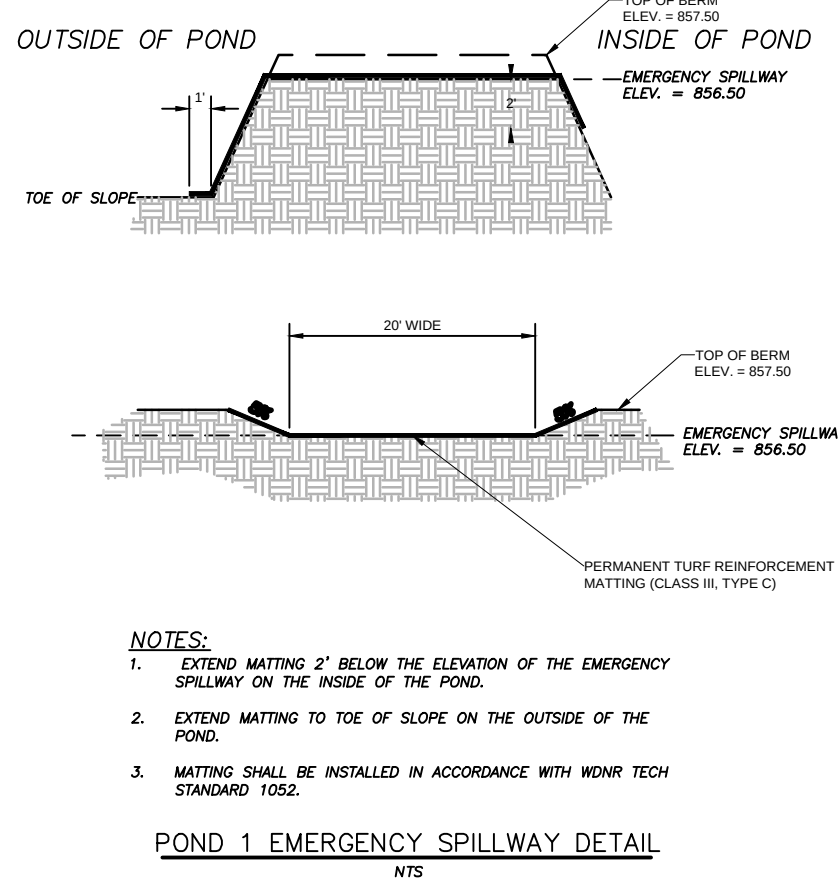
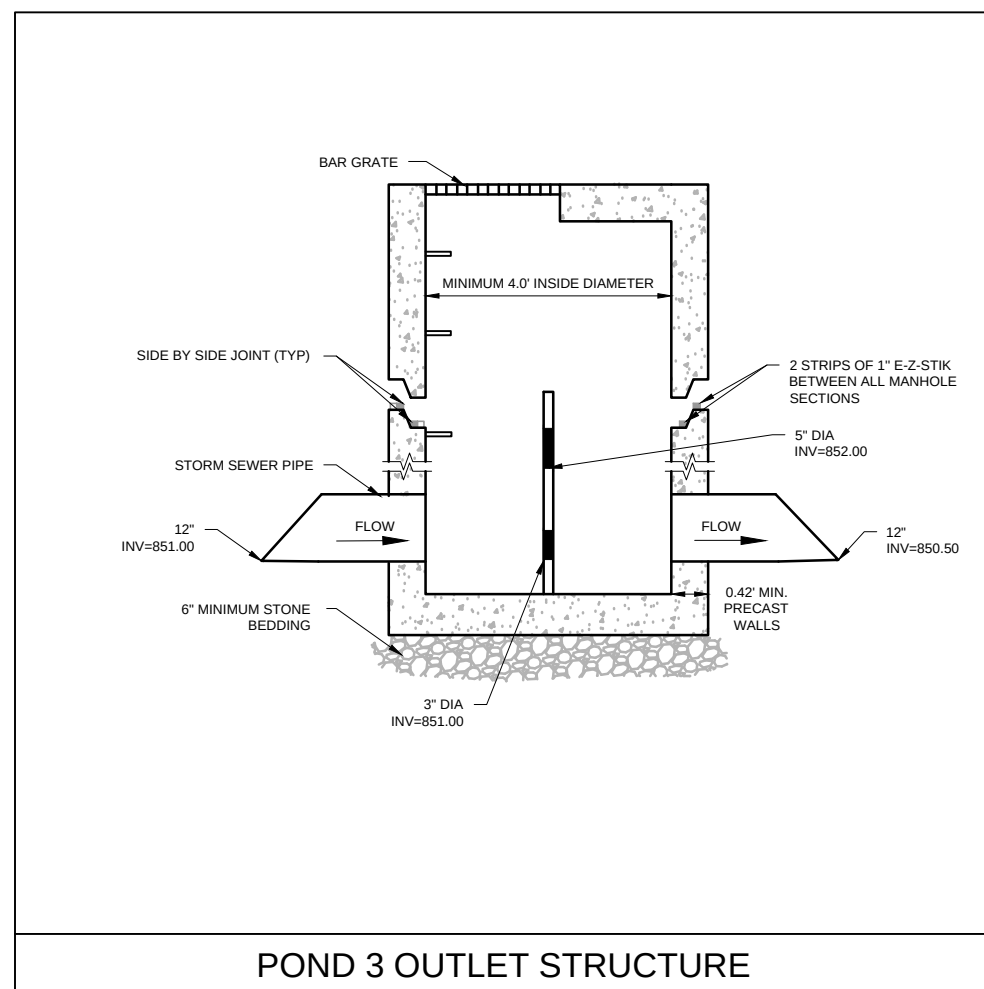
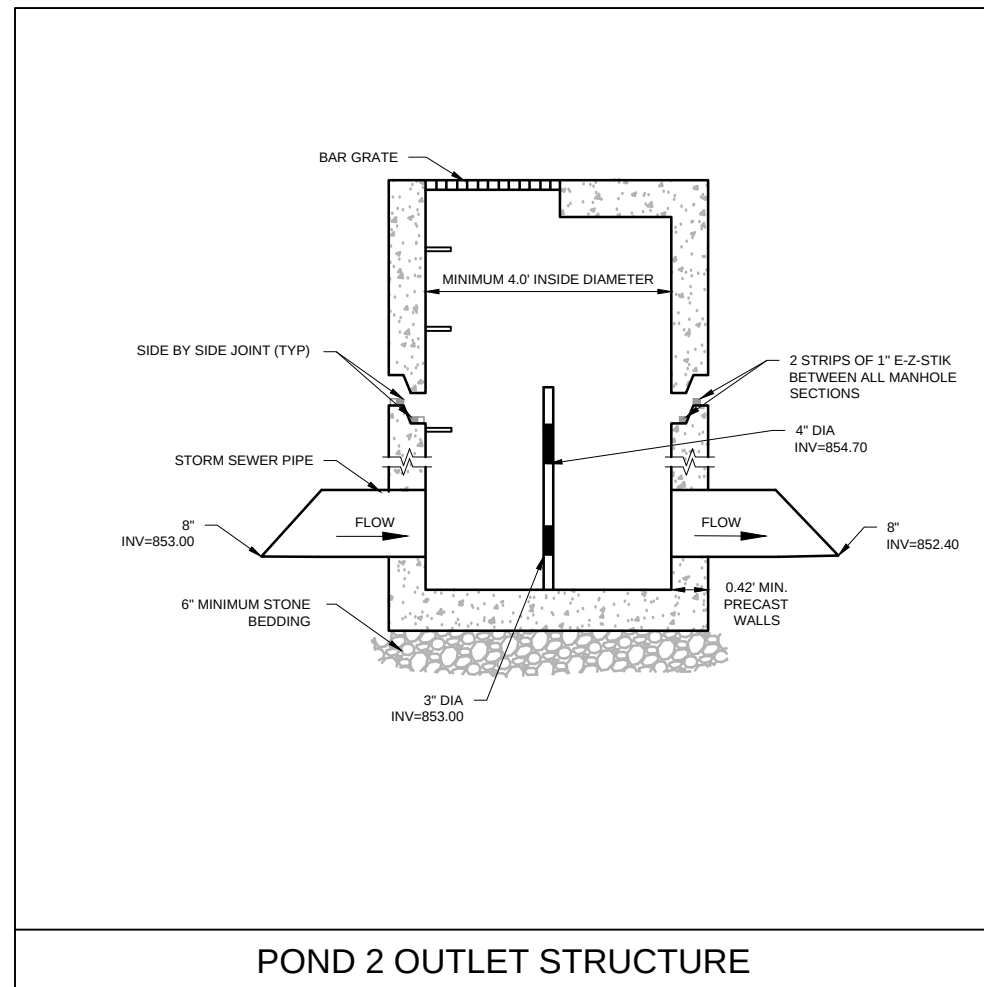
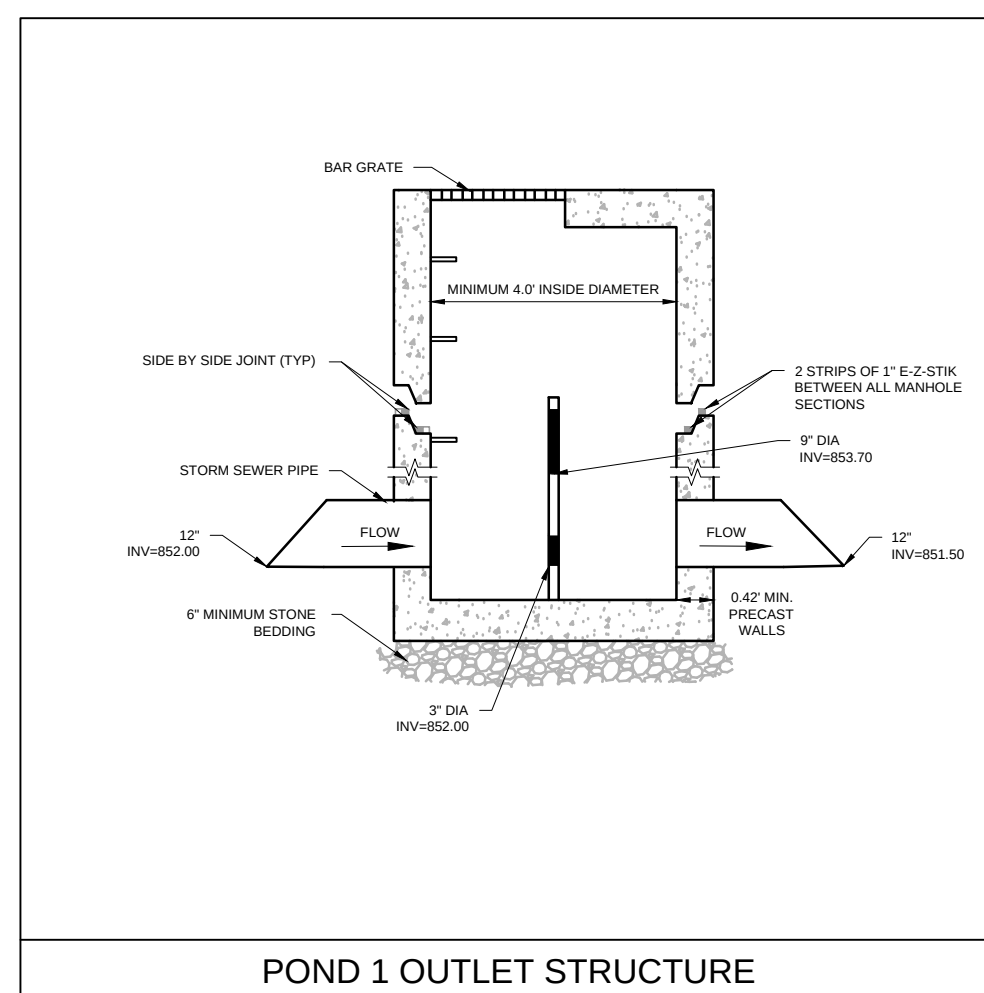
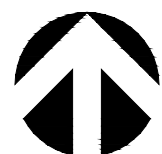
CLASS III: PERMANENT 100% SYNTHETIC ECRM OR TRM. CLASS I, TYPE B EROSION MAT OR CLASS II, TYPE B OR C EROSION MAT MUST BE PLACED OVER A SOIL FILLED TRM

- 1. TYPE A: ECRM FOR USE IN CHANNELS WHERE THE CALCULATED (DESIGN) SHEAR STRESS OF 2.0 LBS/FT² OR LESS
- 2. TYPE B: TRM FOR USE IN CHANNELS WHERE THE CALCULATED (DESIGN) SHEAR STRESS OF 2.0 LBS/FT² OR LESS.
- 3. TYPE C: TRM FOR USE IN CHANNELS WHERE THE CALCULATED (DESIGN) SHEAR STRESS OF 3.5 LBS/FT² OR LESS
- 4. TYPE D: TRM FOR USE IN CHANNELS WHERE THE CALCULATED (DESIGN) SHEAR STRESS OF 5.0 LBS/FT² OR LESS

1. BEFORE PROCEEDING WITH ANY UTILITY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE EACH EXISTING LATERAL OR POINT OF CONNECTION AND VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES. IF ANY EXISTING UTILITIES ARE NOT AS SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR POSSIBLE REVISION.
2. ALL CONNECTIONS TO EXISTING PIPES AND MANHOLES SHALL BE CORED CONNECTIONS. CONNECTIONS TO WATERMAIN SHALL BE WET TAPPED WITH A STEELLESS STEEL TAPPING SLEEVE.
3. REINFORCED SANITARY SEWER AND INTERNALLY CONNECTED STORM SEWER SHOWN ON THIS PLAN SHALL TERMINATE AT A POINT FIVE (5) FEET FROM THE EXTERIOR BUILDING WALL. THE EXACT LOCATION OF ALL DOWN SPOUTS CONNECTIONS SHALL BE PER THE ARCHITECTURAL PLANS.
4. CONTRACTOR SHALL NOT SHUT OFF WATER OR PLUG SANITARY SEWER IN MUNICIPAL LINES WITHOUT PRIOR APPROVAL.
5. MATERIALS FOR STORM SEWER SHALL BE AS FOLLOWS: STORM SEWER PIPE 48" OR LESS SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED PIPE WITH AN INTEGRALLY FORMED SMOOTH WATERWAY SUCH AS ADS N-12. FOR PIPE 10" OR LESS IN DIAMETER, PVC, ASTM D-3034, SDR-26, MAY ALSO BE USED. WHERE SPECIFICALLY REQUIRED, REINFORCED CONCRETE PIPE (RCP), ASTM C-76, CLASS III OR HIGHER, MAY BE USED. TRENCH SECTION SHALL BE CLASS "B" FOR PVC AND HDPE AND CLASS "C" FOR CONCRETE MANHOLES, INLETS AND CATCH BASINS SHALL BE: PRE CAST REINFORCED CONCRETE, ASTM C-478. CASTINGS SHALL BE HEAVY DUTY CAST IRON. AREA DRAINS SHALL BE ADS NYLOPLAST OR EQUIVALENT AND SHALL BE 18" OR 24" IN DIAMETER. CONNECTIONS TO EXISTING PIPES SHALL BE MADE WITH INSERTA WYE OR EQUIVALENT.
6. MATERIALS FOR SANITARY SEWER SHALL BE AS FOLLOWS: SANITARY SEWER SHALL BE PVC, ASTM D-3034, SDR-35 WITH RUBBER GASKETED JOINTS. CONFORMING TO ASTM D-3212. TRENCH SECTIONS SHALL BE CLASS "B" BEDDING. CRUSHED STONE CHIPS SHALL BE USED FOR BEDDING MATERIAL. CONNECTIONS SHALL BE MADE WITH AN INSERTA WYE OR EQUIVALENT. A MINIMUM OF 6" OF COVER IS REQUIRED FOR ALL SANITARY SEWER.
7. MATERIALS FOR WATER SERVICES AND PRIVATE HYDRANTS SHALL BE AS FOLLOWS: WATER SERVICES SHALL BE PVC, HDPE, OR DI AS ALLOWED BY MUNICIPAL CODE. PVC SHALL BE AWWA C151. CLASS 52 OR (AS REQUIRED BY LOCAL CODE). TRENCH SECTIONS SHALL BE CLASS "B" BEDDING. CRUSHED STONE CHIPS SHALL BE USED FOR BEDDING MATERIAL. CONNECTION SHALL BE MADE WITH A WET TAP, CORPORATE STOP AND VALVE BOX PER MUNICIPAL STANDARDS. A MINIMUM OF 6" COVER IS REQUIRED FOR ALL SERVICES. FOR THE MAIN, RESILIENT SEATED GATE VALVES COMPLYING WITH AWWA C509 WITH A THREE PIECE CAST IRON VALVE BOX. INSTALL THRUST BLOCKS AT ALL BENDS AND TURN. INSPECT AT MAIN LINE AND OBTAIN SAFE WATER SAMPLE PRIOR TO USE.
8. EXTREME CAUTION MUST BE FOLLOWED REGARDING THE COMPACTION OF ALL UTILITY TRENCHES. MECHANICALLY COMPACTED GRANULAR BACKFILL IS REQUIRED UNDER & WITHIN 5 FEET OF ALL PAVEMENT INCLUDING SIDEWALKS. FLOODING OF BACKFILL MATERIAL IS NOT ALLOWED.
9. TRACER WIRE (NO. 3 SINGLE STRAND COPPER) AND WARNING TAPE SHALL BE INSTALLED ON ALL UTILITIES IN ACCORDANCE WITH THE LOCAL AND STATE CODES. TRACER WIRE SHALL TERMINATE IN A VALVE/CO TERMINAL BOX AT EACH END.
10. MANHOLE TESTING ON SANITARY LINES AND PRESSURE TESTING ON WATERMAIN MAY BE REQUIRED BY THE OWNER OR MUNICIPALITY.
11. UPON COMPLETION OF FINAL PAVING OPERATIONS, THE UTILITY CONTRACTOR SHALL ADJUST ALL MANHOLE AND INLET RIMS AND VALVE BOXES TO FINISHED GRADE.

1. AGGREGATES USED IN THE CRUSHED STONE BASE SHALL CONFORM TO THE GRADATION REQUIREMENTS SECTIONS 301.2 AND 305.2.2 OF THE STANDARD SPECIFICATIONS. THICKNESS SHALL BE PER THE DETAIL ON THE PLANS. BASE SHALL BE 2" THICK.
2. SUBGRADE SHALL BE PROOFROLLED AND APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF STONE BASE. EXCAVATE UNSUITABLE AREAS AND REPLACE WITH BREAKER RUN STONE AND RECOMPACT. REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL SPECIFICATIONS.
3. EXISTING PAVEMENT SHALL BE SAWCUT IN NEAT STRAIGHT LINES TO FULL DEPTH AT ANY POINT WHERE EXISTING PAVEMENT IS REMOVED. CURB AND WALK SHALL BE REMOVED TO THE NEAREST JOINT. REMOVED PAVEMENT SHALL BE REPLACED WITH THE SAME SECTION AS EXISTING. MUNICIPAL STANDARDS MAY REQUIRE ADDITIONAL WORK.
4. ASPHALT FOR PARKING AREAS AND THE PRIVATE ROAD SHALL BE PER THE DETAILS MATERIALS AND PLACEMENT SHALL CONFORM TO THE DOT STANDARD SPECIFICATIONS, SECTION 450 AND 460. TYPE E-63 IS REQUIRED UNLESS NOTED OTHERWISE. A COMMERCIAL GRADE MIX MAY BE SUBSTITUTED ONLY WITH APPROVAL FROM THE OWNER.
5. CONCRETE FOR CURB, DRIVEWAY, WALKS AND NON-FLOOR SLABS SHALL CONFORM TO SECTION 415 OF THE STANDARD SPECIFICATIONS, GRADE A, ASTM C-94, 8 BAG MIX, WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI. JOINTING SHALL BE PER SECTION 415.3 OF THE STANDARD SPECIFICATIONS WITH CONSTRUCTION JOINTS HAVING A MAXIMUM SPACING OF 10'. EXPANDED STONE SHALL BE PROVIDED EVERY 50'. CONCRETE SHALL BE FINISHED PER SECTION 415.3.18 WITH A MEDIUM BROOM TEXTURE. A CURING MEMBRANE IN CONFORMANCE WITH SECTION 415.3.12 IS REQUIRED.





- GENERAL NOTES:**
1. ALL CONSTRUCTION SHALL MEET THE SPECIFICATIONS OF "MNR DETENTION BASIN TECHNICAL STANDARD 1001".
 2. ALL WORK TO BE CONDUCTED IN CONFORMANCE WITH THE STORM WATER MANAGEMENT PLAN FOR THE PROJECT SITE AS APPROVED BY THE REGULATORY ENGINEER OF RECORD.
 3. RCP PIPING & INSTALLATION WITHIN THE BASIN SHALL BE IN ACCORDANCE WITH (ASTM C-76/C443) WITH RUBBER GASKETS.
 4. OWNER OR CONTRACTOR MUST CONSULT LANDSCAPE ARCHITECT OR ECOLOGICAL PLANNING AGENCY FOR APPROPRIATE PLANTS AND PLANTING CONFIGURATIONS.
 5. CLAY LINER SHALL BE A MINIMUM OF 3-FEET THICK. CLAY SHALL BE COMPACTED AT 85.0% OPTIMAL MOISTURE CONTENT TO 90% MOVED PROCTOR. MEDIUM STIFF TO STIFF CLAYS PRESENT IN-PLACE AT THE POND SIDE SLOPES OR OTHER SLOPES MEDIUM STIFF TO STIFF CLAYS MAY BE USED AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER OF RECORD.
 6. FOR CONSTRUCTED EMBANKMENTS WHERE THE PERMANENT POOL IS PONDED 3-FEET OR MORE AGAINST THE EMBANKMENT, THERE SHALL BE A CORE TRENCH OR KEYWAY ALONG THE CENTRELINE OF THE EMBANKMENT UP TO THE PERMANENT POOL ELEVATION. THE CORE TRENCH OR KEYWAY SHALL BE A MINIMUM OF 2-FEET DEEP AND 8-FEET WIDE WITH A SIDE SLOPE OF 1:1 OR FLATTER.

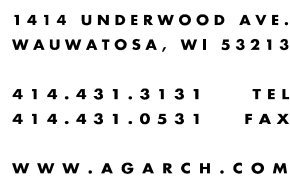
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- NOTES:**
1. CONTRACTOR SHALL POSITION ANTI-DEEP COLLAR SUCH THAT THE COLLARS ARE COMPLETELY CONTAINED WITHIN EMBANKMENT.
 2. INSTALL FILTER FABRIC OVER CONSTRUCTION OFFICE TO PREVENT SEDIMENT DEPOSITION IN THE POND OUTLET PIPE.

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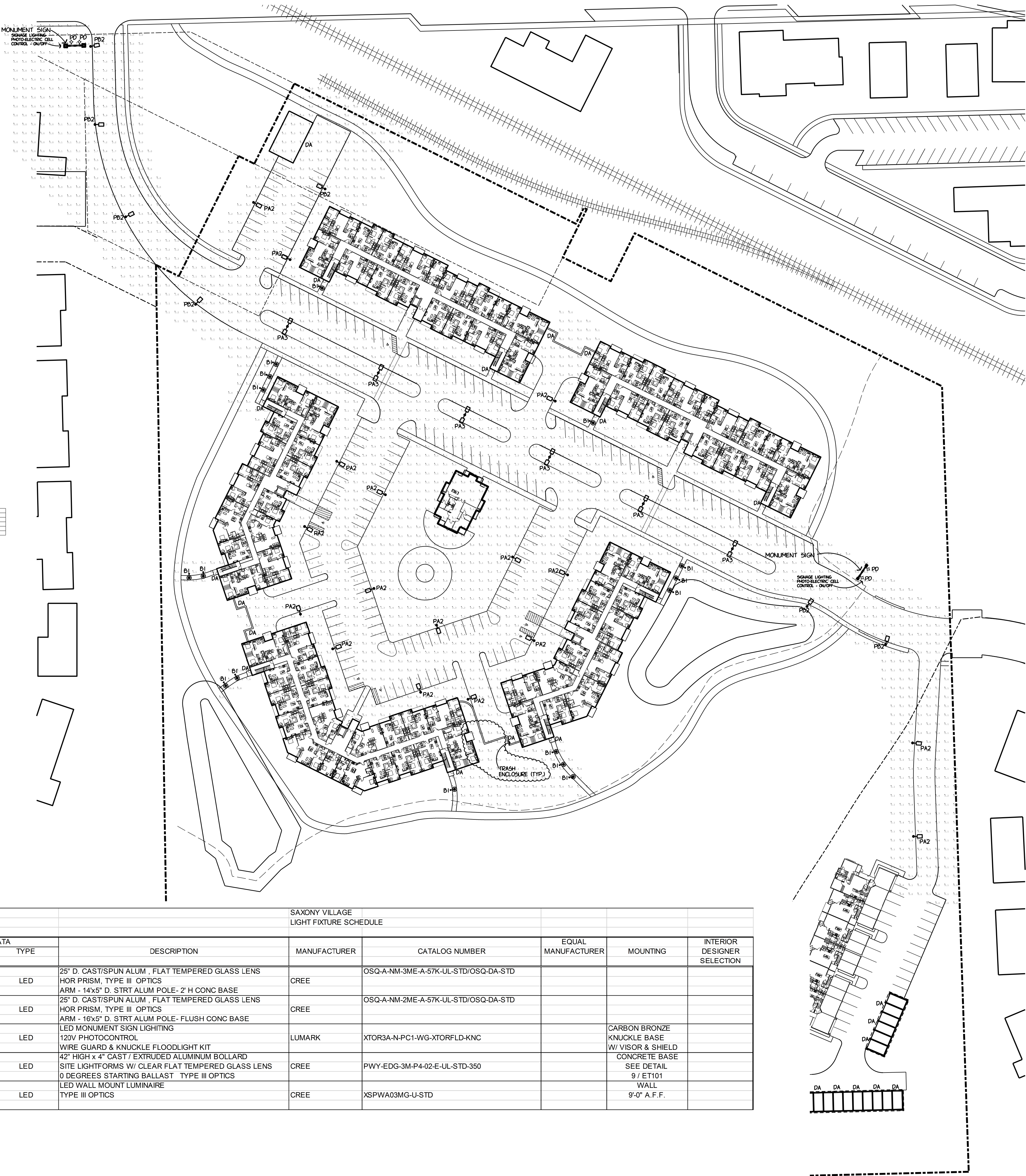


REVISIONS

EG200

A diagram showing a 5x5 grid of squares. Above each of the five columns, the letters 'DA' are written. The grid is formed by solid lines, while the labels 'DA' are positioned just above the top solid line of each column.

Instance Schedules		Arrangements		Total Temp. Schedules		LAP		Description	
Label	Time	Start	End	Start	End	Start	End	Start	End
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2	15	25	25	25	25	25	25	25	25
3	15	25	25	25	25	25	25	25	25
4	15	25	25	25	25	25	25	25	25
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11	15	25	25	25	25	25	25	25	25
12	15	25	25	25	25	25	25	25	25
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Cree Edge™ Series

LED Pathway Luminaire

Product Description

Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance. Pole mounts to rugged die cast aluminum internal flange secured by three 3/8" - 16x6" anchor bolts with 1-1/4" hook (provided). **Note:** T45 Torx 3/8" socket required for head installation. Top mounted LEDs for superior optical performance and light control.

Applications: Landscape, walk-ways and general site lighting

Performance Summary

Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

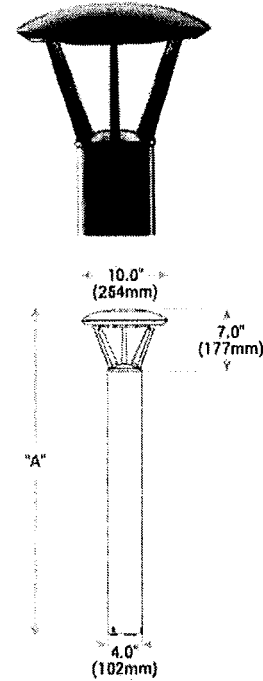
CCT: 4000K (+/- 300K), 5700K (+/- 500K) standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See www.cree.com/lighting/products/warranty for warranty terms

Accessories

Field-Installed		
Upgrade Kit		
- Used for replacement of existing bollards with a bolt hole circle of 5.75" (146mm)		
XA-XBP8RSV	XA-XBP8RWH	XA-XBP8RPB
XA-XBP8RBK	XA-XBP8RBZ	



Model	Dim. "A"	Weight*
Landscape (P0)	13" (330mm)	12.7 lbs. (5.8kg)
Landscape (P1)	18" (457mm)	13.3 lbs. (6.0kg)
Pathway (P3)	36" (914mm)	17.9 lbs. (8.1kg)
Pathway (P4)	42" (1067mm)	18.6 lbs. (8.4kg)
Pedestrian (PB)	96" (2438mm)	28.4 lbs. (12.9kg)

* Add 4.5 lbs. (2.0kg) for 347-480V

Ordering Information

Example: PWY-EDG-2M-P0-02-E-UL-SV-350

Product	Optic	Mounting	LED Count (x9)	Series	Voltage	Color Options	Drive Current	Options
PWY-EDG	2M Type II Medium 3M Type III Medium 4M Type V Medium 5S Type V Short	P0 13" (330mm) landscape P1 18" (457mm) landscape P3 36" (914mm) pathway P4 42" (1067mm) pathway PB 96" (2438mm) pedestrian	02	E	UL Universal 120-277V UH Universal 347-480V - Available with P3, P4, and PB mounts only 12 120V 27 277V	BK Black BZ Bronze SV Silver WH White	350 350mA 525 525mA - Available with P1, P3, P4, and PB mounts only	40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire F Fuse - When code dictates fusing, use time delay fuse - Refer to ML spec sheet for availability with ML options HL Hi/Low (Dual Circuit Input) - Refer to HL spec sheet for details - Sensor not included TL Two-Level (175/525 w/integrated sensor control) - Refer to TL spec sheet for details TL2 Two-Level (0/350 w/integrated sensor control) - Refer to TL spec sheet for details TL3 Two-Level (0/525 w/integrated sensor control) - Refer to TL spec sheet for details WB Welded Base Plate - Standard on P0 mount option, available with P3 and P4 mount - Includes welded base cover



US: www.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Rev. Date: V4 07/22/2015



Cree Edge™ LED Pathway Luminaire

Product Specifications

CONSTRUCTION & MATERIALS

- Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance
- Pole mounts to rugged die cast aluminum internal flange secured by three 3/8"-16x6" anchor bolts with 1-1/4" hook(provided)
- **Note:** T45 Torx 3/8" socket required for head installation
- Top mounted LEDs for superior optical performance and light control
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available
- **Weight:** See Dimension and Weight Chart on page 1

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load at 120V
- **Total Harmonic Distortion:** < 20% at full load at 120V
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA

Electrical Data*								
LED Count (x9)	System Watts 120-277V	System Watts 347-480V	Total Current					
			120V	208V	240V	277V	347V	480V
350mA								
02	22	28	0.18	0.12	0.10	0.10	0.09	0.13
525mA								
02	34	40	0.25	0.19	0.17	0.15	0.12	0.13

* Electrical data at 25°C (77°F)

Recommended Cree Edge™ Series Lumen Maintenance Factors (LMF) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
5°C (41°F)	1.04	0.99	0.97	0.95	0.93
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.91
20°C (68°F)	1.01	0.96	0.94	0.92	0.90
25°C (77°F)	1.00	0.95	0.93	0.91	0.89

¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and on-site luminaire testing

² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA TM-89-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

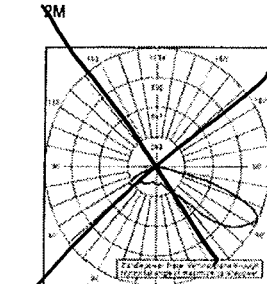
³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA TM-89-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip



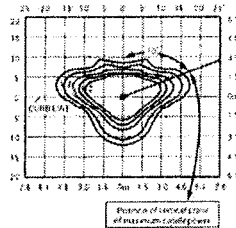
Cree Edge™ LED Pathway Luminaire

Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool



RESTL Test Report #: PL5758-001
PWY-EDG-2M-**-02-E-UL-350-40K
Initial Delivered Lumens: 1,549

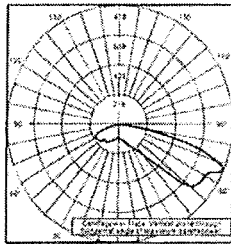


PWY-EDG-2M-**-02-E-UL-350-40K
Mounting Height: 3' (0.9m) A.F.G.
Initial Delivered Lumens: 1,565
Initial FC at grade

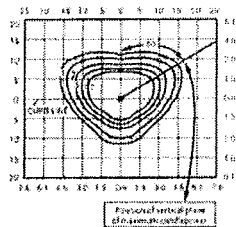
Type II Medium Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,565	B1 U0 G1	1,625	B1 U0 G1
525mA				
02	2,191	B1 U0 G1	2,276	B1 U0 G1

* Initial delivered lumens at 25°C (77°F)
** For more information on the IES BUG (Backlight/Uplight/Glare) Rating visit:
www.ies.org/PDF/Errata/TM-15-11BugRatingsAddendum.pdf

3M



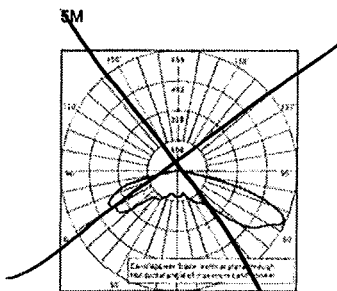
RESTL Test Report #: PL5698-001
PWY-EDG-3M-**-02-E-UL-350-40K
Initial Delivered Lumens: 1,470



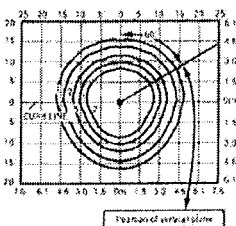
PWY-EDG-3M-**-02-E-UL-350-40K
Mounting Height: 3' (0.9m) A.F.G.
Initial Delivered Lumens: 1,389
Initial FC at grade

Type III Medium Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,369	B1 U0 G1	1,442	B1 U0 G1
525mA				
02	1,944	B1 U0 G1	2,019	B1 U0 G1

* Initial delivered lumens at 25°C (77°F)
** For more information on the IES BUG (Backlight/Uplight/Glare) Rating visit:
www.ies.org/PDF/Errata/TM-15-11BugRatingsAddendum.pdf



RESTL Test Report #: PL5798-001
PWY-EDG-5M-**-02-E-UL-350-40K
Initial Delivered Lumens: 1,780



PWY-EDG-5M-**-02-E-UL-350-40K
Mounting Height: 3' (0.9m) A.F.G.
Initial Delivered Lumens: 1,666
Initial FC at grade

Type V Medium Distribution				
LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,666	B1 U2 G1	1,730	B1 U2 G1
525mA				
02	2,331	B2 U2 G2	2,422	B2 U2 G2

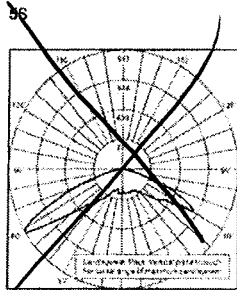
* Initial delivered lumens at 25°C (77°F)
** For more information on the IES BUG (Backlight/Uplight/Glare) Rating visit:
www.ies.org/PDF/Errata/TM-15-11BugRatingsAddendum.pdf



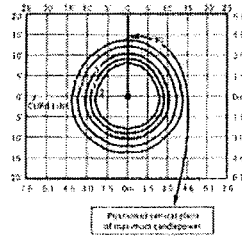
Cree Edge™ LED Pathway Luminaire

Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool



RESTL Test Report #: PLS759-001
PWY-EDG-SS-**-02-E-UL-350-40K
Initial Delivered Lumens: 1,897



PWY-EDG-SS-**-02-E-UL-350-40K
Mounting Height: 3' (0.9m) A.F.G.
Initial Delivered Lumens: 1,866
Initial FC at grade

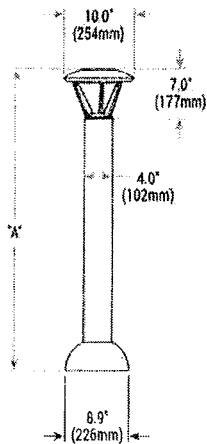
Type V Short Distribution

LED Count (x9)	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
02	1,868	B1 U2 G1	1,940	B1 U2 G1
525mA				
02	2,615	B1 U2 G1	2,716	B1 U2 G1

* Initial delivered lumens at 25°C (77°F)

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit:
www.ies.org/PCOI/Files/TM-15-11-BugRatingsAddendum.pdf

with Welded Base



Model	Dim. 'A'	Weight*
Pathway (P3)	36" (914mm)	17.9 lbs. (8.1kg)
Pathway (P4)	42" (1068mm)	18.6 lbs. (8.4kg)
Pedestrian (P8)	96" (2438mm)	28.4 lbs (12.9kg)

* Add 4.5 lbs. (2.0kg) for 347-460V

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XSP Series

XSPW™ LED Wall Mount Luminaire

Product Description

The XSPW™ LED wall mount luminaire has a slim, low profile design intended for outdoor wall mounted applications. The rugged lightweight aluminum housing and mounting box are designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes. The luminaire allows for through-wired or conduit entry from the top, bottom, sides and rear. The housing design is intended specifically for LED technology including a weathertight LED driver compartment and thermal management. Optic design features industry-leading NanoOptic® Precision Delivery Grid™ system in multiple distributions.

Applications: General area and security lighting

Performance Summary

NanoOptic® Precision Delivery Grid™ optic

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 4000K (+/- 300K), 5700K (+/- 500K)

Limited Warranty: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

* See www.cree.com/lighting/products/warranty for warranty terms

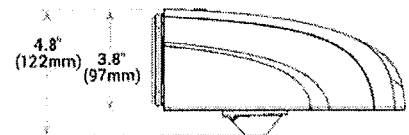
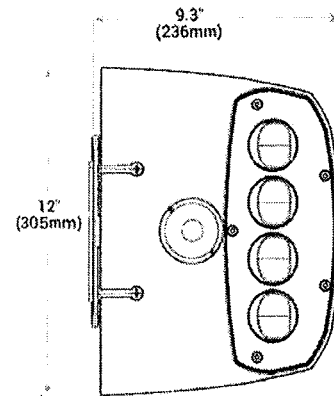
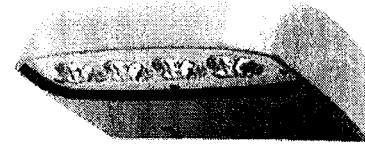
Accessories

Field-Installed

Beauty Plate

- WM-PLT12** - 12" (305mm) Square
- WM-PLT14** - 14" (356mm) Square
- Covers holes left by incumbent wall packs

** Must specify color



Multi-Level Sensor location
(ordered as an option)

Weight

9.5 lbs (4.3kg)

Ordering Information

Example: XSPW-A-0-2-F-C-U-Z

Product	Version	Mounting	Optic	Modules	Input Power Designator	Voltage	Color Options	Options
XSPW	A	0 Wall	2 Type II Medium 3 Type III Medium	F 4000K M 5700K	C 42W G 25W	U Universal 120-277V 1 120V 2 208-277V 6* 347V	S Silver T Black W White Z Bronze	K Multi-Level - Refer to ML spec sheet for details - Available with Input Power Designator C only P Photocell - Not available with K option - Must specify 1, 2, or 6 voltage V 0-10V Dimming - Control by others - Available with Input Power Designator C only - Refer to dimming spec sheet for details

* Available in Canada only
NOTE: Price adder may apply depending on configuration



Rev. Date: V6 07/31/2015



US: www.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada

T (800) 473-1234 F (800) 890-7507

XSPW™ LED Wall Mount Luminaire

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire housing specifically designed for LED applications with advanced LED thermal management and driver
- Luminaire mounting box designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Secures to wall with four 3/16" (5mm) screws (by others)
- Conduit entry from top, bottom, sides, and rear
- Designed and UL approved for easy through-wiring
- Designed for downlight applications only
- Exclusive Colorfast DeltaGuard® finish features an E-coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, black, white and bronze are available
- Weight: 9.5lbs. (4.3kg)

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347V, 50/60Hz, Class 2 driver
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used
- **10V Source Current:** 0.15 mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529
- DLC qualified. Please refer to www.designlights.org/QPL for most current information
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15 standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details

Electrical Data*							
Input Power Designator	System Watts 120-277V	System Watts 347V	Total Current				
			120V	208V	240V	277V	347V
C	42	46	0.36	0.21	0.19	0.16	0.14
G	25	27	0.22	0.13	0.11	0.10	0.08

* Electrical data at 25°C (77°F)

Recommended XSPW Series Lumen Maintenance Factors (LMF) ¹						
Ambient	Input Power Designator	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Projected ² LMF	100K hr Calculated ³ LMF
5°C (41°F)	C	1.04	1.02	1.01	1.00	1.00
	G					
10°C (50°F)	C	1.03	1.01	1.00	0.99	0.99
	G					
15°C (59°F)	C	1.02	1.00	0.99	0.98	0.98
	G					
20°C (68°F)	C	1.01	0.99	0.98	0.97	0.97
	G					
25°C (77°F)	C	1.00	0.98	0.97	0.96	0.96
	G					

¹ Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing

² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

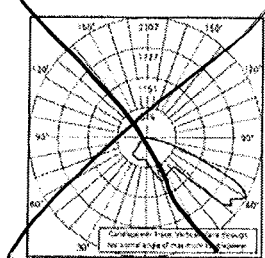


XSPW™ LED Wall Mount Luminaire

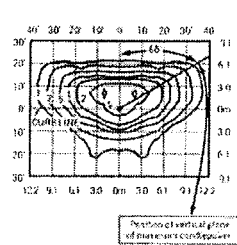
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Products/Outdoor/Wall-Mount/XSP-Series

2



CESTL Test Report #: 2014-0017
BXSPW-A*-2-F-C-U-S
Initial Delivered Lumens: 2,739



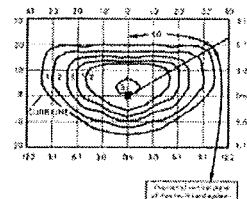
BXSPW-A*-2-F-C-U-S
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 3,819
Initial FC at grade

Type II Medium Distribution

Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
C	3,819	B1 U0 G1	4,109	B1 U0 G1
G	2,529	B1 U0 G1	2,722	B1 U0 G1

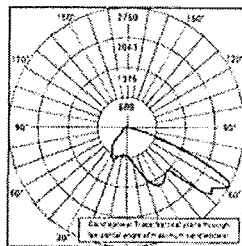
* Initial delivered lumens at 25°C (77°F)

** For more information on the IES BUG (Backlight Uplight Glare) Rating visit: www.ies.org/PDF/Grates/TM-15-11BugRatingsAddendum.pdf

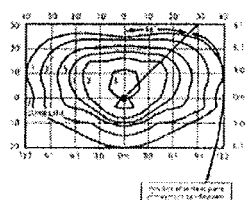


BXSPW-A*-2-F-G-U-S
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 2,529
Initial FC at grade

3



CESTL Test Report #: 2014-0018
BXSPW-A*-3-F-C-U-S
Initial Delivered Lumens: 4,187



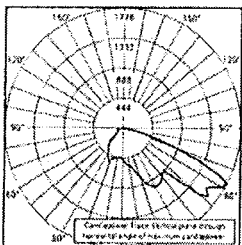
BXSPW-A*-3-F-C-U-S
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 3,819
Initial FC at grade

Type III Medium Distribution

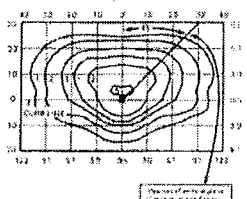
Input Power Designator	4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
C	3,819	B1 U0 G1	4,109	B1 U0 G1
G	2,529	B1 U0 G1	2,722	B1 U0 G1

* Initial delivered lumens at 25°C (77°F)

** For more information on the IES BUG (Backlight Uplight Glare) Rating visit: www.ies.org/PDF/Grates/TM-15-11BugRatingsAddendum.pdf



CESTL Test Report #: 2014-0019
BXSPW-A*-3-F-G-U-S
Initial Delivered Lumens: 2,692



BXSPW-A*-3-F-G-U-S
Mounting Height: 10' (3.0m) A.F.G.
Initial Delivered Lumens: 2,529
Initial FC at grade

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OSQ Series

OSQ™ LED Area/Flood Luminaire – Medium

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and modern, clean aesthetics. Built to last, the housing is rugged cast aluminum with an integral, weathertight LED driver compartment. Versatile mounting configurations offer simple installation. Its slim, low-profile design minimizes wind load requirements and blends seamlessly into the site providing even, quality illumination. 'A' Input power designator is a suitable upgrade for HID applications up to 250 Watt. 'J' Input power designator is a suitable upgrade for HID applications up to 400 Watt.

Applications: Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

Performance Summary

NanoOptic® Precision Delivery Grid™ optic

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI (4000K & 5700K); 80 CRI (3000K)

CCT: 3000K (+/- 300K), 4000K (+/- 300K), 5700K (+/- 500K)

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

*See www.cree.com/lighting/products/warranty for warranty terms

Accessories

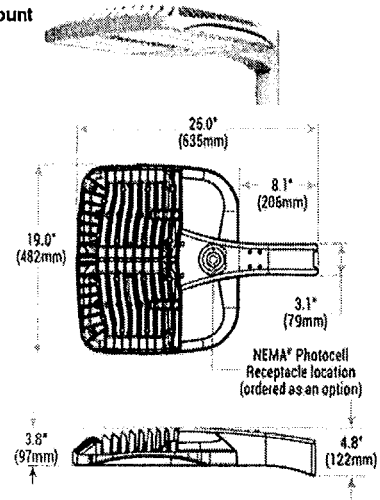
Field-Installed
Backlight Shield OSQ-BLSMF – Front facing optics
OSQ-BLSMR – Rotated optics

Ordering Information

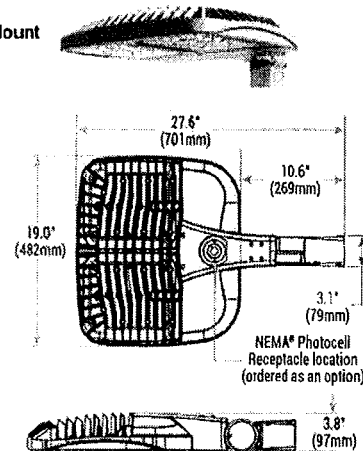
Fully assembled luminaire is composed of two components that must be ordered separately:
Example: Mount: OSQ-AA-SV + Luminaire: OSQ-A-NM 2ME-A-40K-UL-SV

Mount (Luminaire must be ordered separately)			
OSQ-			
OSQ-AA Adjustable Arm	Color Options:	SV Silver BK Black	BZ Bronze PB Platinum Bronze WH White
OSQ-DA Direct Arm			

DA Mount



AA Mount



Weight
26.5 lbs. (12kg)

Luminaire (Mount must be ordered separately)									
OSQ	A	NM							
Product	Version	Mounting	Optic		Input Power Designator	CCT	Voltage	Color Options	Options
OSQ	A	NM No Mount	2ME* Type II Medium 3ME* Type III Medium 4ME* Type IV Medium 5ME Type V Medium SSH Type V Short	WSN Wide Sign 150 15' Flood 250 25' Flood 400 40' Flood 600 60' Flood	A 112W J 160W	30K 3000K 40K 4000K 57K 5700K	UL Universal 20-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed wattage of specified input power designator F Fuse - When code dictates fusing, use time delay fuse ML Multi-Level - Refer to ML spec sheet for details - High: 100%, Low: 30% - Intended for downlight applications at 0° tilt PML Programmable Multi-Level, 20-40° Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt PML2 Programmable Multi-Level, 10-30° Mounting Height - Refer to PML spec sheet for details - Intended for downlight applications at 0° tilt Q9 Field Adjustable Output - Refer to Field Adjustable Output spec sheet for details R NEMA® Photocell Receptacle - Intended for downlight applications with maximum 45° tilt - Photocell by others RL Rotate Left - LED and optic are rotated to the left RR Rotate Right - LED and optic are rotated to the right

* Available with Backlight Shield when ordered with field-installed accessory (see table above)



Rev. Date: V7 08/28/2015

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Canada: www.cree.com/canada



T (800) 473-1234 F (800) 890-7507

OSQ™ LED Area/Flood Luminaire – Medium

Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high performance heat sink
- Convenient interlocking mounting method on direct arm mount. Mounting adaptor is rugged die cast aluminum and mounts to 3-6" (76-152mm) square or round pole, secured by two 5/16-18 UNC bolts spaced on 2" (51mm) centers
- Mounting for the adjustable arm mount adaptor is rugged die cast aluminum and mounts to 2" (51mm) IP; 2.375" (60mm) O.D. tenon
- Adjustable arm mount can be adjusted 180° in 2.5° increments
- Designed for uplight and downlight applications
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available
- Weight: 26.5 lbs. (12kg)

ELECTRICAL SYSTEM

- Input Voltage: 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- Power Factor: > 0.9 at full load
- Total Harmonic Distortion: < 20% at full load
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used
- 10V Source Current: 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without R option
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15 standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- DLC qualified when ordered with 30K (5ME, SSH optics), or 40K and 57K (2ME, 3ME, 4ME, 5ME, SSH, 150, 250, 400, 600 optics). Please refer to www.designlights.org/QPL for most current information
- Dark Sky Friendly, IDA approved. Please refer to www.darksky.org/ for most current information
- RoHS compliant. Consult factory for additional details

Electrical Data*							
Input Power Designator	System Watts 120-480V	Total Current					
		120V	208V	240V	277V	347V	480V
A	112	0.97	0.55	0.49	0.43	0.34	0.25
J	168	1.47	0.85	0.74	0.64	0.50	0.36

* Electrical data at 75°C (177°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/-10%.

Recommended OSQ Series Lumen Maintenance Factors (LMF) ¹						
Ambient	Optic	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Projected/ Calculated ³ LMF	100K hr Calculated ³ LMF
5°C (41°F)	2ME, 3ME, 4ME	1.04	0.99	0.93	0.89	0.84
	5ME, SSH, 150, 250, 400, 600, WSN	1.05	0.94	0.86	0.80	0.74
10°C (50°F)	2ME, 3ME, 4ME	1.03	0.98	0.93	0.88	0.83
	5ME, SSH, 150, 250, 400, 600, WSN	1.04	0.93	0.86	0.79	0.73
15°C (59°F)	2ME, 3ME, 4ME	1.02	0.97	0.92	0.87	0.82
	5ME, SSH, 150, 250, 400, 600, WSN	1.03	0.92	0.85	0.78	0.72
20°C (68°F)	2ME, 3ME, 4ME	1.01	0.96	0.91	0.86	0.82
	5ME, SSH, 150, 250, 400, 600, WSN	1.01	0.90	0.83	0.77	0.71
25°C (77°F)	2ME, 3ME, 4ME	1.00	0.95	0.90	0.85	0.81
	5ME, SSH, 150, 250, 400, 600, WSN	1.00	0.89	0.82	0.76	0.70

¹ Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing.

² In accordance with IESNA TM-21-11, Projected Values represent interpolated values based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip.

³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip.

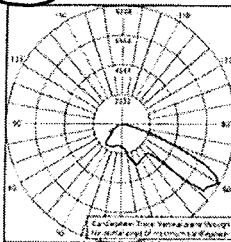


OSQ™ LED Area/Flood Luminaire – Medium

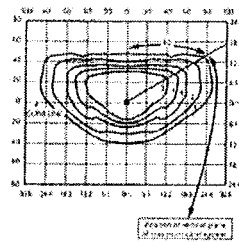
Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Products/Outdoor/Area/OSQ-Series

2ME



RESTL Test Report #: PL03347-001
OSQ-A**2ME-A-40K-UL
Initial Delivered Lumens: 10,988



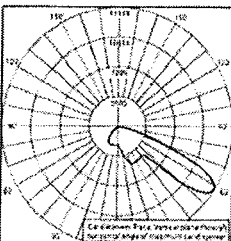
OSQ-A**2ME-J-40K-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 16,356
Initial FC at grade

Type II Medium Distribution

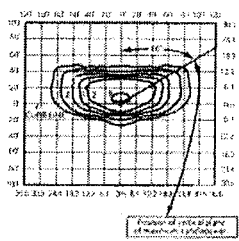
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	9,136	B2 U0 G1	10,904	B2 U0 G2	11,649	B2 U0 G2
J	13,703	B2 U0 G2	16,356	B3 U0 G2	17,474	B3 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%.

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Eratlas/TM-15-11BugRatingAddendum.pdf. Valid with no tilt.



RESTL Test Report #: PL03642-003
OSQ-A**2ME-J-40K-UL w/OSQ-BLSMF
Initial Delivered Lumens: 14,643



OSQ-A**2ME-J-40K-UL w/OSQ-BLSMF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 14,020
Initial FC at grade

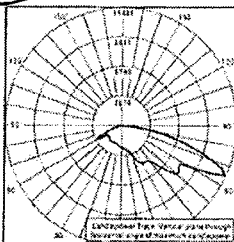
Type II Medium w/BLS Distribution

Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	7,831	B1 U0 G1	9,346	B2 U0 G2	9,985	B2 U0 G2
J	11,746	B2 U0 G2	14,020	B2 U0 G2	14,978	B2 U0 G2

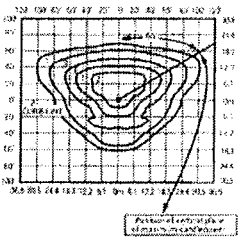
* Initial delivered lumens at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%.

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Eratlas/TM-15-11BugRatingAddendum.pdf. Valid with no tilt.

3ME



RESTL Test Report #: PL03478-001
OSQ-A**3ME-J-40K-UL
Initial Delivered Lumens: 16,257



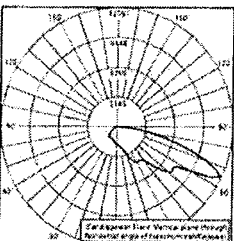
OSQ-A**3ME-J-40K-UL
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 16,189
Initial FC at grade

Type III Medium Distribution

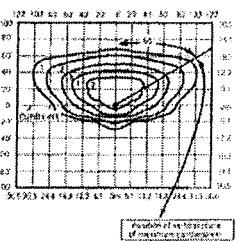
Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	9,042	B2 U0 G2	10,793	B2 U0 G2	11,530	B2 U0 G2
J	13,564	B3 U0 G3	16,189	B3 U0 G3	17,296	B3 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%.

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Eratlas/TM-15-11BugRatingAddendum.pdf. Valid with no tilt.



RESTL Test Report #: PL03642-001
OSQ-A**3ME-J-40K-UL w/OSQ-BLSMF
Initial Delivered Lumens: 14,229



OSQ-A**3ME-J-40K-UL w/OSQ-BLSMF
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 13,853
Initial FC at grade

Type III Medium w/BLS Distribution

Input Power Designator	3000K		4000K		5700K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
A	7,737	B1 U0 G2	9,235	B1 U0 G2	9,866	B1 U0 G2
J	11,606	B1 U0 G2	13,853	B2 U0 G3	14,759	B2 U0 G3

* Initial delivered lumens at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-480V +/- 10%.

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: www.ies.org/PDF/Eratlas/TM-15-11BugRatingAddendum.pdf. Valid with no tilt.



OSQ™ LED Area/Flood Luminaire – Medium

Luminaire EPA

Fixed Arm Mount – OSQ-DA Weight: 26.5 lbs. (12kg)					
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	4 @ 90°
					
0.74	1.48	1.19	1.93	1.63	2.38

Adjustable Arm Mount – OSQ-AA Weight: 26.5 lbs. (12kg)							
Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	3 @ 180°	4 @ 180°	4 @ 90°
Tenon Configuration (0°-80° Tilt); If used with Cree tenons, please add tenon EPA with Luminaire EPA							
							
PB-1A*; PT-1; PW-1A3**	PB-2A*; PB-2R2.375; PD-2A4(180); PT-2(180); PW-2A3**	PB-2A*; PD-2A4(90); PT-2(90)	PB-3A*; PD-3A4(90); PT-3(90)	PB-3A*; PT-3(120)	PB-3A*; PB-3R2.375	PB-4A*(180)	PB-4A*(90); PB-4R2.375; PD-4A4(90); PT-4(90)
0° Tilt							
0.74	1.48	1.19	1.93	1.63	3.33	4.66	2.38
10° Tilt							
0.75	1.48	1.49	2.23	2.15	4.22	5.84	2.98
20° Tilt							
1.12	1.48	1.86	2.60	2.85	5.31	7.32	3.72
30° Tilt							
1.46	1.48	2.20	2.94	3.56	6.34	8.68	4.40
45° Tilt							
1.96	1.96	2.69	3.43	4.54	7.83	10.68	5.38
60° Tilt							
2.33	2.33	3.07	3.81	5.11	8.94	12.16	6.14
70° Tilt							
2.49	2.49	3.23	3.97	5.11	9.43	12.80	6.46
80° Tilt							
2.58	2.58	3.32	4.06	5.11	9.71	13.15	6.64
Tenon Configuration (90° Tilt); If used with Cree tenons, please add tenon EPA with Luminaire EPA							
PB-1A*; PT-1; PW-1A3**	PB-2A*; PB-2R2.375; PD-2A4(180); PT-2(180); PW-2A3**	PB-2A*	PB-3A*	PB-3A*; PT-3(120)	PB-3A*; PB-3R2.375	PB-4A*(180)	PB-4A*(90); PB-4R2.375
90° Tilt							
2.61	2.61	4.44	6.05	5.11	9.79	13.28	10.39

* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation
 ** These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")



Lumark

DESCRIPTION

The patented Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

SPECIFICATION FEATURES

Construction

Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 7W and 18W. The large housing is available in the 26W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 7W models operate in -40°C to 40°C [-40°F to 104°F]. 18W and 26W models operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 90% of initial

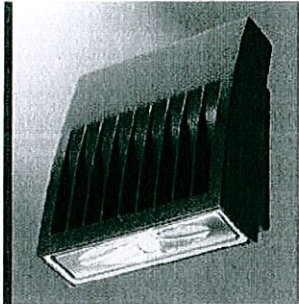
light output after 72,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

Finish

Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

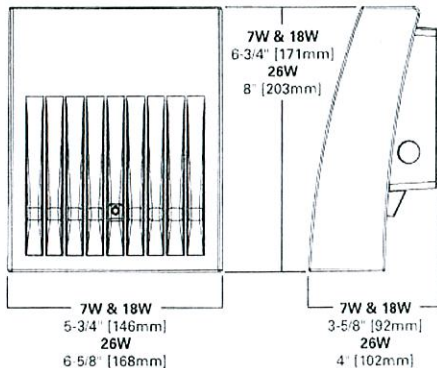
Five-year warranty.



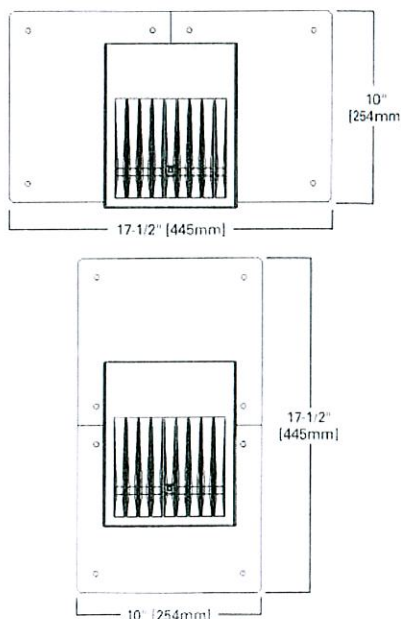
XTOR CROSSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA

UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingressed Protection Rated
Title 24 Compliant
DesignLights Consortium Qualified*

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area (Sq. Ft.):
XTOR1A/XTOR2A=0.34
XTOR3A=0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 - 5.25 lbs. [1.7 - 2.4 kgs.]

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR1A Model		
25°C	> 92%	> 290,000
40°C	> 92%	> 290,000
50°C	> 91%	> 270,000
XTOR2A Model		
25°C	> 91%	> 270,000
40°C	> 90%	> 260,000
50°C	> 88%	> 225,000
XTOR3A Model		
25°C	> 91%	> 280,000
40°C	> 91%	> 270,000
50°C	> 89%	> 240,000

LUMENS - CRI/CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens (Wall Mount)	1,222	1,633	1,523	2,804	2,284
Delivered Lumens (With Flood Accessory Kit) ¹	468	1,060	978	2,168	1,738
B.U.G. Rating ²	B0-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0
CCT (Kelvin)	5,000	5,000	3,500	5,000	3,500
CRI (Color Rendering Index)	65	65	70	65	70
Power Consumption (Watts)	7W	18W	18W	26W	26W

NOTES: 1 Includes shield and visor. 2 B.U.G. Rating does not apply to floodlighting.

CURRENT DRAW

Voltage	Model Series		
	XTOR1A	XTOR2A	XTOR3A
120V	0.05A	0.15A	0.22A
208V	0.03A	0.08A	0.13A
240V	0.03A	0.07A	0.11A
277V	0.03A	0.06A	0.10A
347V	0.025A	0.058A	0.082A

ORDERING INFORMATION

Sample Number: XTOR2A-N-WT-PC1

Series ¹	LED Kelvin Color	Housing Color	Options (Add as Suffix)	Accessories (Order Separately)
XTOR1A=Small Door, 7W XTOR2A=Small Door, 18W XTOR3A=Small Door, 26W	[Blank]=Bright White (Standard) 5000K N=Neutral Warm White, 3500K ²	[Blank]=Carbon Bronze (Standard) WT=Summit White	PC1=Photocontrol 120V ³ PC2=Photocontrol 208-277V ^{3,4} 347V=347V ⁵ HA=50°C High Ambient ⁵	WG/XTOR=Wire Guard ⁶ XTORFLD-KNC=Knuckle Floodlight Kit ⁷ XTORFLD-TRN=Trunnion Floodlight Kit ⁷ XTORFLD-KNC-WT=Knuckle Floodlight Kit, Summit White ⁷ XTORFLD-TRN-WT=Trunnion Floodlight Kit, Summit White ⁷ EWP/XTOR=Escutcheon Wall Plate, Carbon Bronze EWP/XTOR-WT=Escutcheon Wall Plate, Summit White

NOTES: 1 DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details. 2 XTOR1A not available in 3500K. 3 Photocontrols are factory installed. 4 Order PC2 for 347V models. 5 Thru-branch wiring not available with HA option or with 347V. 6 Wire guard for wall/surface mount. Not for use with floodlight kit accessory. 7 Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.

STOCK ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A=7W, 5000K, Carbon Bronze	XTOR2A=18W, 5000K, Carbon Bronze	XTOR3A=26W, 5000K, Carbon Bronze
XTOR1A-WT=7W, 5000K, Summit White	XTOR2A-N=18W, 3500K, Carbon Bronze	XTOR3A-N=26W, 3500K, Carbon Bronze
XTOR1A-PC1=7W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT=18W, Summit White	XTOR3A-WT=26W, Summit White
	XTOR2A-PC1=18W, 120V PC, Carbon Bronze	XTOR3A-PC1=26W, 120V PC, Carbon Bronze

5-DAY QUICK SHIP ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A-WT-PC1=7W, 5000K, Summit White, 120V PC	XTOR2A-PC2=18W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2=26W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1=18W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1=26W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2=18W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2=26W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT=18W, 3500K, Summit White	XTOR3A-N-WT=26W, 3500K, Summit White
	XTOR2A-N-PC1=18W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1=26W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2=18W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2=26W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WHT-PC1=18W, 3500K, Summit White, 120V PC	XTOR3A-N-WHT-PC1=26W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2=18W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2=26W, 3500K, Summit White, 208-277V PC

DESCRIPTION

The patented Lumark Crosstour™ Floodlight Kit easily attaches to the Crosstour LED Wall Pack luminaire. The floodlight kit converts 7W, 18W and 26W Crosstour wall mount luminaires into floodlighting luminaires suitable for ground or wall mount applications. Crosstour LED offers seamless architectural style with super bright energy efficient LEDs. The low-profile, rugged construction of the easy to install knuckle or trunnion base along with stainless steel hardware, visors and impact guards make Crosstour LED an "all-in-one" universal product offering that installs virtually anywhere.

SPECIFICATION FEATURES

Application

The Crosstour LED luminaire with knuckle or trunnion floodlight kit is ideal for floodlight illumination of ground mounted signage, building façade architecture or for wall mount applications where greater forward throw illumination is needed.

Construction

KNUCKLE FLOODLIGHTING BASE: Heavy-duty, die-cast aluminum knuckle base utilizes tooth-lock adjustment mechanism for both solid engagement and easy aiming adjustment. Visual 15° adjustment indicators allow for 180° rotation of the luminaire. Knuckle adjustment is made via the stainless steel screw. Knuckle is 3G vibration rated. Knuckle fits 1/2" NPS available mounting junction box cover (supplied by others) and is secured with supplied locking nut. Attaches directly to the Crosstour LED Wall Mount back box via the supplied magnetic stainless steel hardware.

TRUNNION FLOODLIGHTING

BASE: Adjustable heavy-gauge steel trunnion-mount utilizes interlocking slide adjustment mechanism for precise aiming and secure installation. Supplied standard with 12" of pre-wired SOW 600V wet location rated cord. Visual 15° adjustment indicators allow for 180° rotation of the luminaire. Trunnion base can be lag bolted to any surface and is 3G vibration rated. Quickly attaches to the Crosstour LED Wall Mount back box via the supplied magnetic stainless steel hardware.

Electrical

Three-wire electrical conductor wire is pre-wired to the knuckle base allowing easy wiring to junction box utility power and to the Crosstour LED luminaire. Trunnion base includes 12" SOW cord/whip. The SOW cord is 18AWG and is rated for -40°C to 90°C. SOW cord is highly flexible and features stranded copper conductors, separator and is secured in a thermoplastic elastomeric rubber jacket.

Top Visors and Impact Guards

Supplied with heavy-duty steel top visors that quickly attach to the Crosstour LED Wall Pack 7W, 18W and 26W housing via the supplied stainless steel hardware. Crosstour top visors control glare and spill light in all directions. Useful in uplighting applications to limit light travel above intended wall surface or sign. 1/8" Thick UV stabilized impact guards install directly into the visor via the side-slot lock feature. Useful in protecting the Crosstour LED glass lens from projectile objects when mounted at low levels.

Finish

Crosstour is protected with a five-stage TGIC Super durable carbon bronze or summit white polyester powder coat paint. Premium TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the Crosstour installed life.



LUMINAIRE
SOLD SEPERATELY

Crosstour LED
Floodlight Kit

CERTIFICATION DATA

(Floodlight Kit Only)
UL/cUL Wet Location Listed
3G Vibration Rated Trunnion

SHIPPING DATA

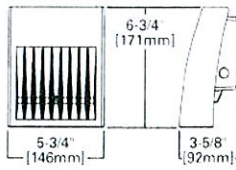
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1.2 - 1.9 lbs. (0.5 - 0.9 kgs.)

STOCK ORDERING INFORMATION

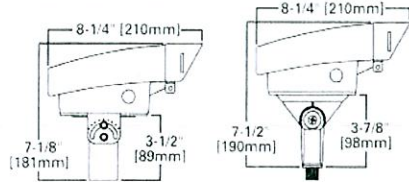
Knuckle Mount Floodlighting Kit	Trunnion Mount Floodlighting Kit
XTORFLD-KNC =Carbon Bronze Knuckle Base With Locking Nut, Small and Large Top Visors and Impact Shields	XTORFLD-TRN =Carbon Bronze Trunnion Base With 12' Wet Location SOW Cord, Small and Large Top Visors and Impact Shields
XTORFLD-KNC-WT =Summit White Knuckle Base With Locking Nut, Small and Large Top Visors and Impact Shields	XTORFLD-TRN-WT =Summit White Trunnion Base With 12' Wet Location SOW Cord, Small and Large Top Visors and Impact Shields

DIMENSIONS

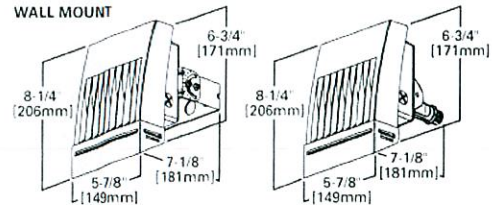
SMALL (7W and 18W)



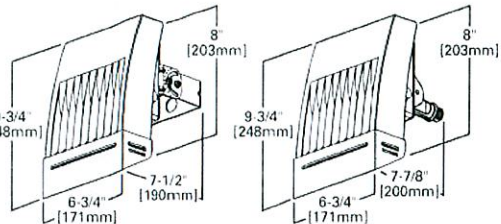
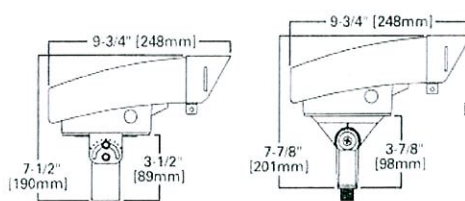
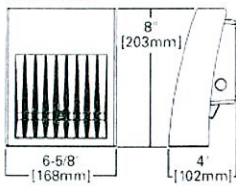
GROUND MOUNT



WALL MOUNT



LARGE (26W)



LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR1A Model		
25°C	> 92%	> 290,000
40°C	> 92%	> 290,000
50°C	> 91%	> 270,000
XTOR2A Model		
25°C	> 91%	> 270,000
40°C	> 90%	> 260,000
50°C	> 88%	> 225,000
XTOR3A Model		
25°C	> 91%	> 280,000
40°C	> 91%	> 270,000
50°C	> 89%	> 240,000

CRI/CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens (Wall Mount)	722	1,633	1,523	2,804	2,284
Delivered Lumens (With Flood Accessory Kit) ¹	468	1,060	978	2,168	1,738
B.U.G. Rating ²	B0-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0
CCT (Kelvin)	5,000	5,000	3,500	5,000	3,500
CRI (Color Rendering Index)	65	65	70	65	70
Power Consumption (Watts)	7W	18W	18W	26W	26W

NOTES: 1 Includes shield and visor. 2 B.U.G. Rating does not apply to floodlighting.

CURRENT DRAW

Voltage	Model Series		
	XTOR1A	XTOR2A	XTOR3A
120V	0.05A	0.15A	0.22A
208V	0.03A	0.08A	0.13A
240V	0.03A	0.07A	0.11A
277V	0.03A	0.06A	0.10A
347V	0.025A	0.058A	0.082A


$$1/4'' = 1'-0''$$

2

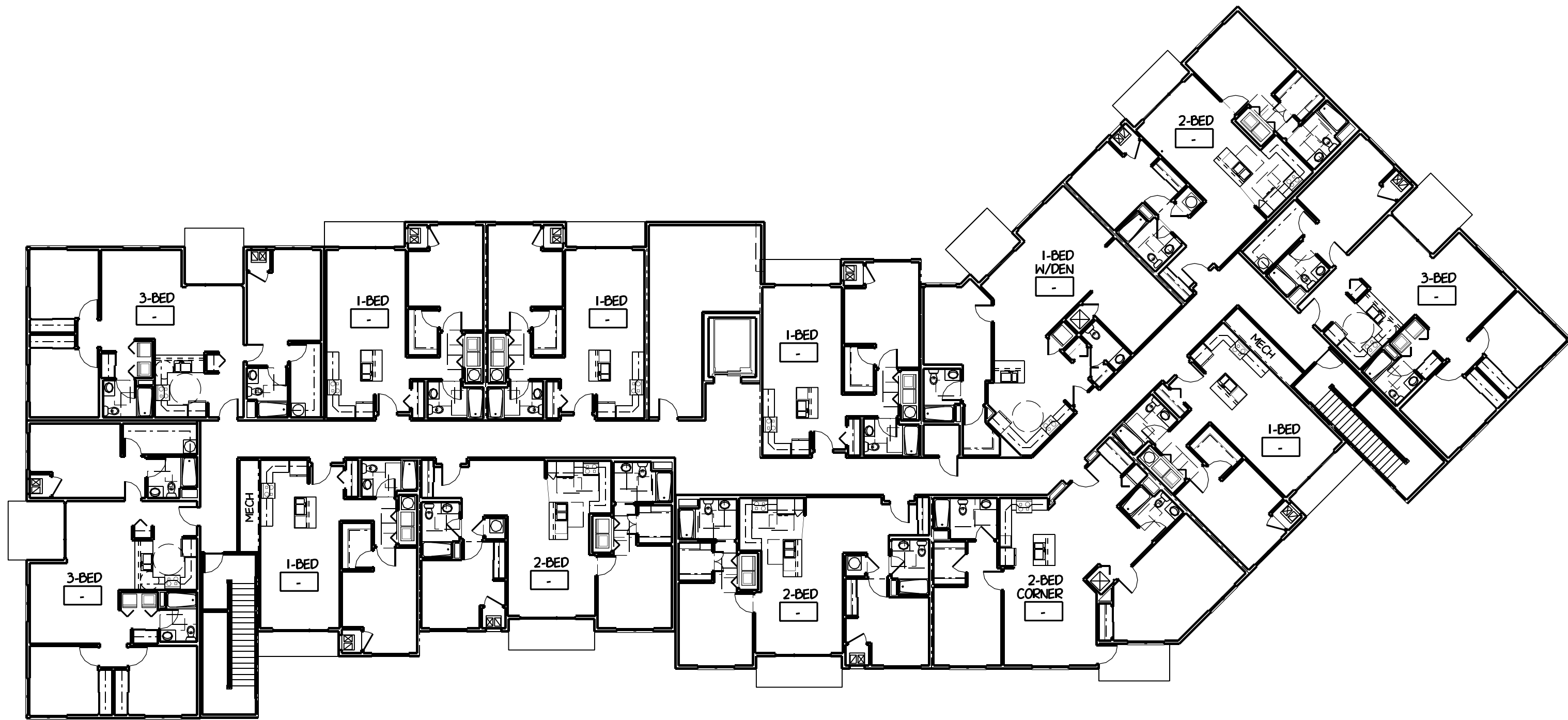
G230


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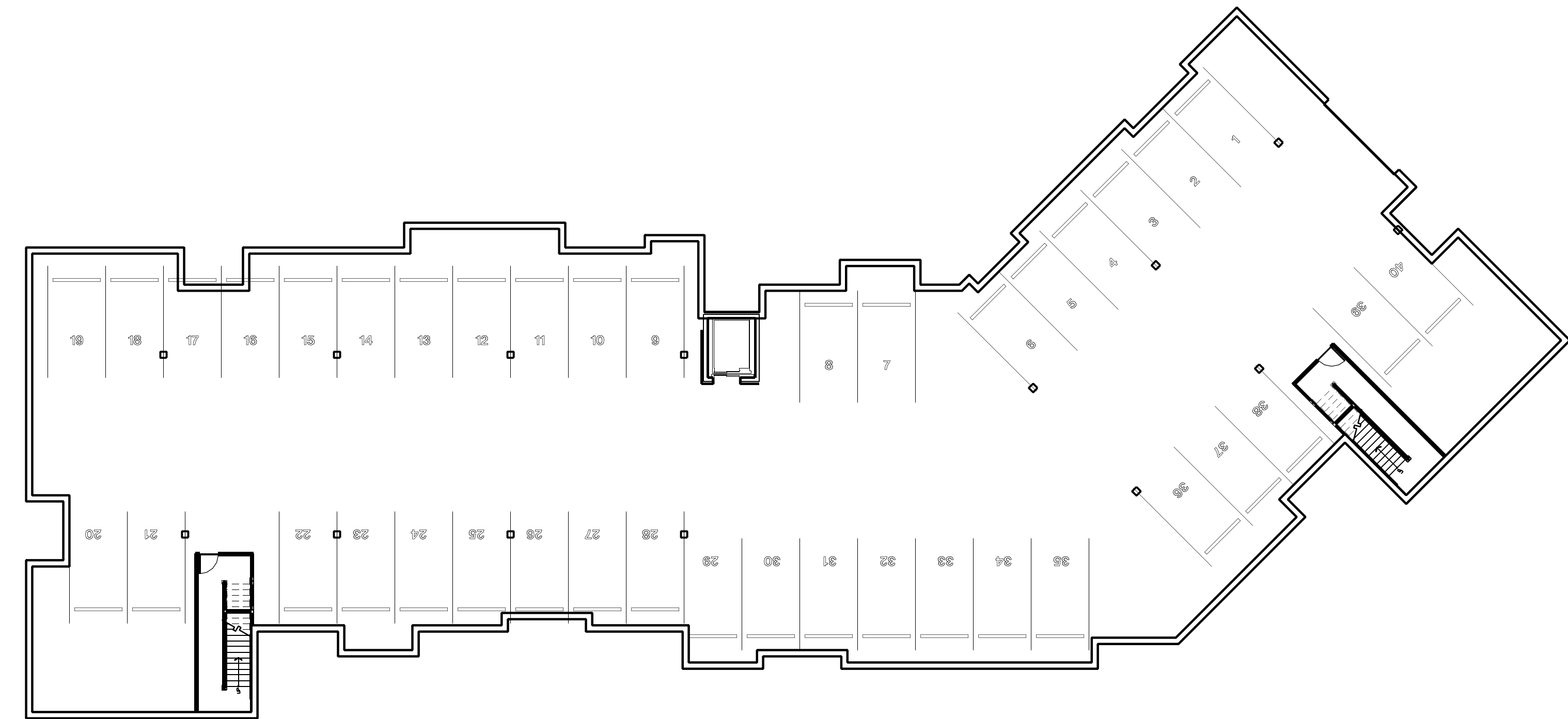
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G230

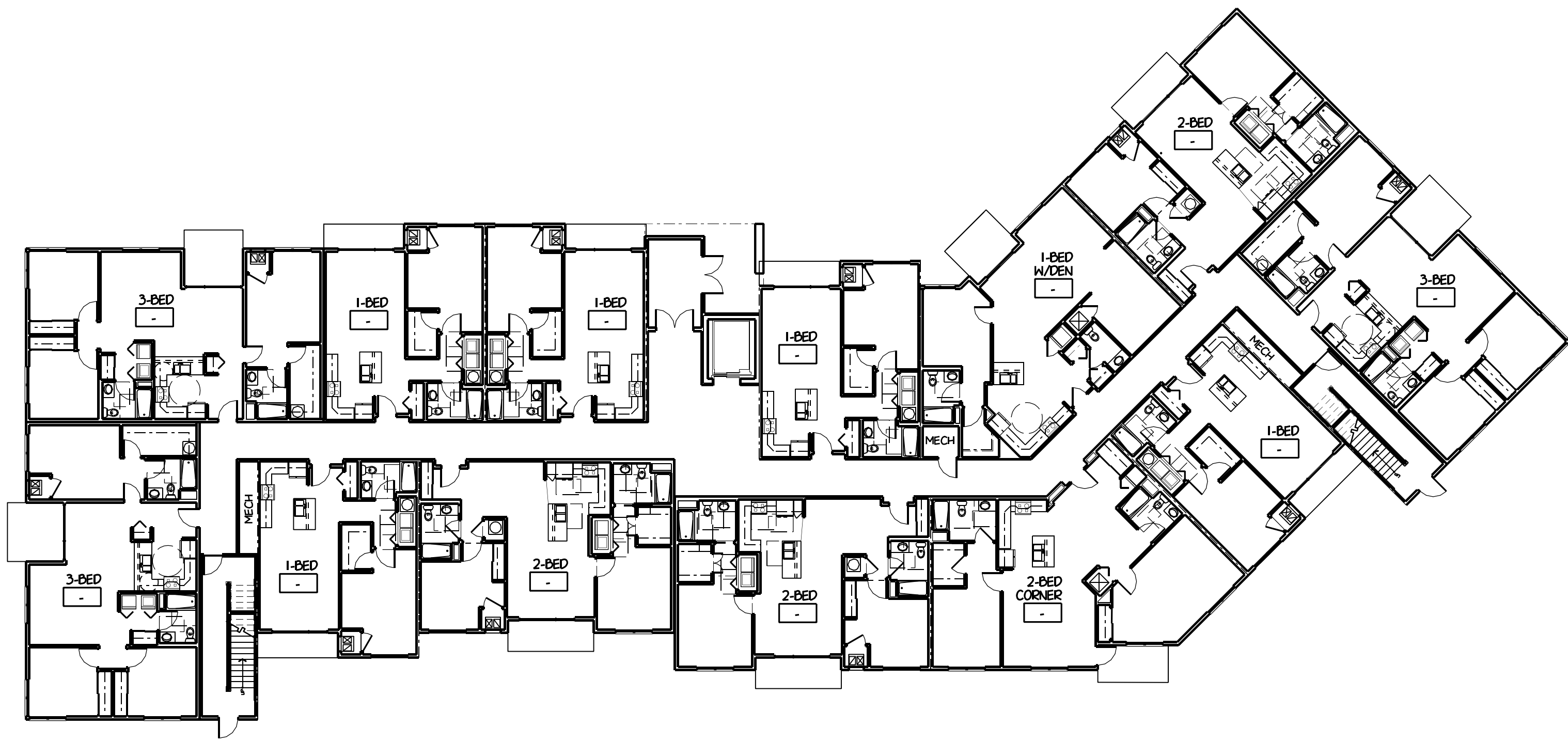
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PLOT ORIENT: LANDSCAPE PLOT ORIENT: PORTRAIT PLOT SCALE: 1/8" = 1'-0"



SECOND FLOOR PLAN



UNDERGROUND PARKING PLAN



FIRST FLOOR PLAN



1414 UNDERWOOD AVE.
WAUKESHA, WI 53133
414.431.3131 TEL
414.431.0331 FAX
WWW.AGARCH.COM

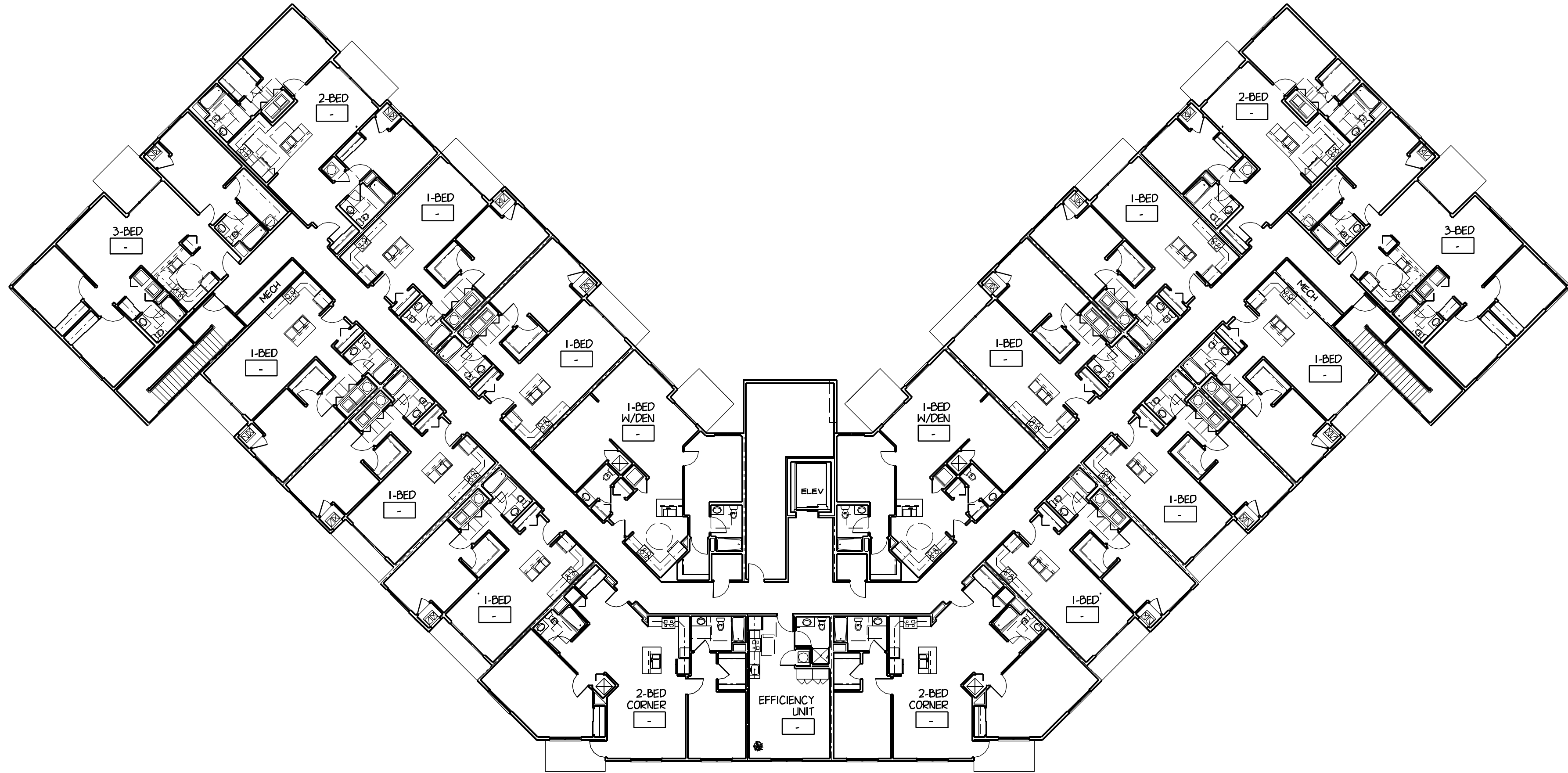
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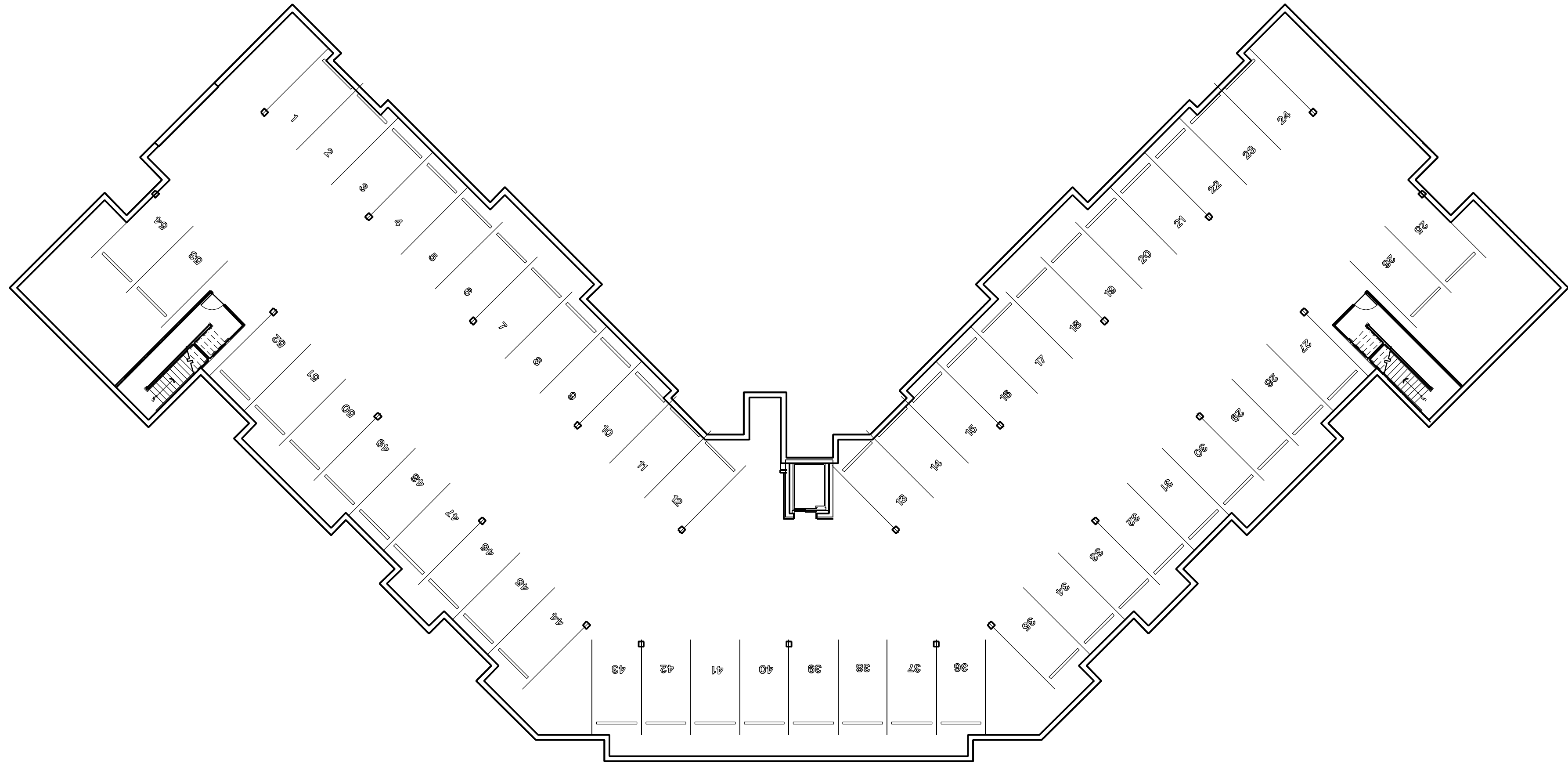
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DATE
15 OCT 2015
PROJECT
150501
SHEET NO.

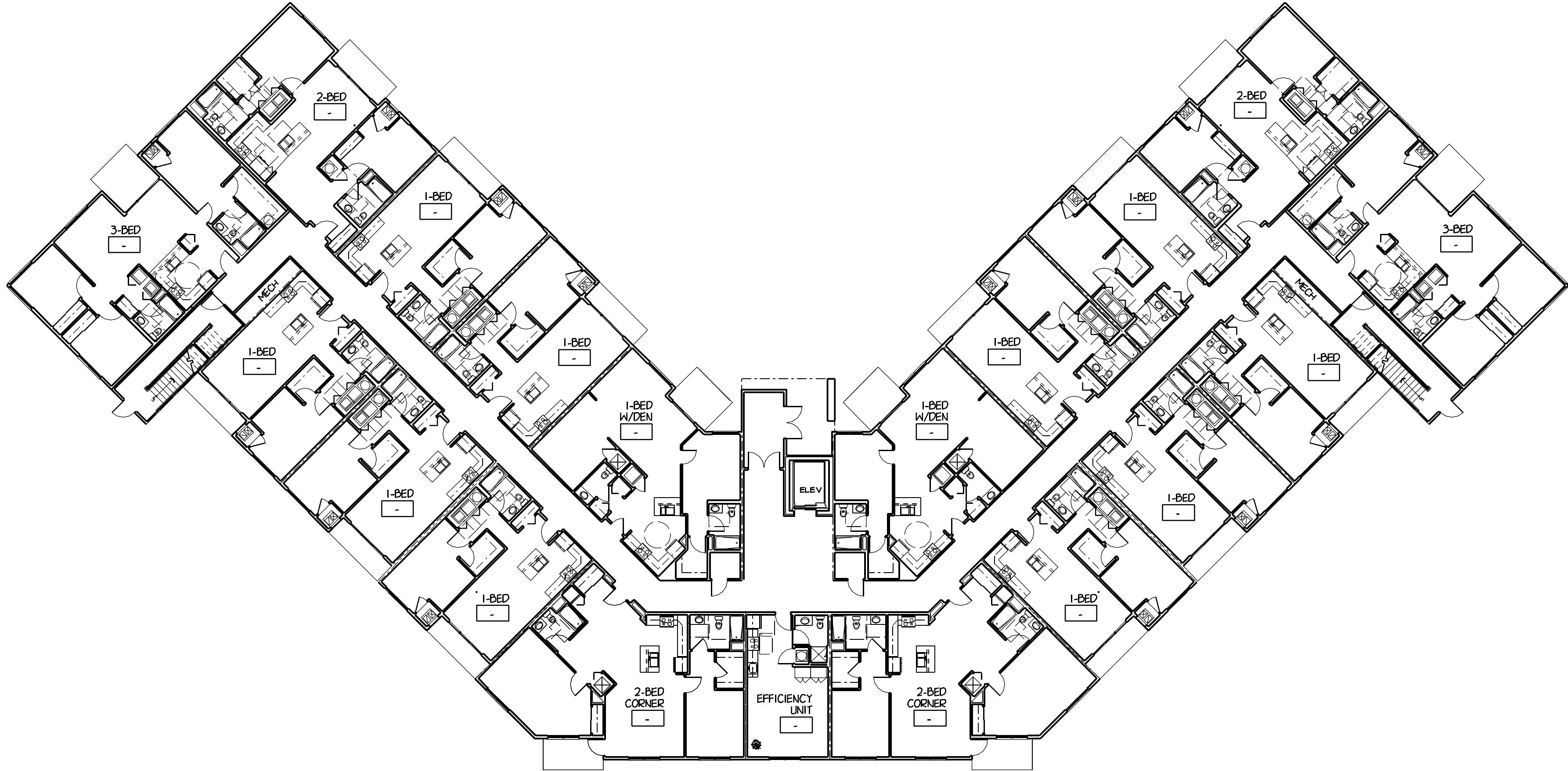
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SECOND FLOOR PLAN



UNDERGROUND PARKING PLAN



FIRST FLOOR PLAN



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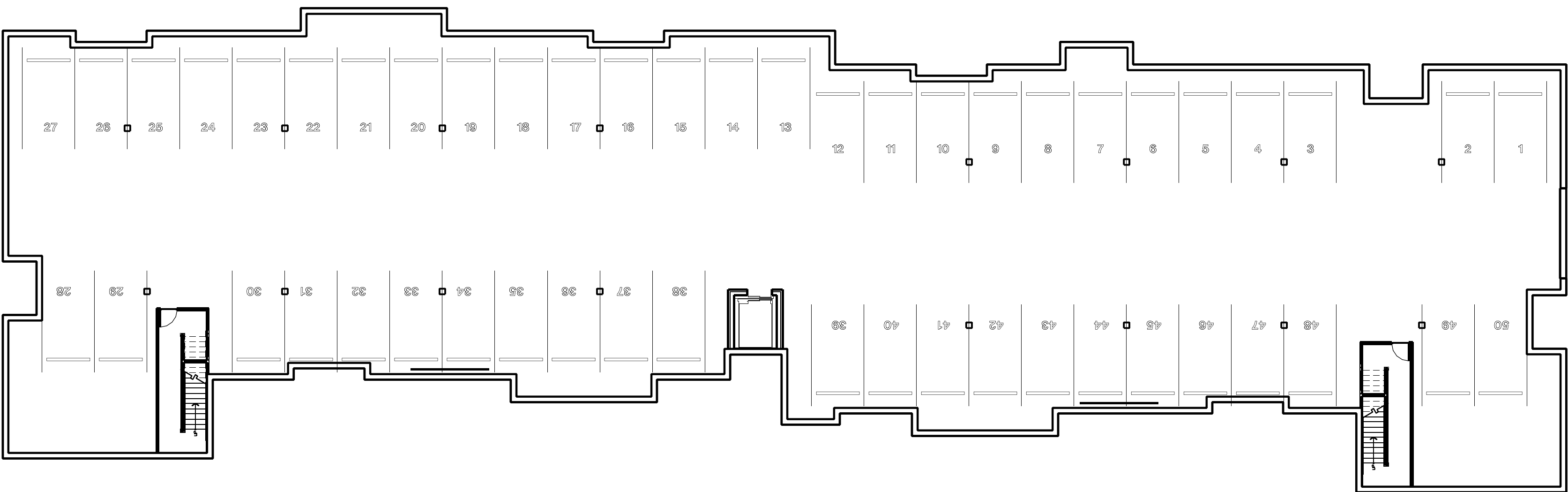
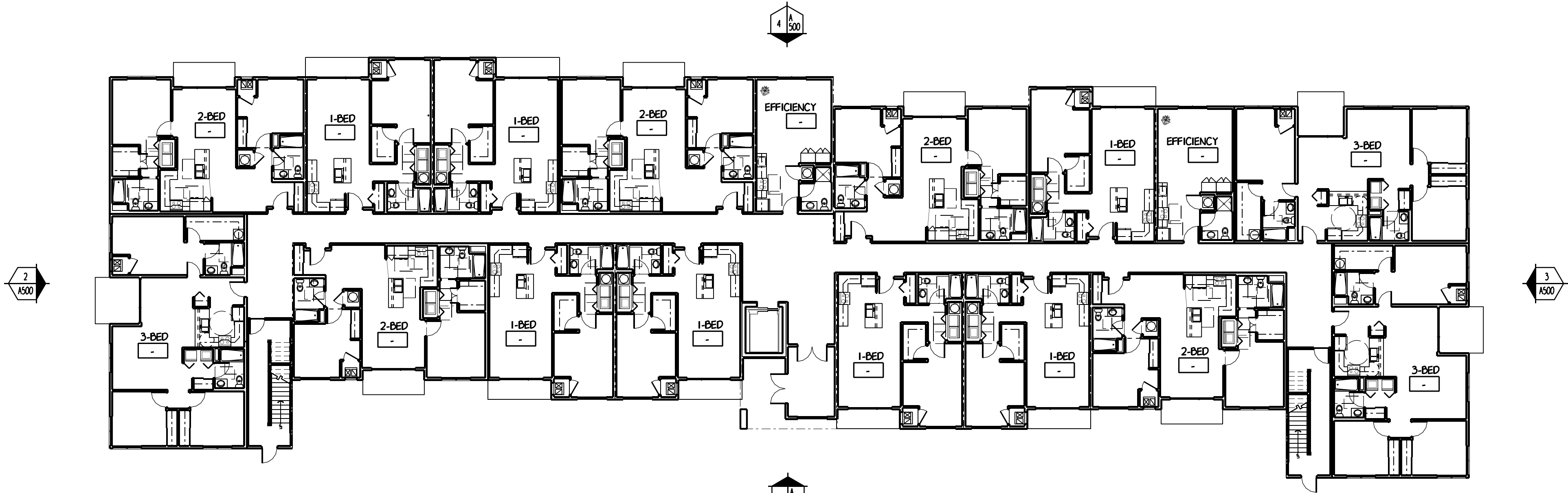
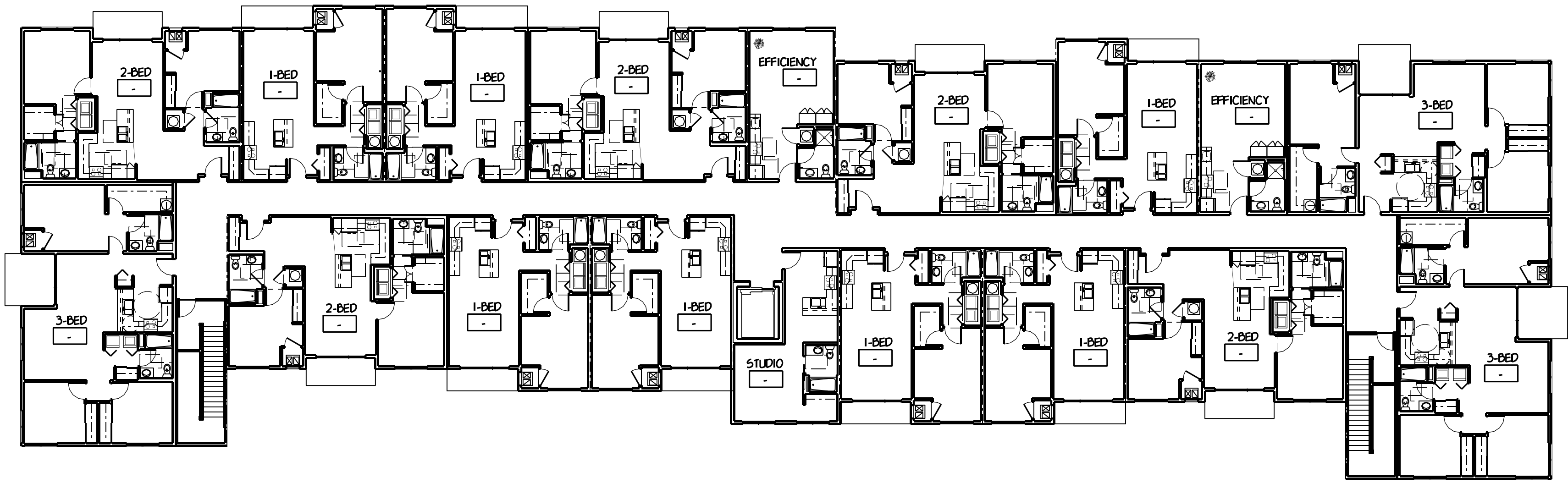
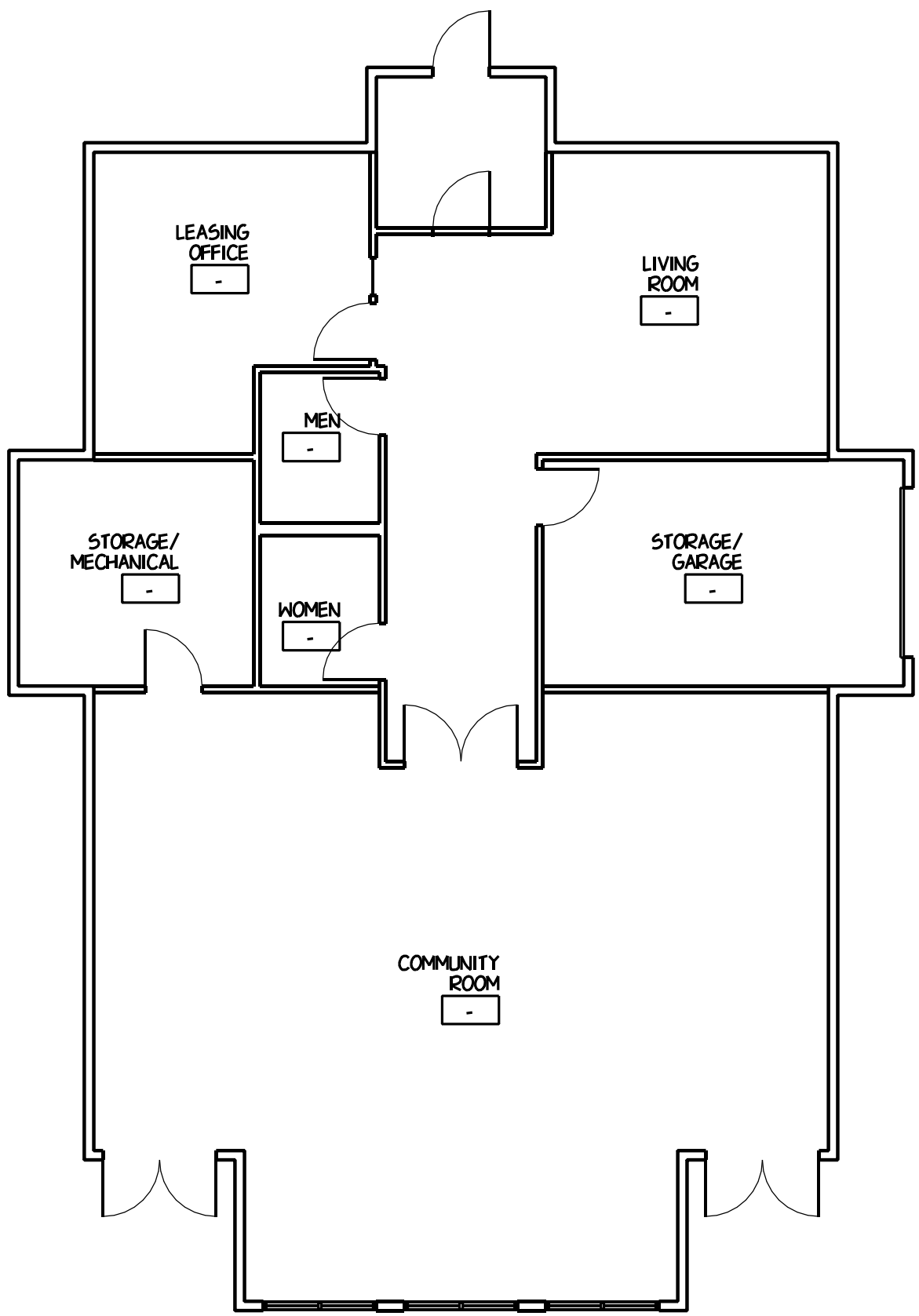
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 PROJECT
 150501
 SHEET NO.

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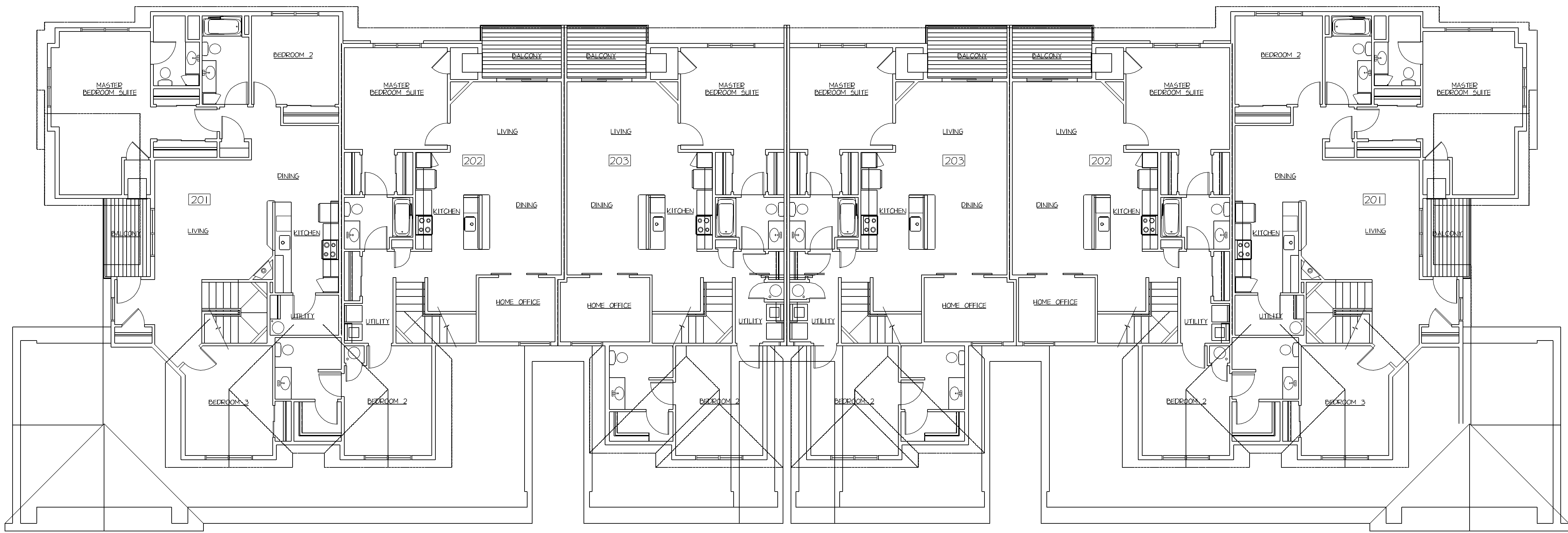
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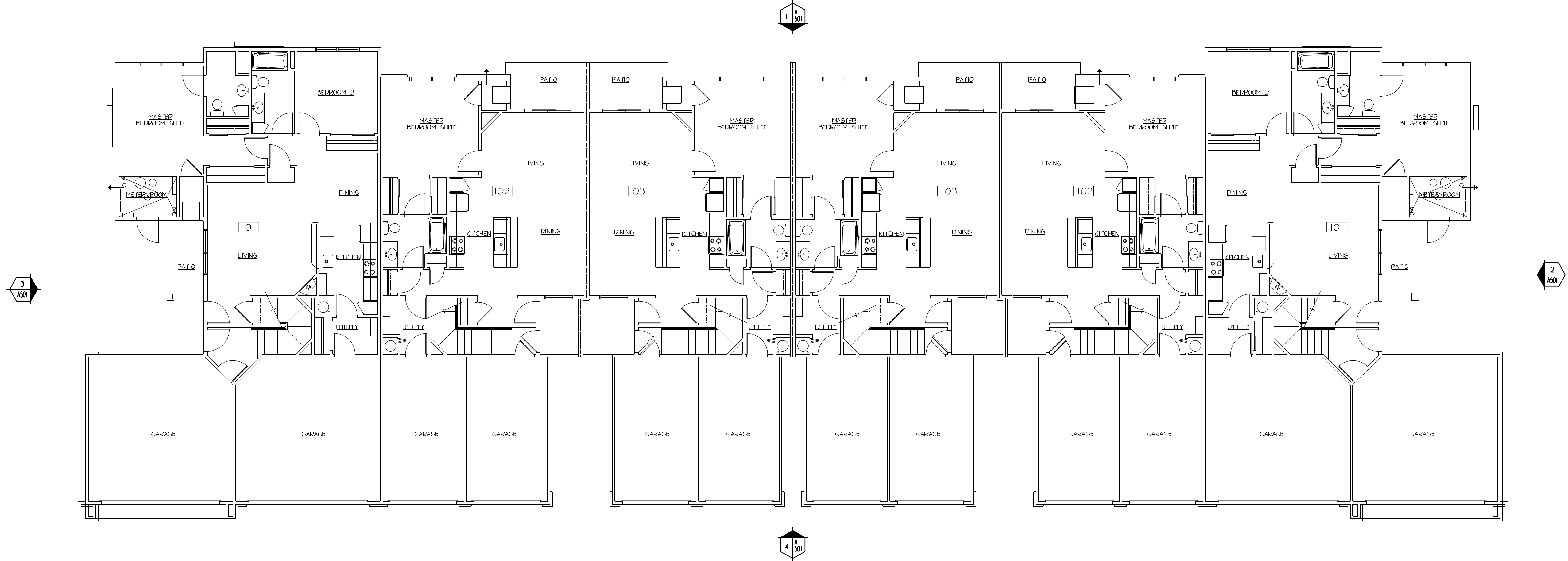
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SHEET NO.

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12-UNIT SECOND FLOOR PLAN



12-UNIT FIRST FLOOR PLAN



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1/8" BLDG. 6 – FLOOR PLANS A203

Saxony Village

Germantown

Wisconsin



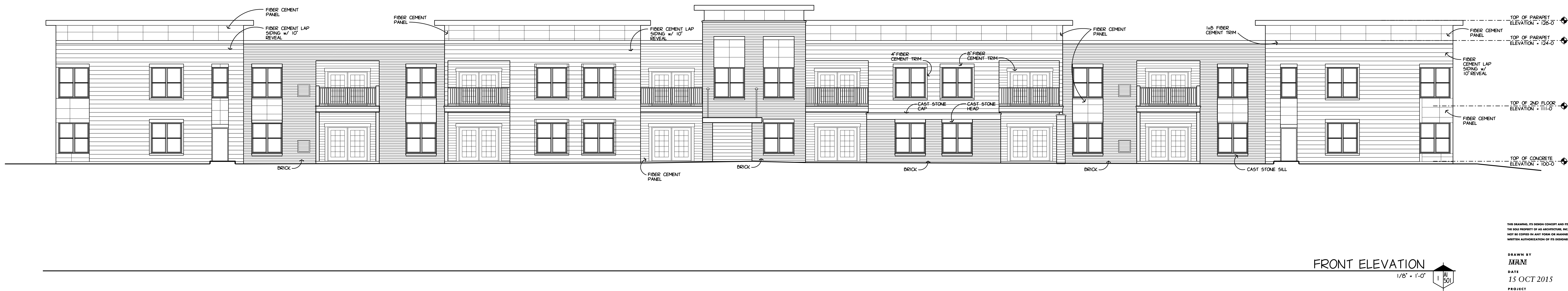
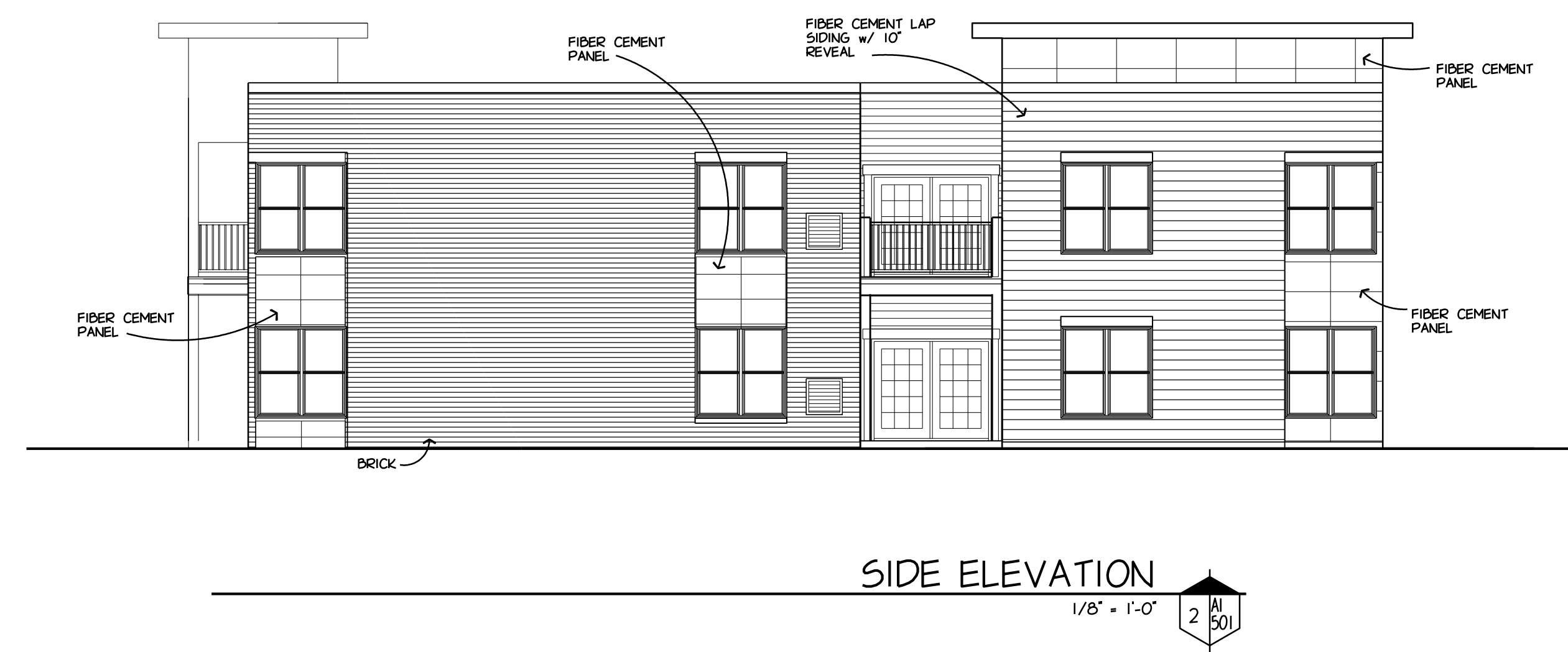
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SHEET NO.



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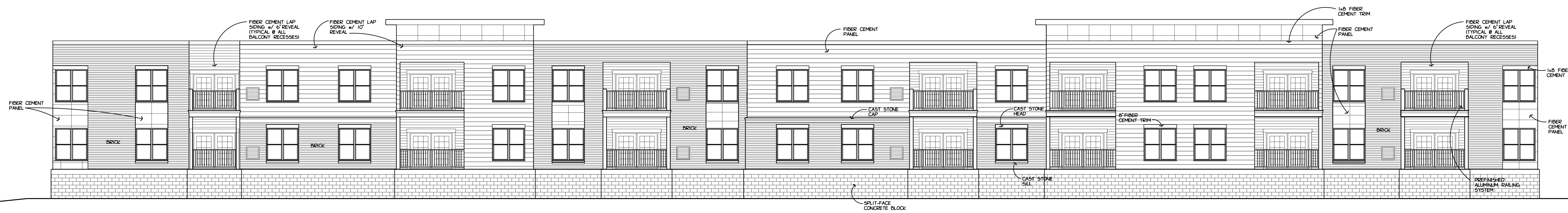
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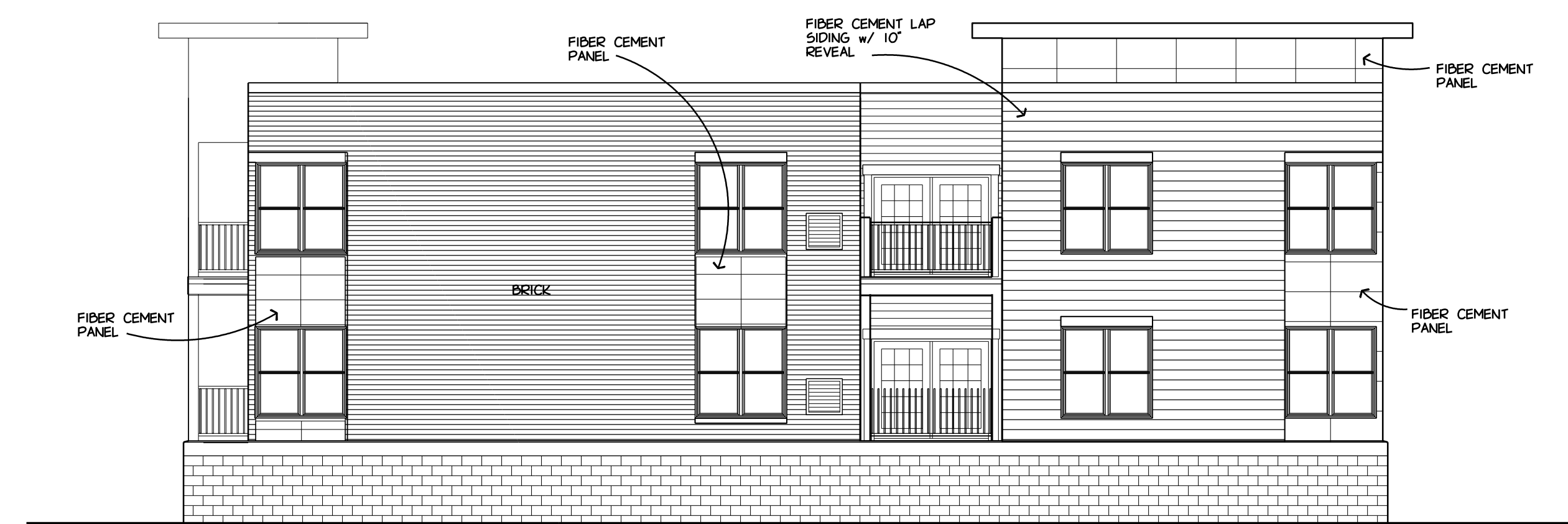
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DRN
DATE
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PROJECT
150501
SHEET NO.



REAR ELEVATION
1/8" = 1'-0"
4



SIDE ELEVATION
1/8" = 1'-0"
3



SIDE ELEVATION
1/8" = 1'-0"
2

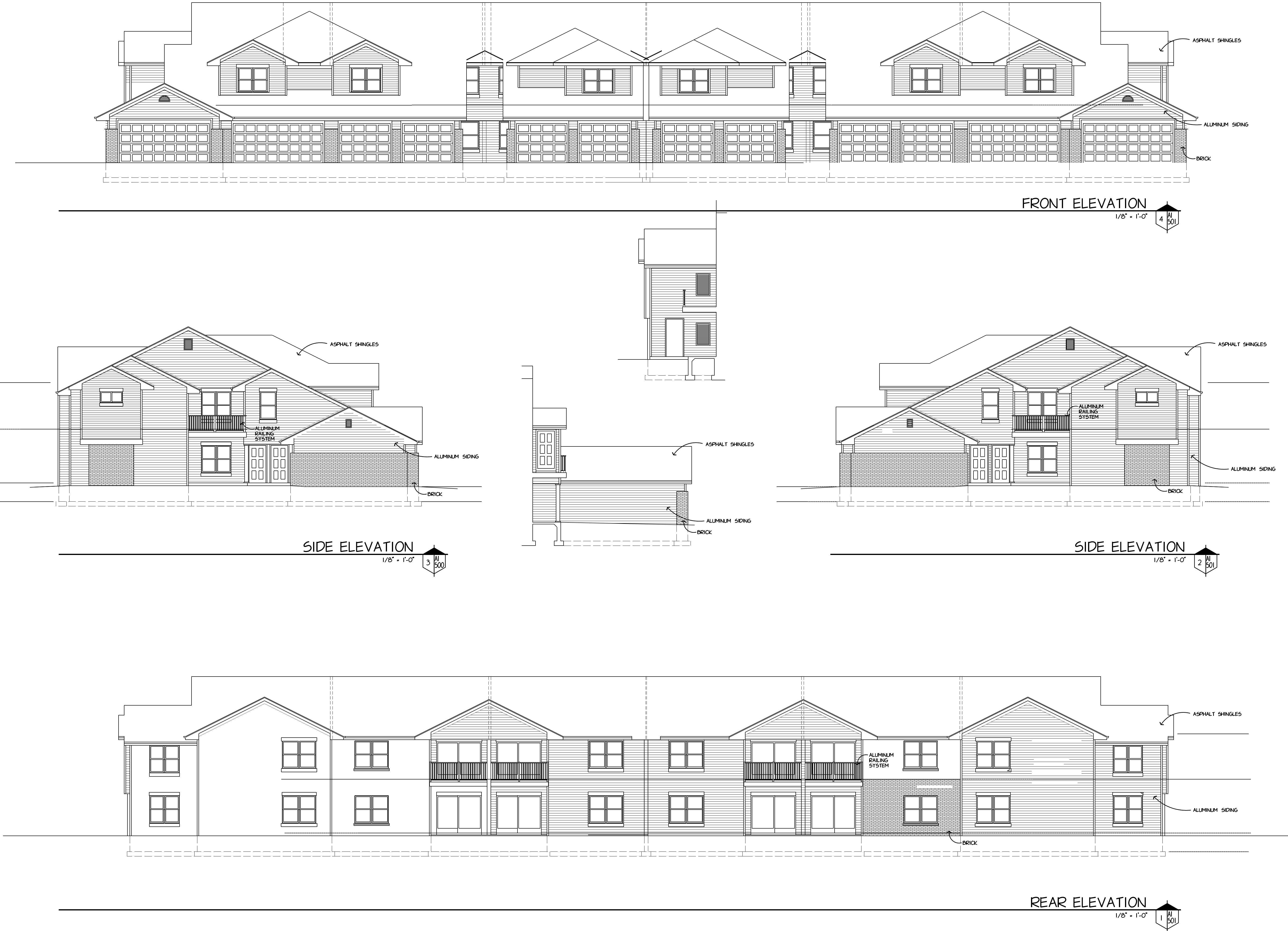


FRONT ELEVATION
1/8" = 1'-0"
1

ELEVATION NOTE:
THESE ELEVATIONS SHOW THE PARKING STRUCTURE
PARTIALLY ABOVE FINISHED GRADE. EXPOSURES VARY BY
BUILDING AND BY ELEVATION. FINAL BUILDING EXPOSURES
WILL BE SHOWN ON THE CONSTRUCTION DRAWINGS.

PLOT PARAMETERS: FILE: K:\150501\SAXONY VILLAGE\ASB\ALT. 01.DWG
PLOTTED ON: 12/3/2015 9:43:29 AM BY: USER: NMA
USING: PLOTTER: LT WATSON/HP-CLT WATSON/CLT, 12/3/2015

PLOT PARAMETERS: 11.61 X 17.00 IN. CADD: A501.DGN
PLOT DATE: 10/20/2015 8:23:24 AM BY: USER: RES
PLOT SCALE: 1/8" = 1'-0" PLOT SHEET: 150501
PLOT PATH: C:\WORKSPACE\150501\150501.DWG



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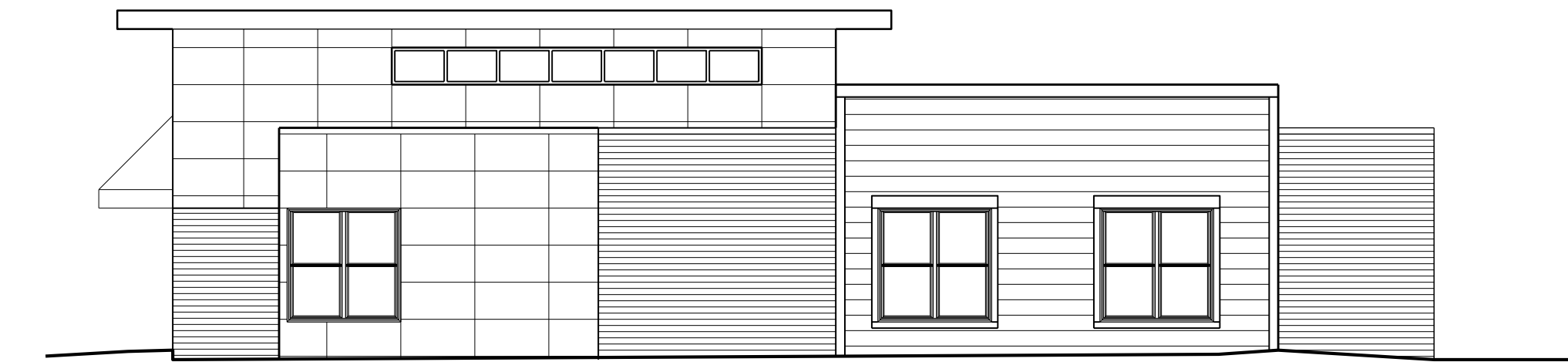
DRAWN BY
DRN
DATE
15 OCT 2015
PROJECT
150501
SHEET NO.

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Saxony Village
Germantown

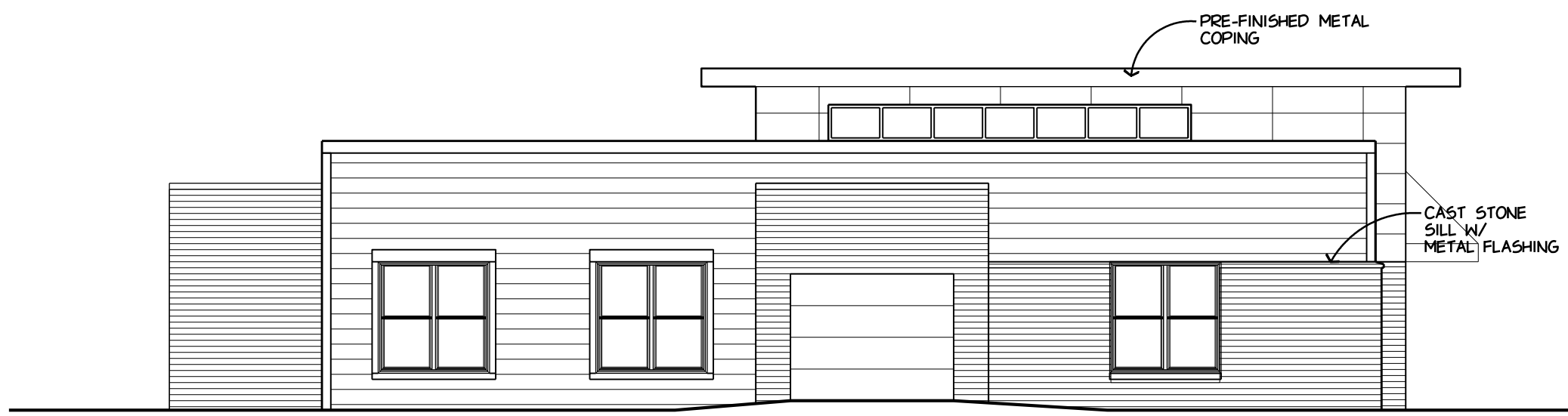
Wisconsin

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 USING: PLOTTER: HP DesignJet 5000PS, PLOTTER: A1, PLOT: 11x17



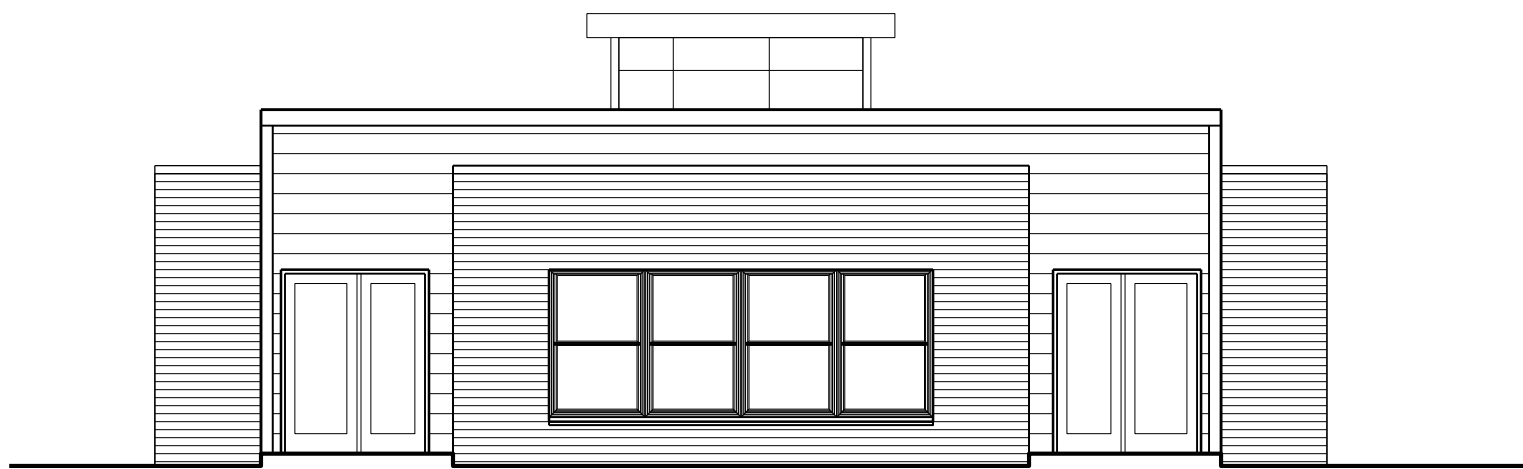
SIDE ELEVATION

1/8" = 1'-0" 2 A1 4



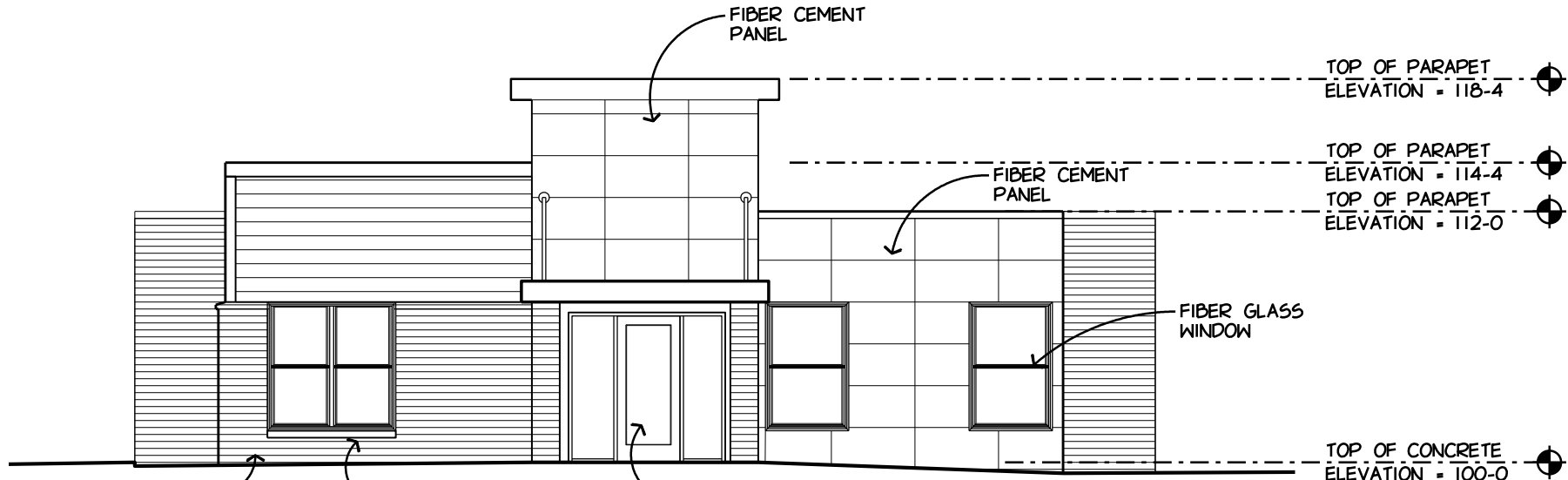
SIDE ELEVATION

1/8" = 1'-0" 2 A1 501



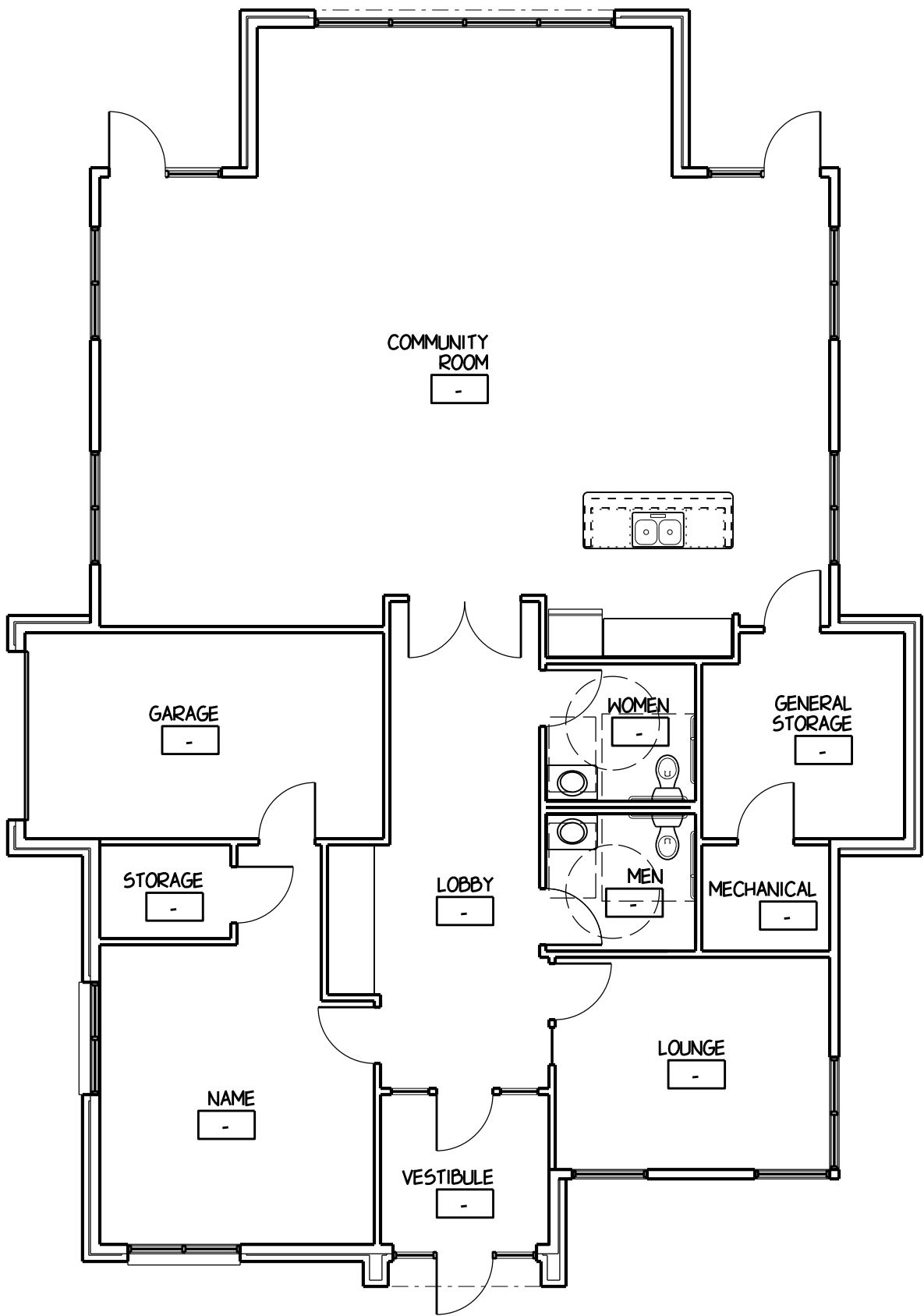
REAR ELEVATION

1/8" = 1'-0" 1 A1 3



FRONT ELEVATION

1/8" = 1'-0" 1 A1 501



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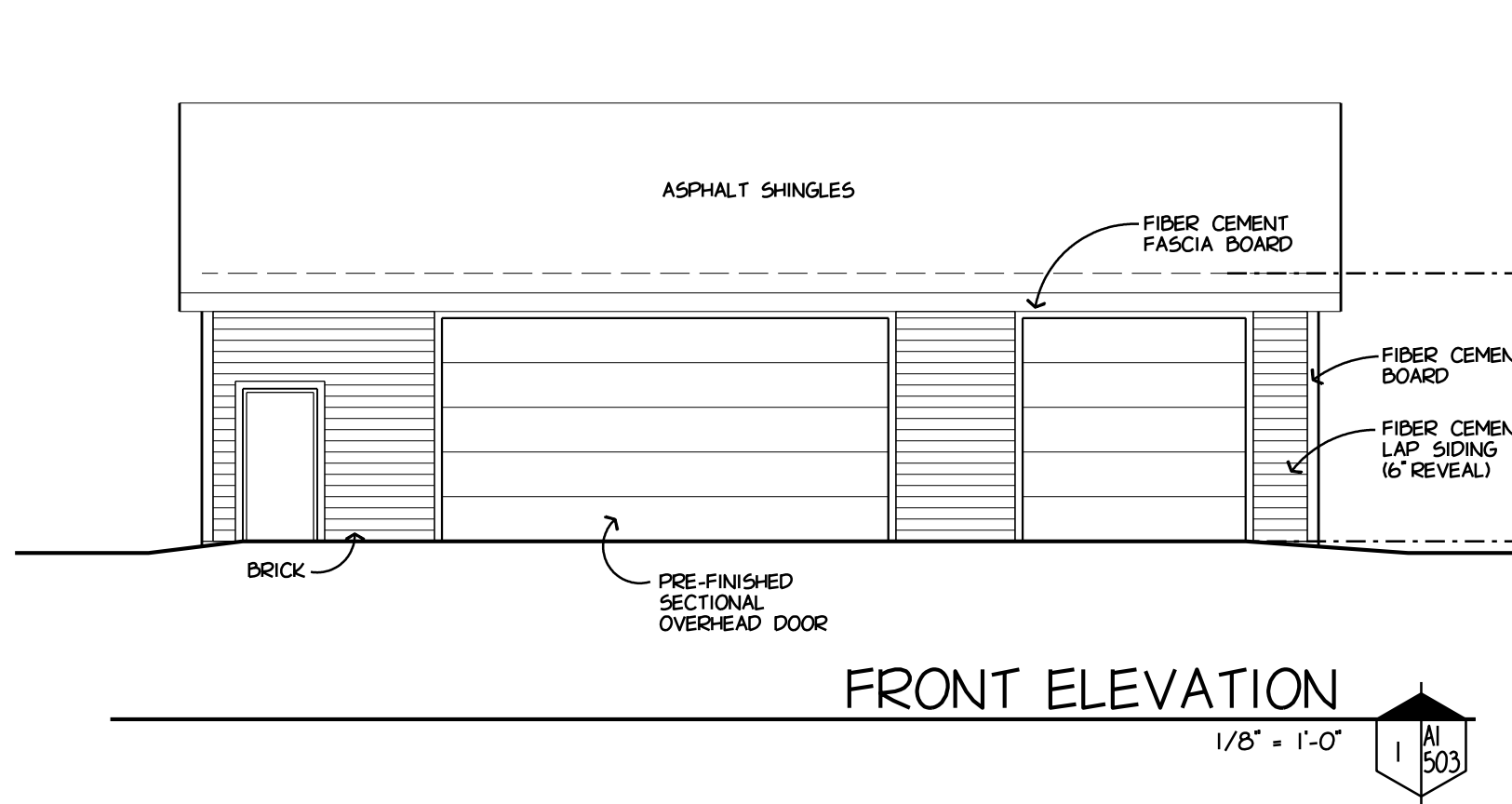
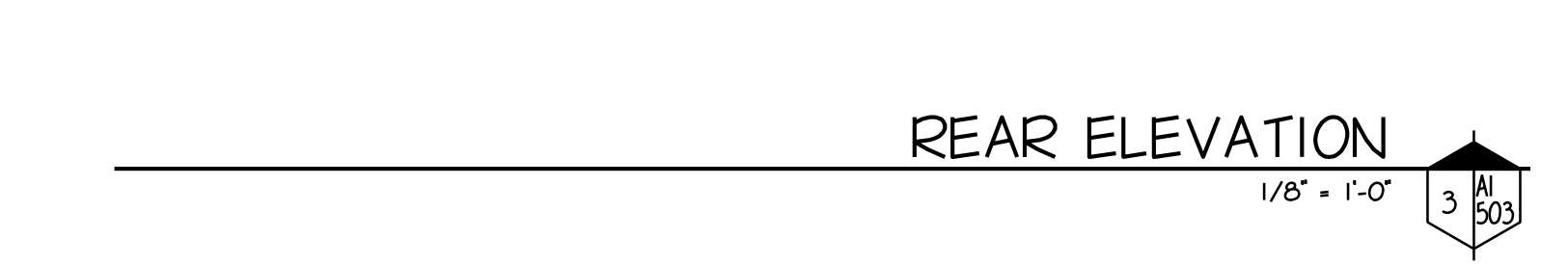
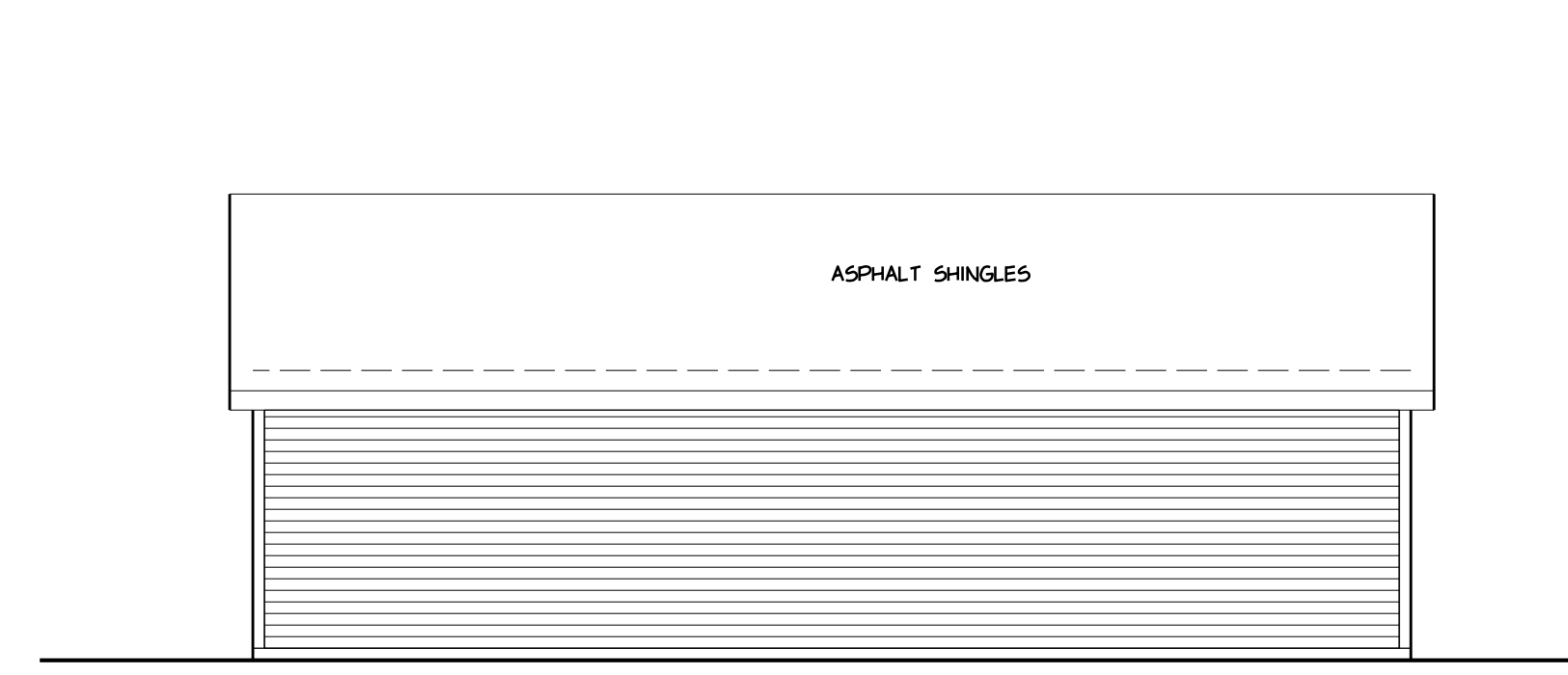
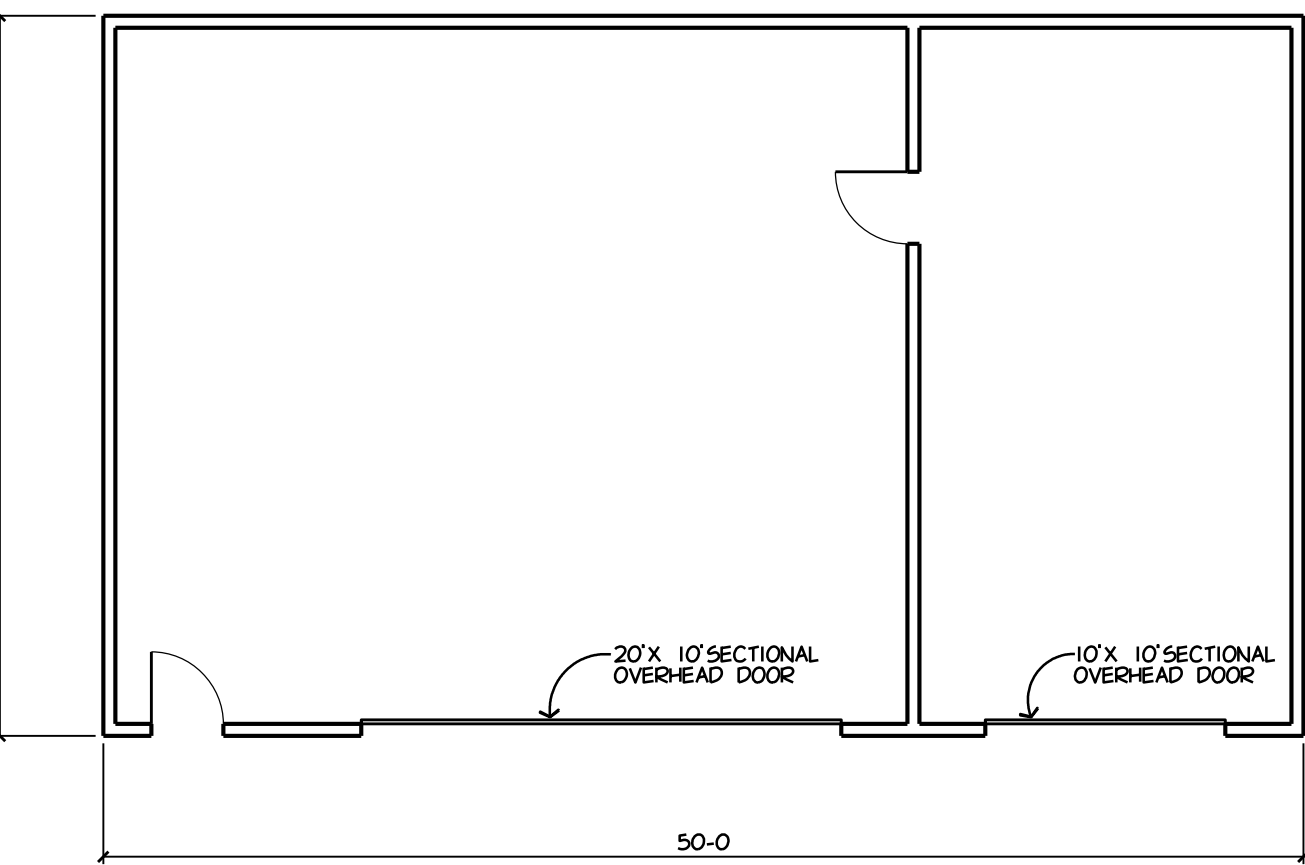
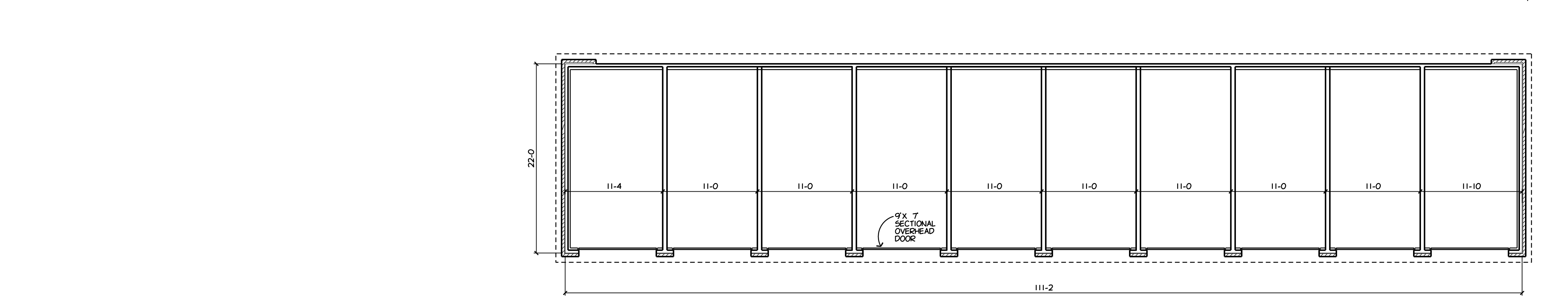
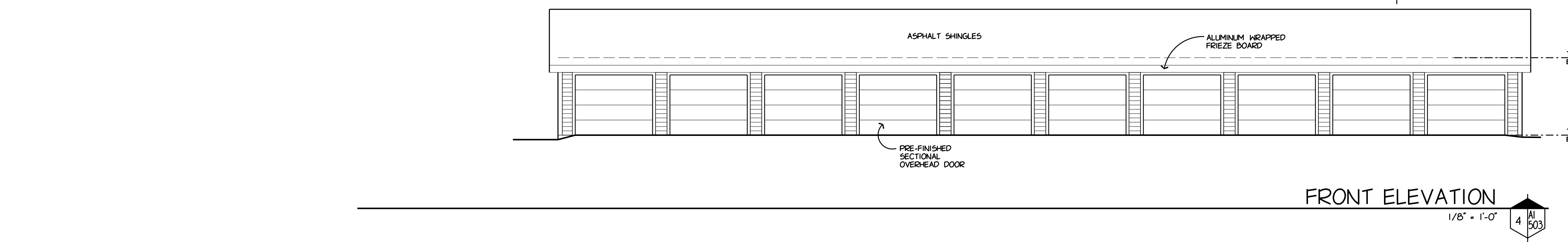
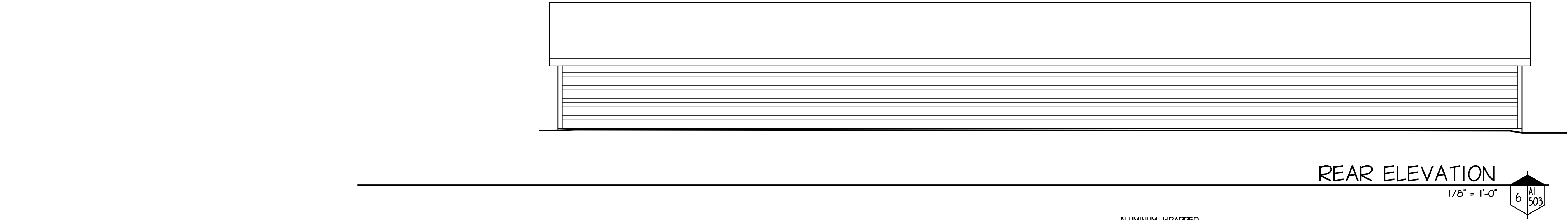
Germantown

Saxony Village

A502

Wisconsin

PLOT PARAMETERS: FILE: K:\16800\CAUTIONAREAS.DGN
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 USING: PLOTTER: L1:HP-DesignJet T1100PS, PLOT: HP-DesignJet T1100PS



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1/8" MAINTENANCE BLDG./GARAGE – EXTERIOR ELEVATIONS & PLAN A503

Wisconsin



PERSPECTIVE - BUILDING 4
Saxony Village
Germantown, WI





PERSPECTIVE - BUILDING 1
Saxony Village
Germantown, WI





PERSPECTIVE - VIEW OF BOULEVARD
Saxony Village
Germantown, WI



PERSPECTIVE - VIEW FROM BALCONY
Saxony Village
Germantown, WI



PERSPECTIVE - CLUBHOUSE
Saxony Village
Germantown, WI

