Planning & Development Services

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150 N. Capitol Boulevard
P. O. Box 500
Boise, Idaho 83701-0500

Phone: 208/384-3830
Fax: 208/384-3753
TDD/TTY: 800/377-3529
Website: www.cityofboise.org/pds

CUP16-00059 – Idaho Power Company

Summary
Conditional use permit for the addition of a solar power facility adjacent to an existing Idaho Power substation site located on 42.9 acres at 2001 E. Amity Road in an M-1D (Light Industrial with Design Review) zone.

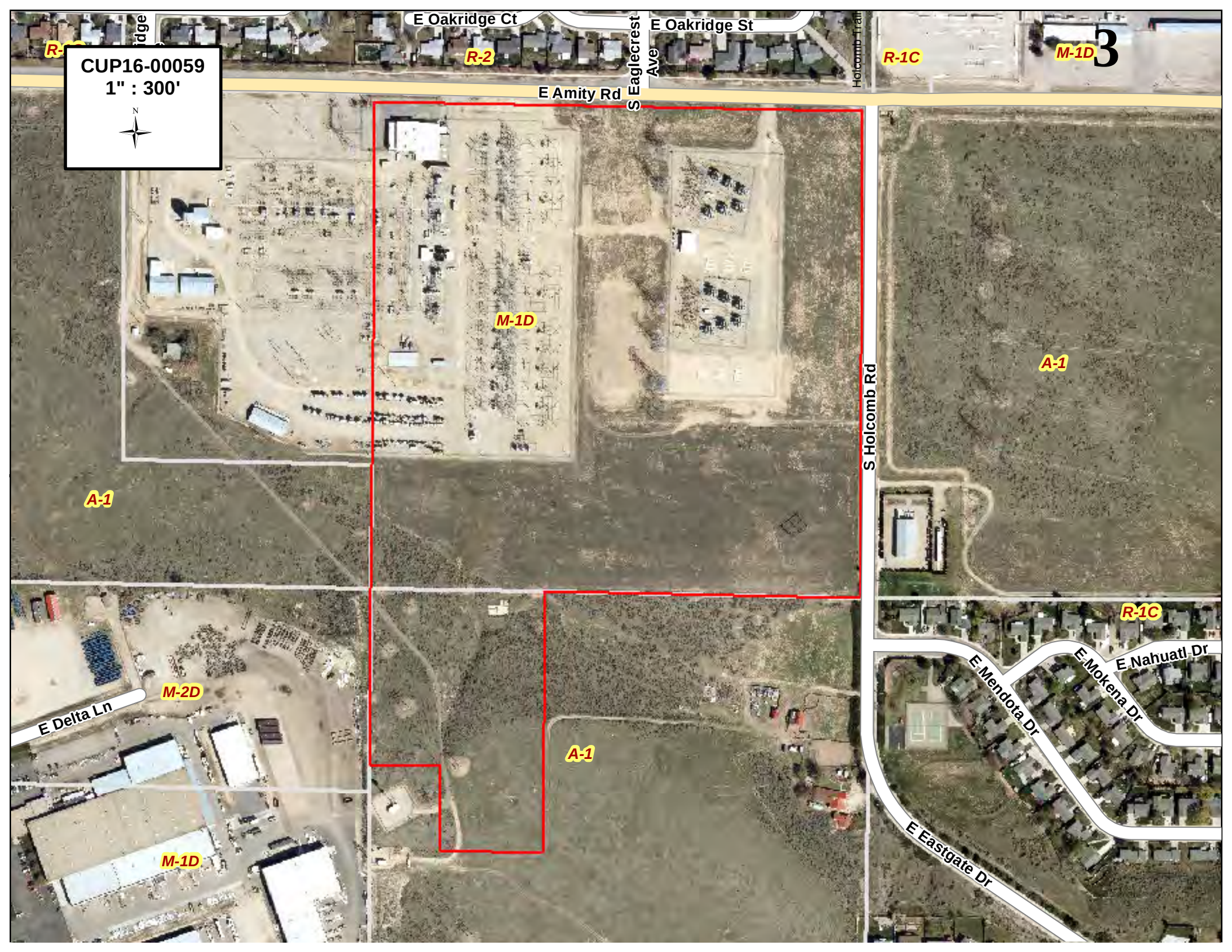
Prepared By
David Moser, Associate Planner

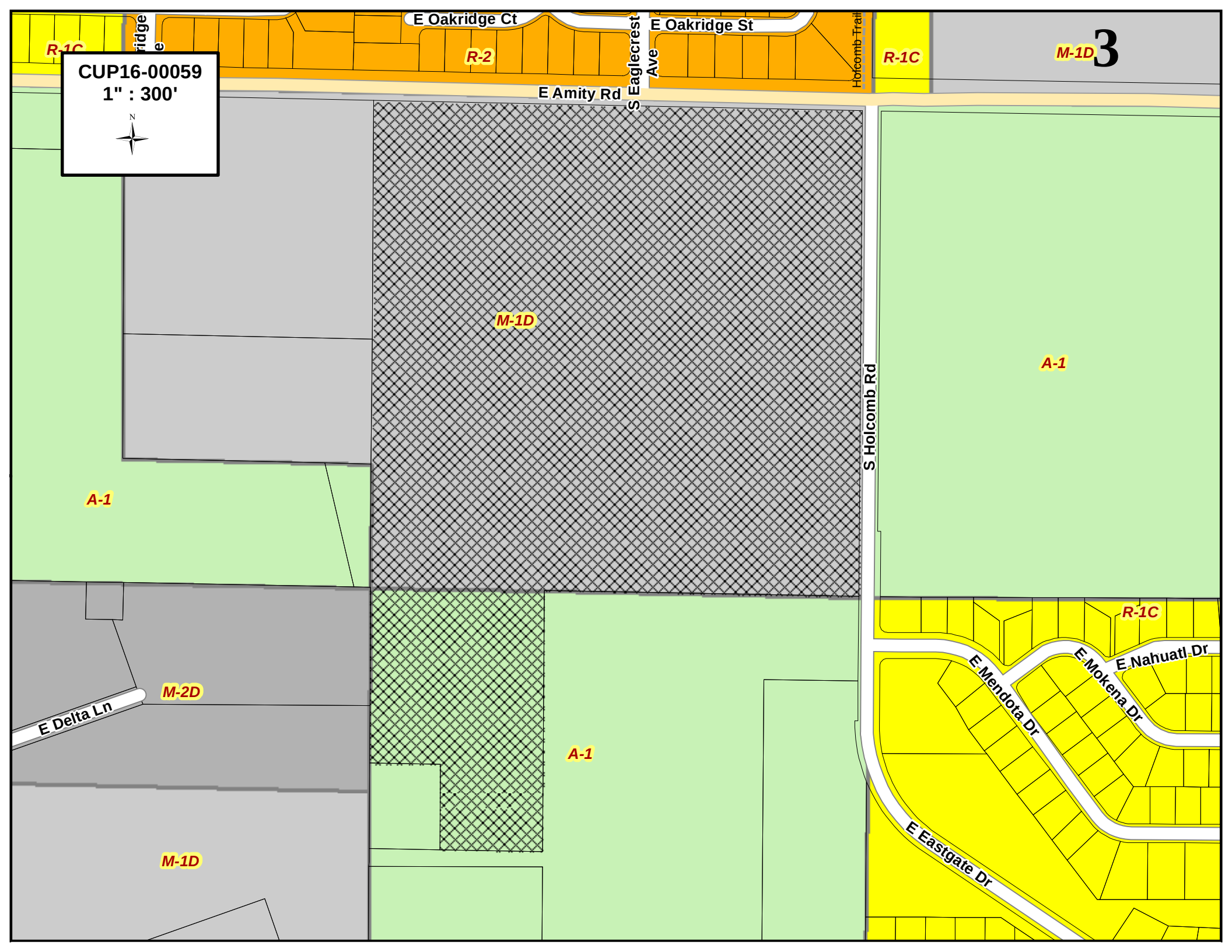
Recommendation
Planning Team recommends **approval** of CUP16-00059.

Reason for the Decision
The solar power facility is compatible with the surrounding area since it is similar in use to the adjacent substation and transmission line corridors. Correspondence from commenting agencies indicates the proposed use will not place an undue burden on transportation or other public services in the vicinity. The site is large enough to accommodate the proposed use. The project will comply with all required setbacks and height standards. In addition, no off-street parking is required since it is unmanned. It will not adversely impact other properties of the vicinity since it is a passive use that will not generate any noise or other adverse impacts. In addition, the solar panels are fabricated of a non-reflective material, which will protect the adjacent residential neighborhoods from glare. The project is in compliance with the goals, objectives, and principles of the Comprehensive Plan. *Goal ES12* promotes the use of renewable energy sources, which includes the development of solar power. There are also several policies within the Comprehensive Plan that promote the development and use of alternative sources of energy (*Policy ES12.1, Policy ES10.4, and Policy PDP7.3*).

This report includes information available on the Boise City Website. The entire public record, including additional documents, can be viewed through PDS Online through the following link:

http://pdsonline.cityofboise.org/pdsonline/Permits.aspx?id=0


CUP16-00059
1" : 300'
N
E Oakridge Ct
E Oakridge St
S Eaglecrest Ave
Holcomb Trail
E Amity Rd
S Holcomb Rd
R-2
R-1C
M-1D
A-1
M-2D
E Delta Ln
E Mendota Dr
E Mokena Dr
E Nahuatl Dr
E Eastgate Dr
3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R-2
M-1D
A-1
M-2D
E Delta Ln
E Mendota Dr
E Mokena Dr
E Nahuatl Dr
E Eastgate Dr
3

E OAKRIDGE DR
S RIMVIEW WAY
E PINERIDGE DR
E OAKRIDGE CT
S EAGLECREST AVE
E OAKRIDGE ST
S REDHAWK AVE
E AMITY RD
20' SETBACK
15' SETBACK
S HOLCOMB RD
Assessor's Parcel
S1036110300
42.89 ac.
Boise Bench
Substation
Future Proposed
Solar Facility
Interpretive Signage
15' wide gravel drive
originating on S.
Holcomb Rd., extending
around perimeter
of solar array
650'
Existing
Power Poles
and Guy Wires
400'
Point of Interconnect
(Solar Facility
Transfers Power
to Existing
Distribution System
at this Location)
Proposed Boise Community
Solar Project; 500 kW ac
Solar PV Array (6.0 ac.)
6' tall chain-link
security fence topped
with barbed wire
Generator
Step-Up
Unit
Proposed
Undergound Power
Line Installation
E MEKONA DR
E MENDOTA DR
S HOLCOMB RD
S FEDERAL WAY

Boise Community Solar Pilot Project
Boise Bench Substation
Boise, Idaho

Solar Development Property
IPC Properties
Solar Array
Setback Lines
15' Wide Access Rd. (Gravel)
Transmission Lines
Transmission Structure

N

IDAHO POWER
An IDACORP Company

250 125 0 250 500 Feet

ARRAY TECHNOLOGIES

DuraTrack® HZ v3

A (r)evolutionary design that builds on the DuraTrack heritage while adding innovative patent-pending features engineered to deliver the best LCOE in the industry.

THE (R)EVOLUTION IN TRACKER DESIGN IS HERE.

DuraTrack HZ v3 is not just an evolution of our innovative single-axis horizontal solar tracker, it incorporates revolutionary patent-pending new features found nowhere else in the industry.

HIGHEST POWER DENSITY

In fact, 6% more than our closest competitor. Increase capacity on a reduced footprint, or add to production by cutting down on backtracking.

GREATEST RELIABILITY

Reducing the number of sensitive components has resulted in the highest operational uptime in the industry. An improved driveline design allows for fewer motors—only two per megawatt. No stow required—a wind relief management feature takes care of that.

ULTRA-EFFICIENT INSTALLATION

One single-fastener clamp per module streamlines the most labor-intensive step. Per megawatt, this equals 15,000 fewer fasteners than competitive systems, adding up to big savings.

ZERO MAINTENANCE

Gearboxes are sealed and lubricated for life resulting in zero scheduled maintenance. All tracker rows self-calibrate twice daily ensuring that each row is always at the optimal tracking angle.

Array Technologies Inc.

A 3901 Midway Place NE
Albuquerque, NM 87109 USA

T +1 505.881.7567
+1 855.TRACKPV (872.2578)

F +1 505.881.7572

E sales@arraytechinc.com

W arraytechinc.com

DuraTrack HZ v3

THE V3 DELIVERS LOWEST LCOE

Add it up. Working together, all the features of the DuraTrack HZ v3 are designed to result in the best LCOE. When you calculate what you'll save on installation due to the streamlined design, what you won't be spending on O&M due to zero scheduled maintenance, and what you'll add in production due to 99.996% uptime, 6% more density and optimized 52° ROM, you'll discover the value added by going with the industry leader in solar tracking.

With more gigawatts installed, and over 25 years dedicated to tracker design and manufacturing, Array's reliability and reputation make it the low-risk choice that you and your financial institution can rely on.

THE ARRAY ADVANTAGE

Array Technologies is the worldwide leader in tracking solutions for utility, commercial, and residential solar electric generation systems, with over 4 GW across the globe. After more than 25 years in the industry, Array's innovations in solar tracking continue to provide the best levelized cost of electricity through reliable, easy to install and maintain systems. Array Technologies' solutions are engineered in the USA.

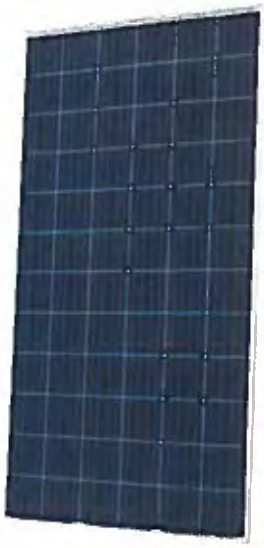
STRUCTURAL & MECHANICAL FEATURES/SPECIFICATIONS	
Tracking Type	Horizontal single axis
Tilt Angle	0°
kW per Drive Motor	~ 650–750 kW DC
Maximum Linked Rows	28
Maximum Row Size	80 modules (crystalline)
Drive Type	Rotating gear drive
Motor Type	2 HP, 3 PH, 480V AC
Motors per 1 MW AC	2
East-West / North-South Dimensions	Site / module specific
Array Height	54" standard, adjustable (46" min height above grade)
Ground Coverage Ratio (GCR)	Flexible, 28–45% typical
Modules Supported	Most commercially available, including frameless crystalline and thin film
Tracking Range of Motion	± 52°
Module Configuration	Single-in-portrait standard. Dual-in-landscape (crystalline), four-in-landscape (thin film) also available.
Module Attachment	Single fastener, high-speed mounting clamps with integrated grounding. Traditional rails for crystalline in landscape, custom racking for thin film and frameless crystalline per manufacturer specs.
Materials	HDG steel and aluminum structural members
Allowable Wind Load (IBC 2012)	135 mph, 3-second gust exposure C
Wind Protection	Passive mechanical system relieves wind and obstruction damage — no power required
ELECTRONIC CONTROLLER FEATURES/SPECIFICATIONS	
Solar Tracking Method	Algorithm with GPS input
Control Electronics	MCU plus Central Controller
Data Feed	MODBUS over Ethernet to SCADA system
Night-time Stow	Yes
Tracking Accuracy	± 2° standard, field adjustable
Backtracking	Yes
INSTALLATION, OPERATION & MAINTENANCE	
PE Stamped Structural Calculations & Drawings	Yes
On-site Training & System Commissioning	Yes
Connection Type	Fully bolted connections, no welding
In-field Fabrication Required	No
Dry Slide Bearings & Articulating Driveline Connections	No lubrication required
Scheduled Maintenance	None required
GENERAL	
Annual Power Consumption (kWh per 1 MW)	400 kWh per MW per year, estimated
Land Area Required per 1 MW	Approx. 5 to 5.75 acres per MW @ 33% GCR (site and design specific)
Energy Gain vs. Fixed-Tilt	Up to 25%, site specific
Warranty	5 year parts only, 10 year extended available
Patent Number	Patent pending
Codes and Standards	UL Certified (3703 & 2703)

CUP 16-00059

Q.PLUS L-G4.2 320-340

Q.ANTUM SOLAR MODULE

The Q.ANTUM solar module Q.PLUS L-G4.2 with power classes up to 340 Wp is the strongest module of its type on the market globally. Powered by 72 Q CELLS solar cells Q.PLUS L-G4.2 was specially designed for large solar power plants to reduce BOS costs. But there is even more to our polycrystalline modules. Only Q CELLS offers German engineering quality with our unique triple Yield Security.



LOW ELECTRICITY GENERATION COSTS
Higher yield per surface area and lower BOS costs thanks to higher power classes and an efficiency rate of up to 17.4 %.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti-PID Technology[1], Hot-Spot-Protect and Traceable Quality Tra.Q™.

LIGHT-WEIGHT QUALITY FRAME
High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (2400 Pa).

A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance guarantee[2].

EUPD RESEARCH TOP BRAND PV 2015

Photon Q CELLS Best polycrystalline solar module 2013

[1] APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25°C, 168h

[2] See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:

Ground mounted solar power plants

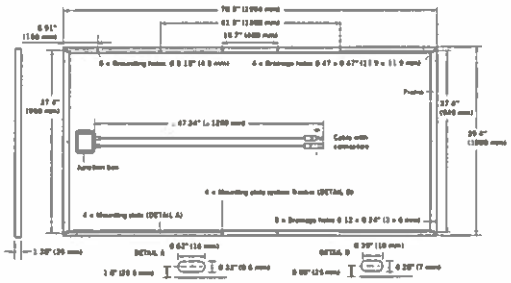
CUP 16-0[illegible]

Engineered in **Germany**

Q CELLS

MECHANICAL SPECIFICATION

Format	78.5 in × 39.4 in × 1.38 in (including frame) (1994 mm × 1000 mm × 35 mm)
Weight	52.9 lb (24 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodised aluminum
Cell	6 × 12 solar cells
Junction box	3.35-4.13 in × 2.36-3.15 in × 0.59-0.67 in (85-105 mm × 60-80 mm × 15-17 mm), Protection class ≥ IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 47.24 in (1200 mm), (-) ≥ 47.24 in (1200 mm)
Connector	Amphenol H4, IP68

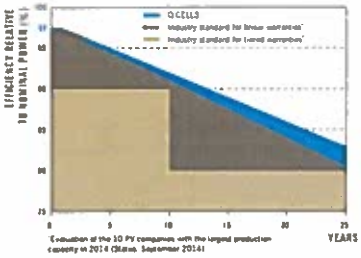


ELECTRICAL CHARACTERISTICS

POWER CLASS			320	325	330	335	340
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / -0 W)							
Minimum	**Power at MPP[2]**	P_{MPP} [W]	320	325	330	335	340
	Short Circuit Current*	I_{SC} [A]	9.39	9.44	9.49	9.54	9.59
	Open Circuit Voltage*	V_{OC} [V]	46.17	46.43	46.68	46.94	47.20
	Current at MPP*	I_{MPP} [A]	8.79	8.85	8.91	8.97	9.03
	Voltage at MPP*	V_{MPP} [V]	36.39	36.70	37.02	37.33	37.63
	Efficiency[2]	η [%]	≥16.0	≥16.3	≥16.5	≥16.8	≥17.1
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC[3]							
Minimum	**Power at MPP[3]**	P_{MPP} [W]	237.2	241.0	244.7	248.4	252.1
	Short Circuit Current*	I_{SC} [A]	7.57	7.61	7.65	7.69	7.73
	Open Circuit Voltage*	V_{OC} [V]	43.08	43.32	43.56	43.81	44.05
	Current at MPP*	I_{MPP} [A]	6.89	6.94	6.99	7.04	7.09
	Voltage at MPP*	V_{MPP} [V]	34.44	34.72	35.01	35.29	35.56

[1] 1000 W/m², 25°C, spectrum AM 1.5G [2] Measurement tolerances STC ±3%; NOC ±5% [3] 800 W/m², NOCT, spectrum AM 1.5G * typical values, actual values may differ

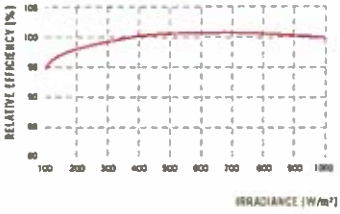
Q CELLS PERFORMANCE WARRANTY



At least 97 % of nominal power during first year. Thereafter max. 0.6 % degradation per year.
At least 92 % of nominal power after 10 years.
At least 83 % of nominal power after 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective country.

PERFORMANCE AT LOW IRRADIANCE



The typical change in module efficiency at an irradiance of 200 W/m² in relation to 1000 W/m² (both at 25 °C and AM 1.5G spectrum) is -1.5 % (relative).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	**Temperature Coefficient of V_{OC}**	β	[%/K]	−0.29
Temperature Coefficient of P_{MPP}	γ	[%/K]	−0.40	**Normal Operating Cell Temperature**	NOCT	[°F]	113 ± 5.4 (45 ± 3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS}	[V]	1500 (IEC) / 1500 (UL)	**Safety Class**	II
Maximum Series Fuse Rating	[A DC]	15	**Fire Rating**	C / Type 1
Max Load (UL)[2]	[lbs/ft²]	75 (3600 Pa)	**Permitted module temperature on continuous duty**	-40 °F up to +185 °F (-40 °C up to +85 °C)
Load Rating (UL)[2]	[lbs/ft²]	33 (1600 Pa)	[2] see installation manual	

QUALIFICATIONS AND CERTIFICATES

IEC 61215 (Ed. 2); IEC 61730 (Ed. 1), Application class A
This data sheet complies with DIN EN 50380.

PACKAGING INFORMATION

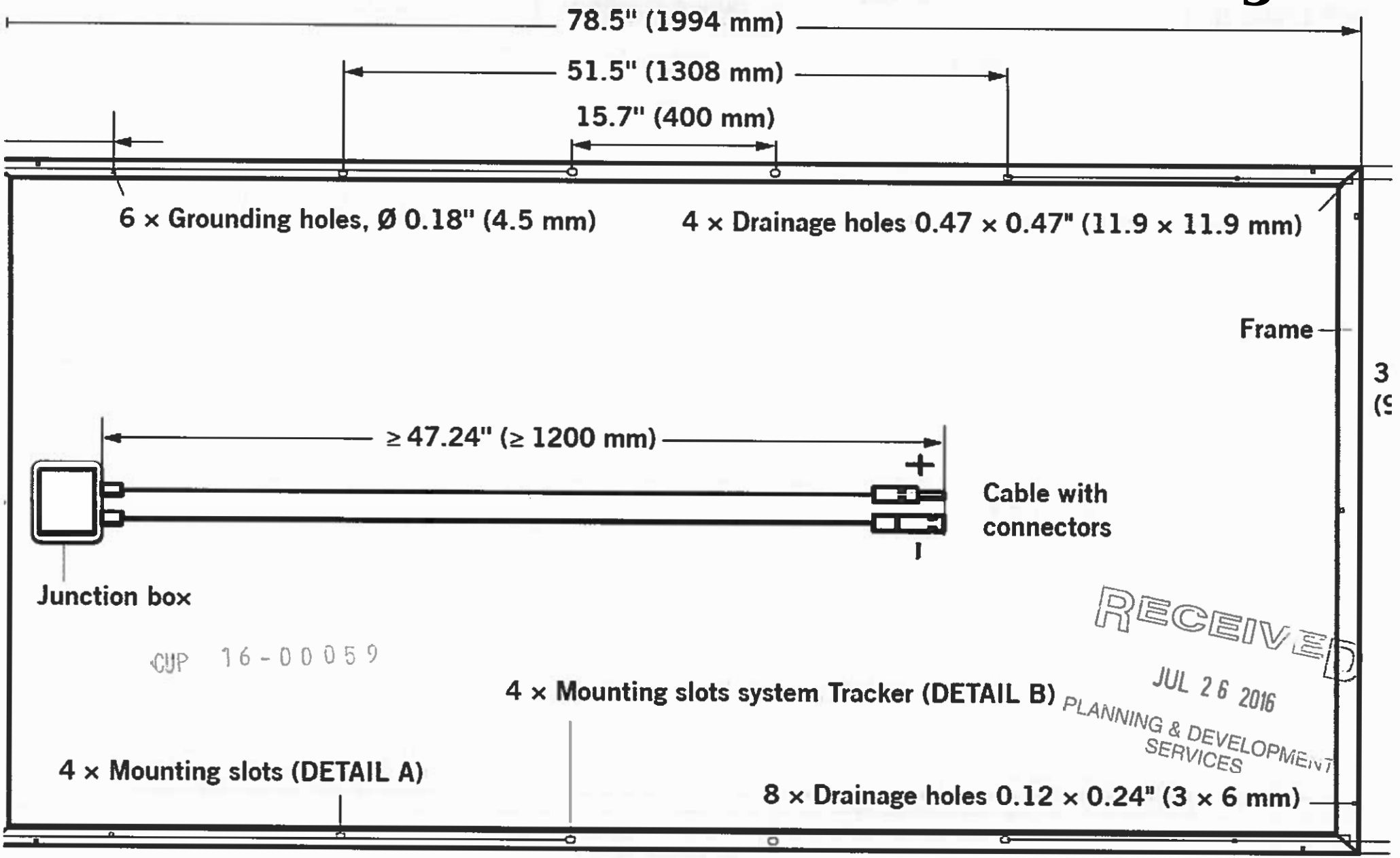
Number of Modules per Pallet	29
Number of Pallets per 40' Container	22
Pallet Dimensions (L × W × H)	81.3 x 45.3 x 46.9 in (2065 x 1150 x 1190 mm)
Pallet Weight	1671 lbs (758 kg)

NOTE: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS USA Corp.
300 Spectrum Center Drive, Suite 1250, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL q-cells-usa@q-cells.com

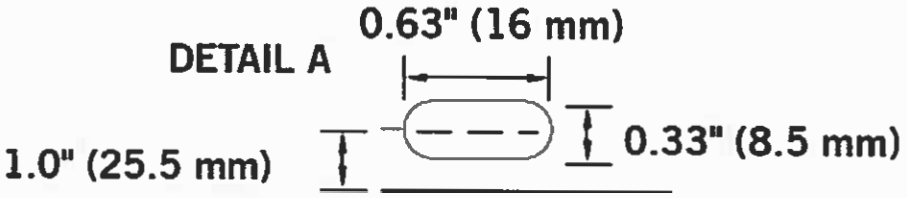
Engineered in **Germany**

CUP 16-00059

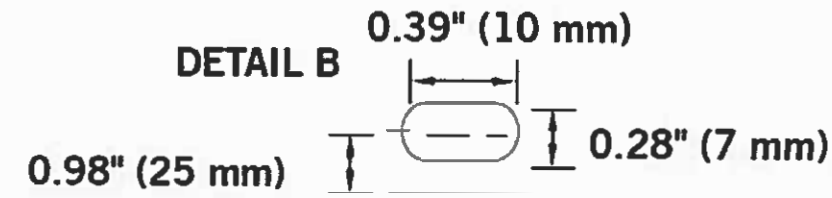


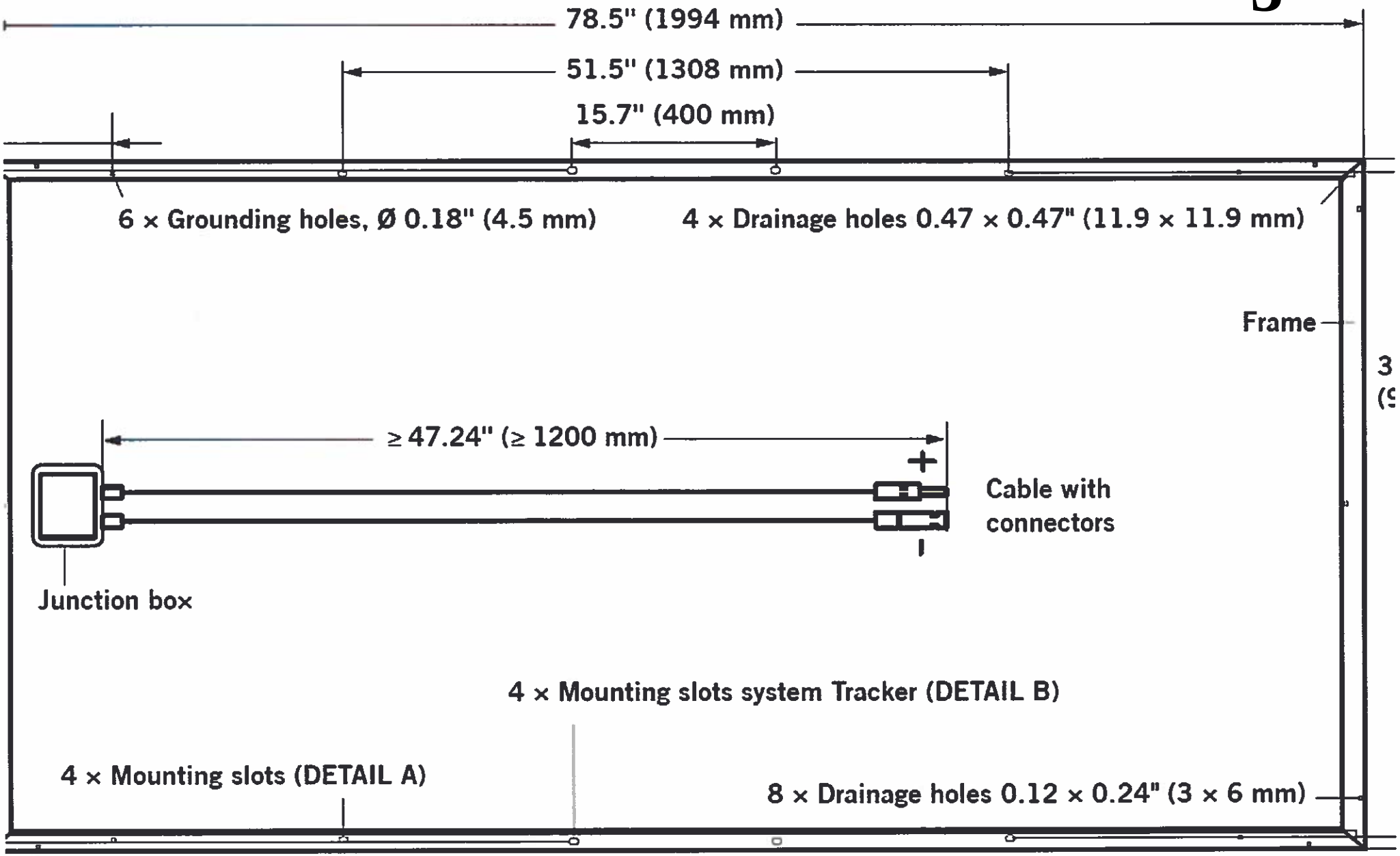
mm)

DETAIL A

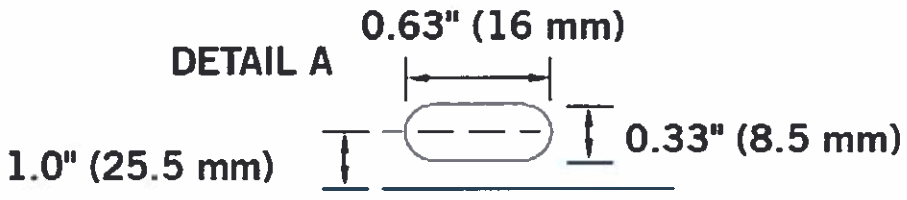


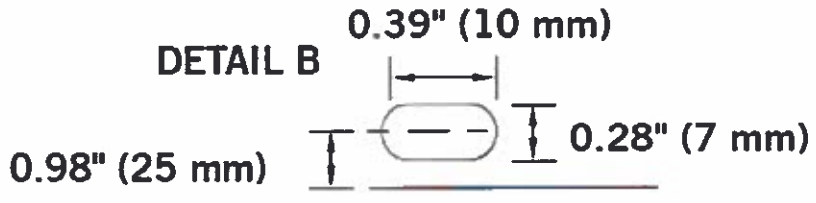
DETAIL B




78.5" (1994 mm)
51.5" (1308 mm)
15.7" (400 mm)
6 × Grounding holes, Ø 0.18" (4.5 mm)
4 × Drainage holes 0.47 × 0.47" (11.9 × 11.9 mm)
Frame
≥ 47.24" (≥ 1200 mm)
+
Cable with connectors
Junction box
4 × Mounting slots system Tracker (DETAIL B)
4 × Mounting slots (DETAIL A)
8 × Drainage holes 0.12 × 0.24" (3 × 6 mm)

mm)


DETAIL A
0.63" (16 mm)
0.33" (8.5 mm)
1.0" (25.5 mm)


DETAIL B
0.39" (10 mm)
0.28" (7 mm)
0.98" (25 mm)

Idaho Power Company
Application for Boise Community Solar Pilot Project
Boise, Idaho – Boise Bench Transmission Corridor Lands
July 26, 2016

I. GENERAL INFORMATION AND FACTS

APPLICANT & PROPERTY OWNER:	Idaho Power Company ("Idaho Power") Corporate Real Estate Attn: Laura Bishop P.O. Box 70 Boise, ID 83707
APPLICATION:	A request for approval of a Conditional Use Permit and Design Review to allow development of a 500 kilowatt ("kW") solar photovoltaic ("PV") array project on Idaho Power property known as the Boise Bench Transmission Land Corridor in southeast Boise, Idaho.
PARCEL DESCRIPTION:	Ada County Assessor's Parcel Number S1036110300 42.89 acres
LOCATION:	2001 E. Amity Road, Boise, Idaho 83716 Section 36, Township 3 North, Range 2 East, Boise Meridian
ZONE:	M-1D
EXISTING DEVELOPMENT:	Idaho Power's Boise Bench Substation and a data center building occupy an approximate 23 acre portion of the property. The remaining 19 acres of the property are undeveloped.
CURRENT LAND USE:	Industrial
TAX STATUS:	Utility
PARCEL OWNERSHIP:	Idaho Power owns the parcel in fee, pursuant to purchase via Warranty Deeds: IN290801, recorded 09/08/1949 (10 acres); IN290802, recorded 09/08/1949 (10 acres); IN418874, recorded 11/05/1957 (7.120 acres); IN418876, recorded 11/05/1957 (7.110 acres); IN418875, recorded 11/05/1957 (5.102 acres); IN418877, recorded 11/05/1957 (1.0 acres); and IN712397, recorded 01/31/1969 (6.470 acres).

III. Zoning and Land Use Designation – Current Use – Surrounding Uses

The Property is situated south of E. Amity Road and west of S. Holcomb Road in an industrial district. The Property is zoned M-1D (Industrial District with Design Overlay) with an approximate 6 acre portion of the property that lies to the southwest being zoned A-1 (Open Land Very Low Density) .

The north portion of the Property is developed with infrastructure to support Idaho Power's utility operations, to include a substation facility, a data center building, transmission power lines, and distribution power lines. The south portion of the property is largely undeveloped and reserved for future utility operations use. The Property is a part of Idaho Power's Boise Bench Substation facility and transmission line corridor. The undeveloped portion of the Property is a level area comprised of previously-disturbed and graded land planted with native grasses with dispersed areas of sagebrush. Portions of the Property are enclosed by a barb wire fence and the substation and data center facilities are enclosed and secured by chain link fence topped with barb wire for security. An existing access off S. Holcomb Road to the east is finished with gravel and is used on an intermittent basis to access the south portion of Idaho Power's substation facility and the existing power lines.

The parcels located west of the Property are zoned M-1D (Industrial District with Design Overlay) (owned by Idaho Power); and A-1 (Open Land Very Low Density). An M-2D (Industrial District with Design Overlay) is located to the west of the A-1 zoned area of the Property and is operated as a construction plant for manufactured structures (Nashua Homes). The parcels located south of the Property are zoned A-1 (Open Land Very Low Density) and are undeveloped land with a residential use to the south of the undeveloped land. The parcel located east of the Property is zoned A-1 (Open Land Very Low Density) and is developed with Idaho Power's transmission lines and is used as a transmission line corridor. Idaho Power also owns a small communications building on the parcel to the east and leases the building to Williams Communications. A subdivision on R-2 zoned land lies to the north (north of E. Amity Road) and is developed with residential homes on platted lots.

The Property lies within the Southeast Planning Area and is identified as "Industrial" on the Southeast Planning Area Land Use Map.

IV. DESCRIPTION OF THE PROJECT

A new 500 kW PV solar array facility ("Solar Facility") to be developed on a previously-disturbed and graded 6-acre portion of Idaho Power property located in southeast Boise. The Solar Facility will be connected to Idaho Power's power distribution system and the solar power generated will be available by subscription for purchase by the community. A new step-up generator will be installed on a concrete pad adjacent to the Solar Facility and will allow the power produced by the Solar Facility to be integrated into Idaho Power's existing power

distribution system. An underground power line will be installed from the step-up generator beneath S. Holcomb Road to an existing distribution power pole and transformer.

A new 15' wide gravel road will be developed around the perimeter of the Solar Facility to allow access. Ingress and egress will be via a single entry point on S. Holcomb Road.

The Solar Facility will be comprised of PV solar panels which are installed individually in concrete footings and supported by a metal framework. Each solar panel will occupy an approximate 7' tall by 6' x 12' space. The solar panels are fabricated of non-reflective material and will not result in glare to the surrounding community.

The Solar Facility will be enclosed by a new seven-foot tall chain link security fence topped with one-foot of barb wife for security.

The facility will be unmanned and will not require water or power or other utility services.

Landscaping or other forms of screening are not proposed for this project due to the industrial nature of the site and surrounding uses, in combination with the existing substation and transmission line use on the developed portions of the property.

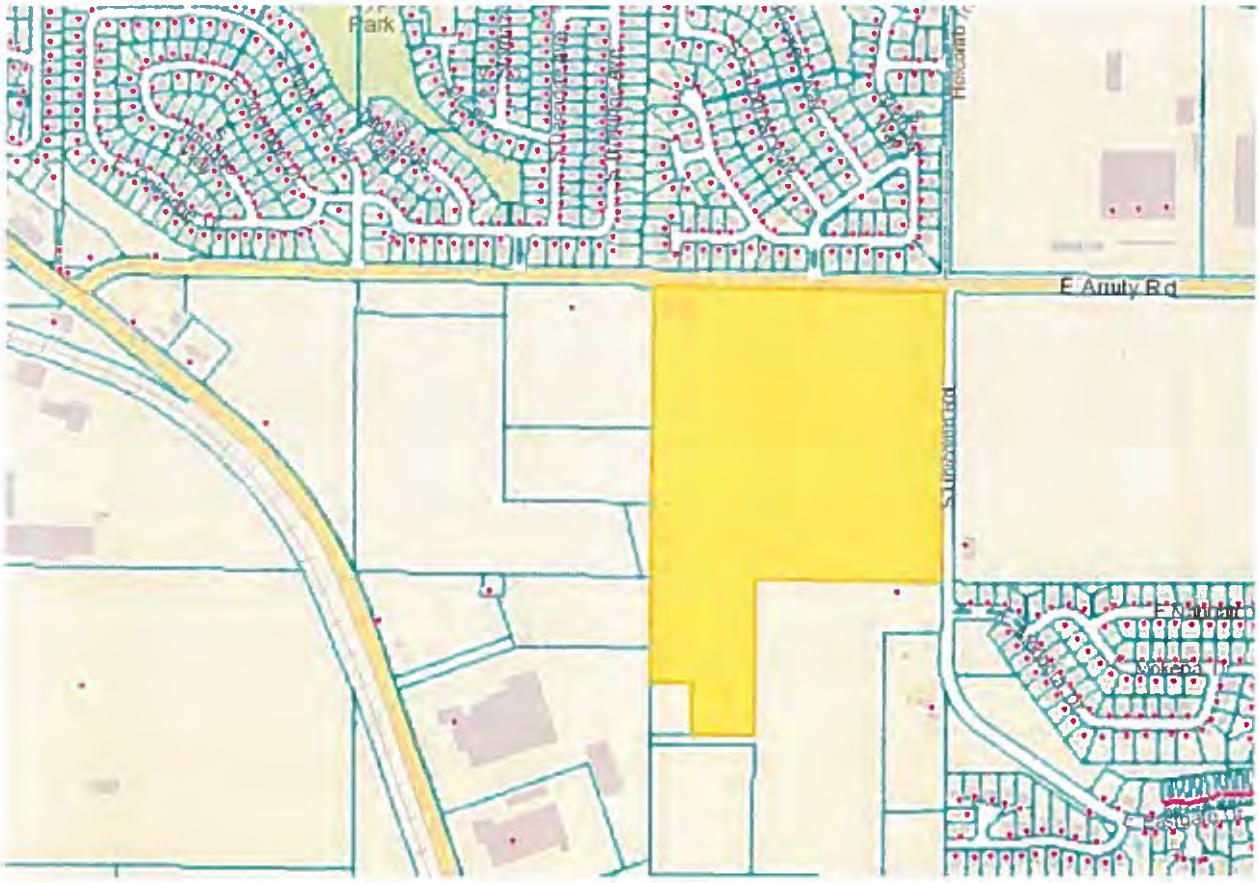
V. CONCLUSION

Idaho Power requests CUP and DR approval of the facility described herein.

VI. EXHIBITS

Photos
Specifications
Maps

CUP 16-00052



II. NATURE OF REQUEST

Idaho Power Company, Inc., an Idaho corporation, applicant and property owner ("Idaho Power"), requests approval for a Conditional Use Permit ("CUP") and Design Review ("DR") to allow development of a 500 kW solar photovoltaic ("PV") array for a community solar facility ("Solar Facility") to be developed on property owned by Idaho Power ("Property") in southeast Boise.

The Property is located at 2001 E. Amity Road, Boise, Idaho and is identified as Ada County Assessor's parcel number S1036110300. The Property is 42.89 acres in size, of which 23 acres is developed with Idaho Power's Boise Bench Substation, a data center building, and a series of transmission lines. The remaining 19 acres of the Property that lie to the south of the existing substation are undeveloped. Idaho Power proposes to develop the Solar Facility on a 6-acre site located on the undeveloped portion of the Property that lies south of the existing substation.

CUP 16-00059

PDS Online | eApply
City of Boise • Planning & Development Services • (208) 384-3802 • pds.cityofboise.org

#109: Conditional Use Application

CUP16-00059

Property Information

Address

Street Number: 2001 E. Amity Rd. | Prefix: | Street Name: Amity Rd. | Unit #:

Subdivision name: | Block: | Lot: | Section: 36 | Township: 3N | Range: 2E | Zoning: M-1D

Parcel Number: S1036110300 | Additional Parcel Numbers:

Primary Contact

Who is responsible for receiving e-mail, uploading files and communicating with Boise City?
○ Agent/Representative ○ Applicant ✓ Owner

Applicant Information

First Name: LAURA | Last Name: BISHOP

Company: IDAHO POWER COMPANY

Address: P.O. BOX 70 | City: BOISE | State: ID | Zip: 83716

E-mail: LBishop@IdahoPower.com | Phone Number: (208) 388-5272 | Cell: | Fax:

Agent/Representative Information

Role Type: ○ Architect ○ Land Developer ○ Engineer ○ Contractor ✓ Other

First Name: LAURA | Last Name: BISHOP

Company: IDAHO POWER COMPANY

Address: P.O. BOX 70 | City: BOISE | State: ID | Zip: 83716

E-mail: LBISHOP@IDAHOPOWER.COM | Phone Number: (208) 388-5272 | Cell: | Fax:

Owner Information

Same as Applicant? ○ No ✓ Yes (If yes, leave this section blank)

First Name: | Last Name:

Company:

Address: | City: | State: | Zip:

E-mail: | Phone Number: | Cell: | Fax:

RECEIVED

CUP 16-00059

PLANNING

Project Information

Is this a Modification application? ○ Yes ✓ No File number being modified:

1. **Neighborhood Association:**

2. **Comprehensive Planning Area:**

3. **This application is a request to construct, add or change the use of the property as follows:**
Construct a new 500 kW Solar array facility to provide community solar power availability.

4. **Size of Property:**
42.89 ✓ Acres ○ Square Feet

5. **Water Issues:**

A. What are you fire flow requirements? (See International Fire Code):
gpm

B. Number of hydrants (show location on site plan):
Note: Any new hydrants/hydrant piping require United Water approval.
Number of Existing: Number of Proposed:

C. Is the building "sprinklered"? ○ Yes ✓ No

D. What volume of water is available? (Contact United Water of Idaho at 362-7330):
gpm

6. **Existing uses and structures on the property are as follows:**
Existing transmission lines and substation.

7. **Is the project intended to be phased? Please explain:**
No.

8. **Adjacent property information:**

	Building types and/or uses		Zone
North:	Idaho Power substation	North:	M-1D ZONE
South:	vacant land	South:	A-1 ZONE
East:	Hatcomb Rd. - transmission lines	East:	A-1 ZONE
West:	undeveloped land - transmission lines	West:	A-1 ZONE

CUP 16-00059

9. Proposed Structures:

A. Number of Structures: solar panels approx. 264 Use: Solar Array

Square footage of proposed structures or additions (if 5+ floors, attach narrative with chart):

	Gross Square Feet
1st Floor	
2nd Floor	
3rd Floor	
4th Floor	

B. Maximum proposed structure height(s): 8' tall

C. Number of stories:

D. Number of seats (if restaurant, tavern or lounge):

E. Number of residential units (if applicable):

10. Existing Structures:

Square footage of existing structures or additions (if 5+ floors, attach narrative with chart): None

	Gross Square Feet
1st Floor	
2nd Floor	
3rd Floor	
4th Floor	

11. Building Exterior: N/A - no building is proposed.

	Materials	Colors
Roof:		
Walls:		
Windows/Doors:		
Fascia, Trim, etc:		
Other:		

12. Setbacks:

Note: Plans that are not graphically dimensioned will not be accepted.

	Building Required	Building Proposed	Parking Required	Parking Proposed
Front:	20'		none	none
Rear:	0'		"	"
Side 1:	15'		"	"
Side 2:	15'		"	"

13. Site Design:

	Site Percentage Devoted to	Square Feet
Building Coverage:	none %	
Landscaping:	none %	
Paving:	none %	
Other Uses:	- Solar panels mounted on % concrete footings	
Describe Other Uses:	- gravel roadway.	

14. Parking:

	Required	Proposed
Accessible Spaces:	0	0
Parking Spaces:	0	0
Bicycle Spaces:	0	0
Proposed compact spaces:		

Are you proposing off-site parking? ○ Yes ✓ No

If yes, how many spaces?

Are you requesting shared parking or a parking reduction? ○ Yes ✓ No

If yes, how many spaces?

Restricted parking? ○ Yes ✓ No

15. Landscaping:

A. Are there any prominent trees or areas of vegetation on the property? ○ Yes ○ No

B. Type:

C. Size:

D. General Location:

16. Mechanical Units:

Number of Units: Generator step-up facility

Unit Location:

Type:

Height:

Proposed Screening Method: Will be enclosed in metal cabinet.

17.Solid Waste:

A. Type of trash receptacles: None proposed

- ☐ Individual Can/Residential
- ☐ 3 Yd. Dumpster
- ☐ 6 Yd. Dumpster
- ☐ 8 Yd. Dumpster
- ☐ Compactor

B. Number of trash receptacles: 0

C. Proposed screening method: N/A

D. Is the proposed location accessible for collection? (Contact Boise Public Works at 384-3901.) ○ Yes ✓ No

E. Is recycling proposed? ○ Yes ✓ No

18.Irrigation Ditches/Canals:

A. Are there any irrigation ditches or canals on or adjacent to the property? ○ Yes ✓ No

B. Location: N/A

C. Size: N/A

19.Fencing:

	Proposed	Existing to Remain
Type:	Chain link w/barb wire	
Height:	6'-8'	
Location:	Perimeter of 6 acre area	

20.Loading Facilities (if proposed, for commercial uses only):

Number: 0

Location:

Size:

Screening:

21.Drainage:

Proposed method of on-site retention: - No site grading is proposed - roadway development & solar panel installation array

22.Floodways & Hillsides:

A. Is any portion of this property located in a Floodway or a 100-year Floodplain? ○ Yes ✓ No

B. Does any portion of this parcel have slopes in excess of 15%? ○ Yes ✓ No

Note: If the answer to either of the above is yes, you will be required to submit an additional Floodplain and/or Hillside application and additional fee. You must submit the additional required application(s) for review at the same time as this request.

23.Airport Influence Area:

Is the subject site located within the Airport Influence Area? (If yes, please mark which area.)

✓ No ○ Area A ○ Area B ○ Area B1 ○ Area C

Licensed Architect Information

Zoning Ordinance Section 11-07-02 requires a licensed architect for new buildings and additions over 200 sq. ft.

Is the project's Architect listed on the first page? ○ Yes ✓ No (If yes, leave this section blank.)

First Name: **Last Name:**

Company:

Address: **City:** **State:** **Zip:**

E-mail: **Phone Number:** **Cell:** **Fax:**

Professional License #:

Landscape Professional Information

Is the project's Landscape Professional listed on the first page? ○ Yes ✓ No (If yes, leave this section blank.)

First Name: **Last Name:**

Company:

Address: **City:** **State:** **Zip:**

E-mail: **Phone Number:** **Cell:** **Fax:**

Professional License #:

Verification of Legal Lot or Parcel Status

Acceptance of this application does not validate the legal status of any lot or parcel. Prior to submitting for a Building Permit you must have a Verification of Legal Parcel Status form signed by the Boise City Subdivision Department. It is the applicant's responsibility to provide deeds and/or other documentation to the Subdivision Department. See Verification of Legal Lot or Parcel Worksheet for submittal requirements.

The undersigned declares that the above provided information is true and accurate.
The undersigned acknowledges that failure to provide true and accurate information may result in rejection of this application, possible revocation of the permit where wrongfully issued and subject the undersigned any applicable civil and/or criminal penalties.

Agent/Representative Signature: SA Bistline Real Estate Portfolio Mgr

Date: 07.25.16

CUP 16-00059

Planning & Development Services

Boise City Hall, 2nd Floor
150 N. Capitol Boulevard
P. O. Box 500
Boise, Idaho 83701-0500

Phone: 208/384-3830
Fax: 208/384-3753
TDD/TTY: 800/377-3529
Website: www.cityofboise.org/pds

Planning Division Staff Report

File Number	CUP16-00059
Applicant	Laura Bishop / Idaho Power Company
Property Address	2001 E. Amity Road
Public Hearing Date	September 19, 2016
Heard by	Planning and Zoning Commission
Analyst	David Moser
Checked By	Cody Riddle

Public Notification

Neighborhood meeting conducted July 19, 2016
Newspaper notification published on September 3, 2016
Radius notices mailed to properties within 300 feet on September 2, 2016
Staff posted notice on site on August 9, 2016

Table of Contents

1. Project Data and Facts

Project Data	
Applicant	Laura Bishop / Idaho Power Company
Location of Property	2001 E. Amity Road
Size of Property	42.89 acres
Zoning	M-1D (Light Industrial with Design Review)
Comprehensive Plan Designation	Industrial
Planning Area	Southeast
Neighborhood Association / Contact	Southeast Neighborhood Association / Fred Fritchman
Procedure	Planning and Zoning Commission decision that can be appealed to City Council.

Current Land Use
The subject property contains the Boise Bench substation, data center building and transmission lines. The transmission lines extend along Amity Road.

Description of Applicant's Request
Conditional Use Permit to construct and operate a 500 Kilowatt (KW) solar power array facility adjacent to the substation along Holcomb Road.

2. Land Use

Description and Character of Surrounding Area
The subject property is a 42-acre parcel located along the south side of Amity Road. The properties adjacent to the east and west are owned by Idaho Power and contain a substation and transmission lines. To the north across Amity Road is a residential neighborhood comprised of detached single-family houses. Abutting the property to the south is a large vacant parcel and to the southeast across Holcomb Road is a residential neighborhood.

Adjacent Land Uses and Zoning	
North:	Residential / R-2 (Medium Density Residential)
South:	Vacant Land and Residential / A-1 (Open Land) and R-1C (Single Family Residential)
East:	Transmission Line Corridor / A-1 (Open Land)
West:	Transmission Line Corridor / A-1 (Open Land)

Site Characteristics
The area of the solar array facility is flat, vacant land that contains power transmission lines.

Special Considerations
The subject property is located within the "A" Airport Influence Area and the Wildland Urban Interface (WUI) zone.

History of Previous Actions	
CAR03-00028	Annexation of a large area, which included the subject property (approved).
CUP12-00027	Conditional Use modification to expand the Boise Bench Substation (approved).
Concurrent Application	
DRH16-00308	Design Review application for the solar array facility.

3. Project Proposal

Parking

According to the Development Code Standards the parking requirement for this type of facility is reviewed on a case by case basis. Since the solar power facility is generally unmanned and directly associated with an existing power substation no additional parking is required.

Setbacks

Yard	Required	Solar Panels	Step-up Generator
Front (Amity Road)	20' (bldg.)	~1000'	~1000'
Side (west)	0' (bldg.)	~600'	~1000'
Street Side (Holcomb Road)	15' (bldg.)	~250'	~55'
Rear (south)	0' (bldg.)	~15'	~30'

The 42-acre parcel fronts onto Amity Road. The project area is location near the back of the parcel and away from this street frontage.

Structure(s) Design

Number and Proposed Use of Buildings
A solar array facility comprised of 264 solar panels and a generator step up unit.
Building Height
The solar panels are about seven feet in height.

4. Development Code

Section	Description
11-03-04.06	Specific Procedures: Conditional Use Permit
11-04-09.01 (A)	Light Industrial (M-1) District
11-06-04.05 (A)	Utility Facility, Major

5. Comprehensive Plan

Chapter	Goals, Objectives, and Policies
Chapter 2 – Citywide Vision and Policies	Policy ES6.1 Policy ES10.4 Goal ES 12 Policy ES 12.1 Policy PDP 7.3

- Environmental Stewardship (ES)
- A Predictable Development Pattern (PDP)

6. Transportation Data

According to the *Institute of Transportation Engineers Trip Generation Manual, 9th edition* the solar array facility is not anticipated to generate any additional vehicle trips per day.

Roadway	Frontage	Functional Classification	Traffic Count	Level of Service*	Speed Limit
Amity Road	1,310 feet	Minor Arterial	6,971 east of Holcomb Road on 10/29/15	D	45 MPH
Holcomb Road	1,330 feet	Collector	2,277 west of Tiger Lily Drive on 7/30/15	D	35 MPH

* Acceptable level of service for a two-lane minor arterial with parking is "D" (14,000 VPH)
* Acceptable level of service for a two-lane collector with parking is "D" (8,500 VPH)

7. Analysis/Findings

The applicant requests a conditional use permit to operate a solar power facility located at 2001 E. Amity Road in an M-1D (Light Industrial with Design Review) zone. This facility is adjacent to the Boise Bench Substation and Idaho Power transmission line corridor. It will occupy an area approximately six acres in size and comprised of 264 solar panels and step-up generator, which is located closer to Holcomb Road.

The step-up generator unit is essentially a large electrical transformer and will not create any noise concerns. A 15-foot gravel service drive will be located around the perimeter of the site for maintenance with access out to Holcomb Road (Figure 1).

Ada County Highway District (ACHD) is requiring the access point onto Holcomb Road line up with the existing driveway on the east side of the street. The area will also be enclosed with a seven-foot chain link fence topped with barbed wire, which is allowed within industrial zones.

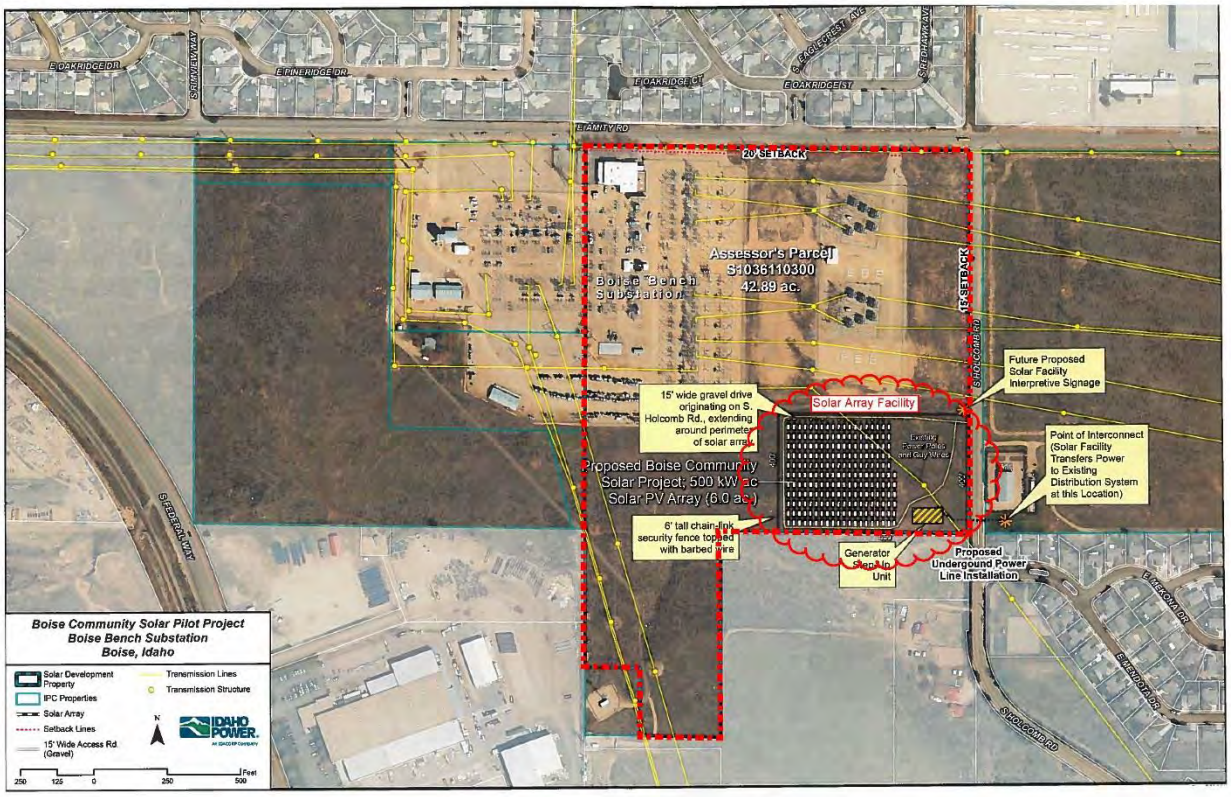


Figure 1

The solar power facility is a passive use and will not require power, water or utility services. The facility will not generate any additional traffic since it is unmanned. Each solar panel is 72 square feet in size (12' x 6') and seven feet in height. The panels are also fabricated of a non-reflective material, which will protect the adjacent residential neighborhoods from glare. In addition, landscaping will be required along Holcomb Road to provide additional screening along the street and buffer the residential neighborhood to the east. The design of this landscape buffer shall be consistent with the Landscape Ordnance as per Boise City Code (BCC) Section 11-07-05.02.

FINDINGS

Section 11-03-04.06 (C7)
The Hearing Examiner or the PZC shall review pursuant to Section 11-03-03.4 and according to the following criteria:

i. The location is compatible to other uses in the general neighborhood.

The location is compatible to other uses in the general neighborhood. The facility is similar to the adjacent substation and transmission line corridors, which surround the site on three sides. In addition, is it compatible with the surrounding residential neighborhood adjacent to the southeast since it is a passive use and unmanned, with the exception of maintenance.

ii. The proposed use will not place an undue burden on transportation and other public facilities in the vicinity.

Correspondence from commenting agencies indicates the proposed use will not place an undue burden on transportation or other public services in the vicinity. A report dated August 3, 2016, from the Ada County Highway District (ACHD) requires the access driveway to the site be relocated so it is aligned with the existing driveway on the east side of Holcomb Road. In addition, since the facility is unmanned it will not generate any traffic. Other agencies, including the Boise Fire have responded with standard conditions of approval.

iii. The site is large enough to accommodate the proposed use and all yards, open spaces, pathways, walls, fences, parking, loading, landscaping, and such other features as are required by this Code.

The site is large enough to accommodate the proposed use. The facility is located on an approximately six-acre portion of a larger parcel. As such, the solar panels and associated equipment comply with all required setbacks and height standards. In addition, no off-street parking is required since it is located on the same parcel as the Boise Bench substation and it is unmanned.

iv. The proposed use, if it complies with all conditions imposed, will not adversely affect other property of the vicinity.

It will not adversely impact other properties of the vicinity since it is similar to adjacent uses. Abutting the site to the north, east and west are other major utilities, which includes the Boise Bench Substation and transmission line corridor. In addition, it is an unmanned passive use that will not generate any noise or other adverse impacts on the adjacent properties.

The solar panels are fabricated of a non-reflective material, which will protect the adjacent residential neighborhoods from glare. Furthermore, a recommended condition of approval requires the street frontage along Holcomb Road next to the facility be landscaped. This landscape buffer along Holcomb Road will screen the project from the adjacent residential neighborhood and will help alleviate any visual adverse impacts associated with the site.

v. The proposed use is in compliance with the Comprehensive Plan.

This project is in compliance with the goals, objectives, and principles of the Comprehensive Plan. *Goal ES12* promotes the use of renewable energy sources, which includes the development of solar power. There are also several policies within the Comprehensive Plan that promote the development of alternative energy sources (*Policy ES12.1, Policy ES10.4, and Policy PDP7.3*). The development of the solar power facility will also allow the City of Boise to attract environmentally conscious companies to the area by providing a choice for alternative energy (*Policy EC6.1*).

Section 11-06-04.05(A): Utility Facility, Major

1) Public service poles, towers, or similar installations are of a height of 85 feet or less may be allowed in a residential district, including the replacement of existing facilities.

The equipment associated with the solar power facility comply with the height requirements of the M-1 zone. In particular, the solar panels are only seven feet in height.

2) Public service poles, towers, or similar installations of a height of 85 feet or greater must be approved by conditional use permit. An approval shall consider all generally applicable approval criteria for a conditional use permit, and the following standards. The pole or tower locations and heights shall:

a) Not interfere with airport height restrictions;

The solar panels are only seven feet in height and will not interfere with the airport height restrictions.

b) Minimize disturbance to views from established residential areas;

Due to the height of the equipment (i.e. solar panels and transformer) the facility will not impact the views from the adjacent residential neighborhood. In addition, the solar panels are also fabricated of a non-reflective material, which will protect the adjacent residential neighborhoods from glare.

c) Minimize disturbance to or interference with view of city, state, or federally registered historic structures;

There are no registered historic structures in the area.

d) Not obstruct clear vision triangles or otherwise threaten motorist or pedestrian safety;

The facility is setback a significant distance from the right of way and will not jeopardize motorist or pedestrian safety.

e) Minimize conflict with existing uses;

The facility will occupy a six-acre portion of a larger 42-acre parcel. This larger parcel contains other major utilities which includes a substation and power transmission line corridors. Its proximity to these major utilities will minimize any potential conflicts with the surrounding area. It is also a passive use that will not generate any noise or other adverse impacts.

f) Be within route corridors already established or use by rail, automobile traffic arterials, or electrical transmission; and

The subject power is located within an established power transmission line corridor and adjacent to a substation.

g) Be within route corridors that provide for a satisfactory level of energy efficient transmission of the product (electrical energy or other signals).

The placement next to this existing Idaho Power infrastructure (i.e. substation and transmission lines) will allow for an efficiently transmission of energy.

8. Recommended Conditions of Approval

Site Specific

1. Compliance with plans and specifications submitted to and on file in the Planning and Development Services Department dated received **July 26, 2016**, except as expressly modified by Design Review or the following conditions:

2. The applicant shall provide a landscape buffer along the street frontage of Holcomb Road adjacent to the solar array facility. The landscape buffer shall be consistent with the requirements of the Landscape Ordinance and the Citywide Design Review Standards and Guidelines.

3. Comply with all conditions of the Public Works Solid Waste Department as outlined in their letter dated **July 27, 2016**.

4. Compliance with requirements of the ACHD per the memo dated **August 3, 2016**

5. The applicant **s**hall comply with the Boise Fire Department requirements as per the letter dated **August 3, 2016**. Any deviation from this plan is subject to Fire Department approval. For additional information, contact Ron Johnson at (208) 570-6500.

Standard Conditions of Approval

6. All landscaping areas shall be provided with an underground irrigation system. Landscaping shall be maintained according to current accepted industry standards to promote good plant health, and any dead or diseased plants shall be replaced. All landscape areas with shrubs shall have approved mulch such as bark or soil aid.

7. Vision Triangles, as defined under Section 11-012-03 of the Boise City Code, shall remain clear of sight obstructions.

8. All signs will require approval from the Planning and Development Services Department prior to installation.

9. Utility services shall be installed underground.

10. An Occupancy Permit will not be issued by the Planning and Development Services Department until all of these conditions have been met. In the event a condition(s) cannot be met by the desired date of occupancy, the Planning Director will determine whether the condition(s) is bondable or should be completed, and if determined to be bondable, a bond or other surety acceptable to Boise City will be required in the amount of 110% of the value of the condition(s) that is incomplete.

11. No change in the terms and conditions of this approval shall be valid unless in writing and signed by the applicant or his authorized representative and an authorized representative of Boise City. The burden shall be upon the applicant to obtain the written confirmation of any change and not upon Boise City.

12. Any change by the applicant in the planned use of the property, which is the subject of this application, shall require the applicant to comply with all rules, regulations, ordinances, plans, or other regulatory and legal restrictions in force at the time the applicant, or successors of interest, advise Boise City of intent to change the planned use of the property described herein, unless a variance in said requirements or other legal relief is granted pursuant to the law in effect at the time the change in use is sought.

13. Failure to abide by any condition of this Conditional Use Permit shall be grounds for revocation by the Boise City Planning and Zoning Commission.

14. This Conditional Use Permit shall be valid for a period not to exceed twenty-four (24) months from the date of approval by the Planning and Zoning Commission.

15. Prior to the expiration of this conditional use, the Commission may, upon written request by the holder, grant a two-year time extension. A maximum of two (2) extensions may be granted.

August 3, 2016

To: Laura Bishop
Idaho Power Company
P.O. Box 70
Boise, ID 83716

Subject: BOI16-0327 / CUP16-00059 & DRH16-00308
2001 E. Amity Rd.
Solar Facility

In response to your request for comment, the Ada County Highway District has reviewed the submitted application and site plan for the item referenced above. It has been determined that ACHD has site specific conditions of approval for this application.

A. Findings of Fact

1. Driveways
    a. **Successive Driveways:** District policy 7206.4.5 Table 1, requires driveways located on collector roadways with a speed limit of 35 MPH and daily traffic volumes less than 100 VTD to align or offset a minimum of 150-feet from any existing or proposed driveway.

       Driveway Paving Policy: Graveled driveways abutting public streets create maintenance problems due to gravel being tracked onto the roadway. In accordance with District policy, 7206.4.6, the applicant should be required to pave the driveway its full width and at least 30-feet into the site beyond the edge of pavement of the roadway and install pavement tapers in accordance with Table 2 under District Policy 7206.4.6.

    b. **Applicant's Proposal:** The applicant is proposing one driveway onto Holcomb Road abutting the site.

    c. **Staff Comments/Recommendations:** The driveway should either be located in alignment with the existing driveway on the east side of Holcomb Road, or located offset by a minimum of 150-feet.

       The driveway should be paved its full width and at least 30-feet into the site beyond the edge of pavement of Holcomb Road.

B. Site Specific Conditions of Approval

1. Construct one driveway on Holcomb Road in alignment with the existing driveway on the east side, or located offset by a minimum of 150-feet.
2. Pave the driveway its full width and at least 30-feet into the site beyond the edge of pavement of Holcomb Road.
3. A Traffic Impact Fee may be assessed by ACHD and will be due prior to issuance of a building permit. Please contact the ACHD Planner (see below) for information regarding impact fees.

4. Plans shall be submitted to the ACHD Development Review Department for plans acceptance, and impact fee assessment (if an assessment is applicable).
5. Comply with the Standard Conditions of Approval as noted below.

C. Traffic Information

Trip Generation

This development is not estimated to generate additional vehicle trips per day, based on the Institute of Transportation Engineers Trip Generation Manual, 9th edition.

Condition of Area Roadways: ***Traffic Count is based on Vehicles per hour (VPH)***

Roadway	Frontage	Functional Classification	PM Peak Hour Traffic Count	PM Peak Hour Level of Service
Amity Rd.	1,310-feet	Minor Arterial	367	Better than "D"
Holcomb Rd.	1,330-feet	Collector	138	Better than "D"

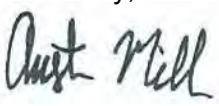
* Acceptable level of service for a two-lane minor arterial is "D" (550 VPH).
* Acceptable level of service for a two-lane collector is "D" (425 VPH).

Average Daily Traffic Count (VDT): ***Average daily traffic counts are based on ACHD's most current traffic counts***

- The average daily traffic count for Amity Road east of Holcomb Road was 6,971 on October 29, 2015.
- The average daily traffic count for Holcomb Road west of Tiger Lily Drive was 2,277 on July 30, 2015.

If you have any questions, please feel free to contact me at (208) 387-6335.

Sincerely,



Austin Miller
Planner I
Development Services

cc: City of Boise, via e-mail

City of Boise

Memo

To: Planning and Development Services

From: Peter McCullough, Public Works Department

Date: 7/2716

Re: Solid Waste Comments- DRH16-00308, CUP16-00059, 2001 E. Amity Rd.

City of Boise Solid Waste staff has reviewed the application for this project and has no comments at this time.

Fire Department

Dennis Doan
Chief

City Hall West
333 N. Mark Stall Place
Boise, Idaho 83704-0644

Phone
208/570-6500

Fax
208/570-6586

TDD/TTY
800/377-3529

Web
www.cityofboise.org/fire

August 3, 2016

Andrea Tuning
PDS – Current Planning

Re: Conditional Use Application; CUP16-00059, DRH16-00308
2001 E. Amity

Dear Andrea,

This application is for the construction of a new 500 KW solar array facility.

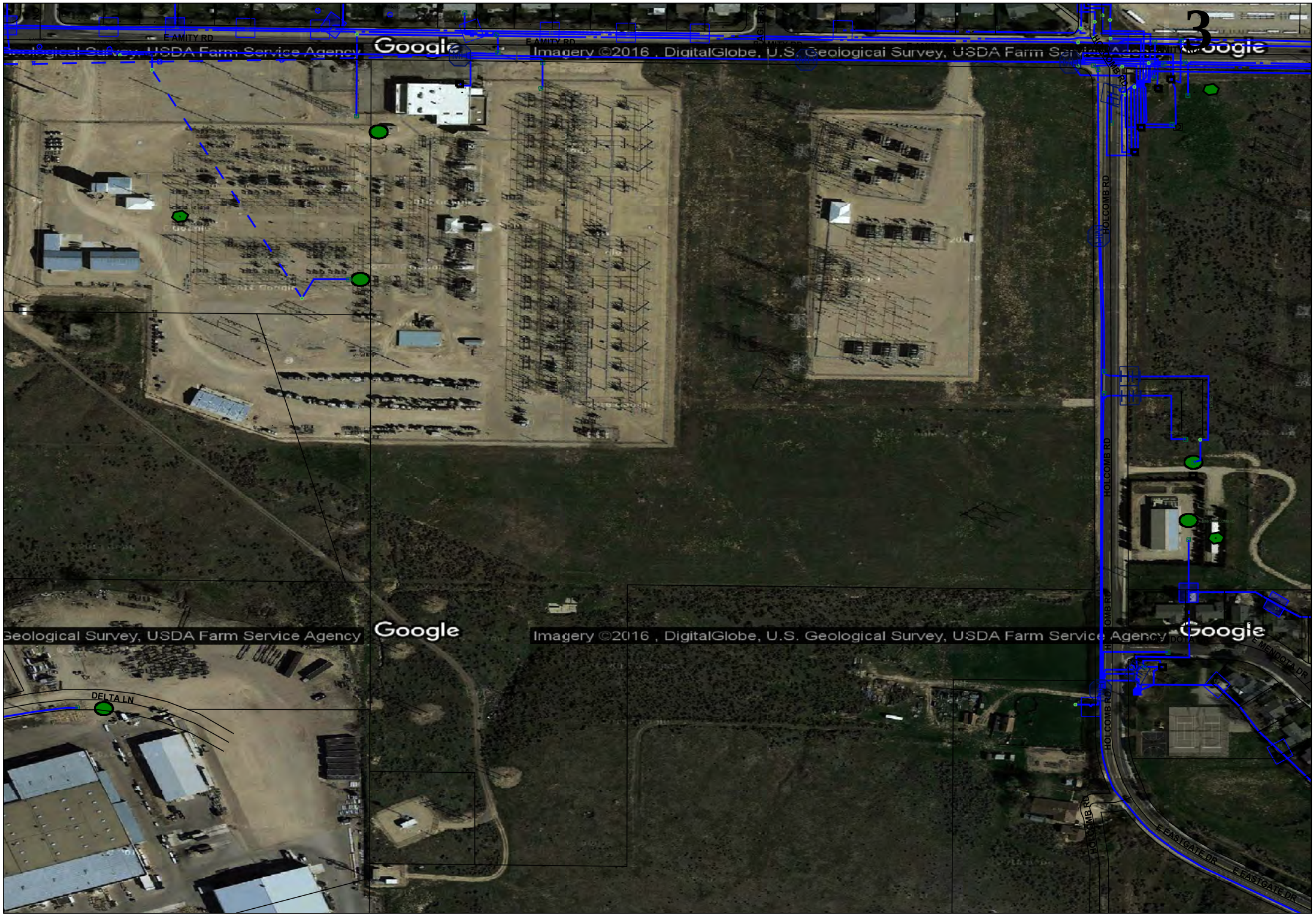
The Boise Fire Department has reviewed and can approve the application subject to compliance with all of the following code requirements and conditions of approval. Any deviation from this plan is subject to Fire Department approval. Please note that unless stated otherwise, this memo represents the requirements of the International Fire Code (IFC) as adopted and amended by Ordinance 6308.

Comments:
1. None

General Requirement:
Specific building construction requirements of the International Building Code, International Fire Code and Boise City Code will apply. However, these provisions are best addressed by a licensed Architect at building permit application.

Regards,

Ron Johnson
Division Chief – Assistant Fire Marshal
Boise Fire Department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Imagery ©2016 , DigitalGlobe, U.S. Geological Survey, USDA Farm Service Agency
HOLCOMB RD
DELTA LN
E MENDOTA DR
E EASTGATE DR