



**COUNTY OF KENDALL, ILLINOIS
COMMITTEE OF THE WHOLE
County Office Building; Room 210; Yorkville IL**

**Thursday, July 12, 2018 at 4:00 PM
AGENDA**

- 1. Call to Order and Pledge of Allegiance**
- 2. Roll Call:** Scott Gryder, Lynn Cullick, Matt Kellogg, Matthew Prochaska, Bob Davidson, Elizabeth Flowers, Tony Giles, Judy Gilmour, Audra Hendrix, John Purcell
- 3. Approval of Agenda**
- 4. Committee Business**

From Facilities Committee:

- *Discussion and Recommendation for Public Safety Center Air Conditioner Replacement Project*

From Admin HR Committee:

- *Discussion and Approval of Advisory Referenda for General Election*
- *Discussion and Approval of Website, FOIA & Download of GIS Data Policy*
- *Discussion and Recommendation for Property, Casualty and Liability Insurance Broker RFQ*

From PBZ Committee:

- *Petition 18 – 15 - Request from Nancy Harazin on Behalf of Nancy L. Harazin Trust Number 101 for a Special Use Permit for a Public or Private Utility-Other (Solar Panels) at 16400 Newark Road, Approximately 0.2 Miles East of Route 71 on the South Side of Newark Road (PIN: 07-05-400-003) in Big Grove Township*

- 5. Public Comment**
- 6. Questions from the Media**
- 7. Chairman's Report**
- 8. Review Board Action Items**
- 9. Executive Session**
- 10. Adjournment**

If special accommodations or arrangements are needed to attend this County meeting, please contact the Administration Department at 630- 553-4171, a minimum of 24-hours prior to the meeting time

**COUNTY OF KENDALL, ILLINOIS
COMMITTEE OF THE WHOLE
Thursday, June 14, 2018**

CALL TO ORDER AND PLEDGE OF ALLEGIANCE - The meeting was called to order by Vice Chair Lynn Cullick who led the committee in the Pledge of Allegiance to the American Flag.

ROLL CALL

Attendee	Status	Arrived	Left Meeting
Scott Gryder	ABSENT		
Lynn Cullick	Here		
Bob Davidson		4:06p.m.	
Elizabeth Flowers	ABSENT		
Tony Giles	Here		
Judy Gilmour	Here		
Audra Hendrix	Here		
Matt Kellogg	Yes		
Matthew Prochaska	Here		
John Purcell	Yes		

Others present: Matt Asselmeier, Leslie Johnson, Scott Koeppel

- **APPROVAL OF AGENDA** – Motion made by Member Kellogg to approve the agenda with the amendment of removing the Planning, Building and Zoning agenda item “*Authorize State’s Attorney to initiate Litigation against Mark Antos and any other Owners for the Removal of the Culvert Crossing of Aux Sable Creek near 13360 McKanna Road, Minooka, Illinois*”, second by Member Giles. With Members Giles, Purcell, Gilmour, Cullick, Prochaska and Kellogg voting aye, and Member Hendrix voting nay, the motion carried by a vote of 6-1.

COMMITTEE BUSINESS

From Planning, Building & Zoning Committee:

- *Authorize State’s Attorney to initiate Litigation against Mark Antos and any other Owners for the Removal of the Culvert Crossing of Aux Sable Creek near 13360 McKanna Road, Minooka, Illinois* – Item was removed from the agenda by the Committee.

From the Admin HR Committee:

- *Discussion and Approval of Horton Fee Agreement and Compensation & Term for Health, Dental, and Life Insurance Brokerage Services* – Motion by Member Hendrix to forward the item to the County Board for approval, second by Member Purcell. With eight members voting aye, the motion carried.

PUBLIC COMMENT – None

QUESTIONS FROM THE MEDIA – None

CHAIRMANS REPORT – No report

REVIEW BOARD ACTION ITEMS – Vice Chair Cullick asked the committee to review the draft County Board agenda for June 19, 2018.

EXECUTIVE SESSION – Not needed

ADJOURNMENT – Member Prochaska made a motion to adjourn the meeting, second by Member Giles. With eight members voting aye, the meeting was adjourned at 4:32p.m.

Respectfully Submitted,

Valarie McClain
Administrative Assistant and Recording Secretary

**SUBMISSION OF AN ADVISORY QUESTION OF PUBLIC POLICY
TO THE ELECTORS OF KENDALL COUNTY**

WHEREAS, Section 5-1005.5 of the Counties Code, 55 ILCS 5/5-1005.5, provides that a County Board, by a vote of a majority of its members, may authorize an advisory question of public policy to be placed on the ballot at the next regularly scheduled election in the County; and

WHEREAS, Section 28-2(c) of the Election Code, 10 ILCS 5/28-2 (c), provides that resolutions of a unit of local government which initiate the submission of public questions pursuant to law must be adopted not less than 79 days before a regularly scheduled election to be eligible for submission on the ballot at such election; and

WHEREAS, the next regularly scheduled election in Kendall County is the General Election to be held on November 6, 2018.

NOW, THEREFORE, BE IT RESOLVED by the County of Kendall, a unit of local government, by and through the Kendall County Board, as follows:

SECTION ONE:

The following advisory question of public policy shall be submitted to the qualified electors of the County of Kendall at the General Election on November 6, 2018:

<p>SHOULD KENDALL COUNTY OPPOSE THE CREATION OF A VEHICLE MILEAGE TAX AS PROPOSED BY THE CHICAGO METROPOLITAN AGENCY FOR PLANNING ON ALL MOTORISTS ON A PER MILE BASIS?</p>	<p>YES _____ NO _____</p>
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SECTION TWO:

That this advisory question of public policy, as fully set forth in Section One of this Resolution, is authorized and shall be submitted to the qualified electors of Kendall County at the General Election to be held on November 6, 2018, in accordance with all applicable provisions of Illinois law.

SECTION THREE:

That the County Clerk is hereby directed to certify said advisory question of public policy to the election authority in Kendall County, the Kendall County Clerk, in accordance with the Illinois Election Code on or before August 22, 2018.

SECTION FOUR:

That the ballot to be used at the November 6, 2018 General Election, for the advisory question of public policy shall be in substantially the same form as set forth in Section One herein, with such alterations, changes, insertions and deletions as are required by Article 24A of the Illinois Election Code, if an electronic, mechanical, or electric voting system is used in said election.

SECTION FIVE:

That this Resolution shall be in full force and effect from and after passage and approval pursuant to law.

Enacted and approved this ___ day of _____, 2018 at Yorkville, Illinois.

**SUBMISSION OF AN ADVISORY QUESTION OF PUBLIC POLICY
TO THE ELECTORS OF KENDALL COUNTY**

WHEREAS, Section 5-1005.5 of the Counties Code, 55 ILCS 5/5-1005.5, provides that a County Board, by a vote of a majority of its members, may authorize an advisory question of public policy to be placed on the ballot at the next regularly scheduled election in the County; and

WHEREAS, Section 28-2(c) of the Election Code, 10 ILCS 5/28-2 (c), provides that resolutions of a unit of local government which initiate the submission of public questions pursuant to law must be adopted not less than 79 days before a regularly scheduled election to be eligible for submission on the ballot at such election; and

WHEREAS, the next regularly scheduled election in Kendall County is the General Election to be held on November 6, 2018.

NOW, THEREFORE, BE IT RESOLVED by the County of Kendall, a unit of local government, by and through the Kendall County Board, as follows:

SECTION ONE:

The following advisory question of public policy shall be submitted to the qualified electors of the County of Kendall at the General Election on November 6, 2018:

SHOULD KENDALL COUNTY OPPOSE THE CHICAGO FEDERAL RESERVE'S PROPOSAL FOR THE CREATION OF A STATEWIDE 1% PROPERTY TAX TO FUND THE STATES PENSION PROGRAMS?	YES _____ NO _____
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SECTION TWO:

That this advisory question of public policy, as fully set forth in Section One of this Resolution, is authorized and shall be submitted to the qualified electors of Kendall County at the General Election to be held on November 6, 2018, in accordance with all applicable provisions of Illinois law.

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SECTION FIVE:

That this Resolution shall be in full force and effect from and after passage and approval pursuant to law.

Enacted and approved this ___ day of _____, 2018 at Yorkville, Illinois.

RESOLUTION

WHEREAS, Pursuant to the Illinois Election Code, 10 ILCS 5/28-1 et seq., and the Illinois Counties Code, 55 ILCS 5/5-1005.5, by a vote of the majority of the members of the county board, the board may authorize an advisory question of public policy to be placed on the ballot at the next regularly scheduled election in the county; and

WHEREAS, The County Board hereby intends to submit to the residents of Saline County a public question of county-wide significance; and

WHEREAS, The County Board believes it is in the best interest of the residents of Saline County to move expeditiously as possible to submit this proposition to the voters at the next regularly scheduled general election to be held on November 6, 2018; now, therefore,

BE IT RESOLVED BY THE COUNTY BOARD OF MOULTRIE COUNTY:

Section 1. The above recitals are expressly incorporated herein and made part hereof as though fully set forth herein.

Section 2. The County Board of Saline County does hereby initiate and authorize the following public question to be submitted to the voters of Saline County at the regularly scheduled general election next occurring after the effective date of this resolution, on November 6, 2018:

"Should the Illinois General Assembly amend the state constitution to ban the implementation of a statewide 1% property tax increase."

Yes

No

Section 3. The County Clerk of Saline County shall certify the public question referenced herein to the Commissioners of the Illinois State Board of Elections in accordance with Article 28 of the Election Code,

Section 4. This resolution shall be in full force and effect upon its passage.



Kendall County Policy & Procedure

Date adopted

WEBSITE, FOIA, & DOWNLOAD OF GIS DATA

Introduction

On September 16, 2014, the Kendall County Board voted unanimously to make all GIS Data Layers available for download on the Official Kendall County Website. The Kendall County Board is dedicated to being at the forefront of government transparency. This policy outlines the procedure for providing GIS Data Layers to the public.

Details

On an annual basis, no later than July 1, Kendall County GIS will post updated GIS Data Layer files to the Official Kendall County Website. All data in the GIS Viewer will be available for download. The data will be provided in ESRI shapefile format.

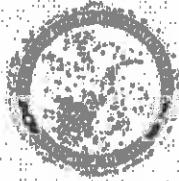
When a FOIA request is filed requesting GIS Data, Kendall County FOIA Officers will answer in accordance with 5 ILCS 140/8.5. Kendall County FOIA Officers will notify the requester that the public record is available online and direct the requester to the website where the record can be reasonably accessed.

Referenced Statute(s)

5 ILCS 140/8.5 (2018) Sec. 8.5. Records maintained online.

(a) Notwithstanding any provision of this Act to the contrary, a public body is not required to copy a public record that is published on the public body's website. The public body shall notify the requester that the public record is available online and direct the requester to the website where the record can be reasonably accessed.

(b) If the person requesting the public record is unable to reasonably access the record online after being directed to the website pursuant to subsection (a) of this Section, the requester may re-submit his or her request for the record stating his or her inability to reasonably access the record online, and the public body shall make the requested record available for inspection or copying as provided in Section 3 of this Act.



OFFICE OF THE ATTORNEY GENERAL
STATE OF ILLINOIS

Lisa Madigan
ATTORNEY GENERAL

July 10, 2013

Mr. Charles W. Rex III
RMI Midwest
1200 Central Avenue, Suite 330
Wilmette, Illinois 60091

Mr. Sean Murley
Assistant State's Attorney/Freedom of Information Officer
St. Clair County State's Attorney
10 Public Square, 2nd Floor
Belleville, Illinois 62220

RE: FOIA Request for Review -- 2013 PAC 23593

Dear Mr. Rex and Mr. Murley:

This determination letter is issued pursuant to section 9.5(f) of the Freedom of Information Act (FOIA) (5 ILCS 140/9.5(f) (West 2011 Supp.)). For the reasons that follow, the Public Access Bureau concludes that St. Clair County properly denied a FOIA request submitted by Mr. Charles Rex III on behalf of RMI Midwest seeking Geographic Information System (GIS) data.

On February 14, 2013, Mr. Rex asked the County for a copy of the "Digital Cadastral Data" for St. Clair County in order to provide appraisal services in connection with condemnations related to a road realignment project and the construction of a new bridge.¹ The FOIA request was addressed to the State's Attorney, and stated that the St. Clair County GIS Coordinator had advised that such a request must be submitted to the State's Attorney. On February 22, 2013, the State's Attorney denied the request under section 7(1)(i) of FOIA (5 ILCS 140/7(1)(i) (West 2011 Supp.)), as amended by Public Acts 97-783, effective July 13, 2012; 97-813, effective July 13, 2012; 97-847, effective September 24, 2012; 97-1065, effective August 24, 2012; 97-1129, effective August 28, 2012), which exempts from disclosure:

¹FOIA request from Charles W. Rex III, RMI Midwest, to St. Clair County State's Attorney's Office (February 14, 2013).

Mr. Charles Rex III
Mr. Sean Murley
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Valuable formulae, computer geographic systems, designs, drawings and research data obtained or produced by any public body when disclosure could *reasonably be expected to produce private gain or public loss*. The exemption for "computer geographic systems" provided in this paragraph (i) does not extend to requests made by news media as defined in Section 2 of this Act when the requested information is not otherwise exempt and the only purpose of the request is to access and disseminate information regarding the health, safety, welfare, or legal rights of the general public. (Emphasis added.)

In his Request for Review, Mr. Rex asserted that disclosure of the GIS data would not produce a private gain or a public loss because RMI Midwest only intended to use the data to appraise its client's properties and analyze sales of comparable properties; he emphasized that RMI Midwest did not intend to sell or distribute the data. Mr. Rex also asserted that the County's GIS Department indicated that he could obtain the requested information for an estimated fee of \$153,000, representing \$1 per tax parcel.

On March 12, 2013, this office forwarded a copy of the Request for Review to the State's Attorney, requesting a detailed factual basis for asserting section 7(1)(i) and an explanation of the County's position on the applicable copying fee if the records are subject to disclosure under FOIA. On March 25, 2013, the State's Attorney responded that there "is a high probability due to the nature of the requester's business that the GIS data will be used to generate a private gain or public loss either now or in the future."² The State's Attorney stated that the fee provisions of FOIA would apply if the County was required to provide GIS data, but reiterated that Mr. Rex's FOIA request was properly denied under section 7(1)(i) of FOIA. In his reply, Mr. Rex reiterated that RMI did not intend to sell or distribute the requested records. He also asserted that the State's Attorney's FOIA Officer told him in a telephone conversation that "one of his reasons for denial of our request was that the county had the right to recoup the cost of the county's expense for the GIS data."³

²Letter from Sean Murley, Assistant State's Attorney and FOIA Officer, St. Clair County State's Attorney's Office (March 25, 2013).

³Letter from Charles W. Rex III, RMI Midwest, to Steve Silverman, Assistant Attorney General, Public Access Bureau (April 9, 2013).

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DETERMINATION

All public records in the possession or custody of a public body are presumed to be open to inspection or copying." 5 ILCS 140/1.2 (West 2010); *see also Southern Illinoisan v. Illinois Dept. of Public Health*, 218 Ill. 2d 390, 415 (2006). A public body "has the burden of proving by clear and convincing evidence" that a record is exempt from disclosure. 5 ILCS 140/1.2 (West 2010).

The Public Access Bureau has previously determined that the plain language of section 7(1)(i) demonstrates that the General Assembly only intended the news media to have access to GIS data for limited purposes under FOIA:

In our view, [the] legislative intent of this exemption was to exclude GIS data from being produced under FOIA. The language allowing members of the media access to this data to "disseminate information regarding the health[,] safety, welfare or legal rights of the general public" could have been extended to the general population, but it was not. Had the legislature intended to allow access by the general public to these types of records, it could easily have included language similar to that included with respect to the media. Ill. Att'y Gen. PAC Req. Rev. Ltr. 12404, issued June 20, 2011.

See also Ill. Att'y Gen. PAC Req. Rev. Ltr. 12374, issued June 30, 2011 (Disclosure of GIS data to a private company would result in a private gain because the company "would not be required to duplicate and pay for the work already performed in creating the GIS data."). Mr. Rex acknowledges that RMI Midwest is seeking the County's GIS data for its for-profit appraisal services. RMI Midwest would reap a private gain by obtaining this data under FOIA without paying for the creation of the records.

Mr. Rex appears to assert that the County is obligated to provide him with records under FOIA because the County's GIS Department verbally offered to provide the requested records for a fee of \$153,000. If a public body exercises its discretion to make GIS data available to the general public under FOIA, the fees provisions of FOIA apply. Ill. Att'y Gen. PAC Req. Rev. Ltr. 12374, issued June 30, 2011; Ill. Att'y Gen. Op. No. 05-002, issued December 12, 2005, at 4-5. However, Mr. Rex's FOIA request specifically stated that the GIS Department had informed him that he must submit his FOIA request to the State's Attorney. Thus, the GIS Department neither received nor responded to the FOIA request at issue in this matter.

Mr. Charles Rex III
Mr. Sean Murley
July 10, 2013
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Further, the State's Attorney's written response that is the subject of this Request for Review flatly denied the request under section 7(1)(i) of FOIA without, alternatively, offering to provide the records for a fee. Although Mr. Rex asserted that the State's Attorney's FOIA Officer told him that his request was denied partly because the County wanted to recoup the cost of compiling its GIS data, there is no indication that the State's Attorney agreed to provide the records under FOIA.

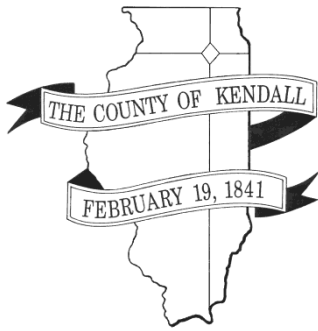
Because Mr. Rex's request does not fall within the exception for certain news media requests in section 7(1)(i) of FOIA, this office concludes that the State's Attorney properly denied his request for GIS data. The Public Access Counselor has determined that resolution of this matter does not require the issuance of a binding opinion. This letter shall serve to close this matter. If you have any questions, please contact me at (312) 814-6756.

Very truly yours,



STEVE SILVERMAN
Assistant Bureau Chief
Public Access Bureau

23593 f71i proper county



DEPARTMENT OF PLANNING, BUILDING & ZONING

111 West Fox Street • Room 204

Yorkville, IL • 60560

(630) 553-4141

Fax (630) 553-4179

MEMORANDUM

To: Kendall County Board
From: Matthew H. Asselmeier, AICP, Senior Planner
Date: July 11, 2018
Re: Petition 18-15 – Request from Nancy Harazin on Behalf of Nancy L. Harazin Trust Number 101 for a Special Use Permit for a Public or Private Utility-Other (Solar Panels) at 16400 Newark Road, Approximately 0.2 Mile East of Route 71 on the South Side of Newark Road, Big Grove Township (PIN 07-05-400-003); Property is Zoned A-1

Nancy Harazin, on behalf of Nancy L. Harazin Trust Number 101, submitted a petition for a special use permit to operate a public or private utility system – other on her property at 16400 Newark Road. Specifically, the Petitioner would like to contract with Borrego Solar Systems, Inc. for the installation and operation of a solar energy system. The energy generated from the system will be fed into Ameren's system and consumed offsite.

The Petitioner would like to lease approximately twenty-three (23) acres to 312 Solar Development, LLC c/o Borrego Solar Systems, Inc. for an initial period of twenty (20) years. The lease could be renewed up to four (4) additional periods of five (5) years. The fenced area of the solar system is approximately eleven point two-five (11.25) acres. The solar panels would be seven feet (7') in height at maximum tilt and three to four feet (3'-4') off of the ground. The panels would rotate east to west and reset after dark. The system would connect to Ameren's system at the northeast corner of the property at Newark Road. The system is planned to generate two mega-watts (2 MW) of energy. If approved, the system would be operational by approximately July 31, 2019. An aerial of the property is included.

The construction process is estimated to take between four and six (4-6) months.

The solar panels will be located at their closest point approximately one hundred seventy-five feet (175') from Newark Road and approximately one hundred eighteen feet (118') from the nearest neighboring property line. The solar panels shall not be closer than twenty-five feet (25') from the identified wetlands. The solar panels would be approximately seven hundred seventy feet (770') from the house across Newark Road

A lawn seed mix will be planted under and around the solar panels. The growth would require mowing three (3) or four (4) times per year. The Planning, Building and Zoning Committee requested that arborvitae at least six (6') feet in height be planned along the northern portion of the property near Newark Road. Other than periodic mowing and maintenance, no personnel will be onsite and no parking is required. The Kendall County Soil and Water Conservation District expressed no concerns regarding the ability of the proposed mix to handle erosion control provided that the property owner or operator conducted annual inspections. Vegetation would be planted when the panels are in place.

The proposed solar panels shall be required to meet all applicable building codes.

The supports would be buried approximately twelve to thirteen feet (12'-13') in the ground depending on soil conditions. The supports would not be encased in concrete.

Electric lines will be buried inside the fence. There is a utility pole east of the access drive. The electric lines will go above ground at that point and connect to the Ameren system at the point on connection on the northeast corner of the site.

A fourteen foot (14') wide gravel access from Newark Road will be installed. The property already possesses a field access at this location. The access is across the street from the driveway of 16295 Newark Road.

Per the Site Plan, a seven foot (7') high chained link fence shall surround the solar panels. The fence shall have a sixteen foot (16') wide vehicle access gate on the east side and a four foot (4') wide man gate on the south side. The fence will be installed approximately one (1) week after construction starts.

A light will be installed for security reasons at the electrical equipment area.

Approximately eight (8) signs will be placed around the property along the fence and anywhere required by the NEC. A "Danger High Voltage" sign will be placed around the fence every two hundred feet (200'). A sign will also be placed on the vehicle gate entrance. There will be plaques stating emergency contact information and a site key.

No new odors are foreseen.

The solar panels have life expectancy of thirty (30) years. The anticipated decommissioning costs were approximately One Hundred Fifty-One Thousand, Five Hundred Dollars (\$151,500). Decommissioning is estimated to take between two and three (2-3) months.

The EcoCat report was submitted and consultation was terminated.

The LESA score was 205 indicating a medium area of protection.

Big Grove Township reviewed the proposal and expressed no concerns.

The Village of Newark expressed the following concerns:

1. They would like the solar panels be set back further to the south.
2. They would like larger landscaping or fencing that better blocks the view of the solar panels from adjoining properties other than a chain link fence.
3. They had concerns regarding the safety of the environment if the solar panels break and their contents spill onto the ground.
4. They had concerns about glare if the tracking system malfunctions.
5. They would like assurances that the equipment is removed in a timely manner at the end of the project or when the lease is terminated.

The Newark Fire Protection District reviewed the proposal and expressed no concerns.

ZPAC reviewed this proposal on May 1, 2018. The representatives from the Petitioner requested that the operator be included with the owner on several conditions. The County Highway Department also requested a fifteen foot (15') right-of-way dedication at the north side of the property along Newark Road to address an erosion issue. ZPAC unanimously recommended approval of the request.

The Kendall County Regional Planning Commission reviewed this proposal on May 23, 2018. Commissioners requested that a condition be added to the special use permit requiring damaged field tiles to be repaired and/or re-routed. The Petitioner's representatives were agreeable with this request. Tom Bromeland, Newark Road, expressed his opposition to the proposal. He was concerned about glare. He does not like the chain-link fence; he would like a buffer that blocked the views of the solar panels from his property. He would like the solar panels moved further south on the property. He expressed concerns about noise. He did not believe that anyone other than the property owner would benefit from this project. Commissioners requested that the Planning, Building and Zoning Committee examine requiring the planting of additional arborvitae and/or taller shrubs along the northern portion of the property near Newark Road. Discussion occurred regarding requiring a Knox box. Commissioners decided against the Knox box requirement. Commissioners voted five (5) in favor and two (2) opposed to the request. Commissioner Wormley voted no because he believed the proposal will negatively impact the property values of the subject property because nothing except farming can occur on the southern forty (40) acres. Chairman Ashton voted no because he thought the plans to farm on the sides of the project area were unrealistic and he echoed the concerns of Mr. Bromeland.

The Kendall County Zoning Board of Appeals held a public hearing on this proposal June 4, 2018. Tom and Mary Bromeland, Newark Road, reiterated their opposition to the proposal and provided the Board with a letter outlining their opposition. Mr. Bromeland started a petition opposing the proposed special use permit. Mr. Bromeland expressed further frustration that he was not contacted by the Petitioner's representatives earlier in the application process. Joan Cardwell, Sleezer Road, noted that none of her neighbors were aware of this proposal. Mr. Asselmeier noted that the Petitioner notified neighbors within seven hundred fifty feet (750'). Ms. Cardwell's property was over three thousand feet (3,000') from the subject property. The notice of the hearing was published in the legal section on May 9th. The letters to neighbors were mailed on May 1st and neighbors received the letters between May 12th and May 18th. Cliff Fox, Village Administrator of Newark, stated the Village previously expressed their opinions on the project and sent their letter to the County. The Village is satisfied as whole; they would prefer that the panels be further south on the property. The suggestion was made that an economic protection condition be placed in the special use permit but the Board decided against this suggestion. The Board added a condition that the Petitioner or operator must pay for training for Newark Fire Protection personnel. The fee schedule was amended to correct the typographical error for systems that produced between 1001 and 2000 KW. The Board amended the first Finding of Fact to reflect that the morals and comfort of neighboring property owners would be negatively impacted by the proposal. The vote was three (3) members in favor and two (2) members opposed. Pursuant to State law, four (4) favorable votes are required to issue a positive recommend; the official recommendation was negative. Mr. Cherry voted no because he did not feel comfortable with the information provided. Vice-Chairwoman Clementi voted yes because she would live next door to solar panels and she would like to see tasteful prairie plantings. Mr. LeCuyer voted no because of the Bromeland's concerns. He would like to see the neighbors work out their differences. Mr. Thompson voted yes because he thinks the proposal will benefit the community as whole. Mr. Whitfield voted yes because he believes that the restrictions and conditions address the concerns of neighboring property owners. He would live near a solar panel system.

Staff recommended approval of the proposed special use with conditions.

The Planning, Building and Zoning Committee reviewed this proposal at their meetings on June 11 and July 19. They recommended the following restrictions; the referenced exhibits are included with the attached proposed ordinance:

1. The site will be developed in accordance with the Site Plan attached hereto as Exhibit C.
2. Lighting will be installed in accordance with the Site Plan attached hereto as Exhibit C. Lighting shall not be visible from neighboring properties.
3. The landscaping shall occur in accordance with the Landscaping Plan attached hereto as Exhibit C. The owner and/or operation shall plant arborvitaes at least six feet (6') in height as measured from the top of the root ball at the time of planting along the north side of the property to block the visibility of the solar panels from the property north of the subject property. The arborvitaes shall be planted in sufficient numbers to create a complete buffer within five (5) years of the approval of this special use permit. Damaged or dead arborvitaes shall be replaced on a timeframe approved by the Kendall County Planning, Building and Zoning Department.
4. Replacement of dead and/or damaged vegetation shall occur on a timetable agreed to between the property owner and the Kendall County Planning, Building and Zoning Department.
5. Signage shall be installed as described in Exhibit C. In addition, at least one (1) sign shall be placed at the vehicle access gate stating emergency contact information.
6. The site shall be decommissioned in accordance with the Decommissioning Plan attached hereto as Exhibit C. In the event the Decommissioning Plan changes, the property owner shall supply the Kendall County Planning, Building and Zoning Department with revised plans as soon as they are available. The owner or operator shall establish a decommissioning bond in the amount of Two Hundred Thirty-Thousand Dollars (\$230,000). Said bond shall be maintained for the duration of the special use permit.

7. The Decommissioning Plan shall be initiated by a simple a majority vote of the Kendall County Board if the solar panels are not used for ninety (90) consecutive days.
8. The property owner or operator shall have six (6) months from the date of the vote of the Kendall County Board to initiate the Decommissioning Plan to complete the Decommissioning Plan and remove the solar panels and related equipment from the property.
9. On or before February 1st of each year, the owner or operator shall provide the Kendall County Planning, Building and Zoning Department with a report outlining the amount of energy produced at the property during the previous year.
10. In addition to other applicable fees, the following fees should be paid to the County prior to the installation of the solar panels:

Building Permit Fees	
0-10 KW	\$150
51-100	\$300
101-500	\$600
501-1000	\$1200
1001-1500	\$2750
1501-2000	\$6000
Over 2000 KW	\$200 for Each Additional 0-100 KW

Fees Double if Construction Commences before Obtaining Building Permit.
11. The property owner or operator shall maintain current liability policy covering bodily injury and property damage at least Three Million Dollars per occurrence and Five Million Dollars in aggregate and must have policy for the duration of the special use permit, such insurance may be provided pursuant to a plan of self-insurance by a party with a net worth of Twenty Million Dollars or more and the County shall be named as additional insured to the extent that the County is entitled to indemnification.
12. The property owner or operator shall indemnify, and hold harmless the County and its officials, employees, and agents (collectively and individually, the "Indemnified Parties") from and against any and all claims, demands, losses, suits, causes of actions, damages, injuries, costs, expenses, and liabilities whatsoever, including reasonable attorney's fees, except to the extent arising in whole or part out of negligence or intentional acts of such Indemnified Parties (such liabilities together known as "liability") arising out of Applicant, Owner, or Operators selection, construction, operation, and removal of the solar energy system and affiliated equipment including, without limitation, liability for property damage or personal injury (including death), whether said liability is premised on contract or on tort (including without limitation strict liability or negligence). This general indemnification shall not be construed as limited or qualifying the County's other indemnification rights available under the law.
13. Within sixty (60) days of the approval of this special use permit ordinance, the owner shall dedicate a fifteen foot (15') wide strip along the northern portion of the property in accordance with the Site Plan attached hereto as Exhibit C to Kendall County to be used as Newark Road right-of-way.
14. The property owner or operator shall be responsible for ensuring that the operations of the solar panels allowed by this special use permit comply with all applicable Federal, State, and Local laws.
15. Damaged or non-functioning solar panels shall be replaced or repaired on a timetable agreed to between the property owner and the Kendall County Planning, Building and Zoning Committee. If no timetable is agreed to between the property owner and the Kendall County Planning, Building and Zoning Committee within ninety (90) days of Kendall County's written request for a timetable, then the Kendall County Board may vote

to initiate the Decommissioning Plan.

16. The property owner or operator shall repair and if necessary re-route any drain tile damaged as a result of the installation, decommissioning, maintenance, or operation of the solar panels and related supporting infrastructure on a timeline approved by the Kendall County Planning, Building and Zoning Department. The site plan shall show a plan to address sheet erosion on the northern portion of the property.
17. If requested by the Newark Fire Protection District, the owner and/or operator shall provide at their sole expense training to address any fire related or public health issues caused by the issuance of this special use permit. The training topics and the timeframe for the training shall be approved by the Newark Fire Protection District.
18. Failure to comply with the above conditions or restrictions could result in the amendment or revocation of the special use permit or the initiation the Decommissioning Plan by the Kendall County Board.
19. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid.

The Planning, Building and Zoning Committee expressed concerns regarding the potential for hazardous materials to spill on the ground if the solar panels break.

A proposed amendment to the Kendall County Zoning Ordinance related to solar panels, based on DeKalb County's regulations, is in the review process.

The record of decision from the June 4th hearing and related documents can be found at https://www.co.kendall.il.us/wp-content/uploads/Petition_18-15.pdf.

If you have any questions regarding this proposal, please let me know.

Thanks,

MHA

ENC: Aerial
Proposed Ordinance





Google Earth
© 2015 Google



ORDINANCE NUMBER 2018-_____

GRANTING A SPECIAL USE PERMIT ON PROPERTY ZONED A-1 AGRICULTURAL FOR A PUBLIC OR PRIVATE UTILITY – OTHER (SOLAR PANELS) FOR A 60.0 ACRE +/- PARCEL LOCATED APPROXIMATELY 0.2 MILES EAST OF ILLINOIS ROUTE 71 ON THE SOUTH SIDE OF NEWARK ROAD AND IDENTIFIED BY PARCEL IDENTIFICATION NUMBER 07-05-400-003 AND ALSO KNOWN AS 16400 NEWARK ROAD IN BIG GROVE TOWNSHIP

WHEREAS, Section 13.08 of the Kendall County Zoning Ordinance permits the Kendall County Board to issue special use permits and place conditions on special use permits and provides the procedure through which special use permits are granted; and

WHEREAS, the property which is the subject of this Ordinance has been, at all relevant times, and remains currently located within the A-1 Agricultural Zoning District and consists of approximately 60.0 acres located on the south side of Newark Road approximately 0.2 miles east of Illinois Route 71 (PIN: 07-05-400-003) and is also known as 16400, Newark Road, in Big Grove Township. The legal description for the subject property is set forth in Exhibit A attached hereto and incorporated by reference, and this property shall hereinafter be referred to as “the subject property.”; and

WHEREAS, the subject property is currently owned by the Nancy L. Harazin Trust Number 101 and is represent by Nancy L. Harazin and shall hereinafter be referred to as “Petitioner”; and

WHEREAS, on or about April 17, 2018, Petitioner filed a petition for a Special Use Permit allowing the placement of a Public or Private Utility – Other (Solar Panels) on the subject property and the energy generated from the proposed use would be consumed offsite; and

WHEREAS, following due and proper notice by publication in the Kendall County Chronicle not less than fifteen days prior thereto, the Kendall County Zoning Board of Appeals conducted a public hearing on June 4, 2018, at 7:00 p.m., in the County Office Building at 111 W. Fox Street in Yorkville, at which the Petitioner and representatives from the solar company presented evidence, testimony, and exhibits in support of the requested special use permit and two members of the public testified in opposition to the request and one member of the public asked questions about the request; and

WHEREAS, based on the evidence, testimony, and exhibits, the Kendall County Zoning Board of Appeals has made their Findings of Fact and recommended denial of the Special Use Permit with conditions as set forth in the Findings of Fact and Recommendation of the Kendall County Zoning Board of Appeals, dated June 4, 2018, a true and correct copy of which is attached hereto as Exhibit B; and

WHEREAS, the Kendall County Planning, Building and Zoning Committee of the Kendall County Board has reviewed the testimony presented at the aforementioned public hearing and has considered the Findings of Fact and Recommendation of the Kendall County Zoning Board of Appeals, and has forwarded to the Kendall County Board a recommendation of approval of the requested Special Use Permit with conditions; and

WHEREAS, the Kendall County Board has considered the recommendation of the Planning, Building and Zoning Committee and the Findings of Fact and Recommendation of the Kendall County Zoning Board of Appeals, and has determined that said petition is in conformance with the provisions and intent of the Kendall County Zoning Ordinance; and

WHEREAS, this Special Use Permit shall be treated as a covenant running with the land and is binding on the successors, heirs, and assigns as to the same special use conducted on the property; and

NOW, THEREFORE, BE IT ORDAINED, BY THE COUNTY BOARD OF KENDALL COUNTY, ILLINOIS, as follows:

1. The Findings of Fact and Recommendation of the Kendall County Zoning Board of Appeals attached hereto as Exhibit B is hereby accepted and the Findings of Fact set forth therein are hereby adopted as the Findings of Fact and Conclusions of this Kendall County Board.
2. The Kendall County Board hereby grants approval of Petitioner's petition for a Special Use Permit allowing the placement of a Public or Private Utility – Other (Solar Panels) to be placed on the subject property subject to the following conditions:
 - A. The site will be developed in accordance with the Site Plan attached hereto as Exhibit C.
 - B. Lighting will be installed in accordance with the Site Plan attached hereto as Exhibit C. Lighting shall not be visible from neighboring properties.
 - C. The landscaping shall occur in accordance with the Landscaping Plan attached hereto as Exhibit C. The owner and/or operation shall plant arborvitaes at least six feet (6') in height as measured from the top of the root ball at the time of planting along the north side of the property to block the visibility of the solar panels from the property north of the subject property. The arborvitaes shall be planted in sufficient numbers to create a complete buffer within five (5) years of the approval of this special use permit. Damaged or dead arborvitaes shall be replaced on a timeframe approved by the Kendall County Planning, Building and Zoning Department.
 - D. Replacement of dead and/or damaged vegetation shall occur on a timetable agreed to between the property owner and the Kendall County Planning, Building and Zoning Department.
 - E. Signage shall be installed as described in Exhibit C. In addition, at least one (1) sign shall be placed at the vehicle access gate stating emergency contact information.
 - F. The site shall be decommissioned in accordance with the Decommissioning Plan attached hereto as Exhibit C. In the event the Decommissioning Plan changes, the property owner shall supply the Kendall County Planning, Building and Zoning Department with revised plans as soon as they are available. The owner or operator shall establish a decommissioning bond in the amount of Two Hundred Thirty-Thousand Dollars (\$230,000). Said bond shall be maintained for the duration of the special use permit.
 - G. The Decommissioning Plan shall be initiated by a simple a majority vote of the Kendall County Board if the solar panels are not used for ninety (90) consecutive days.
 - H. The property owner or operator shall have six (6) months from the date of the vote of the Kendall County Board to initiate the Decommissioning Plan to complete the Decommissioning Plan and remove the solar panels and related equipment from the property.
 - I. On or before February 1st of each year, the owner or operator shall provide the Kendall County Planning, Building and Zoning Department with a report outlining the amount of energy produced at the property during the previous year.

- J. In addition to other applicable fees, the following fees should be paid to the County prior to the installation of the solar panels:
- | | |
|----------------------|--------|
| Building Permit Fees | |
| 0-10 KW | \$150 |
| 51-100 | \$300 |
| 101-500 | \$600 |
| 501-1000 | \$1200 |
| 1001-1500 | \$2750 |
| 1501-2000 | \$6000 |
- Over 2000 KW \$200 for Each Additional 0-100 KW
Fees Double if Construction Commences before Obtaining Building Permit.
- K. The property owner or operator shall maintain current liability policy covering bodily injury and property damage at least Three Million Dollars per occurrence and Five Million Dollars in aggregate and must have policy for the duration of the special use permit, such insurance may be provided pursuant to a plan of self-insurance by a party with a net worth of Twenty Million Dollars or more and the County shall be named as additional insured to the extent that the County is entitled to indemnification.
- L. The property owner or operator shall indemnify, and hold harmless the County and its officials, employees, and agents (collectively and individually, the “Indemnified Parties”) from and against any and all claims, demands, losses, suits, causes of actions, damages, injuries, costs, expenses, and liabilities whatsoever, including reasonable attorney’s fees, except to the extent arising in whole or part out of negligence or intentional acts of such Indemnified Parties (such liabilities together known as “liability”) arising out of Applicant, Owner, or Operators selection, construction, operation, and removal of the solar energy system and affiliated equipment including, without limitation, liability for property damage or personal injury (including death), whether said liability is premised on contract or on tort (including without limitation strict liability or negligence). This general indemnification shall not be construed as limited or qualifying the County’s other indemnification rights available under the law.
- M. Within sixty (60) days of the approval of this special use permit ordinance, the owner shall dedicate a fifteen foot (15’) wide strip along the northern portion of the property in accordance with the Site Plan attached hereto as Exhibit C to Kendall County to be used as Newark Road right-of-way.
- N. The property owner or operator shall be responsible for ensuring that the operations of the solar panels allowed by this special use permit comply with all applicable Federal, State, and Local laws.
- O. Damaged or non-functioning solar panels shall be replaced or repaired on a timetable agreed to between the property owner and the Kendall County Planning, Building and Zoning Committee. If no timetable is agreed to between the property owner and the Kendall County Planning, Building and Zoning Committee within ninety (90) days of Kendall County’s written request for a timetable, then the Kendall County Board may vote to initiate the Decommissioning Plan.
- P. The property owner or operator shall repair and if necessary re-route any drain tile damaged

as a result of the installation, decommissioning, maintenance, or operation of the solar panels and related supporting infrastructure on a timeline approved by the Kendall County Planning, Building and Zoning Department. The site plan shall show a plan to address sheet erosion on the northern portion of the property.

- Q. If requested by the Newark Fire Protection District, the owner and/or operator shall provide at their sole expense training to address any fire related or public health issues caused by the issuance of this special use permit. The training topics and the timeframe for the training shall be approved by the Newark Fire Protection District.
- R. Failure to comply with the above conditions or restrictions could result in the amendment or revocation of the special use permit or the initiation the Decommissioning Plan by the Kendall County Board.
- S. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid.

- 3. The Zoning Administrator and other appropriate County Officials are hereby authorized and directed to amend the Official Zoning Map of Kendall County to reflect this Special Use Permit.

IN WITNESS OF, this ordinance has been enacted by a majority vote of the Kendall County Board and is effective this 21st day of August, 2018.

Attest:

Kendall County Clerk
Debbie Gillette

Kendall County Board Chairman
Scott R. Gryder

Exhibit A

K:\Pdata\2018 Projects\18.0028\18.0028-01 LTS\Legal Descriptions\2018-02-01 Project Area Legal.docx

THAT PART OF THE EAST HALF OF SECTION 5, TOWNSHIP 35 NORTH, RANGE 6 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 5; THENCE NORTH 00 DEGREES 30 MINUTES 06 SECONDS EAST, ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5, A DISTANCE OF 588.72 FEET TO AN EXISTING FENCE LINE; THENCE SOUTH 89 DEGREES 18 MINUTES 45 SECONDS WEST, ALONG SAID FENCE LINE, 712.10 FEET; THENCE NORTH 00 DEGREES 56 MINUTES 36 SECONDS WEST, 1273.42 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS WEST, 1266.62 FEET; THENCE NORTH 00 DEGREES 56 MINUTES 50 SECONDS WEST, 774.88 FEET TO THE CENTER LINE OF NEWARK ROAD; THENCE NORTH 89 DEGREES 10 MINUTES 47 SECONDS EAST ALONG SAID CENTER LINE, 1266.50 FEET; THENCE SOUTH 00 DEGREES 56 MINUTES 36 SECONDS EAST, 793.01 FEET TO THE POINT OF BEGINNING; IN BIG GROVE TOWNSHIP, KENDALL COUNTY, ILLINOIS.

Exhibit B

Findings of Fact

*That the establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. **Provided that the site is developed in accordance with an approved site plan, provided that the landscaping plan and fencing as presented is implemented, provided the decommissioning plan is followed, and provided that the property owner or operation maintains, repairs, and or replaces damaged solar panels, the proposed use will not be detrimental to or endanger the public health, safety, or general welfare of the community. The proposed special use may be detrimental to the morals and comfort of the neighbors.***

*That the special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use shall make adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole. **The Petitioner provided evidence that the installation of solar panels does not negatively impact property values or harm the environment. Appropriate restrictions (including requiring an updated decommissioning plan, a landscaping plan, and fencing requirements) can ensure the proposed use does not adversely impact adjacent uses.***

*That adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided. **True, adequate utilities, access roads and points of ingress and egress are provided. Appropriate conditions (including the dedication of land for additional right-of-way and developing the site in accordance with the submitted site plans and landscaping plans) can ensure that adequate drainage infrastructure will be provided.***

*That the special use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the County Board pursuant to the recommendation of the Zoning Board of Appeals. **True, the proposed use conforms to the setback, height, and development requirements of the A-1 Agricultural Zoning District.***

*That the special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies. **True, the proposed use is consistent with Section 3.3.G of the Kendall County Land Resource Management Plan which states as an objective: "support the public and private use of sustainable energy systems (examples include wind, solar, and geo-thermal)" (Page 3-4).***

SITE USE PLANS

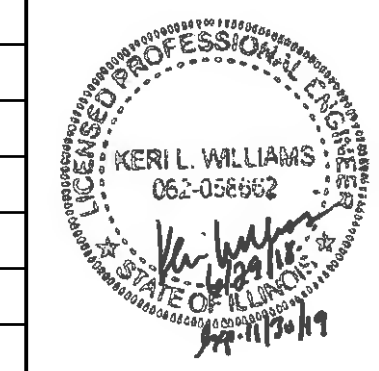
16400 NEWARK ROAD, NEWARK, IL 60541

2516.670 kW DC STC RATED SOLAR ELECTRIC SYSTEM

THIS DOCUMENT IS PROVIDED BY BORREGO SOLAR SYSTEMS, INC. TO FACILITATE THE SALE AND INSTALLATION OF A SOLAR POWER SYSTEM FROM BORREGO SOLAR SYSTEMS, INC. REPRODUCTION, RELEASE OR UTILIZATION FOR ANY OTHER PURPOSE, WITHOUT PRIOR WRITTEN CONSENT IS STRICTLY PROHIBITED.



NOT FOR CONSTRUCTION



PROFESSIONAL IN CHARGE
KERI WILLIAMS
PROFESSIONAL ENGINEER
LICENSE NO. 062-056952

SITE USE PLANS
16400 NEWARK ROAD,
NEWARK, IL 60541

PROJECT NUMBER:
907-0142

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/29/18	TB	JC	SITE USE PLAN SET

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" x 36"

T-1
TITLE PAGE

GENERAL NOTES

- AS CONTAINED HEREIN, "CONTRACTOR" IS ASSUMED TO BE BORREGO SOLAR SYSTEMS, INC AND "SUBCONTRACTOR" IS BORREGO'S INSTALLATION SUBCONTRACTOR.
 - THESE NOTES SET MINIMUM STANDARDS FOR CONSTRUCTION. THE DRAWINGS GOVERN OVER THESE NOTES TO THE EXTENT SHOWN.
 - ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING: LOCAL BUILDING CODE, LOCAL ELECTRICAL CODE, ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK AND THOSE CODES AND STANDARDS LISTED IN THESE DRAWINGS AND IN THE SUBCONTRACTOR AGREEMENT.
 - EXCEPTIONS TO THE CONTRACT DOCUMENTS ARE PERMITTED ONLY WITH THE APPROVAL OF BORREGO.
 - COORDINATE THESE DRAWINGS WITH SPECIFICATIONS AND MANUFACTURER INSTALLATION AND OPERATION MANUALS AND NOTIFY BORREGO OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK.
 - DRAWINGS HAVE BEEN DETAILED IN COMPLIANCE WITH U.L. LISTING REQUIREMENTS AND THE BUILDING CODE FOR THE MATERIALS SPECIFIED. IF AN ALTERNATE OR SUBSTITUTED MATERIAL IS ACCEPTED AS AN EQUAL BY BORREGO, THE SUBCONTRACTOR WILL ASSUME THE RESPONSIBILITY FOR WHATEVER CONSTRUCTION MODIFICATION AND/OR ADDITIONAL COST THAT IS REQUIRED BY REASON OF THIS ACCEPTANCE.
 - PRIOR TO THE COMMENCEMENT OF ANY WORK, EACH TRADE SHALL VERIFY EXISTING CONDITIONS AND NOTIFY BORREGO OF ANY DISCREPANCIES TO THAT WHICH IS SHOWN IN THESE DRAWINGS, INCLUDING BUT NOT LIMITED TO DIMENSIONS OF THE WORK AREA, STRUCTURE, EXISTING ELECTRICAL SERVICE, CONDUIT PATHS, OBSTRUCTIONS, ACCESSIBILITY ISSUES, AND WORKING CLEARANCES. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE SUBCONTRACTOR AT HIS OWN EXPENSE.
 - SUBCONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO BORREGO FOR APPROVAL PRIOR TO MAKING ANY CHANGES. APPROVED CHANGES REQUIRE A DRAWING REVISION TO MAINTAIN CONTROL OVER THE APPROVED DESIGN. DEVIATION FROM THESE PLANS PRIOR TO BORREGO APPROVAL PLACES ALL LIABILITY ON THE SUBCONTRACTOR.
 - UNLESS INDICATED AS EXISTING (E), ALL PROPOSED MATERIALS AND EQUIPMENT ARE NEW.
 - ALL ITEMS TO BE REMOVED AND RELOCATED OR REPLACED SHALL BE HANDLED WITH PROPER CARE AND STORED IN A SAFE PLACE TO PREVENT DAMAGE; OR BE REPLACED AT THE SUBCONTRACTOR'S EXPENSE.
 - ALL EQUIPMENT SHALL BE MOUNTED AS SHOWN. WHERE DETAILS ARE NOT PROVIDED, THE SUBCONTRACTOR SHALL USE DILIGENT EFFORTS TO MOUNT EQUIPMENT SUCH THAT IT WILL BE CLEAN, LEVEL AND SOLID.
 - ALL SURFACES SHALL BE PATCHED AND PAINTED AROUND NEW DEVICES AND EQUIPMENT TO MATCH EXISTING FINISHES.
 - ANY METAL SHAVINGS RESULTING FROM SITE WORK SHALL BE CLEANED FROM SURFACES, ENCLOSURES AND ANY ADDITIONAL AREAS WHERE OXIDIZED OR CONDUCTIVE METAL SHAVINGS MAY CAUSE RUST, ELECTRICAL SHORT CIRCUITS OR OTHER DAMAGE.
 - NO STRUCTURAL MEMBER SHALL BE DRILLED UNLESS SPECIFICALLY AUTHORIZED BY BORREGO.
 - SUBCONTRACTOR ACKNOWLEDGES THAT THE SYSTEM AS INDICATED ON THE PLANS REQUIRES ALL COMPONENTS TO BE INSTALLED TO PROPERLY RESIST WIND LOADS, SUCH AS BALLAST, WIND DEFLECTORS, ETC. IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO PROVIDE TEMPORARY MEANS TO RESIST WIND LOADS FOR ALL COMPONENTS NOT YET INSTALLED DURING AND AFTER REGULAR WORKING HOURS. THIS MAY INCLUDE TEMPORARY TIE DOWNS, COVERING, BALLAST OR ANY OTHER MEANS. DAMAGE TO ANY INSTALLED SYSTEM COMPONENT OR THE EXISTING FACILITY AS A RESULT OF THE UNFINISHED CONDITION NOT ADEQUATELY RESISTING WIND SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR TO REPAIR OR REPLACE AT THE SUBCONTRACTOR'S COST.
 - TREES MAY GROW DURING THE LIFE OF THE SYSTEM AND IMPACT THE PRODUCTION.
- V.7

APPLICABLE CODES AND STANDARDS

2008 NATIONAL ELECTRICAL CODE
2012 INTERNATIONAL BUILDING CODE
UL-1703 - SOLAR MODULES
UL-1741 - INVERTERS, COMBINER BOXES
UL-2703 - RACKING MOUNTING SYSTEMS AND CLAMPING DEVICES FOR PV MODULES

PROJECT SCOPE

THIS PROJECT CONSISTS OF THE INSTALLATION OF SOLAR MODULES PER THE SYSTEM DESCRIPTION, BELOW. THE MODULES WILL BE INSTALLED ON A GROUND - SINGLE AXIS TRACKER MOUNTED RACKING SYSTEM. THE MODULES WILL BE WIRED IN SERIES STRINGS AND CONNECTED IN PARALLEL TO THE INVERTERS, WHICH CONVERT THE PHOTOVOLTAIC OUTPUT POWER FROM DC TO AC. THE SOLAR ELECTRIC SYSTEM WILL BE INTERCONNECTED WITH THE EXISTING SITE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE APPLICABLE ELECTRIC CODE AND AMEREN REQUIREMENTS.

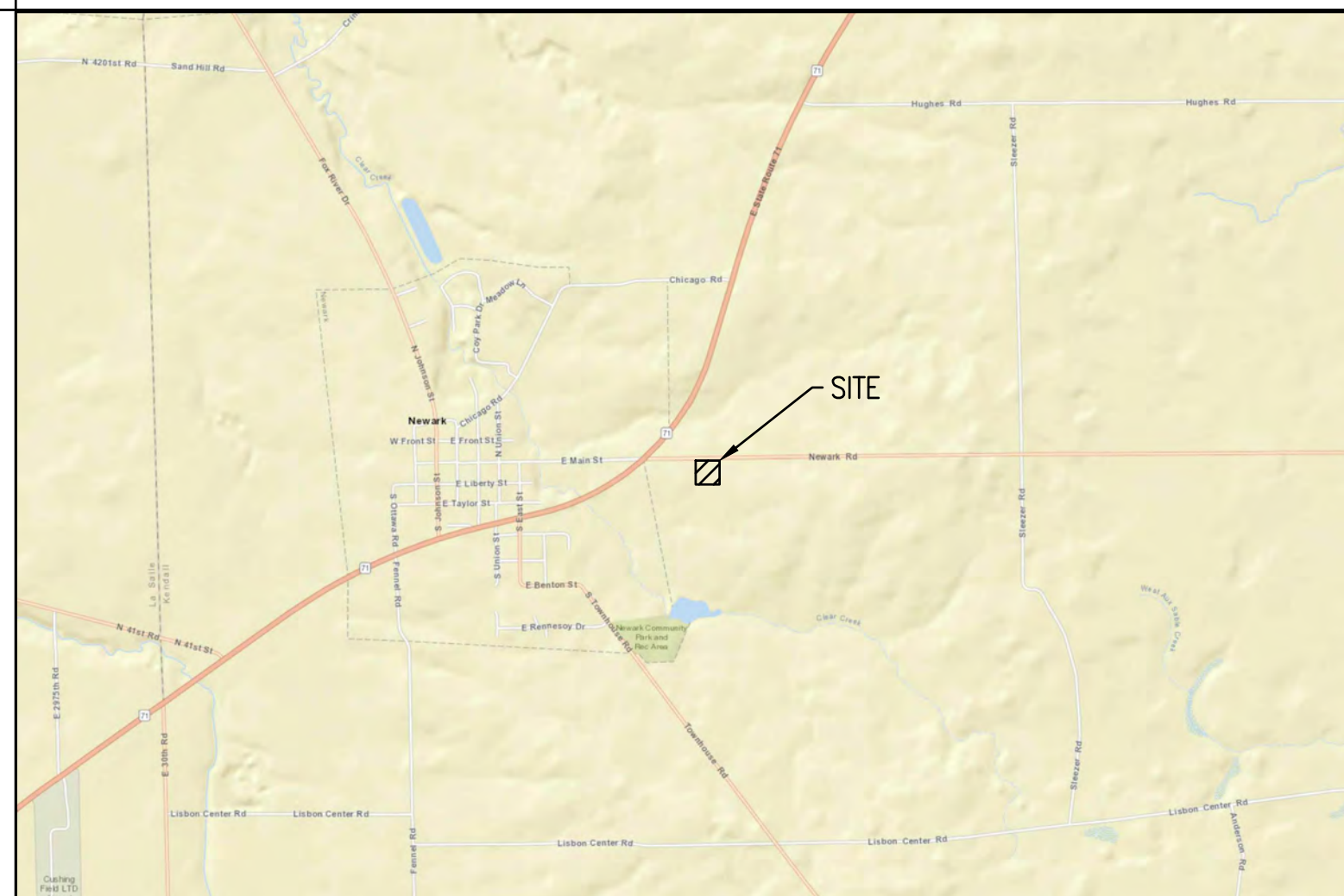
SYSTEM DESCRIPTION

SYSTEM SIZE (DC STC)	2,516.670 KW	SYSTEM SIZE (AC)	2,000 KW
MODULES	(6453) HANWHA Q-PEAK DUO L-G5.2 390W		
MODULES PER STRING	27	# OF STRINGS	239
RACKING	ARRAY TECH - DURATRACKHZ -V5	TILT ANGLE	-52 / 52°
INVERTER(S)	(16) SUNGROW SG125HV	CEC EFFICIENCY	98.5% %
AZIMUTH	180° (SOUTH = 180°)		

PROJECT DIRECTORY

<p>LANDOWNER NANCY HARAZIN 32 SEDGEWICK LANE OSWEGO, IL 60543 (630)-554-9232</p> <p>AUTHORITY HAVING JURISDICTION KENDALL COUNTY PBZ DEPARTMENT MATT ASSELMEIER - SENIOR PLANNER 111 WEST FOX STREET YOURKVILLE, IL 60560 (630)-553-4141 MASSELMEIER@CO.KENDALL.IL.US</p> <p>UTILITY AMEREN</p>	<p>PROJECT MANAGER FIRM: BORREGO SOLAR CONTACT: MIKE DAUGHERTY PHONE: (619)-961-4538</p> <p>CIVIL ENGINEER FIRM: GREENBERGFARROW CONTACT: KERI WILLIAMS, P.E. PHONE: (781)-929-1651</p> <p>STRUCTURAL ENGINEER FIRM: BORREGO SOLAR SYSTEMS, INC. CONTACT: MICHAEL KLUG PHONE: (978)-221-3099</p> <p>ELECTRICAL ENGINEER FIRM: BORREGO SOLAR SYSTEMS, INC. CONTACT: PAT RETELLE, P.E., PMP PHONE: (978)-610-2864</p> <p>DESIGN ENGINEER FIRM: BORREGO SOLAR CONTACT: JOHN LAGASSE PHONE: (978)-973-5022</p>
--	---

LOCATION MAP



AERIAL VIEW



GENERAL ABBREVIATIONS

(E) EXISTING	NS NORTH-SOUTH
AHJ AUTHORITY HAVING JURISDICTION	NTS NOT TO SCALE
AL ALUMINUM	OAE OR APPROVED EQUAL
APPROX APPROXIMATE	OC ON CENTER
ARY ARRAY	OD OUTSIDE DIAMETER
BLDG BUILDING	OF/CI OWNER FURNISHED CONTRACTOR INSTALLED
BSS BORREGO SOLAR SYSTEM	PV PHOTOVOLTAIC
CL CENTERLINE	PVC POLY VINYL CHLORIDE
DAS DATA ACQUISITION SYSTEM	SCH SCHEDULE
DIA DIAMETER	SS STAINLESS STEEL
DO DITTO	SSS SOLAR SUPPORT STRUCTURE
EW EAST-WEST	STC STANDARD TEST CONDITIONS
FBO FURNISHED BY OTHERS	TBD TO BE DETERMINED
FF FORWARD FACING	TP TAMPER PROOF
GALV GALVANIZED	TYP TYPICAL
HDC HOT DIP GALVANIZED	UON UNLESS OTHERWISE NOTED
HVAC HEATING VENTILATION AND AIR CONDITIONING	VIF VERIFY IN FIELD
ID INSIDE DIAMETER	WP WEATHER PROOF
MFR MANUFACTURER	
MOD SOLAR MODULE	

REV 1.0

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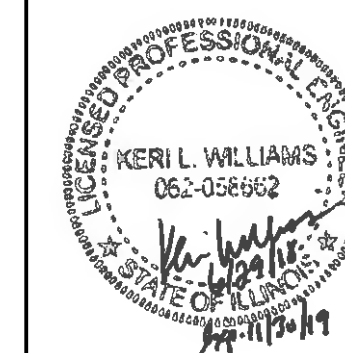
BORREGO SOLAR

50 TECHNOLOGY DRIVE, SUITE 102
LOWELL, MA 01851
PHONE: (988) 908-4213
FAX: (988) 843-6178
WWW.BORREGOSOLAR.COM



21 SOUTH EVERGREEN AVENUE
SUITE 200
ARLINGTON HEIGHTS, IL 60005
T: 847.788.9200 F: 847.788.9537

NOT FOR CONSTRUCTION



PROFESSIONAL IN CHARGE
KERI L. WILLIAMS
PROFESSIONAL ENGINEER
LICENSE NO. 062-056662

SITE USE PLANS
16400 NEWARK ROAD,
NEWARK, IL 60541

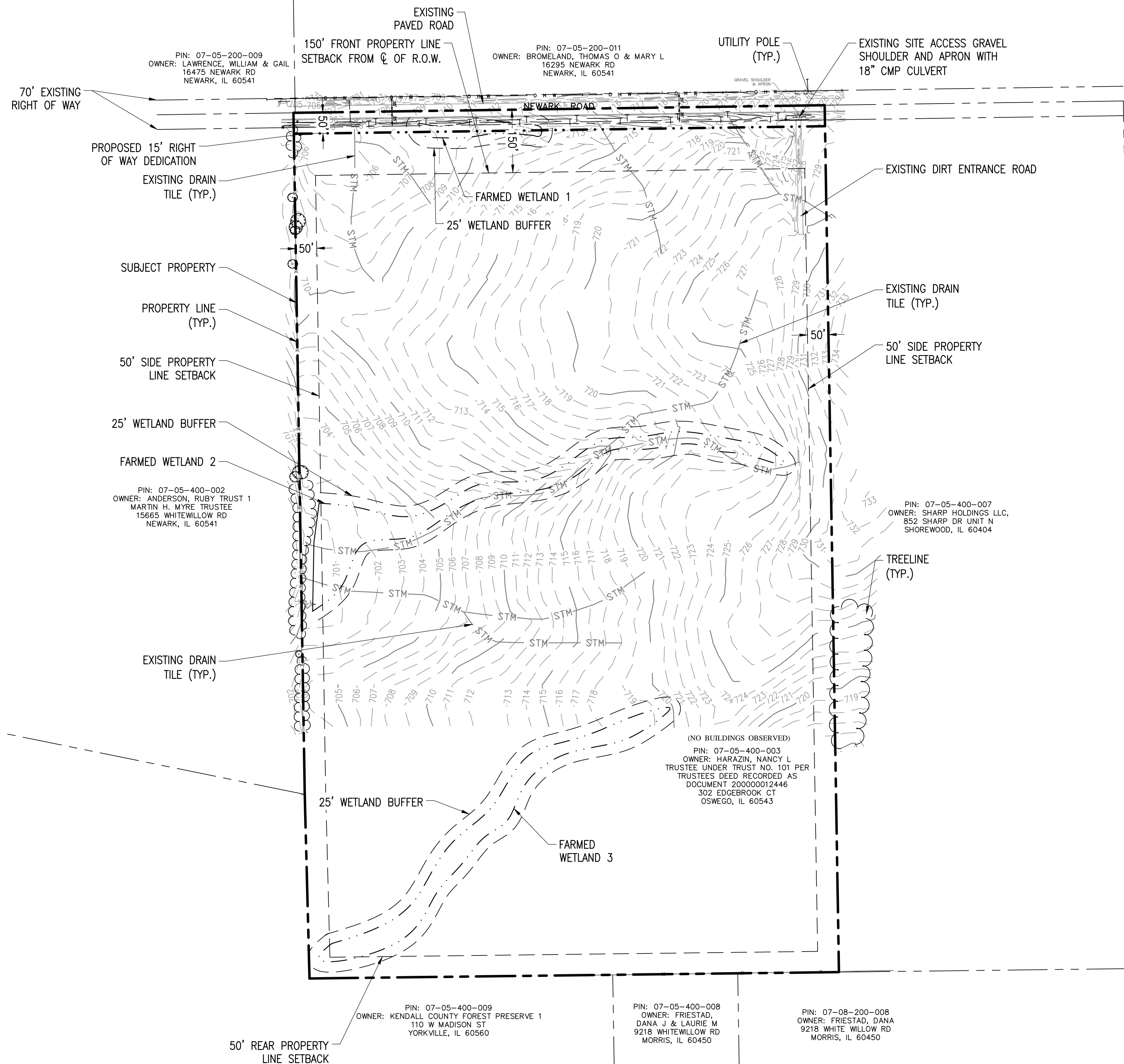
PROJECT NUMBER:
907-0142

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
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SCALES STATED ON DRAWINGS
ARE VALID ONLY WHEN PLOTTED
ARCH D 24" x 36"

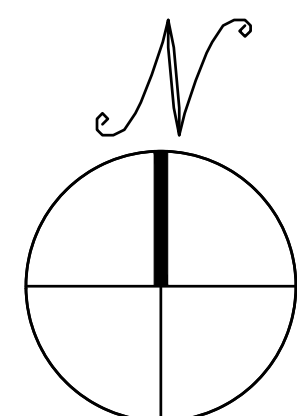
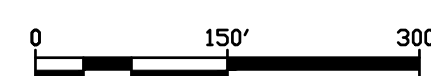
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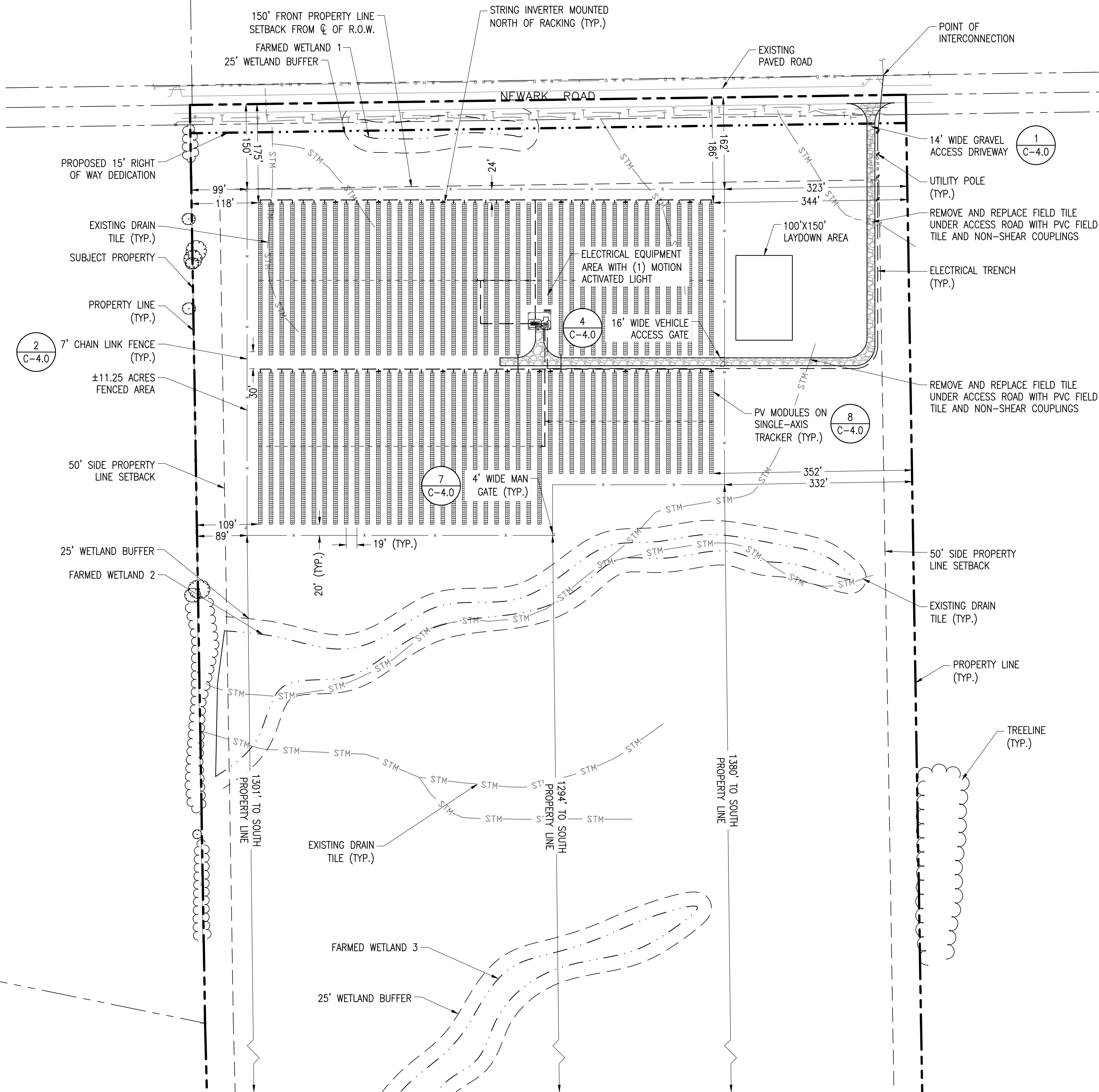
EXISTING CONDITIONS PLAN



EXISTING CONDITIONS PLAN

SCALE: 1" = 150'





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 T: 847.788.9200 F: 847.788.9537

NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
 KERI L. WILLIAMS
 062-036462
 STATE OF ILLINOIS

PROFESSIONAL IN CHARGE
 KERI WILLIAMS
 PROFESSIONAL ENGINEER
 LICENSE NO. 062-036462

SITE USE PLANS
 16400 NEWARK ROAD,
 NEWARK, IL 60541

PROJECT NUMBER:
 907-0142

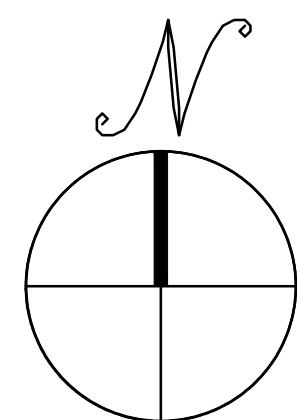
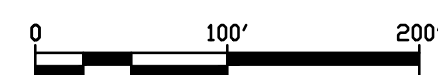
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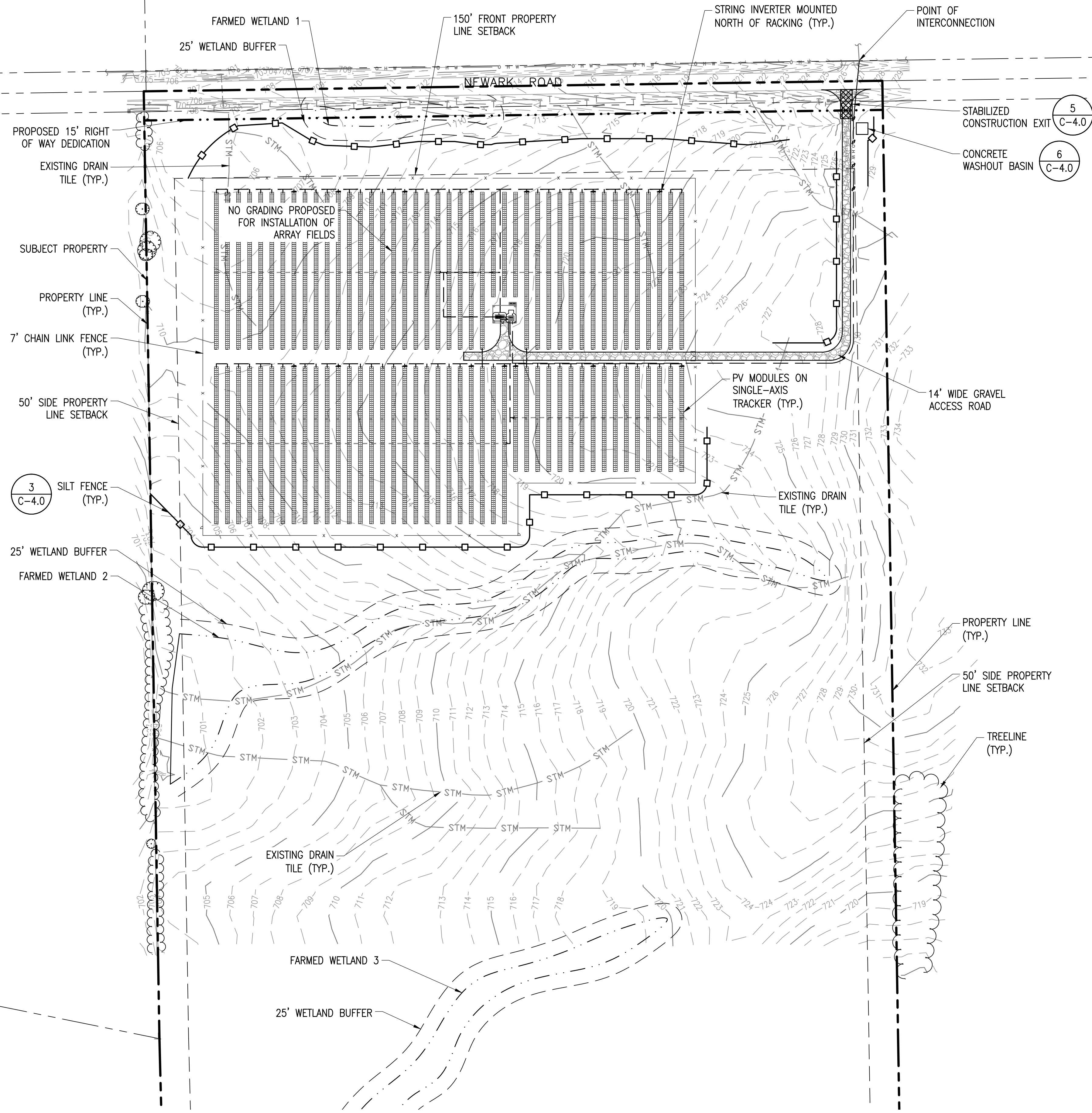
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C-2.0
 LAYOUT AND MATERIALS PLAN

LAYOUT AND MATERIALS PLAN

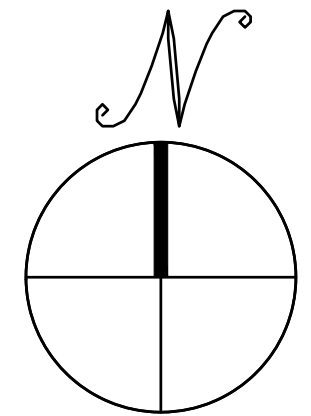
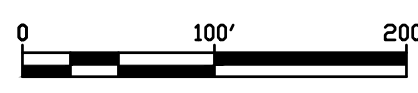
SCALE: 1" = 100'





GRADING AND EROSION CONTROL PLAN

SCALE: 1" = 100'

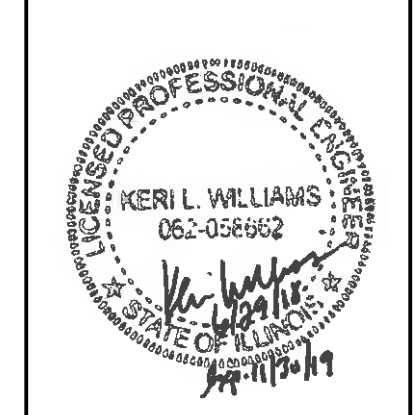


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PROFESSIONAL IN CHARGE
 KERI L. WILLIAMS
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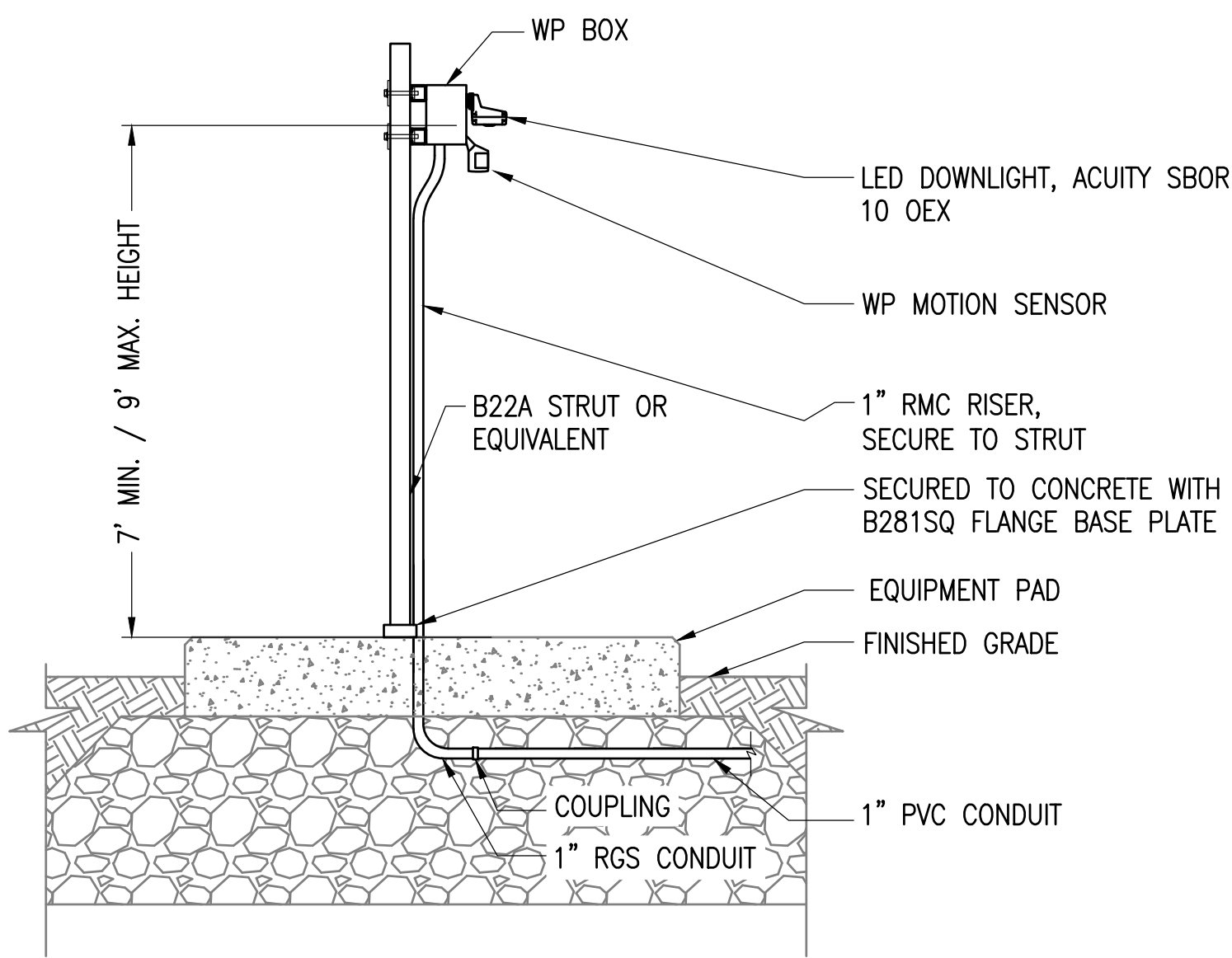
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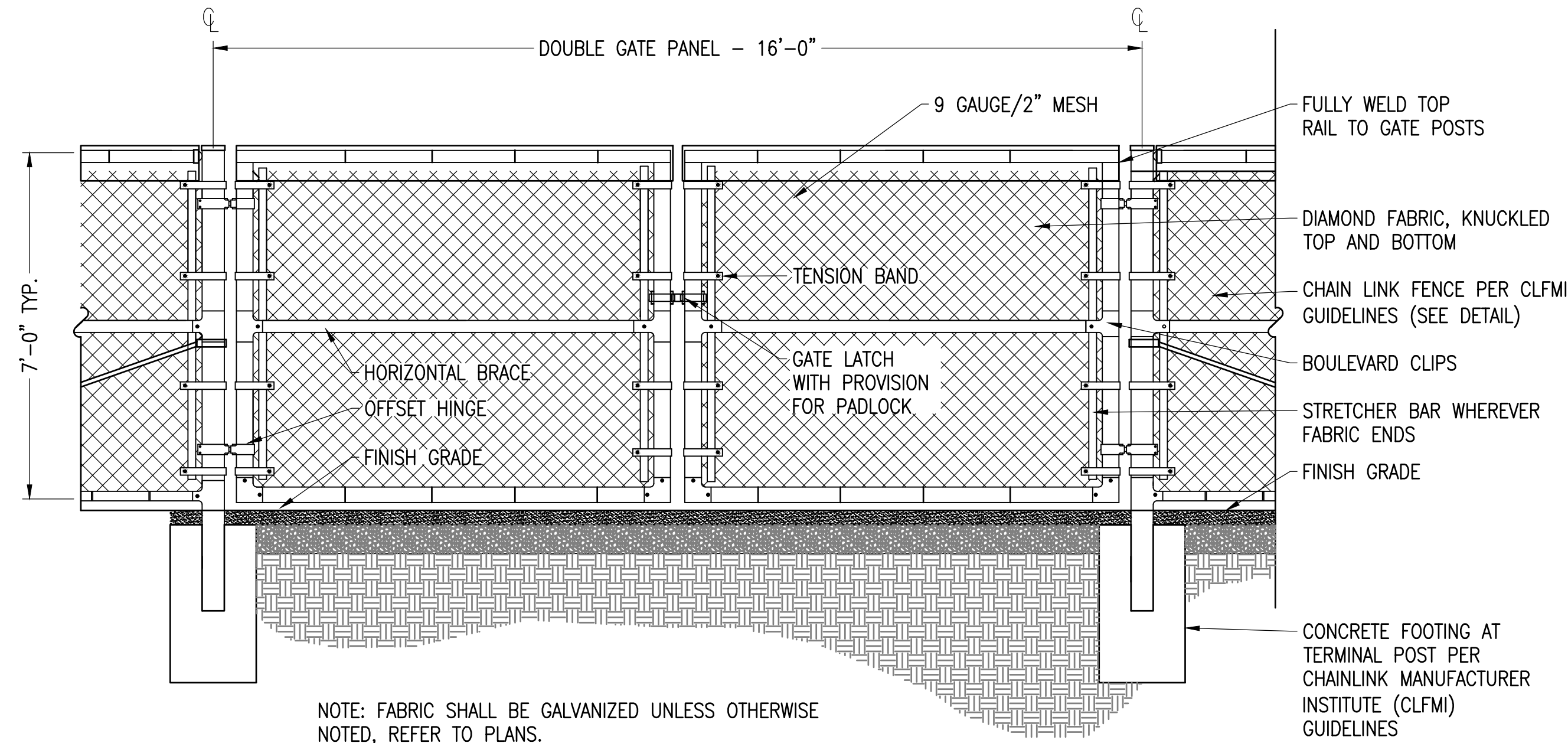
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C-3.0
 GRADING AND EROSION CONTROL PLAN



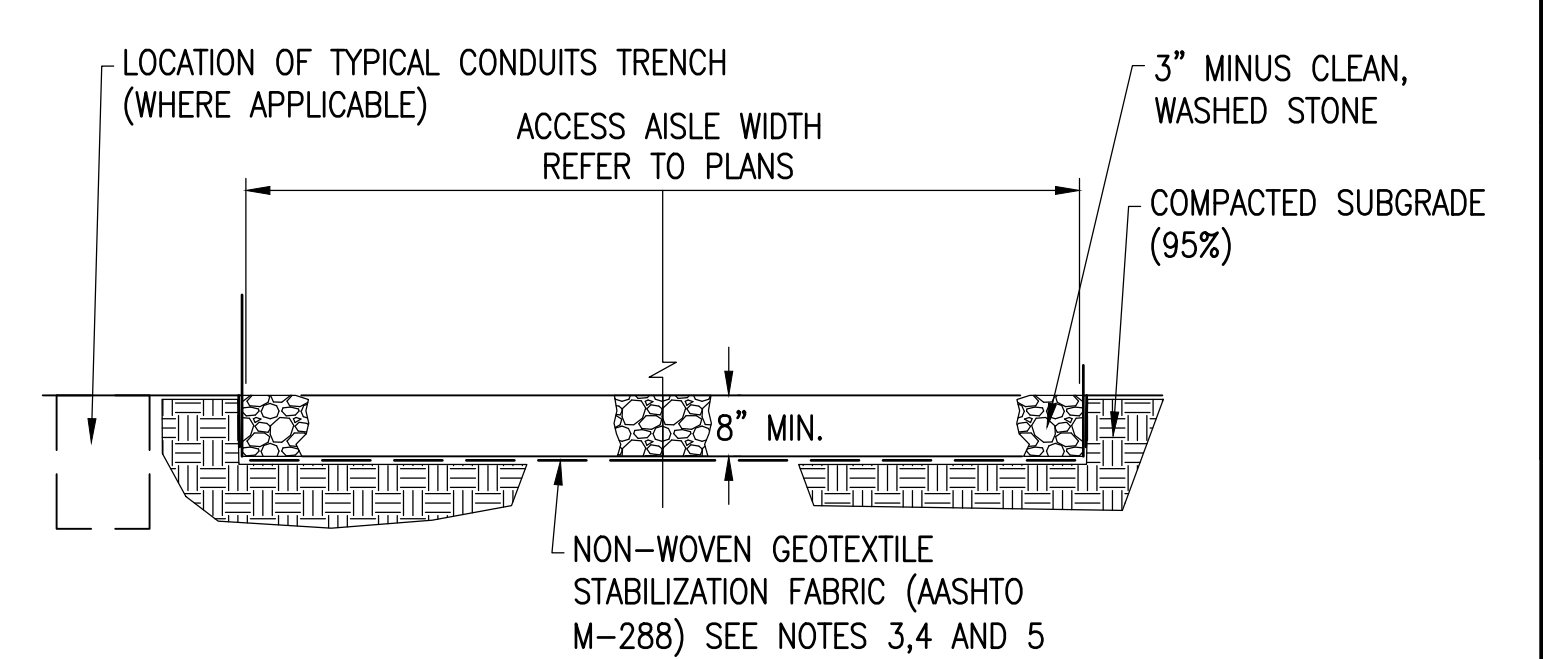
9 LIGHTING MOUNTING - DOWNLIGHT

SCALE: NTS
XD_ELEC_LIGHT_MOUNTING-DOWNLIGHT 2018-06-22 JPL



4 VEHICLE GATE

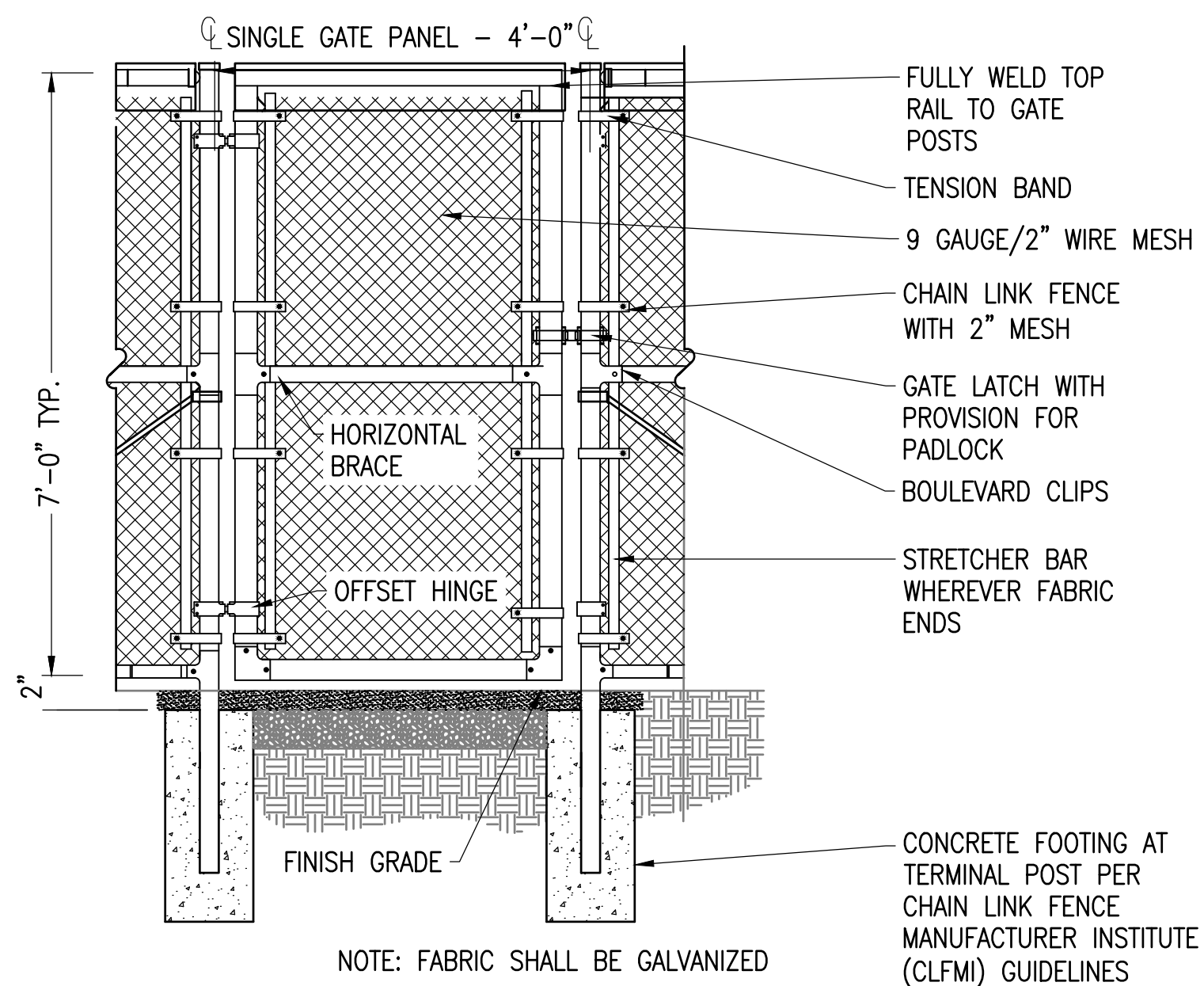
SCALE: NTS
XD_CIVIL_FENCE_VEHICLE_GATE_7 OR 8 07-25-2017



- NOTES:
- SUBCONTRACTOR SHALL EXCAVATE TO SUITABLE MATERIAL FOR SUBGRADE.
 - SUBCONTRACTOR SHALL COMPACT SUBGRADE TO PROVIDE SUITABLE SURFACE TO PLACE ROAD.
 - GEOTEXTILE FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS:
 - TENSILE STRENGTH: 150 LB MIN.
 - ELONGATION: 50%
 - CBR PUNCTURE: 400 LB MIN.
 - MINIMUM WATER FLOW RATE: 120 GPM / FT²
 - SUBCONTRACTOR SHALL FOLLOW GEOTEXTILE FABRIC MANUFACTURER INSTALLATION PROCEDURES.
 - WHERE OVERLAPPING OF GEOTEXTILE FABRIC IS REQUIRED, SUBCONTRACTOR SHALL OVERLAP A MINIMUM OF 24".
 - SUBCONTRACTOR SHALL REMOVE TEMPORARY CONSTRUCTION ACCESS ROADS, AND RESTORE TO PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CEOR AND THE GOVERNING AGENCIES.

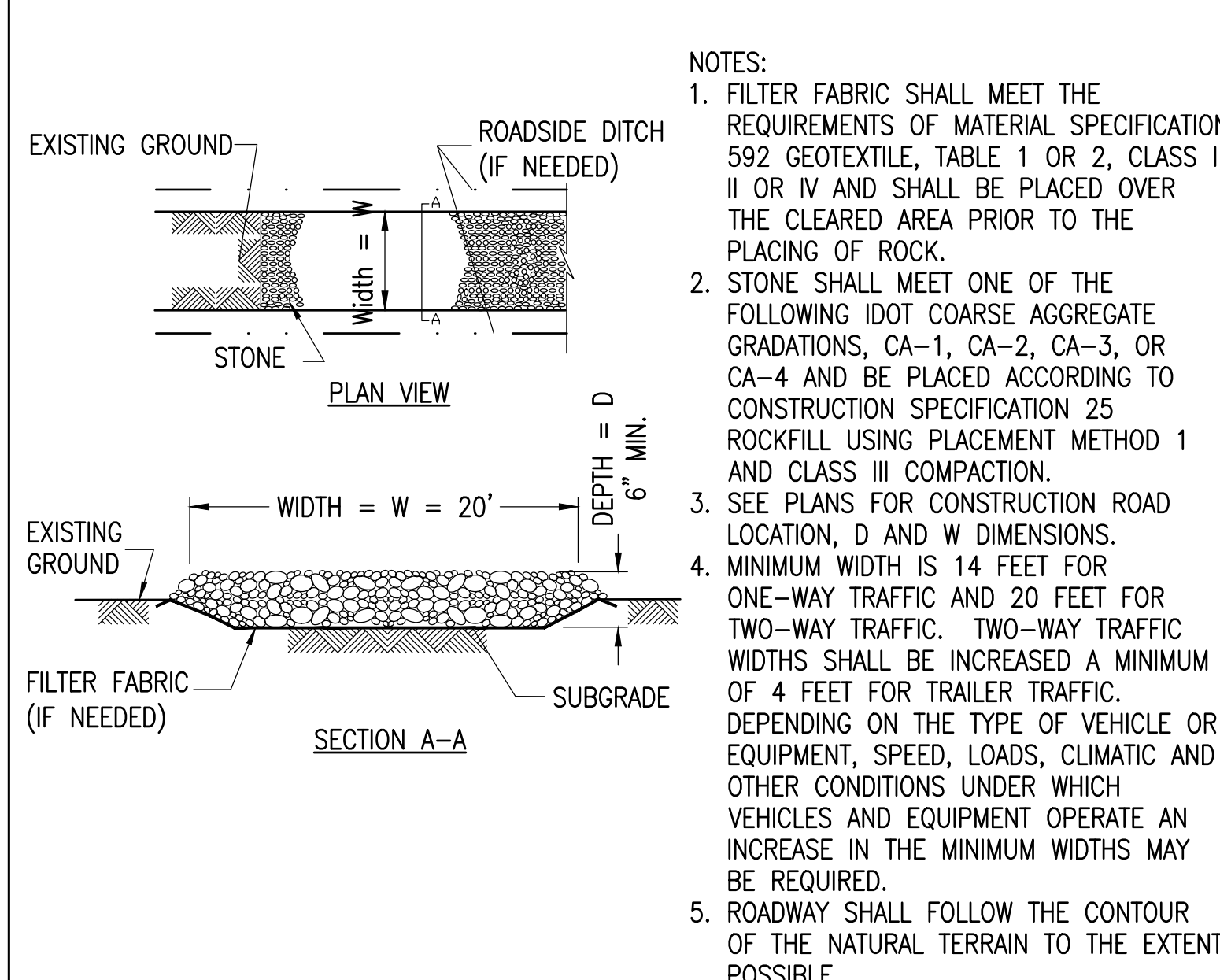
1 GRAVEL ACCESS ROAD

SCALE: NTS
XD_CIVIL_GRAVEL_ROAD_NY 07-24-2017



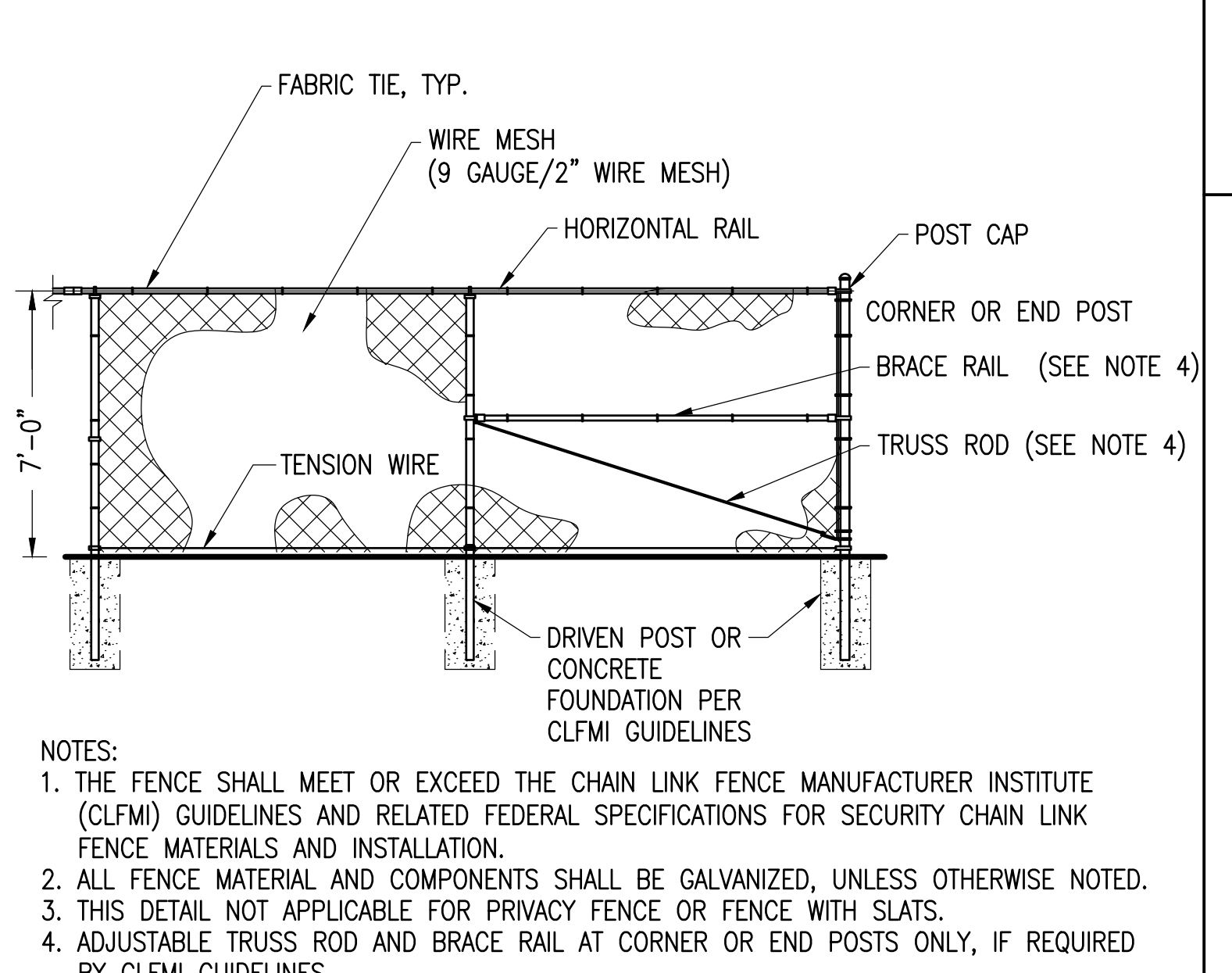
7 4' MAN GATE

SCALE: NTS
XD_CIVIL_SITE_CONSTRUCTION_4' WALK_THROUGH_GATE 07-25-2017



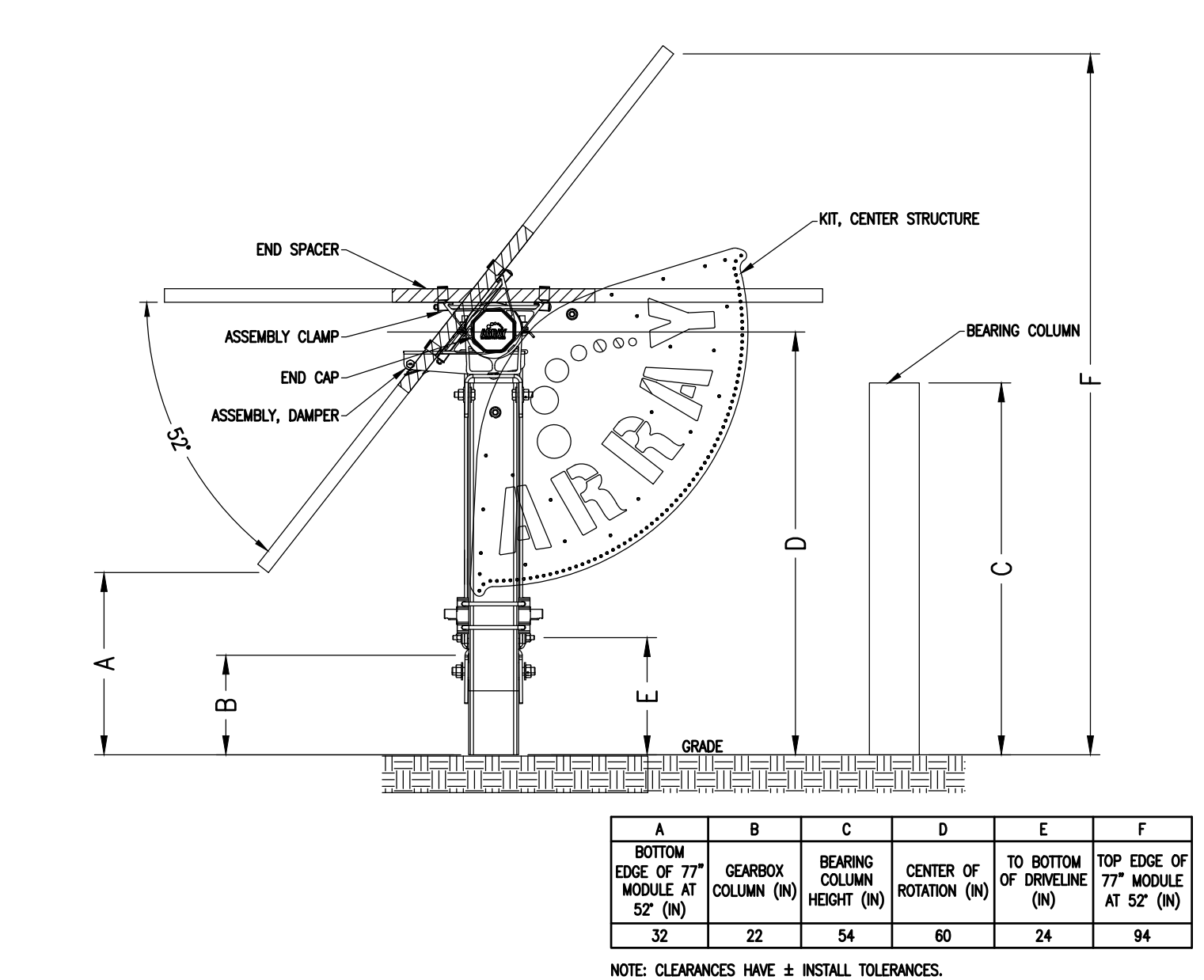
5 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NTS



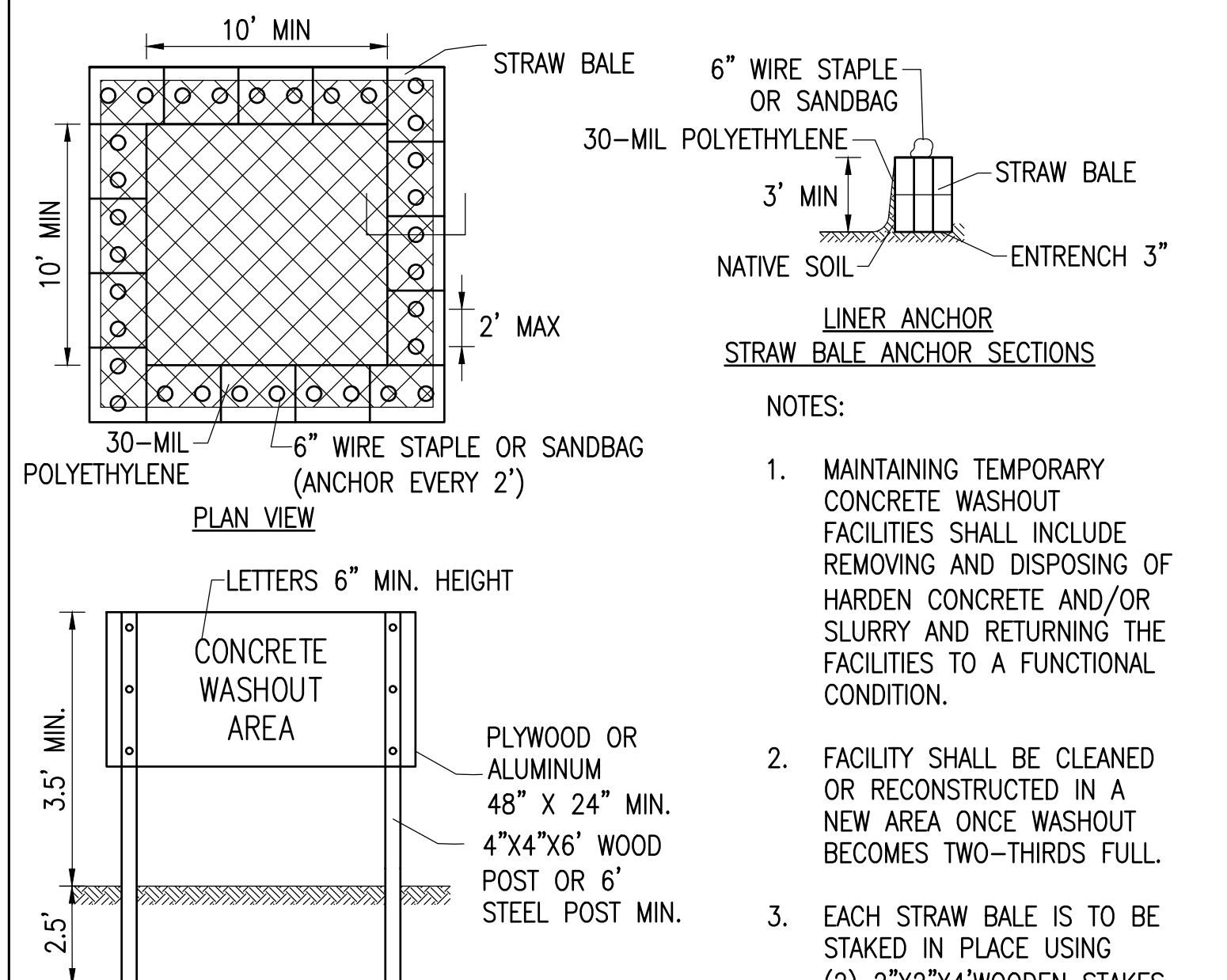
2 CHAIN LINK FENCE

SCALE: NTS
XD_CIVIL_FENCE_7_CHAIN_LINK 06-10-2016



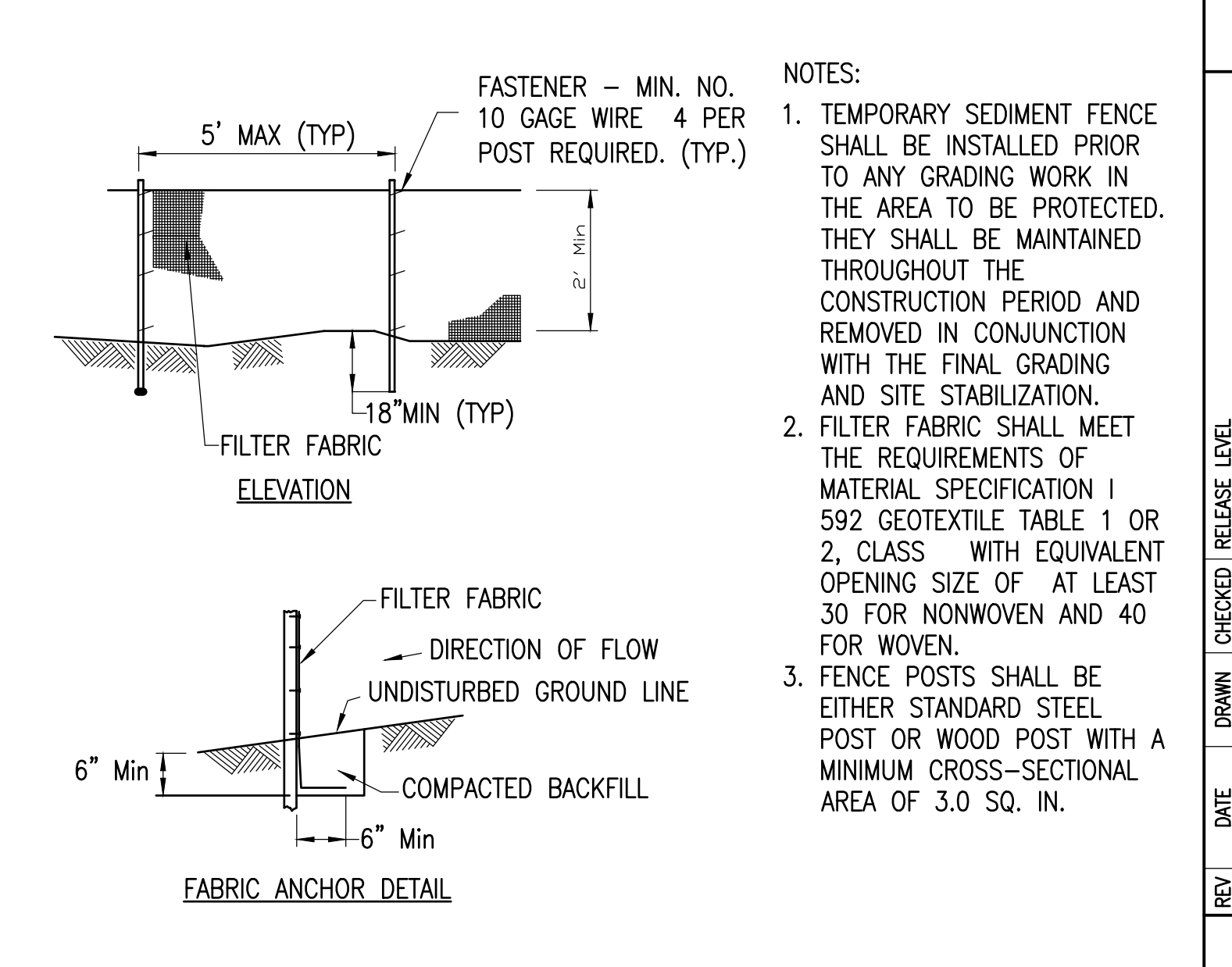
8 VERTICAL MOUNT MOTOR CLEARANCES

SCALE: N.T.S.
XD_STRUC_ATLARRY_ELEVATION 2018-02-15



6 CONCRETE WASHOUT

SCALE: NTS



3 SILT FENCE

SCALE: NTS

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PROFESSIONAL ENGINEER
KERI L. WILLIAMS
062-035612

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NEWARK, IL 60541

PROJECT NUMBER:
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C-4.0
CIVIL DETAILS

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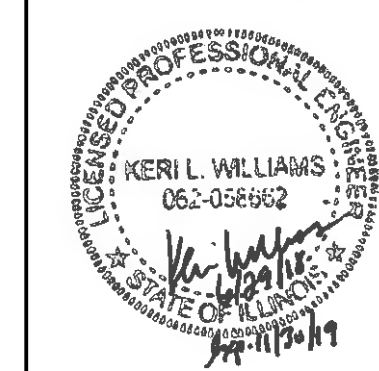


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PROFESSIONAL IN CHARGE
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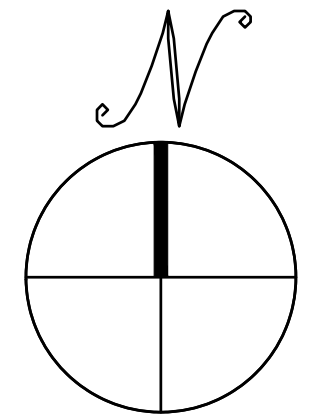
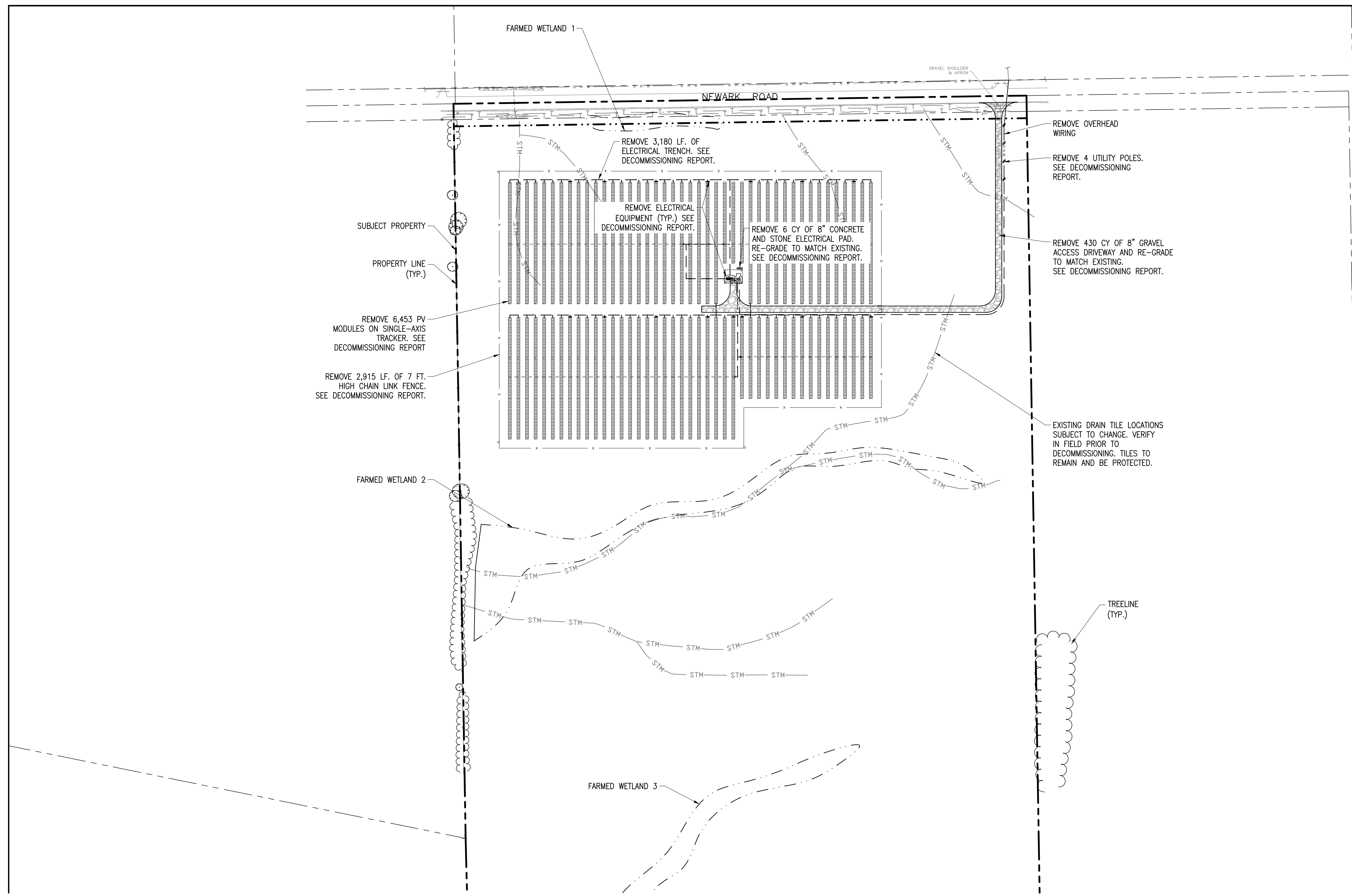
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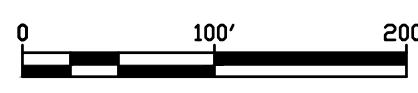
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C-5.0
DECOMMISSIONING PLAN

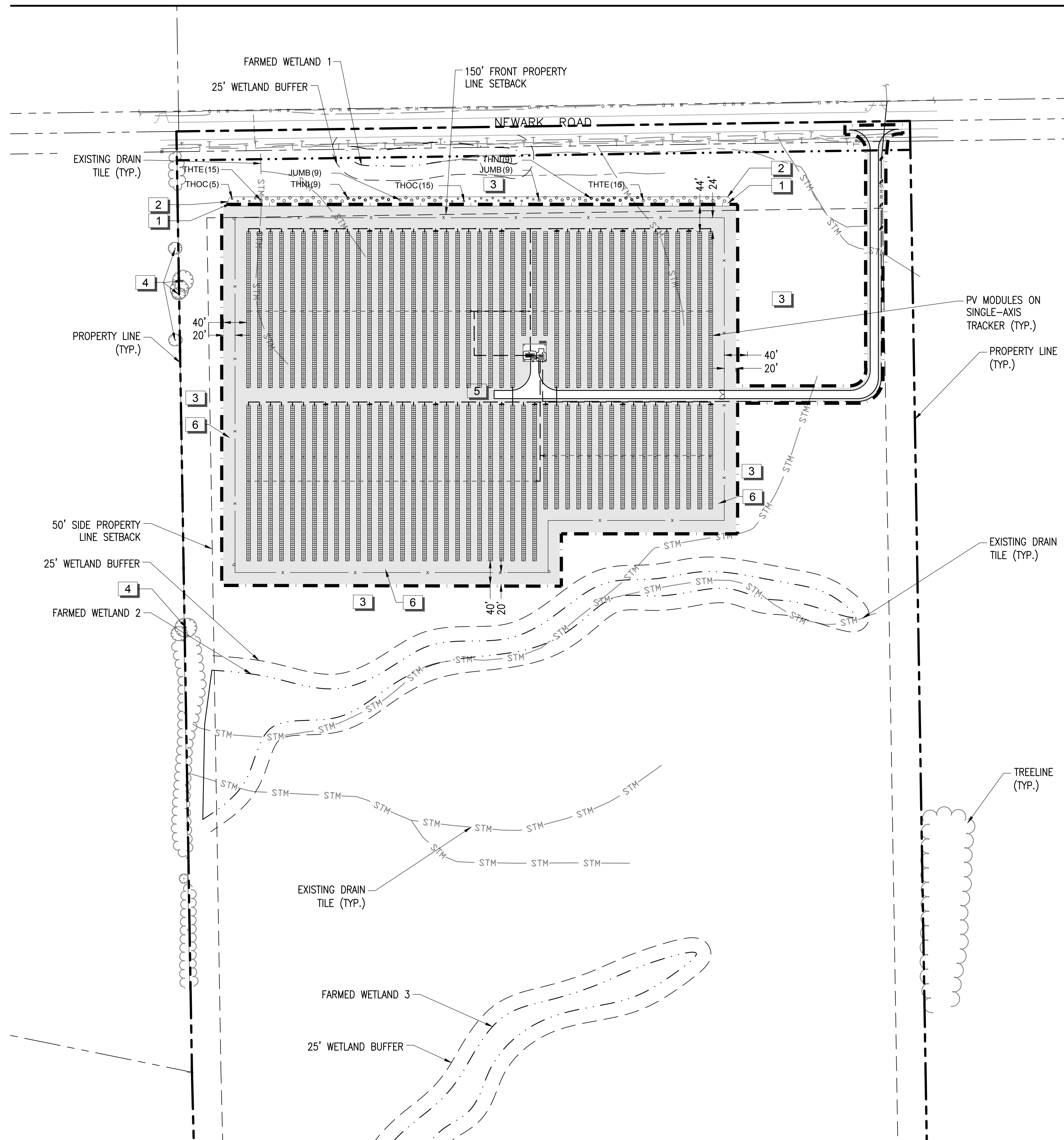


DECOMMISSIONING PLAN

SCALE: 1" = 100'



P:\2018\201801170\000 Civil_Current Drawings\16400 Newark Road_SUP_06-27-18_TB



REFERENCE NOTES SCHEDULE

- | SYMBOL | DESCRIPTION |
|--------|--|
| 1 | 3" DEPTH SHREDDED BARK MULCH IN ALL PLANTING BEDS TYPICAL UNLESS OTHERWISE NOTED ON PLAN. |
| 2 | CULTIVATED BEDLINE 4" DEPTH. SEE DETAIL. |
| 3 | EXISTING AREA TO REMAIN. (TYP.) CONTRACTOR SHALL PROTECT DURING CONSTRUCTION. ANY DAMAGE TO THIS AREA SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER. |
| 4 | EXISTING TREE TO REMAIN. (TYP.) PROTECT DURING CONSTRUCTION. ANY DAMAGE TO THE EXISTING PLANT MATERIAL SHALL BE REPLACED WITH LIKE SPECIES AT NO ADDITIONAL COST TO THE OWNER. |
| 5 | CONTRACTOR TO INSTALL NO MOW LAWN SEED MIX PROVIDED BY PRAIRIE NURSERY. (TYP.) INSTALL PER SUPPLIERS' SEEDING RATE SPECIFICATIONS. |
| 6 | THE INTENTION IS TO PERMANENTLY SEED WITH THE NO MOW LAWN SEED MIX PER THE SUPPLIER'S SPECIFICATIONS/RECOMMENDATIONS. IN THE EVENT, THE NO MOW SEED CANNOT BE INSTALLED AND WILL NOT HAVE TIME TO GERMINATE, THE CONTRACTOR SHALL INSTALL THE TEMPORARY SEED AS SHOWN BELOW. |

PLANT SCHEDULE

SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	HEIGHT
	JUMB	18	Juniper chinensis 'Mountbatten'	Mountbatten Chinese Juniper	B & B	6' Ht. Min.
	THOC	20	Thuja occidentalis 'Holmstrup'	Holmstrup Cedar	B & B	6' Ht. Min.
	THNI	18	Thuja occidentalis 'Techny'	Techny Arborvitae	B & B	6' Ht. Min.
	THTE	30	Thuja occidentalis 'Warena'	Siberian Arborvitae	B & B	6' Ht. Min.

SHRUB HEIGHT MEASUREMENTS ARE TO BE AS MEASURED FROM TOP OF ROOTBALL (TYP.)

SEED LIST

- NO MOW LAWN SEED MIX WITH EROSION CONTROL BLANKET (±12.61 ac)
- CONTACT INFORMATION FOR NO MOW LAWN SEED MIX ONLY:
PRAIRIE NURSERY, INC.
P.O. BOX 306
WESTFIELD, WI 53964
1-800-476-9453

NO MOW LAWN DESCRIPTION

- NO MOW LAWN IS A SUSTAINABLE ALTERNATIVE TO THE TRADITIONAL HIGH RESOURCE-INPUT LAWN.
- NO MOW LAWN IS A SPECIALLY DESIGNED BLEND OF CREEPING FESCUES THAT INTERLOCK WITH BUNCH-FORMING FESCUES TO FORM A DENSE SOD THAT INHIBITS WEED GROWTH WITH ITS DENSE ROOT SYSTEM.
- NO MOW LAWN ESTABLISHES QUICKLY AND ONCE ESTABLISHED, NO MOW GRASS IS A SLOW GROWING, LOW MAINTENANCE LAWN.
- NO MOW LAWN REQUIRES NO FERTILIZERS, CHEMICAL TREATMENT, OR HERBICIDES.

PERMANENT GRASS CHART

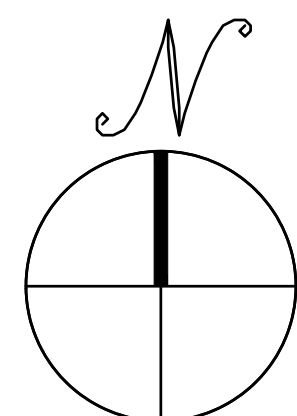
SPECIES	LBS./ACRE	LBS./1000 FT. ²
NO MOW LAWN SEED MIX	110	2.5
SEED MIX:		
HARD FESCUE	(FESTUCA BREVIPILO)	
SHEEP FESCUE	(FESTUCA OVINA)	
CHEWINGS FESCUE	(FESTUCA RUBRA SUBS. FALLAX)	
RED FESCUE	(FESTUCA RUBRA)	
CREEPING RED FESCUE	(FESTUCA RUBRA VAR. RUBRA)	

TEMPORARY SEEDING

SPECIES	LBS./ACRE	LBS./1000 FT. ²	SEEDING DATES
OATS	90	2	EARLY SPRING - JULY 1
CEREAL RYE	90	2	EARLY SPRING - SEPT. 30
WHEAT	90	2	EARLY SPRING - SEPT. 30
PERENNIAL RYEGRASS	25	0.6	EARLY SPRING - SEPT. 30

LANDSCAPE PLAN

SCALE: 1" = 100'



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PROFESSIONAL IN CHARGE
LEUI WISDOM
PROFESSIONAL LANDSCAPE ARCHITECT
LICENSE NO. 157-001163

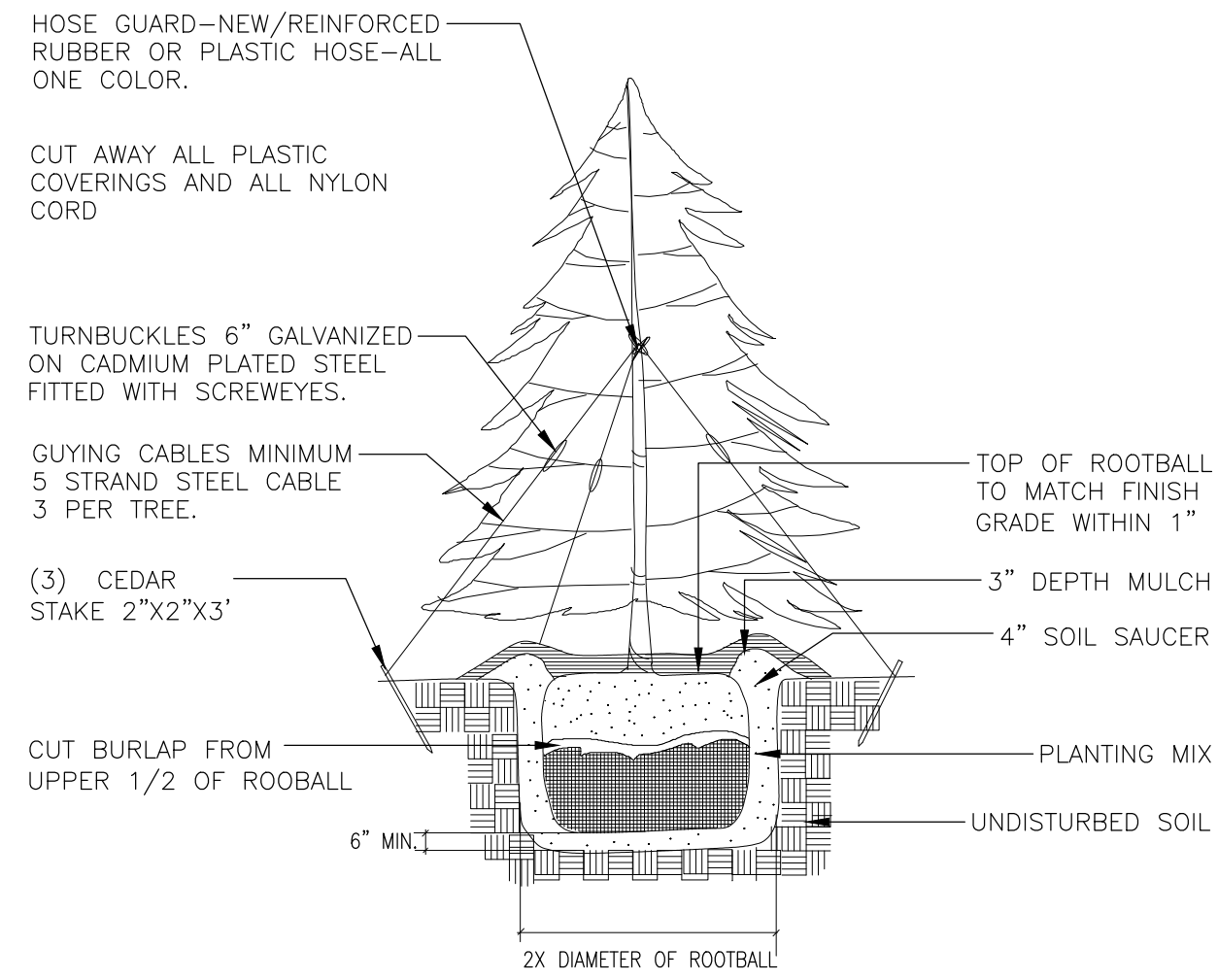
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16400 NEWARK ROAD,
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REV	DATE	BY	CHKD	APPD	RELEASE LEVEL
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C-6.0
LANDSCAPE PLAN



1 EVERGREEN TREE PLANTING DETAIL

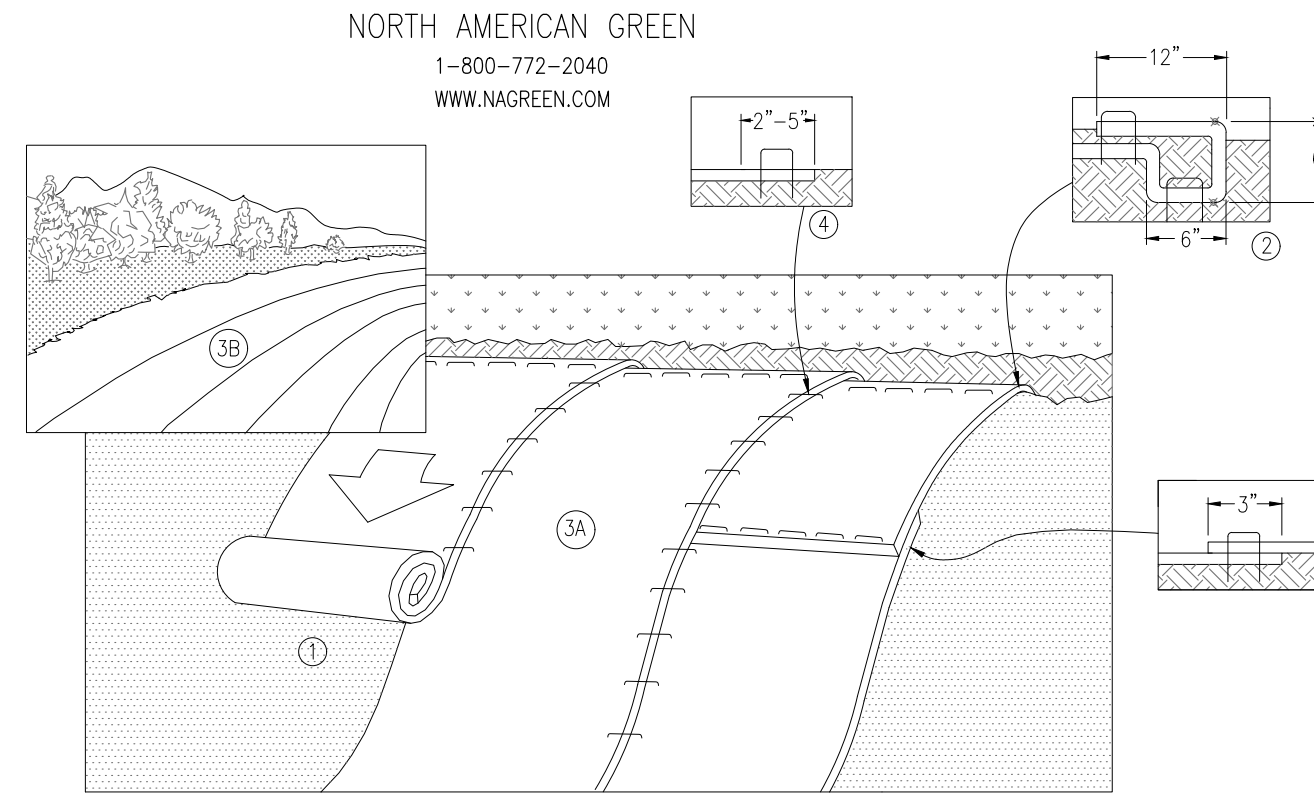
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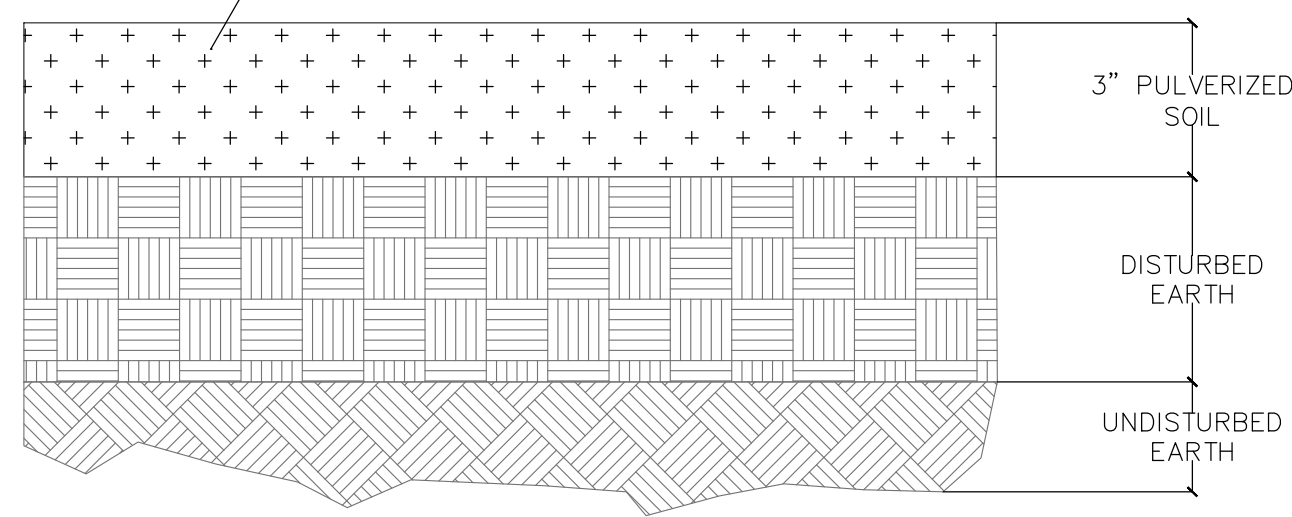
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED (NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN).
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S (A) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5 CM-12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.
6. ONLY BIODEGRADABLE STAPLES SHALL BE USED (NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S).

2 EROSION CONTROL BLANKET (ONLY IF ALONG STEEP SLOPES)

NOT TO SCALE

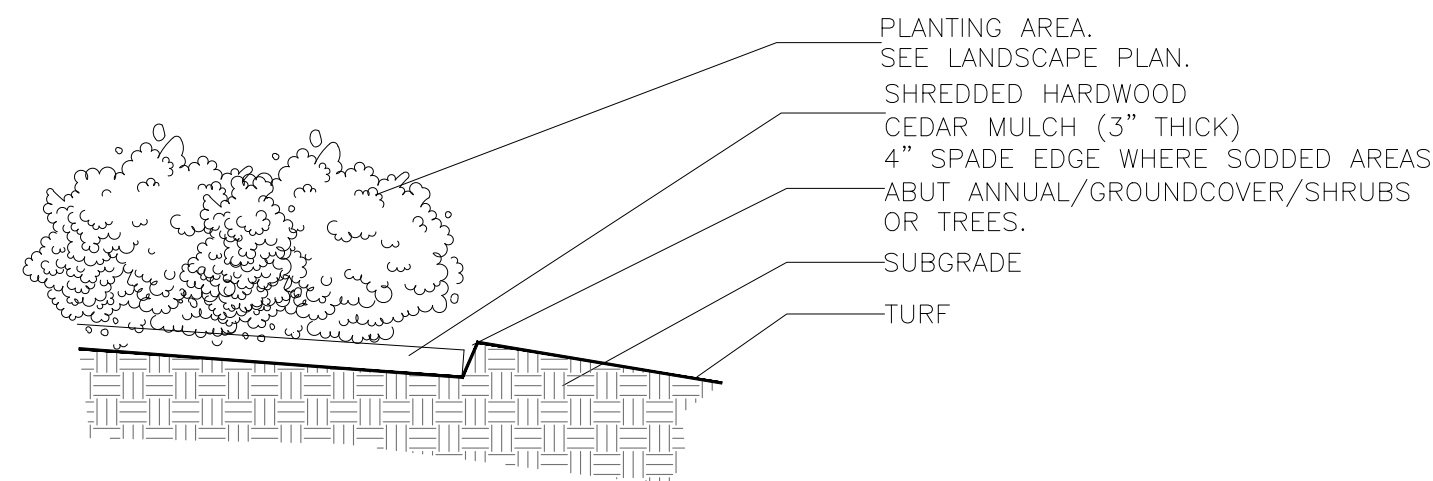


SHALL BE HYDRO-SEEDED SEVEN TO EIGHT POUNDS PER 1000 SQ. FT. (300-250 LBS PER ACRE) PER SUPPLIER'S RECOMMENDATIONS.



3 SEED INSTALLATION

NOT TO SCALE



4 NATURAL SPADE EDGE

NOT TO SCALE

LANDSCAPE PLAN GENERAL NOTES

1. GRAPHIC SYMBOLS TAKE PRECEDENCE OVER WRITTEN QUANTITIES AND KEYS ON PLAN.
2. CONTRACTOR SHALL REPAIR AND REPLACE ANY PLANT MATERIAL AND EXISTING LAWN AREA DAMAGED BY THIS CONSTRUCTION OUTSIDE PROJECT LIMITS. ANY EXISTING PLANT MATERIAL OR LAWN AREA DAMAGED BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED WITH LIKE MATERIAL OF SIMILAR SPECIES AND SIZE AT THE CONTRACTOR'S EXPENSE WITH NO ADDITIONAL COST TO OWNER OR TENANT.
3. TWO WEEKS PRIOR TO PLANTING, THE CONTRACTOR SHALL SUBMIT TO THE OWNER / OWNER'S REPRESENTATIVE SEED MIX TAGS FOR APPROVAL. NO PARTIAL OR INCOMPLETE SUBMITTAL WILL BE ACCEPTED FOR REVIEW. ANY SUBSTITUTIONS WILL BE SUBJECT TO APPROVAL BY THE LANDSCAPE ARCHITECT.
4. THE LANDSCAPE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE CONDITIONS AND VERIFY THEM TO THEIR SATISFACTION. THE LANDSCAPE CONTRACTOR SHALL ACCEPT THE SITE CONDITIONS AND DO THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION FOR POSSIBLE VARIATION FROM GRADES AND CONDITIONS SHOWN.
5. PRIOR TO CONSTRUCTION THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING CONSTRUCTION. SHOULD THE LANDSCAPE CONTRACTOR CAUSE DAMAGE TO ANY UTILITIES THEY SHALL MAKE NECESSARY REPAIRS AS QUICKLY AS POSSIBLE WITHOUT ADDITIONAL COMPENSATION TO THE OWNER.
6. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING, IN FULL, ALL LANDSCAPE PLANTING WORK (INCLUDING WATERING, SPRAYING FOR INSECTS AND DISEASE, MULCHING, MOWING, FERTILIZING, CULTIVATING, EDGING AND WEEDING) FOR A PERIOD OF 90 DAYS AFTER ACCEPTANCE BY THE OWNER.
7. TOPSOIL SHALL BE FERTILE, FRIBBLE AND REPRESENTATIVE OF LOCAL PRODUCTIVE SOIL, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH AND FREE OF CLAY LUMPS, SUBSOIL, NOXIOUS WEEDS OR OTHER FOREIGN MATTER SUCH AS STONES, ROOTS, STICKS AND OTHER EXTRANEOUS MATERIALS: NOT FROZEN OR MUDDY. PH OF TOPSOIL TO RANGE BETWEEN 5.5 AND 7.5.
8. ALL TREE PROTECTION DEVICES ARE TO BE INSTALLED PRIOR TO START OF LAND DISTURBANCE AND MAINTAINED UNTIL FINAL LANDSCAPING IS INSTALLED.
9. THE CONTRACTOR SHALL FINE GRADE AND SEED DISTURBED AREAS WITH NO MOW LAWN SEED MIX SUPPLIED BY PRAIRIE NURSERY. IF WORKING ON STEEP SLOPES, IT IS RECOMMENDED THAT THE AREA BE COVERED WITH AN EROSION-CONTROL BLANKET IMMEDIATELY AFTER SEEDING. IF THE SITE IS PRONE TO EROSION, THE CONTRACTOR SHALL USE NO MOW WITH ANNUAL RYE NURSE CROP. SEE EROSION CONTROL BLANKET DETAIL.
10. CONTRACTOR SHALL PLANT NO MOW LAWN SEED MIX BETWEEN THE FOLLOWING TIME PERIODS:
 - 10.1. FALL: (AUGUST 20 TO OCTOBER 20) FOR BEST RESULTS.
 - 10.2. SPRING: (MARCH 15 TO MAY 15)
 - 10.3. IT IS RECOMMENDED TO PLANT DURING FALL DUE TO COOL TEMPERATURES, GENTLE RAINS AND LOWER WEED GERMINATION.
 - 10.4. CONTRACTOR SHALL PERFORM A FINAL TILLING PRIOR TO SEEDING.
11. CONTRACTOR SHALL GUARANTEE THE SEEDING FOR A PERIOD OF ONE GROWING SEASON FROM THE DATE OF SUBSTANTIAL COMPLETION OF TOTAL PROJECT FOR ANY LOSS DUE TO FAULTY MATERIALS, WORKMANSHIP, OR PROCEDURES.
12. THE LANDSCAPE CONTRACTOR SHALL COMPLETELY GUARANTEE ALL LANDSCAPE PLANTING WORK AND MATERIALS FOR A PERIOD OF ONE (1) FULL YEAR FROM THE DATE THE WORK HAS BEEN APPROVED BY THE OWNER AS INSTALLED. ALL PLANT MATERIAL NOT HEALTHY GROWING CONDITION SHALL BE REMOVED IMMEDIATELY AND REPLACED AS SOON AS POSSIBLE WITH LIKE KIND AND SIZE AT NO CHARGE TO THE OWNER.
13. IF ANY SEEDING MUST BE PERFORMED LATER THAN THE SCHEDULED PERIODS THE CONTRACTOR SHALL ALSO GUARANTEE THESE SEEDED AREAS FOR A PERIOD OF ONE GROWING SEASON FROM THE DATE OF SUBSTANTIAL COMPLETION FROM LOSS DUE TO WEATHER CONDITIONS.
14. CONTRACTOR SHALL REFER TO THE LATEST CIVIL PLANS FOR DISTURBED AREAS TO BE RESTORED. ADDITIONAL RESTORATION MAY BE NEEDED DUE TO FIELD CONDITIONS. SEE CIVIL SITE PLAN.
15. THE SEEDING RATE SHOULD BE SEVEN TO EIGHT POUNDS PER 1000 SQ. FT. (300-350 LBS. PER ACRE).

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PROJECT NUMBER:
907-0142

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	06/26/18	AW	LV	SITE USE PLAN SET

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-6.1
LANDSCAPE NOTES AND DETAILS

SHEET NOTES

THIS DOCUMENT IS PROVIDED BY BORREGO SOLAR SYSTEMS, INC. TO FACILITATE THE SALE AND INSTALLATION OF A SOLAR POWER SYSTEM FROM BORREGO SOLAR SYSTEMS, INC. REPRODUCTION, RELEASE OR UTILIZATION FOR ANY OTHER PURPOSE, WITHOUT PRIOR WRITTEN CONSENT IS STRICTLY PROHIBITED.



GreenbergFarrow
21 SOUTH EVERGREEN AVENUE
SUITE 200
ARLINGTON HEIGHTS, IL 60005
T: 847.788.9200 F: 847.788.9537

NOT FOR CONSTRUCTION

SITE USE PLANS
16400 NEWARK ROAD,
NEWARK, IL 60541

PROJECT NUMBER:
907-0142

REV	DATE	BY	CHKD	RELEASE LEVEL
	06/29/18	TB	JC	SITE USE PLAN SET

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

E-6.0
PLACARDS

GENERAL PLACARD NOTES:

- NOT ALL PLACARDS DESCRIBED IN THESE NOTES MAY APPLY TO THIS PROJECT.
- ELECTRICAL SUBCONTRACTOR SHALL PROVIDE ALL PLACARDS AS REQUIRED BY THE NEC, LOCAL FIRE DEPARTMENT, THE AUTHORITY HAVING JURISDICTION, AND LOCAL UTILITY REQUIREMENTS. PLACARDS IN ADDITION TO THOSE SHOWN HERE MAY BE REQUIRED BY THE NEC AND ARE THE RESPONSIBILITY OF THE ELECTRICAL SUBCONTRACTOR.
- PLACARDS SHALL USE ARIAL OR SIMILAR FONT, NON-BOLD.
- FONT SIZES SHALL BE THE MINIMUM SHOWN IN THESE DRAWINGS.
- PLACARDS SHALL HAVE LETTERING IN CAPITAL LETTERS.
- PLACARDS SHALL BE WEATHER RESISTANT AND SUITABLE FOR THE ENVIRONMENT AND COMPLY WITH ANSI Z535.4-2011.
- PLACARDS SHALL BE ADHERED WHEN POSSIBLE AND MEET WITH UL969 STANDARDS. IF MECHANICALLY AFFIXED TO EQUIPMENT, USE RIVETS OR SCREWS. SEALANTS AND GASKETED HARDWARE SHALL BE USED TO MAINTAIN EQUIPMENT LISTINGS WHERE REQUIRED. NEMA 4R EQUIPMENT SHALL NOT BE DRILLED.
- SUBMITTALS REQUIRED FOR PLACARDS AND FOR ADHESIVES USED TO SECURE PLACARDS TO EQUIPMENT.
- PLACARDS WITH MOUNTING HOLES SHOULD BE 1/8" THICKNESS AND HOLES SHOULD BE 1/2" INSIDE FROM THE EDGE.

EQUIPMENT ID PLACARDS:

- SUBCONTRACTOR SHALL LABEL ALL ARRAYS, PULL BOXES, JUNCTION BOXES, COMBINER BOXES, DC SAFETY SWITCHES, CIRCUIT BREAKER SAFETY SWITCHES, MULTIPLE DISCONNECT SAFETY SWITCHES, DC CONTACTOR DISCONNECTS, REMOTE PV TIES, BI-POLAR ARRAY COMBINERS, INVERTERS, AC SAFETY SWITCHES, TRANSFORMERS, PANELBOARDS, CIRCUIT BREAKERS, SWITCHGEAR, RECTIFIERS, DATA MONITORING ENCLOSURES, AND METERING CABINETS. A PARTIAL LIST OF PLACARDS IS SHOWN HERE.
- EQUIPMENT ID PLACARDS - THE FIRST TYPE OF EACH REQUIRED EQUIPMENT ID PLACARD IS SHOWN HERE. ELECTRICAL SUBCONTRACTOR SHALL GENERATE PLACARDS FOR EACH PIECE OF EQUIPMENT AND NUMBER ALL EQUIPMENT PER THE NAMING AND NUMBERING CONVENTION DEFINED IN THESE PLANS.
- ARRAY ID PLACARD - SHALL BE AFFIXED TO THE REAR CORNERS OF EACH ARRAY AND NUMBERED PER PLANS. IF ATTACHING TO MODULE FRAME ADHESIVE SHALL BE USED; DO NOT DRILL OR RIVET THE MODULE FRAMES.

V17

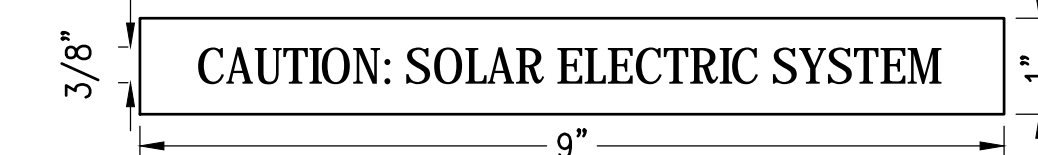
FS1: GENERAL DC

LOCATION: ALL EXPOSED DC RACEWAYS, CABLE TRAYS, PB-X, JB-X, EVERY 10', WITHIN 1' OF BENDS, ON CONDUITS BETWEEN ALL ENCLOSURES, AND ABOVE/BELOW PENETRATIONS OF ROOF/CEILING, WALLS OR BARRIERS
NEC: 690.31(G)(3), 690.31(G)(4)
BACKGROUND COLOR: RED REFLECTIVE
TEXT: WHITE REFLECTIVE



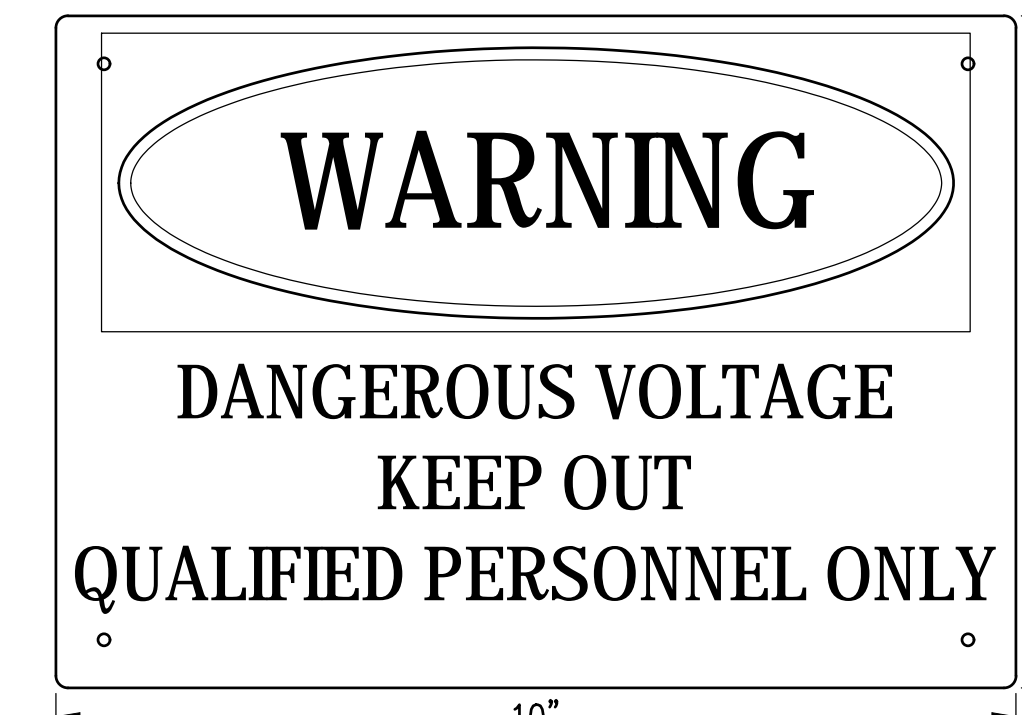
FS2: MAIN SERVICE DISCONNECT

LOCATION: ACSW-X
CALFIRE REQUIREMENT
BACKGROUND COLOR: RED, REFLECTIVE
TEXT COLOR: WHITE, REFLECTIVE

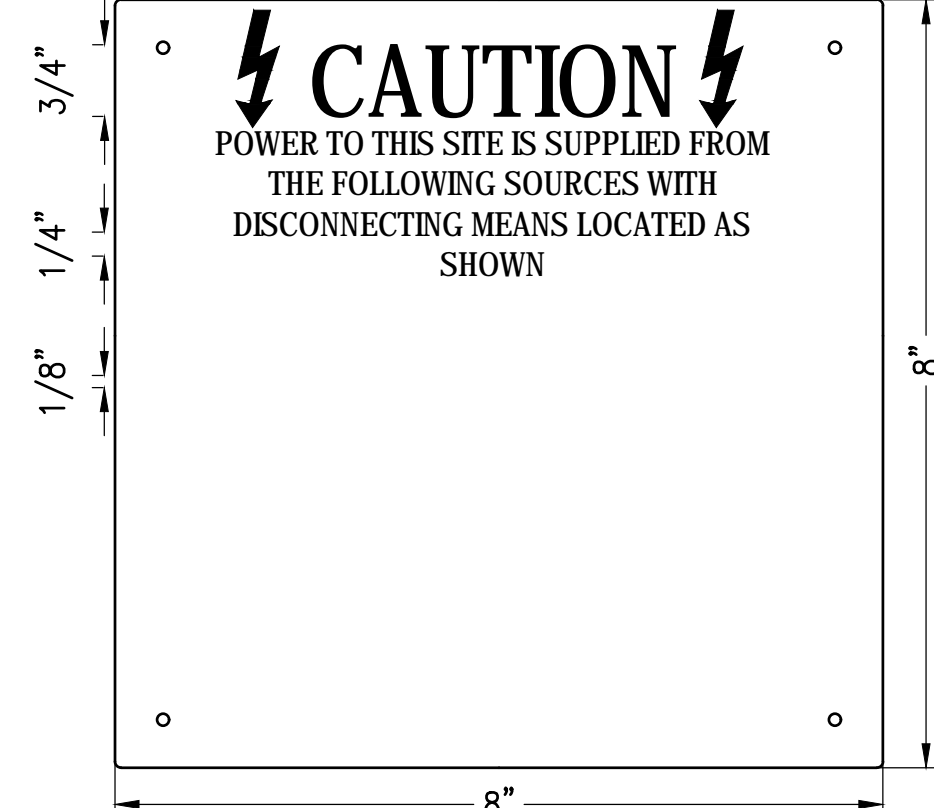


P4: DANGEROUS VOLTAGE

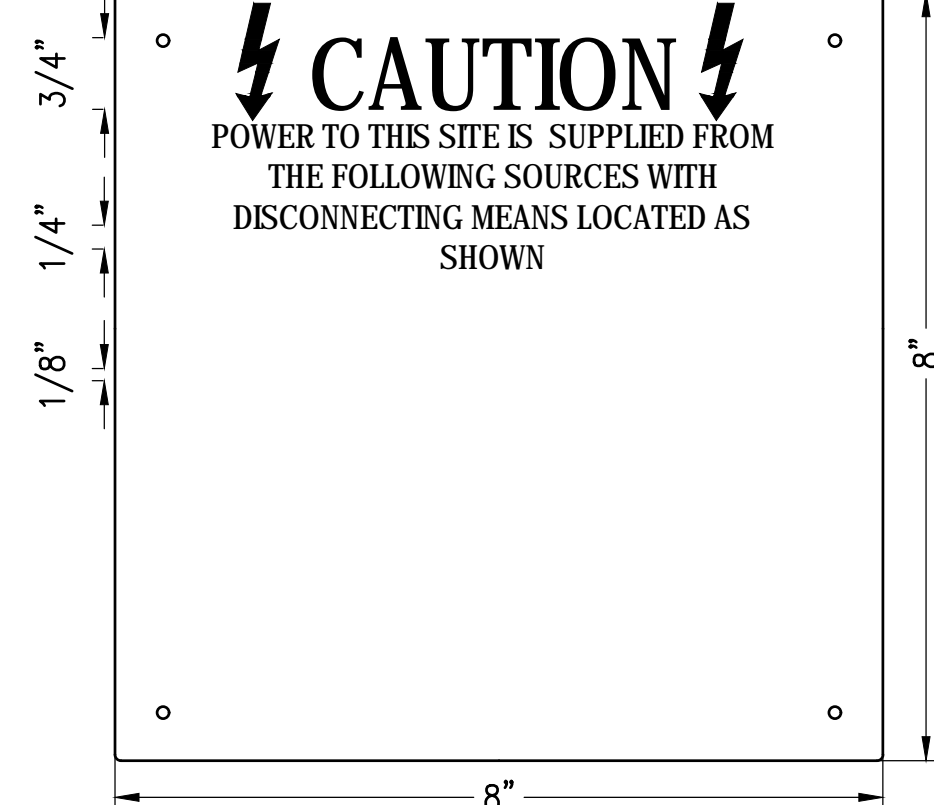
LOCATION: ALL ACCESS POINTS TO THE SITE AND EVERY 250' AROUND THE PERIMETER (ON FENCES AS NECESSARY)
BACKGROUND COLOR: ORANGE; TEXT COLOR: BLACK



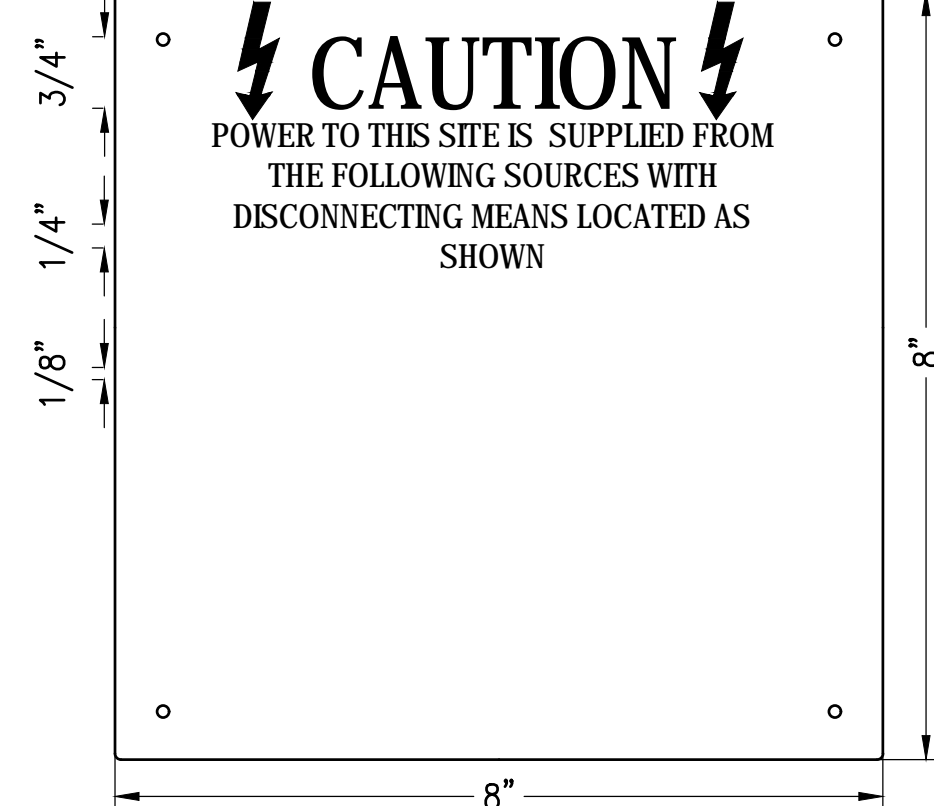
P1: DIRECTORY MAP
LOCATION: EQUIPMENT PAD
BACKGROUND COLOR: RED; TEXT COLOR: WHITE



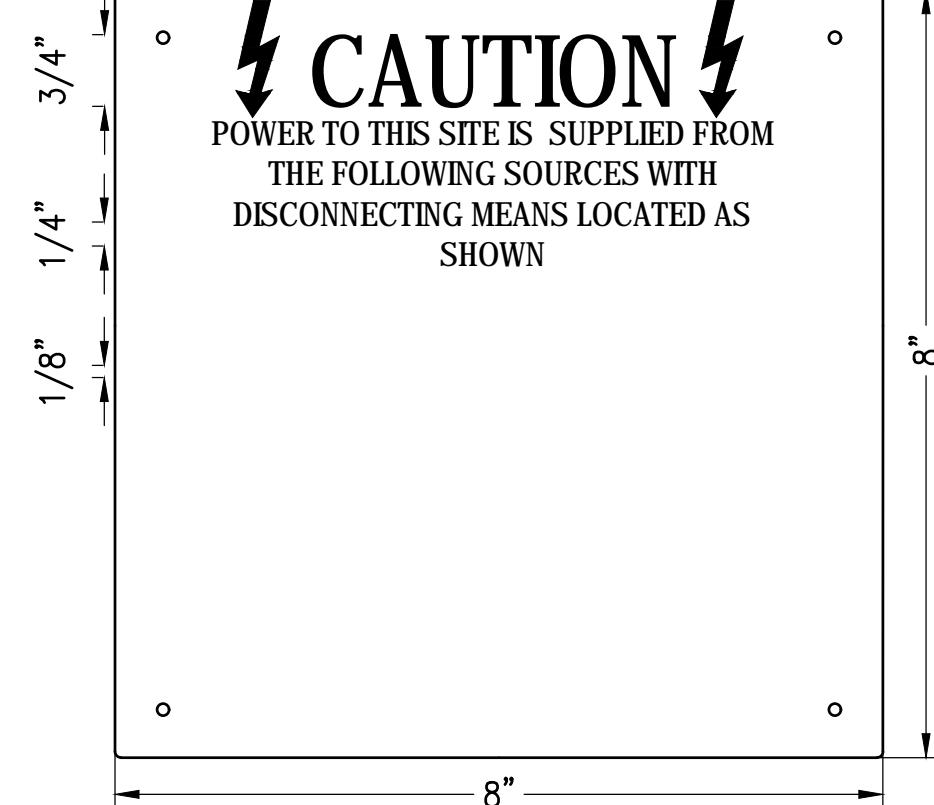
P1: DIRECTORY MAP
LOCATION: AC DISCONNECT
BACKGROUND COLOR: RED; TEXT COLOR: WHITE



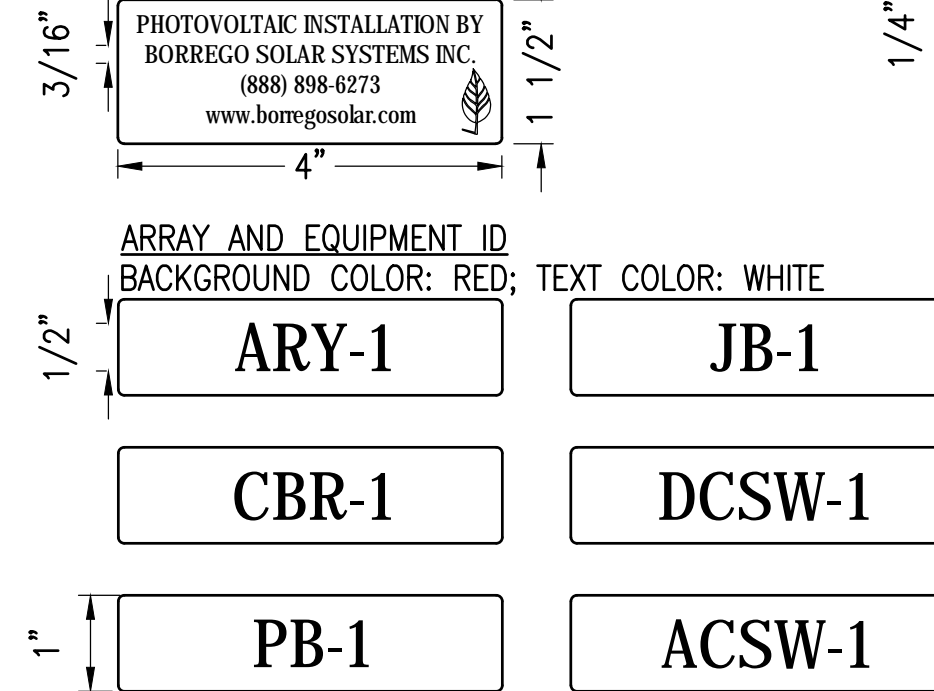
P1: DIRECTORY MAP
LOCATION: UTILITY METER
BACKGROUND COLOR: RED; TEXT COLOR: WHITE



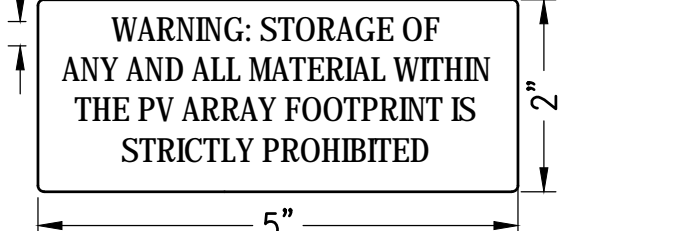
P1: DIRECTORY MAP
LOCATION: MAIN GATE
BACKGROUND COLOR: RED; TEXT COLOR: WHITE



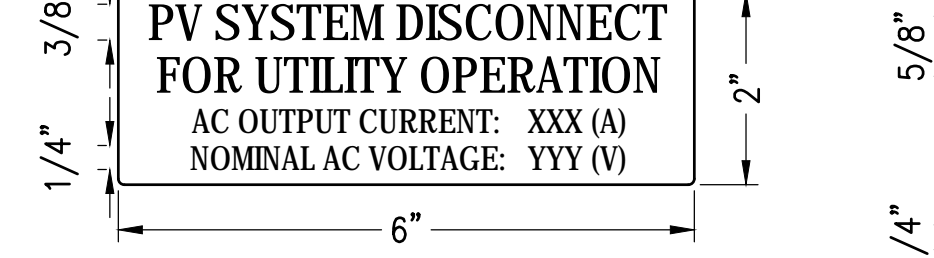
P2: BORREGO O&M CONTACT INFO
LOCATION: UTILITY ACSW, POI, INV-#, DAS
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



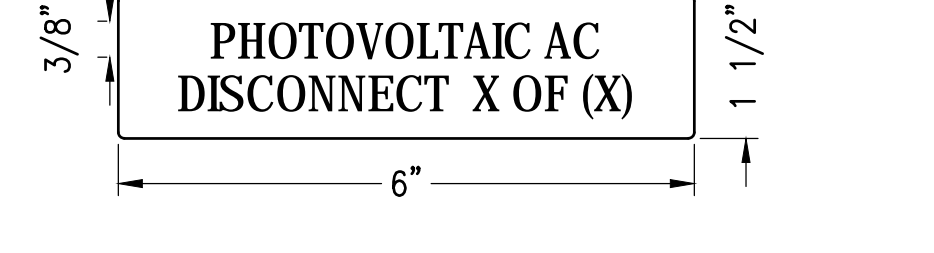
P3: ROOF ARRAY STORAGE PREVENTION
LOCATION: ALL ENTRY POINTS TO THE ROOF
BACKGROUND COLOR: ORANGE
TEXT COLOR: BLACK



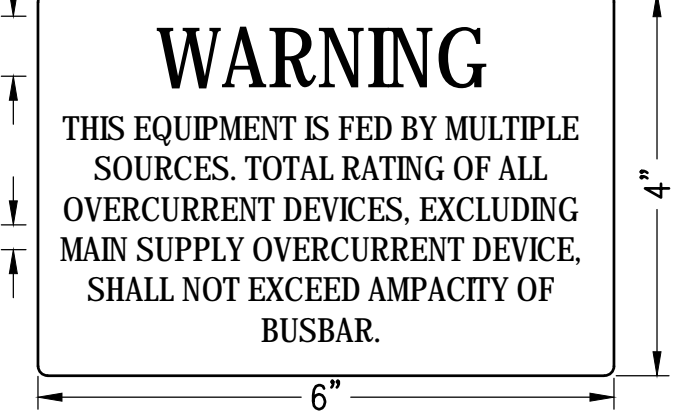
PAC1: UTILITY PHOTOVOLTAIC DISCONNECTING MEANS
LOCATION: ACSW-X
NEC: 690.54
BACKGROUND COLOR: RED; TEXT COLOR: WHITE



PAC2: AC PHOTOVOLTAIC DISCONNECTING MEANS
LOCATION: ACSW-X OR PVCB-X (ONLY IF DC CONDUCTORS ENTER BUILDING)
NEC: 690.13(B), 690.15
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



PAC8: DEDICATED SOLAR PANELBOARD
LOCATION: PNL-X
NEC: 705.12(D)(2)(3)(C)
BACKGROUND COLOR: ORANGE
TEXT COLOR: BLACK



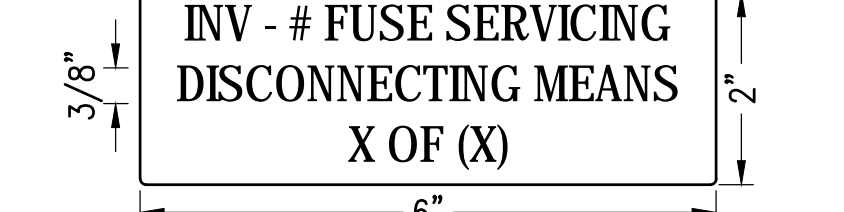
PAC9: BACKFED BREAKER
LOCATION: PVCB-X
BACKGROUND COLOR: RED TEXT COLOR: WHITE



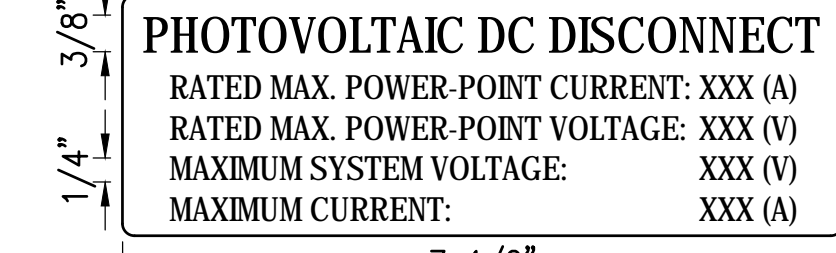
PDC1: DC PHOTOVOLTAIC DISCONNECTING MEANS
LOCATION: DCSW-X
NEC: 690.13(B), 690.15
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



PDC6: FUSE SERVICING DISCONNECTING MEANS
LOCATION: DCSW-X, RCBR-X, MDSS-X, DCCT-X
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



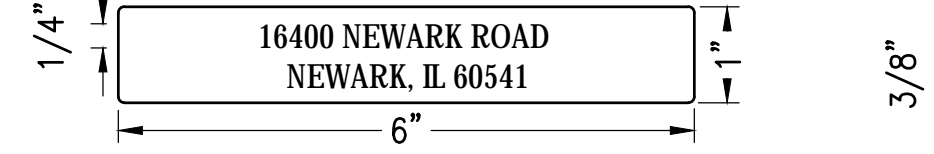
PDC2: DC DISCONNECTS
LOCATION: CBR-1 THRU CBR-X
NEC: 690.53
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



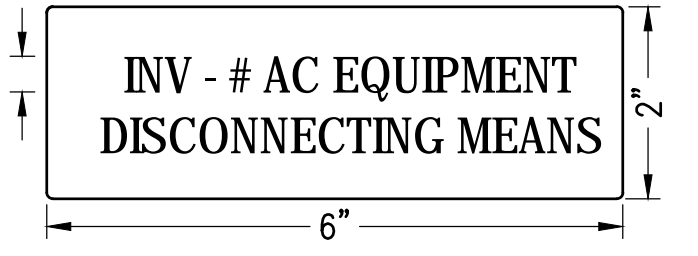
PDC8: FUSE SERVICE WARNING
LOCATION: INV-X
BACKGROUND COLOR: ORANGE AND WHITE
TEXT COLOR: BLACK



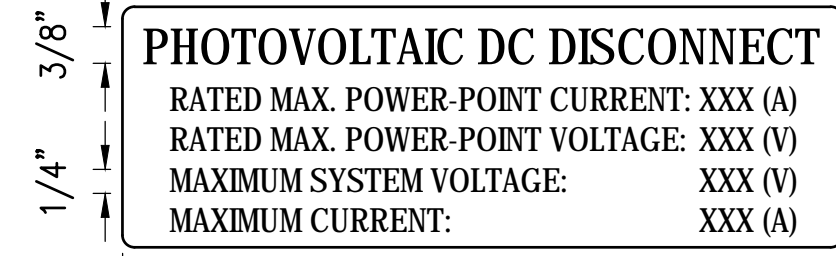
PAC3: SITE ADDRESS
LOCATION: UTILITY ACSW-X
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



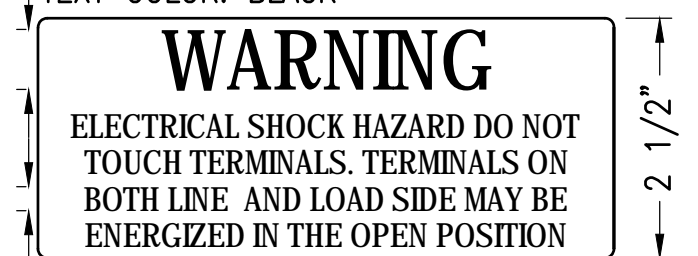
PAC10: AC EQUIPMENT DISCONNECTING MEANS
LOCATION: ACSW-X OR INV-# (IF INTEGRAL ACSW)
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



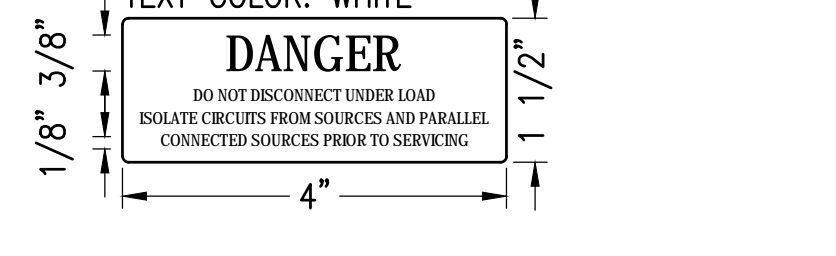
PDC2: DC DISCONNECTS
LOCATION: DCSW-X, RCBR-X, DCCT-X, MDSS-X
NEC: 690.53
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



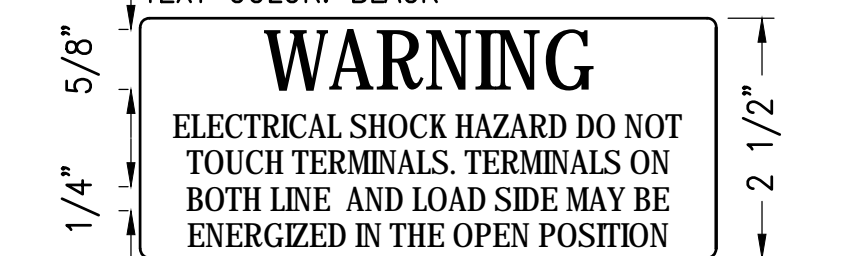
PAC11: AC DISCONNECT MEANS ENERGIZED
LOCATION: ACSW-X, PNL-X
NEC: 690.17(E)
BACKGROUND COLOR: ORANGE AND WHITE
TEXT COLOR: BLACK



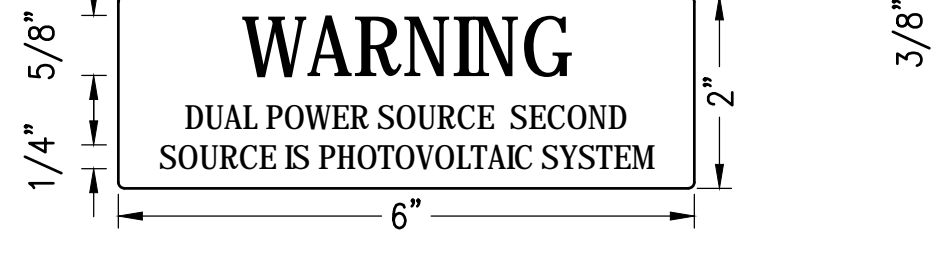
PDC3: DC ENERGIZED CONNECTION
LOCATION: ALL DC JB'S
NEC: 690.33(E)(2)
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



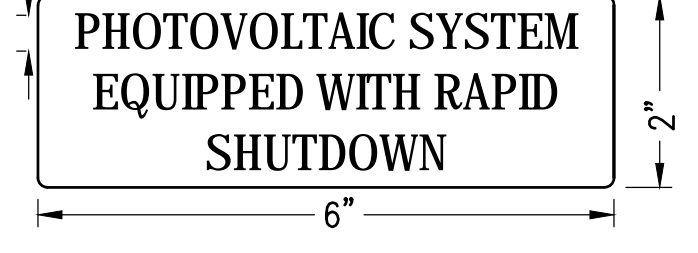
PDC11: DC DISCONNECT MEANS ENERGIZED
LOCATION: DCSW-X, CBR-X, RCBR-X
NEC: 690.17(E)
BACKGROUND COLOR: ORANGE AND WHITE
TEXT COLOR: BLACK



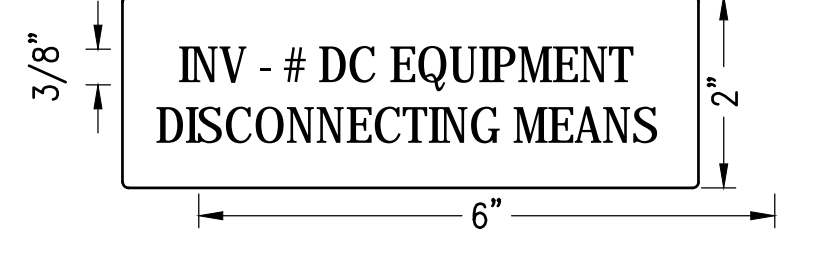
PAC7: ADDITIONAL SOURCE
LOCATION: PNL-X, MAIN SERVICE
NEC: 705.12(D)(3)
BACKGROUND COLOR: ORANGE; TEXT COLOR: BLACK



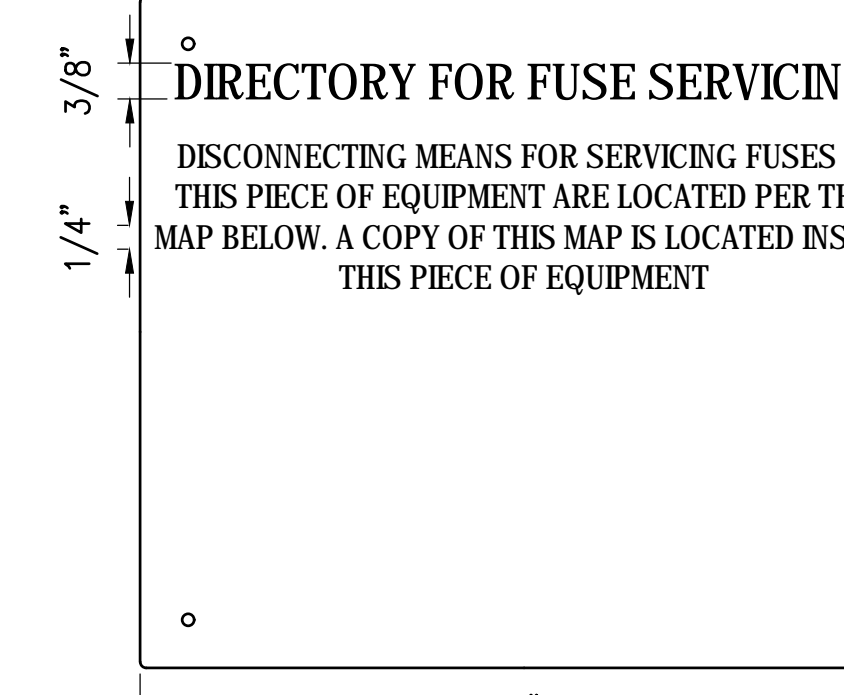
PAC12: RAPID SHUTDOWN
LOCATION: RAPID SHUTDOWN SWITCH
NEC: 690.56(C)
BACKGROUND COLOR: RED, REFLECTIVE
TEXT COLOR: WHITE, REFLECTIVE



PDC5: DC EQUIPMENT DISCONNECTING MEANS
LOCATION: DCSW-X OR INV-X
BACKGROUND COLOR: RED
TEXT COLOR: WHITE



PDC7: DIRECTORY FOR FUSE SERVICING
LOCATION: INV-X WHERE ACSW IS >6FT AWAY
ALSO PROVIDE A POUCH AND FULL SIZE COPY OF THE MAP BELOW INSIDE THIS PIECE OF EQUIPMENT.





BORREGO SOLAR

July 12, 2018

To Matt Asselmeier, AICP
Senior Planner
Kendall County Planning, Building and Zoning
111 Fox Street
Yorkville, IL 60560
T: 630.553.4139

RE: **Borrego Solar – SUP 18-15**
16400 Newark Road, Kendall County, IL

Dear Mr. Asselmeier,

Please find enclosed a brief narrative which outlines the composition of the proposed modules at the 16400 Newark Road solar site, how they are manufactured and how the solar modules used for the Newark Road solar project (Crystalline Silicon) differ from Thin-Film Cadmium Telluride modules (not used on this project).

1. Module Composition

- The materials within the modules are: aluminum, silicone, silicon, glass, plastics, copper, tin, lead and silver.
- Per **Exhibit 1 - Toxicity Characteristic Leaching Procurement (TCLP) results** showed that the levels of the metals are all lower than the U.S. Environmental Protection Agency's (EPA) regulatory limit outlined in EPA 40 CFR 261.24 (<https://www.epa.gov/sites/production/files/2016-01/documents/hw-char.pdf>), based on the Federal defined TCLP test.
 - For context, the TCLP protocol was established by the EPA to determine the potential of specific wastes to leaching dangerous concentrations of toxic chemicals into groundwater.
 - The only known hazardous material on this list is lead which is found in the soldering material (same soldering material found in household fixtures and switches) is significantly less than the regulatory limit. The solder is sealed between the module and the backsheet.
 - The amount of lead, as listed on the product safety data sheet is less than 0.1% of the total material within the module. From an environmental perspective, the legal limit of lead is 5 mg/l, but the test for the solar modules result shows only 2.1 to 2.8 mg/l (page 3 of the TCLP report).
- Destructive testing of the modules for TLCP shows that the levels of all the metals, including lead, are lower than EPA regulatory limits.
- The TLCP testing also reveals that there is no cadmium in these modules – it reads as “ND” as in “Not Detected”.

2. Module Manufacturing

- The proposed modules are developed in Germany, see below for a brief outline on the process as described by one of the representatives from Hanwha:
 - a. Solar cells with silver lines on the front surface and aluminum on the back surface are connected to form cell string with tin plated copper wires;
 - b. The cell strings are placed between transparent and non-transparent plastic sheets and a glass plate;
 - c. The stack is heated so that they are bonded together (lamination);

- d. The laminate of the stack is fitted into four aluminum frames with silicone glue, hence forming a panel;
- e. A plastic junction box containing 3 semiconductor diodes and two cables are attached to the back side of the panel, enabling the panel to conduct electricity.

3. Difference Between Crystalline Silicon (CSI) Modules and Cadmium Telluride (CdTe) Modules

- These modules are made of Silicon, not Cadmium. See Page 2 of Exhibit 2 – Hanwha Q Cells Product Safety Data Sheet (PSDS) which indicates Cadmium is not a component of the proposed solar panels.
- The difference is visible – a CdTe module has straight lines because it is a manufactured material. Silicon is a naturally occurring material and only breaks into star-shapes. As a result, the CSI modules have stars within them as opposed to straight lines.

Exhibit 1

Toxicity Characteristic Leaching Procurement (TCLP) results

SunStar Laboratories, Inc.

Hanwha Q CELLS

February 2018

Henwha Q CELLS
300 Spectrum Center Dr., Ste 1250
Irvine CA, 92618

Project: FV Module Samples
Project Number: [none]
Project Manager: Dean Lee

Reported:
02/12/18 13:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
COMP: Glass & Panel 1	T180426-07	Glass/Panel	02/02/18 00:00	02/05/18 12:45
COMP: Glass & Panel 2	T180426-08	Glass/Panel	02/02/18 00:00	02/05/18 12:45
COMP: Glass & Panel 3	T180426-09	Glass/Panel	02/02/18 00:00	02/05/18 12:45

SunStar Laboratories, Inc.



Rose Fashch, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Harwin Q CELLS 300 Spectrum Center Dr., Ste 1250 Irvine CA, 92618	Project: PV Module Samples Project Number: [none] Project Manager: Dean Lee	Reported: 02/12/18 13:15
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DETECTIONS SUMMARY

Sample ID:	COMP: Glass & Panel 1	Laboratory ID:	T180426-07			
Analyte		Result	Reporting Limit	Units	Method	Notes
Barium		0.34	0.10	mg/l	EPA 1311/6010/7000	
Lead		2.3	0.10	mg/l	EPA 1311/6010/7000	

Sample ID:	COMP: Glass & Panel 2	Laboratory ID:	T180426-08			
Analyte		Result	Reporting Limit	Units	Method	Notes
Barium		0.14	0.10	mg/l	EPA 1311/6010/7000	
Lead		2.8	0.10	mg/l	EPA 1311/6010/7000	

Sample ID:	COMP: Glass & Panel 3	Laboratory ID:	T180426-09			
Analyte		Result	Reporting Limit	Units	Method	Notes
Barium		0.12	0.10	mg/l	EPA 1311/6010/7000	
Lead		2.1	0.10	mg/l	EPA 1311/6010/7000	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Ross Fashch

Ross Fashch, Project Manager

Hanwha Q CELLS
300 Spectrum Center Dr., Ste 1250
Irvine CA, 92618

Project: PV Module Samples
Project Number: [none]
Project Manager: Dean Lee

Reported:
02/12/18 13:15

COMP: Glass & Panel 1
T180426-07 (Glass/Panel)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

TCLP Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	2.0	ug/l	1	8020538	02/03/18	02/09/18	EPA 1311/7470	
Arsenic	ND	0.10	mg/l	"	8020539	02/03/18	02/08/18	EPA 1311/6010/7 000	
Barium	0.14	0.10	"	"	"	"	"	"	
Cadmium	ND	0.10	"	"	"	"	"	"	
Chromium	ND	0.10	"	"	"	"	"	"	
Lead	2.3	0.10	"	"	"	"	"	"	
Selenium	ND	0.10	"	"	"	"	"	"	
Silver	ND	0.10	"	"	"	"	"	"	

SunStar Laboratories, Inc.



Ross Fasbeh, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Hunwba Q CELLS 300 Spectrum Center Dr., Ste 1250 Irvine CA, 92618	Project: PV Module Samples Project Number: [none] Project Manager: Dean Lee	Reported: 02/12/18 13:15
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COMP: Glass & Panel 2
T180426-08 (Glass/Panel)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

TCLP Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	2.0	ug/l	1	8020538	02/09/18	02/09/18	EPA 1311/7470	
Arsenic	ND	0.10	mg/l	"	8020539	02/09/18	02/09/18	EPA 1311/6010/7 000	
Barium	0.14	0.10	"	"	"	"	"	"	
Cadmium	ND	0.10	"	"	"	"	"	"	
Chromium	ND	0.10	"	"	"	"	"	"	
Lead	2.8	0.10	"	"	"	"	"	"	
Selenium	ND	0.10	"	"	"	"	"	"	
Silver	ND	0.10	"	"	"	"	"	"	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Rose Fashch, Project Manager

Hazwiba Q CELLS
300 Spectrum Center Dr., Ste 1250
Irvine CA, 92618

Project: PV Module Samples
Project Number: [none]
Project Manager: Dean Lee

Reported:
02/12/18 13:15

COMP: Glass & Panel 3
T180426-09 (Glass/Panel)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

TCLP Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	2.0	ug/l	1	8020538	02/05/18	02/09/18	EPA 1311/7470	
Arsenic	ND	0.10	mg/l	*	8020539	02/05/18	02/08/18	EPA 1311/6010/7 000	
Barium	0.12	0.10	"	"	"	"	"	"	
Cadmium	ND	0.10	"	"	"	"	"	"	
Chromium	ND	0.10	"	"	"	"	"	"	
Lead	2.1	0.10	"	"	"	"	"	"	
Selenium	ND	0.10	"	"	"	"	"	"	
Silver	ND	0.10	"	"	"	"	"	"	

SunStar Laboratories, Inc.



Rose Fasheh, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Haswiba Q CELLS
300 Spectrum Center Dr., Ste 1250
Irvine CA, 92618

Project: PV Module Samples
Project Number: (none)
Project Manager: Dean Lee

Reported:
02/12/18 13:15

TCLP Metals by 6000/7000 Series Methods - Quality Control
SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Batch 8020538 - TCLP Hg CV										
Blank (8020538-BLK1)										
Prepared: 02/05/18 Analyzed: 02/09/18										
Mercury	ND	2.0	ug/l							
LCS (8020538-BS1)										
Prepared: 02/05/18 Analyzed: 02/09/18										
Mercury	4.09	2.0	ug/l	5.00		81.7	75-125			
Matrix Spike (8020538-MS1)										
Source: T180426-07 Prepared: 02/05/18 Analyzed: 02/09/18										
Mercury	3.84	2.0	ug/l	5.00	0.00423	76.6	75-125			
Matrix Spike Dup (8020538-MSD1)										
Source: T180426-07 Prepared: 02/05/18 Analyzed: 02/09/18										
Mercury	3.91	2.0	ug/l	5.80	0.00423	78.0	75-125	1.83	30	
Batch 8020539 - TCLP Metals										
Blank (8020539-BLK1)										
Prepared: 02/05/18 Analyzed: 02/08/18										
Arsenic	ND	0.10	mg/l							
Barium	ND	0.10	"							
Cadmium	ND	0.10	"							
Chromium	ND	0.10	"							
Lead	ND	0.10	"							
Selenium	ND	0.10	"							
Silver	ND	0.10	"							
LCS (8020539-BS1)										
Prepared: 02/05/18 Analyzed: 02/08/18										
Arsenic	0.526	0.10	mg/l	0.500		105	75-125			
Barium	0.528	0.10	"	0.500		106	75-125			
Cadmium	0.497	0.10	"	0.500		99.3	75-125			
Chromium	0.501	0.10	"	0.500		100	75-125			
Lead	0.513	0.10	"	0.500		103	75-125			

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Rose Fashch, Project Manager

Harwin Q CELLS 300 Spectrum Center Dr., Ste 1250 Irvine CA, 92618	Project: PV Module Samples Project Number: [none] Project Manager: Dean Lee	Reported: 02/12/18 13:15
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TCLP Metals by 6000/7000 Series Methods - Quality Control
SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Splice Level	Source Result	%RBC	%REC Limits	RPD	RPD Limit	Notes
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Batch 8028539 - TCLP Metals

Matrix Spike (8028539-MS1)	Source: T180426-07			Prepared: 02/05/18 Analyzed: 02/08/18						
Arsenic	0.527	0.10	mg/l	0.500	ND	105	75-125			
Barium	0.606	0.10	"	0.500	0.136	94.0	75-125			
Cadmium	0.486	0.10	"	0.500	0.000716	97.1	75-125			
Chromium	0.488	0.10	"	0.500	0.00187	97.2	75-125			
Lead	2.93	0.10	"	0.500	2.33	121	75-125			

Matrix Spike Dup (8028539-MSD1)	Source: T180426-07			Prepared: 02/05/18 Analyzed: 02/08/18						
Arsenic	0.509	0.10	mg/l	0.500	ND	102	75-125	3.38	30	
Barium	0.603	0.10	"	0.500	0.136	93.5	75-125	0.399	30	
Cadmium	0.486	0.10	"	0.500	0.000716	97.0	75-125	0.127	30	
Chromium	0.487	0.10	"	0.500	0.00187	97.0	75-125	0.234	30	
Lead	2.89	0.10	"	0.500	2.33	112	75-125	1.42	30	

SunStar Laboratories, Inc.

Rosa Fashah

Rosa Fashah, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Hardware Q CELLS 300 Spectrum Center Dr., Ste 1250 Irvine CA, 92618	Project: PV Module Samples Project Number: [none] Project Manager: Dean Lee	Reported: 02/12/18 13:15
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Notes and Definitions

- DET** Analyte **DETECTED**
- ND** Analyte **NOT DETECTED** at or above the reporting limit
- NR** Not Reported
- dry** Sample results reported on a dry weight basis
- RPD** Relative Percent Difference

SunStar Laboratories, Inc.



Rose Fashch, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Exhibit 2

**Product Safety Data Sheet (PSDS)
Hanwha Q CELLS**

PRODUCT SAFETY DATA SHEET

HANWHA Q CELLS SOLAR PV MODULES ARE ARTICLES AS DEFINED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION HAZARD COMMUNICATION STANDARD (HCS), 29 C.F.R. § 1910.1200 AND ARE EXEMPT FROM THE LABELING AND SAFETY DATA SHEETS (SDS) REQUIREMENTS OF THE STANDARD.

Hanwha Q CELLS provides this product safety data sheet only for convenience of interested parties in the United States of America who are used to the format of safety data sheets in order to assess the product safety. This product safety data sheet does not replace any other documents provided by Hanwha Q CELLS such as Safety Information, Installation and Operation Manual, Packaging and Transport Information, Product Data Sheet as well as Warranty Terms of the respective product.

SECTION 1: IDENTIFICATION

Solar PV modules convert light into electricity. Light-sensitive cells are electrically interconnected in series and sealed between glass and plastic foils for this purpose. This product safety data sheet is applicable to the following generation 4 ("G4") solar PV modules of the Q CELLS brand by Hanwha Q CELLS:

- Q.PRO-G4, Q.PRO BFR-G4, B.LINE PRO-G4, B.LINE PRO BFR-G4, C.LINE PRO-G4, C.LINE PRO BFR-G4,
- Q.PLUS-G4, Q.PLUS BFR-G4, B.LINE PLUS-G4, B.LINE PLUS BFR-G4, C.LINE PLUS-G4, C.LINE PLUS BFR-G4,
- Q.PRO L-G4, Q.PLUS L-G4, B.LINE PRO L-G4, B.LINE PLUS L-G4, C.LINE PRO L-G4, C.LINE PLUS L-G4

There are several versions of these module types which are distinguished by a versioning (i.e. G4.1, G4.2, etc.) within the G4 generation. All these modules are also covered by this product safety data sheet.

Responsible Party as Importer:

Name: Hanwha Q CELLS America

Address: 300 Spectrum Center Drive, Suite 1250, Irvine, CA 92618

Phone: 1-949-748-5996

SECTION 2: IDENTIFICATION OF SAFETY RISKS (HAZARDS IDENTIFICATION)

Hanwha Q CELLS solar PV modules do not pose any risk of hazardous chemicals. Hazard symbols and precautionary hazard statements for hazardous chemicals are not applicable. No symptoms or effects – neither acute nor delayed – have to be expected when Hanwha Q CELLS solar PV modules are handled as stipulated in the Installation and Operation Manual. Hanwha Q CELLS provides a Safety Information sheet with all modules shipments. This document contains detailed risk statements and recommendations for installation and operation. Before installing the module, read the Installation and Operation Manual for Q CELLS modules carefully. You can obtain the complete Installation and Operation Manual from your retailer.

Attention: Only qualified and authorized specialists may install modules and put them into operation. Keep children and unauthorized persons away from the modules.

Risks:

- Risk of death from electrocution! Solar modules generate electricity and are energized as soon as they are exposed to light.
- In rare cases, solar PV modules – as any other electrical device – can cause fire due to worn electrical contacts which result in electrical arcing.
- Solar PV modules can reach high temperatures which can cause skin burns.
- Sharp edges, corners and broken glass can cause injuries.
- Solar PV modules can cause injuries due to their weight.
 - Falling solar PV modules can cause injuries.
 - Lifting solar PV modules can cause injuries.

For precautionary statements, please refer to the Installation and Operations Manual of the respective product.

MISUSE OR INCORRECT USE OF SOLAR MODULES VOIDS THE LIMITED WARRANTY AND MAY CREATE A SAFETY HAZARD AND RISK PROPERTY DAMAGE. THIS INCLUDES IMPROPER INSTALLATION OR CONFIGURATION, IMPROPER MAINTENANCE, UNINTENDED USE, AND UNAUTHORIZED MODIFICATION.

PRODUCT SAFETY DATA SHEET

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Safety data sheets are only required for hazardous chemicals covered by the Hazard Communication Standard (HCS). Solar PV modules made by Hanwha Q CELLS are not covered by HCS. The following table provides an overview of materials solar PV modules by Hanwha Q CELLS are made of. The values given for the share of weight are targets and can vary for the products covered by this Product Safety Data Sheet.

COMPONENT	MATERIAL	TOTAL SHARE	REMARK
FRAME	Aluminum	10% – 20%	not hazardous
	Silicone	<1%	not hazardous, see section 8
	Glass	60% – 75%	not hazardous
	Plastics (EVA, PET, PE, PPE, PC)	10% – 15%	no hazards known
LAMINATE	Silicon	2% – 4%	not hazardous
	Metals (Aluminum, Copper, Tin)	1% – 3%	not hazardous
	Lead	<0,1%	hazardous
	Silver	<0,05%	not hazardous

SECTION 4: FIRST-AID MEASURES

In case of electrocution:

- Always protect yourself by taking all necessary safety precautions before rescuing persons injured.
- Attention: Stay away from sources of high voltage and leave the rescue to qualified personnel with appropriate personal protection equipment!
- Call emergency rescue services.
- Do not touch live parts. Qualified personnel should shut down the PV system as far as possible – e.g. disconnect the modules at the inverter before uncovering any live electrical parts. Be sure to observe the specified time intervals after switching off the inverter. Highvoltage components need time to discharge. Follow OSHA requirements for control of hazardous energy at 29 C.F.R. § 1910.147.
- In the event a person is electrocuted or affected by electrical energy of the solar PV module, CALL 911. Before attempting rescue, SHUTDOWN THE POWER SOURCE.
- Remove the victim from the power source using only insulated tools ONLY IF CONTACT WITH LIVE ELECTRICAL COMPONENTS CAN BE PREVENTED.
- Carefully move the injured from the zone of danger.
- After moving to a safe location, check heartbeat, respiration and consciousness of the injured person.
- Apply appropriate life-saving measures (CPR) accordingly before taking care of minor injuries.
- Consult a medical professional even if there are no visible injuries.
 - Flush thermal skin burns caused by touching hot surfaces of solar PV modules with cool water. Consult a medical professional.
 - Injuries due to sharp edges, corners and broken glass need to be appropriately treated. Consult a medical professional.
 - Other types of injuries need to be treated appropriately as well. Consult a medical professional.

SECTION 5: FIRE-FIGHTING MEASURES

- Hanwha Q CELLS solar PV modules are fire rated as Class C according to IEC and UL 1703 as well as Type 1 according to UL 1703.
- Hanwha Q CELLS solar PV modules are extensively tested at the factory to ensure electrical safety of the product before shipment.
- In rare cases, solar PV modules – as any other electrical device – can cause fire due to worn electrical contacts which result in electrical arcing.
- In case solar PV modules which are not part of an array are on fire, USE FIRE EXTINGUISHERS RATED FOR ELECTRICAL EQUIPMENT, Class C.
- IN CASE A SOLAR PV MODULE ARRAY IS PRESENT, ANY FIRE SHOULD ONLY BE FOUGHT BY PROFESSIONAL FIREFIGHTERS. FIREFIGHTERS NEED TO TAKE PRECAUTIONS FOR ELECTRICAL VOLTAGES UP TO 1,500 VOLTS (DC).
- Some components of the modules can burn. Potential combustion products include oxides of carbon, nitrogen and silicon.
- In case of prolonged fire, solar PV modules may lose their structural integrity.

PRODUCT SAFETY DATA SHEET

General recommendations from the below-mentioned reports:

- Fire service personnel should follow their normal tactics and strategies at structure fires involving solar power systems, but do so with awareness and understanding of exposure to energized electrical equipment. Emergency response personnel should operate normally, and approach this subject area with awareness, caution, and understanding to assure that conditions are maintained as safely as possible.
- Care must be exercised during all operations, both interior and exterior.
- Responding personnel must stay back from the roofline in the event modules or sections of an array may slide off the roof.
- Contacting a local professional PV installation company should be considered to mitigate potential hazards.
- Turning off an array is not as simple as opening a disconnect switch. As long as the array is illuminated, parts of the system will remain energized.
- When illuminated by artificial light sources such as fire department light trucks or an exposure fire, PV systems are capable of producing electrical power sufficient to cause inability to let go from electricity as a result of stimulation of muscle tissue, also known as lock-on hazard.
- Firefighting foam should not be relied upon to block light.
- The electric shock hazard due to application of water is dependent on voltage, water conductivity, distance and spray pattern.
- It is recommendable to fight fire with water instead of foam if a PV system is present. Salt water should not be used.
- Firefighter's gloves and boots afford limited protection against electrical shock provided the insulating surface is intact and dry. They should not be considered equivalent to electrical personal protection equipment.

Readers interested in more details may refer to the following reports:

- National Fire Protection Association, Fire Protection Research Foundation report "Fire Fighter Safety and Emergency Response for Solar Power Systems" issued May 2010, revised October 2013
- Important recommendations from a report called "Firefighter Safety and Photovoltaic Installations Research Project" issued by Underwriters Laboratories on November 29, 2011

SECTION 6: FIRE-FIGHTING MEASURES

This section is not applicable.

SECTION 7: HANDLING AND STORAGE

Before installing the module, read the Installation and Operation Manual for Q CELLS modules carefully. Noncompliance with the instructions may result in damage and physical injury or death. Only qualified and authorized specialists may install modules and put them into operation. You can obtain the complete installation manual from your retailer.

Details about transport and storage of palletized Hanwha Q CELLS solar PV modules can be found in the Packaging and Transport Information of the respective module type.

Storage, transport and unpacking:

- Store the module dry, well-ventilated and properly secured. The original packaging is not weatherproof.
- Always transport the module in its original packaging.
- Do not stack the modules. This prevents damage of the junction box.
- The module is made of glass. Take great care when unpacking, storing and transporting it.
- Do not subject the module glass to any mechanical stress (e.g. through torsion or deflection). Do not step on the module or place any objects onto the module.
- Protect both sides of the module against scratching and other damage.
- Carry the module by holding the edges with both hands, or use a glass suction lifter.
- Never lift or carry the module using the module junction box or wiring. Avoid pulling on the wiring at all costs.

PRODUCT SAFETY DATA SHEET

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Before installing the module, read the Installation and Operation Manual carefully. Noncompliance with the instructions may result in damage and physical injury. Only qualified and authorized specialists may install modules and put them into operation. You can obtain the complete installation manual from your retailer.

- Please follow the valid national regulations and safety guidelines for the installation of electrical devices and systems.
- Please make sure to take all necessary safety precautions.
- Ensure that all personnel are aware of and adhere to accident-prevention and safety regulations.
- For handling of modules wear suitable protective gloves.
- Do not install damaged modules. Ensure that all electrical components are in a proper, dry, and safe condition.
- Do not modify the module (e.g. do not drill any additional holes). Never open the junction box.
- Ensure that modules and tools are not subject to moisture or rain at any time during installation. Only use dry, insulated tools for electrical work.
- Only connect cables with plugs. Ensure for a tight connection between the plugs. Plugs click together audibly.
- Cover the modules with an opaque material during installation. Cover the modules to be disconnected.

Silicones used in manufacturing release 2-butanone oxime during curing. Small amounts of this chemical may be present in shipping cartons. Upon receipt, open container in well a ventilated location and allow to stand for 15 minutes before removing units from cartons. Exposures above recommended limits of 10 ppm eight-hour time-weighted-average (TWA) will not occur. 2-butanone-oxime has a characteristic odor.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- Physical state: solid
- Voltage: refer to data sheet (below 50 volts for a single module)

Attention: Voltage of single modules add up when modules are electrically connected in series. Hanwha Q CELLS solar PV modules are designed and certified for voltages up to 1,000 volts or even up to 1,500 volts. Connection of modules in series is only permitted up to the maximum system voltage as listed in the applicable data sheet.

- Weight: refer to data sheet
- Solubility in water: Insoluble in water

SECTION 10: STABILITY AND REACTIVITY

Under normal operating conditions as specified in the Product Data Sheet, Hanwha Q CELLS solar PV modules are chemically stable.

- Hanwha Q CELLS solar PV modules are tested for salt spray and ammonia resistance according to IEC 61701 and IEC 62716, respectively.
- Hanwha Q CELLS solar PV modules support ambient operating temperatures from -40°C to $+85^{\circ}\text{C}$ (-40°F to $+185^{\circ}\text{F}$).
- Do not install modules above 13.120ft (4000m) altitude above sea level.
- Some components of the modules can burn. Potential combustion products include oxides of carbon, nitrogen and silicon.
- Do not scratch off dirt. Use a soft cellulose cloth or sponge to carefully wipe off stubborn dirt. Do not use micro fleece wool or cotton cloths.
- Rinse dirt off with lukewarm water (dust, leaves, etc.)
- Use an alcohol based glass cleaner. Do not use abrasive detergents or tensides.
- Isopropyl alcohol (IPA) can be used selectively to remove stubborn dirt and stains within one hour after it appeared.
- Follow the safety guidelines provided by the IPA manufacturer.
- Do not let IPA run down between the module and the frame or into the module edges.

PRODUCT SAFETY DATA SHEET

SECTION 11: TOXICOLOGICAL INFORMATION

Small amounts of 2-butanone oxime may be present inside shipping cartons. Open cartons and allow to vent before removing units. No exposure to hazardous chemicals will occur when the units are in use.

SECTION 12: ECOLOGICAL INFORMATION

Hanwha Q CELLS solar PV modules are designed to withstand outdoor operating conditions for 25 years. Biodegradation is not expected due to high chemical stability of the components.

SECTION 13: DISPOSAL CONSIDERATIONS

Hanwha Q CELLS solar PV modules should be recycled rather than dumped in a landfill. Raw materials of the product can be recovered by recycling companies. Disposal must be in accordance with national and local laws and regulations for electric/electronic waste.

SECTION 14: TRANSPORT INFORMATION

Hanwha Q CELLS solar PV modules can be shipped via standardized container freight. Regulations for hazardous goods do not apply. For further details, please refer to the Packaging and Transport Information which can be provided as a separate document by Hanwha Q CELLS.

SECTION 15: REGULATORY INFORMATION

- Hanwha Q CELLS solar PV modules are tested according to international standards IEC 61215, IEC 61730 as well as US standards UL 1703.
- Please refer to the Installation and Operation Manual and Product Data Sheet of the respective Hanwha Q CELLS solar PV module.

SECTION 16: OTHER INFORMATION

- Date of initial creation of this product safety data sheet: July 1, 2016
- Date of last revision: January 20, 2017