



8805 Governors Hill Dr.  
Suite 300  
Cincinnati, OH 45249  
[Melinksolar.com](http://Melinksolar.com)  
513.999.5818

## Change Order Request

Job: Ann Arbor Wheeler Center

Change Order #: 1

Date: 10/21/25

To: City of Ann Arbor  
301 East Huron St  
Ann Arbor, MI 48104

We hereby propose to make the changes specified below:

Item	Amount	Notes
Access Road Engineering	\$ 8,500.00	Civil engineering fee for new access road design
Internal Eng/PM	\$ 9,000.00	Melink fees for re-engineering the array in different locations
Electrical Increase	\$ 134,181.00	Longer IX run back to tie-in
Subtotal	\$ 151,681.00	
OH/Profit (15%)	\$ 22,752.15	Per contract, 15% markup on CO's
Melink Total	\$ 174,433.15	
DTE Upgrades	\$ 108,000.00	New fuses, commissioning, and SCADA
Access Road - Deduct	\$ (17,000.00)	Removal of original access road cost
<b>Grand Total</b>	<b>\$ 265,433.15</b>	

Supporting documentation for the above items can be seen in the attached files.

Requested By: Luke Larison

Date: 12/17/25

Accepted By: \_\_\_\_\_

Date: \_\_\_\_\_



175 Ray Ave. NE, New Philadelphia, OH 44663  
T 330.364.1631 | [W www.div-eng.com](http://www.div-eng.com)

**Revised** – February 27, 2025

Melink Solar  
Attn: Carl Adams  
Project Manager  
c. 513.601.8738

**Re:** Wheeler Center – Ann Arbor, MI 48108

Mr. Adams:

In accordance with your request, DEI has prepared this cost estimate to complete surveying and engineering services for the proposed access road for the Wheeler Center Solar Array located in Ann Arbor Michigan. Based on our discussions, we are proposing the following services:

**Task #1 – 20' Gravel Access Road Design: (See Attached Exhibit 1 – Wheeler Site Plan)**

This includes the following:

1. Existing conditions topographical survey
2. 20' Gravel access road designed for heavy Duty Truck Traffic
3. 3-point truck Turn around at Solar Array
4. Provide Construction details & quantities / Bid Form
5. AutoCAD / PDF file will be Provided
6. Provide Stamped Drawings Suitable for Permit submission.

## PROJECT FEE

The total estimated cost to provide the scope of services previously described is based on the following:

### Cost Estimate

Task	Estimated Cost
Task 1 – Access Road Design	\$8,500
<b>TOTAL ESTIMATED COST</b>	<b>\$8,500</b>

Additional revision(s) to the scope, design criteria, and any owner requested changes outside of those as listed above prior to the acceptance of this proposal will be considered an additional service. DEI will ensure clear communication is adhered to and will require written client approval prior to the continuation of work in any of these circumstances arise. Those additional services and services not listed within the scope of work will result in additional compensation fees.

Payment for said services will be lump sum and invoiced at completion of tasks.

This does not include any Permitting or Property Easements.

We appreciate this opportunity to work with you and your team on this project. If you have any questions regarding this estimate, please feel free to contact me at (330) 364-1631. Again, thank you for the opportunity to present our services.

Sincerely,

Diversified Engineering, Inc.

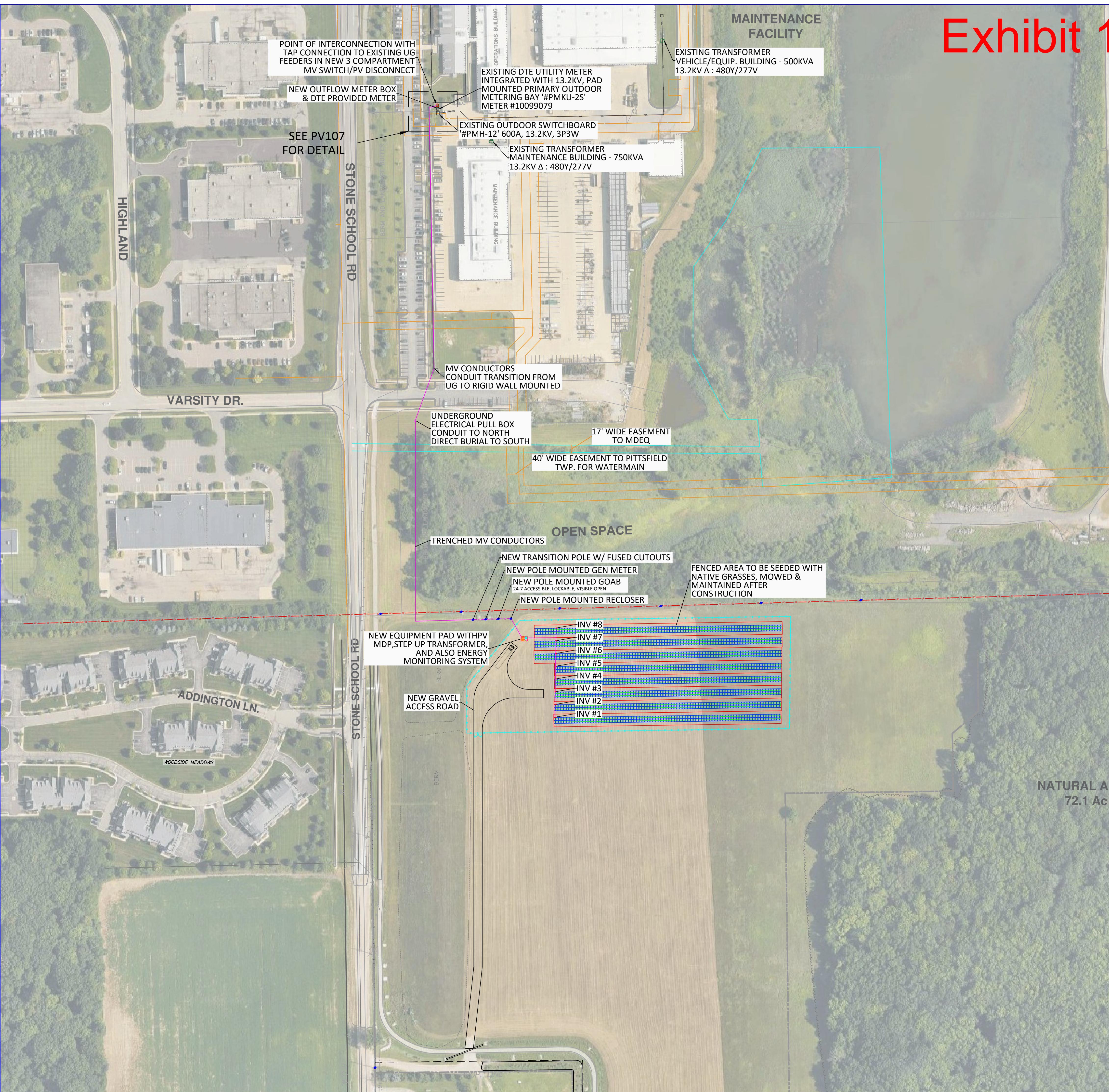


Chadwick C. VanSickle, P.E.  
Project Manager

# Exhibit 1 Wheeler Site Plan

## WHEELER CENTER ANN ARBOR, MI 48108

1301.3 kWdc, 1000 kWac SOLAR ARRAY  
FIXED TILT - GROUND MOUNT  
2 HIGH PORTRAIT



SYSTEM INFORMATION	
GROUND MOUNT	
TIILT ANGLE	20°
DC SYSTEM SIZE	1301.3 kWdc
AC SYSTEM SIZE	1000.0 kWac
DC/AC RATIO	1.30
SYSTEM AZIMUTH	179°
MODULE MANUFACTURER	ZNSHINE
MODULE POWER CLASS	550W
MODULE QUANTITY	2,366
STRING SIZE	26
INVERTER MANUFACTURER	CHINT POWER SYSTEMS
INVERTER AC OUTPUT	125 kW
INVERTER QUANTITY	8
RACKING TYPE	FIXED TILT
RACKING CONFIGURATION	2 HIGH PORTRAIT
DC SYSTEM VOLTAGE	1500 V
INVERTER AC VOLTAGE	600 V

LEGEND	
	SOLAR MODULE
	26 MODULE STRING
	CONDUIT
	CPS 125 kW INVERTER
	AC COMBINER
	DISCONNECT SWITCH
	CT CABINET
	UTILITY METER
	NEW FENCE LINE
	ALSO ENERGY MONITORING SYSTEM
	EXISTING UTILITY TRANSFORMER
	NEW SOLAR TRANSFORMER
	EXISTING OVERHEAD ELECTRIC LINE
	NEW OVERHEAD ELECTRIC LINE

N  
1  
PV100 SITE PLAN  
SCALE: 1" = 80' - 0"

5140 RIVER VALLEY ROAD  
MILFORD, OH 45150  
PHONE: (513) 965-7553  
FAX: (513) 965-7553  
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melinksolar@melinksolar.com

**Melink**  
solutions for a brighter tomorrow

PROJECT:  
CITY OF ANN ARBOR  
WHEELER CENTER  
4251 STONE SCHOOL ROAD  
ANN ARBOR, MI 48108

REVISIONS:	
DATE	ISSUANCE
03/15/2021	SITE LAYOUT
05/09/2023	IA SET v2
10/29/2024	IA SET v3
01/24/2025	IA SET v4

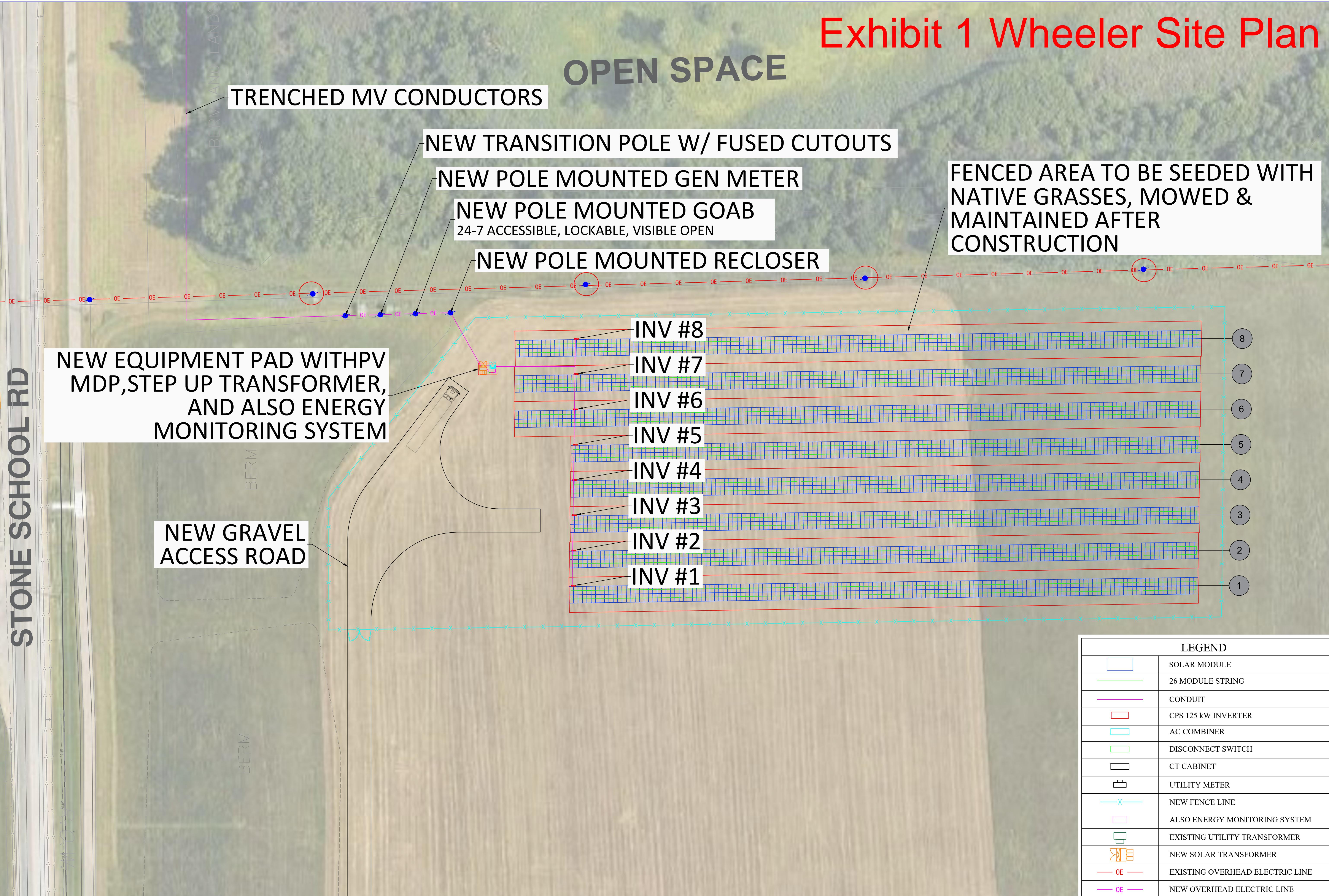


SEALED ON 01.29.2025  
MI - Lic# 6201056485  
H2DC PLLC MIKE@H2DC

DRAWN BY: KD  
CHECKED BY: JE  
DWG TITLE:  
Site Plan

SHEET:  
PV100

# Exhibit 1 Wheeler Site Plan



LEGEND	
	SOLAR MODULE
	26 MODULE STRING
	CONDUIT
	CPS 125 kW INVERTER
	AC COMBINER
	DISCONNECT SWITCH
	CT CABINET
	UTILITY METER
	NEW FENCE LINE
	ALSO ENERGY MONITORING SYSTEM
	EXISTING UTILITY TRANSFORMER
	NEW SOLAR TRANSFORMER
	EXISTING OVERHEAD ELECTRIC LINE
	NEW OVERHEAD ELECTRIC LINE

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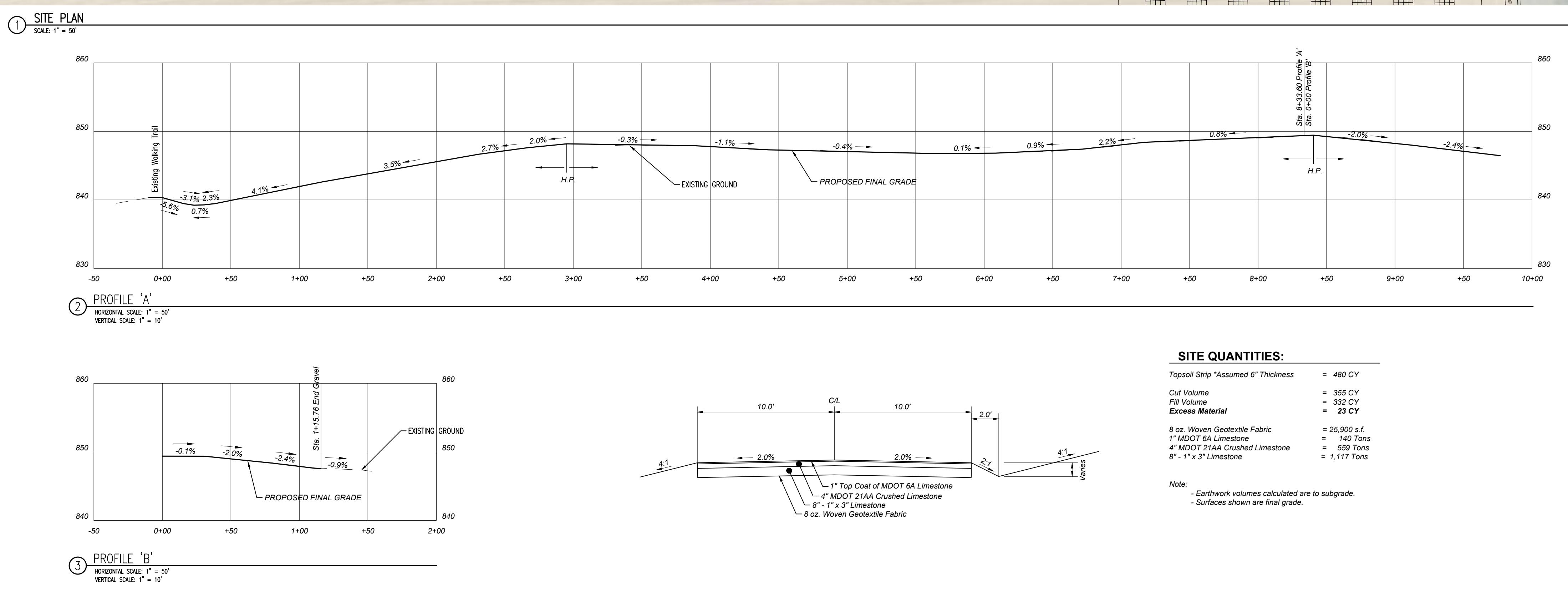
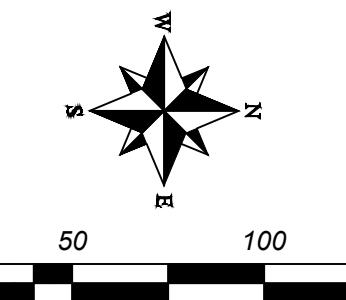
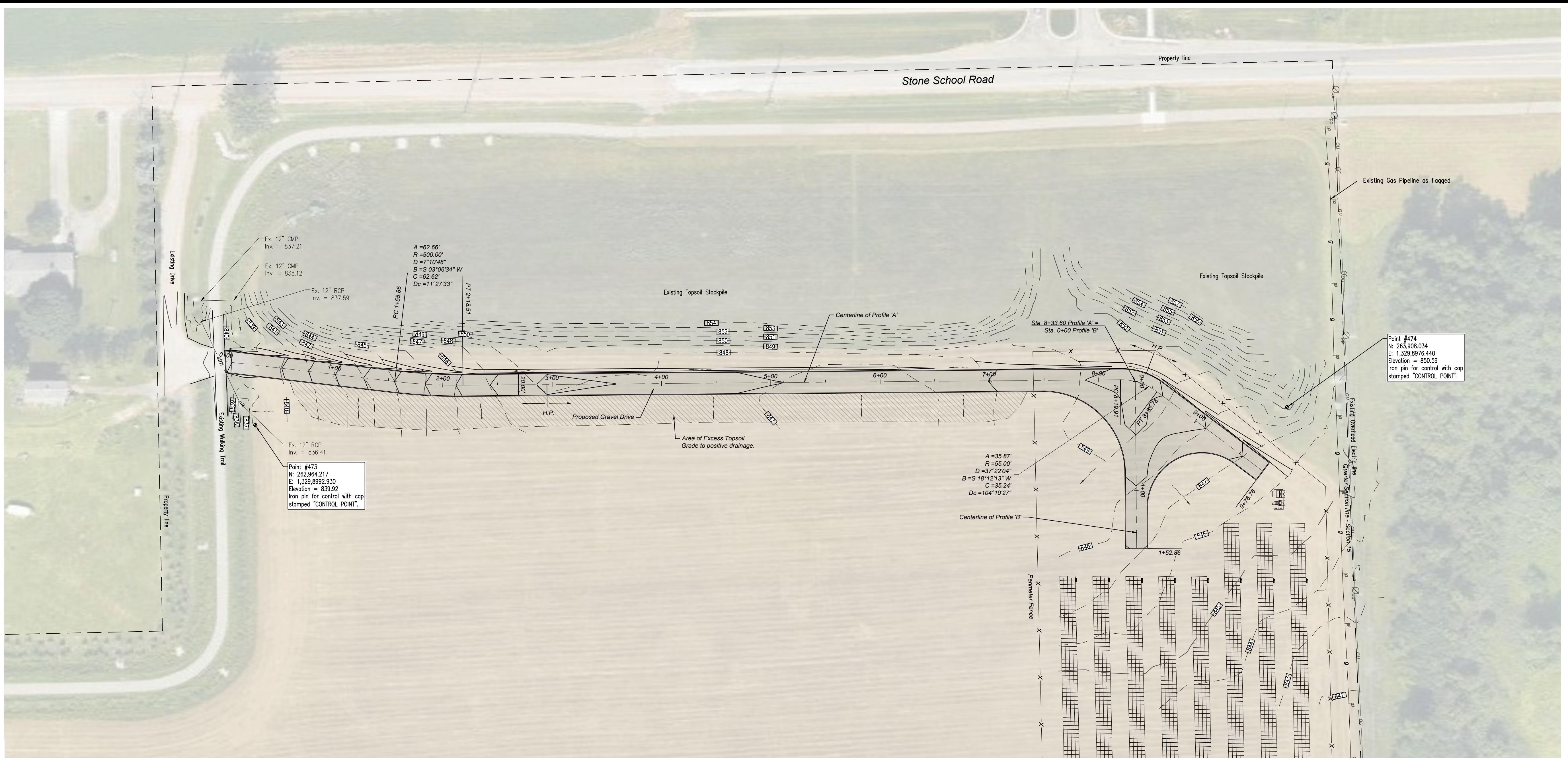


SEALED ON 01.29.2025  
MI - Lic# 6201056485  
H2DC PLLC MIKE@H2DC

DRAWN BY: **KD**  
CHECKED BY: **JE**

DWG TITLE:  
**Array Plan**

SHEET:  
**PV101**



## Ann Arbor Wheeler Center – Design Change Engineering & Management Fees

Type	Rate	Hours	Amount
Engineering	\$150.00	47	\$7,050.00
Project Management	\$130.00	15	\$1,950.00
<b>Total</b>			<b>\$9,000.00</b>



## Original Electrical Install Quote

Proposal date 6.26.2023

### Ann Arbor PV Portfolio Projects (6 in total) per drawings 5/9/23

TMI Electrical Contractors to provide all labor, materials, equipment, and supervision required for the mechanical and electrical installation of the described PV systems, including electrical interconnection to the existing electrical infrastructure, as per AI set (rev2) drawings provided by Melink. Melink shall provide all PV materials and support documents/services listed within this proposal. TMI shall support the commissioning of the PV systems and coordinate interconnection and start-up with Utility. TMI shall provide comprehensive on-site electrical construction management while working on the site.

A summary of the various projects are shown in the table below with a SOW description for each on the following pages:

Ann Arbor Project portfolio summary				
Project Name	DC	AC	Construction Days (est.)	TMI Contract Value
Wheeler Center	1.3 MW	1.0 MW	55	\$ 556,500

### Wage Rates and expenses

- Prevailing wage rates for Local /AHJ are included and will apply
- Travel, lodging and per diem cost are included

### Pricing

- Base Price on specified SOW listed and drawings provided.
- Materials are priced as tax exempt.

*Jeff Burton*

President

Cell 937-725-7385

Office 513-821-9900 ext 104

[www.tmiss.net](http://www.tmiss.net)

# Original Electrical Install Quote

## SITE DETAILS

### Wheeler Center

8-125KW CPS INVERTERS = 1 Mwac

## Primary Wiring

Provide and install 15KV cable in 4" PVC conduit from the following

1. From the new 3-compartment MV Switch to the new Gen Meter Cabinet
2. From the new Gen Meter Cabinet to new MV Switch
3. From the new MV Switch to the new MV Transformer
4. Test all MV Cables
5. Provide concrete pads for the new equipment

## Distribution

Set in place and terminate the new AC panels, transformer and Disconnect switch.

Provide and install 4" PVC conduits and 700MCM AL feeders from the new MV Transformer secondary buss to the new PV MDP Switchboard

Provide and install 2" PVC conduits with 4/0 AL feeders from the new PV MDP Switchboard to the CPS 125KW Inverters

Megger Test all AC Feeders

**Modification of the existing MV Switchgear if applicable is excluded**

**Replacement of trees that could be damaged during excavation if applicable is excluded**

## Inverter Installation

Install Melink's supplied Inverters 8 total

Offloading and store of inverters included

Provide grounding of inverters

Install support rack for each inverter

## Array Wiring

Supply & install all required PV Output circuits from inverters to combiner panel as required

Supply & install DC string wiring & connectors from modules to inverters

Raceway/ conduit as required

MC 4 connectors as required

Includes wire management & connecting modules in series

## Grounding

Install grounding as detailed on the single line drawing PV 200

## Racking & Module Installation

Ground mount racking and module installation is by others

## Monitoring System

Install Melink supplied DAS system & wiring

Setup communications to the SE monitoring platform'

Install CT's, weather station, irradiance & temp sensors

Install; a support rack for the ALSO Energy Panel & Weather Station

## Testing & Commissioning

Megger test inverter output circuits & AC conductors

Provide commissioning assistance as required

Provide all NEC required labels & signage

IV curve test all strings

Test new MV Cables

## Site Services

TMI will supply Porto-jons and two (2) connex storage boxes for our time on site

NO offloading of Modules, racking, or electrical equipment is included

## Qualifications

### Provided by Melink

Engineering Drawings

Structural Permit

Racking Equipment

Modules

Inverters

Electrical Equipment - 3-Compartment MV Switch, new Gen Meter Cabinet, new MV switch, new MV Transformer, new PV MDP Switchboard, 5KVA Transformer for DAS Power

Monitoring Equipment

Interconnection Agreement'

Permits

Surveying & Underground Utility locations



New Layout  
Electrical Install  
Quote - TMI

DBA TMI Electrical Contractors, Inc.

Revised proposal as of 7/24/25

Updated Proposal

### **City of Ann Arbor Wheeler Center project (1301.3KWdc FT GM Solar array)**

Contractor to provide all labor, materials, equipment, and supervision required for the electrical installation of the described PV system, as per the IFP ver.1 drawing set dated 10/15/2024. Contractor shall provide all materials, and full system installation of all components, including AC electrical systems, DC electrical systems including inverters, DAS and electrical interconnection to the proposed electrical infrastructure. Contractor shall support the commissioning of the PV systems and coordinate interconnection and start-up with Utility. Contractor shall provide comprehensive on-site electrical construction management at all times for the site during the project. Melink will provide engineering drawings and will be responsible for all associated costs for permitting. TMI will partner with State Electrical Contractors (MI Licensed contractor) to provide permitting and license requirements for the project.

### **Project Details**

#### Supplied by Melink

- CPS 125W Inverters
- TerraSmart racking material and installation (offloading and storage by others)
- ZNSHINE 550W modules with installation (offloading and storage by others)
- 1600A PV MDP
- Loop fed pad mount transformer 1000KVA
- Federal Pacific AC Disconnect with SEL Relay and Meter
- PV Fused Disconnect/3 compartment MV Switch (Fuses by TMI)
- Generation meter cabinet
- Also Energy system

#### Labor and Material by TMI/State

##### **MV**

1. Install 4" PVC conduit from the POI to the MV Transformer at the array.
2. Priced includes an estimated 1,400 feet on directional boring and boring permits.
3. Pull in MV cable from the POI to the MV Transformer at the array and terminate the MV cable on each end.
4. Install Surge Suppression Elbows in the MV Transformer
5. At the POI location install a MV Switch with SEL Relay
6. At the POI install a DTE Meter Cabinet
7. At the POI install a 3 compartment MV Switch
8. At the POI make the MV Tap
9. All MV Cable will be tested and terminated
10. Equipment pads are included

## Array Equipment pad

1. Install MV Transformer
2. Install PV MDP
3. Install AC feeders from the MV Transformer secondary to the PV MDP
4. Terminate the AC feeds at the MV Transformer secondary and the PV MDP
5. Install concrete pad

## Array Field

1. Install AC Feeders from the PV MDP to the 8-CPS inverters
2. Terminate the AC feeders at the inverters and PV MDP
3. Install mounting racks for the inverters
4. Install inverters
5. Install PV String wire Home Runs to each inverter as shown on drawing PV102
6. Install Y connector harness as shown on drawing PV102
7. Install MC4 connectors as required
8. Plug in all PV modules
9. Trenching is included

## Grounding

1. Install trench ground through the array, connect the trench ground to each inverter and racking row.
2. Install grounding for the two fence gates.
3. Install grounding for the four corner posts
4. Install grounding for the fence at roughly 160 feet spacing
5. Install a ground ring at the Array Equipment pad, install four ground rods, install ground jumpers for MV Transformer, PV MDP, ALSO Energy racking, Power Zone 5KVA transformer racking and rebar connection in the pad.
6. POI install grounding for the three pieces of equipment. Connect to the existing ground ring

## DAS

1. Install the ALSO Energy Panel
2. Install the Weather Station
3. Install ALSO Energy remote devices
4. Install a cat 6 cable from the ALSO Energy panel to each inverter

## Testing & Labels

1. High Pot test all MV cables & MV terminations
2. Megger Test AC feeders'
3. Megger Test DC String Home Runs
4. Record VOC
5. IV Curve Trace
6. Install required labels and plaques
7. Install gate and fence signs
8. Test GFI on PV MDP
9. Commission the inverters

10. Commission the ALSO Energy

**Special Notes and Exclusions**

- Proposal assumes Boring under parking lot area and to the array (1400'), including 2 UG pull boxes.
- Includes brush clearing of area north of the array in order to create trench path.
- The drawings (PV107) are not definitive on path location of the existing service feed between the existing outdoor SWB and the Operations building. In order to intercept this feeder for Installing the POI (new 3 compartment MV switch) TMI is assuming this feeder tracks north from the existing outdoor SWB, then to the Operations building. Also of concern is crossing the existing Utility feed. Consideration of a 24 hour power disruption should be noted for the IC process.
- Vehicle access to the array will need to be provided by others.
- EXCLUSION – Programming and testing of the SEL relay
- EXCLUSION - Control wiring for SEL relay shown on drawing PV201 & PV 202.
- Melink supplied Porto-john toilet service and Dumpster service for Contractors during the project.

Site Services provided by TMI

- Supply storage container on site for Melink equipment storage during construction.
- Offloading of Melink supplied equipment (excluding Modules and Racking).
- Provide office trailer during TMI's time on site.
- Final grading and seeding of disturbed areas of the site.

Permit Services

- TMI will utilize State Contracting Services to provide State of MI licenses and administrative services to obtain required electrical permit. Cost of electrical permitting is included in the Proposal.
- Note: Racking and Module installation permits/inspections are to be scheduled and fielded by others.

Wages and reporting

- TMI and its subcontractors will comply with jurisdictional Prevailing Wage requirements and provide Melink with weekly Certified Payroll reporting.
- TMI will supply weekly progress reporting to the Melink PM.

Other services by Melink

- Customer communications
- Specific site related safety regulations
- Engineering drawings and decisions regarding the project
- Surveying and geotech services
- Interconnection agreements and DTE communications

**PROJECT Contract Value = \$ 789,000.**



July 2<sup>nd</sup> 2025

Luke Larison  
Melinck Solar

Newkirk Electric Associates, Inc.

RE: Wheeler Ann Arbor-RFP

New Layout  
Electrical Install  
Quote - Newkirk

Mr. Larison,

Thank you for the opportunity to provide a proposal for the Wheeler Solar Project located in Ann Arbor, MI.

Our pricing is based on the IFP SET v1 drawing set dated 03/24/2025, Also Energy ADD SEL751 drawing set dated 06/17/2025, and the written RFP provided by Melink. The scope of work includes all labor, materials, and equipment necessary for the complete installation of the system in accordance with the referenced drawings and project documents.

**Total Lump Sum Price.....\$ 690,681.00**

Inclusions, Clarifications and Exceptions:

- General Conditions Include:
  - Labor based on a four day, 10-hour schedule (40 hours)
  - A wage determination was not provided; therefore, our proposal is based on the standard IBEW local 252 rates. We reserve the right to adjust our proposal once a wage determination is provided for the project
  - Newkirk anticipates starting work mid-February, with project completion targeted for the end of May. This schedule depends on timely site readiness, material availability, and weather conditions
  - Provisions are included for clean-up of electrical trash/debris to designated on-site dumpster location provided by others
- Electrical Power Distribution System:
  - Install customer provided three compartment MV switch
    - Newkirk will provide a (68"x61"x36") fiberglass box pad to install the switch
    - Newkirk will hydro excavate around existing MV equipment
    - We will pull back the existing feed from the existing switchboard and re-route them to the three compartment MV switch
    - Provide and install a new MV feed from the switchboard to the three compartment MV switch.
    - Provide and install new load break termination
    - Provide and install three fuses located in the existing switchboard
  - Provide & install (Qty-4) 50' wood utility poles, which include the cross-arms and overhead conductors

- Install customer provided pole mounted equipment
  - Recloser & control cabinet and SEL relay.  
*\*\* Upon reviewing the one-line diagram, it does not specify control wiring details. For the purpose of this proposal, we have made the following assumptions regarding the control wiring. Please note that any changes to these assumptions may impact our pricing*
    - Provide and install a conduit raceway with (Qty-14) #14-control wire between the recloser and the relay control panel.
    - Provide and install (Qty-2) #10-control wire between the relay control panel and the AC main circuit shunt trip breaker.
  - GOAB disconnect switch
  - 3-PH fused cutouts and surge arrestors
  - Generation meter cabinet
- Install (Qty-1) customer provided 1000kva pad mounted transformer and 1600A 600v PV Switchboard
  - Newkirk will supply and install the concrete pad per drawing details
- Install (Qty-1) customer provided 30Amp fused disconnect switch, 5kva transformer & AlsoEnergy control panel
  - Newkirk will install these items on a free-standing H-Frame structure mounted on the concrete pad alongside the 1000kv transformer
  - Newkirk will provide the 15Amp fuses for the disconnect.
- Install (Qty-8) customer provided CPS 100/125ks, 1500 Vdc String Inverters, fuses and Y-Comb terminal blocks
  - Each inverter will be mounted on a free-standing H-Frame located near each array as shown on the drawings
- Supply and install PV string wire, 2-string Y-harnesses, and MC4 connections
  - All string wire to be installed before module installation
- General Power Methods & Requirements:
  - Newkirk will supply supervision, labor & equipment associated with the excavation & backfill for MV, AC & DC cable/conduit installation
  - Newkirk will provide sand bedding to cover raceways in the trench along with using existing spoils to backfill each trench
    - Hauling away existing spoils not included
  - PVC schedule 40 conduits will be utilized for underground piping runs with schedule 80 stub ups that are exposed above grade along with expansion coupling per drawing notes
  - PVC schedule 80 conduit will be utilized for each pipe run that is exposed above grade.
  - Newkirk will hydro excavate around the perimeter of the POI equipment and with the two bore pit locations. We have included the ability to dump hydro excavated materials on site.
    - *\*Note: We will not be able to provide the metallic underground warning tape that's noted on detail (5/PV212 – Pull box to conduit daylight at security wall) due to that this section will be a directional bore.*
  - Provide and install exposed Rigid RMC conduit along the east side of concrete block fence wall
- Verification & Testing of Solar Electrical System:
  - IRT (megger) test AC and DC circuits
  - VOC and IV curve testing

## New Layout Electrical Install Quote - Newkirk

- Transformer testing and checkout
- Fall of potential test at transformer pad
- H-Frames:
  - Free-standing H-Frames are constructed with the following items
    - (Qty-2) 2" Rigid conduits for support posts
      - Each post will get a augered hole with a concrete base
    - (Qty-3) Sections of galvanized strut to support equipment and conduit raceways
- Fence Grounding:
  - Provide and install (Qty-7) ground rods with a #2 bare ground wire jumper bonded to the nearest fence post and connected to the fence mesh per detail on drawings
  - Provide and install (Qty-2) ground rods with a #2 bare grounding jumper to gate fence post and gate mesh
- We have included an electrical permit
- We have included a standard, 1-year limited warranty for our scope of work
- All applicable taxes are included
- Material pricing provided in this proposal is valid for ten (10) days from the date of issuance. Due to ongoing market uncertainties, including the potential impact of government actions such as tariffs on material costs, Newkirk reserves the right to adjust pricing for affected materials in the event of cost increases after the proposal submission. Adjustments will be made based on documented price changes, and Newkirk commits to acting in good faith and making every reasonable effort to secure the lowest possible prices for specified materials.

The following items shall be reviewed for potential scope inclusion/exclusion and costs impacts prior to issuing contract:

- Engineering is not included
- Our proposal does not include utility coordination and fees
- Our proposal does not include providing or installing the post, racking, or PV modules, but does include plugging the PV panels together
- Our proposal does not include third-party compaction testing
- Our proposal excludes any tree removal, sitework, grading, drainage, stormwater prevention, access drive or laydown area, or fence installation

Sincerely,



Ben Maxson  
Project Estimator  
Newkirk Electric Associates, Inc  
810-441-1541  
[bmaxson@newkirk-electric.com](mailto:bmaxson@newkirk-electric.com)

## Luke Larison

---

**From:** Neil L Damani <neil.damani@dteenergy.com>  
**Sent:** Thursday, October 2, 2025 2:19 PM  
**To:** Luke Larison; Kevin Dees; Karl Lievense  
**Cc:** John P Connors; Andrew T Galczyk; Ramzi S Almashny  
**Subject:** DE-11182 SIS Customer Meeting Minutes

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

**Categories:** Ann Arbor

All,

See below for today's Customer meeting minutes:

### **DE-11182**

- DTE to send out updated SIS including cost estimate.
  - Customer to confirm the results of the study and that they would like to move forward. **DTE to issue out Interconnection Agreement alongside Construction Agreement with the cost estimate plus breakdown within 15 BD of confirmation of the results from the Customer. This confirmation can be delivered via responding to this email stating that they would like to move forward with the study results and into construction.**
- Cost estimate for DE-11182 is roughly \$108,000. Full cost estimate breakdown will be provided in the construction agreement.
  - SCADA - \$104,500
  - PERT - \$2,500
  - Fuse Upgrade - \$1,000
- Once the Interconnection and Construction Agreements have been issued out, the Customer will have 20BD to sign or reply with any concerns regarding the provided documentation.

### **DE-13885**

- Customer to provide DTE with updated relay terminations drawing with sequence of events.
  - DTE to discuss internally if the proposed configuration is enough to proceed to study.
- Customer to provide existing generation logic
  - DTE to confirm if the existing generator is in "open" transition or not.
- Customer to discuss with Gen-Ops regarding their rate
  - **@Karl Lievense** I am unsure if this Customer is eligible for Rider 18 as a Level 4 total site size, but only level 3 in terms of solar PV. This is a 480kW PV site with 250kW battery where the battery will have 0 export as it will be limited by the 32 relay function from the Customer owned SEL-751. If not, the Customer would need to discuss rate options that they would be eligible for.

Please let me know if there are any questions or additional comments I may have missed.

Thanks,

**Neil Damani**

Principal Engineer – DE-EE Distrib Resources (Interconnections)

