Le Sueur County, MN

Tuesday, July 21, 2015

Board Meeting

Item 8

11:15 am Darrell Pettis, County Administrator/Engineer

RE: HR Agenda

RE: Aurora Solar

RE: Approve Contract TH169

RE: Set Bid Opening Date Chevron HSIP

RE: TH19 Speed Zone

RE: CD #58 Tile

RE: German Jefferson Grant Request

RE: 2003 Sterling Loss

Staff Contact:

Human Resources

88 SOUTH PARK AVENUE • LE CENTER, MINNESOTA 56057
Telephone: 507-357-8517 • Fax: 507-357-8607
Cindy Westerhouse – Human Resources Director

HUMAN RESOURCES
AGENDA ITEMS
July 21, 2015

Recommendation to transfer Teri Hopkins, full time Agency Social Worker in Child Protection, to a full time Agency Social Worker in Children's Mental Health in Human Services, as a Grade 10, Step 3, $23.14 per hour, effective July 27, 2015.

Recommendation to post and request the merit list for a full time Agency Social Worker in Child Protection in Human Services, as a Grade 10, Step 1 at $21.55 per hour.

Equal Opportunity Employer

AURORA SOLAR

July 8, 2015

To Whom It May Concern:

You are receiving this letter because you are a local government agency within a county, city, or township in which an Aurora Distributed Photovoltaic Solar Energy Generating System Project Facility is located. We are pleased to announce that on June 30, 2015 the Minnesota Public Utilities Commission issued a site permit to Aurora Distributed Solar, LLC for construction and operation of a photovoltaic solar energy generating system on multiple sites. A copy of the site permit is included with this letter. For a complete copy of the Commission's Order, please go to www.puc.state.mn.us, click on "search for a docket" and search for docket (Year) 14 (Number) 515.

Please feel free to contact me with any questions or concerns you may have.

Sincerely,

Nick Lincon
Director – Business Development
O: 978-296-6867
C: 978-273-9929

STATE OF MINNESOTA PUBLIC UTILITIES COMMISSION

SITE PERMIT FOR CONSTRUCTION AND OPERATION OF A DISTRIBUTED PHOTOVOLTAIC SOLAR ENERGY GENERATING SYSTEM CONSISTING OF MULTIPLE SITES

IN
MULTIPLE COUNTIES

ISSUED TO
AURORA DISTRIBUTED SOLAR, LLC

PUC DOCKET NO. E-6928/GS-14-515

In accordance with the requirements of Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850, this site permit is hereby issued to:

Aurora Distributed Solar, LLC

The Permittee is authorized by this site permit to construct and operate distributed photovoltaic solar energy generating systems and associated facilities totaling up to 100 megawatts alternating current nameplate capacity, to be located at up to 21 facilities in 15 counties.

The distributed photovoltaic solar energy generating systems and associated facilities shall be built within the site boundaries identified in this permit and as portrayed on the official site maps, and in compliance with the conditions specified in this permit.

This site permit shall expire 30 years from the date of this approval.

Approved and adopted this 30th day of June, 2015

BY ORDER OF THE COMMISSION

Deborah Mots for
DANIEL P. WOLF
Executive Secretary

This document can be made available in alternative formats (i.e., large print or audio) by calling 651-296-0406 (voice). Persons with hearing loss or speech disabilities may call us through Minnesota Relay at 1-800-627-3529 or by dialing 711.

CONTENTS

ATTACHMENTS

1.0 SITE PERMIT

The Minnesota Public Utilities Commission (Commission) hereby issues this site permit to Aurora Distributed Solar, LLC (Permittee) pursuant to Minnesota Statutes Chapter 216E and Minnesota Rules Chapter 7850. This permit authorizes Permittee to construct distributed photovoltaic (PV) solar energy generating systems and associated facilities totaling up to 100 megawatts (MW) alternating current (AC) nameplate capacity, to be located at up to 21 facilities (each a Facility, together, Facilities or the Project) on up to 21 sites interconnected to Northern States Power Company d/b/a Xcel Energy (Xcel Energy) distribution systems, and as identified in the attached site permit maps, hereby incorporated into this document. The number, combination, and capacity of the individual Facilities which the Permittee selects for construction will depend on a number of factors, including site-specific conditions, engineering studies, environmental survey results, and interconnection details. The photovoltaic solar energy generating systems and associated facilities shall be built within the sites identified in this permit and as portrayed on the official site maps, and in compliance with the conditions specified in this permit.

2.0 PROJECT DESCRIPTION

The Project consists of distributed PV power plants to be located at up to 21 Facilities on up to 21 solar sites serving Xcel Energy loads. The distributed solar Facilities range in size from 1.5 MW to 10.0 MW with a combined nominal nameplate capacity of approximately100 MW alternating current. The Project's primary components include PV modules mounted on a linear axis tracking system and a centralized inverter(s). Associated facilities include electrical cables, conduit, electrical cabinets, switchgears, step-up transformers, SCADA systems, metering equipment, operations and maintenance (O&M) areas and internal access roads. Each Facility will be fenced around the components and gated at the access point.

2.1 Project Ownership

The Permittee is expected to continue to own the Project after commercial operation. However, due to the distributed locations of the Project solar facilities and need to satisfy the requirements of the investment tax credit, a federal tax credit available to taxpayers pursuant to the Internal Revenue Code, the Permittee has organized a separate limited liability company (special purpose vehicle or SPV) for each solar facility, which will serve as the investment entity for the tax equity investor. Aurora Distributed Solar, LLC, acting on behalf of itself and each SPV, is the permittee for the Project. The SPVs and related solar sites are listed below.

Name	Related solar site
Albany Solar, LLC	Albany
Annandale Solar, LLC	Annandale
Atwater Solar, LLC	Atwater
Brooten Solar, LLC	Brooten
Chisago Solar, LLC	Chisago

Dodge Center Distributed Solar, LLC	Dodge
Eastwood Solar, LLC	Eastwood
Fiesta City Solar, LLC	Fiesta City
Hastings Solar, LLC	Hastings
Lake Emily Solar, LLC	Lake Emily
Lake Pulaski Solar, LLC	Lake Pulaski
Lawrence Creek Solar, LLC	Lawrence Creek
Lester Prairie Solar, LLC	Lester Prairie
Mayhew Lake Solar, LLC	Mayhew Lake
Montrose Solar, LLC	Montrose
Paynesville Solar, LLC	Paynesville
Pine Island Distributed Solar, LLC	Pine Island
Scandia Solar, LLC	Scandia
Waseca Solar, LLC	Waseca
West Faribault Solar, LLC	West Faribault
West Waconia Solar, LLC	West Waconia

3.0 DESIGNATED SITES

The Project includes construction of up to 21 Facilities on up to 21 sites within 15 counties across Minnesota, as set forth in more detail below:

Facility	County	Township/Range/Section	Facility Land Control	Preliminary Development Area	MW-AC*
Albany	Stearns	Sections 8 & 17, T 125N, R 31W	230.6	107.4	10.0
Annandale	Wright	Section 32, T 121N, R 27W	70.6	70.6	6.0
Atwater	Kandiyohi	Section 1, T 119N, R 33W	40.1	36.3	4.0
Brooten	Stearns	Section 31, T 124N, R 35W	13.0	13.0	1.5
Chisago County	Chisago	Section 12, T 34N, R 21W	62.4	60.6	7.5
Dodge Center	Dodge	Section 32, T 107N, R 17W	68.5	60.0	6.5

Facility	County	Township/Range/Section	Facility Land Control	Preliminary Development Area	MW-AC*
Eastwood	Blue Earth	Section 14, T 108N, R 66W	49.7	49.7	5.5
Fiesta City	Chippewa	Section 9, T 117N, R 40 W	25.6	25.6	2.5
Hastings	Washington	Section 8, T 26N, R 20W	40.6	40.6	5.0
Lake Emily	Le Sueur	Section 24, T 110N, R 26W	46.9	42.4	5.0
Lake Pulaski	Wright	Section 15, T 120N, R 25W	75.8	63.2	8.5
Lawrence Creek	Chisago	Section 27, T 34N, R 19W	74.3	39.4	4.0
Lester Prairie	McLeod	Section 25, T 117N, R 27W	29.9	26.0	3.5
Mayhew Lake	Benton	Section 12, T 36N, R 31W	36.0	21.8	4.0
Montrose	Wright	Section 2, T 118N, R 26W	37.7	34.8	4.0
Paynesville	Stearns	Section 8 & 9, T 122N, R 32W	223.6	108.4	10.0
Pine Island	Goodhue	Section 31, T109N, R 15W	46.9	42.2	4.0
Scandia	Chisago	Section 35, T 33N, R 20W	24.4	23.3	2.5
Waseca	Waseca	Section 12, T 17N, R 23W	89.2	85.2	10.0
West Faribault	Rice	Section 2, T 109N, R 21W	85.5	59.4	5.5
West Waconia**	Carver	Section 1, T 115N, R 26W	75.7	78.1	8.5

* The final MW AC nameplate capacity of each solar energy generating system may vary based on the technology selected and final design.
** Preliminary Development Area boundary is larger than the Facility Land Control boundary in this particular instance to accommodate possible interconnection in the public right-of-way on the north side of Highway 5/25.

Each Facility is more specifically described in the permit application and is shown in the attached Site Location maps.

3.1 Project Boundary

The preliminary solar arrays and associated facility layouts are shown on the maps at **Attachment** [1]. The preliminary layout represents the approximate location of the solar arrays

and associated facilities at each proposed site and identifies a layout that minimizes the overall potential human and environmental impacts of the Project, which were evaluated in the permitting process. The final layout depicting the final arrangement of the solar panels and associated facilities shall be located within the Facility Site Control for each facility location associated with this Project. The Facility Site Control boundaries (i.e., site boundaries) serve to provide the Permittee with the flexibility to make minor adjustments to the preliminary layout to accommodate landowner requests, unforeseen conditions encountered during the detailed engineering and design process and federal and state agency requirements. Any modification of the solar arrays and associated facilities depicted in the preliminary layout shall be done in such a manner to have comparable overall human and environmental impacts and shall be specifically identified in the site plan pursuant to Section 6.1. The Permittee shall submit the final site layouts in the site plans pursuant to Section 6.1.

4.0 APPLICATION COMPLIANCE

The Permittee shall follow those specific construction practices and material specifications described in the Aurora Distributed Solar, LLC Application to the Commission for a Site Permit for the Aurora Distributed Solar Project, dated July 9, 2014, and the record of this proceeding unless this permit establishes different requirements, in which case this permit shall prevail.

Attachment [4] contains a summary of compliance filings, which is provided solely for the convenience of the Permittee. If this permit conflicts or is not consistent with **Attachment** [4] the conditions in this permit will control.

5.0 SETBACKS AND SITE LAYOUT RESTRICTIONS

5.1 Public Lands

In no case shall solar panels and associated facilities including foundations, access roads, underground cable, and transformers, be located in the public lands identified in Minnesota Rules 7850.4400 Subpart 1 or federal Waterfowl Production Areas. Solar panels and associated facilities shall not be located in the public lands identified in Minnesota Rules 7850.4400 Subpart 3 unless there is no feasible and prudent alternative.

5.2 Wetlands and Shoreland

Solar panels and associated facilities including foundations, access roads, underground cable and transformers, shall not be placed in public waters wetlands as shown on the public water inventory maps prescribed by Minnesota Statute 103G except that electric collector or feeder lines may cross or be placed in public waters or public waters wetlands subject to permits and approvals by the Minnesota Department of Natural Resources (DNR) and the United States Army Corps of Engineers (USACE), and local units of government as implementers of the Minnesota Wetlands Conservation Act. Solar panels and associated facilities including foundations, access roads, underground cable and transformers, shall be located in compliance with the standards for development of the shorelands of public waters as identified in Minnesota

Rules 6120.3300 and as adopted pursuant to Minnesota Rules 6120.2800 unless there is no feasible and prudent alternative.[1]

5.3 Native Prairie

The Permittee, in consultation with the Commission, Department of Commerce and DNR, shall prepare a prairie protection and management plan and file it with the Commission and DNR at least 30 days prior to the pre-construction meeting if native prairie, as defined in Minnesota Statutes, section 84.02, subdivision 5, is identified in any biological and natural resource inventories conducted pursuant to Section 7.1. The plan shall address steps that will be taken to avoid impacts to native prairie and mitigation to unavoidable impacts to native prairie by restoration or management of other native prairie areas that are in degraded condition, by conveyance of conservation easements, or by other means agreed to by the Permittee, DNR and the Commission.

Solar panels and associated facilities including foundations, access roads, collector and feeder lines, underground cable, and transformers shall not be placed in native prairie unless addressed in a prairie protection and management plan and shall not be located in areas enrolled in the Native Prairie Bank Program. Construction activities, as defined in Minnesota Statutes, section 216E.01, shall not impact native prairie unless addressed in a prairie protection and management plan.

5.4 Feeder Lines

Feeder lines that carry power from an internal project interconnection point to the Project substation or interconnection point on the electrical grid may be overhead or underground. Any overhead or underground feeder lines that parallel public roads shall be placed within the public rights-of-way or on private land immediately adjacent to public roads. If the Permittee's overhead feeder lines are located within public rights-of-way, the Permittee shall obtain approval from the governmental unit responsible for the affected right-of-way.

Feeder line locations shall be located in such a manner as to minimize interference with agricultural operations including, but not limited to, existing drainage patterns, drain tile, future tiling plans, and ditches. Safety shields shall be placed on all guy wires associated with overhead feeder lines. The Permittee shall submit the engineering drawings of all collector and feeder lines in the site plans pursuant to Section 6.1.

The Permittee must fulfill, comply with, and satisfy all Institute of Electrical and Electronics Engineers, Inc. (IEEE) standards applicable to this Project including, but not limited to, IEEE 776 (Recommended Practice for Inductive Coordination of Electric Supply and Communication Lines), IEEE 519 (Harmonic Control in Electric Power Systems), IEEE 367 (Recommended Practice for Determining the Electric Power Station Ground Potential Rise and Induced Voltage from a Power Fault), and IEEE 820 (Standard Telephone Loop Performance Characteristics)

[1] The definitions in Minn. Rule 6120.2500 are also hereby incorporated by reference, and are applicable to the Project.

provided the telephone service provider has complied with any obligations imposed on it pursuant to these standards. Upon request by the Commission, the Permittee shall report to the Commission on compliance with these standards.

6.0 ADMINISTRATIVE COMPLIANCE PROCEDURES

The following administrative compliance procedures shall be executed in accordance with the Permit Compliance Filings at **Attachments** [3] **and** [4]. Submissions to the Commission must be made by electronic filing (eFiling).

The following conditions shall apply to the construction of the Facilities on the designated sites.

6.1 Site Plan

At least fourteen (14) days prior to the pre-construction meeting for each Facility, the Permittee shall submit to the Commission:

(a) a ready-for-construction site plan for each Facility to include the solar panel layouts, access roads, electrical equipment, collector and feeder lines, and other associated facilities to be constructed;

(b) engineering drawings for site preparation and construction of each of the Facilities;

(c) a landscaping plan that describes adjacent land uses and identifies any site-specific strategies to minimize the visual impact of the Facility to adjacent land uses; and

(d) plans for restoration of the Facility following construction.

Construction is defined under Minnesota Statutes, section 216E.01, subdivision 3. The Permittee may submit a site plan and engineering drawings for one or more Facilities if the Permittee intends to commence construction on certain Facilities before completing the site plan and engineering drawings for other Facilities. The Permittee shall document, through GIS mapping, compliance with the setbacks and site layout restrictions required by this permit, including compliance with the noise standards pursuant to Minnesota Rules, chapter 7030. The Permittee shall describe its considerations in determining the location of any fencing.

6.2 Notice to Local Government Agencies

Within fourteen (14) days of issuance of this permit, the Permittee shall send a copy of the permit to the office of the auditor of each county in which a Project Facility is located and to the clerk of each city and township where a Project Facility is located. As applicable, the Permittee shall, within fourteen (14) days of permit issuance, send a printed copy of this permit to each regional development commission, local fire district, soil and water conservation district, watershed district, and watershed management district office with jurisdiction in the county where a Project Facility is located.

6.3 Notice of Permit Conditions

Prior to the start of construction, the Permittee shall inform all employees, contractors, and other persons involved in the construction and ongoing operation of the Project of the terms and conditions of this permit.

6.4 Agricultural Impact Mitigation Plan

The Permittee shall, with the cooperation of the Minnesota Department of Agriculture, develop an Agricultural Impact Mitigation Plan (AIMP). The purpose of the AIMP shall be to identify measures to minimize potential impacts to agricultural uses of the land upon the decommissioning of the Project. The Permittee shall submit the AIMP to the Commission fourteen (14) days prior to submitting the first site plan for any portion of the Project. The AIMP shall include:

(a) Measures that will be taken to segregate topsoil from subsoil during grading activities and the removal of topsoil during construction of the Project to the extent that such actions do not violate sound engineering principles or system reliability criteria.

(b) Measures that will be taken to minimize impacts to and repair drainage tiles damaged during construction of the Project.

(c) Measures that will be taken to prevent the introduction of non-native and invasive species.

(d) Measures that will be taken to re-vegetate disturbed areas with appropriate low-growing vegetation to the extent that such actions do not violate sound engineering principles or system reliability criteria.

(e) Measures that will be taken to maintain established vegetation at the facilities throughout the operational life of the facility.

6.5 Vegetation Management Plan

The Permittee shall, in cooperation with the Minnesota Department of Commerce and the DNR, develop a Vegetation Management Plan for the Project and submit it to the Commission fourteen (14) days prior to submitting the first Site Plan required by Section 6.1 of this permit. The purpose of the Vegetation Management Plan is to minimize tree clearing, prevent the introduction of noxious weeds and invasive species, revegetate disturbed areas at each Facility with appropriate low-growing species, and maintain appropriate vegetation at each Facility throughout the operating life of the Project. The Vegetation Management Plan shall:

(a) Identify measures taken to minimize tree removal and minimize ground disturbance.

(b) Identify a comprehensive re-vegetation plan for disturbed areas.

(c) Identify methods to maintain appropriate vegetation throughout the operating life of the Project.

(d) Identify vegetation control methods to be used during the operation and maintenance of the Project.

(e) Identify measures to prevent the introduction of noxious weeds and invasive species on lands disturbed by construction activities.

6.6 Field Representative

At least fourteen (14) days prior to the pre-construction meeting and continuously throughout construction, including site restoration, the Permittee shall designate a field representative responsible for overseeing compliance with the conditions of this permit during the construction phase of this Project. This person shall be accessible by telephone during normal working hours throughout preparation, construction, cleanup, and restoration. This person's address, email, phone number, and emergency phone number shall be filed with the Commission, which may make the contact information available to affected landowners, local residents, public officials and other interested persons. The Permittee may change the field representative by notification to the Commission by eFiling.

6.7 Site Manager

The Permittee shall designate a Site Manager responsible for overseeing compliance with the conditions of this permit during the commercial operation and decommissioning phases of this Project. The Site Manager shall be responsible for giving and receiving all notices, addressing compliance issues, addressing complaints, and for all other communications with the Commission and Department of Commerce for the Project, including all of the Facilities. The Permittee shall file with the Commission the name, address, email, phone number, and emergency phone number of the site manager fourteen (14) days prior to placing any Facility into commercial operation. This information shall be maintained current by informing the Commission of any changes by eFiling, as they become effective.

6.8 Pre-Construction Meeting

Prior to the start of any construction, representatives of the Permittee, the Field Representative, Department of Commerce, and Commission shall participate in a preconstruction meeting to review pre-construction filing requirements, scheduling, and to coordinate monitoring of construction and site restoration activities. The Permittee shall file with the Commission within fourteen (14) days following the pre-construction meeting a summary of the topics reviewed and discussed and a list of attendees. The Permittee shall indicate in the filing the Project's construction start date.

6.9 Pre-Operation Compliance Meeting

At least fourteen days (14) prior to commercial operation of one or more Facilities, the Permittee shall participate in a pre-operation compliance meeting with the Department of Commerce and

Commission staff to coordinate field monitoring of operation activities for the Project. The Permittee shall file with the Commission within fourteen (14) days following the pre-operation meeting a summary of the topics reviewed and discussed and a list of attendees.

6.10 Complaints

At least fourteen (14) days prior to the pre-construction meeting, the Permittee shall file with the Commission the company's procedures that will be used to receive and respond to complaints. The Permittee shall report to the Commission all complaints received concerning any part of the Project in accordance with the requirements of Minn. R. 7829.1500 or Minn. R. 7829.1700, and as set forth in the complaint procedures provided in **Attachments** [2] of this permit.

7.0 SURVEYS AND REPORTING

7.1 Biological and Natural Resource Inventories

The Permittee, in consultation with the Commission and DNR, shall design and conduct pre-construction desktop and field inventories of existing wildlife management areas, scientific and natural areas, recreation areas, native prairies and forests, wetlands, existing wildlife corridors, and any other biologically sensitive areas within the Project sites and assess the presence of state- or federally-listed or threatened species. The results of the inventories shall be filed with the Commission at least thirty (30) days prior to the pre-construction meeting to confirm compliance of conditions in this permit.

The Permittee shall file with the Commission, any biological surveys or studies conducted on this Project, including those not required under this permit.

7.2 Archaeological Resources

The Permittee shall work with the State Historic Preservation Office (SHPO) and the State Archaeologist. The Permittee shall carry out a phase 1 or 1A archaeological survey for all proposed solar sites, access roads, and other areas of Project construction impact to determine whether additional archaeological work is necessary for any part of the proposed Project. The Permittee shall contract with a qualified archaeologist to complete such surveys, and shall submit the results to the Commission, the SHPO, and the State Archaeologist at least fourteen (14) days prior to the pre-construction meeting.

The SHPO and the State Archaeologist will make recommendations for the treatment of any significant archaeological sites which are identified. Any issues in the implementation of these recommendations will be resolved by the Commission in consultation with SHPO and the State Archaeologist. In addition, the Permittee shall mark and preserve any previously unrecorded archaeological sites that are found during construction and shall promptly notify the SHPO, the State Archaeologist, and the Commission of such discovery. The Permittee shall not excavate at such locations until so authorized by the Commission in consultation with the SHPO and the State Archaeologist.

If human remains are encountered during construction, the Permittee shall immediately halt construction at that Facility and promptly notify local law enforcement authorities and the State

Archaeologist. Construction at the human remains location shall not proceed until authorized by local law enforcement authorities or the State Archaeologist.

If any federal funding, permit, or license is involved or required, the Permittee shall notify the SHPO as soon as possible in the planning process to coordinate section 106 (36 C.F.R. part 800) review.

Prior to construction, construction workers shall be trained about the need to avoid cultural properties, how to identify cultural properties, and procedures to follow if undocumented cultural properties, including gravesites, are found during construction. If any archaeological sites are found during construction, the Permittee shall immediately stop work at the Facility where the archaeological site or sites were found and shall mark and preserve the archaeological site and notify the Commission the SHPO about the discovery. The Commission and the SHPO shall have three (3) working days from the time the agency is notified to conduct an inspection of the archaeological site if either agency shall choose to do so. On the fourth day after notification, the Permittee may begin work at the Facility unless the SHPO has directed that work shall cease. In such event, work shall not continue until the SHPO determines that construction can proceed.

7.3 Project Energy Production

The Permittee shall, by February 1st following each complete or partial year of Project operation, file a report with the Commission on the monthly energy production of the Project (each Facility individually and in the aggregate for the Project) including:

(a) the installed nameplate capacity of each permitted Facility;

(b) the total monthly energy generated by each Facility in MW hours;

(c) the monthly capacity factor of each Facility;

(d) yearly energy production and capacity factor for each Facility;

(e) the operational status of each Facility and any major outages, major repairs, or solar installation performance improvements occurring in the previous year; and

(f) any other information reasonably requested by the Commission.

The permittee may submit such information it deems to be non-public pursuant to Section 12.8 of this permit.

7.4 Photovoltaic Resource Use

The Permittee shall, by February 1st following each complete or partial calendar year of operation, file with the Commission the average monthly and average annual solar strength gradient measured in (kWh/m^2)/Day observed at each solar Facility during the preceding year or partial year of operation. This information shall be considered public and must be filed electronically.

7.5 Extraordinary Events

Within twenty-four (24) hours of discovery of an occurrence, the Permittee shall notify the Commission of any extraordinary event. Extraordinary events include but shall not be limited to: fires, solar panel collapse, acts of sabotage, collector or feeder line failure, wildlife injuries and fatalities, and injured worker or private person. The Permittee shall, within thirty (30) days of the occurrence, file a report with the Commission describing the cause of the occurrence and the steps taken to avoid future occurrences. Wildlife injuries and fatalities shall also be reported on a quarterly basis.

8.0 CONSTRUCTION AND OPERATION PRACTICES

8.1 Site Clearance

The Permittee shall disturb or clear the Facility lands only to the extent necessary to assure suitable access for construction, safe operation, and maintenance of the Project.

8.2 Topsoil Protection

The Permittee shall implement measures to protect and segregate topsoil from subsoil on all Facility lands unless otherwise negotiated with the affected landowner.

8.3 Soil Compaction

The Permittee shall implement measures to minimize soil compaction of all Facility lands during all phases of the Project's life and shall confine compaction to as small an area as practicable.

8.4 Livestock Protection

The Permittee shall take precautions to protect livestock during all phases of the Project's life.

8.5 Fences

The Permittee shall promptly replace or repair all fences and gates removed or damaged during all phases of the Project's life unless otherwise negotiated with the affected landowner. When the Permittee installs a gate where electric fences are present, the Permittee shall provide for continuity in the electric fence circuit.

8.6 Drainage Tiles

The Permittee shall take into account, avoid, promptly repair or replace all drainage tiles broken or damaged during all phases of Project's life unless otherwise negotiated with affected landowner.

8.7 Equipment Storage

The Permittee shall not locate temporary equipment staging areas on lands not under its control unless negotiated with affected landowner. Temporary equipment staging areas shall not be located in wetlands or native prairie as defined in Sections 5.2 and 5.3. Temporary equipment staging areas shall be sited to comply with standards for development of the shorelands of public waters as identified in Section 5.2.

8.8 Noise

Construction and routine maintenance activities shall be limited to daytime working hours, as defined in Minn. R. 7030.0020, to ensure nighttime noise level standards will not be exceeded.

8.9 Interference with Communication Devices

The Permittee shall not operate the Project so as to cause microwave, television, radio, telecommunications, or navigation interference in violation of Federal Communications Commission regulations or other law. If interference with radio or television, satellite, wireless internet, GPS-based agriculture navigation systems or other communication devices is caused by the presence or operation of the Project, the Permittee shall take whatever action is feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the Project.

8.10 Roads

8.10.1 Public Roads

At least fourteen (14) days prior to the pre-construction meeting, the Permittee shall identify all state, county, or township roads that will be used for the Project and shall notify the Commission and the state, county, or township governing body having jurisdiction over the roads to determine if the governmental body needs to inspect the roads prior to use of these roads. Where practical, existing roadways shall be used for all activities associated with the Project. Oversize or overweight loads associated with the Project shall not be hauled across public roads without required permits and approvals.

The Permittee shall locate all perimeter fencing and vegetative screening in a manner that does not interfere with routine road maintenance activities and allows for continued safe travel on public roads.

8.10.2 Solar Site Access Roads

The Permittee shall construct the least number of site access roads it can. Access roads shall not be constructed across streams and drainage ways without required permits and approvals. When access roads are constructed across streams and drainage ways, the access roads shall be designed in a manner so runoff from the upper portions of the watershed can readily flow to the lower portion of the watershed. Access roads shall be constructed in accordance with all necessary township, county or state road requirements and permits.

8.10.3 Private Roads

The Permittee shall promptly repair private roads or lanes damaged when moving equipment or when obtaining access to the sites, unless otherwise negotiated with the affected landowner.

8.11 Private Infrastructure

The Permittee shall replace or repair all fences and gates removed or damaged as a result of preparation, construction, and restoration activities, unless otherwise negotiated with the affected landowner.

8.12 Cleanup

The Permittee shall remove all waste and scrap that is the product of construction, operation, restoration, and maintenance from all sites and properly dispose of it upon completion of each task. Personal litter, bottles, and paper deposited by site personnel shall be removed on a daily basis.

8.13 Tree Removal

The Permittee shall minimize the removal of trees and the Permittee shall not remove groves of trees or shelter belts without notification to the Commission and the approval of the affected landowner.

8.14 Soil Erosion and Sediment Control

The Permittee shall develop a Soil Erosion and Sediment Control Plan for each Facility prior to construction and submit the Plan to the Commission at least fourteen (14) days prior to the pre-construction meeting. This Plan may be the same as the Storm Water Pollution Prevention Plan (SWPPP) submitted to the MPCA as part of the National Pollutant Discharge Elimination System (NPDES) permit application.

The Soil Erosion and Sediment Control Plan shall address what types of erosion control measures will be implemented during each Project phase and shall at a minimum identify: plans for grading, construction, and drainage of roads and solar sites; necessary soil information; detailed design features to maintain downstream water quality; a comprehensive re-vegetation plan to maintain and ensure adequate erosion control and slope stability and to restore the site after temporary project activities; and measures to minimize the area of surface disturbance. Other practices shall include containing excavated material, protecting exposed soil, and stabilizing restored material and removal of silt fences or barriers when the area is stabilized. The Plan shall identify methods for disposal or storage of excavated material. Erosion and sedimentation control measures shall be implemented prior to construction and maintained throughout the Project's life.

8.15 Restoration

The Permittee shall, as soon as practical following construction of each site, considering the weather and preferences of the affected landowner, stabilize the area affected by any Project

activities to the post-construction prescribed in the Site Plans filed pursuant to Section 6.1, condition that existed immediately before construction began to the extent possible. The time period may be no longer than twelve (12) months after completion of the construction, unless otherwise negotiated with the affected landowner. Restoration shall be compatible with the safe operation, maintenance and inspection of the Project.

8.16 Hazardous Waste

The Permittee shall be responsible for compliance with all laws applicable to the generation, storage, transportation, clean-up, and disposal of hazardous wastes generated during any phase of the Project's life.

8.17 Application of Herbicides

The Permittee shall restrict herbicide use to those herbicides and methods of application approved by the Minnesota Department of Agriculture and the U.S. Environmental Protection Agency. Selective foliage or basal application shall be used when practicable. All herbicides shall be applied in a safe and cautious manner so as to not damage adjacent properties, including crops, orchards, tree farms, or gardens. The Permittee shall also, at least fourteen (14) days prior to the application, notify beekeepers known to Permittee to have an active apiary within one mile of the proposed application site of the day the Permittee intends to apply herbicide so that precautionary measures may be taken by the beekeeper.

8.18 Public Safety

The Permittee shall provide educational materials to landowners adjacent to each Facility Site Control Boundary and, upon request, to interested persons about the Project and any restrictions or dangers associated with the Project. The Permittee shall also provide any necessary safety measures, such as warning signs and gates for traffic control or to restrict public access. The Permittee shall submit the location of all underground facilities, as defined in Minnesota Statutes, section 216D.01, subdivision 11, to Gopher State One Call following the completion of construction at each site.

8.19 Emergency Response

The Permittee shall prepare an Emergency Response Plan (fire protection and medical emergency) in consultation with the emergency responders having jurisdiction over each Facility prior to Project construction. The Permittee shall submit a copy of the Plan(s) to the Commission at least fourteen (14) days prior to the pre-construction meeting and a revised plan(s), if any, at least fourteen (14) days prior to the pre-operation compliance meeting.

The Permittee shall also obtain and register the address or other location indicators acceptable to the emergency responders and Public Safety Answering Points (PSAP) having jurisdiction over each of the separate facilities of the Project. As part of the compliance filings required by this Site Permit, the Permittee shall show that prior to beginning work on the site the Permittee provided a copy of the Emergency Response Plan to the emergency responders and the PSAP with jurisdiction over each of the separate facilities of the Project.

8.20 Solar Site Identification

All solar sites shall be marked with a visible identification number and or street address.

9.0 FINAL CONSTRUCTION

9.1 As-Built Plans and Specifications

Within sixty (60) days after completion of construction of the entire Project, the Permittee shall file with the Commission a copy of the as-built plans and specifications for the Project. The Permittee must also file this data in a GIS compatible format so that the Commission can place it into the Minnesota Geospatial Information Office's geographic data clearinghouse located in the Office of Enterprise Technology.

9.2 Final Boundaries

After completion of construction, the Commission shall determine the need to adjust the final Facility boundaries required for this Project. If done, this permit may be modified, after notice and opportunity for public hearing, to represent the actual sites required by the Permittee to operate the Project authorized by this permit.

9.3 Expansion of Site Boundaries

No expansion of the site boundaries described in this permit shall be authorized without the approval of the Commission. The Permittee may submit to the Commission a request for a change in the boundaries of the sites for the Project. The Commission will respond to the requested change in accordance with applicable statutes and rules.

9.4 Notification to the Commission

At least three (3) days before each Facility is to commence commercial operation, the Permittee shall file with the Commission the date on which the Facility will commence commercial operation and the date on which construction was completed for the Facility.

10.0 DECOMMISSIONING, RESTORATION, AND ABANDONMENT

10.1 Decommissioning Plan

At least fourteen (14) days prior to the pre-operation compliance meeting, the Permittee shall submit to the Commission a Decommissioning Plan documenting the manner in which the Permittee anticipates decommissioning the Project. The Permittee shall ensure that it carries out its obligations to provide for the resources necessary to fulfill its requirements to properly decommission the Project at the appropriate time. The Commission may at any time request the

Permittee to file a report with the Commission describing how the Permittee is fulfilling this obligation.

10.2 Site Restoration

Upon expiration of this permit or upon earlier termination of operation of the Project, or any solar Facilities within the Project, the Permittee shall have the obligation to dismantle and remove from the sites all solar panels, mounting steel posts and beams, inverters, transformers, overhead and underground cables and lines, foundations, buildings, and ancillary equipment to a depth of four feet. To the extent feasible, the Permittee shall restore and reclaim the sites to pre-project topography and topsoil quality. All access roads shall be removed unless written approval is given by the affected landowner requesting that one or more roads, or portions thereof, be retained. Any agreement for removal to a lesser depth or no removal shall be recorded with the county and shall show the locations of all such foundations. All such agreements between the Permittee and the affected landowner shall be submitted to the Commission prior to completion of restoration activities. The sites shall be restored in accordance with the requirements of this condition within eighteen (18) months after expiration.

10.3 Abandoned Solar Installations

The Permittee shall advise the Commission of any solar arrays or facilities that are abandoned prior to termination of operation of the Project. The Project, or any equipment within the Project, shall be considered abandoned after one (1) year without energy production and the land restored pursuant to Section 10.2 unless a plan is developed and submitted to the Commission outlining the steps and schedule for returning the Project, or any equipment within the Project, to service.

11.0 AUTHORITY TO CONSTRUCT DISTRIBUTED PHOTOVOLTAIC SOLAR ENERGY GENERATING SYSTEM

11.1 Power Purchase Agreement

In the event the Permittee does not have a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the Project at the time this permit is issued, the Permittee shall provide notice to the Commission when it obtains a commitment for sale of the power pursuant to a power purchase agreement, or some other enforceable mechanism. This permit does not authorize construction of the Project until the Permittee has obtained a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the Project. In the event the Permittee does not obtain a power purchase agreement or some other enforceable mechanism for sale of the electricity to be generated by the Project within four years of the issuance of this permit, the Permittee must advise the Commission of the reason for not having such commitment. In such event, the Commission may determine whether this permit should be amended or revoked. No amendment or revocation of this permit may be undertaken except in accordance with applicable statutes and rules, including Minnesota Rules, parts 7850.4900 and 7850.5100.

11.2 Failure to Commence Construction

If the Permittee has not completed the pre-construction surveys required under this permit and commenced construction of the Project within four years of the issuance of this permit, the Permittee must advise the Commission of the reason construction has not commenced. In such event, the Commission shall make a determination as to whether this permit should be amended or revoked. No revocation of this permit may be undertaken except in accordance with applicable statutes and rules, including Minnesota Rules, part 7850.5100.

11.3 Preemption of Other Laws

Pursuant to Minnesota Statutes, section 216E.10, this permit shall be the only site approval required for the location of this Project, and this permit shall supersede and preempt all zoning, building, and land use rules, regulations, and ordinances adopted by regional, county, local, and special purpose governments. Nothing in this permit shall release the Permittee from any obligation imposed by law that is not superseded or preempted by law.

11.4 Other Permits

The Permittee shall be responsible for acquiring any other federal, state, or local permits or authorizations that may be required to construct and operate a Distributed Photovoltaic Solar Energy Generating System within the authorized sites. The Permittee shall submit a copy of such permits and authorizations to the Commission upon request.

11.4.1 Compliance with Federal and State Agency Permits

The Permittee shall comply with all terms and conditions of permits or licenses issued by federal, state, or tribal authorities including but not limited to the requirements of the MPCA (Section 401 Water Quality Certification, NPDES/State Disposal System (SDS) stormwater permit for construction activity, and other site specific discharge approvals), DNR (License to Cross Public Lands and Water, Public Water Works Permit, and state protected species consultation), SHPO (Section 106 National Historic Preservation Act), FAA determinations, and Mn/DOT (Utility Access Permit, Highway Access Permit, Oversize and Overweight).

11.4.2 Compliance with County, City, or Municipal Permits

The Permittee shall comply with all terms and conditions of permits or licenses issued by the counties, cities, and municipalities affected by the Project that do not conflict with or are not preempted by federal or state permits and regulations.

12.0 COMMISSION POST-ISSUANCE AUTHORITIES

12.1 Periodic Review

The Commission shall initiate a review of this permit and the applicable conditions at least once every five (5) years. The purpose of the periodic review is to allow the Commission, the Permittee, and other interested persons an opportunity to consider modifications in the conditions

of this permit. No modification may be made except in accordance with applicable statutes and rules.

12.2 Modification of Conditions

After notice and opportunity for hearing, this permit may be modified or amended, for cause, including but not limited to the following:

(a) violation of any condition in this permit;

(b) endangerment of human health or the environment by operation of the Project; or

(c) existence of other grounds established by rule.

12.3 Revocation or Suspension of Permit

The Commission may take action to suspend or revoke this permit upon the grounds that:

(a) a false statement was knowingly made in the application or in accompanying statements or studies required of the Permittee, and a true statement would have warranted a change in the Commission's findings;

(b) there has been a failure to comply with material conditions of this permit, or there has been a failure to maintain health and safety standards; or

(c) there has been a material violation of a provision of an applicable statute, rule, or an order of the Commission.

In the event the Commission determines that it is appropriate to consider revocation or suspension of this permit, the Commission shall proceed in accordance with the requirements of Minnesota Rules, part 7850.5100 to determine the appropriate action. Upon a finding of any of the above, the Commission may require the Permittee to undertake corrective measures in lieu of having this permit suspended or revoked.

12.4 More Stringent Rules

The Commission's issuance of this permit does not prevent the future adoption by the Commission of rules or orders more stringent than those now in existence and does not prevent the enforcement of these more stringent rules and orders against the Permittee.

12.5 Transfer of Permit

The Permittee may not transfer this permit without the approval of the Commission. If the Permittee desires to transfer this permit, the holder shall advise the Commission in writing of such desire. The Permittee shall provide the Commission with such information about the transfer as the Commission requires reaching a decision. The Commission may impose additional conditions on any new Permittee as part of the approval of the transfer.

12.6 Notice of Ownership

Within 20 days after the date of the last Facility notice provided in Section 9.4, the Permittee shall file a notice describing its ownership structure, identifying, as applicable:

(a) the owner(s) of the financial and governance interests of the Permittee;

(b) the owner(s) of the majority financial and governance interests of the Permittee's owners; and

(c) the Permittee's ultimate parent entity (meaning the entity which is not controlled by any other entity).

The Permittee shall notify the Commission of:

(a) A change in owner(s) of the majority financial or governance interests in the Permittee;

(b) A change in owner(s) of the majority interest financial or governance interests of the Permittee's owners; or

(c) A sale which changes the parent entity of the Permittee.

** When there are only co-equal 50/50 percent interests, any change shall be considered a change in majority interest.

12.7 Right of Entry

Upon reasonable notice, presentation of credentials and at all times in compliance with the Permittee's site safety standards, the Permittee shall allow representatives of the Commission to perform the following:

(a) to enter upon the site property for the purpose of obtaining information, examining records, and conducting surveys or investigations;

(b) to bring such equipment upon the site property as is necessary to conduct such surveys and investigations;

(c) to sample and monitor upon the site property; and

(d) to examine and copy any documents pertaining to compliance with the conditions of this permit.

12.8 Proprietary Information

Certain information required to be filed with the Commission under this permit may constitute trade secret information or other type of proprietary information under the Data Practices Act or other law. The Permittee must satisfy requirements of applicable law to obtain the protection afforded by the law.

13.0 EXPIRATION DATE

This permit shall expire 30 years after the date this permit was approved and adopted.

14.0 SPECIAL CONDITIONS

Special conditions shall take precedence over any of the other conditions of this permit if there should be a conflict between the two.

14.1 Blanding's Turtle

The Permittee shall follow the fact sheet of recommendations for avoiding and minimizing impacts to the Blanding's turtle at the Chisago County and Scandia Facilities. The summary of recommendations for avoiding and minimizing impacts to Blanding's turtle populations, including the attached colored photocopies of the Blanding's turtles, shall be made available to all contractors and its employees. **Attachment** [5] contains the fact sheet recommendations and summary. The Permittee shall use wildlife friendly erosion mesh during construction at the Chisago County and Scandia Facilities.

14.2 Rare and Unique Natural Resources

The Permittee shall use the information in the biological surveys required by Section 7.1 of this permit to ensure that facility designs avoids impacts to the following identified rare and unique natural communities:

Dodge Center Facility: The facility shall be designed and operated in a manner that avoids impacts to the Southern Wet-Mesic Hardwood Forest located at or adjacent to this site;

Paynesville Facility: The facility shall be designed and operated in a manner that avoids impacts to the floodplain forest located at or adjacent to this site; and

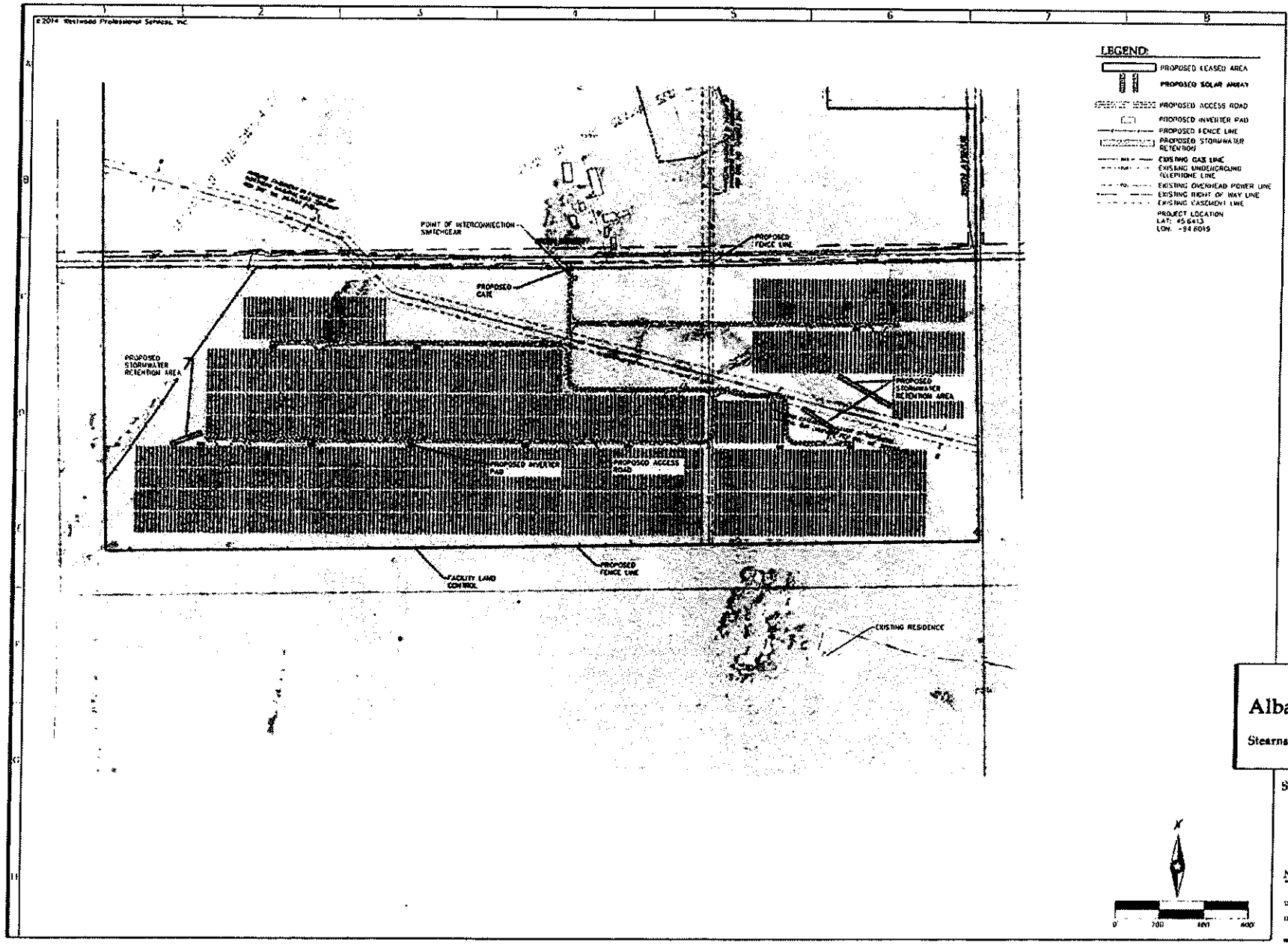
Pine Island Facility: The facility shall be designed and operated in a manner that avoids impacts to the Elm-Ash-Basswood Terrace Forest located at or adjacent to this site.

14.3 Demonstration of Compliance with Shoreland Standards

The Permittee shall demonstrate compliance with the standards for development of shoreland areas as specified in section 5.2 of this permit, in the site plans filed in accordance with Section 6.1 of this permit, for the following facilities: Annandale, Chisago, Lake Emily, Lake Pulaski, Pine Island, and West Waconia.

14.4 Security Fence Design

The security fence surrounding each Facility shall be comprised of a chain link fence of up to seven (7) feet, topped by a 1- to 2-foot extension, tilted 45 degrees outward from the vertical plane of the chain link portion, carrying monofilament cables or barbless wire.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LEGEND:
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PROPOSED SOLAR ARRAY
PROPOSED ACCESS ROAD
PROPOSED INVERTER PAD
PROPOSED FENCE LINE
PROPOSED STORMWATER RETENTION
EXISTING GAS LINE
EXISTING UNDERGROUND TELEPHONE LINE
EXISTING OVERHEAD POWER LINE
EXISTING RIGHT OF WAY LINE
EXISTING EASEMENT LINE
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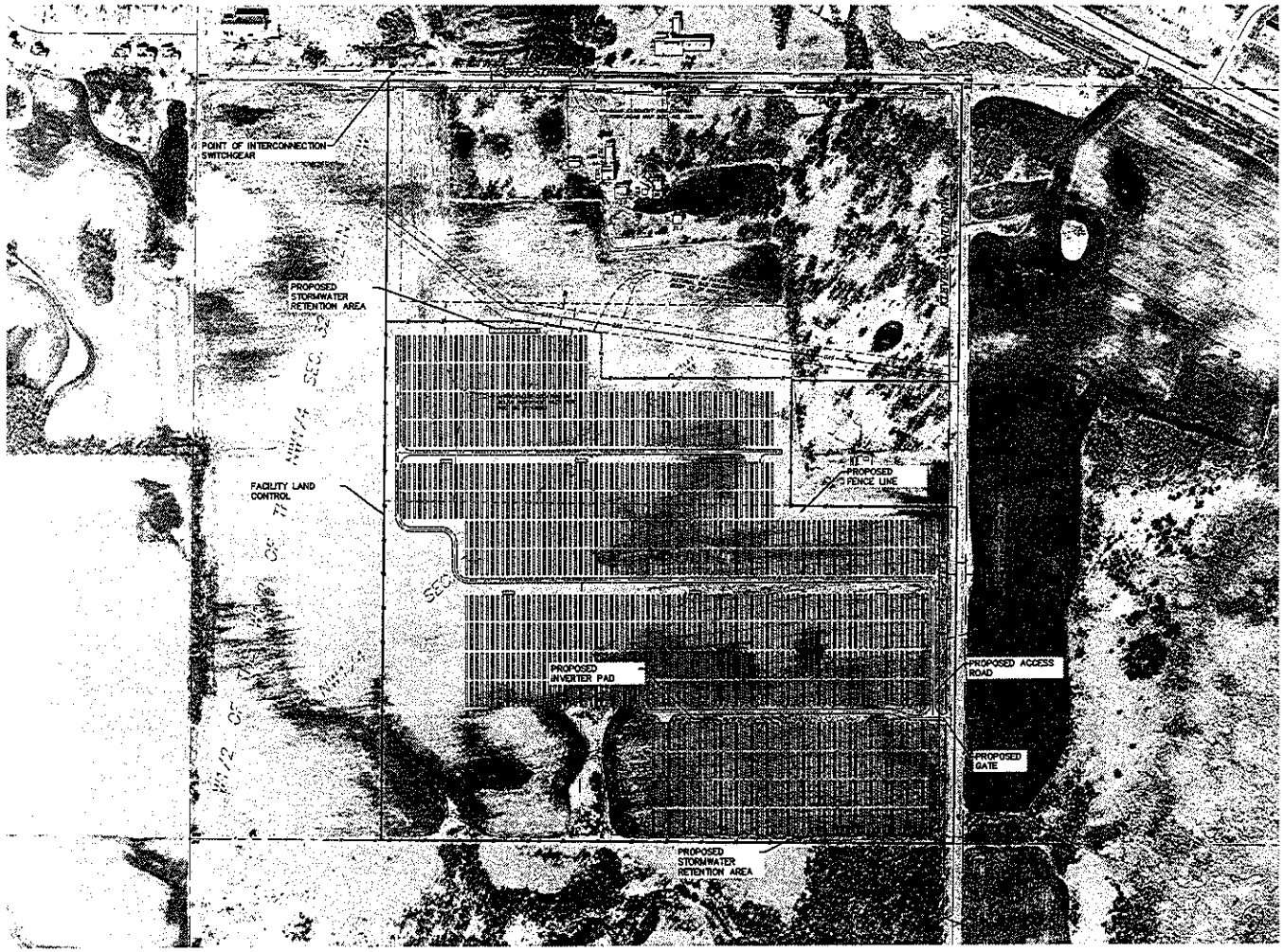
LON: -94.6019
POINT OF INTERCONNECTION - SWITCHGEAR
PROPOSED FENCE LINE
PROPOSED CAR
PROPOSED STORMWATER RETENTION AREA
PROPOSED STORMWATER RETENTION AREA
PROPOSED INVERTER PAD
PROPOSED ACCESS ROAD
FACILITY LAND CONTROL
PROPOSED FENCE LINE
EXISTING RESIDENCE
0
700
1400
2800
Westwood
Original
Checked
Drawn
Revised Drawing Issued
Revisions
DATE DESCRIPTION
Prepared for:
AURORA SOLAR
Aurora Distributed Solar, LLC
One Tech Drive, Suite 220
Andover, MA 01810
Albany Solar
Stearns County
Site Plan
Not for Construction
Date 06/24/14
Drawing No. C.200



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- PROPOSED ACCESS ROAD
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- PROPOSED STORMWATER RETENTION
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE

PROJECT LOCATION:
LAT: 45.2491
LON: -94.1110

0' 200' 400' 600'

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Designed: MPO
Checked: ADC
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Revisions
DATE DESCRIPTION

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Aurora Distributed Solar, LLC
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Annandale Solar

Wright County

Overall Site Plan

Not for Construction

Date: 06/25/14
Drawing No: C.200

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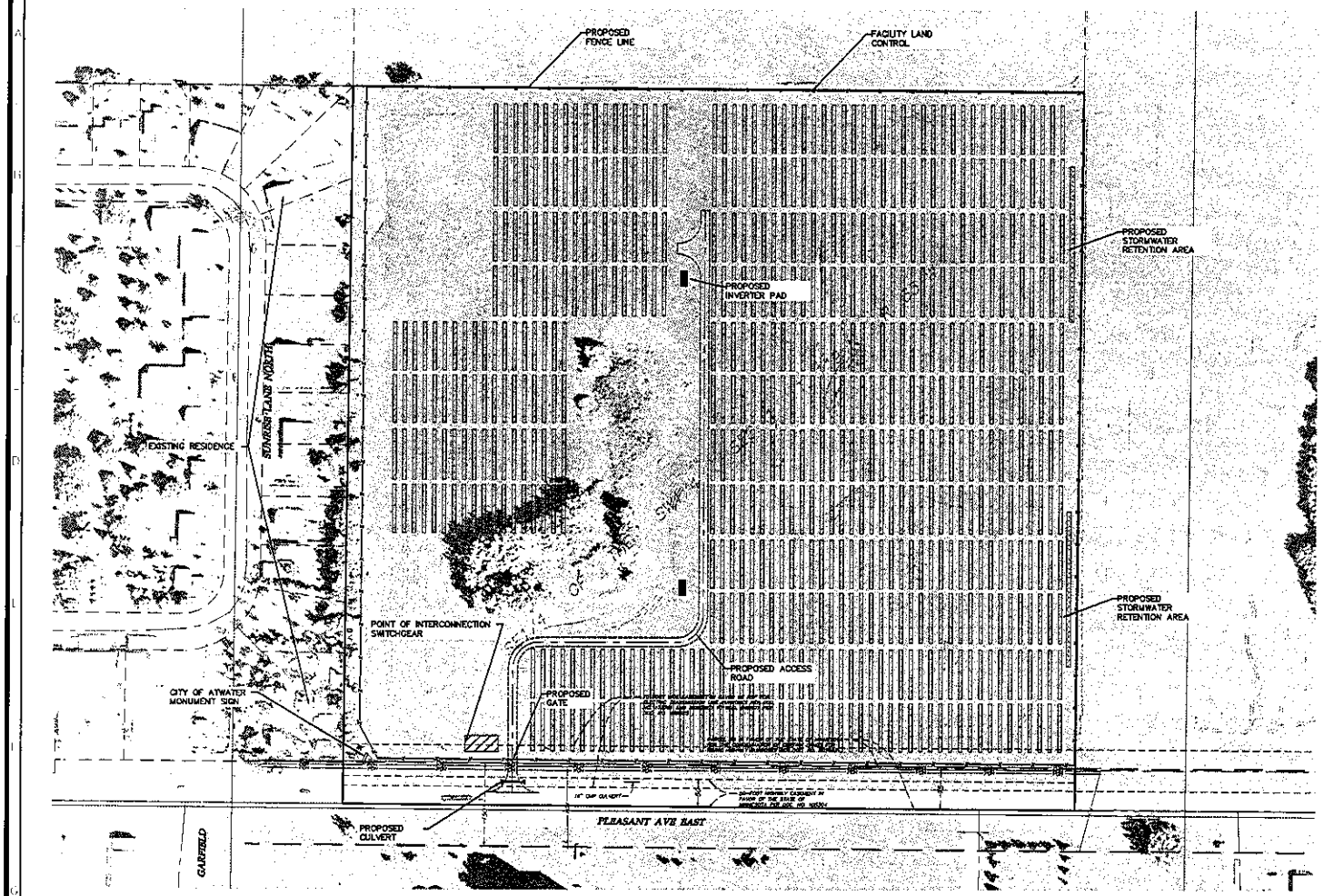

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- EXISTING OVERHEAD POWER LINE
- EXISTING EASEMENT LINE
- EXISTING RIGHT OF WAY LINE

PROJECT LOCATION:
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Drawn: MPG
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DATE DESCRIPTION

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Andover, MA 01810

Atwater Solar

Kandiyohi County

Overall Site Plan

Issued for Permit

Date: 06/23/14
Drawing No: C.200

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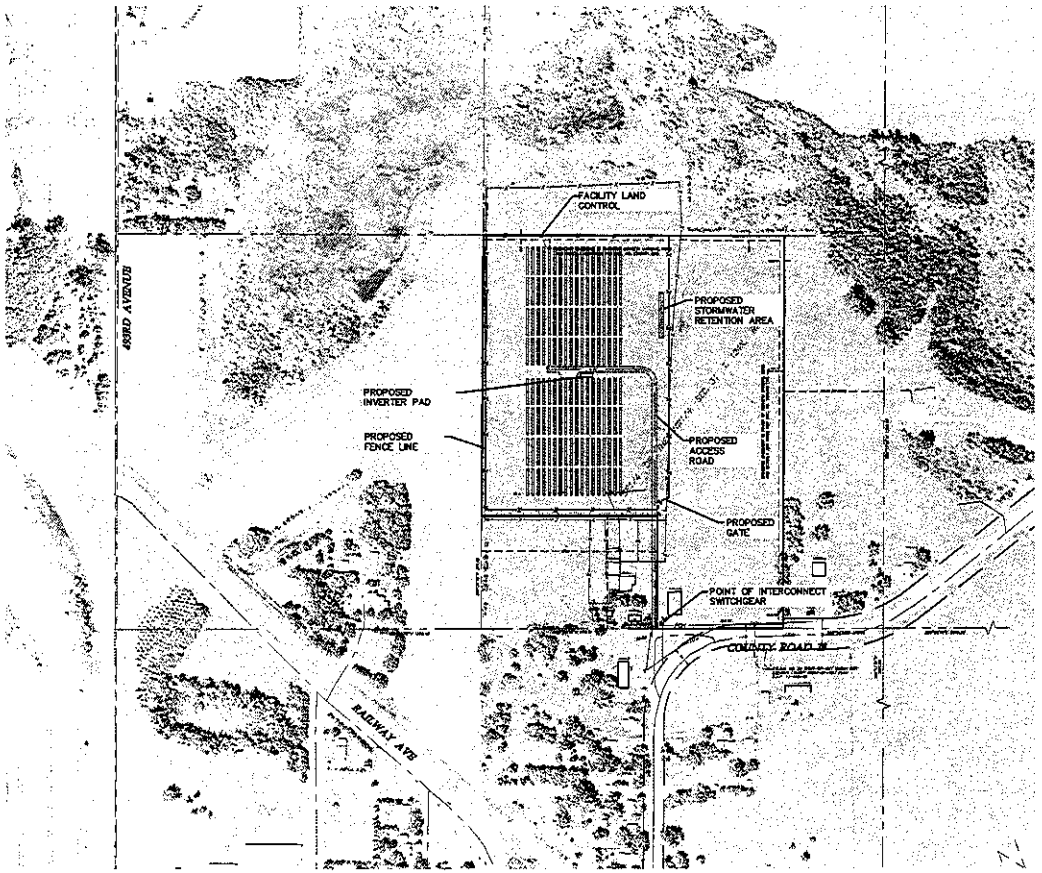

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- EXISTING FENCE LINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE

PROJECT LOCATION:
LAT: 45.5085
LON: -95.1256

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Aurora Distributed Solar, LLC
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Andover, MA 01810

Brooten Solar

Stearns County

Overall Site Plan

0' 200' 400' 600'

Not for Construction

Date: 06/24/14
Drawing No: C.200

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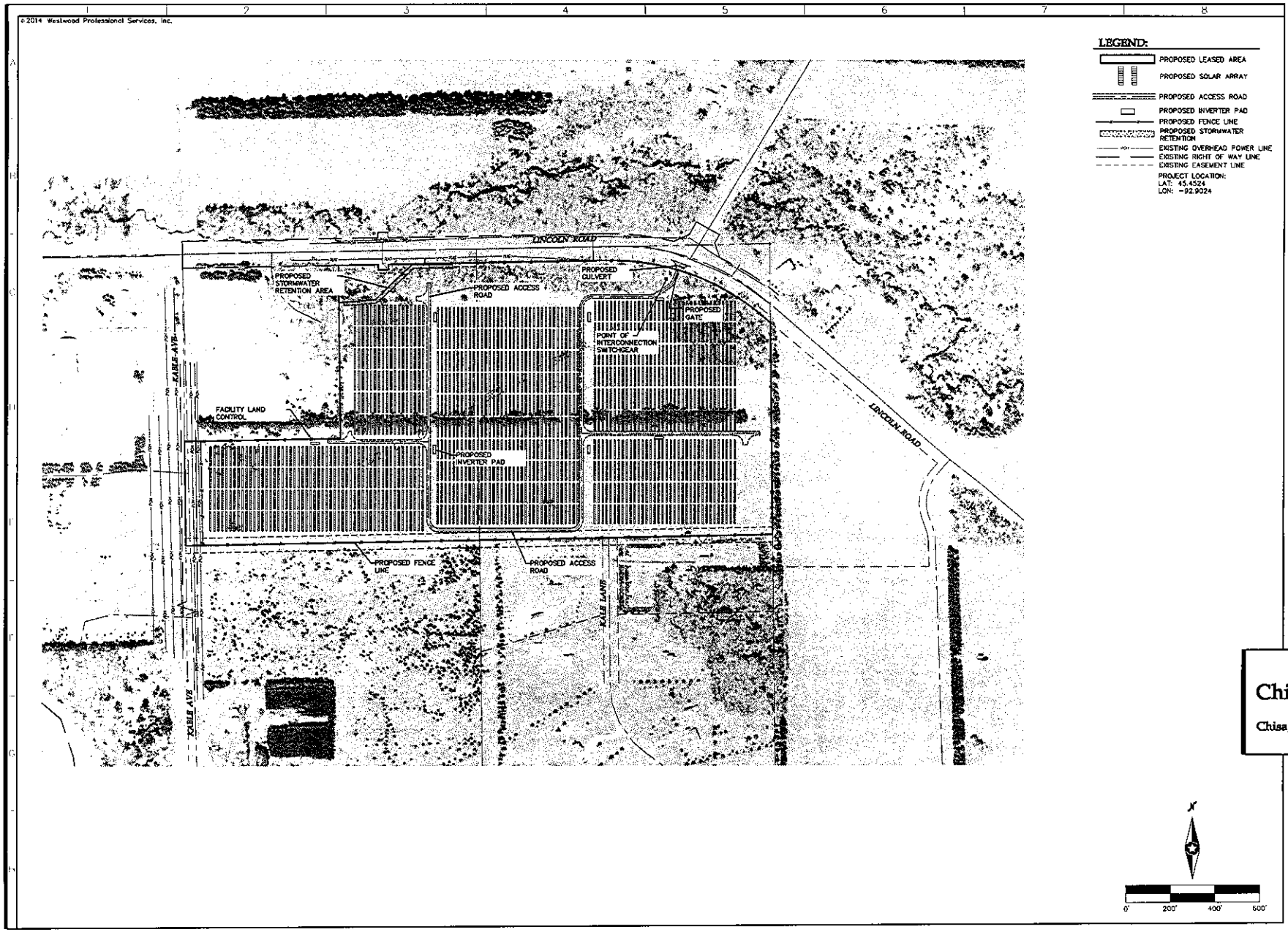

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Chisago Solar

Chisago County

Overall Site Plan

Not for Construction

Date: 06/24/14
Drawing No: C.200

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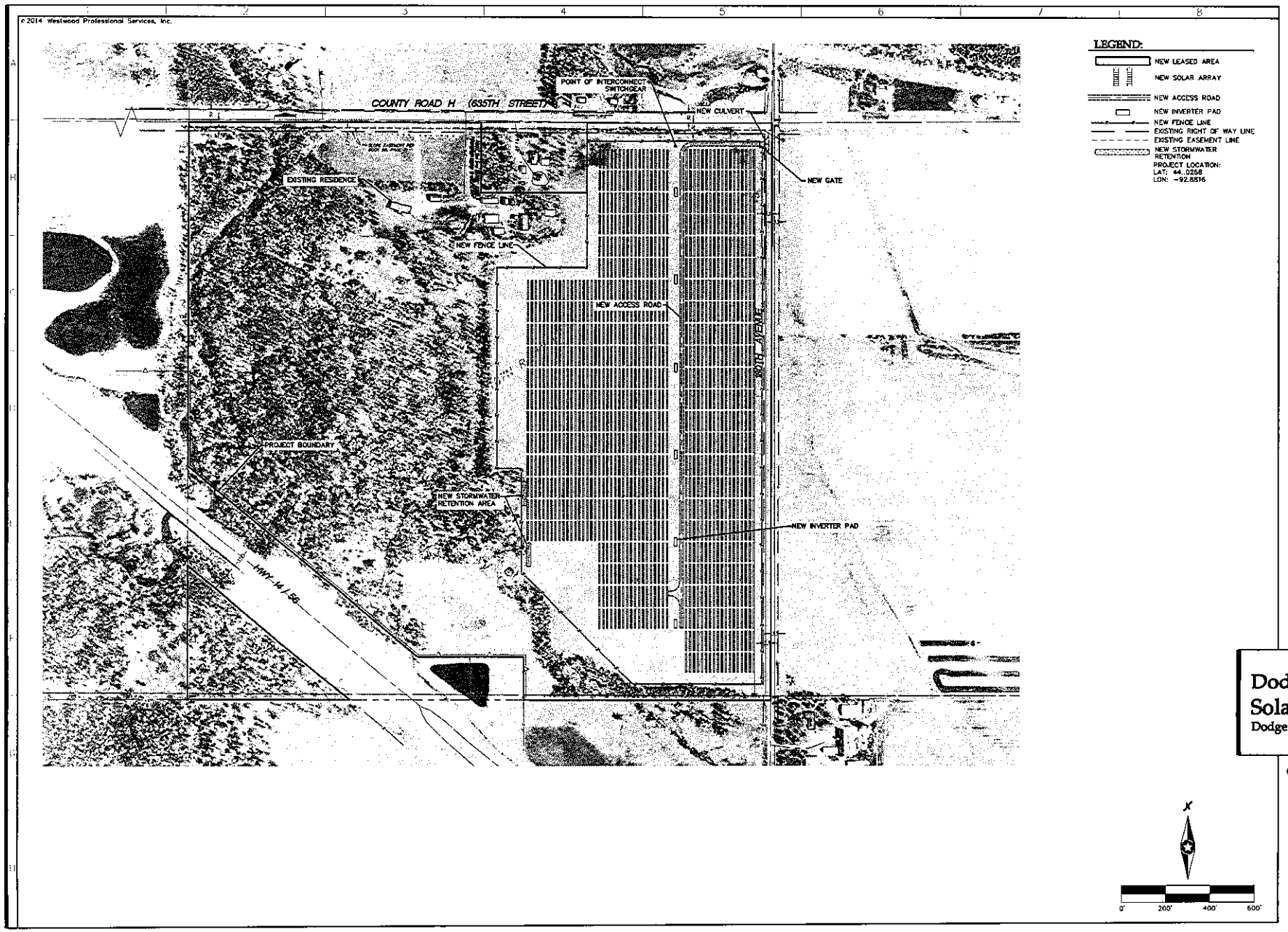

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Dodge Center Solar
Dodge County

Overall Site Plan

Not for Construction

Date: 06/26/14
Drawing No: C.200

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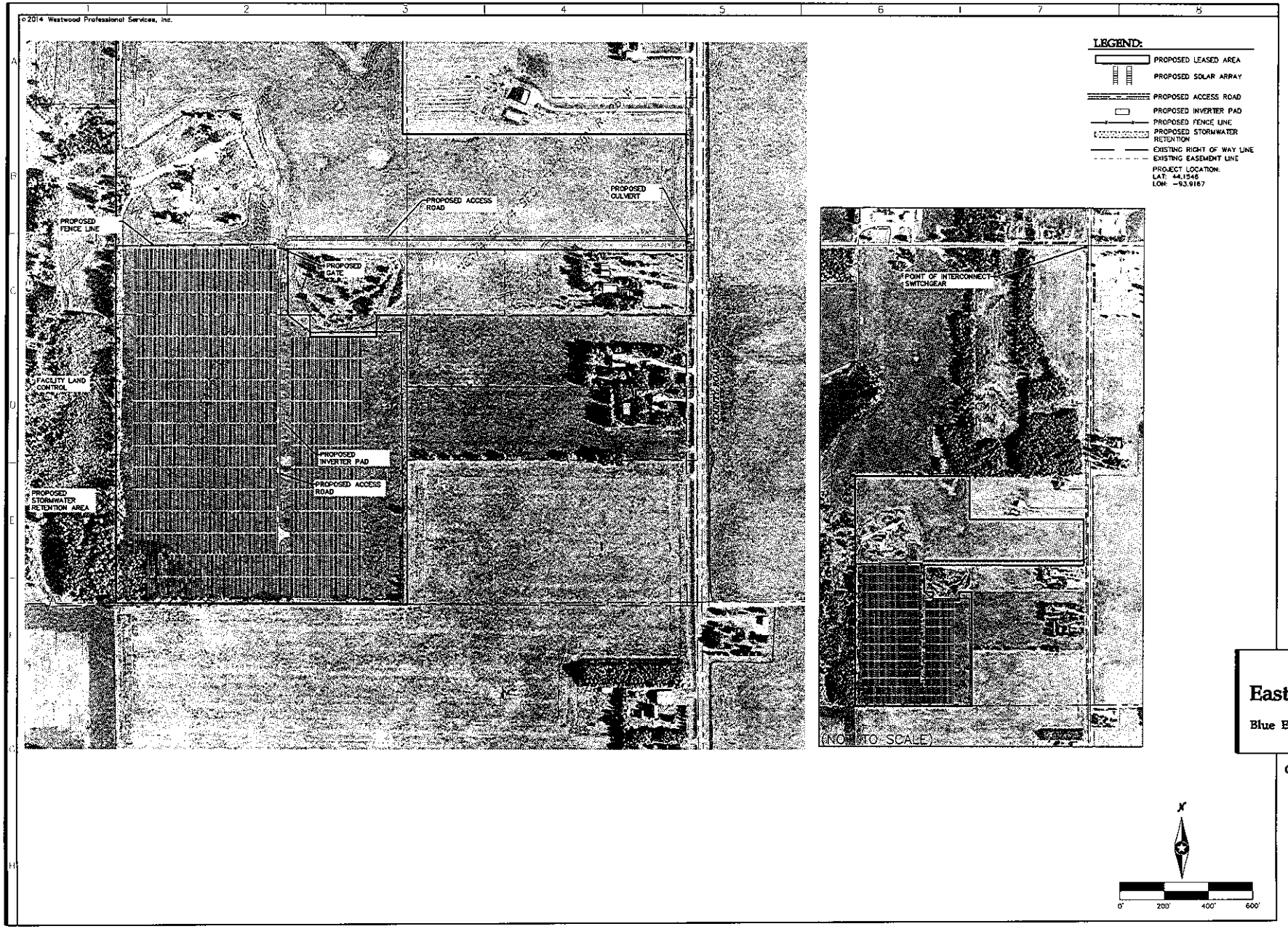

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Drawn: MPG
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DATE DESCRIPTION

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One Tech Drive, Suite 220
Andover, MA 01810

Eastwood Solar

Blue Earth County

Overall Site Plan

Not for Construction

Date: 06/24/14
Drawing No: C.200
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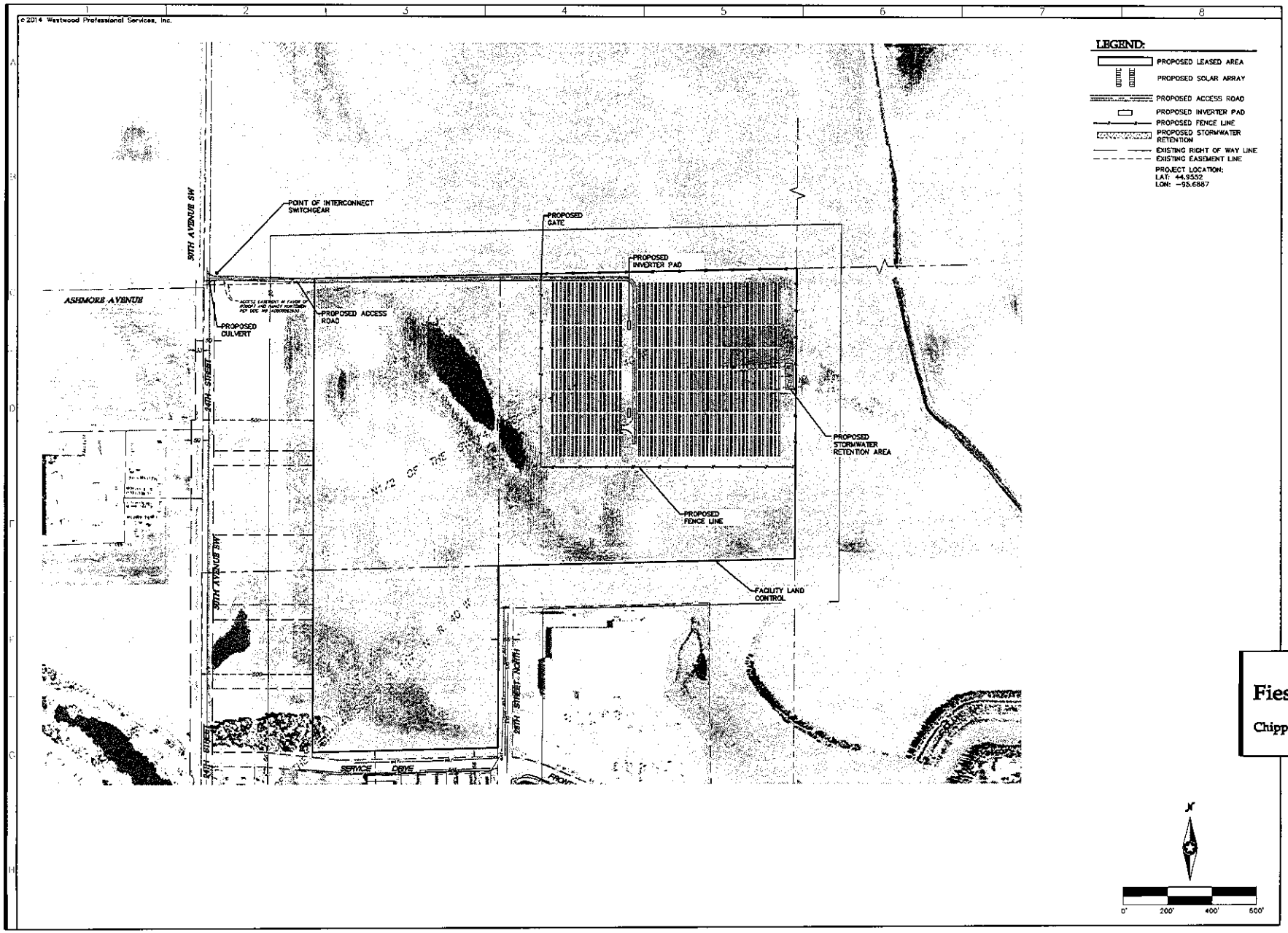

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Revisions:
DATE DESCRIPTION

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Andover, MA 01810

Fiesta City Solar

Chippewa County

Overall Site Plan

Not for Construction

Date: 06/24/14
Drawing No: C.200

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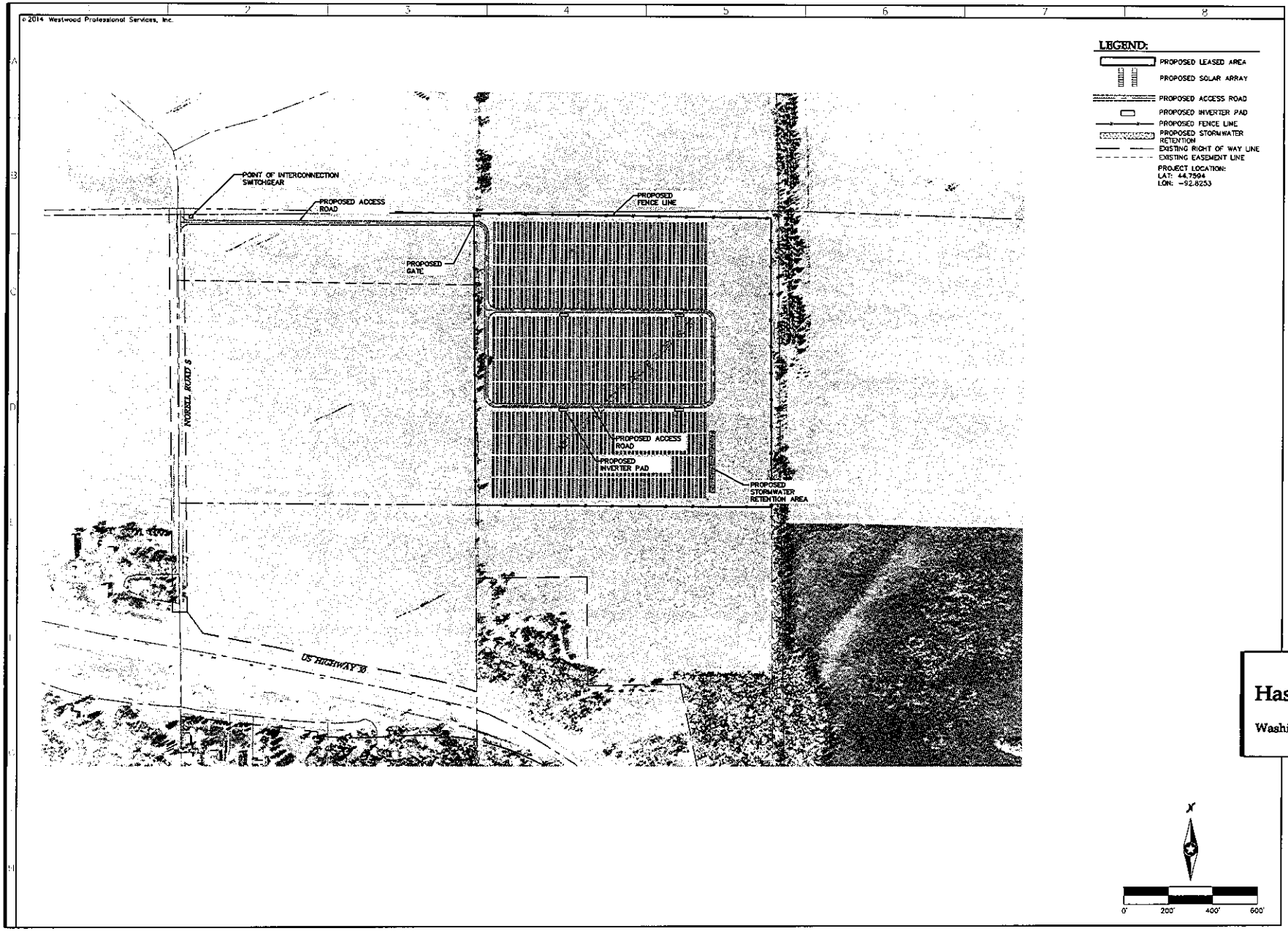

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FAX 952-937-5822
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Checked: ATC
Drawn: MPG
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Revisions:
DATE DESCRIPTION

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Aurora Distributed Solar, LLC
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Andover, MA 01810

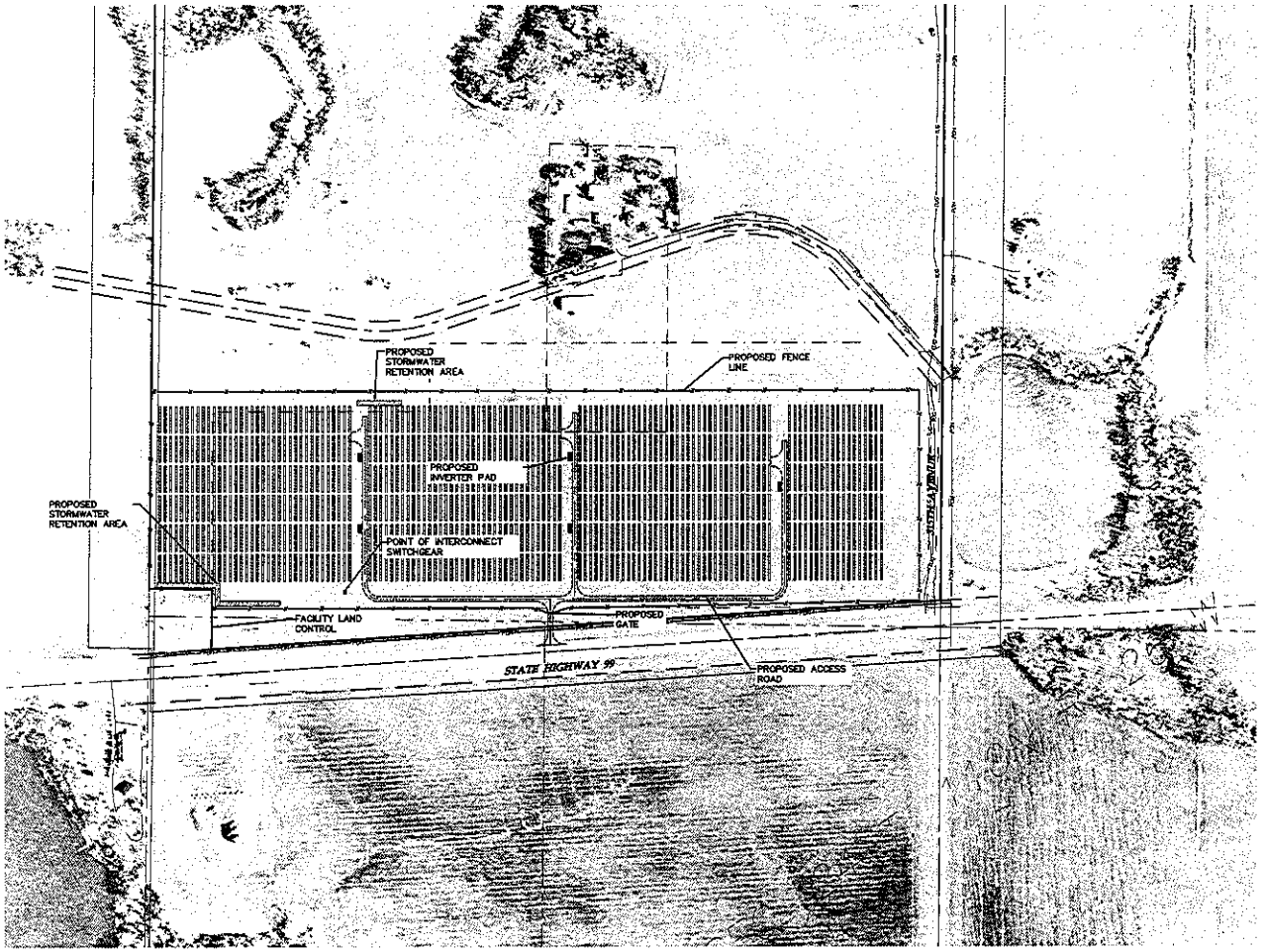
Hastings Solar

Washington County

Site Plan

Not for Construction

Date: 06/24/14
Drawing No: C.200



LEGEND:

- PROPOSED LEASED AREA
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED INVERTER PAD
- PROPOSED FENCE LINE
- PROPOSED STORMWATER RETENTION
- EXISTING OVERHEAD POWER LINE
- EXISTING TELEPHONE UNDERGROUND LINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE

PROJECT LOCATION:
LAT: 44.3203
LON: -93.9040

0' 200' 400' 600'

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Designed: MPG
Checked: ASC
Drawn: MPG
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DATE DESCRIPTION

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Andover, MA 01810

Lake Emily Solar

Le Sueur County

Overall Site Plan

Not for Construction

Date: 06/24/14
Drawing No: C.200

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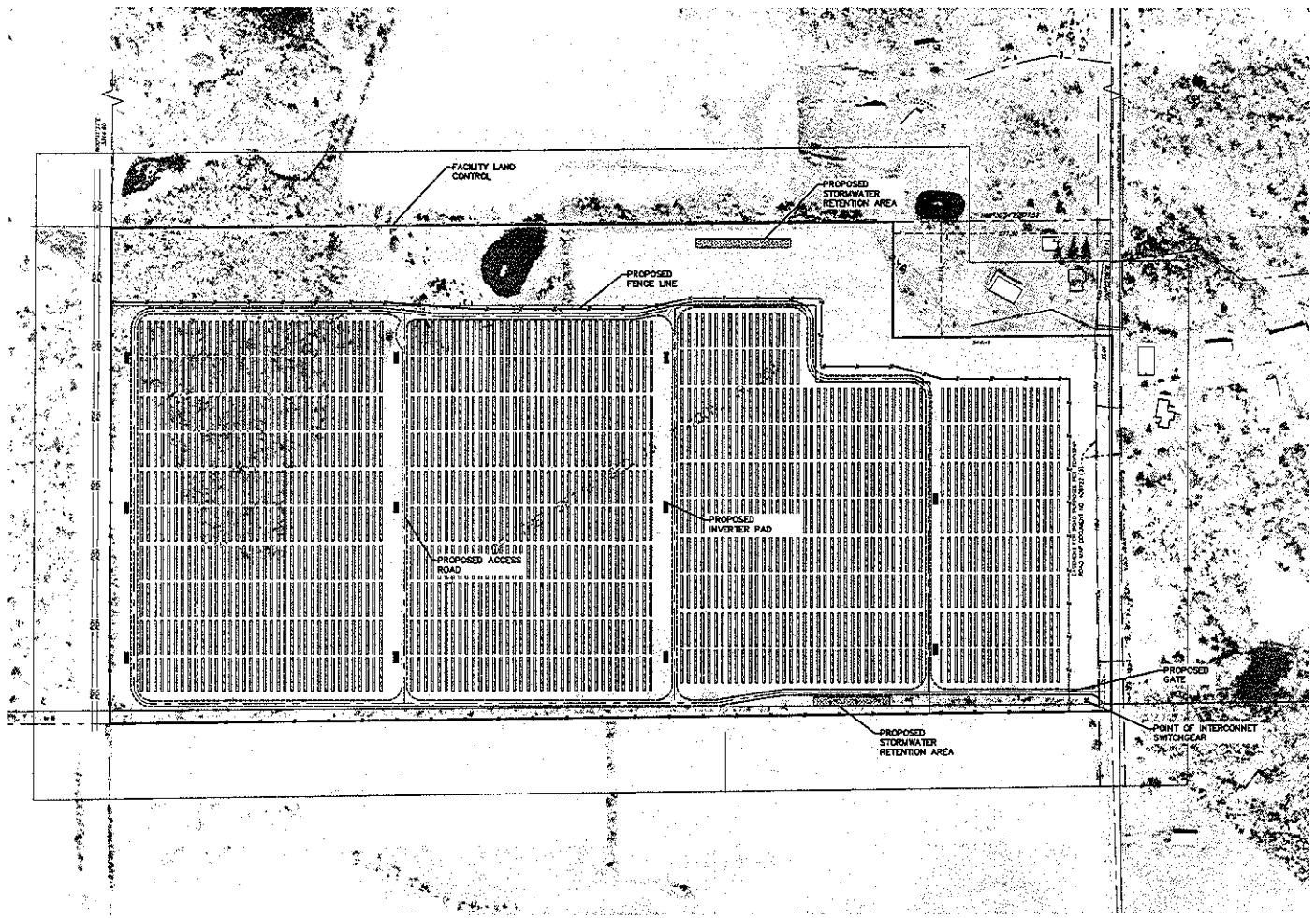

LEGEND:

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- EXISTING OVERHEAD POWER
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- EXISTING FENCE LINE
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PROJECT LOCATION:
LAT: 45.1959
LON: -93.8124

0' 150' 300' 450'

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FAX 952-937-5822
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Designed: MPG
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DATE DESCRIPTION

Prepared for:
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Aurora Distributed Solar, LLC
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Andover, MA 01810

Lake Pulaski Solar
Wright County

Overall Site Plan

Issued for Permit

Date: 06/23/14
Drawing No: C.200

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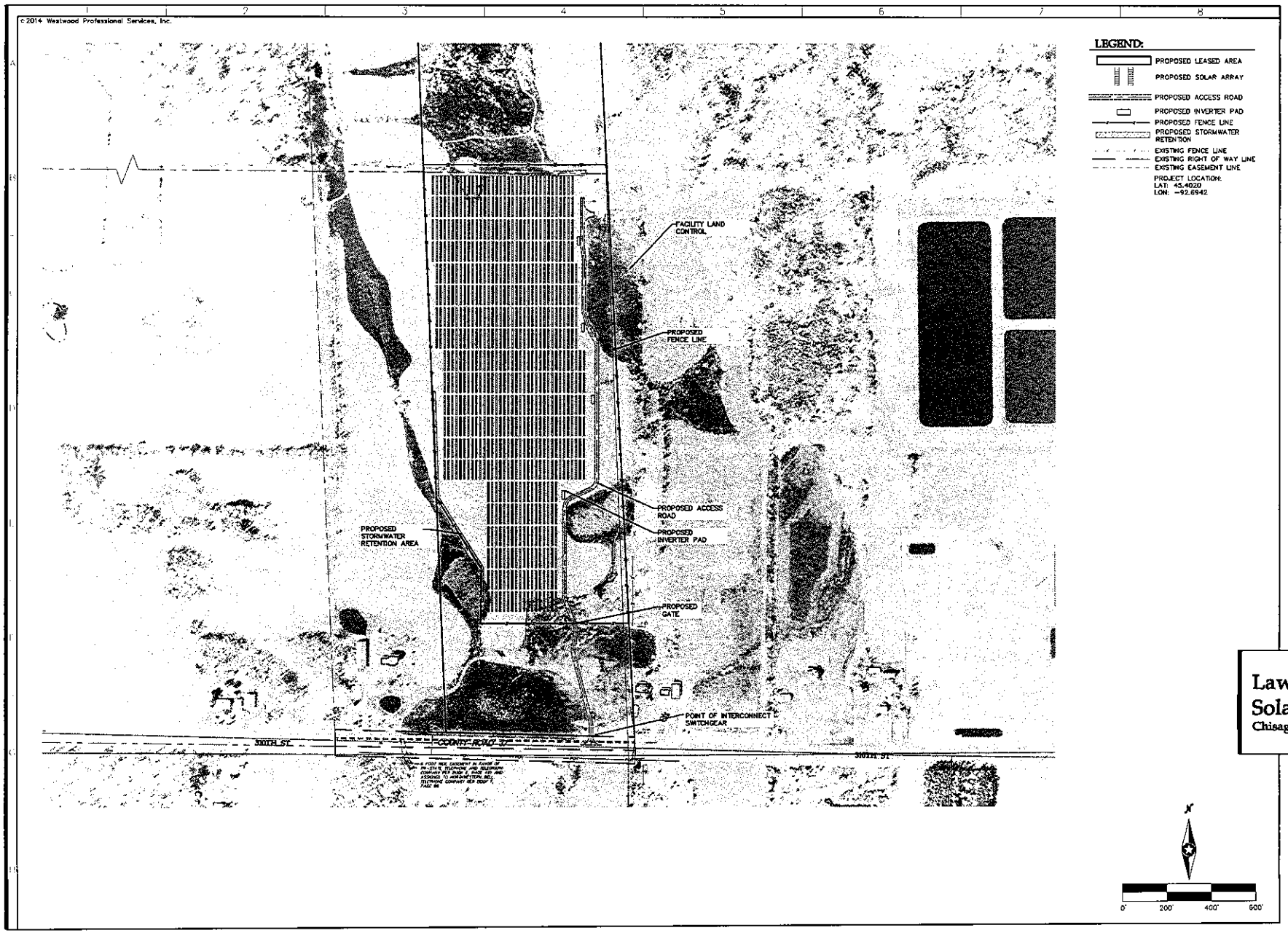

Westwood

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Revisions
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Prepared for:
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Aurora Distributed Solar, LLC
One Tech Drive, Suite 220
Andover, MA 01810

Lawrence Creek Solar
Chisago County

Overall Site Plan

Not for Construction

Date: 06/24/14
Drawing No: C.200
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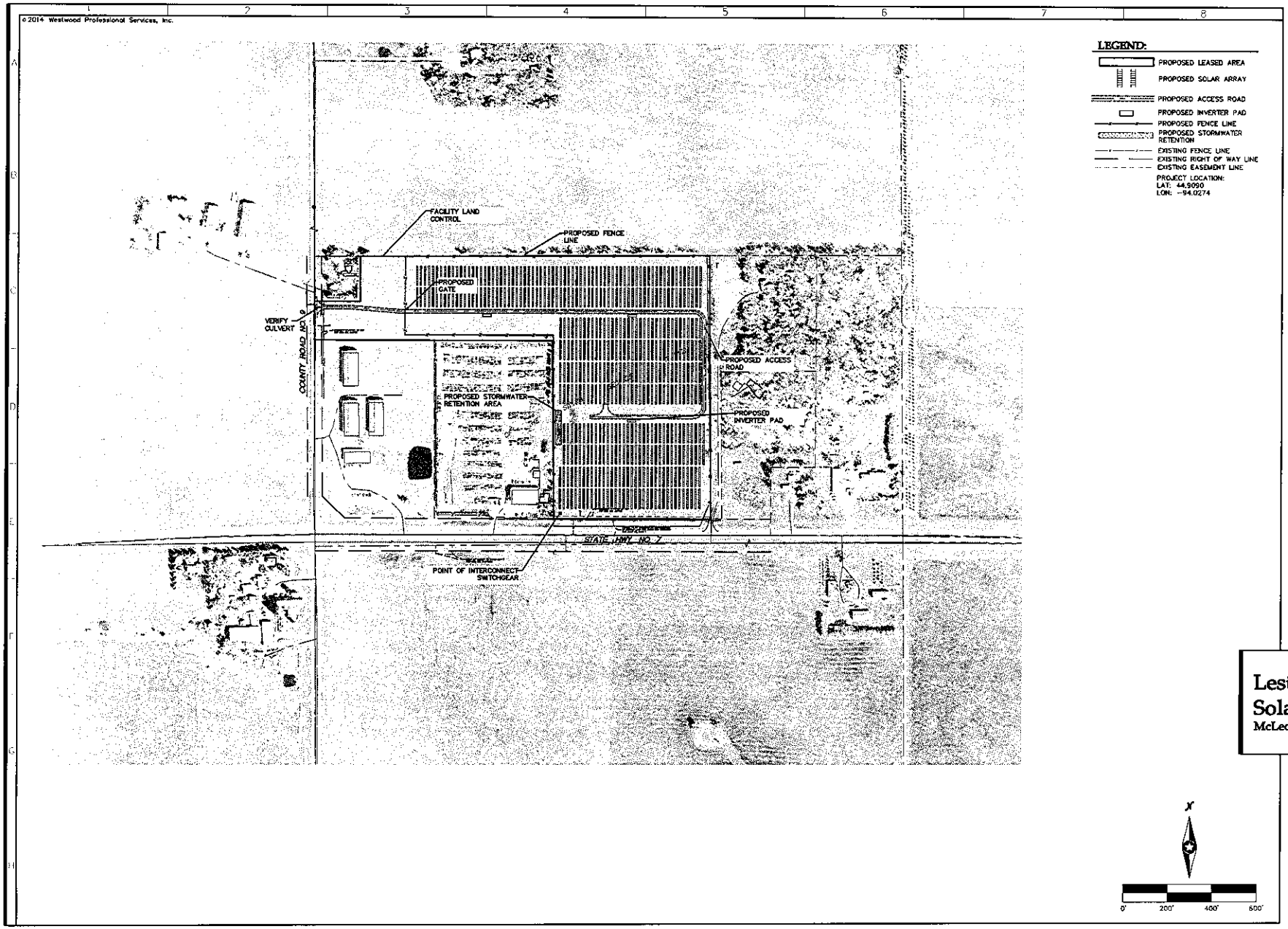

Westwood
Westwood Professional Services, Inc.
7699 Anagram Drive
Eden Prairie, MN 55344
PHONE 952-937-5150
FAX 952-937-5822
www.westwoodps.com

Designed: MPG
Checked: ADC
Drawn: MPC
Record Drawing by/date:

Revisions
DATE DESCRIPTION

Prepared for:
AURORA SOLAR
Aurora Distributed Solar, LLC
One Tech Drive, Suite 220
Andover, MA 01810

Lester Prairie Solar
McLeod County

Overall Site Plan

Not for Construction

Date: 06/24/14
Drawing No: C.200

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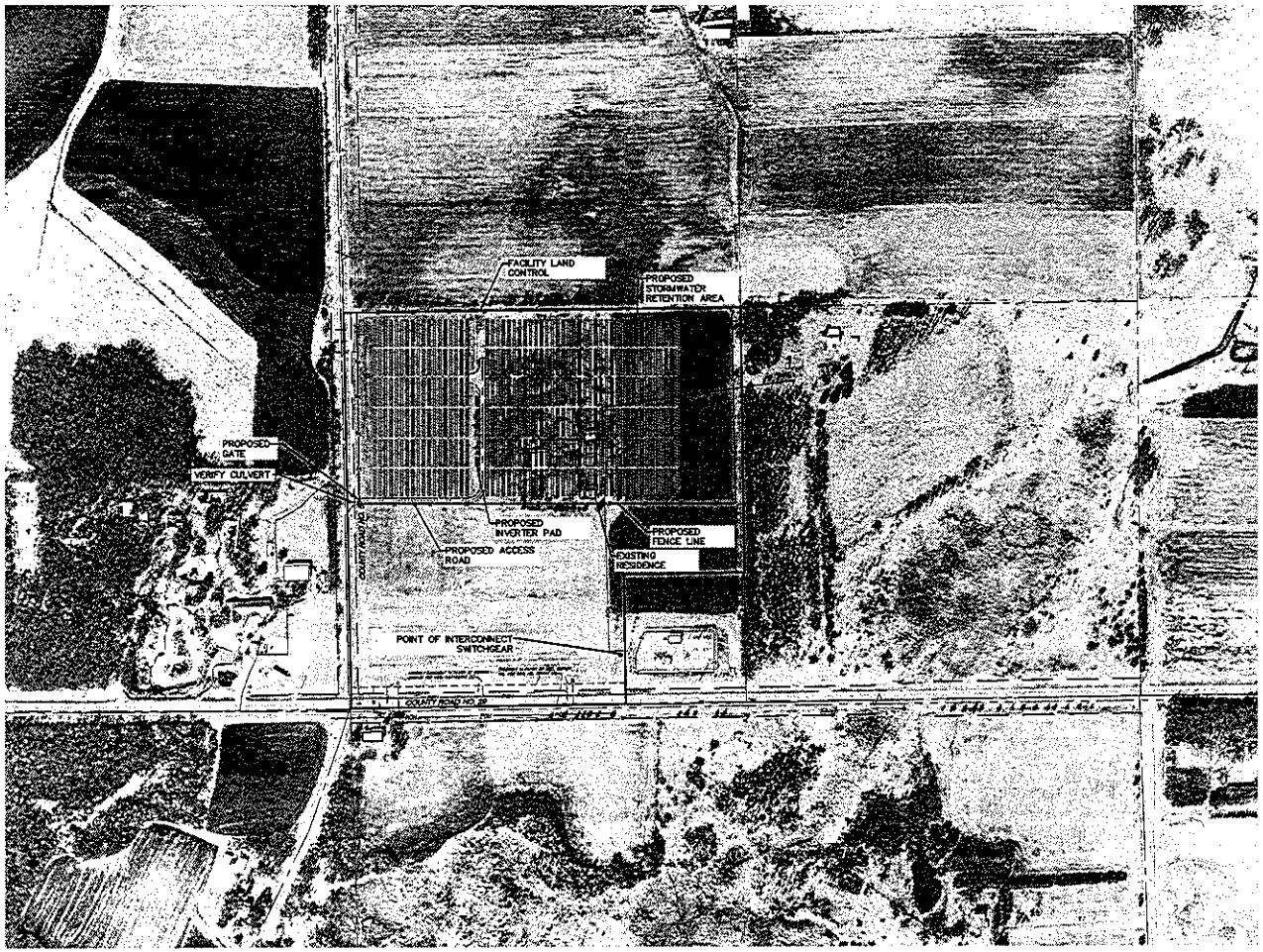

LEGEND:

- PROPOSED LEASED AREA
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED INVERTER PAD
- PROPOSED FENCE LINE
- PROPOSED STORMWATER RETENTION
- EXISTING FENCE LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE

PROJECT LOCATION:
LAT: 45.6201
LON: -94.1519

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Drawn: MPO
Record Drawing by/date:

Rev/Addenda
DATE DESCRIPTION

Prepared for:
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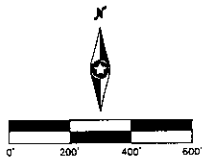
One Tech Drive, Suite 220
Andover, MA 01810

Mayhew Solar

Benton County

Overall Site Plan



Not for Construction

Date: 06/24/14
Drawing No: C.200

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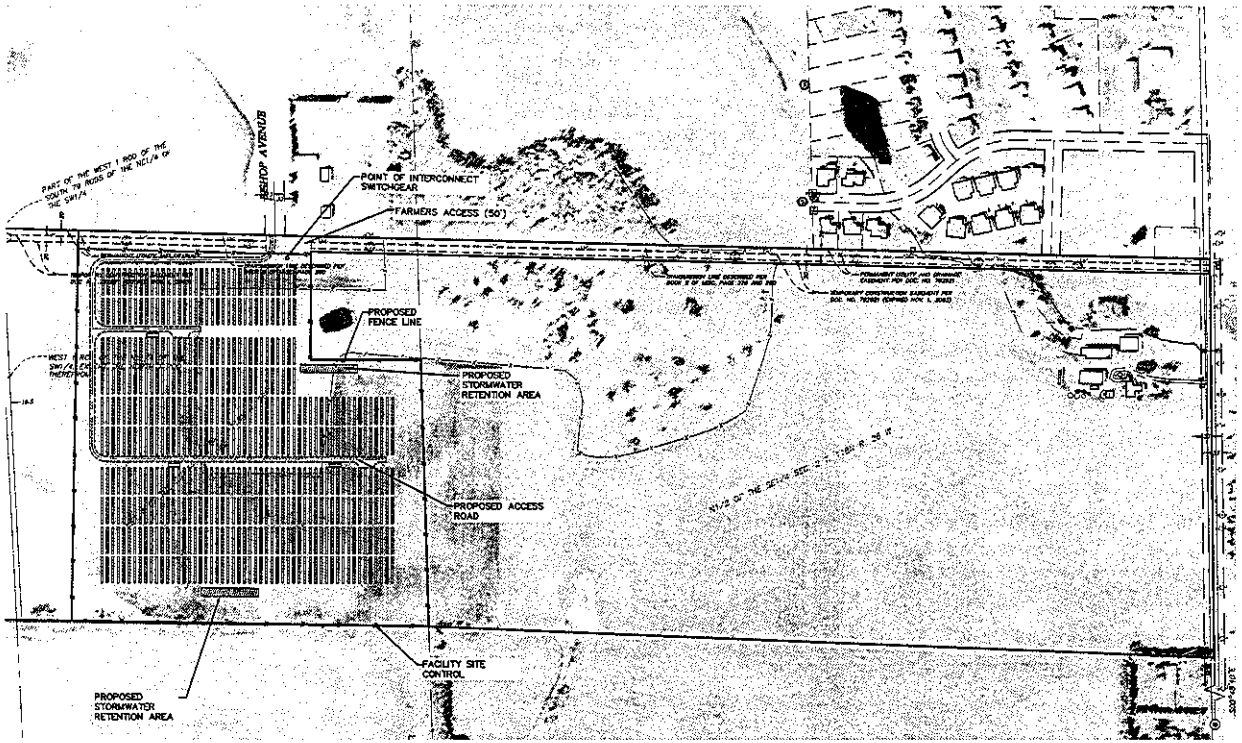

LEGEND:

- SOLAR LEASED AREA
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED INVERTER PAD
- PROPOSED FENCE LINE
- PROPOSED STORMWATER RETENTION
- EXISTING OVERHEAD POWER
- EXISTING RIGHT OF WAY LINE
- EXISTING SANITARY LINE
- EXISTING EASEMENT LINE

PROJECT LOCATION:
LAT: 45.0560
LON: -93.9234

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Designed: MPC
Checked: ADC
Drawn: MPC
Record Drawing by/date:

Revisions:
DATE DESCRIPTION

Prepared for:
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Aurora Distributed Solar, LLC
One Tech Drive, Suite 220
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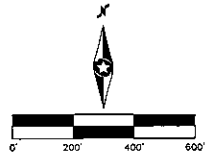
Montrose Solar

Wright County

Overall Site Plan



Not for Construction

Date: 06/23/14
Drawing No: C200

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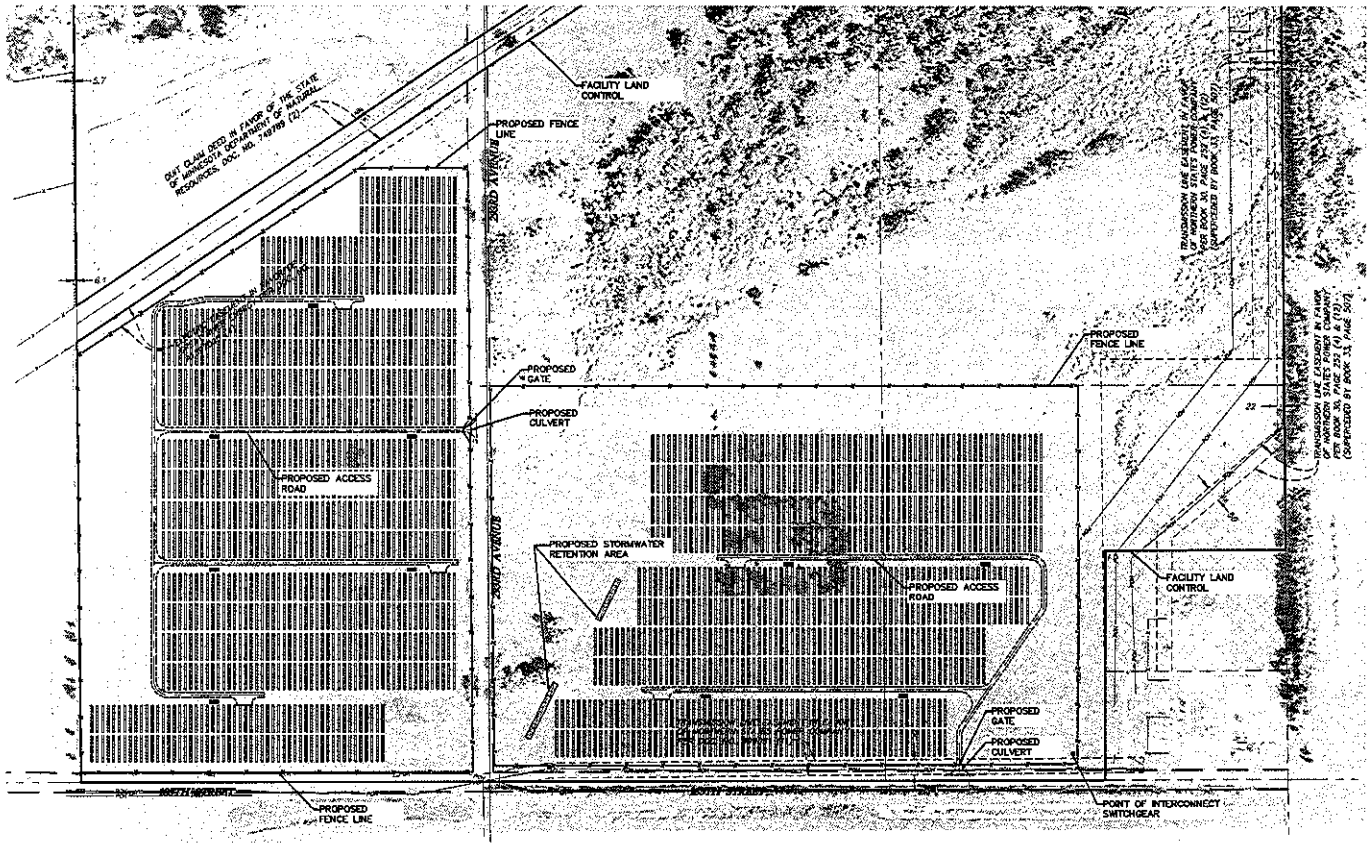

LEGEND:

- SOLAR LEASED AREA
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED INVERTER PAD
- PROPOSED FENCE LINE
- PROPOSED STORMWATER RETENTION
- EXISTING OVERHEAD POWER
- EXISTING EASEMENT LINE

PROJECT LOCATION:
LAT: 45.3923
LON: -924.7214

N

0' 200' 400' 600'

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Designed: MPH
Checked: ADC
Drawn: MPC
Record Drawing by/date:

Revisions:
DATE DESCRIPTION

Prepared for:
AURORA SOLAR
Aurora Distributed Solar, LLC
One Tech Drive, Suite 220
Andover, MA 01810

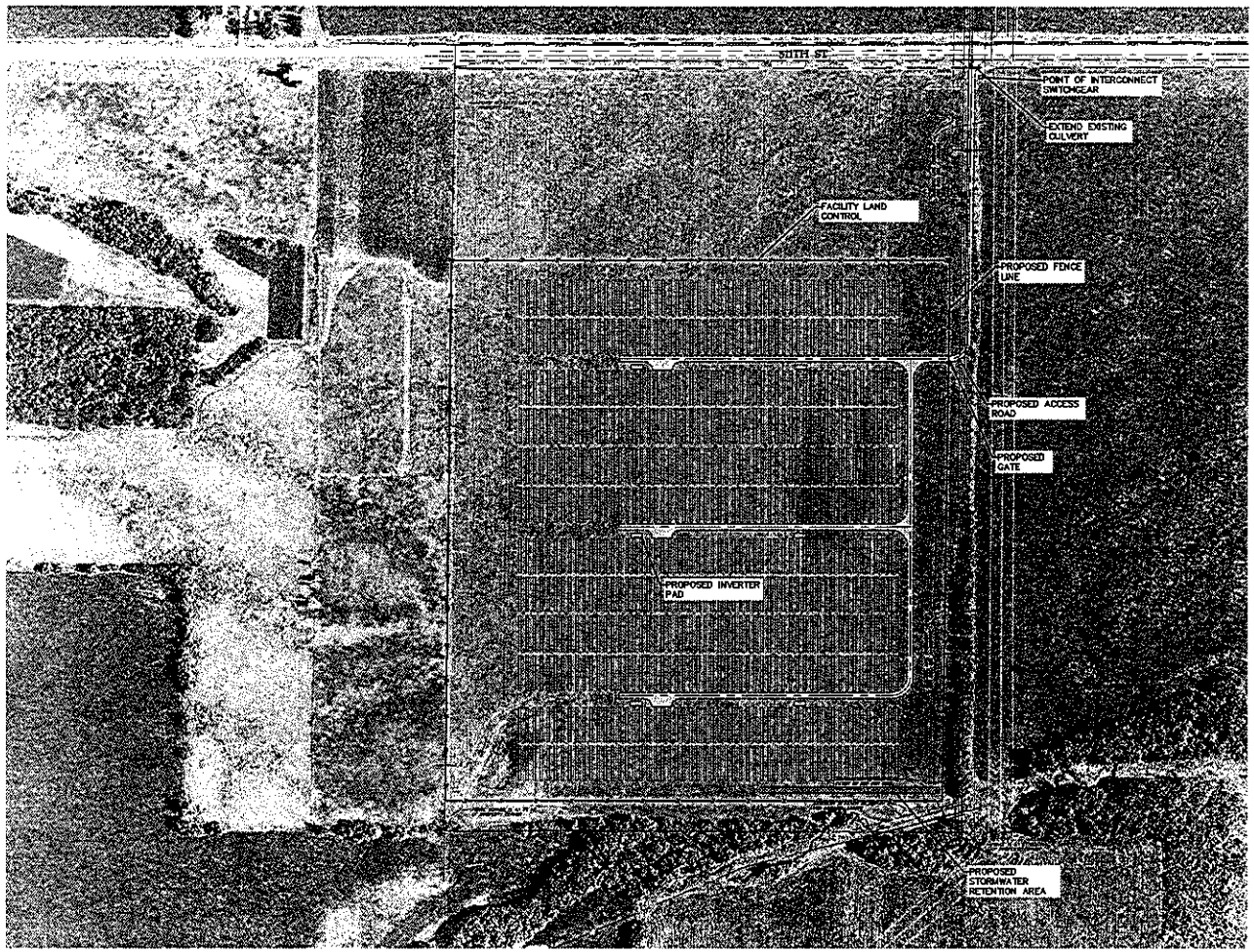
Paynesville Solar

Stearns County

Overall Site Plan

Not for Construction

Date: 06/24/14
Drawing No: C.200



LEGEND:

- SOLAR LEASED AREA
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED INVERTER PAD
- PROPOSED FENCE LINE
- PROPOSED STORMWATER RETENTION
- EXISTING OVERHEAD POWER
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE

PROJECT LOCATION:
LAT: 44.2048
LON: -92.6638

0' 100' 200' 300'

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Designed: MPO
Checked: ADC
Drawn: MPO
Record Drawing by/date:

Revisions:
DATE DESCRIPTION

Prepared for:
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Aurora Distributed Solar, LLC
One Tech Drive, Suite 220
Andover, MA 01810

Pine Island Solar

Goodhue County

Overall Site Plan

Issued for Permit

Date: 06/23/14
Drawing No: C.200

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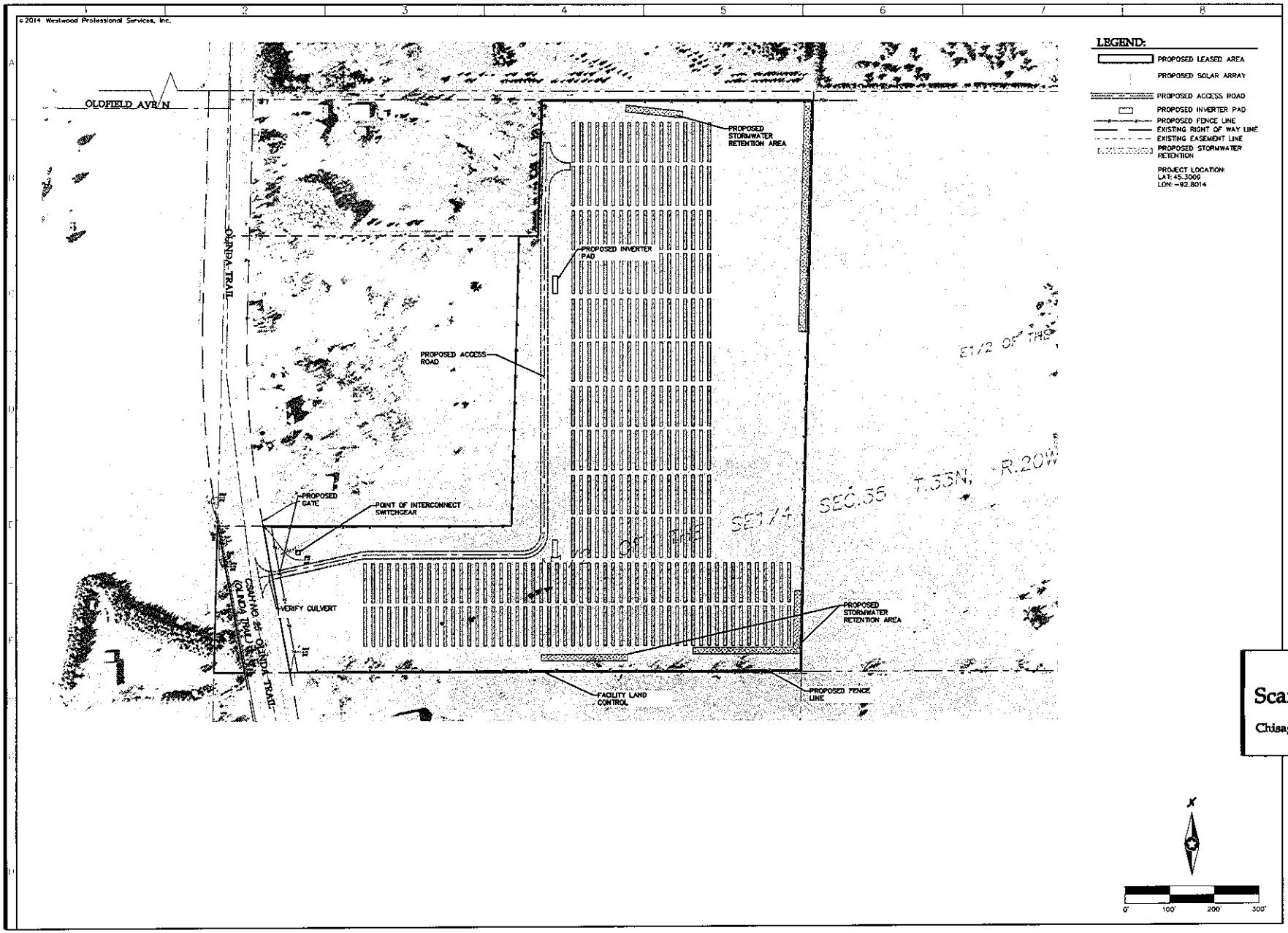

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Designed: MPG
Checked: ASC
Drawn: MPG
Record Drawing by/date:

Revisions:
DATE DESCRIPTION

Prepared for:
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Aurora Distributed Solar, LLC
One Tech Drive, Suite 220
Andover, MA 01810

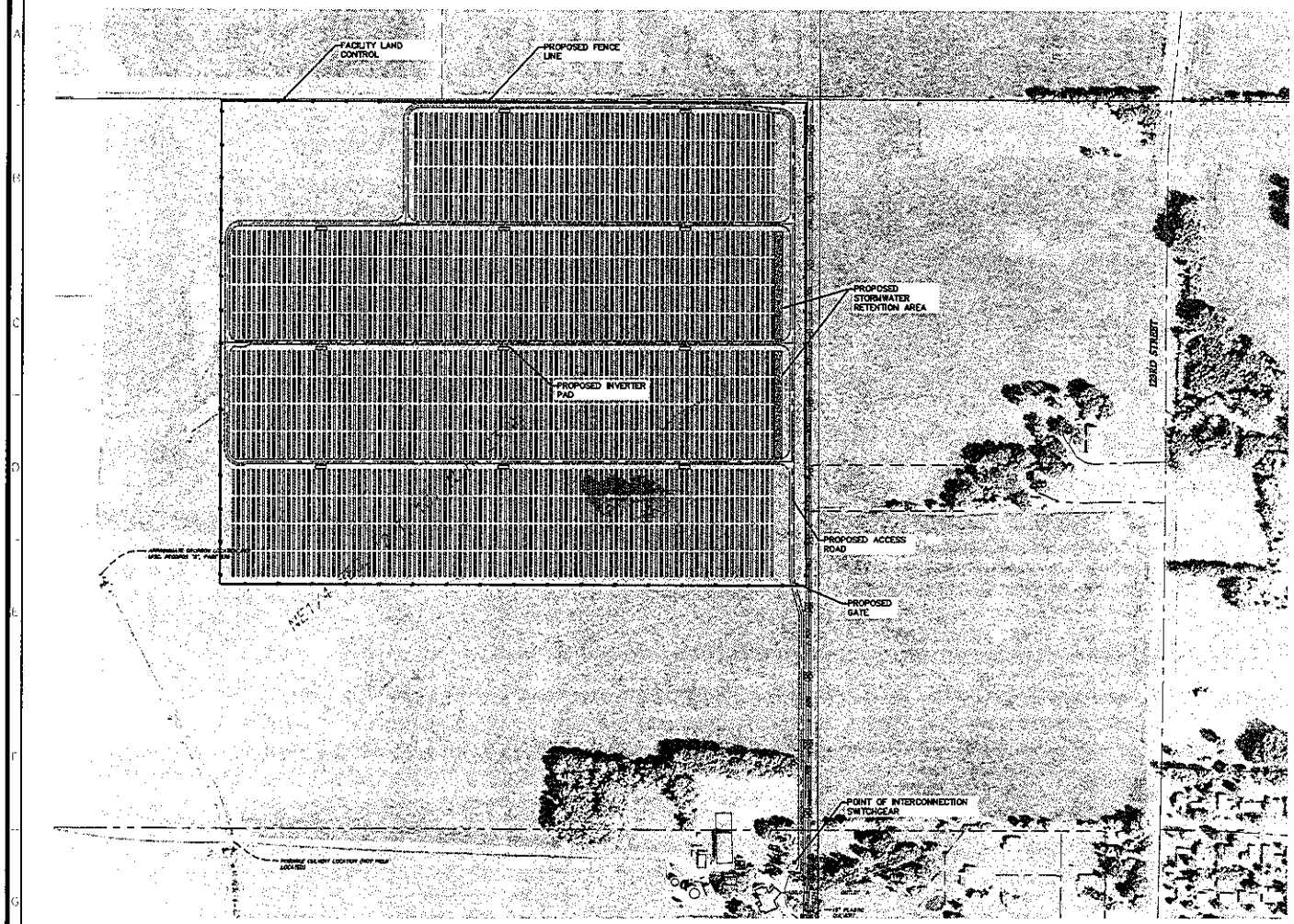
Scandia Solar

Chisago County

Overall Site Plan

Not for Construction

Date: 06/23/14
Drawing No: C.200



LEGEND:

- PROPOSED LEASED AREA
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED INVERTER PAD
- PROPOSED FENCE LINE
- PROPOSED STORMWATER RETENTION
- EXISTING EASEMENT LINE

PROJECT LOCATION:
LAT: 44.0923
LON: -93.5305

Westwood

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FAX 952-937-5822
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Designed: MPG
Checked: ADC
Drawn: MPG
Record Drawing by/date:

Revisions #	DATE	DESCRIPTION

Prepared for:

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One Tech Drive, Suite 220
Andover, MA 01810

Waseca Solar

Waseca County

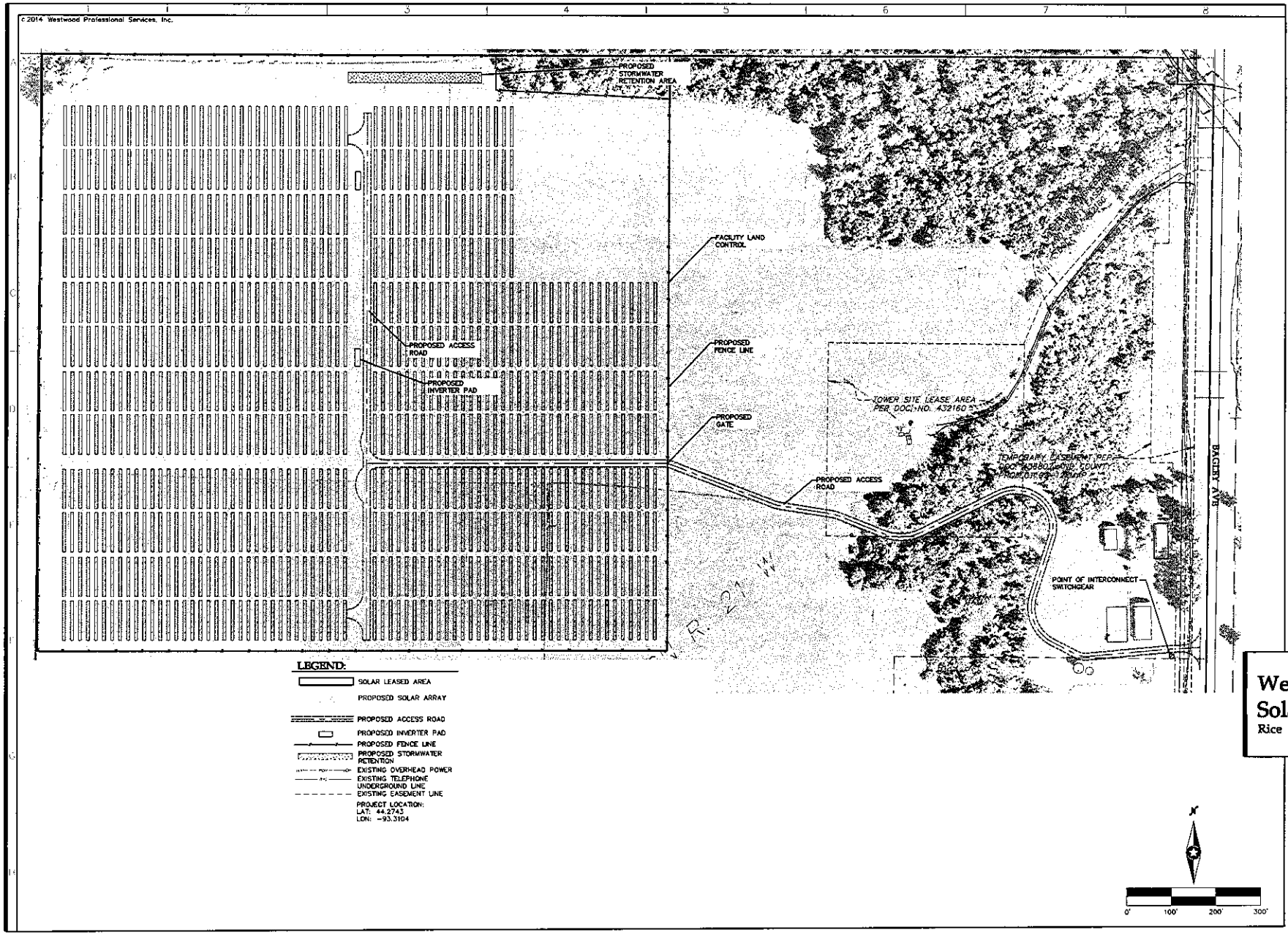
Overall Site Plan

Not for Construction

Date: 06/25/14
Drawing No: C.200

0' 200' 400' 600'

000357-20PERMIT01.dwg



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Designed: MPG
Checked: ADC
Drawn: MPC
Record Drawing by/date:

Revisions:
#	DATE	DESCRIPTION

Prepared for:
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Aurora Distributed Solar, LLC
One Tech Drive, Suite 220
Andover, MA 01810

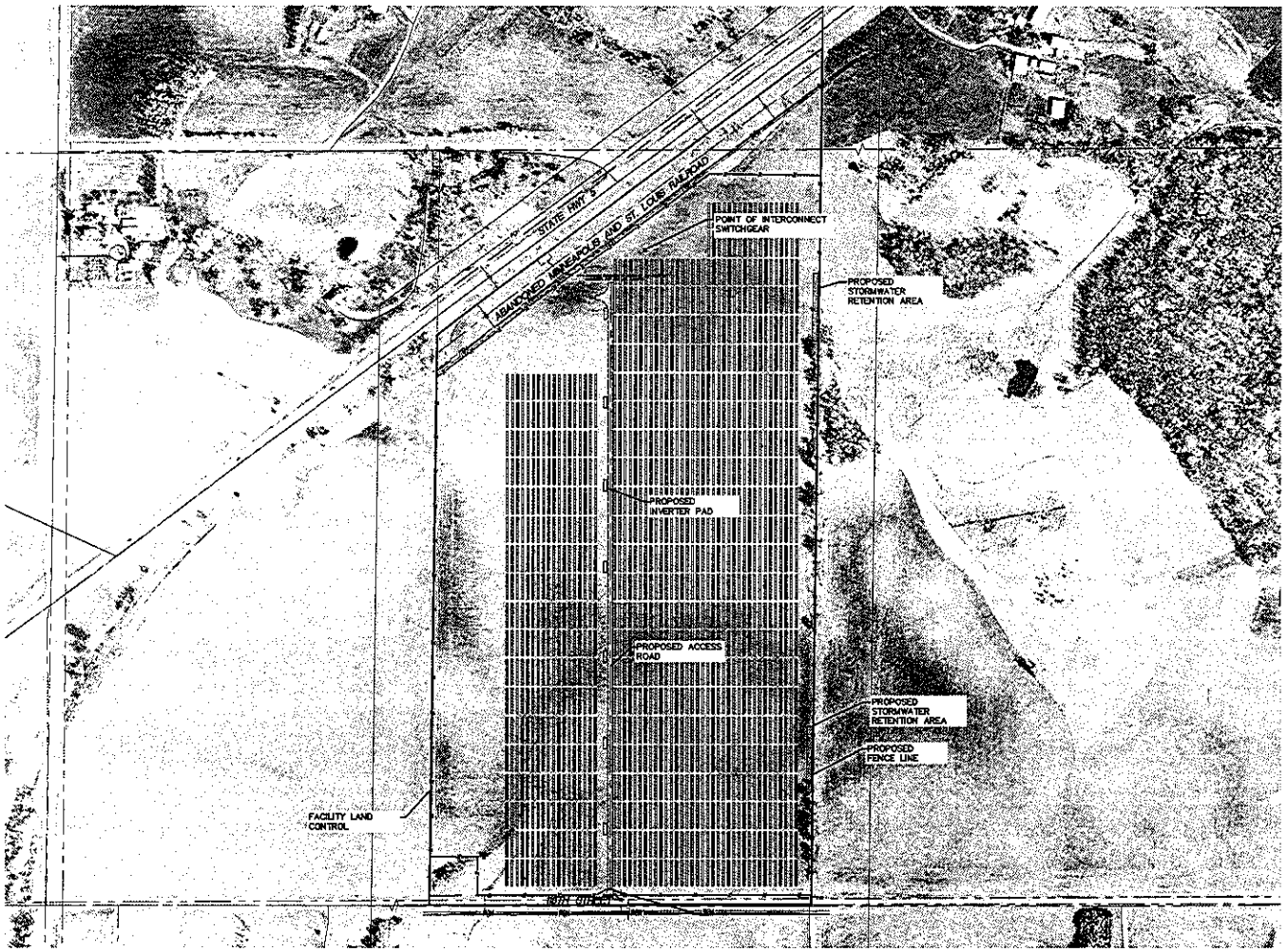
West Faribault Solar
Rice County

Overall Site Plan

Issued for Permit

Date: 06/23/14
Drawing No: C.200

600.1551 - 0481.MA 01.dwg



LEGEND:

- PROPOSED LEASED AREA
- PROPOSED SOLAR ARRAY
- PROPOSED ACCESS ROAD
- PROPOSED INVERTER PAD
- PROPOSED FENCE LINE
- EXISTING RIGHT OF WAY LINE
- EXISTING EASEMENT LINE
- PROPOSED STORMWATER RETENTION

PROJECT LOCATION:
LAT: 44.7958
LON: -93.9007

0' 200' 400' 500'

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Westwood
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Designed: MPD
Checked: ADC
Drawn: MPD
Record Drawing by/date:

Revisions:
DATE DESCRIPTION

Prepared for:
AURORA SOLAR
Aurora Distributed Solar, LLC
One Tech Drive, Suite 220
Andover, MA 01810

West Waconia Solar
Carver County

Overall Site Plan

Not for Construction

Date: 06/26/14
Drawing No: C.200

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MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLAINT HANDLING PROCEDURES FOR
SOLAR ENERGY FACILITIES

A. Purpose

To establish a uniform and timely method of reporting complaints received by the permittee concerning permit conditions for site preparation, construction, cleanup and restoration, operation, and resolution of such complaints.

B. Scope

This document describes complaint reporting procedures and frequency.

C. Applicability

The procedures shall be used for all complaints received by the permittee and all complaints received by the Minnesota Public Utilities Commission (Commission) under Minn. R. 7829.1500 or Minn. R. 7829.1700 relevant to this permit.

D. Definitions

Complaint: A verbal or written statement presented to the permittees by a person expressing dissatisfaction or concern regarding site preparation, cleanup or restoration or other route and associated facilities permit conditions. Complaints do not include requests, inquiries, questions or general comments.

Substantial Complaint: A written complaint alleging a violation of a specific permit condition that, if substantiated, could result in permit modification or suspension pursuant to the applicable regulations.

Unresolved Complaint: A complaint which, despite the good faith efforts of the permittee and a person, remains to both or one of the parties unresolved or unsatisfactorily resolved.

Person: An individual, partnership, joint venture, private or public corporation, association, firm, public service company, cooperative, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

E. Complaint Documentation and Processing

1. The permittee shall designate an individual to summarize complaints for the Commission. This person's name, phone number and email address shall accompany all complaint submittals.

2. A person presenting the complaint should to the extent possible, include the following information in their communications:

    a. name, address, phone number, and email address;
    b. date of complaint;
    c. tract or parcel number; and
    d. whether the complaint relates to a permit matter or a compliance issue.

3. The permittee shall document all complaints by maintaining a record of all applicable information concerning the complaint, including the following:

    a. docket number and project name;
    b. name of complainant, address, phone number and email address;
    c. precise description of property or parcel number;
    d. name of permittee representative receiving complaint and date of receipt;
    e. nature of complaint and the applicable permit condition(s);
    f. activities undertaken to resolve the complaint; and
    g. final disposition of the complaint.

F. Reporting Requirements

The permittee shall commence complaint reporting at the beginning of project construction and continue through the term of the permit. The permittee shall report all complaints to the Commission according to the following schedule:

Immediate Reports: All substantial complaints shall be reported to the Commission the same day received, or on the following working day for complaints received after working hours. Such reports are to be directed to the Commission's Consumer Affairs Office at 1-800-657-3782 (voice messages are acceptable) or consumer.puc@state.mn.us. For e-mail reporting, the email subject line should read "PUC EFP Complaint" and include the appropriate project docket number.

Monthly Reports: By the 15th of each month, a summary of all complaints, including substantial complaints received or resolved during the preceding month, shall be filed to Daniel P. Wolf, Executive Secretary, Public Utilities Commission, using the eDockets system. The eDockets system is located at: http://mn.gov/puc/

If no complaints were received during the preceding month, the permittee shall file a summary indicating that no complaints were received.

G. Complaints Received by the Commission

Complaints received directly by the Commission from aggrieved persons regarding site preparation, construction, cleanup, restoration, operation and maintenance shall be promptly sent to the permittee.

H. Commission Process for Unresolved Complaints

Commission staff shall perform an initial evaluation of unresolved complaints submitted to the Commission. Complaints raising substantial permit issues shall be processed and resolved by the Commission. Staff shall notify the permittee and appropriate persons if it determines that the complaint is a substantial complaint. With respect to such complaints, each party shall submit a written summary of its position to the Commission no later than ten (10) days after receipt of the staff notification. The complaint will be presented to the Commission for a decision as soon as practicable.

I. Permittee Contacts for Complaints and Complaint Reporting

Complaints may filed by mail or email to the contact listed in the company's complaint report compliance filing. This information shall be maintained current by informing the Commission of any changes by eFiling, as they become effective.

MINNESOTA PUBLIC UTILITIES COMMISSION
COMPLIANCE FILING PROCEDURE FOR
PERMITTED ENERGY FACILITIES

A. Purpose

To establish a uniform and timely method of submitting information required by the Commission energy facility permits.

B. Scope and Applicability

This procedure encompasses all compliance filings required by permit.

C. Definitions

Compliance Filing: A filing of information to the Commission, where the information is required by a Commission site or route permit.

D. Responsibilities

1. The permittee shall eFile all compliance filings with Daniel P. Wolf, Executive Secretary, Public Utilities Commission, through the eDockets system. The eDockets system is located at: https://www.edockets.state.mn.us/EFiling/home.jsp

General instructions are provided on the eDockets website. Permittees must register on the website to eFile documents.

2. All filings must have a cover sheet that includes:

    a. Date
    b. Name of submitter/permittee
    c. Type of permit (site or route)
    d. Project location
    e. Project docket number
    f. Permit section under which the filing is made
    g. Short description of the filing

3. Filings that are graphic intensive (e.g., maps, engineered drawings) must, in addition to being eFiled, be submitted as paper copies and on CD. Paper copies and CDs should be sent to: 1) Daniel P. Wolf, Executive Secretary, Minnesota Public Utilities Commission, 121 7th Place East, Suite 350, St. Paul, MN 55101-2147, and 2) Department of Commerce, Energy Environmental Review and Analysis, 85 7th Place East, Suite 500, St. Paul, MN 55101-2198.

The Commission may request a paper copy of any eFiled document.

PERMIT COMPLIANCE FILINGS[1]

PERMITTEE: Aurora Distributed Solar, LLC
PERMIT TYPE: Site Permit
PROJECT LOCATION: Multiple Counties
COMMISSION DOCKET: E-6928/GS-14-515

PRE-CONSTRUCTION MEETING

Permit Section	Description	Due Date	Notes	eDocket Doc. ID	Date Filed
5.3	Native Prairie Protection Plan	30 days prior to first pre-construction meeting, if required.	Develop in consultation with Commission, Department of Commerce and DNR.		
6.1	Site Plan	14 days prior to first pre-construction meeting.			
6.4	Agricultural Impact Mitigation Plan	14 days prior to first site plan.	Developed in consultation with the Department of Agriculture		
6.5	Vegetation Management Plan	14 days prior to first site plan.	Develop in consultation with Commission, Department of Commerce and DNR.		
6.6	Field Representative	14 days prior to first pre-construction meeting.			
7.1	Biological & Natural Resource Inventories	30 days prior to first pre-construction Meeting.	Developed in consultation with Department of Commerce and DNR; Results may trigger need for a Native Prairie Protection Plan.		
7.2	Archaeological Resources	14 days prior to first pre-construction meeting and as recommended by the State Historic Preservation Office.			

[1] This compilation of permit compliance filings is provided for the convenience of the permittee and the Commission. However, it is not a substitute for the permit; the language of the permit controls.

8.10	Road Identification	14 days prior to first pre-construction meeting.			
8.14	Soil Erosion & Sediment Control Plan	14 days prior to first pre-construction.	May be the same as NPDES SWPPP.		
8.19	Emergency Response	14 days prior to first pre-construction meeting.	Must register in 911 Program.		

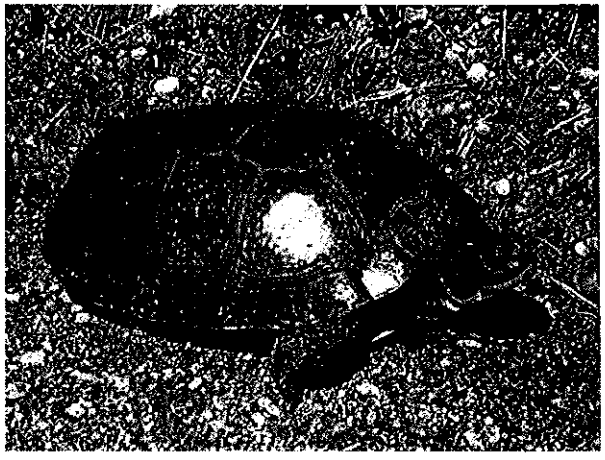
PRE-OPERATION COMPLIANCE MEETING

Permit Section	Description	Due Date	Notes	eDocket Doc. ID	Date Filed
6.7	Site Manager	14 days prior to commercial operation of first facility			
6.9	Pre-operation compliance meeting	14 days prior to commercial operation of first facility			
6.10	Complaint Reporting Procedures	14 days prior to pre-construction meeting.			
10.1	Decommission-ing Plan	14 days prior to pre-construction meeting			

OTHER REQUIREMENTS

Permit Section	Description	Due Date	Notes	eDocket Doc. ID	Date Filed
6.2	Notice to Local Government Agencies	14 days following issuance of permit			
6.10	Complaints	Complaint submittals on the 15th of each month or within 24 hours.	Must eFile report even if no complaints.		
7.3	Project Energy Production	Due 2/1 each year.			
6.9	Photovoltaic Resource Use	Due 2/1 each year			
6.10	Extraordinary Events	Within 24 hours of discovery; wildlife incidents reported quarterly			
9.1	As Builts	Within 60 days of completion of construction of the Project.			
9.4	Notification of Commercial Operation	At least 3 days before each facility begins commercial operation			
10.2	Completion of Site Restoration	Upon restoration			
11.1	PPA or Enforceable Mechanism	Within 4 years of permit issuance.	If no PPA or other enforceable mechanism at time of permit issuance.		
11.2	Failure to Start Construction	Within 4 years of permit issuance.			
12.5	Transfer of Permit	As applicable			
12.6	Notice of Ownership	Within 20 days of last facility becoming operational			

CAUTION



BLANDING'S TURTLES

MAY BE ENCOUNTERED IN THIS AREA

The unique and rare Blanding's turtle has been found in this area. Blanding's turtles are state-listed as Threatened and are protected under Minnesota Statute 84.095, Protection of Threatened and Endangered Species. Please be careful of turtles on roads and in construction sites. For additional information on turtles, or to report a Blanding's turtle sighting, contact the DNR Nongame Specialist nearest you: Bemidji (218-308-2653); Grand Rapids (218-327-4518); New Ulm (507-359-6033); Rochester (507-206-2820); or St. Paul (651-259-5772).

DESCRIPTION: The Blanding's turtle is a medium to large turtle (5 to 10 inches) with a black or dark blue, dome-shaped shell with muted yellow spots and bars. The bottom of the shell is hinged across the front third, enabling the turtle to pull the front edge of the lower shell firmly against the top shell to provide additional protection when threatened. The head, legs, and tail are dark brown or blue-gray with small dots of light brown or yellow. A distinctive field mark is the bright yellow chin and neck.

BLANDING'S TURTLES DO NOT MAKE GOOD PETS
IT IS ILLEGAL TO KEEP THIS THREATENED SPECIES IN CAPTIVITY

SUMMARY OF RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS TO BLANDING'S TURTLE POPULATIONS

(see Blanding's Turtle Fact Sheet for full recommendations)

- This flyer should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.
- Turtles that are in imminent danger should be moved, by hand, out of harm's way. Turtles that are not in imminent danger should be left undisturbed to continue their travel among wetlands and/or nest sites.
- If a Blanding's turtle nests in your yard, do not disturb the nest and do not allow pets near the nest.
- Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.
- Small, vegetated temporary wetlands should not be dredged, deepened, or filled.
- All wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.
- Roads should be kept to minimum standards on widths and lanes.
- Roads should be ditched, not curbed or below grade. If curbs must be used, 4" high curbs at a 3:1 slope are preferred.
- Culverts under roads crossing wetland areas, between wetland areas, or between wetland and nesting areas should be at least 36 in. diameter and flat-bottomed or elliptical.
- Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.
- Utility access and maintenance roads should be kept to a minimum.
- Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.
- Terrain should be left with as much natural contour as possible.
- Graded areas should be revegetated with native grasses and forbs.
- Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).

Compiled by the Minnesota Department of Natural Resources Division of Ecological and Water Resources, Updated August 2012
Endangered Species Review Coordinator, 500 Lafayette Rd., Box 25, St. Paul, MN 55155 / 651-259-5109

Endangered, Threatened, and Special Concern Species of Minnesota

Blanding's Turtle

(Emydoidea blandingii)

Minnesota Status:	Threatened	State Rank[1]:	S2
Federal Status:	none	Global Rank[1]:	G4

HABITAT USE

Blanding's turtles need both wetland and upland habitats to complete their life cycle. The types of wetlands used include ponds, marshes, shrub swamps, bogs, and ditches and streams with slow-moving water. In Minnesota, Blanding's turtles are primarily marsh and pond inhabitants. Calm, shallow water bodies (Type 1-3 wetlands) with mud bottoms and abundant aquatic vegetation (e.g., cattails, water lilies) are preferred, and extensive marshes bordering rivers provide excellent habitat. Small temporary wetlands (those that dry up in the late summer or fall) are frequently used in spring and summer -- these fishless pools are amphibian and invertebrate breeding habitat, which provides an important food source for Blanding's turtles. Also, the warmer water of these shallower areas probably aids in the development of eggs within the female turtle. Nesting occurs in open (grassy or brushy) sandy uplands, often some distance from water bodies. Frequently, nesting occurs in traditional nesting grounds on undeveloped land. Blanding's turtles have also been known to nest successfully on residential property (especially in low density housing situations), and to utilize disturbed areas such as farm fields, gardens, under power lines, and road shoulders (especially of dirt roads). Although Blanding's turtles may travel through woodlots during their seasonal movements, shady areas (including forests and lawns with shade trees) are not used for nesting. Wetlands with deeper water are needed in times of drought, and during the winter. Blanding's turtles overwinter in the muddy bottoms of deeper marshes and ponds, or other water bodies where they are protected from freezing.

LIFE HISTORY

Individuals emerge from overwintering and begin basking in late March or early April on warm, sunny days. The increase in body temperature which occurs during basking is necessary for egg development within the female turtle. Nesting in Minnesota typically occurs during June, and females are most active in late afternoon and at dusk. Nesting can occur as much as a mile from wetlands. The nest is dug by the female in an open sandy area and 6-15 eggs are laid. The female turtle returns to the marsh within 24 hours of laying eggs. After a development period of approximately two months, hatchlings leave the nest from mid-August through early-October. Nesting females and hatchlings are often at risk of being killed while crossing roads between wetlands and nesting areas. In addition to movements associated with nesting, all ages and both sexes move between wetlands from April through November. These movements peak in June and July and again in September and October as turtles move to and from overwintering sites. In late autumn (typically November), Blanding' s turtles bury themselves in the substrate (the mud at the bottom) of deeper wetlands to overwinter.

IMPACTS / THREATS / CAUSES OF DECLINE

- loss of wetland habitat through drainage or flooding (converting wetlands into ponds or lakes)
- loss of upland habitat through development or conversion to agriculture
- human disturbance, including collection for the pet trade* and road kills during seasonal movements
- increase in predator populations (skunks, raccoons, etc.) which prey on nests and young

*It is illegal to possess this threatened species.

RECOMMENDATIONS FOR AVOIDING AND MINIMIZING IMPACTS

These recommendations apply to typical construction projects and general land use within Blanding's turtle habitat, and are provided to help local governments, developers, contractors, and homeowners minimize or avoid detrimental impacts to Blanding's turtle populations. **List 1** describes minimum measures which we recommend to prevent harm to Blanding's turtles during construction or other work within Blanding's turtle habitat. **List 2** contains recommendations which offer even greater protection for Blanding's turtles populations; this list should be used *in addition to the first list* in areas which are known to be of state-wide importance to Blanding's turtles (contact the DNR's Natural Heritage and Nongame Research Program if you wish to determine if your project or home is in one of these areas), or in any other area where greater protection for Blanding's turtles is desired.

List 1. Recommendations for all areas inhabited by Blanding's turtles.	**List 2. *Additional* recommendations for areas known to be of state-wide importance to Blanding's turtles.**
GENERAL	
A flyer with an illustration of a Blanding's turtle should be given to all contractors working in the area. Homeowners should also be informed of the presence of Blanding's turtles in the area.	Turtle crossing signs can be installed adjacent to road-crossing areas used by Blanding's turtles to increase public awareness and reduce road kills.
Turtles which are in imminent danger should be moved, by hand, out of harms way. Turtles which are not in imminent danger should be left undisturbed.	Workers in the area should be aware that Blanding' s turtles nest in June, generally after 4pm, and should be advised to minimize disturbance if turtles are seen.
If a Blanding's turtle nests in your yard, do not disturb the nest.	If you would like to provide more protection for a Blanding's turtle nest on your property, see "Protecting Blanding's Turtle Nests" on page 3 of this fact sheet.
Silt fencing should be set up to keep turtles out of construction areas. It is critical that silt fencing be removed after the area has been revegetated.	Construction in potential nesting areas should be limited to the period between September 15 and June 1 (this is the time when activity of adults and hatchlings in upland areas is at a minimum).
WETLANDS	
Small, vegetated temporary wetlands (Types 2 & 3) should not be dredged, deepened, filled, or converted to storm water retention basins (these wetlands provide important habitat during spring and summer).	Shallow portions of wetlands should not be disturbed during prime basking time (mid morning to mid- afternoon in May and June). A wide buffer should be left along the shore to minimize human activity near wetlands (basking Blanding's turtles are more easily disturbed than other turtle species).
Wetlands should be protected from pollution; use of fertilizers and pesticides should be avoided, and run-off from lawns and streets should be controlled. Erosion should be prevented to keep sediment from reaching wetlands and lakes.	Wetlands should be protected from road, lawn, and other chemical run-off by a vegetated buffer strip at least 50' wide. This area should be left unmowed and in a natural condition.
ROADS	
Roads should be kept to minimum standards on widths and lanes (this reduces road kills by slowing traffic and reducing the distance turtles need to cross).	Tunnels should be considered in areas with concentrations of turtle crossings (more than 10 turtles per year per 100 meters of road), and in areas of lower density if the level of road use would make a safe crossing impossible for turtles. Contact your DNR Regional Nongame Specialist for further information on wildlife tunnels.
Roads should be ditched, not curbed or below grade. If curbs must be used, 4 inch high curbs at a 3:1 slope are preferred (Blanding's turtles have great difficulty climbing traditional curbs; curbs and below grade roads trap turtles on the road and can cause road kills).	Roads should be ditched, not curbed or below grade.

ROADS cont.	
Culverts between wetland areas, or between wetland areas and nesting areas, should be 36 inches or greater in diameter, and elliptical or flat-bottomed.	Road placement should avoid separating wetlands from adjacent upland nesting sites, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details).
Wetland crossings should be bridged, or include raised roadways with culverts which are 36 in or greater in diameter and flat-bottomed or elliptical (raised roadways discourage turtles from leaving the wetland to bask on roads).	Road placement should avoid bisecting wetlands, or these roads should be fenced to prevent turtles from attempting to cross them (contact your DNR Nongame Specialist for details). This is especially important for roads with more than 2 lanes.
Culverts under roads crossing streams should be oversized (at least twice as wide as the normal width of open water) and flat-bottomed or elliptical.	Roads crossing streams should be bridged.
UTILITIES	
Utility access and maintenance roads should be kept to a minimum (this reduces road-kill potential).	
Because trenches can trap turtles, trenches should be checked for turtles prior to being backfilled and the sites should be returned to original grade.	
LANDSCAPING AND VEGETATION MANAGEMENT	
Terrain should be left with as much natural contour as possible.	As much natural landscape as possible should be preserved (installation of sod or wood chips, paving, and planting of trees within nesting habitat can make that habitat unusable to nesting Blanding's turtles).
Graded areas should be revegetated with native grasses and forbs (some non-natives form dense patches through which it is difficult for turtles to travel).	Open space should include some areas at higher elevations for nesting. These areas should be retained in native vegetation, and should be connected to wetlands by a wide corridor of native vegetation.
Vegetation management in infrequently mowed areas -- such as in ditches, along utility access roads, and under power lines -- should be done mechanically (chemicals should not be used). Work should occur fall through spring (after October 1st and before June 1st).	Ditches and utility access roads should not be mowed or managed through use of chemicals. If vegetation management is required, it should be done mechanically, as infrequently as possible, and fall through spring (mowing can kill turtles present during mowing, and makes it easier for predators to locate turtles crossing roads).

Protecting Blanding's Turtle Nests: Most predation on turtle nests occurs within 48 hours after the eggs are laid. After this time, the scent is gone from the nest and it is more difficult for predators to locate the nest. Nests more than a week old probably do not need additional protection, unless they are in a particularly vulnerable spot, such as a yard where pets may disturb the nest. Turtle nests can be protected from predators and other disturbance by covering them with a piece of wire fencing (such as chicken wire), secured to the ground with stakes or rocks. The piece of fencing should measure at least 2 ft. x 2 ft., and should be of medium sized mesh (openings should be about 2 in. x 2 in.). It is ***very important*** that the fencing be **removed before August 1st** so the young turtles can escape from the nest when they hatch!

REFERENCES

[1]Association for Biodiversity Information. "Heritage Status: Global, National, and Subnational Conservation Status Ranks." NatureServe. Version 1.3 (9 April 2001). http://www.natureserve.org/ranking.htm (15 April 2001).

Coffin, B., and L. Pfannmuller. 1988. Minnesota's Endangered Flora and Fauna. University of Minnesota Press, Minneapolis, 473 pp.

REFERENCES (cont.)

Moriarty, J. J., and M. Linck. 1994. Suggested guidelines for projects occurring in Blanding's turtle habitat. Unpublished report to the Minnesota DNR. 8 pp.

Oldfield, B., and J. J. Moriarty. 1994. Amphibians and Reptiles Native to Minnesota. University of Minnesota Press, Minneapolis, 237 pp.

Sajwaj, T. D., and J. W. Lang. 2000. Thermal ecology of Blanding's turtle in central Minnesota. Chelonian Conservation and Biology 3(4):626-636.

Compiled by the Minnesota Department of Natural Resources Division of Ecological Resources, Updated March 2008
Endangered Species Environmental Review Coordinator, 500 Lafayette Rd., Box 25, St. Paul, MN 55155 / 651-259-5109

Minnesota Department of Transportation

Memo

District 7 – Mankato and Windom
2151 Basset Drive
Mankato, MN 56001-5302

Office Tel: (507) 304-6100
Fax: (507) 304-6119

TO: Darrell Pettis
Le Sueur County Public Works Director

FROM: Brett Paasch, EIT
District 7 Traffic
(507) 304 6184
brett.paasch@state.mn.us

CONCUR: Scott Thompson, PE
District Traffic Engineer
(507) 304 6156
scott.thompson@state.mn.us

DATE: July 16th , 2015

SUBJECT: Speed Zones - Highway 19

As a result of the request dated April 22nd, 2014 by David Gliszinski, District 7 staff has completed a traffic engineering study to determine the acceptable speed for Highway 19 between Alton Avenue and County Road 89. Currently, this section of Highway 19 transitions from 35 mph to 55 mph and it has been requested that the 35 mph speed zone be extended east to County Road 89.

Lowering the speed limit to 35 mph does not appear to the appropriate solution at this location. Drivers are already disregarding the posted speed limits, and lower speed limits may increase the severity of crashes as the speed differential increases. This differential is the result of a small number of drivers who rigidly adhere to posted limits while the majority of drivers will continue to drive according to their perception of the speed at which the road should be driven.

Rear-end collisions at the TH 19 intersections of 141st Ave and Redwing Ave are the prevailing crash type (80% of all crashes), suggesting that a change in intersection configuration would be more effective at reducing crashes, such as the roundabout that all of the local road authorities, including MnDOT, are pursuing.

In lieu of major changes to the alignment or intersection configurations, there are a couple of changes that can be made on the existing signage.

The changes to signage that will occur are as follows:

1. Removal of the eastbound "SPEED LIMIT 35" mph sign at RP 152.46 (just east of roundabout at Alton Ave). Drivers are currently disregarding the speed limit sign at this location (eastbound 85th percentile speed is 46mph).
2. Remove the "SPEED LIMIT 55" mph sign at RP 152.62 (just east of the Ford dealership driveway), and replace with "END 35 SPEED LIMIT" mph sign at this location. This is done to inform drivers that they no longer are required to drive 35 mph, but does not encourage them to immediately accelerate to 55 mph.
3. Move the Westbound W3-5 "REDUCED SPEED AHEAD" "1/5 MILE" sign approximately 450' to the east. This would more accurately represent 1/5 mile as posted on the sign, and would serve to provide westbound drivers with earlier notification that they will be entering a slower speed zone.

These changes will not change the legal speed limit of this section, but should induce better speed compliance and uniformity of speeds.

District 7 Sign Shop will make the above listed changes to speed zone signage within the next 60 days.

Additional details pertaining to the study are enclosed for you review. Should you have any questions, please contact Brett Paasch by email or telephone.

SPEED ZONE EVALUATION

DATE May 14, 2014

ROAD HWY 19 C.S. 4003 New Prague, Le Sueur County

APPROX. LENGTH OF STUDY 0.6 MILES

FROM Alton Ave

TO CSAH 89

		SPEED CHECK LOCATIONS				
PREVAILING VEHICLE SPEEDS		1	2	3	4	5
85th Percentile Speeds	E.B.	46	52	57	59	
	W.B.	47	52	59	60	
10 MPH Pace	E.B.	34-43	43-52	49-58	49-58	
	W.B.	37-46	42-51	52-61	51-60	
% In Pace	E.B.	67	49	57	74	
	W.B.	63	54	62	81	
Average Test Run Speeds	E.B.	N/A	N/A	N/A	N/A	
	W.B.	N/A	N/A	N/A	N/A	
Existing Speed Limit		35	55	55	55	
Design Speed		N/A	N/A	N/A	N/A	

MAXIMUM COMFORTABLE SPEED ON CURVES: N/A

SPACING OF INTERSECTIONS: See Map

ROADWAY SURFACE TYPE: Bituminous SURFACE WIDTH: 25' Two lane, Undivided

SHOULDER TYPE: Bituminous SHOULDER WIDTH: 8'

SIGHT DISTANCE RESTRICTION: None

LAND USE ADJACENT TO ROADWAY: Commercial, Agricultural

CRASH EXPERIENCE (if available)

CRASH STUDY PERIOD: 2005-2014

NUMBER OF CRASHES: 26

TRAFFIC CHARACTERISTICS AND CONTROL:

ADT: 7000 (at Teale Ave)

8400 (at 10th Ave)

% COMMERCIAL: 4.5%

ATTACH MAP OR SKETCH SHOWING: (1) INPLACE ZONE
(2) SPEED CHECKS
(3) PROPOSED ZONE

Existing Speed Signs and Study Results

EB 85% = 59 MPH
WB 85% = 60 MPH

4

EB 85% = 57 MPH
WB 85% = 59 MPH

3

EB 85% = 52 MPH
WB 85% = 52 MPH

2

WB
SPEED
LIMIT 35

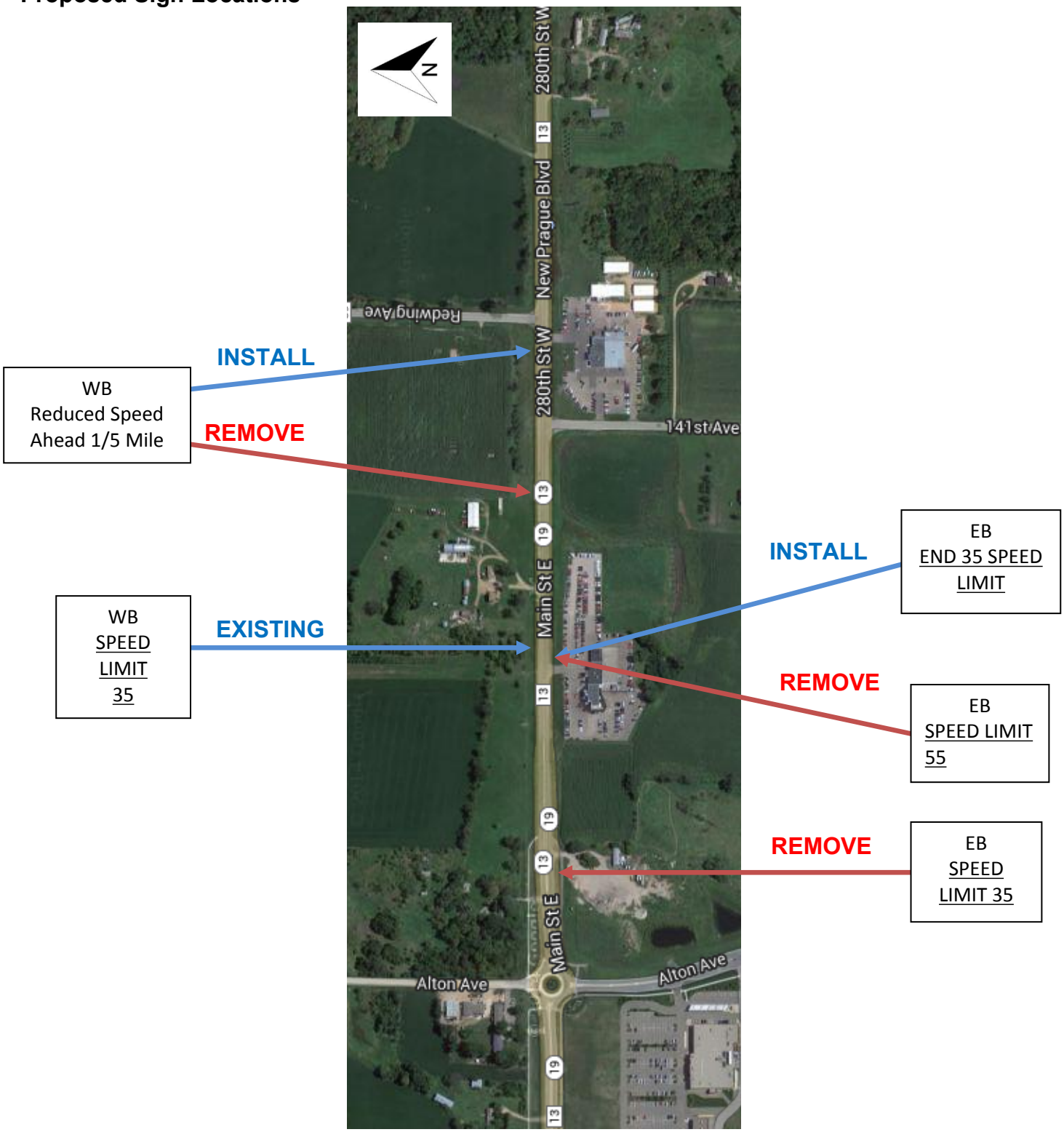
EB
SPEED LIMIT
55

EB 85% = 46 MPH
WB 85% = 47 MPH

1

EB
SPEED
LIMIT 35

Proposed Sign Locations

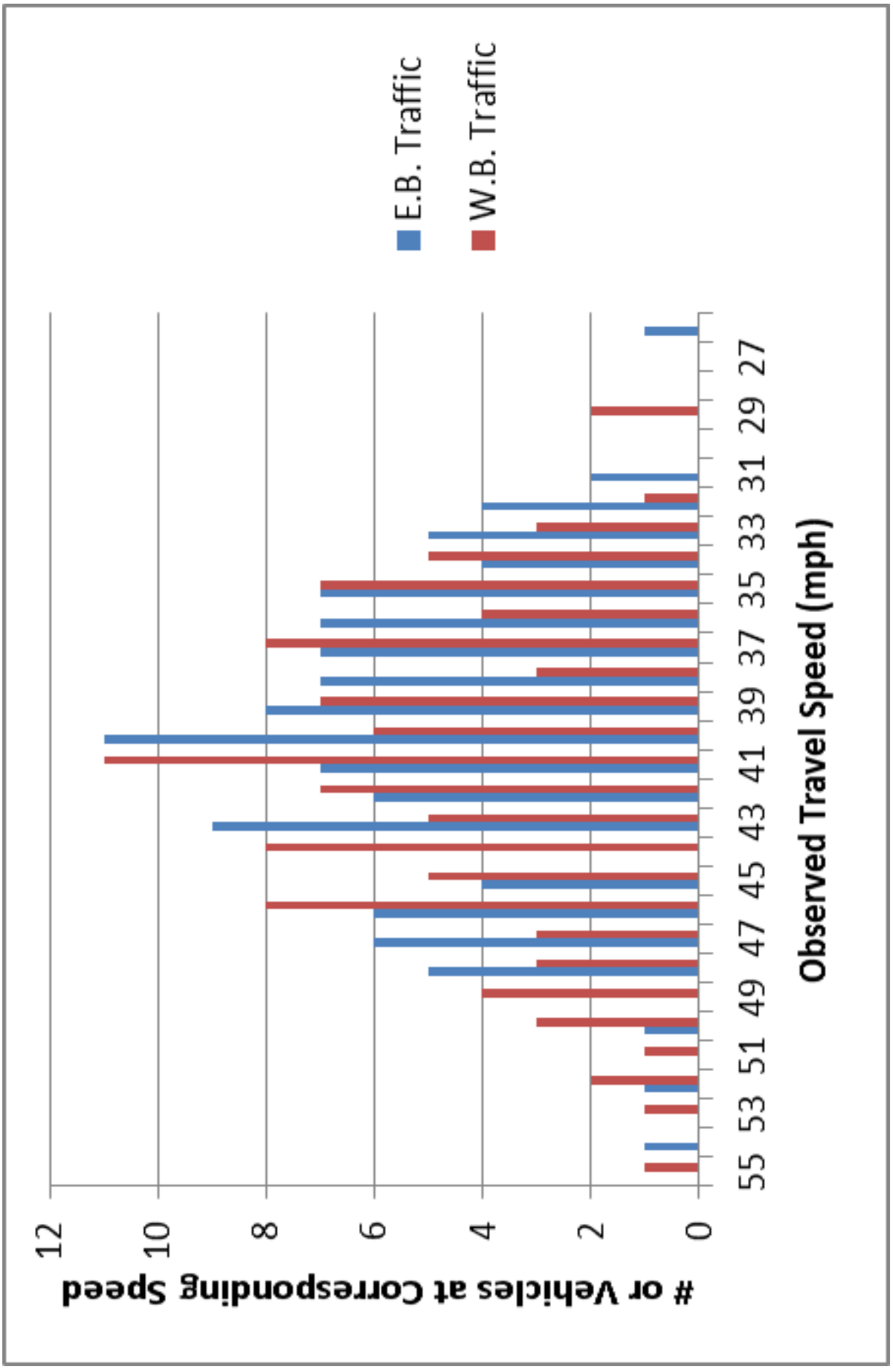


FIELD SPEED SURVEY SUMMARY

Road # HWY 19 | Zone 35 MPH | Location 1
Ref. Pt. | Time 12:56pm - 1:49pm
County | Weather Sunny | Road Type Bit
Date 5/14/2014 | Machine | EB: 85th %ile 46 MPH | Pace 34 to 43
Day Wednesday | Observer(s) Garrett Burgess | WB: 85th %ile 47 MPH | Pace 37 to 46

PASSENGER VEHICLES

SPEED (mph)	EAST BOUND				SPEED (mph)	WEST BOUND			
	INDIVIDUAL VEHICLES		ACCUMULATED VEH.			INDIVIDUAL VEHICLES		ACCUMULATED VEH.	
	# of vehicles	% vehicles	# of vehicles	% vehicles		# of vehicles	% vehicles	# of vehicles	% vehicles
60		0.0%	109	100%	60		0.0%	108	100%
59		0.0%	109	100%	59		0.0%	108	100%
58		0.0%	109	100%	58		0.0%	108	100%
57		0.0%	109	100%	57		0.0%	108	100%
56		0.0%	109	100%	56		0.0%	108	100%
55		0.0%	109	100%	55	1	0.9%	108	100%
54	1	0.9%	109	100%	54		0.0%	107	99%
53		0.0%	108	99%	53	1	0.9%	107	99%
52	1	0.9%	108	99%	52	2	1.9%	106	98%
51		0.0%	107	98%	51	1	0.9%	104	96%
50	1	0.9%	107	98%	50	3	2.8%	103	95%
49		0.0%	106	97%	49	4	3.7%	100	93%
48	5	4.6%	106	97%	48	3	2.8%	96	89%
47	6	5.5%	101	93%	47	3	2.8%	93	86%
46	6	5.5%	95	87%	46	8	7.4%	90	83%
45	4	3.7%	89	82%	45	5	4.6%	82	76%
44		0.0%	85	78%	44	8	7.4%	77	71%
43	9	8.3%	85	78%	43	5	4.6%	69	64%
42	6	5.5%	76	70%	42	7	6.5%	64	59%
41	7	6.4%	70	64%	41	11	10.2%	57	53%
40	11	10.1%	63	58%	40	6	5.6%	46	43%
39	8	7.3%	52	48%	39	7	6.5%	40	37%
38	7	6.4%	44	40%	38	3	2.8%	33	31%
37	7	6.4%	37	34%	37	8	7.4%	30	28%
36	7	6.4%	30	28%	36	4	3.7%	22	20%
35	7	6.4%	23	21%	35	7	6.5%	18	17%
34	4	3.7%	16	15%	34	5	4.6%	11	10%
33	5	4.6%	12	11%	33	3	2.8%	6	6%
32	4	3.7%	7	6%	32	1	0.9%	3	3%
31	2	1.8%	3	3%	31		0.0%	2	2%
30		0.0%	1	1%	30		0.0%	2	2%
29		0.0%	1	1%	29	2	1.9%	2	2%
28		0.0%	1	1%	28		0.0%	0	0%
27		0.0%	1	1%	27		0.0%	0	0%
26	1	0.9%	1	1%	26		0.0%	0	0%
25		0.0%	0	0%	25		0.0%	0	0%
24		0.0%	0	0%	24		0.0%	0	0%
23		0.0%	0	0%	23		0.0%	0	0%
22		0.0%	0	0%	22		0.0%	0	0%
21		0.0%	0	0%	21		0.0%	0	0%
20		0.0%	0	0%	20		0.0%	0	0%

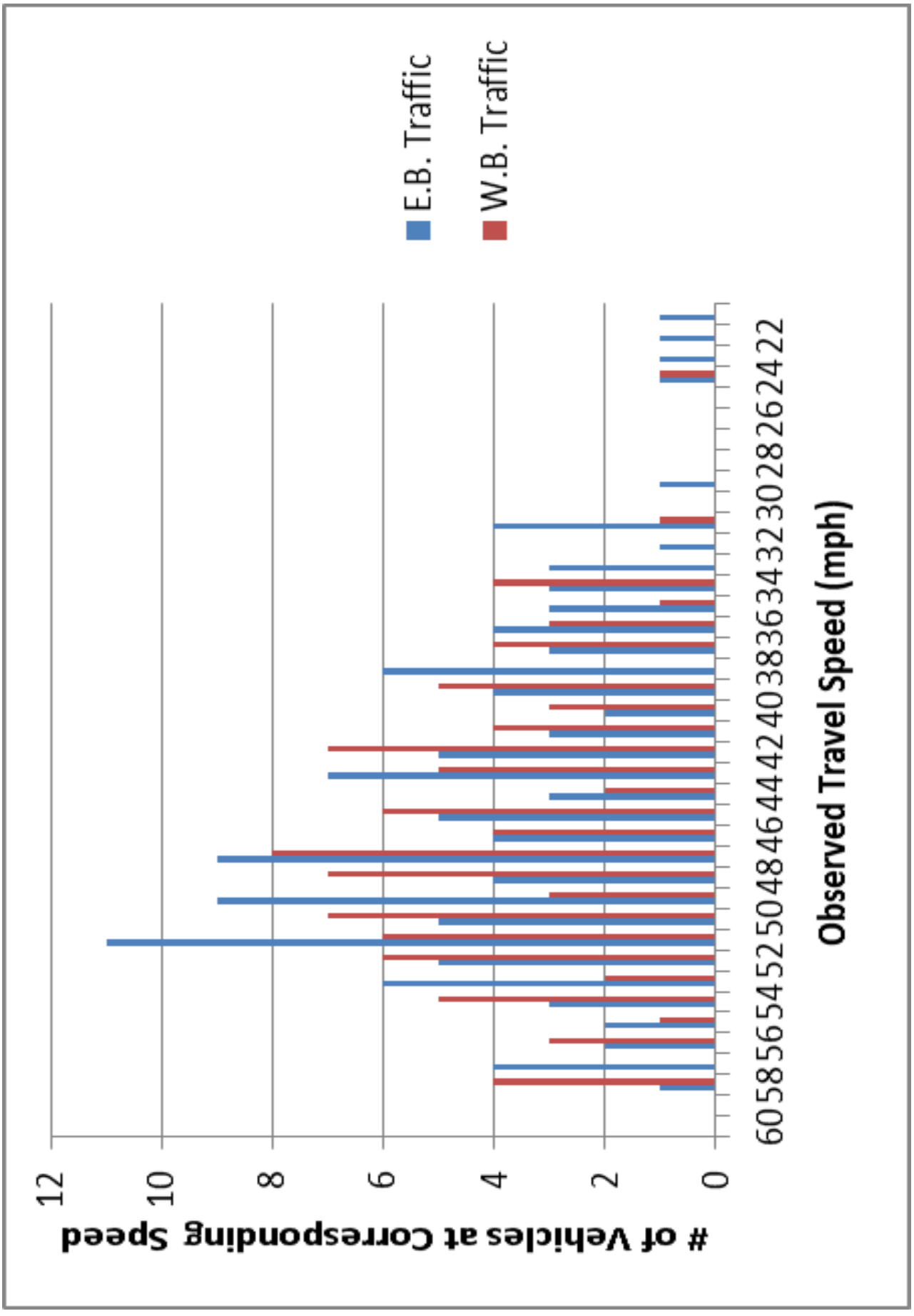

E.B. Traffic
W.B. Traffic
or Vehicles at Corresponding Speed
0
2
4
6
8
10
12
Observed Travel Speed (mph)
27
29
31
33
35
37
39
41
43
45
47
49
51
53
55

FIELD SPEED SURVEY SUMMARY

Road # HWY 19 | Zone 55 MPH | Location 2
Ref. Pt. | Time 11:32am - 12:25 pm
County | Weather Sunny | Road Type Bit
Date 5/14/2014 | Machine | EB: 85th %ile 52 MPH | Pace 43 to 52
Day Wednesday | Observer(s) Garrett Burgess | WB: 85th %ile 52 MPH | Pace 42 to 51

PASSENGER VEHICLES

SPEED (mph)	EAST BOUND				SPEED (mph)	WEST BOUND			
	INDIVIDUAL VEHICLES		ACCUMULATED VEH.			INDIVIDUAL VEHICLES		ACCUMULATED VEH.	
	# of vehicles	% vehicles	# of vehicles	% vehicles		# of vehicles	% vehicles	# of vehicles	% vehicles
60		0.0%	126	100%	60		0.0%	102	100%
59		0.0%	126	100%	59		0.0%	102	100%
58	1	0.8%	126	100%	58	4	3.9%	102	100%
57	4	3.2%	125	99%	57		0.0%	98	96%
56	2	1.6%	121	96%	56	3	2.9%	98	96%
55	2	1.6%	119	94%	55	1	1.0%	95	93%
54	3	2.4%	117	93%	54	5	4.9%	94	92%
53	6	4.8%	114	90%	53	2	2.0%	89	87%
52	5	4.0%	108	86%	52	6	5.9%	87	85%
51	11	8.7%	103	82%	51	6	5.9%	81	79%
50	5	4.0%	92	73%	50	7	6.9%	75	74%
49	9	7.1%	87	69%	49	3	2.9%	68	67%
48	4	3.2%	78	62%	48	7	6.9%	65	64%
47	9	7.1%	74	59%	47	8	7.8%	58	57%
46	4	3.2%	65	52%	46	4	3.9%	50	49%
45	5	4.0%	61	48%	45	6	5.9%	46	45%
44	3	2.4%	56	44%	44	2	2.0%	40	39%
43	7	5.6%	53	42%	43	5	4.9%	38	37%
42	5	4.0%	46	37%	42	7	6.9%	33	32%
41	3	2.4%	41	33%	41	4	3.9%	26	25%
40	2	1.6%	38	30%	40	3	2.9%	22	22%
39	4	3.2%	36	29%	39	5	4.9%	19	19%
38	6	4.8%	32	25%	38		0.0%	14	14%
37	3	2.4%	26	21%	37	4	3.9%	14	14%
36	4	3.2%	23	18%	36	3	2.9%	10	10%
35	3	2.4%	19	15%	35	1	1.0%	7	7%
34	3	2.4%	16	13%	34	4	3.9%	6	6%
33	3	2.4%	13	10%	33		0.0%	2	2%
32	1	0.8%	10	8%	32		0.0%	2	2%
31	4	3.2%	9	7%	31	1	1.0%	2	2%
30		0.0%	5	4%	30		0.0%	1	1%
29	1	0.8%	5	4%	29		0.0%	1	1%
28		0.0%	4	3%	28		0.0%	1	1%
27		0.0%	4	3%	27		0.0%	1	1%
26		0.0%	4	3%	26		0.0%	1	1%
25		0.0%	4	3%	25		0.0%	1	1%
24	1	0.8%	4	3%	24	1	1.0%	1	1%
23	1	0.8%	3	2%	23		0.0%	0	0%
22	1	0.8%	2	2%	22		0.0%	0	0%
21	1	0.8%	1	1%	21		0.0%	0	0%
20		0.0%	0	0%	20		0.0%	0	0%

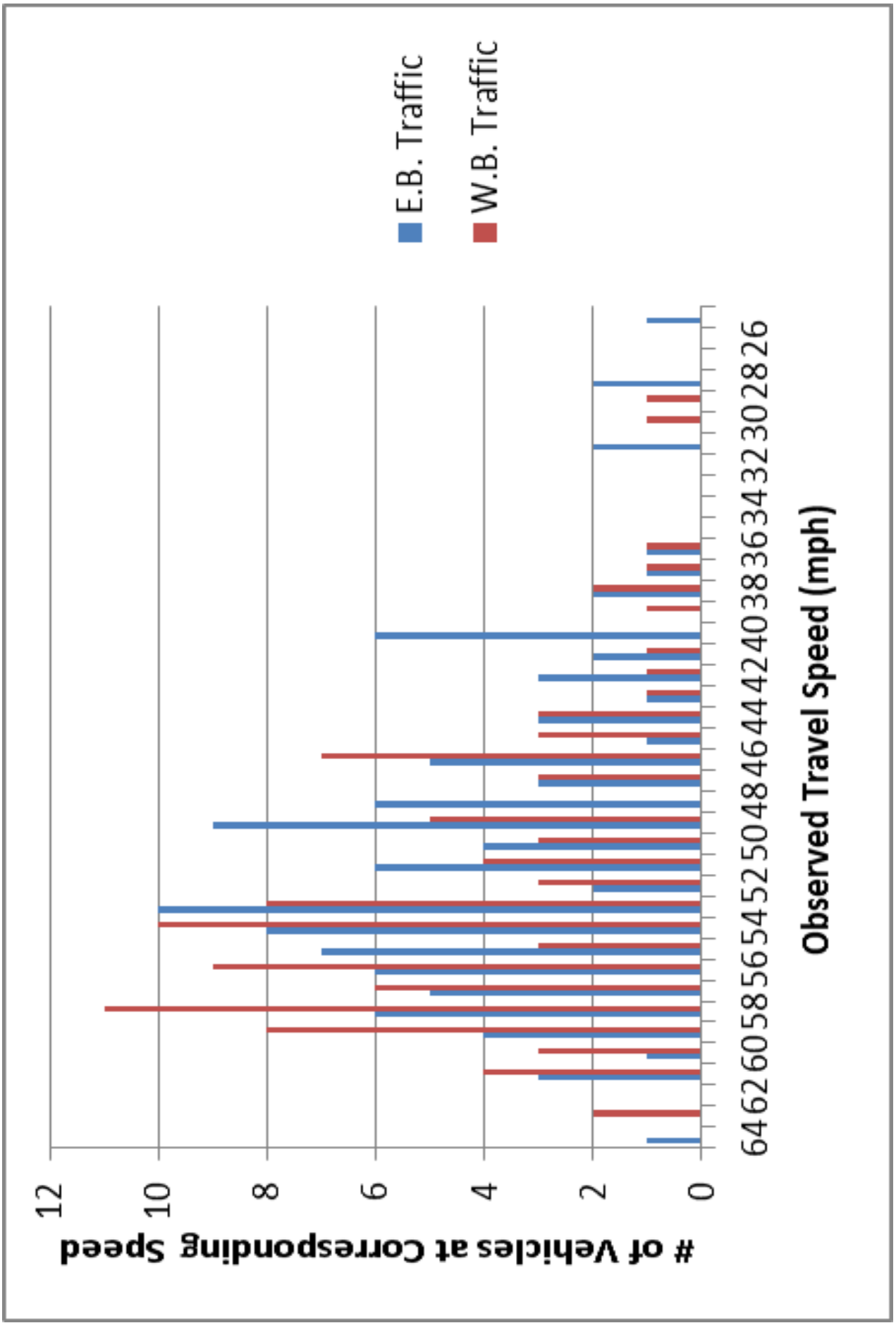

E.B. Traffic
W.B. Traffic
# of Vehicles at Corresponding Speed
0
2
4
6
8
10
12
Observed Travel Speed (mph)
60 58 56 54 52 50 48 46 44 42 40 38 36 34 32 30 28 26 24 22

FIELD SPEED SURVEY SUMMARY

Road # HWY 19 | Zone 55 MPH | Location 3
Ref. Pt. | Time 10:25am - 11:24am
County | Weather Sunny | Road Type
Date 5/14/2014 | Machine | EB: 85th %ile 57 MPH | Pace 49 to 58
Day Wednesday | Observer(s) Garrett Burgess | WB: 85th %ile 59 MPH | Pace 52 to 61

PASSENGER VEHICLES

SPEED (mph)	EAST BOUND				SPEED (mph)	WEST BOUND			
	INDIVIDUAL VEHICLES		ACCUMULATED VEH.			INDIVIDUAL VEHICLES		ACCUMULATED VEH.	
	# of vehicles	% vehicles	# of vehicles	% vehicles		# of vehicles	% vehicles	# of vehicles	% vehicles
65		0.0%	111	100%	65		0.0%	105	100%
64	1	0.9%	111	100%	64		0.0%	105	100%
63		0.0%	110	99%	63	2	1.9%	105	100%
62		0.0%	110	99%	62		0.0%	103	98%
61	3	2.7%	110	99%	61	4	3.8%	103	98%
60	1	0.9%	107	96%	60	3	2.9%	99	94%
59	4	3.6%	106	95%	59	8	7.6%	96	91%
58	6	5.4%	102	92%	58	11	10.5%	88	84%
57	5	4.5%	96	86%	57	6	5.7%	77	73%
56	6	5.4%	91	82%	56	9	8.6%	71	68%
55	7	6.3%	85	77%	55	3	2.9%	62	59%
54	8	7.2%	78	70%	54	10	9.5%	59	56%
53	10	9.0%	70	63%	53	8	7.6%	49	47%
52	2	1.8%	60	54%	52	3	2.9%	41	39%
51	6	5.4%	58	52%	51	4	3.8%	38	36%
50	4	3.6%	52	47%	50	3	2.9%	34	32%
49	9	8.1%	48	43%	49	5	4.8%	31	30%
48	6	5.4%	39	35%	48		0.0%	26	25%
47	3	2.7%	33	30%	47	3	2.9%	26	25%
46	5	4.5%	30	27%	46	7	6.7%	23	22%
45	1	0.9%	25	23%	45	3	2.9%	16	15%
44	3	2.7%	24	22%	44	3	2.9%	13	12%
43	1	0.9%	21	19%	43	1	1.0%	10	10%
42	3	2.7%	20	18%	42	1	1.0%	9	9%
41	2	1.8%	17	15%	41	1	1.0%	8	8%
40	6	5.4%	15	14%	40		0.0%	7	7%
39		0.0%	9	8%	39	1	1.0%	7	7%
38	2	1.8%	9	8%	38	2	1.9%	6	6%
37	1	0.9%	7	6%	37	1	1.0%	4	4%
36	1	0.9%	6	5%	36	1	1.0%	3	3%
35		0.0%	5	5%	35		0.0%	2	2%
34		0.0%	5	5%	34		0.0%	2	2%
33		0.0%	5	5%	33		0.0%	2	2%
32		0.0%	5	5%	32		0.0%	2	2%
31	2	1.8%	5	5%	31		0.0%	2	2%
30		0.0%	3	3%	30	1	1.0%	2	2%
29		0.0%	3	3%	29	1	1.0%	1	1%
28	2	1.8%	3	3%	28		0.0%	0	0%
27		0.0%	1	1%	27		0.0%	0	0%
26		0.0%	1	1%	26		0.0%	0	0%
25	1	0.9%	1	1%	25		0.0%	0	0%


E.B. Traffic
W.B. Traffic
# of Vehicles at Corresponding Speed
0
2
4
6
8
10
12
Observed Travel Speed (mph)
26
28
30
32
34
36
38
40
42
44
46
48
50
52
54
56
58
60
62
64

FIELD SPEED SURVEY SUMMARY

Road # HWY 19 | Zone 55 MPH | Location 4
Ref. Pt. | Time 9:20am - 10:19am
County | Weather Sunny | Road Type
Date 5/14/2014 | Machine | EB: 85th %ile 59 MPH | Pace 49 to 58
Day Wednesday | Observer(s) Garrett Burgess | WB: 85th %ile 60 MPH | Pace 51 to 60

PASSENGER VEHICLES

SPEED (mph)	EAST BOUND				SPEED (mph)	WEST BOUND			
	INDIVIDUAL VEHICLES		ACCUMULATED VEH.			INDIVIDUAL VEHICLES		ACCUMULATED VEH.	
	# of vehicles	% vehicles	# of vehicles	% vehicles		# of vehicles	% vehicles	# of vehicles	% vehicles
75		0.0%	103	100%	75		0.0%	110	100%
74		0.0%	103	100%	74		0.0%	110	100%
73		0.0%	103	100%	73		0.0%	110	100%
72		0.0%	103	100%	72		0.0%	110	100%
71		0.0%	103	100%	71		0.0%	110	100%
70		0.0%	103	100%	70		0.0%	110	100%
69		0.0%	103	100%	69		0.0%	110	100%
68		0.0%	103	100%	68	1	0.9%	110	100%
67	1	1.0%	103	100%	67	1	0.9%	109	99%
66		0.0%	102	99%	66	1	0.9%	108	98%
65		0.0%	102	99%	65	2	1.8%	107	97%
64		0.0%	102	99%	64	1	0.9%	105	95%
63	3	2.9%	102	99%	63	2	1.8%	104	95%
62	1	1.0%	99	96%	62	1	0.9%	102	93%
61	3	2.9%	98	95%	61	1	0.9%	101	92%
60	5	4.9%	95	92%	60	7	6.4%	100	91%
59	7	6.8%	90	87%	59	12	10.9%	93	85%
58	6	5.8%	83	81%	58	13	11.8%	81	74%
57	12	11.7%	77	75%	57	12	10.9%	68	62%
56	7	6.8%	65	63%	56	9	8.2%	56	51%
55	12	11.7%	58	56%	55	9	8.2%	47	43%
54	8	7.8%	46	45%	54	5	4.5%	38	35%
53	7	6.8%	38	37%	53	11	10.0%	33	30%
52	3	2.9%	31	30%	52	9	8.2%	22	20%
51	7	6.8%	28	27%	51	2	1.8%	13	12%
50	5	4.9%	21	20%	50	1	0.9%	11	10%
49	9	8.7%	16	16%	49	1	0.9%	10	9%
48		0.0%	7	7%	48	2	1.8%	9	8%
47	2	1.9%	7	7%	47	5	4.5%	7	6%
46	1	1.0%	5	5%	46		0.0%	2	2%
45	2	1.9%	4	4%	45		0.0%	2	2%
44	2	1.9%	2	2%	44		0.0%	2	2%
43		0.0%	0	0%	43		0.0%	2	2%
42		0.0%	0	0%	42		0.0%	2	2%
41		0.0%	0	0%	41	1	0.9%	2	2%
40		0.0%	0	0%	40	1	0.9%	1	1%
39		0.0%	0	0%	39		0.0%	0	0%
38		0.0%	0	0%	38		0.0%	0	0%
37		0.0%	0	0%	37		0.0%	0	0%
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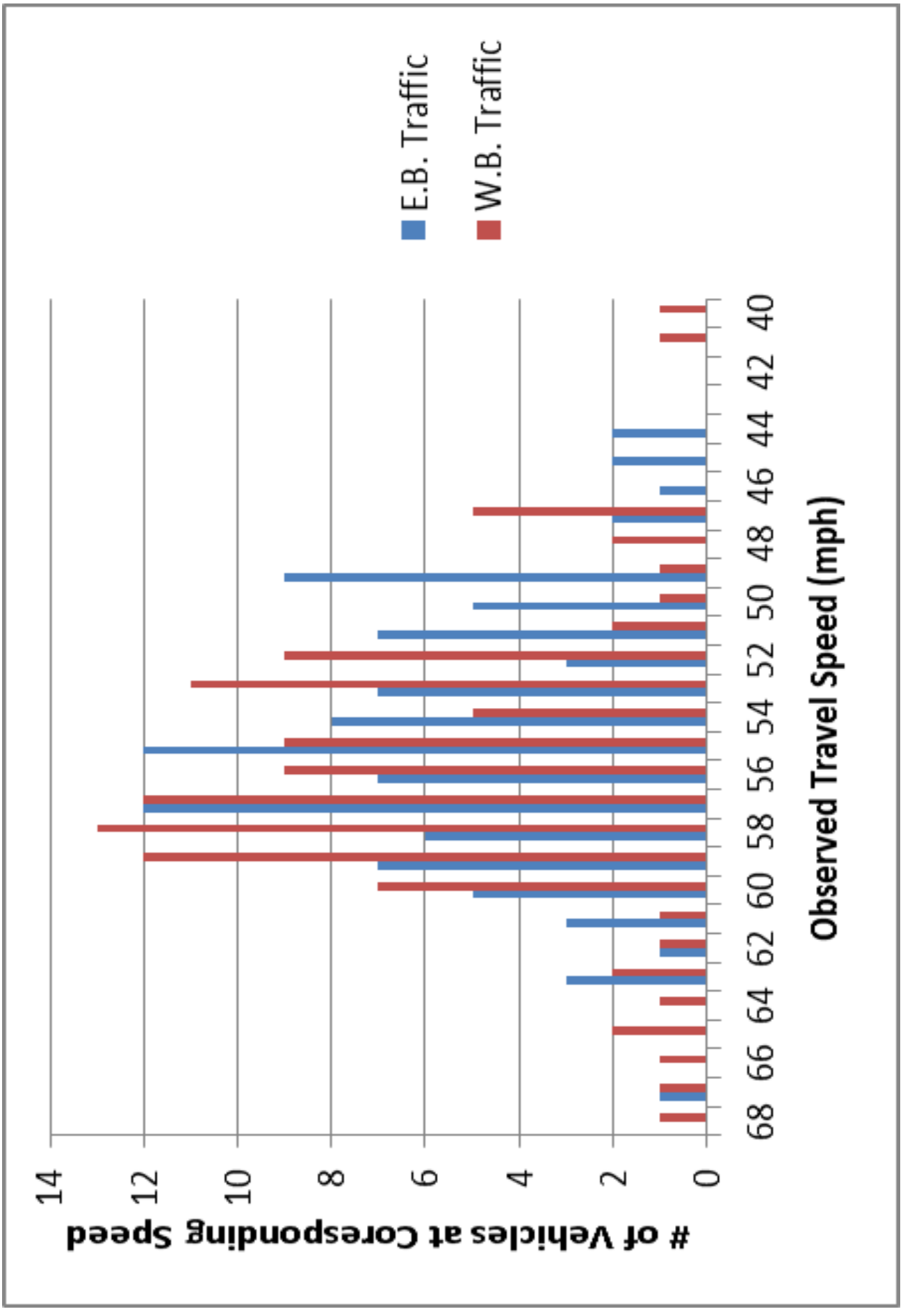
35		0.0%	0	0%	35		0.0%	0	0%


E.B. Traffic
W.B. Traffic
# of Vehicles at Corresponding Speed
0
2
4
6
8
10
12
14
Observed Travel Speed (mph)
40
42
44
46
48
50
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58
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66
68

Crash Analysis of the Last Ten Years [2005-2014]

Chart information was calculated from an area on TH 19 from east of Alton Ave to just west of Redwing Ave / CSAH 89. There was an average of 2.6 crashes per year, with the majority being rear end crashes resulting in property damage. The most frequent primary contributing factors were Distraction (11) and Following Too Closely (7). Distraction was also listed as a secondary contributing factor in 6 additional crashes. Three crashes listed illegal speed as a contributing factor.

Diagram

Severity

July 9, 2015

Le Sueur County Drainage Authority
88 South Park Avenue
Le Center, MN 56057

Re: Amendment No. 2 to the Le Sueur County Ditch No. 58 Repair Report

Members of the Le Sueur County Drainage Authority:

At the previous hearing for Le Sueur County Ditch No. 58 (CD 58) ISG was asked to determine the actual condition of Branch 2. The area in question was the lower half of Branch 2 from Station 0+00 to approximately Station 15+00. This area was assumed to be in disrepair but the actual condition was unknown. An exhibit showing the location of the televising and pictures taken from the video are attached to this amendment and referenced herein.

On Wednesday, July 1st Martin County televised Branch 2 from Station 0+40 to Station 14+20 or approximately 1380 linear feet of the outlet of Branch 2. The first run with the camera started at the drop intake structure at Station 0+40. The pipe started out as a 14-inch HDPE pipe that had been previously installed as a repair by the county. After 20 feet the pipe transitioned to the original 14-inch concrete tile. Between the two pipes a large tree root has entered through the gap in the pipe. This can be seen in Picture A. A tile that is ready to collapse can be seen shortly after in Picture B. 40 feet after entering the pipe the camera encountered what looks to be a concrete cinder block lying in the bottom of the pipe (Picture C). The camera was unable to pass around the cinder block so the first run ended at approximately 0+80.

The second run with the camera started at approximately Station 6+35 and traveled downstream. At Station 6+25, large gaps can be seen between the tiles (Picture J). Closer inspection shows water and soil entering the pipe in this location. Farther downstream numerous root systems can be seen growing in the tile (Pictures D, F, G and I). There are several locations where the soil has washed away from behind the pipe (Pictures E, F and H). When this happens the pipe loses the confinement pressure provided by the soil causing the pipe to flex outward and eventually collapse. A collapsed tile will restrict water moving through the pipe and can likely cause a sinkhole up to the surface.

The third and final run with the camera started at approximately Station 14+20 and traveled downstream. Between Station 6+25 and Station 14+20 there are multiple locations where roots are entering the tile system (Pictures K, L, M, O, P and Q). There are also multiple locations where the tile has cracked and in some cases the tile are near collapsing (Pictures N, O, Q, R, S, T, U, V, W and X). Also the water got deeper the further south the camera went which indicates that the tile has back fall or sag in it. This is reducing the capacity of the system.

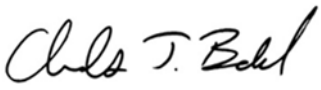
115 East Hickory Street, Suite 300 + Mankato, MN 56001
info@is-grp.com + **www.is-grp.com**
P: 507.387.6651

I+S GROUP

Based on the request to determine the actual condition of Branch 2, the tile has been televised and the amendment has been made to the CD 58 Repair Report. It is our opinion that the televising clearly shows that Branch 2 is in disrepair along its entire length. Branch 2 has already failed at several locations upstream of Station 14+20 and will begin to fail in multiple locations between the outlet and Station 14+20 in the coming years. Televising Branch 2 has proven that Branch 2 needs to be repaired in its entirety. It is our recommendation that the Drainage Authority move ahead with the repair option that was proposed in Repair Report Amendment No. 1 at the continuance of the repair hearing.

Please contact us with any questions or comments.

Sincerely,

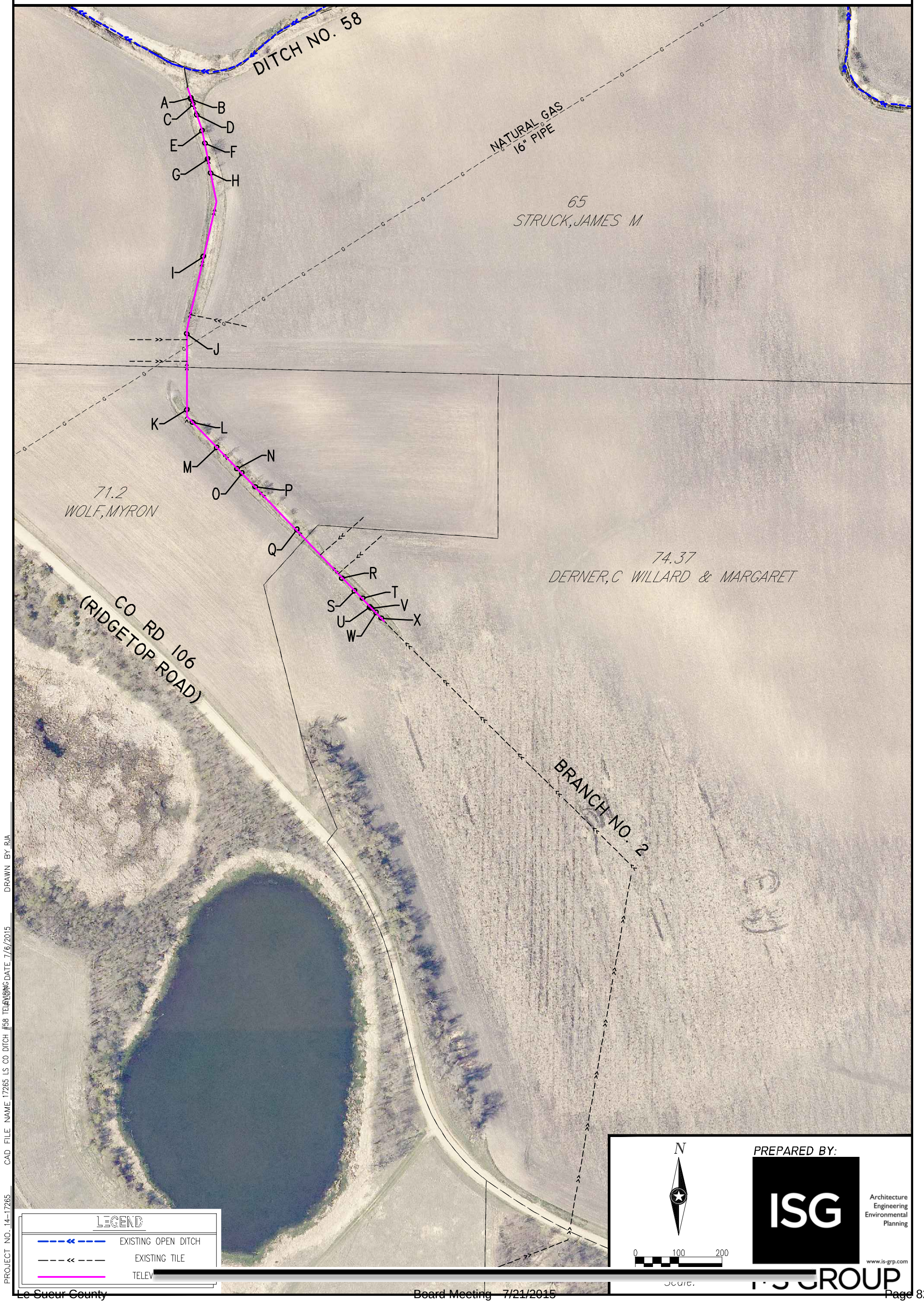


Chuck J. Brandel, PE
Civil Engineer/Principal

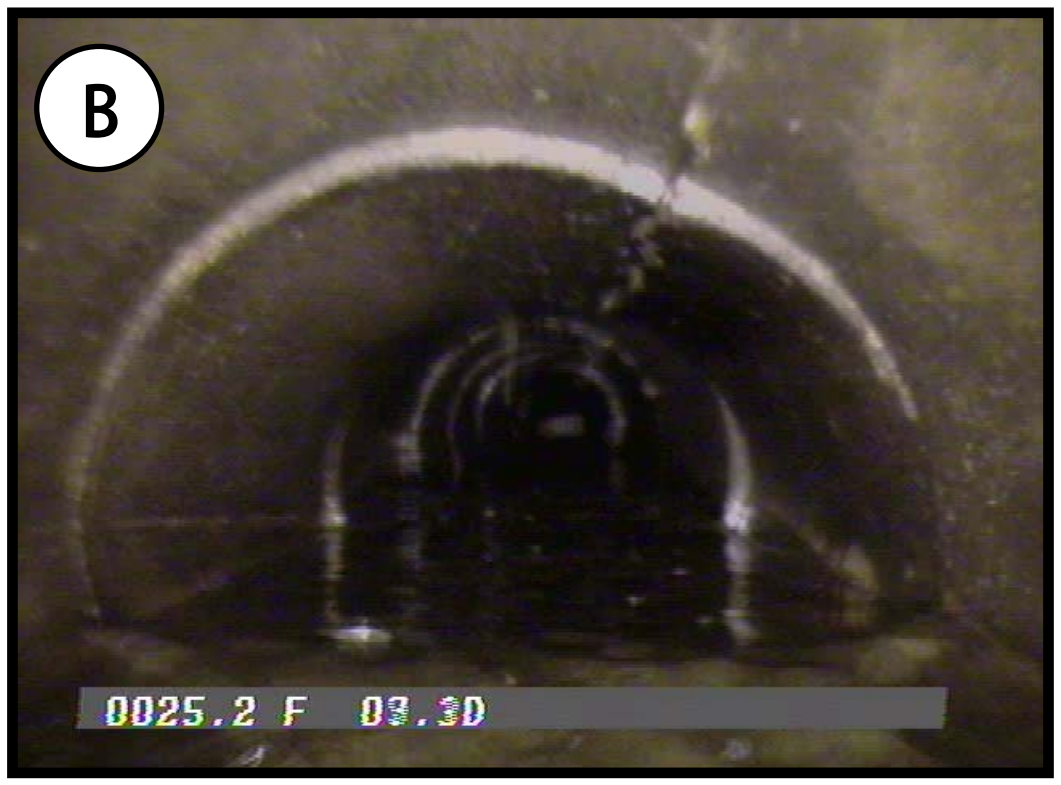
LE SUEUR COUNTY DITCH NO. 58

LE SUEUR COUNTY, MINNESOTA

BRANCH No. 2 TELEVISING



PROJECT NO. 14-17265 CAD FILE NAME 17265 LS CO DITCH #58 TELEVISING DATE 7/6/2015 DRAWN BY RJA

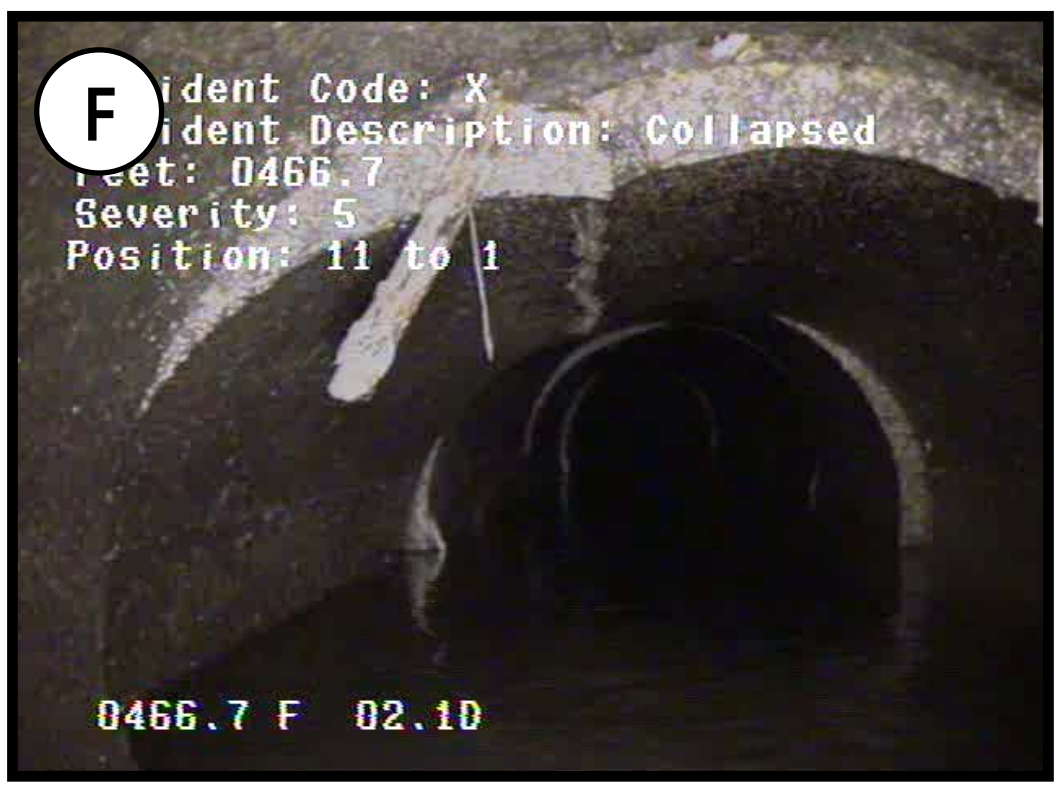


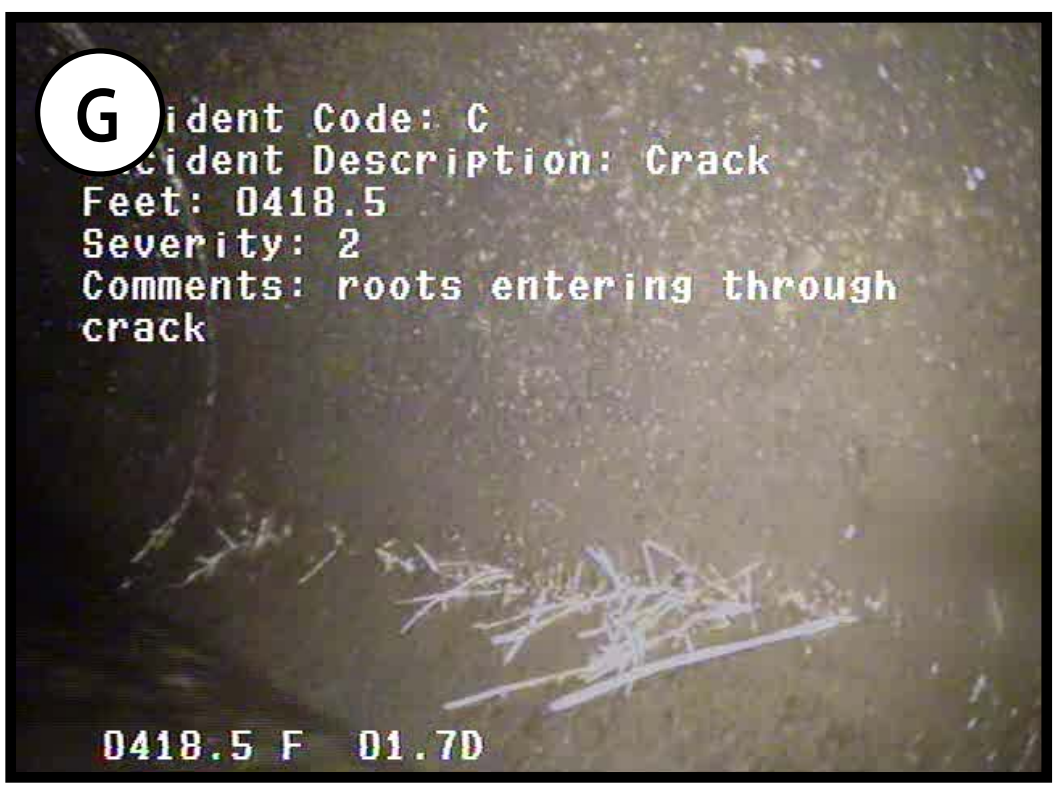
COUNTY DITCH 58

Le Sueur County, Minnesota

ISG

I+S GROUP



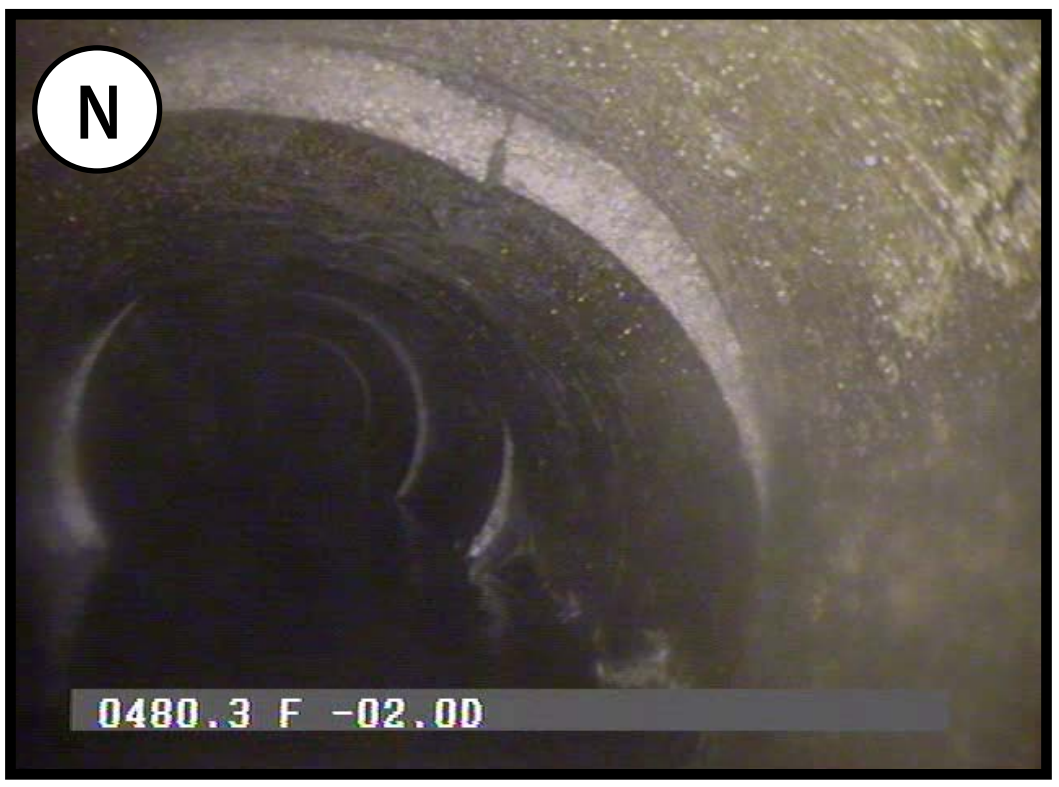


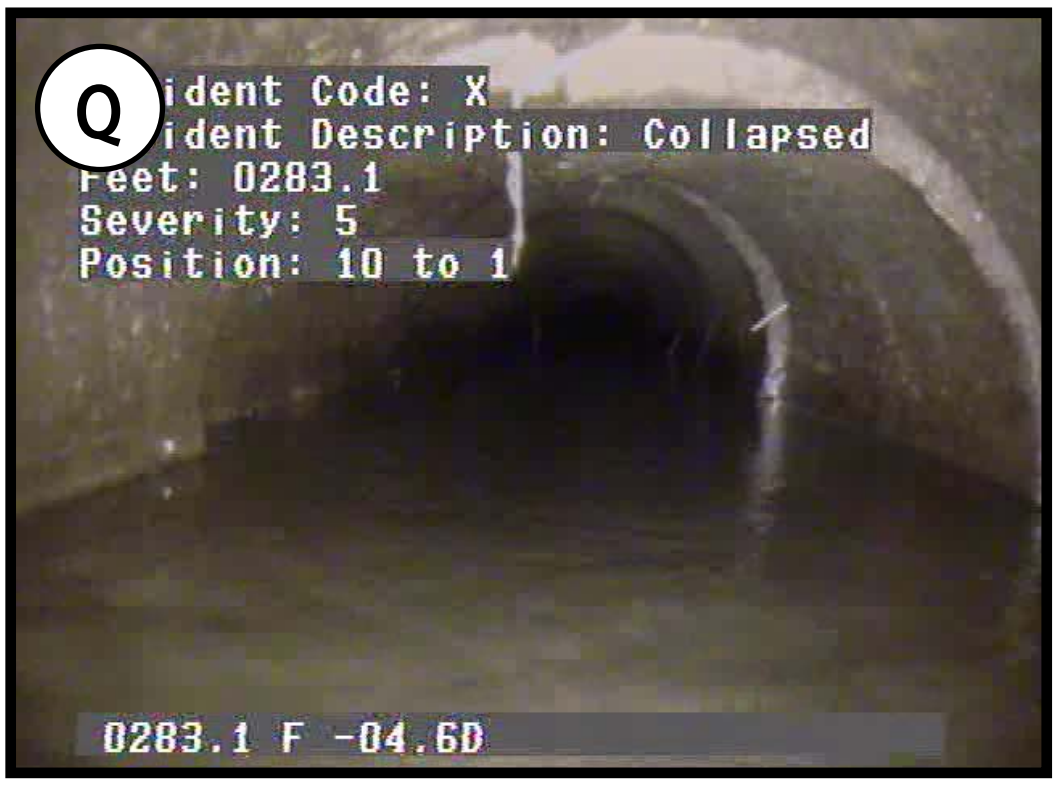
COUNTY DITCH 58

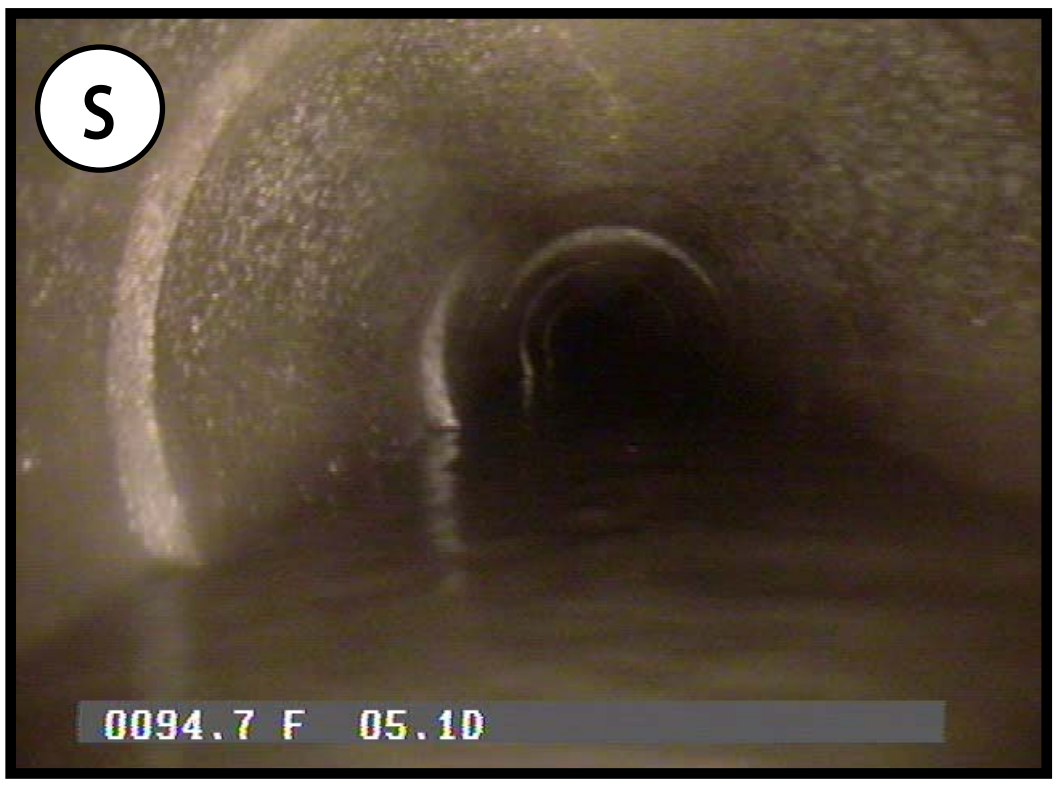
Le Sueur County, Minnesota

ISG

I+S GROUP



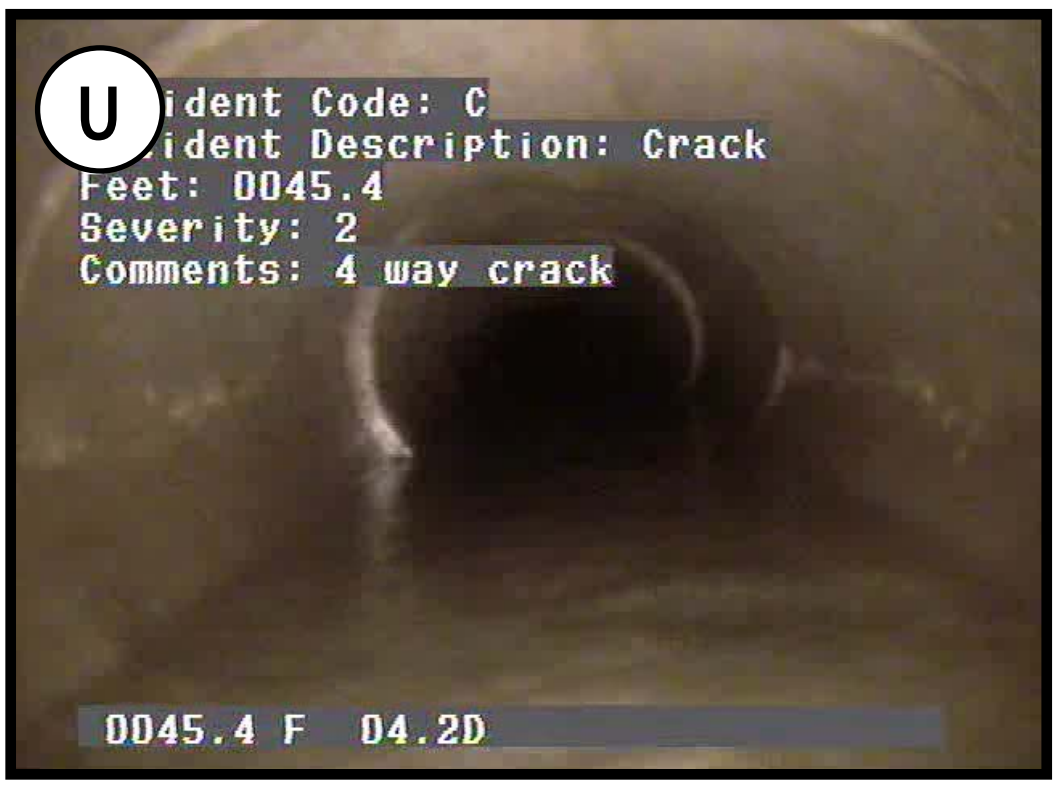


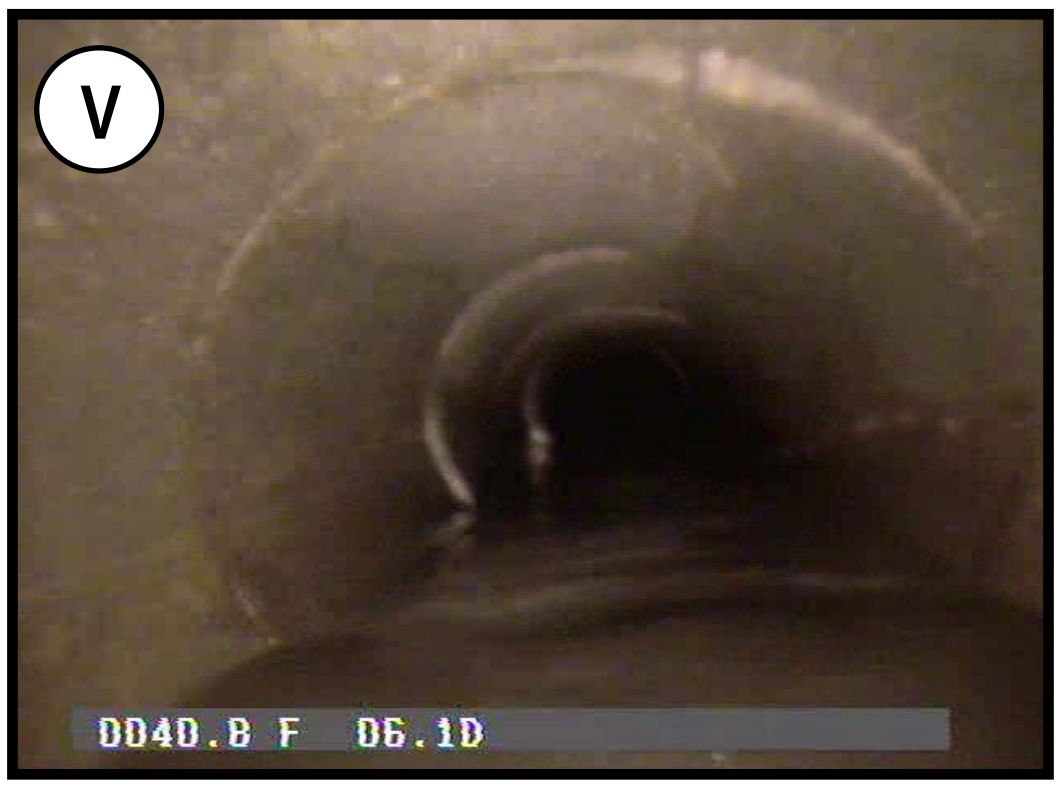


COUNTY DITCH 58

Le Sueur County, Minnesota

ISG
I+S GROUP





MINNESOTA PUBLIC FACILITIES AUTHORITY
Point Source Implementation Grant Program
Form 1 – General Information

Applicant Name Le Sueur County
County Le Sueur County
DUNS Number
Contact Person Darrell Pettis
Telephone 507-357-2257
Contact Person Title County Administrator
E-mail dpettis@co.le-sueur.mn.us
Address 88 South Park Avenue
Fax No. 507-357-6375
Le Center, MN 56057

Authorized Official Darrell Pettis
Telephone 507-357-2257
Title County Administrator / Engineer
E-mail dpettis@co.le-sueur.mn.us

Consultants and Advisors
Consulting Engineer Name Matthew Summers
Telephone 651-395-5206
Engineering Firm Wenck
E-mail msummers@wenck.com
Address 1802 Woodale Dr.
Fax No.
Woodbury, MN 55125

Other Consultant Name Aaron Wills
Telephone 507-786-3914
Firm Cannon River Watershed Partnership
E-mail aaron@crwp.net
Address 400 Washington St.
Fax No.
Northfield, MN 55057

MPCA Engineer
Telephone

Will a Public Utilities Commission be responsible for operation & maintenance of the project? If yes, provide information below.

PUC Contact Person
Telephone
PUC Title
E-mail
Address
Fax No.

Form 1 (continued)

Project Priority List (PPL) Placement - If the project is not listed on the current (2015) Project Priority List (PPL) Has Applicant submitted a 2016 Project Priority List request for this project?

☑ Yes ☐ No

Other Proposed Sources of Project Financing (in addition to the Point Source Implementation Grant)

Source	Amount Requested	Contact Person/Phone	Status
			-
			-
			-

Additional information on other sources of project financing:

The County plans to bond to finance the project.

MINNESOTA PUBLIC FACILITIES AUTHORITY
Point Source Implementation Grant Program
Form 2 – Project Information (attach additional sheets if necessary)

Brief Description of project to be financed:

Regionalization with St. Peter to provide wastewater treatment services to the German-Jefferson Subordinate Service District.

Identify the Project Type:

- [x] Wastewater
- [ ] Stormwater
- [ ] Drinking Water Treatment Plant

Check which applies to the project seeking funding:

- [x] Wasteload reduction prescribed under a TMDL Plan
- [ ] Phosphorus limit of 1 mg/L or less in MPCA permit
- [ ] Other water quality-based effluent limit (exceeds secondary treatment limits)
- [ ] Total Nitrogen limit of 10 mg/L or less (land based treatment)

Receiving Water Cannon River

Title and year of Approved TMDL (if applicable) Revised Regional Fecal Coliform TMDL - Lower Mississippi Basin

Identify/name pollutant Fecal Coliform Bacteria

Form 2 (continued)

Project timeframe. Provide estimated or actual dates for:

Submission of Plan and Specification to PCA 01/31/2016

Advertising for Bids 05/01/2016

Open bids 05/31/2016

Award bids 06/15/2016

Start Construction 06/29/2016

End Construction 09/30/2017

Specify the sources of revenue that will be used to operate and maintain the system. Include copy of current rate ordinance(s) and projected revenues.

A monthly base charge and usage fee will provide revenue to pay the operation and maintenance costs for the system. Currently, properties within the German-Jefferson Subordinate Service District have private septic systems, so no current rate ordinances exist. They would need to be created before the project begins construction.

Is there a contract/agreement with another entity to operate or manage the sewer system (i.e. private operator agreement)?

☐ Yes ☑ No

If so, please identify who the contract is with and the duration of the contract.

Minnesota Public Facilities Authority
Point Souce Implementation Grant Program
Form 3a - PSIG Project Costs

Applicant: Le Sueur County **Date:** 7/20/2015

Project: German-Jefferson Subordinate Service District **Project Costs Based on:** Estimated costs

Estimated Essential Project Component Percentage (EPC %, see below): 100.0%

Instructions: *Fill in yellow cells. See notes at bottom.*

	COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E
	Start Date	**End Date**	**Total Project Costs**	**ESTIMATED PSIG Eligible Costs**	**Estimated PSIG Eligible %**
1. Construction Costs					
Wastewater Treatment					
Sanitary Sewer Collection	06/30/16	09/30/17	$ 23,009,485	$ 23,009,485	100.0%
Stormwater Treatment					
Other:					
Subtotal - Construction			*$ 23,009,485*	*$ 23,009,485*	*100.0%*
2. Contingencies (5% of construction)			$ 1,150,474	$ 1,150,474	100.0%
3. Engineering / Legal					
Planning / Pre-design				$ -	
Engineering Design	10/01/15	06/30/16	$ 2,300,949	$ 2,300,949	100.0%
Inspection / Construction Mgmt				$ -	
Legal / Financing Related Fees	04/30/16	09/30/17	$ 1,150,474	$ 1,150,474	100.0%
Subtotal - Engineering / Legal			*$ 3,451,423*	*$ 3,451,423*	*100.0%*
4. Other Project Costs					
Land Purchase					
Land Acquisition Costs					
Other: Bonds/Insurance	04/30/16	09/30/17	$ 1,150,474	$ 1,150,474	100.0%
Other:					
Subtotal - Other Project Costs			*$ 1,150,474*	*$ 1,150,474*	*100.0%*
Total Project Costs			**$ 28,761,856**	**$ 28,761,856**	**100.0%**

Total PSIG Eligible Cost x EPC%: $ 28,761,856

Estimated PSIG Grant:
(PSIG Eligible Cost x EPC% x 50%, $3 million max) **$ 3,000,000**

Additional funding needed (total project cost minus PSIG grant): **$ 25,761,856**

Other funding:	County Bonding	$ 25,761,856
Other funding:		
Other funding:		
	Total:	$ 25,761,856

Notes:

ESSENTIAL PROJECT COMPONENT PERCENTAGE: The EPC % represents the portion of the project needed to meet existing needs vs. growth, which may reduce the PSIG eligible costs. Must enter an estimated EPC % in the box above in order to calculate the estimated PSIG grant. The MPCA will determine the final EPC percentage.

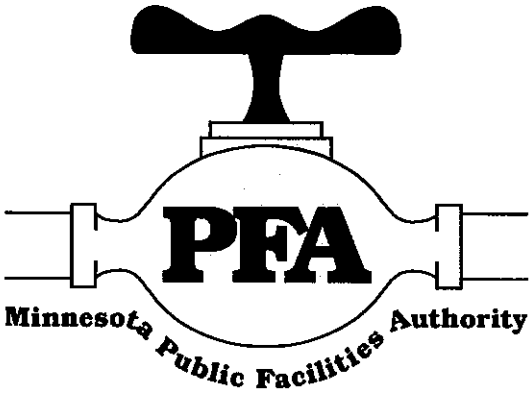
COLUMN A: For each activity, identify the **START DATE** on which eligible costs were, or are expected to be, incurred. On Form 3b (see tabs below), identify specific prior incurred costs for which the recipient will request reimbursement based on invoices. PFA may limit PSIG reimbursement for costs incurred prior to the grant award. Contact your loan officer for more information.

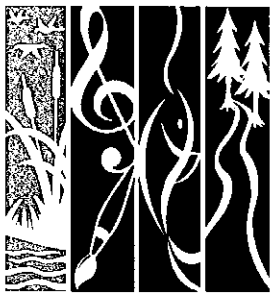
COLUMN B: For each activity, identify the expected **END DATE** for which the work will be completed.

COLUMN C: Identify the **TOTAL PROJECT COSTS** (wastewater or stormwater)

COLUMN D: Identify the **ESTIMATED PSIG ELIGIBLE COSTS** necessary to comply with the TMDL; to reduce the discharge of total phosphorus to one milligram per liter or less; to address the water quality-based effluent limits; or to meet a total nitrogen limit of 10 mg/L for land based treatment. **ATTACH A DETAILED BREAKDOWN** of the estimated PSIG eligible construction costs on a separate sheet (see next page). The Minnesota Pollution Control Agency will determine the grant eligible portion of the total construction costs.

COLUMN E: The **PSIG ELIGIBLE** percentage of total project costs for each activity. For category 2 (contingencies) and category 3 (engineering and legal), the PSIG eligible costs are determined based on the PSIG construction percentage. For other project costs in category 4, the PSIG eligible amount may be a different percentage. If using category 4, attach a separate sheet stating basis for determing the PSIG eligible percentage.





CLEAN WATER LAND & LEGACY AMENDMENT

Clean Water Fund

Point Source Implementation Grant Program

FY 2016 Application

Minnesota Public Facilities Authority
First National Bank Building, Suite W820
332 Minnesota Street
Saint Paul, MN 55101-1378

www.mn.gov/deed/pfa

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MINNESOTA PUBLIC FACILITIES AUTHORITY
POINT SOURCE IMPLEMENTATION GRANT PROGRAM (FY 2016)

The Point Source Implementation Grant (PSIG) Program is jointly administered by the Minnesota Public Facilities Authority (PFA) and the Minnesota Pollution Control Agency (MPCA). **APPLICATIONS MUST BE POSTMARKED OR SENT VIA E-MAIL NO LATER THAN JULY 31, 2015.**

The **Point Source Implementation Grant Program** (Minnesota Statutes, Section 446A.073 as amended) provides 50% grants up to a maximum of $3 million to governmental units to assist with the cost of water infrastructure projects necessary to meet:

1) Wasteload reductions prescribed under an approved total maximum daily load (TMDL) plan;

2) A phosphorus concentration or mass limit that requires discharging one milligram per liter or less at permitted design flow, which is incorporated into a permit issued by the MPCA;

3) Any other water quality-based effluent limit established under Minnesota Statute Section 115.03, Subd 1, (e)(8), that is incorporated into a permit issued by MPCA that exceeds secondary treatment limits; or

4) A total nitrogen limit of ten milligrams per liter or less for a land based treatment system.

Basic Program Information and Requirements

- Eligible projects must be ranked on the MPCA's 2016 Clean Water Revolving Fund Project Priority List (PPL).
- Eligible drinking water treatment projects must also be ranked on the Minnesota Department of Health's (MDH) Drinking Water Revolving Fund 2016 Project Priority List (PPL).
- Applicants must submit PSIG applications to the PFA by July 31, 2015. Please refer to the Application Checklist for a list of the required submittal items by the application deadline. The checklist also identifies submittal items required before grant award and disbursement of funds.
- The PFA will reserve funds for applications according to PPL priority order on the MPCA PPL. The PFA will reserve grant funds based on the estimated PSIG eligible costs in the application. If as-bids costs are higher, grant awards will be based on the higher cost if sufficient funds are available at the time of award. The MPCA will make the final determination as to the specific project construction costs that are PSIG eligible.
- Applicants submit plans and specifications to MPCA and MDH (for drinking water treatment plant projects)

- To remain eligible for FY 2016 funds, Point Source Implementation Grant applicants must submit as-bid costs to the PFA and MPCA and must receive MPCA certification of the grant eligible portion of the project by June 30, 2016.

- For ***wastewater projects***, MCPA calculates an Essential Project Component (EPC) percentage based on existing versus future wastewater needs, which may result in some projects receiving less than a 50% grant.

- Applicants must document that total project funding is in place before the PFA can award the grant. Documentation may include, local government resolutions, or award letters and grant agreements for other state or federal funds.

- Grantees must follow the state Uniform Municipal Contracting Law and other applicable requirements (bidding, special requirements for out-of-state contractors, workers compensation, etc.) in the construction of the project. State prevailing wage rates apply to the project (available from the Minnesota Department of Labor and Industry (DOLI), Labor Standards Division 651/284-5091 (www.DOLI.state.mn.us). The DOLI contract conditions included in **Appendix A** of this Application must be included in all bidding documents and construction contracts for projects that receive PSIG funding.

- Grant recipients must pay an application fee to the PFA equal to one-half of one percent of the grant amount. Fees are due at the time of execution of the grant agreement. The fee is not a grant eligible cost.

- Grantees must display a sign with the Clean Water Legacy logo at the project site or other public location identifying that the project was built with assistance from the Clean Water, Land, & Legacy Amendment. If it is not practicable to display the sign at the project site, the sign may be displayed in a public location at the Grantee's office along with a photograph of the project. An example sign layout is contained in this application package. The logo and specifications can be found at: http://www.dnr.state.mn.us/legacylogo/index.html

Coordination with PFA Revolving Fund Loans

Applicants with projects seeking PFA loans though the Clean Water or Drinking Water Revolving Fund (known as the State Revolving Fund, or SRF) in addition to PSIG funds must also follow the CWRF/DWRF loan application process, including being listed on PFA's Intended Use Plan (IUP) within fundable range. A separate CWRF/DWRF loan application must be submitted by the deadline stated in the IUP.

Contacts

Minnesota Public Facilities Authority Loan Officers: Refer to the map identifying PFA loan officers located at www.mn.gov/deed/pfa.

Minnesota Pollution Control Agency: Contact the review engineer for your project or Bill Dunn at the MPCA at 651-757-2324, or see the MPCA web site at www.pca.state.mn.us/PPL for additional information.

Minnesota Department of Health: contact Chad Kolstad at 651-201-3972 or chad.kolstad@state.mn.us.

Application Submittal

This file may be saved to your computer and the forms filled out electronically. The forms can then be printed.

Applications may be submitted electronically as an e-mail attachment to the appropriate PFA loan officer by July 31, 2015, or by mail (postmarked no later than July 31, 2015) to: MN Public Facilities Authority, 1st National Bank Building, 332 Minnesota Street, Suite W820, St. Paul, MN 55101-1378.

If application is submitted as a paper copy, provide 2 copies.

Minnesota Public Facilities Authority
First National Bank Building, Suite W820
332 Minnesota Street
Saint Paul, MN 55101-1378
Phone 651-259-7469 or 1-800-657-3858 (Outside Metro Area)
TTY/TDD: 651-296-3900
FAX: 651-296-8833

APPLICATIONS MUST BE POSTMARKED OR SENT VIA E-MAIL NO LATER THAN JULY 31, 2015

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MINNESOTA PUBLIC FACILITIES AUTHORITY
Point Source Implementation Grant Program
Form 1 – General Information

Applicant Name _____ County _____

DUNS Number _____

Contact Person _____ Telephone _____

Contact Person Title _____ E-mail _____

Address _____ Fax No. _____

_____

Authorized Official _____ Telephone _____

Title _____ E-mail _____

Consultants and Advisors

Consulting Engineer Name _____ Telephone _____

Engineering Firm _____ E-mail _____

Address _____ Fax No. _____

_____

Other Consultant Name _____ Telephone _____

Firm _____ E-mail _____

Address _____ Fax No. _____

_____

MPCA Engineer _____ Telephone _____

Will a Public Utilities Commission be responsible for operation & maintenance of the project? If yes, provide information below.

PUC Contact Person _____ Telephone _____

PUC Title _____ E-mail _____

Address _____ Fax No. _____

_____

Form 1 (continued)

Project Priority List (PPL) Placement - If the project is not listed on the current (2015) Project Priority List (PPL) Has Applicant submitted a 2016 Project Priority List request for this project?

☐ Yes ☐ No

Other Proposed Sources of Project Financing (in addition to the Point Source Implementation Grant)

Source	Amount Requested	Contact Person/Phone	Status
_____	_____	_____	-
_____	_____	_____	-
_____	_____	_____	-

Additional information on other sources of project financing:

MINNESOTA PUBLIC FACILITIES AUTHORITY
Point Source Implementation Grant Program
Form 2 – Project Information (attach additional sheets if necessary)

Brief Description of project to be financed:

Identify the Project Type:

- ☐ Wastewater
- ☐ Stormwater
- ☐ Drinking Water Treatment Plant

Check which applies to the project seeking funding:

- ☐ Wasteload reduction prescribed under a TMDL Plan
- ☐ Phosphorus limit of 1 mg/L or less in MPCA permit
- ☐ Other water quality-based effluent limit (exceeds secondary treatment limits)
- ☐ Total Nitrogen limit of 10 mg/L or less (land based treatment)

Receiving Water _____

Title and year of Approved TMDL (if applicable) _____

Identify/name pollutant _____

Form 2 (continued)

Project timeframe. Provide estimated or actual dates for:

Submission of Plan and Specification to PCA _____

Advertising for Bids _____

Open bids _____

Award bids _____

Start Construction _____

End Construction _____

Specify the sources of revenue that will be used to operate and maintain the system. Include copy of current rate ordinance(s) and projected revenues.

Is there a contract/agreement with another entity to operate or manage the sewer system (i.e. private operator agreement)?

☐ Yes ☐ No

If so, please identify who the contract is with and the duration of the contract.

This is an example of Form 3a Project Costs. Please use the excel document found on the PFA website.

Minnesota Public Facilities Authority
Point Souce Implementation Grant Program
Form 3a - PSIG Project Costs

Applicant: _____ **Date:** _____

Project: _____ **Project Costs Based on:** Select from drop-down list

Estimated Essential Project Component Percentage (EPC %, see below): _____

Instructions: *Fill in yellow cells. See notes at bottom.*

	COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E
	Start Date	**End Date**	**Total Project Costs**	**ESTIMATED PSIG Eligible Costs**	**Estimated PSIG Eligible %**
1. Construction Costs					
Wastewater Treatment					
Sanitary Sewer Collection					
Stormwater Treatment					
Other:					
Subtotal - Construction			$ -	$ -	
2. Contingencies (5% of construction)			$ -	$ -	
3. Engineering / Legal					
Planning / Pre-design				$ -	
Engineering Design				$ -	
Inspection / Construction Mgmt				$ -	
Legal / Financing Related Fees				$ -	
Subtotal - Engineering / Legal			$ -	$ -	
4. Other Project Costs					
Land Purchase					
Land Acquisition Costs					
Other:					
Other:					
Subtotal - Other Project Costs			$ -	$ -	
Total Project Costs			$ -	$ -	

Total PSIG Eligible Cost x EPC%: $ -

Estimated PSIG Grant:
(PSIG Eligible Cost x EPC% x 50%, $3 million max) $ -

Additional funding needed (total project cost minus PSIG grant): $ -

Other funding:	CWRF	
Other funding:		
Other funding:		
	Total:	$ -

Notes:

ESSENTIAL PROJECT COMPONENT PERCENTAGE: The EPC % represents the portion of the project needed to meet existing needs vs. growth, which may reduce the PSIG eligible costs. Must enter an estimated EPC % in the box above in order to calculate the estimated PSIG grant. The MPCA will determine the final EPC percentage.

COLUMN A: For each activity, identify the **START DATE** on which eligible costs were, or are expected to be, incurred. On Form 3b (see tabs below), identify specific prior incurred costs for which the recipient will request reimbursement based on invoices. PFA may limit PSIG reimbursement for costs incurred prior to the grant award. Contact your loan officer for more information.

COLUMN B: For each activity, identify the expected **END DATE** for which the work will be completed.

COLUMN C: Identify the **TOTAL PROJECT COSTS** (wastewater or stormwater)

COLUMN D: Identify the **ESTIMATED PSIG ELIGIBLE COSTS** necessary to comply with the TMDL; to reduce the discharge of total phosphorus to one milligram per liter or less; to address the water quality-based effluent limits; or to meet a total nitrogen limit of 10 mg/L for land based treatment. **ATTACH A DETAILED BREAKDOWN** of the estimated PSIG eligible construction costs on a separate sheet (see next page). The Minnesota Pollution Control Agency will determine the grant eligible portion of the total construction costs.

COLUMN E: The **PSIG ELIGIBLE** percentage of total project costs for each activity. For category 2 (contingencies) and category 3 (engineering and legal), the PSIG eligible costs are determined based on the PSIG construction percentage. For other project costs in category 4, the PSIG eligible amount may be a different percentage. If using category 4, attach a separate sheet stating basis for determing the PSIG eligible percentage.

This is an example of Form 3b Prior Incurred Costs. Please use the excel document found on the PFA website.

Minnesota Public Facilities Authority
Point Souce Implementation Grant Program
Form 3b - Prior Incurred Costs

Applicant: Test

Project:

Estimated Grant Award Date:

Instructions: Provide an itemized list of project costs incurred prior to the PSIG grant award for which the applicant is seeking reimbursement. PFA may limit PSIG reimbursement for prior incurred costs due to funding restrictions.

Date Cost Incurred	Description	Vendor	Invoice No.	Invoice Date	Amt Requested
03/01/14	pre-design	Think Twice Engineering, Inc	123456	05/15/14	$ 25,000.00
04/01/15	land appraisal	DIY Appraisal Co.	1	06/15/15	$ 3,000.00
Total					$ 28,000.00

Estimated Construction Cost Breakdown for Point Source Implementation Projects
(Attach additional sheets if needed)

If the overall project involves more than just PSIG related work, please identify how various construction cost categories (mobilization, buildings, etc.) are attributed to Point Source Implementation eligible activities.

Please use whatever format best describes the Point Source Implementation costs. Briefly describe how the Point Source Implementation project costs are related to:

- an established TMDL wasteload allocation or permit limit
- a phosphorus concentration or mass limit
- other water quality-based effluent limit
- a total nitrogen limit of 10 mg/L or less for land-based treatment

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MINNESOTA PUBLIC FACILITIES AUTHORITY
Point Source Implementation Grant Program
Form 4 – Compliance with Laws, Rules and Regulations

Point Source Implementation grantees are required to comply and ensure their contractor(s) comply with certain state laws, rules and regulations including but not limited to those described below which will be invoked as a condition of the grant.

1. Minnesota Statutes, Section 16B.31, subdivision 2 requires that all project funding be in place prior to execution of grant agreement.

2. Minnesota Statutes, Section 181.59, discrimination on account of race, creed, or color prohibited in contracts. Minnesota Statutes, Section 363A.08 prohibits unfair discrimination practices related to employment or unfair employment practices.

3. Minnesota Statutes, Section 471.345 Uniform Municipal Contracting Law.

4. Minnesota Statutes Chapter 363 Minnesota Human Rights Act. Requires that all public services be operated in such a manner that does not discriminate against any person in the access to, admission to, full utilization of or benefit from such public service.

5. Minnesota Statutes, Sections 176.181 - 176.182. Requires recipients and subcontractors to have worker's compensation insurance coverage.

6. Minnesota Statutes, Sections 177.41-177.43, prevailing wage rate law. Requires contractors to pay laborers and mechanics prevailing wages established by the Minnesota Department of Labor and Industry for public works projects.

7. Minnesota Statutes 290.9705. Requires that 8 percent of payments made to out-of-state contractors be withheld once cumulative payments made to the contractor for work done in Minnesota exceed $50,000 in a calendar year, unless an exemption is granted by the Department of Revenue.

8. Minnesota Statutes, Chapter 16C.285, as amended. Responsible Contractor Requirements. Solicitation documents must include the specified language for all contracts. https://www.revisor.mn.gov/laws/?year=2015&type=0&doctype=Chapter&id=64

9. Laws of Minnesota 2010 Chapter 361, article 3, section 5(b). Clean Water Fund sign posting requirements.

The _____ certifies that it has or will comply with the above requirements.
(Name of Grantee)

_____ _____
(Signature of Authorized Official) Date

(If digital signature is not available, print, sign and return signed form with application)

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MINNESOTA PUBLIC FACILITIES AUTHORITY
Point Source Implementation Grant Program
Checklist – Form 5

PFA APPLICATION ITEMS REQUIRED BY JULY 31, 2015:

☐ Grant Application Forms

- Form 1 - General Information
- Form 2 - Project Information
- Form 3a –Project Costs (excel document)
- Form 3b – Prior Incurred Costs (excel document)
- Form 4 - Signed Compliance with Laws, Rules & Regulations
- Form 5 - Point Source Implementation Grant Checklist

☐ Resolution of governing body of the municipality authorizing submission of the application (example attached)

☐ Project schedule indicating that construction is scheduled to begin prior to June 30, 2016

☐ Identification of the estimated construction cost breakdown and related costs necessary to comply with the:

- ☐ Total Maximum Daily Load wasteload reduction, or
- ☐ Phosphorus concentration/mass limit 1 mg/L in the MPCA permit, or
- ☐ Total nitrogen limit of 10 mg/L or less (for land treatment), or
- ☐ Other water quality-based effluent limit that exceeds secondary treatment limits in MPCA permit

SUMBITTAL ITEMS REQUIRED PRIOR TO GRANT AWARD (AFTER INITIAL APPLICATION):

Minnesota Pollution Control Agency submittal items:

☐ Project plans and specifications for wastewater and stormwater projects (for review and approval). Contact MPCA review engineer to determine if drinking water treatment plant projects must be submitted (for review and approval).

☐ As-bid cost documentation for wastewater, stormwater and drinking water projects (for determination of eligible PSIG construction costs)

Minnesota Department of Health submittal items:

☐ Project plans and specifications for drinking water treatment plants (for review and approval)

☐ As-bid cost documentation for drinking water treatment plants(for determination of PSIG eligible construction costs)

Form 5 Checklist (continued)

PFA submittal items prior to grant award:

☐ Documentation that complete project funding is in place (resolution from local government with commitment of local funds, award letter from other state/federal funding sources)

☐ As-bid costs and bid tabulations

☐ Copy of adopted/enacted user charge system and ordinance

☐ Inter-municipal Agreement (enacted) if more than one municipality is involved in project

☐ Management Contract: If the borrower has engaged a private contract operator to manage its wastewater, drinking water or storm water system, submit a copy of the management contract.

☐ MPCA project certification (provided by MPCA)

SUBMITTAL ITEMS REQUIRED AFTER AWARD BIT PRIOR TO GRANT DISBURSEMENT:

☐ Payment of application fee (one-half of one percent of grant amount)

☐ Disbursement Request Form and supporting documentation for eligible expenses

EXAMPLE

Minnesota Public Facilities Authority
Grant Application Resolution No.

RESOLUTION AUTHORIZING THE **(applicant)** TO SUBMIT A POINT SOURCE IMPLEMENTATION GRANT APPLICATION TO THE MINNESOTA PUBLIC FACILITIES AUTHORITY (PFA) AND TO AUTHORIZE CITY OFFICIALS TO EXECUTE A GRANT AGREEMENT ON BEHALF OF THE **(applicant)** FOR THE **(name of project)**

WHEREAS, the Point Source Implementation Program, established in Minnesota Statutes 446A.073, as amended) provides funds for construction projects; and

WHEREAS the **(applicant)** is hereby applying to the Minnesota Public Facilities Authority for a funds to be used for eligible costs for the **(describe project)**.

BE IT RESOLVED that the **(name of applicant)** has the legal authority to apply for the grant, and the financial, technical, and managerial capacity to ensure proper construction, operation and maintenance of the project for its design life.

BE IT FURTHER RESOLVED, that upon approval of its application by the PFA, **(applicant)** may enter into an agreement with the PFA for the above referenced project, and that **(applicant)** certifies that it will comply with all applicable laws and regulations as stated in all contract agreements described in the Compliance listing of the grant application.

NOW, THEREFORE BE IT FURTHER RESOLVED, that **(title of first authorized official)** and **(title of second authorized official)**, or their successors in office, are hereby authorized to execute such agreements, and amendments thereto, as are necessary to implement the above project on behalf of the **(applicant).**

I CERTIFY THAT the above resolution was adopted by the **(Governing Body)** on **(month, day, year)**.

SIGNED:

_____

_____

Date: _____

WITNESSED:

_____

_____

Date: _____

S E A L

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APPENDIX A
Minnesota Public Facilities Authority
Point Source Implementation Grants

State of Minnesota Prevailing Wages

Include this language in all construction contracts:

Pursuant to Minnesota Statutes 177.41 to 177.44 and corresponding Rules 5200.1000 to 5200.1120, this contract is subject to the prevailing wages as established by the Minnesota Department of Labor and Industry. Specifically, all contractors and subcontractors must pay all laborers and mechanics the established prevailing wages for work performed under the contract. Failure to comply with the aforementioned may result in civil or criminal penalties. The applicable wage determination must be incorporated into proposals and all contracts.

Payrolls/Records
The contractor and subcontractor shall furnish to the OWNER copies of any or all payrolls not more than 14 days after the end of each pay period. The payrolls must contain all of the data required by Minnesota Statutes Section 177.30. Subcontractors must furnish payrolls to the contractor. The OWNER may examine all records relating to wages paid laborers or mechanics on work to which Minnesota Statutes Sections 177.41 to 177.44 apply.

Posting of Wage Rates/Required Posters
Each contractor and subcontractor performing work on a public project shall post on the project the applicable prevailing wage rates and hourly basic rates of pay for the county or area within which the project is being performed, including the effective date of any changes thereof, in at least one conspicuous place for the information of the employees working on the project. The information so posted shall include a breakdown of contributions for health and welfare benefits, vacation benefits, pension benefits, and any other economic benefits required to be paid.

For more information regarding prevailing wage and its application, contact:

Minnesota Department of Labor and Industry
Prevailing Wage unit
443 Lafayette Road N.
St. Paul, MN 55155
Phone: (651) 284-5091
E-mail: dli.prevwage@state.mn.us
Web: www.DOLI.state.mn.us

This project is financed by the Minnesota Public Facilities Authority including funds from the Clean Water, Land, and Legacy Amendment

PFA
Minnesota Public Facilities Authority

CLEAN WATER LAND & LEGACY AMENDMENT

Fwd: 2003 Sterling LT9500 / Total loss / Claim Number 15AL0276

Andy Jindra [jindraandy@yahoo.com]
Sent: Monday, July 20, 2015 6:20 AM
To: Jindra, Andy

Sent from my iPhone

Begin forwarded message:

From: Natalie Jorgenson <njorgenson@mcit.org>
Date: July 17, 2015 at 3:55:25 PM CDT
To: "jindraandy@yahoo.com" <jindraandy@yahoo.com>
Subject: 2003 Sterling LT9500 / Total loss / Claim Number 15AL0276

Our Trust Member: Le Sueur County
Claim Number: 15AL0276
Date of Loss: June 17, 2015

Andy,

Thank you for talking with me earlier this afternoon. As we discussed, the 2003 Sterling LT950 is an unexpected total loss. Our offer to settle the total loss is:

$30,000.00	Base Value
1,950.00	6.5% tax
47.00	Title and plate
$31,997.00	Actual Cash Value (ACV)
-1,000.00	Coll ded
$30,997.00	**Amount of check and MCIT will dispose of salvage**
-6,949.00	High salvage/Vanderhaag Truck
$24,048.00	**Amount of check and county retains salvage.**

After you have a chance to consider this offer, give me a call to let me know who you would like to proceed forward. Thank you.

Natalie Jorgenson
MCIT
Claims Representative
651-209-6460
866-547-6516 ext. 6460
njorgenson@mcit.org