August 7th, 2026

Analies Ross-Dyjak
BayWa r.e. Development LLC
5901 Priestly Drive, Suite 300
Carlsbad, CA 92612
Re: BayWa Shepherd Solar Project Elbert County 1041 Permit Review

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Case Number(s): 1041-2026-0001; SUR-2026-0002

Parcel Number: 1926300138, 1936000044, 1831000038

Case Manager: Jen Gardner, Logan Simpson Contract Planner

1st Completeness Review: March 12th, 2026 – April 9th, 2026

2nd Completeness Review: April 28th, 2026 – May 26th,2026

1st Sufficiency Review: May 27th, 2026 – Jun 25th,2026

2nd Sufficiency Review: July 22nd, 2026 – August 6th, 2026

Dear Applicant(s),

The second review period of the permit application for the BayWa Shepherd Solar Project has been completed. No additional comments are added at this time from Elbert County and the application has been deemed **Sufficient**. Please contact Elbert County Community & Development Services Department if you have any additional questions. Applicant comment response for the referral agencies comments shall be expected by August 18th.

Special Use by Review (SUR) Permit Application:

Special Use by Review Zoning Ordinance Section Article III.E. **NO COMMENT, MET**.

A. *Special Use by Review. The following criteria shall be considered by the Planning Commission and the Board of County Commissioners in reviewing all Special Use by Review applications, and by the CDS Director in reviewing Special Use by Review applications:*
   (a) The use is in harmony and compatible with the surrounding area and neighborhood;
   (b) The use will not have an undue burden on available infrastructure;
   (c) The use will not unduly increase traffic congestion or burden the existing road system;
   (d) The use will not cause significant air, odor, water, noise, or light pollution;
   (e) All sanitation requirements will be met;
   (f) The use will be adequately landscaped, buffered, and screened;
   (g) The use will not otherwise be detrimental to the health, safety, or welfare of the

present or future inhabitants of Elbert County; and
(h) Supplemental Standards are met for specific uses, as applicable.

Special Use by Review Items:

1. Land Development Application Form **NO COMMENT, MET**
2. Cover Letter/Narrative **NO COMMENT, MET**
3. Vicinity Map **NO COMMENT, MET**
4. Proof of Ownership **NO COMMENT, MET**
5. Deed **NO COMMENT, MET**
6. Title Commitment **NO COMMENT, MET**
7. List and Map of property owners and addresses in accordance with public notice provisions. 1,320' **NO COMMENT, MET**
8. Written Legal Description of property boundary **NO COMMENT, MET**
9. Proof of Water **NO COMMENT, MET**
10. Proof of Sewer **NO COMMENT, MET**
11. Proof of Fire Protection **NO COMMENT, MET**
12. Proof/Explanation of Access **NO COMMENT, MET**
13. Statement of Taxes Due for all parcels, current to within one week of submission **NO COMMENT, MET**
14. Site Plan Exhibit for Special Use by Review (SUR) Permitting in accordance with ECZR, Article III, Section E, 7 **NO COMMENT, MET**
15. Survey of the Property **NO COMMENT, MET**
16. Final Drainage Report and Plan OR Drainage Letter **SEE REFERRAL AGENCY COMMENTS**
17. Geologic Report **NO COMMENT, MET**
18. Grading and Erosion Control Plan **SEE REFERRAL AGENCY COMMENTS**
19. Visual Analysis or Renderings **NO COMMENT, MET**
20. Traffic Analysis or Traffic Study **SEE REFERRAL AGENCY COMMENTS**
21. Landscape Plan **NO COMMENT, MET**
22. Building Elevations **NO COMMENT, MET**
23. Development Agreement, Subdivision Improvement Agreement, etc. Coordinate before final permit approval; not needed at this time. **NO COMMENT, MET**

24. Certified notice from property owner to mineral estate owners of record pursuant to C.R.S. 24-65.5-103, within 30 days before hearing, if lot lines are changed or created **Confirm postmarked.**

1041 Permit Application Comments:

1041 General Approval criteria: **NO COMMENT, MET**

(a) Documentation that prior to site disturbance associated with the Proposed Project, the applicant can and will obtain all necessary property rights, right of way and easements, permits and approvals (federal and state agencies included). The BOCC may, at its discretion, defer making a final decision on the application until outstanding property rights, permits and approvals are obtained (to include Right of Way or Easement, applicable lease, or certification to Community and Development Services Director that the applicant is actively pursuing condemnation proceedings or acquisition of right of way easement as required for the proposed project).
(b) The Proposed Project protects water quality and supply according to the relevant provisions of an existing water quality plans.
(c) The Proposed Project is not subject to significant risk from natural hazards.
(d) The Proposed Project is in general conformity with applicable master plans.
(e) The Proposed Project will not have significant adverse effect on the capability of local government to provide services or exceed the capacity of service delivery systems.
(f) The planning, design, operation, and decommissioning of the Proposed Project will reflect principles of sustainability, resource conservation, energy efficiency and recycling or reuse.
(g) The Proposed Project will not significantly degrade the environment.
(h) The Proposed Project will not negatively impact High Priority Habitat defined by Colorado Parks and Wildlife and will include applicant consultation with and input from Colorado Parks and Wildlife about the proposed project's potential impact on wildlife resources in the County.
(i) The Proposed Project will not cause a nuisance as defined within the Elbert County Land Use and Development Code.
(j) The Proposed Project will not degrade areas of paleontological, historic, or archaeological importance.
(k) If the Proposed Project is designed to serve areas within the County, the Proposed Project is necessary to meet community development and population demands in those areas.
(l) The Proposed Project will not result in unreasonable risk of release of hazardous materials.

Major 1041 Review. **NO COMMENT, MET**

Major Facilities of a Public Utility. **NO COMMENT, MET**

1041 Review Items:

1. Application Narrative **NO COMMENT, MET**

2. Cover Letter **NO COMMENT, MET**
3. Land Development Application Form **NO COMMENT, MET**
4. Owner Authorization Form **NO COMMENT, MET**
5. Written Consent from Developer **NO COMMENT, MET**
6. Water Supply Information **NO COMMENT, MET**
7. Fire Protection and Safety Agreement Form **NO COMMENT, MET**
8. Property Owner Authorization Forms **NO COMMENT, MET**
9. Draft Mineral Estate Owners Notification **NO COMMENT, MET**
10. Appendix A – Maps and Figures **NO COMMENT, MET**
12. Appendix C – BESS Overview and Project FAQ **NO COMMENT, MET**
14. Appendix E – Statement of Fiscal Responsibility **NO COMMENT, MET**
15. Appendix F – Economic Impact Analysis **NO COMMENT, MET**
16. Appendix G – Preliminary Civil Plans **SEE REFERRAL AGENCY COMMENTS**
17. Appendix H – Stormwater and Drainage Report **SEE REFERRAL AGENCY COMMENTS**
18. Appendix I – Traffic Control Plan **SEE REFERRAL AGENCY COMMENTS**
19. Appendix J – Mitigation Table **NO COMMENT, MET**
20. Appendix K – Stakeholder Engagement Log **NO COMMENT, MET**
21. Appendix L – USFWS and CPW Coordination **NO COMMENT, MET**
22. Appendix M – Decommissioning Plan **NO COMMENT, MET**
23. Appendix N – Vegetation Management and Landscaping Plan **NO COMMENT, MET**
24. Appendix O – Wetland Delineation Report **NO COMMENT, MET**
25. Appendix P – Geotechnical Report **NO COMMENT, MET**
26. Appendix Q – Air Quality Analysis **NO COMMENT, MET**
27. Appendix R – Phase I ESA **NO COMMENT, MET**
28. Appendix S – Threatened and Endangered Species Memo **NO COMMENT, MET**
29. Appendix T – Septic OWTS **NO COMMENT, MET**
32. Appendix W – Visual Analysis **NO COMMENT, MET**
34. Appendix Y – Cultural Resource Summary **NO COMMENT, MET**
35. Appendix Z – Unanticipated Discovery Plan **NO COMMENT, MET**
36. Appendix AA – Storage Locations **NO COMMENT, MET**
37. Appendix BB – Battery Fire, Air and Water Quality Reports **NO COMMENT, MET**

Referral Agency 2nd Review Comments Received Summary

Entity	Feedback
Colorado Department of Public Health and Environment (CDPHE)	*See comment letter*
Colorado Division of Water Resources	*No additional comments, refer to July 2nd comment letter.*
Elbert County Public Works including Road and Bridge	*See Kimley Horn comment letter and marked up appendixes*

Next Steps and Schedule:

Your application will now be prepared to go to hearings and be incorporated into Staff Reports. The following timeframe has been agreed upon with the applicant.

Application Step	Timeframe
Applicant Response #2	8/6 – 8/18
Final Staff Review and Staff Report	8/19-8/25
Planning Commission Hearing*	9/1/26*
BOCC Hearing*	9/9/26*

**Step may be subject to continuance on the following day.*

The following public notices must also be completed and proof of posting submitted to Elbert County, no later than 7 days after the posting:

Application Step	Timeframe
Mineral Interest Letters Postmarked by	8/2/26
Hearings Public Notice Posted (Newspaper and Mail)	8/13/26
Hearing Notice Sign Placed	8/19/26

BayWa r.e.

r.e.think energy

August 17, 2026

Elbert County Community & Development Services and Logan Simpson Contract Planners
Subject: Shepherd Solar Response to 2nd Sufficiency Review and Referral Agency Comments
Case Numbers: 1041-2026-0001; SUR-2026-0002
Parcel Numbers: 1926300138, 1936000044, 1831000038

Dear Elbert County Community & Development Services and Logan Simpson Contract Planners,

Thank you for your review of the Shepherd Solar Major 1041 and Special Use by Review permit application materials. The Applicant appreciates the time and effort spent evaluating the application and providing comment and recommendations.

Provided below are the Applicant's responses to the comments and referral agency letters received through August 6, 2026. In response to these comments, the Applicant has incorporated additional information and clarifications where needed and updated supporting materials to facilitate the County's continued review of the Project.

The enclosed final application package addresses the questions, comments, and recommendations raised by referral agencies to the extent feasible at this stage of project development. Application materials have been updated to reflect these responses and provide additional supporting information where requested. The Applicant respectfully requests that the County utilize the documents included in the **Shepherd Solar_Final Application_08172026** submittal folder for its review, as these materials represent the most current and complete versions of the application and demonstrate how review comments and concerns have been addressed.

Kind thanks,

Natalie N. Aiello

Natalie Aiello
Central Permitting Manager

Table 1 Review 2 Referral Agency Comment Response Matrix (July 22–August 6, 2026)

Review 2 Referral Agency Comment Response Matrix July 22 - August 6, 2026)		
Agency	**Response**	**Reference Location**
Colorado Department of Public Health & Environment	Thank you for your review and comment. The Project's anticipated best management practices (BMPs) for fugitive dust control are included in the 1041 Narrative as well as Appendix J. Prior to construction, the Project will prepare and submit an Air Pollutant Emissions Notice (APEN)	1041 Narrative Section 3.10.1(3) 1041 Appendix J Table J-4*
Colorado Division of Water Resources	Thank you for your comment. We acknowledge the DWR comments and will ensure stormwater detention facilities and water use comply with applicable permits and regulations. The Project does not intend to utilize the existing wells onsite.	Not applicable
Elbert County Engineering Consultant	Thank you for your comments on 1041 Appendix G Preliminary Civil Set and GESC, 1041 Appendix I Traffic Control Plan, and 1041 Appendix H Stormwater and Drainage Report. Please see our responses below. **GESC Plan**: Thank you for your review and comments. The plan was updated and revised accordingly. Comment - Page 10: Details will be provided at a later design submittal with a more advanced civil plan set prior to construction. Comments – Page 36: WSB is assuming Case B1 (left turns from minor road with stop control) within AASHTO Green Book 7th Edition for sight distance calculation where no grade adjustment factor is needed for minor roads with slopes less than 3%. Additionally, WSB's understanding is that object height should be 3.5' per Section 3.2.6.2 Intersection Sight Distance and Section 9.5.2.3 within AASHTO Green Book 7th Edition. Comment – Page 37: WSB is assuming Case B1 (left turns from minor road with stop control) within AASHTO Green Book 7th Edition for sight distance calculation where no grade adjustment factor is needed for minor roads with slopes less than 3% Comments - Page 47: Details will be provided at a later design submittal with a more advanced civil plan set prior to construction.	1041 Appendix G – Preliminary Civil and GESC Plan 1041 Appendix H – Drainage Report 1041 Appendix I – Traffic Control Plan

Review 2 Referral Agency Comment Response Matrix July 22 - August 6, 2026)		
Agency	**Response**	**Reference Location**
	Drainage Report: Comment 1, Page 6: Description of MHFD impervious calculations in Section 4.5.1 of updated report. Comment 2, Page 7: Proposed culverts were sized using HEC-RAS 2D modeling, which employs the same base culvert equations as HY-8 and is listed as a culvert sizing software in MHFD Volume 2 - Chapter 11. Detailed culvert calculations can be provided in a future report demonstrating sufficient flow velocities, headwater/tailwater levels, and inlet/outlet control status for discharge rates. Comment 3, Page 9: Site access roads will be privately owned and maintained. Comment 4, Page 9: Detailed riprap calculations will be provided in a future report demonstrating sufficient protection against erosion. As Elbert County Drainage Construction Standards and Specifications do not specify any design criteria, MHFD riprap design criteria will be used for future calculations. Comment 5, Page 10: Further detail added in Section 4.5.1 of updated report. Comment 6, Page 11: Further detail added in Section 4.5.1 of updated report. Comment 7, Page 39: Ponds labeled in updated report. Comment 8, Page 40: Proposed basin calculator exports in Appendix 5 of updated report specify stages contributing to the proposed basin. Comment 9, Page 40: Composite impervious calculations included in Table 8 of updated report. **Traffic Plan**: We understand that because a Level 2 Traffic Impact Study (Turn Lane Evaluation) or Level 3 Traffic Impact Study was not included with the updated submittal, Elbert County referred the traffic component to CDOT for review and determination of any future traffic analysis requirements associated with the CDOT access permitting process. The Applicant acknowledges that any additional traffic analysis requested by CDOT will be addressed through the separate CDOT access permit review process, as applicable.	

Review 2 Referral Agency Comment Response Matrix July 22 - August 6, 2026)		
Agency	**Response**	**Reference Location**
	Comments 1 and 2, Pages 9 and 10: Thank you for your review and comments. Editorial corrections have been completed. Comment 3, Page 10: WSB is assuming Case B1 (left turns from minor road with stop control) within AASHTO Green Book 7th Edition for sight distance calculation where no grade adjustment factor is needed for minor roads with slopes less than 3%	

ELBERT COUNTY

Community & Development Services

1st Referral Period

Referral Date: *7/22/26*
Project Name:
Shepherd Solar 1041 and SUR

Comments Due: *8/6/26*
Case Numbers: *1041-2026-0001 & SUR-2026-0002*

Case Manager: *Jen Gardner, Logan Simpson Contract Planner*
Site Address: *Rural Elbert County, Colorado (near Matheson), accessed via County Roads 157, 149, 54 and 46*
Proposal Summary: *The Project involves development of a 199-megawatt (MW) photovoltaic (PV) solar energy facility and a 100 MW battery energy storage system (BESS) on an approximately 1,990-acre property (Site).*

Dear Referral Department/Agency/Organization,

Elbert County CDS staff appreciate your help in reviewing the above referenced project. A link to all the submitted application materials has been provided to you via email. Please review all necessary materials and provide comments on this proposal. If your department/agency/organization has no comments on this proposal, a simple email to the case manager stating "no comments" is much appreciated. ***CDS staff are happy to set up a phone call or meeting to discuss any major concerns.*** *Written comments from your department/agency/organization will be provided to the applicants. Please be as specific and thorough as possible.*

Please note, per Colorado Revised Statutes 30-28-136(2), failure to respond will be considered as your department/agency/organization's approval of the proposal.

Thank you for your continued support in reviewing and commenting on proposed development in Elbert County.

Sincerely,

Jen Gardner

ELBERT COUNTY

Community & Development Services

Contract Land Use Planner

2nd Referral Comments

Project Name: *Shepherd Solar 1041 and SUR*

Case Numbers: *1041-2026-0001 & SUR-2026-0002*

**PLEASE NOTE: Future submittals will be sent to all agencies unless otherwise specified in the comment box below:*

REFERRAL AGENCY COMMENTS:

Date:

Agency/Organization/Department:

Reviewer Name:

Kimley»Horn

July 28, 2026

Mr. Eli Johnson
Lead Civil Engineer
BayWa
18575 Jamboree Road, Suite 850
Irvine, CA 92612

Re: Shepherd Solar Traffic Assessment & Control Plan – 2nd Review Comments Letter
Elbert County, Colorado

Dear Mr. Johnson:

We have reviewed the traffic assessment and control plan prepared by wsb dated July 16, 2026 for the Shepherd Solar project to be located on the northeast corner of the County Road 50 and County Road 149 intersection in Elbert County, Colorado. Kimley-Horn has reviewed the traffic assessment and has provided the following comments:

General Summary:

- The editorial comments have been updated in the revised traffic plan. As stated in your Comment Response Matrix, a road condition survey will be required prior to construction and part of the Road Use Agreement and then again after the completion of construction.

1. Since a Level 2 (Turn Lane Evaluation) or Level 3 (Traffic Impact Study) was not provided with the updated submittal application, the traffic plan has been referred to CDOT for traffic comments and/or requirements for future traffic analysis. The additional traffic analysis will be required for the CDOT access permitting process. The permit manager's contact information is again below as follows:
   timothy.bilobran@state.co.us
   970-302-4022

   With an accelerated review schedule with this second submittal, we don't expect CDOT referral comments back prior to comments being sent back to the applicant. The CDOT comments are expected to follow separately.

If you have any questions or require anything further based on this review, please feel free to contact me.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Jeffrey R. Planck

Jeffrey R. Planck, P.E.
Project Manager – Traffic

Reviewed by Kimley-Horn
07/30/2026

APPENDIX G
CIVIL CONSTRUCTION DRAWINGS OF GRADING, EROSION, AND SEDIMENT CONTROL (GESC) PLAN

PRELIMINARY DESIGN SUBMITTAL

CIVIL CONSTRUCTION DRAWINGS

GRADING, EROSION, & SEDIMENT CONTROL PLAN

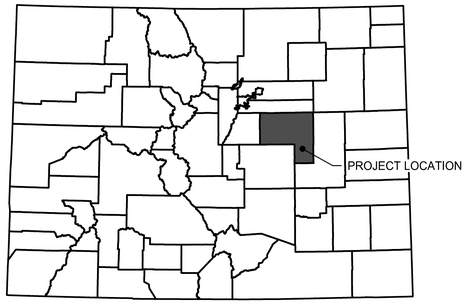
FOR

SHEPHERD SOLAR

LOCATED IN

ELBERT COUNTY, CO

PROJECT LOCATION MAP
(NOT TO SCALE)



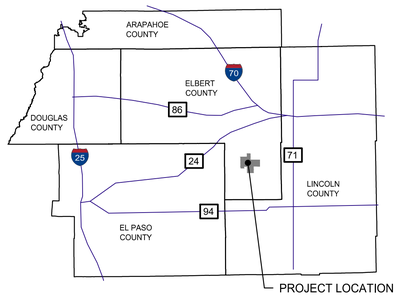
PROJECT DIRECTORY

APPLICANT/OWNER
SHEPHERD SOLAR LLC
5901 PRIESTLY DRIVE, SUITE 300
CARLSBAD, CA 92008
CONTACT: ANALIES ROSS-DYJAK
ANALIES.ROSS-DYJAK@BAYWA-RE.COM

CIVIL ENGINEER
WSB LLC
701 XENIA AVE. S., #300
GOLDEN VALLEY, MN 55416
CONTACT: EARTH A EVANS, PE
EEVANS@WSBENG.COM

ELECTRICAL ENGINEER
ELECTRIC POWER ENGINEERS
5301 SOUTHWEST PARKWAY, STE 15
AUSTIN, TX 78735
CONTACT: RICARDO SOUSA
RSOUSA@EPECONSULTING.COM

VICINITY MAP
(NOT TO SCALE)



SITE INFORMATION

PARCEL ZONING
ZONE A (AGRICULTURE)

PROJECT DESCRIPTION
309 MWdc/231 MWac SINGLE AXIS TRACKER SOLAR ARRAY, 100MW BESS HYBRID PROJECT

COORDINATE SYSTEM
NAD83 COLORADO STATE PLANES, CENTRAL ZONE, US FOOT

BENCHMARK
TBD

FLOOD ZONE MAPPING
FEMA FLOOD INSURANCE RATE MAP (FIRM) PANEL 08039C0950C ELBERT COUNTY, COLORADO UNINCORPORATED AREAS (EFFECTIVE 03/17/2011) - FEMA ZONE A IS PRESENT WITHIN SITE LIMITS, THOUGH OUTSIDE OF THE LIMITS OF DISTURBANCE.

COLORADO811
Know what's below. Contact 811 before you dig.

PLAN CONTENTS

SHEET NUMBER	SHEET TITLE	REV	REV DATE	EOR
C-1	COVER SHEET	F	7/16/2026	EAE
C-2	NOTES AND LEGEND	F	7/16/2026	EAE
C-3	EXISTING CONDITIONS	F	7/16/2026	EAE
C-4	SITE CONSTRAINTS	F	7/16/2026	EAE
C-5	PRELIMINARY GRADING AND SITE PLAN OVERVIEW	F	7/16/2026	EAE
C-6	PRELIMINARY REMOVAL PLAN	F	7/16/2026	EAE
C-7	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-8	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-9	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-10	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-11	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-12	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-13	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-14	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-15	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-16	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-17	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-18	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-19	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-20	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-21	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-22	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-23	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-24	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-25	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-26	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-27	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-28	PRELIMINARY GRADING AND SITE PLAN	F	7/16/2026	EAE
C-29	PRELIMINARY O&M GRADING AND SITE PLAN	F	7/16/2026	EAE
C-30	PRELIMINARY BESS GRADING & SITE PLAN	F	7/16/2026	EAE
C-31	PRELIMINARY UTILITY PADS GRADING & SITE PLAN	F	7/16/2026	EAE
C-32	CROSS SECTIONS - O&M AND BESS	F	7/16/2026	EAE
C-33	CROSS SECTIONS - SUBSTATION AND SWITCHYARD PADS	F	7/16/2026	EAE
C-34	CROSS SECTIONS - SWITCHYARD	F	7/16/2026	EAE
C-35	SIGHT DISTANCE INTERSECTION ANALYSIS	F	7/16/2026	EAE
C-36	SIGHT DISTANCE INTERSECTION ANALYSIS	F	7/16/2026	EAE
C-37	PRELIMINARY ESC PLAN	F	7/16/2026	EAE
C-38	PRELIMINARY ESC PLAN	F	7/16/2026	EAE
C-39	PRELIMINARY ESC PLAN	F	7/16/2026	EAE
C-40	PRELIMINARY ESC PLAN	F	7/16/2026	EAE
C-41	PRELIMINARY ESC PLAN	F	7/16/2026	EAE
C-42	PRELIMINARY ESC PLAN	F	7/16/2026	EAE
C-43	ESC DETAILS	F	7/16/2026	EAE
C-44	ESC DETAILS	F	7/16/2026	EAE
C-45	TYPICAL DETAILS	F	7/16/2026	EAE
C-46	STORM SEWER DETAILS	F	7/16/2026	EAE
C-47	FENCE AND GATE DETAILS	F	7/16/2026	EAE

PHASING NOTES

1. INITIAL AND INTERIM BMP'S AS NOTED ON PLANS SHALL BE INSTALLED PRIOR TO ANY GRADING OR LAND DISTURBING ACTIVITIES ON SITE. INITIAL AND INTERIM BMP'S SHALL BE LEFT IN PLACE UNTIL VEGETATION IS ESTABLISHED BY THE FINAL BMP'S AND THE PROJECTS NOTICE OF TERMINATION IS FILED.
2. FINAL BMP'S SHALL BE INSTALLED AFTER SITE IMPROVEMENTS ARE MADE AND SHALL BE ESTABLISHED PRIOR TO FINAL APPROVAL BY THE COUNTY.
3. ADDITIONAL GRADING, EROSION, AND SEDIMENT CONTROL MEASURE MAY BE REQUIRED OF THE OWNER OR HIS/HER AGENTS, DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED.

THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) DOCUMENT FOR SHEPHERD SOLAR, LLC., HAS BEEN PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND TO THE BEST OF MY KNOWLEDGE AND ABILITY HAS BEEN PREPARED IN ACCORDANCE WITH THE CURRENT VERSION OF THE ELBERT COUNTY CONSTRUCTION STANDARDS & SPECIFICATIONS.

REGISTERED PROFESSIONAL ENGINEER:
EARTH A. EVANS
STATE OF COLORADO NO :0053515

WSB LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 555416
(763) 541-4800

THE SHEPHERD SOLAR PROJECT COMPRISES MULTIPLE LICENSED INDIVIDUALS FROM WSB AS LISTED BELOW AND CROSS REFERENCED ON SHE SHEET (SEE SHEET C-2) BY DEFINED LETTER DESIGNATORS.

EAE - EARTH A. EVANS, PE 0053515
RS - ROBERT SLIPKA, PLA 0001260

THESE GESC PLANS HAVE BEEN REVIEWED BY ELBERT COUNTY FOR GRADING, EROSION, AND SEDIMENT CONTROL IMPROVEMENTS ONLY

FOR AND ON BEHALF OF THE
ELBERT COUNTY
ROAD & BRIDGE DEPARTMENT

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

SCALE:	DESIGN BY:
AS SHOWN	CMM
PLAN BY:	CHECK BY:
CRN	EAE

REVISIONS

NO.	DATE	DESCRIPTION
B	02/25/2026	REVISED PRELIMINARY DESIGN
C	03/05/2026	REVISED PRELIMINARY DESIGN
D	03/11/2026	REVISED PRELIMINARY DESIGN
E	04/23/2026	REVISED PRELIMINARY DESIGN
F	07/16/2026	REVISED PRELIMINARY DESIGN

THIS DOCUMENT IS RELEASED FOR COORDINATION PURPOSES ONLY UNDER THE AUTHORITY OF:

EARTH A. EVANS,
P.E. #0053515
ON 07/16/2026

AND IS NOT FOR CONSTRUCTION.

COVER SHEET

SHEPHERD SOLAR

SHEET NO.
C-1

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- SURVEYED SURFACE LIMITS
- PROJECT BOUNDARY/ LEASE LIMIT
- INTERNAL BOUNDARY / LEASE LINES
- SECTION LINES
- EXISTING OVERHEAD POWER
- EXISTING WATER LINE
- EXISTING BURIED FIBER LINE
- EXISTING GAS LINE
- EXISTING TELEPHONE (UNDERGROUND)
- EXISTING STORM SEWER
- EXISTING OIL LINE
- OVERHEAD POLES AND TOWERS
- EXISTING FENCE
- EXISTING RAILROAD
- EXISTING ROAD
- EXISTING TREE LINE
- EXISTING CULVERTS
- REMOVE TREE
- REMOVE FENCE
- REMOVE GRAVEL ROAD
- PROPOSED PERIMETER FENCING
- PROPOSED MEDIUM VOLTAGE FEEDER
- PROPOSED CULVERTS
- CORRECTIVE GRADING LIMITS
- SECTION LINES
- SILT FENCE PERIMETER
- FLOODPLAIN LIMITS
- FEMA FLOODPLAIN LIMITS
- WETLAND WATER BOUNDARY
- LIMITS OF DISTURBANCE
- JURISDICTIONAL STREAM CENTERLINE
- NON-JURISDICTIONAL STREAM CENTERLINE

- SOLAR PANEL POWER BLOCK
- EXISTING OBSCURE AREA
- FEMA 100-YEAR FLOODPLAIN
- EXISTING EASEMENT RESTRICTIONS PER BAYWA
- TREE CLEAR AND GRUB
- TEMPORARY & PERMANENT SEEDING AREA
- EROSION CONTROL BLANKET
- PROPOSED GRAVEL ROAD
- PROPOSED LWX - SEE SHEET C-5
- TEMPORARY CONSTRUCTION ENTRANCE
- EXISTING WETLANDS WITH SETBACK
- EXISTING NON-JURISDICTIONAL WETLANDS
- 100-YR INUNDATION LIMITS (1 FEET)
- 100-YR INUNDATION LIMITS (2 FEET)
- 100-YR INUNDATION LIMITS (3 FEET)
- EXISTING DRAINAGE DIRECTION
- PROPOSED DRAINAGE DIRECTION
- ACCESS A — PROPOSED ENTRANCE ID
- LWX-1L3 — PROPOSED LOW WATER CROSSING, SEE TABLE ON SHEET C-5
- PROPOSED GATE - SEE SHEET C-47
- R# OR RX — TYPICAL DETAIL - SEE SHEET C-45
- CTW — CONCRETE TRUCK WASHOUT AREA

TYPICAL SHORTHAND KEY

BEG	BEGIN
BFE	BASE FLOOD ELEVATION
BVC	BEGINNING OF VERTICAL CURVE
CL	CENTERLINE
CR	COUNTY ROAD
CSAH	COUNTY STATE AID HIGHWAY
E	EASTING
EG	EXISTING GRADE ELEVATION
END	END
EVC	END OF VERTICAL CURVE
FG	FINISH GRADE ELEVATION
HP	HIGH POINT
HWL	HIGH WATER LEVEL
HWY	HIGHWAY
INV	INVERTER
LP	LOW POINT
LWX	LOW WATER CROSSING
MAX	MAXIMUM
MIN	MINIMUM
N	NORTHING
PB	POWERBLOCK
PROF	PROFILE
PVI	POINT OF VERTICAL INTERSECTION
RG	ROUGH GRADE ELEVATION
RR	RAILROAD
RXX'	RADIUS XX FEET
SS	SUBSTATION
STA	STATION
UON	UNLESS OTHERWISE NOTED

ALIGNMENT DESIGNATION KEY

ALIGNMENT DESIGNATIONS FOR "LANES" AND "HAMMERHEADS" BASED ON THE FOLLOWING:

LANES	HAMMERHEADS
AL#	AHH#

A = AREA DESIGNATION
L = LANE (PV ROAD)
HH = HAMMERHEAD
# = NUMERICAL LANE

SOLAR PROJECT SPECIFIC NOTES

1. THE PROPOSED SOLAR ARRAY LAYOUT, INCLUDING SKID PADS, FOR THIS PROJECT WAS PREPARED AND PROVIDED BY THE ELECTRICAL ENGINEER NOTED ON TITLE SHEET.
2. ALTA SURVEY INFORMATION DISPLAYED HEREON WAS PROVIDED BY ULTEIG, PDF DATED AUGUST 15, 2025.
3. CONTRACTOR SHALL FIELD VERIFY SURVEY CONTROL AND DESIGN COORDINATES PRIOR TO START OF CONSTRUCTION.
4. SITE PREPARATION NOTES INCLUDED HEREON ARE PER GEOTECHNICAL ENGINEERING REPORT PREPARED BY TERRACON DATED OCTOBER 30, 2019.
5. NO WORK WITHIN ANY PIPELINE OR OVERHEAD EASEMENT SHALL COMMENCE UNTIL A FORMAL AGREEMENT BETWEEN BAYWA AND THE EASEMENT OWNER IS OBTAINED.
6. BIDDER TO ASSUME / ENSURE PROPER ACCESS BETWEEN FENCES AND DITCHES. 15' CLEARANCE REQUESTED BY BAYWA FOR VEHICULAR ACCESS.
7. TO ENSURE ACCESS TO THE SITE AND BESS YARD BY THE FIRE DEPARTMENT, A KNOXBOX WILL BE INSTALLED AT THE WATER TANK GATE TO HOLD COPIES OF THE MASTERKEY AND CORRESPONDING KNOX PADLOCKS WILL BE INSTALLED ON ALL GATES THROUGHOUT THE SITE.

GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY TO THE DUST CONTROL REQUIREMENTS OF THE NPDES AND LOCAL JURISDICTION(S). NO SITE SPECIFIC DUST CONTROL PLAN HAS BEEN PREPARED.
2. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH A SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN (SPCC) TO BE PREPARED FOR THIS PROJECT.
3. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THIS PROJECT AND ARE HEREBY INCORPORATED BY REFERENCE TO THIS PROJECT PLAN.
4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO BE FULLY INFORMED OF, AND TO COMPLY WITH, ALL LAWS, ORDINANCES, CODES, REQUIREMENTS AND STANDARDS WHICH IN ANY MANNER AFFECT THE COURSE OF CONSTRUCTION OF THIS PROJECT, THOSE ENGAGED OR EMPLOYED IN THE CONSTRUCTION, OR THE MATERIALS USED IN CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE PUBLIC AND PRIVATE PROPERTY ADJACENT TO THE WORK AREA AND SHALL EXERCISE DUE CAUTION TO AVOID DAMAGE TO SUCH PROPERTY. THE CONTRACTOR SHALL REPLACE OR REPAIR, TO THEIR ORIGINAL CONDITION, ALL EXISTING IMPROVEMENTS WITHIN OR ADJACENT TO THE WORK AREA, WHICH ARE NOT DESIGNATED FOR REMOVAL, AND ARE DAMAGED OR REMOVED AS A RESULT OF THEIR OPERATIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND PRESERVATION OF ALL EXISTING SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.
7. CONSTRUCTION CONTRACTOR SHALL MAINTAIN A CURRENT, COMPLETE, AND ACCURATE RECORD OF ANY AND ALL CHANGES FROM THE CONSTRUCTION, AS PROPOSED IN THESE PLANS AND SPECIFICATIONS, FOR THE PURPOSES OF PROVIDING THE ENGINEER WITH A BASIS FOR AS-BUILT DRAWINGS. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL OF THE ENGINEER OF RECORD AND NOTIFICATION OF THE LOCAL AHJ HAVING AUTHORITY TO APPROVE THE PLANS.
8. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS AND ITEMS SHOWN TO BE REMOVED AS A PART OF THIS PROJECT AT A LICENSED FACILITY OPERATING UNDER LOCAL, STATE, AND/OR FEDERAL REGULATIONS.
9. A REGISTERED CIVIL ENGINEER MUST CERTIFY THAT THE IMPROVEMENTS, WHEN COMPLETED, ARE IN ACCORDANCE WITH THE PLANS, PRIOR TO THE REQUEST FOR FINAL INSPECTION. RECORD DRAWINGS ARE TO BE PREPARED AFTER CONSTRUCTION IS COMPLETED. THE CIVIL ENGINEER CERTIFYING THE IMPROVEMENTS AND PREPARING THE AS-BUILT PLANS SHALL BE PRESENT WHEN THE FINAL INSPECTION IS MADE.
10. IN ABSENCE OF THE PROJECT'S ENGINEER OF WORK, A THIRD-PARTY ENGINEER, IN GOOD STANDING AND LICENSED WITHIN THE JURISDICTION OF THIS PROJECT, MAY MAKE CHANGES TO THIS PLAN AS ALLOWED AND OUTLINED BY THE STATE'S PRACTICE ACTS AND RULES, OR SIMILAR GOVERNING DOCUMENT. THE THIRD-PARTY ENGINEER SHALL STAMP ALL CHANGES AND SHALL ASSUME FULL RESPONSIBILITY FOR THE ASSOCIATED CHANGES AS GOVERNED BY STATE LICENSING RULES. THE THIRD-PARTY ENGINEER SHALL PROVIDE NOTIFICATION TO THE ENGINEER OF WORK AND OBTAIN APPROVALS, AS REQUIRED, BY THE LOCAL AHJ FOR SAID CHANGES OR MODIFICATIONS.
11. NEITHER THE OWNER NOR THE ENGINEER OF WORK NOR THE ENGINEER OF RECORD WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATES, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS. THIS DOES NOT ABSOLVE ANY LICENSED PROFESSIONAL FROM REPORTING SUSPECTED SAFETY VIOLATIONS TO THE OWNER, CONTRACTOR, AND/OR LOCAL AHJ.
12. TO ENSURE ACCESS TO THE SITE AND BESS YARD BY THE FIRE DEPARTMENT, A KNOXBOX WILL BE INSTALLED AT THE WATER TANK GATE TO HOLD COPIES OF THE MASTER KEY AND CORRESPONDING KNOX PADLOCKS WILL BE INSTALLED ON ALL GATES THROUGHOUT THE SITE.

GRADING NOTES

1. ALL GRADING AND RELATED CONSTRUCTION SHALL CONFORM TO THE STATE AND LOCAL REQUIREMENTS AND ADOPTED ORDINANCES, INCLUDING THE MOST CURRENT EDITION OF THE INTERNATIONAL BUILDING CODE AND THE PROJECT SPECIFIC GEOTECHNICAL REPORT.
2. STRAIGHT AND UNIFORM GRADES SHALL BE ESTABLISHED BETWEEN SPOT ELEVATIONS.
3. CONTOURS SHOWN HEREON ARE TO FINISHED SURFACE.
4. ALL PROJECTS INVOLVING SITE DISTURBANCE OF ONE ACRE OR GREATER SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (GEORGIA NPDES). THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILING THE NOTICE OF INTENT TO THE STATE OR LOCAL AHJ.
5. REVEGETATION SHALL BE PLACED ON ALL DISTURBED SURFACES OTHER THAN PAVED OR GRAVEL SURFACES, IN ACCORDANCE WITH THE PROJECT'S REVEGETATION PLAN AS NOTED ON THE EROSION CONTROL PLANS.
6. SOIL TESTS SHALL BE COMPLETED IN ACCORDANCE WITH THE FINAL GEOTECHNICAL REPORT. ALL TESTS MUST BE MADE WITHIN FIFTEEN DAYS PRIOR TO PLACING MATERIAL. THE TEST RESULTS SHALL CLEARLY INDICATE THE LOCATION AND SOURCE OF THE MATERIAL.
7. COMPACTION TESTS SHALL BE MADE ON SUBGRADE MATERIAL AND MATERIAL AS SPECIFIED BY THE GEOTECHNICAL ENGINEER. SAID TESTS SHALL BE MADE PRIOR TO PLACING THE NEXT MATERIAL. COMPACTION TESTS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER.
8. ROAD SUBGRADE MATERIAL SHALL BE COMPACTED TO A RELATIVE COMPACTION OF 98% STANDARD PROCTOR AND TO A MINIMUM DEPTH OF TWELVE INCHES. WORK WITHIN LOCAL AHJ AREAS SHALL BE SUBJECT TO AHJ REQUIREMENTS IF MORE STRINGENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCAL AHJ STANDARDS FOR ALL WORK WITHIN THE AHJ'S RIGHT-OF-WAY.
9. ALL UNSUITABLE MATERIALS SHALL BE REMOVED FROM THE PROJECT SITE AND TAKEN TO A SUITABLE DISPOSAL SITE, UNLESS OTHERWISE PERMITTED OR DIRECTED BY THE LOCAL AHJ.
10. DUST CONTROL IS TO BE MAINTAINED BY AN APPROPRIATE MOISTURE CONSISTENT AT ALL TIMES UPON COMMENCEMENT OF WORK, INCLUDING PERIODS OF SUSPENSION OF WORK, UNTIL FINAL ACCEPTANCE OF THE PROJECT. PROJECT SPECIFIC DUST CONTROL AND MITIGATION PLANS, IF PREPARED, SHALL GOVERN IF THERE IS A CONFLICT WITH THIS NOTE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EARTHWORK QUANTITIES FOR BIDDING PURPOSES, AND SHALL MAKE THEIR OWN ALLOWANCES FOR BULKING, OVER EXCAVATION, COMPACTION LOSSES, LOSSES DUE TO CLEARING AND/OR SUBSIDENCE, AND GAINS FROM TRENCH SPOILS. EARTHWORK VOLUMES REPRESENTED HEREON ARE RAW QUANTITIES BASED ON EXISTING GROUND TO FINISHED GROUND SURFACES UNLESS OTHERWISE INDICATED.
12. TREE REMOVAL SHALL BE LIMITED TO THAT SHOWN ON FINAL GRADING PLANS.
13. A GEOTECHNICAL OR CIVIL ENGINEER SHALL ASSESS THAT GRADING IS PERFORMED IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED PLANS AND IS SUITABLE TO SUPPORT THE INTENDED STRUCTURE(S).
14. THE CONTRACTOR IS RESPONSIBLE FOR SITE DRAINAGE DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES SHALL NOT MODIFY OR OTHERWISE ADJUST THE GRADING PLANS OF THIS PROJECT IN WAYS THAT WOULD CAUSE DAMAGE TO EXISTING FACILITIES OR NEIGHBORING PROPERTIES.
15. SITE PREPARATION – CONSTRUCTION AREAS FOR THE PROPOSED BUILDING AND SUBSTATION STRUCTURES SHOULD BE STRIPPED OF VEGETATION, TOPSOIL, TREES, EXISTING PAVEMENTS (INCLUDING CRUSHED STONE MATERIAL) AND OTHER DEBRIS/UNSUITABLE SURFACE MATERIAL. TOPSOIL MAY BE STOCKPILED; IF SO, IT SHALL BE IMMEDIATELY STABILIZED UNTIL RE-SPREAD FOR USE TO RE-VEGETATE DISTURBED AREAS AFTER GRADING OPERATIONS ARE COMPLETED. SUBGRADE SHALL BE PROOF ROLLED.
16. EARTHWORK BALANCE – THE INTENTION OF THE GRADING DESIGN IS TO BALANCE THE EARTHWORK ON SITE WITHOUT THE NEED FOR IMPORT OR EXPORT. THE CONTRACTOR SHALL FIELD ADJUST CUT AND FILL AS NECESSARY TO CREATE A BALANCED SITE WITHOUT NEGATIVELY IMPACTING DRAINAGE PATTERNS, INCLUDING WETLANDS, INCREASING MAXIMUM SLOPES, OR VIOLATING THE PILE REVEAL MAXIMUM AND MINIMUM HEIGHTS. PER PRELIMINARY GEOTECHNICAL REPORT, SHRINKAGE IS ESTIMATED AT 5 TO 10 PERCENT WHEN COMPACTING THE UPPER 2 FEET OF ON-SITE SOILS. SOILS USED FOR FILL SHOULD BE TESTED FOR ATTERBERG LIMITS AND PARTICLE SIZE DISTRIBUTION PRIOR TO PLACEMENT TO ENSURE SUITABILITY FOR STRUCTURAL FILL. EXPANSIVE CLAYS ARE NOT RECOMMENDED FOR ENGINEERED FILL BENEATH FOUNDATIONS OR SLABS.

UTILITY NOTES

1. LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WHERE SHOWN ON THE PLANS ARE BASED ON AVAILABLE RECORDS AND ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL HAND EXPOSE UTILITIES AT LEAST 100 FEET AHEAD OF CONSTRUCTION IN ORDER TO VERIFY LOCATION AND DEPTH. A HYDROVAC MAY BE USED IN LIEU OF HAND EXPOSING UTILITIES, IF DEEMED ACCEPTABLE BY THE UTILITY OWNERS, TO VISUALLY VERIFY UTILITY LOCATIONS. CONTRACTOR AGREES THEY SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR LOCATING OR HAVING LOCATED ALL UNDERGROUND UTILITIES AND OTHER FACILITIES AND FOR PROTECTING THOSE IDENTIFIED BY LOCAL UNDERGROUND SERVICES ALERT DURING THE COURSE OF PROJECT CONSTRUCTION. ANY DEVIATIONS FROM THE PLAN LOCATION OF EXISTING FACILITIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF WORK, AND ENGINEER OF RECORD IF DIFFERENT, SO THE APPROPRIATE REVISIONS MAY BE MADE.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED PRIOR TO THE START OF CONSTRUCTION BY PLACING A COLORADO 811 DIG ALERT.
3. CONSTRUCTION CONTRACTOR SHALL CONTACT LOCAL UNDERGROUND SERVICE ALERT AND MARKING AT LEAST 48 HOURS PRIOR TO START OF EXCAVATION AND SHALL VERIFY THE LOCATION OF ANY KNOWN UTILITIES, WHETHER OR NOT A REPRESENTATIVE OF EACH COMPANY WILL BE PRESENT DURING EXCAVATION.

MAINTENANCE NOTES

1. SITE ACCESS AND MAINTENANCE LANES HAVE BEEN DESIGNED TO MAINTAIN EXISTING DRAINAGE PATTERNS TO THE EXTENT FEASIBLE. ROADWAYS AND LANES ARE CONSTRUCTED AT OR NEAR EXISTING GROUND, WITH A CROSS SLOPE PROVIDED TO ALLOW CONTINUED SHEET FLOW OVER THE ROAD SURFACE. CONSTRUCTION OF ACCESS ROADS AND MAINTENANCE LANES WITH EXPOSED BASE MATERIALS WILL REQUIRE ROUTINE MAINTENANCE, PARTICULARLY IN AREAS OF REPEATED LOADING AND TURNING MOVEMENTS.
2. EROSION AND DETERIORATION OF THE DRIVING SURFACES WILL LIKELY OCCUR AFTER STORM EVENTS, REQUIRING ONGOING MAINTENANCE TO MAINTAIN THE ROAD SURFACE AND INTEGRITY OF THE STRUCTURAL SECTION. THIS WILL REQUIRE ADDING ROADWAY MATERIAL PER THE TYPICAL SECTIONS AND REGRADING/REPAIR OF THE ROAD SECTION AS NECESSARY BASED ON THE MAGNITUDE AND FREQUENCY OF THE STORM EVENT.

EROSION CONTROL NOTES

1. A NPDES/CDPS GENERAL PERMIT WILL BE ACQUIRED THROUGH THE COLORADO DEPARTMENT OF PUBLIC SAFETY FOR ANY CONSTRUCTION ACTIVITY THAT WILL DISTURB ONE ACRE OR MORE; OR CONSTRUCTION ACTIVITY THAT IS PART OF A COMMON PLAN OF DEVELOPMENT OR SALE.
2. THE PERMITTEE MUST IMPLEMENT CONTROL MEASURES TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM ALL POTENTIAL POLLUTANT SOURCES AT THE SITE WHICH, IF APPLICABLE, INCLUDES RUN-ON. CONTROL MEASURES USED TO MEET EFFLUENT LIMITATIONS MUST BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND PRIOR TO EACH PHASE OF CONSTRUCTION THAT INTRODUCES NEW POTENTIAL POLLUTANT SOURCES. CONTROL MEASURES MUST BE SELECTED, DESIGNED, INSTALLED AND MAINTAINED IN ACCORDANCE WITH GOOD ENGINEERING, HYDROLOGIC AND POLLUTION CONTROL PRACTICES. CONTROL MEASURES IMPLEMENTED AT THE SITE MUST BE DESIGNED TO PREVENT POLLUTION OR DEGRADATION OF STATE WATERS.
3. CERTIFIED PERSONNEL SHALL CONDUCT AT LEAST ONE INSPECTION EVERY 7 CALENDAR DAYS; OR AT LEAST ONE INSPECTION EVERY 14 CALENDAR DAYS, IF POST-STORM EVENT INSPECTIONS ARE CONDUCTED WITHIN 24 HOURS AFTER THE END OF ANY PRECIPITATION OR SNOWMELT EVENT THAT CAUSES SURFACE EROSION. POST-STORM INSPECTIONS MAY BE USED TO FULFILL THE 14-DAY ROUTINE INSPECTION REQUIREMENT.
4. A STORMWATER MANAGEMENT PLAN SHALL BE DESIGNED, INSTALLED AND MAINTAINED FOR THE ENTIRE CONSTRUCTION ACTIVITY COVERED BY THE CDPS GENERAL PERMIT COR400000.
5. SPECIFIC CONTROL MEASURES MUST MEET THE REQUIREMENTS LISTED BELOW.
   (A) VEHICLE TRACKING CONTROLS MUST BE IMPLEMENTED TO MINIMIZE VEHICLE TRACKING OF SEDIMENT FROM DISTURBED AREAS. VEHICLE TRACKING CONTROLS MUST INCLUDE A STRUCTURAL CONTROL MEASURE (E.G. TRACKING PAD OR WASH RACK) AND MAY INCLUDE A NON-STRUCTURAL CONTROL MEASURE (E.G. SWEEPING OR RESTRICTING VEHICLE TRAFFIC TO PAVED AREAS).
   (B) STORMWATER RUNOFF FROM ALL DISTURBED AREAS AND SOIL STORAGE AREAS MUST UTILIZE OR FLOW TO ONE OR MORE CONTROL MEASURES TO MINIMIZE EROSION OR SEDIMENT IN THE DISCHARGE.
   (C) SELECTION OF CONTROL MEASURES SHOULD PRIORITIZE THE USE OF CONTROL MEASURES THAT MINIMIZE EROSION, AND PRIORITIZE PHASING
   (D) OUTLETS THAT WITHDRAW WATER FROM OR NEAR THE SURFACE MUST BE INSTALLED WHEN DISCHARGING FROM BASINS AND IMPOUNDMENTS, UNLESS INFEASIBLE.
   (E) MAINTAIN PRE-EXISTING VEGETATION FOR AREAS WITHIN 50 HORIZONTAL FEET OF RECEIVING WATERS. IN ADDITION INSTALL CONTROL MEASURES UPGRADIENT OF THE VEGETATIVE BUFFER THAT MEETS THE REQUIREMENTS OF THIS SECTION, PART I.B.1.A.I.
   (F) MINIMIZED SOIL COMPACTION FOR INFILTRATION AREAS. IF COMPACTION DOES OCCUR IN AREAS WHERE FINAL STABILIZATION WILL BE ACHIEVED THROUGH VEGETATIVE COVER, THEN DECOMPACTION OF THE SOIL MUST BE COMPLETED PRIOR TO PLANTING. TOPSOIL MUST BE PRESERVED FOR VEGETATIVE FINAL STABILIZATION.
   (H) MINIMIZE EXPOSED SOIL, INCLUDING STEEP SLOPES.
   (I) DIVERSION CONTROL MEASURES MUST MINIMIZE SOIL TRANSPORT AND EROSION WITHIN THE ENTIRE DIVERSION, MINIMIZE EROSION DURING DISCHARGE, AND MINIMIZE RUN-ON INTO THE DIVERSION
   (J) MINIMIZE DUST THROUGH THE APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION TECHNIQUES.
   (K) CONTROL STORMWATER DISCHARGES TO MINIMIZE CHANNEL AND STREAMBANK EROSION AND SCOUR.
6. TEMPORARY STABILIZATION MUST BE IMPLEMENTED ON ANY PORTION OF THE SITE WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED, OR TEMPORARILY CEASED FOR MORE THAN 14 CALENDAR DAYS.
7. FINAL STABILIZATION MUST BE DESIGNED AND INSTALLED AS A PERMANENT FEATURE. ALL CONTROL MEASURES MUST BE REMOVED FROM THE CONSTRUCTION SITE, EXCEPT WHEN THE CONTROL MEASURE SPECIFICATIONS ALLOW THE CONTROL MEASURE TO BE LEFT IN PLACE.
8. THE PERMITTEE MUST COMPLY WITH THE LAWFUL REQUIREMENTS OF FEDERAL AGENCIES, MUNICIPALITIES, COUNTIES, DRAINAGE DISTRICTS AND OTHER LOCAL AGENCIES INCLUDING APPLICABLE REQUIREMENTS IN MUNICIPAL STORMWATER MANAGEMENT PROGRAMS DEVELOPED TO COMPLY WITH CDPS PERMITS. THE PERMITTEE MUST COMPLY WITH LOCAL STORMWATER MANAGEMENT REQUIREMENTS, POLICIES AND GUIDELINES INCLUDING THOSE FOR EROSION AND SEDIMENT CONTROL.

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
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(763) 541-4800
FIRM #20171391667

SCALE:	DESIGN BY:
AS SHOWN	CMM
PLAN BY:	CHECK BY:
CRN	EAE

REVISIONS

NO.	DATE	DESCRIPTION
B	02/25/2026	REVISED PRELIMINARY DESIGN
C	03/05/2026	REVISED PRELIMINARY DESIGN
D	03/11/2026	REVISED PRELIMINARY DESIGN
E	04/23/2026	REVISED PRELIMINARY DESIGN
F	07/16/2026	REVISED PRELIMINARY DESIGN

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EARTH A. EVANS,
P.E. #0053515
ON 04/23/2026

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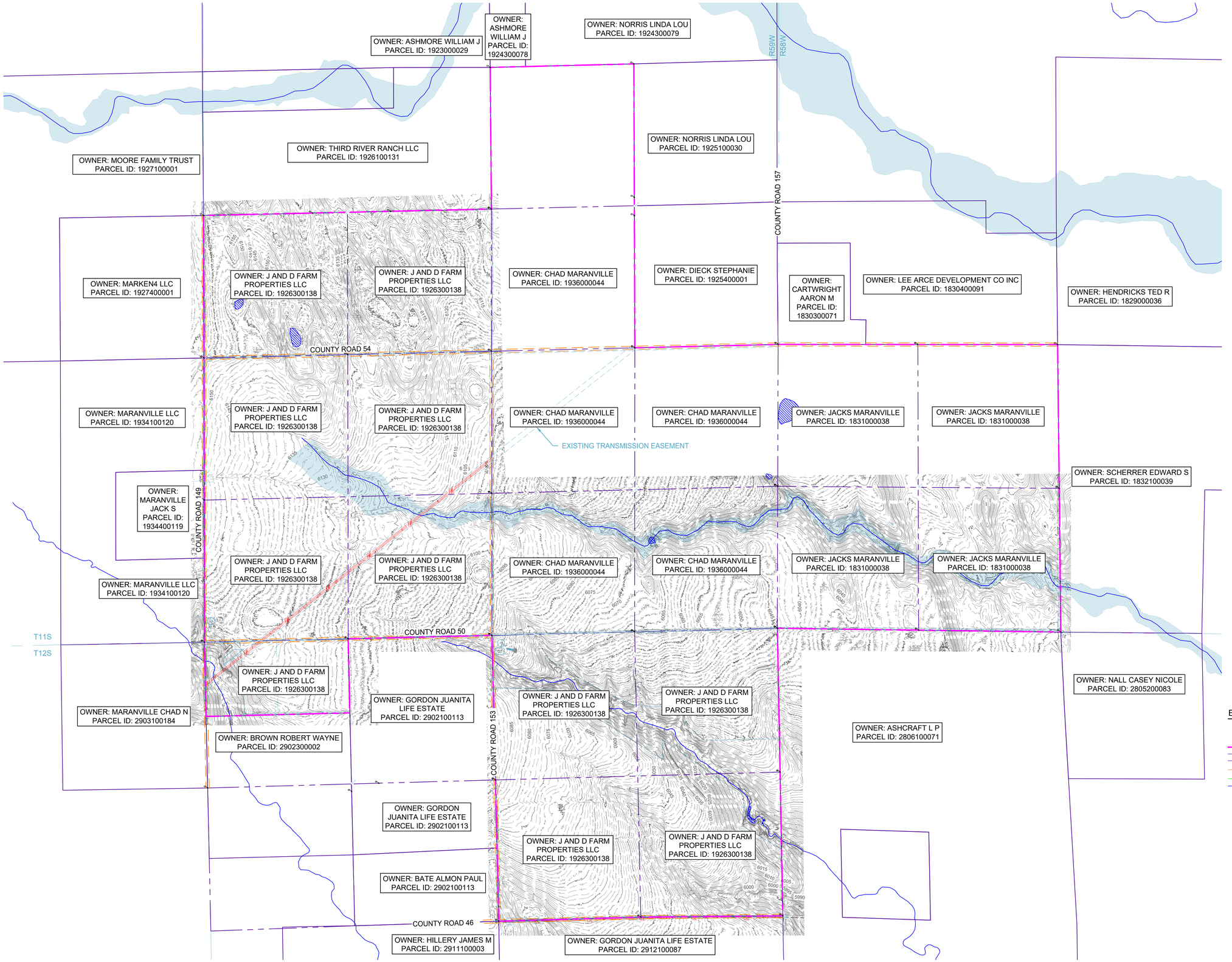
LEGEND AND NOTES

SHEPHERD SOLAR

SHEET NO.
C-2

WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F



SHEPHERD SOLAR

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ON 07/16/2026

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EXISTING CONDITIONS

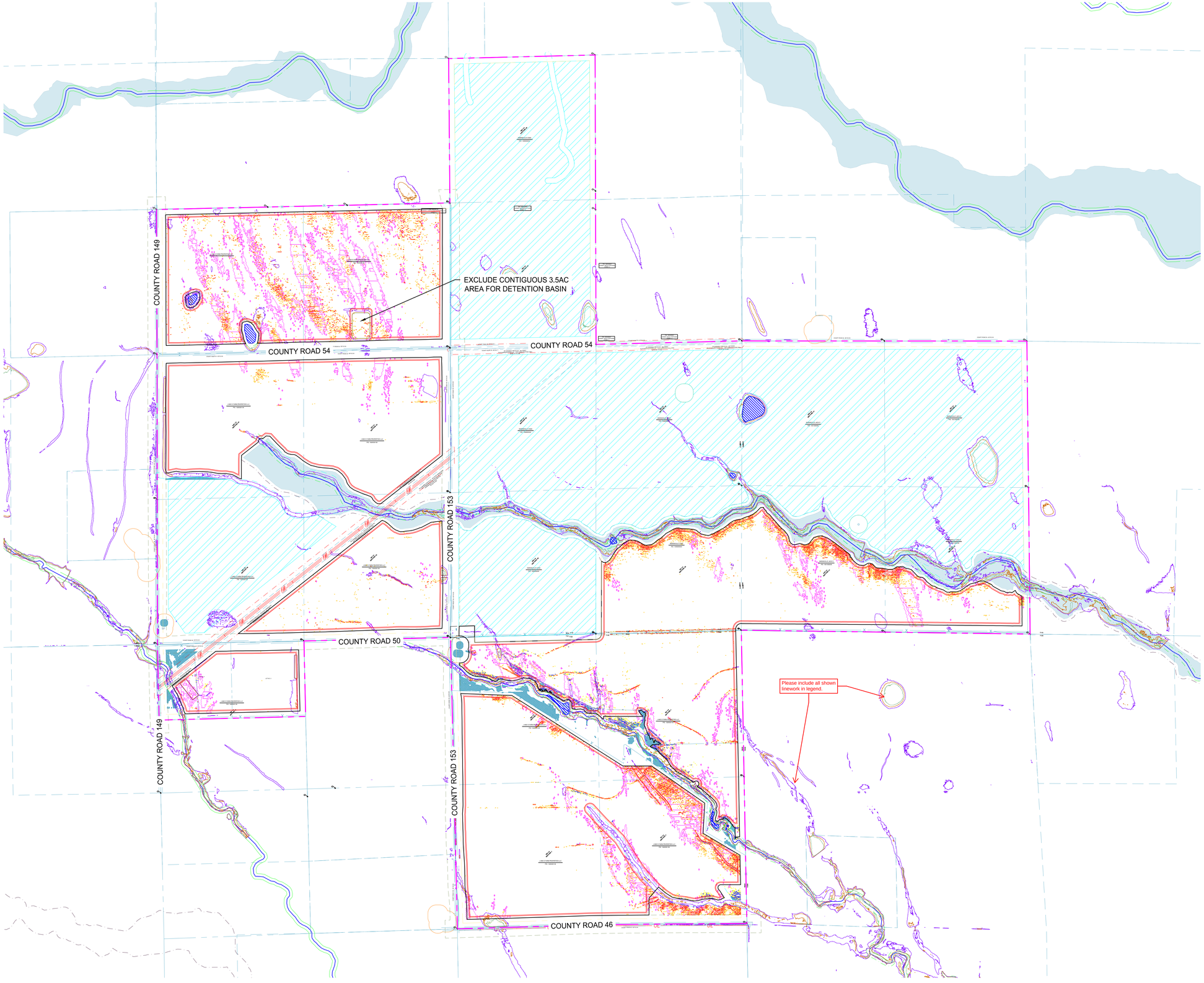
SHEPHERD SOLAR

SHEET NO.
C-3

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F



SITE CONSTRAINTS LEGEND

- PROJECT BOUNDARY/ LEASE LIMIT
- OE — EXISTING OVERHEAD POWER
- PROPOSED PERIMETER FENCING
- PROPOSED GRAVEL ROAD CENTERLINE
- MV — PROPOSED MEDIUM VOLTAGE FEEDER
- HIGH SLOPE BOUNDARY
- PANEL EXCLUSION ZONE
- PROJECT BOUNDARY SETBACK 100 FT
- OH UTILITY SETBACK 75 FT
- BUILDING SETBACK 150 FT
- FEMA SETBACK 50 FT
- WETLAND SETBACK 50 FT
- SWALE SETBACK 50 FT
- PUBLIC ROAD EDGE SETBACK 150 FT
- PV SETBACK ROAD AND BOUNDARY 50 FT
- PV SETBACK NO ROAD AND BOUNDARY 35 FT
- 100-YEAR FEMA ZONE A FLOODPLAIN LIMITS
- RESTRICTED AREA
- STAGING AREA
- EXISTING WETLANDS
- SOUTH SLOPE > 12%
- NORTH SLOPE > 8%
- EAST-WEST SLOPE > 5%

N

H: 0 800 1,600
SCALE IN FEET

SHEPHERD SOLAR

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ON 07/16/2026

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SITE CONSTRAINTS

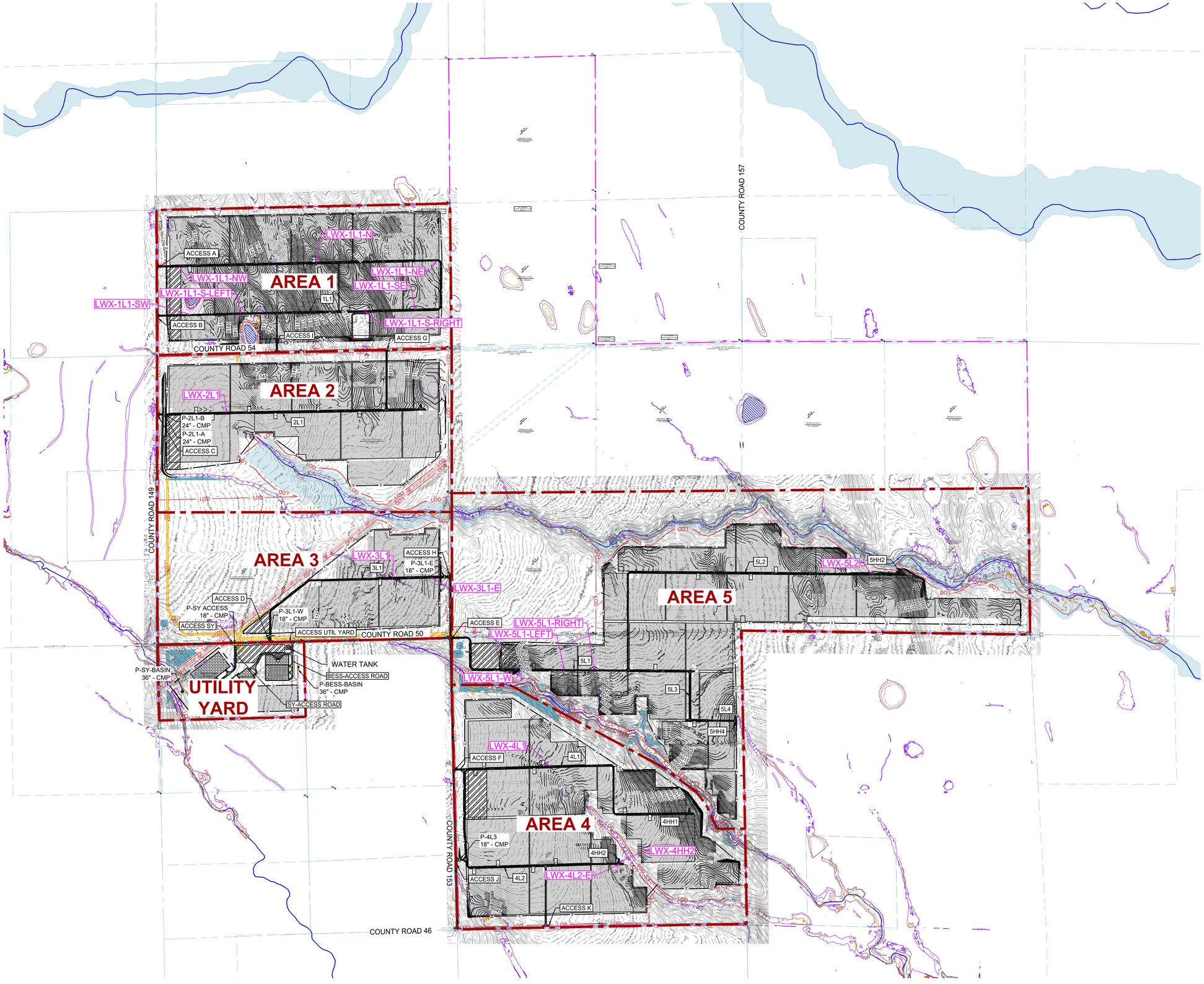
SHEPHERD SOLAR

SHEET NO.
C-4

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F



LWX CROSSING SUMMARY		
ID	DETAIL	LENGTH
LWX-1L1-N	L1	150.0
LWX-1L1-NE	L1	96.0
LWX-1L1-NW	L1	80.0
LWX-1L1-S-LEFT	L1	80.0
LWX-1L1-S-RIGHT	L1	500.0
LWX-1L1-SE	L1	80.0
LWX-1L1-SW	L1	50.0
LWX-2L1	L1	1275.0
LWX-3L1	L1	240.0
LWX-3L1-E	L1	375.0
LWX-4HH2	L1	90.0
LWX-4L1	L1	350.0
LWX-4L2-E	L1	90.0
LWX-5L1-LEFT	L1	190.0
LWX-5L1-RIGHT	L1	120.0
LWX-5L1-W	L1	292.0
LWX-5L2	L1	190.0

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LIMITS OF DISTURBANCE
- CORRECTIVE GRADING LIMITS
- PROJECT BOUNDARY/ LEASE LIMIT
- INTERNAL PROPERTY LINES
- SECTION LINES
- NON-JURISDICTIONAL WATER COURSE
- JURISDICTIONAL WATER COURSE
- NON-JURISDICTIONAL WETLANDS
- EXISTING WETLANDS
- 1-FT INUNDATION
- 2-FT INUNDATION
- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED CULVERTS
- FEMA SETBACK (30FT)
- PROPOSED GRAVEL ROAD
- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- TYPICAL PV ROAD DETAIL SEE SHEET C-2
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA
- LWX-1L3 — PROPOSED LOW WATER CROSSING, SEE TABLE ABOVE

N

H: 0 800 1,600
SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

SCALE:	DESIGN BY:
AS SHOWN	EAE
PLAN BY:	CHECK BY:
MEK	CMM

REVISIONS

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E	04/23/2026	REVISED PRELIMINARY DESIGN
F	07/16/2026	REVISED PRELIMINARY DESIGN

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EARTH A. EVANS,
P.E. #0053515
ON 07/16/2026

AND IS NOT FOR CONSTRUCTION.

PRELIMINARY GRADING AND SITE PLAN OVERVIEW

SHEPHERD SOLAR

SHEET NO.
C-5

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

COUNTY ROAD 157

COUNTY ROAD 54

COUNTY ROAD 149

COUNTY ROAD 50

COUNTY ROAD 153

COUNTY ROAD 46

LOD

DEMOLITION PLAN LEGEND

- PROJECT BOUNDARY/ LEASE LIMIT
- INTERNAL PROPERTY LINES
- SECTION LINES
- LOD — LIMITS OF DISTURBANCE
- NON-JURISDICTIONAL WATER COURSE
- JURISDICTIONAL WATER COURSE
- NON-JURISDICTIONAL WETLANDS
- EXISTING WETLANDS
- PROPOSED PERIMETER FENCE
- PROPOSED GRAVEL ROAD
- SOLAR PANELS (BY OTHERS)
- 1-FT INUNDATION
- 2-FT INUNDATION
- 3-FT INUNDATION
- 1 CLEAR & GRUB AREA
- 2 REMOVE FENCE
- 3 REMOVE TREE
- 4 REMOVE GRAVEL ROAD
- 5 REMOVE DEBRIS
- FEMA 100-YEAR FLOOD AREA

SEE SHEET C-2 FOR FULL LEGEND.

N

0 800 1,600

H: SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
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701 XENIA AVE S, #300
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PRELIMINARY REMOVAL PLAN

SHEPHERD SOLAR

SHEET NO.
C-6

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

OWNER: THIRD RIVER RANCH LLC
PARCEL ID: 1926100131

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: MARKEN4 LLC
PARCEL ID: 1927400001

COUNTY ROAD 149

ACCESS A

60.6'

21.2'

20'

10'

LWX-1L1-NW, SEE DETAIL
L1 ON SHEET C-45
LWX LENGTH = 80.0'

BEG 1L1 CL
STA = 1100+00

10' MIN

SEE SHEET ####

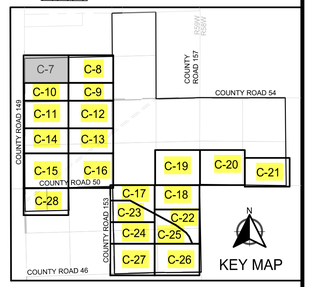
SEE SHEET ###

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LIMITS OF DISTURBANCE
- CORRECTIVE GRADING LIMITS
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- JURISDICTIONAL WATER COURSE
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- 2-FT INUNDATION
- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED CULVERT
- FEMA SETBACK 30 FT
- PROPOSED GRAVEL ROAD
- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- TYPICAL PV ROAD DETAIL SEE SHEET C-2
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- MV ROUTING CORRIDOR
- SOLAR PANEL
- POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



N

0 100 200
H: SCALE IN FEET

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

SHEPHERD SOLAR

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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-7

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

OWNER: THIRD RIVER RANCH LLC
PARCEL ID: 1926100131

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: CHAD MARANVILLE
PARCEL ID: 936000044

LWX-1L1-N, SEE DETAIL L1 ON SHEET C-45.
LWX LENGTH = 150.0'

LWX-1L1-NE, SEE DETAIL L1 ON SHEET C-45.
LWX LENGTH = 95.9'

SEE SHEET C-7

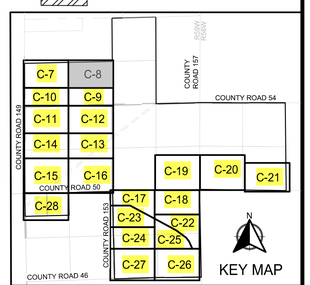
SEE SHEET ###

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
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- PROPOSED PERIMETER FENCE
- PROPOSED CULVERT
- FEMA SETBACK 30 FT
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- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- MV ROUTING CORRIDOR
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



N

0 100 200
H: SCALE IN FEET

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dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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SHEPHERD SOLAR

PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-8

WSB PROJECT NO.
032487

DATE	REV.
07/16/2026	F

SEE SHEET ###

SEE SHEET ####

LWX-1L1-S-RIGHT, SEE DETAIL
L1 ON SHEET C-45
LWX LENGTH = 500.0'

LWX-1L1-SE, SEE DETAIL
L1 ON SHEET C-45
LWX LENGTH = 80.0'

POND A1
21200CY

10' MIN.

10' MIN.

Show/label the outlet pipe supporting the intended discharge location, and the location/flow direction of the emergency spillway for all proposed ponds.

OWNER: CHAD MARANVILLE
PARCEL ID: 1936000044

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

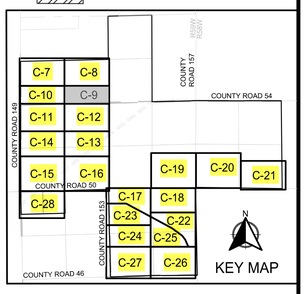
COUNTY ROAD 54

SEE SHEET C-12

ELEVATION TABLE			
RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
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- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- TYPICAL PV ROAD DETAIL SEE SHEET C-2
- RESTRICTED AREA PER BAYWA
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- MV ROUTING CORRIDOR
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



N

0 100 200
H: SCALE IN FEET

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

SHEPHERD SOLAR

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PLAN BY:	CHECK BY:
MEK	CLB

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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

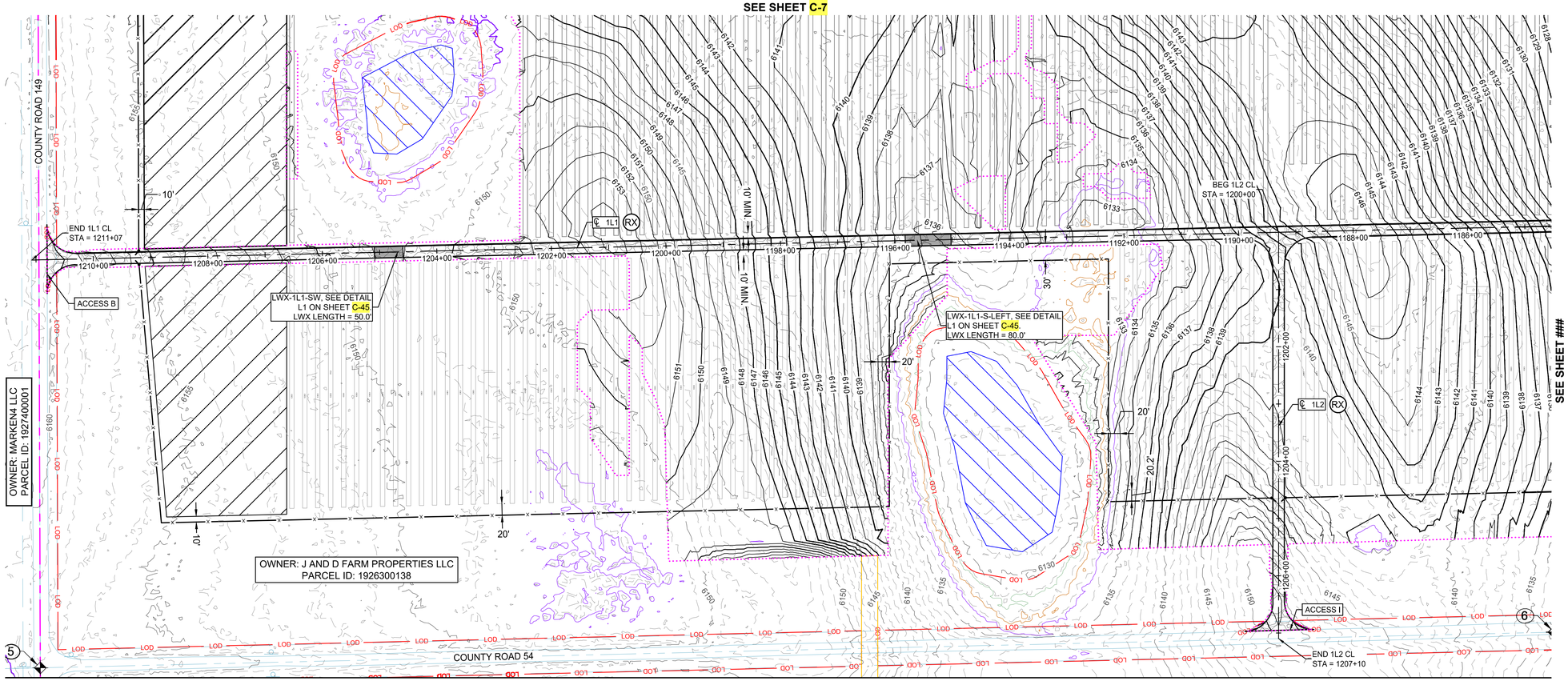
SHEET NO.
C-9

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

SEE SHEET C-7



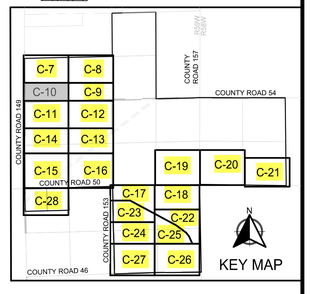
SEE SHEET C-11

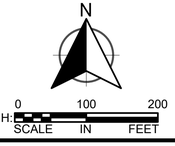
ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
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3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LIMITS OF DISTURBANCE
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- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED CULVERT
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- PROPOSED GATE - SEE SHEET C-3
- TYPICAL PV ROAD DETAIL SEE SHEET C-2
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- MV ROUTING CORRIDOR
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA





SHEPHERD SOLAR

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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-10

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

SEE SHEET ####

5

6

COUNTY ROAD 54

COUNTY ROAD 149

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: MARANVILLE LLC
PARCEL ID: 1934100120

20.8'

20'

20'

20.1'

20'

10' MIN.

10' MIN.

10' MIN.

ACCESS C

P-2L1-A
24" - CMP
P-2L1-B
24" - CMP

BEG 2L1 CL
STA = 2100+00

℄ 2L1 RX

LWX-2L1, SEE DETAIL L1 ON SHEET C-45.
LWX LENGTH = 250.0'

2100+00 2102+00 2104+00 2106+00 2108+00 2110+00 2112+00 2114+00 2116+00 2118+00 2120+00 2122+00 2124+00 2126+00

LOD

6155 6150 6145 6140 6135 6134

6137 6138 6139 6140 6141 6142 6143 6144 6145 6146 6147 6148 6149 6150 6151

6145 6144 6143 6142 6141 6140 6139 6138 6137 6136 6135

SEE SHEET C-14

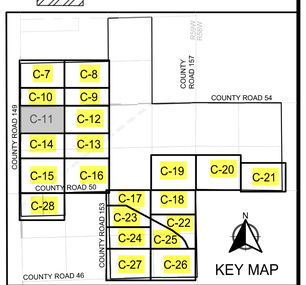
SEE SHEET C-12

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
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- PROPOSED GATE - SEE SHEET C-3
- TYPICAL PV ROAD DETAIL SEE SHEET C-2
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N

0 100 200
H: SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-11

WSB PROJECT NO.
032487

DATE 04/23/2026 | REV. E

SEE SHEET ###

BEG 2L2 CL
STA = 2200+00

COUNTY ROAD 54

ACCESS G

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: CHAD MARANVILLE
PARCEL ID: 1936000044

SEE SHEET C-11

SEE SHEET C-13

10' MIN.

30.1'

20'

20.4'

END 2L2 CL
STA = 2210+97

END 2L1 CL
STA = 2148+58

BEG 2HH1 CL
STA = 210+00

END 2HH1 CL
STA = 210+90

2L1 RX

2L2 RX

2HH1 RX

7

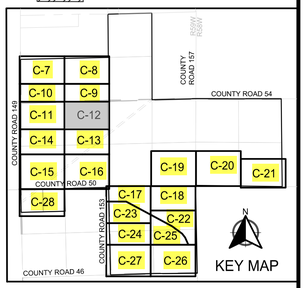
2

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
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4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
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11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LIMITS OF DISTURBANCE
- CORRECTIVE GRADING LIMITS
- PROJECT BOUNDARY/ LEASE LIMIT
- INTERNAL PROPERTY LINES
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- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED CULVERT
- FEMA SETBACK 30 FT
- PROPOSED GRAVEL ROAD
- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- TYPICAL PV ROAD DETAIL SEE SHEET C-2
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- MV ROUTING CORRIDOR
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



N

0 100 200
H: SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

SCALE:	DESIGN BY:
AS SHOWN	CMM
PLAN BY:	CHECK BY:
MEK	EAE

REVISIONS

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F	07/16/2026	REVISED PRELIMINARY DESIGN

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EARTH A. EVANS,
P.E. #0053515
ON 07/16/2026

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PRELIMINARY GRADING AND SITE PLAN

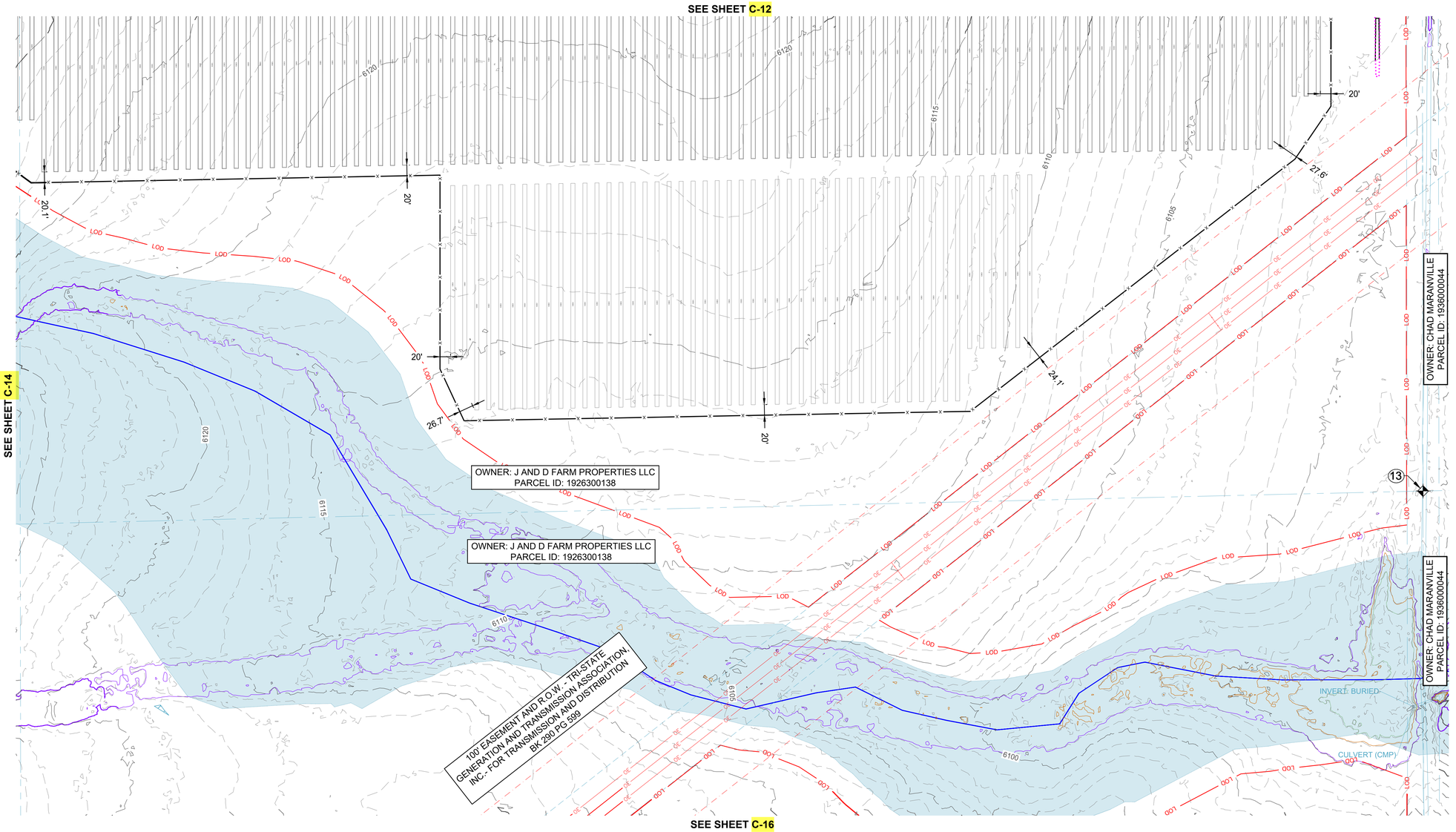
SHEPHERD SOLAR

SHEET NO.
C-12

WSB PROJECT NO.
032487

DATE
04/23/2026

REV.
E

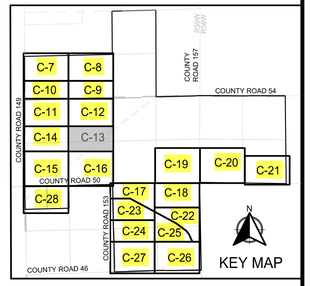


ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-13

WSB PROJECT NO.
032487

DATE 04/23/2026 | REV. E

SEE SHEET C-11

OWNER: MARANVILLE LLC
PARCEL ID: 1934100120

OWNER: MARANVILLE JACK S
PARCEL ID: 1934400119

COUNTY ROAD 149

10'

10'

20'

26.1'

25.5'

INVERT: BURIED

CULVERT (CMP)

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

6145
6140
6135
6130
6125

LOD

12

SEE SHEET C-13

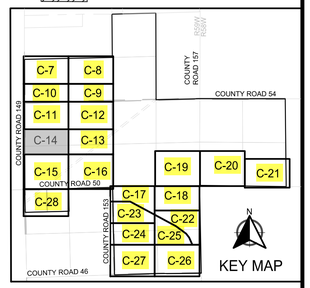
SEE SHEET C-15

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
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2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

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N

0 100 200
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ACC- 032487 - SHEP-CP-GRAD-PLAN-ARA2.dwg 7/16/2026 10:30:51 AM

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-14

WSB PROJECT NO.
032487

DATE
04/23/2026

REV.
E

SEE SHEET C-14

OWNER: MARANVILLE JACK S
PARCEL ID: 1934400119

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

COUNTY ROAD 149

OWNER: MARANVILLE LLC
PARCEL ID: 1934100120

100' EASEMENT AND R.O.W. - TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.- FOR TRANSMISSION AND DISTRIBUTION BK 280 PG 599

HEIGHT: 12.0'

HEIGHT: 19.3'

R60' TYP

COUNTY ROAD 50

PROPOSED 24' WIDE COUNTY ROAD 50 IMPROVEMENT

ACCESS D

BEG 3L1 CL
STA = 3100+00

P-3L1-W
18" - CMP

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

SEE SHEET C-28

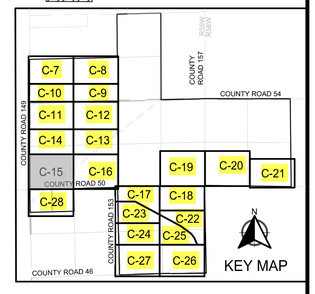
SEE SHEET C-16

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
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N

0 100 200
H: SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-15

WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F

SEE SHEET C-13

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

100' EASEMENT AND R.O.W. - TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.- FOR TRANSMISSION AND DISTRIBUTION BK 290 PG 599

OWNER: CHAD IMARANVILLE
PARCEL ID: 1936000044

SEE SHEET C-15

SEE SHEET C-17

COUNTY ROAD 153

COUNTY ROAD 50

PROPOSED 24' WIDE COUNTY ROAD 153 IMPROVEMENT

PROPOSED 24' WIDE COUNTY ROAD 50 IMPROVEMENT

LWX-3L1, SEE DETAIL L1 ON SHEET C-45 LWX LENGTH = 130.0'

LWX-3L1-E, SEE DETAIL L1 ON SHEET C-45 LWX LENGTH = 300.0'

P-3L1-E 18" - CMP

ACCESS H

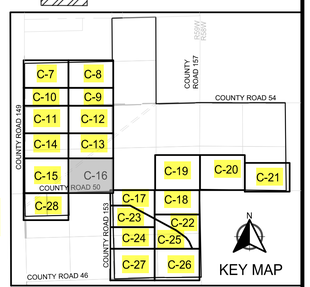
END 3L1 CL STA = 3139+99

ELEVATION TABLE

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1	-11.75	-6.0	
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4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
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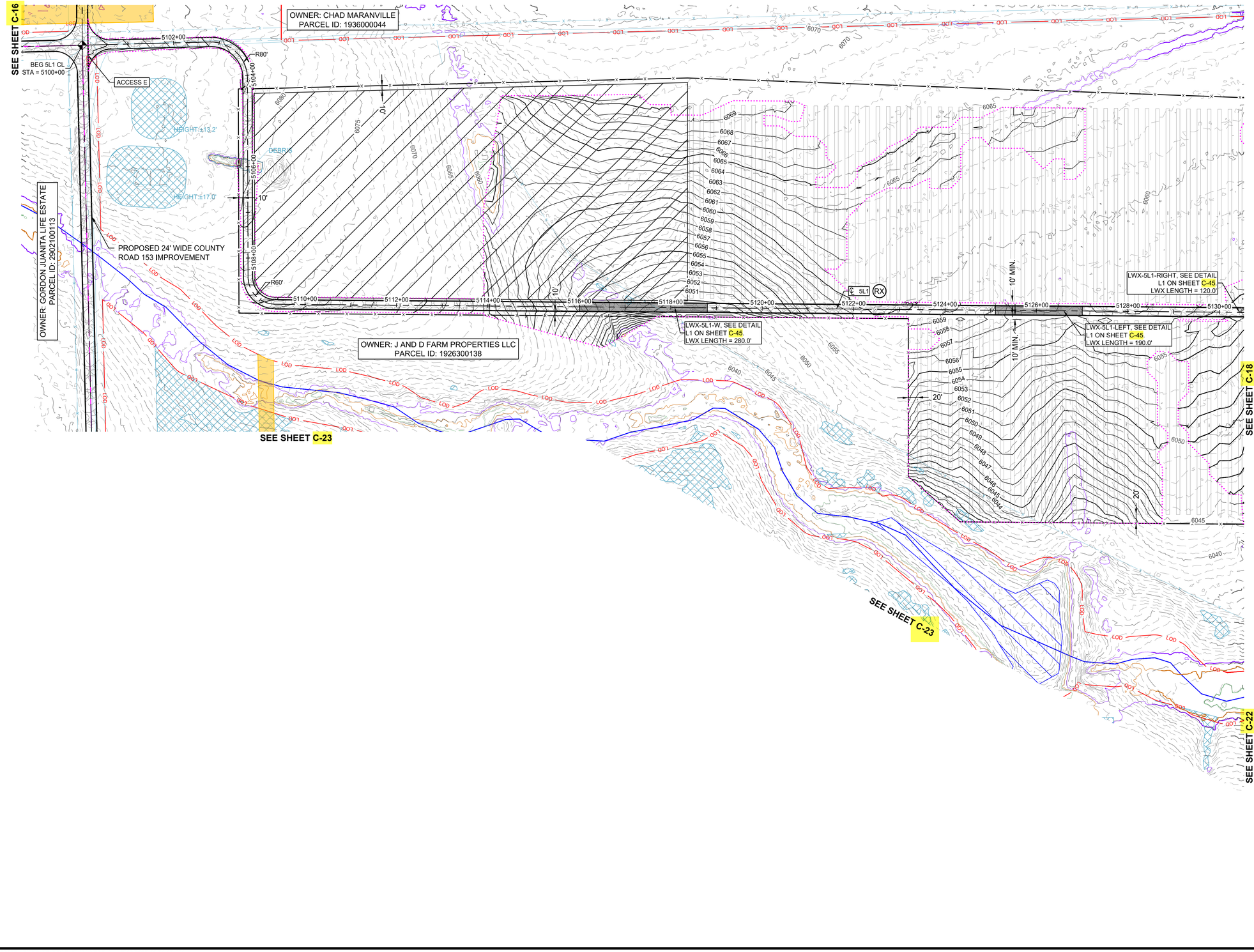
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SHEET NO.
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WSB PROJECT NO.
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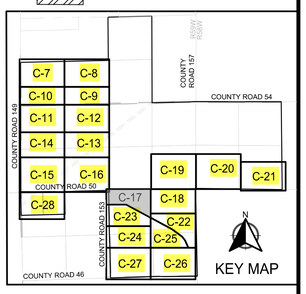


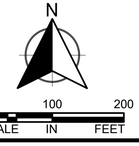
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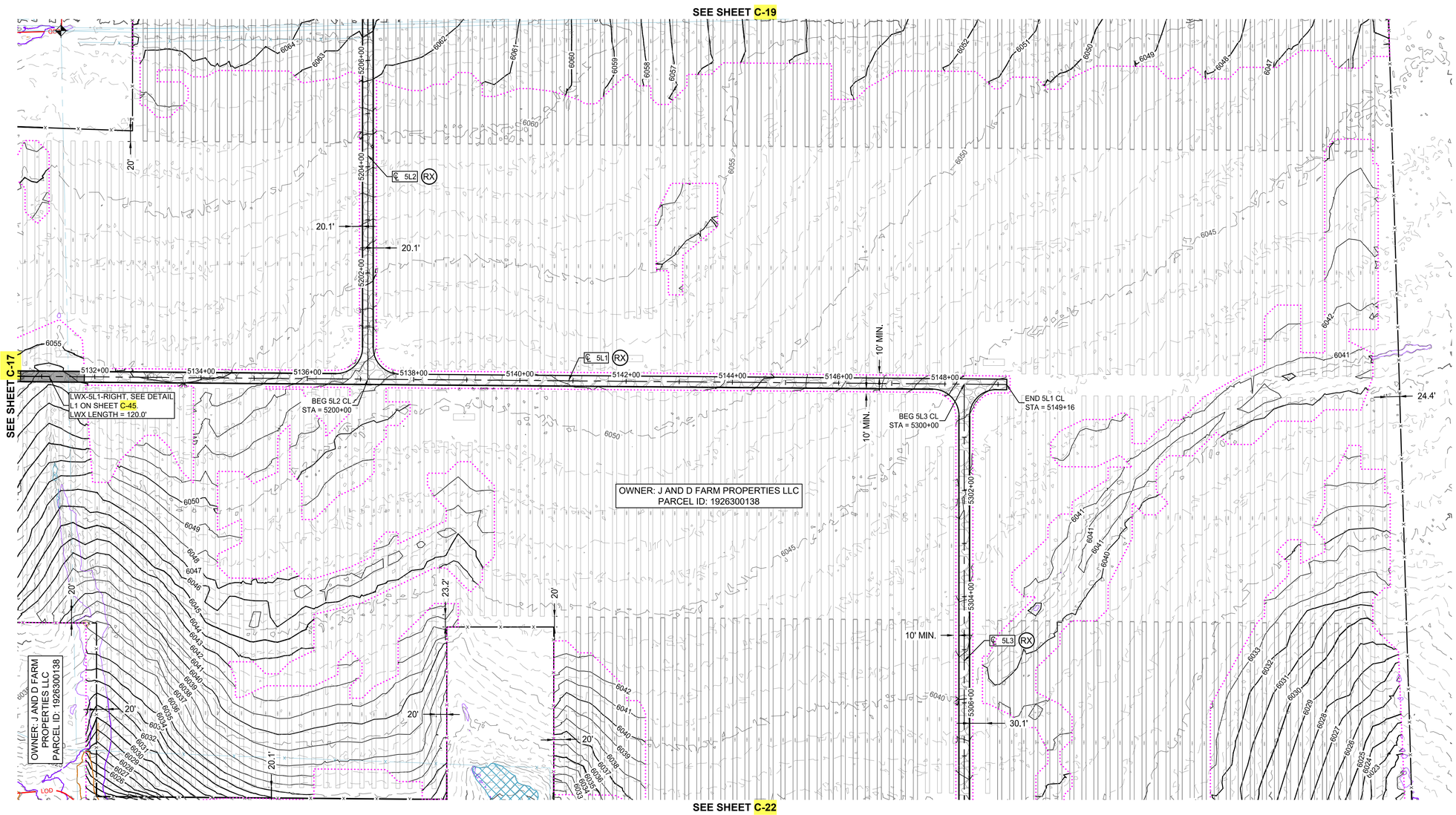
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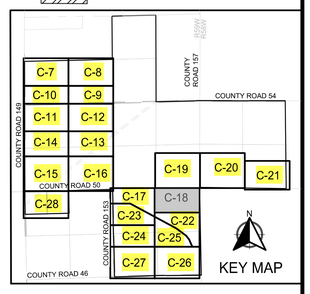


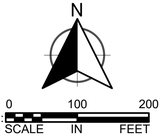
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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-18

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

OWNER: CHAD MARANVILLE
PARCEL ID: 1936000044

OWNER: CHAD MARANVILLE
PARCEL ID: 1936000044

SEE SHEET C-20

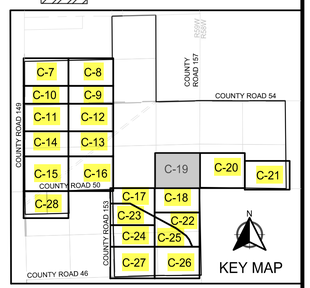
SEE SHEET C-18

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LIMITS OF DISTURBANCE
- CORRECTIVE GRADING LIMITS
- PROJECT BOUNDARY/ LEASE LIMIT
- INTERNAL PROPERTY LINES
- SECTION LINES
- NON-JURISDICTIONAL WATER COURSE
- JURISDICTIONAL WATER COURSE
- NON-JURISDICTIONAL WETLANDS
- EXISTING WETLANDS
- 1-FT INUNDATION
- 2-FT INUNDATION
- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED CULVERT
- FEMA SETBACK 30 FT
- PROPOSED GRAVEL ROAD
- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- TYPICAL PV ROAD DETAIL SEE SHEET C-2
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- MV ROUTING CORRIDOR
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



0 100 200
H: SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

SCALE:	DESIGN BY:
AS SHOWN	CMM
PLAN BY:	CHECK BY:
MEK	EAE

REVISIONS

NO.	DATE	DESCRIPTION
B	02/25/2026	REVISED PRELIMINARY DESIGN
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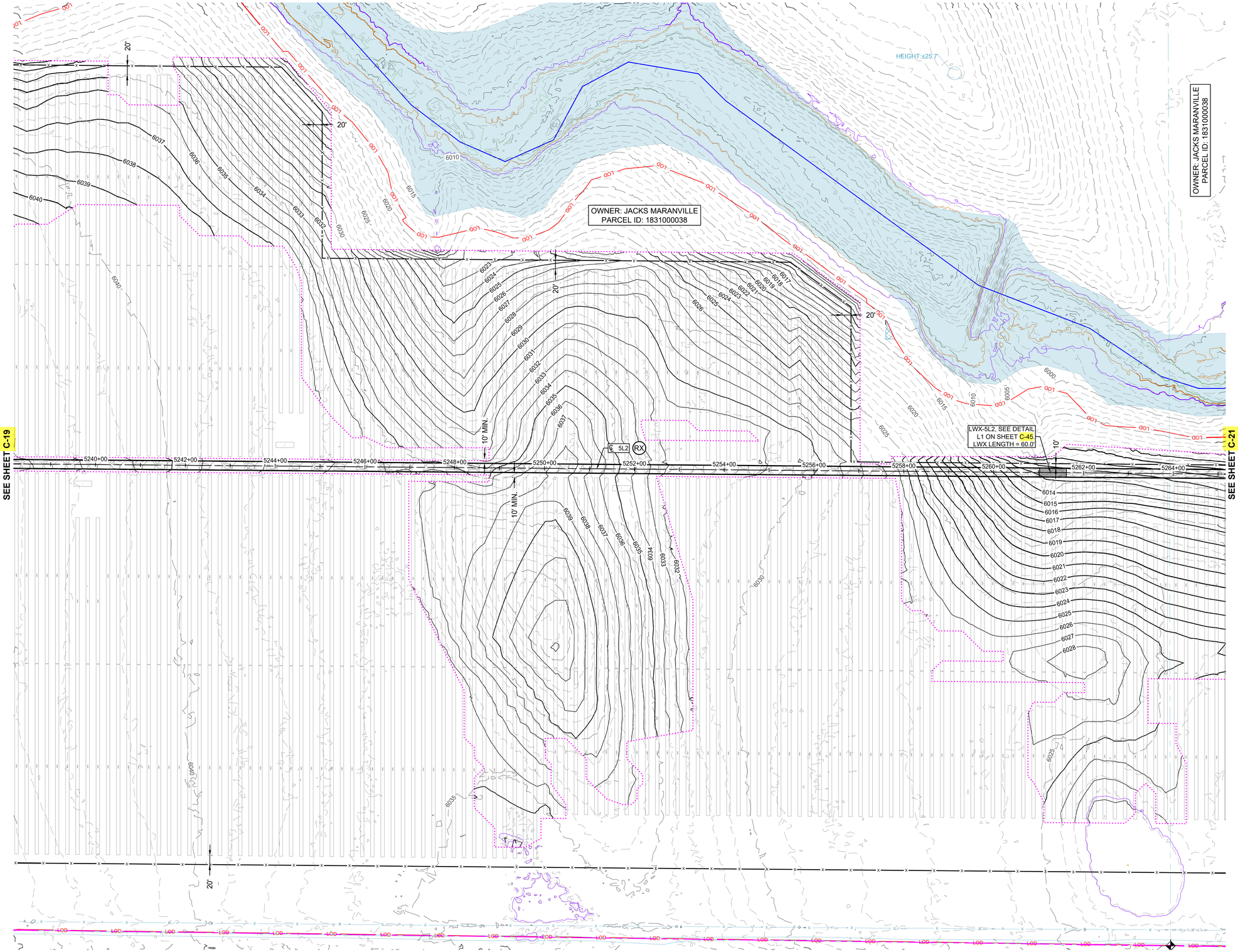
PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-19

WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F

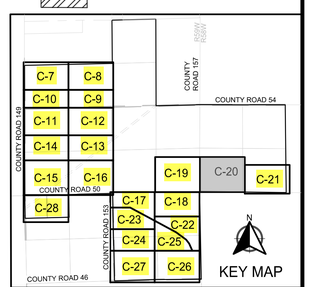


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RANGE	MIN	MAX	COLOR
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3	-5.0	-4.0	
4	-4.0	-3.0	
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7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
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13	5.0	6.0	
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GRADING PLAN LEGEND

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- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- R# OR RX TYPICAL PV ROAD DETAIL SEE SHEET C-2
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- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



N

0 100 200
H: SCALE IN FEET

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SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-20

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

OWNER: JACKS MARANVILLE
PARCEL ID: 1831000038

END 5HH2 CL
STA = 520+90

BEG 5HH2 CL
STA = 520+00

END 5L2 CL
STA = 5267+43

5266+00

℄ 5HH2

℄ 5L2

RX

10'

43.9'

20'

23.9'

LOD

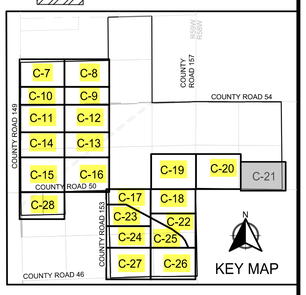
SEE SHEET C-20

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
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13	5.0	6.0	
14	6.0	10.5	

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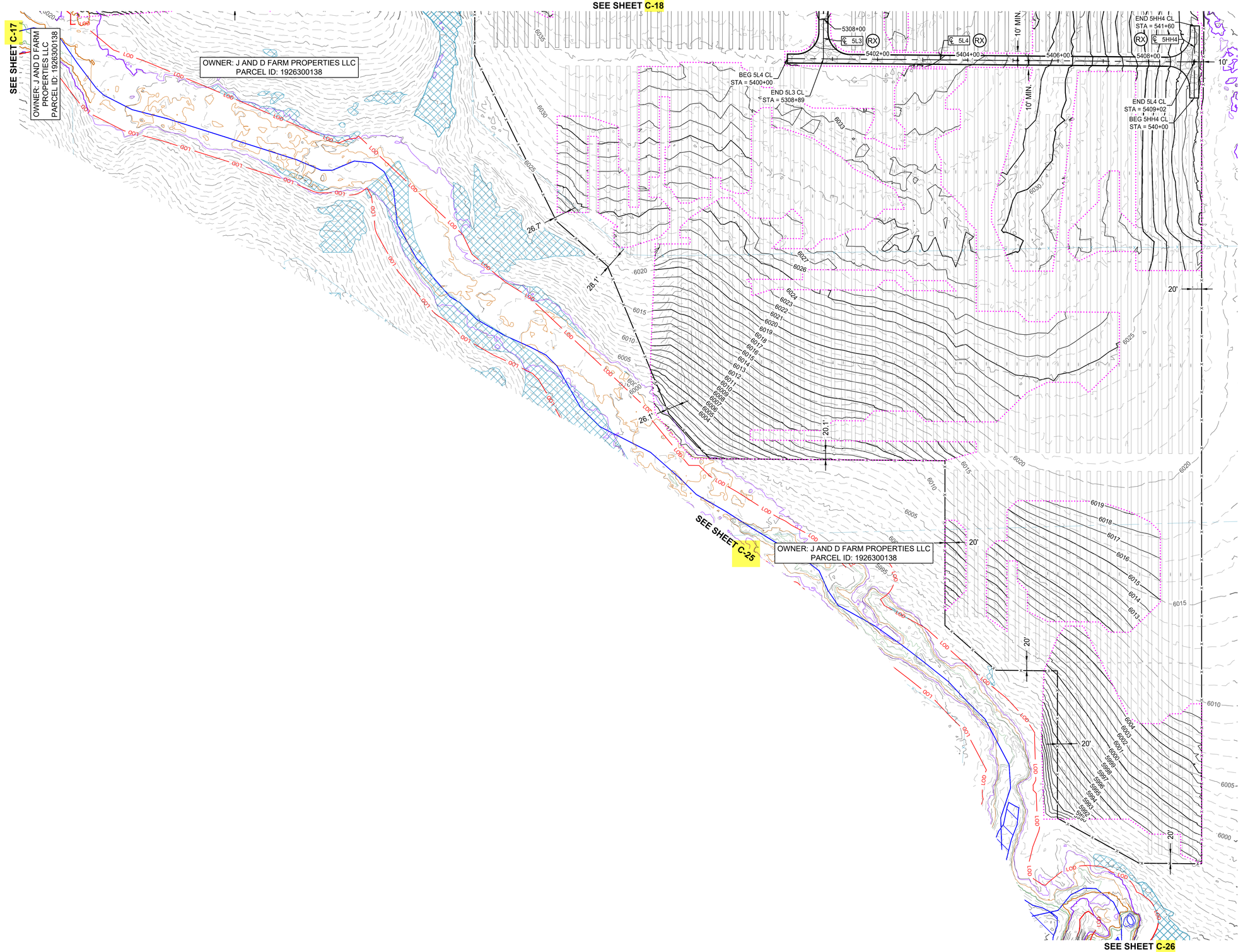
PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-21

WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F

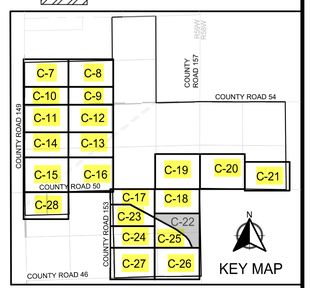


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RANGE	MIN	MAX	COLOR
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2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

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- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
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N

0 100 200
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SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-22

WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F

SEE SHEET C-17

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

PROPOSED 24' WIDE COUNTY ROAD 50 IMPROVEMENT

OWNER: GORDON JUANITA LIFE ESTATE
PARCEL ID: 2902100113

COUNTY ROAD 153 - 60' R.O.W.

COUNTY ROAD 153

SEE SHEET C-17

SEE SHEET C-25

SEE SHEET C-24

20'

20.1'

23.1'

30.6'

28.4'

31.9'

LOD

6045 6050 6055 6060 6065 6070 6080 6085

6061 6062 6063 6064 6065 6066 6067 6068 6069

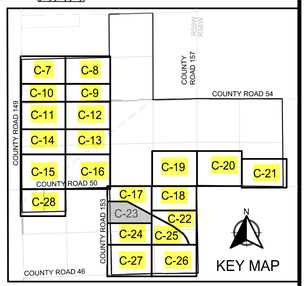
6071 6072 6073 6074 6075 6076 6077 6078 6079

ELEVATION TABLE

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1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

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N

0 100 200
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SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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PLAN BY:	CHECK BY:
MEK	EAE

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PRELIMINARY GRADING AND SITE PLAN

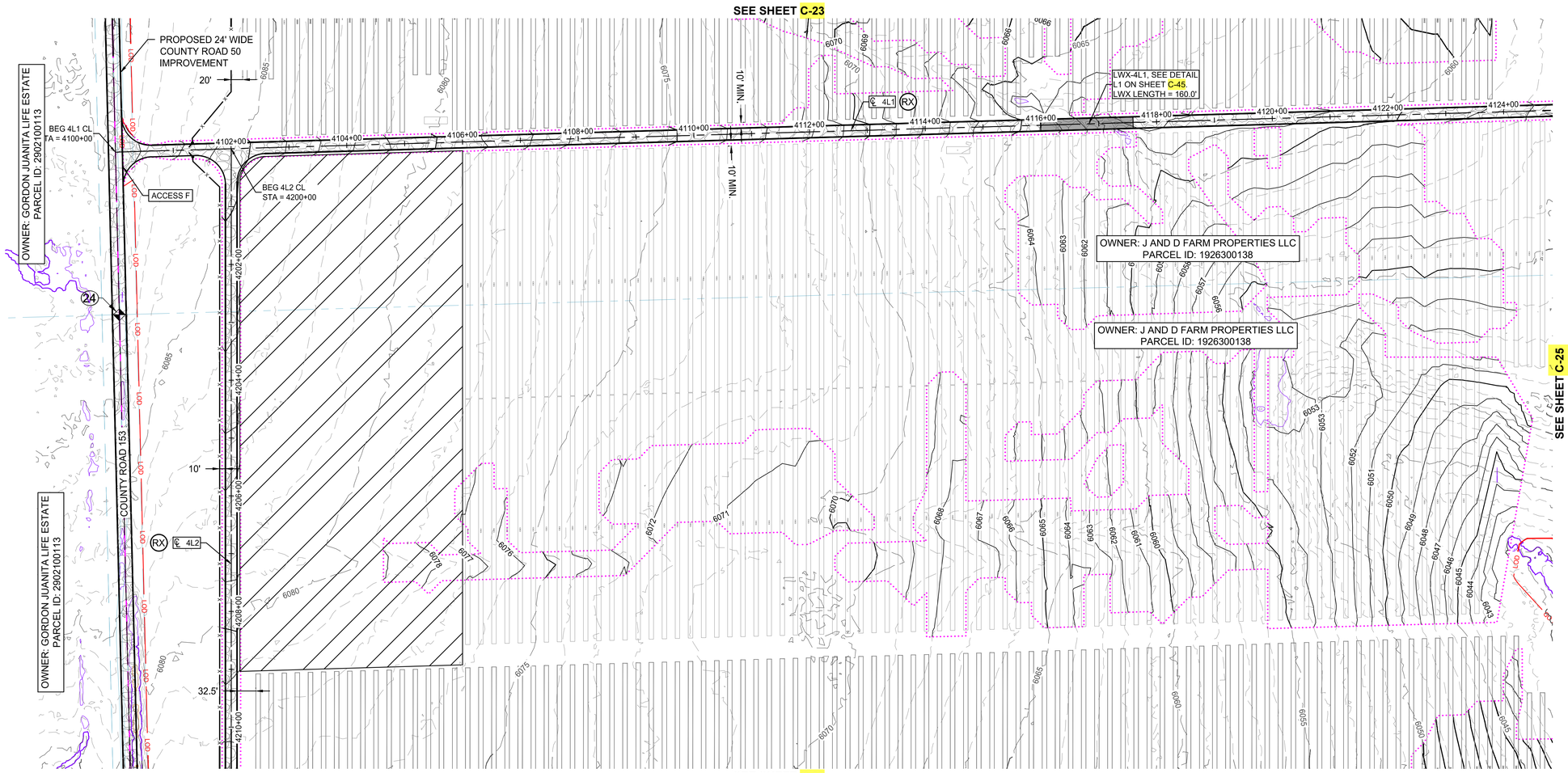
SHEPHERD SOLAR

SHEET NO.
C-23

WSB PROJECT NO.
032487

DATE
04/23/2026

REV.
E

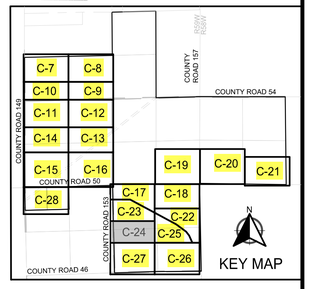


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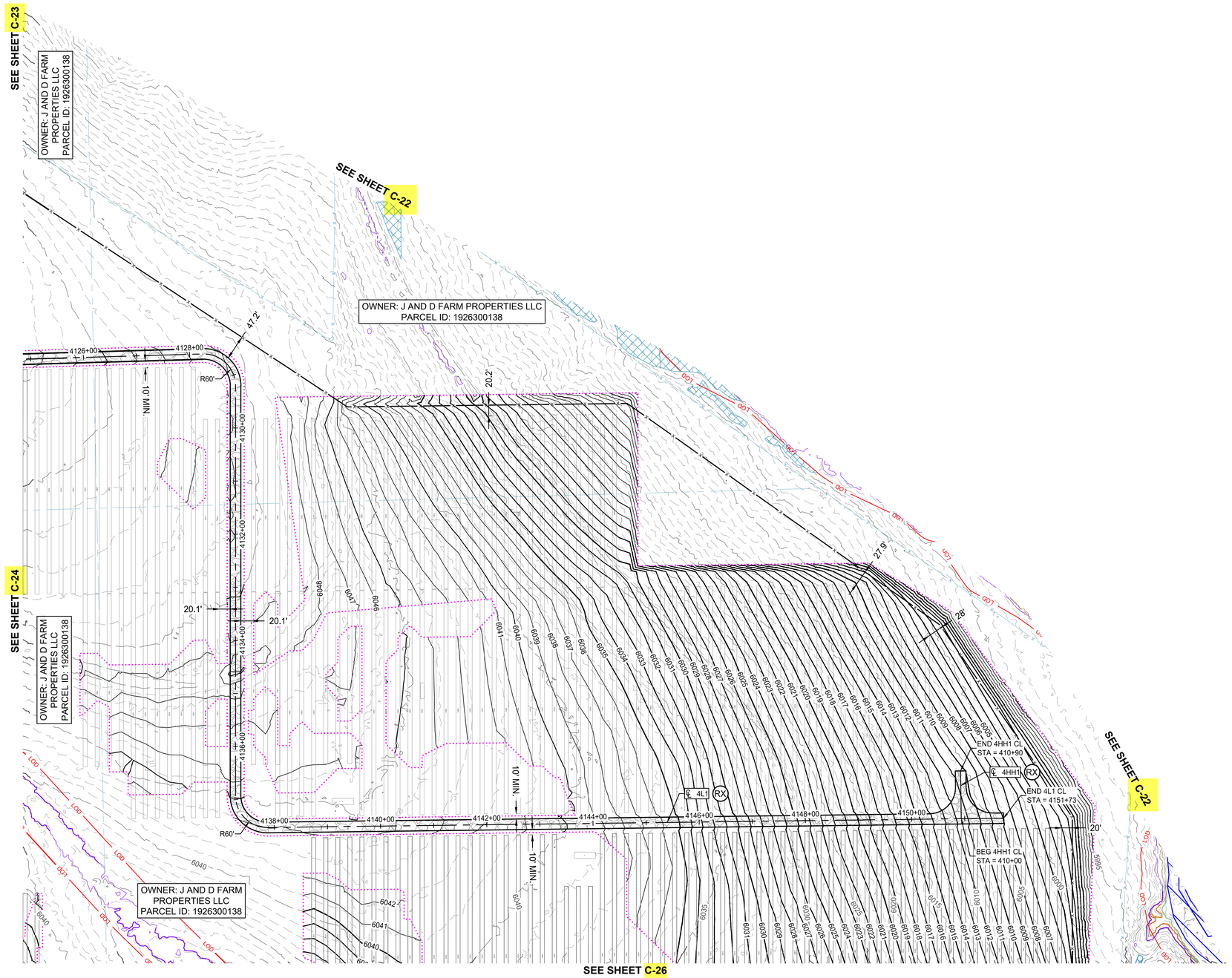
PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-24

WSB PROJECT NO.
032487

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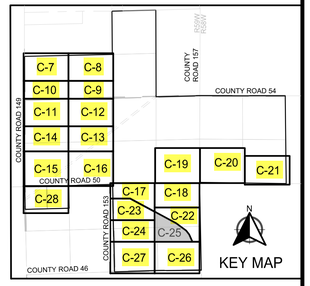


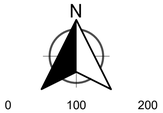
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SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

SCALE:	DESIGN BY:
AS SHOWN	CMM
PLAN BY:	CHECK BY:
MEK	EAE

REVISIONS

NO.	DATE	DESCRIPTION
B	02/25/2026	REVISED PRELIMINARY DESIGN
C	03/05/2026	REVISED PRELIMINARY DESIGN
D	03/11/2026	REVISED PRELIMINARY DESIGN
E	04/23/2026	REVISED PRELIMINARY DESIGN
F	07/16/2026	REVISED PRELIMINARY DESIGN

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EARTH A. EVANS,
P.E. #0053515
ON 07/16/2026

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PRELIMINARY GRADING AND SITE PLAN

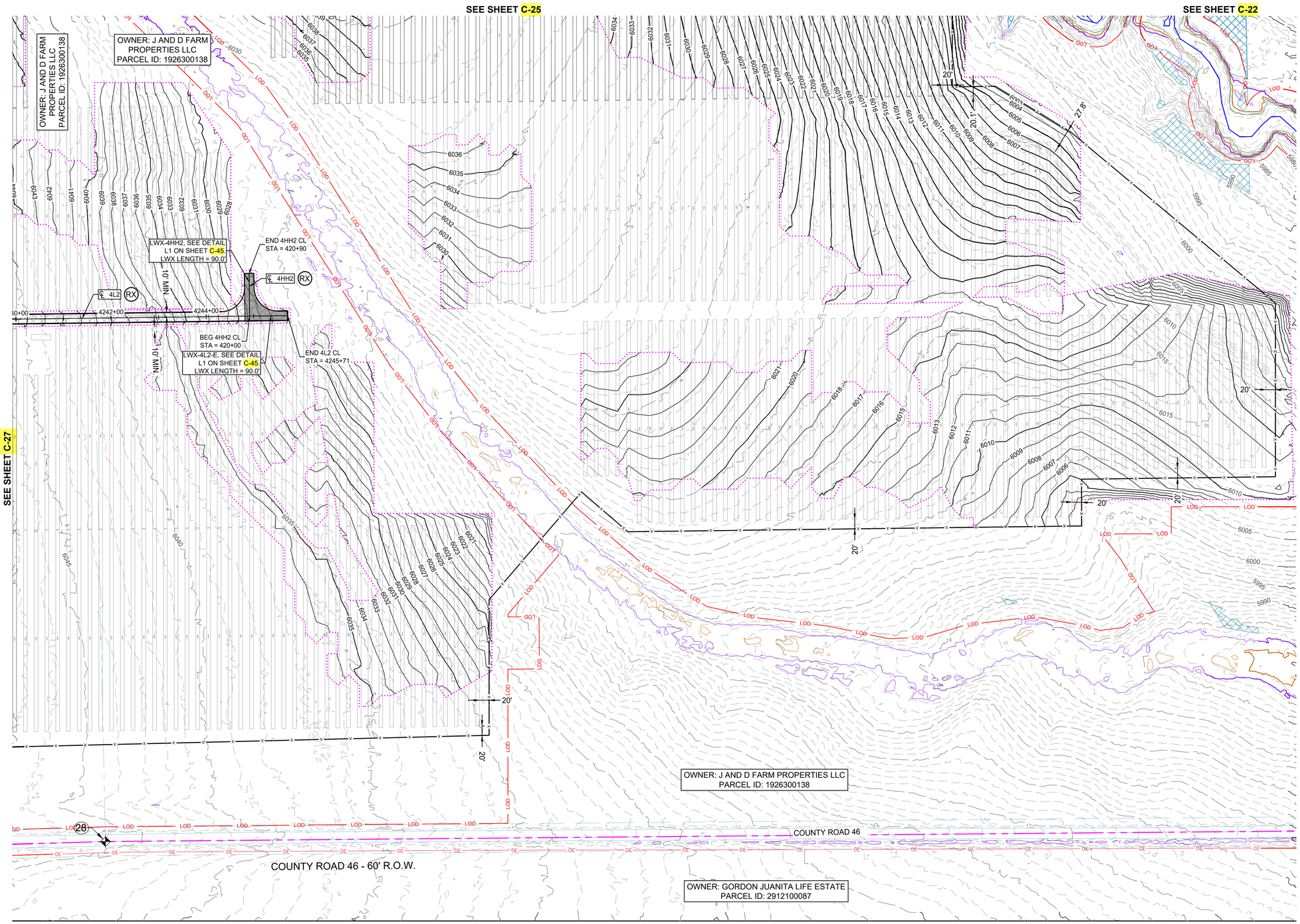
SHEPHERD SOLAR

SHEET NO.
C-25

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

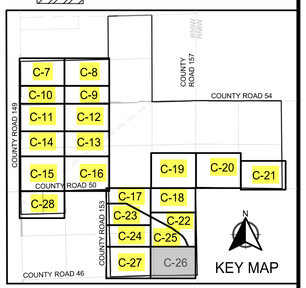


ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LIMITS OF DISTURBANCE
- CORRECTIVE GRADING LIMITS
- PROJECT BOUNDARY/ LEASE LIMIT
- INTERNAL PROPERTY LINES
- SECTION LINES
- NON-JURISDICTIONAL WATER COURSE
- JURISDICTIONAL WATER COURSE
- NON-JURISDICTIONAL WETLANDS
- EXISTING WETLANDS
- 1-FT INUNDATION
- 2-FT INUNDATION
- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED CULVERT
- FEMA SETBACK 30 FT
- PROPOSED GRAVEL ROAD
- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- TYPICAL PV ROAD DETAIL SEE SHEET C-2
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- MV ROUTING CORRIDOR
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



N

0 100 200
H: SCALE IN FEET

SHEPHERD SOLAR

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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-26

WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F

SEE SHEET C-24

OWNER: GORDON JUANITA LIFE ESTATE
PARCEL ID: 2902100113

COUNTY ROAD 153 - 60' R.O.W.

OWNER: BATE ALMON PAUL
PARCEL ID: 2902100113

ACCESS J

P-4L3
18" - CMP

BEG 4L3 CL
STA = 4300+00

END 4L3 CL
STA = 4301+98

10' MIN.

10'

℄ 4L2 RX

℄ 4L3 RX

R60'

R50'

32.8'

20.7'

21.3'

24.1'

PROPOSED 24' WIDE COUNTY ROAD 50 IMPROVEMENT

CULVERT BURIED

INVERT: 42"

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

COUNTY ROAD 46

CULVERT (CMP)
INVERT: BURIED

INVERT: BURIED

OWNER: GORDON JUANITA LIFE ESTATE
PARCEL ID: 2912100087

BEG 4L4 CL
STA = 4400+00

20.1'

℄ 4L4 RX

ACCESS K

END 4L4 CL
STA = 4411+05

COUNTY ROAD 46 - 60' R.O.W.

27.8'

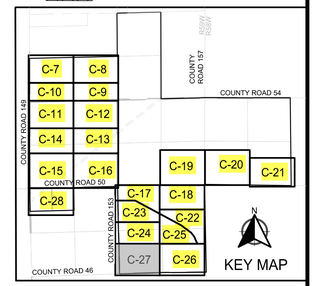
SEE SHEET C-26

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LOD — LIMITS OF DISTURBANCE
- CORRECTIVE GRADING LIMITS
- PROJECT BOUNDARY/ LEASE LIMIT
- INTERNAL PROPERTY LINES
- SECTION LINES
- NON-JURISDICTIONAL WATER COURSE
- JURISDICTIONAL WATER COURSE
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- EXISTING WETLANDS
- 1-FT INUNDATION
- 2-FT INUNDATION
- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED CULVERT
- FEMA SETBACK 30 FT
- PROPOSED GRAVEL ROAD
- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- RX OR RX — TYPICAL PV ROAD DETAIL SEE SHEET C-2
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- MV ROUTING CORRIDOR
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



N

0 100 200
H: SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
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(763) 541-4800
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PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-27

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

SEE SHEET C-15

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: BROWN ROBERT WAYNE
PARCEL ID: 2902300002

100' EASEMENT AND R.O.W. - TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC. FOR TRANSMISSION AND DISTRIBUTION BK 290 PG 599

ACCESS SY

ACCESS UTIL YARD

P-SY ACCESS
18" - CMP

P-SY-BASIN
36" - CMP

P-BESS-BASIN
36" - CMP

CULVERT (CMP)

INVERT: 54"

SWITCHYARD
15 ACRES

SUBSTATION
1.3 ACRES

LOT NO. 4

LOT NO. 3

WATER TANK

O&M BUILDING
1.7 ACRES

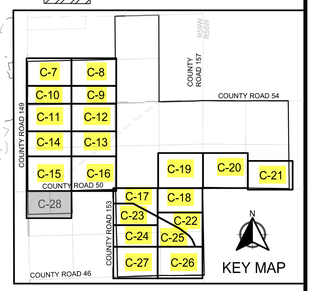
BESS
2.6 ACRES

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
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- MV ROUTING CORRIDOR
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



N

0 100 200
H: SCALE IN FEET

ACC- 032487 - SHEP-CP-GRAD-PLAN-UTIL.dwg 7/16/2026 10:32:04 AM

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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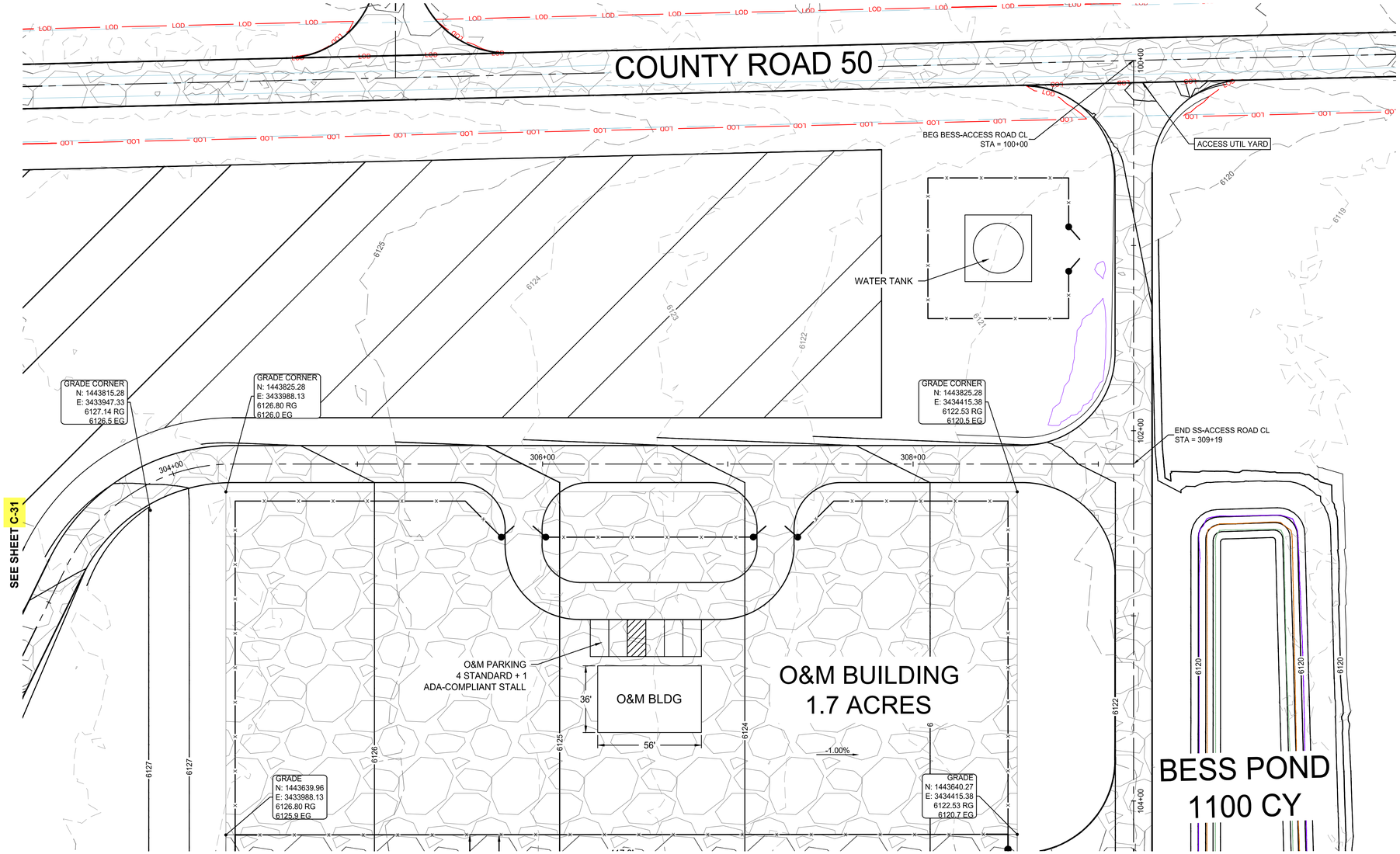
PRELIMINARY GRADING AND SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-28

WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F

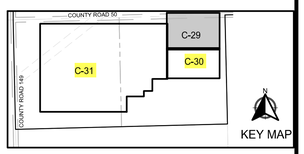


ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
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- POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA



N

0 30 60
H: SCALE IN FEET

SHEPHERD SOLAR

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PRELIMINARY O&M GRADING AND SITE PLAN

SHEPHERD SOLAR

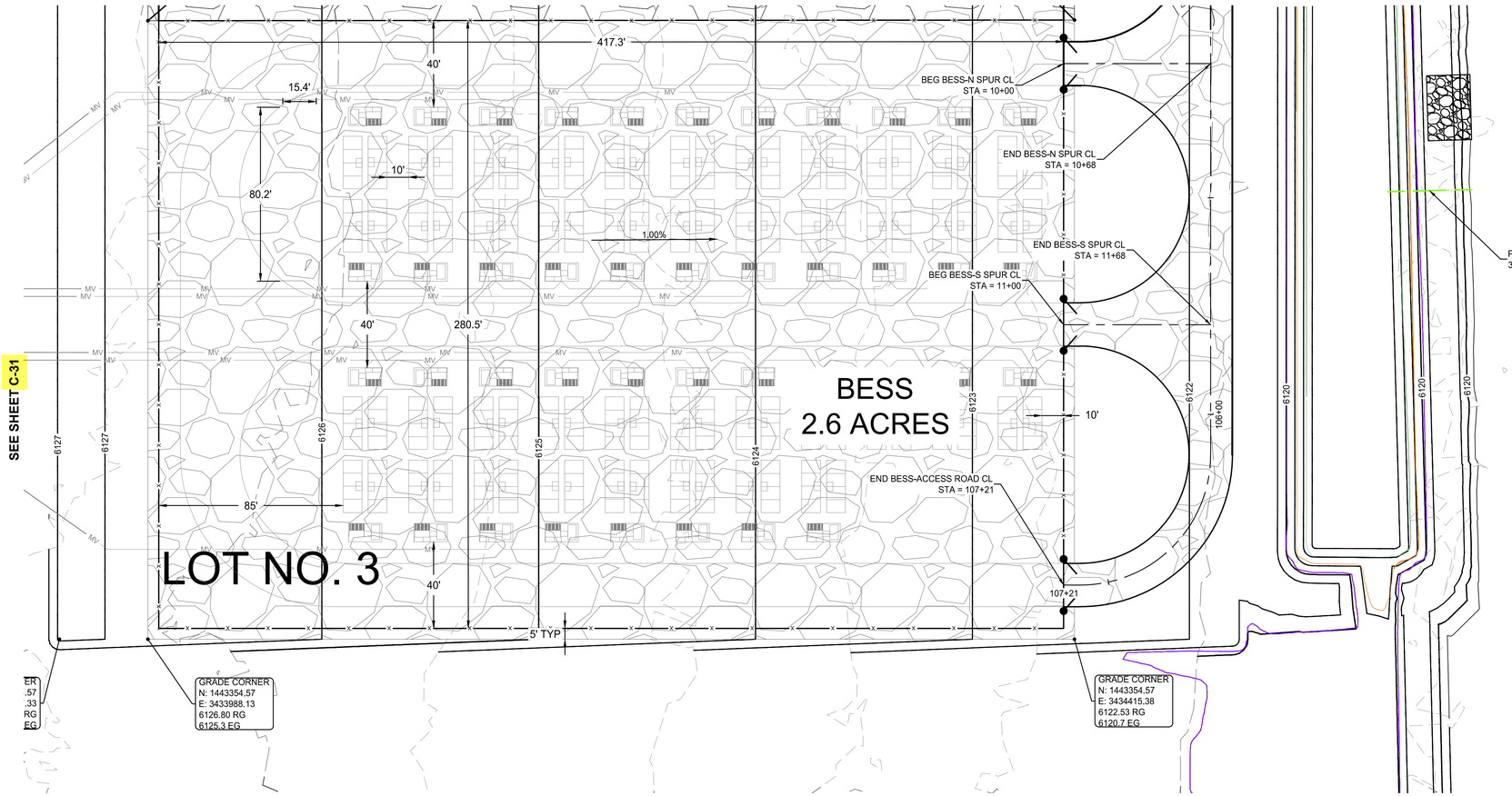
SHEET NO.
C-29

WSB PROJECT NO.
032487

DATE	REV.
07/16/2026	F

SEE SHEET C-29

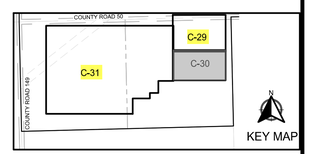
SEE SHEET C-31

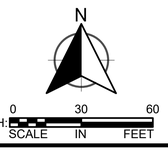


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1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
8	0.17	1.0	
9	1.0	2.0	
10	2.0	3.0	
11	3.0	4.0	
12	4.0	5.0	
13	5.0	6.0	
14	6.0	10.5	

GRADING PLAN LEGEND

- EXISTING MAJOR CONTOUR
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PRELIMINARY BESS GRADING & SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-30

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

SHEPHERD SOLAR

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PRELIMINARY UTILITY PADS GRADING & SITE PLAN

SHEPHERD SOLAR

SHEET NO.
C-31

WSB PROJECT NO.
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07/16/2026

REV.
F

SEE SHEET C-29

SEE SHEET C-30

GRADE CORNER
N: 1443883.95
E: 3433147.18
6134.32 RG
6133.9 EG

GRADE CORNER
N: 1443815.28
E: 3433947.33
6127.14 RG
6126.5 EG

GRADE CORNER
N: 1443610.19
E: 3433362.03
6134.33 RG
6131.4 EG

GRADE CORNER
N: 1443594.88
E: 3433662.89
6131.40 RG
6128.6 EG

GRADE CORNER
N: 1443479.56
E: 3432631.92
6124.50 RG
6118.2 EG

GRADE CORNER
N: 1443444.51
E: 3433475.84
6131.40 RG
6129.6 EG

GRADE CORNER
N: 1443407.83
E: 3433813.27
6129.00 RG
6127.6 EG

GRADE CORNER
N: 1443354.57
E: 3433947.33
6127.21 RG
6125.6 EG

GRADE CORNER
N: 1443257.46
E: 3433626.22
6129.00 RG
6128.4 EG

GRADE CORNER
N: 1443205.80
E: 3432846.76
6124.44 RG
6115.3 EG

BEG SS-SPUR CL
STA = 30+00

BEG SS-ACCESS ROAD CL
STA = 300+00

END SS-SPUR CL
STA = 31+99

BEG SY-N SPUR CL
STA = 20+00

END SY-N SPUR CL
STA = 20+90

BEG SY-C SPUR CL
STA = 21+00

END SY-C SPUR CL
STA = 21+90

BEG SY-S SPUR CL
STA = 22+00

END SY-S SPUR CL
STA = 22+90

BEG SY-ACCESS ROAD CL
STA = 200+00

SWITCHYARD
15 ACRES

SUBSTATION
1.3 ACRES

LOT NO. 4

P-SY-BASIN
36" - CMP

645.0'

338.0'

80.0'

4.5%

ELEVATION TABLE

RANGE	MIN	MAX	COLOR
1	-11.75	-6.0	
2	-6.0	-5.0	
3	-5.0	-4.0	
4	-4.0	-3.0	
5	-3.0	-2.0	
6	-2.0	-1.0	
7	-1.0	-0.17	
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9	1.0	2.0	
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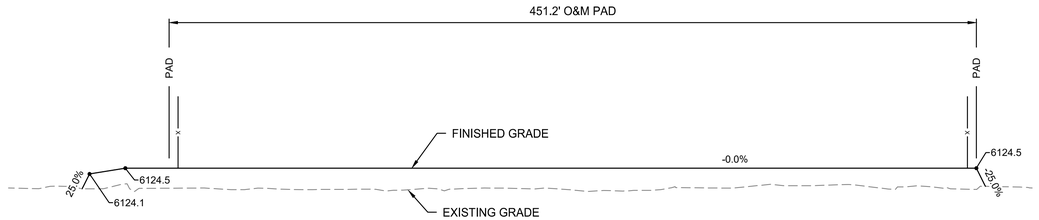


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- JURISDICTIONAL WATER COURSE
- NON-JURISDICTIONAL WETLANDS
- EXISTING WETLANDS
- 1-FT INUNDATION
- 2-FT INUNDATION
- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED CULVERT
- FEMA SETBACK 30 FT
- PROPOSED GRAVEL ROAD
- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- TYPICAL PV ROAD DETAIL SEE SHEET C-2
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- MV ROUTING CORRIDOR
- SOLAR PANEL POWER BLOCK
- INVERTER SKID PAD
- STAGING AREA

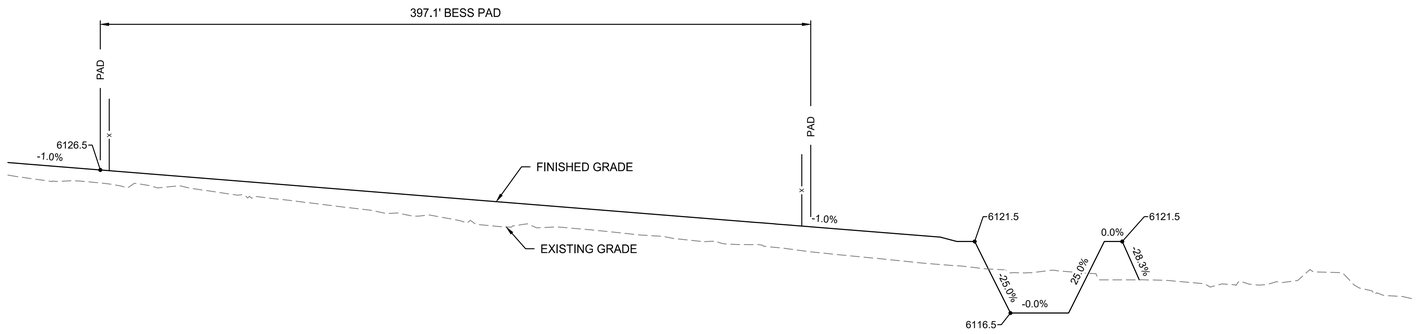
N

0 50 100
SCALE IN FEET



P1 O&M GRADING SECTION A-A

SEE SHEET C-28



P2 BESS GRADING SECTION B-B

SEE SHEET C-28

0 40 80
H: SCALE IN FEET

0 5 10
V: SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

SCALE:	DESIGN BY:
AS SHOWN	CMM
PLAN BY:	CHECK BY:
MEK	EAE

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NO.	DATE	DESCRIPTION
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D	03/11/2026	REVISED PRELIMINARY DESIGN
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ON 07/16/2026

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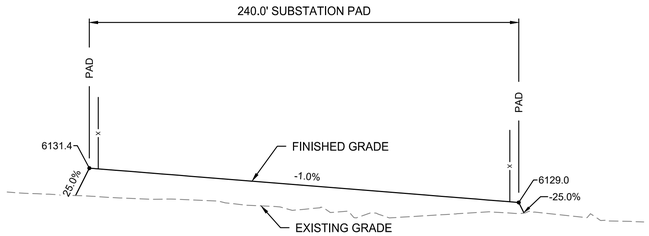
CROSS SECTIONS - O&M AND BESS

SHEPHERD SOLAR

SHEET NO.
C-32

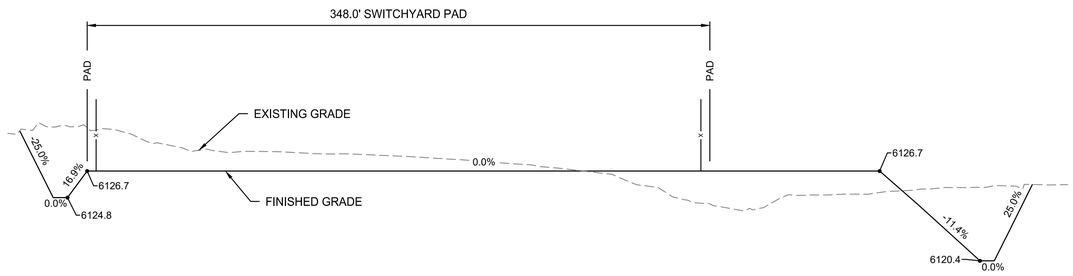
WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F



P3 SUBSTATION GRADING SECTION C-C

SEE SHEET C-28



P4 SWITCHYARD GRADING SECTION D-D

SEE SHEET C-28

SHEPHERD SOLAR

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dba: WSB Design and Consulting LLC
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MINNEAPOLIS, MN 55416
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CROSS SECTIONS - SUBSTATION AND SWITCHYARD

SHEPHERD SOLAR

H: 0 40 80 SCALE IN FEET

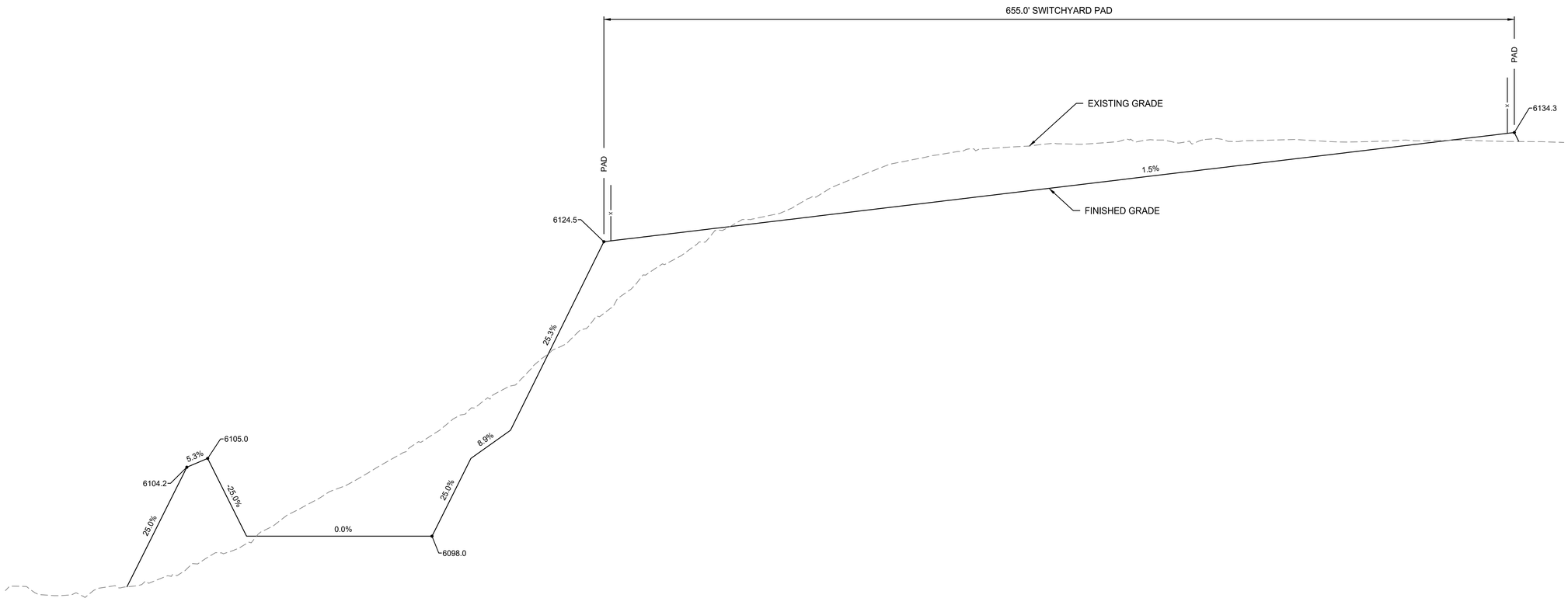
V: 0 5 10 SCALE IN FEET

SHEET NO.
C-33

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F



P-5 SWITCHYARD GRADING SECTION E-E

SEE SHEET C-28

H: 0 40 80 SCALE IN FEET

V: 0 5 10 SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
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SCALE:	DESIGN BY:
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CROSS SECTIONS - SWITCHYARD

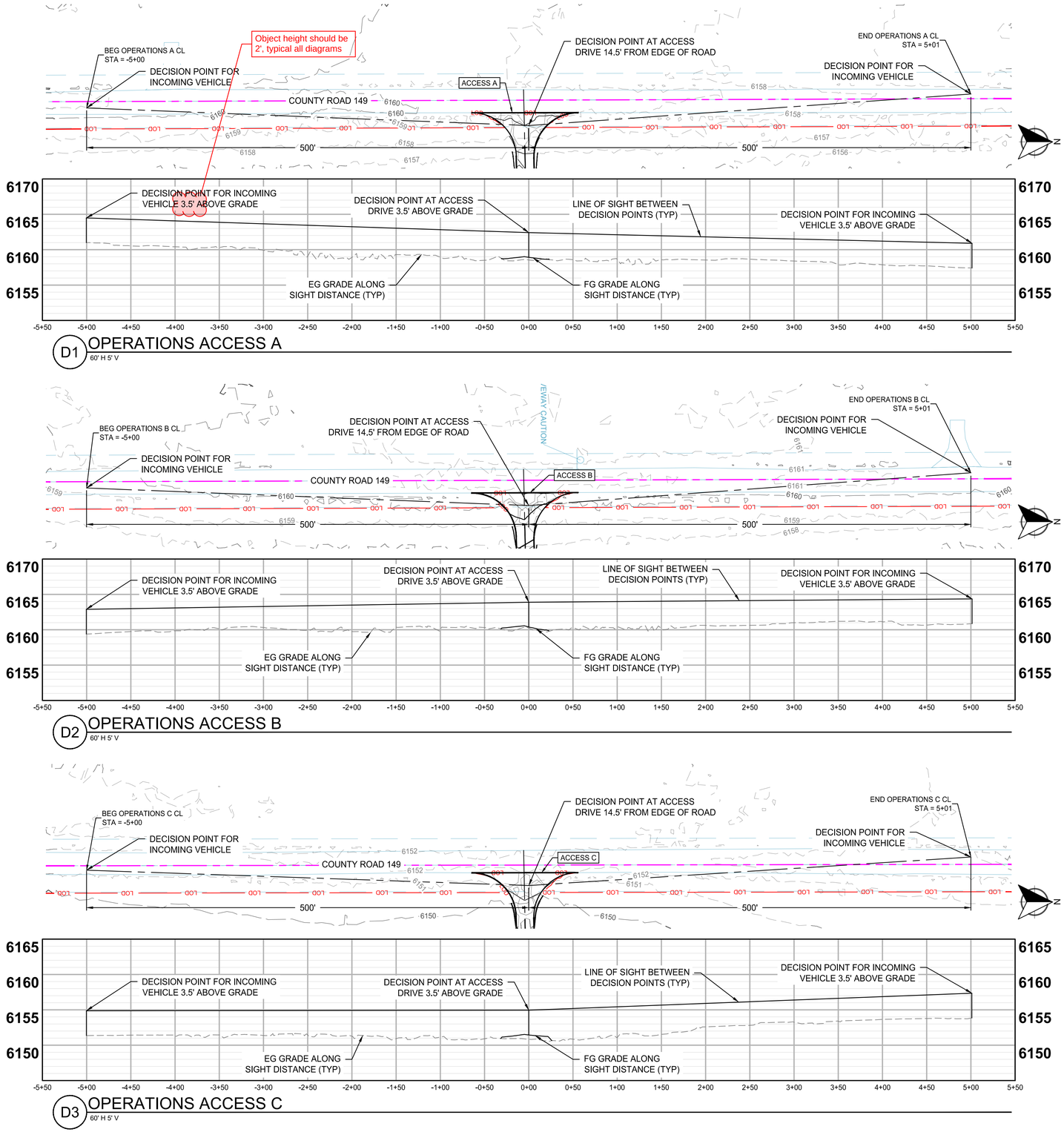
SHEPHERD SOLAR

SHEET NO.
C-34

WSB PROJECT NO.
032487

DATE
04/23/2026

REV.
E



ACCESS IDENTIFIER	INTERSECTING ROAD	PUBLIC ROAD	PUBLIC ROAD DESIGN SPEED (MPH)	SIGHT DISTANCE (FT)
A	1L1	CR 149	45	500
B	1L1	CR 149	45	500
C	2L1	CR 149	45	500
D	3L1	CR 50	35	390
E	5L1	CR 153	35	390
F	4L1	CR 153	35	390

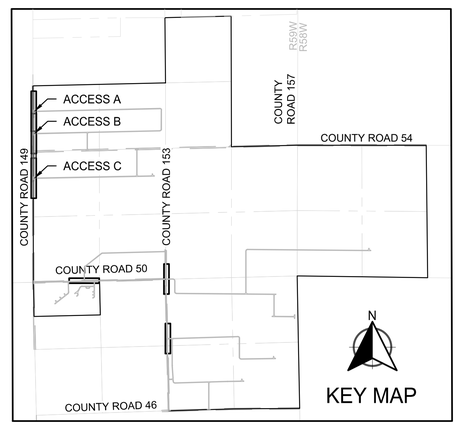
Sight distance diagrams need to account for vehicles making a left or right turn from the Access decision point viewing smaller objects at the AASHTO Green Book recommended height of 2'.

Use grade adjustment factors where required, such as on Access E since the grade is over 3%

H: 0 60 120 SCALE IN FEET

V: 0 5 10 SCALE IN FEET

NOTES:
1. ALL EXISTING ROAD LOCATIONS SHOWN ARE APPROXIMATE.
2. EXACT PROPOSED INTERIOR ACCESS ROAD LOCATIONS ARE REPRESENTATIVE, AND TO BE FINALIZED PRIOR TO CONSTRUCTION.
3. SIGHT DISTANCES WERE CALCULATED ASSUMING A STOP CONTROLLED MOVEMENT AT THE ACCESS DRIVES.
4. SIGHT DISTANCES ARE PER AASHTO CASE B1, BASED ON A PASSENGER CAR AND ASSOCIATED DESIGN SPEEDS.



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MEK	EAE

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SIGHT DISTANCE INTERSECTION ANALYSIS

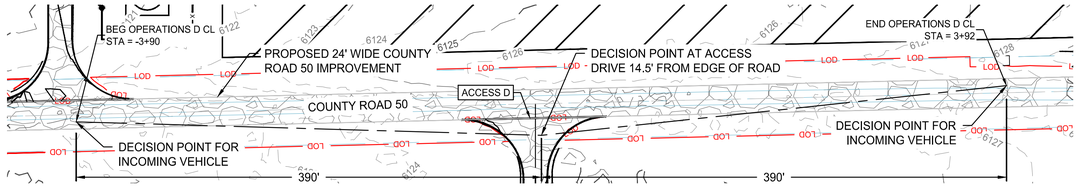
SHEPHERD SOLAR

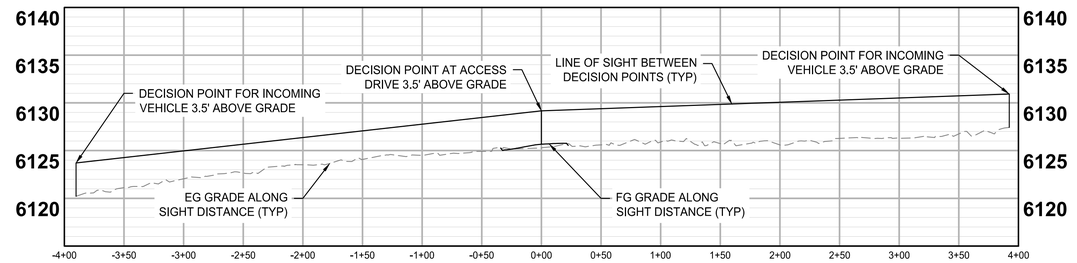
SHEET NO. C-35

WSB PROJECT NO. 032487

DATE 04/23/2026 REV. E

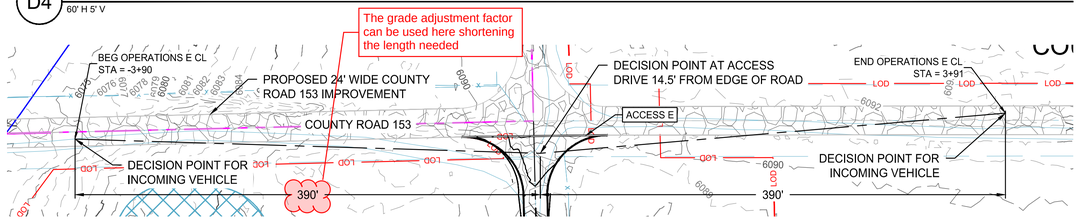
ACCESS IDENTIFIER	INTERSECTING ROAD	PUBLIC ROAD	PUBLIC ROAD DESIGN SPEED (MPH)	SIGHT DISTANCE (FT)
A	1L1	CR 149	45	500
B	1L1	CR 149	45	500
C	2L1	CR 149	45	500
D	3L1	CR 50	35	390
E	5L1	CR 153	35	390
F	4L1	CR 153	35	390

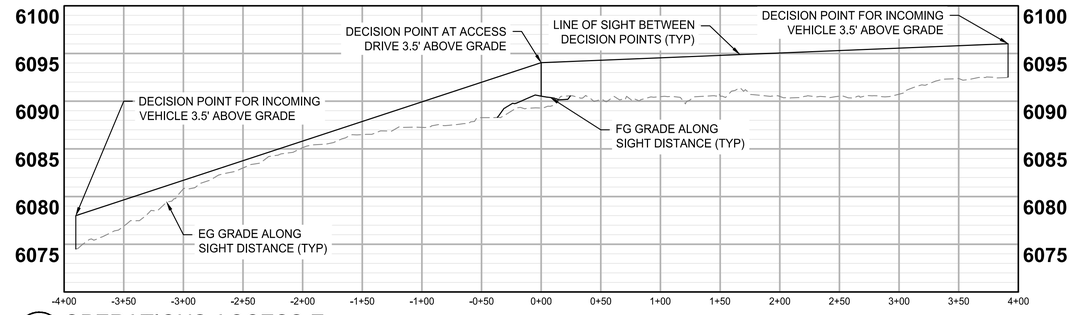




D4 OPERATIONS ACCESS D

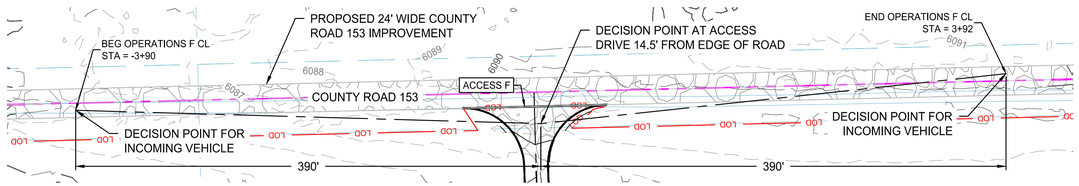
60' H 5' V

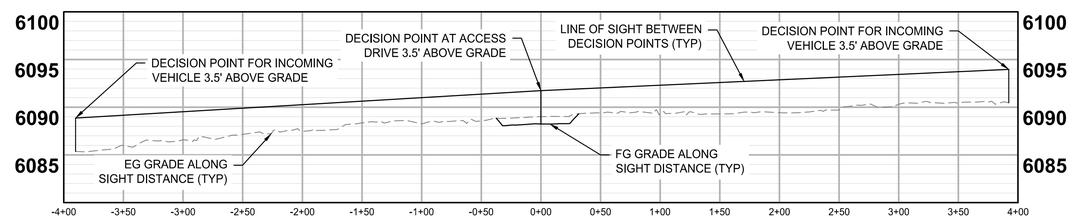




D5 OPERATIONS ACCESS E

60' H 5' V





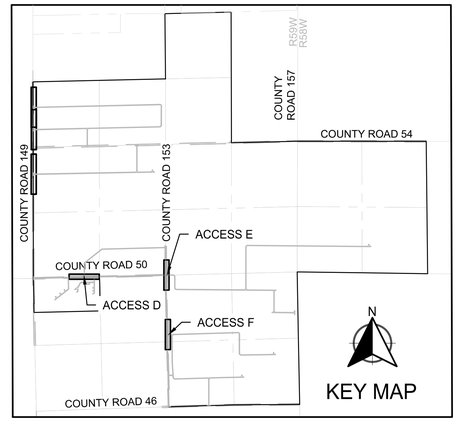
D6 OPERATIONS ACCESS F

60' H 5' V

0 60 120
H: SCALE IN FEET
0 5 10
V: SCALE IN FEET

NOTES:

1. ALL EXISTING ROAD LOCATIONS SHOWN ARE APPROXIMATE.
2. EXACT PROPOSED INTERIOR ACCESS ROAD LOCATIONS ARE REPRESENTATIVE, AND TO BE FINALIZED PRIOR TO CONSTRUCTION.
3. SIGHT DISTANCES WERE CALCULATED ASSUMING A STOP CONTROLLED MOVEMENT AT THE ACCESS DRIVES.
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SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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PLAN BY:	CHECK BY:
MEK	EAE

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P.E. #0053515
ON 07/16/2026

AND IS NOT FOR CONSTRUCTION.

SIGHT DISTANCE INTERSECTION ANALYSIS

SHEPHERD SOLAR

SHEET NO.
C-36

WSB PROJECT NO.
032487

DATE
04/23/2026

REV.
E

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: MARANVILLE LLC
PARCEL ID: 1934100120

COUNTY ROAD 54

COUNTY ROAD 149

COUNTY ROAD 153

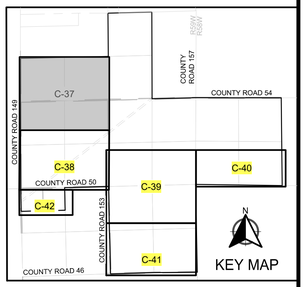
DRIVEWAY CROSSOVER

SEE SHEET ####

ADDITIONAL EROSION CONTROL BMP MEASURES MAY BE REQUIRED. CONTRACTOR'S SWPPP SITE MANAGER SHALL CONTINUALLY MONITOR SITE AND ADD ADDITIONAL BMPs AS DEEMED NECESSARY AND MAINTAIN A RECORD. MODIFICATIONS TO EROSION CONTROL PLAN SHEETS DO NOT REQUIRE RE-ISSUANCE BY EOR FOR SUCH ADDITIONS TO THE PLAN.

ESC PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROJECT BOUNDARY/ LEASE LIMIT
- NON-JURISDICTIONAL WATER COURSE
- JURISDICTIONAL WATER COURSE
- PROPOSED CULVERT
- NON-JURISDICTIONAL WETLANDS
- EXISTING WETLANDS
- 1-FT INUNDATION
- 2-FT INUNDATION
- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED GRAVEL ROAD
- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- SOLAR PANEL POWER BLOCK
- STAGING AREA
- EXISTING DRAINAGE DIRECTION
- PROPOSED DRAINAGE DIRECTION
- EROSION CONTROL BLANKET
- SEEDING HATCH
- CORRECTIVE GRADING LIMITS
- LIMITS OF DISTURBANCE
- CONSTRUCTION ENTRANCE
- TEMPORARY SEDIMENT POND
- SILT FENCE PERIMETER



KEY MAP

N

0 200 400
H: SCALE IN FEET

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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PLAN BY:	CHECK BY:
MEK	EAE

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PRELIMINARY ESC PLAN

SHEPHERD SOLAR

SHEET NO.
C-37

WSB PROJECT NO.
032487

DATE
04/23/2026

REV.
E

SEE SHEET C-37

OWNER: MARANVILLE JACK S
PARCEL ID: 1934400119

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: MARANVILLE JACK S
PARCEL ID: 1934400119

COUNTY ROAD 149

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: MARANVILLE LLC
PARCEL ID: 1934100120

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

100' EASEMENT AND R.O.W. - TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC.- FOR TRANSMISSION AND DISTRIBUTION BK 290 PG 599

COUNTY ROAD 50

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: GORDON JUANITA LIFE ESTATE
PARCEL ID: 2902100113

COUNTY ROAD 153

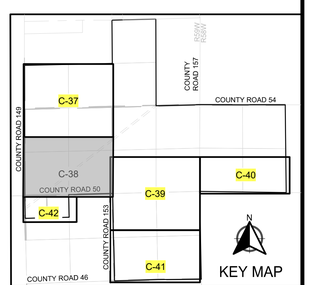
SEE SHEET ####

SEE SHEET ####

ADDITIONAL EROSION CONTROL BMP MEASURES MAY BE REQUIRED. CONTRACTOR'S SWPPP SITE MANAGER SHALL CONTINUALLY MONITOR SITE AND ADD ADDITIONAL BMPs AS DEEMED NECESSARY AND MAINTAIN A RECORD. MODIFICATIONS TO EROSION CONTROL PLAN SHEETS DO NOT REQUIRE RE-ISSUANCE BY EOR FOR SUCH ADDITIONS TO THE PLAN.

ESC PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROJECT BOUNDARY/ LEASE LIMIT
- NON-JURISDICTIONAL WATER COURSE
- JURISDICTIONAL WATER COURSE
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- 2-FT INUNDATION
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- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
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- STAGING AREA
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- PROPOSED DRAINAGE DIRECTION
- EROSION CONTROL BLANKET
- SEEDING HATCH
- CORRECTIVE GRADING LIMITS
- LIMITS OF DISTURBANCE
- CONSTRUCTION ENTRANCE
- TEMPORARY SEDIMENT POND
- SILT FENCE PERIMETER



N

0 200 400
H: SCALE IN FEET

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PRELIMINARY ESC PLAN

SHEPHERD SOLAR

SHEET NO.
C-38

WSB PROJECT NO.
032487

DATE
04/23/2026

REV.
E

OWNER: CHAD MARANVILLE
PARCEL ID: 1936000044

OWNER: CHAD MARANVILLE
PARCEL ID: 1936000044

SEE SHEET ####

SEE SHEET ####

COUNTY ROAD 153

OWNER: GORDON JUANITA LIFE ESTATE
PARCEL ID: 2902100113

COUNTY ROAD 153

OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

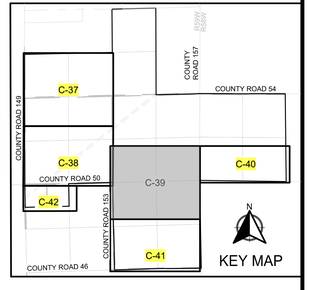
OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

SEE SHEET ####

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ESC PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
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- JURISDICTIONAL WATER COURSE
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- STAGING AREA
- EXISTING DRAINAGE DIRECTION
- PROPOSED DRAINAGE DIRECTION
- EROSION CONTROL BLANKET
- SEEDING HATCH
- CORRECTIVE GRADING LIMITS
- LOD — LIMITS OF DISTURBANCE
- CONSTRUCTION ENTRANCE
- TSP — TEMPORARY SEDIMENT POND
- SF — SILT FENCE PERIMETER



N

0 200 400
H: SCALE IN FEET

SHEPHERD SOLAR

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dba: WSB Design and Consulting LLC
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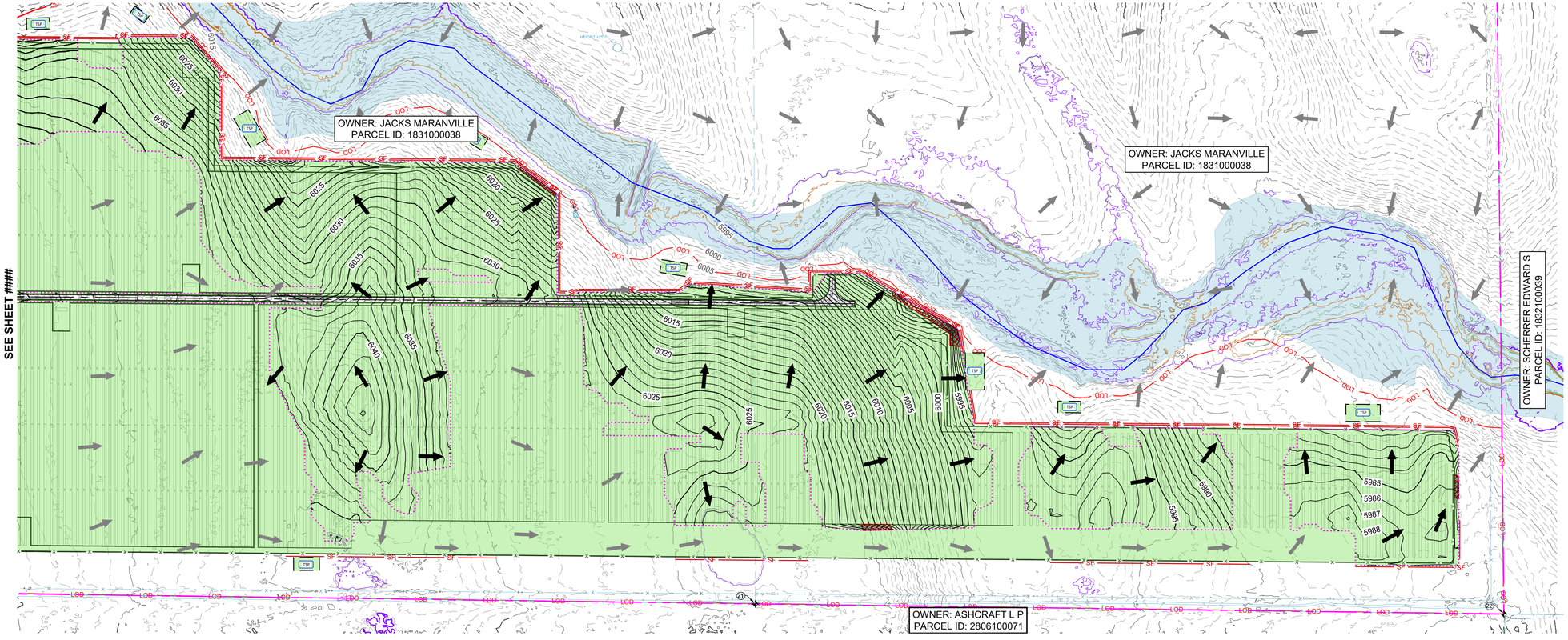
SHEPHERD SOLAR

SHEET NO.
C-39

WSB PROJECT NO.
032487

DATE
04/23/2026

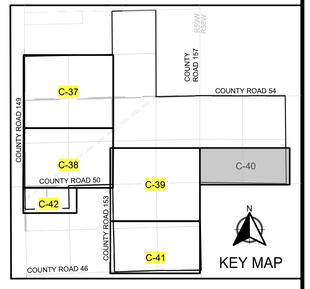
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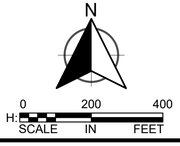


ADDITIONAL EROSION CONTROL BMP MEASURES MAY BE REQUIRED. CONTRACTOR'S SWPPP SITE MANAGER SHALL CONTINUALLY MONITOR SITE AND ADD ADDITIONAL BMPs AS DEEMED NECESSARY AND MAINTAIN A RECORD. MODIFICATIONS TO EROSION CONTROL PLAN SHEETS DO NOT REQUIRE RE-ISSUANCE BY EOR FOR SUCH ADDITIONS TO THE PLAN.

ESC PLAN LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROJECT BOUNDARY/ LEASE LIMIT
- NON-JURISDICTIONAL WATER COURSE
- JURISDICTIONAL WATER COURSE
- PROPOSED CULVERT
- NON-JURISDICTIONAL WETLANDS
- EXISTING WETLANDS
- 1-FT INUNDATION
- 2-FT INUNDATION
- 3-FT INUNDATION
- PROPOSED PERIMETER FENCE
- PROPOSED GRAVEL ROAD
- PROPOSED LWX
- PROPOSED GATE - SEE SHEET C-3
- RESTRICTED AREA PER BAYWA
- FEMA 100-YEAR FLOOD AREA
- SOLAR PANEL POWER BLOCK
- STAGING AREA
- EXISTING DRAINAGE DIRECTION
- PROPOSED DRAINAGE DIRECTION
- EROSION CONTROL BLANKET
- SEEDING HATCH
- CORRECTIVE GRADING LIMITS
- LIMITS OF DISTURBANCE
- CONSTRUCTION ENTRANCE
- TEMPORARY SEDIMENT POND
- SILT FENCE PERIMETER





SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

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PLAN BY:	CHECK BY:
MEK	CLB

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PRELIMINARY ESC PLAN

SHEPHERD SOLAR

SHEET NO.
C-40

WSB PROJECT NO.
032487

DATE
04/23/2026

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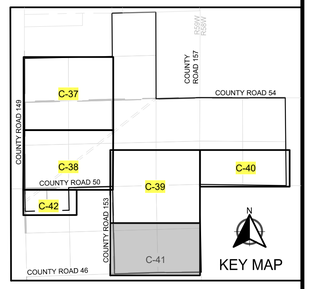
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SHEPHERD SOLAR

SHEET NO.
C-41

WSB PROJECT NO.
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COUNTY ROAD 50

WATER TANK

100' EASEMENT AND R.O.W. - TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION, INC. - FOR TRANSMISSION AND DISTRIBUTION BK 290 PG 599

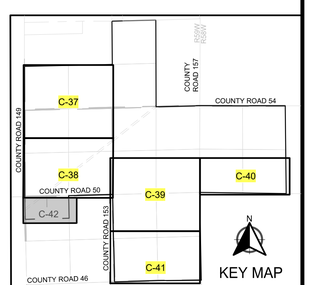
OWNER: J AND D FARM PROPERTIES LLC
PARCEL ID: 1926300138

OWNER: BROWN ROBERT WAYNE
PARCEL ID: 2902300002

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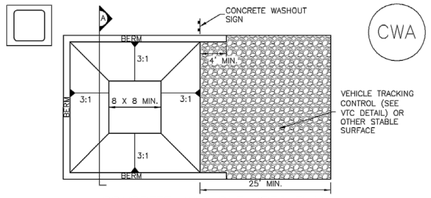
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WSB PROJECT NO.
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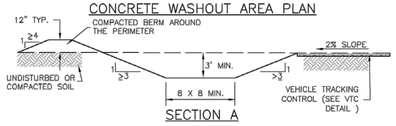
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Concrete Washout Area (CWA) MM-1



CONCRETE WASHOUT AREA PLAN



SECTION A

CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MM-1 Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER–TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

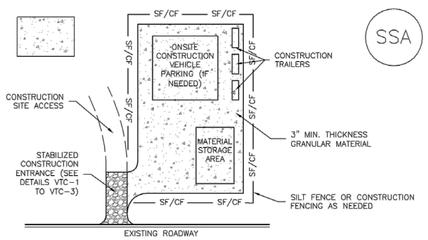
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SEEDING AND MULCHING INSTALLATION NOTES

1. All brands furnished shall be free from such noxious seeds as Russian or Canadian thistle, course fescue, European bindweed, Johnson grass, Knap weed, and leafy spurge.
2. The seeder shall furnish to the Contractor a signed statement certifying that the seed furnished is from a lot that has been tested by a recognized laboratory. Seed that has become wet, moldy, or otherwise damaged in transit or in storage, will not be acceptable. Seed tickets shall be provided to the Engineer upon request.
3. Drill seeding mix shall conform to the seed mix table.
4. If the seed available on the market does not meet the minimum purity and germination percentages specified, the subcontractor must compensate for a lesser percentage of purity or germination by furnishing sufficient additional seed to equal the specified product. The tags from the seed mixes must be supplied to contractor and forwarded to the Engineer.
5. The formula used for determining the quantity of pure live seed (PLS) shall be (pounds of seed) X (purity) X (germination) = pounds of pure live seed (PLS).
6. Perminate seed mix shall be used unless otherwise approved by the Engineer.
7. All areas to be seeded and mulched shall have native topsoil or approved soil amendments spread to a depth of at least 6 inches (loose depth). Haul roads and other compacted areas shall be loosened to a depth of 6 inches prior to spreading topsoil.
8. Soil is to be thoroughly loosened (tilled) to a depth of at least 6 inches prior to seeding. The top 6 inches of the seed bed shall be free of rocks greater than 4 inches and soil clods greater than 2 inches. Seeding over any compacted areas that haven't been thoroughly loosened shall be rejected.
9. Seed is to be applied using a mechanical drill to a depth of 1/4 inch. Row spacing shall be no more than 6 inches. Material used for mulch shall consist of long–stemmed straw. At least 50 percent of the mulch, by weight, shall be 10 inches or more in length. Mulch shall be applied and mechanically anchored to a depth of at least 2 inches. Mulch shall be applied at a rate of 4000 Lb. of straw per acre.
10. If the permittee demonstrates to the Engineer that it is not possible to drill seed, seed is to be uniformly broadcast at two times the drilled rate, then lightly harrowed to provide a deed depth of approximately 1/4 inch, then rolled to compact, then mulched as specified above.
11. Seeding and mulching shall be completed within 30 days of initial exposure or 7 days after grading is substantially complete in a given area (as defined by the Engineer). This may require multiple mobilizations for seeding and mulching.
12. Mulch shall be applied within 24–hours of seeding.
13. Tackifier should be utilized to help with straw displacement.

	STANDARDS & SPECIFICATIONS	REVISED:	EROSION AND SEDIMENT SEED AND MULCHING
DATE:		DRAWING NO. 600–10	

Stabilized Staging Area (SSA) SM-6



SSA–1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF STAGING AREA(S).
   –CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

SM-6 Stabilized Staging Area (SSA)

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

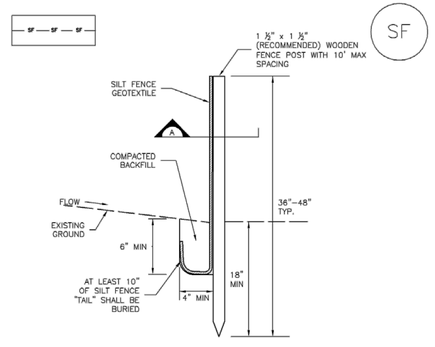
6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE–ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

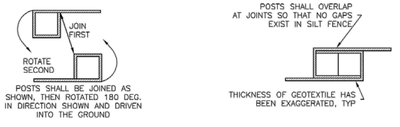
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

Silt Fence (SF) SC-1



SILT FENCE



SECTION A

SF–1. SILT FENCE

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 8" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

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3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

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EROSION DETAILS

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DATE 07/16/2026 | REV. F

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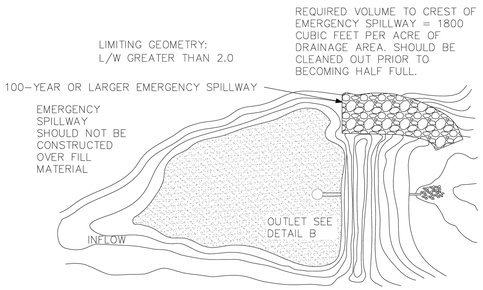
TEMPORARY SEDIMENT BASIN

DEFINITION

A TEMPORARY BASIN WITH A CONTROLLED STORM WATER RELEASE STRUCTURE, FORMED BY EXCAVATION OR CONSTRUCTION OF AN EMBANKMENT OF COMPACTED SOIL. REQUIRED FOR ALL DRAINAGE AREAS GREATER THAN 1 ACRE.

PURPOSE

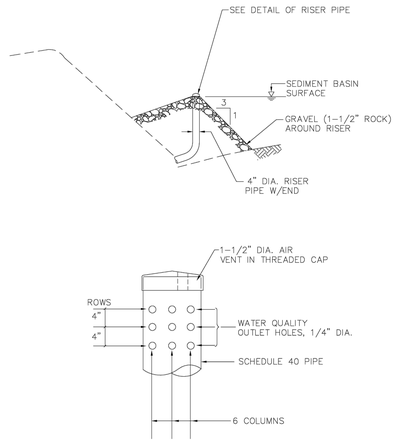
TO DETAIN SEDIMENT-LADEN RUNOFF FROM DISTRIBUTED AREAS TO ALLOW THE MAJORITY OF THE SEDIMENT TO SETTLE OUT.



STANDARDS & SPECIFICATIONS	REVISED:	TEMPORARY SEDIMENT BASIN
DATE:	DRAWING NO. 600-08	

SB

TEMPORARY SEDIMENT BASIN OUTLET DETAIL B



RISER PIPE DETAIL

STANDARDS & SPECIFICATIONS	REVISED:	TEMPORARY SEDIMENT BASIN OUTLET
DATE:	DRAWING NO. 600-09	

INLET PROTECTION

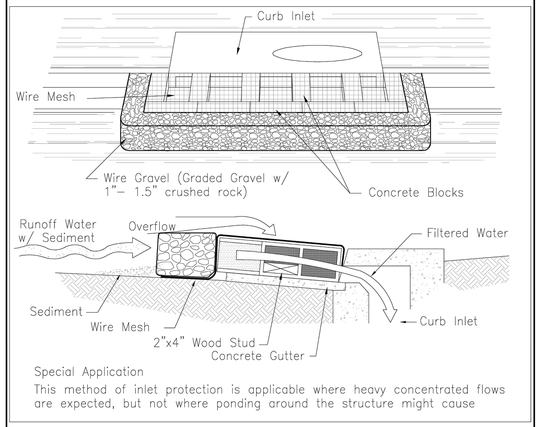
IP

Definition

A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet.

Purposes

To reduce sediment from entering storm drainage systems prior to permanent stabilization of disturbed areas.



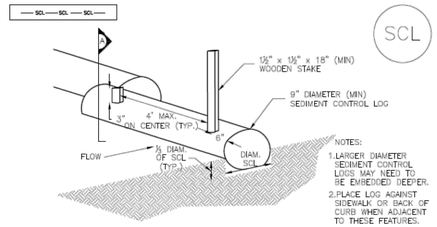
Special Application

This method of inlet protection is applicable where heavy concentrated flows are expected, but not where ponding around the structure might cause

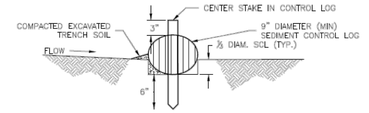
STANDARDS & SPECIFICATIONS	REVISED:	INLET PROTECTION DETAIL
DATE:	DRAWING NO. 600-05	

Sediment Control Log (SCL) SC-2

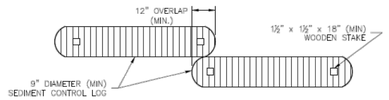
SCL



TRENCHED SEDIMENT CONTROL LOG

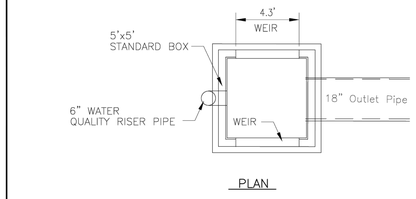


SECTION (A)
TRENCHED SEDIMENT CONTROL LOG

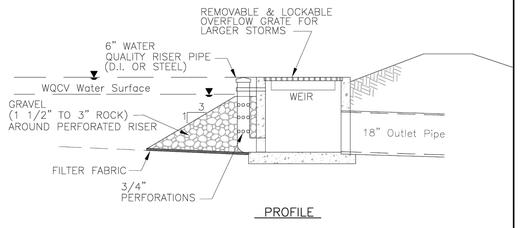


LOG JOINTS

SCL-1. TRENCHED SEDIMENT CONTROL LOG



PLAN



PROFILE

OUTLET STRUCTURE

STANDARDS & SPECIFICATIONS	REVISED:	OUTLET STRUCTURE
DATE:	DRAWING NO. 600-15	

INLET PROTECTION

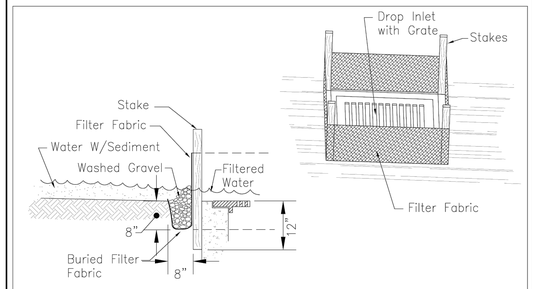
IP

Definition

A sediment filter or an excavated impounding area around a storm drain or curb inlet.

Purposes

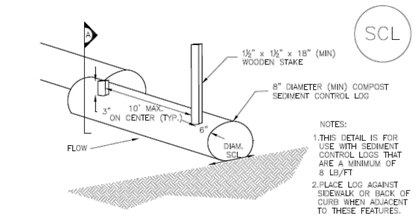
To reduce sediment from entering storm drainage systems prior to permanent stabilization of disturbed area.



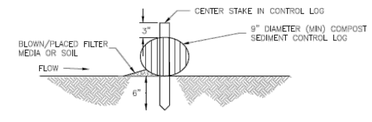
STORM DRAIN INLET PROTECTION

STANDARDS & SPECIFICATIONS	REVISED:	INLET PROTECTION DETAIL
DATE:	DRAWING NO. 600-06	

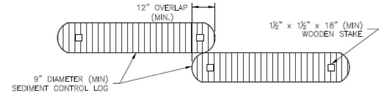
SC-2 Sediment Control Log (SCL)



COMPOST SEDIMENT CONTROL LOG (WEIGHTED)



SECTION (A)
COMPOST SEDIMENT CONTROL LOG



LOG JOINTS

SCL-2. COMPOST SEDIMENT CONTROL LOG (WEIGHTED)

SHEPHERD SOLAR

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(763) 541-4800
FIRM #20171391667

SCALE:	DESIGN BY:
AS SHOWN	CMM
PLAN BY:	CHECK BY:
CRN	EAE

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F	07/16/2026	REVISED PRELIMINARY DESIGN

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P.E. #0053515
ON 07/16/2026

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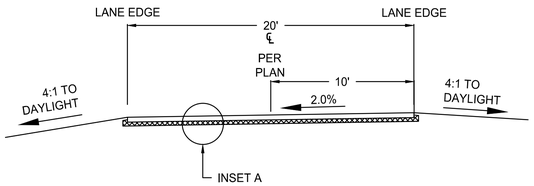
EROSION DETAILS

SHEPHERD SOLAR

SHEET NO.
C-44

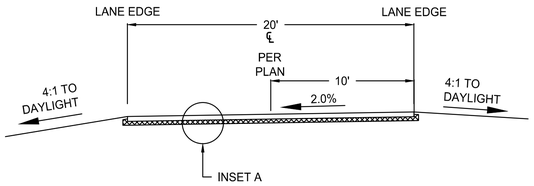
WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F



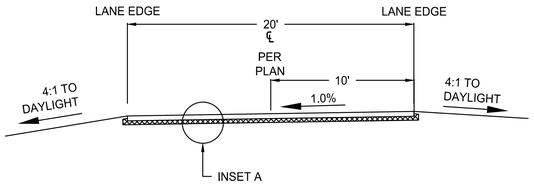
R1 SUBSTATION/SWITCHYARD ACCESS ROAD (SUPERELEVATED RIGHT)

NOT TO SCALE



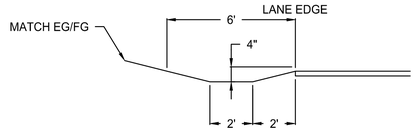
R2 PV ROAD/LANE (SUPERELEVATED RIGHT)

NOT TO SCALE



R3 BESS ACCESS ROAD (SUPERELEVATED RIGHT)

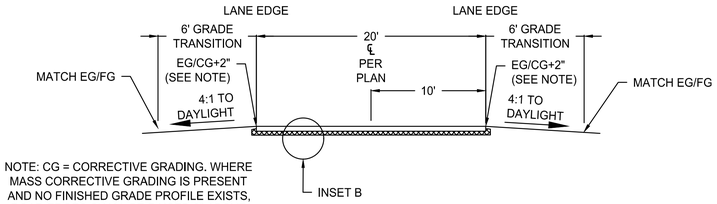
NOT TO SCALE



STRUCTURAL SECTION NOTES

BASE MATERIAL: BASE MATERIAL SHALL BE COMPOSED OF CDOT CLASS 6 AGGREGATE BASE COURSE (ABC), COMPACTED TO 98% STANDARD PROCTOR
SUBBASE: CDOT CLASS 6 ABC, TOPPED WITH CLASS 3 AASHTO M288 FABRIC
ROAD SECTIONS PROVIDED SHALL BE FINAL CONDITION THICKNESSES AFTER COMPACTION.
ROAD SECTIONS BASED ON PRELIM GEOTECH REPORT DATED NOVEMBER 21, 2025, KLEINFELDER PROJECT #: 26002369.001A

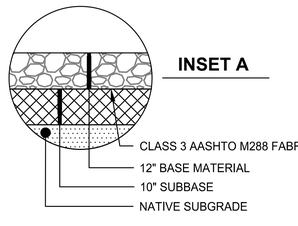
OPTIONAL TRANSITION DITCH
CONTRACTOR MAY INSTALL TRANSITION DITCH ON UPHILL SIDE OF PV ROADS BASED ON FIELD CONDITIONS AND CONTRACTOR'S PREFERENCE FOR DRAINAGE CONTROL DURING CONSTRUCTION.

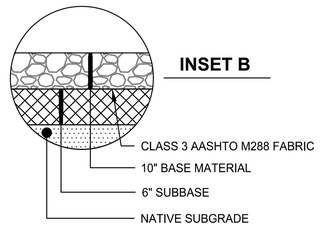


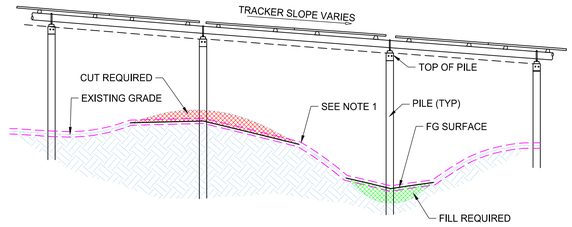
NOTE: CG = CORRECTIVE GRADING. WHERE MASS CORRECTIVE GRADING IS PRESENT AND NO FINISHED GRADE PROFILE EXISTS, ROAD EDGES SHALL BE RAISED 2" ABOVE PROPOSED CORRECTIVE GRADING ("CG").

RX EXISTING OR FINISH GRADE MATCH

NOT TO SCALE



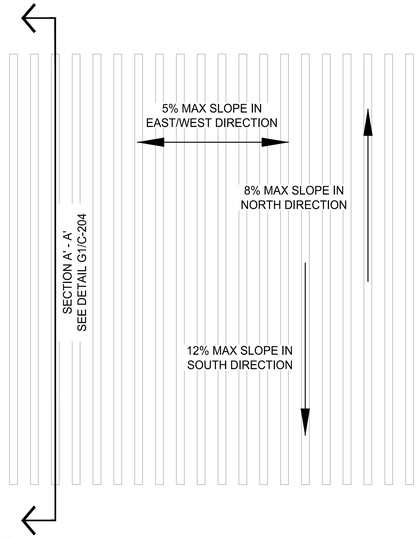




NOTES:
1. CONTRACTOR CONSTRUCTION GRADING TOLERANCE ± 0.2 FT.
2. REFER TO STRUCTURAL PLANS FOR DESIGN PILE REVEAL WINDOW, PILE DESIGN, AND ADDITIONAL CRITERIA AS APPLICABLE.
3. IF THE MINIMUM OR MAXIMUM PILE REVEAL HEIGHTS ARE EXCEEDED, ADDITIONAL EARTHWORK MAY BE REQUIRED FOR PILE REVEALS TO FALL WITHIN THE REQUIRED DESIGN PILE WINDOW.
4. DESIGN MAXIMUM TRACKER SLOPES
   4.1. SOUTH FACING - 12%
   4.2. NORTH FACING - 8%
   4.3. EAST/WEST - 5%
5. CONTRACTOR SHALL ENSURE THAT ADEQUATE TOPSOIL REMAINS AFTER ALL GRADING ACTIVITIES TO RE-VEGETATE THE SITE.
6. EARTHWORK BALANCING PLAN SHOULD AVOID IMPORT/EXPORT OVER PUBLIC ROADS.

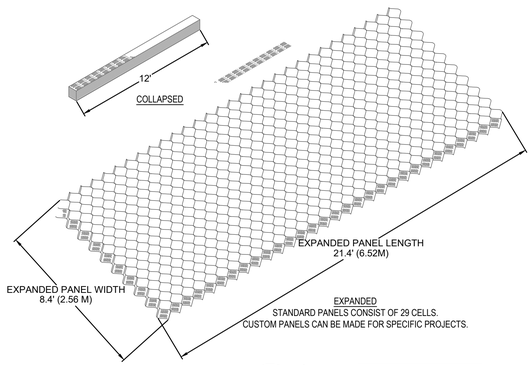
G1 TRACKER GRADING TOLERANCE (SECTION A'-A')

NOT TO SCALE



G2 SLOPE GRADING TOLERANCE

NOT TO SCALE



EXPANDED
STANDARD PANELS CONSIST OF 29 CELLS.
CUSTOM PANELS CAN BE MADE FOR SPECIFIC PROJECTS.

ISOMETRIC VIEW

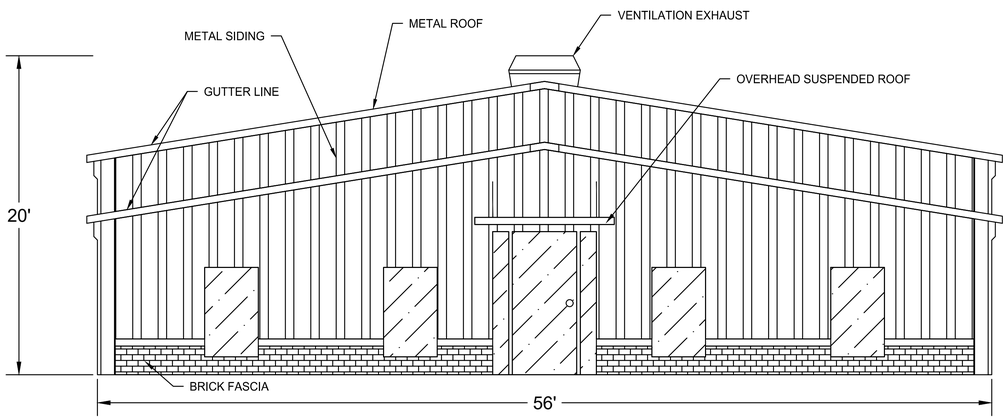
	CELL SIZE	
EXPANDED CELL WIDTH	EXPANDED CELL LENGTH	
10.2" (259 MM)	8.8" (224 MM)	

MANUFACTURER NOTES:
1. PERFORATIONS RANGE FROM 11% TO 16%.
2. TYPICAL CELL HEIGHTS ARE 6".
3. CUSTOM CELL HEIGHTS CAN BE MADE FOR SPECIFIC PROJECTS.

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 4812-003.

L1 LOW WATER CROSSING - ENVIROGRID GEOCELL

NOT TO SCALE



NOTES:
1. O&M EXTERIOR IS TO BE CONSTRUCTED FROM BRICK FASCIA, METAL SIDING & METAL ROOF.
2. O&M BUILDING DIMENSIONS ARE TO BE 56' IN LENGTH, 36' IN WIDTH, 20' IN HEIGHT.

B1 O&M BUILDING (PRELIMINARY & SUBJECT TO CHANGE)

NOT TO SCALE

SHEPHERD SOLAR

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dba: WSB Design and Consulting LLC
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(763) 541-4800
FIRM #20171391667

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PLAN BY:	CHECK BY:
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TYPICAL SECTIONS

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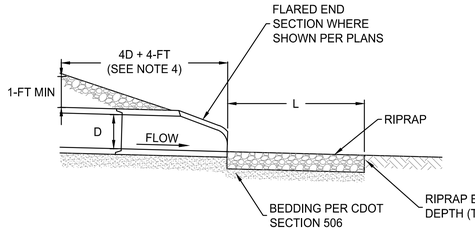
SHEET NO.
C-45

WSB PROJECT NO.
032487

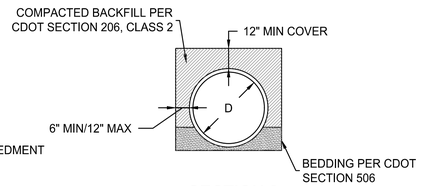
DATE 07/16/2026 | REV. F

PROPOSED CULVERT SCHEDULE						CULVERT SCHEDULE SIZING AND DESIGN BASED ON NOTED STORM EVENT									
PIPE NAME	PIPE SIZE (IN) & MATERIAL	PIPE LENGTH (FT)	SLOPE	INVERT START ELEV	INVERT FINISH ELEV	ENTRANCE ID	ACCESS ROAD #	STORM EVENT	FLOW RATE (CFS)	CDOT RIPRAP (SEE D2, NOTE 2)	RIPRAP APRON WIDTH ("W", FT)	INLET APRON LENGTH ("L", FT)	OUTLET APRON LENGTH ("L", FT)	DETAIL #	SHEET #
P-2L1-A	24" CMP	46.9	0.2%	6145.8	6145.7	ACCESS C	2L1	100-YR	15	12.0	11.5	10.0	10.0	D2	C-11
P-2L1-B	24" CMP	46.3	0.2%	6145.8	6145.7	ACCESS C	2L1	100-YR	15	12.0	11.5	10.0	10.0	D2	C-11
P-3L1-E	18" CMP	43.0	0.3%	6093.0	6093.1	ACCESS H	3L1	100-YR	8	12.0	11.5	10.0	10.0	D2	C-16
P-3L1-W	18" CMP	40.4	0.2%	6123.5	6123.4	ACCESS D	3L1	100-YR	7	12.0	11.5	10.0	10.0	D2	C-15
P-4L3	18" CMP	42.0	0.2%	6062.7	6062.6	ACCESS J	4L3	100-YR	7	12.0	16.0	10.0	10.0	D2	C-27
P-BESS-BASIN	36" CMP	40.0	0.1%	6118.7	6118.7	N/A	N/A			18.0	10.0	N/A	10.0	D2	C-28
P-SY ACCESS	18" CMP	85.0	0.8%	6130.3	6129.6	ACCESS SY	SY	100-YR	2	12.0	11.5	10.0	10.0	D2	C-28
P-SY-BASIN	36" CMP	89.3	5.0%	6098.0	6093.5	N/A	N/A			18.0	10.0	N/A	10.0	D2	C-28

NOTE 1: PIPE P-3L1-E SERVES TO EQUALIZE FLOWS BETWEEN THE LOW POINTS NORTH AND SOUTH OF THE ROADWAY.
NOTE 2: P-BESS-BASIN AND P-SY-BASIN CULVERT FLOWS ARE NOT ESTABLISHED AT THIS STAGE OF DESIGN DUE TO FUTURE DETAIL NEEDED ON BASIN CONFIGURATION AND OUTLET DESIGN.



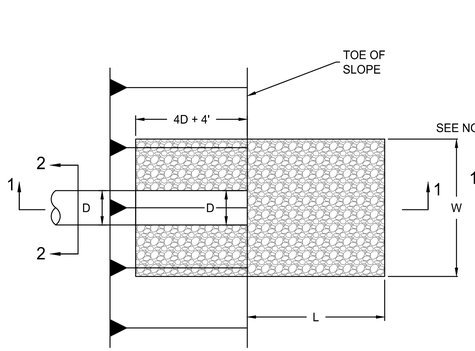
SECTION 1



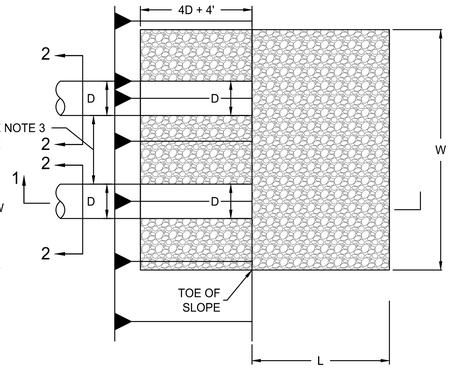
SECTION 2

NOTES:

1. RIPRAP SHALL CONFORM TO CDOT SECTION 506, TABLE 506-2. SIZE NOTED PER PLAN. INSTALL PER THIS DETAIL.
2. OUTER EDGE TO OUTER EDGE OF PIPES IS 12" FOR PIPES LESS THAN OR EQUAL TO 24". FOR PIPES GREATER THAN 24" PROVIDE HALF TIMES DIAMETER (0.5D).
3. IF NO FLARED END IS SPECIFIED, PIPES SHALL BE MITER CUT TO SLOPES AND ALL DIMENSIONS SHOWN HEREON SHALL BE MEASURED FROM END OF PIPE.
4. RIPRAP SHALL EXTEND UP SLOPE WHERE 1-FT MIN COVER IS PROVIDED ON CULVERTS. ANNOTATION HEREON ASSUMES 4:1 SLOPES.



SINGLE PIPE OUTLET PLAN VIEW

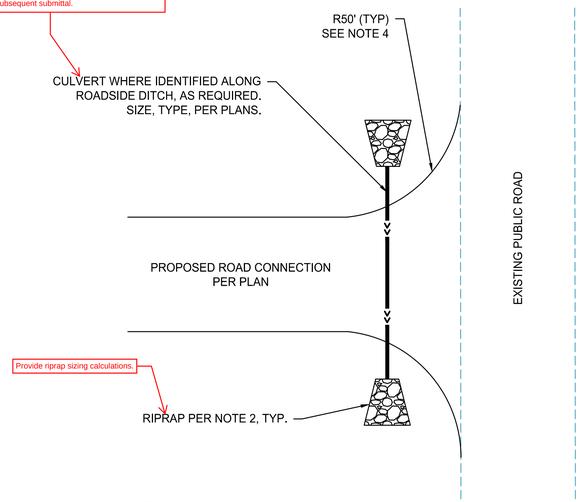


MULTI PIPE OUTLET PLAN VIEW

D2 RIPRAP INSTALLATION

NOT TO SCALE

Identify all proposed culverts in plans with size and material. Provide a profile for all proposed culverts or include note that profile with relevant information (inverts, HGLs, etc) will be provided with a subsequent submittal.

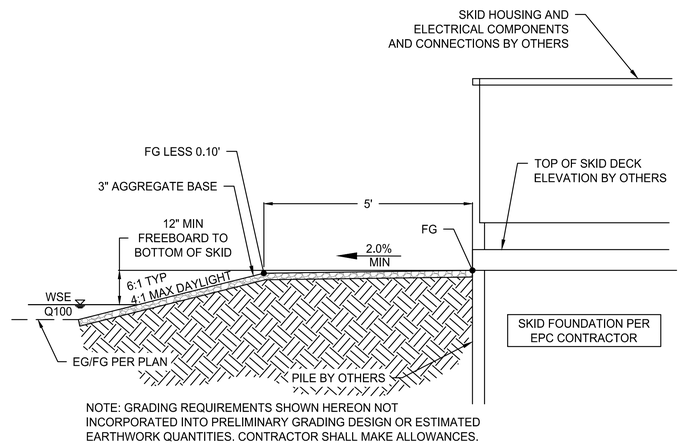


D1 PUBLIC ROADWAY CONNECTION

NOT TO SCALE

NOTES:

1. ALL COUNTY CONNECTION CULVERTS SHALL BE 16 GAGE POLYMER COATED CORRUGATED METAL ARCH PIPES UNLESS OTHERWISE APPROVED OR DIRECTED BY LOCAL AUTHORITY HAVING JURISDICTION.
2. SEE DETAIL D2, RIGHT, FOR RIPRAP INSTALLATION DETAIL. SEE ABOVE DRAINAGE CROSSING SCHEDULE FOR RIPRAP PROTECTION SIZING REQUIREMENTS.
3. ALL CULVERTS ARE DESIGNED FOR 25-YR STORM EVENT UNLESS OTHERWISE NOTED. SEE DRAINAGE REPORT FOR CALCULATIONS.
4. AT CONNECTIONS TO FARM-TO-MARKET ROAD, FINAL IMPROVED RADIUS SHALL BE 25-FT. A LARGER TEMPORARY RADIUS MAY BE USED FOR MATERIAL DELIVERIES BUT SHALL BE RESTORED TO NATIVE SOILS AT COMPLETION OF PROJECT AND RESEEDED TO FINAL IMPROVED RADIUS EDGE.



NOTE: GRADING REQUIREMENTS SHOWN HEREON NOT INCORPORATED INTO PRELIMINARY GRADING DESIGN OR ESTIMATED EARTHWORK QUANTITIES. CONTRACTOR SHALL MAKE ALLOWANCES.

D3 EQUIPMENT SKID GRADING CROSS SECTION

NOT TO SCALE

SHEPHERD SOLAR

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STORM SEWER DETAILS

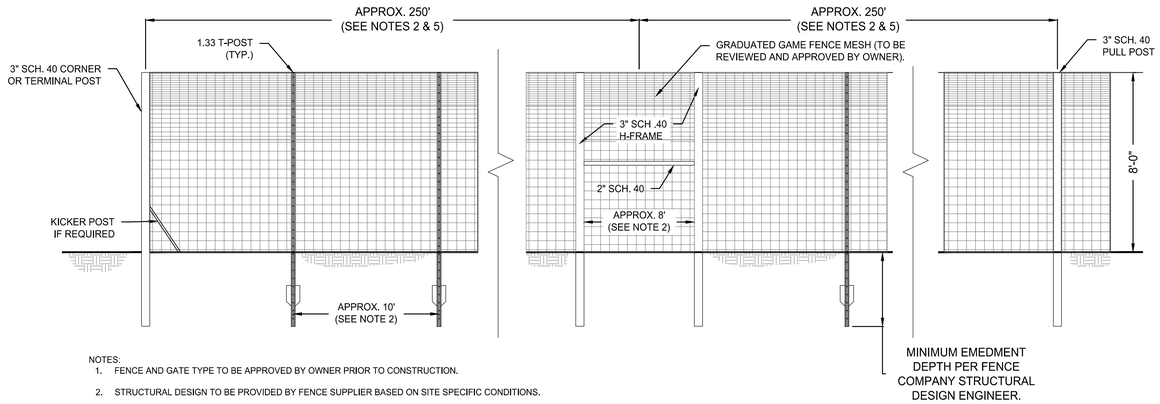
SHEPHERD SOLAR

SHEET NO.
C-46

WSB PROJECT NO.
032487

DATE
07/16/2026

REV.
F

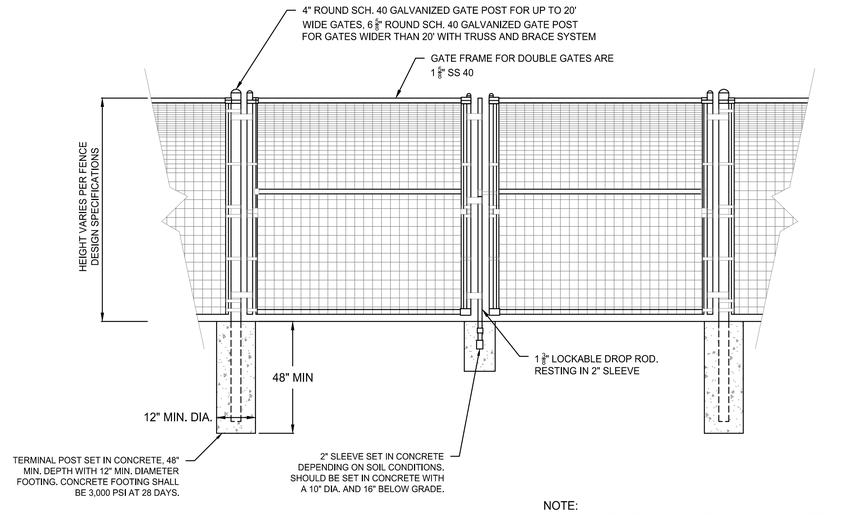


NOTES:

1. FENCE AND GATE TYPE TO BE APPROVED BY OWNER PRIOR TO CONSTRUCTION.
2. STRUCTURAL DESIGN TO BE PROVIDED BY FENCE SUPPLIER BASED ON SITE SPECIFIC CONDITIONS.
3. DIMENSIONS AND INFORMATION SHOWN ABOVE ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS AND INFORMATION TO BE PROVIDED BY MANUFACTURER / SUPPLIER.
4. INSTALL PULL POSTS APPROXIMATELY EVERY 500 FEET AND H-FRAME APPROXIMATELY EVERY 500 FEET, CENTERED BETWEEN PULL POSTS. FINAL SPACING DISTANCES TO BE ADJUSTED BY FENCE COMPANY STRUCTURAL DESIGN ENGINEER.
5. FOR BIDDING PURPOSES, ASSUME CUSTOM ORDER 12 FOOT LONG 1.33 T-POST, UNLESS OTHERWISE INDICATED BY FENCE COMPANY STRUCTURAL DESIGN ENGINEER BASED ON SITE SPECIFIC CONDITIONS.

F1 FENCE/GATE ALTERNATIVE

NOT TO SCALE



NOTE:
1. GAME WIRE FENCING/ GATE SHOWN AS ACCEPTABLE ALTERNATIVE. EPC CONTRACTOR SHALL MAKE FINAL DETERMINATION ON TYPE OF FENCE TO BE INSTALLED.

F2 GAME WIRE FENCING TERMINATION AND GATE INSTALLATION DETAIL (DOUBLE GATE)

NOT TO SCALE

SHEPHERD SOLAR

WSB LLC
dba: WSB Design and Consulting LLC
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800
FIRM #20171391667

SCALE:	DESIGN BY:
AS SHOWN	CMM
PLAN BY:	CHECK BY:
MEK	CLB

REVISIONS

NO.	DATE	DESCRIPTION
B	02/25/2026	REVISED PRELIMINARY DESIGN
C	03/05/2026	REVISED PRELIMINARY DESIGN
D	03/11/2026	REVISED PRELIMINARY DESIGN
E	04/23/2026	REVISED PRELIMINARY DESIGN
F	07/16/2026	REVISED PRELIMINARY DESIGN

THIS DOCUMENT IS RELEASED FOR COORDINATION PURPOSES ONLY UNDER THE AUTHORITY OF:

EARTH A. EVANS,
P.E. #0053515
ON 07/16/2026

AND IS NOT FOR CONSTRUCTION.

FENCE AND GATE DETAILS

SHEPHERD SOLAR

SHEET NO.
C-47

WSB PROJECT NO.
032487

DATE 07/16/2026 | REV. F

Reviewed by Kimley-Horn
07/30/2026

APPENDIX H
SHEPHERD SOLAR STORMWATER AND DRAINAGE REPORT

STORMWATER REPORT

SHEPHERD SOLAR PROJECT

ELBERT COUNTY, COLORADO

Rev A, January 26, 2026
Rev B, March 10, 2026
Rev C, July 10, 2026

Prepared for:
BayWa r.e.
300 E Main St
Charlottesville, VA 22902

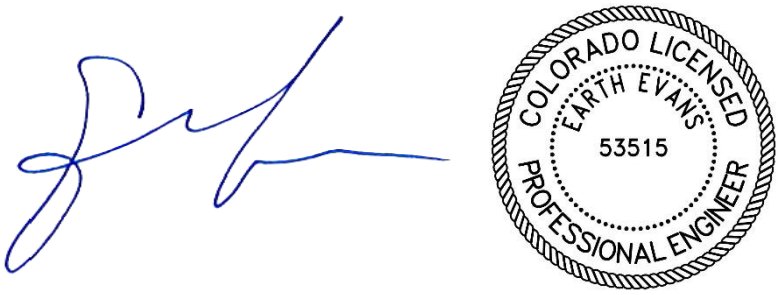
Prepared by:
WSB & Associates, Inc.
701 Xenia Avenue, Suite 300
Golden Valley, MN 55416
(763) 541-4800

WSB PROJECT NO. 032487-000

Certification

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed professional engineer under the laws of the State of Colorado.

Earth Evans, P.E.



Date: July 10, 2026 Lic. No. 53515

Executive Summary

The purpose of this report is to summarize the hydrologic and hydraulic conditions within the Shepherd Solar project area. The proposed development is south of Matheson, Colorado. Based on the site layout there are 1,950 total property acres. The modeled area, including offsite tributary areas, consists of a total of 6,028 acres within two HUC-12 watersheds. The majority of the proposed development will consist of solar panels, access roads, a battery energy storage system (BESS), and a substation. Existing conditions drainage patterns will largely be maintained in proposed grading. There is FEMA Zone A floodplain mapped within the property extents. Modeling of the 100-year, 24-hour storm event was conducted in HEC-RAS 6.4.1 to understand flow depths and velocities across the site. The analysis shows increased velocities and flow depths in the valleys and localized depressions throughout the site.

1 - General Location & Description

1.1 Site Location

The Shepherd Solar project area is entirely based in unincorporated land in southern Elbert County, Colorado. Per the site base provided, there are approximately 1,950 acres of site property, of which there are 1,397 acres of buildable area once setbacks have been applied for property limits, overhead power, and existing wetlands and streams. The study area is located within the Headwaters Middle Rush Creek (#110200120303) and Headwaters South Rush Creek (#110200120201) HUC-12 watersheds, see **Figure 1.**

1.2 Description of Existing Property

The project area has moderate elevation change across its ridges and valleys, with slopes ranging from 0-10%, generally decreasing from west to east. Site elevations range between roughly 5,965 and 6,165 feet. Land cover was manually delineated based on aerial data and National Land Cover Database classes.

Data from the Natural Resource Conservation Service (NRCS) Web Soil Survey shows predominantly type B and C Hydrologic Soil Group (HSG) soils in the area, with small amounts of HSG A soils in some stream channels. These soils are confirmed by the geotechnical report that has been provided for this project which shows sandy and lean clay across much of the site. FEMA Zone A floodplain runs west to east through the project area as shown in **Figure 1**. Any area that is not Zone A is mapped as Zone X, an area of minimal flood hazard. Project limits are covered by FEMA FIRM panel 08039C0950C, shown in **Appendix 1**.

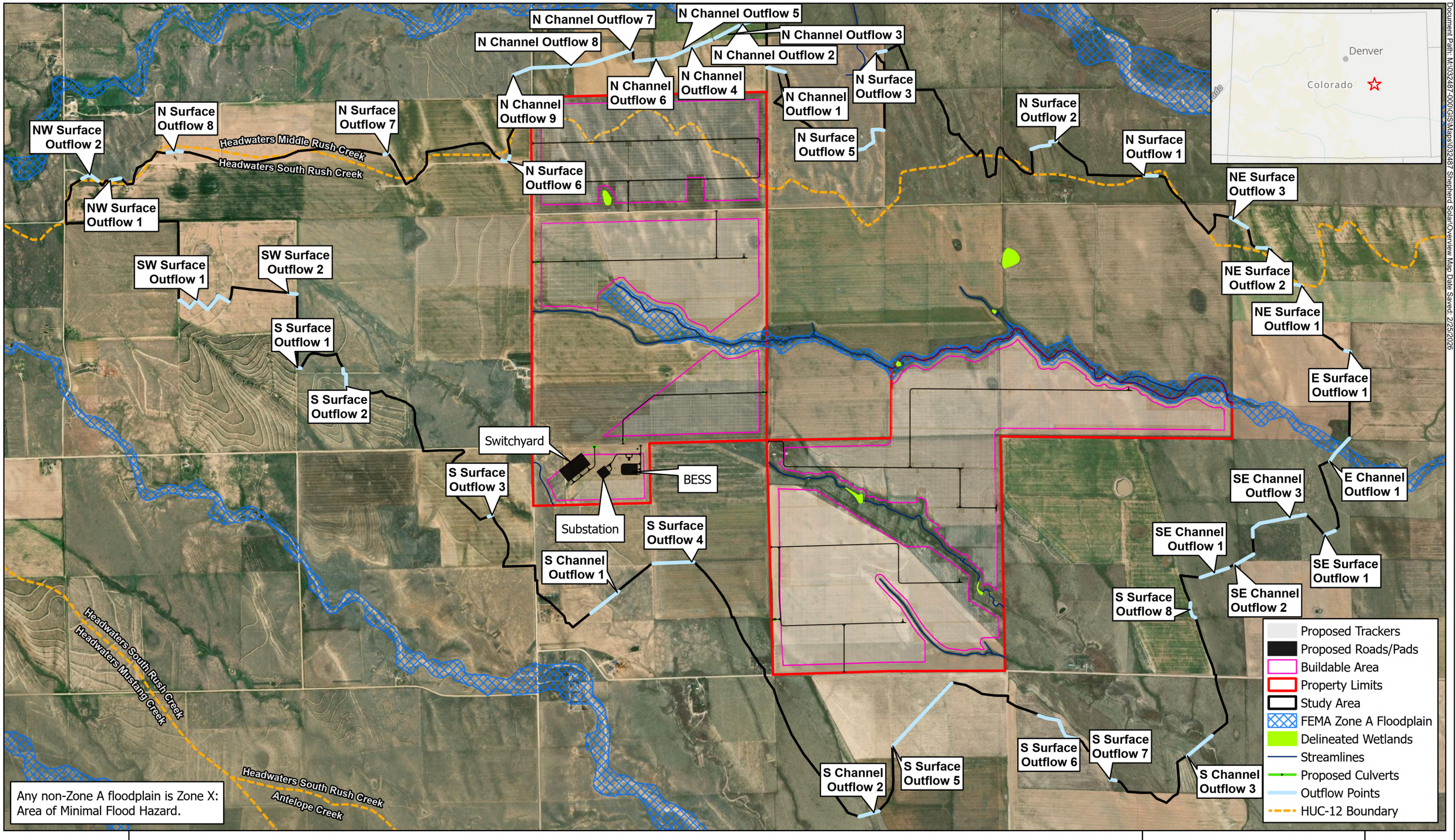


Figure 1 - Project Location

Shepherd Solar Development
BayWa r.e.

BayWa r.e.

N

0 2,000 Feet

1 inch = 2,000 feet

wsb

2 – Hydrology

2.1 Existing Topography

The study area consists primarily of hills and ridges draining to valleys. Some bluffs slope up to 50% grade, with most slopes around 1-10%. Study limits around the site are bounded by a mixture of ridgelines and sheet flow or channel outflow points. There were some differences with the HUC-12 drainage boundary, likely due to the project having more detailed and recent topography. Elevation data consisted of a 1-foot survey raster based on a surface provided by BayWa merged with a 2-foot resolution raster from the Colorado Spatial Portal for offsite drainage.

2.2 Rainfall

National Oceanic and Atmospheric Administration (NOAA) Atlas 14 precipitation frequency data was processed in HEC-HMS 4.12 to generate a frequency storm precipitation curve for the 100-year, 24-hour rain event of 4.61 inches. The curves were then imported to HEC-RAS for rain on grid modeling with Soil Conservation Service – Curve Number (SCS-CN) infiltration. The NOAA report is available in **Appendix 1**. The Colorado Urban Hydrograph Procedure (CUHP) was used for 1D hydrologic analysis, it is not suitable for 2D modeling in HEC-RAS. NOAA Atlas 14 1-hour point rainfall depths were used in CUHP analysis.

2.3 Existing Land Cover

Curve numbers (CN) were assigned for the different land covers within the study area based on the USDA Technical Release 55. CN values were also varied based on the soil types onsite. Existing land cover, CN, and soils maps can be found in **Appendix 2**. These CN values were used to model SCS-CN infiltration losses across the study area in HEC-RAS. The relationship between land cover and CN is summarized below. Manning's n roughness values are also included for each land cover.

Table 1: Existing CN and Manning's n Values

Land Cover Description	CN (HSG A)	CN (HSG B)	CN (HSG C)	Manning's n
Cultivated Crops	69	78	83	0.06
Developed, Low Intensity	57	72	81	0.08
Emergent Herbaceous Wetlands	57	73	82	0.07
Grassland/Herbaceous	30	58	71	0.07
Impervious (dirt road)	96	96	96	0.03

2.4 Proposed Land Cover

Land cover is expected to change based on the proposed site work. Roadways and the pads for the BESS and substation will consist of gravel surfaces, with CN values based on Technical Release 55. Land that is cleared for panels will be revegetated with grass-type seeding. Due to runoff infiltrating under and between panels, they were not modeled as impervious. Additionally, Manning's n values under and around panels were modeled as grass cover due to the limited impact of pile supports on surface flow. Proposed land cover and CN maps can be found in **Appendix 3**. Proposed land cover, CN, and Manning's n values are summarized below.

Table 2: Proposed CN and Manning's n Values

Land Cover Description	CN (HSG A)	CN (HSG B)	CN (HSG C)	Manning's n
Proposed Roads/Pads	96	96	96	0.03
Panels/Revegetated Surface	30	58	71	0.07

Provide a description on how the percent impervious was determined for the CUHP analysis and MHFD-Detention calculation. (Please reference MHFD USDCM Chapter 6.)

3 – Hydraulics

The hydraulic calculations for this project were performed using HEC-RAS 6.4.1. HEC-RAS 2D functionality was used to determine precipitation losses due to infiltration as well as model runoff across the study area based on rain-on-grid inflows.

Input parameters for the HEC-RAS model include:

Table 3: HEC-RAS Model Parameters

Parameter	Value/Setting
Computational Mesh	Base 50'x50' cells with 25'x25' cells within the property limits (~206k cells)
Boundary Conditions	Normal depth with friction slope based on topography at surface flow and channel outlet points
Timestep	Variable, with base timestep of 10 seconds
Model Time	36 hours to capture any peak flows that may occur after rainfall has ceased

Hydraulics settings were unchanged between existing and proposed conditions besides updated land cover and slight modifications to the computational mesh to ensure proposed high points were correctly captured in the modeling.

As part of the HEC-RAS model inputs, 4 existing culverts at roadway crossings were modeled using Surface Area/2D connections. These connections were modeled based on surveyed inverts, sizes, and pipe materials. Where inverts were not surveyed, elevations were approximated with surface elevation data. To prevent errors in 2D modeling, 6' diameter circular terrain modifications were made where surveyed pipe inverts were below the ground surface. These modifications consisted of adjusting the inlet/outlet ground elevation to be below the pipe invert by within 0.1'. Based on site flows and topography, these terrain modifications have a minimal impact on flow through the culvert. The topography and aerials indicated a number of culverts within the study area but outside of the survey limits. Without surveyed data, channel terrain modifications were made in these areas to approximate the culvert conveyance.

Five private roadway culverts are proposed with the site design. P-2L1, P-3L1-W, P-4L3, and P-SY were modeled as 2D connections. Culverts were designed and sized based on HEC-RAS 2D results. P-3L1-E was modeled with terrain modification due to it introducing model instability as it functions as an equalization pipe; the private road it runs under does not overtop. The design of these culverts is summarized below in **Table 4** and their locations are shown in **Appendix 5**.

Table 4: Proposed Culverts

Culvert	Diameter (in)	Material
P-2L1 (dual culvert)	24	CMP
P-3L1-E	18	CMP
P-3L1-W	18	CMP
P-4L3	18	CMP
P-SY	18	CMP

Calculations for culverts are not provided in Appendix 5. Provide calculations for all proposed culverts in accordance with the Elbert County Construction Standards & Specifications or state that these calculations will be provided in a future report with discussion of the relevant criteria they will be sized to.

4 – Results

4.1 Depth and Velocity

Due to the variable terrain throughout the modeled area, ponding occurs in localized low points and concentrated flow channels. As panels are largely proposed on consistent slopes, there is little ponding modeled in those areas. Some panels overlap with increased ponding depths within localized low points, though future grading of swales or leveling earthwork may mitigate the inundation. The numerous valleys across the site see increased flow velocities. Velocities are generally highest at existing road crossings and stream channels.

Depth and velocity data was taken from HEC-RAS using the "Max" feature. This feature provides the maximum value of depth or velocity at a given point for any timestep within the model. The maximum depth of the proposed 100-yr model is 17.6', behind a constructed embankment south of the site. Onsite, the maximum depth is 14.6', also behind a constructed embankment but not within the buildable area. The maximum velocity of this model is 17.0 ft/s at an offsite channel terrain modification for a culvert crossing under County Road 46, in the southeastern region of the study area. Onsite, the maximum velocity is 10.2 ft/s where the embankment with the max depth overflows, also outside of the buildable area. Depth and velocity maps can be found in **Appendix 4**.

4.2 Scour

Local scour is a measure of the potential for erosion at the support of a solar panel, which influences the estimated stability of the panel and the depth of piling required. The maximum potential scour depths were determined based on HEC-RAS 2D modeling results, as a function of maximum local flow velocity during the design storm event.

Towards this goal, formulae developed to estimate the scour depth at bridge piers detailed in the Federal Highway Administration's Hydraulic Engineering Circular (HEC) 18, "Evaluating Scour at Bridges," were employed. Equation 7.35 of HEC-18 was developed to evaluate scour around bridge piers during high flows. It was determined that due to the primarily clayey nature of the onsite soils, Equation 7.35 is most appropriate as it was developed for cohesive materials.

$$y_s = 2.2 * K_1 * K_2 * a^{0.65} * \left(\frac{2.6V_1 - V_c}{\sqrt{g}}\right)^{0.7}$$

Where:

$y_s = Scour\ Depth$
$K_1 = 1.1\ (Correction\ Factor\ for\ Pier\ Nose\ Shape)$
$K_2 = 1.0\ (Correction\ Factor\ for\ Flow\ Angle\ of\ Attack)$
$a = 0.5\ ft\ (Pile\ Width)$
$V_1 = Modeled\ Velocity$
$V_c = 1.0\ {}^{ft}/_{sec}\ (Critical\ Velocity)$
$g = 32.17\ {}^{ft}/_{sec^2}\ (Gravity)$

The pile shapes used in this project were assumed to act as square nose piers for scour calculations. Typical pile widths of 6 inches (0.5 feet) was assumed. K_1 and K_2 factors were set to 1.1 (i.e., square shape) and 1, respectively. The value of the critical velocity, which reflects the soil resistance to erosion, was set to 1 ft/s based on the dominant cohesive soils in the area.

The scour depth then varies as a function of flow velocity. As discussed above, these flow velocities were taken as the maximum value independent of time, meaning it is likely that the max velocity did not occur at the same time across the entire site. This provides the most conservative calculation of scour. A scour map can be found in **Appendix 4**. Across much of the site, scour potential is nearly zero. Scour is highest at channelized flow areas and road crossings, as the velocities are highest in these areas. The maximum

modeled 100-yr scour potential is 7.7’ at the culvert crossing under County Road 46, but within property limits the scour is a maximum of 5.3’ at the overflow for an existing embankment. However, it should be noted that this scour potential only exists where panel supports will be installed, outside of those areas it is only a theoretical calculation. Within proposed panel areas, there are some areas of concern with modeled scour depths reaching 3’ due to large offsite flows passing through the site. As this runoff cannot be mitigated onsite, it is recommended to ditch flows or remove panels from select areas of high runoff in further stages of design. In general, these areas of concern are in the western portion of Area 5. If flows cannot be redirected, scour effects can be mitigated with greater panel support depths.

4.3 Low Water Crossings

Specify ownership of roads.

As part of the proposed development, several miles of maintenance roads will be constructed for access around the site. Due to the topography of the site, water will flow across various stretches of these roads. Modeled results show sections of roads seeing high velocity flows with increased likelihood of erosion. At these sections, low water crossing reinforcement is proposed. The specified geocell reinforcement has been tested to remain stable at flow velocities over 16 ft/s and shear stresses of 9 lb/ft^2, well above any modeled velocities or shear stress across project roads. Some grading has been proposed to minimize low water crossing length due to drivability concerns, though further grading efforts to concentrate crossing flows may reduce them more.

There are proposed roadway crossings with culverts at five points in the project area. These crossings consist of 18-24” CMP and associated riprap to minimize erosion at the pipe ends. Culvert P-3L1-E is intended to function more as an equalization pipe for the low points on either side of the proposed road.

Provide sized riprap calculations or state that these calculations will be provided in a future report with discussion of the relevant criteria they will be sized to.

4.4 Rate Comparison

At the low points of the study area boundary, external boundary conditions were modeled to understand how water leaves the site. The Shepherd site model has 40 outflow points. The peak flows through these outflows were determined in both existing and proposed conditions to compare the changes. These existing and proposed flows for the 100-year event are given in **Table 5** below, though flows of less than 1 cfs are omitted for simplicity.

Table 5: Existing and Proposed Rate Comparison

External Boundary	Existing Peak Rate (cfs)	Proposed Peak Rate (cfs)
E Channel Outflow 1	1504.0	1397.3
N Channel Outflow 1	27.7	27.8
N Channel Outflow 2	27.8	27.9
N Channel Outflow 3	34.3	33.4
N Channel Outflow 4	17.1	17.3
N Channel Outflow 5	70.8	65.0
N Channel Outflow 6	110.7	92.4
N Channel Outflow 7	117.1	107.6
N Channel Outflow 8	54.7	71.7
N Channel Outflow 9	30.0	35.0
N Surface Outflow 2	7.3	7.3
N Surface Outflow 3	2.7	2.7
N Surface Outflow 5	7.4	7.4
N Surface Outflow 6	3.4	3.4
N Surface Outflow 7	3.3	3.3
N Surface Outflow 8	6.3	6.3
NE Surface Outflow 2	3.5	3.6

NE Surface Outflow 3	1.5	1.5
S Channel Outflow 1	505.7	477.9
S Channel Outflow 2	415.6	409.4
S Channel Outflow 3	1746.5	1619.6
S Surface Outflow 2	3.6	3.6
S Surface Outflow 3	6.9	6.9
S Surface Outflow 4	2.8	2.8
S Surface Outflow 5	149.7	149.7
S Surface Outflow 6	7.8	7.9
S Surface Outflow 8	17.8	17.8
SE Channel Outflow 1	75.8	75.8
SE Channel Outflow 2	100.6	100.6
SE Channel Outflow 3	113.7	111.5
SW Surface Outflow 1	21.2	21.2
Total:	**5197.4**	**4915.4**

The outflow rate changes are driven by two major factors: land cover change and proposed grading. The proposed land cover of grass seeding results in a general decrease of runoff generation when compared to the existing cultivated crops land cover. This has the effect of decreasing runoff rates in most areas of the model. The proposed grading has a mixed effect on outflow rates. For example, proposed grading in Area 1 results in minor changes to hydrologic boundaries. This can have the effect of slightly increasing flows as seen in N Channel Outflow 8. However, there can also be a decrease in flows as seen in N Channel Outflow 6 and 7. The balance of these on the north boundary of the site is a net decrease in outflow rates. On the whole, these factors drive the net reduction in peak outflow rates seen in **Table 5**.

4.5 AHJ Requirements

4.5.1 – Elbert County

Based on review of Section 600 of the Elbert County Construction Standards, there are a number of County requirements that influence the drainage design of the Shepherd site. The project does not propose any grading in FEMA floodplain, so the County floodplain requirements are not applicable. Section 610.00 specifies that the drainage analysis procedures, criteria, and standards of the Urban Drainage Flood Control District, also known as the Mile High Flood District (MHFD), shall govern unless stated otherwise. The only applicable requirement beyond MHFD standards is the specification that all ponding facilities be of the detention type. Temporary erosion and sediment controls such as silt fence, erosion control blanket, and sediment basins are proposed in accordance with MHFD design standards.

Please clarify how is this statement is "per MHFD Criteria Manual 1"

Runoff throughout the panel areas of the site is not anticipated to change in a substantial manner per MHFD Criteria Manual 1 – Chapter 6. Grading is proposed to accommodate panel design standards, but the proposed grading will not significantly alter existing hydrologic boundaries or flow routing. Existing impervious percentages were determined based on delineation of roadway and building footprints from aerial imagery. The proposed design will include new impervious areas in the form of gravel roads and equipment pads. However, solar panels are not included in these impervious considerations due to runoff flowing through vegetated ground between and under the panels, allowing for dispersion of flow and infiltration into soils. Proposed maintenance roads are few and far between such that runoff rate and volume increases are marginal based on the MHFD calculator. Runoff calculations are summarized in **Table 6** and **7** below, with detailed drainage area maps and MHFD calculations provided in **Appendix 5**.

Table 6: Runoff Rate Summary

Drainage Area	Area (ac)	Existing Impervious	Proposed Impervious	Existing Runoff (cfs)	Proposed Runoff (cfs)	Runoff Change
101	226.87	0.99%	0.99%	280.7	280.7	0%
104 (internally drained)	228.21	1.51%	3.15%	N/A	N/A	N/A
109 (internally drained)	102.61	0.96%	1.95%	N/A	N/A	N/A
110	1995.68	0.65%	0.93%	1,554.4	1,556.4	0.13%
111	55.02	1.16%	2.62%	79.4	79.8	0.57%
112	686.54	0.79%	1.59%	538.4	539.9	0.29%
113	235.84	0.42%	1.64%	265.3	266.3	0.35%
114	186.63	1.25%	1.77%	216.7	217.1	0.20%

Table 7: Runoff Volume Summary

Drainage Area	Existing Volume (ft^3)	Proposed Volume (ft^3)	Volume Change
101	1,352,085	1,352,085	0%
104 (internally drained)	N/A	N/A	N/A
109 (internally drained)	N/A	N/A	N/A
110	11,860,923	11,885,637	0.21%
111	363,299	366,701	0.94%
112	4,525,715	4,548,264	0.50%
113	1,550,766	1,562,595	0.76%
114	1,233,127	1,237,148	0.33%

The runoff rate and volume changes noted above are less than a 1% increase from existing conditions. With the minimal proposed road impervious and its diffuse nature, the marginal increases in runoff will have little impact on downstream areas and receiving waterbodies.

Proposed equipment pads for the project switchyard, substation, battery energy storage system, and O&M facilities have enough concentrated impervious that detention basins are proposed according to MHFD design standards. These drainage areas are much smaller, 15 and 37 acres, than the rest of the site. There are no offsite flows draining to these areas based on the existing topography. The switchyard area does not have a concept design at this stage, so it was conservatively assumed to be 100% impervious. The remaining utility yard drainage area has better defined design with 5.2 acres or 14.1% impervious cover. **Table 8** below summarizes the detention basin design. High-level basin grading footprints are included in the attached plans, future design stages will further refine basin grading and outlet details. Required treatment volumes were calculated with the MHFD calculator spreadsheet, provided in **Appendix 5**.

Table 8: Detention Basin Summary

Drainage Area	Inflow Area (ac)	Inflow Impervious (ac)	Inflow Impervious (%)	MHFD Total Basin Volume (ac-ft)	Proposed Grading Basin Volume (ac-ft)
UTIL-SUBS/BESS	37.1	5.2	14.1%	1.8	2.1
UTIL-SWITCHYARD	15.0	15.0	100%	2.6	6.8

Please provide a description on how the proposed ponds meet the relevant Elbert County criteria.

4.5.2 – Colorado Department of Public Health and Environment (CDPHE)
The CDPHE administers the state's National Pollutant Discharge Elimination System (NPDES) permitting. The Shepherd project will require a general construction activity permit since the site disturbance is over an acre. This permit requires erosion and sediment control measures be installed and maintained across the site until final stabilization has been achieved. These measures, including silt fence, erosion control blanket, sediment basins, seeding, etc. will be employed across the site in accordance with good engineering, hydrologic, and pollution control practices.

5 – Conclusions

As with many utility-scale solar sites, Shepherd has a complex interplay of topography, land cover, and runoff characteristics governing drainage across the site. These lead to the depth, velocity, and scour modeling results presented with this submittal. The modeling results indicate that much of the site is suitable for construction of solar panels and their associated supporting infrastructure, with a degree of earthwork and erosion reinforcement.

Site outflow rates decrease from existing to proposed conditions overall. There are localized increases based on modeling results, but these are limited to a few discharge points and very minor when considering the entire scale of site outflows. This will serve to minimize negative long-term impacts of site development on neighboring properties.

The proposed site design factors in local and state stormwater requirements in order to facilitate construction permitting. The ability for panel runoff to infiltrate through vegetation and the diffuse nature of proposed roads results in a marginal change to runoff per MHFD methods. And while not designed in complete detail due to the early nature of the submittal, high-level basin areas are included to manage water quality and runoff rates from large contiguous impervious areas of the utility yard. WSB would be happy to provide further detailed design of these facilities in future development stages of the Shepherd Solar site.

Appendix 1: NOAA Atlas 14 Rainfall Data and FIRM Maps

NOAA Atlas 14, Volume 8, Version 2
Location name: Matheson, Colorado, USA*
Latitude: 39.0486°, Longitude: -103.9654°
Elevation: 6111 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.270** (0.212-0.344)	**0.325** (0.255-0.415)	**0.424** (0.332-0.543)	**0.514** (0.400-0.661)	**0.649** (0.494-0.874)	**0.762** (0.564-1.04)	**0.882** (0.632-1.22)	**1.01** (0.697-1.44)	**1.20** (0.792-1.74)	**1.34** (0.865-1.98)
10-min	**0.395** (0.310-0.503)	**0.476** (0.374-0.608)	**0.622** (0.486-0.795)	**0.753** (0.586-0.967)	**0.951** (0.723-1.28)	**1.12** (0.827-1.52)	**1.29** (0.926-1.79)	**1.48** (1.02-2.11)	**1.75** (1.16-2.56)	**1.97** (1.27-2.89)
15-min	**0.481** (0.378-0.614)	**0.581** (0.456-0.741)	**0.758** (0.593-0.970)	**0.918** (0.715-1.18)	**1.16** (0.882-1.56)	**1.36** (1.01-1.85)	**1.58** (1.13-2.19)	**1.81** (1.24-2.57)	**2.14** (1.42-3.12)	**2.40** (1.54-3.53)
30-min	**0.685** (0.538-0.874)	**0.826** (0.648-1.05)	**1.08** (0.841-1.38)	**1.30** (1.01-1.67)	**1.64** (1.25-2.20)	**1.92** (1.42-2.61)	**2.22** (1.59-3.08)	**2.55** (1.75-3.62)	**3.00** (1.99-4.38)	**3.37** (2.17-4.96)
60-min	**0.859** (0.675-1.10)	**1.04** (0.816-1.33)	**1.36** (1.06-1.74)	**1.65** (1.29-2.12)	**2.09** (1.59-2.82)	**2.46** (1.82-3.34)	**2.86** (2.05-3.97)	**3.28** (2.26-4.67)	**3.88** (2.57-5.67)	**4.37** (2.81-6.42)
2-hr	**1.03** (0.819-1.30)	**1.25** (0.993-1.58)	**1.65** (1.30-2.09)	**2.01** (1.58-2.55)	**2.55** (1.96-3.40)	**3.00** (2.25-4.04)	**3.49** (2.52-4.80)	**4.02** (2.79-5.66)	**4.76** (3.18-6.88)	**5.37** (3.48-7.81)
3-hr	**1.11** (0.885-1.39)	**1.35** (1.07-1.70)	**1.78** (1.41-2.24)	**2.17** (1.71-2.75)	**2.76** (2.14-3.67)	**3.27** (2.46-4.38)	**3.80** (2.77-5.21)	**4.39** (3.06-6.16)	**5.22** (3.51-7.50)	**5.90** (3.84-8.52)
6-hr	**1.23** (0.992-1.53)	**1.50** (1.20-1.87)	**1.97** (1.58-2.46)	**2.41** (1.92-3.02)	**3.06** (2.39-4.03)	**3.62** (2.74-4.79)	**4.21** (3.09-5.70)	**4.85** (3.42-6.73)	**5.76** (3.90-8.19)	**6.50** (4.27-9.30)
12-hr	**1.38** (1.12-1.70)	**1.65** (1.34-2.03)	**2.13** (1.72-2.63)	**2.56** (2.06-3.18)	**3.23** (2.54-4.20)	**3.78** (2.90-4.96)	**4.38** (3.24-5.88)	**5.03** (3.58-6.91)	**5.95** (4.07-8.38)	**6.70** (4.45-9.48)
24-hr	**1.58** (1.29-1.92)	**1.84** (1.50-2.24)	**2.31** (1.88-2.83)	**2.75** (2.23-3.38)	**3.42** (2.72-4.41)	**3.99** (3.09-5.19)	**4.61** (3.45-6.13)	**5.29** (3.80-7.20)	**6.26** (4.32-8.72)	**7.05** (4.72-9.88)
2-day	**1.80** (1.49-2.18)	**2.09** (1.73-2.53)	**2.61** (2.15-3.16)	**3.08** (2.52-3.74)	**3.78** (3.02-4.81)	**4.37** (3.41-5.61)	**5.00** (3.77-6.56)	**5.69** (4.12-7.64)	**6.66** (4.64-9.17)	**7.44** (5.03-10.3)
3-day	**1.95** (1.62-2.34)	**2.28** (1.89-2.74)	**2.85** (2.36-3.44)	**3.36** (2.77-4.07)	**4.12** (3.30-5.19)	**4.74** (3.71-6.03)	**5.40** (4.09-7.03)	**6.11** (4.44-8.14)	**7.10** (4.96-9.70)	**7.89** (5.36-10.9)
4-day	**2.07** (1.73-2.48)	**2.43** (2.02-2.91)	**3.05** (2.54-3.66)	**3.60** (2.98-4.34)	**4.40** (3.54-5.51)	**5.06** (3.97-6.40)	**5.74** (4.36-7.43)	**6.47** (4.72-8.58)	**7.48** (5.25-10.2)	**8.29** (5.66-11.4)
7-day	**2.39** (2.01-2.84)	**2.81** (2.36-3.34)	**3.53** (2.95-4.20)	**4.15** (3.46-4.96)	**5.04** (4.08-6.25)	**5.77** (4.56-7.22)	**6.52** (4.98-8.35)	**7.31** (5.36-9.59)	**8.40** (5.93-11.3)	**9.26** (6.36-12.6)
10-day	**2.69** (2.28-3.18)	**3.15** (2.66-3.73)	**3.94** (3.31-4.66)	**4.61** (3.86-5.48)	**5.58** (4.53-6.86)	**6.35** (5.04-7.91)	**7.16** (5.50-9.11)	**8.00** (5.90-10.4)	**9.16** (6.50-12.2)	**10.1** (6.96-13.6)
20-day	**3.58** (3.05-4.18)	**4.15** (3.54-4.85)	**5.10** (4.34-5.98)	**5.92** (5.00-6.96)	**7.06** (5.79-8.58)	**7.97** (6.38-9.80)	**8.90** (6.90-11.2)	**9.87** (7.34-12.7)	**11.2** (8.00-14.8)	**12.2** (8.51-16.3)
30-day	**4.34** (3.72-5.04)	**5.00** (4.29-5.82)	**6.11** (5.22-7.12)	**7.03** (5.97-8.22)	**8.30** (6.82-9.98)	**9.29** (7.47-11.3)	**10.3** (8.00-12.8)	**11.3** (8.44-14.4)	**12.6** (9.10-16.6)	**13.7** (9.59-18.2)
45-day	**5.32** (4.59-6.14)	**6.12** (5.28-7.07)	**7.41** (6.37-8.59)	**8.46** (7.23-9.84)	**9.87** (8.13-11.7)	**10.9** (8.81-13.2)	**12.0** (9.33-14.7)	**13.0** (9.73-16.4)	**14.3** (10.3-18.5)	**15.2** (10.8-20.1)
60-day	**6.16** (5.34-7.09)	**7.10** (6.14-8.16)	**8.56** (7.38-9.87)	**9.71** (8.33-11.2)	**11.2** (9.25-13.2)	**12.3** (9.95-14.7)	**13.3** (10.4-16.3)	**14.3** (10.8-18.0)	**15.5** (11.2-20.0)	**16.4** (11.6-21.5)

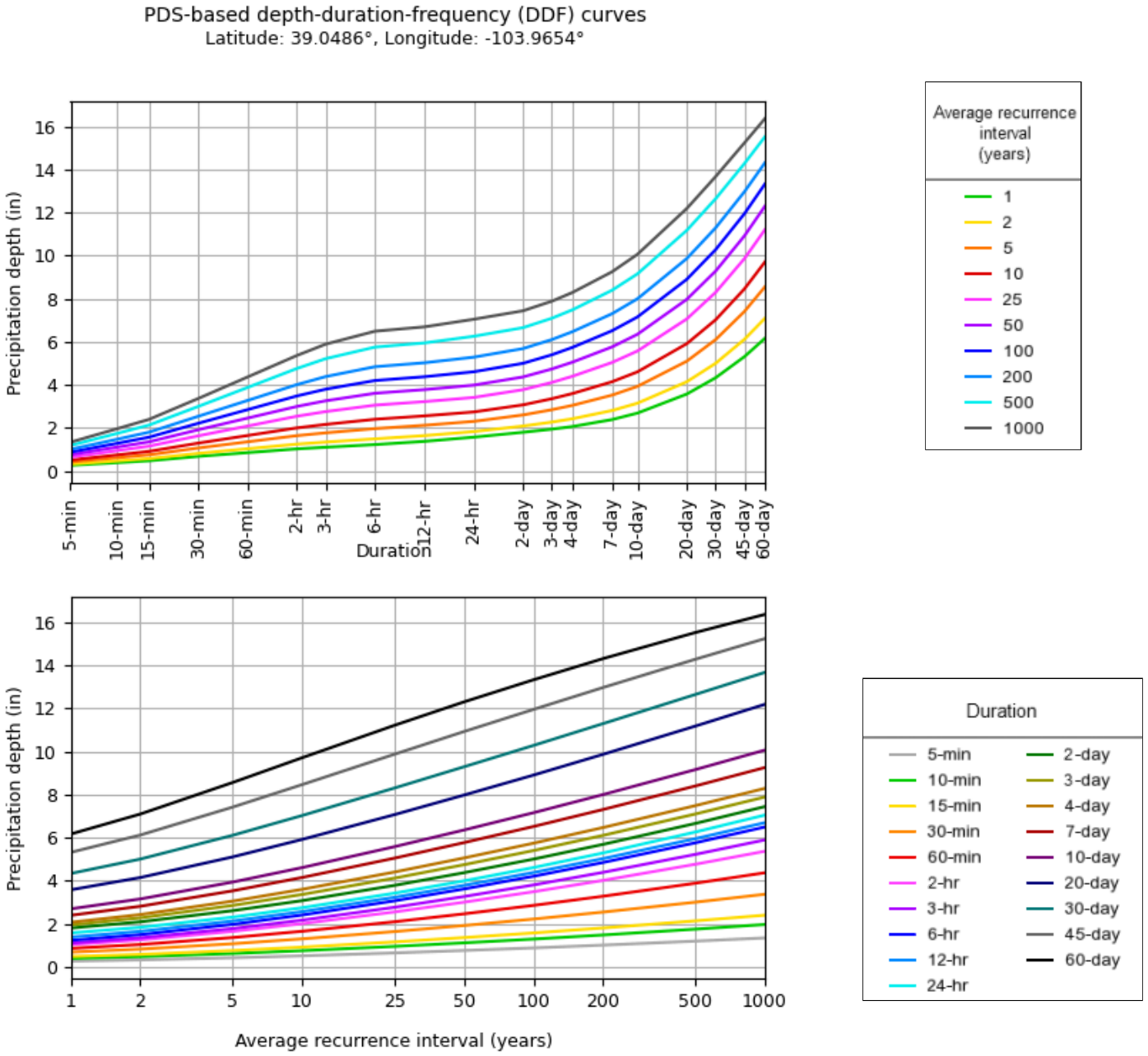
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical



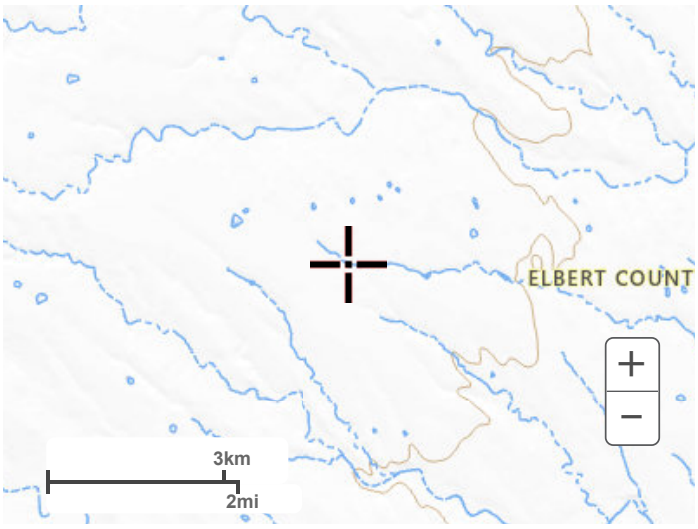
NOAA Atlas 14, Volume 8, Version 2

Created (GMT): Wed Nov 19 14:50:05 2025

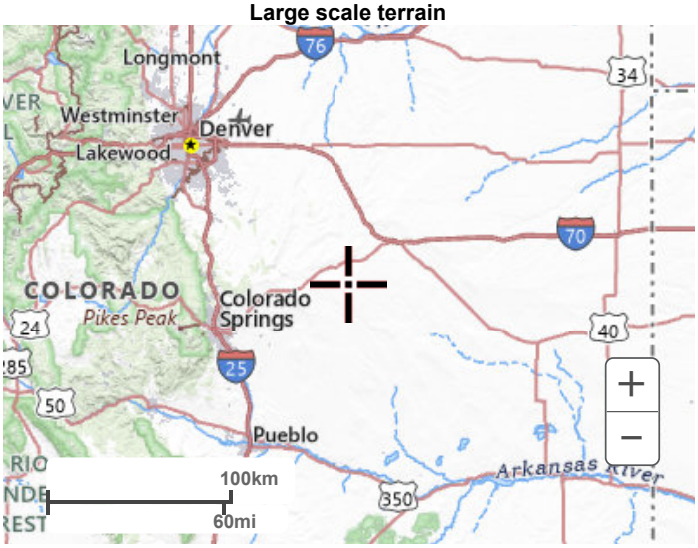
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Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 13. The **horizontal datum** was NAD83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the **North American Vertical Datum of 1988 (NAVD88)**. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-2, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242 or visit its website at http://www.ngs.noaa.gov/.

Base Map information shown on this FIRM was provided in digital format by Elbert County GIS Department and Anderson Consulting Engineers, Inc. These data are current as of 2009.

This map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study Report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

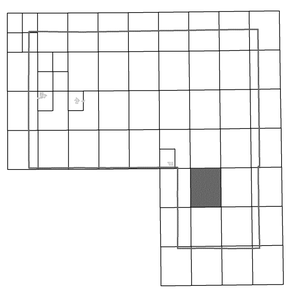
Contact **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study Report*, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA Map (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.

Elbert County Vertical Datum Offset Table

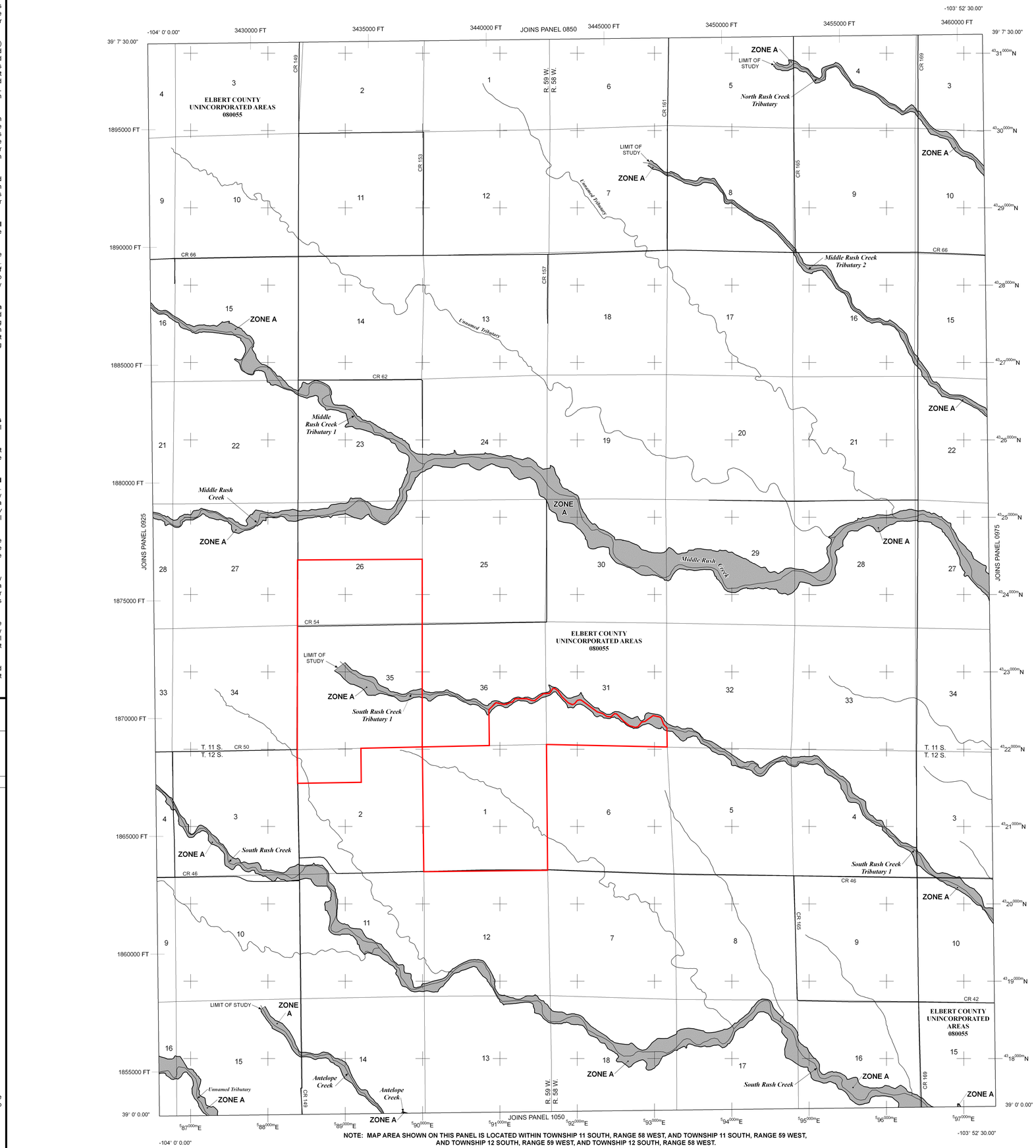
Flooding Source	Vertical Datum Offset (ft)
N/A	N/A

Panel Location Map



This Digital Flood Insurance Rate Map (DFIRM) was produced through a Cooperating Technical Partner (CTP) agreement between the State of Colorado Water Conservation Board (CWCB) and the Federal Emergency Management Agency (FEMA).

Additional Flood Hazard information and resources are available from local communities and the Colorado Water Conservation Board.



NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 11 SOUTH, RANGE 58 WEST, AND TOWNSHIP 11 SOUTH, RANGE 59 WEST, AND TOWNSHIP 12 SOUTH, RANGE 59 WEST, AND TOWNSHIP 12 SOUTH, RANGE 58 WEST.

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area Formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance 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% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	Floodplain boundary
	Floodway boundary
	Zone D Boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A	Cross section line
23 — 23	Transect line
97° 07' 30.00" 32° 22' 30.00"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N	1000-meter Universal Transverse Mercator grid ticks, zone 13
6000000 FT	5000-foot grid ticks: Colorado State Plane coordinate system, central zone (FIPSZONE 0502), Lambert Conformal Conic Projection
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
MARCH 17, 2011

For community map revision history prior to countywide mapping, refer to the Community Map History Table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET

600 0 600 1200 METERS

NFIP

PANEL 0950C

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

ELBERT COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 0950 OF 1200

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY	NUMBER	PANEL	SUFFIX
ELBERT COUNTY	080055	0950	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 08039C0950C

EFFECTIVE DATE: MARCH 17, 2011

Federal Emergency Management Agency

Appendix 2: Existing Land Cover, Soils, and Curve Number Maps

Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\Overview Map Date Saved: 1/22/2026

Land Cover
- Cultivated Crops
- Developed - Low Intensity
- Emergent Herbaceous Wetlands
- Existing Roads
- Grassland/Herbaceous
- Property Limits
- Study Area

Appendix 2 - Figure 1 - Existing Land Cover

Shepherd Solar Development
BayWa r.e.

N

0 2,000 Feet

1 inch = 2,000 feet

BayWa r.e.

wsb

Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\Overview Map Date Saved: 1/22/2026

CN
30
57
58
69
71
72
73
78
81
83
96
Property Limits
Study Area

Appendix 2 - Figure 2 - Existing Curve Number

Shepherd Solar Development
BayWa r.e.

N
0 2,000 Feet
1 inch = 2,000 feet

BayWa r.e.

wsb

Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\Overview Map Date Saved: 1/22/2026

Hydrologic Soil Group
- A
- B
- C
- Property Limits
- Study Area

Appendix 2 - Figure 3 - Soils

Shepherd Solar Development
BayWa r.e.

N

0 2,000 Feet

1 inch = 2,000 feet

BayWa r.e.

wsb

Appendix 3: Proposed Land Cover and Curve Number Maps

Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\Overview Map Date Saved: 2/25/2026

Land Cover
- Cultivated Crops
- Developed - Low Intensity
- Emergent Herbaceous Wetlands
- Existing Roads
- Grassland/Herbaceous
- Proposed Panels
- Proposed Roads/Pads
- Proposed Vegetation
- Property Limits
- Study Area

BayWa r.e.

Appendix 3 - Figure 1 - Proposed Land Cover

Shepherd Solar Development
BayWa r.e.

N

0 2,000 Feet

1 inch = 2,000 feet

wsb

Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\Overview Map Date Saved: 2/25/2026

CN
- 30
- 57
- 58
- 69
- 71
- 72
- 73
- 78
- 81
- 83
- 96
- Property Limits
- Study Area

Appendix 3 - Figure 2 - Proposed Curve Number

Shepherd Solar Development
BayWa r.e.

BayWa r.e.

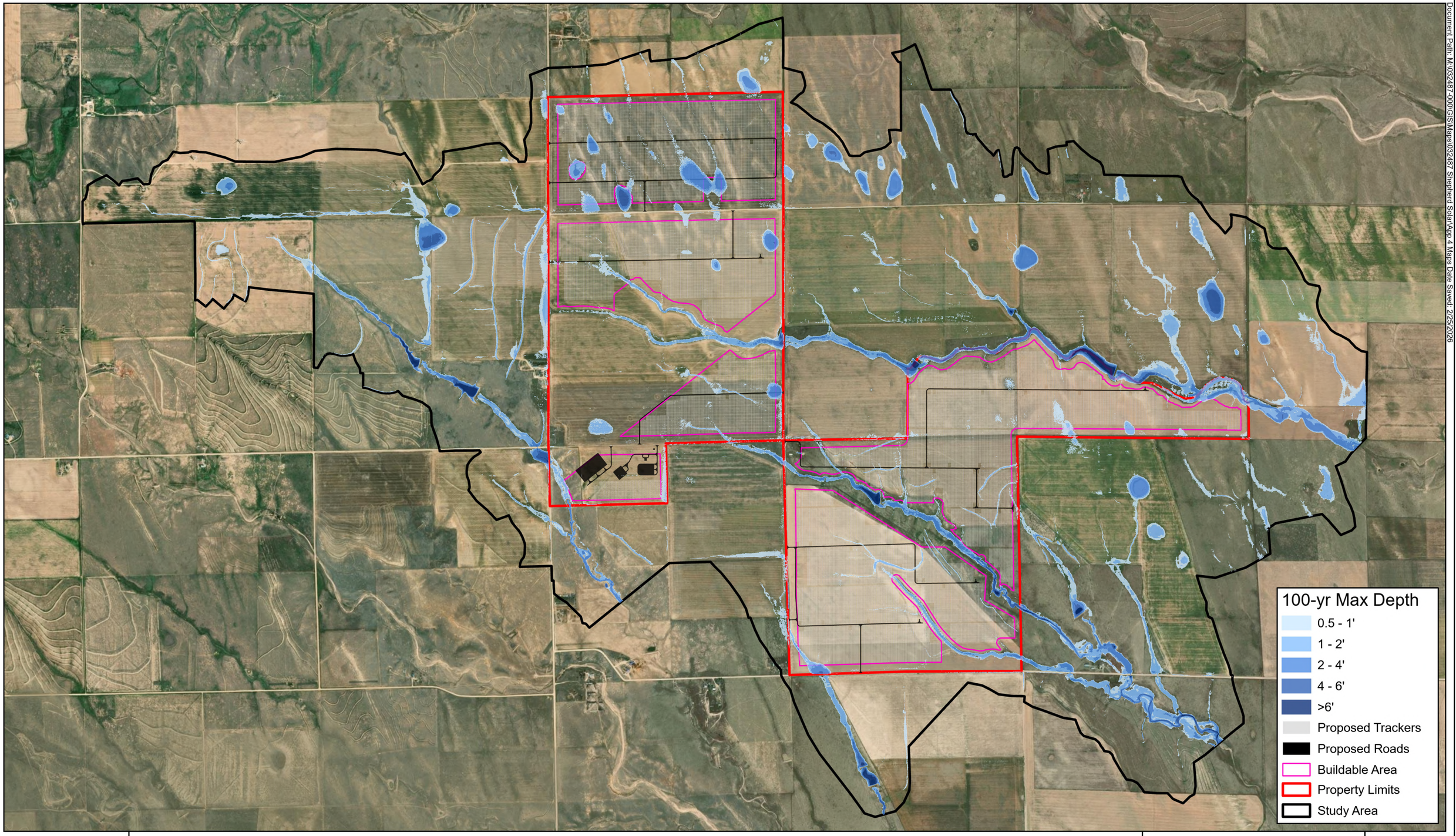
N

0 2,000 Feet
1 inch = 2,000 feet

wsb

Appendix 4: Results Maps

Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\App 4 Maps Date Saved: 2/25/2026



Appendix 4 - Figure 1 - Existing 100-year Depth Results

Shepherd Solar Development
BayWa r.e.

BayWa r.e.

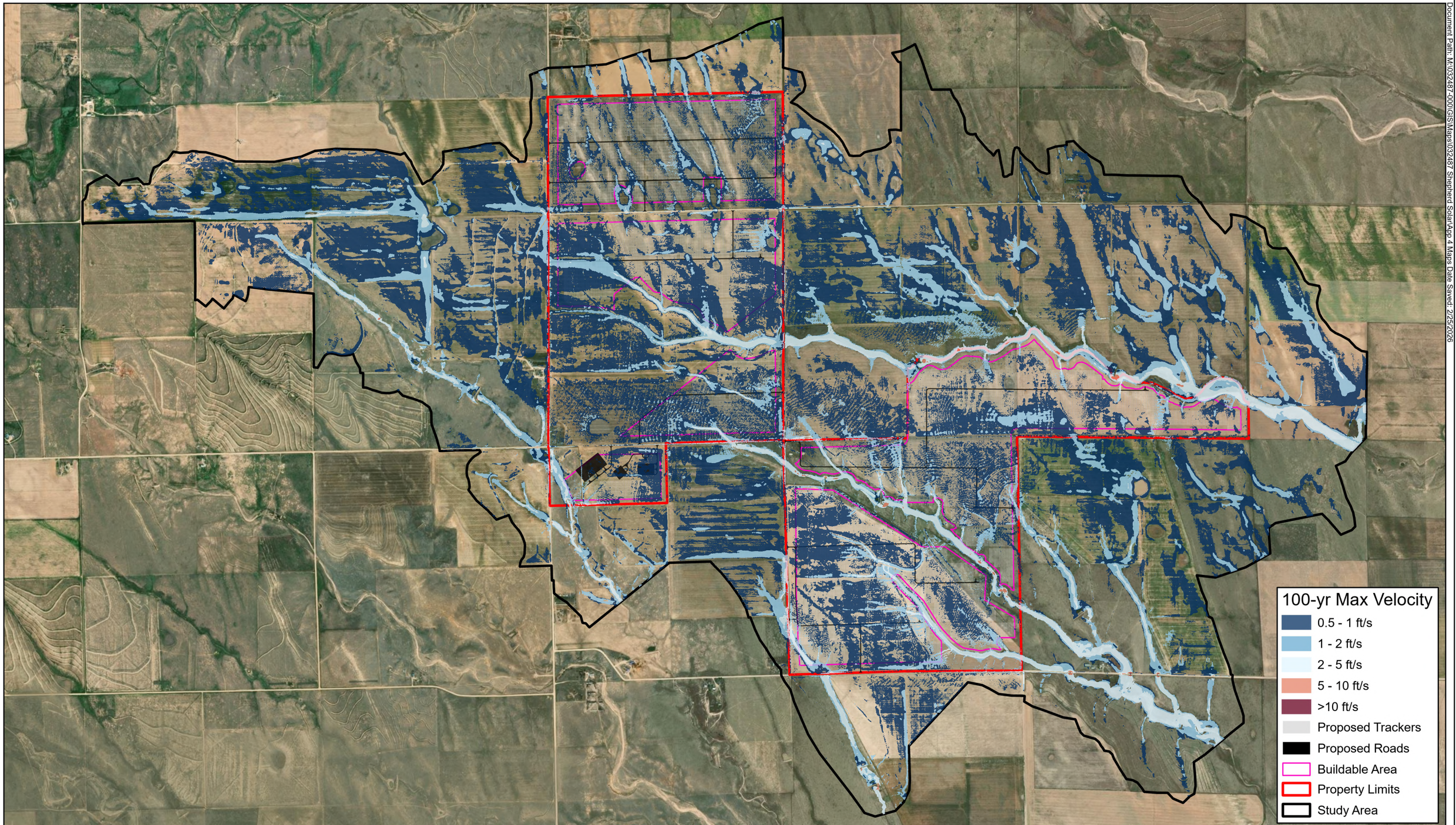
N

0 2,000 Feet

1 inch = 2,000 feet

wsb

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Appendix 4 - Figure 2 - Existing 100-year Velocity Results

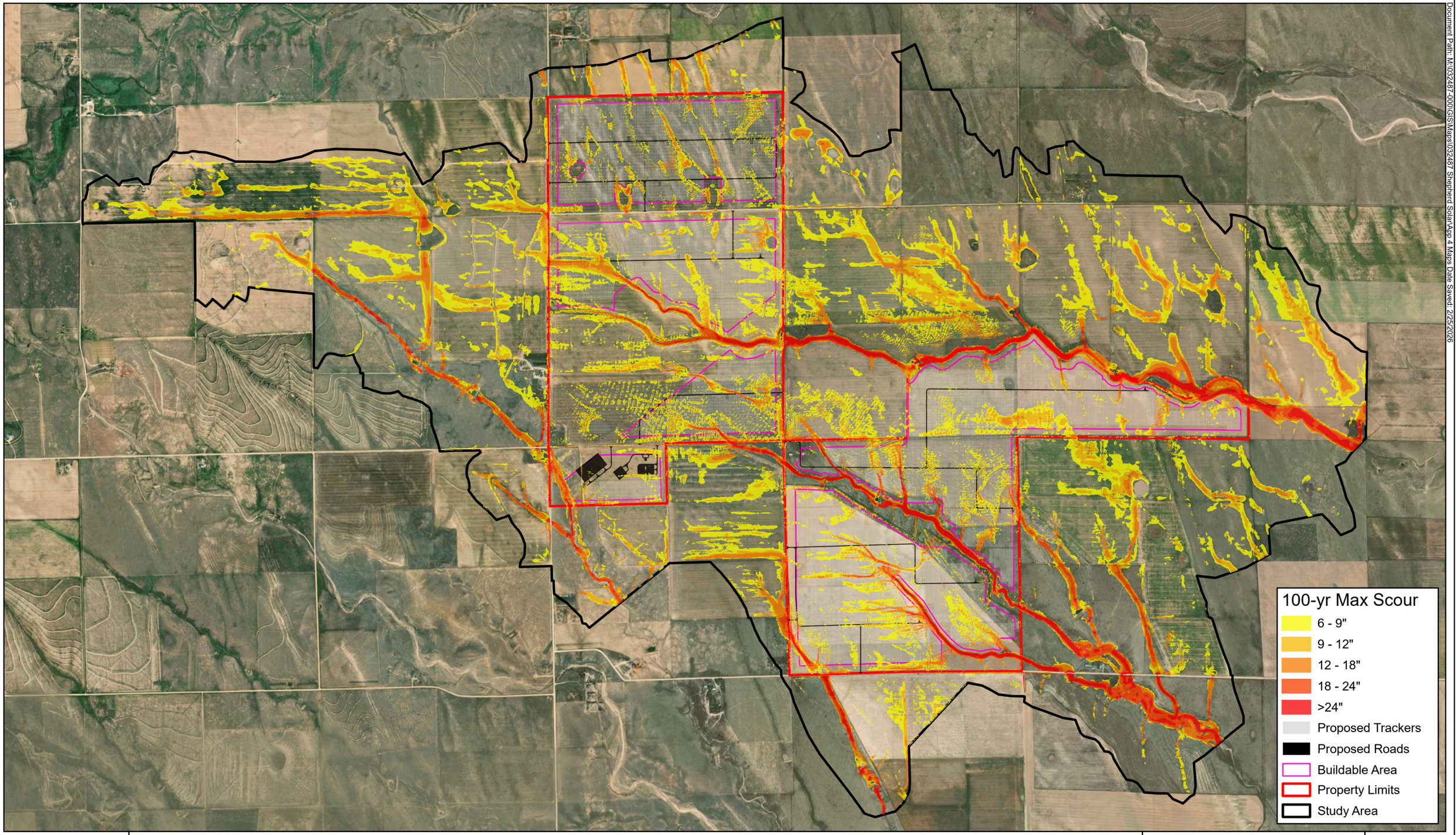
Shepherd Solar Development
BayWa r.e.

N
0 2,000 Feet
1 inch = 2,000 feet

BayWa r.e.

wsb

Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\App 4 Maps Date Saved: 2/25/2026



Appendix 4 - Figure 3 - Existing 100-year Scour Results

Shepherd Solar Development
BayWa r.e.

N
0 2,000 Feet
1 inch = 2,000 feet

BayWa r.e.

wsb

Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\App 4 Maps Date Saved: 2/25/2026

Max Onsite Depth: 14.6'

Max Offsite Depth: 17.6'

100-yr Max Depth
- 0.5 - 1'
- 1 - 2'
- 2 - 4'
- 4 - 6'
- >6'
- Proposed Trackers
- Proposed Roads
- Buildable Area
- Property Limits
- Study Area

Appendix 4 - Figure 4 - Proposed 100-year Depth Results

Shepherd Solar Development
BayWa r.e.

N
0 2,000 Feet
1 inch = 2,000 feet

BayWa r.e.

wsb

Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\App 4 Maps Date Saved: 2/25/2026

Max Onsite Velocity: 10.2 ft/s

Max Offsite Velocity: 17.0 ft/s

100-yr Max Velocity
- 0.5 - 1 ft/s
- 1 - 2 ft/s
- 2 - 5 ft/s
- 5 - 10 ft/s
- >10 ft/s
- Proposed Trackers
- Proposed Roads
- Buildable Area
- Property Limits
- Study Area

Appendix 4 - Figure 5 - Proposed 100-year Velocity Results

Shepherd Solar Development
BayWa r.e.

N

0 2,000 Feet

1 inch = 2,000 feet

BayWa r.e.

wsb

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Max Onsite Scour: 5.3'

Max Offsite Scour: 7.7'

100-yr Max Scour
- 6 - 9"
- 9 - 12"
- 12 - 18"
- 18 - 24"
- >24"
- Proposed Trackers
- Proposed Roads
- Buildable Area
- Property Limits
- Study Area

Appendix 4 - Figure 6 - Proposed 100-year Scour Results

Shepherd Solar Development
BayWa r.e.

N
0 2,000 Feet
1 inch = 2,000 feet

BayWa r.e.

wsb

Appendix 5: MHFD Stormwater Calculations

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101
Area: 226.87 ac
Impervious: 2.24 ac (0.99%)

104
Area: 228.21 ac
Impervious: 3.45 ac (1.51%)

109
Area: 102.61 ac
Impervious: 0.98 ac (0.96%)

110
Area: 1995.68 ac
Impervious: 12.97 ac (0.65%)

111
Area: 55.02 ac
Impervious: 0.64 ac (1.16%)

112
Area: 686.54 ac
Impervious: 5.41 ac (0.79%)

113
Area: 235.84 ac
Impervious: 0.98 ac (0.42%)

114
Area: 136.63 ac
Impervious: 2.34 ac (1.25%)

CR 54
CR 157
CR 50
CR 149
CR 46

Existing Contours
Existing Drainage Areas
Property Limits
FEMA Zone A Floodplain

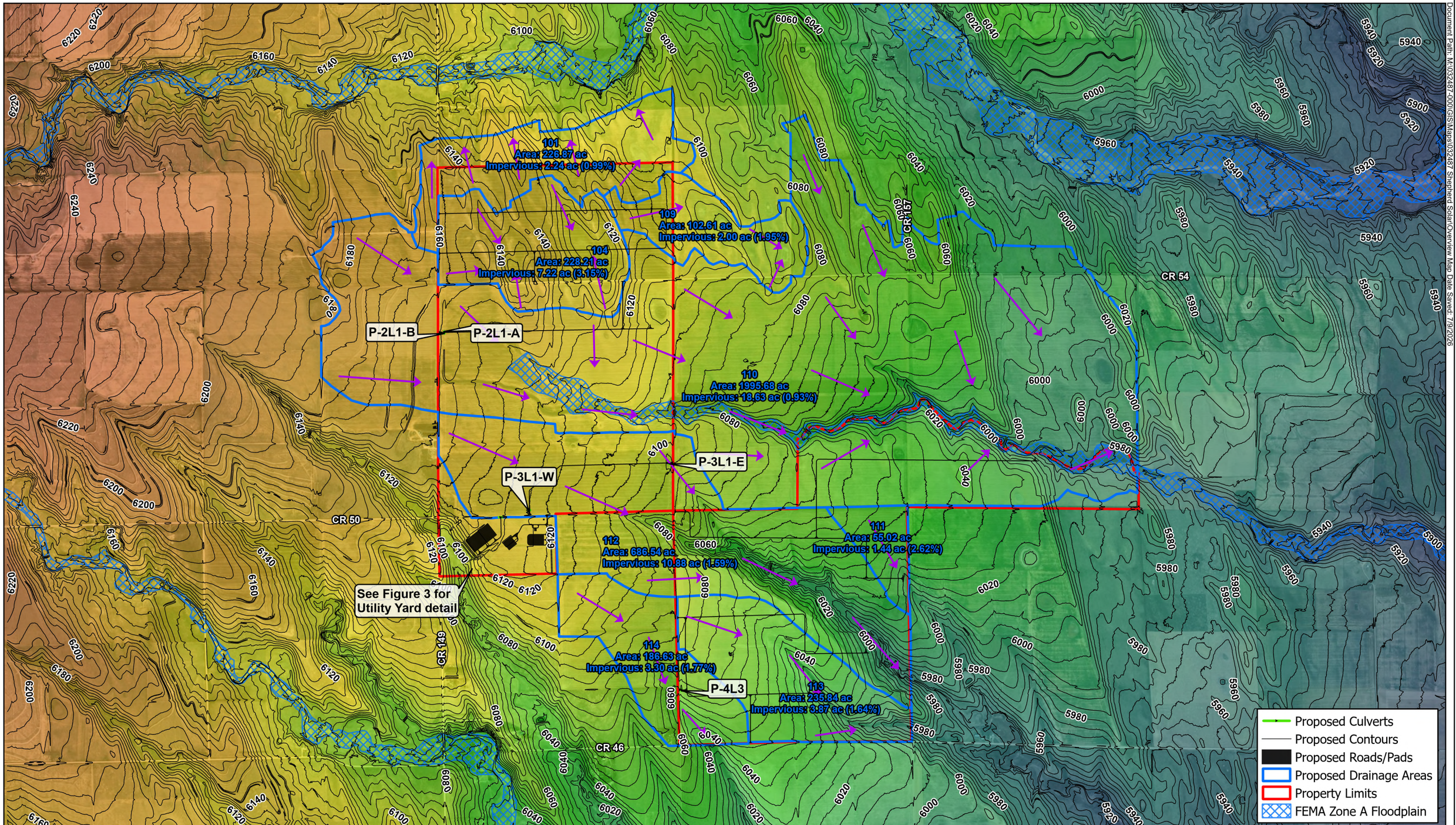
Appendix 5 - Figure 1 - Existing CUHP Drainage Areas

Shepherd Solar Development
BayWa r.e.

BayWa r.e.

N
0 2,000 Feet
1 inch = 2,000 feet

wsb



Document Path: M:\032487-000\GIS\Maps\032487 Shepherd Solar\Overview Map Date Saved: 7/9/2026

Appendix 5 - Figure 2 - Proposed CUHP Drainage Areas

Shepherd Solar Development
BayWa r.e.

N
0 2,000 Feet
1 inch = 2,000 feet

CUHP SUBCATCHMENTS

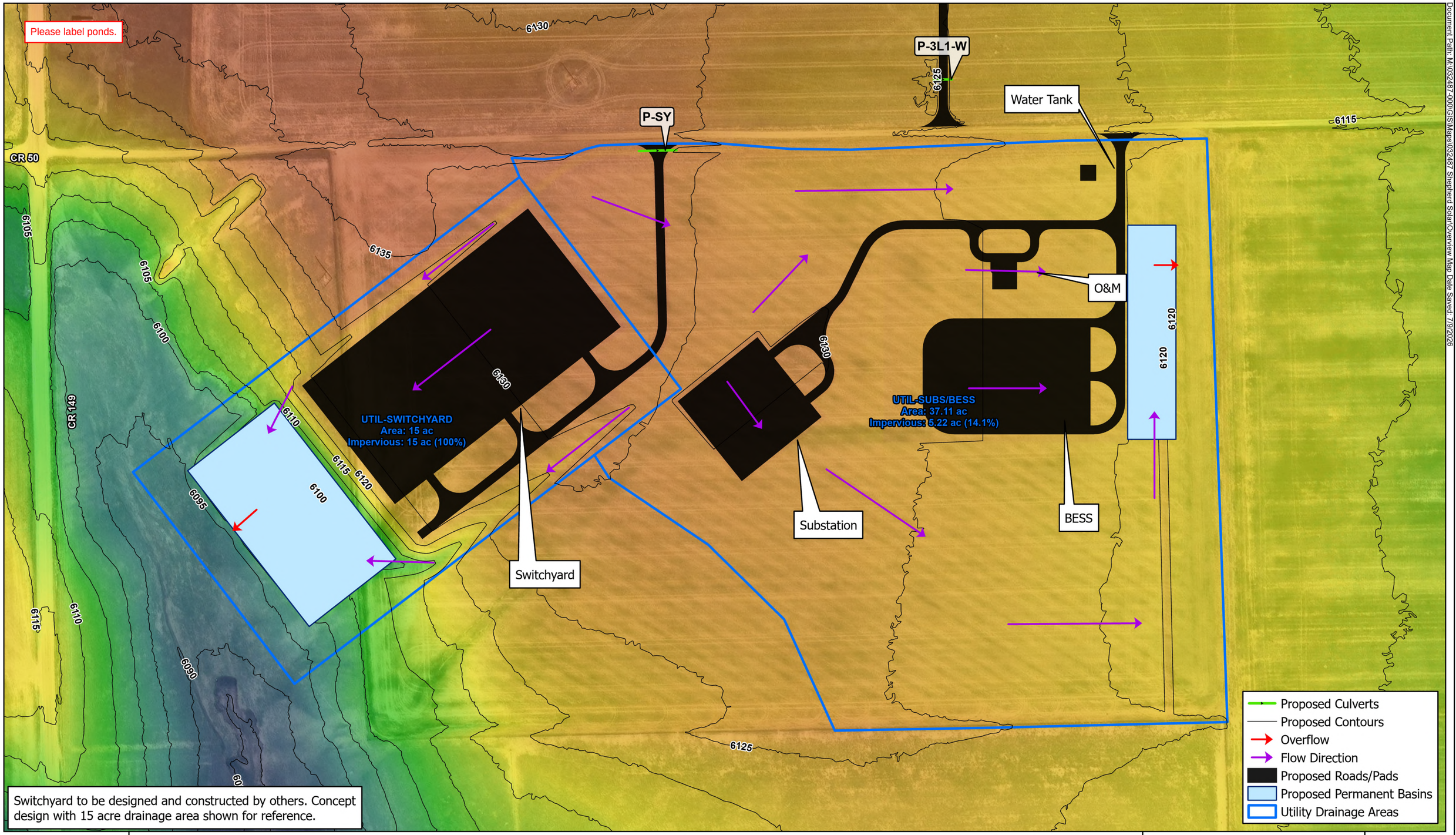
Columns with this color heading are for required user-input
Columns with this color heading are for optional override values
Columns with this color heading are for program-calculated values

								Maximum Depression Storage (Watershed inches)		Horton's Infiltration Parameters			DCIA
Subcatchment Name	EPA SWMM Target Node	Raingage	Area (acre)	Length to Centroid (ft)	Length (ft)	Slope (ft/ft)	Percent Imperviousness	Pervious	Impervious	Initial Rate (in/hr)	Decay Coefficient (1/seconds)	Final Rate (in/hr)	Level 0, 1, or 2
101 - Existing		Shepherd Rainfall	226.87	1740	3700	0.00435	0.986519377	0.4	0.15	4.5	0.0018	0.6	0
110 - Existing		Shepherd Rainfall	1995.68	6540	20630	0.0101	0.650128055	0.4	0.15	4.5	0.0018	0.6	0
111 - Existing		Shepherd Rainfall	55.02	1200	2700	0.017	1.157074463	0.4	0.15	3	0.0018	0.5	0
112 - Existing		Shepherd Rainfall	686.54	7190	13520	0.0132	0.788112159	0.4	0.15	3	0.0018	0.5	0
113 - Existing		Shepherd Rainfall	235.84	3360	6400	0.017	0.415910811	0.4	0.15	3	0.0018	0.5	0
114 - Existing		Shepherd Rainfall	186.63	2590	5860	0.0138	1.254621393	0.4	0.15	3	0.0018	0.5	0
101 - Proposed		Shepherd Rainfall	226.87	1740	3700	0.00435	0.986519377	0.4	0.15	4.5	0.0018	0.6	0
110 - Proposed		Shepherd Rainfall	1995.68	6540	20630	0.0101	0.933495211	0.4	0.15	4.5	0.0018	0.6	0
111 - Proposed		Shepherd Rainfall	55.02	1200	2700	0.017	2.623889602	0.4	0.15	3	0.0018	0.5	0
112 - Proposed		Shepherd Rainfall	686.54	7190	13520	0.0132	1.585436476	0.4	0.15	3	0.0018	0.5	0
113 - Proposed		Shepherd Rainfall	235.84	3360	6400	0.017	1.640801816	0.4	0.15	3	0.0018	0.5	0
114 - Proposed		Shepherd Rainfall	186.63	2590	5860	0.0138	1.770283186	0.4	0.15	3	0.0018	0.5	0

Comment			
1Hr Depth	2.86	NOAA Atlas 14 Point Precipitation Frequency Estimates: CO (Note: Use 60-minute recur	
Return Period	100	Years	
Time	Depth	CurveValue	
0:05	0.029		0.01
0:10	0.086		0.03
0:15	0.132		0.046
0:20	0.229		0.08
0:25	0.4		0.14
0:30	0.715		0.25
0:35	0.4		0.14
0:40	0.229		0.08
0:45	0.177		0.062
0:50	0.143		0.05
0:55	0.114		0.04
1:00	0.114		0.04
1:05	0.114		0.04
1:10	0.057		0.02
1:15	0.057		0.02
1:20	0.034		0.012
1:25	0.034		0.012
1:30	0.034		0.012
1:35	0.034		0.012
1:40	0.034		0.012
1:45	0.034		0.012
1:50	0.034		0.012
1:55	0.034		0.012
2:00	0.034		0.012
2:05	0		

Summary of Unit Hydrograph Parameters Used By Program and Calculated Results (Version 2.0.1

	Unit Hydrograph Parameters and Results									Excess Precip.		Storm Hydrograph			
Catchment Name/ID	CT	Cp	W50 (min.)	W50 Before Peak	W75 (min.)	W75 Before Peak	Time to Peak (min.)	Peak (cfs)	Volume (c.f)	Excess (inches)	Excess (c.f.)	Time to Peak (min.)	Peak Flow (cfs)	Total Volume (c.f.)	Runoff per Unit Area (cfs/acre)
101 - Existing	0.160	0.269	50.8	12.00	26.4	8.48	20.0	210	823,546	1.64	1,351,923	55.0	280.7	1,352,085	1.24
110 - Existing	0.161	0.521	93.0	32.56	48.4	21.77	64.5	1,005	7,244,334	1.64	11,862,381	100.0	1,554.4	11,860,923	0.78
111 - Existing	0.159	0.158	44.7	6.92	23.3	4.89	11.5	58	199,736	1.82	363,555	50.0	79.4	363,299	1.44
112 - Existing	0.160	0.377	102.7	31.20	53.4	22.05	52.0	313	2,492,154	1.82	4,525,797	90.0	538.4	4,525,715	0.78
113 - Existing	0.162	0.275	64.5	15.16	33.6	10.71	25.3	171	856,096	1.81	1,551,098	65.0	265.3	1,550,766	1.13
114 - Existing	0.159	0.252	61.6	13.43	32.0	9.49	22.4	142	677,471	1.82	1,233,859	60.0	216.7	1,233,127	1.16
101 - Proposed	0.160	0.269	50.8	12.00	26.4	8.48	20.0	210	823,546	1.64	1,351,923	55.0	280.7	1,352,085	1.24
110 - Proposed	0.160	0.518	93.0	32.56	48.4	21.77	64.1	1,006	7,244,334	1.64	11,887,509	100.0	1,556.4	11,885,637	0.78
111 - Proposed	0.154	0.153	44.7	6.75	23.2	4.77	11.3	58	199,736	1.84	366,858	50.0	79.8	366,701	1.45
112 - Proposed	0.158	0.371	102.6	30.70	53.4	21.70	51.2	314	2,492,154	1.83	4,548,182	90.0	539.9	4,548,264	0.79
113 - Proposed	0.157	0.269	64.5	14.81	33.5	10.46	24.7	171	856,096	1.83	1,562,909	65.0	266.3	1,562,595	1.13
114 - Proposed	0.157	0.250	61.5	13.30	32.0	9.40	22.2	142	677,471	1.83	1,237,796	60.0	217.1	1,237,148	1.16



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Appendix 5 - Figure 3 - Utility Yard Basins

Shepherd Solar Development
BayWa r.e.

BayWa r.e.

N

0 200 Feet

1 inch = 200 feet

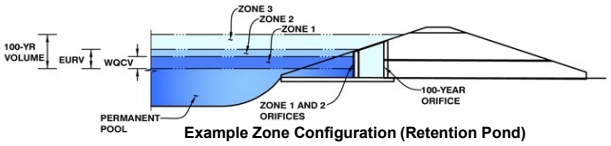
wsb

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.07 (June 2025)

Project: **Shepherd Solar Development**

Basin ID: **Substation/BESS Basin**



Example Zone Configuration (Retention Pond)

Provide composite impervious calculations to support the area/impervious used in the MHFD-Detention calculation (typ all ponds).

Watershed Information

Selected SCM Type =	**EDB**	
Watershed Area =	37.11	acres
Watershed Length =	2,040	ft
Watershed Length to Centroid =	710	ft
Watershed Slope =	0.009	ft/ft
Watershed Imperviousness =	14.10%	percent
Percentage Hydrologic Soil Group A =	0.0%	percent
Percentage Hydrologic Soil Group B =	0.0%	percent
Percentage Hydrologic Soil Groups C/D =	100.0%	percent
Target WQCV Drain Time =	40.0	hours
Location for 1-hr Rainfall Depths =	Parker - Town Hall	

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

		Optional User Overrides	
Water Quality Capture Volume (WQCV) =	0.275 acre-feet		acre-feet
Excess Urban Runoff Volume (EURV) =	0.447 acre-feet		acre-feet
2-yr Runoff Volume (P1 = 1.04 in.) =	0.529 acre-feet	1.04	inches
5-yr Runoff Volume (P1 = 1.36 in.) =	1.262 acre-feet	1.36	inches
10-yr Runoff Volume (P1 = 1.65 in.) =	2.072 acre-feet	1.65	inches
25-yr Runoff Volume (P1 = 2.09 in.) =	3.606 acre-feet	2.09	inches
50-yr Runoff Volume (P1 = 2.46 in.) =	4.759 acre-feet	2.46	inches
100-yr Runoff Volume (P1 = 2.86 in.) =	6.223 acre-feet	2.86	inches
500-yr Runoff Volume (P1 = 3.88 in.) =	9.569 acre-feet	3.88	inches
Approximate 2-yr Detention Volume =	0.322 acre-feet		
Approximate 5-yr Detention Volume =	0.698 acre-feet		
Approximate 10-yr Detention Volume =	0.915 acre-feet		
Approximate 25-yr Detention Volume =	1.203 acre-feet		
Approximate 50-yr Detention Volume =	1.313 acre-feet		
Approximate 100-yr Detention Volume =	1.830 acre-feet		

Define Zones and Basin Geometry

Zone 1 Volume (WQCV) =	0.275	acre-feet
Zone 2 Volume (EURV - Zone 1) =	0.173	acre-feet
Zone 3 Volume (100-year - Zones 1 & 2) =	1.383	acre-feet
Total Detention Basin Volume =	1.830	acre-feet
Initial Surcharge Volume (ISV) =	36	ft^3
Initial Surcharge Depth (ISD) =	0.40	ft
Total Available Detention Depth (H_{total}) =	3.00	ft
Depth of Trickle Channel (H_{TC}) =	1.50	ft
Slope of Trickle Channel (S_{TC}) =	0.001	ft/ft
Slopes of Main Basin Sides (S_{main}) =	4	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	2	
Initial Surcharge Area (A_{ISV}) =	90	ft^2
Surcharge Volume Length (L_{ISV}) =	9.5	ft
Surcharge Volume Width (W_{ISV}) =	9.5	ft
Depth of Basin Floor (H_{FLOOR}) =	0.42	ft
Length of Basin Floor (L_{FLOOR}) =	431.2	ft
Width of Basin Floor (W_{FLOOR}) =	219.5	ft
Area of Basin Floor (A_{FLOOR}) =	94,628	ft^2
Volume of Basin Floor (V_{FLOOR}) =	13,669	ft^3
Depth of Main Basin (H_{MAIN}) =	0.68	ft
Length of Main Basin (L_{MAIN}) =	436.6	ft
Width of Main Basin (W_{MAIN}) =	224.9	ft
Area of Main Basin (A_{MAIN}) =	98,197	ft^2
Volume of Main Basin (V_{MAIN}) =	65,557	ft^3
Calculated Total Basin Volume (V_{total}) =	**1.823**	acre-feet

Depth Increment = 0.50 ft

Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
Top of Micropool	0.00		9.5	9.5	90		0.002		
	0.01		9.5	9.5	90		0.002	36	0.001
	0.02		9.5	9.5	90		0.002	45	0.001
	0.03		9.5	9.5	90		0.002	90	0.002
	0.04		9.5	9.5	90		0.002	135	0.003
	0.05		9.5	9.5	6,535		0.150	418	0.010
Zone 1 (WQCV)	2.30		411.1	209.5	86,110		1.977	12,056	0.277
Floor	2.32		431.2	219.5	94,628		2.172	13,863	0.318
Zone 2 (EURV)	2.38		431.6	220.0	94,941		2.180	19,550	0.449
	2.50		432.6	220.9	95,567		2.194	30,980	0.711
	3.00		436.6	224.9	98,197		2.254	79,420	1.823
Zone 3 (100-year)	3.01		436.7	225.0	98,250		2.256	80,402	1.846
	3.50		440.6	228.9	100,859		2.315	129,183	2.966
	4.00		444.6	232.9	103,553		2.377	180,285	4.139
	4.50		448.6	236.9	106,279		2.440	232,741	5.343
	5.00		452.6	240.9	109,037		2.503	286,569	6.579
	5.50		456.6	244.9	111,827		2.567	341,784	7.846
	6.00		460.6	248.9	114,650		2.632	398,402	9.146
	6.50		464.6	252.9	117,504		2.698	456,439	10.478
	7.00		468.6	256.9	120,390		2.764	515,911	11.844
	7.50		472.6	260.9	123,308		2.831	576,834	13.242
	8.00		476.6	264.9	126,258		2.898	639,224	14.675
	8.50		480.6	268.9	129,240		2.967	703,097	16.141
	9.00		484.6	272.9	132,254		3.036	768,469	17.642
	9.50		488.6	276.9	135,300		3.106	835,356	19.177
	10.00		492.6	280.9	138,378		3.177	903,774	20.748
	10.50		496.6	284.9	141,488		3.248	973,739	22.354
	11.00		500.6	288.9	144,630		3.320	1,045,268	23.996
	11.50		504.6	292.9	147,804		3.393	1,118,375	25.674
	12.00		508.6	296.9	151,010		3.467	1,193,077	27.389
	12.50		512.6	300.9	154,248		3.541	1,269,390	29.141
	13.00		516.6	304.9	157,518		3.616	1,347,330	30.930
	13.50		520.6	308.9	160,820		3.692	1,426,914	32.757
	14.00		524.6	312.9	164,154		3.768	1,508,156	34.622
	14.50		528.6	316.9	167,520		3.846	1,591,073	36.526
	15.00		532.6	320.9	170,918		3.924	1,675,682	38.468
	15.50		536.6	324.9	174,348		4.002	1,761,997	40.450
	16.00		540.6	328.9	177,810		4.082	1,850,035	42.471
	16.50		544.6	332.9	181,304		4.162	1,939,813	44.532
	17.00		548.6	336.9	184,831		4.243	2,031,345	46.633
	17.50		552.6	340.9	188,389		4.325	2,124,649	48.775
	18.00		556.6	344.9	191,979		4.407	2,219,739	50.958
	18.50		560.6	348.9	195,601		4.490	2,316,633	53.183
	19.00		564.6	352.9	199,255		4.574	2,415,345	55.449
	19.50		568.6	356.9	202,941		4.659	2,515,893	57.757
	20.00		572.6	360.9	206,659		4.744	2,618,291	60.108
	20.50		576.6	364.9	210,409		4.830	2,722,557	62.501
	21.00		580.6	368.9	214,191		4.917	2,828,705	64.938
	21.50		584.6	372.9	218,005		5.005	2,936,753	67.419
	22.00		588.6	376.9	221,851		5.093	3,046,716	69.943
	22.50		592.6	380.9	225,729		5.182	3,158,609	72.512
	23.00		596.6	384.9	229,639		5.272	3,272,450	75.125
	23.50		600.6	388.9	233,581		5.362	3,388,254	77.784
	24.00		604.6	392.9	237,555		5.454	3,506,037	80.488
	24.50		608.6	396.9	241,561		5.545	3,625,814	83.237
	25.00		612.6	400.9	245,599		5.638	3,747,603	86.033
	25.50		616.6	404.9	249,669		5.732	3,871,419	88.876
	26.00		620.6	408.9	253,771		5.826	3,997,278	91.765

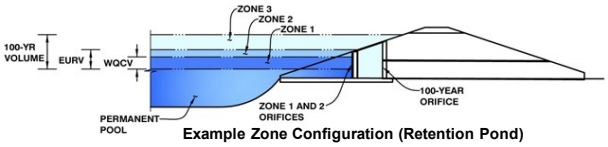
Clarify proposed basin sizing and elevation of stages contributing to the proposed pond (typ all ponds).

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.07 (June 2025)

Project: **Shepherd Solar Development**

Basin ID: **Switchyard Basin (to be completed by others - assumed 15 ac tributary of 100% impervious)**



Example Zone Configuration (Retention Pond)

Watershed Information

Selected SCM Type =	**EDB**	
Watershed Area =	15.00	acres
Watershed Length =	840	ft
Watershed Length to Centroid =	500	ft
Watershed Slope =	0.030	ft/ft
Watershed Imperviousness =	100.00%	percent
Percentage Hydrologic Soil Group A =	0.0%	percent
Percentage Hydrologic Soil Group B =	10.0%	percent
Percentage Hydrologic Soil Groups C/D =	90.0%	percent
Target WQCV Drain Time =	40.0	hours
Location for 1-hr Rainfall Depths =	Parker - Town Hall	

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

			Optional User Overrides	
Water Quality Capture Volume (WQCV) =	0.625	acre-feet		acre-feet
Excess Urban Runoff Volume (EURV) =	1.520	acre-feet		acre-feet
2-yr Runoff Volume (P1 = 1.04 in.) =	1.226	acre-feet	1.04	inches
5-yr Runoff Volume (P1 = 1.36 in.) =	1.638	acre-feet	1.36	inches
10-yr Runoff Volume (P1 = 1.65 in.) =	2.010	acre-feet	1.65	inches
25-yr Runoff Volume (P1 = 2.09 in.) =	2.574	acre-feet	2.09	inches
50-yr Runoff Volume (P1 = 2.46 in.) =	3.049	acre-feet	2.46	inches
100-yr Runoff Volume (P1 = 2.86 in.) =	3.563	acre-feet	2.86	inches
500-yr Runoff Volume (P1 = 3.88 in.) =	4.874	acre-feet	3.88	inches
Approximate 2-yr Detention Volume =	1.201	acre-feet		
Approximate 5-yr Detention Volume =	1.630	acre-feet		
Approximate 10-yr Detention Volume =	1.985	acre-feet		
Approximate 25-yr Detention Volume =	2.329	acre-feet		
Approximate 50-yr Detention Volume =	2.487	acre-feet		
Approximate 100-yr Detention Volume =	2.634	acre-feet		

Define Zones and Basin Geometry

Zone 1 Volume (WQCV) =	0.625	acre-feet
Zone 2 Volume (EURV - Zone 1) =	0.895	acre-feet
Zone 3 Volume (100-year - Zones 1 & 2) =	1.115	acre-feet
Total Detention Basin Volume =	2.634	acre-feet
Initial Surcharge Volume (ISV) =	82	ft^3
Initial Surcharge Depth (ISD) =	0.40	ft
Total Available Detention Depth (H_{total}) =	5.00	ft
Depth of Trickle Channel (H_{TC}) =	1.50	ft
Slope of Trickle Channel (S_{TC}) =	0.004	ft/ft
Slopes of Main Basin Sides (S_{main}) =	4	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	2	

Initial Surcharge Area (A_{ISV}) =	204	ft^2
Surcharge Volume Length (L_{ISV}) =	14.3	ft
Surcharge Volume Width (W_{ISV}) =	14.3	ft
Depth of Basin Floor (H_{FLOOR}) =	1.10	ft
Length of Basin Floor (L_{FLOOR}) =	293.7	ft
Width of Basin Floor (W_{FLOOR}) =	151.8	ft
Area of Basin Floor (A_{FLOOR}) =	44,579	ft^2
Volume of Basin Floor (V_{FLOOR}) =	17,527	ft^3
Depth of Main Basin (H_{MAIN}) =	2.00	ft
Length of Main Basin (L_{MAIN}) =	309.7	ft
Width of Main Basin (W_{MAIN}) =	167.8	ft
Area of Main Basin (A_{MAIN}) =	51,963	ft^2
Volume of Main Basin (V_{MAIN}) =	96,447	ft^3
Calculated Total Basin Volume (V_{total}) =	**2.625**	acre-feet

Depth Increment = 0.50 ft

Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
Top of Micropool	0.00		14.3	14.3	204		0.005		
ISV	0.40		14.3	14.3	204		0.005	82	0.002
	0.50		14.3	14.3	204		0.005	102	0.002
	1.00		14.3	14.3	204		0.005	204	0.005
	1.50		14.3	14.3	204		0.005	306	0.007
	2.00		39.7	26.8	1,063		0.024	446	0.010
	2.50		166.7	89.3	14,884		0.342	3,771	0.087
Floor	3.00		293.7	151.8	44,579		1.023	17,975	0.413
Zone 1 (WQCV)	3.21		295.4	153.5	45,330		1.041	27,416	0.629
	3.50		297.7	155.8	46,377		1.065	40,713	0.935
	4.00		301.7	159.8	48,207		1.107	64,358	1.477
Zone 2 (EURV)	4.04		302.0	160.1	48,355		1.110	66,289	1.522
	4.50		305.7	163.8	50,069		1.149	88,925	2.041
	5.00		309.7	167.8	51,963		1.193	114,432	2.627
Zone 3 (100-year)	5.01		309.8	167.9	52,001		1.194	114,952	2.639
	5.50		313.7	171.8	53,889		1.237	140,893	3.234
	6.00		317.7	175.8	55,846		1.282	168,326	3.864
	6.50		321.7	179.8	57,836		1.328	196,745	4.517
	7.00		325.7	183.8	59,858		1.374	226,167	5.192
	7.50		329.7	187.8	61,912		1.421	256,609	5.891
	8.00		333.7	191.8	63,998		1.469	288,085	6.614
	8.50		337.7	195.8	66,116		1.518	320,612	7.360
	9.00		341.7	199.8	68,266		1.567	354,206	8.131
	9.50		345.7	203.8	70,448		1.617	388,883	8.928
	10.00		349.7	207.8	72,662		1.668	424,659	9.749
	10.50		353.7	211.8	74,908		1.720	461,550	10.596
	11.00		357.7	215.8	77,186		1.772	499,572	11.469
	11.50		361.7	219.8	79,496		1.825	538,741	12.368
	12.00		365.7	223.8	81,837		1.879	579,073	13.294
	12.50		369.7	227.8	84,211		1.933	620,584	14.247
	13.00		373.7	231.8	86,617		1.988	663,290	15.227
	13.50		377.7	235.8	89,055		2.044	707,207	16.235
	14.00		381.7	239.8	91,525		2.101	752,350	17.272
	14.50		385.7	243.8	94,027		2.159	798,737	18.336
	15.00		389.7	247.8	96,561		2.217	846,383	19.430
	15.50		393.7	251.8	99,127		2.276	895,303	20.553
	16.00		397.7	255.8	101,725		2.335	945,515	21.706
	16.50		401.7	259.8	104,355		2.396	997,033	22.889
	17.00		405.7	263.8	107,017		2.457	1,049,875	24.102
	17.50		409.7	267.8	109,710		2.519	1,104,055	25.346
	18.00		413.7	271.8	112,436		2.581	1,159,591	26.621
	18.50		417.7	275.8	115,194		2.644	1,216,497	27.927
	19.00		421.7	279.8	117,984		2.709	1,274,790	29.265
	19.50		425.7	283.8	120,806		2.773	1,334,487	30.636
	20.00		429.7	287.8	123,660		2.839	1,395,602	32.039
	20.50		433.7	291.8	126,546		2.905	1,458,152	33.475
	21.00		437.7	295.8	129,464		2.972	1,522,153	34.944
	21.50		441.7	299.8	132,414		3.040	1,587,621	36.447
	22.00		445.7	303.8	135,396		3.108	1,654,572	37.984
	22.50		449.7	307.8	138,410		3.177	1,723,022	39.555
	23.00		453.7	311.8	141,456		3.247	1,792,987	41.161
	23.50		457.7	315.8	144,533		3.318	1,864,483	42.803
	24.00		461.7	319.8	147,643		3.389	1,937,526	44.479
	24.50		465.7	323.8	150,785		3.462	2,012,132	46.192
	25.00		469.7	327.8	153,959		3.534	2,088,317	47.941
	25.50		473.7	331.8	157,165		3.608	2,166,096	49.727
	26.00		477.7	335.8	160,403		3.682	2,245,487	51.549
	26.50		481.7	339.8	163,673		3.757	2,326,505	53.409

APPENDIX I
SHEPHERD SOLAR TRAFFIC CONTROL PLAN

7/16/2026

Mr. Eli Johnson
Lead Civil Engineer
BayWa
18575 Jamboree Road Suite 850
Irvine, CA 92612

Re: Shepherd Solar Traffic Control Plan
Task Order # TO-U0415-8064
WSB Project # 32487

Dear Eli,

Pursuant to our Task Order and Scope of Work, WSB has prepared a traffic control plan to present relevant traffic information and assess the potential impact of the Shepherd Solar project on local roadways within Elbert County. This report includes

1. Project location, key components, and construction schedule
2. Designated preliminary travel routes
3. Estimated daily vehicle trip generation
4. Potential haul route maps
5. Sight distance analysis and profiles at proposed access locations
6. Conclusions

Please review and let us know if you have any questions or comments.

Sincerely,
WSB



Ameer Kian
Sr. Project Manager

Attachments:
1. Exhibit A: Location Map
2. Exhibit B: Access Drives Sight Distance Exhibit

CC: Behnaz Beladi

701 XENIA AVENUE S | SUITE 300 | MINNEAPOLIS, MN | 55416 | 763.541.4800 | WSBENG.COM

1. Project location, key components, and construction schedule

Location
The Project is located in Elbert County, south of US HWY 24 and between County Roads 149 and 169. The project limits include parts of Township 11 South, Range 59 West (Section 25, 26, 35, and 36), Township 11 South, Range 58 West (Section 31), and Township 12 South, Range 59 West (Section 01, and 02). Exhibit A provides the project location and proposed haul route options.

Key Components
The Project is a 199 MW Solar Farm and 100 MW Battery Energy Storage System (BESS) occupying 1,990 acres. The key components for the Solar portion include Photovoltaic Solar Panels installed on single access trackers and driven piles, concrete equipment pads for inverters and transformers, access roads, security fencing with gates, and buried/overhead electrical collection and transmission lines from the PV areas to the substation. The BESS portion includes Battery equipment installed on Concrete Pads with medium voltage electrical lines from the BESS Yard to the Substation.

Construction Schedule
The project has an anticipated Commercial Operation Date (COD) of October 2030. It is anticipated that construction will take up to 24 months which corresponds to a mobilization of construction crews and equipment in October 2028. Construction will commence with civil works which will include delivery of civil machinery and raw materials such as engineered fill or gravel. Mechanical installation, which includes installation of the tracker piles, trackers, modules, and inverters will follow civil completion and will occur through Q2 2030. It is expected that there will be a consistent delivery of equipment during this time period. Deliveries will primarily take place Monday through Friday during normal working hours.

2. Designated travel routes

Potential travel routes have been proposed and identified with a summary of each option and the color of the route from Exhibit A below. BayWa's preferred routes, in order of priority, for heavy construction and material delivery vehicles are as follows. These designated travel routes are preliminary options available to access the project site during construction. The primary routes are from CR 169 (blue) and CR 149 (red). All other routes shown are secondary options. The viability of utilizing each of these access routes will be determined closer to construction upon a survey of the routes and an agreed upon road use agreement (RUA) with the County.

Primary Access Road Options:

County Road 169 (blue)

This route exits US Highway 24 in a rural area, heading south on County Road 169, west on County Road 46 to the project site. This route will also require access along CR 50 and CR 153. This route is approximately 16.2 miles long in total and includes the following sections and conditions-

- The County Road 169 section heading south is a 26' wide gravel/dirt road and is approximately 10.4 miles long. This road supports access to 14 Wind Turbine Generators (WTGs) and appears to have been improved as part of this Wind Project.
- The County Road 46 section heading west is a 26' wide gravel/dirt road, is approximately 4 miles long, and appears to be in good condition
- The County Road 153 section is an 18' wide two-track dirt road and is approximately 1 mile long. This road will likely need improvements to support this project.
- The County Road 50 section heading west to the project substation is an 18' wide two-track dirt road and is approximately 1 mile long. This road will likely need improvements to support this project.

County Road 149 North (red)

This route exits US Highway 24 in an urban area, heading south on County Road 149 to the project site. This route will also require access along CR 50 and CR 153. This route is approximately 9 miles and the County Road 149 section is a 32' wide gravel/dirt road.

Secondary Access Road Options:

County Road 149 South (purple)

This route exits State Road 94 in a rural area, heading north on County Road 149 to the project site. This route will also require access along CR 50 and CR 153. This route is approximately 16 miles and the County Road 149 section is generally a 58' wide gravel/dirt road with a 110 degree turn between CR 14 and CR 26 which may need improvements to make it usable. A small portion of this route (from County Road 2B south towards State Road 94) passes through Lincoln County.

County Road 46 (green)

This route exits State Road 71 in a rural area, heading west on County Road 46 to the project site. This route will also require access along CR 50 and CR 153. This route is approximately 15.6 miles and the County Road 46 section is a 26' wide gravel/dirt road. A small portion of this route (from State Road 71 to County Road 19) passes through Lincoln County.

County Road 133 (yellow)

This route exits US Highway 24 in a rural area, heading south on County Road 133 along Elbert County and El Paso County's joint boundary and east on County Road 50 to the project site. This route will also require access along CR 153. This route is approximately 10.9 miles and the County Road 133 section varies between a 24-28' wide gravel/dirt road.

BayWa will work with the County to establish designated travel routes with access to/from the site as appropriate. Construction vehicles and material delivery will be confined to agreed upon haul routes with the county to minimize impact and traffic to the county roads and residents.

3. Estimated daily vehicle trip generation

The project will have two distinct phases for the purposes of Traffic Management and Control: construction and ongoing operations and maintenance which will commence following completion of construction. For each phase, average daily trip generation can be estimated as follows-

Phase: Construction
Anticipated Dates: October 2028 – June 2030
Duration: 21 months

Vehicle Type	Estimated GVWR (lbs)	Vehicles per Day*	Average Vehicles Trips per Day
Material Delivery Trucks*	30,000-50,000	8-15	16-30
Equipment Hauling Trucks	20,000-40,000	0-5	0-10
BESS Container Trucks	30,000-50,000	0-4	0-2
Passenger Vehicles	2,000-10,000	20-300**	40-600
Fuel Trucks	20,000-30,000	1	2
Water Truck	60,000- 80,000	7	2

* On the front end of construction, the material delivery trucks will primarily be hauling materials such as engineered fill or gravel. Once civil works are completed this will transition to delivery of mechanical equipment including the piles, trackers, and modules.

** This number will vary greatly depending on the phase of construction. Typically, the civil work is performed by a smaller crew of equipment operators whereas hundreds of workers will be required to install the solar modules. Peak workforce is estimated to be around 300 workers onsite.

Phase: Operations and Maintenance
Anticipated to begin October 2030
Duration: Ongoing

Vehicle Type	Estimated GVWR (lbs)	Vehicles per Day*	Average Vehicles Trips per Day
Utility Vehicle/Water Truck	2,000-10,000	1-2	2-4

*Number of Vehicles per Day have been provided by BayWa based on construction staging schedule and prior project experience.

Total Average Vehicle Trips per Day is estimated to be between 50 and 350 and will depend on what stage of construction the Project will be in. The bulk of the construction traffic (50-300 average vehicles per day) will be site construction passenger vehicles.

4. Potential haul route maps

Potential haul route maps are shown in Exhibit A and have been detailed in Section 2. Designated travel routes. BayWa's intention is to work with the county to designate a haul route for construction vehicles and material delivery. At this time, five options for access to the site have been proposed which are detailed in Exhibit A.

5. Sight distance analysis and profiles at proposed access locations

Sight distance analysis and profiles for proposed access locations have been drafted and are included in Exhibit B: Access Drives Sight Distance Exhibit. These include Construction Access locations A through C along County Road 149 and Construction Access locations D through F along County Road 50 and the North/South County Road between County Road 46 and County Road 50.

6. Conclusions

The project is anticipated to start in October 2028 with an estimated construction duration of 24 months.

During this period, traffic impact for the project will be at a maximum but is not expected to exceed 350 vehicle trips per day, even when material delivery and installation are happening concurrently. The bulk of the traffic (50-300 average vehicles per day) will be site construction passenger vehicles.

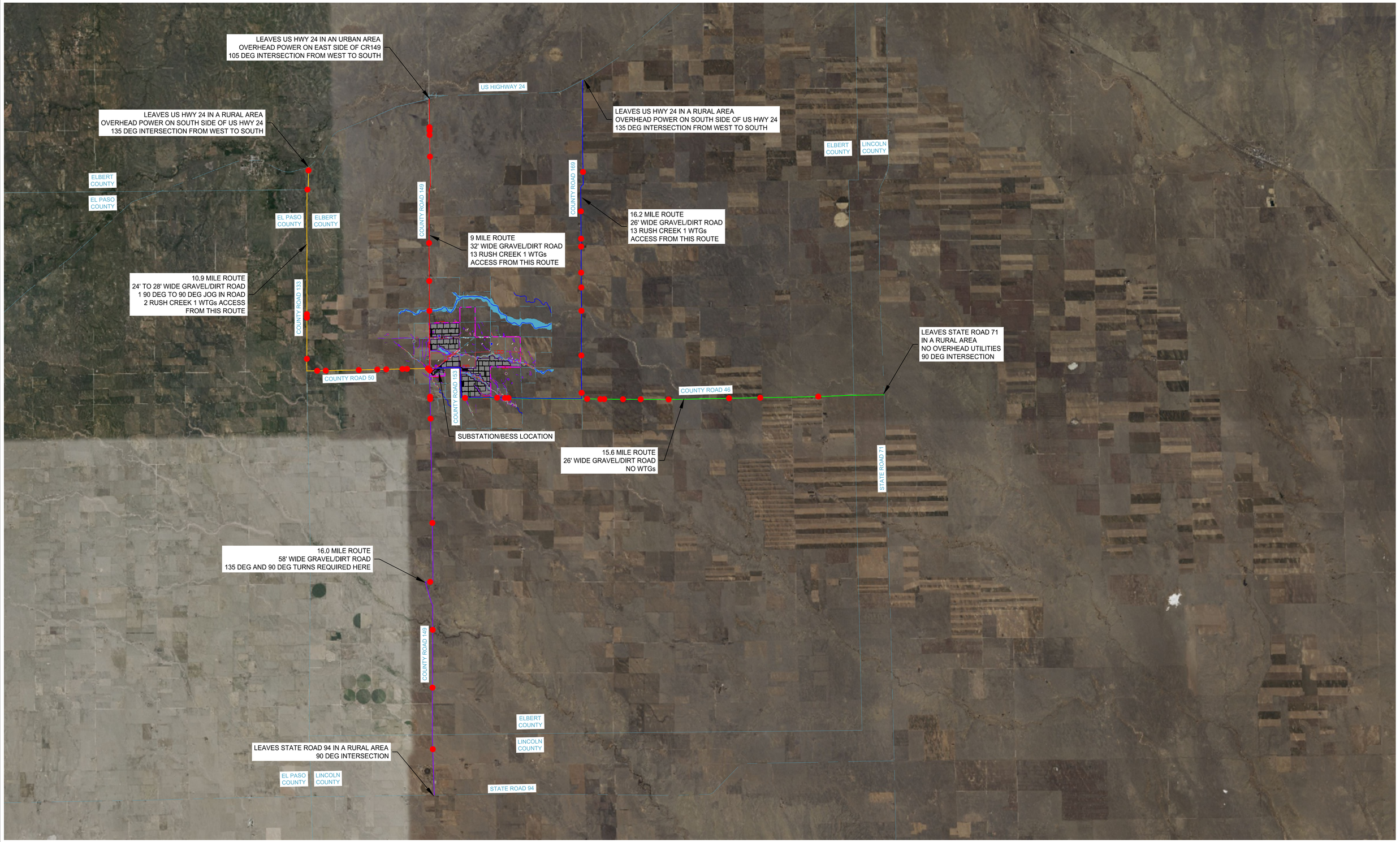
Designated travel and haul routes for access to/from the site have been proposed in Exhibit A and efforts have been made to minimize impact and traffic to the county roads and residents. Depending on the final Haul Route, improvements along some County Roads may be necessary to support the delivery of material and equipment to the site.

Sight distance exhibits for the proposed access locations have been provided in Exhibit B and show compliance with Elbert County Sight Distance Requirements.

If you have any questions on the Traffic Control Plan, please feel free to contact me at akian@wsbeng.com or (763) 388-3493.

Sincerely,

Ameer Kian,
Sr. Project Manager



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WSB PROJECT NO.:
032487-000
WSB LLC DBA WSB DESIGN
AND CONSULTING LLC
FIRM # 20171391667
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800

REVISIONS

NO.	DATE	DESCRIPTION
A	12/02/2025	HAUL ROUTE EXHIBIT
B	12/29/2025	HAUL ROUTE EXHIBIT
C	02/24/2026	HAUL ROUTE EXHIBIT
D	03/06/2026	HAUL ROUTE EXHIBIT

DESIGN BY: GIR
PLAN BY: GIR
CHECK BY: AK
SCALE: AS SHOWN

PRELIMINARY SHEPHERD SOLAR HAUL ROUTE EXHIBIT

N

0 3000 6000
H: SCALE IN FEET

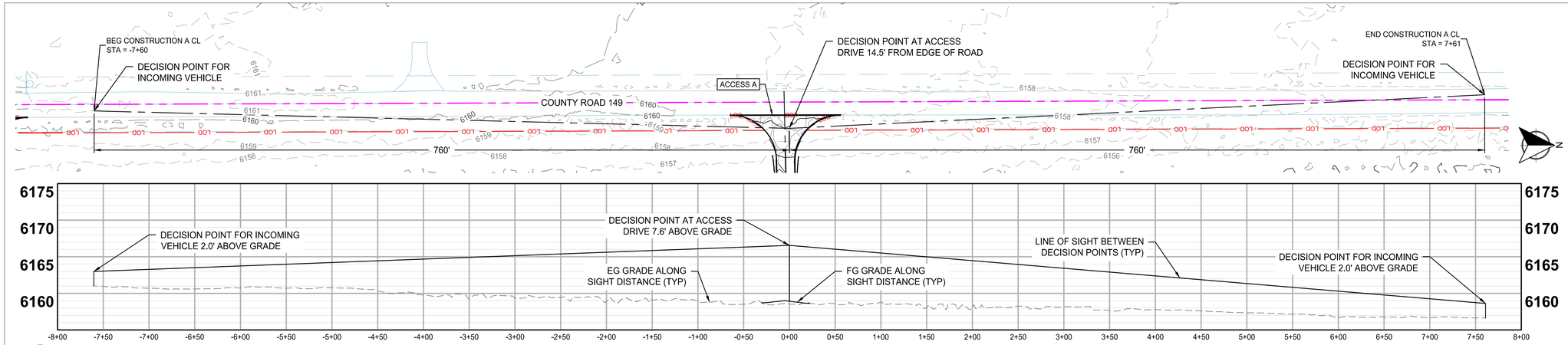
LEGEND

PRIMARY
- COUNTY ROAD 149 NORTH DELIVERY AND PRIMARY HAUL ROUTE
- COUNTY ROAD 169 DELIVERY AND PRIMARY HAUL ROUTE

SECONDARY
- COUNTY ROAD 46 DELIVERY AND HAUL ROUTE
- COUNTY ROAD 133 DELIVERY AND HAUL ROUTE
- COUNTY ROAD 149 SOUTH DELIVERY AND HAUL ROUTE

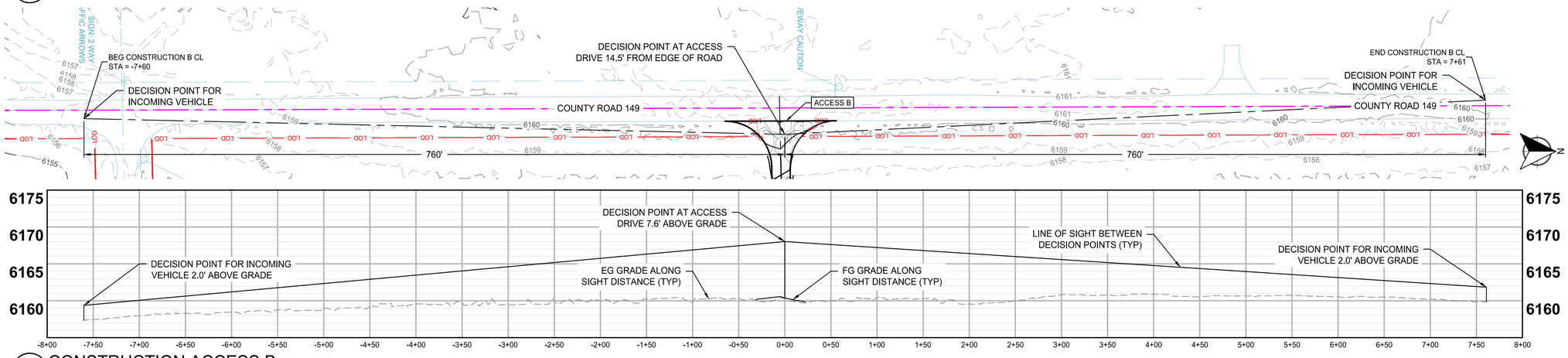
CULVERT CROSSING

EXHIBIT A



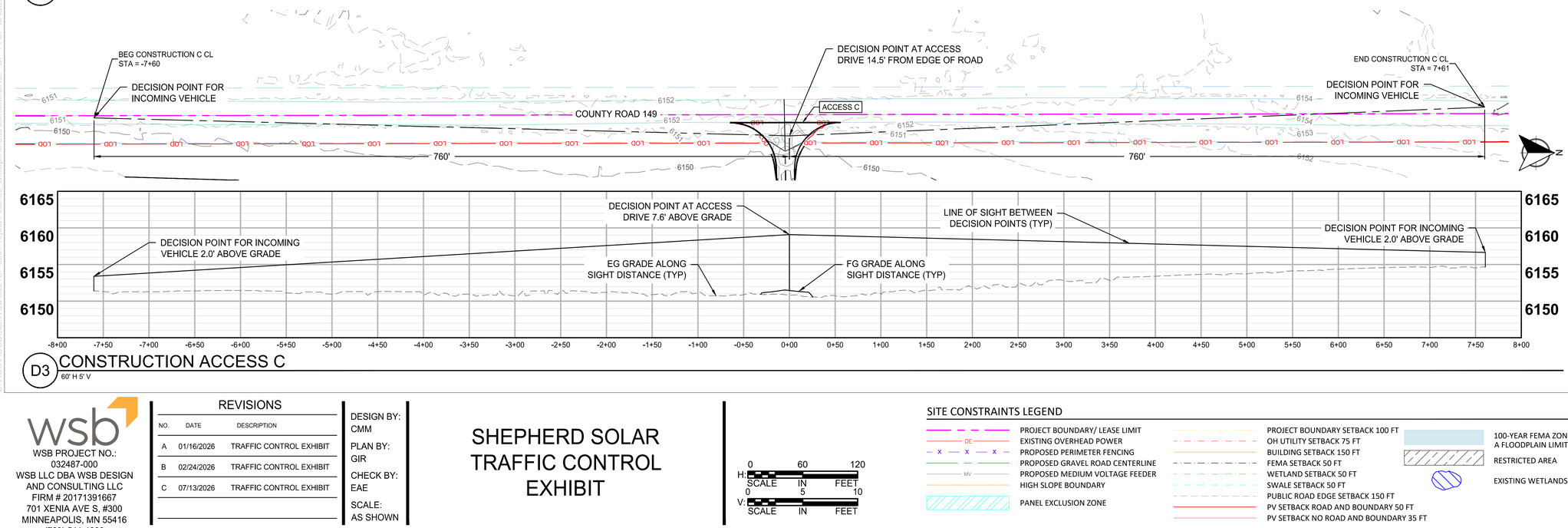
D1 CONSTRUCTION ACCESS A

60' H 5' V



D2 CONSTRUCTION ACCESS B

60' H 5' V



D3 CONSTRUCTION ACCESS C

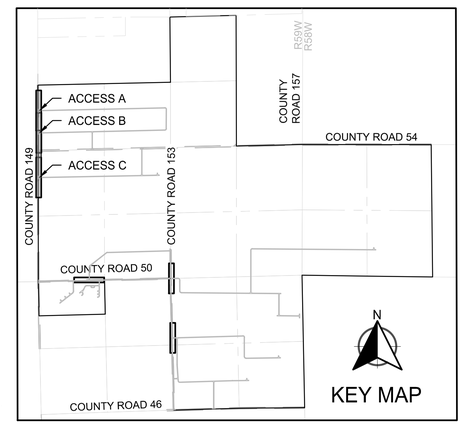
60' H 5' V

ACCESS IDENTIFIER	INTERSECTING ROAD	PUBLIC ROAD	PUBLIC ROAD DESIGN SPEED (MPH)	SIGHT DISTANCE (FT)
A	1L1	CR 149	45	760
B	1L1	CR 149	45	760
C	2L1	CR 149	45	760
D	3L1	CR 50	35	590
E	5L1	CR 153	35	590
F	4L1	CR 153	35	590

Update to match the diagram

NOTES:

1. ALL EXISTING ROAD LOCATIONS SHOWN ARE APPROXIMATE.
2. EXACT PROPOSED INTERIOR ACCESS ROAD LOCATIONS ARE REPRESENTATIVE, AND TO BE FINALIZED PRIOR TO CONSTRUCTION.
3. SIGHT DISTANCES WERE CALCULATED ASSUMING A STOP CONTROLLED MOVEMENT AT THE ACCESS DRIVES.
4. SIGHT DISTANCES ARE PER AASHTO CASE B1, BASED ON WB-67 TRACTOR-SEMITRAILER AND ASSOCIATED DESIGN SPEEDS



wsb
WSB PROJECT NO.:
032487-000
WSB LLC DBA WSB DESIGN
AND CONSULTING LLC
FIRM # 2017391667
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800

REVISIONS

NO.	DATE	DESCRIPTION
A	01/16/2026	TRAFFIC CONTROL EXHIBIT
B	02/24/2026	TRAFFIC CONTROL EXHIBIT
C	07/13/2026	TRAFFIC CONTROL EXHIBIT

DESIGN BY: CMM
PLAN BY: GIR
CHECK BY: EAE
SCALE: AS SHOWN

SHEPHERD SOLAR TRAFFIC CONTROL EXHIBIT

H: 0 60 120 SCALE IN FEET
V: 0 5 10 SCALE IN FEET

SITE CONSTRAINTS LEGEND

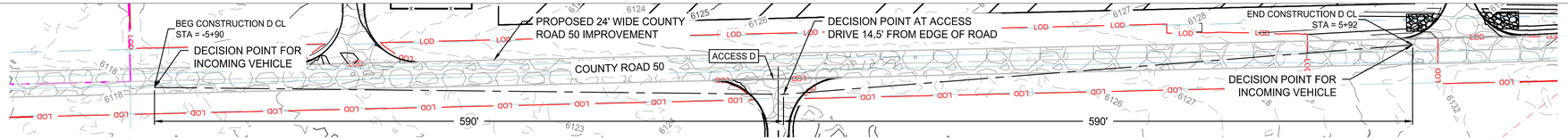
- PROJECT BOUNDARY/ LEASE LIMIT
- OE EXISTING OVERHEAD POWER
- PROPOSED PERIMETER FENCING
- PROPOSED GRAVEL ROAD CENTERLINE
- MV PROPOSED MEDIUM VOLTAGE FEEDER
- HIGH SLOPE BOUNDARY
- PANEL EXCLUSION ZONE
- PROJECT BOUNDARY SETBACK 100 FT
- OH UTILITY SETBACK 75 FT
- BUILDING SETBACK 150 FT
- FEMA SETBACK 50 FT
- WETLAND SETBACK 50 FT
- SWALE SETBACK 50 FT
- PUBLIC ROAD EDGE SETBACK 150 FT
- PV SETBACK ROAD AND BOUNDARY 50 FT
- PV SETBACK NO ROAD AND BOUNDARY 35 FT
- 100-YEAR FEMA ZONE A FLOODPLAIN LIMITS
- RESTRICTED AREA
- EXISTING WETLANDS
- SOUTH SLOPE > 12%
- NORTH SLOPE > 8%
- EAST-WEST SLOPE > 5%

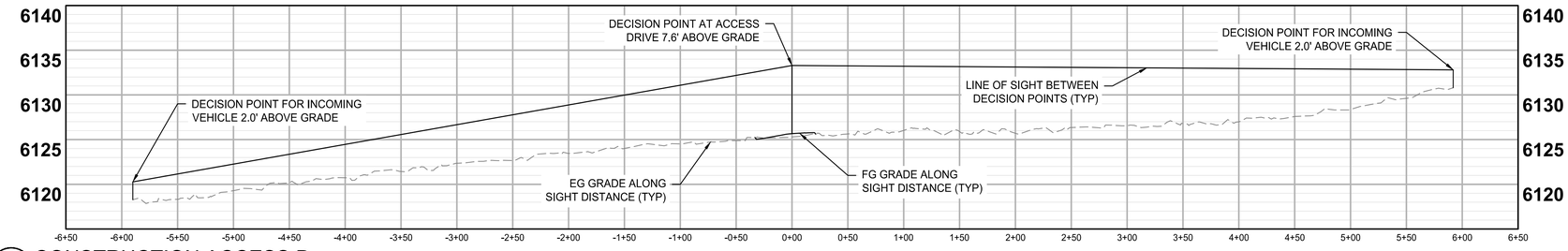
EXHIBIT B

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ACCESS IDENTIFIER	INTERSECTING ROAD	PUBLIC ROAD	PUBLIC ROAD DESIGN SPEED (MPH)	SIGHT DISTANCE (FT)
A	1L1	CR 149	45	760
B	1L1	CR 149	45	760
C	2L1	CR 149	45	760
D	3L1	CR 50	35	590
E	5L1	CR 153	35	590
F	4L1	CR 153	35	590

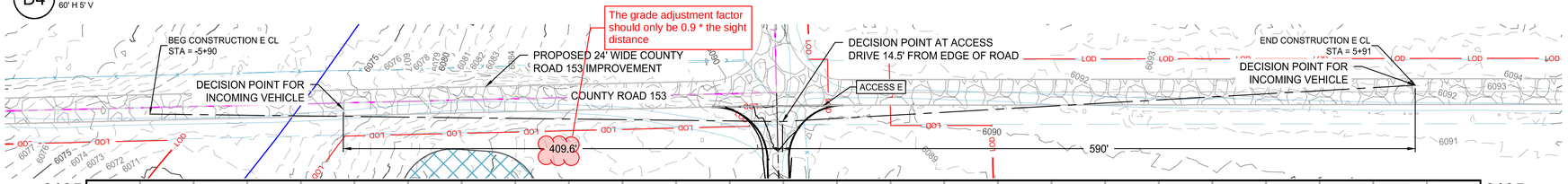
Update to match the diagram

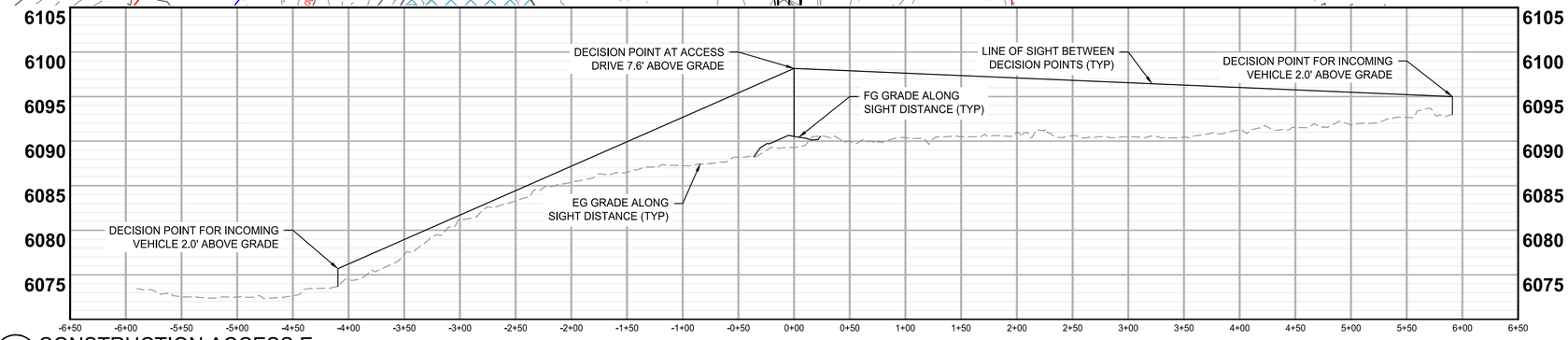




D4 CONSTRUCTION ACCESS D

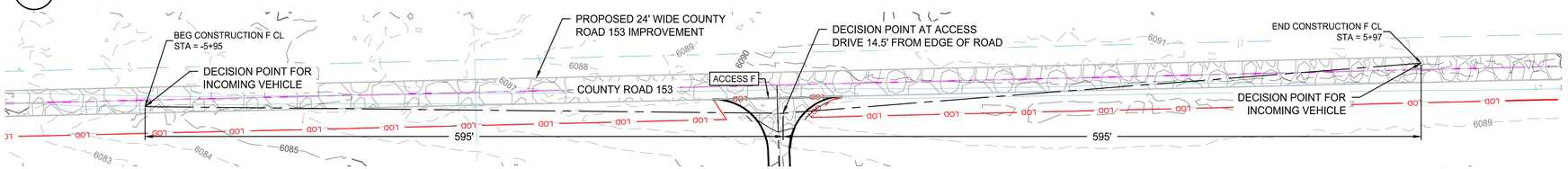
60' H 5' V

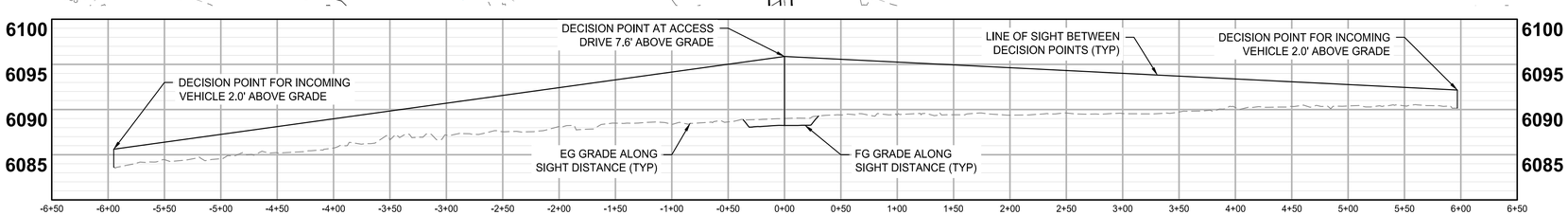




D5 CONSTRUCTION ACCESS E

60' H 5' V



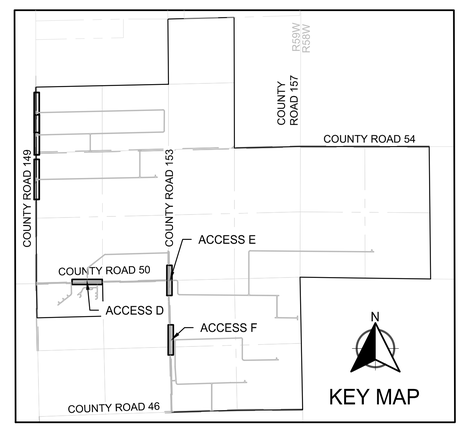


D6 CONSTRUCTION ACCESS F

60' H 5' V

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WSB LLC DBA WSB DESIGN AND CONSULTING LLC
FIRM # 20171391667
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800

REVISIONS

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SHEPHERD SOLAR TRAFFIC CONTROL EXHIBIT

H: 0 60 120 SCALE IN FEET
V: 0 5 10 SCALE IN FEET

SITE CONSTRAINTS LEGEND

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- MV PROPOSED MEDIUM VOLTAGE FEEDER
- HIGH SLOPE BOUNDARY
- PANEL EXCLUSION ZONE
- PROJECT BOUNDARY SETBACK 100 FT
- OH UTILITY SETBACK 75 FT
- BUILDING SETBACK 150 FT
- FEMA SETBACK 50 FT
- WETLAND SETBACK 50 FT
- SWALE SETBACK 50 FT
- PUBLIC ROAD EDGE SETBACK 150 FT
- PV SETBACK ROAD AND BOUNDARY 50 FT
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- NORTH SLOPE > 8%
- EAST-WEST SLOPE > 5%

EXHIBIT B

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Reviewed by Kimley-Horn
08/03/2026

APPENDIX I
SHEPHERD SOLAR TRAFFIC CONTROL PLAN

7/16/2026

Mr. Eli Johnson
Lead Civil Engineer
BayWa
18575 Jamboree Road Suite 850
Irvine, CA 92612

Re: Shepherd Solar Traffic Control Plan
Task Order # TO-U0415-8064
WSB Project # 32487

Dear Eli,

Pursuant to our Task Order and Scope of Work, WSB has prepared a traffic control plan to present relevant traffic information and assess the potential impact of the Shepherd Solar project on local roadways within Elbert County. This report includes

1. Project location, key components, and construction schedule
2. Designated preliminary travel routes
3. Estimated daily vehicle trip generation
4. Potential haul route maps
5. Sight distance analysis and profiles at proposed access locations
6. Conclusions

Please review and let us know if you have any questions or comments.

Sincerely,
WSB



Ameer Kian
Sr. Project Manager

Attachments:
1. Exhibit A: Location Map
2. Exhibit B: Access Drives Sight Distance Exhibit

CC: Behnaz Beladi

701 XENIA AVENUE S | SUITE 300 | MINNEAPOLIS, MN | 55416 | 763.541.4800 | WSBENG.COM

1. Project location, key components, and construction schedule

Location
The Project is located in Elbert County, south of US HWY 24 and between County Roads 149 and 169. The project limits include parts of Township 11 South, Range 59 West (Section 25, 26, 35, and 36), Township 11 South, Range 58 West (Section 31), and Township 12 South, Range 59 West (Section 01, and 02). Exhibit A provides the project location and proposed haul route options.

Key Components
The Project is a 199 MW Solar Farm and 100 MW Battery Energy Storage System (BESS) occupying 1,990 acres. The key components for the Solar portion include Photovoltaic Solar Panels installed on single access trackers and driven piles, concrete equipment pads for inverters and transformers, access roads, security fencing with gates, and buried/overhead electrical collection and transmission lines from the PV areas to the substation. The BESS portion includes Battery equipment installed on Concrete Pads with medium voltage electrical lines from the BESS Yard to the Substation.

Construction Schedule
The project has an anticipated Commercial Operation Date (COD) of October 2030. It is anticipated that construction will take up to 24 months which corresponds to a mobilization of construction crews and equipment in October 2028. Construction will commence with civil works which will include delivery of civil machinery and raw materials such as engineered fill or gravel. Mechanical installation, which includes installation of the tracker piles, trackers, modules, and inverters will follow civil completion and will occur through Q2 2030. It is expected that there will be a consistent delivery of equipment during this time period. Deliveries will primarily take place Monday through Friday during normal working hours.

2. Designated travel routes

Potential travel routes have been proposed and identified with a summary of each option and the color of the route from Exhibit A below. BayWa's preferred routes, in order of priority, for heavy construction and material delivery vehicles are as follows. These designated travel routes are preliminary options available to access the project site during construction. The primary routes are from CR 169 (blue) and CR 149 (red). All other routes shown are secondary options. The viability of utilizing each of these access routes will be determined closer to construction upon a survey of the routes and an agreed upon road use agreement (RUA) with the County.

Primary Access Road Options:

County Road 169 (blue)

This route exits US Highway 24 in a rural area, heading south on County Road 169, west on County Road 46 to the project site. This route will also require access along CR 50 and CR 153. This route is approximately 16.2 miles long in total and includes the following sections and conditions-

- The County Road 169 section heading south is a 26' wide gravel/dirt road and is approximately 10.4 miles long. This road supports access to 14 Wind Turbine Generators (WTGs) and appears to have been improved as part of this Wind Project.
- The County Road 46 section heading west is a 26' wide gravel/dirt road, is approximately 4 miles long, and appears to be in good condition
- The County Road 153 section is an 18' wide two-track dirt road and is approximately 1 mile long. This road will likely need improvements to support this project.
- The County Road 50 section heading west to the project substation is an 18' wide two-track dirt road and is approximately 1 mile long. This road will likely need improvements to support this project.

County Road 149 North (red)

This route exits US Highway 24 in an urban area, heading south on County Road 149 to the project site. This route will also require access along CR 50 and CR 153. This route is approximately 9 miles and the County Road 149 section is a 32' wide gravel/dirt road.

Secondary Access Road Options:

County Road 149 South (purple)

This route exits State Road 94 in a rural area, heading north on County Road 149 to the project site. This route will also require access along CR 50 and CR 153. This route is approximately 16 miles and the County Road 149 section is generally a 58' wide gravel/dirt road with a 110 degree turn between CR 14 and CR 26 which may need improvements to make it usable. A small portion of this route (from County Road 2B south towards State Road 94) passes through Lincoln County.

County Road 46 (green)

This route exits State Road 71 in a rural area, heading west on County Road 46 to the project site. This route will also require access along CR 50 and CR 153. This route is approximately 15.6 miles and the County Road 46 section is a 26' wide gravel/dirt road. A small portion of this route (from State Road 71 to County Road 19) passes through Lincoln County.

County Road 133 (yellow)

This route exits US Highway 24 in a rural area, heading south on County Road 133 along Elbert County and El Paso County's joint boundary and east on County Road 50 to the project site. This route will also require access along CR 153. This route is approximately 10.9 miles and the County Road 133 section varies between a 24-28' wide gravel/dirt road.

BayWa will work with the County to establish designated travel routes with access to/from the site as appropriate. Construction vehicles and material delivery will be confined to agreed upon haul routes with the county to minimize impact and traffic to the county roads and residents.

3. Estimated daily vehicle trip generation

The project will have two distinct phases for the purposes of Traffic Management and Control: construction and ongoing operations and maintenance which will commence following completion of construction. For each phase, average daily trip generation can be estimated as follows-

Phase: Construction
Anticipated Dates: October 2028 – June 2030
Duration: 21 months

Vehicle Type	Estimated GVWR (lbs)	Vehicles per Day*	Average Vehicles Trips per Day
Material Delivery Trucks*	30,000-50,000	8-15	16-30
Equipment Hauling Trucks	20,000-40,000	0-5	0-10
BESS Container Trucks	30,000-50,000	0-4	0-2
Passenger Vehicles	2,000-10,000	20-300**	40-600
Fuel Trucks	20,000-30,000	1	2
Water Truck	60,000- 80,000	7	2

* On the front end of construction, the material delivery trucks will primarily be hauling materials such as engineered fill or gravel. Once civil works are completed this will transition to delivery of mechanical equipment including the piles, trackers, and modules.

** This number will vary greatly depending on the phase of construction. Typically, the civil work is performed by a smaller crew of equipment operators whereas hundreds of workers will be required to install the solar modules. Peak workforce is estimated to be around 300 workers onsite.

Phase: Operations and Maintenance
Anticipated to begin October 2030
Duration: Ongoing

Vehicle Type	Estimated GVWR (lbs)	Vehicles per Day*	Average Vehicles Trips per Day
Utility Vehicle/Water Truck	2,000-10,000	1-2	2-4

*Number of Vehicles per Day have been provided by BayWa based on construction staging schedule and prior project experience.

Total Average Vehicle Trips per Day is estimated to be between 50 and 350 and will depend on what stage of construction the Project will be in. The bulk of the construction traffic (50-300 average vehicles per day) will be site construction passenger vehicles.

4. Potential haul route maps

Potential haul route maps are shown in Exhibit A and have been detailed in Section 2. Designated travel routes. BayWa's intention is to work with the county to designate a haul route for construction vehicles and material delivery. At this time, five options for access to the site have been proposed which are detailed in Exhibit A.

5. Sight distance analysis and profiles at proposed access locations

Sight distance analysis and profiles for proposed access locations have been drafted and are included in Exhibit B: Access Drives Sight Distance Exhibit. These include Construction Access locations A through C along County Road 149 and Construction Access locations D through F along County Road 50 and the North/South County Road between County Road 46 and County Road 50.

6. Conclusions

The project is anticipated to start in October 2028 with an estimated construction duration of 24 months.

During this period, traffic impact for the project will be at a maximum but is not expected to exceed 350 vehicle trips per day, even when material delivery and installation are happening concurrently. The bulk of the traffic (50-300 average vehicles per day) will be site construction passenger vehicles.

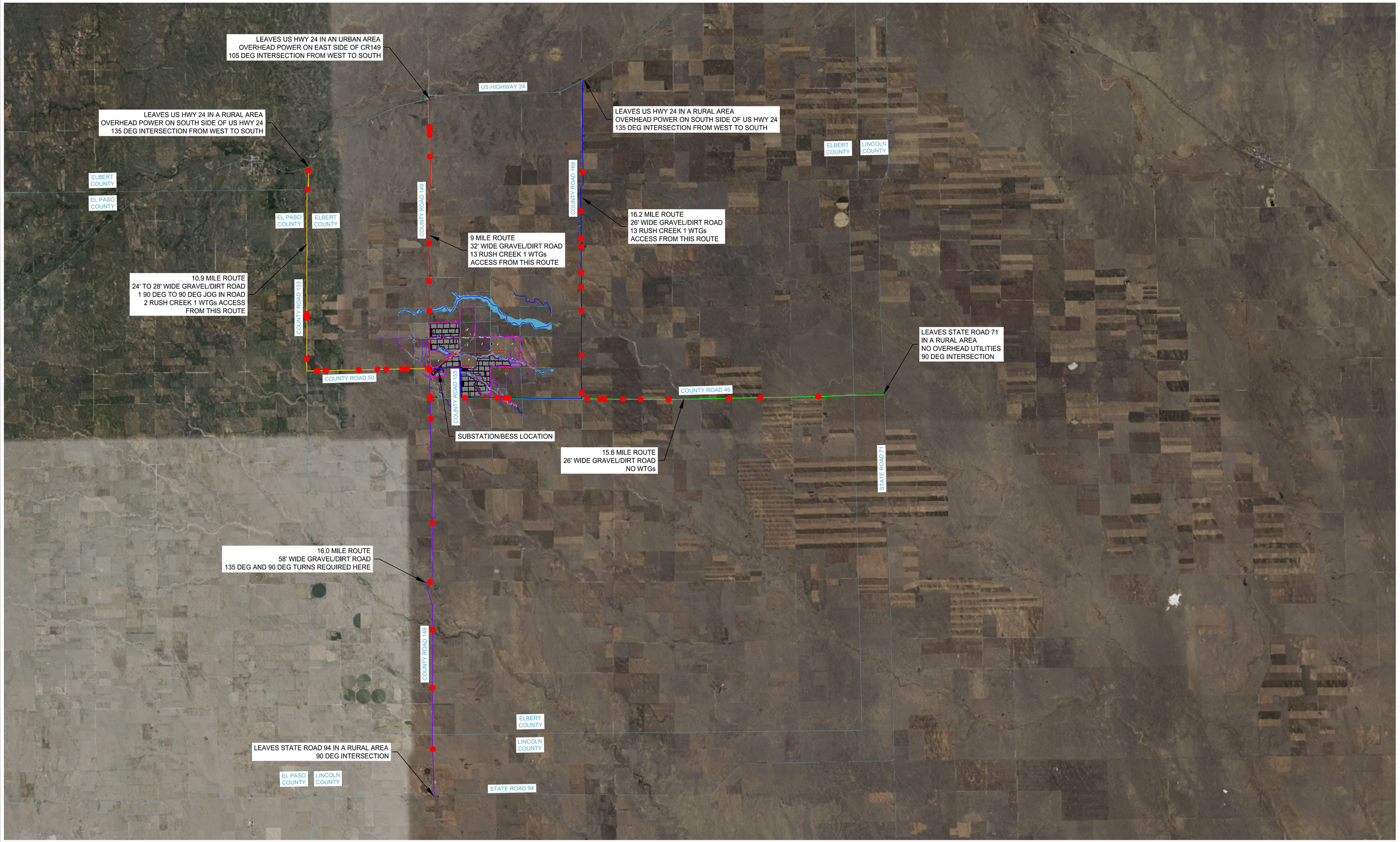
Designated travel and haul routes for access to/from the site have been proposed in Exhibit A and efforts have been made to minimize impact and traffic to the county roads and residents. Depending on the final Haul Route, improvements along some County Roads may be necessary to support the delivery of material and equipment to the site.

Sight distance exhibits for the proposed access locations have been provided in Exhibit B and show compliance with Elbert County Sight Distance Requirements.

If you have any questions on the Traffic Control Plan, please feel free to contact me at akian@wsbeng.com or (763) 388-3493.

Sincerely,

Ameer Kian,
Sr. Project Manager



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WSB PROJECT NO.:
032487-000
WSB LLC DBA WSB DESIGN
AND CONSULTING LLC
FIRM # 20171391667
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800

REVISIONS

NO.	DATE	DESCRIPTION
A	12/02/2025	HAUL ROUTE EXHIBIT
B	12/29/2025	HAUL ROUTE EXHIBIT
C	02/24/2026	HAUL ROUTE EXHIBIT
D	03/06/2026	HAUL ROUTE EXHIBIT

DESIGN BY: GIR
PLAN BY: GIR
CHECK BY: AK
SCALE: AS SHOWN

PRELIMINARY SHEPHERD SOLAR HAUL ROUTE EXHIBIT

N

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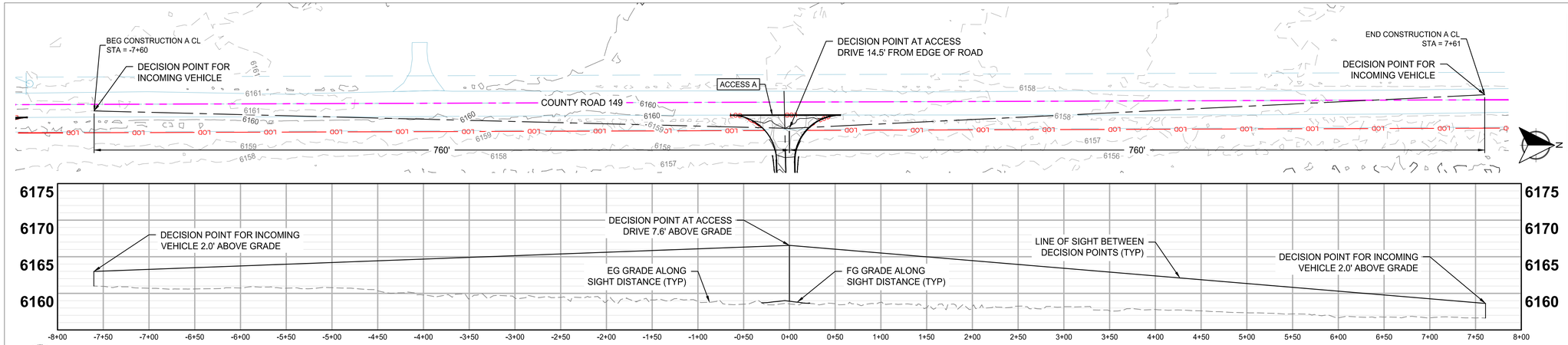
LEGEND

PRIMARY
- COUNTY ROAD 149 NORTH DELIVERY AND PRIMARY HAUL ROUTE
- COUNTY ROAD 169 DELIVERY AND PRIMARY HAUL ROUTE

SECONDARY
- COUNTY ROAD 46 DELIVERY AND HAUL ROUTE
- COUNTY ROAD 133 DELIVERY AND HAUL ROUTE
- COUNTY ROAD 149 SOUTH DELIVERY AND HAUL ROUTE

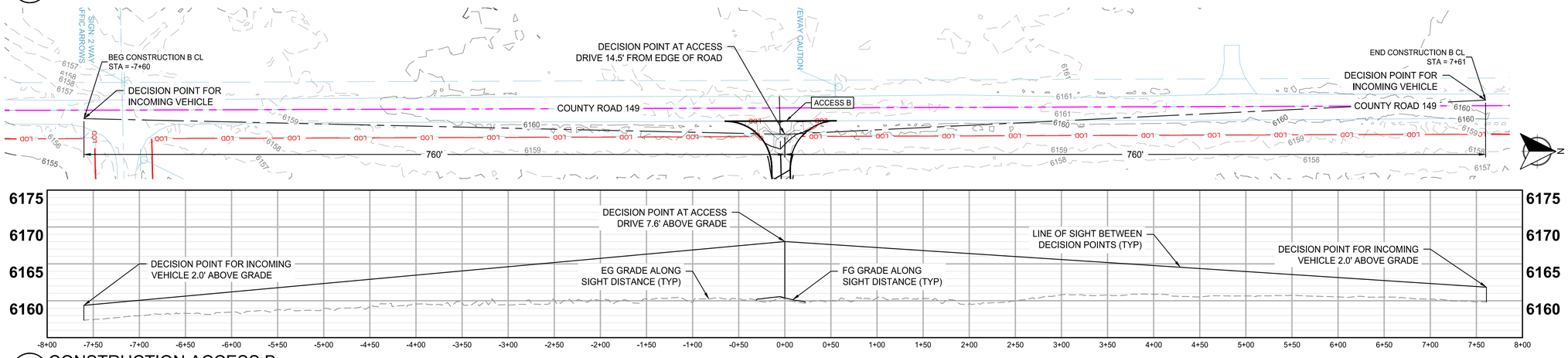
CULVERT CROSSING

EXHIBIT A



D1 CONSTRUCTION ACCESS A

60' H 5' V



D2 CONSTRUCTION ACCESS B

60' H 5' V

D3 CONSTRUCTION ACCESS C

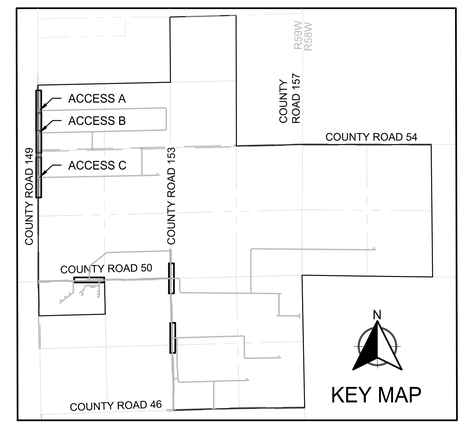
60' H 5' V

ACCESS IDENTIFIER	INTERSECTING ROAD	PUBLIC ROAD	PUBLIC ROAD DESIGN SPEED (MPH)	SIGHT DISTANCE (FT)
A	1L1	CR 149	45	760
B	1L1	CR 149	45	760
C	2L1	CR 149	45	760
D	3L1	CR 50	35	590
E	5L1	CR 153	35	590
F	4L1	CR 153	35	590

Update to match the diagram

NOTES:

1. ALL EXISTING ROAD LOCATIONS SHOWN ARE APPROXIMATE.
2. EXACT PROPOSED INTERIOR ACCESS ROAD LOCATIONS ARE REPRESENTATIVE, AND TO BE FINALIZED PRIOR TO CONSTRUCTION.
3. SIGHT DISTANCES WERE CALCULATED ASSUMING A STOP CONTROLLED MOVEMENT AT THE ACCESS DRIVES.
4. SIGHT DISTANCES ARE PER AASHTO CASE B1, BASED ON WB-67 TRACTOR-SEMITRAILER AND ASSOCIATED DESIGN SPEEDS



wsb
WSB PROJECT NO.:
032487-000
WSB LLC DBA WSB DESIGN
AND CONSULTING LLC
FIRM # 2017391667
701 XENIA AVE S, #300
MINNEAPOLIS, MN 55416
(763) 541-4800

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NO.	DATE	DESCRIPTION
A	01/16/2026	TRAFFIC CONTROL EXHIBIT
B	02/24/2026	TRAFFIC CONTROL EXHIBIT
C	07/13/2026	TRAFFIC CONTROL EXHIBIT

DESIGN BY: CMM
PLAN BY: GIR
CHECK BY: EAE
SCALE: AS SHOWN

SHEPHERD SOLAR TRAFFIC CONTROL EXHIBIT

H: 0 60 120 SCALE IN FEET
V: 0 5 10 SCALE IN FEET

SITE CONSTRAINTS LEGEND

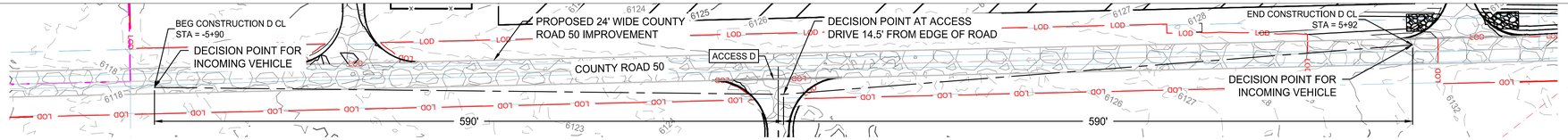
- PROJECT BOUNDARY/ LEASE LIMIT
- OE EXISTING OVERHEAD POWER
- PROPOSED PERIMETER FENCING
- PROPOSED GRAVEL ROAD CENTERLINE
- MV PROPOSED MEDIUM VOLTAGE FEEDER
- HIGH SLOPE BOUNDARY
- PANEL EXCLUSION ZONE
- PROJECT BOUNDARY SETBACK 100 FT
- OH UTILITY SETBACK 75 FT
- BUILDING SETBACK 150 FT
- FEMA SETBACK 50 FT
- WETLAND SETBACK 50 FT
- SWALE SETBACK 50 FT
- PUBLIC ROAD EDGE SETBACK 150 FT
- PV SETBACK ROAD AND BOUNDARY 50 FT
- PV SETBACK NO ROAD AND BOUNDARY 35 FT
- 100-YEAR FEMA ZONE A FLOODPLAIN LIMITS
- RESTRICTED AREA
- EXISTING WETLANDS
- SOUTH SLOPE > 12%
- NORTH SLOPE > 8%
- EAST-WEST SLOPE > 5%

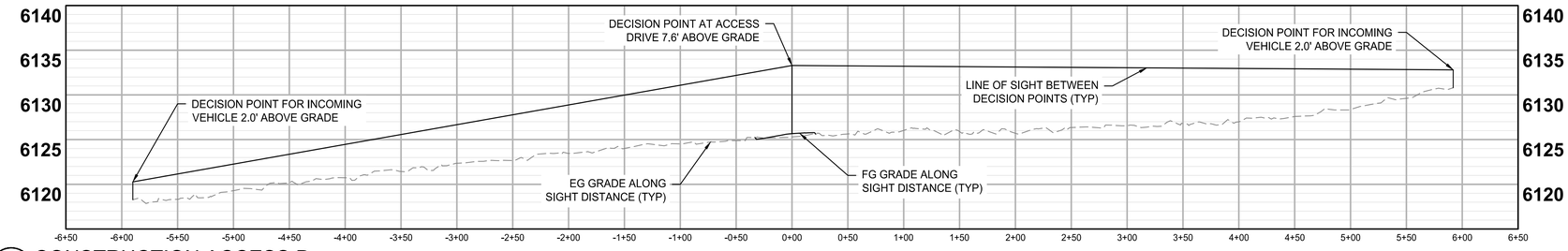
EXHIBIT B

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ACCESS IDENTIFIER	INTERSECTING ROAD	PUBLIC ROAD	PUBLIC ROAD DESIGN SPEED (MPH)	SIGHT DISTANCE (FT)
A	1L1	CR 149	45	760
B	1L1	CR 149	45	760
C	2L1	CR 149	45	760
D	3L1	CR 50	35	590
E	5L1	CR 153	35	590
F	4L1	CR 153	35	590

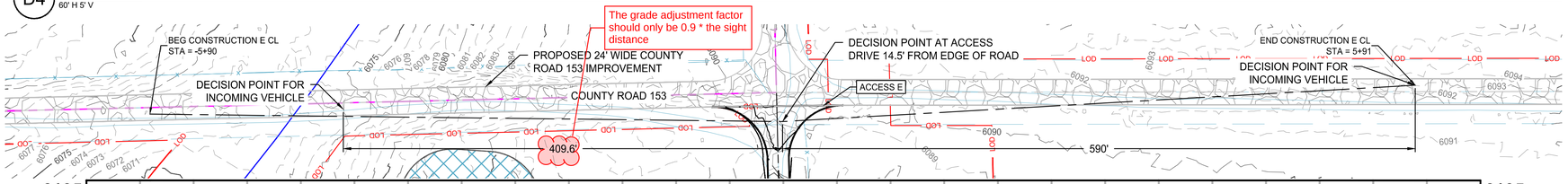
Update to match the diagram

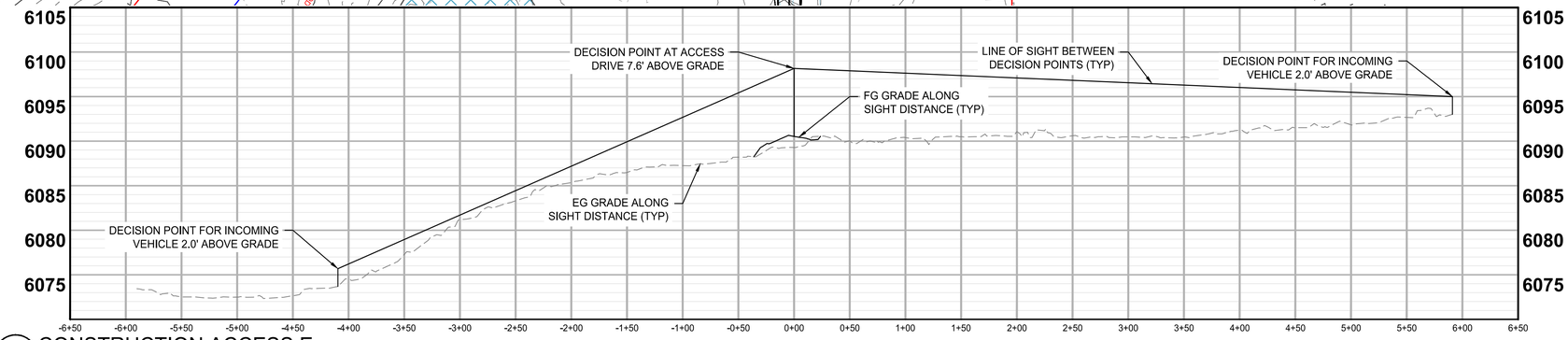




D4 CONSTRUCTION ACCESS D

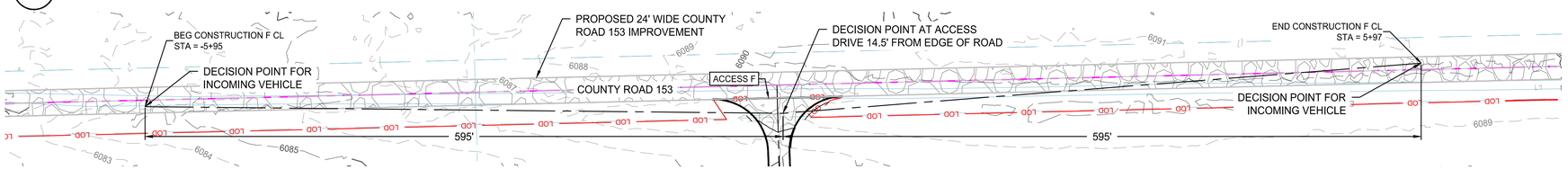
60' H 5' V

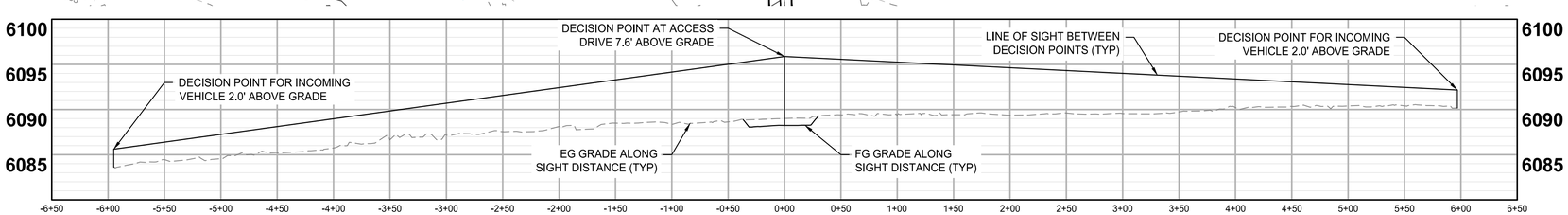




D5 CONSTRUCTION ACCESS E

60' H 5' V



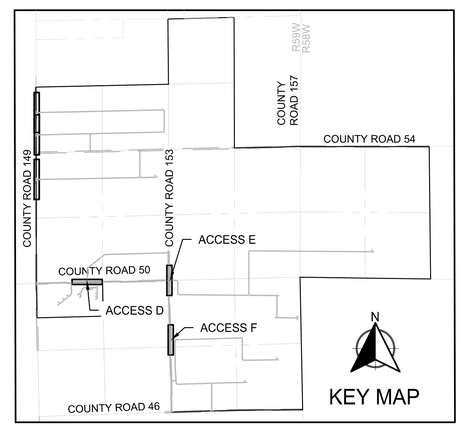


D6 CONSTRUCTION ACCESS F

60' H 5' V

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- 100-YEAR FEMA ZONE A FLOODPLAIN LIMITS
- RESTRICTED AREA
- EXISTING WETLANDS
- SOUTH SLOPE > 12%
- NORTH SLOPE > 8%
- EAST-WEST SLOPE > 5%

EXHIBIT B

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July 16, 2026

Elbert County Community & Development Services and Logan Simpson Contract Planners
Subject: Shepherd Solar Response to 1st Sufficiency Review and Referral Agency Comments
Case Numbers: M1041-2026-0001; SUR-2026-0002
Parcel Numbers: 1926300138, 1936000044, 1831000038

Dear Elbert County Community & Development Services and Logan Simpson Contract Planners,

Thank you for your review of the Shepherd Solar Major 1041 and Special Use by Review permit application materials. The Applicant appreciates the time and effort spent evaluating the application and providing comment and recommendations.

Provided below are the Applicant's responses to the comments and referral agency letters received from June 26, 2026 through July 15, 2026. In response to these comments, the Applicant has incorporated additional information and clarifications where needed and updated supporting materials to facilitate the County's continued review of the Project.
The following application components have been updated and are submitted for your review.

Major 1041 Application	Special Use by Review (SUR) Application
1041 Cover Letter	SUR Cover Letter
1041 Narrative	SUR Narrative
1041 Appendix A	SUR Appendix A
1041 Appendix C	SUR Appendix B
1041 Appendix G	SUR Appendix C
1041 Appendix H	SUR Appendix E
1041 Appendix I	SUR Appendix F
1041 Appendix K	SUR Appendix J
1041 Appendix N	SUR Appendix K
1041 Appendix M	SUR Appendix P
1041 Appendix T	
1041 Appendix W	
1041 Appendix Z	

Kind thanks,
Natalie Aiello
Central Permitting Manager

Table 1. Shepherd 1041 Referral Agency Response Matrix – Review 1 (June 26–July 15, 2026)

Comment #	Response	Reference Location
1041 Comments received from June 26 through July 15, 2026		
1041.1	Thank you for your comment. Figures have been revised.	1041 all sections
1041.2	We reviewed the application materials and determined that the setback requirements were consistent throughout the Project design; however, we recognized that the manner in which they were presented could be clarified. In response to this comment, we revised the narrative and supporting figures to more clearly describe and identify the setbacks already incorporated into the Project design. Setbacks are now explicitly referenced in the narrative, depicted on 1041 Appendix A Figure 2E. These revisions improve clarity and cross-referencing between the narrative and plan set and better communicate the setbacks that were already included in the proposed Project.	1041 Narrative - Section 2: Health and Safety of Solar and BESS - 3.2(b) - Alternative A Preferred Alternative (Current Project Layout) -3.10.2(5) 1041 Appendix A - Figure 2E (solar/BESS setbacks based on current preliminary design) SUR Exhibit Appendix B Sheet 5 of 30
1041.3	Thank you for your comment, we added more information about local government services in the application.	1041 Narrative Section 3.6 (a) and (b)
1041.4	Thank you for your comment. We added more information about hail and wildfire in the application.	1041 Permit 19h 2-3, Soils, Geologic Conditions, Natural Hazards and Erosion (XVII.J.19(h))
1041.5	Thank you for your comment. Appendix C is intended to provide a general overview of BESS and solar technologies. Project-specific BESS design plans are provided in 1041 Appendix G. In response to your request for additional project-specific information, Appendix C has been updated to include details on Fluence Smartstack BESS technology, which is the equipment currently anticipated for the Project. Final equipment selection may change prior to construction. We are amenable to including, as a	1041: Appendix C pages 35 and 36 1041 Appendix G

Comment #	Response	Reference Location
	1041 Comments received from June 26 through July 15, 2026	
	condition of approval, that the final BESS technology selections and associated safety information will be included in the Project's Hazard Mitigation Analysis (HMA) and Emergency Response Plan (ERP), which will be provided to the Big Sandy Fire Protection District prior to construction.	
1041.7	Thank you. Additional information regarding any specific requests and how they were addressed has been included, where applicable. Stakeholder engagement proof has also been included where applicable.	1041 Appendix K
1041.8	The visual simulations have been prepared consistent with the purpose of a visual impact assessment, which is to illustrate the anticipated appearance of Project components from representative public and neighboring property viewpoints where the Project may be visible. Observation points were selected based on proximity to neighboring properties and the potential for views toward the proposed solar array. In response to the comment, the rendering for Station 10 has been revised to provide an updated view with further detail on panel dimensions, fencing and the Project's setbacks. This view was modeling looking northeast across the field toward the Project area, offering a broader representation of the anticipated visual conditions from that location. Additional review was conducted for Stations 3 and 5 to evaluate whether alternative viewpoints or additional frames would provide materially different information. However, due to topography, existing vegetation, and the orientation of the Project, revised views did not reveal Project features beyond those already depicted in the original assessment. For example, at Station 3, shifting the viewpoint to look farther along the roadway was evaluated. However, because of the approximately 220-foot setback from the road and the intervening slope between the roadway and the solar array, the panels would remain located beyond the topographic break and would not result in a materially different view than that shown in the original assessment. As a result, the original renderings remain representative of anticipated Project visibility from these locations. We do not believe that additional frames from Stations 3 and 5 would provide meaningful new information, as the revised analyses resulted in substantially similar visual conditions to those already presented in the original assessment.	1041 Appendix W - Page 28

Comment #	Response	Reference Location
1041 Comments received from June 26 through July 15, 2026		
1041.9	The PV and BESS Decommissioning Plans have been revised to include recommendations that financial assurance be based on gross decommissioning costs. Contaminated soil management costs have been updated in both plans, and additional detail has been added to the BESS Decommissioning Plan, including expanded descriptions of battery energy storage system and electrical equipment removal procedures. The BESS Decommissioning Plan has also been updated to include contingency measures for removing energy storage systems damaged by fire, bringing the plan into full compliance with IFC Section 1207.2.3.	1041 Appendix M
1041.10	Please see responses to SUR.4 and SUR.6 Comments.	n/a
1041.11	Thank you for your comments regarding the Traffic Control Plan. We have incorporated additional narrative and background information regarding the proposed haul routes into the 1041 Permit application materials. We acknowledge that further coordination with CDOT and Elbert County Road and Bridge will be required as the Project advances through design and toward construction. Consistent with discussions with County staff and Kimley Horn on July 7, 2026, more detailed haul route information, traffic analyses, and construction logistics will be developed and provided during subsequent design phases when the specific construction means, methods, and transportation requirements are finalized, prior to construction.	1041 Appendix I
1041.12	Thank you for your comment. We have provided additional information on noxious weeds into the Vegetation Management Plan.	1041 Appendix N
Note: Reference locations identified with a * identify where supporting information is located within the application. The appendices referenced with a * have not been updated as part of this submittal and are provided for reference purposes only.		

Table 2. Shepherd SUR Referral Agency Response Matrix – Review 1 (June 26–July 15, 2026)

Comment #	Response	Reference Location
	SUR Comments Dated June 26 through July 15, 2026	
SUR.1	The SUR Exhibit has been revised to address the identified comments and improve clarity. a. The N arrow has been added. b. Perimeter fence dimension arrows, which were originally included for internal purposes to verify distances between the panel arrays and perimeter fencing, have been removed from the SUR Exhibit for clarity. c. As discussed and approved during the July 10 meeting with Logan Simpson, the legends for the SUR Exhibit and GESC plans will naturally be different as the plans are intended to communicate different aspects of the application. However, as approved by Logan Simpson during the meeting, the SUR Exhibit legend has been updated to be consistent throughout the entirety of the SUR Site Plan (Appendix B). d. A power block outline previously shown on the exhibit has also been removed for clarity. e. The medium-voltage (MV) corridor symbology has been standardized throughout the exhibit. f. A culvert table has been added to Sheet 2 to provide culvert names and additional details. g. Please see response to SUR.1.f h. The legend has also been updated to include the overhead (OH) utility setback, existing road signs, existing fencing, and a clarification that a previously identified feature is not a restricted area and will be graded out. i. Proposed ditches have been labeled and identified both on the plans and within the legend. j. Clarification has been added to the S.F. Percentage of building coverage notes, on Sheets 14 and 16. k. Existing road signs have been added to the legend. l. Black lines are proposed ditches. Labels have been added. m. This is existing fence and has been added to the legend.	SUR Appendix B

Comment #	Response	Reference Location
	SUR Comments Dated June 26 through July 15, 2026	
	n. As discussed during the July 10 meeting with Logan Simpson, this is not a restricted area. It will be graded out during the Project's construction, as noted in the updated legend. o. Perimeter dashed lines around switchyard were approximate locations of the switchyard. This has been removed for clarity. p. As discussed and approved during the July 10, an additional elevation view is not required. The dimensions of the O&M building have been added. q. The fire protection water tank has been labeled on Sheet 29. r. This information has been provided on Sheet 29. s. Please see our response to Elbert County Public Works Department.	
SUR.2	A setbacks table has been added to the SUR exhibit indicating the Project's minimum setbacks.	SUR Appendix B Sheet 5/30
SUR.3	Thank you. Narrative has been added to the SUR Narrative Section 5.1. A zoning map was included in the SUR Exhibit on Sheet 3/30. Setbacks based on the Project's current preliminary design are shown in Appendix A – Figure 2.	SUR Narrative Section 5.1 SUR Appendix A - Figure 2 (solar/BESS setbacks based on current preliminary design) SUR Appendix B Sheet 3/30 (zoning map) and 5/30 (minimum setback table)
SUR.4	Thank you. Our water use estimates currently remain at 365-730 AF/Y during construction and 22.6 AF/Y during operations. These estimates will be refined as the Project advances towards construction. Final use estimates are anticipated at least 3 months prior to construction commencement. If Simla Water is unable to meet the Project's water needs, either in whole or in part, the Project intends to source water from other permitted off-site municipal and/or commercial bulk water suppliers. An explanation of the Project's anticipated water use is provided in the SUR Narrative 3.1.1. The water amount needed for the septic system and fire protection tank needs are included in the operations estimate (22.6AF/Y). "	SUR Narrative Section 3.1.1 SUR Cover Letter Attachment D

Comment #	Response	Reference Location
SUR Comments Dated June 26 through July 15, 2026		
SUR.5	Thank you. We have clarified in the text that the Project's Onsite Wastewater Treatment System (OWTS) is expected to be equal to or less than 2,000 gallons. Per consultation with Elbert County Public Health, the final sizing of the OWTS will be determined by the engineer who designs the system as part of the septic permit prior to construction; however, we have provided preliminary information for a 2,000 gallon system.	SUR Narrative Section 2.3.3 and 3.2e SUR Appendix F
SUR.6	Thank you. The selection of "Other" Upper Big Sandy Alluvial" was made in error. The Project does not propose any new wells. This has been corrected in Attachment D of the 1041 and SUR Cover Letters.	1041 and SUR Cover Letters Attachment D

Table 3 Review 1 Referral Agency Comment Response Matrix (June 26–July 15, 2026)

Review 1 Referral Agency Comment Response Matrix (June 26–July 15, 2026)		
Agency	**Response**	**Reference Location**
Big Sandy Fire Protection District	Thank you for your review, comments, and approval of the Project. We acknowledge and will comply with all applicable building and fire code requirements, including the 2018 building code, the 2024 International Fire Code (IFC), and NFPA 855 (2026 Edition). We have confirmed the Gift Agreement to Big Sandy Fire Protection District (BSFPD) and acknowledge the requirement to prepare and submit all applicable plans, permits, and applications to the BSFPD for review prior to the commencement of construction. The Project's decommissioning plans have been updated to strengthen fire safety and emergency response provisions, including the addition of contingency procedures for removing energy storage systems that have been damaged by fire, bringing the BESS Decommissioning Plan into full compliance with IFC Section 1207.2.3. In addition, financial assurance language has been incorporated into the decommissioning plans, contaminated soil management costs have been updated, and additional detail has been provided regarding battery energy storage system and electrical equipment removal procedures. To support emergency access and response, we have revised the project notes to specify that a KnoxBox will be installed at the water tank gate containing copies of the master key, and Knox padlocks will be installed on all project gates. Big Sandy Fire Protection District will have access to the Site at all times. In addition to master key copies provided directly to BSFPD for storage at the Simla station, a master key will be available within the KnoxBox located adjacent to the 30,000-gallon water cistern. The Project confirms that all access roads serving the solar facility and BESS will be a minimum of 20 feet wide and constructed of aggregate materials. Base materials will consist of Colorado Department of Transportation (CDOT) Class 6 Aggregate Base Course compacted to 96% Standard Proctor, with additional road construction specifications provided in Appendix G and Appendix P of the 1041 Permit application. We have also confirmed that the design maintains a minimum 20-foot setback between the perimeter fence and photovoltaic facilities and exceeds the minimum 10-foot clearance requested by BSFPD. We have updated the Project plans to clearly identify the 30,000-gallon water cistern and labeled the water tank on all applicable plan sheets. The water supply location is shown on 1041 Appendix A Figures 02B and 02D and SUR Appendix B Sheet 29. The Project will maintain a minimum 10-foot brush-free and combustible-fuel-free perimeter around both the solar arrays and the battery energy storage system. This area will consist of maintained low-growth vegetation and/or non-combustible ground cover and is reflected in the site plans. The Project includes construction of a single new Operations and Maintenance (O&M) building. Four existing buildings currently located onsite will remain in place but will not be utilized or affected by Project operations. Prior to construction, we will provide BSFPD with the final site plan and all required emergency response information.	1041 Narrative Section 3.2(e) and 3.3 Table 7 SUR Narrative Section 2.6 Table 8 SUR Narrative 3.1.2 0 Fire Protection and Ambulance Services 1041 Appendix A Figure 02d 1041 Appendix G

Review 1 Referral Agency Comment Response Matrix (June 26–July 15, 2026)		
Agency	**Response**	**Reference Location**
	We also confirm that all submittals provided to BSFPD prior to construction will identify the Fire Protection Engineer (FPE) of record. The FPE will be responsible for applicable fire protection design elements and will be identified within the Project's commissioning plan, decommissioning plan, fire safety and evaluation plan, BESS construction permit application, smoke detection permit, gas detection permit, and fire plan review documents. Finally, we acknowledge the role of the Fire Code Official and confirm that payment has been submitted for the invoice provided. We agree to reimburse future Fire Code Official review costs, as necessary, to support BSFPD's ongoing review of Project design, permitting, and construction documentation.	
Building Department	Thank you for your comments. We acknowledge the Building Department's comments and will obtain all required building and electrical permits, as determined necessary through final engineering and design. Construction documents, special inspections, and any deferred submittals will be prepared and completed in accordance with applicable Elbert County, State of Colorado, and adopted building code requirements.	n/a
Colorado Dept of Public Health and Environment	Thank you for your review and comment. The Project's anticipated best management practices (BMPs) for fugitive dust control are included in the 1041 Narrative as well as Appendix J. Prior to construction, the Project will prepare and submit an Air Pollutant Emissions Notice (APEN)	1041 Narrative Section 3.10.1(3) 1041 Appendix J Table J-4*****
Colorado Division of Water Resources	Thank you for your comment. We acknowledge the DWR comments and will ensure stormwater detention facilities and water use comply with applicable permits and regulations. The Project does not intend to utilize the existing wells onsite.	n/a
Colorado Geological Survey	Thank you for your review and comment. We acknowledge CGS's concurrence and will implement the geotechnical recommendations as appropriate.	n/a
Colorado Parks and Wildlife	Thank you for your review and recommendations regarding the Project. We appreciate CPW's coordination throughout the review process. The Project has been designed to avoid critical wildlife habitat, consolidate development as much as practicable, and co-locate infrastructure adjacent to an existing transmission corridor. As shown in Appendix A, Figure 02c, we have incorporated unfenced corridors throughout the Site to facilitate continued wildlife movement, and fencing has been set back from streambanks with corridor widths maximized where practicable.	1041 Appendix A Figure 02c 1041 Appendix J Table J-8*****

Review 1 Referral Agency Comment Response Matrix (June 26–July 15, 2026)		
Agency	**Response**	**Reference Location**
	At CPW's recommendation, we coordinated with the U.S. Fish and Wildlife Service (USFWS). USFWS advised that, in the absence of a federal action requiring agency involvement, no further coordination is necessary. Because the Project does not involve a federal nexus, no additional consultation with USFWS is anticipated. We also acknowledge CPW's recommendations regarding migratory birds, swift fox, and big game species. If construction commencement is scheduled during the migratory bird nesting season, pre-construction surveys will be conducted to identify active nests and implement appropriate avoidance and compliance measures. Consistent with CPW's recommendations, these surveys will also evaluate the Project area for the presence of swift fox dens. Habitat surveys completed in June 2025 did not identify swift fox or swift fox dens onsite. The Site is currently under active agricultural production and is expected to remain so until construction begins; therefore, suitable swift fox habitat is limited due to ongoing agricultural activity and associated disturbance. We appreciate CPW's recommendations regarding big game and hunting season safety and will consider these measures, as appropriate, during final construction planning and implementation.	
Elbert County Assessors Office	Acknowledged. Thank you for your review of our Project.	n/a
Elbert County Engineering Consultant	Thank you for your comments on Appendix G Civil Set, Traffic Control Plan, and Drainage Report. **Drainage Report:** Section 2.2: This comment is addressed in the updated report. Section 2.4: This comment is addressed in Section 4.5 of the updated report. Section 3: Culvert sizing is provided on page 6 of the updated report and are sized for a major event. Proposed As discussed during the July 7, 2026 meeting with Kimley Horn and Elbert County Public Works, PV roads are private. Section 4.3: As discussed during the July 7 meeting, proposed PV roads are private. Because the Project is currently at an approximately 20% design level, final culvert and riprap designs will be developed during subsequent engineering phases. As discussed during the July 7 meeting, the County will have an opportunity to review the Project's construction designs with the Project's anticipated applications for building and grading permits, which will be submitted prior to construction.	1041 Appendix G 1041 Appendix H 1041 Appendix I 1041 Narrative Table 7 SUR Narrative Table 8

Review 1 Referral Agency Comment Response Matrix (June 26–July 15, 2026)		
Agency	**Response**	**Reference Location**
	Section 4.5: As discussed during the July 7 meeting, minor event conditions are not required as PV roads will be private. 100-year 24-hour event was used for rate control evaluation. Culvert sizing provided on Page 6 of updated report. Pond design described on Page 10 and in Appendix 5. Narrative was to address offflows in the updated report. Appendix 1: The FEMA FIRM was added to the updated report. Appendix 5: Mapped existing and proposed conditions in Appendix 5 of updated report. Proposed grading does not alter overall drainage trends and flow directions across the site. Pond design described on Page 10 and in Appendix 5 of updated report. Flow directions and overflow locations for Utility Yard drainage areas added to Figure 3. The Detention Basin Stage-Storage Table Builder comments have been revised in the updated report. **Traffic Plan:** Thank you for your review and comments. Editorial corrections have been completed. Accesses A through F are included in Exhibit B of the Traffic Plan. All comments on Exhibit B have been addressed in the revised Exhibit B. We will continue to coordinate with Elbert County staff to determine the Project's haul routes, which will be documented in the Road Use Agreement (RUA). The RUA will be executed prior to construction. Prior to RUA execution, we will coordinate with Colorado Department of Transportation to confirm that the Project's traffic plan and proposed haul route are acceptable. The state highway access permits have been added to the list of anticipated Project permits and authorizations. Additionally, as part of the RUA, we will complete a road condition survey with Elbert County Road and Bridge to document existing road conditions prior to construction. Following the Project's Substantial Completion (currently anticipated for Q4 2030), we will repair any project-related public roadway damage and complete a post-repair survey with Elbert County Road and Bridge. Upon completion of post-construction public roadway repairs, ongoing maintenance responsibilities will revert to Elbert County. We confirm that access into the facility will be built to Elbert County Construction Standards. **GESC Plan:** Thank you for your review and comments. The plan was updated and revised accordingly. Sheet C-4: Buildable hatching was removed from the sheet, as it was obscuring relevant information. Sheet C-5: Ponds and labels have been labeled on all sheets. Sheet C-9: This is not an outlet pipe or emergency spillway. This is an existing low point that we've expanded. Intended to keep inundation outside surrounding PV areas.	

Review 1 Referral Agency Comment Response Matrix (June 26–July 15, 2026)		
Agency	**Response**	**Reference Location**
	Sheet C-35: All comments have been addressed in the revised submittal. Sheet C-36: Sight Distance has been adjusted for Operations Access D and F. For Operations Access E, no improvements are needed. Sheet C-46: Culvert size, length, material, and inverts have been provided. Profiles for proposed culverts and minor/major HGLs will be provided in future advanced engineering designs that will be submitted to Elbert County for review prior to construction. Riprap protection sizing requirement table has been added.	
Elbert County Historical Society	Thank you for your review and comment. We appreciate the Elbert County Historical Society's interest in preserving the history of Elbert County. The Project's Unanticipated Discoveries Plan has been updated to include Elbert County Historical Society as a stakeholder to be notified, as appropriate, in the event of a finding. Due to regulations and private property rights, we cannot guarantee that any discovered materials will be provided to the Elbert County Historical Society. However, we will ensure that any unanticipated discoveries are respectfully managed in accordance with all applicable cultural resource protocols and coordination with agencies and tribal representatives.	1041 Appendix Z
Elbert County Public Health	Thank you for your comments. Temporary portable sanitation facilities (e.g., port-a-johns) will be provided onsite for construction personnel. Additionally, the construction trailer may have restroom facilities. During the operations phase, an Operations and Maintenance (O&M) building will be onsite for employees. Restroom and breakroom facilities are anticipated and they will be connected to an Onsite Wastewater Treatment System (OWTS). Per conversations with Marissa Ginger of Elbert County Public Health Department on 6/30/26 and 7/1/2026, we have made the following updates to the applications. - Holding tank is no longer considered for construction trailer's restroom facilities. The construction trailer may be connected to the OWTS, provided the OWTS is first permitted, installed, and sized to support the future operations and maintenance (O&M) building. - The two (2) 500-gallon septic tanks were updated to two (1) 1,000 gallon septic tanks in the preliminary design. The final OWTS will be sized and designed by a licensed professional in accordance with Elbert County sanitation requirements.	1041 Narrative Section 3.3c 1041 Appendix T SUR Narrative Section 2.3.3 and Section 3.2 e 1041 Appendix F

Review 1 Referral Agency Comment Response Matrix (June 26–July 15, 2026)		
Agency	**Response**	**Reference Location**
	- The Project will provide the Elbert County Public Health Department with documentation that the portable facilities are being regularly serviced, including, as applicable and requested, copies of service contracts, receipts, and/or invoices.	
Elbert County Public Works, including Road and Bridge	Thank you for your review and comments. Regarding the requested improvements to County Road (CR) 54, we confirm its commitment to upgrade an approximately 3.5-mile segment of CR 54, extending west from CR 169 towards CR 149. The timing and specifications for these improvements will be documented in the Project's Road Use Agreement (RUA), which will be executed prior to construction. Road improvements will be completed in accordance with applicable Elbert County Construction Standards and Specifications. Per the RUA, we will complete a road condition survey with Elbert County Road and Bridge to document existing road conditions prior to Project construction. Any roadway improvements required to facilitate construction activities will be completed prior to or during construction, as necessary. Following the Project's Substantial Completion (currently anticipated for Q4 2030), we will repair any project-related public roadway damage. Upon completion of these post-construction public roadway repairs, ongoing maintenance responsibilities will revert to Elbert County. We confirm that access into the facility will be built to applicable Elbert County Construction Standards.	n/a
Elbert County Sheriff	Thank you for your review and comment. We appreciate Elbert County Sheriff's office review and acknowledgement that the Project has been carefully planned.	n/a
Note: Reference locations identified with a * identify where supporting information is located within the application. The appendices referenced with a * have not been updated as part of this submittal and are provided for reference purposes only.		

1041 or SUR	Comment # or Referral Agency Letter
SUR	SUR.1.a
SUR	SUR.1.b
SUR	SUR.1.c
SUR	SUR.1.d
SUR	SUR.1.e
SUR	SUR.1.f
SUR	SUR.1.g
SUR	SUR.1.h
SUR	SUR.1.i
SUR	SUR.1.j
SUR	SUR.1.k
SUR	SUR.1.l
SUR	SUR.1.m
SUR	SUR.1.n
SUR	SUR.1.o
SUR	SUR.1.p
SUR	SUR.1.q
SUR	SUR.1.r
SUR	SUR.1.s
SUR	SUR.2
SUR	SUR.3

SUR	SUR.4
SUR	SUR.5
SUR	SUR.6
1041	1041.1
1041	1041.2
1041	1041.3
1041	1041.4
1041	1041.5
1041	1041.7

1041	1041.8
1041	1041.9
1041	1041.10
1041	1041.11
1041	1041.12

Both	Big Sandy Fire Protection District
Both	Colorado Dept of Public Health and Environment
Both	Elbert County Assessor's Office
Both	Elbert County Public Works, including Road and Bridge

Both	Elbert County Sheriff
Both	Colorado Parks and Wildlife
Both	Elbert County Historical Society
Both	Elbert County Public Health

Both	Elbert County Engineering Consultant
Both	Colorado Geological Survey
Both	Building Department
Both	Colorado Division of Water Resources

Formal Response to Comment
The N arrow has been added.
distances between the panel arrays and perimeter fencing, have been removed from the SUR Exhibit for clarity. As discussed and approved during the July 10 meeting with Logan Simpson, the legends for the SUR Exhibit and GESC plans will naturally be different as the plans are intended to communicate different aspects of the application. However, as approved by Logan Simpson during the meeting, the SUR Exhibit legend has been updated to be consistent throughout the entirety of the SUR Site Plan A power block outline previously shown on the exhibit has also been removed for clarity. The medium-voltage (MV) corridor symbology has been standardized throughout the exhibit. A culvert table has been added to Sheet 2 to provide culvert names and additional details. Please see response to SUR.1.f The legend has also been updated to include the overhead (OH) utility setback, existing road signs, existing fencing, and a clarification that a previously identified feature is not a restricted area and will be Proposed ditches have been labeled and identified both on the plans and within the legend. Clarification has been added to the S.F. Percentage of building coverage notes, on Sheets 14 and 16. Existing road signs have been added to the legend. Black lines are proposed ditches. Labels have been added. This is existing fence and has been added to the legend. As discussed during the July 10 meeting with Logan Simpson, this is not a restricted area. It will be grad Perimeter dashed lines around switchyard were approximate locations of the switchyard. This has been r As discussed and approved during the July 10, an additional elevation view is not required. The dimensic The fire protection water tank has been labeled on Sheet 29. This information has been provided on Sheet 29. Please see our response to Elbert County Public Works Department.
A setbacks table has been added to the SUR exhibit indicating the Project's minimum setbacks. Minimum Setback Table included on Sheet 5 of 30 of SUR Exhibit
Thank you. Narrative has been added to the SUR Narrative Section 5.1. A zoning map was included in the SUR Exhibit on Sheet 3/30. Setbacks based on the Project’s current preliminary design are shown in Appendix A – Figure 2.

Thank you. Our water use estimates currently remain at 300-700 AF/Y during construction and 22.5 AF/Y during operations. These estimates will be refined as the Project advances towards construction. Final use estimates are anticipated at least 3 months prior to construction commencement. If Simla Water is unable to meet the Project's water needs, either in whole or in part, the Project intends to source water from other permitted off-site municipal and/or commercial bulk water suppliers. An explanation of the Project's anticipated water use is provided in the SUR Narrative 3.1.1. The water amount needed for the septic system and fire protection tank needs are included in the operations
(OWTS) is expected to be equal to or less than 2,000 gallons. Per consultation with Elbert County Public Health, the final sizing of the OWTS will be determined by the engineer who designs the system as part of the septic permit prior to construction; however, we have provided preliminary information for a 2,000 gallon system.
Thank you. The selection of "Other" Upper Big Sandy Alluvial" was made in error. The Project does not propose any new wells. This has been corrected in Attachment D of the 1041 and SUR Cover Letters.
Thank you for your comment. Figures have been revised.
We reviewed the application materials and determined that the setback requirements were consistent throughout the Project design; however, we recognized that the manner in which they were presented could be clarified. In response to this comment, we revised the narrative and supporting figures to more clearly describe and identify the setbacks already incorporated into the Project design. Setbacks are now explicitly referenced in the narrative, depicted on 1041 Appendix A Figure 2E. These revisions improve clarity and cross-referencing between the narrative and plan set and better communicate the setbacks that were already included in the proposed Project.
application.
Thank you for your comment. We added more information about hail and wildfire in the application.
Thank you for your comment. Appendix C is intended to provide a general overview of BESS and solar technologies. Project-specific BESS design plans are provided in 1041 Appendix G. In response to your request for additional project-specific information, Appendix C has been updated to include details on Fluence Smartstack BESS technology, which is the equipment currently anticipated for the Project. Final equipment selection may change prior to construction. The Applicant is amenable to including, as a condition of approval, that the final BESS technology selections and associated safety information will be included in the Project's Hazard Mitigation Analysis (HMA) and Emergency Response Plan (ERP), which will be provided to the Big Sandy Fire Protection District prior to construction.
been included, where applicable. Stakeholder engagement proof has also been included where applicable.

which is to illustrate the anticipated appearance of Project components from representative public and neighboring property viewpoints where the Project may be visible. Observation points were selected based on proximity to neighboring properties and the potential for views toward the proposed solar array. In response to the comment, the rendering for Station 10 has been revised to provide an updated view with further detail on panel dimensions, fencing and the Project's setbacks. This view was modeling looking northeast across the field toward the Project area, offering a broader representation of the anticipated visual conditions from that location. Additional review was conducted for Stations 3 and 5 to evaluate whether alternative viewpoints or additional frames would provide materially different information. However, due to topography, existing vegetation, and the orientation of the Project, revised views did not reveal Project features beyond those already depicted in the original assessment. For example, at Station 3, shifting the viewpoint to look farther along the roadway was evaluated. However, because of the approximately 220-foot setback from the road and the intervening slope between the roadway and the solar array, the panels would remain located beyond the topographic break and would not result in a materially different view than that shown in the original assessment. As a result, the original renderings remain representative of anticipated Project visibility from these locations.
Updated both PV and BESS decommissioning plans with verbiage to reestablish existing land use at gross cost Updated both contaminated soil costs for both plans Added more detail to BESS Decommissioning Plan in the BESS and Electrical Equipment Removal sections Added verbiage on contingencies for removing ESS from service that has been damaged by fire to
Please see responses to SUR.4 and SUR.6 Comments.
Thank you for your comments regarding the Traffic Control Plan. We have incorporated additional narrative and background information regarding the proposed haul routes into the 1041 Permit application materials. We acknowledge that further coordination with CDOT and Elbert County Road and Bridge will be required as the Project advances through design and toward construction. Consistent with discussions with County staff, more detailed haul route information, traffic analyses, and construction logistics will be developed and provided during subsequent design phases when the

Thank you for your comment. We have provided additional information on noxious weeds into the Vegeta

Thank you for your review, comments, and approval of the Project. We acknowledge and will comply with all applicable building and fire code requirements, including the 2018 building code, the 2024 International Fire Code (IFC), and NFPA 855 (2026 Edition). We have confirmed the Gift Agreement to Big Sandy Fire Protection District (BSFPD) and acknowledge the requirement to prepare and submit all applicable plans, permits, and applications to the BSFPD for review prior to the commencement of construction. The Project's decommissioning plans have been updated to strengthen fire safety and emergency response provisions, including the addition of contingency procedures for removing energy storage systems that have been damaged by fire, bringing the BESS Decommissioning Plan into full compliance with IFC Section 1207.2.3. In addition, financial assurance language has been incorporated into the decommissioning plans, contaminated soil management costs have been updated, and additional detail has been provided regarding battery energy storage system and electrical equipment removal procedures.

To support emergency access and response, we have revised the project notes to specify that a KnoxBox will be installed at the water tank gate containing copies of the master key, and Knox padlocks will be installed on all project gates. Big Sandy Fire Protection District will have access to the Site at all times. In addition to master key copies provided directly to BSFPD for storage at the Simla station, a master key will be available within the KnoxBox located adjacent to the 30,000-gallon water cistern. The Project confirms that all access roads serving the solar facility and BESS will be a minimum of 20 feet wide and constructed of aggregate materials. Base materials will consist of Colorado Department of Transportation (CDOT) Class 6 Aggregate Base Course compacted to 96% Standard Proctor, with additional road construction specifications provided in Appendix G and Appendix P of the 1041 Permit application. We have also confirmed that the design maintains a minimum 20-foot setback between the perimeter fence and photovoltaic facilities and exceeds the minimum 10-foot clearance requested by BSFPD.

We have updated the Project plans to clearly identify the 30,000-gallon water cistern and labeled the water tank on all applicable plan sheets. The water supply location is shown on 1041 Appendix A Figures 02B and 02D and SUR Appendix B Sheet 29. The Project will maintain a minimum 10-foot brush-free and combustible-fuel-free perimeter around both the solar arrays and the battery energy storage system. This area will consist of maintained low-growth vegetation and/or non-combustible ground cover and is reflected in the site plans. The Project includes construction of a single new Operations and Maintenance (O&M) building. Four existing buildings currently located onsite will remain

Thank you for your review and comment. The Project's anticipated best management practices (BMPs) for fugitive dust control are included in the 1041 Narrative as well as Appendix J. Prior to construction, the Project will prepare and submit an Air Pollutant Emissions Notice (APEN).

Acknowledged. Thank you for your review of our Project.

Thank you for your review and comments. Regarding the requested improvements to County Road (CR) 54, the Applicant confirms its commitment to upgrade an approximately 3.5-mile segment of CR 54, extending west from CR 169 towards CR 149. The timing and specifications for these improvements will be documented in the Project’s Road Use Agreement (RUA), which will be executed prior to construction. Road improvements will be completed in accordance with applicable Elbert County Construction Standards and Specifications.

Per the RUA, the Applicant will complete a road condition survey with Elbert County Road and Bridge to document existing road conditions prior to Project construction. Any roadway improvements required to facilitate construction activities will be completed prior to or during construction, as necessary. Following the Project's Substantial Completion (currently anticipated for Q4 2030), we will repair any project-related public roadway damage. Upon completion of these post-construction public roadway repairs, ongoing maintenance responsibilities will revert to Elbert County. We confirm that access into the facility

Thank you for your review and comment. We appreciate Elbert County Sheriff's office review and acknowledgement that the Project has been carefully planned.
Thank you for your review and recommendations regarding the Project. We appreciate CPW's coordination throughout the review process. The Project has been designed to avoid critical wildlife habitat, consolidate development as much as practicable, and co-locate infrastructure adjacent to an existing transmission corridor. As shown in Appendix A, Figure 02c, we have incorporated unfenced corridors throughout the Site to facilitate continued wildlife movement, and fencing has been set back from streambanks with corridor widths maximized where practicable. At CPW's recommendation, we coordinated with the U.S. Fish and Wildlife Service (USFWS). USFWS advised that, in the absence of a federal action requiring agency involvement, no further coordination is necessary. Because the Project does not involve a federal nexus, no additional consultation with USFWS is anticipated. We also acknowledge CPW's recommendations regarding migratory birds, swift fox, and big game species. If construction commencement is scheduled during the migratory bird nesting season, pre-construction surveys will be conducted to identify active nests and implement appropriate avoidance and compliance measures. Consistent with CPW's recommendations, these surveys will also evaluate the Project area for the presence of swift fox dens. Habitat surveys completed in June 2025 did not identify swift fox or swift fox dens onsite. The Site is currently under active agricultural production and is expected to remain so until construction begins; therefore, suitable swift fox habitat is limited due to ongoing agricultural activity and associated disturbance. We appreciate CPW's recommendations
Thank you for your review and comment. We appreciate the Elbert County Historical Society's interest in preserving the history of Elbert County. The Project's Unanticipated Discoveries Plan has been updated to include Elbert County Historical Society as a stakeholder to be notified, as appropriate, in the event of a finding. Due to regulations and private property rights, we cannot guarantee that any discovered materials will be provided to the Elbert County Historical Society. However, we will ensure that any unanticipated discoveries are respectfully managed in accordance with all applicable cultural resource protocols and coordination with agencies and tribal representatives.
Thank you for your comments. Temporary portable santiation facilities (e.g., port-a-johns) will be provided onsite for construction personnel. Additionally, the construction trailer may have restroom facilities. During the operations phase, an Operations and Maintenance (O&M) building will be onsite for employees. Restroom and breakroom facilities are anticipated and they will be connected to an Onsite Wastewater Treatment System (OWTS). Per conversations with Marissa Ginger of Elbert County Public Health Department on 6/30/26 and 7/1/2026, we have made the following updates to the applications. - Holding tank is no longer considered for construction trailer's restroom facilities. The construction trailer may be connected to the OWTS, provided the OWTS is first permitted, installed, and sized to support the future operations and maintanance (O&M) building. - The two (2) 500-gallon septic tanks were updated to two (1) 1,000 gallon septic tanks in the preliminary design. The final OWTS will be sized and designed by a licensed professional in accordance with Elbert County santitation requirements. - The Project will provide the Elbert County Public Health Department with documentation that the

Thank you for your comments on Appendix G GMP Set, Traffic Control Plan, and Drainage Report. Drainage Report: Section 2.2: This comment is addressed in the updated report. Section 2.4: This comment is addressed in Section 4.5 of the updated report. Section 3: Culvert sizing is provided on page 6 of the updated report and are sized for a major event. Proposed As discussed during the July 7, 2026 meeting with Kimley Horn and Elbert County Public Works, PV roads are private. Section 4.3: As discussed during the July 7 meeting, proposed PV roads are private. Because the Project is currently at an approximately 20% design level, final culvert and riprap designs will be developed during subsequent engineering phases. As discussed during the July 7 meeting, the County will have an opportunity to review the Project's construction designs with the Project's anticipated applications for building and grading permits, which will be submitted prior to construction. Section 4.5: As discussed during the July 7 meeting, minor event conditions are not required as PV roads will be private. 100-year 24-hour event was used for rate control evaluation. Culvert sizing provided on Page 6 of updated report. Pond design described on Page 10 and in Appendix 5. Narrative was to address offflows in the updated report. Appendix 1: The FEMA FIRM was added to the updated report. Appendix 5: Mapped existing and proposed conditions in Appendix 5 of updated report. Proposed grading does not alter overall drainage trends and flow directions across the site. Pond design described on Page 10 and in Appendix 5 of updated report. Flow directions and overflow locations for Utility Yard drainage areas added to Figure 3. The Detention Basin Stage-Storage Table Builder comments have been revised in the updated report.
Thank you for your review and comment. We acknowledge CGS's concurrence and will implement the geotechnical recommendations as appropriate.
all required building and electrical permits, as determined necessary through final engineering and design. Construction documents, special inspections, and any deferred submittals will be prepared and completed in accordance with applicable Elbert County, State of Colorado, and adopted building code requirements.
detention facilities and water use comply with applicable permits and regulations. The Project does not intend to utilize the existing wells onsite.

Reference Location
SUR Site Plan Exhibit - Appendix B of SUR
SUR Exhibit Appendix B Sheet 5/30
SUR Narrative Section 5.1 SUR Appendix A - Figure 2 (solar/BESS setbacks based on current preliminary design) SUR Appendix B Sheet 3/30 (zoning map) and 5/30 (minimum setback table)

SUR Narrative Section 3.1.1 SUR Cover Letter Attachment D
SUR Narrative Section 2.3.3 and 3.2e SUR Appendix F
1041 and SUR Cover Letters Attachment D
1041 all sections
1041 Narrative - Section 2: Health and Safety of Solar and BESS - 3.2(b) - Alternative A Preferred Alternative (Current Project Layout) -3.10.2(5) 1041 Appendix A - Figure 2E (solar/BESS setbacks based on current preliminary design) Sheet 5 of 30 of SUR Exhibit
1041 Narrative Section 3.6 (a) and (b)
1041 Permit 19h 2-3, Soils, Geologic Conditions, Natural Hazards and Erosion (XVII.J.19(h))
1041: Appendix C pages 35 and 36
1041 Appendix K

1041 Appendix W - Page 28

1041 Narrative Section 3.6

1041 Appendix N

1041 Narrative Section 3.2(e) and 3.3 Table 7 SUR Narrative Section 2.6 Table 8 1041 Appendix A Figure 02d 1041 Appendix G 1041 Narrative 3.2(e) - Fire Risk and Emergency Response SUR Narrative 3.1.2 0 Fire Protection and Ambulance Services
1041 Narrative Section 3.10.1(3) 1041 Appendix J Table J-4 (NOTE this hasn't been updated - just providing refrerence to it)
n/a

n/a
1041 Appendix A Figure 02c 1041 Appendix J Table J-8*
1041 Appendix Z
1041 Narrative: Section 3.3c pg 25 1041 Appendix T SUR Narrative: Section 2.3.3 and Section 3.2 e SUR Appendix F

1041 Appendix G 1041 Appendix H 1041 Appendix I 1041 Narrative Table 7 SUR Narrative Table 8
n/a
n/a
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