

# CIVIL PERMIT PLAN SET

# S. BARNES ROAD SOLAR

## S. BARNES ROAD, SUGAR GROVE TOWNSHIP KANE COUNTY, IL

DATE: APRIL 2024

### COUNTY LOCATION



KANE COUNTY, ILLINOIS

### PROJECT SCOPE

THE PROJECT ENTAILS THE INSTALLATION OF A SOLAR PHOTOVOLTAIC SYSTEM IN SUGAR GROVE TOWNSHIP, KANE COUNTY, IL. THE INSTALLATION CONSISTS OF NEW GROUND MOUNTED STRUCTURES WITH MOUNTED PHOTOVOLTAICS.

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

### PROJECT OWNER

RPIL SOLAR 10, LLC  
C/O RENEWABLE PROPERTIES, LLC  
44 MONTGOMERY STREET, SUITE 13150  
SAN FRANCISCO, CA 94104

### ENGINEER

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

### BASIS OF BEARINGS

BASIS OF BEARINGS IS TRUE NORTH BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83, 2011 ADJUSTMENT.

### BENCHMARK

BM #300: TOP OF FIRE HYDRANT ON THE WEST SIDE OF SOUTH BARNES ROAD 360'± SOUTH OF THE NORTHEAST CORNER OF SUBJECT PROPERTY  
ELEV=690.19

BM #301: TOP OF FIRE HYDRANT ON THE WEST SIDE OF SOUTH BARNES ROAD 480'± NORTH OF THE SOUTHEAST CORNER OF SUBJECT PROPERTY  
ELEV=676.00

BM #302: TOP OF FIRE HYDRANT ON THE WEST SIDE OF SOUTH BARNES ROAD 185'± NORTH OF THE SOUTHEAST CORNER OF SUBJECT PROPERTY  
ELEV=673.27

### SITE INFORMATION

P.I.N.: 14-23-400-026 14-24-151-006 (EXCEPTION AREA) AREA: 39.995 ± ACRES GROSS

14-24-300-001

ZONING: F, FARMING DISTRICT

### LEGAL DESCRIPTION

THAT PART OF THE FOLLOWING LAND SITUATED IN THE WEST 1/2 OF SECTION 24:

THAT PART OF THE EAST 1/2 OF SECTION 23 AND THAT PART OF THE WEST 1/2 OF SECTION 24, TOWNSHIP 38 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEAST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 24; THENCE SOUTH 88 DEGREES 47 MINUTES 41 SECONDS WEST ALONG THE SOUTH LINE OF SAID SOUTHWEST QUARTER 1560.80 FEET TO THE CENTER LINE OF BARNES ROAD; THENCE NORTH 5 DEGREES 18 MINUTES 19 SECONDS WEST ALONG SAID CENTERLINE 1082.39 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF THE BURLINGTON NORTHERN INC (FORMERLY KNOWN AS THE BURLINGTON RAILROAD COMPANY) LANDS RUNNING WESTERLY, SAID NORTHERLY RIGHT OF WAY BEING 85.0 FEET NORMALLY DISTANT NORTHERLY FROM THE CENTERLINE OF SAID RAILROAD; THENCE NORTH 72 DEGREES 46 MINUTES WEST ALONG SAID NORTHERLY RIGHT OF WAY LINE 678.0 FEET FOR A POINT OF BEGINNING; THENCE CONTINUING NORTH 72 DEGREES 46 MINUTES WEST ALONG SAID RIGHT OF WAY LINE 1077.11 FEET TO AN OLD CLAIM LINE; THENCE NORTH 6 DEGREES 15 MINUTES 29 SECONDS EAST ALONG SAID CLAIM LINE 5.09 FEET TO AN EASTERLY LINE OF PROPERTY CONVEYED TO COMMONWEALTH EDISON COMPANY BY DOCUMENT NO. 1241630; THENCE NORTH 19 DEGREES 25 MINUTES 27 SECONDS EAST ALONG SAID EASTERLY LINE 888.95 FEET TO AN ANGLE POINT IN SAID EASTERLY LINE; THENCE NORTH 6 DEGREES 15 MINUTES 29 SECONDS EAST ALONG SAID EASTERLY LINE 120.40 FEET TO THE SOUTH LINE OF PROPERTY DESCRIBED IN DOCUMENT NO. 2001K003714; THENCE NORTH 85 DEGREES 55 MINUTES 48 SECONDS EAST 1066.17 FEET TO THE CENTERLINE OF BARNES ROAD; THENCE SOUTH 18 DEGREES 13 MINUTES 02 SECONDS EAST 697.0 FEET TO AN ANGLE POINT IN SAID CENTERLINE; THENCE SOUTH 5 DEGREES 18 MINUTES 19 SECONDS EAST ALONG SAID CENTERLINE 761.18 FEET TO A POINT THAT IS 139.0 FEET NORTHERLY OF SAID RAILROAD; THENCE NORTH 84 DEGREES 22 MINUTES 46 SECONDS WEST 637.78 FEET TO THE POINT OF BEGINNING, ALL IN SUGAR GROVE TOWNSHIP, KANE COUNTY, ILLINOIS.

EXCEPTING THEREFROM THAT PART OF THE LAND FALLING WITHIN TAX NUMBER 14-24-151-006.

### SITE SPECIFICATIONS

SYSTEM SIZE	NOT TO EXCEED 4.99 MW AC
MODULE MANUFACTURER	TRINA SOLAR
MODULE MODEL	TSM-NEG19RC.20
MODULE RATING	595 W
TOTAL MODULE QUANTITY	15,528
MODULES PER STRING	26
TOTAL NO. OF STRINGS	TBD
INVERTER MODEL	SUNGROW SG125HV
INVERTER RATING	125 KW
SEP-UP TRANSFORMER	(2) 12.47KV/600V, 2125KVA
RACKING	ATI HSAT
TILT ANGLE	60 DEGREES
INTER-ROW SPACING	15.2'
PITCH	22.6'
GCR	33%
SITE AREA INSIDE FENCE	35.03 AC

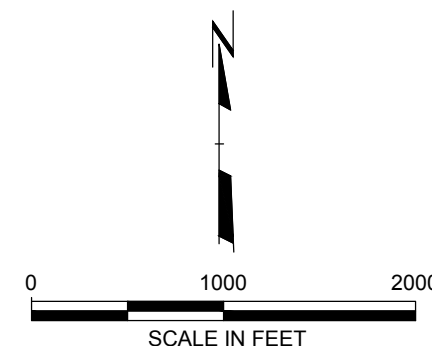
### SHEET INDEX

SHEET NUMBER	SHEET TITLE
G000	TITLE SHEET
G010	GENERAL NOTES
C050	EXISTING CONDITIONS
C100	SITE PLAN
C501	ACCESS ROAD DETAILS
C502	PV TRACKERS
C503	EROSION CONTROL DETAILS
C504	EQUIPMENT PAD DETAILS
C505	FENCING DETAILS
C506	CULVERT DETAILS
L100	LANDSCAPE PLAN
L101	LANDSCAPE DETAILS
L102	LANDSCAPE PLANTING SCHEDULES

### VICINITY MAP



### PROJECT LOCATION



PRELIMINARY NOT FOR CONSTRUCTION

SEAL:	
PROFESSIONAL ENGINEER ANDREW B. GRAHAM 062046662  EXPIRATION DATE: 11/30/25  TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002	

NO.	BY	DATE	REVISION	APP'D.
1	AE	4/23/2024	ISSUED FOR PERMIT	ABG

PROJECT:  
**CIVIL PERMIT PLAN SET  
RPIL SOLAR 10, LLC  
S. BARNES ROAD SOLAR  
KANE COUNTY, IL**

TITLE:  
**TITLE SHEET**

DRAWN BY:	N. EDWIN	PROJ. NO.:	567363.0003.0000
CHECKED BY:	A. ELLSTROM	<b>G000</b>	
APPROVED BY:	A. GRAHAM		
DATE:	APRIL 2024		



FILE NO.: 567363.0003.0000 - S Barnes Road Solar - TS.dwg

**NOTES**

1. THIS PLAN WAS PRODUCED UTILIZING MULTIPLE RESOURCES:

- TOPOGRAPHIC DATA, PROPERTY LINES, AND PARCEL NUMBERS FOR THE DEVELOPMENT AREA WERE OBTAINED FROM THE ALTA SURVEY COMPLETED BY FARNSWORTH GROUP AND DATED OCTOBER 16, 2023.
- SOIL TYPE DELINEATIONS AND DATA WERE OBTAINED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) WEB SOIL SURVEY.
- WETLAND AND WATERBODY DELINEATION PROVIDED BY SWCA ENVIRONMENTAL CONSULTANTS AND DATED JANUARY 2024.
- DRAIN TILE SURVEY COMPLETED BY HUDDLESTON MCBRIDE LAND DRAINAGE COMPANY AND DATED APRIL 18, 2024.
- DESKTOP-LEVEL CULTURAL RESOURCES REVIEW CONDUCTED BY SWCA ENVIRONMENTAL CONSULTANTS AND DATED OCTOBER 27, 2023.

2. ACCORDING TO THE ALTA SURVEY, COMPLETED BY FARNSWORTH GROUP AND DATED OCTOBER 16, 2023, A PORTION OF THE DEVELOPMENT AREA (14-23-400-026, 14-24-300-001, EXCEPTION AREA 14-24-151-006) LIES WITHIN ZONE X FLOOD AREA (AREAS OF 0.2% CHANCE ANNUAL FLOOD, AREAS OF 1% ANNUAL FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEVEES FROM 1% CHANCE ANNUAL FLOOD).

3. THE LOCATIONS OF PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCING, SOLAR ARRAY RACKING, INVERTER/TRANSFORMER PADS, OVERHEAD POLES, AND LINES, ETC., SHOWN ARE APPROXIMATE AND ARE SUBJECT TO MODIFICATION DUE TO SITE CONDITIONS, ADDITIONAL PERMITTING REQUIREMENTS, EQUIPMENT SPECIFICATIONS, AND/OR OTHER CONSTRAINTS.

4. THE DEVELOPMENT WILL AVOID EASEMENTS, AND PROVIDE THE MINIMUM SETBACKS NOTED FROM EXTERNAL PROPERTY BOUNDARIES AND DESIGNATED NATURAL RESOURCES.

5. CONTRACTOR SHALL CALL 811 AT LEAST 72 HOURS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. ADDITIONALLY, CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES.

6. ALL IDENTIFIED DETAILS ARE PRELIMINARY AND ARE SUBJECT TO CHANGE AT THE TIME OF BUILDING PERMIT SUBMITTAL.

**CODE COMPLIANCE: KANE COUNTY ZONING ORDINANCE SEC. 25-5-4-9**

1. THE SPECIAL USE APPLICATION SHALL CONTAIN OR BE ACCOMPANIED BY THE FOLLOWING INFORMATION:

- a. A COMMERCIAL SOLAR ENERGY FACILITY SUMMARY, INCLUDING, TO THE EXTENT AVAILABLE:
  1. A GENERAL DESCRIPTION OF THE PROJECT, INCLUDING:
  2. ITS APPROXIMATE OVERALL NAME PLATE GENERATING CAPACITY PROVIDED ON G000
  3. THE POTENTIAL EQUIPMENT MANUFACTURER(S) PROVIDED ON G000;
  4. TYPE(S) OF SOLAR PANELS, CELLS AND MODULES PROVIDED ON G000;
  5. THE NUMBER OF SOLAR PANELS, CELLS AND MODULES PROVIDED ON G000;
  6. THE MAXIMUM HEIGHT OF THE SOLAR PANELS AT FULL TILT PROVIDED ON C502;
  7. THE NUMBER OF SUBSTATIONS PROVIDED ON G000;
  8. A PROJECT SITE PLAN PROVIDED ON C100, PROJECT PHASING PLAN AND PROJECT CONSTRUCTION TIMELINE PLAN. WILL BE PROVIDED WHEN AVAILABLE; AND
  9. THE GENERAL LOCATION OF THE PROJECT PROVIDED ON G000; AND

- b. A DESCRIPTION OF THE APPLICANT, OWNER AND OPERATOR, INCLUDING THEIR RESPECTIVE BUSINESS STRUCTURES; B. THE NAME(S), ADDRESS(ES), AND PHONE NUMBER(S) OF THE APPLICANT(S), OWNER AND OPERATOR, AND ALL PROPERTY OWNER(S), IF KNOWN, AND DOCUMENTATION DEMONSTRATING LAND OWNERSHIP OR LEGAL CONTROL OF THE PROPERTY, PROVIDED ON G000 AND IN APPLICATION PACKET;

- c. A SITE PLAN FOR THE COMMERCIAL SOLAR ENERGY FACILITY SHOWING:
  1. THE PLANNED LOCATION OF SOLAR PANELS, INCLUDING LEGAL DESCRIPTIONS FOR EACH SITE PROVIDED ON G000,
  2. PARTICIPATING AND NON-PARTICIPATING RESIDENCES PROVIDED ON C050,
  3. OCCUPIED COMMUNITY BUILDINGS PROVIDED ON C050,
  4. PARCEL BOUNDARY LINES (INCLUDING IDENTIFICATION OF ADJOINING PROPERTIES) PROVIDED ON C050,
  5. SETBACK LINES PROVIDED ON C050,
  6. PUBLIC ACCESS ROADS AND TURNOUT LOCATIONS PROVIDED ON C050 AND C100,
  7. SUBSTATION(S) PROVIDED ON C100,
  8. OPERATIONS AND MAINTENANCE BUILDINGS (NONE PROPOSED),
  9. ELECTRICAL CABLING TO THE SUBSTATION(S) PROVIDED ON C100,
  10. ANCILLARY EQUIPMENT PROVIDED ON C100,
  11. THIRD PARTY TRANSMISSION LINES PROVIDED ON C050 AND C100,
  12. THE LOCATION OF ANY WETLANDS PROVIDED ON C100,
  13. FLOOD PLAIN PROVIDED ON C050,
  14. DRAINAGE STRUCTURES INCLUDING SURFACE DITCHES AND SUBSURFACE DRAINAGE LINES PROVIDED ON C050,
  15. UNDERGROUND MINES (NONE IDENTIFIED ON SITE),
  16. SCENIC AND NATURAL AREAS WITHIN ONE THOUSAND FIVE HUNDRED (1,500) FEET OF THE PROPOSED COMMERCIAL SOLAR ENERGY FACILITY (NONE IDENTIFIED), AND THE LAYOUT OF ALL STRUCTURES WITHIN THE GEOGRAPHICAL BOUNDARIES OF ANY APPLICABLE SETBACK.

**STANDARD SOIL EROSION AND SEDIMENT CONTROL NOTES**

1. PERIMETER EROSION CONTROL MEASURES ARE SHOWN. ADDITIONAL EROSION CONTROLS MAY BE NECESSARY TO COMPLY WITH VILLAGE REQUIREMENTS.

2. CONTROL MEASURES SHALL MEET THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE ILLINOIS URBAN MANUAL (WWW.AISWCD.ORG/IUM) UNLESS STATED OTHERWISE.

3. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. AREAS OF THE DEVELOPMENT SITE THAT ARE NOT TO BE DISTURBED SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC OR OTHER DISTURBANCE UNTIL FINAL STABILIZATION IS ACHIEVED.

4. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, DEVELOPMENT SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.

5. STABILIZATION BY SEEDING SHALL INCLUDE TOPSOIL PLACEMENT AND FERTILIZATION, AS NECESSARY.

6. NATIVE SEED MIXTURES SHALL INCLUDE RAPID-GROWING ANNUAL GRASSES OR SMALL GRAINS TO PROVIDE INITIAL, TEMPORARY SOIL STABILIZATION.

7. OFFSITE PROPERTY SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. VELOCITY DISSIPATION DEVICES SHALL BE PLACED AT CONCENTRATED DISCHARGE LOCATIONS AND ALONG THE LENGTH OF ANY OUTFALL CHANNEL, AS NECESSARY TO PREVENT EROSION.

8. SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE DISTURBANCE OF TRIBUTARY AREAS.

9. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE DEVELOPMENT SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE DEVELOPMENT SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE, BUT NOT LATER THAN 14 CALENDAR DAYS FROM THE INITIATION OF STABILIZATION WORK IN AN AREA. EXCEPTIONS TO THESE TIME FRAMES ARE SPECIFIED BELOW:

- a. WHERE THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE; AND
- b. IN AREAS WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED AND WILL RESUME AFTER 14 DAYS, A TEMPORARY STABILIZATION METHOD MAY BE USED.

10. DISTURBANCE OF STEEP SLOPES SHALL BE MINIMIZED. AREAS OR EMBANKMENTS HAVING SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH STAKED IN PLACE SOD, EROSION CONTROL BLANKET IN COMBINATION WITH SEEDING, OR AN EQUIVALENT CONTROL MEASURE.

11. PERIMETER CONTROL MEASURES SHALL BE PROVIDED DOWNSLOPE AND PERPENDICULAR TO THE FLOW OF RUNOFF FROM DISTURBED AREAS, WHERE THE TRIBUTARY AREA IS GREATER THAN 5,000 SQUARE FEET, AND WHERE RUNOFF WILL FLOW IN A SHEET FLOW MANNER. PERIMETER EROSION CONTROL SHALL ALSO BE PROVIDED AT THE BASE OF SOIL STOCKPILES.

12. THE STORMWATER MANAGEMENT SYSTEM SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION DOWNSLOPE FROM DISTURBED AREAS. INLET PROTECTION THAT REDUCES SEDIMENT LOADING, WHILE ALLOWING RUNOFF TO ENTER THE INLET SHALL BE REQUIRED FOR ALL STORM SEWERS. CHECK DAMS, OR AN EQUIVALENT CONTROL MEASURE, SHALL BE REQUIRED FOR ALL CHANNELS. FILTER FABRIC INLET PROTECTION AND STRAW BALE DITCH CHECKS ARE NOT ACCEPTABLE CONTROL MEASURES.

13. IF DEWATERING SERVICES ARE USED, DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (E.G., SEDIMENT TRAP OR AN EQUIVALENT CONTROL MEASURE). THE ENFORCEMENT OFFICER SHALL BE NOTIFIED PRIOR TO THE COMMENCEMENT OF DEWATERING ACTIVITIES.

14. ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION OF THE DEVELOPMENT SITE IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NECESSARY. TRAPPED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED.

15. STOCKPILED SOIL AND MATERIALS SHALL BE REMOVED FROM FLOOD HAZARD AREAS AT THE END OF EACH WORK DAY. SOIL AND MATERIALS STOCKPILED IN IWMC OR BUFFER AREAS SHALL BE PLACED ON TIMBER MATS, OR AN EQUIVALENT CONTROL MEASURE.

16. EFFECTIVE CONTROL MEASURES SHALL BE UTILIZED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE DEVELOPMENT SITE. AT A MINIMUM, CONTROL MEASURES SHALL BE IMPLEMENTED IN ORDER TO:

- a. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATER; AND
- b. MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, VEHICLE FLUIDS, SANITARY WASTE, AND OTHER MATERIALS PRESENT ON THE DEVELOPMENT SITE TO PRECIPITATION AND TO STORMWATER.

17. ADEQUATE RECEPTACLES SHALL BE PROVIDED FOR THE DEPOSITING OF ALL CONSTRUCTION MATERIAL DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS. THE APPLICANT SHALL NOT CAUSE OR PERMIT THE DUMPING, DEPOSITING, DROPPING, THROWING, DISCARDING OR LEAVING OF CONSTRUCTION MATERIAL DEBRIS UPON OR INTO ANY DEVELOPMENT SITE, CHANNEL, OR IWMC. THE DEVELOPMENT SITE SHALL BE MAINTAINED FREE OF CONSTRUCTION MATERIAL DEBRIS.

18. THE ENFORCEMENT OFFICER MAY REQUIRE ADDITIONAL OR ALTERNATE SOIL EROSION AND SEDIMENT CONTROL MEASURES, BASED ON DEVELOPMENT SITE SPECIFIC CONSIDERATIONS AND THE EFFECTIVENESS OF THE INSTALLED CONTROL MEASURES.

**STANDARD DRAIN TILE NOTES**

1. DRAIN TILES DISTURBED DURING REGULATED DEVELOPMENT SHALL BE RECONNECTED BY THOSE RESPONSIBLE FOR THEIR DISTURBANCE, UNLESS THE DEVELOPMENT PLANS SPECIFY ABANDONMENT OF THE DRAIN TILES.
2. ALL ABANDONED DRAIN TILES WITHIN DISTURBED AREAS SHALL BE REMOVED IN THEIR ENTIRETY.
3. DRAIN TILES WITHIN THE DISTURBED AREA OF A DEVELOPMENT SITE SHALL BE REPLACED, BYPASSED AROUND THE DEVELOPMENT SITE OR INTERCEPTED AND CONNECTED TO THE STORMWATER MANAGEMENT SYSTEM FOR THE DEVELOPMENT SITE. THE SIZE OF THE REPLACED OR BYPASSED DRAIN TILE SHALL BE EQUIVALENT TO THE EXISTING DRAIN TILE.

**PLANTING NOTES**

1. SEED ALL DISTURBED AREAS INCLUDING LAYDOWN AREAS, USING LOW GROW SOLAR GRASS SEED MIX.
2. ALL STOCKPILE AREAS SHALL BE LOCATED WITHIN LIMIT OF WORK LINE AND STABILIZED TO PREVENT EROSION.
3. ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF OFF-SITE.
4. PROVIDE CRIBBING AS NECESSARY TO PROTECT EXISTING UTILITY LINES DURING CONSTRUCTION.
5. PLANTING SEED SHALL BE SOWN IN SEASONAL CONDITIONS AS APPROPRIATE FOR GOOD SEED SURVIVAL, OR AT SUCH TIMES AS APPROVED BY THE OWNER.
6. PROTECT NEWLY TOPSOILED, GRADED AND/OR SEEDED AREAS FROM TRAFFIC AND EROSION. KEEP AREAS FREE OF TRASH AND DEBRIS RESULTING FROM LANDSCAPE CONTRACTOR OPERATIONS.
7. REPAIR AND RE-ESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO THE SPECIFIED GRADE AND TOLERANCES.

8. ALL PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.

9. ANY PROPOSED SUBSTITUTIONS OF PLANT MATERIAL SHALL BE MADE WITH MATERIAL EQUIVALENT TO THE DESIRED MATERIAL IN OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE. PROPOSED SUBSTITUTIONS WILL ONLY BE CONSIDERED IF SUBMITTED WITH ENUMERATED REASONS WHY SUBSTITUTIONS ARE PROPOSED.

10. CAUTION SHALL BE USED NOT TO EXTEND MULCH LAYER ABOVE SOIL LEVEL AT TRUNKS/STEMS OF INSTALLED PLANT MATERIAL.

11. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.


12. THE LANDSCAPE CONTRACTOR SHALL CLEAN UP AND REMOVE ANY DEBRIS FROM THE SITE CAUSED BY THE LANDSCAPE CONTRACTOR.

**SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES**

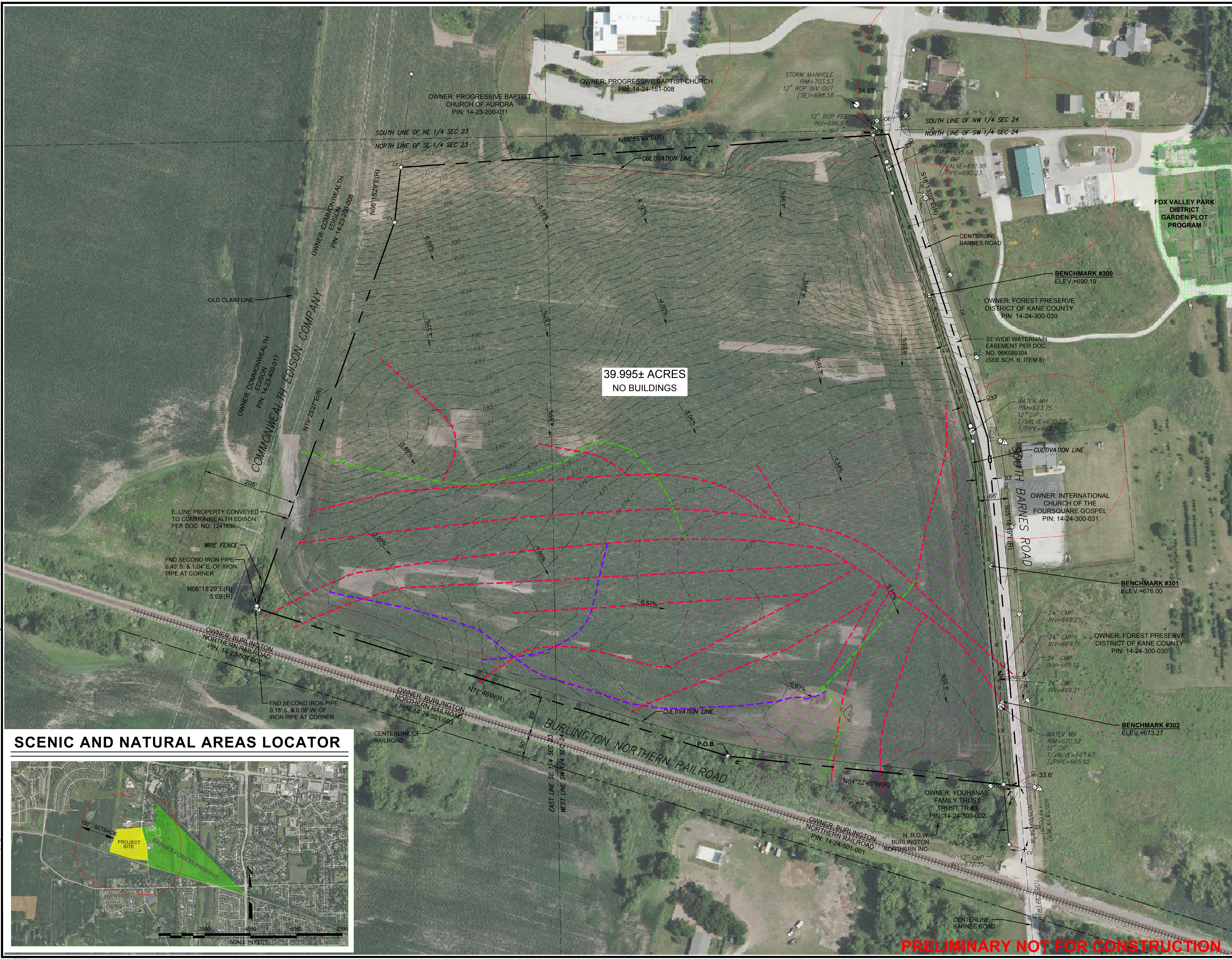
1. INSTALL PERIMETER SE/SC MEASURES SUCH AS SILT FENCE AND A STABILIZED CONSTRUCTION ENTRANCE.
2. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND WATERED. MAINTENANCE FOR SE/SC MEASURES MUST OCCUR EVERY TWO WEEKS AND AFTER EVERY 0.5-INCH OR GREATER RAINFALL EVENT.
3. INSTALL ASSOCIATED INLET AND OUTLET PROTECTION (IF APPLICABLE).
4. TEMPORARILY STABILIZE ALL AREAS INCLUDING LOTS THAT HAVE REACHED TEMPORARY GRADE.
5. INSTALL GRAVEL ACCESS, EQUIPMENT PADS, FENCE LINE, ARRAY SUPPORT PILES, AND OTHER MAJOR COMPONENTS.
6. REMOVE ALL TEMPORARY SE/SC MEASURES.

2304 - USER: AEdillon - ATTACHED REFERENCES - ATTACHED IMAGES: - LAYOUT: G010 - GENERAL NOTES - S Barnes Road Solar - GN.dwg - PLOT DATE: April 23, 2024 - 4:45PM - C:\Users\AEdillon\OneDrive\Documents\Projects\2304\2304.dwg

**PRELIMINARY NOT FOR CONSTRUCTION**

SEAL:		PROFESSIONAL ENGINEER ANDREW B. GRAHAM 062048682		
		EXPIRATION DATE: 11/30/25		
		TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002		
1	AE	4/23/2024	ISSUED FOR PERMIT	ABG
NO.	BY	DATE	REVISION	APPD.
PROJECT: <b>CIVIL PERMIT PLAN SET                  RPIL SOLAR 10, LLC                  S. BARNES ROAD SOLAR                  KANE COUNTY, IL</b>				
TITLE: <b>GENERAL NOTES</b>				
DRAWN BY:		N. EDWIN		PROJ. NO.:
CHECKED BY:		A. ELLSTROM		567363.0003.0000
APPROVED BY:		A. GRAHAM		<b>G010</b>
DATE:		APRIL 2024		
		230 West Monroe St. Suite 1840 Chicago, IL 60606 Phone: 312.578.0870		
FILE NO.:		567363.0003.0000 - S Barnes Road Solar - GN.dwg		

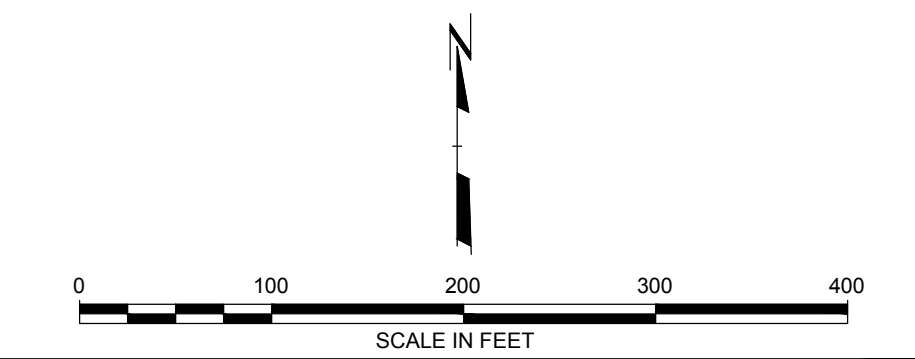
2634 - USER: AEdwin - ATTACHED: AREFS: EX, LEGEND, EX, METLAND, EX, FEATURES, EX, DRAIN TILES - ATTACHED IMAGES: F:\Map02\2634 - DRAWING NAME: C:\Users\AEdwin\OneDrive\Documents\2634\2634.dwg - S Barnes Road Solar - EC.dwg - PLOT DATE: April 23, 2024 - 4:45PM - LAYOUT: C050 - EXISTING CONDITIONS



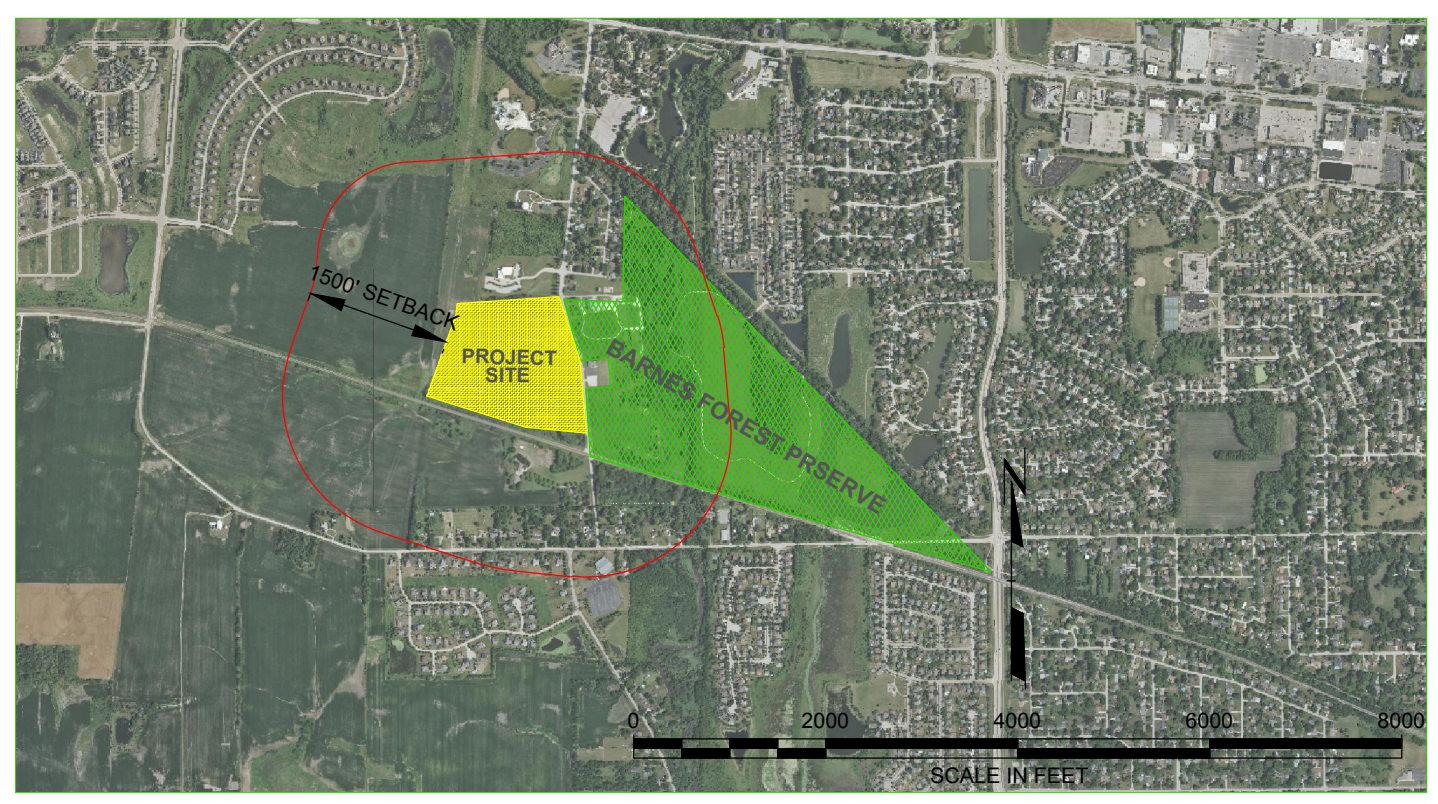
**LEGEND**

Ex	MONUMENT
○ + □	IRON PIPE/ROD/NAIL/WOOD POST SIGN
⊥	GAS LINE MARKER
⊥	COMMUNICATION LINE MARKER
⊥	COMMUNICATION MARKER
⊥	UTILITY POLE
⊥	UTILITY POLE WITH TRANSFORMER
⊥	WATER MANHOLE
⊥	WATER METER
⊥	WATER VALVE
⊥	HYDRANT
⊥	STORM MANHOLE
---	PROPERTY LINE
---	R.O.W. LINE
---	50' PROPERTY SETBACK
---	150' BUILDING SETBACK
---	SECTION LINE
---	RAILROAD
---	EXISTING EOP
---	OVERHEAD ELECTRIC LINE
---	WATER
---	FENCE
---	STORM SEWER LINE
---	FLOOD ZONE DELINEATION
---	GROUND CONTOUR WITH ELEVATION
---	ZONE X FLOOD AREA
---	SIDEWALK
---	COMMUNITY GARDEN
---	CLAY DRAIN TILE
---	CONCRETE DRAIN TILE
---	PLASTIC DRAIN TILE

- NOTES**
- PRELIMINARY ALTA SURVEY DATED OCTOBER 16, 2023 AND PROVIDED BY FARNSWORTH GROUP.
  - FLOODPLAIN DIGITIZED FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S NATIONAL FLOOD INSURANCE RATE MAP NO. 17089C0319H, WITH AN EFFECTIVE DATE OF AUGUST 3, 2009, FOR KANE COUNTY, IL. THE SITE PARTIALLY LIES WITHIN ZONE X FLOOD AREA (AREAS OF 0.2% CHANCE ANNUAL FLOOD, AREAS OF 1% ANNUAL FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEVEES FROM 1% CHANCE ANNUAL FLOOD).
  - SCENIC AND NATURAL AREAS DIGITIZED FROM FOREST PRESERVE DISTRICT OF KANE COUNTY MAP. BARNES FOREST PRESERVE WAS IDENTIFIED AS EXISTING WITHIN 1,500 FEET OF THE SITE.
  - DRAIN TILE SURVEY COMPLETED BY HUDDLESTON MCBRIDE LAND DRAINAGE COMPANY AND DATED APRIL 18, 2024. SEE THE DRAIN TILE SURVEY FOR PIPE DIAMETERS, MATERIALS, AND DEPTHS.



**SCENIC AND NATURAL AREAS LOCATOR**



SEAL:		PROFESSIONAL ENGINEER ANDREW B. GRAHAM 06204882	
EXPIRATION DATE: 11/30/25		TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002	
1	AE	4/23/2024	ISSUED FOR PERMIT
NO.	BY	DATE	REVISION
			ABG
			APPD.
PROJECT: <b>CIVIL PERMIT PLAN SET RPIL SOLAR 10, LLC S. BARNES ROAD SOLAR KANE COUNTY, IL</b>			
TITLE: <b>EXISTING CONDITIONS</b>			
DRAWN BY: N. EDWIN		PROJ. NO.: 567363.0003.0000	
CHECKED BY: A. ELLSTROM			
APPROVED BY: A. GRAHAM		<b>C050</b>	
DATE: APRIL 2024			
		230 West Monroe St. Suite 1840 Chicago, IL 60606 Phone: 312.578.0870	
FILE NO.: 567363.0003.0000 - S Barnes Road Solar - EC.dwg			

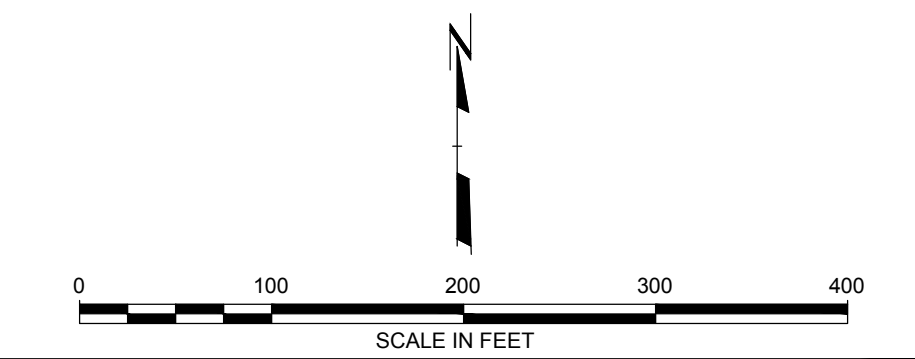
**PRELIMINARY NOT FOR CONSTRUCTION**

**NOTES**

1. PRELIMINARY ALTA SURVEY DATED OCTOBER 16, 2023 AND PROVIDED BY FARNSWORTH GROUP.
2. WETLAND AND WATERBODY DELINEATION REPORT PROVIDED BY SWCA ENVIRONMENTAL CONSULTANTS AND DATED JANUARY 2024.
3. ACCESS ROADS SHALL BE DESIGNED TO ACCOMMODATE ALL CONSTRUCTION, OPERATIONS, MAINTENANCE, AND EMERGENCY TRAFFIC.
4. NO LIGHTING IS PROPOSED.
5. THERE IS NO TREE CLEARING EXPECTED.
6. VEHICLE GATE IS SHOWN. ADDITIONAL PEDESTRIAN ACCESS GATES MAY BE ADDED.
7. THE LAND BENEATH THE PV TRACKERS WILL BE RE-VEGETATED AS INDICATED ON THE LANDSCAPE PLANS AND IS NOT CONSIDERED HYDROLOGICALLY DISTURBED.
8. THE CONCRETE WASHOUT AREA WILL BE TEMPORARY AND WILL NOT CONTRIBUTE TO THE IMPERVIOUS SURFACE AREA.

**LEGEND**

- EX + (Symbol) MONUMENT
- (Symbol) IRON PIPE/ROD/NAIL/WOOD POST
- (Symbol) SIGN
- G (Symbol) GAS LINE MARKER
- C (Symbol) COMMUNICATION LINE MARKER
- (Symbol) COMMUNICATION MARKER
- (Symbol) COMMUNICATION PEDESTAL
- (Symbol) UTILITY POLE
- (Symbol) UTILITY POLE WITH TRANSFORMER
- (Symbol) WATER MANHOLE
- (Symbol) WATER METER
- (Symbol) WATER VALVE
- (Symbol) HYDRANT
- (Symbol) STORM MANHOLE
- (Symbol) EXISTING BUILDING
- (Symbol) EXISTING DRAIN TILE
- (Symbol) PROPERTY LINE
- (Symbol) R.O.W. LINE
- (Symbol) SECTION LINE
- (Symbol) RAILROAD
- (Symbol) EXISTING EOP
- (Symbol) EXISTING OVERHEAD ELECTRIC LINE
- (Symbol) PROPOSED OVERHEAD ELECTRIC LINE
- (Symbol) WATER
- (Symbol) EXISTING FENCE
- (Symbol) EXISTING STORM SEWER
- (Symbol) WETLAND
- (Symbol) 15' WETLAND BUFFER
- (Symbol) EXISTING SIDEWALK
- (Symbol) PROPOSED FENCE
- (Symbol) PROPOSED MV CABLE
- (Symbol) 50' PROPERTY SETBACK
- (Symbol) 150' BUILDING SETBACK
- (Symbol) SILT FENCE
- (Symbol) LIMITS OF DISTURBANCE
- (Symbol) PROPOSED PV ARRAY
- (Symbol) PROPOSED ACCESS ROAD
- (Symbol) EXISTING CONTOUR WITH ELEVATION
- (Symbol) PROPOSED CONTOUR WITH ELEVATION
- (Symbol) EQUIPMENT PAD
- (Symbol) PROPOSED VISUAL MITIGATION



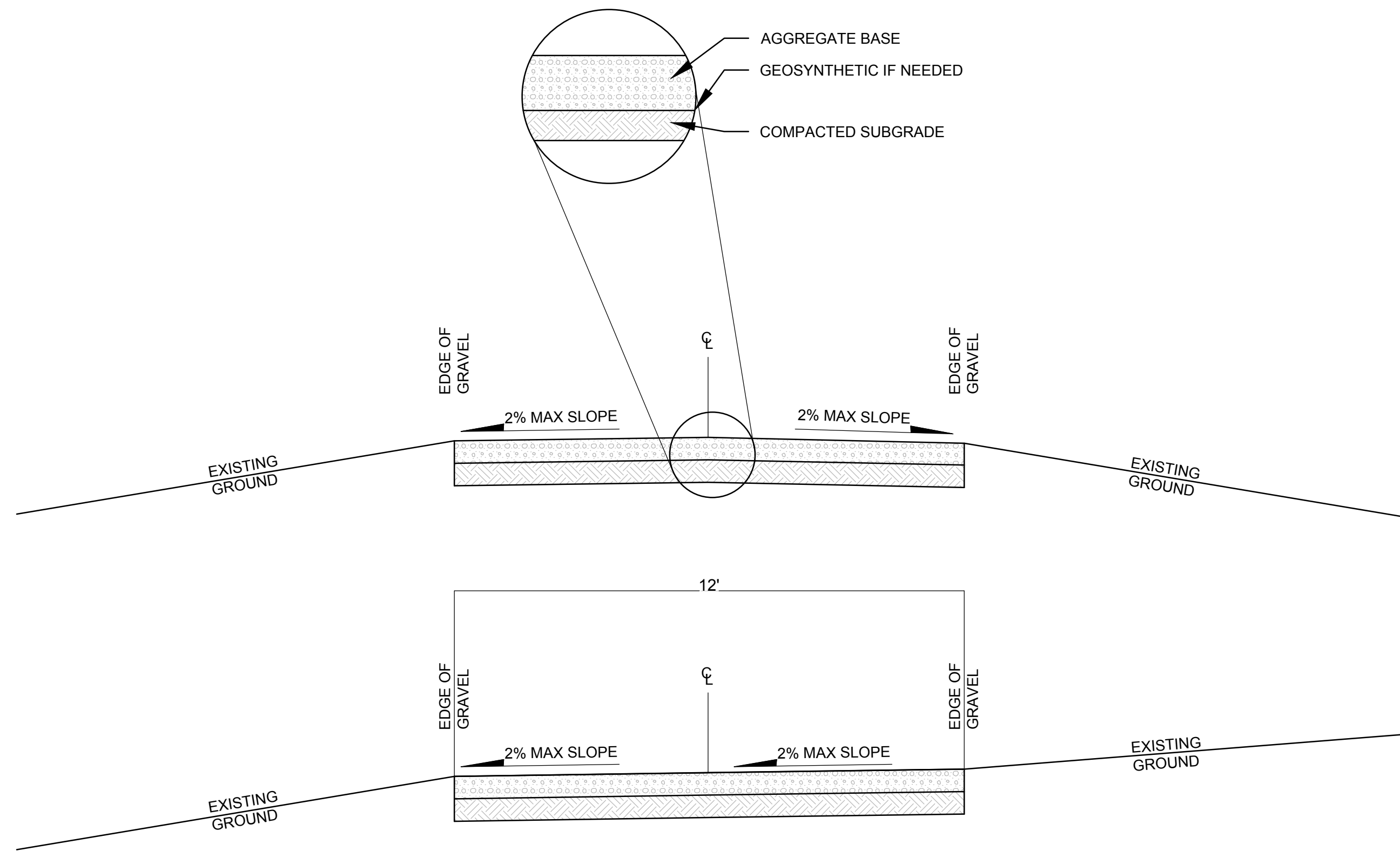
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**PRELIMINARY NOT FOR CONSTRUCTION**

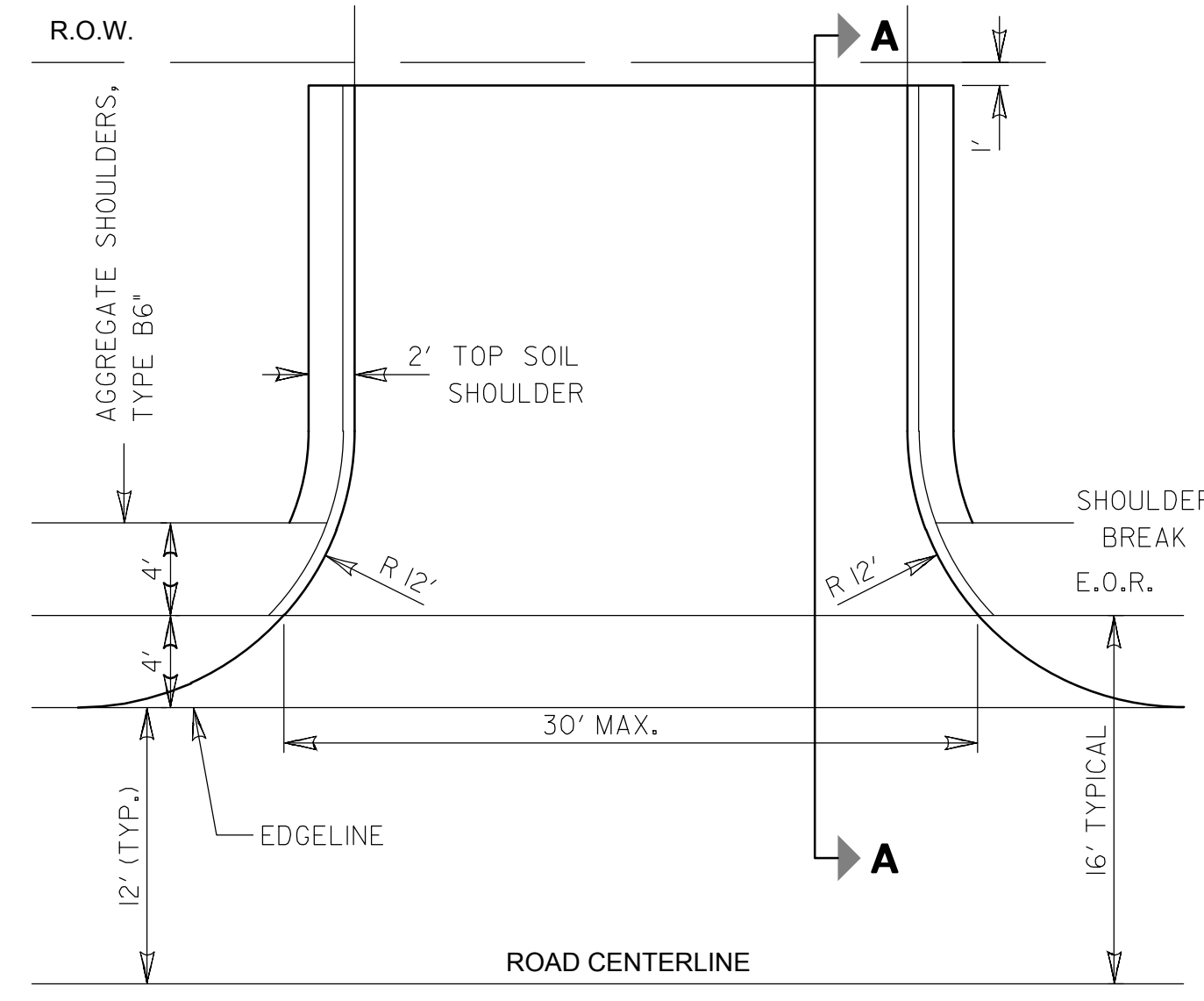


SEAL:		PROFESSIONAL ENGINEER: ANDREW B. GRAHAM 062048682	
		EXPIRATION DATE: 11/30/25	
		TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002	
1	AE	4/23/2024	ISSUED FOR PERMIT
			REVISION
			ABG
			APPD.
PROJECT: <b>CIVIL PERMIT PLAN SET RPIL SOLAR 10, LLC S. BARNES ROAD SOLAR KANE COUNTY, IL</b>			
TITLE: <b>SITE PLAN</b>			
DRAWN BY: N EDWIN		PROJ. NO.: 567363.0003.0000	
CHECKED BY: A. ELLSTROM		<b>C100</b>	
APPROVED BY: A. GRAHAM			
DATE: APRIL 2024			
FILE NO.: 567363.0003.0000 - S Barnes Road Solar - SL.dwg		230 West Monroe St. Suite 1840 Chicago, IL 60606 Phone: 312.578.0870	

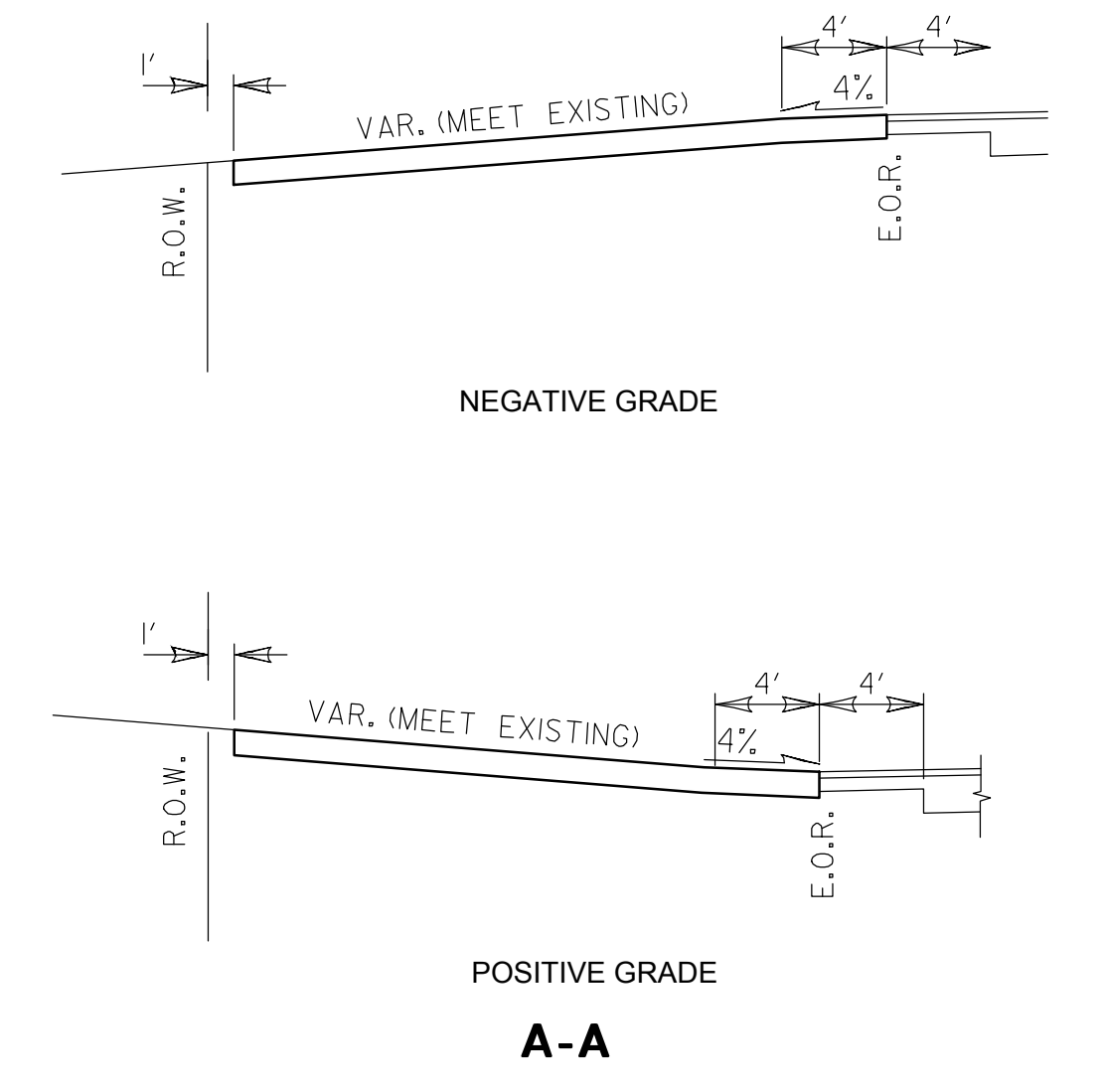
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**1**  
C501  
**TYPICAL ACCESS DRIVE SECTION**  
NOT TO SCALE




**2**  
C501  
**RURAL DRIVEWAY DETAIL**  
NOT TO SCALE

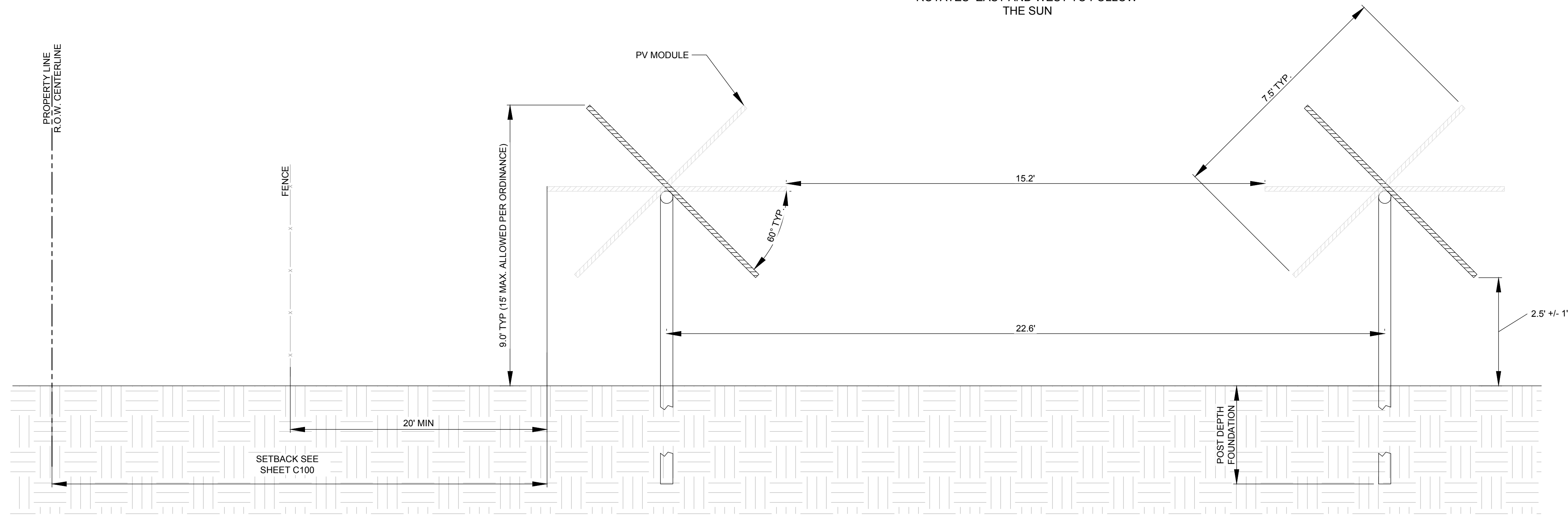


**A-A**

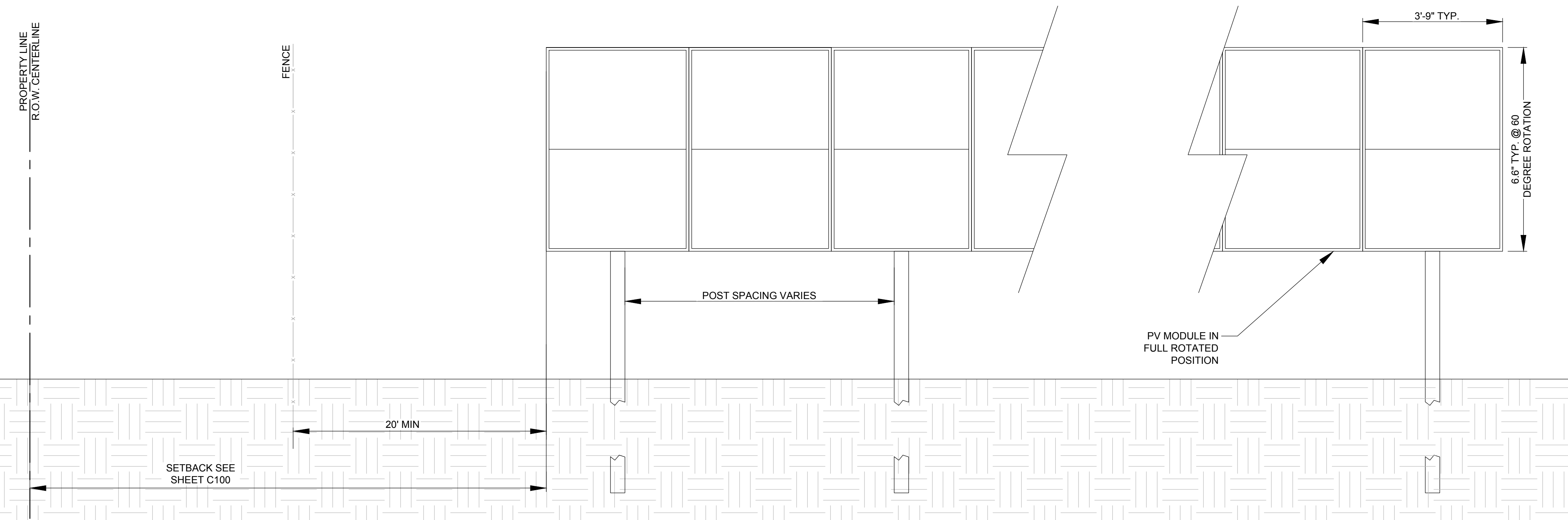
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SEAL:		PROFESSIONAL ENGINEER ANDREW B. GRAHAM 062048682		
		EXPIRATION DATE: 11/30/25		
		TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002		
1	AE	4/23/2024	ISSUED FOR PERMIT	ABG
NO.	BY	DATE	REVISION	APPD.
PROJECT: <b>CIVIL PERMIT PLAN SET RPIL SOLAR 10, LLC S. BARNES ROAD SOLAR KANE COUNTY, IL</b>				
TITLE: <b>ACCESS ROAD DETAILS</b>				
DRAWN BY: N. EDWIN		PROJ. NO.: 567363.0003.0000		
CHECKED BY: A. ELLSTROM		<b>C501</b>		
APPROVED BY: A. GRAHAM				
DATE: APRIL 2024				
		230 West Monroe St. Suite 1840 Chicago, IL 60606 Phone: 312.578.0870		
FILE NO.:		567363.0003.0000 - S Barnes Road Solar - DT-RD.dwg		


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



1  
C502 **TYPICAL RACK SECTION**  
NOT TO SCALE



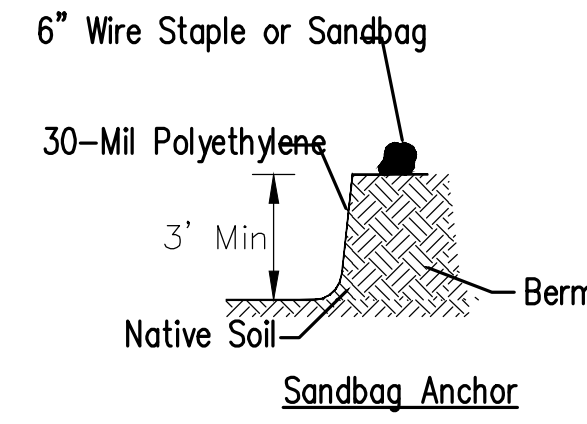
2  
C502 **TYPICAL RACK ELEVATIONS**  
NOT TO SCALE

SEAL:		PROFESSIONAL ENGINEER ANDREW B. GRAHAM 062048682		
		EXPIRATION DATE: 11/30/25		
		TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002		
1	AE	4/23/2024	ISSUED FOR PERMIT	ABG
			REVISION	APPD.
PROJECT: <b>CIVIL PERMIT PLAN SET RPIL SOLAR 10, LLC S. BARNES ROAD SOLAR KANE COUNTY, IL</b>				
TITLE: <b>PV TRACKERS</b>				
DRAWN BY: N. EDWIN		PROJ. NO.: 567363.0003.0000		
CHECKED BY: A. ELLSTROM		<b>C502</b>		
APPROVED BY: A. GRAHAM				
DATE: APRIL 2024				
		230 West Monroe St. Suite 1840 Chicago, IL 60606 Phone: 312.578.0870		
FILE NO.:		567363.0003.0000 - S Barnes Road Solar - DT-PV.dwg		

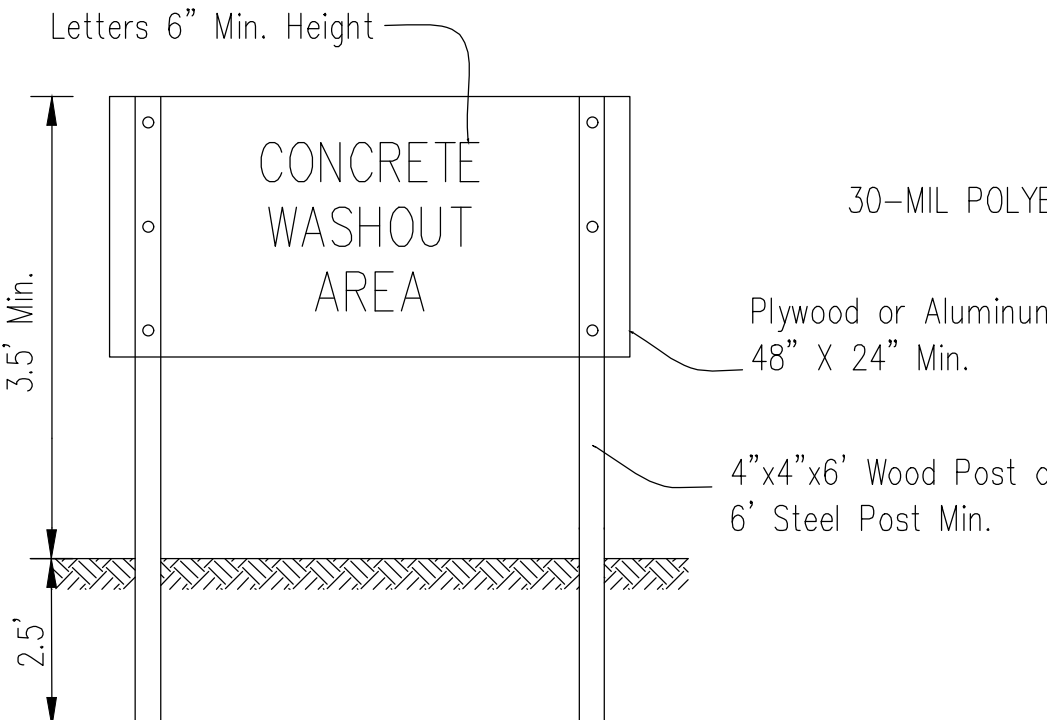
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**PRELIMINARY NOT FOR CONSTRUCTION**

2304 - USER: AEdinhom - ATTACHED XREFS: - ATTACHED IMAGES: - S Barnes Road Solar - DT-ER.dwg - PLOT DATE: April 23, 2024 - 4:45PM - LAYOUT: C503 - EROSION CONTROL DETAILS



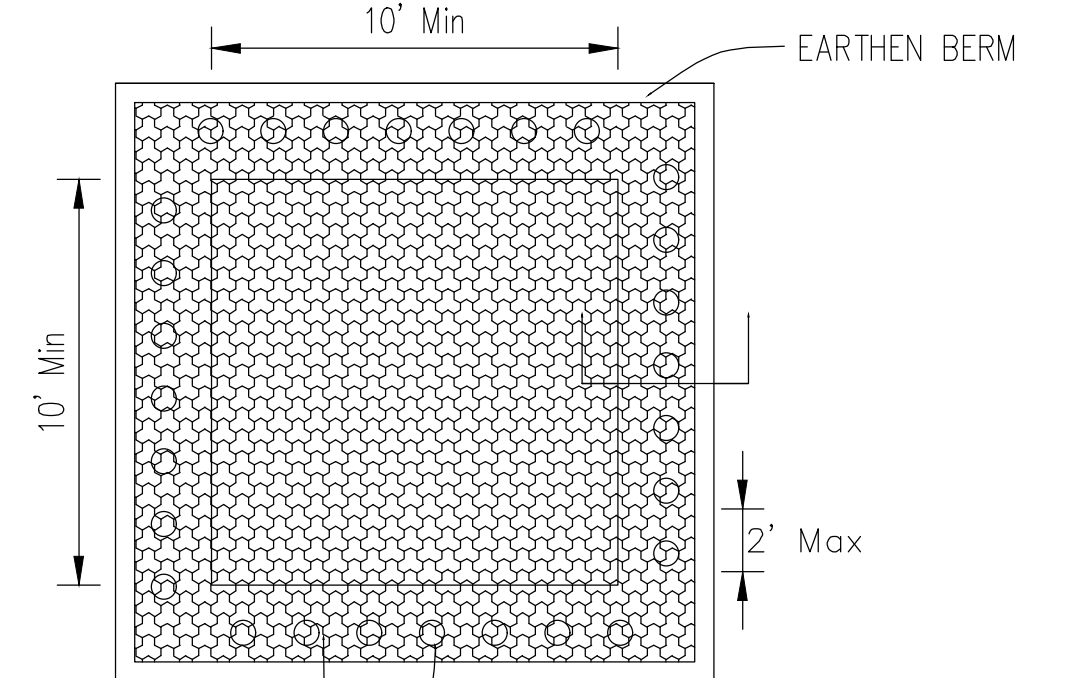
**EARTHEN BERM ANCHOR SECTIONS**



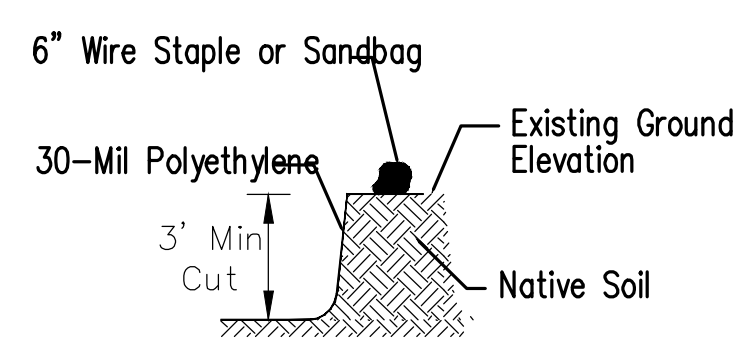
**SIGN DETAIL**

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

**1 C503 CONSTRUCTION WASHOUT DETAIL**  
NOT TO SCALE

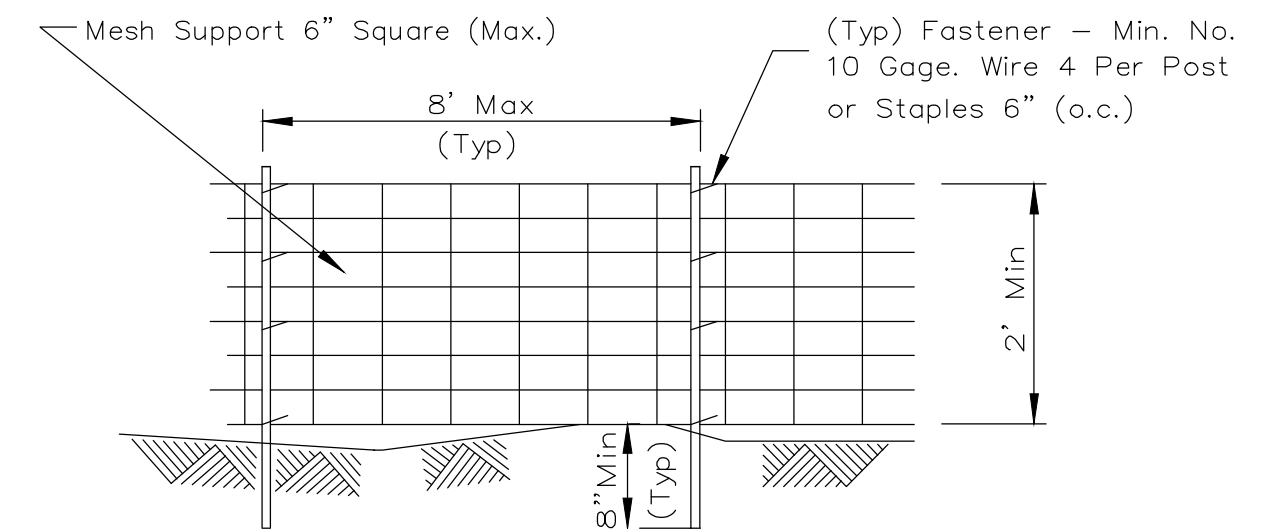


**PLAN VIEW**

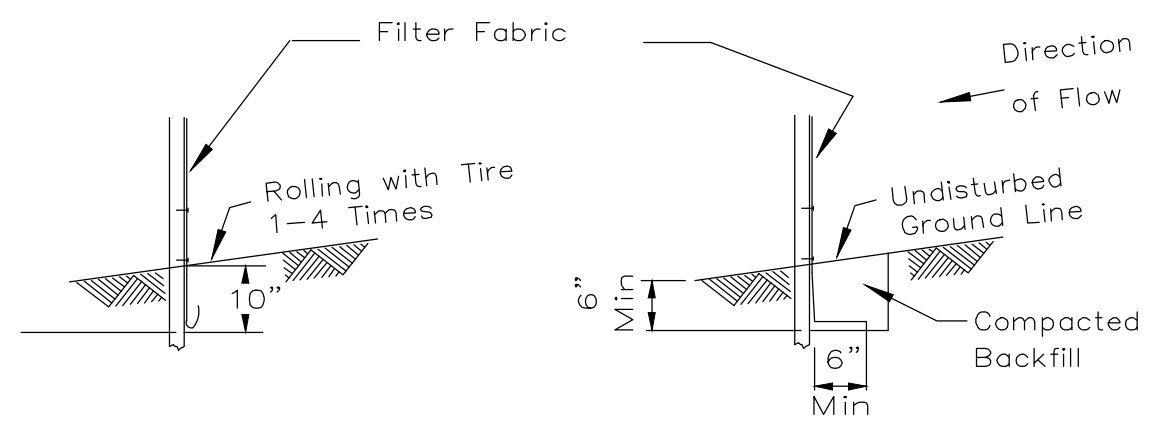


**SUBGRADE ANCHOR SECTIONS**

**2 C503 SILT FENCE DETAIL**  
NOT TO SCALE



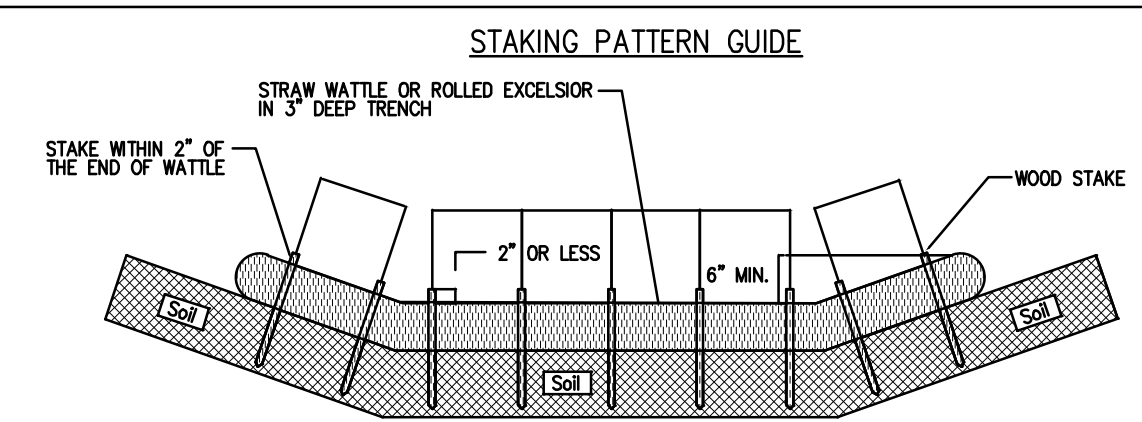
**ELEVATION**



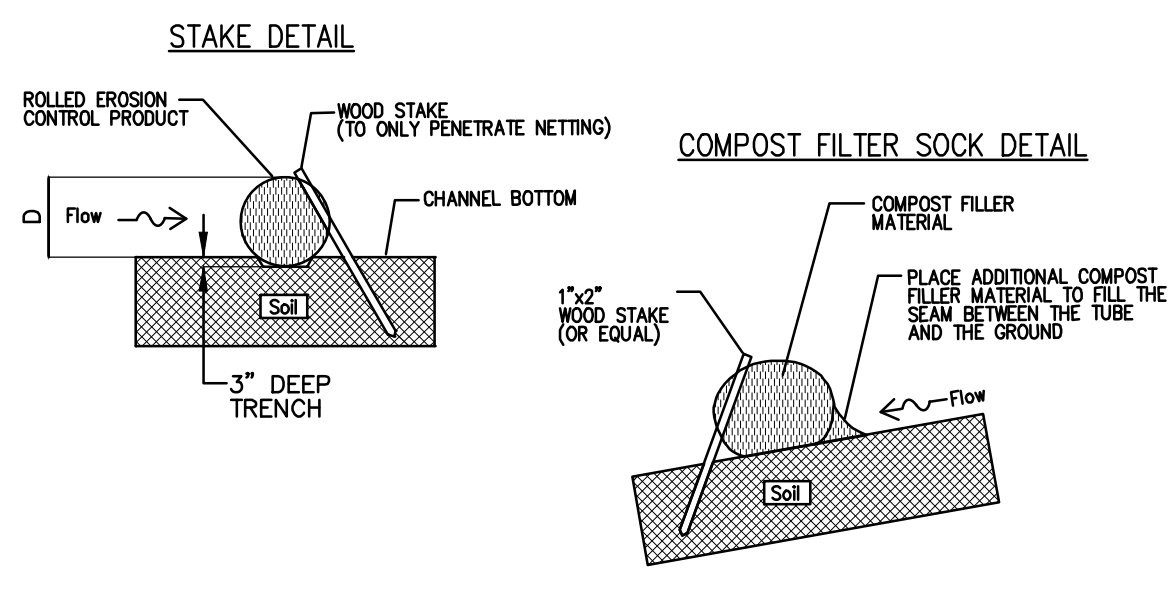
**FABRIC ANCHOR DETAIL**

- STATIC SLICE INSTALLATION      TRENCH INSTALLATION
- NOTES:
- Silt Fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization. Silt fence shall be placed on the flattest area available.
  - Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 40 for woven.
  - Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

**ROLLED EROSION CONTROL PRODUCTS**



- NOTES:
- OVERLAP MINIMUM IS THE DIAMETER OF THE ROLL.
  - 4' SPACING FOR WATTLES.
  - 2' SPACING FOR ROLLED EXCELSIOR.
  - OR SPACE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.



- NOTES:
- DRAWINGS ARE NOT TO SCALE.
  - ENDS OF WATTLES OR ROLLED EXCELSIOR SHALL BE TURNED AT LEAST 6° UPSLOPE.
  - RECOMMENDED STAKES ARE 1 1/8" WIDE x 1 1/8" THICK x 30" LONG.
  - STAKES SHALL NOT EXTEND ABOVE THE STRAW WATTLE MORE THAN 2".
  - SPACING: THE TOE OF THE UPSTREAM DITCH CHECK SHALL CREATE A HORIZONTAL LINE WITH THE TOP OF THE DOWNSTREAM DITCH CHECK.
  - WHEN COMPOST FILTER SOCK DITCH CHECK IS USED, PLACE A COMPOST BERM UPSTREAM OF THE FILTER SOCK (SEE IUM 805). A TRENCH IS NOT REQUIRED.

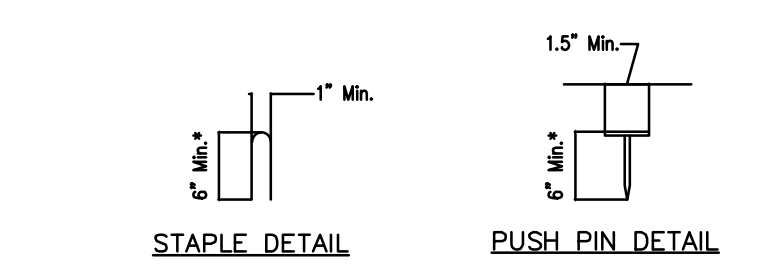
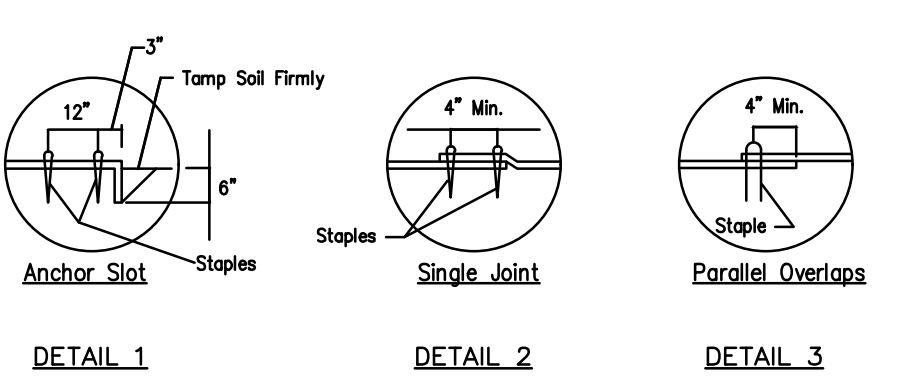
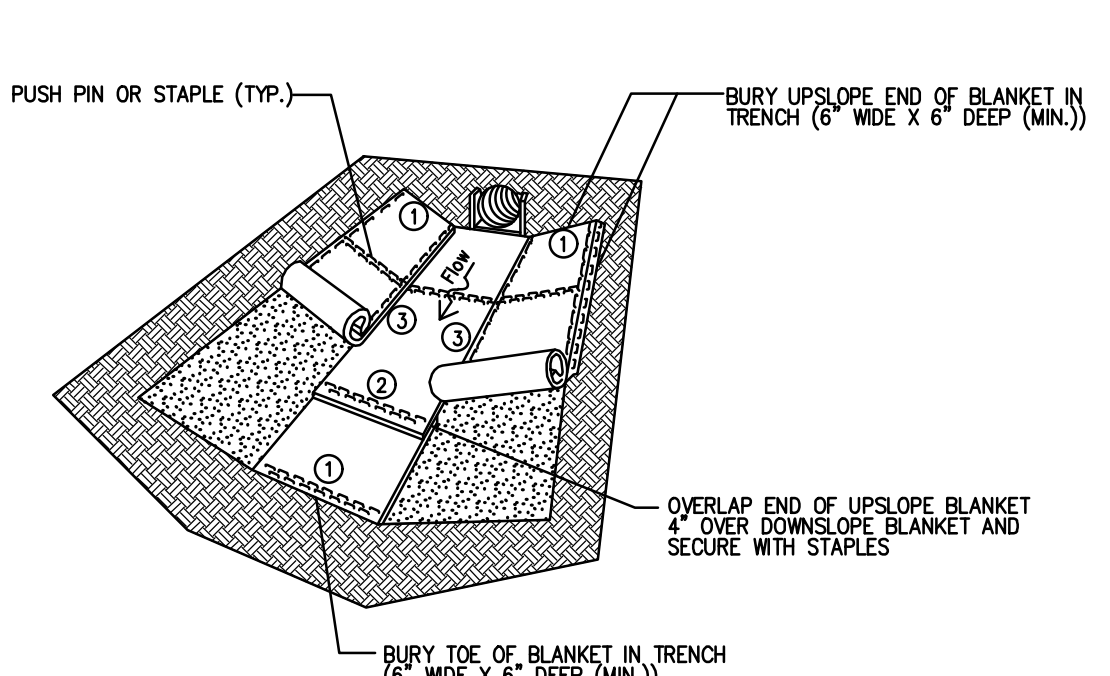
REFERENCE	Project	_____	DATE	_____
Designed	_____	DATE	_____	_____
Checked	_____	DATE	_____	_____
Approved	_____	DATE	_____	_____



STANDARD DWG. NO.	IUM-514
SHEET	1 OF 1
DATE	08-19-2011

**3 C503 TYPICAL DITCH CHECK DETAIL**  
NOT TO SCALE

**EROSION CONTROL BLANKET-TURF REINFORCEMENT MAT (TRM)**



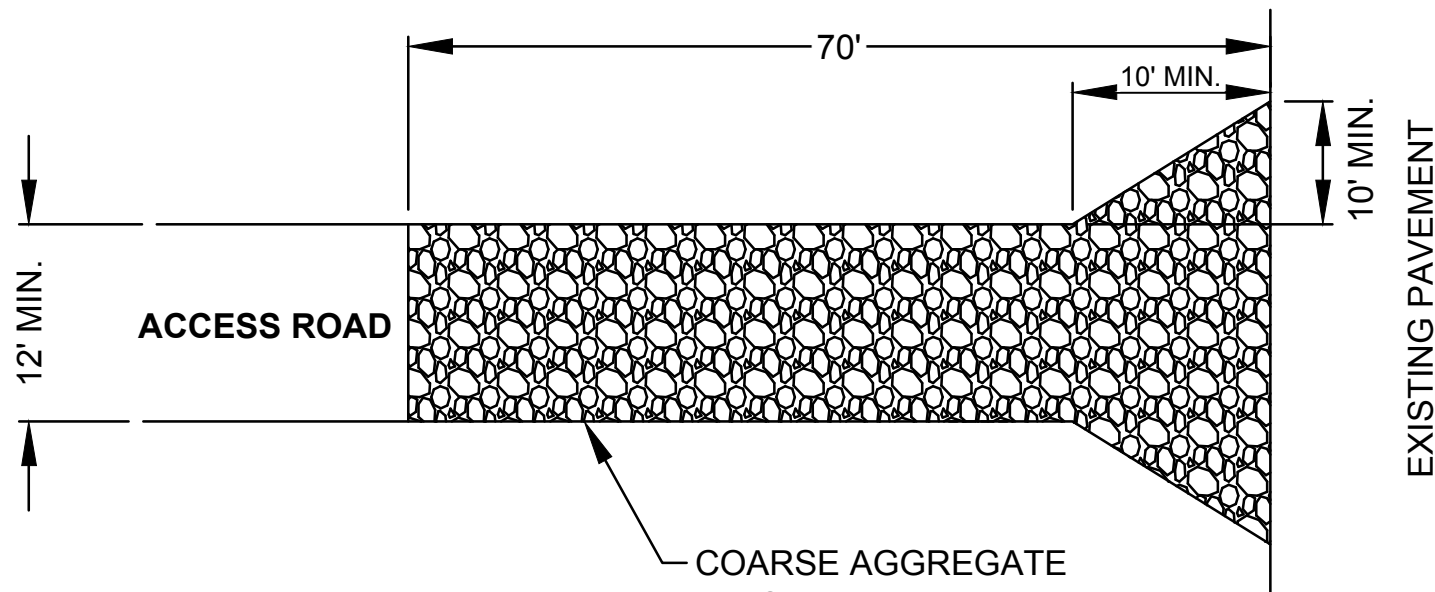
- \*Note:  
1. For sandy soil conditions, staple or push pin shall be a minimum 8 inches.

REFERENCE	Project	_____	DATE	_____
Designed	_____	DATE	_____	_____
Checked	_____	DATE	_____	_____
Approved	_____	DATE	_____	_____

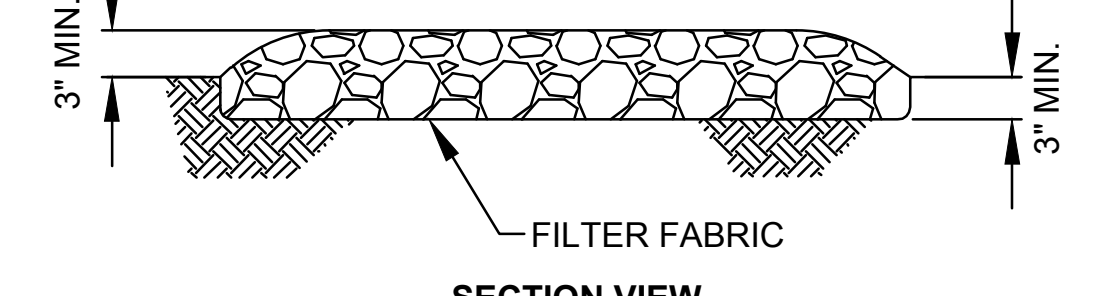


STANDARD DWG. NO.	IUM-531
SHEET	1 OF 1
DATE	02-22-2011

**5 C503 TYPICAL EROSION CONTROL BLANKET DETAIL**  
NOT TO SCALE



**PLAN VIEW**



**SECTION VIEW**

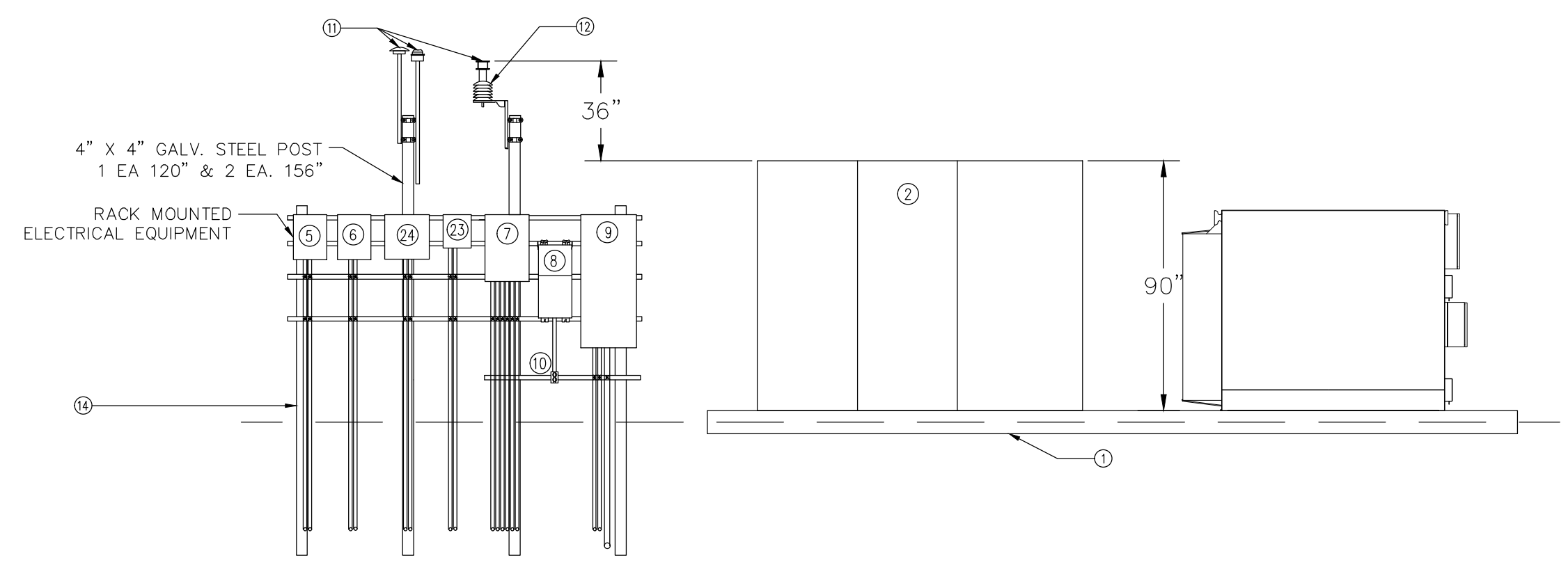
- NOTES:
- FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1 OR 2, CLASS I, II OR IV AND SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE PLACING OF ROCK.
  - ROCK OR RECLAIMED CONCRETE SHALL MEET ONE OF THE FOLLOWING IDOT COARSE AGGREGATE GRADATION, CA-1, CA-2, CA-3 OR CA-4 AND BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 25 ROCKFILL USING PLACEMENT METHOD 1 AND CLASS 3 COMPACTION.
  - ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS.
  - PROVIDE POSITIVE DRAINAGE TO SEDIMENT TRAPPING DEVICE.

**4 C503 STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE

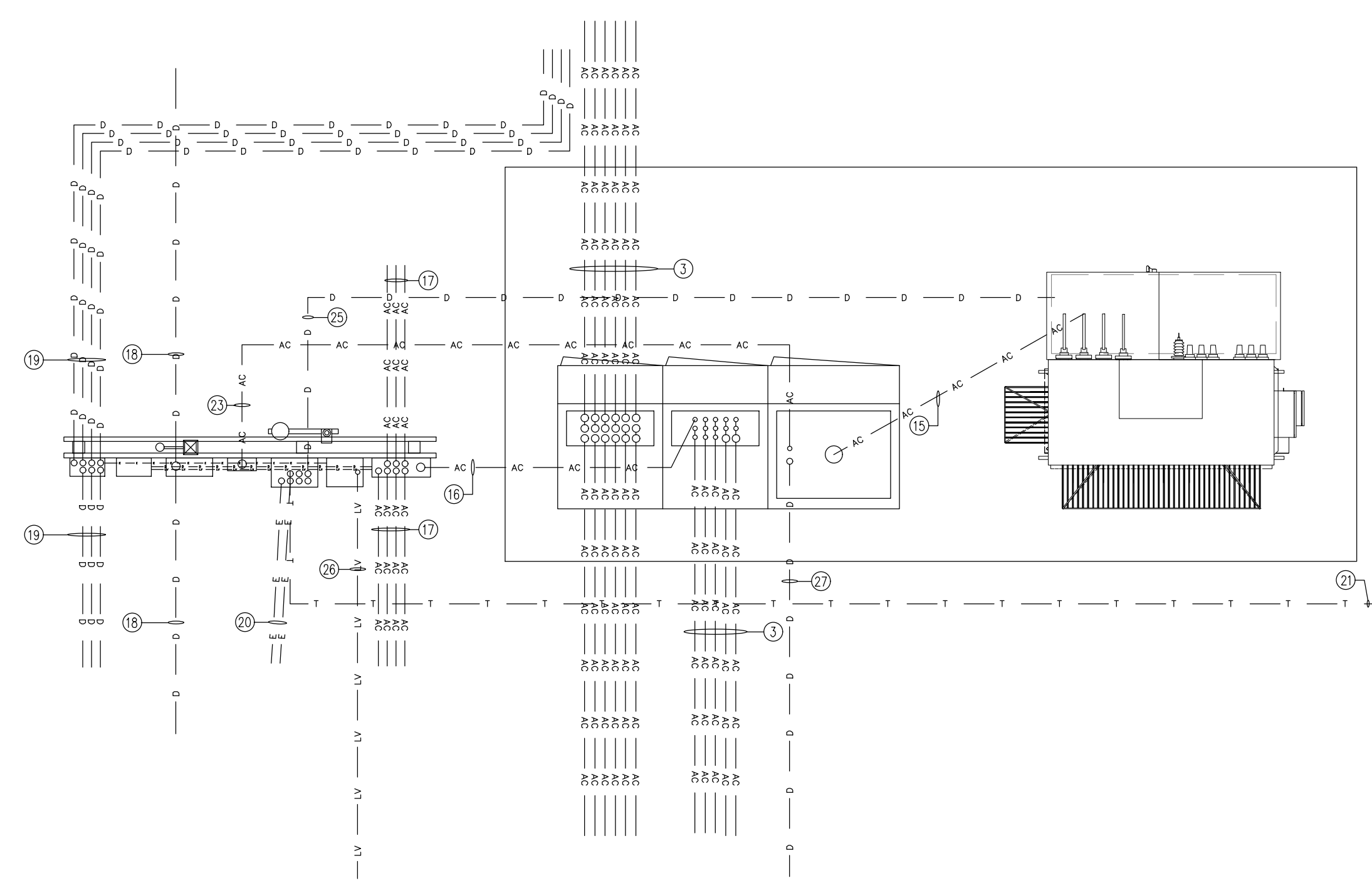
SEAL:		PROFESSIONAL ENGINEER ANDREW B. GRAHAM 062048682			
EXPIRATION DATE: 11/30/25		TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002			
NO.	BY	DATE	ISSUED FOR PERMIT	REVISION	ABG
PROJECT: <b>CIVIL PERMIT PLAN SET RPIL SOLAR 10, LLC S. BARNES ROAD SOLAR KANE COUNTY, IL</b>					
TITLE: <b>EROSION CONTROL DETAILS</b>					
DRAWN BY: N. EDWIN		PROJ. NO.: 567363.0003.0000			
CHECKED BY: A. ELLSTROM		<b>C503</b>			
APPROVED BY: A. GRAHAM					
DATE: APRIL 2024					
FILE NO.: 567363.0003.0000 - S Barnes Road Solar - DT-ER.dwg		230 West Monroe St. Suite 1840 Chicago, IL 60606 Phone: 312.578.0870			

**PRELIMINARY NOT FOR CONSTRUCTION**

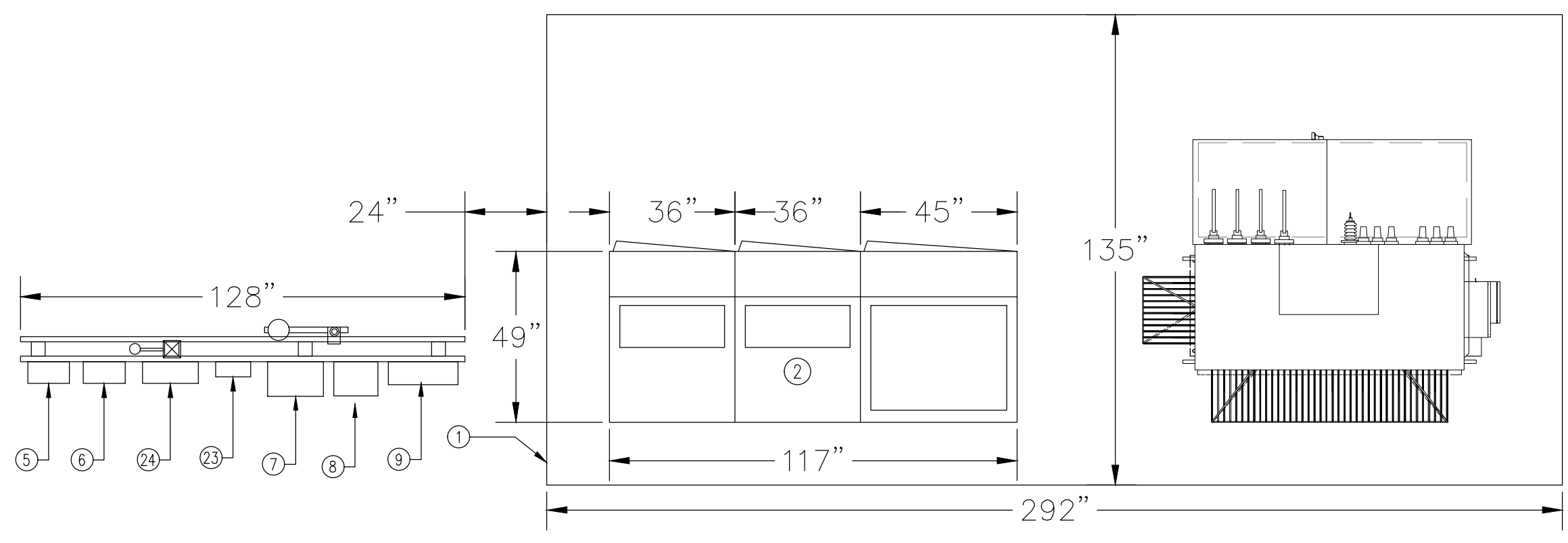
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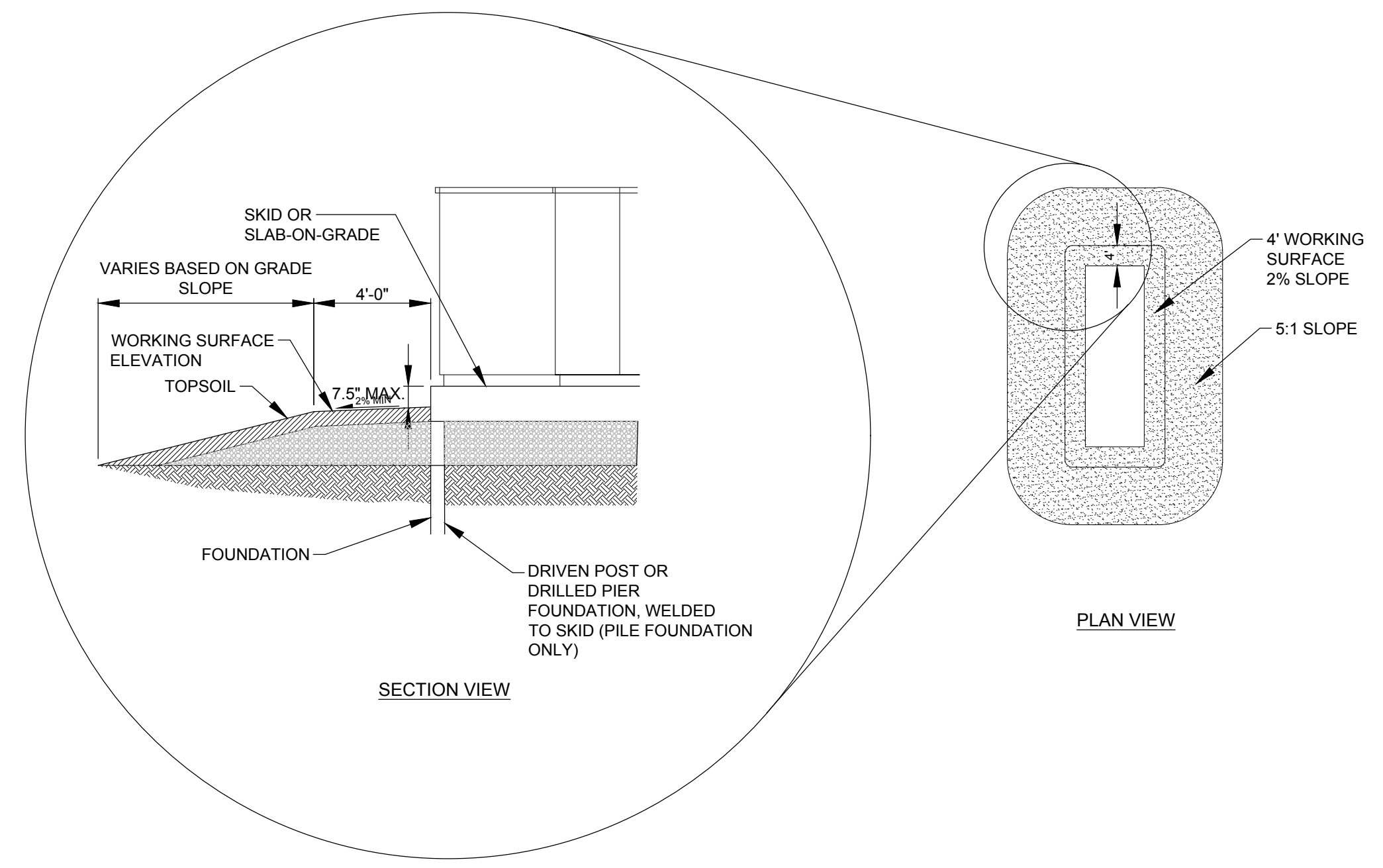
**1**  
**C504** **EQUIPMENT PAD ELEVATION**  
NOT TO SCALE



**2**  
**C504** **EQUIPMENT PAD - U.G. CONDUIT LAYOUT**  
NOT TO SCALE



**3**  
**C504** **EQUIPMENT PAD - PLAN VIEW**  
NOT TO SCALE



**4**  
**C504** **EQUIPMENT PAD FOUNDATION**  
NOT TO SCALE

- DIAGRAM NOTES**
- ① CONCRETE EQUIPMENT PAD. SEE STRUCTURAL SHEET FOR CONSTRUCTION REQUIREMENTS
  - ② 4000A/480V "AC SWBD"
  - ③ U.G. 480 VAC FEEDERS - INVERTERS
  - ④ GALVANIZED STEEL SUPPORT RACK WITH STRUT MOUNTED ELECTRIC EQUIPMENT
  - ⑤ ATI 4X CONTROLLER
  - ⑥ ATI SITE DATA CONTROLLER
  - ⑦ DAS BOX
  - ⑧ MINI POWER CENTER 120/240V PNL-P2
  - ⑨ 277/480V SITE LOAD PANEL P1
  - ⑩ WP GFI CONVENIENCE OUTLET
  - ⑪ ATI WIND, GPS & GHI SENSOR MOUNTED TO EQUIPMENT RACK
  - ⑫ WEATHER STATION MOUNTED ON EQUIPMENT RACK. SEE SHEET E312 DETAIL 1.
  - ⑬ 1-5/8" X 1-5/8" GALV STRUT (TYP.)
  - ⑭ 4" X 4" GALVANIZED STEEL POST (TYP.)
  - ⑮ U.G. 480 VAC FEEDERS TO 4000A "AC SWBD"
  - ⑯ U.G. 480 VAC FEEDER PANEL P1
  - ⑰ U.G. 480 VAC FEEDER TRACKER MOTOR
  - ⑱ U.G. DATA: INVERTERS
  - ⑲ U.G. ATI TRACKER CONTROLLER CABLE
  - ⑳ U.G. ELECTRONIC SIGNAL CABLE FOR IRR AND PNL TEMP SENSORS: 2 X 1" PVC CONDUITS, INSTALL PER EQUIPMENT SUPPLIER'S SHOP DRAWINGS.
  - ㉑ U.G. DATA CABLE TO INTERNET SERVICE PROVIDER WHEN REQUIRED BY MONITORING SYSTEMS SUPPLIER. FIELD VERIFY POINT OF CONNECTION.
  - ㉒ U.G. CURRENT AND VOLTAGE SIGNALS TO REMOTE METER WHEN REQUIRED BY MONITORING SYSTEMS PROVIDER. FIELD VERIFY POINT OF CONNECTION.
  - ㉓ REMOTE METER ENCLOSURE (ALSO ENERGY)
  - ㉔ WEATHER STATION ENCLOSURE (ALSO ENERGY)
  - ㉕ DATA LINE TO TRANSFORMER
  - ㉖ U.G. 120V AC FEEDER TO NCEMC COMM. CABINET
  - ㉗ U.G. FIBER LINE TO NCEMC COMM. CABINET

**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**

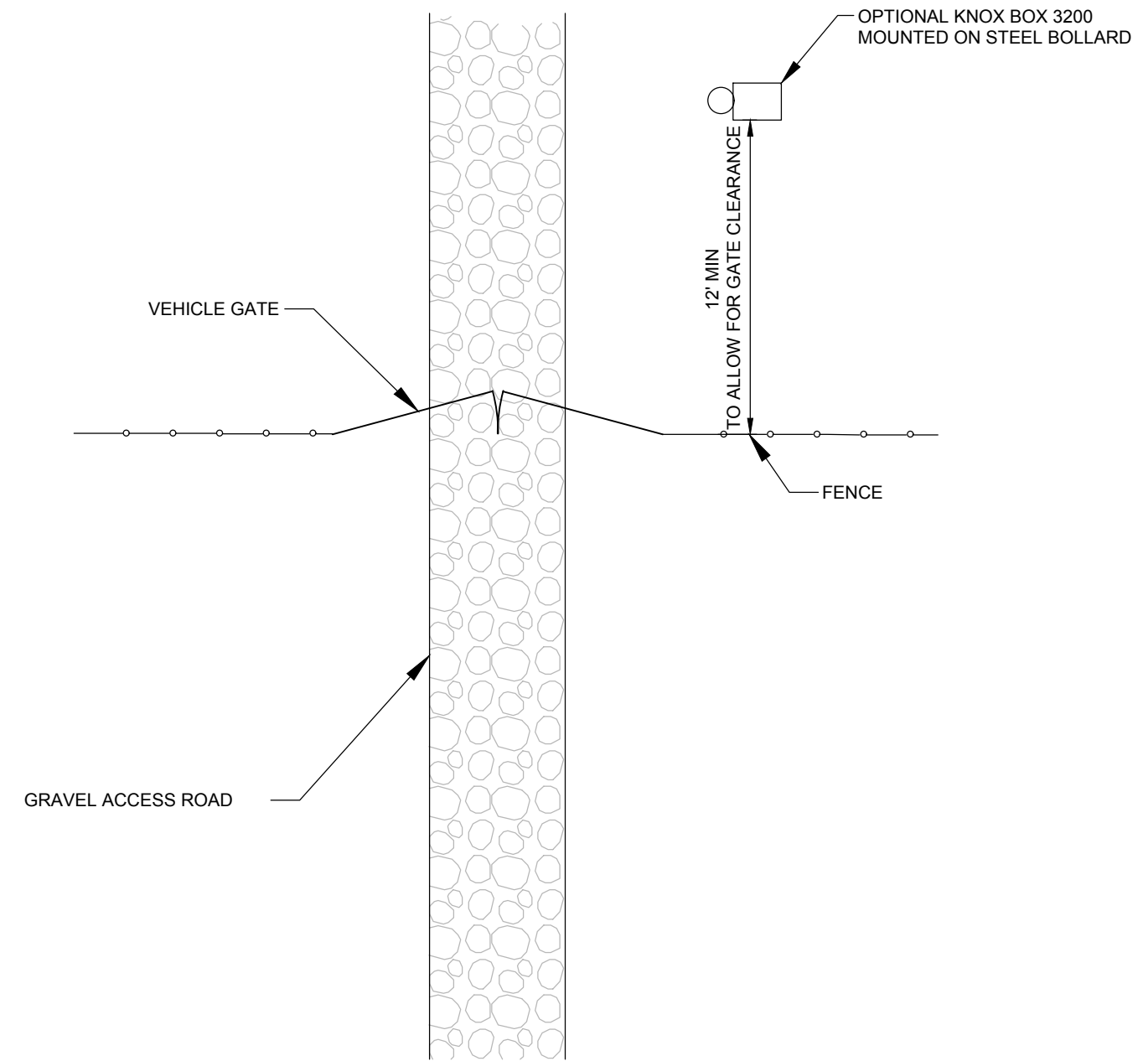
1. THE EQUIPMENT SELECTION AND LAYOUT WAS PROVIDED BY RENEWABLE PROPERTIES LLC AND IS PROVIDED HERE FOR REFERENCE PURPOSES.

SEAL:															
		PROFESSIONAL ENGINEER ANDREW B. GRAHAM 062048682													
		EXPIRATION DATE: 11/30/25													
		TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002													
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NO.	BY	DATE	ISSUED FOR PERMIT	REVISION	ABG										
<b>PROJECT:</b> <b>CIVIL PERMIT PLAN SET</b> <b>RPIL SOLAR 10, LLC</b> <b>S. BARNES ROAD SOLAR</b> <b>KANE COUNTY, IL</b>															
<b>TITLE:</b> <b>EQUIPMENT PAD DETAILS</b>															
DRAWN BY: N. EDWIN		PROJ. NO.: 567363.0003.0000													
CHECKED BY: A. ELLSTROM		<b>C504</b>													
APPROVED BY: A. GRAHAM															
DATE: APRIL 2024															
		230 West Monroe St. Suite 1840 Chicago, IL 60606 Phone: 312.578.0870													
FILE NO:		567363.0003.0000 - S Barnes Road Solar - DT-EQ.dwg													

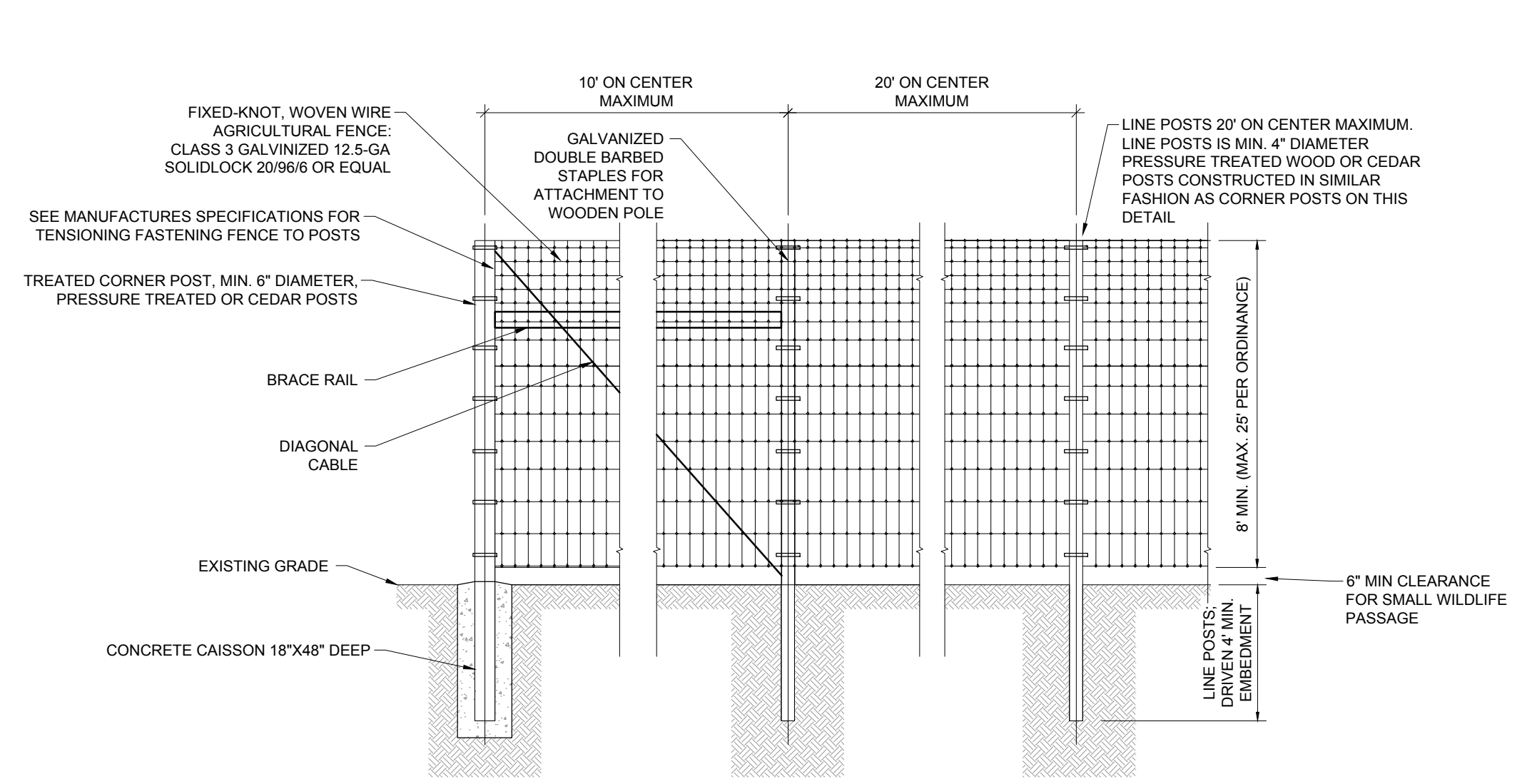
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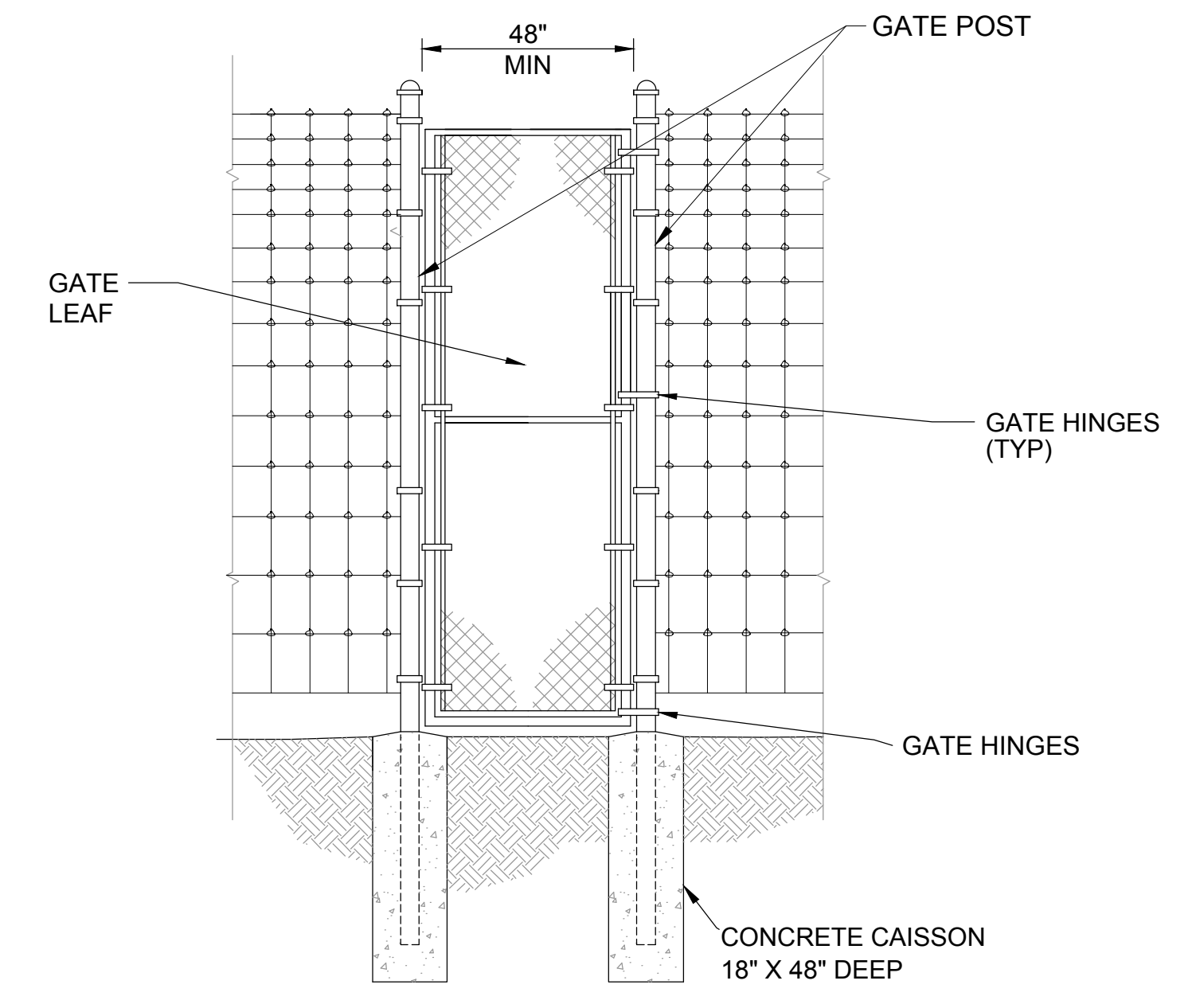
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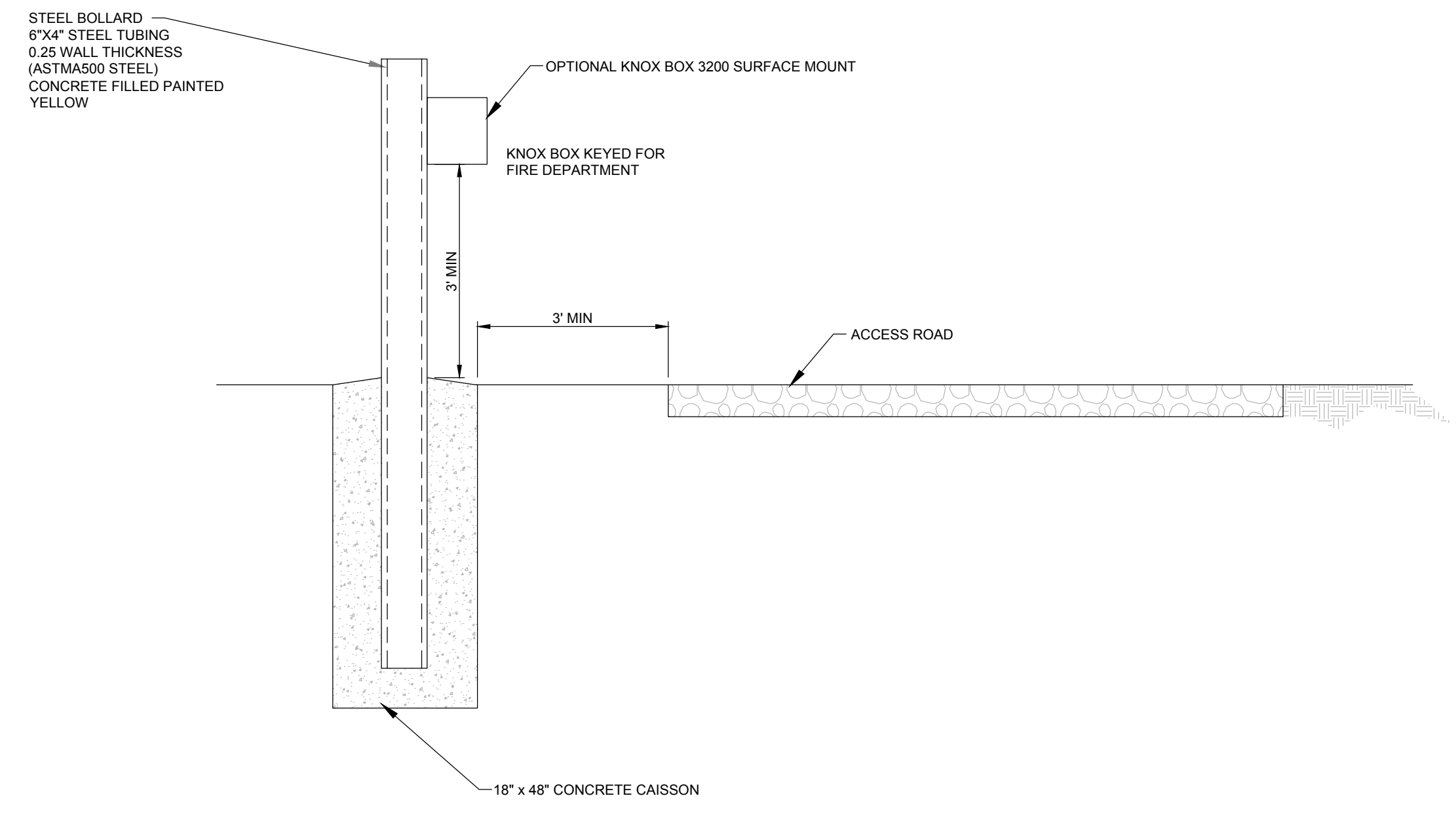
**1**  
C505 **TYPICAL VEHICLE GATE PLAN VIEW**  
NOT TO SCALE



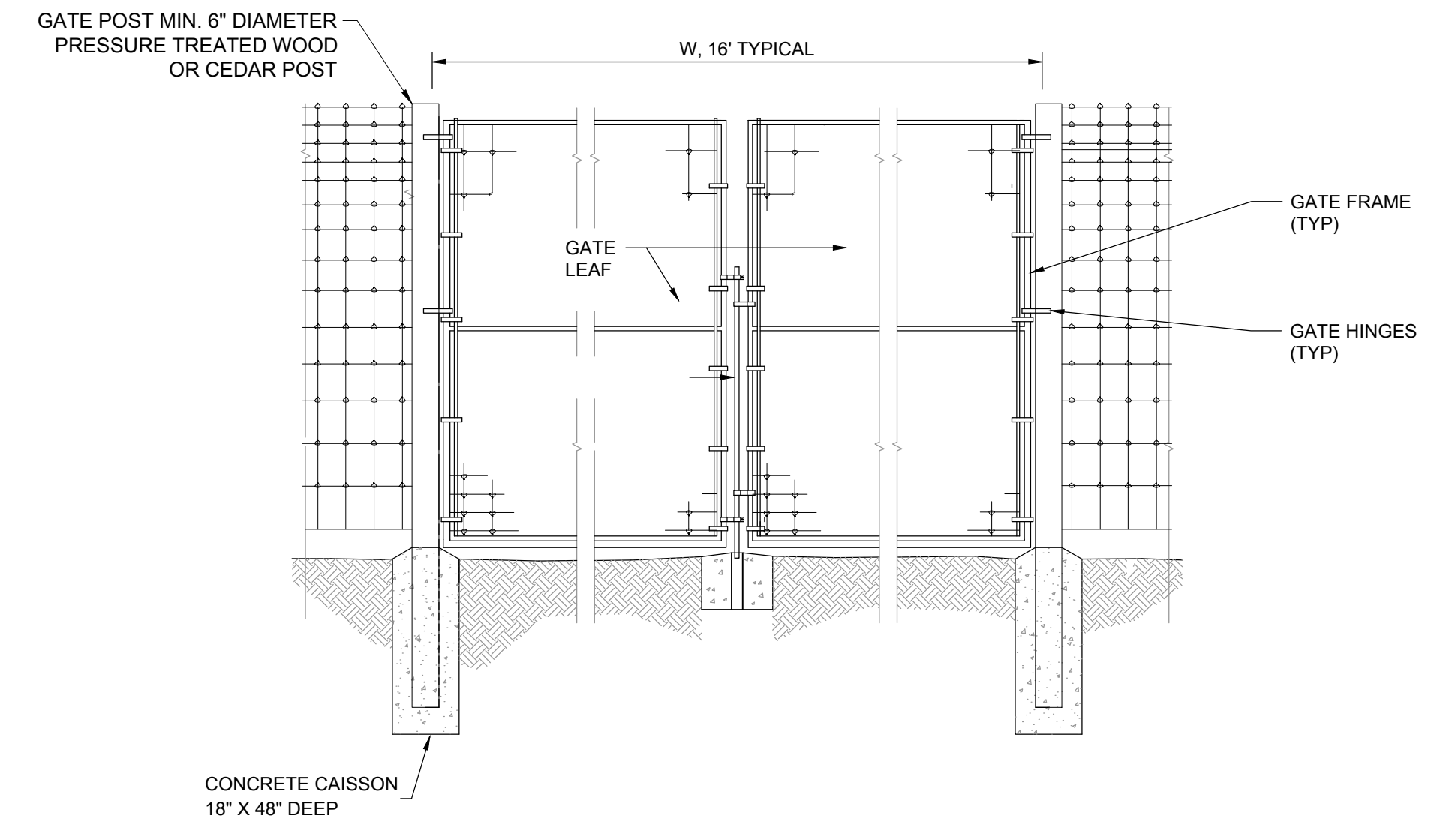
**3**  
C505 **TYPICAL PV AREA FENCE DETAIL**  
NOT TO SCALE



**5**  
C505 **TYPICAL PEDESTRIAN ACCESS GATE**  
NOT TO SCALE



**2**  
C505 **OPTIONAL KNOX BOX BOLLARD DETAIL**  
NOT TO SCALE

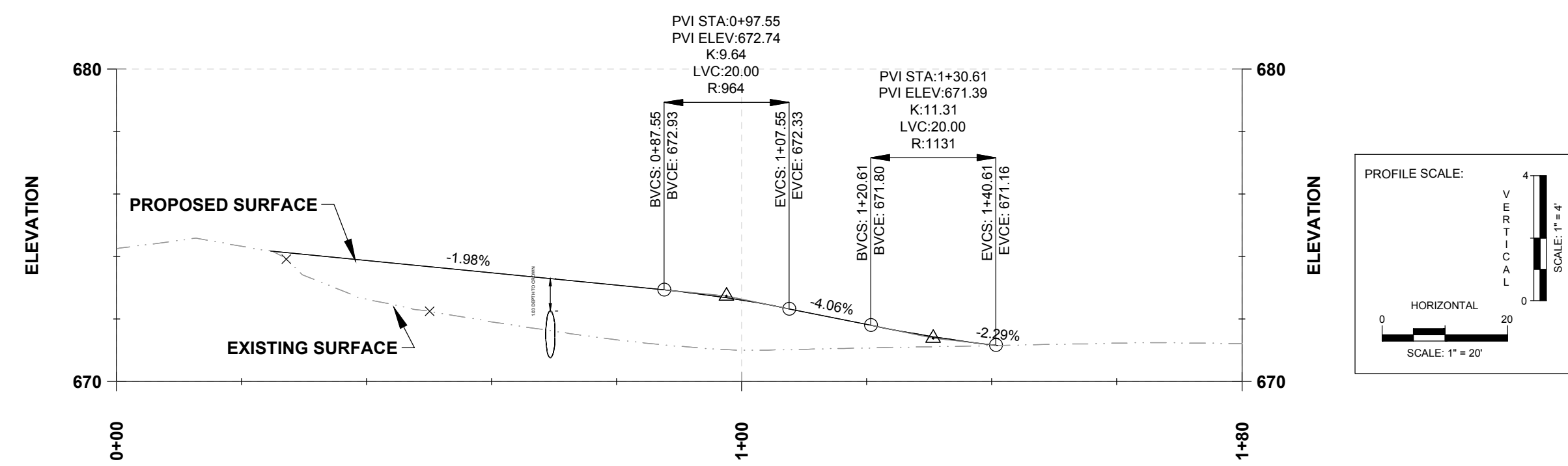


**4**  
C505 **TYPICAL VEHICLE GATE**  
NOT TO SCALE

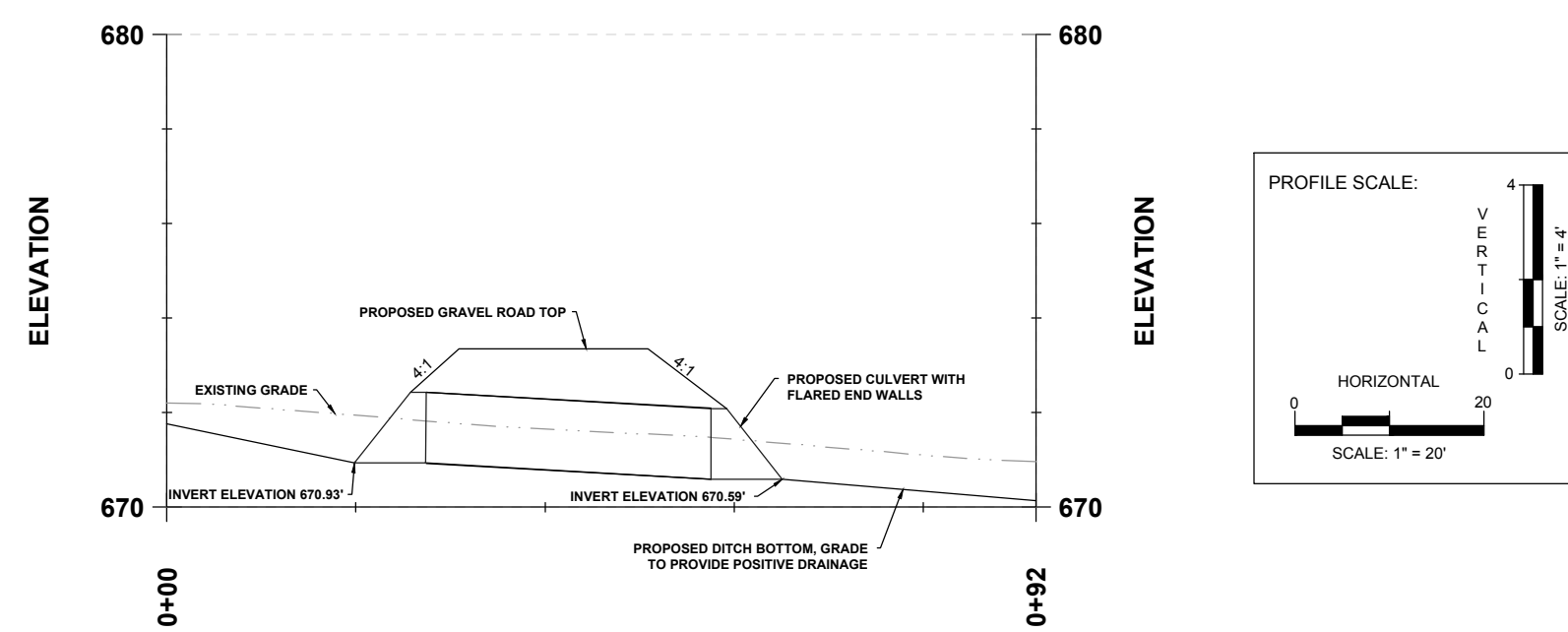
SEAL:		PROFESSIONAL ENGINEER ANDREW B. GRAHAM 062048682	
		EXPIRATION DATE: 11/30/25	
		TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002	
1	AE	4/23/2024	ISSUED FOR PERMIT
			REVISION
			APPD.
PROJECT: <b>CIVIL PERMIT PLAN SET RPIL SOLAR 10, LLC S. BARNES ROAD SOLAR KANE COUNTY, IL</b>			
TITLE: <b>FENCING DETAILS</b>			
DRAWN BY: N. EDWIN		PROJ. NO.: 567363.0003.0000	
CHECKED BY: A. ELLSTROM		<b>C505</b>	
APPROVED BY: A. GRAHAM			
DATE: APRIL 2024			
FILE NO.:		567363.0003.0000 - S Barnes Road Solar - DT-FN.dwg	

**PRELIMINARY NOT FOR CONSTRUCTION**

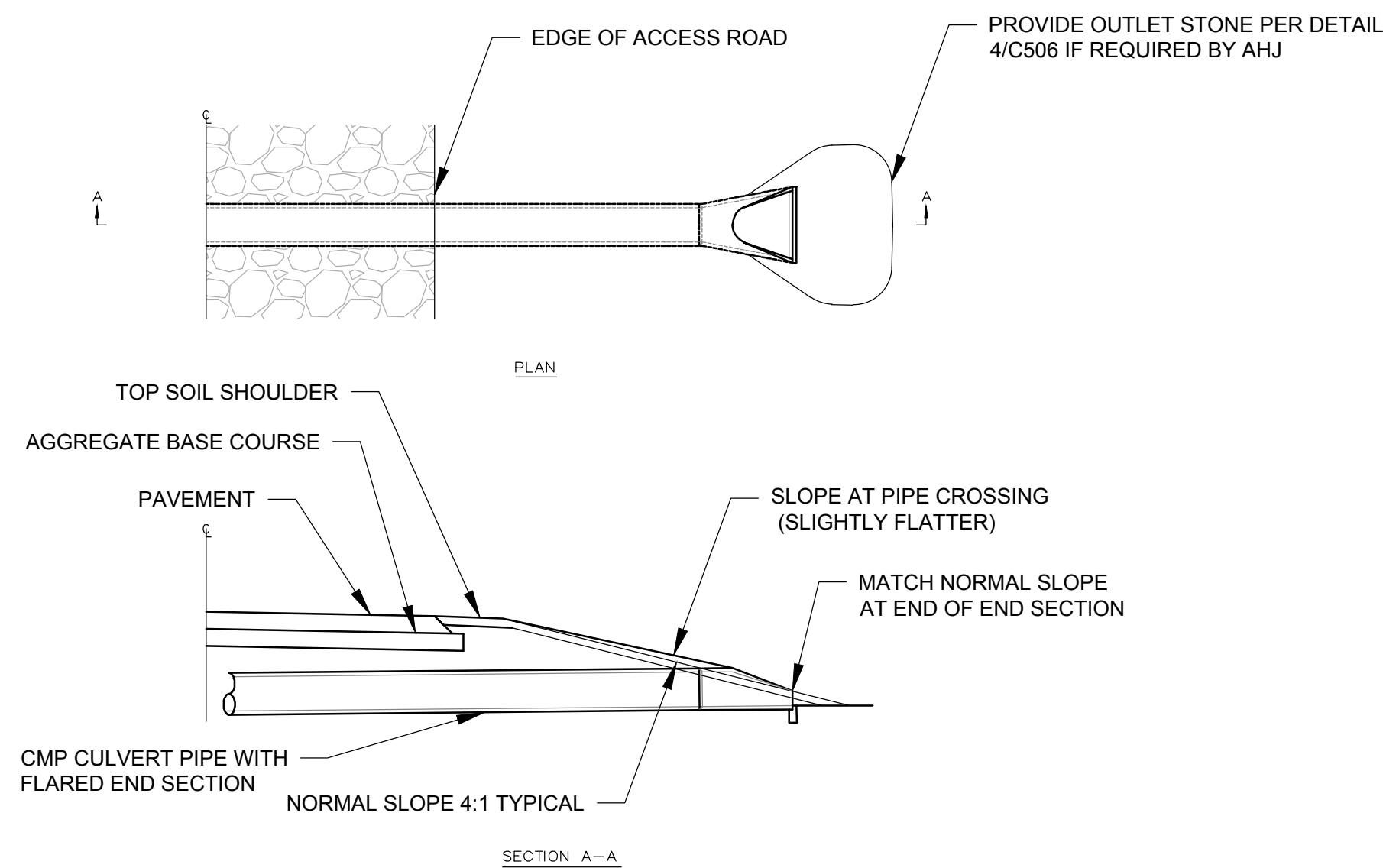
2/24 - USER: AEdwin - ATTACHED XREFS: EX - FEATURES, PR - ROAD CULVERT - ATTACHED IMAGES: DRAWING NAME: C:\Users\aedwin\OneDrive\Documents\567363.0003\0000 - S Barnes Road Solar - DT-CV.dwg - PLOT DATE: April 23, 2024 - 4:45PM - LAYOUT: C506 - PLAN PROFILE AND CULVERT DETAILS



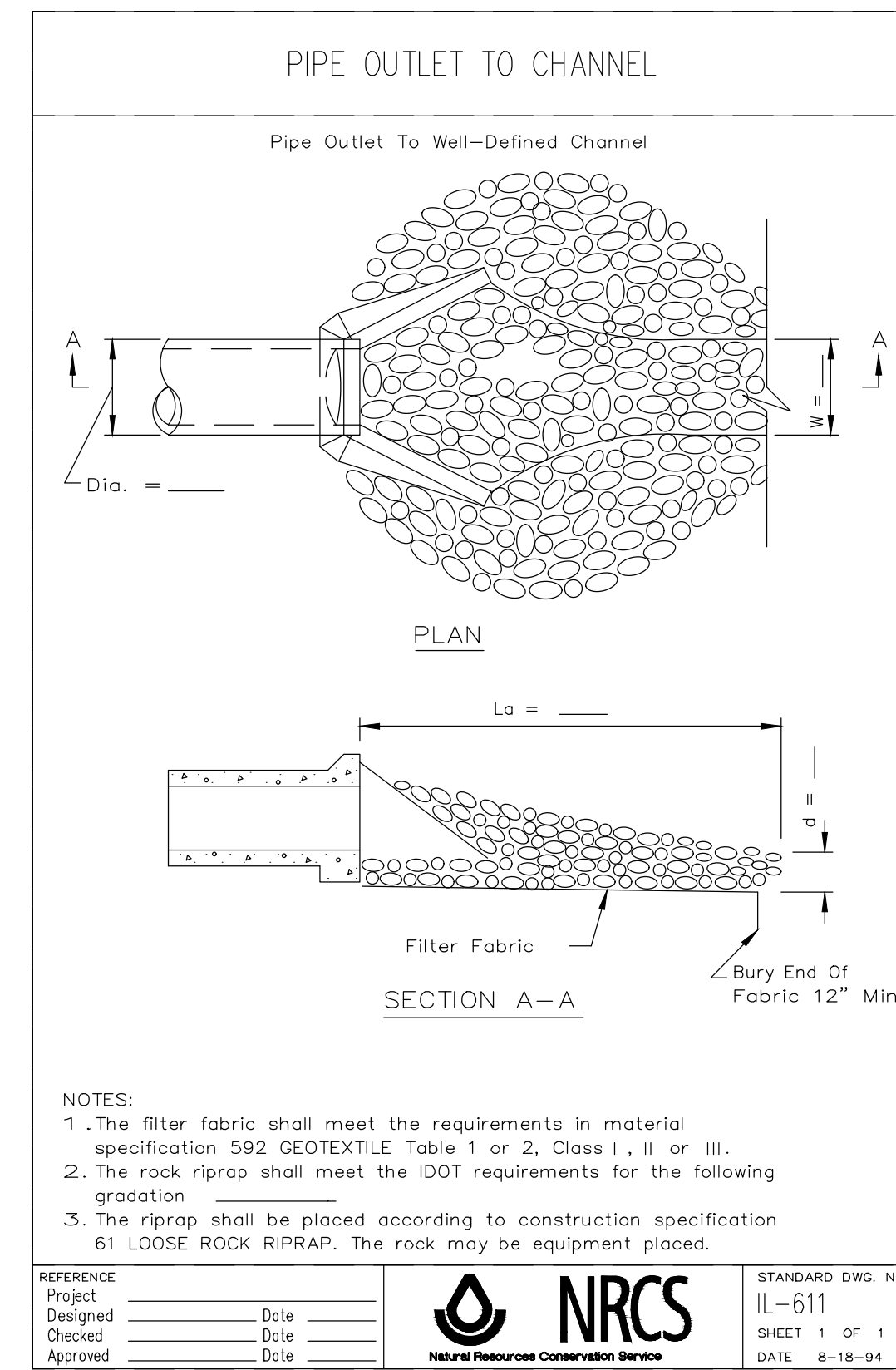
**1**  
C506 ROAD PROFILE



**2**  
C506 CULVERT PROFILE



**3**  
C506 TYPICAL CMP CULVERT  
NOT TO SCALE



**4**  
C506 TYPICAL CULVERT OUTLET STONE  
NOT TO SCALE

SEAL:		PROFESSIONAL ENGINEER: ANDREW B. GRAHAM 062048682	
		EXPIRATION DATE: 11/30/25	
		TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002	
1	AE	4/23/2024	ISSUED FOR PERMIT
NO.	BY	DATE	REVISION
			ABG
PROJECT: <b>CIVIL PERMIT PLAN SET RPIL SOLAR 10, LLC S. BARNES ROAD SOLAR KANE COUNTY, IL</b>			
TITLE: <b>CULVERT DETAILS</b>			
DRAWN BY:	N. EDWIN	PROJ. NO.:	567363.0003.0000
CHECKED BY:	A. ELLSTROM		
APPROVED BY:	A. GRAHAM		<b>C506</b>
DATE:	APRIL 2024		
FILE NO.:		567363.0003.0000 - S Barnes Road Solar - DT-CV.dwg	

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2634 - USER: A:\dwhom - ATTACHED: REF'S: EX - AERIAL; PR - LEGEND; PR - LAND; EX - WETLAND; PR - LAND; TEMPLATE: PR - LAND; EX - FEATURES; EX - DRAINILES; EX - DRINKILES; EX - PLOT DATE: April 23, 2024 - 4:46 PM --- LAYOUT: L100  
 DRAWING NAME: C:\Users\dwhom\project\workspace\30492481\_567363\_0003\_0000 - S Barnes Road Solar - LA.dwg

### LEGEND

- MONUMENT
- IRON PIPE/ROD/NAIL/WOOD POST
- SIGN
- GAS LINE MARKER
- COMMUNICATION LINE MARKER
- COMMUNICATION MARKER
- COMMUNICATION PEDESTAL
- UTILITY POLE
- UTILITY POLE WITH TRANSFORMER
- WATER MANHOLE
- WATER METER
- WATER VALVE
- HYDRANT
- STORM MANHOLE
- EXISTING BUILDING
- EXISTING DRAIN TILE
- PROPERTY LINE
- DISTRICT
- R.O.W. LINE
- SECTION LINE
- RAILROAD
- EXISTING EOP
- EXISTING OVERHEAD ELECTRIC LINE
- PROPOSED OVERHEAD ELECTRIC LINE
- WATER
- EXISTING FENCE
- EXISTING STORM SEWER
- WETLAND
- 15' WETLAND BUFFER
- EXISTING SIDEWALK
- PROPOSED FENCE
- PROPOSED PV CABLE
- 50' PROPERTY SETBACK
- 150' BUILDING SETBACK
- SILT FENCE
- LIMITS OF DISTURBANCE
- PROPOSED PV ARRAY
- PROPOSED ACCESSES ROAD
- EXISTING CONTOUR WITH ELEVATION
- PROPOSED CONTOUR WITH ELEVATION
- EQUIPMENT PAD
- TYPE B - VISUAL MITIGATION (VM) PLANTINGS

### NOTES

1. SEE LANDSCAPE DETAILS SHEETS L101 TO L102 FOR PLANTING AND SEEDING NOTES, LANDSCAPE DETAILS, PLANTING SCHEDULES, AND COORDINATE TABLES.

PROFESSIONAL ENGINEER: ANDREW B. GRAHAM 062048682				
EXPIRATION DATE: 11/30/25				
TRC ENVIRONMENTAL CORP. DESIGN FIRM LIC. # 18400496-0002				
1	AE	4/23/2024	ISSUED FOR PERMIT	ABG
NO.	BY	DATE	REVISION	APPD.
PROJECT: CIVIL PERMIT PLAN SET RPIL SOLAR 10, LLC S. BARNES ROAD SOLAR KANE COUNTY, IL				
TITLE: LANDSCAPE PLAN				
DRAWN BY:	G. TURNER	PROJ. NO.:	567363.0003.0000	
CHECKED BY:	M. ROSS			
APPROVED BY:	A. GRAHAM	<b>L100</b>		
DATE:	APRIL 2024			
FILE NO:		567363.0003.0000 - S Barnes Road Solar - LA.dwg		

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2634 - USER: A:\dwhom - ATTACHED: REF'S: EX - AERIAL; PR - LEGEND; PR - LAND; EX - WETLAND; PR - LAND; TEMPLATE: PR - LAND; EX - FEATURES; EX - DRAINILES; EX - DRINKILES; EX - PLOT DATE: April 23, 2024 - 4:46 PM --- LAYOUT: L100  
 DRAWING NAME: C:\Users\dwhom\project\workspace\30492481\_567363\_0003\_0000 - S Barnes Road Solar - LA.dwg

**GENERAL LANDSCAPE AND SEEDING NOTES**

- 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.
2. THE CONTRACTOR SHALL MONITOR AND GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF (1) ONE YEAR AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER.
3. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, APPROVED SEEDING MIX, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWING(S) AND LISTED IN THE PLANT SCHEDULE(S) AND/OR SEEDING TABLE(S).
4. THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO SLOPE, VEGETATION, AND SITE FACTORS SUCH AS THE LOCATION OF ROCK OUTCROPS.
5. ALL SHRUB MASSING AREAS SHALL BE MULCHED TO A DEPTH OF 2" WITH SHREDDED HARDWOOD BARK MULCH.
6. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE OWNER.
7. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. SEE SITE LAYOUT, GRADING AND/OR UTILITY PLANS FOR STORM, SANITARY, GAS, ELECTRIC, TELEPHONE AND WATER LINES.
8. LANDSCAPE PLANTING PITS MUST BE FREE DRAINING, PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED TO A DEPTH OF 2' OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS.

PLANTING SOIL MIXTURE:
2 PARTS PEAT MOSS
5 PARTS TOPSOIL
MYCORRHIZA INOCULANT - "TRANSPLANT 1-STEP" AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL. USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS. FERTILIZER/LIME APPLY AS RECOMMENDED BY SOIL ANALYSIS

- TREES AND SHRUBS: TREES AND SHRUBS SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED AND HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCATION OF THE PROJECT.
ALL PRUNING SHALL CONFORM TO THE TREE CARE INDUSTRY ASSOCIATION (TCIA) ANSI A300 (PART 1) - 2017 PRUNING STANDARDS.
TOPSOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES.
NO PHOSPHOROUS SHALL BE USED AT PLANTING TIME UNLESS SOIL TESTING HAS BEEN COMPLETED AND TESTED BY A HORTICULTURAL TESTING LAB AND SOIL TESTS SPECIFICALLY INDICATE A PHOSPHOROUS DEFICIENCY THAT IS HARMFUL.
IF SOIL TESTS INDICATE A PHOSPHOROUS DEFICIENCY THAT WILL IMPACT PLANT AND LAWN ESTABLISHMENT, PHOSPHOROUS SHALL BE APPLIED AT THE MINIMUM RECOMMENDED LEVEL PRESCRIBED IN THE SOIL TEST FOLLOWING ALL APPLICABLE STANDARDS, REQUIREMENTS, AND/OR REGULATIONS.
ALL SLOPES GREATER THAN 3:1 RECEIVING A WILDFLOWER, WETLAND, AND/OR GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.
ALL WILDFLOWERS AND GRASSES SOWED SHALL BE ALLOWED TO GROW TO THEIR NATURALLY OCCURRING HEIGHTS WHENEVER POSSIBLE.

**LEGEND - OVERALL PLANTING TOTALS**

LANDSCAPE PLANTING SCHEDULE VISUAL MITIGATION PLANTING TEMPLATE TYPE B
Table with 6 columns: SYMBOL, BOTANICAL NAME/COMMON PLANT NAME, QUANTITY, SIZE, ROOT, MATURE HEIGHT. Includes entries for AA (Amelanchier), CC (Carpinus), HV (Hamamelis), JV (Juniperus), PA (Picea), PG (Picea), TO (Thuja).

**SHRUBS**

Table with 6 columns: SYMBOL, BOTANICAL NAME/COMMON PLANT NAME, QUANTITY, SIZE, ROOT, MATURE HEIGHT. Includes entries for CS (Cornus), IV (Ilex), VP (Viburnum).

**VISUAL MITIGATION PLANT TOTALS**

LOW GROWING SOLAR ARRAY MIX SOUTH & WEST
Table with 5 columns: SCIENTIFIC NAME, COMMON NAME, SEEDS/SF, RATE (LBS/AC), % MIX (BY SF). Lists various grasses and sedges with their respective rates and mix percentages.

**ROUNDSTONE SEED MIX 108: GRASS MEADOW ECONOMY: MEDIUM TO WET SITES**

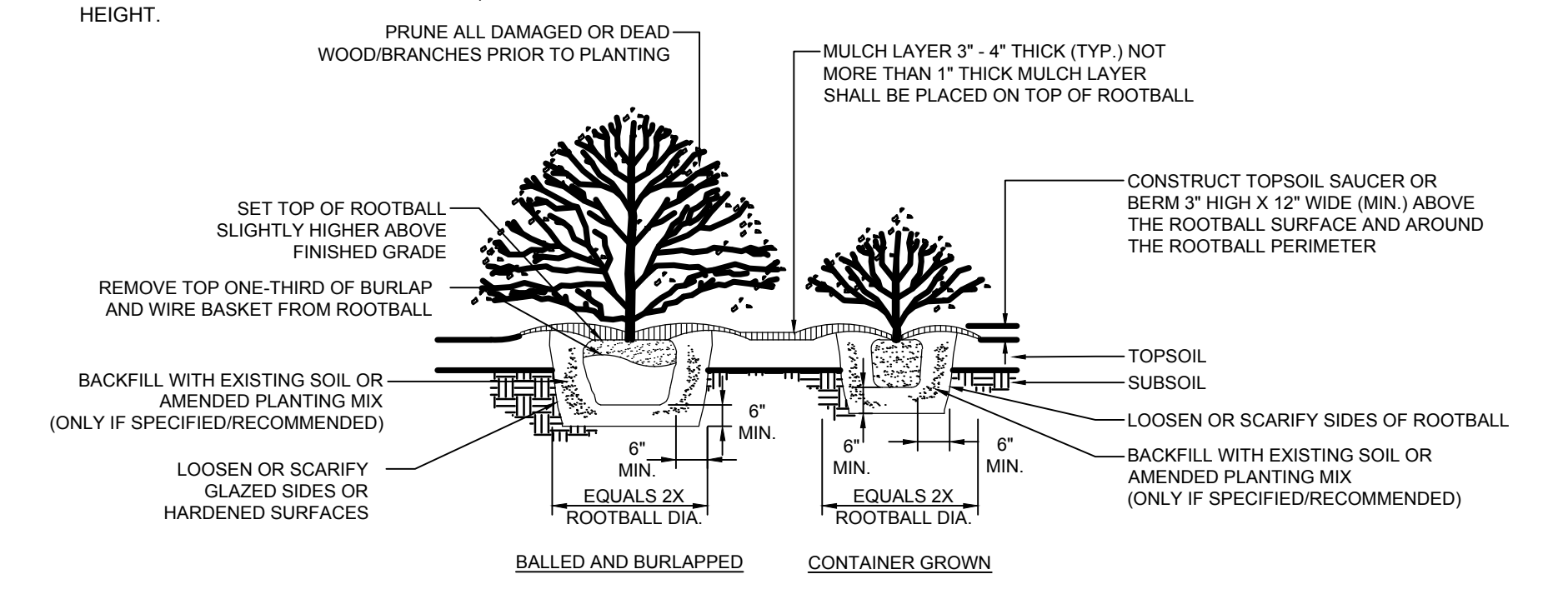
Table with 6 columns: MIX CONCN, BOTANICAL NAME, COMMON NAME, RATE (LBS/ACRE), RATE (LBS/1000 FT²). Lists various grasses and sedges for Roundstone Seed Mix 108.

NOTE: GRASS SEED MIXES ARE COMPRISED OF GRASSES AND WILDFLOWERS 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.
SEED MIXES TO FOLLOW SAMPLE SPECIFICATIONS FOR THE ESTABLISHMENT OF NATIVE VEGETATION AS PART OF HABITAT FRIENDLY SOLAR PROJECTS DEVELOPED BY THE MINNESOTA BOARD OF WATER AND SOIL RESOURCES AND THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES.

NOTE: GRASS SEED MIXES ARE COMPRISED OF GRASSES AND WILDFLOWERS THAT ARE NATIVE AND/OR INDIGENOUS TO THE AREA AND/OR CONSIDERED FAVORABLE FOR WILDLIFE HABITAT AND SUSTAINABLE GROWTH. ADDITIONALLY, THE WET MEADOW SEED MIX WAS DEVELOPED ESPECIALLY FOR NATIVE PLANTINGS WITHIN LOW WET AREAS OF THE SITE, DRAINAGE SWALES, AND DEPRESSIONAL AREAS, AND SHALL BE UTILIZED ACCORDINGLY. THESE PLANTINGS WILL MATURE OUT TO A HEIGHT OF APPROXIMATELY 3 TO 3 1/2 FEET HIGH.

**SOLAR FARM SEED MIX**

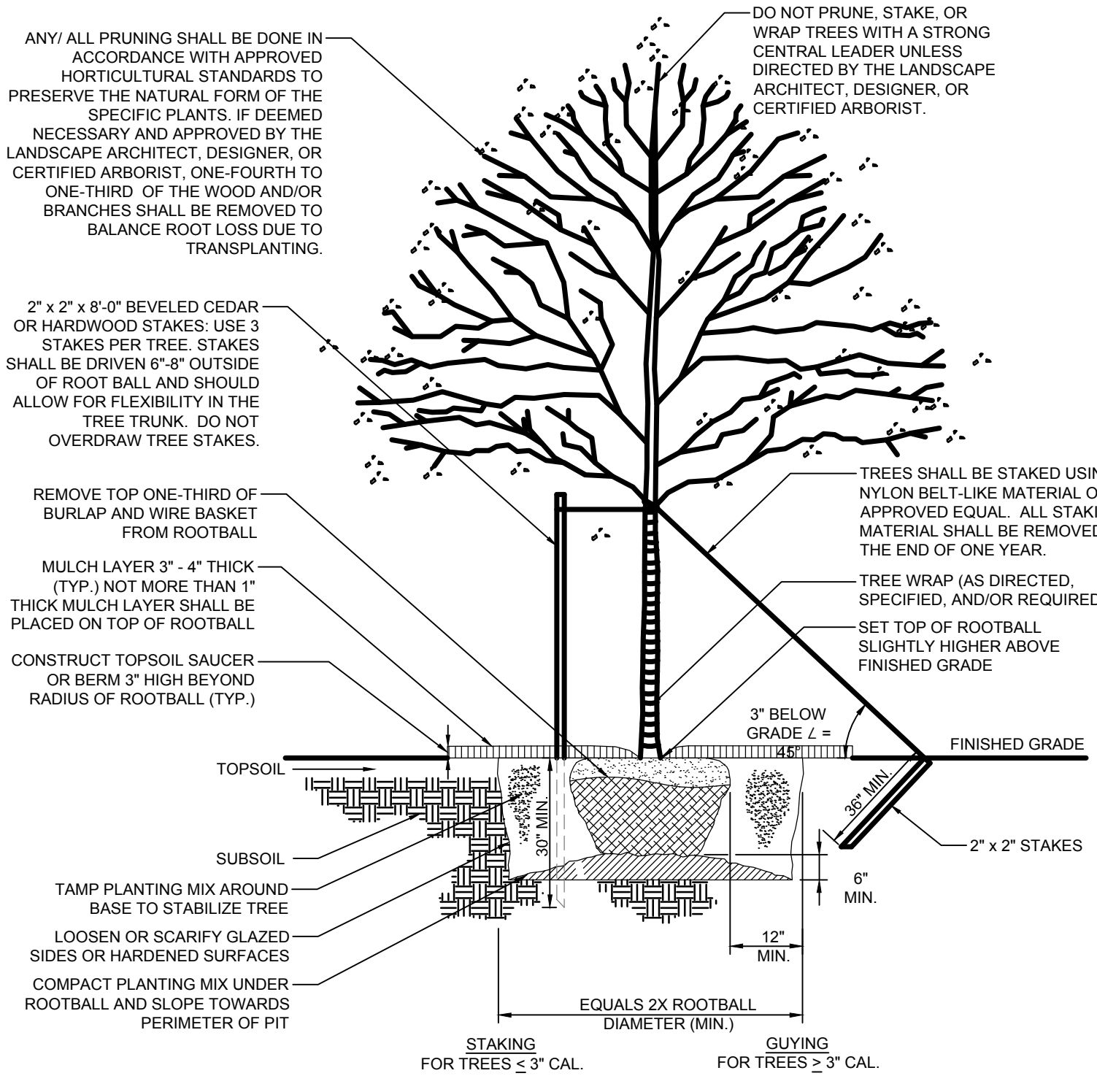
**WET MEADOW SEED MIX**



**SHRUB PLANTING DETAIL**

NOTE:

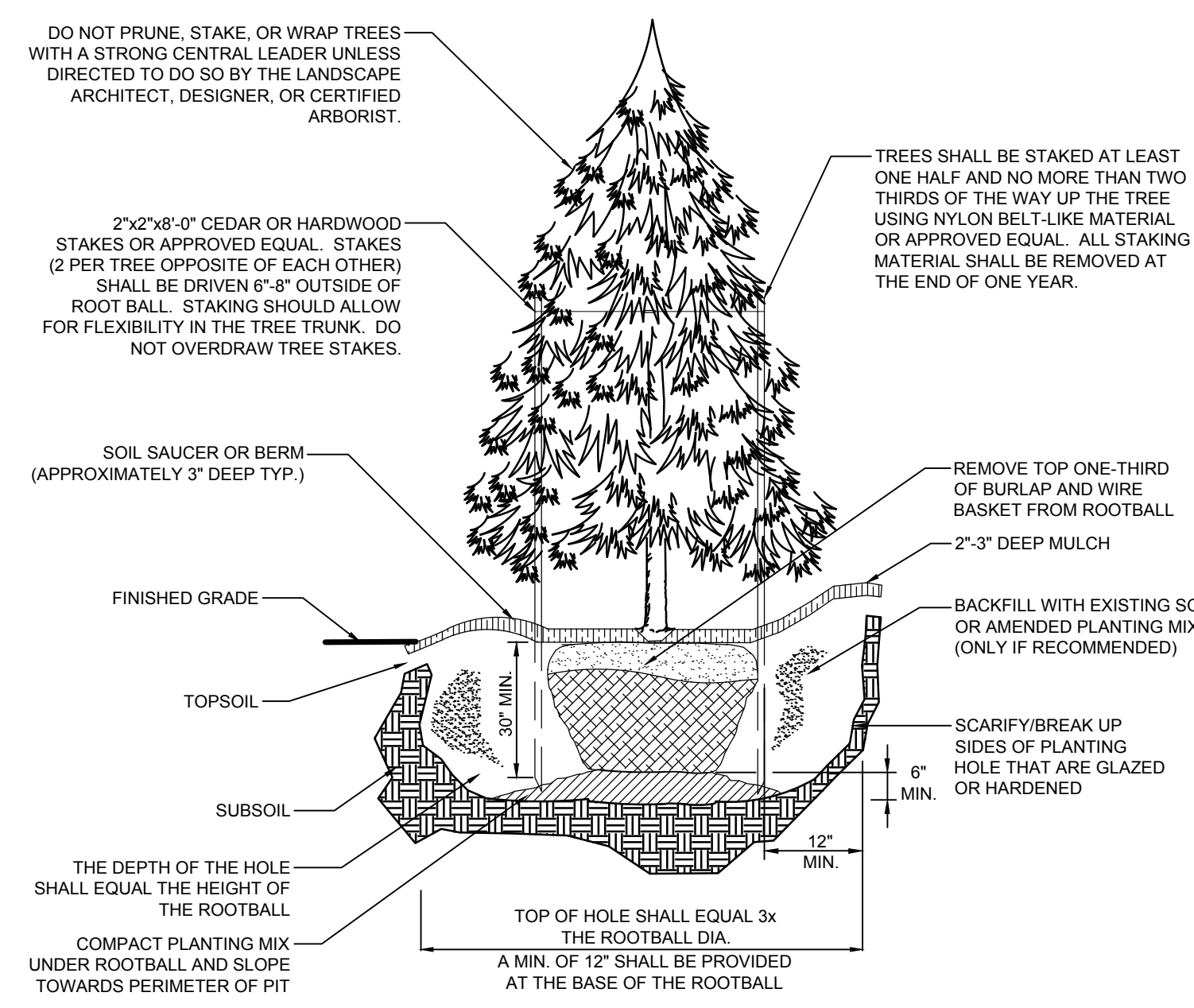
- IN AREAS WITH MASS PLANTINGS, CONTINUOUS EXCAVATION AND MULCHING PRACTICES SHALL BE IMPLEMENTED WHENEVER POSSIBLE.
IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING.
WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS.



**NATIVE/DECIDUOUS TREE PLANTING DETAIL**

NOTES:

- TREE PLANTING SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT WAS PRE-DUG IN THE NURSERY.
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.



**EVERGREEN TREE PLANTING DETAIL**

NOTES:

- TREE PLANTING SHALL BEAR SAME RELATIONSHIP TO FINISH GRADE AS IT WAS PRE-DUG IN THE NURSERY.
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.

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EXPIRATION DATE: 11/30/25
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2024 - USER: A:rbh... DRAWING NAME: C:\Users\rbh... 4/23/2024 4:46 PM LAYOUT

