

PLAN COMMISSION REPORT

Proposal: Conditional Use Permit – Ground-Mounted Solar Energy Collection System

Description: Review a request for a Conditional Use Permit with conditions and restrictions for a ground-mounted solar energy collection system.

Applicant(s): Michael Stohl, Donohue & Associates; Nina Fricano, Milwaukee Metropolitan Sewage District

Address(es): 8400 S. 5th Avenue (4th Aldermanic District)

Suggested Motion: That the Plan Commission recommends that the Common Council approves a Conditional Use Permit for a ground-mounted solar energy collection system at Milwaukee Metropolitan Sewage District, located at 8400 S. 5th Avenue, after a public hearing and subject to Conditions and Restrictions.

Owner(s): Milwaukee Metropolitan Sewage District

Tax Key(s): 821-9998-000

Lot Size(s): 45.36 acres

Current Zoning District(s): I-1, Institutional

Overlay District(s): FF, Flood Fringe

Wetlands: Yes No **Floodplain:** Yes No

Comprehensive Plan: Utility & Railroad

Background: The Applicant is seeking approval of a Conditional Use Permit to operate a ground-mounted solar energy collection system at 8400 S. 5th Avenue. The property is zoned I-1 Institutional. Under this zoning designation, a ground-mounted solar energy collection system is permitted as a Conditional Use.

The properties to the west are zoned Rs-3 and Rs-4 (Single-Family Residential) and A-1 (Agricultural). The property to the south is zoned I-1 Institutional. Properties to the north are located in the City of South Milwaukee and are single-family residential use. Lake Michigan lies to the east. The parcel is currently used for municipal wastewater treatment and related utility operations.

The Applicant proposes six (6) rows of solar panels with a total approximate area of 89,000 square feet, or roughly two (2) acres in the northwest corner of the parcel. Each solar panel will be 9.75 feet tall measured from the base at grade to the highest edge. The nearest setback of the solar array from the front property line along 5th Avenue is 34 feet.

The mechanical equipment, an 8'x8' transformer and a 16'x9' switchboard enclosure, will be located approximately 15 feet from the front property line, southwest of the array. The solar array will be enclosed within the existing chain-link fence topped with barbed wire that surrounds the property. The fence is located at a zero (0)-foot setback along the north and east property lines.

In January 2026, the Applicant received three (3) variances from the City of Oak Creek Board of Zoning Appeals for this project.

First, the Board granted a variance from Municipal Code Section 17.0414(p)(1), allowing the solar array to be located between the principal structure and the front property line.

Second, the Board approved a variance from Section 17.0301(b), which requires a minimum 15-foot setback from wetlands, permitting the array to be installed with a zero (0)-foot setback from existing wetlands.

Third, the Board granted a variance from Section 17.0414(p)(3), which limits the height of ground-mounted energy collection systems to five (5) feet, allowing the solar panels to reach a height of 9.75 feet.

Screening: The Applicant proposes to screen the ground-mounted solar array with arborvitae plantings located between the existing fence and the solar panels. The arborvitae are expected to grow to approximately 10 feet in height and will provide screening from the northern edge of the array to a point approximately 125 feet south of the southernmost panels. South of the arborvitae, an existing berm and vegetation will continue to screen the array.

No screening is proposed around the northwest corner of the parcel to shield views of the array from 5th Avenue to the north. According to the Applicant, additional plantings in this area would create shading that could adversely affect the array's performance. The attached renderings illustrate how the proposed screening would appear from 5th Avenue. Staff recommends that the array be fully screened from the public right-of-way along 5th Avenue, including at the northwest corner. These requirements are incorporated into the attached Conditions and Restrictions.

No additional screening is proposed for the mechanical equipment located southwest of the array, as the general screening for the array is expected to shield this equipment from view along 5th Avenue. According to the Applicant, the solar panels, switchgear, and switchboard do not generate noise. The transformer will emit a low, steady electrical hum that is detectable only at close range. The nearest

residence is a single-family home located across 5th Avenue at 8329 S. 5th Avenue, approximately 100 feet from the transformer. The project is not expected to generate additional truck traffic in the area.

Parking & Maintenance: The proposed solar array does not include any additional parking areas or driveway extensions. Maintenance will occur a few times a year and the site will be accessed from the existing gravel driveway or elsewhere on the property. Vegetation management will be seasonal and limited to occasional mowing and maintenance during the growing season.

Options/Alternatives: If the Commission determines the proposed Conditional Use meets the requirements of the Municipal Code, a public hearing may be scheduled as early as April 6, 2026. Staff has also prepared Conditions and Restrictions for review (attached). The approval of the Conditional Use, along with these Conditions and Restrictions, does not constitute approval of a site plan and architectural review. A separate site plan and architectural review will be required.

The Plan Commission has the discretion to recommend or not recommend Common Council approval of the Conditional Use Permit request. Should the request not be recommended for Council approval, Plan Commissioners must provide the Code Sections upon which the denial is based, and the Applicant may choose to request Council approval without recommendation. In that case, the Council would have the authority to approve the request, and remand the proposal back to the Plan Commission for Conditions and Restrictions.

Respectfully submitted & approved by:



Kristi Laine
Community Development Director

Prepared by:



Nic D'Amato
Planner

Attachments:

Draft Conditions and Restrictions (3 pages)

Location Map

Site Plan, Renderings & Narrative (10 pages)

**City of Oak Creek – Conditional Use Permit (CUP)
Conditions and Restrictions**

Applicant(s): Michael Stohl, Donohue & Associates;
Nina Fricano, Milwaukee Metropolitan Sewage District
Property Address(es): 8400 S. 5th Avenue
Tax Key Number(s): 821-9998-000
Conditional Use(s): Ground-mounted solar energy
collection system

Approved by Plan Commission: TBD
Approved by Common Council: TBD
(Res. TBD)

1. REQUIRED PLANS, EASEMENTS, AGREEMENTS AND PUBLIC IMPROVEMENTS

- A. All requirements of the City of Oak Creek Municipal Code, as amended, are in effect.
- B. Any plans for new buildings, additions, exterior remodeling, site modifications, and landscaping shall be submitted to the Plan Commission for their review and approval prior to the issuance of any building permits. The approval of the Conditional Use, along with these Conditions and Restrictions, does not constitute approval of a site plan and architectural review. A separate site plan and architectural review will be required.
- C. For any new buildings, additions, structures, and site modifications, site grading and drainage, stormwater management, and erosion control plans shall be submitted to the City Engineer for approval, if required. The City Engineer's approval must be received prior to the issuance of any building permits.
- D. A Development Agreement shall be completed between the owner(s) and the City if deemed necessary by the City Engineer so as to ensure the construction or installation of public or other improvements required, and/or as specified by these Conditions and Restrictions.
- E. All new electric, telephone and cable TV service wires or cable shall be installed underground within the boundaries of this property.

2. SITE & USE RESTRICTIONS, MAINTENANCE & OPERATION REQUIREMENTS

- A. Only the designated area of approximately 89,000 square feet shown on the approved site plan for ground-mounted solar energy collection systems, in accordance with these Conditions and Restrictions, is allowed on the property. Other uses permitted by the zoning district, in accordance with other applicable sections of the City of Oak Creek Municipal Code and these Conditions and Restrictions, are also allowed on the property.
- B. All components of the approved ground-mounted solar energy collection system that are visible from any public right-of-way must be screened from public view.
- C. The ground-mounted solar energy collection system shall meet all accessory use standards and requirements as stated in Section 17.0414(p), as amended, with the exception of variances granted for Sections 17.0414(p)(1) and 17.0414(p)(3). Variances approved on January 5, 2026 by the City of Oak Creek Board of Zoning Appeals allow the solar panels to be located between the principal structure and the front property line and to be a maximum of 9.75 feet in height, per the submitted plans.
- D. Any change to the occupancy of the site or building shall conform to all Building, Fire, and Municipal

Code requirements, as amended.

E. Solid waste collection and recycling shall be the responsibility of the owner.

F. Removal of snow from off-street parking areas, walks, public sidewalks, private roads and access drives shall be the responsibility of the landowner(s).

3. BULK AND DIMENSIONAL STANDARDS

Bulk and dimensional standards shall comply with Chapter 17, Article III of the City Municipal Code, as amended, except for the wetland setback requirement of a minimum 15 feet as noted in Table 17.0301(b). A variance approved by the City of Oak Creek Board of Zoning Appeals on January 5, 2026 allows the solar panels to be installed with a zero (0)-foot setback from existing wetlands.

4. PARKING AND ACCESS

Parking for this development shall be provided in accordance with Sections 17.0501, 17.0502, & 17.0503 of the Municipal Code, as amended.

5. LIGHTING

Any plans for new or replacement outdoor lighting shall be reviewed and approved by the Plan Commission and Electrical Inspector in accordance with Section 17.0509 of the Municipal Code, as amended.

6. SIGNAGE

A permit shall be required prior to the display, construction, erection, or alteration of any proposed sign(s). All signs must comply with Chapter 17, Article VI of the City Code and applicable sections of the building code as adopted by the City, as amended.

7. PERFORMANCE STANDARDS

The use must comply with performance standards as stated in Section 17.0510 of Municipal Code, as amended.

8. TIME OF COMPLIANCE

The operator of the Conditional Use shall commence work in accordance with these Conditions and Restrictions within twelve (12) months from the date of adoption of the resolution authorizing this Conditional Use. This Conditional Use approval shall expire within twelve (12) months after the date of adoption of the resolution if building or occupancy permits have not been issued for this use.

9. OTHER REGULATIONS

Compliance with all other applicable City, State, DNR and Federal regulations, laws, Code, ordinances, and orders, as amended, not heretofore stated or referenced, is mandatory.

10. VIOLATIONS & PENALTIES

Any violations of the terms of this Conditional Use Permit shall be subject to enforcement and the issuance of citations in accordance with Section 1.20 of the City of Oak Creek Code of Ordinances (as amended). If the owner, applicant or operator of the Conditional Use Permit is convicted of two or more violations of these Conditions and Restrictions or any other municipal ordinances within any 12-month period, the City shall have

the right to revoke this Conditional Use Permit, subject to the provisions of Paragraph 11 herein. Nothing herein shall preclude the City from commencing an action in Milwaukee County Circuit Court to enforce the terms of this Conditional Use Permit or to seek an injunction regarding any violation of this Conditional Use Permit or any other City ordinances.

11. REVOCATION

Should an applicant, their heirs, successors or assigns, fail to comply with the Conditions and Restrictions of the approval issued by the Common Council, the Conditional Use Permit approval may be revoked. The process for revoking an approval shall generally follow the procedures for approving Conditional Use Permit as set forth in Section 17.0804 of the Municipal Code, as amended.

12. ACKNOWLEDGEMENT

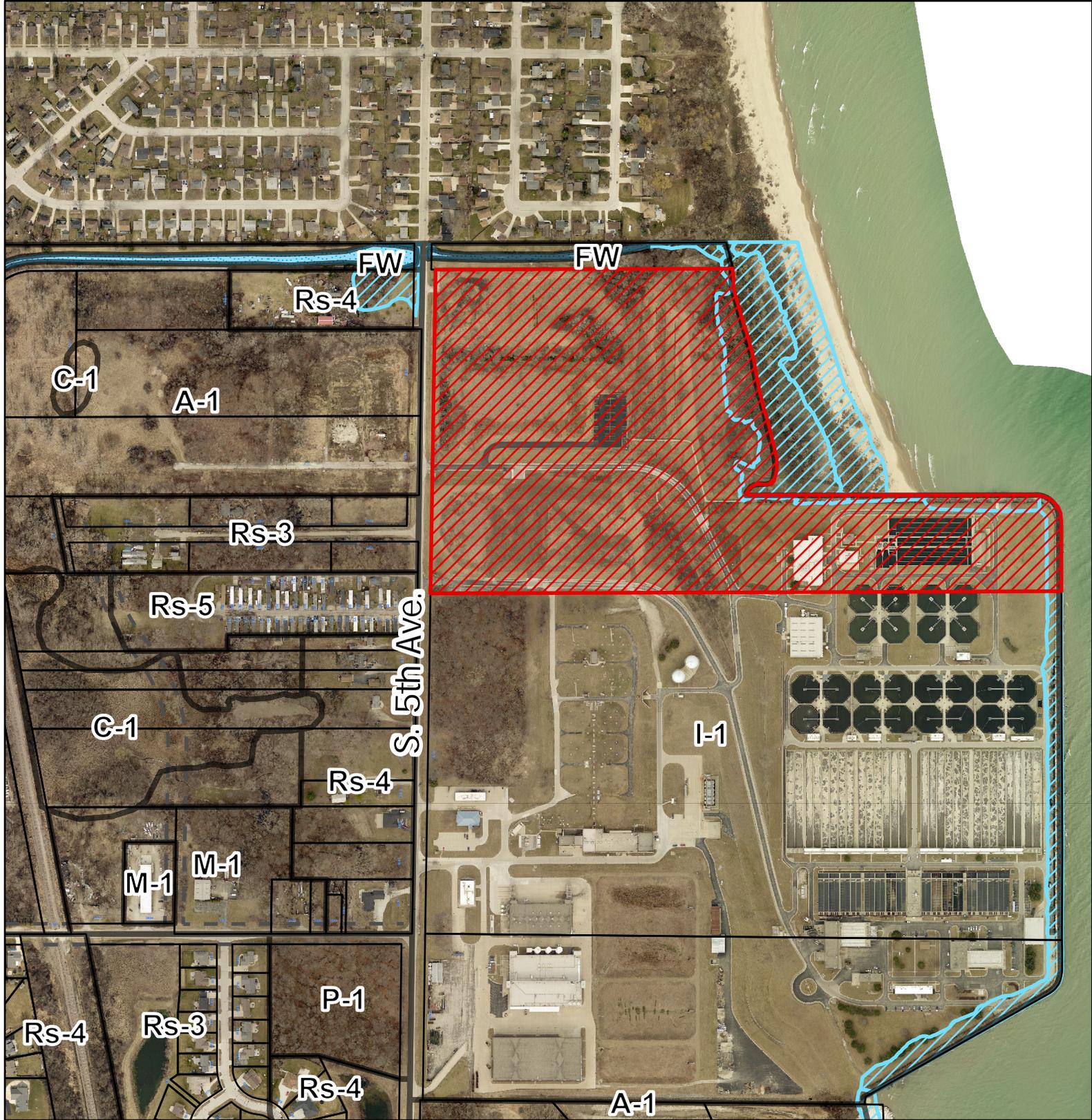
The approval and execution of these Conditions and Restrictions shall confirm acceptance of the terms and conditions hereof by the owner, and these Conditions and Restrictions shall run with the property unless revoked by the City, or terminated by mutual agreement of the City and the owner, and their subsidiaries, related entities, successors and assigns subject to Paragraph 11 above.

(please print name)

(please print name)

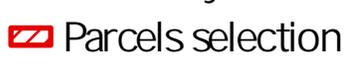
Location Map

8400 S. 5th Ave.



This map is not a survey of the actual boundary of the property this map depicts

Legend

-  Zoning
-  Official Street Map
-  Parcels
-  FloodFringe2024
-  Floodway2024
-  Parcels selection



0 0.09 0.17 Miles



Project Narrative

Ground Mounted Solar Installation – South Shore Water Reclamation Facility (SSWRF)

Applicant: Milwaukee Metropolitan Sewerage District (MMSD)

Prime Consultant Engineer: Donohue and Associates

Location: South Shore Water Reclamation Facility, Oak Creek, WI

All items on Oak Creek’s Project Narrative Descriptions Checklist are addressed below. Where items are not applicable, a brief explanation is provided. Additional information can be provided upon request.

1. Certified Survey Map – Not Applicable

This project does not propose any lot division, consolidation, or reconfiguration of property boundaries. All improvements are located within an existing, single ownership parcel owned by MMSD and associated with MMSD’s South Shore Water Reclamation Facility (SSWRF).

2. Comprehensive Plan Amendment – Not Applicable

The proposed ground mounted solar installation is located on property currently used for municipal wastewater treatment and related utility operations. The project does not propose a change in land use category or function of the site.

- Existing land use: Public/Utility use (wastewater treatment facility)
- Proposed land use: Public/Utility use with on-site ground mounted solar
- Zoning: I-1 Institutional

The solar installation is an accessory infrastructure use that supports existing wastewater treatment facility operations by reducing energy costs and improving sustainability. No Comprehensive Plan Amendment is requested.

3. Conditional Use Permit (CUP)

a. Type of CUP Requested

A Conditional Use Permit is required for the installation and operation of a ground-mounted solar photovoltaic system. The project has gone through the City of Oak Creek's Board of Zoning Appeals (BOZA) process and received approval of the three variances requested. The approved variances include: (1) a variance to the 15-foot wetland setback per City of Oak Creek Code Section 17.0301(b), (2) a variance to the requirement that panels be located in rear or side yards only per City of Oak Creek Code Section 17.0414(p)(2), and (3) a variance to the maximum height limit of 5 feet per City of Oak Creek Code Section 17.0414(p)(3). The project will comply with the remaining ground-mounted solar requirements per City of Oak Creek Code Section 17.0414(p), including a minimum 12-inch clearance above the mounting surface, a 10-foot setback from side and rear lot lines, and avoidance of public utility easements.

The proposed solar array is located on the property of an existing wastewater treatment facility. The project is not expected to create negative impacts on surrounding properties or the public. The main potential impact is visibility, since the site is near a roadway and the existing perimeter fence is chain-link (see-through).

To address potential visibility from the roadway and adjacent areas, the project includes installation of a vegetative screening hedge along the perimeter facing the roadway. The screening will consist of arborvitae plantings selected to mature at approximately 10 feet in height. The plants will be spaced to allow them to grow into a continuous hedge at maturity, minimizing gaps and providing year-round visual screening. The selected species are evergreen and will retain foliage throughout the winter months, ensuring consistent screening effectiveness in all seasons. The hedge height is intended to be generally comparable to or slightly higher than the top of the solar panels, thereby reducing direct line-of-sight into the array from typical roadway viewpoints.

In addition, the proposed arborvitae plantings are intended to satisfy the City of Oak Creek's tree-replacement requirements associated with regulated tree removals on the site. Based on preliminary counts, approximately 77 replacement trees will be required, with final quantities to be confirmed during final design. Replacement ratios follow City standards, which require three replacement trees for each tree removed with a diameter of 12 to 29 inches and four replacement trees for each tree removed with a diameter of 30 inches or greater.

Anticipated visibility of the solar array from the roadway, including the proposed arborvitae screening is shown in the attached renderings.

Solar panels, switchgear, and the 600-V switchboard do not generate noise during normal operation. The only component that produces continuous sound is the 1,500-kVA

transformer, which creates a low, steady electrical “hum.” This sound is noticeable only at close range and decreases rapidly with distance. At the nearest residences (in South Milwaukee), approximately 300 feet away, transformer noise is expected to be well below typical background noise levels and effectively inaudible. Site maintenance will be infrequent, typically involving periodic visual inspections and minor electrical checks. One or two technicians will arrive by car or small truck. Vegetation management, including mowing, will be seasonal and limited, generally occurring a few times per year during the growing season.

b. Description of the Business

This is not a commercial retail or manufacturing business. The project consists of installing solar panels and related electrical equipment to generate renewable electricity for on-site use at the aforementioned wastewater treatment facility. The system will offset purchased electricity. The electricity produced will not be sold back to We-Energies.

c. Hours of Operation

The wastewater treatment facility operates 24 hours per day, 7 days per week. The proposed solar system itself operates automatically during daylight hours with no staffing required.

d. Estimated Number of Employees

No new permanent employment positions will be created as a result of this proposed solar array installation and operation. Existing wastewater treatment facility staff will monitor the system as part of routine operations.

e. Estimated Number of Customers

Not applicable. The proposed solar array system will serve the on-site wastewater treatment facility only.

f. Truck Traffic

During construction, there will be temporary increases in truck traffic for delivery of solar panels, racking, concrete, and electrical equipment. After construction, there will be minimal traffic related to occasional maintenance.

g. Applicant Experience

The applicant and design team have experience designing and implementing municipal infrastructure projects and renewable energy systems, including work at large utility and treatment facility sites. The team is familiar with MMSD facility constraints.

h. Ownership

The property is owned by MMSD. The solar system will be owned and operated by MMSD.

i. Square Footage

The solar array, including the areas between rows, will occupy approximately 89,000 square feet (2.05 acres) of the SSWRF site. No enclosed building space will be created.

j. Parking

There is an existing gravel drive with a gate at the project location. No new parking areas or driveway extensions are proposed as part of this project. Routine access for solar array maintenance is anticipated to occur only a few times per year and will typically be limited to a single pickup truck or similar light-duty vehicle. Maintenance personnel are expected to either park near the existing gate and walk into the site or, if necessary, travel over existing turf/grass areas within the secured site. This approach minimizes the creation of new impervious surfaces and avoids additional stormwater impacts that would otherwise be associated with construction of a new asphalt drive.

k. Additional Requirements

City of Oak Creek Code Section 17.0804 requests the following data:

(a) Names and addresses of applicant, owner of site, professional engineer, contractor, and all opposite and abutting property owners of record.

Applicant / Site Owner

Milwaukee Metropolitan Sewerage District (MMSD)
260 W. Seeboth Street
Milwaukee, WI 53204

Professional Engineers

Nina Fricano, P.E. (MMSD Project Manager)
Milwaukee Metropolitan Sewerage District (MMSD)
260 W. Seeboth Street
Milwaukee, WI 53204

Mike Stohl, P.E. (Donohue & Associates, Inc. – Prime Consultant PM)
Donohue & Associates, Inc.
3311 Weeden Creek Road
Sheboygan, WI 53081

Mike Hemmingsen, P.E. (OTIE – Subconsultant)
Oneida Total Integrated Enterprises LLC (OTIE)
1033 N. Mayfair Road, Suite 200
Milwaukee, WI 53226

Contractor

Installation contractor to be determined. The project is currently in the design phase.

Abutting property owners

Directly west of the project site, across 5th Avenue, is the parcel at 8329 S. 5th Avenue, which is owned by John and Dorothy Waterloo (mailing address: 5937 Belmar Ave, Racine, WI 53402), per the City of Oak Creek's GIS. The parcel directly south of that, 8359 S. 5th Avenue, is owned by MMSD. The parcel directly north of the proposed ground-mounted solar area is a drainage ditch owned by the City of Oak Creek. North of this drainage ditch is the municipal boundary with the City of South Milwaukee.

4. Official Map Amendment – Not Applicable

No changes to the City's Official Map, street layout, or right-of-way system are proposed.

5. Planned Sign Program – Not Applicable

The project does not involve a multi-tenant commercial site or new signage program. Only small equipment identification or safety signage may be installed, consistent with code.

6. Planned Unit Development (PUD) – Not Applicable

This project is not a mixed-use or multi-building development and does not request code flexibility through a PUD.

7. Preliminary Plat – Not Applicable

No subdivision or lot creation is proposed.

8. Rezone – Not Applicable

No zoning change is proposed. The solar system is an accessory use that supports the existing wastewater treatment facility function of the site.

9. Signage Appeal – Not Applicable

10. Site / Landscaping / Architectural Plan Review

a. Project Description

The project consists of installing a ground-mounted solar photovoltaic system at the South Shore Water Reclamation Facility. The system will include solar panels, racking, foundations, inverters, transformers, underground conduit, and associated electrical equipment. The purpose is to generate renewable electricity for on-site use, reduce operating costs of MMSD, and support the sustainability goals of MMSD.

b. Business Description

The facility is a municipal wastewater treatment plant. It treats wastewater for the region and discharges treated effluent in accordance with regulatory requirements. The solar system is an accessory energy system supporting such operations.

c. Architecture / Landscaping / Parking

No new buildings are to be constructed based off this planned installation.

The project includes:

- Solar panel arrays mounted on driven or screwed foundations
- Electrical equipment on concrete pads
- Underground conduit routing
- Limited vegetation removal where needed for panel placement

Landscaping will be maintained or restored around array areas as appropriate to manage erosion and visual impacts. Evergreen arborvitae plantings are proposed along the roadway-facing perimeter to provide year-round visual screening of the solar panels at an anticipated mature height of approximately 10 feet. These plantings are also intended to satisfy applicable tree-replacement requirements associated with regulated tree removals, subject to final coordination with City staff.

d. Parking

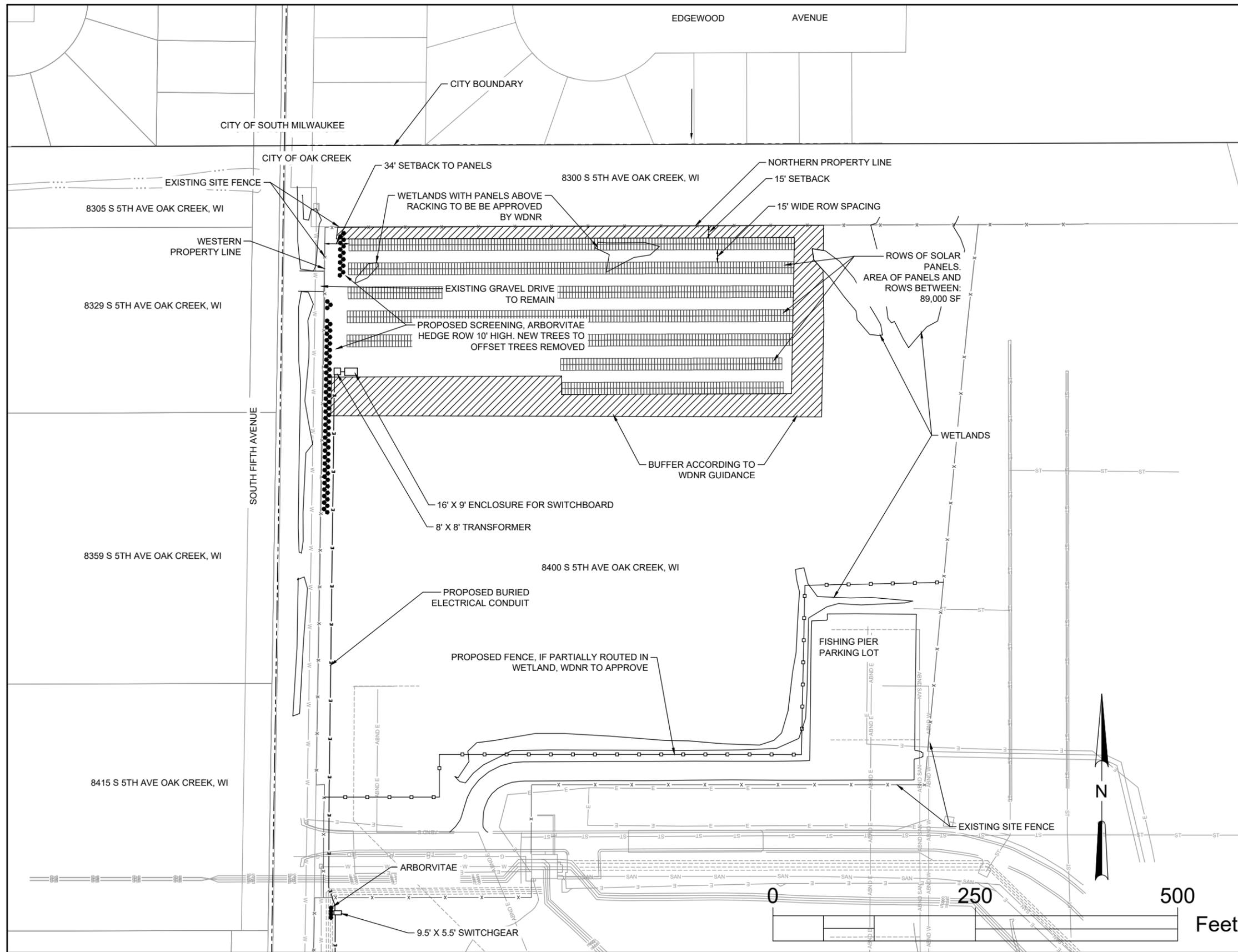
No change to required or provided parking.

e. Square Footage

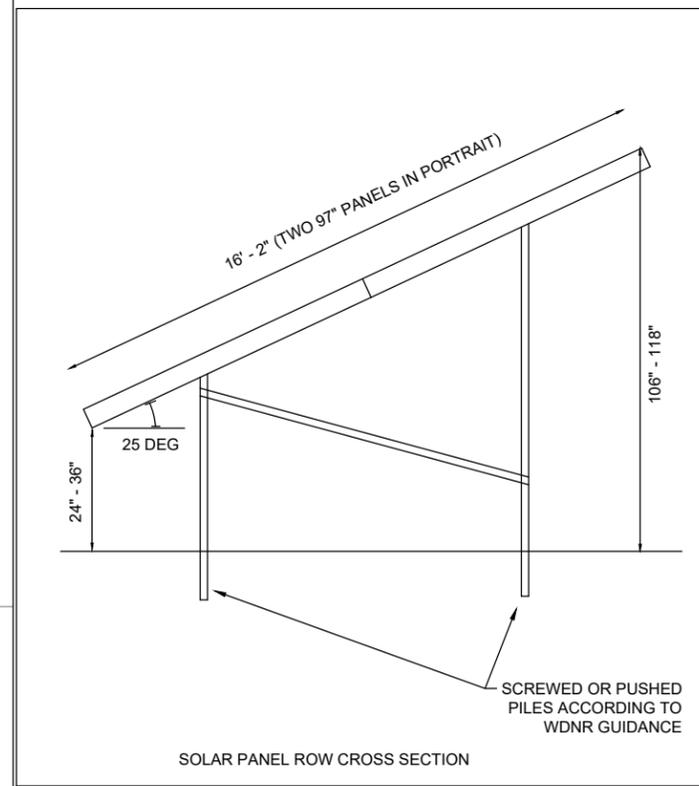
Approximately 2.05 acres of the site will contain solar panels and equipment. No enclosed floor area is created.

11. Temporary Use – Not Applicable

This is a permanent infrastructure installation, not a temporary use.



EXISTING NORTHERN SITE ACCESS AND FENCE



SOLAR PANEL ROW CROSS SECTION

REUSE OF DOCUMENTS
THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN IS AN INSTRUMENT OF PROFESSIONAL SERVICE AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF THE MILWAUKEE METROPOLITAN SEWERAGE DISTRICT.

HORIZONTAL DATUM
NAD83 WISCONSIN STATE PLANE SOUTH ZONE COORDINATE SYSTEM
VERTICAL DATUM
NAVD88 NORTH AMERICAN VERTICAL DATUM OF 1988

DSGN
M. HEMMINGSEN
DR
M. POLINSKE
CHK
M. HEMMINGSEN
APVD

This Design Prepared For MMSD By:
S: \Logos\Clients\Donohue.JPG
In Association With:
ONEIDA
Total Integrated Enterprises

REV. NO.	DATE	REVISION DESCRIPTION	BY	APVD



MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
SOLAR PANEL INSTALLATION PHASE 1
AT SOUTH SHORE WATER RECLAMATION FACILITY
SITE PLAN

ESSENTIALLY COMPLETE
DRAWING NO.: 301-C-6
SHEET: X
DATE: MARCH, 2026
CONTRACT: S06059D01
MMSD FILE: SITE PLAN.dwg

