



Le Sueur County, MN

Thursday, November 9, 2017

Regular session

Item 1

Arcturus Community Solar Garden LLC, Lundin LLC

Staff Contact: Kathy Brockway or Michelle Mettler

STAFF REPORT

GENERAL INFORMATION

APPLICANT: Arcurus Community Solar Garden LLC
OWNER: Lundin LLC (Lundin Family LLC)

911 ADDRESS: New

PROJECT DESCRIPTION: Construct a 1 MW solar garden.

ZONING ORDINANCE SECTIONS: Sections 6 and 8

DISTRICT PURPOSE: The *Agriculture (A) District* is established for areas where agriculture uses are seen as the best and highest long term use of the land. The land itself needs to be preserved for primarily agricultural activities. These areas should avoid existing cities, residential zones and subdivisions. They should be large contiguous land areas with mostly prime soils. Rezoning should only be considered on the zone's borders in order to maintain the Zoning integrity of the District. Dwellings that are allowed should be on the edges of the open farmland where possible or utilize existing abandoned farm sites. The total number of Dwellings shall not exceed sixteen (16) per section of land with the exception of Transfer of Development Right and lots of record. Transfer of development rights may be utilized to exceed the permitted housing density of one dwelling per quarter-quarter section (40 acres), provided that the density does not exceed four dwellings per quarter-quarter section in the receiving quarter-quarter section. Lots of Record, shall be exempt from density standards.

The *Mineral Resources Overlay District* is intended to protect areas with existing significant mineral resources including sand, gravel, limestone and sandstone deposits, as shown in the Le Sueur County Aggregate Resources Inventory completed pursuant to Minnesota Statutes Chapter 84.94.

GOALS & POLICIES: The current Land Use Plan as adopted in 2007, does not make reference to the use of solar energy or any other type of renewable energy in Le Sueur County.

SITE INFORMATION

LOCATION: 9 acres located in the SE quarter of Section 33, Kasota Township.

ZONING: Agriculture "A" District and Mineral Resources "MR" Overlay District.

GENERAL SITE DESCRIPTION: Ag

ACCESS: Existing

EXISTING LAND USE WITHIN ¼ MILE:

North:	Business/Ag	South:	Ag
East:	Ag	West:	Mining/City of Kasota

TOWNSHIP BOARD NOTIFICATION

The applicant attended the Kasota Township Board meeting on September 11, 2017 and mailed a packet of information to Daren Barfknecht on September 22, 2017.

NATURAL RESOURCES INFORMATION

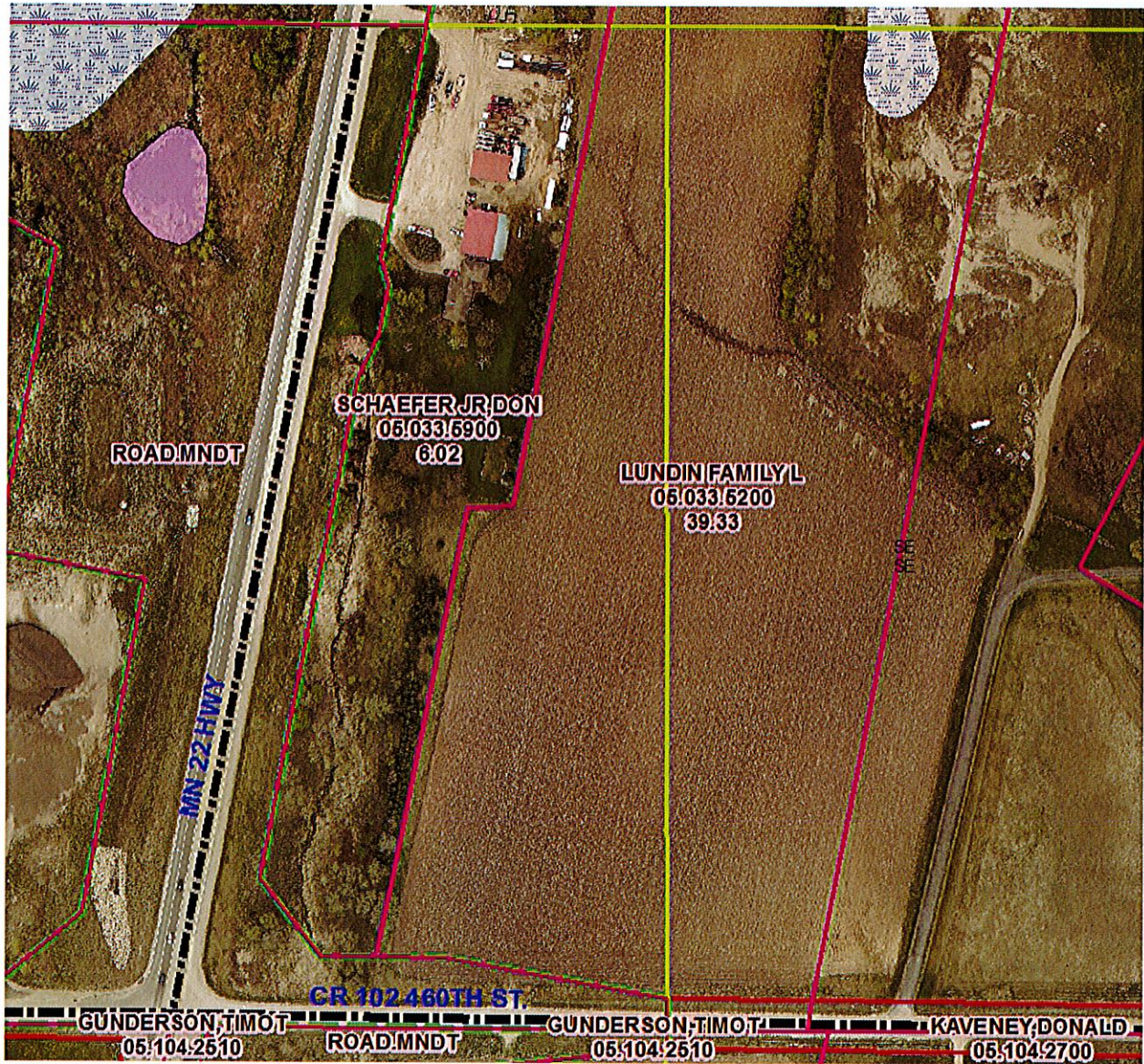
SHORELAND: The proposal is not located within the Shoreland District.

WETLANDS: According to the National Wetlands Inventory, Type 3 wetlands located in the quarter-quarter section where the project is proposed.

ATTACHMENTS

Application, Criteria Form, Narrative, Land Lease and Solar Easement, Legal Description, Solar Array Plans, Drainage, Seeding Plans.

AERIAL PHOTO



CONSTRUCTION PLANS/SURVEY

SEE ATTACHMENTS.

PLANNING AND ZONING COMMISSION CONSIDERATIONS

The Planning Commission and staff shall consider possible adverse effects of the proposed conditional use and what additional requirements may be necessary to reduce such adverse effects. Its judgment shall be based upon the following factors to include, but not limited to:

1. Relationship to County plans.
2. The geographical area involved.
3. Whether such use will negatively affect surrounding properties in the area in which it is proposed.
4. The character of the surrounding area.
5. The demonstrated need for such use.
6. Whether the proposed use would cause odors, dust, flies, vermin, smoke, gas, noise, or vibration or would impose hazards to life or property in the neighborhood.
7. Whether such use would inherently lead to or encourage disturbing influences in the neighborhood.
8. Whether stored equipment or materials would be screened and whether there would be continuous operation within the visible range of surrounding residences.

9. Abatement of Environmental Hazards as regulated in this Ordinance
10. Other factors impacting the public health, safety and welfare.

PLANNING AND ZONING COMMISSION CONDITIONS

The Planning Commission shall recommend such conditions relating to the granting of said Conditional Use Permit, as they deem necessary to carry out the intent and purpose of this Ordinance or recommend that the request be denied. Such recommendation shall be in writing. The conditions may include, but are not limited to the following:

1. Increasing the required lot size or yard dimension.
2. Limiting the height, size, or location of the structures.
3. Controlling the location, size, and number of vehicle access points.
4. Increasing the street width.
5. Increasing the number of required off-street parking space.
6. Limiting the number, size, location, or lighting of signs.
7. Requiring diking, fencing, screening, landscaping or other facilities to protect adjacent or nearby property.
8. Designating sites for open space.

PLANNING AND ZONING COMMISSION FINDINGS

Based on the information submitted by the applicant, contained in this report, and as required by the Le Sueur County Zoning Ordinance, the following findings have been developed for this request:

(Please circle one for each item: Agree, Disagree, Not Applicable.)

1. *The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminishes and impairs property values within the immediate vicinity.*
2. *The establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding vacant property for uses predominant in the area.*
3. *Adequate utilities, access roads, drainage and other facilities have been or are being provided.*
4. *Adequate measures have been or will be taken to provide sufficient off-street parking and loading space to serve the proposed use.*
5. *Adequate measures have been or will be taken to prevent and control offensive odor, fumes, dust, noise and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result.*
6. *Is the Conditional Use Permit consistent with and supported by the statement of purposes, policies, goals and objectives in the Ordinance?*

Recommend (circle one) approval / denial / table / of Conditional Use Permit.

LE SUEUR COUNTY CONDITIONAL USE PERMIT CRITERIA

Conditional Use Permit #: 17386

Applicant: ARCTURUS COMMUNITY SOLAR GARDE **Land Owner:** LUNDIN, LLC % LUNDIN FAMILY LLC

Conditional Use Permit Request: TO ALLOW THE APPLICANT TO ESTABLISH A 1MW SOLAR GARDEN

1. The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminishes and impairs property values within the immediate vicinity.

Al	Don Rk	Don Ry	Jeanne	Doug	Shirley	Pam	TOTAL

Explain _____

2. The establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding vacant property for uses predominant in the area.

Al	Don Rk	Don Ry	Jeanne	Doug	Shirley	Pam	TOTAL

Explain _____

3. Adequate utilities, access roads, drainage and other facilities have been or are being provided.

Al	Don Rk	Don Ry	Jeanne	Doug	Shirley	Pam	TOTAL

Explain _____

4. Adequate measures have been or will be taken to provide sufficient off-street parking and loading space to service the proposed use.

Al	Don Rk	Don Ry	Jeanne	Doug	Shirley	Pam	TOTAL

Explain _____

5. Adequate measures have been or will be taken to prevent and control offensive odor, fumes, dust, noise and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result.

Al	Don Rk	Don Ry	Jeanne	Doug	Shirley	Pam	TOTAL

Explain _____

6. The conditional use is consistent with and supported by the statement of purposes, policies, goals and objectives in the Ordinance.

Al	Don Rk	Don Ry	Jeanne	Doug	Shirley	Pam	TOTAL

Explain _____

7. The conditional use is consistent with the Comprehensive Land Use Plan.

Al	Don Rk	Don Ry	Jeanne	Doug	Shirley	Pam	TOTAL

Explain _____

If all answers are "YES" by a majority of the Planning Commission, the criteria for granting of the Conditional Use Permit request have been met. The Conditional Use Permit will meet the goals of safety, health and the general welfare of the public.

Date: _____ APPROVED _____ DENIED _____ PZ Chairperson _____

COUNTY BOARD MEETING DATE _____

Le Sueur County

Conditional Use Application

I. Applicant:

Name Arcturus Community Solar Garden, LLC
Mailing Address 7150 Edinburgh Way Ste. # 725
City Edina State MN Zip 55435
Phone # 952-988-9000 Phone # _____

II. Landowner:

Name Lundin, LLC c/o Lundin family LLC
Mailing Address 4460 Washington Blvd
City Madison Lake State MN Zip 56063
Property Address _____
City _____ State _____ Zip _____
Phone # _____ Phone # _____

III. Parcel Information:

Parcel Number 05.033.5200 Parcel Acreage _____
Attach Full Legal Description (**NOT** abbreviated description from tax statement)
Township Kasota - 110N, Range - 26W Section 33
Subdivision _____ Lot _____ Block _____

IV. Township Notification: Township must be notified of proposed use prior to application.

Kasota Township Township notified on in person at public mtg on 9/11/2017
(Township Name) (Date) & via mail on 9/22/2017
Board Member Daren Bartknecht regarding the proposed use.
(Name)

V. Quantities and Submittal Formats:

- One (1) reproducible 8.5" x 11" copy of the request and all other supporting documents.
- Twenty three (23) copies must be submitted, if any documents are in color, an aerial, or larger than 8.5" x 11" in size.
- Electronic version of any supporting documents *if available*.
- Additional copies may be requested as deemed necessary by the Department.
- Application must be made **in person** by the applicant and/or landowner no later than 12 P.M. on the date of application deadline.
- Appointment is necessary.
- Applications will not be accepted by mail.**

VI. Fees: Must be paid at the time of application.

Conditional Use Permit \$ 750 After-The-Fact fee is **doubled.**
Filing Fee \$ 46

Additional Fees:

Special Meeting \$ 2,000
After-The-Fact Penalty \$ 1,500 OR 10% of improvement, whichever is greater

VII. Type of Request:

- Self Service Storage
- School/Church/Cemetery
- Retail Nursery/Greenhouse
- School/Church/Cemetery

- Value Added Agriculture
- Antique Sales/Service/Repair
- Substation/Transmission Lines etc.

Other Community Solar Garden

VIII. Description of Request:

- a. A full description of request with detailed information must be attached. *see attached narrative*
- b. Complete the following in relationship to the proposed Conditional Use Permit. *see attached narrative*
1. PROPOSED DAYS AND HOURS OF OPERATION: _____
 2. ESTIMATED NUMBER OF PERSONS TO ATTEND PLACE OF BUSINESS/LOCATION ON A DAILY OR WEEKLY BASIS: _____
 3. LIST OF PUBLIC HEALTH PLANS:
 - i. Water Supply: _____
 - ii. Toilet facilities: _____
 - iii. Solid Waste Collection: _____
 4. FIRE PREVENTION: _____
 5. SECURITY PLANS: _____
 6. RETAIL SALES: _____
 7. FOOD OR ALCOHOL SERVED OR FOR SALE: _____
 8. DESCRIBE IF THE APPLICANT REQUESTS THE COUNTY TO PROVIDE ANY SERVICES OR COUNTY PERSONNEL: (For example, pedestrian and/or vehicular traffic control.)

 9. SOUND AMPLIFICATION, PUBLIC ADDRESS SYSTEM, PLAYING OF MUSIC:

 10. EXTERIOR LIGHTING: _____
 11. PARKING AND LOADING: _____
 12. SIGNAGE: _____
 13. ROAD ACCESS: (Approved by the road authority) _____
 14. CERTIFICATE OF INSURANCE: _____
 15. MEET ALL APPLICABLE COUNTY STATE & FEDERAL REGULATIONS:
(For example additional licensing and/or permitting) _____

IX. Site Plan: Shall include but not limited to the following:

- North point
- Setbacks
- Property Lines
- Road Right-Of-Way
- Lake
- River
- Wetland
- Stream
- Existing Structures
- Proposed Structures
- Lot Dimensions
- Ponds
- Septic system
- Well
- Access (size & location)
- Easements
- Parking (Size & location-if applicable to application)
- Landscape, screening and buffering (if applicable to application)
- Location of significant trees to be removed (if applicable to application)

X. Attachments: shall include but not limited to:

- a. **Description of Request**-See Part VIII for full details and requirements.
- b. **Site Plan**-See Part IX for full details and requirements.
- c. **Full legal description**-Not abbreviated description from tax statement.
- d. **Access approval**-Attach approval in writing from proper road authority.
- e. **Township Notification**-See Part IV for details and requirements.
- f. **Septic System Compliance Inspection** *NIA*
- g. **Erosion control plan**-Attach completed and signed plan including map.
- h. **Floor plans and/or blue prints** *NIA*



XI. Procedure:

The Planning & Zoning Commission shall hold a public hearing on the proposed Conditional Use Permit at a scheduled Planning and Zoning Commission meeting.

The Planning and Zoning Commission is an advisory board to the County Board of Commissioners and will make a recommendation to the County Board.

The Department shall report the findings and the recommendations of the Planning Commission to the County Board for final decision.

Action by the County Board shall be a majority vote of its members.

The Department shall notify the applicant and/or landowner in writing of the County Board decision.

A certified copy of the Conditional Use Permit shall be filed with the Le Sueur County Recorder by the Department.

XII. Signatures:

I hereby certify with my signature that all data contained herein as well as all supporting data are true and correct to the best of my knowledge.

[Signature]
Applicant signature

Sep 27th 2017
Date

I hereby certify with my signature that all data contained herein as well as all supporting data are true and correct to the best of my knowledge.

[Signature] *Lundin Family LLC*
Property Owner signature

9/11/17
Date

OFFICE USE ONLY

Request:

Pre-App Date <u>10.3</u>	Lake Classification <u> </u>	Feedlot 500' 1000' <input checked="" type="radio"/> N
Meeting Date <u>11.9</u>	Lake <u> </u>	Wetland Type 1-2 3-8 <input checked="" type="radio"/> N
60 Day <u>12.4</u>	FEMA Panel # <u>27079C0 237</u> D	Water courses Y <input checked="" type="radio"/> N
Zoning District <u>ATMC</u>	Flood Zone <u>X outside</u>	Bluff Y <input checked="" type="radio"/> N

<input checked="" type="checkbox"/> Request Description	<input checked="" type="checkbox"/> Access Approval	<input type="checkbox"/> Septic	Comp Insp / Design
<input checked="" type="checkbox"/> Site Plan	<input checked="" type="checkbox"/> Erosion Control Plan	<input checked="" type="checkbox"/> Meeting	Reg / ATF / Spec
<input checked="" type="checkbox"/> Full Legal	<input checked="" type="checkbox"/> Blue Prints	<input type="checkbox"/> Fee	\$ 750.46 Rec.
<input type="checkbox"/> Ordinance	<input type="checkbox"/> Other <u> </u>	<input type="checkbox"/> Penalty	\$

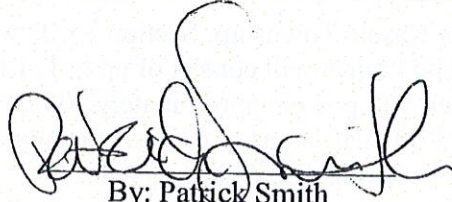
Application Complete Kathy Brockway 10.5.17 17381e
 Planning & Zoning Department Signature Date Permit #

Arcturus Community Solar Garden, LLC

Application for a Conditional Use Permit

Applicants:

Arcturus Community Solar Garden, LLC



By: Patrick Smith

Senior Director of Environmental Planning

Property Owner: Lundin, LLC

Application Prepared by Geronimo Energy on behalf of Arcturus Community Solar Garden, LLC.

Application Fee & Filing Fee: \$796.00

Arcturus Community Solar Garden, LLC | 7650 Edinborough Way, Ste 725, Edina, MN 55435 | P 952.988.9000 | F 952.988.9001

1 Introduction

1.1 SUMMARY

Arcturus Community Solar Garden, LLC (“The Project” or “Arcturus”) respectfully submits this application for a Conditional Use Permit (CUP) to Le Sueur County Planning and Zoning. Arcturus requests that Le Sueur Planning Commission motions for approval, and that Le Sueur County Board of Commissioners approves for the Project to be permitted, constructed, owned, and operated by Arcturus Community Solar Garden, LLC. For review, the Project’s detailed legal description is included in Appendix A and the site plan in Appendix B.

The Project will be located in Kasota Township, Section 33, Township 110-N, Range 26-W, Le Sueur County, Minnesota. The Project will consist of up to 1, 1 MW community solar garden that will generate enough energy to power approximately 200 homes annually and avoid the emission of approximately 1,200 metric tons of carbon annually.¹ The Project plans to interconnect to Xcel Energy’s existing distribution system.

The Project will be marketed as a host for Xcel Energy’s Solar Rewards Community program. Under the program, Xcel Energy customers may subscribe to a solar garden and receive a credit on their monthly Xcel Energy bill based upon the production of their garden subscription. The final size of the facility will be dependent upon final interconnection parameters, final equipment design and demand for garden subscriptions. The project as proposed in this application represents anticipated build-out. See Appendix C for additional information.

Arcturus is being developed by Geronimo Energy. Geronimo Energy is an experienced, full-service renewable energy company with a successful track record of executing renewable energy projects. Geronimo Energy is headquartered in Minneapolis, Minnesota, with satellite offices located in southwest Minnesota, North Dakota, South Dakota, Colorado, Illinois, New York and Michigan. Geronimo Energy has developed over 1,600 MWs of wind and solar projects that are either under construction or operational. With deep roots in agriculture, Geronimo prides itself on developing renewable energy projects that are farmer-friendly, community-driven, and beneficial for rural communities.

Geronimo has extensive experience and expertise in developing and bringing community solar garden (CSG) projects into operation. Geronimo previously developed and fully subscribed a 96 MW CSG portfolio that is part of Xcel Energy’s Solar*Rewards Community Program. 32 MW of this portfolio reached commercial operation in the fourth quarter of 2016, with the remaining projects scheduled to be online by the end of 2017. Additionally, Geronimo’s Nordic Solar Portfolio represents a significant share of Minnesota CSGs with 2017-2018 Commercial Operation Dates (COD).

¹ Based on EPA Greenhouse Gas Equivalencies Calculator and 1,700,000 kWh annual production PVSYST model

2 Project Description

2.1 SUMMARY AND LOCATION

The Project will be located in Kasota Township, Section 33, Township 110-N Range 26-W, Le Sueur County, Minnesota. The Project area is zoned in Agriculture (A) District and Mineral Overlay; however, Mineral Overlay (MR) is not applicable to the project.

Planned project design will be up to a 1 MW solar facility owned as described in Section 2.2 of this application. It is proposed to utilize typical photovoltaic panels, inverters and either a fixed tilt or linear axis tracking system. The Project's footprint will be approximately 9 acres. The estimated start date will be spring of 2018.

2.2 PROJECT OWNERSHIP

Arcturus Community Solar Garden, LLC (Arcturus or the Project) has a lease agreement for the Project site. Arcturus Community Solar Garden, LLC is the applicant.

2.3 PROJECT CONSULTANTS

Surveying, Preliminary Solar Array Design & Engineering:

Westwood Professional Services

7699 Anagram Drive, Eden Prairie, MN 55344

2.4 SOLAR PROJECT FACILITY

The Project's facilities will include:

- Solar modules, inverters and racking;
- Fencing;
- Access roads as required;
- On-site underground electrical collection lines;
- Up to one weather stations (up to 20 feet tall);
- Interconnection Poles, to connect the Project to Xcel Energy's distribution system.

The Project footprint is approximately 9 acres. Arcturus selected the specific development area based on available land use guidance, significant landowner interest, interconnection suitability, optimal solar resource, and minimal environmental impact.

Arcturus has provided a site plan of existing conditions and a site plan of proposed conditions for the solar Garden in Appendix B. This proposed site plan will denote the general footprint and layout of the Project including proposed locations of facilities.

The Project's final layout will optimize electrical generation and efficiency of the solar resource while avoiding and minimizing environmental, cultural, and economic impacts. The Project's facilities will be sited so as to comply with the county's setback requirements, where applicable, as well as other voluntarily-imposed setbacks. To the extent applicable, the Project will also comply with all other local, state, and federal regulatory standards.

The county structure setback and height regulations in for the Agricultural District and our proposed setbacks and heights are found below in Table 1:

TABLE 1: SETBACK TABLE

	County Setback Requirements (minimum)	Proposed Setbacks
Front Yard- County Road 102	75'	>75'
Side Yard	50'	50'
Rear Yard	50'	50'
Height	35'	<35'
Fence	Outside of ROW	Outside of ROW

The Project's proposed components include PV modules mounted on an either a fixed tilt or linear axis tracking system, with inverters. The modules vary in size, with approximate dimensions of 4 to 6.5 feet long by 2 to 3.5 feet wide, and 1 to 2 inches thick. The foundations of the racking system will likely be a driven steel pier and will unlikely require concrete, although some concrete foundations may be required. Geotechnical soil testing will determine final installation process. Foundations will be certified by a manufacturer's engineer or another qualified engineer to ensure professional standards are met given the local soil and climate conditions. Areas of bare ground at the facility will be re-vegetated with a low-growing seed mix.

The modules will be electrically strung together to inverters. The inverters will convert the DC power from the modules to AC power. Additionally, a transformer will step up the voltage of generated electricity to meet the local interconnection voltage of Xcel's distribution grid. From the inverters, electrical cable will be buried underground to the Point of Interconnection (POI). Here the system will interconnect to the existing distribution infrastructure. The POI is the electrical point at which the projects electrical equipment will meet Xcel Energy's infrastructure. The design standards for interconnection are the full responsibility of and defined by Xcel Energy. The project is required to comply with Xcel's specifications and will have riser poles in

order to meet Xcel Energy's infrastructure which is located above ground. Xcel will then own and operate their poles within the POI. Any permits and regulations related to these poles are Xcel's responsibility. Arcturus will secure all private easements for its facilities and will secure permits and other authorizations from the state, county and township governments as needed.

From the inverters, electrical cable will be buried underground to the Point of Interconnection. Here the system will interconnect to the existing distribution infrastructure. Arcturus will secure all private easements for its facilities and will secure permits and other authorizations from the state, county and township governments as needed.

An interconnection agreement with Xcel Energy will be provided prior to construction. The Interconnection Agreement process is built in with the Solar*Rewards Community program.

The Project will use a Data Acquisition System (DAS), which allows for remote monitoring of the Project. The monitoring system provides status views of electrical and mechanical data, operation and fault status, meteorological data, and grid station data. For security, the Project will be fenced and have site security cameras. Access to the Project area is through lockable gates.

2.4.1 Construction

Construction of the solar Garden will begin starting as early as spring of 2018 with intended completion of the Project during 2018.

Traffic during construction is estimated to be 25-35 trucks daily. Traffic will include pickup trucks, semi-trailers for delivery of equipment, and other machinery. It is unexpected that any overweight or oversized loads will be used during construction.

2.4.2 Grading, Excavating, and Filling

Preliminary plans detail less than 500 cubic yards of material movement for the stormwater features. If under 500 cubic yards of material a Land Alteration Plan is required per Section 8, Subdivision 2.Q. The project understands that if final engineering details 500 cubic yards or more of movement, according to Section 8, Conditional Use Permits, Subdivision 3. EE (Parcels less than 20 acres), an application for a Conditional Use Permit will have to be submitted. This material movement excludes the road that is permitted under the conditional use permit for the solar garden facility access.

2.4.3 Stormwater

The Project will adhere to the Minnesota Pollution Control Agency (MPCA) Construction Stormwater Permit Requirements, including obtaining a NPDES stormwater permit.

2.4.4 Project Components

- Panel Type-
 - Photovoltaic panels
- Panel Size-
 - Varying in size approximately 4 to 6.5 feet long by 2 to 3.5 feet wide, and 1 to 2 inches thick
- Racking Type-
 - Linear axis tracking system or fixed-tilt racking system
 - Utilizes galvanized steel for foundations and frame
- Panel Height-
 - Fixed-tilt: up to 15 feet
 - Tracking: up to 15 feet
- Typical Panel Material-
 - Glass
 - Aluminum frame
 - Weatherized plastic backing
- Inverter Skid and electrical cabinets
 - Enclosed inverters and transformers
 - Overhead shade will be 10 to 12 feet tall and the equipment enclosure, if used, will be up to approximately 45 feet long by 10 feet wide by 10 feet tall.
- Metering and Switching Gear
 - Electrical equipment required to connect to Xcel's system
- Access roads
 - Gravel roads within the fenced area leading to the inverter skids for repair
- Rated Power & Performance-
 - 1000-1500 volt system that steps up to a local distribution voltage
- Safety-
 - Tempered glass, security fence (6-foot chain link, 1 foot barbed wire), security cameras, on-site cables buried underground.

Arcturus CSG is currently evaluating several systems for installation that include the following:

Linear Axis Tracking System:

A Linear axis tracking system tracks the solar resource throughout the day. The panels are generally aligned in rows north and south and face east in the morning, perpendicular to the ground during mid-day, and then west in the afternoon. The panels are adjusted by a small motor to slowly rotate throughout the day.

Fixed-tilt Racking System:

A fixed-tilt racking system does not rotate. It remains in a fixed position, facing a southerly direction.

Images 1-5 below visually show the general racking equipment and dimensions of both a fixed-tilt racking system and a linear axis tracking system.

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Image 1 – Fixed-Tilt System Racking



Image 2 – Fixed-Tilt System Dimensions

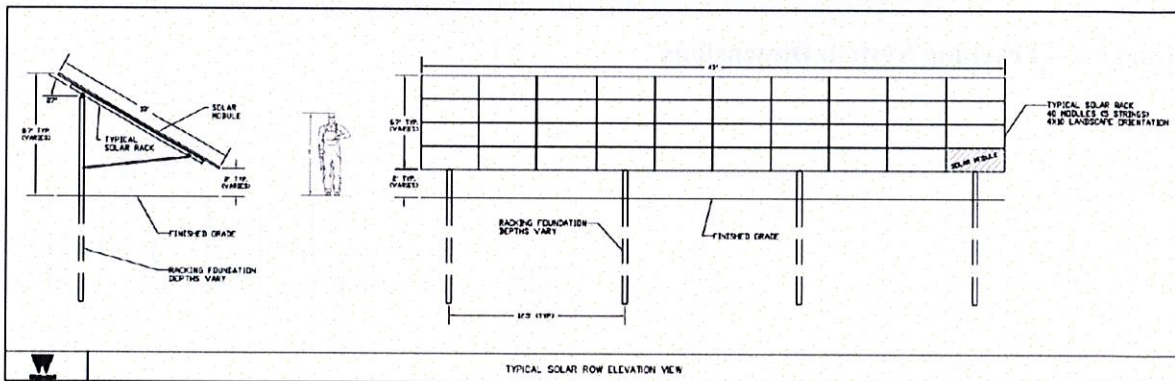


Image 3 – Tracking System Racking

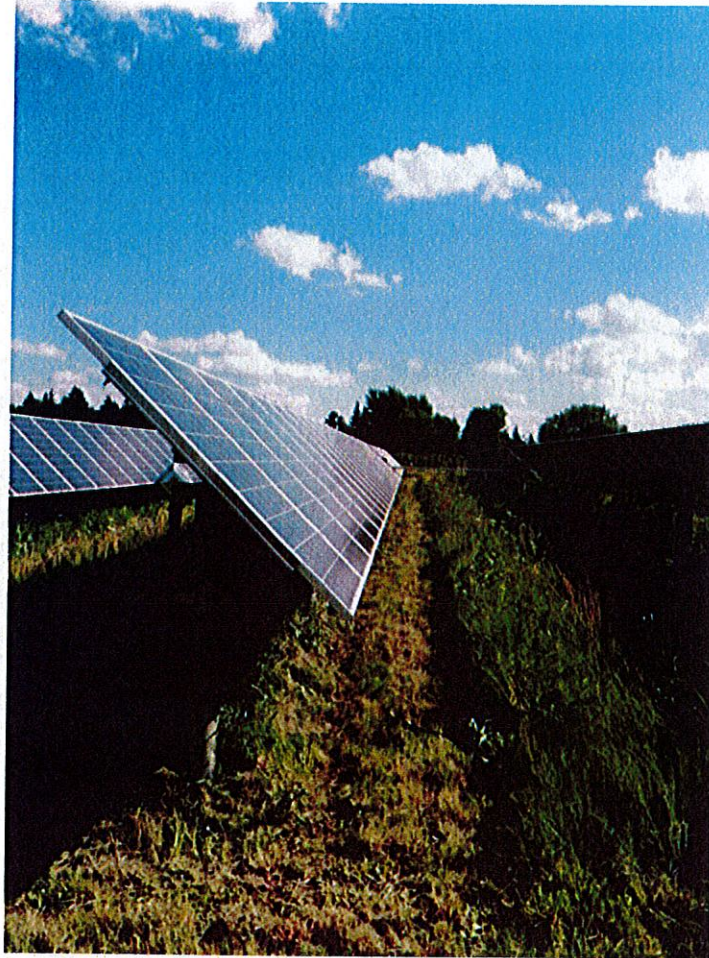
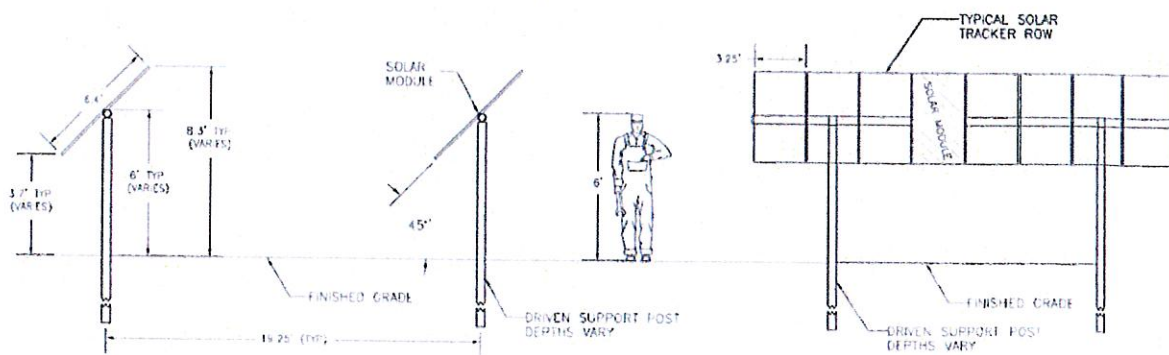


Image 4 – Tracking System Dimensions



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Image 5 – Standard Steel Pier Foundations



2.4.5 Aesthetics

To limit reflection, solar PV panels are constructed of dark, light-absorbing materials. Today's panels reflect as little as two percent of the incoming sunlight depending on the angle of the sun and assuming use of anti-reflective coatings.

The solar array will occupy most of The Project site for the solar facilities. The electrical transformers and inverters, and access roads complete the solar project. Most of the facility, including the solar field, will be low-profile. Currently, the proposed generation tie line will be built underground to the point of interconnection with Xcel Energy infrastructure.

2.4.6 Operations and Maintenance

Arcturus will be professionally maintained and operated. Primary tasks include scheduled monthly and quarterly inspection(s) of electrical equipment, vegetation management as well as snow removal on access drives as needed

Sample seed mixes have been provided in Appendix D. Final seed mixes will be submitted prior to construction. Up to three different seed mixes will be utilized on site: vegetation within the

array, vegetation in open area-between the array and fence, and wetland/stormwater basin seed mix if applicable.

3 Compliance with Le Sueur County Solar Energy Systems

3.1 TABLE 2: COMPLIANCE WITH LE SUEUR COUNTY LAND USE AND ZONING ORDINANCE

3.2

	Requirements per Subdivision 2 of the Le Sueur County Ordinance for Conditional Use Applications	Arcturus response in fulfilling ordinance requirements
1.	Include the name and address of the applicant and/or landowner of the site and any architect, professional engineer and contractor employed by the applicant.	See Cover Page and Appendix A (Conditional Use Application Form)
2.	Shall be accompanied by such plans, elevations and site plans as prescribed by the Planning Commission and shall be filed at least twenty (20) days prior to the hearing.	See Site Plan in Appendix B
3.	Include any copies of any necessary State and Federal Permits.	To the extent applicable, the Project will comply with all other local, state, and federal regulatory standards and obtain any necessary permits.
4.	Setbacks	See Table 1 for a list of setbacks.
6.	A certificate of insurance, if applicable, shall be filed with the department prior to the issuance of the conditional use permit.	See Certificate of Insurance in Appendix L

3.3 CONDITIONAL USE FINDINGS RESPONSES

Arcturus is providing proposed responses to the Ordinance requirement of Conditional Use Findings found in Le Sueur County Ordinance: Section 21, Subdivision 2, N (1)-(5).

- 1. The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminishes and impairs property values within the immediate vicinity.**

Arcturus will not be injurious to the neighboring properties as permitted. Arcturus is low profile, does not create odors and virtually noiseless. Further, the nearby landscape contains numerous mining operations and the project blends well into that landscape. Arcturus is setback approximately 500 feet from the nearest resident, allowing substantial buffer to mitigate visual impacts. Additionally, the drainage of the property will be improved with the conversion of tillable acreage to a stable habitat

- 2. The establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding vacant property for uses predominant in the area.**

Arcturus does not impede the development and improvement of surrounding vacant property for uses predominant in the area.

- 3. The adequate utilities, access roads, drainage and other facilities have been or are being provided.**

The Project does not require water or other utilities. All electrical connections will be completed by the Project and Xcel Energy to the standards that are required to connect into the grid. Gravel access roads will be required to access inverters for repair. Best Management Practices (BMPs) and industry standard practices will be implemented for drainage and soil erosion control. Permits for construction, including NPDES, and SWPPP plans will be completed prior to construction.

Drainage will be improved on site and soil erosion control measures are outlined in the Plan set provided, which includes the use of silt fences and composite matting. Management of stormwater during operations will occur on site.

- 4. The adequate measures have been or will be taken to provide sufficient off-street parking and loading space to serve the proposed use.**

Arcturus will have a laydown area during construction that will provide off-street parking for employees on site and off-loading space for the delivery of equipment. During the operational phase of the project, parking is not needed outside of the fenced area due to the low traffic nature of the project. Vehicles servicing the area will be able to park inside the fence.

- 5. The adequate measures have been or will be taken to prevent and control offensive odor, fumes, dust, noise and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result.**

During the operational phase of the project, Arcturus will not produce odor, fumes, dust, vibration and virtually no noise. Inverters will produce sound and on average, inverter sound will be reduced to 50 dB(a) at approximately 100 feet. The inverters, as proposed, will be located away from any neighboring residents. Arcturus may have security lighting at the entrance that will be down lit and manually controlled. There may be lights at each inverter that will be down lit and switch controlled for repair purposes. Lighting will be designed and constructed to meet or exceed the Outdoor Lighting Standards in Section 19 Subdivision 8 of the Le Sueur County Zoning Ordinance.

Additional information on Arcturus for the application process:

Site Plan of Existing and Proposed Conditions

See Appendix B.

Decommissioning

A decommissioning plan has been provided in Appendix H.

Compliance with MPCA Construction Stormwater Permits

The Project will adhere to any MPCA construction permit requirements, including a NPDES.

Compliance with State Electric Code

The Project will comply with all state electric code requirements.

Stormwater Management and Erosion Sediment Control

Arcturus will meet the requirements of the MPCA Construction Stormwater Permit Requirements.

Foundations

Construction plans signed by an engineer will be submitted prior to construction.

Other Standards and Codes

Arcturus will be in compliance with any applicable local, state, and federal regulatory standards.

Power and Communication Lines

Power lines within the fenced area will be underground to the extent practical.

Wetlands

A wetland delineation has been completed. Furthermore, all applicable local, state, and federal wetland approvals and permits will be completed prior to construction.

4 Conclusion

The Project as designed and planned complies with Le Sueur County's Conditional Use Permit process. Arcturus is working in close coordination with the landowner of the Project site, and will continue to engage the surrounding neighbors and the community as the Project develops. Arcturus Community Solar Garden, LLC respectfully requests that Le Sueur County's Board of Commissioners approve and permit the Project.

Appendix A

Legal Description & Lease Memorandum

Parcel 1:

All that part of the Southeast Quarter of Section 33, Township 110 North, Range 26 West, described as: commencing at the Southeast corner of said Section 33; thence South 90 degrees 00 minutes 00 seconds West (assumed bearing), along the South line of the Southeast Quarter of Section 33, a distance of 1091.75 feet to the point of beginning; thence continuing South 90 degrees 00 minutes 00 seconds West along said South line 588.65 feet; thence North 10 degrees 16 minutes 00 seconds East 1401.51 feet; thence South 86 degrees 34 minutes 00 seconds West and parallel, with the centerline of the C. M., St. P. & P. R.R., 184.96 feet to the Easterly right-of-way line of Highway 22; thence North 10 degrees 22 minutes 00 seconds East along said highway right of way line, 50.82 feet to the Southerly right of way line of the C. M., St. P. & P. R.R.; thence Easterly, Northerly, and Easterly along said Southerly railroad right of way line to a point which bears North 10 degrees 16 minutes 00 seconds East from the point of beginning; thence South 10 degrees 16 minutes 00 seconds West 1514.33 feet to the point of beginning, Le Sueur County, Minnesota.

Parcel 2: All that part of the Southeast Quarter of Section 33 lying North of the right of way line of the Chicago, Milwaukee & St. Paul Railroad, and that part of the West half of the West 60 acres of the Southwest Quarter of Section 34 lying South of the creek centerline and North of the right of way line of the Chicago, Milwaukee & St. Paul Railroad, all in Township 110 North, Range 26 West, more particularly described as: Commencing at the point of intersection of the Easterly right of way line of Minnesota Trunk Highway No. 22 with the East-West centerline of Section 33; thence Southerly along said Easterly Highway right of way line, 229.15 feet to a point on the South line of the North 225.00 feet of the Southeast

Quarter of Section 33, said point being the point of beginning; thence Easterly along a line parallel with and distant 225.00 feet Southerly of the East-West centerline of Section 33, a distance of 860 feet, more or less, to a point on the West line of the East 570 feet of the Southeast Quarter of Section 33, thence Southerly along said west line 305.00 feet; thence Easterly along a line parallel with and distant 530.00 feet Southerly of the East-West centerline of Section 33, a distance of 300.00 feet; thence Northerly along a line parallel with and distant 270.00 feet Westerly of the East line of Section 33, a distance of 35.00 feet to a point on the South line of the North 495.00 feet of the Southeast Quarter of Section 33; thence Easterly along said South line, 65 feet, more or less, to a point on the centerline of Chankaska Creek as the same is now located; thence in a Southerly, Easterly, and Northeasterly direction, along said creek's centerline, 1140 feet, more or less, to the intersection with the East line of the West half of the West 60 acres of the Southwest Quarter of Section 34; thence Southerly along said East line, 500 feet, more or less, to the intersection with the Northerly right of way line of the Chicago, Milwaukee and St. Paul railroad; thence southwesterly along said railroad right of way line, 2125 feet, more or less, to the intersection with the Easterly right-of-way line of Highway 22; thence Northerly along said Easterly highway right-of-way line 880 feet, more or less, to the point of beginning, Le Sueur County, Minnesota,

EXCEPT that part of the Southeast Quarter of Section 33, Township 110 North, Range 26 West, Le Sueur County Minnesota, described as: Commencing at the Northeast corner of the Southeast Quarter of Section 33; thence North 89 degrees 30 minutes 39 seconds West (assumed bearing) on the North line of the Southeast Quarter of Section 33, a distance of 570.00 feet; thence South 00 degrees 54 minutes 21 seconds West, parallel with the East line of the Southeast Quarter of Section 33, a distance of 225.00 feet to the point of beginning; thence North 89 degrees 30 minutes 39 seconds West, parallel with the North line of the Southeast Quarter of Section 33, a distance of 200.00 feet; then South 00 degrees 54 minutes 21 seconds West; parallel with the East line, 287 feet more or less to the centerline of a creek; thence Easterly along the centerline of said creek, 219 feet more or less to a point on a line which bears South 00 degrees 54 minutes 21 seconds West from the point of beginning; thence North 00 degrees 54 minutes 21 seconds East, parallel to said East line 301 feet more or less to the point of beginning, and,

EXCEPT that part of the West half of the West 60 acres of the Southwest Quarter of Section 34 lying South of the creek centerline and North of the right of way line of the Chicago, Milwaukee & St. Paul Railroad.

Being Abstract Land.

Certified filed and or
recorded on above date

SHARON J. BUDIN, RECORDER
Le Sueur County, Minnesota

Pages 8 SAB

Well Cert Received
Well Cert Not Required

Drafted by and return to:
Arcturus Community Solar Gardens, LLC
c/o Geronimo Energy, LLC
7650 Edinborough Way, Suite 725
Edina, MN 55435

MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT

THIS MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT ("Memorandum of Lease") is entered into this 20th day of March, 2017 by and between Lundin Family, LLC, a Minnesota limited liability company ("Lessor") and Arcturus Community Solar Gardens, LLC, a Minnesota limited liability company, and its successors and assigns ("Lessee").

RECITALS:

A. Lessor is the owner of certain property in the County of Le Sueur, State of Minnesota, and being more particularly described in Schedule A attached hereto and made a part hereof (the "Property").

B. Lessor and Lessee have entered into a certain Land Lease and Solar Easement dated March 20, 2017 (the "Lease Agreement"), whereby Lessor has agreed to lease to Lessee a portion of the Property (as identified in Schedule A-1 and more fully described in the Lease Agreement, the "Premises"), together with access easement rights and a Solar Easement across said Property.

C. The initial term of the Lease Agreement is for a period of three (3) years, commencing on the Effective Date and ending on the 20th day of March,

2020 (the "Development Period"). The Lease Agreement shall automatically be extended for a Construction Period, as defined below, upon the earlier of (i) the date when construction of solar facilities on the Premises commences ("Construction Date"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Construction Period ("Construction Period Notice Date"). The Construction Period of the Lease Agreement ("Construction Period") is two (2) years from the earlier of either of the Construction Date or the Extended Term Notice Date unless sooner terminated in accordance with the terms of the Lease Agreement. The Lease Agreement shall automatically be extended for an Extended Term, as defined below, upon the earlier of (i) the date when the Project begins commercial operation ("Commercial Operation Date"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Extended Term ("Extended Term Notice Date"). The Extended Term of the Lease Agreement ("Extended Term") is twenty five (25) years from the commencement of the Extended Date unless sooner terminated in accordance with the terms of the Lease Agreement. Lessee has a right to renew the Extended Term for three (3) additional periods of five (5) years upon written notice to Lessor.

D. The parties wish to give notice of the existence of such Lease Agreement.

IN CONSIDERATION of the sum of One and 00/100 Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Lessor and Lessee have entered into the Lease Agreement dated March 20th, 2017 (the "Effective Date") to lease and demise the Premises for solar energy purposes and to grant access and solar easements. Pursuant to the Lease Agreement, Lessee has the exclusive right to use the Premises for commercial solar energy purposes, together with certain related solar, access and other easement rights and other rights related to the Premises, all as more fully described in the Lease Agreement. Commercial solar energy purposes means converting solar energy into electrical energy and collecting and transmitting the electrical energy so converted, together with any and all activities related thereto.

2. Lessor shall have no ownership and other interest in any solar facilities installed on the Premises by Lessee, except as provided in Section 4.3 of the Lease and Lessee may remove any or all solar facilities at any time.

3. Lessee and any successor or assign of Lessee has the right under the Lease, without need for Lessor's consent, to do any of the following, conditionally or unconditionally, with respect to all or any portion of the Premises for solar energy purposes: grant co-leases, separate leases, subleases, easements, licenses or similar rights (however denominated) to one or more third parties; or sell, convey, lease, assign, mortgage, encumber or transfer to one or more third parties or to any affiliate of Lessee's this Lease, or any right or interest in this Lease, or any or all right or interest of Lessee in the Premises or in any or all of the solar power facilities that Lessee or any other party may now or hereafter install on the Premises provided that (i) any such assignment, transfer or conveyance shall not be for a period beyond the term of the Lease; (ii) the assignee or transferee shall be subject to all of the obligations, covenants and conditions applicable to the Lessee; and (iii) Lessee shall not be relieved from liability for any of its obligations under the

Lease by virtue of the assignment or conveyance unless Lessee assigns or conveys all of its interests under the Lease to the assignee or transferee, in which event Lessee shall have no continuing liability.

4. The Lease Agreement and the easement and rights granted Lessee therein shall burden the Property and shall run with the land. The Lease Agreement shall inure to the benefit of and be binding upon and Lessee and, to the extent provided in any assignment or other transfer under the Lease Agreement, any assignee or Lessee, and their respective heirs, transferees, successors and assigns, and all persons claiming under them.

5. This Memorandum of Lease has been executed and delivered by the parties for the purpose of recording and giving notice of the lease and easement rights in accordance with the terms, covenants and conditions of the Lease Agreement.

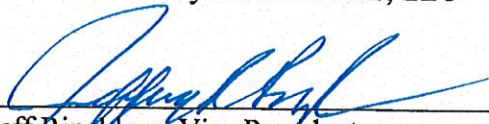
6. The terms and conditions of the Lease Agreement are incorporated by reference into this Memorandum of Lease as if set forth fully herein at length. In the event of any conflict between the terms and provisions of the Lease Agreement and this Memorandum of Lease, the Lease Agreement shall control.

The remainder of this page is intentionally blank.

LESSEE SIGNATURE PAGE

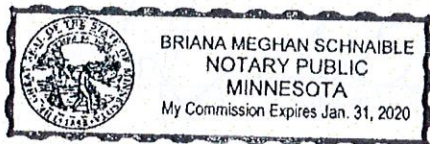
LESSEE

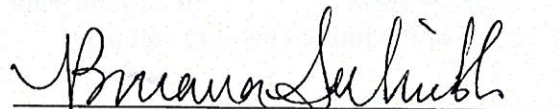
Arcturus Community Solar Gardens, LLC

By: 
Jeff Ringblom, Vice President

STATE OF Minnesota)
COUNTY OF Hennepin) ss.

The foregoing instrument was acknowledged before me this 20th day of March, 2017, by Jeff Ringblom, the Vice President of Arcturus Community Solar Gardens, LLC, a Minnesota limited liability company, on behalf of the limited liability company.




Notary Public

LESSOR SIGNATURE PAGE

LESSOR
Lundin Family, LLC

By: _____

Name: _____

Its: _____

STATE OF MINNESOTA)
) ss.
COUNTY OF Hennepin)

The foregoing instrument was acknowledged before me this 14th day of March, 2017, by Richard C Lundin II, as Partner of Lundin Family, LLC, a Minnesota limited liability company, on behalf of the limited liability company.

Notary Public



**SCHEDULE A
TO MEMORANDUM**

DESCRIPTION OF PROPERTY

Tax Parcel No.: 05.033.5200

All that part of the Southeast Quarter of Section 33, Township 110 North, Range 26 West, described as: commencing at the Southeast corner of said Section 33; thence South 90 degrees 00 minutes 00 seconds West (assumed bearing), along the South line of the Southeast Quarter of Section 33, a distance of 1091.75 feet to the point of beginning; thence continuing South 90 degrees 00 minutes 00 seconds West along said South line 588.65 feet; thence North 10 degrees 16 minutes 00 seconds East 1401.51 feet; thence South 86 degrees 34 minutes 00 seconds West and parallel with the centerline of the C. M., St. P. & P. R.R., 184.96 feet to the Easterly right-of-way line of Highway 22; thence North 10 degrees 22 minutes 00 seconds East along said highway right of way line, 50.82 feet to the Southerly right of way line of the C. M., St. P. & P. R.R.; thence Easterly, Northerly, and Easterly along said Southerly railroad right of way line to a point which bears North 10 degrees 16 minutes 00 seconds East from the point of beginning; thence South 10 degrees 16 minutes 00 seconds West 1514.33 feet to the point of beginning.

AND

All that part of the Southeast Quarter of Section 33 lying North of the right of way line of the Chicago, Milwaukee & St. Paul Railroad, and that part of the West Half of the West 60 acres of the Southwest Quarter of Section 34 lying South of the creek centerline and North of the right of way line of the Chicago, Milwaukee & St. Paul Railroad, all in Township 110 North, Range 26 West, more particularly described as: Commencing at the point of intersection of the Easterly right of way line of Minnesota Trunk Highway No. 22 with the East-West centerline of Section 33; thence Southerly along said Easterly Highway right of way line, 229.15 feet to a point on the South line of the North 225.00 feet of the Southeast Quarter of Section 33, said point being the point of beginning; thence Easterly along a line parallel with and distant 225.00 feet Southerly of the East-West centerline of Section 33, a distance of 860 feet, more or less, to a point on the West line of the East 570 feet of the Southeast Quarter of Section 33, thence Southerly along said west line 305.00 feet; thence Easterly along a line parallel with and distant 530.00 feet Southerly of the East-West centerline of Section 33, a distance of 300.00 feet; thence Northerly along a line parallel with and distant 270.00 feet Westerly of the East line of Section 33, a distance of 35.00 feet to a point on the South line of the North 495.00 feet of the Southeast Quarter of Section 33; thence Easterly along said South line, 65 feet, more or less, to a point on the centerline of Chankaska Creek as the same is now located; thence in a Southerly, Easterly, and Northeasterly direction, along said creek's centerline, 1140 feet, more
(Continued on next page)

or less, to the intersection with the East line of the West half of the West 60 acres of the Southwest Quarter of Section 34; thence Southerly along said East line, 500 feet, more or less, to the intersection with the Northerly right of way line of the Chicago, Milwaukee and St. Paul railroad; thence southwesterly along said railroad right of way line, 2125 feet, more or less, to the intersection with the Easterly right-of-way line of Highway 22; thence Northerly along said Easterly highway right-of-way line 880 feet, more or less, to the point of beginning. EXCEPT that part of the Southeast Quarter of Section 33, Township 110 North, Range 26 West, Le Sueur County, Minnesota, described as: Commencing at the Northeast corner of the Southeast Quarter of Section 33; thence North 89 degrees 30 minutes 39 seconds West (assumed bearing) on the North line of the Southeast Quarter of Section 33, a distance of 570.00 feet; thence South 00 degrees 54 minutes 21 seconds West, parallel with the East line of the Southeast Quarter of Section 33, a distance of 225.00 feet to the point of beginning; thence North 89 degrees 30 minutes 39 seconds West, parallel with the North line of the Southeast Quarter of Section 33, a distance of 200.00 feet; thence South 00 degrees 54 minutes 21 seconds West; parallel with said East line, 287 feet more or less to the centerline of a creek; thence easterly along the centerline of said creek, 219 feet more or less to a point on a line which bears South 00 degrees 54 minutes 21 seconds West from the point of beginning; thence North 00 degrees 54 minutes 21 seconds East, parallel to said East line 301 feet more or less to the point of beginning. Said exception contains 1.3 acres of land more or less .
The parcel contains 42.74 acres.

Appendix B
Preliminary Site Plans

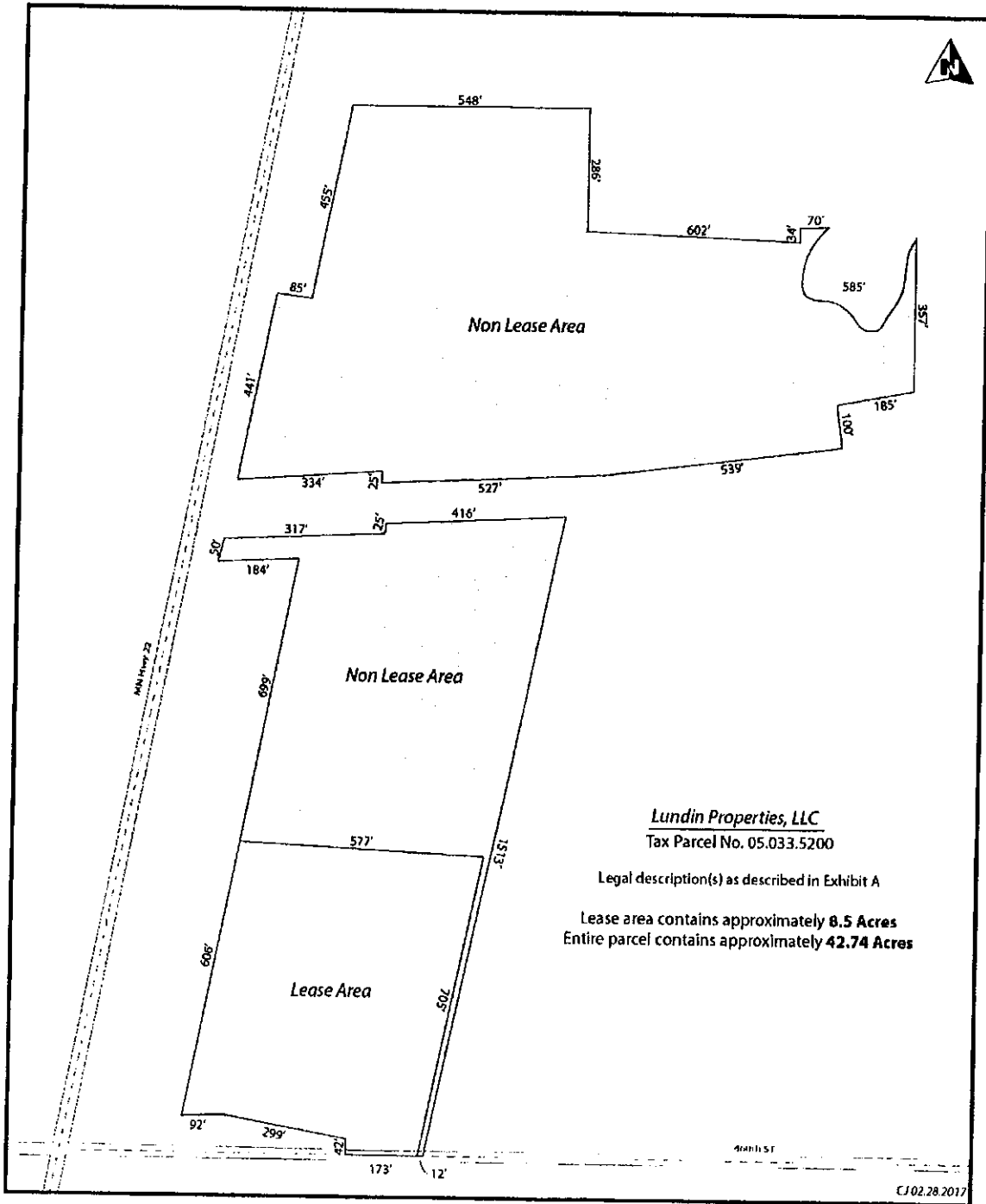
October 6, 2017

Conditional Use Permit Application

Page 16 of 22

SCHEDULE A-1
TO MEMORANDUM

SITE PLAN



Arcturus Community Solar Garden, LLC

1-MW AC Solar Array Le Sueur County, MN Conditional Use Permit Plan

Westwood

Phone (952) 937-5150 7699 Anagram Drive
 Fax (952) 937-5822 Eden Prairie, MN 55344
 Toll Free (888) 937-5150 westwoodps.com
 Westwood Professional Services, Inc.

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Print Name August Dean Christensen

Signature *[Signature]*

License No. 4723 Date: 10/03/2017

Designed: *[Signature]* PFS

Checked: MPG

Drawn: PFS

Record Drawing by/date:

#	DATE	DESCRIPTION
A	10/03/17	Issued for Permit

Prepared for:



Legal Description

See ALTA Survey for Legal Description

Project Zoning

Zoning District- Agricultural & Mineral Overlay

Project Description

1 MW-AC Fixed Tilt Solar Array Project

Basis of Elevation

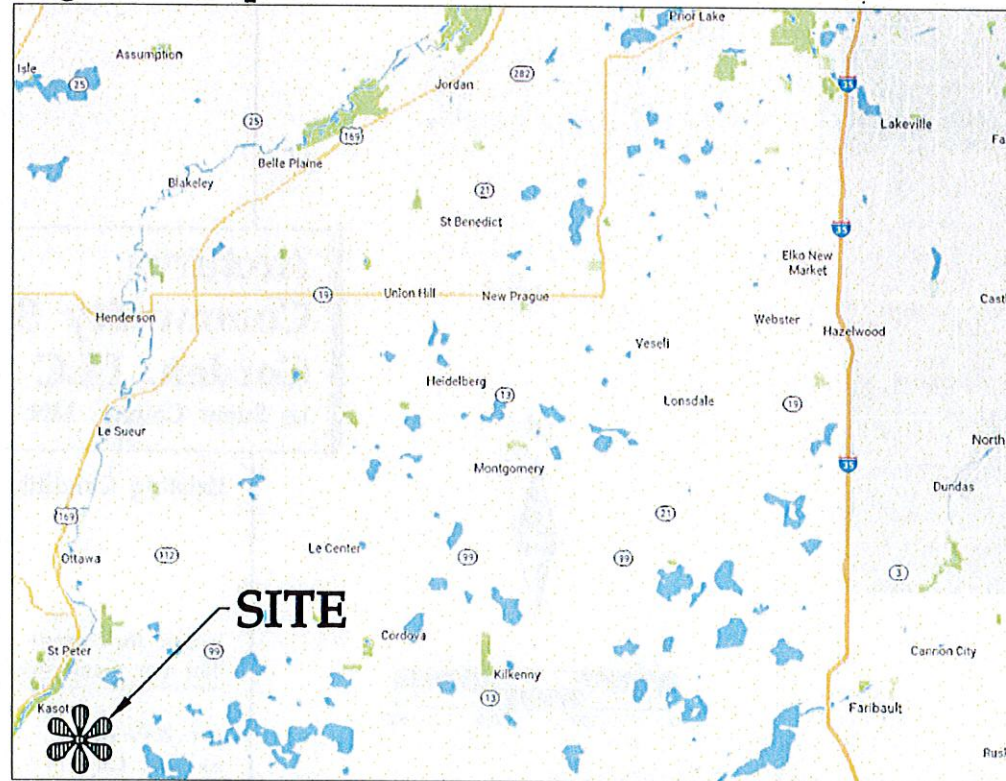
Contours shown were generated from publicly available LIDAR data from the state of Minnesota.

Sheet List Table	
Sheet Number	Sheet Title
T.100	COVER
C.100	EXISTING CONDITIONS
C.200	CIVIL SITE PLAN
C.201	DRAINAGE PLAN
C.202	SEEDING PLAN
C.300	CONSTRUCTION DETAILS
C.301	CONSTRUCTION DETAILS
C.302	CONSTRUCTION DETAILS

Project Contact Information			
Consultant	Company	Name	Phone No.
Developer	Geronimo Energy	Andy Catania	(952) 641-4038
Civil Engineer	Westwood	August Christensen	(952) 906-7430
Land Surveyor	Westwood	Chris Hoglund	(952) 906-7453

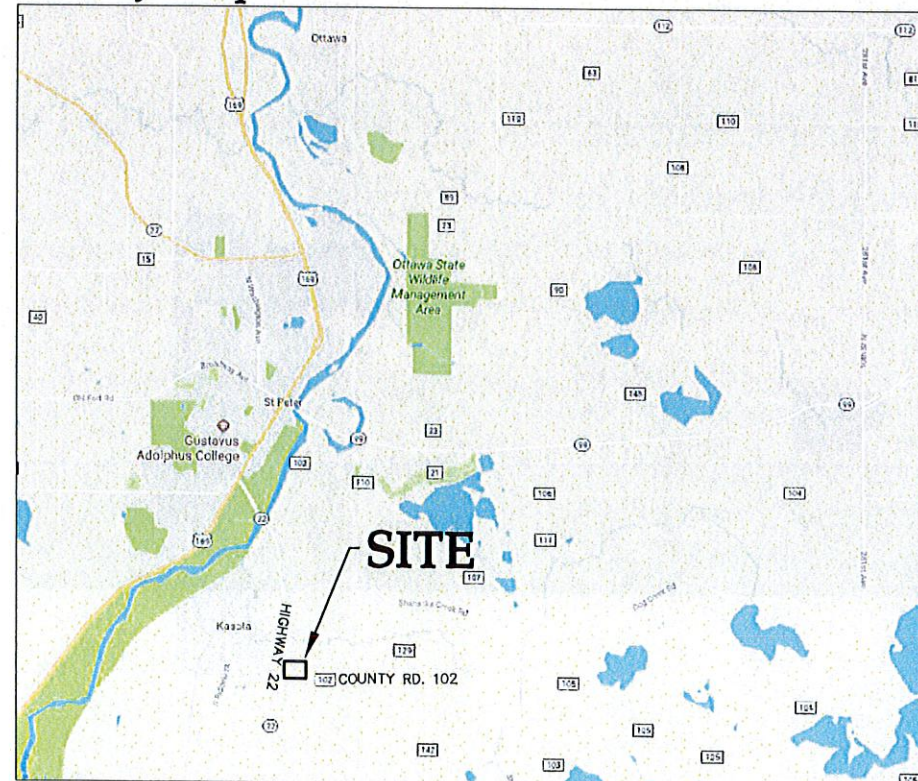
Data Set Information			
Base File	File Name	Provider	Date
PV Array	0011585PVSITE.dwg	Westwood	07/12/2017
ALTA	0011585SURV.dwg	Westwood	07/12/2017
Topo	0011585DTM.dwg	MN Lidar	07/11/2017

Regional Map



SOURCE: MAP DATA ©2017 GOOGLE (NOT TO SCALE)

Vicinity Map



SOURCE: MAP DATA ©2017 GOOLGE (NOT TO SCALE)

**Arcturus
Community Solar
Garden, LLC**
Le Sueur County, MN

Cover

Issued for Permit
Not For Construction

Date: 10/03/2017

Drawing No: T.100

0011585CVP01.dwg

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Print Name August Dean Christensen

Signature *[Signature]*

License No. 4773 Date 10/03/2017

Designed: JTB

Checked: MPG

Drawn: JTB

Record Drawing by/date:

Revision #	DATE	DESCRIPTION
A	10/03/17	Issued for Permit

Prepared for:

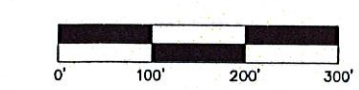


Geronimo Energy,
 7650 Edinborough Way, Suite 725
 Edina, MN 55435

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING SECTION LINE
- EXISTING EASEMENT LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD POWERLINE
- EXISTING FENCE
- 1070
1072 EXISTING INDEX CONTOUR LINE
- EXISTING INTERVAL CONTOUR LINE
- EXISTING PAVED ROAD
- ▨ PROJECT LEASE AREA
- 1.01% SLOPE LINE
- EXISTING VEGETATION LINE

Existing Land Use		
Agricultural	8.8 acres	100%
Total Area	8.8 acres	100%



**Arcturus
 Community Solar
 Garden, LLC**
 Le Sueur County, MN

Existing Conditions

Issued for Permit
 Not For Construction

Date: 10/03/2017

Drawing No: C.100

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Print Name August Dean Christensen

Signature [Signature]

License No. 4773 Date: 10/05/2017

Designed: ITA

Checked: MPG

Drawn: ITA

Record Drawing by/date:

Revisions:

#	DATE	DESCRIPTION
A	10/05/17	Issued for Permit

Prepared for:



Geronimo Energy,
 7650 Edinborough Way, Suite 725
 Edina, MN 55435

LEGEND:

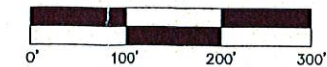
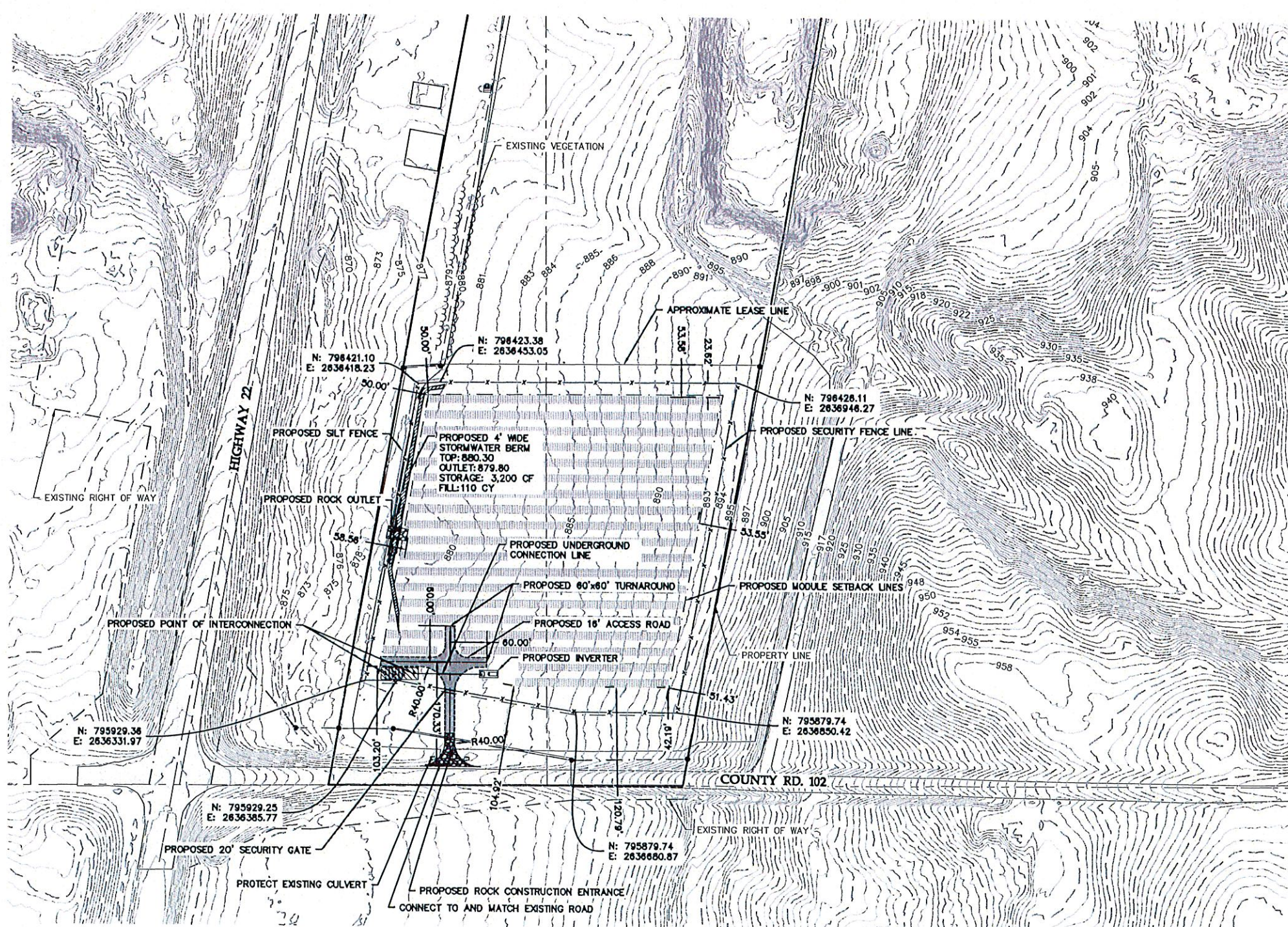
- EXISTING PROPERTY LINE
- EXISTING SECTION LINE
- EXISTING EASEMENT LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD POWERLINE
- EXISTING FENCE
- 1070--- EXISTING INDEX CONTOUR LINE
- 1072--- EXISTING INTERVAL CONTOUR LINE
- EXISTING PAVED ROAD
- EXISTING VEGETATION LINE
- PROPOSED SECURITY FENCE LINE
- PROPOSED MODULE SETBACK LINE
- SF --- PROPOSED SILT FENCE LINE
- PROPOSED SOLAR ARRAY
- PROPOSED ELECTRICAL EQUIPMENT
- PROPOSED ACCESS ROAD
- PROPOSED 5' CONTOURS
- PROPOSED 1' CONTOURS
- PK --- PROPOSED UNDERGROUND CONNECTION LINE
- STORM WATER BERM

NOTES:

COORDINATES SHOWN ARE NAD83
 MINNESOTA STATE PLANES, SOUTH ZONE,
 US FOOT.

Project Module Setbacks

Item	Required	Designed
FRONT-COUNTY RD. 102	75' FROM ROW	103.2' FROM ROW
SIDE	50'	50'
REAR	50'	50'
FENCE	OUTSIDE OF ROW	
HEIGHT	MAXIMUM OF 35'	



**Arcturus
 Community Solar
 Garden, LLC**
 Le Sueur County, MN

Civil Site Plan

Issued for Permit
 Not For Construction

Date: 10/03/2017

Drawing No: C.200

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Print Name August Dean Christensen

Signature *[Signature]*

License No. 4773 Date: 10/03/2017

Designed: BTB

Checked: MPG

Drawn: BTB

Record Drawing by/date

Revision #	DATE	DESCRIPTION
A	10/03/17	Issued for Permit

Prepared for:



Geronimo Energy,
 7630 Edinborough Way, Suite 725
 Edina, MN 55435

**Arcturus
 Community Solar
 Garden, LLC**
 Le Sueur County, MN

Drainage Plan

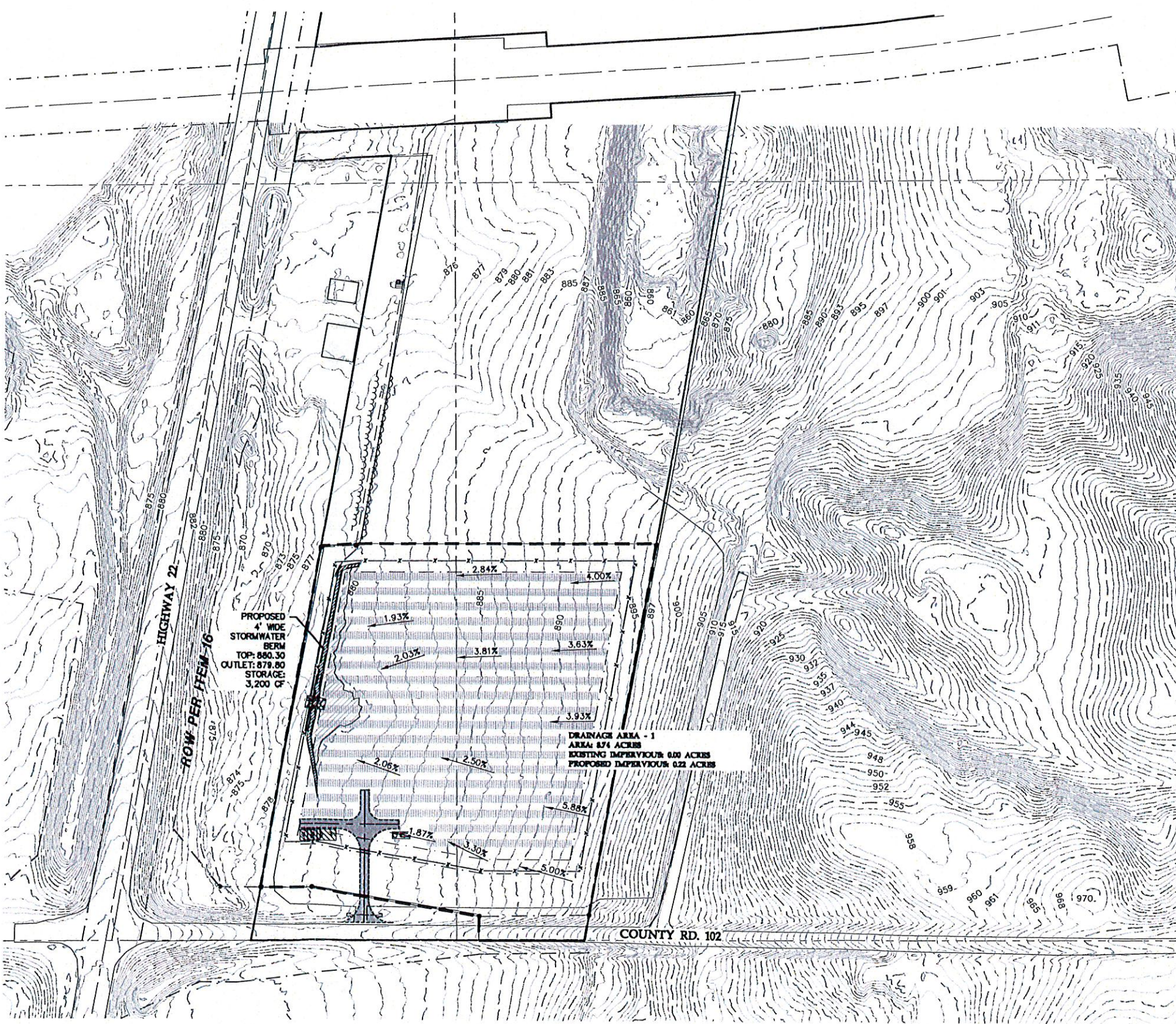
Issued for Permit
 Not For Construction

Date: 10/03/2017

Drawing No: C.201

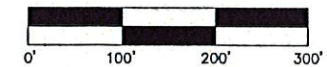
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- LEGEND:**
- EXISTING PROPERTY LINE
 - - - - - EXISTING INDEX CONTOUR LINE
 - 1072 EXISTING INTERVAL CONTOUR LINE
 - - - - - EXISTING RIGHT OF WAY LINE
 - - - - - EASMENT LINES
 - EXISTING OVERHEAD POWERLINE
 - ~ ~ ~ EXISTING VEGETATION LINE
 - ▭ EXISTING ROADWAY
 - x - x - PROPOSED SECURITY FENCE LINE
 - - - - - PROPOSED MODULE SETBACK LINE
 - ▨ PROPOSED SOLAR ARRAY
 - ▭ PROPOSED ELECTRICAL EQUIPMENT
 - ▨ PROPOSED ACCESS ROAD
 - - - - - DRAINAGE BOUNDARY
 - - - - - LEASE LINE
 - 1.01% SLOPE LINE
 - ▨ STORM WATER STORAGE AREA



PROPOSED 4' WIDE STORMWATER BERM
 TOP: 880.30
 OUTLET: 879.80
 STORAGE: 3,200 CF

DRAINAGE AREA - 1
 AREA: 874 ACRES
 EXISTING IMPERVIOUS: 0.00 ACRES
 PROPOSED IMPERVIOUS: 0.22 ACRES



Vegetation Management

ONGOING MAINTENANCE OF THE SITE VEGETATION SHALL BE IN ACCORDANCE WITH THE "SOLAR ARRAY VEGETATION MANAGEMENT PLAN"

Legend

- x- DENOTES PROPOSED SECURITY FENCE
- OPEN AREA NATIVE POLLINATOR MIX (3.32 AC)
- ARRAY AREA GRASS MIX (5.02 AC)

Array Area Grass Mix

GRASSES SPECIES	% OF MIX	PLS. (LBS/ACRE)
BOUTELOUA CURTIPENDULA	35.00	77.00
CAREX VULPINOIDEA	2.00	4.40
FESTUCA LONGIFOLIA	7.00	15.40
FESTUCA OVINA SSP. HIRTULA	10.00	22.00
FESTUCA RUBRA VAR. COMMUTATE	6.00	13.2
FESTUCA RUBRA VAR. COMMUTATE	9.00	19.8
FESTUCA RUBRA VAR. RUBRA	10.00	22.00
FESTUCA RUBRA VAR. RUBRA	12.00	26.40
KOELERIA MACRANTHA	1.00	2.20
SPOBOBOLUS HETEROLEPIS	1.00	2.20
SIDE OATS GRAMA		
FOX SEDGE		
AURORA 2 HARD FESCUE		
SHEEPS FESCUE		
SHADOWS 2 CHEWING FESCUE		
MONULEA CHEWINGS FESCUE		
WENDY JEAN RED FESCUE		
CREEPING RED FESCUE		
JUNEGRASS		
PRAIRIE DROPSEED		

FORB SPECIES

ASTER OOLENTANGIENSIS	1.00	2.2
DALEA PURPUREA	1.00	2.2
MONARDA FISTULOSA	1.00	2.2
POTENTILLA ARGUTA	0.50	1.1
RUDBECKIA HIRTA	2.00	4.4
VERBENA STRICTA	0.50	1.1
ZIZIA AUREA	1.00	2.2
SKY-BLUE ASTER		
PURPLE PRAIRIE CLOVER		
WILD BERGAMOT		
PRAIRIE CINQUEFOIL		
BLACK-EYED SUSAN		
HOARY VERVAIN		
GOLDEN ALEXANDER		

- *NOTES
- * SPECIAL SEED MIX REQUESTED BY CLIENT
- * SEE IF CHANGES ARE NECESSARY FOR SPECIFIC LOCATION

Open Area Native Pollinator Mix

GRASS SPECIES	% OF MIX	PLS. (LBS/ACRE)
BOUTELOUA CURTIPENDULA	25.00	1.75
BOUTELOUA GRACILIS	10.00	0.70
BROMUS KALMI	2.50	0.18
ELYMUS VILLOSUS	10.00	0.70
KOELERIA MACRANTHA	1.50	0.11
SCHIZACHYRIUM SCOPARIUM	20.00	1.40
SPOBOBOLUS HETEROLEPIS	6.00	0.42

FORB SPECIES

ACHILLEA MILLEFOLIUM	0.50	0.04
AGASTACHE FOENICULUM	0.75	0.05
ALLIUM STELLATUM	0.50	0.04
ASCLEPIAS INCARNATA	1.00	0.07
ASCLEPIAS SYRIACA	1.00	0.07
ASCLEPIAS TUBEROSA	1.00	0.07
ASTER OOLENTANGIENSIS	1.25	0.09
ASTER LATIFLORUS	1.00	0.07
ASTER NOVAE-ANGLIAE	0.75	0.05
ASTRAGALUS CANADENSIS	1.00	0.07
DALEA CANDIDUM	2.00	0.14
DALEA PURPUREA	2.00	0.14
DESMODIUM CANADENSE	1.00	0.07
LIATRIS PYNOSTACHYA	1.00	0.07
MONARDA FISTULOSA	0.75	0.05
PENSTEMON GRACILIS	0.50	0.04
POTENTILLA ARGUTA	0.50	0.04
PTYCNANTHEMUM VIRGINIANUM	1.00	0.07
RATIBIDA PINNATA	0.75	0.05
RUDBECKIA HIRTA	1.50	0.11
SOLIDAGO RIGIDA	1.75	0.12
TRADESCANTIA BRACTEATA	0.50	0.04
VERBENA HASTATA	1.00	0.07
VERBENA STRICTA	1.00	0.07
ZIZIA AUREA	1.00	0.07
YARROW		
FRAGRANT HYSSOP		
PRAIRIE ONION		
MARSH MILKWEED		
COMMON MILKWEED		
BUTTERFLY MILKWEED		
SKY BLUE ASTER		
CALICO ASTER		
NEW ENGLAND ASTER		
CANADA WILK YETCH		
WHITE PRAIRIE CLOVER		
PURPLE PRAIRIE CLOVER		
CANADA TICK TREFOIL		
PRAIRIE BLAZING STAR		
WILD BERGAMOT		
SLENDER BEARDTONGUE		
PRAIRIE CINQUEFOIL		
MOUNTAIN MINT		
YELLOW CONEFLOWER		
BLACK-EYED SUSAN		
STIFF GOLDENROD		
PRAIRIE SPIDERWORT		
BLUE VERVAIN		
HOARY VERVAIN		
GOLDEN ALEXANDERS		

COVER CROP

TRITICUM AESTIVUM	WINTER WHEAT	---	10.0
-------------------	--------------	-----	------

- *NOTES
- * SPECIAL SEED MIX DESIGNED BY MINNESOTA NATIVE LANDSCAPES
- * SEE IF CHANGES ARE NECESSARY FOR SPECIFIC LOCATION
- * MINNESOTA NATIVE LANDSCAPES
8740 77TH STREET NE
OTSEGO, MN 55362

Westwood

Phone (952) 937-5150 7699 Anagram Drive
 Fax (952) 937-5822 Eden Prairie, MN 55344
 Toll Free (888) 937-5150 westwoodps.com
 Westwood Professional Services, Inc.

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Print Name August Donn Christensen

Signature *[Signature]*

License No. 4773 Date: 10/03/2017

Designed: BTB

Checked: MPG

Drawn: BTB

Record Drawing by/date:

Revisions:

DATE DESCRIPTION

A 10/03/17 Issued for Permit

Prepared for:



Geronimo Energy,
7650 Edinborough Way, Suite 725
Edina, MN 55435

**Arcturus
Community Solar
Garden, LLC**
Le Sueur County, MN

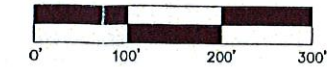
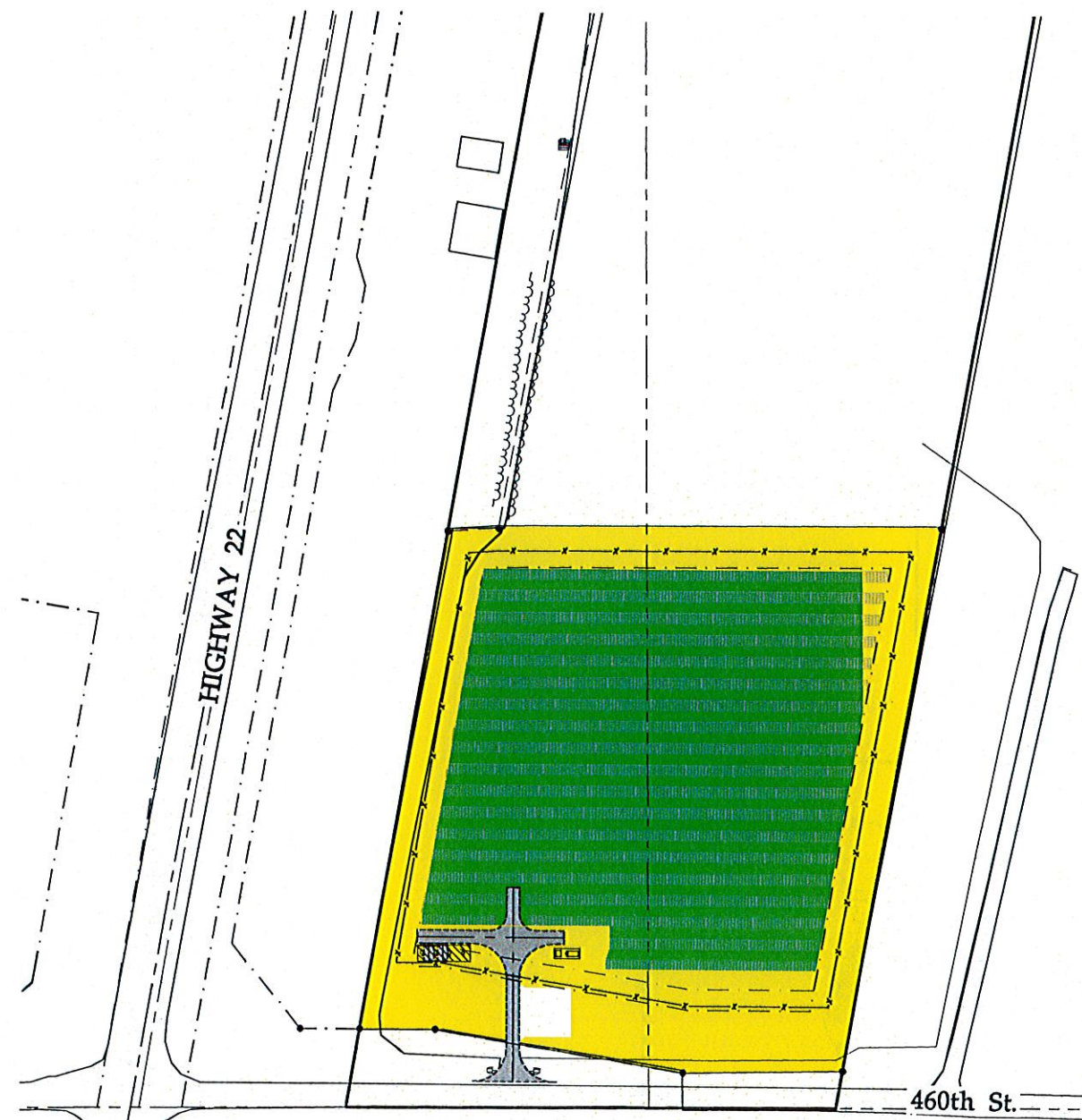
Seeding Plan

Issued for Permit
Not For Construction

Date: 10/03/2017

Drawing No: C.202

0011585SEEDF01.dwg



I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Print Name August Dean Christensen

Signature *[Signature]*

License No. 4773 Date 10/03/2017

Designed: BTB

Checked: MFG

Drawn: BTB

Record Drawing by/date:

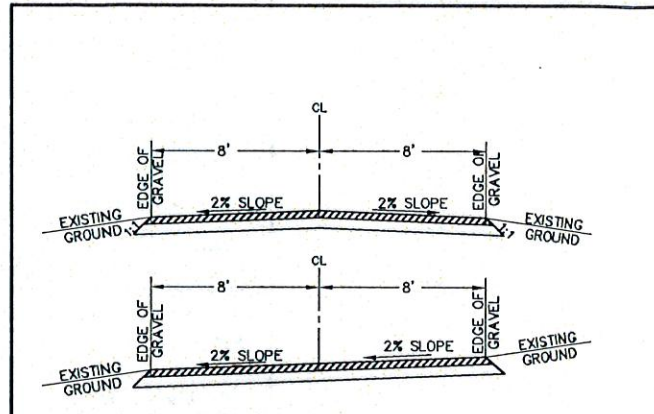
Revisions:

#	DATE	DESCRIPTION
A	10/03/17	Issued for Permit

Prepared for:



Geronimo Energy,
 7650 Edinborough Way, Suite 725
 Edina, MN 55435

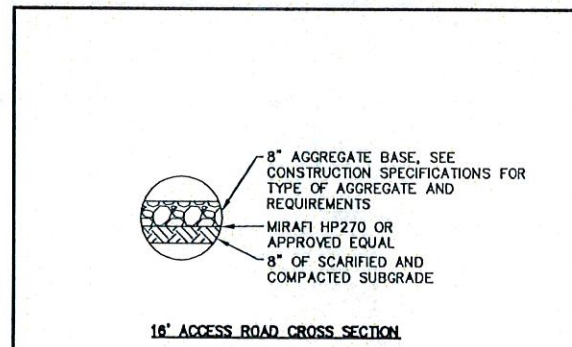


16' ACCESS ROADWAY

NOTES:

- CONTRACTOR SHALL CONSTRUCT CROSS-SLOPE ROAD SECTION WHERE ACCESS ROADS ARE CONSTRUCTED ON A SIDE SLOPE, AND WHERE OTHERWISE NOTED ON PLANS, TO ENSURE THAT ROADS AND SHOULDERS REMAIN WELL DRAINED AT ALL TIMES.

Westwood TYPICAL SOLAR ACCESS ROAD LAST REVISED: 11/27/14 RD01



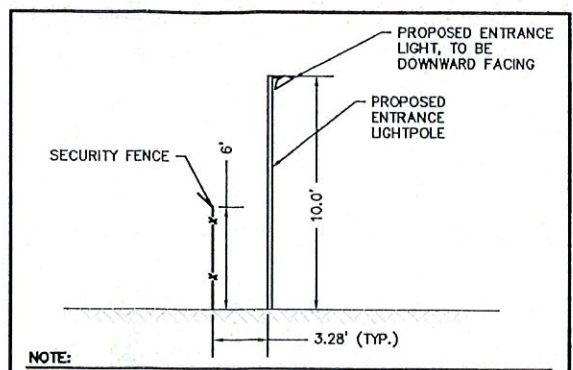
16' ACCESS ROAD CROSS SECTION

8" AGGREGATE BASE, SEE CONSTRUCTION SPECIFICATIONS FOR TYPE OF AGGREGATE AND REQUIREMENTS
 MIRAFI HP270 OR APPROVED EQUAL
 8" OF SCARIFIED AND COMPACTED SUBGRADE

NOTE:

- STRUCTURAL SECTIONS SHOWN ARE THE MINIMUM THICKNESS REQUIREMENTS DURING NORMAL FIELD CONDITIONS. THE SECTIONS MAY NEED TO BE INCREASED BASED ON ACTUAL FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. CONDITIONS INCLUDE BUT ARE NOT LIMITED TO CONSTRUCTION DURING UNUSUALLY WET PERIODS, OR IN LOW/WET AREAS.
- FINAL DESIGN MAY PROVIDE A DIFFERENT CROSS SECTION

Westwood TYPICAL STRUCTURAL CROSS SECTIONS LAST REVISED: 11/27/14 RD02



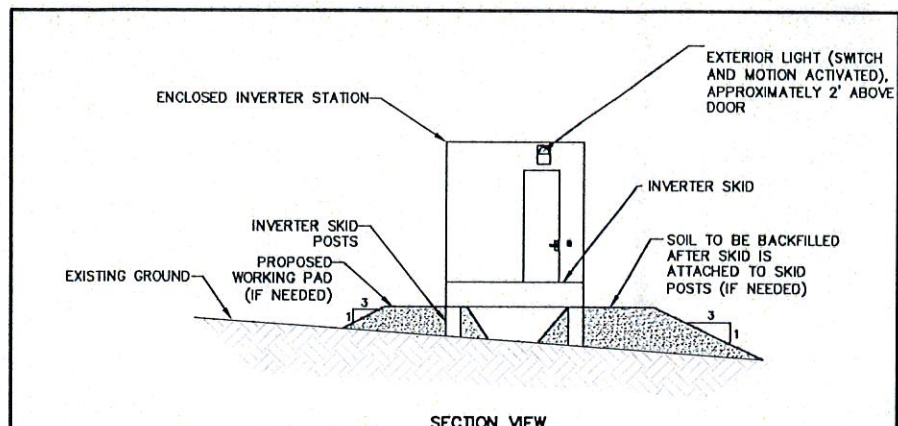
TYPICAL ENTRANCE LIGHTING

PROPOSED ENTRANCE LIGHT, TO BE DOWNWARD FACING
 PROPOSED ENTRANCE LIGHTPOLE
 SECURITY FENCE
 10.0'
 3.28' (TYP.)

NOTE:

- TYPICAL HEIGHT OF POLE WILL BE 10.0'
- BRIGHTNESS OF LIGHT SHALL BE BETWEEN 1500 AND 3000 LUMENS
- LIGHT ACTIVATION SHALL BE MANUAL AND AUTOMATIC BY THE SECURITY SYSTEM IN CASE OF AN INTRUSION (NON-MOTION ACTIVATED)
- LIGHT POLE SHALL BE PLACE APPROXIMATELY 3.28' INSIDE OF FENCE

Westwood TYPICAL ENTRANCE LIGHTING LAST REVISED: 10/22/13 LPO1



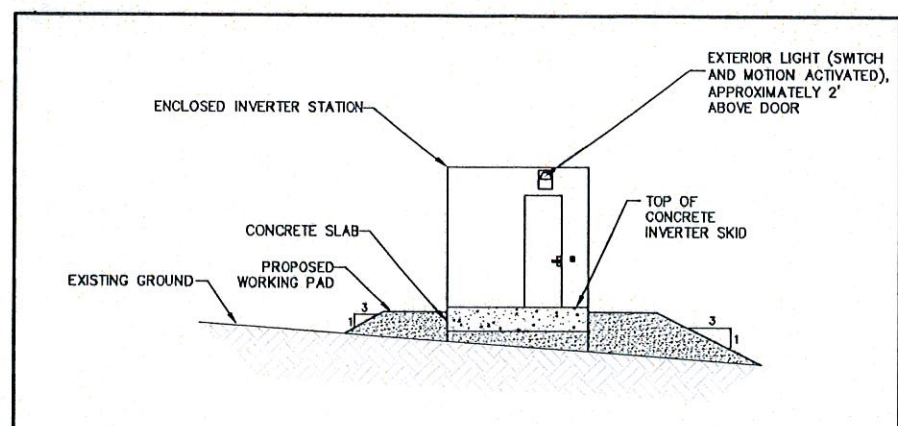
SECTION VIEW

ENCLOSED INVERTER STATION
 EXTERIOR LIGHT (SWITCH AND MOTION ACTIVATED), APPROXIMATELY 2' ABOVE DOOR
 INVERTER SKID
 INVERTER SKID POSTS
 SOIL TO BE BACKFILLED AFTER SKID IS ATTACHED TO SKID POSTS (IF NEEDED)
 PROPOSED WORKING PAD (IF NEEDED)
 EXISTING GROUND

NOTE:

- SOIL SHALL BE BACKFILLED AROUND INVERTER PAD IF A WORKING SURFACE IS NEEDED FOR ELECTRICAL EQUIPMENT

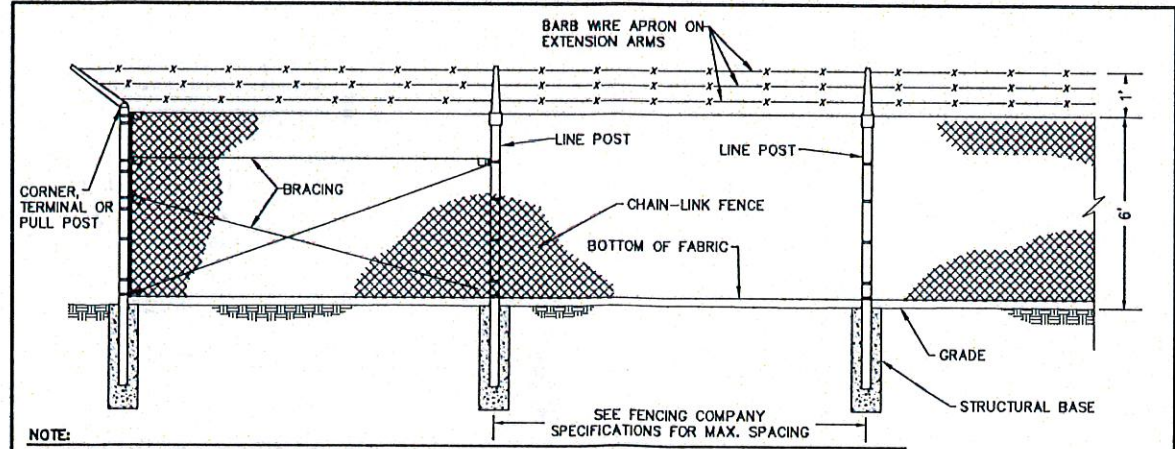
Westwood TYPICAL SOLAR INVERTER ON DRIVEN PILES LAST REVISED: 08/28/13 INV01



SECTION VIEW

ENCLOSED INVERTER STATION
 EXTERIOR LIGHT (SWITCH AND MOTION ACTIVATED), APPROXIMATELY 2' ABOVE DOOR
 CONCRETE SLAB
 TOP OF CONCRETE INVERTER SKID
 PROPOSED WORKING PAD
 EXISTING GROUND

Westwood TYPICAL SOLAR INVERTER ON CONCRETE SLAB LAST REVISED: 08/28/13 INV02



CHAIN-LINK SECURITY FENCE DETAIL

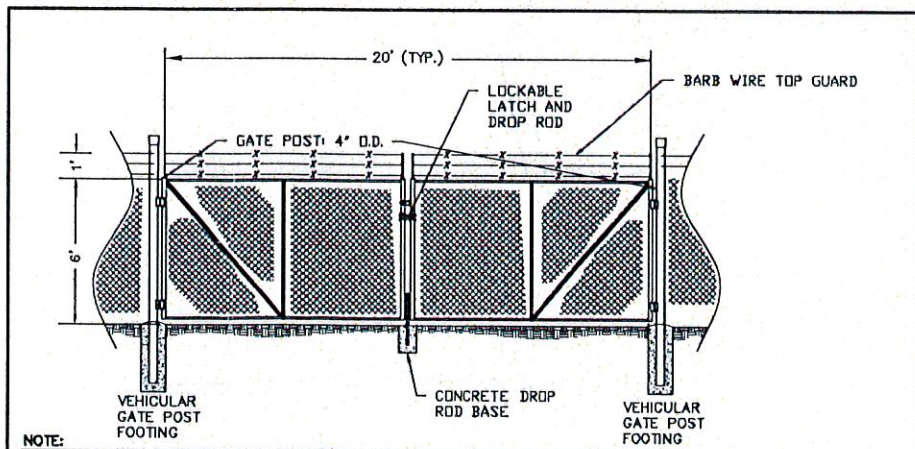
BARB WIRE APRON ON EXTENSION ARMS
 LINE POST
 BRACING
 CHAIN-LINK FENCE
 BOTTOM OF FABRIC
 GRADE
 STRUCTURAL BASE
 CORNER, TERMINAL OR PULL POST

SEE FENCING COMPANY SPECIFICATIONS FOR MAX. SPACING

NOTE:

- FENCE AND GATE TYPE TO BE APPROVED BY OWNER PRIOR TO CONSTRUCTION
- STRUCTURAL DESIGN TO BE PROVIDED BY FENCE SUPPLIER
- DIMENSIONS AND INFORMATION SHOWN ABOVE ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS AND INFORMATION TO BE PROVIDED BY MANUFACTURER/SUPPLIER
- FENING TO BE USED SHALL BE BLACK VINYL CHAIN LINK

Westwood CHAIN-LINK SECURITY FENCE DETAIL (NOT TO SCALE) LAST REVISED: 09/25/13 FN01



CHAIN-LINK SECURITY SWING GATE

20' (TYP.)
 GATE POST: 4" D.D.
 LOCKABLE LATCH AND DROP ROD
 BARB WIRE TOP GUARD
 VEHICULAR GATE POST FOOTING
 CONCRETE DROP ROD BASE
 VEHICULAR GATE POST FOOTING

NOTE:

- FENCE AND GATE TYPE TO BE APPROVED BY OWNER PRIOR TO CONSTRUCTION
- STRUCTURAL DESIGN TO BE PROVIDED BY FENCE SUPPLIER
- DIMENSIONS AND INFORMATION SHOWN ABOVE ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS AND INFORMATION TO BE PROVIDED BY MANUFACTURER/SUPPLIER
- A KNOX PAD LOCK WILL BE PLACE ON CHAINED GATES OR KNOX BOX WITH GATE ACCESS KEYS WILL BE MOUNTED AT THE MAIN ENTRANCE FOR FIRE DEPARTMENT ACCESS.

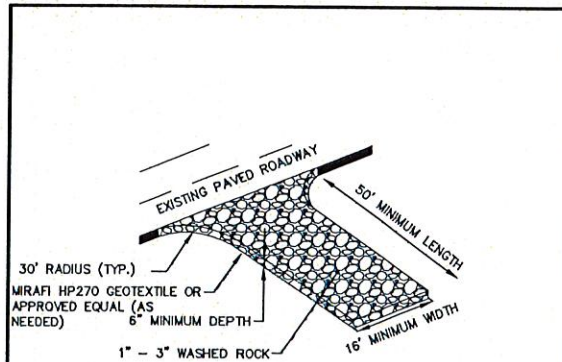
Westwood CHAIN-LINK SECURITY SWING GATE LAST REVISED: 09/25/13 FN05

**Arcturus
 Community Solar
 Garden, LLC**
 Le Sueur County, MN

Construction Details

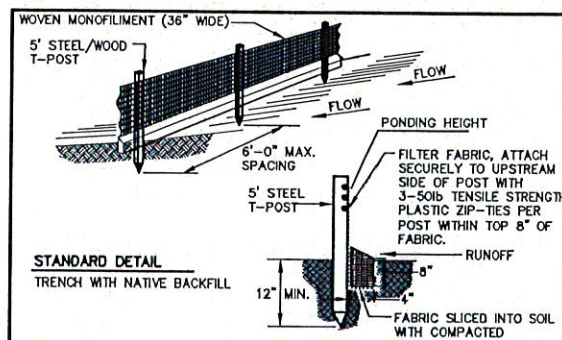
Issued for Permit
 Not For Construction

Date: 10/03/2017
 Drawing No: C.300



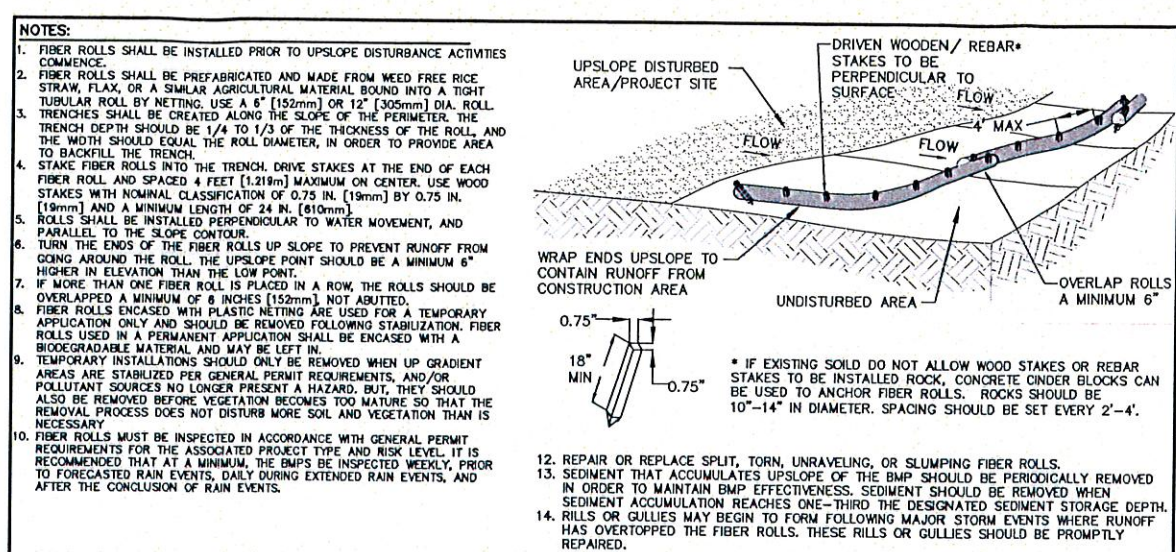
NOTE:
ROCK CONSTRUCTION ENTRANCE SHOULD BE A MINIMUM THICKNESS OF 6" AND CONTAIN MAXIMUM SIDE SLOPES OF 4:1. ROCK ENTRANCE SHOULD BE INSPECTED AND MAINTAINED REGULARLY. ROCK ENTRANCE LENGTH MAY NEED TO BE EXTENDED IN CLAY SOILS.

Westwood	ROCK CONSTRUCTION ENTRANCE	LAST REVISED: 02/02/13 GD05
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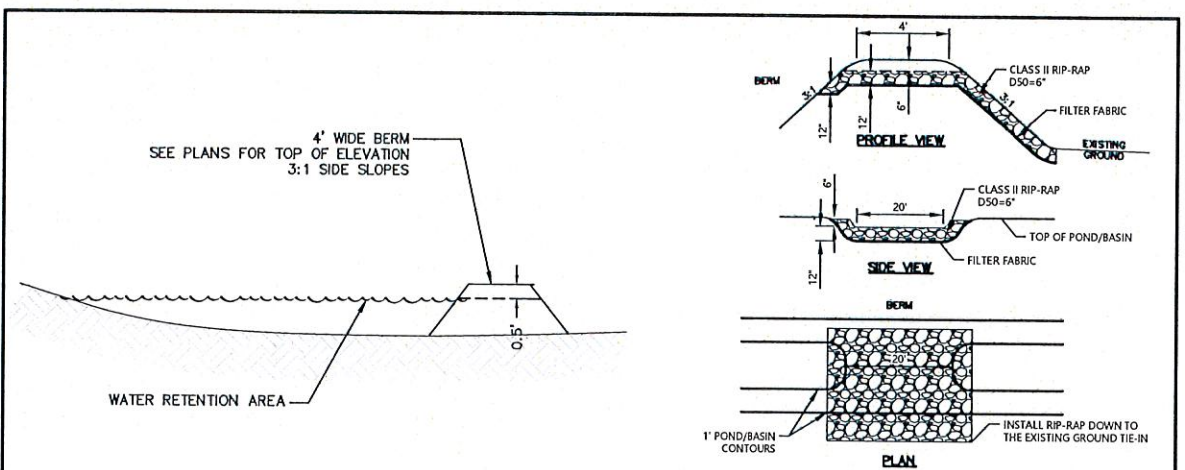
NOTE:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN ACCUMULATED TO 1/2 THE HEIGHT OF THE FABRIC OR MORE.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
4. ALL ENDS OF THE SILT FENCE SHALL BE WRAPPED UPSLOPE SO THE ELEVATION OF THE BOTTOM OF FABRIC IS HIGHER THAN "PONDING HEIGHT".

Westwood	SILT FENCE	LAST REVISED: 11/24/14
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NOTE:
1. FIBER ROLLS SHALL BE INSTALLED PRIOR TO UPSLOPE DISTURBANCE ACTIVITIES COMMENCE.
2. FIBER ROLLS SHALL BE PREFABRICATED AND MADE FROM WEED FREE RICE STRAW, FLAX, OR A SIMILAR AGRICULTURAL MATERIAL BOUND INTO A TIGHT TUBULAR ROLL BY NETTING. USE A 6" (152mm) OR 12" (305mm) DIA. ROLL.
3. TRENCHES SHALL BE CREATED ALONG THE SLOPE OF THE PERIMETER. THE TRENCH DEPTH SHOULD BE 1/4 TO 1/3 OF THE THICKNESS OF THE ROLL, AND THE WIDTH SHOULD EQUAL THE ROLL DIAMETER, IN ORDER TO PROVIDE AREA TO BACKFILL THE TRENCH.
4. STAKE FIBER ROLLS INTO THE TRENCH. DRIVE STAKES AT THE END OF EACH FIBER ROLL AND SPACED 4 FEET (1.219m) MAXIMUM ON CENTER. USE WOOD STAKES WITH NOMINAL CLASSIFICATION OF 0.75 IN. (19mm) BY 0.75 IN. (19mm) AND A MINIMUM LENGTH OF 24 IN. (610mm).
5. ROLLS SHALL BE INSTALLED PERPENDICULAR TO WATER MOVEMENT, AND PARALLEL TO THE SLOPE CONTOUR.
6. TURN THE ENDS OF THE FIBER ROLLS UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL. THE UPSLOPE POINT SHOULD BE A MINIMUM 6" HIGHER IN ELEVATION THAN THE LOW POINT.
7. IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHOULD BE OVERLAPPED A MINIMUM OF 6 INCHES (152mm) NOT ADJUTED.
8. FIBER ROLLS ENCASED WITH PLASTIC NETTING ARE USED FOR A TEMPORARY APPLICATION ONLY AND SHOULD BE REMOVED FOLLOWING STABILIZATION. FIBER ROLLS USED IN A PERMANENT APPLICATION SHALL BE ENCASED WITH A BIODEGRADABLE MATERIAL AND MAY BE LEFT IN.
9. TEMPORARY INSTALLATIONS SHOULD ONLY BE REMOVED WHEN UP GRADIENT AREAS ARE STABILIZED PER GENERAL PERMIT REQUIREMENTS, AND/OR POLLUTANT SOURCES NO LONGER PRESENT A HAZARD. BUT, THEY SHOULD ALSO BE REMOVED BEFORE VEGETATION BECOMES TOO MATURE SO THAT THE REMOVAL PROCESS DOES NOT DISTURB MORE SOIL AND VEGETATION THAN IS NECESSARY.
10. FIBER ROLLS MUST BE INSPECTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS FOR THE ASSOCIATED PROJECT TYPE AND RISK LEVEL. IT IS RECOMMENDED THAT AT A MINIMUM, THE BMPs BE INSPECTED WEEKLY, PRIOR TO FORECASTED RAIN EVENTS, DAILY DURING EXTENDED RAIN EVENTS, AND AFTER THE CONCLUSION OF RAIN EVENTS.
11. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING, OR SLUMPING FIBER ROLLS.
12. SEDIMENT THAT ACCUMULATES UPSLOPE OF THE BMP SHOULD BE PERIODICALLY REMOVED IN ORDER TO MAINTAIN BMP EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE-THIRD THE DESIGNATED SEDIMENT STORAGE DEPTH.
13. RILLS OR GULLIES MAY BEGIN TO FORM FOLLOWING MAJOR STORM EVENTS WHERE RUNOFF HAS OVERTOPPED THE FIBER ROLLS. THESE RILLS OR GULLIES SHOULD BE PROMPTLY REPAIRED.

Westwood	TYPICAL FIBER ROLLS FOR PERIMETER CONTROL OF CONSTRUCTION AREA LIMIT	LAST REVISED: 02/02/13 GD42
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NOTE:
1. INSTALL RIP-RAP PER MNDOT SPEC 3601
2. RIP-RAP SHALL BE CLASS III PER MNDOT SPEC 3601

Westwood	STORMWATER RETENTION BERM	LAST REVISED: 11/02/14 GD03
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Westwood

Phone (952) 937-5150 7699 Anagram Drive
Fax (952) 937-5822 Eden Prairie, MN 55344
Tel/Fax (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Print Name August Dean Christensen

Signature *[Signature]*
License No. 4723 Date 10/03/2017

Designed: JTS

Checked: JMG

Drawn: JTS

Record Drawing by/date:

Revisions:
DATE DESCRIPTION

A 10/03/17 Issued for Permit

Prepared for:

GERONIMO ENERGY
Geronimo Energy,
7650 Edinborough Way, Suite 725
Edina, MN 55435

**Arcturus
Community Solar
Garden, LLC**
Le Sueur County, MN

Construction Details

Issued for Permit
Not For Construction

Date: 10/03/2017

Drawing No: C.301

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed PROFESSIONAL ENGINEER under the laws of the State of Minnesota.

Print Name August Dean Christensen

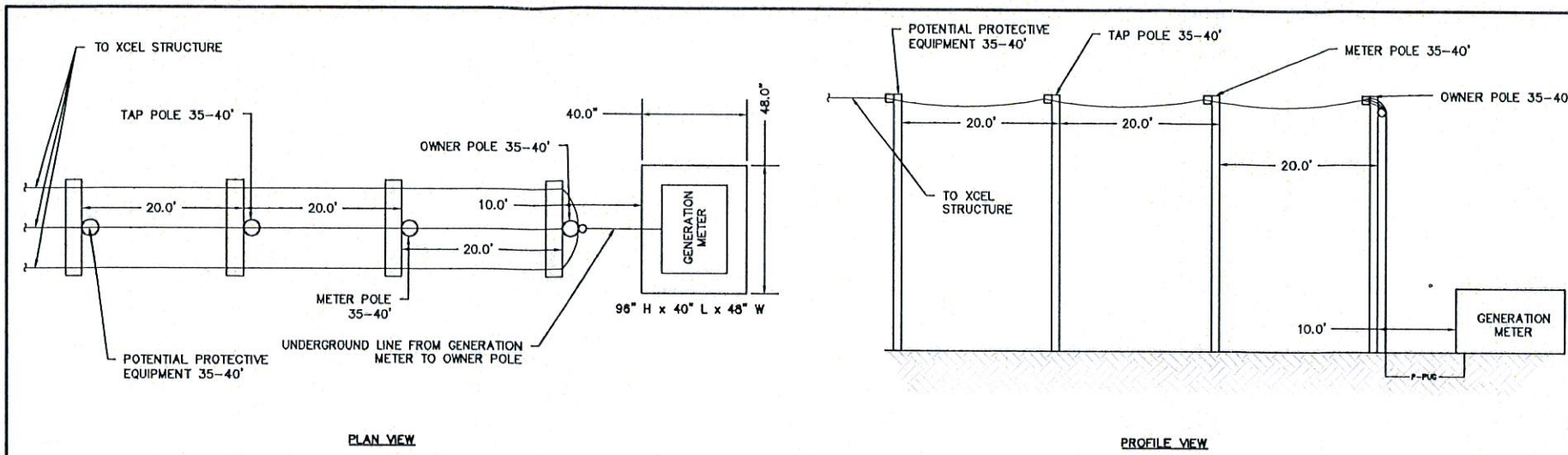
Signature *[Signature]*
 License No. 4773 Date 10/03/2017

Designed: FTS
 Checked: MFC
 Drawn: FTS

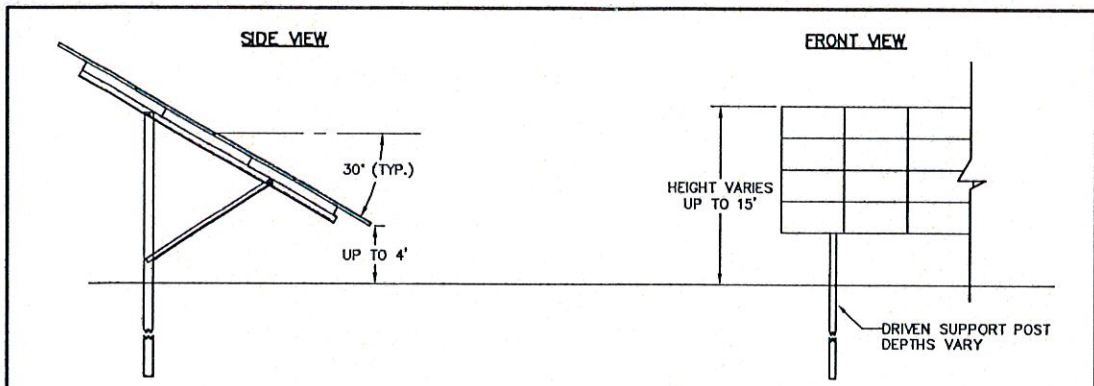
Record Drawing by/dt/cr:

Revision #	DATE	DESCRIPTION
A	10/03/17	Issued for Permit

Prepared for:



Westwood TYPICAL POI EQUIPMENT LAST REVISED: 08/23/15 POI02



Westwood TYPICAL SOLAR FIXED TILT RACK ELEVATION VIEW LAST REVISED: 06/25/16 ELEV02

**Arcturus
 Community Solar
 Garden, LLC**
 Le Sueur County, MN

Construction Details

Issued for Permit
 Not For Construction

Date: 10/03/2017
 Drawing No: C302



WHAT IS A COMMUNITY SOLAR GARDEN?

Community Solar Gardens are centrally-located solar photovoltaic (PV) systems that provide electricity to participating subscribers. Could it work for you?

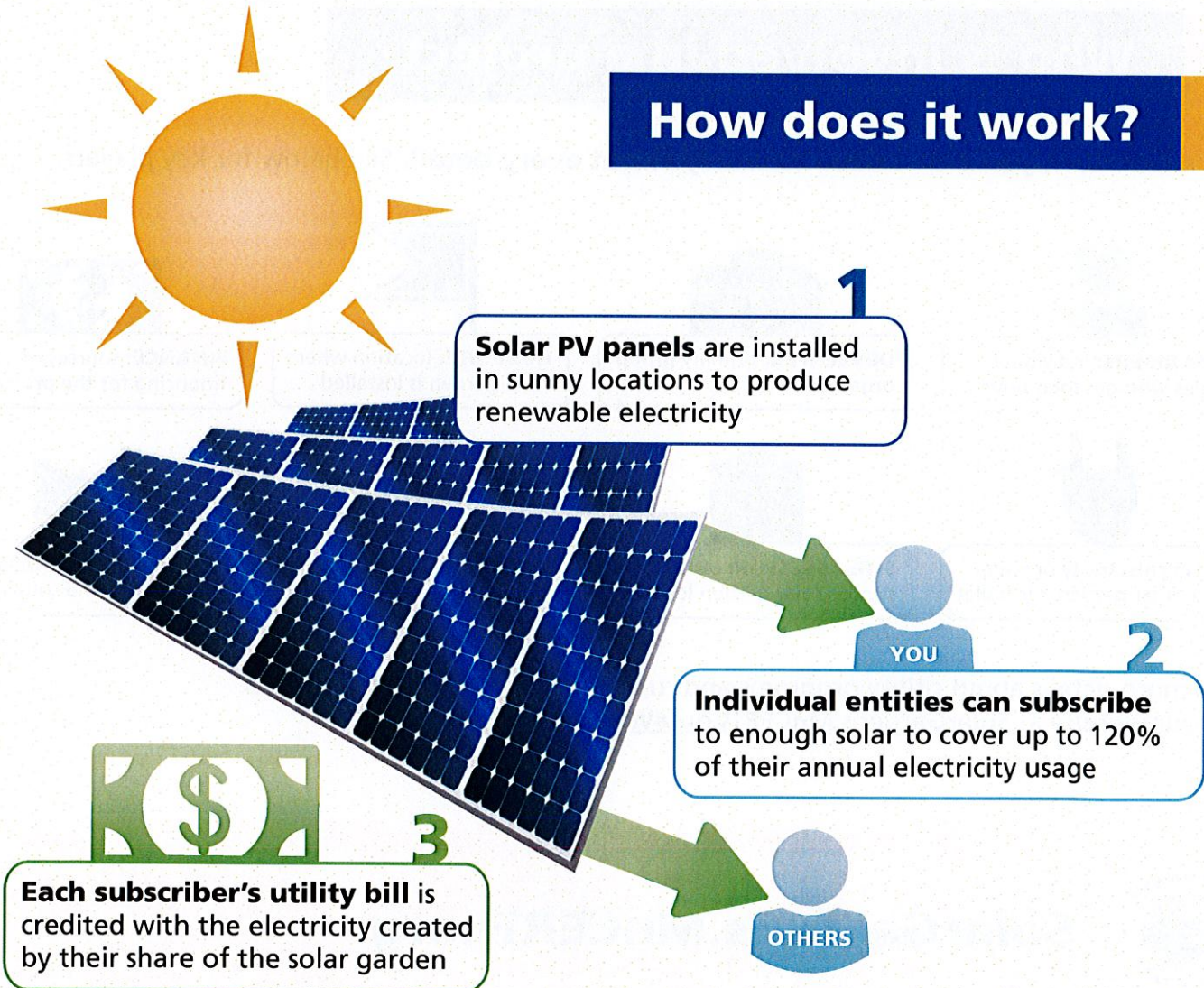
Q Who is it for & why would I do it?

Are you interested in going solar but unable to do so on your own? Perhaps you live in an apartment, have a shaded roof at home, or don't have space at your organization. Now you can join a community solar garden installed near you!

Community solar gardens are a simple way to go solar. You purchase an up-front subscription, then soak in the rays (much of Minnesota is as sunny as places like Houston, TX and Tallahassee, FL).

How does it work?

Q



Q

How much solar should I get?

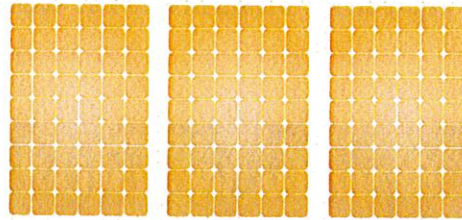
The amount of electricity you use each year helps you decide how much solar to get. Your solar garden subscription can cover up to 120% of your usage. A typical Minnesota home uses 800 kilowatt-hours (kWh) a month. Remember: a more efficient home means more cost-effective solar!

Electricity Use



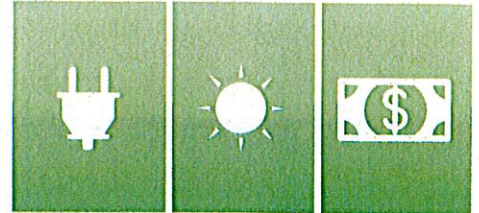
A typical MN home uses 800 kWh each month, or 9,600 kWh each year

Solar Subscription



4 kW of solar could provide half the electricity used by the typical MN home

Utility Bill



Solar power production is shown and credited on the subscriber's utility bill

Q

Who is involved in a project?

As a subscriber, you don't have to worry about every detail. See below for key players.



SUBSCRIBERS: individual entities who get solar power



DEVELOPER: primary group organizing the solar garden



HOST SITE: location where solar garden is installed



FINANCE: sources of financing for the project



UTILITY: electricity provider* where solar garden is installed



SITE ASSESSOR: expert that studies solar garden location



INSTALLER: expert that installs the solar garden



OUTREACH PARTNERS: groups that find subscribers

* See more details about utility programs and rules for community solar gardens on our website at SolarGardens.MnCERTs.org#Who.



Learn more, ask questions & take action:

SolarGardens.MnCERTs.org

CERTs: Minnesotans building a clean energy future

Appendix D
Sample Seed Mixes

October 6, 2017

Conditional Use Permit Application

Page 18 of 22

SOLAR ARRAY SEED MIX			
Botanic Name	Common Name	Percent of Seed Mix	Pound Per Arce
Grasses			
<i>Bouteloua curtipendula</i>	Side oats grama	35	
<i>Carex vulpinoidea</i>	Fox sedge	2	
<i>Festuca longifolia</i>	Aurora 2 Hard Fescue	7	
<i>Festuca ovina ssp. Hirtula</i>	Sheeps Fescue	10	
<i>Festuca rubra var. commutata</i>	Shadows 2 Chewing Fescue	6	
<i>Festuca rubra var. commutata</i>	Monulea Chewings Fescue	9	
<i>Festuca rubra var. rubra</i>	Wendy Jean Red Fescue	10	
<i>Festuca rubra var. rubra</i>	Creeping Red Fescue	12	
<i>Koeleria macrantha</i>	Junegrass	1	
<i>Spobobolus heterolepis</i>	Prairie dropseed	1	
Wildflowers			
<i>Aster oolentangiensis</i>	Sky-blue aster	1	
<i>Dalea purpurea</i>	Purple prairie clover	1	
<i>Monarda fistulosa</i>	Wild bergamot	1	
<i>Potentilla argute</i>	Prairie cinquefoil	0.5	
<i>Rudbeckia hirta</i>	Black-eyed Susan	2	
<i>Verbena stricta</i>	Hoary vervain	0.5	
<i>Zizia aurea</i>	Golden Alexander	1	
OPEN AREA SEED MIX			
Grasses			
<i>Bouteloua curtipendula</i>	Side oats grama	25	1.75
<i>Bouteloua Gracilis</i>	Blue grama	10	.70
<i>Bromus kalmii</i>	Prairie Brome	2.5	.18
<i>Elymus villosus</i>	Silky Wild Rye	10	.70
<i>Koeleria macrantha</i>	Junegrass	1.5	.11
<i>Schizachyrium scoparium</i>	Little Bluestem	20	1.40
<i>Sporobolus heterolepis</i>	Prairie Dropseed	6	.42
Forb Species			
<i>Achillea millefolium</i>	Yarrow	0.5	.04
<i>Agastache foeniculum</i>	Fragrant hyssop	0.75	.05

Allium stellatum	Prairie onion	0.5	.04
Asclepias Incarnata	Marsh milkweed	1	.07
Ascepias syriaca	Common milkweed	1	.07
Asclepias tuberosa	Butterfly milkweed	1	.07
Aster oolentangiensis	Sky blue aster	1.25	.09
Aster lateriflorus	Calico aster	1	.07
Aster novae-angliae	New England aster	0.75	.05
Astragalus canadensis	Canada mile vetch	1	.07
Dalea candidum	White prairie clover	2	.14
Dalea purpurea	Purple prairie clover	2	.14
Desodium canadense	Canada tick trefoil	1	.07
Liatris pycnostachya	Prairie blazing star	1	.07
Monarda fistulosa	Wild bergamot	0.75	.05
Penstemon gracilis	Slender beardtongue	0.5	.04
Potentilla argute	Prairie cinquefoil	0.50	.04
Pycnanthemum virginianum	Mountain mint	1	.07
Ratibida pinnata	Yellow coneflower	0.75	.05
Rubbeckia hirta	Black-eyed susan	1.5	.11
Solidago rigida	Stiff goldenrod	1.75	.12
Tradescantia bracteate	Prairie spiderwort	0.50	.04
Verbena hastate	Blue vervain	1	.07
Verbena stricta	Hoary vervain	1	.07
Zizia aurea	Golden alexanders	1	.07
Cover Crop			
Triticum aestivum	Winter wheat	10	10
LOW GROWING MOIST SOILS ARRAY MIX- BWSR PILOT SEED MIX—WETLANDS/STORMWATER BASINS			
Cover Crop			
Avena sativa	Oats	10	
Forb Species – 14.92% total			
Allium stellatum	Prairie Wild Onion		
Anemone canadensis	Canada Anemone		
Asclepias incarnata	Marsh Milkweed		
Euthamia graminifolia	Grass-leaved Goldenrod		
Galium boreale	Northern Bedstraw		
Lobelia siphilitica	Great Lobelia		
Phlox pilosa	Prairie Phlox		
Potentilla arguta	Prairie Cinquefoil		
Pycnanthemum virginianum	Virginia Mountain Mint		

Ratibida columnifera	Prairie Coneflower		
Rudbeckia hirta	Black-eyed Susan		
Sisyrinchium campestre	Field Blue-eyed Grass		
Symphotrichum laeve	Smooth Aster		
Symphotrichum puniceum	Red-stemmed Aster		
Zizia aurea	Golden Alexanders		
Graminoid—28.78% total			
Calamagrostis canadensis	Bluejoint		
Glyceria striata	Fowl Manna Grass		
Leersia oryzoides	Rice Cut Grass		
Poa palustris	Fowl Bluegrass		
Legume—1.92% total			
Astragalus canadensis	Canada Milk Vetch		
Dalea candida	White Prairie Clover		
Sedge—44.18% total			
Carex scoparia	Lance-fruited Oval sedge		
Carex stipata	Common Fox Sedge		
Carex vulpinoidea	Brown Fox Sedge		
Scirpus cyperinus	Woolgrass		

Appendix E
Access Approval

October 6, 2017

Conditional Use Permit Application

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MINNESOTA DEPARTMENT OF TRANSPORTATION
APPLICATION FOR ACCESS (DRIVEWAY) PERMIT



Document Management System # 1910364
 District 7A Permit # 77453
 C.S. 4012 T.H. 22
 R.P. MM 61-708
 (THIS SECTION FOR MnDOT OFFICE USE ONLY.)

ATTACH A SKETCH OF THE PROPOSED WORK AREA AND RELATION TO TRUNK HIGHWAY.
 SUBMIT TO DISTRICT OFFICE OF MINNESOTA DEPARTMENT OF TRANSPORTATION.

APPLICANT <u>Archvus Community Solar Garden, LLC</u>	TELEPHONE <u>952-988-9000</u>	ADDRESS (Street, City, State, Zip) <u>7150 Edenborough Way Ste 725, Eden, MN 55935</u>
PROPERTY OWNER <u>Lundin, LLC</u>	TELEPHONE <u>612-616-7015</u>	ADDRESS (Street, City, State, Zip) <u>4460 Washington Blvd. Madison Lake, MN 56063</u>
LOCATION OF PROPOSED WORK (City/Township) (County) (Distance) (N-S-E-W)	SPECIFIC ROAD INTERSECTION OR LANDMARK	
<u>County RD Highway 102 in Kasota Twp, Le Sueur</u>	<u>0.08 Miles East of Highway 22 off 102</u>	

WILL THIS ACCESS BE WITHIN TRIBAL LANDS? Yes No IF YES, WHICH ONE?

PURPOSE OF DRIVEWAY <input type="checkbox"/> Temporary <input type="checkbox"/> Field Entrance <input type="checkbox"/> Residential <input type="checkbox"/> Proposed Public Street <input checked="" type="checkbox"/> Commercial (Specify Type)	REQUESTED ENTRANCE WIDTH <u>20</u> Feet	PROPERTY IS IN <input type="checkbox"/> Platted Area <input checked="" type="checkbox"/> Unplatted Area	ZONING FOR PROPERTY IS <u>Ag1</u>
IS BUILDING TO BE CONSTRUCTED <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Specify Type) <u>Solar Farm</u>	WILL BUILDING BE <input type="checkbox"/> Temporary <input checked="" type="checkbox"/> Permanent	NUMBER OF PRESENT DRIVEWAYS TO PROPERTY <u>2</u>	
EXACT LOCATION OF PRESENT DRIVEWAY(S) <u>0.08 miles East of Highway 22 off 102</u>	EXACT LOCATION OF PROPOSED DRIVEWAY(S) <u>0.08 miles East of Highway 22 off 102</u>		
LEGAL DESCRIPTION OF PROPERTY <u>Sec 33, TWP-110, Range 26 S4, 33 AC, 25 AC of that part of S4 1/4, 1/4th East of Hwy 22 & N of RR, S18, 08 AC of SE 1/4, 1/4th E of Hwy 22 of abandoned RR, L&N Co. 118 AC</u>	WORK TO START ON OR AFTER <u>MARCH 7, 2018</u>	WORK TO BE COMPLETED BY <u>December 31, 2018</u>	

APPLICANT'S ACCEPTANCE, WAIVER AND INDEMNIFICATION

The undersigned applicant hereby agrees to comply with applicable statutes, rules, and all the standard conditions and special provisions of this permit. The applicant understands and agrees that no work in connection with this application will be started until the application has been approved and the permit issued.

The applicant also understands that this permit may also be subject to the approval of local road authorities having joint supervision over said street or highway, and may be subject to applicant's compliance with the rules and regulations of the Minnesota Environmental Quality Board and/or any other affected governmental agencies.

The applicant is aware of circumstances or hazards that may arise while performing the work associated with this application that could result in injury, loss, damage or death, and the applicant assumes the risk of such circumstances, dangers or hazards, whether reasonably foreseeable or not.

The undersigned applicant expressly agrees that except for negligent acts of the State, its agents and employees, the applicant or his/her agents or contractor shall assume all liability for, and save the State, its agents and employees, harmless from any and all claims for damages, actions or causes of action arising out of the work to be done in connection with this application and permit.

NAME AND TITLE <u>Patrick Smith, Senior Director of Environmental Planning</u>	EMAIL ADDRESS <u>patrick@geronimoenergy.com</u> <u>kara@geronimoenergy.com</u>
DATE <u>8/7/2017</u>	SIGNATURE <i>[Signature]</i>

DO NOT WRITE BELOW THIS LINE

PERMIT NOT VALID UNLESS BEARING SIGNATURE AND NUMBER

AUTHORIZATION OF PERMIT

In consideration of the applicant's agreement to comply in all respects with the applicable laws and the conditions of the Commissioner of Transportation pertaining to this permit, permission is hereby granted for the work to be performed as described in the above application, said work to be performed in accordance with the following standard conditions and special provisions:

SEE ATTACHED STANDARD CONDITIONS AND SPECIAL PROVISIONS

<u>Dec March 31 2018</u> Date All Work To Be Completed By	<i>[Signature]</i> Authorized MnDOT Signature	<u>Aug 23, 2017</u> Date of Authorized Signature
--	--	---

DISTRIBUTION Original to Area Maintenance Engineer Applicant Subarea Supervisor Roadway Regulations Supervisor	DEPOSIT REQUIREMENTS <input checked="" type="checkbox"/> No Deposit Required <input type="checkbox"/> Deposit Required in the Amount of \$ _____ Date Deposit Received _____ <i>Deposit to be returned upon satisfactory completion of all work</i>	DEPOSIT TYPE Cashier's Check # _____ Certified Check # _____ Money Order # _____ Bond # _____
--	---	---

DATE WORK COMPLETED (The date when the work is completed must be reported to the MnDOT District Permits Office)

ACCESS PERMIT GENERAL INFORMATION

To minimize site plan changes, a plat review shall be approved by the Minnesota Department of Transportation in accordance with Chapter 505 of the Minnesota Statutes and Minnesota Rule 8810 prior to the issuance of any access permit. By this means, construction and maintenance plans for the portion of the trunk highway under consideration may suggest alternate or improved methods or standards of construction or reconstruction to the property owner and/or lessee.

REQUIREMENTS

- No work under this application shall be started until application is approved and the permit issued.
- Where work on or near the traveled roadway is necessary, proper signs, channelizing devices, warning lights, and barricades shall be erected to protect traffic, employees, and pedestrians. All traffic control devices and methods shall conform to the Minnesota Field Manual on Temporary Traffic Control Zone Layouts, Minnesota Manual on Uniform Traffic Control Devices (MMUTCD), Minnesota Standard Sign Manual, and the appropriate provisions of Standard Specification 1710.
- No foreign material such as dirt, gravel, or bituminous material shall be deposited or left on the road during the construction of driveway or installation of drainage facilities.
- Roadside shall be cleaned to original status upon completion of work.
- After driveway construction is completed the permittee shall notify the Area Maintenance Engineer or his authorized representative that the work has been completed and is ready for final inspection and approval by the Minnesota Department of Transportation.
- No changes or alterations in entrances may be made at any time without written permission from the Minnesota Department of Transportation.

Driveways shall be so constructed as to slope down away from the shoulder line of the trunk highway according to the most recent MnDOT Standard Plate No. 9000. Permission is hereby granted for the construction of the driveway as described in the above application, said driveway to be constructed in accordance with MINNESOTA RULES 8810.41 - 8810.56 and subject to the above requirements and the special provisions.

SECURITY DEPOSIT may be required to insure proper restoration of highway surfaces and to cover payment for any damage to highways or State property. Additionally, any expense incurred by the Minnesota Department of Transportation above the posted deposit will be assessed against the applicant. In the event construction has not been started by the "WORK TO BE COMPLETED BY" date, this permit becomes null and void and deposit refunded.

Appendix F
Township Notification

October 6, 2017

Conditional Use Permit Application

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September 22, 2017

Mr. Daren Barfknecht
33857 Skyview Ridge
St. Peter, MN 56082

Reference: Conditional Use Permit for Solar Project Development

Dear Mr. Barfknecht,

We are writing to inform you of a conditional use permit (CUP) submittal for Arcturus Community Solar Garden, LLC. The project is located in Kasota Township, Section 33, Township 110-North, Range 26-West. This project is locally permitted through Le Sueur County and all official documentation related to the hearings are to come from the County. Per County requirements the Project is required to notify the Township of their submittal.

Geronimo Energy is headquartered in Minneapolis, Minnesota, with satellite offices located in southwest Minnesota, North Dakota, South Dakota, Colorado, Illinois, New York and Michigan. Geronimo Energy has developed over 1,600 MWs of wind and solar projects that are currently either under construction or operational. With deep roots in agriculture, Geronimo prides itself on developing renewable energy projects that are farmer-friendly, community-driven, and beneficial for rural communities.

We thank you for the opportunity to present the Project to the township board on September 11, 2017 at the regularly scheduled meeting. We continue to look forward to working with you and the community.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kara Bakke", is written over a light blue horizontal line.

Kara Bakke
Junior Permitting Specialist
kara@geronimoenergy.com
952-358-5664

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Appendix G
Certification of Insurance

October 6, 2017

Conditional Use Permit Application

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
9/12/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

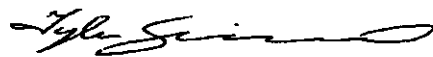
PRODUCER Christensen Group Insurance 11100 Bren Road West Minnetonka MN 55343	CONTACT NAME: Kelly Preston PHONE (A/C No, Ext): (952) 653-1000 FAX (A/C No): (952) 653-1100 E-MAIL ADDRESS: kpreston@christensengroup.com																				
	<table border="1"> <tr> <th colspan="2">INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A:</td> <td>Westchester Fire Ins. Co.</td> <td></td> </tr> <tr> <td>INSURER B:</td> <td>ACE American Insurance Company</td> <td>123456</td> </tr> <tr> <td>INSURER C:</td> <td></td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE		NAIC #	INSURER A:	Westchester Fire Ins. Co.		INSURER B:	ACE American Insurance Company	123456	INSURER C:			INSURER D:			INSURER E:			INSURER F:	
INSURER(S) AFFORDING COVERAGE		NAIC #																			
INSURER A:	Westchester Fire Ins. Co.																				
INSURER B:	ACE American Insurance Company	123456																			
INSURER C:																					
INSURER D:																					
INSURER E:																					
INSURER F:																					
INSURED Arcturus Community Solar Garden, LLC 7650 Edinborough Way Ste 725 Edina MN 55435																					

COVERAGES **CERTIFICATE NUMBER:** 17-18 - **LIABILITY** - **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			G27460628004	7/1/2017	7/1/2018	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000
							MED EXP (Any one person)	\$ 5,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
							Employee Benefits	\$ 1,000,000
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			PMUH0845727A	7/1/2017	7/1/2018	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$			G281138477002	7/1/2017	7/1/2018	EACH OCCURRENCE	\$ 4,000,000
							AGGREGATE	\$ 4,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE	OTH-ER
							E.L. EACH ACCIDENT	\$
							E.L. DISEASE - EA EMPLOYEE	\$
							E.L. DISEASE - POLICY LIMIT	\$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER Le Sueur County Attn: Kathy Brockway 88 South Park Avenue Le Center, MN 56057	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Tyler Simmons/KP 
---	--

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ACORD 25 (2014/01)
INS025 (201401)

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Appendix H
Decommissioning Plan

October 6, 2017

Conditional Use Permit Application

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Arcturus Decommissioning Plan

Timeline

The decommissioning will occur at the end of the photovoltaic system's useful life or when the system has not been in use for twelve (12) consecutive months. Decommissioning is estimated to take two to three months to complete and the decommissioning crew will ensure that all equipment is recycled or disposed of properly.

Financial Resource Plan

Based on current recycling costs and salvage values, the cost of decommissioning the project will be \$25,000 per MW. Arcturus will establish an escrow or post a letter of credit prior to construction.

Shutdown/Disconnection

Shut down system at all disconnect points (disconnect switch within fence and disconnect at switch gear). NOTE: Per contract, utility has the ability to disconnect solar array from the utility's power grid for emergency purposes.

Removal and Disposal of Site Components

The removal and disposal details of the site components are found below. All removal and disposal of equipment shall meet the requirements of the Le Sueur County's Solid Waste Ordinance.

- **Modules:** Modules inspected for physical damage, tested for functionality, and removed from racking. Functioning modules packed and stored for reuse (functioning modules may produce power for another 25 years or more). Non-functioning modules packed and palletized and sent to the manufacturer or a third party for recycling.
- **Racking:** Racking uninstalled, sorted, and sent to metal recycling facility.
- **Poles:** Steel poles removed and sent to a recycling facility. Holes backfilled.
- **Wire:** All wire sent to facility for proper disposal and recycling.
- **Conduit:** Above-ground conduit disassembled onsite and sent to recycling facility.
- **Junction boxes, combiner boxes, external disconnect boxes, etc.:** Sent to electronics recycler.
- **Inverter:** Sent to manufacturer and/or electronics recycler. Functioning parts can be reused.
- **Concrete pad(s):** Sent to concrete recycler.
- **Fence:** Sent to metal recycling facility.
- **Computers, monitors, hard drives, and other components:** Sent to electronics recycler. Functioning parts can be reused.

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Restoration/Reclamation of Site

After all equipment is removed the site will be restored to its pre-installation status. Holes created by poles, concrete pads, and other equipment will be filled in with soil to existing conditions and seeded. This will include the re-vegetation of the site.

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