CITY OF GROSSE POINTE WOODS
Electronic Committee-of-the-Whole Agenda
Monday, June 14, 2021
7:00 p.m.

Mayor Arthur W. Bryant has called a meeting of the City Council, meeting as a Committee-of-the-Whole. The meeting will be conducted by video (Zoom) and telephone conference in accordance with the City of Grosse Pointe Woods City Council Resolution adopted November 16, 2020, establishing rules for remote attendance pursuant to the Open Meetings Act, as amended. This notice is being provided to ensure that those wishing to participate in the meeting have an opportunity to do so. Additional instructions are listed below.

Join Zoom Meeting
https://zoom.us/j/93762693594?pwd=aTg2YS9ieDhEOUxGalZ3M2pnOUp4Zz09

Meeting ID: 937 6269 3594
Passcode: 421828

Join by phone:
Dial by your location
877 853 5247 US Toll-free
888 788 0099 US Toll-free
Meeting ID: 937 6269 3594
Passcode: 421828

Facilitator's Statement.

1. Call to Order
2. Roll Call
3. Acceptance of Agenda

4. Fence Ordinance (Penalty to Make Continued Non-Compliance a Misdemeanor Following the Issuance of a First Civil Infraction and Non-Compliance)
    A. Committee-of-the-Whole Excerpt 12/10/18
5. Solar Ordinance – An Ordinance to Adopt Article XVII Solar Energy Systems, Chapter 8, Buildings and Building Regulations, Sec. 8-501 to eliminate the requirement that panels be located within 4' of any peak, eave or valley, to provide that the installation of the solar energy system shall comply with the Michigan Residential Code, and to provide for appeals to the City Council
    A. City Council Excerpt 08/17/20
    B. Proposed Ordinance
    C. Letter 08/12/20 – Retired City Attorney
    D. Planning Commission Excerpt 07/28/20
    E. Letter 07/17/20 – Retired City Attorney
    F. Proposed Ordinance
6. Soundstage Policy and Rental Fees
    A. Memo 05/11/21 – Director of Public Services
    B. Memo 03/21/11 – Retired Director of Public Services
    C. Sound Stage Rental Schedule 06/2021 – 09/20/21

D. Costs 05/13/21

7. City Bulletin Boards
   A. Memo 09/23/20 – Director of Public Services
   B. Memo 06/06/21 - City Clerk
      1. Open Meetings Act PA 267 of 1976, Sections 15.264 Sec. 4.(b) and 15.265 Sec. 5.(2) and (4)
      2. MML One-Pager Plus – Open Meetings Act
      3. City Charter Section 7.4 – Publication and Recording of Ordinances
      4. City Clerk's Certification of Posting
8. Solar Photovoltaic (PV) Feasibility Study
   A. PV Study 05/24/21 – Peter Basso Associates Inc.
9. Charter Amendments
   A. Resolution Authorizing Submission of Charter Amendment Ballot Proposals to Electors
10. Items to be removed:
   A. Saw Grant – Wastewater Asset Management Plan
   B. COVID-19 – Strategies to Employ Upon Reopening of City Hall
   C. Agreement – City of Grosse Pointe Farms
   D. Open Meetings Act – City Attorney to provide an overview.
   E. LED Signage – City Hall
   F. Vaping Ordinance
   G. Actuarial Pension
   H. Milk River Intercounty Drain Drainage District
   I. H.R. Contracted Services
   J. Workers Compensation Excess Coverage

11. New Business/Public Comment
12. Adjournment

Lisa Kay Hathaway, MiPMC-3/MMC
City Clerk

cc:
Council – 5
Anderson
Smith
Hathaway
Rec. Secretary
Email Group
Media – Email
Post – 8
File

IN ACCORDANCE WITH PUBLIC ACT 267 (OPEN MEETINGS ACT)
POSTED AND COPIES GIVEN TO NEWSPAPERS

The City of Grosse Pointe Woods will provide necessary, reasonable auxiliary aids and services to individuals with disabilities. Closed captioning and audio will be provided for all electronic meetings. All additional requests must be made in advance of a meeting.

Instructions for meeting participation

1. To join through Zoom: The meeting may be joined by clicking on the link provided on the agenda at the start time posted on the agenda, enter the meeting identification number, and password. Zoom may provide a couple of additional instructions for first time use. As an alternative to using the

link, accessibility to the meeting may be obtained by using the browser at join.zoom.us. If having trouble logging in, try a different browser e.g. Chrome.

Join Zoom Meeting
https://zoom.us/j/93762693594?pwd=aTg2YS9ieDhEOUxGalZ3M2pnOUp4Zz09

Meeting ID: 937 6269 3594
Passcode: 421828

2. Join by telephone: Dial the toll-free conferencing number provided and enter the meeting identification number, and password. Dial *9 to be heard under Public Comment.
Dial by your location
877 853 5247 US Toll-free
888 788 0099 US Toll-free
Meeting ID: 937 6269 3594
Passcode: 421828

In an effort to alleviate feedback and disruption of the meeting, choose one of the media options, either phone or Zoom, not both.

Meeting notices are posted on the City of Grosse Pointe Woods website home page at www.gpwmi.us and the on-line calendar, both containing a link to the agenda. The agenda contains all pertinent information including business to be conducted at the meeting, a hyperlink to participate using Zoom, and call-in telephone number with necessary meeting identification, and a password. Agendas will also be posted on six (6) City bulletin boards along Mack Avenue.

The following are procedures by which persons may contact members of the public body to provide input or ask questions:

1. To assist with meeting flow and organization, all public comment will be taken at the end of the meeting unless it is moved to a different location on the agenda upon a consensus of the Committee;
2. The phone-in audience, when making public comment please state your name (optional) when called upon;
3. Audience participants will be muted upon entry and will have a chance to speak during the public comment portion of the meeting at the end of the agenda, at which time the microphones will be unmuted.
4. Those joining by Zoom will also be muted and may use the virtual raised "hand" to request to be heard under Public Comment.
5. Those joining by telephone need to dial in using the phone number provided on the agenda. When prompted, enter the meeting number and the password also located on the agenda. Dial *9 to be heard under Public Comment.
6. The published agenda invites participants from the community to provide written questions, comments, and concerns in advance of the meeting to any Elected Official or the City Clerk regarding relevant City business and may be read under Public Comment. Emails may be sent to:

Mayor Arthur W. Bryant	arthurwbryant@gmail.com	313 590-0301
Angela Coletti Brown, Council Member	acoletti@hotmail.com	248 520-6714
Ken Gafa, Council Member	kgafa@comcast.net	313 580-0027
Vicki Granger, Council Member	grangergpw@aol.com	313 640-5250
Mike Koester, Council Member	koester.gpw@gmail.com	313 655-4190

Todd McConaghy, Council Member	todd.mcconaghygpw@yahoo.com	248 765-0628
Lisa Hathaway, City Clerk	lhathaway@gpwmi.us	313 343-2447

You may contact Lisa Hathaway, City Clerk, at lhathaway@gpwmi.us should you have any questions prior to the meeting starting.

NOTE TO PETITIONERS: YOU, OR A REPRESENTATIVE, ARE REQUESTED TO BE IN ATTENDANCE AT THE MEETING SHOULD COUNCIL HAVE QUESTIONS REGARDING YOUR REQUEST

The next item was regarding **Proposed Modification of Fence Ordinance – Penalty to Make Continued Non-Compliance a Misdemeanor Following the Issuance of a First Civil Infraction and Non-Compliance.** It was stated in the ordinance that:

- 1st Civil Infraction offense -$350.00
- 2nd Civil Infraction offense - $500.00
- 3rd Civil Infraction offense within 2 years of the first offense - misdemeanor

The Mayor asked consideration be given to an option to charge the 2nd offense and non-compliance as a misdemeanor. The City Attorney stated that there may be issues between the City Ordinances and Construction Codes. This item is to remain on the Committee-of-the-Whole for a meeting to be held in February 2019.

5

COUNCIL EXCERPT
08-17-20

Motion by Gafa, seconded by Bryant, regarding **First Reading: An Ordinance to Adopt Article XVII Solar Energy Systems, Chapter 8, Buildings and Building Regulations, Sec. 8-501 to eliminate the requirement that panels be located within 4 feet of any peak, eave or valley, to provide that the installation of the solar energy system shall comply with the Michigan Residential Code, and to provide for appeals to the City Council**, that the City Council concur with the amendment of this ordinance, to set a date of September 14, 2020, for a second reading and final adoption, and to publish same by title in the Grosse Pointe News.

Substitute Motion by Gafa, seconded by Koester, regarding First Reading: An Ordinance to Adopt Article XVII Solar Energy Systems, Chapter 8, Buildings and Building Regulations, Sec. 8-501 to eliminate the requirement that panels be located within 4 feet of any peak, eave or valley, to provide that the installation of the solar energy system shall comply with the Michigan Residential Code, and to provide for appeals to the City Council, to refer this item to the Committee-of-the-Whole.

Motion carried by the following vote:

Yes:	Bryant, Gafa, Granger, Koester, McConaghy, McMullen, Novitke
No:	None
Absent:	None

ORDINANCE NO. -_____

AN ORDINANCE TO ADOPT ARTICLE XVII SOLAR ENERGY SYSTEMS, CHAPTER 8, BUILDINGS AND BUILDING REGULATIONS, SEC. 8-501 TO ELIMINATE THE REQUIREMENT THAT PANELS BE LOCATED WITHIN 4 FEET OF ANY PEAK, EAVE OR VALLEY, TO PROVIDE THAT THE INSTALLATION OF THE SOLAR ENERGY SYSTEM SHALL COMPLY WITH THE MICHIGAN RESIDENTIAL CODE, AND TO PROVIDE FOR APPEALS TO THE CITY COUNCIL.

THE CITY OF GROSSE POINTE WOODS ORDAINS:

ARTICLE XVII
SOLAR ENERGY SYSTEMS

Sec. 8-501. - *Solar* energy systems.

Solar Energy System means an accessory to a main structure, or accessory structure, or use, which is comprised of a combination of solar collector(s) and ancillary solar equipment used to generate electricity primarily for consumption on the property on which the system is located. A Solar Energy System can include a photovoltaic or solar thermal system that uses the sun's energy to produce electricity or heat.

Solar Panel means a grouping, module, or array of photovoltaic cells that produce electricity from sunlight.

A *solar* energy system is permitted in any city zoning district. However, it shall be unlawful for any person to install or operate a *solar* energy system unless all of the following conditions are met:

(1) A building permit and any necessary mechanical, plumbing and electrical permits shall be secured prior to the start of the installation of a *solar* energy system. Dimensioned plans are required with the building permit application.

(2) Only rooftop *solar* energy systems are permitted. Freestanding or wall-mounted *solar* energy systems are not permitted.

(3) The *solar* energy system installation shall be configured ~~to the degree practicable~~ to have a minimal visual impact as seen from the street. Accordingly, systems~~Systems~~ that are visible from the street must be ~~either~~ composed of solar shingles ~~building integrated components (such as *solar* shingles)~~ that are not readily evident~~, or be designed and mounted to match the shape, proportions, and slope of the roof~~.

(4) Installation of *solar* energy system equipment, including the rails and panels, are subject to the height limitations of the specific zoning district where they are being installed.

(5) ~~*Solar* panels shall not be located within four feet of any peak, eave or valley to maintain adequate accessibility.~~ The placement and installation of roof top solar energy systems shall comply with the Michigan Residential Code in effect at the

time the building permit application for the system is received by the city.

(6) *Solar* panels shall not project more than one foot above the roof deck.

(7) The following additional design standards shall apply:

a. *Solar* panels shall be arranged so that the panels do not reflect sunlight or glare onto adjacent buildings, properties or roadways.

b. The system shall use materials and colors that ~~blend into~~ are compatible with the existing roof or wall design.

c. The system shall include high quality mesh to enclose the space between the roof surface and the *solar* panels to deter animal nesting.

(8) If a system is defective or not in operation for a period of 12 months, the system shall be deemed a nuisance. The current owner of the property shall be required to either remove the system or repair it at the owner's expense.

(9) Denials of an application may be appealed to the city council. An applicant seeking an exception to the provisions of this article shall pay a hearing notice fee set by council resolution. The city shall mail a notice of the hearing to adjacent property owner(s) and property owners located directly across the street from the applicant (as determined by the Building Official), at least seven (7) days prior to the hearing date.

(10) On appeal, the council may consider the following along with other information:

a. Balancing relative hardships between the property owner and adjacent property owners.

b. Whether special circumstances or conditions exist.

c. General health, safety, and welfare of the neighborhood.

CHARLES T. BERSCHBACK
ATTORNEY AT LAW
24053 EAST JEFFERSON AVENUE
ST. CLAIR SHORES, MICHIGAN 48080-1530

(586) 777-0400
FAX (586) 777-0430
blbwlaw@yahoo.com

CHARLES T. BERSCHBACK

DON R. BERSCHBACK
OF COUNSEL

August 12, 2020

The Honorable Mayor and City Council
City of Grosse Pointe Woods
20025 Mack Plaza
Grosse Pointe Woods, MI 48236

RE: Solar Energy Ordinance / First Reading

Dear Mayor and Council:

Based on review by the Building Department and Public Safety, Mr. Tutag and I have been working on revisions to the Solar Panel Ordinance. The main change involves eliminating a requirement that the panels be located within four feet of any peak, eve, or valley, and instead adopting the Michigan Residential Code regarding those conditions. This will provide homeowners with a bit more flexibility under the circumstances. In addition, Mr. Tutag and I are recommending that this ordinance be taken out of the Zoning Chapter and placed into Chapter 8.

Accordingly, provisions have been added that would still allow the City Council to handle any variances or exceptions. Finally, Section 8-501 has been clarified to continue to allow solar systems that are visible from the street to be composed of solar shingles, a relatively new and less intrusive product. The Planning Commission has reviewed thi twice and conducted their required public hearing on the zoning repealer ordinance.

Procedurally, this is scheduled for a first reading. At the time of the second reading, administration will publish a notice prior to that time relating to removal of the Solar Panel Ordinance from the Zoning Chapter. This will allow Council, if it chooses to do so, to adopt the repealer ordinance relating to the zoning chapter, and adopt the Solar Panel Ordinance at a second reading possibly on September 21, 2020.

If you have any questions, please call.

Very truly yours,

CHARLES T. BERSCHBACK

CTB:nmg
Enclosures
cc: Bruce Smith
Lisa K. Hathaway
Gene Tutag

The meeting was thereupon opened at 7:33 pm for a **Public Hearing** under the provisions of mcl, sections 125.3101 through 125.3702 as amended, to consider amendments to chapter 50, zoning, and chapter 8, buildings and building regulations, an ordinance to repeal chapter 50 zoning, section 50-539 solar energy systems to relocate this section into article xvii, chapter 8, sec. 8-501 buildings and building regulations; and, an ordinance to add article xvii, chapter 8, building and building regulations section 8-501 to eliminate the requirement that panels be located within 4 feet of any peak, eave, or valley, to provide that the installation of the solar energy system shall comply with the Michigan residential code, and to provide for appeals to the city council.

For purposes of the public hearing the following items were received and placed on file:

A. PC Excerpt – 06/23/20
B. Letter – 07/17/20 – City Atty. Berschback
   with Proposed Ordinance
C. Memo – 07/20/20 – Building Inspector Tutag
D. Affidavit of Legal Publication – 07/09/20 (2 pgs)
E. Affidavit of Utility Companies Notified –
   07/02/20 (2 pgs)

The Building Official provided an overview of the recommended amendments, and recommended the Planning Commission adopt the resolution repealing Section 50-539.

The Chair asked if anyone from the audience wished to speak in favor of the proposed request. Nobody wished to be heard.

The Chair asked if anyone from the audience wished to speak in opposition to the proposed request. Nobody wished to be heard.

Motion by Hamborsky, seconded by Bailey, that the public hearing be closed at 7:42 p.m.

Motion carried by the following vote:
YES: Bailey, Fuller, Gilezan, Hamborsky, Ketels, Profeta, Vaughn,
NO: None
ABSENT: Rozycki, Vitale

Motion by Fuller, seconded by Vaughn, regarding the Solar Panel Ordinance that the Planning Commission recommend to the City Council that the Solar Energy System Ordinance be amended by eliminating it from the Zoning Chapter, and that the proposed revised ordinance be inserted into Chapter 8.

Motion carried by the following vote:
YES: Bailey, Fuller, Gilezan, Hamborsky, Ketels, Profeta, Vaughn,
NO: None
ABSENT: Rozycki, Vitale

CHARLES T. BERSCHBACK
ATTORNEY AT LAW
24053 EAST JEFFERSON AVENUE
ST. CLAIR SHORES, MICHIGAN 48080-1530

(586) 777-0400
FAX (586) 777-0430
blbwlaw@yahoo.com

CHARLES T. BERSCHBACK

DON R. BERSCHBACK
OF COUNSEL

July 17, 2020

Planning Commission
City of Grosse Pointe Woods
20025 Mack Plaza
Grosse Pointe Woods, MI 48236

RE. Solar Energy Ordinance Public Hearing
Agenda Item July 28, 2020

Dear Planning Commission Members:

At the June 23, 2020 meeting, we reviewed amendments to the Solar Energy System Ordinance.

Technically, the public hearing in front of you on July 28th only relates to your recommendation to the Council to eliminate the ordinance from Chapter 50 Zoning. The new Ordinance will be placed in Chapter 8 Buildings and Building Regulation. The Planning Commission also recommended that last phrase (2 lines) of Sec. 8-501(3) be eliminated. I have attached a new version of the new ordinance.

After the public hearing is open to elicit any comments from the floor, I would request a motion to recommend to the City Council that the Solar Energy System Ordinance be eliminated from the Zoning Chapter, and that the proposed revised Ordinance be inserted into Chapter 8.

If you have any questions please call.

Very truly yours,

Chip Berschback

CHIP BERSCHBACK

CTB:gmr
Enclosures
cc: Gene Tutag
Sue Stewart
Lisa Hathaway

ORDINANCE NO. -_____

AN ORDINANCE TO ADOPT ARTICLE XVII SOLAR ENERGY SYSTEMS, CHAPTER 8, BUILDINGS AND BUILDING REGULATIONS, SEC. 8-501 TO ELIMINATE THE REQUIREMENT THAT PANELS BE LOCATED WITHIN 4 FEET OF ANY PEAK, EAVE OR VALLEY, TO PROVIDE THAT THE INSTALLATION OF THE SOLAR ENERGY SYSTEM SHALL COMPLY WITH THE MICHIGAN RESIDENTIAL CODE, AND TO PROVIDE FOR APPEALS TO THE CITY COUNCIL.

THE CITY OF GROSSE POINTE WOODS ORDAINS:

ARTICLE XVII
SOLAR ENERGY SYSTEMS

Sec. 8-501. - *Solar* energy systems.

Solar Energy System means an accessory to a main structure, or accessory structure, or use, which is comprised of a combination of solar collector(s) and ancillary solar equipment used to generate electricity primarily for consumption on the property on which the system is located. A Solar Energy System can include a photovoltaic or solar thermal system that uses the sun's energy to produce electricity or heat.

Solar Panel means a grouping, module, or array of photovoltaic cells that produce electricity from sunlight.

A *solar* energy system is permitted in any city zoning district. However, it shall be unlawful for any person to install or operate a *solar* energy system unless all of the following conditions are met:

(1) A building permit and any necessary mechanical, plumbing and electrical permits shall be secured prior to the start of the installation of a *solar* energy system. Dimensioned plans are required with the building permit application.

(2) Only rooftop *solar* energy systems are permitted. Freestanding or wall-mounted *solar* energy systems are not permitted.

(3) The *solar* energy system installation shall be configured ~~to the degree practicable~~ to have a minimal visual impact as seen from the street. Accordingly, systems~~Systems~~ that are visible from the street must be ~~either~~ composed of solar shingles ~~building integrated components (such as *solar* shingles)~~ that are not readily evident~~, or be designed and mounted to match the shape, proportions, and slope of the roof~~.

(4) Installation of *solar* energy system equipment, including the rails and panels, are subject to the height limitations of the specific zoning district where they are being installed.

(5) ~~*Solar* panels shall not be located within four feet of any peak, eave or valley to maintain adequate accessibility.~~ The placement and installation of roof top solar energy systems shall comply with the Michigan Residential Code in effect at the

time the building permit application for the system is received by the city.

(6) *Solar* panels shall not project more than one foot above the roof deck.

(7) The following additional design standards shall apply:

a. *Solar* panels shall be arranged so that the panels do not reflect sunlight or glare onto adjacent buildings, properties or roadways.

b. The system shall use materials and colors that ~~blend into~~ are compatible with the existing roof or wall design.

c. The system shall include high quality mesh to enclose the space between the roof surface and the *solar* panels to deter animal nesting.

(8) If a system is defective or not in operation for a period of 12 months, the system shall be deemed a nuisance. The current owner of the property shall be required to either remove the system or repair it at the owner's expense.

(9) Denials of an application may be appealed to the city council. An applicant seeking an exception to the provisions of this article shall pay a hearing notice fee set by council resolution. The city shall mail a notice of the hearing to adjacent property owner(s) and property owners located directly across the street from the applicant (as determined by the Building Official), at least seven (7) days prior to the hearing date.

(10) On appeal, the council may consider the following along with other information:

a. Balancing relative hardships between the property owner and adjacent property owners.

b. Whether special circumstances or conditions exist.

c. General health, safety, and welfare of the neighborhood.

PUBLISH ONCE: 07-09-20

PLANNING COMMISSION NOTICE
CITY OF GROSSE POINTE WOODS, MICHIGAN

NOTICE IS HEREBY GIVEN that the Planning Commission of the City of Grosse Pointe Woods will hold a remote (Zoom) public hearing under the provisions of Michigan Compiled Laws, Sections 125.3101 through 125.3702 as amended, to consider amendments to Chapter 50, *Zoning*, AND Chapter 8 Buildings and Building Regulations, at a meeting scheduled for Tuesday, July 28, 2020, at 7:00 p.m. A link to the remote meeting will be published with the agenda on the City's website at www.gpwmi.us, as well as the proposed ordinances for inspection by the public. All interested persons are invited to attend and will be given opportunity for public comment. The public may appear in person or be represented by counsel. Written comments will be received by the City Clerk at cityclerk@gpwmi.us , up to the close of business preceding the hearing. A group spokesperson is encouraged on agenda items concerning organized groups.

AN ORDINANCE TO REPEAL CHAPTER 50 ZONING, SEC. 50-539 SOLAR ENERGY SYSTEMS TO RELOCATE THIS SECTION INTO ARTICLE XVII, CHAPTER 8, SEC. 8-501 BUILDINGS AND BUILDING REGULATIONS; AND,

AN ORDINANCE TO ADD ARTICLE XVII, CHAPTER 8, BUILDING AND BUILDING REGULATIONS, SEC. 8-501 TO ELIMINATE THE REQUIREMENT THAT PANELS BE LOCATED WITHIN 4 FEET OF ANY PEAK, EAVE OR VALLEY, TO PROVIDE THAT THE INSTALLATION OF THE SOLAR ENERGY SYSTEM SHALL COMPLY WITH THE MICHIGAN RESIDENTIAL CODE, AND TO PROVIDE FOR APPEALS TO THE CITY COUNCIL.

Lisa Kay Hathaway
City Clerk

6

RECEIVED
MAY 17 2021
CITY OF GROSSE POINTE WOODS
CLERK'S DEPARTMENT

MEMO 21-26

TO: Bruce Smith, City Administrator

FROM: Frank Schulte, Director of Public Services F.S.

DATE: May 11, 2021

SUBJECT: Soundstage Policy and Rental Fees

The last time the Soundstage Policy and rental fees were updated was April of 2011. The current rental rate is $600.00 per day plus a $400.00 flat rate set up fee. See attached support information.

Grosse Pointe Woods Soundstage Policy is to charge other municipalities only the set-up fee in the amount of $400.00. There is no daily rental fee required. In addition, this policy states that firework supporters (last firework display was in 2014) are allowed one free rental per year.

Historically, Grosse Pointe Woods soundstage has been rented out by local municipalities. The soundstage was rented to Nostalgia Restaurant Group for the Woodward Dream Cruise in 2017.

Recently, Grosse Pointe Woods has received requests to rent the soundstage for private events. Due to COVID, our department did not feel comfortable renting out the soundstage during the pandemic and have informed applicants.

I am requesting Council consideration to update the soundstage policy and rental fees. I would recommend the following changes:

- Only rent to local municipalities. The soundstage was purchased in 2007 for a cost of $87,167.00. The life expectancy of the soundstage is 15-20 years and is scheduled to be replaced in the next six years.
- Remove one free rental per year for firework supporters.
- Currently the Department of Public Works schedules soundstage rentals. Move scheduling procedure to Park and Recreation Department. Park and Recreation Department schedules all permit applications for Council. Make renting of the soundstage a permitted application requiring Council approval.
- Increase the set up cost. The majority of deliveries of the soundstage are on a Saturday and pick up is on a Sunday. It cost the city $796.11 for wages and $178.08 for DPW vehicle use, for a total cost of $974.19. See attached support information.
- To recover employee cost and provide funding towards the purchase of a new soundstage I recommend a flat fee charge $2,000.00 per rental.

St. Clair Shores has a Soundstage. Their Soundstage is not allowed to leave the city and can only be rented by vendors for events in the city. Renting fee for St. Clair Shores soundstage is $500.00 per day, and their policy has not changed in years.

Attached is Grosse Pointe Woods current soundstage schedule for the 2021 season.

MEMO 11 - 19

TO: Alfred Fincham, City Administrator

FROM: Joseph J Ahee, Jr., Director of Public Works

DATE: March 21, 2011

SUBJECT: Increase Soundstage Rental Fees

As requested by Council in the Committee of the Whole meeting on Monday March 14, 2011, the following information was gathered regarding average rental fees for usage of mobile soundstage equipment similar to the city soundstage purchased at a cost of $87,167.00 in May of 2007. The life expectancy of the soundstage is 15-20 years.

Rental rates charged for mobile stage rentals are between $500.00 and $900.00 per day, depending upon whether the renter is a commercial/private enterprise or a municipality. Quotes for set up and delivery charges varied from $2.00 per mile for "local" deliveries plus a $150.00 set up fee all the way up to $1,000.00 for a long-distance rental. The city currently charges $400.00 per day for rental plus a $400.00 set up fee that covers the cost of employee labor and fuel. It has been our policy to charge only the set up fee to local municipalities and to allow one free rental per year to fireworks supporters.

After reviewing this information, I recommend increasing the charge for rental of the mobile soundstage to $600.00 per day plus the $400.00 set up fee.

If you have any questions concerning this matter please contact me.

c.c. Dee Ann Irby
O/F

dm

RECOMMENDED FOR APPROVAL AS SUBMITTED:

_____ _____

City Administrator Date

_____

Council Approval Required

$400.00 Flat Rate Set Up Fee to All
$600.00/day Rental Fee as of 4/1/11
Reimburse overtime only for local municipalities

SOUND STAGE RENTAL SCHEDULE

DELIVER	PICK UP	RENTER	LOCATION	CONTACT PERSON	TELEPHONE	INSURANCE
6/12/2021	6/13/2021	City of Grosse Pointe Park	Charlevoix near O'flaherty's	Chad Craig	313-822-2812 x200	(set up fee only) -
6/19/2021	6/20/2021	City of Harper Woods	Wayne County Community College 19305 Vernier	John Bobak	313-343-2560	-
6/25/21	6/26/21	CONCERT – Music on the Lawn	City Hall	Sue Como	313-343-2445	n.a.
6/26/2021	6/26/2021	City of Grosse Pointe Park	15215 Kercheval b/t Cornwall Bakery & Do By Hair Co.	Chad Craig	313-822-2812 x200	(Set up fee only) -
7/1/2021	7/6/2021	City of Grosse Pointe Shores	Grosse Pointe Shores Municipal Park (800 Lake Shore Road)	Tom Krolczyk	313-881-6565	- Yes
7/10/2021	7/11/2021	City of Grosse Pointe Park	Charlevoix near O'flaherty's	Chad Craig	313-822-2812 x200	(Set up fee only) -
7/24/2021	7/24/2021	City of Grosse Pointe Park	15215 Kercheval b/t Cornwall Bakery & Do By Hair Co.	Chad Craig	313-822-2812 x200	(Set up fee only) -
7/30/21	7/31/21	CONCERT – Music on the Lawn	City Hall	Sue Como	313-343-2445	n.a.
8/3/2021	8/4/201	City of Harper Woods	Johnston Park	John Bobak	313-343-2560	-
8/27/21	8/28/21	CONCERT – Music on the Lawn	City Hall	Sue Como	313-343-2445	- n.a.
8/28/2021	8/28/2021	City of Grosse Pointe Park	15215 Kercheval b/t Cornwall Bakery & Do By Hair Co.	Chad Craig	313-822-2812 x200	(Set up fee only)
9/18/21	9/19/21	FALL FEST	City Hall	Sue Como	313-343-2445	- n.a.

* Call 30 days in advance if payment and contract not received

NO TAPE, TACKS, ETC. ON STAGE BODY –
ONLY ALLOWED ALONG THE SKIRTING

Updated 5/13/2021

Cost to Deliver / Set Up / Break down / Retrieve Soundstage

Employee Cost

For safety and setup it takes two employees three (3) hours to deliver and set up soundstage and three (3) hours to break down and retrieve the soundstage.

One crew chief is always on call and is in charge of the soundstage delivery. There is a rotating out time list. The majority of the time regular employees do not take overtime. This is why cost are of the soundstage deliveries are figured with two Crew Chiefs wage rates.

Added to the rates is a 45% cost for health care benefit, pension, FICA, Life Insurance, and Workers Compensation.

- Soundstage delivered during working hours wages at 6 hours with 2 crew chiefs = $227.46

- Soundstage delivered after hours or on a Saturday at Time/Half wages at 6 hours with 2 crew chiefs = $ 341.19

- Soundstage retrieved on Sunday Double time wages at 6 hours with 2 crew chiefs = $454.92

The majority of the soundstage deliveries are on Saturday and retrieved on a Sunday. The cost to the city would be $341.19 + $454.92 = $796.11

Vehicle Cost

There is a vehicle cost to the City of Grosse Pointe Woods. Michigan Department of Transportation (MDOT) assigns a cost for every vehicle owned by the City of Grosse Pointe Woods. The cost is an hourly rental fee for depreciation. The MDOT rate for GMC Sierra 1 – ton truck used to deliver and retrieve soundstage $16.52 per hour total hour cost for 6 hours use to the city is = $178.08

Total Cost

Total Cost for soundstage rental per weekend to Grosse Pointe Woods = $974.19

7

RECEIVED
SEP 28 2020
CITY OF GROSSE POINTE WOODS
CLERK'S DEPARTMENT

MEMO 20-53

TO: Bruce Smith, City Administrator

FROM: Frank Schulte, Director of Public Services F.S.

DATE: September 23, 2020

SUBJECT: City Bulletin Boards along Mack Avenue

Currently there are six city bulletin boards along Mack Avenue throughout Grosse Pointe Woods. These boards are located in the municipal parking lots at Anita, Broadstone, Hollywood, Lochmoor, Newcastle and Ridgemont.

The purpose of these bulletin boards are to post city agendas for public viewing. The boards are old and are constantly in need of repair. On average, the Department of Public Works spends 40 hours annually to maintain these boards for an approximate cost of $4,500.00. This cost includes two employees using various types of equipment and materials. In addition, the Department of Public Safety spends approximately 24 hours annually posting and removing agenda information for an approximate cost of $600.00. The total annual cost to the city to maintain the city bulletin boards is approximately $5,100.00.

A motion camera was placed in two of the municipal parking lots, first at the Hollywood Lot and then at the Lochmoor Lot. The camera was placed to survey how many people actually stop to read the agendas posted on the bulletin boards. A camera was placed at the Hollywood Lot during the month of June and the Lochmoor Lot during the month of September.

A combined total of 3,720 people passed by the boards during those two months a camera was out. Only nine people actually stopped to read what was posted on the bulletin board and another ten glanced their direction as they were walking by.

It would be my recommendation to remove these six city bulletin boards along Mack Avenue and promote public viewing of the agenda on the city website and emails to residents.

CITY OF GROSSE POINTE WOODS

Office of the City Clerk

Memorandum

DATE: June 6, 2021

TO: Mayor and City Council

FROM: Lisa Hathaway, City Clerk

SUBJECT: Posting Requirements

The City Clerk is charged with the responsibility of ensuring the posting of agendas, ordinances, and regular meeting calendars to comply with the Open Meetings Act, as well as the City's Charter and Code. In the many years preceding my administration, the City Council forefathers deemed that in accordance with the Act at that time, agendas be posted on six (custom made) bulletin boards along Mack Avenue at Lochmoor, Anita, Ridgemont, Broadstone, Hollywood, and Newcastle. Required postings are also pinned on the bulletin boards located in the main and Public Safety lobbies inside City Hall, and posted on the City's website.

Through the years, DPW has done a great job maintaining the bulletin boards, however two of them have fallen into disrepair and have been removed, and the other four continue to deteriorate. Rain, snow, and ice seep behind the Plexiglas covering making the postings difficult to read and causes the wood to rot. Postings are given to Code Enforcement Officers for posting onto the six Mack bulletin boards, and Clerk's staff posts to the internal two boards and website.

The following are summaries of requirements I must follow in accordance with various authorities:

1. Open Meetings Act – PA 267 of 1976:
    a. *Section 15.264 Public notice of meetings generally; contents; places of posting Sec. 4 (b): A public notice for a public body shall always be posted at its principal office and any other locations considered appropriate by the public body. Cable television may also be utilized for purposes of posting public notice.*

       Currently, the bulletin board located in the main lobby is not accessible 24/7 and only able to be viewed during regular business hours. The bulletin board located in the Public Safety lobby is accessible 24/7 when there is no emergency closure. The City is not under contract for cable channel services on which to post.

       An alternative may be to install a bulletin board in near proximity to the building on the outside of the Robert E. Novitke Municipal Center – Clerk's Office.

    b. *Section 15.265 Public notice of regular meetings, change in schedule of regular meetings, rescheduled regular meetings, or special meetings; posting; statement of date, time and place; website; recess or adjournment, emergency sessions, emergency public meeting; meeting in residential dwelling; limitation; notice; duration requirement.*

i. *Sec. 5(2): For regular meetings of a public body, there shall be posted within 10 days after the first meeting of the public body in each calendar or fiscal year a public notice stating the dates, times, and places of its regular meetings.*

This annual requirement is fulfilled by way of the City Calendar. The City calendar is distributed to each household, pages are posted to each of the bulletin boards, and meeting dates with corresponding agendas are entered into the City's on-line calendar.

ii. *Sec. 5(4): ...a public notice stating the date, time, and place of the meeting shall be posted at least 18 hours before the meeting in a prominent and conspicuous place at both the public body's principal office and if the public body directly or indirectly maintains an official internet presence that includes monthly or more frequent updates of public meeting agendas or minutes, on a portion of the website that is fully accessible to the public...*

Agendas for all Council, Committee-of-the-Whole, Commissions, boards, and subcommittee meetings are posted to all bulletin boards and the City's on-line calendar on either Thursday or Friday each week.

2. <u>*City of Grosse Pointe Woods Charter*</u>:
   a. *Section 7.4 – Publication and Recording of Ordinances: Each ordinance enacted by the Council shall be published in either of the following manners, as the Council shall determine by proper action: (1) By posting copies thereof in five conspicuous public places, in the City within 20 days after its adoption; or, (2) By publication in the official newspaper of the city at least once within 20 days after its adoption...*

   Following ordinance adoption, the ordinances in their entirety, and in certification form signed by the Mayor and Clerk, are pinned to the bulletin boards and published on the City's website until codified into the code books and merged with the on-line Municode publication. Zoning ordinances are also published in the Grosse Pointe News following adoption in accordance with the Zoning Enabling Act. Ordinances are no longer published on a cable channel.

If it is the prerogative of the Council that the Mack Avenue bulletin boards are not to be repaired or replaced, consideration should be given to those residents that are not computer savvy, do not own or have access to a computer, or do not have internet service. As experienced with elections, the aforementioned scenario continues to be the circumstances for many of our Grosse Pointe Woods residents, and some do not drive but they do walk outside. In accordance with OMA Section 15.266 Providing copies of public notice on written request; fee, alternatively, individuals falling into this group could annually subscribe to receive hard copy mailings of posted materials. An annual subscription fee would need to be set by Resolution of Council for a Fee Schedule update. Emailing of the notices is not an option in this section of the Act.

I recommend the bulletin boards continue to be utilized in their current locations and either replaced or repaired with Parking or Animal Enforcement continuing to post notices as needed.

Cc: Smith
Schulte

Attachments

otherwise to fulfill a condition precedent to attendance, other than mechanisms established and required by the public body necessary to permit the person to participate in a public comment period of the meeting.

(7) Members of the general public otherwise participating in a meeting of a public body held electronically under this section are to be excluded from participation in a closed session of the public body held electronically during that meeting if the closed session is convened and held in compliance with the requirements of this act applicable to a closed session.

(8) At a meeting held under this section that accommodates members absent due to military duty or a medical condition, only those members absent due to military duty or a medical condition may participate remotely. Any member who is not on military duty or does not have a medical condition must be physically present at the meeting to participate.

History: Add. 2020, Act 228, Imd. Eff. Oct. 16, 2020;—Am. 2020, Act 254, Imd. Eff. Dec. 22, 2020.

15.264 Public notice of meetings generally; contents; places of posting.

Sec. 4. The following provisions shall apply with respect to public notice of meetings:

(a) A public notice shall always contain the name of the public body to which the notice applies, its telephone number if one exists, and its address.

(b) A public notice for a public body shall always be posted at its principal office and any other locations considered appropriate by the public body. Cable television may also be utilized for purposes of posting public notice.

(c) If a public body is a part of a state department, part of the legislative or judicial branch of state government, part of an institution of higher education, or part of a political subdivision or school district, a public notice shall also be posted in the respective principal office of the state department, the institution of higher education, clerk of the house of representatives, secretary of the state senate, clerk of the supreme court, or political subdivision or school district.

(d) If a public body does not have a principal office, the required public notice for a local public body shall be posted in the office of the county clerk in which the public body serves and the required public notice for a state public body shall be posted in the office of the secretary of state.

History: 1976, Act 267, Eff. Mar. 31, 1977;—Am. 1984, Act 87, Imd. Eff. Apr. 19, 1984.

15.265 Public notice of regular meetings, change in schedule of regular meetings, rescheduled regular meetings, or special meetings; posting; statement of date, time, and place; website; recess or adjournment; emergency sessions; emergency public meeting; meeting in residential dwelling; limitation; notice; duration requirement.

Sec. 5. (1) A meeting of a public body shall not be held unless public notice is given as provided in this section by a person designated by the public body.

(2) For regular meetings of a public body, there shall be posted within 10 days after the first meeting of the public body in each calendar or fiscal year a public notice stating the dates, times, and places of its regular meetings.

(3) If there is a change in the schedule of regular meetings of a public body, there shall be posted within 3 days after the meeting at which the change is made, a public notice stating the new dates, times, and places of its regular meetings.

(4) Except as provided in this subsection or in subsection (6), for a rescheduled regular or a special meeting of a public body, a public notice stating the date, time, and place of the meeting shall be posted at least 18 hours before the meeting in a prominent and conspicuous place at both the public body's principal office and, if the public body directly or indirectly maintains an official internet presence that includes monthly or more frequent updates of public meeting agendas or minutes, on a portion of the website that is fully accessible to the public. The public notice on the website shall be included on either the homepage or on a separate webpage dedicated to public notices for nonregularly scheduled public meetings and accessible via a prominent and conspicuous link on the website's homepage that clearly describes its purpose for public notification of those nonregularly scheduled public meetings. The requirement of 18-hour notice does not apply to special meetings of subcommittees of a public body or conference committees of the state legislature. A conference committee shall give a 6-hour notice. A second conference committee shall give a 1-hour notice. Notice of a conference committee meeting shall include written notice to each member of the conference committee and the majority and minority leader of each house indicating time and place of the meeting.

(5) A meeting of a public body that is recessed for more than 36 hours shall be reconvened only after public notice that is equivalent to that required under subsection (4) has been posted. If either house of the state legislature is adjourned or recessed for less than 18 hours, the notice provisions of subsection (4) are not

applicable. Nothing in this section bars a public body from meeting in emergency session in the event of a severe and imminent threat to the health, safety, or welfare of the public when 2/3 of the members serving on the body decide that delay would be detrimental to efforts to lessen or respond to the threat. However, if a public body holds an emergency public meeting that does not comply with the 18-hour posted notice requirement, it shall make paper copies of the public notice for the emergency meeting available to the public at that meeting. The notice shall include an explanation of the reasons that the public body cannot comply with the 18-hour posted notice requirement. The explanation shall be specific to the circumstances that necessitated the emergency public meeting, and the use of generalized explanations such as "an imminent threat to the health of the public" or "a danger to public welfare and safety" does not meet the explanation requirements of this subsection. If the public body directly or indirectly maintains an official internet presence that includes monthly or more frequent updates of public meeting agendas or minutes, it shall post the public notice of the emergency meeting and its explanation on its website in the manner described for an internet posting in subsection (4). Within 48 hours after the emergency public meeting, the public body shall send official correspondence to the board of county commissioners of the county in which the public body is principally located, informing the commission that an emergency public meeting with less than 18 hours' public notice has taken place. The correspondence shall also include the public notice of the meeting with explanation and shall be sent by either the United States postal service or electronic mail. Compliance with the notice requirements for emergency meetings in this subsection does not create, and shall not be construed to create, a legal basis or defense for failure to comply with other provisions of this act and does not relieve the public body from the duty to comply with any provision of this act.

(6) A meeting of a public body may only take place in a residential dwelling if a nonresidential building within the boundary of the local governmental unit or school system is not available without cost to the public body. For a meeting of a public body that is held in a residential dwelling, notice of the meeting shall be published as a display advertisement in a newspaper of general circulation in the city or township in which the meeting is to be held. The notice shall be published not less than 2 days before the day on which the meeting is held, and shall state the date, time, and place of the meeting. The notice shall be at the bottom of the display advertisement, set off in a conspicuous manner, and include the following language: "This meeting is open to all members of the public under Michigan's open meetings act".

(7) A durational requirement for posting a public notice of a meeting under this act is the time that the notice is required to be accessible to the public.

History: 1976, Act 267, Eff. Mar. 31, 1977;—Am. 1978, Act 256, Imd. Eff. June 21, 1978;—Am. 1982, Act 134, Imd. Eff. Apr. 22, 1982;—Am. 1984, Act 167, Imd. Eff. June 29, 1984;—Am. 2012, Act 528, Imd. Eff. Dec. 28, 2012.

15.266 Providing copies of public notice on written request; fee.

Sec. 6. (1) Upon the written request of an individual, organization, firm, or corporation, and upon the requesting party's payment of a yearly fee of not more than the reasonable estimated cost for printing and postage of such notices, a public body shall send to the requesting party by first class mail a copy of any notice required to be posted pursuant to section 5(2) to (5).

(2) Upon written request, a public body, at the same time a public notice of a meeting is posted pursuant to section 5, shall provide a copy of the public notice of that meeting to any newspaper published in the state and to any radio and television station located in the state, free of charge.

History: 1976, Act 267, Eff. Mar. 31, 1977.

15.267 Closed sessions; roll call vote; separate set of minutes.

Sec. 7. (1) A 2/3 roll call vote of members elected or appointed and serving is required to call a closed session, except for the closed sessions permitted under section 8(a), (b), (c), (g), (i), and (j). The roll call vote and the purpose or purposes for calling the closed session shall be entered into the minutes of the meeting at which the vote is taken.

(2) A separate set of minutes shall be taken by the clerk or the designated secretary of the public body at the closed session. These minutes shall be retained by the clerk of the public body, are not available to the public, and shall only be disclosed if required by a civil action filed under section 10, 11, or 13. These minutes may be destroyed 1 year and 1 day after approval of the minutes of the regular meeting at which the closed session was approved.

History: 1976, Act 267, Eff. Mar. 31, 1977;—Am. 1993, Act 81, Eff. Apr. 1, 1994;—Am. 1996, Act 464, Imd. Eff. Dec. 26, 1996.

15.268 Closed sessions; permissible purposes.

Sec. 8. A public body may meet in a closed session only for the following purposes:

(a) To consider the dismissal, suspension, or disciplining of, or to hear complaints or charges brought

OPEN MEETINGS ACT

THE BASICS

The Act – the Open Meetings Act (OMA) is 1976 PA 267, MCL 15.261 through 15.275. The OMA took effect January 1, 1977. In enacting the OMA, the Legislature promoted a new era in governmental accountability and fostered openness in government to enhance responsible decision making.[1]

Nothing in the OMA prohibits a public body from adopting an ordinance, resolution, rule, or charter provision that requires a greater degree of openness relative to public body meetings than the standards provided for in the OMA.[2]

What bodies are covered? – the OMA applies to all meetings of a public body.[3] A "public body" is broadly defined as:

> [A]ny state or local legislative or governing body, including a board, commission, committee, subcommittee, authority, or council, that is empowered by state constitution, statute, charter, ordinance, resolution, or rule to *exercise governmental or proprietary authority or perform a governmental or proprietary function*; a lessee of such a body performing an essential public purpose and function pursuant to the lease agreement.[4] [Emphasis added.]

As used in the OMA, the term "public body" connotes a collective entity and does not include an individual government official.[5] The OMA does not apply to private, nonprofit corporations.[6]

Public notice requirements – a meeting of a public body cannot be held unless public notice is given consistent with the OMA.[7] A public notice must contain the public body's name, telephone number, and address, and must be posted at its principal office and any other locations

---

[1] *Booth Newspapers, Inc v Univ of Michigan Bd of Regents*, 444 Mich 211, 222-223; 507 NW2d 422 (1993).

[2] MCL 15.261.

[3] MCL 15.263. When the Handbook refers to a "board," the term encompasses all boards, commissions, councils, authorities, committees, subcommittees, panels, and any other public body.

[4] MCL 15.262(a). The provision in the OMA that includes a lessee of a public body performing an essential public purpose is unconstitutional because the title of the act does not refer to organizations other than "public bodies." OAG, 1977-1978, No 5207, p 157 (June 24, 1977). Certain boards are excluded "when deliberating the merits of a case." MCL 15.263(7). See also MCL 15.263(8) and (10).

[5] *Herald Co v Bay City*, 463 Mich 111, 129-133; 614 NW2d 873 (2000) – a city manager is not subject to the OMA. *Craig v Detroit Public Schools Chief Executive Officer*, 265 Mich App 572, 579; 697 NW2d 529 (2005). OAG, 1977-1978, No 5183A, p 97 (April 18, 1977).

[6] OAG, 1985-1986, No 6352, p 252 (April 8, 1986) – the Michigan High School Athletic Association is not subject to the OMA. See also *Perlongo v Iron River Cooperative TV Antenna Corp*, 122 Mich App 433; 332 NW2d 502 (1983).

[7] MCL 15.265(1). *Nicholas v Meridian Charter Twp*, 239 Mich App 525, 531; 609 NW2d 574 (2000).

the public body considers appropriate.[8] If a public body is a part of a state department, a public notice must also be posted in the principal office of the state department.[9]

Public notice requirements are specific to the type of meeting:

> (1) For regular meetings of a public body, there shall be posted within 10 days after the first meeting of the public body in each calendar or fiscal year a public notice stating the dates, times, and places of its regular meetings.
>
> (2) For a change in schedule of regular meetings of a public body, there shall be posted within three days after the meeting at which the change is made, a public notice stating the new dates, times, and places of its regular meetings.
>
> (3) For a rescheduled regular or a special meeting of a public body, a public notice stating the date, time, and place of the meeting shall be posted at least 18 hours before the meeting.
>
> (4) A meeting of a public body which is recessed for more than 36 hours shall be reconvened only after public notice has been posted at least 18 hours before the reconvened meeting.[10]

At their first meeting of the calendar or fiscal year, each board must set the dates, times, and places of the board's regular meetings for the coming year. The OMA does not require any particular number of meetings. The board's schedule of regular meetings is not, of course, set in stone. The board is free to cancel or reschedule its meetings.

The minimum 18-hour notice requirement is not fulfilled if the public is denied access to the notice of the meeting for any part of the 18 hours.[11] The requirement may be met by posting at least 18 hours in advance of the meeting using a method designed to assure access to the notice. For example, the public body can post the notice at the main entrance visible on the outside of the building that houses the principal office of the public body.[12]

A public body must send copies of the public notices by first class mail to a requesting party, upon the party's payment of a yearly fee of not more than the reasonable estimated cost of printing and postage. Upon written request, a public body, at the same time a public notice of a meeting is posted, must provide a copy of the public notice to any newspaper published in the state or any radio or television station located in the state, free of charge.[13]

---

[8] MCL 15.264(a)-(c).
[9] MCL 15.264(c).
[10] MCL 15.265(2)-(5).
[11] OAG, 1979-1980, No 5724, p 840 (June 20, 1980).
[12] OAG No 5724.
[13] MCL 15.266.

Section 7.4. - Publication and Recording of Ordinances.

Each ordinance enacted by the Council shall be published in either of the following manners, as the Council shall determine by proper action:

(1) By posting copies thereof in five conspicuous public places, in the City within 20 days after its adoption; or,

(2) By publication in the official newspaper of the city at least once within 20 days after its adoption.

All ordinances and amendments thereto shall be recorded by the Clerk in a book to be called "The Ordinance Book," and it shall be the duty of the Mayor and Clerk to authenticate such records by their official signatures thereon. The Clerk shall enter in such book after the publication of each ordinance, the date and method of publication, which shall be prima facie evidence of such publication.

(Adopted by electors 2-16-1953)

Editor's note— Notwithstanding the publication requirement in this section, a city may publish a summary instead. See MCL 117.3(k).

CERTIFICATION OF POSTING

MEMO TO: PUBLIC SAFETY
FROM: City Clerk office:_____
DATE: _____
SUBJECT: POSTING AGENDA OF:

Council	( )
Planning Commission	( )
Other:_____	( )

Please post the attached SIX agendas on the following Municipal Bulletin Boards by 5 p.m. of the day of receipt of this Certificate of Posting. In the case of a multi-paged agenda, be sure to post each page separately for easy reading. Make sure you REMOVE ANY OLD AGENDAS. Please acknowledge completing the task by signing the boxed statement:

* Mack/Lochmoor
* Mack/Anita
* Mack/Ridgemont
* Mack/Broadstone
* Mack/Hollywood
* Mack/Newcastle

CERTIFICATE OF POSTING AGENDA OF THE ABOVE PUBLIC BODY: The undersigned deposes that on the date noted herein, he/she did post copies of the above agenda on the above six bulletin boards in the City of Grosse Pointe Woods, Michigan.

_____

Date posted:_____ Code Enforcement or Public Safety Officer

RETURN THIS FORM TO THE CITY CLERK'S OFFICE: Note: A staff member of the City Clerk's office is responsible for posting the above Agenda on the two bullletin boards at City Hall as follows:

* **Public Safety public foyer - locked bullletin board - [redacted]**
* **City Hall public foyer**

_____

Signature

CITY OF GROSSE POINTE WOODS

Solar Photovoltaic Feasibility Study

PBA Project No. 2020.0140.00

May 24, 2021

Peter Basso Associates Inc
CONSULTING ENGINEERS

TABLE OF CONTENTS

EXECUTIVE SUMMARY

In response to request from City Council and interest from segments of the community, Peter Basso Associates, Inc. (PBA) was commissioned to perform a study to examine the possibility of installing solar photovoltaic (PV) generation at City owned properties.

This study examines the opportunity for PV panel placement, the cost of installation and the resulting energy production to determine if the investment will offset electric utility cost and offer a financial benefit to the community.

Three sites were selected to use a basis for the study: City Hall, Lake Front Park and the Department of Public Works. We examined existing conditions, identified possible roof areas that could support a solar PV installation and compared the system output to the buildings electric energy usage.

The investment in solar photovoltaic, regardless of the scale of the system, will not currently provide financial benefit to the city.

The simple payback for the systems examined range from 15-18 years.

A solar PV system is expected to perform for about 25 years if properly maintained. With assumptions of energy cost escalation, general inflation, interest rates, and system degradation, the net present value calculations yield a negative value.

The assumptions made do not account for any potential complications with structural systems, roofing systems, or the cost of unusual system maintenance or repairs. These assumptions are identified in the body of the report should there be a desire to examine and challenge these assumptions and perform a more detailed financing and annual cash flow or ROI analysis.

If the community desires to explore carbon reduction opportunities, there are alternatives to behind the meter photovoltaic installation. Energy audits and retro-commissioning may find opportunities for energy conservation measures that may offer energy savings with a greater financial benefit than on site solar PV installations. In addition, DTE Energy offers a subscription based program (MI-Green Power) certifying that the offset that is purchased is used to fund alternative energy production at a DTE owned site. This program is more cost effective than behind the meter installation.

Currently, there are no incentive programs that a municipality can use to offset the financial impact. There is a possibility that federal grant dollars or other incentive programs may become available in the future and it is advisable to hold off until such programs become available.

INTRODUCTION

This study is based on the installation of a grid tied, or grid interactive, photovoltaic system. A gird interactive system operates in parallel with the electric utility. Generation from the PV system increases as the sunlight becomes more intense and the inflow of power from the utility will decrease proportionally. When the system produces more power than the site uses at any point, then the excess power flows back to the utility grid and the excess generation is used by other loads connected to the utility.

If the utility goes down for any reason, then the grid interactive system will also disconnect to prevent back-feed to the utility. A grid interactive PV system will not serve as a standby power source.

Variations of PV installations can incorporate storage batteries to enable excess power generation to be stored on site. In the absence of the utility a transfer switch is used to switch the loads to the stored electricity. The cost of this system is much more than a grid interactive system and is a higher cost than other potential emergency sources. Battery systems are not considered in this study due to the high system cost.

All options were calculated using System Advisor Model Software (SAM) developed by the National Renewable Energy Laboratory (NREL). NREL is the principal research laboratory for the US Department of Energy Efficiency and Renewable Energy, the DOE Office of Science and the DOE Office of Electricity. Through these partnerships the latest weather data was made available to use for the photometric calculations of this study such as day length, sun angle, and solar irradiance.

Grosse Pointe Woods receives some of the highest levels of solar irradiance for all of Michigan with an annual average of direct solar irradiance of 4.16 kWh/m2/day. For this location the lowest irradiance will be in December at 1.61 kWh/m2/day, and the highest will be in June at 6.53 kWh/m2/day. For a comparison to other locations in the United States refer to Attachment D. Preliminary calculations were produced using this data, and detailed reports generated from SAM can be found in Attachment C.

Utility bills from 2019, 2020, and the beginning of 2021 were provided and used to determine building energy use and utility rates. The utility meter for each site was observed and used to guide estimations for monthly peak kW usage. The monthly kWh data from the utility along with assumed hours of operation were used to forecast hourly kW load profile for each building to compare energy use to energy generation. While the load profile is an estimation, it is suitable for the purposes of this study.

The purpose of estimating the hourly load forecast is to establish the coincidence factor between the load of the building and the output of the system. When a system produces more than is consumed on site, the financial benefit will begin to diminish.

For excess electricity production DTE Energy applies a distributed generation tariff. Inflow to the building from the Utility is charged at normal retail rates, while outflow back to the utility is credited at only a portion (approximately 50%) of the retail rate. Basically, you receive maximum benefit from the system when you use 100% of what you generate. Once a system is sized such that it is sending power back to the utility, the payback period of the investment increases. DTE also limits the size of an interconnected system to 150KW.

The size of the systems used in this study were based on apparent roof area with proper orientation to support a PV system. This size is used to help illustrate the cost vs. benefit. Systems can be scaled up and down and power generation would be scaled proportionally. The payback analysis would remain the same, provided the system is not sized to allow outflow.

We also indicate the area that would be needed to offset the entire annual use of the building. Generally, a very large system would need to be ground mounted with clear area to the South. It is very common for someone to ask how much it takes to offset 100% of the utility usage and we have included this for that reason.

A summary of electrical load is included in Attachment A with a comparison to electricity production from the PV array. Attachment A provides anticipated hourly production versus consumption graphs for the winter solstice and summer solstice dates of 2021. The winter solstice is the date of least solar exposure, while the summer solstice provides the date of highest solar exposure. The PV array output follows the solar irradiance respectively.

Attachment B details the roof locations used for each site. An optimum available area was determined by orientation and shading constraints, and for each photovoltaic calculation this area was used to give a system size with the approximation of 14 Watts of PV per square foot (including space for support and racking). Ground mounted locations were not studied as there were few opportunities for an optimum location for a ground mounted array on each site without considerable costs required to landscape and remove trees on each site that would shade the array.

EVALUATIONS AND ANALYSIS

Assumptions

Because the sites are owned by a municipality, sales tax and federal tax credits are not included in the study.

The building load is assumed to remain constant over the life of the system and does not anticipate energy improvements or upgrades to mechanical or lighting systems.

Standard efficiency monocrystalline modules are used for the calculations. This is commonly used in commercial applications.

Cost for any needed roof structural changes, and costs for loans or loan origination fees are not included in this study.

The payback period (simple payback) for the photovoltaic system is defined as the time in years for the cost savings of the system to equal the initial cost.

The total cost per Watt of installed system was determined to be **$3.06/$W_{DC}$**. The components of this cost are detailed in the list below. This cost is used when calculating payback period for each system, which does not include operation, maintenance costs, or costs required for any roof structural changes.

Costs for PV are derived from quarterly reports from the National Renewable Energy Laboratory, with additional costs added to account for developer fees, contingencies, and other soft costs.

Basis of costs:

- Microinverters with DC power optimizers and rapid shutdown technology at $\$0.29/W_{DC}$
- Monocrystalline PV modules at an average price of $\$0.41/W_{DC}$
- Structural components and racking at $\$0.17/W_{DC}$
- Balance of system components at $\$0.24/W_{DC}$
- Permits/interconnection fees at $\$0.11/W_{DC}$.
- Developer overhead was modeled to be $\$0.36/W_{DC}$ as well as a 17% profit and a 20% contingency.
- The insurance rate for the system was assumed to be 0.5% of the installed costs.

Variables for net present value calculations:

- The life of the system is assumed be 25 years.
- The output of the panels will diminish slightly as they age, to account for this yearly efficiency loss a standard module output degradation rate of 0.5% is used.
- The rate of inflation is assumed to be 2.5%
- The real discount rate is assumed at 6.4%

Summary of Results

	City Hall *Option 1*	DPW *Option 1*	DPW *Option 2*	Lake Front Park Activities Building *Option 1*	Lake Front Park Pool Bathhouse *Option 1*
Photovoltaic System Size (kW)	24.0	66.5	33.0	11.0	34.0
PV System Annual Production (kWh)	31,398	80,484	39,939	13,788	42,079
Building Electricy Consumption (kWh)	514,600	115,380	115,380	28,391	288,040
Percentage of Annual Total Electricity Consumption Offset by System	6.1%	69.8%	34.6%	48.6%	14.6%
Payback Period (Years)	17.6	17.8	17.8	15.6	18.6
Net Present Value	-$32,800	-$92,900	-$46,100	-$12,200	-$50,400
Total Installed Project Cost	$73,536	$203,756	$101,112	$33,704	$104,176

Grosse Pointe Woods City Hall

The optimum location for PV on Grosse Pointe City Hall is on the southernmost facing side of two roof locations detailed on Sheet E1 of Attachment B, with details demonstrating the area that would be needed to fulfill 100% of the annual total consumption. These locations were chosen as they have the best orientation and least amount of shade. Option 1 uses the combined area of both possible roof locations to size the system, the roofs were assumed to have a 40 degree tilt. After further site analysis and owner overview it a ground mounted array would be recommended at this location if a higher level of production is needed.

City Hall Option 1 is sized at **24 kW** with a capacity factor of 14.9%. It produces 31,398 kWh annually, or **6.1%** of the average annual total consumption using an average consumption extrapolated from the 2019 and 2020 data at 514,600 kWh. The payback period for the system is **17.6 years**. The total installed cost is **$73,536.** Refer to Attachment C for details and anticipated monthly consumption, output, and electricity costs.

To achieve production of 100% of the yearly consumption, the system will need to be sized at 394 kW. The approximate area required for this is detailed on Sheet E1 of Attachment B. Though the annual consumption will be produced, in the winter months when the output of the system decreases electricity will need to be bought from the utility. Conversely in the peak of summer excess electricity produced can be sold to the utility. DTE limits the distributed generation program to projects no larger than 150kW, therefore it is not possible to offset 100% of the usage with on-site PV.

Grosse Pointe Woods DPW

The optimum array location for DPW is the flat roof on the southernmost location, facing south-southwest as detailed on Sheet E2 of Attachment B. For this orientation an azimuth angle of 200 degrees from north was used. (Refer to Attachment B for array location and details of PV area needed to fulfill 100% of the annual total consumption. Due to the condition of the existing roof a module tilt of 10 degrees was used for the calculations to account for fixed angles in PV ballast systems. Ballasted systems require the least roof penetrations and structural design and would be the recommended option for this roof. To obtain a higher tilt angle would require further structural incorporation and additional costs. For more details on the recommended ballasting system and associated tilt angle refer to Attachment E.

DPW Option 1 utilizes all of the optimum area described on attachment B, it is the largest sized system of all options studied a nameplate system size of **66.5 kW** and a capacity factor of 13.8%. It produces 80,484 kWh annually, or **69.8%** of the average annual total consumption using an average consumption extrapolated

from the 2019 and 2020 data at 115,380 kWh. The payback period for the system is **17.8 years**. The total installed cost is **$203,756.** Refer to Attachment C for details and anticipated monthly consumption, output, and electricity costs.

DPW Option 2 utilizes half of the optimum roof area described in option 1. Option 2 has a system size of **33 kW** with a capacity factor of 13.8%. It would produce 39,939 kWh annually, or **34.6%** of the annual total consumption of 115,380 kWh. The payback period for the system would be **17.8 years**. The total installed cost would be **$101,112.**

To achieve production of 100% of the yearly consumption, the system will need to be sized at 96 kW. The approximate area required for this is detailed on Sheet E2 of Attachment B. Though the annual consumption will be produced, in the winter months when the output of the system decreases electricity will need to be bought from the utility at $0.133/kWh. Conversely in the peak of summer excess electricity produced will be sold to the utility at a rate of $0.07437/kWh as outlined by Rider 18 of the DTE Distributed Generation Program. The payback period for this system would be 18.1 years, with a total installed cost of $294,144.

Grosse Pointe Woods Lake Front Park Activities Building

The optimum array location for the Lake Front Park Activities Building is the southern side of the roof detailed on Sheet E3 of Attachment B. Refer to Attachment B for details of PV area needed to fulfill 100% of the annual total consumption. For calculation purposes the roof was determined to have a 20 degree tilt. The roof does not face direct south. For the calculations it was determined that the roof orientation will cause the array azimuth to be 210 degrees from north, facing southwest (instead of 180 degrees at direct south). Even with this orientation change the system produces well and will be integrated with the building. Alternative options using a ground mounted system may also be used at this location in an area deemed appropriate by the owner.

Option 1 is sized at **11 kW** with a capacity factor of 14.3%. It produces 13,788 kWh annually, or **48.6%** of the total annual consumption using an average annual consumption extrapolated from the 2019 and 2020 data at 28,391 kWh. The payback period for the system is **15.6 years**. The total installed cost is **$33,704.** Refer to Attachment C for details and anticipated monthly load, output, and electricity costs.

For comparison, if the roof were to be orientated direct south (180 degrees azimuth) the capacity factor will increase to 14.6%, and the system will produce 14,109 kWh annually, or 49.9% of the annual total. This would change the payback period to **15.3 years**.

To achieve production of 100% of the yearly consumption, the system will need to be sized at 23 kW. The approximate area required for this is detailed on Sheet E3 of Attachment B. Though the annual consumption will be produced, in the winter months when the output of the system decreases electricity will need to be bought from the utility at $0.133/kWh. Conversely in the peak of summer excess electricity produced will be sold to the utility at a rate of $0.07437/kWh as outlined by Rider 18 of the DTE Distributed Generation Program. The payback period for this system would be 16.7 years, with a total installed cost of $70,472.

Grosse Pointe Woods Lake Front Park Pool Bathhouse

The optimum array location for the Lake Front Park Pool Bathhouse is the southernmost side of the roof detailed on Sheet E4 of Attachment B. Refer to Attachment B for details of PV area needed to fulfill 100% of the annual total consumption. The roof was determined to have a 20 degree tilt. The roof does not face direct south, the roof orientation will cause the array azimuth to be 135 degrees from north facing the southeast.

Option 1 is sized at **34 kW** with a capacity factor of 14.1%. It produces 42,079 kWh annually, or **14.6%** of the total annual consumption using an average consumption extrapolated from the 2019 and 2020 data at 288,040 kWh. The payback period for the system is 18.6 years. The total installed cost is **$104,176.** Refer to Attachment C for details and anticipated monthly load, output, and electricity costs.

PBA does not recommend sizing a system to achieve a production of 100% of the yearly consumption for the Pool Bathhouse, to do so the system will need to be sized at 233 kW. DTE limits the distributed generation program to projects no larger than 150kW, so it is not possible to sell to the utility when the system is overproducing. The cost of such a system at 233 kW is calculated to be $713,912. The approximate area required for this is detailed on Sheet E4 of Attachment B.

GLOSSARY

The following terms are sourced directly from the United States Office of Energy Efficiency and Renewable Energy. This glossary is provided to aid in understanding the terms used for the calculations and analysis conducted in this study. See the source in references for further technical terms from the EERE.

alternating current (AC) — A type of electrical current, the direction of which is reversed at regular intervals or cycles. In the United States, the standard is 120 reversals or 60 cycles per second. Electricity transmission networks use AC because voltage can be controlled with relative ease.

annual solar savings — The annual solar savings of a solar building is the energy savings attributable to a solar feature relative to the energy requirements of a non-solar building.

azimuth angle — The angle between true south and the point on the horizon directly below the sun.

balance of system — Represents all components and costs other than the photovoltaic modules/array. It includes design costs, land, site preparation, system installation, support structures, power conditioning, operation and maintenance costs, indirect storage, and related costs.

capacity factor — The ratio of the average load on (or power output of) an electricity generating unit or system to the capacity rating of the unit or system over a specified period of time.

design month — The month having the combination of insolation and load that requires the maximum energy from the photovoltaic array.

direct current (DC) — A type of electricity transmission and distribution by which electricity flows in one direction through the conductor, usually relatively low voltage and high current. To be used for typical 120 volt or 220 volt household appliances, DC must be converted to alternating current, its opposite.

irradiance — The direct, diffuse, and reflected solar radiation that strikes a surface. Usually expressed in kilowatts per square meter. Irradiance multiplied by time equals insolation.

kilowatt (kW) — A standard unit of electrical power equal to 1000 watts, or to the energy consumption at a rate of 1000 joules per second.

kilowatt-hour (kWh) — 1,000 thousand watts acting over a period of 1 hour. The kWh is a unit of energy. 1 kWh=3600 kJ.

levelized cost of energy (LCOE) — The cost of energy of a solar system that is based on the system's installed price, its total lifetime cost, and its lifetime electricity production.

life-cycle cost — The estimated cost of owning and operating a photovoltaic system for the period of its useful life.

load — The demand on an energy producing system; the energy consumption or requirement of a piece or group of equipment. Usually expressed in terms of amperes or watts in reference to electricity.

orientation — Placement with respect to the cardinal directions, N, S, E, W; azimuth is the measure of orientation from north.

photovoltaic (PV) module — The smallest environmentally protected, essentially planar assembly of solar cells and ancillary parts, such as interconnections, terminals, (and protective devices such as diodes) intended to generate direct current power under unconcentrated sunlight. The structural (load carrying) member of a module can either be the top layer (superstrate) or the back layer (substrate).

photovoltaic (PV) panel — often used interchangeably with PV module (especially in one-module systems), but more accurately used to refer to a physically connected collection of modules (i.e., a laminate string of modules used to achieve a required voltage and current).

peak demand/load — The maximum energy demand or load in a specified time period.

REFERENCES

DTE Energy Electric Rate Book:

"DTE Eletctric Company Rate Book for Electric Service." *Michigan.gove MPSC Approved DTE Electric Rate Books*, 23 Apr. 2018, www.michigan.gov/mpsc.

DTE Energy MI Green Power:

MIGreenPower Wind & Solar Clean Energy Programs. DTE Energy, 2021, newlook.dteenergy.com/wps/wcm/connect/dte-web/quicklinks/migreenpower

EERE Glossary of Photovoltaic Technical Terms:

"Solar Energy Glossary." *Energy.gov*, US Office of Energy Efficiency and Renewable Energy, www.energy.gov/eere/solar/solar-energy-glossary#alternating_current

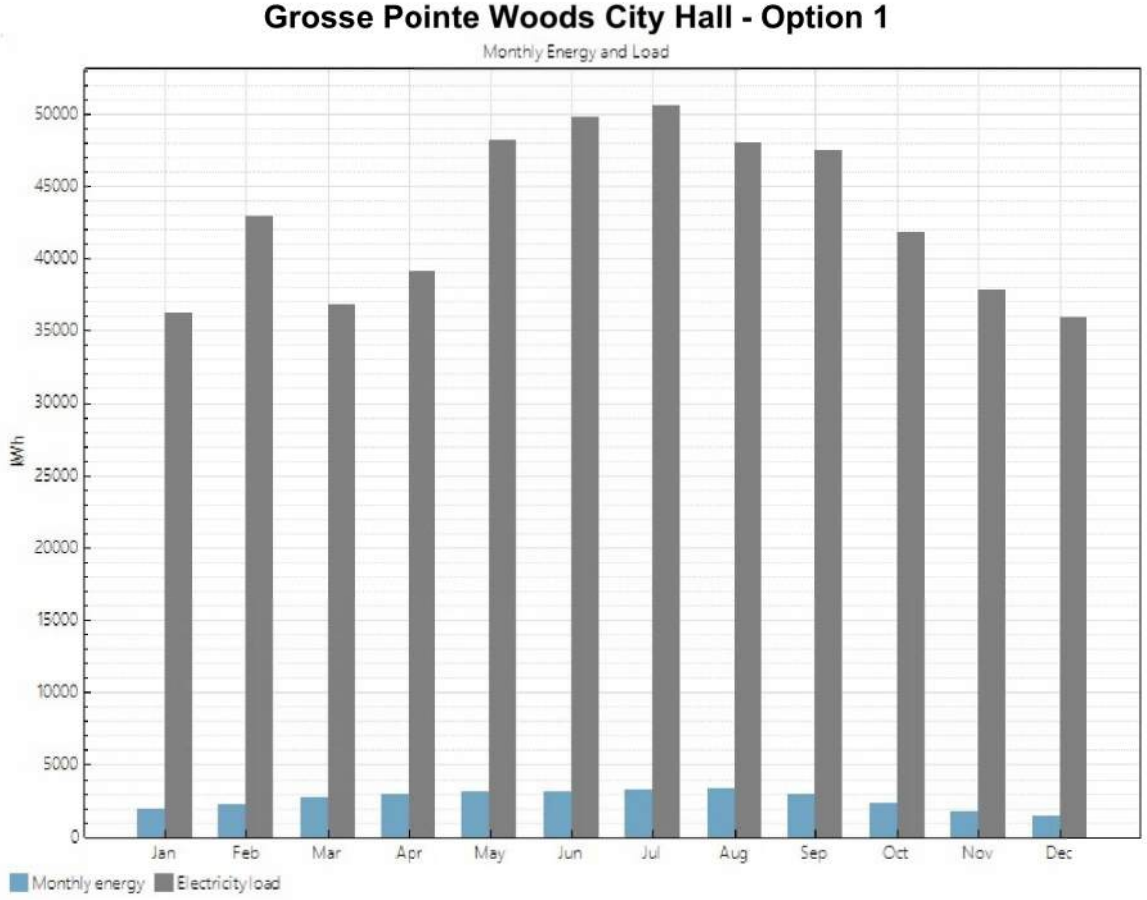
PV Cost Data from National Renewable Energy Laboratories (NREL):

System Advisor Model Version 2020.11.29 (SAM 2020.11.29) Website. PV Cost Data. National Renewable Energy Laboratory. Golden, CO. Accessed October 31, 2019. https://sam.nrel.gov/photovoltaic/pv-sub-page-3.html .

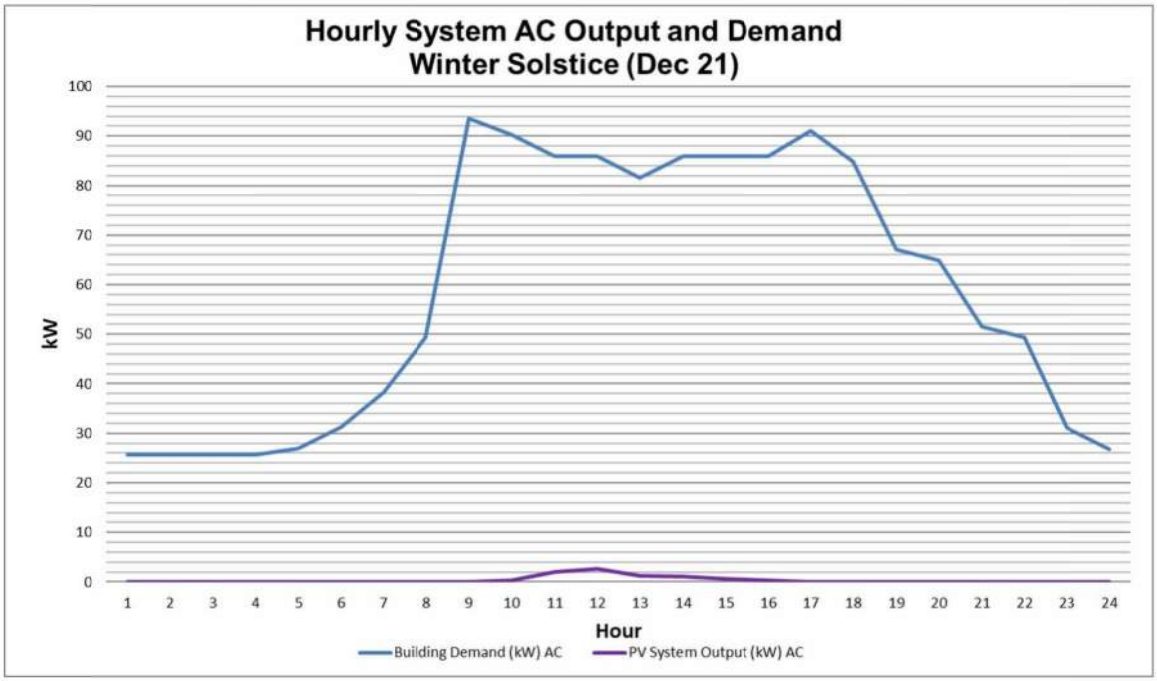
Photovoltaic Calculations Produced Using System Advisor Model (SAM):

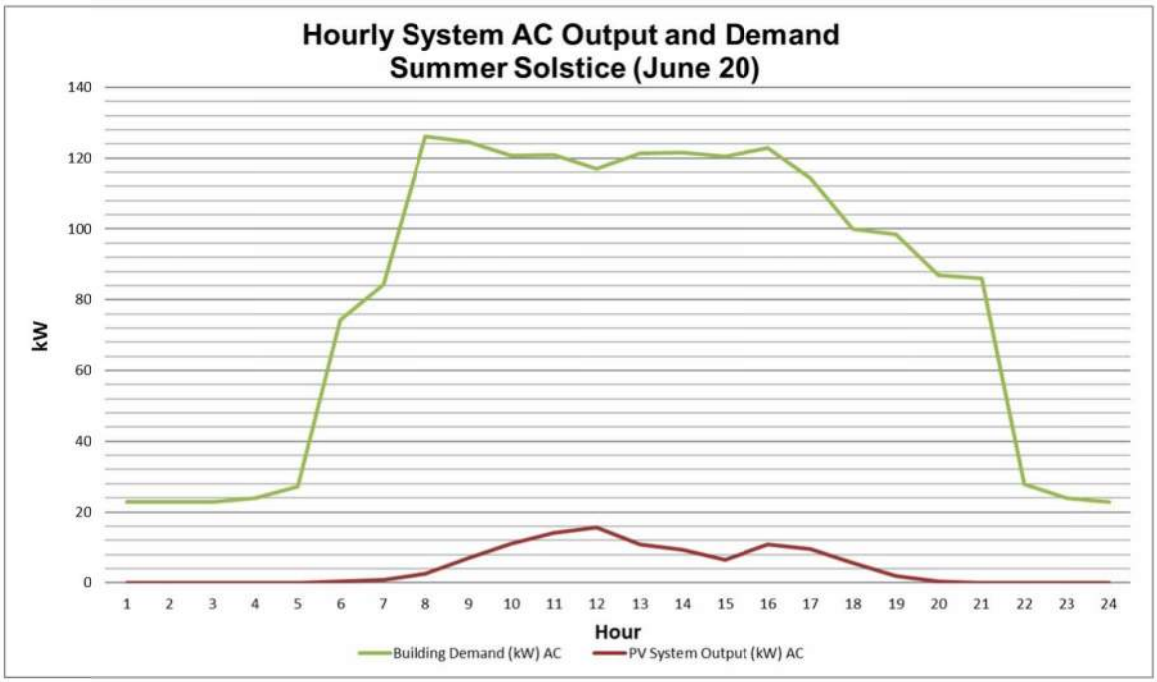
System Advisor Model Version 2020.11.29 (SAM 2020.11.29). National Renewable Energy Laboratory. Golden, CO. Accessed December 27, 2020. https://sam.nrel.gov .

ATTACHMENT A:
PHOTOVOLTAIC PRODUCTION TO CONSUMPTION GRAPHS

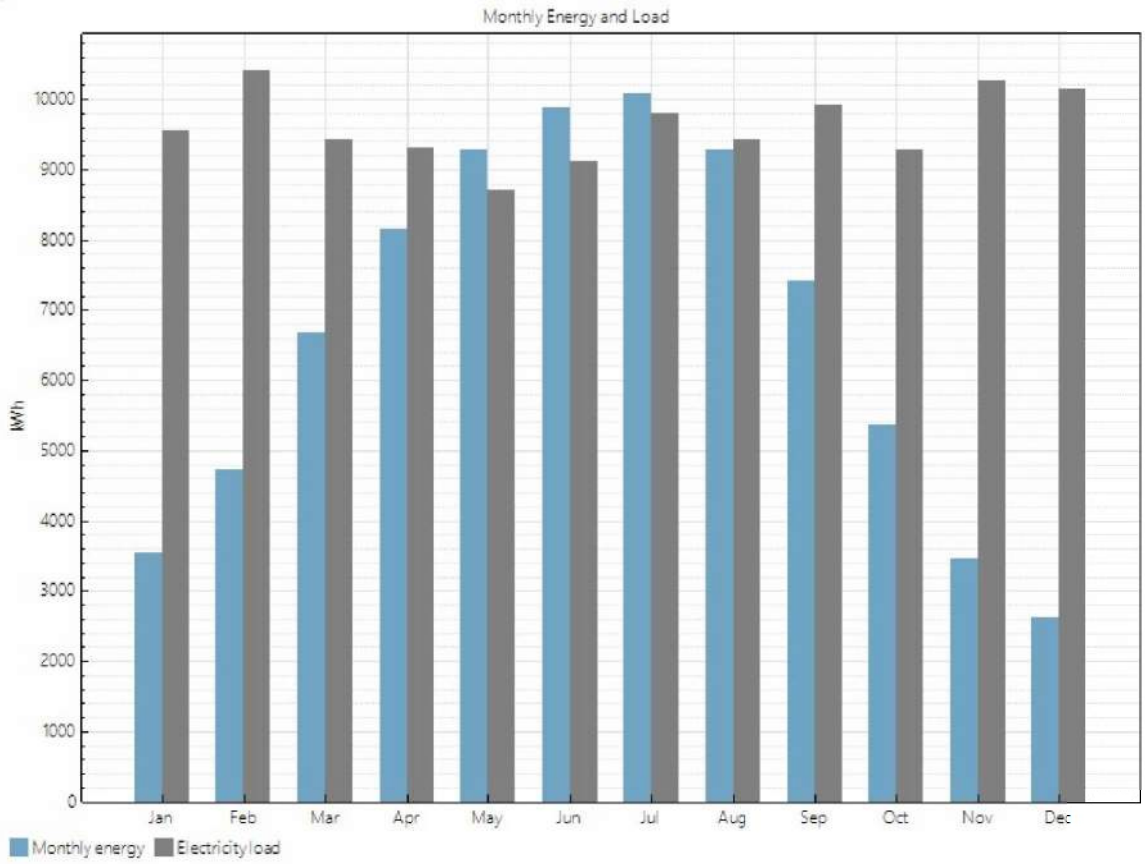


Grosse Pointe Woods City Hall - Option 1

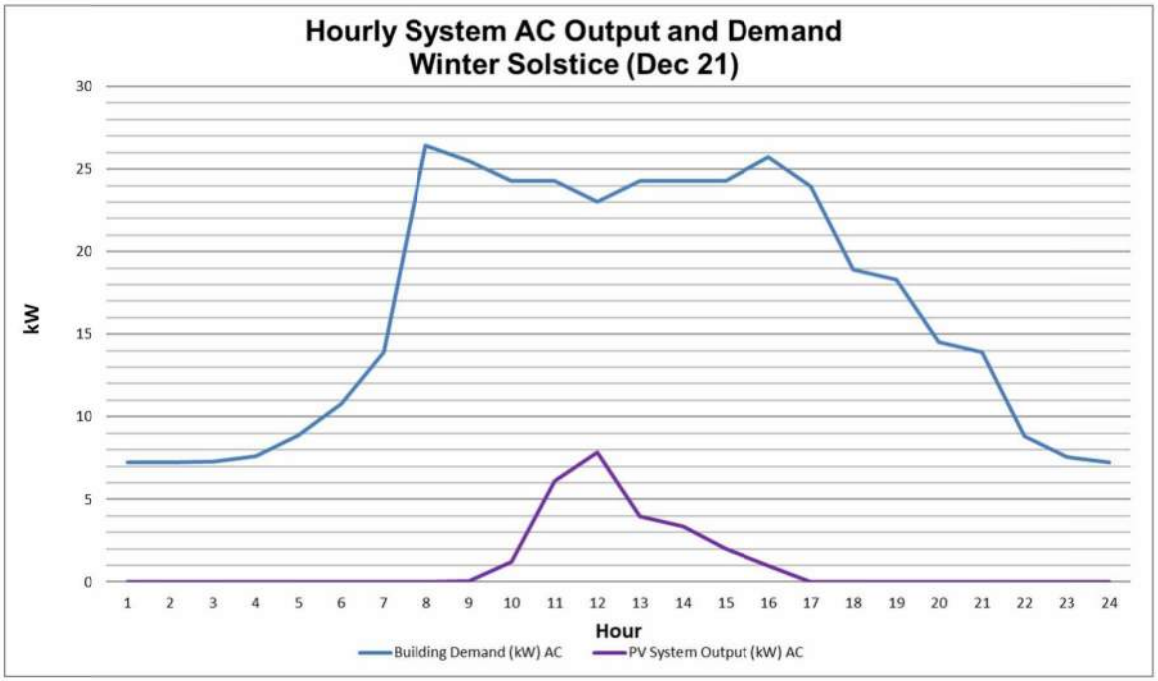


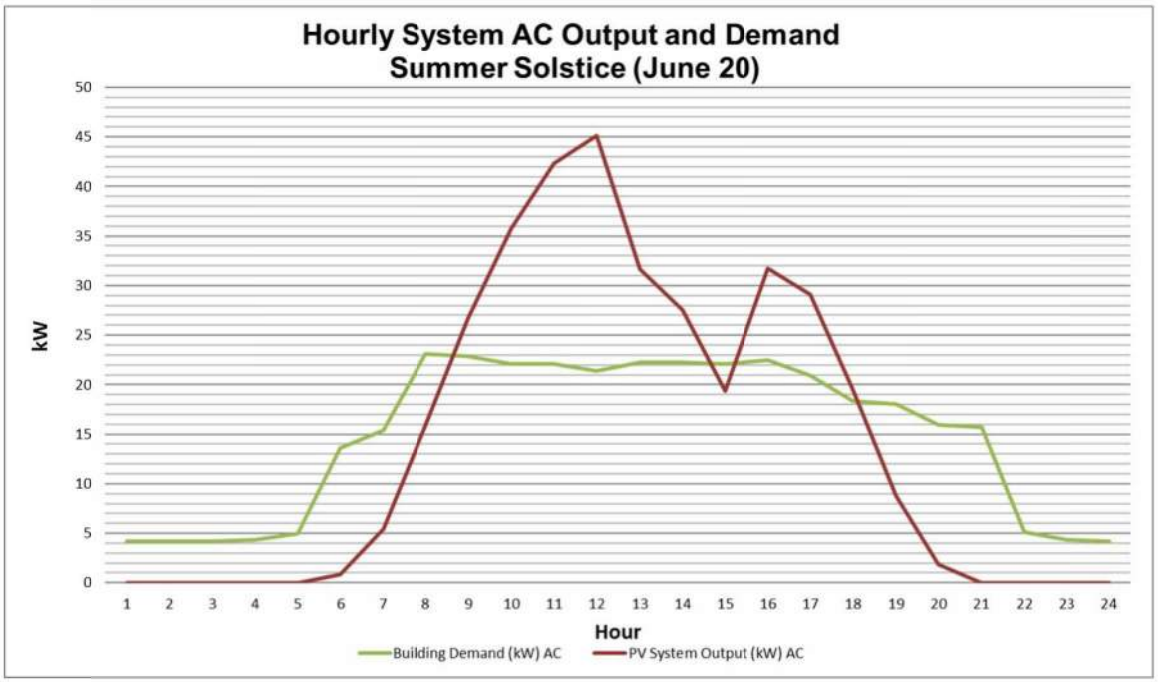


Grosse Pointe Woods DPW - Option 1

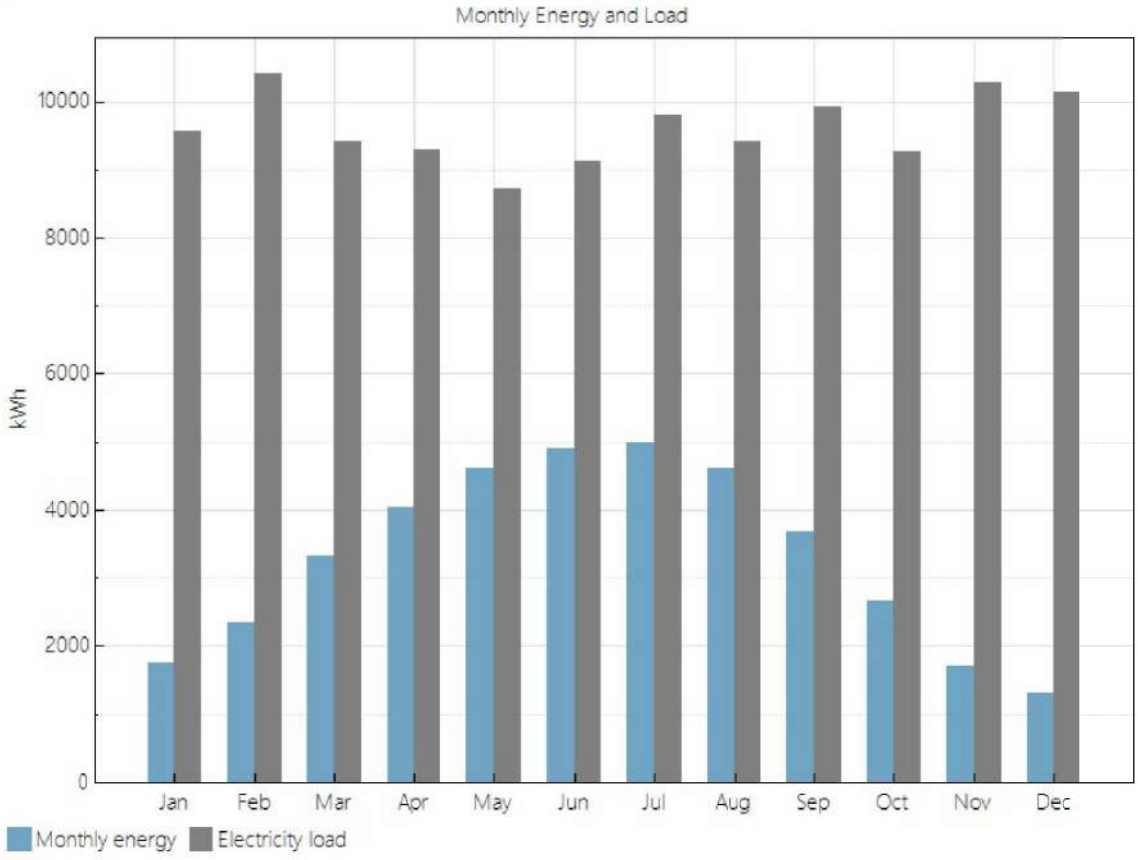


Grosse Pointe Woods DPW - Option 1

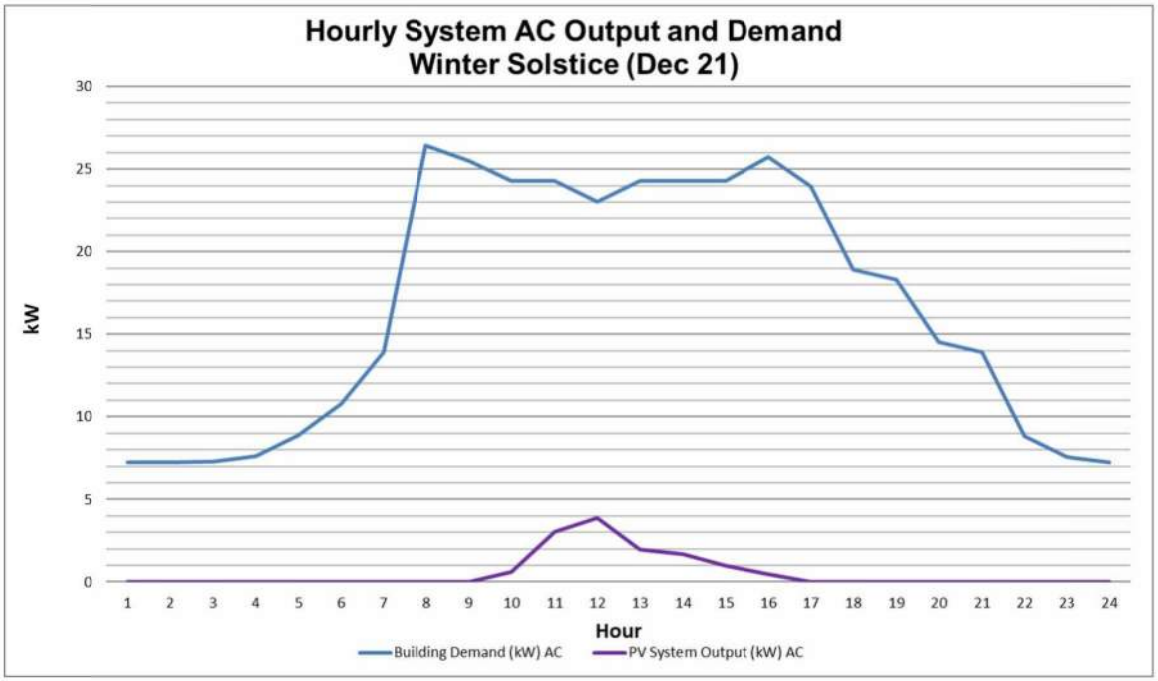


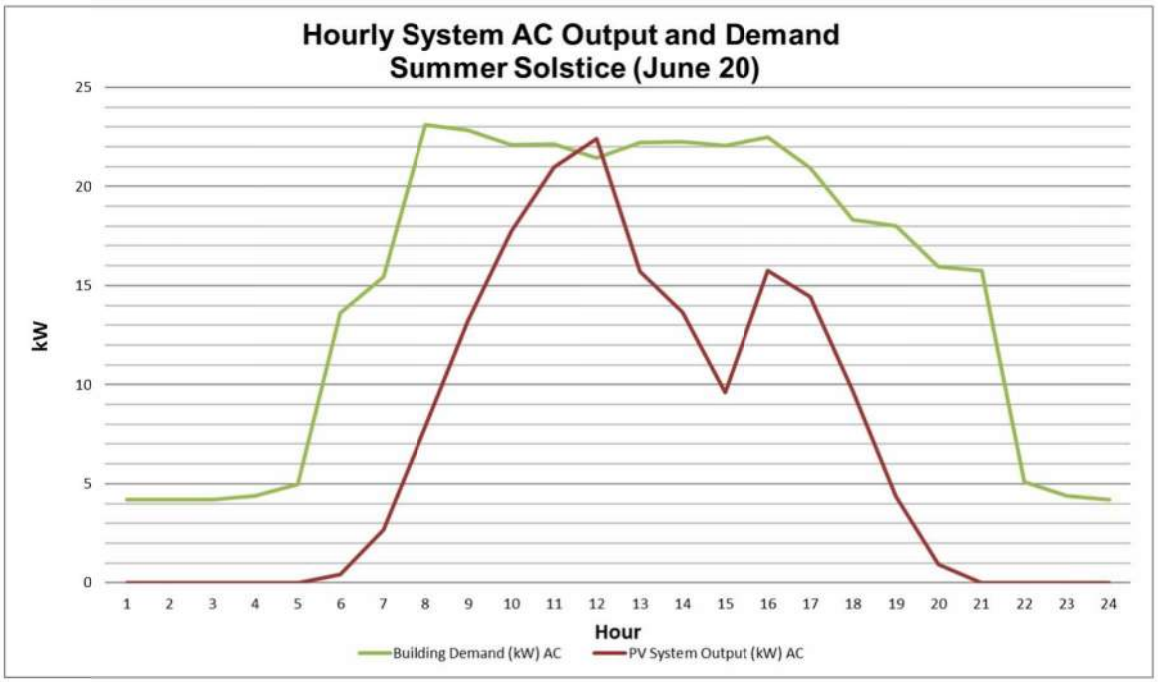


Grosse Pointe Woods DPW - Option 2

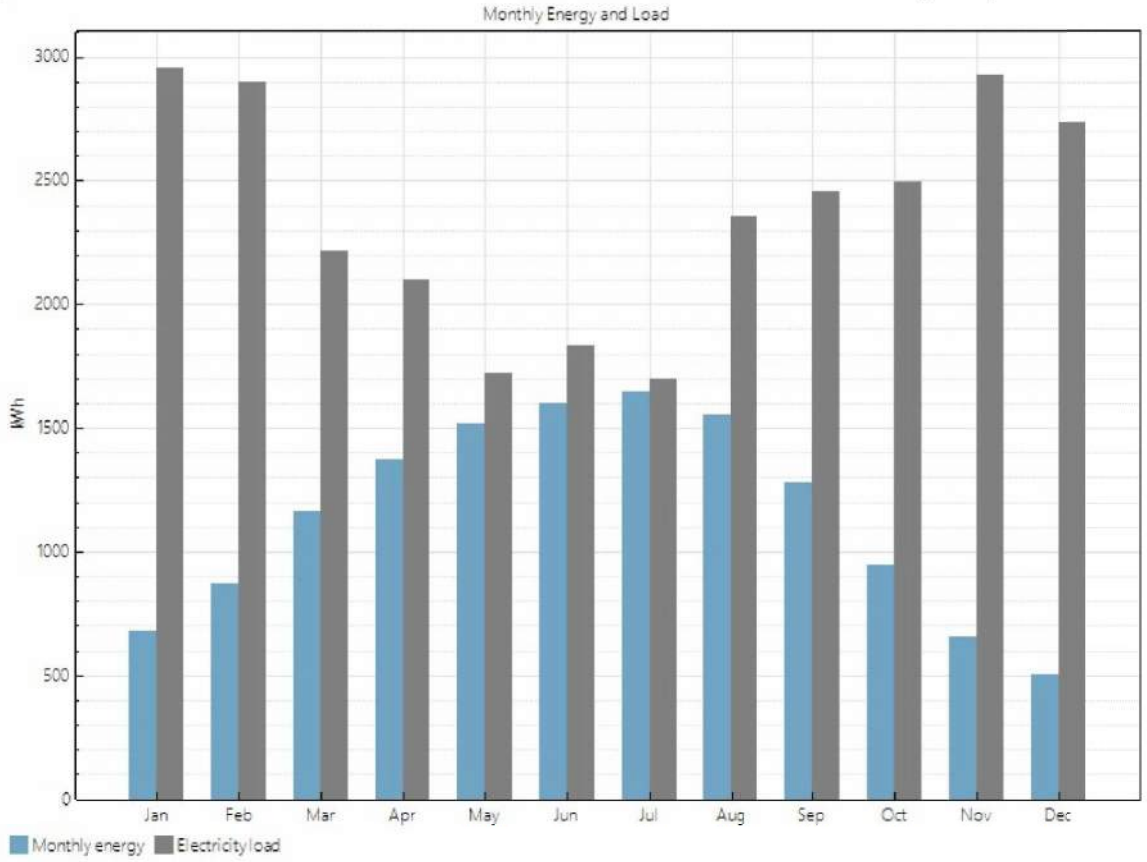


Grosse Pointe Woods DPW - Option 2

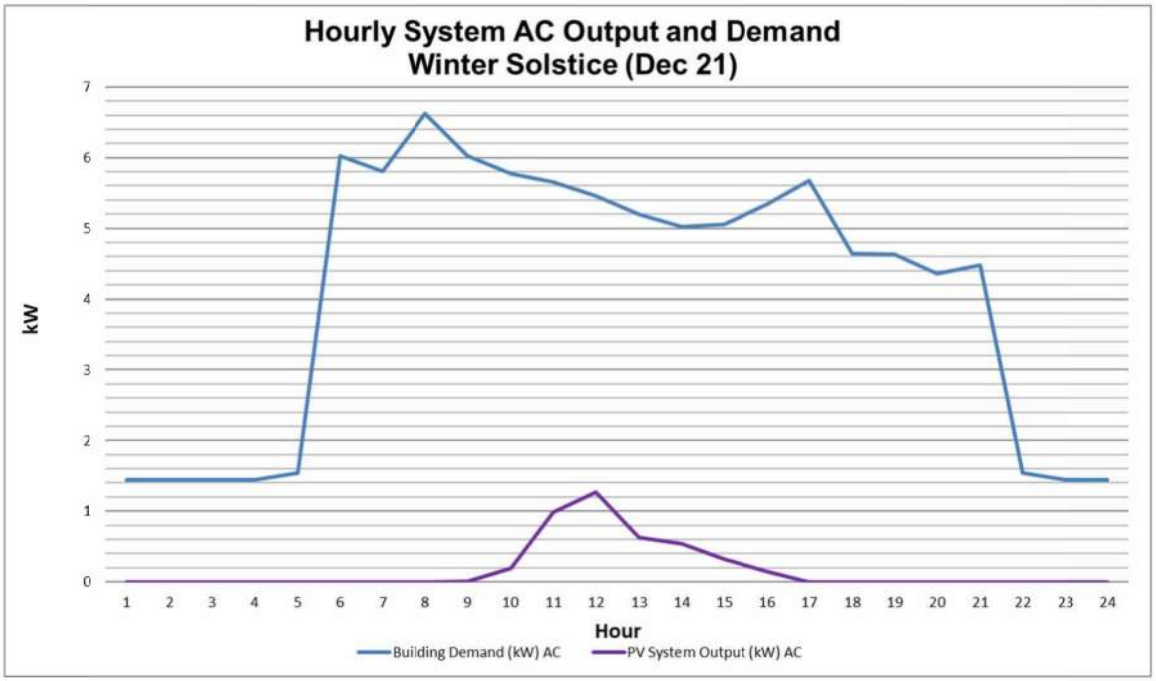


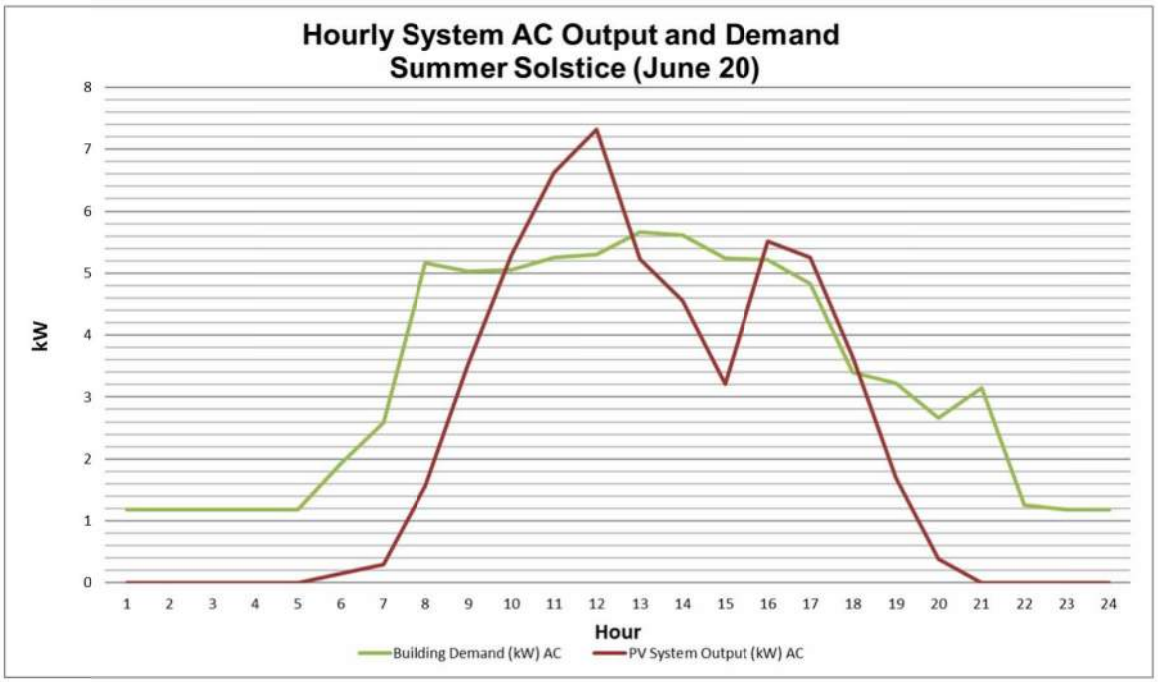


Grosse Pointe Woods Lake Front Park Activities Building - Option 1

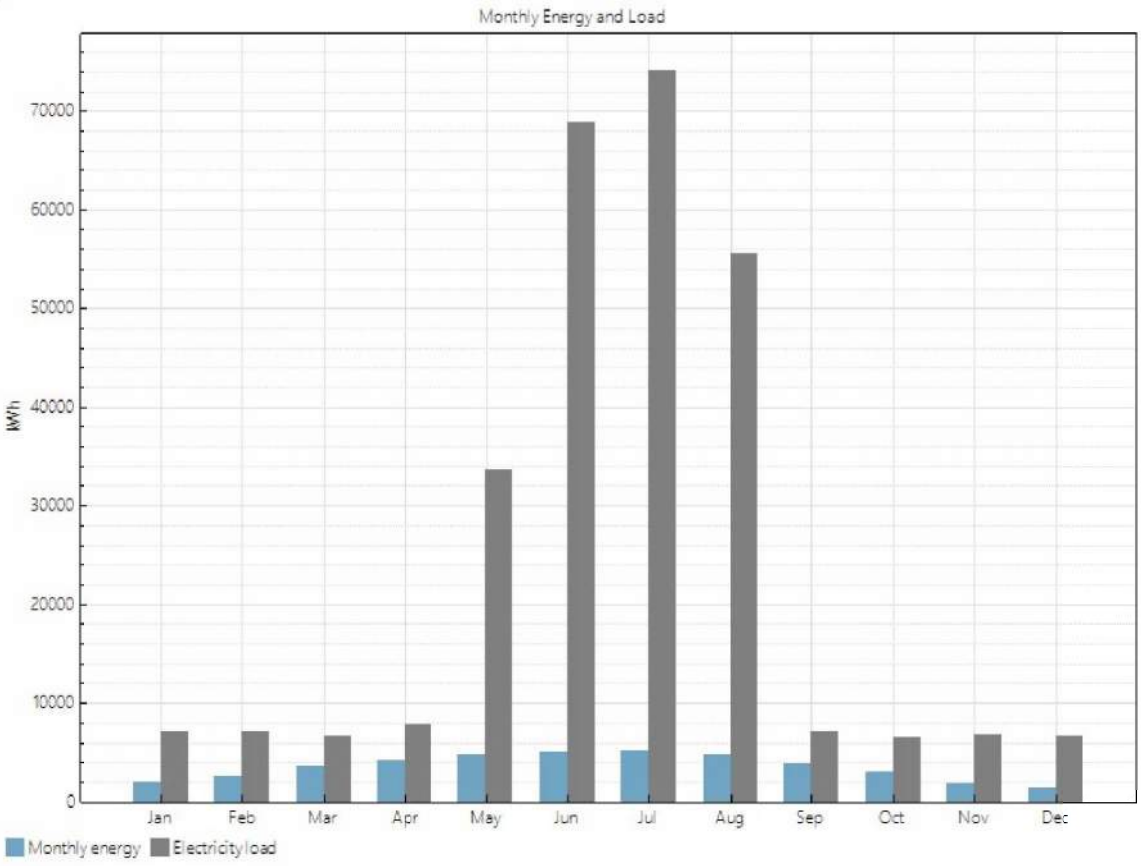


Grosse Pointe Woods Lake Front Park Activities Building - Option 1

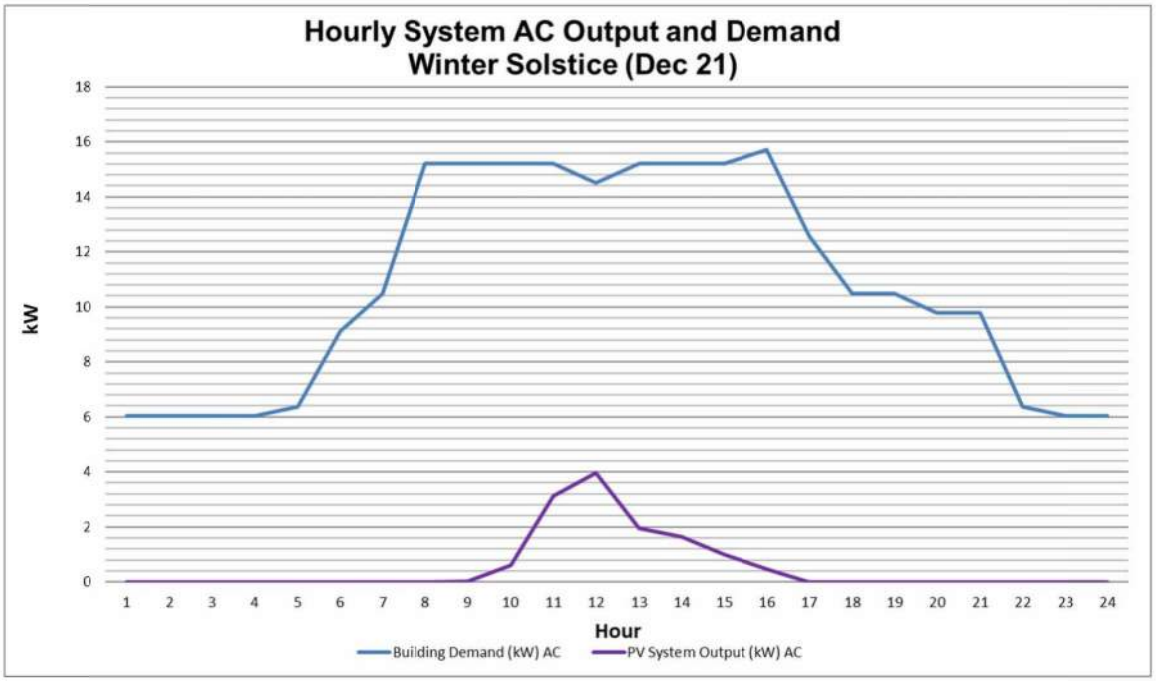


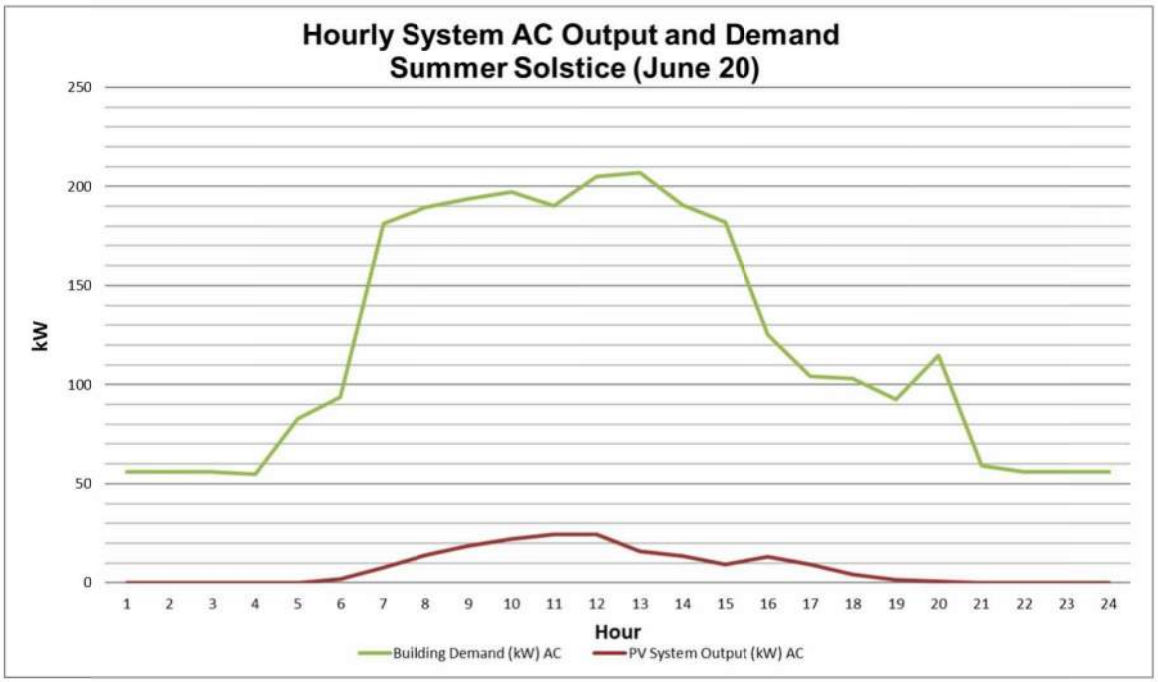


Grosse Pointe Woods Lake Front Park Pool Bathhouse - Option 1

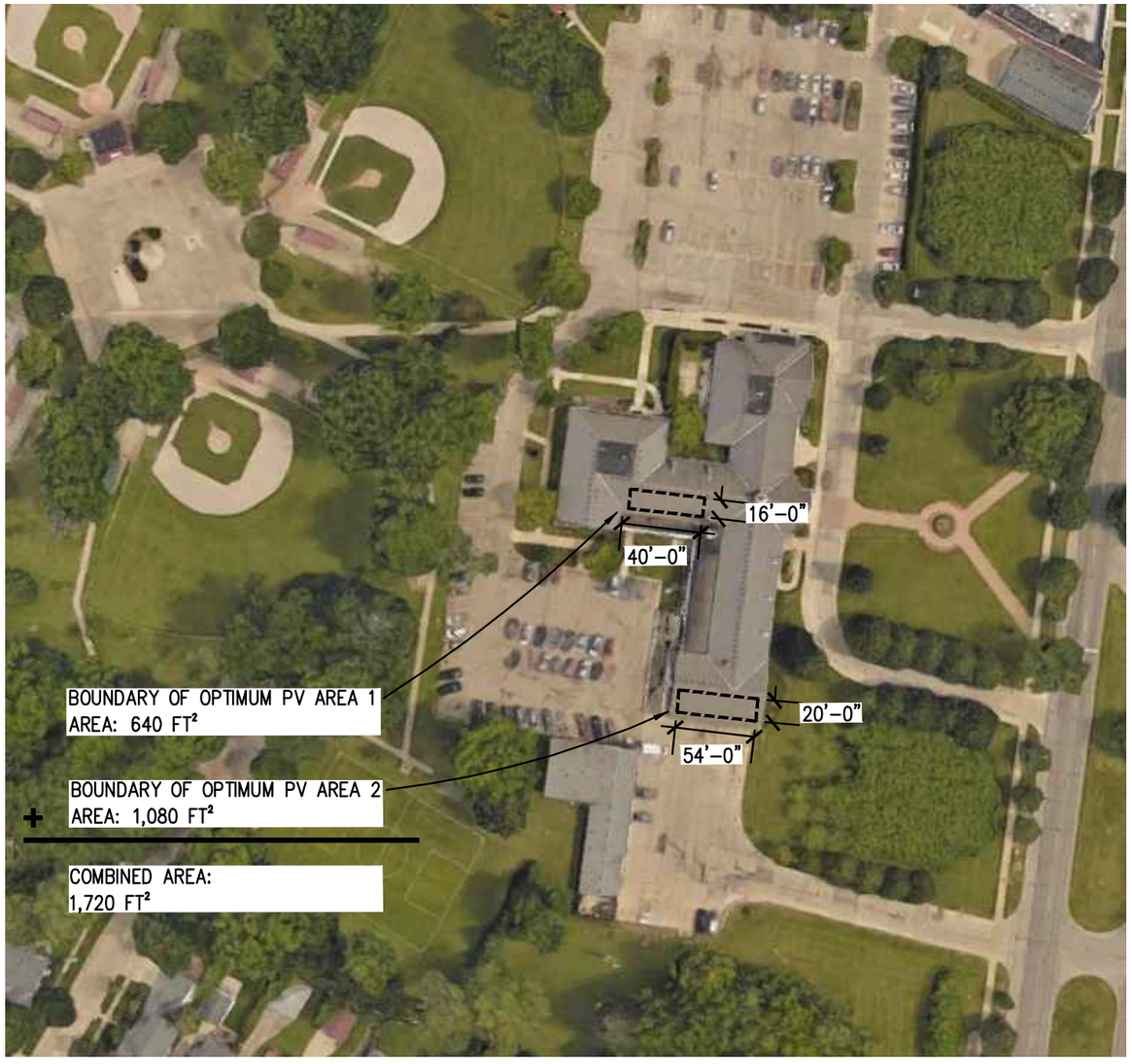


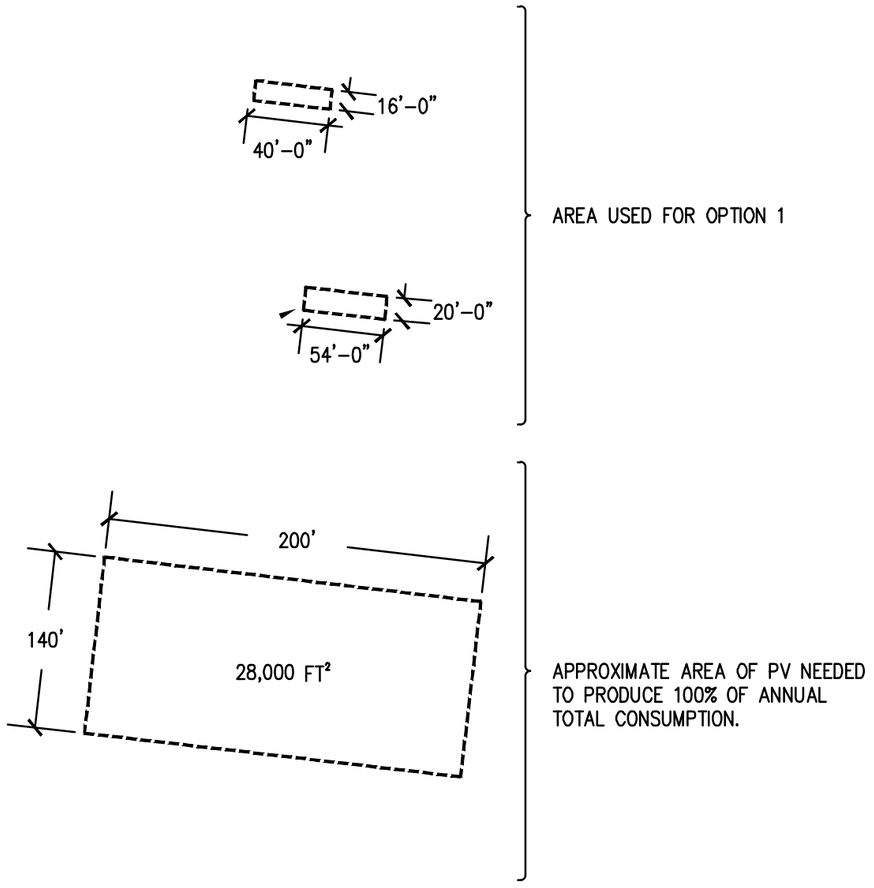
Grosse Pointe Woods Lake Front Park Pool Bathhouse - Option 1





ATTACHMENT B:
ELECTRICAL SITE PLANS





COMPARISON OF PV AREA

GROSSE POINT WOODS CITY HALL

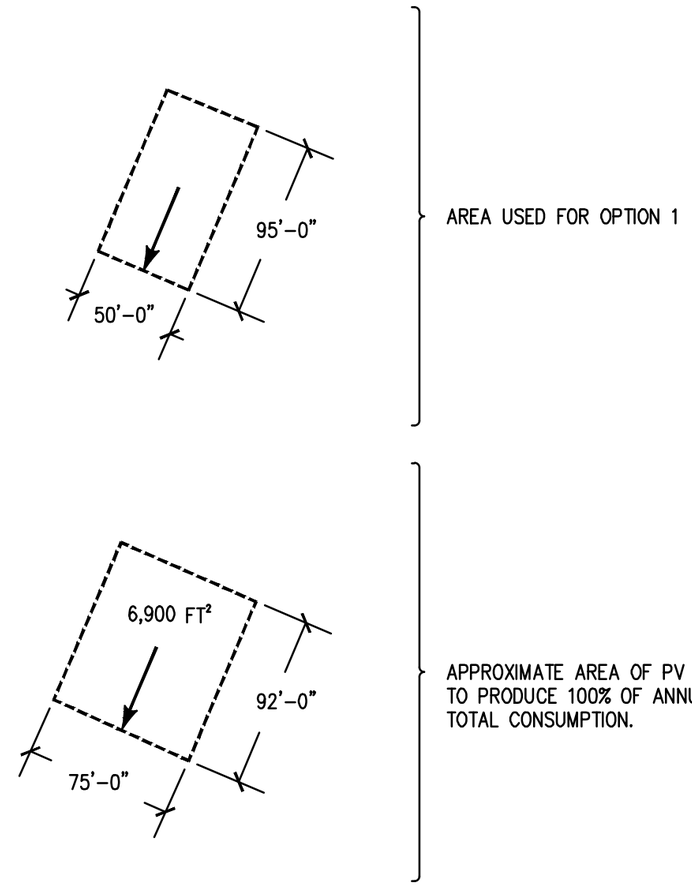
NO SCALE

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel: 248-879-5666 Fax: 248-879-0007

PROJECT NO. 2021-0140 PAGE E1 DATE 05-14-2021

PROJECT GROSSE POINT WOODS PHOTOVOLTAIC FEASIBILITY STUDY

SUBJECT GROSSE POINT WOODS CITY HALL BY LLJ



COMPARISON OF PV AREA

GROSSE POINT WOODS DPW

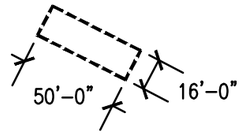
NO SCALE

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel: 248-879-5666 Fax: 248-879-0007

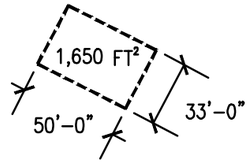
PROJECT NO. 2021-0140 PAGE E2 DATE 05-14-2021

PROJECT GROSSE POINT WOODS PHOTOVOLTAIC FEASIBILITY STUDY

SUBJECT GROSSE POINT WOODS DPW BY LLJ



AREA USED FOR OPTION 1



APPROXIMATE AREA OF PV NEEDED TO PRODUCE 100% OF ANNUAL TOTAL CONSUMPTION.

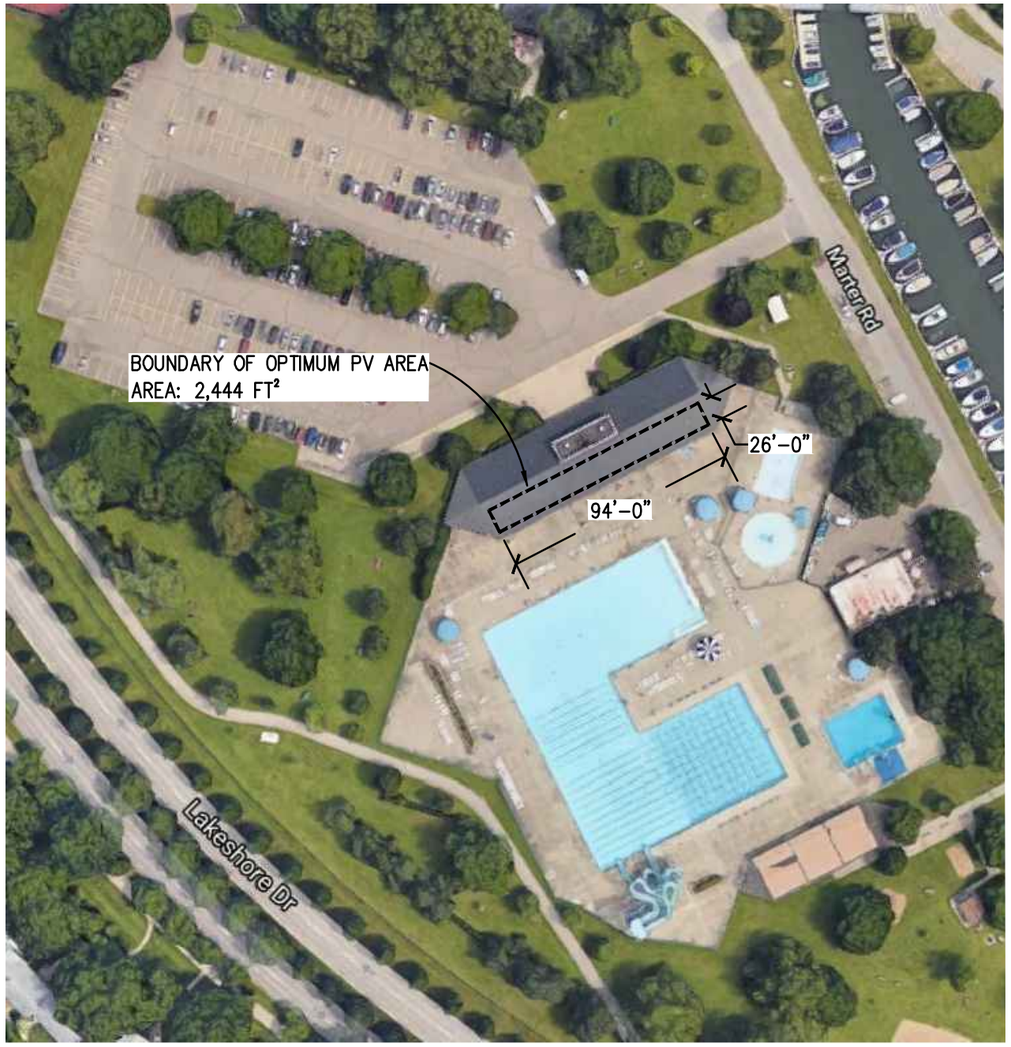
COMPARISON OF PV AREA

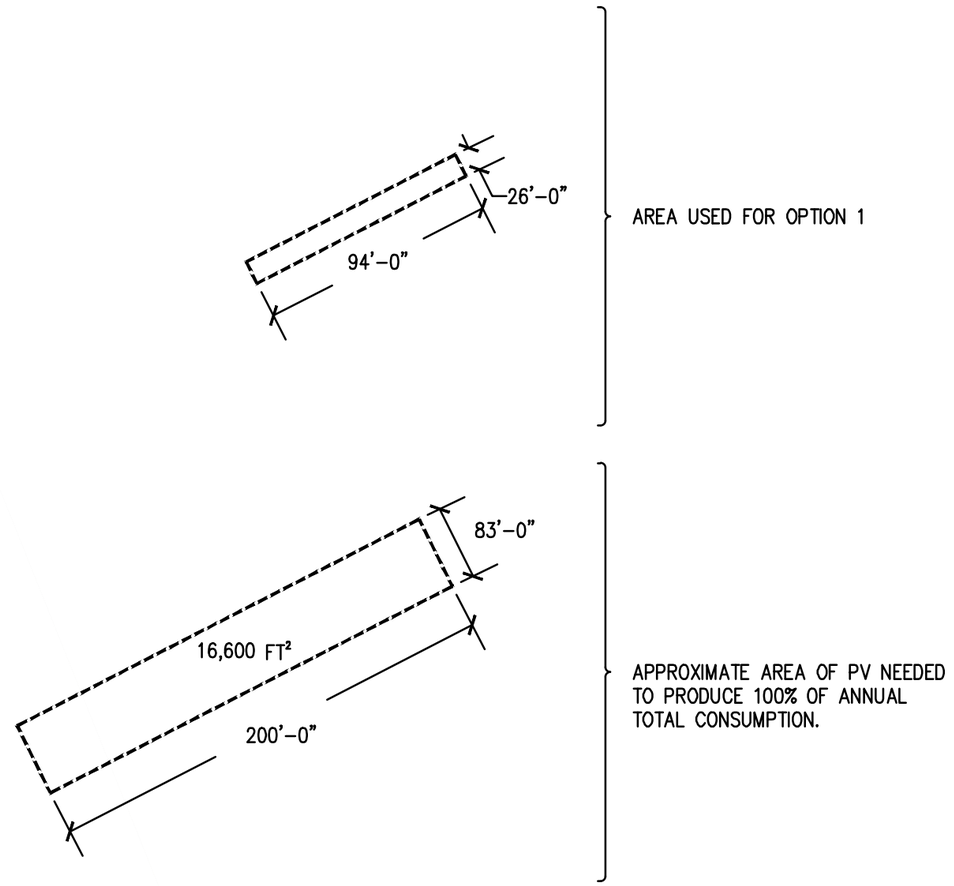
LAKEFRONT PARK ACTIVITIES BUILDING

NO SCALE

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel: 248-879-5666 Fax: 248-879-0007

PROJECT NO. 2021-0140 PAGE E3 DATE 05-14-2021
PROJECT GROSSE POINT WOODS PHOTOVOLTAIC FEASIBILITY STUDY
SUBJECT LAKEFRONT PARK ACTIVITIES BUILDING BY LLJ





COMPARISON OF PV AREA

LAKEFRONT PARK BATH HOUSE

NO SCALE

Peter Basso Associates Inc
CONSULTING ENGINEERS
5145 Livernois, Suite 100
Troy, Michigan 48098-3276
Tel: 248-879-5666 Fax: 248-879-0007

PROJECT NO. 2021-0140 PAGE E4 DATE 05-14-2021
PROJECT GROSSE POINT WOODS PHOTOVOLTAIC FEASIBILITY STUDY
SUBJECT LAKEFRONT PARK BATH HOUSE BY LLJ

ATTACHMENT C:
SYSTEM ADVISOR MODEL REPORTS

Grosse Pointe Woods City Hall - Option 1

System Advisor Model Report

PVWatts	24 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Performance Model

PV System Specifications	
System nameplate size	24 kW
Module type	0
DC to AC ratio	1.2
Rated inverter size	20 kW
Inverter efficiency	96 %
Array type	fixed roof mount
Array tilt	40 degrees
Array azimuth	190 degrees
Ground coverage ratio	N/A
Total system losses	14.08 %
Shading	no

Performance Adjustments	
Availability/Curtailment	none
Degradation	0.500000 %/yr
Hourly or custom losses	none

Results	Solar Radiation	AC Energy
	(kWh/m2/day)	(kWh)
Jan	2.96	1,911
Feb	4.05	2,272
Mar	4.58	2,755
Apr	5.26	2,993
May	5.43	3,102
Jun	5.86	3,176
Jul	5.96	3,299
Aug	5.99	3,321
Sep	5.38	2,941
Oct	4.03	2,398
Nov	2.98	1,794
Dec	2.29	1,431
Year	4.57	31,398

Financial Model

Project Costs	
Total installed cost	$73,536
Salvage value	$0

Analysis Parameters	
Project life	25 years
Inflation rate	2.5%
Real discount rate	6.4%

Project Debt Parameters	
Debt fraction	0%
Amount	$0
Term	0 years
Rate	0%

Tax and Insurance Rates	
Federal income tax	0 %/year
State income tax	0 %/year
Sales tax (% of indirect cost basis)	0%
Insurance (% of installed cost)	0.5 %/year
Property tax (% of assessed val.)	0 %/year

Incentives
None

Electricity Demand and Rate Summary
Annual peak demand 149.6 kW
Annual total demand 514,600 kWh
General Service D3 (Full Service)
Monthly excess with kWh rollover
Flat energy buy rate: $0.125000/kWh

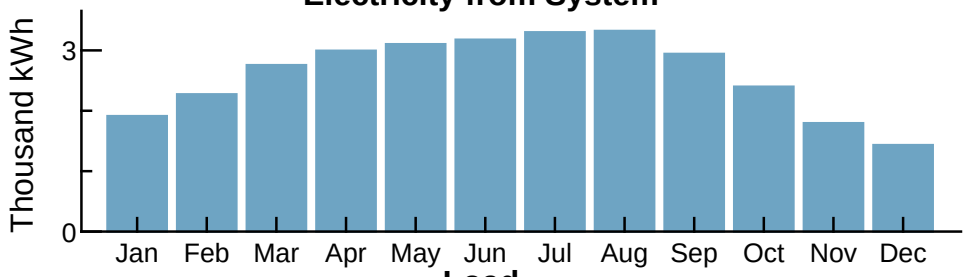
Results	
Nominal LCOE	26.4 cents/kWh
Net present value	$-32,800
Payback period	17.6 years

Grosse Pointe Woods City Hall - Option 1

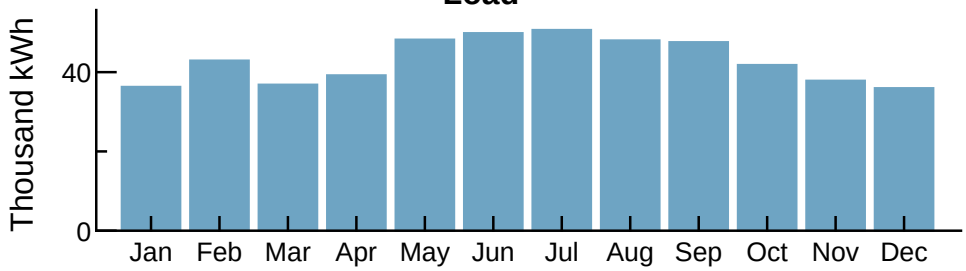
PVWatts	24 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Year 1 Monthly Generation and Load Summary

Electricity from System



Load



Year 1 Monthly Electric Bill and Savings ($)

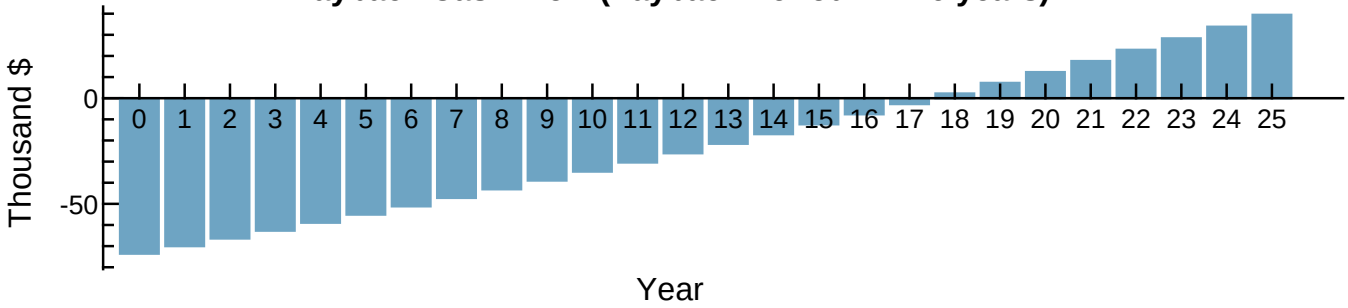
Month	Without System	With System	Savings
Jan	4,530	4,291	238
Feb	5,359	5,075	284
Mar	4,600	4,255	344
Apr	4,894	4,520	374
May	6,020	5,632	387
Jun	6,225	5,827	397
Jul	6,325	5,912	412
Aug	5,995	5,579	415
Sep	5,940	5,572	367
Oct	5,220	4,920	299
Nov	4,724	4,500	224
Dec	4,490	4,311	178
Annual	64,325	60,400	3,924

NPV Approximation using Annuities

Annuities, Capital Recovery Factor (CRF) = 0.1023		
Investment	$-7,500	Sum:
Expenses	$-400	$-3,300
Savings	$0	NPV = Sum / CRF:
Energy value	$4,600	$-32,000

Investment = Installed Cost - Debt Principal - IBI - CBI
Expenses = Operating Costs + Debt Payments
Savings = Tax Deductions + PBI
Energy value = Tax Adjusted Net Savings
Nominal discount rate = 9.06%

Payback Cash Flow (Payback Period = 17.6 years)



Grosse Pointe Woods City Hall - Option 1

PVwatts	24 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

This performance model does not specify any loss diagram items.
Current case name is untitled

Grosse Pointe Woods DPW - Option 1

System Advisor Model Report

PVWatts	67 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Performance Model

PV System Specifications	
System nameplate size	66.5 kW
Module type	0
DC to AC ratio	1.2
Rated inverter size	55.42 kW
Inverter efficiency	96 %
Array type	fixed roof mount
Array tilt	10 degrees
Array azimuth	200 degrees
Ground coverage ratio	N/A
Total system losses	14.08 %
Shading	no

Performance Adjustments	
Availability/Curtailment	none
Degradation	0.500000 %/yr
Hourly or custom losses	none

Results	Solar Radiation	AC Energy
	(kWh/m2/day)	(kWh)
Jan	2	3,544
Feb	2.98	4,726
Mar	3.93	6,687
Apr	5.13	8,148
May	5.85	9,279
Jun	6.57	9,874
Jul	6.55	10,081
Aug	6.02	9,281
Sep	4.88	7,413
Oct	3.26	5,361
Nov	2.11	3,467
Dec	1.54	2,617
Year	4.23	80,484

Financial Model

Project Costs	
Total installed cost	$203,756
Salvage value	$0

Analysis Parameters	
Project life	25 years
Inflation rate	2.5%
Real discount rate	6.4%

Project Debt Parameters	
Debt fraction	0%
Amount	$0
Term	0 years
Rate	0%

Tax and Insurance Rates	
Federal income tax	0 %/year
State income tax	0 %/year
Sales tax (% of indirect cost basis)	0%
Insurance (% of installed cost)	0.5 %/year
Property tax (% of assessed val.)	0 %/year

Incentives
None

Electricity Demand and Rate Summary
Annual peak demand 37.8 kW
Annual total demand 115,380 kWh
General Service D3 (Full Service)
Monthly excess with kWh rollover
Flat energy buy rate: $0.133000/kWh

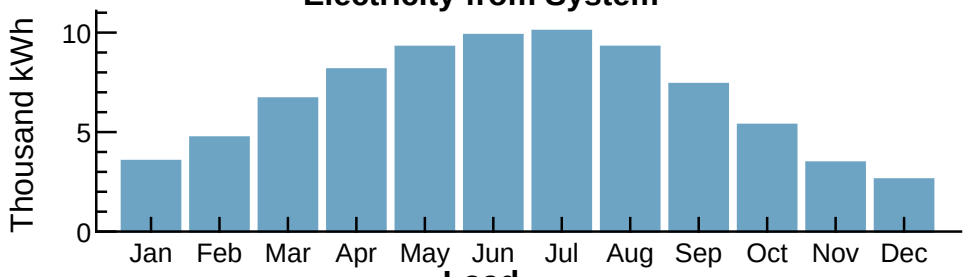
Results	
Nominal LCOE	28.5 cents/kWh
Net present value	$-92,900
Payback period	17.8 years

Grosse Pointe Woods DPW - Option 1

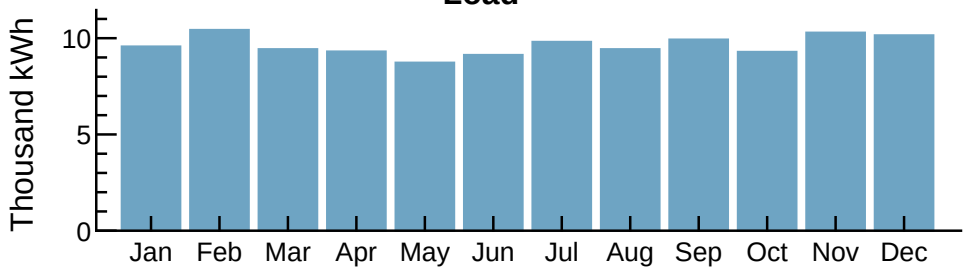
PVWatts	67 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Year 1 Monthly Generation and Load Summary

Electricity from System



Load



Year 1 Monthly Electric Bill and Savings ($)

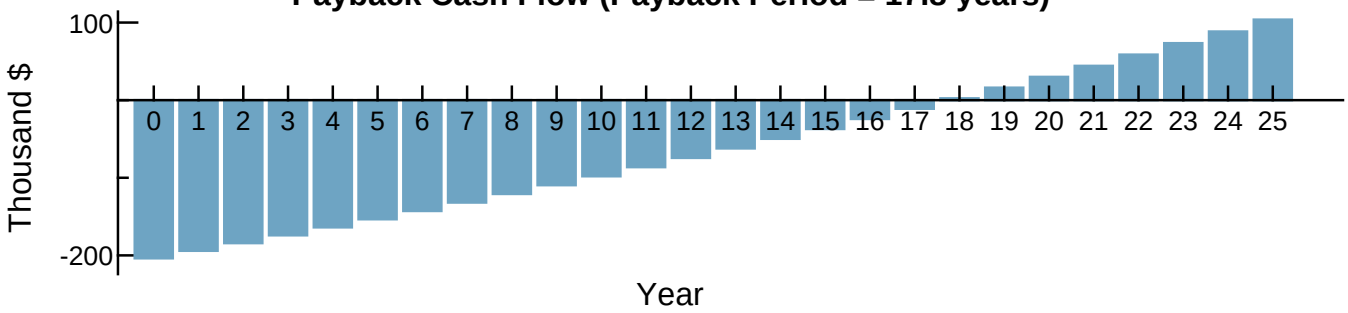
Month	Without System	With System	Savings
Jan	1,271	800	471
Feb	1,385	757	628
Mar	1,252	363	889
Apr	1,236	153	1,083
May	1,159	-0	1,159
Jun	1,212	-0	1,212
Jul	1,303	-0	1,303
Aug	1,252	-0	1,252
Sep	1,319	139	1,179
Oct	1,234	521	713
Nov	1,367	906	461
Dec	1,348	1,000	348
Annual	15,345	4,641	10,704

NPV Approximation using Annuities

Annuities, Capital Recovery Factor (CRF) = 0.1023		
Investment	$-20,800	Sum:
Expenses	$-1,200	$-9,500
Savings	$0	NPV = Sum / CRF:
Energy value	$12,500	$-92,000

Investment = Installed Cost - Debt Principal - IBI - CBI
Expenses = Operating Costs + Debt Payments
Savings = Tax Deductions + PBI
Energy value = Tax Adjusted Net Savings
Nominal discount rate = 9.06%

Payback Cash Flow (Payback Period = 17.8 years)



Grosse Pointe Woods DPW - Option 1

PVwatts	67 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

This performance model does not specify any loss diagram items.
Current case name is untitled

Grosse Pointe Woods DPW - Option 2

System Advisor Model Report

PVWatts	33 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Performance Model

PV System Specifications	
System nameplate size	33 kW
Module type	0
DC to AC ratio	1.2
Rated inverter size	27.5 kW
Inverter efficiency	96 %
Array type	fixed roof mount
Array tilt	10 degrees
Array azimuth	200 degrees
Ground coverage ratio	N/A
Total system losses	14.08 %
Shading	no

Performance Adjustments	
Availability/Curtailment	none
Degradation	0.500000 %/yr
Hourly or custom losses	none

Results	Solar Radiation	AC Energy
	(kWh/m2/day)	(kWh)
Jan	2	1,758
Feb	2.98	2,345
Mar	3.93	3,318
Apr	5.13	4,043
May	5.85	4,605
Jun	6.57	4,900
Jul	6.55	5,002
Aug	6.02	4,606
Sep	4.88	3,678
Oct	3.26	2,660
Nov	2.11	1,720
Dec	1.54	1,298
Year	4.23	39,939

Financial Model

Project Costs	
Total installed cost	$101,112
Salvage value	$0

Analysis Parameters	
Project life	25 years
Inflation rate	2.5%
Real discount rate	6.4%

Project Debt Parameters	
Debt fraction	0%
Amount	$0
Term	0 years
Rate	0%

Tax and Insurance Rates	
Federal income tax	0 %/year
State income tax	0 %/year
Sales tax (% of indirect cost basis)	0%
Insurance (% of installed cost)	0.5 %/year
Property tax (% of assessed val.)	0 %/year

Incentives
None

Electricity Demand and Rate Summary
Annual peak demand 37.8 kW
Annual total demand 115,380 kWh
General Service D3 (Full Service)
Monthly excess with kWh rollover
Flat energy buy rate: $0.133000/kWh

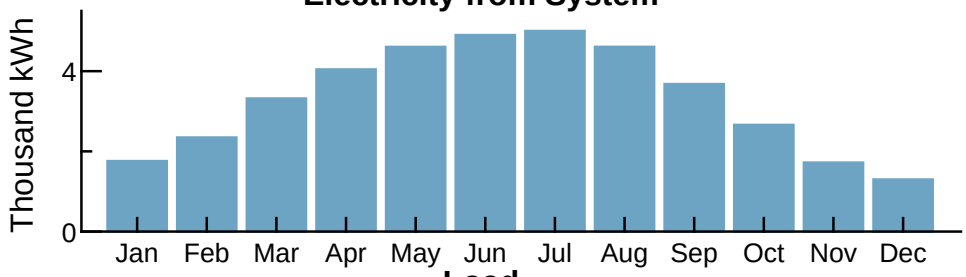
Results	
Nominal LCOE	28.5 cents/kWh
Net present value	$-46,100
Payback period	17.8 years

Grosse Pointe Woods DPW - Option 2

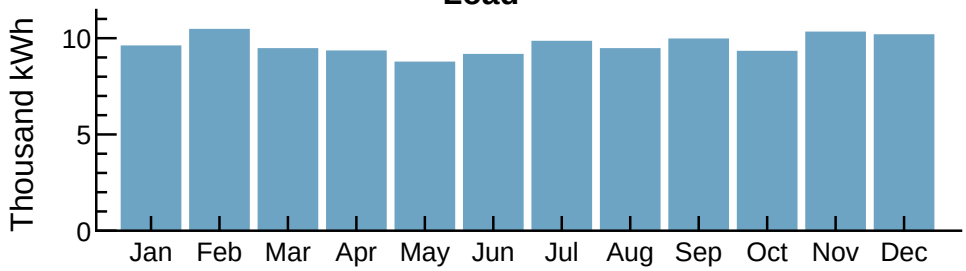
PVWatts	33 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Year 1 Monthly Generation and Load Summary

Electricity from System



Load



Year 1 Monthly Electric Bill and Savings ($)

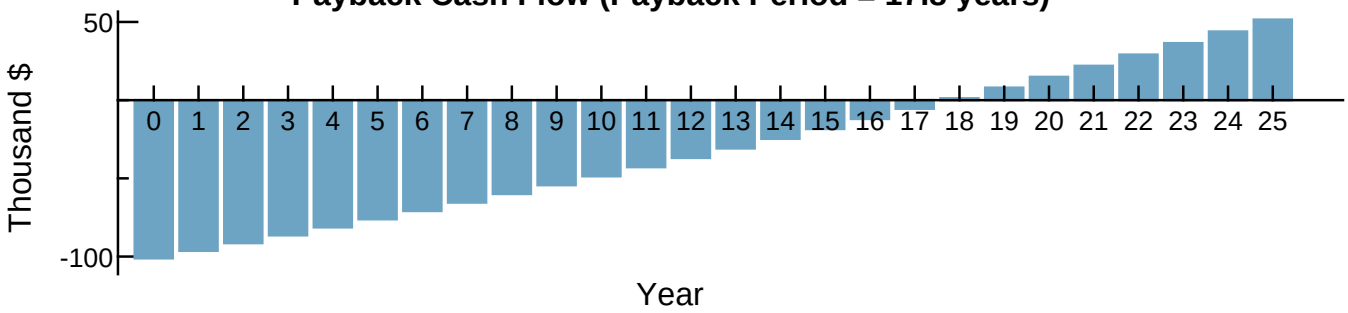
Month	Without System	With System	Savings
Jan	1,271	1,037	233
Feb	1,385	1,073	311
Mar	1,252	811	441
Apr	1,236	699	537
May	1,159	547	612
Jun	1,212	561	651
Jul	1,303	638	665
Aug	1,252	640	612
Sep	1,319	830	489
Oct	1,234	880	353
Nov	1,367	1,138	228
Dec	1,348	1,175	172
Annual	15,345	10,033	5,311

NPV Approximation using Annuities

Annuities, Capital Recovery Factor (CRF) = 0.1023		
Investment	$-10,300	Sum:
Expenses	$-600	$-4,700
Savings	$0	NPV = Sum / CRF:
Energy value	$6,200	$-46,000

Investment = Installed Cost - Debt Principal - IBI - CBI
Expenses = Operating Costs + Debt Payments
Savings = Tax Deductions + PBI
Energy value = Tax Adjusted Net Savings
Nominal discount rate = 9.06%

Payback Cash Flow (Payback Period = 17.8 years)



Grosse Pointe Woods DPW - Option 2

PVwatts	33 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

This performance model does not specify any loss diagram items.
Current case name is untitled

Grosse Pointe Woods Lake Front Park Activities Building - Option 1

System Advisor Model Report

PVWatts	11 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Performance Model

PV System Specifications	
System nameplate size	11 kW
Module type	0
DC to AC ratio	1.2
Rated inverter size	9.17 kW
Inverter efficiency	96 %
Array type	fixed roof mount
Array tilt	20 degrees
Array azimuth	210 degrees
Ground coverage ratio	N/A
Total system losses	14.08 %
Shading	no

Performance Adjustments	
Availability/Curtailment	none
Degradation	0.500000 %/yr
Hourly or custom losses	none

Results	Solar Radiation	AC Energy
	(kWh/m2/day)	(kWh)
Jan	2.3	679
Feb	3.32	869
Mar	4.13	1,161
Apr	5.24	1,373
May	5.79	1,518
Jun	6.44	1,601
Jul	6.46	1,643
Aug	6.1	1,551
Sep	5.1	1,279
Oct	3.48	949
Nov	2.39	655
Dec	1.78	506
Year	4.38	13,788

Financial Model

Project Costs	
Total installed cost	$33,704
Salvage value	$0

Analysis Parameters	
Project life	25 years
Inflation rate	2.5%
Real discount rate	6.4%

Project Debt Parameters	
Debt fraction	0%
Amount	$0
Term	0 years
Rate	0%

Tax and Insurance Rates	
Federal income tax	0 %/year
State income tax	0 %/year
Sales tax (% of indirect cost basis)	0%
Insurance (% of installed cost)	0.5 %/year
Property tax (% of assessed val.)	0 %/year

Incentives
None

Electricity Demand and Rate Summary
Annual peak demand 12.6 kW
Annual total demand 28,391 kWh
General Service D3 (Full Service)
Monthly excess with kWh rollover
Flat energy buy rate: $0.148000/kWh

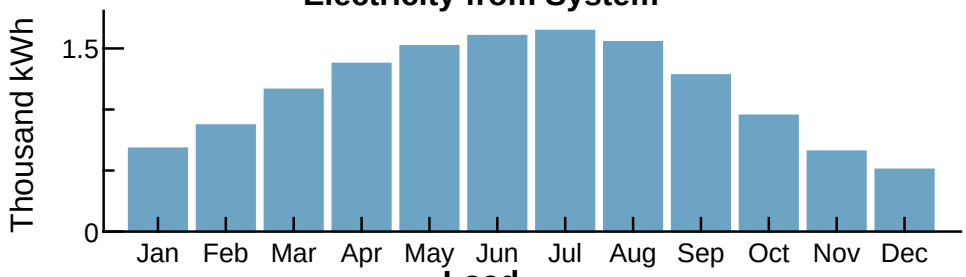
Results	
Nominal LCOE	27.6 cents/kWh
Net present value	$-12,200
Payback period	15.6 years

Grosse Pointe Woods Lake Front Park Activities Building - Option 1

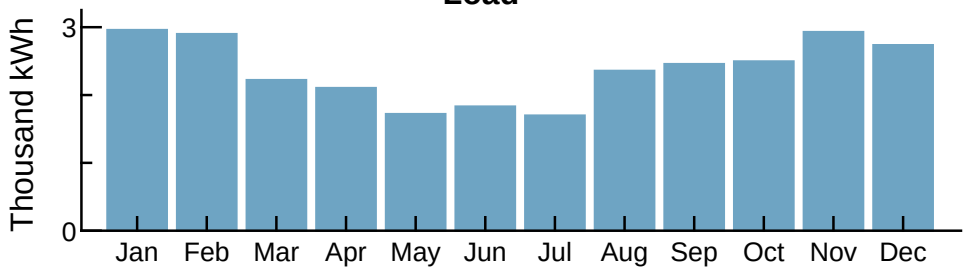
PVWatts	11 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Year 1 Monthly Generation and Load Summary

Electricity from System



Load



Year 1 Monthly Electric Bill and Savings ($)

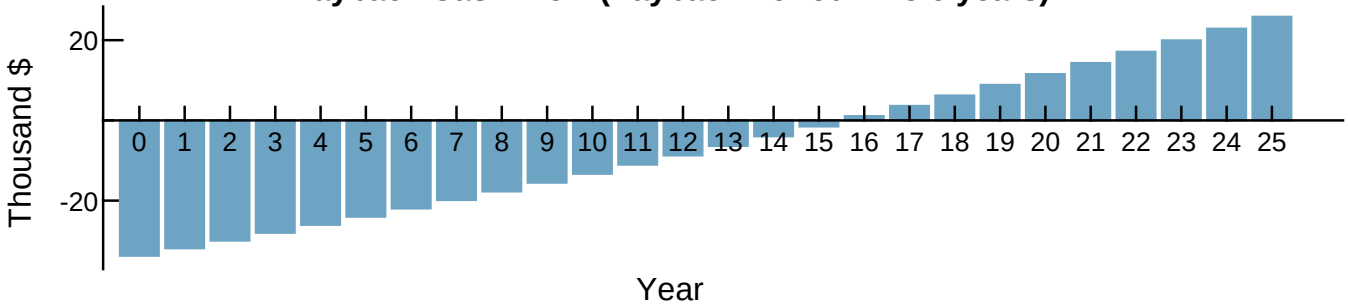
Month	Without System	With System	Savings
Jan	437	337	100
Feb	428	300	128
Mar	328	156	171
Apr	311	107	203
May	254	29	224
Jun	270	33	237
Jul	251	7	243
Aug	348	119	229
Sep	363	174	189
Oct	369	228	140
Nov	433	336	96
Dec	404	329	74
Annual	4,201	2,161	2,040

NPV Approximation using Annuities

Annuities, Capital Recovery Factor (CRF) = 0.1023		
Investment	$-3,400	Sum:
Expenses	$-200	$-1,200
Savings	$0	NPV = Sum / CRF:
Energy value	$2,300	$-12,000

Investment = Installed Cost - Debt Principal - IBI - CBI
Expenses = Operating Costs + Debt Payments
Savings = Tax Deductions + PBI
Energy value = Tax Adjusted Net Savings
Nominal discount rate = 9.06%

Payback Cash Flow (Payback Period = 15.6 years)



Grosse Pointe Woods Lake Front Park Activities Building - Option 1

PVwatts	11 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

This performance model does not specify any loss diagram items.
Current case name is untitled

Grosse Pointe Woods Lake Front Park Pool Bathhouse - Option 1

System Advisor Model Report

PVWatts	34 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Performance Model

PV System Specifications	
System nameplate size	34 kW
Module type	0
DC to AC ratio	1.2
Rated inverter size	28.33 kW
Inverter efficiency	96 %
Array type	fixed roof mount
Array tilt	20 degrees
Array azimuth	135 degrees
Ground coverage ratio	N/A
Total system losses	14.08 %
Shading	no

Performance Adjustments	
Availability/Curtailment	none
Degradation	0.500000 %/yr
Hourly or custom losses	none

Results	Solar Radiation	AC Energy
	(kWh/m2/day)	(kWh)
Jan	2.13	1,939
Feb	3.13	2,548
Mar	4.09	3,571
Apr	5.17	4,200
May	5.86	4,762
Jun	6.53	5,026
Jul	6.53	5,146
Aug	6.06	4,782
Sep	4.95	3,845
Oct	3.48	2,952
Nov	2.22	1,890
Dec	1.61	1,414
Year	4.31	42,079

Financial Model

Project Costs	
Total installed cost	$104,176
Salvage value	$0

Analysis Parameters	
Project life	25 years
Inflation rate	2.5%
Real discount rate	6.4%

Project Debt Parameters	
Debt fraction	0%
Amount	$0
Term	0 years
Rate	0%

Tax and Insurance Rates	
Federal income tax	0 %/year
State income tax	0 %/year
Sales tax (% of indirect cost basis)	0%
Insurance (% of installed cost)	0.5 %/year
Property tax (% of assessed val.)	0 %/year

Incentives
None

Electricity Demand and Rate Summary
Annual peak demand 241.6 kW
Annual total demand 288,040 kWh
General Service D3 (Full Service)
Monthly excess with kWh rollover
Flat energy buy rate: $0.124000/kWh

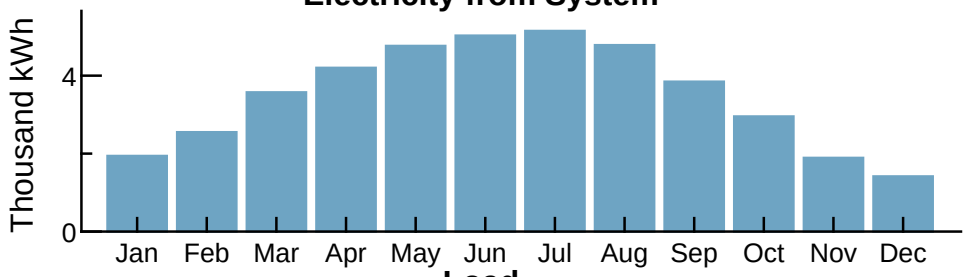
Results	
Nominal LCOE	27.9 cents/kWh
Net present value	$-50,400
Payback period	18.6 years

Grosse Pointe Woods Lake Front Park Pool Bathhouse - Option 1

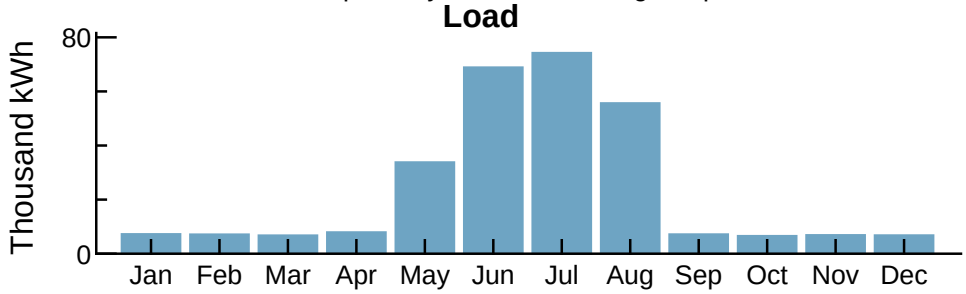
PVWatts	34 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

Year 1 Monthly Generation and Load Summary

Electricity from System



Load



Year 1 Monthly Electric Bill and Savings ($)

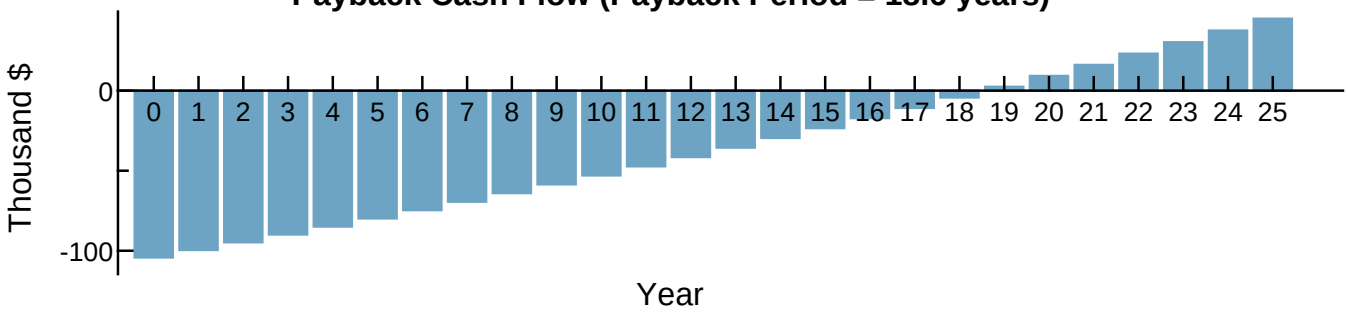
Month	Without System	With System	Savings
Jan	887	647	240
Feb	872	556	315
Mar	828	385	442
Apr	972	451	520
May	4,181	3,590	590
Jun	8,531	7,907	623
Jul	9,195	8,557	638
Aug	6,889	6,296	593
Sep	877	401	476
Oct	803	437	366
Nov	843	608	234
Dec	833	657	175
Annual	35,716	30,499	5,217

NPV Approximation using Annuities

Annuities, Capital Recovery Factor (CRF) = 0.1023		
Investment	$-10,600	Sum:
Expenses	$-600	$-5,100
Savings	$0	NPV = Sum / CRF:
Energy value	$6,100	$-50,000

Investment = Installed Cost - Debt Principal - IBI - CBI
Expenses = Operating Costs + Debt Payments
Savings = Tax Deductions + PBI
Energy value = Tax Adjusted Net Savings
Nominal discount rate = 9.06%

Payback Cash Flow (Payback Period = 18.6 years)

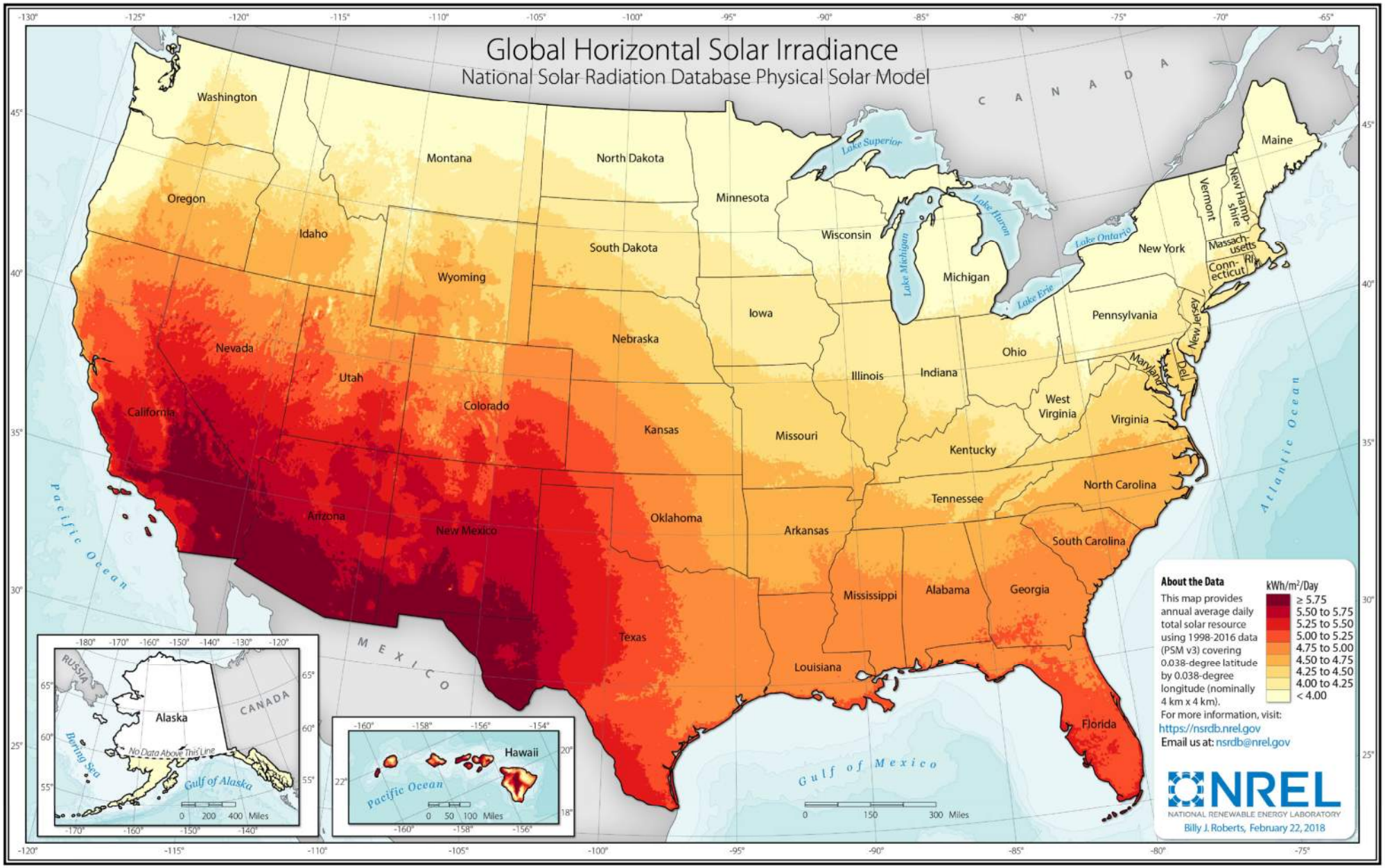


Grosse Pointe Woods Lake Front Park Pool Bathhouse - Option 1

PVwatts	34 DC kW Nameplate	42.45, -82.9
Commercial	$3.06/W Installed Cost	UTC -5

This performance model does not specify any loss diagram items.
Current case name is untitled

ATTACHMENT D:
MAP OF SOLAR IRRADIANCE FOR UNITED STATES


Global Horizontal Solar Irradiance
National Solar Radiation Database Physical Solar Model
Washington
Oregon
California
Nevada
Idaho
Montana
Wyoming
Utah
Arizona
Colorado
New Mexico
North Dakota
South Dakota
Nebraska
Kansas
Oklahoma
Texas
Minnesota
Iowa
Missouri
Arkansas
Louisiana
Wisconsin
Illinois
Michigan
Indiana
Ohio
Kentucky
Tennessee
Mississippi
Alabama
Georgia
Florida
South Carolina
North Carolina
Virginia
West Virginia
Pennsylvania
New York
Maine
Vermont
New Hampshire
Massachusetts
Rhode Island
Connecticut
New Jersey
Delaware
Maryland
Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
CANADA
MEXICO
Pacific Ocean
Atlantic Ocean
Gulf of Mexico
Alaska
RUSSIA
CANADA
Bering Sea
Gulf of Alaska
No Data Above This Line
0 200 400 Miles
Hawaii
Pacific Ocean
0 50 100 Miles
0 150 300 Miles
About the Data
This map provides annual average daily total solar resource using 1998-2016 data (PSM v3) covering 0.038-degree latitude by 0.038-degree longitude (nominally 4 km x 4 km).
For more information, visit:
https://nsrdb.nrel.gov
Email us at: nsrdb@nrel.gov
kWh/m²/Day
≥ 5.75
5.50 to 5.75
5.25 to 5.50
5.00 to 5.25
4.75 to 5.00
4.50 to 4.75
4.25 to 4.50
4.00 to 4.25
< 4.00
NREL
NATIONAL RENEWABLE ENERGY LABORATORY
Billy J. Roberts, February 22, 2018

ATTACHMENT E:
UNIRAC PV BALLAST SYSTEM

ROOFMOUNT

UNIRAC

ROOFMOUNT introduces the Power of Simplicity to the ballasted flat roof solar industry. The system consists of only two major components, minimizing preparation work and installation time. Seamlessly design around roof obstacles, support most framed modules and bond the system with just the turn of a wrench.

SIMPLE DESIGN • FAST INSTALLATION

SIMPLE DESIGN • AVAILABILITY • DESIGN TOOLS • QUALITY PROVIDER

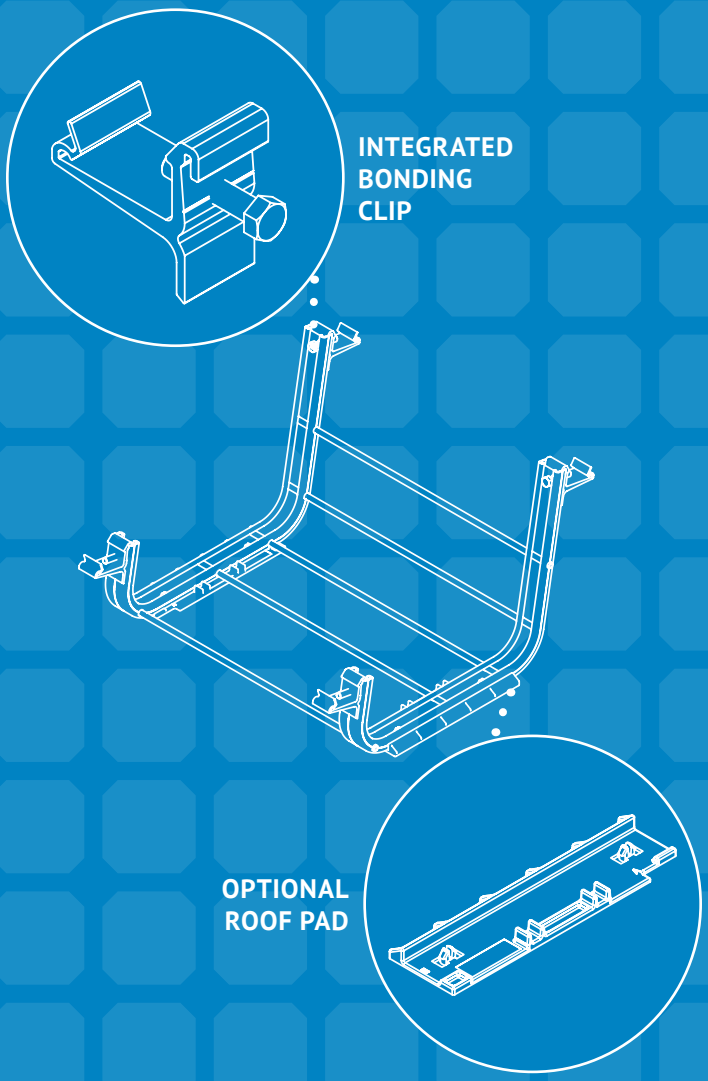
ROOFMOUNT

UNIRAC

SIMPLE DESIGN

TWO MAJOR COMPONENTS. ONE TOOL

RM supports most framed PV modules at 10 degree tilt. The component list consists of only two major components – a fully assembled ballast bay and a universal module clip. Our engineers specified a chemical locking hex bolt, providing a UL2703 certified grounding path from module to ballast bay, with just the turn of a wrench. RM is accessory-rich to support your specific installation needs, because it was designed to conveniently work with off the shelf wire management products. A snap into place, membrane-friendly, rubber roof pad is also available as a low-cost option for roof protection.



AVAILABILITY

NATIONWIDE NETWORK

Unirac maintains the largest network of stocking distributors for our racking solutions. Our partners have distinguished their level of customer support, availability, and overall value, thereby providing the highest level of service to users of Unirac products. Count on our partners for fast and accurate delivery to meet your project needs. Visit Unirac.com for a list of distributors.

INTEGRATED DESIGN TOOLS

DESIGN, SAVE, AND SHARE YOUR ARRAY VISUALLY

U-Builder is the most powerful streamlined design tool for your solar mounting project. Integrated with HelioScope's technology, U-Builder becomes a powerful online tool that streamlines the process of designing a code compliant solar mounting system. Key benefits allow you to quickly plan project sites, analyze design decisions, and simplify your workflow. You will enjoy the ability to share projects with customers: there's no need to print results and send to a distributor, just click and share.

LISTED **UL2703**

BONDING & GROUNDING
MECHANICAL LOADING
SYSTEM FIRE CLASSIFICATION

UNIRAC CUSTOMER SERVICE MEANS THE HIGHEST LEVEL OF PRODUCT SUPPORT

UNMATCHED EXPERIENCE | CERTIFIED QUALITY | ENGINEERING EXCELLENCE | BANKABLE WARRANTY | DESIGN TOOLS | PERMIT DOCUMENTATION

TECHNICAL SUPPORT

Unirac's technical support team is dedicated to answering questions & addressing issues in real time. An online library of documents including engineering reports, stamped letters and technical data sheets greatly simplifies your permitting and project planning process.

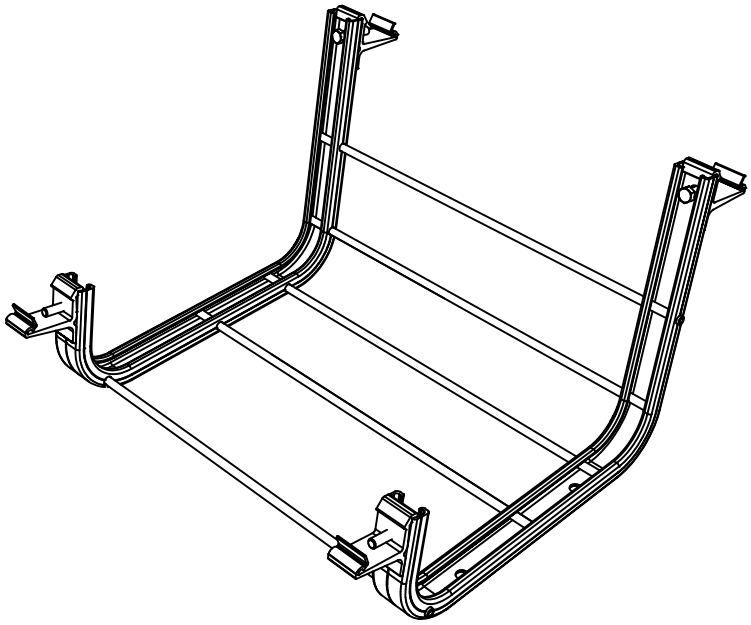
CERTIFIED QUALITY PROVIDER

Unirac is the only PV mounting vendor with ISO certifications for 9001:2008, 14001:2004 and OHSAS 18001:2007, which means we deliver the highest standards for fit, form, and function. These certifications demonstrate our excellence and commitment to first class business practices.

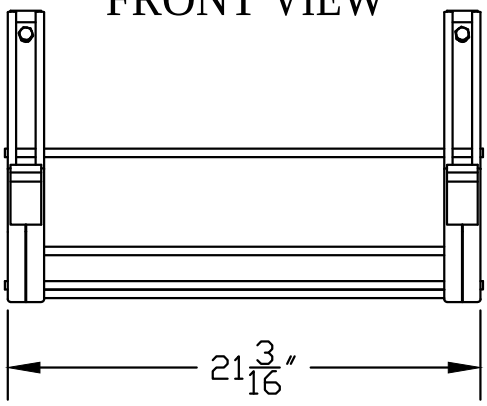
BANKABLE WARRANTY

Don't leave your project to chance, Unirac has the financial strength to back our products and reduce your risk. Have peace of mind knowing you are receiving products of exceptional quality. ROOFMOUNT is covered by a 20-year manufacturing warranty on all parts.

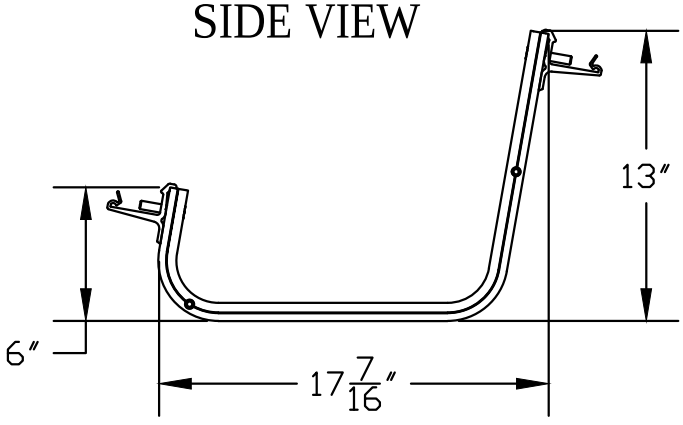
PROTECT YOUR REPUTATION WITH QUALITY RACKING SOLUTIONS BACKED BY ENGINEERING EXCELLENCE AND A SUPERIOR SUPPLY CHAIN



FRONT VIEW



SIDE VIEW



UNIRAC

1411 BROADWAY BLVD NE
ALBUQUERQUE, NM 87102 USA

WWW.UNIRAC.COM

PRODUCT LINE:	RM
DRAWING TYPE:	COMPONENT ASSEMBLY
DESCRIPTION:	BAY & MODULE CLIPS
REVISION DATE:	APRIL - 2016

DRAWING NOT TO SCALE
ALL DIMENSIONS ARE NOMINAL

PRODUCT PROTECTED BY ONE OR MORE US PATENTS

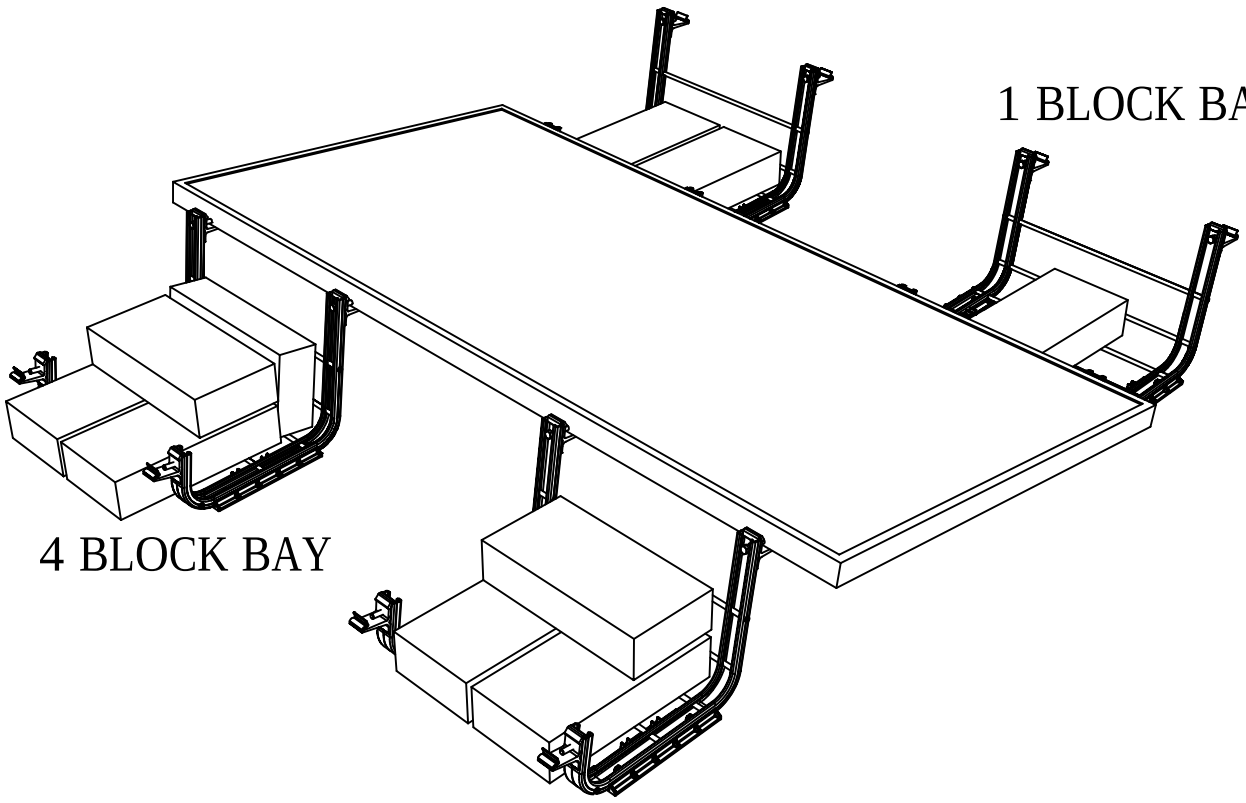
LEGAL NOTICE

RM-A01

SHEET

2 BLOCK BAY

1 BLOCK BAY



4 BLOCK BAY

3 BLOCK BAY

UNIRAC

1411 BROADWAY BLVD NE
ALBUQUERQUE, NM 87102 USA

WWW.UNIRAC.COM

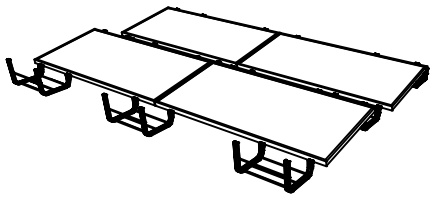
PRODUCT LINE:	RM
DRAWING TYPE:	ASSEMBLY
DESCRIPTION:	1-2-3-4 BLOCK RM BAYS
REVISION DATE:	APRIL - 2016

DRAWING NOT TO SCALE
ALL DIMENSIONS ARE NOMINAL

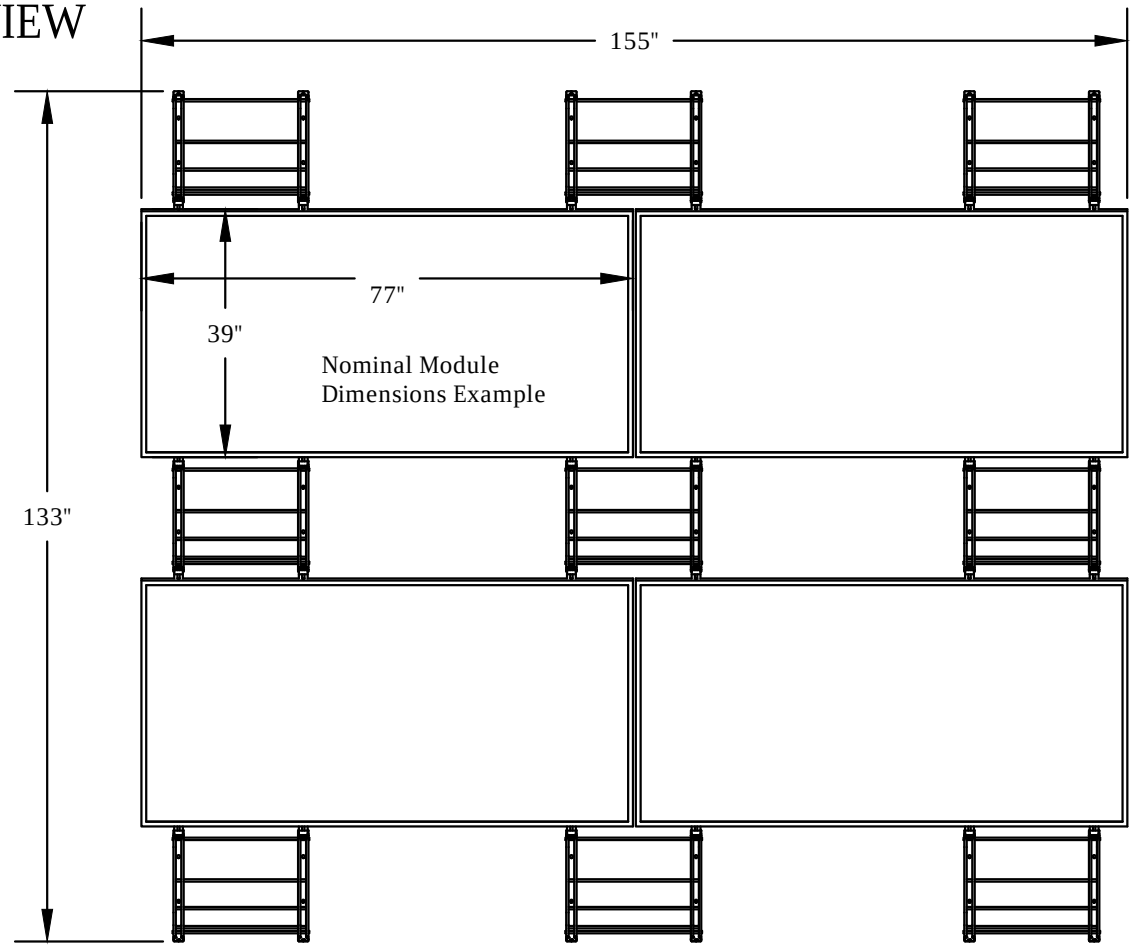
RM-A02

SHEET

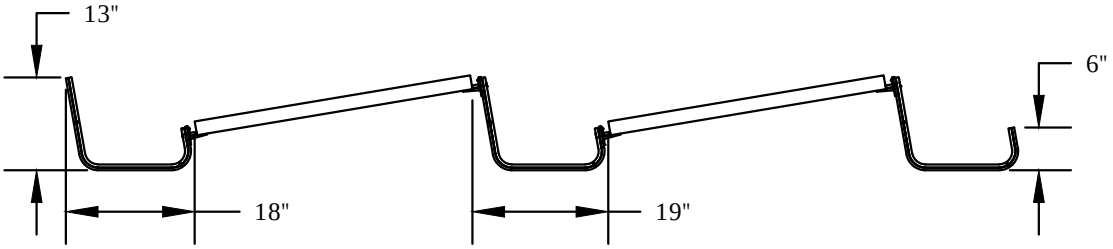
NOTE: ARRAY DIMENSIONS WILL VARY BASED ON
MODULE WIDTH, LENGTH AND RETURN FLANGE



TOP VIEW



SIDE VIEW



UNIRAC

1411 BROADWAY BLVD NE
ALBUQUERQUE, NM 87102 USA

WWW.UNIRAC.COM

PRODUCT LINE:	RM
DRAWING TYPE:	ASSEMBLY
DESCRIPTION:	4 MODULE RM LAYOUT
REVISION DATE:	APRIL - 2016

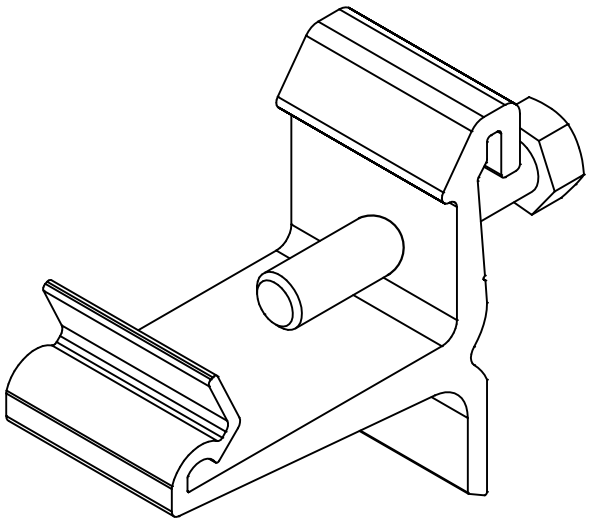
DRAWING NOT TO SCALE
ALL DIMENSIONS ARE NOMINAL

PRODUCT PROTECTED BY ONE OR MORE US PATENTS

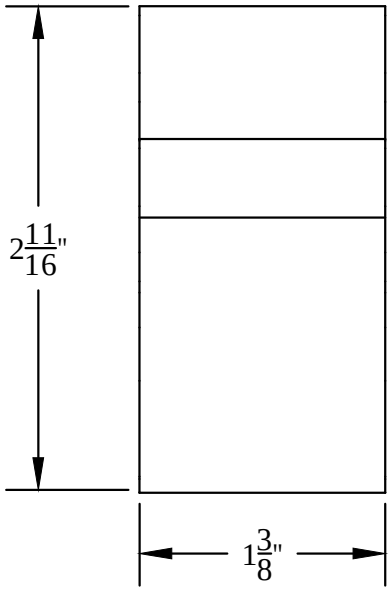
LEGAL NOTICE

RM-A03

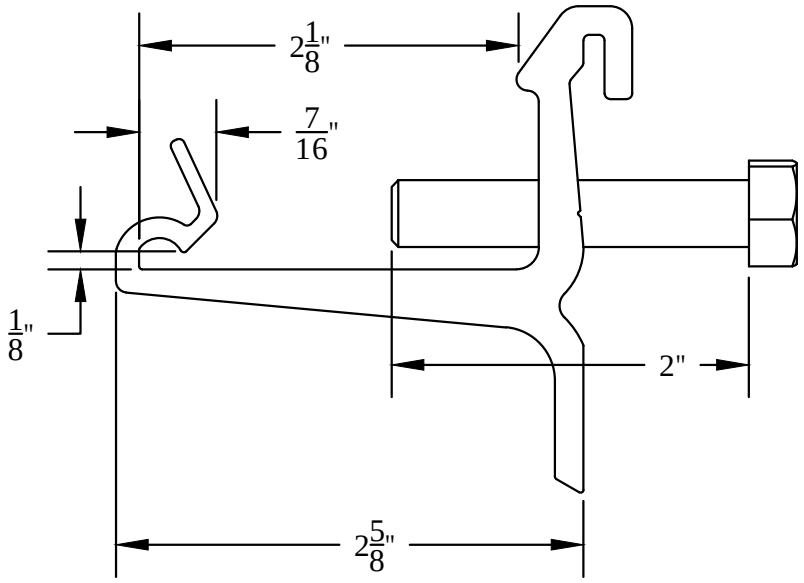
SHEET



FRONT VIEW



SIDE VIEW



UNIRAC

1411 BROADWAY BLVD NE
ALBUQUERQUE, NM 87102 USA

WWW.UNIRAC.COM

PRODUCT LINE:	RM
DRAWING TYPE:	PART
DESCRIPTION:	RM CLIP & BOLT
REVISION DATE:	APRIL - 2016

DRAWING NOT TO SCALE
ALL DIMENSIONS ARE NOMINAL

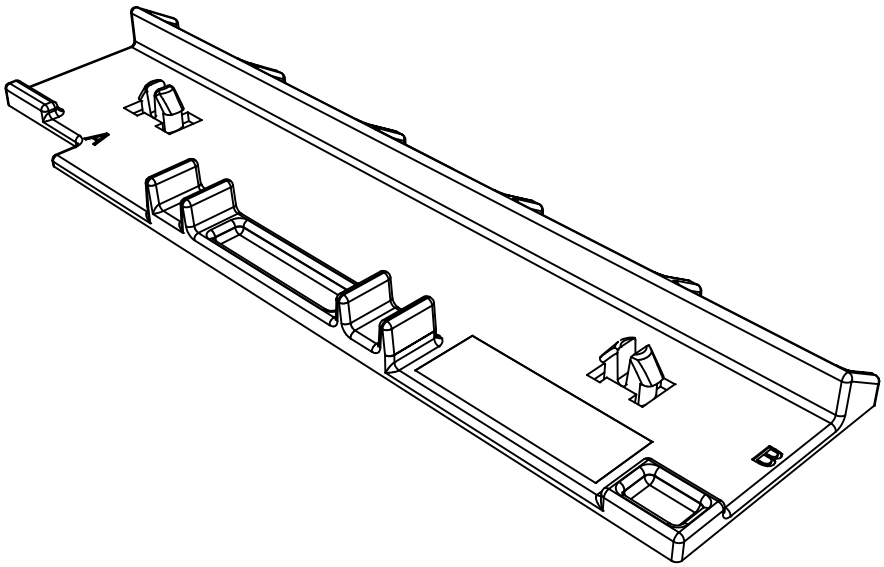
PRODUCT PROTECTED BY ONE OR MORE US PATENTS

LEGAL NOTICE

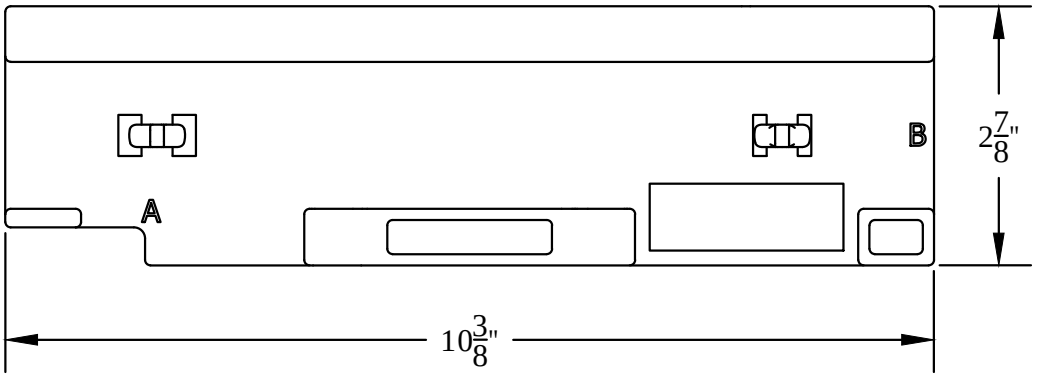
RM-P01

SHEET

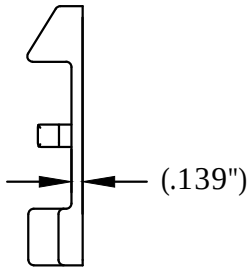
Material: TPE 70 Shore A: Santoprene 201-73,
Elastocon 2870 or Unisoft TPE ST-70A BK-2-01.
Color: Black



TOP VIEW



SIDE VIEW



UNIRAC

1411 BROADWAY BLVD NE
ALBUQUERQUE, NM 87102 USA

WWW.UNIRAC.COM

PRODUCT LINE:	RM
DRAWING TYPE:	PART
DESCRIPTION:	RM FOOT PAD
REVISION DATE:	APRIL - 2016

DRAWING NOT TO SCALE
ALL DIMENSIONS ARE NOMINAL

PRODUCT PROTECTED BY ONE OR MORE US PATENTS

LEGAL NOTICE

RM-P02

SHEET

RM10 INSTALLATION GUIDE

GENERAL NOTES:

Refer to construction drawings for project specific details. Construction drawings have precedence over these installation guidelines.

PUB2018NOV14

RM10

TOOLS & SPECIFICATIONS

TECHNICAL DATA SHEET | PAGE 1

TECHNICAL SPECIFICATIONS:

Material Types: Mill finish aluminum for clamps and ballast bays (6063-T5, 6105-T52, 6063-T5, 6105-T5 or6005A-T61)

Hardware: Stainless Steel with Threadlock compound

Bonding and Grounding: UL2703 Listed Continuous Bonding Path.

TOOLS REQUIRED OR RECOMMENDED FOR LAYOUT, ATTACHMENTS & INSTALLATION:

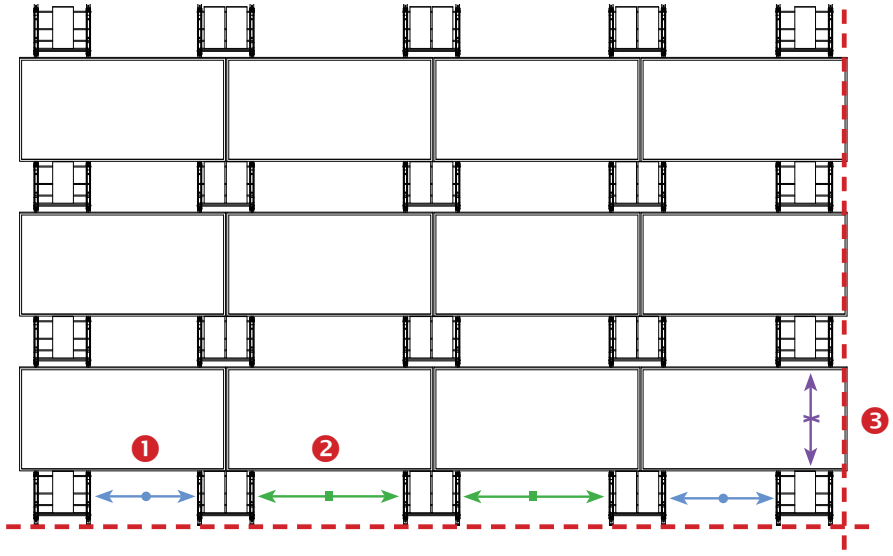
- Drill **(Do Not Use An Impact Driver)**
- 9/16" Socket
- Torque Wrench
- Optional torque limiter (8FT-LBS)
- Tape Measure
- Chalk Reel
- Optional Spacers (See Diagram - Page Right)

SAFETY:

All applicable OSHA safety guidelines should be observed when working on a PV installation job site. The installation and handling of PV solar modules, electrical installation and PV racking systems involves handling components with potentially sharp metal edges. Rules regarding the use of gloves and other personal protective equipment should be observed.

LAYOUT ASSISTANCE TOOL:

Module Dimensions:		RM10	Module location:	Spacing Equations (in Inches):
Module Length **(ML) =**		1	Perimeter Column Spacing =	ML+(G/2)-33.25"
Module Width **(MW) =**		2	Interior Column Spacing =	ML+G-21.17"
Prefered module gap? (1/4" - 1" is permissible)		3	Row Spacing =	Fully install one panel, cut spacer to N/S distance
East/West Module Gap **(G) =**				

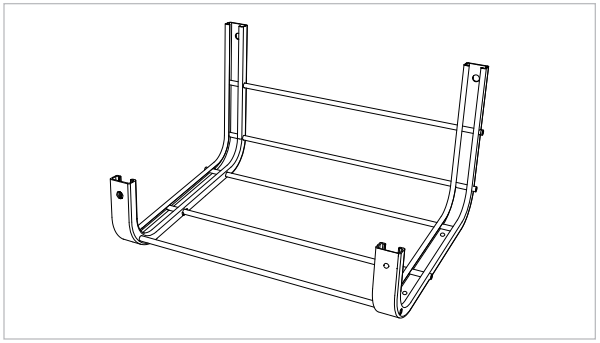


SPACERS - OPTIONAL

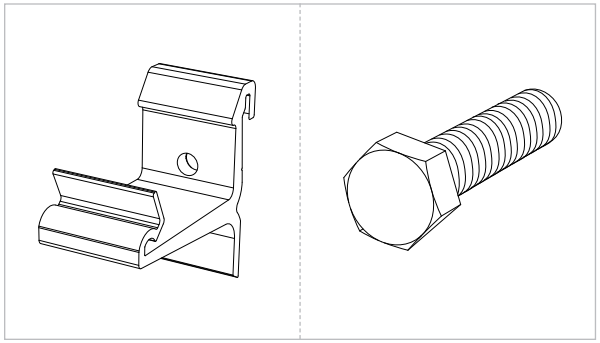
PERIMETER COLUMN SPACER

COLUMN SPACER

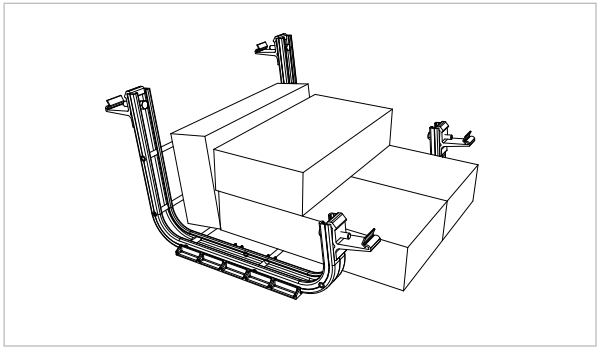
SOUTH ROW SPACER



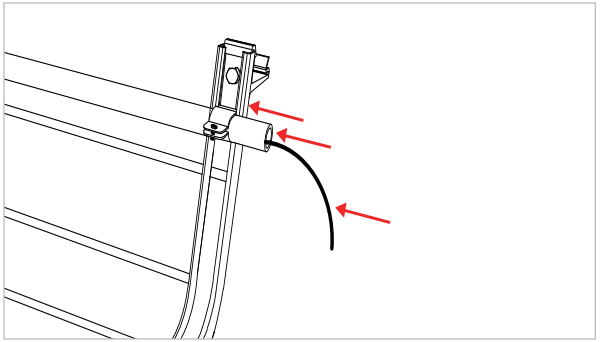
BALLAST BAY: The Ballast Bay frame is made of a mill finish Aluminum. This roof mount is a modular design that allows for easily getting around roof obstructions and accommodating roof undulations. The Ballast Bays are created such that they nest within each other to optimize shipping logistics.



CLIP & BOLT: The Module Clip is made of a mill finish Aluminum and engages the return flange underneath the panel to secure the module. This unique design takes advantage of the design of the module frame, attaching to the return flange of the frame creating a universal connection.

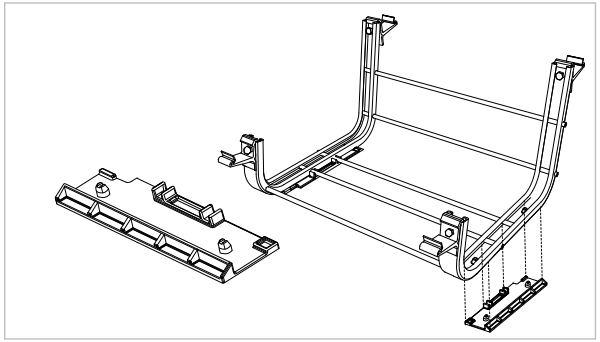


BALLAST BLOCK: The RM ballast bay can fit up to 4 standard 4”x8”x16” solid concrete cap blocks (6 blocks on north row modules). See "Complete Ballast Placement" page of this document for more information. Block weight can range from 26 – 38 lbs. The weight of the block will have a major impact on how many will be required for the project so be sure to verify your block weights before using the U-builder online tool.



OPTIONAL WIRE MANAGEMENT: The Ballast Bay frame runners will accept standard strut-strap wire management solutions, or standard strut nuts, available for purchase through your local electrical supply store.

NOTE: All conduit and wire ways should be grounded & bonded per the (NEC) National Electric Code.



OPTIONAL ROOF PAD: The Roof Pad provides a protective interface between the Ballast Bay and roofing material to protect the roof membrane. The Roof Pad snaps into the holes on the bottom side of the Ballast Bay, two Roof Pads per bay. Please consult the roofing manufacturer to see whether it is required and to verify compatibility.

ROOF PAD NOTE:

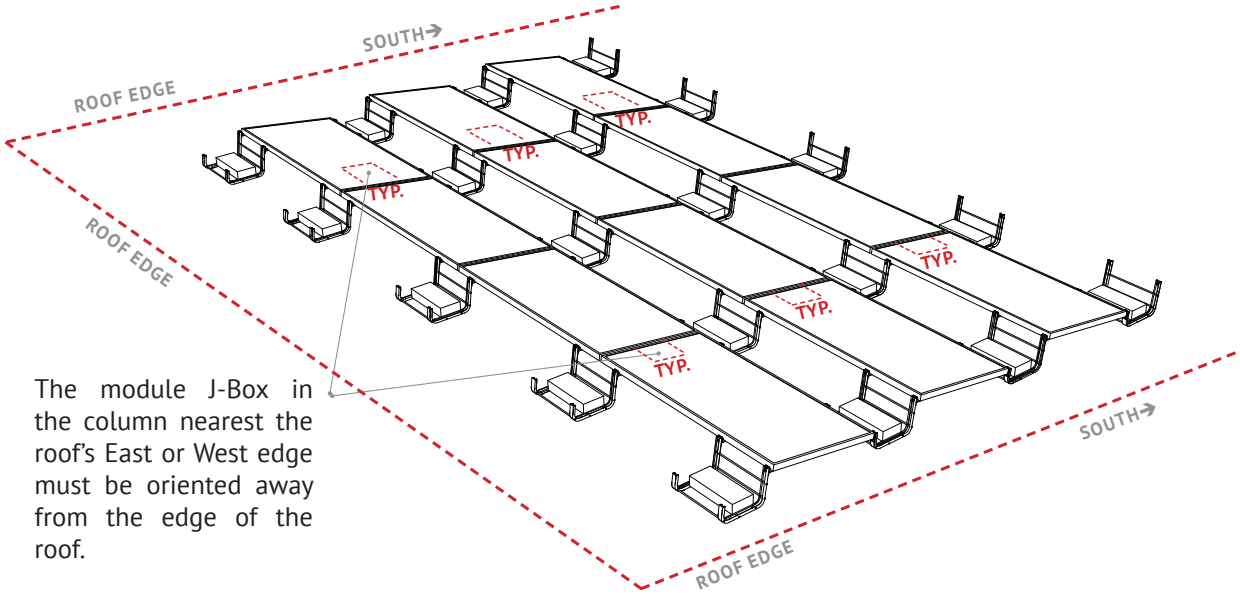
Roof pads are required for unattached system installation in certain seismic areas, or are included upon request. For more information about roof pad application, contact us at info@unirac.com or call 505.242.6411

SYSTEM LEVEL FIRE CLASSIFICATION: The system fire class rating is only valid when the installation is conducted in accordance with the assembly instructions contained in this manual. RM Roof Mount has been classified to the system level fire portion of UL1703. It has achieved Class A performance for low sloped roofs when used in conjunction with type 1, type 2 and type 3 module constructions. System fire class rating requires a prescriptive method of mounting the module. Please see the specific conditions below for mounting details required to maintain the Class A fire rating. Minimum and maximum roof slopes are restricted through the system design and layout rules. The fire classification rating is only valid on roof pitches less than 2:12 (slopes ⩽ 2 inches per foot, or 9.5 degrees.

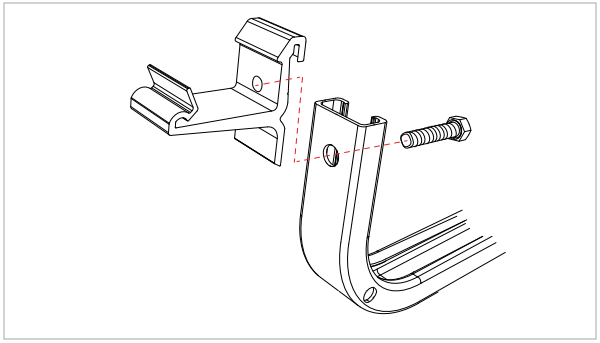
Module Type	System level Fire Rating	Mitigation
Type 1	Class A	Prescriptive. See notes & Illustration Below
Type 2	Class A	Prescriptive. See notes & Illustration Below
Type 3	Class A	None Required / No Limitations

TYPE 1 / TYPE 2 CLASS A FIRE RATING MOUNTING ORIENTATION

Unirac RM has achieved Class A system level fire performance for type 1, type 2 and type 3 module constructions. In order to maintain the fire rating for type 1 and type 2 modules, the J-Box must be oriented away from the roof edge as in the illustration below. Type 3 module constructions do not require specific mounting orientations in order to meet Class A requirements.

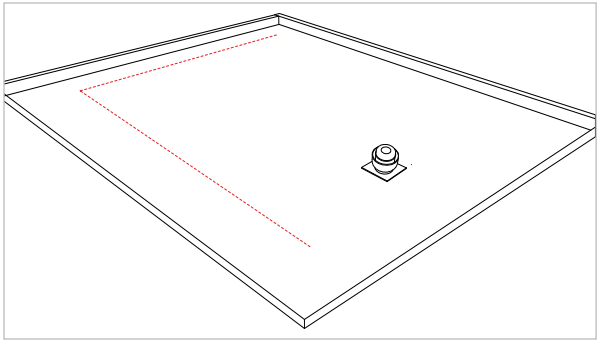


The module J-Box in the column nearest the roof's East or West edge must be oriented away from the edge of the roof.

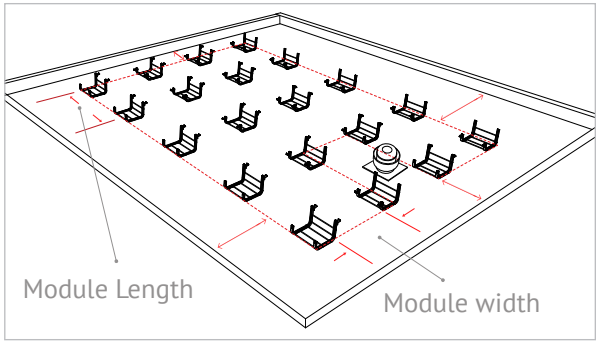


ATTACH CLIPS LOOSELY TO BAY POSTS INTENDED TO HOLD MODULES. For this initial setup, bolts should only be hand threaded a few turns.

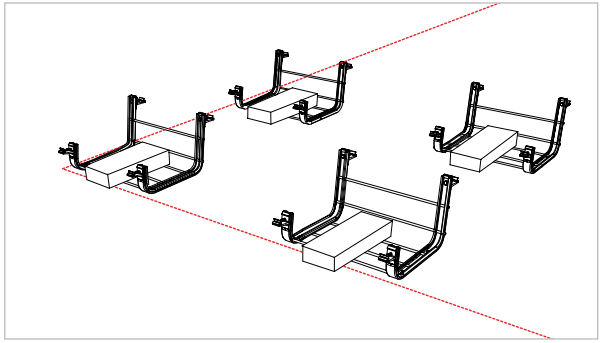
NOTE: CLIP - Single Use Only - For complete electrical bonding path, clips must be tapped in place with hammer.



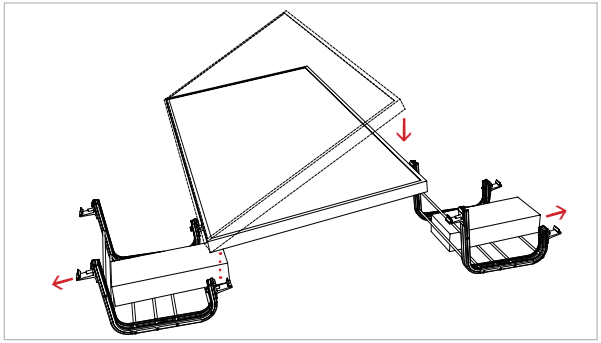
MARK ROOF WHERE ARRAY WILL START: Use chalk line to mark distances from roof edge as called out in construction documents.



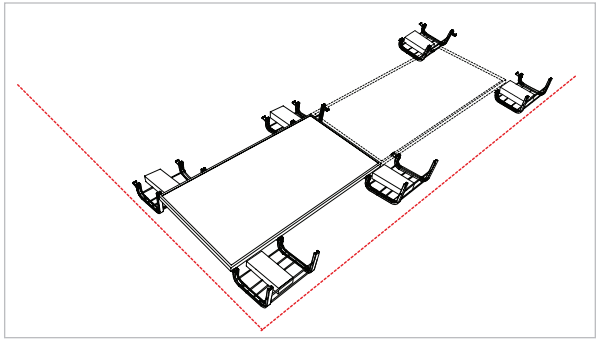
LOCATE ARRAY ON ROOF: Align Ballast Bays with previous chalk lines, using bay spacers as shown on Page 1 if desired.



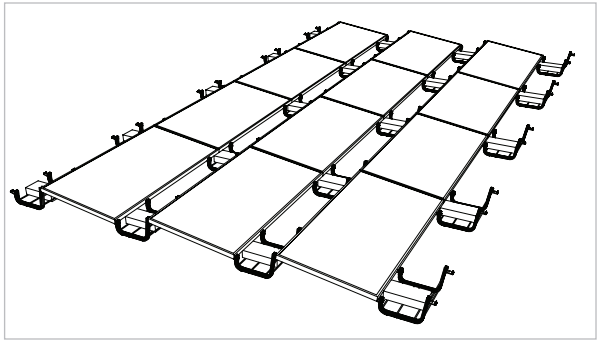
PLACE SOME BALLAST IN 1ST FOUR BAYS FOR FIRST MODULE



PLACE MODULE IN CLIPS

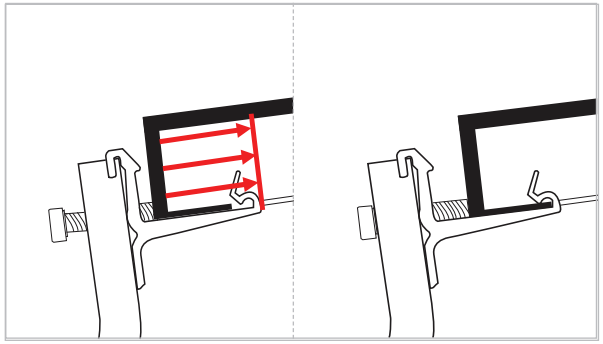


PLACE ANOTHER MODULE IN NEXT BAY CLIP

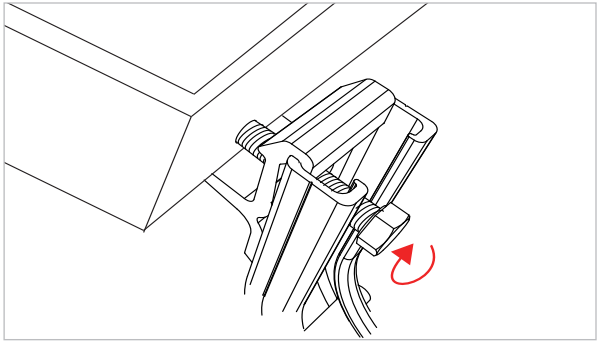


SEAT REMAINING MODULES IN CLAMPS: It is recommended to finish one row before beginning the next.

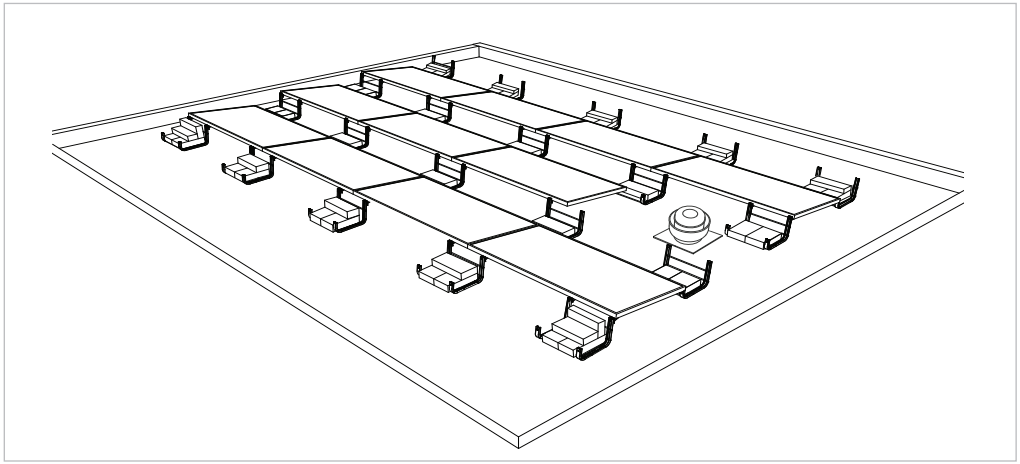
NOTE: 1/4" - 1" gap is required between modules for thermal expansion.



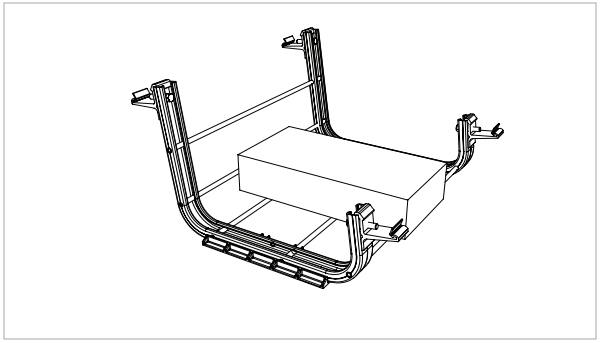
FULLY SEAT MODULE IN CLIPS AND TIGHTEN BOLTS: A gentle tug on the bays will seat the module into the module clip. It is NOT recommended to use the bolt to seat the module. Tighten bolts to **7-9FT-LBS**. It is recommended to tighten bolts one row at a time, working outward from the north or south edge of the array.



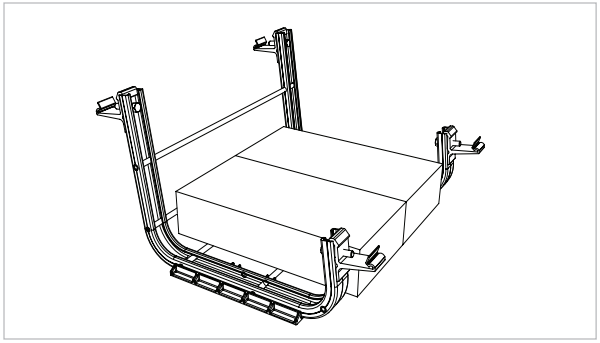
CHECK CLIP BOLT TORQUE IN SEQUENCE:
NOTE: Due to the thread-lock applied to the bolts, torque must be checked within 4 hours of initial tightening. Thread-lock will be fully cured after 72 hours.
TORQUE VALUE:
7FT-LBS - Minimum - 9FT-LBS - Maximum
NOTE: BOLT - Single Use Only



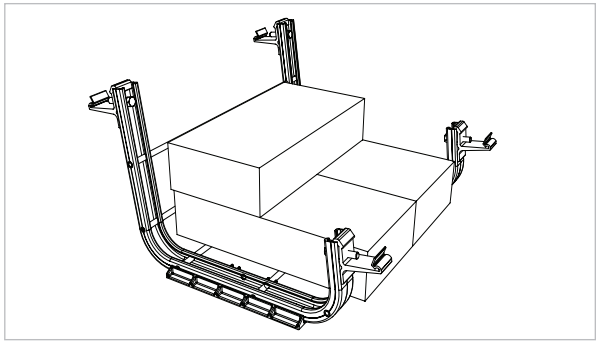
COMPLETE BALLASTED PLACEMENT: Place ballast as required. Deviations from block arrangements shown in this guide may cause shading. Site specific module loading and ballast calculations should be determined for each individual project in accordance with the U-Builder software and the Unirac Design and Engineering guide for ROOFMOUNT. This system has been rated for the mechancial load provisions of UL2703. In addition, it has been designed and tested to comply with the more rigorous requirements of SEAOC PV1, PV2 and ASCE 7.



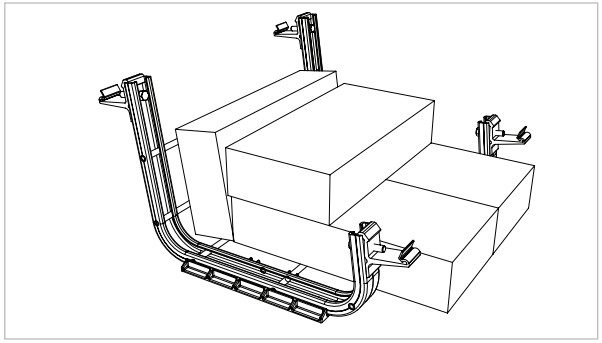
1-Block Configuration



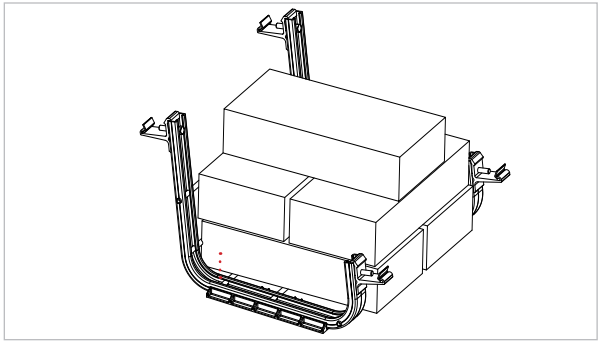
2-Block Configuration



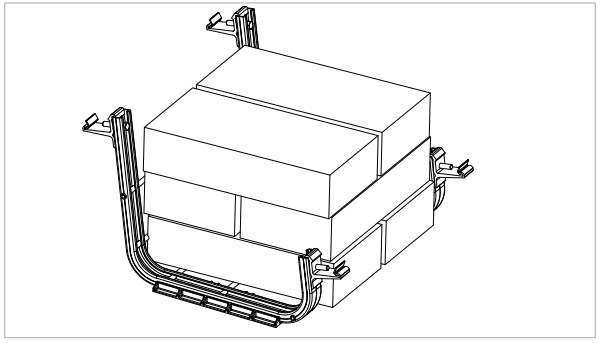
3-Block Configuration



4-Block Configuration

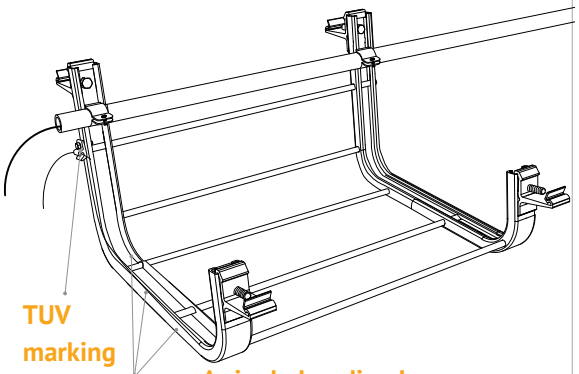


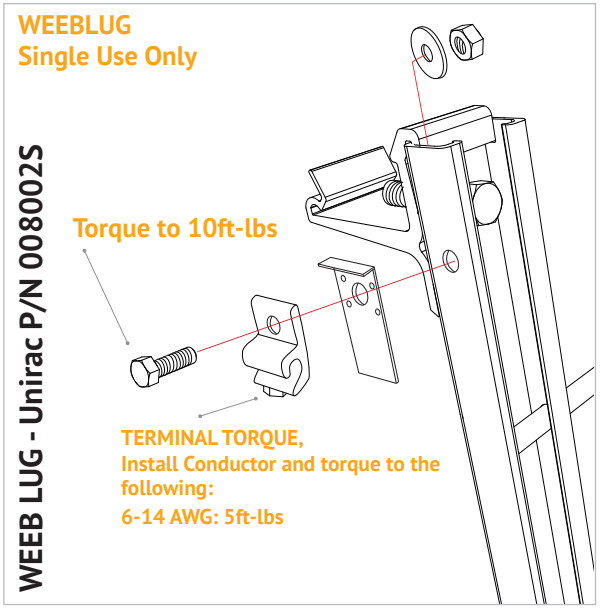
5-Block Configuration

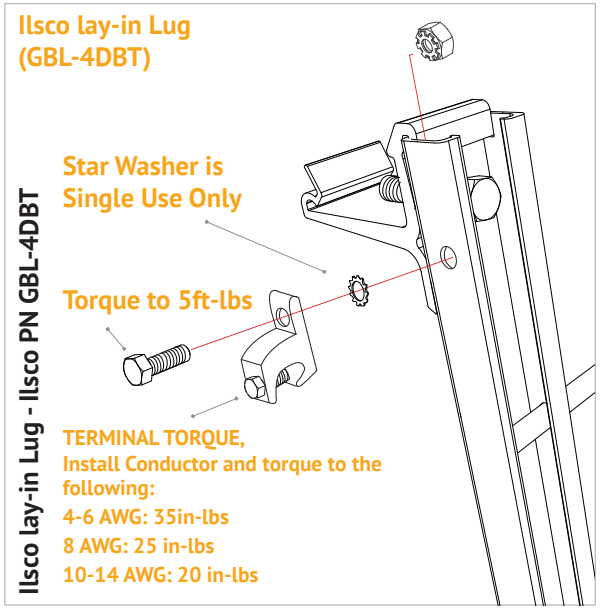


6-Block Configuration

NOTE: Use 5 and 6 block configurations only in unobstructed North Bays







Although conformance with UL2703 was demonstrated without the use of oxide inhibitor material, it is recommended by Ilsco to provide an optimized bonding solution for their lay-in lug.

GROUNDING LUG MOUNTING DETAILS AS REQUIRED BY CODE & ENGINEER OF RECORD: Details are provided for both the WEEB and Ilsco products. The WEEBLug has a grounding symbol located on the lug assembly. The Ilsco lug has a green colored set screw for grounding indication purposes. One lug is recommended per continuous array, not to exceed 150ft X 150ft.

Unirac Roof Mount is intended to be used with PV arrays that have a system voltage less than or equal to 1000VDC. A min. 10 AWG, 105 degrees Celsius copper grounding conductor should be used to ground a 1000 VDC system, according to the (NEC) National Electric Code and the authority having jurisdicition. It is the installers responsibility to check codes, which may vary.

NOTE: The installation must be conducted in accordance with the National Electric Code ANSI / NFPA 70.

Ground Lug	Bolt Size	Drill Size	Torque Value
WEEB Lug	1/4"-20	17/64"	10 ft-lbs
Ilsco Lug	#10-32	7/32"	5 ft-lbs

ELECTRICAL BONDING & GROUNDING TEST MODULES: This racking system may be used to ground and/or mount a PV module complying with UL 1703 only when the specific module has been evaluated for grounding and/or mounting in compliance with the included instructions. The modules selected for UL 2703 bonding & grounding testing were selected to represent the broadest range possible of modules on the market. The tests performed cover the following basic module parameters:

- 60, 72 & 96 cell modules
- Frame thickness greater than or equal to 1.0mm
- Basic single and double wall frame profile (some complex frame profiles could require further analysis to determine applicability)
- Clear and dark anodized aluminum frames
- The frame profile must not have any feature that might interfere with bonding devices that are integrated into the racking system

VERIFIED COMPATIBLE MODULES:

Manufacturer	Module Model / Series
AU Optronics (BenQ Solar)	PM Series
Canadian Solar	CS5A-M
Canadian Solar	CS6P-M
Canadian Solar	CS6P-P
Canadian Solar	CS6X-P
Canadian Solar	CS6K-MS
Canadian Solar	CS6K-M
Canadian Solar	CS6K-P
Canadian Solar	CS6U-M
Canadian Solar	CS6U-P
Centrosolar America	C-Series
Centrosolar America	E-Series
ET Solar	ET AC Module
ET Solar	ET Module
Flex	FXS 60
GCL	GCL-P6
GCL	GCL-M6
Hanwha SolarOne	SolarOneHSL 60
Hanwha SolarOne	SolarOneHSL 72
Heliene	72M, 72P, 60M, 60P
Hyundai Heavy Industries	MISeries
Hyundai Heavy Industries	MG Series
Hyundai Heavy Industries	TI, RI & KI Series
JA Solar	JAP6-60

Manufacturer	Module Model / Series
JA Solar	JAP6-72
Jinko Solar	Standard
Kyocera	KD-F Series
LG Electronics	MONO X
LG Electronics	MONO NEON
Mission Solar	MSE Series
Panasonic	VBHN SA15/16/17/18
Panasonic	VBHN KA01/03/04
Phono Solar Technology	Standard Modules
Q-Cells	Q.PLUS/PEAK/PRO L-G4.2
Q-Cells	Q.PLUS/PRO L-G4.1
Q-Cells	Q.PLUS/PRO L-G4
Q-Cells	B.LINE PLUS/PRO L-G4.2
Q-Cells	B.LINE PRO L-G4.1
Q-Cells	Q.PLUS L-G4.2/TAA
REC	Peak
REC	Eco
Renesola	All 60-cell modules
S-Energy	SN P-10/M-10
S-Energy	SN P-15
Sharp	ND-24CQCJ
Sharp	ND-25CQCS
Sharp	ND-Q235F4
Sharp	ND-F4Q300

Manufacturer	Module Model / Series
SolarWorld	Sunmodule Protect
SolarWorld	Sunmodule Plus
Suniva	OPTIMUS Series
Suniva	MV Series
Suntech	STP XXX
Sun Edison	F-Series
Sun Edison	R-Series
SolarWorld	SunModule Protect
SolarWorld	SunModule Plus
SunPower	X-Series
SunPower	E-Series
SunPower	Sig Black
SunPower	AC
Talesun Solar	TP572, TP596, TP654
Talesun Solar	TP660, TP672
Talesun Solar	HIPRO TP660, SMART TP660P
Trina	PA05
Trina	PD05
Trina	PD14/DD14A(II)/DE14A(II)/ PE14/PD14
Yingli	YGE-U 72
Yingli	YGE-60
Yingli	YGE-Z 60
Yingli	Panda 60

TEMPORARY GROUNDING & BONDING PROCEDURE: Periodic inspections should be conducted on the PV array to ensure there are not loose components, loose fasteners or corrosion. If any of the above items are found, the affected components are to be immediately replaced. **If a module must be removed or replaced, a temporary bonding jumper must be used to ensure safety of the personnel and PV system.**

NOTE: Removing a PV module from a system is not considered to be routine maintenance. This type of activity should only be performed by trained and qualified installers.

NOTE: In order to prevent corrosion induced by dissimilar metals, it is important to verify that the bare copper wire does not come into contact with aluminum. These materials must be kept separate.

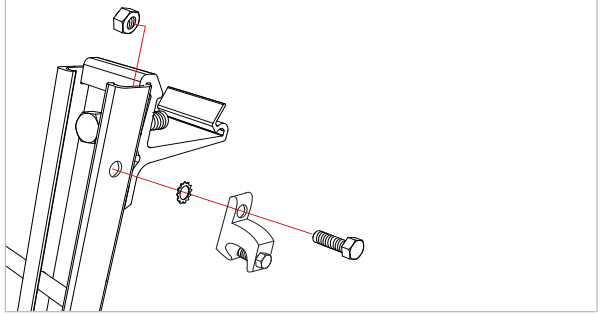
WEEBLug

Ilsco lay-in Lug

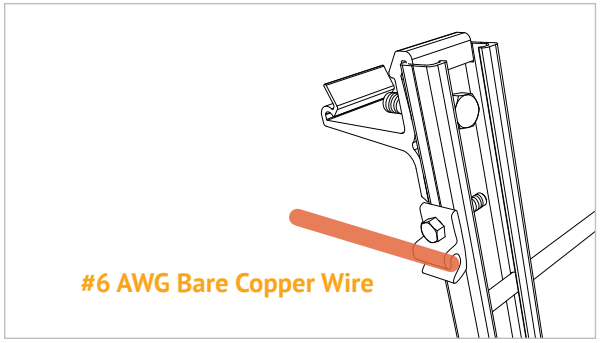
APPROVED LUGS

WEEBLug UNIRAC PN 008002S
See product data sheet

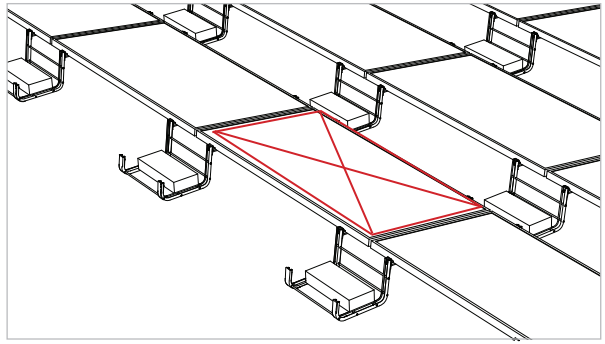
Ilsco lay-in Lug Ilsco PN GBL-4DBT
See product data sheet



ATTACH LUGS: Use approved lug(s) to install on adjacent bays where the module is being removed.

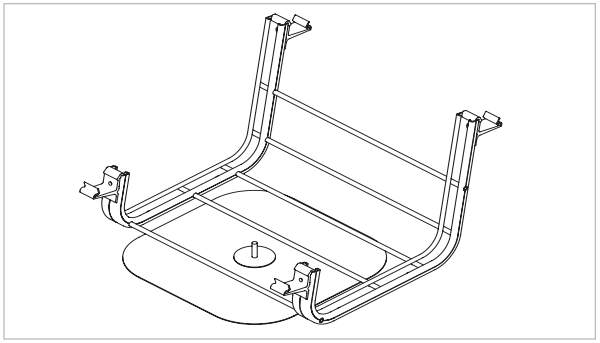


INSERT COPPER WIRE: Insert bare copper (#6 AWG) wire into each lug, providing a bonding jumper across the missing module location.



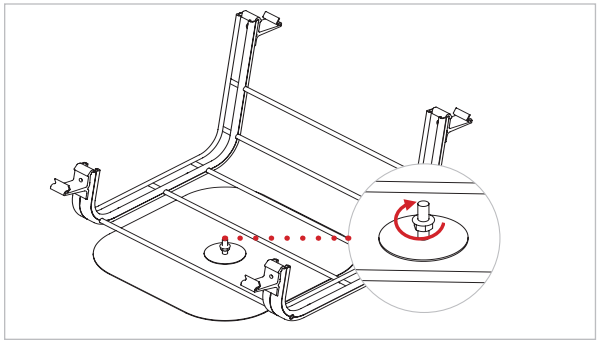
REMOVE MODULE & REVERSE THE OPERATION AFTER MAINTENANCE IS COMPLETE

NOTE: Removing a PV module from a system is not considered to be routine maintenance. This type of activity should only be performed by trained and qualified installers.

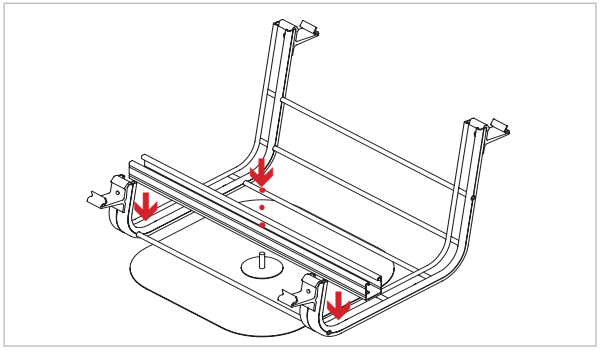


STEP 1 - POSITION U-ANCHOR: Position Roof attachment under bay requiring attachment and install according to manufacturer installation instructions.

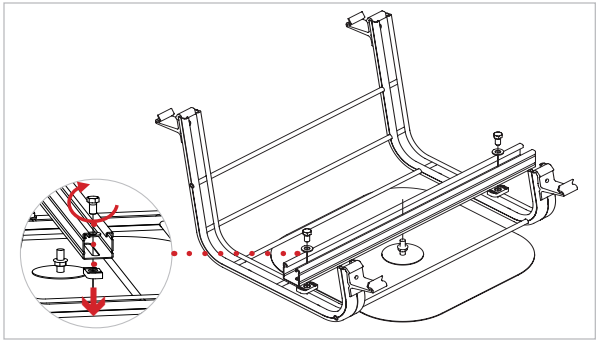
NOTE: Center roof attachment under ballast bay as close as possible.



STEP 2 - ENGAGE FLANGE NUT: Place 3/8-16 serrated flange nut and 1" OD washer on the anchor stud approximately halfway down, nut serrations facing up.

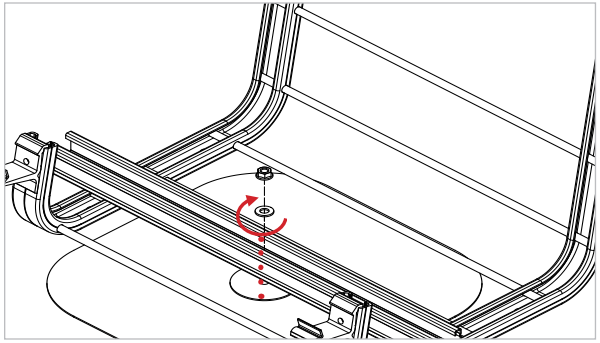


STEP - 3 PLACE UNISTRUT: Place 24" Unistrut across RM bay with the anchor stud though a slot.



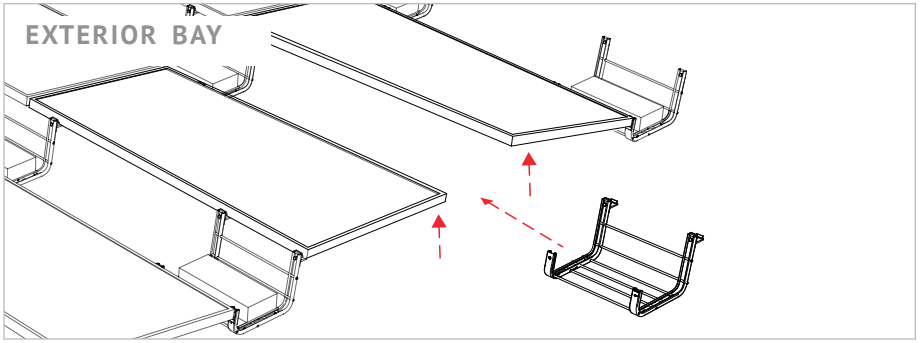
STEP 4 - SECURE UNISTRUT TO BAY: Place strut nuts inside RM channels under Unistrut, and secure Unistrut with 3/8-16 x 3/4" bolt and 1" OD washer to 30 ft-lb.

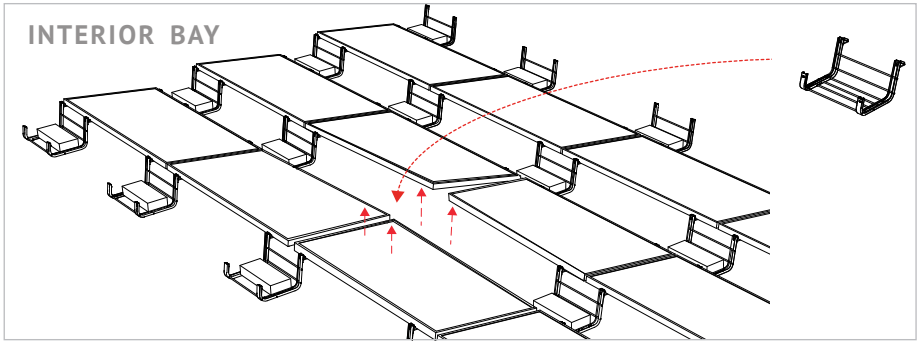
TORQUE VALUE: 30FT-LBS



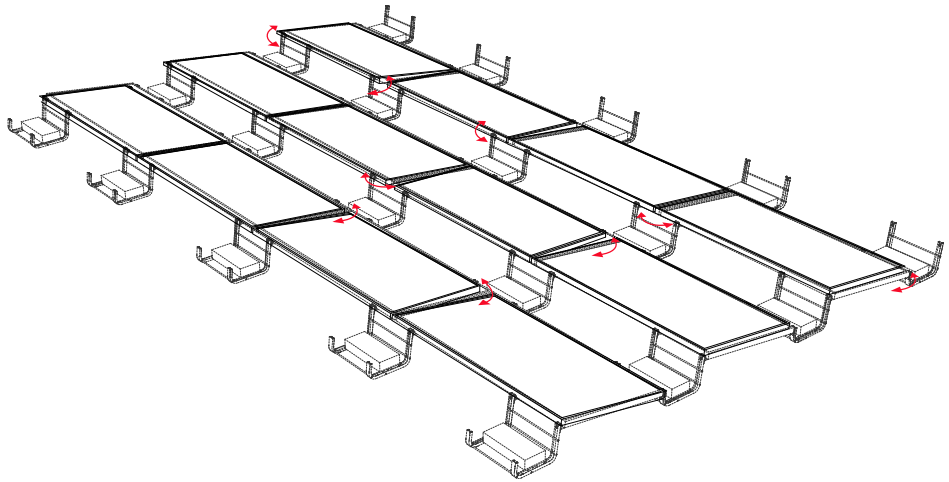
STEP 5 - SECURE UNISTRUT TO U-ANCHOR: Tighten nut that was placed on roof attachment stud in step 2 until making contact with the underside of the Unistrut. Then place another 3/8-16 serrated flange nut and 1" OD washer on the stud, serrations facing down and tighten to 30 ft-lb.

TORQUE VALUE: 30FT-LBS



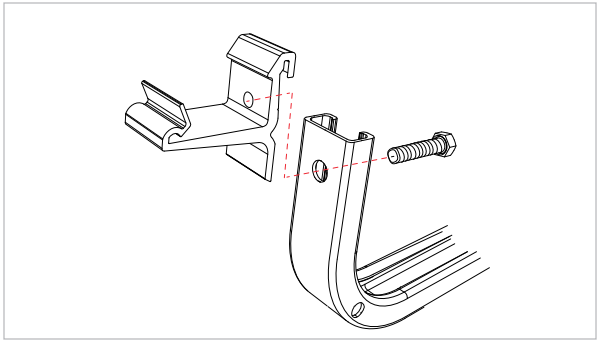


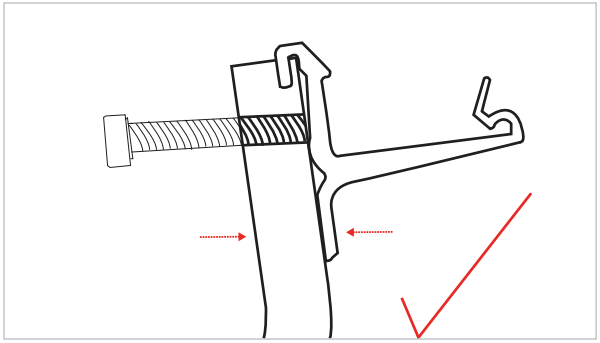
PROBLEM - ADDING BAYS AFTER INSTALLATION COMPLETED: Apply gentle, even uplift on the adjoining module frames, and maneuver bay into place

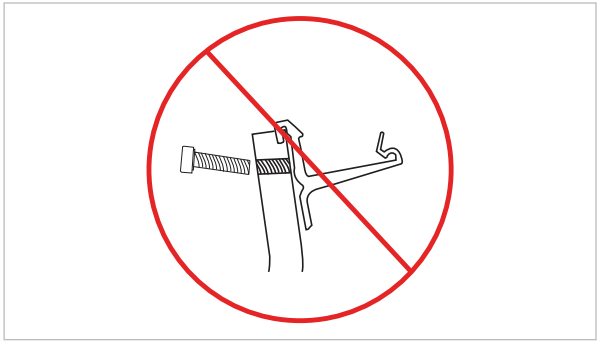


PROBLEM - ARRAY BUCKLES, OR HAS INCONSISTENT OR UN-PARALLEL GAPS BETWEEN MODULES: Loosen neighboring clips and re-adjust

- Sequentially tightening from installation outset can prevent this.

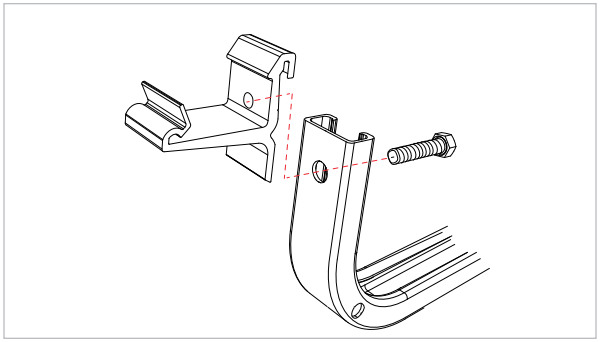


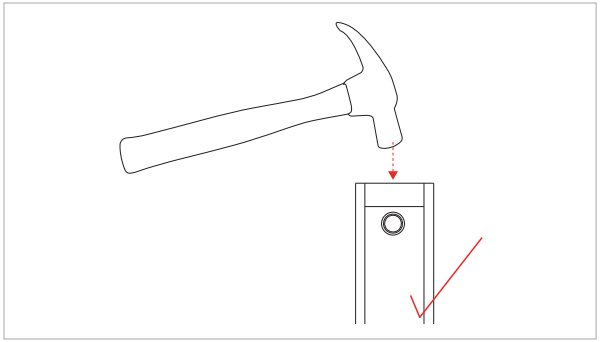


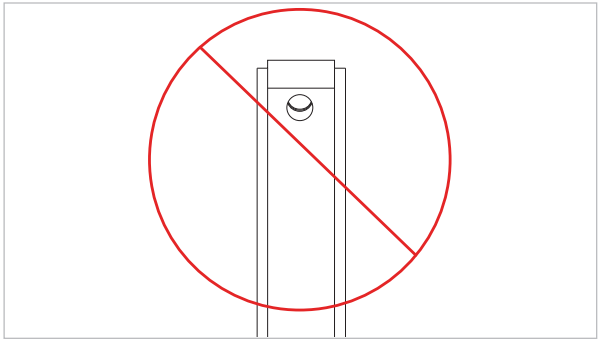


PROBLEM - CLIP BOLT CROSS-THREADS: Back bolt out and replace clip, or use thread cleaning too.

- Starting bolts with fingers instead of a power driver can minimize or eliminate cross-threading.
- When using power driver, hold it perpendicular to clip, and squeeze bottom of clip flat against bay post.







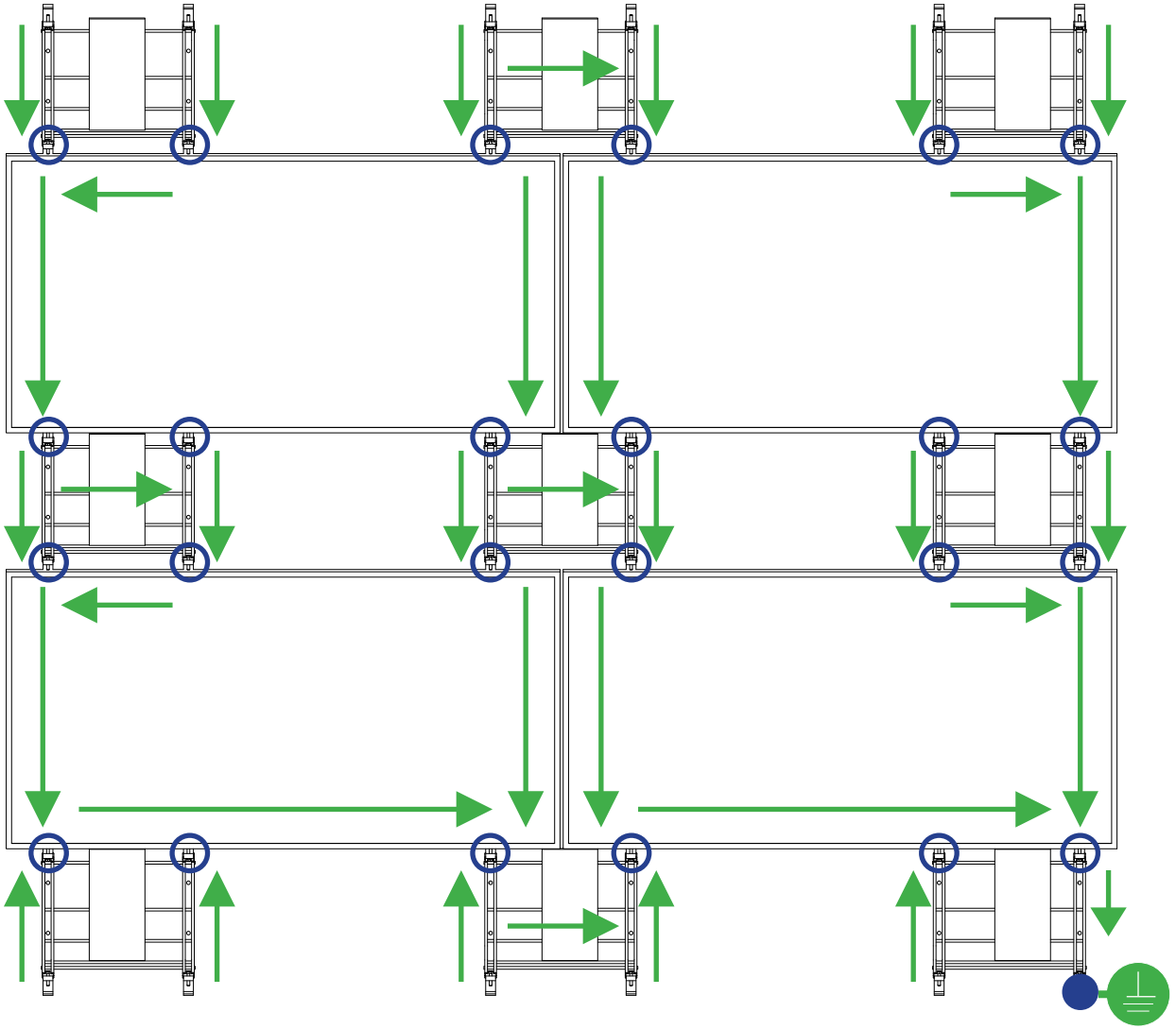
PROBLEM - MODULE CLIP THREADED HOLE AND BAY POST HOLE NOT LINED UP: Tight fit between these parts is critical for electrical bonding.

- Lining up holes may require assistance of a hammer or similar device.

RM10

BONDING & GROUNDING ELECTRICAL DIAGRAM

INSTALLATION GUIDE | PAGE C



Fault Current Ground Path

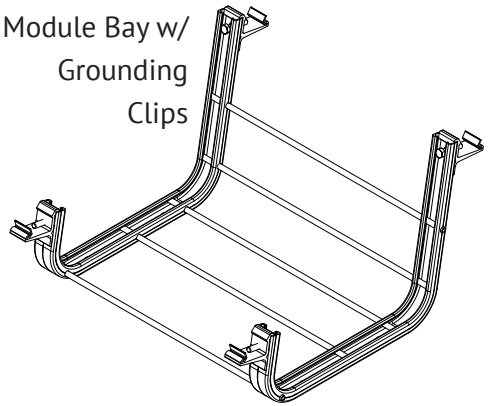
Ground Lug

Grounding Clip & Bolt

Min. 10 AWG Cooper Wire

Module Frame

Module Bay w/ Grounding Clips



MECHANICAL LOAD TEST QUALIFICATION

The Unirac RM system has been tested to the mechanical load provisions of UL2703 and covers the following basic parameters:

- Up to 96 cell framed modules
- Frame thickness greater than or equal to 1.0mm
- Basic single and double wall frame profiles
- Certification loads : 15 psf up, 50 psf down

TESTED MODULE

Module Manufacturer	Model / Series
SunPower	SPR-E20-327 / E-Series

9

CITY OF GROSSE POINTE WOODS

WAYNE COUNTY, MICHIGAN

RESOLUTION AUTHORIZING SUBMISSION OF CHARTER AMENDMENT BALLOT PROPOSALS TO ELECTORS

At a regular meeting of the City Council of the City of Grosse Pointe Woods, Wayne County, Michigan, held electronically on the 21st day of June, 2021, at 7:00 p.m.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and seconded by _____:

WHEREAS, pursuant to the City Charter, the City of Grosse Pointe Woods has authority to amend the City Charter in a manner provided by statute; and

WHEREAS, the Home Rule City Act, Public Act 279 of 1909, as amended, provides that an amendment to the City Charter may be proposed by the legislative body of the City on three fifths (3/5) vote of the seated members; and

WHEREAS, the City Council has determined that it is appropriate to submit a Charter Amendment to the electors of the City at the regular election to be held on November 2, 2021.

NOW, THEREFORE, IT IS HEREBY RESOLVED by the City of Grosse Pointe Woods City Council that the following amendments to the City Charter be placed on the ballot for the election to be held in the City of Grosse Pointe Woods on November 2, 2021:

1. The Ballot language for Charter Amendment Proposal No. 1 shall be as follows:

CHARTER AMENDMENT PROPOSAL 1

Adoption of Proposal No. 1 is conditioned upon adoption by the voters of Proposal No. 2.

Currently, the City Clerk reports to Council and is not under the supervision of the City Administrator. This amendment will amend Section 4.5 of the City Charter to allow Council to establish by ordinance that the Clerk shall work under the supervision of the City Administrator and will perform duties assigned by the City Administrator, with a corresponding change to Section 4.7 to allow oversight by the City Administrator of the Clerk's department.

Shall this amendment be adopted?

Yes [ ] No [ ]

2. The Ballot language for Charter Amendment Proposal No. 2 shall be as follows:

CHARTER AMENDMENT PROPOSAL 2

Adoption of Proposal No. 2 is conditioned upon adoption by the voters of Proposal No. 1.

Currently, the City Treasurer reports to Council and is not under the supervision of the City Administrator. This amendment will amend Section 4.5 of the City Charter to allow Council to establish by ordinance that the Treasurer shall work under the supervision of the City Administrator and will perform duties assigned by the City Administrator, with a corresponding change to Section 4.7 to allow oversight by the City Administrator of the Treasurer's department.

Shall this amendment be adopted?

Yes [ ] No [ ]

3. **Statement of the Current Wording of Sections to be Amended.** The existing language of Section 4.5 and Section 4.7 of the City Charter currently read as follows:

Section 4.5 of the City Charter

The administrative officers of the city shall be the City Administrator, Clerk, Treasurer, Assessor, Attorney, Chief of Police, Fire Chief and Superintendent of Public Works, and if the Council deems necessary a Health Officer, City Engineer, Water Superintendent and Building Inspector. The Council may by ordinance create additional administrative offices and may by resolution combine any administrative offices in any manner it deems necessary or advisable for the proper and efficient operation of the city.

The City Administrator, Clerk, Treasurer, Assessor and Attorney shall be appointed by the Council for an indefinite period, shall be responsible to and serve at the pleasure of the Council and shall have their compensation fixed by the Council. All administrative officers of the city except the City Administrator, Clerk, Treasurer, Assessor and Attorney shall be appointed or selected by the City Administrator for an indefinite period, shall be responsible to and hold office at the pleasure of the City Administrator and shall have their compensation fixed by the City Administrator in accordance with budget appropriations and any pay plan adopted by the Council. Appointments of administrative officers by the City Administrator shall be subject to confirmation by the Council, but he may discharge such officers without such confirmation.

Except as may be otherwise required by statute or this charter, the Council shall establish by ordinance such departments of the city as it deems necessary or advisable and shall prescribe therein the functions of each department and the duties, authorities and responsibilities of the officers of each department, but the Council may not diminish the duties or responsibilities of the office of City Administrator. The City

Administrator may prescribe such duties and responsibilities of the officers of those departments responsible to him which are not inconsistent with this charter or with any ordinance or resolution.

All personnel employed by the city who are not elected officers of the city or declared to be administrative officers by or under the authority of this charter shall be deemed to be employees of the city. The head of each department shall have the power to hire and discharge the employees of his department without confirmation by the Council. Any employee who has been discharged may within ten days thereafter petition the Council to hear the facts regarding such discharge, and in any such case the Council may, in its own discretion, hold a hearing and inquire into such facts and may make such recommendation in the manner as it considers proper.

Section 4.7 of the City Charter

The City Administrator shall be the chief administrative officer of the city government. His functions and duties shall be:

(a) To be responsible to the Council for the efficient administration of all administrative departments of the city government except the departments under the direction of the Clerk, Treasurer, Assessor and Attorney;

(b) To see that all laws and ordinances are enforced;

(c) To appoint, with the consent of the Council, the heads of the several city departments whose appointment is not otherwise specified in this charter, and to discharge such department heads without the consent of the Council, and to direct and supervise such department heads;

(d) To give to the proper department or officials ample notice of the expiration or termination of any franchises, contracts or agreements;

(e) To see that all terms and conditions imposed in favor of the city or its inhabitants in any public utility franchise, or in any contract, are faithfully kept and performed;

(f) To recommend an annual budget to the Council and to administer the budget as finally adopted under policies formulated by the Council, and to keep the Council fully advised at all times as to the financial condition and needs of the city;

(g) To recommend to the Council for adoption such measures as he may deem necessary or expedient; and to attend Council meetings with the right to take part in discussions but not to vote;

(h) To exercise and perform all administrative functions of the city that are not imposed by this charter or ordinance upon some other official;

(i) To maintain a system of accounts of the city which shall conform to any uniform system required by law and by the Council and to generally accepted principles and procedure of governmental accounting. He shall make monthly financial statements to the Council;

(j) To perform such other duties as may be prescribed by this charter or as may be required of him by ordinance or by direction of the Council.

4. **Redline of Current Wording for Section 4.5.** Existing Section 4.5 of the City Charter showing the proposed amendment in redline shall read:

* * *

The City Administrator, Clerk, Treasurer, Assessor and Attorney shall be appointed by the Council for an indefinite period, shall be responsible to and serve at the pleasure of the Council and shall have their compensation fixed by the Council. All administrative officers of the city except the City Administrator, Clerk, Treasurer, Assessor and Attorney shall be appointed or selected by the City Administrator for an indefinite period, shall be responsible to and hold office at the pleasure of the City Administrator and shall have their compensation fixed by the City Administrator in accordance with budget appropriations and any pay plan adopted by the Council. Appointments of administrative officers by the City Administrator shall be subject to confirmation by the Council, but he may discharge such officers without such confirmation.

The Council may by ordinance provide that any administrative officer or department of the city except the Assessor and Attorney shall, for administrative purposes, be placed under the supervision of the City Administrator. Except as may be otherwise required by statute or this charter, the Council shall establish by ordinance such departments of the city as it deems necessary or advisable and shall prescribe therein the functions of each department and the duties, authorities and responsibilities of the officers of each department, but the Council may not diminish the duties or responsibilities of the office of City Administrator. The City Administrator may prescribe such duties and responsibilities of the officers of those departments responsible to him which are not inconsistent with this charter or with any ordinance or resolution.

* * *

5. **Redline of Current Wording for Section 4.7.** Existing Section 4.7 of the City Charter showing the proposed amendment in redline shall read:

The City Administrator shall be the chief administrative officer of the city government. His functions and duties shall be:

(a) To be responsible to the Council for the efficient administration of all administrative departments of the city government except the departments under the direction of the Clerk, Treasurer, Assessor and Attorney, except as otherwise provided by Charter or ordinance;

* * *

6. **Wording if the Amendments are Approved.** That upon adoption of the proposed amendments, the affected provisions of the City Charter would read as follows:

Section 4.5. – Administrative Service.

The administrative officers of the city shall be the City Administrator, Clerk, Treasurer, Assessor, Attorney, Chief of Police, Fire Chief and Superintendent of Public

Works, and if the Council deems necessary a Health Officer, City Engineer, Water Superintendent and Building Inspector. The Council may by ordinance create additional administrative offices and may by resolution combine any administrative offices in any manner it deems necessary or advisable for the proper and efficient operation of the city.

The City Administrator, Clerk, Treasurer, Assessor and Attorney shall be appointed by the Council for an indefinite period, shall be responsible to and serve at the pleasure of the Council and shall have their compensation fixed by the Council. All administrative officers of the city except the City Administrator, Clerk, Treasurer, Assessor and Attorney shall be appointed or selected by the City Administrator for an indefinite period, shall be responsible to and hold office at the pleasure of the City Administrator and shall have their compensation fixed by the City Administrator in accordance with budget appropriations and any pay plan adopted by the Council. Appointments of administrative officers by the City Administrator shall be subject to confirmation by the Council, but he may discharge such officers without such confirmation.

The Council may by ordinance provide that any administrative officer or department of the city except the Assessor and Attorney shall, for administrative purposes, be placed under the supervision of the City Administrator. Except as may be otherwise required by statute or this charter, the Council shall establish by ordinance such departments of the city as it deems necessary or advisable and shall prescribe therein the functions of each department and the duties, authorities and responsibilities of the officers of each department, but the Council may not diminish the duties or responsibilities of the office of City Administrator. The City Administrator may prescribe such duties and responsibilities of the officers of those departments responsible to him which are not inconsistent with this charter or with any ordinance or resolution.

All personnel employed by the city who are not elected officers of the city or declared to be administrative officers by or under the authority of this charter shall be deemed to be employees of the city. The head of each department shall have the power to hire and discharge the employees of his department without confirmation by the Council. Any employee who has been discharged may within ten days thereafter petition the Council to hear the facts regarding such discharge, and in any such case the Council may, in its own discretion, hold a hearing and inquire into such facts and may make such recommendation in the manner as it considers proper.

Section 4.7. - City Administrator: Functions and Duties.

The City Administrator shall be the chief administrative officer of the city government. His functions and duties shall be:

(a) To be responsible to the Council for the efficient administration of all administrative departments of the city government except the departments under the direction of the Clerk, Treasurer, Assessor and Attorney, except as otherwise provided by Charter or ordinance;

(b) To see that all laws and ordinances are enforced;

(c) To appoint, with the consent of the Council, the heads of the several city departments whose appointment is not otherwise specified in this charter, and to discharge such department heads without the consent of the Council, and to direct and supervise such department heads;

(d) To give to the proper department or officials ample notice of the expiration or termination of any franchises, contracts or agreements;

(e) To see that all terms and conditions imposed in favor of the city or its inhabitants in any public utility franchise, or in any contract, are faithfully kept and performed;

(f) To recommend an annual budget to the Council and to administer the budget as finally adopted under policies formulated by the Council, and to keep the Council fully advised at all times as to the financial condition and needs of the city;

(g) To recommend to the Council for adoption such measures as he may deem necessary or expedient; and to attend Council meetings with the right to take part in discussions but not to vote;

(h) To exercise and perform all administrative functions of the city that are not imposed by this charter or ordinance upon some other official;

(i) To maintain a system of accounts of the city which shall conform to any uniform system required by law and by the Council and to generally accepted principles and procedure of governmental accounting. He shall make monthly financial statements to the Council;

(j) To perform such other duties as may be prescribed by this charter or as may be required of him by ordinance or by direction of the Council.

7. The City Attorney shall transmit a copy of the proposed amendments to the Governor of the State of Michigan for approval, and transmit a copy of such proposed amendments to the Attorney General of the State of Michigan for approval, as required by law.

8. The City Clerk is hereby directed to do all things necessary to provide for the submission of the aforesaid proposition to the electors of the City at the regular election on November 2, 2021.

AYES:
NAYS:
ABSENT:
ABSTENTIONS:

The resolution declared adopted.

_____
Lisa Kay Hathaway, City Clerk

CERTIFICATION

I, Lisa Kay Hathaway, Clerk of the City of Grosse Pointe Woods, do hereby certify that the foregoing constitutes a true and complete copy of a resolution adopted by the City Council on June 21, 2021, and that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act being Act 267, Public Acts of Michigan, 1976, and that the minutes of said meeting have been kept and will be, or have been, made available as required by said Act.

_____
Lisa Kay Hathaway, City Clerk