

**LAKE COUNTY ZONING BOARD OF APPEALS**  
**CONDITIONAL USE PERMIT APPLICATION**

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Applicant(s): Chicago Land Trust  
(please print) Owner(s) \_\_\_\_\_

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Subject	Present Zoning:	<u>AG</u>
Property:	Present Use:	<u>Agricultural</u>
	Proposed Use:	<u>Solar Energy System, Commercial</u>
	PIN(s):	<u>10-14-100-004</u>
	Address:	<u>29650 N IL Rte 83, Mundelein, IL</u>

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Legal  
description:  
( X see deed )

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Request: I/we request a conditional use permit be approved to allow:

See next page.

Explain why this conditional use permit is justified:

See next page.

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**Pursuant to Section 151.050 of the Lake County Zoning Ordinance, we request a conditional use permit be approved to allow:**

RPIL Solar 2, LLC is requesting approval for a Conditional Use Permit to allow development of an approximately 5MW (AC) ground-mounted distributed generation community solar facility in accordance with Section 151 of the Lake County Zoning Ordinance on an existing farmland parcel of approximately 28 acres at 29650 N IL Route 83. The project intends to develop 21.64 acres of the overall parcel.

**Explain why this conditional use permit is justified:**

The Community solar concept allows customers to subscribe to a part of a larger, offsite shared solar photovoltaic system and receive benefits for this participation. The concept allows more people access to solar energy such as those who rent or lack the space to install solar on their property. Each month the utility applies credits to the subscriber's bill based on the share of electricity produced by the solar project. The program reduces what the consumer pays to the utility and allows more people to access solar energy. The benefits to Lake County residents include:

- Local access to locally sourced renewable electricity
- Investment and upgrades to the local distribution grid
- Construction period jobs and economic investment
- Lower electric bills for subscribers



### **Commercial Solar Energy Systems Approval Criteria:**

**1. Fencing.** Commercial solar energy systems shall be enclosed with an approved fence that restricts access to the public. Such fencing shall, at a minimum, encompass the entire system's facility, contain a locking mechanism, and be subject to the fence regulations of Lake County Code Section 151.113(L)(1). The maximum height of fences surrounding commercial solar energy systems shall be eight feet.

"Route 83 Solar" Proposed Ground-Mounted Community Solar Farm will be enclosed with an approved fence with a height of seven (7) feet.

**2. Height.** The total height of the panels shall not exceed 20 feet, as measured from grade to the highest point of the solar arrays when the solar energy facility's arrays are at full tilt.

The panels' total height at "Route 83 Solar" Proposed Ground-Mounted Community Solar Farm will not exceed 20 feet.

**3. Location and setbacks.** Commercial solar energy systems must meet the setback requirements for a principal structure in the underlying zoning district or be waived by the written consent of the owner(s) of each affected nonparticipating property.

The project has been designed to comply with all setback requirements. No waiver or variance to such standards is applied for as part of this application.

**4. Decommissioning plan and assurances.** Applicant (or owner, if different from applicant) must submit a decommissioning plan with cost estimation to the County as part of the siting application and provide testimony supporting the calculation of costs provided in said plan during the public hearing on the application.

A Decommissioning Plan has been submitted as part of the siting application. During the public hearing, testimony in support of the calculated costs will be provided by a licensed engineer who is qualified to conduct such analysis.

#4825006

12-17-2001

## WARRANTY DEED

THE GRANTOR, Alvis Kaczmarek, divorced and not remarried, of 276 Wilmette Ct. Schaumburg, Illinois, for and in consideration of TEN AND NO/100'S DOLLARS (\$10.00) and other good and valuable consideration, in hand paid, CONVEYS AND WARRANTS to Research Corporation of 136 Commercial Ave. Wood Dale, Illinois all interest in the following described Real Estate situated in the County of Lake, State of Illinois to wit:

Filed for Record in: **4825006**  
 LAKE COUNTY, IL  
 HARRY ELLEN VANDERVENTER - RECORDER  
 On Dec 17 2001  
 At 11:14am 322054  
 Receipt #: WD  
 Doc/Type :  
 Deputy - Cashier #4

Parcel 1: The south  $\frac{1}{4}$  of the northwest  $\frac{1}{4}$  (except the south 264.83 feet and except the east 1419.55 feet and except also the north 250 feet of the south 514.83 feet of the west 225 feet of the east 1644.55 feet thereof), in section 14, Township 44 North, Range 10, east of the Third Principal Meridian, in Lake County, Illinois

Parcel 2: **Basement for the benefit of Parcel 1 for ingress and egress to the highway with the privilege of building and maintaining a roadway over the north 30 feet of the south 264.83 feet of the south  $\frac{1}{4}$  of the northwest  $\frac{1}{4}$  of section 14 aforesaid lying west of the center line of Route 83 as reserved in the deed from Conservation Corporation to Harold F. Kufeldt, et al., dated June 18, 1954 and September 19, 1955 and recorded July 29, 1954 and September 24, 1955, as documents 831959 and 882662, respectively, in Lake County, Illinois**

SUBJECT TO: General real estate taxes accrued, but not yet payable at the time of closing, special assessments confirmed after this Contract dated May 11, 2001; building set-back lines and use or occupancy restrictions, covenants, conditions and restrictions of record provided they are not violated nor contain a reverter or the right of re-entry; zoning laws and ordinances, easements for public utilities, provided they do not undermine existing improvements except fences and portable sheds; drainage ditches, feeders, laterals and drain tile, pipe or other conduit.

Illinois. TO HAVE AND TO HOLD said premises forever.

Permanent Index No: 10-14-100-~~090~~ 004

Address of Real Estate: 29650 N Hwy. 83, Mundelein, Illinois 60060  
 DATED: this 8th day of June, 2001

State of Illinois  
 County of Lake

ALVIS KACZMAREK

SCHAUMBURG, IL 60196  
 SUITE 102

STEWART TITLE COMPANY OF ILLINOIS  
 1515 E. WOODFIELD ROAD

CERTIFY that Alvis Kaczmarek, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act, for the uses and purposes therein set forth.  
 Given under my hand and official seal this 11th day of June, 2001.

the said County, in the State aforesaid, DO HEREBY

This instrument was prepared by: Attorney Charles J. Pesek, 5 North Third St. Geneva, Illinois 60134.  
 MAIL TO: HARRIS BARK  
 SEND SUBSEQUENT TAX BILLS TO:

ANDY SEARS

HARRIS BARK

"EXEMPT" under provisions of Paragraph  
 Section 4, Real Estate Tax

Date

Buyer, S

7-201

(2)

## AFFIDAVIT — METES AND BOUNDS

STATE OF ILLINOIS )  
COUNTY OF DU PAGE ) SS.

## AFFIDAVIT — METES AND BOUNDS

Chae Cincella, being duly sworn on oath,  
states that he/she resides at 8916 SON Hwy 83 Muncie, IN 47356  
That the attached deed is not in violation of Section 205/1 of Chapter 765 of the Illinois Compiled Statutes for one of the following reasons:

1. The division or subdivision of land is into parcels or tracts of five acres or more in size which does not involve any new streets or easements of access.
2. The division is of lots or blocks of less than one acre in any recorded subdivision which does not involve any new streets or easements of access.
3. The sale or exchange of parcels of land is between owners of adjoining and contiguous land.
4. The conveyance is of parcels of land or interests therein for use as right of way for railroads or other public utility facilities, which does not involve any new streets or easements of access.
5. The conveyance is of land owned by a railroad or other public utility which does not involve any new streets or easements of access.
6. The conveyance is of land for highway or other public purposes or grants of conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use.
7. The conveyance is made to correct descriptions in prior conveyances.
8. The sale or exchange is of parcels or tracts of land following the division into no more than two parts of a particular parcel or tract of land existing on July 17, 1959 and not involving any new streets or easements of access.
9. The sale is of a single lot of less than five acres from a larger tract, the dimensions and configurations of said larger tract having been determined by the dimensions and configuration of said larger tract on October 1, 1973, and no sale, prior to this sale, or any lot or lots from said larger tract having taken place since October 1, 1973 and a survey of said single lot having been made by a registered land surveyor.
10. The conveyance is of land described in the same manner as title was taken by grantor(s).

## THE APPLICABLE STATEMENT OR STATEMENTS ABOVE ARE CIRCLED.

AFFIANT further states that he/she makes this affidavit for the purpose of inducing the Recorder of DuPage County, State of Illinois, to accept the attached deed for recording.

SUBSCRIBED AND SWORN TO before me

this 30th day of August, 192001

Notary Public

4825006

J. P. "RICK" CARNEY, DU PAGE COUNTY RECORDER  
421 N. COUNTY FARM ROAD, BOX 936, WHEATON, ILLINOIS 60189

(Rev. 12/94)

2

# Trustee's Deed Individual/Corporate

THIS INDENTURE made this 31st day of May, 2001, between HARRIS TRUST AND SAVINGS BANK, an Illinois banking corporation, organized and existing under the laws of the State of Illinois, and duly authorized to accept and execute trusts within the State of Illinois, not personally, but solely as Trustee under the provisions of a Deed or Deeds in Trust duly recorded and delivered to said Bank in pursuance of a certain Trust Agreement dated 8th day of March, 1991, and known as Trust Number 13199, Grantor and ALVIS KACZMAREK, DIVORCED AND NOT REMARRIED Grantee.

Grantee's Address: 276 WILMETTE CT., SCHAUMBURG, ILLINOIS 60193

WITNESSETH, that said Grantor, in consideration of the sum of Ten Dollars and other good and valuable considerations in hand paid does hereby convey and quit-claim unto said Grantee, the following described real estate situated in Lake County, Illinois, to wit:

PARCEL 1:  
THE SOUTH 1/2 OF THE NORTHWEST 1/4 (EXCEPT THE SOUTH 264.83 FEET AND EXCEPT THE EAST 1419.55 FEET AND EXCEPT THE NORTH 250.00 FEET OF THE SOUTH 514.83 FOOT OF THE WEST 225.00 OF THE EAST 1644.55 FEET THEREOF) IN SECTION 14, TOWNSHIP, 44 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN IN LAKE COUNTY, ILLINOIS.

PARCEL 2: See Attached Exhibit A

Permanent Index No. ~~10-14-900-040-001-0090~~ 10-14-100-004

STEWART TITLE COMPANY OF ILLINOIS  
1515 E WOODFIELD ROAD  
SUITE 102  
SCHAUMBURG, IL 60173

Together with the covenants and appurtenances therunto belonging TO HAVE AND TO HOLD THE same unto said party of the second part, and to the proper use, benefit and behoof forever of said party of the second part.

SUBJECT TO: The liens of all trust deeds and/or mortgages upon said real estate, if any, recorded or registered in said county given to secure the payment of money remaining unreleased at the date of the delivery hereof, to all real estate taxes due or to become due and all conditions, covenants and restrictions or record.

This deed is executed by the party of the first part, as Trustee, as aforesaid, pursuant to and in the exercise of the power and authority granted to and vested in it by the terms of said Deed or Deeds in Trust and the provisions of said Trust Agreement above mentioned, and of every other power and authority therunto enabling.

IN WITNESS WHEREOF, said party of the first part has caused its corporate seal to be hereto affixed, and has caused its name to be signed to these presents by one of its officers and attested by another of its officers, the day and year first above written.

HARRIS TRUST AND SAVINGS BANK  
as Trustee aforesaid, and not personally

By:

Mary M. Birk, Land Trust Officer

Attest:

Mark Schelke, Vice President

"EXEMPT" under provisions of Paragraph   5  ,  
Section 4, Re  
Date 12-01

ive

4825007

Filed for Record in:  
LAKE COUNTY, IL  
MARY ELLEN VANDERVENTER - RECORDER  
On Dec 17 2001  
At 11:14am 322054  
Receipt #:  
Doc/Type : TRU  
Deputy - Cashier #4

COUNTY OF COOK )  
 ) SS  
 STATE OF ILLINOIS )

I, the undersigned, a Notary Public in and for the said County and State aforesaid, DO HEREBY CERTIFY that  
 Mary M. Bray, Land Trust Officer  
 of HARRIS TRUST AND SAVINGS BANK and  
 Mark Schallke, Vice President  
 of said bank, personally known to me to be the same persons, whose names are subscribed to the foregoing instrument as such  
 officers of said bank respectively, appeared before me this day in person and acknowledged that they signed and delivered the said  
 instrument as their own free and voluntary acts, and as the free and voluntary act of said bank, as Trustee for the uses and purposes,  
 therein set forth and the said Vice President of said bank did also then and there acknowledge that he/she as custodian of the corporate  
 seal of said bank did affix the said corporate seal of said bank to said instrument as his/her own free and voluntary act and as the free  
 and voluntary act of said bank, as Trustee for the uses and purposes therein set forth.

Given under my hand and Notarial seal this 31st day of May, 2001.

Notary Seal

This instrument prepared by:

Kristin A. Starns  
 HARRIS TRUST AND SAVINGS BANK

VACANT LANE, RT 83, IVANHOE, ILLINOIS

ADDRESS OF PROPERTY

TAX MAILING ADDRESS

D NAME HARRIS BANK

Tax bill to

EXHIBIT A

Parcel 2: Easement for the benefit of Parcel 1 for ingress and egress to the highway with the privilege of building and maintaining a roadway over the north 30 feet of the south 264.83 feet of the South 1/2 of the Northwest 1/4 of Section 14 aforesaid lying West of the center line of Route 83 as reserved in the deed from Conservation Corporation to Harold F. Kufeldt, et al., dated June 18, 1954 and September 19, 1955 and recorded July 29, 1954 and September 24, 1955, as Documents 83 1959 and 882662, respectively, in Lake County, Illinois.

4825007

3



## AFFIDAVIT — METES AND BOUNDS

STATE OF ILLINOIS )  
COUNTY OF DU PAGE ) SS.

## AFFIDAVIT — METES AND BOUNDS

Alfred Michaelson, being duly sworn on oath,  
states that he/she resides at 881050 N Hwy 83, Appleton, IL 60002  
That the attached deed is not in violation of Section 205/1 of Chapter 765 of the Illinois Compiled Statutes for one of the following reasons:

1. The division or subdivision of land is into parcels or tracts of five acres or more in size which does not involve any new streets or easements of access.
2. The division is of lots or blocks of less than one acre in any recorded subdivision which does not involve any new streets or easements of access.
3. The sale or exchange of parcels of land is between owners of adjoining and contiguous land.
4. The conveyance is of parcels of land or interests therein for use as right of way for railroads or other public utility facilities, which does not involve any new streets or easements of access.
5. The conveyance is of land owned by a railroad or other public utility which does not involve any new streets or easements of access.
6. The conveyance is of land for highway or other public purposes or grants of conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use.
7. The conveyance is made to correct descriptions in prior conveyances.
8. The sale or exchange is of parcels or tracts of land following the division into no more than two parts of a particular parcel or tract of land existing on July 17, 1959 and not involving any new streets or easements of access.
9. The sale is of a single lot of less than five acres from a larger tract, the dimensions and configurations of said larger tract having been determined by the dimensions and configuration of said larger tract on October 1, 1973, and no sale, prior to this sale, or any lot or lots from said larger tract having taken place since October 1, 1973 and a survey of said single lot having been made by a registered land surveyor.
10. The conveyance is of land described in the same manner as title was taken by grantor(s).

## THE APPLICABLE STATEMENT OR STATEMENTS ABOVE ARE CIRCLED.

AFFIANT further states that he/she makes this affidavit for the purpose of inducing the Recorder of DuPage County, State of Illinois, to accept the attached deed for recording.

SUBSCRIBED AND SWORN TO before me

this 30th day of August, 1980

4825007

J. P. "RICK" CARNEY, DU PAGE COUNTY RECORDER  
421 N. COUNTY FARM ROAD, BOX 936, WHEATON, ILLINOIS 60189

(Rev. 12/94)

4

44825008  
12-17-2001

## WARRANTY DEED

THE GRANTOR, Research Corporation, an

Illinois corporation for and in consideration of TEN AND

NO/100's DOLLARS (\$10.00) and other good and valuable

consideration, in hand paid, CONVEYS AND WARRANTS

to Harris Bank of Palatine Trust HTB 1017 of 325 Huff Rd.

Barrington, Illinois all interest in the following described

Real Estate situated in the County of Lake, State of Illinois to wit:

4825008

Filed for Record in:

LAKE COUNTY, IL

MARY ELLEN VANDERVENTER - RECORDER

On Dec 17 2001

At 11:14am

Receipt #: 322054

Doc/Type: WD

Deputy - Cashier #4

Parcel 1: The south  $\frac{1}{4}$  of the northwest  $\frac{1}{4}$  (except the south 264.83 feet and except the east 1419.55 feet and except also the north 250 feet of the south 514.83 feet of the west 225 feet of the east 1644.55 feet thereof), in section 14, Township 44 North, Range 10, east of the Third Principal Meridian, in Lake County, Illinois

Parcel 2: Basement for the benefit of Parcel 1 for ingress and egress to the highway with the privilege of building and maintaining a roadway over the north 30 feet of the south 264.83 feet of the south  $\frac{1}{4}$  of the northwest  $\frac{1}{4}$  of section 14 aforesaid lying west of the center line of Route 83 as reserved in the deed from Conservation Corporation to Harold F. Kufeldt, et al., dated June 18, 1954 and September 19, 1955 and recorded July 29, 1954 and September 24, 1955, as documents 831959 and 882662, respectively, in Lake County, Illinois

160194  
3/4

SUBJECT TO: General real estate taxes accrued, but not yet payable at the time of closing, special assessments confirmed after this Contract dated May 11, 2001; building set-back, lines and use or occupancy restrictions, covenants, conditions and restrictions of record provided they are not violated nor contain a reverter or the right of re-entry; zoning laws and ordinances; easements for public utilities, provided they do not interfere with existing improvements except fences and portable sheds; drainage ditches, feeders, laterals and drain tile, pipe or other conduit.

Illinois. TO HAVE AND TO HOLD said premises forever.

Permanent Index No: 10-14-100-400 DOY

Address of Real Estate: 29650 N. Hwy. 83, Mundelein, Illinois 60060

DATED: this 8th day of June, 2001

STEWART TITLE COMPANY OF ILLINOIS

1515 E. WOODFIELD ROAD

Suite 102

Mundelein, IL 60173

ARCH CORPORATION by ALVIS KACZMAREK PRES.

State of  
County of

[REDACTED]

and for the said County, in the State aforesaid, DO HEREBY CERTIFY that Alvis Kaczmarek, President of Research Corporation, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and official seal this 2nd day of July, 2001.

[REDACTED]

This instrument was prepared by: Attorney Charles J. Pesek, 5 North Third St. Geneva, Illinois 60134.  
MAIL TO: SEND SUBSEQUENT TAX BILLS TO:

Harris Bank

Harris Bank

[REDACTED]

[REDACTED]

(3)



STATE & COUNTY  
TAX  
STATE OF ILLINOIS  
DEC. 17.01  
LAKE COUNTY

# 0000000255

REAL ESTATE TRANSFER TAX
01012.50
FP 103013

675.00  
St.

4825008

2



## AFFIDAVIT — METES AND BOUNDS

STATE OF ILLINOIS )  
COUNTY OF DU PAGE ) SS.

## AFFIDAVIT — METES AND BOUNDS

One Undivided  
states that he/she resides at 24450 N. Hwy 83, Hammond, IL 60040, being duly sworn on oath,  
That the attached deed is not in violation of Section 2054 of Chapter 765 of the Illinois Compiled Statutes for one of the  
following reasons:

1. The division or subdivision of land is into parcels or tracts of five acres or more in size which does not involve any new streets or easements of access.
2. The division is of lots or blocks of less than one acre in any recorded subdivision which does not involve any new streets or easements of access.
3. The sale or exchange of parcels of land is between owners of adjoining and contiguous land.
4. The conveyance is of parcels of land or interests therein for use as right of way for railroads or other public utility facilities, which does not involve any new streets or easements of access.
5. The conveyance is of land owned by a railroad or other public utility which does not involve any new streets or easements of access.
6. The conveyance is of land for highway or other public purposes or grants of conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use.
7. The conveyance is made to correct descriptions in prior conveyances.
8. The sale or exchange is of parcels or tracts of land following the division into no more than two parts of a particular parcel or tract of land existing on July 17, 1959 and not involving ant new streets or easements of access.
9. The sale is of a single lot of less than five acres from a larger tract, the dimensions and configurations of said larger tract having been determined by the dimensions and configuration of said larger tract on October 1, 1973, and no sale, prior to this sale, or any lot or lots from said larger tract having taken place since October 1, 1973 and a survey of said single lot having been made by a registered land surveyor.
10. The conveyance is of land described in the same manner as title was taken by grantor(s).

## THE APPLICABLE STATEMENT OR STATEMENTS ABOVE ARE CIRCLED.

AFFIANT further states that he/she makes this affidavit for the purpose of inducing the Recorder of DuPage County, State of Illinois, to accept the attached deed for recording.

SUBSCRIBED AND SWORN TO before me

this 30th day of August, 2000

Notary Public

4825008

J. P. "RICK" CARNEY, DU PAGE COUNTY RECORDER  
421 N. COUNTY FARM ROAD, BOX 936, WHEATON, ILLINOIS 60189

(Rev. 12/94)

4952417  
10-17-2001

4952417

## WARRANTY DEED

THE GRANTOR, Research Corporation, an Illinois corporation for and in consideration of TEN AND NO/100's DOLLARS (\$10.00) and other good and valuable consideration, in hand paid, CONVEYS AND WARRANTS to Harris Bank of Palatine Trust HTB 1017 of 325 Huff Rd. Barrington, Illinois all interest in the following described Real Estate situated in the County of Lake, State of Illinois to wit:

FILED FOR RECORD BY:  
MARY ELLEN VANDERVENTER  
LAKE COUNTY CLERK  
Filed for Record 10/17/01 10:52 A.M.  
LAKE COUNTY CLERK  
MARY ELLEN VANDERVENTER - RECORDER  
On Dec 19, 2001  
At 11:14am 322054  
Receipt #: WD  
Doc/Type :  
Deputy - Cashier #4

*Recorded in this record book for purpose of adding trust language*

Parcel 1: The south  $\frac{1}{2}$  of the northwest  $\frac{1}{4}$  (except the south 264.83 feet and except the east 1419.55 feet and except also the north 250 feet of the south 514.83 feet of the west 225 feet of the east 1644.55 feet thereof), in section 14, Township 44 North, Range 10, east of the Third Principal Meridian, in Lake County, Illinois

Parcel 2: Easement for the benefit of Parcel 1 for ingress and egress to the highway with the privilege of building and maintaining a roadway over the north 30 feet of the south 264.83 feet of the south  $\frac{1}{2}$  of the northwest  $\frac{1}{4}$  of section 14 aforesaid lying west of the center line of Route 83 as reserved in the deed from Conservation Corporation to Harold F. Kufeldt, et al., dated June 18, 1954 and September 19, 1955 and recorded July 29, 1954 and September 24, 1955, as documents 831959 and 882662, respectively, in Lake County, Illinois

SUBJECT TO: General real estate taxes accrued, but not yet payable at the time of closing; special assessments confirmed after this Contract dated May 11, 2001; building set-back lines and use or occupancy restrictions; covenants, conditions and restrictions of record provided they are not violated nor contain a reversion; zoning laws and ordinances; easements for public utilities, provided they do not underlie existing improvements except fences and portable sheds; drainage ditches, feeders, laterals and drain tile, pipe or other conduit.

Illinois. TO HAVE AND TO HOLD said premises forever.

STEWART TITLE COMPANY OF ILLINOIS  
1515 E. WOODFIELD ROAD

Permanent Index No: 10-14-100-040 *DOY*  
Address of Real Estate: 29650 N. Hwy. 83, Mundelein, Illinois 60060

DATE of this instrument: June 2001  
SEARCHED INDEXED  
SEARCH CORPORATION by ALVIS KACZMAREK PRES.  
20173

State

County

I, the undersigned, a notary public in and for the said County, in the State aforesaid, DO HEREBY CERTIFY that Alvis Kaczmarek, President of Research Corporation, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and official seal this 2nd day of July, 2001.

This instrument was prepared by: Attorney Charles J. Pesek, 5 North Third St. Geneva, Illinois 60134.  
MAIL TO: SEND SUBSEQUENT TAX BILLS TO:

*Harris Bank*

*Harris Bank*

4952417

14

STATE & COUNTY  
TAX



STATE OF ILLINOIS

DEC. 17.01

LAKE COUNTY

# 0000000255

REAL ESTATE TRANSFER TAX
0101250
FP 103013

675.00  
St.



4952417  
4825008

2

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**AFFIDAVIT — METES AND BOUNDS**

STATE OF ILLINOIS )  
COUNTY OF DU PAGE ) SS.

**AFFIDAVIT — METES AND BOUNDS**

One individual, being duly sworn on oath,  
states that he/she resides at 24450 N. Hwy 83, Elmhurst, IL 60120  
That the attached deed is not in violation of Section 2054 of Chapter 765 of the Illinois Compiled Statutes for one of the following reasons:

1. The division or subdivision of land is into parcels or tracts of five acres or more in size which does not involve any new streets or easements of access.
2. The division is of lots or blocks of less than one acre in any recorded subdivision which does not involve any new streets or easements of access.
3. The sale or exchange of parcels of land is between owners of adjoining and contiguous land.
4. The conveyance is of parcels of land or interests therein for use as right of way for railroads or other public utility facilities, which does not involve any new streets or easements of access.
5. The conveyance is of land owned by a railroad or other public utility which does not involve any new streets or easements of access.
6. The conveyance is of land for highway or other public purposes or grants of conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use.
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9. The sale is of a single lot of less than five acres from a larger tract, the dimensions and configurations of said larger tract having been determined by the dimensions and configuration of said larger tract on October 1, 1973, and no sale, prior to this sale, or any lot or lots from said larger tract having taken place since October 1, 1973 and a survey of said single lot having been made by a registered land surveyor.
10. The conveyance is of land described in the same manner as title was taken by grantor(s).

**THE APPLICABLE STATEMENT OR STATEMENTS ABOVE ARE CIRCLED.**

AFFIDANT further states that he/she makes this affidavit for the purpose of inducing the Recorder of DuPage County, State of Illinois, to accept the attached deed for recording.

SUBSCRIBED AND SWORN TO before me

this 30th day of August, 1990

4825008

J. P. "RICK" CARNEY, DU PAGE COUNTY RECORDER  
421 N. COUNTY FARM ROAD, BOX 936, WHEATON, ILLINOIS 60189

(Rev. 12/94)

4952417

3



Full power and authority are hereby granted to said trustee to improve, manage, protect and subdivide said premises or any part thereof: to dedicate parks, streets, highways or alleys; to vacate any subdivision or part thereof, and to resubdivide said property as often as desired; to contract to sell; to grant options to purchase; to sell on any terms; to convey said premises or any part thereof to a successor or successors in trust and to grant to such successor or successors in trust all of the title, estate powers and authorities vested in said trustee; to donate, to dedicate, to mortgage, pledge or otherwise encumber said property, or any part thereof; to lease said property, or any part thereof, from time to time, in possession or reversion, by leases to commence in present or in futuro, and upon any terms and for any period or periods of time, not exceeding in the case of any single demise the term of 99 years, and to renew or extend leases upon any terms and for any period or periods of time and to amend, change or modify leases and the terms and provisions thereof at any time or times thereafter; to contract to make leases and to grant options to lease and options to renew leases and options to purchase the whole or any part of the reversion and to contract respecting the manner of fixing the amount of present or future rentals; to partition or to exchange said property, or any part thereof, for other real or personal property; to grant easements or charges of any kind; to release, convey or assign any right, title or interest in or about or easement appurtenant to said premises or any part thereof; and to deal with said property and every part thereof in all other ways and for such other considerations as it would be lawful for any person owning the same to deal with the same, whether similar to or different from the ways above specified, at any time or times hereafter.

In no case shall any part dealing with said trustee in relation to said premises, or to whom said premises or any part thereof shall be conveyed, contracted to be sold, leased or mortgaged by said trustee, be obligated to see to the application of any purchase money, rent or money borrowed or advanced on said premises, or be obliged to see that the terms of this trust have been complied with, or be obliged to inquire into the necessity or expediency of any act of said trustee, or be obliged or privileged to inquire into any of the terms of said trust agreement; and every deed, trust deed, mortgage, lease or other instrument executed by said trustee in relation to said real estate shall be conclusive evidence in favor of every person relying upon or claiming under any such conveyance, lease or other instrument; (a) that at the time of the delivery thereof the trust created by this indenture and by said trust agreement was in full force and effect; (b) that such conveyance or other instrument was executed in accordance with the trusts, conditions and limitations contained in this indenture and in said trust agreement or in some amendment thereof and binding upon all beneficiaries thereunder; (c) that said trustee was duly authorized and empowered to execute and deliver every such deed, trust deed, lease, mortgage or other instrument; and (d) if the conveyance is made to a successor or successors in trust, that such successor or successors in trust have been properly appointed and are fully vested with all the title, estate, rights, powers, authorities, duties and obligations of it, his or their predecessor in trust.

The interest of each and every beneficiary hereunder and of all persons claiming under them or any of them shall be only in the earnings, avails and proceeds arising from the sale or other disposition of said real estate, and such interest is hereby declared to be personal property, and no beneficiary hereunder shall have any title or interest, legal or equitable, in or to said real estate as such, but only an interest in the earnings, avails and proceeds thereof as aforesaid.

Solely for the purpose of re-recording this deed for the purpose of adding trust language.

SCANNED AS PRESENTED

BOOK QUALITY ORIGINAL

4952417

4



FOR THE PROTECTION OF THE OWNER  
THIS RELEASE SHOULD BE FILED  
WITH THE RECORDER OF DEEDS IN  
WHOSE OFFICE THE INSTRUMENT WAS FILED.

FULL SATISFACTION  
AND RELEASE OF MORTGAGE  
AND ASSIGNMENT OF RENTS

Loan No. \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that Charter Bank & Trust of Illinois, Hanover Park, Illinois, (formerly First State Bank & Trust of Hanover Park) a banking corporation existing under the laws of the State of Illinois (hereinafter referred to as the "Bank") for and in consideration of the payment of the indebtedness secured by the Mortgage hereinafter mentioned, and of the sum of one dollar, the receipt whereof is hereby acknowledged, does hereby REMISE, CONVEY, RELEASE and QUIT CLAIM unto

HARRIS BANK ROSELLE AS TRUSTEE UNDER TRUST DATED 3/8/91 AND KNOWN  
AS TRUST NO. 13199

of the County of LAKE and State of ILLINOIS, all the right, title, interest, claim of demand whatsoever it may have acquired in, through or by a certain Mortgage dated the 9th day of DECEMBER, 19 91, and recorded in the Recorder's Office of LAKE County, in the State of Illinois, as document No. 3095199, to the premises therein described, as follows, to-wit:

SEE ATTACHED EXHIBIT A

COMMON ADDRESS: VACANT PROPERTY - ROUTE 83, IVANHOE, IL.

F.I.N. 10-14-100-004

situate in the VILLAGE of IVANHOE, County of LAKE, and State of ILLINOIS, together with all the appurtenances and privileges thereunto belonging or in any way connected therewith.

IN WITNESS WHEREOF, the Bank has caused its corporate seal to be hereto affixed, and has caused its name to be signed to these presents by its VICE PRESIDENT and attested by its COMMERCIAL LOAN OFFICER

this 13th day of JULY, 19 93.

Charter Bank & Trust of Illinois, Hanover Park, Illinois

By \_\_\_\_\_

CHRISTOPHER D. PIAZZI, VP

PAUL A. CHRISTIAN, COMMERCIAL LOAN OFFICER

STATE OF ILLINOIS )  
) SS.

COUNTY OF COOK

I, GITTA KESSLER

the undersigned, a Notary Public in and for the County of \_\_\_\_\_, in the State of Illinois, do hereby certify that

to me to be VICE PRESIDENT of Charter Bank & Trust of Illinois, Hanover Park, Illinois, personally known

PAUL A. CHRISTIAN COMMERCIAL LOAN OFFICER personally known to me to be the

said banking corporation, and personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that as such officers, they signed and delivered the said instrument as such officers of said banking corporation and caused the corporate seal of said banking corporation to be affixed thereto, pursuant to authority given by the Board of Directors of said banking corporation, as their free and voluntary act, and as the free and voluntary act and deed of said banking corporation, for the uses and purposes therein set forth.

GIVEN under

13th

19 93

Notary Public

DELIVER TO:

THIS INSTRUMENT WAS PREPARED BY:

Name

NAME 1015 NOTAR

Address

City

CHARTER BANK & TRUST OF ILLINOIS

1400 IRVING PARK ROAD

HANOVER PARK, ILLINOIS 60103

Recorder's Office Code No.

3433863

RECORDED  
LAKE COUNTY, ILLINOIS  
93 NOV 12 PM 4:55

3433863

EXHIBIT A

PARCEL 1: THE SOUTH 1/2 OF THE NORTHWEST 1/4 (EXCEPT THE SOUTH 264.83 FEET AND EXCEPT THE EAST 1419.55 FEET AND EXCEPT ALSO THE NORTH 250 FEET OF THE SOUTH 514.83 FEET OF THE WEST 225 FEET OF THE EAST 1644.55 FEET THEREOF) IN SECTION 14, TOWNSHIP 44 NORTH, RANGE 10, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN LAKE COUNTY, ILLINIOS.

PARCEL 2: EASEMENT FOR THE BENEFIT OF PARCEL 1 FOR INGRESS AND EGRESS TO THE HIGHWAY WITH THE PRIVILEGE OF BUILDING AND MAINTAINING A ROADWAY OVER THE NORTH 30 FEET OF THE SOUTH 264.83 FEET OF THE SOUTH 1/2 OF THE NORTHWEST 1/4 OF SECTION 14 AFORESAID LYING WEST OF THE CENTER LINE OF ROUTE 83 AS RESERVED IN THE DEED FROM CONSERVATION CORPORATION TO HAROLD F. KUFELDT, ET AL, DATED JUNE 18, 1954 AND SEPTEMBER 19, 1955 AND RECORDED JULY 29, 1954 AND SEPTEMBER 24, 1955 AS DOCUMENTS NUMBER 831959 AND 882662, RESPECTIVELY, IN LAKE COUNTY, ILLINOIS.

C/K/A VACANT PROPERTY- ROUTE 83. IVANHOE. IL.

PIN 10-14-100-004



## TRUST AGREEMENT

## COURT REPORTER AGREEMENT

## COURT REPORTER AGREEMENT

### CHECK ONE OF THE FOLLOWING:



I authorize the County to act on my behalf to retain a Certified Shorthand Reporter to transcribe the public hearing and provide a transcript to the Zoning Board of Appeals. I further agree to pay the Reporter reasonable fees for his/her services. If I do not pay the Reporter and the County is invoiced and pays the Reporter, I agree to reimburse the County. If the County sues to obtain reimbursement, I agree to pay the County its reasonable attorney's fees in bringing suit and obtaining a judgment.



I will furnish a Certified Shorthand Reporter to transcribe the public hearing and provide a transcript to the Zoning Board of Appeals. I realize that the failure to do so may result in the continuation of the public hearing in which case I agree to reimburse the County for all additional expenses caused by such continuation.

[Redacted Signature]

Signature

#### Billing Contact Information:

Stephanie Loucas

Print Name

[Redacted Print Name]

Email

[Redacted Email]

Phone Number

**THIS SIGNED AGREEMENT MUST ACCOMPANY YOUR APPLICATION**

PLAN SET

AIMA

## STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT

between  
RPIL Solar 2, LLC

and the  
**ILLINOIS DEPARTMENT OF AGRICULTURE**  
Pertaining to the Construction of a Commercial Solar Energy Facility  
in  
Lake County, Illinois

Pursuant to the Renewable Energy Facilities Agricultural Impact Mitigation Act (505 ILCS 147), the following standards and policies are required by the Illinois Department of Agriculture (IDOA) to help preserve the integrity of any Agricultural Land that is impacted by the Construction and Deconstruction of a Commercial Solar Energy Facility. They were developed with the cooperation of agricultural agencies, organizations, Landowners, Tenants, drainage contractors, and solar energy companies to comprise this Agricultural Impact Mitigation Agreement (AIMA).

RPIL Solar 2, LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 4.99 MW Commercial Solar Energy Facility in Lake County [GPS Coordinates: 42 17 38N, 88 2 27W ], which will consist of up to 39 acres that will be covered by solar facility related components, such as solar panel arrays, racking systems, access roads, an onsite underground collection system, inverters and transformers and any affiliated electric transmission lines. This AIMA is made and entered between the Facility Owner and the IDOA.

If Construction does not commence within four years after this AIMA has been fully executed, this AIMA shall be revised, with the Facility Owner's input, to reflect the IDOA's most current Solar Farm Construction and Deconstruction Standards and Policies. This AIMA, and any updated AIMA, shall be filed with the County Board by the Facility Owner prior to the commencement of Construction.

The below prescribed standards and policies are applicable to Construction and Deconstruction activities occurring partially or wholly on privately owned agricultural land.

### Conditions of the AIMA

The mitigative actions specified in this AIMA shall be subject to the following conditions:

- A. All Construction or Deconstruction activities may be subject to County or other local requirements. However, the specifications outlined in this AIMA shall be the minimum standards applied to all Construction or Deconstruction activities. IDOA may utilize any legal means to enforce this AIMA.
- B. Except for Section 17. B. through F., all actions set forth in this AIMA are subject to modification through negotiation by Landowners and the Facility Owner, provided such changes are negotiated in advance of the respective Construction or Deconstruction activities.
- C. The Facility Owner may negotiate with Landowners to carry out the actions that Landowners wish to perform themselves. In such instances, the Facility Owner shall offer Landowners the area commercial rate for their machinery and labor costs.

- D. All provisions of this AIMA shall apply to associated future Construction, maintenance, repairs, and Deconstruction of the Facility referenced by this AIMA.
- E. The Facility Owner shall keep the Landowners and Tenants informed of the Facility's Construction and Deconstruction status, and other factors that may have an impact upon their farming operations.
- F. The Facility Owner shall include a statement of its adherence to this AIMA in any environmental assessment and/or environmental impact statement.
- G. Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. Not less than 30 days prior to the commencement of Construction, a copy of this AIMA shall be provided by the Facility Owner to each Landowner that is party to an Underlying Agreement. In addition, this AIMA shall be incorporated into each Underlying Agreement.
- H. The Facility Owner shall implement all actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Facility Owner for the Facility.
- I. No later than 45 days prior to the Construction and/or Deconstruction of a Facility, the Facility Owner shall provide the Landowner(s) with a telephone number the Landowner can call to alert the Facility Owner should the Landowner(s) have questions or concerns with the work which is being done or has been carried out on his/her property.
- J. If there is a change in ownership of the Facility, the Facility Owner assuming ownership of the Facility shall provide written notice within 90 days of ownership transfer, to the Department, the County, and to Landowners of such change. The Financial Assurance requirements and the other terms of this AIMA shall apply to the new Facility Owner.
- K. The Facility Owner shall comply with all local, state and federal laws and regulations, specifically including the worker protection standards to protect workers from pesticide exposure.
- L. Within 30 days of execution of this AIMA, the Facility Owner shall use Best Efforts to provide the IDOA with a list of all Landowners that are party to an Underlying Agreement and known Tenants of said Landowner who may be affected by the Facility. As the list of Landowners and Tenants is updated, the Facility Owner shall notify the IDOA of any additions or deletions.
- M. If any provision of this AIMA is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the AIMA shall be interpreted as if it did not contain the unenforceable provision.

### **Definitions**

#### **Abandonment**

When Deconstruction has not been completed within 12 months after the Commercial Solar Energy Facility reaches the end of its useful life. For purposes of this definition, a Commercial Solar Energy Facility shall be presumed to have reached the end of its useful life if the Commercial Solar Energy Facility Owner fails, for a period of 6 consecutive months, to pay the Landowner amounts owed in accordance with an Underlying Agreement.

**RPIL Solar 2, LLC**  
**Standard Solar Agricultural Impact Mitigation Agreement**

<b>Aboveground Cable</b>	Electrical power lines installed above ground surface to be utilized for conveyance of power from the solar panels to the solar facility inverter and/or point of interconnection to utility grid or customer electric meter.
<b>Agricultural Impact Mitigation Agreement (AIMA)</b>	The Agreement between the Facility Owner and the Illinois Department of Agriculture (IDOA) described herein.
<b>Agricultural Land</b>	Land used for Cropland, hayland, pastureland, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government conservation programs used for purposes as set forth above.
<b>Best Efforts</b>	Diligent, good faith, and commercially reasonable efforts to achieve a given objective or obligation.
<b>Commercial Operation Date</b>	The calendar date of which the Facility Owner notifies the Landowner, County, and IDOA in writing that commercial operation of the facility has commenced. If the Facility Owner fails to provide such notifications, the Commercial Operation Date shall be the execution date of this AIMA plus 6 months.
<b>Commercial Solar Energy Facility (Facility)</b>	A solar energy conversion facility equal to or greater than 500 kilowatts in total nameplate capacity, including a solar energy conversion facility seeking an extension of a permit to construct granted by a county or municipality before June 29, 2018. "Commercial solar energy facility" does not include a solar energy conversion facility: (1) for which a permit to construct has been issued before June 29, 2018; (2) that is located on land owned by the commercial solar energy facility owner; (3) that was constructed before June 29, 2018; or (4) that is located on the customer side of the customer's electric meter and is primarily used to offset that customer's electricity load and is limited in nameplate capacity to less than or equal to 2,000 kilowatts.
<b>Commercial Solar Energy Facility Owner deemed (Facility Owner)</b>	A person or entity that owns a commercial solar energy facility. A Commercial Solar Energy Facility Owner is not nor shall it be to be a public utility as defined in the Public Utilities Act.
<b>County</b>	The County or Counties where the Commercial Solar Energy Facility is located.
<b>Construction</b>	The installation, preparation for installation and/or repair of a Facility.
<b>Cropland</b>	Land used for growing row crops, small grains or hay; includes land which was formerly used as cropland, but is currently enrolled in a government conservation program; also includes pastureland that is classified as Prime Farmland.



**RPIL Solar 2, LLC**  
**Standard Solar Agricultural Impact Mitigation Agreement**

<b>Deconstruction</b>	The removal of a Facility from the property of a Landowner and the restoration of that property as provided in the AIMA.
<b>Deconstruction Plan</b>	<p>A plan prepared by a Professional Engineer, at the Facility's expense, that includes:</p> <p>(1) the estimated Deconstruction cost, in current dollars at the time of filing, for the Facility, considering among other things:</p> <ul style="list-style-type: none"><li>i. the number of solar panels, racking, and related facilities involved;</li><li>ii. the original Construction costs of the Facility;</li><li>iii. the size and capacity, in megawatts of the Facility;</li><li>iv. the salvage value of the facilities (if all interests in salvage value are subordinate to that of the Financial Assurance holder if abandonment occurs);</li><li>v. the Construction method and techniques for the Facility and for other similar facilities; and</li></ul> <p>(2) a comprehensive detailed description of how the Facility Owner plans to pay for the Deconstruction of the Facility.</p>
<b>Department</b>	The Illinois Department of Agriculture (IDOA).
<b>Financial Assurance</b>	A reclamation or surety bond or other commercially available financial assurance that is acceptable to the County, with the County or Landowner as beneficiary.
<b>Landowner</b>	Any person with an ownership interest in property that is used for agricultural purposes and that is party to an Underlying Agreement.
<b>Prime Farmland</b>	Agricultural Land comprised of soils that are defined by the USDA Natural Resources Conservation Service (NRCS) as "Prime Farmland" (generally considered to be the most productive soils with the least input of nutrients and management).
<b>Professional Engineer</b>	An engineer licensed to practice engineering in the State of Illinois.
<b>Soil and Water Conservation District (SWCD)</b>	A unit of local government that provides technical and financial assistance to eligible Landowners for the conservation of soil and water resources.
<b>Tenant</b>	Any person, apart from the Facility Owner, lawfully residing or leasing/renting land that is subject to an Underlying Agreement.
<b>Topsoil</b>	The uppermost layer of the soil that has the darkest color or the highest content of organic matter; more specifically, it is defined as the "A" horizon.
<b>Underlying Agreement</b>	The written agreement between the Facility Owner and the Landowner(s) including, but not limited to, an easement, option, lease, or license under the terms of which another person has constructed, constructs, or intends to construct a Facility on the property of the Landowner.

**Underground Cable**

Electrical power lines installed below the ground surface to be utilized for conveyance of power within a Facility or from a Commercial Solar Energy Facility to the electric grid.

**USDA Natural Resources  
Conservation Service  
(NRCS)**

An agency of the United States Department of Agriculture that provides America's farmers with financial and technical assistance to aid with natural resources conservation.

**Construction and Deconstruction Standards and Policies**

**1. Support Structures**

- A. Only single pole support structures shall be used for the Construction and operation of the Facility on Agricultural Land. Other types of support structures, such as lattice towers or H-frames, may be used on nonagricultural land.
- B. Where a Facility's Aboveground Cable will be adjacent and parallel to highway and/or railroad right-of-way, but on privately owned property, the support structures shall be placed as close as reasonably practicable and allowable by the applicable County Engineer or other applicable authorities to the highway or railroad right-of-way. The only exceptions may be at jogs or weaves on the highway alignment or along highways or railroads where transmission and distribution lines are already present.
- C. When it is not possible to locate Aboveground Cable next to highway or railroad right-of-way, Best Efforts shall be expended to place all support poles in such a manner to minimize their placement on Cropland (i.e., longer than normal above ground spans shall be utilized when traversing Cropland).

**2. Aboveground Facilities**

Locations for facilities shall be selected in a manner that is as unobtrusive as reasonably possible to ongoing agricultural activities occurring on the land that contains or is adjacent to the Facility.

**3. Guy Wires and Anchors**

Best Efforts shall be made to place guy wires and their anchors, if used, out of Cropland, pastureland and hayland, placing them instead along existing utilization lines and on land other than Cropland. Where this is not feasible, Best Efforts shall be made to minimize guy wire impact on Cropland. All guy wires shall be shielded with highly visible guards.

**4. Underground Cabling Depth**

- A. Underground electrical cables located outside the perimeter of the (fence) of the solar panels shall be buried with:
  - 1. a minimum of 5 feet of top cover where they cross Cropland.
  - 2. a minimum of 5 feet of top cover where they cross pastureland or other non-Cropland classified as Prime Farmland.
  - 3. a minimum of 3 feet of top cover where they cross pastureland and other Agricultural Land not classified as Prime Farmland.

4. a minimum of 3 feet of top cover where they cross wooded/brushy land.
- B. Provided that the Facility Owner removes the cables during Deconstruction, underground electric cables may be installed to a minimum depth of 18 inches:
  1. Within the fenced perimeter of the Facility; or
  2. When buried under an access road associated with the Facility provided that the location and depth of cabling is clearly marked at the surface.
- C. If Underground Cables within the fenced perimeter of the solar panels are installed to a minimum depth of 5 feet, they may remain in place after Deconstruction.

**5. Topsoil Removal and Replacement**

- A. Any excavation shall be performed in a manner to preserve topsoil. Best Efforts shall be made to store the topsoil near the excavation site in such a manner that it will not become intermixed with subsoil materials.
- B. Best Efforts shall be made to store all disturbed subsoil material near the excavation site and separate from the topsoil.
- C. When backfilling an excavation site, Best Efforts shall be used to ensure the stockpiled subsoil material will be placed back into the excavation site before replacing the topsoil.
- D. Refer to Section 7 for procedures pertaining to rock removal from the subsoil and topsoil.
- E. Refer to Section 8 for procedures pertaining to the repair of compaction and rutting of the topsoil.
- F. Best Efforts shall be performed to place the topsoil in a manner so that after settling occurs, the topsoil's original depth and contour will be restored as close as reasonably practicable. The same shall apply where excavations are made for road, stream, drainage ditch, or other crossings. In no instance shall the topsoil materials be used for any other purpose unless agreed to explicitly and in writing by the Landowner.
- G. Based on the mutual agreement of the landowner and Facility Owner, excess soil material resulting from solar facility excavation shall either be removed or stored on the Landowner's property and reseeded per the applicable National Pollution Discharge Elimination System (NPDES) permit/Stormwater Pollution Prevention Plan (SWPPP). After the Facility reaches the end of its Useful Life, the excess subsoil material shall be returned to an excavation site or removed from the Landowner's property, unless otherwise agreed to by Landowner.

**6. Rerouting and Permanent Repair of Agricultural Drainage Tiles**

- The following standards and policies shall apply to underground drainage tile line(s) directly or indirectly affected by Construction and/or Deconstruction:
- A. Prior to Construction, the Facility Owner shall work with the Landowner to identify drainage tile lines traversing the property subject to the Underlying Agreement to the extent reasonably practicable. All drainage tile lines identified in this manner shall be shown on the Construction and Deconstruction Plans.

B. The location of all drainage tile lines located adjacent to or within the footprint of the Facility shall be recorded using Global Positioning Systems (GPS) technology. Within 60 days after Construction is complete, the Facility Owner shall provide the Landowner, the IDOA, and the respective County Soil and Water Conservation District (SWCD) with "as built" drawings (strip maps) showing the location of all drainage tile lines by survey station encountered in the Construction of the Facility, including any tile line repair location(s), and any underground cable installed as part of the Facility.

**C. Maintaining Surrounding Area Subsurface Drainage**

If drainage tile lines are damaged by the Facility, the Facility Owner shall repair the lines or install new drainage tile line(s) of comparable quality and cost to the original(s), and of sufficient size and appropriate slope in locations that limit direct impact from the Facility. If the damaged tile lines cause an unreasonable disruption to the drainage system, as determined by the Landowner, then such repairs shall be made promptly to ensure appropriate drainage. Any new line(s) may be located outside of, but adjacent to the perimeter of the Facility. Disrupted adjacent drainage tile lines shall be attached thereto to provide an adequate outlet for the disrupted adjacent tile lines.

**D. Re-establishing Subsurface Drainage Within Facility Footprint**

Following Deconstruction and using Best Efforts, if underground drainage tile lines were present within the footprint of the facility and were severed or otherwise damaged during original Construction, facility operation, and/or facility Deconstruction, the Facility Owner shall repair existing drainage tiles or install new drainage tile lines of comparable quality and cost to the original, within the footprint of the Facility with sufficient capacity to restore the underground drainage capacity that existed within the footprint of the Facility prior to Construction. Such installation shall be completed within 12 months after the end of the useful life of the Facility and shall be compliant with Figures 1 and 2 to this Agreement or based on prudent industry standards if agreed to by Landowner.

E. If there is any dispute between the Landowner and the Facility Owner on the method of permanent drainage tile line repair, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

F. During Deconstruction, all additional permanent drainage tile line repairs beyond those included above in Section 6.D. must be made within 30 days of identification or notification of the damage, weather and soil conditions permitting. At other times, such repairs must be made at a time mutually agreed upon by the Facility Owner and the Landowner. If the Facility Owner and Landowner cannot agree upon a reasonable method to complete this restoration, the Facility Owner may implement the recommendations of the appropriate County SWCD and such implementation constitutes compliance with this provision.

G. Following completion of the work required pursuant to this Section, the Facility Owner shall be responsible for correcting all drainage tile line repairs that fail due to Construction and/or Deconstruction for one year following the completion of Construction or Deconstruction, provided those repairs were made by the Facility Owner. The Facility Owner shall not be responsible for drainage tile repairs that the Facility Owner pays the Landowner to perform.

**7. Rock Removal**

With any excavations, the following rock removal procedures pertain only to rocks found in the uppermost 42 inches of soil, the common freeze zone in Illinois, which emerged or were brought to the site as a result of Construction and/or Deconstruction.

- A. Before replacing any topsoil, Best Efforts shall be taken to remove all rocks greater than 3 inches in any dimension from the surface of exposed subsoil which emerged or were brought to the site as a result of Construction and/or Deconstruction.
- B. If trenching, blasting, or boring operations are required through rocky terrain, precautions shall be taken to minimize the potential for oversized rocks to become interspersed in adjacent soil material.
- C. Rocks and soil containing rocks removed from the subsoil areas, topsoil, or from any excavations, shall be removed from the Landowner's premises or disposed of on the Landowner's premises at a location that is mutually acceptable to the Landowner and the Facility Owner.

**8. Repair of Compaction and Rutting**

- A. Unless the Landowner opts to do the restoration work on compaction and rutting, after the topsoil has been replaced post-Deconstruction, all areas within the boundaries of the Facility that were traversed by vehicles and Construction and/or Deconstruction equipment that exhibit compaction and rutting shall be restored by the Facility Owner. All prior Cropland shall be ripped at least 18 inches deep or to the extent practicable, and all pasture and woodland shall be ripped at least 12 inches deep or to the extent practicable. The existence of drainage tile lines or underground utilities may necessitate less ripping depth. The disturbed area shall then be disked.
- B. All ripping and disking shall be done at a time when the soil is dry enough for normal tillage operations to occur on Cropland adjacent to the Facility.
- C. The Facility Owner shall restore all rutted land to a condition as close as possible to its original condition upon Deconstruction, unless necessary earlier as determined by the Landowner.
- D. If there is any dispute between the Landowner and the Facility Owner as to what areas need to be ripped/disked or the depth at which compacted areas should be ripped/disked, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

**9. Construction During Wet Weather**

Except as provided below, construction activities are not allowed on agricultural land during times when normal farming operations, such as plowing, disking, planting or harvesting, cannot take place due to excessively wet soils. With input from the landowner, wet weather conditions may be determined on a field by field basis.

- A. Construction activities on prepared surfaces, surfaces where topsoil and subsoil have been removed, heavily compacted in preparation, or otherwise stabilized (e.g. through cement mixing) may occur at the discretion of the Facility Owner in wet weather conditions.

- B. Construction activities on unprepared surfaces will be done only when work will not result in rutting which may mix subsoil and topsoil. Determination as to the potential of subsoil and topsoil mixing will be made in consultation with the underlying Landowner, or, if approved by the Landowner, his/her designated tenant or designee.

**10. Prevention of Soil Erosion**

- A. The Facility Owner shall work with Landowners and create and follow a SWPPP to prevent excessive erosion on land that has been disturbed by Construction or Deconstruction of a Facility.
- B. If the Landowner and Facility Owner cannot agree upon a reasonable method to control erosion on the Landowner's property, the Facility Owner shall consider the recommendations of the appropriate County SWCD to resolve the disagreement.
- C. The Facility Owner may, per the requirements of the project SWPPP and in consultation with the Landowner, seed appropriate vegetation around all panels and other facility components to prevent erosion. The Facility Owner must utilize Best Efforts to ensure that all seed mixes will be as free of any noxious weed seeds as possible. The Facility Owner shall consult with the Landowner regarding appropriate varieties to seed.

**11. Repair of Damaged Soil Conservation Practices**

Consultation with the appropriate County SWCD by the Facility Owner shall be carried out to determine if there are soil conservation practices (such as terraces, grassed waterways, etc.) that will be damaged by the Construction and/or Deconstruction of the Facility. Those conservation practices shall be restored to their preconstruction condition as close as reasonably practicable following Deconstruction in accordance with USDA NRCS technical standards. All repair costs shall be the responsibility of the Facility Owner.

**12. Compensation for Damages to Private Property**

The Facility Owner shall reasonably compensate Landowners for damages caused by the Facility Owner. Damage to Agricultural Land shall be reimbursed to the Landowner as prescribed in the applicable Underlying Agreement.

**13. Clearing of Trees and Brush**

- A. If trees are to be removed for the Construction or Deconstruction of a Facility, the Facility Owner shall consult with the Landowner to determine if there are trees of commercial or other value to the Landowner.
- B. If there are trees of commercial or other value to the Landowner, the Facility Owner shall allow the Landowner the right to retain ownership of the trees to be removed and the disposition of the removed trees shall be negotiated prior to the commencement of land clearing.

**14. Access Roads**

- A. To the extent practicable, access roads shall be designed to not impede surface drainage and shall be built to minimize soil erosion on or near the access roads.

- B. Access roads may be left intact during Construction, operation or Deconstruction through mutual agreement of the Landowner and the Facility Owner unless otherwise restricted by federal, state, or local regulations.
- C. If the access roads are removed, Best Efforts shall be expended to assure that the land shall be restored to equivalent condition(s) as existed prior to their construction, or as otherwise agreed to by the Facility Owner and the Landowner. All access roads that are removed shall be ripped to a depth of 18 inches. All ripping shall be performed consistent with Section 8.

**15. Weed/Vegetation Control**

- A. The Facility Owner shall provide for weed control in a manner that prevents the spread of weeds. Chemical control, if used, shall be done by an appropriately licensed pesticide applicator.
- B. The Facility Owner shall be responsible for the reimbursement of all reasonable costs incurred by owners of agricultural land where it has been determined by the appropriate state or county entity that weeds have spread from the Facility to their property. Reimbursement is contingent upon written notice to the Facility Owner. Facility Owner shall reimburse the property owner within 45 days after notice is received.
- C. The Facility Owner shall ensure that all vegetation growing within the perimeter of the Facility is properly and appropriately maintained. Maintenance may include, but not be limited to, mowing, trimming, chemical control, or the use of livestock as agreed to by the Landowner.
- D. The Deconstruction plans must include provisions for the removal of all weed control equipment used in the Facility, including weed-control fabrics or other ground covers.

**16. Indemnification of Landowners**

The Facility Owner shall indemnify all Landowners, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and reasonable expenses resulting from or arising out of the Commercial Solar Energy Facility, including Construction and Deconstruction thereof, and also including damage to such Facility or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Landowners, and/or the Landowners heirs, successors, legal representatives, and assigns.

**17. Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities**

- A. Deconstruction of a Facility shall include the removal/disposition of all solar related equipment/facilities, including the following utilized for operation of the Facility and located on Landowner property:
  - 1. Solar panels, cells and modules;
  - 2. Solar panel mounts and racking, including any helical piles, ground screws, ballasts, or other anchoring systems;
  - 3. Solar panel foundations, if used (to depth of 5 feet);

4. Transformers, inverters, energy storage facilities, or substations, including all components and foundations; however, Underground Cables at a depth of 5 feet or greater may be left in place;
  5. Overhead collection system components;
  6. Operations/maintenance buildings, spare parts buildings and substation/switching gear buildings unless otherwise agreed to by the Landowner;
  7. Access Road(s) unless Landowner requests in writing that the access road is to remain;
  8. Operation/maintenance yard/staging area unless otherwise agreed to by the Landowner; and
  9. Debris and litter generated by Deconstruction and Deconstruction crews.
- B. The Facility Owner shall, at its expense, complete Deconstruction of a Facility within twelve (12) months after the end of the useful life of the Facility.
- C. During the County permit process, or if none, then prior to the commencement of construction, the Facility Owner shall file with the County a Deconstruction Plan. The Facility Owner shall file an updated Deconstruction Plan with the County on or before the end of the tenth year of commercial operation.
- D. The Facility Owner shall provide the County with Financial Assurance to cover the estimated costs of Deconstruction of the Facility. Provision of this Financial Assurance shall be phased in over the first 11 years of the Project's operation as follows:
1. On or before the first anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover ten (10) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
  2. On or before the sixth anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover fifty (50) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
  3. On or before the eleventh anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover one hundred (100) percent of the estimated costs of Deconstruction of the Facility as determined in the updated Deconstruction Plan provided during the tenth year of commercial operation.
- The Financial Assurance shall not release the surety from liability until the Financial Assurance is replaced. The salvage value of the Facility may only be used to reduce the estimated costs of Deconstruction if the County agrees that all interests in the salvage value are subordinate or have been subordinated to that of the County if Abandonment occurs.



E. The County may, but is not required to, reevaluate the estimated costs of Deconstruction of any Facility after the tenth anniversary, and every five years thereafter, of the Commercial Operation Date. Based on any reevaluation, the County may require changes in the level of Financial Assurance used to calculate the phased Financial Assurance levels described in Section 17.D. required from the Facility Owner. If the County is unable to its satisfaction to perform the investigations necessary to approve the Deconstruction Plan filed by the Facility Owner, then the County and Facility may mutually agree on the selection of a Professional Engineer independent of the Facility Owner to conduct any necessary investigations. The Facility Owner shall be responsible for the cost of any such investigations.

F. Upon Abandonment, the County may take all appropriate actions for Deconstruction including drawing upon the Financial Assurance.


**Concurrence of the Parties to this AIMA**

The Illinois Department of Agriculture and RPIL Solar 2, LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the Construction and Deconstruction of the solar farm project in Lake County within the State of Illinois.



The effective date of this AIMA commences on the date of execution.

**STATE OF ILLINOIS  
DEPARTMENT OF AGRICULTURE**

By: 

By:  Counsel

RPIL Solar 2, LLC

  
By Stephanie Loucas  


Address

801 E. Sangamon Avenue, 62702  
State Fairgrounds, POB 19281 Springfield,  
IL 62794-9281

October 26, 2023

October 11, 2023

**CHANNEL OR PPE WILL BE PROVIDED FOR SUPPORT OF TILE SPANS**

REPLACEMENT TILE WILL BE RIGID  
PVC PIPE OR DOUBLE WALL  
CORRUGATED PIPE WITH SUPPORT  
AND SLP COUPLINGS FOR END  
CONNECTIONS

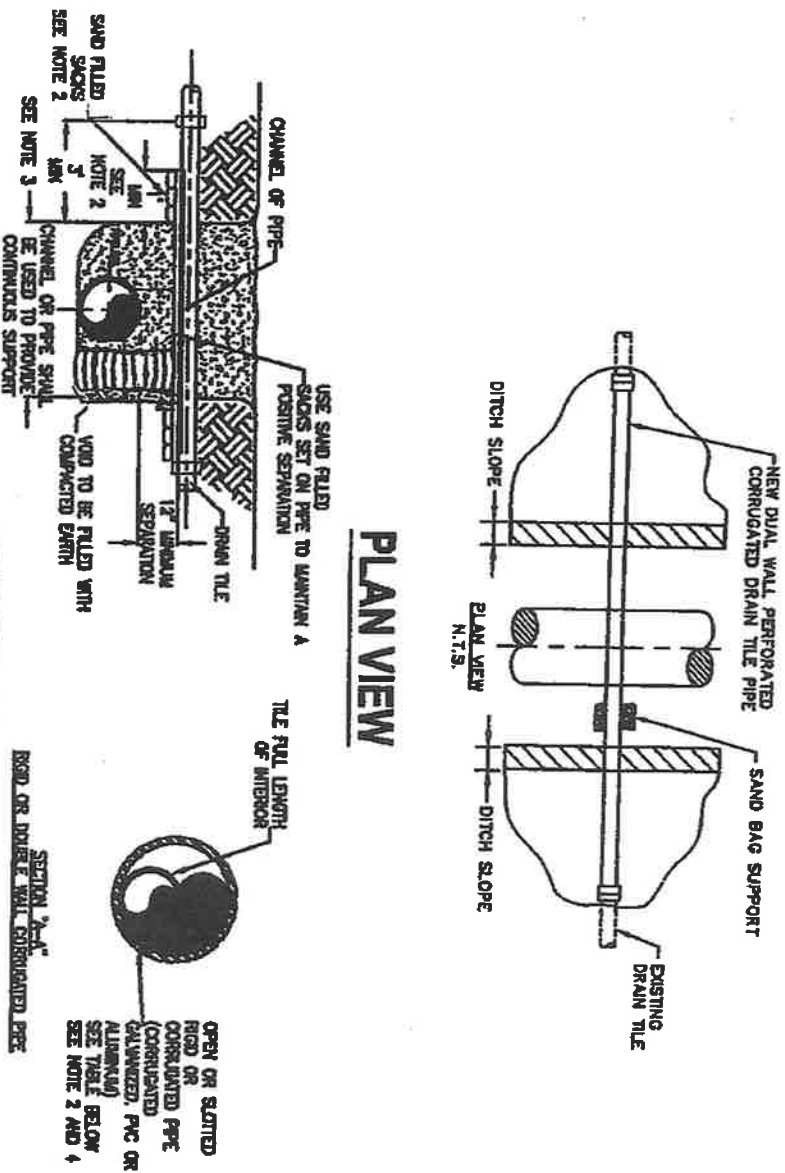
**N.T.S.**

\*CHANNEL - OPEN OR SLOTTED  
CORRUGATED GALVANIZED, PVC OR  
ALUMINUM CRADLE TO SUPPORT  
DRAIN TILE.

1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE "WIGT CAP" SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.

- # TEMPORARY DRAIN TILE REPAIR

FIGURE 2.



## END VIEWS

MINIMUM SUPPORT TABLE			
TILE SIZE	CHANNEL SIZE	PIPE SIZE	
3"	4" @ 5.4	4"	STD. W.T.
4"-5"	5" @ 8.7	6"	STD. W.T.
6"-8"	7" @ 8.8	8"-10"	STD. W.T.
10"	10" @ 15.3	12"	STD. W.T.

## NOTE:

1. TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
2. 1'-0" MINIMUM LENGTH OF CHANNEL OR RIGID PIPE (OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM GRADE) SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHILL WITH SAND BAGS TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).
3. DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
4. DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
5. OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH TO THE CHANNEL/PIPE SECTIONS SHOWN AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THEN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.
6. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
7. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

## PERMANENT DRAIN TILE REPAIR

## ECOCAT

Applicant: TRC

IDNR Project Number: 2302305

Contact: Suchitra Karthikeyan

Date: 08/08/2022

Address:



Project: Route 83 Solar Project

Address: 29650 N IL Route 83 off a privately owned road in the Township of Fremont (PIN 1014100004), Freemont Township

Description: 5 megawatts (MW) alternating current (AC) (6.2 MW direct current (DC) Solar Energy Project.

## Natural Resource Review Results

### Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

**Consultation is terminated.** This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

#### Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Lake

Township, Range, Section:

44N, 10E, 14  
44N, 10E, 15



### IL Department of Natural Resources

#### Contact

Adam Rawe

Division of Ecosystems & Environment

#### Government Jurisdiction

IL Environmental Protection Agency

Unknown at this time

1021 N Grand Ave E  
Springfield, Illinois 62702

#### Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

## **Terms of Use**

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.
2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.
3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

## **Security**

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

## **Privacy**

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

# Natural Resource Information Report Application

McHenry-Lake County Soil and Water Conservation District  
1648 S. Eastwood Dr., Woodstock, IL 60098 Voice: (815) 338-0444 x 3 www.mchenryswcd.org

*For office use only*

File Number: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Date Received: \_\_\_\_\_ 20\_\_\_\_  
Fee: \_\_\_\_\_ (Please make check payable to McHenry-Lake County SWCD.)

The McHenry-Lake County SWCD has thirty (30) days to complete this report after receipt of ALL the following items and after presentation to SWCD Board of Directors at their regularly scheduled meeting: Board meetings are scheduled for the first Tuesday of each month at the SWCD office.

## Application Check List: (include your Tentative Plat, Intensive Soil Survey, Tile Investigation, & Certified Wetland Determination if available)

Plat of Survey: ☒ Petition: ☒ Fee: ☒  
Tentative plat: ☐ Intensive Soil Survey: ☐ Tile Investigation: ☒  
Certified Wetland Determination/Delineation: ☒

Processing of the NRI report will not begin until all of the required items have been received by the MLCSWCD (office unless otherwise indicated by SWCD Staff)

Fee: Full report: \$400.00 for 1-3 acres and \$25.00 for each additional acre or part thereof.

Letter: \$100.00 SWCD will determine when letter or full report format will be necessary.

Petitioner's Name: RPIL Solar 2, LLC - Stephanie Loucas Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Person: TRC Companies- Anne Rowley Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Parcel Index Number(s): (1) <sup>10</sup> \_\_\_\_\_ - <sup>14</sup> \_\_\_\_\_ - <sup>100</sup> \_\_\_\_\_ - <sup>004</sup> \_\_\_\_\_ (2) <sup>31</sup> \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

(3) \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
Aggregate parcel size <sup>28</sup> \_\_\_\_\_ (acres)

Current Zoning: Agricultural Requested Zoning: Solar Energy Systems, Commercial

Description of Zoning Request: Delegated Conditional Use Permit

### Proposed Improvements:

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Dwellings on Slabs       | <input type="checkbox"/> Common Open Space | <input type="checkbox"/> Drainage Ditches/Swales                           |
| <input type="checkbox"/> Dwellings with Basements | <input type="checkbox"/> Sewers            | <input type="checkbox"/> Wet Retention Basin                               |
| <input type="checkbox"/> Commercial Buildings     | <input type="checkbox"/> Individual Wells  | <input type="checkbox"/> Storm Sewers                                      |
| <input type="checkbox"/> Park/Playground Areas    | <input type="checkbox"/> Community Water   | <input type="checkbox"/> Dry Detention Basin                               |
| <input type="checkbox"/> Conservation Easements   | <input type="checkbox"/> Septic Systems    | <input checked="" type="checkbox"/> Other Solar Energy Systems, Commercial |

Unit of Government Responsible: ☐ County of McHenry ☒ County of Lake

☐ City/Town of \_\_\_\_\_ ☒ Yes ☐ No

Is the parcel within 1 mile of a Village or City Boundary? ☒ Yes ☐ No  
If yes, which (City/Town/Village)? Mundelein

It is understood that filing this application allows a district representative the right to conduct an onsite investigation of the parcel(s) described above. Furthermore, this report becomes subject to the Freedom of Information Act after presentation to the District Board of directors at their regularly scheduled meeting.

Contact person or Petitioner's signature: \_\_\_\_\_ Date: 10 / 31 / 2023

## Rowley, Anne

---

**From:** Front Desk [REDACTED]  
**Sent:** Wednesday, November 1, 2023 10:43 AM  
**To:** Rowley, Anne  
**Cc:** [REDACTED]  
**Subject:** [EXTERNAL] NRI Application Checks

This is an **External** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

**ALWAYS** hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello, Anne.

Per your request, I'm sending you confirmation that this morning the McHenry-Lake County Soil & Water Conservation District has received three (3) FedEx packages:

- o Four (4) NRI Applications
- o Four (4) Survey bundles
- o Four (4) corresponding checks

Spring Duffey will be back in the office around November 15<sup>th</sup> and will review these then.

Good day,

*Lisa Rhoades*

McHenry - Lake County Soil and Water Conservation District  
1648 S. Eastwood Dr., Woodstock, IL 60098

Office: 815-338-0444 x 3

[www.mchenryswcd.org](http://www.mchenryswcd.org)







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## **DISTRICT 1 IDOT SUBMITTAL AND CORRESPONDENCE**



**Illinois Department  
of Transportation**

**Highway Permit**

District Serial No. \_\_\_\_\_

Whereas, I (We) RPIL Solar 2, LLC (Name of Applicant) [REDACTED] (Mailing Address)

San Francisco (City) CA (State) hereinafter termed the Applicant,  
request permission and authority to do certain work herein described on the right-of-way of the State Highway  
known as IL Route 83, Section \_\_\_\_\_,  
from Station \_\_\_\_\_ to Station \_\_\_\_\_  
Lake \_\_\_\_\_ County. The work is described in detail on the attached plan or sketch and/or as follows:

The Site's construction of a 12-foot-wide gravel access road will extend an existing access driveway located on IL-83, as shown in the attached plan sheets. Erosion control measures and appropriate BMPs will be implemented. The access road will initially be constructed as a temporary construction road to accommodate heavy truck traffic. Once Site construction is completed, the access road will be transitioned to the final design as shown in the site plans included within.

All work authorized by this permit shall be completed \_\_\_\_\_ after the date this permit is approved,  
otherwise the permit becomes null and void.

**This permit is subject to the conditions and restrictions printed on the reverse side of this sheet.**

This permit is hereby accepted and its provisions agreed to this \_\_\_\_\_ day of \_\_\_\_\_,

Witness \_\_\_\_\_ Signed \_\_\_\_\_ Applicant \_\_\_\_\_

\_\_\_\_\_  
Mailing Address \_\_\_\_\_ Mailing Address \_\_\_\_\_  
\_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_

SIGN AND RETURN TO: Regional Engineer \_\_\_\_\_

Approved this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_  
Department of Transportation

BY: \_\_\_\_\_  
Regional Engineer

**First:** The Applicant represents and warrants that he/she is the party in interest respecting this Permit and that he/she is the agent in fact with authority to bind all parties in interest to the obligations and undertakings agreed to in this Permit. The Applicant represents and warrants that the property lines shown on the attached plan sheet(s) or sketch are true and correct, and that all proposed work is accurately depicted thereon.

**Second:** The proposed work shall be located and constructed to the satisfaction of the Regional Engineer or his/her duly authorized representative. No revisions or additions shall be made to the proposed work on the right-of-way without the written permission of the Regional Engineer. The Applicant agrees to complete all work to the standards and specifications identified by the Regional Engineer or his/her authorized representative as a condition of granting this Permit. The Applicant agrees to furnish all labor, equipment and material, and do all work and pay all costs associated with the work authorized by this Permit. The Applicant agrees to restore any and all damaged portions of the highway right-of-way to the condition satisfactory to the Regional Engineer or his/her authorized representative including, but not limited to, all landscape restoration. The Applicant shall not trim, cut or in any way disturb any trees or shrubbery along the highway without the approval of the Regional Engineer or his/her duly authorized representative. Any and all documents, writings and notes reflecting or identifying the standards, specifications, understandings and conditions applicable to the performance of the permitted work required by the Regional Engineer or his/her authorized representative are hereby incorporated into this Permit by reference as though fully set forth herein.

**Third:** The Applicant shall at all times conduct the work in such a manner as to minimize hazards to vehicular and pedestrian traffic. Traffic controls and work site protection shall be in accordance with the applicable requirements of Part 6 (Temporary Traffic Control) of the Illinois Manual on Uniform Traffic Control Devices and with the traffic control plan if one is required elsewhere in the permit. All signs, barricades, flaggers, etc., required for traffic control shall be furnished by the Applicant. The work may be done on any day except Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. Work shall be done only during daylight hours.

**Fourth:** The work performed by the Applicant is for the bona fide purpose expressed and not for the purpose of, nor will it result in, the parking or servicing of vehicles on the highway right-of-way. Signs located on or overhanging the right-of-way shall be prohibited.

**Fifth:** The Applicant shall engage in only the proposed work approved herein, and subject to the hazards incident to such activities, assumes all risks associated therewith. The Applicant assumes full and strict liability for the actions of itself, all parties in interest, its agents and employees, contractors, subcontractors and consultants. The Applicant and all parties in interest shall save, defend, hold harmless and indemnify the State of Illinois and each of its officers, agents, employees, invitees and others associated with it from and against any and all suits, claims, actions, losses, injuries, damages, judgments and expenses that are based on, or that arise or are alleged to have arisen out of the performance of the work approved herein, including, but not limited to, any act, willful or intended, or negligence of the Applicant and any party in interest, its agents and employees, contractors, subcontractors and consultants whether at law, in equity or common law. In the event the Applicant or any party in interest fails, neglects, or refuses to comply with any provision of this indemnity, the State of Illinois may take any action necessary to protect itself from liability, including any action to pay, settle, compromise and procure the discharge thereof, in which case the Applicant or any party in interest, jointly and severally, shall be liable and bound unto the State of Illinois for any and all expenses related thereto, including attorney's fees.

**Sixth:** The State reserves the right to make such changes, additions, repairs and relocations within its statutory limits to the facilities constructed under this permit or their appurtenances on the right-of-way as may at any time be considered necessary to permit the relocation, reconstruction, widening or maintaining of the highway and/or provide proper protection to life and property on or adjacent to the State right-of-way. However, in the event this permit is granted to construct, locate, operate and maintain utility facilities on the State right-of-way, the Applicant, upon written request by the Regional Engineer, shall perform such alterations or change of location of the facilities, without expense to the State, and should the Applicant fail to make satisfactory arrangements to comply with this request within a reasonable time, the State reserves the right to make such alterations or change of location or remove the work, and the Applicant agrees to pay for the cost incurred.

**Seventh:** This permit is effective only insofar as the Department has jurisdiction and does not presume to release the Applicant from compliance with the provisions of any existing statutes or local regulations relating to the construction of such work.

**Eighth:** The Construction of access driveways is subject to the regulations listed in the "Policy on Permits for Access Driveways to State Highways." If, in the future, the land use of property served by an access driveway described and constructed in accordance with this permit changes so as to require a higher driveway type as defined in that policy, the owner shall apply for a new permit and bear the costs for such revisions as may be required to conform to the regulations listed in the policy. Utility installations shall be subject to the "Policy on the Accommodation of Utilities on Right-of-Way of the Illinois State Highway System."

**Ninth:** If the work covered by this permit includes construction of additional lanes, turn lanes, median cross-overs or traffic signals on, along or adjacent to a highway under Department jurisdiction, the permittee shall use only contractor(s) approved by the Department of Transportation for the performance of said work on the State highway. A contractor currently prequalified by the Department in the work rating governing the said work shall be approved. Prior to the commencement of the said work on the State highway, the applicant shall furnish the Regional Engineer a copy of the contractor's current Certificate of Eligibility, or, if the permittee proposes to use a contractor not currently prequalified by the Department, information satisfactory to the Department evidencing the contractor's qualification and ability to perform the said work. No work on the State highway shall be performed until the Department issues an approval of the proposed contractor.



230 W Monroe St., Suite 1840 T 312.578.0870  
Chicago, IL 60606 TRCcompanies.com

October 18, 2023

Illinois Department of Transportation,  
District 1  
201 West Center Court  
Schaumburg, Illinois 60196-1096

To whom it may concern:

TRC, on behalf of Renewable Properties and RPIL Solar 2, LLC, is pleased to submit our highway permit application for the proposed 12-foot-wide gravel access driveway as part of the Route 83 Solar Project (Project) located approximately 715 feet west of IL-83 (Illinois Route 83) in Fremont Township, Illinois. Please note that, per the attached drawings, the proposed access extends an existing driveway located on IL-83. No construction is proposed at the entrance of the existing driveway connected onto IL-83. We are requesting, upon review, concurrence that a permit from IDOT is not required. In it's place we ask that the District issue an approval letter to utilize the existing driveway. Lake County has requested this concurrence as a Condition of Approval to our Conditional Use Permit application for the Route 83 Solar Project.

Sincerely,

**TRC Companies,**



Anne Rowley, PE  
Project Manager

CC: Jim Auld, Renewable Properties, LLC,  
Stephanie Loucas, Renewable Properties, LLC

Enclosures:  
Plan Set  
IDOT Highway Traffic Control Standards



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Sheets G000, G0101, C050, C100, C501, and C503 of Plan Set  
(Entire plan set can be provided upon request.)

# PERMIT PLAN SET

## ROUTE 83 SOLAR

29650 N. ROUTE 83

FREEMONT TOWNSHIP, MUNDELEIN, IL.

DATE: OCTOBER 2023

PROJECT LOCATION		PROJECT SCOPE		SITE INFORMATION		SHEET INDEX	
<p>The project entails the installation of a solar photovoltaic system in the northwestern portion of the county. The project scope of work for these drawings pertains only to the land owner's property. Requirements for Lake County, Illinois.</p>		<p>THE PROJECT ENTAILS THE INSTALLATION OF A SOLAR PHOTOVOLTAIC SYSTEM IN THE NORTHWESTERN PORTION OF THE COUNTY. THE PROJECT SCOPE OF WORK FOR THESE DRAWINGS PERTAINS ONLY TO THE LAND OWNER'S PROPERTY. REQUIREMENTS FOR LAKE COUNTY, ILLINOIS.</p>		<p>THE PROJECT ENTAILS THE INSTALLATION OF A SOLAR PHOTOVOLTAIC SYSTEM IN THE NORTHWESTERN PORTION OF THE COUNTY. THE PROJECT SCOPE OF WORK FOR THESE DRAWINGS PERTAINS ONLY TO THE LAND OWNER'S PROPERTY. REQUIREMENTS FOR LAKE COUNTY, ILLINOIS.</p>		<p>THE PROJECT ENTAILS THE INSTALLATION OF A SOLAR PHOTOVOLTAIC SYSTEM IN THE NORTHWESTERN PORTION OF THE COUNTY. THE PROJECT SCOPE OF WORK FOR THESE DRAWINGS PERTAINS ONLY TO THE LAND OWNER'S PROPERTY. REQUIREMENTS FOR LAKE COUNTY, ILLINOIS.</p>	
PROJECT OWNER		ENGINEER		LEGAL DESCRIPTION		SHEET INDEX	
<p>MR. SOLE 2, LLC 110 BRANCH STREET SUNBROOK, AL 35114</p>		<p>THE ENGINEERING CORPORATION 220 W. MONROE, SUITE 101 CHICAGO, IL 60604</p>		<p>PARCEL 1 THE SOUTH 1/4 OF THE NORTHWEST 1/4, SECTION 14, TOWNSHIP 24 NORTH, RANGE 10 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN LAKE COUNTY, ILLINOIS.</p>		<p>SHEET NUMBER</p>	
BASIS OF BEARINGS		BENCHMARK		SYSTEM SPECIFICATIONS (SUBJECT TO CHANGE)		GENERAL NOTES	
<p>BASE OF BEARINGS IS TRUE, NORTH BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM, ILLINOIS FZ01 100 ZONE.</p>		<p>SITE BENCHMARK 1: MONUMENT WITH CAP 1" GROUND LEVEL, 13.9% OF THE AREA COVERED BY LANDSCAPE. ELEVATION 88' (NAD83).</p>		<p>SYSTEM SIZE DC 4,717.44 KW/5,314.14 KW*</p>		<p>G000</p>	
VICINITY MAP		PROJECT LOCATION		MODULE MANUFACTURER		SITE PLAN	
				<p>ASTRONERGY</p>		<p>C100</p>	
				MODULE MODEL		EXISTING CONDITIONS	
				CH-SMZ200G1F-BH		<p>C050</p>	
				MODULE RATING		NATURAL RESOURCE PROTECTION AND OPEN SPACE PLAN	
				540 W		<p>C001</p>	
				TOTAL MODULE QUANTITY		PV TRACKERS	
				28		<p>C002</p>	
				TOTAL NUMBER OF STRINGS		EROSION CONTROL DETAILS	
				336			
				INVERTER MODEL			
				SLINGOV-SG12SHV			
				INVERTER QTY			
				33			
				INVERTER RATING			
				125 KW			
				STEP-UP TRANSFORMER			
				AT HSAT			
				RACKING			
				# OF 78 MODULE TRACKERS			
				75			
				# OF 52 MODULE TRACKERS			
				46			
				# OF 28 MODULE TRACKERS			
				19			
				TILT ANGLE			
				+/-52 DEGREES			
				PITCH			
				18.7 FEET			
				GROUND COVERAGE RATIO (GCR)			
				40 PERCENT			
				* INDICATES RATING WITH POTENTIAL EXPANSION.			
				PRELIMINARY - NOT FOR CONSTRUCTION			

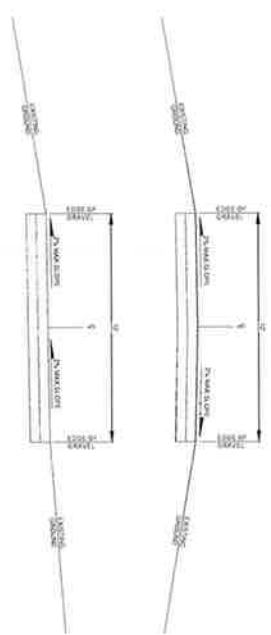
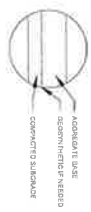








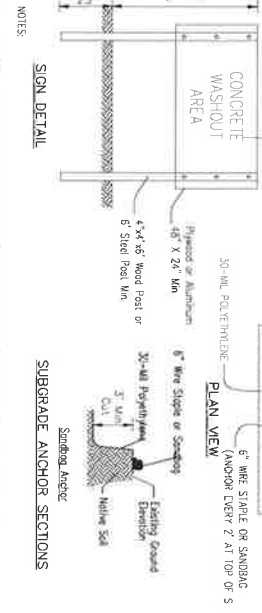
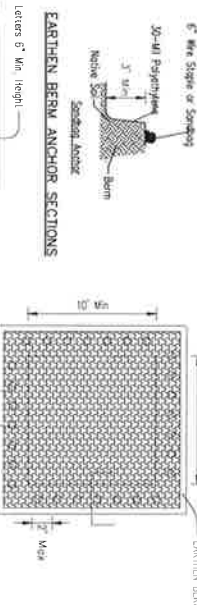




1  
C801  
TYPICAL ACCESS DRIVE SECTION  
NOT TO SCALE

PRELIMINARY - NOT FOR CONSTRUCTION

<b>PROJECT INFORMATION</b> PROJECT NAME: <b>TRC</b> PROJECT NUMBER: <b>2024-001</b> PROJECT LOCATION: <b>LAKE COUNTY, IL</b>	
<b>CLIENT INFORMATION</b> CLIENT NAME: <b>TRC</b> CLIENT ADDRESS: <b>2024-001</b> CLIENT PHONE: <b>2024-001</b>	
<b>DESIGNER INFORMATION</b> DESIGNER NAME: <b>TRC</b> DESIGNER ADDRESS: <b>2024-001</b> DESIGNER PHONE: <b>2024-001</b>	
<b>CONTRACT INFORMATION</b> CONTRACT NUMBER: <b>2024-001</b> CONTRACT DATE: <b>2024-001</b>	
<b>ACCESS ROAD DETAILS</b> ACCESS ROAD NAME: <b>2024-001</b> ACCESS ROAD ADDRESS: <b>2024-001</b> ACCESS ROAD PHONE: <b>2024-001</b>	
<b>NOTES</b> 1. ACCESS ROAD NAME: <b>2024-001</b> 2. ACCESS ROAD ADDRESS: <b>2024-001</b> 3. ACCESS ROAD PHONE: <b>2024-001</b>	



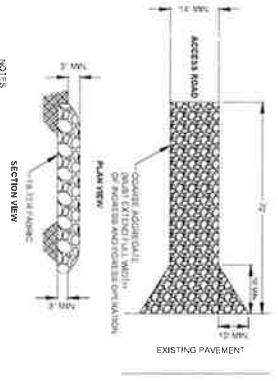
- NOTES
1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and/or slurry and returning the facilities to a functional condition.
  2. Facilities shall be cleaned or reconstructed in a new state once washout becomes two-thirds full.

1  
CSI

### CONSTRUCTION WASHOUT DETAIL

4  
CSI

### STABILIZED CONSTRUCTION ENTRANCE



- NOTES
1. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED OF MATERIALS THAT ARE STABLE AND NOT SUBJECT TO EROSION. THE ENTRANCE SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE CONSTRUCTION OF THE ENTRANCE.
  2. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED OF MATERIALS THAT ARE STABLE AND NOT SUBJECT TO EROSION. THE ENTRANCE SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE CONSTRUCTION OF THE ENTRANCE.
  3. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED OF MATERIALS THAT ARE STABLE AND NOT SUBJECT TO EROSION. THE ENTRANCE SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE CONSTRUCTION OF THE ENTRANCE.
  4. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED OF MATERIALS THAT ARE STABLE AND NOT SUBJECT TO EROSION. THE ENTRANCE SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE CONSTRUCTION OF THE ENTRANCE.

**FLEXSTORM CATCH-IT FILTERS FOR TEMPORARY INLET PROTECTION**  
PRODUCT SELECTION AND SPECIFICATION DRAWING

Filter Type	Material	Size	Weight	Volume	Flow Rate	Capacity
1. FLEXSTORM CATCH-IT FILTER	30-MIL POLYETHYLENE	4' x 4'	100 lbs	100 cu ft	100 gpm	100 cu ft
2. FLEXSTORM CATCH-IT FILTER	30-MIL POLYETHYLENE	4' x 4'	100 lbs	100 cu ft	100 gpm	100 cu ft
3. FLEXSTORM CATCH-IT FILTER	30-MIL POLYETHYLENE	4' x 4'	100 lbs	100 cu ft	100 gpm	100 cu ft

**NOTES:**

1. FLEXSTORM CATCH-IT FILTERS ARE CONSTRUCTED OF 30-MIL POLYETHYLENE AND ARE DESIGNED TO BE USED AS A TEMPORARY INLET PROTECTION FOR CONCRETE AND ASPHALT PAVEMENTS.
2. FLEXSTORM CATCH-IT FILTERS ARE DESIGNED TO BE USED AS A TEMPORARY INLET PROTECTION FOR CONCRETE AND ASPHALT PAVEMENTS.
3. FLEXSTORM CATCH-IT FILTERS ARE DESIGNED TO BE USED AS A TEMPORARY INLET PROTECTION FOR CONCRETE AND ASPHALT PAVEMENTS.

2  
CSI

### FLEXSTORM INLET DETAIL

3  
CSI

### SILT FENCE DETAIL

PRELIMINARY- NOT FOR CONSTRUCTION

**TRC**

210 West 10th St  
Chico, CA 95926  
Phone: 530-893-8277

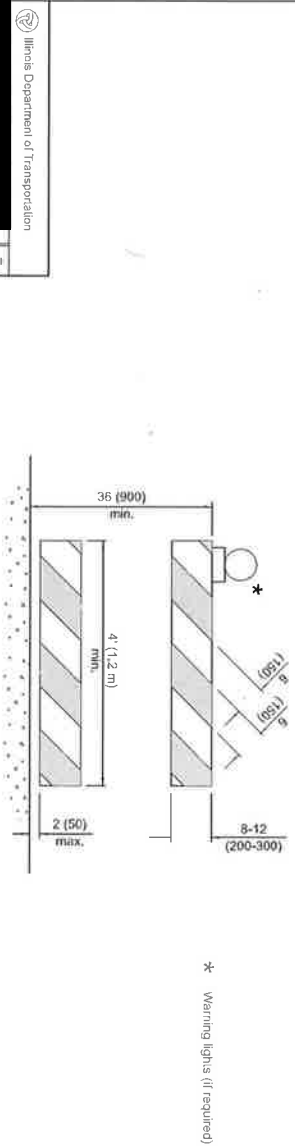
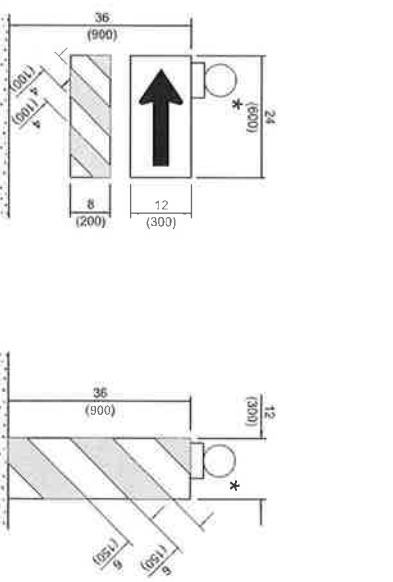
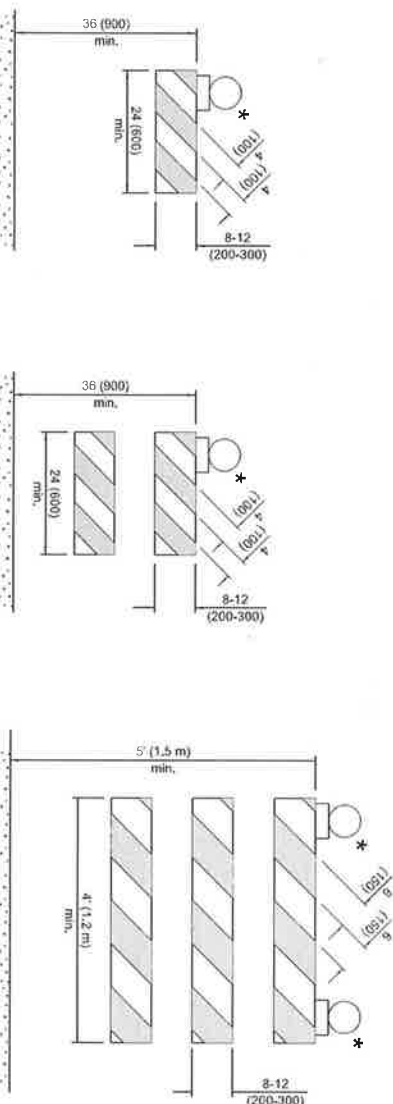
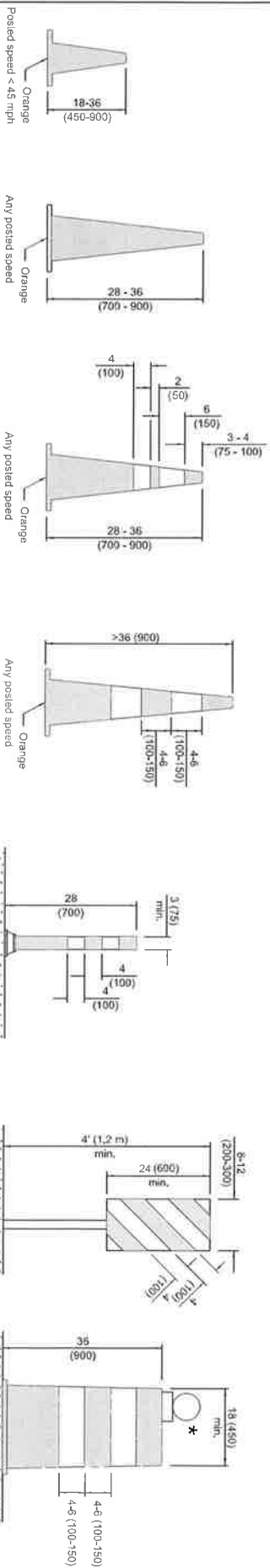
**EROSION CONTROL DETAILS**

Item	Description	Quantity	Unit
1	PERMIT FLEXSTORM CATCH-IT FILTER	1	each
2	PERMIT FLEXSTORM CATCH-IT FILTER	1	each
3	PERMIT FLEXSTORM CATCH-IT FILTER	1	each



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## IDOT Highway Traffic Control Standards

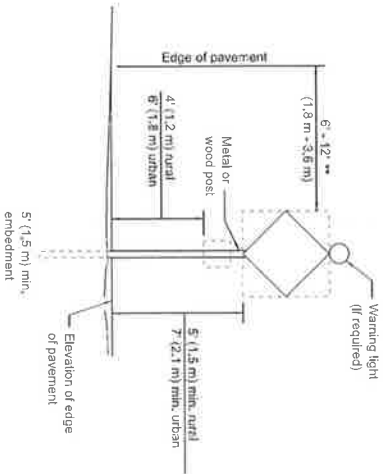


**GENERAL NOTES**

All heights shown shall be measured above the pavement surface.

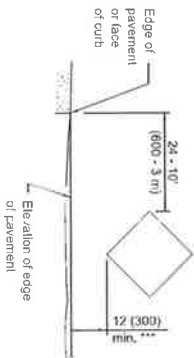
All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation ISSUED 1-1-13		<b>TRAFFIC CONTROL DEVICES</b> (Sheet 1 of 3) <b>STANDARD 701901-09</b>	
DATE	REVISIONS		
1-1-24	Revised Type III Barricade notes (encl. 3) & moved warning light on post mounted signs to top center.		
1-1-19	Revised cones usage and added cones > 36" (900mm) height.		



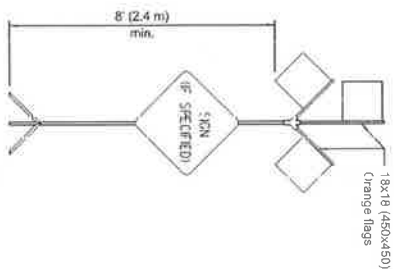
**POST MOUNTED SIGNS**

\*\* When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.

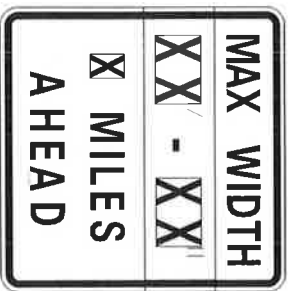


**SIGNS ON TEMPORARY SUPPORTS**

\*\*\* When work operations exceed four days, this dimension shall be 5' (1.5 m) min. located behind other devices, the height shall be sufficient to be seen completely above it a devices.

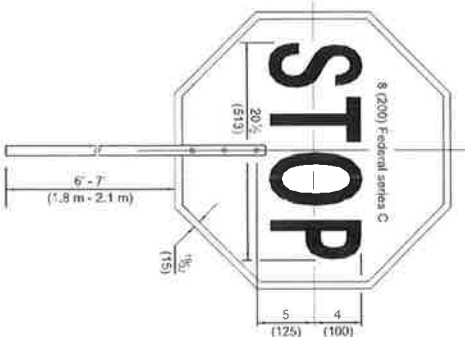


**HIGH LEVEL WARNING DEVICE**

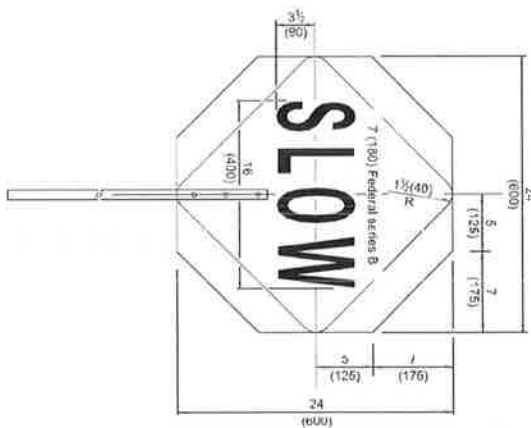


**WIDTH RESTRICTION SIGN**

XX - XX' width and X miles are variable.



FRONT SIDE



REVERSE SIDE

**FLAGGER TRAFFIC CONTROL SIGN**

ROAD  
CONSTRUCTION  
NEXT X MILES

END  
CONSTRUCTION

G20-1104(0)-6036

G20-1105(0)-6024

This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

**WORK LIMIT SIGNING**

WORK ZONE	W21-1115(0)-3618
SPEED LIMIT	R2-1-3648
PHOTO ENFORCED	R10-1108p-3618 ....
SXXX FINE MINIMUM	R2-1106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.

END WORK ZONE	G20-1103-6036
SPEED LIMIT	

This sign shall be used when the above sign assembly is used.

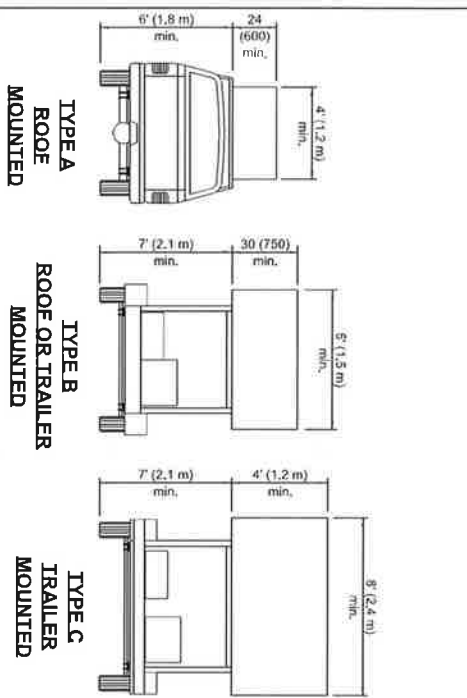
**HIGHWAY CONSTRUCTION  
SPEED ZONE SIGNS**

\*\*\*\* R10-1106p shall only be used along roadways under the jurisdiction of the State.

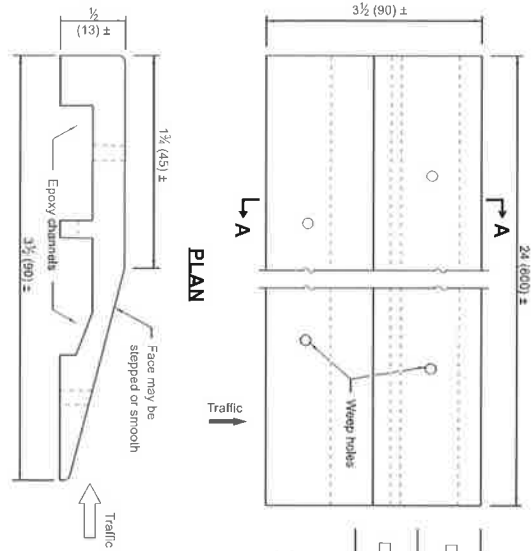
**TRAFFIC CONTROL  
DEVICES**

(Sheet 2 of 3)

STANDARD 701901-09

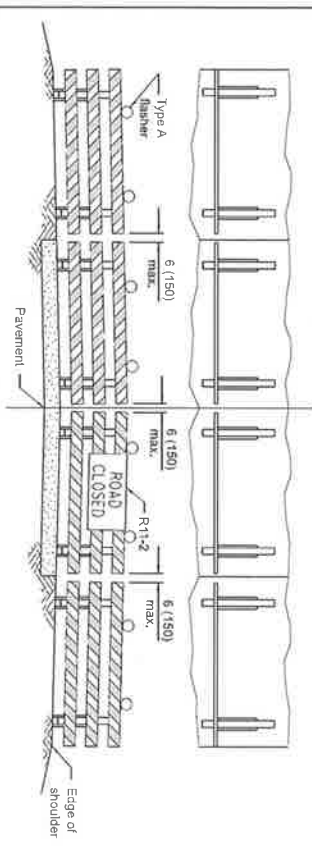
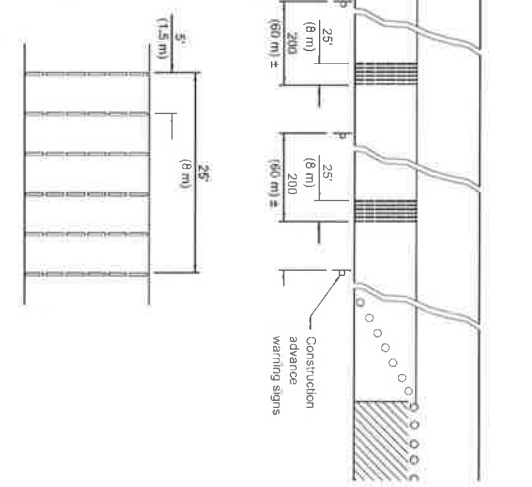


**ARROW BOARDS**

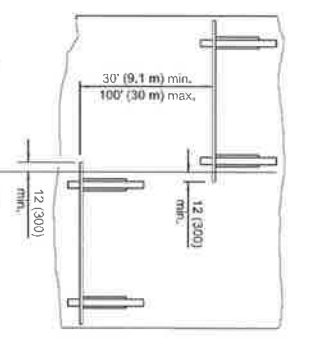


**TEMPORARY RUMBLE STRIPS**

**TYPICAL INSTALLATION**



Reflectorized striping may be omitted on the back side of the barricades.



Reflectorized striping shall appear on both sides of the barricades.

**TYPICAL APPLICATIONS OF  
TYPE III BARRICADES CLOSING A ROAD**

If a Type III barricade with an attached sign panel which meets NCHRP 350 or MASH is not available, the sign may be mounted on an NCHRP 350 or MASH temporary sign support directly in front of the barricade.

**TRAFFIC CONTROL  
DEVICES**

STANDARD 701901-09

## **Rowley, Anne**

---

**From:** Haydel, Yeleina I [REDACTED]  
**Sent:** Thursday, October 19, 2023 8:36 AM  
**To:** Rowley, Anne  
**Cc:** Jim Auld; Graham, Andy; Shirani, Roozbeh  
**Subject:** [EXTERNAL] RE: RPIL- Route 83 IDOT Approval

This is an **External** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

**ALWAYS** hover over the link to preview the actual URL/site and confirm its legitimacy.

Good morning Anne,

I will not be reviewing this permit application as it is for a site located in Lake County. I only review permit applications for sites in McHenry and Kane Counties. I have cc'd Roozbeh Shirani, Area Permit Engineer for Lake County, who will be able to help you with this submittal

THANK YOU,

YELEINA I. HAYDEL  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
BUREAU OF TRAFFIC - PERMITS SECTION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196  
847.705.4145

**From:** Rowley, Anne [REDACTED]  
**Sent:** Wednesday, October 18, 2023 3:43 PM  
**To:** Haydel, Yeleina I <[REDACTED]>  
**Cc:** Jim Auld <[REDACTED]> Graham, Andy <[REDACTED]>  
**Subject:** [External] RPIL- Route 83 IDOT Approval

Good Afternoon Yeleina,

TRC, on behalf of Renewable Properties, is pleased to submit our highway permit application for the proposed 12-foot-wide gravel access driveway as part of RPIL Solar 2, LLC (The Project) located approximately 715 feet West of IL-83 (Illinois Route 83) in Fremont Township, Illinois. Please note that, per the attached drawings, the proposed access extends an existing driveway located on IL-83. No construction is proposed at the entrance of the existing driveway connected onto IL-83. We are requesting, upon review, concurrence that a permit is not required. In its place we ask that the District issue an approval letter to utilize the existing driveway as Lake County Planning is asking for some type of approval from the District as part of our CUP approval.

Additionally, I am sending two hard copies of the attached PDF over to the District's office (201 West Center Court, Schaumburg, IL) for documentation as well.

Please let me know if there are any questions or concerns as you review.



# **ROUTE 83 SOLAR PROJECT 4.1 MW (AC) SOLAR FACILITY DECOMMISSIONING PLAN**

**29473 State Route 83,**

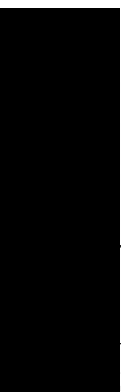
**Fremont Township, Lake County, Illinois 60030**



**Prepared For:**



Renewable Properties, LLC



**Prepared By:**

TRC

230 West Monroe Street  
Suite 1840  
Chicago, IL 60606

P/N: 500015.0000.0001, P3

**MARCH 2023**



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## **PRELIMINARY DECOMMISSIONING PLAN AND COST ESTIMATE**

Renewable Properties, LLC

Route 83 Solar

### **BACKGROUND**

On behalf of Renewable Properties, LLC (Developer) and Route 83 - RPL Solar 2, LLC (Operator/Owner), TRC has prepared this decommissioning plan and cost estimate (the Plan) for the Route 83 Solar facility (Facility), a photovoltaic (PV) facility, Solar Energy System (SES) or Solar Farm located on State Route 83 within Lake County, Illinois. The project site is located west of State Route 83 and south of West Winchester Road. The Facility will consist of a 4.1-megawatt (MW) alternating current (AC) solar electrical array covering a total area of approximately 18.86 acres over approximately 28 acres of agricultural land. The Facility will include ground-mounted, solar arrays, perimeter security fencing, concrete pads for transformers and switch gears, and a gravel access road. The Facility will produce power using PV panels, mounted on ground support galvanized piles.

The purpose of this Plan is to provide the general scope of decommissioning work as well as a construction cost estimate for a decommissioning financial assurance mechanism of the Facility as described herein and subject to the Lake County Zoning Ordinance (Ordinance). This document outlines the decommissioning activities required to remove above-ground structures, debris, underground foundations, and cables and restore soil and vegetation after termination of operations of the SES. This decommissioning plan and cost estimate has been prepared in accordance with the Lake County Solar Energy Systems Ordinance 19-1378, passed 9-10-2019 for approval of the Conditional Use Permit application of Route 83 Solar.

The attached decommissioning cost estimate was prepared based on estimated quantities of site features, panels, racking, and electrical equipment from the preliminary plan set and experience in the design and construction of energy facilities and are subject to final engineering. Costs generally include contractor fees, sitework removal & restoration, racking & module removal, power conditioning equipment removal, and corresponding salvage, which reflect the overall decommissioning process. The reported costs include labor, materials, taxes, insurance, transport costs, disposal fees, equipment rental, contractor's overhead, and contractor's profit; the labor costs have been estimated using regional labor rates and labor efficiencies from the Bureau of Labor statistics along with previous decommission plan estimates completed for other similar projects.

### **Owner/Operator**

Route 83 – RPL Solar 2, LLC will be responsible for the ensuring completion of final civil and electrical engineering plans. TRC is the consultant responsible for the preparation of the independent decommissioning plan.

### **Facility Description**

The Facility will consist of a 4.1 MW AC solar electrical array covering a total area of approximately 18.86 acres over approximately 28 acres of agricultural land. The Facility will be secured within a security fence surrounding the solar panels and electrical equipment. The site can be accessed via lock-controlled gates located on the proposed gravel access road. The Facility will include the following site features:

## **PRELIMINARY DECOMMISSIONING PLAN AND COST ESTIMATE**

Renewable Properties, LLC

Route 83 Solar

- Total site development area with solar panels, associated electrical equipment, racking, and a gravel access road of approximately 18.68 acres; (fenced area with approximately 9,776 solar panels);
- Two (2) concrete electrical pads with transformers, and switchgears;
- 12-foot-wide gravel access road and turnaround;
- Seven (7)-foot Fixed-Knot, Woven Wire Agricultural fencing (encasing entire project area);
- Above-ground electrical wire conduits; and
- Underground electrical wire conduits.

### **DECOMMISSIONING ACTIVITIES**

The Facility will be decommissioned by completing the following major steps:

1. Removal of modules, racking, and piles;
2. Removal of cabling, trays, and electrical equipment;
3. Removal of concrete pads, foundations, fence, and debris;
4. Removal of the gravel access road (if required by the landowner);
5. Site stabilization by placing soil and reseeded; and
6. Removal and Disposal or Recycling of materials

The procedures for decommissioning of the project will involve restoring soils and vegetation to agricultural productivity or pre-existing conditions.

### **Schedule**

The decommissioning process is estimated to take approximately two (2) months but may change depending on weather and soil moisture conditions and is intended to occur outside of the winter season.

### **Decommissioning During Construction (Abandonment of Project)**

If construction or operation activities cease prior to facility completion, with no expectation to restart for more than twelve (12) months, the project would be decommissioned as follows in this plan. Any installed components will be removed and managed, as per the following sections, and the site will be restored to a vegetated condition.

### **Decommissioning After Ceasing Operation**

Properly maintained PV panels have an expected lifespan of thirty-five (35) years. At this time or if the facility has not been in operation and stops producing energy for a period of 150 days, it shall be considered a "cessation or abandonment of operations". Installed components will be removed and reused/recycled where possible, and the site restored in accordance with the activities discussed below. The proposed date of discontinued operations and plans for removal shall be provided by the owner or operator to the county by certified mail.

## **PRELIMINARY DECOMMISSIONING PLAN AND COST ESTIMATE**

Renewable Properties, LLC

Route 83 Solar

### **Offsite Impacts During Decommissioning**

As with the project's construction, noise levels during the decommission work will increase. Proper steps will be followed to minimize the disturbance, such as using proper equipment for removing the support piles. Work hours are assumed to be eight (8) hours a day, during daylight. Also, as with the project's construction, road traffic in the area may increase temporarily due to crews and equipment movements. Further details of the on-site restoration are included in subsequent sections.

### **Dismantlement and Demolition**

Decommissioning shall include removal of all solar electric systems, buildings, ballasts, cabling, electrical components, road(s), foundations, pilings, and any other associated facilities. This will include removal of all items identified in the decommissioning activities above.

A significant amount of the components of the PV system at the Facility will include recyclable or re-saleable components, including copper, aluminum, galvanized steel, and panels. Due to their resale monetary value, these components will be dismantled and disassembled rather than being demolished and disposed of.

Following coordination with the local utility company regarding timing and required procedures for disconnecting the Facility from the utility, all electrical connections to the system will be disconnected and all connections will be tested locally to confirm that no electric current is running through them before proceeding. All electrical connections to the panels will be disconnected at the panel and then removed from their framework by cutting or dismantling the connections to the supports. Then panels, inverters, transformers, meters, fans, lighting fixtures, and other electrical structures will be removed. Disposal of these materials at a landfill will be governed by federal, state, and local laws, including the Code of Illinois Regulations governing waste disposal at local area landfills, which may be amended from time to time. Any materials deemed to be hazardous at the time of disposal will be handled and disposed according to applicable laws and regulations.

The PV mounting system framework will be dismantled and recycled. The galvanized support piles will be completely removed and recycled.

Finally, all associated structures will be demolished and removed from the site for recycling or disposal. This will include the site fence, gates, access road(s), equipment foundations, and underground cables, which will be removed or recycled.

Consultation with the landowner and the county will determine if the access roads should be left in place for their continued use. If the access road is deemed unnecessary, the contractor will remove the access roads and all non-adaptable parts of the project to a minimum depth of 42" as required by the Agricultural Impact Mitigation Agreement (AIIWA) and restore this area with native soils and seeding. All concrete associated with the Facility on-site will be broken and removed in its entirety, and clean concrete will be crushed and disposed of or recycled off-site. Final stabilization thresholds on the entire site shall be met prior to approval of site decommissioning. Underground conduits and raceways are to be removed. Above ground lines and poles that are

## **PRELIMINARY DECOMMISSIONING PLAN AND COST ESTIMATE**

Renewable Properties, LLC

Route 83 Solar

not owned by the utility will be removed, along with associated equipment (isolation switches, fuses, metering) and holes will be filled with clean topsoil. Temporary sanitary facilities will be provided on-site for the workers conducting the decommissioning of the Facility.

Erosion and sediment control measures are required during the decommissioning process. These measures include construction access, silt fence, concrete washout stations, and land stabilization. The owner/operator will restore the project location to a vegetated condition consistent with pre-construction conditions.

### **Disposal or Recycle**

During the decommissioning phase, a variety of excess materials can be salvaged. A significant amount of the materials used in a solar facility are reusable, including copper, aluminum, galvanized steel, and the PV panels. Due to their resale monetary value, these components will be dismantled and disassembled rather than being demolished and disposed. Any remaining materials will be removed and disposed of off-site at an appropriate facility. The project general contractor will maximize recycling and reuse and will work with manufacturers, local subcontractors and waste firms to segregate material to be recycled, reused and/or disposed of properly.

The project developer will be responsible for arranging the collection or recycling of fence, racking piles, PV panels, panel tracker equipment, AC and DC wiring, inverters, and miscellaneous equipment for salvage value.

Gravel may be reused as general fill on site with landowner approval. Remaining gravel, geotextile fabric, concrete, and debris need to be separated and transported off-site by truck to the appropriate facilities for recycling and disposal in accordance with federal, state, and local waste management regulations. A final site walkthrough with the appropriate local authorities will be conducted to verify removal of debris and/or trash generated within the site during the decommissioning process and will include removal and proper disposal of any debris that may have been wind-blown to areas outside the immediate footprint of the facility being removed.

### **Removal of Landscape Materials and Site Stabilization:**

The areas of the Facility that are disturbed (during decommissioning) will be subject to minor re-grading (no imported soil is anticipated), to establish a uniform slope and stabilization, including application of a selected grass seed mix to surfaces disturbed (estimated to be 50% of the site) during the decommissioning process. The seed mix is expected to be a blend of various fescue and/or rye grass seeds. The actual seed blend will depend on factors including availability and time of year that planting would occur.

It is expected that soil and vegetation will be restored to pre-existing conditions. Details will be discussed with the property owner, Lake County, and the McHenry-Lake County Soil and Water Conservation District. Planting trees, shrubs, and other woody vegetation (re-forestation) or other beautification are not expected to be required and are not included in the costs. It is assumed that major site grading activities are not proposed as part of the project. Imported fill will

**PRELIMINARY DECOMMISSIONING PLAN AND COST ESTIMATE**  
Renewable Properties, LLC  
Route 83 Solar

be provided, if necessary, to restore to original conditions. Only minor grading is anticipated with regards to site restoration (from construction, demolition, and traffic damage) and access drives removal. All site stabilization activities will be completed in accordance with regulatory requirements and the approved Storm Water Pollution Prevention Plan (SWPPP)NPDES Construction General Permit and the Watershed Development Permit.

**PERMITTING REQUIREMENTS FOR DECOMMISSIONING**

Approvals are currently required prior to initiation of ground-disturbing activity. This cost estimate assumes the same approvals are required when decommissioning occurs in the future. The permitting requirements listed below will be reviewed and might be subject to revisions based on local, state, and federal regulations at the time of decommissioning.

*National Pollutant Discharge Elimination System (NPDES) Construction General Permit*

U.S. Environmental Protection Agency - Ground disturbance of greater than 1 acre requires preparation of a Storm Water Pollution Prevention Plan, including erosion and sedimentation controls.

*Lake County Stormwater Management Commission (SMC) Watershed Development Permit*

Lake County Stormwater Management Commission (SMC) - Ground disturbance of greater than 5,000 square feet of soil requires preparation of a SWPPP and permit application.

*Building Permit*

A building permit is required to construct the facility. A building permit must also be obtained for any construction, alteration, repair, demolition, or change to the use or occupancy of a building.

*Permit Requirement Assumptions*

No significant ground disturbance or grading associated with decommissioning, including temporary laydown areas, are required within areas subject to additional local, state, or federal permitting.

**SOLAR DECOMMISSIONING ESTIMATE**

The following items can be salvaged and recycled: fence material, racking piles, PV panels, miscellaneous tracker equipment, AC and DC wiring, combiner boxes, inverters, transformers, medium voltage equipment, electrical equipment posts, and customer owned utility poles.

The decommissioning cost estimate is based on 2023 Lake County prevailing labor rates equipment rates and credits for salvaging project material in 2023. The equipment rates have been estimated using publicly available data from the Federal Emergency Management Agency (FEMA) published Schedule of Equipment Rates, 2021. The salvage value rates have been estimated using publicly available data (e.g. <http://www.scrapmonster.com>), as well as industry provided actual salvage values and previous experience with similar projects.

**PRELIMINARY DECOMMISSIONING PLAN AND COST ESTIMATE**  
Renewable Properties, LLC  
Route 83 Solar

The estimated costs utilize hourly and monthly rates listed below:

2022 Wages

- Labor at \$48.15/hr;
- Operating engineer at \$59.10/hr;
- Truck driver at \$42.64/hr;
- Electrician at \$47.27/hr;
- Skid steer rental at \$2,350.00/month;
- Excavator rental at \$4,925.00/month; and
- Dump truck rental at \$52.96/hr

2022 Salvage Values

- Steel (e.g., fence, racking, posts) at \$0.15/lb.;
- PV panels at \$5/panel;
- Electrical components (e.g., combiner boxes, inverters, transformer) at \$0.28/lb.;
- DC wiring (copper) at \$1.50/lb.; and
- AC wiring (copper and aluminum) at \$1.31/lb.

The estimated cost of construction activities associated with decommissioning using current wages is \$383,715. The material salvage value is \$112,139 for a net decommissioning cost of \$271,576. The detailed costs are attached.

The attached preliminary decommissioning cost estimate is based on the preliminary plans for permitting purposes dated December 1, 2022. Changes to the plans and construction details may affect the scope and costs of Facility decommissioning. The opinion of probable costs is based on experience in the design and construction of energy facilities and are subject to final engineering/construction.

If at any time in the future, the prevailing professionally accepted standards of economic feasibility of recycling and or environmental implications of hazardous waste changes to increase the costs associated with decommissioning, the cost estimate may need to be revised, and the bonds may need to be modified accordingly to cover said cost.

This opinion assumes a third-party contractor, experienced in the construction and decommissioning of photovoltaic facilities will lead the effort. The reported costs include labor materials, taxes, insurance, transport costs, equipment rental, contractor's overhead, and



**PRELIMINARY DECOMMISSIONING PLAN AND COST ESTIMATE**  
Renewable Properties, LLC  
Route 83 Solar

contractor's profit; the labor costs have been estimated using regional labor rates and labor efficiencies that have been published for the local area along with previous decommissioning plan estimates completed for other similar projects.

Route 83 - RPIL Solar 2, LLC, by its duly authorized representative's signature below, hereby acknowledges that it has reviewed this Decommissioning Plan, and approves of the same, and agrees to be bound by the terms and conditions contained therein.

Authorized Representative: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

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

**PRELIMINARY DECOMMISSIONING PLAN AND COST ESTIMATE**  
**Renewable Properties, LLC**  
**Route 83 Solar**

**Route 83 Solar**  
**Decommissioning Cost Estimate**

Preliminary Decommissioning Cost Estimate  
Route 83 Solar Facility  
Route 83 - RPIL Solar 2, LLC

Task	Unit	Estimated Quantity	Cost per Unit 2022	Total Gross Cost 2022	Salvage Value 2022	Net Costs 2022
Engineering & Permitting	LS	1	\$ 11,250.00	\$ 11,250.00		\$ 11,250.00
Mobilization	LS	1	\$ 24,719.60	\$ 24,719.60		\$ 24,719.60
Silt Fence	LF	3,840	\$ 2.50	\$ 9,600.00		\$ 9,600.00
Access Road Removal & Restoration	SF	14,050	\$ 3.60	\$ 50,580.00		\$ 50,580.00
Equipment Pad & Restoration	EA	2	\$ 900.00	\$ 1,800.00		\$ 1,800.00
Seed Disturbed Areas (50% disturbed area)	AC	10	\$ 977.00	\$ 9,770.00		\$ 9,770.00
Fence Removal	LF	3,840	\$ 3.00	\$ 11,520.00	\$ (2,856.96)	\$ 8,663.04
Site Clean Up	AC	20	\$ 270.00	\$ 5,400.00		\$ 5,400.00
Rack and Post Removal	EA	1,500	\$ 90.00	\$ 135,000.00	\$ (56,250.00)	\$ 78,750.00
Remove Panels	EA	9,776	\$ 3.50	\$ 34,216.00	\$ (46,436.00)	\$ (12,220.00)
AC Wiring-Direct Burial and Overhead	LF	6,400	\$ 0.17	\$ 1,109.35	\$ (754.56)	\$ 354.79
DC Wire Removal	LF	47,300	\$ 0.50	\$ 23,650.00	\$ (2,838.00)	\$ 20,812.00
Electrical Disconnect	EA	1	\$ 190.00	\$ 190.00		\$ 190.00
Combiner Box	EA	33	\$ 210.00	\$ 6,930.00	\$ (406.56)	\$ 6,523.44
Inverter	EA	33	\$ 210.00	\$ 6,930.00	\$ (894.43)	\$ 6,035.57
Transformer	EA	2	\$ 500.00	\$ 1,000.00	\$ (1,702.40)	\$ (702.40)
Batteries	EA	0	\$ 5,000.00	\$ -	\$ -	\$ -
<b>SUBTOTAL</b>				<b>\$ 333,664.95</b>	<b>\$ (112,138.91)</b>	<b>\$ 221,526.03</b>
<b>Other Costs</b>						
Contractor Profit	%	8%		\$ 26,693.20		\$ 26,693.20
Contractor Overhead & Management	%	5%		\$ 16,683.25		\$ 16,683.25
Contractor Insurance	%	2%		\$ 6,673.30		\$ 6,673.30
<b>SUBTOTAL</b>				<b>\$ 50,049.74</b>		<b>\$ 50,049.74</b>
<b>DECOMMISSIONING TOTAL</b>				<b>\$ 383,714.69</b>		<b>\$ 271,575.78</b>

\*\*Material, equipment and labor costs are estimated utilizing wage and equipment rates from the Illinois Department of Labor, Lake County Prevailing Rates posted 10/3/2022 (Foreman Rate), the FEMA 2019 schedule of equipment rates, and the RS Means Heavy Site Estimating Manual.

Lake County Prevailing Wage Rates posted on 1/18/2023

Trade Title	Rg	Type	C	Base	Foreman	Overtime				H/W	Pension	Vac	Trng	Other Ins
						M-F	Sa	Su	Hol					
ASBESTOS ABT-GEN	All	ALL		47.40	48.40	1.5	1.5	2.0	2.0	17.05	15.21	0.00	0.90	
ASBESTOS ABT-MEC	All	BLD		39.60	42.77	1.5	1.5	2.0	2.0	14.77	13.59	0.00	0.86	
BOILERMAKER	All	BLD		53.66	58.48	2.0	2.0	2.0	2.0	6.97	23.69	0.00	2.67	
BRICK MASON	All	BLD		49.81	54.79	1.5	1.5	2.0	2.0	12.10	21.56	0.00	1.10	
CARPENTER	All	ALL		52.01	54.01	1.5	1.5	2.0	2.0	11.79	24.76	1.50	0.80	
CEMENT MASON	All	ALL		48.00	50.00	2.0	1.5	2.0	2.0	11.65	28.36	0.00	0.55	
CERAMIC TILE FINISHER	All	BLD		44.18	44.18	1.5	1.5	2.0	2.0	12.25	14.77	0.00	1.00	
CERAMIC TILE LAYER	All	BLD		51.44	55.44	1.5	1.5	2.0	2.0	12.25	18.48	0.00	1.08	
COMMUNICATION TECHNICIAN	All	BLD		41.20	44.00	1.5	1.5	2.0	2.0	13.82	18.94	2.16	0.93	
ELECTRIC PWR EQMT OP	All	ALL		47.56	64.89	1.5	1.5	2.0	2.0	7.00	13.32	0.00	1.19	1.43
ELECTRIC PWR GRANDMAN	All	ALL		36.53	64.89	1.5	1.5	2.0	2.0	7.00	10.23	0.00	0.92	1.10
ELECTRIC PWR LINEMAN	All	ALL		57.17	64.89	1.5	1.5	2.0	2.0	7.00	16.01	0.00	1.43	1.72
ELECTRIC PWR TRK DRV	All	ALL		37.86	64.89	1.5	1.5	2.0	2.0	7.00	10.61	0.00	0.95	1.14
ELECTRICIAN	All	BLD		43.02	47.27	1.5	1.5	2.0	2.0	15.12	25.79	6.55	0.71	
ELEVATOR CONSTRUCTOR	All	BLD		62.47	70.28	2.0	2.0	2.0	2.0	16.03	20.21	5.00	0.65	
FENCE ERECTOR	All	ALL		46.89	48.89	1.5	1.5	2.0	2.0	13.68	17.42	0.00	0.75	
GLAZIER	All	BLD		48.75	50.25	1.5	2.0	2.0	2.0	15.19	24.43	0.00	1.70	
HEAT/FROST INSULATOR	All	BLD		52.80	55.97	1.5	1.5	2.0	2.0	14.77	16.76	0.00	0.86	
IRON WORKER	All	ALL		55.81	57.81	2.0	2.0	2.0	2.0	16.05	25.31	0.00	0.49	
LABORER	All	ALL		47.40	48.15	1.5	1.5	2.0	2.0	17.05	15.21	0.00	0.90	
LATHER	All	ALL		52.01	54.01	1.5	1.5	2.0	2.0	11.79	24.76	1.50	0.80	
MACHINIST	All	BLD		53.18	57.18	1.5	1.5	2.0	2.0	9.93	8.95	1.85	1.47	
MARBLE FINISHER	All	ALL		38.00	51.41	1.5	1.5	2.0	2.0	12.10	19.60	0.00	0.60	
MARBLE SETTER	All	BLD		48.96	53.86	1.5	1.5	2.0	2.0	12.10	21.03	0.00	0.78	
MATERIAL TESTER I	All	ALL		37.40		1.5	1.5	2.0	2.0	17.05	15.21	0.00	0.90	
MATERIALS TESTER II	All	ALL		42.40		1.5	1.5	2.0	2.0	17.05	15.21	0.00	0.90	
MILLWRIGHT	All	ALL		52.01	54.01	1.5	1.5	2.0	2.0	11.79	24.76	1.50	0.80	
OPERATING ENGINEER	All	BLD	1	55.10	59.10	2.0	2.0	2.0	2.0	22.15	19.30	2.00	2.55	
OPERATING ENGINEER	All	BLD	2	53.80	59.10	2.0	2.0	2.0	2.0	22.15	19.30	2.00	2.55	
OPERATING ENGINEER	All	BLD	3	51.25	59.10	2.0	2.0	2.0	2.0	22.15	19.30	2.00	2.55	
OPERATING ENGINEER	All	BLD	4	49.50	59.10	2.0	2.0	2.0	2.0	22.15	19.30	2.00	2.55	

OPERATING ENGINEER	All	BLD	5	58.85	59.10	2.0	2.0	2.0	2.0	2.0	22.15	19.30	2.00	2.55
OPERATING ENGINEER	All	BLD	6	56.10	59.10	2.0	2.0	2.0	2.0	2.0	22.15	19.30	2.00	2.55
OPERATING ENGINEER	All	BLD	7	58.10	59.10	2.0	2.0	2.0	2.0	2.0	22.15	19.30	2.00	2.55
OPERATING ENGINEER	All	FLT	1	61.10	61.10	1.5	1.5	2.0	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	FLT	2	59.60	61.10	1.5	1.5	2.0	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	FLT	3	58.10	61.10	1.5	1.5	2.0	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	FLT	4	53.60	61.10	1.5	1.5	2.0	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	FLT	5	62.60	61.10	1.5	1.5	2.0	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	FLT	6	41.00	61.10	1.5	1.5	2.0	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	Hwy	1	53.30	57.30	1.5	1.5	2.0	2.0	2.0	22.15	19.30	2.00	2.55
OPERATING ENGINEER	All	Hwy	2	52.75	57.30	1.5	1.5	2.0	2.0	2.0	22.15	19.30	2.00	2.55
OPERATING ENGINEER	All	Hwy	3	50.70	57.30	1.5	1.5	2.0	2.0	2.0	22.15	19.30	2.00	2.55
OPERATING ENGINEER	All	Hwy	4	49.30	57.30	1.5	1.5	2.0	2.0	2.0	22.15	19.30	2.00	2.55
OPERATING ENGINEER	All	Hwy	5	48.10	57.30	1.5	1.5	2.0	2.0	2.0	22.15	19.30	2.00	2.55
OPERATING ENGINEER	All	Hwy	6	56.30	57.30	1.5	1.5	2.0	2.0	2.0	22.15	19.30	2.00	2.55
OPERATING ENGINEER	All	Hwy	7	54.30	57.30	1.5	1.5	2.0	2.0	2.0	22.15	19.30	2.00	2.55
ORNAMENTAL IRON WORKER	All	ALL		53.32	55.82	2.0	2.0	2.0	2.0	14.23	25.00	0.00	1.75	
PAINTER	All	ALL		50.30	56.59	1.5	1.5	1.5	2.0	14.26	14.99	0.00	1.72	
PAINTER - SIGNS	All	BLD		41.55	46.67	1.5	1.5	2.0	2.0	3.04	3.90	0.00	0.00	
PILEDRIIVER	All	ALL		52.01	54.01	1.5	1.5	2.0	2.0	11.79	24.76	1.50	0.80	
PIPEFITTER	All	BLD		53.00	56.00	1.5	1.5	2.0	2.0	11.85	22.85	0.00	2.92	
PLASTERER	All	BLD		48.65	51.57	2.0	1.5	2.0	2.0	11.65	28.21	0.00	0.55	
PLUMBER	All	BLD		54.80	58.10	1.5	1.5	2.0	2.0	16.70	17.04	0.00	1.58	
ROOFER	All	BLD		48.00	53.00	1.5	1.5	2.0	2.0	11.83	15.26	0.00	0.99	
SHEETMETAL WORKER	All	BLD		49.10	53.03	1.5	1.5	2.0	2.0	13.53	28.20	0.00	1.00	
SIGN HANGER	All	BLD		34.72	37.50	1.5	1.5	2.0	2.0	6.85	4.50	0.00	0.00	
SPRINKLER FITTER	All	BLD		54.55	57.30	1.5	1.5	2.0	2.0	14.20	18.70	0.00	0.75	
STEEL ERECTOR	All	ALL		55.81	57.81	2.0	2.0	2.0	2.0	16.05	25.31	0.00	0.49	
STONE MASON	All	BLD		49.81	54.79	1.5	1.5	2.0	2.0	12.10	21.56	0.00	1.10	
TERRAZZO FINISHER	All	BLD		45.57	45.57	1.5	1.5	2.0	2.0	12.25	17.14	0.00	1.03	
TERRAZZO MECHANIC	All	BLD		49.41	52.91	1.5	1.5	2.0	2.0	12.25	18.60	0.00	1.07	
TRAFFIC SAFETY WORKER I	All	Hwy		39.30	40.90	1.5	1.5	2.0	2.0	9.65	9.10	0.00	0.10	
TRAFFIC SAFETY WORKER II	All	Hwy		40.30	41.90	1.5	1.5	2.0	2.0	9.65	9.10	0.00	0.10	
TRUCK DRIVER	All	ALL	1	42.09	42.64	1.5	1.5	2.0	2.0	11.80	11.75	0.00	0.15	
TRUCK DRIVER	All	ALL	2	42.24	42.64	1.5	1.5	2.0	2.0	11.80	11.75	0.00	0.15	
TRUCK DRIVER	All	ALL	3	42.44	42.64	1.5	1.5	2.0	2.0	11.80	11.75	0.00	0.15	

TRUCK DRIVER	All	ALL	4	42.64	42.64	1.5	1.5	2.0	2.0	11.80	11.75	0.00	0.15
TUCKPOINTER	All	BLD		49.53	50.53	1.5	1.5	2.0	2.0	9.04	21.06	0.00	1.07

## **Legend**

**Rg** Region

**Type** Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers

**C** Class

**Base** Base Wage Rate

**OT M-F** Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

**OT Sa** Overtime pay required for every hour worked on Saturdays

**OT Su** Overtime pay required for every hour worked on Sundays

**OT Hol** Overtime pay required for every hour worked on Holidays

**H/W** Health/Welfare benefit

**Vac** Vacation

**Trng** Training

**Other Ins** Employer hourly cost for any other type(s) of insurance provided for benefit of worker.

## Explanations LAKE COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply. New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

## EXPLANATION OF CLASSES

**ASBESTOS - GENERAL** - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

**ASBESTOS - MECHANICAL** - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

## CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of

tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

## COMMUNICATION TECHNICIAN

Low voltage construction, installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including outside plant, telephone, security systems and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area network), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

## MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

**MATERIAL TESTER I:** Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

**MATERIAL TESTER II:** Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

## OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine;

Hoists, Tugger Single Drum, Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

## OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types; Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 75 Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine; Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blasters; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger, Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump



Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters; Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

#### OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer; Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.

Class 5. Friction or Lattice Boom Cranes.

Class 6. ROV Pilot, ROV Tender

#### TRAFFIC SAFETY Worker I

Traffic Safety Worker I - work associated with the delivery, installation, pick-up and servicing of safety devices during periods of roadway construction, including such work as set-up and maintenance of barricades, barrier wall reflectors, drums, cones, delineators, signs, crash attenuators, glare screen and other such items, and the layout and application or removal of conflicting and/or temporary roadway markings utilized to control traffic in construction zones, as well as flagging for these operations.

#### TRAFFIC SAFETY WORKER II

Work associated with the installation and removal of permanent pavement markings and/or pavement markers including both installations performed by hand and installations performed by truck.

#### TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turntrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turntrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

#### TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

#### Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

#### LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

#### MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
1	8010	Air Compressor	Air Delivery	41 CFM	to 10	Hoses included.	hour	\$1.31
2	8011	Air Compressor	Air Delivery	103 CFM	to 30	Hoses included.	hour	\$9.67
3	8012	Air Compressor	Air Delivery	130 CFM	to 50	Hoses included.	hour	\$11.50
4	8013	Air Compressor	Air Delivery	175 CFM	to 90	Hoses included.	hour	\$18.65
5	8014	Air Compressor	Air Delivery	400 CFM	to 145	Hoses included.	hour	\$36.88
6	8015	Air Compressor	Air Delivery	575 CFM	to 230	Hoses included.	hour	\$56.30
7	8016	Air Compressor	Air Delivery	1100 CFM	to 355	Hoses included.	hour	\$100.54
8	8017	Air Compressor	Air Delivery	1600 CFM	to 500	Hoses included.	hour	\$103.33
9	8040	Ambulance			to 150		hour	\$28.48
10	8041	Ambulance			to 210		hour	\$41.76
11	8050	Board, Arrow			to 8	Trailer Mounted.	hour	\$5.65
12	8051	Gasoline Powered Message Board,			to 5	Trailer Mounted.	hour	\$11.39
13	8052	Solar Powered Arrow/Message Board	SMC 5000 Mast-Mini	Mini Matrix Board, Smaller 3' x 6' Display			hour	\$4.00
14	8053	Solar Powered Message Board	PCMS-1500	Full Matrix Board, Display			hour	\$5.10
15	8060	Auger, Portable	Hole Diameter	16 In	to 6		hour	\$1.95
16	8061	Auger, Portable	Hole Diameter	18 In	to 13		hour	\$4.34
17	8062	Auger, Tractor Mounted	Max. Auger Diameter	36 In	to 13	Includes digger, boom & mounting hardware	hour	\$3.29
18	8063	Auger, Truck Mounted	Max. Auger Size	24 In	to 100	Includes digger, boom & mounting hardware and Tractor rate.	hour	\$35.68
19	8064	Hydraulic Sign Post Driver	Greenlee; HPD-HV-U	W/ 13 Hp power unit, 2ksi preasure	13	w/Double Hose Assembly	hour	\$5.69
20	8064-1	Hydraulic Sign Post Driver	Drophammer (D)	8" x 8" x 10"	to 100	Guard Rail Post	hour	\$35.27
21	8065	Auger	Horizontal Directional Boring Machine	250 X 100	300	DD-140B YR-2003	hour	\$241.89

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
23	8066	Auger	Horizontal Directional Boring Machine	50 X 100	24	Average to 7,000 lbs	hour	\$34.30
24	8067	Auger, Directional Boring Machine	Auger, Directional Boring Machine	7,000 - 10,000 lbs	45	JT920L (2013)	hour	\$43.80
25	8067-1	Directional Boring Machine	Vermeer D24X40A (disc. 2001)	Spindle Torque 4000 ft/lb	125		hour	\$93.30
26	8068	Bush Hog	Bush Hog - Model 326	Single Spindle Rotary Cutters			hour	\$20.90
27	8068-1	Bush Hog	Bush Hog - Model 3210	Lift, Pull, Semi-Mount & Offset Model			hour	\$29.14
28	8068-2	Bush Hog	Bush Hog - Model 2815	Flex Wing Rotary Cutters			hour	\$43.77
29	8070	Automobile			to 130	Transporting people.	mile	\$0.56
30	8071	Automobile			to 130	Transporting cargo.	hour	\$12.60
31	8072	Automobile, Police			to 250	Patrolling.	mile	\$0.56
32	8073	Automobile, Police			to 250	Stationary with engine running.	hour	\$16.27
33	8074	Automobile, Police	Ford Explorer		210		hour	\$18.75
34	8075	Motorcycle, Police					mile	\$0.52
35	8076	Automobile - Chevy Trailblazer	6 or 8 cl		285 to 300		hour	\$20.77
36	8077	Automobile - Ford Expedition	Fire Command Center	EcoBoost V-6	360	2015 Model	hour	\$19.97
37	8078	MRAP Armored Rescue Vehicle	Search and Rescue	Military Surplus Vehicle	375-450	Qualified foe operational rate on	hour	\$52.53
38	8079	MRAP C-MTV	Multi-Theater (Military Surplus)Vehicle			Qualified foe operational rate on	hour	\$49.03
39	8079-1	MRPA with 6-Tires		gvwr 55000 lbs	to 350		hour	\$53.00

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
40	8079-2	MRAP - BAE CAIMAN II Model	Police Armored Rescue/SWAT Team Vehicle		320		hour	\$54.00
41	8080	All Terrain Vehicle (ATV)	Engine 110cc, 4-Wheel; 20" tyre		6.5-7.5		hour	\$8.35
42	8081	All Terrain Vehicle (ATV)	Engine 125cc, 4-Wheel; 21" tyre		7.6-8.6		hour	\$8.79
43	8082	All Terrain Vehicle (ATV)	Engine 150cc, 4-Wheel; 22" tyre		9.0-10.0		hour	\$8.80
44	8083	All Terrain Vehicle (ATV)	Engine 200cc, 4-Wheel; 24" tyre		12-14.0		hour	\$9.36
45	8084	All Terrain Vehicle (ATV)	Engine 250cc, 4-Wheel; 24" tyre		15-17		hour	\$9.95
46	8085	All Terrain Vehicle (ATV)	Engine 300cc, 4-Wheel; 24" tyre		18-20		hour	\$10.81
47	8086	All Terrain Vehicle (ATV)	Engine 400cc, 4-Wheel; 25" tyre		26-28		hour	\$12.37
48	8087	All Terrain Vehicle (ATV)	Engine 450cc, 4-Wheel; 25" tyre		26-28		hour	\$13.25
49	8088	All Terrain Vehicle (ATV)	Engine 650cc, 4-Wheel; 25" tyre		38-40		hour	\$14.05
50	8089	All Terrain Vehicle (ATV)	Engine 750cc, 4-Wheel; 25" tyre		44-46		hour	\$15.00
51	8090	All Terrain Vehicle	Polaris-Ranger 900				hour	\$26.30
52	8091	All Terrain Vehicle	Honda Pioneer-1000-3				hour	\$27.00
53	8110	Barge, Deck	Size 50'x35'x7.25'	0		Push by Tug-Boat	hour	\$52.73
54	8111	Barge, Deck	Size 50'x35'x9'	0		Push by Tug-Boat	hour	\$56.53
55	8112	Barge, Deck	Size 120'x45'x10'	0		Push by Tug-Boat	hour	\$109.11
56	8113	Barge, Deck	Size 160'x45'x11"	0		Push by Tug-Boat	hour	\$132.11
57	8120	Boat, Tow	Size 55'x20'x5'	to 870		Steel.	hour	\$335.23
58	8121	Boat, Tow	Size 60'x21'x5'	to 1050		Steel.	hour	\$377.40

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
59	8122	Boat, Tow	Size	70'x30'x7.5'	to 1350	Steel.	hour	\$597.02
60	8123	Boat, Tow	Size	120'x34'x8'	to 2000	Steel.	hour	\$1,129.95
61	8124	Airboat	815AGIS Airboat w/spray unit	15'x8'	400		hour	\$33.16
62	8125	Airboat	815AGIS Airboat w/spray unit	15'x8'	425		hour	\$33.52
63	8126	Swamp Buggy	Conquest		360		hour	\$41.93
64	8130	Boat, Row			0	Heavy duty.	hour	\$1.49
65	8131	Boat, Runabout	Size	13'x5'	to 50	Outboard.	hour	\$12.73
66	8132	Boat, Tender	Size	14'x7'	to 100	Inboard with 360 degree drive.	hour	\$15.53
67	8133	Boat, Push	Size	45'x21'x6'	to 435	Flat hull.	hour	\$227.27
68	8134	Boat, Push	Size	54'x21'x6'	to 525	Flat hull.	hour	\$282.11
69	8135	Boat, Push	Size	58'x24'x7.5'	to 705	Flat hull.	hour	\$340.76
70	8136	Boat, Push	Size	64'x25'x8'	to 870	Flat hull.	hour	\$375.08
71	8140	Boat, Tug	Length	16 Ft	to 100		hour	\$45.23
72	8141	Boat, Tug	Length	18 Ft	to 175		hour	\$65.79
73	8142	Boat, Tug	Length	26 Ft	to 250		hour	\$82.83
74	8143	Boat, Tug	Length	40 Ft	to 380		hour	\$207.27
75	8144	Boat, Tug	Length	51 Ft	to 700		hour	\$285.33
76	8145	Jet Ski	3-seater				hour	\$28.09
77	8146	Jet Ski					hour	\$8.72
78	8147	Boat, Inflatable Rescue Raft	Zodiac		0		hour	\$1.15
79	8148	Boat, Runabout	1544 lbs	11 passenger capacity	190-250		hour	\$66.43
80	8149	Boat, Removable Engine	2000 Johnson Outboard Motor w 15"		15		hour	\$1.60
81	8150	Pavement Brooms	Self Propelled		to 37		hour	\$24.08
82	8151	Broom, Pavement	Broom Length	96 ln	to 100		hour	\$31.17

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
83	8153	Broom, Pavement, Mounted	Broom Length	72 In	to 18	Add Prime Mover cost for total rate	hour	\$5.76
84	8154	Broom, Pavement, Pull	Broom Length	84 In	to 20	Add Prime Mover cost for total rate	hour	\$15.32
85	8155	Broom, Pavement	Broom Length	72 In	to 35		hour	\$24.57
86	8157	Sweeper, Pavement			to 110		hour	\$85.20
87	8158	Sweeper, Pavement			to 230		hour	\$100.11
88	8180	Bus			to 150		hour	\$21.90
89	8181	Bus			to 210		hour	\$26.18
90	8182	Bus			to 300		hour	\$40.21
91	8183	Blower	Gasoline powered Toro Pro Force		27		hour	\$15.62
92	8183-1	Mosquito Sprayer	Guardian 95 ES	15-gal; 350 lbs			hour	\$19.09
93	8184	Back-Pack Blower			to 4.4		hour	\$1.55
94	8185	Walk-Behind Blower			13		hour	\$6.93
95	8187	Chainsaw	Bar Length = 20 in	3.0 cu in	3		hour	\$1.94
96	8188	Chainsaw	Bar Length = 20 in	5.0 cu in	6		hour	\$3.39
97	8189	Chainsaw	Bar Length = 20 in	6.0 cu in	7		hour	\$3.60
98	8190	Chain Saw	Bar Length = 16 in	2.5 cu in	2		hour	\$2.07
99	8191	Chain Saw	Bar Length = 25 in	7.5 cu in	8		hour	\$4.54
100	8192	Chain Saw	Bar Length = 18 in	4.0 cu in	3.2		hour	\$2.13
101	8193	Skidder	model 748 E		to 173		hour	\$115.15
102	8194	Skidder	model 648 G11		to 177		hour	\$138.73

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
103	8195	Cutter, Brush	Cutter Size	8 ft	to 150		hour	\$124.22
104	8196	Cutter, Brush	Cutter Size	8 ft	to 190		hour	\$137.38
105	8197	Cutter, Brush	Cutter Size	10 ft	to 245		hour	\$144.78
			Cutter, Brush - 247 hp, 1997 Model					
106	8198	Bruncher Cutter	511 Feller		to 247		hour	\$198.34
107	8199	Log Trailer	40 ft		0		hour	\$10.29
108	8200	Chipper, Brush	Chipping Capacity	6 In	to 35	Trailer Mounted.	hour	\$9.10
109	8201	Chipper, Brush	Chipping Capacity	9 In	to 65	Trailer Mounted.	hour	\$17.30
110	8202	Chipper, Brush	Chipping Capacity	12 In	to 100	Trailer Mounted.	hour	\$32.26
111	8203	Chipper, Brush	Chipping Capacity	15 In	to 125	Trailer Mounted.	hour	\$34.17
112	8204	Chipper, Brush	Chipping Capacity	18 In	to 200	Trailer Mounted.	hour	\$51.12
113	8208	Loader - Tractor - Knuckleboom	model Barko 595 ML		to 173		hour	\$172.12
114	8209	Loader - Wheel	model 210 w/ Buck Saw 50 inch Bar		to 240		hour	\$95.11
115	8210	Clamshell & Dragline, Crawler		149,999 lbs	to 235	Bucket not included in rate.	hour	\$131.38
116	8211	Clamshell & Dragline, Crawler		250,000 lbs	to 520	Bucket not included in rate.	hour	\$174.33
117	8212	Clamshell & Dragline, Truck			to 240	Bucket not included in rate.	hour	\$142.26
118	8217	Compactor	2-ton pavement roller	to 76" wide	40		hour	\$27.29
119	8218	BOMAG Compactor	BW100AD-3		33		Hour	\$29.33



# FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
		Compactor -2-Ton	Single Drum					
120	8219	Pavement Roller	Vibratory Compactor	to 2.9 Ton	28		hour	\$29.12
121	8220	Compactor			to 10		hour	\$15.32
		Compactor, Towed,						
122	8221	Vibratory Drum			to 45	Plus tow Truck	hour	\$35.01
123	8222	Compactor, Vibratory, Drum			to 75		hour	\$25.34
124	8223	Compactor, Pneumatic, Wheel			to 100		hour	\$52.15
125	8224	Vibratory Compactor	Caterpillar CP-563D		145		hour	\$60.75
126	8225	Compactor, Sanitation			to 300		hour	\$97.46
127	8226	Compactor, Sanitation			to 400		hour	\$156.79
128	8227	Compactor, Sanitation			535		hour	\$308.62
		Compactor, Towed,						
129	8228	Pneumatic, Wheel	Hercules PT-11,	10,000 lbs		11-Wheels (Towed)	hour	\$18.71
		Compactor, Towed Steel						
130	8229	Drum Static Compactor	GTD-54120	20,000 lbs		Grid Drum (Towed)	hour	\$23.95
131	8240	Feeder, Grizzly			to 35		hour	\$27.43
132	8241	Feeder, Grizzly			to 55		hour	\$34.74
133	8242	Feeder, Grizzly			to 75		hour	\$65.75
134	8250	Dozer, Crawler	Deere 450J LT		to 75		hour	\$55.15
135	8251	Dozer, Crawler	Deere 650K LGP, ROPS/FOPS		to 105		hour	\$73.31
136	8252	Dozer, Crawler			to 160		hour	\$95.45
137	8253	Dozer, Crawler			to 250		hour	\$152.20
138	8254	Dozer, Crawler			to 360		hour	\$223.35

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
139	8255	Dozer, Crawler	Make/Model: CAT D10T (disc. 2014); Protection: EROPS; Type Semi- U		to 574		hour	\$348.96
140	8256	Dozer, Crawler			to 850		hour	\$363.50
141	8260	Dozer, Wheel			to 300		hour	\$106.42
142	8261	Dozer, Wheel			to 400		hour	\$102.64
143	8262	Dozer, Wheel			to 500		hour	\$200.86
144	8263	Dozer, Wheel			to 625		hour	\$242.66
145	8269	Box Scraper	3 hitch attach for tractor; 2007 Befco		0		hour	\$3.70
146	8270	Bucket, Clamshell	Capacity	1.0 CY	0	Includes teeth. Does not include Clamshell & Dragline	hour	\$4.74
147	8271	Bucket, Clamshell	Capacity	2.5 CY	0	Includes teeth. Does not include Clamshell & Dragline	hour	\$9.12
148	8272	Bucket, Clamshell	Capacity	5.0 CY	0	Includes teeth. Does not include Clamshell & Dragline	hour	\$13.62
149	8273	Bucket, Clamshell	Capacity	7.5 CY	0	Includes teeth. Does not include Clamshell & Dragline	hour	\$26.52
150	8275	Bucket, Dragline	Capacity	2.0 CY	0	Does not include Clamshell & Dragline	hour	\$4.06
151	8276	Bucket, Dragline	Capacity	5.0 CY	0	Does not include Clamshell & Dragline	hour	\$10.14

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
152	8277	Bucket, Dragline	Capacity	10 CY	0	Does not include Clamshell & Dragline	hour	\$14.62
153	8278	Bucket, Dragline	Capacity	14 CY	0	Does not include Clamshell & Dragline	hour	\$19.02
154	8280	Excavator, Hydraulic	Bucket Capacity	0.5 CY	to 45	Crawler, Truck & Wheel. Includes bucket.	hour	\$20.46
155	8281	Excavator, Hydraulic	Bucket Capacity	1.0 CY	to 90	Crawler, Truck & Wheel. Includes bucket.	hour	\$57.67
156	8282	Excavator, Hydraulic	Bucket Capacity	1.5 CY	to 160	Crawler, Truck & Wheel. Includes bucket.	hour	\$82.48
157	8283	Excavator, Hydraulic	Bucket Capacity	2.5 CY	to 265	Crawler, Truck & Wheel. Includes bucket.	hour	\$137.11
158	8284	Excavator, Hydraulic	Bucket Capacity	4.5 CY	to 420	Crawler, Truck & Wheel. Includes bucket.	hour	\$272.66
159	8285	Excavator, Hydraulic	Bucket Capacity	7.5 CY	to 650	Crawler, Truck & Wheel. Includes bucket.	hour	\$309.18
160	8286	Excavator, Hydraulic	Bucket Capacity	12 CY	to 1000	Crawler, Truck & Wheel. Includes bucket.	hour	\$472.94
161	8287	Excavator	2007 model Gradall XL3100 III		184		hour	\$104.57
162	8288	Excavator	2003 model Gradall XL4100 III		238		hour	\$120.67
163	8289	Excavator	2006 model Gradall XL5100		230		hour	\$135.66
164	8290	Trowel, Concrete	Diameter	48 In	to 12		hour	\$4.46
165	8300	Fork Lift	Capacity	6000 Lbs	to 60		hour	\$13.63
166	8301	Fork Lift	Capacity	12000 Lbs	to 90		hour	\$18.66
167	8302	Fork Lift	Capacity	18000 Lbs	to 140		hour	\$26.03
168	8303	Fork Lift	Capacity	50000 Lbs	to 215		hour	\$57.41

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
169	8306	Fork Lift Material Handler	Diesel, CAT TH360B	6600-11500 gwvr lbs	94.9	3.1- 3.5 Mton	hour	\$46.49
170	8307	Fork Lift Material Handler	Diesel, CAT TH460B	9000 lbs	94.9	4.5 - 4.9 Mton	hour	\$53.54
171	8308	Fork Lift Material Handler	Diesel, CAT TH560B	10000 lbs	117.5	4.5 - 4.9 Mton	hour	\$58.74
172	8309	Fork Lift Accessory	2003 ACS Paddle Fork		0		hour	\$3.58
173	8310	Generator	Prime Output	5.5 KW	to 10		hour	\$4.95
174	8311	Generator	Prime Output	16 KW	to 25		hour	\$7.92
175	8311-1	Generator		20 KVA	44		hour	\$25.00
176	8312	Generator	Prime Output	60KW	to 88		hour	\$25.92
177	8313	Generator	Prime Output	100 KW	to 125		hour	\$40.01
178	8314	Generator	Prime Output	150 KW	to 240		hour	\$55.67
179	8315	Generator	Prime Output	210 KW	to 300		hour	\$77.67
180	8316	Generator	Prime Output	280 KW	to 400		hour	\$88.84
181	8317	Generator	Prime Output	350 KW	to 500		hour	\$99.73
182	8317-1	Generator	Prime Output	400KVA = 320KW	464	Enclosed	hour	\$118.18
183	8318	Generator	Prime Output	530 KW	to 750		hour	\$159.09
184	8319	Generator	Prime Output	710 KW	to 1000		hour	\$204.67
185	8320	Generator	Prime Output	1100 KW	1645	Open	hour	\$362.20
186	8321	Generator	Prime Output	2500 KW	to 3000		hour	\$561.53
187	8322	Generator	Prime Output	1,000 KW	to 1645	Enclosed	hour	\$467.83
188	8323	Generator	Prime Output	1,500 KW	to 2500	Enclosed	hour	\$544.93
189	8324	Generator	Prime Output	1100KW	2500	Enclosed	hour	\$544.93
190	8325	Generator	Prime Output	40KW	63	Open	hour	\$23.48
191	8326	Generator	Prime Output	20KW	35	Open/Closed	hour	\$16.70
192	8327	Generator Large	Prime Output	800 KW	1065		hour	\$235.71
193	8327-1	Generator	Prime Output	80 KW	120		hour	\$32.09
194	8327-2	SOLAR/GAS Turbine Generator-Taurus 70	7-Megawatts Solar, 3- Megawatts Stean Turbine	7000 KW	10915	12470- Volts to Micro grid, or 115000 Volts to City Utility. When operated with gas	hour	\$2,600.00

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
		SOLAR/GAS Turbine	7-Megawatts Solar, 3- Megawatts Stearn Turbine			12470- Volts to Micro grid, or 115000 Volts to City Utility, When operated with Solar	hour	\$800.00
195	8327-3	Generator-Taurus 70		7001 KW	10915		hour	\$299.28
196	8328	Generator	Prime Output	900 KW	1355		hour	\$496.86
197	8328-1	Generator Heavy Duty	Prime Output	2000KW		Open	hour	\$450.78
198	8329	Generator	Prime Output	1000 KW	to 1645	Open	hour	
199	8330	Graders	Moldboard Size	10 Ft	to 110	Includes Rigid and Articulate equipment.	hour	\$44.60
200	8331	Graders	Moldboard Size	12 Ft	to 150	Includes Rigid and Articulate equipment.	hour	\$65.12
201	8332	Graders	Moldboard Size	14 Ft	to 225	Includes Rigid and Articulate equipment.	hour	\$100.61
202	8334	Graders	CAT 140; ROPS; Diesel; Moldboard Size: 168 x 24 x 0.9	Diesel	275		hour	\$124.00
203	8350	Hose, Discharge	Diameter	3 In	0	Per 25 foot length. Includes couplings.	hour	\$0.16
204	8351	Hose, Discharge	Diameter	4 In	0	Per 25 foot length. Includes couplings.	hour	\$0.24
205	8352	Hose, Discharge	Diameter	6 In	0	Per 25 foot length. Includes couplings.	hour	\$0.61
206	8353	Hose, Discharge	Diameter	8 In	0	Per 25 foot length. Includes couplings.	hour	\$0.63

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
207	8354	Hose, Discharge	Diameter	12 In	0	Per 25 foot length. Includes couplings.	hour	\$0.93
208	8355	Hose, Discharge	Diameter	16 In	0	Per 25 foot length. Includes couplings.	hour	\$1.73
209	8356	Hose, Suction	Diameter	3 In	0	Per 25 foot length. Includes couplings.	hour	\$0.29
210	8357	Hose, Suction	Diameter	4 In	0	Per 25 foot length. Includes couplings.	hour	\$0.34
211	8358	Hose, Suction	Diameter	6 In	0	Per 25 foot length. Includes couplings.	hour	\$1.13
212	8359	Hose, Suction	Diameter	8 In	0	Per 25 foot length. Includes couplings.	hour	\$1.13
213	8360	Hose, Suction	Diameter	12 In	0	Per 25 foot length. Includes couplings.	hour	\$1.75
214	8361	Hose, Suction	Diameter	16 In	0	Per 25 foot length. Includes couplings.	hour	\$3.34
215	8380	Loader, Crawler	Bucket Capacity	0.5 CY	to 32	Includes bucket.	hour	\$20.66
216	8381	Loader, Crawler	Bucket Capacity	1 CY	to 60	Includes bucket.	hour	\$35.85
217	8382	Loader, Crawler	Bucket Capacity	2 CY	to 118	Includes bucket.	hour	\$69.98
218	8383	Loader, Crawler	Bucket Capacity	3 CY	to 178	Includes bucket.	hour	\$126.60
219	8384	Loader, Crawler	Bucket Capacity	4 CY	to 238	Includes bucket.	hour	\$120.21
220	8390	Loader, Wheel	Bucket Capacity	0.5 CY	to 38		hour	\$21.01
221	8391	Loader, Wheel	Bucket Capacity	1 CY	to 60		hour	\$41.05
222	8392	Loader, Wheel	Bucket Capacity	2 CY	to 105	CAT-926	hour	\$39.35
223	8393	Loader, Wheel	Bucket Capacity	3 CY	to 152		hour	\$46.45

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
224	8394	Loader, Wheel	Bucket Capacity	4 CY	232		hour	\$78.13
225	8395	Loader, Wheel	Bucket Capacity	5 CY	255		hour	\$80.80
226	8396	Loader, Wheel	Bucket Capacity	6 CY	to 305		hour	\$113.83
227	8397	Loader, Wheel	Bucket Capacity	7 CY	to 360		hour	\$139.70
228	8398	Loader, Wheel	Bucket Capacity	8 CY	to 530		hour	\$190.00
229	8399	Tractor	John Deere 6605	Tractor with mower	95		hour	\$17.33
230	8400	Tractor	New Holland T6031	Tractor - agriculture all purpose	115		hour	\$35.56
231	8401	Loader, Tractor, Wheel	Bucket Capacity	0.87 CY	to 80	Case 580 Super L	hour	\$37.76
232	8410	Mixer, Concrete Portable	Batching Capacity	10 Cft	8	Diesel Powered	hour	\$3.17
233	8411	Mixer, Concrete Portable	Batching Capacity	12 Cft	11	Gasoline Powered	hour	\$5.48
234	8412	Mixer, Concrete, Trailer Mounted	Batching Capacity	11 Cft	to 10		hour	\$14.59
235	8413	Mixer, Concrete, Trailer Mounted	Batching Capacity	16 Cft	to 25		hour	\$19.70
236	8414	Truck, Concrete Mixer	Mixer Capacity	13 CY	to 300		hour	\$85.90
237	8419	Hand-Held, Pavement Breakers	Air Tool/Electric Power	90 Lbs	0		hour	\$1.17
238	8420	Self-Propelled Pavement Breaker,	Self-Propelled (Diesel)		to 70-80		hour	\$59.37
239	8421	Vibrator, Concrete	Hand Held		to 4		hour	\$1.65
240	8423	Spreader, Chip	Spread Hopper Width	12.5 Ft	to 152		hour	\$88.36
241	8424	Spreader, Chip	Spread Hopper Width	16.5 Ft	to 215		hour	\$121.45
242	8425	Spreader, Chip, Mounted	Hopper Size	8 Ft	to 8	Trailer & truck mounted. Does not include Prime Mover.	hour	\$4.65
243	8430	Paver, Asphalt, Towed			0		hour	\$12.84

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
244	8431	Paver, Asphalt	Crawler		to 50	Includes wheel and crawler equipment.	hour	\$66.94
245	8432	Paver, Asphalt	Crawler		to 125	Includes wheel and crawler equipment.	hour	\$92.45
246	8433	Paver, Asphalt	Crawler		to 175	Includes wheel and crawler equipment.	hour	\$252.13
247	8434	Paver, Asphalt		35,000Lbs & Over	to 250	Includes wheel and crawler equipment.	hour	\$246.91
248	8436	Pick-up, Asphalt			to 110		hour	\$112.03
249	8437	Pick-up, Asphalt	Cederapids	CR MS-2	113 to 140	Asphalt-Pick-up Machine	hour	\$146.98
250	8438	Pick-up, Asphalt	Blaw-Knox	MC-330	184 to 200	Asphalt-Pick-up Machine	hour	\$196.08
251	8439	Pick-up, Asphalt		MTV 1000C	to 275	Asphalt-Pick-up Machine	hour	\$282.37
252	8440	Striper	Paint Capacity	40 Gal	to 22		hour	\$16.76
253	8441	Striper	Paint Capacity	90 Gal	to 60		hour	\$23.17
254	8442	Striper	Paint Capacity	120 Gal	to 122		hour	\$42.65
255	8445	Striper, Truck Mounted	Paint Capacity	120 Gal	to 460		hour	\$76.28
256	8446	Striper, Walk-behind	Paint Capacity	12 Gal	5		hour	\$3.96
257	8447	Paver Accessory - Belt Extension	2002 Leeboy Conveyor Belt Extension	24' X 50'	0	crawler	hour	\$37.18
258	8450	Plow, Snow, Grader Mounted	Width	to 10 Ft	0	Include Grader for total cost	hour	\$28.51
259	8451	Plow, Snow, Grader Mounted	Width	to 14 Ft	0	Include Grader for total cost	hour	\$33.00



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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
260	8452	Plow, Truck Mounted	Width	to 15 Ft	0	Include truck for total cost	hour	\$23.80
261	8453	Plow, Truck Mounted	Width	to 15 Ft	0	With leveling wing. Include truck for total cost	hour	\$40.69
262	8455	Spreader, Sand	Mounting	Tailgate, Chassis	0	Truck not included	hour	\$8.02
263	8456	Spreader, Sand	Mounting	Dump Body	0	Truck not included	hour	\$10.88
264	8457	Spreader, Sand	Mounting	Truck (10yd)	0	Truck not included	hour	\$13.62
265	8458	Spreader, Chemical	Capacity	5 CY	to 4	Trailer & truck mounted.	hour	\$6.49
266	8469	Pump - Trash Pump	10 MTC	2" Pump	to 7	10,000 gph	hour	\$8.28
267	8470	Pump	Centrifugal, 8M pump	2" - 10,000 gal/hr.	to 4.5	Hoses not included.	hour	\$7.79
268	8471	Pump	Diaphragm pump	2" - 3,000 gal/hr.	to 6	Hoses not included.	hour	\$9.59
269	8472	Pump	Centrifugal, 18M pump	3" - 18,000 gal/hr.	to 10	Hoses not included.	hour	\$9.05
270	8473	Pump			to 15	Hoses not included.	hour	\$12.25
271	8474	Pump			to 25	Hoses not included.	hour	\$13.96
272	8475	Pump			to 40	Hoses not included.	hour	\$17.22
273	8476	Pump	4"	40,000 gal/hr.	to 60	Hoses not included.	hour	\$26.88
274	8477	Pump			to 95	Hoses not included.	hour	\$34.78
275	8478	Pump			to 140	Hoses not included.	hour	\$41.19
276	8479	Pump			to 200	Hoses not included.	hour	\$51.50
277	8480	Pump			to 275	Does not include Hoses.	hour	\$69.29
278	8481	Pump			to 350	Does not include Hoses.	hour	\$82.80
279	8482	Pump			to 425	Does not include Hoses.	hour	\$100.40
280	8483	Pump			to 500	Does not include Hoses.	hour	\$118.85
281	8484	Pump			to 575	Does not include Hoses.	hour	\$138.44
282	8484-1	Pump	Electric Motor		600		hour	\$142.65
283	8485	Pump			to 650	Does not include Hoses.	hour	\$157.05
284	8485-1	Pump			746		hour	\$177.36
285	8485-2	Pump			905		hour	\$215.60

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	A	B	C	D	E	F	G	H
	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
1	8485-3	Pump		110,000 gpm	1000		hour	\$360.00
286	8485-4	Pump	CAT-3606 Engine		2250		hour	\$775.00
287	8485-5	Pump		464,125 gpm	2500		hour	\$780.00
288		Pump -High Powered Pump with Caterpillar Engine	C280-12 CAT Engine	1000-RPM, 20,000 CFM	5444	Fairbanks Morse/Lufkin Heavy Duty Pump	hour	\$1,285.00
289	8485-6					Add this rate to truck rate for total lift and truck rate	hour	\$12.05
290	8486	Aerial Lift, Truck Mounted	Max. Platform Height	40 Ft		Add this rate to truck rate for total lift and truck rate	hour	\$20.95
291	8487	Aerial Lift, Truck Mounted	Max. Platform Height	61 Ft		Add this rate to truck rate for total lift and truck rate	hour	\$38.85
292	8488	Aerial Lift, Truck Mounted	Max. Platform Height	80 Ft		Articulated and Telescoping. Add this rate to truck rate for total lift and truck rate	hour	\$39.10
293	8489	Aerial Lift, Truck Mounted	Max. Platform Load - 600Lbs	81 Ft -100 Ft. Ht.		Articulated, Telescoping, Scissor.	hour	\$9.15
294	8490	Aerial Lift, Self-Propelled	Max. Platform Height	37 Ft. Ht.	to 15	Articulated, Telescoping, Scissor.	hour	\$33.24
295	8491	Aerial Lift, Self-Propelled	Max. Platform Height	60 Ft. Ht.	to 30	Articulated, Telescoping, Scissor.	hour	\$26.58
296	8492	Aerial Lift, Self-Propelled	Max. Platform Height	70 Ft. Ht.	to 50	Articulated and Telescoping.	hour	\$57.49
297	8493	Aerial Lift, Self-Propelled	Max. Platform Height	125 Ft. Ht.	to 85	Articulated and Telescoping.	hour	\$74.93
298	8494	Aerial Lift, Self-Propelled	Max. Platform Height	150 Ft. Ht.	to 130	Articulated and Telescoping.	hour	\$30.13
299	8495	I.C. Aerial Lift, Self-Propelled	Max. Platform Load - 500 Lbs	75"x155", 40Ft Ht.	to 80	2000 Lbs Capacity	hour	

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
300	8496	Crane, Truck Mounted	Max. Lift Capacity	24000 Lbs	0	Include truck rate for total cost	hour	\$20.80
301	8497	Crane, Truck Mounted	Max. Lift Capacity	36000 Lbs	0	Include truck rate for total cost	hour	\$29.28
302	8498	Crane, Truck Mounted	Max. Lift Capacity	60000 Lbs	0	Include truck rate for total cost	hour	\$45.07
303	8500	Crane	Max. Lift Capacity	8 MT	to 80		hour	\$59.49
304	8501	Crane	Max. Lift Capacity	15 MT	to 150		hour	\$98.07
305	8502	Crane	Max. Lift Capacity	50 MT	to 200		hour	\$141.89
306	8503	Crane	Max. Lift Capacity	70 MT	to 300		hour	\$198.29
307	8504	Crane (Crawler)	Max. Lift Capacity	110 MT	to 350		hour	\$232.88
308	8510	Saw, Concrete	Blade Diameter	14 In	to 14		hour	\$7.29
309	8511	Saw, Concrete	Blade Diameter	26 In	to 35		hour	\$11.63
310	8512	Saw, Concrete	Blade Diameter	48 In	to 65		hour	\$24.18
311	8513	Saw, Rock	Blade Diameter		to 100		hour	\$41.98
312	8514	Saw, Rock	Blade Diameter		to 200		hour	\$94.55
313	8517	Jackhammer (Dry)	Weight Class	25-45 Lbs	0	Pneumatic Powered	hour	\$1.71
314	8518	Jackhammer (Wet)	Weight Class	30-55 Lbs	0	Pneumatic Powered	hour	\$1.90
315	8521	Scraper	Scraper Capacity	15 CY	to 262		hour	\$131.34
316	8522	Scraper	Scraper Capacity	22 CY	to 365		hour	\$213.55
317	8523	Scraper	Scraper Capacity	34 CY	to 500		hour	\$275.45
318	8524	Scraper	Scraper Capacity	44 CY	to 604		hour	\$327.93
319	8540	Loader, Skid-Steer	Operating Capacity	976 - 1250 Lbs	to 36		hour	\$26.04
320	8541	Loader, Skid-Steer	Operating Capacity	1751 - 2200 Lbs	to 66		hour	\$31.16
321	8542	Loader, Skid-Steer	Operating Capacity	2901 to 3300 Lbs	to 81		hour	\$36.76

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
322	8549	Snow Plower, Salt Spreader	Towed Salt Spreader/Snow Plower	26 ft X 8 ft	260	Plus Towed Salt Spreader	hour	\$25.00
323	8550	Snow Blower, Truck Mounted	Capacity	600 Tph	to 75	Does not include truck	hour	\$33.74
324	8551	Snow Blower, Truck Mounted	Capacity	1400 Tph	to 200	Does not include truck	hour	\$90.01
325	8552	Snow Blower, Truck Mounted	Capacity	2000 Tph	to 340	Does not include truck	hour	\$135.34
326	8553	Snow Blower, Truck Mounted	Capacity	2500 Tph	to 400	Does not include truck	hour	\$147.02
327	8558	Snow Thrower, Walk Behind	Cutting Width	25 in	to 5		hour	\$3.01
328	8559	Snow Thrower, Walk Behind	Cutting Width	60 in	to 15		hour	\$14.67
329	8559-1	SnowBroom	Oshkosh Snow Broom	Blower Airport Equipment Model 2718	450-500		hour	\$184.00
330	8560	Snow Blower	Capacity	2,000 Tph	to 400		hour	\$232.52
331	8561	Snow Blower	Capacity	2,500 Tph	to 500		hour	\$251.98
332	8561-1	Snow Blower	MTE Snow Mauler		428		hour	\$260.00
333	8561-2	Snow Blower	Vammas PSB 4500MTE	Uses high quality Bristles	420		hour	\$266.00
334	8562	Snow Blower	Capacity	3,500 Tph	to 600		hour	\$278.68
335	8563	The Vammas 4500	Snow Remover	26ft Plow, 20ft Broom + Airblast	428	Equip with Plow & Broom	hour	\$263.64
336	8564	The Vammas 5500	RM300	96"W x 20"D	350	Soil Stabilization, Reclaimer	hour	\$214.97
337	8565	Pavement Sweeper	H-Series		420	Equip with Broom	hour	\$232.21
338	8569	Dust Control De-Ice Unit	1300-2000 gal	173"Lx98"Wx51"H	5.5	Hydro Pump w/100' 1/2" hose	hour	\$3.59

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
339	8570	Loader-Backhoe, Wheel	Loader Bucket Capacity	0.5 CY	to 40	Loader and Backhoe Buckets included.	hour	\$22.97
340	8571	Loader-Backhoe, Wheel	Loader Bucket Capacity	1 CY	to 70	Loader and Backhoe Buckets included.	hour	\$30.36
341	8572	Loader-Backhoe, Wheel	Loader Bucket Capacity	1.5 CY	to 95	Loader and Backhoe Buckets included.	hour	\$43.91
342	8573	Loader-Backhoe, Wheel	Loader Bucket Capacity	1.75 CY	to 115	Loader and Backhoe Buckets included.	hour	\$52.69
343	8580	Distributor, Asphalt	Tank Capacity Mounted on Trailer	550 Gal	16	burners, insulated tank, and circulating spray bar.	hour	\$18.40
344	8581	Distributor, Asphalt	Tank Capacity Mounted on Trailer	1000 Gal	38	Truck Mounted. Includes burners, insulated tank, and circulating spray bar. Include truck rate.	hour	\$27.35
345	8582	Distributor, Asphalt	Tank Capacity Mounted on Truck	4000 Gal		Truck Mounted. Includes burners, insulated tank, and circulating spray bar. Include truck rate.	hour	\$39.34
346	8583	Distributor	ETNYRE Oil Distributor Model - PB348		300		hour	\$44.18
347	8584	Distributor	ETNYRE Quad Chip Spreader		280		hour	\$88.36
348	8590	Trailer, Dump	Capacity	20 CY	0	Does not include Prime Mover.	hour	\$12.81

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
349	8591	Trailer, Dump	Capacity	30 CY	0	Does not include Prime Mover.	hour	\$13.56
350	8600	Trailer, Equipment	Capacity	30 Tons	0		hour	\$16.99
351	8601	Trailer, Equipment	Capacity	40 Tons	0		hour	\$18.74
352	8602	Trailer, Equipment	Capacity	60 Tons	0		hour	\$23.01
353	8603	Trailer, Equipment	Capacity	120 Tons	0		hour	\$34.36
354	8610	Trailer, Water	Tank Capacity	4000 Gal	0	Includes a centrifugal pump with sump and a rear spraybar.	hour	\$15.84
355	8611	Trailer, Water	Tank Capacity	6000 Gal	0	Includes a centrifugal pump with sump and a rear spraybar.	hour	\$19.44
356	8612	Trailer, Water	Tank Capacity	10000 Gal	0	Includes a centrifugal pump with sump and a rear spraybar.	hour	\$22.61
357	8613	Trailer, Water	Tank Capacity	14000 Gal	0	Includes a centrifugal pump with sump and a rear spraybar.	hour	\$28.09
358	8614	Truck- Water Tanker	1000 gal. tank		175		hour	\$32.44
359	8620	Tub Grinder			to 440		hour	\$99.68
360	8621	Tub Grinder			to 630		hour	\$150.70
361	8622	Tub Grinder			to 760		hour	\$192.21
362	8623	Tub Grinder			to 1000		hour	\$337.45
363	8627	Horizontal Grinder	Model HG6000		630		hour	\$59.95
364	8628	Stump Grinder	1988 Vermeer SC-112		102		hour	\$49.27
365	8629	Stump Grinder	24" grinding wheel		110		hour	\$46.96

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	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
366	8630	Sprayer, Seed	Working Capacity	750 Gal	to 30	Trailer & truck mounted. Does not include Prime Mover.	hour	\$14.61
367	8631	Sprayer, Seed	Working Capacity	1250 Gal	to 50	Trailer & truck mounted. Does not include Prime Mover.	hour	\$20.21
368	8632	Sprayer, Seed	Working Capacity	3500 Gal	to 115	Trailer & truck mounted. Does not include Prime Mover.	hour	\$30.20
369	8633	Mulcher, Trailer Mounted	Working Capacity	7 TPH	to 35		hour	\$15.17
370	8634	Mulcher, Trailer Mounted	Working Capacity	10 TPH	to 55		hour	\$22.34
371	8635	Mulcher, Trailer Mounted	Working Capacity	20 TPH	to 120		hour	\$31.50
372	8636	Scraper	Soil Recycler WR 2400	w 317 gal fuel tank	563		hour	\$320.08
373	8637	Trailer	Double Belly Bottom-dump Trailer	26 CY of soil in one dump	330	13 CY of soil each berry	hour	\$40.53
374	8638	Rake	Barber Beach Sand Rake 600HDr, towed		0	Towed by Beach vehicle	hour	\$16.00
375	8639	Chipper	Wildcat 626 Cougar Trommel Screen chipper w belt		125		hour	\$35.88
376	8640	Trailer, Office	Trailer Size	8' x 24'	0	Cargo Size 16ft	hour	\$2.31
377	8641	Trailer, Office	Trailer Size	8' x 32'	0	Cargo Size 24ft	hour	\$2.74
378	8642	Trailer, Office	Trailer Size	10' x 32'	0	Cargo Size 20ft	hour	\$3.62

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
379	8643	Trailer	Haz-Mat Equipment trailer	8'x18'	0	Move by Tractor to Location	hour	\$39.42
380	8644	Trailer, Covered Utility	(7' X 16')		0	Move by Tractor to Location	hour	\$5.96
381	8645	Trailer, Dodge Ram	8' x 24' shower trailer- 12 showers		101		hour	\$30.75
382	8646	Trailer, Dodge	8' x 32' flatbed water	25,000 MGWV	200	4x2-Axle	hour	\$29.00
383	8650	Trencher			to 40	Walk-behind, Crawler & Wheel Mounted. Chain and Wheel.	hour	\$17.24
384	8651	Trencher			to 85	Walk-behind, Crawler & Wheel Mounted. Chain and Wheel.	hour	\$29.85
385	8652	Trencher/Ditcher	New Holland B115B (disc. 2012)	EROPS 4WD	108		hour	\$36.56
386	8653	Trencher/Ditcher	New Holland T8.330	EROPS 4WD	284		hour	\$86.94
387	8654	Trencher Accessories	2008 Griswold Trenchbox		0		hour	\$1.99
388	8660	Plow, Cable	Plow Depth	24 in	to 30		hour	\$13.93
389	8661	Plow, Cable	Plow Depth	36 in	to 65		hour	\$40.95
390	8662	Plow, Cable	Plow Depth	48 in	to 110		hour	\$43.15
391	8670	Derrick, Hydraulic Digger	Max. Boom = 60 Ft, 12,000 Ft-Lb Hydraulic	Lift Capacity 15,500 Lbs	275	Includes hydraulic pole alignment attachment. Include truck rate	hour	\$36.15



FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
392	8671	Derrick, Hydraulic Digger	Max. Boom = 90 Ft, 14000 Ft-Lb Hydraulic	Lift Capacity 26,700 Lbs	310	Includes hydraulic pole alignment attachment. Include truck rate	hour	\$56.38
393	8672	Movax SP-60	28-32 ton Head	134KW	178	Sonic Sidegrip Vibratory Pile Driver	Hour	\$110.73
394	8680	Truck, Fire Aerial Platform	112Ft Ladder	3000gpm/1000 gal Water or Foam	600	2-1000gpm Nozzles 1- Each side of Platform	Hour	\$85.90
395	8681	Truck, Fire, Engine Type-1		1000GPM/300gal		Engine, with Pump & Roll	hour	\$141.96
396	8682	Truck, Fire, Engine Type-2		500GPM/300gal		Engine, with Pump & Roll	hour	\$133.85
397	8683	Truck, Fire, Engine Type-3	48 ft Ladder	150gpm/500gal,	115-149	Hose 1-1/2"D 500' Long	hour	\$120.97
398	8684	Truck, Fire	Aerial 100Ft Ladder	2000gpm/500gal	450	1500gpm Monitor/nozzle	hour	\$180.49
399	8685	Truck, Fire (Type-I)	48 ft Ladder	1000gpm/400gal, 500gpm Master Stream	200-250	Hose 2-1/2"D 1200' Long	hour	\$156.16
400	8686	Truck, Fire (Type-II)	48 ft Ladder	500gpm/300gal	100-199	Hose 2-1/2"D 1000' Long	hour	\$133.34
401	8687	Truck, Fire, Support Water Tender S1		300GPM/4000gal	115-149	S1 Water Tender	hour	\$116.10
402	8688	Truck, Fire, Support Water Tender S2		200GPM/2500gal		S2 Water Tender	hour	\$104.95
403	8689	Truck, Fire, Support Water Tender S3		200GPM/1000gal		S3 Water Tender	hour	\$80.11
404	8690	Truck, Fire		1000 GPM @150 psi			hour	\$71.31
405	8691	Truck, Fire		1250 GPM/2500 gal	500		hour	\$75.61
406	8692	Truck, Fire		1500 GPM/1000 gal	500		hour	\$82.24
407	8693	Truck, Fire		2000 GPM			hour	\$85.22

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
408	8694	Truck, Fire Ladder	Aerial 75 ft ladder	1500GPM/600 gal	475		hour	\$122.69
409	8695	Truck, Fire Ladder	Aerial 150 ft ladder	150 FT		No Platform,	hour	\$148.48
410	8696	Truck, Fire	No Ladder		330	Rescue Equipment	hour	\$97.71
411	8697	Truck, Fire, Tactical Water Tender T1		250GPM/2000gal	175		hour	\$121.17
412	8698	Truck, Fire, Tactical Water Tender T2		250GPM/1000gal			hour	\$104.11
413	8699 3	Truck, Fire, Engine Type-		150GPM/500gal		Engine, with Pump & Roll	hour	\$128.27
414	8700	Truck, Flatbed	Maximum Gvw	15000 lbs	to 200	Diesel Engine	hour	\$22.24
415	8701	Truck, Flatbed	Maximum Gvw	25000 lbs	to 275	Gasoline Engine	hour	\$33.72
416	8701-1	Truck, Flatbed	Maximum Gvw	25000 lbs	200	Diesel Engine	hour	\$28.95
417	8702	Truck, Flatbed	Maximum Gvw	30000 lbs	217	Diesel Engine	hour	\$29.31
418	8703	Truck, Flatbed	Maximum Gvw	45000 lbs	to 380	Diesel Engine	hour	\$48.23
419	8708	Trailer, Semi	48ft to 53ft, flat-bed, freight, two axle	50,000 gvw	0		hour	\$8.79
420	8709	Trailer, Semi	enclosed 48 ft to 53 ft, two axles	50,000 gvw	0	Enclosed	hour	\$9.96
421	8710	Trailer, Semi	28ft, single axle, freight	25,000 gvw	0		hour	\$10.15
422	8711	Flat Bed Utility Trailer	6 ton		0		hour	\$3.62
423	8711-1	Sewer Camera Inspection Truck		Aries Pathfinder System Control Center, Work Station			hour	\$14.00
424	8712	Cleaner, Sewer/Catch Basin	Hopper Capacity	5 CY	50	Truck Mounted. (350 gal)	hour	\$25.81
425	8713	Cleaner, Sewer/Catch Basin	Hopper Capacity	14 CY	60	Truck Mounted. (1500 Gal)	hour	\$31.96

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
426	8714	Combined Sewer Cleaning	800 Gal Spoils/400 Gal Water	500/800 gal	190	with water & waste Tanks	hour	\$86.29
427	8714-1	Vector Combine Vacuum Truck	1500 gal Water	15 Cu Yd	330	with water & waste Tanks	hour	\$88.16
428	8714-2	Combined Sewer Cleaning	Peterbilt VACCON	1500 gal Water	345		hour	\$90.00
429	8714-3	Combined Sewer Cleaning	Combined Sewer Vacuum	500-1500 gals	370		hour	\$80.00
430	8715	Truck, Hydro Vac	model LP555DT	pump	36	Towed by tractor	hour	\$18.76
431	8716	Leaf Vac	Tow by Truck 22,000 cfm capacity		85	Leaf Vac + Truck Code 8811	hour	\$53.67
432	8717	Truck, Vacuum	60,000 GWW		400		hour	\$77.79
433	8718	Trash Pump	CPB Rating - 10MTC	10000 gal/Hr	7	Self- Priming Trash Pump	hour	\$7.87
434	8719	Litter Picker	model 2007 Barber		0	Towed by tractor	hour	\$9.59
435	8720	Truck, Dump	Struck Capacity	8 CY	to 220		hour	\$52.96
436	8721	Truck, Dump	Struck Capacity	10 CY	to 320		hour	\$65.75
437	8722	Truck, Dump	Struck Capacity	12 CY	to 400		hour	\$73.31
438	8723	Truck, Dump	Struck Capacity	14 CY	to 400		hour	\$78.59
439	8724	Truck, Dump, Off Highway	Struck Capacity	28 CY	to 450		hour	\$139.82
440	8725	Truck, Dump	Struck Capacity	18 CY	to 400		hour	\$84.27
441	8726	Truck, Dump	Caterpillar Sand hauling truck		489		hour	\$132.00
442	8730	Truck, Garbage	Capacity	25 CY	to 255		hour	\$50.49
443	8731	Truck, Garbage	Capacity	32 CY	to 325		hour	\$57.86

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
444	8733	E-BAM Services	Environmental Beta Attenuation Air Monitor		0	Powered by Solar System	hour	\$3.11
445	8734	Attenuator, Safety	that can stop a vehicle at 60 mph		0		hour	\$5.44
446	8735	Truck, Attenuator	2004 Truck Mounted for 60 mph		0		hour	\$3.94
447	8736	Truck, Tow	1987 Chevy Kodiak 70		175		hour	\$29.13
448	8744	Van, Custom	Special Service Canteen Truck		350		hour	\$18.61
449	8745	Van, Sstep	model MT10FD		300		hour	\$22.36
450	8746	Van-up to 15 Passenger	light duty, class 1		225-300		hour	\$20.77
451	8747	Van-up to 15 Passenger	light duty, class 2		225-300		hour	\$21.06
452	8748	Van-Cargo	light duty, class 1		225 - 300		hour	\$22.75
453	8749	Van-Cargo	light duty, class 2		225-300		hour	\$23.00
454	8750	Vehicle, Small			to 30		hour	\$6.50
455	8753	Vehicle, Recreational			to 10		hour	\$2.91
456	8754	Motor Coach	GVW 50534	56 Passenger + 1-Driver	430	Passenger Transportation	Hour	\$64.84
457	8755	Golf Cart	Battery operated	2 person	0		hour	\$3.85
458	8761	Vibrator, Concrete	Shaft Length 16-ft, Head Diameter 2.5-in		2		hour	\$1.51
459	8770	Welder, Portable			to 16	Includes ground cable and lead cable.	hour	\$3.89

# FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
460	8771	Welder, Portable			to 34	Includes ground cable and lead cable.	hour	\$7.09
461	8772	Welder, Portable			to 50	Includes ground cable and lead cable.	hour	\$11.95
462	8773	Welder, Portable			to 80	Includes ground cable and lead cable.	hour	\$12.22
463	8780	Truck, Water	Tank Capacity	2500 Gal	to 175	Include pump and rear spray system.	hour	\$28.95
464	8781	Truck, Water	Tank Capacity	4000 Gal	to 250	Include pump and rear spray system.	hour	\$52.59
465	8788	Container & Roll Off Truck	Roll off Truck	30 yds,	200	Roll-off-Truck only	hour	\$24.06
466	8789	Truck, Tractor	1997 Freightliner F120		430		hour	\$57.61
467	8790	Truck, Tractor	4 x 2	25000 lbs	to 210		hour	\$40.49
468	8791	Truck, Tractor	4 x 2	35000 lbs	to 330		hour	\$49.93
469	8792	Truck, Tractor	6 x 2	45000 lbs	to 360		hour	\$57.25
470	8793	Truck	Ford F-450 Cutaway Truck		225		hour	\$85.78
471	8794	Truck, Freight	Enclosed w/lift gate. Medium duty class 5	gvwr 16000-19500 Lbs	200	4 X 2 Axle (D)	hour	\$27.63
472	8795	Truck, Backhoe Carrier	Three axle, class 8, heavy duty	over 33000Lbs	280		hour	\$35.04

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
473	8796	Truck, Freight	Enclosed w/lift gate. Heavy duty, class 7	26,001 to 33,000 lbs gvwr	217	4 X 2 Axle (D)	hour	\$31.87
474	8797	Truck, Freight	M2-106	Refrigerated Box Truck	250		hour	\$31.41
475	8798	Truck	Tilt and roll-back, two axle, class 7 heavy duty,	to 33,000 gvwr	217	4 X 2 Axle (D)	hour	\$32.58
476	8799	Truck,	Tilt and roll back, three axle. class 8 heavy duty	over 33,001 gvwr	280	6 X 4 Axle (D)	hour	\$42.92
477	8800	Truck, Pickup				When transporting people.	mile	\$0.56
478	8801	Truck, Pickup	1/2-ton Pickup Truck	4x2-Axle	160		hour	\$11.75
479	8802	Truck, Pickup	1-ton Pickup Truck	4x2-Axle	234		hour	\$16.81
480	8803	Truck, Pickup	1 1/4-ton Pickup Truck	4x2-Axle	260		hour	\$21.10
481	8804	Truck, Pickup	1 1/2-ton Pickup Truck	4x2-Axle	300		hour	\$21.13
482	8805	Truck, Pickup	1 3/4-ton Pickup Truck	4x2-Axle	300		hour	\$21.94
483	8806	Truck, Pickup	3/4-ton Pickup Truck	4x2-Axle	165		hour	\$12.77
484	8807	Truck, Pickup	3/4-ton Pickup Truck	4x4-Axle	285	Crew	hour	\$19.87
485	8808	Truck, Pickup	1-ton Pickup Truck	4x4-Axle	340	Crew	hour	\$20.57

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
486	8809	Truck, Pickup	1 1/4-ton Pickup Truck	4x4-Axle	360	Crew	hour	\$25.19
487	8810	Truck, Pickup	1 1/2-ton Pickup Truck	4x4-Axle	362	Crew	hour	\$25.53
488	8811	Truck, Pickup	1 3/4-ton Pickup Truck	4x4-Axle	362	Crew	hour	\$26.24
489	8820	Skidder Accessory	2005 JCB Grapple Claw		0		hour	\$1.77
490	8821	Forklift, Accessory	2005 ACS Grapple Bucket		0		hour	\$1.58
491	8822	Truck, Loader	Debris/Log (Knuckleboom Loader/Truck)		230		hour	\$53.97
492	8823	Chipper- Wood Recycler	Cat 16 engine		700		hour	\$120.16
493	8824	Skidder	model Cat 525B		up to 160		hour	\$110.67
494	8825	Skidder	40K lbs- model Cat 525C		161 and up		hour	\$132.45
495	8840	Truck, Service	Fuel and lube	up to 26,000 gvwr	215-225		hour	\$40.75
496	8841	Truck, Fuel	2009 International 1,800 gal. storage tank		200		hour	\$32.46
497	8842	Mobile Command Trailer	(8' X 28') with 7.5 KW Generator		0	Move to Location by Tractor	hour	\$14.94
498	8843	Mobile Response Trailer	(8' X 31') with 4.5 KW Generator?		0	Move to Location by Tractor	hour	\$14.06
499	8844	Mobile Command Center	(unified) (RV) Ultimaster MP-35	43 FT Long with Generator	400		hour	\$87.31
500	8845	Mobile Command Post Vehicle	(RV) (In-Motion)	22-Ft Long	340		hour	\$31.99

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
501	8846	Mobile Command Post Vehicle	(RV) (Stationary) w/9.6 KW Generator	22-Ft Long	340		hour	\$20.61
502	8847	Mobile Command Center (Trailer)	48'x8' Trailer, Fully Equipped Mobile Command Center	48-Ft Long	0	Move to location by Tractor	hour	\$32.13
503	8848	Mobile Command Center (Trailer)	48'x8' When being Moved w/Truck Tractor		310		hour	\$51.40
504	8849	Mobile Command Center	43'x8.5' x 13.5'H with self 30kw Generator		280	Generator Rate not included	hour	\$56.15
505	8850	Mobile Command Center	2007-Freightliner MT-55, (RV)		260		hour	\$47.78
506	8851	Mobile Command Van	1990- Ford Econoline- Communication Van		230	Communication Equipment	hour	\$43.38
507	8852	Mobile Command Center	47.5' X 8.75 Fully Equip' (In motion) (RV)		410		hour	\$68.99
508	8853	Mobile Command Center	47.5' X 8.75 Fully Equip' (Stationary)		410		hour	\$46.53
509	8854	Mobile Command Vehicle	53' X 8.75 Fully Equip		480-550		hour	\$100.22
510	8870	Light Tower	Terex/Amida AL 4000. with (4) 500 watt lights	10kw power unit	13.5		hour	\$10.56
511	8871	Light Tower	2004 Allmand		7.5		hour	\$6.67



# FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
512	8872	SandBagger Machine	(Spider) automatic OH-58 KIOWA (Military) is the same as "Bell-206B3	Vibration & Conveyor Motors	2-4.5		hour	\$50.11
513	8900	Helicopter	OH-58 KIOWA (Military) is the same as "Bell-206B3		420		hour	\$538.00
514	8901	Helicopter	as "Bell-206BR Model Bell 206-L3 Jet Range Helicopter		420		hour	\$495.85
515	8902	Helicopter	Model Bell 206L1		650	Jet Range III-Helicopter	hour	\$583.05
516	8903	Helicopter	Long Ranger Model Bell 206LT		650	Long Ranger	hour	\$593.67
517	8904	Helicopter	Long Range Twinranger		450	Twinranger	hour	\$773.99
518	8905	Helicopter	Model Bell 407 EMS- Ambulance		630		hour	\$666.00
519	8906	Fixed wing	Model Navajo PA-31 PA-31-350, Navajo Chieftn twin engine		310		hour	\$450.00
520	8907	Fixed wing	Model UH-60 (Blackhawk) medium lift		350		hour	\$490.00
521	8908	Helicopter	Model UH-A (Blackhawk) Medium lift		1890	Fire Fighter Same as S70C	hour	\$3,016.09
522	8909	Helicopter	Medium lift	Medium Lift	1890	Fire Fighter	hour	\$5,636.87

FEMA 2021 Schedule of Equipment Rates

	A	B	C	D	E	F	G	H
1	Cost Code	Equipment	Specifications	Capacity or Size	HP	Notes	Unit	2021 Rate
523	8910	Helicopter	Model CH-47 (Chinook) heavy lift	Heavy Lift	2850	Fire Fighter	hour	\$11,009.51
524	8911	Helicopter- light utility	Model Bell 407GX - 7 seater	7-Seaters	675	Passenger Aircraft	hour	\$657.00
525	8912	Helicopter- light utility	Model Bell 206L- 7 seater	7-Seaters	420	Passenger Aircraft	hour	\$616.43
526	8913	Helicopter	Model Bell-206L4		726		hour	\$570.00
527	8914	Fixed wing	Blackhawk King Air B200XP61		669		hour	\$1,608.00
528	8915	Fixed wing	Blackhawk Caravan XP42 A		850		hour	\$864.00
529	8916	Fixed wing	King Air C90 XP135 A		550		hour	\$1,416.00
530	8917	Aerostar Helicopter	Aerostar 601P		290		hour	\$463.00
531	8918	Huey Helicopter	Engine:1 x Lycoming T53-L- 11 turboshaft		1100	Travel Range 253 Nautical Miles	hour	\$1,396.01
532	8919	Helicopter	Utility Bell 429		710		hour	\$920.00
533	8920	Helicopter	Commercial Bell Huey II				hour	\$1,107.00
534	8943	Wire Puller Machine	Overhead Wire Pulling Machine		30	Overhead/Underground Wire Pulling Machine	hour	\$20.44
535	8944	Wire Tensioning Machine	3000 Lbs			Overhead Wire Tensioning Machine	hour	\$15.05
536	8945	Aerial Lift	model 2008 Genie Scissor Lift	1000 Lbs		24 Volt	hour	\$6.53

DATE: **OCTOBER 2023**

## PROJECT SCOPE

THE PROJECT SCOPE OF WORK FOR THESE DRAWINGS PERTAINS ONLY TO THE LAND DEVELOPMENT PERMITTING REQUIREMENTS OF LAKE COUNTY, ILLINOIS.

## LEGAL DESCRIPTION

RPIL SOLAR 2, LLC  
879 SANCHEZ STREET  
SAN FRANCISCO, CA 94114

**PARCEL 2:  
EASEMENT FOR THE BENEFIT OF PARCEL 1 FOR INGRESS AND**

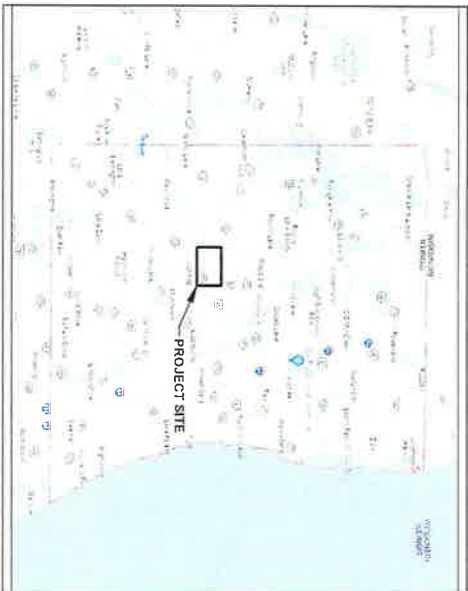
TRC ENVIRONMENTAL CORPORATION  
230 WEST MONROE STREET  
SUITE 1840  
CHICAGO, IL 60606

BASIS OF BEARINGS IS TRUE NORTH BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM, ILLINOIS EAST 1201 ZONE.

SYSTEM SIZE AC	
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SITE BENCHMARK #1 - IRON PIPE WITH CAP AT GROUND LEVEL, 136 NE OF THE NE CORNER OF LANDSCAPE  
TIMBER, 154' NW OF THE NW CORNER OF OUT BUILDING 2' SOUTH OF FIELD LINE AS SHOWN,  
ELEVATION=836.89' (NAVD88).

## TOTAL MODULE QUANTITY



# SHEET INDEX

SHEET NUMBER	SHEET TITLE
G000	TITLE SHEET
G010	GENERAL NOTES
C100	SITE PLAN
C050	EXISTING CONDITIONS
C051	NATURAL RESOURCE PROTECTION AND OPEN SPACE PLAN
C051	ACCESS ROAD DETAILS
C052	PV TRACKERS
C053	EROSION CONTROL DETAILS
C054	EQUIPMENT PAD DETAILS
C055	FENCE DETAILS
L100	LANDSCAPE PLAN
L101	LANDSCAPE DETAILS 1
L102	LANDSCAPE DETAILS 2
L103	LANDSCAPE DETAILS 3

# SYSTEM SPECIFICATIONS

(SUBJECT TO CHANGE)

SYSTEM SIZE DC	4,777.44 kW/5,314.14 kW*
SYSTEM SIZE AC	3,665.50 kW/4,151.67 kW*
DC/AC RATIO	1.28
MODULE MANUFACTURER	ASTRONERGY
MODULE MODEL	CHSM72M(DG)/F-BH
MODULE RATING	540 W
TOTAL MODULE QUANTITY	8,736/9,841*
MODULES PER STRING	26
TOTAL NUMBER OF STRINGS	336
INVERTER MODEL	SUNGROW SG125HV
INVERTER QTY	33
INVERTER RATING	125 kW
STEP-UP TRANSFORMER	40
RACKING	ATT HSAT
# OF 78 MODULE TRACKERS	75
# OF 52 MODULE TRACKERS	46
# OF 26 MODULE TRACKERS	19
TILT ANGLE	+/-52 DEGREES
PITCH	18.7 FEET
GROUND COVERAGE RATIO (GCR)	40 PERCENT

\* INDICATES RATING WITH POTENTIAL EXPANSION

**PRELIMINARY - NOT FOR CONSTRUCTION**

35A

2023.10.04 15:08:27.05700

PROFESSIONAL ENGINEER

ANDREA A. GRAYM

900-6667

1/6/82

EXPIRATION DATE

1/6/82

TFC ENVIRONMENTAL CORP

DESIGN FROM LIC # 146809R-0002

1	AG	10/06/2021	ISSUED FOR PERMIT	AGG
2	AG	10/06/2021	ISSUED FOR PERMIT	AGG
1	AG	10/10/2021	ISSUED FOR PERMIT	AGG


NO.	BY	DATE	REVISION	APPRO.
PERMIT PLANNING SET				
ROUTE 83 SOLAR				
RPL SOLAR 2, LLC				
LAKE COUNTY, IL				

DRAWN BY	T. FLEIBRAHZ	PROJ. NO.	500015.0000.0001.1
CHECKED BY	C. CAMERON		
APPROVED BY	A. GRAYHAM		
DATE	OCTOBER 2023		

G000

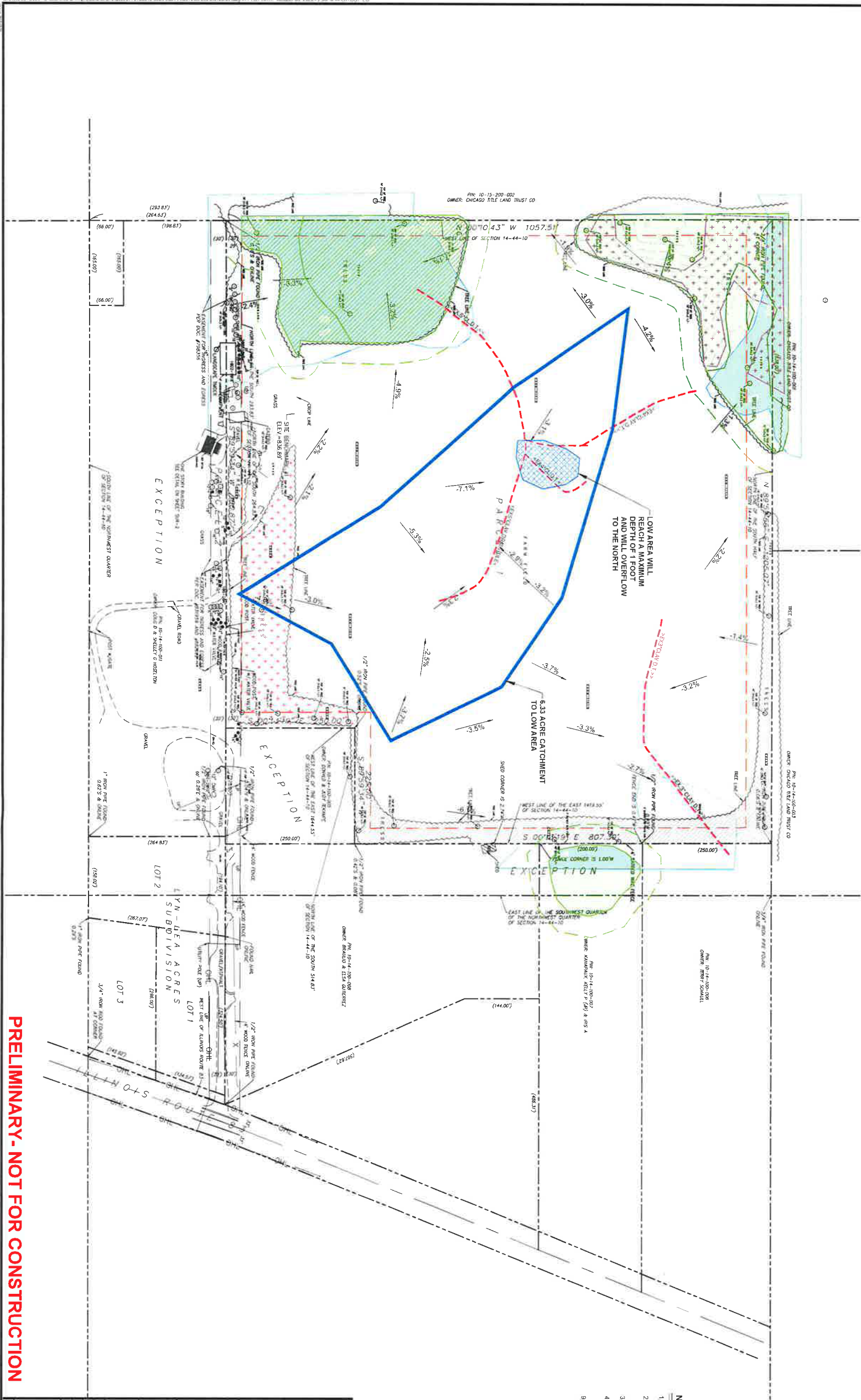
230 West Main St.  
Chicago, IL 60606  
Phone: 312.576.0870

500015.0000.0001 TITLE SHEET.DWG









- LEGEND**

  - PROPERTY LINE
  - EASEMENT LINE
  - BUILDING SETBACK
  - WETLAND SETBACK
  - RECORD DATA
  - TOP OF CURB WALL, ETC.)
  - SPOT GRADE
  - BOTTOM OF GROUND, GUTTER, ETC.)
  - EMERGENCE/RETICULOUS WITH SIZE IN INCHES
  - TYPICAL SIGN
  - BREWING GRATE MANHOLE
  - FIRE HYDRANT
  - UTILITY POLE
  - BENCHMARK
  - GLY WIRE ANCHOR
  - CONTROL LINE
  - TREE LINE / HEDGE LINE
  - EDGE GRAVEL/STONE
  - FORM LINE
  - STORM SEWER
  - OVERHEAD LINE
  - DEWNTLINE
  - WETLANDS
  - YOUNG WOODLAND AREA
  - TREES AND BRUSH
  - GRASS AND WEEDS
  - LOW AREAS WITH STANDING WATER POTENTIAL
  - BASE FLOOD ELEVATION

THE BASE FLOOD ELEVATION (BFE) FROM THE SMC APPROVED STUDY IS 931.43

PRELIMINARY ALTA SURVEY DATED 10/21/22 PROVIDED BY VTI GROUP  
 YOUNG WOODLANDS DELINEATED BY SEDOLIA ENGINEERING DESIGN ASSOCIATES (SEDA)  
 WETLANDS DELINEATED BY SMC&A ENVIRONMENTAL CONSULTANTS  
 DRAIN TILE SURVEY PROVIDED BY HADDLESTON MCGRIBBLE LAND DRAINAGE CO.

[illegible]



Calculation of Resource-Protected Land Area					
Resource Type(1)	Land Area of Resource (Acres)	Protection Ratio	Resource-Protected Land Area	Post Development Area	Percentage Protection
1 REGULATORY FLOODPLAINS (PAID FLOOD-PRONE AREAS WITH 100+ ACRES OF TRIBUTARY DRAINAGE AREA) (S 151.0718)(2)	0	1.00	0	0	NA
2 WETLANDS (1A AC. 4) (S 151.0710)(1)	3.63	1.00	3.63	3.63	100.00
3 NONLINEAR WATER BODIES (S 151.0710)	0	1.00	0	0	NA
4 LINEAR WATER BODIES (S 151.0710)	0	1.00	0	0	NA
5 WETLAND LINEAR WATER BODY AND NONLINEAR WATER BODY BUFFERS (S 151.0710), (E) AND (H)	5.09	0.8	4.07	5.09	100.00
6 MATURE WOODLANDS/GROVES (S 151.0710)	0	0.70(4)	0	0	NA
7 YOUNG WOODLANDS (S 151.0710)	2.24	0.25(4)	1.12	1.6	71.43
<b>EQUALS TOTAL "RESOURCE-PROTECTED LAND AREA"</b>			<b>8.82</b>		
(1) IF TWO OR MORE RESOURCES OVERLAP, ONLY THE RESOURCE WITH THE HIGHER PROTECTED RATIO SHALL BE CALCULATED.					
(2) USES/DEVELOPMENTS ALLOWED WITHIN FLOODPLAINS ARE NOT REQUIRED TO INCLUDE FLOODPLAINS IN CALCULATIONS.					
(3) LAND AREA OF RESOURCE MAY BE REDUCED PURSUANT TO S 151.146(M)(1) AND 151.146(B).					
(4) WOODLAND RESOURCES MAY BE REDUCED PURSUANT TO S 151.0710(G)(6), REPLACEMENT OF WOODLAND CREDIT.					

LEGEND	
	PROPERTY LINE
	FENCE
	SETBACK
	PROPOSED ON LINES
	EXISTING OVERHEAD LINE
	M/CABLE
	STORAGE SEVER
	WETLAND BUFFER
	A11 78 MODULE TRACKER ROW
	A11 52 MODULE TRACKER ROW
	MODULE TRACKER ROW/POTENTIAL EXPANSION/DISH (1) WEATHER STATION
	POWER STATION (1) W/ TRANSFORMER (1)
	12' WIDE ACCESS GRAVEL ROAD
	TREES AND BRUSH
	YOUNG WOODLAND AREA
	GRASS AND WEEDS
	WETLANDS
	EVERGREEN/DECIDUOUS WITH SIZE IN INCHES

NOTES

1. YOUNG WOODLANDS DELINEATED BY TRC, SEPTEMBER 13, 2022
2. WETLANDS DELINEATED BY SWCA ENVIRONMENTAL CONSULTANTS, THE LAKE COUNTY CERTIFIED WETLAND SPECIALISTS LABA, GISELE OWEN C-146, IDENTIFIED WETLAND TYPES: PALUSTRINE, EMERGENT (PEM), PALUSTRINE FORESTED (PTF), AND PALUSTRINE SCRUBSHrub (PSS).
3. TREE LINE ALTA SURVEY DELINEATED BY WT GROUP.



PROFESSIONAL ENGINEER

ALICIA S. CHAN

001-00000000

EXPIRATION DATE

10/01/2023

TRC ENVIRONMENTAL CORP.

DESIGNER FIRM ID: # 1500000-0000

2023.10.04 15:08:28-45:07

NO	NO	NO	NO	NO	NO
1	NO	NO	NO	NO	NO
2	NO	NO	NO	NO	NO
3	NO	NO	NO	NO	NO
4	NO	NO	NO	NO	NO
5	NO	NO	NO	NO	NO
6	NO	NO	NO	NO	NO
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98	NO	NO	NO	NO	NO
99	NO	NO	NO	NO	NO
100	NO	NO	NO	NO	NO

PROJECT: PERMIT PLANSET  
ROUTE 83 SOLAR  
RPL SOLAR 2, LLC  
LAKE COUNTY, IL

TITLE: NATURAL RESOURCE PROTECTION  
AND OPEN SPACE PLAN

DESIGNER: T. REBERDIE  
C. CAMERON  
A. GRAMMA  
OCTOBER 2023

C051

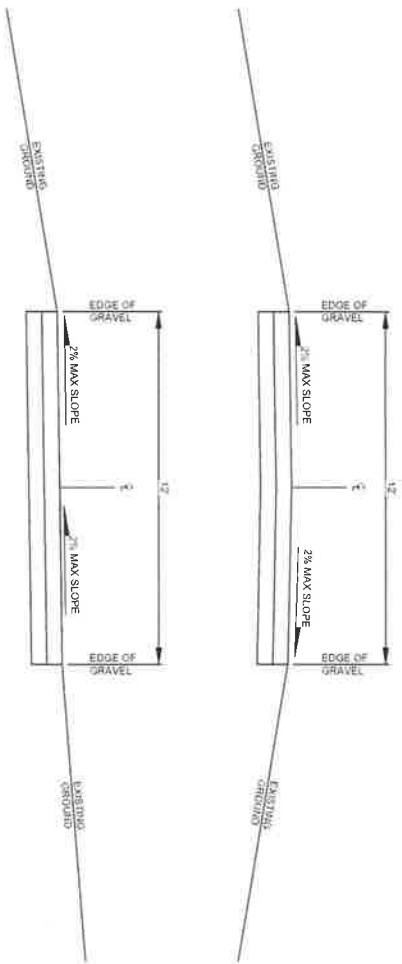
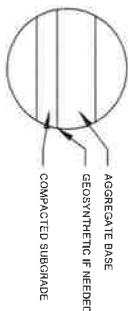
370 West Monroe St.  
Chicago, IL 60606  
Phone: 312.578.0070

500015 000000001 NAT PROJECT PLAN

PRELIMINARY - NOT FOR CONSTRUCTION







1  
C501

TYPICAL ACCESS DRIVE SECTION

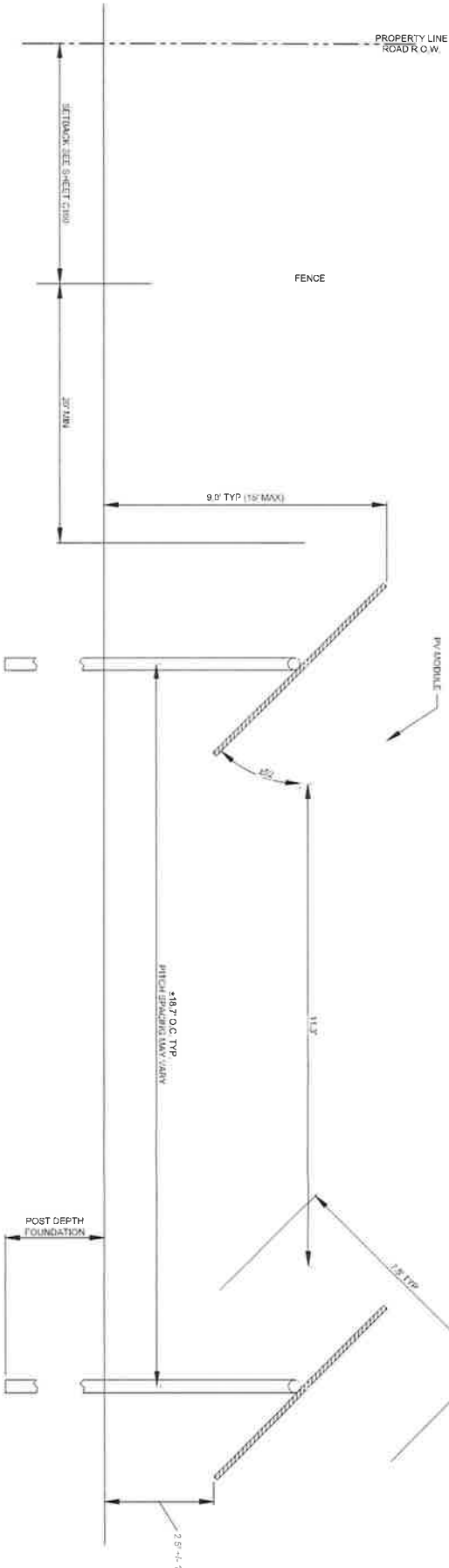
NOT TO SCALE

PRELIMINARY- NOT FOR CONSTRUCTION

22%		PROFESSIONAL ENGINEER ANDREW B. GRIMM 0601-0002		
EXPIRATION DATE: 1/06/23		TRC ENVIRONMENTAL CORP. DESIGN FIRM, LLC, # 19400465-0002		
2023.10.04 15:08:29-05:00				
3	AS	10/03/2023	ISSUED FOR PERMIT	ASG
2	AS	10/01/2023	ISSUED FOR PERMIT	ASG
1	AS	12/05/2023	ISSUED FOR PERMIT	ASG
NO	BY	DATE	REVISION	APP'D
PROJECT: RENEWABLE PROPERTIES, LLC PERMIT PLAN SET ROUTE 83 SOLAR RPL SOLAR 2, LLC LAKE COUNTY, IL LAKE COUNTY, IL				
TITLE: ACCESS ROAD DETAILS				
DRAWN BY: T. FIERBRANZ		PROJ. NO: 500015.0000.0001		
CHECKED BY: C. CAMERON				
APPROVED BY: A. GRAMMA		C501		
DATE: OCTOBER 2023				
239 West Monroe St. Suite 1840 Chicago, IL 60606 Phone: 312.578.9870				
TRC				
500015.0000.0001 ACCESS ROAD DETAILS.dwg				



THE PV MODULE TRACKING SYSTEM  
ROTATES EAST AND WEST TO FOLLOW  
THE SUN

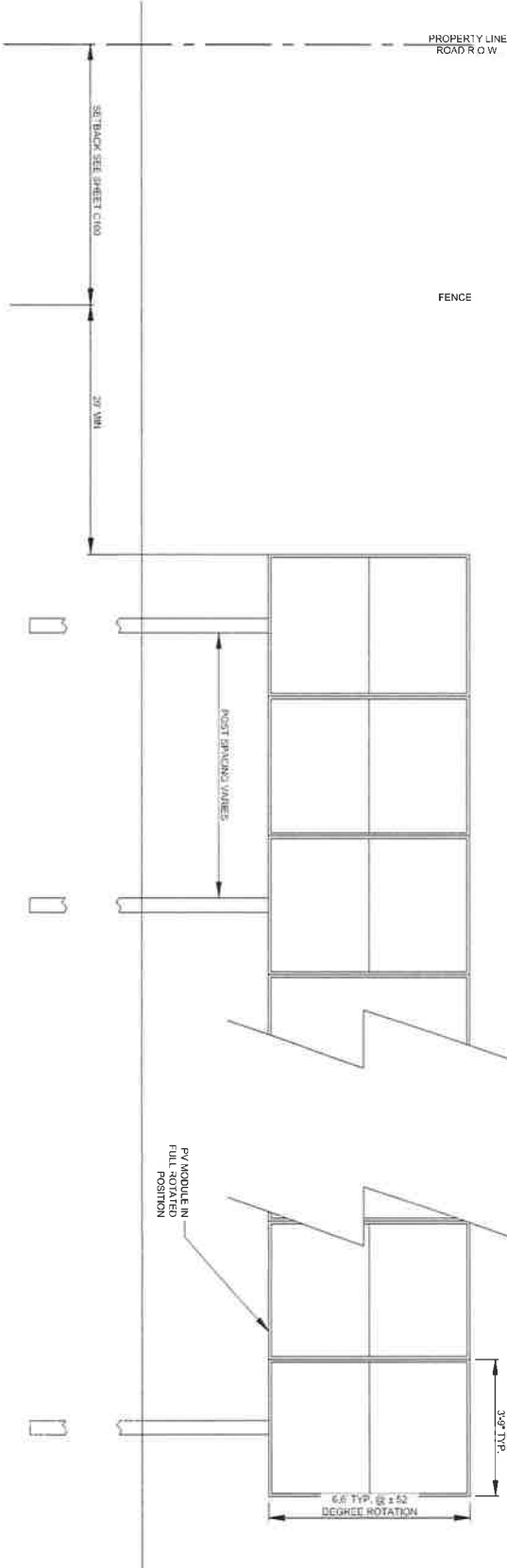


SECTION VIEW

1  
C502

TYPICAL RACK SECTION

NOT TO SCALE



ELEVATION VIEW

2  
C502

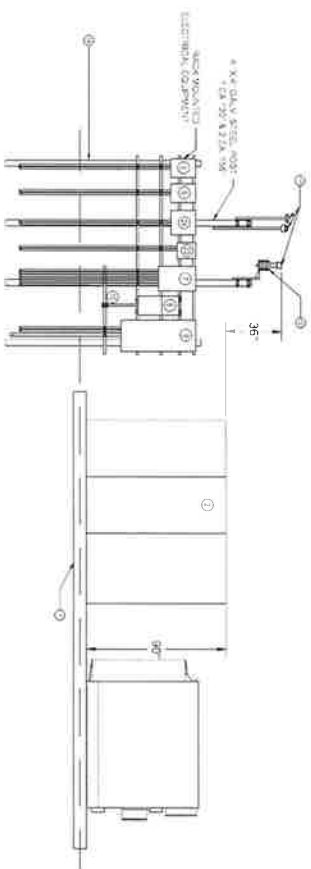
TYPICAL RACK ELEVATIONS

NOT TO SCALE

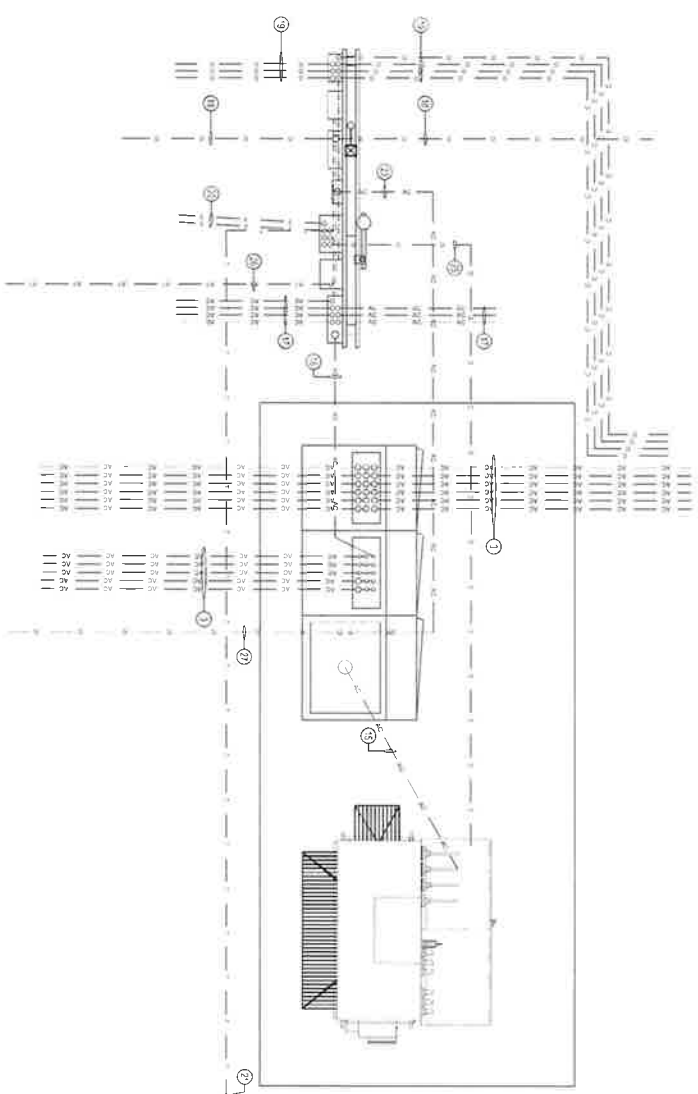
PRELIMINARY- NOT FOR CONSTRUCTION

SCALE		PROFESSIONAL ENGINEER:	
		ARCHITECT: GRACIA	
		EXPIRATION DATE	
		1/2023	
		TRC ENVIRONMENTAL CORP.	
		DESIGN FIRM, LLC # 1600496-0002	
3	AG	10/03/2023	ISSUED FOR PERMIT
2	AG	09/14/2023	ISSUED FOR PERMIT
1	AG	09/14/2023	ISSUED FOR PERMIT
NO	BY	DATE	REVISION
PROJECT			
PERMIT PLAN SET			
ROUTE 83 SOLAR			
RPL SOLAR 2, LLC			
LAKE COUNTY, IL			
TITLE			
PV TRACKERS			
DRAWN BY		T. FERGANZ	PROJ. NO.
CHECKED BY		C. CAMERON	500015-0000-0001
APPROVED BY		A. GRAHAM	C502
DATE		OCTOBER 2023	
230 West Monroe St. Chicago, IL 60606 Phone: 312.578.0970			
500015-0000-0001 PV TRACKERS AND FENCING.dwg.dwg			

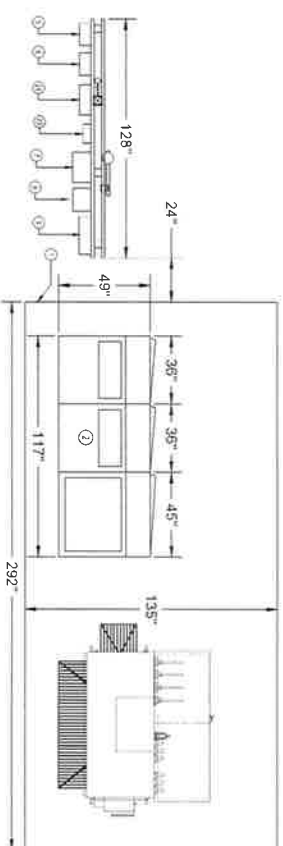




**EQUIPMENT PAD ELEVATION**  
NOT TO SCALE



**EQUIPMENT PAD - U.G. CONDUIT LAYOUT**  
NOT TO SCALE



3  
C505

**EQUIPMENT PAD-PLAN VIEW**

NOT TO SCALE

- ① CONCRETE EQUIPMENT PAD. SEE STRUCTURAL SHEET FOR CONSTRUCTION REQUIREMENTS  
4000A/480V AC SWBD
- ② U.G. 480 VAC FEEDERS - INVERTERS
- ③ GALVANIZED STEEL SUPPORT RACK WITH STRUT MOUNTED ELECTRIC EQUIPMENT
- ④ ALL 4X CONTROLLER
- ⑤ ALL SITE DATA CONTROLLER
- ⑥ DAS BOX
- ⑦ MINI POWER CENTER 120/240V PNL#2
- ⑧ 277/480V SITE LOAD PANEL, P1
- ⑨ WP GH CONVENIENCE OUTLET
- ⑩ ALL WIND, GPS & GH SENSOR MOUNTED TO EQUIPMENT RACK  
WEATHER STATION MOUNTED ON EQUIPMENT RACK  
SEE SHEET 13#12 DETAIL 1
- ⑪ 1.56" X 1.56" GALV. STEEL (TYP)
- ⑫ 4" X 4" GALVANIZED STEEL POST (TYP)
- ⑬ U.G. 480 VAC FEEDERS TO 4000A AC SWBD
- ⑭ U.G. 480 VAC FEEDER PANEL P1
- ⑮ U.G. 480 VAC FEEDER TRACKER MOTOR
- ⑯ U.G. DATA INVERTERS
- ⑰ U.G. ATT TRACKER CONTROL CABLE
- ⑱ U.G. ELECTRONIC SIGNAL CABLE FOR IR AND PNL TEMP SENSORS 2 X 1"  
PVC CONDUITS INSTALLED PER EQUIPMENT SUPPLIER'S SHOP DRAWINGS
- ⑲ U.G. DATA CABLE TO INTERNET SERVICE PROVIDER WHEN REQUIRED BY  
MOUNTING'S SYSTEMS SUPPLIER. FIELD VERIFY POINT OF CONNECTION
- ⑳ U.G. CURRENT AND VOLTAGE SIGNALS TO REMOTE METER WHEN REQUIRED  
BY MOUNTING'S SYSTEMS PROVIDER. FIELD VERIFY POINT OF CONNECTION
- ㉑ REMOTE METER ENCLOSURE (ALSO ENERGY)
- ㉒ WEATHER STATION ENCLOSURE (ALSO ENERGY)
- ㉓ DATA LINE TO TRANSFORMER
- ㉔ U.G. 120V AC FEEDER TO NCEMC COMM CABINET
- ㉕ U.G. FIBER LINE TO NCEMC COMM CABINET

DIAGRAM NOTES

### LEGEND

_____	_____	ABOVE GROUND
_____	_____	UNDER GROUND
_____ D _____	_____	U.G. DATA
_____ LV _____	_____	U.G. 120V
_____ MV _____	_____	U.G. MV
_____ AC _____	_____	U.G. 480V
_____ DC _____	_____	U.G. DC
_____ E _____	_____	U.G. SIGNAL
_____ T _____	_____	U.G. TELCO

## NOTES

1 THE EQUIPMENT SELECTION AND LAYOUT WAS PROVIDED BY RENEWABLE PROPERTIES LLC AND IS PROVIDED HERE FOR REFERENCE PURPOSES.

2023.10.14 15:08:31-05:00

PROFESSIONAL ENGINEER  
ALSHRYN A. GEH-YAM  
S02036602

EXPIRATION DATE  
1/3/2023

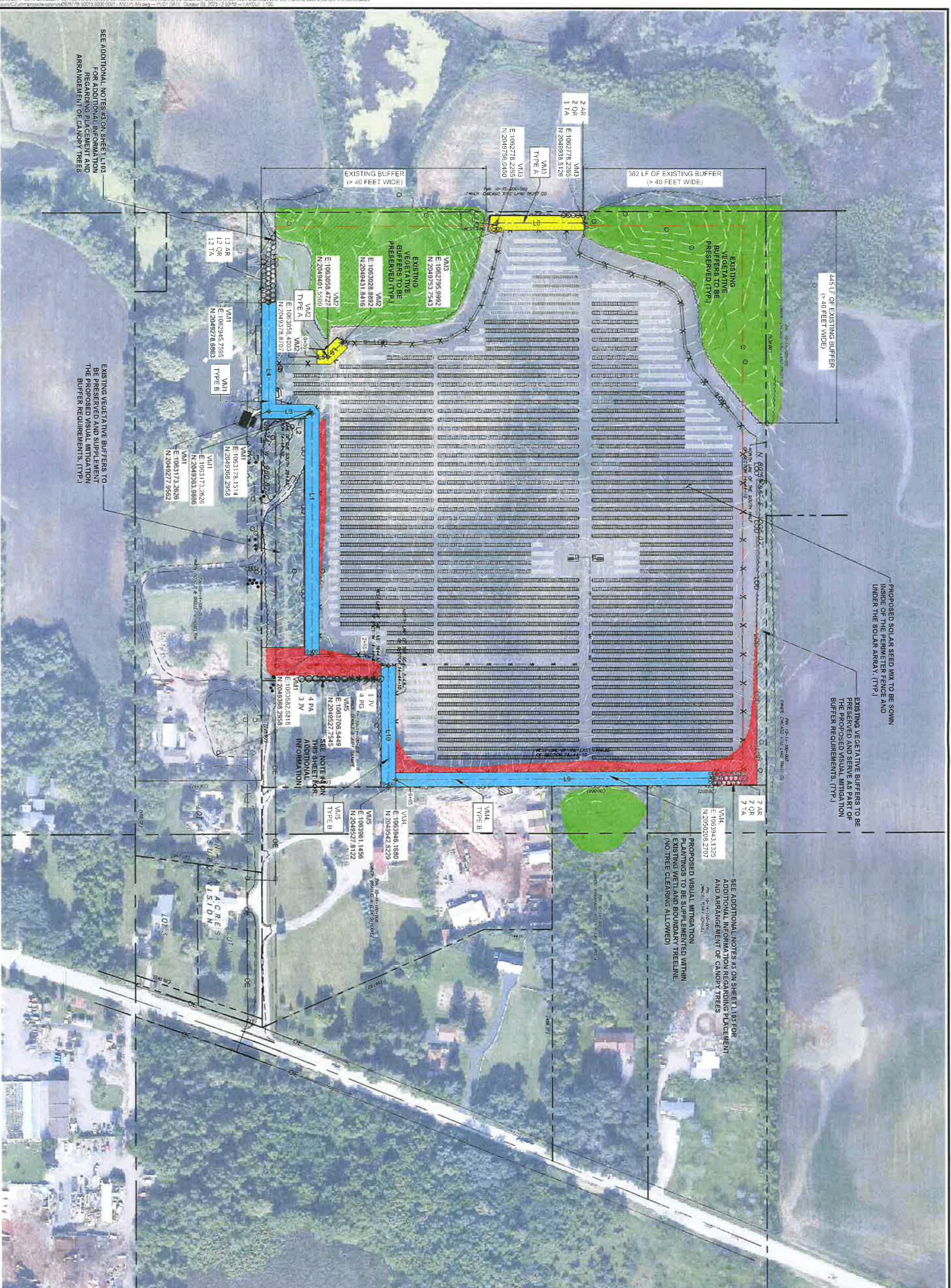
TRC ENVIRONMENTAL CORP  
DESIGN FROM LIC. # 19400486-0002

NO	BY	DATE	REVISION	APPROD.
3	AG	10/23/2023	ISSUED FOR PERMIT	AG
2	AG	10/17/2023	ISSUED FOR PERMIT	AG
1	AG	10/17/2023	ISSUED FOR PERMIT	AG

## EQUIPMENT PAD DETAILS

GRAIN 3Y	T. FIEBRANZ	202.00	50015.0000.0001
CHECKED BY	C. CAMERON		
APPROVED BY	A. GRAMM		C504
DATE	OCTOBER 2023		





PRELIMINARY - NOT FOR CONSTRUCTION

**LEGEND**

- PROPERTY LINE
- X-X- FENCE
- SETBACK
- WETLAND SETBACK
- PROPOSED OVERHEAD LINES
- EXISTING OVERHEAD LINE
- STORM SEWER
- AIR CABLE
- A178 MODULE TRACKER ROW
- A1732 MODULE TRACKER ROW
- A1734 MODULE TRACKER ROW
- MODULE TRACKER ROW (POTENTIAL EXPANSION)
- POWER STATION - A171 W/ TRANSFORMER (1)
- DAS (1) WEATHER STATION
- 125 KW STRING INVERTER
- GRAVEL ACCESS ROAD
- TYPE "A" LANDSCAPE BUFFER
- TYPE "B" LANDSCAPE BUFFER
- YOUNG WOODLAND AREA
- TREELAND AREA
- WETLANDS
- TREE CLEARING

**NOTES**

1. SHRUB AND TREE LOCATIONS SHALL BE STAKED OUT AND APPROVED PRIOR TO PLANTING. SEE DETAIL SHEETS L-101 TO L-103 FOR PLANTING DETAILS, NOTES, AND SCHEDULES FOR EACH LANDSCAPE BUFFER.
2. PLACEMENT OF LANDSCAPE BUFFERS SHALL BE LOCATED AT THE OUTER EDGE OF THE PERMITTER FENCE TO ENHANCE SCREENING EFFORTS AND AVOID SHADING CONCERNS - SOME FIELD ADJUSTMENTS FOR STAKED LOCATIONS WILL BE NECESSARY.
3. THERE ARE 57 CANOPY TREES ADDED TO THE SITE PLAN THAT ARE NOT SHOWN IN THE PLANTING TEMPLATES, BUT ARE INCLUDED IN THE TOTALS.
4. THERE ARE 12 EMERGENCY TREES ADDED TO THE SITE PLAN THAT ARE NOT SHOWN IN THE PLANTING TEMPLATES, BUT ARE INCLUDED IN THE TOTALS. THESE EMERGENS ARE TO REPLACE THE CANOPY TREE REQUIREMENTS.

**PROFESSIONAL ENGINEER**  
**ANDREW SPANAW**  
 LICENSED PROFESSIONAL ENGINEER  
 EXPIRATION DATE: 11/2023

TRC ENVIRONMENTAL CORP.  
 DESIGN PRINCIPAL #74309020-0002

**REVISION**

NO.	BY	DATE	REVISION
200	ASD	11/2023	PERMIT PLAN SET
190	ASD	11/2023	ROUTE 83 SOLAR
180	ASD	11/2023	RPL SOLAR 2, LLC
170	ASD	11/2023	LAKE COUNTY, IL

**LANDSCAPE PLAN**

SHAWN W. T. FIERBRANTZ  
 C. CAMERON  
 A. DODDAR  
 OCTOBER 2023

PROJECT NO. 220015.02002.0001

**L100**

**REVISION**

NO.	BY	DATE	REVISION
3	ASD	10/2023	RELOCATED ROW
2	ASD	10/2023	TRIMMED ROW
1	ASD	10/2023	RELOCATED ROW

**LANDSCAPE PLAN**

SHAWN W. T. FIERBRANTZ  
 C. CAMERON  
 A. DODDAR  
 OCTOBER 2023

PROJECT NO. 220015.02002.0001

**L100**

**REVISION**

NO.	BY	DATE	REVISION
3	ASD	10/2023	RELOCATED ROW
2	ASD	10/2023	TRIMMED ROW
1	ASD	10/2023	RELOCATED ROW

**LANDSCAPE PLAN**

SHAWN W. T. FIERBRANTZ  
 C. CAMERON  
 A. DODDAR  
 OCTOBER 2023

PROJECT NO. 220015.02002.0001

**L100**

**REVISION**

NO.	BY	DATE	REVISION
3	ASD	10/2023	RELOCATED ROW
2	ASD	10/2023	TRIMMED ROW
1	ASD	10/2023	RELOCATED ROW

**LANDSCAPE PLAN**

SHAWN W. T. FIERBRANTZ  
 C. CAMERON  
 A. DODDAR  
 OCTOBER 2023

PROJECT NO. 220015.02002.0001

**L100**

**REVISION**

NO.	BY	DATE	REVISION
3	ASD	10/2023	RELOCATED ROW
2	ASD	10/2023	TRIMMED ROW
1	ASD	10/2023	RELOCATED ROW

**LANDSCAPE PLAN**

SHAWN W. T. FIERBRANTZ  
 C. CAMERON  
 A. DODDAR  
 OCTOBER 2023

PROJECT NO. 220015.02002.0001

**L100**

**REVISION**

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3	ASD	10/2023	RELOCATED ROW
2	ASD	10/2023	TRIMMED ROW
1	ASD	10/2023	RELOCATED ROW

**LANDSCAPE PLAN**

SHAWN W. T. FIERBRANTZ  
 C. CAMERON  
 A. DODDAR  
 OCTOBER 2023

PROJECT NO. 220015.02002.0001

**L100**

**REVISION**

NO.	BY	DATE	REVISION
3	ASD	10/2023	RELOCATED ROW
2	ASD	10/2023	TRIMMED ROW
1	ASD	10/2023	RELOCATED ROW

**LANDSCAPE PLAN**

SHAWN W. T. FIERBRANTZ  
 C. CAMERON  
 A. DODDAR  
 OCTOBER 2023

PROJECT NO. 220015.02002.0001

**L100**

**REVISION**

NO.	BY	DATE	REVISION
3	ASD	10/2023	RELOCATED ROW
2	ASD	10/2023	TRIMMED ROW
1	ASD	10/2023	RELOCATED ROW

**LANDSCAPE PLAN**

SHAWN W. T. FIERBRANTZ  
 C. CAMERON  
 A. DODDAR  
 OCTOBER 2023

PROJECT NO. 220015.02002.0001

**L100**

**REVISION**

NO.	BY	DATE	REVISION
3	ASD	10/2023	RELOCATED ROW
2	ASD	10/2023	TRIMMED ROW



1. THE LANDSCAPE PLAN AND DETAILS ARE FOR LANDSCAPING INFORMATION ONLY. PLEASE REFER TO THE SITE LAYOUT PLAN, GRADING PLAN AND/OR UTILITIES PLAN FOR ALL OTHER INFORMATION.

- LANDSCAPE PLANTING SHALL BE FREE DRAINING, PATIENT COMPACTED SUBGRADE, AND PLASTY ROCK SHALL BE REMOVED TO A DEPTH OF 2' ON TO GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITH MODERATELY COMPACTED LOAM OR SANDY LOAM. FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED UNLESS RECOMMENDED OTHERWISE BY SOIL ANALYSIS.

RECOMMENDATIONS FOR TREES AND SHRUBS: FERTILIZER/LIME APPLY AS RECOMMENDED BY SOIL ANALYSIS.  
MYCORRHIZA INOCULANT - 1.5 LB/ AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL. USE PER MANUFACTURER'S

- PRUNE ALL DAMAGED OR DEAD WOOD BRANCHES PRIOR TO PLANTING
- MULCH LAYER 3" - 4" THICK, TYPE A, NOT MORE THAN 1" THICK MULCH LAYER SHALL BE PLACED ON TOP OF ROOTBALL

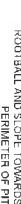


## M.T.S.

- IN AREAS WITH MASS PLANTINGS, CONTINUOUS EXCAVATION AND MULCHING PRACTICES SHALL BE IMPLEMENTED WHENEVER POSSIBLE

- IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING
- WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS.

## N.T.S.



TREES SHALL BE STAKED WITH NO MORE THAN TWO WAYS UP THE TREE USING MATERIAL OF APPROVED GRADE. STAKES SHALL BE THE END OF ONE YEAR.

- TREE PLANTING SHALL BEAR SOME RELATIONSHIP TO FINISH GRADE AS IT WAS PRE-EXISTING IN THE MURSE
- NEVER CUT THE PRIMARY LEADER.
- IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE. UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING
- WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS AND PROPERLY SET THE TREE



IN ACCORDANCE WITH APPROVED ARCHITECTURAL STANDARDS TO RESERVE THE ENVIRONMENT FOR THE FUTURE

LANDSCAPE ARCHITECT DESIGNER OR CERTIFIED ARBORIST

DO NOT PRUNE, STAKE, OR WRAP TREE WITH A STRONG CENTRAL LEADER UNLESS DIRECTED TO DO SO BY THE LANDSCAPE ARCHITECT DESIGNER OR CERTIFIED ARBORIST

REMOVED TO BALANCE ROOT LOSS  
DUE TO TRANSPLANTING

2 x 2 x 3-5-0 REVEALED CEDAR OR KNOXWOOD STAKES USE 2 STAKES PER TIE

6 IN. OUTSIDE OF ROOT BALL AND SHOULD ALLOW FOR FLEXIBILITY IN THE TREE TRUNK. DO NOT OVERRAWM/TIE STAKES.

- TREE PLANTING SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT WAS PRE-DOUG IN THE NURSERY.
- NEVER CUT THE PRIMARY LEADER
- IT IS NOT RECOMMENDED TO MEND THE EXISTING SOIL BEFORE BACKFILLING THE MOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING
- WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS AND PROPERLY SET THE TREE.

## NTS

- NEVER CUT THE PRIMARY LEADER

- IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING.
- WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS AND PROPERLY SET THE TREE.

## LANDSCAPE PLANTING SCHEDULE

KEES

AMERICAN BASSWOOD	20	2 1/2 IN. DIA.	10-20 FT.
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## SHRUBS

BLACKHAW VIBURNUM	28	DO NOT REMOVE	CONT	DO NOT REMOVE
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BOUNDSTONE NATIVE SEED - SOI AP NATIVE GRASS MIX

INCORPORATE GRASS SEED FORBES, NURSE CROPS AND OTHER SPECIES AT A RATE OF 43,865 LBS/ACRE OR 1 LBS/1000 FT<sup>2</sup>

NOTE: GRASS SEED MIXES ARE COMPRISED OF GRASSES THAT ARE NATIVE AND/OR INDIGENOUS TO THE AREA AND/OR CONSIDERED FAVORABLE FOR WILDLIFE HABITAT AND SUSTAINABLE GROWTH. ADDITIONALLY, THE SOLAR FARM SEED MIX WAS DEVELOPED ESPECIALLY FOR NATIVE GRASS PLANTINGS AROUND SOLAR ARRAY FIELDS AND SHALL BE UTILIZED ACCORDINGLY. THESE GRASSES WILL MATURE OUT TO A HEIGHT OF APPROXIMATELY 2 TO 2 1/2 FEET HIGH.

**SOLAR FARM GRASS SEED MIX**

LAKE COUNTY, IL.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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CHECKED BY:	C. CANNON
RECORDED BY:	A. GRAHAM

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GATE	OCTOBER 2023
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**PRELIMINARY - NOT FOR CONSTRUCTION**



