

Draft
Environmental Impact Report
SCH# 2021020513

Volume 2
Technical Appendices A to B

Aratina Solar Project
by 64NB 8ME LLC

Zone Change Case No. 6, Map No. 192
Zone Change Case No. 3, Map No. 208-5
Zone Change Case No. 6, Map No. 208-6
Zone Change Case No. 1, Map No. 209-1
Conditional Use Permit No. 3, Map No. 208-5
Conditional Use Permit No. 7, Map No. 208-6
Conditional Use Permit No. 1, Map No. 209-1
Conditional Use Permit No. 1, Map No. 209-2
Conditional Use Permit No. 16, Map No. 192
Conditional Use Permit No. 17, Map No. 192
General Plan Amendment No. 6, Map No. 192 (Circulation)
General Plan Amendment No. 2, Map No. 192-35 (Circulation)
General Plan Amendment No. 3, Map No. 208-5 (Circulation)
General Plan Amendment No. 3, Map No. 208-6 (Circulation)
General Plan Amendment No. 1, Map No. 209-1 (Circulation)
General Plan Amendment No. 1, Map No. 209-2 (Circulation)



Kern County
Planning and Natural Resources Department
Bakersfield, California

May 2021

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General Plan Amendment No. 1, Map No 209-2 (Circulation)



Kern County
Planning and Natural Resources Department
2700 M Street, Suite 100
Bakersfield, California 93301-2370
(661) 862-8600

Technical Assistance by:
Michael Baker International
3760 Kilroy Airport Way, Suite 270
Long Beach, California 90806
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May 2021

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Appendix A

Notice of Preparation and Supporting Documents

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Email: planning@kerncounty.com
Web Address: <http://kernplanning.com/>



**PLANNING AND NATURAL
RESOURCES DEPARTMENT**

Planning
Community Development
Administrative Operations

DATE: February 26, 2021

TO: See Attached Mailing List

FROM: Kern County Planning and Natural
Resources Department
Attn: Ronelle Candia
2700 "M" Street, Suite 100
Bakersfield, CA 93301
(661)862-8997; CandiaR@kerncounty.com

**SUBJECT: NOTICE OF PREPARATION (NOP) OF A DRAFT ENVIRONMENTAL IMPACT
REPORT (EIR) FOR THE ARATINA SOLAR PROJECT 2.0 BY 50LW 8ME LLC**

The Kern County Planning and Natural Resources Department as Lead Agency (per CEQA Guidelines Section 15062) has determined that preparation of an Environmental Impact Report (per CEQA Guidelines 15161) is necessary for the proposed project identified below. The Planning and Natural Resources Department solicits the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval of the project.

You are invited to view the NOP and submit written comments regarding the scope and content of the environmental information in connection with the proposed project should you wish to do so. Due to the limits mandated by State law, your response must be received by **March 29, 2021 at 5:00 p.m.** Comments can be submitted to the Kern County Planning and Natural Resources Department at the address shown above or to CandiaR@kerncounty.com.

A Scoping meeting will be held on **Friday, March 19, 2021 at 1:30 p.m.** In compliance with the Governor's Executive Order, the California Department of Public Health's guidelines on gatherings regarding COVID-19, and Kern County Local Emergency Declaration, the scoping meeting required by the CEQA Guidelines will be conducted online. Instructions for accessing the virtual scoping meeting will be available three (3) days before the meeting date on the Kern County Planning and Natural Resources website at <https://kernplanning.com>.

PROJECT TITLE: Aratina Solar Project 2.0 by 64NB 8ME LLC (PP20401); ZCC 6, Map #192; ZCC 3, Map #208-5; ZCC 6, Map #208-6; ZCC 1, Map #209-1; CUP 16, Map #192; CUP 17, Map #192; CUP 3, Map #208-5; CUP 7, Map #208-6; CUP 1, Map #209-1; CUP 1, Map #209-2; GPA 6, Map #192; GPA 2, Map #192-35; GPA 3, Map #208-5; GPA 3, Map #208-6; GPA 1, Map #209-1; and GPA 1, Map #209-2.

PROJECT LOCATION: The proposed project site is located in unincorporated Kern County, straddling State Route 58 between Gephart Road on the west and the San Bernardino County line on the east. The proposed project site is in the vicinity of the unincorporated communities of Boron and Desert Lake and north of the of Edwards Air Force Base boundary. The existing U.S. Borax open pit mine and refinery are located approximately two miles north of the project site. The site is located within Sections 5 and 6, Township 10N, Range 7W; Sections 1 and 2, Township 10N, 8W; and Sections 33 and 35, Township 11N, Range 8W, San Bernardino Base Meridian.

PROJECT DESCRIPTION: In August 2020, the Kern County Planning and Natural Resources Department circulated a Notice of Preparation for the previously proposed Aratina Solar Farm Project. Since that time, the project proponent, 64NB 8ME LLC, has modified the project design to incorporate additional setbacks from the unincorporated communities of Boron and Desert Lake and submitted a revised project description to the County. The proposed project described in the February 2021 Notice of Preparation/Initial Study reflects the modified project, titled the Aratina Solar Project 2.0.

The Aratina Solar Project 2.0, as proposed by 64NB 8ME LLC, would develop a photovoltaic solar facility and associated infrastructure necessary to generate up to 530 megawatt-alternating current (MW-AC) of renewable energy, including up to 600 megawatts of energy storage, on approximately 2,317 acres of privately-owned land. The project site consists of five sites (Sites 1 through 5) located on 22 parcels. The project would be supported by a 230-kilovolt (kV) gen-tie overhead and/or underground electrical transmission line(s) originating from one or more on-site substations and terminating at the Southern California Edison's Holgate Substation to the north. Alternatively, the project may interconnect at Southern California Edison's Kramer Substation to the east, located in San Bernardino County via an up to 230kV transmission line located within an Edwards Air Force Base utility corridor. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Implementation of the project as proposed includes the following requests:

a) Changes in zone classifications as follows:

- Zone Change Case No. 6, Map No. 192 – From A-1 to A for 696.69 acres
- Zone Change Case No. 3, Map No. 208-5 – From A-1 to A for 299.94 acres
- Zone Change Case No. 6, Map No. 208-6 – From A-1 to A for 222.49 acres and from R-1 to A for 79.6 acres
- Zone Change Case No. 1, Map No. 209-1 - From A-1 to A for 635.20 acres

b) Conditional Use Permits to allow for the construction and operation of five solar facilities with a total generating capacity of approximately 530 megawatts-alternating current (MW-AC) of renewable energy (broken down by site, below), including up to 600 megawatts of energy storage (for all sites), within the A (Exclusive Agriculture) Zone Districts (in Zone Maps 192, 208-5, 208-6, and 209-1) and the M-1 (Light Industrial) Zone District (in Zone Map 209-2) pursuant to Sections 19.12.030.G and 19.36.30.G, respectively, of the Kern County Zoning Ordinance:

- Site 1 (up to 70 MW)
 - Conditional Use Permit No. 3, Map No. 208-5 for 299.94 acres
- Site 2 (up to 180 MW)
 - Conditional Use Permit No. 7, Map No. 208-6 for 169.92 acres
 - Conditional Use Permit No. 1, Map No. 209-1 for 635.20 acres
- Site 3 (up to 140 MW)
 - Conditional Use Permit No. 1, Map No. 209-2 for 620.26 acres

- Site 4 (up to 80 MW)
 - Conditional Use Permit No. 16, Map No. 192 for 339.46 acres
 - Site 5 (up to 60 MW)
 - Conditional Use Permit No. 17, Map No. 192 for 252.31 acres
- c) General Plan Amendments to the Circulation Element of the Kern County General Plan to remove future road reservations on the section and mid-section lines within the project boundaries:
- General Plan Amendment No. 6, Map No. 192
 - General Plan Amendment No. 2, Map No. 192-35
 - General Plan Amendment No. 3, Map No. 208-5
 - General Plan Amendment No. 3, Map No. 208-6
 - General Plan Amendment No. 1, Map No. 209-1
 - General Plan Amendment No. 1, Map No. 209-2

Documents can be viewed online at: <https://kernplanning.com/planning/notices-of-preparation/>

Signature:
Name:


Ronelle Candia, Supervising Planner

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GPA 6; ZC 6, CUP 16, Map 192
WO #PP20401 (EIR - Aratina Solar 2.0)
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EIR05-19JJ.nop.doc
Sc 07/29/20

City of Arvin
P.O. Box 548
Arvin, CA 93203

Bakersfield City Planning Dept
1715 Chester Avenue
Bakersfield, CA 93301

Bakersfield City Public Works Dept
1501 Truxtun Avenue
Bakersfield, CA 93301

California City Planning Dept
21000 Hacienda Blvd.
California City, CA 93515

Delano City Planning Dept
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Delano, CA 93216

City of Maricopa
P.O. Box 548
Maricopa, CA 93252

City of McFarland
401 West Kern Avenue
McFarland, CA 93250

City of Ridgecrest
100 West California Avenue
Ridgecrest, CA 93555

City of Shafter
336 Pacific Avenue
Shafter, CA 93263

City of Taft
Planning & Building
209 East Kern Street
Taft, CA 93268

City of Tehachapi
Attn: John Schlosser
115 South Robinson Street
Tehachapi, CA 93561-1722

City of Wasco
764 E Street
Wasco, CA 93280

Inyo County Planning Dept
P.O. Drawer "L"
Independence, CA 93526

Kings County Planning Agency
1400 West Lacey Blvd, Bldg 6
Hanford, CA 93230

Los Angeles Co Reg Planning Dept
320 West Temple Street
Los Angeles, CA 90012

San Bernardino Co Planning Dept
385 North Arrowhead Avenue, 1st
Floor
San Bernardino, CA 92415-0182

San Luis Obispo Co Planning Dept
Planning and Building
976 Osos Street
San Luis Obispo, CA 93408

Santa Barbara Co Resource Mgt Dept
123 East Anapamu Street
Santa Barbara, CA 93101

Tulare County Planning & Dev Dept
5961 South Mooney Boulevard
Visalia, CA 93291

Ventura County RMA Planning Div
800 South Victoria Avenue, L1740
Ventura, CA 93009-1740

U.S. Bureau of Land Management
Ridgecrest Field Office
300 South Richmond Road
Ridgecrest, CA 93555

China Lake Naval Weapons Center
Tim Fox, RLA - Comm Plans &
Liaison
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Mail Stop 4001
China Lake, CA 93555

Edwards AFB, Mission Sustainability
Liaison
412 TW, Bldg 2750, Ste 117-14
195 East Popson Avenue
Edwards AFB, CA 93524

Federal Aviation Administration
Western Reg Office/
777 South Aviation Boulevard
Suite 150
El Segundo, CA 90245

Federal Communications Comm
18000 Studebaker Road, #660
Cerritos, CA 90701

U.S. Fish & Wildlife Service
777 East Tahquitz Canyon Way,
Suite 208
Palm Springs, CA 92262

Eastern Kern Resource Cons Dist
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Ridgecrest, CA 93555-4436

Environmental Protection Agency
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75 Hawthorn Street
San Francisco, CA 94105

U.S. Dept of Agriculture/NRCS
5080 California Avenue, Ste 150
Bakersfield, CA 93309-0711

U.S. Army Corps of Engineers
P.O. Box 997
Lake Isabella, CA 93240

U.S. Army Corps of Engineers
Regulatory Division
1325 "J" Street, #1350
Sacramento, CA 95814-2920

State Air Resources Board
Stationary Resource Division
P.O. Box 2815
Sacramento, CA 95812

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9001 Stockdale Highway
Bakersfield, CA 93311

Caltrans/Dist 6
Planning/Land Bank Bldg.
P.O. Box 12616
Fresno, CA 93778

Caltrans/Dist 9
Planning Department
500 South Main Street
Bishop, CA 93514

State Dept of Conservation
Director's Office
801 "K" Street, MS 24-01
Sacramento, CA 95814-3528

Caltrans/
Division of Aeronautics, MS #40
P.O. Box 942873
Sacramento, CA 94273-0001

State Clearinghouse
Office of Planning and Research
1400 - 10th Street, Room 222
Sacramento, CA 95814

California Energy Commission
James W. Reed, Jr.
1516 Ninth Street
Mail Stop 17
Sacramento, CA 95814

State Dept of Conservation
Geologic Energy Management
Division
4800 Stockdale Highway, Ste 108
Bakersfield, CA 93309

California State University
Bakersfield - Library
9001 Stockdale Highway
Bakersfield, CA 93309

Integrated Waste Management
P.O. Box 4025, MS #15
Sacramento, CA 95812-4025

California Fish & Wildlife
1234 East Shaw Avenue
Fresno, CA 93710

California Highway Patrol
Planning & Analysis Division
P.O. Box 942898
Sacramento, CA 94298-0001

State Lands Commission
100 Howe Avenue, Ste 100-South
Sacramento, CA 95825-8202

Public Utilities Comm Energy Div
505 Van Ness Avenue
San Francisco, CA 94102

California Regional Water Quality
Control Board/Lahontan Region
15095 Amargosa Road - Bld 2,
Suite 210
Victorville, CA 92392

State Dept of Water Resources
San Joaquin Dist.
3374 East Shields Avenue, Room A-7
Fresno, CA 93726

State Dept of Toxic Substance
Control
Environmental Protection Agency
1515 Tollhouse Road
Clovis, CA 93612

Cal Environmental Protection Agency/
Dept of Toxic Substances Control, Reg 1
Attn: Dave Kerezais, Permit Div - CEQA
8800 Cal Center Drive, 2nd Floor
Sacramento, CA 95826

Kern County Administrative Officer

Kern County
Agriculture Department

Kern County Airports Department

Kern County
Env Health Services Department

Kern County Public Works
Department/
Building &
Development/Floodplain

Kern County Public Works Department/
Building & Development/Survey

Kern County Library/Beale
Local History Room

Kern County Fire Dept
David Witt, Fire Chief

Kern County Fire Dept
Cary Wright, Fire Marshall

Kern County Parks & Recreation	Kern County Library/Beale Andie Sullivan	Kern County Library California City Branch 9507 California City Boulevard California City, CA 93505
Kern County Public Works Department/Operations & Maintenance/Regulatory Monitoring & Reporting	Kern County Sheriff's Dept Administration	Kern County Public Works Department/ Building & Development/Development Review
Muroc Unified School District 17100 Foothill Avenue North Edwards, CA 93523	Kern County Public Works Department/ Building & Development/Code Compliance	Mojave Unified School District 3500 Douglas Mojave, CA 93501
Local Agency Formation Comm/LAFCO 5300 Lennox Avenue, Suite 303 Bakersfield, CA 93309	Kern County Superintendent of Schools Attention School District Facility Services 1300 - 17th Street Bakersfield, CA 93301	KernCOG 1401 19th Street - Suite 300 Bakersfield, CA 93301
East Kern Air Pollution Control District 2700 M St., #302 Bakersfield, CA 93301	Antelope Valley-East Kern Water Agency 6500 West Avenue N Palmdale, CA 93551	Kern County Water Agency P.O. Box 58 Bakersfield, CA 93302-0058
East Kern Airport District Attention Stuart Witt 1434 Flightline Mojave, CA 93501	California City Airport 22636 Airport Way, #8 California City, CA 93505	Mojave Airport 1434 Flightline Mojave, CA 93501
Adams, Broadwell, Joseph & Cardozo Attention: Janet M. Laurain 601 Gateway Boulevard, Suite 1000 South San Francisco, CA 94080	East Kern Airport Dist Engineer 3900 Ridgemoor Avenue Bakersfield, CA 93306	Northcutt and Associates 4220 Poplar Street Lake Isabella, CA 93240-9536
Center on Race, Poverty & the Environment Attn: Marissa Alexander 1999 Harrison Street – Suite 650 San Francisco, CA 94612	Kern Audubon Society Attn: Frank Bedard, Chairman 4124 Chardonay Drive Bakersfield, CA 93306	Los Angeles Audubon 926 Citrus Avenue Los Angeles, CA 90036-4929
Southern California Edison Planning Dept. 421 West "J" Street Tehachapi, CA 93561	Center on Race, Poverty & the Environmental/ CA Rural Legal Assistance Foundation 1012 Jefferson Street Delano, CA 93215	Defenders of Wildlife/ Kim Delfino, California Dir 980 - 9th Street, Suite 1730 Sacramento, CA 95814
Desert Tortoise Preserve Committee 4067 Mission Inn Avenue Riverside, CA 92501	Native American Heritage Council of Kern County Attn: Gene Albitre 3401 Aslin Street Bakersfield, CA 93312	Pacific Gas & Electric Co Land Projects 650 "O" Street, First Floor Fresno, CA 93760-0001

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P.O. Box 3357
Bakersfield, CA 93385

Southern California Edison
2244 Walnut Grove, Ave,
GO-1 Quad 2C
Rosemead, CA 91770

Verizon California, Inc.
Attention Engineering Department
520 South China Lake Boulevard
Ridgecrest, CA 93555

Chumash Council of Bakersfield
2421 "O" Street
Bakersfield, CA 93301-2441

David Laughing Horse Robinson
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Bakersfield, CA 93390

Kern Valley Indian Council
Attn: Robert Robinson, Chairperson
P.O. Box 401
Weldon, CA 93283

Kern Valley Indian Council
Historic Preservation Office
P.O. Box 401
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Santa Rosa Rancheria
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Lemoore, CA 93245

Tejon Indian Tribe
Kathy Morgan, Chairperson
1731 Hasti-acres Drive, Suite 108
Bakersfield, CA 93309

Kitanemuk & Yowlumne Tejon Indians
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115 Radio Street
Bakersfield, CA 93305

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Attn: Robert Gomez, Chairperson
P.O. Box 226
Lake Isabella, CA 93240

Tule River Indian Tribe
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Porterville, CA 93258

San Fernando Band of Mission Indians
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U.S. Army
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Denver, CO 80202

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Western Regional/Leg Branch
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U.S. Army
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Tehachapi Area Assoc of Realtors
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Kelly Group
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Mojave, CA 93501

Structure Cast
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Burlington Northern & Santa Fe Railroad
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Email: planning@kerncounty.com
Web Address: <http://kernplanning.com/>



**PLANNING AND NATURAL
RESOURCES DEPARTMENT**

Planning
Community Development
Administrative Operations

DATE: February 26, 2021

TO: Surrounding Property Owners within
1,000 Feet of Project Boundary; and,
Interested Parties

FROM: Kern County Planning and Natural
Resources Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301

**SUBJECT: Notice of Preparation of an Environmental Impact Report – Aratina Solar Project
2.0 by 64NB 8ME LLC (PP20401)**

Dear Sir or Madam:

The Kern County Planning and Natural Resources Department has determined that preparation of an Environmental Impact Report (EIR) is necessary for the proposed project identified below. The purpose of this letter is to notify interested parties and surrounding property owners within 1,000 feet of the project boundaries of this determination. A copy of the Initial Study/Notice of Preparation (IS/NOP) prepared for this proposed project is available for viewing at the following Kern County website:

<https://kernplanning.com/planning/notices-of-preparation/>

The purpose of the IS/NOP is to describe the proposed project, specify the project location, and to identify the potential environmental impacts of the project so that Responsible Agencies and interested persons can provide a meaningful response related to potential environmental concerns that should be analyzed in the Environmental Impact Report.

You are invited to view the IS/NOP and submit written comments regarding this proposed project should you wish to do so. Due to the limits mandated by State law, your response must be received by **March 29, 2021 at 5:00 p.m.** Comments can be submitted to the Kern County Planning and Natural Resources Department, Attn: Ronelle Candia, at the address shown above or to CandiaR@kerncounty.com.

A Scoping meeting will be held on **Friday, March 19, 2021 at 1:30 p.m.** In compliance with the Governor's Executive Order, the California Department of Public Health's guidelines on gatherings regarding COVID-19, and Kern County Local Emergency Declaration, the scoping meeting required by the CEQA Guidelines will be conducted online. Instructions for accessing the virtual scoping meeting will be available three (3) days before the virtual scoping meeting on the Kern County Planning and Natural Resources website at <https://kernplanning.com>.

Please be advised that any comments received after the dates listed above will still be included in the public record for this project and made available to decision makers when this project is scheduled for consideration at a public hearing. Please also be advised that you will receive an additional notice in the mail once a public hearing date is scheduled for this project. You will also be provided additional opportunities to submit comments at that time.

PROJECT TITLE: Aratina Solar Project 2.0 by 64NB 8ME LLC (PP20401); ZCC 6, Map #192; ZCC 3, Map #208-5; ZCC 6, Map #208-6; ZCC 1, Map #209-1; CUP 16, Map #192; CUP 17, Map #192; CUP 3, Map #208-5; CUP 7, Map #208-6; CUP 1, Map #209-1; CUP 1, Map #209-2; GPA 6, Map #192; GPA 2, Map #192-35; GPA 3, Map #208-5; GPA 3, Map #208-6; GPA 1, Map #209-1; and GPA 1, Map #209-2.

PROJECT LOCATION: The proposed project site is located in unincorporated Kern County, straddling State Route 58 between Gephart Road on the west and the San Bernardino County line on the east. The proposed project site is in the vicinity of the unincorporated communities of Boron and Desert Lake and north of the Edwards Air Force Base boundary. The existing U.S. Borax open pit mine and refinery are located approximately two miles north of the project site. The site is located within Sections 5 and 6, Township 10N, Range 7W; Sections 1 and 2, Township 10N, 8W; and Sections 33 and 35, Township 11N, Range 8W, San Bernardino Base Meridian.

PROJECT DESCRIPTION: In August 2020, the Kern County Planning and Natural Resources Department circulated a Notice of Preparation for the previously proposed Aratina Solar Farm Project. Since that time, the project proponent, 64NB 8ME LLC, has modified the project design to incorporate additional setbacks from the unincorporated communities of Boron and Desert Lake and submitted a revised project description to the County. The proposed project described in the Notice of Preparation/Initial Study reflects the modified project, titled the Aratina Solar Project 2.0.

The Aratina Solar Project 2.0, as proposed by 64NB 8ME LLC, would develop a photovoltaic solar facility and associated infrastructure necessary to generate up to 530 megawatt-alternating current (MW-AC) of renewable energy, including up to 600 megawatts of energy storage, on approximately 2,317 acres of privately-owned land. The project site consists of five sites (Sites 1 through 5) located on 22 parcels. The project would be supported by a 230-kilovolt (kV) gen-tie overhead and/or underground electrical transmission line(s) originating from one or more on-site substations and terminating at the Southern California Edison's Holgate Substation to the north. Alternatively, the project may interconnect at Southern California Edison's Kramer Substation to the east, located in San Bernardino County via an up to 230kV transmission line located within an Edwards Air Force Base utility corridor. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Implementation of the project as proposed includes the following requests:

a) Changes in zone classifications as follows:

- Zone Change Case No. 6, Map No. 192 – From A-1 to A for 696.69 acres
- Zone Change Case No. 3, Map No. 208-5 – From A-1 to A for 299.94 acres
- Zone Change Case No. 6, Map No. 208-6 – From A-1 to A for 222.49 acres and from R-1 to A for 79.6 acres
- Zone Change Case No. 1, Map No. 209-1 – From A-1 to A for 635.20 acres

b) Conditional Use Permits to allow for the construction and operation of five solar facilities with a total generating capacity of approximately 530 megawatts-alternating current (MW-AC) of renewable energy (broken down by site, below), including up to 600 megawatts of energy storage (for all sites), within the A (Exclusive Agriculture) Zone Districts (in Zone Maps 192, 208-5, 208-6, and 209-1) and the M-1 (Light Industrial) Zone District (in Zone Map 209-2) pursuant to Sections 19.12.030.G and 19.36.30.G, respectively, of the Kern County Zoning Ordinance:

- Site 1 (up to 70 MW)
 - Conditional Use Permit No. 3, Map No. 208-5 for 299.94 acres
 - Site 2 (up to 180 MW)
 - Conditional Use Permit No. 7, Map No. 208-6 for 169.92 acres
 - Conditional Use Permit No. 1, Map No. 209-1 for 635.20 acres
 - Site 3 (up to 140 MW)
 - Conditional Use Permit No. 1, Map No. 209-2 for 620.26 acres
 - Site 4 (up to 80 MW)
 - Conditional Use Permit No. 16, Map No. 192 for 339.46 acres
 - Site 5 (up to 60 MW)
 - Conditional Use Permit No. 17, Map No. 192 for 252.31 acres
- c) General Plan Amendments to the Circulation Element of the Kern County General Plan to remove future road reservations on the section and mid-section lines within the project boundaries:
- General Plan Amendment No. 6, Map No. 192
 - General Plan Amendment No. 2, Map No. 192-35
 - General Plan Amendment No. 3, Map No. 208-5
 - General Plan Amendment No. 3, Map No. 208-6
 - General Plan Amendment No. 1, Map No. 209-1
 - General Plan Amendment No. 1, Map No. 209-2

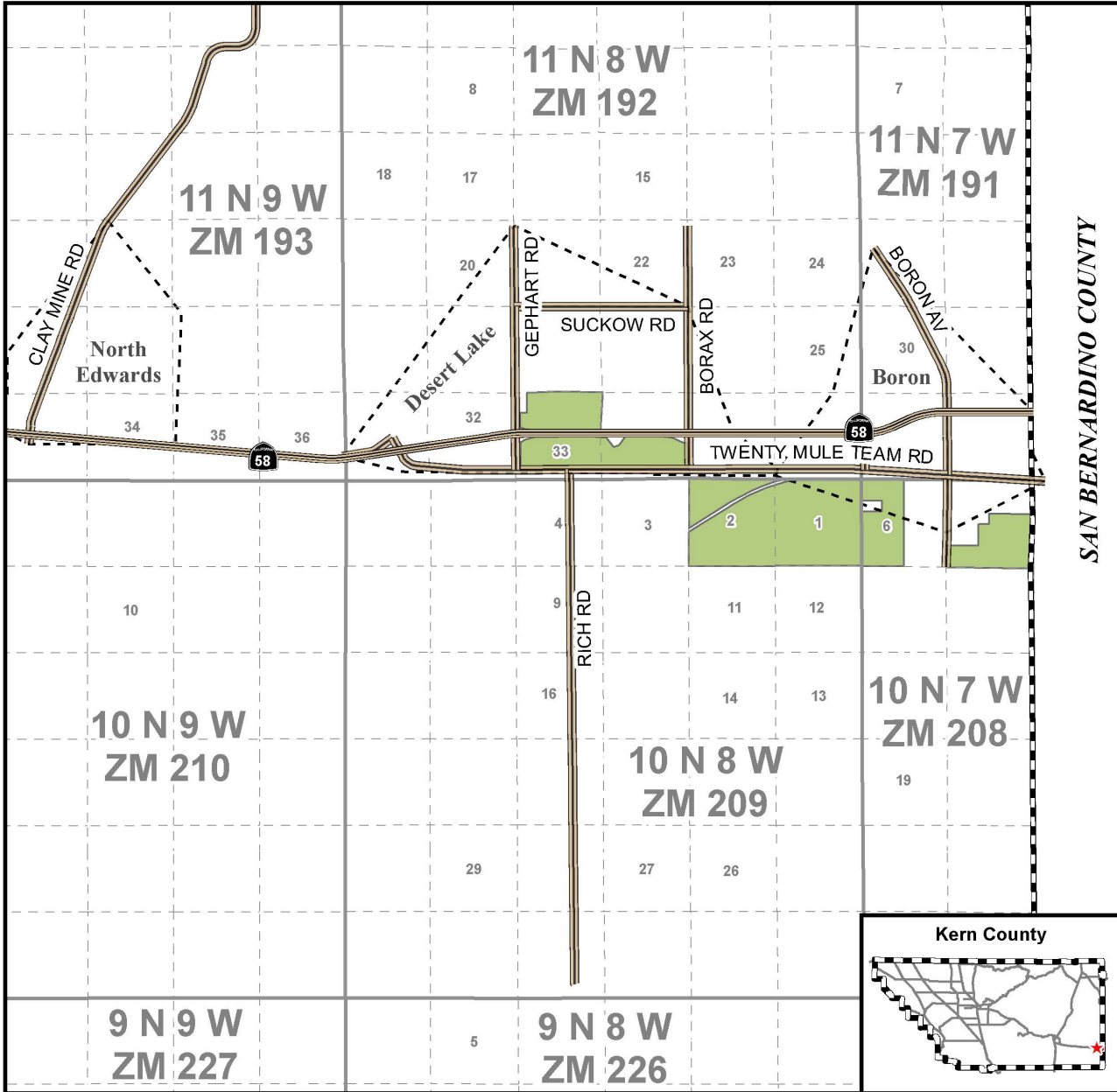
Should you have any questions regarding this project, or the Initial Study/Notice of Preparation, please feel free to contact me at (661) 862-8997 or CandiaR@kerncounty.com

Sincerely,



Ronelle Candia, Supervising Planner
Advanced Planning Division

Attachments: Figure 1 -Vicinity Map
Figure 2 – Project Site Boundaries



**Aratina Solar Project 2.0
by 64NB 8ME LLC**

ZCC 6, CUP 16, CUP 17,
GPA 6, MAP 192
GPA 2, MAP 192-35
ZCC 3, CUP 3, GPA 3,
MAP 208-5
ZCC 6, CUP 7, GPA 3,
MAP 208-6
ZCC 1, CUP 1, GPA 1,
MAP 209-1
CUP 1, GPA 1, MAP 209-2

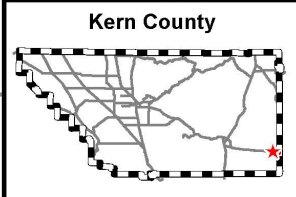
**Figure 1 –
Regional Vicinity Map**

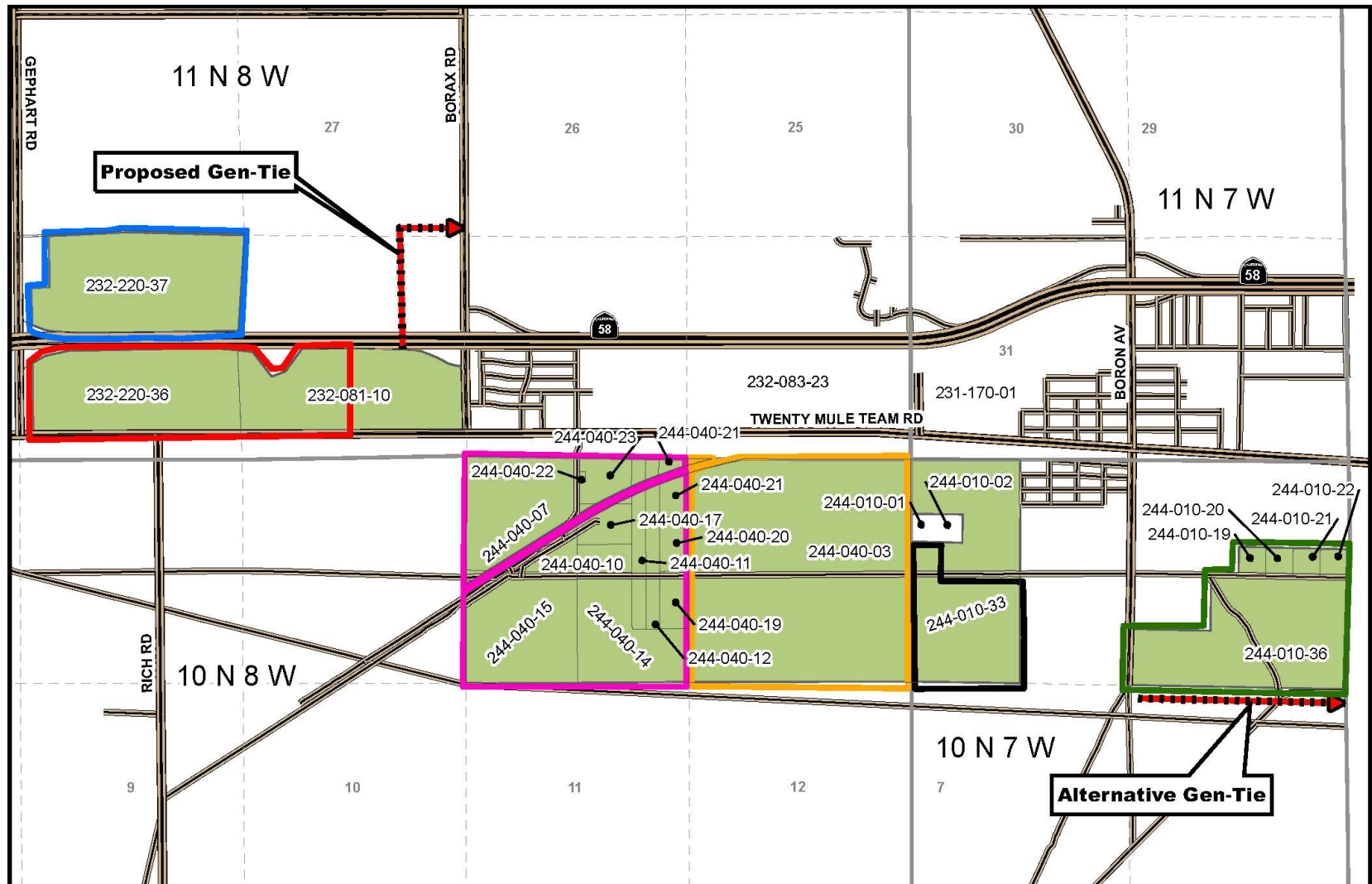
- Aratina Solar Project 2.0 Boundary
- STATE HWY
- Arterials
- Kern County Boundary
- Township/Range
- Sections
- Unincorporated Communities

10N/ 7W - Sec. 5 & 6
10N/ 8W - Sec. 1 & 2
11N/ 8W - Sec. 33 & 34

Created on: 2/16/2021

0 3,000 6,000 9,000 12,000 Feet





ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192
 GPA 2, MAP 192-35
 ZCC 3, CUP 3, GPA 3, MAP 208-5
 ZCC 6, CUP 7, GPA 3, MAP 208-6
 ZCC 1, CUP 1, GPA 1, MAP 209-1
 CUP 1, GPA 1, MAP 209-2

Figure 2 – Project Site Boundaries

Aratina Solar Project 2.0
 by 64NB 8ME LLC

Aratina Solar Project 2.0
 Gen-Tie

Proposed CUP Boundary

 CUP16, Map 192	 CUP1, Map 209-1	 CUP3, Map 208-5
 CUP17, Map 192	 CUP1, Map 209-2	 CUP7, Map 208-6

Kem County Planning & Natural Resources Department

0 1,300 2,600 3,900 5,200 Feet

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GPA 6; ZC 6, CUP 16, Map 192
WO #PP20401 (EIR - Aratina Solar)

Sc 02/18/21

231 180 07 00 8
ALS FUND INC
7586 WOODROW WILSON DR
LOS ANGELES CA 90046

244 332 09 00 5
ALVARENGA ANGELICA V
11861 NANCY AV
BORON CA 93516

232 171 01 00 1
AMAYA GEORGE J & NANCY
44 WALKER AV
WAHIAWA HI 96786-1887

244 010 27 00 0
ANA PROPERTIES LLC
P O BOX 1510
LA MIRADA CA 90637

232 081 12 00 7
DUP
ANTELOPE VALLEY E KERN
WTR AG
ADDRESS UNKNOWN

244 372 02 00 6
ANTELOPE VALLEY E KERN WTR AG
P O BOX 3176
QUARTZ HILL CA 93534

244 010 32 00 4 **DUP**
ANTELOPE VALLEY EAST KERN
WATER AGENCY
P O BOX 3176
QUARTS HILL CA 93534

244 312 03 00 1
ASBURY ROBERT J &
DANIELLE
PO BOX 402
POTTER VALLEY CA 95469-
0402

244 312 04 00 4
ASCENCIO ERICK JR
44708 FENHOLD ST
LANCASTER CA 93535-3417

232 171 24 00 8
ASHPAUGH LIVING TRUST
2797 MAGNOLIA ST
CAMARILLO CA 93012-8044

232 171 07 00 9
DUP
ASHPAUGH TRUST
2797 MAGNOLIA ST
CAMARILLO CA 93012-8044

244 352 09 00 1
ATKINSON GARY D & MARIAN K
26535 JOHN ST
BORON CA 93516

244 351 09 00 4
AUSTIN RONALD
1337 CASIANO RD
LOS ANGELES CA 90049

244 342 14 00 2
BAHRS THOMAS
PO BOX 6582
ORANGE CA 92863-6582

232 171 27 00 7
BAIRD CAROL J
24147 SAGE AV
BORON CA 93516-1331

231 190 24 00 0
BALLESTEROS JONATHAN
ROBERT
26145 TWENTY MULE TEAM RD
BORON CA 93516

232 150 02 00 1
BANKS LISA
12153 EL MIRAGE ST
BORON CA 93516-1312

232 171 05 00 3
BARNARD DORIS M
24164 JUNIPER AV
BORON CA 93516

244 332 15 00 2
BEALMER WILLIAM LIVING
TRUST
732 PALMER ST
NIPOMO CA 93444-9569

232 172 27 00 4
BEARDEN ERBY R &
MILDRED F
24263 JOSHUA AV
BORON CA 93516

244 341 12 00 9
BELARDES AUDREY DELIA FAMILY
TRUST
26849 NICHOLS ST
BORON CA 93516-1938

231 101 12 00 5
BENCH SHAMMA MICHELLE
26562 NUGENT ST
BORON CA 93516

231 190 30 00 7
BIRCH JARED & PRINNIS
26095 20 MULE TEAM RD
BORON CA 93516-1410

244 312 11 00 4
BISHOP TIMOTHY T
26967 JOHN ST
BORON CA 93516-1920

232 173 09 00 9
BLODGETT ZACHARY JOE
12363 SIERRA VIEW ST
BORON CA 93516-1341

232 173 03 00 1
BLUE GARRY & BOBBIE
16771 ALEXANDER AV
NORTH EDWARDS CA 93523

244 312 16 00 9
BORON BIBLE CHURCH
P O BOX 627
BORON CA 93596

231 040 01 00 9
BORON CHAMBER OF COMMERCE
26962 TWENTY MULE TEAM RD
BORON CA 93516

231 180 10 00 6
DUP
BORON COMMUNITY
SERVICE DIST
ADDRESS UNKNOWN

232 220 27 00 4
BORON COMMUNITY SERVICE DIST
P O BOX 1060
BORON CA 93596

232 140 28 00 4
BRANDEL CHARLES F & CINDY L
REV TR
2057 WEST AVE M-8
PALMDALE CA 93551

232 182 20 00 6
BRECKENRIDGE RUTH E
24171 CHAPARRAL AV
BORON CA 93516

232 182 21 00 9
BRECKENRIDGE STEVE & JAMIE
24157 CHAPPARRAL AV
BORON CA 93516

244 040 14 00 1
BRITTON ASSCS LLC
PO BOX 27325
ANAHEIM CA 92809-0110

231 190 12 00 5
BROWN JACQUILINE S
7475 W SAHARA AV # 100
LAS VEGAS CA 89117

232 181 02 00 7
BROWN MORTON EUGENE &
PASSMORE DEBURAH
24422 TAMARISK AV
BORON CA 93516-1358

244 351 07 00 8
BURGESS ROBERT E
11945 FOOTHILL RD
RED BLUFF CA 96080-8984

244 361 10 00 9
BURKE SHEILA
P O BOX 5651
SANTA MONICA CA 90409

244 361 11 00 2
BURKE SHEILA
PO BOX 5651
SANTA MONICA CA 90409

231 190 09 00 7
BUTLER TONI LEE
11 IRIS CT
BODFISH CA 93205

244 331 12 00 6
CAILLIER FAM LIV TR
26655 NICHOLS ST
BORON CA 93516-1934

244 331 13 00 9
CAILLIER FAM LIV TR
9195 SVL BOX
VICTORVILLE CA 92395-5135

244 341 11 00 6
CAILLIER JEREMY
16640 ALEXANDER AV
EDWARDS CA 93523-3526

232 182 06 00 6
CAILLIER KAREN TR
25831 CHERRYHILL DR
BORON CA 93516-1202

232 172 07 00 6
CANADA MICHAEL W & DEBORAH L
24192 SAGE AV
BORON CA 93516-1332

244 040 21 00 1
CAO TIM
7856 CARMENCITA AV
SACRAMENTO CA 95829-9425

232 172 26 00 1
CARBAJAL JAVIER
24153 TAMARISK AV
BORON CA 93516-1345

244 351 11 00 9
CARBONARI JESSICA I
1125 REGENTS ST
LANCASTER CA 93534-1400

244 371 05 00 8
CARDOZA ROBERTA A TR
1031 NORD AV
BAKERSFIELD CA 93314-9784

244 362 06 00 5
CAREY JOHN W & CATHY E
P O BOX 494
BORON CA 93596

244 361 02 00 6
CASTANEDA JOSE T
P O BOX 866
LOMA LINDA CA 92354

231 101 13 00 8
CESENA RUPERTO R & GLORIA F
DE
26545 TWENTY MULE TEAM RD
BORON CA 93516

244 332 03 00 7
CHALTRAW IRENE P
P O BOX 344
BORON CA 93596

244 341 14 00 5
CHAVEZ BRANDON DE LA TORRE
494 MARIN ST
TULARE CA 93274-4892

232 150 08 00 9
COOK FAMILY TR
24138 CHAPARRAL AV
BORON CA 93516

232 183 05 00 0
COOK FAMILY TR
24138 CHAPARRAL AV
DESERT LAKE CA 93516

231 180 03 00 6
CORE FAMILY TR
305 SUNDOWN DR
FARMINGTON AR 72730

232 182 05 00 3
CORONEL WILLARDO C
24172 JOSHUA AV
BORON CA 93516

244 010 06 00 9
COUNTY OF KERN
**GENERAL
SERVICES/PROPERTY MGT**

244 010 07 00 2
COUNTY OF KERN
1115 TRUXTUN AV
BAKERSFIELD CA 93301

DUP

244 010 14 00 2
DUP
COUNTY OF KERN
1115 TRUXTUN AV FLR 4
BAKERSFIELD CA 93301

244 010 23 00 8
COUNTY OF KERN
1415 TRUXTUN AVE.
BAKERSFIELD CA 93301-5215

232 182 01 00 1
COX JEFFREY C SR
12246 SIERRA VIEW
BORON CA 93516

232 140 09 00 9
CRANE FAMILY TRUST
4640 ADMIRALTY WY STE 500
MARINA DEL REY CA 90292

244 352 13 00 2
CRAWFORD BRENT &
MONICA
P O BOX 280004
NORTHRIDGE CA 91328-0004

232 150 38 00 6
DABBAS EMIL & LEILA
PO BOX 4006
CASTAIC CA 91310-4006

244 361 12 00 5
DAVENPORT JOHN D & JESSIE
N
26567 FERGUSON ST
BORON CA 93516-1905

232 140 14 00 3
DAVIS DALE FAMILY TRUST
24337 WOODFORD
TEHACHAPI RD
TEHACHAPI CA 93561-9539

232 172 03 00 4
DAVIS DAVID K
24136 SAGE AV
BORON CA 93516-1332

231 190 07 00 1
DAVIS JIMMY R & JOAQUINA D
27156 COTE ST
BORON CA 93516-1621

244 010 17 00 1
DELA CRUZ MANUEL &
IMELDA
2233 5 DUVALL ST
LOS ANGELES CA 90031

231 180 06 00 5
DENNIS DESERT LAND LLC
ADDRESS UNKNOWN

DUP

232 081 05 00 7
DESERT LAKE COMM SERVICE
DIST
12200 DEL ORO ST
BORON CA 93516-1376

232 140 45 00 3
DESERT PARTNERS PROP
INVEST LLC
12366 BORON AV
BORON CA 93516-1614

232 150 19 00 1
DESERT PARTNERS PROP INVS LLC
PO BOX 4006
CASTAIC CA 91310-4006

232 140 46 00 6
DUP
DESERT PARTNERS PROPERTY
INVEST LLC
12366 BORON AV
BORON CA 93516-1614

231 180 04 00 9
DLI LLC
4825 S HIGHWAY 95 2
FORT MOHAVE AZ 86426

244 040 07 00 1
DORA LAND
PO BOX 1405
APPLE VALLEY CA 92307-0026

244 040 23 00 7
DUP
DORA LAND
P O BOX 1405
APPLE VALLEY CA 92307

232 140 38 00 3
DOVER GEORGE P A & HUA-
CHIEN HSU
21947 JALAMA RD
APPLE VALLEY CA 92307-
9335

232 184 05 00 7
DURHAM WILLIAM W
6820 AQUEDUCT RD
PHELAN CA 92371-7102

244 351 05 00 2
DUVALL KUMIKO M
P O BOX 143
BORON CA 93596-0143

232 171 25 00 1
EDMONDS WILLIAM R
3601 REDLANDS DR
BAKERSFIELD CA 93306

232 182 04 00 0
EDMONDS WILLIAM R ET AL
3601 REDLANDS DR
BAKERSFIELD CA 93306-2123

232 183 06 00 3
ELLWOOD FRAN
24152 CHAPARRAL AV
BORON CA 93516

232 171 29 00 3
ENGLISH JACK & GAIL
P O BOX 114
BORON CA 93516

232 181 23 00 8
ENGLISH MELVIN A & ROBERTA TR
24169 JOSHUA AV
BORON CA 93516

244 341 07 00 5
EPHRIAM DEBORA
4235 126TH ST APT 105
HAWTHORNE CA 90245

232 173 01 00 5
DUP
EPHRIAM DEBORA D
ADDRESS UNKNOWN

244 311 04 00 7
ESTRELLA MONICA
26848 NICHOLS ST
BORON CA 93516-1937

232 172 29 00 0
EVANS KIM
12400 SIERRA VIEW ST
BORON CA 93516-1343

231 180 11 00 9
EYRE JANET L
27151 ANDERSON ST
BORON CA 93516-1603

231 102 06 00 5
FAMILY DOLLAR INC
500 VOLVO PW
CHESAPEAKE VA 23320-1604

244 371 08 00 7
FENNELL J C & OPAL F FAMILY
TRUST
26800 JOHN ST
BORON CA 93516-1919

232 213 04 00 5
FINDLEY MILDRED LIVING
TRUST
2 PAPER MILL CREEK CT
NOVATO CA 94949

244 040 11 00 2
FINNE JOHN
2042 S CAPELLA CT
COSTA MESA CA 92626-3522

244 371 09 00 0
FIRE & GLORY INVS INC
2601 OAKDALE RD STE H2
MODESTO CA 95355-2256

232 083 24 00 6
FLAGSTONE CANYON INC
PO BOX 1823
QUITMAN TX 75783-2823

232 172 08 00 9
FLORES LOPEZ ERBIN & PENA PENA
MARIA D R
10589 SHERILL ST
ANAHEIM CA 92804

244 342 01 00 4
FOLLENDORE HARTWELL D &
BRENDA J FMLY TR
2828 WEST AVE 0
PALMDALE CA 93551

244 331 10 00 0
FONSECA ROSEMARY
P O BOX 70692
PT RICHMOND CA 94807-
0692

232 173 04 00 4
GALLEGOS LIVING TR
27096 JEROME ST
BORON CA 93516

231 101 08 00 4
GARCIA HERNANDEZ TRINIDAD
2410 34TH ST # D
SANTA MONICA CA 90405-2162

232 184 02 00 8
GARRETT JAREN WAIN
12335 SIERRA VIEW ST
BORON CA 93516-1341

244 341 10 00 3
GARTICA ANDREW
26875 NICHOLS
BORON CA 93516

244 351 10 00 6
GENERATOR GROUP INC
15445 VENTURA BL # 50
SHERMAN OAKS CA 91403-3005

244 010 36 00 6
GENUS L P
2006 HIGHWAY 395
FALLBROOK CA 92028

232 150 40 00 1
GILL JOGINDER S
12845 STILL CREEK CT
RANCHO CUCAMONG CA 91739-9440

244 010 25 00 4
GILMORE JACKIE LEE & MONICA
36228 VILLAGE RD
YUCAIPA CA 92399-5295

244 040 03 00 9
GM GABRYCH FAMILY L P
2006 HIGHWAY 395
FALLBROOK CA 92028

231 180 08 00 1
GOIST PAUL E
26496 ANDERSON ST
BORON CA 93516

244 311 14 00 6
GOMEZ FAM TR
629 SMITHFIELD VALLEY RD
AMENIA NY 12501

231 190 05 00 5
GOMEZ MARIO
45430 GINGHAM AV
LANCASTER CA 93535-1910

244 311 07 00 6
GONZALEZ APOLONIO & LUCIANA
37635 CLUNY AV
PALMDALE CA 93550

232 081 02 00 8
GRACE LIVING STONE LLC
471 W CAMINO REAL AV
ARCADIA CA 91007-7302

244 351 06 00 5
GRANADOS GLENDA
SUYAPA
26549 NICHOLS ST
BORON CA 93516-1932

232 183 02 00 1
GREEN ANNA
24086 CHAPARRAL AV
BORON CA 93516-1302

244 010 28 00 3
GURROLA DIONISIO & JUANA ET AL
3511 E 56TH ST
MAYWOOD CA 90270

232 182 23 00 5
HAGOOD KENNETH R
24129 CHAPARRAL AV
BORON CA 93516

232 183 04 00 7
HALCROMB KENT A
24124 CHAPARRAL AV
BORON CA 93596

244 352 11 00 6
HANSON JAMES & TENA
26509 JOHN ST
BORON CA 93516-1912

244 311 10 00 4
HARMON JAMES P & BONNIE M
26887 JOHN ST
BORON CA 93516

232 181 21 00 2
HARRALD VAN D
P O BX 252
BORON CA 93516

232 184 04 00 4
HAYNES CHRISTOPHER A
12301 SIERRA VIEW ST
BORON CA 93516

232 171 23 00 5
HAYNES DANNY S & LYNDA S
TRUST
20825 HACIENDA BL
CALIFORNIA CITY CA 93505-2804

232 150 01 00 8
HENDERSON MICHAEL
PO BOX 342
BORON CA 93596-0342

244 332 02 00 4
HIKIN VLAD
12330 OSBORNE ST # 76
PACOIMA CA 91331-2043

244 332 07 00 9
HIKIN VLAD
12330 OSBORN # 76
PACOIMA CA 91331

244 332 14 00 9
HOBBS JAMES L & DEANNA M
26633 JOHN ST
BORON CA 93516-1914

244 332 01 00 1
HOBBS JOHNNY
26600 NICHOLS ST
BORON CA 93516-1933

244 311 12 00 0
HOBBS MARIE ANITA
26861 JOHN ST
BORON CA 93516-1918

232 171 30 00 5
HOBBS NICHOLAS C & SIDNEY K
12466 SIERRA VIEW ST
BORON CA 93516

244 332 16 00 5
HOEGNER PHILLIP J LIV TR
26601 JOHN ST
BORON CA 93516-1914

232 150 33 00 1
HOWARD DENNIS A
1027 MCDONALD AV
WILMINGTON CA 90744-3331

244 352 06 00 2
HUBBARD ARIEL LORRAINE &
DONALD P
3900 E MAIN ST SP 28
VENTURA CA 93003-0336

244 352 07 00 5
DUP
HUBBARD ARIEL LORRAINE &
DONALD P
3900 MAIN ST # 28
VENTURA CA 93003

244 352 08 00 8 **DUP**
HUBBARD ARIEL LORRAINE &
DONALD P
3900 E MAIN ST # 28
VENTURA CA 93003

232 081 10 00 1
HUI JOHN
5560 S FORT APACHE RD STE 100
LAS VEGAS NV 89148

232 290 03 00 5
HUN MICHAEL & NANCY
P O BOX 250
HEMET CA 92546

244 362 02 00 3 **DUP**
IRISH DAVID F & DIANE
26620 JOHN ST
BORON CA 93516

244 362 03 00 6
IRISH DAVID F & DIANE M
26620 JOHN ST
BORON CA 93516

232 150 03 00 4
IRVING CYNTHIA A
P O BOX 446
BORON CA 93596

232 290 08 00 0
IRVING DEBBIE LYNN
24301 TWENTY MULE TEAM RD
BORON CA 93516

232 182 19 00 4
J 4 PROP GROUP LLC
4001 N DASHWOOD PL
MERIDIAN ID 83646-9077

232 172 06 00 3
DUP
J4 PROP GROUP LLC
4001 N DASHWOOD PL
MERIDIAN ID 83646-9077

244 331 02 00 7
JACKSON FAMILY TRUST
26596 JOHN ST
BORON CA 93516-1913

231 180 13 00 5
JAGANNATHAN THIRUPPATHI &
SRIDEVI TR
124 N TUMBLEWEED TL
AUSTIN TX 78733-3221

232 172 04 00 7
JENNINGS BOBBY G &
PATRICIA L TRUST
24150 SAGE AV
BORON CA 93516-1332

244 332 08 00 2
JESUS NAME TABERNACLE UTD
PENT CH
PO BOX 488
BORON CA 93596-0488

232 150 41 00 4
JJJ TRUCK WASH LLC
12845 STILL CREEK CT
RANCHO CUCAMONG CA 91739-9440

232 213 01 00 6
JOB BROCK L & CRYSTAL L
24300 CHAPARRAL AV
BORON CA 93516

232 181 01 00 4
JOB JEREMEH & MICHELLE
24336 CHAPARRAL AV
BORON CA 93516-1308

232 213 03 00 2
JOB JEREMEH JUSTYN &
MICHELLE LYNN
24336 CHAPARRAL AV
BORON CA 93516-1304

244 311 08 00 9
JOHN STREET TR
12556 SUGAR ST
BORON CA 93516-1723

231 090 29 00 6
JOSHUA PARK LLC
12223 HIGHLAND AV
RANCHO CUCAMONG CA
91739-2574

231 190 29 00 5
JUDD ROBERT L JR & HILDEGARD
26109 TWENTY MULE TEAM RD
BORON CA 93516

244 361 01 00 3
JUSTINIANO VELEZ & ANA LIDIA
BARBOSA
26500 JOHN ST
BORON CA 93516

232 181 24 00 1
KAPUSTA ALISON M
24155 JOSHUA AV
BORON CA 93516

231 101 03 00 9
KARRIS PROP INC
42263 W 50TH ST # 107
QUARTZ HILL CA 93536

231 190 01 00 3
KELLER GAGE SHELLEY LIV TR
PO BOX 626
BORON CA 93596-0626

232 183 10 00 4
KELLEY CHARLES & TABITHA
24218 CHAPARRAL AV
BORON CA 93516

244 332 13 00 6
KELLY SHOUBE FAMILY TRUST
PO BOX 91
BORON CA 93596-0091

244 352 10 00 3
KENNEDY CHARLES D & MELBA I
26501 JOHN ST
BORON CA 93516-1912

232 140 40 00 8
KIBEL ROBBIE JEAN SURIVORS
TRUST
4389 TAYLOR HALL LN
ADAMS TN 37010-9181

231 101 07 00 1
KIM CHONG SU
12025 GARDNER
BORON CA 93516

232 220 36 00 0
KING ILLY FAMILY TRUST
1102 VIA HISPANO
NEWBURY PARK CA 91320-6761

244 341 08 00 8
KIRBY JAMES A & MARY LOU
27809 PROSPECT
BORON CA 93516

244 362 09 00 4
KOMETAS BARBARA P
35530 DESERT ROSE WY
LAKE ELSINORE CA 92532-2914

231 190 06 00 8
KRIGBAUM DOMINICA Y
227 ASTI WY
MADERA CA 93638

232 183 03 00 4
KRING ROGER A & ANGELA
24100 CHAPARRAL AV
BORON CA 93516

232 173 05 00 7
KRIZAUSKAS JOHN
12443 SIERRA VIEW
BORON CA 93516

244 352 01 00 7
KRIZAUSKAS JOHN
26502 NICHOLS ST
BORON CA 93516-1931

232 140 15 00 6
KRUTOFF EDWIN D FAMILY
TRUST
1133 9TH ST # 101
SANTA MONICA CA 90403

232 172 25 00 8
KULIKOFF JULIEANN
8537 SATINWOOD AV
CALIFORNIA CITY CA 93505-3810

244 331 08 00 5
LAGUNA JESSENIA D G
27095 COTE ST
BORON CA 93516-1618

232 172 24 00 5
LAKSHMIPATHY ARUN
10645 N TATUM BL # C200
PHOENIX AZ 85028-3053

231 190 17 00 0
LANDAKER INVESTMENTS LLC
16510 RIDGE FIELD DR
RIVERSIDE CA 92503-0241

231 190 36 00 5
LANDSGAARD ERIC F & DEBBIE L
FAM TR
PO BOX 167
ROSAMOND CA 93560-0167

244 333 01 00 8
LANGE JERRY A
7714 N STODDARD AV
KANSAS CITY MO 64152-2193

232 182 02 00 4
LASEINDE OLUMUYIWA B
24128 JOSHUA AV
BORON CA 93516

232 183 01 00 8
LEE JOB BROC & CRYSTAL
4001 N DASHWOOD PL
MERIDIAN ID 83646-9077

232 081 04 00 4
LEE REALCORP
466 FOOTHILL BL # 317
LA CANADA FLINT CA 91011-
3518

244 010 31 00 1
LENNOX FAMILY TRUST
1519 RUBENSTEIN AV
CARDIFF CA 92007

244 352 04 00 6
LEYENDECKER CHARLES F
26578 NICHOLS ST
BORON CA 93516-1931

231 190 35 00 2
LIMA ARACELY
PO BOX 836
MOJAVE CA 93502-0836

232 182 17 00 8
LIMA SAUL
8019 WHITEOAK AV
RESEDA CA 91335

231 190 20 00 8
LIZARRAGA MARIA ALICIA
PO BOX 36
MOJAVE CA 93502-0036

231 190 33 00 6
LONG ROBERTA KAY
9392 LUDERS AV
GARDEN GROVE CA 92844-
2356

244 352 12 00 9
LOPEZ JOSE & ANA
20348 89TH ST
CALIFORNIA CITY CA 93505

244 361 13 00 8
LOPEZ LA HOMA LIVING TR
P O BOX 257
BORON CA 93596

232 181 20 00 9
LOPEZ MARK L
24211 JOSHUA AV
BORON CA 93516

231 101 10 00 9
LYON JAMES & TERRI
26540 NUDGENT ST
BORON CA 93516

232 182 08 00 2
LYON MASHIEL & JAMES
24224 JOSHUA AV
BORON CA 93516-1323

244 342 11 00 3
MAC LEAN DANIELLE &
PEREZ JOSE
26979 NICHOLS ST
BORON CA 93516-1940

232 183 09 00 2
MADERA ELIZABETH M &
INTERIANO ANGEL A C
24194 CHAPARRAL AV
BORON CA 93516

244 342 15 00 5
MADRIGAL FELIPE & MARIA
Z
418 E 82ND ST
LOS ANGELES CA 90003

232 184 01 00 5
MATEIRO SHANIE L
12349 SIERRA VIEW ST
BORON CA 93516-1341

244 311 06 00 3
MICHAELS MICHAEL
9668 MILLIKEN AV STE 104
RANCHO CUCAMONG CA 91730-6136

244 342 02 00 7
MILLER JAMES LEE
26934 JESSIE ST
BORON CA 93516-1911

232 150 04 00 7
MILLER WILLIAM T & BETTY J
27095 JEROME ST
BORON CA 93516

232 150 18 00 8
MINE MINERAL & PROCESSING
WORKERS BLDG ASSN
24001 CHAPARRAL AV
BORON CA 93516

232 172 22 00 9
MOESSNER TODD & MARION
16948 HILLCREST AV
EDWARDS CA 93523

244 332 06 00 6
MONTES MARCELLA
991 W BLAINE ST # 9
RIVERSIDE CA 92507-3705

244 331 11 00 3
MONTOYA ALFONSO & JUANA
29708 SILVER ST
CASTAIC CA 91384

244 363 01 00 7
MORIDI KAMBIZ FAM TR
17458 BLUEWATER CT
RIVERSIDE CA 92503

231 190 32 00 3
MORRIS CLAUDE C
26967 ANDERSON ST
BORON CA 93516-1509

232 181 07 00 2
MORRIS FAMILY TRUST
24196 TAMARISK AV
BORON CA 93516-1346

244 331 17 00 1
MORRIS MAUREEN C
PO BOX 414
BORON CA 93596

231 190 11 00 2
MUNOZ RANDY & MELISSA
JANE
26401 20 MULE TEAM RD
BORON CA 93516-1406

231 101 09 00 7
NAYEREY RANDY
26586 NUGENT ST
BORON CA 93516

244 332 05 00 3
NGUYEN MIMI A
7701 DUQUESNE PL
WESTMINSTER CA 92683

244 341 13 00 2
NGUYEN TRANG THUY THI
14616 S DENKER AV
GARDENA CA 90247-2815

244 010 30 00 8
NGUYEN YEN MY
107 E MELBOURNE AV
SILVER SPRING MD 20901

232 083 21 00 7
NORTON LILLIAN M
PO BOX 858
PALO CEDRO CA 96073-0858

244 362 01 00 0
ORELLANA FRANCISCO
ANTONIO
11850 PATRICIA AV
BORON CA 93516-1922

244 010 05 00 6
PACIFIC GAS & ELECTRIC CO
1 MARKET PZ STE 400
SAN FRANCISCO CA 94105-1004

244 010 11 00 3
PACIFIC TEL & TEL CO
140 NEW MONTGOMERY ST # 818
SAN FRANCISCO CA 94105-3705

244 010 04 00 3
PAK JACQUELINE H TR
10830 MARIETTA AV
CULVER CITY CA 90232-3714

231 190 16 00 7
PATEL HASMUKH B & WIBHA H REV
LIV TR
26881 TWENTY MULE TEAM RD
BORON CA 93516

244 361 14 00 1
PEREZ JOSE LUIS & LOURDES
20529 FERGUSON ST
BORON CA 93516

232 150 09 00 2
PEREZ SARA ANGEL
6828 WUNDERLIN AV
SAN DIEGO CA 92114

232 182 18 00 1
PETREY AUSTIN B
24209 CHAPARRAL AV
BORON CA 93516

244 010 19 00 7
PIETRANGELO LINDA LIVING TRUST
1705 LAMPLIGHTER LN
LAS VEGAS NV 89104-3722

232 172 28 00 7
PINA BRAULIO & NARCILE
24125 TAMARISK AV
BORON CA 93516

232 184 09 00 9
PINA BRAULIO SR & NARCILE
24125 TAMARISK AV
BORON CA 93516-1345

231 090 25 00 4
PLANET BORON LLC
1752 E AVENUE J # 256
LANCASTER CA 93535

232 172 01 00 8
POE DENISE
12446 SIERRA VIEW
BORON CA 93516

244 311 02 00 1
POTTS BENTON TRUST
12555 SUGAR ST
BORON CA 93516-1722

244 331 18 00 4
POTTS ELANIE ROSELL
PO BOX 316
BORON CA 93596-0316

232 171 04 00 0
PRICE ELMER RAY TR
24150 JUNIPER AV
BORON CA 93516

232 182 24 00 8
RATLIFF ALLEN
12200 SIERRA VIEW ST
BORON CA 93516-1340

232 184 08 00 6
RATLIFF DAVID & BERZINS DORLINE
12221 SIERRA VIEW ST
BORON CA 93516-1339

231 190 10 00 9
RATLIFF TRAVIS E & BROOKE
G
24452 SAGE AV
BORON CA 93516-1338

244 311 11 00 7
REAL EST PROBLEM SOLVERS CORP
1214 N HOLLY ST
ANAHEIM CA 92801-1623

244 362 07 00 8
REAL EST PROBLEM SOLVERS CORP
11815 NANCY AV
BORON CA 93516-1942

232 171 06 00 6
REAL ESTATE PROBLEM
SOLVERS CORP
1214 N HOLLY ST
ANAHEIM CA 92801-1623

232 171 02 00 4
REID BEATRICE
24122 JUNIPER AV
BORON CA 93516

244 361 07 00 1
RENAUD SHARON S
26592 JOHN ST
BORON CA 93516

231 101 01 00 3
RICHARDS FMLY TR
18700 STATON AV
CASTRO VALLEY CA 94546

244 332 10 00 7
RICHARDS RICK L
26727 JOHN ST
BORON CA 93516-1916

244 361 04 00 2
RICHARDS ROY L
13657 FLINT ST
EDWARDS CA 93523-3502

244 361 03 00 9
RICHARDS ROY LEE & HEIDI
DAWNELLE
26550 JOHN ST
BORON CA 93516-1913

231 180 09 00 4
RICHARDSON GEORGE E JR &
NANCY DIANE
16761 FOOTHILL AV
NORTH EDWARDS CA 93523

232 181 25 00 4
RICHARDSON NANCY D & GEORGE
E
16761 FOOTHILL
NORTH EDWARDS CA 93523

231 190 23 00 7
RIDDLE JOHN W &
JACQUELINE J
27110 NUDGENT ST
BORON CA 93516

232 183 11 00 7
RIDDLE LAMOUR & GEORGIA
436 DAKAR ST
HENDERSON NV 89015

232 213 06 00 1
RIDDLE NANCY J
25461 PARAMOUNT DR
TEHACHAPI CA 93561-6504

244 331 01 00 4
RIVERS CONSTANCE
11931 BORON AV
BORON CA 93516-1903

231 190 08 00 4
ROBERSON MAXINE S TRUST
11 IRIS CT
BODFISH CA 93205-9677

232 181 03 00 0
ROBERSON TERRY LEE
24140 TAMARISK AV
BORON CA 93516

244 341 09 00 1
ROBERTS LEE W III & STACY L
8264 GENERAL PULLER HW
TOPPING VA 23169

244 342 10 00 0
ROBERTSON JACOB
26997 NICHOLS ST
BORON CA 93516

244 311 09 00 2
ROBERTSON LUCAS
25836 CHERRYHILL DR
BORON CA 93516

244 362 11 00 9
ROBERTSON LUCAS
12686 CLAYMINE RD APT 2
EDWARDS CA 93523-3208

232 183 13 00 3
ROCHA GUSTAVO
11572 KATHY LN
GARDEN GROVE CA 92840-1719

244 332 04 00 0
ROLYAS FAMILY TRUST
16956 DESERITA AV
NORTH EDWARDS CA 93525

232 171 28 00 0
ROLYAS TRUST
16956 DESERITA AV
NORTH EDWARDS CA 93523

232 181 08 00 5
ROQUEMORE SHAWN
24210 TAMARISK AV
BORON CA 93516-1348

232 173 02 00 8
ROQUEMORE TR
12485 SIERRA VIEW
BORON CA 93516

231 190 31 00 0
ROSALES MARIA
22709 SHERMAN WY
WEST HILLS CA 91307-2333

232 140 17 00 2
ROSOFF KAY K TR
35189 BEACH RD
CAPSTRANO BCH CA 92624

232 213 02 00 9
ROSS FAMILY TR
24304 CHAPARRAL AV
BORON CA 93596

231 101 05 00 5
RUBIO ELEAZAR SR
26596 NUDGENT ST
BORON CA 93516-1530

244 331 09 00 8
RUONA MARTTI
PO BOX 573
BORON CA 93596-0573

232 184 03 00 1
RUSSELL AUSTIN LEE
12321 SIERRA VIEW ST
BORON CA 93516-1341

232 181 31 00 1
SALAS MACLOVIO
24164 TAMARISK AV
BORON CA 93516-1346

231 103 01 00 7
SANTA FE
ADDRESS UNKNOWN

DUP

232 173 07 00 3
SAVAGE WOODIE F
12415 SIERRA VIEW
DESERT LAKE CA 93516

244 361 09 00 7
SCHMIDT KAREN L
P O BOX 256
BORON CA 93516

232 181 27 00 0
SCHROEDER FAM TR
360 KINLEY ST
LA HABRA CA 90631-4313

232 182 07 00 9
SEARCY AARON G
24210 JOSHUA ST
BORON CA 93516

231 190 03 00 9
SEARCY FAMILY TR
P O BOX 584
BORON CA 93596

232 173 08 00 6
SEWELL JANICE LIV TR
12401 SIERRA VIEW ST
BORON CA 93516

232 140 29 00 7
SHAFER CASE 2007 FAMILY TR
6989 ELIZABETH LAKE RD
LEONA VALLEY CA 93551-7576

244 010 15 00 5
SHEN FAMILY TRUST
1650 BOREL PL STE 105
SAN MATEO CA 94402-3540

231 190 18 00 3
SMITH ELBERT L H TR
4491 E RIDGE GATE RD
ANAHEIM CA 92807

232 183 12 00 0
SMITH JAMES
24242 CHAPARRAL AV
BORON CA 93516

232 150 06 00 3
SMITH NANCY RUTH
24147 TWENTY MULE TEAM RD
BORON CA 93516

232 171 26 00 4
SMITH NICHOLAS T
24159 SAGE ST
BORON CA 93516

244 362 08 00 1
SMITH WILMA E
26707 FERGUSON ST
BORON CA 93516-1907

244 372 03 00 9
SOLIS FORTUNATO B
1802 ONTARIO AV
NIAGARA FALLS NY 14305-2960

244 351 02 00 3
SOWERSBY ROGER L
2100 VICTORIA
FULLERTON CA 92631

244 351 03 00 6
SOWERSBY ROGER L TR
2100 VICTORIA
FULLERTON CA 92631

231 180 02 00 3
SPARKS FLORENCE J IRREV
TRUST
44439 E 3RD ST
LANCASTER CA 93535-2506

232 181 32 00 4
SPEARS TRISHA
43821 REMBRANDT ST
LANCASTER CA 93535-4274

244 352 03 00 3
STARTUP DONALD W
4614 S 300TH PL
AUBURN WA 98001-2929

232 184 07 00 3
STOGNER SCOTT W & TERRI L
12235 SIERRA VIEW ST
BORON CA 93516-1339

244 010 01 00 4
SU ROSA CHEN
18207 CHARLTON LN
NORTHRIDGE CA 91326-3617

244 332 11 00 0
SWIGER ROBERT & MAURINE D
PO BOX 955
GLENDALE OR 97442-0955

244 311 05 00 0
TANG MICHAEL M
9851 BOLSA AV SP 139
WESTMINSTER CA 92683-6657

244 311 01 00 8
THOMAS CECILIA
12652 DAISY ST
BORON CA 93516

244 312 14 00 3
THOMASSON NADINE
26933 JOHN ST
BORON CA 93516-1920

244 351 12 00 2
TIETZE NORMAN A
11919 PATRICIA AV
BORON CA 93516

231 101 11 00 2
TIMBOL RODOLFO R & ELIZABETH C
2505 ANTHEM VILLAGE DR E573
HENDERSON NV 89072

244 312 06 00 0
TOVEG ISAAC
3166 CADET CT
LOS ANGELES CA 90068-1854

232 140 20 00 0
TROESTER PAUL C
800 MEADOW LN
STORM LAKE IA 50588-2755

232 140 19 00 8
TROESTER TERRY
800 MEADOW LN
STORM LAKE IA 50588-2755

232 140 21 00 3
TROESTER TERRY P
800 MEADOW LN
STORM LAKE IA 50588-2755

DUP

244 312 07 00 3
TROTH MICHAEL
26866 JAMISON RD
BORON CA 93516

232 183 07 00 6
TRUMBULL RITA
25824 CHERRYHILL DR
BORON CA 93516-1203

231 190 37 00 8
TURAJSKI DAVID
4541 CAMBURY DR
LA PALMA CA 90623-1918

244 361 15 00 4
TURNER THOMAS H & SHEILA
M
26501 FERGUSON ST
BORON CA 93516-1905

232 081 11 00 4
U S A
450 GOLDEN GATE AVE
SAN FRANCISCO, CA 94102

232 081 15 00 6
U S BORAX INC
4700 DAYBREAK PARKWAY
SOUTH JORDAN UT 84095-5120

244 362 10 00 6
UMSTED FAMILY TRUST
P O BOX 5
BORON CA 93596

232 140 39 00 6
UNIVERSAL EXPOSURE INC
351 VERANO DR
OJAI CA 93023

232 181 26 00 7
VALDEZ HENRY FLORES & JODI
RENEE
24127 JOSHUA AV
BORON CA 93516

232 173 06 00 0
VAN DE VELDE DON TR
6741 LINCOLN AV SP 124
BUENA PARK CA 90620-5649

232 172 02 00 1
VAN HORN ELMER EUGENE REV
TRUST
24122 SAGE AV
BORON CA 93516-1332

232 213 05 00 8
VILLAGOMEZ JUANA
15420 COVELLO ST
VAN NUYS CA 91406-3309

244 300 09 00 2
WANG CHEN & VICTORIA R
1650 BOREL PL STE 105
SAN MATEO CA 94402-3540

244 300 10 00 4
WANG CHEN & VICTORIA R
2075 WOODSIDE RD
REDWOOD CITY CA 94061

232 150 43 00 0
WAY SHAUNNA
24144 JOSHUA ST
BORON CA 93516

232 171 03 00 7
WELBORN WENDY
26387 20 MULE TEAM RD
BORON CA 93516-1407

232 184 06 00 0
WELBORN WENDY
12249 SIERRA ST
BORON CA 93516

244 010 29 00 6
WGLANDS LLC
PO BOX 1084
HIGHLAND PARK IL 60035-7084

232 290 11 00 8
WILSON FAMILY TRUST
12165 DEL ORO ST
BORON CA 93516-1357

232 183 14 00 6
WIXOM LYNDON
24264 CHAPARRAL AV
BORON CA 93516-1306

231 090 27 00 0
WOLOWIEC MICHAEL
44453 FOXTON AV
LANCASTER CA 93535-3044

244 010 26 00 7
WON YONG HWA
1947 PEACEFUL HILLS RD
WALNUT CA 91789-4022

231 190 13 00 8
WOOD SCOTT
28005 S 855 P R
KENNEWICK WA 99338-1180

244 371 03 00 2
WYCLIFFE SEAN
11411 SILVERADO WY
YUCAIPA CA 92399

244 332 12 00 3
YOAKIM SAMIR J
2345 EVENING PRIMROSE AV
PALMDALE CA 93551-4184

232 183 15 00 9
YOUNGBLOOD ALLEN
12183 EL MIRAGE ST
BORON CA 93516-1312

232 182 22 00 2
ZUCCONI LUANNE
24143 CHAPARRAL AV
BORON CA 93516-1303

244 312 05 00 7
ALDABA JOSE R
29962 NICHOLS ST
BORON CA 93516

NICK JENSEN, PHD
LEAD CONSERVATION SCIENTIST
CALIFORNIA NATIVE PLANT SOCIETY
2707 K STREET, SUITE 1
SACRAMENTO, CA 95816

ISABELLA LANGONE
CALIFORNIA NATIVE PLANT
SOCIETY
2517 GLENBROOK DRIVE
LODI, CA 95242

DAVID EYRE
12131 BORON AVE.
BORON, CA 93516

DONNA FORT
24330 TAMARISK AVE
BORON, CA 93516

MILLIE ASHPAUGH
24183 SAGE AVE.
BORON, CA 93516

PATRICIA M. EYRE
11946 BORON AVE.
BORON, CA.93516

CHARLES & MELBA KENNEDY
26501 JOHN STREET
BORON, CA 93516

JAMES & TENA HANSON
26509 JOHN STREET
BORON, CA 93516

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # _____

Project Title: Aratina Solar Project 2.0 by 64NB 8ME LLC

Lead Agency: Kern County Planning and Natural Resources Department

Contact Person: Ronelle Candia

Mailing Address: 2700 "M" Street Suite 100

Phone: (661) 862-8997

City: Bakersfield

Zip: 93301

County: Kern

Project Location: County: Kern City/Nearest Community: Boron, Desert Lake Community

Cross Streets: Straddling State Route 58 between Gephart Road on the west and the San Bernardino County line on the east. Zip Code: 93501

Lat. / Long.: 34°59'31.59"N / 117° 40'36.62"W

Total Acres: 2,672.53

Assessor's Parcel No.: Multiple Section: Multiple Twp.: Multiple Range: Multiple Base: SBB&M

Within 2 Miles: State Hwy #: SR 58

Waterways: N/A

Airports: _____

Railways: BNSF

Schools: West Boron Elementary School

Document Type:

CEQA: NOP Draft EIR NEPA: NOI Other: Joint Document
 Early Cons Supplement/Subsequent EIR EA Final Document
 Neg Dec (Prior SCH No.) _____ Draft EIS Other _____
 Mit Neg Dec Other _____

Local Action Type:

General Plan Update Specific Plan Rezone Annexation
 General Plan Amendment Master Plan Prezone Redevelopment
 General Plan Element Planned Unit Development Use Permit Coastal Permit
 Community Plan Site Plan Land Division (Subdivision, etc.) Other _____

Development Type:

Residential: Units _____ Acres _____ Water Facilities: Type _____ MGD _____
 Office: Sq.ft. _____ Acres _____ Employees _____ Transportation: Type _____
 Commercial: Sq.ft. _____ Acres _____ Employees _____ Mining: Mineral _____
 Industrial: Sq.ft. _____ Acres _____ Employees _____ Power: Type Solar PV MW 530
 Educational _____ Waste Treatment: Type _____ MGD _____
 Recreational _____ Hazardous Waste: Type _____
 Other: Battery Energy Storage up to 600 MW

Project Issues Discussed in Document:

Aesthetic/Visual Fiscal Recreation/Parks Vegetation
 Agricultural Land Flood Plain/Flooding Schools/Universities Water Quality
 Air Quality Forest Land/Fire Hazard Septic Systems Water Supply/Groundwater
 Archeological/Historical Geologic/Seismic Sewer Capacity Wetland/Riparian
 Biological Resources Minerals Soil Erosion/Compaction/Grading Wildlife
 Coastal Zone Noise Solid Waste Growth Inducing
 Drainage/Absorption Population/Housing Balance Toxic/Hazardous Land Use
 Economic/Jobs Public Services/Facilities Traffic/Circulation Cumulative Effects
 Other GHG, Wildfire, Tribal Cultural Resources, Energy

Present Land Use/Zoning/General Plan Designation:

Undeveloped Land. Zoning: A-1 (Limited Agriculture), M-1 (Light Industrial), R-1 (Low-Density Residential) *Kern County General Plan: 7.1 (Light Industrial); 7.3 (Heavy Industrial); 8.3 (Extensive Agriculture, Min. 20 Acre Parcel Size); 8.5 (Resource Management (Minimum 20 acres)); and 8.5/2.5 ((Resource Management (Minimum 20 acres)/Flood Hazard)*

Project Description:

In August 2020, the Kern County Planning and Natural Resources Department circulated a Notice of Preparation for the previously proposed Aratina Solar Farm Project. Since that time, the project proponent, 64NB 8ME LLC, has modified the project design to incorporate additional setbacks from the unincorporated communities of Boron and Desert Lake and submitted a revised project description to the County. The proposed project described in the Notice of Preparation/Initial Study reflects the modified project, titled the Aratina Solar Project 2.0.

The Aratina Solar Project 2.0, as proposed by 64NB 8ME LLC, would develop a photovoltaic solar facility and associated infrastructure necessary to generate up to 530 megawatt-alternating current (MW-AC) of renewable energy, including up to 600 megawatts of energy storage, on approximately 2,317 acres of privately-owned land. The project site consists of five sites (Sites 1 through 5) located on 22 parcels. The project would be supported by a 230-kilovolt (kV) gen-tie overhead and/or underground electrical transmission line(s) originating from one or more on-site substations and terminating at the Southern California Edison's Holgate Substation to the north. Alternatively, the project may interconnect at Southern California Edison's Kramer Substation to the east, located in San Bernardino County via an up to 230kV transmission line located within an Edwards Air Force Base utility corridor. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Implementation of the project as proposed would require:

Aratina Solar Project 2.0 by 64NB 8ME LLC (PP20401); ZCC 6, Map #192; ZCC 3, Map #208-5; ZCC 6, Map #208-6; ZCC 1, Map #209-1; CUP 16, Map #192; CUP 17, Map #192; CUP 3, Map #208-5; CUP 7, Map #208-6; CUP 1, Map #209-1; CUP 1, Map #209-2; GPA 6, Map #192; GPA 2, Map #192-35; GPA 3, Map #208-5; GPA 3, Map #208-6; GPA 1, Map #209-1; and GPA 1, Map #209-2.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X".
If you have already sent your document to the agency please denote that with an "S".

- | | |
|--|---|
| <input checked="" type="checkbox"/> Air Resources Board | <input type="checkbox"/> Office of Emergency Services |
| <input type="checkbox"/> Boating & Waterways, Department of | <input type="checkbox"/> Office of Historic Preservation |
| <input checked="" type="checkbox"/> California Highway Patrol | <input type="checkbox"/> Office of Public School Construction |
| <input type="checkbox"/> CalFire | <input checked="" type="checkbox"/> Parks & Recreation |
| <input checked="" type="checkbox"/> Caltrans District # <u>6 & 9</u> | <input type="checkbox"/> Pesticide Regulation, Department of |
| <input checked="" type="checkbox"/> Caltrans Division of Aeronautics | <input checked="" type="checkbox"/> Public Utilities Commission |
| <input type="checkbox"/> Caltrans Planning (Headquarters) | <input checked="" type="checkbox"/> Regional WQCB # <u>Lahontan</u> |
| <input type="checkbox"/> Central Valley Flood Protection Board | <input type="checkbox"/> Resources Agency |
| <input type="checkbox"/> Coachella Valley Mountains Conservancy | <input type="checkbox"/> S.F. Bay Conservation & Development Commission |
| <input type="checkbox"/> Coastal Commission | <input type="checkbox"/> San Gabriel & Lower L.A. Rivers and Mtns Conservancy |
| <input type="checkbox"/> Colorado River Board | <input type="checkbox"/> San Joaquin River Conservancy |
| <input checked="" type="checkbox"/> Conservation, Department of | <input type="checkbox"/> Santa Monica Mountains Conservancy |
| <input type="checkbox"/> Corrections, Department of | <input checked="" type="checkbox"/> State Lands Commission |
| <input type="checkbox"/> Delta Protection Commission | <input type="checkbox"/> SWRCB: Clean Water Grants |
| <input type="checkbox"/> Education, Department of | <input type="checkbox"/> SWRCB: Water Quality |
| <input checked="" type="checkbox"/> Energy Commission | <input type="checkbox"/> SWRCB: Water Rights |
| <input checked="" type="checkbox"/> Fish & Game Region # <u>Fresno</u> | <input type="checkbox"/> Tahoe Regional Planning Agency |
| <input checked="" type="checkbox"/> Food & Agriculture, Department of | <input checked="" type="checkbox"/> Toxic Substances Control, Department of |
| <input type="checkbox"/> General Services, Department of | <input checked="" type="checkbox"/> Water Resources, Department of |
| <input type="checkbox"/> Health Services, Department of | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Housing & Community Development | <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> Integrated Waste Management Board | |
| <input checked="" type="checkbox"/> Native American Heritage Commission | |

Local Public Review Period (to be filled in by lead agency)

Starting Date February 26, 2021 Ending Date March 29, 2021

Lead Agency (Complete if applicable):

Consulting Firm: _____	Applicant: <u>64 NB 8ME LLC c/o 8minute Solar Energy</u>
Address: _____	Address: <u>5455 Wilshire Boulevard, Suite 2010</u>
City/State/Zip: _____	City/State/Zip: <u>Los Angeles, CA 90036</u>
Contact: _____	Phone: <u>(323) 525-0900</u>
Phone: _____	

Signature of Lead Agency Representative: /s/ **Date:** 02/26/2021
Ronelle Candia, Supervising Planner

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

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NOTICE OF PREPARATION/INITIAL STUDY CHECKLIST

Aratina Solar Project 2.0 by 64NB 8ME LLC

Zone Change Case No. 6, Map No. 192
Zone Change Case No. 3, Map No. 208-5
Zone Change Case No. 6, Map No. 208-6
Zone Change Case No. 1, Map No. 209-1
Conditional Use Permit No. 16, Map No. 192
Conditional Use Permit No. 17, Map No. 192
Conditional Use Permit No. 3, Map No. 208-5
Conditional Use Permit No. 7, Map No. 208-6
Conditional Use Permit No. 1, Map No. 209-1
Conditional Use Permit No. 1, Map No. 209-2
General Plan Amendment No. 6, Map No. 192 (Circulation)
General Plan Amendment No. 2, Map No. 192-35(Circulation)
General Plan Amendment No. 3, Map No. 208-5 (Circulation)
General Plan Amendment No. 3, Map No. 208-6 (Circulation)
General Plan Amendment No. 1, Map No. 209-1(Circulation)
General Plan Amendment No. 1, Map No. 209-2 (Circulation)

PLN – 19-01431
(PP20401)

LEAD AGENCY:



Kern County Planning and Natural Resources Department
2700 M Street, Suite 100
Bakersfield, CA 93301-2370

February 2021

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INTRODUCTION

Pursuant to the California Environmental Quality Act (CEQA), the Kern County Planning and Natural Resources Department will initiate the preparation of an Environmental Impact Report (EIR) for the Aratina Solar Project 2.0 in the unincorporated area of southeastern Kern County, California.

BACKGROUND INFORMATION

In August 2020, the Kern County Planning and Natural Resources Department circulated a Notice of Preparation for the previously proposed Aratina Solar Farm Project. Since that time, the project proponent, 64NB 8ME LLC, has modified the project design to incorporate additional setbacks from the unincorporated communities of Boron and Desert Lake and submitted a revised project description to the County. The proposed project described in this Notice of Preparation/Initial Study reflects the modified project, titled the Aratina Solar Project 2.0.

1. Project Description

1.1. Project Location

The proposed Aratina Solar Project 2.0 (proposed project) is a proposal by 64NB 8ME LLC (project proponent) to construct and operate a photovoltaic (PV) solar facility and associated infrastructure to generate up to 530 megawatts (MW) of renewable electrical energy and up to 600 MW of energy storage on approximately 2,317 acres of privately-owned land. The proposed project site is located in the Mojave Desert within unincorporated Kern County, straddling State Route 58 between Gephart Road on the west and the San Bernardino County line on the east (*Figure 1, Regional Vicinity Map*). Access to the site would be from Gephart Road, Borax Road, Boron Avenue, and/or 20 Mule Team Road.

The site is located within Sections 5 and 6, Township 10N, Range 7W; Sections 1 and 2, Township 10N, 8W; and Sections 33 and 35, Township 11N, Range 8W, San Bernardino Base Meridian. The project site is in the vicinity of the unincorporated communities of Boron and Desert Lake and north and east of the boundaries of Edwards Air Force Base. The U.S. Borax open pit mine and refinery are located approximately two miles north of the project site.

The project boundaries are shown on *Figure 2, Project Site Boundaries*, which also shows the proposed transmission line alignments being considered. From the proposed project's substation(s), power would be transmitted to the Southern California Edison (SCE) Holgate Substation via up to 230 kV overhead and/or underground line(s). Alternatively, the proposed project may transmit its power to the SCE Kramer Substation located in San Bernardino County via a transmission line located within an Edwards Air Force Base.

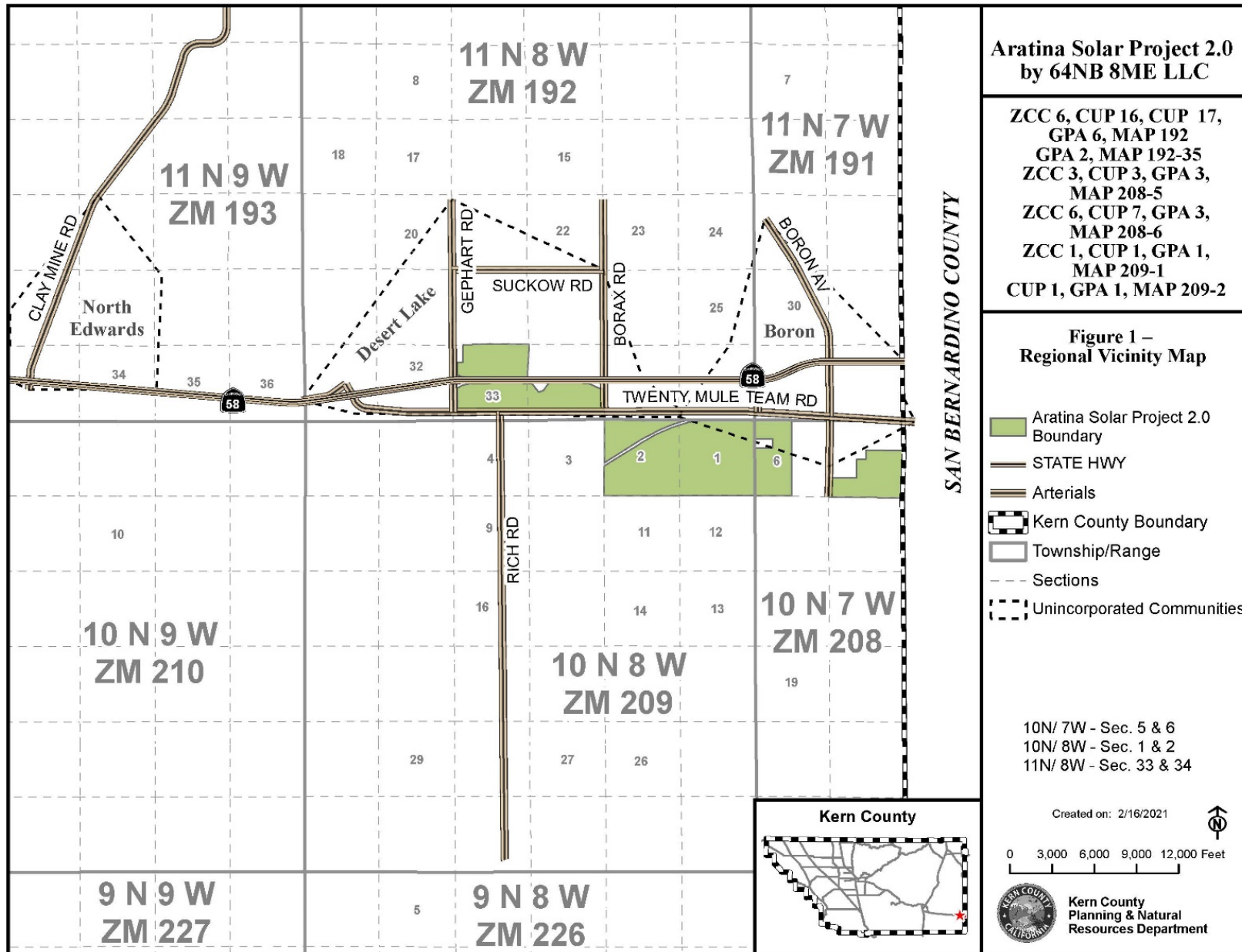
As shown on *Figure 3, Aerial Photograph and Figures 4A to 4M, Site Plans*, the project area is divided into five sites (Sites 1 through 5) and is comprised of 22 privately owned parcels. *Table 1, Project Assessor Parcel Numbers, Existing Map Codes, Existing and Proposed Zoning, and Acreage*, on the next page identifies the 22 individual parcels by site, their respective assessor parcel numbers (APN), acreages, and existing and proposed zoning designations. *Figure 2, Project Site Boundaries*, identifies the assessor parcel

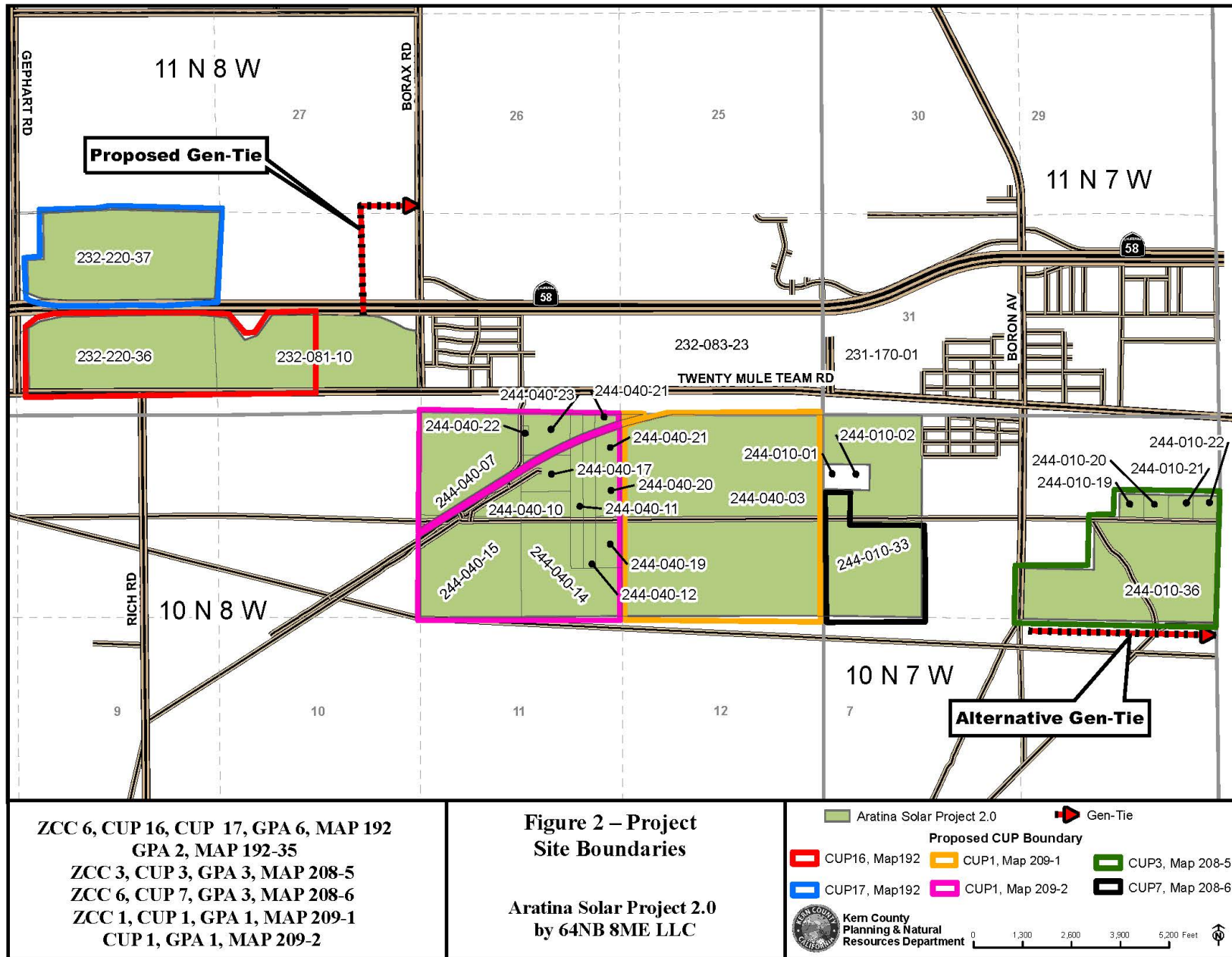


numbers that comprise each of the project sites and *Figure 5, Proposed CUP Boundaries*, identifies the boundaries of each of the proposed Conditional Use Permits (CUPs).

Table 1. Project Assessor Parcel Numbers, Existing Map Codes, Existing and Proposed Zoning, and Acreage

Site	APN	Existing Map Code Designation	Existing Zoning	Proposed Zoning	Zone Change Acres	CUP Acres
1	244-010-19	8.3	A-1	A	10.15	10.15
	244-010-20	8.3	A-1	A	10.15	10.15
	244-010-21	8.3	A-1	A	10.15	10.15
	244-010-22	8.3	A-1	A	10.15	10.15
	244-010-36	8.3	A-1	A	259.34	259.34
Total					299.94	299.94
2	244-010-33	8.3	A-1, R-1	A	302.09	169.92
	244-040-03	8.3	A-1	A	635.20	635.20
	Total					937.29
3	244-040-07	7.1/7.3	M-1	M-1	N/A	155.00
	244-040-10	7.1	M-1	M-1	N/A	20.0
	244-040-11	7.1	M-1	M-1	N/A	28.49
	244-040-12	7.1	M-1	M-1	N/A	28.49
	244-040-14	7.1	M-1	M-1	N/A	120.00
	244-040-15	7.1/7.3	M-1	M-1	N/A	158.00
	244-040-17	7.1	M-1	M-1	N/A	26.05
	244-040-19	7.1	M-1	M-1	N/A	20.0
	244-040-20	7.1	M-1	M-1	N/A	20.0
	244-040-21	7.1	M-1	M-1	N/A	16.98
	244-040-22	7.1	M-1	M-1	N/A	1.08
	244-040-23	7.1	M-1	M-1	N/A	26.17
Total					N/A	620.26
4	232-081-10	8.3	A-1	A	221.26	116.34
	232-220-36 (partial)	8.5	A-1	A	223.12	223.12
	Total					444.38
5	232-220-37 (partial)	8.5/2.5	A-1	A	252.31	252.31
Total					252.31	252.31
Project Totals for all Sites					1,933.92	2,317.09
<u>General Plan Map Code:</u> 2.5 = Flood Hazard Overlay; 7.1 = Light Industrial; 7.3 = Heavy Industrial; 8.3 = Extensive Agriculture (Min. 20 Acre Parcel Size); 8.5 = Resource Management (Min. 20 Acre Parcel Size)						
<u>Zone Designation:</u> A = Exclusive Agriculture; A-1 = Limited Agriculture; M-1 = Light Industrial; R-1 = Low-Density Residential						





ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192
GPA 2, MAP 192-35
ZCC 3, CUP 3, GPA 3, MAP 208-5
ZCC 6, CUP 7, GPA 3, MAP 208-6
ZCC 1, CUP 1, GPA 1, MAP 209-1
CUP 1, GPA 1, MAP 209-2

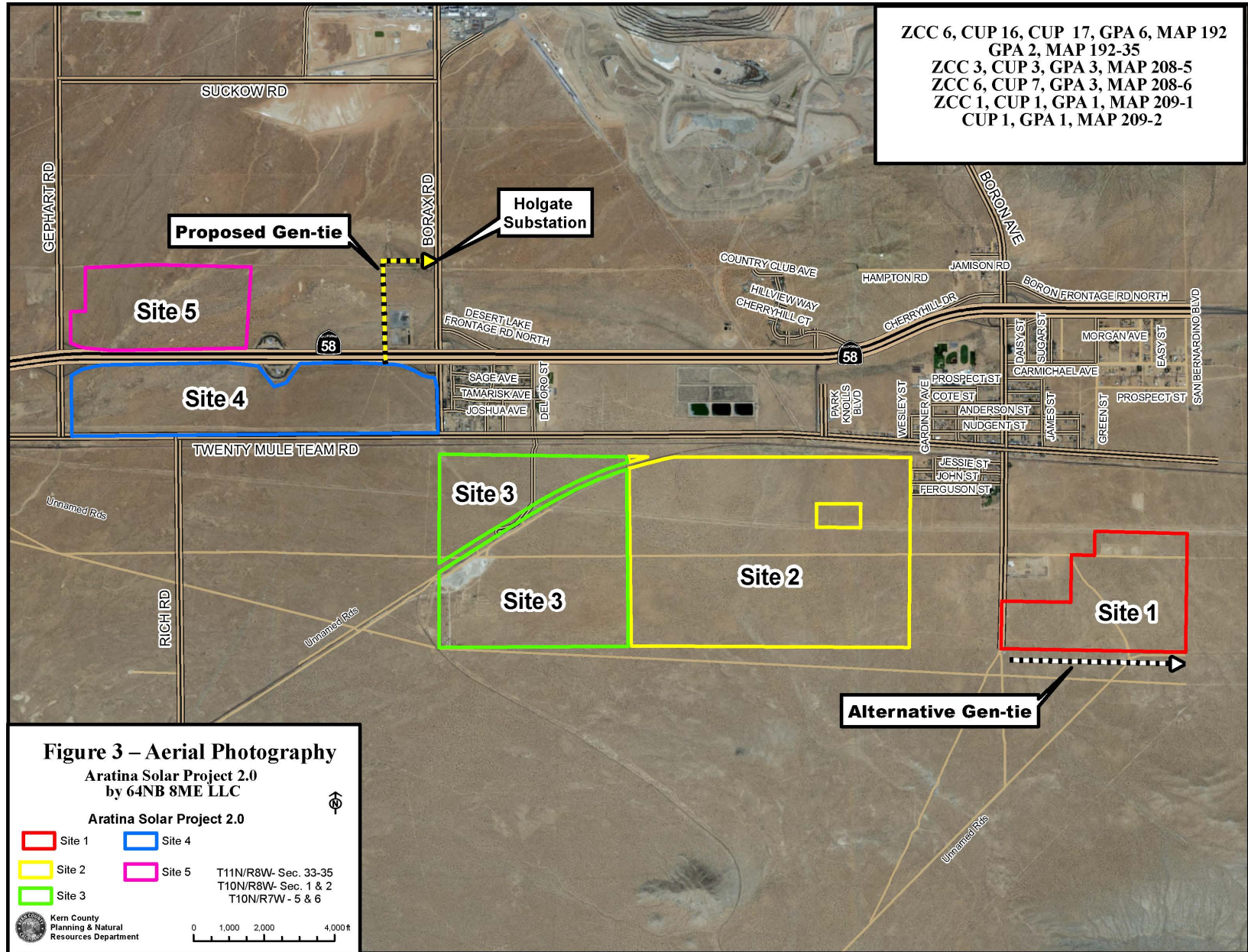
Figure 2 – Project Site Boundaries

Aratina Solar Project 2.0
by 64NB 8ME LLC

■ Aratina Solar Project 2.0 Gen-Tie
- - - Proposed CUP Boundary
 CUP16, Map192 CUP1, Map 209-1 CUP3, Map 208-5
 CUP17, Map192 CUP1, Map 209-2 CUP7, Map 208-6

Kern County Planning & Natural Resources Department

0 1,300 2,600 3,900 5,200 Feet



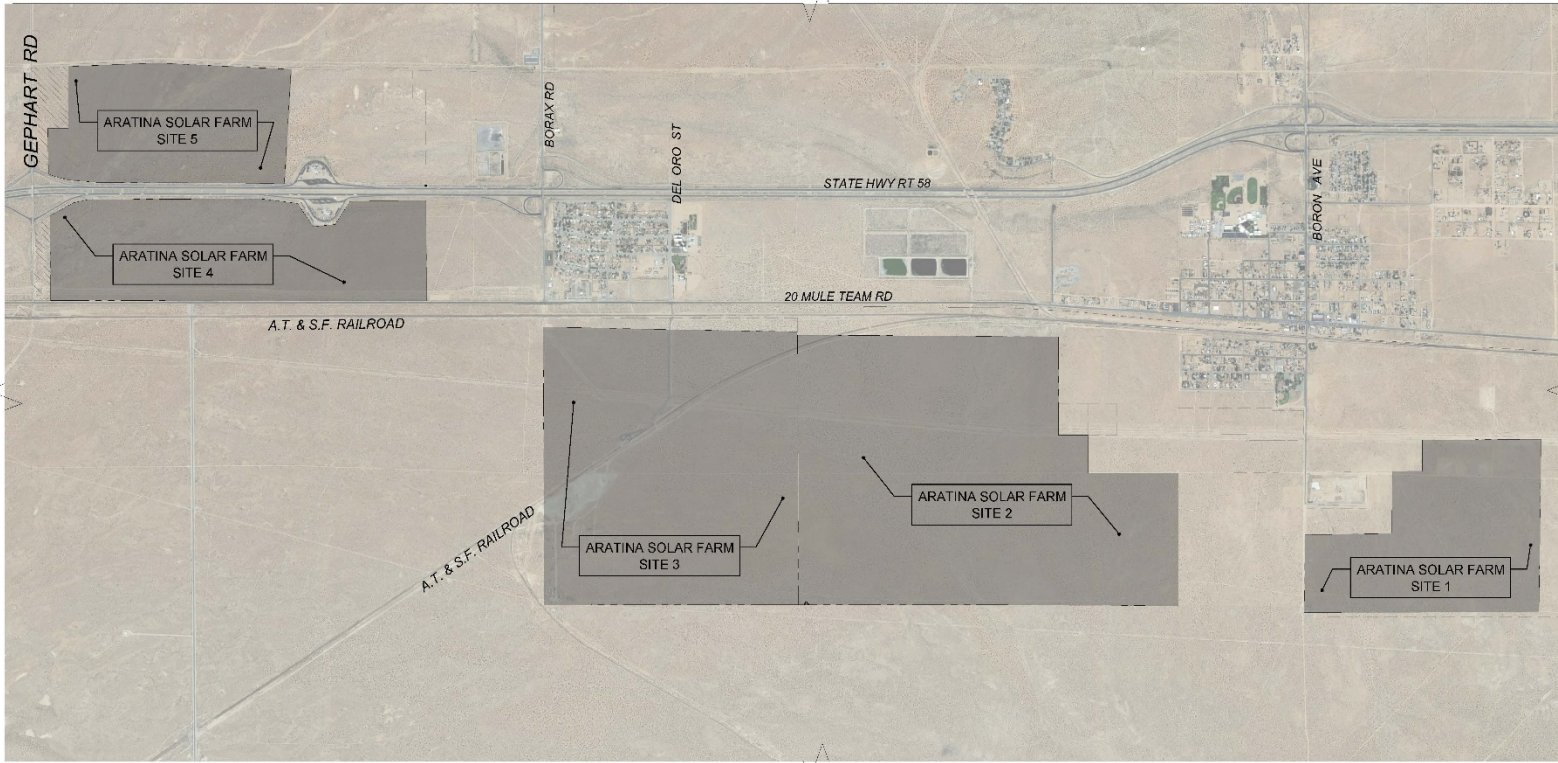
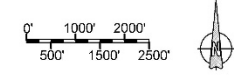


Figure 4A - Overall Site Layout



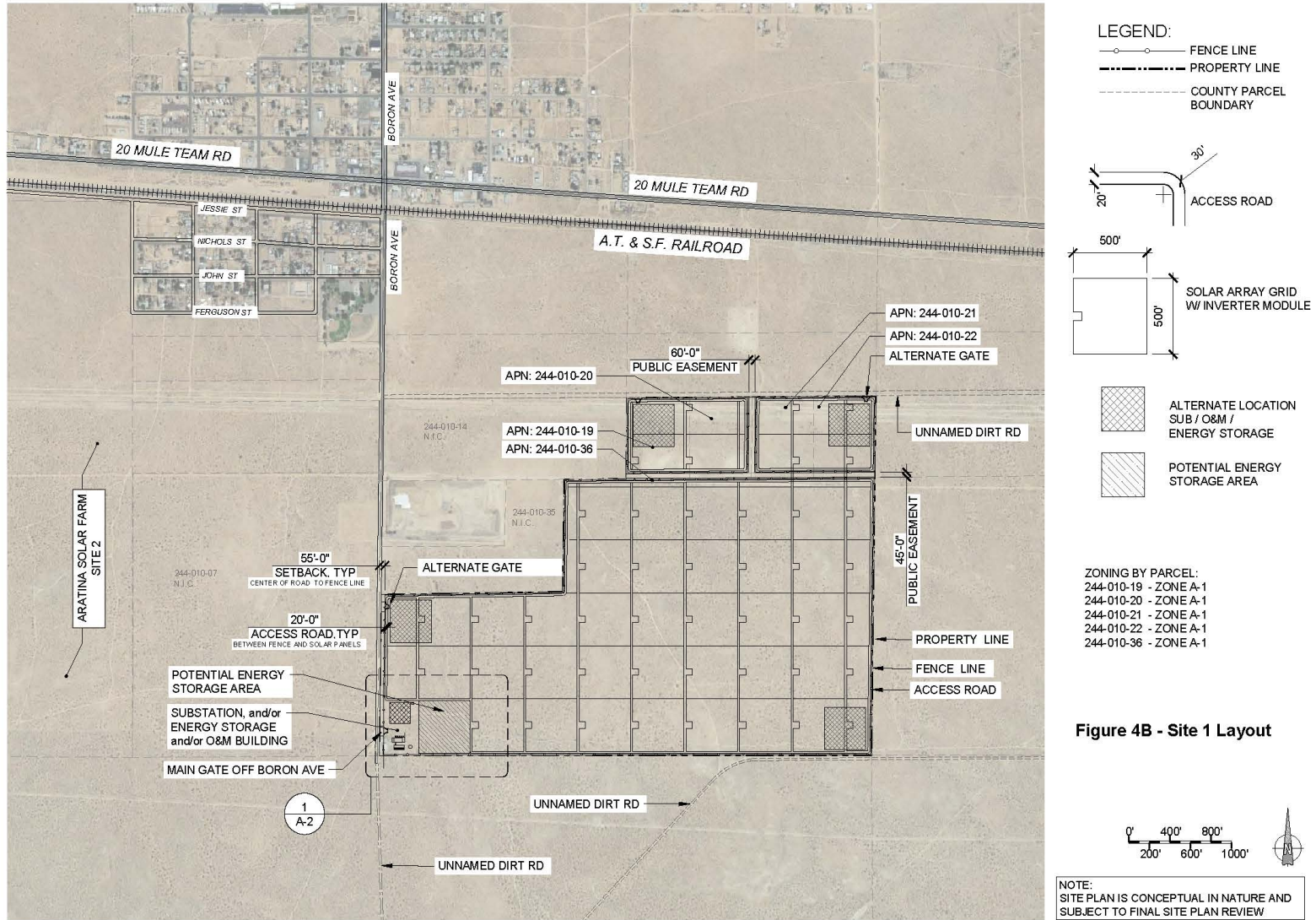
NOTE:
SITE PLAN IS CONCEPTUAL IN NATURE AND
SUBJECT TO FINAL SITE PLAN REVIEW

Aratina Solar Project 2.0 by 64NB 8ME LLC

T11N08W, Sec 23, 25
T10N08W, Sec 1 & 2
T10N07W - 5 & 6

ZCC 6, CUP -16, CUP 17, GPA 6, MAP 192, GPA 2, MAP 192-35
ZCC 3, CUP 3, GPA 3, MAP 208-5, ZCC 6, CUP 6, CUP 7, GPA 3, MAP 208-6
ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2

DESIGNED BY:	JOHN LEEB KORTER ASSOC
DATE:	11/20/21
SHEET:	A-0
SCALE:	1:25,000



Aratina Solar Project 2.0 by 84NB 8ME LLC
Site 1

T11N19SW- Sec. 33-36
T10N19SW- Sec. 1 & 2
T10N19W - 5 & 6

ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192, GPA 2, MAP 192-35
ZCC 3, CUP 3, GPA 3, MAP 208-5, ZCC 6, CUP 7, GPA 3, MAP 208-6
ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2

DATE: 0-10-2021

SHEET: A-1.1

SCALE: 1:10,000

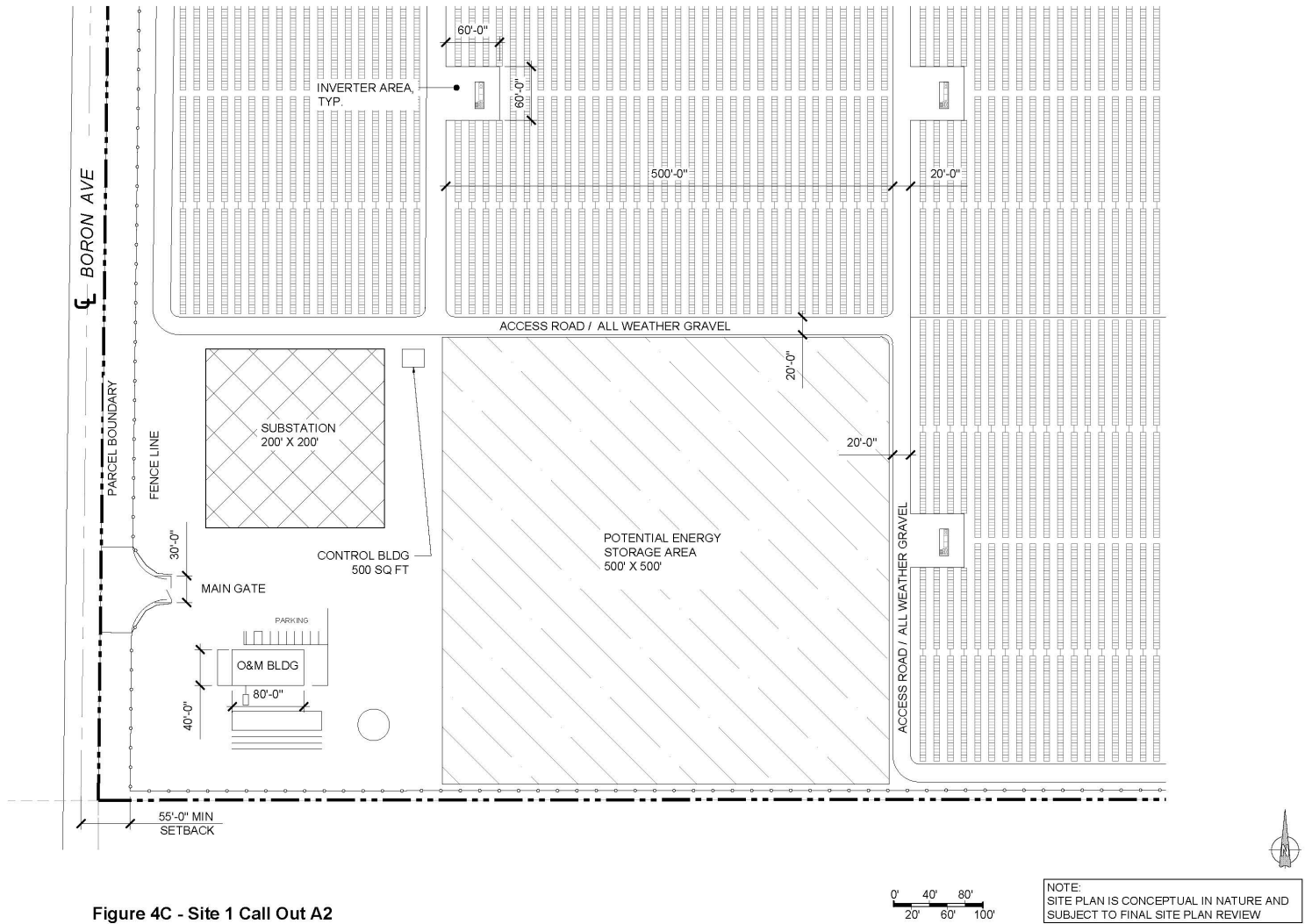


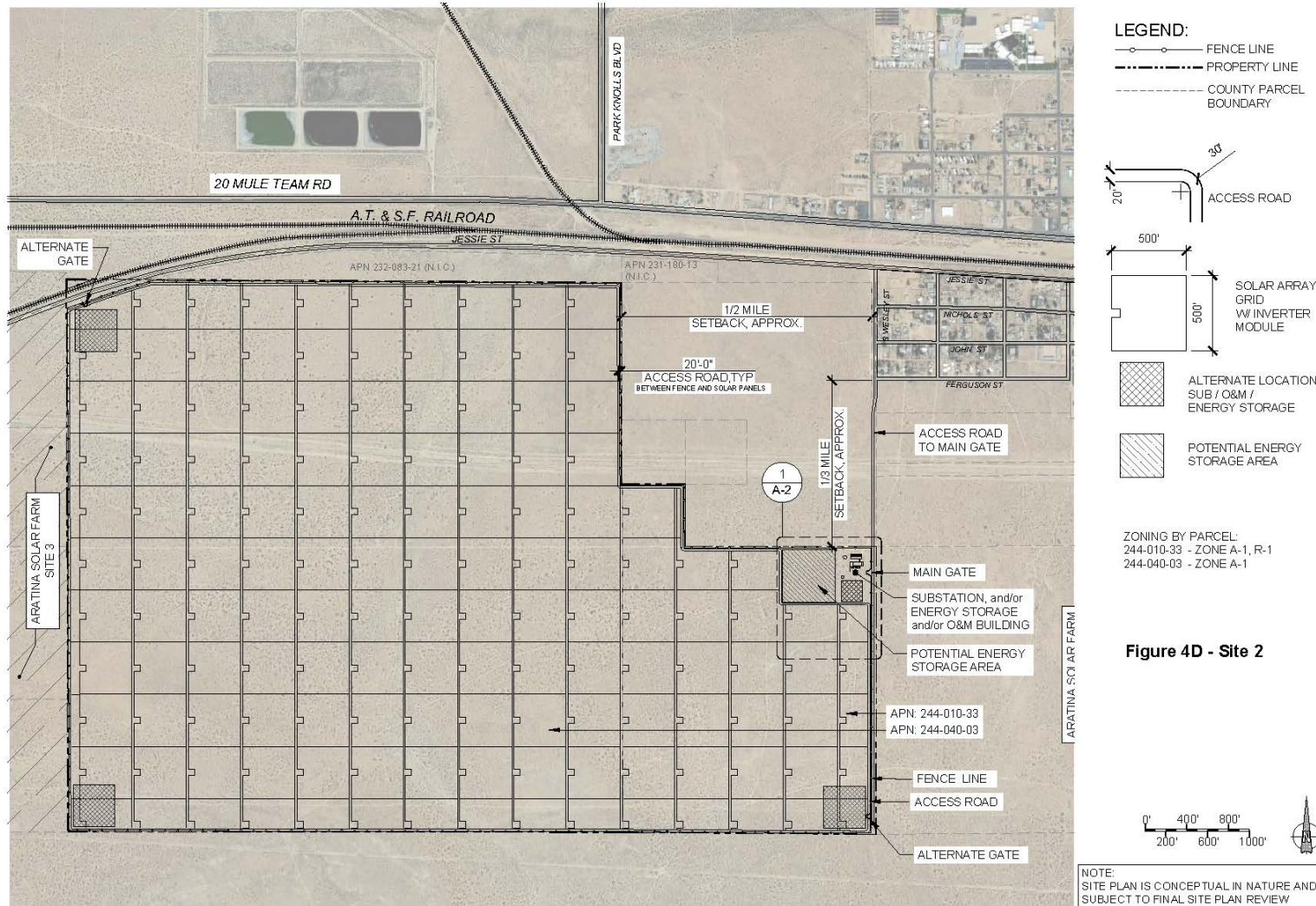
Figure 4C - Site 1 Call Out A2

Aratina Solar Project 2.0 by 64NB 8ME LLC
Site 1

ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192, GPA 2, MAP 192-35
ZCC 3, CUP 3, GPA 3, MAP 208-5, ZCC 6, CUP 7, GPA 3, MAP 208-6
ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2

T11NRBW- Sec. 33-35
T10NRBW- Sec. 1 & 2
T10NRW - 5 & 6

DRAWN BY: CHRISTINE FURCEDA-JONES
DATE: 2/20/21
SHEET: **A-2**
SCALE: 1" = 100'



ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192, GPA 2, MAP 192-35
ZCC 3, CUP 3, GPA 3, MAP 208-6, ZCC 6, CUP 7, GPA 3, MAP 208-6
ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2

Aratina Solar Project 2.0 by 64NB 8ME LLC
SITE 2
11/16/2020, Sec. 15, 35
11/16/2020, Sec. 15, 35
T1001/R700-5 & 6

APPROVED	DATE
	12-2020
DATE	
SCALE	

A-1.1
SCALE
1:10,000

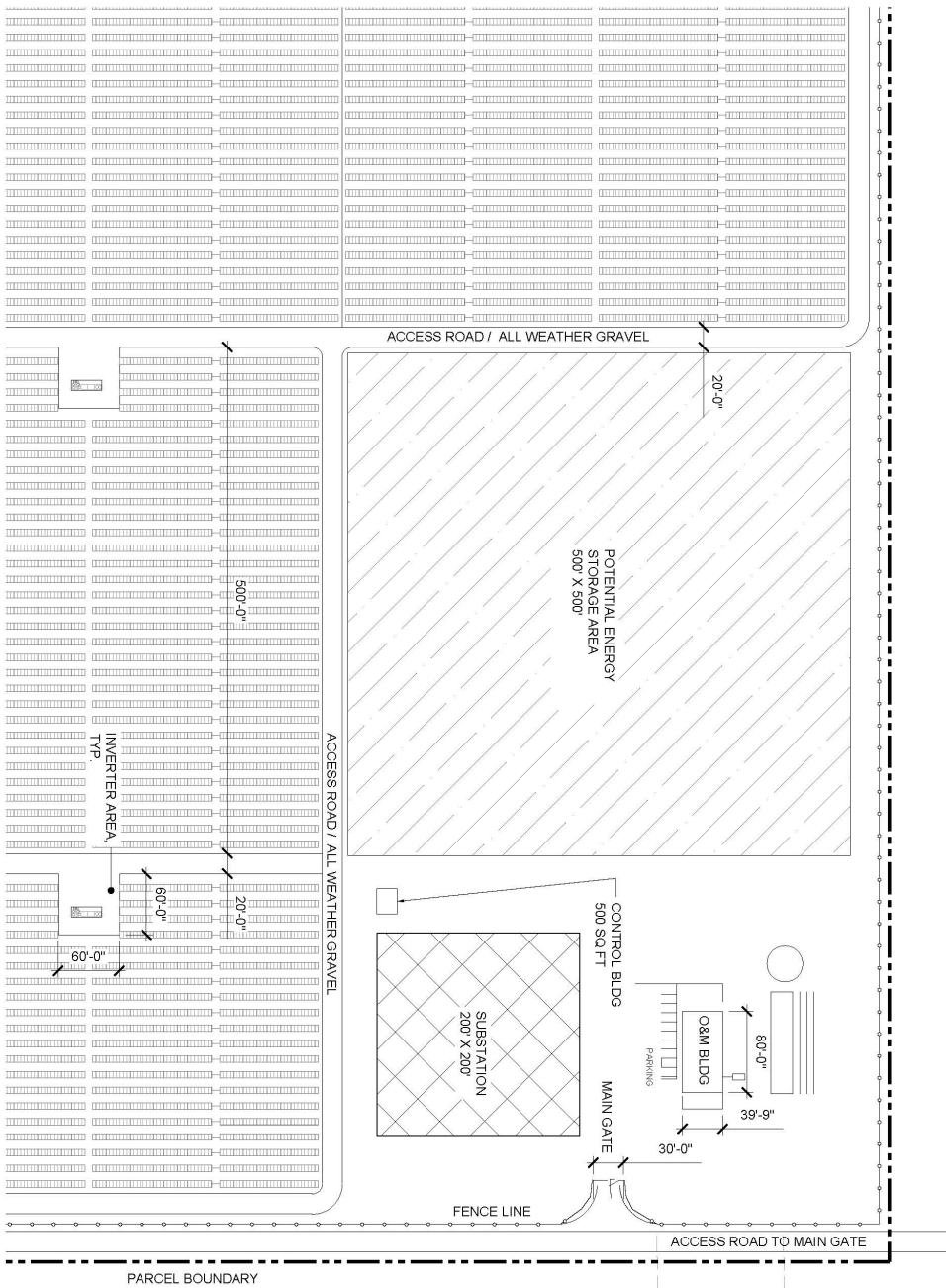


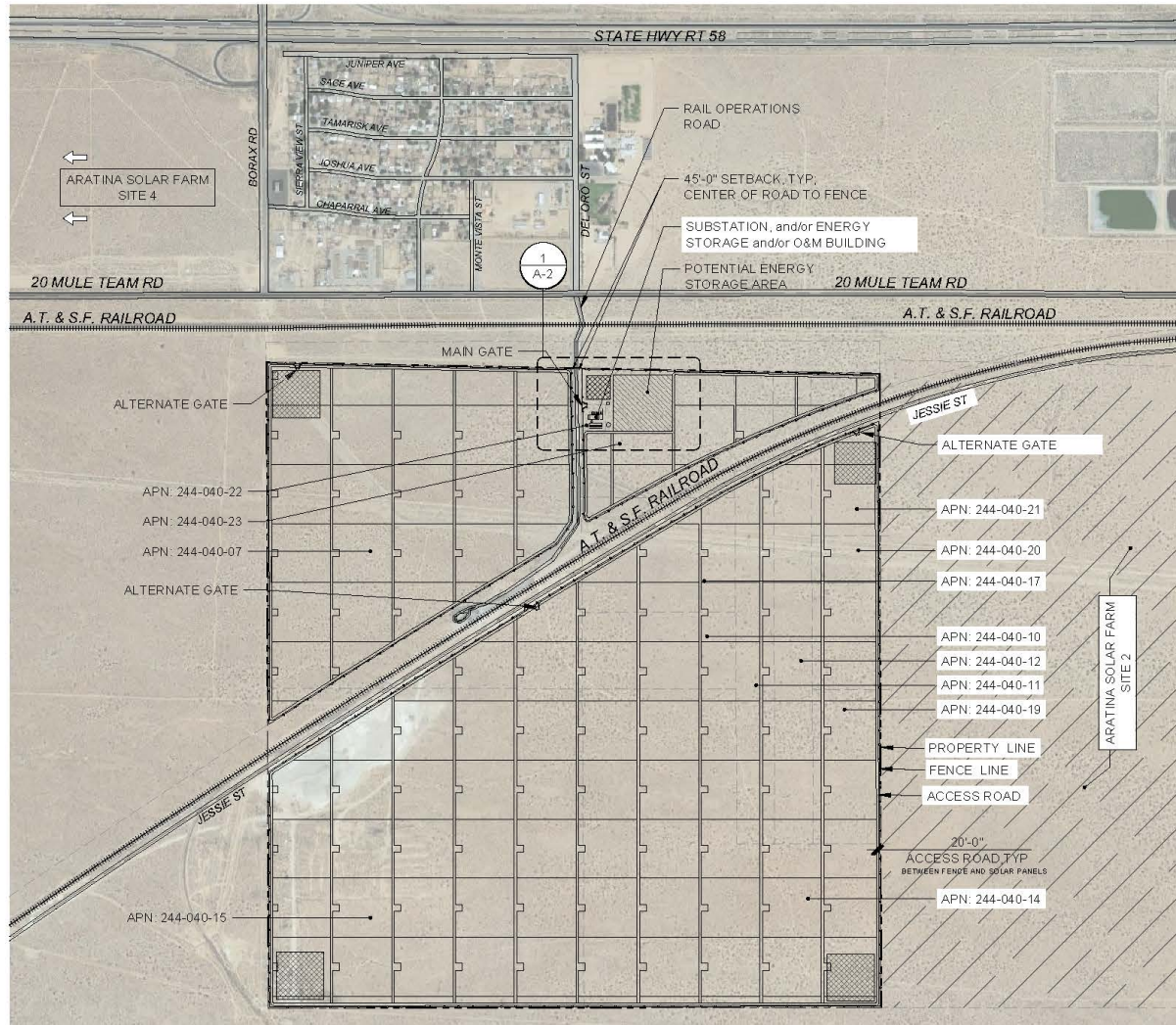
Figure 4E - Site 2 Call Out A2



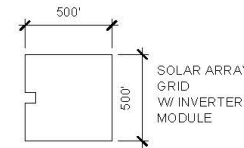
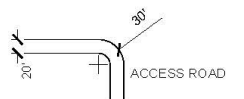
NOTE:
SITE PLAN IS CONCEPTUAL IN NATURE AND
SUBJECT TO FINAL SITE PLAN REVIEW



SCALE 1" = 100'	A-2	Aratina Solar Project 2.0 by 64NB 8ME LLC Site 2		ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192, GPA 2, MAP 192-35
		T11N/R8W- Sec. 33-35 T10N/R8W- Sec. 1 & 2 T10N/R7W - 5 & 6	ZCC 3, CUP 3, GPA 3, MAP 208-5, ZCC 6, CUP 7, GPA 3, MAP 208-6 ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2	



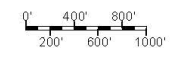
- LEGEND:**
- — ○ FENCE LINE
 - — — — — PROPERTY LINE
 - - - - - COUNTY PARCEL BOUNDARY



- ALTERNATE LOCATION SUB / O&M / ENERGY STORAGE
- POTENTIAL ENERGY STORAGE AREA

- ZONING BY PARCEL:**
- 244-040-07 - ZONE M-1
 - 244-040-10 - ZONE M-1
 - 244-040-11 - ZONE M-1
 - 244-040-12 - ZONE M-1
 - 244-040-14 - ZONE M-1
 - 244-040-15 - ZONE M-1
 - 244-040-17 - ZONE M-1
 - 244-040-19 - ZONE M-1
 - 244-040-20 - ZONE M-1
 - 244-040-21 - ZONE M-1
 - 244-040-22 - ZONE M-1
 - 244-040-23 - ZONE M-1

Figure 4F - Site 3



NOTE:
SITE PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO FINAL SITE PLAN REVIEW

ZCC 6, CUP 16, CUP 17, GPA 6, MAP 197, GPA 2, MAP 192-35
ZCC 3, CUP 3, GPA 3, MAP 208-5, ZCC 6, CUP 7, GPA 3, MAP 208-6
ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2

Aratina Solar Project 2.0 by 64NB 8ME LLC
Site 3

THOMPSON, SUE, RD 35
THOMPSON, SUE, RD 35
THOMPSON, SUE, RD 35

DRAWN BY: CHRISTINE FORSTER/CRD
DATE: 10/2021
SHEET: A-1.1
SCALE: 1:10,000

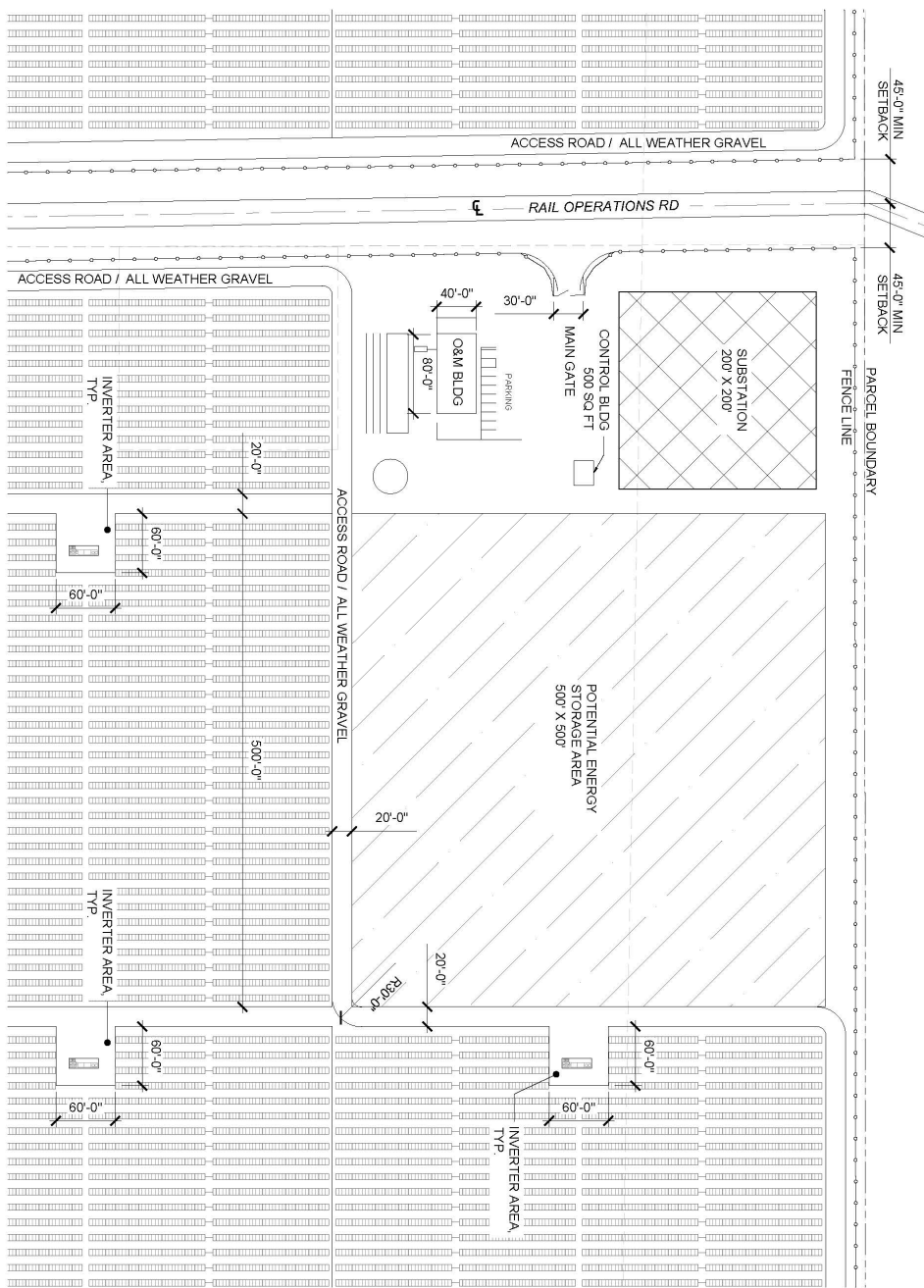
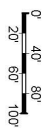


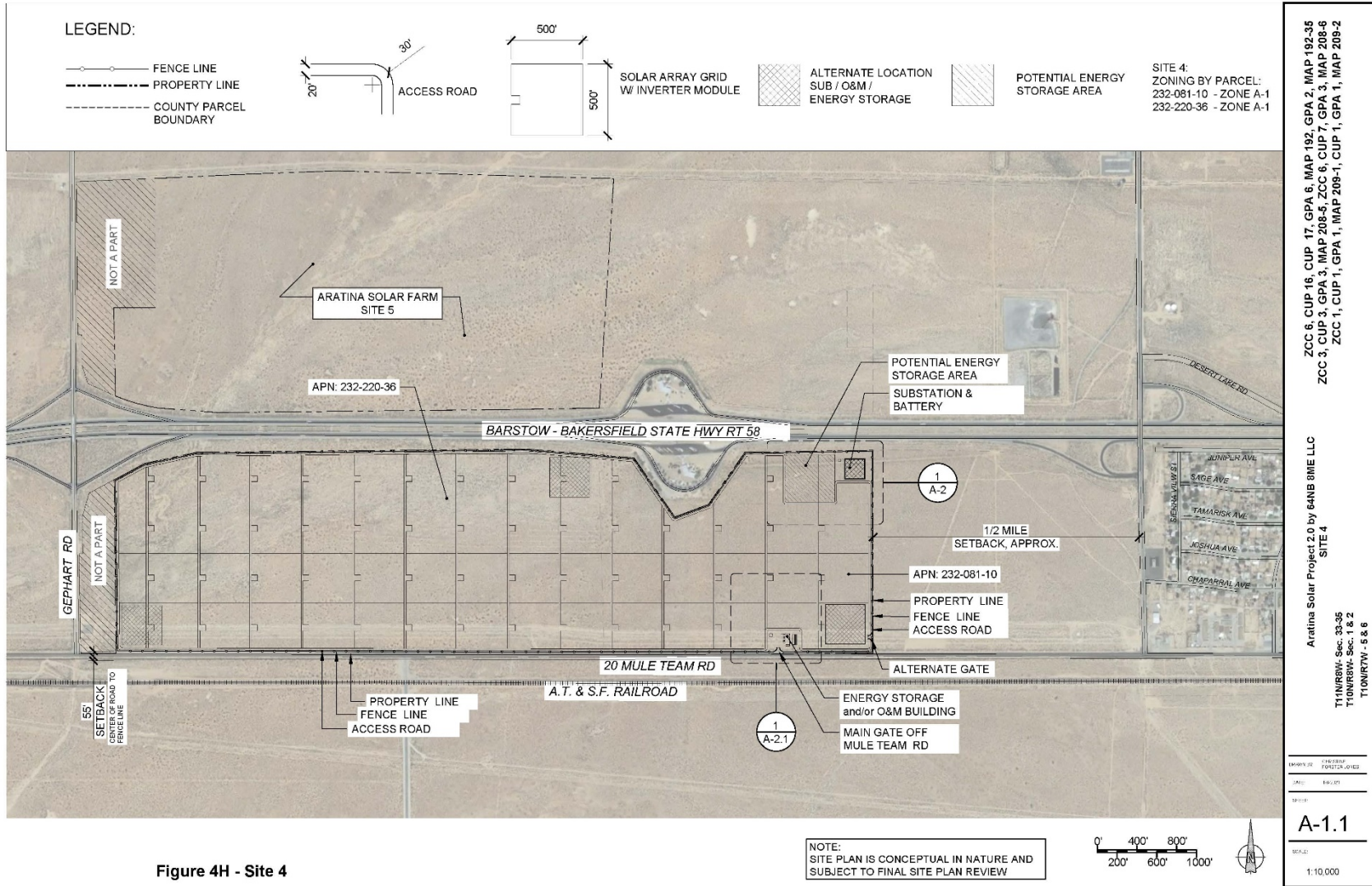
Figure 4G - Site 3 Call Out A2



NOTE:
SITE PLAN IS CONCEPTUAL IN NATURE AND
SUBJECT TO FINAL SITE PLAN REVIEW



<p>A-2</p> <p>SCALE 1" = 100'</p>	<p>Aratina Solar Project 2.0 by 64NB 8ME LLC SITE 3</p>	<p>ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192, GPA 2, MAP 192-35 ZCC 3, CUP 3, GPA 3, MAP 208-5, ZCC 6, CUP 7, GPA 3, MAP 208-6 ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2</p>
	<p>T11N/R8W - Sec. 33-35 T10N/R8W - Sec. 1 & 2 T10N/R7W - 5 & 6</p>	
	<p>DRAWN BY: [REDACTED] DATE: 11-16-2021 SHEET: 1</p>	
	<p>PROJECT: [REDACTED]</p>	



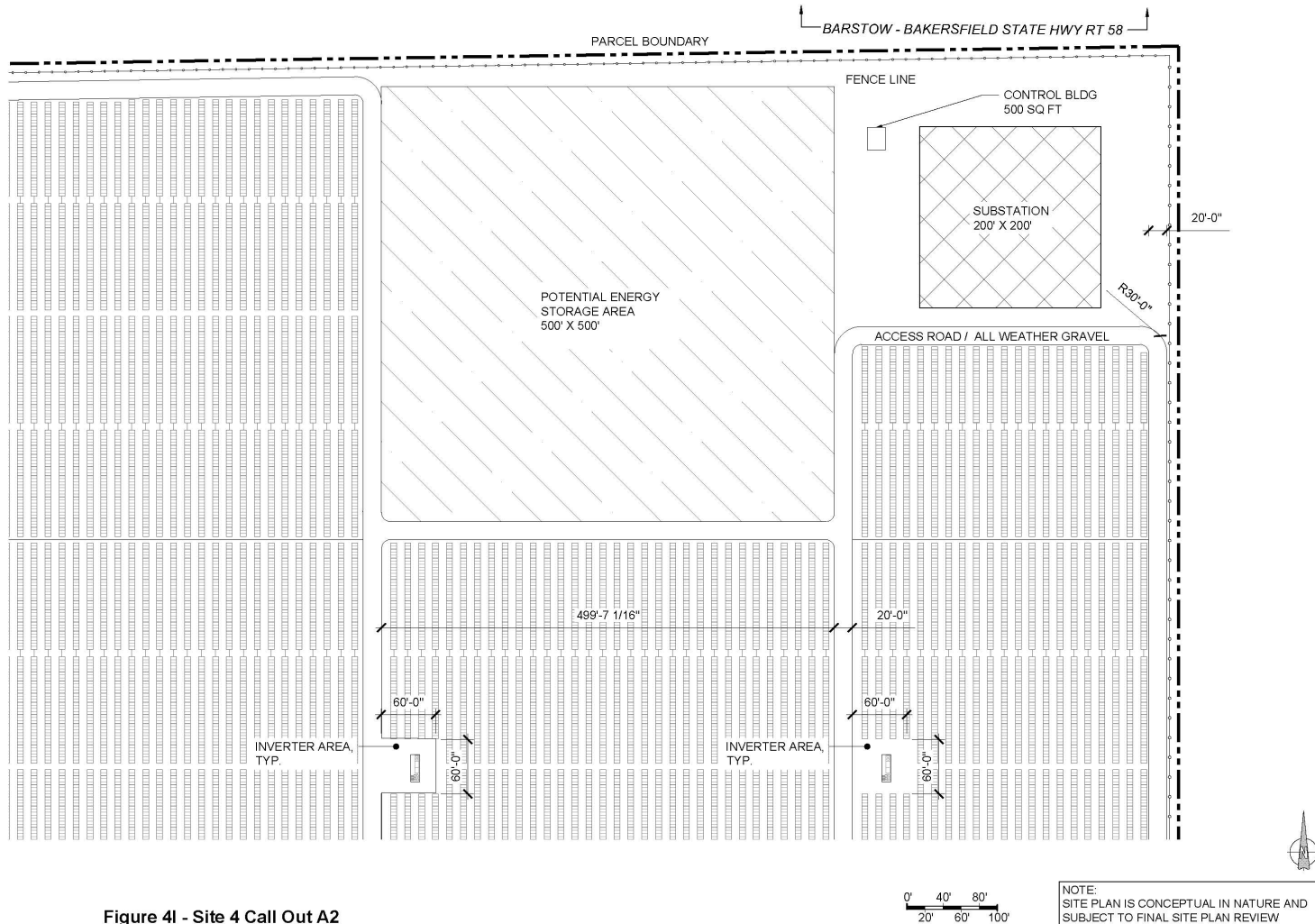


Figure 4I - Site 4 Call Out A2

ZCC 6, CUP 16, CUP 17, GFA 6, MAP 192, GFA 2, MAP 192-35
 ZCC 3, CUP 3, GFA 3, MAP 208-5, ZCC 6, CUP 7, GFA 3, MAP 208-5
 ZCC 1, CUP 1, GFA 1, MAP 209-1, CUP 1, GFA 1, MAP 209-2

Aratina Solar Project 2.0 by 64NB BME LLC
 SITE 4

T11NR8W- Sec. 33-35
 T10NR8W- Sec. 1 & 2
 T10NR7W- 5 & 6

DRAWN BY: CHRISTOPHER FORSEBERG-JONES
 DATE: 1-4-2021
 SHEET:
A-2
 SCALE:
 1" = 100'



Figure 4J - Site 4 Callout A2.1

Aratina Solar Project 2.0 by 64NB 8ME LLC - SITE 4

T11N/R3W- Sec. 33-35
T10N/R3W- Sec. 1 & 2
T10N/R7W - 5 & 6

ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192, GPA 2, MAP 192-35
ZCC 3, CUP 3, GPA 3, MAP 208-5, ZCC 6, CUP 7, GPA 3, MAP 208-6
ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2

DRAWN BY: CHRISTINE FORBES-COLES
DATE: 1-6-2021
SHEET: A-2.1
SCALE: 1" = 100'

NOTE:
SITE PLAN IS CONCEPTUAL IN NATURE AND
SUBJECT TO FINAL SITE PLAN REVIEW

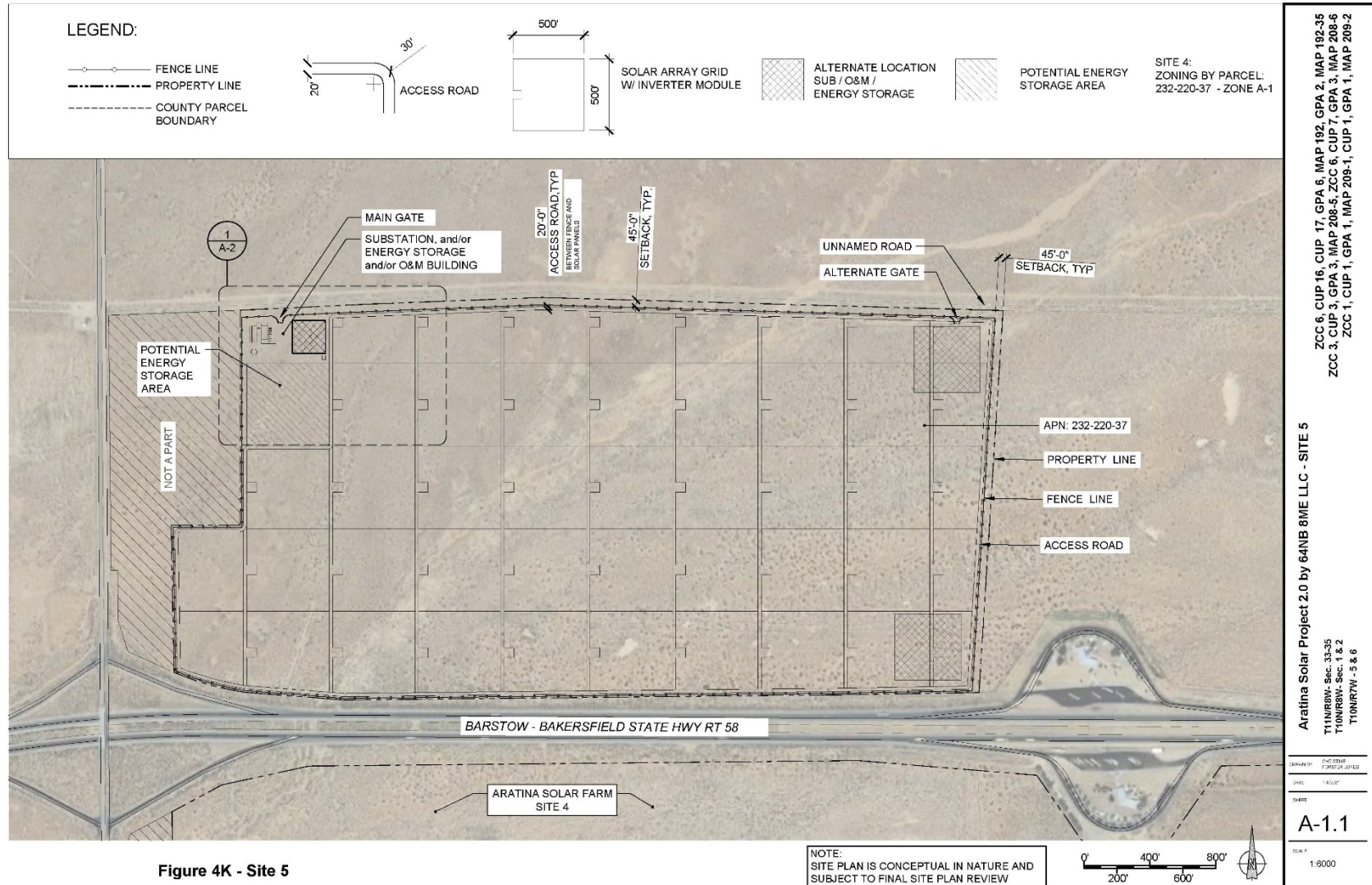


Figure 4K - Site 5

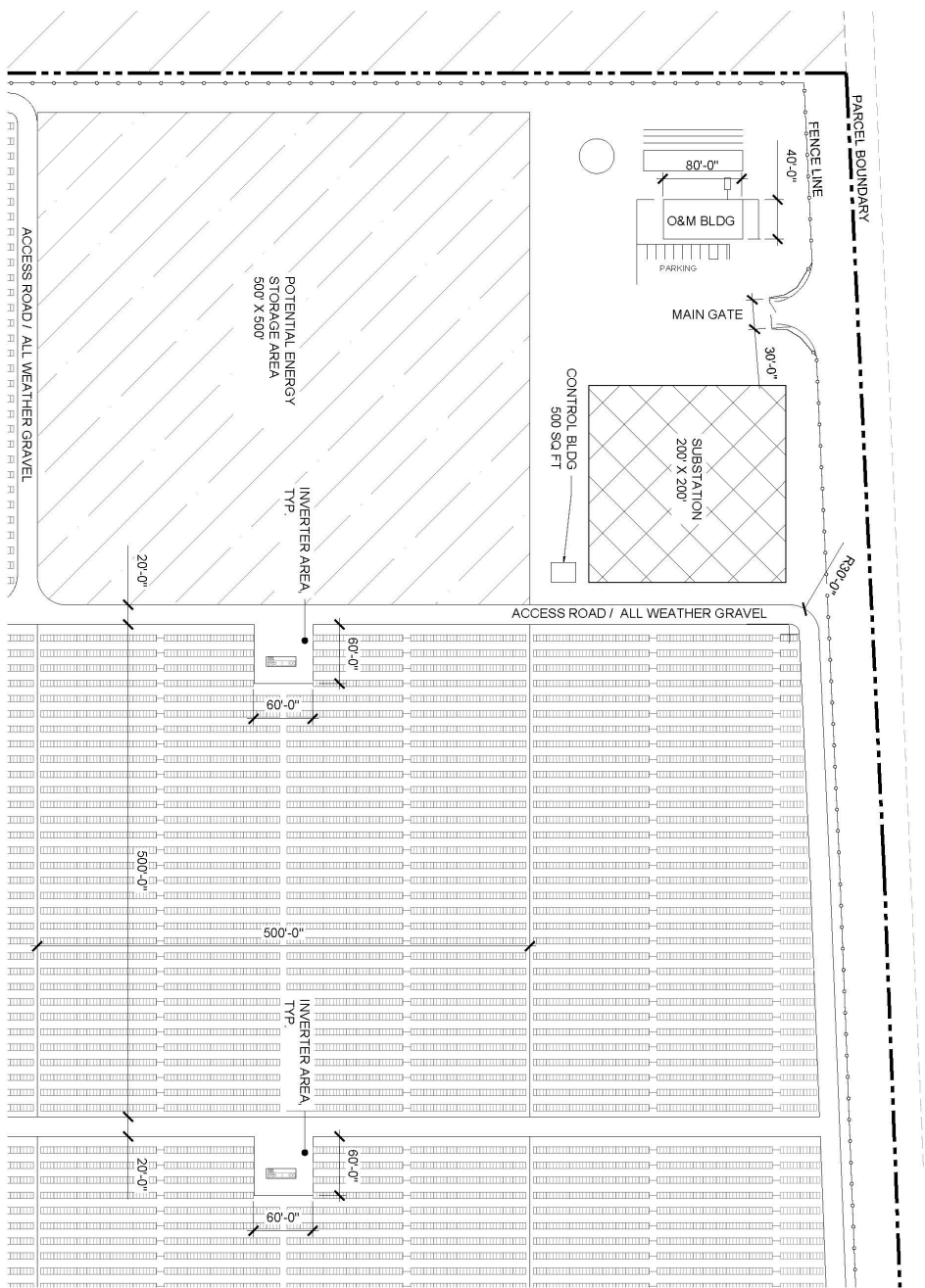


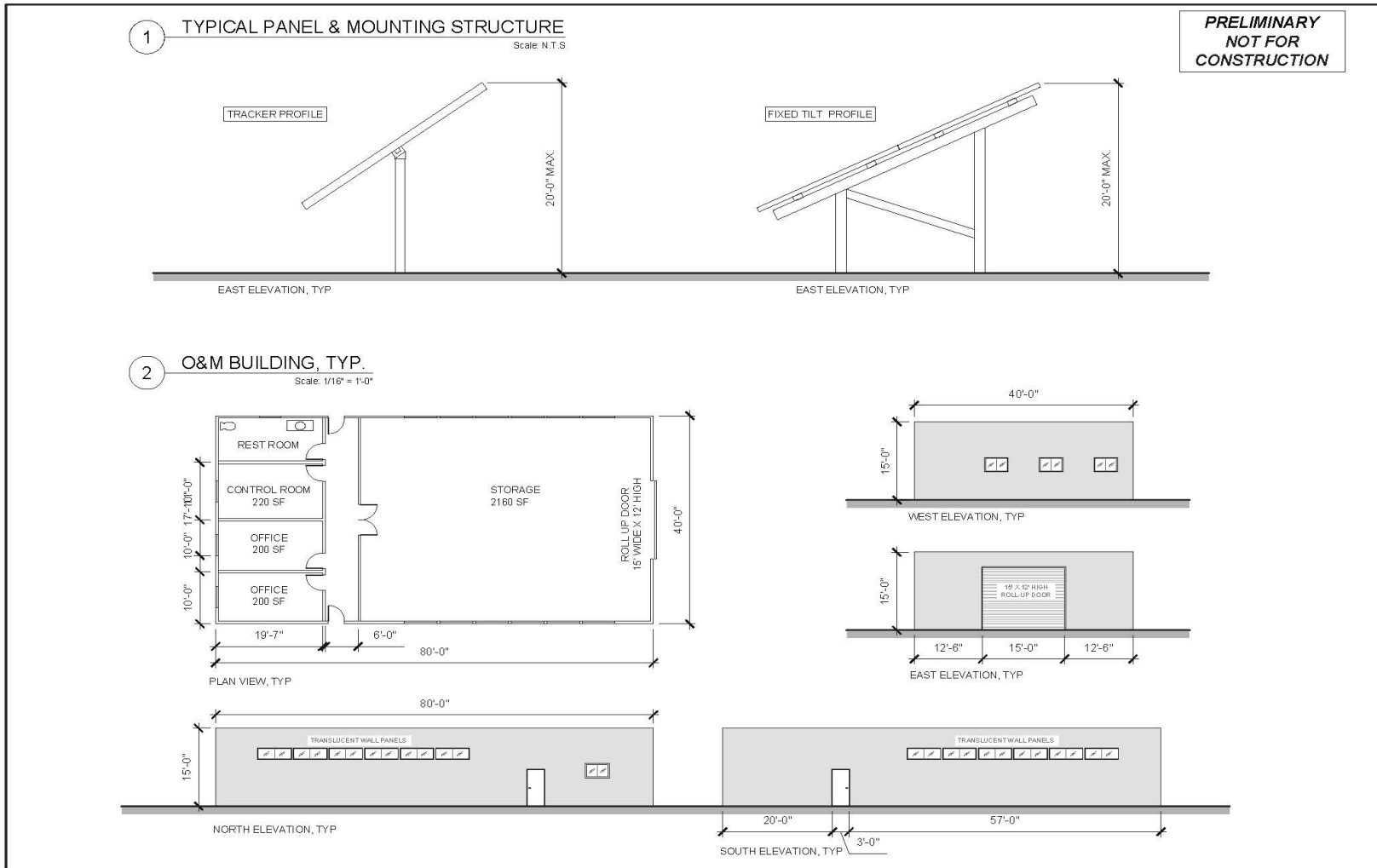
Figure 4L - Site 5 Callout A2



NOTE:
SITE PLANS CONCEPTUAL IN NATURE AND
SUBJECT TO FINAL SITE PLAN REVIEW



SCALE 1" = 100'	A-2	PROJECT: Aratina Solar Project 2.0 by 64NB 8ME LLC - SITE 5	ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192, GPA 2, MAP 192-35
		DATE: 11/20/21	ZCC 3, CUP 3, GPA 3, MAP 208-5, ZCC 6, CUP 7, GPA 3, MAP 208-6
		T11N/R8W - Sec. 33-35	ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2
		T10N/R8W - Sec. 1 & 2	
		T10N/R7W - 5 & 6	



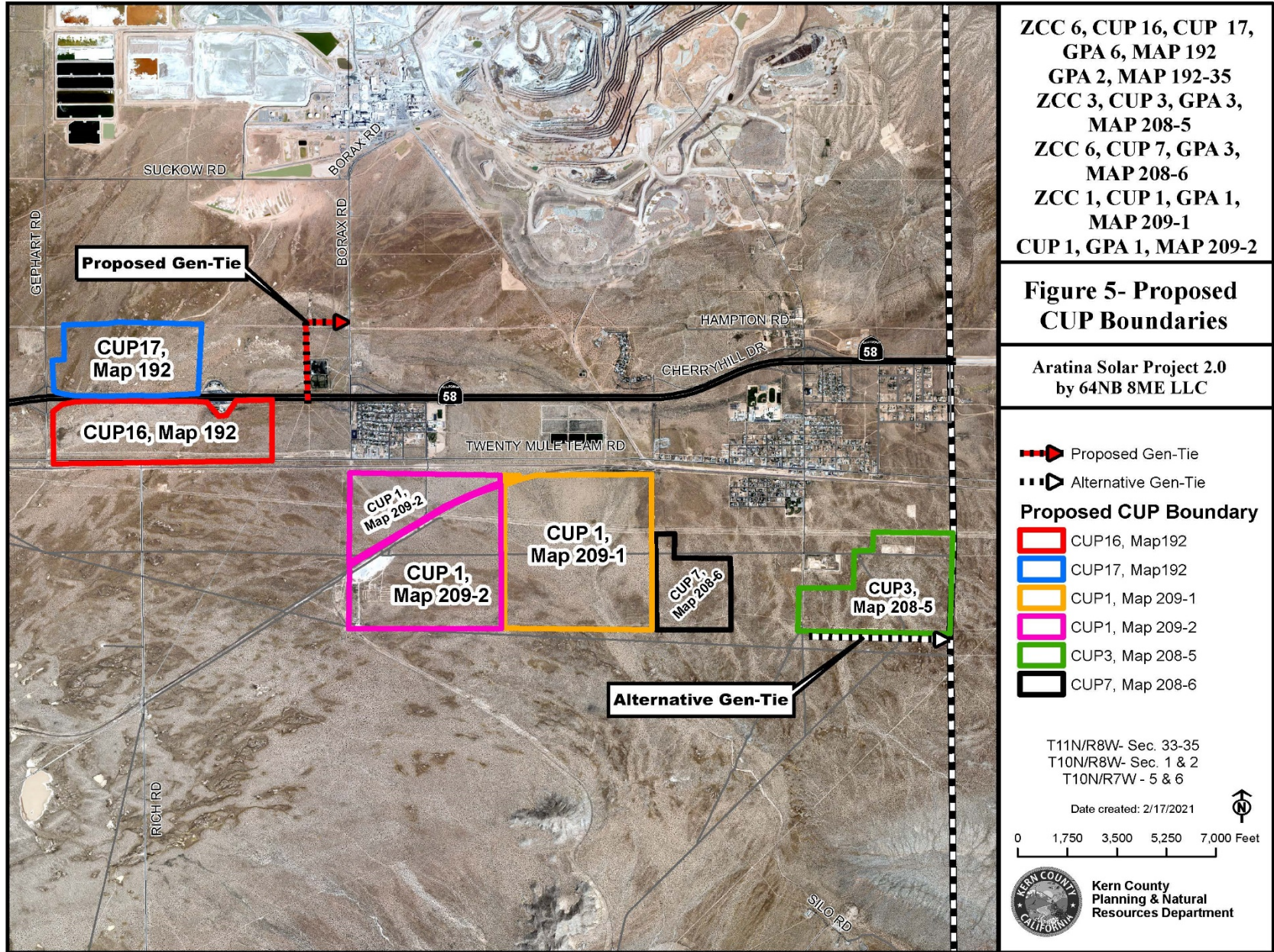
ZCC 6, CUP 16, CUP 17, GPA 6, MAP 192, GPA 2, MAP 192-35
ZCC 3, CUP 3, GPA 3, MAP 208-5, ZCC 6, CUP 7, GPA 3, MAP 208-6
ZCC 1, CUP 1, GPA 1, MAP 209-1, CUP 1, GPA 1, MAP 209-2

KERN COUNTY, CALIFORNIA
ARATINA SOLAR

Aratina Solar Project 2.0 by 64NB 8ME LLC

Typical Solar Array and O&M Areas

Figure 4M





1.2. Environmental Setting

The project site is located on the western edge of the Mojave Desert. The project site is located on the Boron and Leuhman Ridge 7.5 minute USGS Quadrangles. Sites 1, 2, and 3 are located within the Leuhman Ridge USGS Quadrangle; Sites 4 and 5 are located within the Boron USGS Quadrangle (USGS 2012; USGS 2018). The Burlington-Santa Fe Railroad crosses the project site, traversing generally north/south through Site 3, then paralleling SR 58 east-west; refer to *Figure 2, Project Site Boundaries*.

The proposed project would be served by the Kern County Sheriff's Department for law enforcement and public safety services (Boron Substation, 26949 Cote Street), Kern County Fire Department for fire protection services (Fire Station #17, 26965 Cote Street), and Kern County Medical Emergency Services for medical care and emergency services.

The Kern County Airport Land Use Compatibility Plan (ALUCP) covers operations at the Edwards Air Force Base, which borders the project site to the west and south. The nearest public airport to the project site is the California City Municipal Airport located approximately 18 miles northwest of the project site. The project site is not located within any safety or noise zones for the California City Municipal Airport.

The Federal Emergency Management Agency (FEMA) delineates flood hazard areas on its Flood Insurance Rate Maps (FIRMs). According to the FIRMs for the project area, portions of the project are located in a 100-year flood area (Zones A and AH, 1% annual chance of flooding) and in a 500-year flood area (Zone X, 0.2 % annual chance of flooding); refer to *Figure 6, FEMA Floodplain Map*. The major source of flooding in this area is the Twenty Mule Team Creek. The majority of Site 5 and the westernmost portion of Site 4 are located within the 100-year floodplain of the Twenty Mule Team Creek. The 100-year floodplain of an unnamed creek crosses Site 2. The majority of Site 4 is located within the 500-year floodplain.

The project site is not designated by the California Department of Conservation (DOC) as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Sites 1, 2, 4, and 5 are designated as nonagricultural and natural vegetation. The majority of Site 3 is designated as nonagricultural and natural vegetation, except for the southwest portion that is designated as vacant or disturbed land. There are no lands designated as important farmland located adjacent to or in the vicinity of the project site. Additionally, no lands affected by the project are subject to a Williamson Act Land Use contract, nor are they located within a Kern County Agricultural Preserve.

The project site is not within a mineral recovery area or within a designated mineral and petroleum resource site designated by the Kern County General Plan, nor is it identified as a mineral resource zone by the Department of Conservation's State Mining and Geology Board. The project site is not located within the County's NR (Natural Resources) or PE (Petroleum Extraction) Zone Districts.

The project site is located entirely within the Kern County General Plan area. As shown on *Table 1, Project Assessor Parcel Numbers, Existing Map Codes, Existing and Proposed Zoning, and Acreage*, and *Figure 7, Existing General Plan and Specific Plan Land Use Designations*, the project site consists of 22 privately owned parcels designated by the Kern County General Plan as Map Code 7.1 (Light Industrial); 7.3 (Heavy Industrial); 8.3 (Extensive Agriculture, Minimum 20 Acre Parcel Size); 8.5 (Resource Management, Minimum 20 Acre Parcel Size), and 8.5/2.5 (Resource Management, Minimum 20 Acre Parcel Size/Flood Hazard). As shown on *Figure 8, Existing Zoning*, the project site is currently zoned A-1 (Limited Agriculture), M-1 (Light Industrial), and R-1 (Low-Density Residential).



Surrounding Land Uses

Table 2, Existing Project Site and Surrounding Properties, Existing Land Use, General Plan Map Code Designations, and Zoning, identifies the existing land use, the existing general plan land use designation, and the existing zoning for each of the five project sites. Additionally, such conditions are described for adjacent lands to the north, east, south, and west of each of the sites.

Existing land use in the project area generally includes undeveloped desert lands, scattered rural residential uses, access roadways, and other wind and solar energy projects that are currently in various stages of planning or construction. Other development in the area includes the Boron Sanitary Landfill, Borax mine, Boron Recreational Park, and the Edwards Air Force Base. Rural residential uses are found in the unincorporated communities of Desert Lake and Boron to the north of the project site, located along SR 58.

The sensitive receptors closest to the project site are the Desert Lake Apartments approximately 0.13 miles to the north of Site 3 across Twenty Mule Team Road. Single-family residences are located approximately 0.3 miles northeast of the northeastern corner of Site 2 along Ferguson Street in the community of Boron; Boron Park, a local park, is located approximately 0.5 miles northeast of the northeastern corner of Site 2. The closest school to the site is the West Boron Elementary School, located approximately 0.30 miles north of Site 3.

There are several existing, planned, and permitted solar energy and transmission projects in the Mojave Desert Air Basin where the project site is located. However, there are currently no solar projects proposed or awaiting construction within a 6-mile radius of the proposed project.

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**TABLE 2. EXISTING PROJECT SITES AND SURROUNDING PROPERTIES,
EXISTING LAND USE, GENERAL PLAN MAP CODE DESIGNATIONS, AND
ZONING**

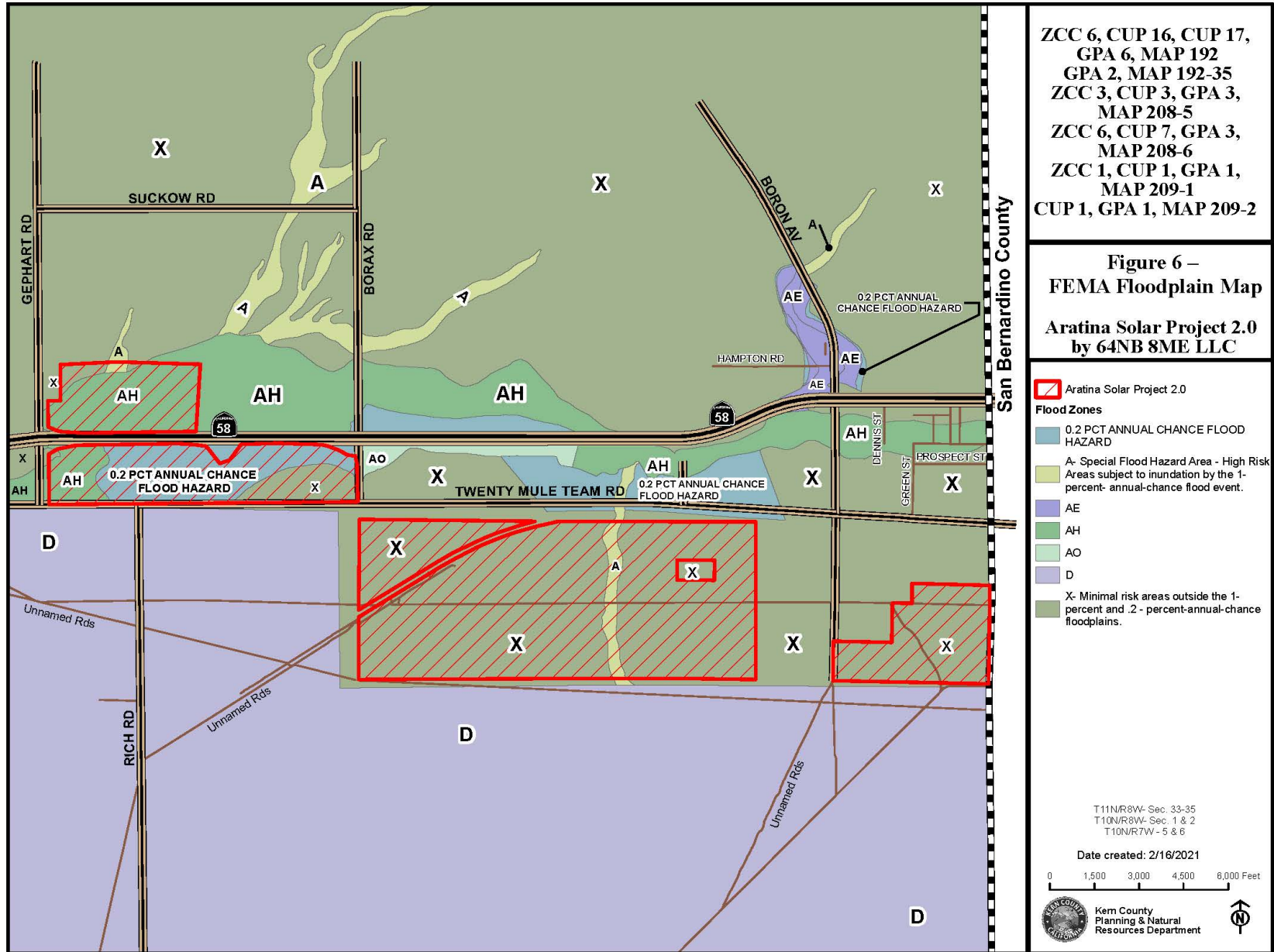
Location	Existing Land Use	Existing General Plan Map Code Designations	Existing Zoning
Site 1	Undeveloped	8.3 (Extensive Agriculture, Min. 20 Acre Parcel Size)	A-1 (Limited Agriculture)
North	Undeveloped, residential dwellings, Boron Recreation Park	8.3 (Extensive Agriculture, Min. 20 Acre Parcel Size), 3.1 (Parks and Recreation Areas), 5.4 (Maximum 1 Unit/Net Acre)	A (Exclusive Agriculture), A-1 (Limited Agriculture), R-1 (Low-Density Residential)
East	Undeveloped	San Bernardino County	San Bernardino County
South	Undeveloped, Edwards Air Force Base	1.1 (State or Federal Land), 8.5 (Resource Management)	A-1 H (Limited Agriculture, Airport Approach Height)
West	Undeveloped, Boron Sanitary Landfill	8.3 (Extensive Agriculture, Min. 20 Acre Parcel Size), 8.5 (Resource Management), 3.4 (Solid Waste Disposal Facility), 3.4.1 (Solid Waste Disposal Facility Buffer)	A-1 (Limited Agriculture), A (Exclusive Agriculture), R-1 (Low-Density Residential)
Site 2	Undeveloped	8.3 (Extensive Agriculture, Min. 20 Acre Parcel Size)	A-1 (Limited Agriculture); R-1 (Low-Density Residential)
North	Undeveloped, railroad, commercial	3.3 (Other Facilities), 8.3 (Extensive Agriculture, Min. 20 Acre Parcel Size), 7.1 (Light Industrial), 7.2 (Service Industrial)	A-1 (Limited Agriculture); R-1 (Low-Density Residential); M-1 (Light Industrial); M-2 (Medium Industrial)
East	Undeveloped, residential dwellings	5.3 (Maximum 10 Units/Net Acre), 5.4 (Maximum 4 Units/Net Acre), 8.3 (Extensive Agriculture, Min. 20 Acre Parcel Size), 8.5 (Resource Management)	R-2 (Medium-Density Residential), R-1 (Low-Density Residential), A-1 (Limited Agriculture)
South	Undeveloped, Edwards Air Force Base	1.1 (State or Federal Land)	A-1 H (Limited Agriculture, Airport Approach Height)
West	Undeveloped, railroad	7.1 (Light Industrial)	M-1 (Light Industrial)
Site 3	Undeveloped	7.1 (Light Industrial); 7.3 (Heavy Industrial)	M-1 (Light Industrial)
North	Undeveloped, residential dwellings (Desert Lake community), railroad	7.1 (Light Industrial), 8.5 (Resource Management, Min. 20 Acre Parcel Size)	CH (Highway Commercial); C-1 (Neighborhood Commercial), C-2 (General Commercial); A-1 (Limited Agriculture); R-1 (Low-Density Residential)
East	Undeveloped	8.3 (Extensive Agriculture, Min. 20 Acre Parcel Size),	A-1 (Limited Agriculture)
South	Undeveloped, Edwards Air Force Base	1.1 (State or Federal Land)	A-1 H (Limited Agriculture, Airport Approach Height)
West	Undeveloped, railroad	1.1 (State or Federal Land)	A-1 H (Limited Agriculture, Airport Approach Height)

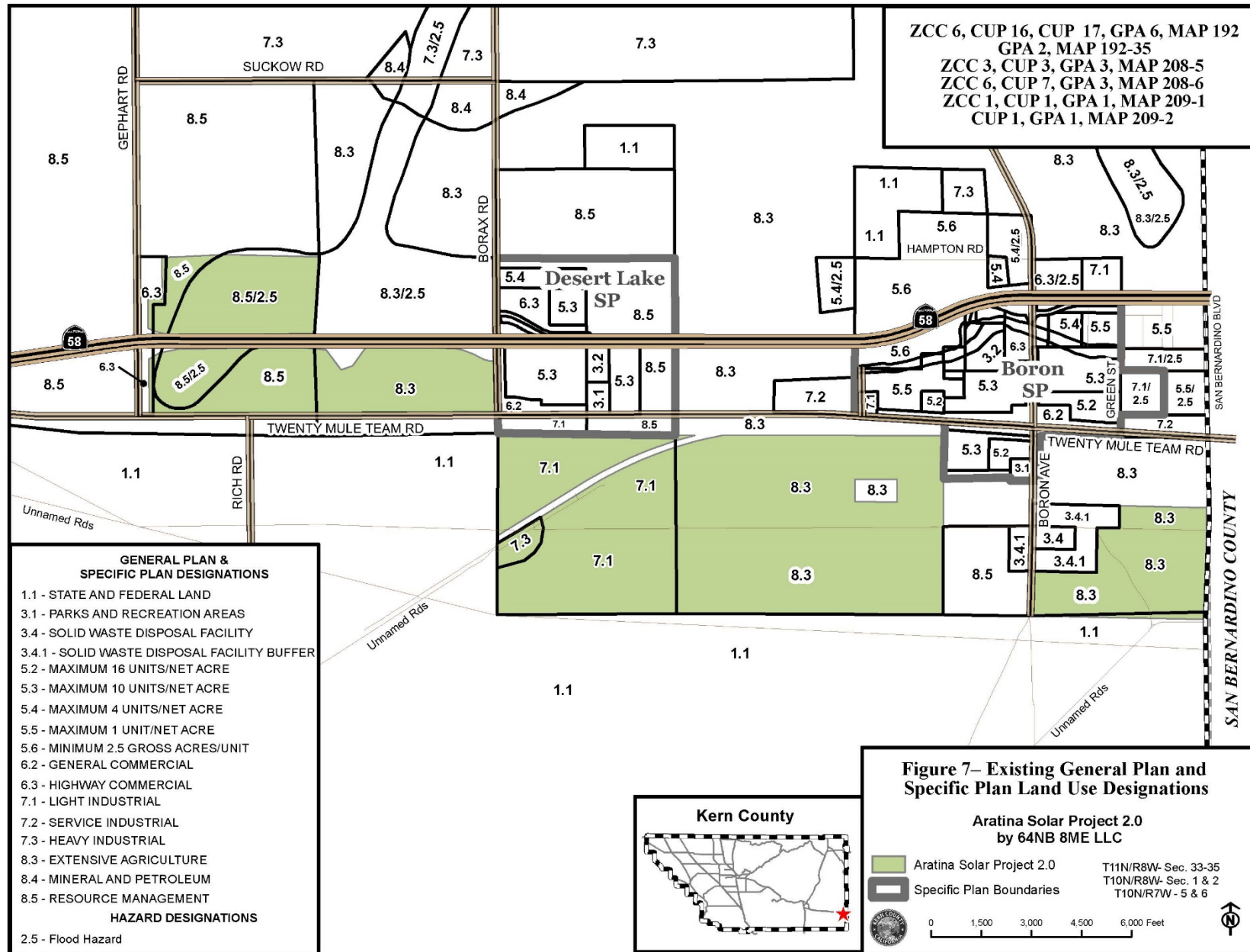


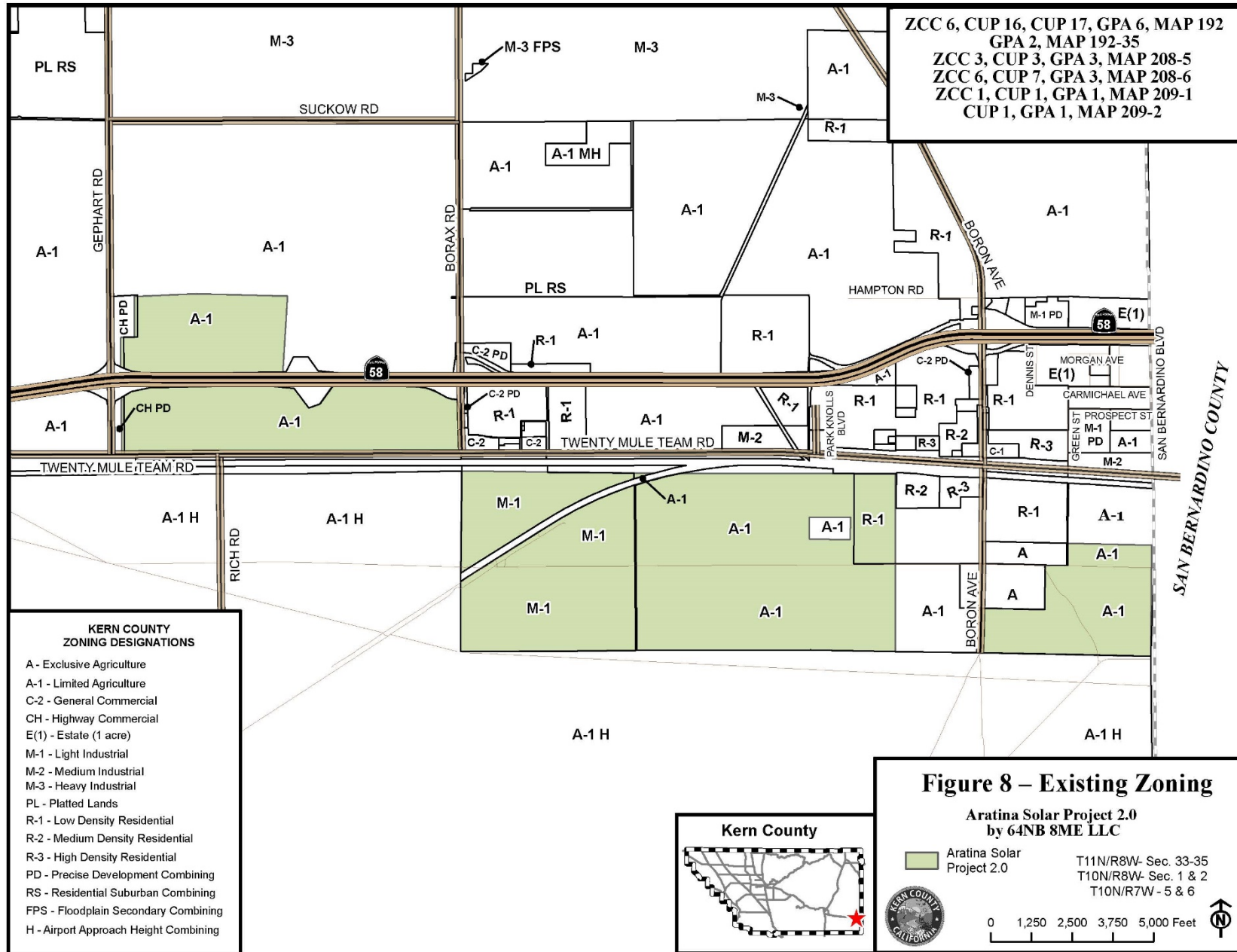
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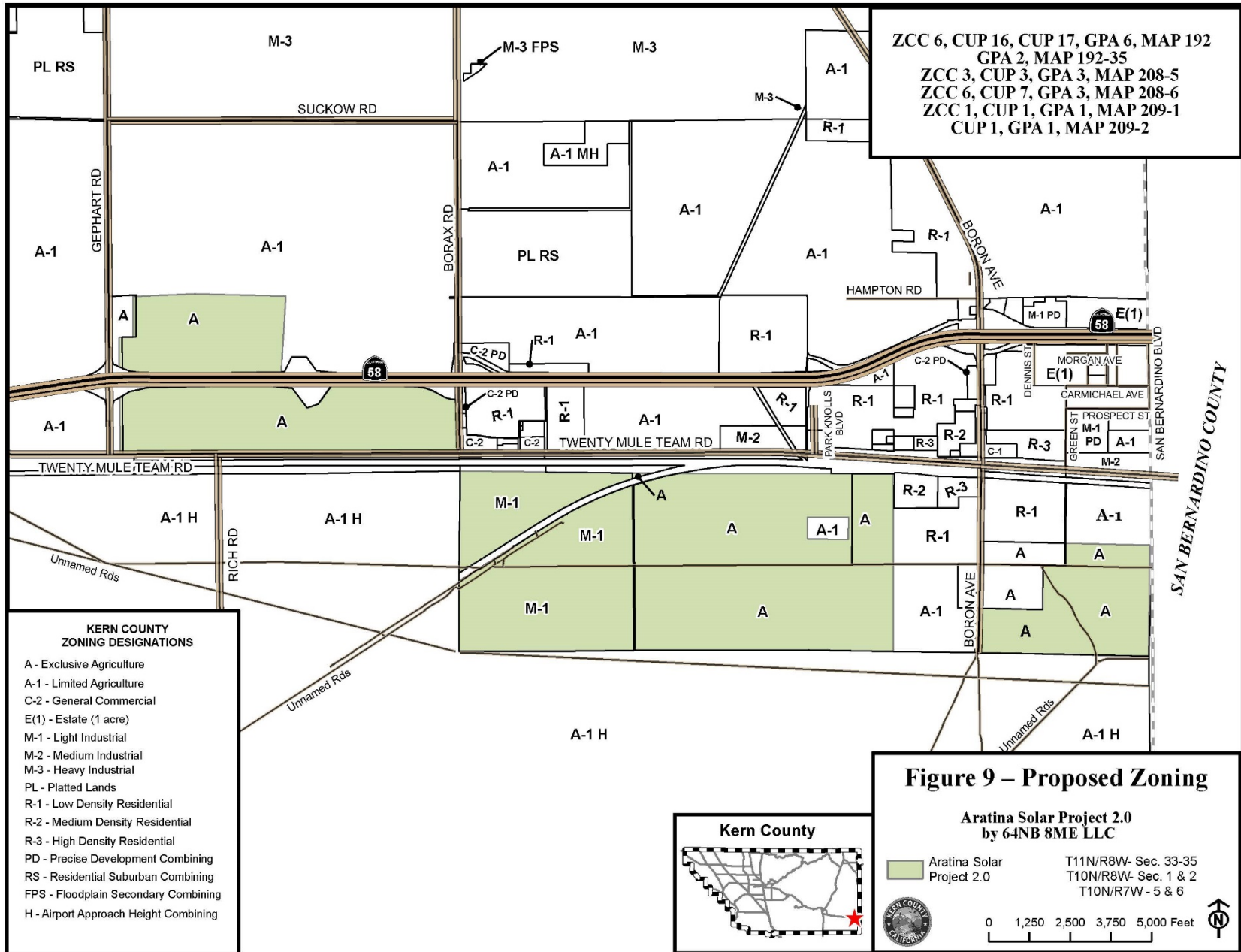
Location	Existing Land Use	Existing General Plan Map Code Designations	Existing Zoning
Site 4	Undeveloped	8.3 (Extensive Agriculture, Min. 20 Acre Parcel Size); 8.5 (Resource Management, Min. 20 Acre Parcel Size)	A-1 (Limited Agriculture)
North	Undeveloped	8.3/2.5 (Extensive Agriculture, Min. 20 Acre Parcel Size/ Flood Hazard), 8.5/2.5 (Resource Management, Min. 20 Acre Parcel Size/Flood Hazard)	A-1 (Limited Agriculture)
East	Residential dwellings (Desert Lake community)	5.3 (Maximum 10 Units/Net Acre), 6.2 (General Commercial)	R-1 (Low Density Residential), C-1 (Neighborhood Commercial), C-2 (General Commercial)
South	Undeveloped, railroad, Edwards Air Force Base	1.1 (State or Federal Land)	A-1 H (Limited Agriculture, Airport Approach Height)
West	Undeveloped	6.3 (Highway Commercial)	CH PD (Highway Commercial, Precise Development Combining)
Site 5	Undeveloped	8.5/2.5 (Resource Management, Min. 20 Acre Parcel Size/Flood Hazard)	A-1 (Limited Agriculture)
North	Undeveloped	8.5 (Resource Management)	A-1 (Limited Agriculture)
East	Undeveloped	8.3/2.5 (Extensive Agriculture, Min. 20 Acre Parcel Size/ Flood Hazard)	A-1 (Limited Agriculture)
South	Undeveloped	8.5 (Resource Management), 8.5/2.5 (Resource Management, Min. 20 Acre Parcel Size/Flood Hazard)	A-1 (Limited Agriculture)
West	Undeveloped	6.3 (Highway Commercial)	CH PD (Highway Commercial, Precise Development Combining)

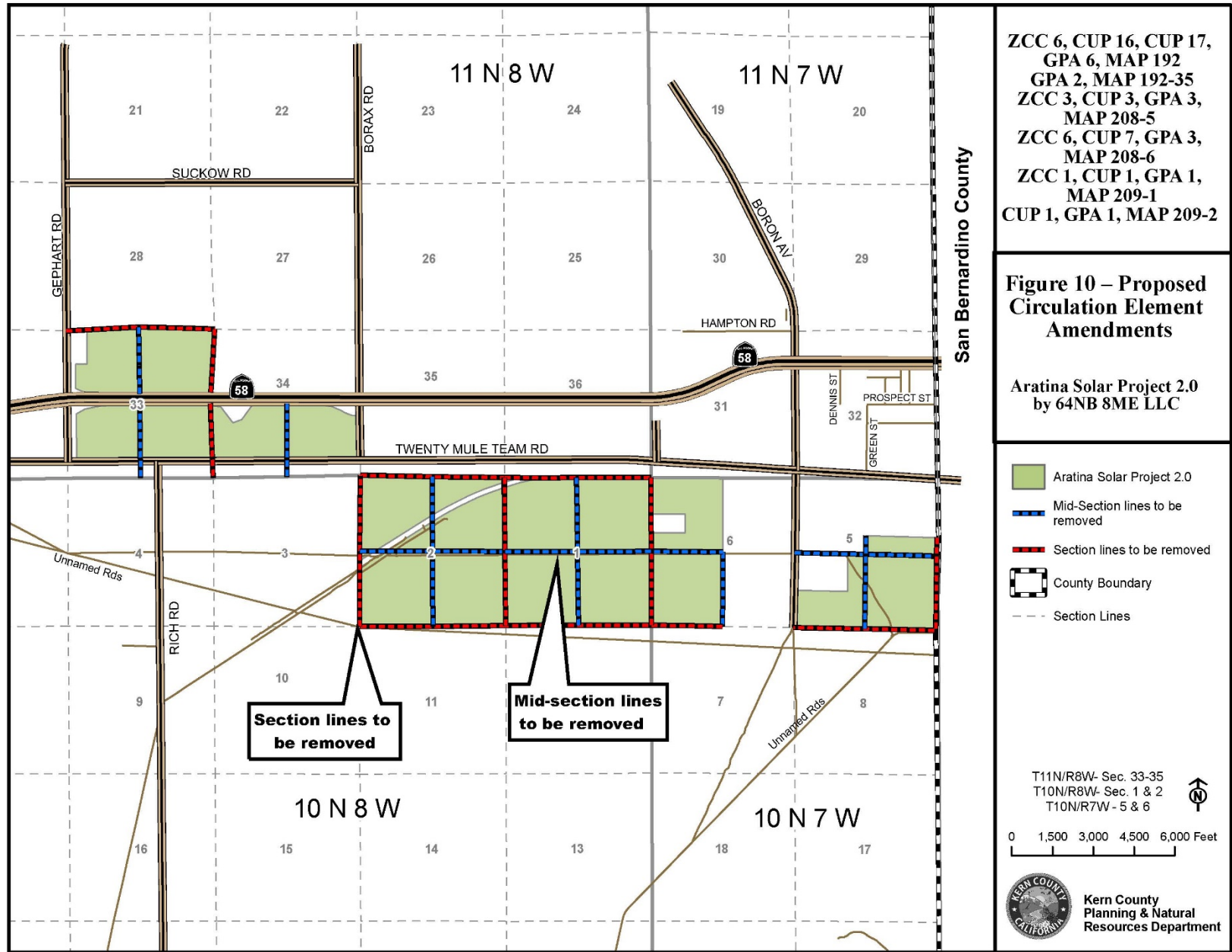
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1.3. Project Description

Project Overview

The Aratina 2.0 project by 64NB 8ME LLC (project proponent) is a proposed photovoltaic (PV) solar facility with associated infrastructure on approximately 2,317 acres of privately-owned land in southeastern Kern County (*Figure 1, Regional Vicinity Map*). As stated above, the facility would consist of 5 sites (Sites 1 to 5) to generate a combined (up to) 530 MW of renewable electrical energy. The project also includes the installation of associated (up to) 600 MW energy storage (battery) facilities. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Implementation of the project as proposed includes the following requests. Refer to *Table 1, Project Assessor Parcel Numbers, Existing Map Codes, Existing and Proposed Zoning, and Acreage Figure 5, Proposed CUP Boundaries; Figure 7, Existing General Plan and Specific Plan Land Use Designations; Figure 8, Existing Zoning; Figure 9, Proposed Zoning; and Figure 10, Proposed Circulation Element Amendments*.

Changes in zone classifications as follows:

- Zone Change Case No. 6, Map No. 192 – from A-1 to A for 696.69 acres
- Zone Change Case No. 3, Map No. 208-5 – From A-1 to A for 299.94 acres
- Zone Change Case No. 6, Map No. 208-6 – From A-1 to A for 222.49 acres and from R-1 to A for 79.6 acres
- Zone Change Case No. 1, Map No. 209-1 from A-1 to A for 635.20 acres

Conditional Use Permits to allow for the construction and operation of five solar facilities with a total generating capacity of approximately 530 megawatts-alternating current (MW-AC) of renewable energy (broken down by site, below), including up to 600 megawatts of energy storage (for all sites), within the A (Exclusive Agriculture) Zone Districts (in Zone Maps 192, 208-5, 208-6, and 209-1) and the M-1 (Light Industrial) Zone District (in Zone Map 209-2) pursuant to Sections 19.12.030.G and 19.36.30.G, respectively, of the Kern County Zoning Ordinance:

- Site 1 (up to 70 MW)
 - Conditional Use Permit No. 3, Map No. 208-5 for 299.94 acres
- Site 2 (up to 180 MW)
 - Conditional Use Permit No. 7, Map No. 208-6 for 169.92 acres
 - Conditional Use Permit No. 1, Map No. 209-1 for 635.20 acres
- Site 3 (up to 140 MW)
 - Conditional Use Permit No. 1, Map No. 209-2 for 620.26 acres



- Site 4 (up to 80 MW)
 - Conditional Use Permit No. 16, Map No. 192 for 339.46 acres
- Site 5 (up to 60 MW)
 - Conditional Use Permit No. 17, Map No. 192 for 252.31 acres

General Plan Amendments to the Circulation Element of the Kern County General Plan to remove future road reservations on the section and mid-section lines within the project boundaries:

- General Plan Amendment No. 6, Map No. 192
- General Plan Amendment No. 2, Map No. 192-35
- General Plan Amendment No. 3, Map No. 208-5
- General Plan Amendment No. 3, Map No. 208-6
- General Plan Amendment No. 1, Map No. 209-1
- General Plan Amendment No. 1, Map No. 209-2

Figure 2, Project Site Boundaries, shows the boundaries of the proposed project. With the requested zone change, the project would be zoned A (Exclusive Agriculture) within Zone Maps 192, 208-5, 208-6, 209-1) and M-1 (Light Industrial) in Zone Map 209-2. Therefore, pursuant to Chapter 19.12.030.G and Chapter 19.36.30.G, Conditional Use Permits (CUPs) are required to allow for the construction and operation of the PV solar facility under this zoning.

The power generated on the project site would assist the state in complying with the Renewables Portfolio Standard under Senate Bill 350, which requires that by December 31, 2030, 50 percent of all electricity sold in the state shall be generated from renewable energy sources. The power generated on the project site would be sold to California investor-owned utilities, municipalities, community choice aggregators, or other purchasers in furtherance of the goals of the California Renewable Energy Portfolio Standard. The project has an anticipated operational life of up to 35 years. At the end of the project's operational term, the project proponent would determine whether the project site should be decommissioned and deconstructed or if it would seek an extension of its CUP. If any portion of the project site is decommissioned, it would be converted to other uses in accordance with the applicable land use regulations in effect at that time.

1.4. Project Facilities, Construction, and Operations

Project Facilities

The combined project facilities would include the following components, which are described in greater detail thereafter:

- Solar PV modules
- Collection, inverter stations, and transformer systems
- Energy storage system



- Substation(s)
- Operations and maintenance (O&M) facilities
- Onsite meteorological stations and towers
- Transmission line
- Stormwater facilities/detention
- Site access and security
- Water storage tank(s)
- Project site lighting

Solar PV Module Configuration

The proposed project would utilize photovoltaic panels or modules (including but not limited to concentrated photovoltaic technology (CPV) or bi-facial technology which have similar rectangular shapes, sizes and thickness) on mounting frameworks to convert sunlight directly into electricity. Individual panels would be installed on either fixed-tilt or tracker mount systems (single- or dual-axis, using galvanized steel or aluminum). If the panels are configured for fixed-tilt, the panels would be oriented toward the south. For tracking configurations, the panels would rotate to follow the sun over the course of the day. Maximum panel height is anticipated to be up to 20 feet high, depending on the mounting system selected and on County building codes.

The solar array fields would be arranged in groups called “blocks” with inverter stations generally located centrally within the blocks. Blocks would produce direct electrical current (DC), which is converted to alternating electrical current (AC) at the inverter stations.

Each PV module would be placed on a fixed-tilt or tracker mounting structure. The foundations for the mounting structures can extend up to 10 feet below ground, depending on the structure, soil conditions, and wind loads, and may be encased in concrete or utilize small concrete footings. A light-colored ground cover or palliative may be used to increase electricity production. Final solar panel layout and spacing would be optimized for project area characteristics and the desired energy production profile. *Figures 4A to 4M, Site Plans*, show the proposed layout of the solar panels within the respective sites.

Collection, Inverter, and Transformer Systems

Photovoltaic energy is delivered via cable to inverter stations, generally located near the center of each block. Inverter stations are typically comprised of one or more inverter modules with a rated power of up to 5 MW each, a unit transformer, and voltage switch gear. The unit transformer and voltage switch gear are housed in steel enclosures, while the inverter module(s) are housed in cabinets. Depending on the vendor selected, the inverter stations may lie within an enclosed or canopied metal structure, typically on a skid or concrete mounted pad.

Energy Storage System

Each Site may include one or more Energy Storage Systems (ESS), located at or near a substation/switchyard (on-site or shared) and/or at the inverter stations, but possibly elsewhere on-site. Such



large-scale ESSs would be up to 600 MW-AC in capacity and up to 25 acres in total area. ESSs consist of modular and scalable battery packs and battery control systems that conform to U.S. national safety standards. The ESS modules, which could include commercially available lithium or flow batteries, typically consist of standard International Organization for Standardization containers (approximately 40 feet in length by 8 feet in width by 8 feet in height) housed in pad- or post-mounted, stackable metal structures, but may also be housed in a dedicated building(s) in compliance with applicable regulations. The maximum height of a dedicated structure is not expected to exceed 25 feet. The actual dimensions and number of energy storage modules and structures vary depending on the application, supplier, and configuration chosen, as well as on offtaker/power purchase agreement requirements and on County building standards. The ESS modules would have a fire rating in conformance with Kern County standards.

Substation(s)

Output from the inverter stations would be transferred via electrical conduits and electrical conductor wires to one or more on-site substation(s) or switchyard(s) (collectively referred to as a “substation”). Each substation may contain several components, including auxiliary power transformers, distribution cabinets, revenue metering systems, microwave transmission tower, and voltage switch gear. Each substation would occupy an area of approximately 200 feet by 200 feet, secured separately by an additional chain-link fence, and typically located along the perimeter of the project. The final location(s) would be determined before issuance of building permits.

Substations typically include a small control building (roughly 500 square feet) standing approximately 10 feet tall. The building is either prefabricated concrete or steel housing with rooms for the voltage switch gear and the metering equipment, a room for the station supply transformer, and a separate control technology room in which the main computer, the intrusion detection system, and the main distribution equipment are housed. Components of this building (e.g., control technology room and intrusion detection system) may alternatively be located at the operations and maintenance (O&M) building(s).

Operations and Maintenance Facilities

Each Site may include an O&M building of approximately 40 feet by 80 feet in size, and approximately 15 feet in height, with associated on-site parking (unpaved). The O&M building(s) may be co-located with the substation(s) and would be steel framed, with metal siding and roof panels. The O&M building(s) may include the following:

- Office
- Repair building/parts storage
- Control room
- Restroom
- Septic tank and leach field

Roads, driveways, and parking lot entrances would be constructed in accordance with Kern County improvement standards. Parking spaces and walkways would be constructed in accordance with all California Accessibility Regulations.



The proposed project may share O&M facilities with any future energy projects in the area and/or may be remotely operated. Any unused O&M areas on-site may be covered by solar panels.

Onsite Meteorological Station

A solar meteorological station would be located on-site, the location of which would be determined at final project design. The meteorological station would include solar energy (irradiance) meters, in addition to an air temperature sensor and wind anemometer. It is anticipated that the maximum height of this equipment would be up to 20 feet.

Transmission Line

From the proposed project's substation(s), power could be transmitted to the Southern California Edison (SCE) Holgate Substation via up to 230 kV overhead and/or underground line(s); refer to *Figure 2, Project Site Boundaries*, which shows the transmission line alignment. If aboveground, the overhead lines would be mounted on monopoles up to 150 feet in height. A franchise and/or encroachment agreement with Kern County along affected County roadways may ultimately be required for portions of the transmission line.

Alternatively, the proposed project could transmit its power to the SCE Kramer Substation located to the east in San Bernardino County, via an overhead and/or underground transmission line located within an Edwards Air Force Base utility corridor. The alignment of the transmission line being considered is illustrated in *Figure 2, Project Site Boundaries*.

Site Access and Security

The project would be accessed from various area roadways. Construction traffic would access the project site from Gephart Road, Borax Road, Boron Avenue, and/or 20 Mule Team Road. No improvements to existing off-site roadways would be required to provide construction (or permanent) access to the sites.

The perimeter of each of the 5 sites would be enclosed within a chain link fence with barbed wire measuring up to 8 feet in height (from finished grade). An intrusion alarm system comprised of sensor cables would be integrated into the perimeter fence. Additionally, the project may include security measures such as barbed wire, low voltage fencing with warning reflective signage, controlled access points, security alarms, security camera systems, sensor lights, or security guard vehicle patrols to deter trespassing and/or unauthorized activities that could interfere with project operations.

Controlled access gates would be maintained at the main entrances to Sites 1-5. Project access would be provided to off-site emergency response teams (i.e., fire department) that would respond in the event of an "after-hours" emergency. Enclosure gates would be manually operated with a key provided in an identified key box location.

For each of the sites, interior roadway alignments would be finalized once placement of the solar panels is determined and would be influenced by topographical, biological, or cultural resource determinations, or other site conditions. Where on-site access roads may cross streambed areas under the jurisdiction of the California Department of Fish and Wildlife, crossings would be designed to minimize or avoid any impacts to such jurisdictional resources and in compliance with California Fish and Game Code requirements, including authorization through a Streambed Alteration Agreement as appropriate.



Stormwater Management

At this preliminary stage of site design, it has not been determined whether on-site stormwater management facilities, such as detention ponds, would be necessary. This will be determined through further hydrological analysis and if required, these facilities will be described and addressed in the EIR.

Water Storage Tank(s)

One or more above-ground water storage tanks with a total capacity of up to 50,000 gallons (greater if required by Fire Department regulations) may be placed on-site near the O&M building(s). The storage tank(s) near the O&M building(s) would have the appropriate fire department connections to be used for fire suppression purposes.

Project Site Lighting

Proposed nighttime lighting on-site would be minimal and is anticipated to be installed at the access gates, substation(s), O&M building(s), and inverters to allow for access and emergency maintenance. Nighttime lighting would provide O&M personnel with illumination for both normal and emergency operating conditions. The minimum illumination needed to ensure worker safety and security on-site would be provided. All nighttime lighting installed would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties as required by Kern County Ordinance (Chapter 19.81) - Outdoor Lighting-Dark Skies requirements. Additionally, motion-sensitive cameras would be installed within the solar fields in proximity to the inverters for purposes of security.

Construction Activities

The construction period for the proposed project from site preparation through construction and testing is expected to commence as early as 4th quarter 2021 and would extend for approximately 12 to 18 months.

Construction of the proposed project would include the following activities:

- Site preparation
- Access and internal circulation roads
- Grading and earthwork
- Panel installation
- Concrete foundations
- Structural steel work
- Electrical/instrumentation work
- Collector line installation
- Stormwater management facilities
- Architecture and landscaping



Schedule and Workforce

Construction traffic would access the project site from Gephart Road, Borax Road, Boron Avenue, and/or 20 Mule Team Road. It is estimated that up to 1,000 workers per day (during peak construction periods) would be required during construction of the proposed project. Employees would have the option to drive their own automobiles to the project site; alternatively, a shuttle service may be provided from one or more locations that are yet to be determined. It is anticipated that, due to the size of the project site, parking for all employee vehicles could be accommodated on-site if a shuttle service is not provided. Construction worker parking areas would be located within each active construction site.

Heavy construction is expected to occur between 6:00 am and 5:00 pm, Monday through Friday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Some activities may continue 24 hours per day, seven days per week. Low level noise activities may potentially occur between the hours of 10:00 pm and 7:00 am. Nighttime activities could potentially include, but are not limited to, refueling equipment, staging material for the following day's construction activities, quality assurance/control, and commissioning.

Construction materials and supplies would be delivered to the project site by truck. It is anticipated that all such materials and supplies would be stored on-site for each of the five sites, respectively, and within proximity to the area where work would be undertaken. For work along the gen-tie routes, it is anticipated that adequate land areas within the affected easements or rights-of-way would be available to accommodate staging/laydown areas during the construction phase and that off-site lands would not be affected. Truck deliveries would normally occur during daylight hours. However, there would be offloading and/or transporting to the project site on weekends and during evening hours.

Site Preparation, Earthwork and Construction Control Measures

The project site(s) would be cleared and graded as needed to allow for the installation of the solar arrays, energy storage facility, related infrastructure, access driveways, and temporary construction staging areas. Sediment and erosion controls would be installed in accordance with an approved Storm Water Pollution Prevention Plan (SWPPP). Stabilized construction entrances and exits would also be installed at the project entrance driveways to ensure that potential for tracking of sediment onto adjacent public roadways is minimized.

Earthmoving activities are expected to be limited to the construction of the internal access roads, solar panel arrays, the O&M building(s), substations, energy storage systems, water storage tank and possibly water treatment systems, gen-tie lines, and for storm water protection or storage (detention) facilities. Final grading may include revegetation with low lying grass or applying earth-binding materials to disturbed areas.

Dust-minimizing techniques, such as maintaining natural vegetation where possible, use of mow-and-roll vegetation clearing, placement of wind control fencing, application of water, and/or application of dust suppressants would be implemented as needed. Project grading would be minimized to the extent feasible to reduce unnecessary soil movement that may result in dust generation. Earthworks scrapers, excavators, dozers, water trucks, paddlewheels, haul vehicles, and graders may all be used in site preparation. Access roads may be compacted, as required, to support construction and emergency vehicles. Certain access roads may also be surfaced with aggregate or decomposed granite in conformance with emergency access requirements. Any grading would be balanced on-site, with no need for the export or import of soils.



Additionally, on-site trenching for the placement of underground electrical and communication lines would occur.

Noise-generating construction activities would be limited to construction hours allowed by the County's noise ordinance. All stationary construction equipment that may result in excessive noise or vibration levels would be operated away from sensitive noise receptors to the extent feasible. Construction activities would occur such that maximum noise levels at affected sensitive noise receptors (i.e., rural residential uses) would not exceed the County's adopted noise threshold levels.

Applicable local, state, and federal requirements and best management practices (BMPs) would be implemented during the construction phase. Consistent with the County zoning ordinance and with guidelines provided in the California Stormwater Quality Association's Construction Best Management Practice Handbook, BMPs would be implemented, including preparation of a Stormwater Pollution and Prevention Plan (SWPPP) and a soil erosion and sedimentation control plan to reduce the potential for erosion and to minimize effects on stormwater quality. Stabilized construction entrances and exits would be installed at the entrances to each site to reduce the tracking of sediment onto adjacent public roadways.

Additionally, site preparation would occur in conformance with County BMPs and Eastern Kern Air Pollution Control District rules for dust control.

Construction Water Use

Water would be required during the construction phase for such activities as dust suppression, soil compaction, and grading. Water may also be used at points of ingress/egress to minimize the tracking of dirt off-site onto local roadways from construction vehicles. Water usage during construction, primarily for dust-suppression purposes, is not expected to exceed 410 acre-feet over the 12-18 month construction phase. Bottled water would be provided to the construction workers. Additionally, on-site restroom facilities for the construction workers would be provided by portable units to be serviced by licensed providers; no connection to a public sewer system is required for project construction, and therefore, water for such purposes is not required.

As noted above, it is anticipated that water would be obtained from on-site wells or delivered via truck or pipeline from an off-site source(s) within the project vicinity. If water is trucked into the site, it is anticipated that an available local water source would be selected to minimize truck trips/lengths in transporting water to/from the site.

Electrical Supply

The method of temporary power for construction is expected to be provided by mobile diesel-driven generator sets, batteries, by temporary electrical service from a local provider, or a combination of all three methods.

Project Operation and Maintenance Activities

Once the proposed project is constructed, maintenance would generally be limited to the following:

- Cleaning of PV panels
- Monitoring electricity generation



- Providing site security
- Facility maintenance – replacing or repairing inverters, wiring, and PV modules

Schedule and Workforce

During the operational phase, the project would employ up to 25 full-time equivalent (FTE) personnel (or personnel hours totaling 25 FTE positions (i.e., an average of 1,000 personnel hours per week) who would commute to the site. Each Site could require an operational staff of up to five full-time employees who could be there at any time, for example, when urgent repairs or maintenance are required. As previously mentioned above, it is possible that the proposed project could share O&M, substation, and/or transmission facilities with each other, or with any future energy projects nearby. In such a scenario, the projects would share personnel, thereby potentially reducing the project's on-site staff.

The facility would operate seven days a week, 24 hours a day, generating electricity during normal daylight hours when the solar energy is available. Maintenance activities may occur seven days a week, 24 hours a day to ensure PV panel output when solar energy is available.

Water Usage

Water demand for panel washing and O&M domestic use (sinks, lavatories, landscape irrigation, drinking) is not expected to exceed 60 acre-feet per year. It is estimated that the panels could be washed on average up to four times per year. Water is anticipated to be obtained from on-site wells or delivered via truck or pipeline from an off-site source(s) within the project vicinity. If water is trucked into the site, it is anticipated that an available local water source would be selected to minimize truck trips/lengths in transporting water to/from the site. A small water treatment system may also be installed at each of the Sites 1-5 to provide deionized water for panel washing if water is taken from on-site wells.

Electrical Supply

Power for plant auxiliaries would be provided by the project's electrical generation or supplied by the local power provider. The proposed project would require power for the O&M facilities, electrical enclosures, tracker motors, associated structures, and for plant lighting and security.

Project Features and Best Management Practices

The following sections describe standard project features and best management practices that would be applied during construction and long-term operation of the project to maintain safety and minimize or avoid environmental impacts.

Waste and Hazardous Materials Management

The proposed project would have minimal levels of materials on-site that have been defined as hazardous under 40 CFR, Part 261. The following materials are expected to be used during the construction, operation, and long-term maintenance of the proposed project:

- Insulating oil – used for electrical equipment
- Lubricating oil – used for maintenance vehicles



- Various solvents/detergents – equipment cleaning
- Gasoline – used for maintenance vehicles

Hazardous materials and wastes will be managed, used, handled, stored, and transported in accordance with applicable local and State regulations. All hazardous wastes will be maintained at quantities below the threshold requiring a Hazardous Material Management Program (HMMP) (one 55 gallon drum). Though not expected, should any on-site storage of hazardous materials exceed one 55-gallon drum, an HMMP would be prepared and implemented.

Spill Prevention and Containment

Spill prevention and containment for construction and operation of the proposed project will adhere to the Environmental Protection Agency's (EPA) guidance on Spill Prevention Control and Countermeasures (SPCC).

Wastewater/Septic System

A standard on-site septic tank and leach field would be used at the O&M building(s) to dispose of sanitary wastewater from sinks and lavatories, designed to meet operation and maintenance guidelines required by Kern County laws, ordinances, regulations, and standards. If no O&M buildings are installed on-site, no septic systems would be installed.

Inert Solids

Inert solid wastes resulting from construction activities may include recyclable items such as paper, cardboard, solid concrete and block, metals, wire, glass, type 1-4 plastics, drywall, wood, and lubricating oils. Non-recyclable items include insulation, other plastics, food waste, vinyl flooring and base, carpeting, paint containers, packing materials, and other construction wastes. A Construction Waste Management Plan will be prepared for review by the County. Consistent with local regulations and the California Green Building Code, the Plan would provide for diversion of a minimum of 50 percent of construction waste from landfills.

Chemical storage tanks (if any) would be designed and installed to meet applicable local and state regulations. Any wastes classified as hazardous such as solvents, degreasing agents, concrete curing compounds, paints, adhesives, chemicals, or chemical containers will be stored (in an approved storage facility/shed/structure) and disposed of as required by local and state regulations. Material quantities of hazardous wastes are not expected.

Health and Safety

Safety precautions and emergency systems will be implemented as part of the design and construction of the proposed project to ensure safe and reliable operation. Administrative controls will include classroom and hands-on training in operating and maintenance procedures, general safety items, and a planned maintenance program. These will work with the system design and monitoring features to enhance safety and reliability.

The proposed project will have an Emergency Response Plan (ERP). The ERP will address potential emergencies including chemical releases, fires, and injuries. All employees will be provided with communication devices, cell phones, or walkie-talkies, to provide aid in the event of an emergency.



Decommissioning

Solar equipment typically has a lifespan of over 30 years. The proposed project expects to sell the renewable energy produced by the project under the terms of a long-term Power Purchase Agreement (PPA) with a utility or other power off taker. Upon completion of the PPA term, the project operator may, at its discretion, choose to enter into a subsequent PPA or decommission and remove the system and its components. Upon decommissioning, the solar facility could be converted to other uses in accordance with applicable land use regulations in effect at that time.

It is anticipated that, during project decommissioning, project structures that would not be needed for subsequent use would be removed from the project site. Above-ground equipment that may be removed would include module posts and support structures, on-site transmission poles that are not shared with third parties and the overhead collection system within the project site, inverters, substation(s), transformers, electrical wiring, equipment on the inverter pads, and related equipment and concrete pads.

Equipment would be de-energized prior to removal, salvaged (where possible), and shipped off-site to be recycled or disposed of at an appropriately licensed disposal facility. Once the solar modules are removed, the racks would be disassembled, and the structures supporting the racks would be removed. Site infrastructure would be removed, including fences, and concrete pads that may support the inverters, transformers and related equipment. The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried by standard construction equipment. The fencing and gates would be removed, and all materials would be recycled to the extent practical. Project roads would be restored to their pre-construction condition unless they may be used for subsequent land use. The area would be thoroughly cleaned and all debris removed. Materials would be recycled to the extent feasible, with the remainder disposed of in landfills in compliance with all applicable laws.

1.5. Project Objectives

The project proponent had defined the following objectives for the project:

- Construct and operate a solar energy facility of sufficient size and configuration to produce (up to) 530 MW of reliable electricity and 600 MW of energy storage in an economically feasible and commercially financeable manner that can be marketed to different power utility companies.
- To provide energy to the electric grid to meet increasing demand for in-state generation.
- Assist Kern County in promoting its role as the State's leading producer of renewable energy.
- Site and design the project in an environmentally responsible manner consistent with current Kern County guidelines.
- To promote economic development and bring living-wage jobs to the region throughout the life of the proposed project.
- Support California's efforts to reduce greenhouse gas (GHG) emissions consistent with the timeline established in 2006 under California Assembly Bill 32, the Global Warming Solutions Act of 2006, which requires the California Air Resources Board to reduce statewide emissions of GHGs to at least the 1990 emissions level by 2020. This timeline was updated in 2016 under SB 32, which requires that statewide GHG emissions are reduced to at least 40 percent below the statewide GHG emissions limit by 2030;



- Support California’s aggressive RPS Program consistent with the timeline established by SB 100 (De León, also known as the “California Renewables Portfolio Standard Program: emissions of greenhouse gases”) as approved by the California Legislature and signed by Governor Brown in September 2018, which established a 50 percent RPS goal by December 31, 2026, 60 percent by December 31, 2030, and a goal that 100 percent of electric retail sales to end-use customers be provided by renewable energy and zero-carbon resources by 2045.

1.6. Proposed Discretionary Actions/Required Approvals

The anticipated approvals needed for the project include changes in zone classification, adoption of conditional use permits, and general plan amendments to the Circulation Element of the Kern County General Plan. Construction and operation of the proposed solar energy facility may require additional local, State, and Federal entitlements; as well as discretionary and ministerial actions and approvals including, but not limited to, below:

County of Kern

- Consideration and certification of Final EIR
- Adoption of 15091 Findings of Fact and 15093 Statement of Overriding Considerations
- Adoption of proposed Mitigation Measure Monitoring Program
- Approval by the Kern County Board of Supervisors for proposed changes in zone classification
- Approval by the Kern County Board of Supervisors for proposed conditional use permits for the project site
- Approval by the Kern County Board of Supervisors for proposed General Plan Amendments to the Circulation Element
- Kern County grading and building permits
- Kern County encroachment permits
- Kern County Franchise Agreements
- Kern County public road(s) and easement(s) vacation(s) (if required)
- Kern County Fire Safety Plan

Other Responsible Agency Approvals

- Edwards Air Force Base right-of-way under 10 U.S.C. 2668 (if required).
- U.S. Fish and Wildlife Service Habitat Conservation Plan (if required).
- California Department of Fish and Wildlife (CDFW), Lake and Streambed Alteration Agreement or Incidental Take Permit or Habitat Conservation Plan (if required)



- State Water Resources Control Board – National Pollutant Discharge Elimination System Construction General Permit
- California Department of Transportation Right-of-Way Encroachment Permit, and Permit for Transport of Oversized Loads
- Eastern Kern County Air Pollution Control District Authority to Construct/Permit to Operate/Fugitive Dust Control Plan

The preceding discretionary actions/approvals are potentially required and do not necessarily represent a comprehensive list of all possible discretionary permits/approvals required. Other additional permits or approvals from responsible agencies may be required for the proposed project.

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2. Kern County Environmental Checklist Form

2.1. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “potentially significant impact” as indicated by the Kern County Environmental Checklist on the following pages.

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Agricultural and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology and Soils | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology and Water Quality | <input checked="" type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input checked="" type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation and Traffic | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input checked="" type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

2.2. Determination

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENT IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: 
 Printed Name: Ronelle Candia

Date: February 26, 2021
 Title: Supervising Planner



3. Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. Negative Declaration: “Less than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less-than-Significant Impact.” The lead agency must describe the mitigation measure and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration, Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less than Significant with Mitigation Incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.



8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to a less than significant level.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
I. Aesthetics				
Would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. In nonurbanized areas, substantially degrade the existing visual character or quality of the site and its surroundings? (Public views are those that are experienced from public accessible vantage points) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RESPONSES:

- (a) The aesthetic features of the existing visual environment in the project area are relatively uniform, with broad, dry, flat landscapes. The project site is generally surrounded by undeveloped desert land and rural residential dwellings. The rural community of Desert Lake is located north of Site 3 and east of Site 4 and consists predominantly of rural residential uses. Rural residential uses in the community of Boron, a census-designated place in Kern County, are also located northeast of Site 2. According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, the closest eligible state scenic highway is State Route (SR) 58 between the communities of Mojave and Boron. The project site is located along the portion of SR 58 that is identified as an eligible scenic highway; the portion designated extends from approximately post mile 16 (just east of the community of Edison) to post mile 64.5 which includes the project vicinity along SR 58 (Caltrans 2020). Therefore, there is the potential that the proposed project would substantially change existing views from SR 58 and other public roads. This is considered a potentially significant impact to a scenic vista and will be evaluated in the EIR.
- (b) As described in (a), above, the closest eligible scenic highway is SR 58 between the communities of Mojave and Boron. The project site is located along the portion of SR 58 that is identified as an eligible scenic highway. Specifically, Sites 4 and 5 are located immediately adjacent to the north and south of SR 58, respectively. Therefore, the proposed changes in the landscape could result in significant impacts to views from SR 58. This is considered a potentially significant impact and will be evaluated in the EIR.



- (c) Refer to Response (a), above, for a description of the existing landscape character. There is a potential that the proposed project would substantially change views from SR 58 and other public roads located in the surrounding area. Views of the proposed project would also be experienced from the residences located in the Desert Lake rural community and in Boron. Placement of the PV solar panels and associated structures on the project site would alter the existing character of the area. Residents and travelers on adjacent roads would observe alterations to the existing landscape. Changes to the visual quality and character of the project site may be potentially significant and impacts will therefore be further evaluated in the EIR.
- (d) The project site is generally undeveloped desert land and does not generate a source of light or glare. The Desert Lake rural community is located north of Site 3 and east of Site 4 and consists predominantly of rural residential dwellings. Rural residential dwellings are also located northeast of Site 2 in Boron, a census-designated place in Kern County. The existing residences in the project vicinity generate a minimal to moderate amount of light, primarily from building or outdoor lighting. The PV modules are designed to absorb sunlight to maximize electrical output; therefore, they are not expected to create significant reflective surfaces or the potential for glint/glare during the day. The proposed solar facility lighting would be designed to provide the minimum illumination needed to achieve safety and security objectives and would be directed downward and shielded to focus any illumination on the desired areas only to minimize light trespass. All lighting at the proposed solar facility would be designed to meet Kern County Zoning Ordinance Chapter 19.81 - Outdoor Lighting - Dark Skies requirements. However, further analysis of the specific lighting proposed and the potential effects of light and glare from the proposed project will be provided in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
II. Agriculture and Forest Resources				
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or a Williamson Act Contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Result in the cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres (Section 15205(b)(3) Public Resources Code)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board.



- (a) According to the California Department of Conservation (CDC), California Important Farmland Finder Map, there are no agricultural lands designated as Prime Farmland, Unique Farmland, Unique Farmland, or Farmland of Statewide Importance located within the project site. Sites 1, 2, 4, and 5 are designated as nonagricultural and natural vegetation (CDC 2019). The majority of Site 3 is designated as nonagricultural and natural vegetation, except for the southwest portion that is designated as vacant or disturbed land. There are no lands designated as important farmland located adjacent to or in the vicinity of the project site (CDC 2018). Therefore, construction and/or operation of the proposed project would not result in the conversion of designated Farmland to a nonagricultural use and there would be no impact. No further analysis in the EIR is not required.
- (b) The project site and surrounding area includes land that is currently zoned as A-1 (Limited Agriculture), M-1 (Light Industrial), and R-1 (Low-Density Residential). Zone changes are proposed to apply the A (Exclusive Agriculture) Zone District to the subject properties within Zone Maps 192, 208-5, 208-6, and 209-1, as detailed in *Table 1, Project Assessor Parcel Numbers, Existing Map Codes, Existing and Proposed Zoning, and Acreage*. According to the Kern County Zoning Ordinance, a commercial solar facility is a compatible use within the A and M-1 Zone Districts. The construction and operation of a solar energy generating facility on the site would require the approval of multiple Conditional Use Permits. The project site does not contain lands that are subject to Williamson Act contracts, either in active on in nonrenewal status. There are no lands under Williamson Act contracts adjacent to or in the vicinity of the project site. As such, there would be no impacts to Williamson Act lands. Nevertheless, this issue will be further evaluated in the EIR.
- (c) No lands affected by the proposed project are zoned as forest land or timberland, or for timberland production. Therefore, the project would not conflict with existing zoning for, or cause the rezoning of, forest land, timberland, or timberland zoned for timberland production. Therefore, there would be no impact and further analysis in the EIR is not required.
- (d) The project site is not situated on forest or timberland and is not located near any such areas that are currently under production. There is no land in the vicinity of the project site that is zoned as forest land, timberland, or lands zoned for timberland production. Therefore, there would be no impact related to the loss of forest land or conversion of forest land to non-forest use. No further analysis is warranted in the EIR.
- (e) As mentioned in response (a) above, the project site is not classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and there are no active farmlands located in the project vicinity. The proposed project would not have direct or indirect impacts to the existing environment that would affect agricultural uses. The project site is not designated as forest land and forest land or timberlands do not occur in the project vicinity. Therefore, the project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No further evaluation is required in the EIR.
- (f) The project site is not subject to an open space contract made pursuant to the California Land Conservation Act of 1965 or the Farmland Security Zone Contract. As stated above, the project site is not under a Williamson Act Contract. The project would therefore not result in the cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres (Section 15205(b)(3) Public Resources Code. No impact would occur, and no further evaluation is required in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
III. Air Quality				
Where available, the significance criteria established by the applicable air quality management or air pollution control district shall be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard? Specifically, would implementation of the project exceed any of the following adopted thresholds:				
i. San Joaquin Valley Unified Air Pollution Control District:				
<u>Operational and Area Sources</u>				
Reactive organic gases (ROG): 10 tons per year.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oxides of nitrogen (NO _x): 10 tons per year.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Particulate matter (PM ₁₀): 15 tons per year.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Stationary Sources - as Determined by District Rules</u>				
Severe nonattainment: 25 tons per year.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Extreme nonattainment: 10 tons per year.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Eastern Kern Air Pollution Control District.				
<u>Operational and Area Sources</u>				
Reactive organic gases (ROG): 25 tons per year.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxides of nitrogen (NO _x): 25 tons per year.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Particulate matter (PM ₁₀): 15 tons per year.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Stationary Sources – as Determined by District Rules</u>				
25 tons per year.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



RESPONSES:

- (a) The project site is located entirely within the jurisdiction of the Eastern Kern Air Pollution Control District (EKAPCD), in the Mojave Desert Air Basin (MDAB). The MDAB is designated as a nonattainment area for both the state and federal ozone standards and the state particulate matter (PM₁₀) standard. Project construction would generate emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_x), both of which are known as ozone precursors, and PM₁₀ that could result in significant impacts to air quality in the area.

EKAPCD's most recently adopted air quality management plan is its Ozone Air Quality Attainment Plan (AQAP) (EKAPCD 2017). As the proposed project would generate gaseous emissions of ozone precursors (along with PM₁₀) during construction, the proposed project could potentially conflict with EKAPCD's Ozone AQAP or thresholds for emissions of other criteria pollutants. The fully built and operational project would not include any stationary sources of air pollutants and the regular employee commuting traffic would generate minor exhaust emissions. As such, no significant long-term air quality impacts are anticipated that could result in a conflict with the AQAP. Further analysis of the project's air quality impacts is warranted to determine whether the proposed project would conflict with or obstruct implementation of EKAPCD's applicable air quality plan for attainment and, if so, to determine the reasonable and feasible mitigation measures that could be imposed. These issues will be evaluated in the EIR.

- (b) The proposed project is not located within the San Joaquin Valley Unified Air Pollution Control District and, therefore, its adopted thresholds do not apply. However, as noted in Response (a) above, the project is located within the MDAB, which is designated as a nonattainment area for the state and federal ozone standards and the state PM₁₀ standard. As such, the emissions of ozone precursors (ROG and NO_x) and PM₁₀ during construction and operation of the project could result in a cumulatively considerable net increase of these criteria pollutants in the MDAB. Thus, the project's contribution to cumulative air quality impacts in the MDAB could be potentially significant. The project's contribution of construction and operational emissions to the MDAB will be analyzed in the EIR.
- (c) Sensitive receptors located in the project area consist predominantly of rural residential dwellings located at varying distances from the project site. The nearest sensitive receptors are rural residential dwellings in the unincorporated communities of Desert Lake and Boron. The sensitive receptors closest to the project site are the Desert Lake Apartments approximately 0.13 miles to the north of Site 3 across Twenty Mule Team Road. Single-family residences are located approximately 0.3 miles northeast of the northeastern corner of Site 2 along Ferguson Street in the community of Boron; Boron Park, a local park, is located approximately 0.5 miles northeast of the northeastern corner of Site 2. The closest school to the site is the West Boron Elementary School, located approximately 0.30 miles north of Site 3. Nearby sensitive receptors could be exposed to pollutant emissions during construction of the proposed project. The proposed project's construction-related activities would result in diesel exhaust emissions and dust (also known as PM₁₀) that could adversely affect air quality for the nearest sensitive receptors.

Additionally, exposure to Valley Fever and COVID-19 concerns from fugitive dust generated during construction is a potentially significant impact. There is the potential that cocci spores could be stirred up during excavation, grading, and earth-moving activities, exposing construction workers and nearby sensitive receptors to these spores and thereby to the possibility of contracting Valley Fever and/or exacerbate health concerns related to COVID-19. Thus, impacts to sensitive receptors via



exposure to substantial pollutant concentrations are considered potentially significant and will be evaluated further in the EIR.

- (d) The project would not have any stationary sources or equipment located on-site that would generate objectionable odors. During construction activities, only short-term, temporary odors from vehicle exhaust and construction equipment engines would occur. However, these odors would be temporary and would be dispersed rapidly. Therefore, project impacts are expected to be less than significant; however, this issue will be further evaluated in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
IV. Biological Resources				
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES:

- (a) The project site contains large areas of undeveloped desert land with native vegetation. There is a potential for candidate, sensitive, or special-status plants and wildlife species to be present on-site or in the project vicinity. The findings of field surveys conducted to determine the presence of candidate, sensitive, or special-status plant and animal species on-site and in the surrounding area will be included in the EIR. Impacts to biological resources and sensitive plant communities are considered potentially significant and will be analyzed in the EIR.



- (b) The project site is undeveloped and is dominated by desert vegetation. Field surveys for riparian and other sensitive natural communities will be completed for the proposed project, and the results will be incorporated into the EIR. Impacts to riparian or other sensitive natural communities are therefore considered potentially significant and will be further analyzed in the EIR.
- (c) Potential federal or state-protected water-based resources such as streams and washes could be present on the project site and might be impacted by project construction activities. A determination as to whether the project site contains features considered under federal or state jurisdiction will be conducted as part of the EIR. Impacts to protected wetlands would be considered potentially significant. Further analysis will be included in the EIR.
- (d) The project site and surrounding area may be used for migration or dispersal by some wildlife species. Project construction and operation could also remove foraging habitat. This impact is potentially significant and will be further evaluated in the EIR.
- (e) Joshua trees (*Yucca brevifolia*) are protected under the California Desert Native Plants Act (CDNPA) and California Endangered Species Act (CESA), and have been documented within the project site both through review of available databases and via on-site surveys conducted for the proposed project by the project's consulting biologist. Implementation of the proposed project has the potential to impact Joshua trees; therefore, this impact is potentially significant and will be further evaluated in the EIR.
- (f) As stated above, as currently designed, the project is considered to be consistent with the Land Use, Open Space, and Conservation Element of the Kern County General Plan. The project site is located within the Desert Renewable Energy Conservation Plan (DRECP) planning area, which means that the area is expected to support fewer sensitive status species than areas identified with conservation potential and is therefore more likely to be appropriate for renewable energy development. However, the DRECP at this time only applies to federal public lands managed by the Bureau of Land Management and is not an adopted Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). The proposed project would be located on private land and therefore is not subject to the DRECP. There are no other adopted conservation plans for protection of biological resources governing the project area. No impact would occur as the proposed project would not conflict with the provisions of an adopted habitat conservation plan. No further analysis in the EIR is warranted.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
V. Cultural Resources				
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES:

- (a) and (b) The project site consists of undeveloped desert land. Development of the proposed project would require ground disturbance for grading, installation of the solar arrays, gen-tie line, and placement of underground electrical and communications lines. The proposed project could potentially impact historical or cultural resources, including resources that are undiscovered or that may be buried underground. A cultural resources survey will be conducted for the proposed project as part of the EIR, to determine presence or potential presence of archaeological and historical resources and identify potential impacts to historical and/or archaeological cultural resources and to formulate avoidance or mitigation measures, if applicable.
- (c) There is no evidence that the project site is located within an area likely to contain human remains, and discovery of human remains during project earthmoving activities is not anticipated. Therefore, impacts to human remains are anticipated to be less than significant. Nonetheless, this issue will be further evaluated in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
VI. Energy				
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES:

- (a) Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the sites where energy supply cannot be met via a hookup to the existing electricity grid.

Following implementation of the proposed project, energy would switch from consumption to production. Energy use associated with operation of the proposed project would be typical of a solar facility. Operation and maintenance facilities associated with the project would require electricity for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, appliances, security systems, etc. Maintenance activities during operations, such as landscape maintenance, could involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with employee vehicle trips generated by the proposed project. Further analysis of the project's energy use will be conducted to determine if there could be wasteful or inefficient energy consumption.

- (b) Following implementation of the proposed project, energy would switch from consumption to production. Operation of the proposed project would lead to an overall increase in the County's Renewable Portfolio and would align with the stated General Plan policy to encourage the development of renewable energy within Kern County. Impacts are considered to be less than significant. However, further analysis is warranted to provide a broader assessment of the project's beneficial effects in terms of implementing important State and County objectives for renewable energy, and this topic will be discussed and analyzed in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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VII. Geology and Soils

Would the project:

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|--|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii. Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



RESPONSES:

- (a)(i) According to the preliminary geotechnical study prepared for the project, the project site is not located within a currently mapped Alquist-Priolo Special Studies Fault Zone (Stantec 2019a). The nearest active major fault is the Helendale-South Lockhart fault, located approximately 9.2 miles northeast of the project site. Impacts related to surface fault ruptures, therefore, are not anticipated. In addition, construction of the project would be subject to all applicable ordinances of the Kern County Building Code (Chapter 17.08), include standards related to seismic hazards. Kern County has adopted the California Building Standards Code (CBC), which imposes substantially the same requirements as the International Building Code (IBC). Adherence to applicable building code standards would mitigate any potential impacts associated with the project. Impacts would be less than significant; however, further analysis in the EIR is warranted.
- (a)(ii) Due to the location of active faults in the general region, strong seismic ground shaking could occur at the project site, resulting in damage to above and below ground structures and other site improvements, if not properly designed to withstand strong ground shaking. Construction of the proposed project would be subject to all applicable ordinances of the Kern County Building Code (Chapter 17.08). Kern County has adopted the CBC which imposes substantially the same requirements for design to resist strong ground motions as the IBC. Adherence to applicable regulations would minimize the potential impacts associated with the proposed project. Although potential impacts are anticipated to be less than significant, further analysis in the EIR is warranted.
- (a)(iii) Seismically induced liquefaction occurs when loose, water-saturated sediments of relatively low density are subjected to cyclic shaking that causes soils to lose strength or stiffness because of increased pore water pressure. Liquefaction generally occurs when the depth to groundwater is less than 50 feet. Based on review of available groundwater data in the site vicinity, groundwater in the site vicinity is expected to be more than 160 feet below ground surface (Stantec 2019a). Thus, the potential for liquefaction at the surface is low. Furthermore, the project is not located within a current, mapped California Liquefaction Hazard Zone (Stantec 2018). Structures constructed as part of the project would be required by state law to be constructed in accordance with all applicable IBC and CBC earthquake construction standards, including those relating to soil characteristics. Nonetheless, the potential for substantial adverse effects to the project due to seismic-related ground failure, including liquefaction, will be examined in the EIR. A geotechnical investigation will be conducted to determine the subsurface conditions and relevant soil properties at the project site.
- (a)(iv) The project site is located in a relatively flat-lying plain, where landslides are not likely. Impacts related to landslides are not anticipated to occur or pose a hazard to the project or surrounding area. Further analysis of this issue is not warranted in the EIR.
- (b) Minimal grading and/or excavation would be required for solar panel array and some building foundations at the site, and some trenching would be required for the installation of underground cables and circuits. Project construction would have the potential to result in erosion, sedimentation, and discharge of construction debris from the site. Clearing of vegetation and grading activities, for example, could lead to exposed or stockpiled soils susceptible to peak storm water runoff flows and wind forces. The compaction of soils by heavy equipment may minimally reduce the infiltration capacity of soils (exposed during construction) and increase runoff and erosion potential. The presence of large amounts of raw materials for construction, including aggregate base course material, may lead to storm water runoff contamination. The project proponent would be required to obtain coverage under the National Pollution Discharge Elimination System (NPDES) Construction



General Permit (CGP), because the proposed project would disturb greater than one acre of land. In order to conform to the requirements of the CGP, a storm water pollution prevention plan (SWPPP) would need to be prepared that outlines specific best management practices (BMPs) to prevent construction pollutants, including eroded soils (such as topsoil), from moving off-site. Impacts are anticipated to be less than significant with implementation of the above requirements. However, this issue will be further evaluated in the EIR.

- (c) A geotechnical investigation of the project site is to be conducted to determine the physical characteristics of the underlying soils and geologic formations and to identify any unstable conditions that could be exacerbated by proposed construction activities. The results of these investigations will be provided in the EIR.
- (d) Expansive soils are fine-grained soils (generally high plasticity clays) that can undergo a significant increase in volume with an increase in water content and a significant decrease in volume with a decrease in water content. Changes in the water content of a highly expansive soil can result in severe distress to structures constructed on or against the soil. A geotechnical investigation will be conducted to determine the subsurface conditions and relevant soil properties at the project site, including potentially expansive soil conditions. The proposed project would be designed to comply with applicable building codes and structural improvement requirements to withstand the effects of expansive soils. Impacts are anticipated to be less than significant; nonetheless, this issue will be further evaluated in the EIR.
- (e) The project could include one or more O&M facilities that would include restrooms for on-site employees, that would generate wastewater that would require disposal. It is anticipated that a septic tank and associated disposal fields would be installed at each of the O&M facilities. Analysis of the soil characteristics for proposed septic tank/leach fields will be conducted to determine if such facilities are feasible and this analysis will be presented in the EIR.
- (f) Kern County is rich in paleontological resources. If sensitive paleontological formations are located underground on the project site, ground disturbance could result in impacts to paleontological resources. A paleontological study will be conducted to determine the underlying formations and potential for fossil discoveries throughout the project site. This analysis will be provided in the EIR to identify potential impacts and to formulate avoidance or mitigation measures, if applicable.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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VIII. Greenhouse Gas Emissions

Would the project:

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|--|-------------------------------------|--------------------------|--------------------------|--------------------------|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

RESPONSES:

- (a) Greenhouse gas (GHG) emissions emitted by human activity are implicated in global climate change or global warming. The principal GHGs are CO₂, methane (CH₄), NO_x, ozone, water vapor, and fluorinated gases. The temporary construction activities associated with the proposed project, which would involve operation of heavy off-road equipment, on-road trucks (for deliveries and hauling), and construction worker commute trips, would generate GHGs through exhaust emissions. However, as a solar facility, the proposed project is expected to displace traditional sources of electricity production that involves combustion energy sources (e.g., burning coal, fuel oil, or natural gas). As such, the provision of solar energy by the proposed project would produce GHG-free electricity that is anticipated to offset GHGs that would otherwise be generated by traditional fuel combustion sources of electricity. The project's GHG emissions generated during construction of the project and the potential GHG offsets resulting from operation of the project will be quantified in the EIR. Potential for significant environmental impacts will be examined through the project's consistency with GHG reduction plans, programs or regulations, as outlined in the next response.
- (b) California has passed several bills and the governor has signed at least three executive orders regarding GHGs. Assembly Bill (AB) 32 (the Global Warming Solutions Act) was passed by the California legislature on August 31, 2006 and requires the state's global warming emissions to be reduced to 1990 levels by 2020. The reduction will be accomplished through an enforceable statewide cap on GHG emissions that was phased in starting in 2012.

In 2002, California established its Renewable Portfolio Standards (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent renewable energy by 2017. In 2006, under SB 107, the RPS Program codified the 20 percent goal. The RPS Program requires electric utilities and providers to increase procurement from eligible renewable energy resources by at least one percent of their retail sales annually until they reach 20 percent by 2017. On November 17, 2008, the governor signed Executive Order S-14-08, requiring California utilities to reach the 33 percent renewable goal by 2020. In 2015, SB 350 was enacted to increase the RPS to 50 percent and reduce greenhouse gas emissions by 40 percent below 1990 levels by the year 2030 and to 80 percent below 1990 levels by 2050.



The proposed project is intended to: (1) reduce importation of power from fossil fuel power plants and (2) contribute to a reduction in GHGs associated with energy consumption by residential and business consumers. Heavy equipment operation, truck deliveries, and construction worker commute trips associated with construction of the proposed project would temporarily generate GHGs; however, operation of the project would offset GHGs generated by traditional fuel combustion sources of electricity. The project's potential GHG impacts and the potential GHG offsets resulting from operation of the project will be examined in the EIR, with respect to the objectives of statewide programs to reduce GHGs associated with energy generation.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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IX. Hazards and Hazardous Materials

Would the project:

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|---|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. For a project located within the adopted Kern County Airport Land Use Compatibility Plan, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g. Expose people or structures, directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| h. Would implementation of the project generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste? | | | | |

Specifically, would the project exceed the following qualitative threshold:

The presence of domestic flies, mosquitoes, cockroaches, rodents, and/or any other vectors associated with the project is significant when the applicable enforcement agency determines that any of the vectors:



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
i. Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; and	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Are associated with design, layout, and management of project operations; and	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Disseminate widely from the property; and	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Cause detrimental effects on the public health or well-being of the majority of the surrounding population.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES:

- (a) Wastes to be generated during construction of the proposed project would be non-hazardous, and would consist of cardboard, wood pallets, copper wire, scrap steel, common trash, and wood wire spools. Although field equipment used during construction activities could contain various hazardous materials (i.e., hydraulic oil, diesel fuel, grease, lubricants, solvents, adhesives, paints, etc.), these materials are not considered to be acutely hazardous and would be used in accordance with the manufacturer’s specifications and all applicable regulations. In addition, hazardous fuels and lubricants used on field equipment would be subject to a Construction Waste Management Plan and, if required, a Spill Prevention, Containment and Countermeasure Plan.

The fully operating project would not involve the routine transport, use, or disposal of hazardous materials as defined by the Hazardous Materials Transportation Uniform Safety Act. During construction, the proposed project would include the transport of general construction materials (i.e., concrete, wood, metal, fuel, etc.) as well as materials necessary to construct the proposed PV arrays. Project-related infrastructure would not emit hazardous materials, or be constructed of acutely hazardous materials or substances, that could adversely impact the public or on-site workers.

The proposed project would be subject to all local, state, and federal laws pertaining to the use of hazardous materials on-site and would be subject to review by the Kern County Environmental Health Services Division. Through the review process, the project would be required to submit a complete list of all materials used on-site, how the materials would be transported and stored, and in what form they would be used to maintain safety and prevent possible environmental contamination or worker exposure. During construction of the proposed project, Safety Data Sheets (SDS) for all applicable materials present at the site would be made readily available to on-site personnel. During construction of the facilities, non-hazardous construction debris would be generated and disposed of in approved facilities. During construction of the facility, human waste would be managed using portable toilets located at reasonably accessible on-site locations.

The PV panels may include solid materials that are considered to be hazardous, such as cadmium telluride. The project would use the manufacturer’s collection and recycling program to ensure the



proper collection and recycling of PV panels, as needed. Solar panels are in a solid and non-leachable state; broken PV panels would be quickly replaced, which would avoid a potential source of pollution to storm water. Dust palliative and herbicides, if used, may be transported to and stored at the project site. These materials would be stored in appropriate containers that would prevent their accidental release at the site.

SR 14 and SR 58 are designated routes for the transport of hazardous materials. These roadways are equipped to handle the transport of hazardous materials and both SR 14 and SR 58 would provide regional access to the project.

Impacts resulting from the transport, use, or disposal of hazardous materials during construction and operation of the proposed project will be evaluated further in the EIR.

- (b) Construction and operation of the proposed project may include the accidental release of storage materials, such as cleaning fluids and petroleum products including lubricants, fuels, and solvents. Electrical transformer equipment that would be installed as part of the proposed project may include various hazardous substances, including polychlorinated biphenyls. The toxicity and potential release of these materials would depend on the quantity, type of storage container, safety protocols used on the site, location and/or proximity to schools and residences, frequency and duration of spills or storage leaks, and the reactivity of hazardous substances with other materials. In addition, the proposed project could also include an Energy Storage Systems (ESS). The ESS would be composed of battery storage modules placed in multiple prefabricated enclosures or containers near the on-site substation(s). Potential hazards associated with ESS include increased potential for electrical shock and chemical release associated with the batteries used.

The proposed project would be subject to all local, state, and federal laws pertaining to the use of hazardous materials on-site and would be subject to review by the Kern County Environmental Health Services Division. Through the review process, the project proponent would be required to submit a complete list of all materials used on-site, how the materials would be transported and stored, and in what form they would be used. This would be recorded to maintain safety and prevent possible environmental contamination or worker exposure. This would include submission of MSDS for all applicable materials present at the site, and the MSDS would be made readily available to on-site personnel. It is anticipated that adherence to regulations and standard protocols during the storage, transportation, and usage of any hazardous materials would avoid significant impacts; nonetheless, potential impacts will be evaluated in the EIR.

- (c) West Boron Elementary School is located approximately 0.30 miles north of Site 3. The proposed project is a solar energy generation facility that involves using photovoltaic solar panels to generate electricity. Further evaluation of the operational characteristics will be provided in the EIR, to determine whether the project could potentially result in hazards at the nearest school site from emissions or handling of hazardous substances and wastes.
- (d) Based on a review of the Cortese List Data Resources, one hazardous materials site is located on Site 3. The Edwards Air Force Base - 7 - AOC 371 (ID DOD100133200) site is identified on the State Water Resources Control Board's GeoTracker database as a military cleanup site. As of April 6, 2010, the site has a cleanup status of "Open - Inactive" (Geotracker 2020). Additionally, based on the Phase I Environmental Site Assessment (ESA) prepared by Stantec Consulting Services, Inc. in July 2019 for the project site, several recognized environmental conditions (RECs) were identified on or near the project site (Stantec 2019b). These include the Boron Sanitary Landfill, located



between project Sites 1 and 2; a former shooting range identified within Site 1; and a historical target site (Site PB-9) formerly used by Edwards Air Force Base, along the southern boundary of Site 2. A Phase II ESA was subsequently prepared in July 2020 to further investigate these RECs (Stantec 2020). Soil vapor probing found a lack of methane on the project site, thereby indicating that methane has not encroached from the Boron Landfill onto the subject property. Additionally, all detected concentrations of metals (i.e., copper, lead, and nickel) in soils at the shooting range were within typical California regional background ranges and below commercial-use screening criteria. Therefore, no further investigation is recommended for these sites (Stantec 2020). Multiple areas of discarded debris were observed throughout the property, including debris within the small-arms shooting range. It is recommended that such materials within the property boundaries be removed prior to development. The historical target site was used by Edwards Air Force Base and was located along the southern project boundary. As this site is considered a Historical REC (HREC), the Phase II ESA recommended that this HREC be further evaluated by an authorized unexploded ordinance (UXO) firm and that a certified UXO company be present during the development of this portion of the project site (Stantec 2020). No further evaluation of the historical target site was therefore performed with the Phase II ESA. Impacts from hazardous materials sites are considered to be potentially significant and will be further analyzed in the EIR.

- (e) The Kern County Airport Land Use Compatibility Plan (ALUCP) covers operations at the Edwards Air Force Base, which borders the project site to the west and south. The nearest public airport to the project site is the California City Municipal Airport located approximately 18 miles northwest of the project site. The project site is not located within any safety or noise zones for the California City Municipal Airport. Due to the nature of the proposed land use, impacts from air traffic hazards or excessive aircraft noise are not anticipated to occur for people residing or working in the project area with respect to the project's proximity to an airport. Therefore, impacts would be less than significant, and no further analysis is warranted in the EIR.
- (f) The project site is located in an area with several alternative roadways allowing access in the event of an emergency. As required by routine and standard construction specifications administered by Kern County, access would be maintained throughout construction, and appropriate detours would be provided in the event of potential road closures. Therefore, no significant impacts related to impairment of the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan would occur during construction.

The small size of the operational work force would not generate significant traffic volumes during an emergency evacuation scenario that could complicate area-wide emergency evacuation efforts. Driveways built to connect to existing local roads for direct site access would not affect designated emergency evacuation routes, as these are small local streets and the driveways would not conflict with potential evacuation routes for surrounding land uses. Proposed amendments to the County General Plan Circulation Element to remove section and mid-section line road reservations would not affect any existing roadways or any existing or planned evacuation routes. Although impacts are anticipated to be less than significant, further analysis of this issue will be discussed in the EIR.

- (g) According to the California Department of Forestry and Fire Protection (CalFire), Kern County Fire Hazards Severity Zone Maps for the Local Responsible Areas, the project site is classified as Local Responsibility Area (LRA) Moderate (CalFire 2018). Moderate zones are typically wildland supporting areas of low fire frequency and relatively modest fire behavior. The proposed project would comply with all applicable wildland fire management plans and policies established by CalFire



and the Kern County Fire Department. Accordingly, the project is not expected to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Although impacts are anticipated to be less than significant, further analysis of this issue will be discussed in the EIR.

- (h) Project-related facilities would not result in features or conditions that could potentially provide habitat for vectors such as mosquitoes, flies, cockroaches, or rodents. During construction and operation, workers would generate small quantities of solid waste (i.e., trash, food containers, etc.) that would be stored in enclosed containers, then transported to and disposed of at approved disposal facilities. Construction and operation of the proposed solar arrays and associated facilities would not produce uncontrolled wastes that could support vectors and would not generate any standing water or other features that would attract nuisance pests or vectors. Therefore, impacts are considered to be negligible and further analysis is not required.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
X. Hydrology and Water Quality				
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv. impede or redirect flood flows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, seiche zones, risk release of pollutants due to project inundation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RESPONSES:

- (a) Construction of the project would be subject to County, State, and Federal Water quality regulations. The project site is within the Lahontan Regional Water Quality Control Board (RWQCB) jurisdiction. Project construction activities have the potential to result in erosion, sedimentation, and discharge of construction debris, and could result in the discharge of wastewater and runoff at the project site. If not properly managed, this wastewater could violate the water quality standards or



waste discharge requirements of the RWQCB, or otherwise degrade surface or ground water quality. It is anticipated that appropriate best management practices (BMPs) and compliance with applicable regulations, including the NPDES Construction General Permit, would reduce potential water quality impacts to a less than significant level. Soil stabilization measures would be used to prevent soil erosion caused by storm water runoff. The proposed project contractor(s) would apply for coverage under the state's General Construction Permit for stormwater discharges from construction activities and would prepare a SWPPP that would include implementation of BMP erosion-control measures to control stormwater runoff. Site-specific BMPs would be designed by the contractor in compliance with regulations and permit conditions. Additionally, further review is required to determine the post-construction water quality measures that would be implemented in compliance with RWQCB standards. A comprehensive hydrology and water quality impact analysis will be prepared, and the findings will be further analyzed in the EIR.

- (b) During construction, potable water would be brought to the site for drinking and domestic needs. Non-potable water usage during construction, primarily for dust-suppression purposes, is not expected to exceed 410 acre-feet over the 12-18 month construction phase. During construction, potable water would be provided for drinking and domestic needs for construction workers. Water demand for panel washing and O&M domestic use is not expected to exceed 60 acre-feet per year. Water is anticipated to be obtained from on-site wells or delivered via truck or pipeline from an off-site source(s). A water supply assessment will be completed for the EIR to analyze potential impacts to groundwater resources.
- (c)(i) Construction of the concrete pads for the switchyard, inverters, transformers, O&M building(s), etc., as well as foundational supports for panel installation, soil compaction, and any grading may alter the existing drainage pattern of the project site. A hydrologic study will be prepared for the project in accordance with Kern County requirements, and potentially significant impacts to existing drainage patterns and flooding conditions on the project site will be analyzed in the EIR.
- (c)(ii) Construction and operational activities associated with the proposed project would alter existing drainage conditions and create impervious surfaces that would have the potential to result in an increase in the rate or amount of surface runoff during storm events. A hydrologic study will be prepared for the project in accordance with Kern County requirements, and potentially significant impacts will be analyzed in the EIR.
- (c)(iii) During construction and following installation of the solar arrays, the majority of the site would remain as pervious surfaces. The design of the solar arrays is such that storm water infiltration would occur similar to existing conditions. No discharges to or alterations of any municipal stormwater drainage systems are proposed. Similarly, no component of the project would generate a substantial source of polluted runoff. The construction period SWPPP and the operational period Water Quality Management Plan would ensure the proper control and treatment, if necessary, of any storm water prior to discharge. With adherence to site-specific BMPs, potential pollutants would be minimized to the extent practicable; nonetheless, this impact will be further discussed in the EIR.
- (c)(iv) The Federal Emergency Management Agency (FEMA) delineates flood hazard areas on its Flood Insurance Rate Maps (FIRMs). According to the FIRMs for the project area, the project is partially located in a 100-year flood area (Zones A and AH, 1% annual chance of flooding) and partially located in a 500-year flood area (Zone X, 0.2% annual chance of flooding); refer to *Figure 6, FEMA Floodplain Map*. The major source of flooding in this area is the Twenty Mule Team Creek. The



majority of Site 5 and the westernmost portion of Site 4 are located within the 100-year floodplain of the Twenty Mule Team Creek. The 100-year floodplain of an unnamed creek crosses Site 2. The remaining portion of Site 4 is located within the 500-year floodplain. The proposed project would be reviewed by the Kern County Public Works Department-Floodplain for adherence to all floodplain management standards. Further analysis is required to identify appropriate mitigation/design measures to reduce potentially significant impacts from potential flooding and this analysis will be provided in the EIR.

- (d) The project is not located near an ocean or enclosed body of water, and therefore would not be subject to inundation by seiche or tsunami. Mudflows are a type of mass wasting or landslide, where earth and surface materials are rapidly transported downhill under the force of gravity, and are often triggered by heavy rainfall and soil that is not able to sufficiently drain or absorb water and the super-saturation results in soil and rock materials to become unstable and slide away. Due to the relatively flat topography of the project and surrounding area, the potential to be inundated by mudflow is considered remote.

As discussed above, the majority of Site 5 and the westernmost portion of Site 4 are located within the 100-year floodplain of the Twenty Mule Team Creek; refer to *Figure 6, FEMA Floodplain Map* Figure . The 100-year floodplain of an unnamed creek crosses Site 2 and the remaining portion of Site 4 is located within the 500-year floodplain. The project would be reviewed by the Kern County Public Works Department for adherence to all applicable floodplain management standards. Because of the potential for flood hazards to occur, and related risk of release of pollutants due to project inundation, further analysis of this is required in the EIR.

- (e) The project site is located within the Antelope Valley Groundwater Basin, which is an adjudicated basin, with all water rights having been previously prescribed. Ongoing management of this basin is governed by the Integrated Regional Water Management Plan (IRWMP). As such, all water usage for the project will conform to existing adjudication plans. A water supply assessment will be completed for the project to analyze potential impacts to groundwater resources, including any potential conflicts with the IRWMP. This impact will be further analyzed in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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XI. Land Use and Planning

Would the project:

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|--|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation for the purpose of avoiding or mitigating an environmental effect? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

RESPONSES:

- (a) The project site is located on undeveloped desert land. The Desert Lake rural community is located immediately north of Site 3 and east of Site 4 and consists predominantly of rural residential dwellings. Rural residential dwellings are also located northeast of Site 2 in Boron, a census-designated place in Kern County. The proposed project would not physically encroach into or physically divide or restrict access to the Desert Lake rural community or Boron. No new roadways or other linear elements that would have the potential to restrict existing access or movement within the local community are proposed. The proposed project would not physically divide an established community and impacts are considered to be less than significant. Therefore, no further analysis in the EIR is warranted.
- (b) The project site is located entirely within the Kern County General Plan area. As shown on *Figure 7, Existing General Plan and Specific Plan Land Use Designations*, the project site consists of 22 parcels designated by the Kern County General Plan as Map Code 7.1 (Light Industrial); 7.3 (Heavy Industrial); 8.3 (Extensive Agriculture, Minimum 20 Acre Parcel Size); 8.5 (Resource Management, Minimum 20 Acre Parcel Size), and 8.5/2.5 (Resource Management, Minimum 20 Acre Parcel Size/Flood Hazard). No change to the existing land use designations is required or proposed with project implementation, and therefore, the project would not cause a significant environmental impact due to a conflict with any land use plan or policy for the purpose of avoiding or mitigating an environmental effect in this regard.

As shown on *Figure 8, Existing Zoning*, the project site has a zone classification of A-1 (Limited Agriculture), M-1 (Light Industrial), and R-1 (Low-Density Residential). The project proponent is requesting a change in zone classifications for the project site from A-1 (Limited Agriculture and R-1 (Low-Density Residential) to A (Exclusive Agriculture) within Zone Maps 192, 208-5, 208-6, and 209-1 (refer to *Figure 9, Proposed Zoning*). No changes to the M-1 zone classification area in Zone Map 209-2 are proposed. According to Kern County Zoning Ordinance Chapters 19.12.030G and 19.36.30G, solar energy electrical facilities are permitted within the A and M-1 zone districts with the approval of a CUP.

The project proponent is requesting CUPs to allow for the construction and operation of a solar facility and battery energy storage system (refer to *Figure 5, Proposed CUP Boundaries*). Additionally, the project proponent is requesting multiple CUPs to allow flexibility in the



construction and operation of the proposed project. With approval of the zone change classification and CUPs, the proposed solar project would be an allowable use within the A and M-1 zone districts. At the end of the project's operational term, the project proponent would determine whether the project site should be decommissioned and deconstructed or if it would seek an extension of its CUPs. If any portion of the project site is decommissioned, it would be converted to other uses in accordance with the applicable land use regulations in effect at that time.

The project proponent is also requesting amendments to the Circulation Element of the Kern County General Plan to remove various section and midsection line road reservations; refer to *Figure 10, Proposed Circulation Element Amendments*.

With approval of the requested CUPs, zone change classifications, General Plan Amendment, the proposed project is not anticipated to have the potential to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. However, further assessment will be provided in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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XII. Mineral Resources

Would the project:

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|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. | Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. | Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

RESPONSES:

- (a) The project site is not designated as a mineral recovery area or within a designated mineral and petroleum resource site by the Kern County General Plan, nor is it identified as a mineral resource zone by the State Department of Conservation – Geologic Energy Management (CalGEM) Division. Construction and operation of the proposed project would not interfere with mineral extraction and processing and would not have significant impacts on future mineral development. Therefore, there would be no impact and no further analysis is warranted in the EIR.
- (b) As mentioned previously, the project site is not located within a designated mineral and petroleum resource site within the Kern County General Plan. The project site is not located within the County’s NR (Natural Resources) or PE (Petroleum Extraction) zoned districts. Therefore, the installation of the solar facilities would not preclude future mineral resource development nor would it result in the loss of a locally important mineral resource recover site. There would be no impact and no further analysis is warranted in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
XIII. Noise				
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. For a project located within the vicinity of a private airstrip or Kern County Airport Land Use Compatibility Plan, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES:

- (a) Land uses determined to be “sensitive” to noise as defined by the Kern County General Plan include residential areas, schools, convalescent and acute care hospitals, parks, and recreational areas, and churches. The Kern County General Plan Noise Element sets a 65 dBA (A-weighted decibels) Day Night noise level (Ldn) limit on exterior noise levels for stationary sources (i.e., non-transportation) at sensitive receptors. The nearest sensitive receptors are rural residential dwellings in the unincorporated communities of Desert Lake and Boron. The sensitive receptors closest to the project site are the Desert Lake Apartments approximately 0.13 miles to the north of Site 3 across Twenty Mule Team Road. Single-family residences are located approximately 0.3 miles northeast of the northeastern corner of Site 2 along Ferguson Street in the community of Boron; Boron Park, a local park, is located approximately 0.5 miles northeast of the northeastern corner of Site 2. The closest school to the site is the West Boron Elementary School, located approximately 0.30 miles north of Site 3. Noise associated with construction and project operations has the potential to affect these nearby sensitive receptors.

Noise generated by the proposed project would occur primarily during the construction phase; whereas as the long-term operation of the solar facility would be relatively quiet, since. no substantial noise-generating equipment would be located at the project site during operations and there would be minor traffic generating by on-site employees, who would work mainly indoors, within the potential O & M building(s). The project proponent would be required to adhere to the provisions set forth in the Kern County Ordinance Code Section 8.36.020 with respect to permitted days and hours



of construction. Potential noise impacts during project construction or operations will be further analyzed in the EIR.

- (b) Groundborne vibration and groundborne noise could originate from the operation of heavy off-road equipment and heavy-duty trucks delivering materials and machinery during the construction phase of the project. Erection of the solar arrays would include support structures that may potentially need to be driven into the soil using pneumatic techniques, which could generate groundborne noise that could be audible to sensitive receptors in the area. Further analysis of groundborne noise impacts during construction will be provided in the EIR. Given the substantial distances from the project site to the nearest homes or other land uses in the area, groundborne vibration impacts during construction are not anticipated. Operation of the proposed project is anticipated to emit minimal groundborne noise or vibration because the operational project would not involve any activities or machinery that would induce ground vibrations or noise. Nonetheless, further analysis of groundborne vibration and groundborne noise during project operations will be included in the EIR.
- (c) Heavy equipment use during construction would cause a temporary or periodic increase in ambient noise levels. Temporary or periodic increases in ambient noise levels caused by construction activities could be reduced with the incorporation of mitigation measures. Project-related construction noise levels will be quantified and evaluated in the EIR.

Operation of the project would generate very little noise. The solar facility would use limited staff during operation. Traffic on the access road for the solar facility would be routine access and maintenance activities and would primarily consist of personal vehicles. Nevertheless, a noise analysis will be included in the EIR to determine the project's consistency with the applicable provisions of the Kern County General Plan Noise Element and Kern County Zoning Ordinance. Thus, further analysis of ambient noise levels and the project's potential impact on those levels will be included in the EIR.

- (d) The Kern County Airport Land Use Compatibility Plan (ALUCP) covers operations at the Edwards Air Force Base, which borders the project site to the west and south. The nearest public airport to the project site is the California City Municipal Airport located approximately 18 miles northwest of the project site. The project site is not located within any safety or noise zones for the California City Municipal Airport. Noise from occasional aircraft flyovers would not have a significant effect on the small workforce on-site, who would normally be working indoors, except when outdoor maintenance or repair activities are required. The proposed solar farm would not generate any impacts that could worsen the levels of aircraft noise. Impacts would be less than significant and no further analysis of this issue is warranted in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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XIV. Population and Housing

Would the project:

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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

RESPONSES:

- (a) Although the proposed project would provide new employment consistent with the adopted Kern County General Plan goals, plans, and policies, long-term employment opportunities would be minimal. Each site could require an operational staff of up to five full-time employees.

It is estimated that up to 1,000 workers per day would be required during peak construction periods for the proposed project. The entire construction process is anticipated to take 12 to 18 months, and therefore, project-generated workers would only be in the local area on a temporary basis. Construction workers are expected to travel to the site from various local communities and locations throughout Southern California, and few, if any workers expected to relocate to the surrounding area because of these temporary jobs. If temporary housing should be necessary, it is expected that accommodations (i.e., extended stay hotels, apartments, RV parks, homes for rent or sale) would be available in the nearby cities and communities of Boron, Mojave, California City, Rosamond, Tehachapi, or Lancaster. Therefore, the project is not anticipated to directly or indirectly induce the development of any new housing or businesses within the local communities. During the operational phase, the project (Sites 1 to 5) would require up to 25 full-time equivalent (FTE) personnel (or personnel hours totaling 25 FTE positions, i.e., an average of 1,000 personnel hours per week), who would commute to the site. Due to the small number of full-time employees, it is anticipated that the local housing stock would be adequate to accommodate operations personnel should they relocate to the area, without requiring the need for the construction of new housing. The project would not directly or indirectly induce substantial unplanned population growth and further analysis in the EIR is not warranted.

- (b) The project site is currently undeveloped and does not contain any existing housing units. The proposed project would therefore not displace any existing people or housing, necessitating the construction of replacement housing elsewhere. No further evaluation of this issue is required in the EIR.



Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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XV. Public Services

Would the project:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or to other performance objectives for any of the public services:

i.	Fire protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii.	Police protection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii.	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv.	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v.	Other public facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RESPONSES:

(a)(i) **Fire Protection.** The Kern County Fire Department provides fire suppression and emergency medical services to the project area. The project site would be served by Fire Station #17, located at 26965 Cote Street in Boron. Adherence to all applicable regulations would reduce wildfire ignitions and prevent the spread of wildfires. However, construction and operation activities may result in increased demand for firefighting services in the area. Therefore, the potential impact on fire services from construction and operation of the project is considered potentially significant and will be further evaluated in the EIR.

(a)(ii) **Police Protection.** Law enforcement and public safety services in the project area are provided by the Kern County Sheriff's Department. The project site would be served by the Boron Substation at 26949 Cote Street. Although the potential is low, the proposed project may attract vandals or thieves that would require response from the Sheriff's Department. On-site security measures (i.e., on-site monitoring equipment, gated access, motion sensor lighting) would be provided and access to the project site during construction and operation would be restricted, thereby minimizing the need for local Sheriff surveillance. Nonetheless, project impacts on local sheriff services could potentially result in an increased demand for law enforcement services that could result in an environmental impact. This issue will be evaluated in the EIR.

(a)(iii) **Schools.** During project construction, a relatively large number of construction workers would be required. It is expected that most of these workers would live in the broader region and commute to the project site from surrounding communities where their children are already enrolled in school



and where their contribution to local taxes, including funds for schools, is assessed locally. The proposed project would not require employees or their children to relocate to the project area. Therefore, substantial temporary increases in population that would adversely affect local school populations are not expected. Likewise, the operational workforce is small (approximately 25 full-time positions) and not expected to generate a permanent increase in population that would impact school populations. Therefore, no significant impacts to schools are anticipated to occur and further analysis is not warranted in the EIR.

- (a)(iv) **Parks.** The population increase that would be experienced during the construction phase of the proposed project would be temporary and limited to construction workers at the project site. Such conditions would not result in a substantial new demand for parks or recreational facilities. The number of employees required for project operations would be minimal and they would not likely frequent any public parks during, before, or after their work shifts. The up to 25 full-time equivalent employees would not result in construction of numerous new housing units that could significantly increase the local population and related demand for public parkland. Therefore, no significant impacts to parks are anticipated to occur, and further analysis of this issue is not warranted in the EIR.
- (a)(v) **Other Public Facilities.** Implementation of the proposed project may have impacts on the ability of the county to provide adequate county-wide comprehensive public facility services. Unlike other businesses in California, large scale solar has an exclusion from property taxes on their equipment. This property tax exclusion results in the project not providing the revenue needed to provide services and facilities for both the project and the communities that prevent decline of the physical neighborhoods in unincorporated Kern County. This is a direct impact from the project structure and the land if built with another type of land use would produce property tax revenue to provide necessary services and facilities and prevent physical decline of homes and businesses due to vacancy and inability for response for all services, including code enforcement to law enforcement, fire, roads and health and safety issues such as elderly care and child protection services. The cumulative impacts of this active solar tax exclusion over the life of the over 36,000 acres of projects has resulted in a loss to the General Fund over the last 10 years of over \$103 million and deepened the on-going fiscal emergency of the county. Public policies in the Kern County General Plan and Mojave Specific Plan require development to address economic deficiencies in public services and facilities costs. Therefore, the proposed project's impacts on public facilities are potentially significant and will be evaluated in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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XVI. Recreation

Would the project:

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|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. | Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. | Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

RESPONSES:

- (a) It is estimated that up to 1,000 workers per day during peak construction periods would be required on-site during construction of the proposed project. These workers would not have time to visit any local parks or recreation facilities during the workday. Further, few workers are expected to relocate to this area temporarily while the construction is underway and there would be little or no impact on local recreational resources after work hours. Operation of the project would require employees for maintenance and monitoring activities, but they would likely be drawn from the local labor force and would commute from their existing permanent residences to the project site during those times. However, even if the maintenance/monitoring employees were hired from out of the area and relocated to eastern Kern County, the addition of any such families to the project area would not result in a substantial increase in the number of users at local parks or recreational facilities. As a result, there would not be a detectable increase in the use of existing neighborhood or regional parks or other recreational facilities, and therefore, no deterioration of any such facilities would occur with project implementation. Impacts would not occur, and further analysis is not warranted in the EIR.
- (b) The proposed project does not include or require the construction of new or expansion of existing recreational facilities, and there are no recreational facilities on the project site that would be affected. No impact would result and no further analysis in the EIR is warranted.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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XVII. Transportation and Traffic

Would the project:

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|----|---|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| a. | Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. | Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES:

- (a) The project proponent is requesting a General Plan Amendment to amend the Circulation Element of the Kern County General Plan to remove sections and midsection line road reservations. This would have no effect on the performance of the roadway network, since there are no existing roadways along any of these sections and midsection line road reservations, and these road reservations are not required to support any planned/approved future land uses. As such, these General Plan Amendments would not conflict with any County plans or programs pertaining to roadway performance.

There are no dedicated pedestrian or bicycle facilities in the immediate vicinity of the project site or along the surrounding roadways. Due to the rural nature of the project area, pedestrian and bicycle traffic is limited. The project is not located along an existing bus route and few bus stops exist on the roadways likely to be used during construction and operation. The project would not house residents or employees, and therefore, would not have characteristics that would influence alternative means of transportation.

It is estimated that up to 1,000 workers per day (during peak construction periods) would be required during construction of the proposed project. An undetermined volume of large truck trips would also be generated, with varying numbers depending on the phase of construction. Further analysis in the EIR is required to determine whether construction traffic could disrupt normal traffic flows or otherwise conflict with the County's roadway performance policies and programs.

During the operational phase, each Site could require up to five full-time employees who would commute to and from the site. With a total of 25 employees, this would result in approximately 63 vehicle trips per day, with an average of 2.5 trips per day per employee. It is anticipated that employees would drive themselves to/from the project site on a daily basis using local roadways and state highways that can readily accommodate such minor volumes of vehicle traffic. Ongoing



maintenance and periodic repair are also anticipated to produce negligible traffic impacts and would not conflict with any County plans or programs pertaining to roadway performance. These potential impacts on the local roadway system from construction related vehicle trips and project's operational traffic on the area roadway system will be further evaluated in the EIR.

- (b) CEQA Guidelines section 15064.3, subdivision (b) was adopted in December 2018 by the California Natural Resources Agency. These revisions to the CEQA Guidelines criteria for determining the significance of transportation impacts are primarily focused on projects within transit priority areas, and shifts the focus from driver delay to reduction of vehicular greenhouse gas emissions through creation of multimodal networks, and creation of a mix of land uses that can facilitate fewer and shorter vehicle trips. Vehicle miles traveled (VMT) is a measure of the total number of miles driven for various purposes and is sometimes expressed as an average per trip or per person. Construction traffic would be temporary and would not permanently affect VMT characteristics in this part of Kern County or elsewhere. Long-term, operational traffic would be limited, with a small work force of approximately 25 full-time equivalent employees. It is not known where the employees would live or how long their commuting trips would be. According to technical guidance issued by the Office of Planning and Research, projects generating less than 110 or fewer daily vehicle trips may be presumed to have a less than significant impact involving VMT. Further analysis of the operational VMT characteristics of the project is required to determine whether the project is considered a "low-VMT" project due to small daily traffic volumes alone, or whether more extensive analysis is warranted. An assessment of the project's VMT characteristics will be provided in the EIR, to ensure consistency with state and local guidance.
- (c) The project proposes access from existing roads that currently provide access to the various parcels affected. During construction, especially during peak periods of heavy truck traffic and peak levels of construction workers, there is a potential for conflicts between construction traffic and normal traffic flows, especially at intersections where queuing could occur. This requires further analysis in the EIR.

No new roadway design or features (i.e., sharp curves, dangerous intersections, or other hazardous features) would be required that could result in transportation-related hazards or safety concerns. All new driveways connecting to existing adjacent streets must be designed in accordance with the County's street standards that assure safe ingress/egress. The project buildings and other structures would be set back from adjacent access roadways as required by the Kern County Zoning Ordinance. Given these considerations, significant impacts related to increased hazards are not anticipated to occur; however, additional analysis will be included in the EIR.

- (d) The project site and vicinity are accessible via a number of existing roads, with alternative access roads allowing easy access in the event of an emergency. Emergency vehicle access must be maintained at all times throughout construction activities, in accordance with the County's routine/standard construction specifications. County building inspectors would conduct periodic site inspections to confirm there are adequate provisions in place to maintain emergency access for fire, emergency medical and Sheriff response units. Further, construction activities would not be permitted to impede emergency access to any local roadways or surrounding properties. Construction period impacts are considered less than significant but will be further analyzed in the EIR.



Operations of the project would not affect emergency access as the number of daily trips would have a minimal effect on traffic volumes and overrides of project site access gates for emergency access to the facility would be installed. Although no significant operational impacts related to emergency access are anticipated to occur, further analysis of this issue will be provided in the EIR.



Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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XVIII. Tribal Cultural Resources

Would the project:

- | | | | | | |
|-----|--|-------------------------------------|--------------------------|--------------------------|--------------------------|
| a. | Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | | | | |
| i. | Listed or eligible for listing in the California Register of Historical Resources, or in a local register or historical resources as defined in Public Resources Code section 5020.1(k), or | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ii. | A resource determined by the lead agency in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

RESPONSES:

(ai,aii) As there are known archaeological resources associated with Native American tribes in the project area, there is the potential for tribal cultural resources to also exist either on-site or on surrounding lands (Rincon 2019). Therefore, the proposed project has the potential to impact tribal cultural resources during site clearance and earthmoving activities. All tribes with possible cultural affiliation and interest within the project area will be notified pursuant to the requirements of Assembly Bill 52, and consultation with the potentially affected tribes will occur, as appropriate, between the County and the tribes. Further evaluation in the EIR is warranted to identify potential impacts to tribal cultural resources and to formulate avoidance or mitigation measures, if applicable.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
XIX. Utilities and Service Systems				
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES:

(a) **Wastewater Facilities.** The project would generate a minimal volume of wastewater during construction. During construction activities, wastewater would be contained within portable toilet facilities and disposed of off-site at an approved facility. During operations, wastewater generated by the project would be disposed of on-site by septic system(s) at each of the O&M building(s). Soil suitability for a septic tank leach field and any related environmental impacts will be addressed in the response to the topic of Geology and Soils, Threshold (e). The proposed project would not require or result in the relocation or construction of new or expanded municipal wastewater facilities, and no connection to a public wastewater system is required or proposed. Impacts would be less than significant in this regard; however, further analysis in the EIR will be provided.

Storm Water Facilities. The proposed project does not require expanded or new storm drainage facilities because the proposed solar facility would not generate a significant increase in the amount of impervious surfaces that would increase runoff during storm events. Water from solar panel



washing and from dust suppression activities would continue to percolate through the ground, as a majority of the surfaces within the project site would remain pervious. These activities would not substantially increase the amount of storm water runoff from the site. The proposed project would not require or result in the relocation or construction of new or expanded storm water facilities, and no connection to a publicly maintained storm water system is required or proposed. Any storm drainage/detention facilities that may be required would be minor in scale and located within the project site. Potential impacts from such facilities will be addressed in the response to the topic of Hydrology and Water Quality, Threshold (c). Impacts are considered to be less than significant; however, further analysis in the EIR will be provided.

Water Facilities. The proposed project is not anticipated to result in a significant increase in water demand/use; however, water will be needed for solar panel washing and dust suppression. Water is anticipated to be obtained from on-site wells or delivered via truck or pipeline from an off-site source(s). An on-site water treatment system may be required. Potential impacts to groundwater resources resulting from on-site well production will be addressed in the response to the topic of Hydrology and Water Quality, Threshold (b). Therefore, the proposed project may require or result in the relocation or construction of new or expanded water facilities. Impacts would be potentially significant and further analysis in the EIR is warranted.

Power, Natural Gas, and Telecommunication Facilities. The proposed project would involve construction of a PV solar facility that would generate electrical energy that would be transmitted via new overhead or underground lines to the regional electrical energy supply grid. Analyses of various environmental effects associated with construction and operation of these facilities will be provided throughout the EIR, with respect to numerous topics. There may be on-site telecommunications facilities to facilitate collection and transmission of meteorological data and data regarding performance of the solar arrays. Impacts associated with construction of the telecommunications and transmission line facilities will be evaluated in the EIR. The proposed project would not use natural gas. The proposed project would not otherwise generate the demand for or require or result in the relocation or construction of new or expanded off-site electric power, natural gas, or telecommunications facilities that would in turn, result in a significant impact to the environment. Impacts are considered to be less than significant; however, further analysis in the EIR will be provided.

- (b) Water demand for panel washing and O&M domestic use is not expected to exceed 60 acre-feet per year. Water usage during construction, primarily for dust-suppression purposes, is not expected to exceed 410 acre-feet over the 12-18 month construction phase. Water is anticipated to be obtained from on-site wells, or delivered via truck or pipeline from an off-site source(s). A water supply assessment will be completed for the project to analyze potential water sources and potential impacts to water supplies. This potentially significant impact will be addressed further in the EIR.
- (c) As stated above, portable toilets would provide for wastewater disposal during project construction and no connection to a public system for wastewater treatment would be required. Due to the limited number of employees for project operations, the project would not generate a substantial amount of wastewater. The proposed project would include construction of an on-site septic system to serve each of the O&M facilities. All wastewater disposal for project operations would be handled on-site. Therefore, the project would not adversely affect any existing wastewater treatment facilities. Impacts would be less than significant and further analysis of this issue is not warranted in the EIR.



- (d) The proposed project is not expected to generate a significant amount of solid wastes because of the small number of workers and the absence of activities that would generate wastes on an ongoing basis. Materials brought to the project site would be used to construct facilities, and few residual waste materials are expected. Non-hazardous construction refuse and solid waste would be either collected and recycled per the Construction Waste Management Plan or disposed of at a local Class III landfill, while any hazardous waste generated during construction would be disposed of at an approved off-site location. The closest Class III municipal landfill is the Boron Sanitary Landfill, which is located between Sites 1 and 2. Solid waste from the site would therefore be transported to this landfill for disposal. The Boron sanitary landfill has a remaining capacity of 191,380 cubic yards, with an anticipated closure date of 2048 (CalRecycle 2020). Therefore, the landfill has capacity to accommodate solid waste generated by project construction and operation.

It is not anticipated that the amount of solid waste generated by the proposed project would exceed the capacity of local landfills needed to accommodate the waste. Impacts are anticipated to be less than significant and no further analysis in the EIR is warranted.

- (e) The proposed project would generate solid waste during construction, operation, and decommissioning, thus requiring the consideration of waste reduction and recycling measures. The 1989 California Integrated Waste Management Act (AB 939) requires Kern County to attain specific waste diversion goals. In addition, the California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires expanded or new development projects to incorporate storage areas for recycling bins into the proposed project design. The proposed project would be required to comply with the 1989 California Integrated Waste Management Act and the 1991 California Solid Waste Reuse and Recycling Access Act of 1991. Further analysis of the pertinent solid waste reduction and management regulations applicable to this project will be included in the EIR.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
XX. Wildfire				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES:

- (a) According to the Fire Hazard Severity Zones map published by the California Department of Forestry and Fire Protection (CalFire), the project site is not located within or near state responsibility areas or lands classified as very high fire hazard severity zones. The project site is classified as Local Responsibility Area (LRA) Moderate; thus, the potential for wildfire on the project site exists, but is not considered high (CalFire 2007). The site is located in a rural, sparsely developed area with limited population. The project site is not identified for any purpose in an adopted emergency evacuation plan to address wildfires or other types of emergencies. There are multiple existing local roadways adjacent to the project sites that lead to primary emergency evacuation routes, such as SR 58. In compliance with applicable Fire Code and Building Code requirements, construction and maintenance/operations managers and personnel would be trained in fire prevention and emergency response. Fire suppression equipment specific to construction would be maintained on the project site. Additionally, project construction and maintenance/operations would comply with applicable existing codes and ordinances related to the maintenance of mechanical equipment, handling and storage of flammable materials, and cleanup of spills of flammable materials. Therefore, the project would not conflict with the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan and impacts would be less than significant. Nevertheless, further analysis will be conducted in the EIR.



- (b) Slope and wind can influence the rate at which wildfire spreads. Given the project site's generally flat topography, the proposed project is not anticipated to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to sloping topography. Further analysis of prevailing winds is required to determine if there are periodic high winds that could influence the spreading and velocity of wildfires. Adherence to applicable regulations would reduce wildfire ignitions and prevent the spread of wildfires. The project proponent/operator would be required to develop and implement a Fire Safety Plan that contains notification procedures and emergency fire precautions consistent with the 2019 California Fire Code and Kern County Fire Code for use during construction, operation and decommissioning. However, as the project would have the potential to expose occupants (i.e., at the O&M facilities) to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to prevailing winds or other factors, further analysis will be conducted in the EIR.
- (c) The proposed project involves the development of a solar energy generation and storage facility. The proposed project would include the construction of power transmission lines, inverters, roads, and an energy storage facility. Due to the presence of electrical equipment on site, the proposed project has the potential to exacerbate wildfire risk and will be further evaluated in the EIR.
- (d) The project site is not considered to be a high risk area for landslides as it is relatively flat; therefore, there would be no impacts involving landslides or other slope failures, or other drainage changes that would expose people or structures to significant risks in a post-wildfire burned landscape condition. No further analysis is warranted in the EIR relative to this issue.



	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than Significant Impact	No Impact
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XXI. Mandatory Findings of Significance

- | | | | | |
|---|-------------------------------------|--------------------------|--------------------------|--------------------------|
| a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

RESPONSES:

- (a) The EIR’s biological, cultural, and tribal cultural resources sections will discuss specific project impacts on plants and wildlife including avian species and impacts to cultural and tribal cultural resources. The document will also evaluate the project’s contribution to cumulative biological, cultural and tribal cultural resources impacts and propose mitigation that will reduce the impacts to less than significant levels, where feasible.
- (b) The project has the potential to contribute to cumulatively significant aesthetics, air quality, biological resources, cultural resources, tribal cultural resources, greenhouse gas emissions, traffic, and wildfire impacts. Such impacts could occur during the construction phases and/or as a result of the fully built and operational project. The EIR will evaluate the project’s contribution to cumulative impacts in these and other areas.
- (c) The proposed project would not result in the long-term air pollutant emissions or noise sources that would adversely affect nearby sensitive receptors. The solar farm would not include any kinds of industrial processes or equipment that would generate hazardous substances or wastes that would



threaten the well-being of people on- or off-site. However, short-term construction activities could result in temporary increases in pollutant concentrations and potentially significant off-site noise impacts. Pollutants of primary concern commonly associated with construction-related activities include toxic air contaminants gaseous emissions of criteria pollutants, and fugitive dust. Within the project area, the potential for increased occurrences of Valley Fever and exacerbated health issues related to COVID-19 is also of concern. Human health impacts from the short-term cumulative contribution to air quality impacts from project construction will be further evaluated in the EIR.



4. REFERENCES

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- Stantec. 2020. Phase II Environmental Site Assessment – Aratina Solar Farm.
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SUMMARY OF PROCEEDINGS

KERN COUNTY AGENCY SCOPING MEETING

Kern County Planning Department
2700 M Street, Suite 100
Bakersfield, California

Microsoft Live Event
<https://tinyurl.com/yc7dwzez>

Date: March 19, 2021

STAFF ATTENDANCE: Craig M. Murphy, Assistant Director
Katrina Slayton, Division Chief
Ronelle Candia, Supervising Planner
Johnathan Jensen, Planner 1
Julie Williams, GIS Specialist

The virtual meeting convened at **1:30 p.m.** on the TEAMS application with Mr. Murphy outlining the purpose of the scoping meeting. Items were then discussed in order as identified on the agenda. In addition, a PowerPoint presentation was given of the project noted below:

Notice of Preparation: Aratina Solar Project 2.0 by 64NB 8ME LLC (PP 20401)

Mr. Murphy introduced and described the proposed project, provided a brief history of the project and asked if there were any comments.

Thomas Barhs, as a member of the public, noted his participation in the scoping meeting and submitted the following comments/questions into the record:

- *How does this project benefit the local community of Boron or Desert Lake?*
- *Is there any danger or risk to the community due to the amount of energy proposed to be produced and stored in the areas of boron or desert lake?*
- *Can a request for aesthetic appropriate fencing along the borderline of the project and areas where there are homes be proposed rather than barbed wire fencing?*
- *Can a request for a certain percentage of employment of local residence be purposed during and after the project is completed?*
- *Can local residence or local vacant land owners participate in producing solar energy which can be sent to this site project for sale?*

Mr. Murphy noted these questions would be addressed in the Draft EIR currently being prepared for the project..

An anonymous attendee asked the following question for the record:

- *Has this company had a previous project in the county before?*

Mr. Murphy answered by saying that 8Minute Energy has done previous projects in Kern County.

No other public comments were presented.

Public testimony closed at approximately 2:06 p.m.

Notes prepared by
Ronelle Candia, Supervising Planner

Aratina Solar Project 2.0 March 19, 2021 Scoping Meeting Attendee Report

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NATIVE AMERICAN HERITAGE COMMISSION

March 1, 2021

Ronelle Candia
Kern County Planning and Natural Resources Department
2700 "M" Street Suite 100
Bakersfield, CA 93301

Re: 2021020513, Aratina Solar Project 2.0 by 64NB 8ME LLC, Kern County

Dear Ms. Candia:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

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Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

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Luiseño

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Apache

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Stenslie**
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[Vacant]

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NAHC.ca.gov

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- a.** Avoidance and preservation of the resources in place, including, but not limited to:
 - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i.** Protecting the cultural character and integrity of the resource.
 - ii.** Protecting the traditional use of the resource.
 - iii.** Protecting the confidentiality of the resource.
- c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
- e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
- f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
- b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
- c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Cultural Resources Analyst

cc: State Clearinghouse

DEPARTMENT OF TRANSPORTATION

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Making Conservation
a California Way of Life.

March 11, 2021

Ms. Ronelle Candia
Kern County Planning/Natural Resources Dept.
2700 M Street, Suite 100
Bakersfield, California 93301

File: Ker-58-137.81
NOP DEIR
SCH#: 2021020513

Aratina Solar 2.0 - Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR)

Dear Ms. Candia:

Thank you for giving the California Department of Transportation (Caltrans) District 9 the opportunity to comment during the NOP phase for the revised Aratina Solar project abutting State Route (SR) 58 between Gephart and Borax Roads. We offer the following:

- We look forward to reviewing the DEIR's evaluation of potential impacts on the roadway system from construction related trips. Such analysis should address the need for a traffic management plan, and adequacy of the Gephart Rd/SR 58 and Borax Rd/SR 58 interchanges for geometrics, queueing, structural integrity, etc. (Please be aware that no direct access to SR 58 would be allowed, even temporarily access.)
- The plans show a gen-tie crossing of SR 58 for Site 4. Details regarding state highway gen-tie crossings may be found in Section 600 Utility Permits of the **Encroachment Permit Manual** at: <https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/encroachment-permits/chapter-6-ada.pdf>

The permit application may be found at:
<https://dot.ca.gov/programs/traffic-operations/ep/applications>

For permitting details, you may contact Stephen Winzenread, District 9 Permits Engineer, at (760) 874-8348.

- Any security fence placed along SR 58 right-of-way (R/W) should be on Project property at a sufficient distance from the R/W fence to allow for its maintenance from within Project property.

We value our cooperative working relationship with Kern County regarding development impacts on the state transportation system. For any questions, feel free to contact me at (760) 874-8330 or at gayle.rosander@dot.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Gayle J. Rosander".

GAYLE J. ROSANDER
External Project Liaison

c: State Clearinghouse
Mark Reistetter, Caltrans D-9



DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

March 29, 2021

Ronelle Candia
Kern County Planning and Natural Resources Department
2700 "M" Street Suite 100
Bakersfield California, 93301

**Subject: Aratina Solar Project 2.0 by 64NB 8ME LLC (Project)
Notice of Preparation (NOP)
SCH No.: 2021020513**

Dear Ms. Candia:

The California Department of Fish and Wildlife (CDFW) received an NOP from the Kern County Planning and Natural Resources Department for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code may be required.

Fully Protected Species: CDFW has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. CDFW prohibits and cannot authorize take of any fully protected species.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include, sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

PROJECT DESCRIPTION SUMMARY

Proponent: 64NB 8ME LLC

Objective: In August 2020, the Kern County Planning and Natural Resources Department circulated a Notice of Preparation for the previously proposed Aratina Solar Farm Project. Since that time, the project proponent, 64NB 8ME LLC, has modified the project design to incorporate additional setbacks from the unincorporated communities of Boron and Desert Lake and submitted a revised project description to the County. The proposed project described in the Notice of Preparation/Initial Study reflects the modified project, titled the Aratina Solar Project 2.0.

The Aratina Solar Project 2.0, as proposed by 64NB 8ME LLC, would develop a photovoltaic solar facility and associated infrastructure necessary to generate up to 530 megawatt-alternating current (MW-AC) of renewable energy, including up to 600 megawatts of energy storage, on approximately 2,317 acres of privately-owned land. The project site consists of five sites (Sites 1 through 5) located on 22 parcels. The project would be supported by a 230-kilovolt (kV) gen-tie overhead and/or underground electrical transmission line(s) originating from one or more on-site substations and terminating at the Southern California Edison's Holgate Substation to the north. Alternatively, the project may interconnect at Southern California Edison's Kramer

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Substation to the east, located in San Bernardino County via an up to 230kV transmission line located within an Edwards Air Force Base utility corridor. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Location: The Project site is located at the western edge of the Mojave Desert. The project site is located on the Boron and Leuhman Ridge 7.5 minute USGS quadrangles. Sites 1,2, and 3 are located within the Boron USGS Quadrangle (USGS 2012; USGS 2018). The Burlington-Santa Fe Railroad crosses the project site, traversing generally north/south through site 3, then paralleling SR 58 east-west.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the city of Kern County Planning and Natural Resources Department in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document prepared for this Project.

There are special-status species that have been documented in the Project vicinity and may be present at individual Project sites in the Project area. These resources may need to be evaluated and addressed prior to any approvals that would allow ground-disturbing activities or land use changes.

CDFW is concerned regarding potential impacts to special-status species including, but not limited to, the State and Federally threatened desert tortoise (*Gopherus agassizii*); the State threatened Mojave ground squirrel (*Sterna antillarum browni*) and Swainson's Hawk (*Buteo swainsonii*); the State candidate for CESA listing western Joshua tree (*Yucca brevifolia*); and the State species of special concern American badger (*Taxidea taxus*), northern legless lizard (*Anniella pulchra*), burrowing owl (*Athene cunicularia*), and loggerhead shrike (*Lanius ludovicianus*). In order to adequately assess any potential impact to biological resources, focused biological surveys should be conducted by a qualified wildlife biologist/botanist during the appropriate survey period(s) in order to determine whether any special-status species may be present within the Project area. Properly conducted biological surveys, and the information assembled from them, are essential to identify any mitigation, minimization, and avoidance measures and/or the need for additional or protocol-level surveys, and to identify any Project-related impacts under CESA and other species of concern.

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I. Environmental Setting and Related Impact

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or the United States Fish and Wildlife Service (USFWS)?

COMMENT 1: Desert Tortoise

Issue: The Project site is within the range of desert tortoise and based on aerial imagery, appears to contain suitable habitat for desert tortoise. Desert tortoise are most common in desert scrub, desert wash, and Joshua tree habitats (CDFW, 2018).

Specific impact: Potentially significant impacts that may result from Project-related activities include loss of foraging habitat, habitat degradation and fragmentation, burrow destruction, and direct mortality.

Evidence impact is potentially significant: Human impacts to desert tortoise include habitat conversion to agriculture and urban lands, degradation of habitat by off-highway vehicles (OHV), intentional killing of tortoises, and killing by cars and OHV (Doak, Kareiva, Kleptka, 1994). Habitat conversion to agriculture results in the loss of habitat and may lead to an increase in the predator raven population, drawdown of water table, introduction of pesticides and other toxic chemicals, and the potential introduction of invasive plants (Boarman, 2002). Project activities may result in the loss of potential desert tortoise habitat through conversion and may increase habitat fragmentation.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential Project-related impacts to desert tortoise, CDFW recommends conducting the following evaluation of the Project site and including the following measures in the EIR.

Recommended Mitigation Measure 1: Desert Tortoise Surveys

CDFW advises surveys for desert tortoise be conducted by a qualified wildlife biologist who understands and will follow the pre-project survey protocol as outlined in "Preparing for any action that may occur within the range of the Mojave Desert tortoise (*Gopherus agassizii*)" (USFWS, 2010) and has previous experience surveying for desert tortoise. Survey results are advised to be submitted to both CDFW and the USFWS.

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Recommended Mitigation Measure 2: Desert Tortoise Take Authorization

If desert tortoise is found within the Project area during surveys or construction activities, consultation with CDFW is advised to discuss how to implement the Project and avoid take; or if avoidance is not feasible, to acquire an Incidental Take Permit (ITP) pursuant to Fish and Game Code section 2081 subdivision (b) prior to any vegetation- or ground-disturbing activities. Any take of desert tortoise without take authorization would be a violation of Fish and Game Code section 2080. Alternatively, the Project can forego desert tortoise surveys advised in Recommended Mitigation Measure 1, assume presence of desert tortoise, and request an ITP.

COMMENT 2: Mohave Ground Squirrel (MGS)

Issue: The Project site is within the range of MGS and based on aerial imagery, the Project site appears to contain suitable habitat for MGS.

Specific impact: Without appropriate avoidance and minimization measure for MGS, potential significant impacts associated with the Project's construction include burrow collapse, inadvertent entrapment, reduced reproductive success, and mortality of individuals.

Evidence impact is potentially significant: Major threats to MGS are drought, habitat destruction, habitat fragmentation, and habitat degradation (Gustafson, 1993). MGS is restricted to a small geographic range and the greatest habitat loss has occurred near desert towns including California City (Gustafson, 1993). Natural cycling is anticipated in MGS populations therefore the true indicators of the status of the species are the quantity, pattern of distribution, and quality of habitat (Gustafson, 1993). Project activities may result in the loss of potential MGS habitat through conversion and may increase habitat fragmentation.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential Project-related impacts to MGS, CDFW recommends conducting the following evaluation of the Project site and including the following measures in the EIR.

Recommended Mitigation Measure 3: MGS Surveys

CDFW recommends that a qualified biologist, with appropriate permits, conduct protocol surveys for MGS following the methods described in the "Mohave Ground Squirrel Survey Guidelines" (CDFG, 2003) during the appropriate survey season prior to Project implementation. Survey methods include trapping by a qualified biologist up to three times per trapping season. Results of the MGS surveys are advised to be submitted to

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the CDFW prior to ground disturbance. Please note MGS surveys are valid for one year and should be conducted within a year of the start of ground-disturbing activities.

Recommended Mitigation Measure 4: MGS Avoidance

In order to implement full avoidance for MGS, CDFW recommends a 50-foot no disturbance buffer be employed around all burrows that could be used by MGS.

Mitigation Measure 5: MGS Take Authorization

If MGS are found within the Project area during preconstruction surveys or construction activities, consultation with CDFW is recommended to discuss how to implement the Project and avoid take; or if avoidance is not feasible, to acquire an ITP pursuant to Fish and Game Code section 2081 subdivision (b) prior to any ground-disturbing activities. Any take of MGS without take authorization would be a violation of Fish and Game Code section 2080. Alternatively, the Project can forego MGS surveys advised in Recommended Mitigation Measure 3, assume presence of MGS, and request an ITP.

COMMENT 3: Swainson's Hawk (SWHA)

Issue: SWHA have the potential to forage within, and nest near, the Project site. Aerial imagery shows the presence of suitable foraging habitat for the species.

Specific impacts: Without appropriate avoidance and minimization measures for SWHA, potential significant impacts that may result from Project activities include loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality. Any take of SWHA without appropriate incidental take authorization would be a violation of Fish and Game Code.

Evidence impact is potentially significant: The Project as proposed will involve noise, groundwork, and movement of workers that could affect nests and has the potential to result in nest abandonment, significantly impacting local nesting SWHA.

Recommended Potentially Feasible Mitigation Measure(s)

Because suitable habitat for SWHA is present throughout the Project site, CDFW recommends conducting the following evaluation of the Project site and including the following measures in the EIR.

Recommended Mitigation Measure 6: SWHA Surveys

To evaluate potential impacts, CDFW recommends that a qualified wildlife biologist conduct surveys as described in the Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the

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Antelope Valley of Los Angeles and Kern Counties, California (2010) prior to project implementation. The survey protocol includes early season surveys to assist the project proponent in implementing necessary avoidance and minimization measures, and in identifying active nest sites prior to initiating ground-disturbing activities.

Recommended Mitigation Measure 7: No-disturbance Buffer

If ground disturbing activities are to take place during the normal bird breeding season (March 1 through September 15), CDFW recommends that additional pre activity surveys for active nests be conducted by a qualified biologist no more than 10 days prior to the start of Project implementation to ensure that no SWHA have begun nesting activities near the Project site. CDFW recommends a minimum no disturbance buffer of 0.5-mile be delineated around active nests until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.

Recommended Mitigation Measure 8: SWHA Foraging Habitat

CDFW recommends compensation for the loss of SWHA foraging habitat to reduce impacts to SWHA foraging habitat to less than significant based on Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (2010).

Recommended Mitigation Measure 9: SWHA Take Authorization

CDFW recommends that in the event an active SWHA nest is detected during surveys and the ½-mile no-disturbance buffer around the nest cannot feasibly be implemented, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the issuance of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA. Although the Project may assume presence of SWHA for purposes of acquiring an ITP, CDFW recommends that SWHA surveys advised in Recommended Mitigation Measure 6 are still conducted to determine what, if any, foraging habitat compensation is necessary as advised in Recommended Mitigation Measure 8.

COMMENT 4: Burrowing Owl (BUOW)

Issue: BUOW have been documented near the Project site (CDFW 2021). BUOW inhabit open grassland or adjacent canal banks, ROWs, vacant lots, etc. containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover.

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Specific impact: Potentially significant direct impacts associated with subsequent activities include burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact is potentially significant: BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). Therefore, subsequent ground-disturbing activities associated with the Project have the potential to significantly impact local BUOW populations. In addition, and as described in CDFW's "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

Recommended Potentially Feasible Mitigation Measure(s) (Regarding Environmental Setting and Related Impact)

To evaluate potential impacts to BUOW, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 10: BUOW Surveys

CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's "Burrowing Owl Survey Protocol and Mitigation Guidelines" (CBOC 1993) and CDFW's Staff Report on Burrowing Owl Mitigation" (CDFG 2012). Specifically, CBOC and CDFW's Staff Report suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (April 15 to July 15), when BUOW are most detectable. These surveys are to determine if there are more BUOW in addition to the December 2017 observation surveyed for the Project.

Recommended Mitigation Measure 11: BUOW Avoidance

CDFW recommends no-disturbance buffers, as outlined in the "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW's Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

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Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

Recommended Mitigation Measure 12: BUOW Passive Relocation and Mitigation

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), exclusion is not a take avoidance, minimization, or mitigation method and is considered a potentially significant impact under CEQA. However, if necessary, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting BUOW. BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance, at a rate that is sufficient to detect BUOW if they return.

COMMENT 5: Special-Status Plant species

Issue: Plants listed pursuant to federal Endangered Species Act, CESA, and the Native Plant Protection Act, as well as other special status plants such California Rare Plant Rank (CRPR) plant species have been documented to occur in and around the Project area (CDFW 2021). Based upon available aerial photography, western Joshua tree appears to occur within the Project site.

Specific impact: Without appropriate avoidance and minimization measures potential impacts to special-status plant species include inability to reproduce and direct mortality. Unauthorized take of species listed as threatened, endangered, or rare pursuant to CESA or the Native Plant Protection Act is a violation of Fish and Game Code.

Evidence impact would be significant: Special-status plant species plant species are threatened with habitat loss and habitat fragmentation resulting from development, vehicle and foot traffic, and introduction of non-native plant species (CNPS 2020), all of which may be unintended impacts of the Project. Therefore,

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impacts of the Project have the potential to significantly impact populations of the species mentioned above.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to special-status plants associated with the Project, CDFW recommends conducting the following evaluation of the Project area and including the following mitigation measures as conditions of Project approval in the Project's EIR.

Recommended Mitigation Measure 13: Special-Status Plant Habitat Assessment

CDFW recommends that a qualified botanist conduct a habitat assessment of individual Project sites well in advance of Project implementation, to determine if the Project area or its vicinity contains suitable habitat for special-status plant species.

Recommended Mitigation Measure 14: Focused Surveys

If suitable habitat is present, CDFW recommends that individual Project sites be surveyed for special-status plants by a qualified botanist following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (CDFW 2018). This protocol, which is intended to maximize detectability, includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. In the absence of protocol-level surveys being performed, additional surveys may be necessary.

Recommended Mitigation Measure 15: Special-Status Plant Avoidance

CDFW recommends special-status plant species be avoided whenever possible by delineation and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species with the exception of western Joshua Tree. CDFW recommends a no-disturbance buffer for individual western Joshua trees of 290 feet. A 290-foot buffer is warranted to not only avoid impacts to individual trees, but potential impacts to the seed bank as well. Vander Wall et. al. 2006 documented 290 feet as maximum distance of seeds dispersed carried by rodents. If buffers cannot be maintained, then consultation with CDFW is warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

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Recommended Mitigation Measure 16: Special-Status Plant Take Authorization

As stated above, Joshua tree appears to occur on the Project site based upon available aerial photography. Therefore, consultation with CDFW is warranted to discuss take authorization. If another State-listed plant species is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take of that species. If take cannot be avoided, take authorization would need to be acquired by the Project proponent through the acquisition of an ITP from CDFW to comply with CESA and/or Fish and Game Code section 1900 and California Code of Regulations, title 14, section 786.9, subdivision (b).

COMMENT 6: Other Species of Special Concern

Issue: American badger, loggerhead shrike, and northern legless lizard have the potential to occur in the project vicinity. Suitable habitat for these species is present within the project area.

Specific impact: Without appropriate avoidance and minimization measures for these special status species potentially significant impacts associated with the Project's activities could include site abandonment which may result in reduced health or vigor of eggs and/or young, and/or direct mortality.

Evidence impact is potentially significant: The Project area has the capacity to support the species and thus, subsequent ground-disturbing activities involved with the Project have the potential to impact the species.

Recommended Potentially Feasible Mitigation Measure(s)

To evaluate potential impacts to these special status species, CDFW recommends conducting the following evaluation of the Project site, incorporating the following mitigation measures into the EIR prepared for this Project, and that these measures be made conditions of approval for the Project.

Recommended Mitigation Measure 17: Species Specific Surveys

If suitable habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for each of these species and their requisite habitat features using the appropriate survey protocol to evaluate potential impacts resulting from Project-related activities.

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Recommended Mitigation Measure 18: Special-Status Species Avoidance

Avoidance whenever possible is encouraged via delineation however, a qualified biologist with the appropriate handling permit may relocate special status species out of the project area into a nearby area with suitable habitat.

Recommended Mitigation Measure 19: American Badger Avoidance

If suitable badger dens are present, avoidance whenever possible is encouraged via delineation and observation of a 50-foot no-disturbance buffer around dens until it is determined through non-invasive means that individuals occupying the den have dispersed.

II. Editorial Comments and/or Suggestions

Desert Kit Fox: Desert kit fox (*Vulpes macrotis arsipus*) is protected under the California Code of Regulations, Chapter 5, Section 460, which prohibits “take” of the species for any reason. If any active or potential dens are found on the Project site, consultation with the Department would be warranted for guidance on take avoidance measures for the desert kit fox.

Federally Listed Species: CDFW recommends consulting with the USFWS on potential impacts to federally listed species including, but not limited to, desert tortoise. Take under FESA is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with FESA is advised well in advance of any ground-disturbing activities.

Nesting birds: CDFW encourages Project implementation at individual Project sites occur during the bird non-nesting season if suitable nesting bird habitat is present. However, if ground-disturbing activities must occur during the breeding season (February through mid-September), the Project’s applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate Project-related impacts on nesting birds if suitable habitat is present, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by the Project. In addition to direct impacts (i.e. nest destruction), noise, vibration, and

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movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends the work causing that change cease and CDFW consulted for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

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CDFW appreciates the opportunity to comment on the Project to assist the Kern County Planning and Natural Resources Department in identifying and mitigating the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website (<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>). If you have any questions, please contact Jaime Marquez, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 243-4014, extension 291, or by electronic mail at Jaime.Marquez@wildlife.ca.gov.

Sincerely,

DocuSigned by:

041A77B10D78486...
Julie A. Vance
Regional Manager

Attachment

cc: United States Fish and Wildlife Service
2800 Cottage Way, Suite W-2605
Sacramento, California 95825

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Kern County Planning and Natural Resources Department
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Attachment 1

**MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)
FOR CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MEASURES**

**PROJECT: Aratina Solar Project 2.0
SCH No.: 2021020513**

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
<i>Before Disturbing Soil or Vegetation</i>	
Mitigation Measure 1: Desert Tortoise Surveys	
Mitigation Measure 2: Desert Tortoise Take Authorization	
Mitigation Measure 3: MGS Surveys	
Mitigation Measure 5: MGS Take Authorization	
Mitigation Measure 6: SWHA Surveys	
Mitigation Measure 8: SWHA Foraging Habitat	
Mitigation Measure 9: SWHA Take Authorization	
Mitigation Measure 10: BUOW Surveys	
Mitigation Measure 12: BUOW Passive Relocation and Mitigation	
Mitigation Measure 13: Special-Status Plant Habitat Assessment	
Mitigation Measure 14: Focused Surveys	
Mitigation Measure 16: Special-Status Plant Take Authorization	
Mitigation Measure 17: Species Specific Surveys	
<i>During Construction</i>	
Mitigation Measure 4: MGS Avoidance	
Mitigation Measure 7: No-Disturbance Buffer	
Mitigation Measure 11: BUOW Avoidance	
Mitigation Measure 15: Special-Status Plant Avoidance	
Mitigation Measure 18: Special-Status Species Avoidance	
Mitigation Measure 19: American Badger Avoidance	

Lahontan Regional Water Quality Control Board

March 29, 2021

File: Environmental Doc Review
Kern County

Ronelle Candia
Supervising Planner, Kern County
Kern County Planning & Natural Resources Dept.
2700 M Street, Suite 100
Bakersfield, CA 93301
CandiaR@kerncounty.com

Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Aratina Solar Project 2.0 by SOLW AME LLC, SCH No. 2021020513

Lahontan Regional Water Quality Control Board (Water Board) staff received a Notice of Preparation (NOP) for the above-referenced Project (Project) on February 26, 2021. The NOP was prepared by Kern County Planning and Natural Resources Department (County) and submitted in compliance with provisions of the California Environmental Quality Act (CEQA). Water Board staff, acting as a responsible agency, is providing these comments to specify the scope and content of the environmental information for our statutory responsibilities pursuant to CEQA Guidelines, California Code of Regulations, title 14, section 15096. We thank the County for providing Water Board staff the opportunity to review and comment on the NOP and for taking the initiative to develop the NOP with considerations to potential effects on water quality that: (1) promote watershed management; (2) support “Low Impact Development” (LID); and (3) reduce the effects of hydromodification during and post construction. Our comments on the proposed Project are outlined below.

WATER BOARD’S AUTHORITY

All groundwater and surface waters are considered waters of the State. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Lahontan Region to the Lahontan Water Board. Some waters of the State are also waters of the United States. The Federal Clean Water Act (CWA) provides additional protection for those waters of the State that are also waters of the United States.

The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect the quality of waters of the State within the Lahontan Region. The Basin Plan sets forth water quality

PETER C. PUMPHREY, CHAIR | MICHAEL R. PLAZIAK, EXECUTIVE OFFICER

standards for surface water and groundwater of the Region, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Water Board's web site at:

http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

COMMENTS ON THE ENVIRONMENTAL REVIEW

1. In general, the installation of Photovoltaic (PV) grid systems for these types of projects has the potential to hydrologically modify natural drainage systems. Of concern is the collection of onsite storm water runoff and the concentrated discharge of that storm water to natural drainage channels. Design alternatives that are compatible with low impact development (LID) should be considered. LID components to include maintaining natural drainage paths and landscape features to slow and filter runoff and maximize groundwater recharge; managing runoff as close to the source as possible; and maintaining vegetated areas for storm water management and onsite infiltration. We recommend natural drainage channels and flow paths be maintained through the Project site to avoid no net loss of function and value of waters of the state as a result of Project implementation.
2. Because increased runoff from developed areas is a key variable driving several adverse effects, attention to maintaining the pre-development hydrograph will prevent or minimize many problems and will limit the need for other analyses and mitigation. Traditional methods for managing urban storm water do not adequately protect the environment and tend to treat symptoms instead of causes. Such practices have led to channelization and stream armoring that permanently alter stream habitat, hydrology, and aesthetics, resulting in overall degradation of a watershed. Storm water control measures that are compatible with LID are preferred over more traditional methods. Examples include the use of bioretention swales, pervious pavement, and vegetated infiltration basins, all of which can effectively treat post-construction storm water runoff, help sustain watershed processes, protect receiving waters, and maintain healthy watersheds. Any one of these control measures may not be suitable, effective, or even feasible in every instance, but the right combination, in the right places, can successfully achieve these goals. A Project-specific SWPPP and implementation of site-specific erosion and sediment control BMPs is an effective way to reduce potentially significant water quality impacts to a less than significant level. To that end, we recommend the development and implementation of a Project-specific SWPPP during both the construction and post-construction phases of the Project. The SWPPP should be applicable to all areas of the Project site, including the solar fields, access roads to and through the site, and the gen-tie line. Please note that temporary BMPs need to be implemented for the Project until such time that vegetation has been restored to pre-Project conditions or permanent BMPs are in place and functioning.

3. Hydromodification is the alteration of the natural flow of water through a landscape (i.e. lining channels, flow diversions, culvert installations, armoring, etc.). Disturbing and compacting soils, changing, or removing the vegetation cover, increasing impervious surfaces, and altering drainage patterns limit the natural hydrologic cycle processes of absorption, infiltration, and evapotranspiration, and increases the volume and frequency of runoff and sediment transport. Hydromodification results in stream channel instability, degraded water quality, changes in groundwater recharge processes, and aquatic habitat impacts. Hydromodification also can result in disconnecting a stream channel from its floodplain. Floodplain areas provide natural recharge, attenuate flood flows, provide habitat, and filter pollutants from urban runoff. Floodplain areas also store and release sediment, one of the essential processes to maintain the health of the watershed.
4. The environmental document should include a mitigation measure that requires the preparation and implementation of a comprehensive Spill Prevention and Response Plan. This plan should outline the site-specific monitoring requirements and list the Best Management Practices (BMPs) necessary to prevent hazardous material spills or to contain and cleanup a hazardous spill, should one occur.
5. The Project is located within the Antelope Hydrologic Unit (Hydrologic Unit No. 626.00) and overlies the Antelope Valley groundwater basin (Basin No. 6-44). The beneficial uses of these waters are listed either by watershed (for surface waters) and by groundwater basin (for groundwater) in Chapter 2 of the Basin Plan. The proposed Project should identify and list the beneficial uses of all water resources within the Project area.
6. All excess soil excavated as part of the Project that is not used onsite should be stockpiled in an upland location such that it will not be transported by wind or water into a surface water. An adequate combination of sediment and erosion control BMPs must be implemented and maintained to temporarily stabilize the stockpiled soils until such time that they are reused and/or permanently stabilized.

PERMITTING REQUIREMENTS FOR INDIVIDUAL PROJECTS

A number of activities associated with the proposed Project may have the potential to impact waters of the State and, therefore, may require permits issued by either the State Water Resources Control Board (State Water Board) or Lahontan Water Board. The required permits may include the following.

1. Land disturbance of more than 1 acre may require a CWA, section 402(p) storm water permit, including a *National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit*, Water Quality Order (WQO) No. 2009-0009-DWQ, obtained from the State Water Board, or individual storm water permit obtained from the Lahontan Water Board.

2. Streambed alteration and/or discharge of fill material to a surface water may require a CWA, section 401 water quality certification for impacts to federal waters (waters of the U.S.), or dredge and fill waste discharge requirements for impacts to non-federal waters, both issued by the Lahontan Water Board.

Thank you for the opportunity to comment on the NOP. If you have any questions regarding this letter, please contact me at (760) 241-7325, alicia.borchmann@waterboards.ca.gov or Bill Muir, Senior Engineering Geologist, at (760) 241-3523, william.muir@waterboards.ca.gov. Please send all future correspondence regarding this Project to the Water Board's email address at Lahontan@waterboards.ca.gov and be sure to include the State Clearinghouse Number and Project name in the subject line.



Alicia Borchmann
Scientific Aid

cc: State Clearinghouse (SCH 2021020513) (state.clearinghouse@opr.ca.gov)
California Department of Fish and Wildlife (Reg4assistant@wildlife.ca.gov,

Office Memorandum – Kern County

TO: RONELLE CANDIA, SUPERVISING PLANNER Date: March 5th, 2021
Planning & Natural Resources Department

FROM: ^{BRB}
BRIAN R. BLACKLOCK, PLS
County Surveyor

By: Mark Braun, Engineering Technician III (661) 862-5051

SUBJECT: Aratina Solar Project 2.0 by 64NB 8ME LLC (PP20401)

I have reviewed the above noted project **INITIAL STUDY/NOTICE OF PREPARATION OF DRAFT ENVIRONMENTAL IMPACT REPORT** and recommend the following conditions be placed on the Conditional Use Permits:

1. Prior to issuance of a building or grading permit: All survey monuments shall be tied out by a Licensed Land Surveyor. A corner record for each monument or record of survey shall be submitted to the County Surveyor for review and processing, per Section 8771 of the Professional Land Surveyor's (PLS) Act.
2. Prior to Final Inspection: All survey monuments that were destroyed during construction shall be re-set or have a suitable witness corner set. A post construction corner record for each monument re-set or a record of survey shall be submitted to the County Surveyor for processing, per Section 8771 of the Professional Land Surveyor's Act.
3. Upon completion of project: All survey monuments shall be accessible by a Licensed Land Surveyor or their representatives, with prior notice, per Section 8774 of the PLS Act and Civil Code 846.5 (a).

Thank you for the opportunity to review and comment on this project. Should you have any questions please contact me.

Kern County
Superintendent
of Schools

RECEIVED

MAR 18 2021

Kern County Planning &
Natural Resources Dept.

Office of Mary C. Barlow ...advocates for children

March 8, 2021

Kern County Planning Department
Attn: Ronell Candia, Supervising Planner
2700 M Street, Suite 100
Bakersfield, CA 93301

Our File No.: CO21-0035

RE: DEVELOPER FEES FOR: Draft EIR for Aratina Solar Project;
(Straddling SR58, between Gephart Rd on the west and the San Bernardino
County line on the east)

Dear Ms. Candia,

This office represents the Muroc Unified School District with regard to the imposition of developer fees, and appreciates the opportunity to respond on behalf of the district regarding the proposed project. This letter is limited to addressing the possible effects which the project might have on school facilities created by students attributable to the project. It is not intended to address other possible environmental concerns which might be identified by the district after reviewing it.

It is our determination that the above mentioned project proposing (a) multiple Conditional Use Permits to allow the construction and operation of five solar facilities, (b) multiple General Plan Amendments to the Circulation Element to remove future road reservations, (c) multiple changes in zone classifications will have no significant effects on either of these district's facilities so long as statutory school facilities fees, if any, are collected as required by law and that no further mitigation measures regarding school facilities are necessary.

Thank you for the opportunity to comment on the project. Should you have any questions, or if we can be of any further assistance in this matter, please contact me at 636-4599, or through e-mail at anwatson@kern.org.

Sincerely,

Mary C. Barlow
County Superintendent of Schools



Andrea Watson, Specialist
School District Facility Services

ALW
cc: District(s)

Office Memorandum

KERN COUNTY

To: Planning and Natural Resources
Department
Ronelle Candia

Date: March 9, 2021

From: Public Works Department
Floodplain Management Section
Kevin Hamilton, by Brian Blase

Phone: (661) 862-5098
Email: BlaseB@kerncounty.com

**Subject: Draft Environmental Impact Report
Aratina Solar Project**

Our section has reviewed the attached subject documents and has the following comments:

The runoff of storm water from the site will be increased due to the increase in impervious surface generated by the proposed development.

The subject property is subject to flooding.

Therefore, this section recommends the following be included as Conditions of Approval for this project:

The applicant shall provide a plan for the disposal of drainage waters originating on site and from adjacent road right-of-ways (if required), subject to approval of the Public Works Department, per the Kern County Development Standards.

Associated flood hazard requirements will need to be incorporated into the design of this project per the Kern County Floodplain Management Ordinance.

MOJAVE

AIR AND SPACE PORT

Ms. Ronelle Candia
Kern County Planning and Natural Resources Department
2700 "M" Street
Bakersfield, CA 93301-2323

Re: Notice of Preparation of a Draft Environmental Impact Report (DEIR)
Aratina Solar Project 2.0 by 64NB 8ME LLC

Dear Ms. Candia:

The Mojave Air and Space Port (MASP) staff has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the proposed Aratina Solar Project 2.0 (project) by 64NB 8ME LLC (project proponent) on five sites of privately owned land totaling 2,317 acres. The proposed sites are located more than 22 miles east of MASP and in the vicinity of the unincorporated communities of Boron and Desert Lake in Kern County. Project components include the construction of:

- One 530-megawatt (MW) photovoltaic (PV) solar facility on 2,317 acres;
- A 600 MW energy storage system;
- Collection, inverter stations, and transformer systems;
- A 230-kilovolt gen-tie overhead and/or underground electrical transmission line that would connect to the Southern California Edison (SCE) Holgate Substation north or to the SCE Kramer Substation in San Bernardino County via an overhead and/or underground transmission line located within the Edwards Air Force Base utility corridor. Overhead lines would be mounted on monopoles up to 150 feet in height; and
- Associated facilities including service roads, electrical switchyards, project substations and operations, and maintenance facilities.

AVIATION AND AEROSPACE CONSIDERATIONS

When considering the effects of proposed land use changes, including energy projects, MASP staff considers the project location, its components, and operational effects that could be inconsistent with or pose hazards to ongoing operations. Specific factors that are usually considered in association with solar projects include glare, obstructions to navigable airspace, and cumulative effects.

Compatible Land Use

Pursuant to California Public Utilities Code Section 21676, proposals for major public or private land use development that have the potential to substantially affect nearby airport activities shall be subject to compatibility review in accordance with the policies set forth in the applicable Airport Land Use Compatibility Plan (ALUCP). The ALUCP identifies an airport-specific Airport Influence Area (AIA); proposed projects that would be located within the AIA must be evaluated by the Airport Land Use Commission to determine whether they are consistent with ALUCP policies. The proposed project components appear to be outside of the AIA for MASP as designated by the Kern County ALUCP.

Mojave Air and Space Port *1434 Flight Line Road, Mojave, CA 93501* 661-824-2433

MOJAVE

AIR AND SPACE PORT

Ongoing Coordination and Draft EIR Review

As previously noted, MASP staff understand that the proposed project would be constructed approximately 22 miles east of MASP. Nevertheless, the locations of proposed gen-tie lines remain uncertain. MASP staff would like to review of the forthcoming Draft EIR to identify and prevent potential project-related effects on MASP operations.

Thank you for the opportunity to review the NOP for Aratina Solar Project 2.0.

Sincerely,



Floyd Van Wey
Director of Planning
Mojave Air and Space Port

cc: Lorelei H. Oviatt, Director, Kern County Department of Planning and Natural Resources

Office of the Fire Marshal Kern County Fire Department

Fire Prevention

2820 M St. • Bakersfield, CA 93301 • www.kerncountyfire.org

Telephone 661-391-3310 • FAX 661-636-0466/67 • TTY Relay 800-735-2929



March 16, 2021

Kern County Planning and Natural Resources Department
2800 M St., Bakersfield, CA 93301
Attn.: Ronelle Candia

Re: Kern County Fire Department Comments Regarding Planning Department Project

To Whom It May Concern,

The Kern County Fire Department (KCFD), as the local fire authority, has received a request for comments regarding Notice of Preparation for Aratina Solar Project. Upon initial review, it has been determined that all ground mounted solar array projects over 1MW will require Fire Department plan review prior to construction and meet requirements set forth in KCFD Solar Panel Standard #503-507. All Battery Energy Storage Systems must be applied for directly with KCFD for separate permitting and pre-construction approval. All proposed batteries must be UL9540A 2019 Edition tested for large scale burns to determine adequate design and mitigation measures.

A more detailed review and project comments will be conducted when the building permit is pulled and plans are submitted to KCFD.

Please feel free to call our Fire Prevention Office at 661-391-3310 with any questions.

Sincerely,
Michael Nicholas
Assistant Fire Marshal
Kern County Fire Department

From: [James Lyon](#)
To: [Ronelle Candia](#)
Subject: Aratina 2.0 feedback
Date: Saturday, February 20, 2021 9:02:35 AM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Please build this somewhere else. Looking out my back yard, all I will see is mirrors. I've lived here my whole life and love our desert. Why can't you put this farther away from our town. Please reconsider your plans and don't do this to our little town of Boron.

Regards
James Lyon

Mar 1, 2021

To: Mrs. Ronelle Candia, Supervising Planner

Re: Aratina Solar Farm Project 2.0 by 64NB 8 MELLC (PP20401)

Dear Mrs. Candia

We received your letter dated February 26, 2021 for the above referenced Solar Farm Project. We see that there have been some changes made to the original plan. The location of the solar panels in some areas have been set back from the original proposed locations in some instances. We still cannot agree that this is acceptable. These industrial sized solar panels & their hazardous potential are WAY TOO CLOSE to our neighborhoods & community!! I am writing on behalf of my husband & myself to express opposition to the location & size of this proposed solar project so close to the town of Boron again for a variety of reasons. My husband & I own 3 properties in this area. One of the few positives to living in a small community like ours is the open spaces nearby to walk, ride, explore or simply admire. This proposed project would take over all those areas, ruin the landscape, displace the habitat, use our ground water, kill the Joshua trees, start fires, increase the temperature of the area, pollute the air & much more. I understand that any power that is generated from this particular Aratina 2.0 solar project doesn't benefit our area at all, but will be used in an upscale Northern California region.

We have a friend who lives in the Antelope Valley near the Poppy Reserve where another solar farm was built. I contacted her to ask the pros & cons of having them near where she & her neighbors live. She said, without hesitation, "There are no pros.....except for the money the land owners make by leasing their properties to the solar companies!"

The following is a list of some of my reasons why I am opposed to this project for the Boron & Desert Lake communities & our surrounding desert:

1. They are still located way too close to existing neighborhoods & communities & would land lock us.
2. They would destroy the beauty of the desert landscape within view & for miles to see.
3. They would damage or inhibit growth of the local vegetation.
4. There would be a negative impact on the local fauna & flora, particularly the birds.
5. The output is affected by weather conditions.
6. It increases the temperature in the surrounding area.
7. Solar panels take up a large amount of land that cannot be shared or used for any other purpose.
8. There would be a significant impact to the air quality in the area. The materials used to make the solar panels can cause pollution as well.
9. There are serious health concerns such as Valley Fever that can arise when you disturb desert land.
10. The brush would be cleared to install the solar panels then most likely not maintained.
11. The solar field will be a fire hazard.

12. It will increase the temperature in the area.
13. The solar panels will invite more graffiti & vandalism crimes (& we don't have full-time police presence in the area as it is). There has already been an upswing in vandalism & graffiti in recent years that have to be abated by volunteers. We've had an increase in trash being dumped in the desert with no enforcement of county littering laws.
14. They all require that concrete (& other contaminants) be poured throughout the desert for their construction.
15. They have their own water wells which will use our ground water. We get little to no rain here as it is even when neighboring communities get rain. There is not enough water to support a project of this magnitude. It will do more harm than good.
16. The Mojave Desert is one of the few places in the world that have Joshua trees. It takes hundreds of years for them to grow. They are protected & rare & beautiful & would be destroyed by the construction of this huge project.
17. This area is also home to the endangered & protected Desert Tortoise & lots of other desert creatures not found elsewhere such as bobcats & kit foxes.
18. All the off-road vehicle paths & easements etched years ago will be blocked off by this project (is that even legal?).
19. The solar energy harnessed won't benefit anyone in our area (except the landowners leasing their land to the solar companies, as stated before) & an upscale area in Northern California from what I'm told.
20. Our Southern California Edison bills will double.

We had another solar plant in this area that was recently decommissioned. It was built far enough into the desert that it didn't bother anyone. I don't understand why a project of this size couldn't be located at or near the old site so as not to disturb more land.

This project is being proposed on undisturbed undeveloped desert land. The solar panels will disturb & acres & acres of this land directly across the street (give or take ½ mile) from the communities of Boron & Desert Lake & nearly all land in between from the San Bernardino County line to Edwards AFB. There is so much at stake here. If agreed to, this type of project is a permanent one. Once the land is disturbed, there is no going back. It would negatively impact the residents of Boron & the natural environment/habitat of the area for years to come. Most of the town's people do not support this project. Pick a different location, far away from our little mining town. Let Boron go down in history for having the largest borax mine in the world, not for having miles of solar panels making a couple of people & a fast moving solar company rich!! We love our mine & mining town & the wide open vistas of the desert.

Thank you for giving us this opportunity to voice our concerns & opinions again before your final decision. Please say no!! I've attached a picture of our landscape pre-& post-solar panels for impact!

Sincerely,

Millie (& Rob) Ashpaugh,

24183 Sage Ave., Boron, CA 93516

805-443-7239



From: [Debbie Brown](#)
To: [Ronelle Candia](#)
Subject: Arabia Solar Project
Date: Wednesday, March 3, 2021 1:25:27 PM

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Kern County Planning Dept for the Aratina Solar Project 2.0 is candiar@kerncounty.com

Concerning the projected solar field. NO WAY! If the clear the desert to the west of Boron we will be covered with dust when the wind blows. Boron will be virtually land locked with industry, Borax to the north with it large dumps of dirt (that they are required to water daily to keep blowing dirt down & this solar field to the south with Edwards AFB edging that. We need new housing, no one wants to live in the middle of industry. We have people working here but traveling an hour plus because no new housing here. If this goes in Boron WILL become a vanishing ghost town.

We have a huge abandoned solar field to the east of us. Abandoned because government subsidies ended, & it couldn't support its self.

Please consider the people that live here we are surrounded beautiful desert that's about all we have. Don't take that away.

My husband & I are retired senior citizen (he an electrical engineer from Northrop Grumman, I a 33 year retired School Transportation field) & we are owners of multiple properties here in Boron, happy to live here as it is. California is becoming a green industrial covered wasted land with people crammed into small city living spaces. Don't destroy our open, environmentally content area with this project. We appreciate our sunshine & beautiful deserts.

Deborah Brown

Sent from my iPhone

From: [Deric English](#)
To: [Ronelle Candia](#)
Subject: NO on Aratina Solar Farm Project
Date: Wednesday, March 3, 2021 5:24:40 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Hello,

This is a second email asking that Kern County halt the permitting or construction of any Aratina Solar Farm Project in Desert Lake (Boron, California). My previous email still holds true and the cons of this project far outweigh the pros. The loss of habitat, its proximity to neighborhood, loss of prime business locations, and numerous other issues demand that this project come to an end. This viewpoint is held by a vast majority of our community.

A potential war on the petroleum industry, which will adversely affect Kern County, should not sway let economic desperation determine the permitting or construction of this Aratina Solar Farm Project. Such permitting and construction would be devastating to our community, and the short-sightedness of approval would have long term effects on future, more prosperous, and environmentally friendly development.

Thank you for your time and consideration.

Deric English

From: [Charlene Sims](#)
To: [Ronelle Candia](#)
Subject: Oppose Solar Farm Project
Date: Wednesday, March 3, 2021 11:03:15 AM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Dear Ronelle Candia,

I am again voicing my opposition to the Aratina Solar Farm Project now that they have submitted their revisions. I think ALL of the Boron residents should be informed and notified of this project that will surround the little town of Boron. It will actually affect everyone from the San Bernardino County line to North Edwards. It is not fair that you only notify a small group of residents of the revisions. Once in, they will keep on putting up solar panels until we are completely surrounded. Hearings need to be held now before this gets too far to stop!

Charlene Sims
Boron Resident

From: [Millie Ashpaugh](#)
To: [Ronelle Candia](#)
Subject: Aratina solar farm project 2.0
Date: Thursday, March 4, 2021 2:50:33 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

To Whom It May Concern:

This is to further accentuate the impact these solar fields would have on the desert that surrounds our town on 4 sides. The first collage are pictures taken directly from 8 Minute Solar's website. The 2nd collage are pictures I've taken at various site locations within the perimeters of this Aratina 2.0 proposed project. This is what is at stake for us!!! Please don't let this project go through!! It would be a travesty!

Millie & Rob Ashpaugh

The 8minute Advantage



Status: Operational

Capacity: 280 MW

Offtakers: J. Aron & Company LLC., a subsidiary of Goldman Sachs





RECEIVED

MAR 11 2021

Kern County Planning &
Natural Resources Dept.

March 4, 2021

Dear Planning and Natural Resources Department,

We are writing to voice our objection to the proposed location of the Aratina Solar Project in Boron.

The solar fields come too close to our houses. There are hundreds and hundreds of miles of desert that are not anywhere near our homes.

We ask you to consider other locations for this project.

Respectfully,

A handwritten signature in blue ink that reads "Pat & Dijo". The signature is written in a cursive style.

Bob and Pat Jennings

A handwritten signature in blue ink that reads "Bob & Pat Jennings". The signature is written in a cursive style.

From: [Sharon Burgess](#)
To: [Ronelle Candia](#)
Subject: Boron - Aratina Solar Project 2.0 Objection
Date: Friday, March 5, 2021 2:11:43 PM

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I'm requesting that Kern County NOT approve the proposed Aratina Solar Project 2.0 in Boron.

This project would destroy hundreds, if not thousands, of our beautiful Joshua Trees. These Joshua trees are protected under the California Desert Native Plants Act and the California Endangered Species Act, but I have discovered that Aratina has received a waiver and may destroy the amazing trees.

This project will have a huge impact on wildlife in the area. There are desert tortoises, snakes, lizards, mice, squirrels, bobcats, and coyotes living in this proposed area.

When the wind blows the sand and dust will hit our areas of Boron and Desert Lake. It could cause Valley Fever and also driving conditions could be affected.

This proposed project will be devastating to our beautiful desert south of Boron and Desert Lake and it's heartbreaking to think what could happen. Again, please do not approve this project.

Thank you,
Sharon Burgess
27167 Jerome St
Boron, CA 93516

From: [Diana Wise](#)
To: [Ronelle Candia](#)
Subject: Proposed Aratina Solar Project in Boron
Date: Friday, March 5, 2021 1:56:21 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

To whom it may concern:

I am asking that you do not approve the proposed Aratina Solar Project 2.10 in Boron, California.

Thank you very much.

Sincerely,

Diana Wise
25842 Cherryhill Dr.
Boron, CA 93516

Sent from [Mail](#) for Windows 10

From: [Jamie Leal via Change.org](#)
To: [Ronelle Candia](#)
Subject: New petition to you: Oppose the Aratina solar project
Date: Saturday, March 6, 2021 12:42:17 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.



citizens of Boron: you've been listed as a decision maker

Jamie Leal started a petition on Change.org and listed you as a decision maker. Learn more about Jamie Leal's petition and how you can respond:



Jamie Leal is petitioning citizens of Boron (Kern county planning and natural resources department)

Oppose the Aratina solar project

Solar energy theoretically seems to be a better way to use our suns resources and produce energy. While certain aspects of the proposed Aratina Solar Project sound positive there are a lot more negative affects it can have on our...

[View the petition](#)

WHAT YOU CAN DO

1. View the petition: [Learn about the petition and its supporters.](#)

You will receive updates as new supporters sign the petition so you can see who is signing and why.

2. Respond to the petition: [Post a response](#) to let the petition supporters know you're listening, say whether you agree with their call to action, or ask them for more information.

3. Continue the dialogue: Read the comments posted by petition supporters and continue the dialogue so that others can see you're an engaged leader who is willing to participate in open discussion.

CHANGE.ORG FOR DECISION MAKERS

On Change.org, decision makers like you connect directly with people around the world to resolve issues. [Learn more](#).

This notification was sent to candiar@kerncounty.com, the address listed as the decision maker.

[Privacy policy](#)

We'd love to hear from you! [Contact us](#) through our help center.

Change.org · 548 Market St #29993, San Francisco, CA 94104-5401, USA

From: [Millie Ashpaugh](#)
To: [Ronelle Candia](#)
Subject: Re: Aratina solar farm project 2.0
Date: Saturday, March 6, 2021 10:42:50 AM
Attachments: [updated ltr to Ronnelle Candia Mar 6, 2021.docx](#)

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Good morning!

I am sending an updated version of my previous letter to oppose this project. It is attached as a Word document. I sent an email on the 1st with the original letter that I don't think went through. Maybe because of a picture I'd attached so I deleted it. Since then, I sent additional pictures in a separate email to you on the 4th that did go through. Could you please attach that email & pictures to this email and letter to illustrate the visual impact as well of what the solar panels would do to our surrounding area. Thank you!! I sure hope others are writing in again in opposition. Please stress to the decision makers how much we (the residents of Boron & Desert Lake) are opposed to this project.

Thank you,

Millie Ashpaugh

On Sat, Mar 6, 2021 at 8:36 AM Millie Ashpaugh <millie.ashpaugh@gmail.com> wrote:
Thank you!!

On Thu, Mar 4, 2021, 2:49 PM Millie Ashpaugh <millie.ashpaugh@gmail.com> wrote:
To Whom It May Concern:

This is to further accentuate the impact these solar fields would have on the desert that surrounds our town on 4 sides. The first collage are pictures taken directly from 8 Minute Solar's website. The 2nd collage are pictures I've taken at various site locations within the perimeters of this Aratina 2.0 proposed project. This is what is at stake for us!!! Please don't let this project go through!! It would be a travesty!

Millie & Rob Ashpaugh

Mar 6, 2021

To: Mrs. Ronelle Candia, Supervising Planner

Re: Aratina Solar Farm Project 2.0 by 64NB 8 MELLC (PP20401)

Dear Mrs. Candia

We received your letter dated February 26, 2021 for the above referenced Solar Farm Project. We see that there have been some changes made to the original plan. The location of the solar panels in some areas have been set back from the original proposed locations. We still cannot agree that this is acceptable. These industrial sized solar panels & their hazardous potential are WAY TOO CLOSE to our neighborhoods & community!! I am writing on behalf of my husband & myself to express opposition to the location & size of this proposed solar project so close to the town of Boron again for a variety of reasons. My husband & I own 3 properties in this area, our home & 2 rentals. One of the few positives to living in a small community like ours is the open spaces nearby to walk, ride, explore or simply admire. This proposed project would take over all those areas, ruin the landscape, displace the animal habitat, use our ground water, kill the Joshua trees, start fires, increase the temperature of the area, pollute the air & much more. I understand that any power that is generated from this particular Aratina 2.0 solar project doesn't benefit our area at all, but will be used in an upscale Northern California/Silicon Valley region.

We have a friend who lives in the Antelope Valley near the Poppy Reserve where another solar farm was built. I contacted her to ask the pros & cons of having them near where she & her neighbors live. She said, without hesitation, "There are no pros.....except for the money the land owners make by leasing their properties to the solar companies & the money the solar company stands to make!" Her electric bill doubled after the project was complete in her area.

The following is a list of some of our reasons why we are opposed to this project for the Boron & Desert Lake communities & our surrounding desert:

1. They are still located WAY TOO CLOSE to existing neighborhoods & communities & would land lock us from any potential for positive nearby development!!
2. They would destroy the beauty of the desert landscape within view & for miles to see.
3. They would damage or inhibit growth of the local vegetation.
4. They would negatively impact the local fauna & flora.
5. The output is affected by weather conditions.
6. It would increase the already hot temperatures in the area during spring & summer timeframes & negatively affect the overall global warming in the region & potentially the world.
7. Solar panels take up a large amount of land that cannot be shared or used for any other purpose for years.
8. There would be a significant impact to the air quality in the area. The materials used to make the solar panels can cause pollution as well.
9. There are serious health concerns such as Valley Fever that arise when you disturb desert land.

10. The brush in the area is cleared to install the solar panels but not well maintained.
11. The solar field will be a fire hazard on site & for nearby residences.
12. The solar panels will invite more graffiti & vandalism crimes (& we don't have full-time police presence in the area as it is, the police response time is upwards from ½ hour to 1 ½ hours speaking from experience). There has already been an upswing in vandalism & graffiti crimes in recent years that have to be painted over by town volunteers. We've had an increase in trash being dumped in the desert with no enforcement of county littering laws.
13. They all require that concrete (& other contaminants) be poured throughout the desert for their construction.
14. They have their own water wells which will use our ground water. We get little to no rain here as it is, even when neighboring communities get rain. There is not enough water to support a project of this magnitude. It will do more harm than good.
15. The Mojave Desert is one of the few places in the world that have Joshua trees. It takes hundreds of years for them to grow. They are protected & rare & beautiful & would be destroyed by the construction of this huge project.
16. The Mojave Desert is home to many endangered & protected species such as the Desert Tortoise. Lots of other desert creatures not found elsewhere live here too. Examples are the bobcat, kit foxes, chuckwallas, roadrunners, snakes, bobcats, coyotes, jack rabbits, etc...
17. All the off-road vehicle paths & easements etched years ago will be blocked off by this project (is that even legal?).
18. The solar energy harnessed won't benefit anyone in our area (except the landowners leasing their land to the solar companies, as stated before) & an upscale area in Northern California from what I'm told.
19. Our Southern California Edison bills will double.
20. They would be taking advantage of our rural community that is already underserved as it is.
21. Putting these panels in precludes any growth in our area for new housing or other development that would actually benefit us over the long haul.
22. They should build these solar projects at the source of need & more responsibly. Put the solar panels on rooftops, shade structures & over parking lots in the area they would serve.

We had another solar plant in this area that was recently decommissioned. It was built far enough into the desert that it didn't bother anyone. I don't understand why a project of this size couldn't be located at or near the old site so as not to disturb more land in our area. And what a mess was left behind! (We can supply pictures of the area if you'd like to see). All the equipment from this solar site was abandoned & left to disintegrate in the natural elements. Will that take another 20 years or more likely??

This project is being proposed on undisturbed undeveloped desert land. The solar panels will disturb acres & acres of this land directly across the street (give or take ½ mile) from the communities of Boron & Desert Lake & nearly all land in between from the San Bernardino County line to Edwards AFB. They will hook into nearby electrical subpanel without burying the lines to preserve any possible view (at their cost benefit). There is so much at stake here!! If agreed to, this type of project is a permanent one

!! Once the land is disturbed, there is no going back!! It would negatively impact the residents of Boron & the natural environment/habitat of this area for YEARS TO COME! Most of the town's people do not support this project in any way no matter what the backdoor deals this company makes with the private citizens. Please deny 8 minute Solar's request to build this near us & let them move on and pick a different location, FAR FAR AWAY from our little mining town. Let Boron go down in history for having the largest borax mine in the world & the largest open pit mining operation in California; not for having miles of solar panels that will only make a couple of people & a fast moving solar company rich!! We love our mine & mining town & the wide open vistas of the desert.

Thank you for giving us this opportunity to voice our concerns & opinions again before your final decision. We implore you to vote no on this Aratina Solar Field Project!! I sent a separate email with actual pictures from 8 Minute Solar's website & the current desert landscape of 3 of their proposed sites for a dramatic visual impact statement. They show the pre & post solar panel views.

Sincerely,

Millie (& Rob) Ashpaugh,

24183 Sage Ave., Boron, CA 93516

805-443-7239

From: [Crystal Job](#)
To: [Ronelle Candia](#)
Subject: Solar Project Proposal in Boron
Date: Tuesday, March 9, 2021 9:42:18 AM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

To Whom It May Concern,

I am a resident of Boron and I am writing in opposition of the proposed Solar Farm project in the Boron area. We live out where we do to enjoy our beautiful desert and the wildlife that resides there. We enjoy the quiet and our small town. Putting in a huge solar farm next to our residential community is absolutely not okay with us. We do not want to see it, we do not want our desert full of solar panels. There are thousand of miles of desert and they want to put it next to our homes and our schools. This is completely unacceptable and I hope as our representatives you will act according to what is best for the community of Boron and the people who reside here. We are one hundred percent against this project.

Thank you for your time,
Crystal Job

Sent from my iPhone

From: [Broc Job](#)
To: [Ronelle Candia](#)
Subject: Solar Project Proposal in Boron
Date: Wednesday, March 10, 2021 7:38:40 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

County Planning Officials,

I am a property owner with 1000 ft of the proposed Aratina Solar Project 2.0. I am adamantly against this project as it would negatively affect my home value and natural landscape that surrounds my residence that has been relatively untouched my entire life. There are miles and miles of untouched land away from small communities like mine that could be used for that purpose. I live here for a reason. I will not stand idly by and watch some company take over our natural land and put ugly solar panels and fencing near my home and quiet community. I also own a real estate business in this community with 7 rental properties. This would also negatively affect my business properties and there value and appeal.

The appeal to live in this community is the quiet and the natural desert landscape that provides for off road use, hiking and other outdoor activities that do not negatively affect the landscape.

Please add my name and J4 Properties Group LLC to the names of many of the local residents that are adamantly AGAINST this proposal.

Thank you,
Broc Job
24300 Chaparral Ave
Boron, CA 93516
760-403-2892

Sent from my iPhone



Kern Audubon Society
Attn: Franklin Bedard
P.O. Box 3581
Bakersfield, CA 93385
mbedard@bak.rr.com

March 10, 2021

submitted electronically

Ronelle Candia, Supervising Planner
Kern County Planning and Natural Resources Department
2700 "M" Street, Suite 100
Bakersfield, CA 93301
CandiaR@kerncounty.com

**Subject: Notice of Preparation of a Draft Environmental Impact Report
Aratina Solar Project 2.0 (Project), by 64NB 8ME LLC**

Dear Ms Candia:

The Kern Audubon Society (KAS), an interested party, received a notice of availability for a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the Kern County Planning and Natural Resources Department (County) for the above referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect the diverse California wildlife within the Project's footprint and its cumulative impacts in the region.

The proposed project, near the community of Boron, may have deleterious impacts on the imperiled desert cymopterus (*Cymopterus deserticola*) ranked by the California Native Plant Society as extremely rare (rankling: G2). The USFWS has been petitioned to list this desert plant under the Endangered Species Act. The desert cymopterus emerges only when climatic conditions are favorable and then blooms for a short period of time between March and May. This plant is considered to be in long term decline and has been identified on Edwards Air Force Base, directly south of the proposed project site.

The proposed DEIR should identify and evaluate potential adverse impacts to protected species that may utilize the disturbed and undeveloped desert saltbush scrub areas proposed for the Project activities. These undeveloped areas have potential to support desert kit fox, American badger, Western burrowing owl, Mohave ground squirrel, and desert tortoise. The biological site evaluation should be performed by qualified biological consultants using the appropriate survey protocols as established by both state and federal wildlife agencies.

It is imperative that all biological surveys be performed during the appropriate time of year to discern species presence for this eco-region. This is especially true for the desert cymopterus, desert tortoise and Mohave ground squirrel. Presence/absence surveys for both desert tortoise and Mohave ground squirrel can be negatively influenced by seasonal drought conditions so it is imperative that surveys be performed during years exhibiting average winter precipitation. Biological consultants should evaluate the Project's potential to subsidize and support local raven populations that depredate the endangered desert tortoises of the Mojave Desert region. Ravens represent a major threat to long term tortoise recovery in the Mojave. The proximity of the Desert Tortoise Preserve makes raven management a major concern. Due to the size of this Project and its proximity to other large solar developments in the region cumulative impacts to sensitive biological resources requires an analysis of said impacts.

KAS appreciates the opportunity to comment on the NOP for the Aratina Solar Project 2.0 DEIR by 64NB 8ME LLC and to assist the County in identifying Project impacts concerning local sensitive biological resources.

Sincerely,

Franklin Bedard
Conservation Chair
Kern Audubon Society



March 12, 2021

Ronelle Candia
Kern County Planning & Natural Resources Dept
2700 M St, Ste 100
Bakersfield, CA 93301

Ref: Gas and Electric Transmission and Distribution

Dear Ronelle Candia,

Thank you for submitting the Aratina Solar Project plans for our review. PG&E will review the submitted plans in relationship to any existing Gas and Electric facilities within the project area. If the proposed project is adjacent/or within PG&E owned property and/or easements, we will be working with you to ensure compatible uses and activities near our facilities.

Attached you will find information and requirements as it relates to Gas facilities (Attachment 1) and Electric facilities (Attachment 2). Please review these in detail, as it is critical to ensure your safety and to protect PG&E's facilities and its existing rights.

Below is additional information for your review:

1. This plan review process does not replace the application process for PG&E gas or electric service your project may require. For these requests, please continue to work with PG&E Service Planning: https://www.pge.com/en_US/business/services/building-and-renovation/overview/overview.page.
2. If the project being submitted is part of a larger project, please include the entire scope of your project, and not just a portion of it. PG&E's facilities are to be incorporated within any CEQA document. PG&E needs to verify that the CEQA document will identify any required future PG&E services.
3. An engineering deposit may be required to review plans for a project depending on the size, scope, and location of the project and as it relates to any rearrangement or new installation of PG&E facilities.

Any proposed uses within the PG&E fee strip and/or easement, may include a California Public Utility Commission (CPUC) Section 851 filing. This requires the CPUC to render approval for a conveyance of rights for specific uses on PG&E's fee strip or easement. PG&E will advise if the necessity to incorporate a CPUC Section 851 filing is required.

This letter does not constitute PG&E's consent to use any portion of its easement for any purpose not previously conveyed. PG&E will provide a project specific response as required.

Sincerely,

Plan Review Team
Land Management



Attachment 1 – Gas Facilities

There could be gas transmission pipelines in this area which would be considered critical facilities for PG&E and a high priority subsurface installation under California law. Care must be taken to ensure safety and accessibility. So, please ensure that if PG&E approves work near gas transmission pipelines it is done in adherence with the below stipulations. Additionally, the following link provides additional information regarding legal requirements under California excavation laws: <https://www.usanorth811.org/images/pdfs/CA-LAW-2018.pdf>

1. **Standby Inspection:** A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity that comes within 10 feet of the gas pipeline. This includes all grading, trenching, substructure depth verifications (potholes), asphalt or concrete demolition/removal, removal of trees, signs, light poles, etc. This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of 48 hours is required. Ensure the USA markings and notifications are maintained throughout the duration of your work.
2. **Access:** At any time, PG&E may need to access, excavate, and perform work on the gas pipeline. Any construction equipment, materials, or spoils may need to be removed upon notice. Any temporary construction fencing installed within PG&E's easement would also need to be capable of being removed at any time upon notice. Any plans to cut temporary slopes exceeding a 1:4 grade within 10 feet of a gas transmission pipeline need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.
3. **Wheel Loads:** To prevent damage to the buried gas pipeline, there are weight limits that must be enforced whenever any equipment gets within 10 feet of traversing the pipe.

Ensure a list of the axle weights of all equipment being used is available for PG&E's Standby Inspector. To confirm the depth of cover, the pipeline may need to be potholed by hand in a few areas.

Due to the complex variability of tracked equipment, vibratory compaction equipment, and cranes, PG&E must evaluate those items on a case-by-case basis prior to use over the gas pipeline (provide a list of any proposed equipment of this type noting model numbers and specific attachments).

No equipment may be set up over the gas pipeline while operating. Ensure crane outriggers are at least 10 feet from the centerline of the gas pipeline. Transport trucks must not be parked over the gas pipeline while being loaded or unloaded.

4. **Grading:** PG&E requires a minimum of 36 inches of cover over gas pipelines (or existing grade if less) and a maximum of 7 feet of cover at all locations. The graded surface cannot exceed a cross slope of 1:4.
5. **Excavating:** Any digging within 2 feet of a gas pipeline must be dug by hand. Note that while the minimum clearance is only 12 inches, any excavation work within 24 inches of the edge of a pipeline must be done with hand tools. So to avoid having to dig a trench entirely with hand tools, the edge of the trench must be over 24 inches away. (Doing the math for a 24 inch



wide trench being dug along a 36 inch pipeline, the centerline of the trench would need to be at least 54 inches [$24/2 + 24 + 36/2 = 54$] away, or be entirely dug by hand.)

Water jetting to assist vacuum excavating must be limited to 1000 psig and directed at a 40° angle to the pipe. All pile driving must be kept a minimum of 3 feet away.

Any plans to expose and support a PG&E gas transmission pipeline across an open excavation need to be approved by PG&E Pipeline Services in writing PRIOR to performing the work.

6. Boring/Trenchless Installations: PG&E Pipeline Services must review and approve all plans to bore across or parallel to (within 10 feet) a gas transmission pipeline. There are stringent criteria to pothole the gas transmission facility at regular intervals for all parallel bore installations.

For bore paths that cross gas transmission pipelines perpendicularly, the pipeline must be potholed a minimum of 2 feet in the horizontal direction of the bore path and a minimum of 12 inches in the vertical direction from the bottom of the pipe with minimum clearances measured from the edge of the pipe in both directions. Standby personnel must watch the locator trace (and every ream pass) the path of the bore as it approaches the pipeline and visually monitor the pothole (with the exposed transmission pipe) as the bore traverses the pipeline to ensure adequate clearance with the pipeline. The pothole width must account for the inaccuracy of the locating equipment.

7. Substructures: All utility crossings of a gas pipeline should be made as close to perpendicular as feasible ($90^\circ \pm 15^\circ$). All utility lines crossing the gas pipeline must have a minimum of 12 inches of separation from the gas pipeline. Parallel utilities, pole bases, water line 'kicker blocks', storm drain inlets, water meters, valves, back pressure devices or other utility substructures are not allowed in the PG&E gas pipeline easement.

If previously retired PG&E facilities are in conflict with proposed substructures, PG&E must verify they are safe prior to removal. This includes verification testing of the contents of the facilities, as well as environmental testing of the coating and internal surfaces. Timelines for PG&E completion of this verification will vary depending on the type and location of facilities in conflict.

8. Structures: No structures are to be built within the PG&E gas pipeline easement. This includes buildings, retaining walls, fences, decks, patios, carports, septic tanks, storage sheds, tanks, loading ramps, or any structure that could limit PG&E's ability to access its facilities.

9. Fencing: Permanent fencing is not allowed within PG&E easements except for perpendicular crossings which must include a 16 foot wide gate for vehicular access. Gates will be secured with PG&E corporation locks.

10. Landscaping: Landscaping must be designed to allow PG&E to access the pipeline for maintenance and not interfere with pipeline coatings or other cathodic protection systems. No trees, shrubs, brush, vines, and other vegetation may be planted within the easement area. Only those plants, ground covers, grasses, flowers, and low-growing plants that grow unsupported to a maximum of four feet (4') in height at maturity may be planted within the easement area.



11. Cathodic Protection: PG&E pipelines are protected from corrosion with an “Impressed Current” cathodic protection system. Any proposed facilities, such as metal conduit, pipes, service lines, ground rods, anodes, wires, etc. that might affect the pipeline cathodic protection system must be reviewed and approved by PG&E Corrosion Engineering.

12. Pipeline Marker Signs: PG&E needs to maintain pipeline marker signs for gas transmission pipelines in order to ensure public awareness of the presence of the pipelines. With prior written approval from PG&E Pipeline Services, an existing PG&E pipeline marker sign that is in direct conflict with proposed developments may be temporarily relocated to accommodate construction work. The pipeline marker must be moved back once construction is complete.

13. PG&E is also the provider of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E’s facilities must be reviewed and approved by PG&E to ensure that no impact occurs which may endanger the safe operation of its facilities.

Attachment 2 – Electric Facilities

It is PG&E's policy to permit certain uses on a case by case basis within its electric transmission fee strip(s) and/or easement(s) provided such uses and manner in which they are exercised, will not interfere with PG&E's rights or endanger its facilities. Some examples/restrictions are as follows:

1. Buildings and Other Structures: No buildings or other structures including the foot print and eave of any buildings, swimming pools, wells or similar structures will be permitted within fee strip(s) and/or easement(s) areas. PG&E's transmission easement shall be designated on subdivision/parcel maps as **"RESTRICTED USE AREA – NO BUILDING."**
2. Grading: Cuts, trenches or excavations may not be made within 25 feet of our towers. Developers must submit grading plans and site development plans (including geotechnical reports if applicable), signed and dated, for PG&E's review. PG&E engineers must review grade changes in the vicinity of our towers. No fills will be allowed which would impair ground-to-conductor clearances. Towers shall not be left on mounds without adequate road access to base of tower or structure.
3. Fences: Walls, fences, and other structures must be installed at locations that do not affect the safe operation of PG&E's facilities. Heavy equipment access to our facilities must be maintained at all times. Metal fences are to be grounded to PG&E specifications. No wall, fence or other like structure is to be installed within 10 feet of tower footings and unrestricted access must be maintained from a tower structure to the nearest street. Walls, fences and other structures proposed along or within the fee strip(s) and/or easement(s) will require PG&E review; submit plans to PG&E Centralized Review Team for review and comment.
4. Landscaping: Vegetation may be allowed; subject to review of plans. On overhead electric transmission fee strip(s) and/or easement(s), trees and shrubs are limited to those varieties that do not exceed 15 feet in height at maturity. PG&E must have access to its facilities at all times, including access by heavy equipment. No planting is to occur within the footprint of the tower legs. Greenbelts are encouraged.
5. Reservoirs, Sumps, Drainage Basins, and Ponds: Prohibited within PG&E's fee strip(s) and/or easement(s) for electric transmission lines.
6. Automobile Parking: Short term parking of movable passenger vehicles and light trucks (pickups, vans, etc.) is allowed. The lighting within these parking areas will need to be reviewed by PG&E; approval will be on a case by case basis. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications. Blocked-up vehicles are not allowed. Carports, canopies, or awnings are not allowed.
7. Storage of Flammable, Explosive or Corrosive Materials: There shall be no storage of fuel or combustibles and no fueling of vehicles within PG&E's easement. No trash bins or incinerators are allowed.



8. Streets and Roads: Access to facilities must be maintained at all times. Street lights may be allowed in the fee strip(s) and/or easement(s) but in all cases must be reviewed by PG&E for proper clearance. Roads and utilities should cross the transmission easement as nearly at right angles as possible. Road intersections will not be allowed within the transmission easement.

9. Pipelines: Pipelines may be allowed provided crossings are held to a minimum and to be as nearly perpendicular as possible. Pipelines within 25 feet of PG&E structures require review by PG&E. Sprinklers systems may be allowed; subject to review. Leach fields and septic tanks are not allowed. Construction plans must be submitted to PG&E for review and approval prior to the commencement of any construction.

10. Signs: Signs are not allowed except in rare cases subject to individual review by PG&E.

11. Recreation Areas: Playgrounds, parks, tennis courts, basketball courts, barbecue and light trucks (pickups, vans, etc.) may be allowed; subject to review of plans. Heavy equipment access to PG&E facilities is to be maintained at all times. Parking is to clear PG&E structures by at least 10 feet. Protection of PG&E facilities from vehicular traffic is to be provided at developer's expense AND to PG&E specifications.

12. Construction Activity: Since construction activity will take place near PG&E's overhead electric lines, please be advised it is the contractor's responsibility to be aware of, and observe the minimum clearances for both workers and equipment operating near high voltage electric lines set out in the High-Voltage Electrical Safety Orders of the California Division of Industrial Safety (<https://www.dir.ca.gov/Title8/sb5g2.html>), as well as any other safety regulations. Contractors shall comply with California Public Utilities Commission General Order 95 (http://www.cpuc.ca.gov/gos/GO95/go_95_startup_page.html) and all other safety rules. No construction may occur within 25 feet of PG&E's towers. All excavation activities may only commence after 811 protocols has been followed.

Contractor shall ensure the protection of PG&E's towers and poles from vehicular damage by (installing protective barriers) Plans for protection barriers must be approved by PG&E prior to construction.

13. PG&E is also the owner of distribution facilities throughout many of the areas within the state of California. Therefore, any plans that impact PG&E's facilities must be reviewed and approved by PG&E to ensure that no impact occurs that may endanger the safe and reliable operation of its facilities.

From: [Roy Richards](#)
To: [Ronelle Candia](#)
Subject: Opposition to Aratina 2.0
Date: Friday, March 12, 2021 10:37:17 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Hello,

I am writing in opposition to the updated proposal known as Aratina 2.0. I have called Boron my home for most of my life and my family has enjoyed the desert being targeted by this project for generations. Five generations to be exact. My father and great grandmother used to take long walks in the desert south of Boron in the late 1950's. There has been a Richards on our street ever since.

But this is not just a selfish opposition, this project is flawed and could endanger the members our community. Just one example are the Main gates for at least three areas are on the south side of tracks. If a train blocks the tracks, a frequent occurrence, during the beginning or ending of shift there is potential for 1000 workers spilling into 20 Mule Team Road. This would also impact emergency services from reaching anyone in need on the south side of the tracks...resident or worker. And access road to Section 2 requires traffic to go through south neighborhoods, on SW corner of houses on south side of town. This route goes past the park and a number of school bus stops. The other entrance is across the street from West Boron Elementary school and a pre-school. We are a small town and cannot absorb this level of traffic safely. Not to mention our roads would be further damaged by the heavy traffic.

Finally their "after" images in the proposal and website are misleading. They still show Joshua trees that would be removed. Hundreds of Joshua trees and all the wildlife that rely on them.

I am not a fan of this project as planned. It would permanently scar the beauty of our desert and essentially surround our town with industrial complex. We might as well be living in an inner city. Not something anyone wants.

Thank you for your time.

Best regards,
Roy Richards
661-754-9035

From: [David Eyre](#)
To: [Ronelle Candia](#)
Subject: Full rejection of the Aratina Solar Project...
Date: Tuesday, March 16, 2021 7:18:32 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

To whom it may concern:

As a resident of this great Mojave Desert..You can assure yourself that I am in full Opposition to this land destruction you so romantically refer to as the " Aratina Solar Project 2.0 "

I realise that many " Dim witted politicians" only view this great Mojave Desert as the "Proverbial Waist Land"....Unfortunately these people have never lived in the place were wild flower season is a plethora of color...Like this great Mojave Desert.....

Yes, I have spoken with the "Politician" from the Solar company.....And yes, the phone spent most of the time setting on the desk...While he droned on about how great they were at putting up solar fields that looked better than the "other guys".....

Yes , I understand that solar field get installed cheaply when they are close to "substations"....And ,yes, this company does not have the funds and the design back ground to erect solar panels in the proper locations...Parking lots, driveways, streets...and other "Dead land " locations....

Shade..... Think Shade.... " Not the destruction of land, that supplies pleasures and inspiration to many people"

Shade, like solar umbrellas over the sidewalks and the benches that people would use to enjoy the wonderful days we have on this great Mojave Desert.....Solar over parking lots....Driveways.....Solar over the seating at the football stadiums at schools.....

Think "People" not "Destruction" of beautiful land and great views that others are willing to waist for profit....Cheap profit.....

So "you" don't get your 2,317 acres of solar panels....Think about the beautiful lands this great Mojave Desert has to offer....Not ugly solar field....Think about "dead land" there is lots of that to work with, find it...Don't make it.....

David Eyre... 760 762 6861.....

March 15, 2021

Kern County Planning and Natural Resources Department
Attn: Ronelle Candia
candiar@kerncounty.com
2700 "M" Street, Suite 100
Bakersfield, CA 93301
(661)862-8997

RE: Support for Aratina Solar Project 2.0

I am writing this letter to support the Aratina Solar Project 2.0. I live and work in Kern County and am a member of IBEW labor union.

Kern County continues to be the leader in the nation for providing solar energy. Solar energy projects approved and constructed in Kern County have represented thousands of jobs and provided economic vitality during these tough economic times to Kern County residents like me. The Aratina 2.0 project is another example of a project that will help me and my fellow union members earn good living wages to pay for housing and provide for our families. Projects like Aratina 2.0 have proven to be greatly beneficial for local businesses in the area. I believe that local businesses like gas stations, markets, and restaurants will receive a significant economic boost which they can all use during these difficult and uncertain times.

For the above reasons and more, I strongly support 8minute and its Aratina 2.0 project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tyler Brewton', written over a horizontal line.

TYLER BREWTON

March 15, 2021

Kern County Planning and Natural Resources Department
Attn: Ronelle Candia
candiar@kerncounty.com
2700 "M" Street, Suite 100
Bakersfield, CA 93301
(661)862-8997

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Sincerely,

A handwritten signature in black ink, appearing to read 'Ryan Jason Sanchez', written over a horizontal line.

RYAN JASON SANCHEZ

March 15, 2021

Kern County Planning and Natural Resources Department
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candiar@kerncounty.com
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Sincerely,



JOSE VILLA

March 15, 2021

Kern County Planning and Natural Resources Department
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candiar@kerncounty.com
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Sincerely,



WILLIAM NICHOLS

March 15, 2021

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candiar@kerncounty.com
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Sincerely,



MICHAEL MOOTRY

March 15, 2021

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candiar@kerncounty.com
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Sincerely,

A handwritten signature in black ink, appearing to read 'Eduardo Herrera', written over a horizontal line.

ÉDUARDO HERRERA

March 15, 2021

Kern County Planning and Natural Resources Department
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candiar@kerncounty.com
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Sincerely,



ERNESTO DUARTE

March 15, 2021

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candiar@kerncounty.com
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Sincerely,

A handwritten signature in black ink, appearing to read "GERIN BRISON", written over a horizontal line.

GERIN BRISON

March 15, 2021

Kern County Planning and Natural Resources Department
Attn: Ronelle Candia
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Sincerely,


Raymond Dodge

March 15, 2021

Kern County Planning and Natural Resources Department
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candiar@kerncounty.com
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Sincerely,

Samuel Melendez

March 15, 2021

Kern County Planning and Natural Resources Department
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candiar@kerncounty.com
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Sincerely,



SAKI SAN

March 15, 2021

Kern County Planning and Natural Resources Department
Attn: Ronelle Candia
candiar@kerncounty.com
2700 "M" Street, Suite 100
Bakersfield, CA 93301
(661)862-8997

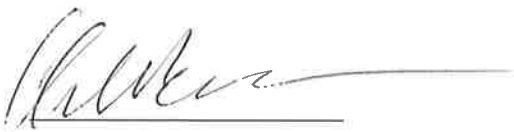
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Sincerely,

A handwritten signature in black ink, appearing to read "Christian Baker", with a long horizontal line extending to the right.

CHRISTIAN BAKER

I am writing this letter to support the Aratina Solar Project 2.0. I live and work in Kern County and am a member of the LiUNA! Local 220 which is a labor union that works on various projects.

Kern County continues to be the leader in the nation for providing solar energy. Solar energy projects approved and constructed in Kern County have represented thousands of jobs and provided economic vitality during these tough economic times to Kern County residents like me. The Aratina 2.0 project is another example of a project that will help me and my fellow union members earn good living wages to pay for housing and provide for our families. Projects like Aratina 2.0 have proven to be greatly beneficial for local businesses in the area. I believe that local businesses like gas stations, markets, and restaurants will receive a significant economic boost which they can all use during these difficult and uncertain times.

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ERIC CHERRY JR
3005 SARATOGA ST.
BAKERSFIELD, CA 93306

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RUBEN CEBALLOS JR
2338 CENTER STREET
BAKERSFIELD, CA 93306

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LAMORRIS DAVIS
10106 SEVEN FALLS AVE
BAKERSFIELD, CA 93312

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JESUS DELGADO
1115 QUINCY STREET
BAKERSFIELD, CA 93305

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RAMON LANDIN JR
5413 VIEWCREST DR
BAKERSFIELD, CA 93313

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ANTHONY MACIAS
5602 CASCADE RIDGE STREET
BAKERSFIELD, CA 93307

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ANTHONY MARTINEZ
705 PENTZ STREET
BAKERSFIELD, CA 93306

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SILVESTRE RAYA
1214 9TH STREET #K
WASCO, CA 93280

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RENE SANCHEZ JR
2621 ROSE MARIE DR
BAKERSFIELD, CA 93304

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JD MOORE
407 RIOS STREET
BAKERSFIELD, CA 93307

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ALFREDO MOLINA
2211 THELMA DR
BAKERSFIELD, CA 93305

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LORENZO MORAN
2201 PAGEANT ST.
BAKERSFIELD, CA 93306

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MATTHEW MORMANN
2832 CLAIRE ST #B
LAKE ISABELLA, CA 93240

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BRIAN MORENO
13810 ELBURY AVE
BAKERSFIELD, CA 93311

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LOUIS MORENO
1707 ALTA VISTA DR
BAKERSFIELD, CA 93305

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VALENTE MORENO
6905 OUTINGDALE DR
BAKERSFIELD, CA 93309

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MARCO MORIN
2818 RENEGADE AVE
BAKERSFIELD, CA 93306

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FRANCISCO NAJERA
2913 WATERGRASS RD
BAKERSFIELD, CA 93306

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EMMANUEL NAVARRO
1330 EVADONNA RD
BAKERSFIELD, CA 93307

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ROBERT OCHOA
13900 ADAMS DR
WELDON, CA 93283

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MANUEL ORTIZ
1301 JEFFERSON ST.
BAKERSFIELD, CA 93305

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JUAN PALACIOS
217 TUCKER
ARVIN, CA 93203

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GARRY PARK
15237 ROADRUNNER RD
WELDON, CA 93283

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ARYN PEREZ
1830 VINCA CT
BAKERSFIELD, CA 93304

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MIGUEL PEREZ
6203 PROVINCETOWN AVE
BAKERSFIELD, CA 93313

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JACK PETERS
4304 BALBOA STREET
LAKE ISABELLA, CA 93240

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VALENTIN PINALES
2113 CANTER WAY
BAKERSFIELD, CA 93309

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ANGEL POSADAS
9312 CASA DE ORO LN
BAKERSFIELD, CA 93306

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KEVIN PROCTOR
3300 MOUNT VERNON AVE
BAKERSFIELD, CA 93306

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JOSE QUINTERO
5642 GOBI AVE
ROSAMOND, CA 93560

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OSCAR RAMIREZ
5403 MESTO WAY
BAKERSFIELD, CA 93313

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JOXAN RAMIREZ
6204 PROVINCETOWN AVE
BAKERSFIELD, CA 93313

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PERFECTO RAMIREZ
9427 METROPOLITAN WAY
BAKERSFIELD, CA 93311

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ROSA RAMIREZ
6204 PROVINCETOWN AVE
BAKERSFIELD, CA 93313

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MARTIN RAYA
1533 1ST STREET
WASCO, CA 93280

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ROGER REMY JR
7017 POINTER COURT
BAKERSFIELD, CA 93309

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SILVERIO REYES DIAZ
5404 VIEW CREST DRIVE
BAKERSFIELD, CA 93313

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LUIS ROBLES
137 PICO ST
TAFT, CA 93268

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DOMINGO RODRIGUEZ JR
6005 GREEN VALLEY WAY
BAKERSFIELD, CA 93311

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JOSE RODRIGUEZ JR.
187 LA MESA DR
BAKERSFIELD, CA 93305

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JUAN RODRIGUEZ-PEREZ
2808 DORE DR
BAKERSFIELD, CA 93304

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ROSEANNA ROMO
30 PACIFIC ST
BAKERSFIELD, CA 93305

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PETER RUIZ
11109 CYPRESS FALLS AVE
BAKERSFIELD, CA 93312

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SERGIO SALGADO
619 31ST STREET
BAKERSFIELD, CA 93301

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MARIO SALINAS
4413 UNDERWOOD DR
BAKERSFIELD, CA 93301

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CARLOS SANCHEZ
6200 CASTLESTONE ST
BAKERSFIELD, CA 93313

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ISRAEL SANCHEZ
3400 HARMONY DR
BAKERSFIELD, CA 93306

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JOHN SANCHEZ
3218 N CHESTER AVE #A
BAKERSFIELD, CA 93308

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JOHN SCHOLL
2609 MCNUTT STREET
BAKERSFIELD, CA 93306

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KIZZY SCOGGINS
2624 17TH STREET
BAKERSFIELD, CA 93301

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JUSTIN SELF
11909 STELLAR AVE
BAKERSFIELD, CA 93312

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CORY SOUTHWOOD
3017 ASHBY STREET
BAKERSFIELD, CA 93308

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MORAD TADROS
10820 VISTA DEL RANCHO
BAKERSFIELD, CA 93311

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JOSE TAMAYO
6815 RUSH POINT CT
BAKERSFIELD, CA 93313

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SHARON TEAGARDEN
330 S. GARNSEY AVE
BAKERSFIELD, CA 93309

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BRIAN TORREZ
1109 JIMSON STREET
BAKERSFIELD, CA 93307

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MARIO TORRES
945 ALMOND TREE WAY
DELANO, CA 93215

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RODNEY UPSHAW
6003 WOODARD RIDGE DR
BAKERSFIELD, CA 93313

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SETH VAJNER
10904 CONNEMARA CT
BAKERSFIELD, CA 93312

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DANIEL VALENZUELA
7400 ASSERI STREET
BAKERSFIELD, CA 93313

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ELIAS VARGAS
4707 MARSH HAWK DR
BAKERSFIELD, CA 93312

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LAWRENCE VELOZ
10221 ROEHAMPTON AVE
BAKERSFIELD, CA 93312

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HUGO VILLALOBOS
2009 TALISMAN DR
BAKERSFIELD, CA 93304

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JEREMY VILLANUEVA
3700 SWEET SPRINGS ST.
BAKERSFIELD, CA 93309

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MANUEL VILLARREAL
25 BEECH ST
BAKERSFIELD, CA 93304

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ALEXANDER VILLATORO
316 BILL AVE
BAKERSFIELD, CA 93304

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TENNERO WALL
117 N STREET #12
BAKERSFIELD, CA 93304

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DONNY WILLIAMS
3410 CHRISTMAS TREE LN
BAKERSFIELD, CA 93306

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RICKY WILLIFORD
P.O.BOX 562
BODFISH, CA 93205

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For the above reasons and more, I strongly support 8minute and its Aratina 2.0 project.

MCKINLEY WOMACK
1624 E. 11TH STREET
BAKERSFIELD, CA 93307

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JAVIER ZUNIGA JR
1104 LA MADRID ST
ARVIN, CA 93203

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PAUL ABBOTT
34334 7TH STANDARD RD
BAKERSFIELD, CA 93314

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GUILLERMO ACOSTA
2013 COLLEN DR # 46
ROSAMOND, CA 93560

A handwritten signature in black ink, appearing to read "Guillermo Acosta", is written over a horizontal line.

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KEVIN ADKINS
3309 DE ETTE COURT
BAKERSFIELD, CA 93313

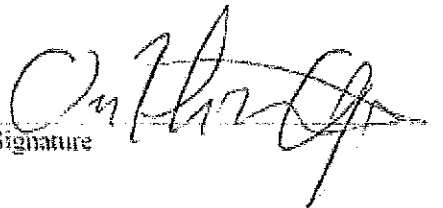
A handwritten signature in cursive script that reads "Kevin Adkins". The signature is written in black ink and is positioned below the typed name and address.

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ANTHONY AGUIRRE
9417 MANIHIKI AVE
BAKERSFIELD, CA 93311

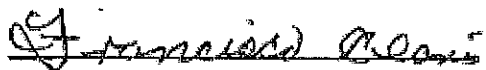

Signature

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FRANCISCO ALANIS
647 VASQUEZ AVE.
SHAFTER, CA 93263

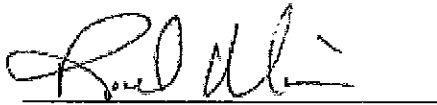
A handwritten signature in black ink that reads "Francisco Alanis". The signature is written in a cursive style and is positioned above a horizontal line.

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ROEL ALANIS
2401 MCCRAY ST. #217
BAKERSFIELD, CA 93308

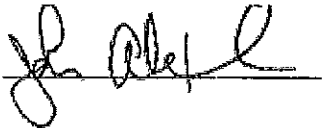
A handwritten signature in black ink, appearing to read "Roel Alanis", is written over a horizontal line.

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JOHN ALEXANDER
10305 MICHELE AVE
BAKERSFIELD, CA 93312

A handwritten signature in black ink, appearing to read "John Alexander", written over a horizontal line.

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LEONARDO ALVARADO
801 SCHIPPER STREET #37
ARVIN, CA 93203



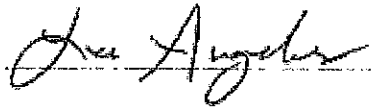
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LEE ANGELES
917 LOST TRAIL WAY
BAKERSFIELD, CA 93307

A handwritten signature in cursive script that reads "Lee Angeles". The signature is written in black ink and is positioned below the typed name and address.

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JAMES APPERSON
2910 PEERLESS AVE
BAKERSFIELD, CA 93308

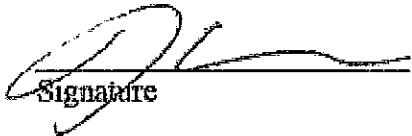

SIGNATURE

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JOSEPH ARAMBULO
4709 GRADENWOOD LANE
BAKERSFIELD, CA 93309


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HIPOLITO ARCETA
4012 KENTON CT
BAKERSFIELD, CA 93309

A handwritten signature in cursive script that reads "Hipolito Arceta". The signature is written in black ink on a white background.

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SERGIO AUSUA
506 IRENE STREET # B
BAKERSFIELD, CA 93305



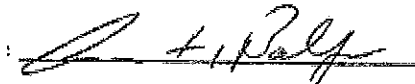
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ARMANDO BALTAZAR
2925 MCCALL AVE
BAKERSFIELD, CA 93304

A handwritten signature in black ink, appearing to read "Armando Baltazar", written over a horizontal line.

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JOSE BENAVIDES
300 CHRIS CT
SHAFTER, CA 93263



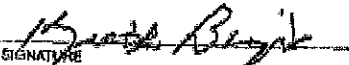
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KEITH BISPO
4208 MILO AVE.
BAKERSFIELD, CA 93313


SIGNATURE

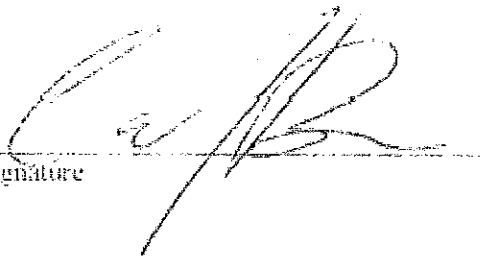
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CARLOS BORRERO
2401 LAKE STREET
BAKERSFIELD, CA 93306

Signature


A handwritten signature in black ink, appearing to read 'C Borrero', written over a horizontal line. The signature is stylized and cursive.

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JERRY BOWEN II
4304 VOLLEY ST
BAKERSFIELD, CA 93313


Signature

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JACK BRACKETT
12508 MARRADI AVE
BAKERSFIELD, CA 93312

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RICHARD BRADLEY
315 HIGHLAND DR
BAKERSFIELD, CA 93308

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JOSEPH BURRIS
1204 W. BENSON AVE
RIDGECREST, CA 93555

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JOE CABRERA
524 K STREET
BAKERSFIELD, CA 93304


Signature

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MONICO CABRERA
409 L STREET
BAKERSFIELD, CA 93304

monico cabrera
Signature

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JIMMY CARBAJAL
608 R STREET
BAKERSFIELD, CA 93304

A handwritten signature in cursive script that reads "Jimmy Carbaljal". The signature is written in black ink and is positioned above a horizontal line.

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Xuis A. Cardenas

*3700 Grissom St
Bakersfield CA. 93309*

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JUAN CARDENAS
2717 CENTELLA WAY
ARVIN, CA 93203



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ERIC CARRILLO
6217 BODEN PLACE
BAKERSFIELD, CA 93306

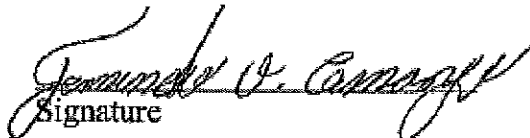
A handwritten signature in black ink, appearing to read "Eric Carrillo", is written over a horizontal line.

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For the above reasons and more, I strongly support 8minute and its Aratina 2.0 project.

FERNANDO CAMARGO
1217 NILES ST
BAKERSFIELD, CA 93305



Signature

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JACOB CAROLUS
9619 GODIVA AVE
BAKERSFIELD , CA 93311



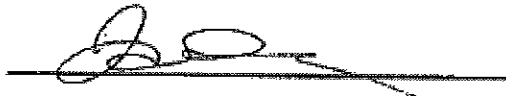
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JUAN CASTILLO
1306 BADGER PASS AVE
BAKERSFIELD, CA 93307

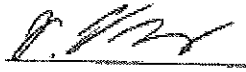
A handwritten signature in black ink, appearing to read 'Juan Castillo', is written over a horizontal line. The signature is stylized and cursive.

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OSCAR CASTILLO
2808 AKERS RD
BAKERSFIELD, CA 93309

A handwritten signature in black ink, appearing to read "Oscar Castillo", is written over a horizontal line.

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Gabriela Castro
339 Mark Ave.
Shafter, CA 93263

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Anthony Cazares

5700 Samuelson St

Bakersfield CA

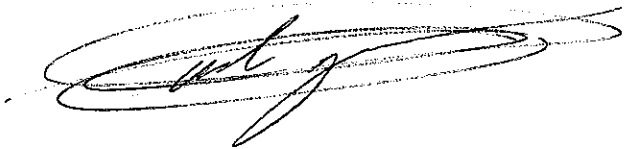
Anthony Cazares

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Coel CAZARES
5700 SAMUELSON ST
BAKERSFIELD CA 93313

A handwritten signature in black ink, appearing to read 'Coel', is written over a horizontal line. The signature is stylized and somewhat cursive.

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ROBERTO CAZARES
7523 CARSON RIVER RD
BAKERSFIELD, CA 93311

Signature: 

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MICHAEL CHAVEZ
2228 S REAL RD APT #100
BAKERSFIELD, CA 93309


SIGNATURE

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WALTER COBB
3525 KENNEDY AVE
BAKERSFIELD, CA 93309


SIGNATURE

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RUBEN DELGADILLO
6021 CARACAS AVE
BAKERSFIELD, CA 93313

Signature: 

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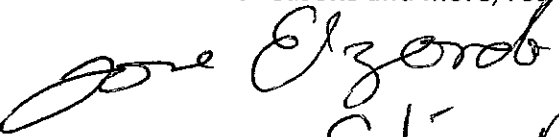
CHARLEY DENWITTY
2200 N INYO STREET #C
BAKERSFIELD, CA 93305


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Jose Elizondo

4312 Charter Oaks Ave.
Bakersfield CA 93309

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DAVID ESCOBEDO
1217 INTERLAKEN DR
BAKERSFIELD, CA 93307

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Jorge Estrada Hernandez
2625 California Ave.
Bakersfield CA 93304

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JOSE FLORES
1910 GREENBRIER CT
WASCO CA 93280

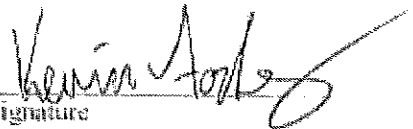
Jose Flores

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KEVIN FORBES
8507 WILDMINT DR
LAKE ISABELLA, CA 93240


Signature

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Juan Fuentes
2020 Quincy St.
Bakersfield CA 93305

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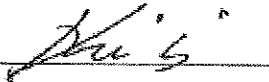
DAVID GAMINO
3312 CREST DR
BAKERSFIELD, CA 93306

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KENNETH GARCIA
17 S. KING ST #A
BAKERSFIELD, CA 93307

x 

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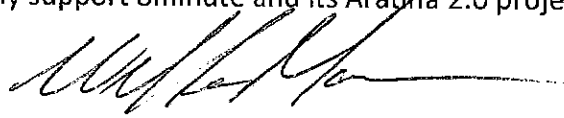
Jordan Skinner
1531 Alameda Ave
Bakersfield CA 93305

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William Maack
9850 Dace Ave.
Bakersfield CA 93307



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Charles Crowe


Charles Crowe

3516 Shellmacker Ave.
Bakersfield, CA 93301

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James Altieri SR 

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Jason Alter 

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Carlos A. Martinez


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ALBERT S ONTIVERO S 1828

904 S. Chester Ave.
Bakersfield CA 93304

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David Padilla



2708 Lum Ave
Bakersfield CA 93304

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Oliver Rauls Amparo Rosales

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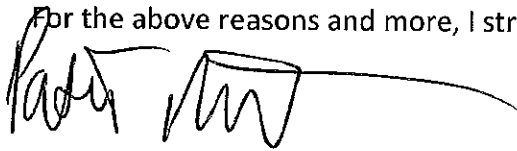
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A handwritten signature in black ink, appearing to read "Chris [unclear]". The signature is fluid and cursive, with a large initial "C" and a long, sweeping tail.

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For the above reasons and more, I strongly support 8minute and its Aratina 2.0 project.

A handwritten signature in black ink, appearing to read "Randy W.", followed by a long horizontal line extending to the right.

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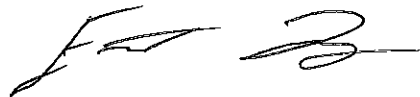
10300 Summerfield DR.
Bakersfield CA 93311

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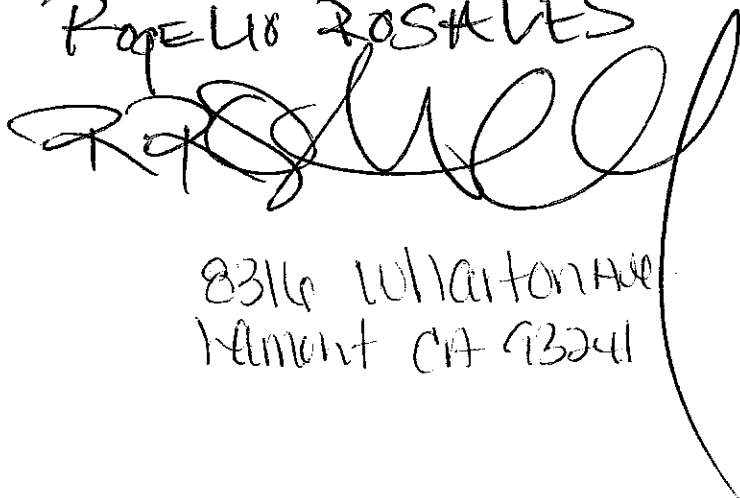
ERNESTO LANDEROS
726 BERNARD ST APT B
BAKERSFIELD, CA

A handwritten signature in black ink, appearing to read 'Ernesto Landeros', with a stylized flourish at the end.

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ROSELIO ROSALES

8316 Wharton Ave
Hanford CA 93241

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EMILIO PALOMINO

A stylized, handwritten signature in black ink, appearing to be 'E. Palomino', with a large, sweeping flourish at the end.

812 Crane St.
Bakersfield CA 93306

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Louie Rojas

A handwritten signature in black ink, appearing to be 'Louie Rojas', with a long horizontal stroke extending to the right.

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Somo Dennis

A handwritten signature in black ink, appearing to be 'Somo Dennis', written in a cursive style.

4513 Isla Verde St #10
Bakersfield CA 93301

I am writing this letter to support the Aratina Solar Project 2.0. I live and work in Kern County and am a member of the LIUNA! Local 220 which is a labor union that works on various projects.

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Pedro Rodriguez
104 Liggett St
Bakerfield CA 93307

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Jose V. Rana
410 Kirklees Ct
Bakersfield CA 93307

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Hertz Ramirez
9004 Carnegie Hall Ln
Bakersfield CA 93311

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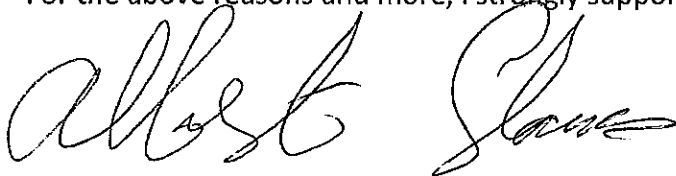
FREDERICK WALTHER
2709 LEE DRIVE
BAKERSFIELD, CA 93304

A handwritten signature in black ink that reads "Fred Walther". The signature is written in a cursive style with a large, sweeping initial "F".

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A handwritten signature in black ink that reads "Albert Jones". The signature is written in a cursive style with a long horizontal flourish at the end of the name.

49517 Brett Ave.
Tehechepe CA 93561

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VICTOR GASTELUM
6316 GOLDSTONE DR
BAKERSFIELD, CA 93313

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EVAN GILTNER
4801 FRUITVALE AVE #165
BAKERSFIELD, CA 93308

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TEOFILO GONZALEZ
7617 DELIGHT AVE.
LAMONT, CA 93241

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MASSON GRAHAM
6209 SCENIC WAY
BAKERSFIELD, CA 93309

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CARLETON GRAIM
2401 CHRISTMAS TREE LN #106
BAKERSFIELD, CA 93306

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JOSE GRAJEDA
212 E. 9TH STREET
BAKERSFIELD, CA 93307

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JAIME GUTIERREZ
1010 WOODROW ST
BAKERSFIELD, CA 93308

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JOSEPH GUTIERREZ
565 EAST TULARE AVE
SHAFTER, CA 93263

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SETH HAZDOVAC
19720 KID PLACE
TEHACHAPI, CA 93561

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DAVID HODGES
238 AUGUSTA STREET
BAKERSFIELD, CA 93307

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MARCUS HOUSTON
227 HAYSLETT AVE
BAKERSFIELD, CA 93307

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ZACHARY HUNTER
2722 LA CRESTA DR
BAKERSFIELD, CA 93305

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PHILLIP JENSEN
1401 SHATTUCK AVE
BAKERSFIELD, CA 93305

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BRICE JOHNSEN
932 COUGAR RUN DR
BAKERSFIELD, CA 93306

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BRIAN JONES
1514 MONTE VISTA AVENUE
ROSAMOND, CA 93560

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JOHN KALAVERAS
23 FERNWOOD LANE
BAKERSFIELD, CA 93308

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JUAN LAGUNES ESPEJO
115 WESTERN DRIVE
BAKERSFIELD, CA 93309

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OSCAR LAINEZ
5631 WILSON RD #A
BAKERSFIELD, CA 93309

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DANIEL LANDA
1317 COLUMBUS ST.
BAKERSFIELD, CA 93305

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EUGENE LEAL
3604 TORI LORENE AVE
BAKERSFIELD, CA 93313

I am writing this letter to support the Aratina Solar Project 2.0. I live and work in Kern County and am a member of the LiUNA! Local 220 which is a labor union that works on various projects.

Kern County continues to be the leader in the nation for providing solar energy. Solar energy projects approved and constructed in Kern County have represented thousands of jobs and provided economic vitality during these tough economic times to Kern County residents like me. The Aratina 2.0 project is another example of a project that will help me and my fellow union members earn good living wages to pay for housing and provide for our families. Projects like Aratina 2.0 have proven to be greatly beneficial for local businesses in the area. I believe that local businesses like gas stations, markets, and restaurants will receive a significant economic boost which they can all use during these difficult and uncertain times.

For the above reasons and more, I strongly support 8minute and its Aratina 2.0 project.

RAYMOND LEIJA
8925 BUTTERNUTT AVE
BAKERSFIELD, CA 93306

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FRANCISCO LEON VARGAS
12208 HILL COUNTRY DR
BAKERSFIELD, CA 93312

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MICHAEL LOZANO
5812 CAMP STREET
BAKERSFIELD, CA 93307

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EFRAIN LUNA GUTIERREZ
2203 POVANE CT
BAKERSFIELD, CA 93313

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RAMIRO LUNA
1609 EL RALFO DR
BAKERSFIELD, CA 93304

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ERNESTO MACHADO
6208 CHESTER W. NIMITZ ST
BAKERSFIELD, CA 93304

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GARY MANNING
9222 MANOR GLEN
SHAFTER, CA 93363

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ANTHONY MCGREGORY
3012 CORVALLIS LN.
BAKERSFIELD, CA 93309

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JERRY MCDONALD
1005 R STREET
BAKERSFIELD, CA 93304

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OMAR MENDEZ
316 TYREE TOLIVER ST.
BAKERSFIELD, CA 93307

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VALENTIN MENDEZ
9415 TOKELAND CT
BAKERSFIELD, CA 93312

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NICOLAS MENDEZ
1770 PRAIRE ROSE WAY
WASCO, CA 93280

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JOSE MIRAMONTES
5300 FAIRFAX RD #2
BAKERSFIELD, CA 93306

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FRANK MIRANDA
3124 UNIVERSITY AVE
BAKERSFIELD, CA 93306

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CHAINY MITCHELL
276 SAN JUAN ST
MCFARLAND, CA 93250

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Jeff DeBenedetto

Murvin-16-2021

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Benito Olivares

A handwritten signature in black ink, appearing to be "Benito Olivares", written in a cursive style.

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Adrian Gutierrez 

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Chris Valencia

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ERVOSTO CHAVEZ 

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Daniel Maga  3-17-21

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Rafael Ramirez

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Felix Ramirez





3-17-21

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Manuel Garcia 

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Francisco Perez

A handwritten signature in black ink, appearing to read 'Francisco Perez', written in a cursive style.

From: [Fernando Espinoza](#)
To: [Ronelle Candia](#)
Subject: 232-131-03 parcel
Date: Thursday, March 18, 2021 12:10:23 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Hi my name is Fernando espinoza

I owned a parcel : 232-131-03 I will like to know how will affect my property with the new project
Aranita farm solar thank you

Sent from my iPhone

From: [Tony Montana](#)
To: [Ronelle Candia](#)
Subject: Support for solar
Date: Friday, March 19, 2021 1:43:53 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Sent from my iPhone

Begin forwarded message:

From: Tony Montana <tone3rd4u@icloud.com>
Date: March 19, 2021 at 1:17:24 PM PDT
To: candiar@kerncounty.com
Subject: Support for solar

I am writing this letter to support the Aratina Solar Project 2.0. I live and work in Kern County and am a member of IBEW labor union.

Kern County continues to be the leader in the nation for providing solar energy. Solar energy projects approved and constructed in Kern County have represented thousands of jobs and provided economic vitality during these tough economic times to Kern County residents like me. The Aratina 2.0 project is another example of a project that will help me and my fellow union members earn good living wages to pay for housing and provide for our families. Projects like Aratina 2.0 have proven to be greatly beneficial for local businesses in the area. I believe that local businesses like gas stations, markets, and restaurants will receive a significant economic boost which they can all use during these difficult and uncertain times.

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Sincerely, Tony Haynes I.b.e.w Apprentince

Sent from my iPhone

From: [Randy Tolle](#)
To: [Ronelle Candia](#)
Subject: Re: Aratina Solar Farm Project
Date: Tuesday, March 23, 2021 8:48:11 AM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

https://youtu.be/IqGhC-av_wU

If one walks away from the roads there is little dumping except from military aircraft.
Easy to find old machine gun shell cases and belt segments.

Some as old as 1929

On Mon, Oct 5, 2020, 10:27 PM Ronelle Candia <Candiar@kerncounty.com> wrote:

Good Evening,

Thank you for your comments and lovely picture.

We appreciate your participation in this public process. I want to confirm the Planning and Natural Resources Department did receive your comments and they will be included for consideration during the preparation of the Draft Environmental Impact Report for the Aratina Solar Project.

Should you have any further questions or comments regarding this project or the California Environmental Quality Act process, please feel free to contact me directly.

Sincerely,

Ronelle

Ronelle R. Candia

Supervising Planner – Advanced Planning Division Kern County Planning & Natural

Resources Department

2700 "M" Street, Suite 100

Bakersfield, CA 93301

Phone: 661.862.8997

Email: CandiaR@KernCounty.com

From: Randy Tolle <tolle.randy@gmail.com>
Sent: Monday, September 28, 2020 2:35 PM
To: Ronelle Candia <Candiar@kerncounty.com>
Subject: Aratina Solar Farm Project

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

My opposition to the Proposed Aratina Solar Project at Boron:

Boron is located in a High Altitude Supersonic Corridor and residents rarely complain to Edwards Air Force Base about the frequent sonic booms. The overburden dump from the Borax Mine is now quite close to some of the nicer homes in Boron and I don't hear complaints about that. Back when rocket engines were tested on a regular basis, sometimes in the middle of the night, we didn't complain about that either.

Today I made a drive along the south border of the proposed Aratina Solar Project and shot a photo of the area near the border of site 2 and 3. (Photo attached.)

Boron had at one time an archery club and there was a field archery range in the area east of the landfill. I remember thinking back then that it was a pretty nice area of the nearby desert.

The Rio Tinto Borax Boron Operations has a cogeneration power plant that supplies it's mine, refinery, the Clean Energy Liquefied Natural Gas Plant and still exports enough electricity for about 10K homes to the power grid.

It seems only fair for Boron to have a small amount of undisturbed natural desert nearby.

Randall Tolle

16826 Monterey Ave.

North Edwards

Resident in area since 1957

Borax Employee 1972-2015

Date: 03/25/2021

To: Kern County Planning and Natural Resources Department

Attention: Ronelle Candia

From: Thomas Bahrs, P.O. Box 6582, Orange, CA 92863/Boron Property Owner

Re: EIR/Aratina Solar Project 2.0 by 64NB 8ME LLC (PP 20401)

Below are questions and comments regarding the above listed project.

How does this project benefit the communities of Boron and Desert Lake?

Why have the proposed development sites near the communities of Boron and Desert Lake been chosen for this project?

Is there any danger due to the amount of energy proposed to be produced and stored in the areas of Boron and Desert Lake?

After development completion what level of noise will the proposed project produce?

Are any of the residents living near the project at risk of being subjected to any adverse medical effects due to production of energy over a long period of time?

Is there adequate emergency services and medical care in the area of the project should a disaster occur during the project development and overall lifetime of the project?

Can a request for aesthetic appropriate fencing along the borderline of the project and areas where there are homes be proposed rather than barbed wire fencing?

Can a request for a certain percentage of employment of local residents be proposed during and after the project is completed?

Will there be a method created to validate the percentage of local residents hired for the project?

Will there be a county job coordinator assigned to assist local residents with the hiring process should the project be approved?

Will property owners in the surrounding areas of the project be allowed to produce solar energy and sell the energy to or through the proposed solar farm project developers?

Due to the tax exemption of the proposed project how will the offset be calculated and managed?

Below are comments regarding the above listed project:

Public notice in the form of billboards should be placed in conspicuous areas of Boron and Desert Lake notifying the communities of the proposed planned project.

Public notice in the form of billboards should be placed in conspicuous areas of Boron and Desert Lake notifying the communities of any potential job opportunities should the project be approved.

The communities of Boron and Desert Lake are both in the early stages of development. Any purposed projects in or near these communities will need careful consideration so that the safety of the residents and future possibilities of commerce is forecasted appropriately to the benefit of the communities.

Entities for profit will need to consider the existing communities and strategically plan for the benefit of all parties involved.

Thank you for allowing my participation.

Respectfully,
Thomas Bahrs
P.O. Box 6582
Orange, CA 92863

From: jozeonstage@aol.com
To: [Ronelle Candia](#)
Subject: Proposed Solar Fields in Boron
Date: Thursday, March 25, 2021 7:57:51 PM

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Candia

It seems the subject of the solar fields have arisen again in Boron. After you and others assured our citizens that the proposed solar fields would not proceed and would not be going in, however many homeowner citizens received a letter several weeks ago containing a map of the proposed location for the solar fields, **THEY ARE PRACTICALLY IN ALL OUR BACK YARDS !!** People are very unhappy about this development and they have now created a Facebook group that opposes the current plan as well as creating a petition and collecting donations.

To be honest, our people are confused. You seem to not have our best interests. Seems like we're hearing two different stories. Either what you've said before was untrue OR you're not being made aware of what this solar field company is up to. Either way it behoove you to get on top and get out in front of this, otherwise you're going to have a lot of angry people out here in East Kern. Possibly you or someone on your staff could come out here and speak to us about what's really going on, just the facts. Don't tell us what you think we want to hear but tell us what we need to know.

We love our landscape and vistas out here, we don't want it ruined by being completely surrounding our town with these awful looking solar fields. The current map practically has them going up around our entire town!!

Please explain something to me, what does the town of Boron gain from ANY of this? The landscape of or town is completely ruined and there's possible hazards to our health and well being, YET we don't get a single cent off our utility bill. All that goes to some rich elite people up in the Monterey area.

I say HELL NO !! WE get all of the bad and none of the good. That solar field can go SOMEWHERE ELSE !!!

Joe Barnard
Boron, CA

Sincerely
Joe Barnard

From: [Jeff Aardahl](#)
To: [Ronelle Candia](#)
Subject: Aratina Solar Farm 2.0
Date: Thursday, March 25, 2021 7:24:06 AM
Attachments: [III.07 Biological Resources Habitat Linkages and Wildlife Movement Corridors Map from DRECP LUPA.pdf](#)
[Appendix C-39 Important MGS Areas.pdf](#)
[Aratina Solar Farm 2 scoping comments 3-25-2021.pdf](#)

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Dear Ms. Candia:

Defenders of Wildlife and the Desert Tortoise Council submit the attached comment letter on the NOP/IS for the proposed Aratina Solar Farm 2.0 project. Our organizations appreciate the opportunity to participate in the environmental review for the proposed project.

Please confirm receipt of our comment letter.



Jeff Aardahl
California Representative

Defenders of Wildlife
46600 Old State Hwy, Unit 13; Gualala, CA 95445
Tel: 707-884-1169 |
JAardahl@defenders.org | www.defenders.org



March 25, 2021

Kern County Planning and Natural Resources Department
Attn: Ronelle Candia
2700 M Street, Suite 100
Bakersfield, CA 93301
Via email to: CandiaR@kerncounty.com

Re: Comments on Initial Study and Notice of Preparation of a Draft Environmental Impact Report for the proposed Aratina Solar Farm Project 2.0

Dear Ms. Candia:

Thank you for the opportunity to review and submit comments on the Initial Study and Notice of Preparation (IS/NOP) of a Draft Environmental Impact Report (DEIR) for the proposed Aratina Solar Farm Project 2.0 (Project). This comment letter is submitted by Defenders of Wildlife (Defenders) on behalf of its 2.2 million members and supporters in the U.S., including 323,000 in California, and the Desert Tortoise Council (Council) on behalf of its hundreds of professionals and layperson members.

Defenders is a national conservation organization founded in 1947 and dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

The Council is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and management and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

Brief description of the Project: The Project is a 530 MW photovoltaic facility located on approximately 2,317 acres of undeveloped private land west of Kramer Junction and adjacent to Highway 58 near the community of Boron, California. It would occupy five individual sites all in

relatively close proximity. Permanent facilities of the Project, include photovoltaic solar panel arrays, service roads, power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, substations, inverters, battery storage, and operations and maintenance facilities. The Project site would be cleared of natural vegetation, graded, and surrounded by a chain-link security fence.

Our comments on the IS/NOP for the Project are as follows:

1. Wildlife habitat linkages/desert tortoise: The Project is located within the range of the desert tortoise, a species listed as threatened under the federal Endangered Species Act and California Endangered Species Act (CESA), and a candidate for listing as endangered under CESA. More specifically, the Project is located within the Western Mojave Recovery Unit for the species according to the Revised Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*).¹ The Project is also located within a habitat linkage for the species that connects populations in the Fremont-Kramer and Superior Cronese Critical Habitat Units.²

We recommend that a survey for the desert tortoise be performed that conforms to the current survey standards established by the U.S. Fish and Wildlife Service.³ If the species is observed on or adjacent to the Project site based on the survey, the Project applicant should be advised to apply for and obtain an incidental take permit from the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (CDFW) as soon as possible. If the species occurs on or adjacent to the Project site, the DEIR should include measures to avoid, minimize or compensate for unavoidable impacts. Such measures should include any terms and conditions associated with incidental take permits issued to the Project applicant, assuming a take permit would be required and issued before release of the DEIR for public review and comment.

2. Wildlife habitat linkages/Mohave ground squirrel: We note that in the IS/NOP under Biological Resources, the Project may have a significant adverse impact on "...the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites."

According to the map of Habitat Linkages and Wildlife Movement Corridors in the Desert Renewable Energy Conservation Plan (DRECP), the Project is located within a portion of the Desert Linkage Network (Attachment A). A map of this linkage is also available on DataBasin: (<https://databasin.org/maps/new#datasets=85d73316b5ab4816b56ed21787ed78a2>). This linkage is identified in the publication, A Linkage Network for the California Deserts⁴ and is associated with the Mohave ground squirrel, listed as threatened by the California Fish and Game Commission. A description of this species and its linkage is provided on pages 88-90 of the linkage report.

¹ U.S. Fish and Wildlife Service. 2011. Revised recovery plan for the Mojave population of the desert tortoise (*Gopherus agassizii*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. 222 pp.

² Averill-Murray, R. et al. 2013. Conserving population linkages for the Mojave desert tortoise (*Gopherus agassizii*). Herpetological Conservation and Biology 8(1):1 – 15.

³ https://www.fws.gov/nevada/desert_tortoise/documents/manuals/MojaveDesertTortoisePre-projectSurveyProtocol_2019_v2.pdf

⁴ Penrod, K., P. Beier, E. Garding, and C. Cabañero. 2012. A Linkage Network for the California Deserts. Produced for the Bureau of Land Management and The Wildlands Conservancy. Produced by Science and Collaboration for Connected Wildlands, Fair Oaks, CA www.scwildlands.org and Northern Arizona University, Flagstaff, Arizona <http://oak.ucc.nau.edu/pb1/>.

Important habitats and populations of the Mohave ground squirrel were identified in Figure C-39 of the DRECP (Attachment B).

In 2019, CDFW published *A Conservation Strategy for the Mohave Ground Squirrel (Xerospermophilus mohavensis)*.⁵ This strategy, initiated in 2006, was developed with broad participation and dedicated effort of more than 35 organizations, including state, federal, and local agencies, academia, consulting firms, and non-governmental organizations. Key findings and recommendations contained in the strategy include:

- The range of the Mohave ground squirrel is one of the smallest of any species of ground squirrel in North America.
- The greatest known cause of Mohave ground squirrel decline is habitat loss, which has led to a reduction of the species' range and a decrease in dispersal opportunities.
- Habitat loss for the species has occurred from urban and rural development, agriculture, military operations, energy development, transportation infrastructure, and mining.
- To recover the species, high-quality habitat must be available to support existing populations, allow for population expansion during years favorable for reproduction, and maintain genetic linkages between subpopulations.
- Along with continued threats from habitat loss and degradation throughout its range, climatic changes will likely place additional stress on the species, by causing further reduction of suitable habitat and necessitating shifts in its distribution and range.
- For maximum effectiveness, habitat conservation efforts should focus on areas that support existing core population areas, additional habitat should be preserved for dispersal and linkage between population areas (linkages), as well as for population expansion (peripheral population areas).
- Emphasize the critical conservation importance of habitat protection and restoration in planning and compliance documents.
- Establish guidelines for off-site mitigation, including mitigation ratios and management and monitoring recommendations.
- Establish off-site mitigation through conservation banks or other mechanisms.
- Develop best management practices to minimize take of the species during all phases of project implementation, especially during ground disturbance phases.

We recommend that the DEIR thoroughly address the impacts of the Project on the Mohave ground squirrel including its populations and habitat linkages in the Project area. Numerous observations of this species are documented in the vicinity of the Project in the California Natural Diversity Database. Thus, we recommend that the species should be considered present and the Project applicant be required to obtain an incidental take permit from the Region 4 office of the CDFW in Fresno, California. We anticipate that an incidental take permit from CDFW for impacts to the Mohave ground squirrel will include terms and conditions to avoid, minimize or mitigate such impacts, and that mitigation will require acquisition and permanent protection of private land habitat

⁵ <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=171301&inline>

occupied by the species for adverse impacts than cannot be avoided. Alternatively, protocol-level surveys must be performed to ascertain absence of the species.⁶

Conclusion: Defenders and the Council thank the Kern County Planning and Natural Resources Department for the opportunity to review and comment on the IS/NOP for the Project. We hope our comments are helpful in preparing the DEIR. Please contact us if you would like any additional information or have questions on our comments.

Sincerely,



Jeff Aardahl
Senior California Representative
Defenders of Wildlife
46600 Old State Highway, Unit 13
Gualala, CA 95445
jaardahl@defenders.org



Tom Egan
California Desert Representative
Defenders of Wildlife
P.O. Box 388
Helendale, CA 92342
tegan@defenders.org

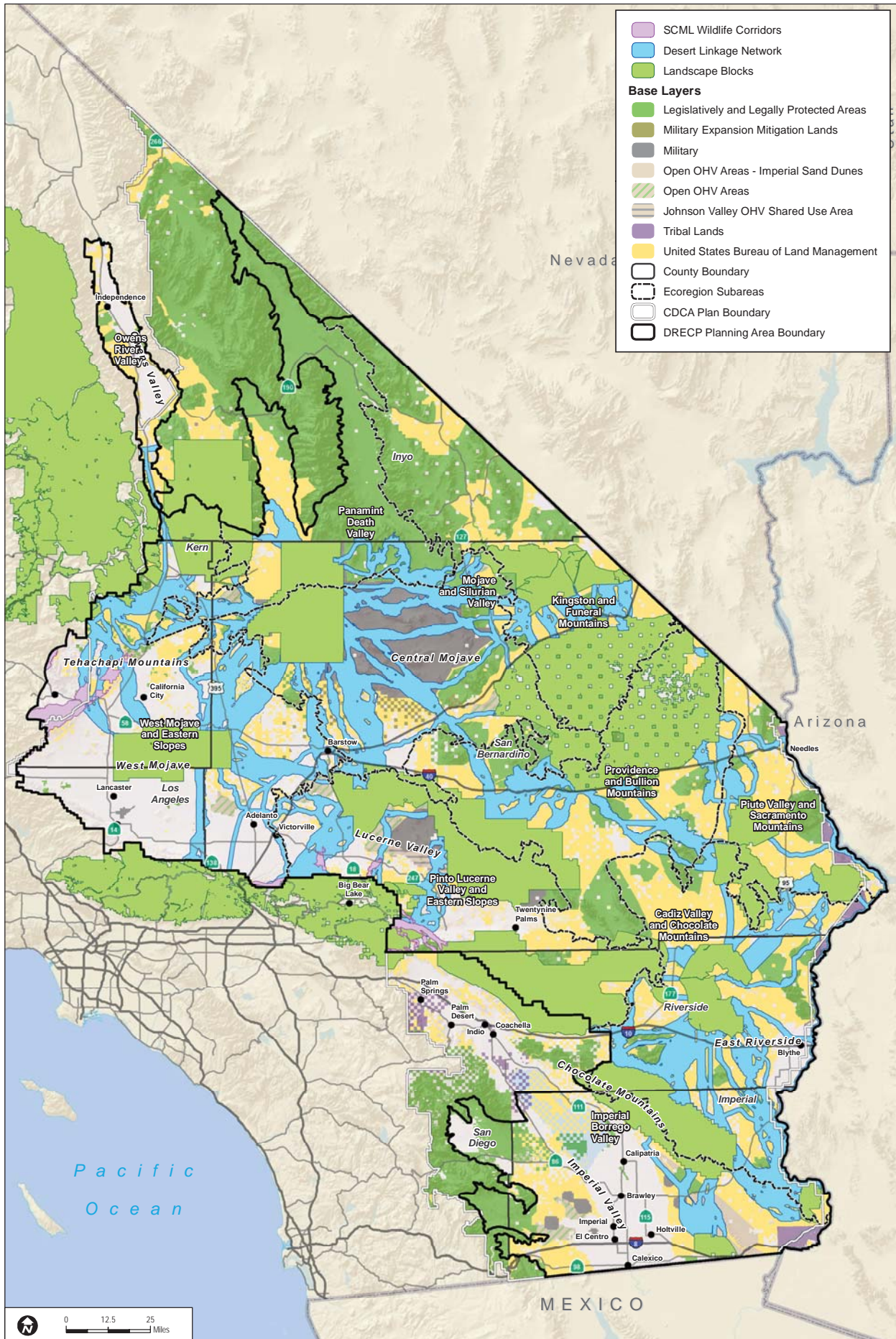


Ed LaRue, Jr., MS
Chair, Ecosystems Advisory Committee
Desert Tortoise Council
4654 East Avenue S #257B
Palmdale, California 93552
eac@deserttortoise.org

Attachments:

- A: Desert Linkage Network map
- B: Figure C-39 of the DRECP (Mohave ground squirrel important areas map)

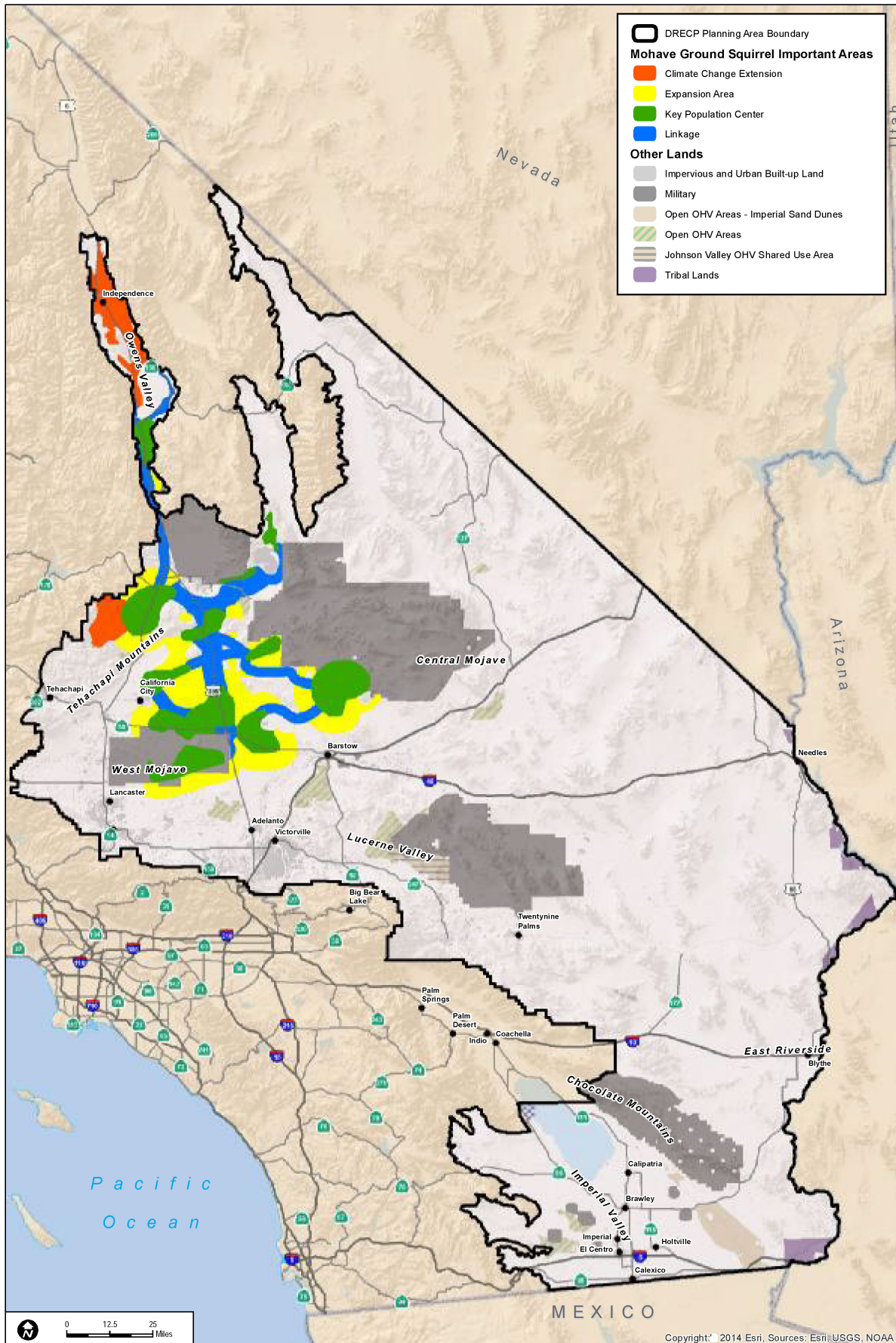
⁶ California Department of Fish and Game. 2003 (revised 2010). Mohave ground squirrel survey guidelines. Unpublished guidelines produced by CDFG (now CDFW). Sacramento, CA. 95814



Sources: ESRI (2015); CEC (2013); BLM (2015); CDFW (2013); USFWS (2013); South Coast Wildlands (2012)

FIGURE III.7-26

Habitat Linkages and Wildlife Movement Corridors - Ecoregion Subarea Index Map



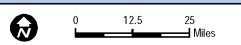
DRECP Planning Area Boundary

Mohave Ground Squirrel Important Areas

- Climate Change Extension
- Expansion Area
- Key Population Center
- Linkage

Other Lands

- Impervious and Urban Built-up Land
- Military
- Open OHV Areas - Imperial Sand Dunes
- Open OHV Areas
- Johnson Valley OHV Shared Use Area
- Tribal Lands



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

Copyright: 2014 Esri, Sources: Esri, USGS, NOAA

FIGURE C-39
Mohave Ground Squirrel Important Areas

From: [Jamie Leal](#)
To: [Ronelle Candia](#)
Subject: Kern County Aratina Solar Project 2.0
Date: Thursday, March 25, 2021 4:05:20 PM

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Ronelle Candia,

I am a concerned citizen of Boron Ca and informed that you are the point of contact for the proposed solar project. I'm expressing my deep concerns about this project and have started a petition which includes almost 300 signatures opposing the project. This will impact all citizens of Boron in a lot of ways. One of the biggest appeals to Boron is our scenic sunsets and mountain views that would permanently be ruined for years. I've read the notice of preparation for the project and this will greatly affect our community in several ways.

Environmentally solar may be great but not when getting it is dirty. Taking all the small communities, turning them into solar farms because maybe its cheaper for that company or whatever their reason seems shady at best. Why all the small communities in Kern County? Why have other counties refused to contract with these companies and refuse to build the solar farms. If this is so great why are they not being built where the energy is being used?

Solar is not supposed to take advantage of rural underserved communities yet that is exactly what this company is doing. Solar is not supposed to destroy nature, scenery, and economic potential but that is exactly what they are doing. Why are they getting a pass on destroying flora, especially the Joshua trees that only grow in the Mojave Desert?

According to the notice of preparation this can greatly affect air quality, biological resources, aesthetics, and has the possibility of hazardous material leaks or spills. This affects pollution, climate, animal life, and all the nature surrounding it. I and several other citizens strongly object to this project. Will there even be a meeting the town gets to attend and be a part of considering we have to live here? Will there be an environmental impact report?

In this tiny desert town all we have is our scenic views and sunset mountain drives yet this company wants to take our simple enjoyments away for its own selfish reasons. The impact to this community will be overwhelming and permanently negatively change our lives. We will be landlocked, there will no

longer be room for development of any other kind in business or homes. I live in Desert Lake right where a lot of the area will be surrounded. We will be encased in aluminum foil like we are prisoners in our own homes. My grandson will no longer know going to view the beautiful mountains looking for falling stars and satellites because instead the view will be tarnished by metal land. Here is a link to the petition started opposing this project.

[Oppose Aratina Solar Project](#)

I am also currently trying to resource media outlets to inform them what is going on in our tiny desert town that a company is trying to take over by enclosing everyone in a solar farm when there is a vast desert out there that can be used instead of our little community. Maybe this company should look into other plans like covering parking structures, or other structures that won't take over the only land in a small town.

Thank you for your time,

Jamie Leal

From: [Melissa Munoz](#)
To: [Ronelle Candia](#)
Cc: [Melissa Munoz](#)
Subject: Boron Solar Project
Date: Friday, March 26, 2021 8:37:40 AM

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Hello

Thank you for taking the time to read this.

I am writing this email to express my concern about the proposed Boron solar project. This is a project that would impact my family, and this town negatively. We own property on 20 Mule Team Road across the street from where this site is proposed to be. Having a solar farm installed across the street from us would greatly and negatively impact our life going forward. We moved out here recently to enjoy the outdoor lifestyle and all the nature this area has to offer. It would be quite disappointing to lose that just a few years after buying property, as first-time property owners. To see our property value diminish and our quality of life also diminish, would be a difficult realization, and a blow to my own mental health as well as our children. We have enjoyed the time we have lived here; we have taught our boys about the importance of respecting nature and the many exciting and beautiful things they have access to living out here.

We ask you please to reconsider this decision and understand that this desert, this land, is invaluable and to take away the little simple enjoyments we get from sunset views, scenic mountain drives, hikes in nature, rides on our bicycles, riding through the desert on a family ride, or going to watch for falling stars would be a devastating reality for us to lose. We love that we live without those views looking like a ground of aluminum foil as some of the areas near to us do from other solar farms in this area. There seem to be more and more of these cropping up in this area, and it is destroying the desert land. **The people that live here, the animals that grow here, and the desert habitat that thrives here, are all being threatened.** Please contemplate the long-term impacts of this decision and do not let it be a decision motivated by money or short-term gain and consider the impact you are having on this town and its residents.

Again, thank you for taking the time to read this.

Sincerely,

Melissa Munoz

26401 20 Mule Team Rd.

Boron, Ca 93516



Submitted via email

March 29, 2021

Kern County Planning and Natural Resources Department
Attn: Ronelle Candia
2700 "M" Street, Suite 100
Bakersfield, CA 93301
CandiaR@kerncounty.com

RE: Scoping comments for Environmental Impact Report - Aratina Solar Project 2.0 by 64NB 8ME LLC (PP20401)

Dear Ronelle Candia,

Please accept the following scoping comments on the Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the Aratina Solar Project 2.0 by 64NB 8ME LLC (PP20401), on behalf of the Center for Biological Diversity (the "Center"). The Center is a non-profit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. These scoping comments are submitted on behalf of the Center's 1.7 million staff, members and online activists throughout California and the United States. Many of the Center's members live and spend time in desert areas of Kern County including in the area where the project is proposed. Both members and staff enjoy visiting the Mojave Desert area around Boron to hike, botanize, watch wildlife and enjoy the serenity of the desert. We are concerned about impacts from this project detrimentally affecting sensitive species that are already struggling for existence and the desert landscapes that support them.

The development of renewable energy is a critical component of efforts to reduce greenhouse gas emissions, avoid the worst consequences of global warming, and to assist California in meeting emission reductions. The Center strongly supports the development of renewable energy production, and the generation of electricity from solar power in particular. However, like any project, proposed solar power projects should be thoughtfully planned to minimize impacts to the environment. Renewable energy projects should avoid impacts to sensitive species and habitat and should be sited in proximity to the areas of electricity end-use in order to reduce the need for extensive new transmission and the efficiency loss associated with extended energy transmission. Only by maintaining the highest environmental standards regarding local impacts, and effects on species and habitat, can renewable energy production be truly sustainable.

The Aratina Solar Project 2.0 is a proposed solar photovoltaic (PV) power-generating facility proposed to generate up to 530 megawatts (MW) of renewable electrical energy and up to 600 MW of energy storage on approximately 2,317 acres of privately-owned land. The proposed project sites are located in the western Mojave Desert within unincorporated Kern County, very near Boron, CA. It is proposed as five separate sites in three non-contiguous areas, both north and south of State Route 58 between Gephart Road on the west and the San Bernardino County line on the east.

The scoping notice is unclear about the number of substations needed for the proposed project which needs to be clearly identified in the subsequent CEQA document. Transmission lines to either SCE's Kramer or Holgate substations need to be buried underground to reduce impacts to avian species and reduce perching opportunities for avian predators that prey on juvenile desert tortoises. Each of the five sites would have a 1600 square foot operations and maintenance (O&M) building and dirt parking lot; perimeter security fencing; security lighting (installed at the access gates, substation(s), O&M building(s), and inverters) are proposed to be constructed. The proposed project is habitat for and provides movement corridor opportunities for highly imperiled threatened and endangered species.

Biological Resources

Based on the records from the California Natural Diversity Database, the Notice of Preparation and other sources, it appears that this site maintains ecologically important landscape features and hosts rare and unique species. Careful documentation of the current seasonal site resources is imperative in order to analyze how best to site the project to avoid and minimize impacts. If unavoidable impacts remain, then adequate meaningful mitigation will be required.

Biological Surveys and Mapping

In order to present a full picture of the biological impacts of the project, thorough, seasonally-appropriate surveys must be performed for sensitive plant species and vegetation communities, and animal species. The Center requests that thorough, seasonal surveys be performed for sensitive plant species and vegetation communities, and animal species under the direction and supervision of the County and resource agencies such as the US Fish and Wildlife Service¹ and the California Department of Fish and Wildlife². For those species that have agency-identified survey protocols, those protocol level surveys must be required, implemented and disclosed in the DEIR. Full disclosure of survey methods and results to the public and other agencies without limitations imposed by the applicant must be implemented to assure full CEQA compliance.

Confidentiality agreements should not be allowed for any survey in support of the proposed project. Surveys for the plants and plant communities should follow California Native Plant Society (CNPS)³ and California Department of Fish and Wildlife (CDFW) floristic survey guidelines⁴ and should be documented as recommended by CNPS⁵ and California Botanical

1 <https://www.fws.gov/ventura/endangered/species/surveys-protocol.html>

2 <https://wildlife.ca.gov/Conservation/Survey-Protocols>

3 <https://www.cnps.org/plant-science/field-protocols-guidelines>

4 <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>

Society policy guidelines. A full floral inventory of all species encountered needs to be documented and included in the EIR. Surveys for animals should include an evaluation of the California Wildlife Habitat Relationship System's (CWHR) Habitat Classification Scheme⁶. All rare species (plants or animals) need to be documented with a California Natural Diversity Data Base form and submitted to the California Department of Fish and Wildlife using the CNDDDB Form and instructions.⁷

In order for the public to properly evaluate the data, the vegetation maps must be at a large enough scale to be useful for evaluating the impacts. Vegetation and habitat mapping should be at such a scale to provide an accurate accounting of habitat types that will be directly or indirectly affected by the proposed activities. A half-acre minimum mapping unit size is recommended, such as has been used for other development projects. Habitat classification should follow CNPS' *Manual of California Vegetation* and should follow the CDFW protocol⁸.

Adequate surveys must be implemented, not just a single season of surveys, in order to evaluate the existing on-site conditions. Due to unpredictable precipitation in this arid environment, organisms in the proposed project area have evolved to survive in harsh conditions and if surveys are performed at inappropriate times or year or in particularly dry years many plants that are in fact on-site may not be apparent during surveys (ex. annual and herbaceous perennial plants).

Joshua Trees

The DEIR must clearly identify the number of Western Joshua trees on the site and clearly identify how the impact area was calculated. The Tree Census Report, as submitted to the California Department of Fish and Wildlife, needs to be included for public review as part of the DEIR.

Impact Analysis

The EIR must evaluate all direct, indirect, and cumulative impacts to sensitive habitats, including impacts associated with the establishment of intermitted recreational activities, the introduction of non-native plants, the introduction of lighting, noise, and the loss and disruption of essential habitat due to edge effects.

A number of rare resources are known to occur or have high potential to occur on the proposed California Flats solar project site including but not limited to:

Common Name	Scientific Name	Federal/State Rank
white pygmy-poppy	<i>Canbya candida</i>	--/4.2
desert cymopterus	<i>Cymopterus deserticola</i>	S/1B.2
recurved larkspur	<i>Delphinium recurvatum</i>	S/1B.2

⁵ <https://www.cnps.org/conservation/policies-2>

⁶ <https://wildlife.ca.gov/Data/CWHR>

⁷ <https://wildlife.ca.gov/Data/CNDDDB/Submitting-Data>

⁸ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>

Booth's evening-primrose	<i>Eremothera boothii ssp. boothii</i>	--/2B.3
Barstow woolly sunflower	<i>Eriophyllum mohavense</i>	S/1B.2
sagebrush loeflingia	<i>Loeflingia squarrosa var. artemisiarum</i>	S/2B.2
Crotch bumble bee	<i>Bombus crotchii</i>	--/SC
desert tortoise	<i>Gopherus agassizii</i>	FT/ST
burrowing owl	<i>Athene cunicularia</i>	S/SSC
prairie falcon	<i>Falco mexicanus</i>	BCC/WL
American badger	<i>Taxidea taxus</i>	--/SSC
Desert kit fox	<i>Vulpes macrotis arsipus</i>	--/--
Mohave ground squirrel	<i>Xerospermophilus mohavensis</i>	S/ST
Federal Designation Threatened - Federally listed as threatened. BCC - U.S. Fish and Wildlife Service Bird of Conservation Concern. S – BLM Sensitive State Designation Threatened - State listed as threatened. Species that although not presently threatened in California with extinction are likely to become endangered in the foreseeable future. SC – State listed as a Candidate Species. SSC California Department of Fish and Wildlife's "Species of Special Concern." Species with declining populations in California. WL – California Department of Fish and Wildlife's Watch List California Rare Plant Rank 1B.2 Rare and endangered in California and elsewhere, and fairly threatened in CA 2B.2 Rare and endangered in California but more common elsewhere; fairly threatened in CA 2B.3 Rare and endangered in California but more common elsewhere, not very threatened in CA 4.2 Plants of a limited distribution, and fairly threatened in CA.		

All of these species have a high probability to occur on the site.⁹ If these species are found to occur on site, which is likely, the EIR must adequately address the impacts and propose effective ways to avoid, minimize, and mitigate the impacts to these resources through alternatives including alternative siting, distributed generation alternatives, and alternative on-site configurations. Many of the rare species are in decline despite decades of state and federal protection. The EIR must analyze how the proposed project complies with the recommendations of the Desert Tortoise Recovery Plan¹⁰ and the Mohave Ground Squirrel Conservation Plan¹¹. We are particularly concerned about the state of the desert tortoise, whose ongoing population decline in the West Mojave Recovery Unit where the project is located has dropped below sustainable levels. We are also concerned about keeping the population of Mohave ground squirrel on Edwards Air Force Base connected to the population north of State Highway 58.

Any acquisition of lands that will be managed in perpetuity for conservation must be included as part of the strategy to avoid, minimize and mitigate impacts to the other species found on site as well. Acquisition is particularly important for many of these species because the proposed project appears to have little compatibility with any type of on-site conservation of

9 CNDDDB 2021

10 https://www.fws.gov/nevada/desert_tortoise/documents/recovery_plan/RRP%20for%20the%20Mojave%20Desert%20Tortoise%20-%20May%202011.pdf ;

11 <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=171301&inline>

plant communities or wildlife. Management plans for the conservation investments must be included as part of the public review EIR.

For rare plants, avoidance is preferable because of the general lack of success in transplanting rare plants¹². If transplantation is to be a part of the mitigation strategy, a detailed plan must be included as part of the EIR on the methodology for determination of appropriate conservation areas where plants may be transplanted, when/how plant are to be transplanted and identification of success criteria for transplantation. Monitoring of the transplanted plants needs to occur for a time period that is realistic to evaluate *long-term success* of the plants.

Locally Rare Species

The Center requests that the EIR evaluate the impact of the proposed permitted activities on locally rare species (not merely federal- and state-listed threatened and endangered species). The preservation of regional and local scales of genetic diversity is very important to maintaining species. Therefore, we request that all species found at the edge of their ranges or that occur as disjunct locations be evaluated for impacts by the proposed permitted activities.

Water Resources

The project is likely to impact on-site drainages. The EIR must clarify the impacts to the jurisdictional Waters of U.S. and the Waters of the State of California, and avoid, minimize and mitigate any impacts. Efforts to avoid impacts to the greatest extent possible need to be included and if impacts remain, they must be mitigated. In doing so, any reroute of waters and drainages on the site must assure that downstream processes are not impacted.

An evaluation of the effect of additional groundwater pumping (in conjunction with other groundwater issues in the basin) on the water quality in the basin and surface water resources, and its effect on the local water availability and for native plant and animal species and their habitats need to be included in the EIR.

Alternatives

The EIR must include a robust analysis of alternatives, including other private lands alternative, a brownfields/disturbed lands alternative, and a distributed solar alternative on existing infrastructure. While we appreciate the effort that the project proponent has gone to, to aggregate private properties, the stated objectives of the project must not unreasonably constrain the range of feasible alternatives evaluated in the EIR. The County must establish an independent set of objectives that do not unreasonably limit the EIR's analysis of feasible alternatives including alternative sites and alternative types. At a minimum, alternatives including the no-action alternative, an environmentally preferred alternative, a distributed generation alternative, and an alternative where power generation is sited adjacent to existing substations closer to the point of electrical consumption - all need to be included.

Other Issues

The construction and operation of the proposed facilities will also increase greenhouse gas emissions and those emissions should be quantified and off-set. This would include the

12 Fiedler 1991

manufacture and shipping of components of the project and the car and truck trips associated with construction and operations. Similarly, such activities will also impact air quality and traffic in the area and these impacts should be disclosed, minimized and mitigated as well. For mobile sources, since consistency with the AQMP will not necessarily achieve the maximum feasible reduction in mobile source greenhouse emissions, the EIR should evaluate specific mitigation measures to reduce greenhouse emissions from mobile sources.

Non-Native Plants

The EIR must identify and evaluate impacts to species and ecosystems from invasive exotics species. Many of these species invade disturbed areas, and then spread into wildlands. Fragmentation of intact, ecologically functioning communities further aides the spread and degradation of plant communities¹³. Additionally, landscaping with exotic species is often the vector for introducing invasive exotics into adjacent habitats. Invasive landscape species displace native vegetation, degrade functioning ecosystems, provide little or no habitat for native animals, and increase fire danger and carrying capacity. All of these factors for wildland weeds are present in the project, and their affect must be evaluated in the EIR.

Wildlife Movement

A thorough and independent evaluation of the projects' impacts on wildlife movement is essential, particularly for the terrestrial species including the Mohave ground squirrel as mentioned above and the desert tortoise. The EIR must evaluate all direct, indirect, and cumulative impacts to wildlife movement corridors. The analysis should cover movement of large mammals, including rare species, as well as other taxonomic groups, including small mammals, birds, reptiles, amphibians, invertebrates, and vegetation communities. The EIR should first evaluate habitat suitability for multiple species, including all listed and sensitive species. The habitat suitability maps generated for each species should then be used to evaluate the size of suitable habitat patches in relation to the species average territory size to determine whether the linkages provide both live-in and move-through habitat. The analyses should also evaluate if suitable habitat patches are within the dispersal distance of each species. The EIR should address both individual and intergenerational movement (i.e., will the linkages support metapopulations of smaller, less vagile species). The EIR should identify which species would potentially utilize the proposed wildlife movement corridors under baseline conditions and after build out, and for which species they would not. In addition, the EIR should consider how wildlife movement will be affected by other planned approved, planned, and proposed development in the region as part of the cumulative impacts. In addition to the individual species connectivity, the EIR needs to incorporate the California Department of Fish and Wildlife's California Desert Connectivity Project¹⁴.

The EIR should analyze whether any proposed wildlife movement corridors are wide enough to minimize edge effects and allow natural processes of disturbance and subsequent recruitment to function. The EIR should also evaluate whether the proposed wildlife movement corridors would provide key resources for species, such as host plants, pollinators, or other

13 Bossard et al 2000

14 <http://www.scwildlands.org/>

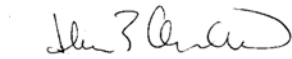
elements. For example, many species commonly found in washes depend on upland habitats during some portion of their cycle.

Cumulative Impacts

Because of the number of projects that have recently been constructed, are currently being built or proposed in the proposed project's vicinity in the western Mojave Desert, a thorough analysis of the cumulative impacts from all of these projects on the resources needs to be included. Please include an analysis of projects, not just in Kern County, but also in adjacent San Bernardino County and on Edwards Air Force Base, where habitat for these rare and threatened species existed prior to disturbance.

Thank you for your consideration of these comments. Please add the Center to the distribution list for the EIR and all notices associated with this project as well as others in the area at the above address.

Sincerely,



Ilene Anderson
Senior Scientist/Public Lands Desert Director
Center for Biological Diversity
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cc: (electronically via email)
Brian Croft, USFWS, brian_croft@fws.gov
Julie Vance, CDFW, jvance@dfg.gov

References

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CALIFORNIA
NATIVE PLANT SOCIETY

2707 K Street, Suite 1, Sacramento, CA 95816-5130 (916) 447.2677 www.cnps.org

Protecting
California's native
flora since 1965

March 29, 2021

Ronelle Candia
Kern County
Planning and Natural Resources Department
2700 M Street, Suite 100
Bakersfield, CA 93301

Sent electronically to: CandiaR@kerncounty.com

Re: Scoping Comments on Aratina Solar Project 2.0 Notice of Preparation

Dear Ms. Candia,

Thank you for the opportunity to provide scoping comments on the proposed Aratina Solar Project 2.0 (#20401) (the "Project") in Kern County, California. The Aratina Solar Project 2.0 consists of five sites of approximately 2,317 acres of privately-owned desert habitat. The sites are located in unincorporated Kern County, to the East of the San Bernardino county line and north of the Edwards Air Force Base boundary, in the vicinity of the unincorporated communities of Boron and Desert Lake. The applicant, 64NB 8ME LLC, is proposing to develop a 530-MW photovoltaic solar facility and associated infrastructure for 600 MW of energy storage.

The California Native Plant Society ("CNPS") is a statewide, non-profit organization with more than 10,000 members distributed across 35 local chapters. The mission of CNPS is to conserve California native plants and their natural habitats, and to increase the understanding, appreciation, and horticultural use of native plants. CNPS works closely with decision-makers, scientists, and local planners to advocate for well-informed policies, regulations, and land management practices.

CNPS supports renewable energy development that is sited and planned to avoid adverse environmental impacts to sensitive biological resources. Our concerns regarding the Project include impacts to rare plants, vegetation, and ecological processes. Importantly, the Project is sited in the western Mojave Desert. The deserts of Western North America represent one of Earth's last remaining large, intact ecosystems. These habitats are a reservoir of biodiversity, ecosystem services, and evolutionary processes. In the face of climate change, and a myriad of other impacts including renewable energy development, the maintenance of the primary roles of desert habitats is of utmost importance. Renewable energy projects should be sited to avoid

direct and indirect impacts to plant species (including transmission lines and roads), such as habitat reduction, alteration, fragmentation, exposure to contaminants or fires, and introduction of non-native species.

With that in mind, please consider the following recommendations as the Project is evaluated in the Draft Environmental Impact Report (“DEIR”).

1. Complete Full-Floristic Surveys

Comprehensive botanical scoping and surveys consistent with CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities¹ should be performed prior to construction and ground disturbing activities. In line with CDFW guidelines, botanists should conduct inventories of all plants that have potential to occur on the Project site, using databases such as the California Natural Diversity Database and the CNPS Rare Plant Inventory. It should be noted that many areas of the California desert have not been surveyed adequately for the presence of sensitive species. Consequently, the review of existing databases is not a substitute for comprehensive, on-the-ground surveys. Surveys should be “full-floristic” in nature, meaning they should document all plant species that occur on the Project site, and should be conducted by a qualified botanist. This is necessary in order to catalog and assess impacts to all sensitive species, not just those that are predetermined to have a likelihood of occurring on the Project site.

Impacts to all plants included on the CDFW Special Vascular Plants, Bryophytes, and Lichens List² need to be evaluated, as well as all plants in the CNPS Rare Plant Inventory. For rare plants found on the site, the DEIR must address the cumulative impacts of the large number of already-implemented renewable energy projects in addition to the effects of projects that are expected to be implemented in the future in Kern County. The cumulative impact on ecological processes and biological corridors also needs to be addressed.

2. Conduct Surveys in a Year with Adequate Rainfall

Botanical surveys need to be conducted following adequate amounts of precipitation and timed appropriately to ensure that rare plants are detectable. The detectability of special status plants with potential to occur on a project site can be verified by botanists visiting nearby reference populations of rare plants. The timing and details of visits to reference populations of special status plants should be detailed in the DEIR. Lastly, details of the rare plant survey effort should also be documented in the DEIR, including information on the dates of surveys, number of surveyors, names of surveyors, and the survey methods used.

¹ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>

² <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>

3. Vegetation Communities Must Be Mapped to the Alliance Level

Vegetation types and sensitive natural communities on the Project sites should be mapped, at a minimum, to the Alliance level in accordance with CDFW's Vegetation Classification and Mapping Standards³. Sensitive communities should be mapped to Alliance and Association according to the Manual of California Vegetation (MCV), Second Edition (Sawyer et al. 2009) and California Sensitive Natural Community List (CDFW 2020), in consultation with a qualified botanist, and the total acres of temporary and permanent impacts associated with each MCV Alliance/Association should be disclosed.

High salinity/alkaline wetlands in desert ecosystems are often home to rare plant species. Special care should be taken to delineate any wetlands, riparian areas, and washes that may be impacted by the Project. The conservation of wetlands is essential to maintaining the hydrological function of desert ecosystems and sensitive habitats. The methods used to identify and map wetlands on the Project site should be clearly reported in the DEIR.

4. Required Mitigation Measures Must Be Sufficient to Fully Compensate for Impacts

In the event that the Project has unavoidable impacts to plants, mitigation measures that reduce impacts to less than significant levels should be planned and implemented. The mitigation plan should include a discussion of suitability of off-site mitigation locations and on- and off-site mitigation ratios.

Adequate monitoring must be a part of the mitigation plan to fully compensate for significant impacts. An ecosystem-based habitat mitigation and monitoring plan for impacts to sensitive plants and vegetation communities should be developed in consultation with a qualified botanist and restoration specialist.

Thank you for the opportunity to provide scoping comments on the Aratina Solar Project 2.0. Please feel free to contact me if you have any questions.

Sincerely,



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³ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=102342&inline>

Appendix B

Glare Analysis Report

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Glare Analysis Report for the Aratina Solar Project

Prepared for:

8minute Solar Energy
5455 Wilshire Blvd, Suite 2010
Los Angeles, CA 90036

Prepared by:

DUDEK
38 North Raymond Avenue
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MAY 2021

Aratina Solar Project Glare Analysis Report

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Aratina Solar Project Glare Analysis Report

1 PROJECT DESCRIPTION

1.1 Report Purpose and Scope

The purpose of this Glare Analysis Report (report) is to assess the potential glare impacts associated with implementation of the proposed Aratina Solar Project (project). The study was conducted per the Federal Aviation Administration’s recommended procedures described in the *Technical Guidance for Evaluating Selected Solar Technologies on Airports* (FAA 2018) and the geometric glare modeling software utilized adheres to interim Federal Aviation Administration policy regarding solar energy system projects on federally obligated airports (78 FR 63276–63279).

This Glare Analysis Report includes an introduction to the photovoltaic (PV) technologies proposed to be implemented on the project and their potential to result in glare. Section 1, Project Description, provides a description of the project, the project location, and describes the environmental setting. Section 2, Glare Impacts, describes the methodology used to perform the glare analysis and provides a summary of the analysis results. Section 3, References Cited, includes a list of the references cited in this report, and Section 4, Document Preparers, includes a list of those involved in the preparation of this report. The complete detailed glare report generated by the modeling software is included in Appendix A, Modeling Results.

1.2 Regional and Local Setting

1.2.1 Regional Location

The project is located in southeastern Kern County, adjacent to the San Bernardino County Boundary, and within the community of Boron.

Figure 1, Project Location and Study Area, shows the project location and surrounding municipalities, including the City of California City, and the communities of Boron and North Edwards in unincorporated Kern County. The project is comprised of several adjacent or attached sites totaling approximately 2,368 acres in size. The western edge of the project is about 6.5 mile east of the nearest runway associated with Edwards Air Force Base, 11 miles south of the City of California City, and about 11 miles north of the Los Angeles County Boundary. The Boron Airstrip, a privately owned airfield, lies 1.2 miles to the east of the project. The Burlington Northern Santa Fe (BNSF) Mojave Subdivision Railway runs east/west adjacent to several of the project parcels, roughly bisecting the project.

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1.2.2 Project Setting

The project site is located on the eastern end of the Antelope Valley. Topography across the project site is relatively flat on lands that gradually slope downward from the east to west towards Rogers Dry Lake.

The site is located within Sections 5 and 6, Township 10N, Range 7W; Sections 1 and 2, Township 10N, 8W; and Sections 33 and 35, Township 11N, Range 8W, San Bernardino Base Meridian. The U.S. Borax open pit mine and refinery are located approximately two miles north of the project site.

Desert vegetation dominates the region. The major north-south roadways in the region is US Route 395, a two-lane highway. SR 58 roughly bisects the project running east/west through the project. See Figure 1 and Figure 2, Project Site Layout. The project area is primarily accessible by exiting SR 58 at Gephart Road, Borax Road, and Boron Avenue.

1.2.3 Project Site Conditions and Surrounding Land Uses

Existing land use in the project area includes undeveloped desert lands, scattered rural residential uses, access roadways, and other wind and solar energy projects that are currently in various stages of planning or construction. Other development in the area includes the Boron Sanitary Landfill, U.S. Borax open pit mine, Boron Recreational Park, and the Edwards Air Force Base, which includes Edwards Air Force Auxiliary North Base at the north end of Rogers Dry Lake. Rural residential uses are found in the unincorporated communities of North Edwards to the west and Boron to the north of the project site, located along SR 58.

There are several existing, planned, and permitted solar energy and transmission projects in the Mojave Desert Air Basin where the project site is located. However, there are currently no solar projects proposed or awaiting construction within a 5-mile radius of the proposed project.

1.2.4 Regulations and Regulatory Requirements

1.2.4.1 *Federal*

Federal Aviation Administration

In order to understand and model glare in accordance with FAA standards, Sandia National Laboratories developed the Solar Glare Hazard Analysis Tool (SGHAT). With SGHAT, standardized safety metrics define the anticipated glare intensity that would cause unwanted visual impacts to Air Traffic Control towers and airplane pilots. Glare intensity is described according to

Aratina Solar Project Glare Analysis Report

potential for after-image and is illustrated on the FAA’s Solar Glare Ocular Hazard Plot. Low potential for after-image is referred to as “green” glare and potential for after-image is referred to as “yellow” glare. “Red” glare is representative of glare conditions with potential for permanent eye damage. While use of SGHAT or the publicly available and licensed SGHAT application ForgeSolar is required to demonstrate compliance with the standards for measuring ocular impact stated above for any proposed solar energy system located on a federally-obligated airport, the FAA has not established a formal policy for ocular impact assessments for non-airport solar facilities. Still, SGHAT and ForgeSolar are industry standard tools for assessing potential glare impacts associated with new solar facilities.

SGHAT and ForgeSolar are also able to evaluate the potential of a particular PV array to produce glare intensity, predicting when and where glare would occur from a proposed PV array at discrete observation points (i.e. from the Air Traffic Control Tower, runway approach, or fixed receptor location). In instances where glare may be a concern, the tools can prescribe minor adjustments to the tilt, direction, and location of the panels to alleviate issues.

While the project is not located on a federally-obligated airport and is not required to do so by Kern County, Dudek staff utilized the industry standard ForgeSolar 3D geometric glare analysis software tool to disclose potential glare impacts associated with operation of the project.

1.2.4.2 State

California Environmental Quality Act (CEQA)

CEQA requires an analysis of aesthetic impacts when an agency or individual proposes an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. In Appendix G, Environmental Checklist Form, the 2021 CEQA Statute and Guidelines contains the follow impact threshold related to glare:

- Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Other than the CEQA Guidelines, there are no state regulations pertaining to potential glare effects associated with the operation of solar facilities.

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1.2.4.3 Local

Kern County General Plan Chapter 1: Land Use, Open Space, and Conservation Element

The following policy and implementation measure pertain to glare generated by new discretionary projects in Kern County:

- 1.10.7 Light and Glare (Policy 47): Ensure that light and glare from discretionary new development projects are minimized in rural as well as urban areas.
- Implementation Measure AA: The County shall utilize *CEQA Guidelines* and the provisions of the Zoning Ordinance to minimize the impacts of light and glare on adjacent properties and in rural undeveloped areas.

Chapter 19.81, Dark Skies Ordinance (Outdoor Lighting)

There are no local glare regulations that are applicable to the project. The Kern County Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance) addresses glare; however, regulations and development standards are specific to outdoor lighting and signage. There are no development standards in the Kern County Dark Skies Ordinance that pertain specifically to solar facilities.

1.3 Proposed Project Description

Project Characteristics

The project is a proposed photovoltaic solar facility and energy storage system capable of producing a combined (up to) 530 MW of renewable electrical energy. The project also includes the installation of associated (up to) 600 MW energy storage (battery) facilities. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities. The generalized site layout for the proposed project is shown on Figure 2, Project Site Layout.

From the proposed project's substation(s), power could be transmitted to the Southern California Edison (SCE) Holgate Substation via up to 230 kV overhead and/or underground line(s). If aboveground, the overhead lines would be mounted on monopoles up to 150 feet in height. Alternatively, the proposed project could transmit its power to the SCE Kramer Substation located to the east in San Bernardino County, via an overhead and/or underground transmission line located within an Edwards Air Force Base utility corridor.

Aratina Solar Project Glare Analysis Report

This Glare Analysis Report considers the impacts of the PV solar arrays and their potential to generate glare. The project includes other components that do not have potential for significant glare and are therefore not analyzed in this report. These components include:

- Collection, inverter stations, and transformer systems
- Energy storage system
- Substation(s)
- Operations and maintenance (O&M) facilities Transmission Lines
- Onsite meteorological stations and towers
- Transmission lines
- Stormwater facilities/detention
- Site access and security
- Water storage tank(s)
- Project site lighting

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2 GLARE IMPACTS

2.1 General Concepts of Solar Technologies and Glare

The project would involve the installation of photovoltaic panels to convert the sun's light into electrical energy. To increase the efficiency of this conversion process, designers of solar systems strive to maximize the amount of solar energy that can be absorbed by solar cells. This work towards increasing efficiency has the added benefit of reducing the amount of light that reflects off of the surface of the solar panels. Reflected light can cause glint (a quick reflection) and glare (reflection that lasts for a longer duration), which can create hazards for pilots, air-traffic control personnel, motorists, and other potential receptors. For the purpose of this Glare Analysis Report, any light reflected off of the solar panels is referred to as 'glare.'

There are several key design considerations that can reduce glare from solar panels. One of the main factors of reflectance is the position of the PV modules relative to the sun. A panel that has been designed to absorb 90% of the sunlight that directly meets the face of the panels (perpendicular to the sun's rays) may have that absorption significantly reduced if the panel is not directly facing the sun (ForgeSolar 2019). Because the sun tracks across the sky over the course of a day, fixed-mount stationary panels can only maximize its efficiency for a few minutes out of the day when the sunlight is directly perpendicular to the face of the panel. To maximize the amount of solar energy generated from the solar array, some PV systems employ tracking mechanisms that would adjust to track the sun's trajectory as it crosses the sky. Figure 3, Comparison of Photovoltaic Tracking Systems, provides an illustrative example of fixed-mount panel system, single-axis tracking system, and dual-axis tracking system.

In addition to panel orientation, the materials used in the panel construction play an important role in reducing glare and maximizing efficiency. Different glass textures can be used to reflect light beams into the solar array and anti-reflective coatings can be added to the glass to further reduce reflectivity at high incidence angles (the angle at which the light hits the solar array).

The project is anticipated to employ a single-axis tracking system, as illustrated by the middle panel system in Figure 3. The axis of rotation would be aligned north-south with a maximum tracking angle of 52°. The surface of the panels would be constructed out of smooth glass and would include an anti-reflective coating, as further described in Section 2.2.3.

Aratina Solar Project Glare Analysis Report

Glare can result in visual hazards and temporary loss of vision. The hazard level of glare depends on the ocular impact to the observer. Generally, an ocular impact is calculated as a function of the incidence angle and the intensity of the light. For the purpose of this Glare Analysis Report, an ocular impact is classified in one of three categories as follows:

- Green: Low potential for the glare to cause an after-image (also known as flash blindness)
- Yellow: Potential to cause a temporary after-image
- Red: Potential to cause retinal burn and permanent eye damage

2.2 Methodology

In order to determine where and when glare might occur as a result of the proposed project, Dudek staff utilized a multi-step process that included a combination of spatial analysis, 3D geometric modeling, and aerial imagery interpolation. Because of the project's close proximity to Edwards Air Force Base (with runways located approximately 6.5 miles to the west of the project), Boron Airstrip, and the existence of multiple highways in the immediate vicinity of the project site, a 5-mile-radius study area was determined to be necessary for this analysis, as shown on Figure 1. The locations of Edwards Air Force Base and Boron Airstrip are identified on Figure 1.

Dudek performed a visibility analysis on the surrounding terrain within the study area to determine where the project is most visible. Based on the visibility analysis, Dudek determined the location of potential receptors within the study area. All runway approach paths and air traffic control towers associated with Edwards Air Force Base and Boron Airstrip were included in this analysis regardless of visibility or distance. A geometric glare analysis was then conducted for the identified potential receptors to determine a worst-case scenario of where and when glare might be encountered (see section 2.2.4 for known modeling limitations). Upon completion of the geometric analysis, Dudek reviewed the results for potential glare hazards.

To account for the large project area and to increase the reliability of the modeling results, the project site was broken up into 4 separate analysis groups (see Figure 2), which were further broken into panel sections averaging about 20 acres in size. A full visibility and glare analysis were performed on each analysis group.

2.2.1 Visibility Analysis

The first step in pinpointing potential receptor locations was to determine where the project is most visible on the surrounding landscape. This is an important step because the geometric glare analysis software described in Section 2.2.3 does not take into consideration the terrain between the observer and the reflective surfaces associated with the project. Without this step, there would

Aratina Solar Project Glare Analysis Report

be potential for a false positive glare impact on an observer that, in reality, could not possibly see the project due to intervening terrain.

Figure 4A through 4D, Visibility Analysis, shows the results of the visibility analysis performed by Dudek staff. Terrain within the study area is colored based on the percentage of the project visible from that location. Locations on the map colored red, can view most of the proposed solar arrays within each analysis group. Areas in blue have their view of the arrays mostly obscured by terrain. This visibility analysis only utilized existing terrain models, and did not take into consideration existing and proposed structures or vegetation. See section 2.2.4, Known Limitations in Geometric Analysis, for more information.

2.2.2 Potential Receptor Identification

Using the visibility analysis results in conjunction with aerial imagery, road centerline data, land use data, and flight path information, Dudek staff selected potential receptors based on their distance from the project, orientation to the project, and the percentage of the project visible from the receptor's location. To keep the geometric processing time within reasonable limits, only receptors that were either close to the project or able to see most of the project from their location were selected for the analysis. Potential receptors to the south of the project that were not within close proximity were also excluded due to the fact that, at the latitude of the project, most of the glare resulting from the project would be reflected to the north, east, and west. Figures 4A through 4D, show the locations of analyzed receptors as well as the modeled array locations. Figure 5, Air Traffic Receptor Locations, shows the locations of receptor routes associated with airport approach paths. Modeled array extents were subdivided into smaller portions to increase the accuracy of the modeling software. The numbers assigned to each panel section on Figures 4A through 4D correspond the array identifiers in Appendix A. Each modeled receptor type shown on Figures 4 and 5 are described below and receptor's precise modeling parameters can be found in Appendix A:

- Air Traffic Control Tower (ATCT) Observation Point – One control tower considered for this analysis; the currently operating tower located at Edwards Air Force Base, north of runway 22R. A modeled control tower observer height of 145 feet was based on publicly available elevation data. See Appendix A for the precise heights used in the modeling.
- Observation Point – Analysis included sixteen existing potential point receptors that were located adjacent to the project or within direct line of sight of most of the solar array. Thirteen of the points were associated with residential dwellings and three of the points were associated with outdoor recreational facilities. Because modeling every potential

Aratina Solar Project Glare Analysis Report

point receptor would not be feasible, Dudek staff selected representative points from potentially sensitive land uses surrounding the site.

- Airport Flight Path Observation Route – Seventeen flight path observation routes were selected to simulate an aircraft following a straight-line approach toward each runway at Edwards Air Force Base (including Edwards Air Force Auxiliary North Base) and Boron Airstrip. Flight path routes utilize glide slope and elevation parameters, as well as cockpit visibility angles. Modeled flight approaches extended out two miles from each runway threshold. See Figure 5 for precise locations of Airport Flight Path Observation Routes.
- Highway/Road Observation Route – Sixteen Highway/Road observation routes were selected based on visibility, distance to the project site, and level of traffic expected on the roadways. To keep the number of receptor routes below the allowed limit by the geometric modeling software, Dudek staff selected routes that would be representative of each road type and road direction of travel within view of the project. Because of the project’s location in the northern hemisphere, roads to the east, west, and north of the project were preferred in the selection process because of their higher likelihood of receiving glare (depending on distance).
- Railroad Observation Route – Nine railroad routes were selected based on their proximity and visibility from the project site.

Table 1 shows the number of receptor points/routes modeled categorized by receptor type.

Table 1
Receptor Counts

Receptor Type	Count
Airport Flight Paths	17
Air Traffic Control Towers (ATCT)	1
Observation Points (Dwellings and outdoor recreation)	16
Observation Routes (Roads and Highways)	16
Railroad Routes	9

2.2.3 Geometric Glare Analysis

Dudek staff utilized an industry standard 3D geometric glare analysis software tool developed by Sandia National Laboratories and licensed by ForgeSolar. By inputting the solar panel locations and characteristics, as well as the locations and elevations of the receptors, the software was able to simulate the sun’s progression across the sky over the course of a year and model the potential glare caused by the proposed solar arrays. If glare is detected, the software is able to quantify the level of ocular impact hazard (green, yellow, or red) as well as pinpoint the exact time of year the

Aratina Solar Project Glare Analysis Report

glare would occur. This analysis was automatically performed for every minute of the calendar year, for each analysis group, and for each potential receptor defined in the model.

In order to improve model accuracy, Dudek staff consulted the Project Applicant to obtain the precise characteristics of the proposed solar array system. Data gathered included the physical location, orientation, build material (including the presence of anti-reflective coatings), tilt angle, and tracking technology. All of these characteristics were entered into the modeling software as described in Table 2.

Table 2
Solar Array Model Inputs

Solar Array Characteristics	Proposed Project Configuration
Tracking method	Single-axis
Module surface material	Smooth glass with anti-reflective coating
Orientation of tracking axis	North-south
Maximum tracking angle	52°
Resting angle (when sun leaves maximum tracking angle)	10°

As described in Table 2, the proposed project is anticipated to utilize a single-axis tracking system. This tracking system would be oriented running north-south with the panel faces rotating from east to west. The system would be able to track the sun's progression across the sky, within the system's 104° range of motion (52° to the east and 52° to the west). When the sun is not within the 104° range of motion, the panels would backtrack and rest at 10°.

2.2.4 Known Limitations of the Geometric Analysis

The following known limitations in the modeling software have potential to exaggerate the level of predicted glare shown in the section 2.2.5, Analysis Results. Because of this, the results detailed in section 2.2.5 should be considered worst case scenario results.

- The geometric modeling software does not allow for a precise modeling of the backtracking strategy employed by the project's solar tracking system. The modeling software sets the resting angle of the solar panels to 10° at the instant the sun travels outside of the maximum tracking angle. In reality, the panels will slowly track back to 10° as the sun nears the horizon. The sudden backtracking as modeled in the geometric analysis maximizes the angle of incidence during the early morning and late afternoon hours, exaggerating the glare at those times.

Aratina Solar Project Glare Analysis Report

- The visibility analysis and geometric modeling software does not consider existing vegetation or structures that might obscure the view of the panels from the receptor locations. This might result in glare at receptors that are, in reality, unable to clearly see the panels.

2.2.5 Analysis Results

Dudek has determined that, according to the results of the geometric glare analysis, the proposed project will not result in glare in the “Green” and “Yellow” ocular impact categories (see Table 3, Glare Results).

Precise modeling parameters for each receptor and modeled panel sections, can be found in Appendix A.

**Table 3
Glare Results**

Analysis Group	Panel Section ID	Proposed Project (Single-Axis Tracking)	
		<i>“Green” Glare (Minutes per Year)</i>	<i>“Yellow” Glare (Minutes per Year)</i>
Group A	A01	0	0
Group A	A02	0	0
Group A	A03	0	0
Group A	A04	0	0
Group A	A05	0	0
Group A	A06	0	0
Group A	A07	0	0
Group A	A08	0	0
Group A	A09	0	0
Group A	A10	0	0
Group A	A11	0	0
Group A	A12	0	0
Group A	A13	0	0
Group A	A14	0	0
Group A	A15	0	0
Group A	A16	0	0
Group A	A17	0	0
Group A	A18	0	0
Group A	A19	0	0

Aratina Solar Project Glare Analysis Report

Analysis Group	Panel Section ID	Proposed Project (Single-Axis Tracking)	
		<i>"Green" Glare (Minutes per Year)</i>	<i>"Yellow" Glare (Minutes per Year)</i>
Group A	A20	0	0
Group A	A21	0	0
Group A	A22	0	0
Group A	A23	0	0
Group A	A24	0	0
Group A	A25	0	0
Group A	A26	0	0
Group A	A27	0	0
Group A	A28	0	0
Group A	A29	0	0
Group A	A30	0	0
Group A	A31	0	0
Group A	A32	0	0
Group B	B01	0	0
Group B	B02	0	0
Group B	B03	0	0
Group B	B04	0	0
Group B	B05	0	0
Group B	B06	0	0
Group B	B07	0	0
Group B	B08	0	0
Group B	B09	0	0
Group B	B10	0	0
Group B	B11	0	0
Group B	B12	0	0
Group B	B13	0	0
Group B	B14	0	0
Group B	B15	0	0
Group B	B16	0	0
Group B	B17	0	0
Group B	B18	0	0
Group B	B19	0	0
Group B	B20	0	0
Group B	B21	0	0
Group B	B22	0	0

Aratina Solar Project Glare Analysis Report

Analysis Group	Panel Section ID	Proposed Project (Single-Axis Tracking)	
		"Green" Glare (Minutes per Year)	"Yellow" Glare (Minutes per Year)
Group B	B23	0	0
Group B	B24	0	0
Group B	B25	0	0
Group B	B26	0	0
Group B	B27	0	0
Group B	B28	0	0
Group B	B29	0	0
Group B	B30	0	0
Group C	C01	0	0
Group C	C02	0	0
Group C	C03	0	0
Group C	C04	0	0
Group C	C05	0	0
Group C	C06	0	0
Group C	C07	0	0
Group C	C08	0	0
Group C	C09	0	0
Group C	C10	0	0
Group C	C11	0	0
Group C	C12	0	0
Group C	C13	0	0
Group C	C14	0	0
Group C	C15	0	0
Group C	C16	0	0
Group C	C17	0	0
Group C	C18	0	0
Group C	C19	0	0
Group C	C20	0	0
Group C	C21	0	0
Group C	C22	0	0
Group C	C23	0	0
Group C	C24	0	0
Group C	C25	0	0
Group C	C26	0	0
Group C	C27	0	0

Aratina Solar Project Glare Analysis Report

Analysis Group	Panel Section ID	Proposed Project (Single-Axis Tracking)	
		<i>"Green" Glare (Minutes per Year)</i>	<i>"Yellow" Glare (Minutes per Year)</i>
Group C	C28	0	0
Group C	C29	0	0
Group C	C30	0	0
Group C	C31	0	0
Group D	D01	0	0
Group D	D02	0	0
Group D	D03	0	0
Group D	D04	0	0
Group D	D05	0	0
Group D	D06	0	0
Group D	D07	0	0
Group D	D08	0	0
Group D	D09	0	0
Group D	D10	0	0
Group D	D11	0	0
Group D	D12	0	0
Group D	D13	0	0
Group D	D14	0	0
Group D	D15	0	0
Group D	D16	0	0
Group D	D17	0	0

Aratina Solar Project Glare Analysis Report

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Aratina Solar Project Glare Analysis Report

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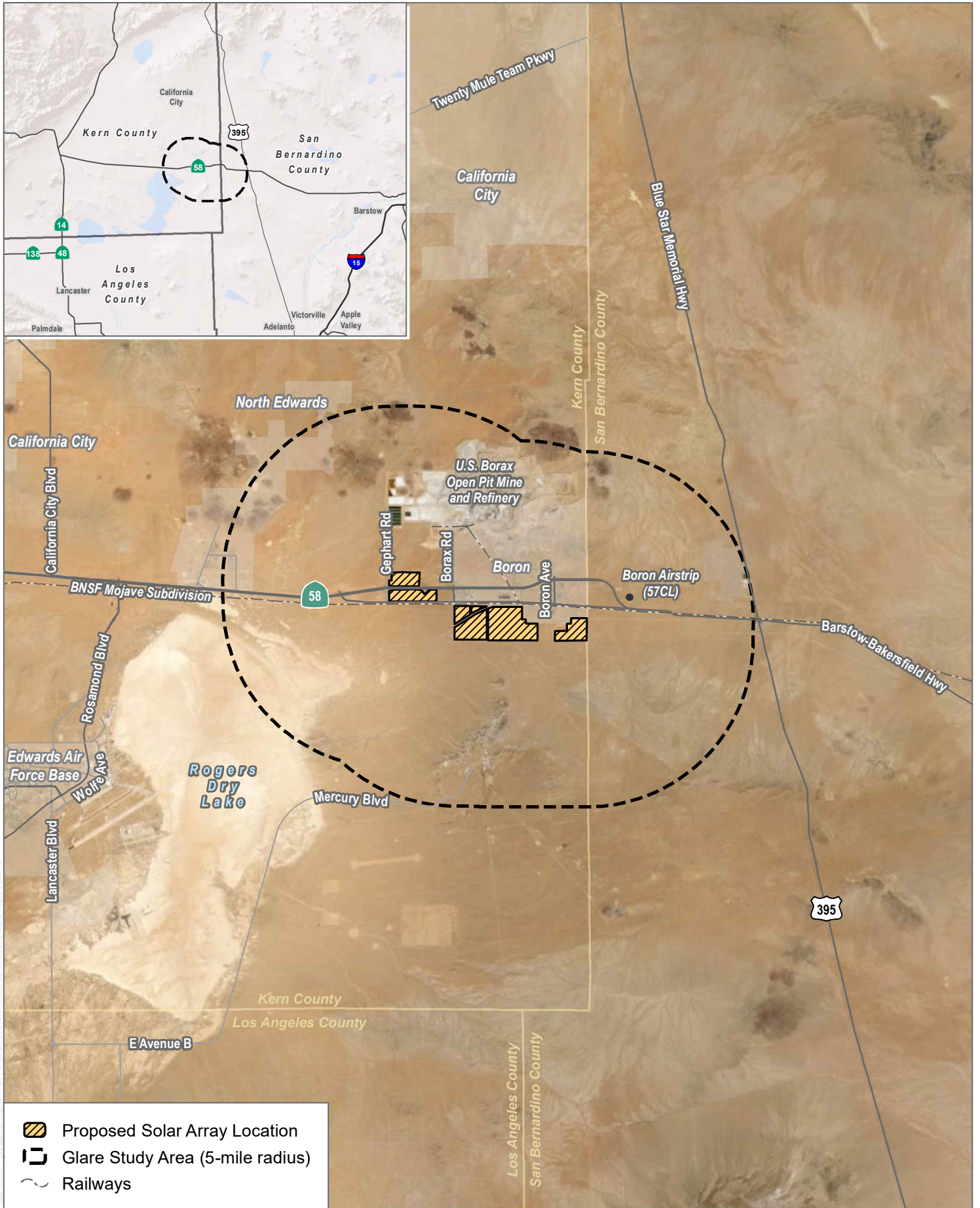
Aratina Solar Project Glare Analysis Report

4 DOCUMENT PREPARERS

This Glare Analysis Report was prepared by Christopher Starbird and Joshua Saunders. Formatting was provided by David Mueller.

Aratina Solar Project Glare Analysis Report

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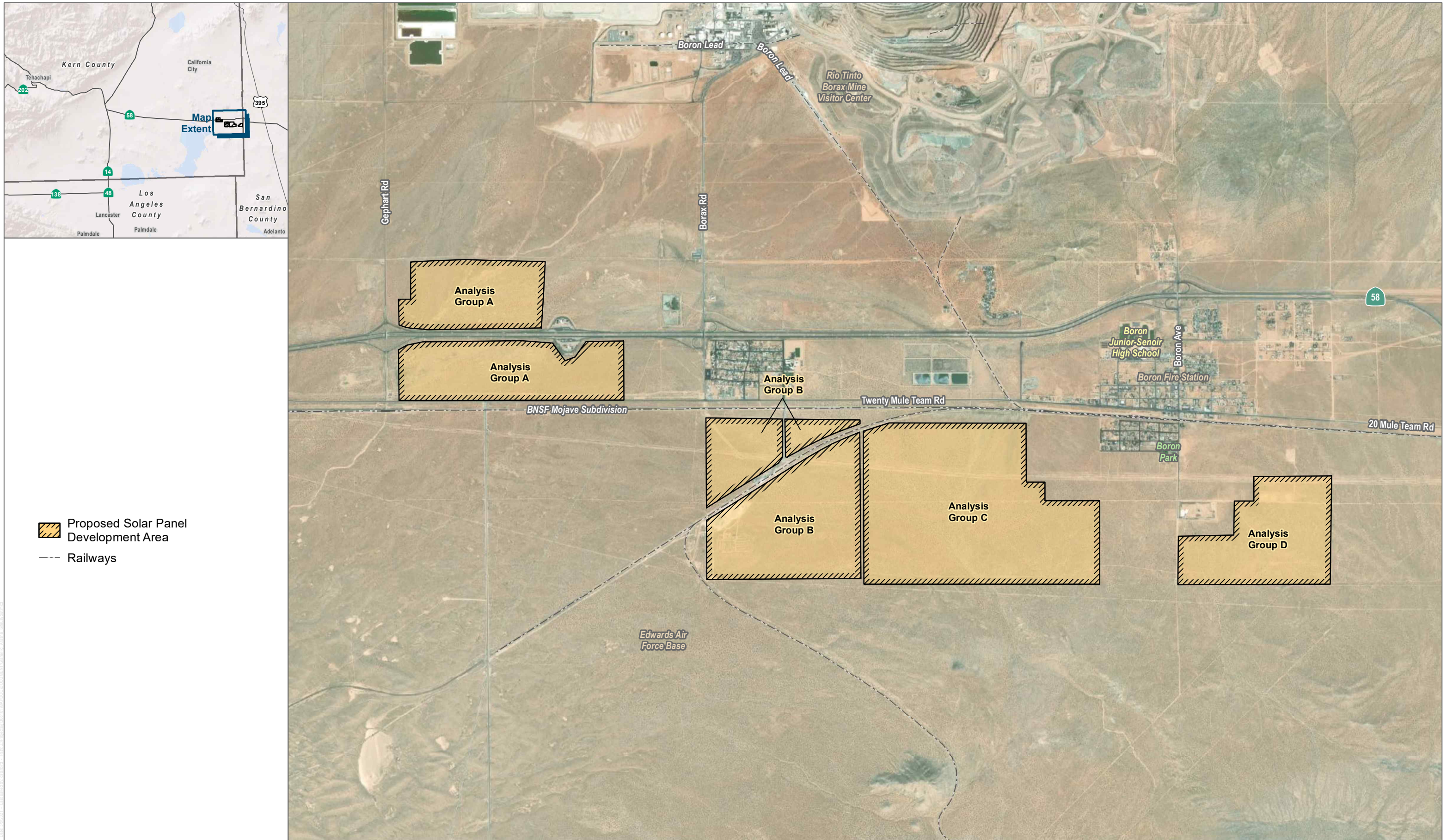


SOURCE: Esri, Digital Globe 2019, Open Street Map 2019

FIGURE 1
Project Location and Study Area

Aratina Solar Project Glare Analysis Report

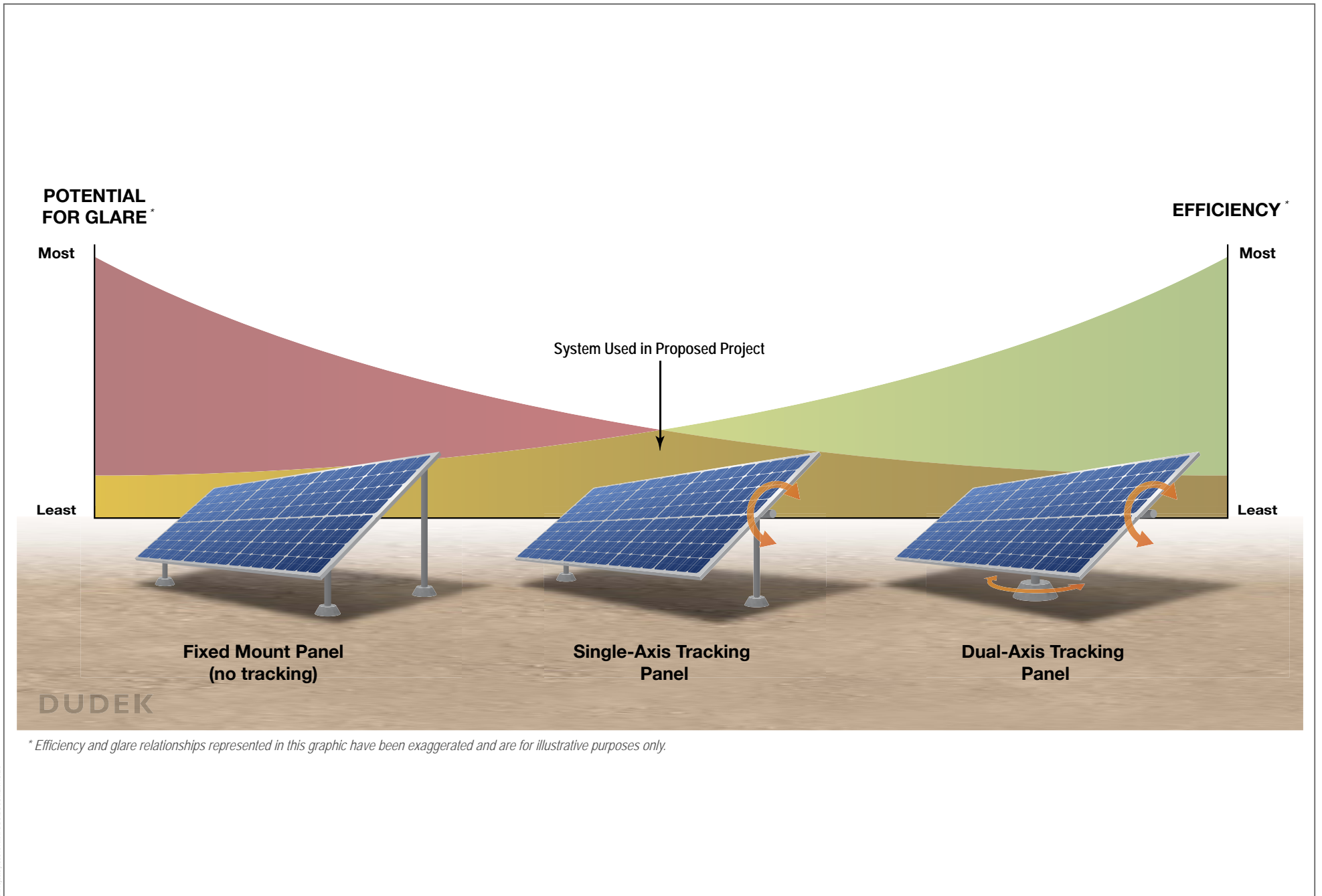
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SOURCE: Esri and Digital Globe, Open Street Map 2019

FIGURE 2
Project Site Layout
Aratina Solar

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SOURCE: DUDEK 2021

DUDEK

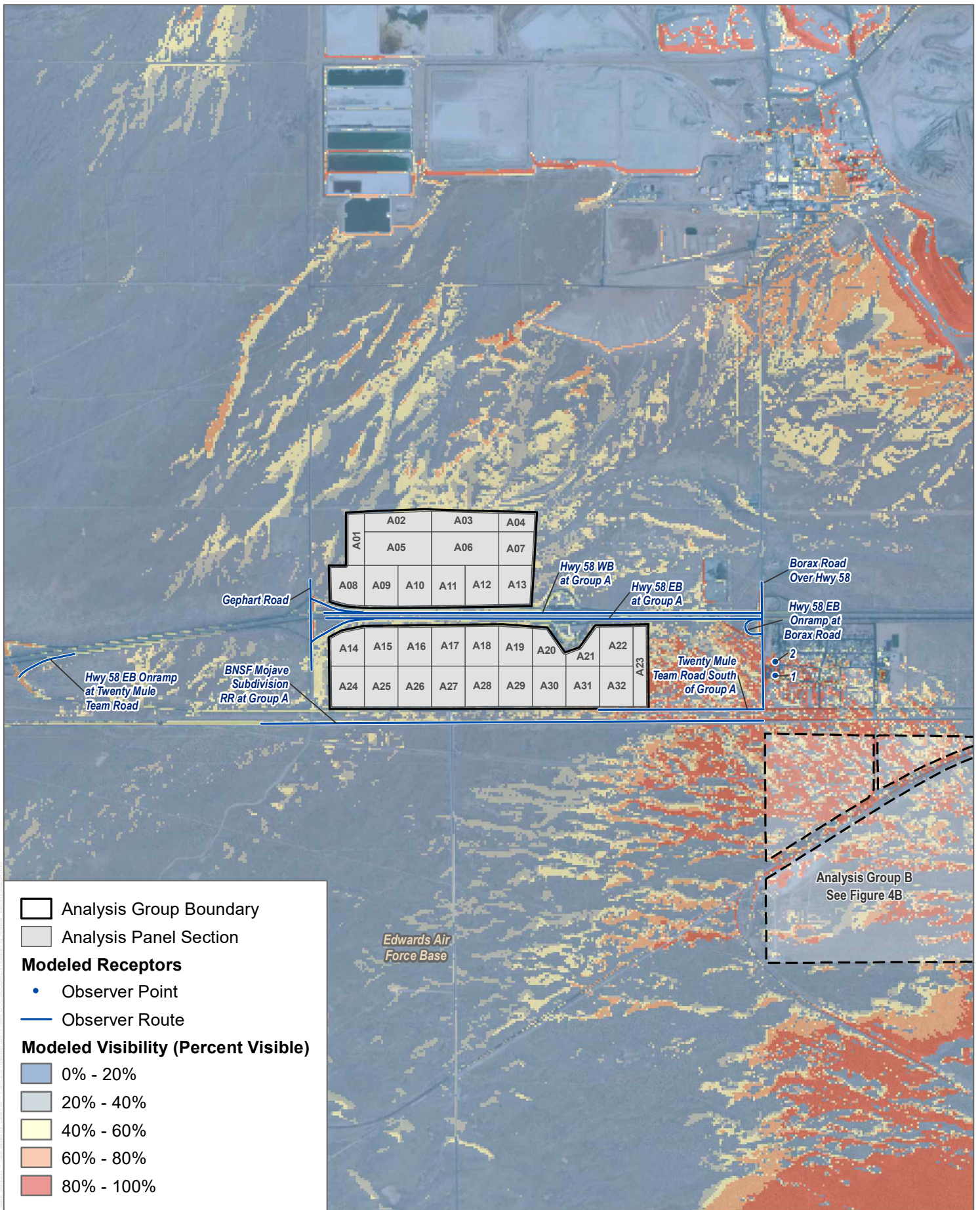
FIGURE 3

Comparison of Photovoltaic Tracking Systems

Aratina Solar

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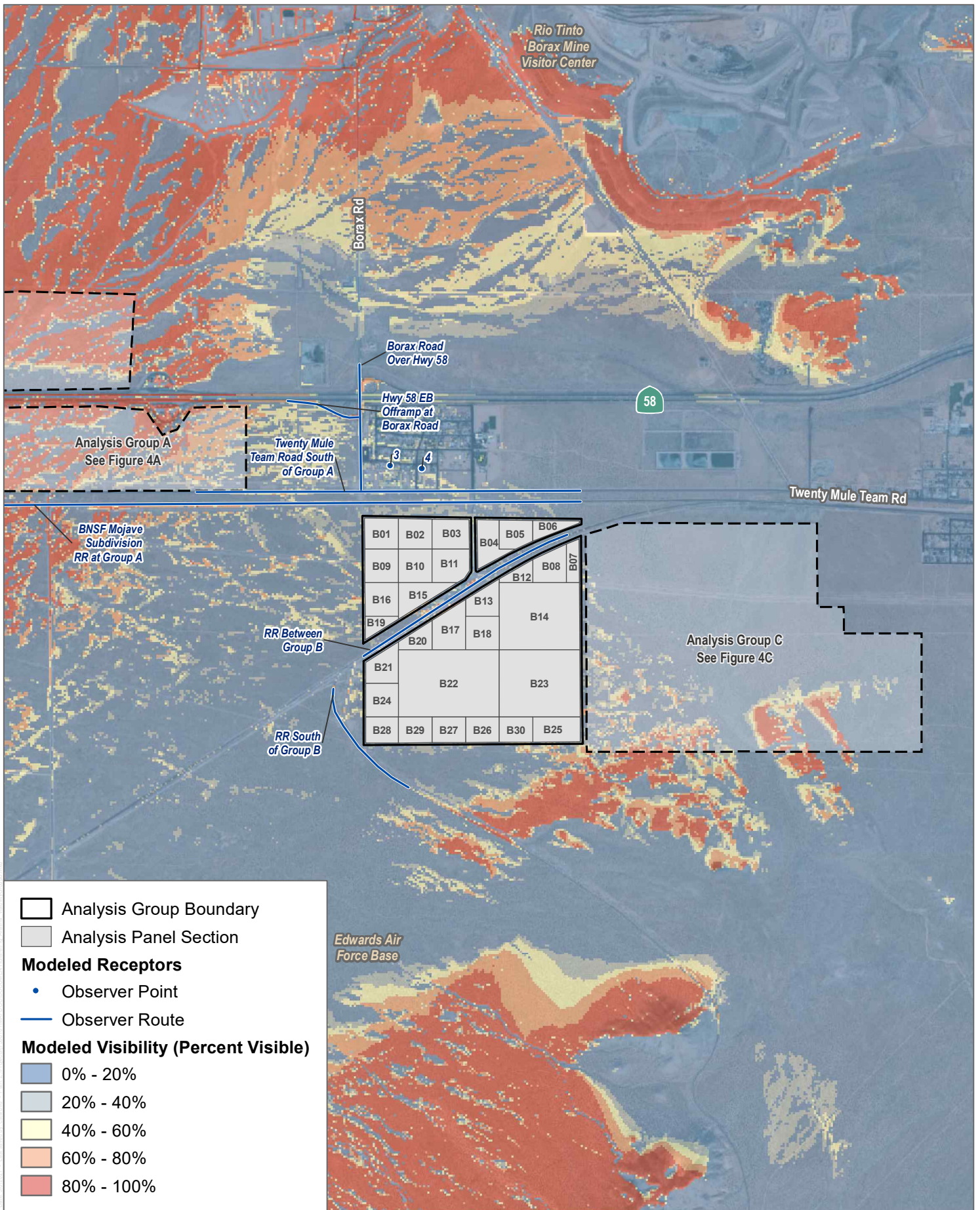
SOURCE: Esri and Digital Globe, Open Street Map 2019

FIGURE 4A

Visibility Analysis and Modeled Receptor Locations

Aratina Solar Project Glare Analysis Report

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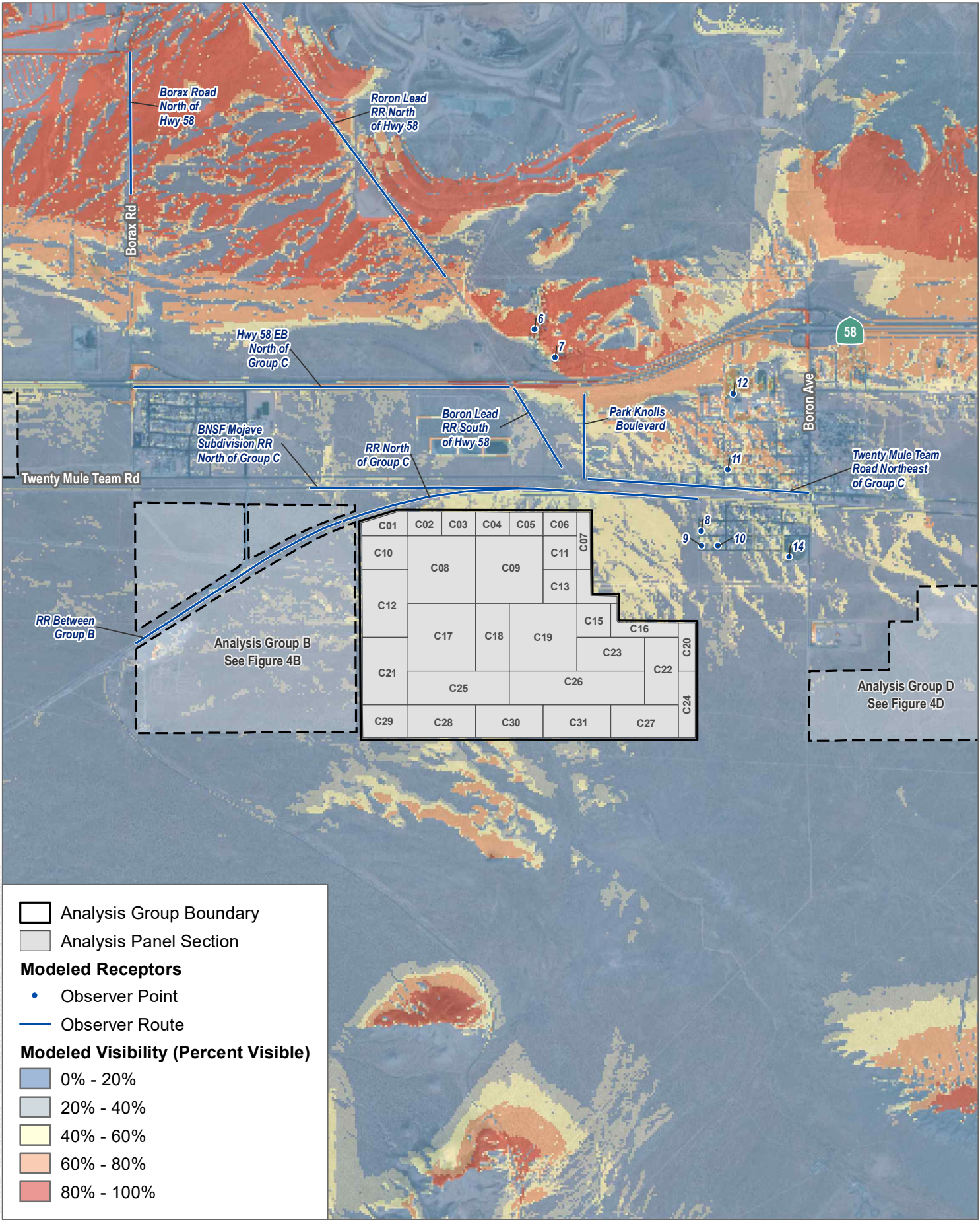


SOURCE: Esri and Digital Globe, Open Street Map 2019

FIGURE 4B
 Visibility Analysis and Modeled Receptor Locations - Analysis Group B

Aratina Solar Project Glare Analysis Report

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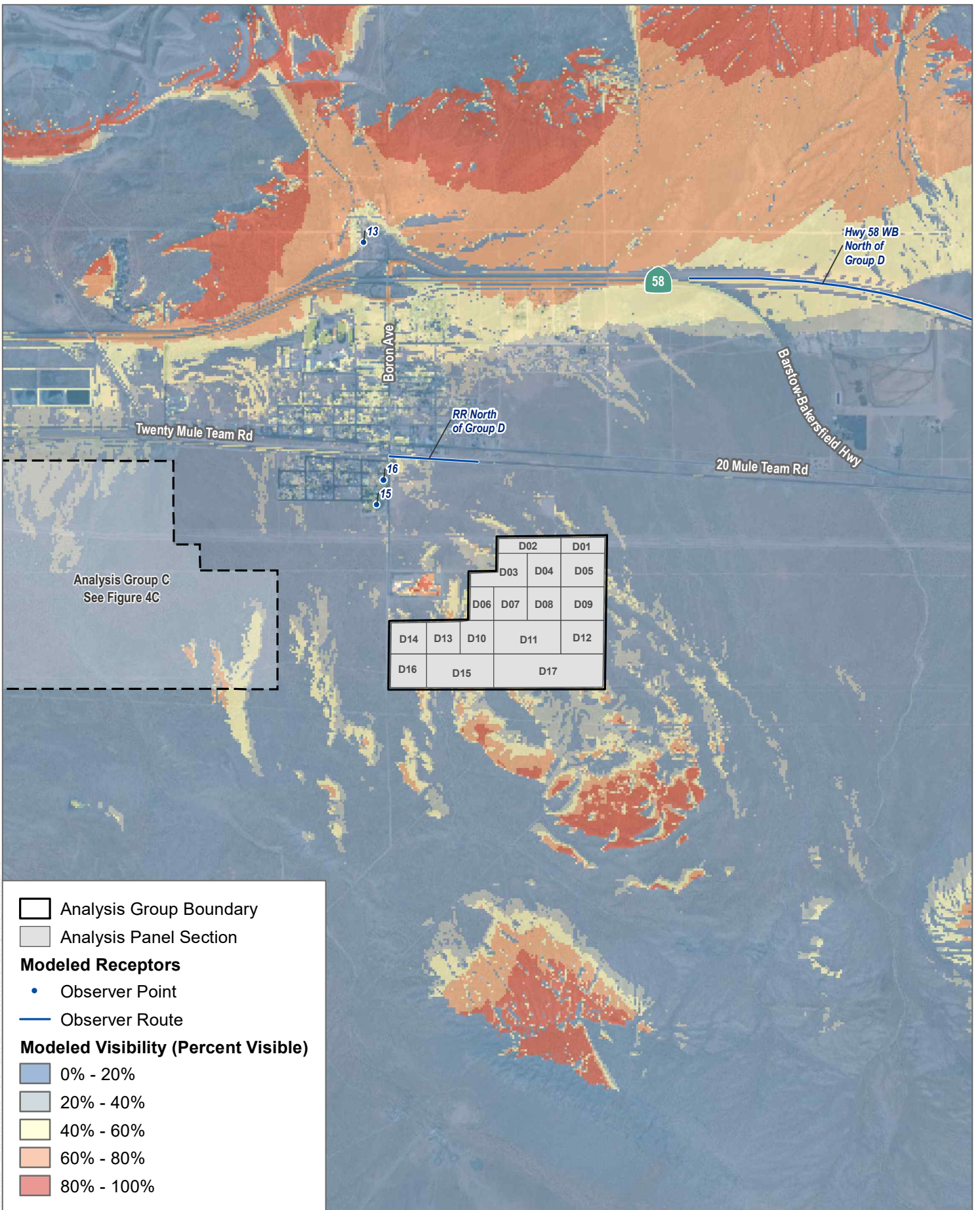


SOURCE: Esri and Digital Globe, Open Street Map 2019

FIGURE 4C
 Visibility Analysis and Modeled Receptor Locations - Analysis Group C

Aratina Solar Project Glare Analysis Report

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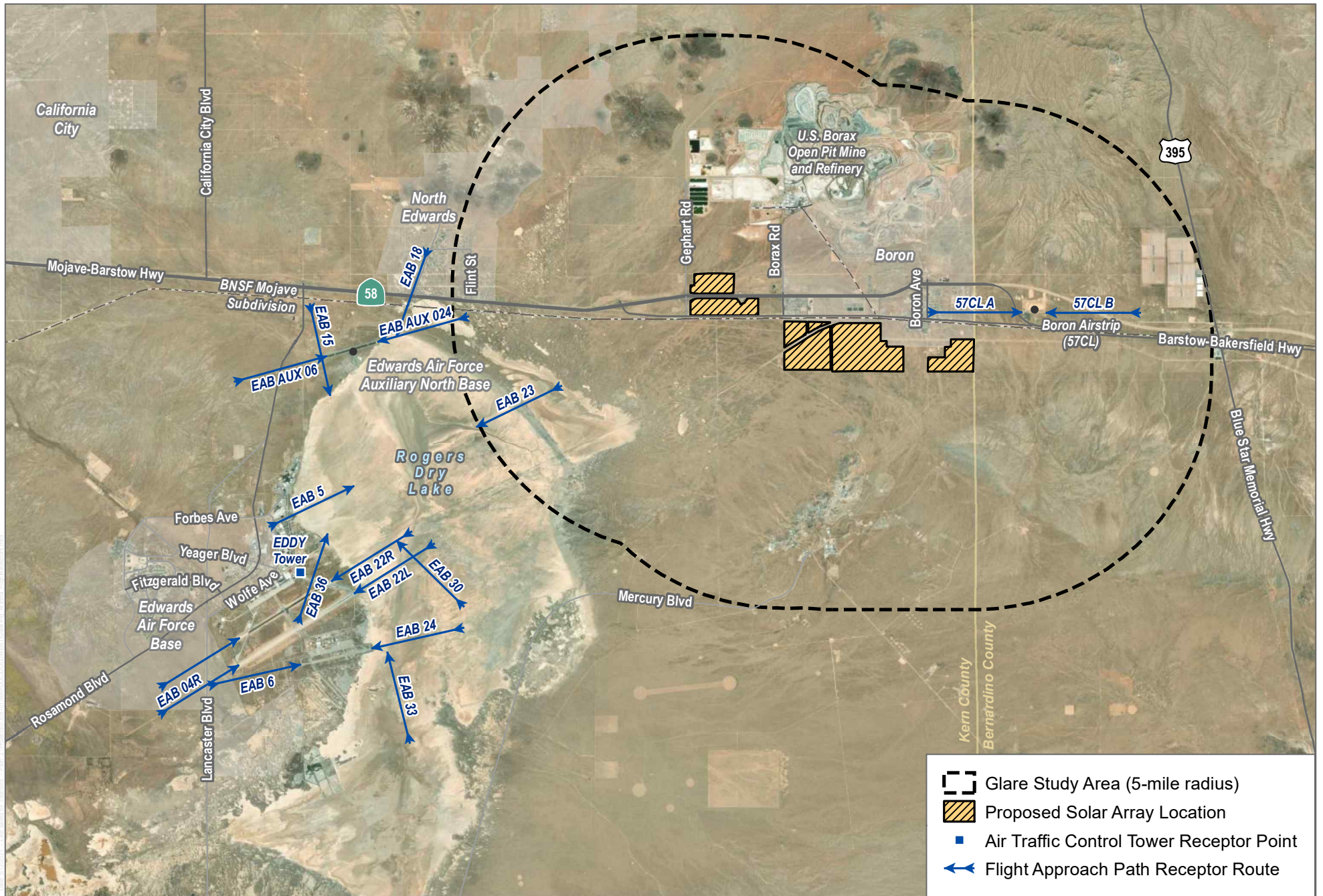


SOURCE: Esri and Digital Globe, Open Street Map 2019

FIGURE 4D
Visibility Analysis and Modeled Receptor Locations - Analysis Group D

Aratina Solar Project Glare Analysis Report

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SOURCE: Esri, Digital Globe 2019, Open Street Map 2019



FIGURE 5
Air Traffic Receptor Locations

Aratina Solar

**Aratina Solar Project
Glare Analysis Report**

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APPENDIX A-1

Modeling Results for Analysis Group A



FORGESOLAR GLARE ANALYSIS

Project: **Aratina Solar Rest at 10**

The project is a proposed photovoltaic solar facility and energy storage system capable of producing a combined (up to) 530 MW of renewable electrical energy. The project also includes the installation of associated (up to) 600 MW energy storage (battery) facilities. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Site configuration: **Aratina Solar Group A - May 2021**

Analysis conducted by Brian Nordmann (cstarbird@dudek.com) at 18:31 on 12 May, 2021.

U.S. FAA 2013 Policy Adherence

The following table summarizes the policy adherence of the glare analysis based on the 2013 U.S. Federal Aviation Administration Interim Policy 78 FR 63276. This policy requires the following criteria be met for solar energy systems on airport property:

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- Default analysis and observer characteristics (see list below)

ForgeSolar does not represent or speak officially for the FAA and cannot approve or deny projects. Results are informational only.

COMPONENT	STATUS	DESCRIPTION
Analysis parameters	PASS	Analysis time interval and eye characteristics used are acceptable
2-mile flight path(s)	PASS	Flight path receptor(s) do not receive yellow glare
ATCT(s)	PASS	Receptor(s) marked as ATCT do not receive glare

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FAA Policy 78 FR 63276 can be read at <https://www.federalregister.gov/d/2013-24729>

SITE CONFIGURATION

Analysis Parameters

DNI: peaks at 1,000.0 W/m²
Time interval: 1 min
Ocular transmission coefficient: 0.5
Pupil diameter: 0.002 m
Eye focal length: 0.017 m
Sun subtended angle: 9.3 mrad
Site Config ID: 53625.9557

PV Array(s)

Name: A01
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 52.0°
Resting angle: 10.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.010175	-117.734900	2352.21	4.00	2356.21
2	35.010178	-117.736192	2349.61	4.00	2353.61
3	35.013511	-117.736195	2354.61	4.00	2358.62
4	35.013560	-117.734890	2356.11	4.00	2360.12
5	35.012373	-117.734893	2355.21	4.00	2359.22
6	35.010175	-117.734900	2352.21	4.00	2356.21

Name: A02

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

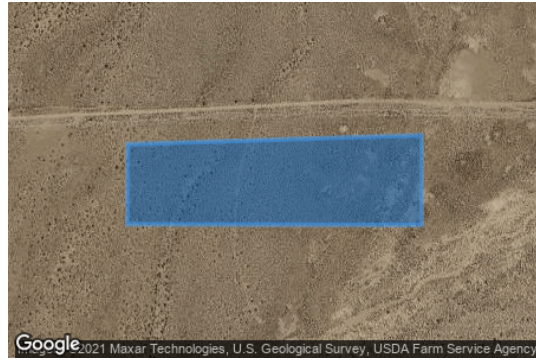
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.012373	-117.734893	2355.21	4.00	2359.22
2	35.013560	-117.734890	2356.11	4.00	2360.12
3	35.013694	-117.729546	2356.21	4.00	2360.22
4	35.012361	-117.729550	2353.71	4.00	2357.72
5	35.012373	-117.734893	2355.21	4.00	2359.22

Name: A03

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.012361	-117.729550	2353.71	4.00	2357.72
2	35.013694	-117.729546	2356.21	4.00	2360.22
3	35.013563	-117.724203	2358.82	4.00	2362.82
4	35.012349	-117.724207	2358.52	4.00	2362.52
5	35.012361	-117.729550	2353.71	4.00	2357.72

Name: A04

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

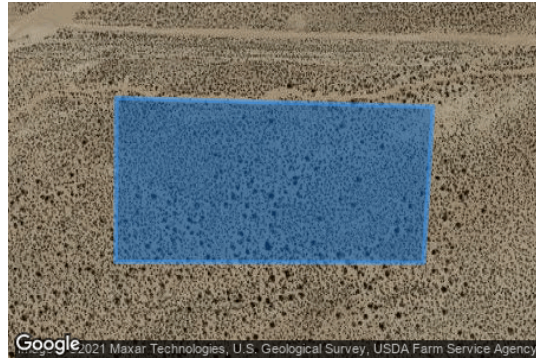
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.012349	-117.724207	2358.52	4.00	2362.52
2	35.013563	-117.724203	2358.82	4.00	2362.82
3	35.013498	-117.721327	2361.92	4.00	2365.92
4	35.012343	-117.721412	2361.82	4.00	2365.82
5	35.012349	-117.724207	2358.52	4.00	2362.52

Name: A05

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.010169	-117.732229	2350.91	4.00	2354.91
2	35.010175	-117.734900	2352.21	4.00	2356.21
3	35.012373	-117.734893	2355.21	4.00	2359.22
4	35.012361	-117.729550	2353.71	4.00	2357.72
5	35.010163	-117.729557	2352.61	4.00	2356.61
6	35.010169	-117.732229	2350.91	4.00	2354.91

Name: A06

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

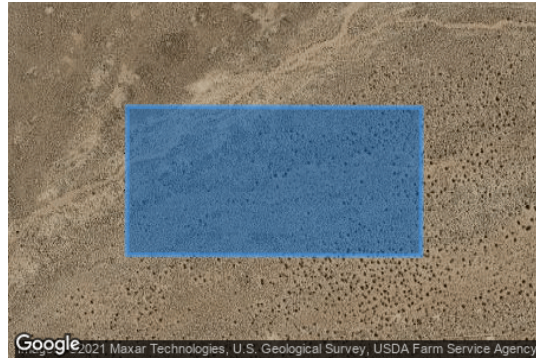
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.010157	-117.726886	2355.51	4.00	2359.52
2	35.010163	-117.729557	2352.61	4.00	2356.61
3	35.012361	-117.729550	2353.71	4.00	2357.72
4	35.012349	-117.724207	2358.52	4.00	2362.52
5	35.010151	-117.724214	2358.02	4.00	2362.02
6	35.010157	-117.726886	2355.51	4.00	2359.52

Name: A07

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

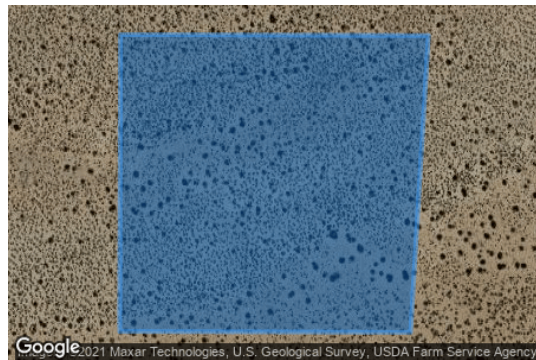
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.010145	-117.721574	2362.32	4.00	2366.32
2	35.010151	-117.724214	2358.02	4.00	2362.02
3	35.012349	-117.724207	2358.52	4.00	2362.52
4	35.012343	-117.721412	2361.82	4.00	2365.82
5	35.010145	-117.721574	2362.32	4.00	2366.32

Name: A08

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.007526	-117.734909	2347.91	4.00	2351.91
2	35.007612	-117.736272	2348.11	4.00	2352.11
3	35.007889	-117.737521	2346.51	4.00	2350.51
4	35.010037	-117.737573	2349.21	4.00	2353.21
5	35.010041	-117.736339	2349.51	4.00	2353.51
6	35.010178	-117.736192	2349.61	4.00	2353.61
7	35.010175	-117.734900	2352.21	4.00	2356.21
8	35.007526	-117.734909	2347.91	4.00	2351.91

Name: A09

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

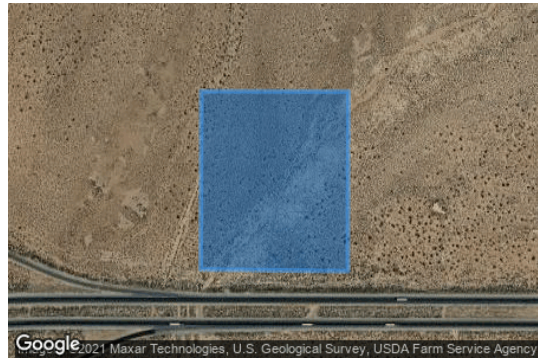
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.007526	-117.734909	2347.91	4.00	2351.91
2	35.010175	-117.734900	2352.21	4.00	2356.21
3	35.010169	-117.732229	2350.91	4.00	2354.91
4	35.007500	-117.732238	2349.81	4.00	2353.81
5	35.007526	-117.734909	2347.91	4.00	2351.91

Name: A10

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

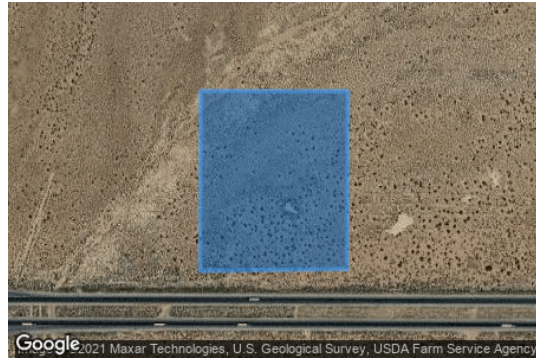
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.007526	-117.729566	2351.21	4.00	2355.21
2	35.007500	-117.732238	2349.81	4.00	2353.81
3	35.010169	-117.732229	2350.91	4.00	2354.91
4	35.010163	-117.729557	2352.61	4.00	2356.61
5	35.007526	-117.729566	2351.21	4.00	2355.21

Name: A11

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

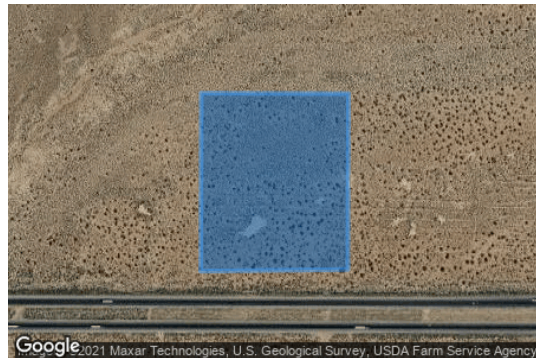
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.007551	-117.726894	2355.61	4.00	2359.62
2	35.007526	-117.729566	2351.21	4.00	2355.21
3	35.010163	-117.729557	2352.61	4.00	2356.61
4	35.010157	-117.726886	2355.51	4.00	2359.52
5	35.007551	-117.726894	2355.61	4.00	2359.62

Name: A12

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

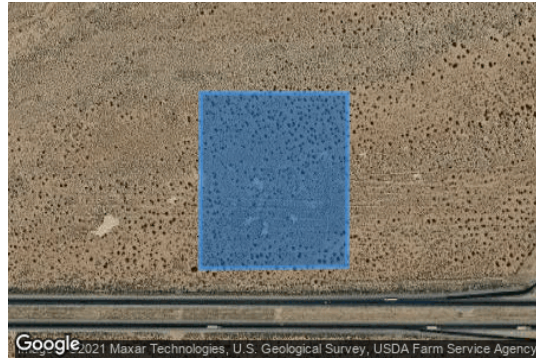
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.007577	-117.724223	2356.01	4.00	2360.02
2	35.007551	-117.726894	2355.61	4.00	2359.62
3	35.010157	-117.726886	2355.51	4.00	2359.52
4	35.010151	-117.724214	2358.02	4.00	2362.02
5	35.007577	-117.724223	2356.01	4.00	2360.02

Name: A13

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

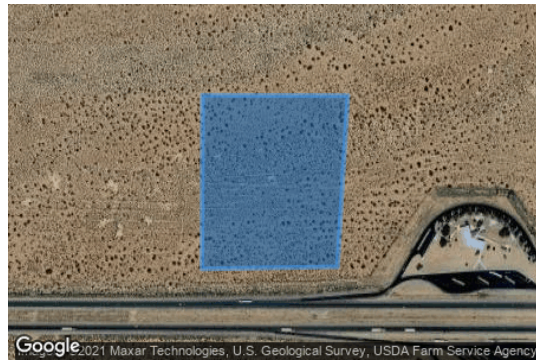
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.007577	-117.724223	2356.01	4.00	2360.02
2	35.010151	-117.724214	2358.02	4.00	2362.02
3	35.010145	-117.721574	2362.32	4.00	2366.32
4	35.007608	-117.721762	2359.02	4.00	2363.02
5	35.007577	-117.724223	2356.01	4.00	2360.02

Name: A14

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

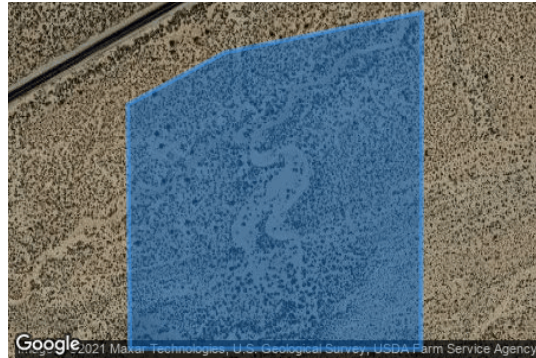
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.003581	-117.734922	2339.01	4.00	2343.01
2	35.003586	-117.737566	2338.61	4.00	2342.61
3	35.005394	-117.737584	2344.21	4.00	2348.21
4	35.005780	-117.736701	2345.21	4.00	2349.21
5	35.006078	-117.734914	2346.91	4.00	2350.91
6	35.003581	-117.734922	2339.01	4.00	2343.01

Name: A15

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

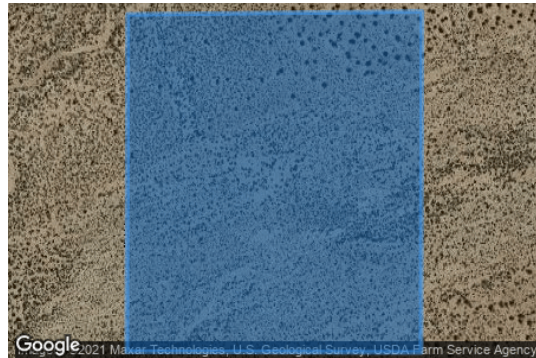
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.003575	-117.732250	2348.11	4.00	2352.11
2	35.003581	-117.734922	2339.01	4.00	2343.01
3	35.006078	-117.734914	2346.91	4.00	2350.91
4	35.006100	-117.732242	2347.91	4.00	2351.91
5	35.003575	-117.732250	2348.11	4.00	2352.11

Name: A16

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

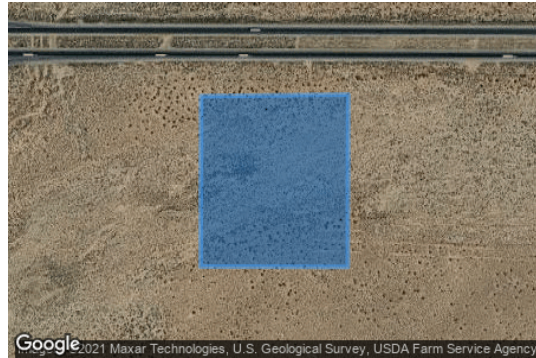
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.003569	-117.729579	2349.11	4.00	2353.11
2	35.003575	-117.732250	2348.11	4.00	2352.11
3	35.006100	-117.732242	2347.91	4.00	2351.91
4	35.006122	-117.729570	2350.11	4.00	2354.11
5	35.003569	-117.729579	2349.11	4.00	2353.11

Name: A17

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

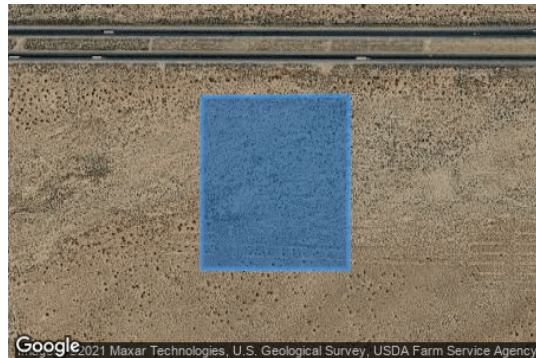
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.003563	-117.726907	2352.11	4.00	2356.11
2	35.003569	-117.729579	2349.11	4.00	2353.11
3	35.006122	-117.729570	2350.11	4.00	2354.11
4	35.006144	-117.726899	2351.31	4.00	2355.31
5	35.003563	-117.726907	2352.11	4.00	2356.11

Name: A18

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

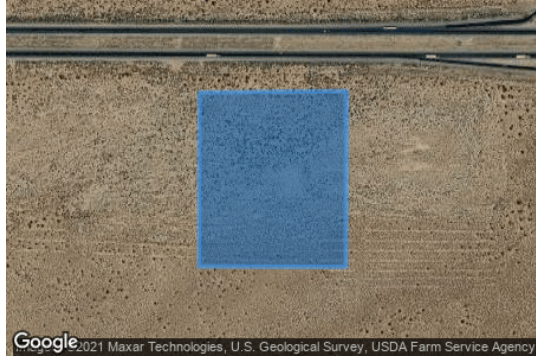
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.003557	-117.724236	2354.31	4.00	2358.32
2	35.003563	-117.726907	2352.11	4.00	2356.11
3	35.006144	-117.726899	2351.31	4.00	2355.31
4	35.006165	-117.724227	2355.61	4.00	2359.62
5	35.003557	-117.724236	2354.31	4.00	2358.32

Name: A19

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

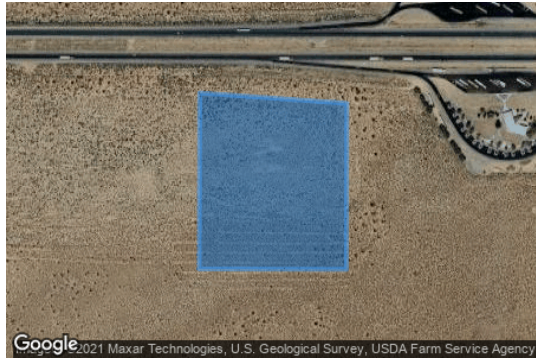
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.003551	-117.721565	2357.12	4.00	2361.12
2	35.003557	-117.724236	2354.31	4.00	2358.32
3	35.006165	-117.724227	2355.61	4.00	2359.62
4	35.006010	-117.721556	2357.72	4.00	2361.72
5	35.003551	-117.721565	2357.12	4.00	2361.12

Name: A20

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

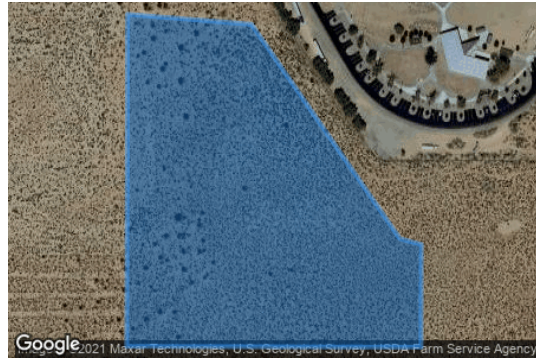
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.004306	-117.718891	2360.92	4.00	2364.92
2	35.003545	-117.718893	2360.42	4.00	2364.42
3	35.003551	-117.721565	2357.12	4.00	2361.12
4	35.006010	-117.721556	2357.72	4.00	2361.72
5	35.005936	-117.720431	2360.52	4.00	2364.52
6	35.004349	-117.719086	2360.12	4.00	2364.12
7	35.004306	-117.718891	2360.92	4.00	2364.92

Flight Path Receptor(s)

Name: 57CL A

Description: None

Threshold height: 50 ft

Direction: 89.9°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	35.001500	-117.614000	2496.92	50.00	2546.92
Two-mile	35.001450	-117.650000	2462.12	638.23	3100.35

Name: 57CL B
Description: None
Threshold height: 50 ft
Direction: 269.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	35.001410	-117.606000	2503.62	50.00	2553.62
Two-mile	35.001540	-117.571000	2472.82	634.23	3107.05

Name: EAB 04L
Description: None
Threshold height: 50 ft
Direction: 58.1°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.902775	-117.904760	2308.81	50.00	2358.82
Two-mile	34.887479	-117.934711	2338.91	573.33	2912.24

Name: EAB 04R
Description: None
Threshold height: 50 ft
Direction: 58.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.894596	-117.904958	2299.91	50.00	2349.91
Two-mile	34.879351	-117.934946	2313.31	590.03	2903.34

Name: EAB 15

Description: None

Threshold height: 50 ft

Direction: 167.5°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.976599	-117.871144	2270.41	50.00	2320.41
Two-mile	35.004832	-117.878760	2321.41	552.53	2873.94

Name: EAB 18

Description: None

Threshold height: 50 ft

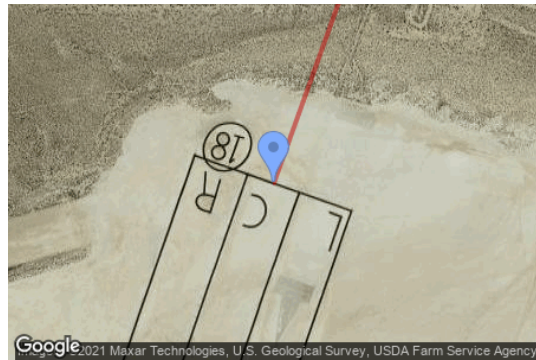
Direction: 199.8°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.994492	-117.846683	2271.61	50.00	2321.61
Two-mile	35.021696	-117.834713	2300.01	575.03	2875.04

Name: EAB 22L

Description: None

Threshold height: 50 ft

Direction: 238.2°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.916271	-117.862462	2282.61	50.00	2332.61
Two-mile	34.931528	-117.832476	2271.31	614.73	2886.04

Name: EAB 22R

Description: None

Threshold height: 50 ft

Direction: 238.2°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.920076	-117.870859	2280.11	50.00	2330.11
Two-mile	34.935308	-117.840853	2269.01	614.53	2883.54

Name: EAB 23

Description: None

Threshold height: 50 ft

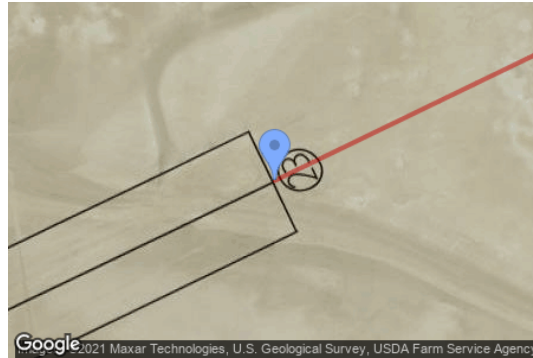
Direction: 244.3°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.966979	-117.817079	2271.21	50.00	2321.21
Two-mile	34.979536	-117.785261	2278.31	596.33	2874.64

Name: EAB 24

Description: None

Threshold height: 50 ft

Direction: 257.4°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.899495	-117.856069	2274.01	50.00	2324.01
Two-mile	34.905827	-117.821632	2271.61	605.83	2877.44

Name: EAB 30
Description: None
Threshold height: 50 ft
Direction: 314.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.932466	-117.846734	2271.01	50.00	2321.01
Two-mile	34.912111	-117.821659	2270.41	604.03	2874.44

Name: EAB 33
Description: None
Threshold height: 50 ft
Direction: 346.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



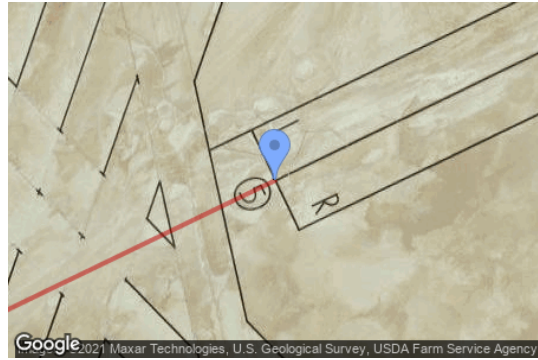
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.898612	-117.850223	2268.91	50.00	2318.91
Two-mile	34.870532	-117.841810	2271.31	601.03	2872.34

Name: EAB 36
Description: None
Threshold height: 50 ft
Direction: 18.5°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.934596	-117.872120	2271.61	50.00	2321.61
Two-mile	34.907173	-117.883306	2292.31	582.73	2875.04

Name: EAB 5
Description: None
Threshold height: 50 ft
Direction: 64.3°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.949164	-117.862226	2269.51	50.00	2319.51
Two-mile	34.936608	-117.894037	2316.81	556.23	2873.04

Name: EAB 6
Description: None
Threshold height: 50 ft
Direction: 77.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.894687	-117.882066	2290.81	50.00	2340.81
Two-mile	34.888287	-117.916482	2294.51	599.73	2894.24

Name: EAB AUX 06
Description: None
Threshold height: 50 ft
Direction: 74.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.988555	-117.872762	2300.81	50.00	2350.81
Two-mile	34.980959	-117.906853	2401.42	502.92	2904.34

Name: EAB AUX 24
Description: None
Threshold height: 50 ft
Direction: 254.4°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.993033	-117.853638	2281.81	50.00	2331.81
Two-mile	35.000832	-117.819613	2284.71	600.63	2885.34

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	35.002857	-117.702238	2395.12	6.00
OP 2	2	35.003786	-117.702212	2393.82	6.00
4-ATCT	4	34.922744	-117.882336	2292.21	145.01
OP 5	5	35.009343	-117.671992	2444.22	6.00

Map image of 4-ATCT



Route Receptor(s)

Name: BNSF Mojave Subdivision RR at Group A

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.999815	-117.743143	2341.71	14.00	2355.71
2	34.999936	-117.703216	2398.82	14.00	2412.82

Name: Borax Road Over Hwy 58

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.000801	-117.703189	2394.02	6.00	2400.02
2	35.009008	-117.703307	2387.22	6.00	2393.22

Name: Gephart Road

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.003336	-117.739137	2341.41	6.00	2347.41
2	35.009257	-117.739205	2347.51	6.00	2353.51

Name: Hwy 58 EB at Group A

Path type: One-way (toward increasing index)

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.006726	-117.737945	2350.91	6.00	2356.92
2	35.006715	-117.732582	2355.01	6.00	2361.02
3	35.006634	-117.712972	2373.12	6.00	2379.12
4	35.006600	-117.703363	2390.42	6.00	2396.42

Name: Hwy 58 EB Offramp at Gephart Road

Path type: One-way (toward increasing index)

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.005173	-117.739109	2356.92	6.00	2362.92
2	35.005422	-117.738717	2358.32	6.00	2364.32
3	35.005766	-117.737962	2355.61	6.00	2361.62
4	35.006069	-117.737302	2353.51	6.00	2359.52
5	35.006372	-117.736627	2349.91	6.00	2355.91
6	35.006520	-117.736134	2350.01	6.00	2356.01
7	35.006608	-117.735568	2350.71	6.00	2356.72
8	35.006671	-117.734205	2353.51	6.00	2359.52

Name: Hwy 58 EB Onramp at Borax Road
Path type: One-way (toward increasing index)
Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.005612	-117.703389	2403.92	6.00	2409.92
2	35.005585	-117.703749	2401.22	6.00	2407.22
3	35.005595	-117.704108	2398.82	6.00	2404.82
4	35.005648	-117.704305	2396.72	6.00	2402.72
5	35.005744	-117.704467	2395.72	6.00	2401.72
6	35.005863	-117.704571	2393.22	6.00	2399.22
7	35.006049	-117.704617	2391.12	6.00	2397.12
8	35.006259	-117.704576	2388.72	6.00	2394.72
9	35.006435	-117.704389	2386.02	6.00	2392.02
10	35.006544	-117.704018	2387.42	6.00	2393.42
11	35.006552	-117.703392	2389.52	6.00	2395.52

Name: Hwy 58 EB Onramp at Twenty Mule Team Road
Path type: One-way (toward increasing index)
Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.002904	-117.762363	2346.81	6.00	2352.81
2	35.003104	-117.762208	2346.81	6.00	2352.81
3	35.003318	-117.761877	2344.61	6.00	2350.61
4	35.003532	-117.761450	2342.21	6.00	2348.21
5	35.003796	-117.760840	2338.51	6.00	2344.51
6	35.003973	-117.760318	2335.51	6.00	2341.51
7	35.004108	-117.759761	2332.71	6.00	2338.71
8	35.004413	-117.758004	2335.31	6.00	2341.31

Name: Hwy 58 WB at Group A

Path type: One-way (toward increasing index)

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.006993	-117.703361	2390.52	6.00	2396.52
2	35.007085	-117.738117	2351.91	6.00	2357.92

Name: Hwy 58 WB Offramp at Gephart Road

Path type: One-way (toward increasing index)

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.007084	-117.735045	2353.51	6.00	2359.52
2	35.007188	-117.736298	2351.41	6.00	2357.42
3	35.007267	-117.736914	2350.81	6.00	2356.82
4	35.007429	-117.737558	2353.01	6.00	2359.02
5	35.007663	-117.738217	2359.32	6.00	2365.32
6	35.008011	-117.739191	2364.22	6.00	2370.22

Name: Twenty Mule Team Road South of Group A

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.000666	-117.703180	2394.92	6.00	2400.92
2	35.000673	-117.716282	2366.92	6.00	2372.92

GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt	Orient	"Green" Glare	"Yellow" Glare	Energy
	(°)	(°)	min	min	kWh
A01	SA tracking	SA tracking	0	0	-
A02	SA tracking	SA tracking	0	0	-
A03	SA tracking	SA tracking	0	0	-
A04	SA tracking	SA tracking	0	0	-
A05	SA tracking	SA tracking	0	0	-
A06	SA tracking	SA tracking	0	0	-
A07	SA tracking	SA tracking	0	0	-
A08	SA tracking	SA tracking	0	0	-
A09	SA tracking	SA tracking	0	0	-
A10	SA tracking	SA tracking	0	0	-
A11	SA tracking	SA tracking	0	0	-
A12	SA tracking	SA tracking	0	0	-
A13	SA tracking	SA tracking	0	0	-
A14	SA tracking	SA tracking	0	0	-
A15	SA tracking	SA tracking	0	0	-
A16	SA tracking	SA tracking	0	0	-
A17	SA tracking	SA tracking	0	0	-
A18	SA tracking	SA tracking	0	0	-
A19	SA tracking	SA tracking	0	0	-
A20	SA tracking	SA tracking	0	0	-

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Results for: A01

57CL A	0	0
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Receptor	Green Glare (min)	Yellow Glare (min)
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A02

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A03

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: A04

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: A05

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A06

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A07

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: A08

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: A09

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A10

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A11

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A12

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: A13

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: A14

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A15

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A16

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: A17

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: A18

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A19

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Results for: A20

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 1	0	0
OP 2	0	0
4-ATCT	0	0
OP 5	0	0
BNSF Mojave Subdivision RR at Group A	0	0
Borax Road Over Hwy 58	0	0
Gephart Road	0	0
Hwy 58 EB at Group A	0	0
Hwy 58 EB Offramp at Gephart Road	0	0
Hwy 58 EB Onramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
Hwy 58 WB at Group A	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
Hwy 58 WB Offramp at Gephart Road	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 1

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 5

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Gephart Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB at Group A

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB Offramp at Gephart Road

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.

Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size.

Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.

The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual results and glare occurrence may differ.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

APPENDIX A-2
Modeling Results for Analysis Group B

FORGESOLAR GLARE ANALYSIS

Project: Aratina Solar Rest at 10

The project is a proposed photovoltaic solar facility and energy storage system capable of producing a combined (up to) 530 MW of renewable electrical energy. The project also includes the installation of associated (up to) 600 MW energy storage (battery) facilities. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Site configuration: Aratina Solar Group B - May 2021

Analysis conducted by Brian Nordmann (cstarbird@dudek.com) at 18:24 on 12 May, 2021.

U.S. FAA 2013 Policy Adherence

The following table summarizes the policy adherence of the glare analysis based on the 2013 U.S. Federal Aviation Administration Interim Policy 78 FR 63276. This policy requires the following criteria be met for solar energy systems on airport property:

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- Default analysis and observer characteristics (see list below)

ForgeSolar does not represent or speak officially for the FAA and cannot approve or deny projects. Results are informational only.

COMPONENT	STATUS	DESCRIPTION
Analysis parameters	PASS	Analysis time interval and eye characteristics used are acceptable
2-mile flight path(s)	PASS	Flight path receptor(s) do not receive yellow glare
ATCT(s)	PASS	Receptor(s) marked as ATCT do not receive glare

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FAA Policy 78 FR 63276 can be read at <https://www.federalregister.gov/d/2013-24729>

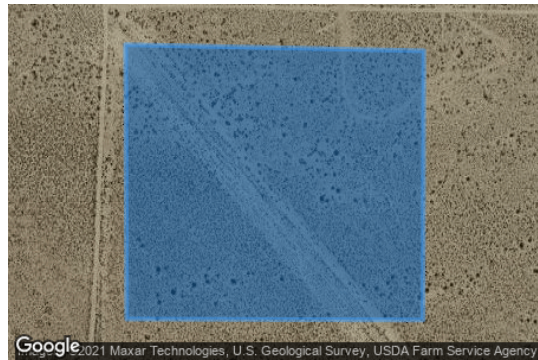
SITE CONFIGURATION

Analysis Parameters

DNI: peaks at 1,000.0 W/m²
Time interval: 1 min
Ocular transmission coefficient: 0.5
Pupil diameter: 0.002 m
Eye focal length: 0.017 m
Sun subtended angle: 9.3 mrad
Site Config ID: 53623.9557

PV Array(s)

Name: B01
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 52.0°
Resting angle: 10.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.996913	-117.702908	2402.02	4.00	2406.02
2	34.998945	-117.702917	2398.92	4.00	2402.92
3	34.998900	-117.700210	2404.82	4.00	2408.82
4	34.996906	-117.700217	2409.02	4.00	2413.02
5	34.996913	-117.702908	2402.02	4.00	2406.02

Name: B02

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

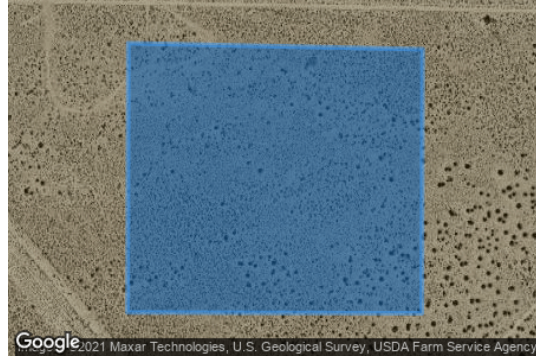
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.998855	-117.697539	2410.92	4.00	2414.92
2	34.996899	-117.697546	2416.52	4.00	2420.52
3	34.996906	-117.700217	2409.02	4.00	2413.02
4	34.998900	-117.700210	2404.82	4.00	2408.82
5	34.998855	-117.697539	2410.92	4.00	2414.92

Name: B03

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

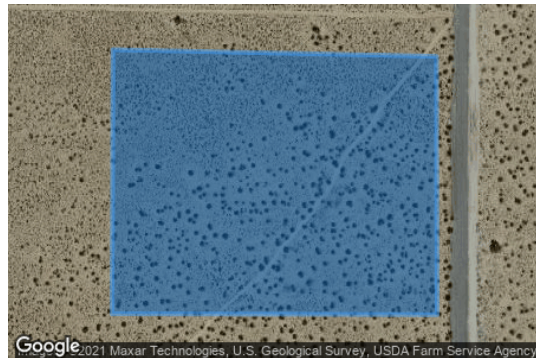
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.996899	-117.697546	2416.52	4.00	2420.52
2	34.998855	-117.697539	2410.92	4.00	2414.92
3	34.998806	-117.694603	2419.72	4.00	2423.72
4	34.996892	-117.694598	2422.12	4.00	2426.12
5	34.996899	-117.697546	2416.52	4.00	2420.52

Name: B04

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

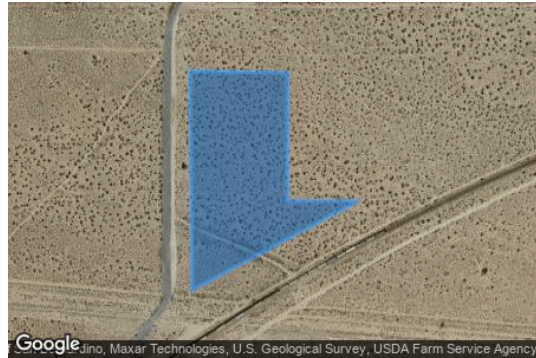
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.998786	-117.692197	2424.62	4.00	2428.62
2	34.996886	-117.692204	2428.22	4.00	2432.22
3	34.996883	-117.690913	2432.12	4.00	2436.12
4	34.995559	-117.693931	2427.42	4.00	2431.42
5	34.998808	-117.693974	2421.72	4.00	2425.72
6	34.998786	-117.692197	2424.62	4.00	2428.62

Name: B05

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

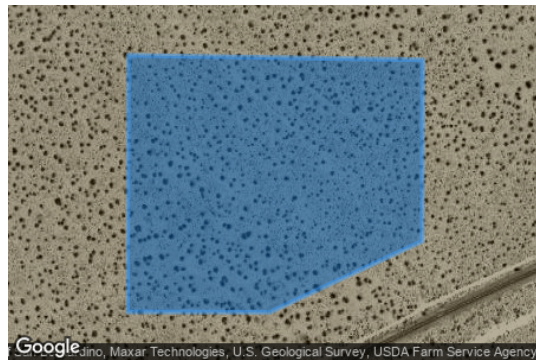
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.998752	-117.689526	2430.32	4.00	2434.32
2	34.997409	-117.689531	2432.82	4.00	2436.82
3	34.996883	-117.690913	2432.12	4.00	2436.12
4	34.996886	-117.692204	2428.22	4.00	2432.22
5	34.998786	-117.692197	2424.62	4.00	2428.62
6	34.998752	-117.689526	2430.32	4.00	2434.32

Name: B06

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

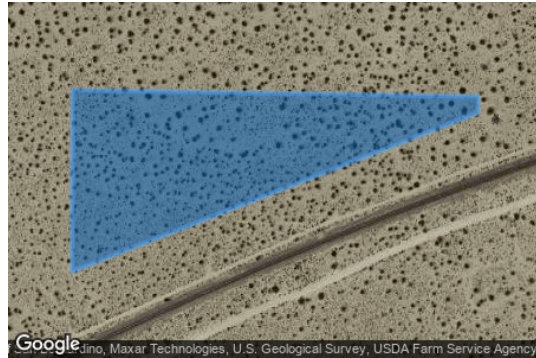
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.997409	-117.689531	2432.82	4.00	2436.82
2	34.998752	-117.689526	2430.32	4.00	2434.32
3	34.998705	-117.685846	2435.52	4.00	2439.52
4	34.998584	-117.685847	2436.12	4.00	2440.12
5	34.997409	-117.689531	2432.82	4.00	2436.82

Name: B07

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.994672	-117.685853	2449.42	4.00	2453.42
2	34.994674	-117.686870	2445.92	4.00	2449.92
3	34.997203	-117.686860	2439.32	4.00	2443.32
4	34.997532	-117.685865	2440.42	4.00	2444.42
5	34.994672	-117.685853	2449.42	4.00	2453.42

Name: B08

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

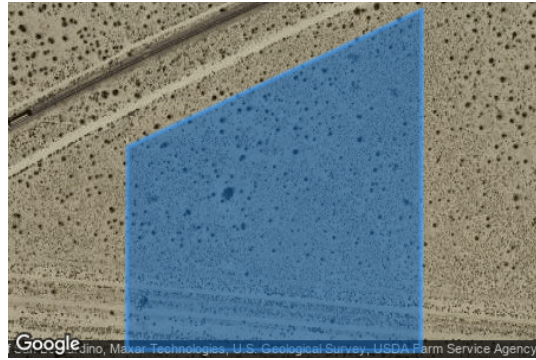
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.994674	-117.686870	2445.92	4.00	2449.92
2	34.994681	-117.689541	2440.52	4.00	2444.52
3	34.996185	-117.689535	2435.82	4.00	2439.82
4	34.997203	-117.686860	2439.32	4.00	2443.32
5	34.994674	-117.686870	2445.92	4.00	2449.92

Name: B09

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

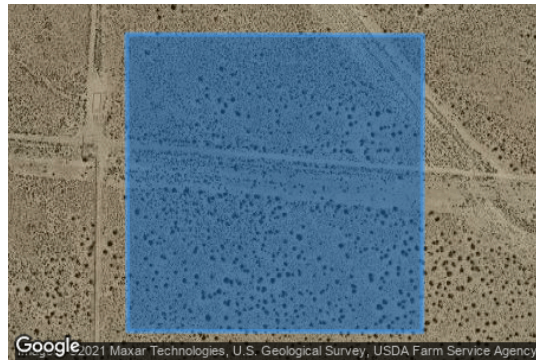
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.994715	-117.702897	2406.82	4.00	2410.82
2	34.996913	-117.702908	2402.02	4.00	2406.02
3	34.996906	-117.700217	2409.02	4.00	2413.02
4	34.994708	-117.700225	2412.72	4.00	2416.72
5	34.994715	-117.702897	2406.82	4.00	2410.82

Name: B10

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

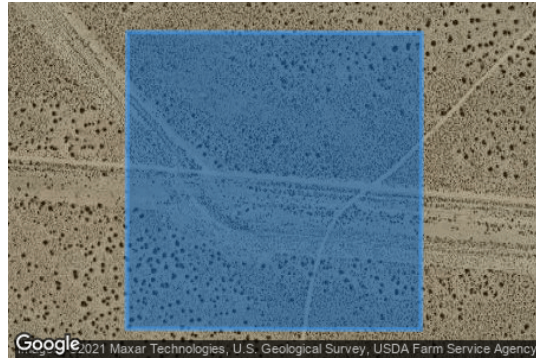
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.994701	-117.697554	2419.92	4.00	2423.92
2	34.994708	-117.700225	2412.72	4.00	2416.72
3	34.996906	-117.700217	2409.02	4.00	2413.02
4	34.996899	-117.697546	2416.52	4.00	2420.52
5	34.994701	-117.697554	2419.92	4.00	2423.92

Name: B11

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

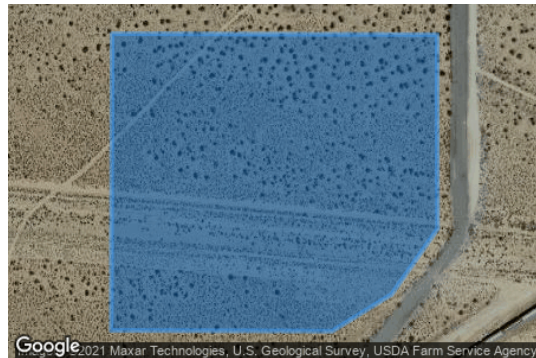
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.994696	-117.695547	2424.62	4.00	2428.62
2	34.994701	-117.697554	2419.92	4.00	2423.92
3	34.996899	-117.697546	2416.52	4.00	2420.52
4	34.996892	-117.694598	2422.12	4.00	2426.12
5	34.995454	-117.694593	2426.02	4.00	2430.02
6	34.994970	-117.695009	2425.82	4.00	2429.82
7	34.994696	-117.695547	2424.62	4.00	2428.62

Name: B12

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

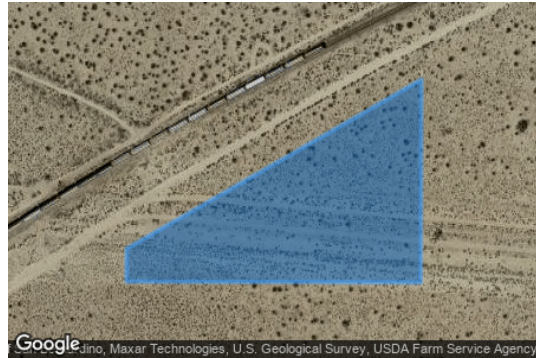
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.994681	-117.689541	2440.52	4.00	2444.52
2	34.994688	-117.692212	2432.52	4.00	2436.52
3	34.994932	-117.692211	2432.72	4.00	2436.72
4	34.996185	-117.689535	2435.82	4.00	2439.82
5	34.994681	-117.689541	2440.52	4.00	2444.52

Name: B13

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

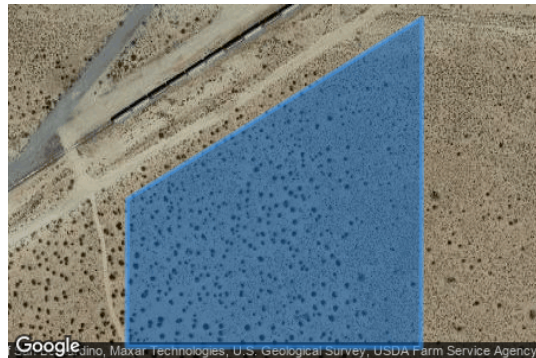
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992490	-117.692220	2437.72	4.00	2441.72
2	34.992497	-117.694891	2429.42	4.00	2433.42
3	34.993591	-117.694887	2428.72	4.00	2432.72
4	34.994932	-117.692211	2432.72	4.00	2436.72
5	34.994688	-117.692212	2432.52	4.00	2436.52
6	34.992490	-117.692220	2437.72	4.00	2441.72

Name: B14

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

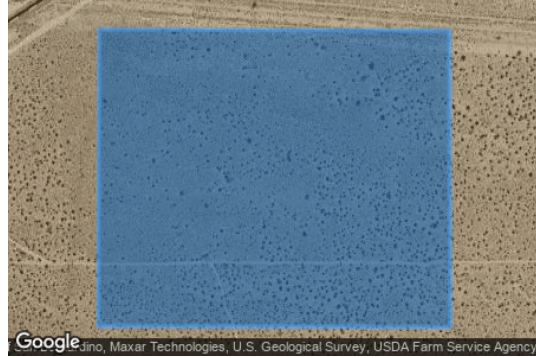
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990292	-117.692228	2438.92	4.00	2442.92
2	34.992490	-117.692220	2437.72	4.00	2441.72
3	34.994688	-117.692212	2432.52	4.00	2436.52
4	34.994681	-117.689541	2440.52	4.00	2444.52
5	34.994674	-117.686870	2445.92	4.00	2449.92
6	34.994672	-117.685853	2449.42	4.00	2453.42
7	34.990276	-117.685835	2455.82	4.00	2459.82
8	34.990292	-117.692228	2438.92	4.00	2442.92

Name: B15

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

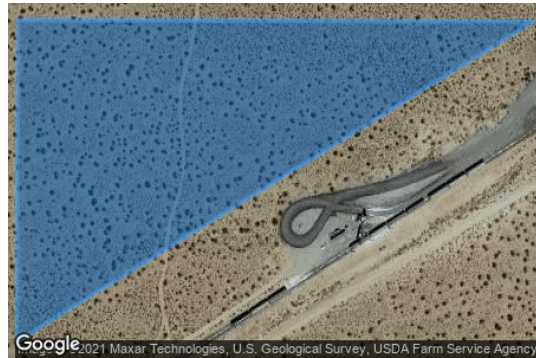
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992317	-117.700234	2414.62	4.00	2418.62
2	34.992510	-117.700233	2414.32	4.00	2418.32
3	34.994708	-117.700225	2412.72	4.00	2416.72
4	34.994701	-117.697554	2419.92	4.00	2423.92
5	34.994696	-117.695547	2424.62	4.00	2428.62
6	34.992317	-117.700234	2414.62	4.00	2418.62

Name: B16

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

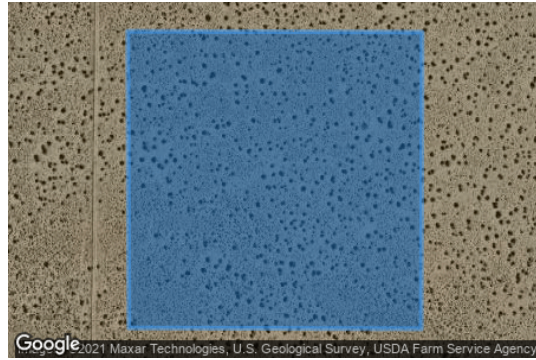
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992510	-117.700233	2414.32	4.00	2418.32
2	34.992516	-117.702887	2407.12	4.00	2411.12
3	34.994715	-117.702897	2406.82	4.00	2410.82
4	34.994708	-117.700225	2412.72	4.00	2416.72
5	34.992510	-117.700233	2414.32	4.00	2418.32

Name: B17

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990299	-117.694899	2431.32	4.00	2435.32
2	34.990305	-117.697570	2422.12	4.00	2426.12
3	34.992216	-117.697563	2421.72	4.00	2425.72
4	34.993591	-117.694887	2428.72	4.00	2432.72
5	34.992497	-117.694891	2429.42	4.00	2433.42
6	34.990299	-117.694899	2431.32	4.00	2435.32

Name: B18

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

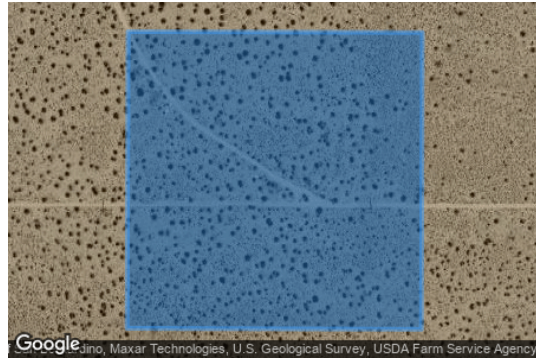
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990292	-117.692228	2438.92	4.00	2442.92
2	34.990299	-117.694899	2431.32	4.00	2435.32
3	34.992497	-117.694891	2429.42	4.00	2433.42
4	34.992490	-117.692220	2437.72	4.00	2441.72
5	34.990292	-117.692228	2438.92	4.00	2442.92

Name: B19

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

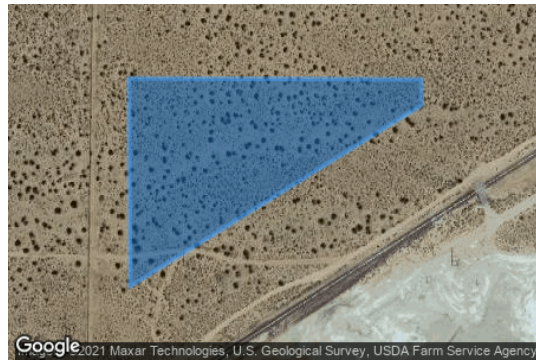
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992317	-117.700234	2414.62	4.00	2418.62
2	34.990974	-117.702880	2408.92	4.00	2412.92
3	34.992516	-117.702887	2407.12	4.00	2411.12
4	34.992510	-117.700233	2414.32	4.00	2418.32
5	34.992317	-117.700234	2414.62	4.00	2418.62

Name: B20

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990305	-117.697570	2422.12	4.00	2426.12
2	34.990312	-117.700241	2416.82	4.00	2420.82
3	34.990841	-117.700239	2415.22	4.00	2419.22
4	34.992216	-117.697563	2421.72	4.00	2425.72
5	34.990305	-117.697570	2422.12	4.00	2426.12

Flight Path Receptor(s)

Name: 57CL A

Description: None

Threshold height: 50 ft

Direction: 89.9°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	35.001500	-117.614000	2496.92	50.00	2546.92
Two-mile	35.001450	-117.650000	2462.12	638.23	3100.35

Name: 57CL B
Description: None
Threshold height: 50 ft
Direction: 269.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	35.001410	-117.606000	2503.62	50.00	2553.62
Two-mile	35.001540	-117.571000	2472.82	634.23	3107.05

Name: EAB 04L
Description: None
Threshold height: 50 ft
Direction: 58.1°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.902775	-117.904760	2308.81	50.00	2358.82
Two-mile	34.887479	-117.934711	2338.91	573.33	2912.24

Name: EAB 04R
Description: None
Threshold height: 50 ft
Direction: 58.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.894596	-117.904958	2299.91	50.00	2349.91
Two-mile	34.879351	-117.934946	2313.31	590.03	2903.34

Name: EAB 15

Description: None

Threshold height: 50 ft

Direction: 167.5°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.976599	-117.871144	2270.41	50.00	2320.41
Two-mile	35.004832	-117.878760	2321.41	552.53	2873.94

Name: EAB 18

Description: None

Threshold height: 50 ft

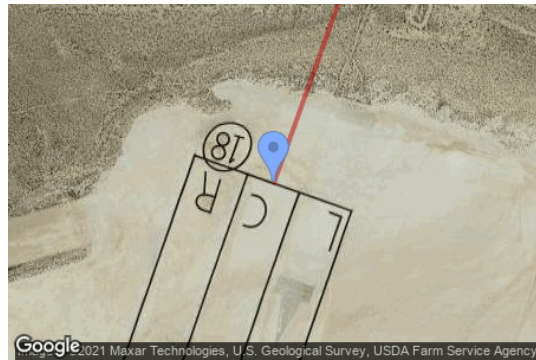
Direction: 199.8°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.994492	-117.846683	2271.61	50.00	2321.61
Two-mile	35.021696	-117.834713	2300.01	575.03	2875.04

Name: EAB 22L

Description: None

Threshold height: 50 ft

Direction: 238.2°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.916271	-117.862462	2282.61	50.00	2332.61
Two-mile	34.931528	-117.832476	2271.31	614.73	2886.04

Name: EAB 22R

Description: None

Threshold height: 50 ft

Direction: 238.2°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.920076	-117.870859	2280.11	50.00	2330.11
Two-mile	34.935308	-117.840853	2269.01	614.53	2883.54

Name: EAB 23

Description: None

Threshold height: 50 ft

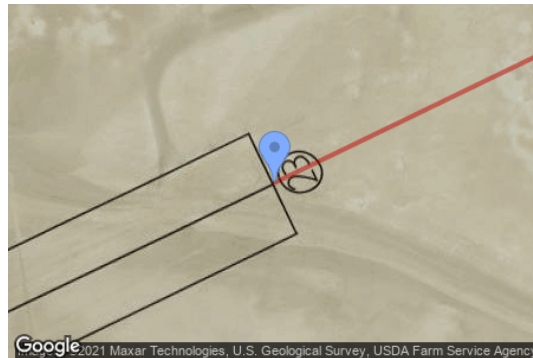
Direction: 244.3°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.966979	-117.817079	2271.21	50.00	2321.21
Two-mile	34.979536	-117.785261	2278.31	596.33	2874.64

Name: EAB 24

Description: None

Threshold height: 50 ft

Direction: 257.4°

Glide slope: 3.0°

Pilot view restricted? Yes

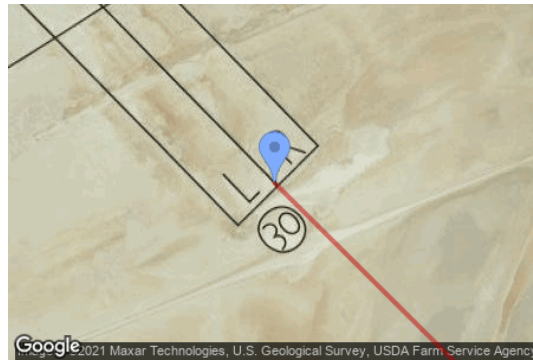
Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.899495	-117.856069	2274.01	50.00	2324.01
Two-mile	34.905827	-117.821632	2271.61	605.83	2877.44

Name: EAB 30
Description: None
Threshold height: 50 ft
Direction: 314.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.932466	-117.846734	2271.01	50.00	2321.01
Two-mile	34.912111	-117.821659	2270.41	604.03	2874.44

Name: EAB 33
Description: None
Threshold height: 50 ft
Direction: 346.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



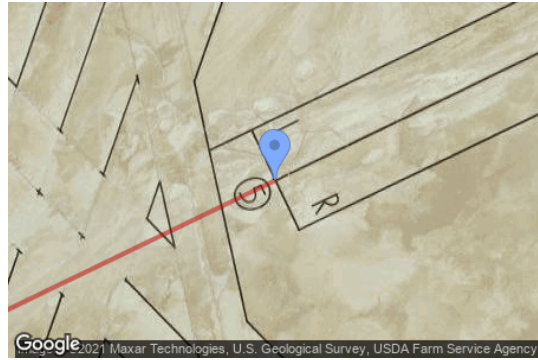
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.898612	-117.850223	2268.91	50.00	2318.91
Two-mile	34.870532	-117.841810	2271.31	601.03	2872.34

Name: EAB 36
Description: None
Threshold height: 50 ft
Direction: 18.5°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.934596	-117.872120	2271.61	50.00	2321.61
Two-mile	34.907173	-117.883306	2292.31	582.73	2875.04

Name: EAB 5
Description: None
Threshold height: 50 ft
Direction: 64.3°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.949164	-117.862226	2269.51	50.00	2319.51
Two-mile	34.936608	-117.894037	2316.81	556.23	2873.04

Name: EAB 6
Description: None
Threshold height: 50 ft
Direction: 77.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.894687	-117.882066	2290.81	50.00	2340.81
Two-mile	34.888287	-117.916482	2294.51	599.73	2894.24

Name: EAB AUX 06
Description: None
Threshold height: 50 ft
Direction: 74.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.988555	-117.872762	2300.81	50.00	2350.81
Two-mile	34.980959	-117.906853	2401.42	502.92	2904.34

Name: EAB AUX 24

Description: None

Threshold height: 50 ft

Direction: 254.4°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.993033	-117.853638	2281.81	50.00	2331.81
Two-mile	35.000832	-117.819613	2284.71	600.63	2885.34

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 3	3	35.002347	-117.700835	2398.72	6.00
OP 4	4	35.002143	-117.698346	2405.72	6.00
5-ATCT	5	34.922744	-117.882336	2292.21	145.01

Map image of 5-ATCT



Route Receptor(s)

Name: BNSF Mojave Subdivision RR at Group A

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.999815	-117.743143	2341.71	14.00	2355.71
2	34.999936	-117.703216	2398.82	14.00	2412.82

Name: BNSF Mojave Subdivision RR North of Group B

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.999936	-117.703216	2398.82	14.00	2412.82
2	34.999984	-117.685722	2433.02	14.00	2447.02

Name: Borax Road Over Hwy 58

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.000801	-117.703189	2394.02	6.00	2400.02
2	35.009008	-117.703307	2387.22	6.00	2393.22

Name: Hwy 58 EB Offramp at Borax Road
Path type: One-way (toward increasing index)
Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.006620	-117.709007	2380.62	6.00	2386.62
2	35.006497	-117.707407	2381.02	6.00	2387.02
3	35.006388	-117.706677	2383.22	6.00	2389.22
4	35.006136	-117.705947	2387.12	6.00	2393.12
5	35.005812	-117.705200	2393.12	6.00	2399.12
6	35.005596	-117.704619	2398.12	6.00	2404.12
7	35.005523	-117.704088	2401.42	6.00	2407.42
8	35.005536	-117.703401	2402.92	6.00	2408.92

Name: Hwy 58 EB Onramp at Twenty Mule Team Road
Path type: One-way (toward increasing index)
Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.002904	-117.762363	2346.81	6.00	2352.81
2	35.003104	-117.762208	2346.81	6.00	2352.81
3	35.003318	-117.761877	2344.61	6.00	2350.61
4	35.003532	-117.761450	2342.21	6.00	2348.21
5	35.003796	-117.760840	2338.51	6.00	2344.51
6	35.003973	-117.760318	2335.51	6.00	2341.51
7	35.004108	-117.759761	2332.71	6.00	2338.71
8	35.004413	-117.758004	2335.31	6.00	2341.31

Name: RR Between Group B

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.997800	-117.686812	2439.02	14.00	2453.02
2	34.997331	-117.688240	2436.92	14.00	2450.92
3	34.996748	-117.689737	2436.32	14.00	2450.32
4	34.995581	-117.692350	2431.92	14.00	2445.92
5	34.994499	-117.694389	2430.82	14.00	2444.82
6	34.989917	-117.703019	2409.62	14.00	2423.62

Name: RR South of Group B

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.981308	-117.699482	2423.82	14.00	2437.82
2	34.981970	-117.700819	2417.92	14.00	2431.92
3	34.982673	-117.701913	2417.72	14.00	2431.72
4	34.983939	-117.703443	2413.22	14.00	2427.22
5	34.985325	-117.704645	2410.92	14.00	2424.92
6	34.986247	-117.705306	2410.32	14.00	2424.32
7	34.987114	-117.705505	2410.92	14.00	2424.92
8	34.987764	-117.705441	2407.32	14.00	2421.32

Name: Twenty Mule Team Road North of Group B

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.000666	-117.703180	2394.92	6.00	2400.92
2	35.000691	-117.685755	2429.62	6.00	2435.62

Name: Twenty Mule Team Road South of Group A

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.000666	-117.703180	2394.92	6.00	2400.92
2	35.000673	-117.716282	2366.92	6.00	2372.92

GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt	Orient	"Green" Glare	"Yellow" Glare	Energy
	(°)	(°)	min	min	kWh
B01	SA tracking	SA tracking	0	0	-
B02	SA tracking	SA tracking	0	0	-
B03	SA tracking	SA tracking	0	0	-
B04	SA tracking	SA tracking	0	0	-
B05	SA tracking	SA tracking	0	0	-
B06	SA tracking	SA tracking	0	0	-
B07	SA tracking	SA tracking	0	0	-
B08	SA tracking	SA tracking	0	0	-
B09	SA tracking	SA tracking	0	0	-
B10	SA tracking	SA tracking	0	0	-
B11	SA tracking	SA tracking	0	0	-
B12	SA tracking	SA tracking	0	0	-
B13	SA tracking	SA tracking	0	0	-
B14	SA tracking	SA tracking	0	0	-
B15	SA tracking	SA tracking	0	0	-
B16	SA tracking	SA tracking	0	0	-
B17	SA tracking	SA tracking	0	0	-
B18	SA tracking	SA tracking	0	0	-
B19	SA tracking	SA tracking	0	0	-
B20	SA tracking	SA tracking	0	0	-

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Results for: B01

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B02

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B03

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B04

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B05

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B06

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B07

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B08

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B09

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B10

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B11

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B12

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B13

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B14

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B15

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B16

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B17

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B18

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B19

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare
0 minutes of green glare

Results for: B20

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
OP 3	0	0
OP 4	0	0
5-ATCT	0	0
BNSF Mojave Subdivision RR at Group A	0	0
BNSF Mojave Subdivision RR North of Group B	0	0
Borax Road Over Hwy 58	0	0
Hwy 58 EB Offramp at Borax Road	0	0
Hwy 58 EB Onramp at Twenty Mule Team Road	0	0
RR Between Group B	0	0
RR South of Group B	0	0
Twenty Mule Team Road North of Group B	0	0
Twenty Mule Team Road South of Group A	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 5-ATCT

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR at Group A

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group B

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road Over Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Offramp at Borax Road

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB Onramp at Twenty Mule Team Road

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR South of Group B

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road North of Group B

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road South of Group A

0 minutes of yellow glare

0 minutes of green glare

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.

Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size.

Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.

The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual results and glare occurrence may differ.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

APPENDIX A-3

Modeling Results for Analysis Group C



FORGESOLAR GLARE ANALYSIS

Project: **Aratina Solar Rest at 10**

The project is a proposed photovoltaic solar facility and energy storage system capable of producing a combined (up to) 530 MW of renewable electrical energy. The project also includes the installation of associated (up to) 600 MW energy storage (battery) facilities. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Site configuration: **Aratina Solar Group C - May 2021**

Analysis conducted by Brian Nordmann (cstarbird@dudek.com) at 18:16 on 12 May, 2021.

U.S. FAA 2013 Policy Adherence

The following table summarizes the policy adherence of the glare analysis based on the 2013 U.S. Federal Aviation Administration Interim Policy 78 FR 63276. This policy requires the following criteria be met for solar energy systems on airport property:

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- Default analysis and observer characteristics (see list below)

ForgeSolar does not represent or speak officially for the FAA and cannot approve or deny projects. Results are informational only.

COMPONENT	STATUS	DESCRIPTION
Analysis parameters	PASS	Analysis time interval and eye characteristics used are acceptable
2-mile flight path(s)	PASS	Flight path receptor(s) do not receive yellow glare
ATCT(s)	PASS	Receptor(s) marked as ATCT do not receive glare

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FAA Policy 78 FR 63276 can be read at <https://www.federalregister.gov/d/2013-24729>

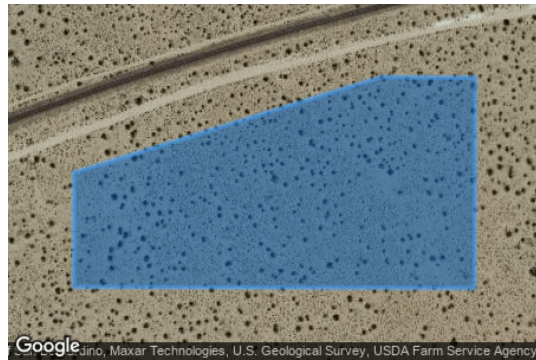
SITE CONFIGURATION

Analysis Parameters

DNI: peaks at 1,000.0 W/m²
Time interval: 1 min
Ocular transmission coefficient: 0.5
Pupil diameter: 0.002 m
Eye focal length: 0.017 m
Sun subtended angle: 9.3 mrad
Site Config ID: 53622.9557

PV Array(s)

Name: C01
Axis tracking: Single-axis rotation
Tracking axis orientation: 180.0°
Tracking axis tilt: 0.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 52.0°
Resting angle: 10.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.996868	-117.685158	2442.82	4.00	2446.82
2	34.997715	-117.685159	2440.72	4.00	2444.72
3	34.998425	-117.682366	2442.22	4.00	2446.22
4	34.998421	-117.681513	2443.32	4.00	2447.32
5	34.996859	-117.681519	2447.92	4.00	2451.92
6	34.996868	-117.685158	2442.82	4.00	2446.82

Name: C02

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

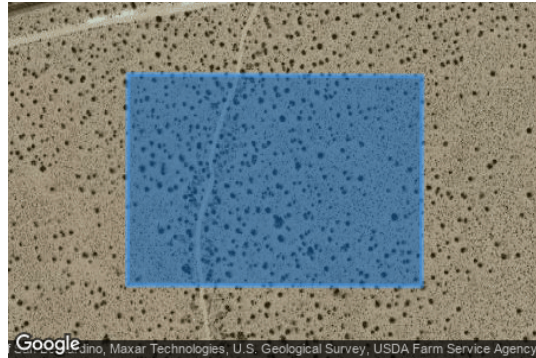
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.998407	-117.678842	2444.72	4.00	2448.72
2	34.996852	-117.678848	2450.62	4.00	2454.62
3	34.996859	-117.681519	2447.92	4.00	2451.92
4	34.998421	-117.681513	2443.32	4.00	2447.32
5	34.998407	-117.678842	2444.72	4.00	2448.72

Name: C03

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

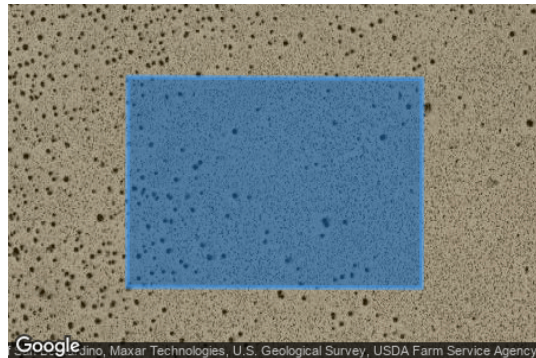
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.998394	-117.676171	2443.52	4.00	2447.52
2	34.996845	-117.676177	2448.92	4.00	2452.92
3	34.996852	-117.678848	2450.62	4.00	2454.62
4	34.998407	-117.678842	2444.72	4.00	2448.72
5	34.998394	-117.676171	2443.52	4.00	2447.52

Name: C04

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

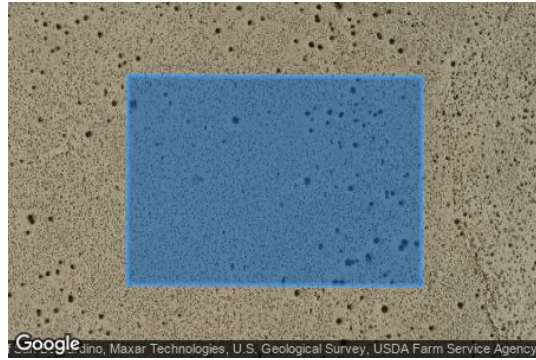
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.998380	-117.673500	2443.62	4.00	2447.62
2	34.996838	-117.673506	2448.12	4.00	2452.12
3	34.996845	-117.676177	2448.92	4.00	2452.92
4	34.998394	-117.676171	2443.52	4.00	2447.52
5	34.998380	-117.673500	2443.62	4.00	2447.62

Name: C05

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

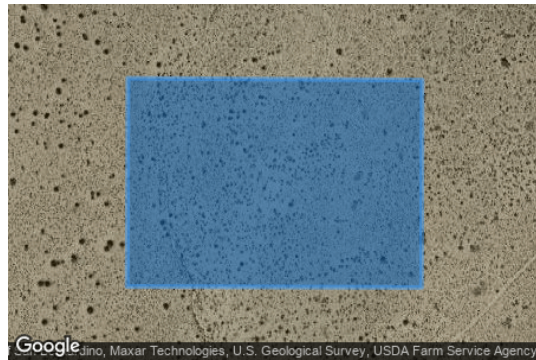
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.998366	-117.670828	2441.92	4.00	2445.92
2	34.996830	-117.670834	2448.82	4.00	2452.82
3	34.996838	-117.673506	2448.12	4.00	2452.12
4	34.998380	-117.673500	2443.62	4.00	2447.62
5	34.998366	-117.670828	2441.92	4.00	2445.92

Name: C06

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

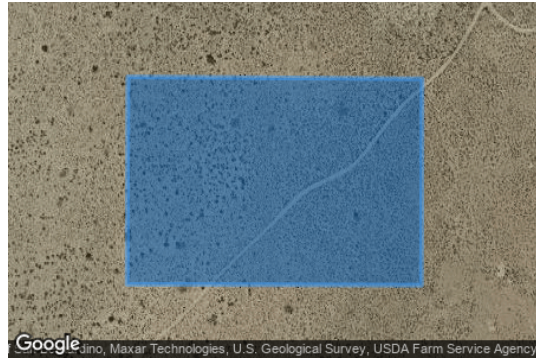
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.998353	-117.668157	2441.32	4.00	2445.32
2	34.996823	-117.668163	2445.12	4.00	2449.12
3	34.996830	-117.670834	2448.82	4.00	2452.82
4	34.998366	-117.670828	2441.92	4.00	2445.92
5	34.998353	-117.668157	2441.32	4.00	2445.32

Name: C07

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

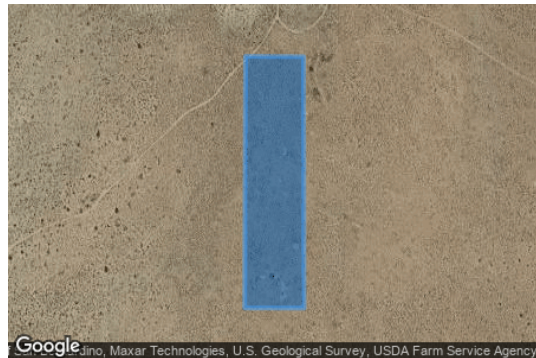
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.994622	-117.667094	2454.52	4.00	2458.52
2	34.994625	-117.668172	2452.92	4.00	2456.92
3	34.996823	-117.668163	2445.12	4.00	2449.12
4	34.998353	-117.668157	2441.32	4.00	2445.32
5	34.998347	-117.667103	2442.12	4.00	2446.12
6	34.994622	-117.667094	2454.52	4.00	2458.52

Name: C08

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

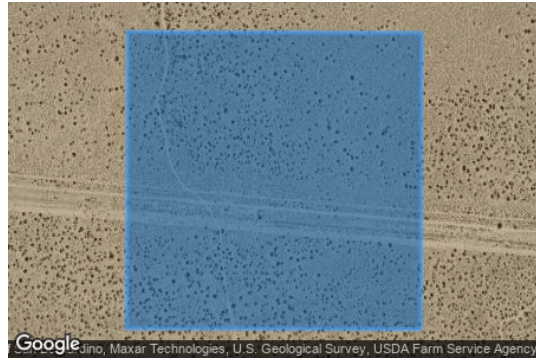
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992463	-117.681536	2462.12	4.00	2466.12
2	34.994661	-117.681528	2455.02	4.00	2459.02
3	34.996859	-117.681519	2447.92	4.00	2451.92
4	34.996852	-117.678848	2450.62	4.00	2454.62
5	34.996845	-117.676177	2448.92	4.00	2452.92
6	34.992449	-117.676194	2470.42	4.00	2474.42
7	34.992463	-117.681536	2462.12	4.00	2466.12

Name: C09

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

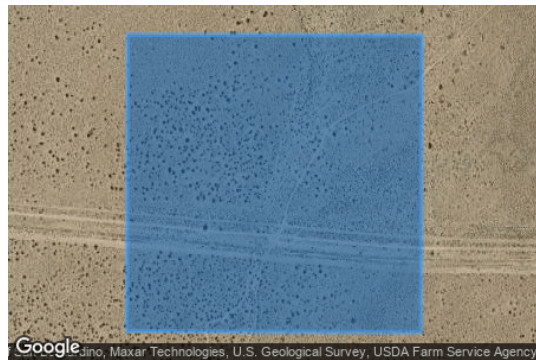
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992441	-117.673523	2465.82	4.00	2469.82
2	34.992449	-117.676194	2470.42	4.00	2474.42
3	34.996845	-117.676177	2448.92	4.00	2452.92
4	34.996838	-117.673506	2448.12	4.00	2452.12
5	34.996830	-117.670834	2448.82	4.00	2452.82
6	34.994632	-117.670843	2455.32	4.00	2459.32
7	34.992434	-117.670852	2466.52	4.00	2470.52
8	34.992441	-117.673523	2465.82	4.00	2469.82

Name: C10

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

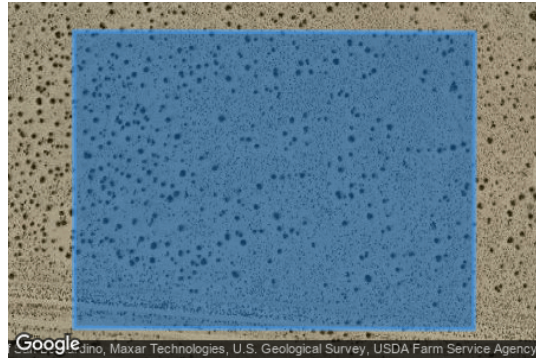
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.994670	-117.685154	2450.62	4.00	2454.62
2	34.996868	-117.685158	2442.82	4.00	2446.82
3	34.996859	-117.681519	2447.92	4.00	2451.92
4	34.994661	-117.681528	2455.02	4.00	2459.02
5	34.994670	-117.685154	2450.62	4.00	2454.62

Name: C11

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

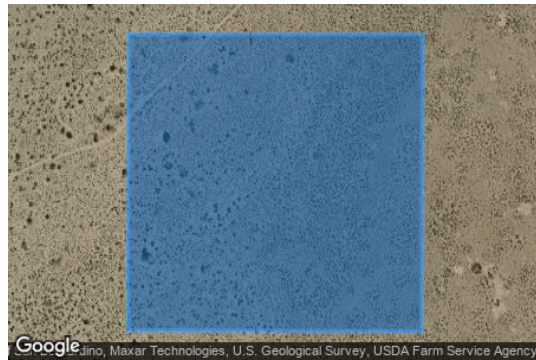
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.994625	-117.668172	2452.92	4.00	2456.92
2	34.994632	-117.670843	2455.32	4.00	2459.32
3	34.996830	-117.670834	2448.82	4.00	2452.82
4	34.996823	-117.668163	2445.12	4.00	2449.12
5	34.994625	-117.668172	2452.92	4.00	2456.92

Name: C12

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

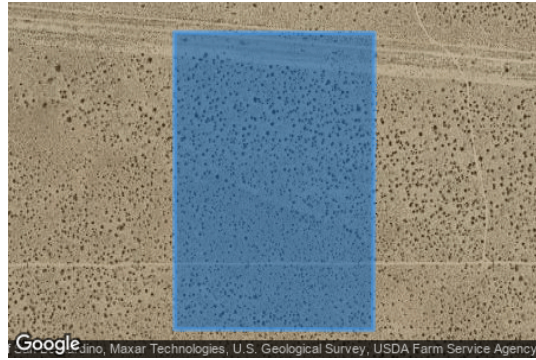
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990274	-117.685147	2456.82	4.00	2460.82
2	34.994670	-117.685154	2450.62	4.00	2454.62
3	34.994661	-117.681528	2455.02	4.00	2459.02
4	34.992463	-117.681536	2462.12	4.00	2466.12
5	34.990265	-117.681545	2465.92	4.00	2469.92
6	34.990274	-117.685147	2456.82	4.00	2460.82

Name: C13

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

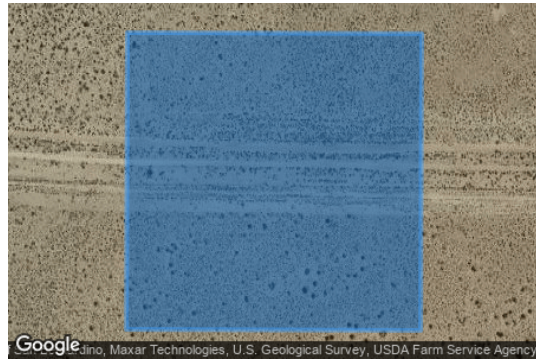
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992427	-117.668181	2466.92	4.00	2470.92
2	34.992434	-117.670852	2466.52	4.00	2470.52
3	34.994632	-117.670843	2455.32	4.00	2459.32
4	34.994625	-117.668172	2452.92	4.00	2456.92
5	34.992427	-117.668181	2466.92	4.00	2470.92

Name: C14

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

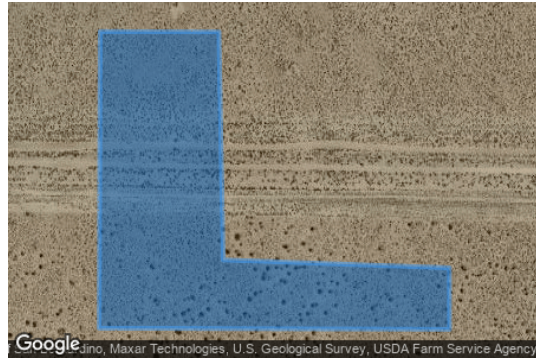
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992874	-117.665003	2466.62	4.00	2470.62
2	34.992418	-117.665002	2468.92	4.00	2472.92
3	34.992420	-117.665510	2467.92	4.00	2471.92
4	34.992427	-117.668181	2466.92	4.00	2470.92
5	34.994625	-117.668172	2452.92	4.00	2456.92
6	34.994622	-117.667094	2454.52	4.00	2458.52
7	34.992933	-117.667055	2465.02	4.00	2469.02
8	34.992874	-117.665003	2466.62	4.00	2470.62

Name: C15

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

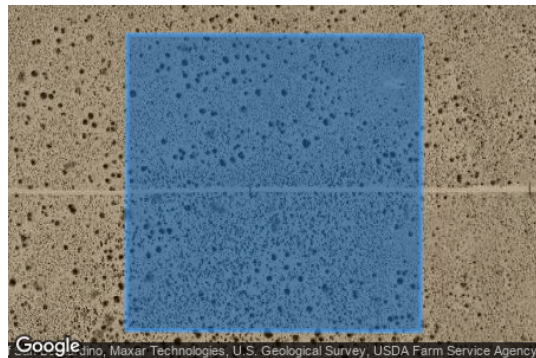
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990222	-117.665519	2486.62	4.00	2490.62
2	34.990229	-117.668190	2484.72	4.00	2488.72
3	34.992427	-117.668181	2466.92	4.00	2470.92
4	34.992420	-117.665510	2467.92	4.00	2471.92
5	34.990222	-117.665519	2486.62	4.00	2490.62

Name: C16

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

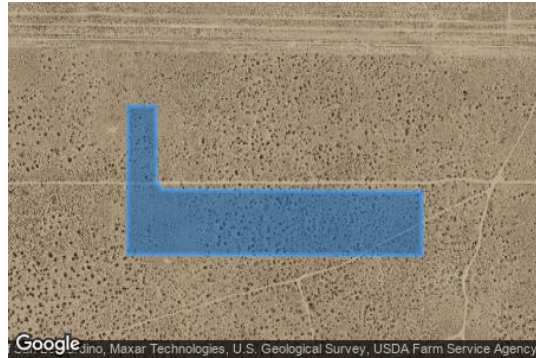
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990214	-117.662848	2491.02	4.00	2495.02
2	34.990222	-117.665519	2486.62	4.00	2490.62
3	34.992420	-117.665510	2467.92	4.00	2471.92
4	34.992418	-117.665002	2468.92	4.00	2472.92
5	34.991292	-117.664998	2476.82	4.00	2480.82
6	34.991173	-117.664884	2477.72	4.00	2481.72
7	34.991144	-117.660173	2487.62	4.00	2491.62
8	34.990207	-117.660177	2495.82	4.00	2499.82
9	34.990214	-117.662848	2491.02	4.00	2495.02

Name: C17

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

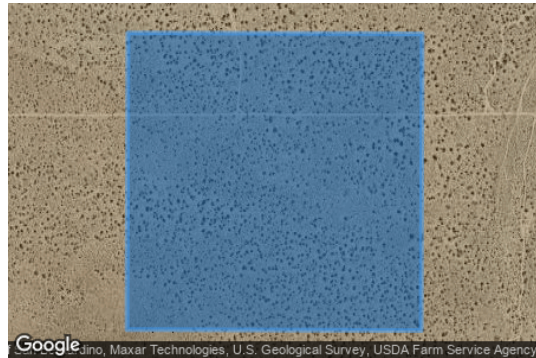
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.988066	-117.681553	2467.62	4.00	2471.62
2	34.990265	-117.681545	2465.92	4.00	2469.92
3	34.992463	-117.681536	2462.12	4.00	2466.12
4	34.992449	-117.676194	2470.42	4.00	2474.42
5	34.988052	-117.676211	2481.42	4.00	2485.42
6	34.988066	-117.681553	2467.62	4.00	2471.62

Name: C18

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

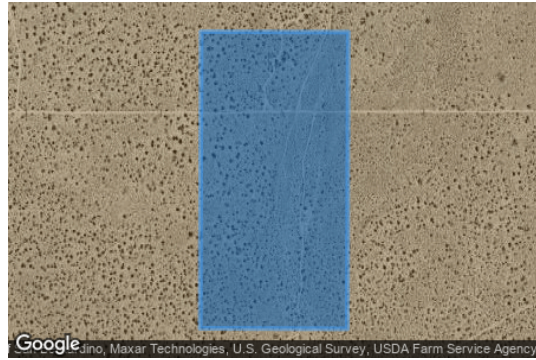
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.988045	-117.673540	2483.32	4.00	2487.32
2	34.988052	-117.676211	2481.42	4.00	2485.42
3	34.992449	-117.676194	2470.42	4.00	2474.42
4	34.992441	-117.673523	2465.82	4.00	2469.82
5	34.988045	-117.673540	2483.32	4.00	2487.32

Name: C19

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

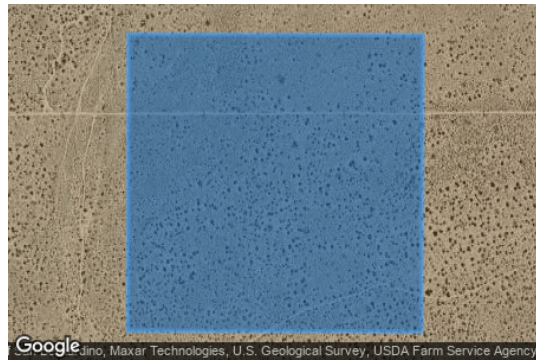
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.988045	-117.673540	2483.32	4.00	2487.32
2	34.992441	-117.673523	2465.82	4.00	2469.82
3	34.992434	-117.670852	2466.52	4.00	2470.52
4	34.992427	-117.668181	2466.92	4.00	2470.92
5	34.990229	-117.668190	2484.72	4.00	2488.72
6	34.988031	-117.668199	2499.72	4.00	2503.72
7	34.988045	-117.673540	2483.32	4.00	2487.32

Name: C20

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

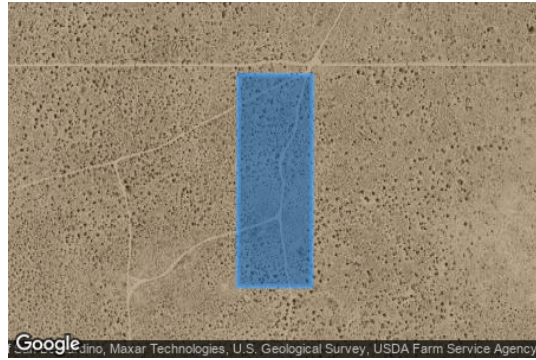
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.988005	-117.658845	2506.22	4.00	2510.22
2	34.988009	-117.660186	2515.52	4.00	2519.52
3	34.990207	-117.660177	2495.82	4.00	2499.82
4	34.991144	-117.660173	2487.62	4.00	2491.62
5	34.991138	-117.658832	2487.72	4.00	2491.72
6	34.988005	-117.658845	2506.22	4.00	2510.22

Flight Path Receptor(s)

Name: 57CL A

Description: None

Threshold height: 50 ft

Direction: 89.9°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	35.001500	-117.614000	2496.92	50.00	2546.92
Two-mile	35.001450	-117.650000	2462.12	638.23	3100.35

Name: 57CL B
Description: None
Threshold height: 50 ft
Direction: 269.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



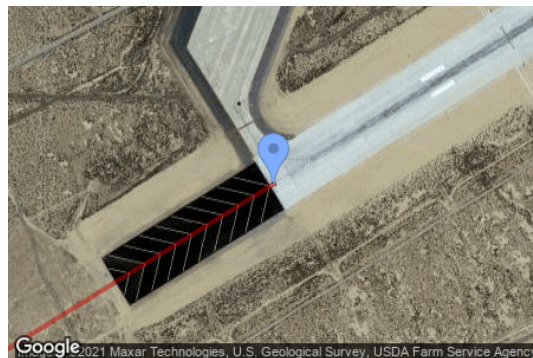
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	35.001410	-117.606000	2503.62	50.00	2553.62
Two-mile	35.001540	-117.571000	2472.82	634.23	3107.05

Name: EAB 04L
Description: None
Threshold height: 50 ft
Direction: 58.1°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.902775	-117.904760	2308.81	50.00	2358.82
Two-mile	34.887479	-117.934711	2338.91	573.33	2912.24

Name: EAB 04R
Description: None
Threshold height: 50 ft
Direction: 58.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.894596	-117.904958	2299.91	50.00	2349.91
Two-mile	34.879351	-117.934946	2313.31	590.03	2903.34

Name: EAB 15

Description: None

Threshold height: 50 ft

Direction: 167.5°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.976599	-117.871144	2270.41	50.00	2320.41
Two-mile	35.004832	-117.878760	2321.41	552.53	2873.94

Name: EAB 18

Description: None

Threshold height: 50 ft

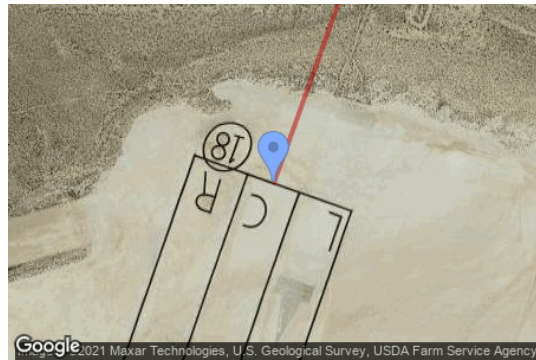
Direction: 199.8°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.994492	-117.846683	2271.61	50.00	2321.61
Two-mile	35.021696	-117.834713	2300.01	575.03	2875.04

Name: EAB 22L

Description: None

Threshold height: 50 ft

Direction: 238.2°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



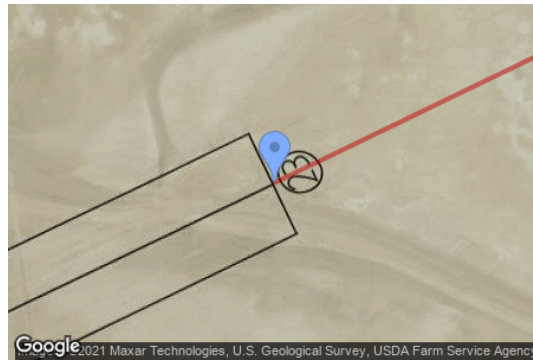
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.916271	-117.862462	2282.61	50.00	2332.61
Two-mile	34.931528	-117.832476	2271.31	614.73	2886.04

Name: EAB 22R
Description: None
Threshold height: 50 ft
Direction: 238.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.920076	-117.870859	2280.11	50.00	2330.11
Two-mile	34.935308	-117.840853	2269.01	614.53	2883.54

Name: EAB 23
Description: None
Threshold height: 50 ft
Direction: 244.3°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.966979	-117.817079	2271.21	50.00	2321.21
Two-mile	34.979536	-117.785261	2278.31	596.33	2874.64

Name: EAB 24
Description: None
Threshold height: 50 ft
Direction: 257.4°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.899495	-117.856069	2274.01	50.00	2324.01
Two-mile	34.905827	-117.821632	2271.61	605.83	2877.44

Name: EAB 30
Description: None
Threshold height: 50 ft
Direction: 314.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.932466	-117.846734	2271.01	50.00	2321.01
Two-mile	34.912111	-117.821659	2270.41	604.03	2874.44

Name: EAB 33
Description: None
Threshold height: 50 ft
Direction: 346.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



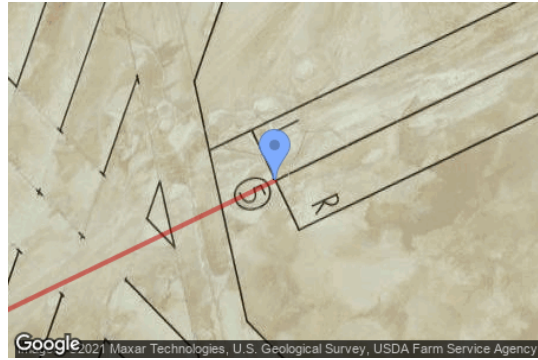
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.898612	-117.850223	2268.91	50.00	2318.91
Two-mile	34.870532	-117.841810	2271.31	601.03	2872.34

Name: EAB 36
Description: None
Threshold height: 50 ft
Direction: 18.5°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.934596	-117.872120	2271.61	50.00	2321.61
Two-mile	34.907173	-117.883306	2292.31	582.73	2875.04

Name: EAB 5
Description: None
Threshold height: 50 ft
Direction: 64.3°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.949164	-117.862226	2269.51	50.00	2319.51
Two-mile	34.936608	-117.894037	2316.81	556.23	2873.04

Name: EAB 6
Description: None
Threshold height: 50 ft
Direction: 77.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.894687	-117.882066	2290.81	50.00	2340.81
Two-mile	34.888287	-117.916482	2294.51	599.73	2894.24

Name: EAB AUX 06
Description: None
Threshold height: 50 ft
Direction: 74.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.988555	-117.872762	2300.81	50.00	2350.81
Two-mile	34.980959	-117.906853	2401.42	502.92	2904.34

Name: EAB AUX 24
Description: None
Threshold height: 50 ft
Direction: 254.4°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.993033	-117.853638	2281.81	50.00	2331.81
Two-mile	35.000832	-117.819613	2284.71	600.63	2885.34

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
4-ATCT	4	34.922744	-117.882336	2292.21	145.01
OP 6	6	35.010248	-117.671438	2454.32	6.00
OP 7	7	35.008412	-117.669798	2451.02	6.00
OP 8	8	34.997098	-117.658302	2462.92	6.00
OP 9	9	34.996132	-117.658277	2466.42	6.00
OP 10	10	34.996140	-117.657001	2467.82	6.00
OP 11	11	35.001074	-117.656179	2452.72	6.00
OP 12	12	35.006012	-117.655717	2442.92	6.00
OP 14	14	34.995389	-117.651370	2478.02	6.00

Map image of 4-ATCT



Route Receptor(s)

Name: BNSF Mojave Subdivision RR North of Group C

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.999975	-117.689203	2426.92	14.00	2440.92
2	34.999985	-117.684976	2435.02	14.00	2449.02
3	34.999997	-117.678485	2441.62	14.00	2455.62
4	34.999913	-117.671542	2441.82	14.00	2455.82
5	34.999213	-117.658656	2456.32	14.00	2470.32

Name: Borax Road North of Hwy 58

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



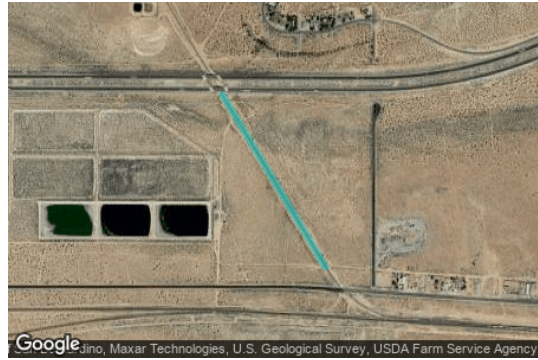
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.028340	-117.703368	2400.82	6.00	2406.82
2	35.019172	-117.703343	2383.92	6.00	2389.92

Name: Boron Lead RR South of Hwy 58

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



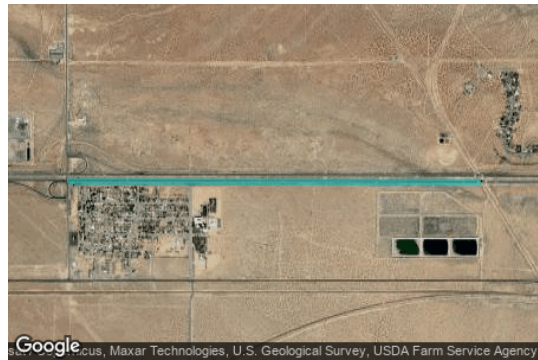
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.006386	-117.673060	2424.22	14.00	2438.22
2	35.001292	-117.669322	2434.62	14.00	2448.62

Name: Hwy 58 EB North of Group C

Path type: One-way (toward increasing index)

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.006578	-117.703120	2390.32	6.00	2396.32
2	35.006521	-117.673489	2450.82	6.00	2456.82

Name: Park Knolls Boulevard

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.005982	-117.667503	2443.72	6.00	2449.72
2	35.000602	-117.667548	2436.12	6.00	2442.12

Name: Roron Lead RR North of Hwy 58

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.031836	-117.694647	2421.22	14.00	2435.22
2	35.013742	-117.678511	2428.02	14.00	2442.02

Name: RR Between Group B

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.997800	-117.686812	2439.02	14.00	2453.02
2	34.997331	-117.688240	2436.92	14.00	2450.92
3	34.996748	-117.689737	2436.32	14.00	2450.32
4	34.995581	-117.692350	2431.92	14.00	2445.92
5	34.994499	-117.694389	2430.82	14.00	2444.82
6	34.989917	-117.703019	2409.62	14.00	2423.62

Name: RR North of Group C

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.997860	-117.686582	2440.12	14.00	2454.12
2	34.998386	-117.684717	2441.32	14.00	2455.32
3	34.998873	-117.682616	2440.92	14.00	2454.92
4	34.999363	-117.679952	2441.32	14.00	2455.32
5	34.999760	-117.676783	2441.72	14.00	2455.72
6	34.999928	-117.672757	2441.62	14.00	2455.62

Name: Twenty Mule Team Road Northeast of Group C

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.000511	-117.667235	2438.12	6.00	2444.12
2	34.999565	-117.649825	2467.02	6.00	2473.02

GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt	Orient	"Green" Glare	"Yellow" Glare	Energy
	(°)	(°)	min	min	kWh
C01	SA tracking	SA tracking	0	0	-
C02	SA tracking	SA tracking	0	0	-
C03	SA tracking	SA tracking	0	0	-
C04	SA tracking	SA tracking	0	0	-
C05	SA tracking	SA tracking	0	0	-
C06	SA tracking	SA tracking	0	0	-
C07	SA tracking	SA tracking	0	0	-
C08	SA tracking	SA tracking	0	0	-
C09	SA tracking	SA tracking	0	0	-
C10	SA tracking	SA tracking	0	0	-
C11	SA tracking	SA tracking	0	0	-
C12	SA tracking	SA tracking	0	0	-
C13	SA tracking	SA tracking	0	0	-
C14	SA tracking	SA tracking	0	0	-
C15	SA tracking	SA tracking	0	0	-
C16	SA tracking	SA tracking	0	0	-
C17	SA tracking	SA tracking	0	0	-
C18	SA tracking	SA tracking	0	0	-
C19	SA tracking	SA tracking	0	0	-
C20	SA tracking	SA tracking	0	0	-

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Results for: C01

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C02

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare
0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C03

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C04

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare
0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare
0 minutes of green glare

Results for: C05

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare
0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C06

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C07

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C08

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare
0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C09

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C10

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare
0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare
0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare
0 minutes of green glare

Results for: C11

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare
0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C12

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C13

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C14

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare
0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C15

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C16

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C17

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare
0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C18

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare

0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C19

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare

0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Results for: C20

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
4-ATCT	0	0
OP 6	0	0
OP 7	0	0
OP 8	0	0
OP 9	0	0
OP 10	0	0
OP 11	0	0
OP 12	0	0
OP 14	0	0
BNSF Mojave Subdivision RR North of Group C	0	0
Borax Road North of Hwy 58	0	0
Boron Lead RR South of Hwy 58	0	0
Hwy 58 EB North of Group C	0	0
Park Knolls Boulevard	0	0
Roron Lead RR North of Hwy 58	0	0
RR Between Group B	0	0
RR North of Group C	0	0
Twenty Mule Team Road Northeast of Group C	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 4-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 6

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 7

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 8

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 9

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 10

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 11

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 12

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 14

0 minutes of yellow glare
0 minutes of green glare

Route: BNSF Mojave Subdivision RR North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Borax Road North of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Boron Lead RR South of Hwy 58

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 EB North of Group C

0 minutes of yellow glare
0 minutes of green glare

Route: Park Knolls Boulevard

0 minutes of yellow glare
0 minutes of green glare

Route: Roron Lead RR North of Hwy 58

0 minutes of yellow glare

0 minutes of green glare

Route: RR Between Group B

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group C

0 minutes of yellow glare

0 minutes of green glare

Route: Twenty Mule Team Road Northeast of Group C

0 minutes of yellow glare

0 minutes of green glare

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.

Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.

The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual results and glare occurrence may differ.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

APPENDIX A-4
Modeling Results for Analysis Group D

FORGESOLAR GLARE ANALYSIS

Project: Aratina Solar Rest at 10

The project is a proposed photovoltaic solar facility and energy storage system capable of producing a combined (up to) 530 MW of renewable electrical energy. The project also includes the installation of associated (up to) 600 MW energy storage (battery) facilities. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Site configuration: Aratina Solar Group D - May 2021

Analysis conducted by Brian Nordmann (cstarbird@dudek.com) at 17:19 on 11 May, 2021.

U.S. FAA 2013 Policy Adherence

The following table summarizes the policy adherence of the glare analysis based on the 2013 U.S. Federal Aviation Administration Interim Policy 78 FR 63276. This policy requires the following criteria be met for solar energy systems on airport property:

- No "yellow" glare (potential for after-image) for any flight path from threshold to 2 miles
- No glare of any kind for Air Traffic Control Tower(s) ("ATCT") at cab height.
- Default analysis and observer characteristics (see list below)

ForgeSolar does not represent or speak officially for the FAA and cannot approve or deny projects. Results are informational only.

COMPONENT	STATUS	DESCRIPTION
Analysis parameters	PASS	Analysis time interval and eye characteristics used are acceptable
2-mile flight path(s)	PASS	Flight path receptor(s) do not receive yellow glare
ATCT(s)	PASS	Receptor(s) marked as ATCT do not receive glare

Default glare analysis parameters and observer eye characteristics (for reference only):

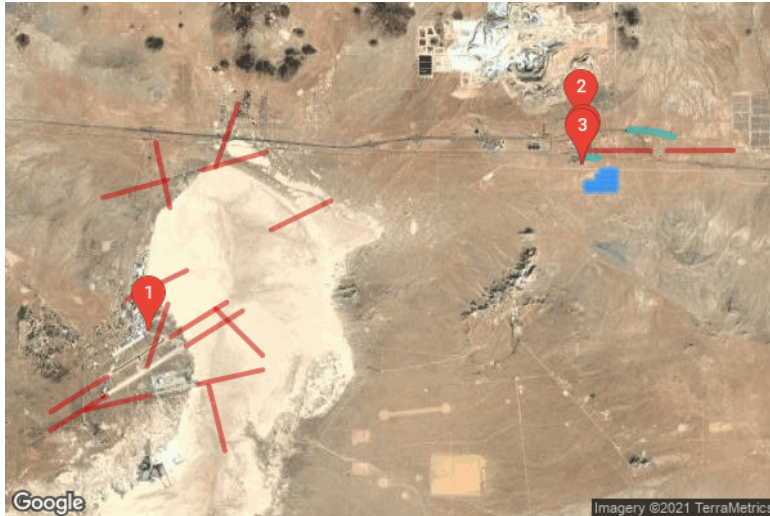
- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

FAA Policy 78 FR 63276 can be read at <https://www.federalregister.gov/d/2013-24729>

SITE CONFIGURATION

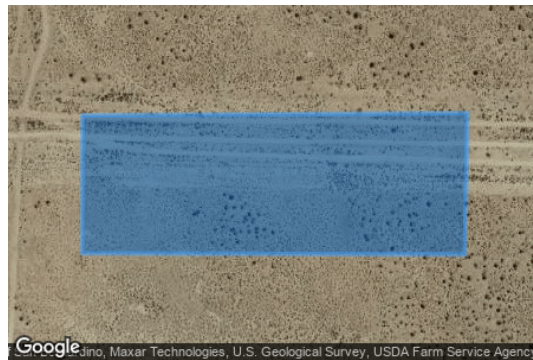
Analysis Parameters

DNI: peaks at 1,000.0 W/m²
 Time interval: 1 min
 Ocular transmission coefficient: 0.5
 Pupil diameter: 0.002 m
 Eye focal length: 0.017 m
 Sun subtended angle: 9.3 mrad
 Site Config ID: 53528.9557



PV Array(s)

Name: D01
Axis tracking: Single-axis rotation
Tracking axis orientation: 0.0°
Tracking axis tilt: 1.0°
Tracking axis panel offset: 0.0°
Max tracking angle: 52.0°
Resting angle: 10.0°
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992336	-117.636129	2514.92	4.00	2518.92
2	34.993357	-117.636124	2508.92	4.00	2512.92
3	34.993374	-117.632631	2512.72	4.00	2516.72
4	34.992325	-117.632653	2518.42	4.00	2522.42
5	34.992336	-117.636129	2514.92	4.00	2518.92

Name: D02

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.992344	-117.638800	2504.72	4.00	2508.72
2	34.992350	-117.641097	2504.92	4.00	2508.92
3	34.993333	-117.641088	2498.62	4.00	2502.62
4	34.993357	-117.636124	2508.92	4.00	2512.92
5	34.992336	-117.636129	2514.92	4.00	2518.92
6	34.992344	-117.638800	2504.72	4.00	2508.72

Name: D03

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

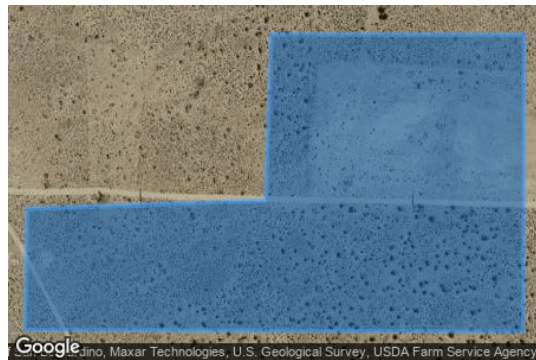
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990153	-117.641480	2512.82	4.00	2516.82
2	34.990159	-117.643330	2505.22	4.00	2509.22
3	34.991058	-117.643311	2500.62	4.00	2504.62
4	34.991117	-117.641147	2506.82	4.00	2510.82
5	34.992350	-117.641097	2504.92	4.00	2508.92
6	34.992344	-117.638800	2504.72	4.00	2508.72
7	34.990146	-117.638809	2516.62	4.00	2520.62
8	34.990153	-117.641480	2512.82	4.00	2516.82

Name: D04

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

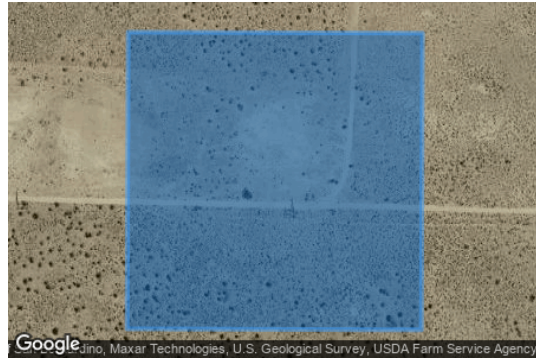
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990138	-117.636138	2520.12	4.00	2524.12
2	34.990146	-117.638809	2516.62	4.00	2520.62
3	34.992344	-117.638800	2504.72	4.00	2508.72
4	34.992336	-117.636129	2514.92	4.00	2518.92
5	34.990138	-117.636138	2520.12	4.00	2524.12

Name: D05

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

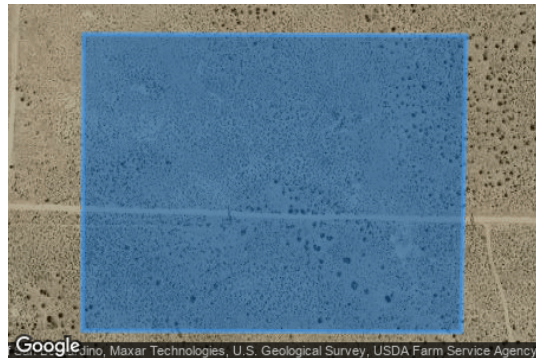
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.990138	-117.636138	2520.12	4.00	2524.12
2	34.992336	-117.636129	2514.92	4.00	2518.92
3	34.992325	-117.632653	2518.42	4.00	2522.42
4	34.990127	-117.632700	2526.32	4.00	2530.32
5	34.990138	-117.636138	2520.12	4.00	2524.12

Name: D06

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

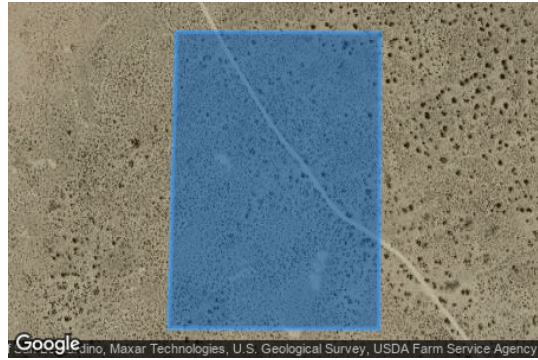
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.987955	-117.641490	2510.42	4.00	2514.42
2	34.987961	-117.643400	2514.32	4.00	2518.32
3	34.990159	-117.643330	2505.22	4.00	2509.22
4	34.990153	-117.641480	2512.82	4.00	2516.82
5	34.987955	-117.641490	2510.42	4.00	2514.42

Name: D07

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

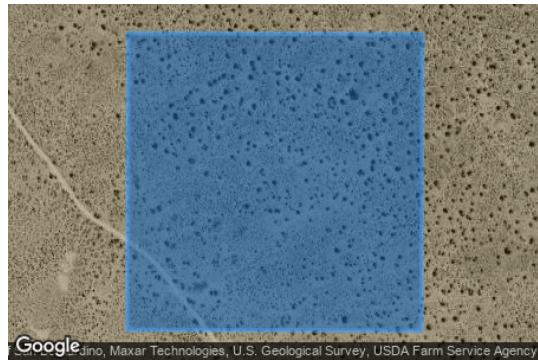
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.987948	-117.638819	2523.92	4.00	2527.92
2	34.987955	-117.641490	2510.42	4.00	2514.42
3	34.990153	-117.641480	2512.82	4.00	2516.82
4	34.990146	-117.638809	2516.62	4.00	2520.62
5	34.987948	-117.638819	2523.92	4.00	2527.92

Name: D08

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

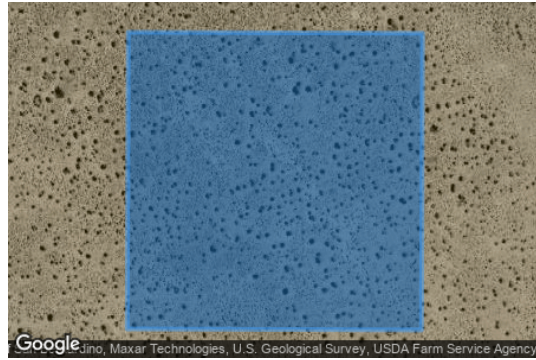
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.987940	-117.636148	2533.92	4.00	2537.92
2	34.987948	-117.638819	2523.92	4.00	2527.92
3	34.990146	-117.638809	2516.62	4.00	2520.62
4	34.990138	-117.636138	2520.12	4.00	2524.12
5	34.987940	-117.636148	2533.92	4.00	2537.92

Name: D09

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

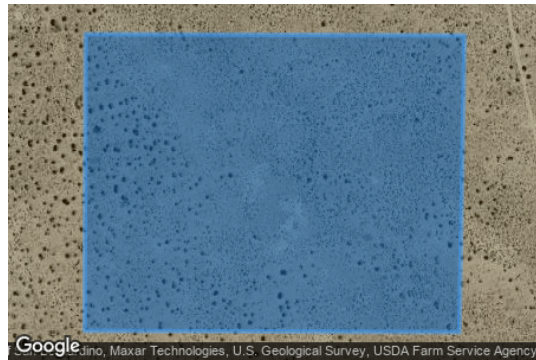
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.987940	-117.636148	2533.92	4.00	2537.92
2	34.990138	-117.636138	2520.12	4.00	2524.12
3	34.990127	-117.632700	2526.32	4.00	2530.32
4	34.987929	-117.632746	2526.72	4.00	2530.72
5	34.987940	-117.636148	2533.92	4.00	2537.92

Name: D10

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

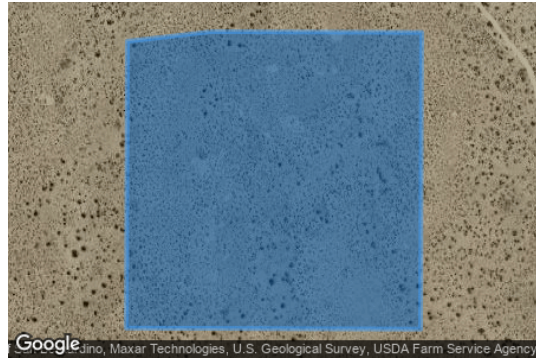
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.985757	-117.641499	2524.62	4.00	2528.62
2	34.985765	-117.644170	2528.92	4.00	2532.92
3	34.987889	-117.644161	2515.12	4.00	2519.12
4	34.987961	-117.643400	2514.32	4.00	2518.32
5	34.987955	-117.641490	2510.42	4.00	2514.42
6	34.985757	-117.641499	2524.62	4.00	2528.62

Name: D11

Axis tracking: Single-axis rotation

Tracking axis orientation: 180.0°

Tracking axis tilt: 0.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

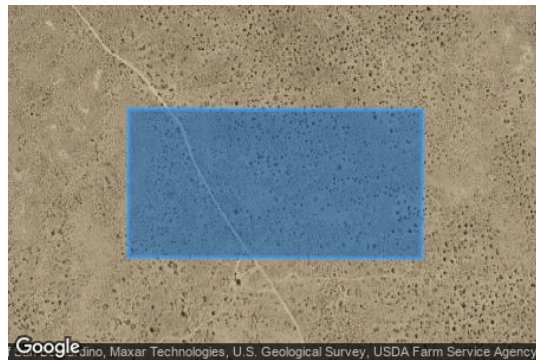
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.985757	-117.641499	2524.62	4.00	2528.62
2	34.987955	-117.641490	2510.42	4.00	2514.42
3	34.987948	-117.638819	2523.92	4.00	2527.92
4	34.987940	-117.636148	2533.92	4.00	2537.92
5	34.985742	-117.636158	2534.12	4.00	2538.12
6	34.985757	-117.641499	2524.62	4.00	2528.62

Name: D12

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

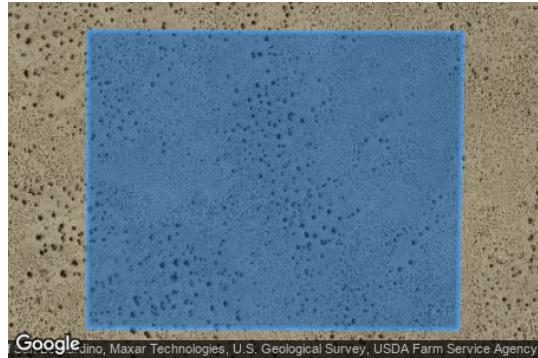
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.985742	-117.636158	2534.12	4.00	2538.12
2	34.987940	-117.636148	2533.92	4.00	2537.92
3	34.987929	-117.632746	2526.72	4.00	2530.72
4	34.985731	-117.632793	2538.12	4.00	2542.12
5	34.985742	-117.636158	2534.12	4.00	2538.12

Name: D13

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

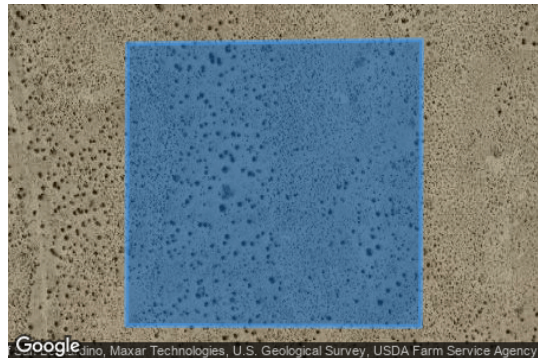
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.985765	-117.644170	2528.92	4.00	2532.92
2	34.985773	-117.646841	2526.92	4.00	2530.92
3	34.987860	-117.646832	2515.62	4.00	2519.62
4	34.987889	-117.644161	2515.12	4.00	2519.12
5	34.985765	-117.644170	2528.92	4.00	2532.92

Name: D14

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

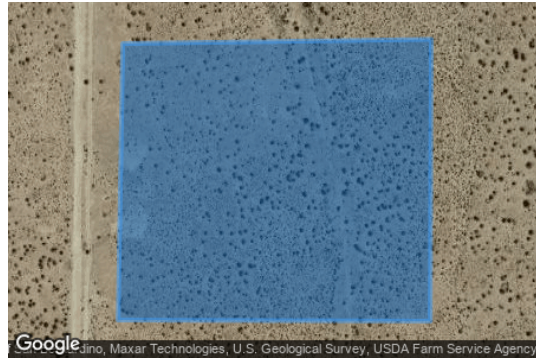
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.985781	-117.649673	2525.72	4.00	2529.72
2	34.987829	-117.649631	2516.02	4.00	2520.02
3	34.987860	-117.646832	2515.62	4.00	2519.62
4	34.985773	-117.646841	2526.92	4.00	2530.92
5	34.985781	-117.649673	2525.72	4.00	2529.72

Name: D15

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

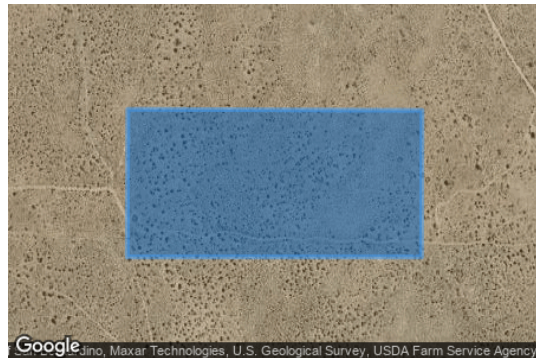
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.983584	-117.646850	2537.32	4.00	2541.32
2	34.985773	-117.646841	2526.92	4.00	2530.92
3	34.985765	-117.644170	2528.92	4.00	2532.92
4	34.985757	-117.641499	2524.62	4.00	2528.62
5	34.983584	-117.641509	2528.02	4.00	2532.02
6	34.983584	-117.646850	2537.32	4.00	2541.32

Name: D16

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

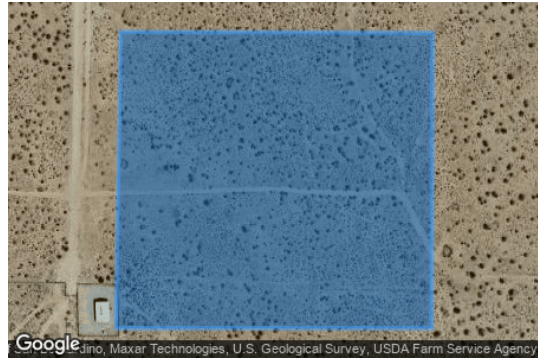
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.983583	-117.649719	2535.52	4.00	2539.52
2	34.985781	-117.649673	2525.72	4.00	2529.72
3	34.985773	-117.646841	2526.92	4.00	2530.92
4	34.983584	-117.646850	2537.32	4.00	2541.32
5	34.983583	-117.649719	2535.52	4.00	2539.52

Name: D17

Axis tracking: Single-axis rotation

Tracking axis orientation: 0.0°

Tracking axis tilt: 1.0°

Tracking axis panel offset: 0.0°

Max tracking angle: 52.0°

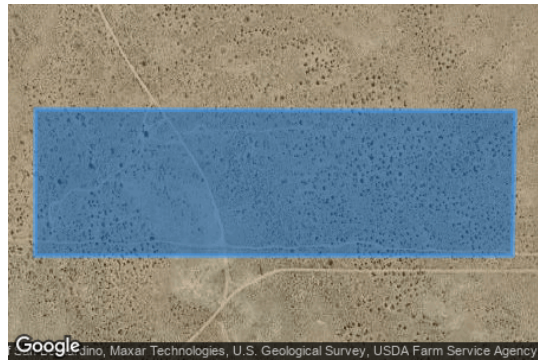
Resting angle: 10.0°

Rated power: -

Panel material: Smooth glass with AR coating

Reflectivity: Vary with sun

Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.983584	-117.641509	2528.02	4.00	2532.02
2	34.985757	-117.641499	2524.62	4.00	2528.62
3	34.985742	-117.636158	2534.12	4.00	2538.12
4	34.985731	-117.632793	2538.12	4.00	2542.12
5	34.983585	-117.632839	2550.12	4.00	2554.12
6	34.983584	-117.641509	2528.02	4.00	2532.02

Flight Path Receptor(s)

Name: 57CL A

Description:

Threshold height: 50 ft

Direction: 89.9°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	35.001501	-117.614500	2496.92	50.00	2546.92
Two-mile	35.001445	-117.649837	2462.11	638.26	3100.37

Name: 57CL B

Description:

Threshold height: 50 ft

Direction: 269.8°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	35.001414	-117.605907	2503.60	50.00	2553.60
Two-mile	35.001540	-117.570570	2472.87	634.19	3107.06

Name: EAB 04L

Description: None

Threshold height: 50 ft

Direction: 58.1°

Glide slope: 3.0°

Pilot view restricted? Yes

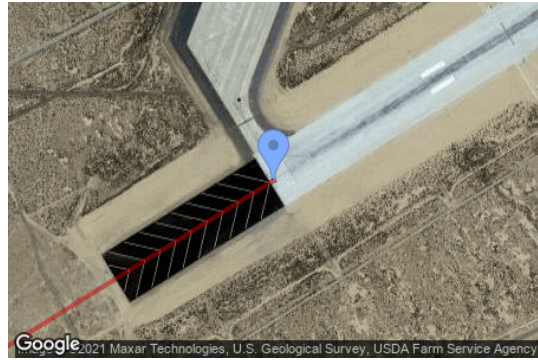
Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.902775	-117.904760	2308.81	50.00	2358.82
Two-mile	34.887479	-117.934711	2338.91	573.33	2912.24

Name: EAB 04R
Description: None
Threshold height: 50 ft
Direction: 58.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



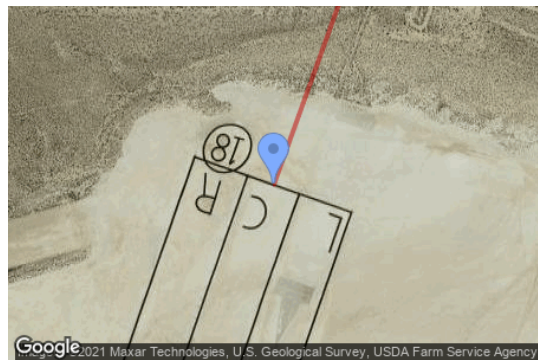
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.894596	-117.904958	2299.91	50.00	2349.91
Two-mile	34.879351	-117.934946	2313.31	590.03	2903.34

Name: EAB 15
Description: None
Threshold height: 50 ft
Direction: 167.5°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.976599	-117.871144	2270.41	50.00	2320.41
Two-mile	35.004832	-117.878760	2321.41	552.53	2873.94

Name: EAB 18
Description: None
Threshold height: 50 ft
Direction: 199.8°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.994492	-117.846683	2271.61	50.00	2321.61
Two-mile	35.021696	-117.834713	2300.01	575.03	2875.04

Name: EAB 22L

Description: None

Threshold height: 50 ft

Direction: 238.2°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.916271	-117.862462	2282.61	50.00	2332.61
Two-mile	34.931528	-117.832476	2271.31	614.73	2886.04

Name: EAB 22R

Description: None

Threshold height: 50 ft

Direction: 238.2°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.920076	-117.870859	2280.11	50.00	2330.11
Two-mile	34.935308	-117.840853	2269.01	614.53	2883.54

Name: EAB 23

Description: None

Threshold height: 50 ft

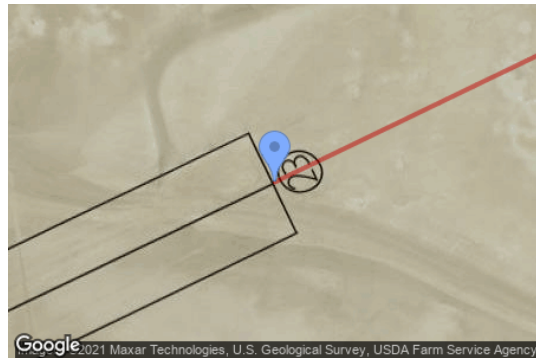
Direction: 244.3°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.966979	-117.817079	2271.21	50.00	2321.21
Two-mile	34.979536	-117.785261	2278.31	596.33	2874.64

Name: EAB 24

Description: None

Threshold height: 50 ft

Direction: 257.4°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.899495	-117.856069	2274.01	50.00	2324.01
Two-mile	34.905827	-117.821632	2271.61	605.83	2877.44

Name: EAB 30

Description: None

Threshold height: 50 ft

Direction: 314.8°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.932466	-117.846734	2271.01	50.00	2321.01
Two-mile	34.912111	-117.821659	2270.41	604.03	2874.44

Name: EAB 33

Description: None

Threshold height: 50 ft

Direction: 346.2°

Glide slope: 3.0°

Pilot view restricted? Yes

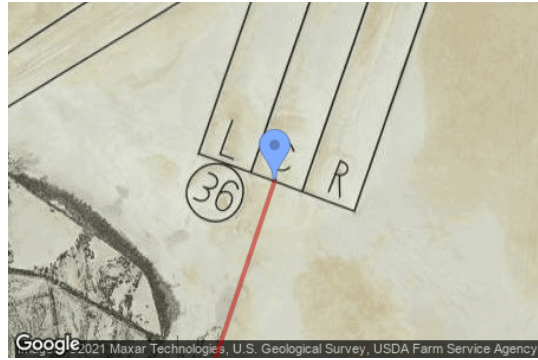
Vertical view: 30.0°

Azimuthal view: 50.0°



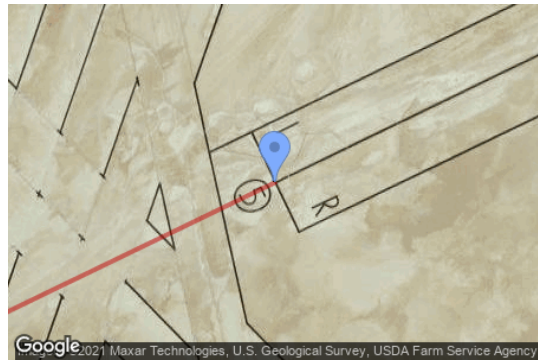
Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.898612	-117.850223	2268.91	50.00	2318.91
Two-mile	34.870532	-117.841810	2271.31	601.03	2872.34

Name: EAB 36
Description: None
Threshold height: 50 ft
Direction: 18.5°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.934596	-117.872120	2271.61	50.00	2321.61
Two-mile	34.907173	-117.883306	2292.31	582.73	2875.04

Name: EAB 5
Description: None
Threshold height: 50 ft
Direction: 64.3°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.949164	-117.862226	2269.51	50.00	2319.51
Two-mile	34.936608	-117.894037	2316.81	556.23	2873.04

Name: EAB 6
Description: None
Threshold height: 50 ft
Direction: 77.2°
Glide slope: 3.0°
Pilot view restricted? Yes
Vertical view: 30.0°
Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.894687	-117.882066	2290.81	50.00	2340.81
Two-mile	34.888287	-117.916482	2294.51	599.73	2894.24

Name: EAB AUX 06

Description: None

Threshold height: 50 ft

Direction: 74.8°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.988555	-117.872762	2300.81	50.00	2350.81
Two-mile	34.980959	-117.906853	2401.42	502.92	2904.34

Name: EAB AUX 24

Description: None

Threshold height: 50 ft

Direction: 254.4°

Glide slope: 3.0°

Pilot view restricted? Yes

Vertical view: 30.0°

Azimuthal view: 50.0°



Point	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
Threshold	34.993033	-117.853638	2281.81	50.00	2331.81
Two-mile	35.000832	-117.819613	2284.71	600.63	2885.34

Discrete Observation Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
1-ATCT	1	34.922744	-117.882336	2292.21	145.01
OP 2	2	35.012734	-117.651720	2455.92	6.00
OP 3	3	34.995564	-117.650730	2476.72	6.00
OP 4	4	34.997165	-117.650213	2470.22	6.00

Map image of 1-ATCT



Route Receptor(s)

Name: Hwy 58 WB North of Group D

Path type: One-way (toward increasing index)

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	35.007355	-117.602745	2493.42	6.00	2499.42
2	35.008139	-117.605365	2495.12	6.00	2501.12
3	35.008671	-117.607493	2493.82	6.00	2499.82
4	35.009301	-117.610592	2489.52	6.00	2495.52
5	35.009751	-117.613474	2490.82	6.00	2496.82
6	35.010059	-117.616458	2489.22	6.00	2495.22
7	35.010297	-117.620342	2485.22	6.00	2491.22
8	35.010326	-117.625806	2480.32	6.00	2486.32

Name: RR North of Group D

Path type: Two-way

Observer view angle: 50.0°

Note: Route receptors are excluded from this FAA policy review. Use the 2-mile flight path receptor to simulate flight paths according to FAA guidelines.



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	34.998729	-117.649734	2470.42	14.00	2484.42
2	34.998348	-117.642726	2480.72	14.00	2494.72

GLARE ANALYSIS RESULTS

Summary of Glare

PV Array Name	Tilt (°)	Orient (°)	"Green" Glare min	"Yellow" Glare min	Energy kWh
D01	SA tracking	SA tracking	0	0	-
D02	SA tracking	SA tracking	0	0	-
D03	SA tracking	SA tracking	0	0	-
D04	SA tracking	SA tracking	0	0	-
D05	SA tracking	SA tracking	0	0	-
D06	SA tracking	SA tracking	0	0	-
D07	SA tracking	SA tracking	0	0	-
D08	SA tracking	SA tracking	0	0	-
D09	SA tracking	SA tracking	0	0	-
D10	SA tracking	SA tracking	0	0	-
D11	SA tracking	SA tracking	0	0	-
D12	SA tracking	SA tracking	0	0	-
D13	SA tracking	SA tracking	0	0	-
D14	SA tracking	SA tracking	0	0	-
D15	SA tracking	SA tracking	0	0	-
D16	SA tracking	SA tracking	0	0	-
D17	SA tracking	SA tracking	0	0	-

Total annual glare received by each receptor

Receptor	Annual Green Glare (min)	Annual Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Results for: D01

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D02

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D03

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D04

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare
0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D05

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D06

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D07

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D08

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D09

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D10

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D11

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D12

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare
0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare
0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D13

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D14

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D15

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare
0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D16

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare
0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare
0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Results for: D17

Receptor	Green Glare (min)	Yellow Glare (min)
57CL A	0	0
57CL B	0	0
EAB 04L	0	0
EAB 04R	0	0
EAB 15	0	0
EAB 18	0	0
EAB 22L	0	0
EAB 22R	0	0
EAB 23	0	0
EAB 24	0	0
EAB 30	0	0
EAB 33	0	0
EAB 36	0	0
EAB 5	0	0
EAB 6	0	0
EAB AUX 06	0	0

Receptor	Green Glare (min)	Yellow Glare (min)
EAB AUX 24	0	0
1-ATCT	0	0
OP 2	0	0
OP 3	0	0
OP 4	0	0
Hwy 58 WB North of Group D	0	0
RR North of Group D	0	0

Flight Path: 57CL A

0 minutes of yellow glare

0 minutes of green glare

Flight Path: 57CL B

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 04R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 15

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 18

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22L

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 22R

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 23

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 24

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 30

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 33

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 36

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 5

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB 6

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 06

0 minutes of yellow glare

0 minutes of green glare

Flight Path: EAB AUX 24

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: 1-ATCT

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 2

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 3

0 minutes of yellow glare

0 minutes of green glare

Point Receptor: OP 4

0 minutes of yellow glare

0 minutes of green glare

Route: Hwy 58 WB North of Group D

0 minutes of yellow glare

0 minutes of green glare

Route: RR North of Group D

0 minutes of yellow glare

0 minutes of green glare

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

Glare analyses do not account for physical obstructions between reflectors and receptors. This includes buildings, tree cover and geographic obstructions.

Several calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size.

Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Glare vector plots are simplified representations of analysis data. Actual glare emanations and results may differ.

The glare hazard determination relies on several approximations including observer eye characteristics, angle of view, and typical blink response time. Actual results and glare occurrence may differ.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.